Analytical Resources, LLC
Analytical Chemists and Consultants

18 July 2023

Ali Judkins
Anchor QEA, LLC
1201 3rd Ave, Suite 2600
Seattle, WA 98101

RE: AOC5 MR Phase 1

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
23A0313	N/A

Susan Dunnihoo

Digitally signed by Susan Dunnihoo
Date: 2023.07.18 17:30:23 -07'00'

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclosed Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

Susan Dunnihoo, Director, Client Services

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

ACCREDITED IN ACCORDANCE WITH nelac
Cert# 100006-012

23A0313

1 of 2

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3966

Project/Client Name: AOCS MR Phase 1
Project Number: 210075 01 02
Contact Name: Amara Vandenbo
Sampled By: Windward

Ship to: ARL
Attn: Sue Dunnihoo
Shipper: Courier
Form filled out by: AV/CC

Shipping Date: 1/16/23
Airbill Number: —
Turnaround requested: std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) PCBs	SMS SVOCs	TOC / TS	SMS Metals	DIF	Arch Wine	cPAHs		Comments / Instructions [Jar tag number(s)]
1/16/23	0810	LDW23 - SC1108	3	sediment	X	—	X	—	—	X	—	—	
	0828	LDW23 - SC1115	3		X	—	X	—	—	X	—	—	
	0842	LDW23 - IT1114	4		X	—	X	—	NA	X	X	X	
	0857	LDW23 - IT1120	4		X	—	X	—	NA	X	X	X	
	0921	LDW23 - SC1090	3		X	—	X	—	—	X	—	—	
	0942	LDW23 - SC1095	3		X	—	X	—	—	X	—	—	
	1003	LDW23 - SC1076	3		X	—	X	—	—	X	—	—	
	1111	LDW23 - SC1016A	3		X	X	X	X	—	X	—	—	
	1146	LDW23 - SC1011A	3		X	X	X	X	—	X	—	—	
	1229	LDW23 - SC1006A	3		X	X	X	X	—	X	—	—	
	~~1224~~ 1333	LDW23 - SC1012B	3		X	X	X	X	—	X	—	—	
	1444	LDW23 - IT1148	4		X	—	X	—	X	X	X	X	
		Total Number of Containers		Purchase Order / Statement of Work # APJ - 110222 - AOCS - ARL									

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Amara Vandenbo	Print name: PWillip	Print name:	
Signature:	Company: ~~FHS~~ AR	Signature:	Company:
Company: Windward		Company:	
Date/Time: 1/16/23 1635	Date/Time: 1/16/23 1635	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Wind Ward environmental LLC
200 1st Ave W, Suite 500
Seattle, WA 98119
206.378.1364

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

23A0313

1 of 2

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3976

Project/Client Name: AOC5 MR Phase 1
Project Number: 210075.01.02
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: ARL
Attn: Sue Dunninoo
Shipper: Courier
Form filled out by: AV/CC

Shipping Date: 1/16/23
Airbill Number: —
Turnaround requested: std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) PCBs	SMS SVOCs	TOC/TS	SMS Metals	DIF	Archive	Arsenic	cPAHs	Comments / Instructions [Jar tag number(s)]
1/16/23	1420	LDW23-SC1159	4	sediment	X	X	X	X	NA	X	—	—	
		Total Number of Containers	4										Purchase Order / Statement of Work # APJ-110222-AOC5-ARL

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Amara Vandervort	Print name: Phillip	Print name:	
Signature: Amara Vandervort	Company: AR	Signature:	Company:
Company: Windward	Date/Time: 1/16/23 16:35	Company:	Date/Time:
Date/Time: 1/16/23 1635		Date/Time:	

* Distribution: White copies accompany shipment; yellow retained by consignor.

Wind Ward environmental LLC
200 1st Ave W, Suite 500
Seattle, WA 98119
206.378.1364

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor QEA/Windward Project Name: LDW AOC5 mR Phase 1

COC No(s): 3966, 3976 NA Delivered by: Fed-Ex UPS Courier Hand Delivered Other:

Assigned ARI Job No: 23A0313 Tracking No: NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 4.3 4.6 5.6 4.8

Time 16:55

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: T009708

Cooler Accepted by: PTB Date: 1/16/23 Time: 16:35

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? ...	Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	YES	NO
How were bottles sealed in plastic bags?	Individually	Grouped	Not
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ...	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: [signature] Date: 01/17/23 Time: 8:20 Labels checked by: TCS

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

Anchor QEA, LLC	Project: AOC5 MR Phase 1	
1201 3rd Ave, Suite 2600	Project Number: 210075-01.02	**Reported:**
Seattle, WA 98101	Project Manager: Ali Judkins	07/18/2023 16:14

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
23A0313-01	LDW23-SC1108	Solid	01/16/23 08:10	01/16/23 16:35
23A0313-02	LDW23-SC1115	Solid	01/16/23 08:28	01/16/23 16:35
23A0313-03	LDW23-IT1114	Solid	01/16/23 08:42	01/16/23 16:35
23A0313-04	LDW23-IT1120	Solid	01/16/23 08:57	01/16/23 16:35
23A0313-05	LDW23-SC1090	Solid	01/16/23 09:21	01/16/23 16:35
23A0313-06	LDW23-SC1095	Solid	01/16/23 09:42	01/16/23 16:35
23A0313-07	LDW23-SC1076	Solid	01/16/23 10:03	01/16/23 16:35
23A0313-08	LDW23-SC1016A	Solid	01/16/23 11:11	01/16/23 16:35
23A0313-09	LDW23-SC1011A	Solid	01/16/23 11:46	01/16/23 16:35
23A0313-10	LDW23-SC1006A	Solid	01/16/23 12:29	01/16/23 16:35
23A0313-11	LDW23-SC1012B	Solid	01/16/23 13:13	01/16/23 16:35
23A0313-12	LDW23-IT1148	Solid	01/16/23 14:44	01/16/23 16:35
23A0313-13	LDW23-SC1159	Solid	01/16/23 14:26	01/16/23 16:35

Anchor QEA, LLC	Project: AOC5 MR Phase 1	
1201 3rd Ave, Suite 2600	Project Number: 210075-01.02	**Reported:**
Seattle WA, 98101	Project Manager: Ali Judkins	18-Jul-2023 16:14

Case Narrative

Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Work Order: 23A0313

Sample receipt

Samples as listed on the preceding page were received 16-Jan-2023 16:35 under ARI work order 23A0313. For details regarding sample receipt, please refer to the Cooler Receipt Form. Samples were frozen on receipt to preserve holding times.

Semivolatiles - EPA Method SW8270E

The sample(s) were extracted and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements, with accepted excursions outside the 20% window. Associated positive results have been "Q"-flagged. The tailing factor for pentachlorophenol and benzidine were >2% for both sequences. As no extremely active compounds were analyzed by the full-scan method, no reruns were performed for the extracts.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits.

The reference material (SRM) percent recoveries were within control limits.

Semivolatiles - EPA Method SW8270E-SIM

The sample(s) were extracted and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements, with accepted excursions outside the 20% window. Associated positive results have been "Q"-flagged. Due to the continued effect of the matrix on instrument performance, three compounds were allowed outside the 20% window.

Internal standard areas were within limits.

The surrogate percent recoveries were high of control limits for d14-p-terphenyl where flagged on the summary sheets.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits.

Anchor QEA, LLC	Project: AOC5 MR Phase 1	
1201 3rd Ave, Suite 2600	Project Number: 210075-01.02	**Reported:**
Seattle WA, 98101	Project Manager: Ali Judkins	18-Jul-2023 16:14

Case Narrative

The reference material (SRM) percent recoveries were within control limits.

Polynuclear Aromatic Hydrocarbons (cPAH) - EPA Method SW8270E-SIM

The sample(s) were extracted and analyzed within the recommended holding times for samples stored frozen. The analyst noted extracts with a yellow color were initially run at a 3x dilution.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recovery for d10-fluoranthene and/or d14-dibenzo(a,h)anthracene high of control limits are flagged on the summary sheets.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The batch BLA0683 matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits, reported under work order 23A0207.

The reference material (SRM) percent recoveries were within control limits.

Pesticides - EPA Method SW8081B (Hexachlorobenzene)

The sample(s) were extracted and analyzed within the recommended holding times for samples stored frozen.

Internal standard areas for 1-bromo-2-nitrobenzene were low of limits on both columns in SLB0237-PEM2 and SLB0237-PEM4. As the target compound was undetected and areas were within control for all remaining analyses in the batch, no corrective action was taken.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits.

The reporting limits or undetected level for sample LDW23-SC1012B were raised and "Y"-flagged due to interference from the matrix.

PCB Aroclors - EPA Method SW8082A

The sample(s) were extracted and analyzed within the recommended holding times for samples stored frozen.

In the initial calibration, decachlorobiphenyl (DCBP) was high on both columns for SKL0048-SCV6.

Calibration standards SLB0168-ICV2, SLB0168-CCV2 and SLB0168-CCVC failed low on the ZB5 column for aroclor 1260. All associated daa is reported from the ZB35 column. SLB0168-CCV5 failed low for aroclor 1254 on the ZB5 column. SLB0168-CCV8 failed low for aroclor 1016 and 1260 on the ZB5 column. All associated data is reported from the ZB35

Anchor QEA, LLC	Project: AOC5 MR Phase 1	
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Seattle WA, 98101	Project Manager: Ali Judkins	18-Jul-2023 16:14

Case Narrative

column as primary.

Calibration SLB0168-CCV4 failed on both columns for aroclor 1260, and associated extracts were reanalyzed in sequence SLB0274.

DCBP was low of control limits on the ZB5 column for SLB0274-CCV3. Response for aroclor 1260 was low of control limits on the ZB5 column for SLB0274-CCVA. Associated data is reported from the ZB35 column as primary.

For sample extracts with HBB low on the ZB35 column, results were reported with ZB5 as the primary column. HBB failures are attributed to the oily matrix and high sulfur content of samples.

Tetrachloro-m-xylene (TCMX) was high of control limits for SLB0274-CCV9. As TCMX is only used as an indicator of blow down efficiency and not required by the method, no action was required.

The internal standard area for hexabromobiphenyl (HBB) was outside of control limits on the ZB35 column for several samples and standards, and outside limits on both columns for BLA0686-MS1, BLA0686-MSD1.

The surrogate percent recovery for decachlorobiphenyl (DCBP) were high of control limits were flagged on the summary sheets, attributed to the matrix. Sample LDW23-SC1095 had recoveries low of control limits for all surrogates on both columns.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike (MS) percent recoveries were within limits. The matrix duplicate recovery for aroclor 1260 and the relative percent difference (RPD) for aroclor 1260 were outside advisory control limits.

The reference material (SRM) percent recoveries were within control limits.

Several results, including surrogate recoveries have been "P1"-flagged, indicating a greater than 40% difference between the results on the two analytical columns, attributed to interference from the matrix.

The analyst indicated aroclors were identified with the best pattern fit, with miscellaneous interfering peaks throughout the chromatogram inflating results. Extracts with oily characteristics were diluted for analysis, to mitigate the continued effect of the matrix on instrument performance.

Total Metals - EPA Method 6020B

The sample(s) were digested and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The batch BLD0289 duplicate (DUP) relative percent difference (RPD) were within advisory control limits, reported under work order 23A0328.

The matrix spike (MS) recovery for copper was high of advisory control limits. The matrix spike duplicate (MSD) percent recoveries and relative percent differences (RPD) were within advisory limits. The post spike for copper had an acceptable recovery, reported under work order 23A0328.

Anchor QEA, LLC	Project: AOC5 MR Phase 1	
1201 3rd Ave, Suite 2600	Project Number: 210075-01.02	**Reported:**
Seattle WA, 98101	Project Manager: Ali Judkins	18-Jul-2023 16:14

Case Narrative

Total Mercury - EPA Method 7471B

The sample(s) were digested and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The batch BLD0290 matrix spike (MS) percent recovery was high of advisory control limits. The matrix spike duplicate (MSD) percent recovery and relative percent difference (RPD) were within advisory control limits, reported under work order 23A0328. The post spike recovery was outside control limits, indicating matrix effect.

The duplicate (DUP) relative percent difference (RPD) were within advisory control limits.

Wet Chemistry (Total Organic Carbon and Total Solids)

The sample(s) were prepared and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The reference material (SRM) percent recoveries were within control limits.

The batch BLA0432 matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were within advisory control limits, reported under work order 23A0295.

Dioxin/Furans - EPA Method 1613

The sample(s) were extracted and analyzed within the recommended holding times for samples stored frozen. Analysis was performed using an application specific column developed by Restek. The RTX-Dioxin2 column has unique isomer separation for the 2378-TCDF, eliminating the need for confirmation analysis.

The response for 13C12-1,2,3,6,7,8-HxCDD was low of control limits in SLC0081-CCV2 and SLC0081-CCV3. No sample extracts were reanalyzed due to the effect of the matrix on the instrument.

The cleanup surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits, with response or EMPC response below the reporting limit. Associated positive results have been "B"-flagged.

The OPR (Ongoing Precision and Recovery) standard percent recoveries were within control limits.

The batch BLA0398 duplicate (DUP) relative percent differences (RPD) were high of advisory control limits for 2,3,7,8-TCDF and flagged on the summary sheet, reported under work order 23A0099.

The reference material (SRM) percent recoveries were within control limits.

Anchor QEA, LLC	Project: AOC5 MR Phase 1	
1201 3rd Ave, Suite 2600	Project Number: 210075-01.02	**Reported:**
Seattle WA, 98101	Project Manager: Ali Judkins	18-Jul-2023 16:14

Case Narrative

Revised 07/03/2023 to correct PCB calibration reference

Revised 07/18/2023 to include tune summary with GC00032 and correct the date listed for GC00032.

QUALIFIERS AND NOTES

Qualifier	Definition
Y1	Raised reporting limit due to interference
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
J	Estimated concentration value detected below the reporting limit.
EMPC	Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
D	The reported value is from a dilution
B	This analyte was detected in the method blank.
*	Flagged value is not within established control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

ICP-MS Metals

Analyzed with Secondary Isotopes

ICPMS metals are quantitated with the primary Ion and major wavelength unless interference is noted. When secondary ions are used for quantitation, both ions will be reported for laboratory and matrix QC.

These results were reported from a secondary ion:

Labnumber	SampleName	Analyte
23A0313-08	LDW23-SC1016A	Copper-65

LDW23-SC1016A

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E

Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-08 A	SDG:	23A0313
Sampled:	01/16/23 11:11	Prepared:	02/02/23 13:06	File ID:	NT1003052313.D
% Solids:	56.05	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/05/23 21:00
Batch:	BLA0685	Sequence:	SLC0401	Initial/Final:	17.95 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00019
Cleanups:	GPC				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	25.9		4.4	19.9
106-44-5	4-Methylphenol	1	11.5	J	7.3	19.9
91-20-3	Naphthalene	1	17.1	J	4.2	19.9
91-57-6	2-Methylnaphthalene	1	13.9	J	4.5	19.9
208-96-8	Acenaphthylene	1	11.2	J	6.2	19.9
131-11-3	Dimethylphthalate	1	6.5	J	4.4	19.9
83-32-9	Acenaphthene	1	11.8	J	5.2	19.9
132-64-9	Dibenzofuran	1	15.8	J	14.0	19.9
86-73-7	Fluorene	1	17.1	J	14.5	19.9
85-01-8	Phenanthrene	1	83.7		8.7	19.9
120-12-7	Anthracene	1	38.7		7.1	19.9
206-44-0	Fluoranthene	1	169		6.1	19.9
129-00-0	Pyrene	1	192		5.6	19.9
85-68-7	Butylbenzylphthalate	1	10.0	J	9.4	19.9
56-55-3	Benzo(a)anthracene	1	110		5.9	19.9
218-01-9	Chrysene	1	158		6.0	19.9
117-81-7	bis(2-Ethylhexyl)phthalate	1	142		5.4	49.7
	Benzofluoranthenes, Total	1	248		9.9	39.8
50-32-8	Benzo(a)pyrene	1	89.6		4.2	19.9
193-39-5	Indeno(1,2,3-cd)pyrene	1	61.6		14.6	19.9
53-70-3	Dibenzo(a,h)anthracene	1	21.3		17.1	19.9
191-24-2	Benzo(g,h,i)perylene	1	81.8		13.5	19.9

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	745.45	559	74.9	27 - 120	
Phenol-d5	745.45	638	85.6	29 - 120	
2-Chlorophenol-d4	745.45	640	85.9	31 - 120	
1,2-Dichlorobenzene-d4	496.97	368	74.0	32 - 120	
Nitrobenzene-d5	496.97	431	86.7	30 - 120	
2-Fluorobiphenyl	496.97	452	90.9	35 - 120	

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E

Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-08 A	SDG:	23A0313
Sampled:	01/16/23 11:11	Prepared:	02/02/23 13:06	File ID:	NT1003052313.D
% Solids:	56.05	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/05/23 21:00
Batch:	BLA0685	Sequence:	SLC0401	Initial/Final:	17.95 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00019
Cleanups:	GPC				

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	745.45	727	97.5	24 - 134	
p-Terphenyl-d14	496.97	384	77.2	37 - 120	

Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Page 1

Date : 05-MAR-2023 21:00

Client ID:

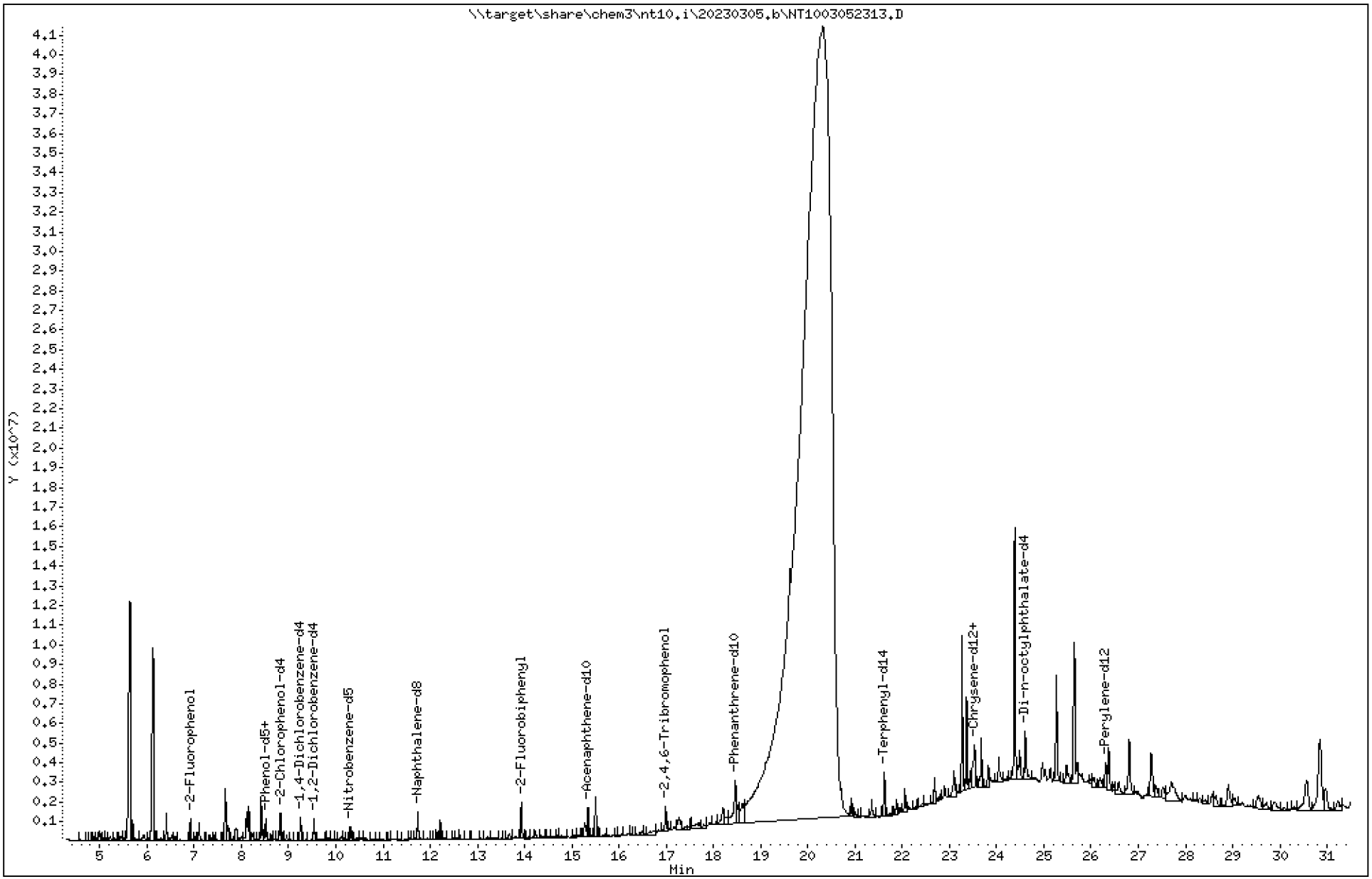
Instrument: nt10.i

Sample Info: 23A0313-08

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

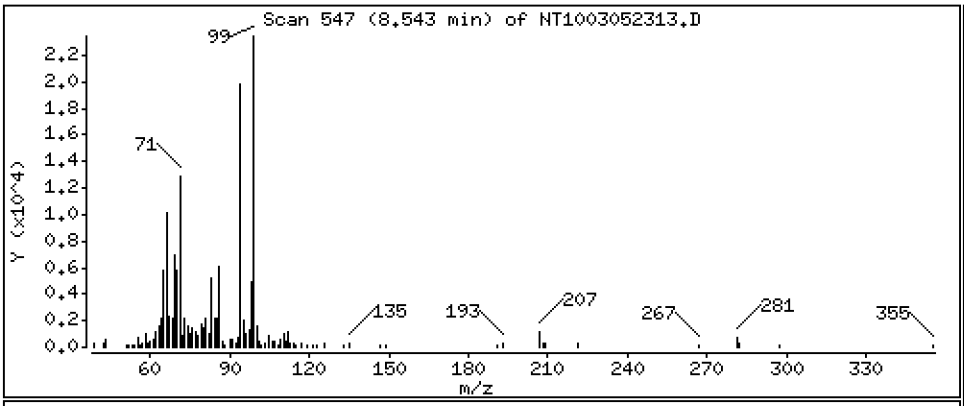
Operator: VTS

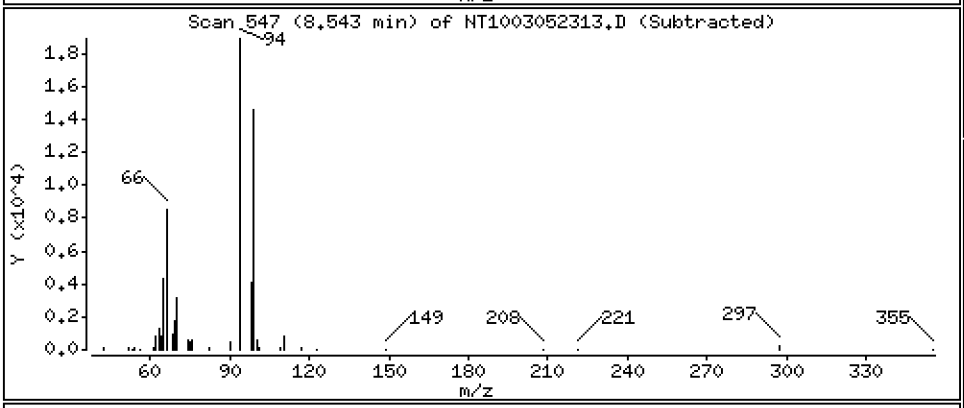
Column phase: ZB-5msi

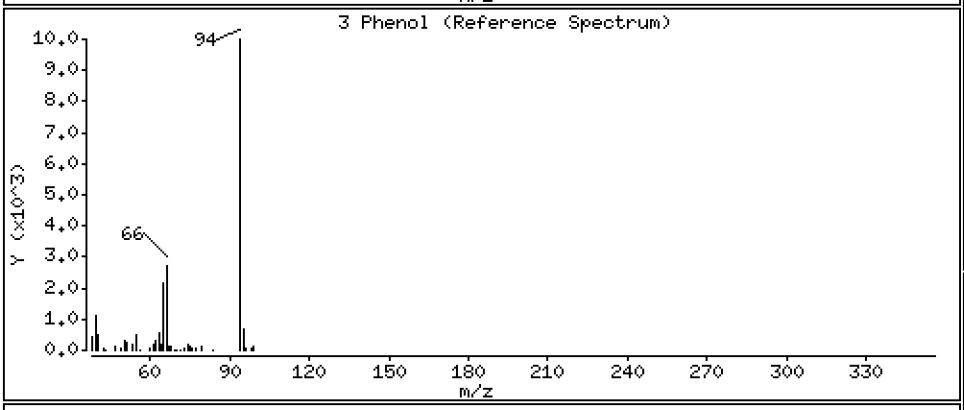
Column diameter: 0.25

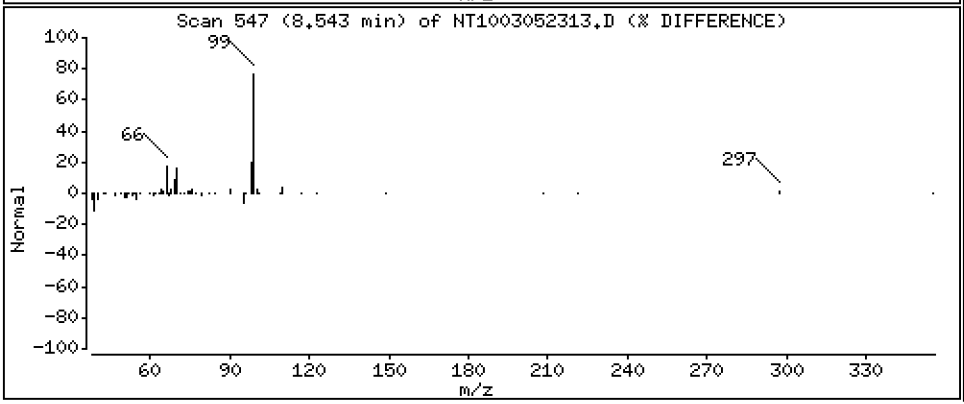
3 Phenol

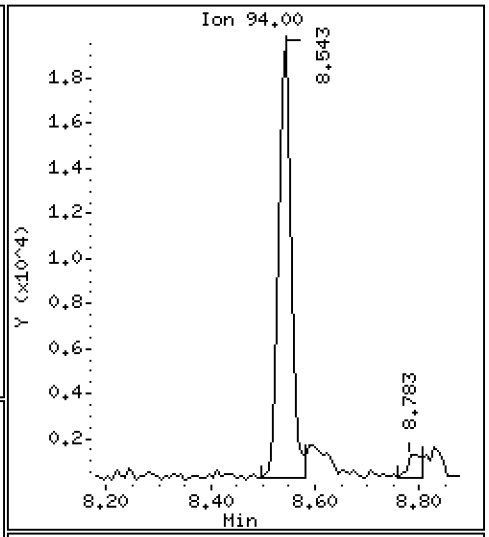
Concentration: 0.2610 ug/mL

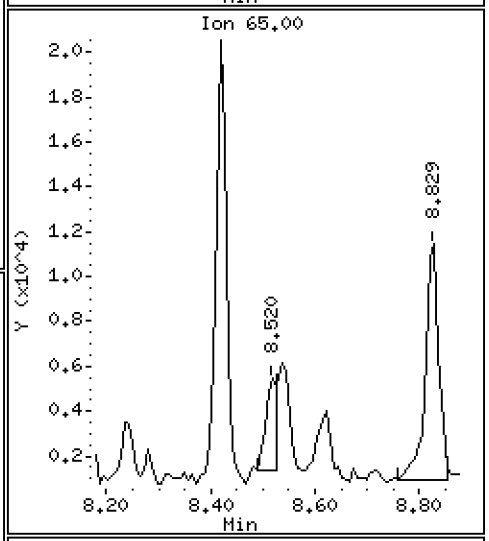


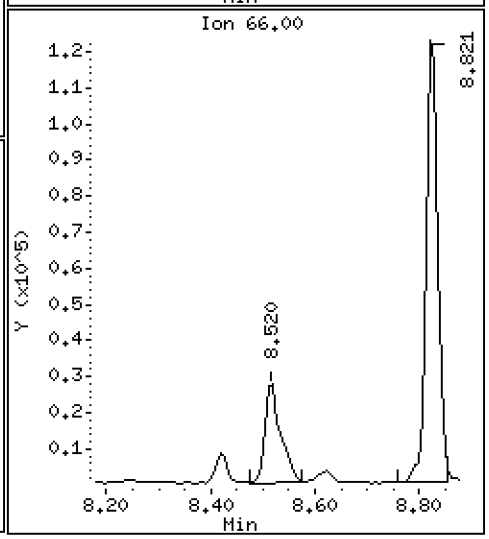












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

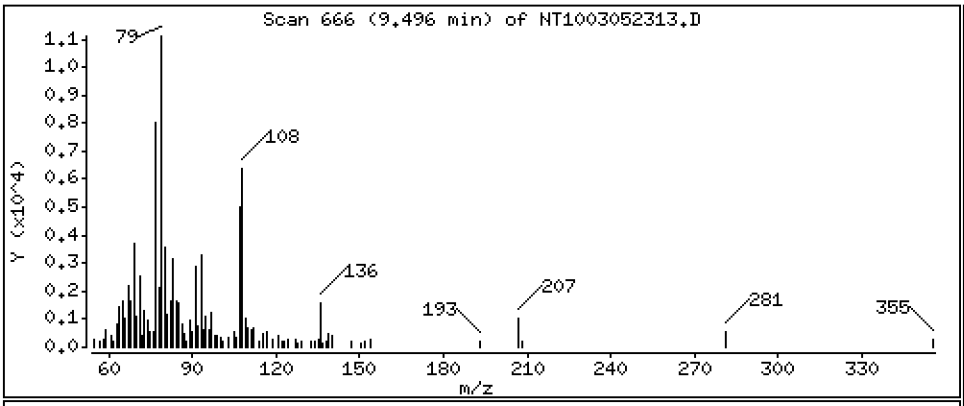
Operator: VTS

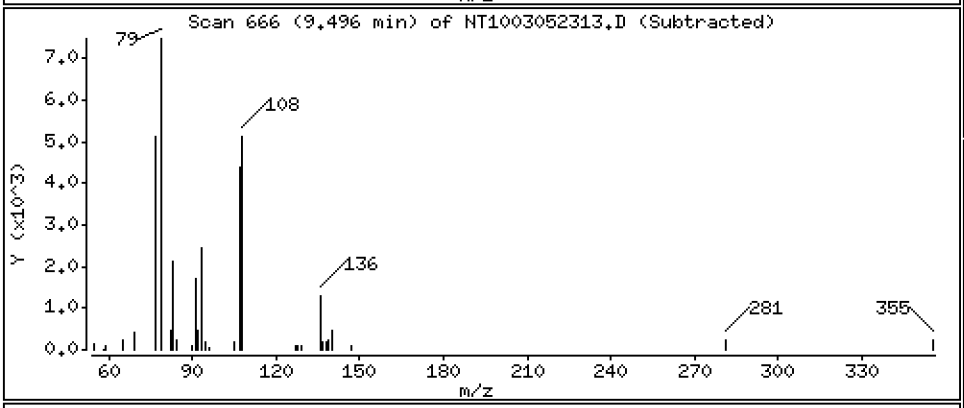
Column phase: ZB-5msi

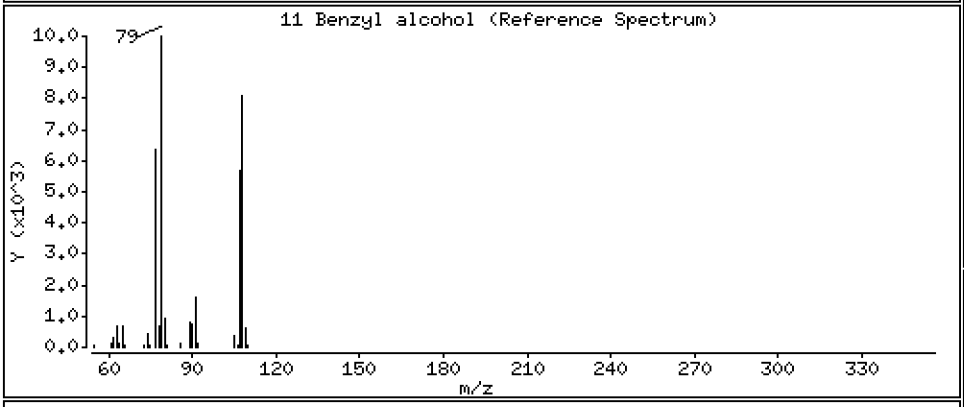
Column diameter: 0.25

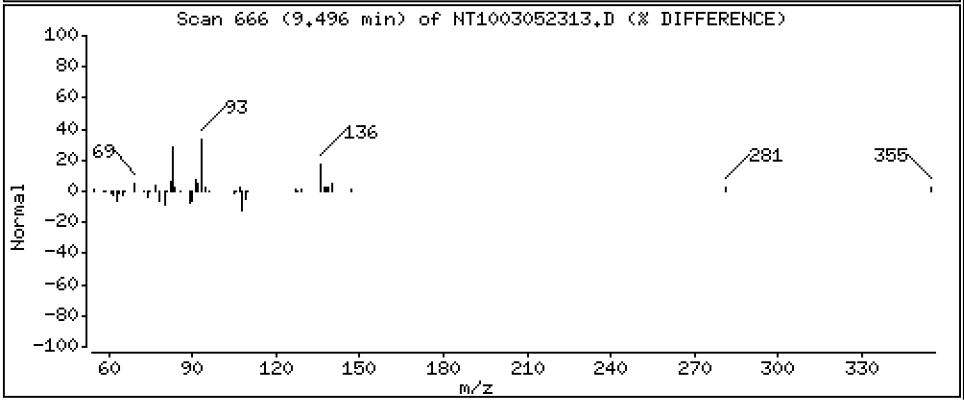
11 Benzyl alcohol

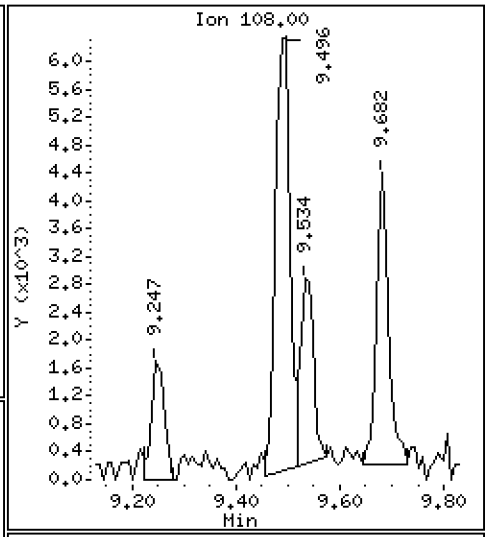
Concentration: 0.1896 ug/mL

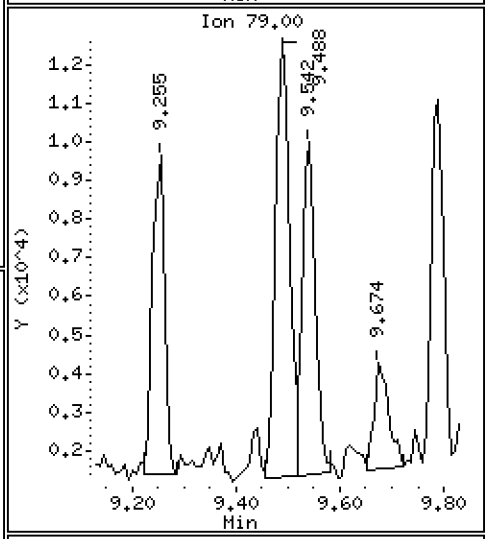


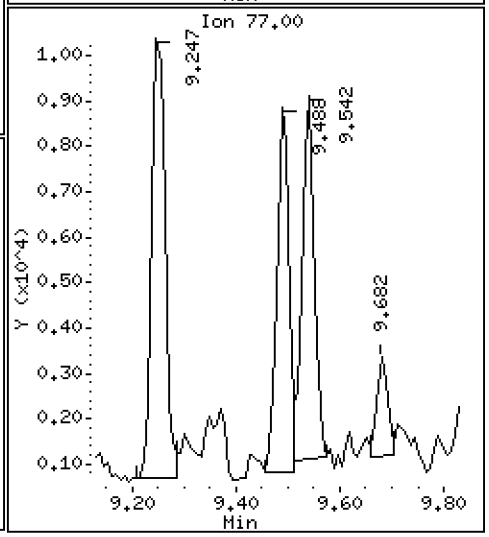












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

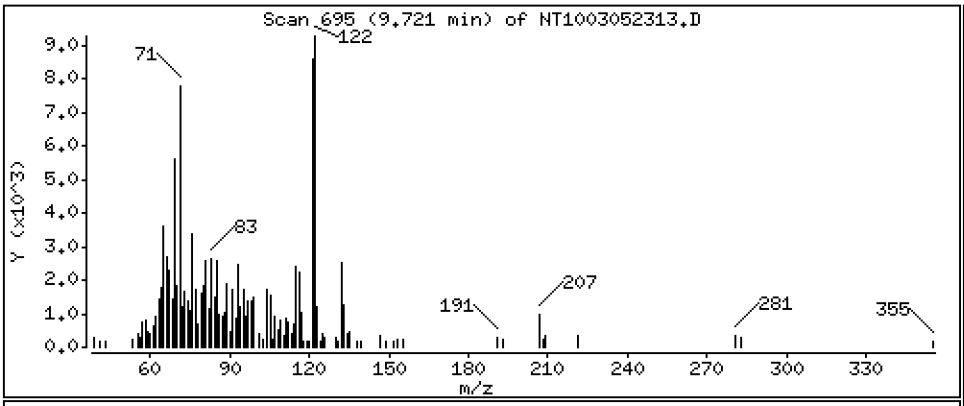
Operator: VTS

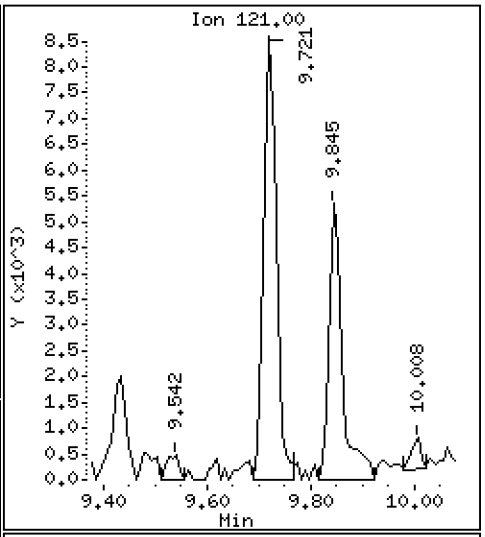
Column phase: ZB-5msi

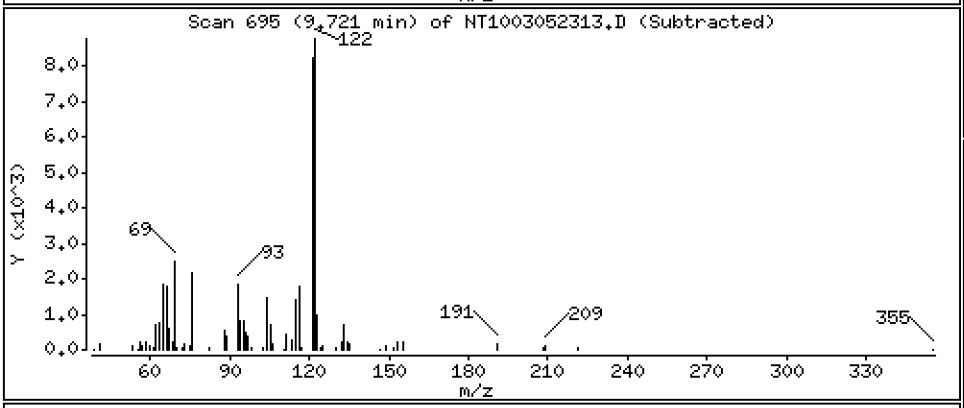
Column diameter: 0.25

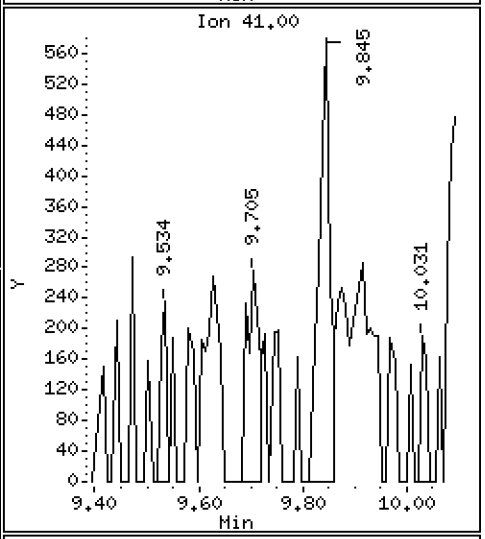
14 2,2'-oxybis(1-Chloropropane)

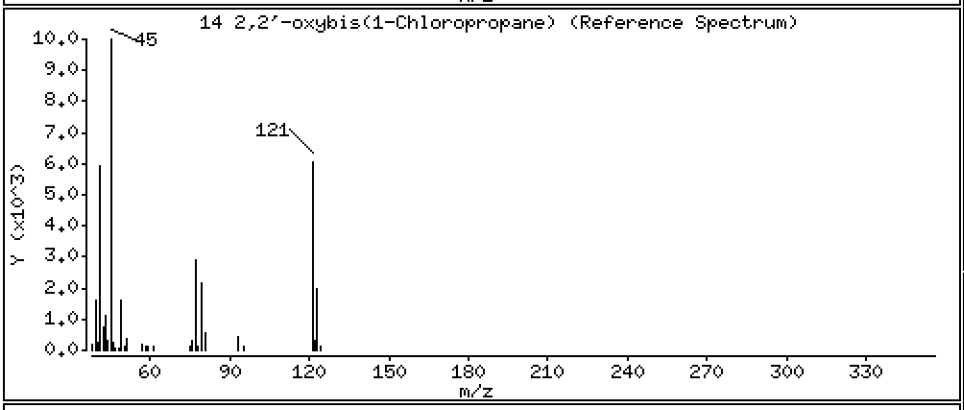
Concentration: 0.4489 ug/mL

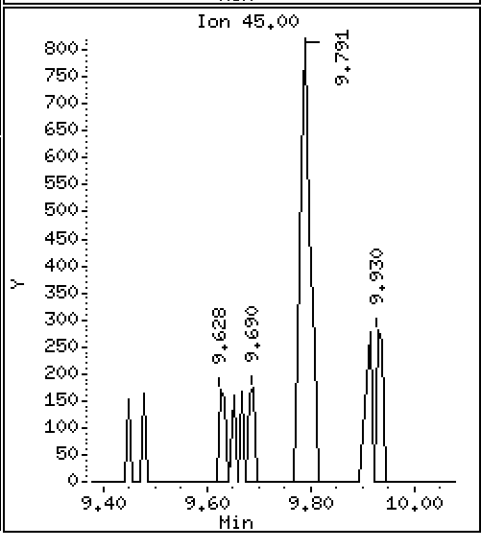


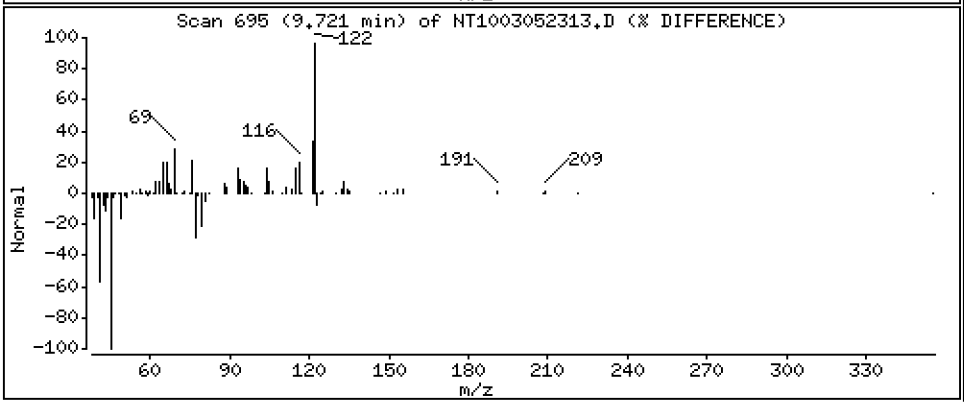












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

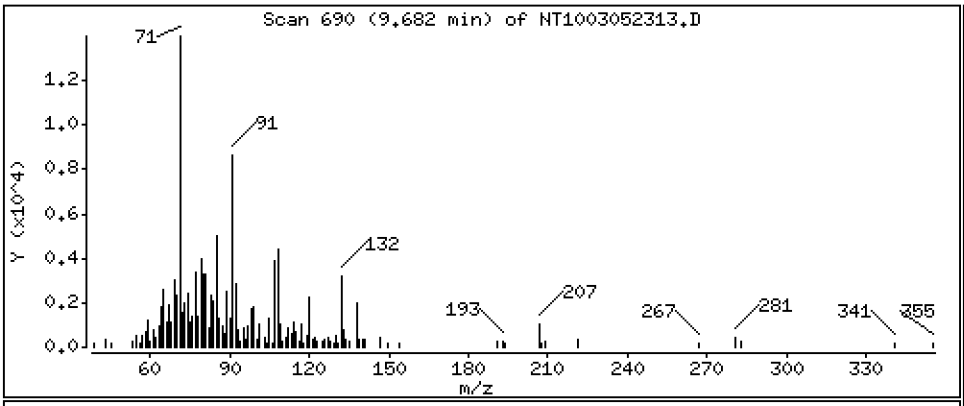
Operator: VTS

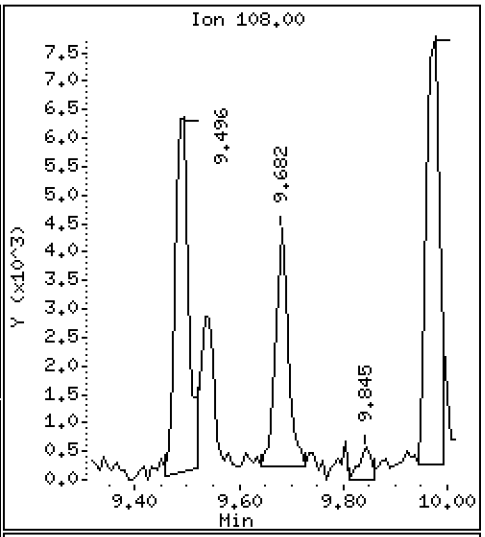
Column phase: ZB-5msi

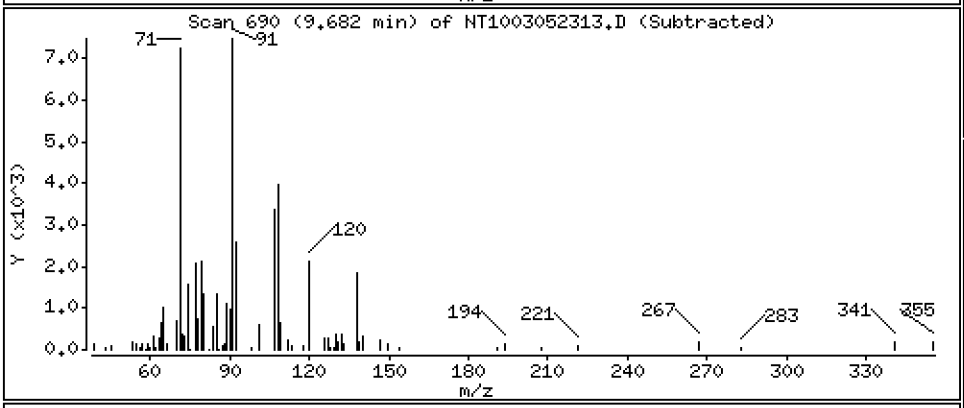
Column diameter: 0.25

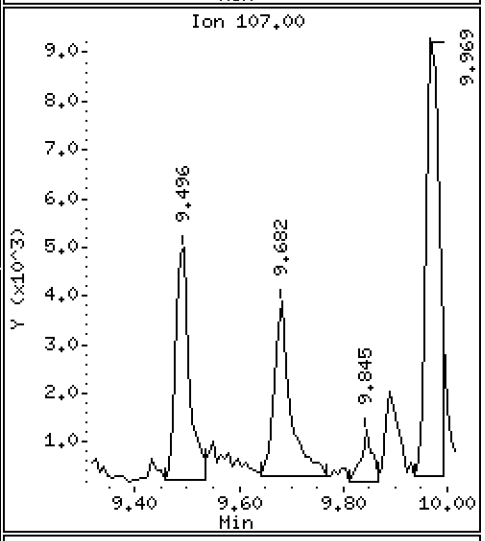
13 2-Methylphenol

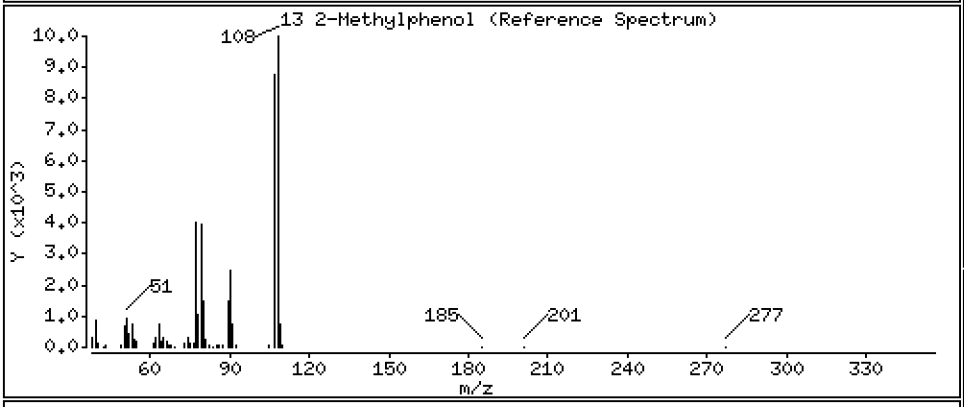
Concentration: 0.07475 ug/mL

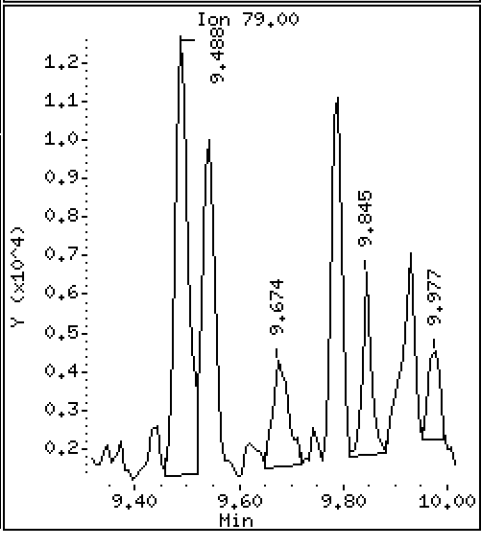


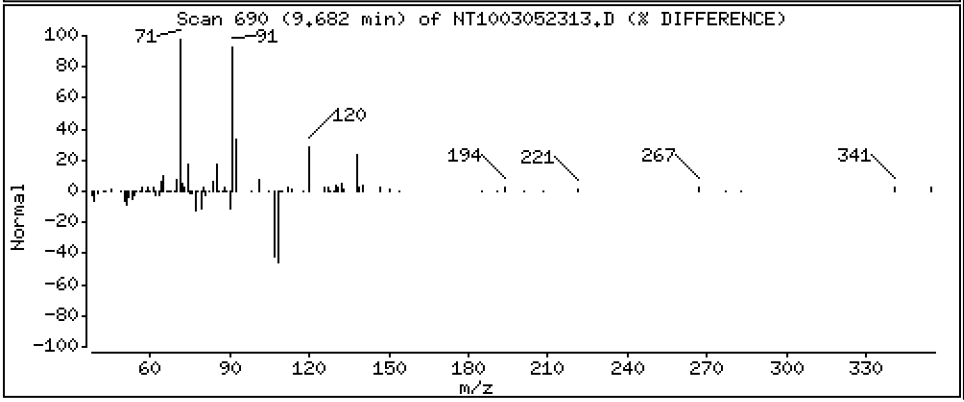












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

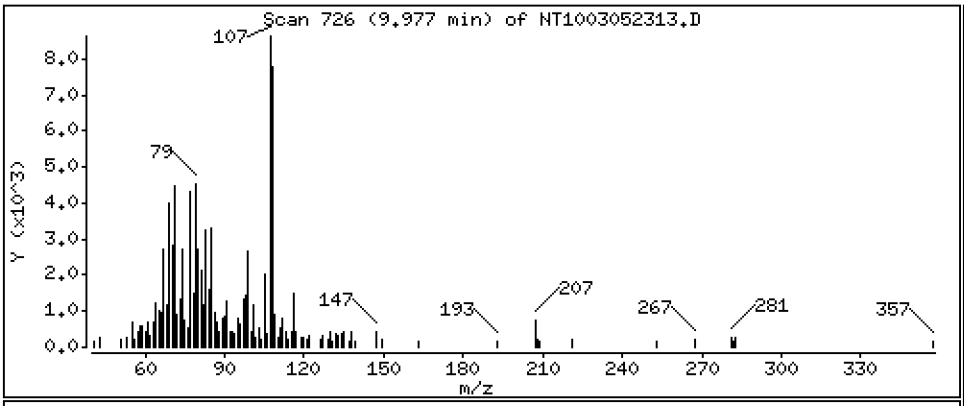
Operator: VTS

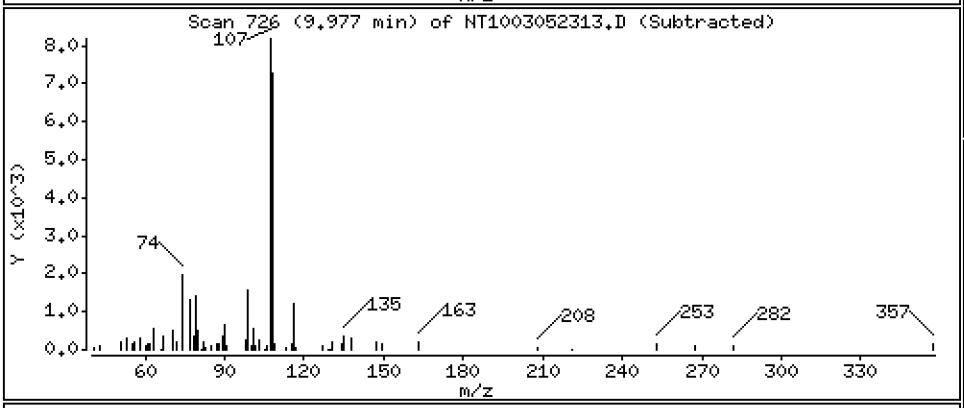
Column phase: ZB-5msi

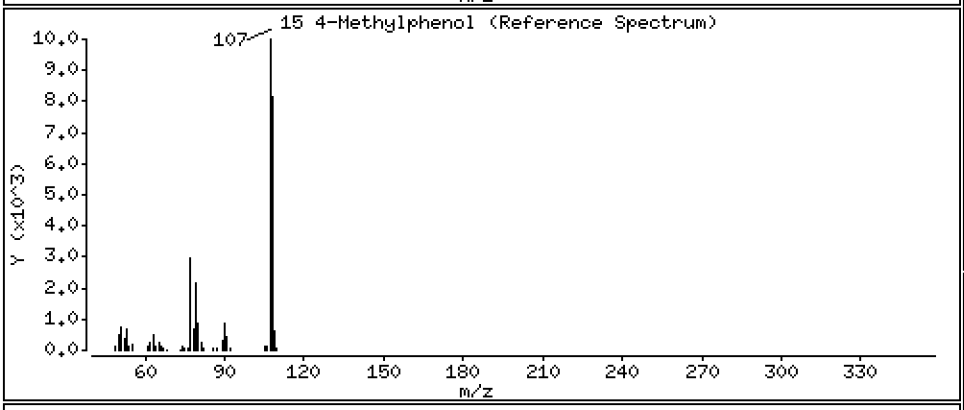
Column diameter: 0.25

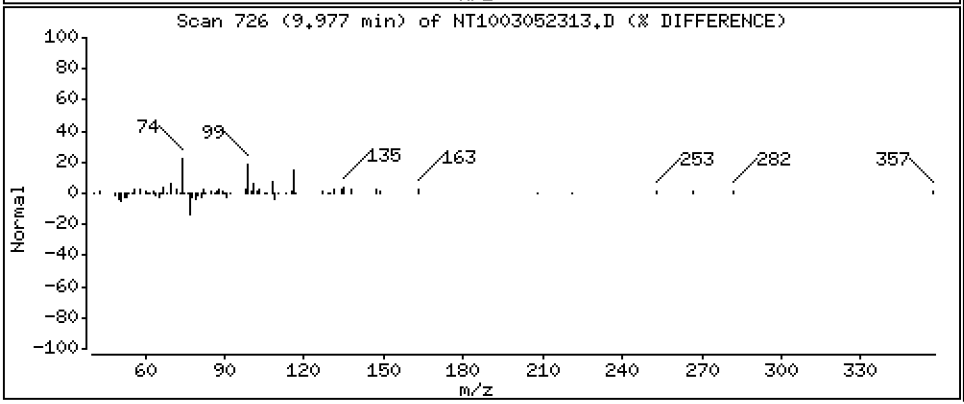
15 4-Methylphenol

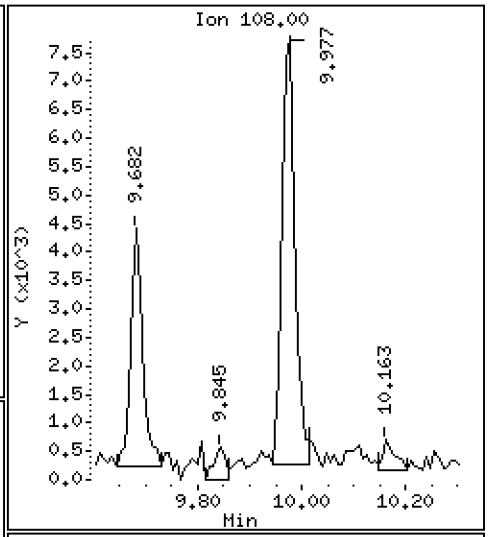
Concentration: 0.1161 ug/mL

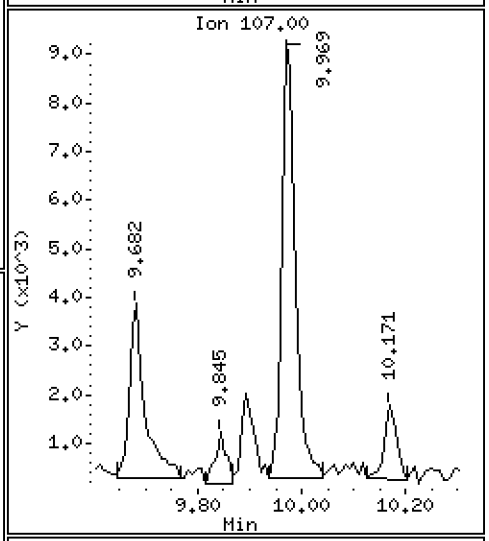


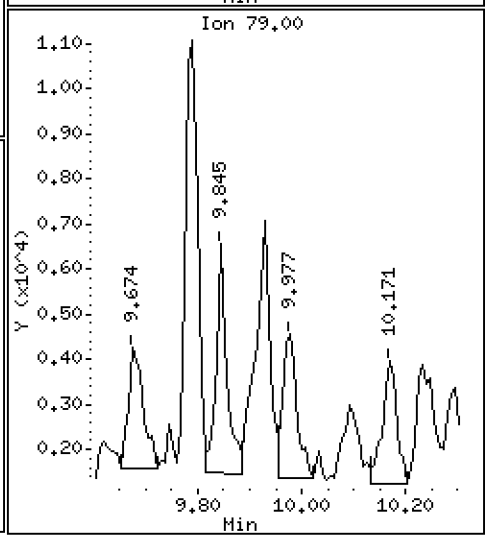












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

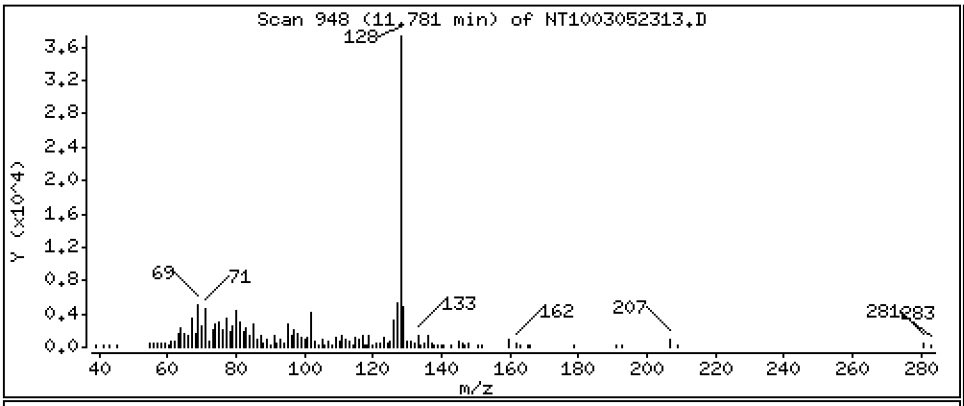
Operator: VTS

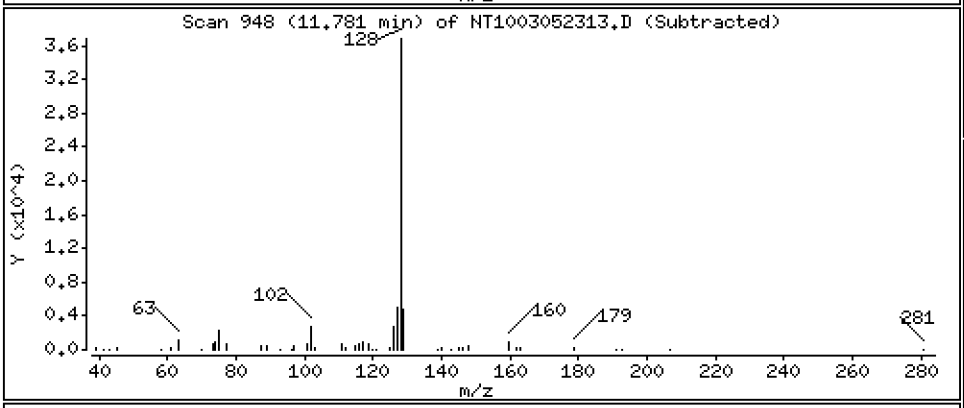
Column phase: ZB-5msi

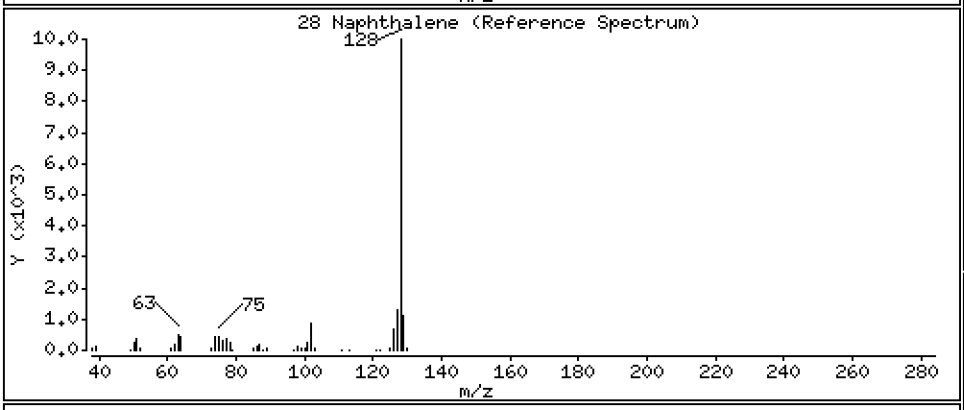
Column diameter: 0.25

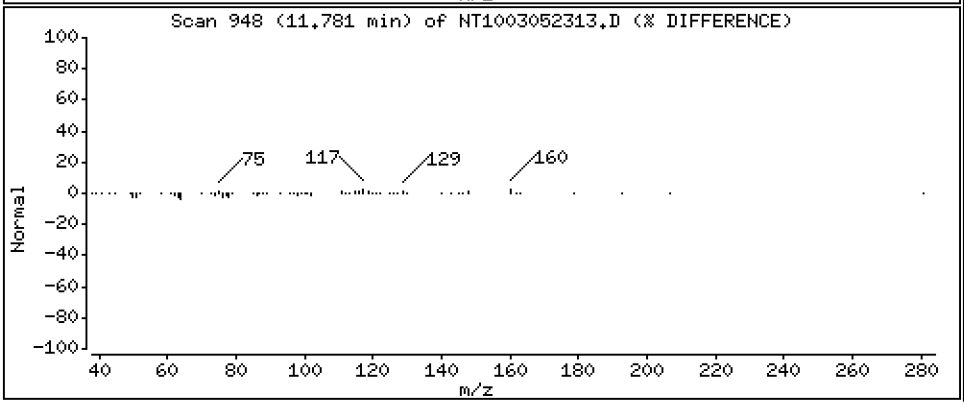
28 Naphthalene

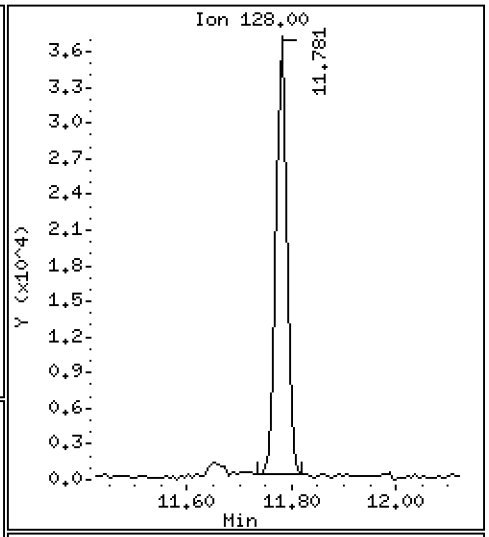
Concentration: 0.1720 ug/mL

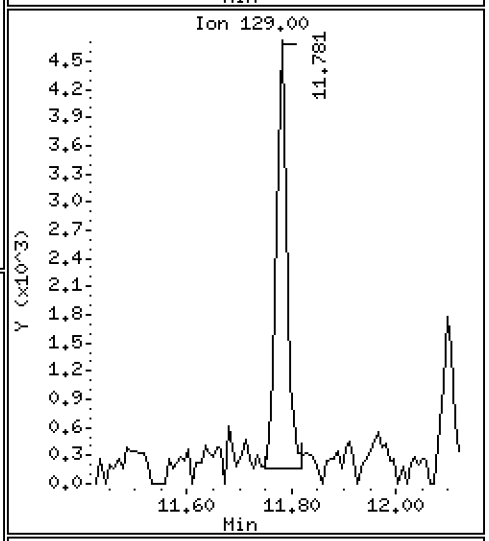


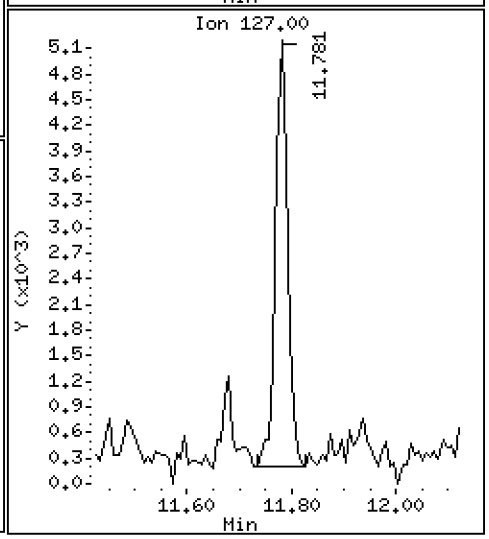












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

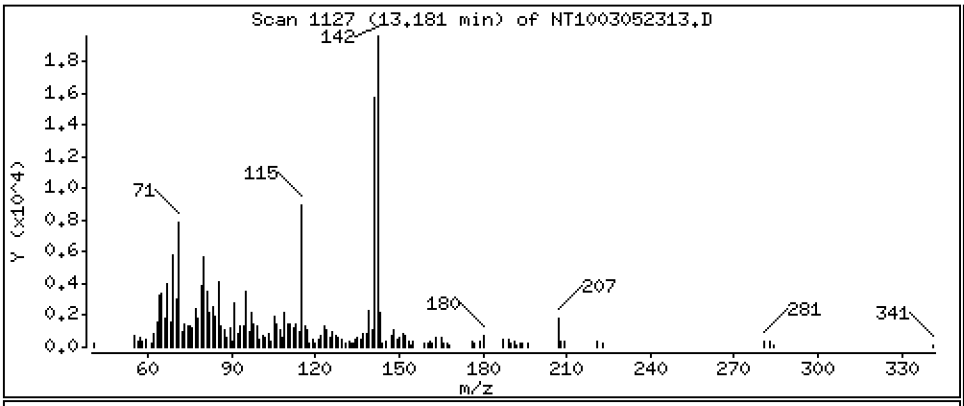
Operator: VTS

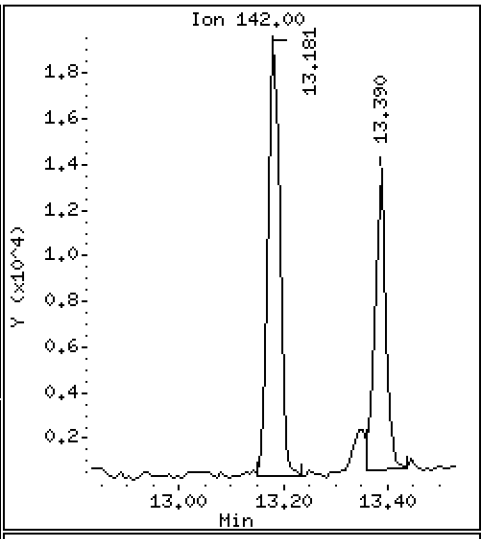
Column phase: ZB-5msi

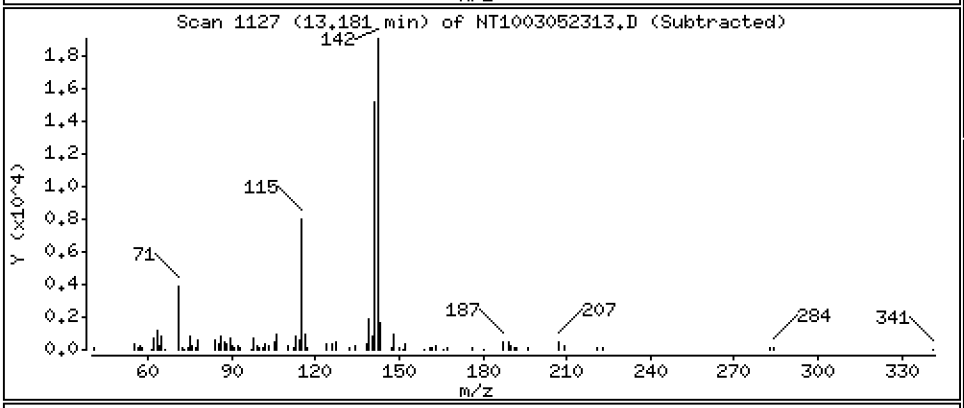
Column diameter: 0.25

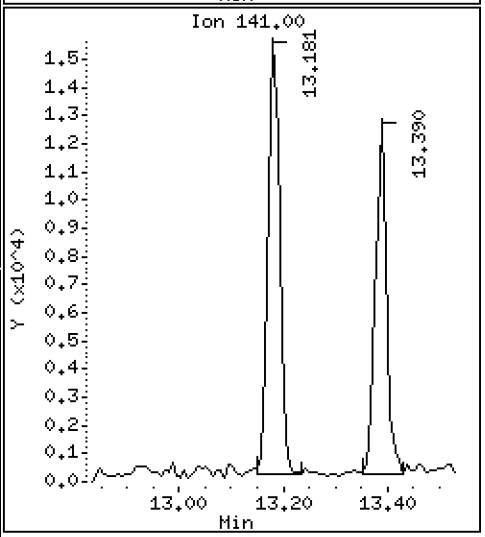
32 2-Methylnaphthalene

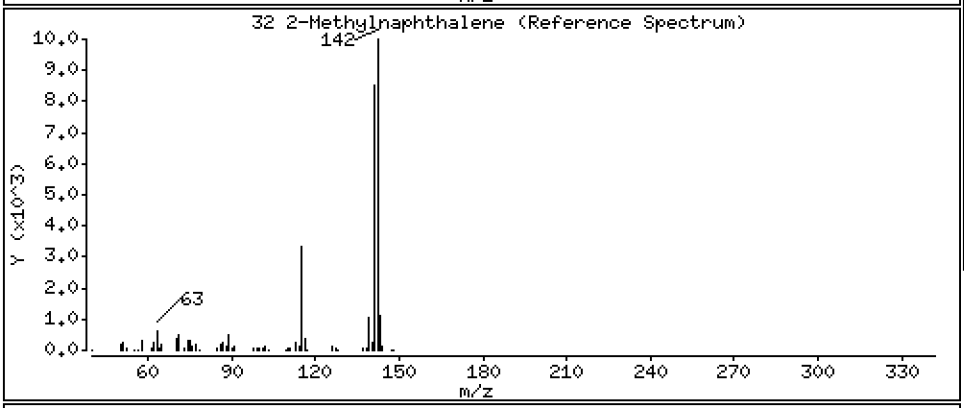
Concentration: 0.1395 ug/mL

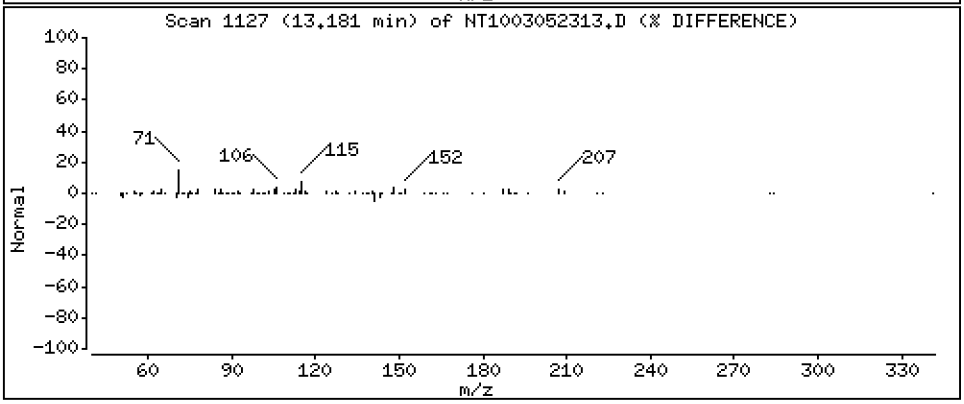












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

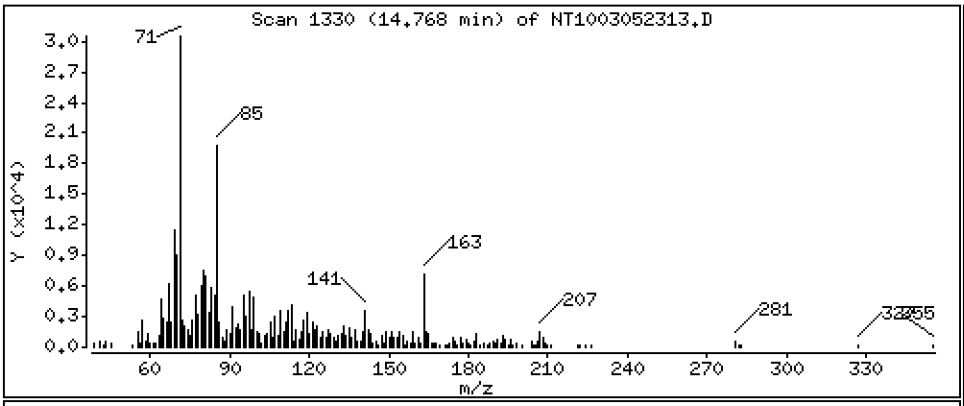
Operator: VTS

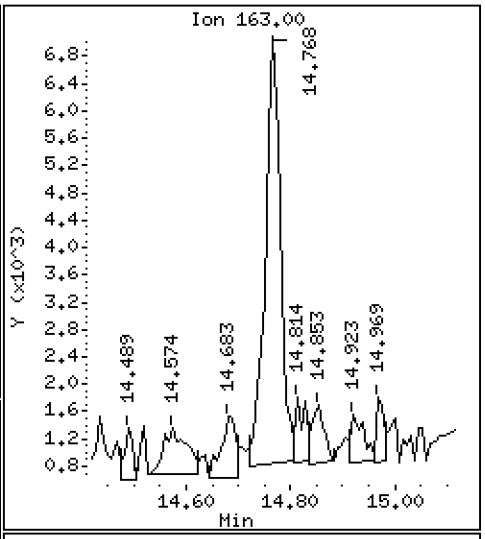
Column phase: ZB-5msi

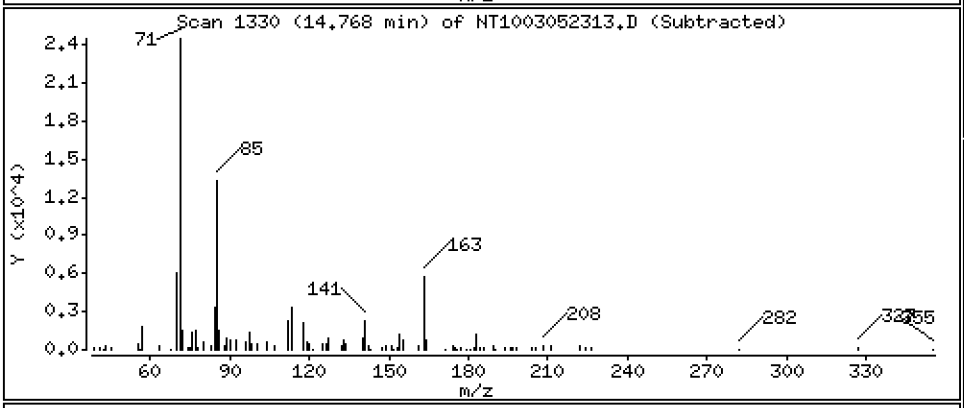
Column diameter: 0.25

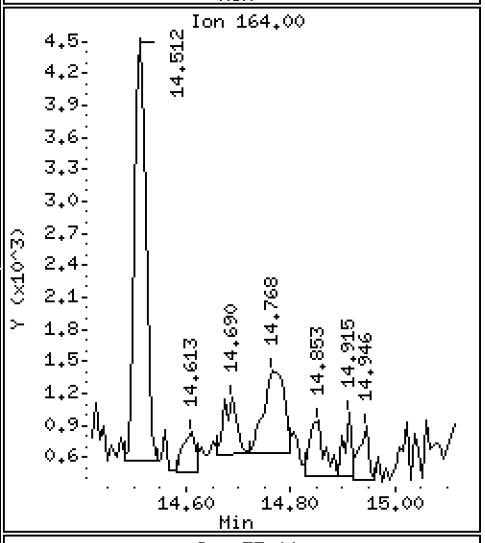
39 Dimethylphthalate

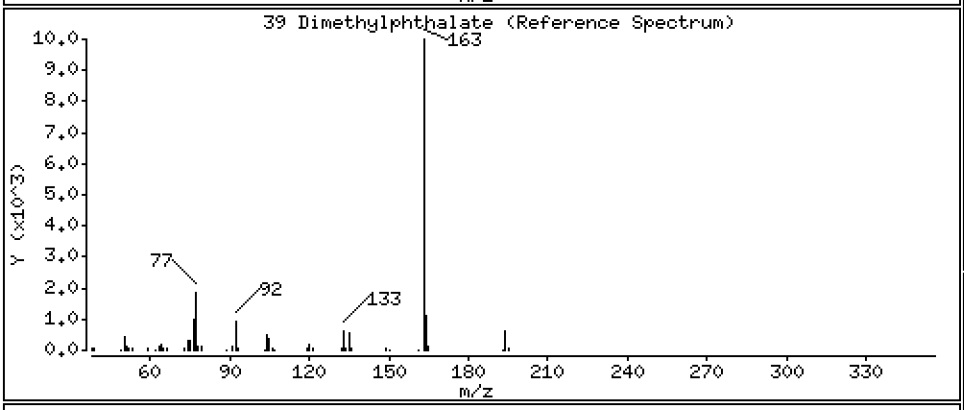
Concentration: 0.06511 ug/mL

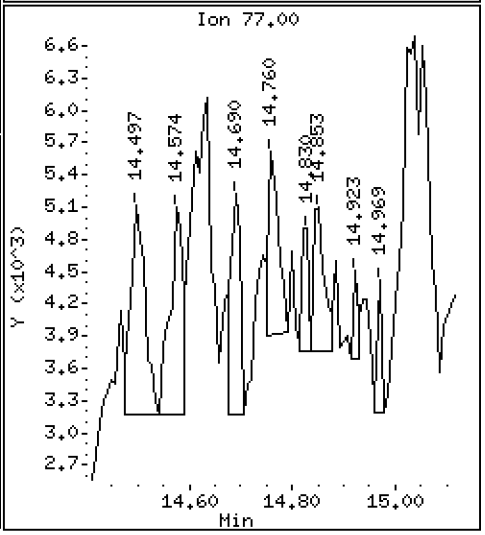


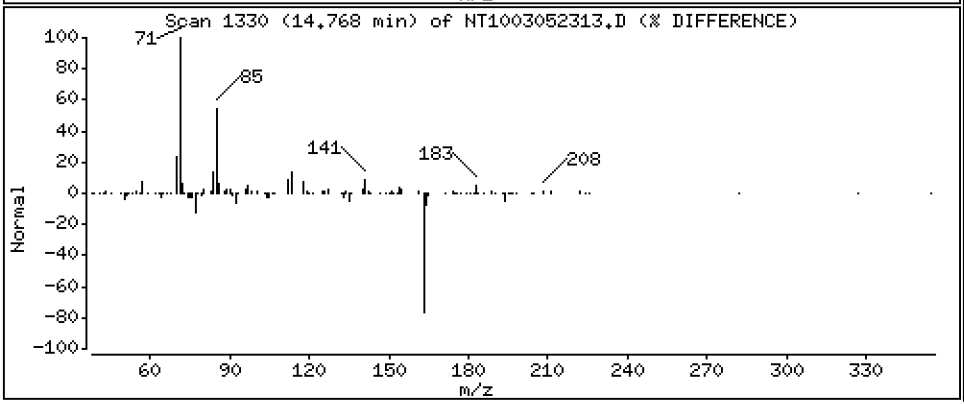












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

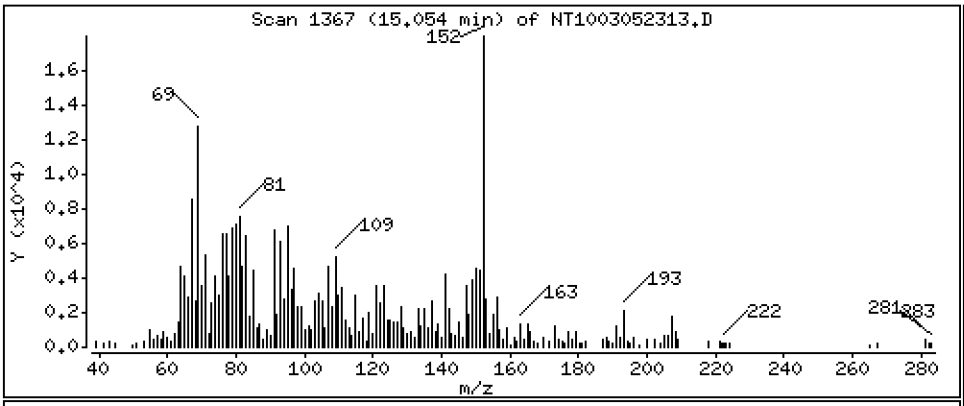
Operator: VTS

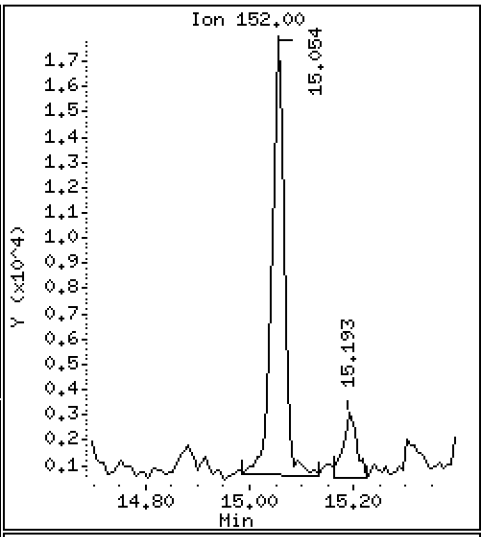
Column phase: ZB-5msi

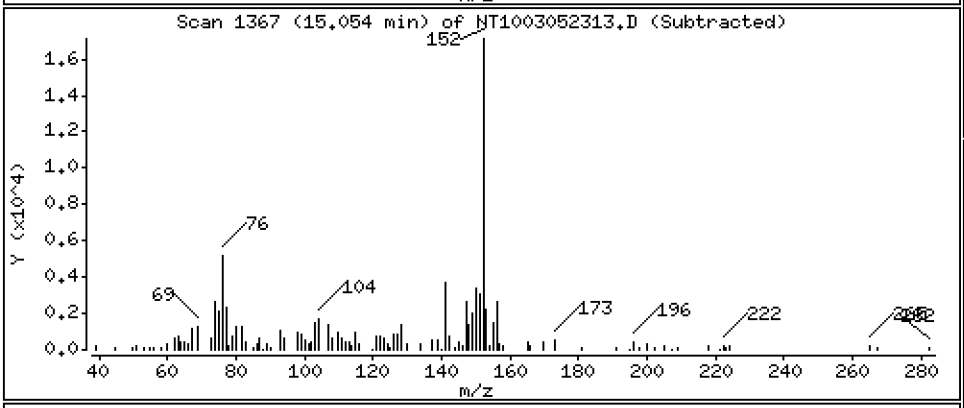
Column diameter: 0.25

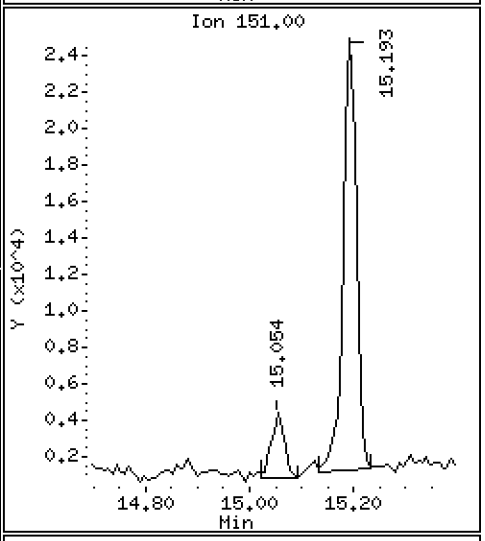
40 Acenaphthylene

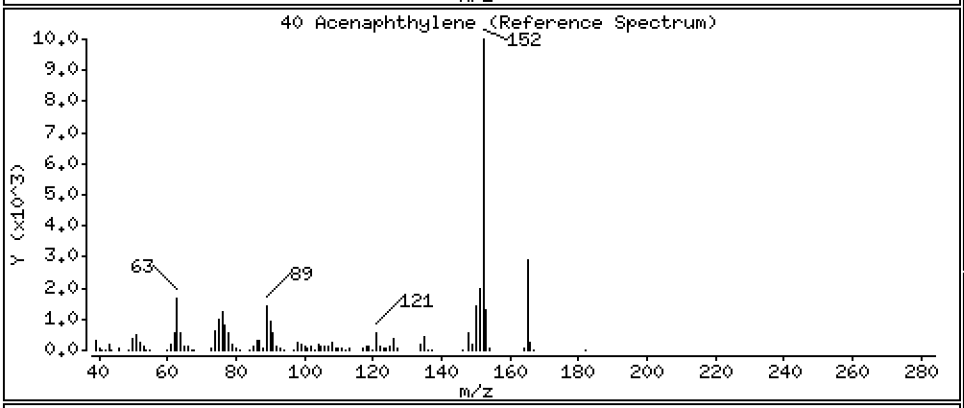
Concentration: 0.1125 ug/mL

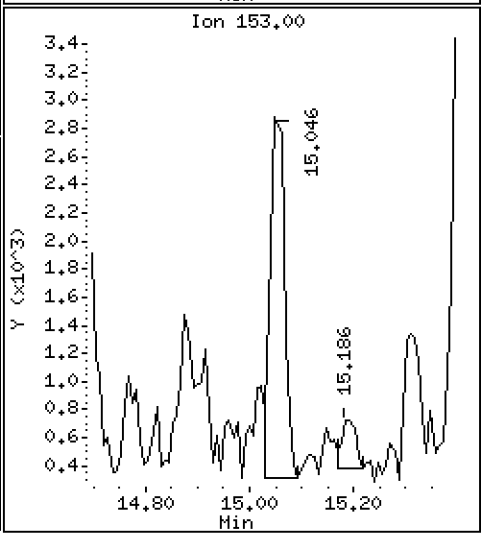


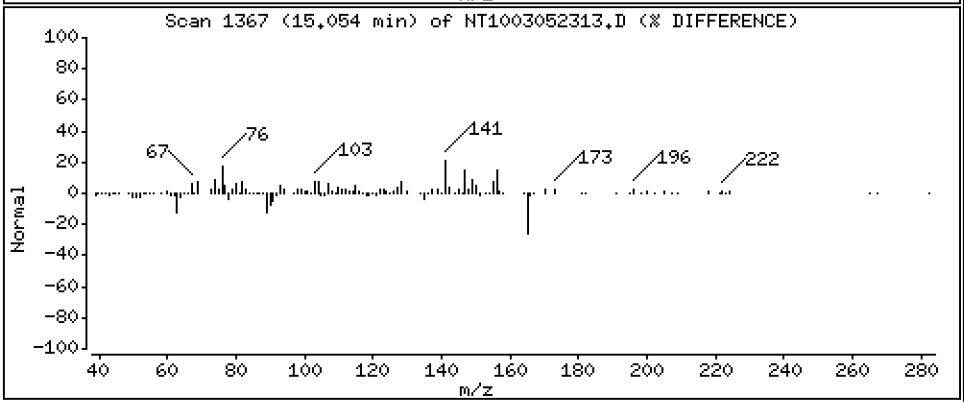












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

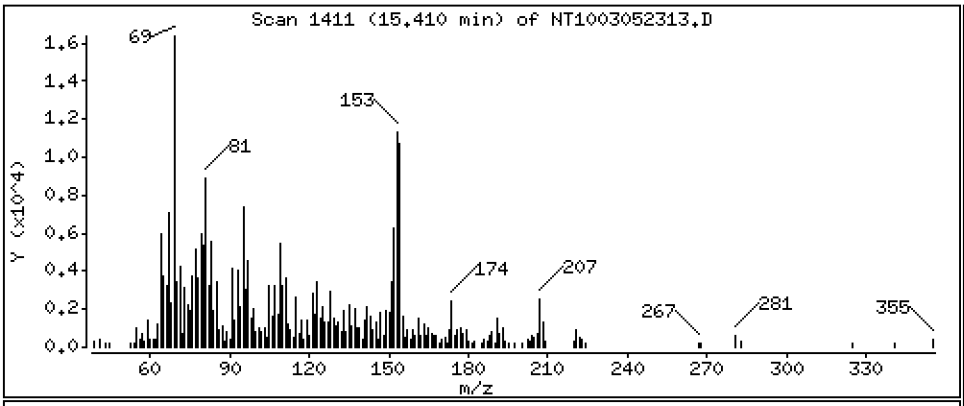
Operator: VTS

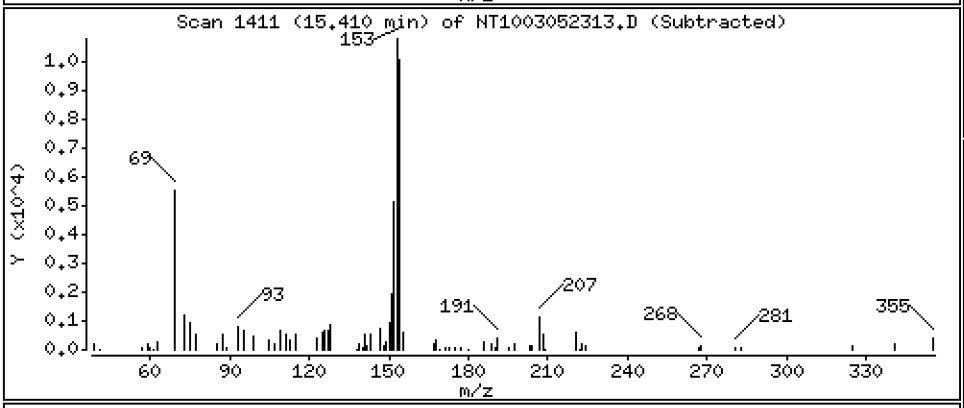
Column phase: ZB-5msi

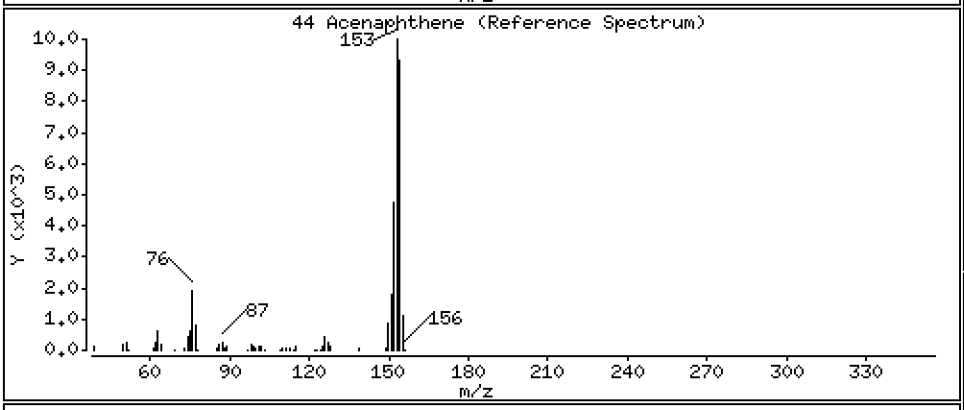
Column diameter: 0.25

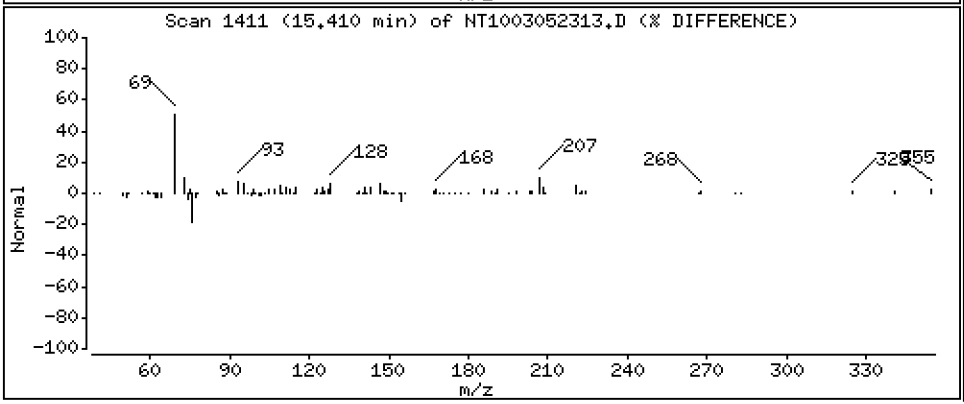
44 Acenaphthene

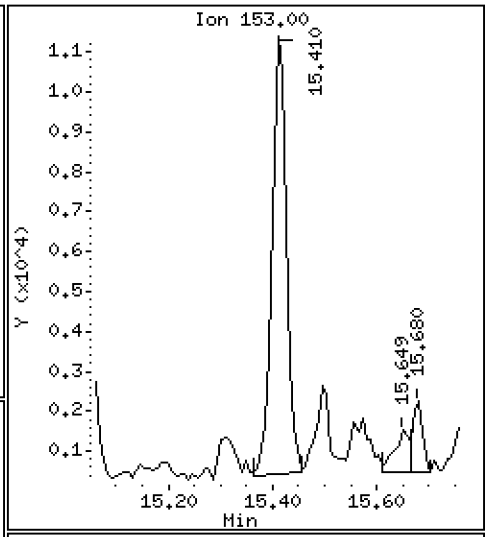
Concentration: 0.1189 ug/mL

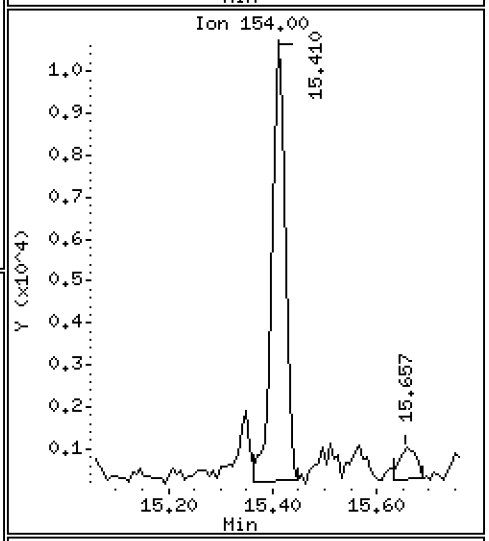


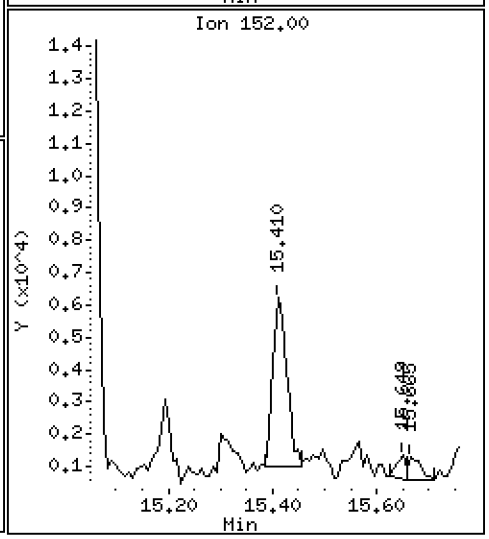












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

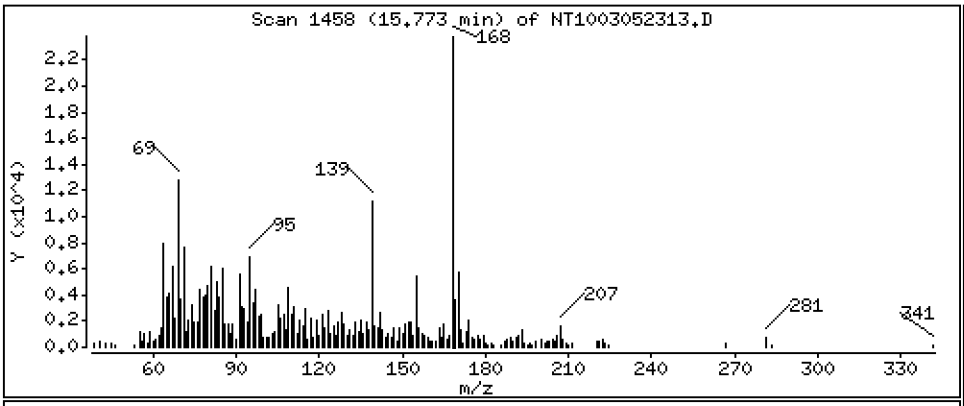
Operator: VTS

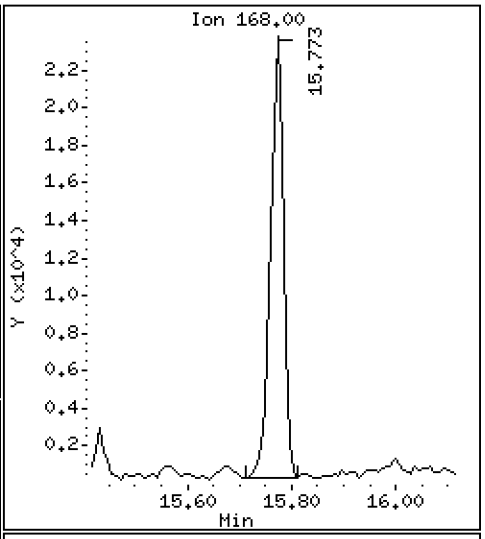
Column phase: ZB-5msi

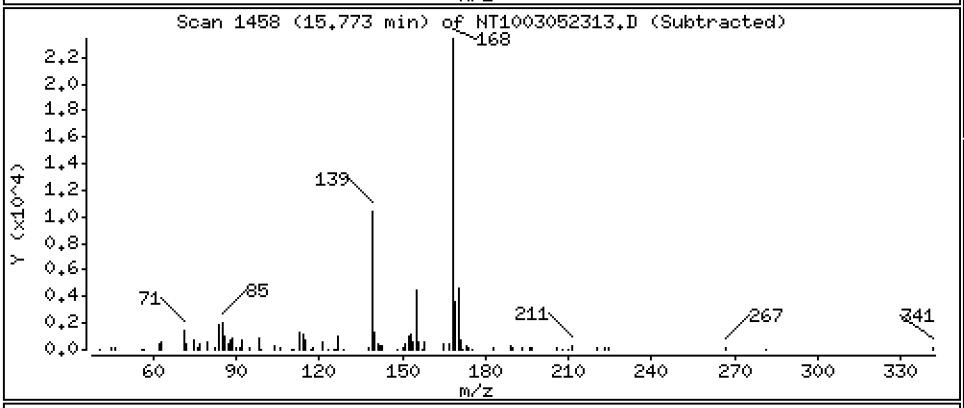
Column diameter: 0.25

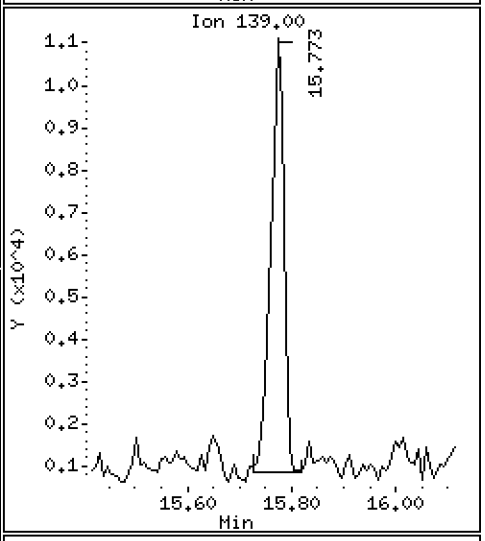
46 Dibenzofuran

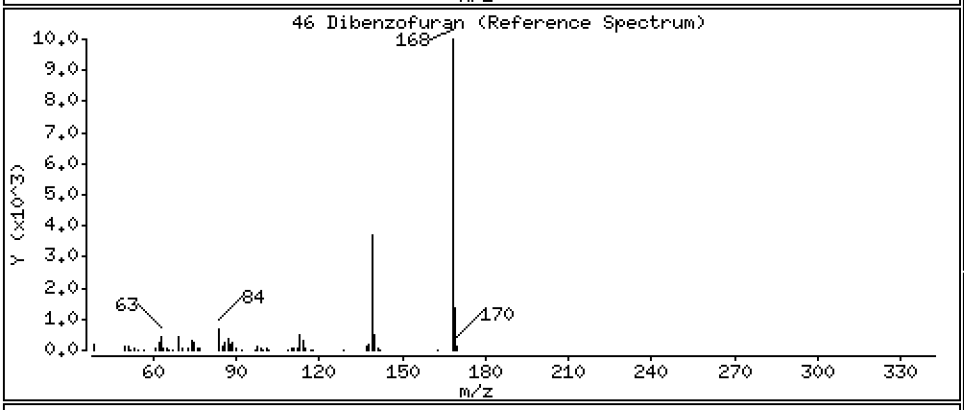
Concentration: 0.1590 ug/mL

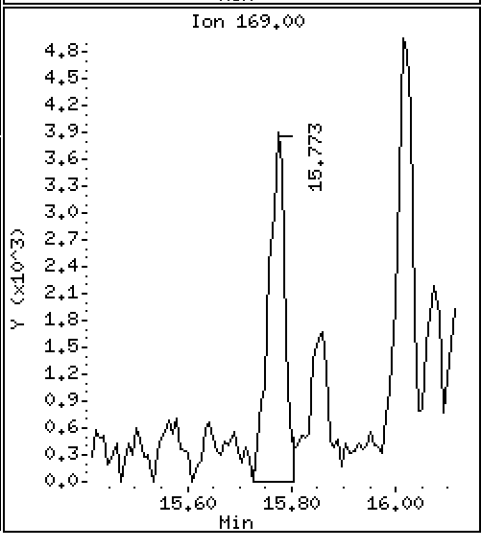


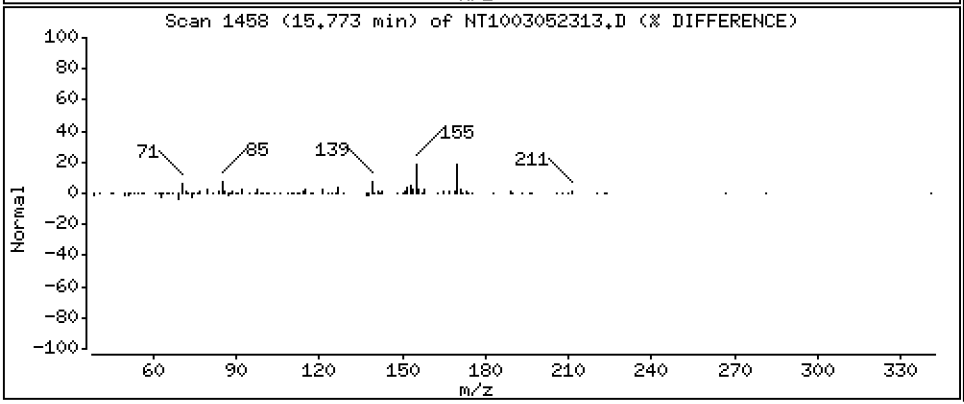












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

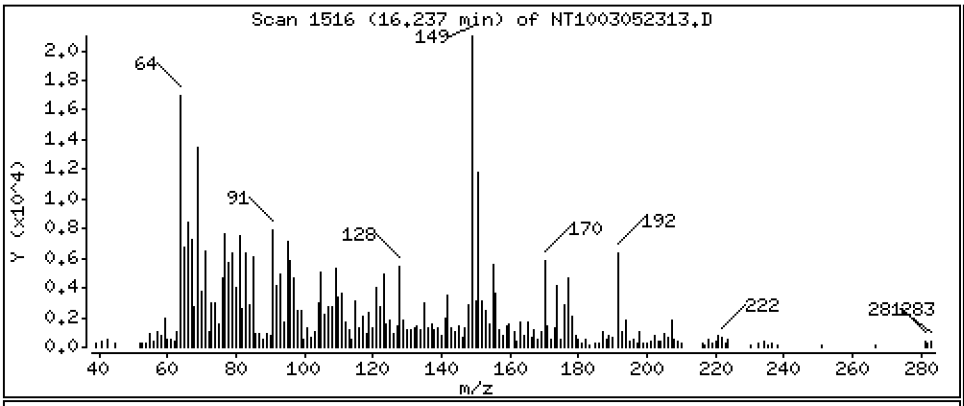
Operator: VTS

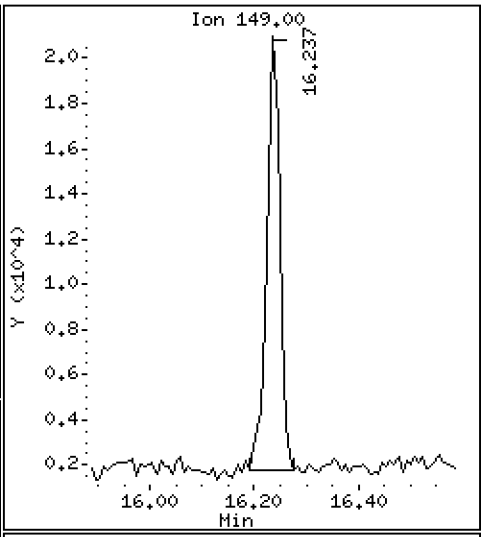
Column phase: ZB-5msi

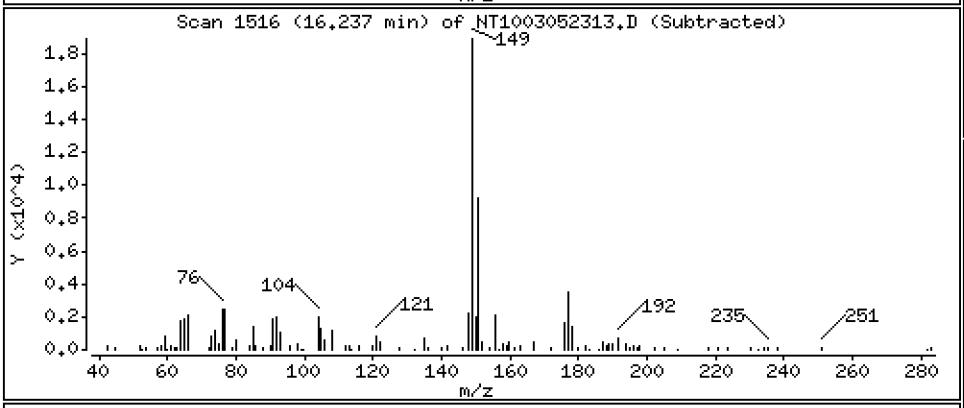
Column diameter: 0.25

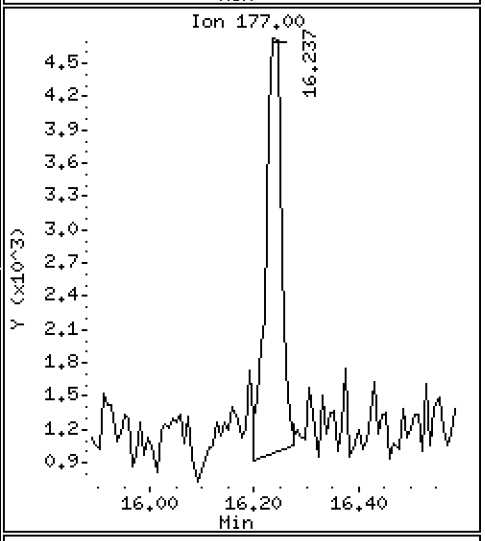
50 Diethylphthalate

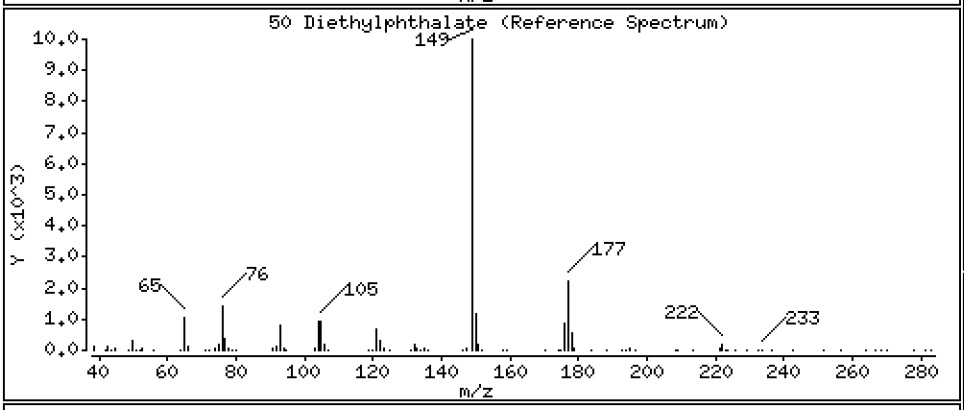
Concentration: 0.1599 ug/mL

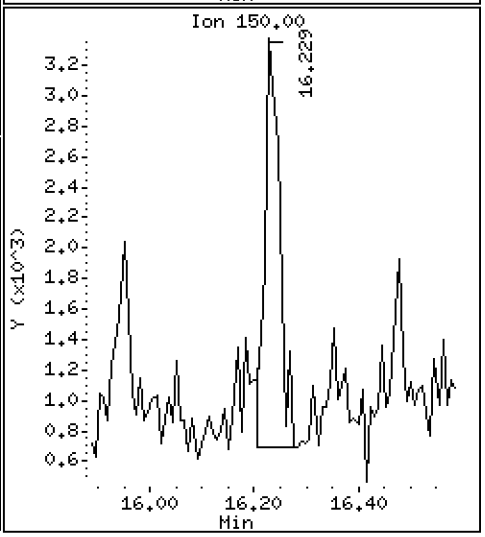


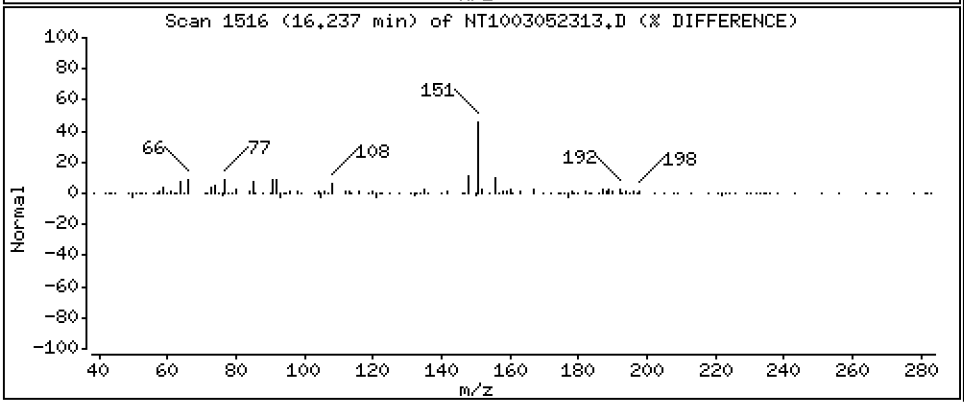












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

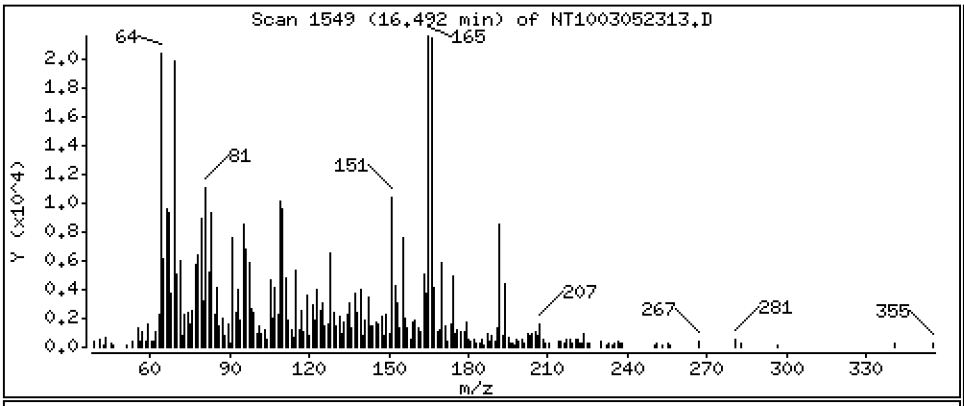
Operator: VTS

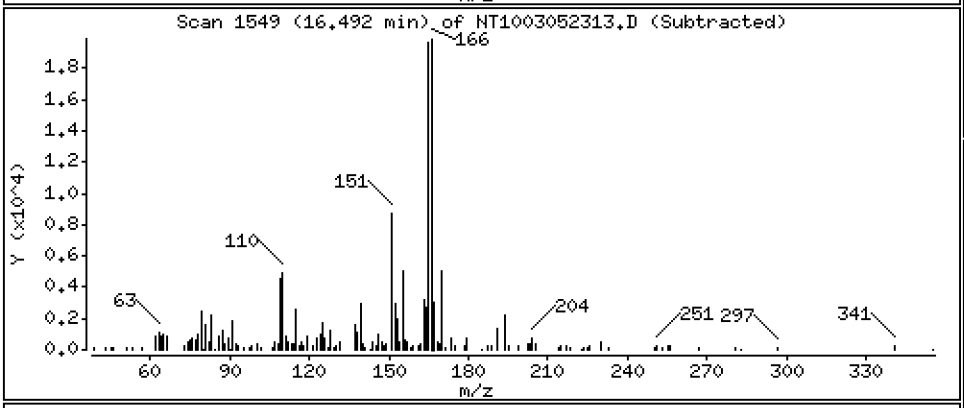
Column phase: ZB-5msi

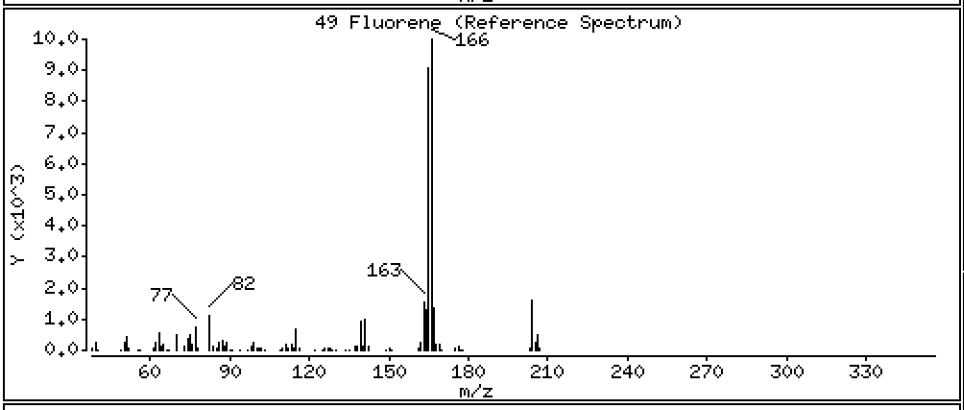
Column diameter: 0.25

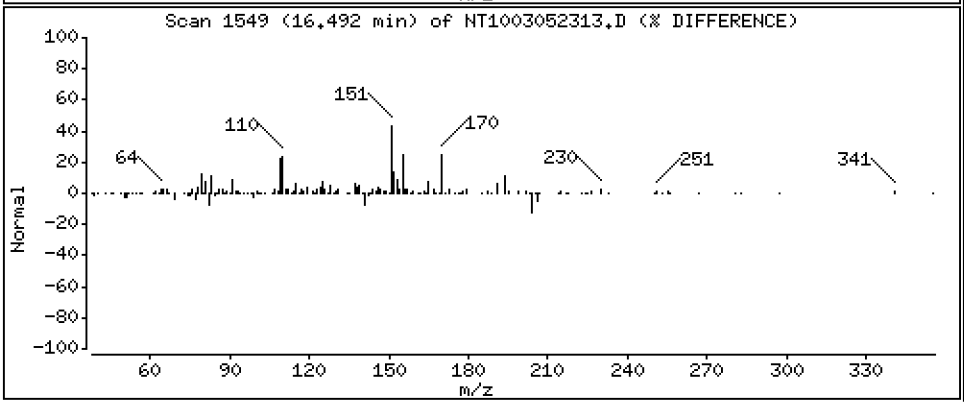
49 Fluorene

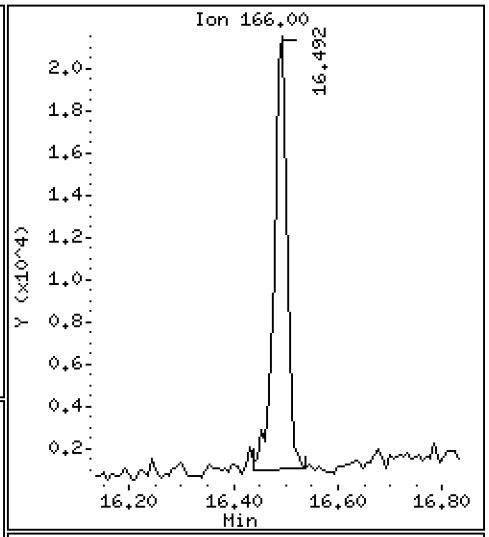
Concentration: 0.1716 ug/mL

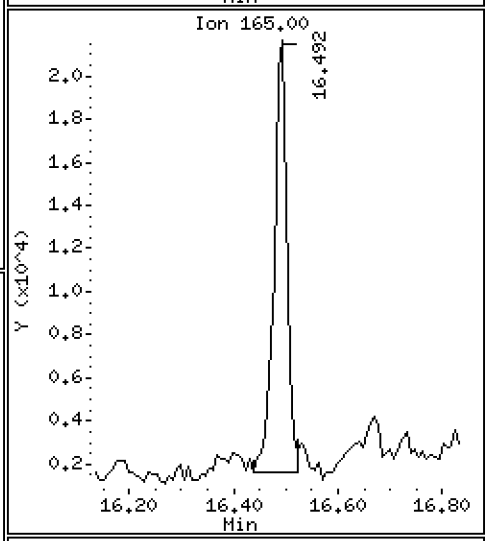


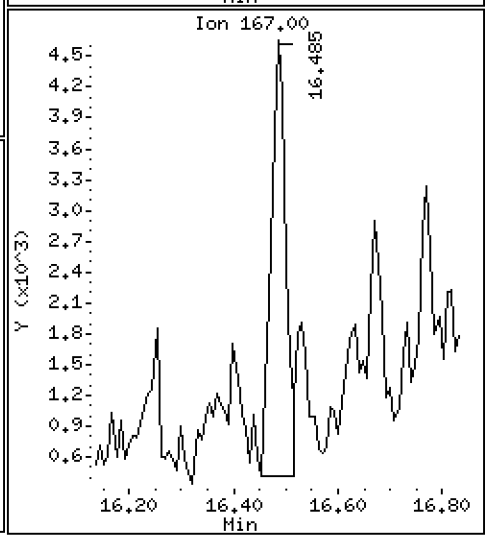












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

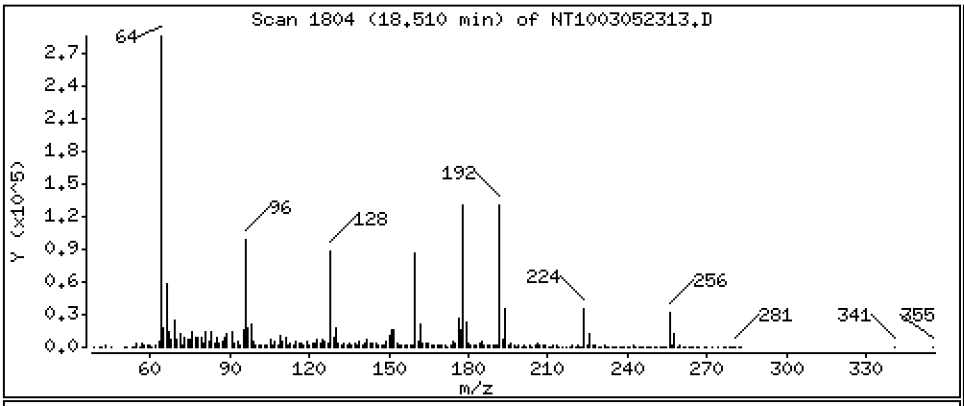
Operator: VTS

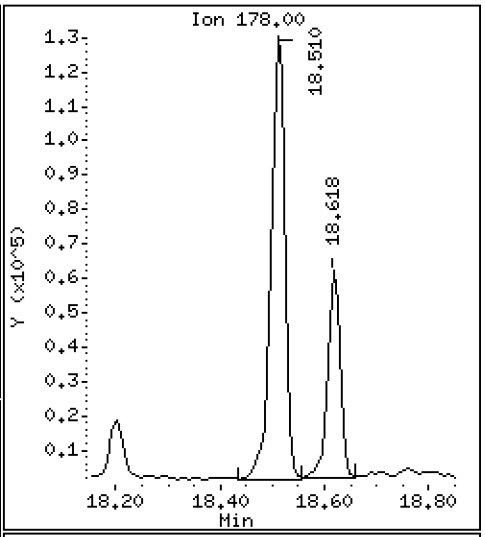
Column phase: ZB-5msi

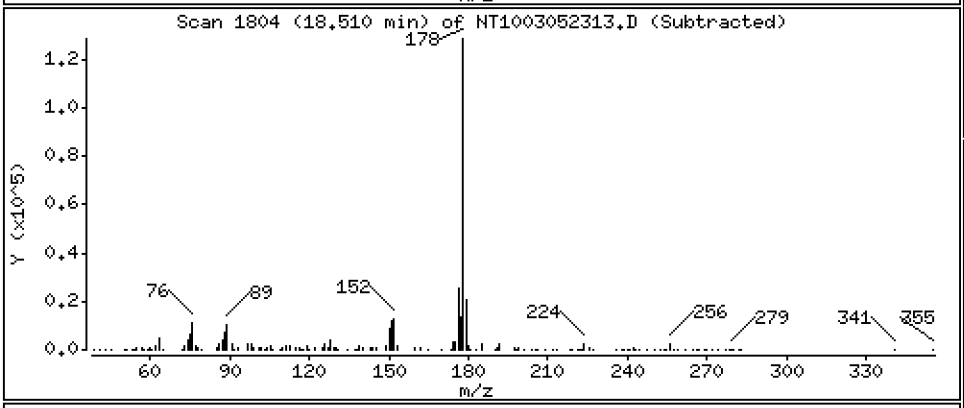
Column diameter: 0.25

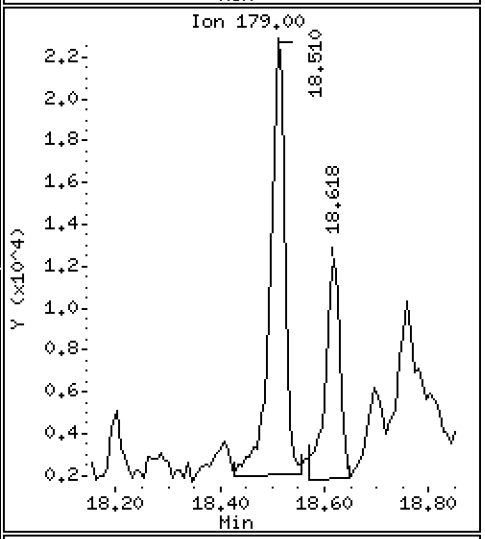
60 Phenanthrene

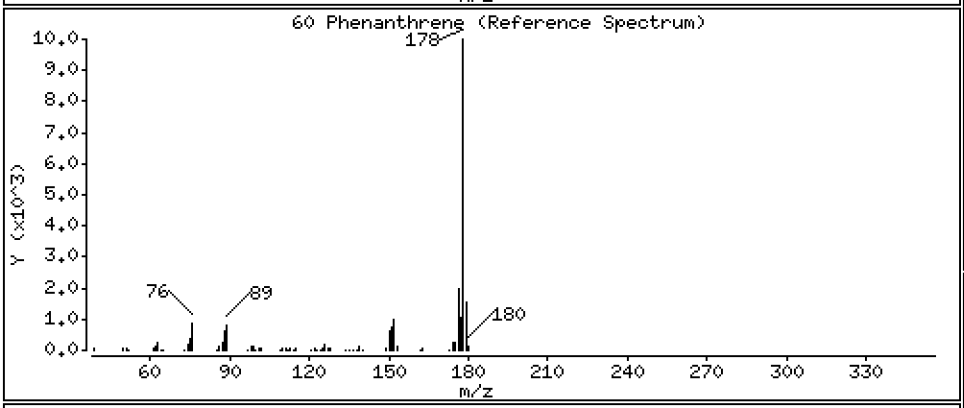
Concentration: 0.8421 ug/mL

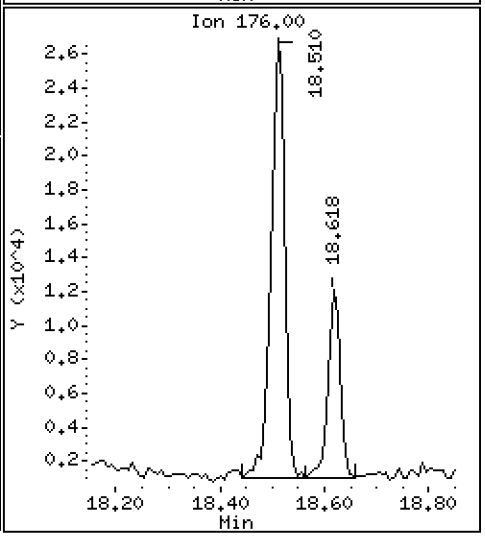


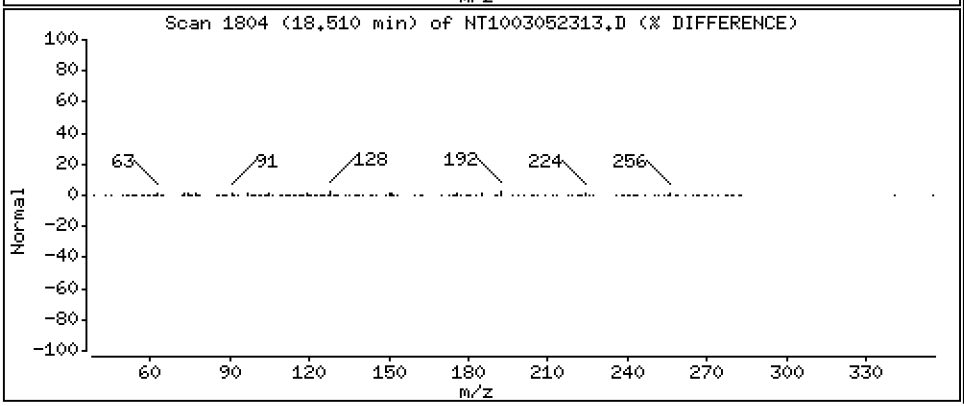












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

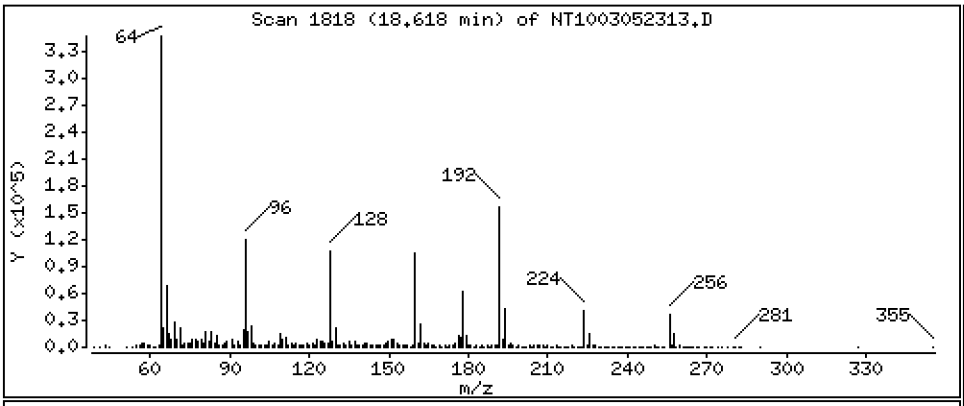
Operator: VTS

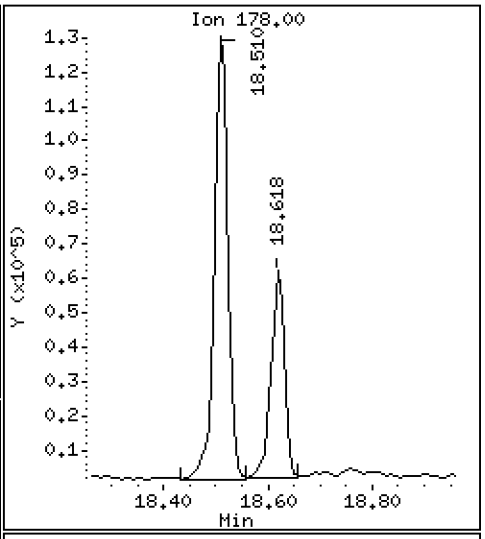
Column phase: ZB-5msi

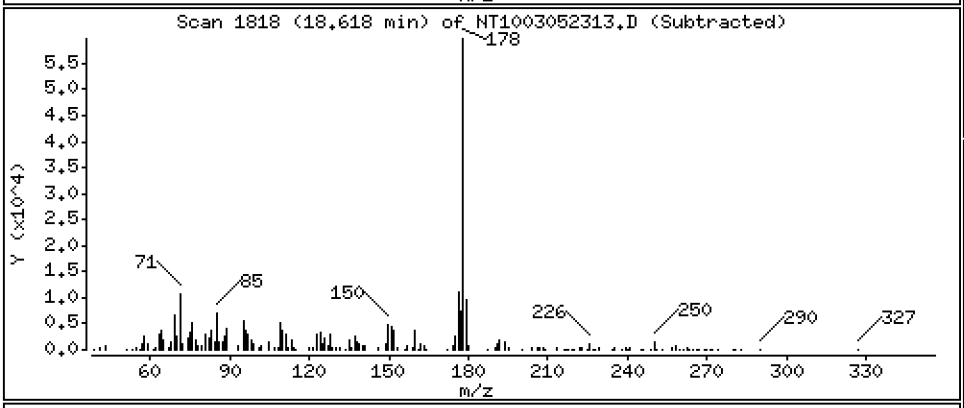
Column diameter: 0.25

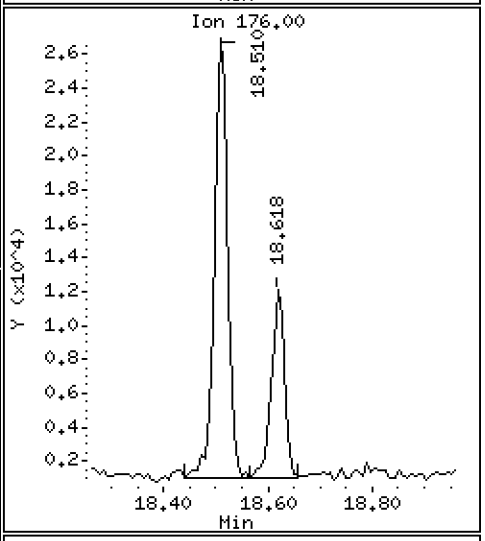
61 Anthracene

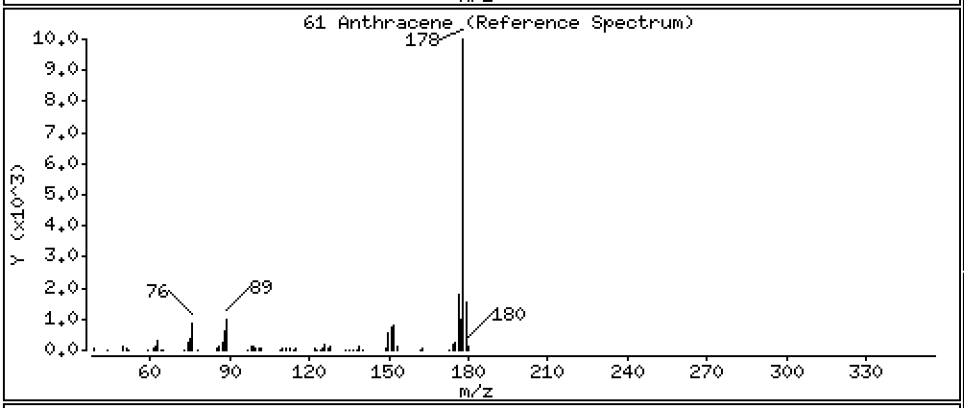
Concentration: 0.3894 ug/mL

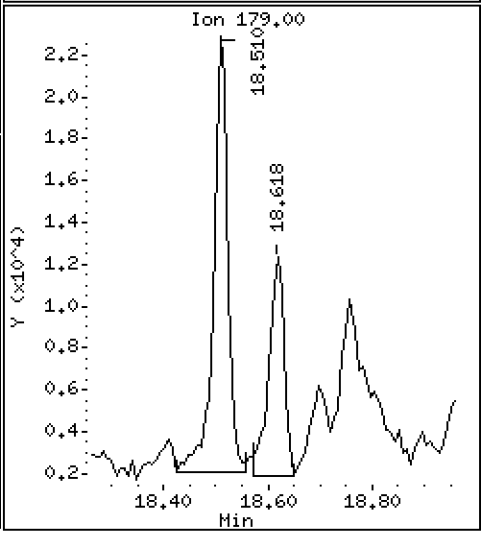


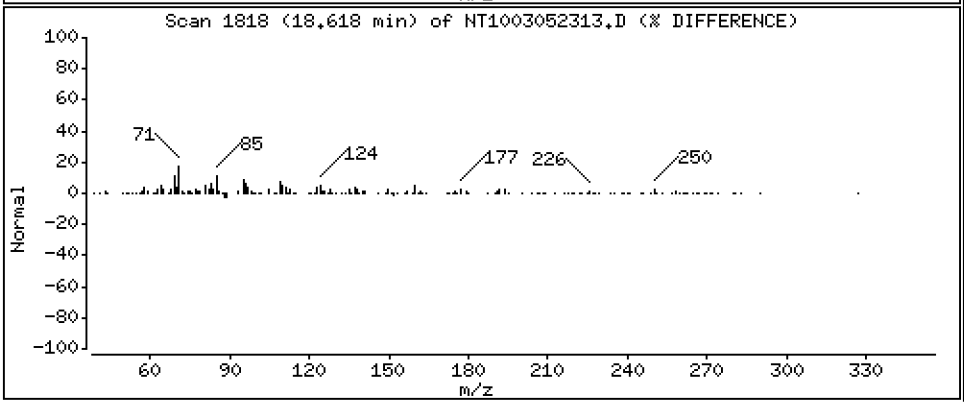












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

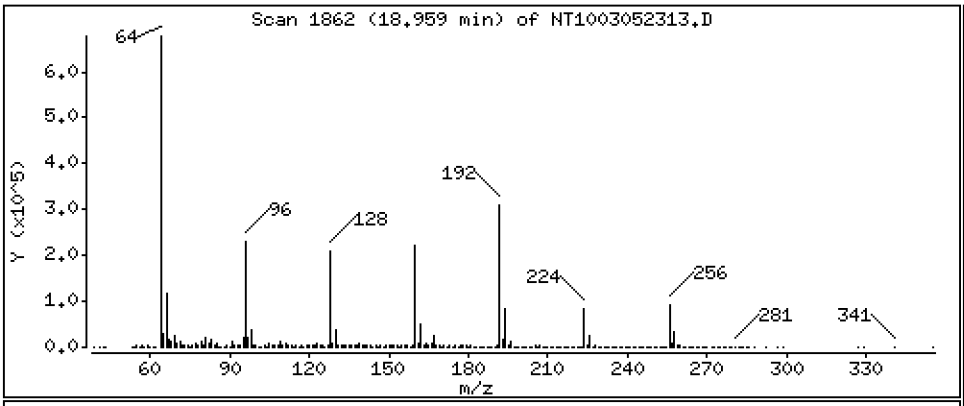
Operator: VTS

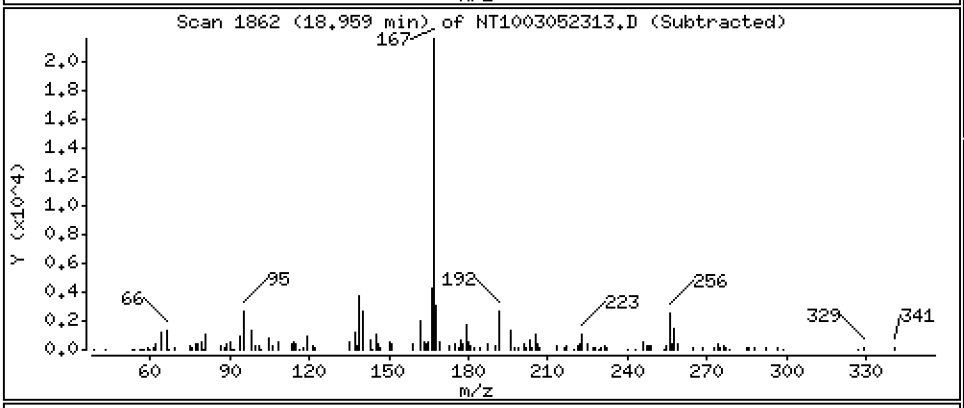
Column phase: ZB-5msi

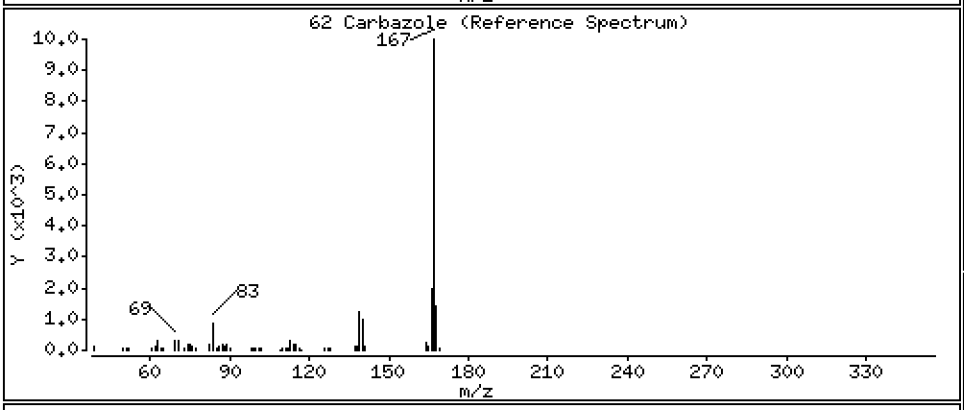
Column diameter: 0.25

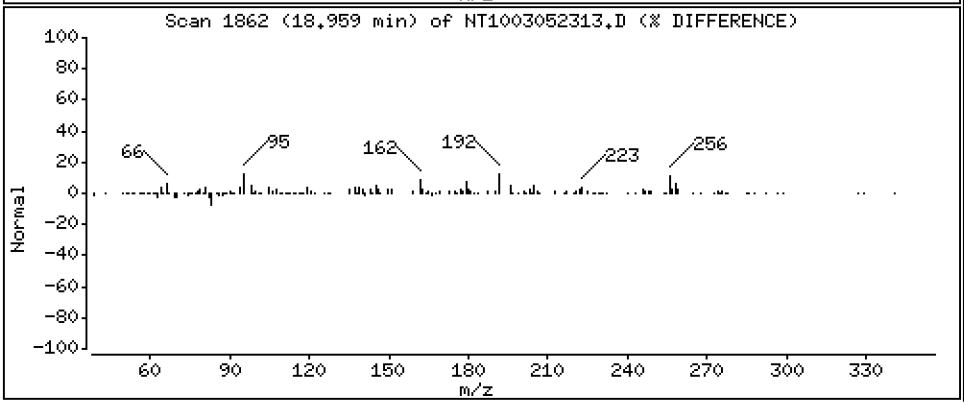
62 Carbazole

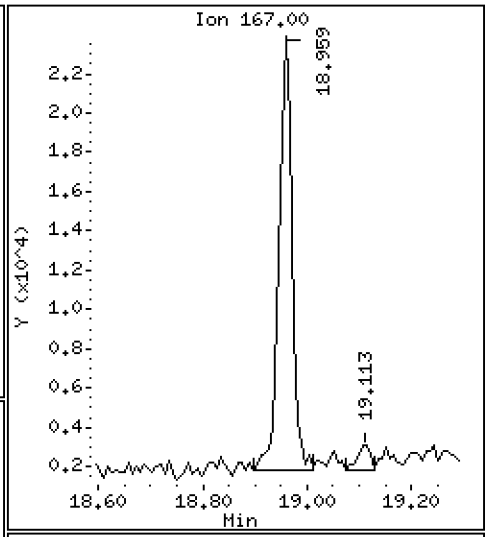
Concentration: 0.1543 ug/mL

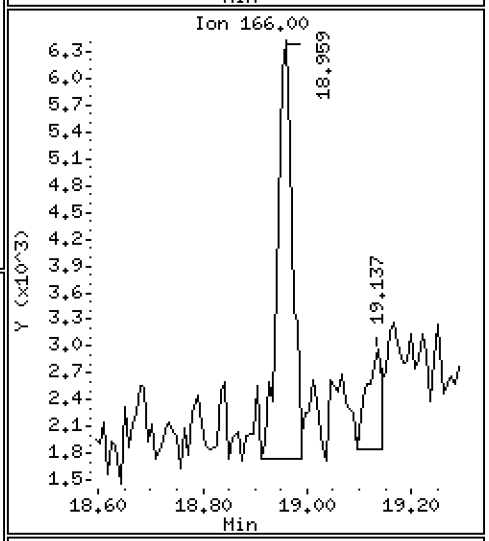


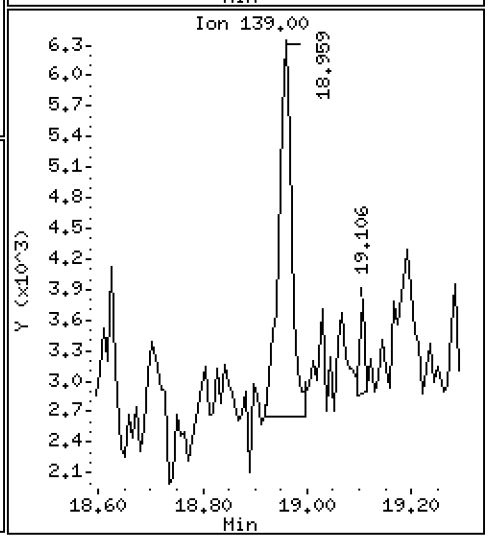












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

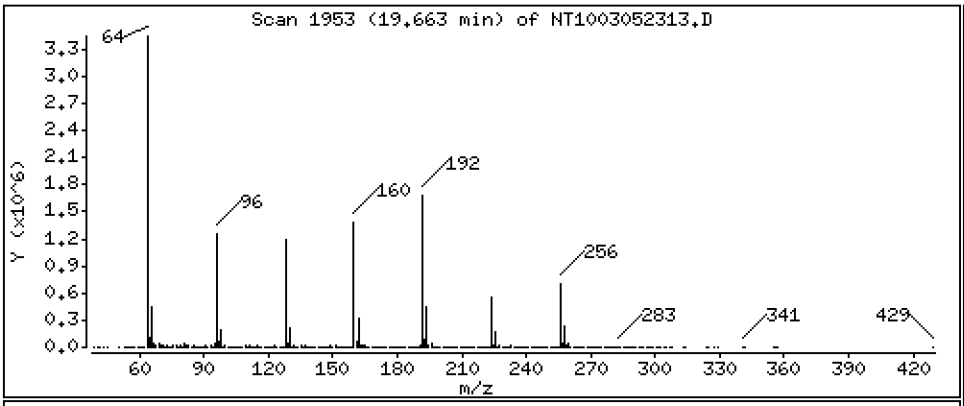
Operator: VTS

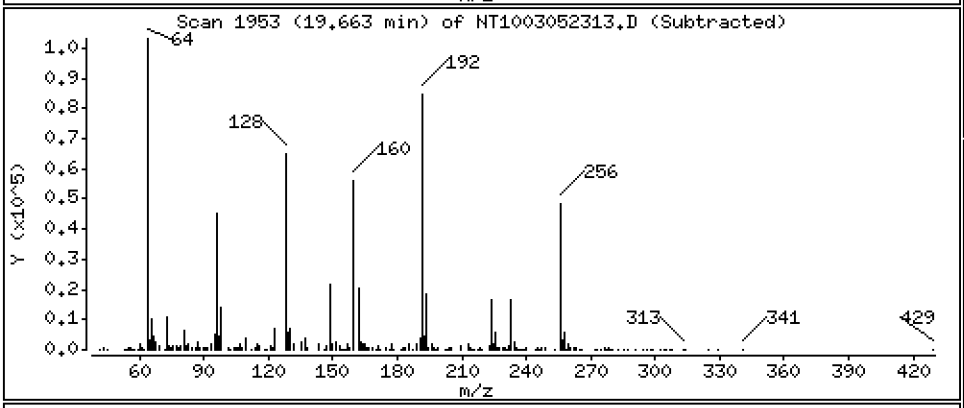
Column phase: ZB-5msi

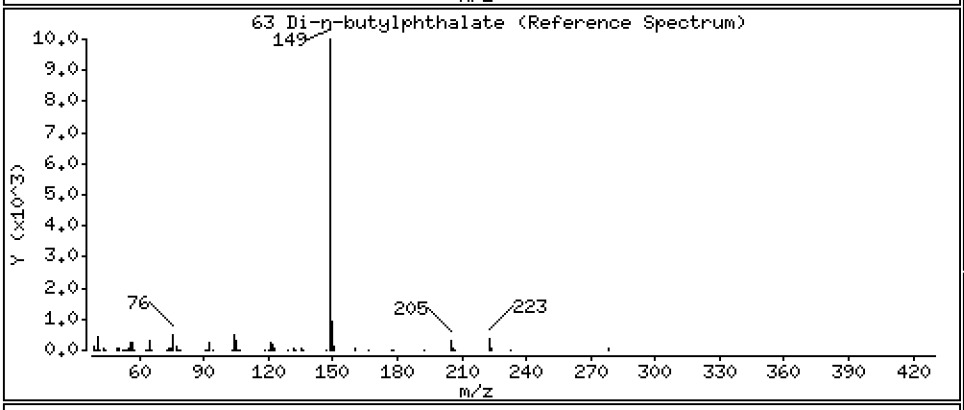
Column diameter: 0.25

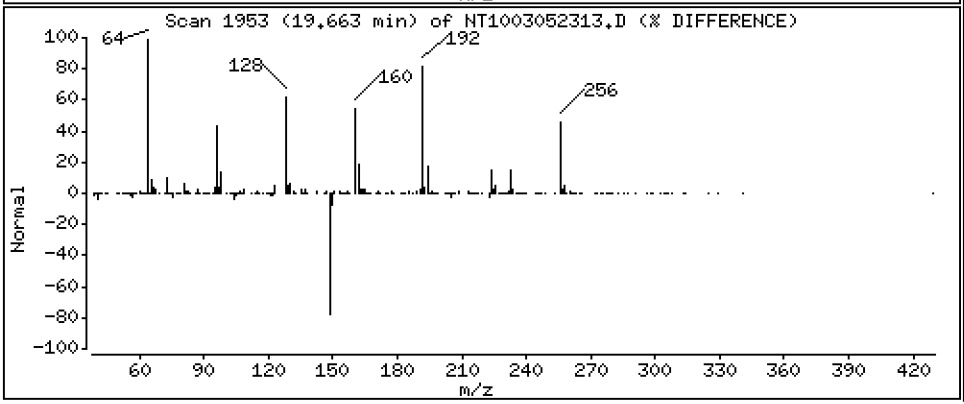
63 Di-n-butylphthalate

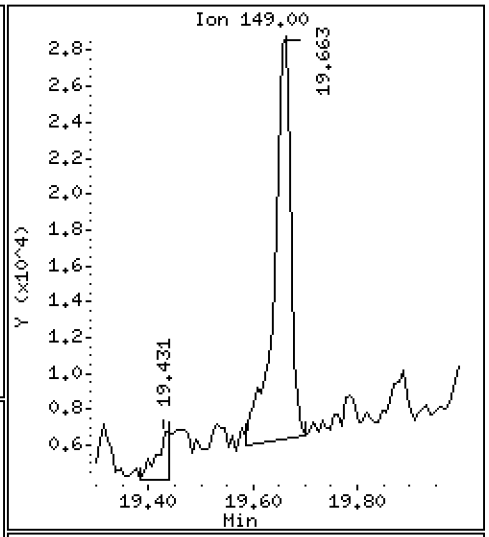
Concentration: 0.1415 ug/mL

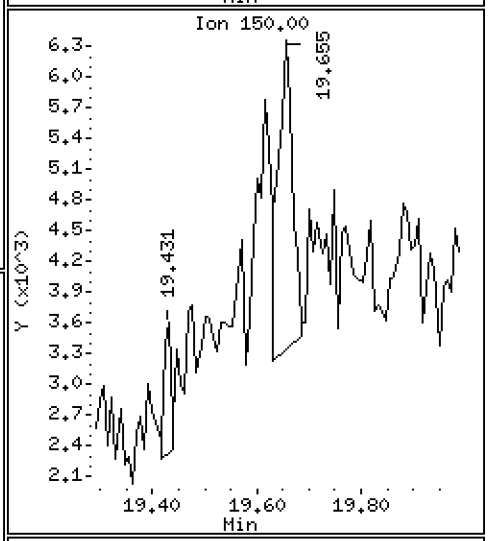


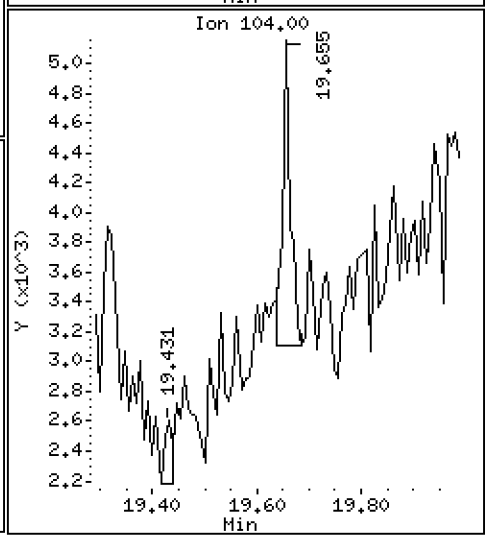












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

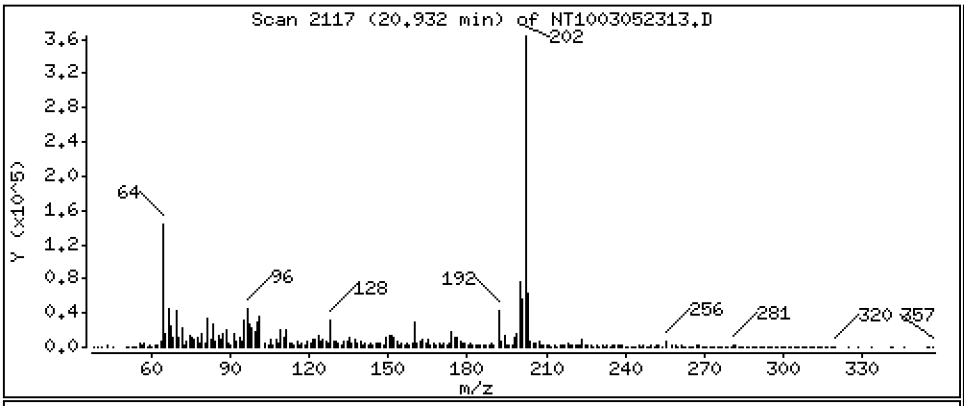
Operator: VTS

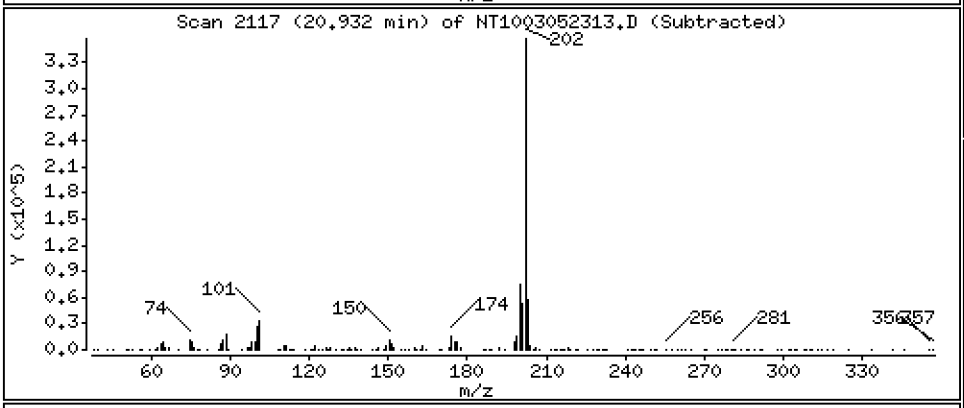
Column phase: ZB-5msi

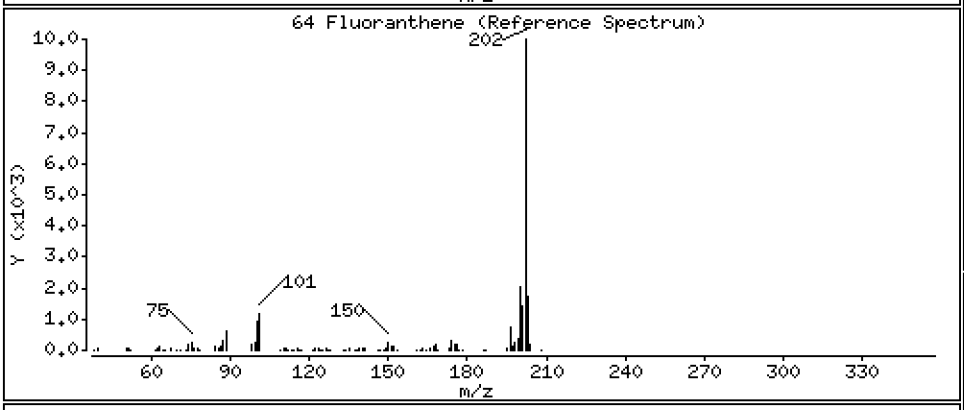
Column diameter: 0.25

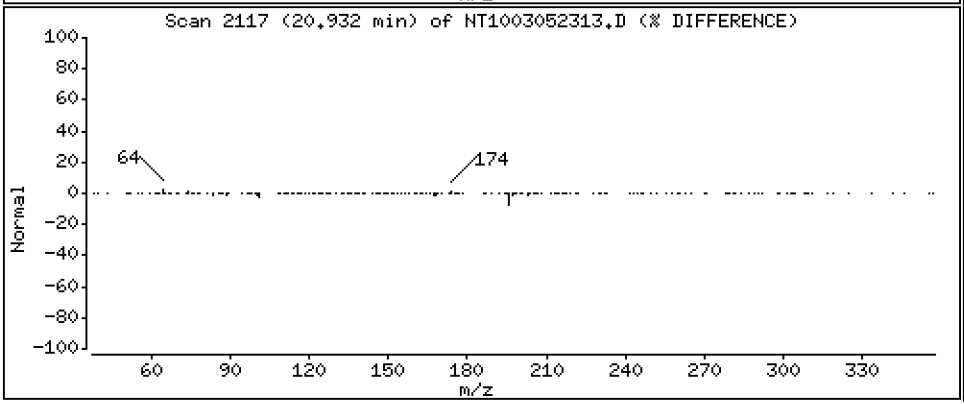
64 Fluoranthene

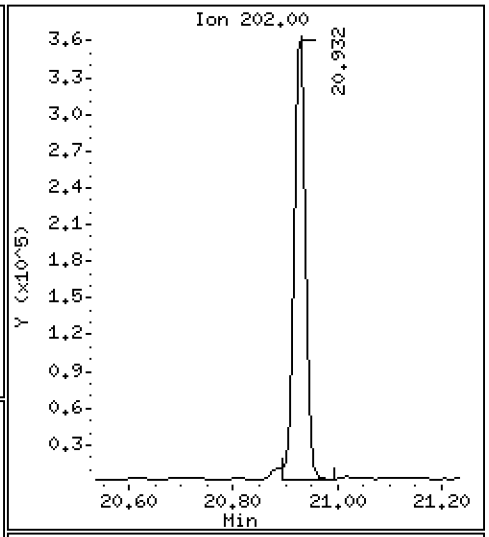
Concentration: 1.698 ug/mL

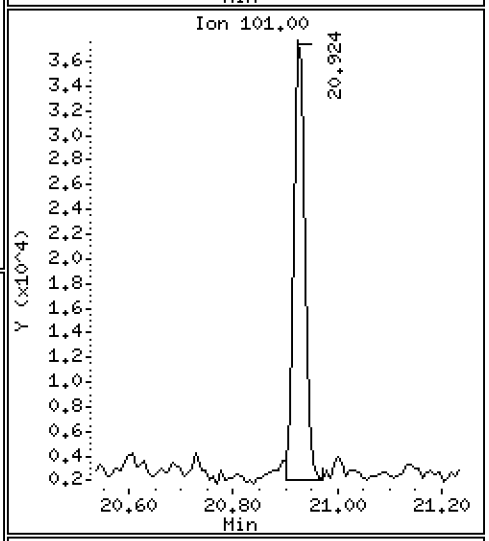


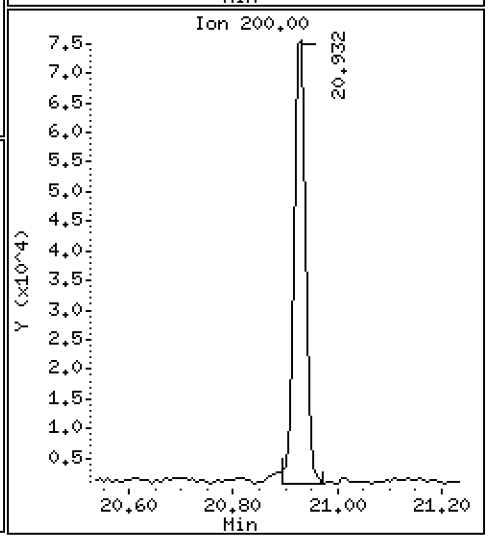












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

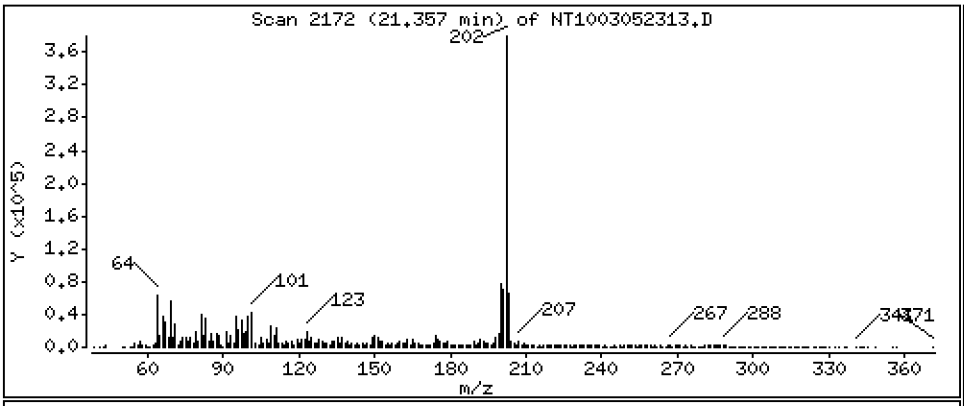
Operator: VTS

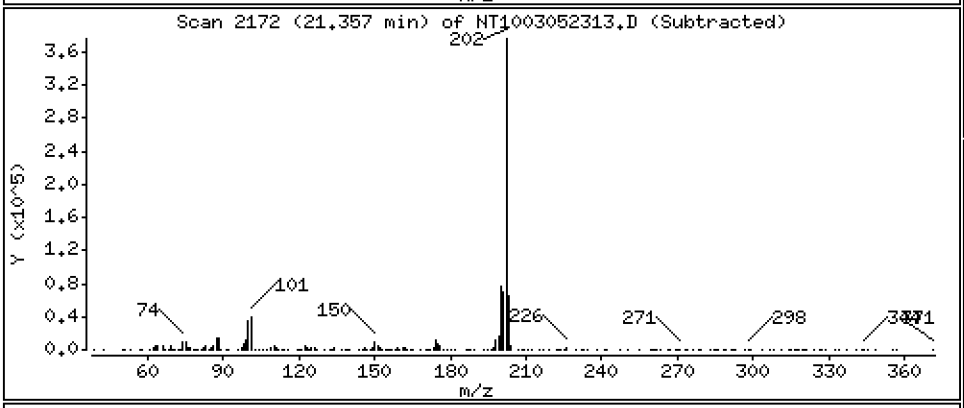
Column phase: ZB-5msi

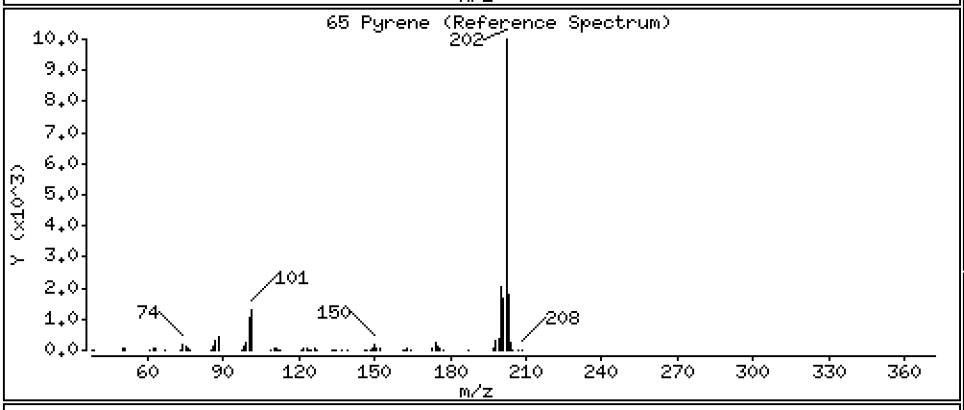
Column diameter: 0.25

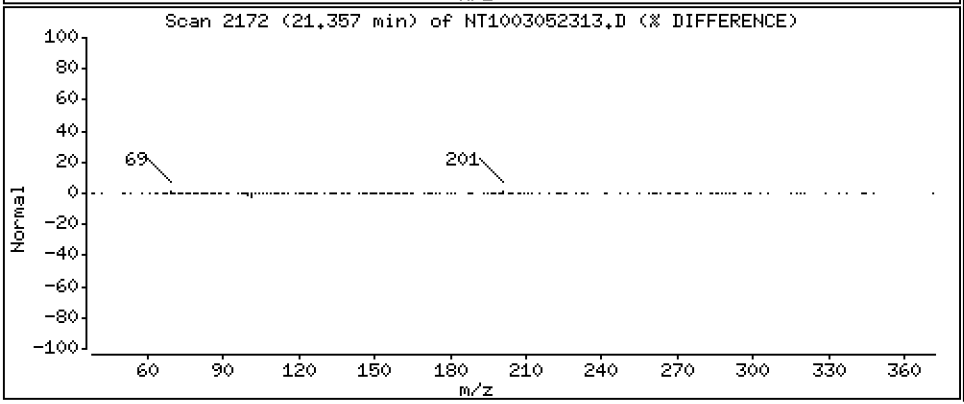
65 Pyrene

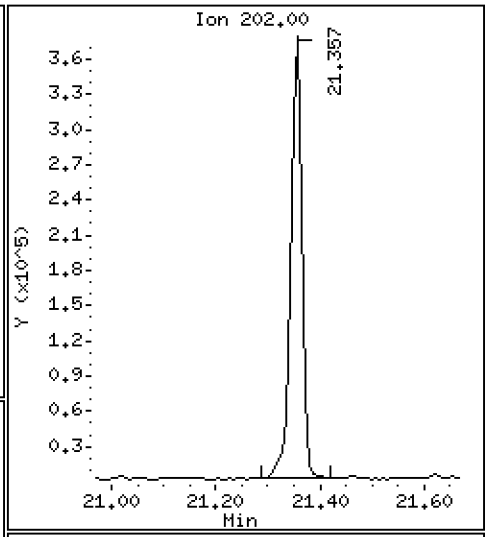
Concentration: 1.928 ug/mL

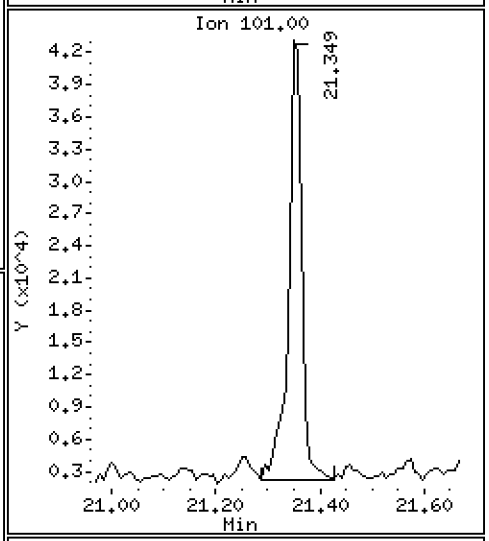


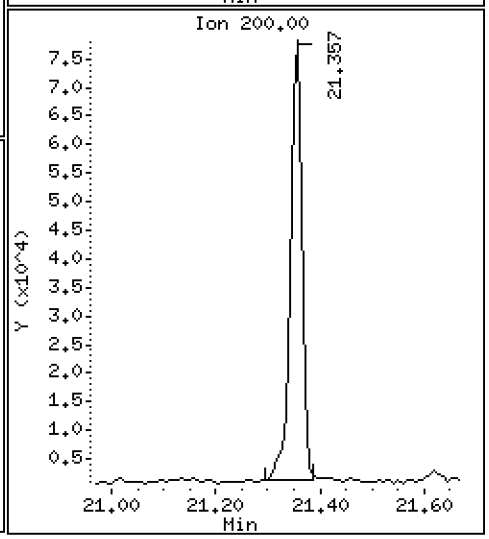












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

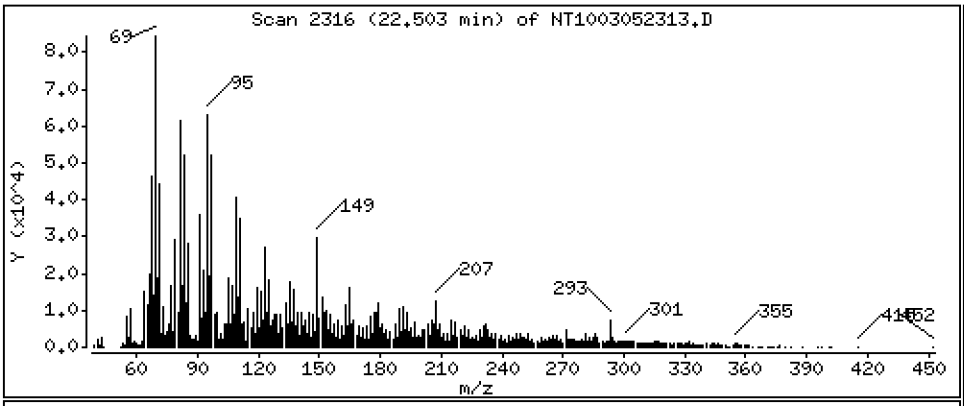
Operator: VTS

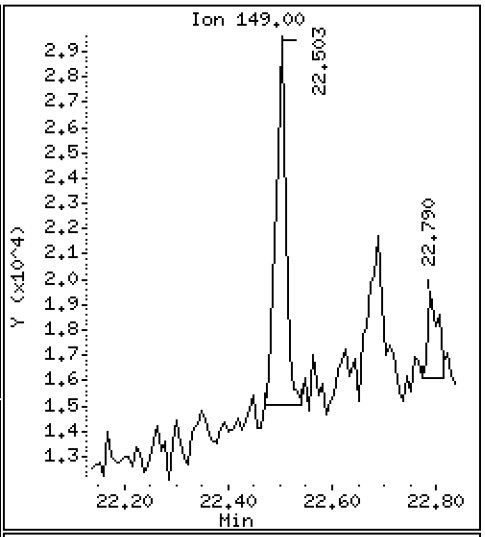
Column phase: ZB-5msi

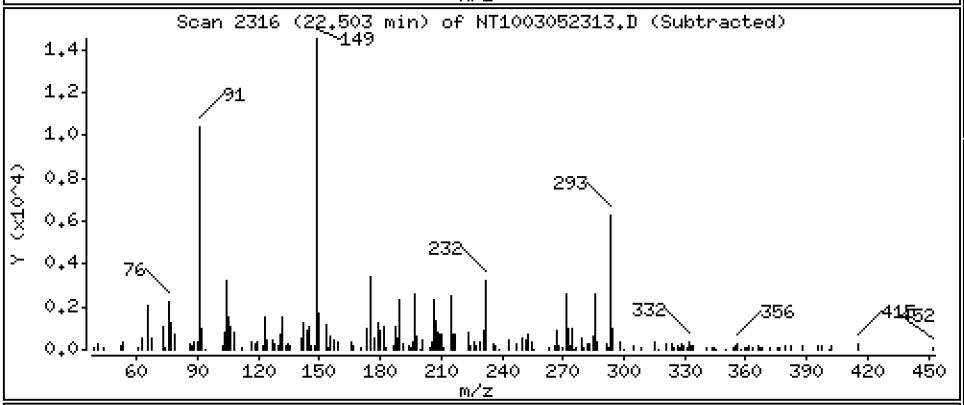
Column diameter: 0.25

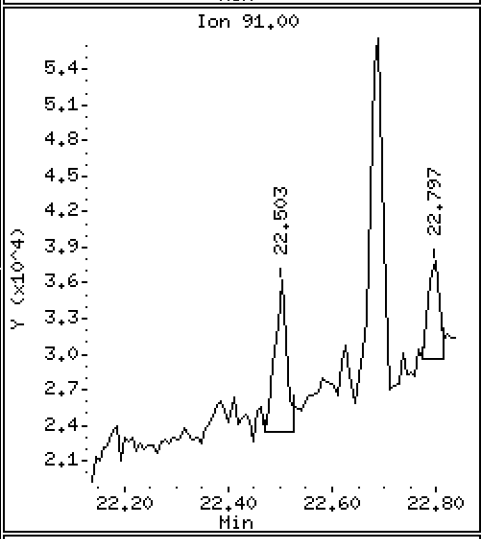
67 Butylbenzylphthalate

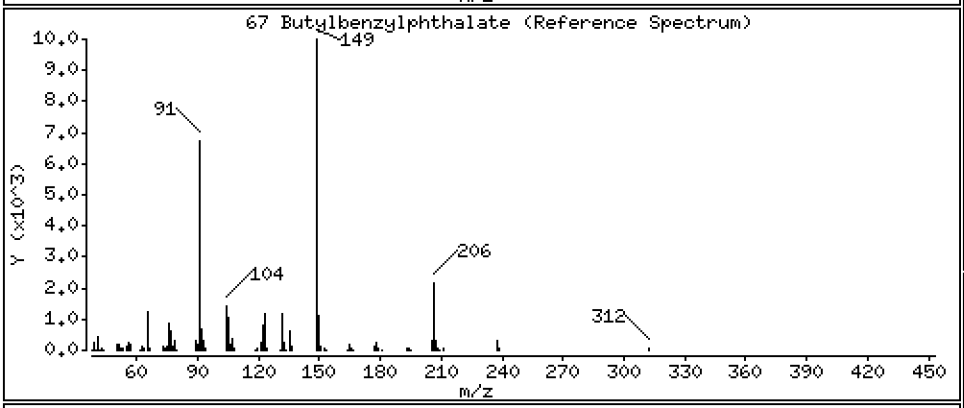
Concentration: 0.1010 ug/mL

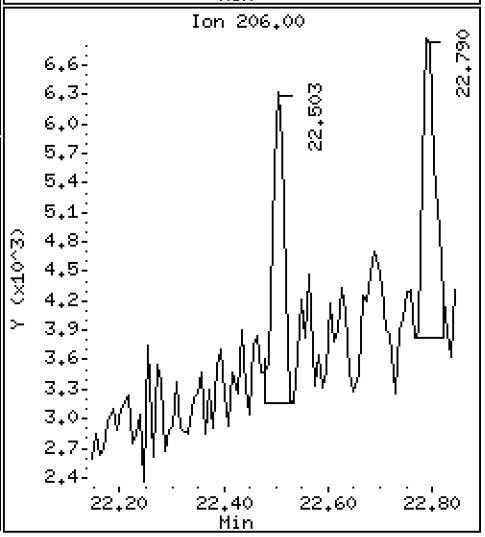


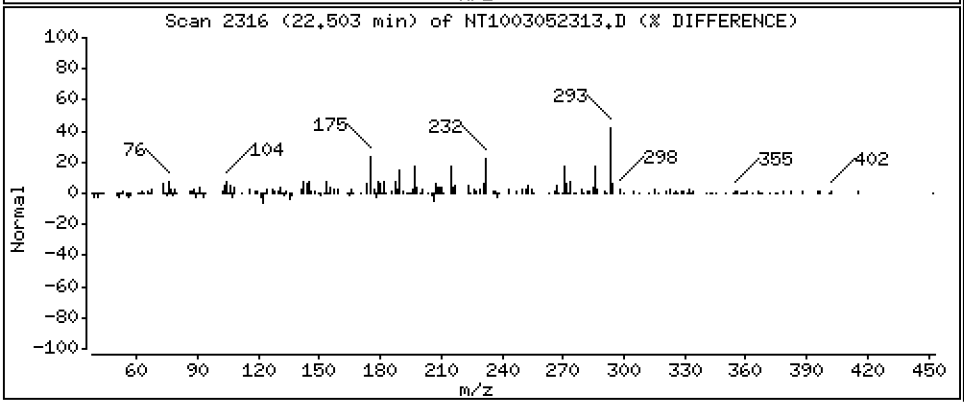












Date : 05-MAR-2023 21:00

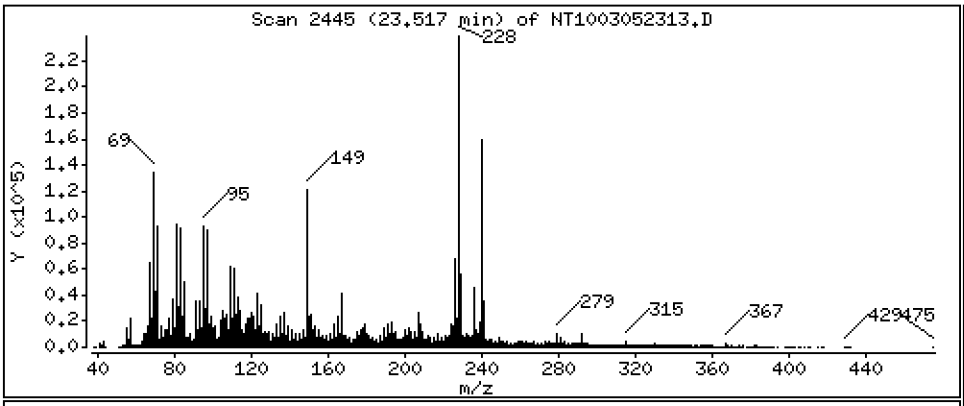
Client ID: Instrument: nt10.i

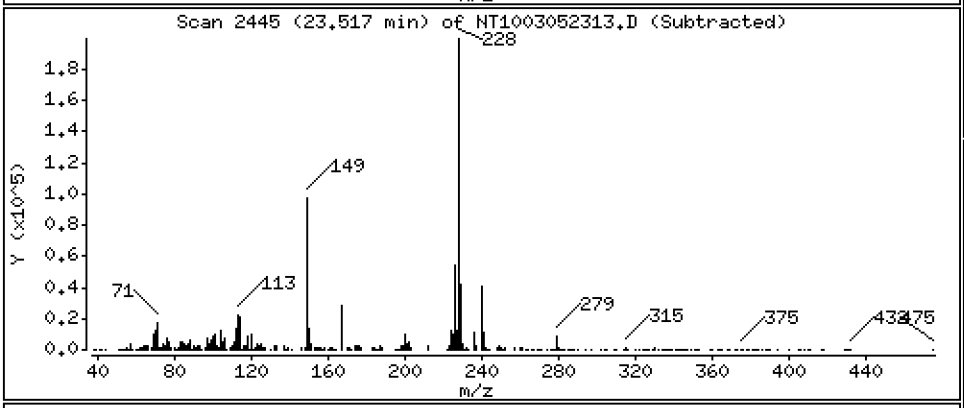
Sample Info: 23A0313-08

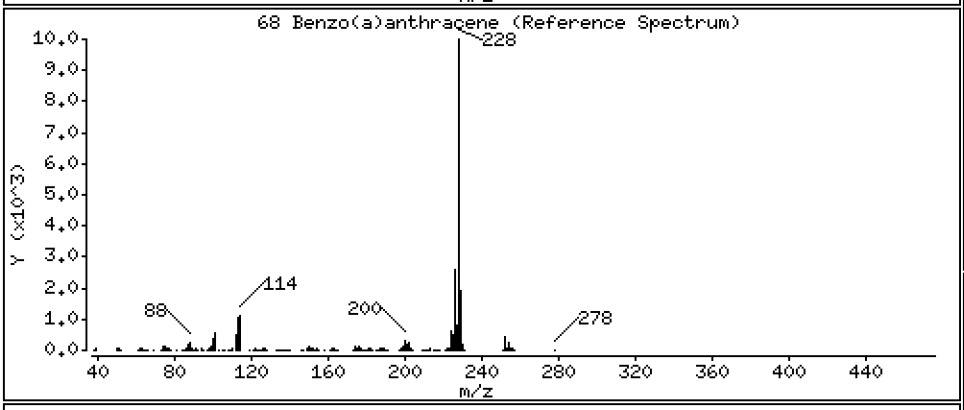
Operator: VTS

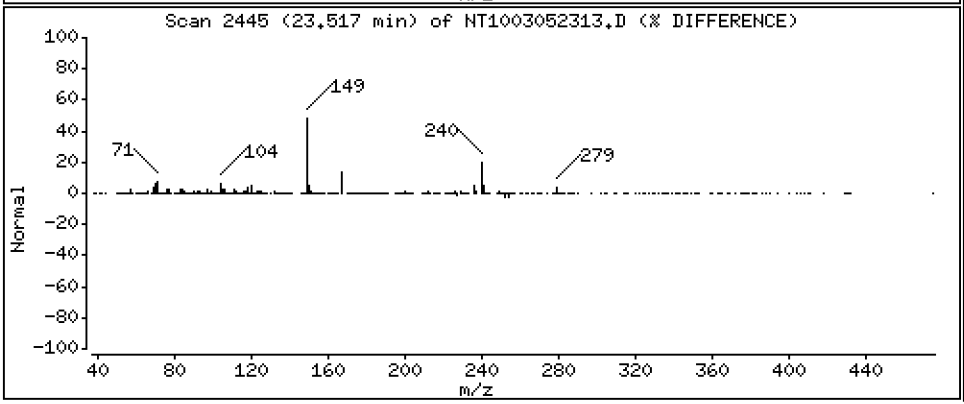
Column phase: ZB-5msi Column diameter: 0.25

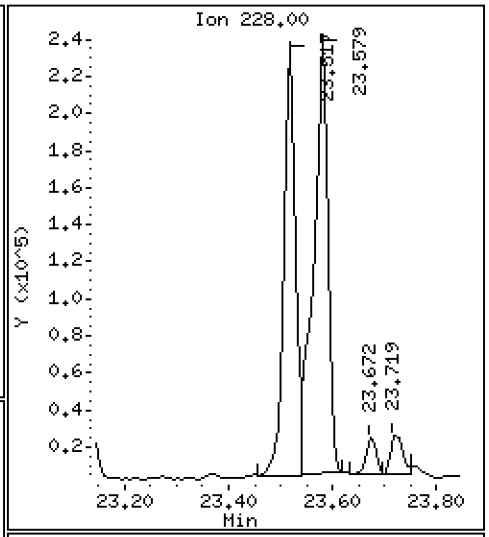
68 Benzo(a)anthracene Concentration: 1.105 ug/mL

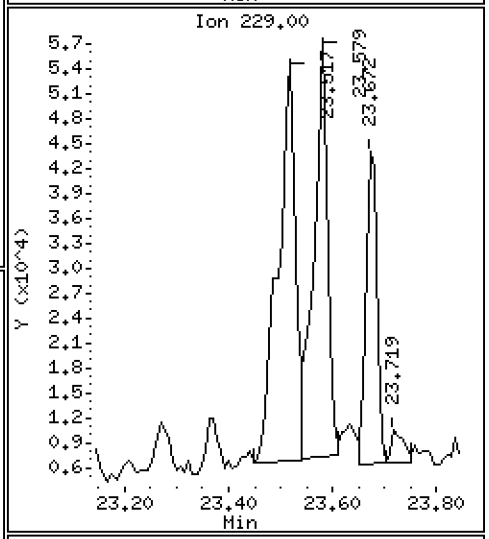


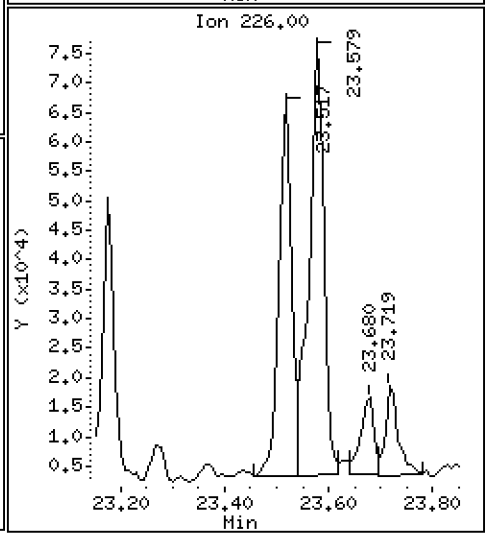












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

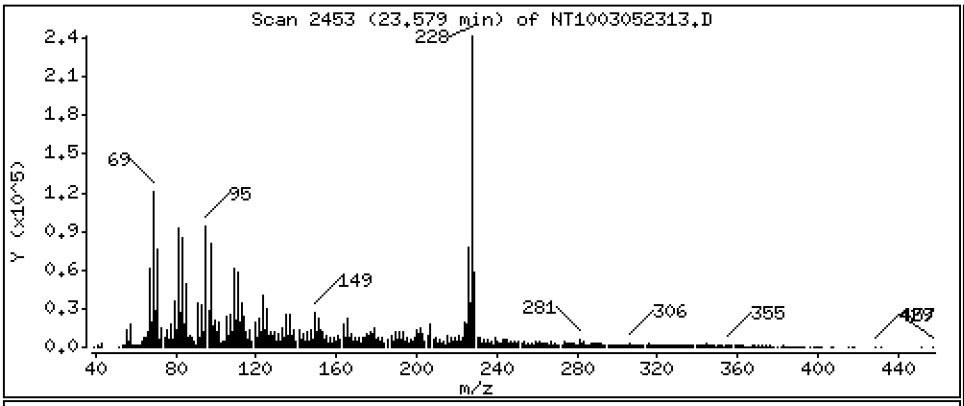
Operator: VTS

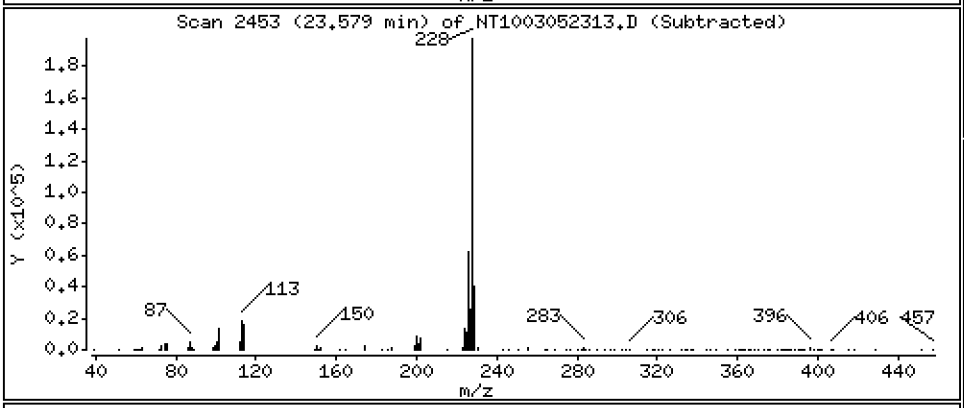
Column phase: ZB-5msi

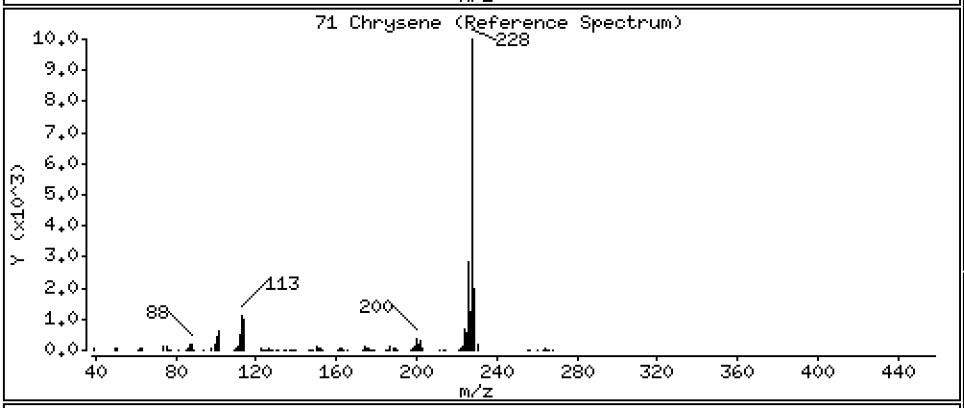
Column diameter: 0.25

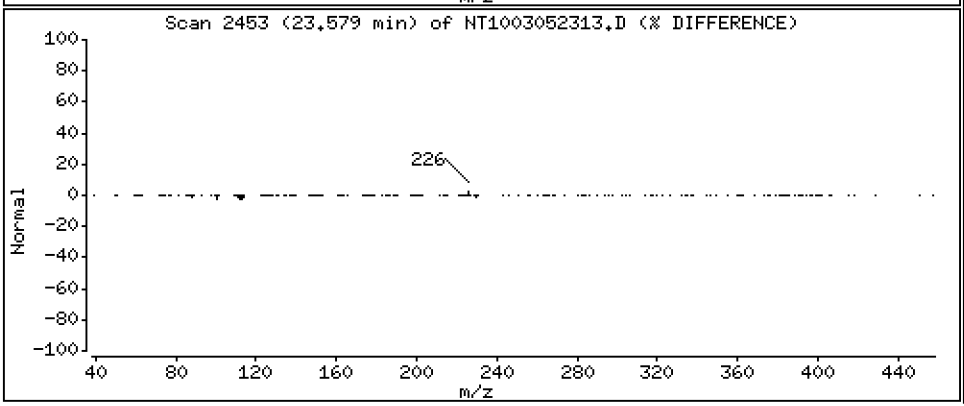
71 Chrysene

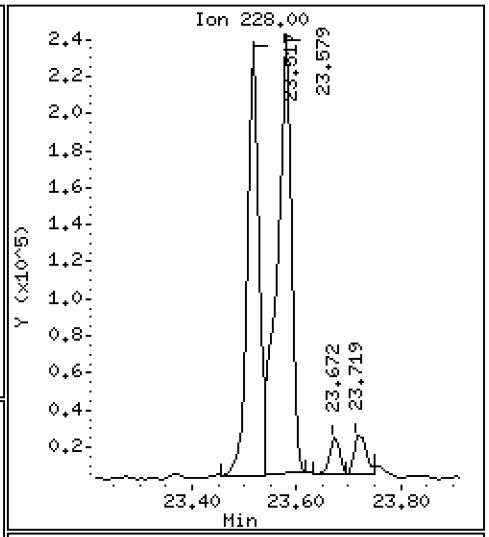
Concentration: 1.593 ug/mL

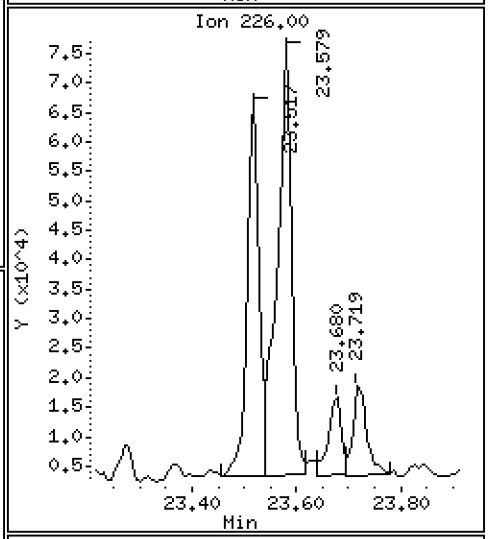


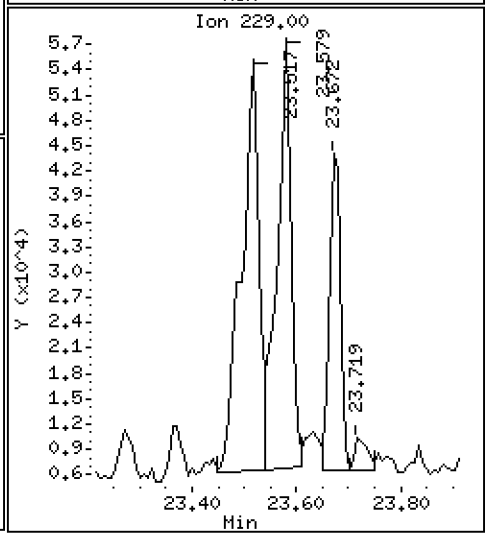












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

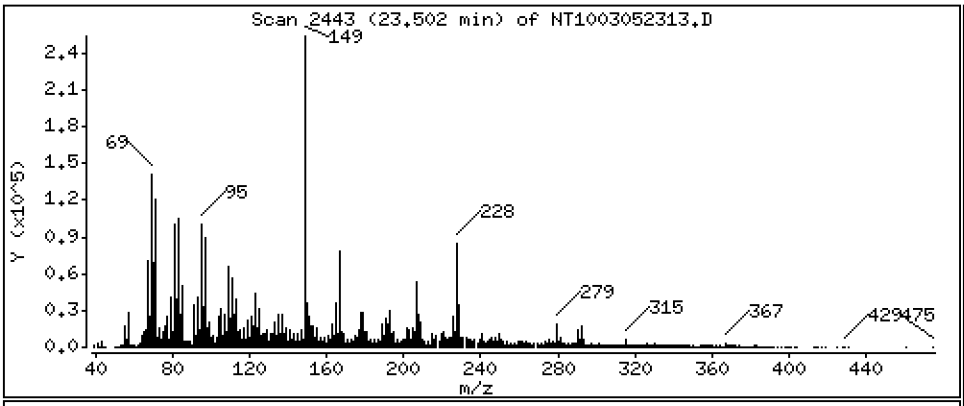
Operator: VTS

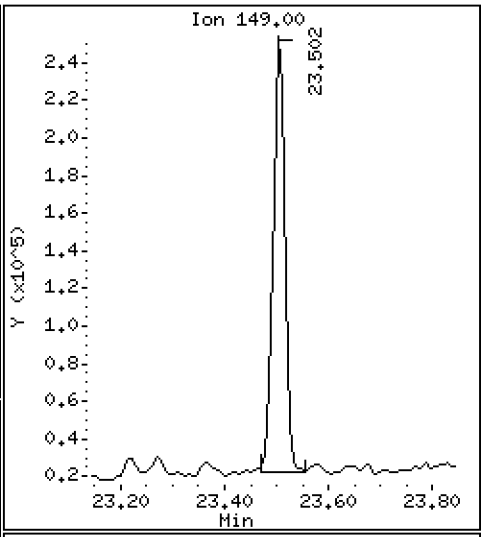
Column phase: ZB-5msi

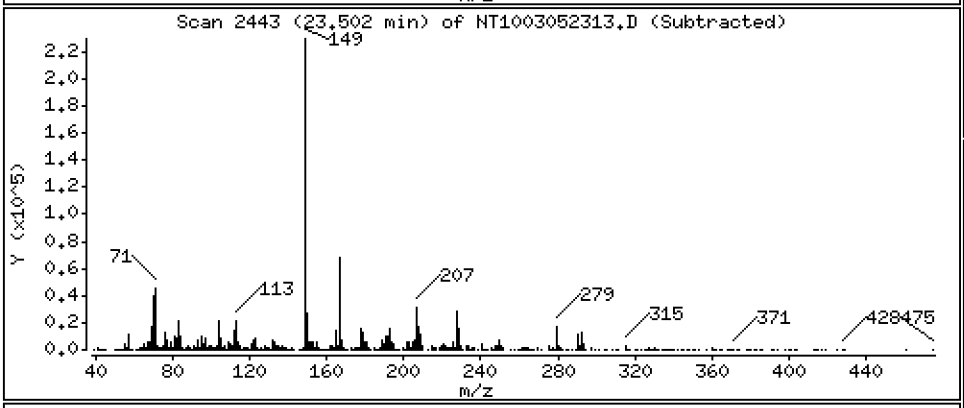
Column diameter: 0.25

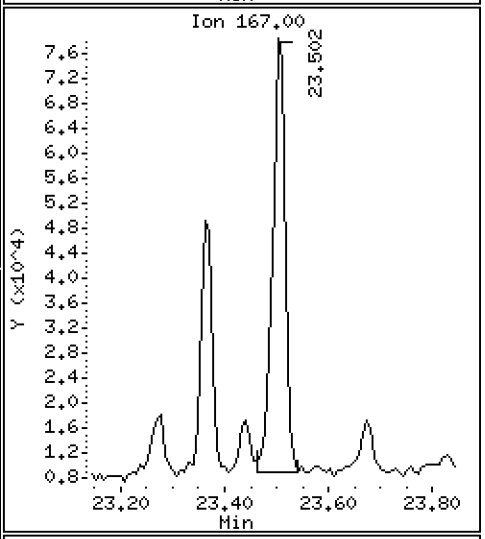
72 bis(2-Ethylhexyl)phthalate

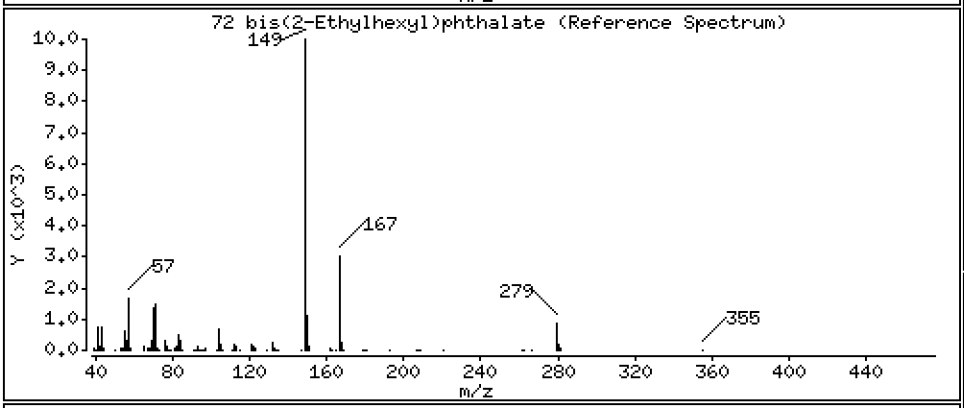
Concentration: 1.430 ug/mL

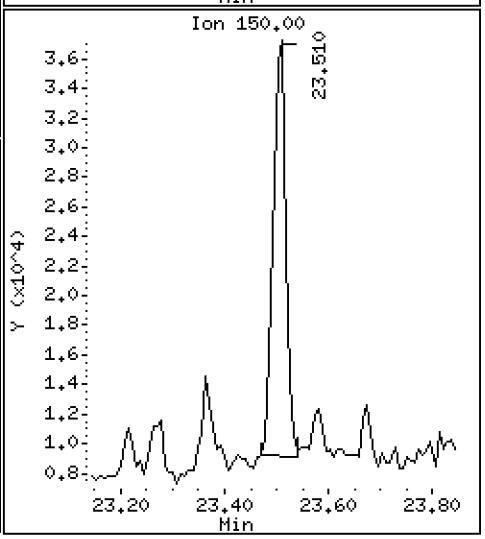


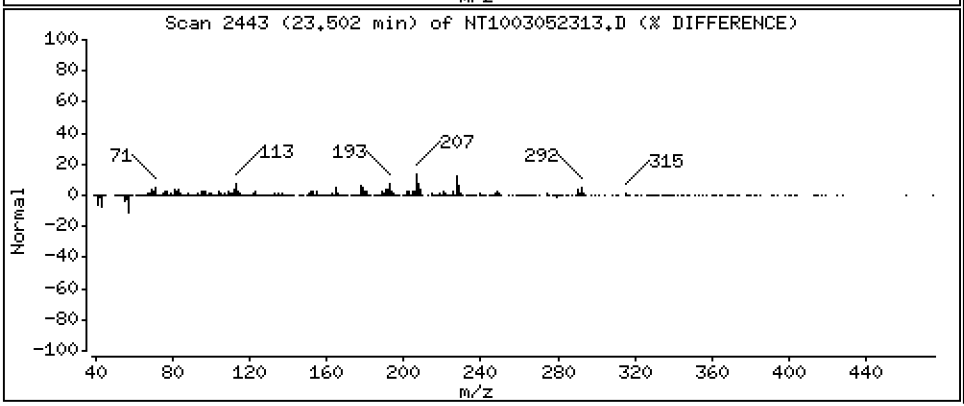












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

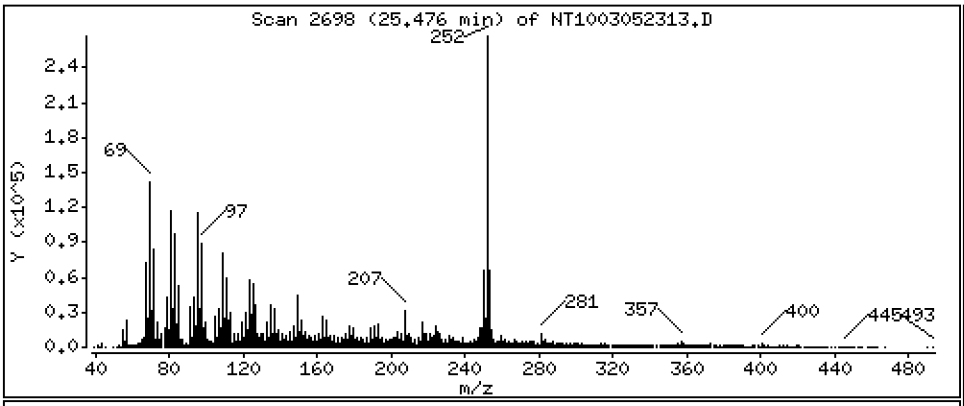
Operator: VTS

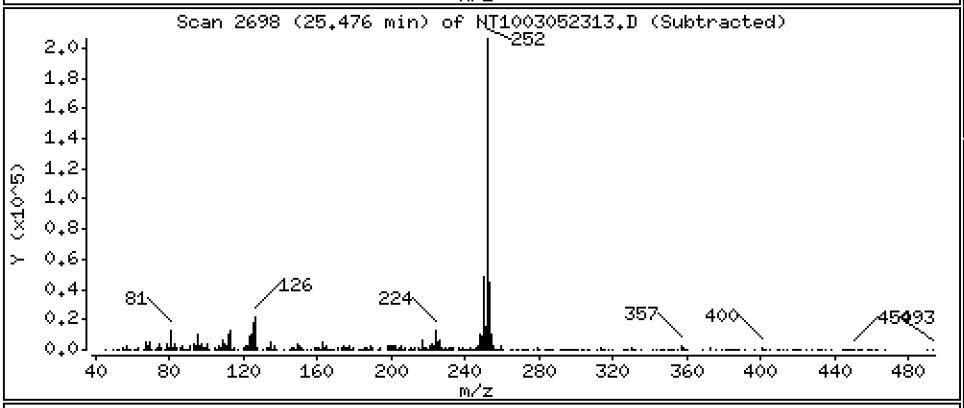
Column phase: ZB-5msi

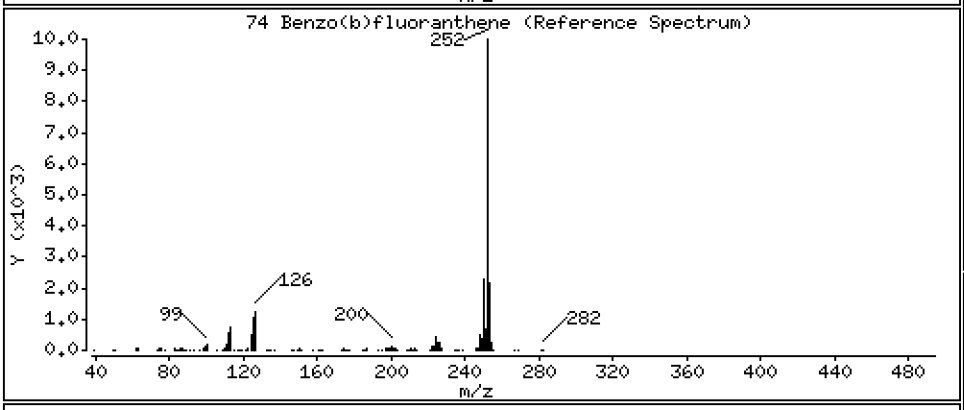
Column diameter: 0.25

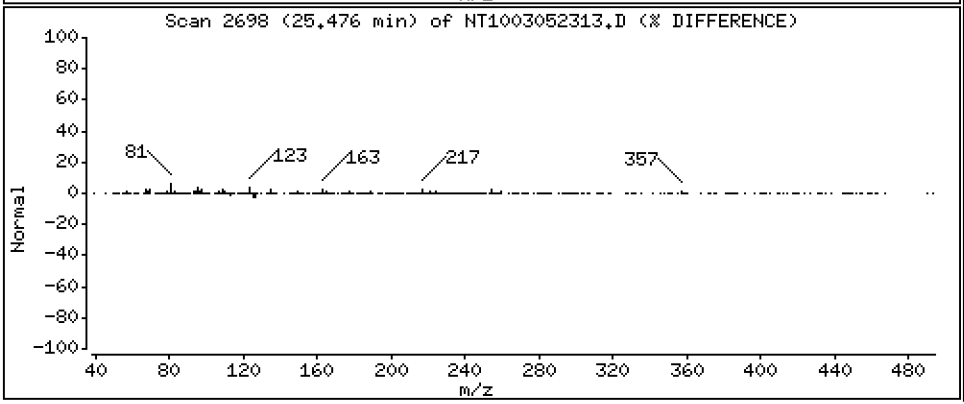
74 Benzo(b)fluoranthene

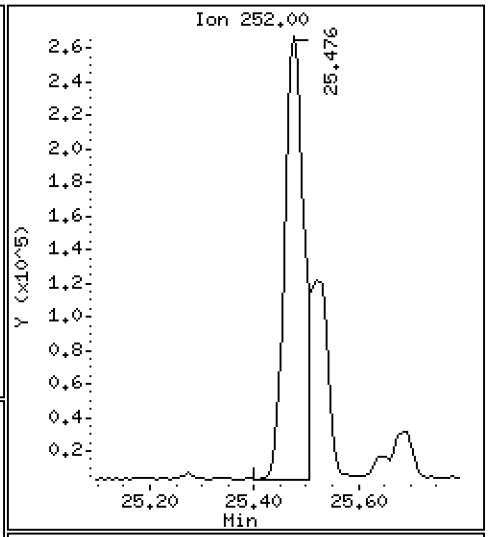
Concentration: 1.786 ug/mL

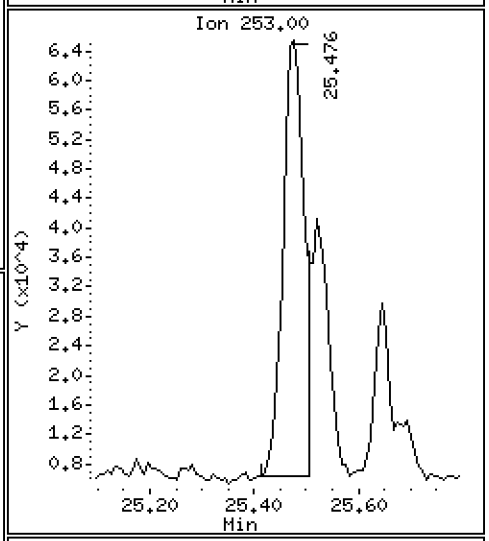


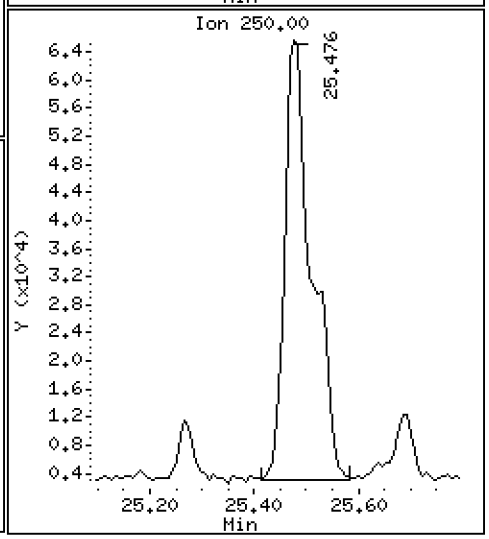












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

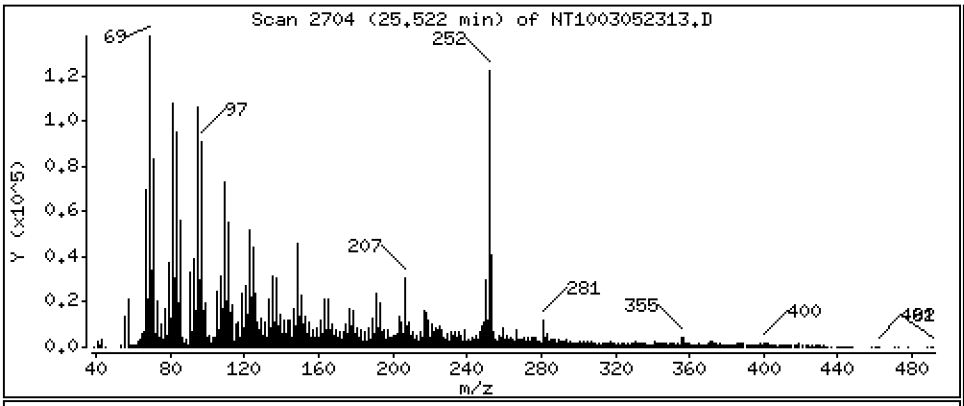
Operator: VTS

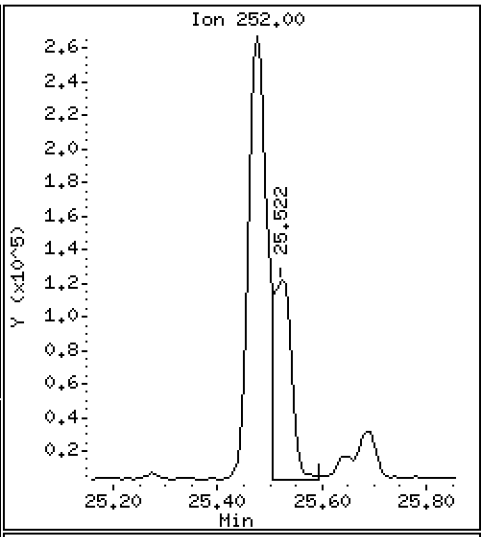
Column phase: ZB-5msi

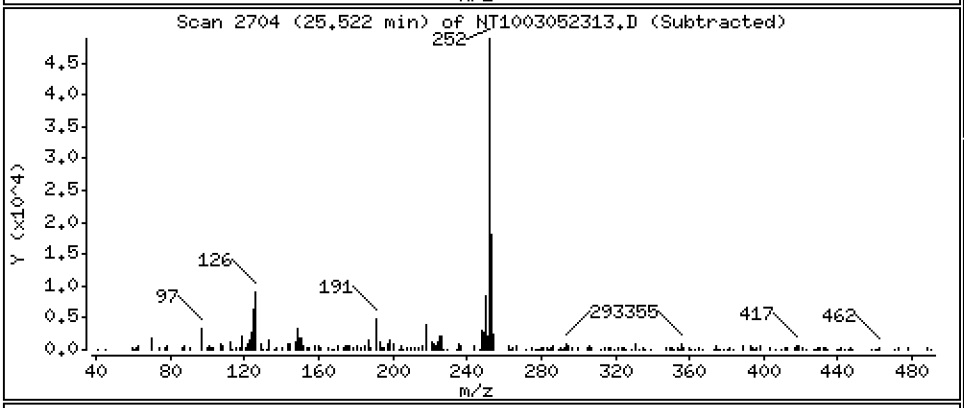
Column diameter: 0.25

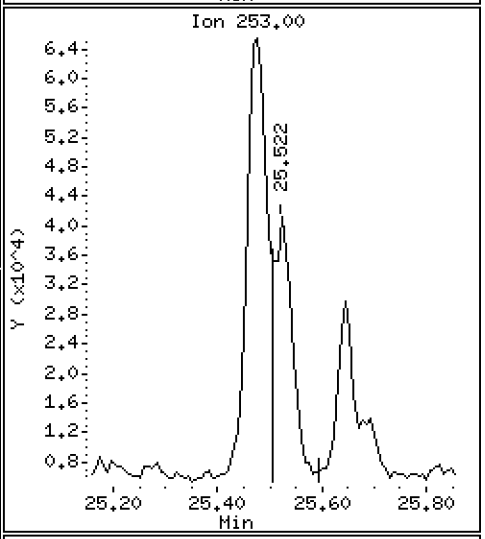
75 Benzo(k)fluoranthene

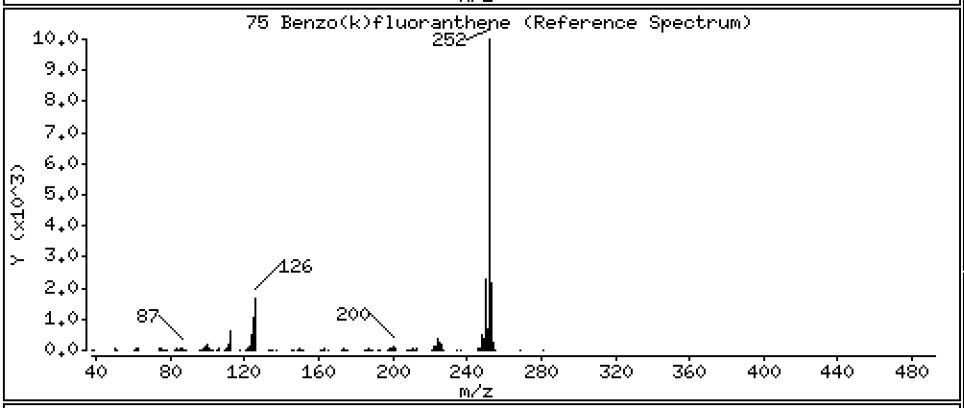
Concentration: 0.7903 ug/mL

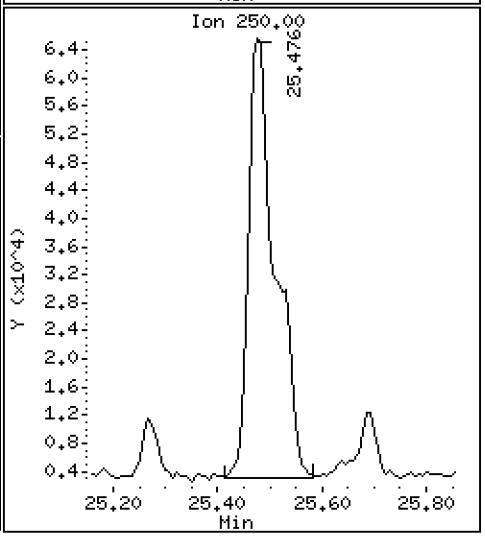


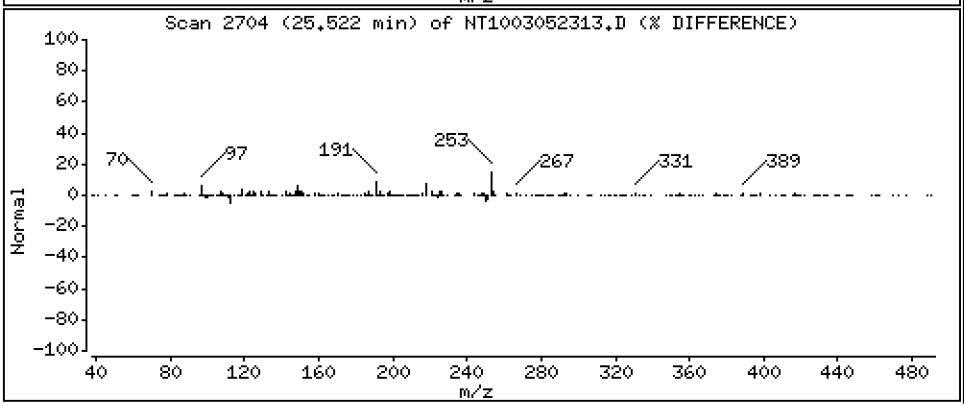












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

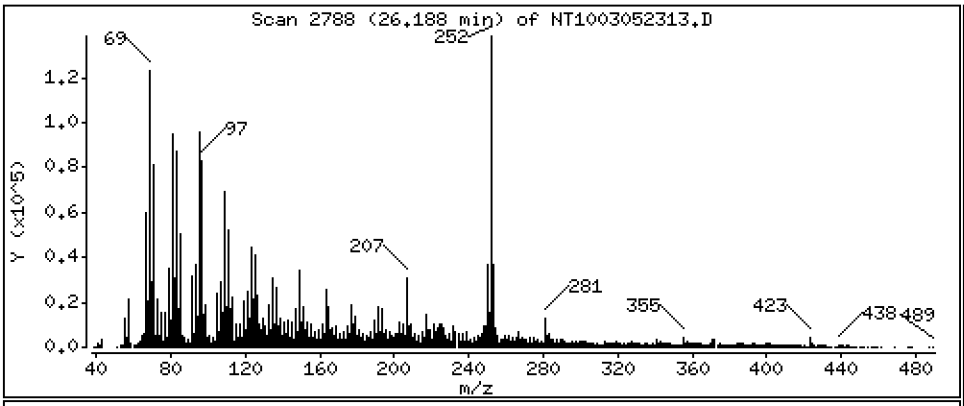
Operator: VTS

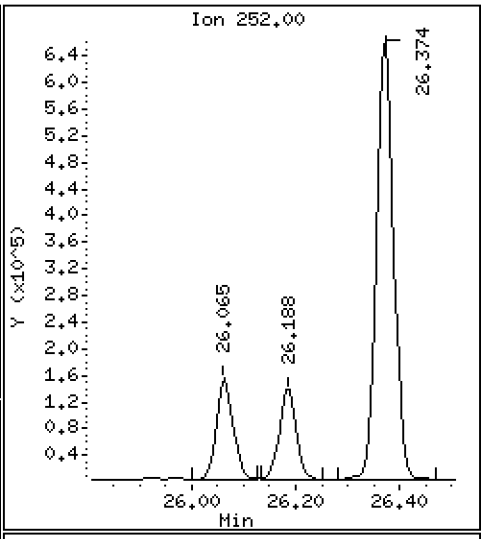
Column phase: ZB-5msi

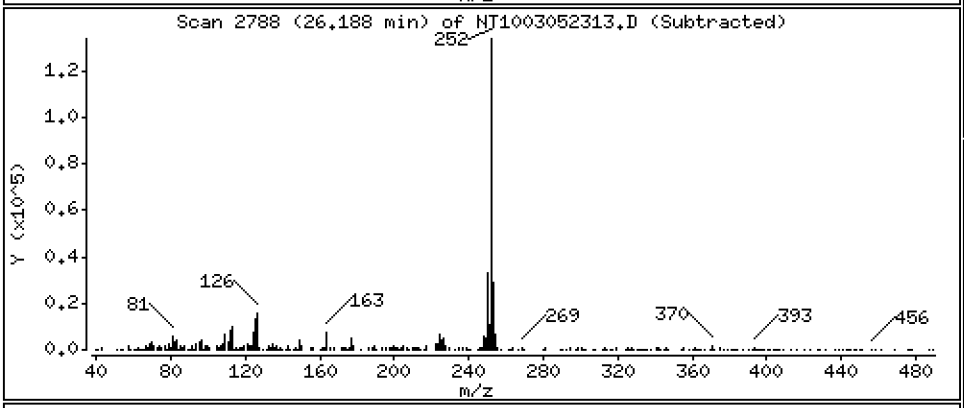
Column diameter: 0.25

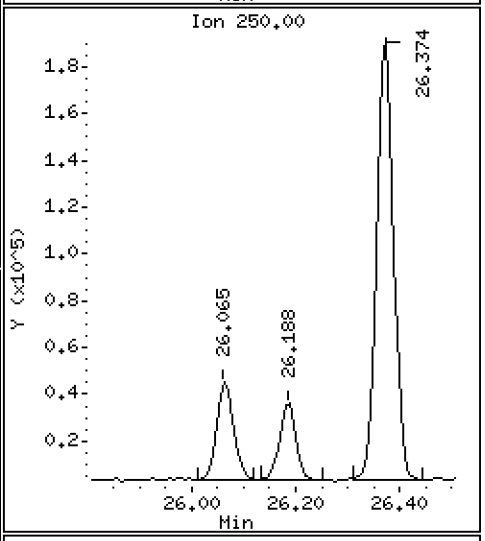
76 Benzo(a)pyrene

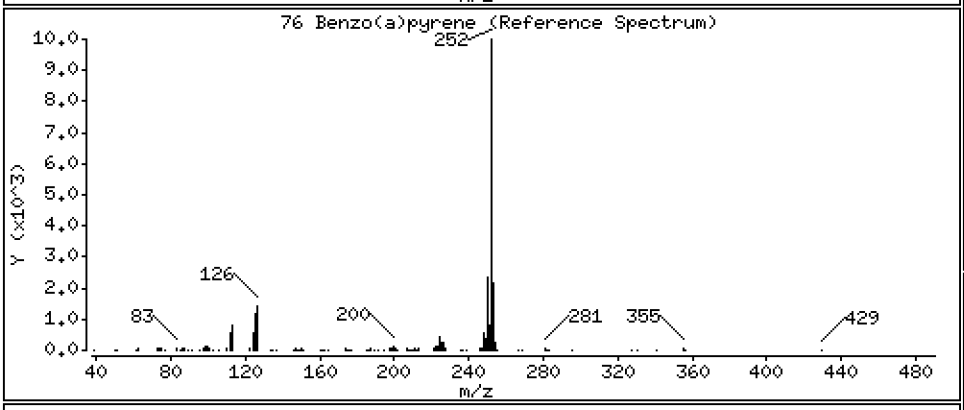
Concentration: 0.9015 ug/mL

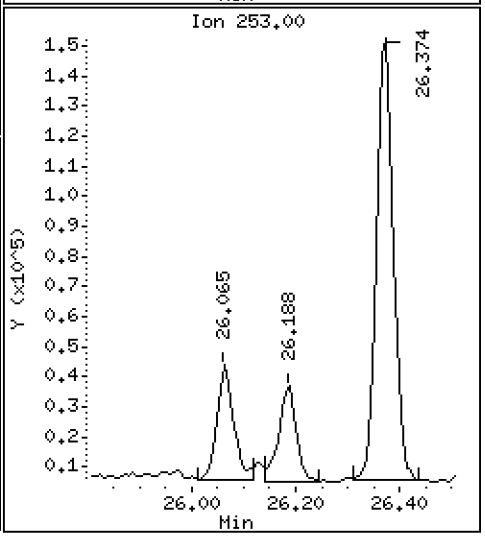


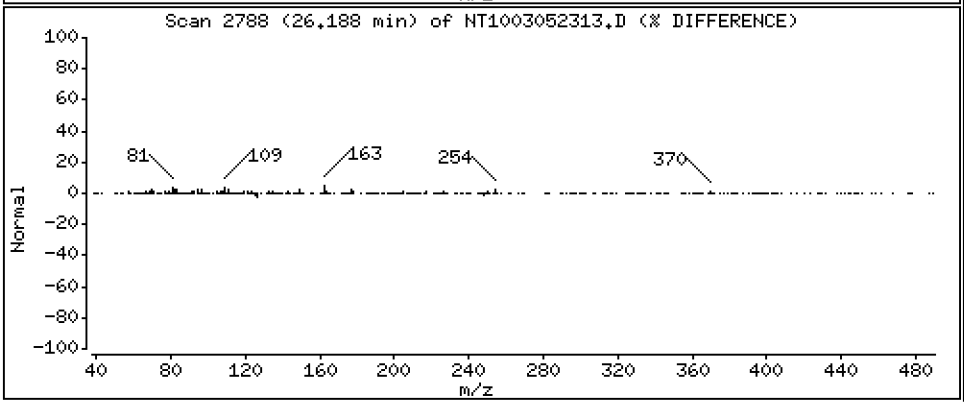












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

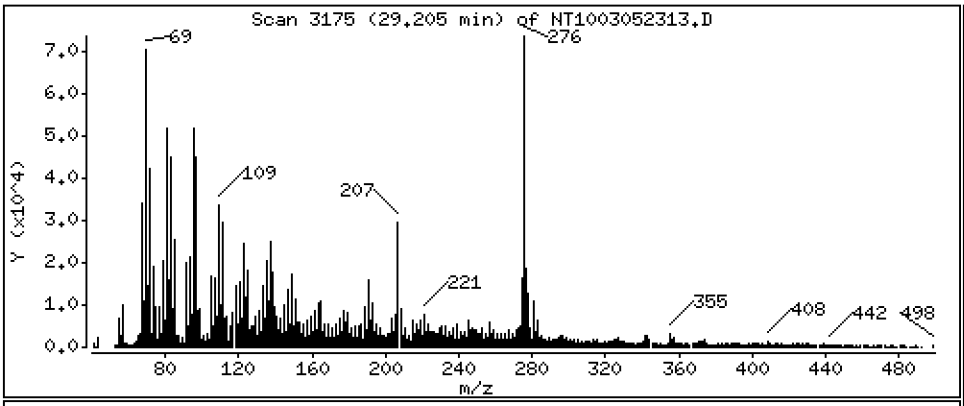
Operator: VTS

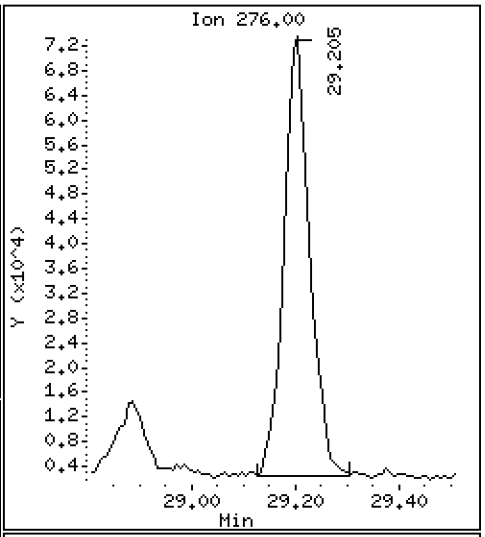
Column phase: ZB-5msi

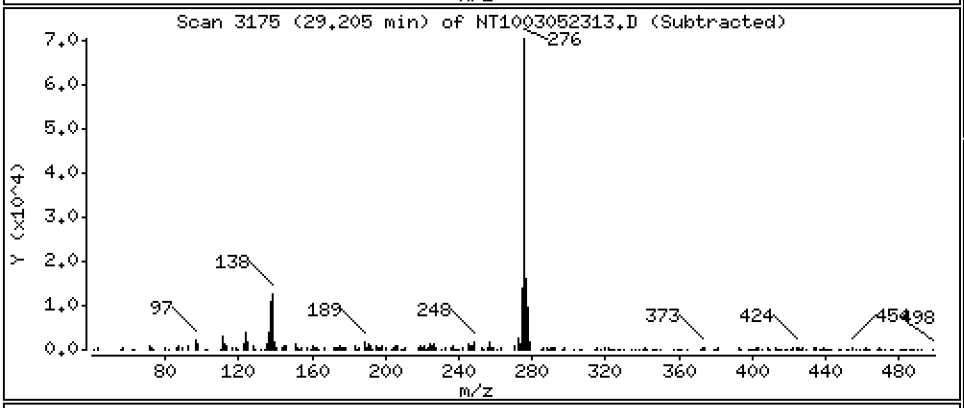
Column diameter: 0.25

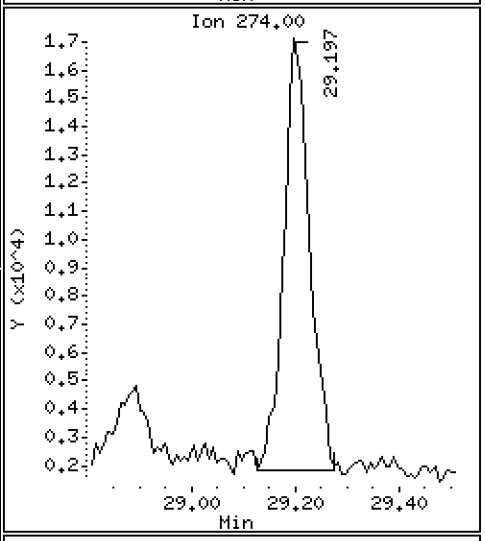
78 Indeno(1,2,3-cd)pyrene

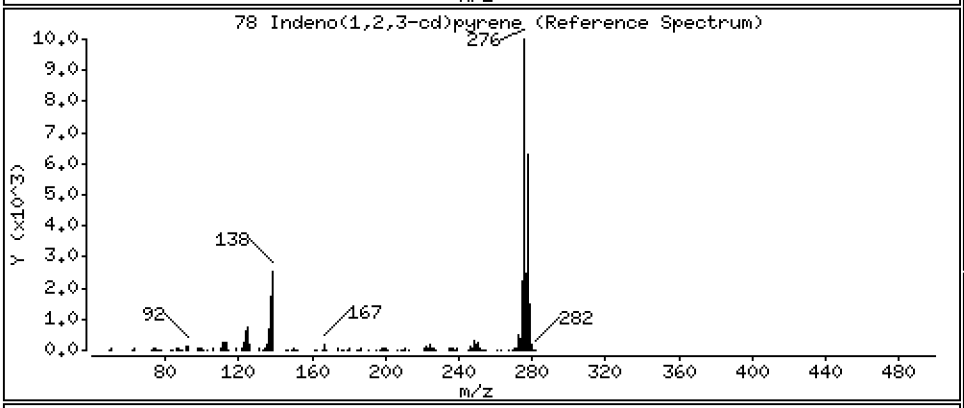
Concentration: 0.6199 ug/mL

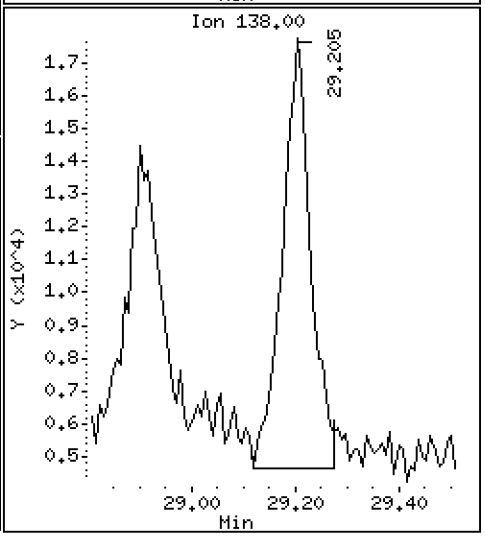


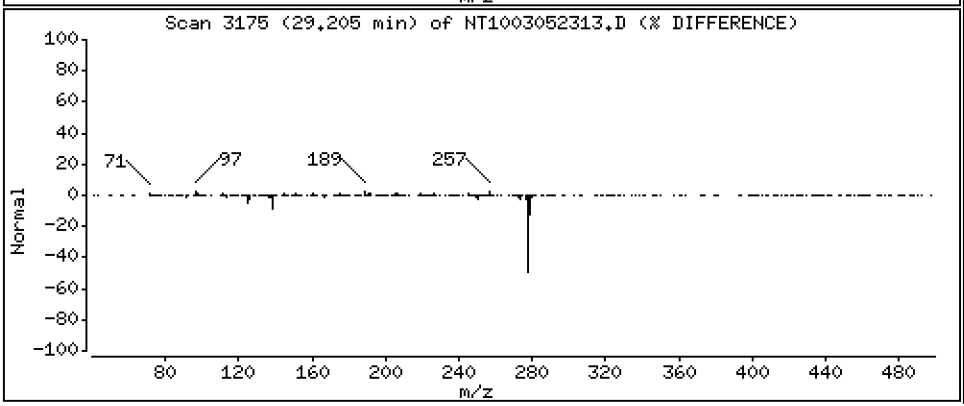












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

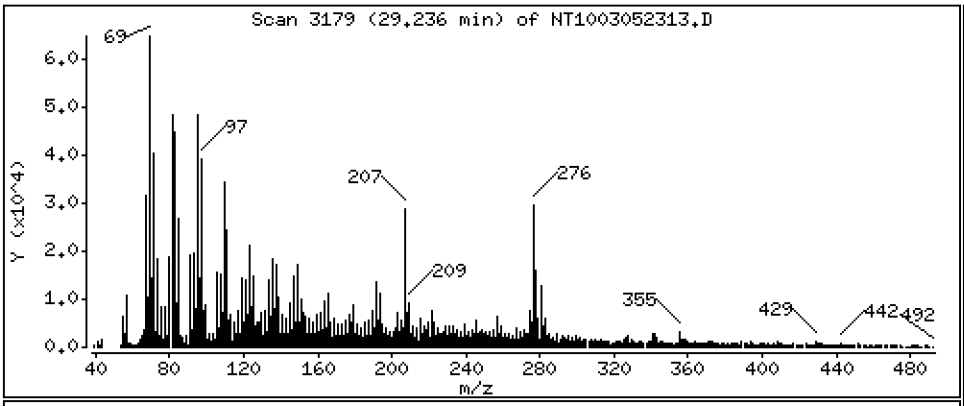
Operator: VTS

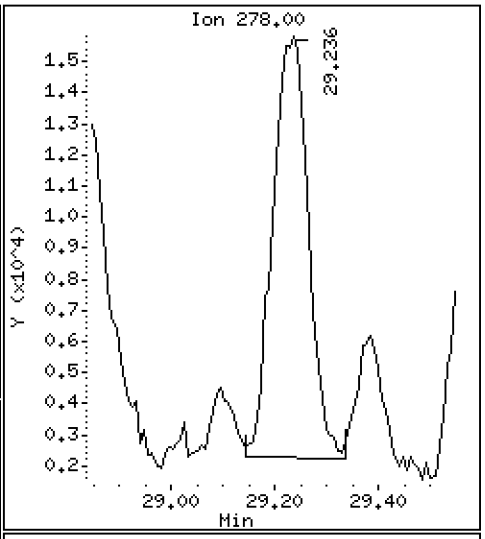
Column phase: ZB-5msi

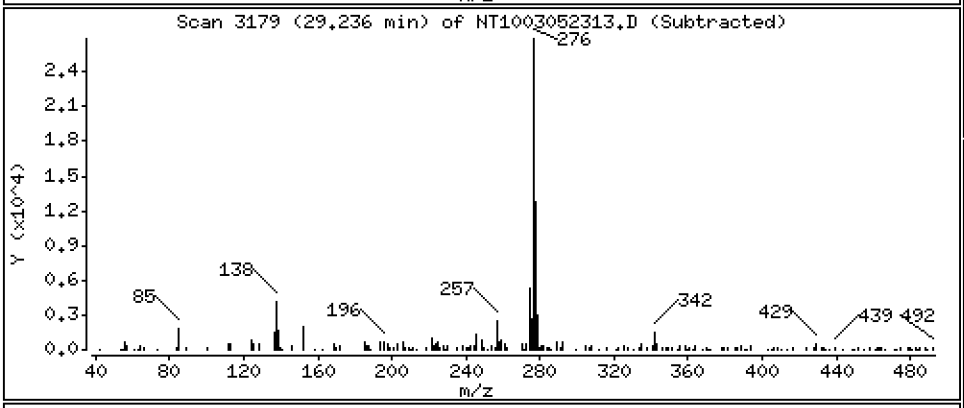
Column diameter: 0.25

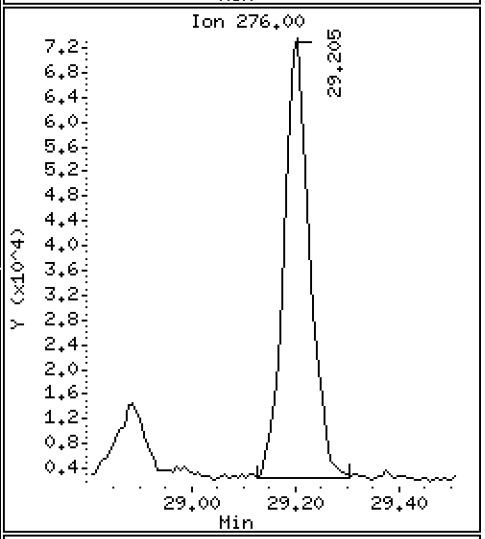
79 Dibenzo(a,h)anthracene

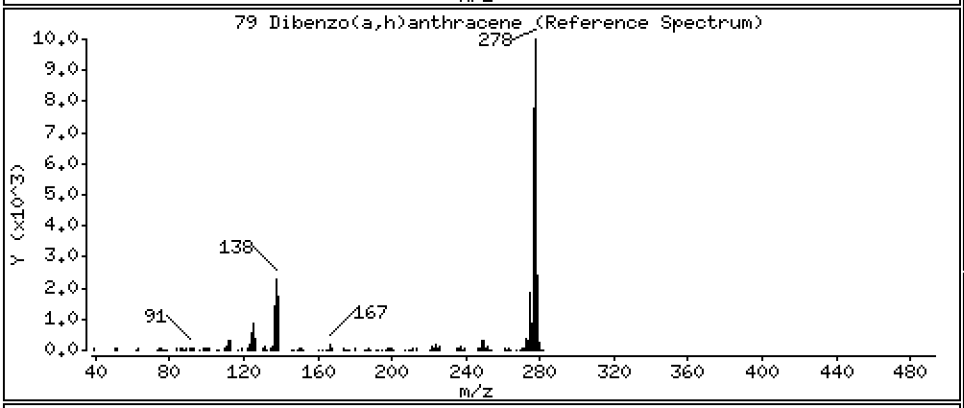
Concentration: 0.2138 ug/mL

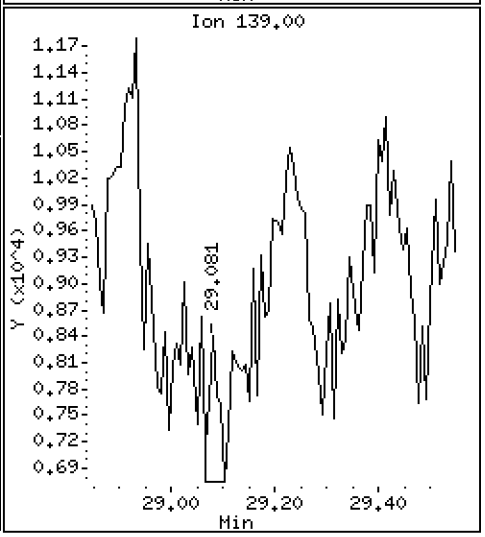


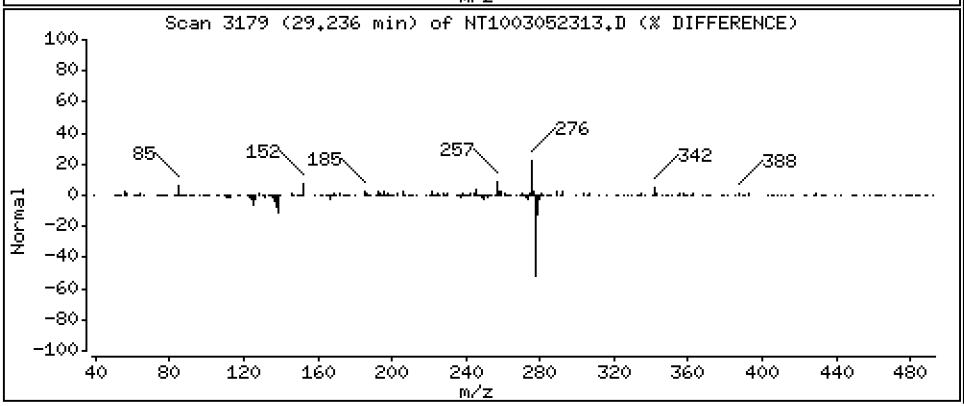












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

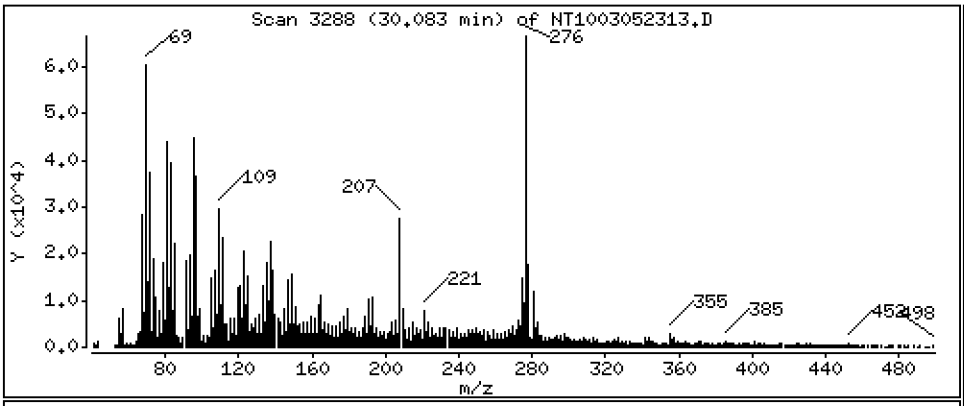
Operator: VTS

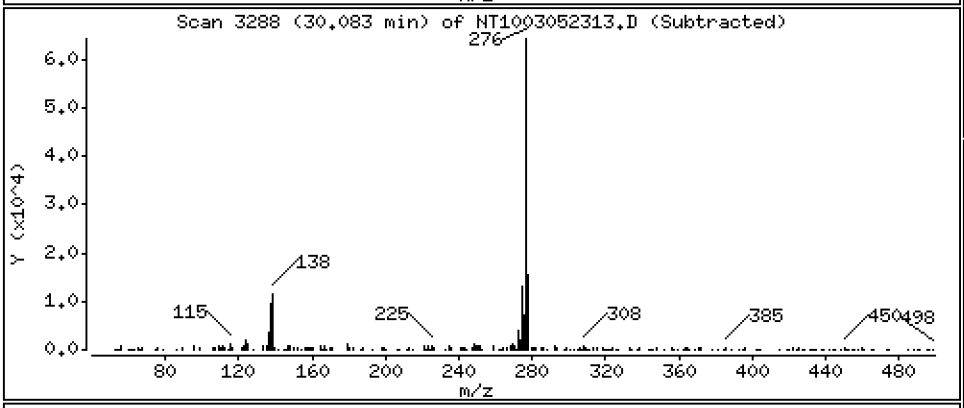
Column phase: ZB-5msi

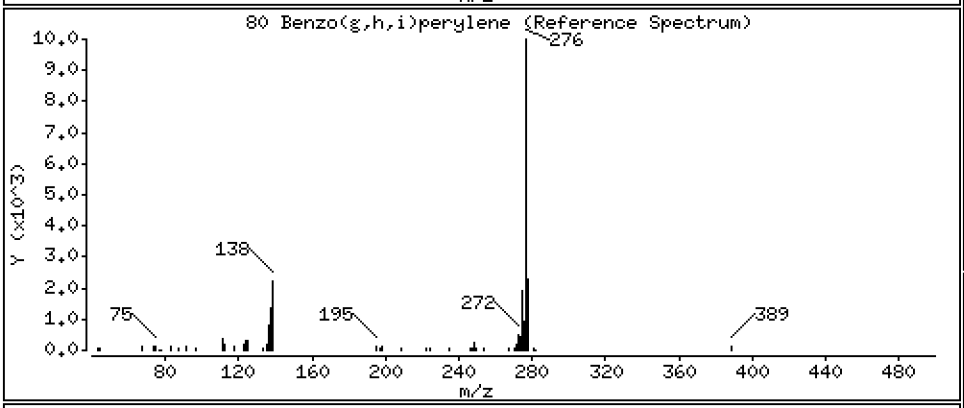
Column diameter: 0.25

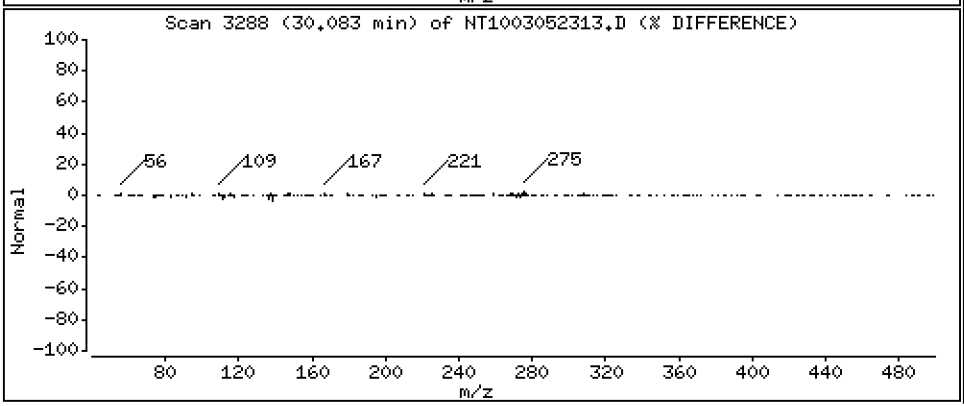
80 Benzo(g,h,i)perylene

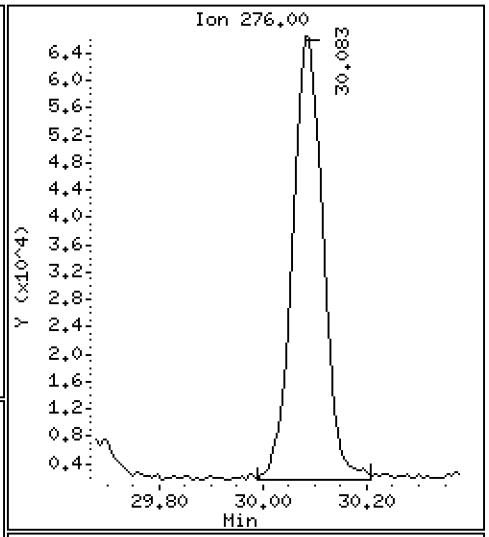
Concentration: 0.8230 ug/mL

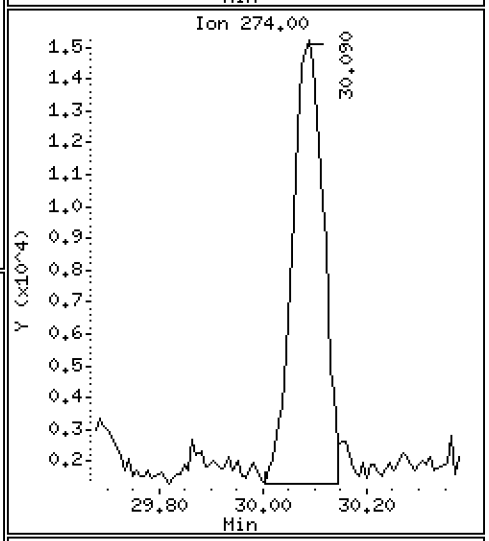


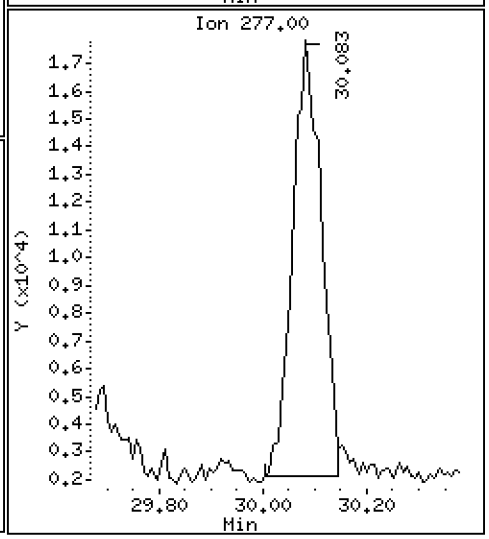












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

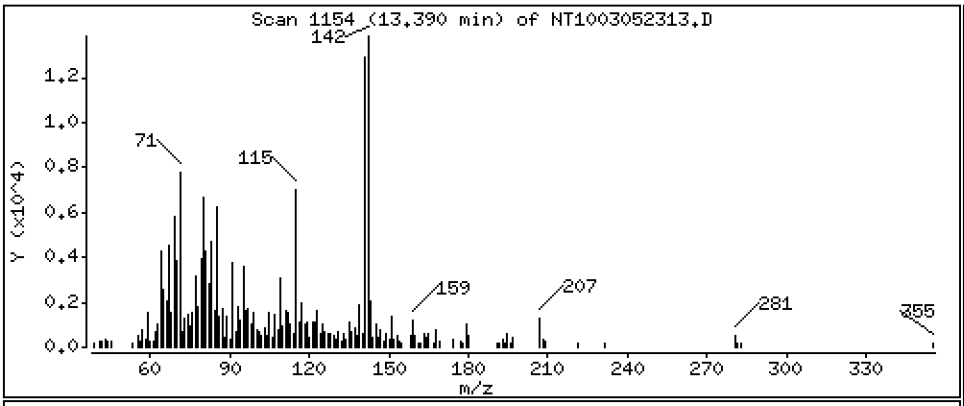
Operator: VTS

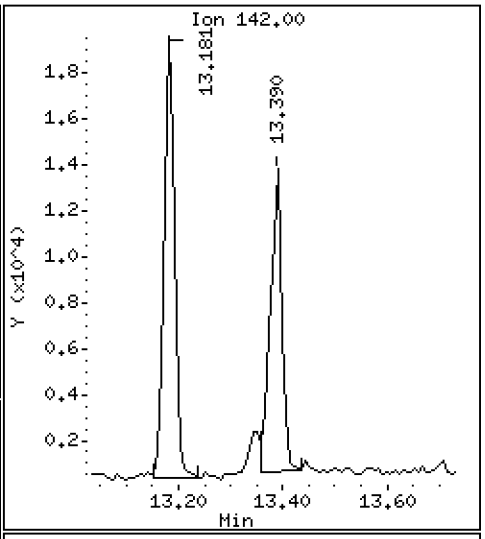
Column phase: ZB-5msi

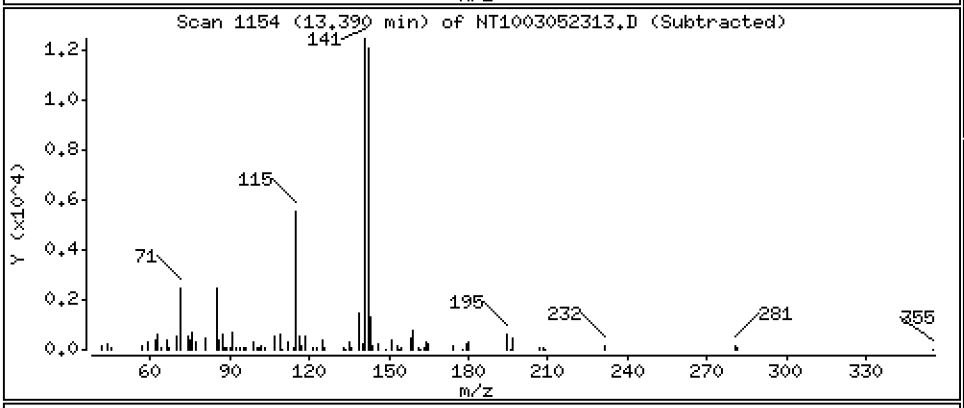
Column diameter: 0.25

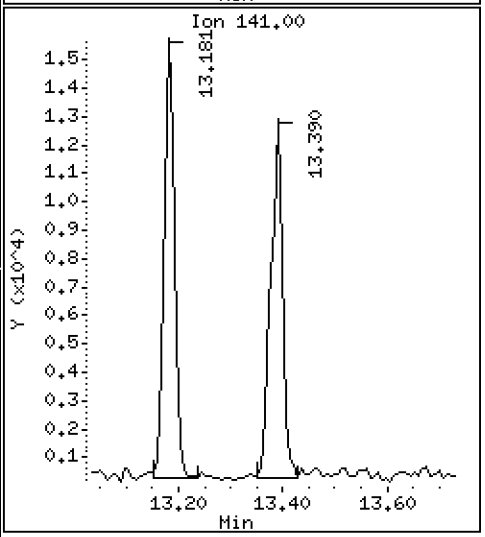
105 1-methylnaphthalene

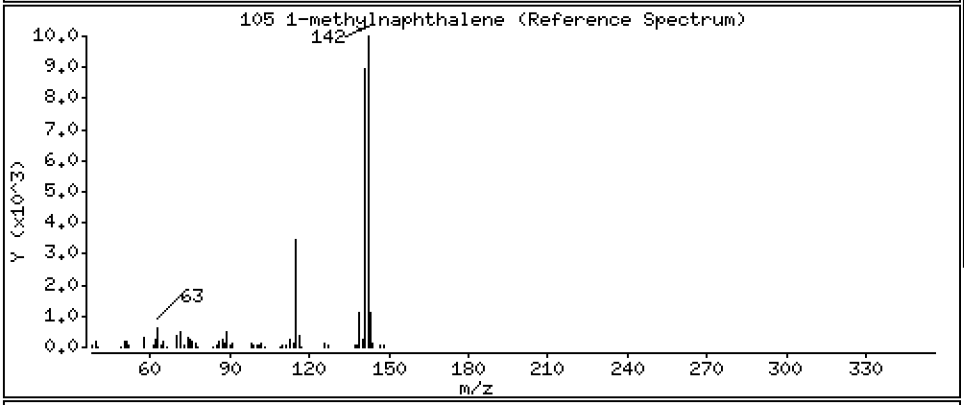
Concentration: 0.1065 ug/mL

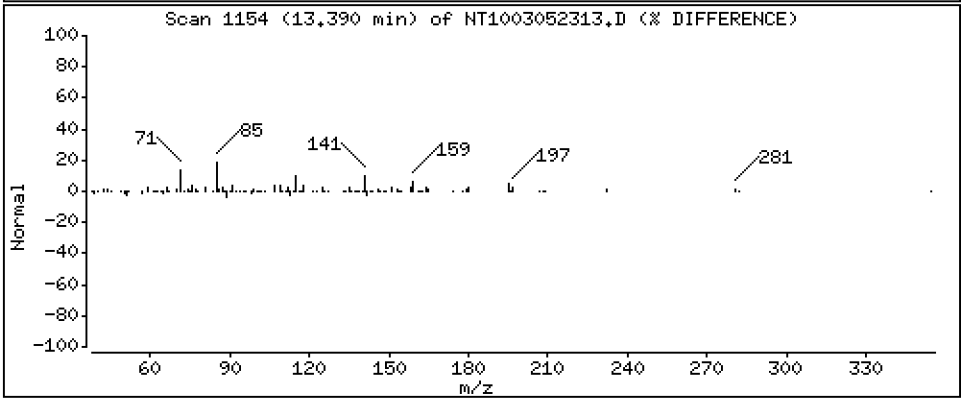












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

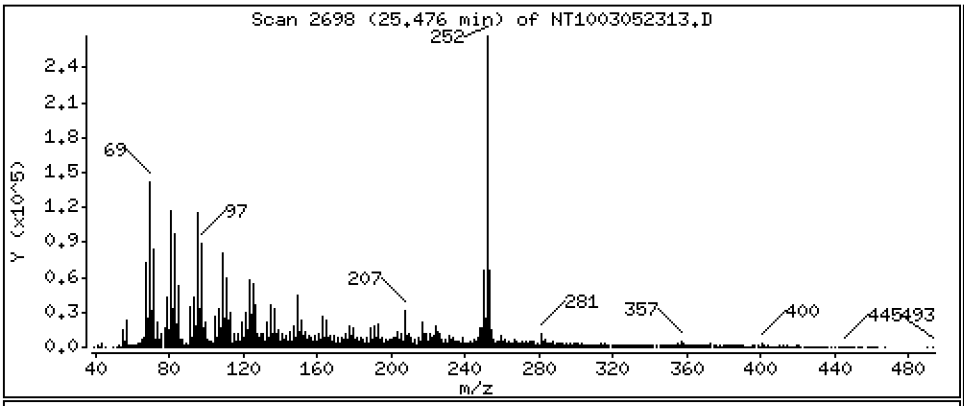
Operator: VTS

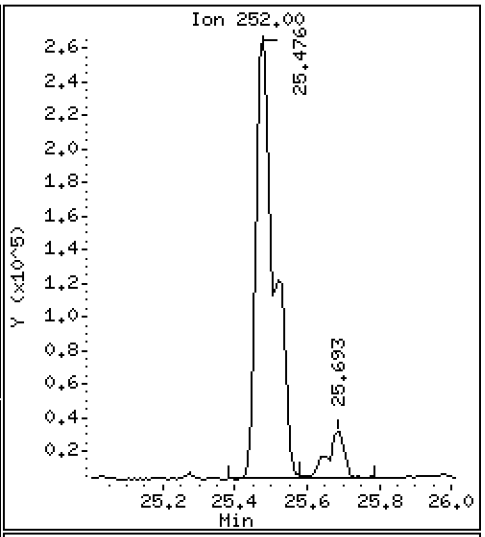
Column phase: ZB-5msi

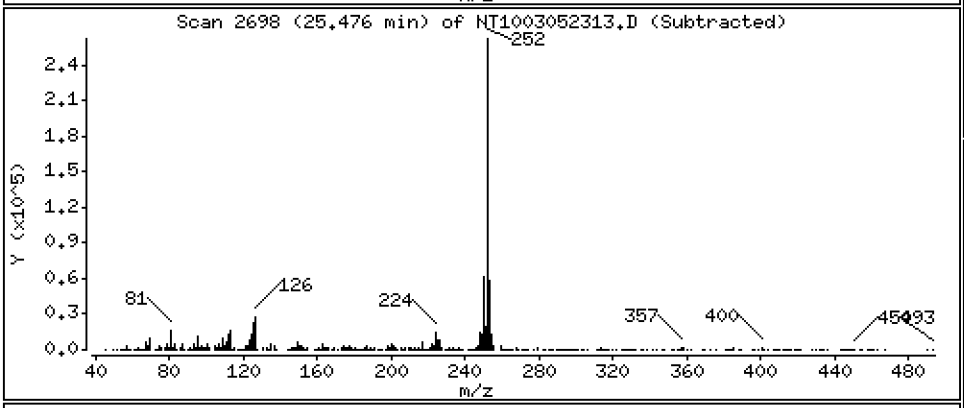
Column diameter: 0.25

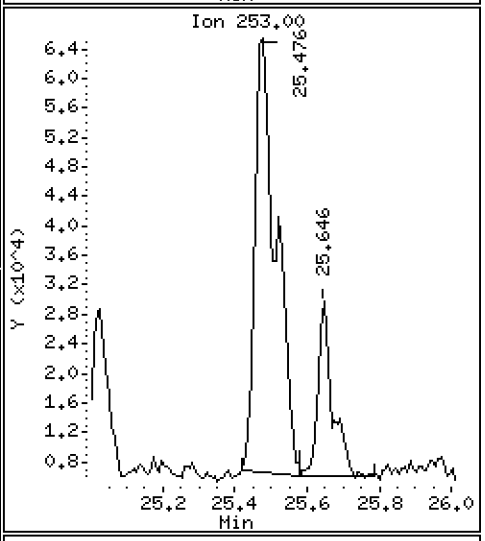
187 Total Benzofluoranthenes

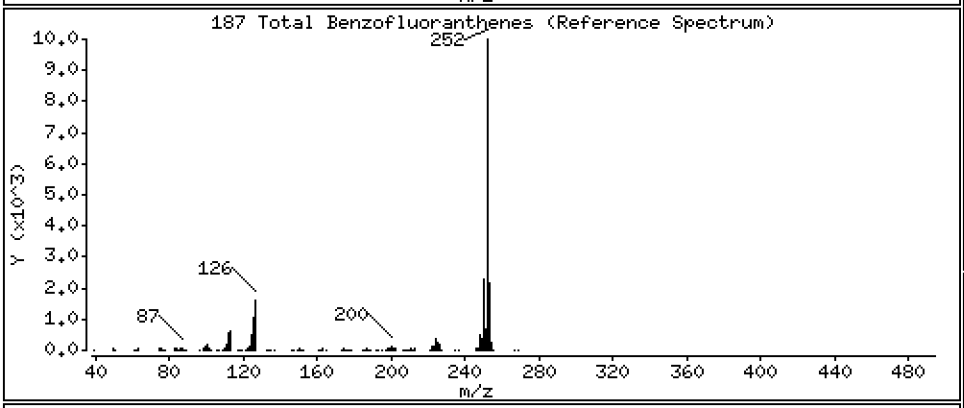
Concentration: 2.498 ug/mL

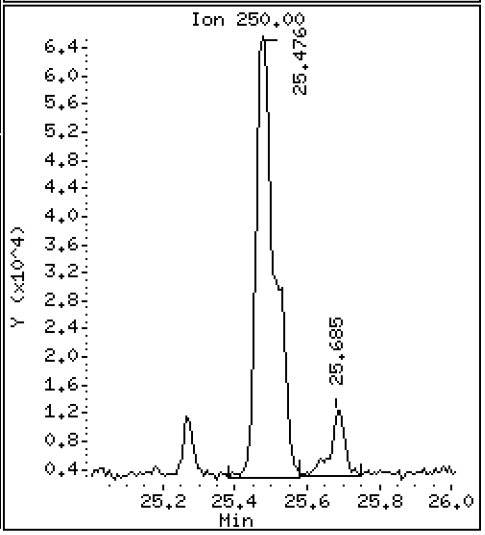


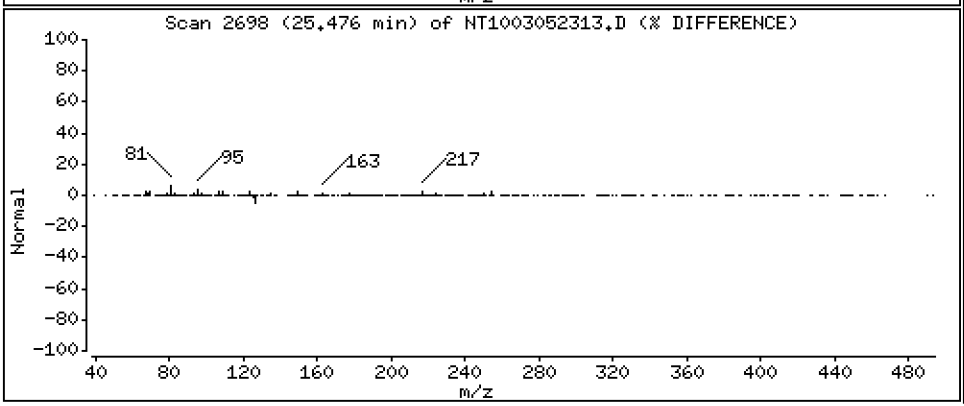












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305.b\NT1003052313.D
Lab Smp Id: 23A0313-08
Inj Date : 05-MAR-2023 21:00
Operator : VTS Inst ID: nt10.i
Smp Info : 23A0313-08
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305.b\ABN.m
Meth Date : 27-Mar-2023 11:22 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
$	1	2-Fluorophenol	112	6.920	6.897	(0.748)	553012	5.62074	5.621
$	2	Phenol-d5	99	8.512	8.504	(0.921)	733075	6.41768	6.418
	3	Phenol	94	8.543	8.528	(0.924)	31693	0.26096	0.2610
$	5	2-Chlorophenol-d4	132	8.829	8.813	(0.955)	627509	6.43891	6.439
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	9.247	9.239	(1.000)	312712	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	9.542	9.534	(1.032)	269426	3.70033	3.700
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	9.495	9.480	(1.027)	11807	0.18957	0.1896(H)
	14	2,2'-oxybis(1-Chloropropane)	121	9.720	9.728	(1.051)	13888	0.44886	0.4489
	13	2-Methylphenol	108	9.681	9.666	(1.047)	7030	0.07475	0.07475
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15	4-Methylphenol	108	9.976	9.953	(1.079)	13702	0.11611	0.1161
$	18	Nitrobenzene-d5	82	10.302	10.302	(0.878)	534483	4.33717	4.337
	19	Nitrobenzene	77	Compound Not Detected.					
	20	Isophorone	82	Compound Not Detected.					
	21	2-Nitrophenol	139	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24	Benzoic acid	105	Compound Not Detected.					
	25	2,4-Dichlorophenol	162	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	11.734	11.726	(1.000)	1122631	4.00000	
	28	Naphthalene	128	11.780	11.773	(1.004)	49572	0.17204	0.1720
	29	4-Chloroaniline	127	Compound Not Detected.					
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32	2-Methylnaphthalene	142	13.181	13.181	(1.123)	28392	0.13948	0.1395
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$ 36	2-Fluorobiphenyl	172	13.931	13.924	(0.908)	943559	4.54566	4.546
37	2-Chloronaphthalene	162	Compound Not Detected.					
38	2-Nitroaniline	65	Compound Not Detected.					
39	Dimethylphthalate	163	14.767	14.767	(0.963)	12237	0.06511	0.06511(H)
40	Acenaphthylene	152	15.054	15.046	(0.981)	31593	0.11246	0.1125
41	2,6-Dinitrotoluene	165	Compound Not Detected.					
* 42	Acenaphthene-d10	164	15.340	15.340	(1.000)	581958	4.00000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	15.409	15.409	(1.005)	20146	0.11891	0.1189
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	15.773	15.765	(1.028)	39987	0.15902	0.1590
47	4-Nitrophenol	109	Compound Not Detected.					
48	2,4-Dinitrotoluene	165	Compound Not Detected.					
50	Diethylphthalate	149	16.237	16.237	(1.058)	31828	0.15986	0.1599
49	Fluorene	166	16.492	16.484	(1.075)	35911	0.17165	0.1716
51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$ 55	2,4,6-Tribromophenol	330	16.994	16.986	(1.108)	275173	7.30936	7.309
56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
57	Hexachlorobenzene	284	Compound Not Detected.					
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	18.463	18.448	(1.000)	1092541	4.00000	
60	Phenanthrene	178	18.510	18.502	(1.002)	235464	0.84214	0.8421
61	Anthracene	178	18.618	18.610	(1.008)	105580	0.38942	0.3894
62	Carbazole	167	18.958	18.943	(1.027)	38328	0.15431	0.1543
63	Di-n-butylphthalate	149	19.662	19.647	(1.065)	47675	0.14147	0.1415
64	Fluoranthene	202	20.931	20.885	(0.889)	575561	1.69787	1.698
65	Pyrene	202	21.357	21.318	(0.908)	665606	1.92829	1.928
$ 66	Terphenyl-d14	244	21.620	21.597	(0.919)	1078373	3.86099	3.861
67	Butylbenzylphthalate	149	22.503	22.487	(0.956)	18774	0.10099	0.1010
68	Benzo(a)anthracene	228	23.517	23.494	(0.999)	384074	1.10538	1.105
* 69	Chrysene-d12	240	23.532	23.517	(1.000)	985415	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.579	23.563	(1.002)	449919	1.59329	1.593
72	bis(2-Ethylhexyl)phthalate	149	23.501	23.494	(0.955)	359547	1.43049	1.430
* 134	Di-n-octylphthalate-d4	153	24.608	24.593	(1.000)	1778606	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	25.476	25.445	(0.968)	697244	1.78630	1.786
75	Benzo(k)fluoranthene	252	25.522	25.507	(0.970)	293833	0.79025	0.7903(M)
76	Benzo(a)pyrene	252	26.188	26.157	(0.995)	311503	0.90146	0.9015
* 77	Perylene-d12	264	26.312	26.281	(1.000)	1124941	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	29.204	29.158	(1.110)	249741	0.61988	0.6199
79	Dibenzo(a,h)anthracene	278	29.235	29.197	(1.111)	65052	0.21381	0.2138(M)
80	Benzo(g,h,i)perylene	276	30.082	30.028	(1.143)	264436	0.82296	0.8230
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	13.390	13.382	(1.141)	19617	0.10648	0.1065
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.476	25.507	(0.968)	931383	2.49810	2.498
120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052313.D
Lab Smp Id: 23A0313-08
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:03
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	297263	148632	594526	312712	5.20
27 Naphthalene-d8	1085336	542668	2170672	1122631	3.44
42 Acenaphthene-d10	563464	281732	1126928	581958	3.28
59 Phenanthrene-d10	1038318	519159	2076636	1092541	5.22
69 Chrysene-d12	1012751	506376	2025502	985415	-2.70
134 Di-n-octylphthala	1628890	814445	3257780	1778606	9.19
77 Perylene-d12	1152264	576132	2304528	1124941	-2.37

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.06
42 Acenaphthene-d10	15.34	14.84	15.84	15.34	-0.00
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.08
69 Chrysene-d12	23.52	23.02	24.02	23.53	0.07
134 Di-n-octylphthala	24.59	24.09	25.09	24.61	0.06
77 Perylene-d12	26.28	25.78	26.78	26.31	0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052313.D

Lab ID: 23A0313-08
nt10.i, 20230305.b\ABN.m,   05-MAR-2023 21:00

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

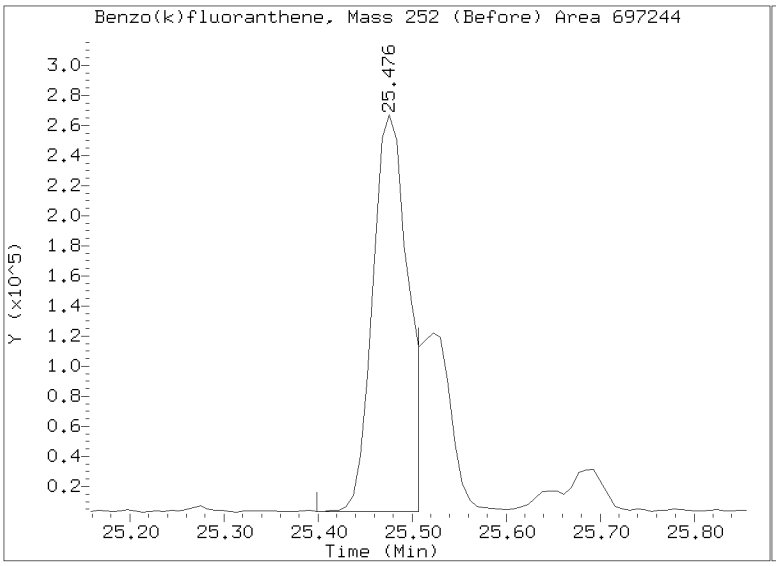
RRT check based on Ccal File: NT1003052302.D

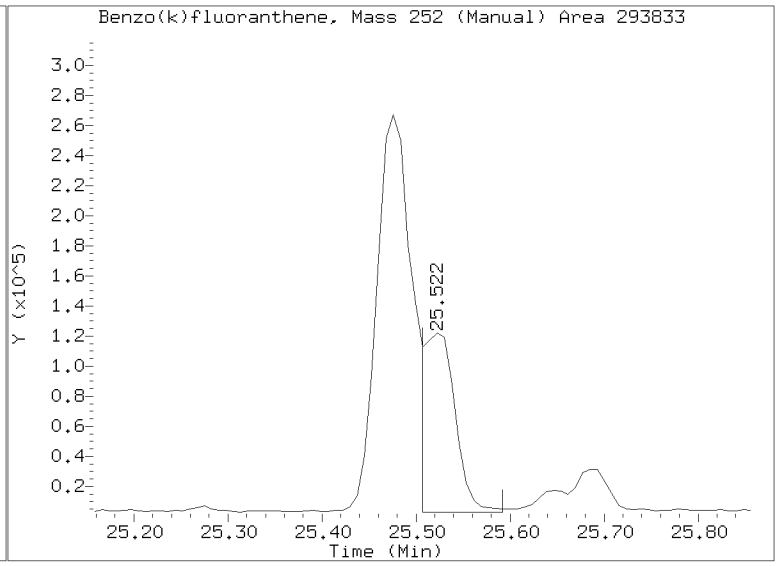
On Column LOD for nt10.i, 20230305.b\ABN.m, ICAL.sub = 0.0000

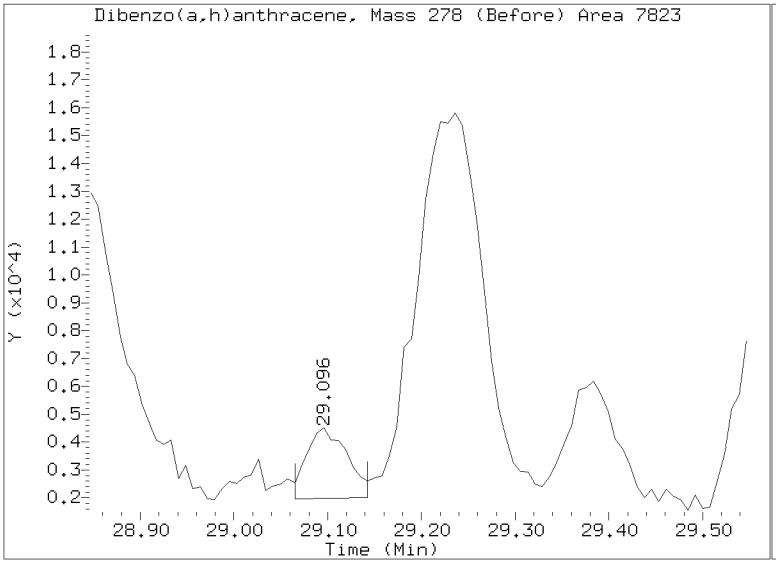
* Only compounds listed in the work order have been verified by the analyst *

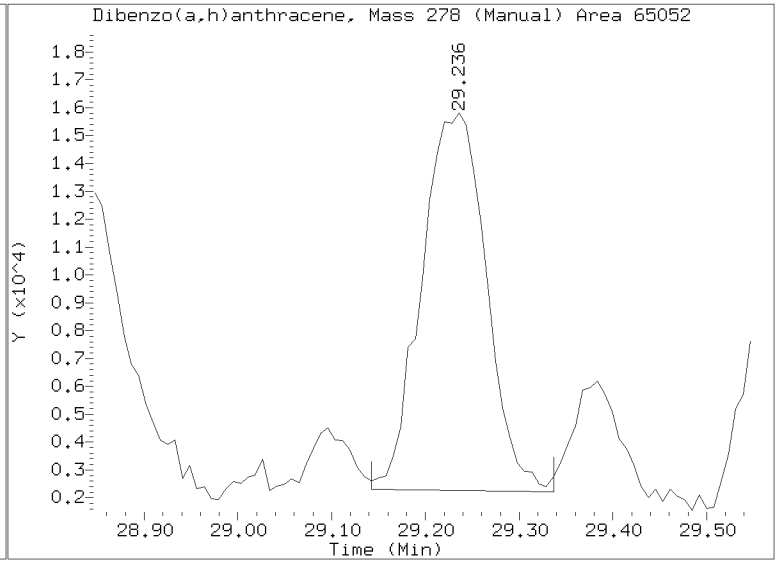
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305.b/NT1003052313.D
Injection Date: 05-MAR-2023 21:00
Lab ID:23A0313-08 Client ID:
Report Date: 03/27/2023 11:25









APPROVED

By Deenay Dunmore at 2:08 pm, Mar 27, 2023

Analytical Resources, LLC
Analytical Chemists and Consultants

LDW23-SC1011A

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E

Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-09 A	SDG:	23A0313
Sampled:	01/16/23 11:46	Prepared:	02/02/23 13:06	File ID:	NT1003052319.D
% Solids:	52.32	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/06/23 00:47
Batch:	BLA0685	Sequence:	SLC0415	Initial/Final:	19.42 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00019
Cleanups:	GPC				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	170		4.3	19.7
106-44-5	4-Methylphenol	1	15.7	J	7.3	19.7
91-20-3	Naphthalene	1	11.0	J	4.2	19.7
91-57-6	2-Methylnaphthalene	1	11.5	J	4.4	19.7
208-96-8	Acenaphthylene	1	9.3	J	6.1	19.7
131-11-3	Dimethylphthalate	1	19.7	U	4.3	19.7
83-32-9	Acenaphthene	1	8.5	J	5.1	19.7
132-64-9	Dibenzofuran	1	19.7	U	13.9	19.7
86-73-7	Fluorene	1	19.7	U	14.3	19.7
85-01-8	Phenanthrene	1	57.9		8.6	19.7
120-12-7	Anthracene	1	25.5		7.1	19.7
206-44-0	Fluoranthene	1	126		6.0	19.7
129-00-0	Pyrene	1	79.5		5.6	19.7
85-68-7	Butylbenzylphthalate	1	19.7	U	9.3	19.7
56-55-3	Benzo(a)anthracene	1	67.9		5.9	19.7
218-01-9	Chrysene	1	105		6.0	19.7
117-81-7	bis(2-Ethylhexyl)phthalate	1	128		5.4	49.2
	Benzofluoranthenes, Total	1	168		9.8	39.4
50-32-8	Benzo(a)pyrene	1	25.0		4.2	19.7
193-39-5	Indeno(1,2,3-cd)pyrene	1	21.7		14.4	19.7
53-70-3	Dibenzo(a,h)anthracene	1	19.7	U	17.0	19.7
191-24-2	Benzo(g,h,i)perylene	1	19.7	U	13.4	19.7

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	738.15	507	68.6	27 - 120	
Phenol-d5	738.15	571	77.4	29 - 120	
2-Chlorophenol-d4	738.15	560	75.8	31 - 120	
1,2-Dichlorobenzene-d4	492.10	305	61.9	32 - 120	
Nitrobenzene-d5	492.10	417	84.7	30 - 120	
2-Fluorobiphenyl	492.10	438	89.0	35 - 120	

LDW23-SC1011A

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E

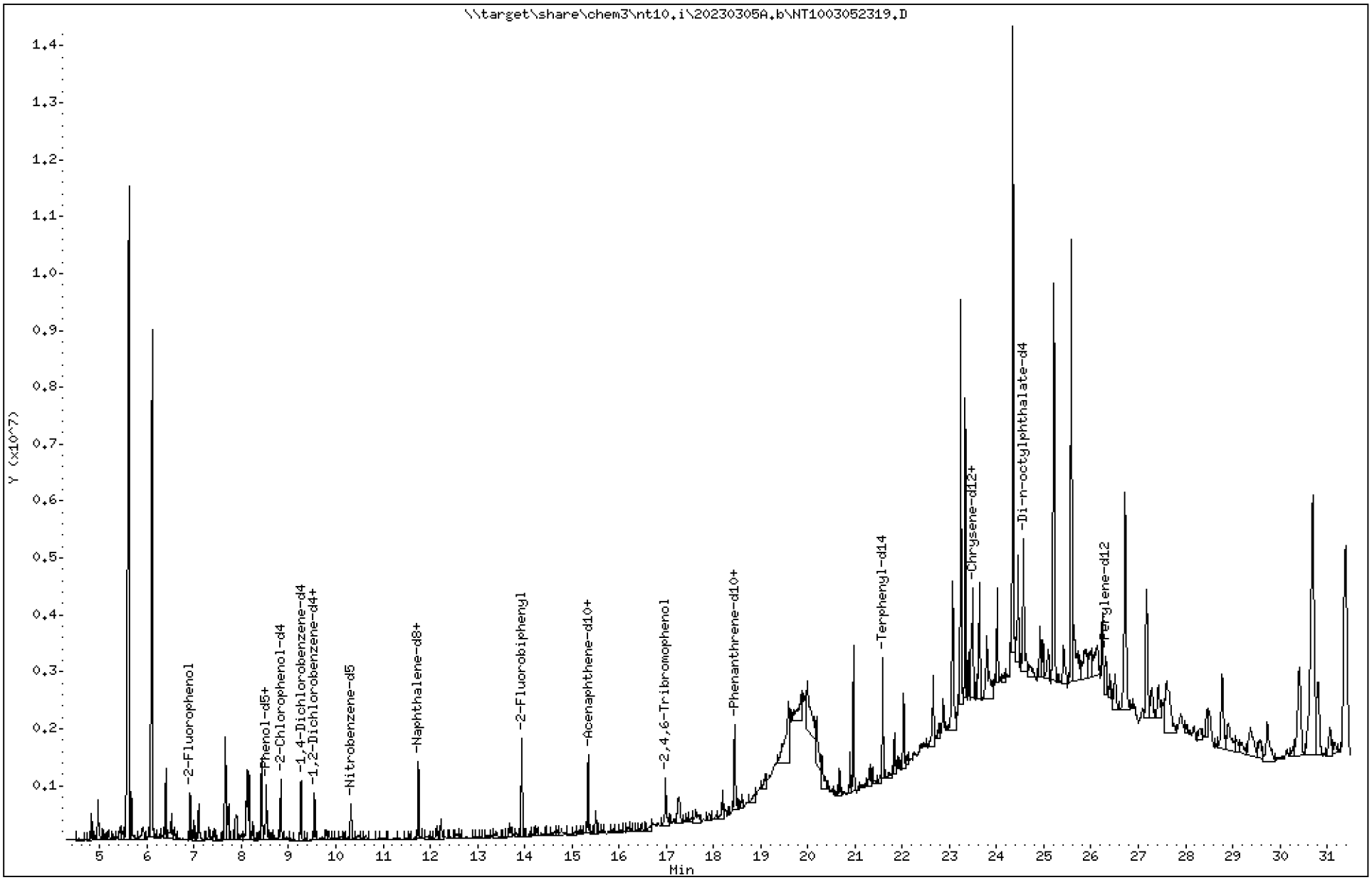
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-09 A	SDG:	23A0313
Sampled:	01/16/23 11:46	Prepared:	02/02/23 13:06	File ID:	NT1003052319.D
% Solids:	52.32	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/06/23 00:47
Batch:	BLA0685	Sequence:	SLC0415	Initial/Final:	19.42 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00019
Cleanups:	GPC				

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	738.15	430	58.3	24 - 134	
p-Terphenyl-d14	492.10	392	79.6	37 - 120	

Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052319.D
Date : 06-MAR-2023 00:47
Client ID:
Sample Info: 23A0313-09

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

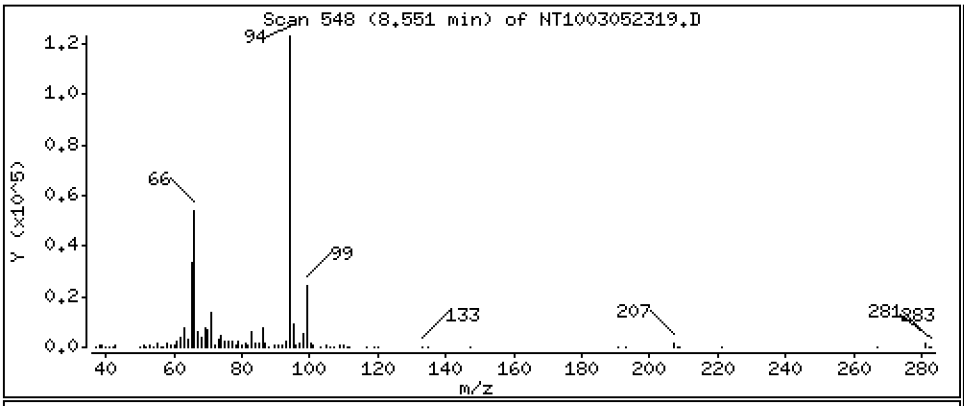
Operator: VTS

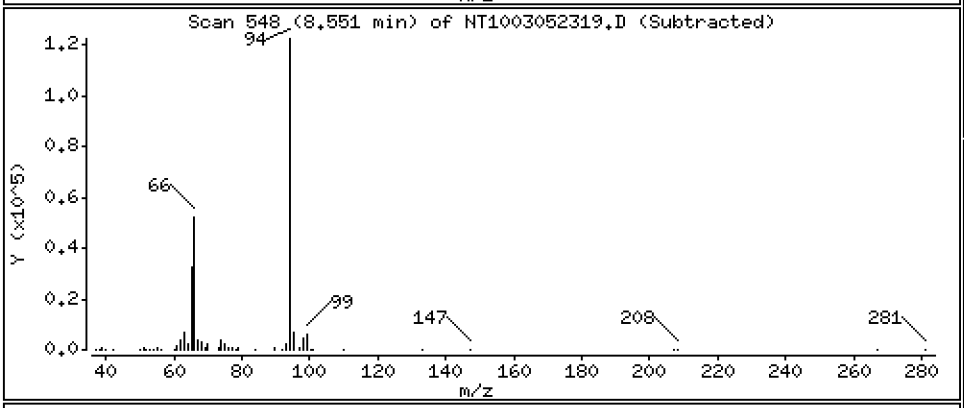
Column phase: ZB-5msi

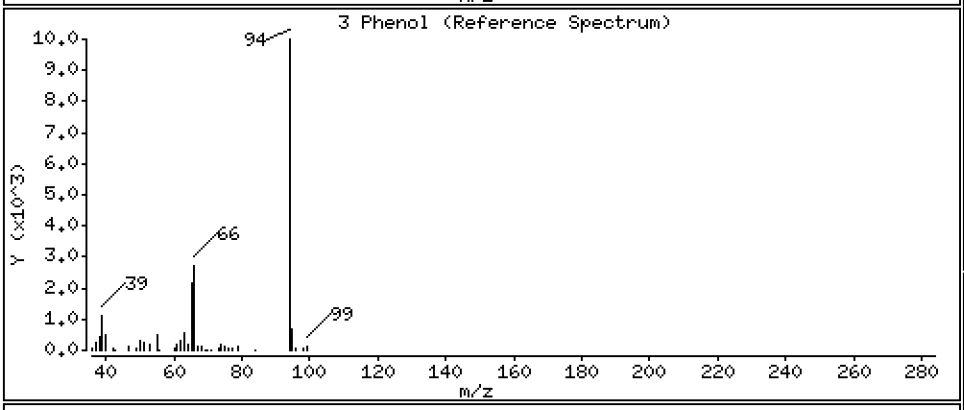
Column diameter: 0.25

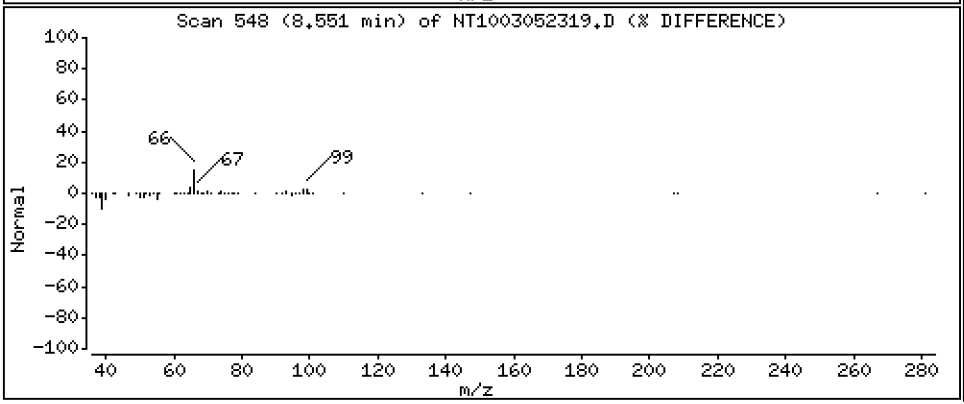
3 Phenol

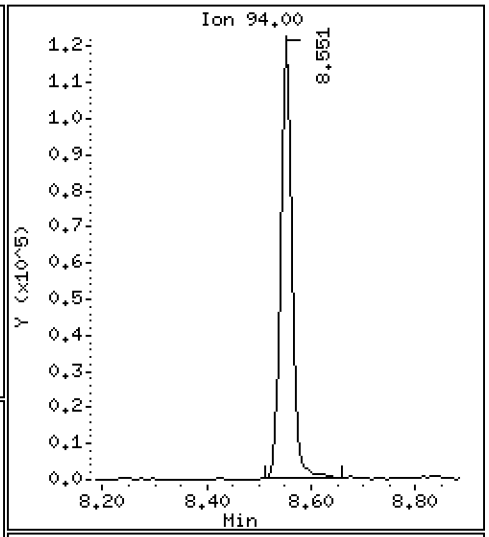
Concentration: 1.730 ug/mL

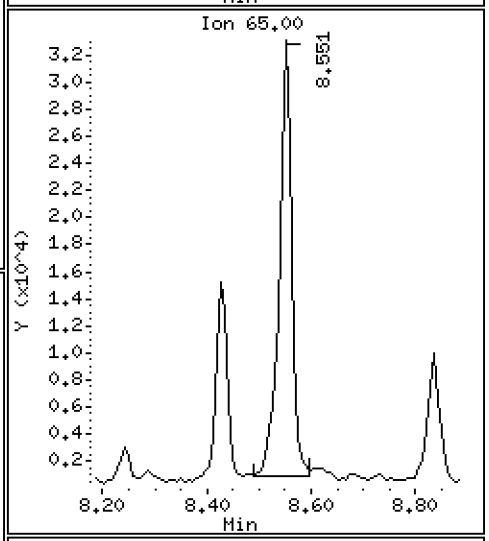


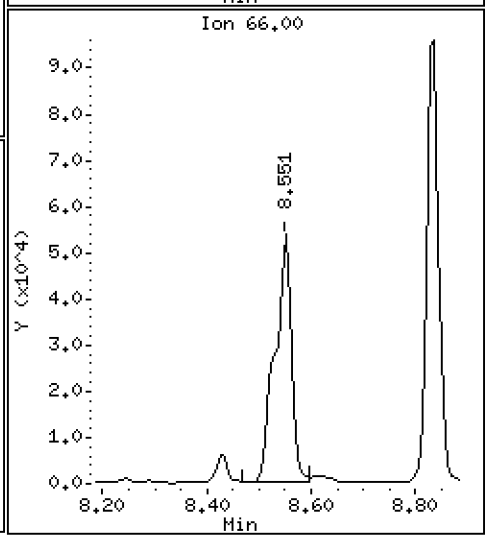












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

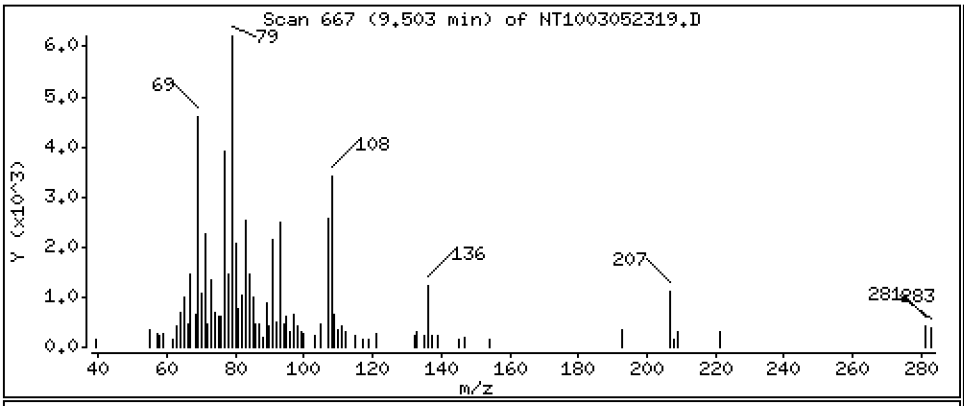
Operator: VTS

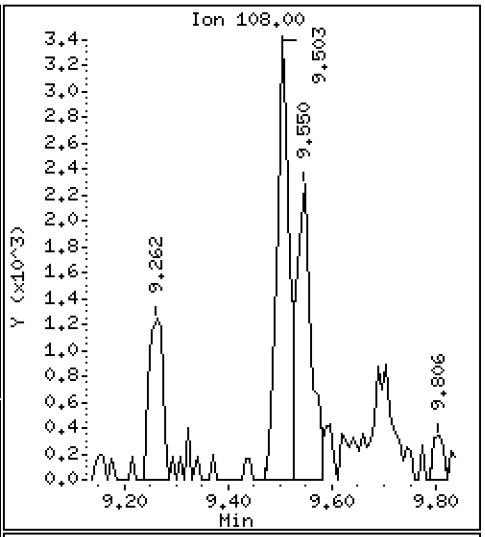
Column phase: ZB-5msi

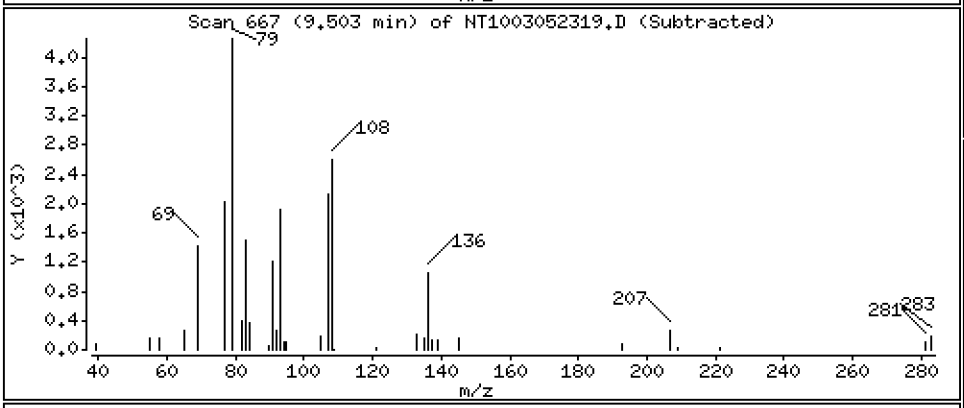
Column diameter: 0.25

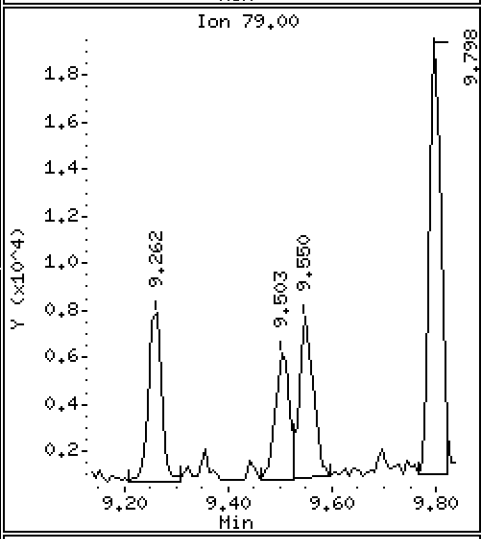
11 Benzyl alcohol

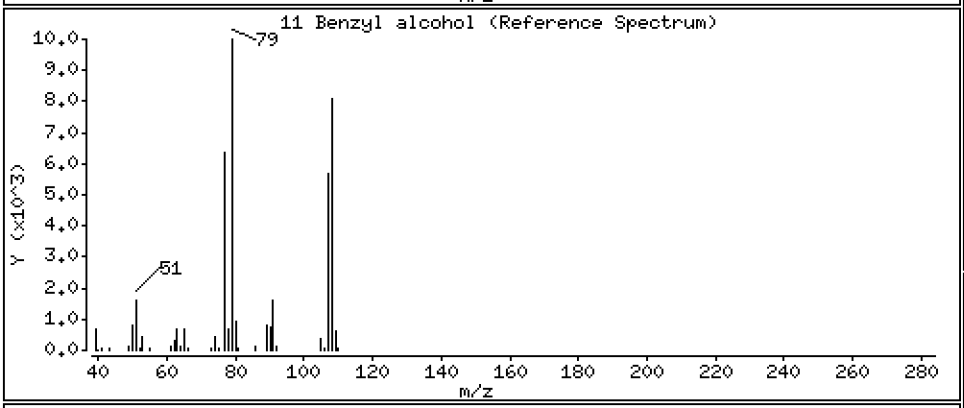
Concentration: 0.1025 ug/mL

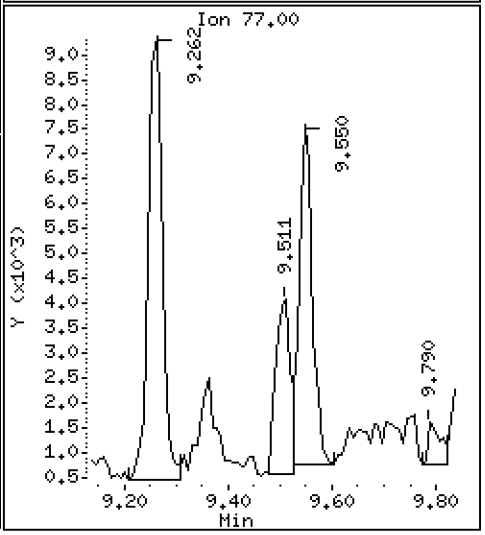


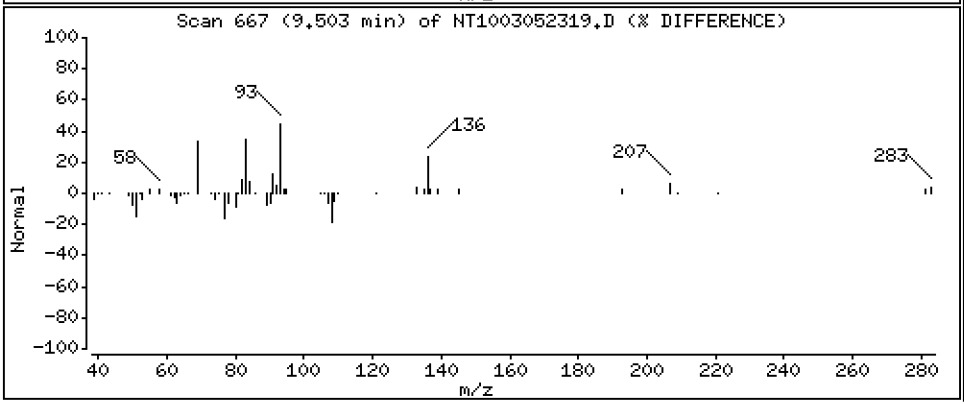












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

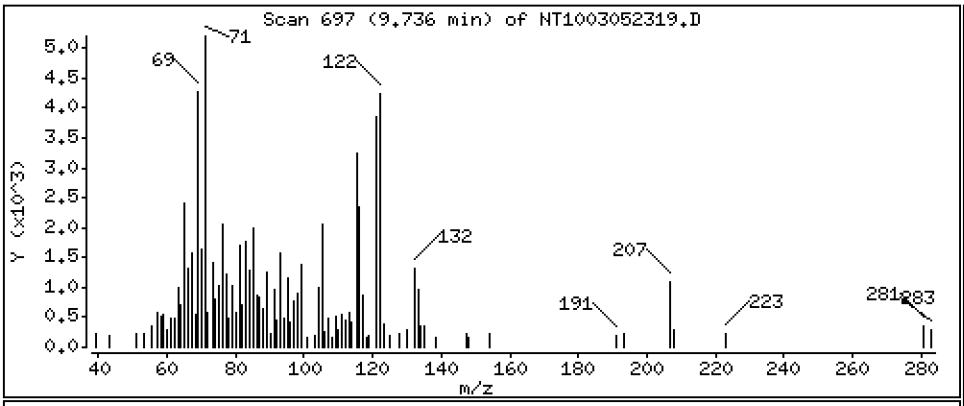
Operator: VTS

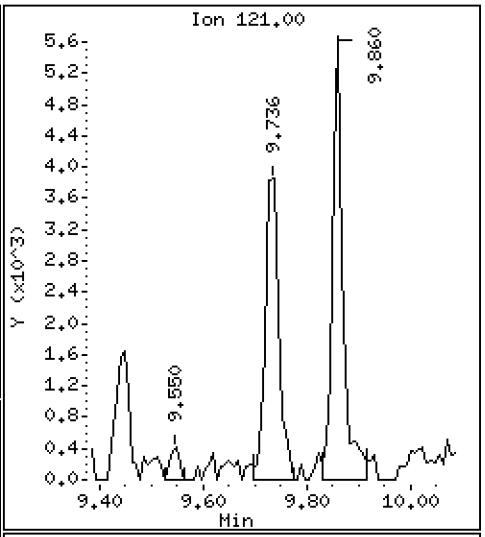
Column phase: ZB-5msi

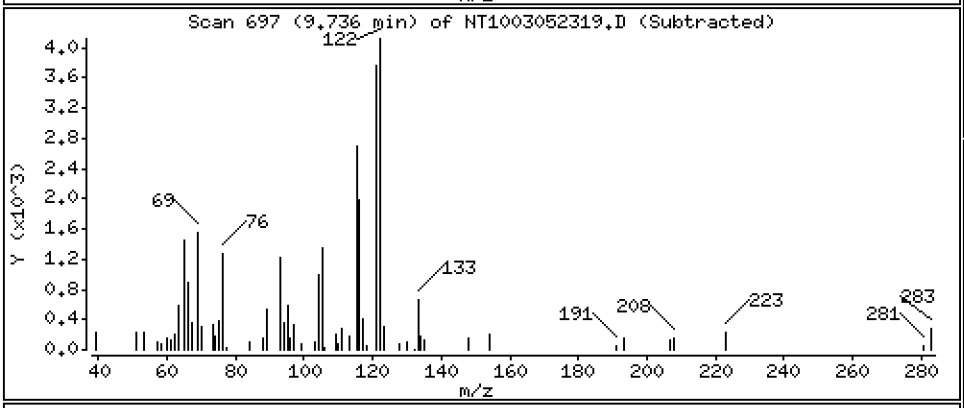
Column diameter: 0.25

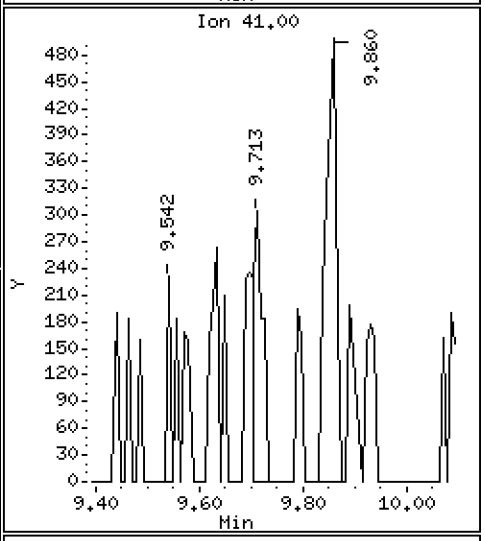
14 2,2'-oxybis(1-Chloropropane)

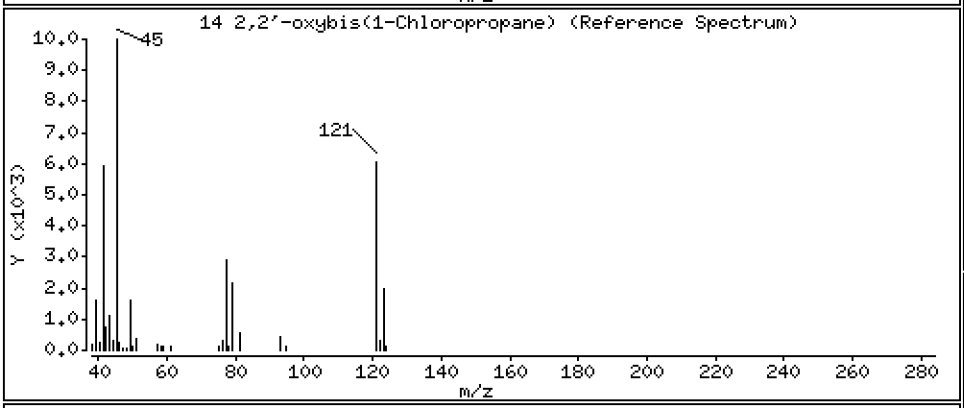
Concentration: 0.2438 ug/mL

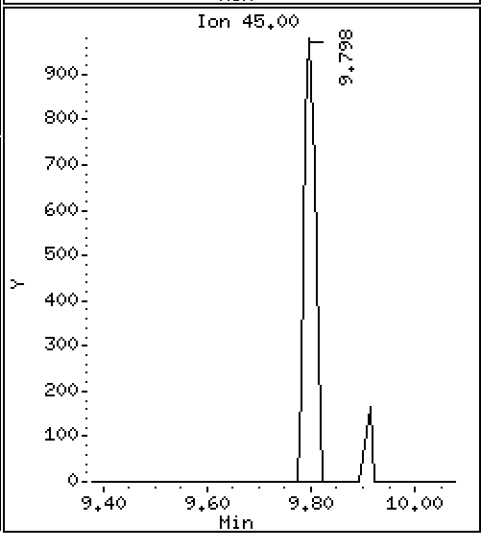


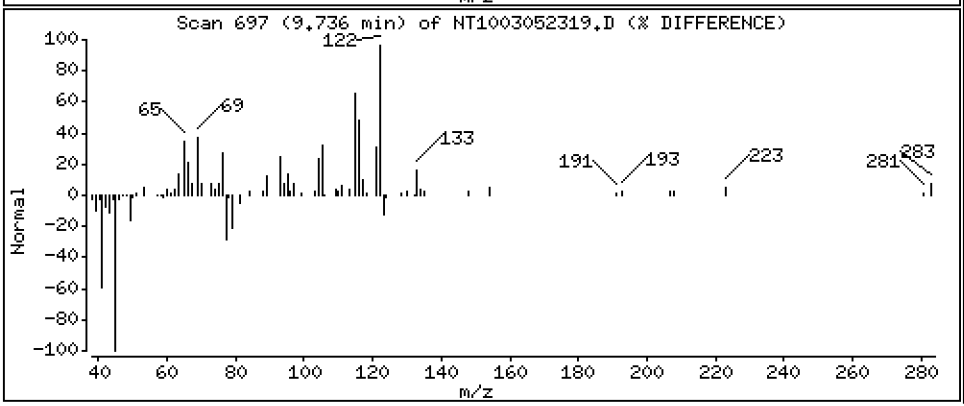












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

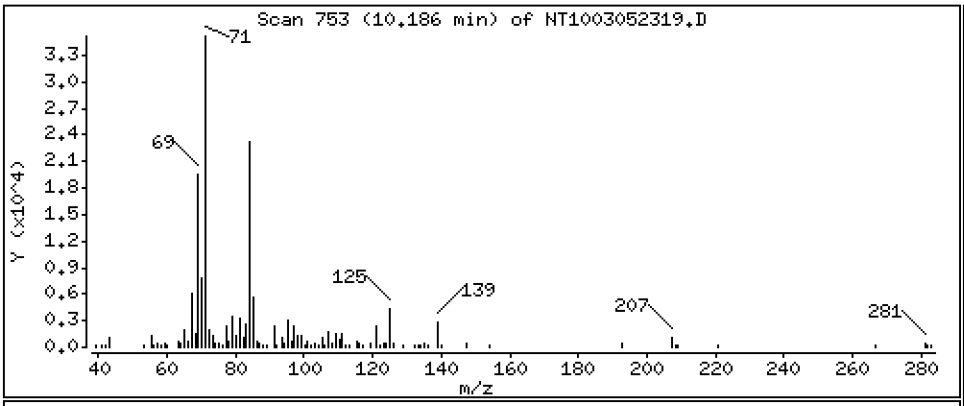
Operator: VTS

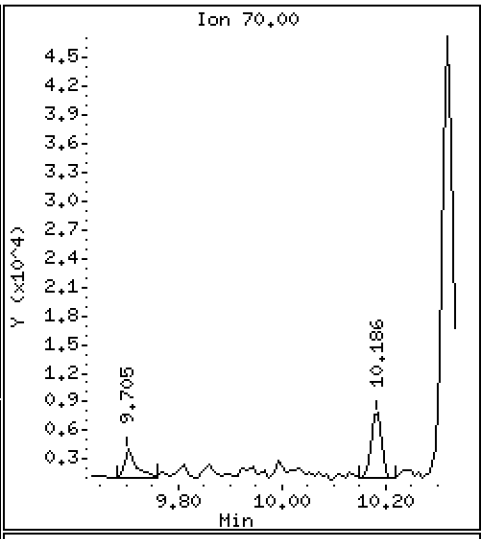
Column phase: ZB-5msi

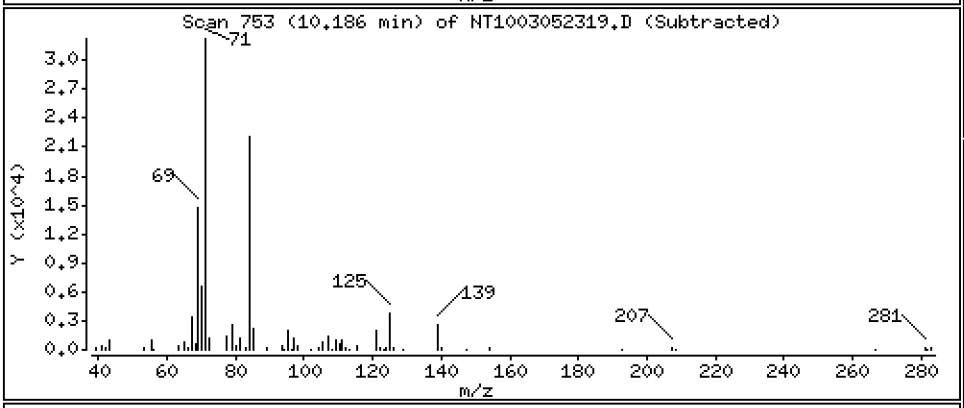
Column diameter: 0.25

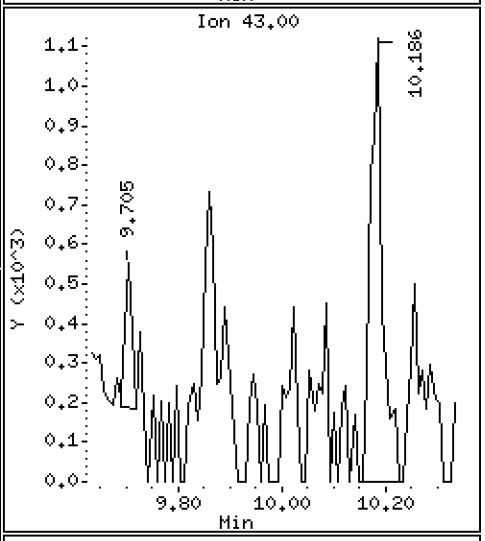
16 N-Nitroso-di-n-propylamine

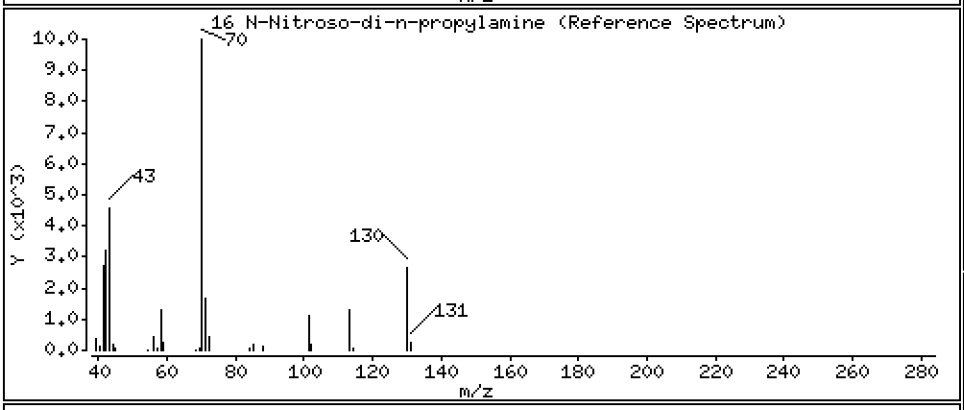
Concentration: 0.1602 ug/mL

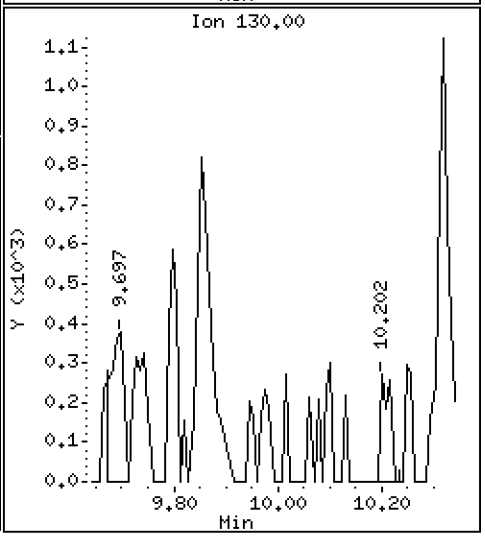


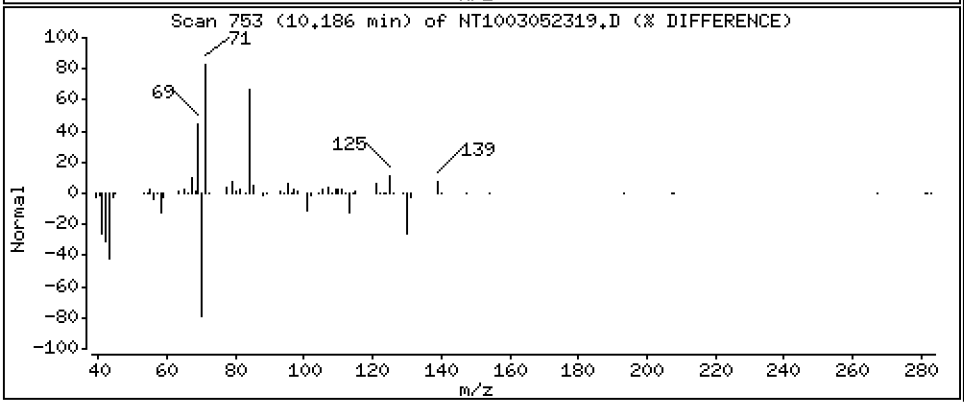












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

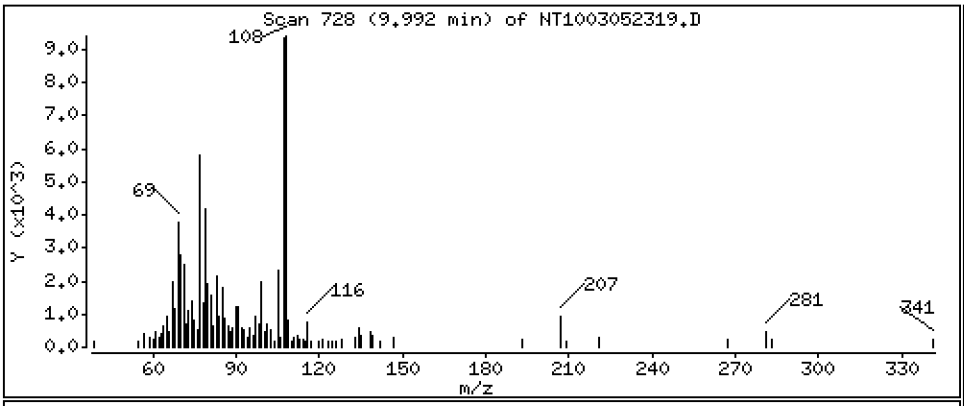
Operator: VTS

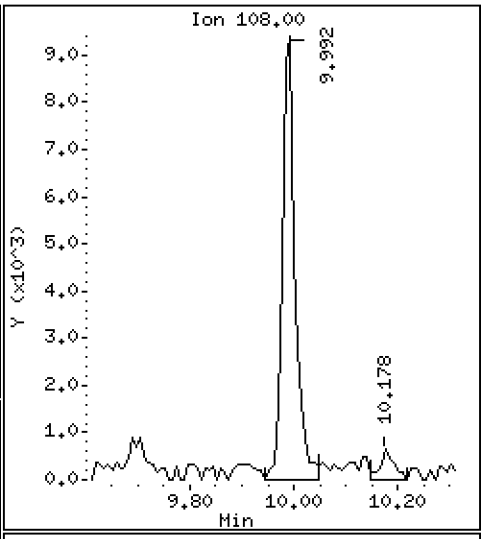
Column phase: ZB-5msi

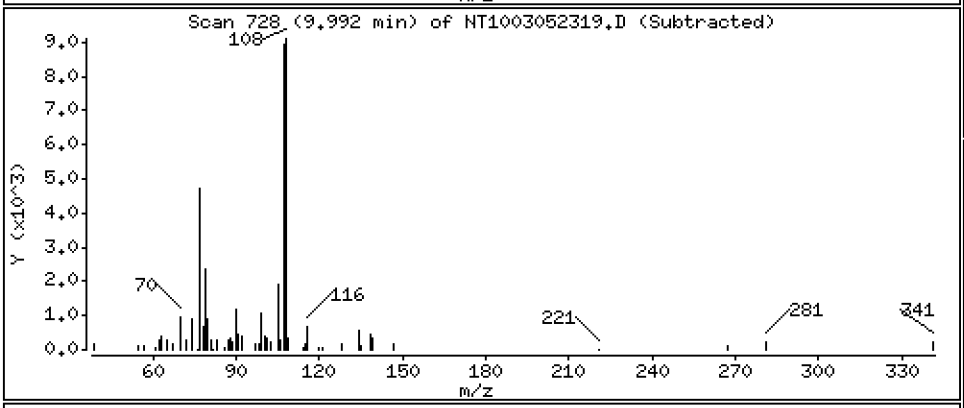
Column diameter: 0.25

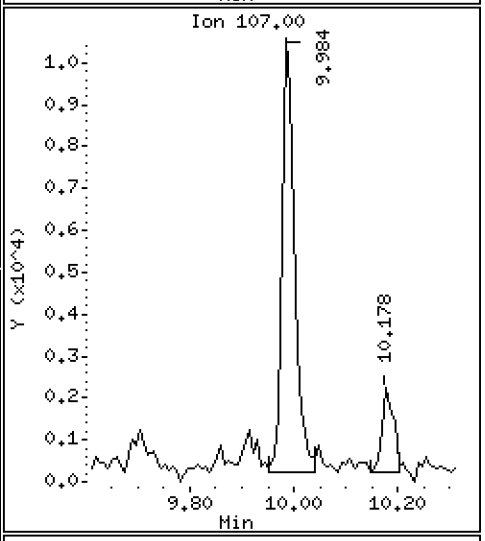
15 4-Methylphenol

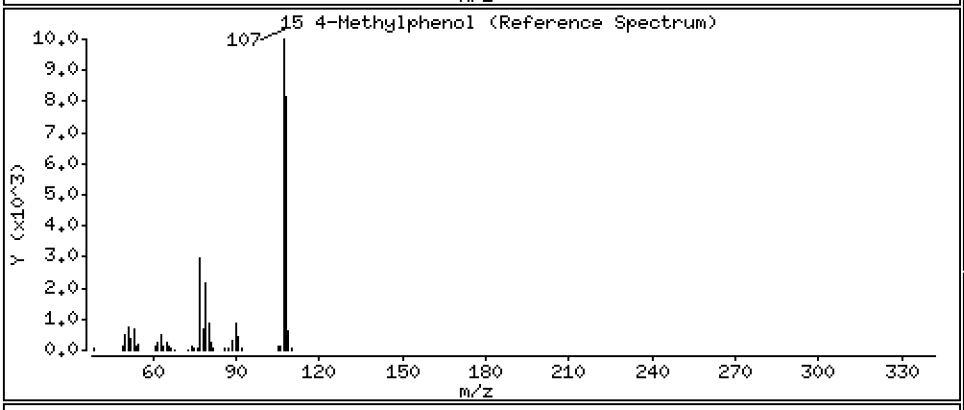
Concentration: 0.1597 ug/mL

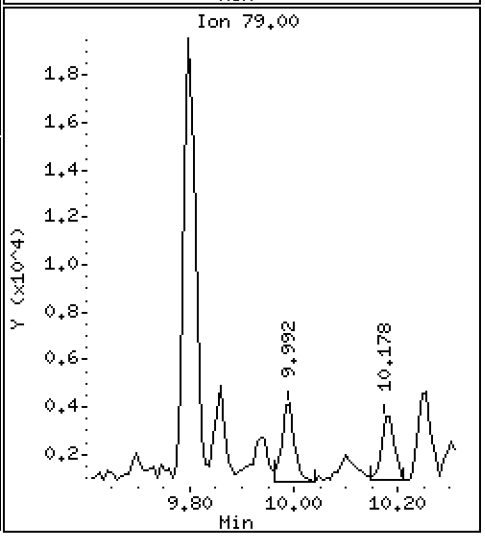


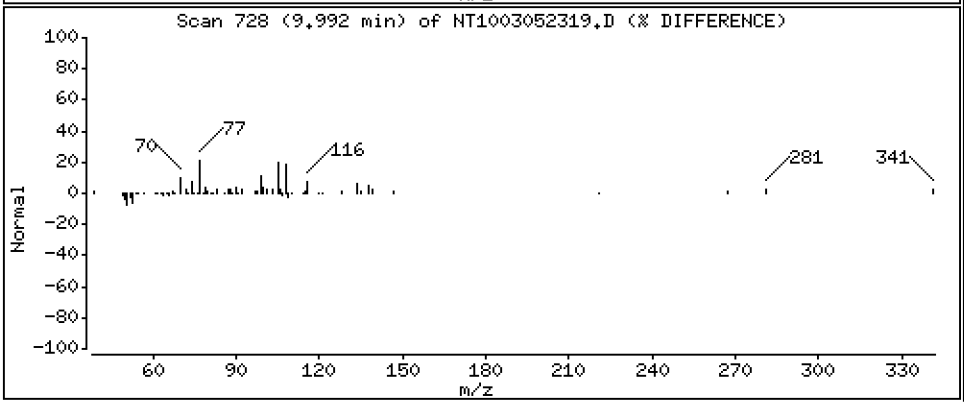












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052319.D

Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

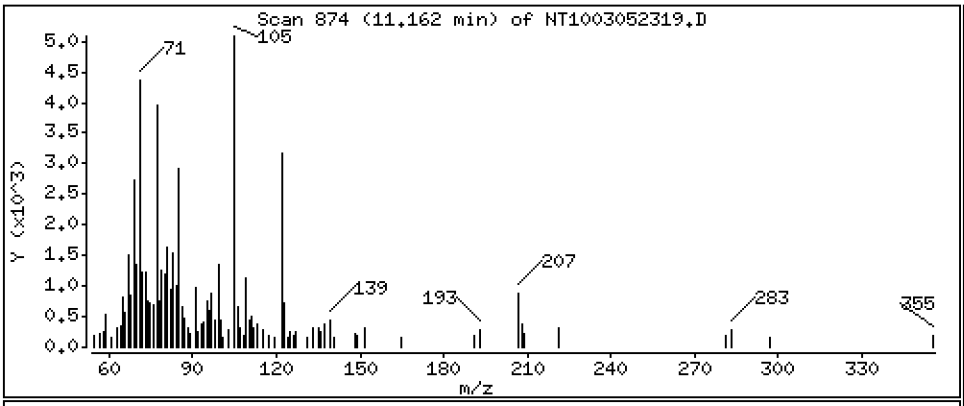
Operator: VTS

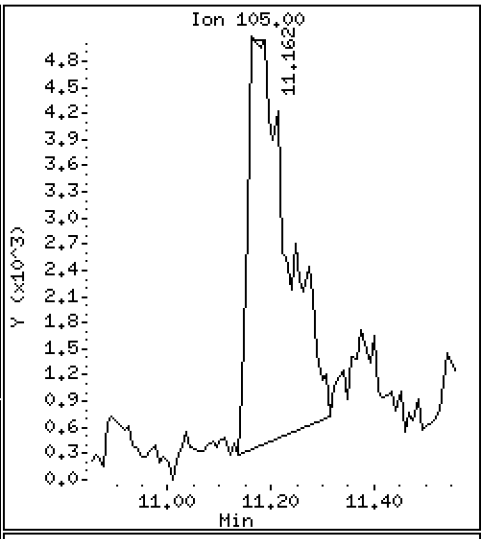
Column phase: ZB-5msi

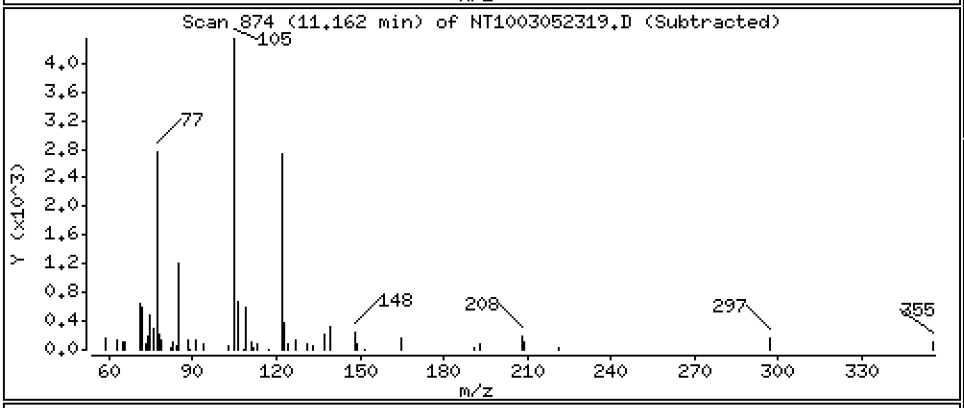
Column diameter: 0.25

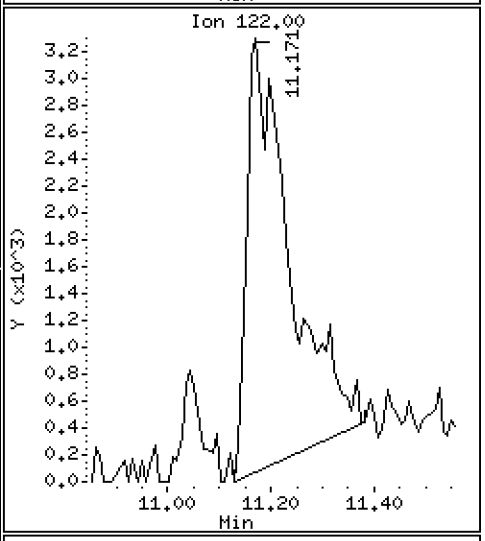
24 Benzoic acid

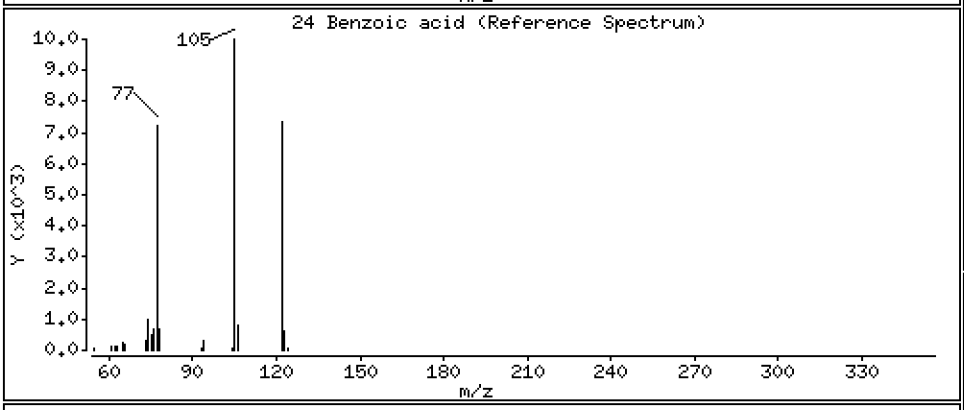
Concentration: 0.4302 ug/mL

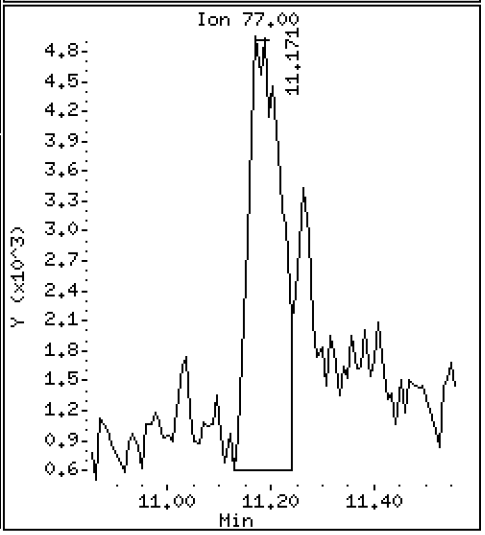


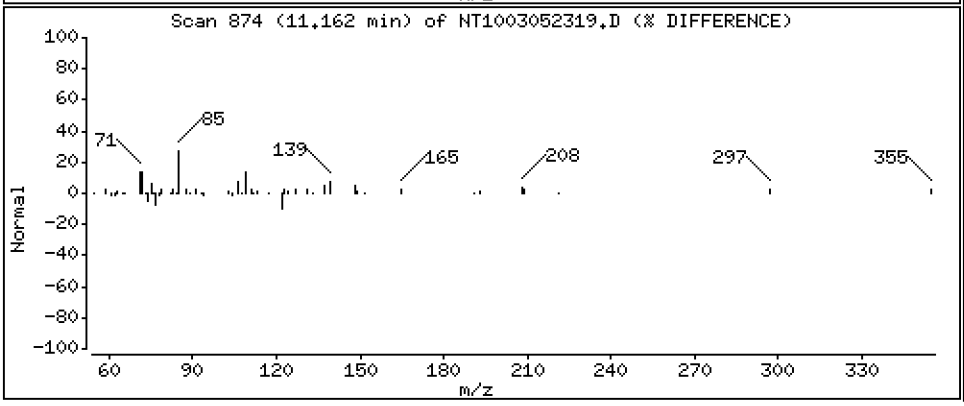












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052319.D

Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

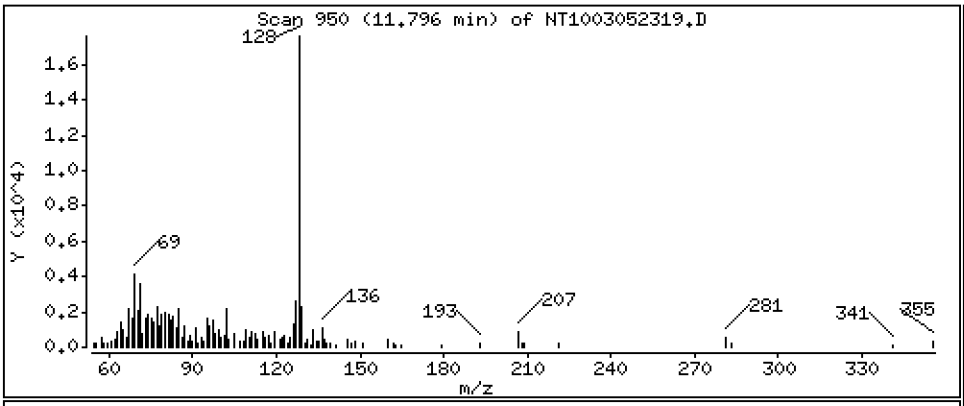
Operator: VTS

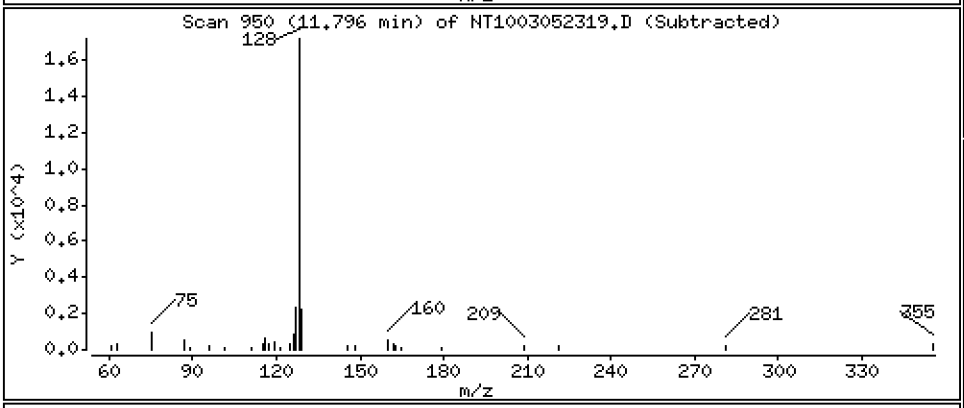
Column phase: ZB-5msi

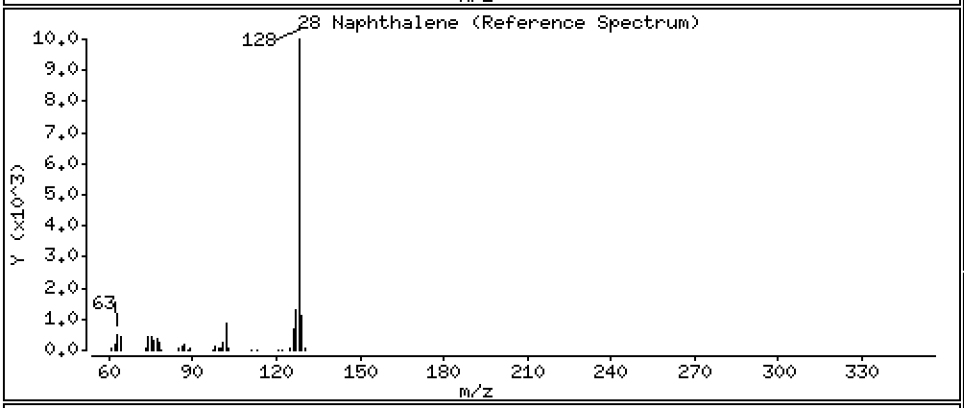
Column diameter: 0.25

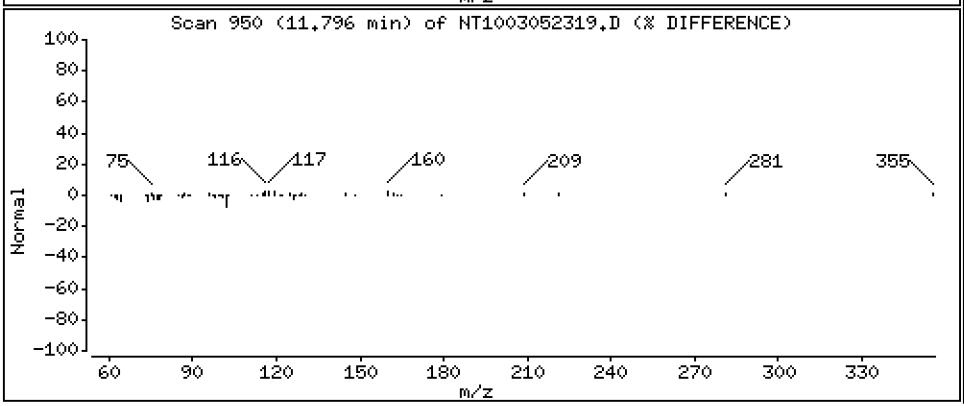
28 Naphthalene

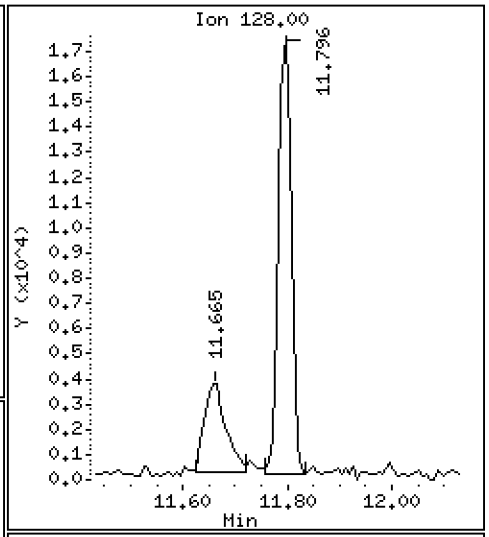
Concentration: 0.1113 ug/mL

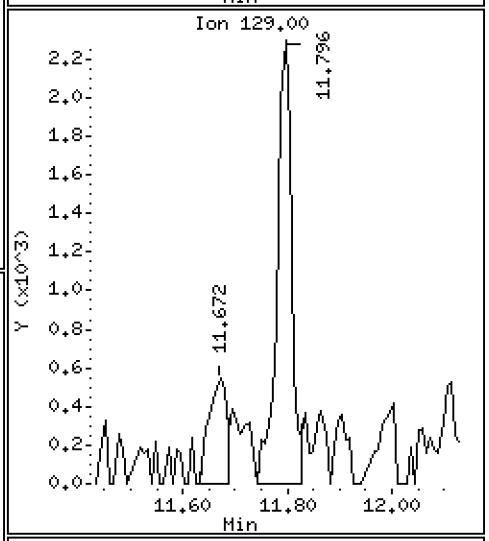


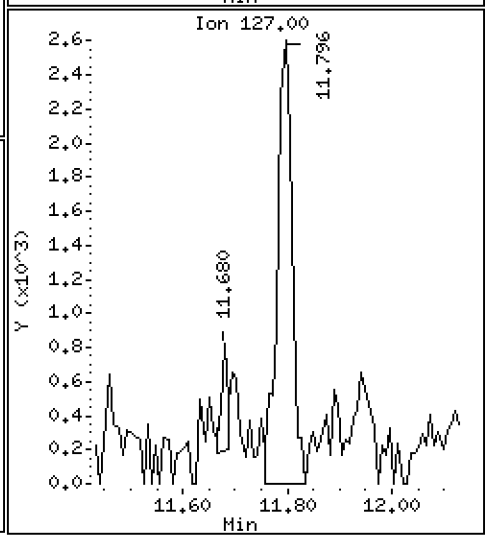












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

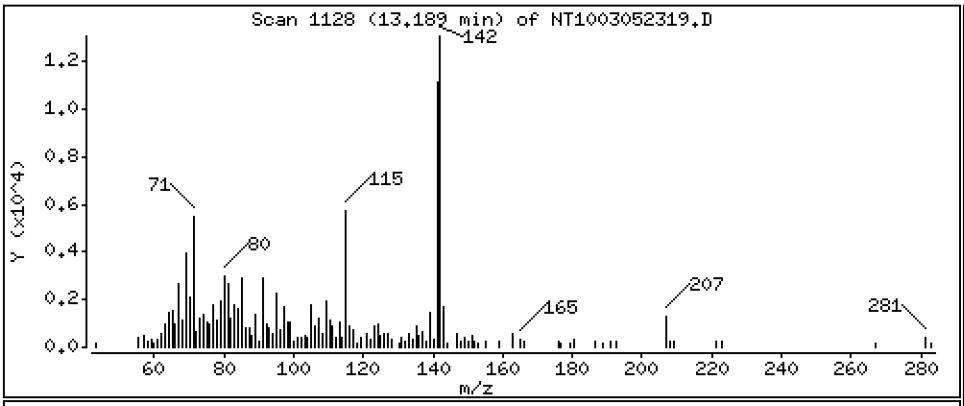
Operator: VTS

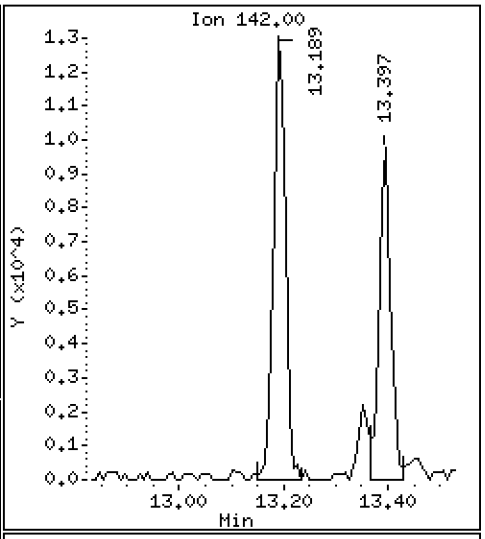
Column phase: ZB-5msi

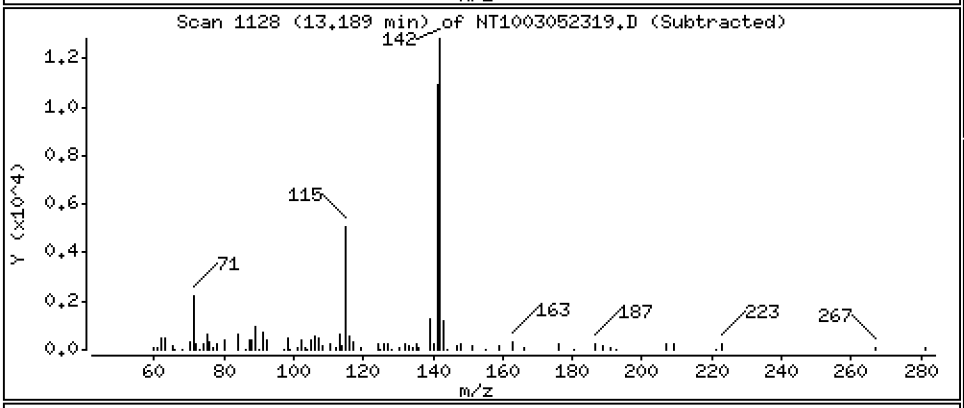
Column diameter: 0.25

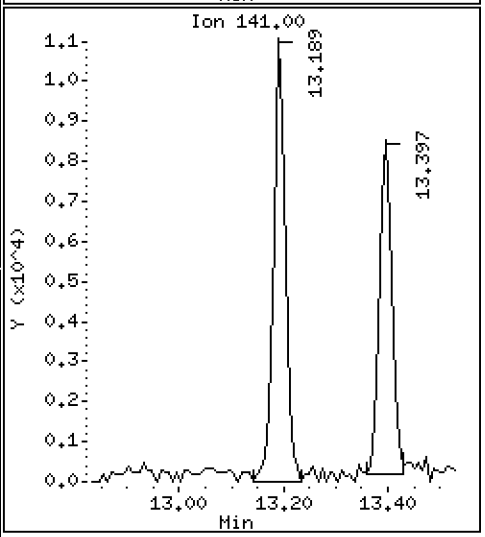
32 2-Methylnaphthalene

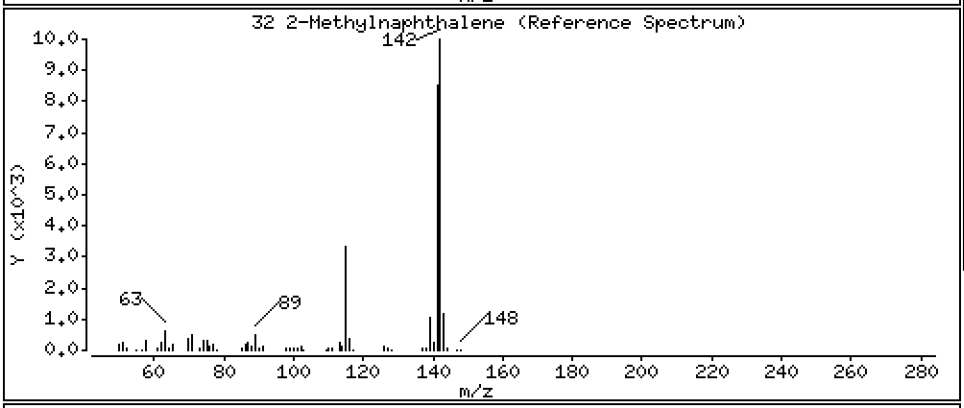
Concentration: 0.1166 ug/mL

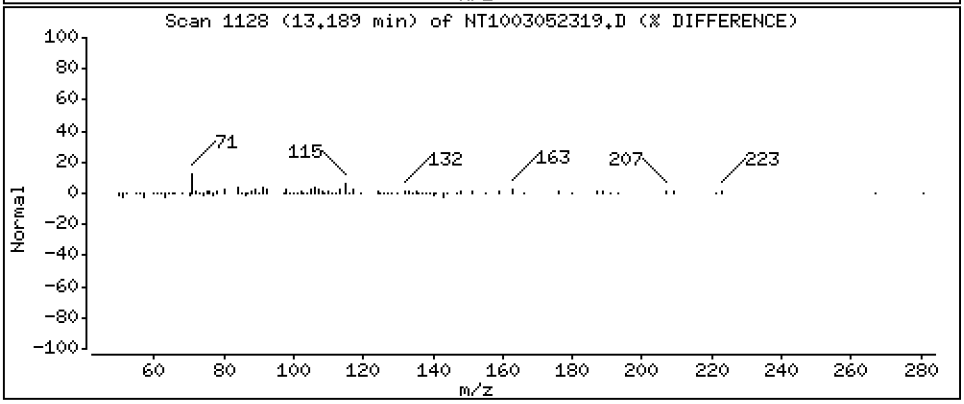












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

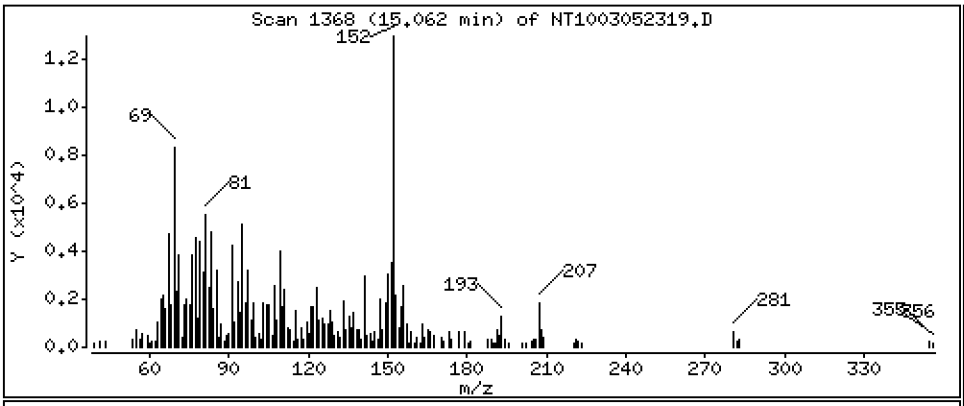
Operator: VTS

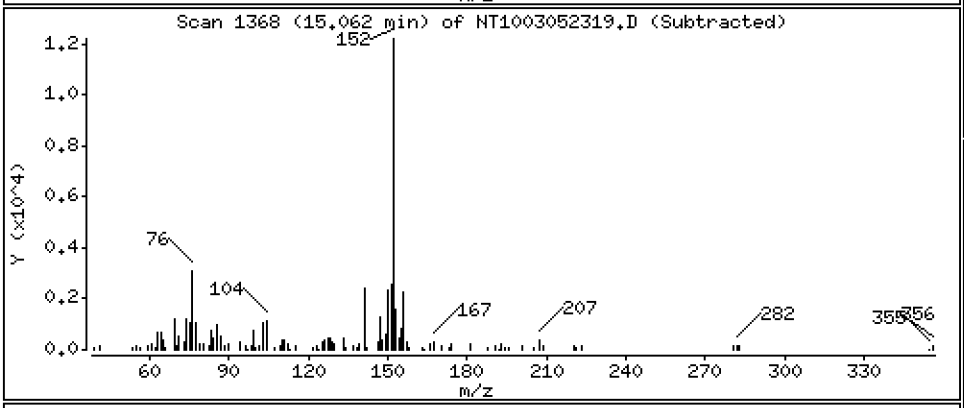
Column phase: ZB-5msi

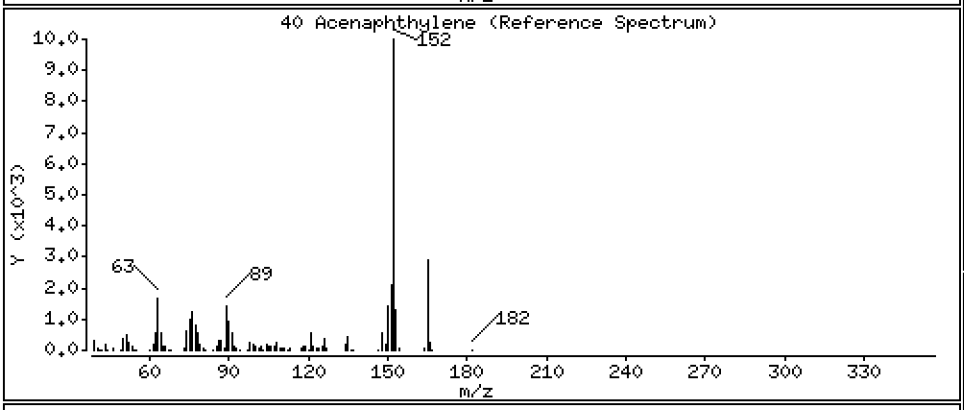
Column diameter: 0.25

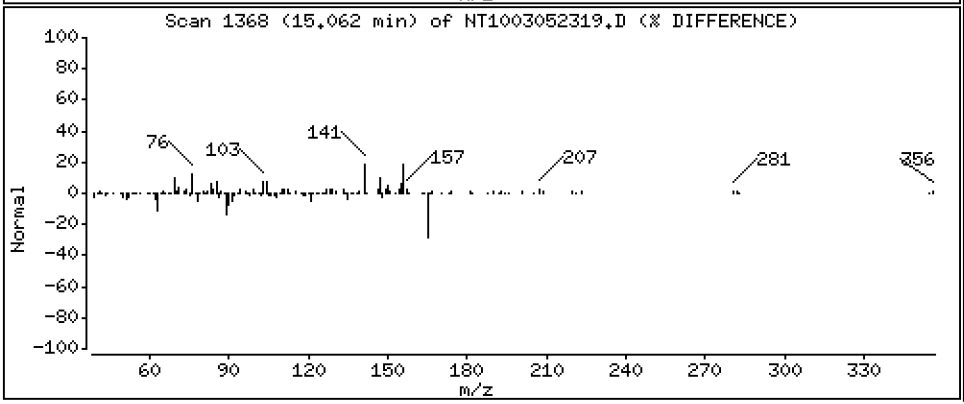
40 Acenaphthylene

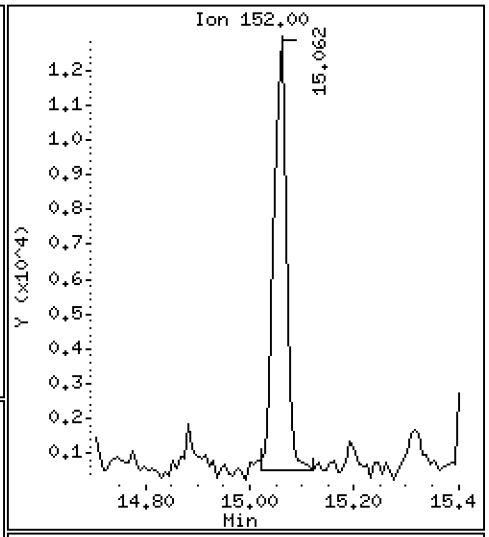
Concentration: 0.09478 ug/mL

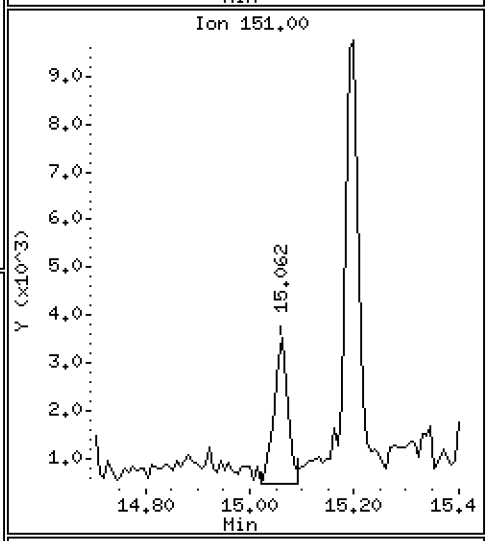


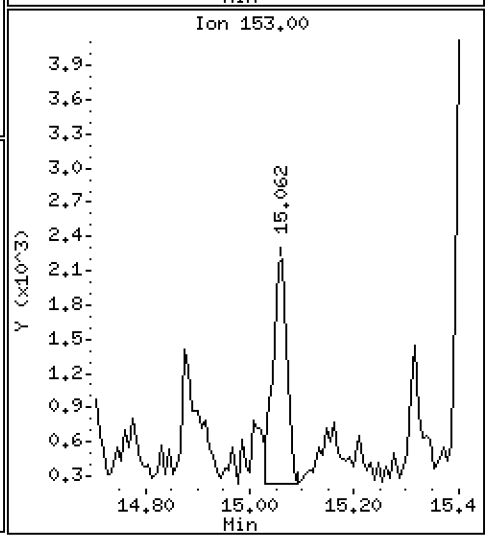












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

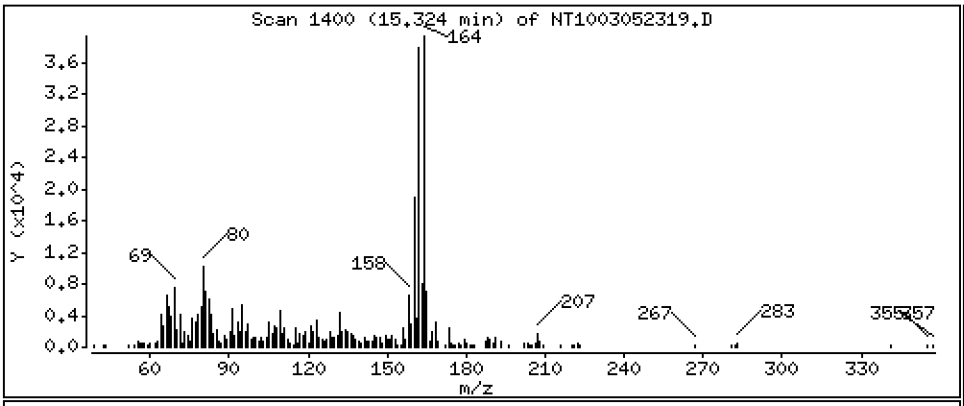
Operator: VTS

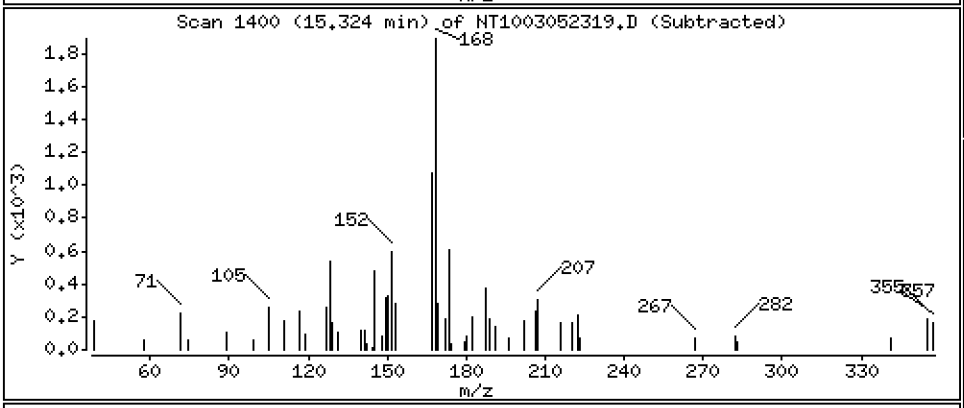
Column phase: ZB-5msi

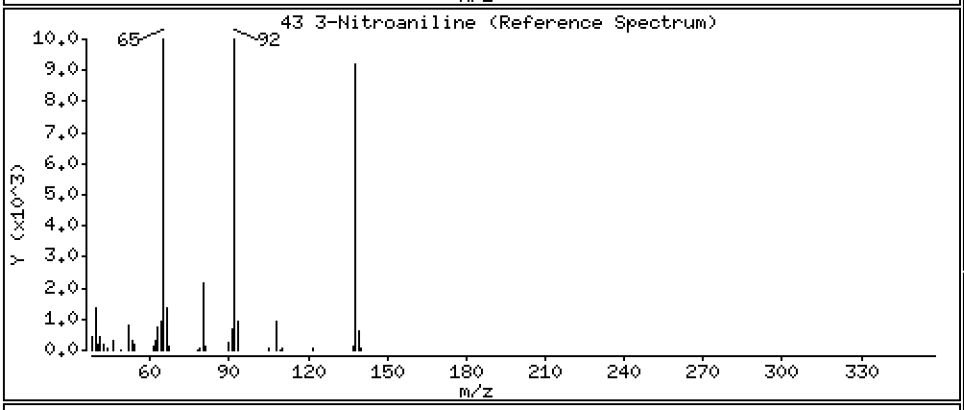
Column diameter: 0.25

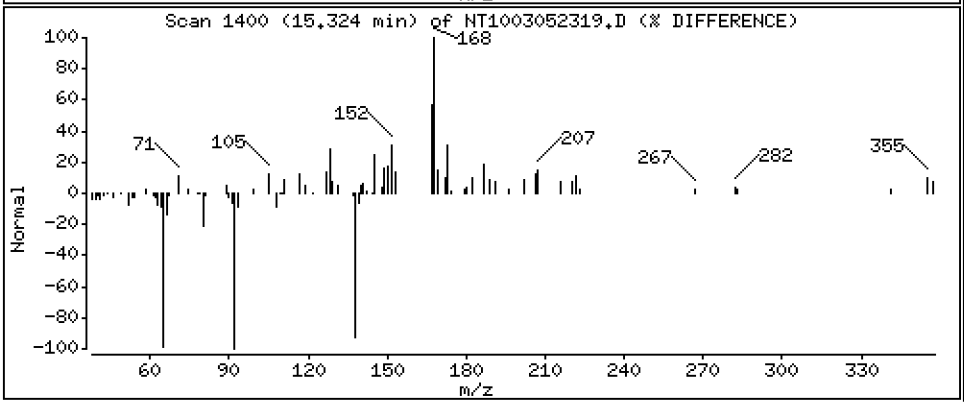
43 3-Nitroaniline

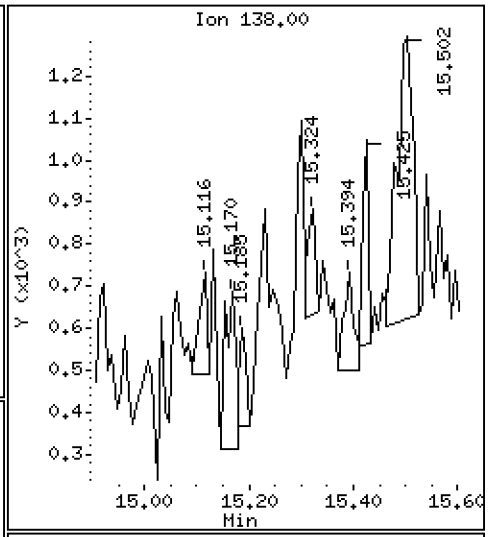
Concentration: 0.006395 ug/mL

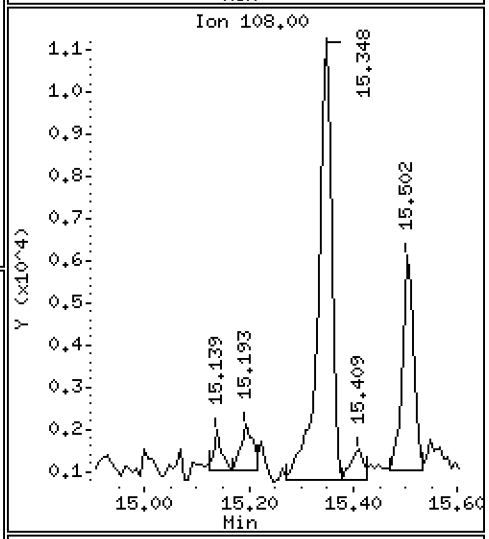


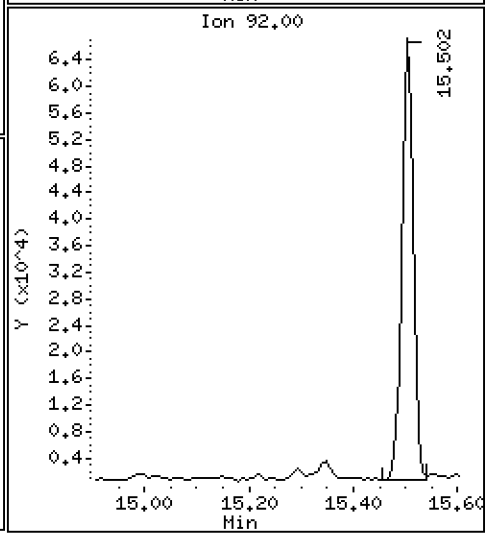












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

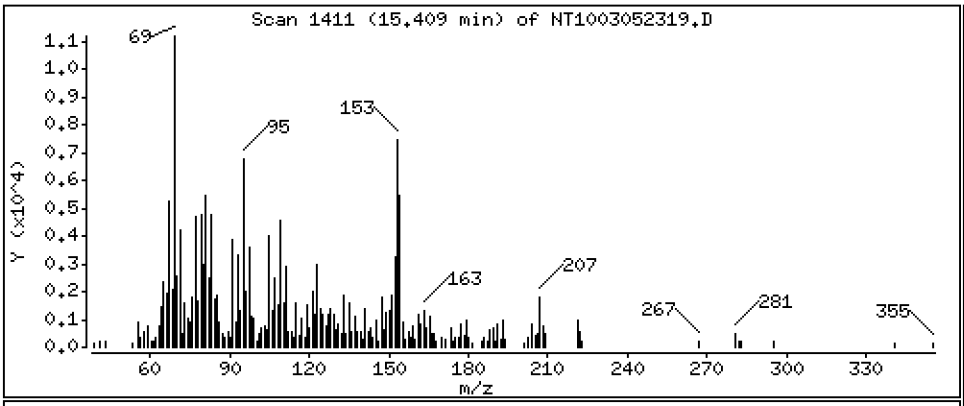
Operator: VTS

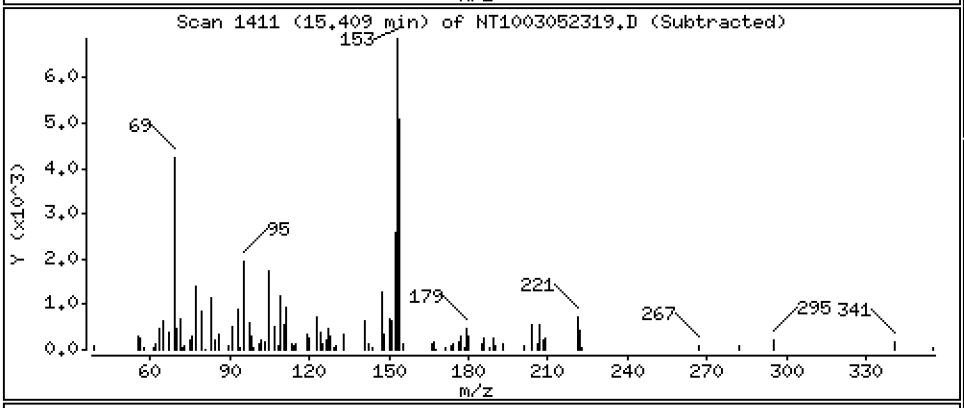
Column phase: ZB-5msi

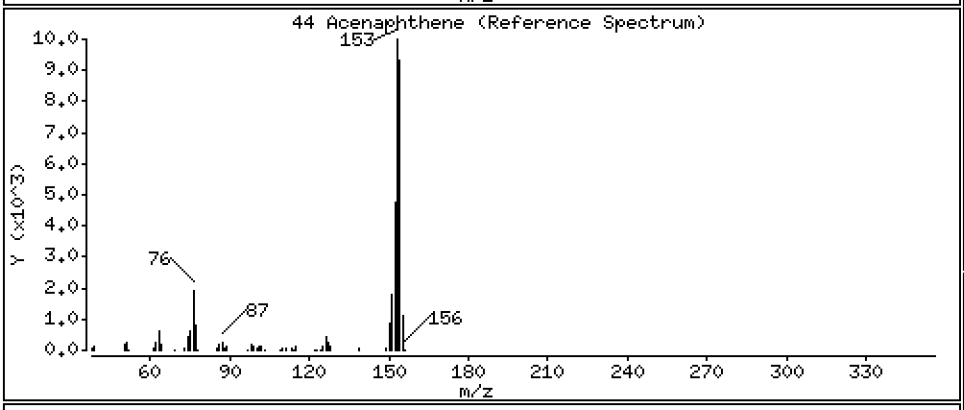
Column diameter: 0.25

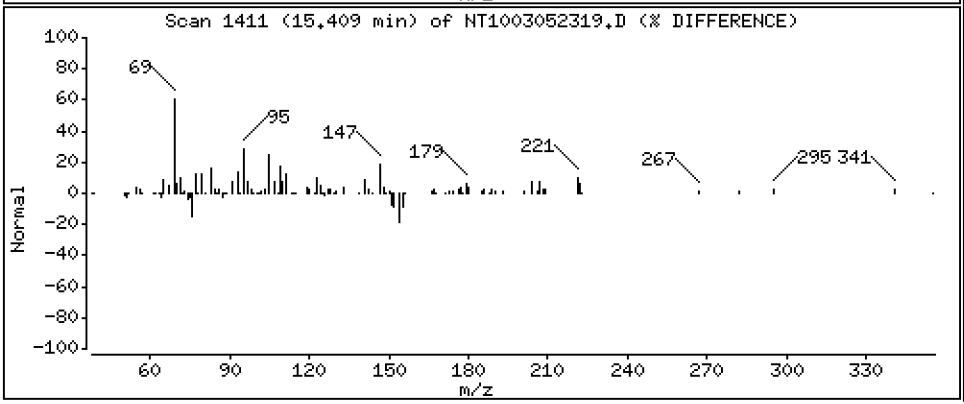
44 Acenaphthene

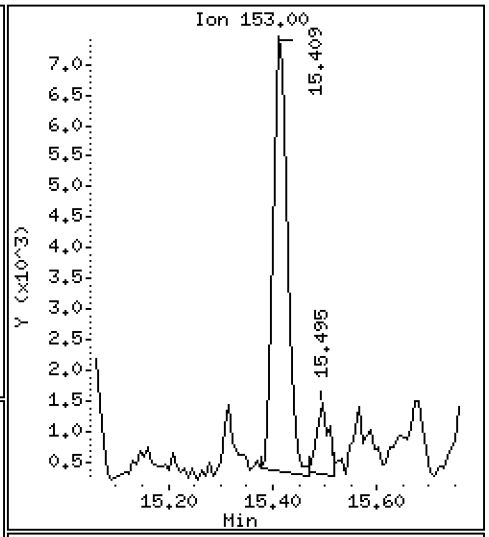
Concentration: 0.08639 ug/mL

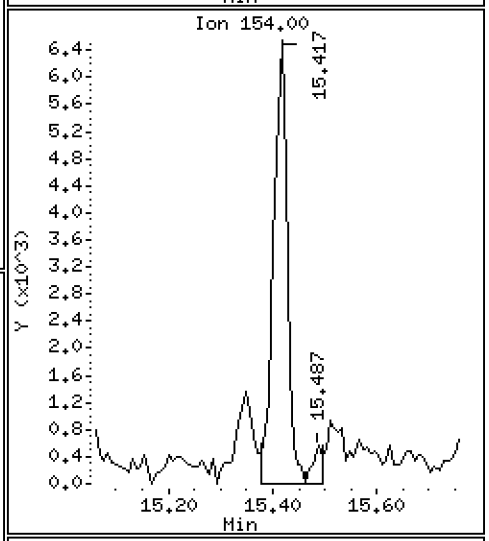


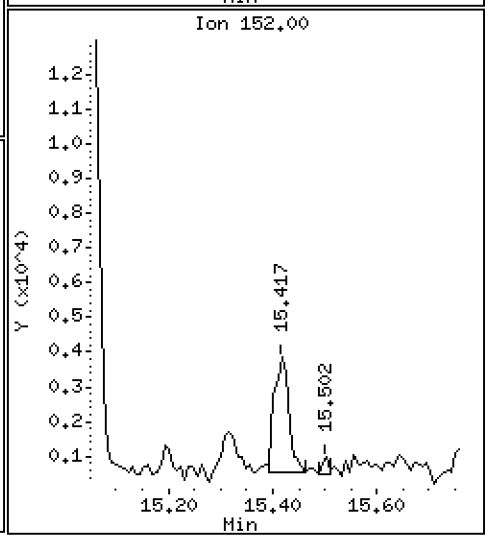












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

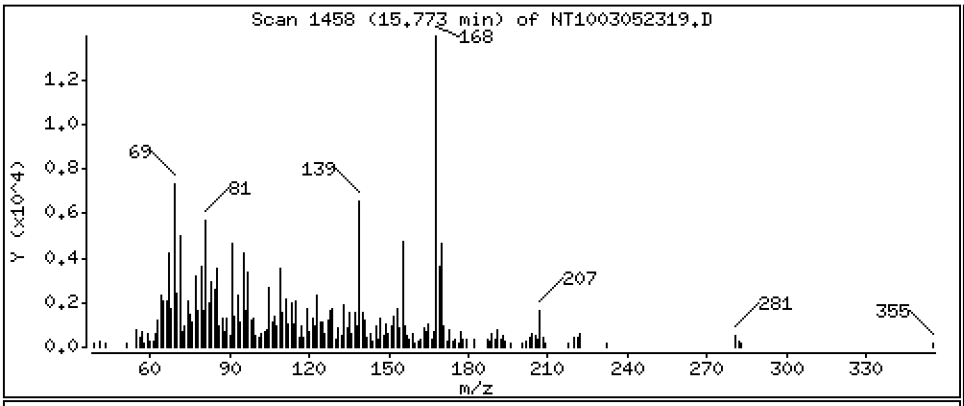
Operator: VTS

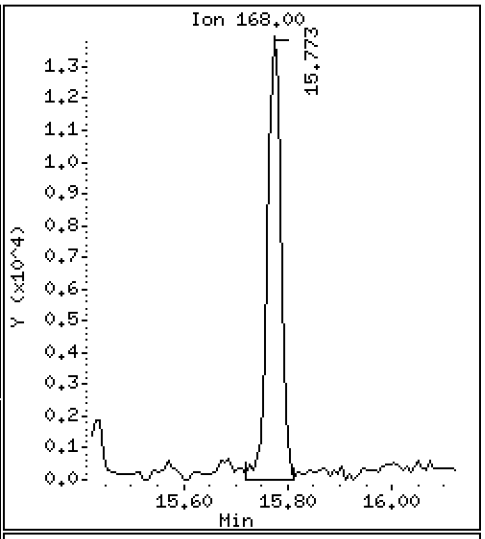
Column phase: ZB-5msi

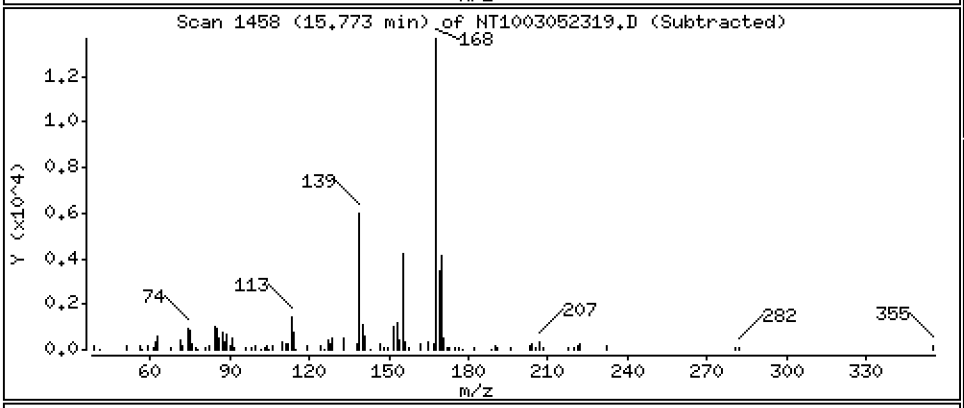
Column diameter: 0.25

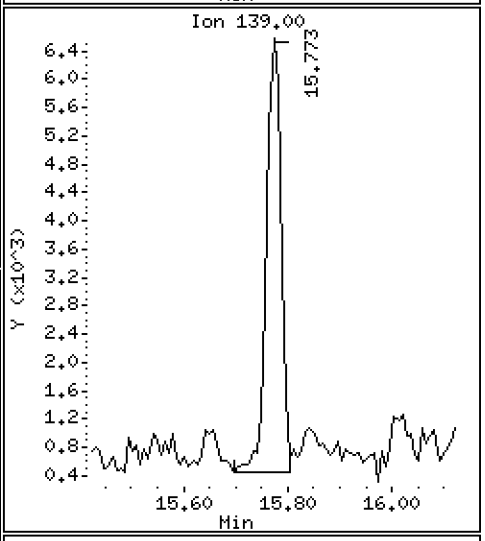
46 Dibenzofuran

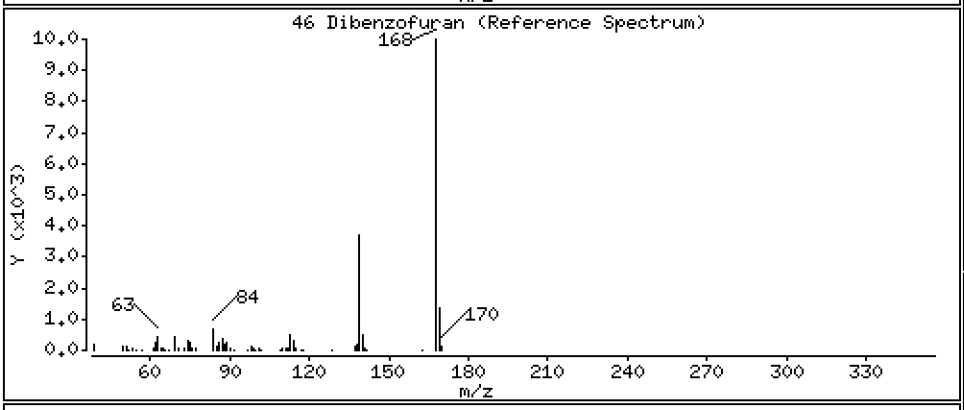
Concentration: 0.1083 ug/mL

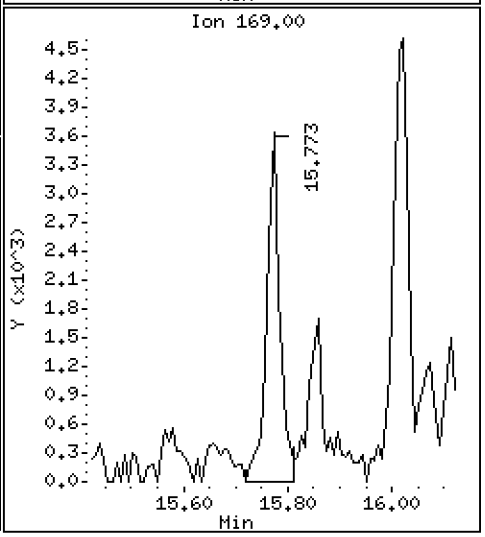


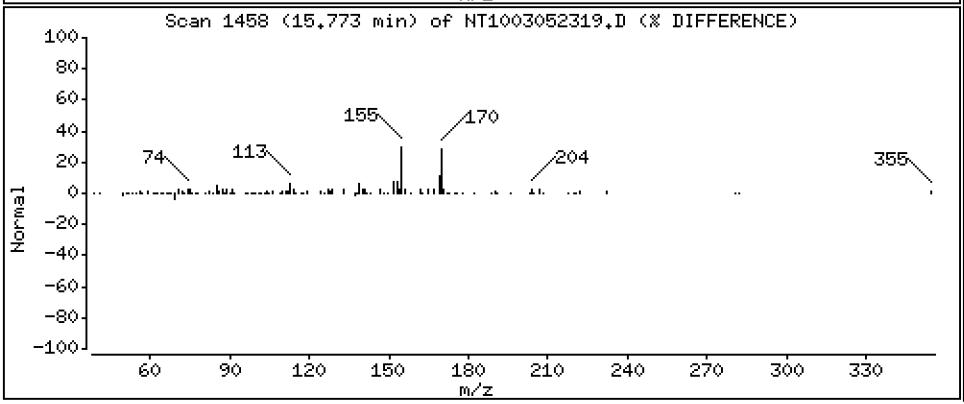












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

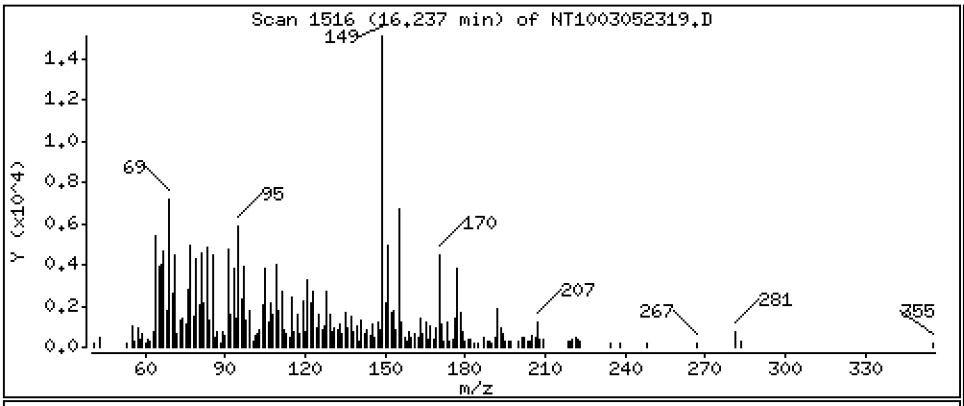
Operator: VTS

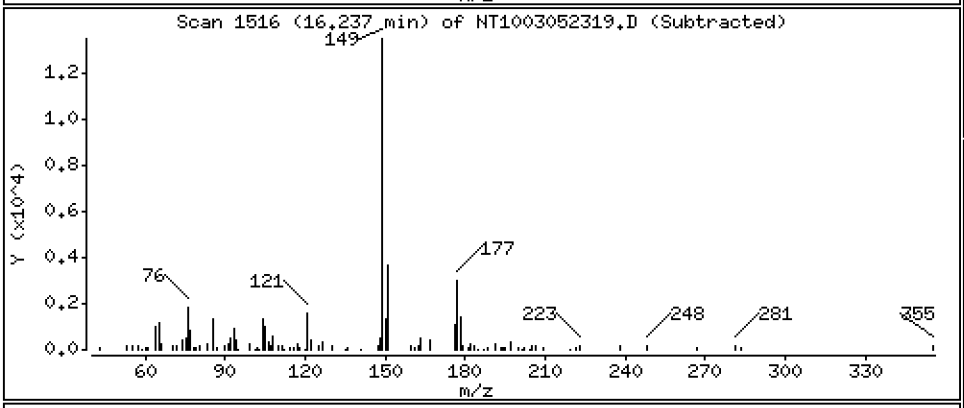
Column phase: ZB-5msi

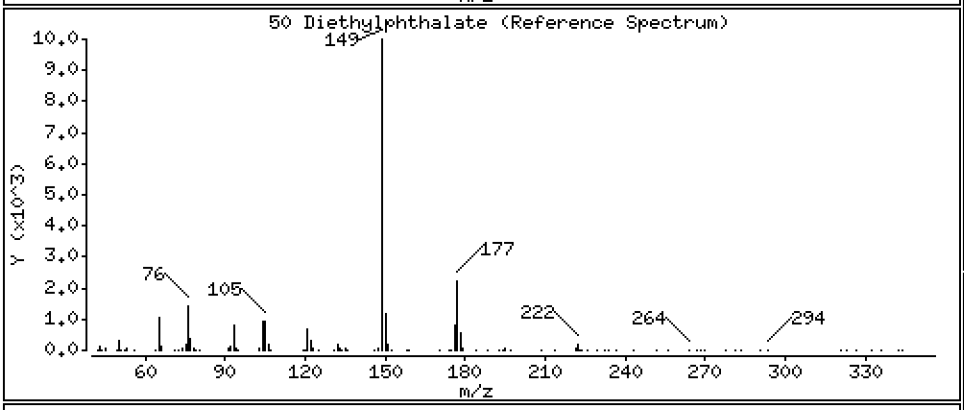
Column diameter: 0.25

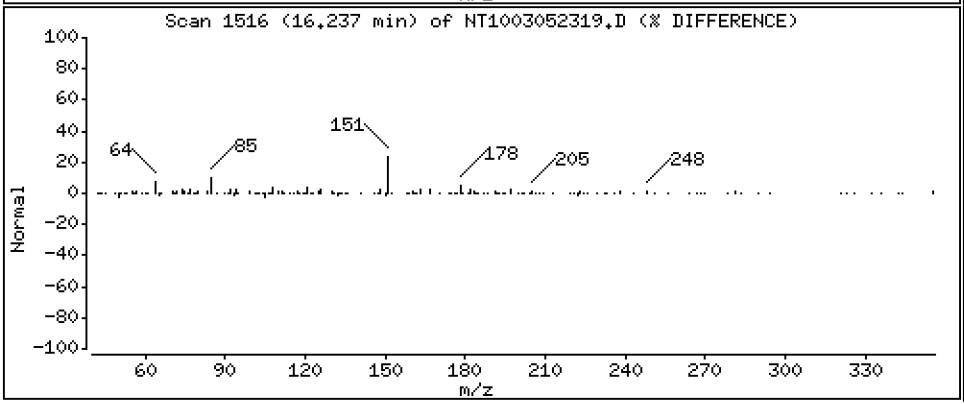
50 Diethylphthalate

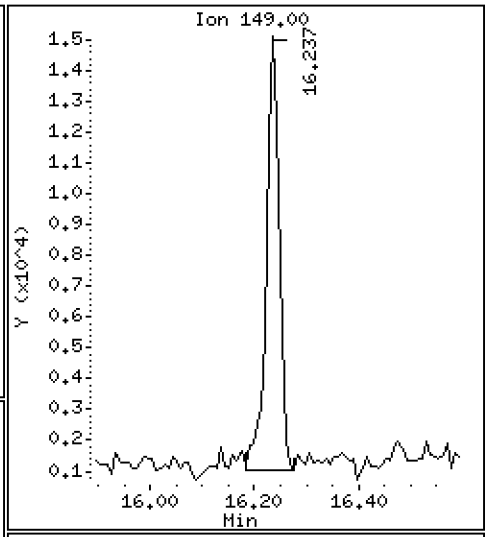
Concentration: 0.1349 ug/mL

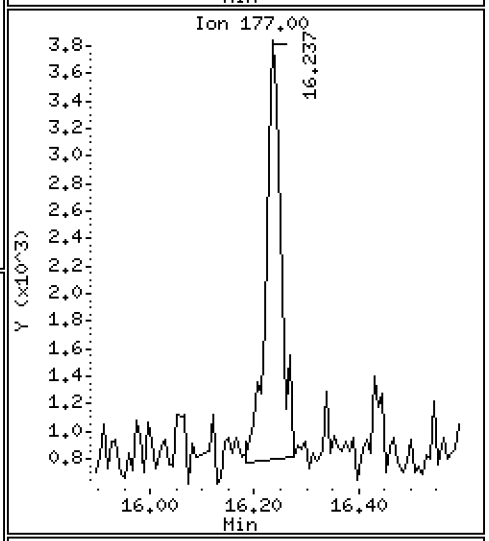


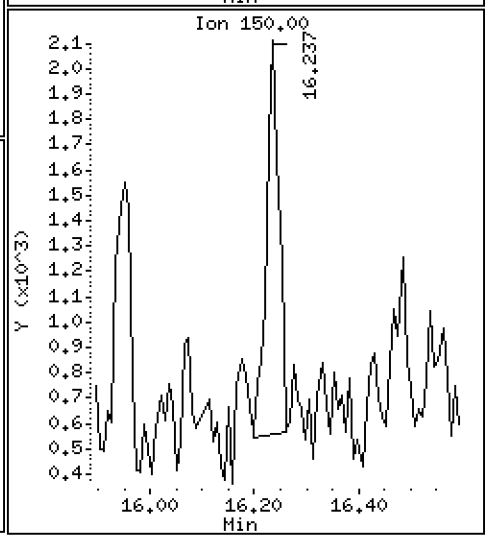












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

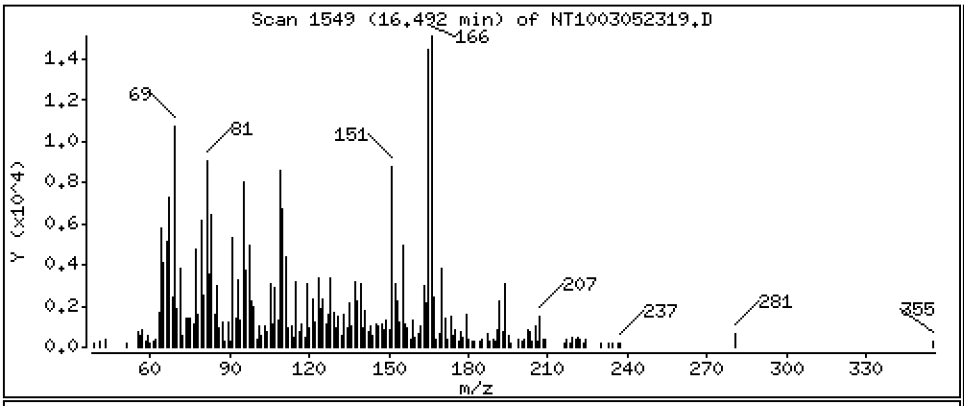
Operator: VTS

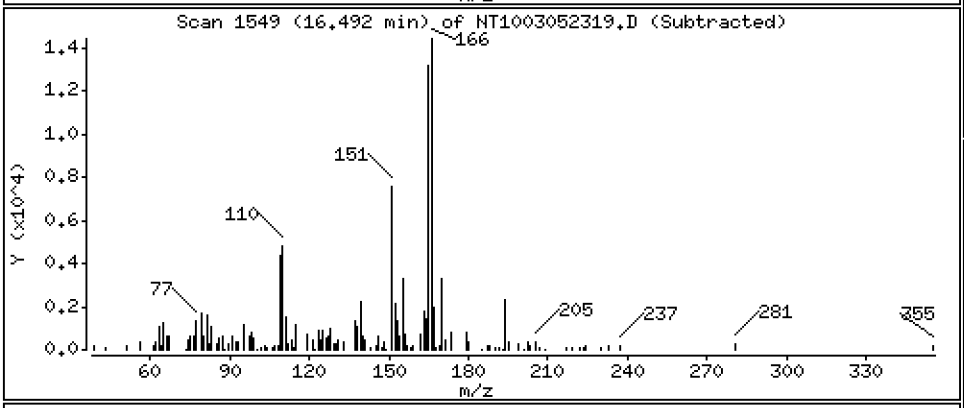
Column phase: ZB-5msi

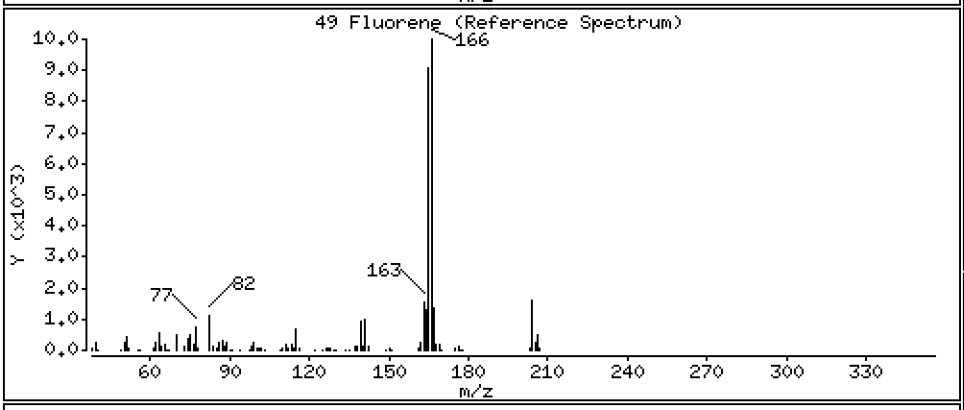
Column diameter: 0.25

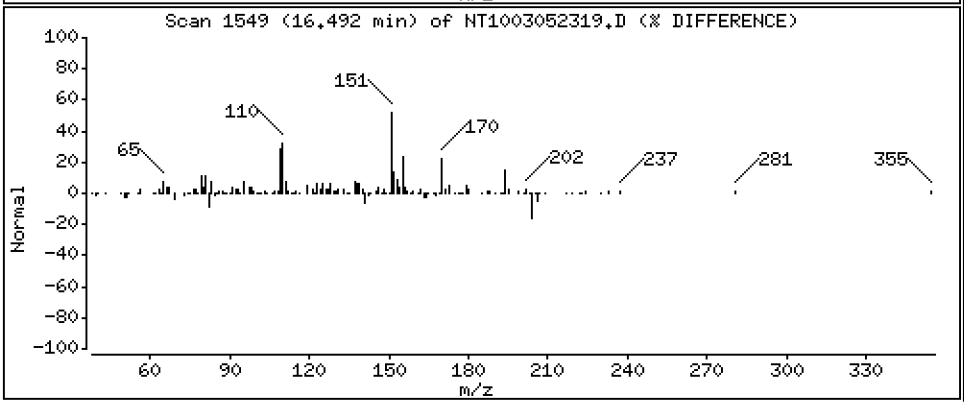
49 Fluorene

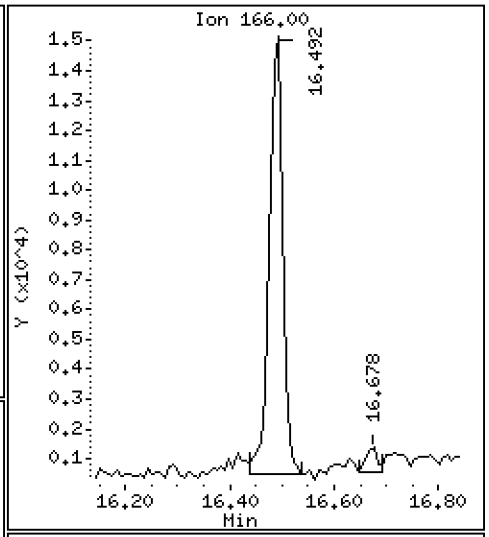
Concentration: 0.1376 ug/mL

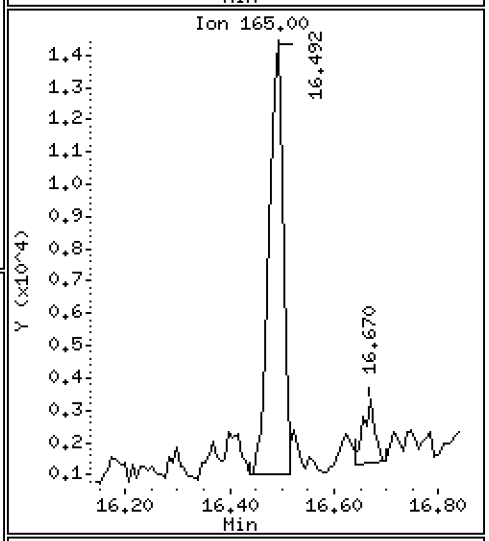


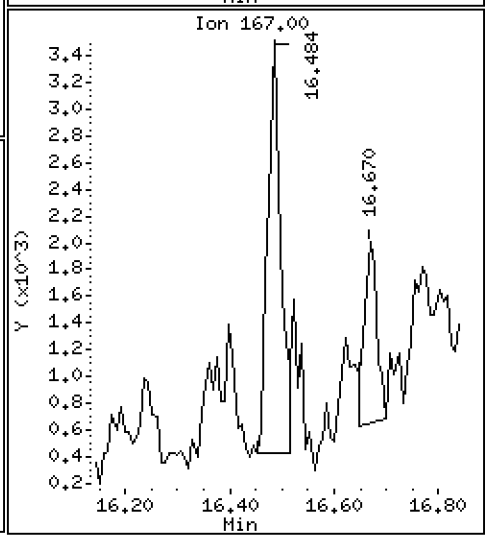












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

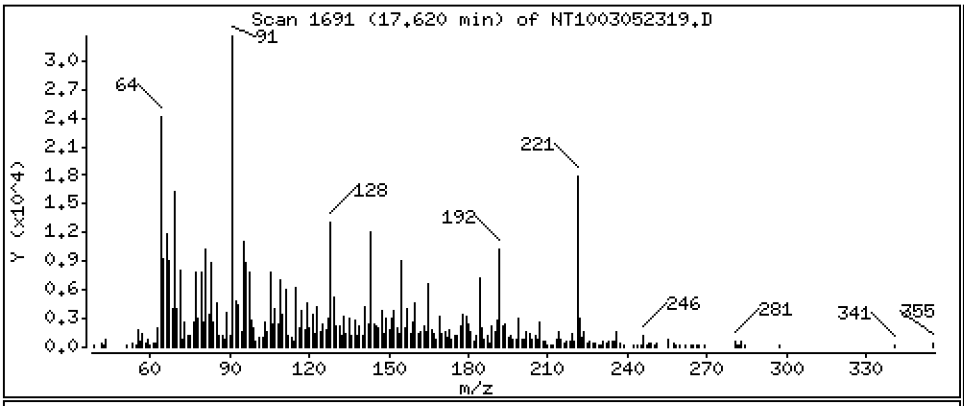
Operator: VTS

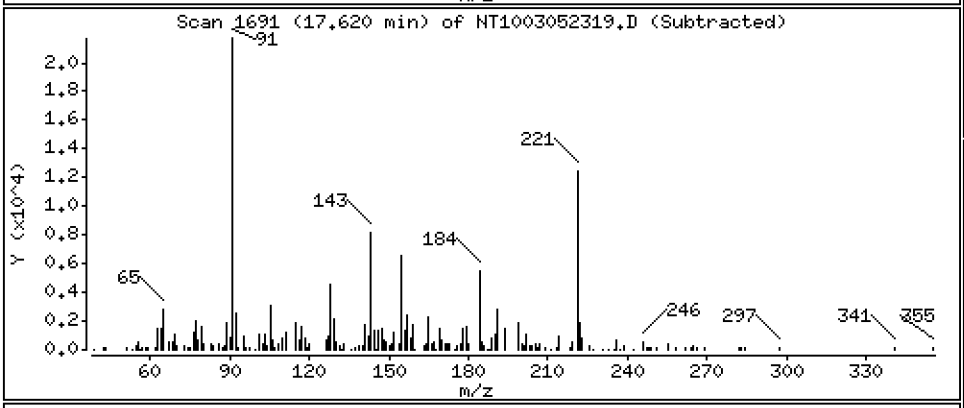
Column phase: ZB-5msi

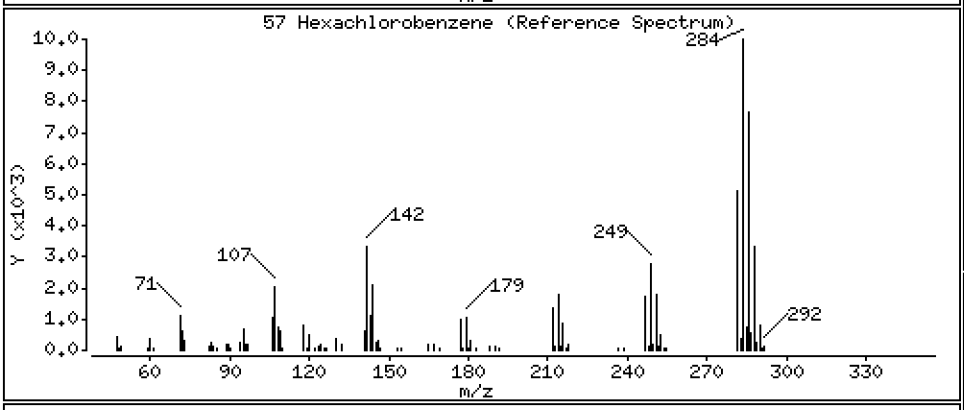
Column diameter: 0.25

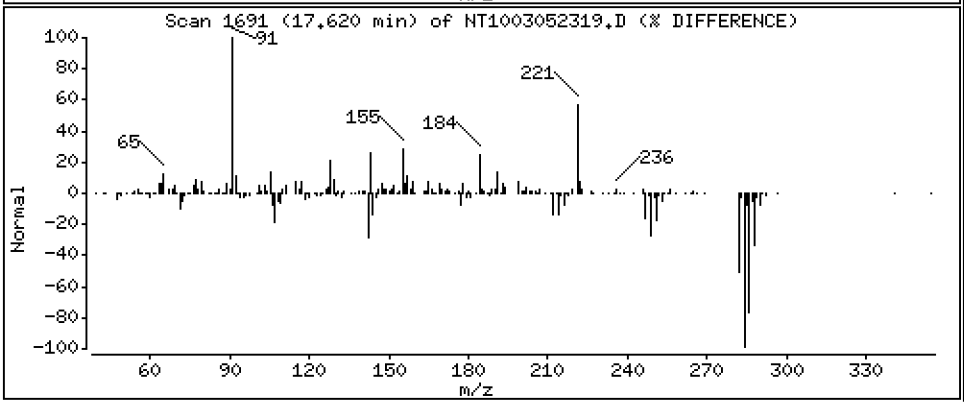
57 Hexachlorobenzene

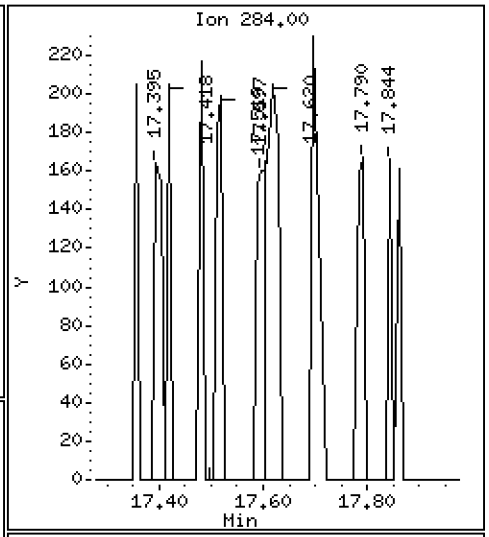
Concentration: 0.005210 ug/mL

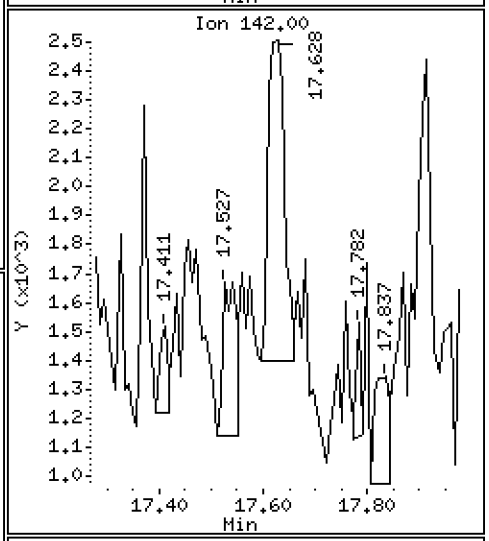


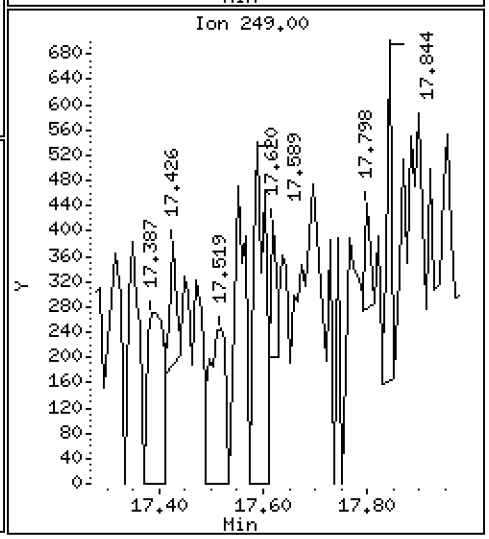












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

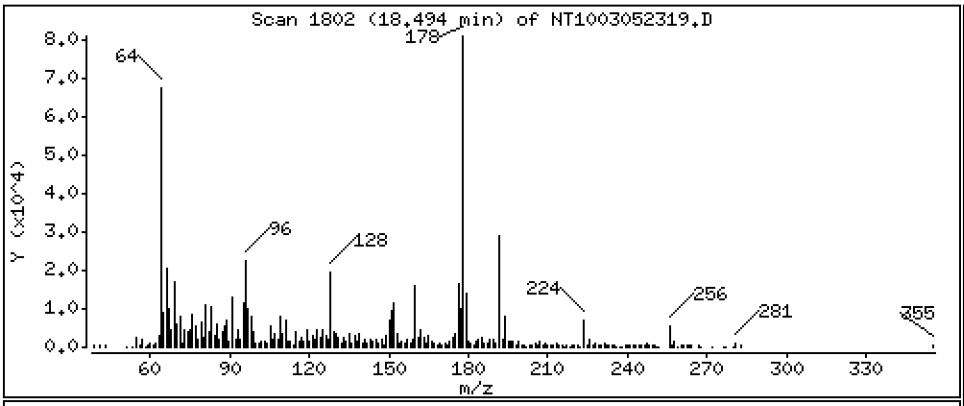
Operator: VTS

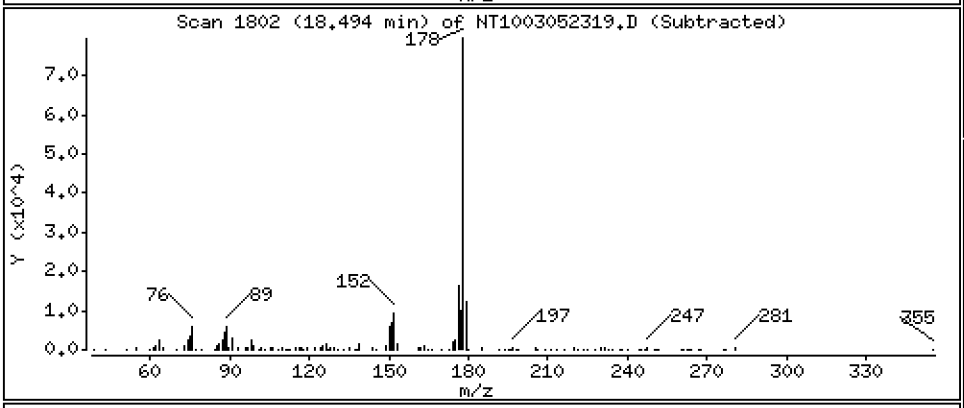
Column phase: ZB-5msi

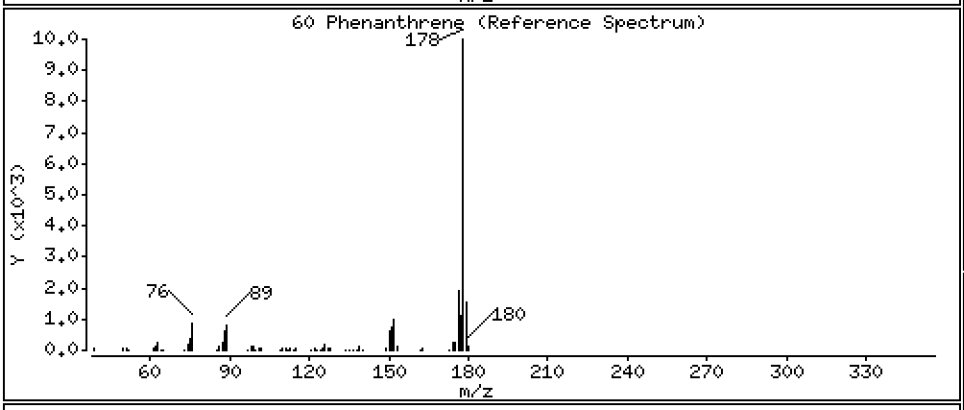
Column diameter: 0.25

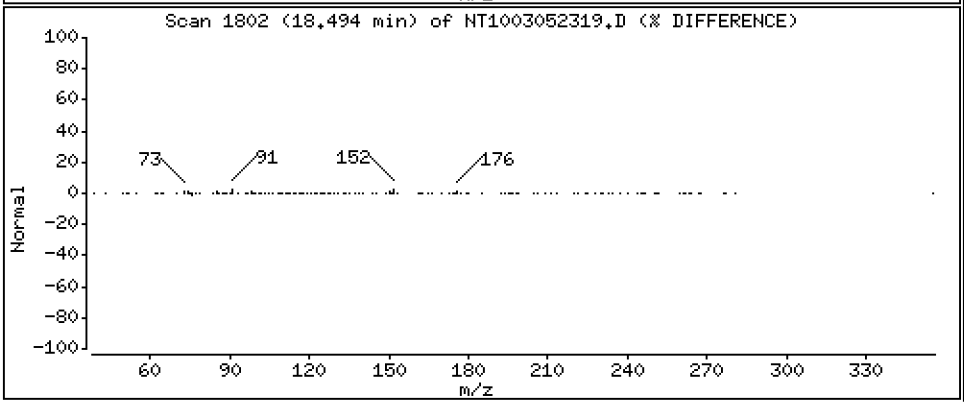
60 Phenanthrene

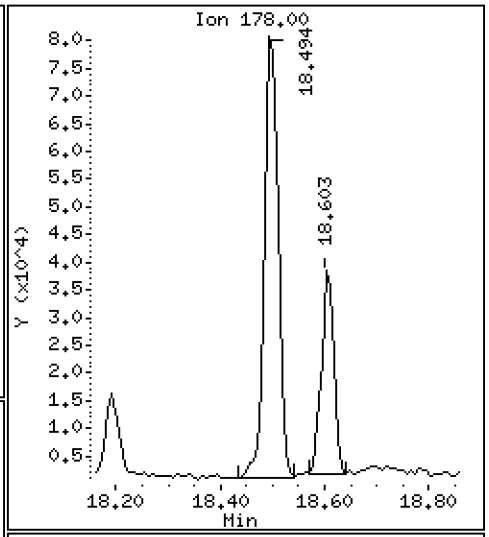
Concentration: 0.5887 ug/mL

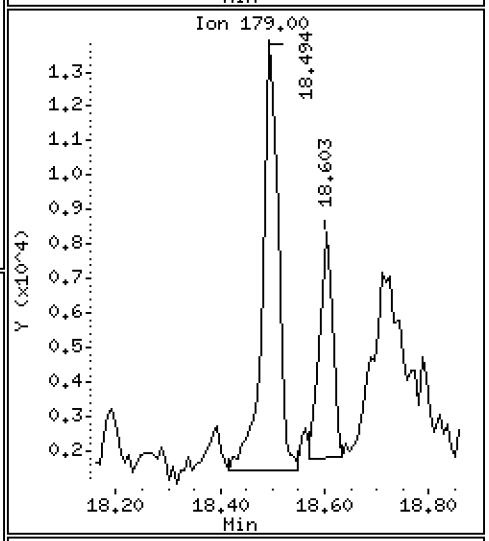


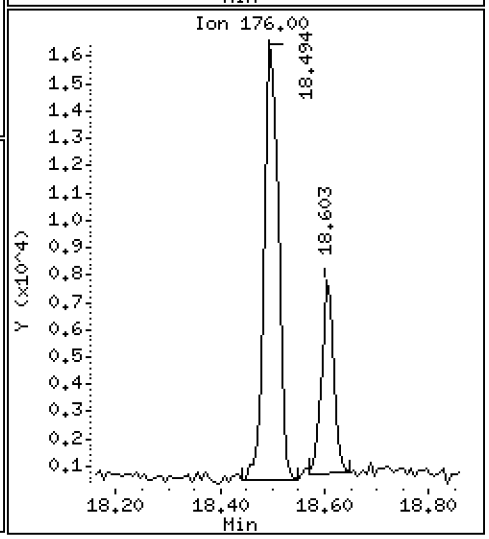












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

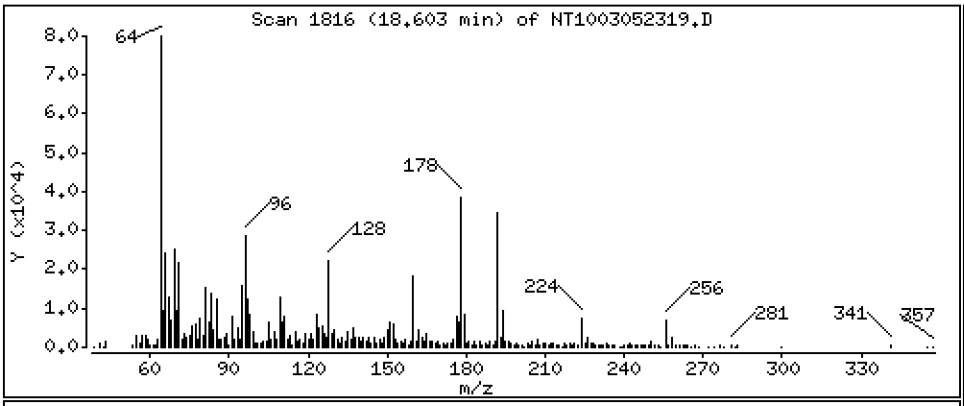
Operator: VTS

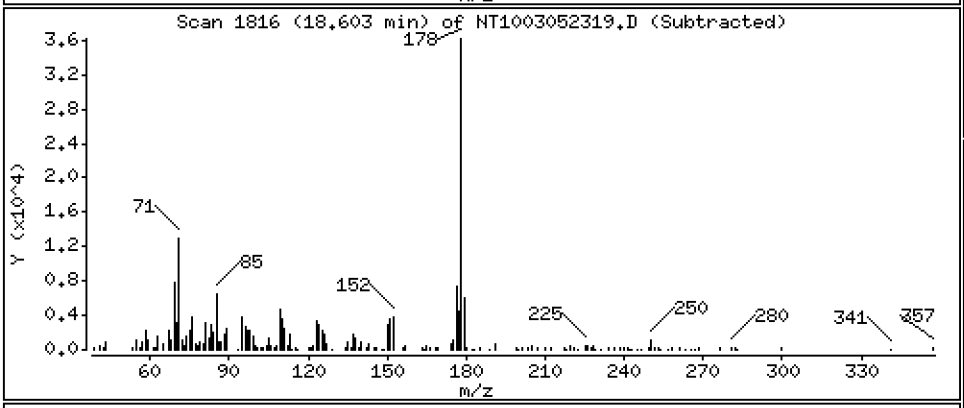
Column phase: ZB-5msi

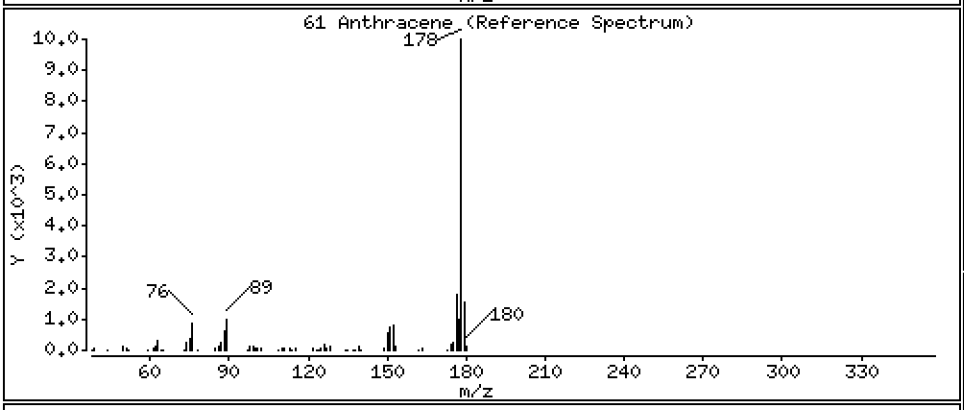
Column diameter: 0.25

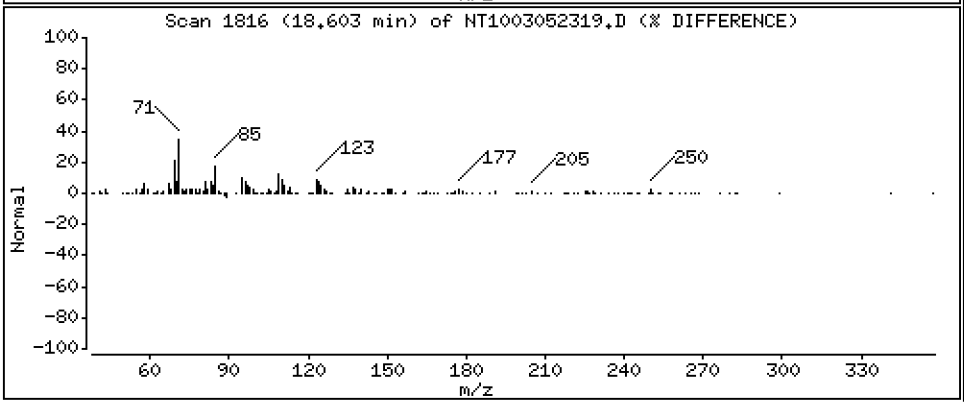
61 Anthracene

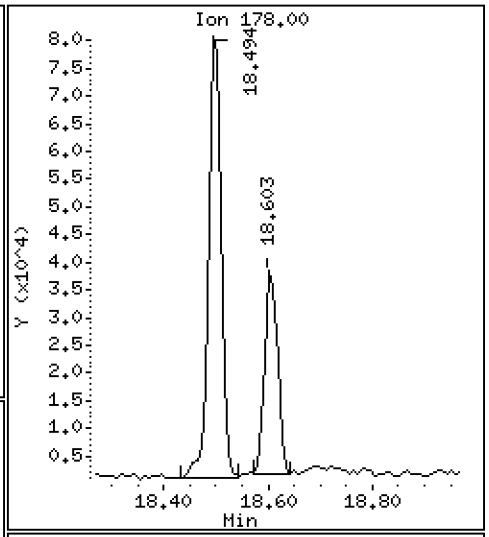
Concentration: 0.2595 ug/mL

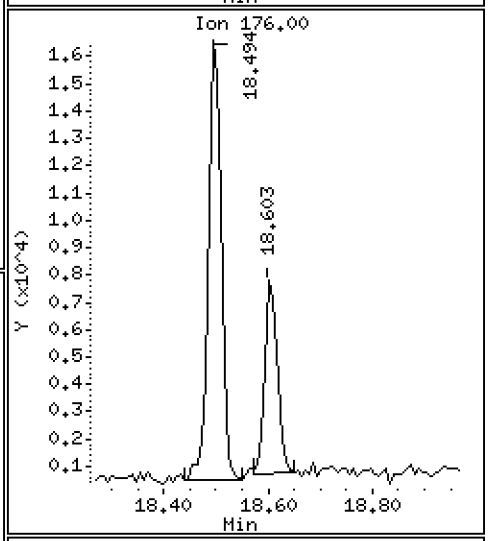


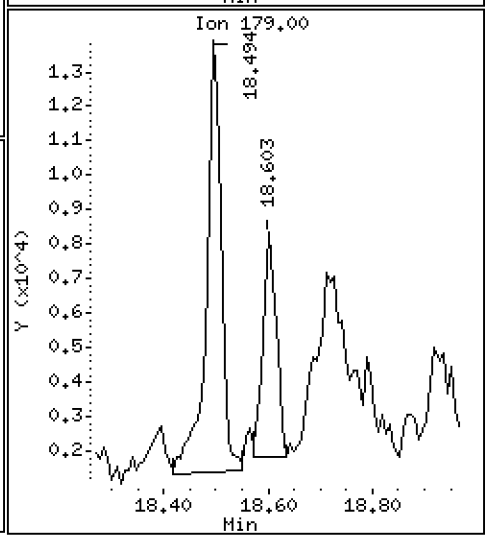












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

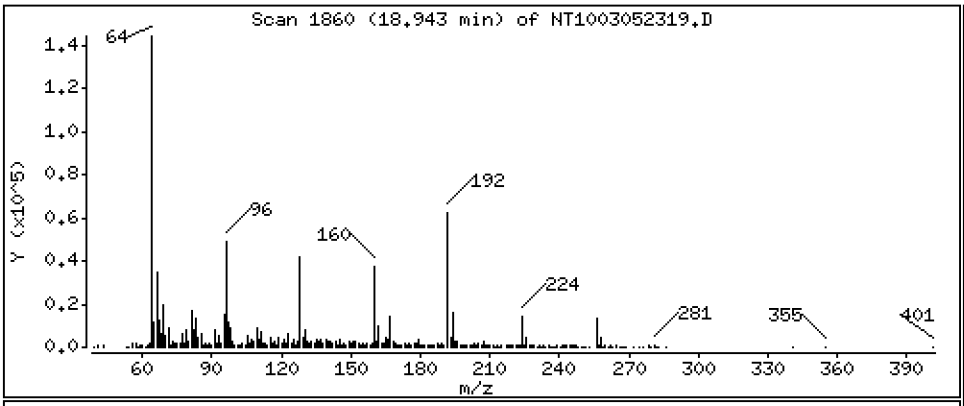
Operator: VTS

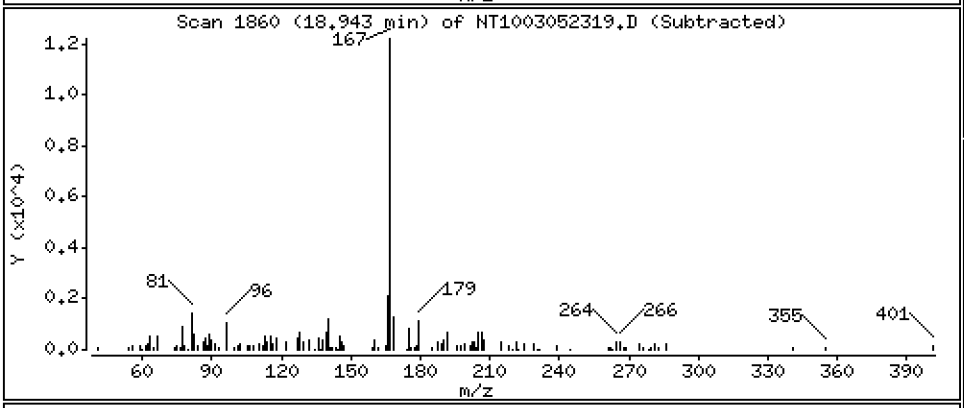
Column phase: ZB-5msi

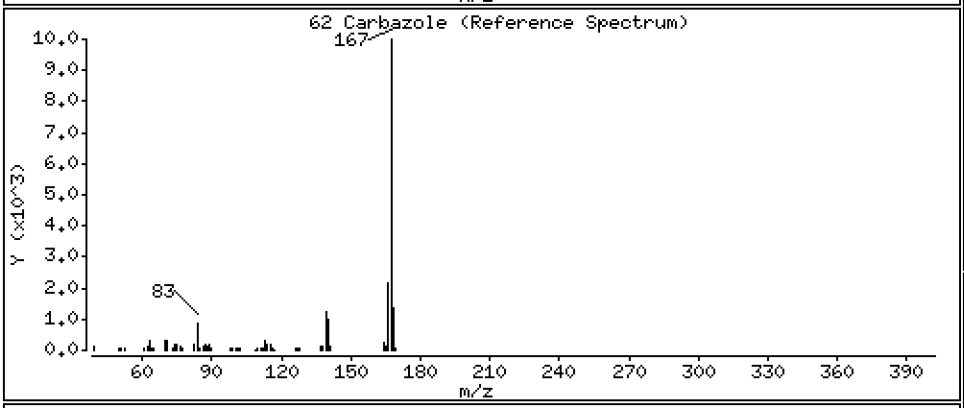
Column diameter: 0.25

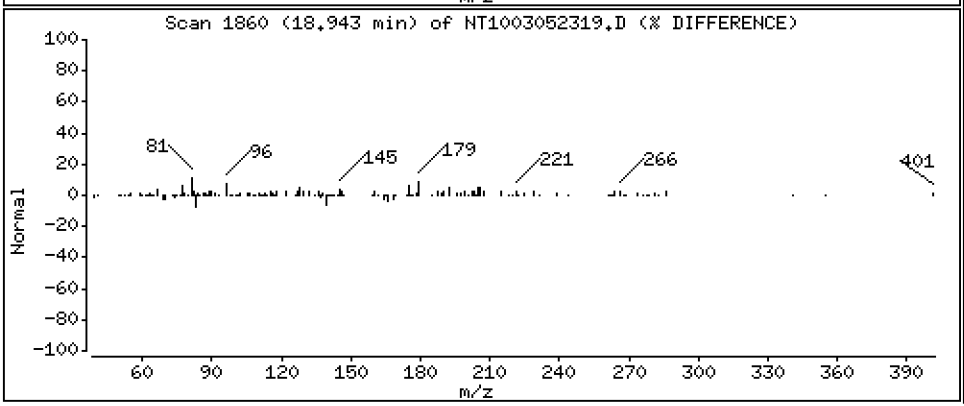
62 Carbazole

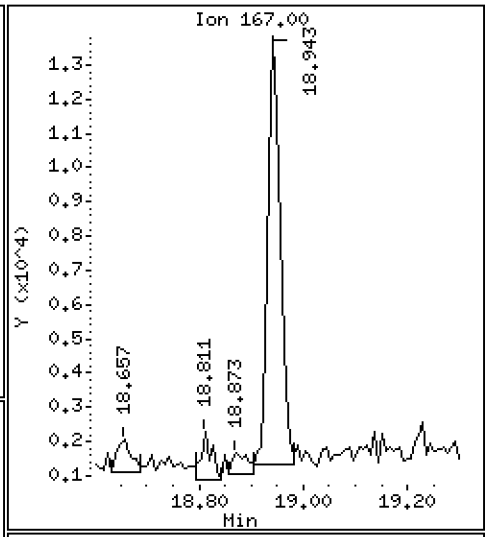
Concentration: 0.09517 ug/mL

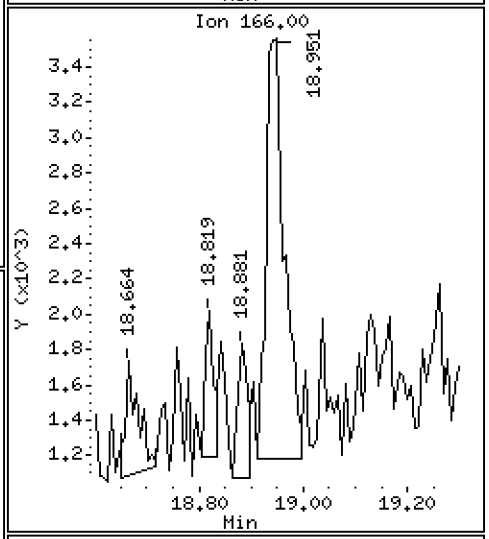


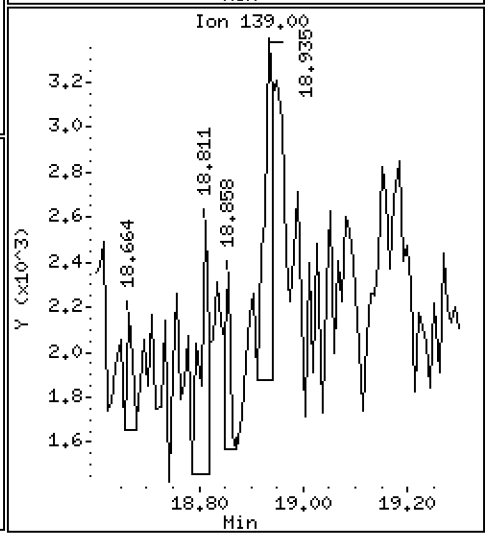












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

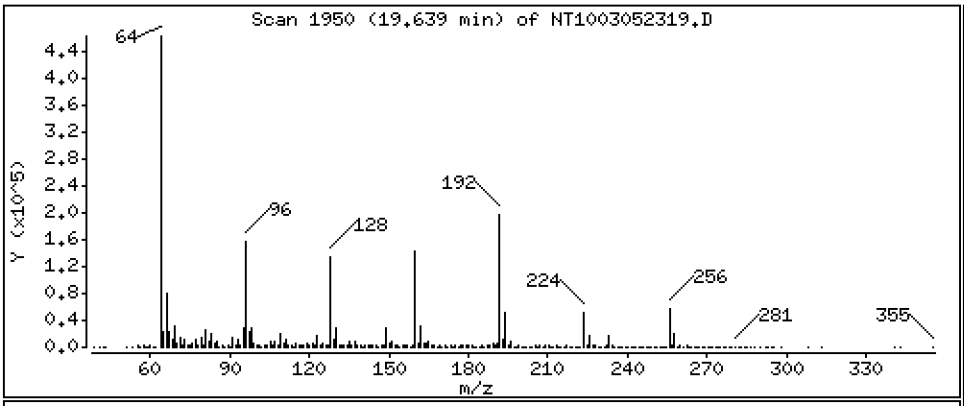
Operator: VTS

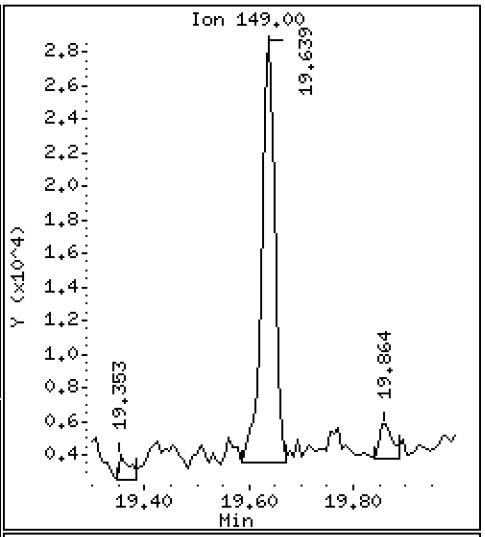
Column phase: ZB-5msi

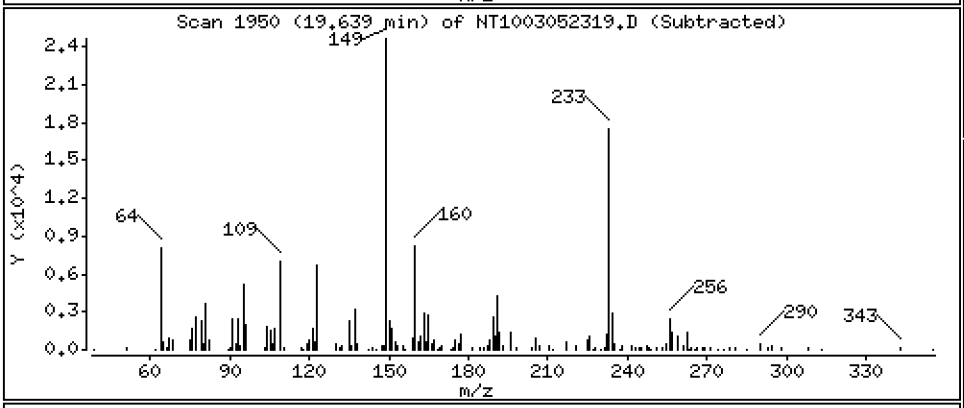
Column diameter: 0.25

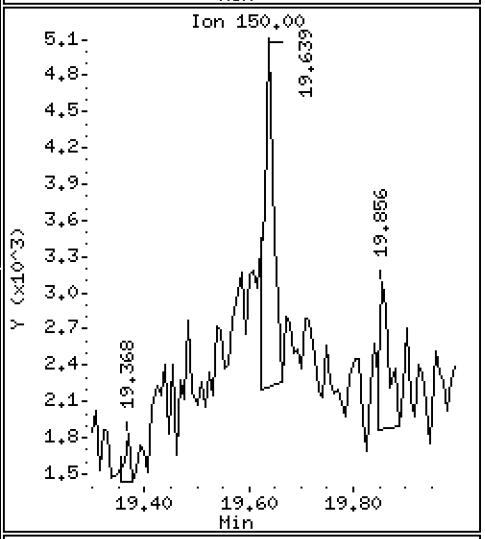
63 Di-n-butylphthalate

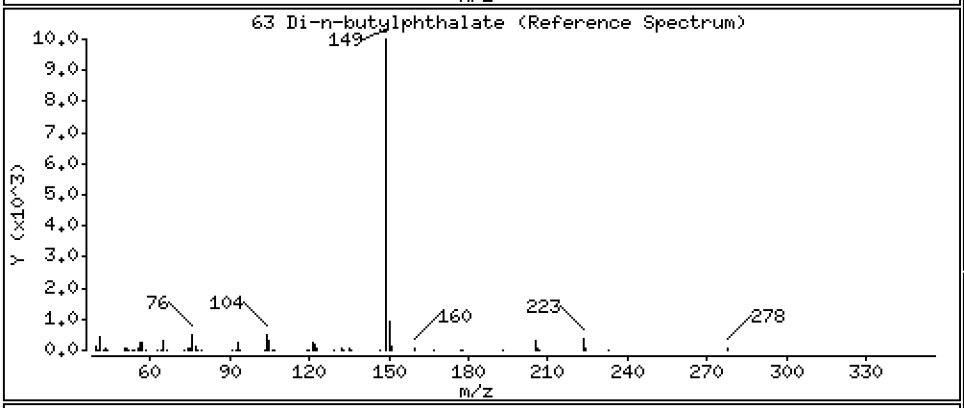
Concentration: 0.1438 ug/mL

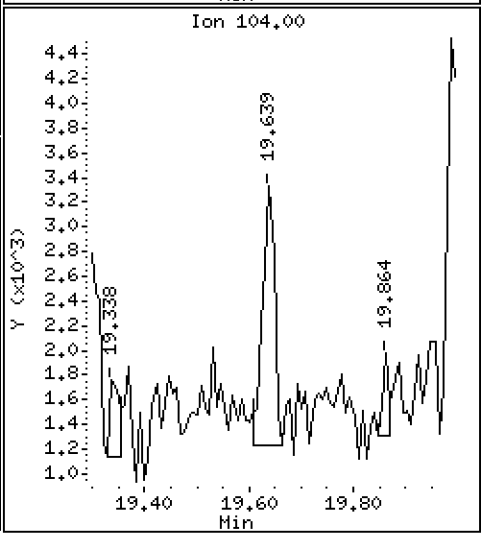


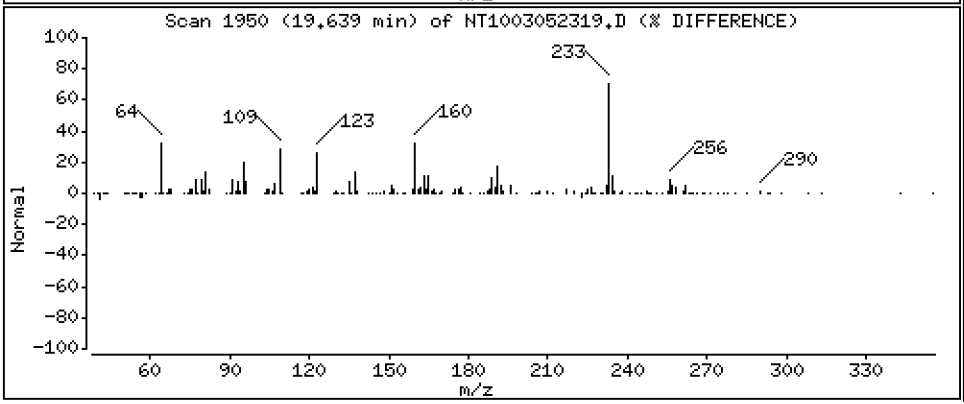












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

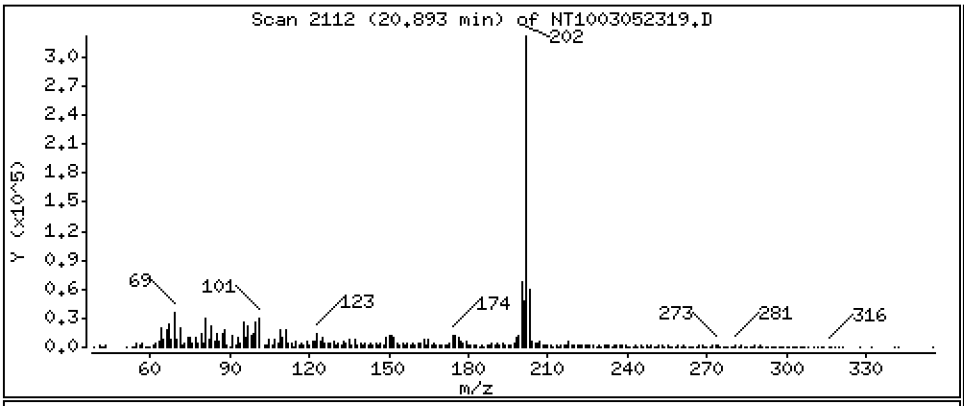
Operator: VTS

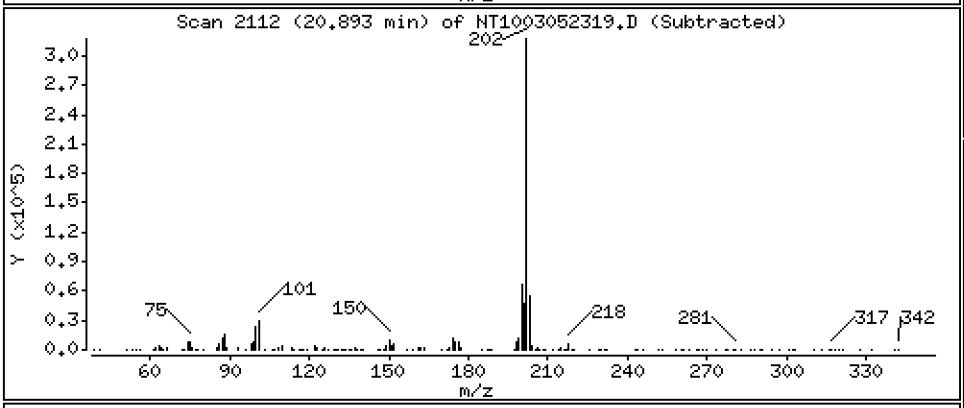
Column phase: ZB-5msi

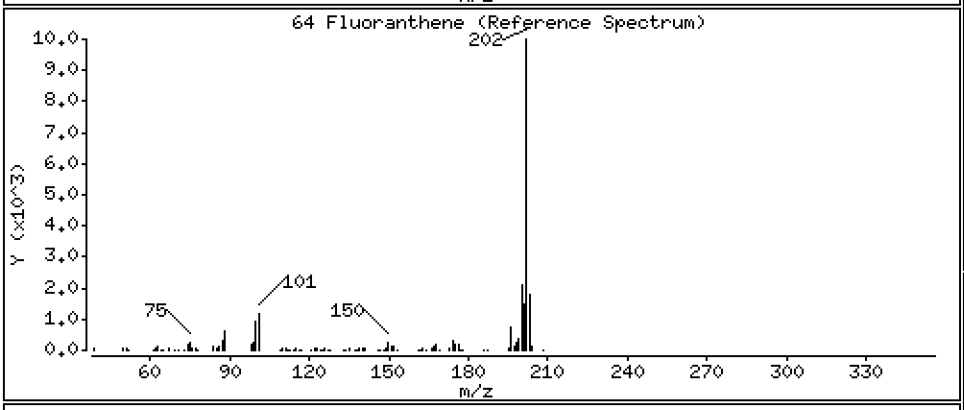
Column diameter: 0.25

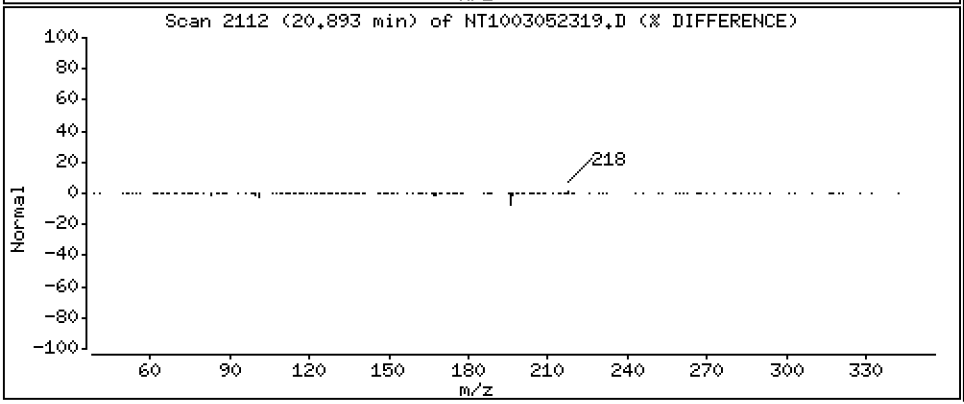
64 Fluoranthene

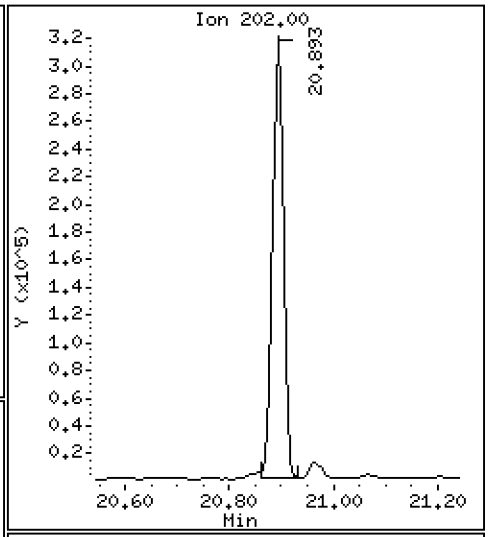
Concentration: 1.284 ug/mL

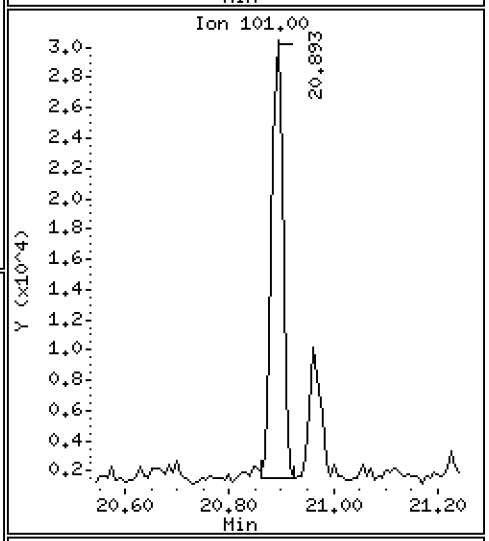


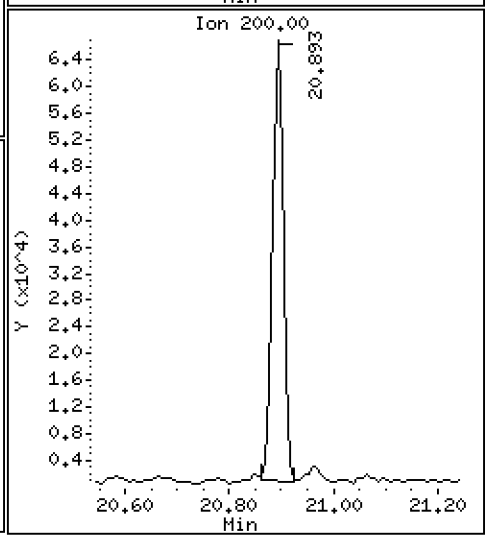












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

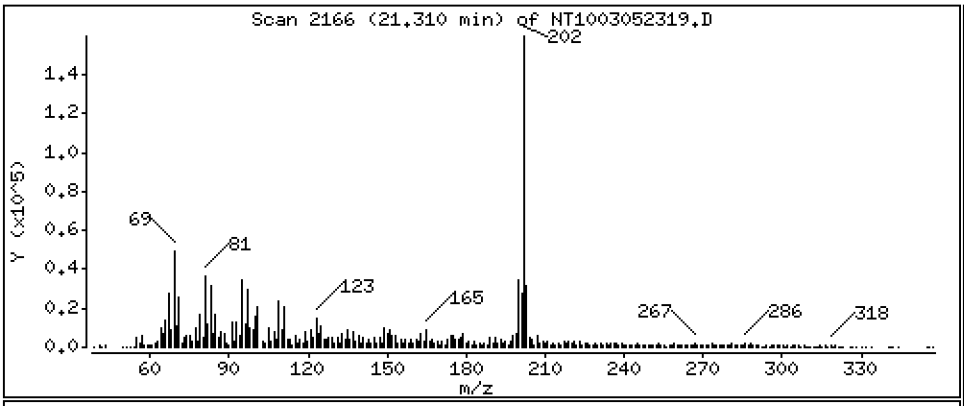
Operator: VTS

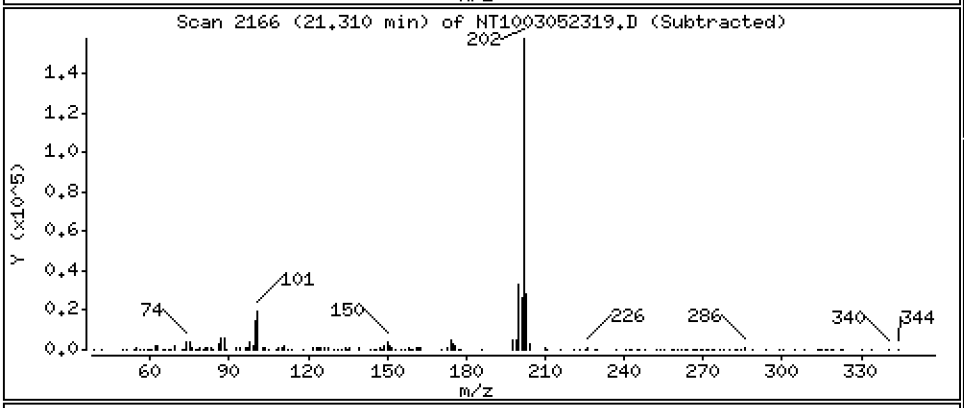
Column phase: ZB-5msi

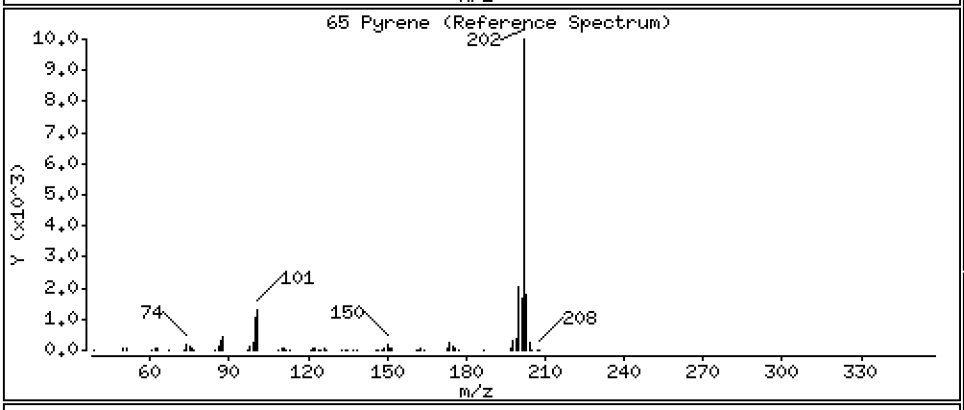
Column diameter: 0.25

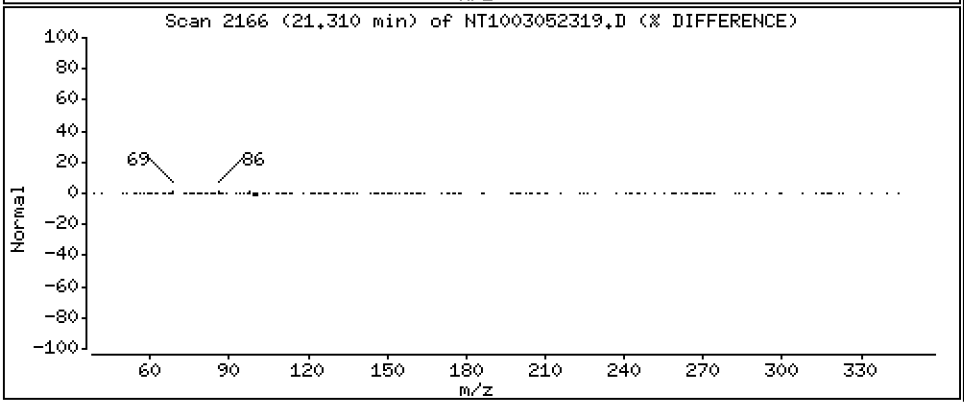
65 Pyrene

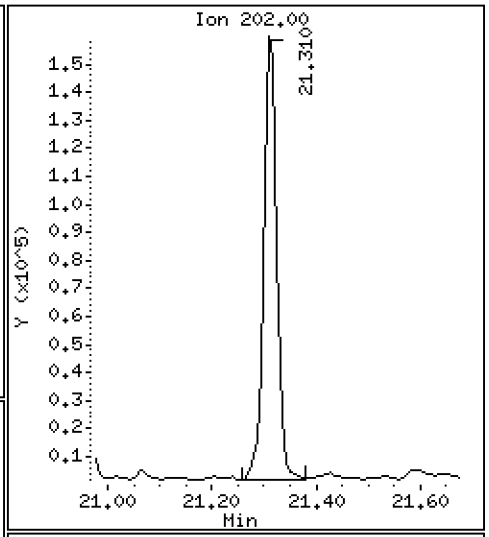
Concentration: 0.8074 ug/mL

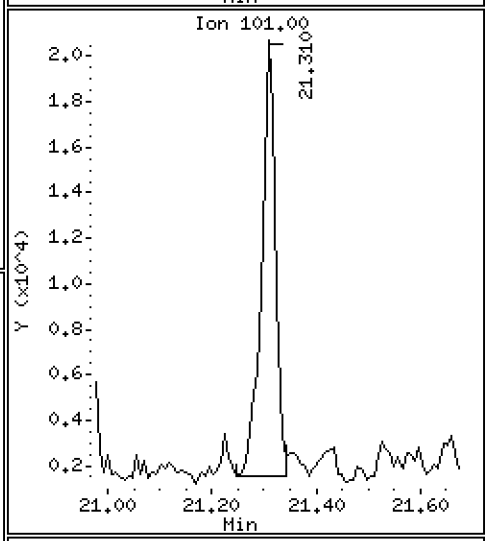


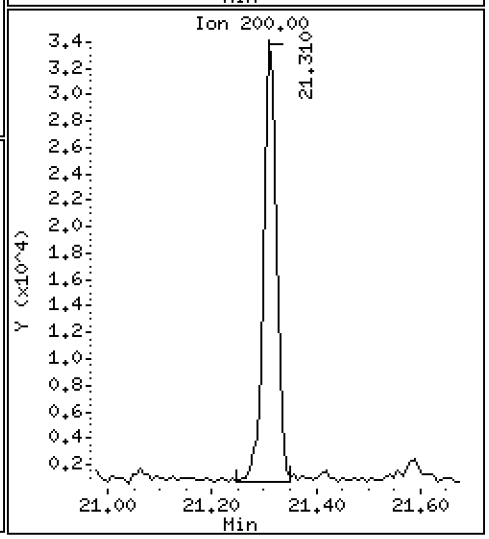












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

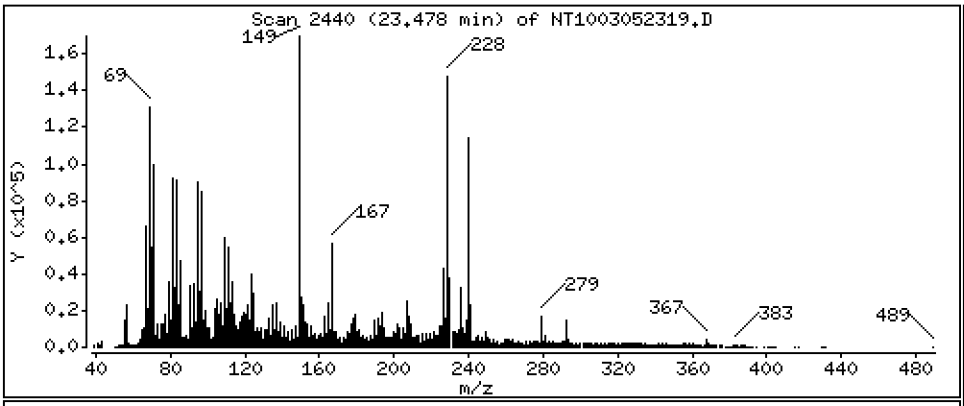
Operator: VTS

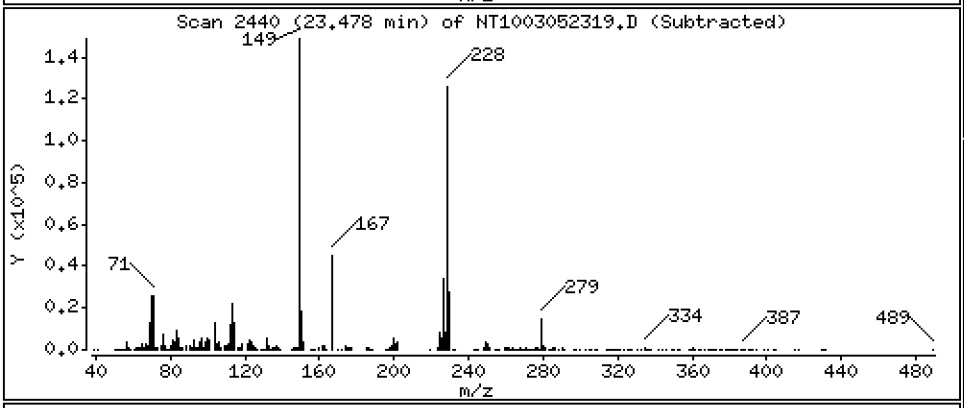
Column phase: ZB-5msi

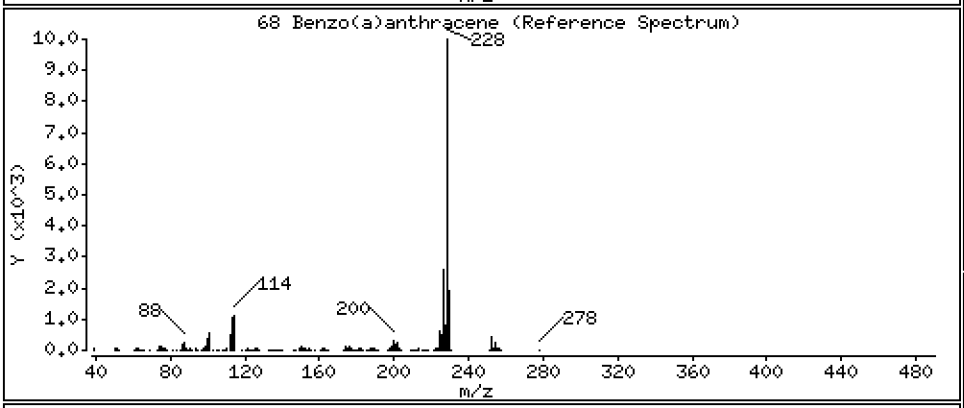
Column diameter: 0.25

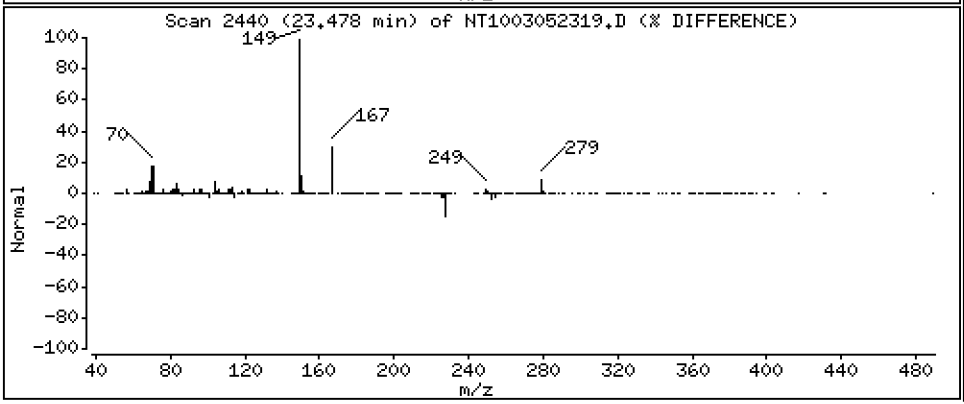
68 Benzo(a)anthracene

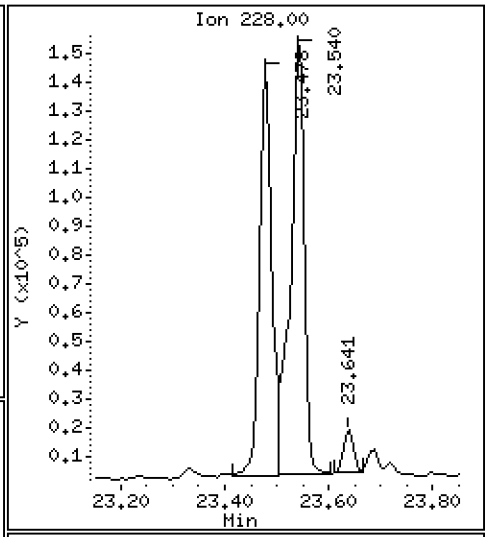
Concentration: 0.6903 ug/mL

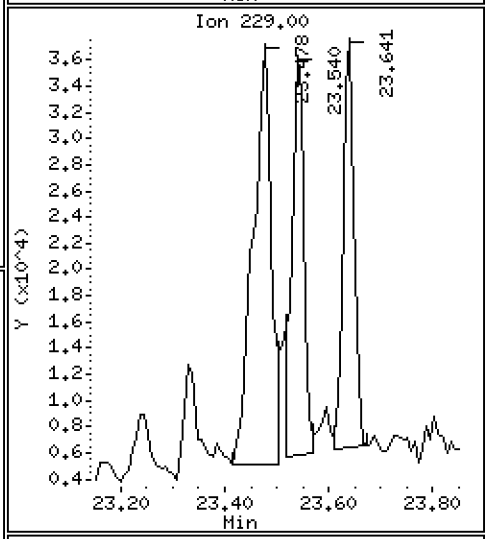


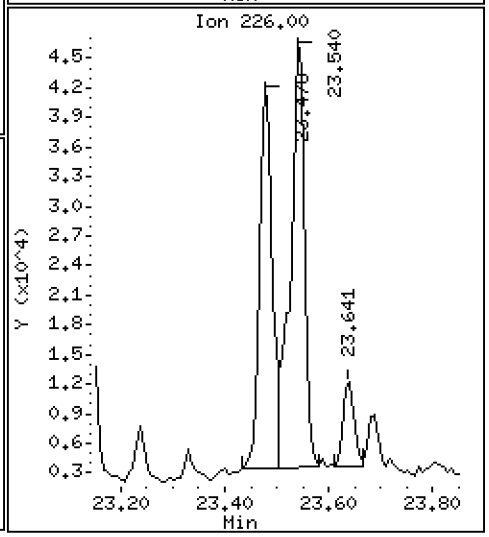












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

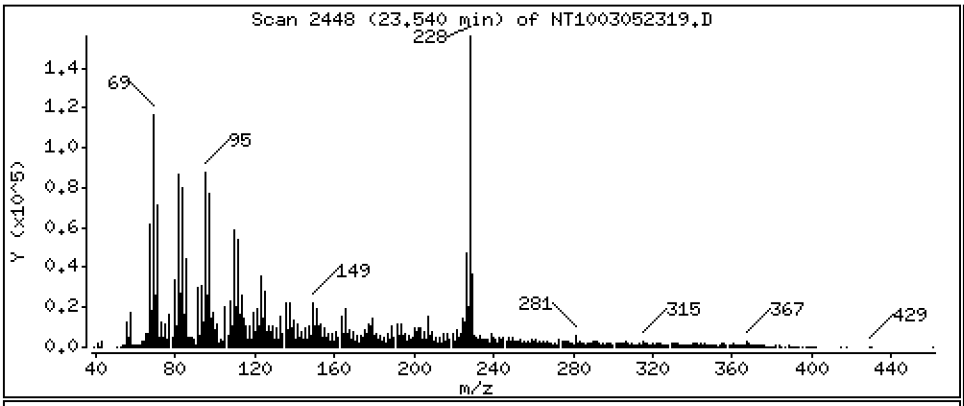
Operator: VTS

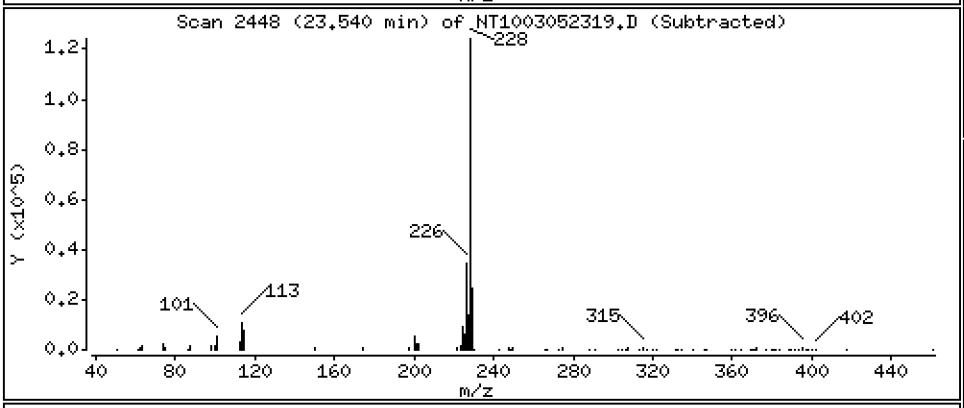
Column phase: ZB-5msi

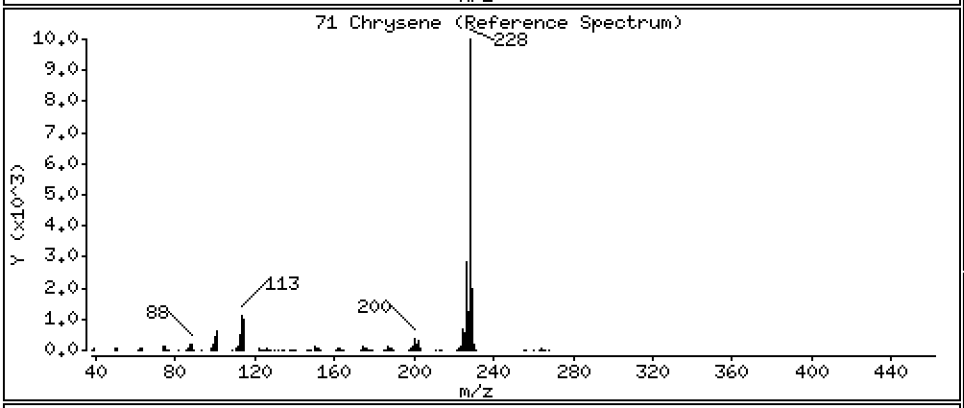
Column diameter: 0.25

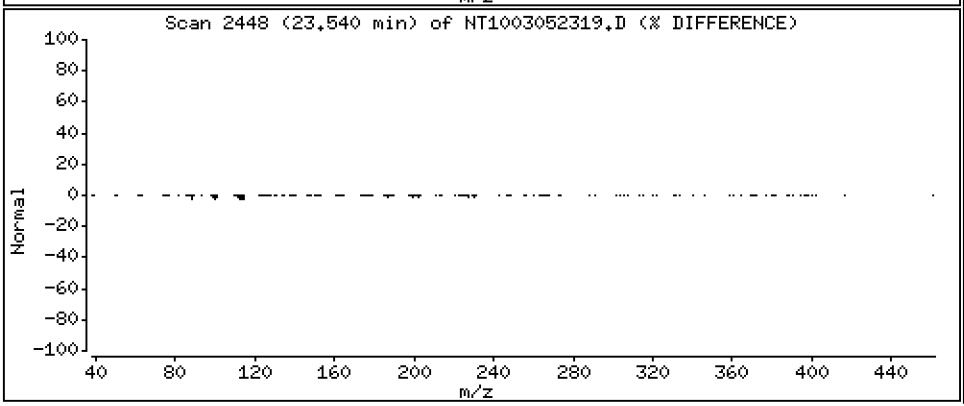
71 Chrysene

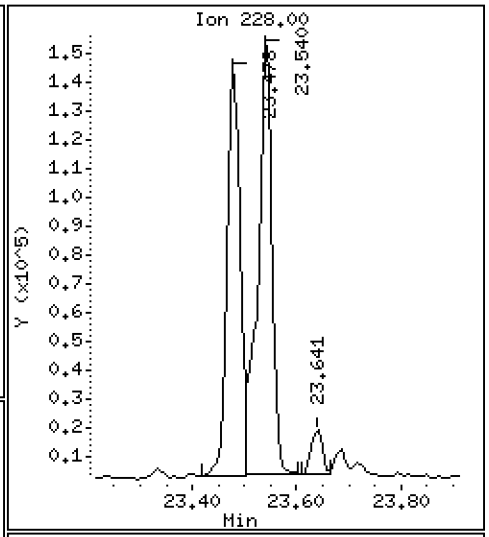
Concentration: 1.064 ug/mL

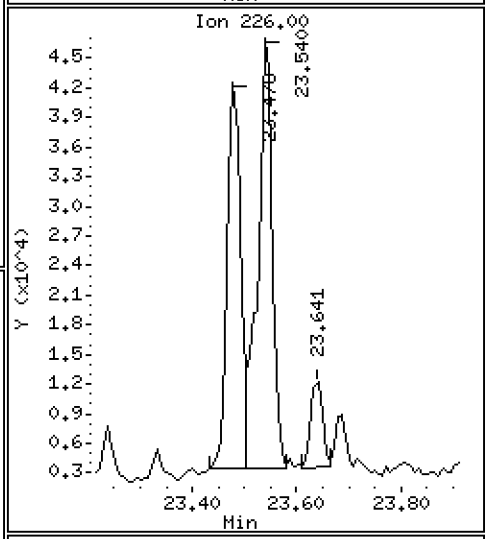


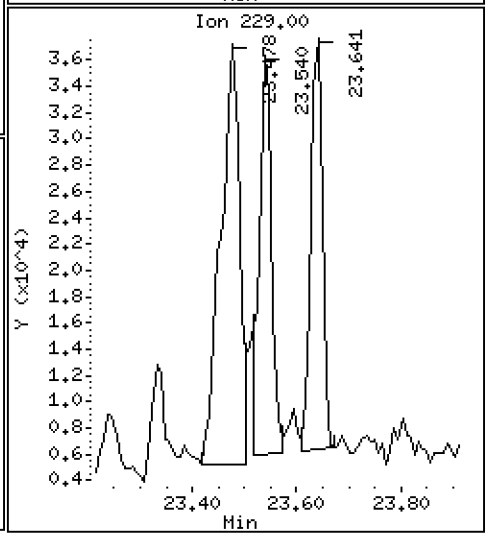












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

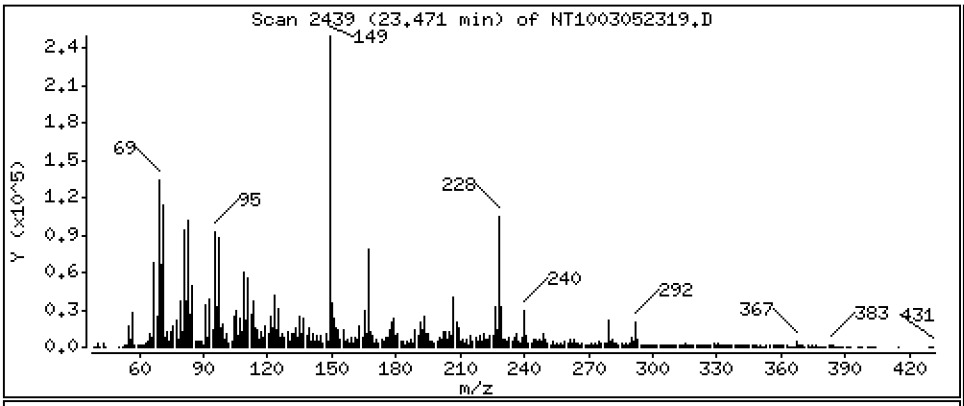
Operator: VTS

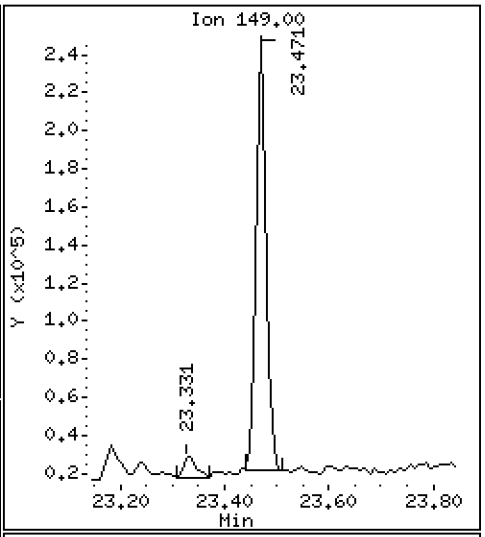
Column phase: ZB-5msi

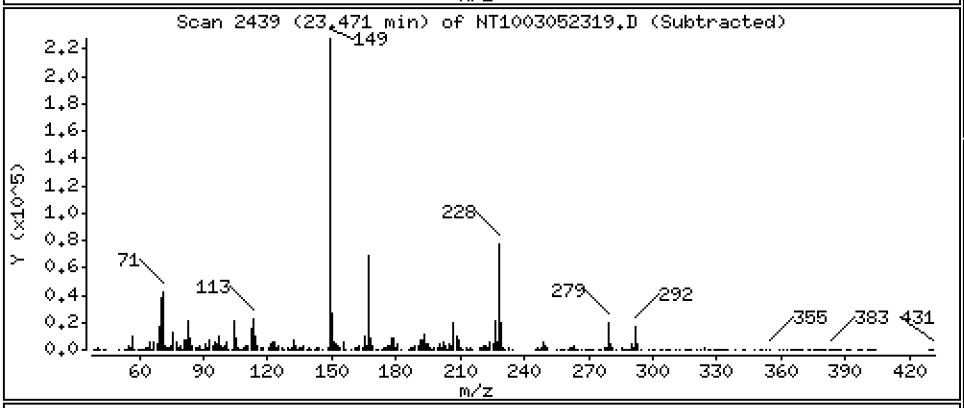
Column diameter: 0.25

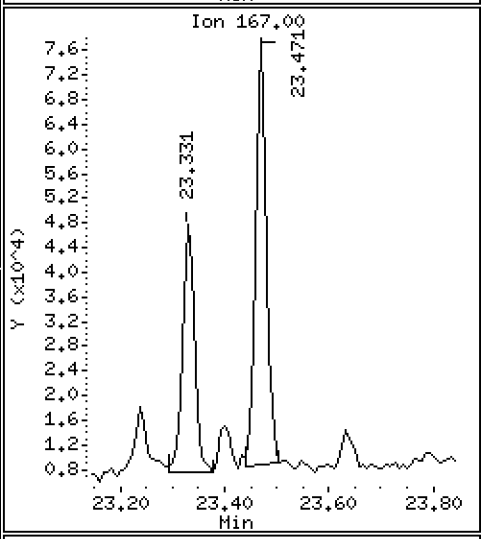
72 bis(2-Ethylhexyl)phthalate

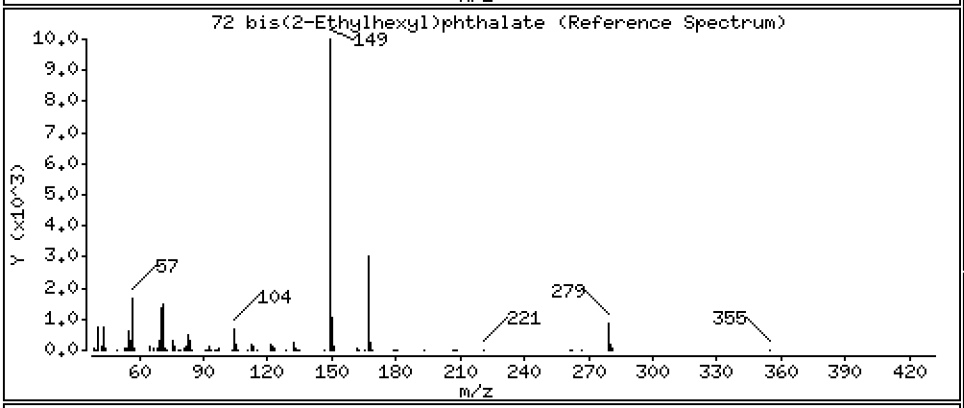
Concentration: 1.304 ug/mL

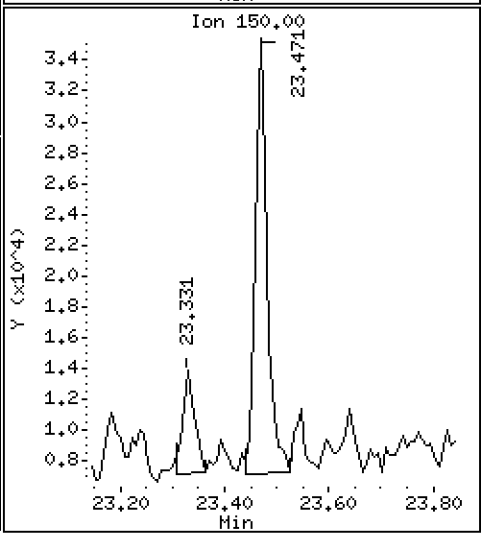


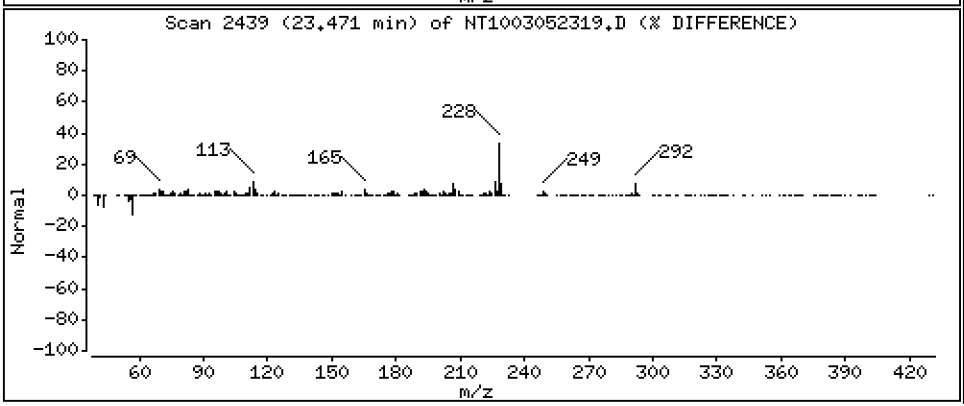












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

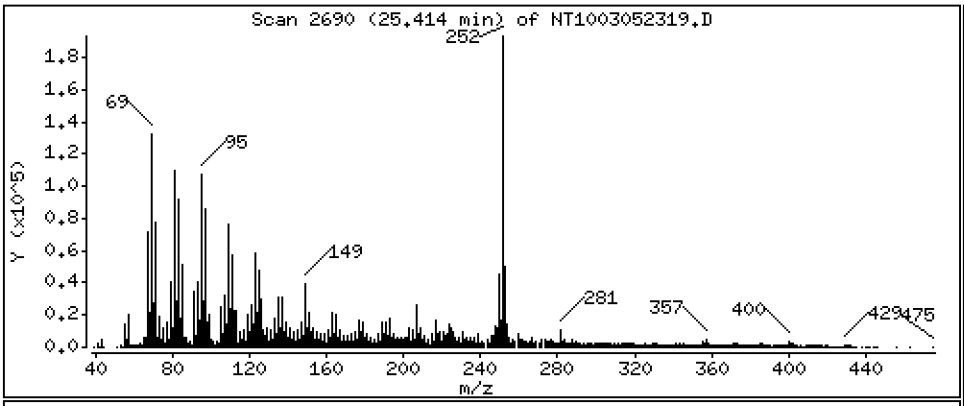
Operator: VTS

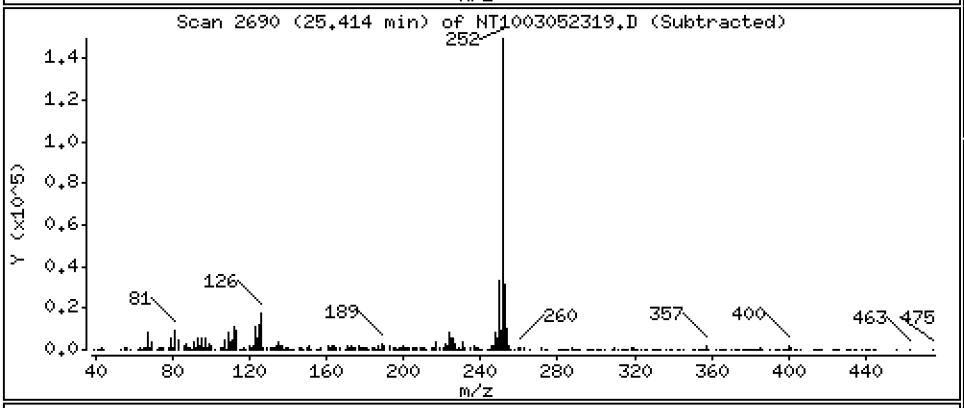
Column phase: ZB-5msi

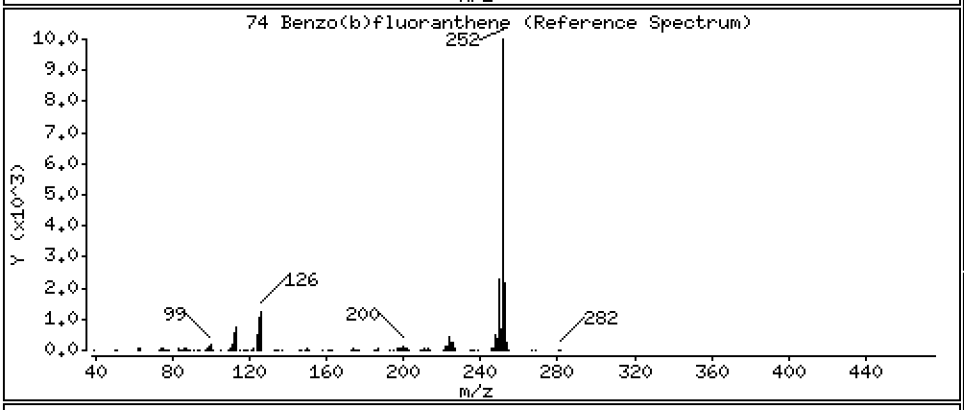
Column diameter: 0.25

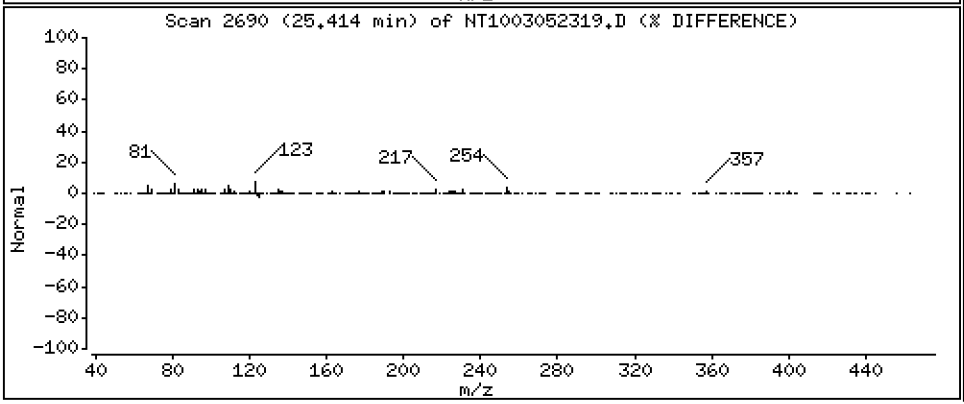
74 Benzo(b)fluoranthene

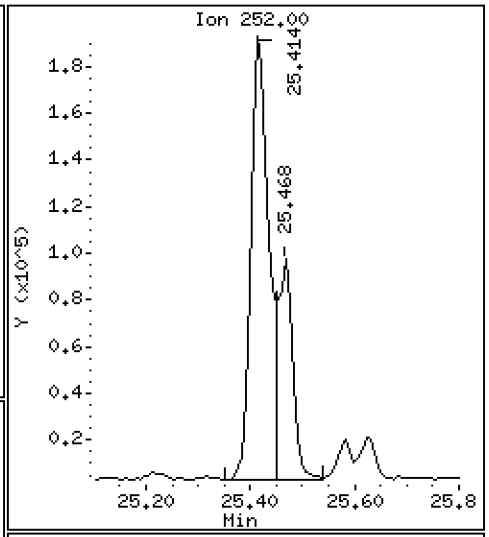
Concentration: 1.239 ug/mL

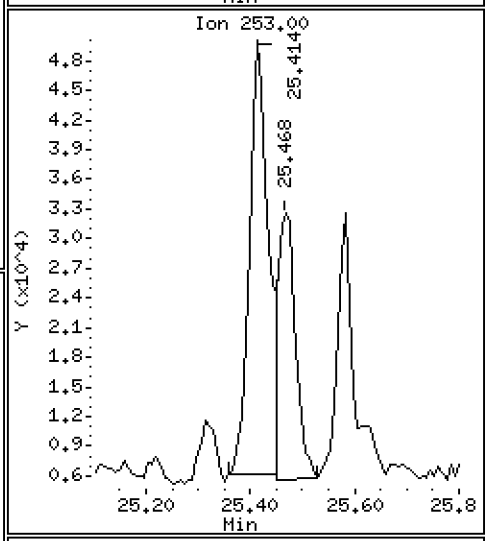


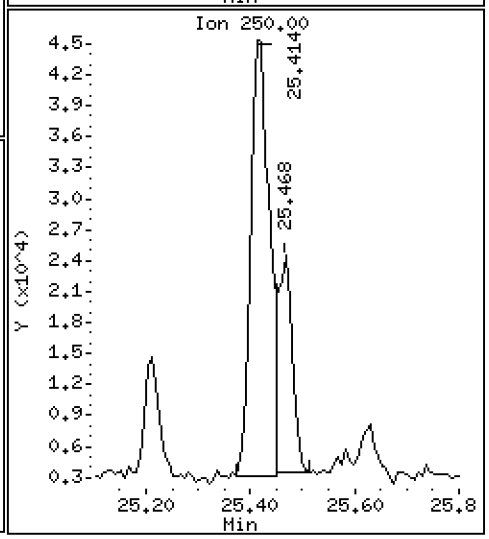












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

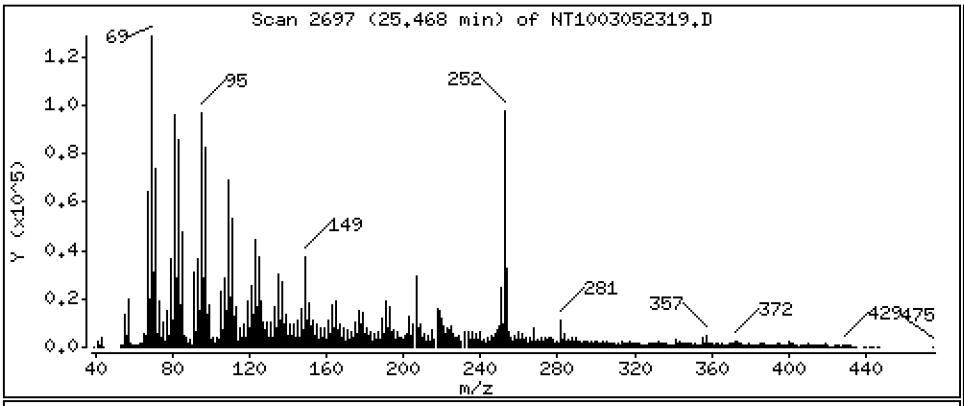
Operator: VTS

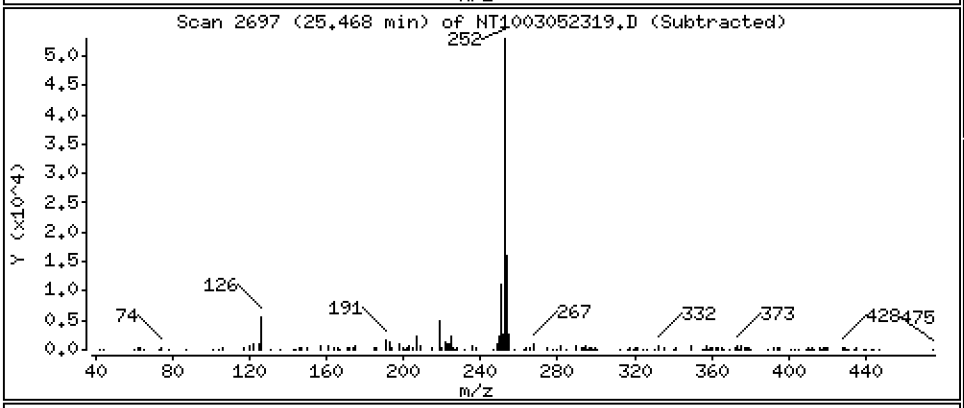
Column phase: ZB-5msi

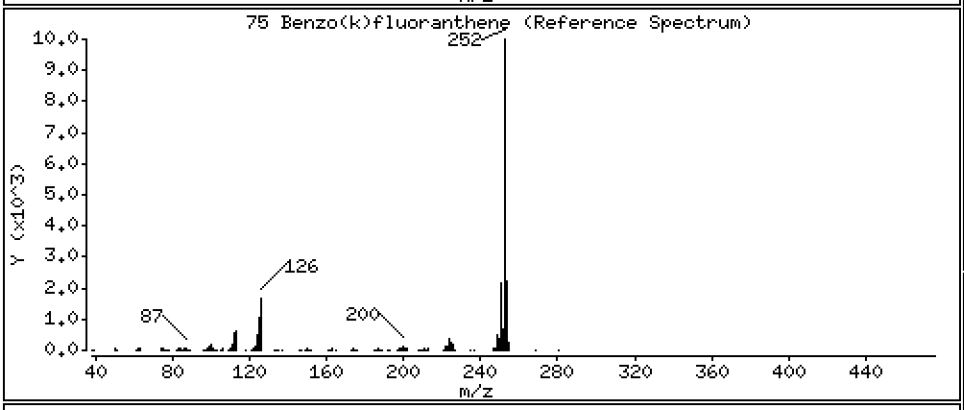
Column diameter: 0.25

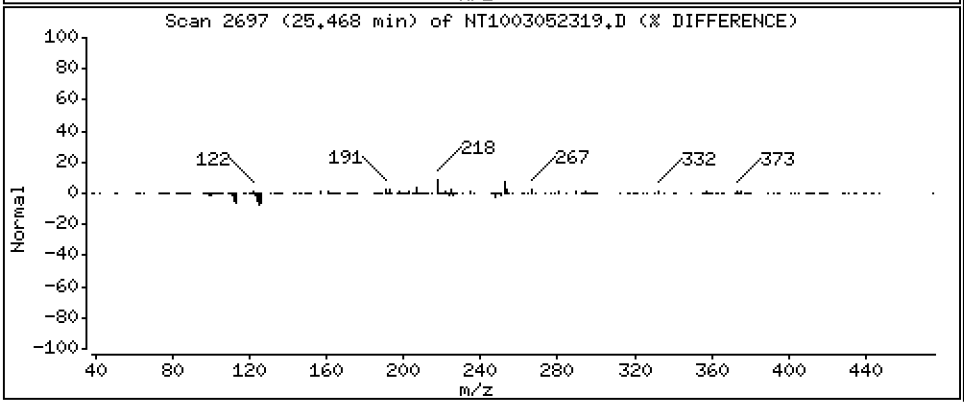
75 Benzo(k)fluoranthene

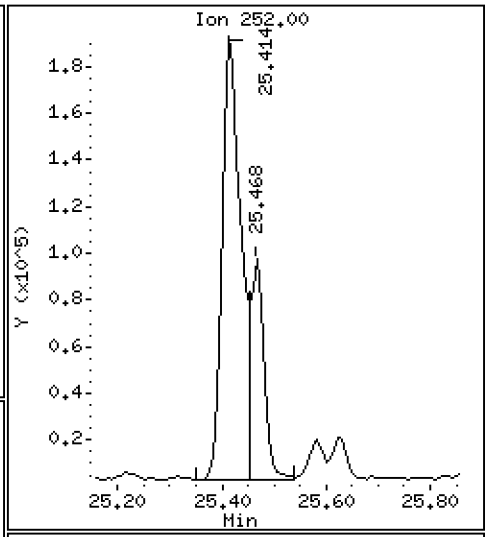
Concentration: 0.5014 ug/mL

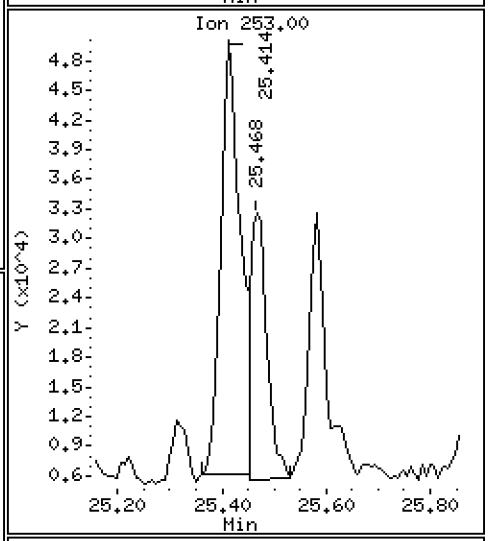


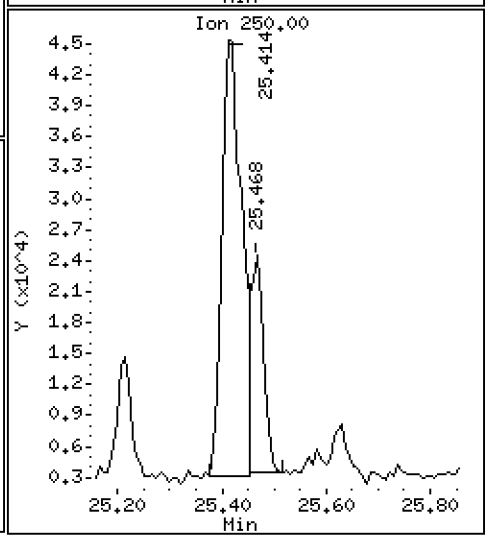












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

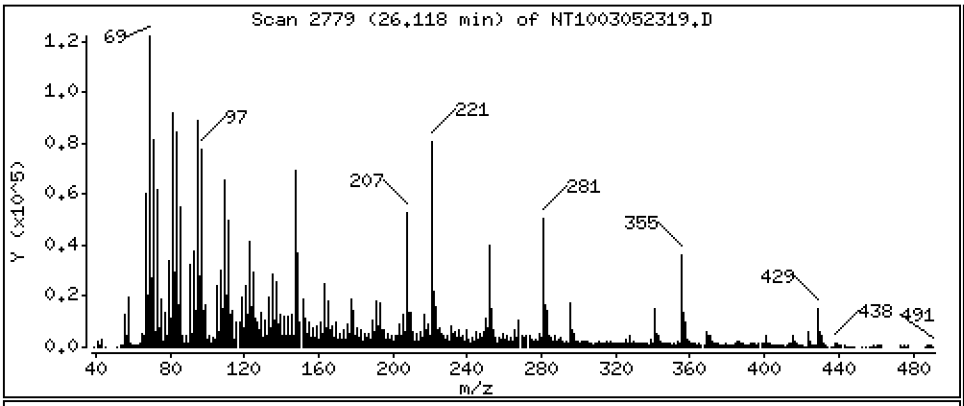
Operator: VTS

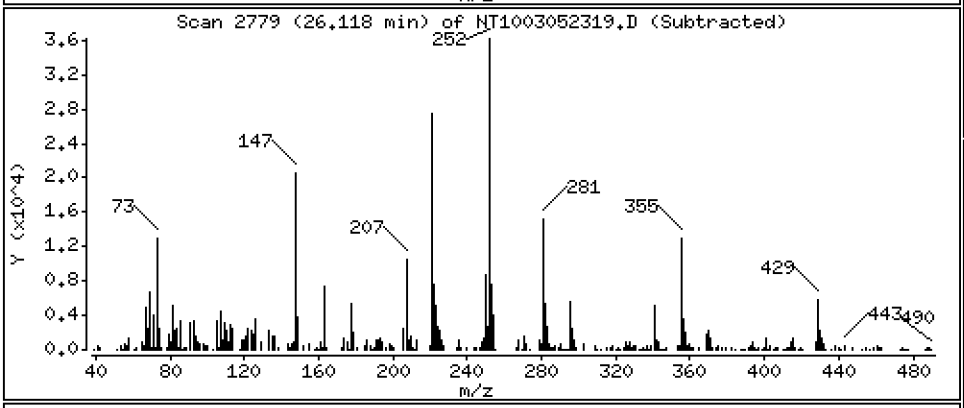
Column phase: ZB-5msi

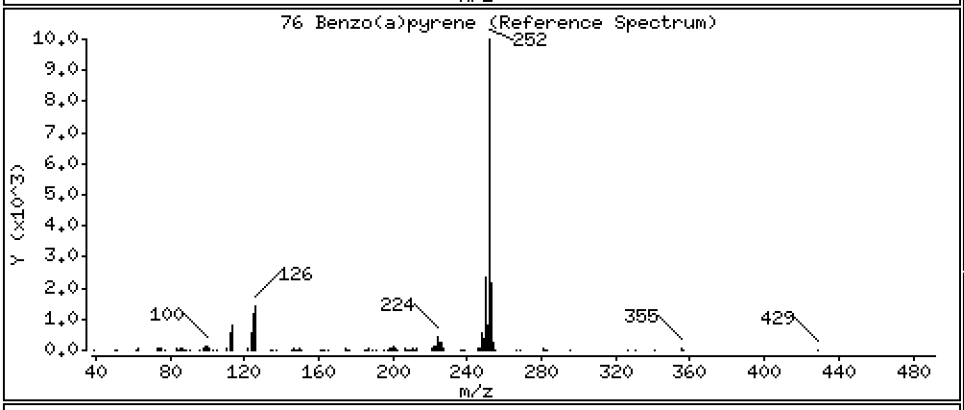
Column diameter: 0.25

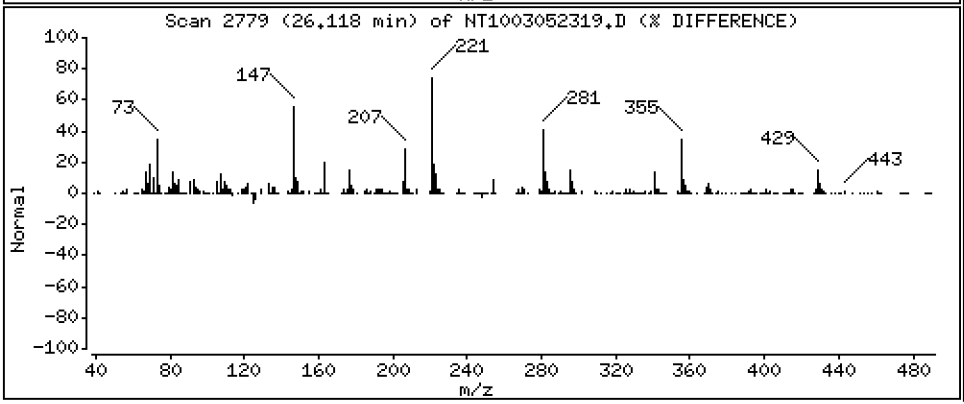
76 Benzo(a)pyrene

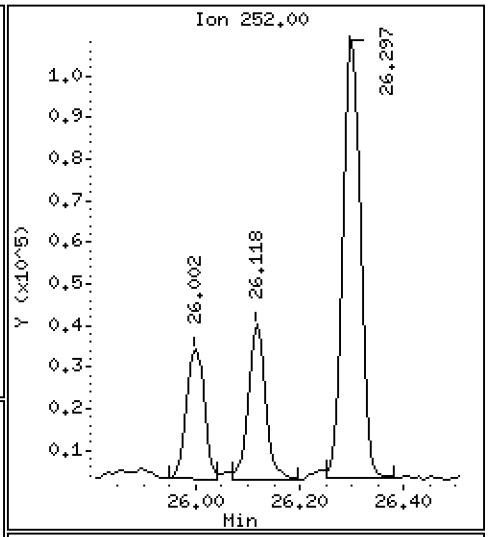
Concentration: 0.2536 ug/mL

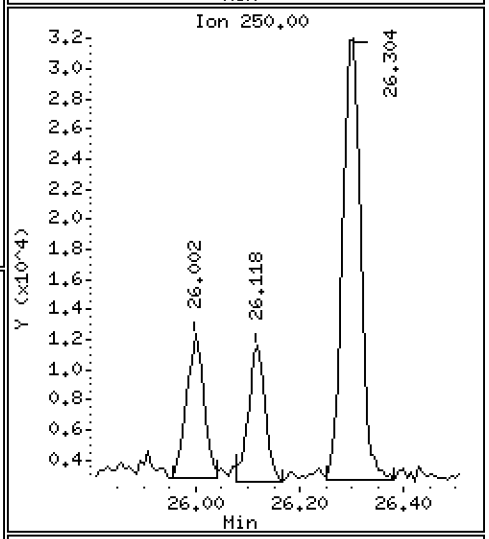


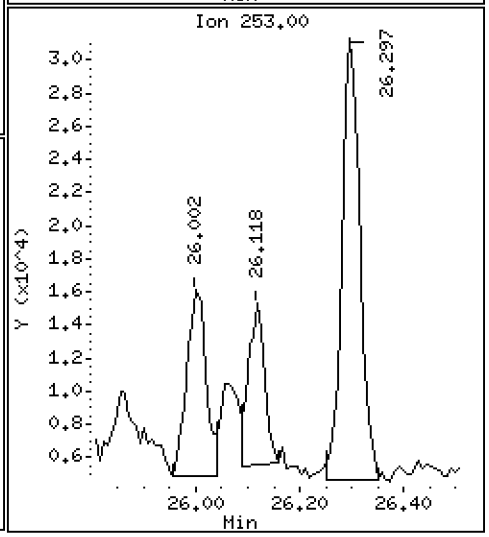












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

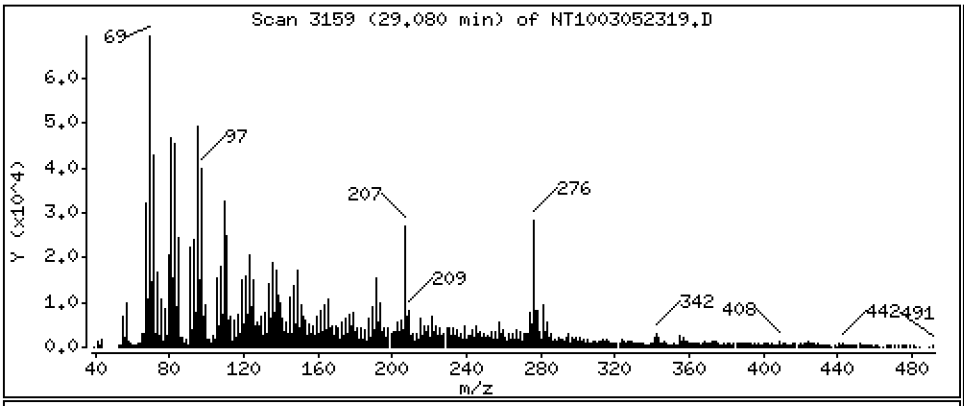
Operator: VTS

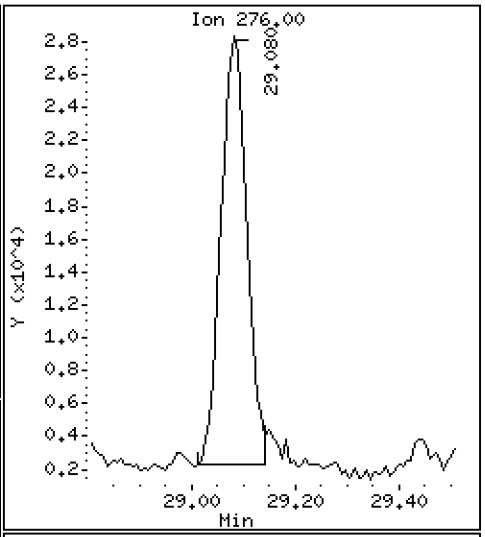
Column phase: ZB-5msi

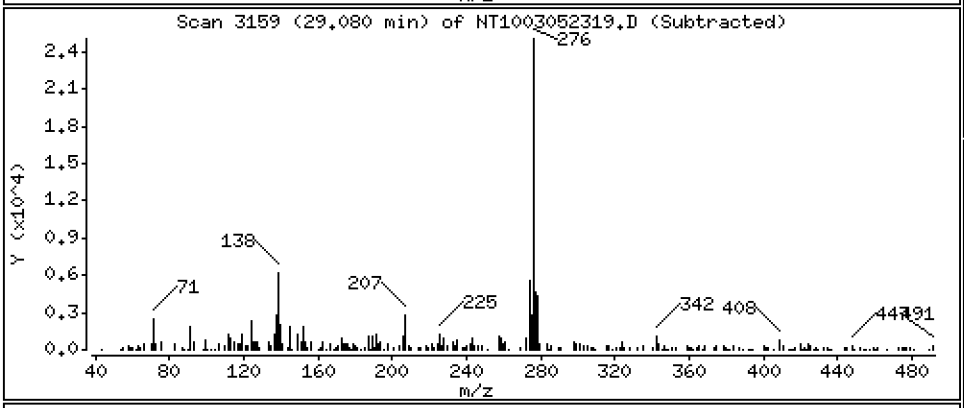
Column diameter: 0.25

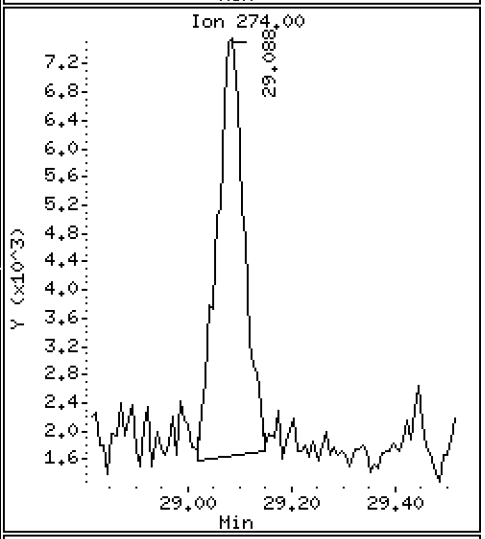
78 Indeno(1,2,3-cd)pyrene

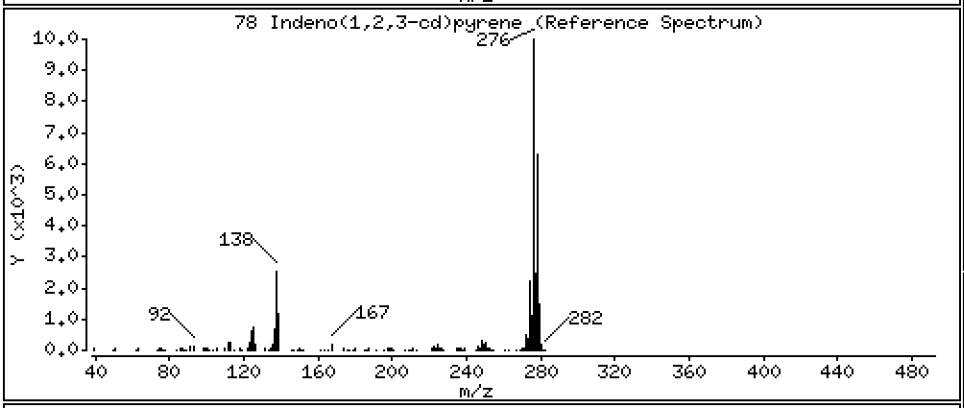
Concentration: 0.2204 ug/mL

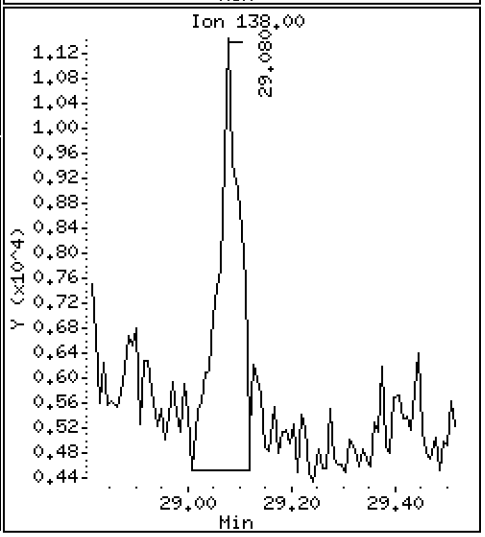


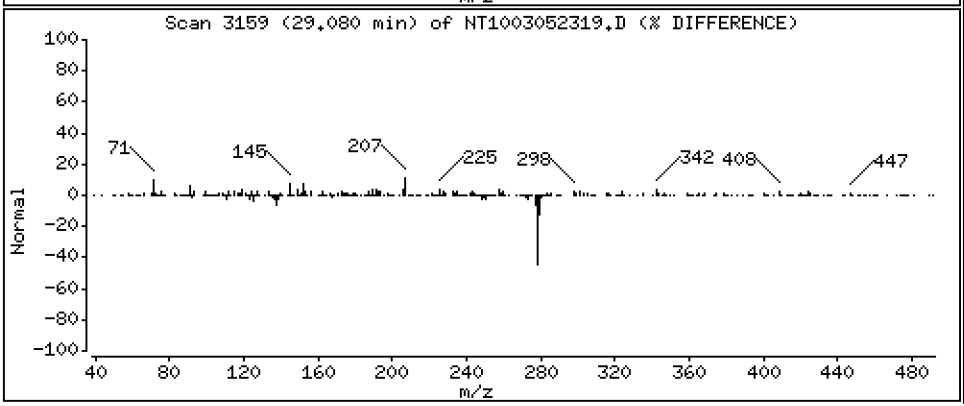












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

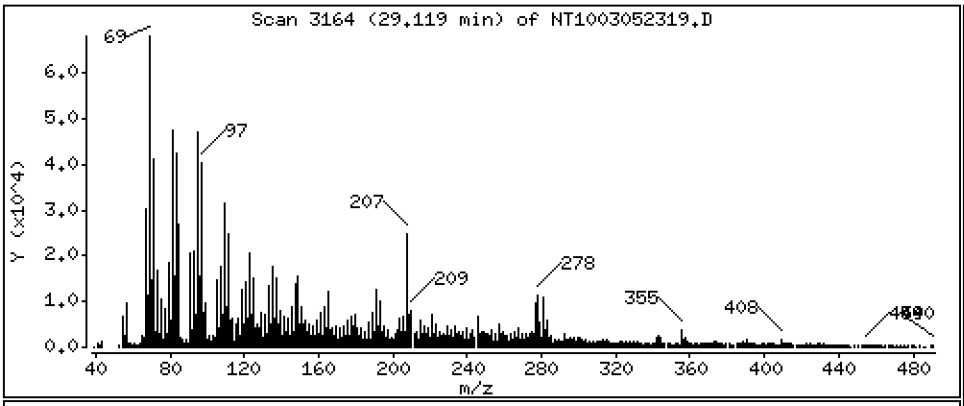
Operator: VTS

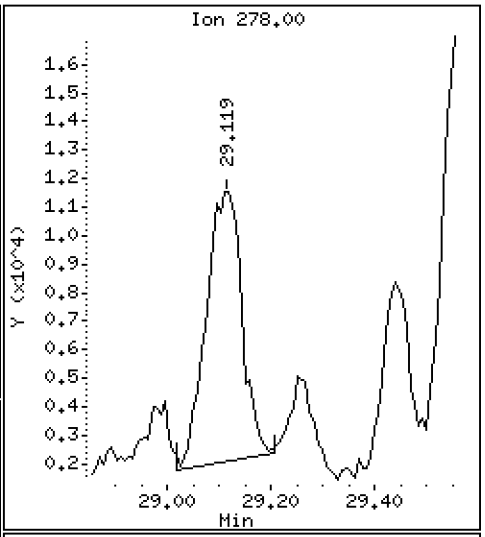
Column phase: ZB-5msi

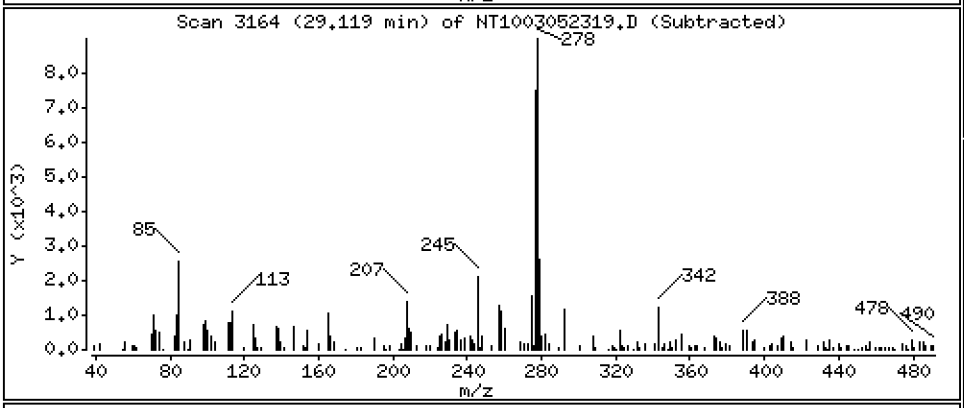
Column diameter: 0.25

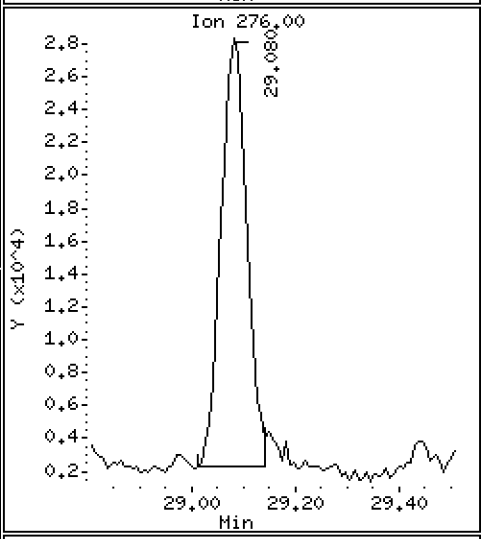
79 Dibenzo(a,h)anthracene

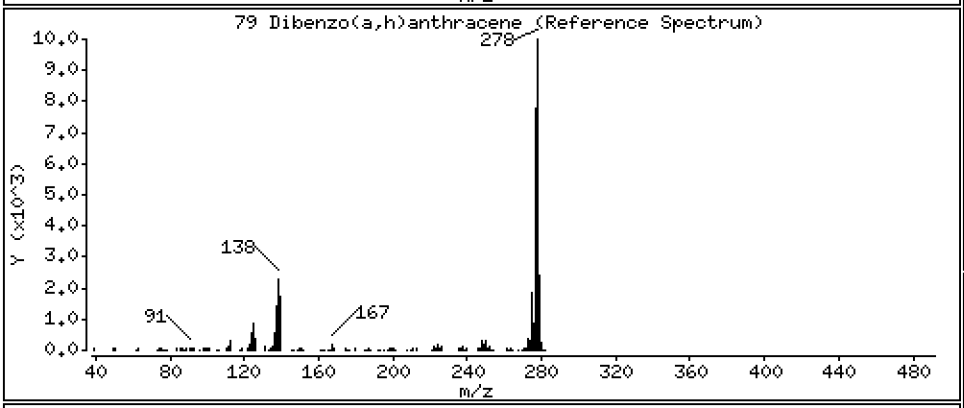
Concentration: 0.1461 ug/mL

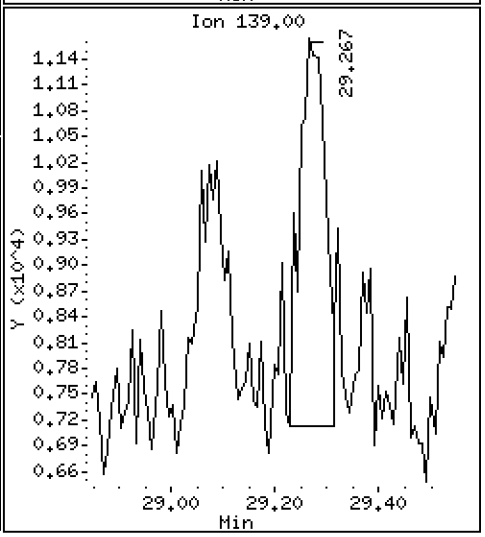


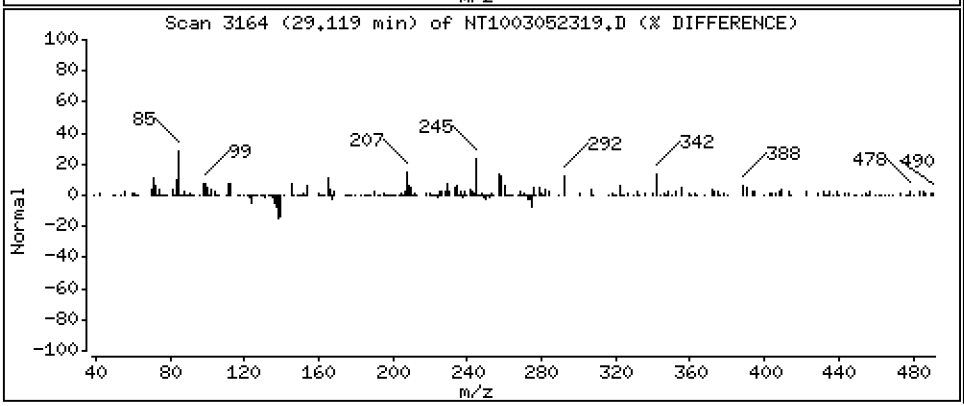












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

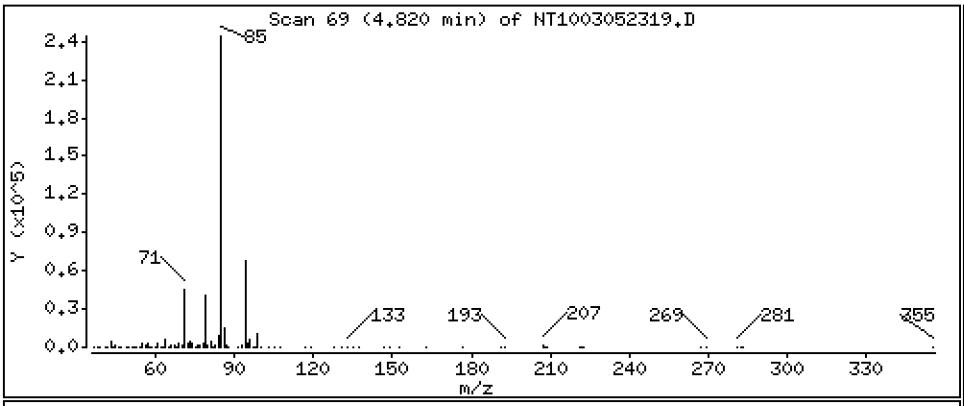
Operator: VTS

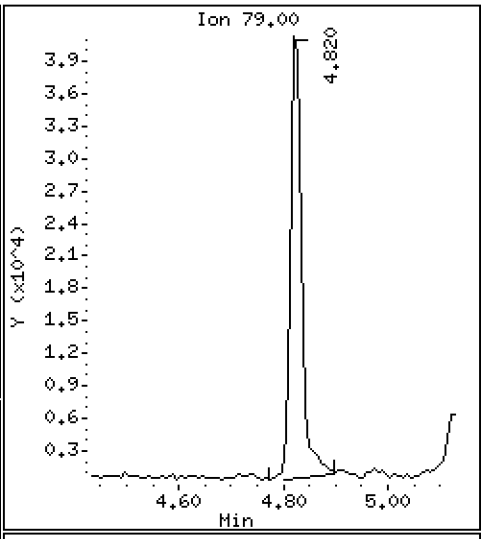
Column phase: ZB-5msi

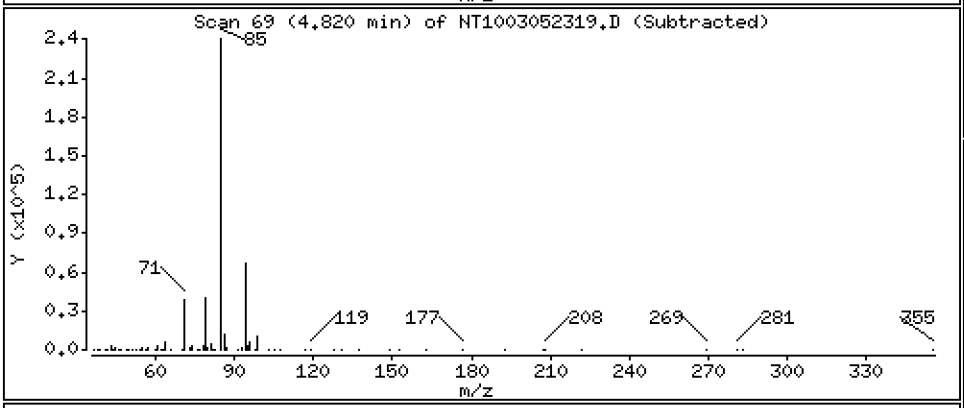
Column diameter: 0.25

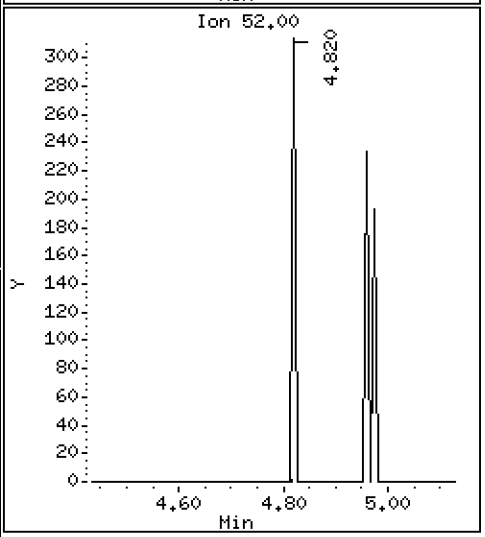
103 Pyridine

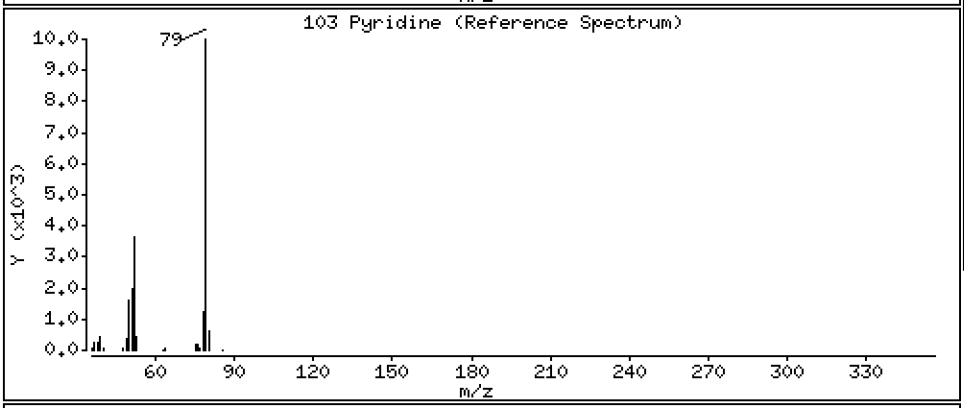
Concentration: 0.6483 ug/mL

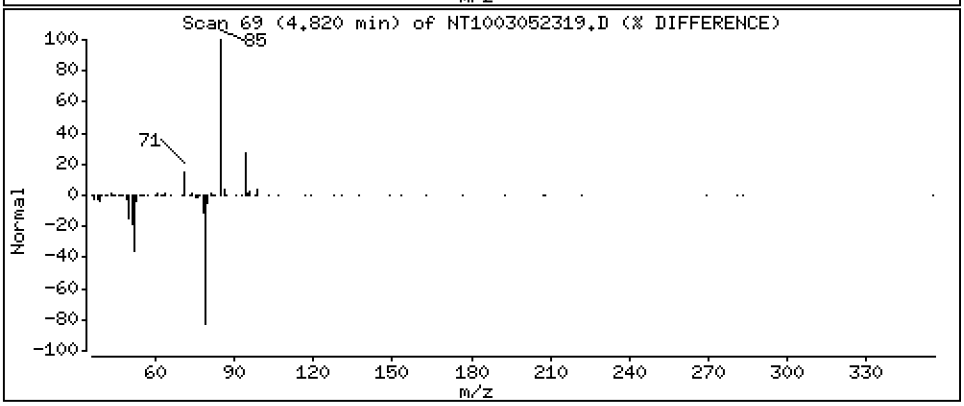












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

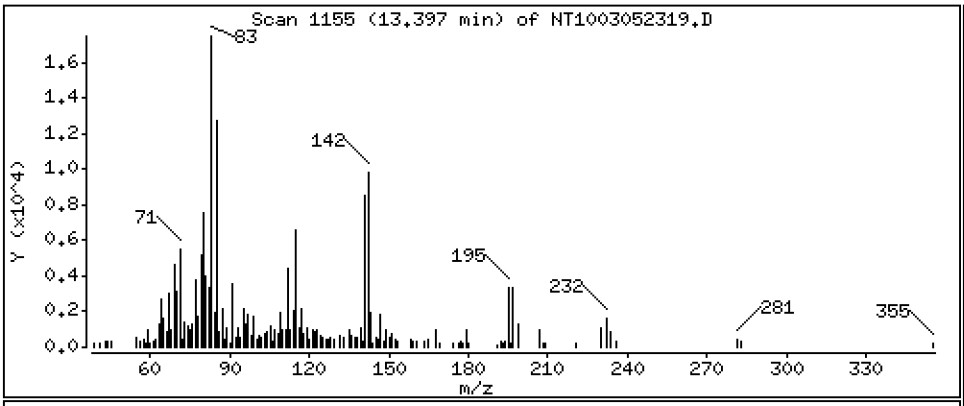
Operator: VTS

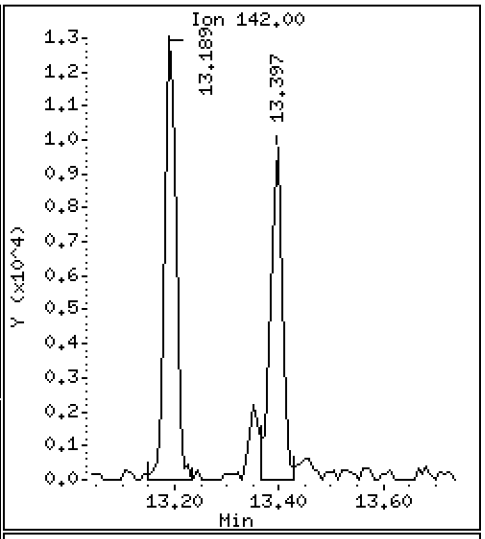
Column phase: ZB-5msi

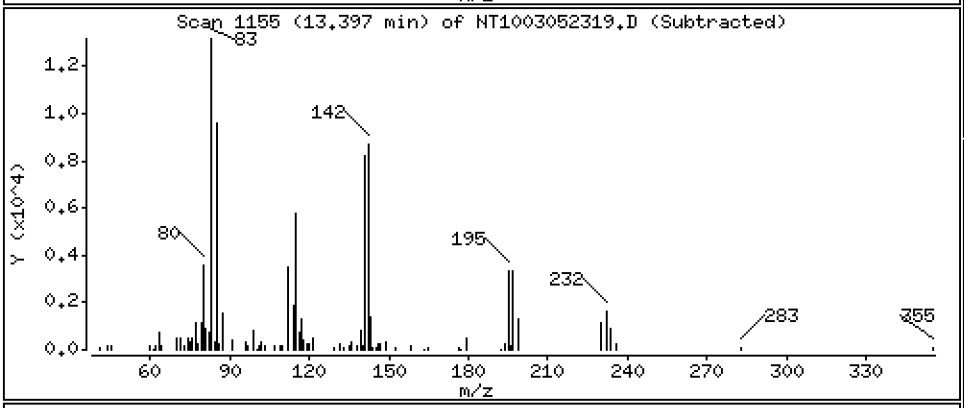
Column diameter: 0.25

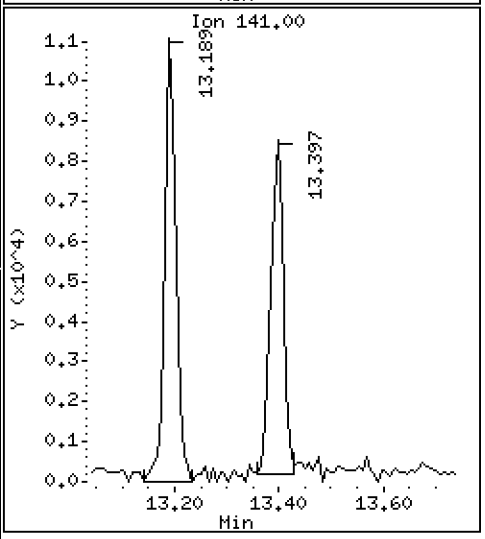
105 1-methylnaphthalene

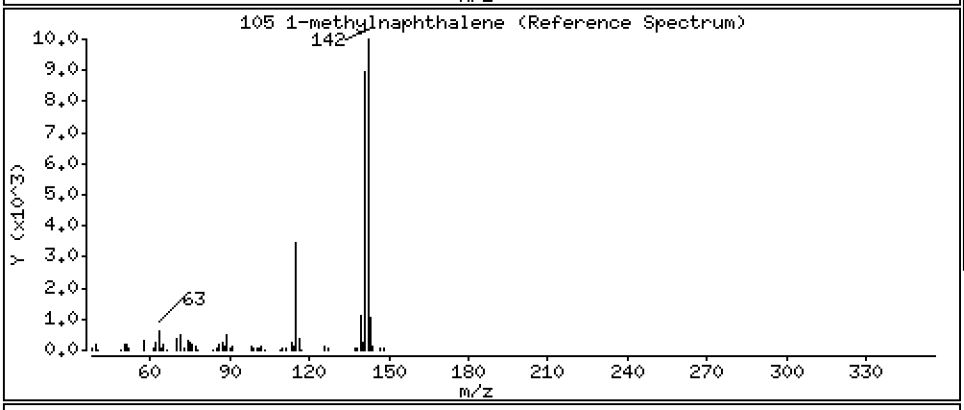
Concentration: 0.09413 ug/mL

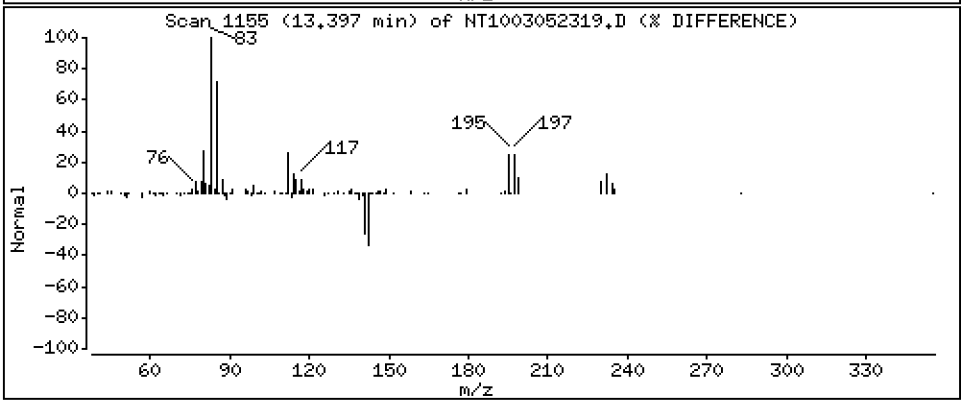












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

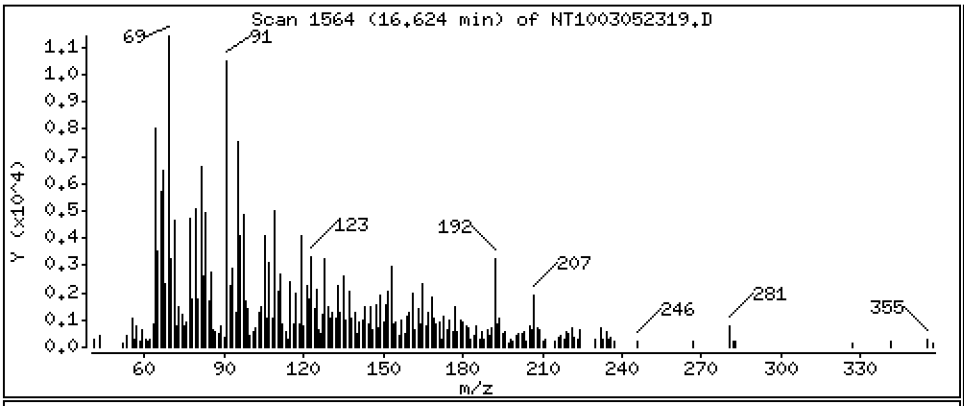
Operator: VTS

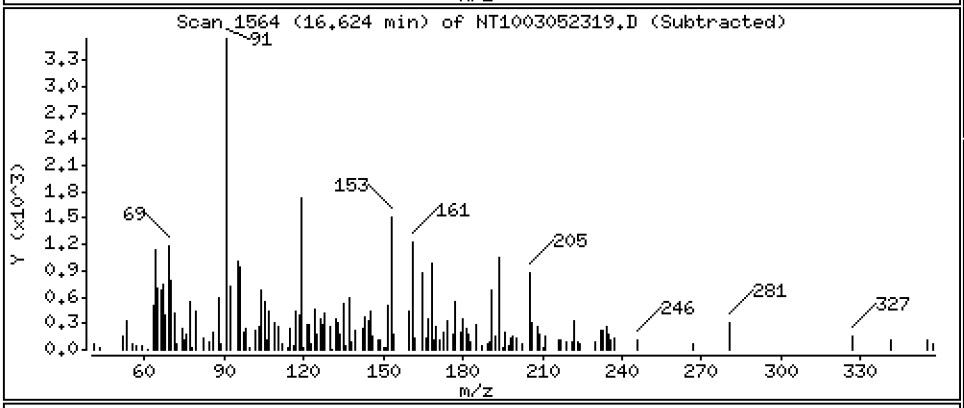
Column phase: ZB-5msi

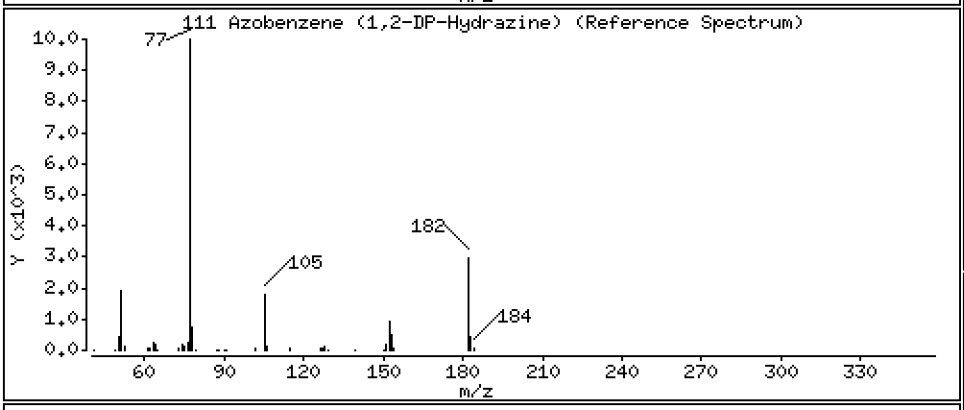
Column diameter: 0.25

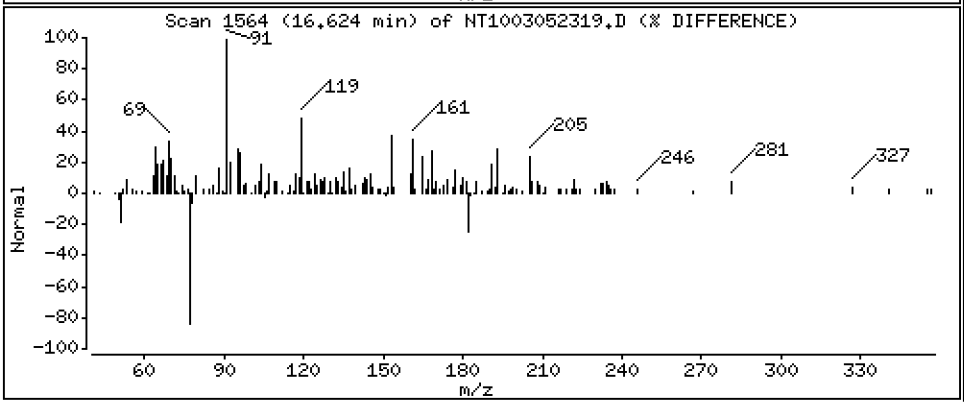
111 Azobenzene (1,2-DP-Hydrazine)

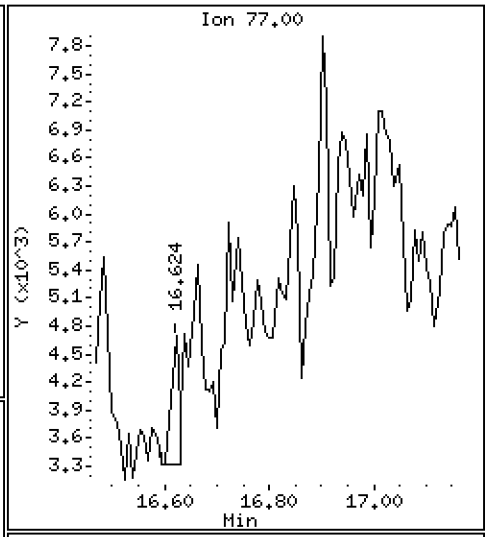
Concentration: 0.005893 ug/mL

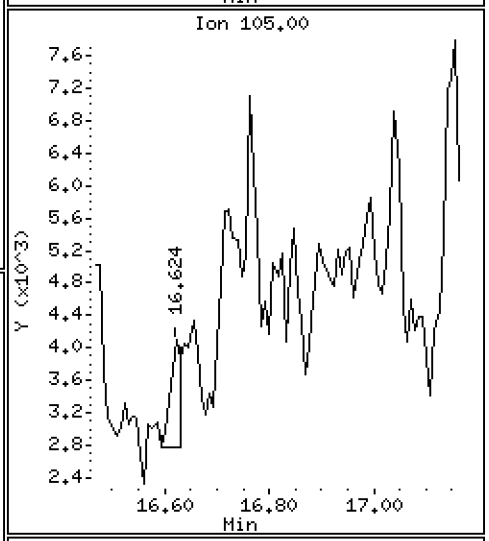


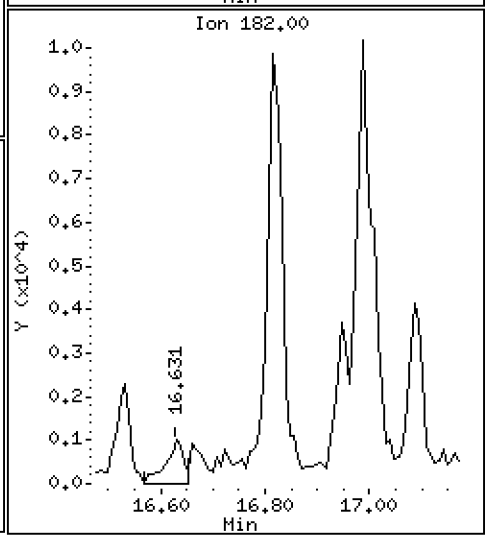












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

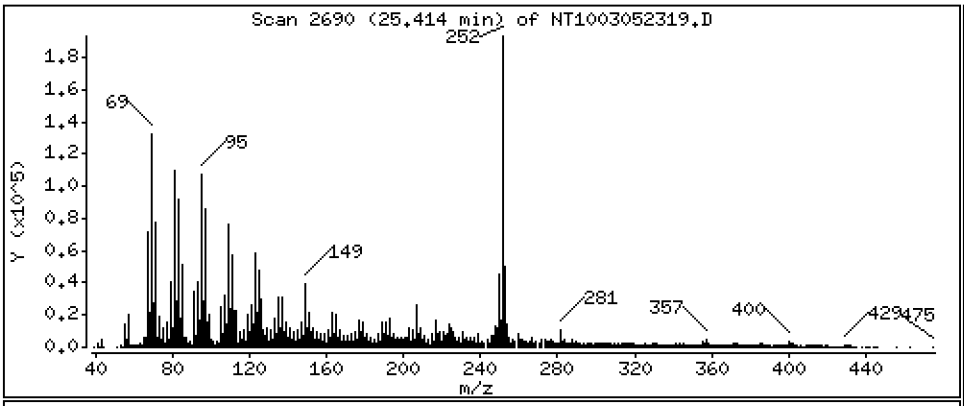
Operator: VTS

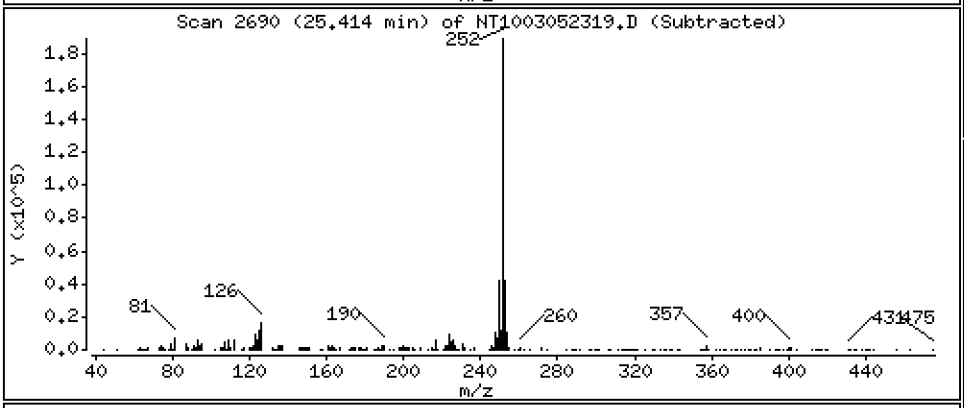
Column phase: ZB-5msi

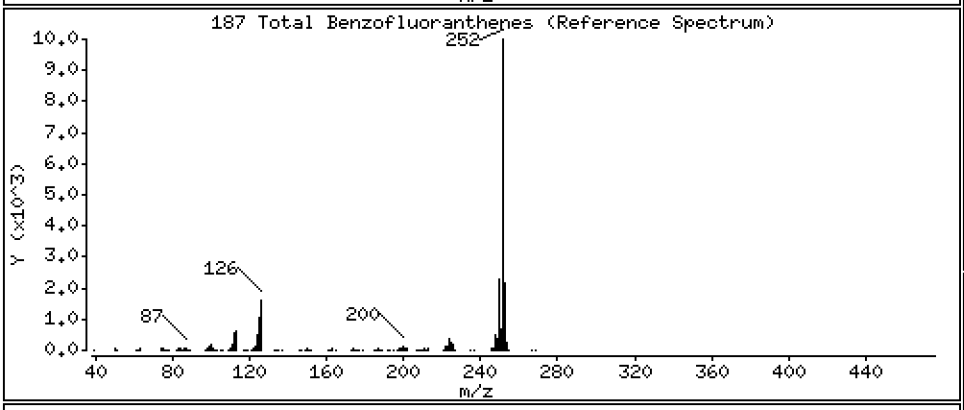
Column diameter: 0.25

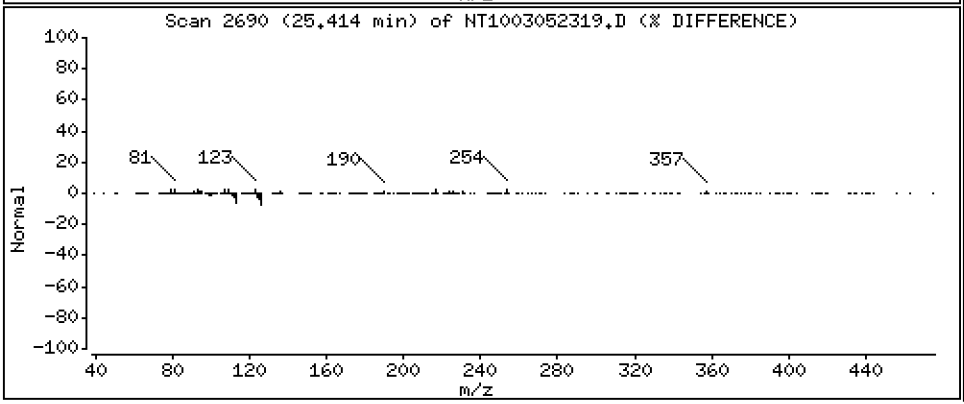
187 Total Benzofluoranthenes

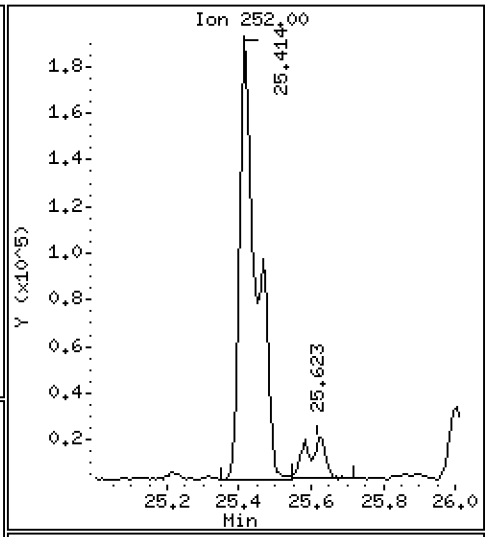
Concentration: 1.705 ug/mL

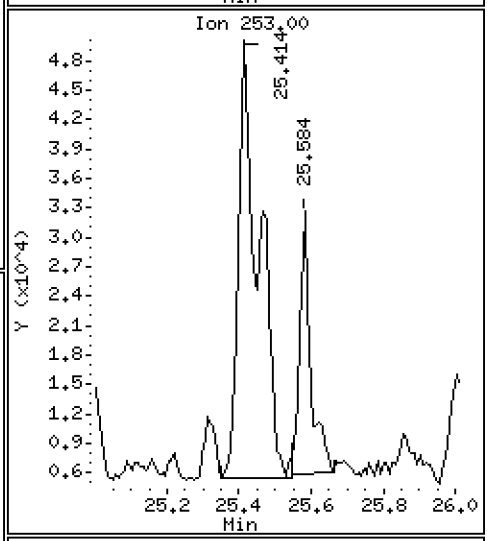


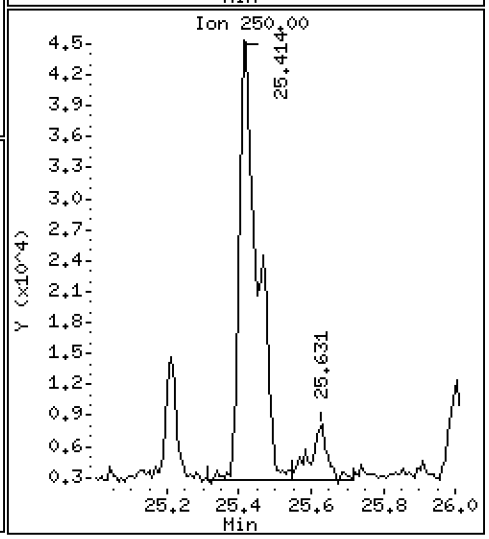












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305A.b\NT1003052319.D
Lab Smp Id: 23A0313-09
Inj Date : 06-MAR-2023 00:47
Operator : VTS Inst ID: nt10.i
Smp Info : 23A0313-09
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Meth Date : 27-Mar-2023 13:49 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

							CONCENTRATIONS	
		QUANT SIG					ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
$	1 2-Fluorophenol	112	6.912	6.905	(0.746)	449089	5.14751	5.148
$	2 Phenol-d5	99	8.527	8.512	(0.921)	587992	5.80506	5.805
	3 Phenol	94	8.550	8.535	(0.923)	186354	1.73045	1.730
$	5 2-Chlorophenol-d4	132	8.836	8.821	(0.954)	491411	5.68647	5.686
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	9.262	9.247	(1.000)	277293	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.549	9.542	(1.031)	199780	3.09427	3.094
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	9.502	9.487	(1.026)	5658	0.10249	0.1025
	14 2,2'-oxybis(1-Chloropropane)	121	9.735	9.736	(1.051)	6688	0.24377	0.2438
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	10.186	9.984	(1.100)	10410	0.16019	0.1602
	15 4-Methylphenol	108	9.992	9.961	(1.079)	16707	0.15968	0.1597
$	18 Nitrobenzene-d5	82	10.318	10.302	(0.878)	461403	4.23539	4.235
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.162	11.205	(0.950)	24917	0.43019	0.4302(M)
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.749	11.734	(1.000)	992421	4.00000	
	28 Naphthalene	128	11.795	11.780	(1.004)	28360	0.11134	0.1113(H)
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.188	13.181	(1.122)	20987	0.11663	0.1166
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

		QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$ 36	2-Fluorobiphenyl	172	13.939	13.931	(0.908)	820063	4.45176	4.452
37	2-Chloronaphthalene	162	Compound Not Detected.					
38	2-Nitroaniline	65	Compound Not Detected.					
39	Dimethylphthalate	163	Compound Not Detected.					
40	Acenaphthylene	152	15.061	15.054	(0.981)	23630	0.09478	0.09478
41	2,6-Dinitrotoluene	165	Compound Not Detected.					
* 42	Acenaphthene-d10	164	15.347	15.340	(1.000)	516457	4.00000	
43	3-Nitroaniline	138	15.324	15.255	(0.998)	269	0.00640	0.006395
44	Acenaphthene	153	15.409	15.409	(1.004)	12989	0.08639	0.08639
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	15.772	15.773	(1.028)	24169	0.10831	0.1083
47	4-Nitrophenol	109	Compound Not Detected.					
48	2,4-Dinitrotoluene	165	Compound Not Detected.					
50	Diethylphthalate	149	16.236	16.244	(1.058)	23828	0.13486	0.1349
49	Fluorene	166	16.492	16.492	(1.075)	25542	0.13757	0.1376
51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$ 55	2,4,6-Tribromophenol	330	16.986	16.994	(1.107)	142724	4.36899	4.369
56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
57	Hexachlorobenzene	284	17.619	17.627	(0.955)	331	0.00521	0.005210
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	18.447	18.455	(1.000)	940974	4.00000	
60	Phenanthrene	178	18.494	18.509	(1.003)	141763	0.58869	0.5887
61	Anthracene	178	18.602	18.618	(1.008)	60591	0.25948	0.2595
62	Carbazole	167	18.942	18.950	(1.027)	20359	0.09517	0.09517
63	Di-n-butylphthalate	149	19.639	19.647	(1.065)	41733	0.14378	0.1438
64	Fluoranthene	202	20.892	20.892	(0.889)	431184	1.28441	1.284
65	Pyrene	202	21.310	21.326	(0.907)	276013	0.80744	0.8074
$ 66	Terphenyl-d14	244	21.589	21.604	(0.919)	1101309	3.98168	3.982
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	23.478	23.501	(0.999)	237526	0.69029	0.6903
* 69	Chrysene-d12	240	23.501	23.517	(1.000)	975868	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.540	23.563	(1.002)	297469	1.06373	1.064
72	bis(2-Ethylhexyl)phthalate	149	23.470	23.494	(0.956)	309093	1.30386	1.304
* 134	Di-n-octylphthalate-d4	153	24.562	24.593	(1.000)	1678858	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	25.413	25.452	(0.969)	486133	1.23936	1.239
75	Benzo(k)fluoranthene	252	25.467	25.507	(0.971)	187862	0.50137	0.5014
76	Benzo(a)pyrene	252	26.118	26.157	(0.996)	87973	0.25356	0.2536
* 77	Perylene-d12	264	26.234	26.289	(1.000)	1137199	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	29.080	29.158	(1.108)	89396	0.22040	0.2204
79	Dibenzo(a,h)anthracene	278	29.119	29.204	(1.110)	44891	0.14607	0.1461(M)
80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	4.819	4.781	(0.520)	64757	0.64832	0.6483(M)
105	1-methylnaphthalene	142	13.397	13.390	(1.140)	15330	0.09413	0.09413
111	Azobenzene (1,2-DP-Hydrazine)	77	16.623	16.816	(1.083)	1555	0.00589	0.005893

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.413	25.507	(0.969)	639798	1.70489	1.705
120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052319.D
Lab Smp Id: 23A0313-09
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 21:38
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	264922	132461	529844	277293	4.67
27 Naphthalene-d8	947542	473771	1895084	992421	4.74
42 Acenaphthene-d10	505666	252833	1011332	516457	2.13
59 Phenanthrene-d10	940283	470142	1880566	940974	0.07
69 Chrysene-d12	987952	493976	1975904	975868	-1.22
134 Di-n-octylphthala	1625017	812509	3250034	1678858	3.31
77 Perylene-d12	1073798	536899	2147596	1137199	5.90

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.26	0.16
27 Naphthalene-d8	11.73	11.23	12.23	11.75	0.13
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.46	17.96	18.96	18.45	-0.04
69 Chrysene-d12	23.52	23.02	24.02	23.50	-0.07
134 Di-n-octylphthala	24.59	24.09	25.09	24.56	-0.13
77 Perylene-d12	26.29	25.79	26.79	26.23	-0.21

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052319.D

Lab ID: 23A0313-09
nt10.i, 20230305A.b\ABN.m,   06-MAR-2023 00:47

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.100	1.080	0.0200	N-Nitroso-di-n-propylamine
1.083	1.096	-0.0131	Azobenzene (1,2-DP-Hydrazine)

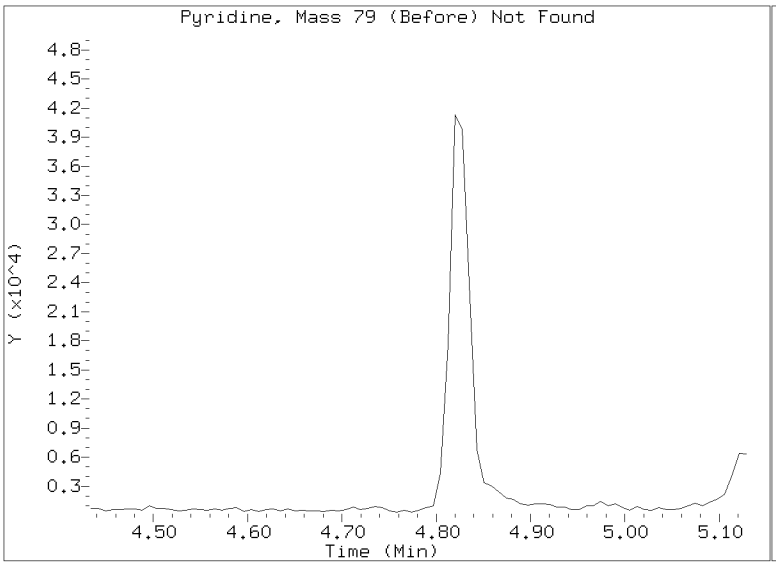
RRT check based on Ccal File: NT1003052314.D

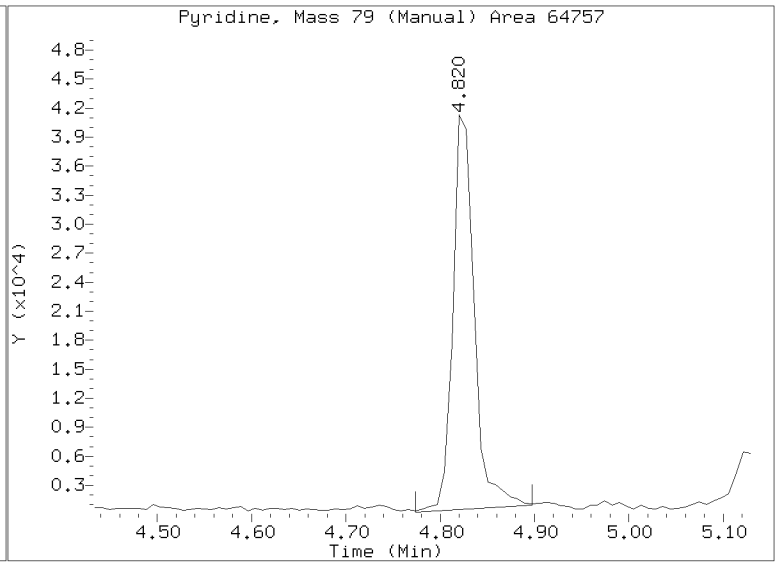
On Column LOD for nt10.i, 20230305A.b\ABN.m, ICAL.sub = 0.0000

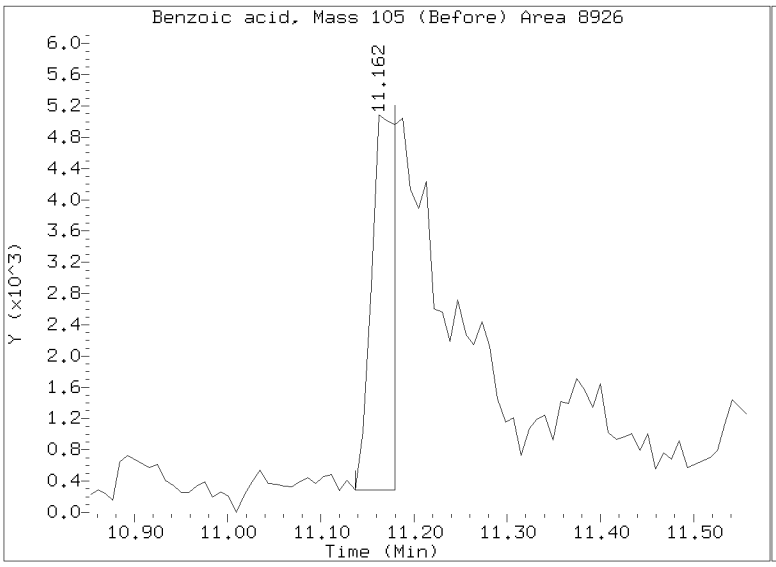
* Only compounds listed in the work order have been verified by the analyst *

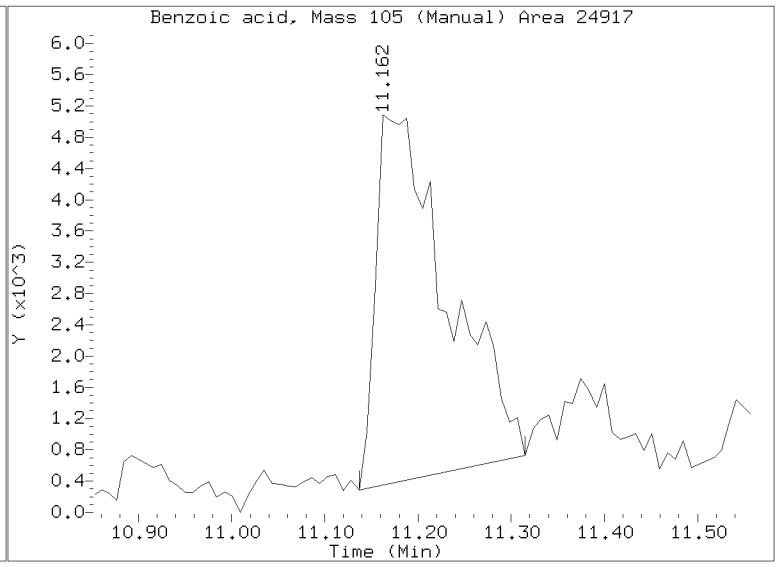
Quant Ion Manual Peak Adjustment Report

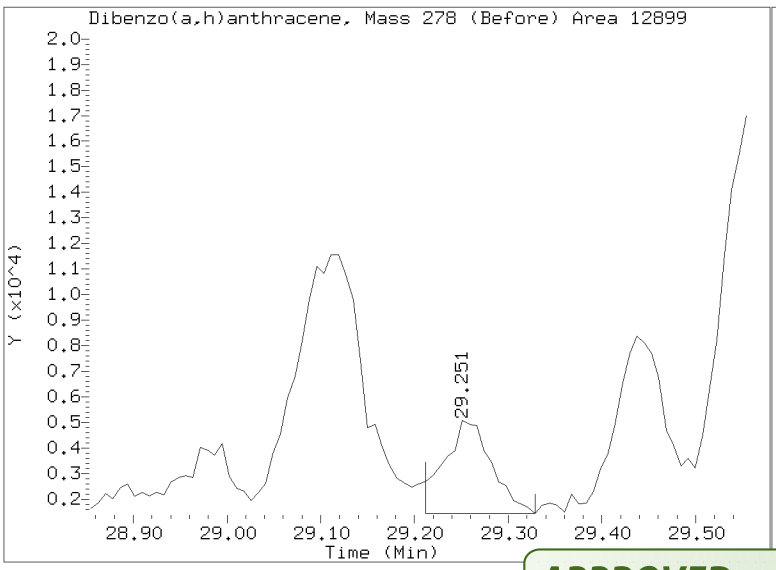
Datafile: //target/share/chem3/nt10.i/20230305A.b/NT1003052319.D
Injection Date: 06-MAR-2023 00:47
Lab ID:23A0313-09 Client ID:
Report Date: 03/27/2023 13:57

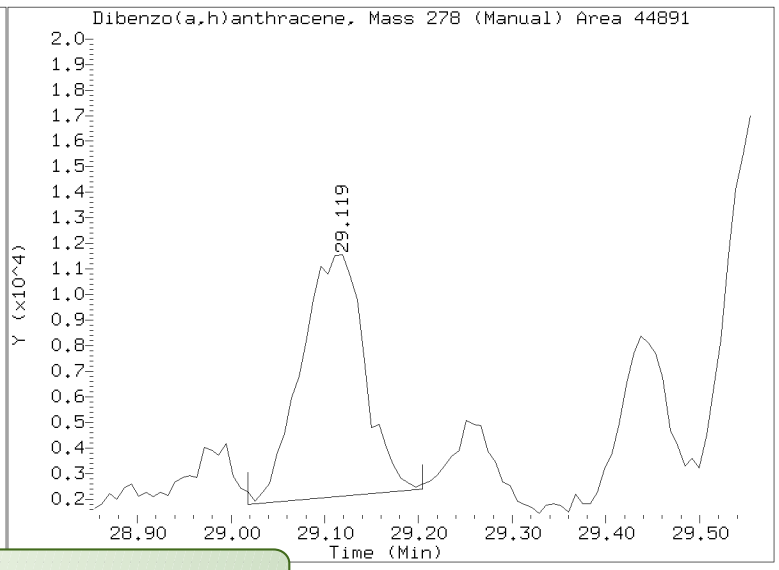












APPROVED
By Deenay Dunmore at 2:08 pm, Mar 27, 2023

Analytical Resources, LLC
Analytical Chemists and Consultants

LDW23-SC1006A

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E

Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-10 A	SDG:	23A0313
Sampled:	01/16/23 12:29	Prepared:	02/02/23 13:06	File ID:	NT1003052320.D
% Solids:	54.11	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/06/23 01:25
Batch:	BLA0685	Sequence:	SLC0415	Initial/Final:	18.53 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00019
Cleanups:	GPC				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	159		4.4	19.9
106-44-5	4-Methylphenol	1	24.2		7.4	19.9
91-20-3	Naphthalene	1	14.1	J	4.2	19.9
91-57-6	2-Methylnaphthalene	1	14.3	J	4.5	19.9
208-96-8	Acenaphthylene	1	8.2	J	6.2	19.9
131-11-3	Dimethylphthalate	1	19.9	U	4.4	19.9
83-32-9	Acenaphthene	1	9.0	J	5.2	19.9
132-64-9	Dibenzofuran	1	19.9	U	14.1	19.9
86-73-7	Fluorene	1	19.9	U	14.5	19.9
85-01-8	Phenanthrene	1	72.4		8.7	19.9
120-12-7	Anthracene	1	42.3		7.2	19.9
206-44-0	Fluoranthene	1	147		6.1	19.9
129-00-0	Pyrene	1	175		5.7	19.9
85-68-7	Butylbenzylphthalate	1	19.9	U	9.4	19.9
56-55-3	Benzo(a)anthracene	1	88.5		5.9	19.9
218-01-9	Chrysene	1	149		6.0	19.9
117-81-7	bis(2-Ethylhexyl)phthalate	1	177		5.4	49.9
	Benzofluoranthenes, Total	1	247		10.0	39.9
50-32-8	Benzo(a)pyrene	1	93.2		4.2	19.9
193-39-5	Indeno(1,2,3-cd)pyrene	1	61.6		14.6	19.9
53-70-3	Dibenzo(a,h)anthracene	1	20.3		17.2	19.9
191-24-2	Benzo(g,h,i)perylene	1	73.1		13.6	19.9

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	748.01	562	75.1	27 - 120	
Phenol-d5	748.01	602	80.5	29 - 120	
2-Chlorophenol-d4	748.01	615	82.2	31 - 120	
1,2-Dichlorobenzene-d4	498.67	360	72.2	32 - 120	
Nitrobenzene-d5	498.67	417	83.6	30 - 120	
2-Fluorobiphenyl	498.67	442	88.6	35 - 120	

Analytical Resources, LLC
Analytical Chemists and Consultants

LDW23-SC1006A

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E

Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-10 A	SDG:	23A0313
Sampled:	01/16/23 12:29	Prepared:	02/02/23 13:06	File ID:	NT1003052320.D
% Solids:	54.11	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/06/23 01:25
Batch:	BLA0685	Sequence:	SLC0415	Initial/Final:	18.53 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00019
Cleanups:	GPC				

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	748.01	693	92.7	24 - 134	
p-Terphenyl-d14	498.67	395	79.2	37 - 120	

Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052320.D

Page 1

Date : 06-MAR-2023 01:25

Client ID:

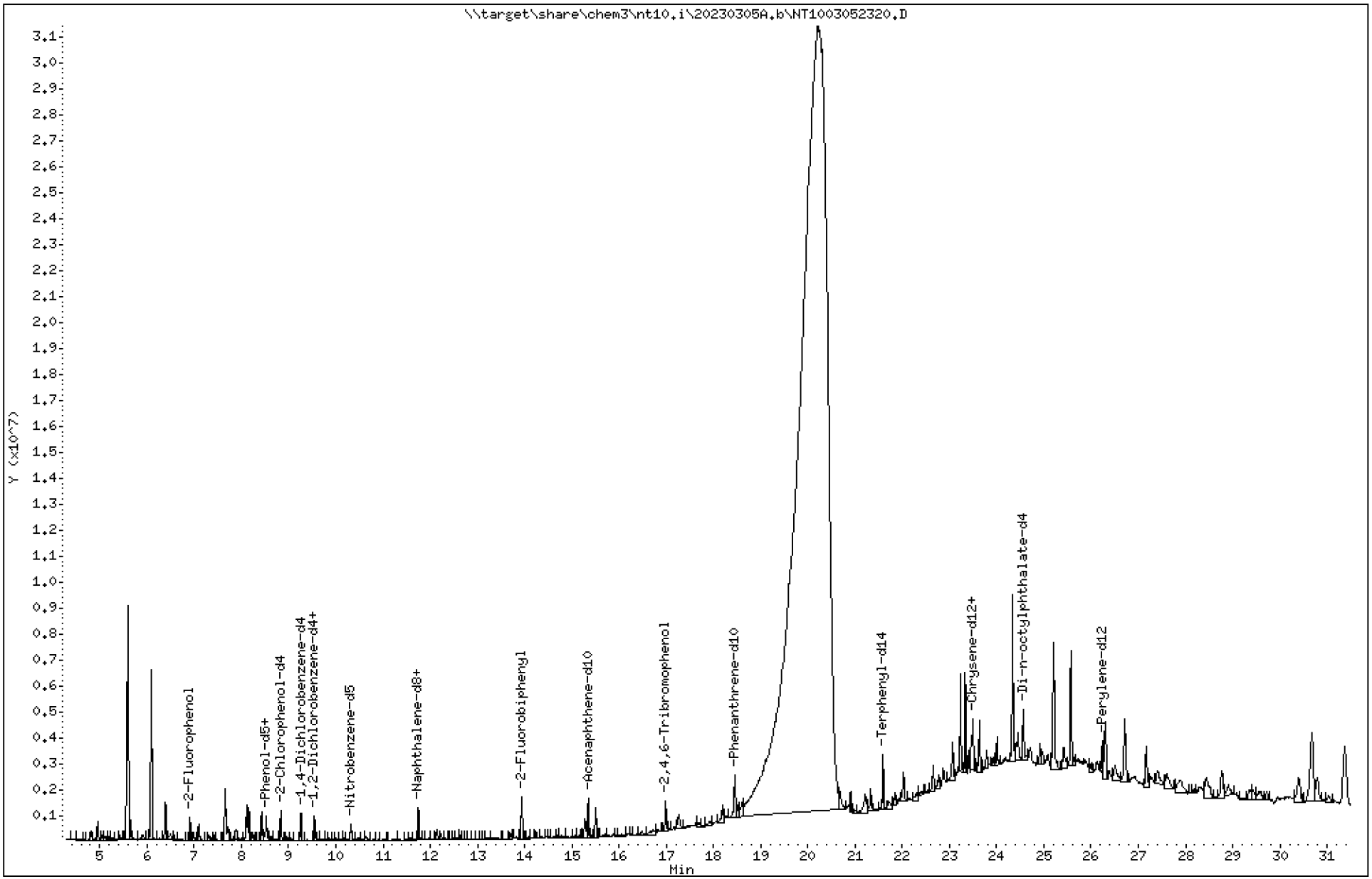
Instrument: nt10.i

Sample Info: 23A0313-10

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

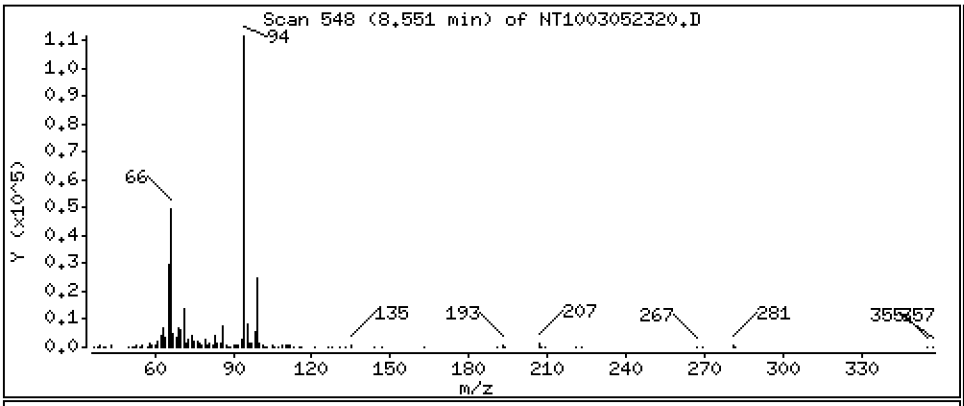
Operator: VTS

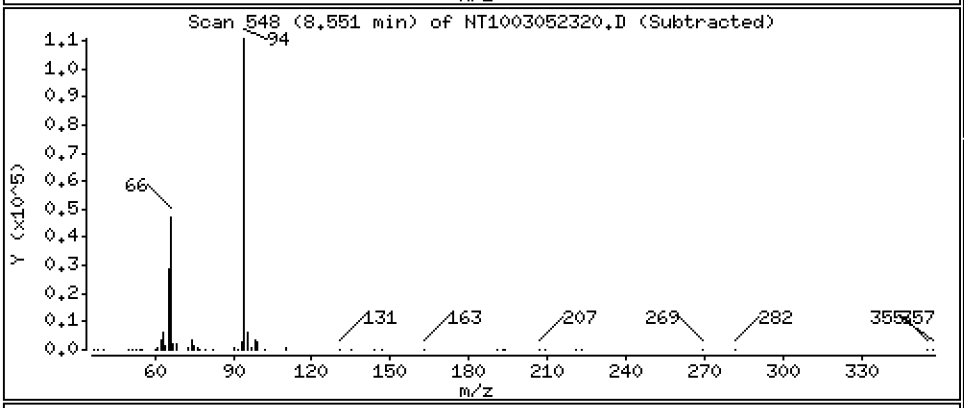
Column phase: ZB-5msi

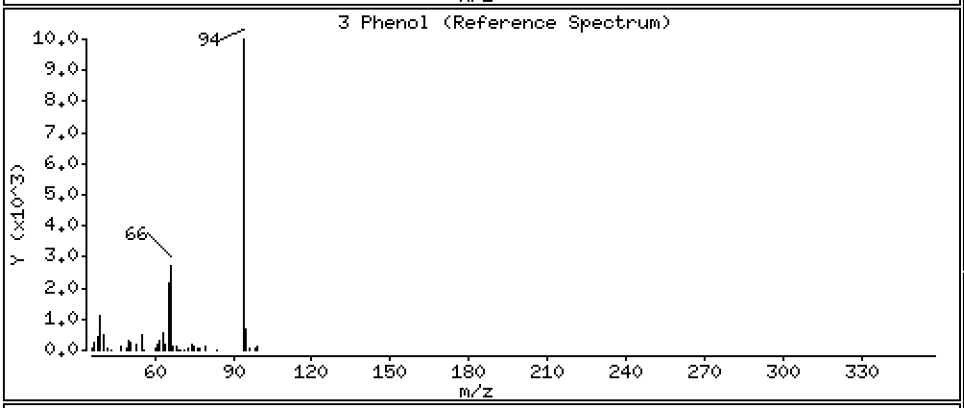
Column diameter: 0.25

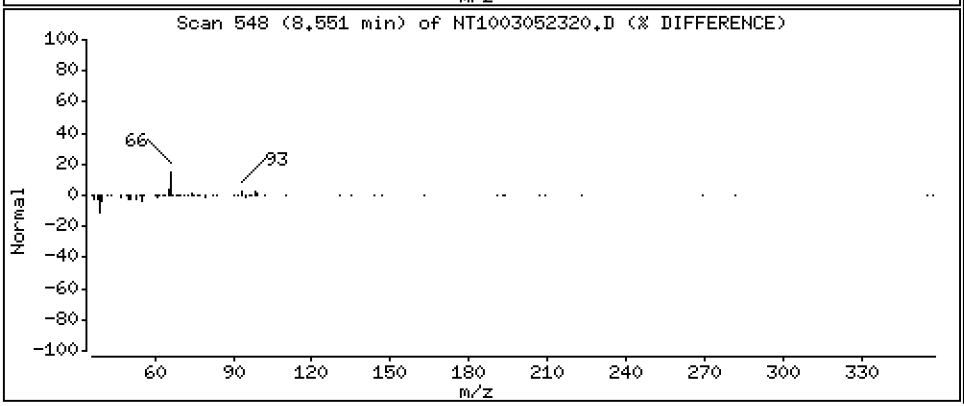
3 Phenol

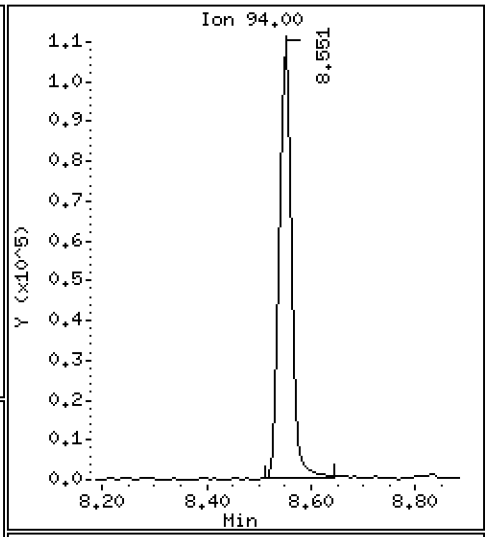
Concentration: 1.592 ug/mL

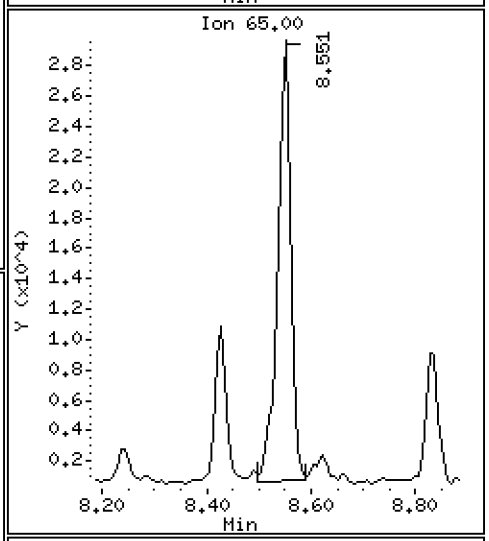


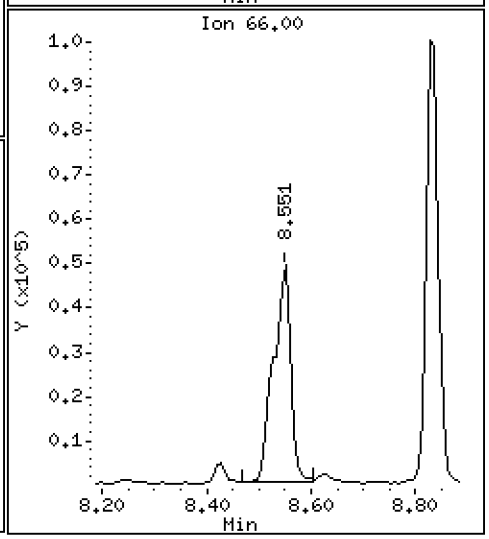












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

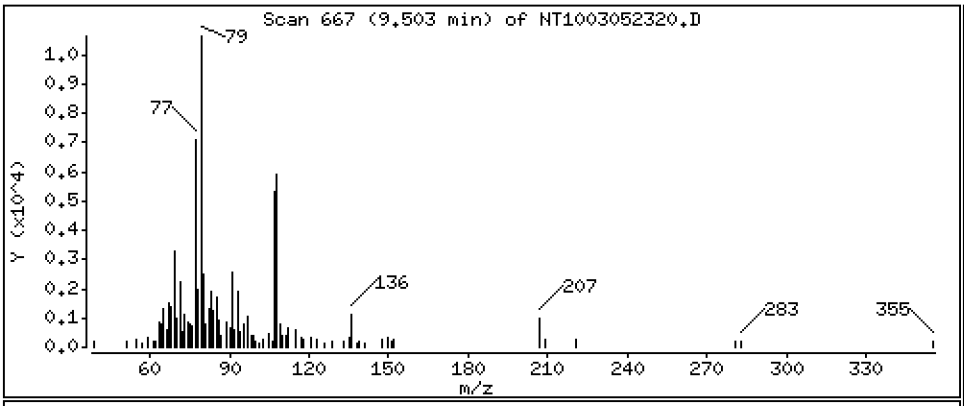
Operator: VTS

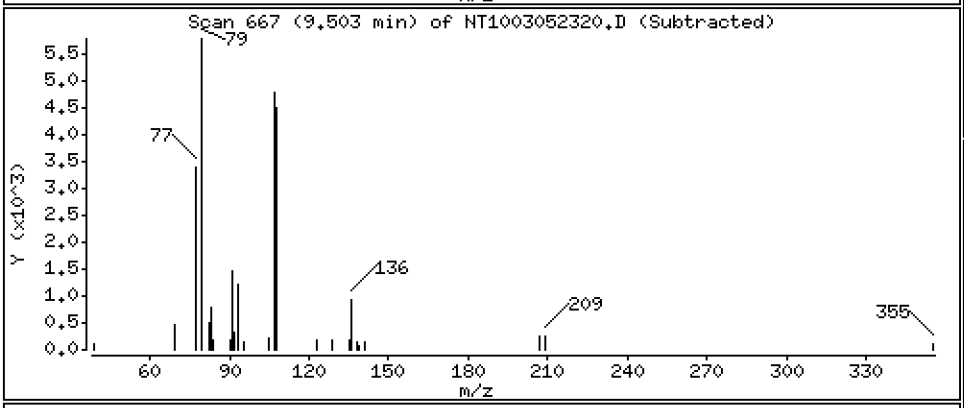
Column phase: ZB-5msi

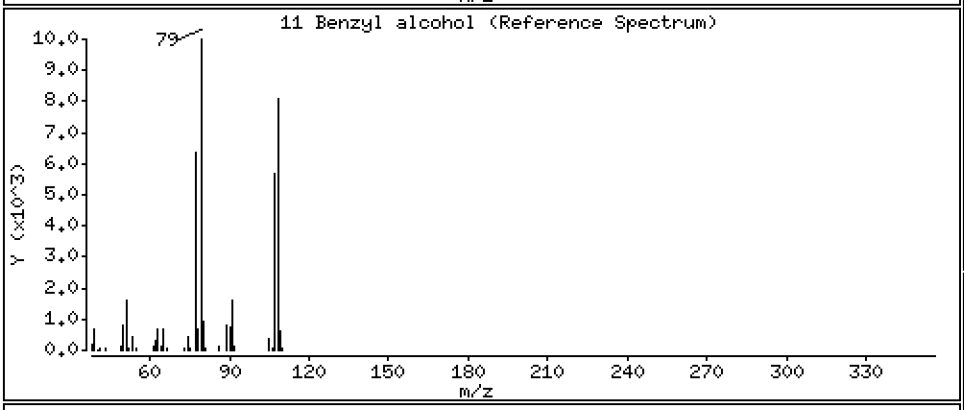
Column diameter: 0.25

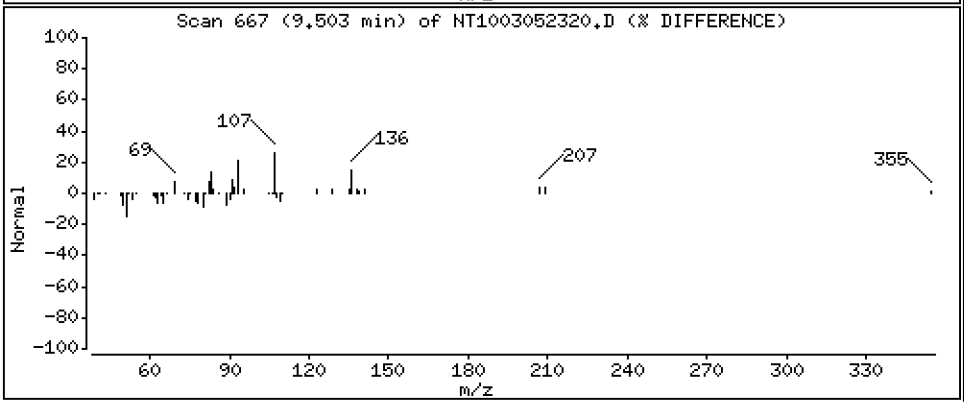
11 Benzyl alcohol

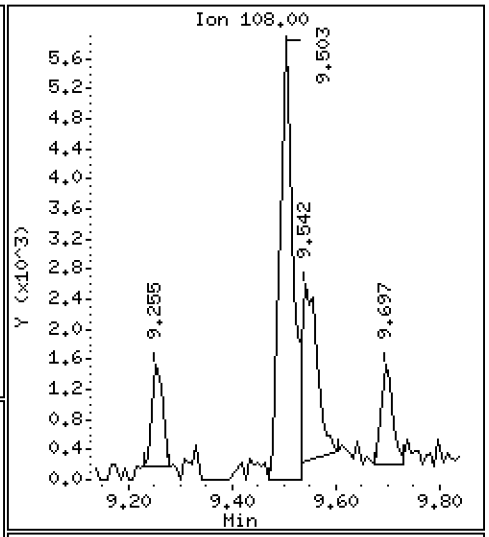
Concentration: 0.1917 ug/mL

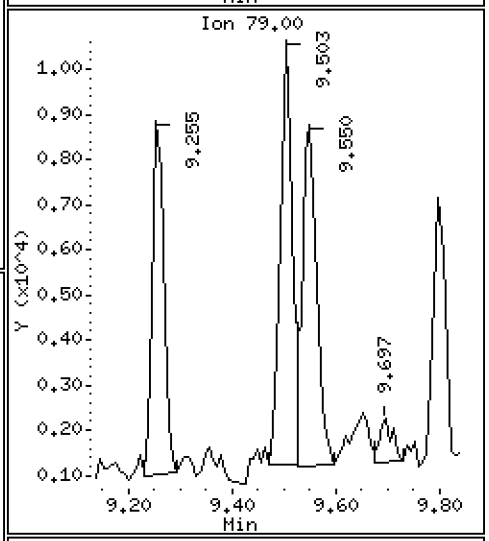


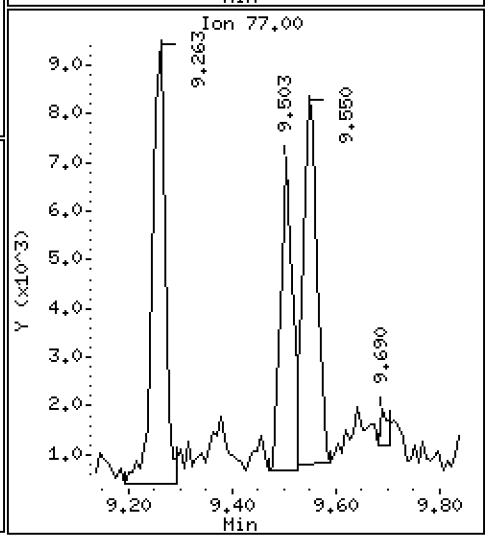












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

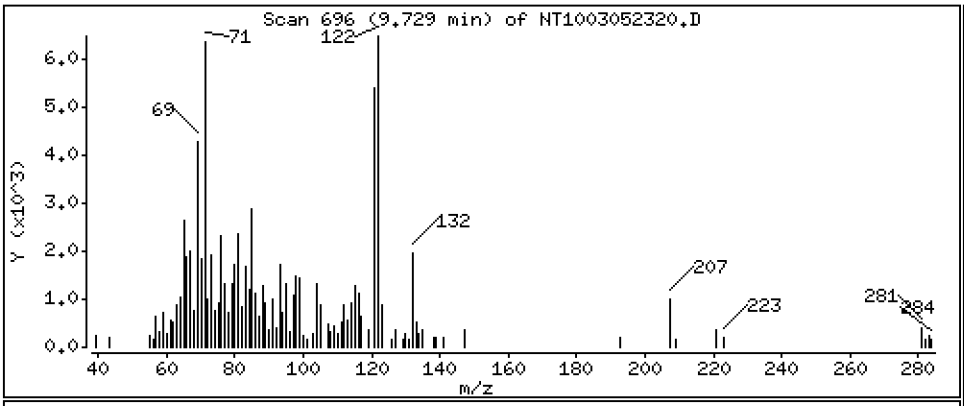
Operator: VTS

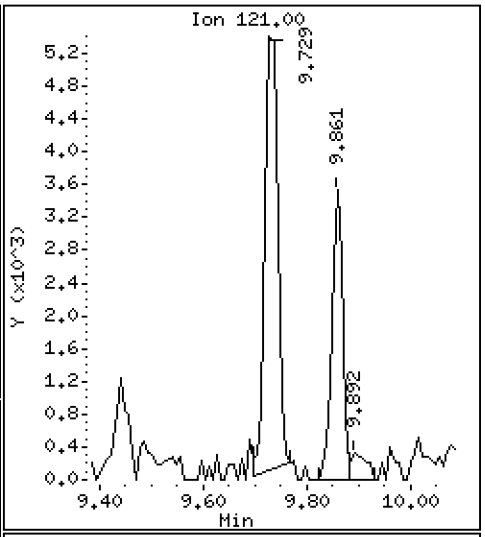
Column phase: ZB-5msi

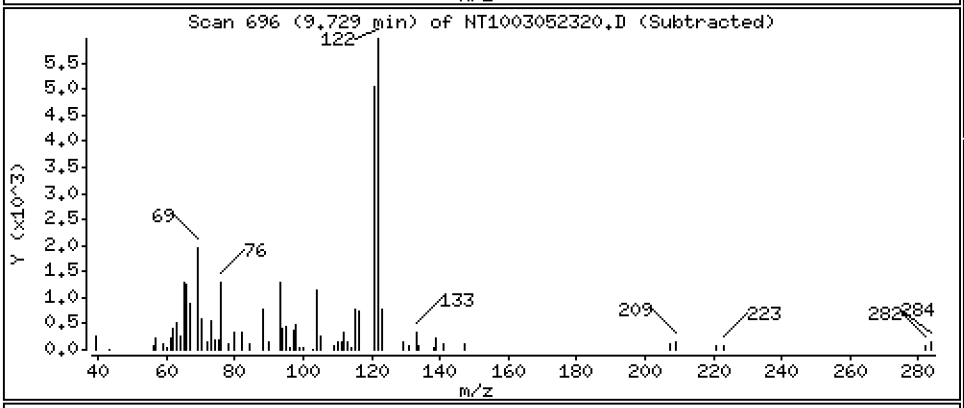
Column diameter: 0.25

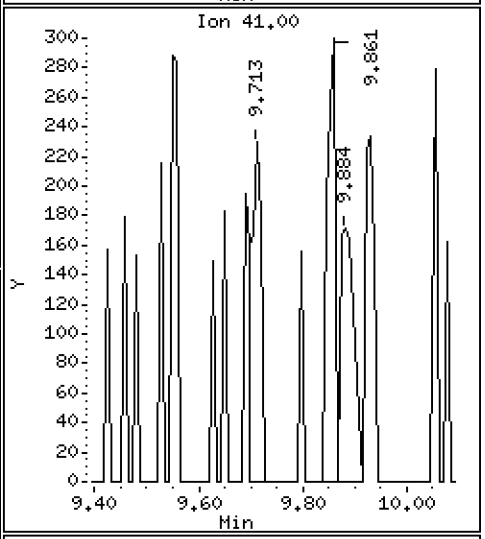
14 2,2'-oxybis(1-Chloropropane)

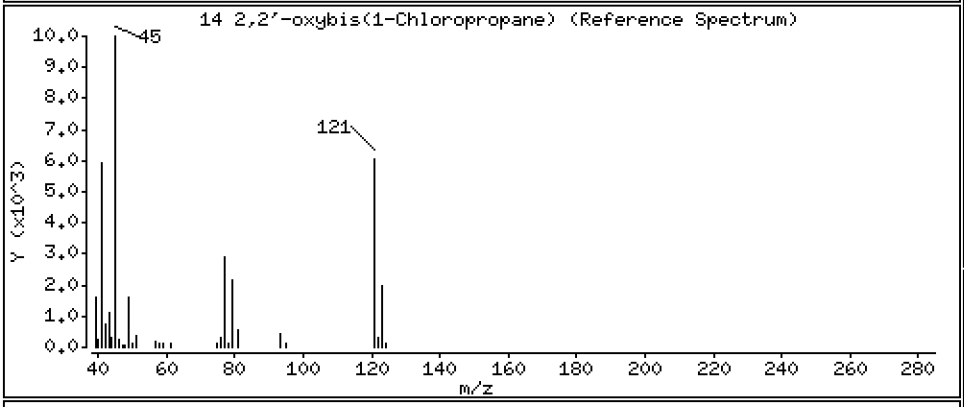
Concentration: 0.3151 ug/mL

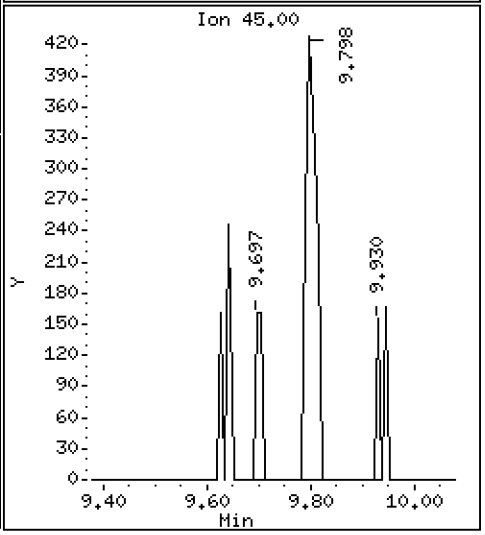


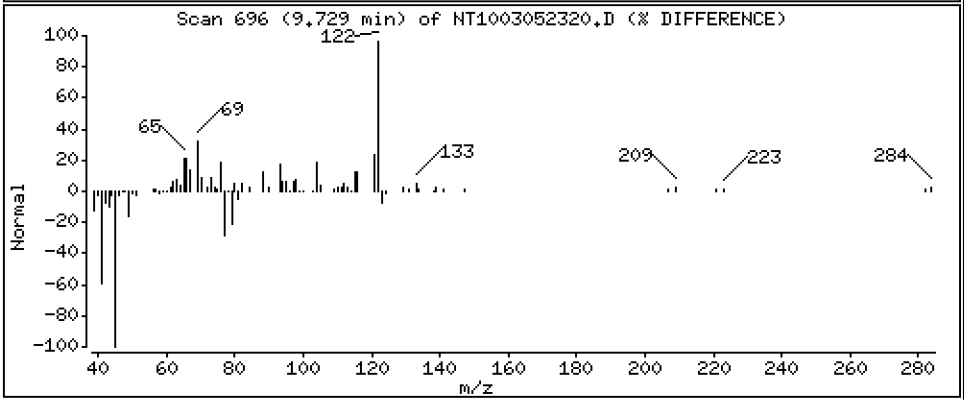












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

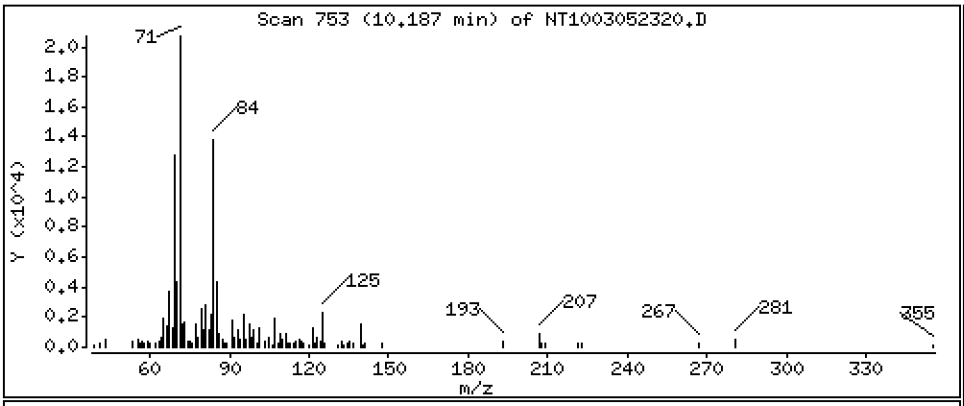
Operator: VTS

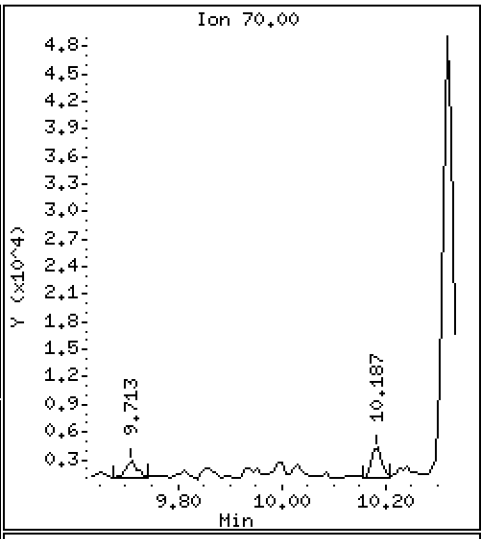
Column phase: ZB-5msi

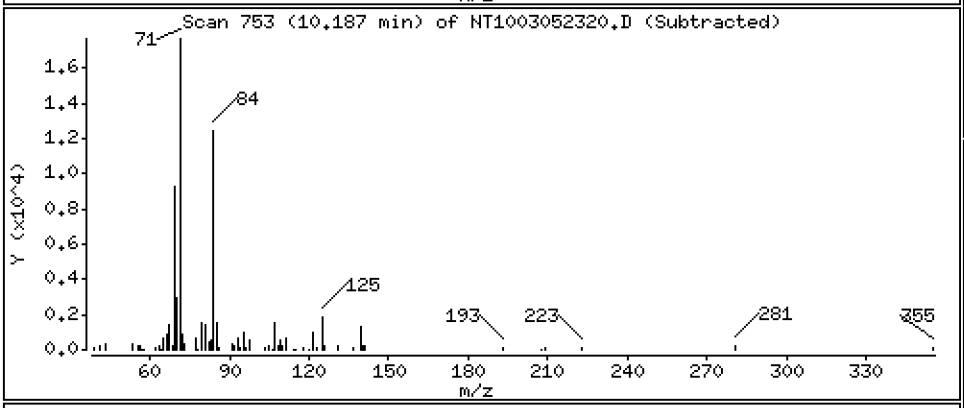
Column diameter: 0.25

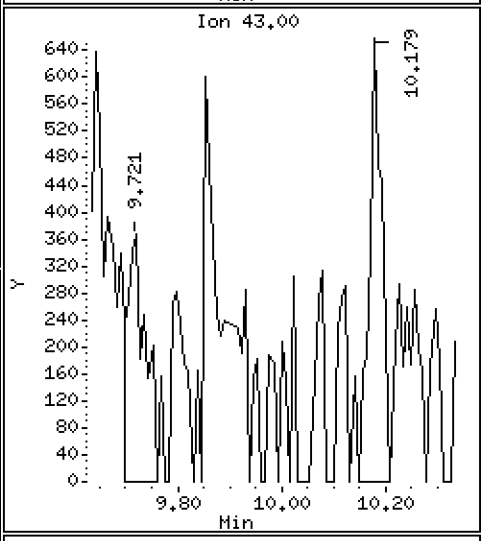
16 N-Nitroso-di-n-propylamine

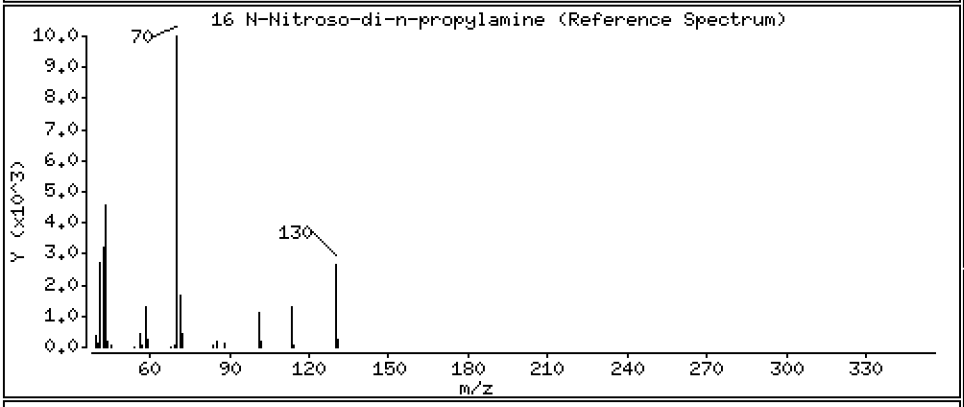
Concentration: 0.07764 ug/mL

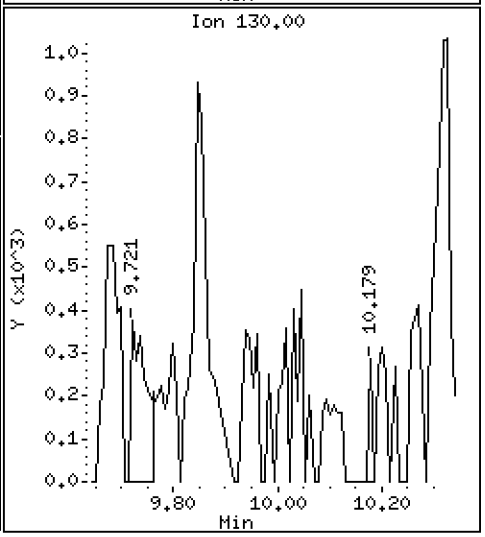


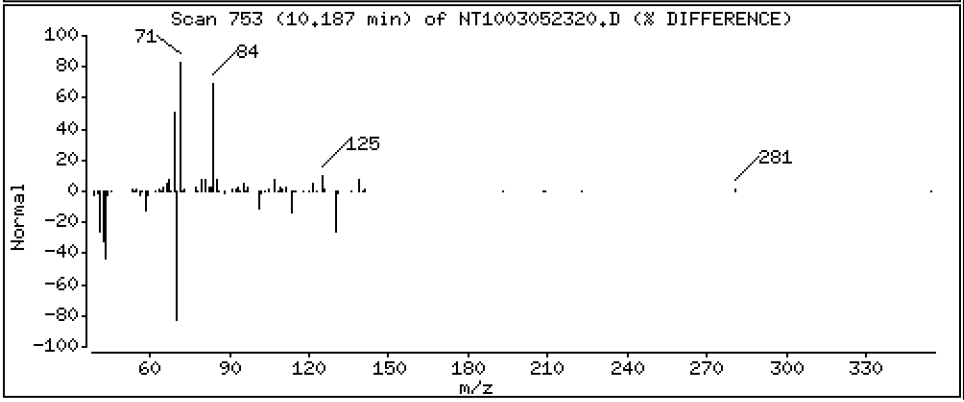












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

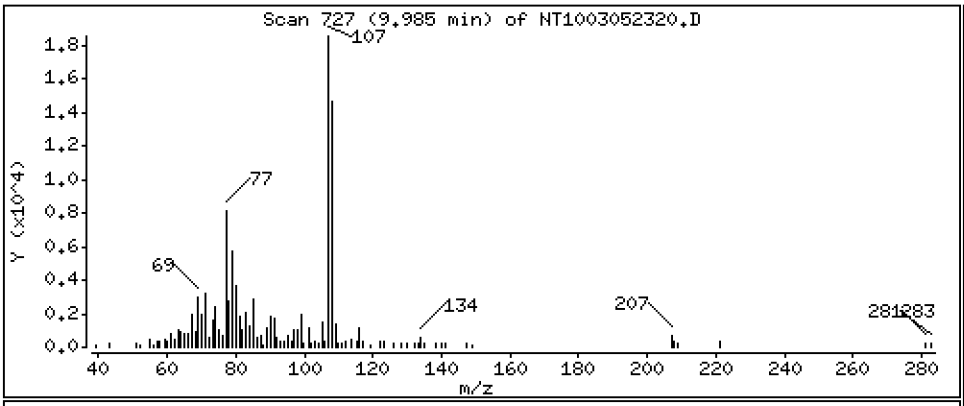
Operator: VTS

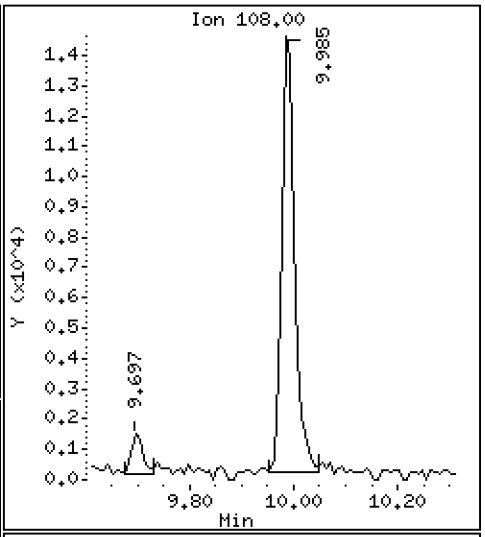
Column phase: ZB-5msi

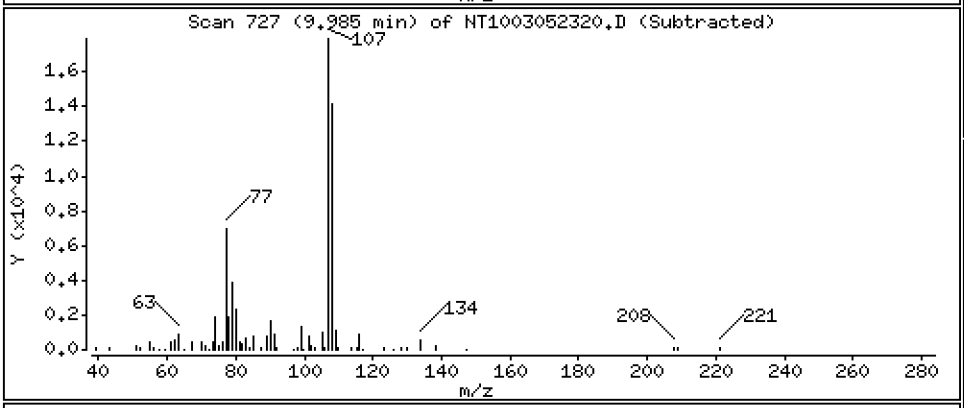
Column diameter: 0.25

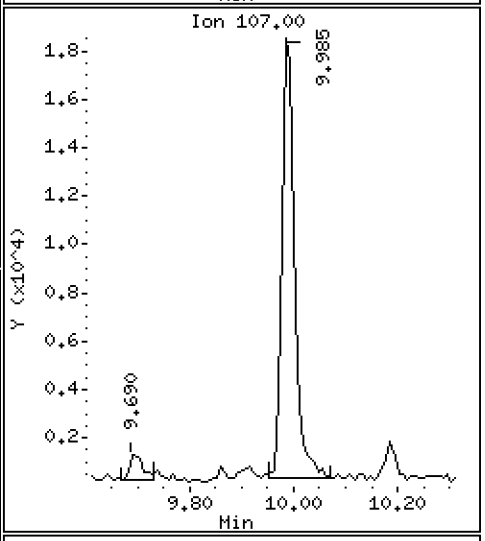
15 4-Methylphenol

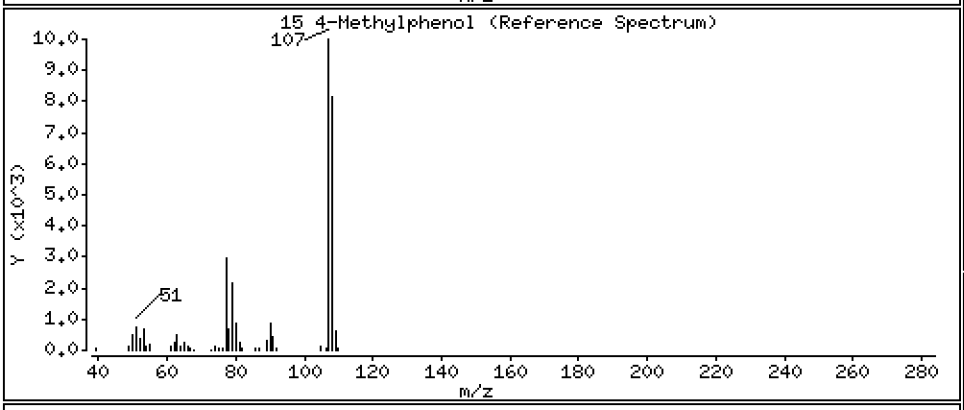
Concentration: 0.2430 ug/mL

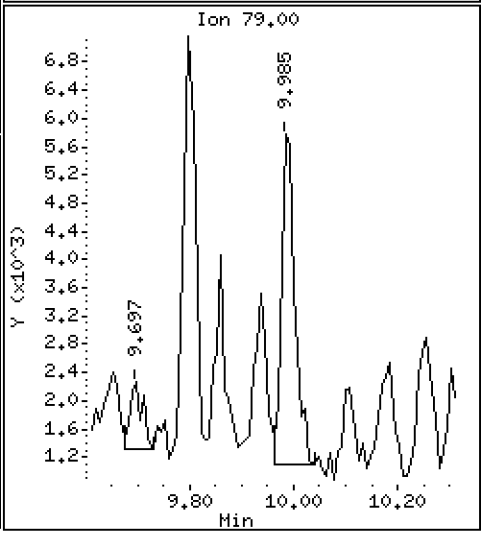


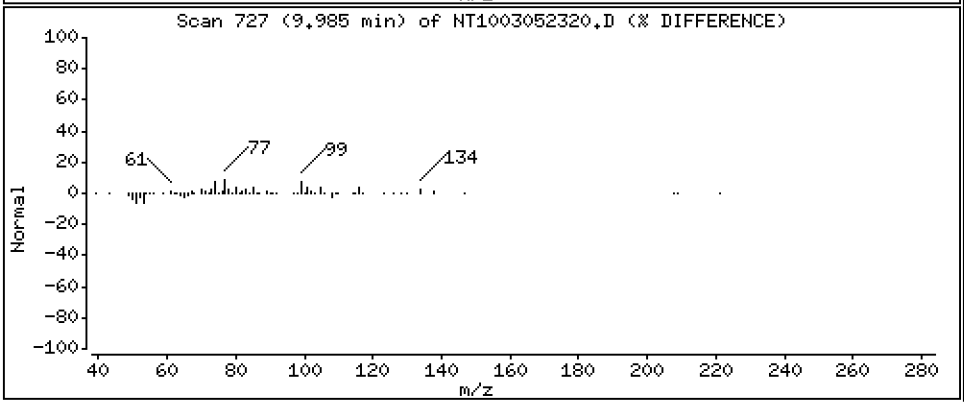












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

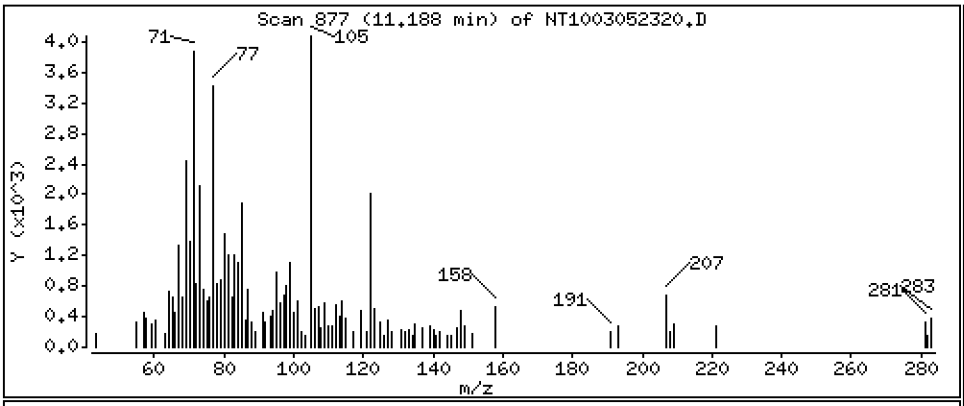
Operator: VTS

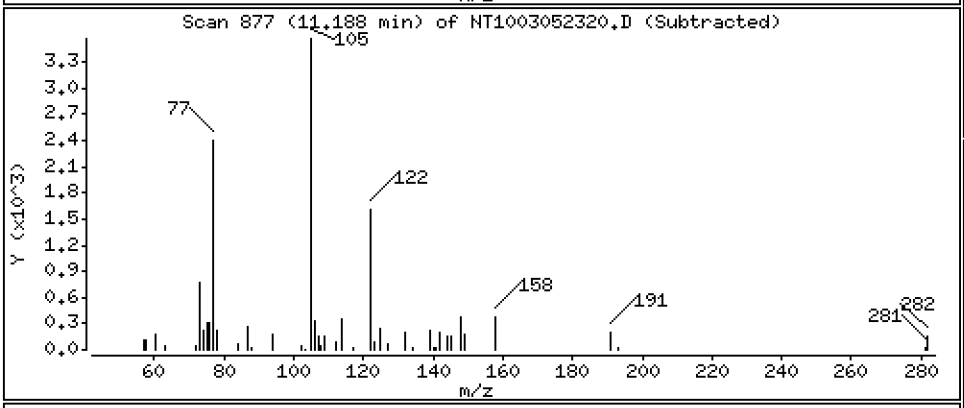
Column phase: ZB-5msi

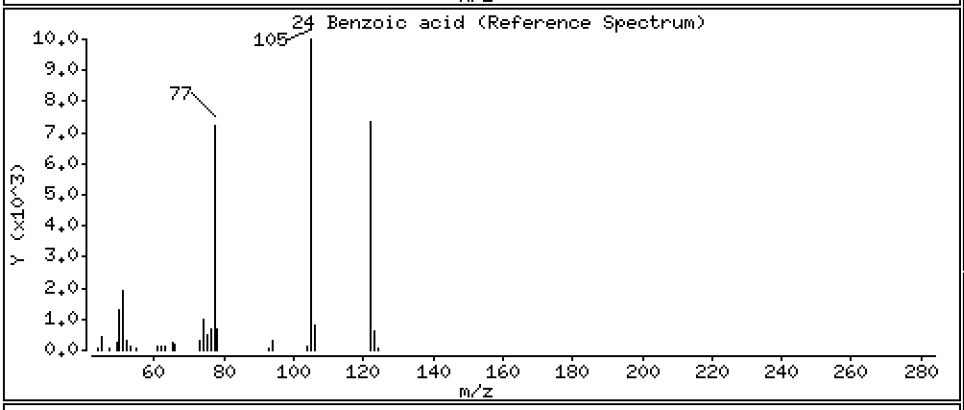
Column diameter: 0.25

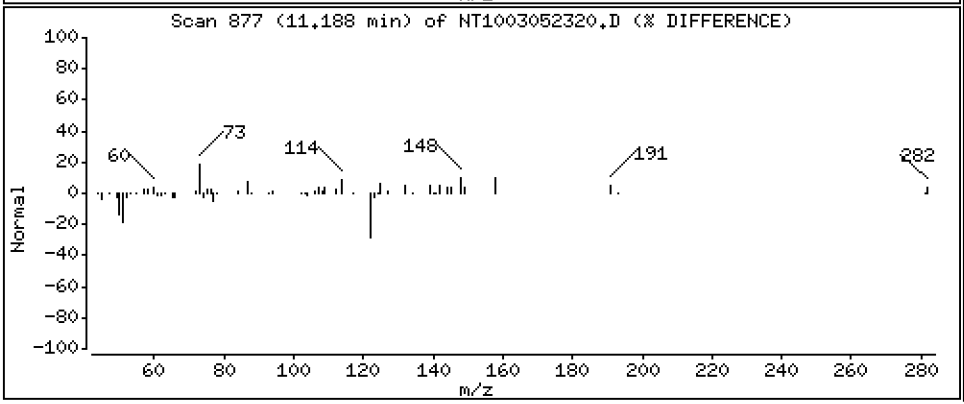
24 Benzoic acid

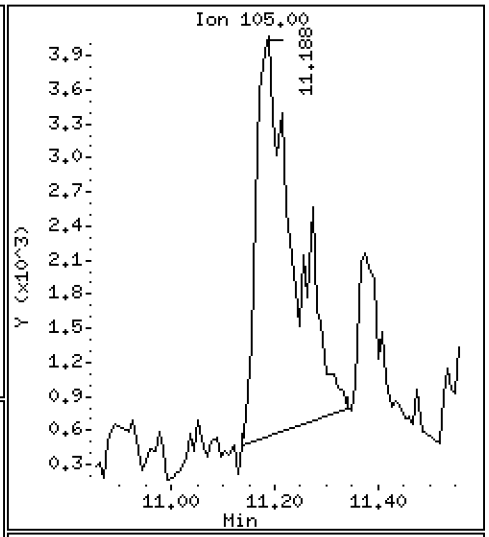
Concentration: 0.3027 ug/mL

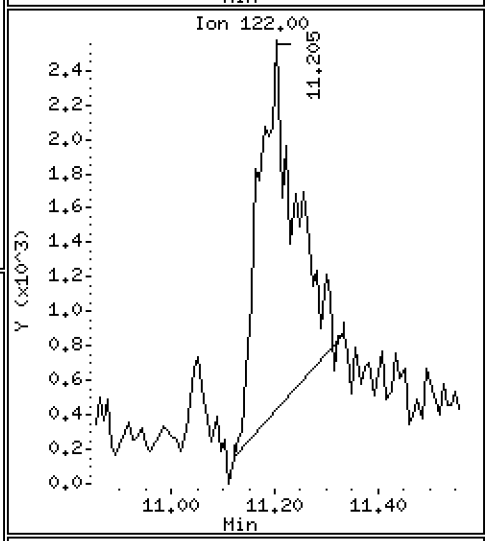


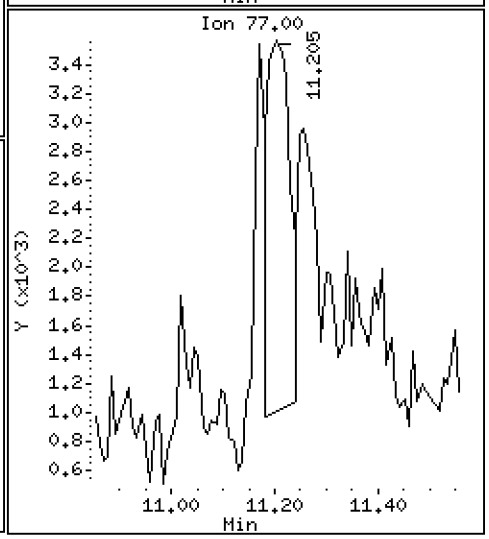












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

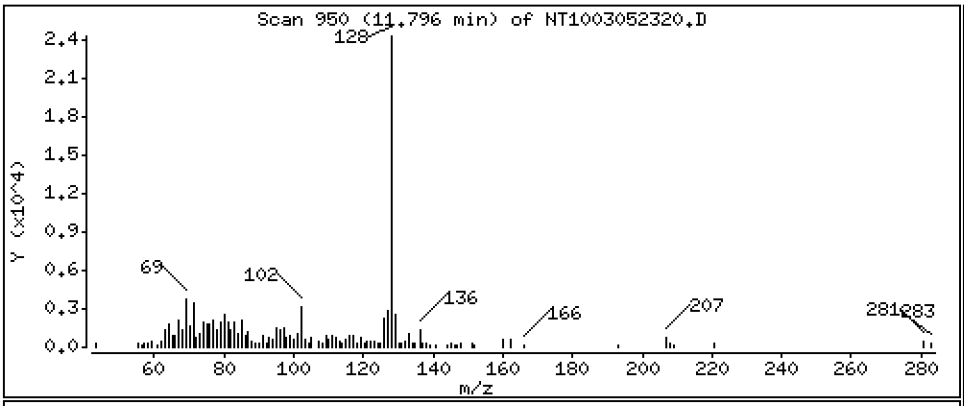
Operator: VTS

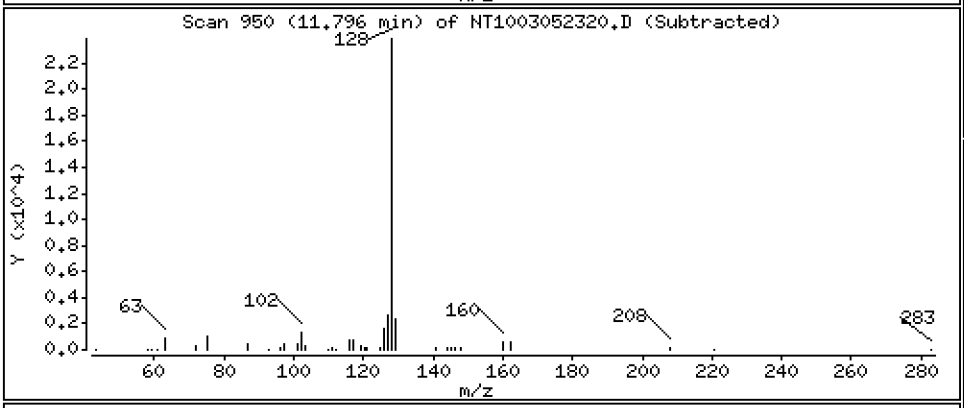
Column phase: ZB-5msi

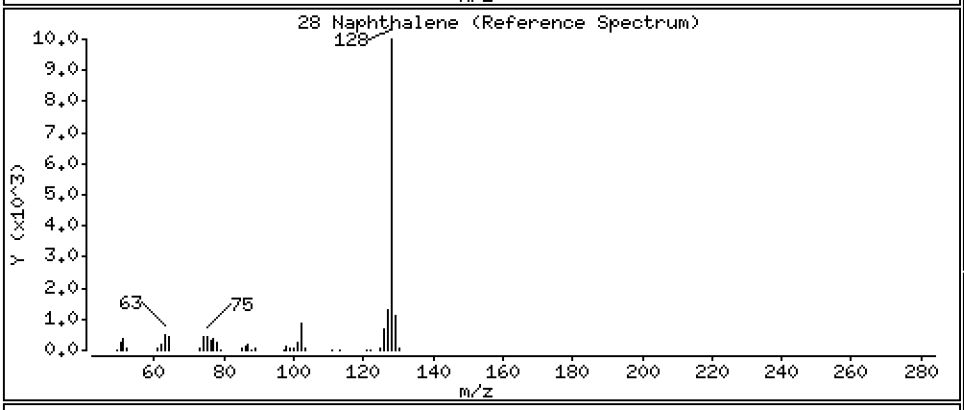
Column diameter: 0.25

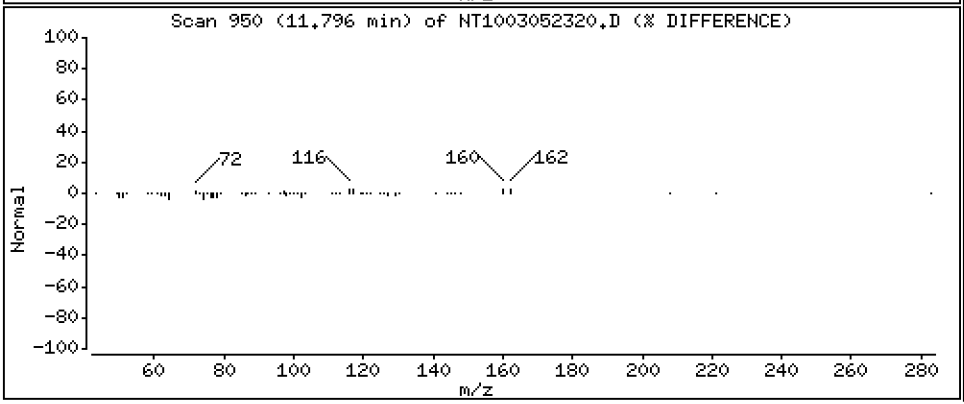
28 Naphthalene

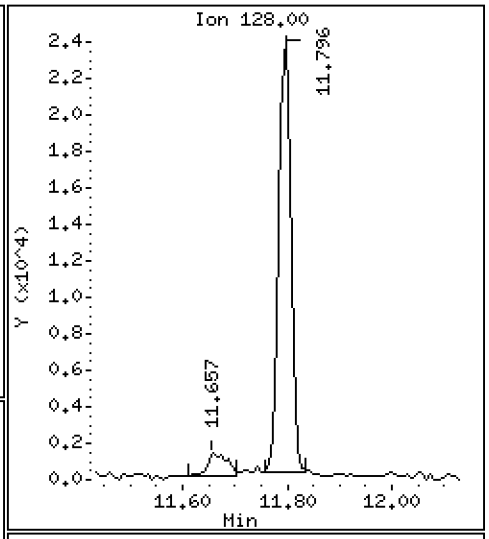
Concentration: 0.1409 ug/mL

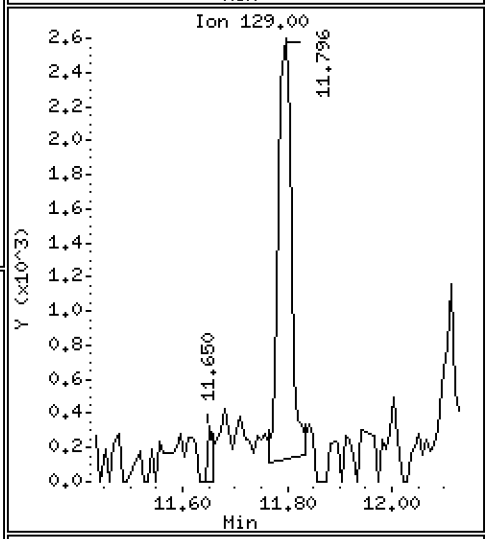


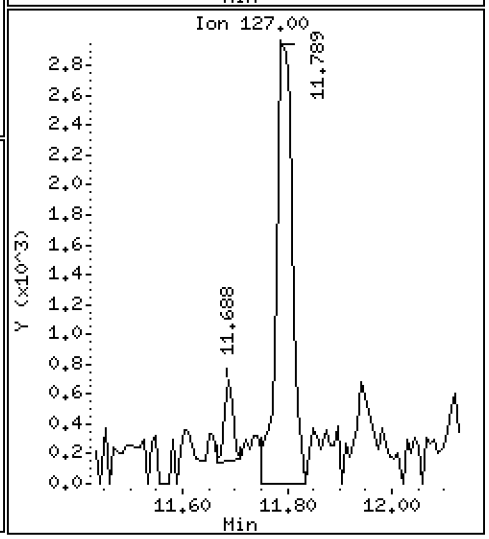












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

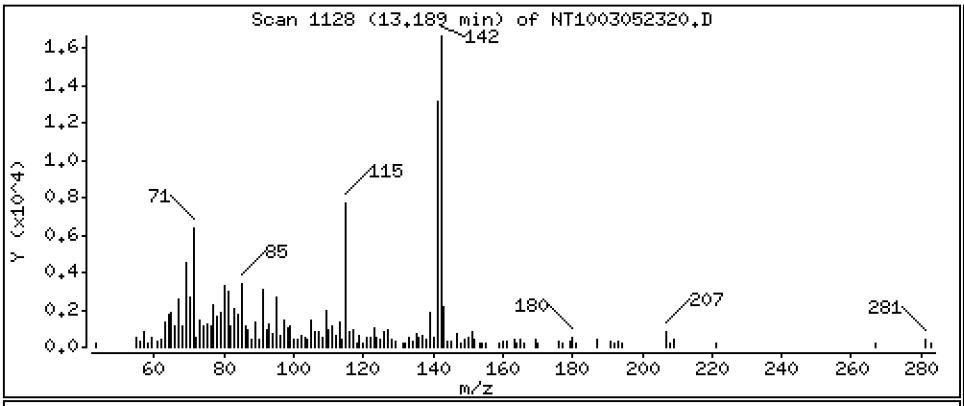
Operator: VTS

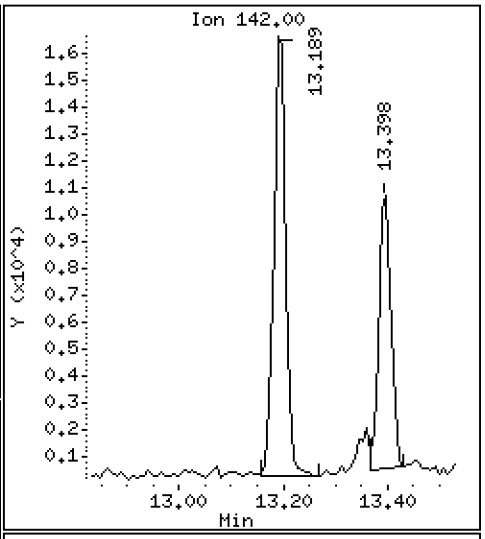
Column phase: ZB-5msi

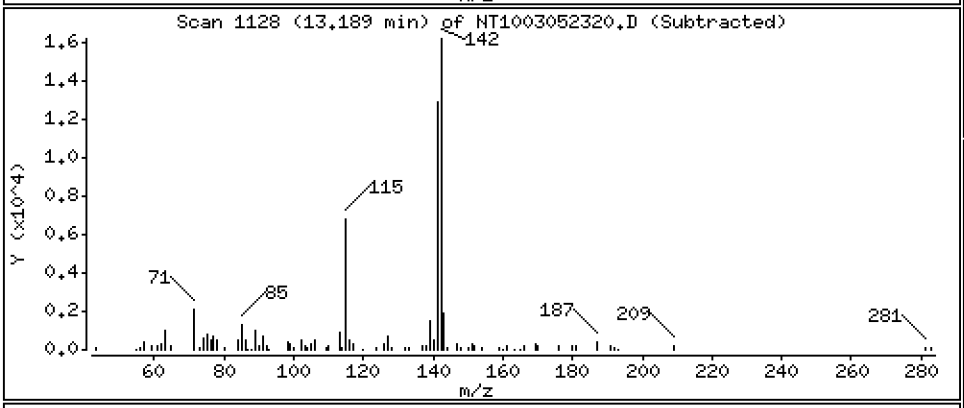
Column diameter: 0.25

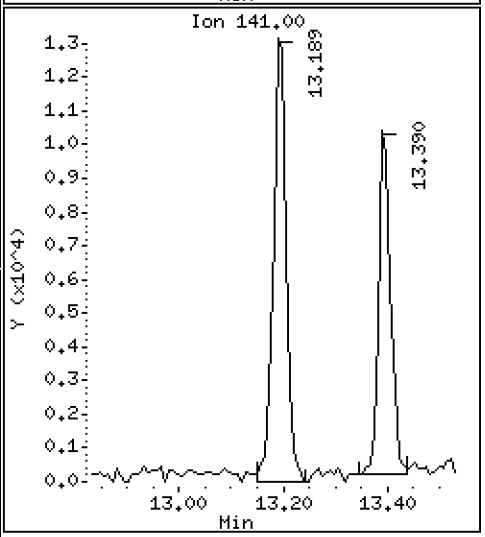
32 2-Methylnaphthalene

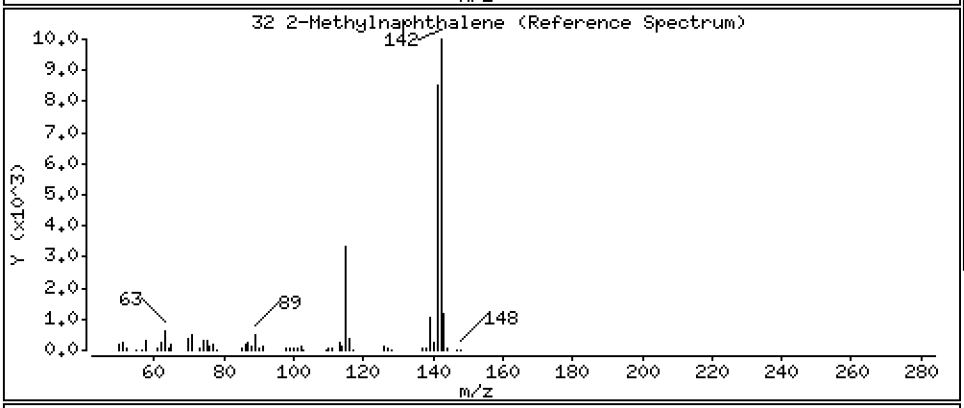
Concentration: 0.1432 ug/mL

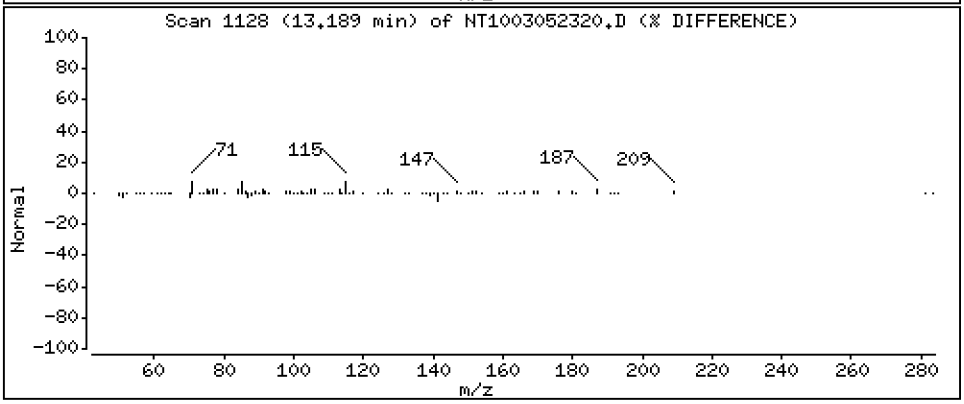












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

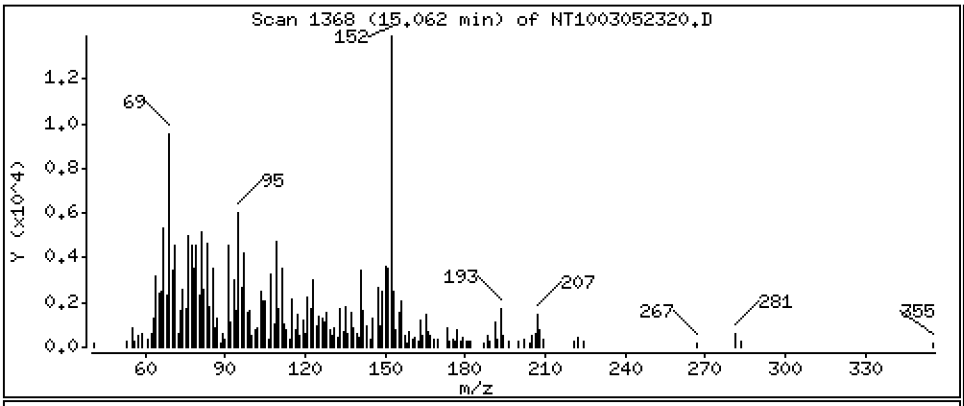
Operator: VTS

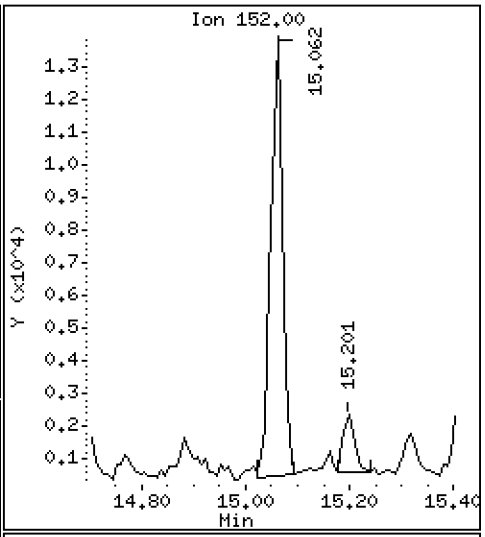
Column phase: ZB-5msi

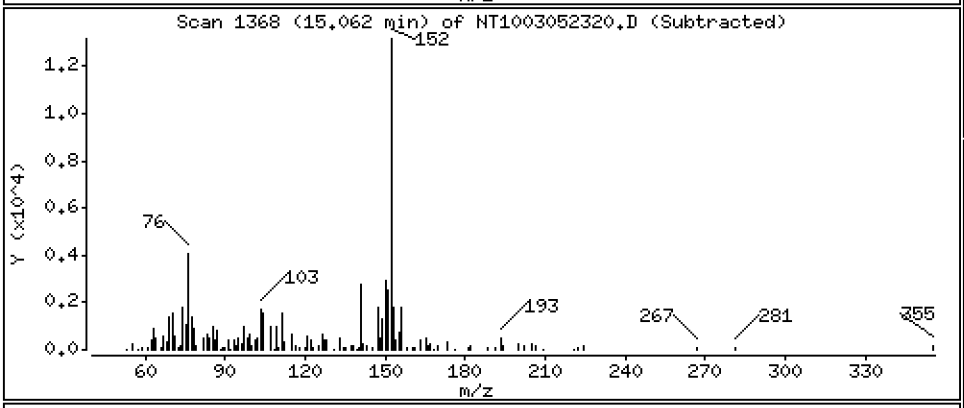
Column diameter: 0.25

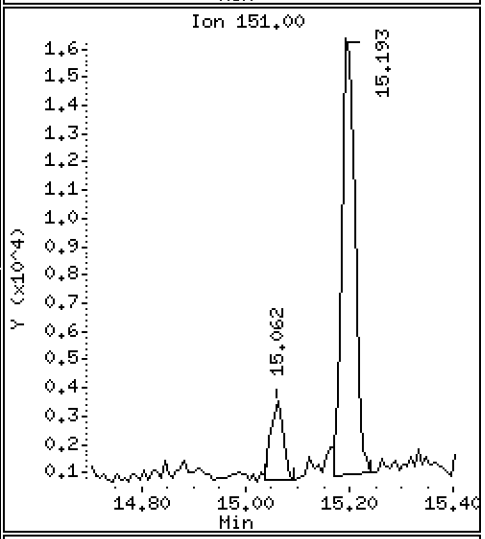
40 Acenaphthylene

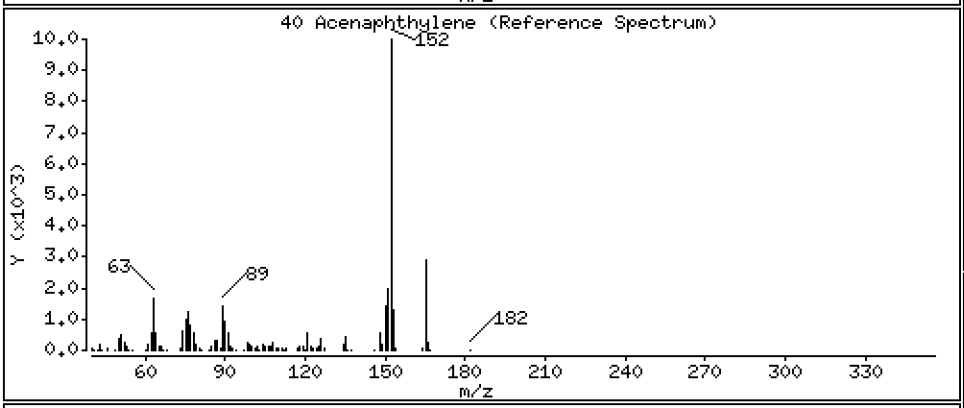
Concentration: 0.08226 ug/mL

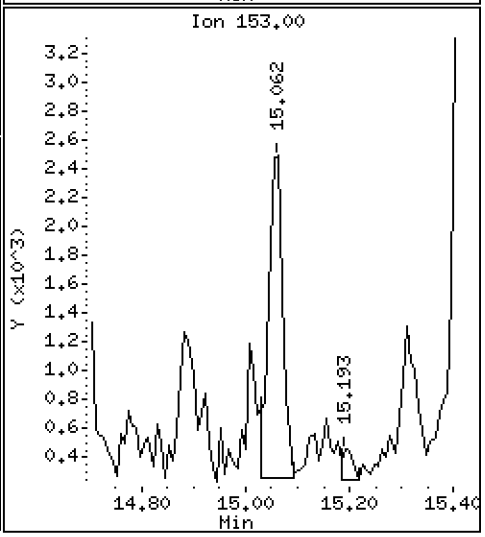


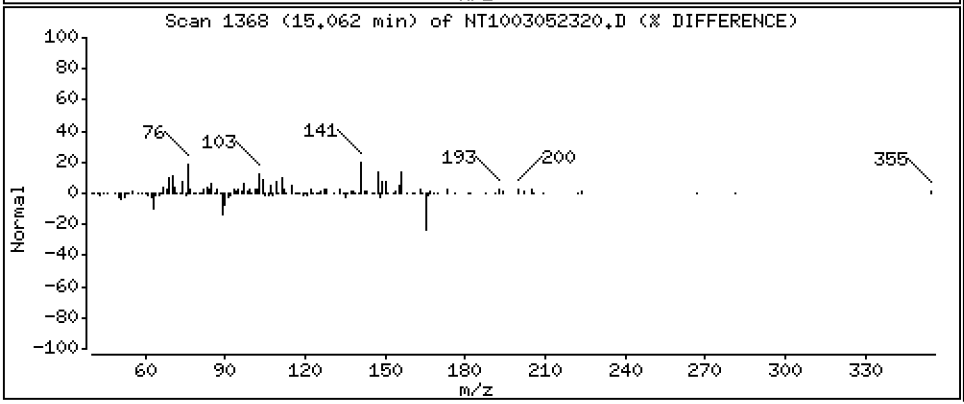












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052320.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

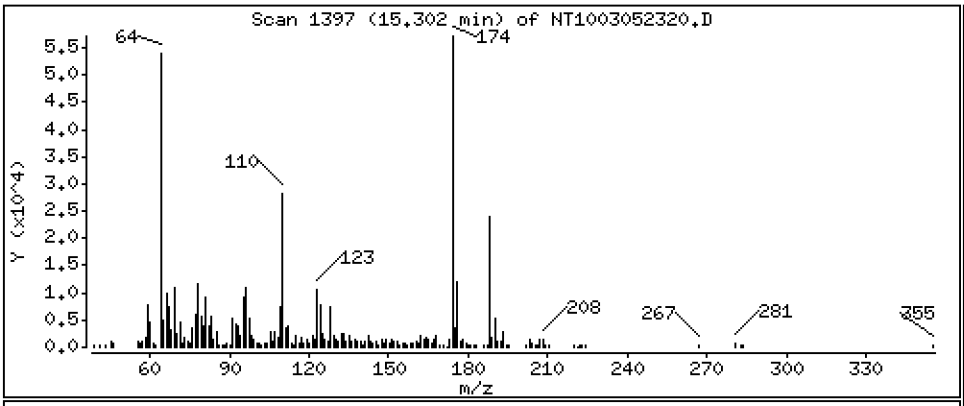
Operator: VTS

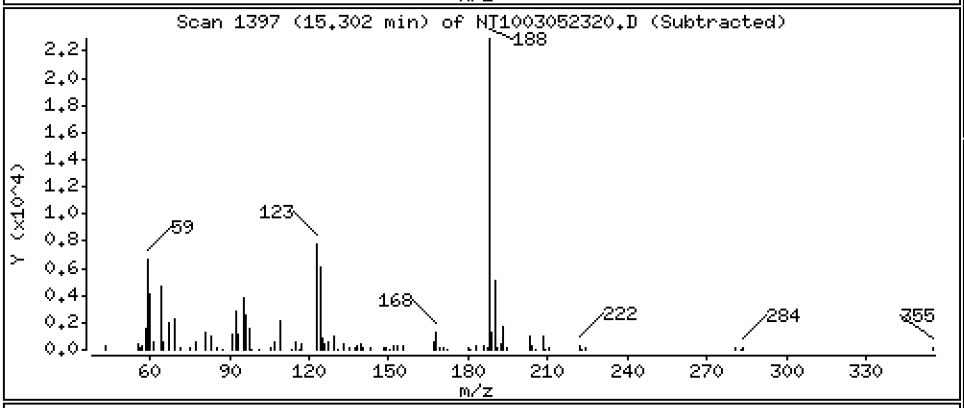
Column phase: ZB-5msi

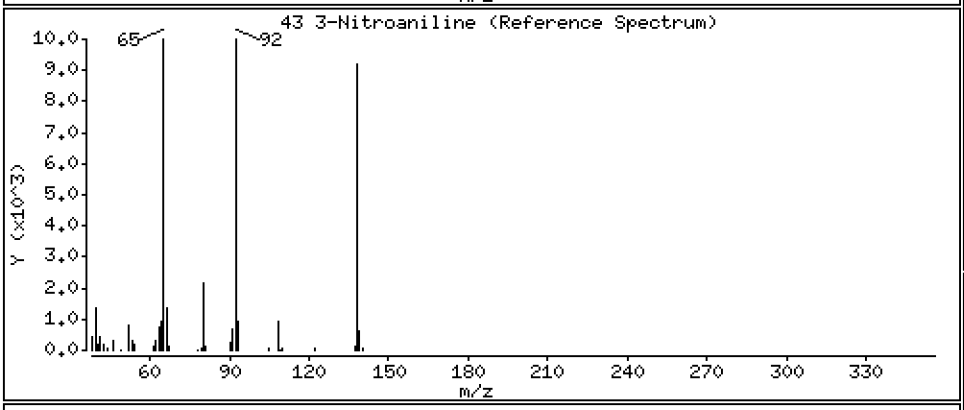
Column diameter: 0.25

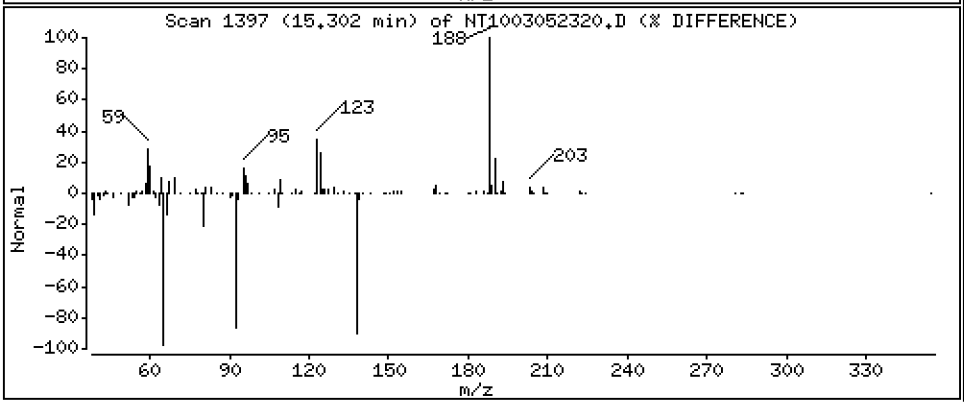
43 3-Nitroaniline

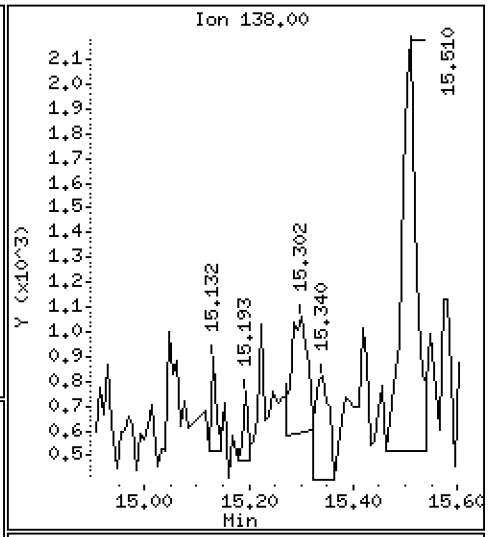
Concentration: 0.02547 ug/mL

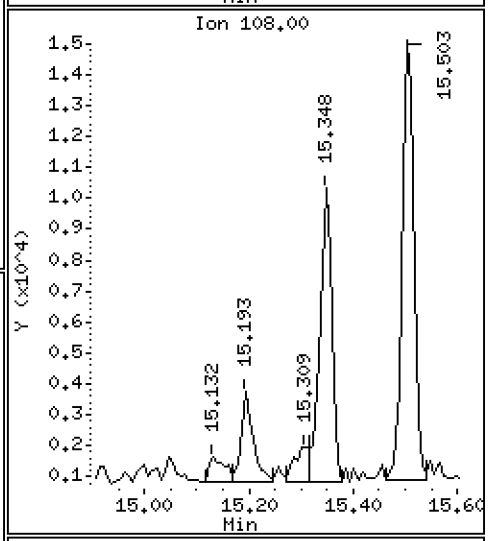


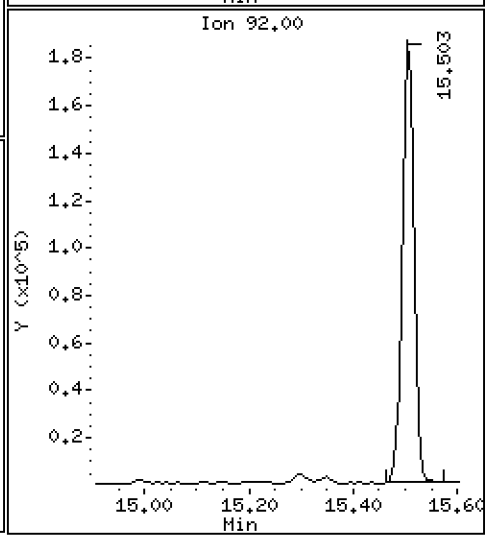












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

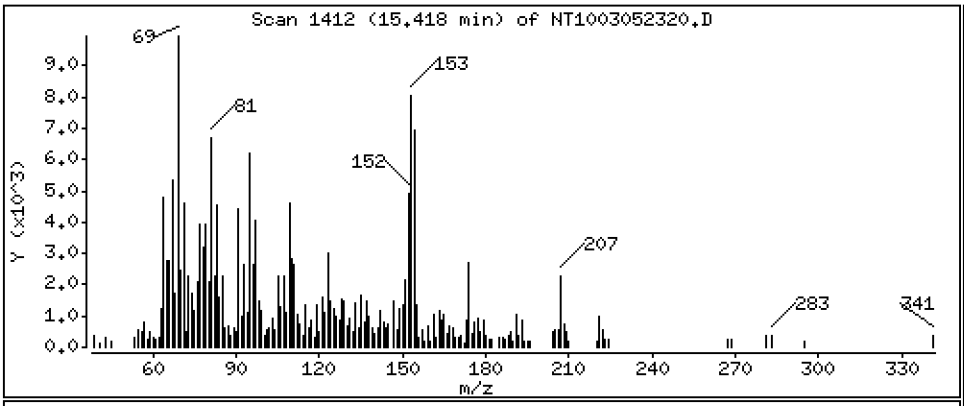
Operator: VTS

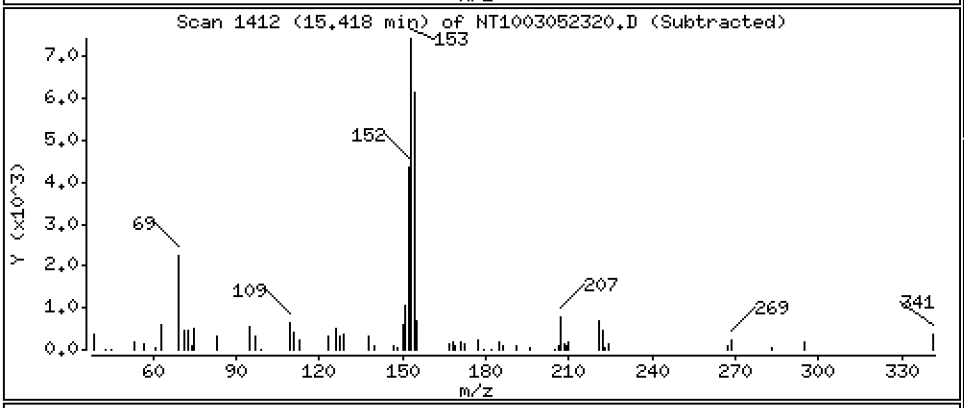
Column phase: ZB-5msi

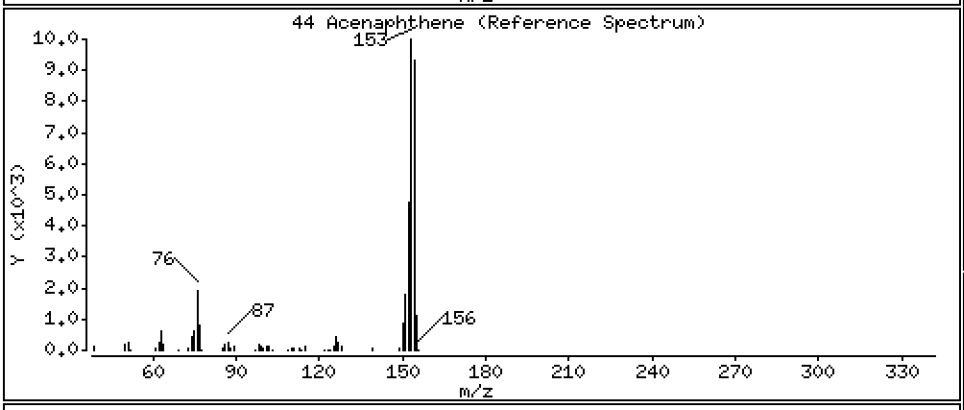
Column diameter: 0.25

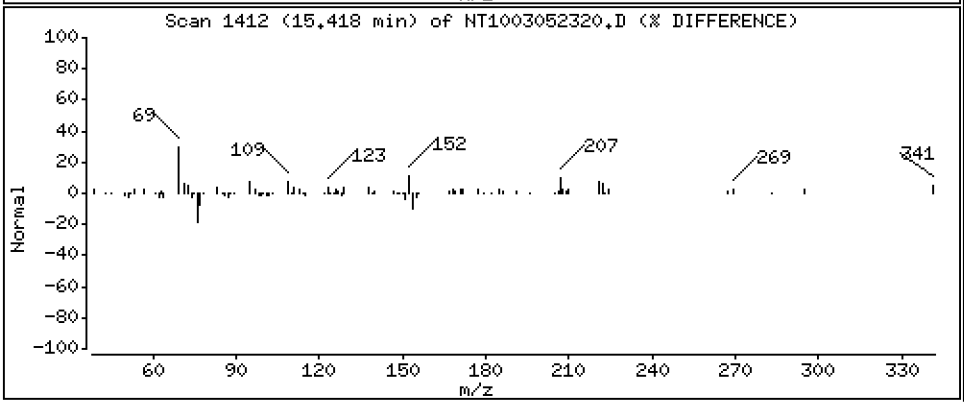
44 Acenaphthene

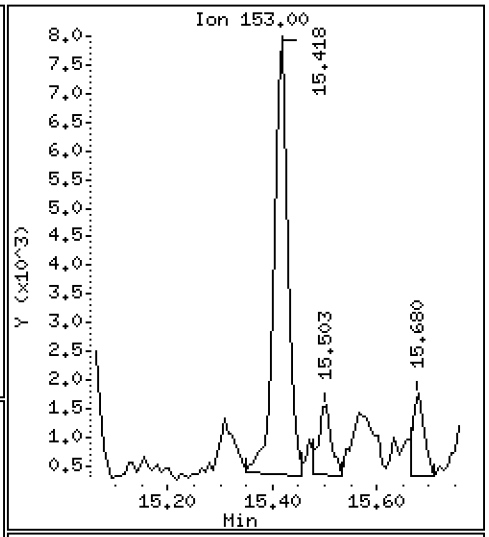
Concentration: 0.09049 ug/mL

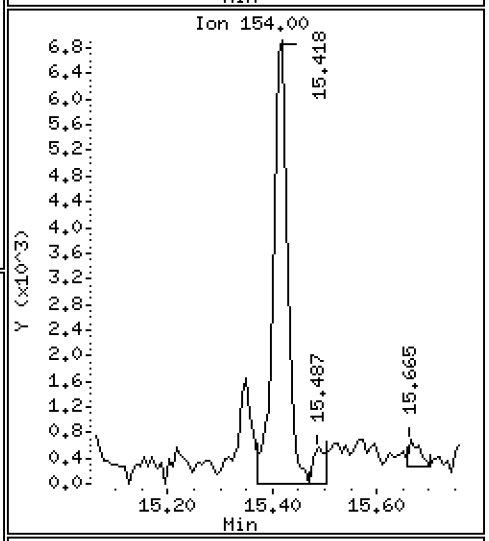


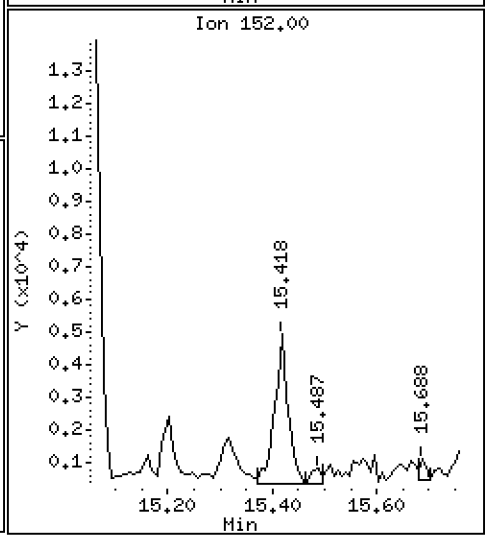












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

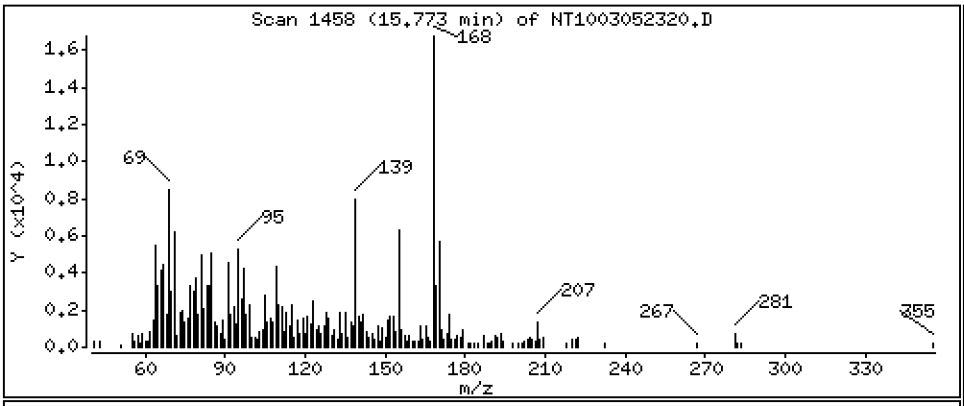
Operator: VTS

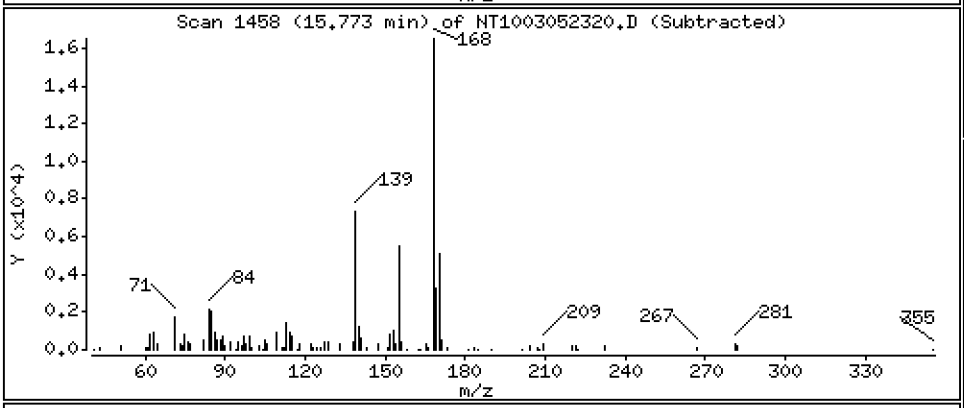
Column phase: ZB-5msi

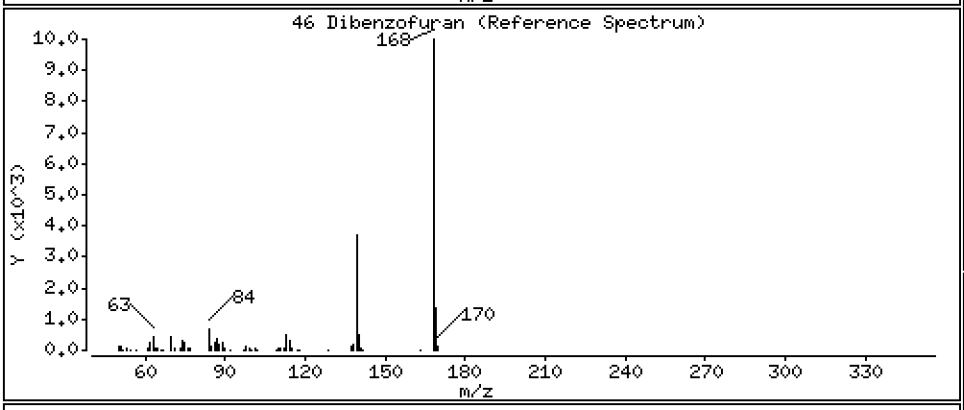
Column diameter: 0.25

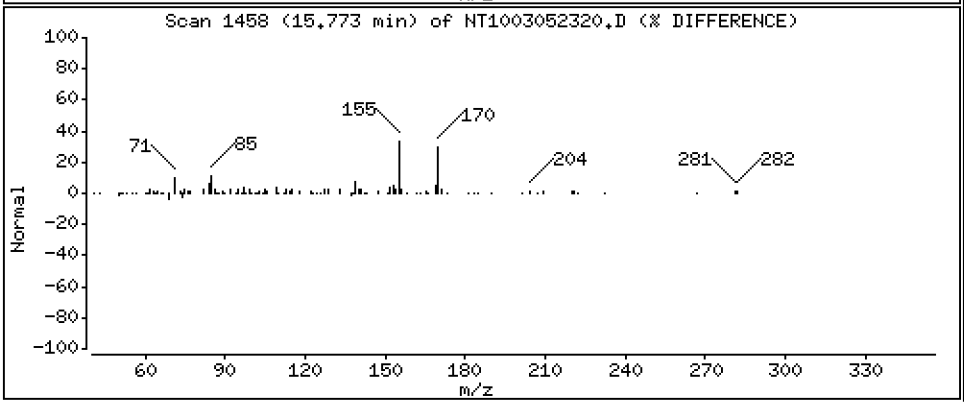
46 Dibenzofuran

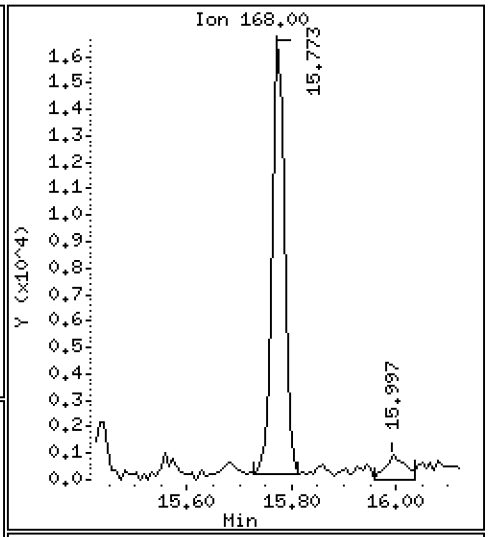
Concentration: 0.1124 ug/mL

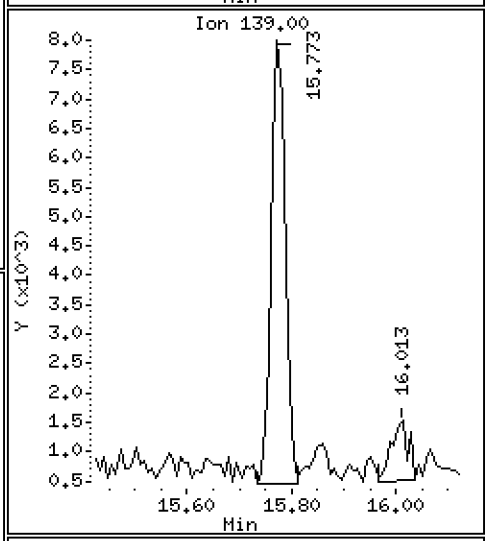


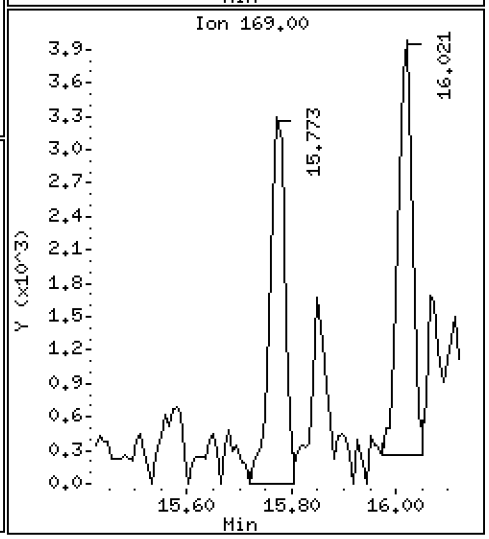












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

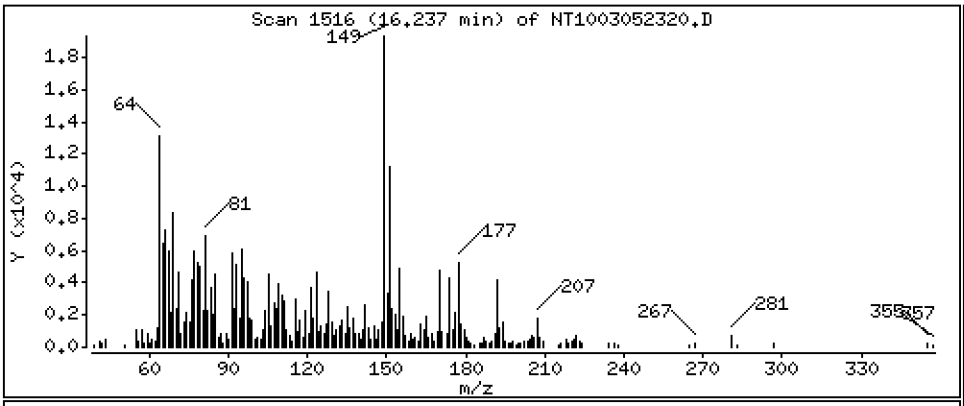
Operator: VTS

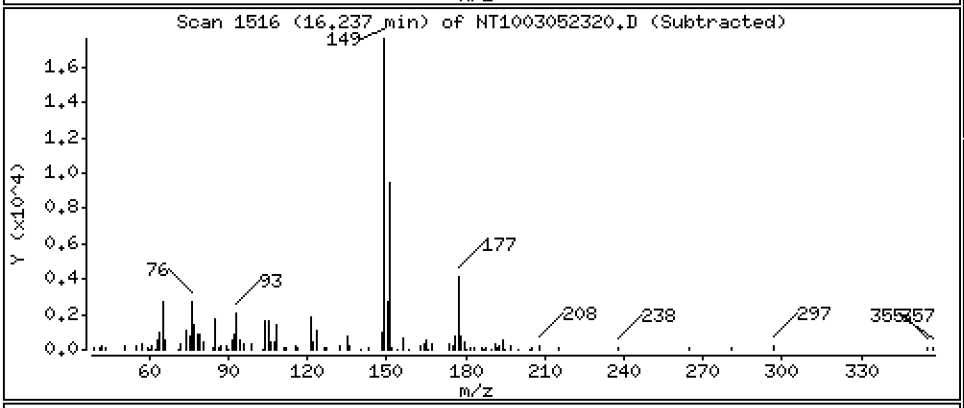
Column phase: ZB-5msi

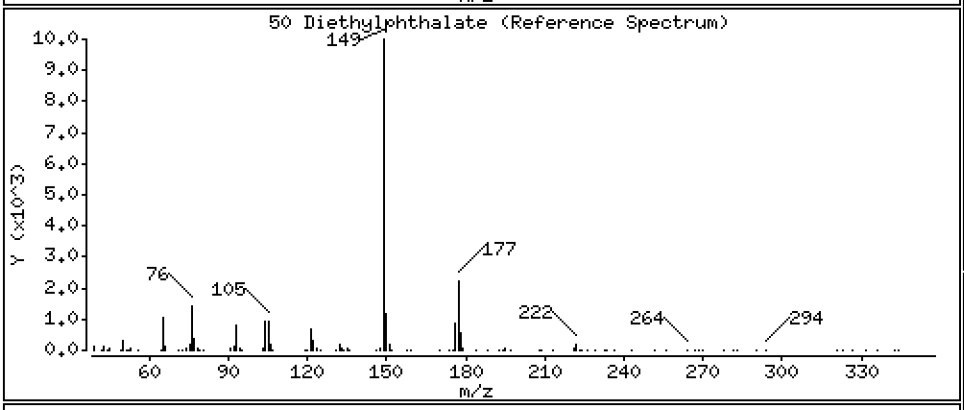
Column diameter: 0.25

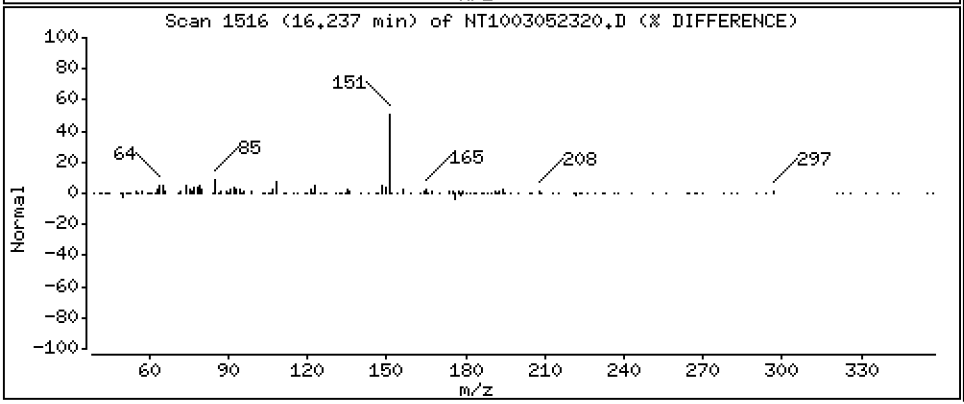
50 Diethylphthalate

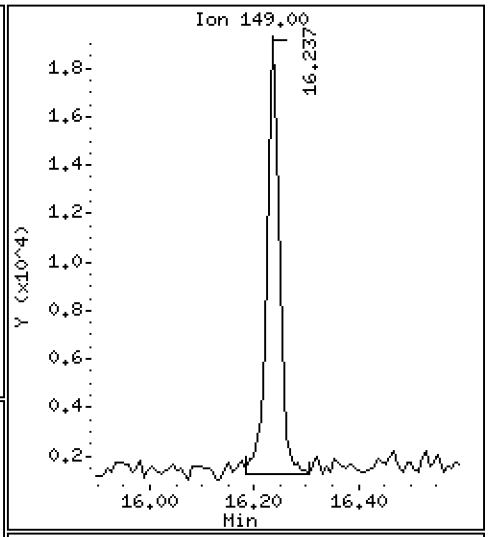
Concentration: 0.1655 ug/mL

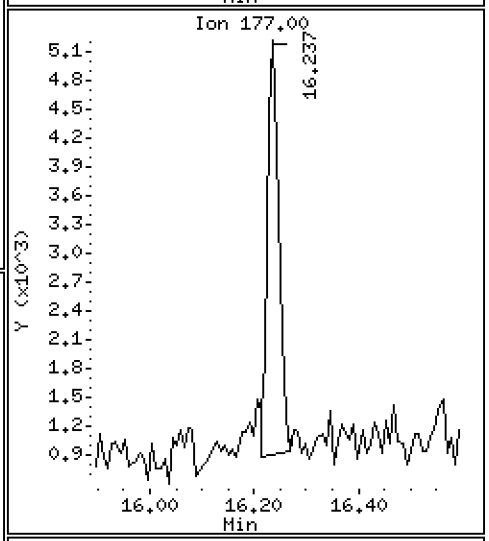


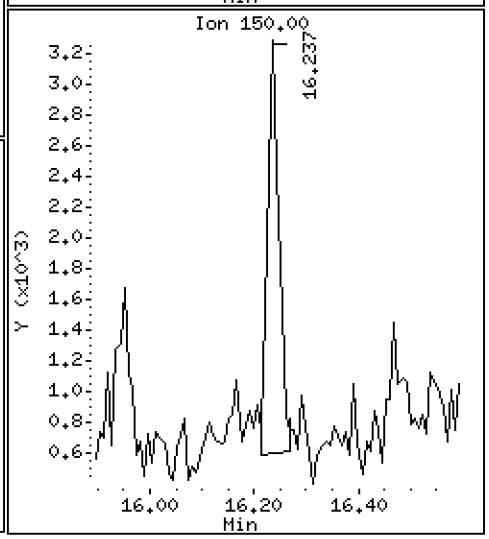












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

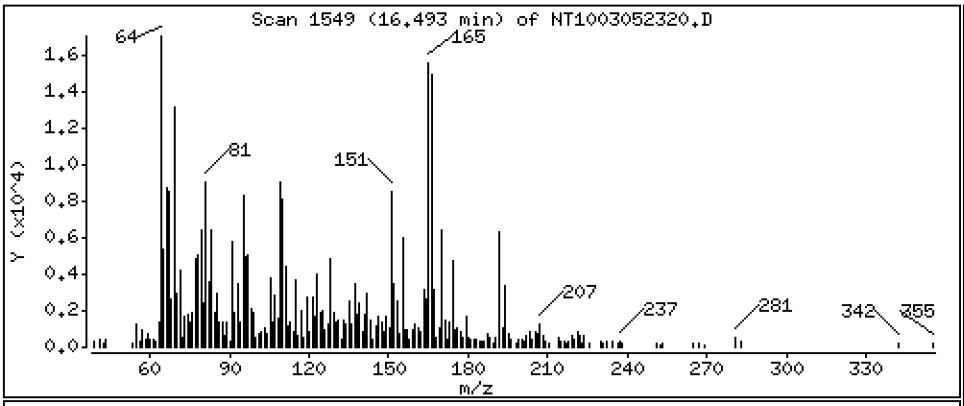
Operator: VTS

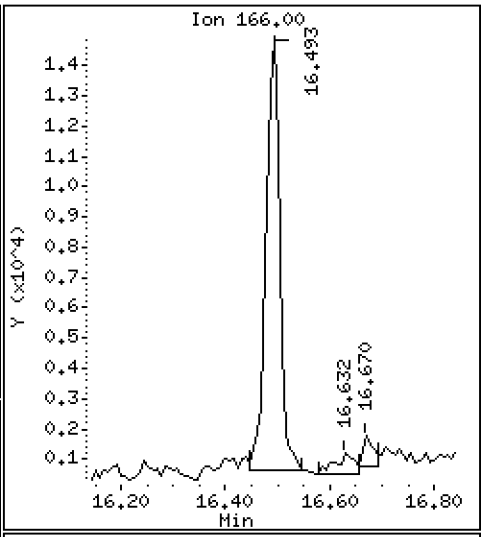
Column phase: ZB-5msi

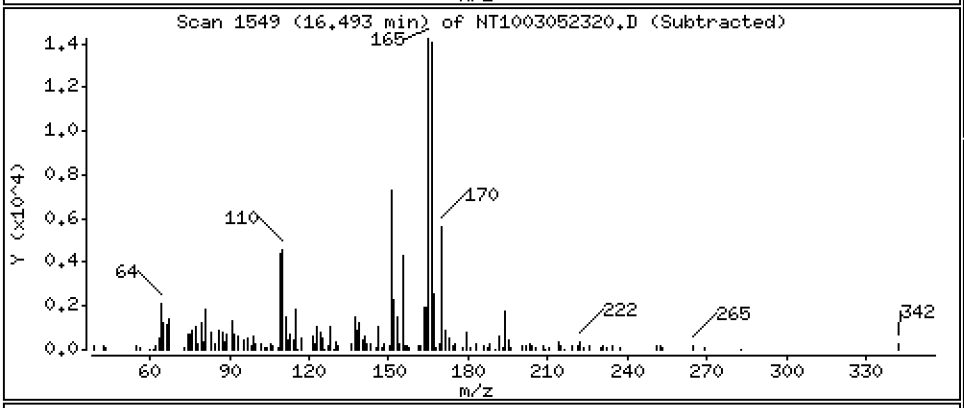
Column diameter: 0.25

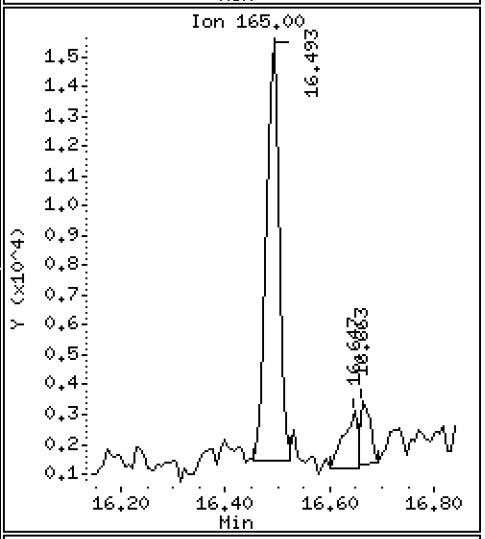
49 Fluorene

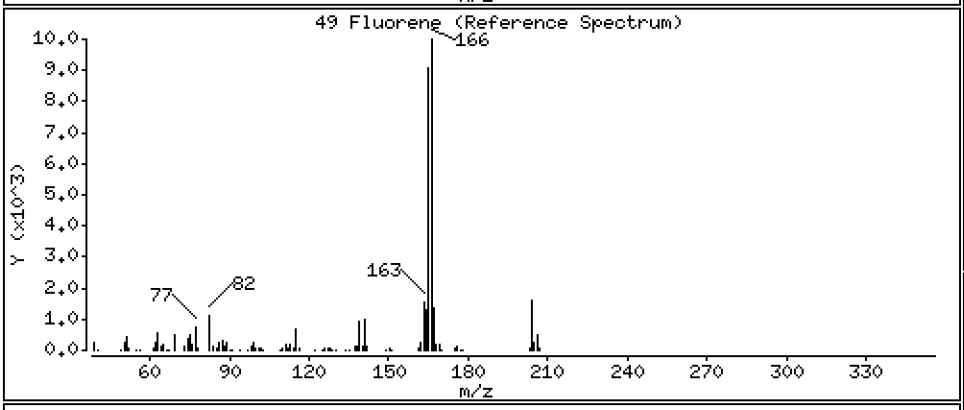
Concentration: 0.1374 ug/mL

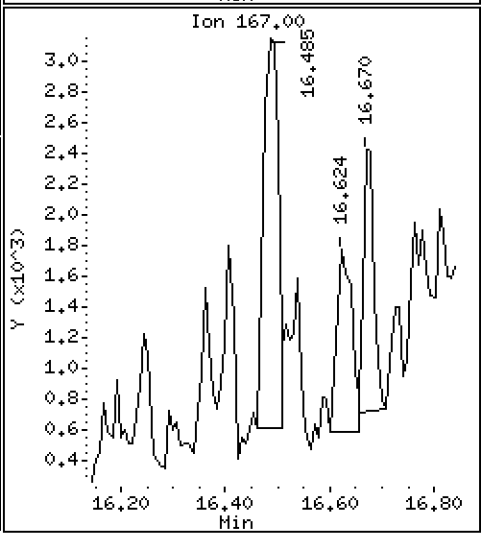


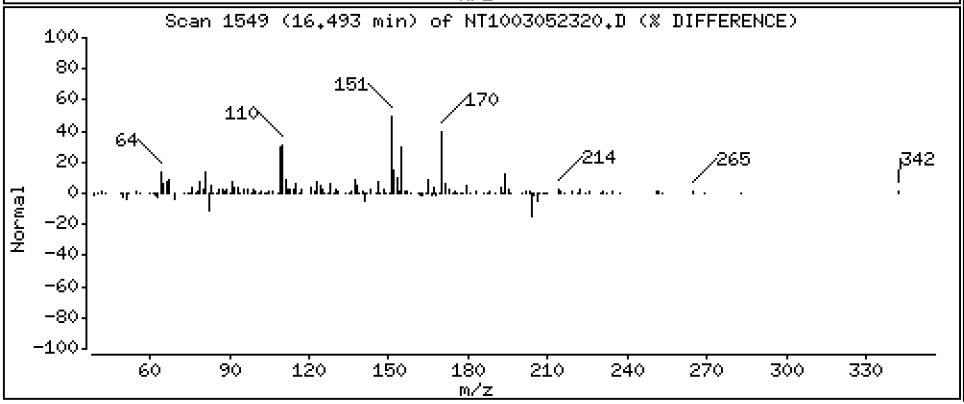












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

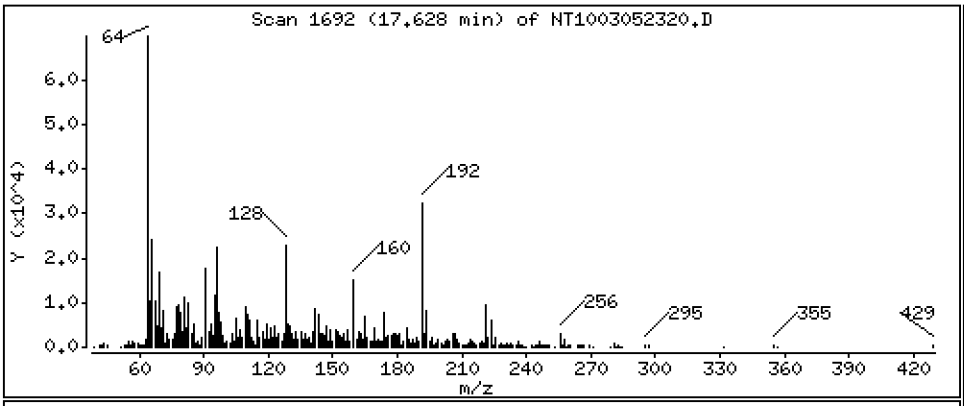
Operator: VTS

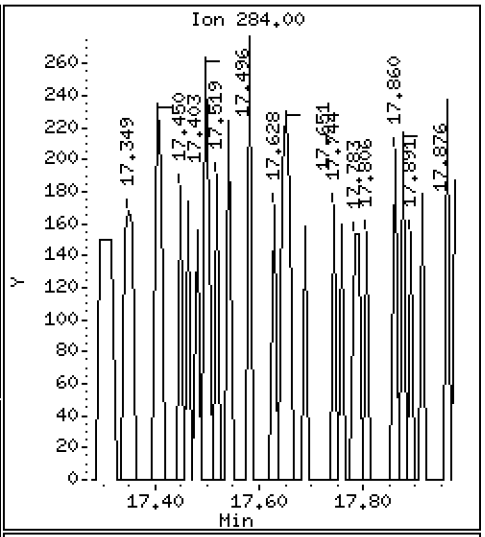
Column phase: ZB-5msi

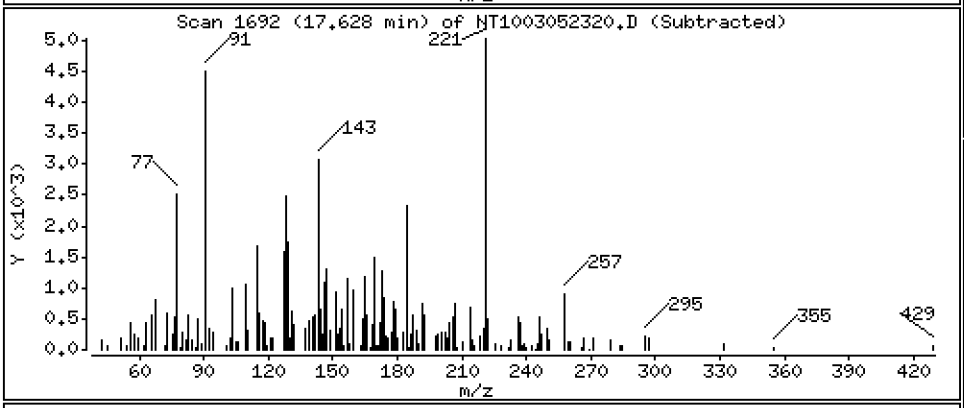
Column diameter: 0.25

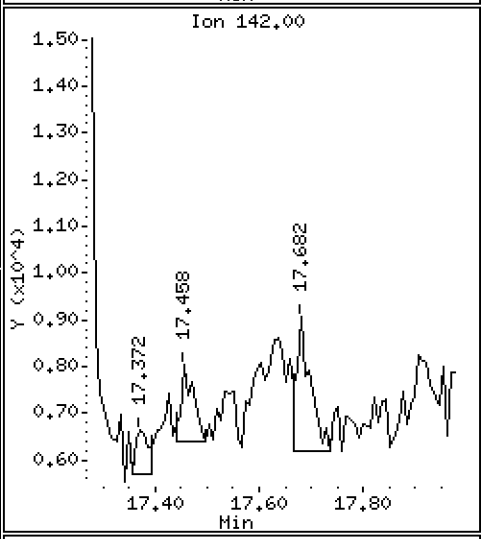
57 Hexachlorobenzene

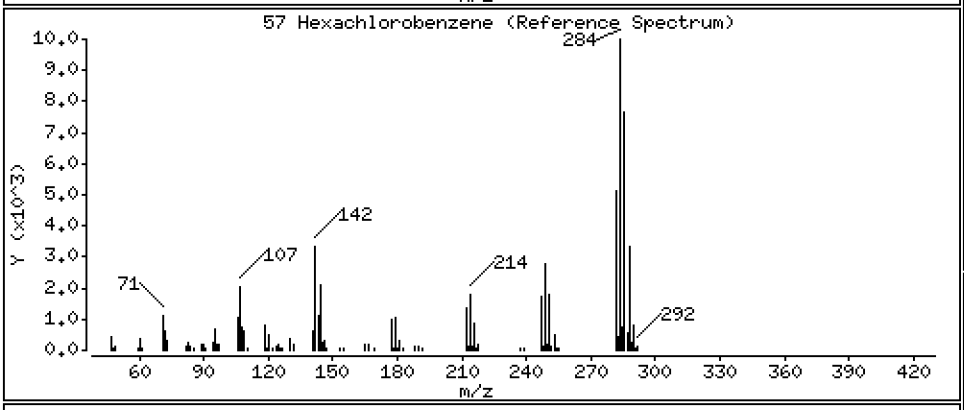
Concentration: 0.001208 ug/mL

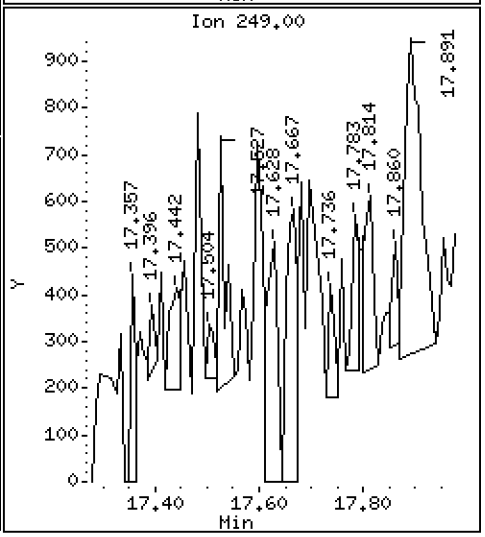


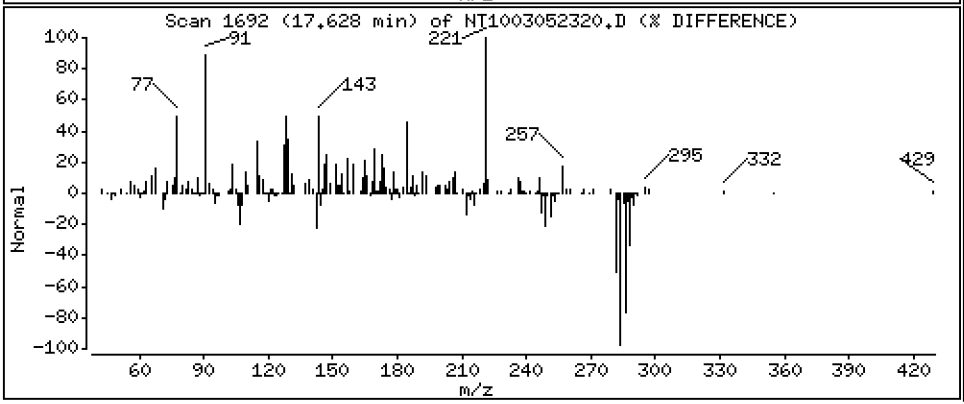












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

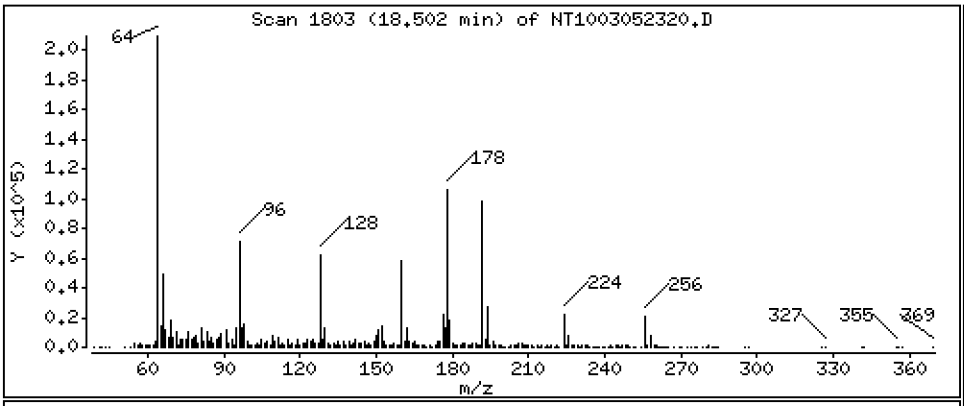
Operator: VTS

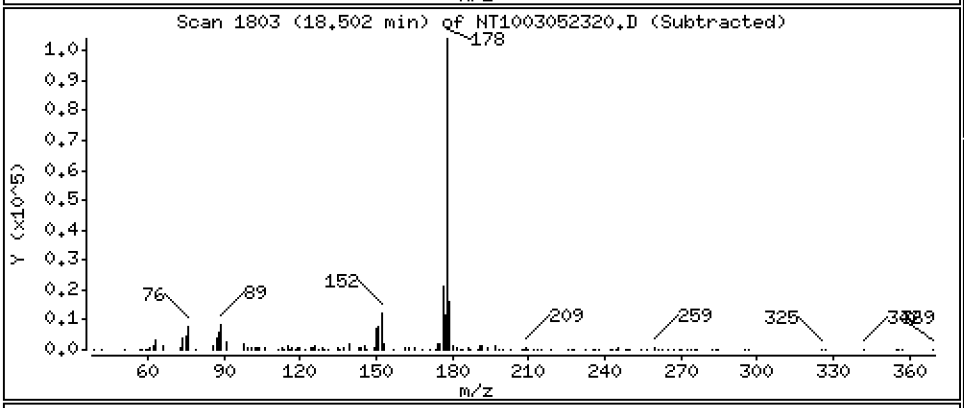
Column phase: ZB-5msi

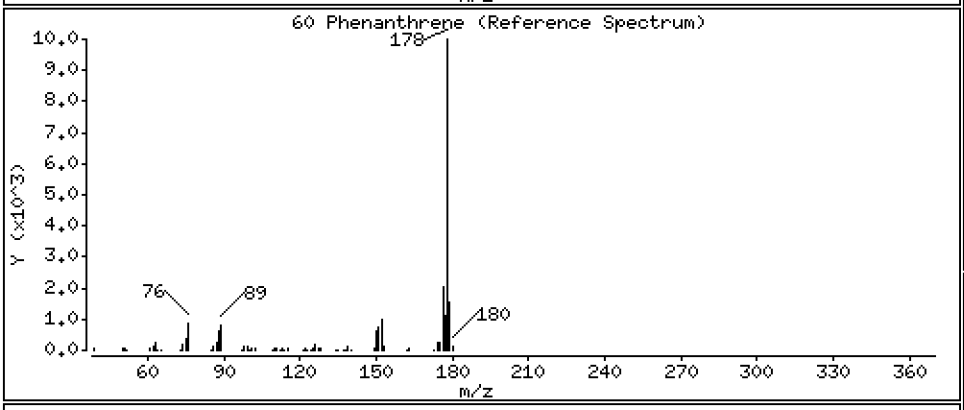
Column diameter: 0.25

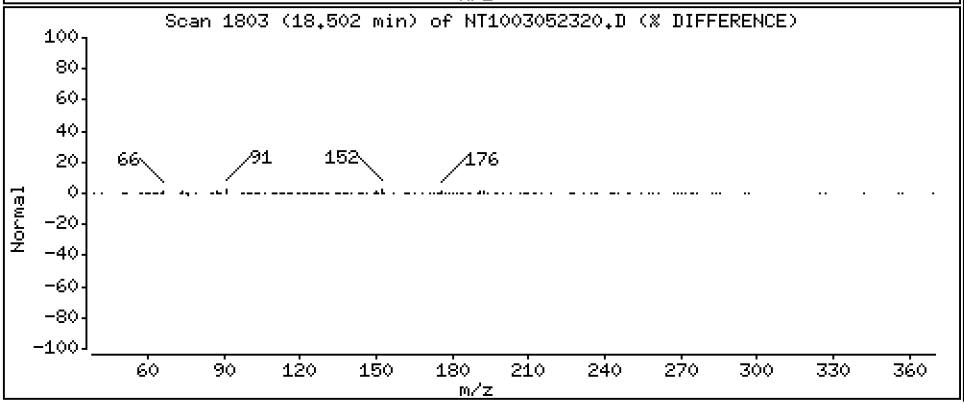
60 Phenanthrene

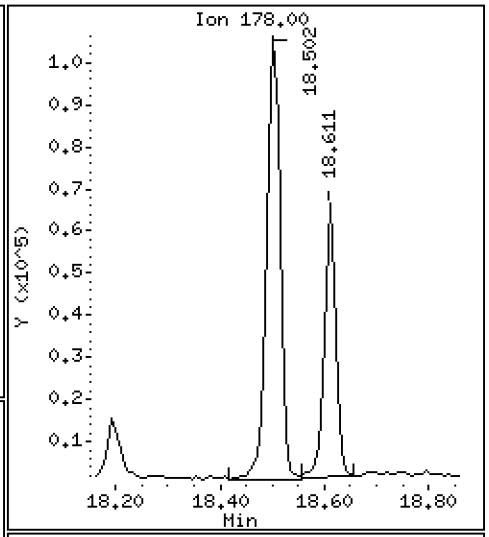
Concentration: 0.7255 ug/mL

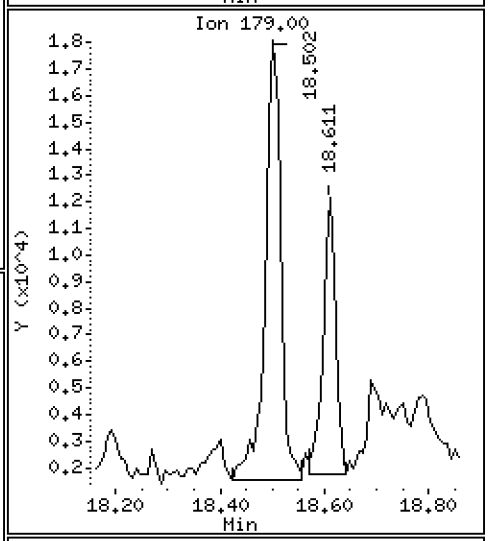


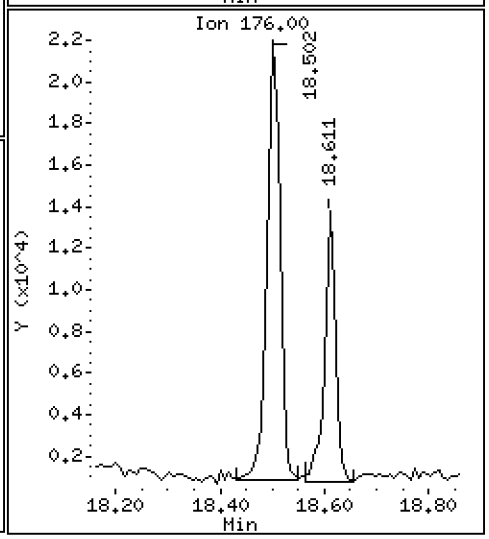












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052320.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

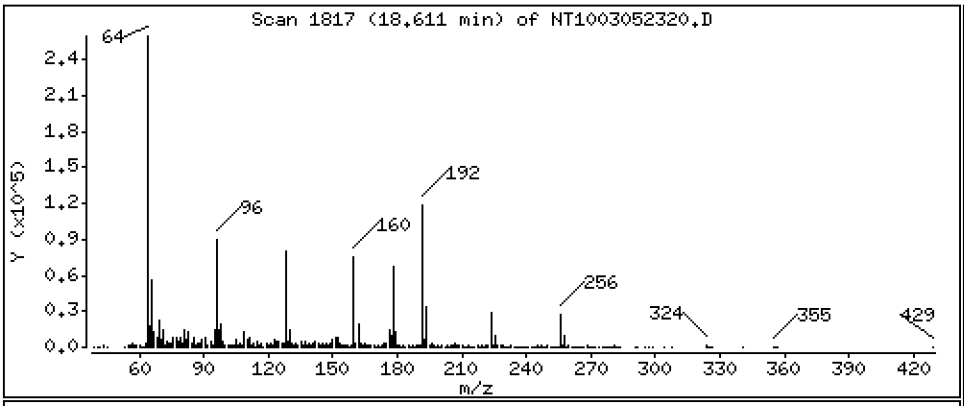
Operator: VTS

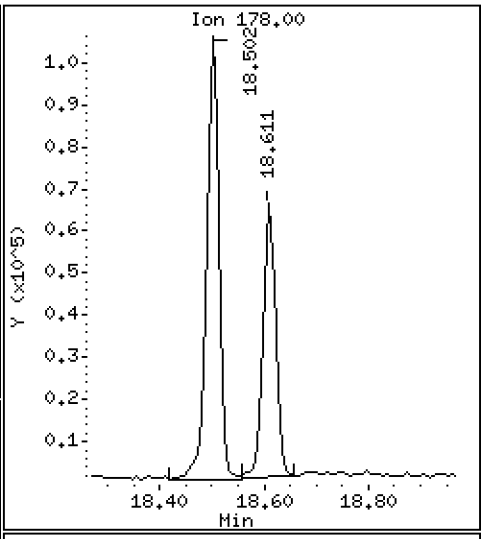
Column phase: ZB-5msi

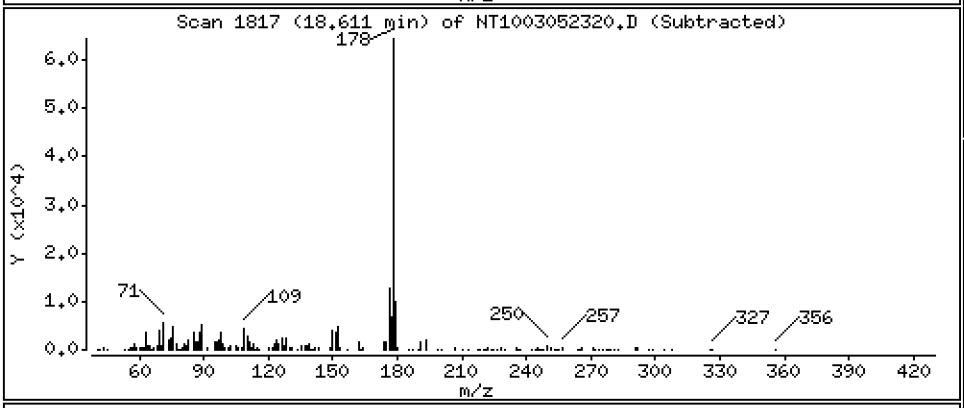
Column diameter: 0.25

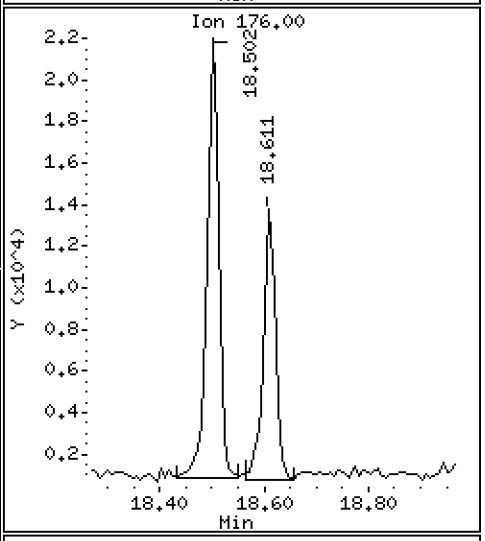
61 Anthracene

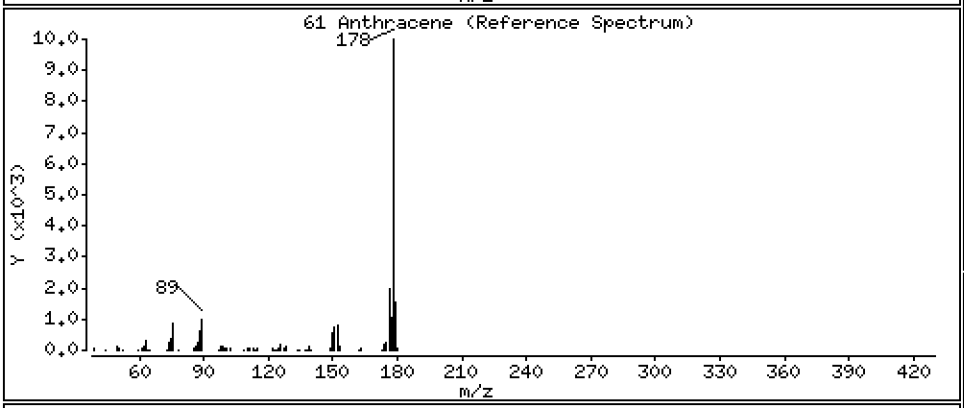
Concentration: 0.4243 ug/mL

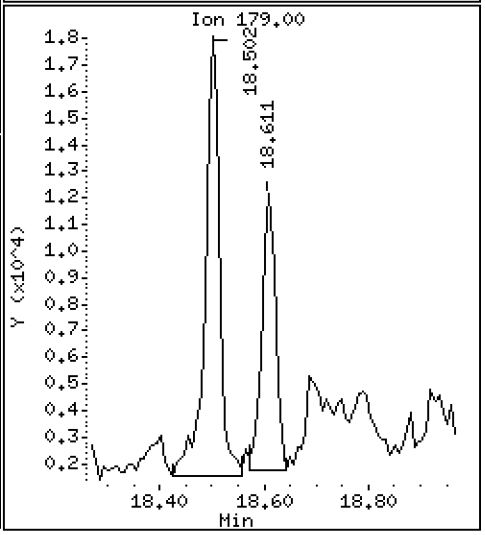


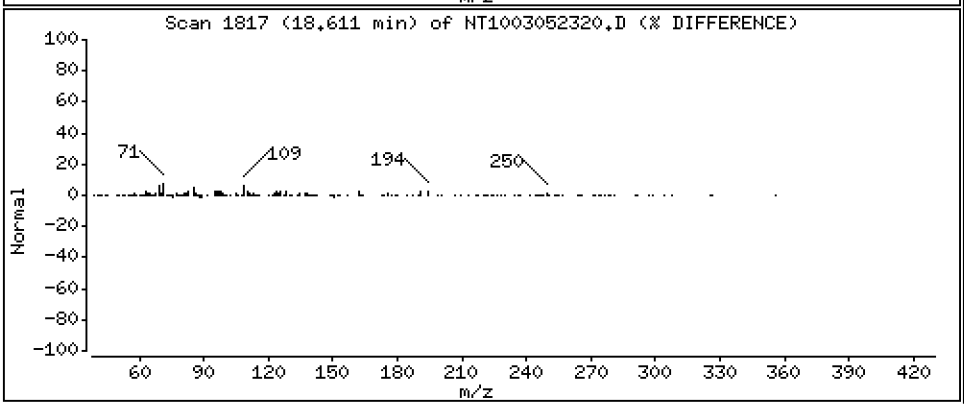












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

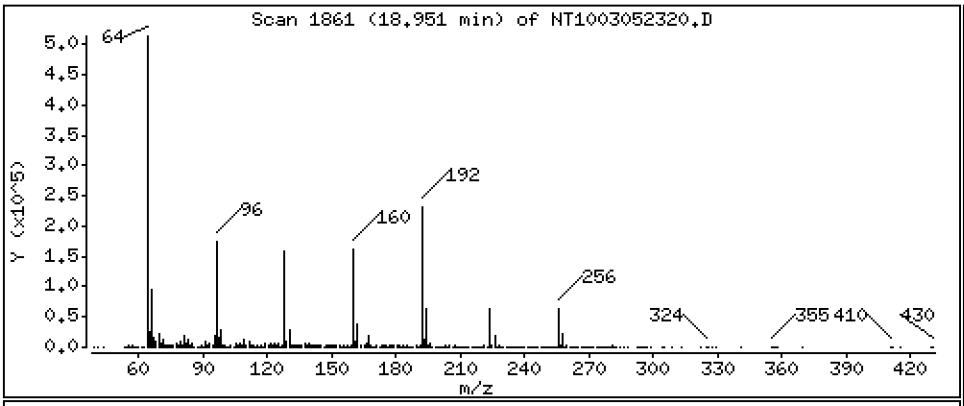
Operator: VTS

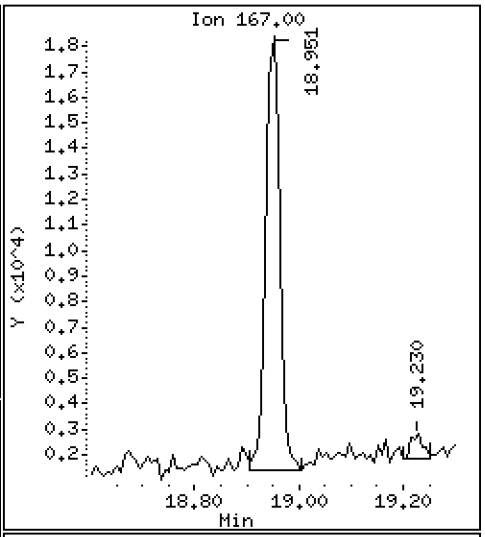
Column phase: ZB-5msi

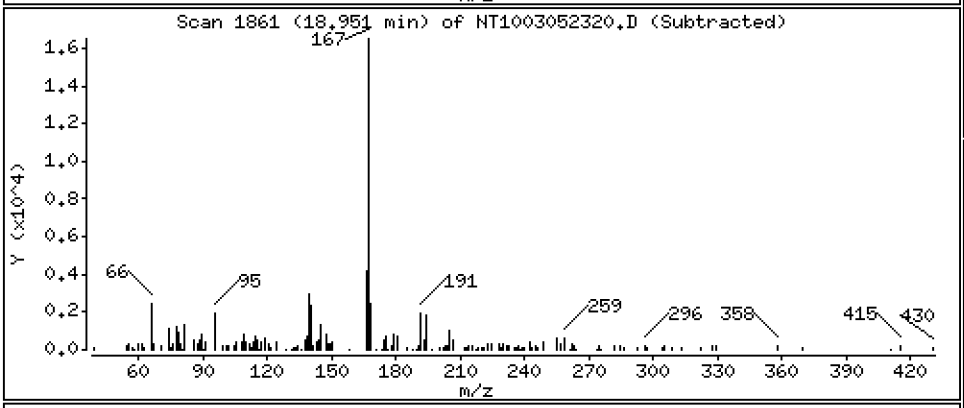
Column diameter: 0.25

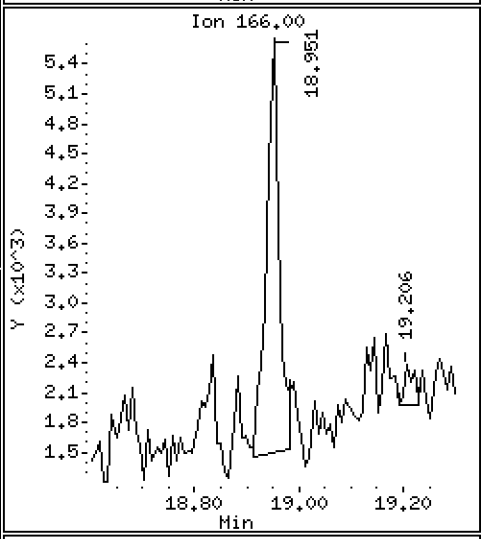
62 Carbazole

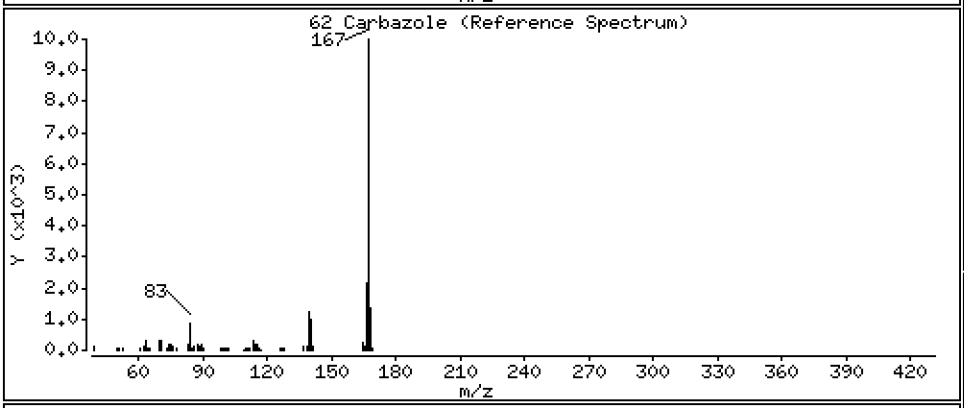
Concentration: 0.1394 ug/mL

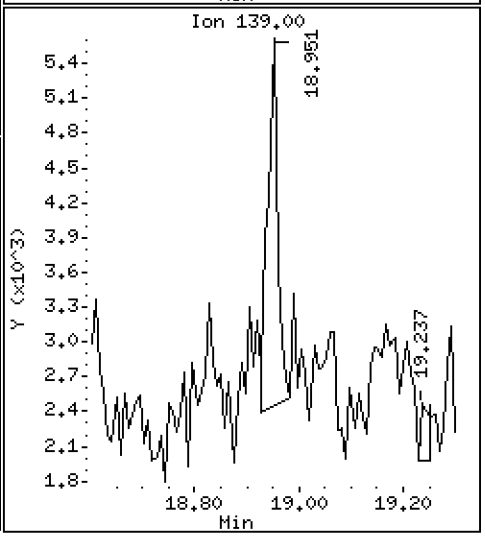


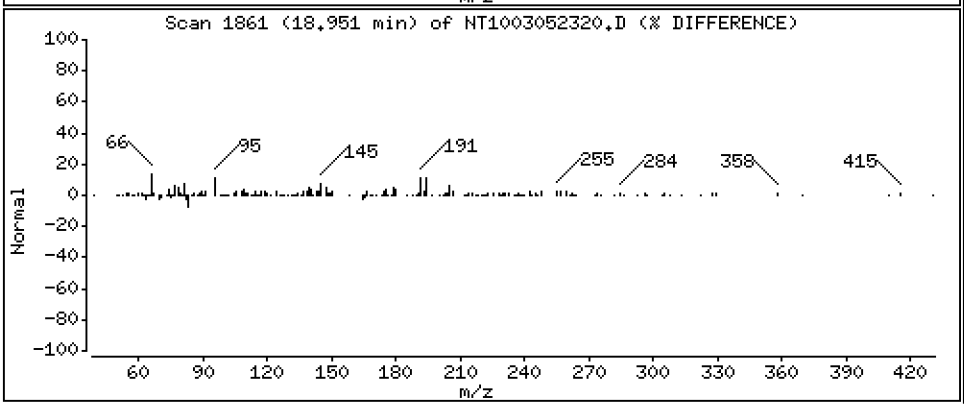












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052320.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

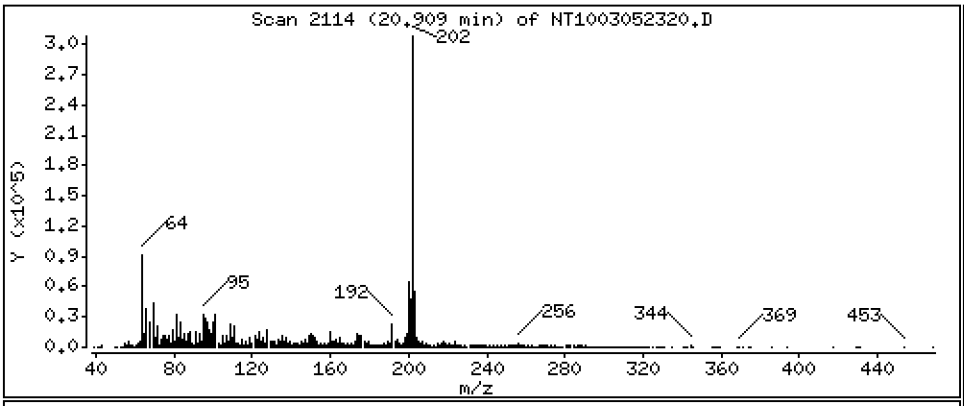
Operator: VTS

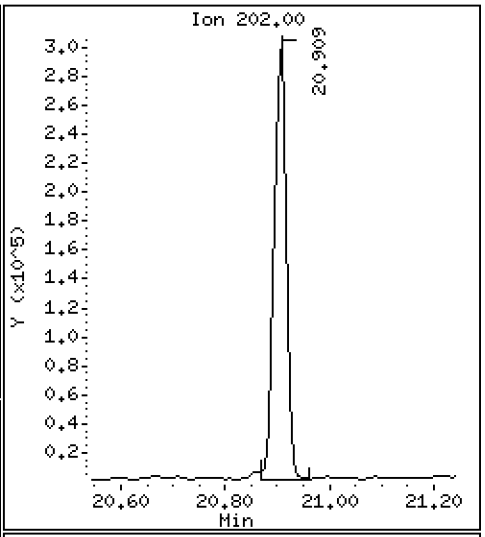
Column phase: ZB-5msi

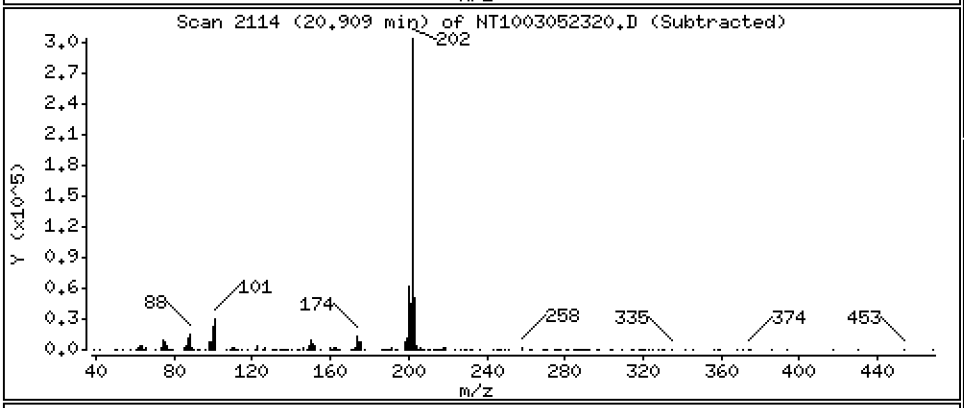
Column diameter: 0.25

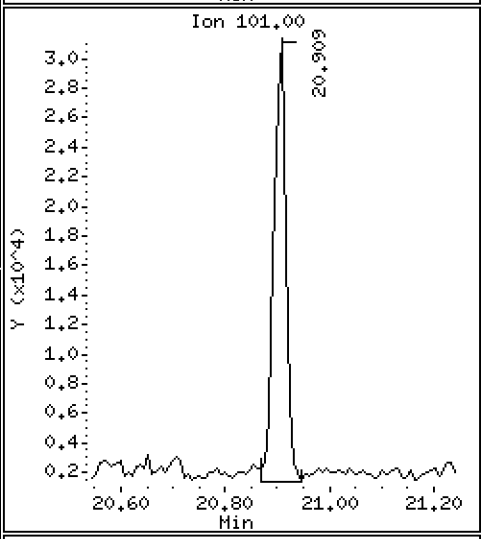
64 Fluoranthene

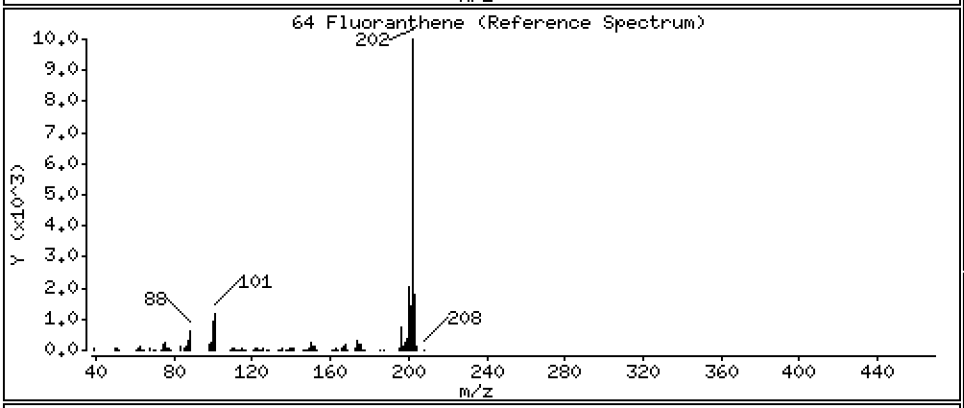
Concentration: 1.476 ug/mL

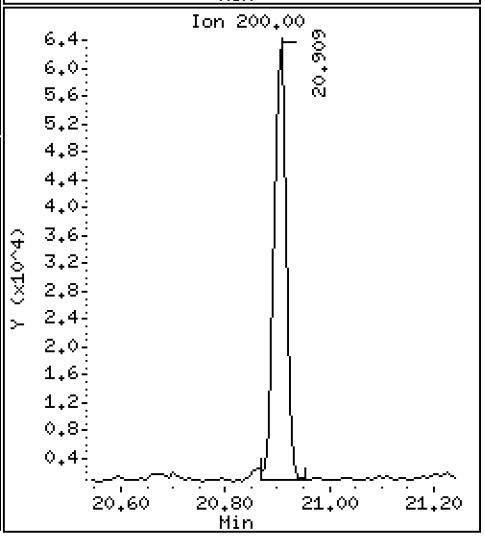


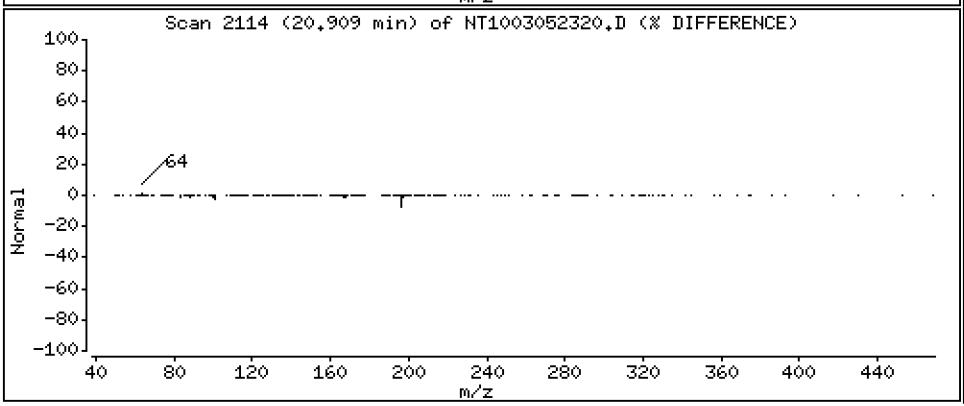












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

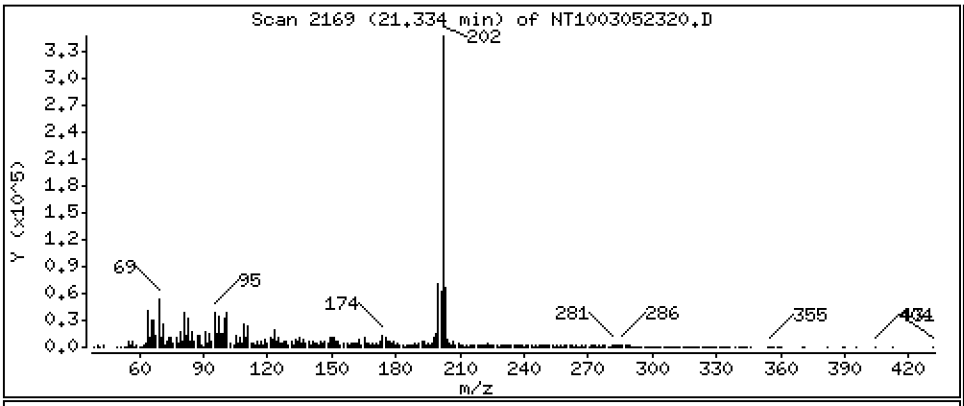
Operator: VTS

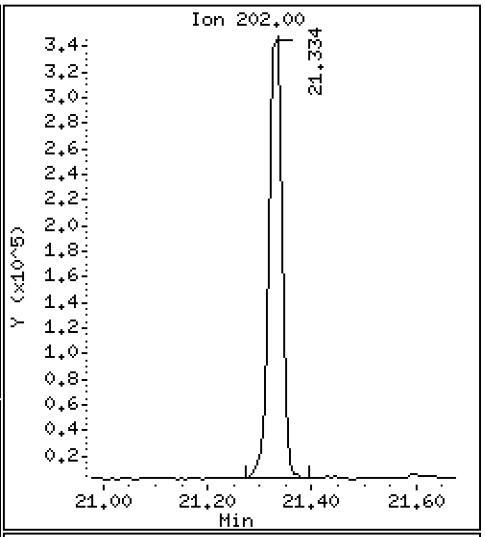
Column phase: ZB-5msi

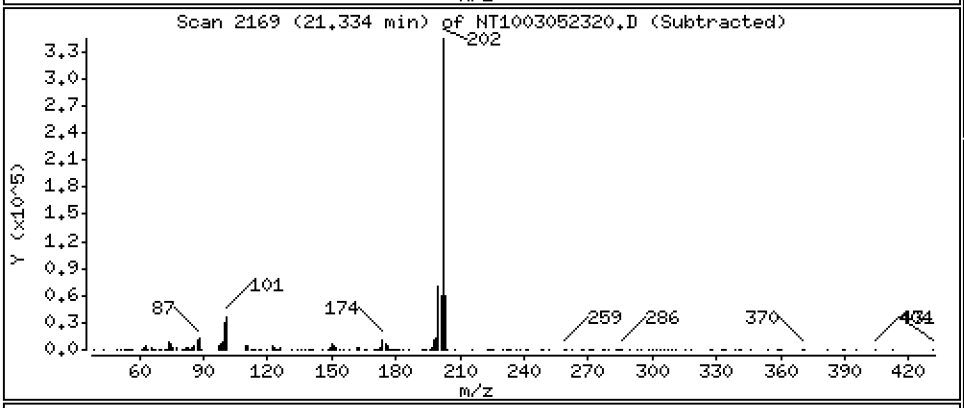
Column diameter: 0.25

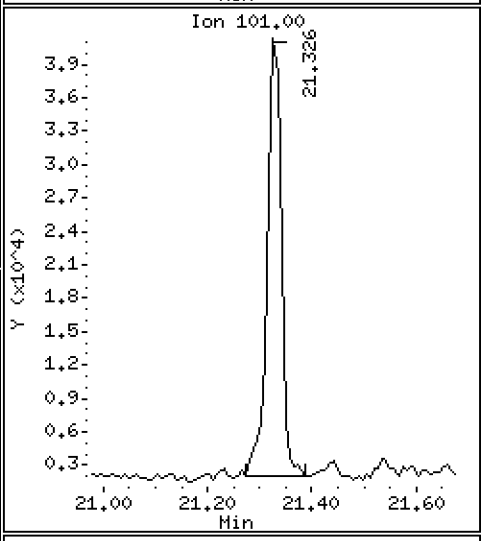
65 Pyrene

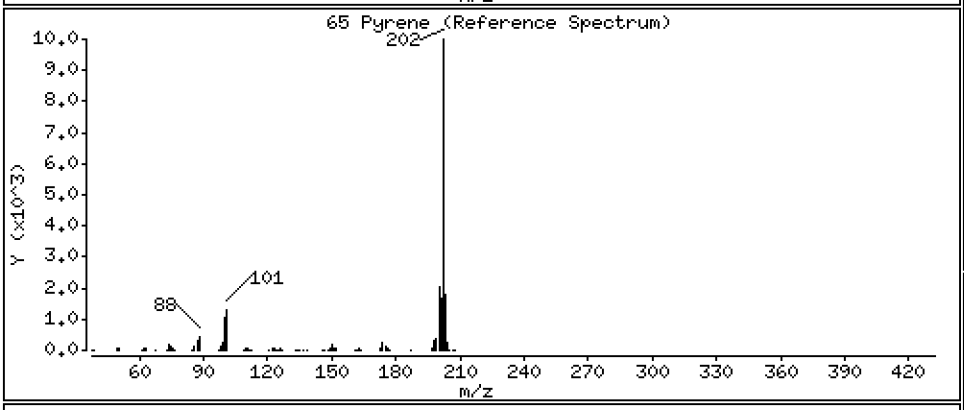
Concentration: 1.751 ug/mL

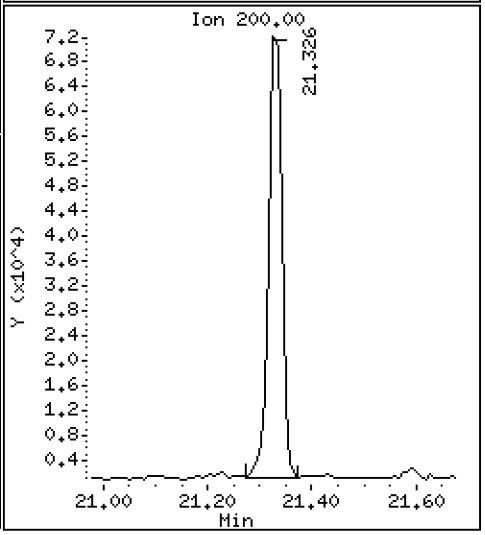


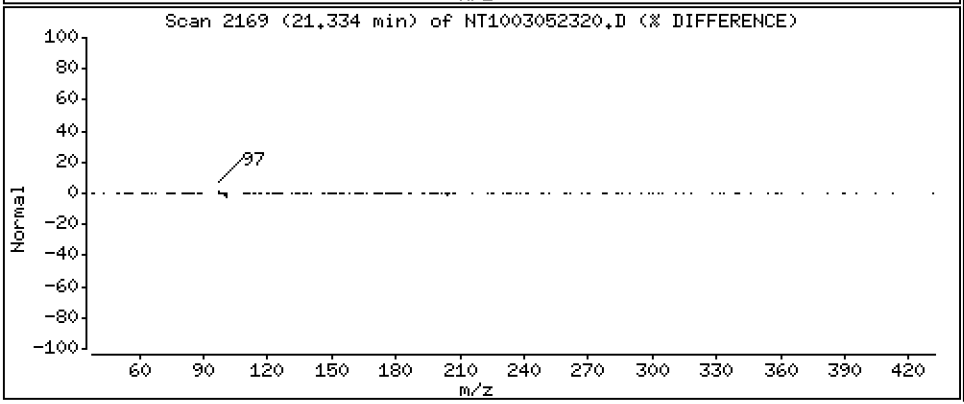












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

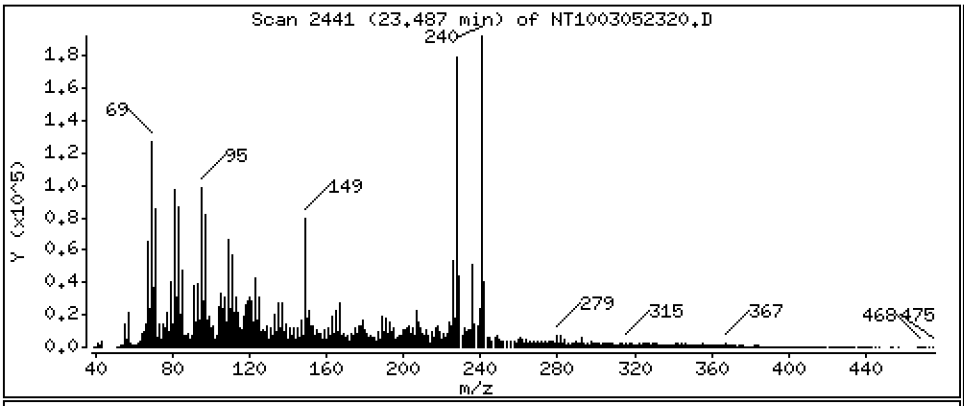
Operator: VTS

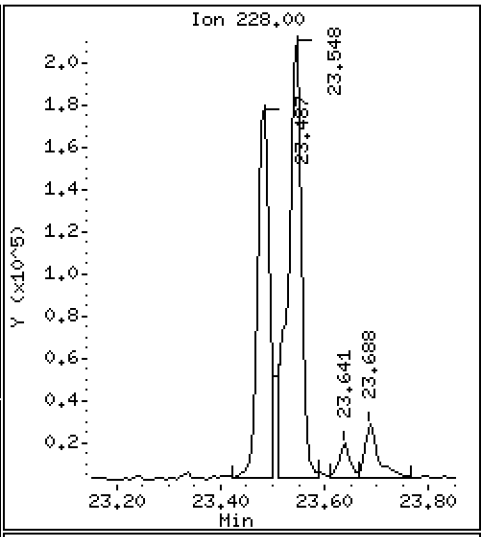
Column phase: ZB-5msi

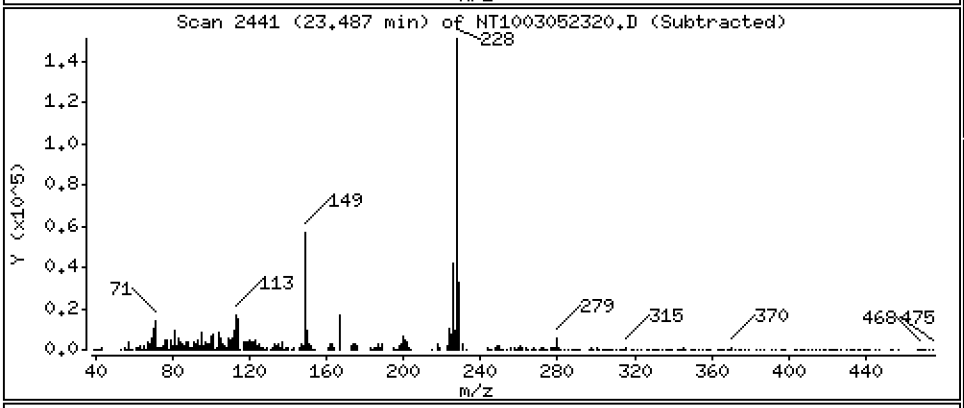
Column diameter: 0.25

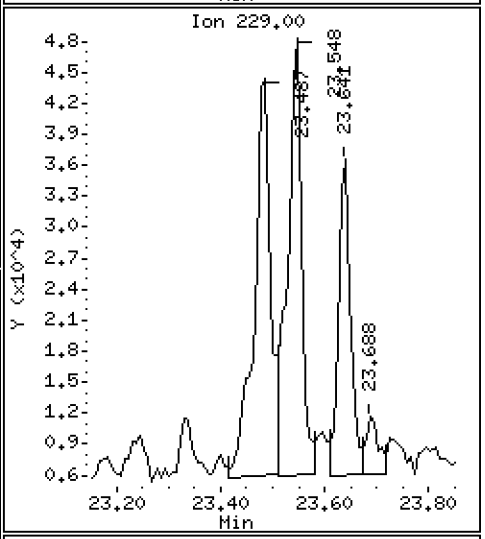
68 Benzo(a)anthracene

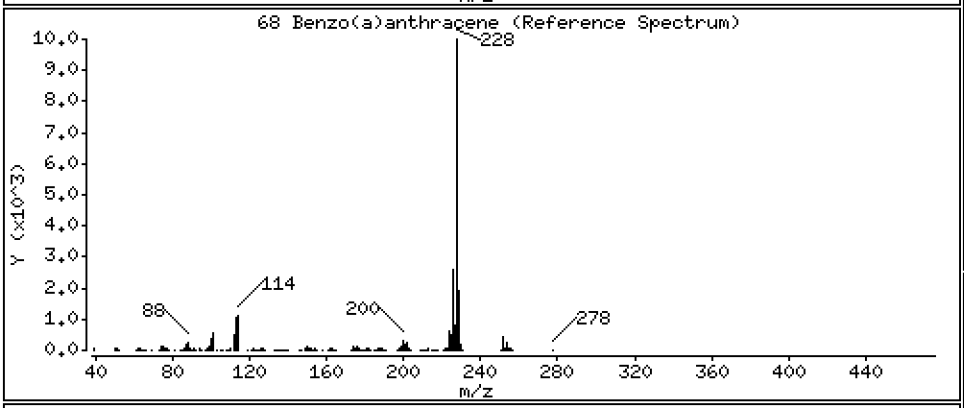
Concentration: 0.8869 ug/mL

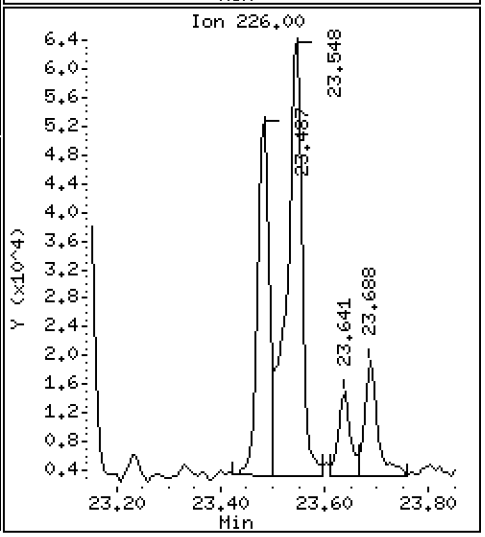


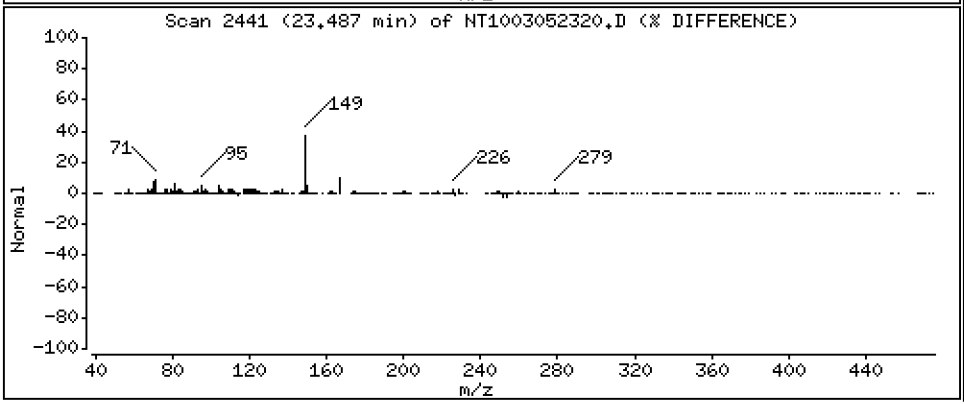












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

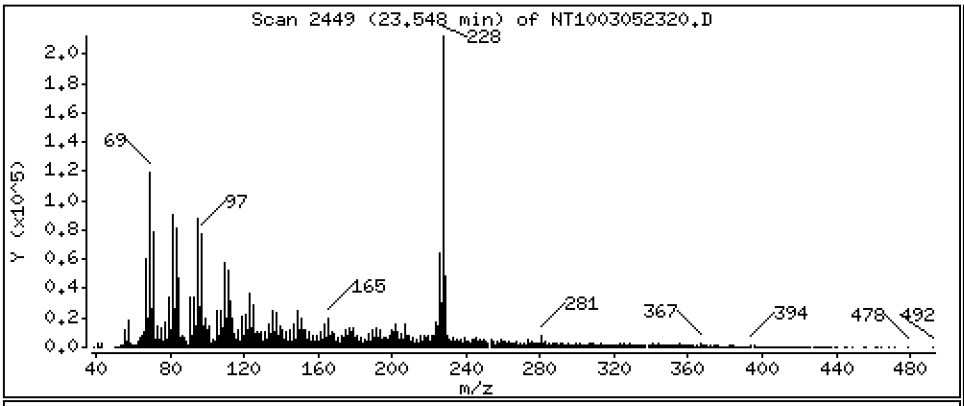
Operator: VTS

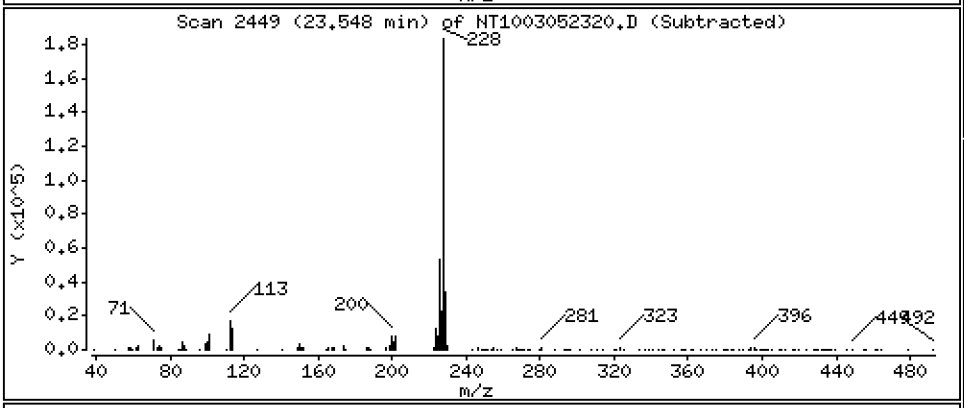
Column phase: ZB-5msi

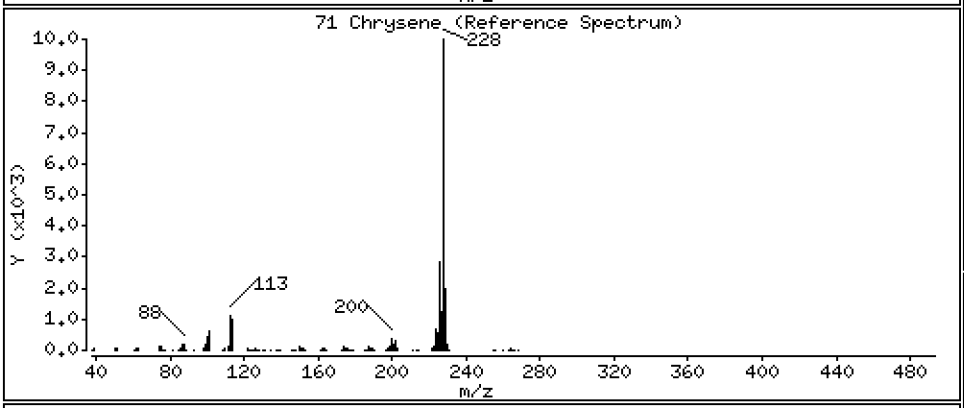
Column diameter: 0.25

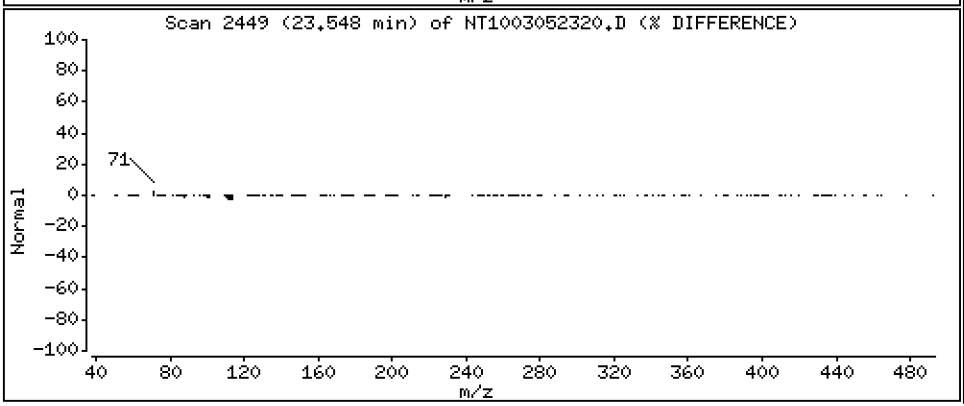
71 Chrysene

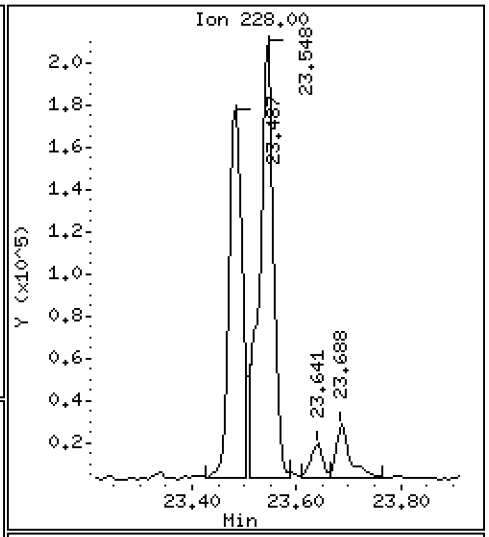
Concentration: 1.495 ug/mL

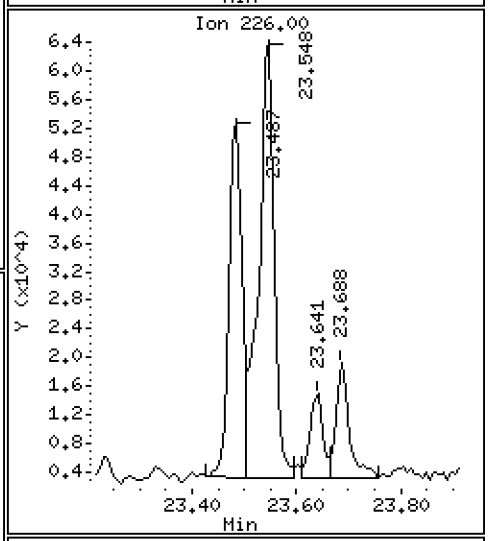


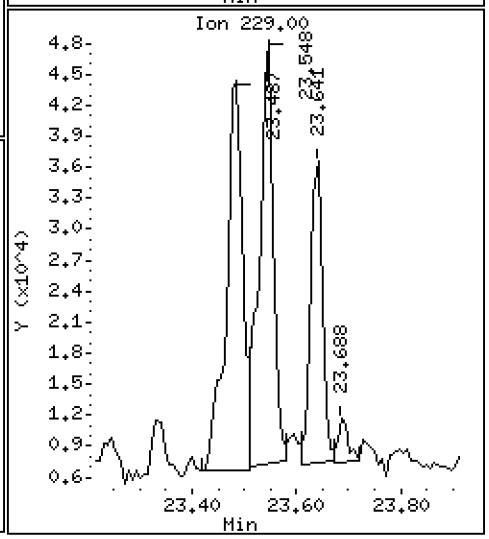












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

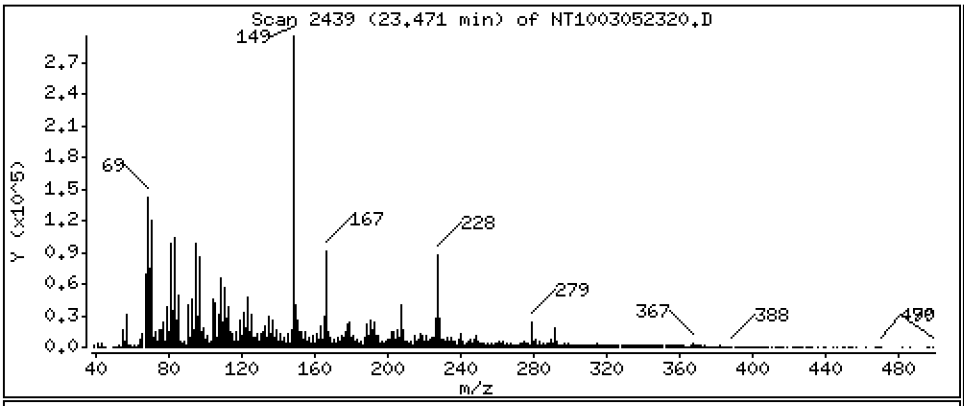
Operator: VTS

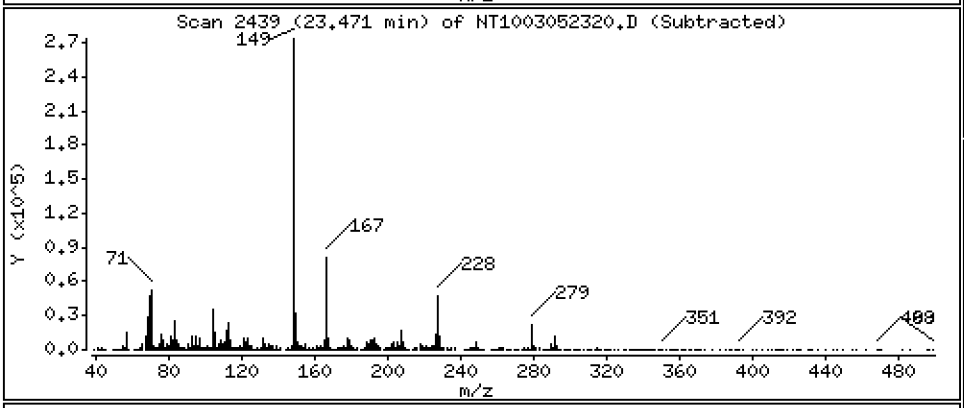
Column phase: ZB-5msi

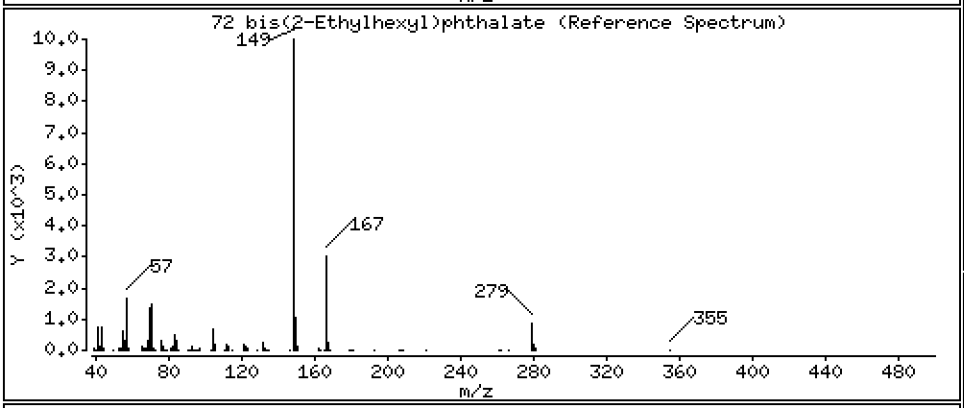
Column diameter: 0.25

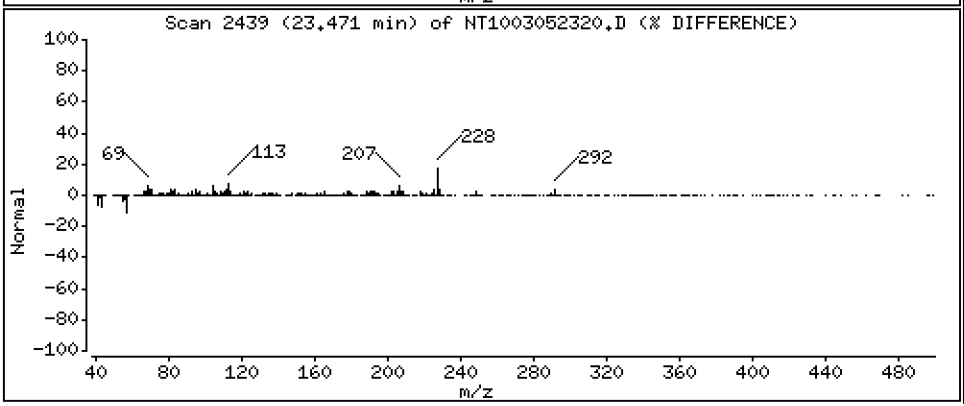
72 bis(2-Ethylhexyl)phthalate

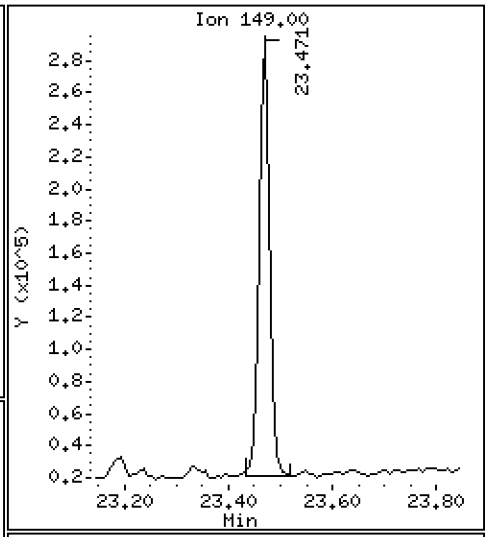
Concentration: 1.771 ug/mL

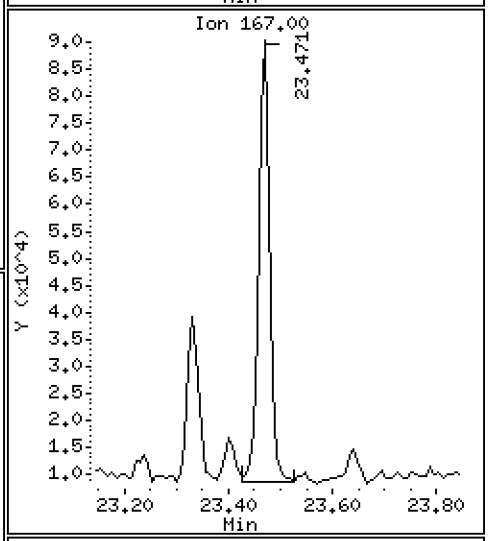


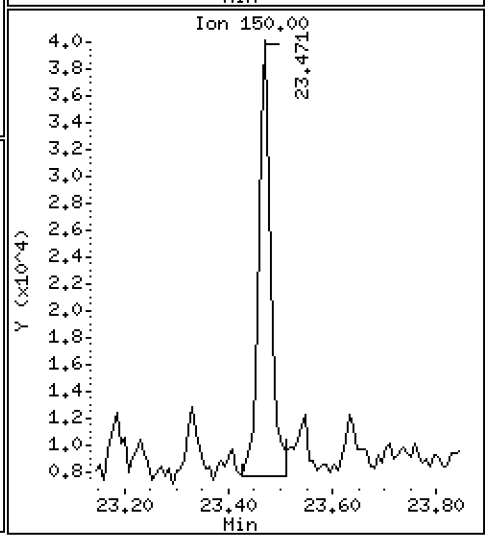












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

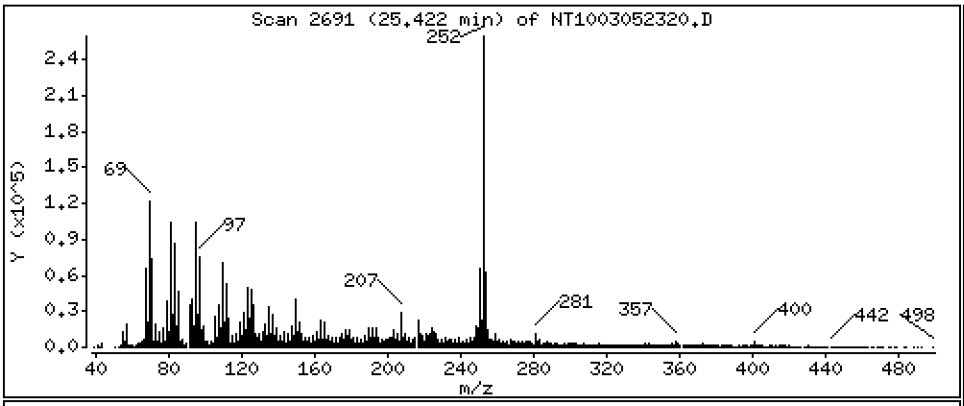
Operator: VTS

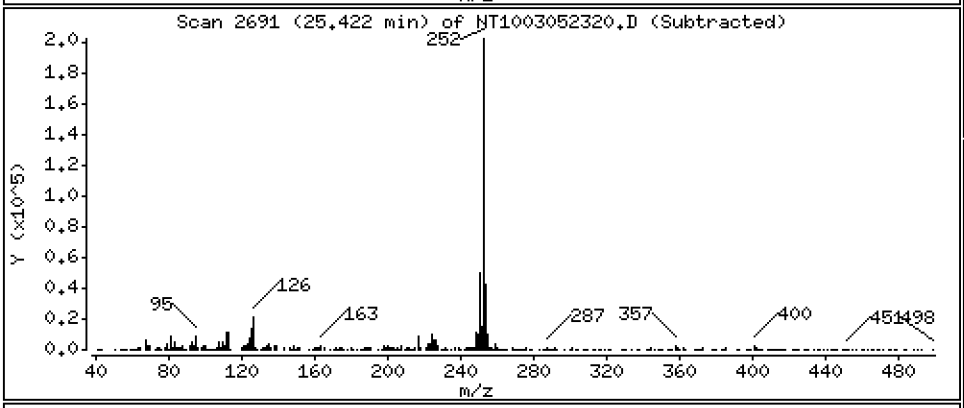
Column phase: ZB-5msi

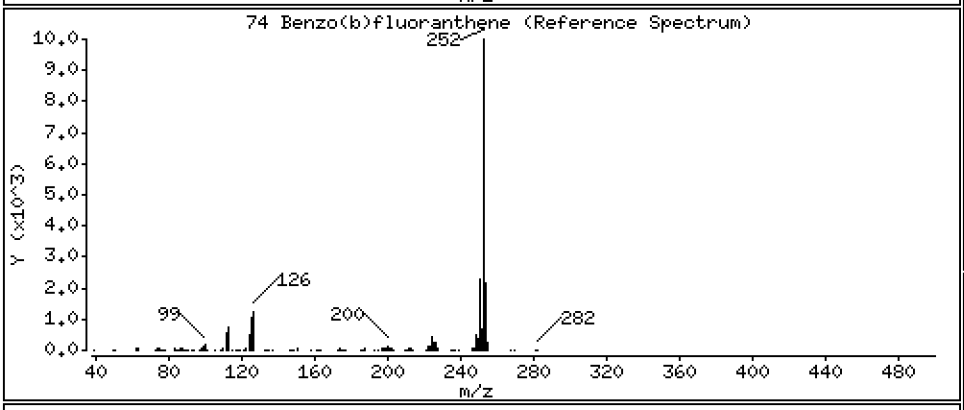
Column diameter: 0.25

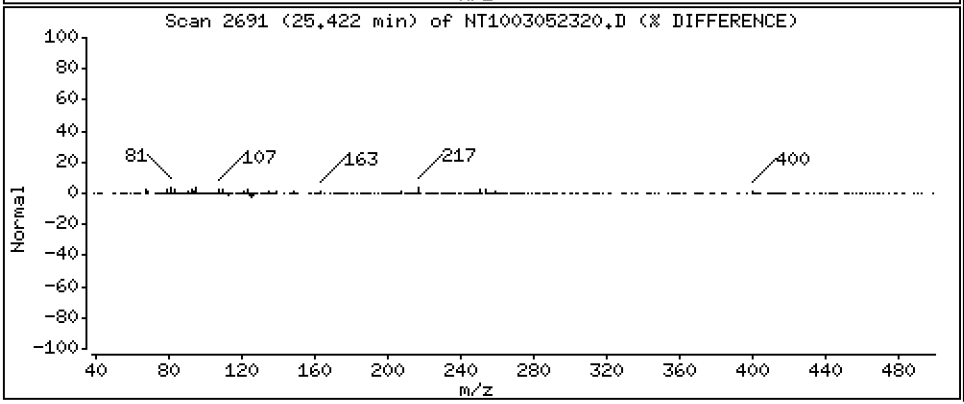
74 Benzo(b)fluoranthene

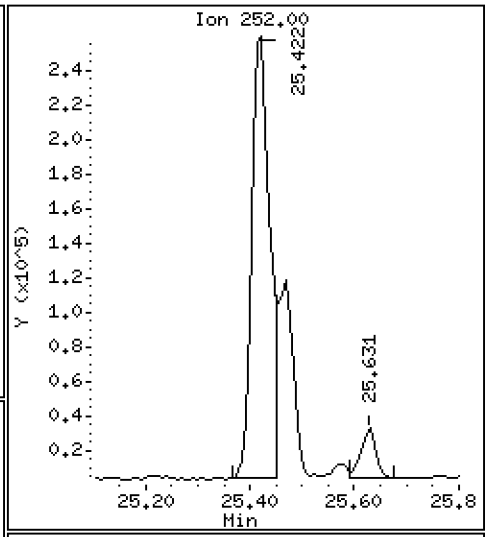
Concentration: 1.792 ug/mL

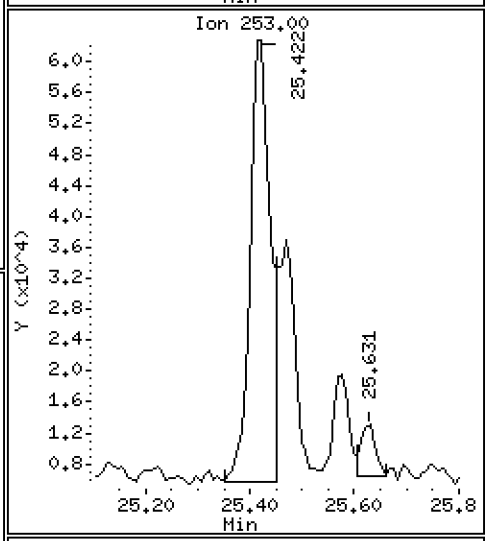


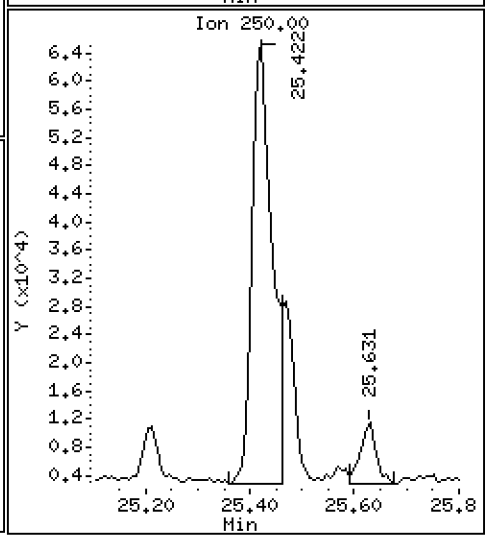












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

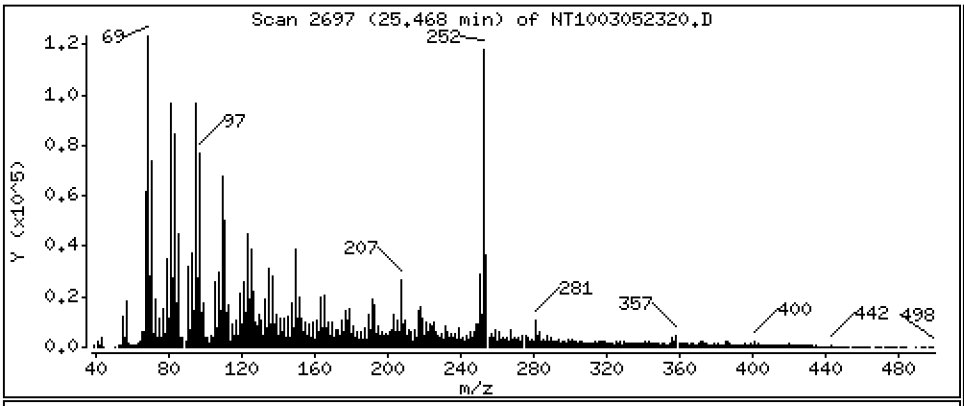
Operator: VTS

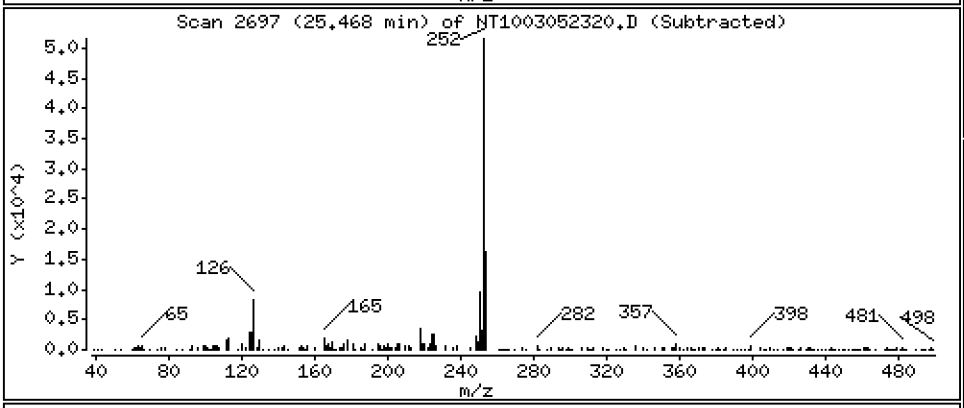
Column phase: ZB-5msi

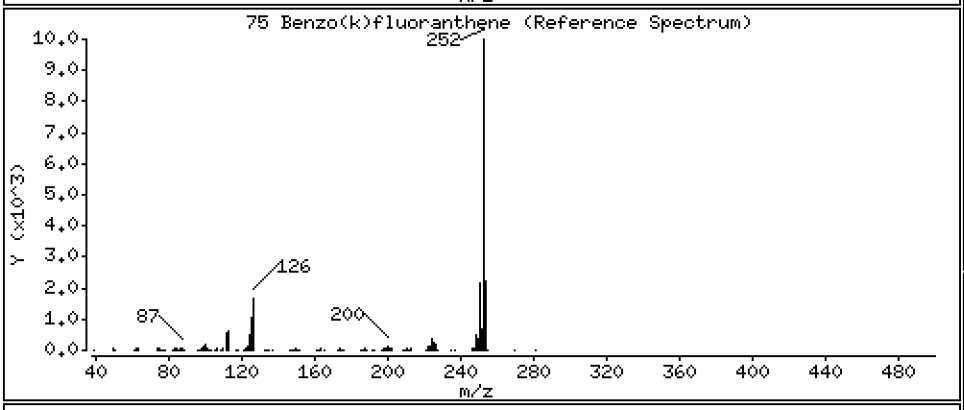
Column diameter: 0.25

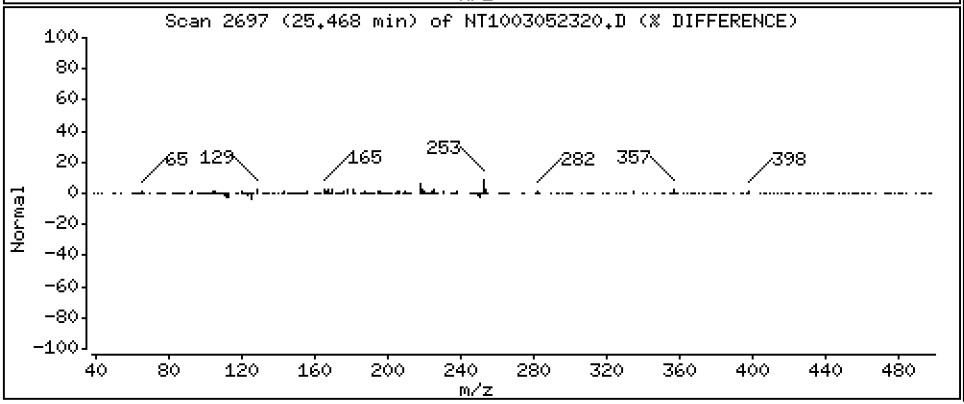
75 Benzo(k)fluoranthene

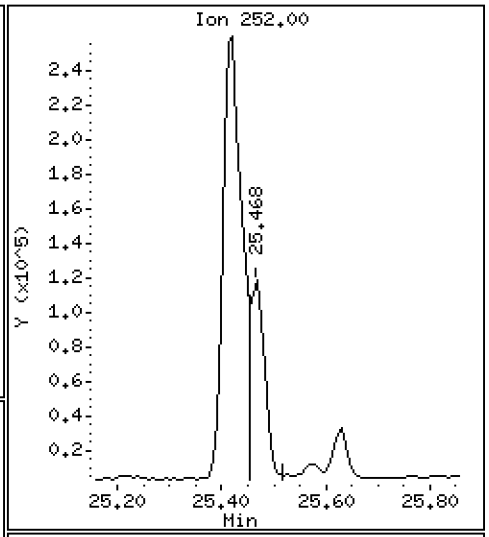
Concentration: 0.7187 ug/mL

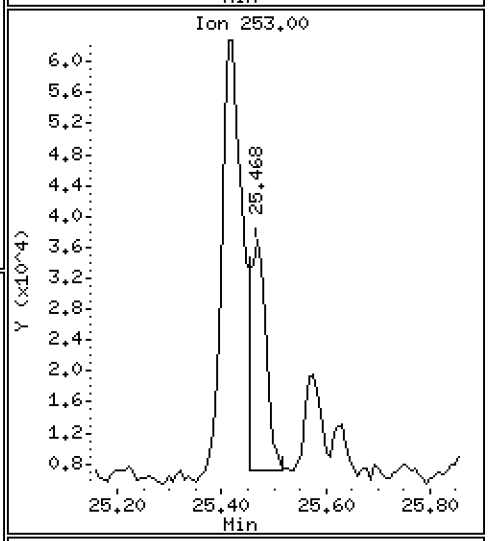


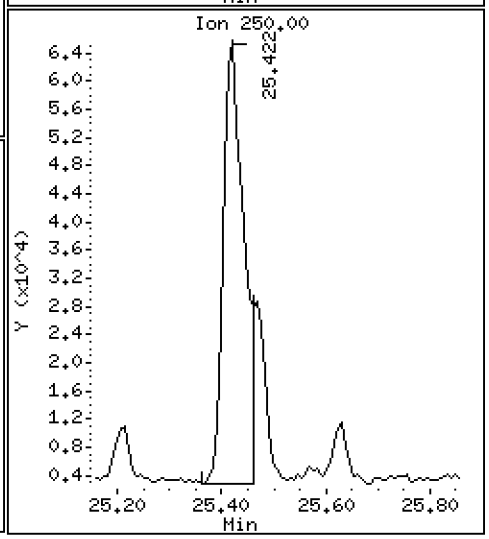












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

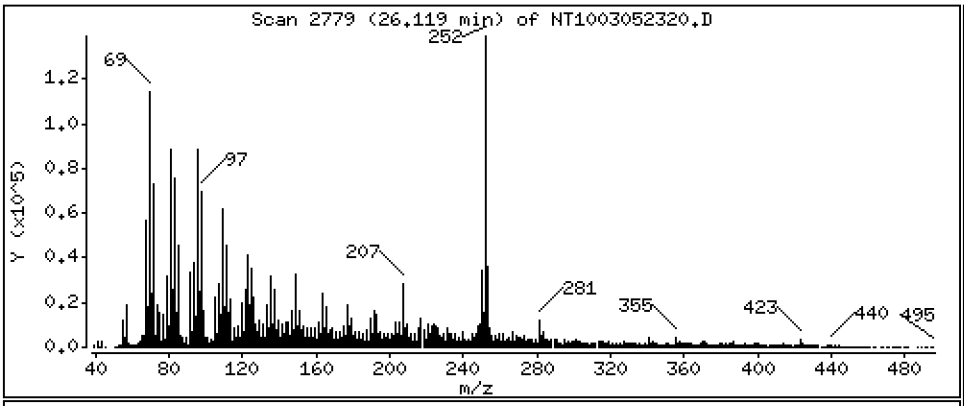
Operator: VTS

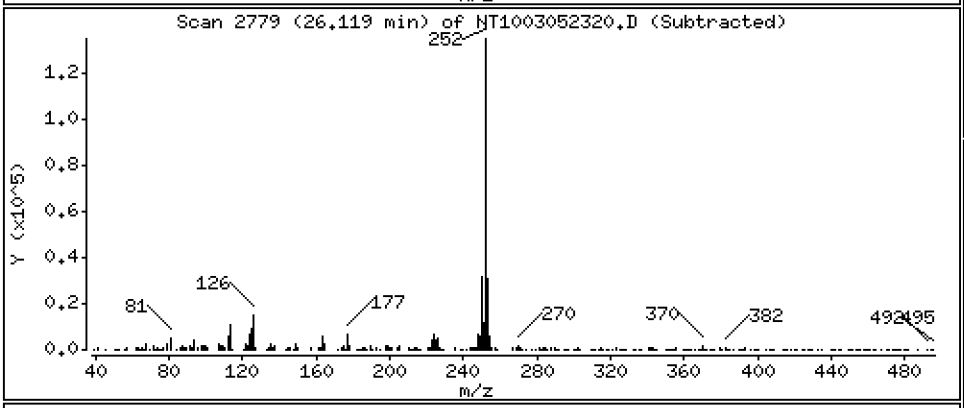
Column phase: ZB-5msi

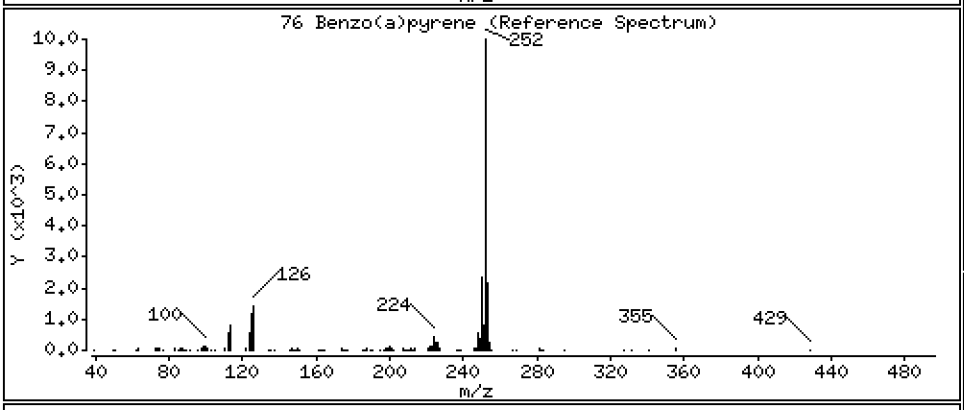
Column diameter: 0.25

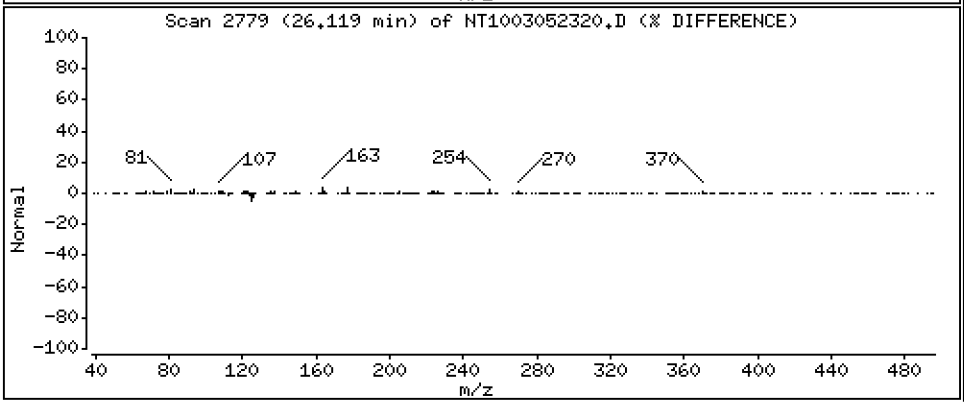
76 Benzo(a)pyrene

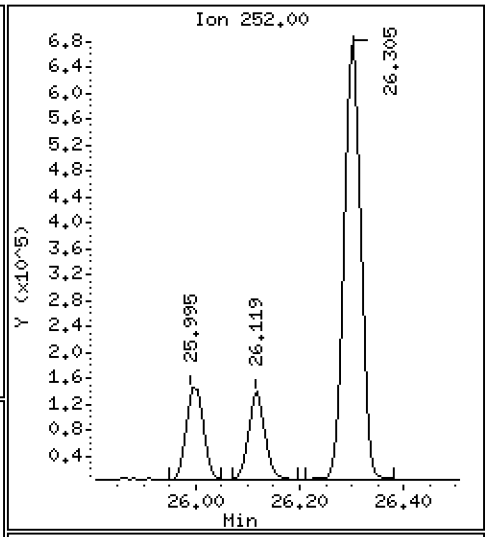
Concentration: 0.9341 ug/mL

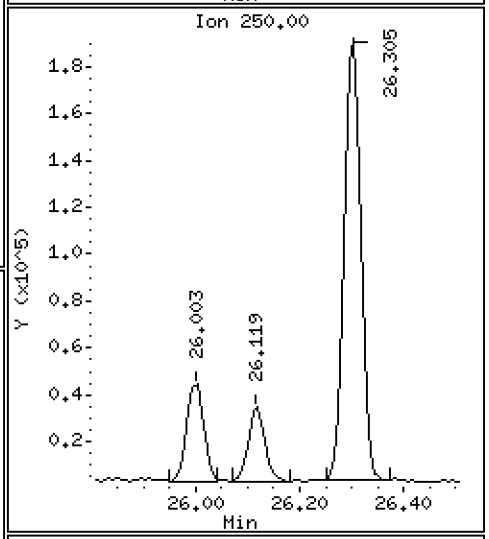


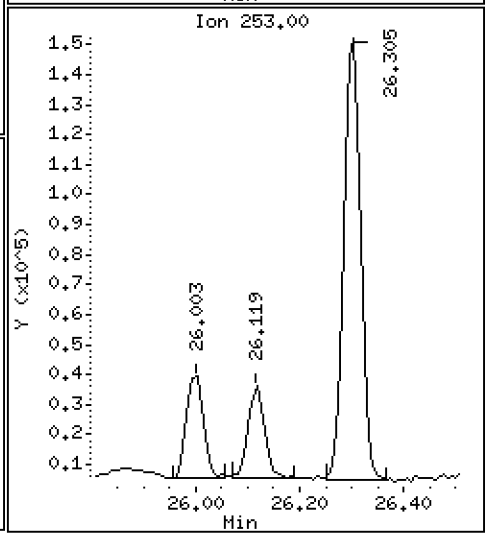












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

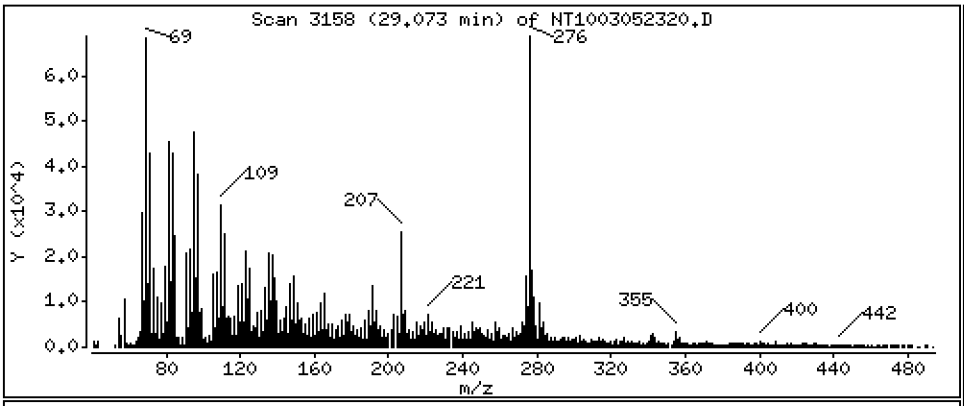
Operator: VTS

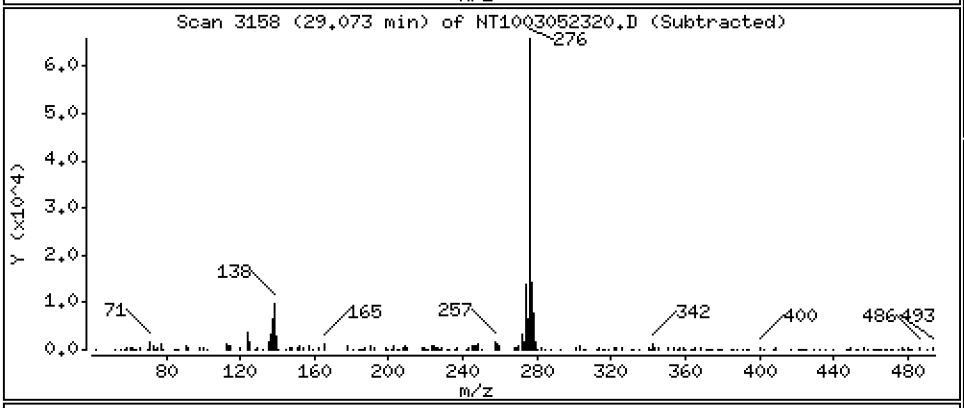
Column phase: ZB-5msi

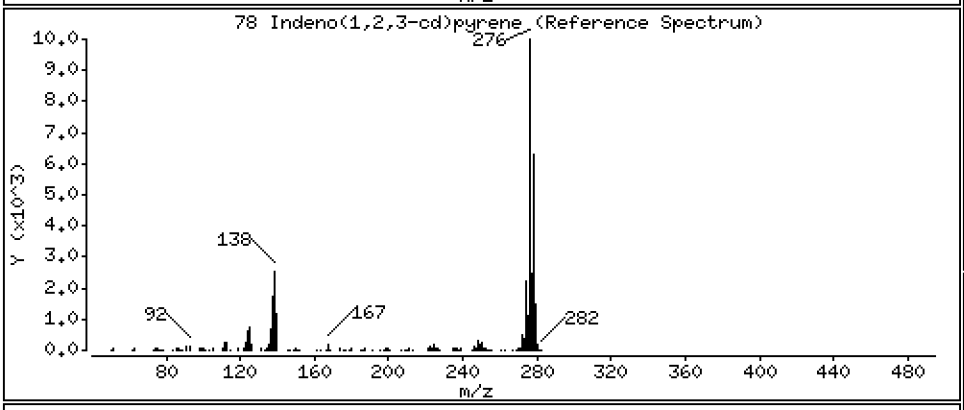
Column diameter: 0.25

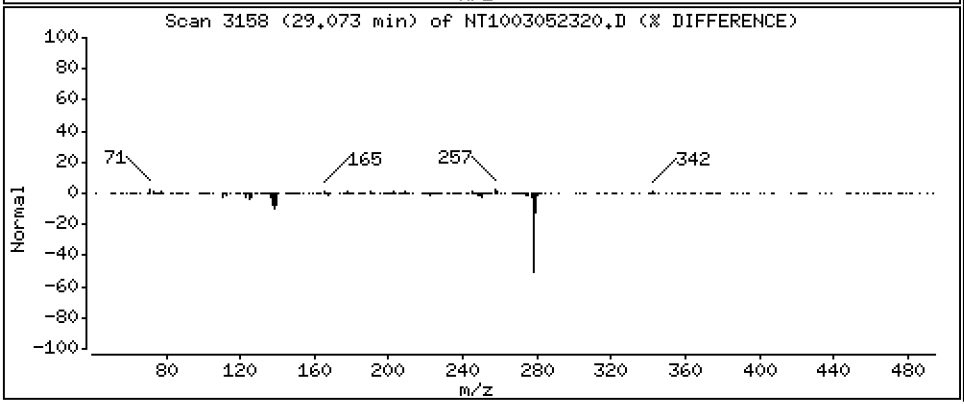
78 Indeno(1,2,3-cd)pyrene

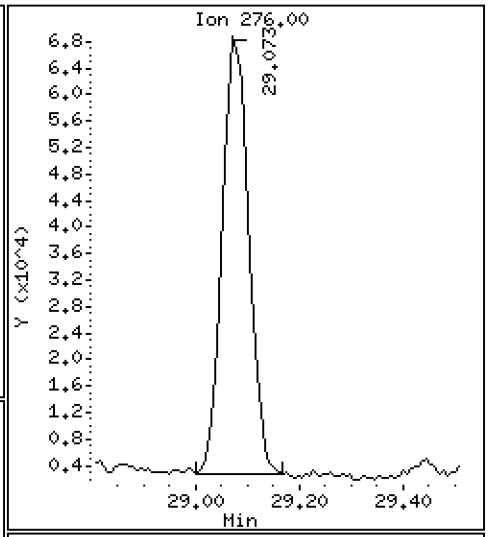
Concentration: 0.6174 ug/mL

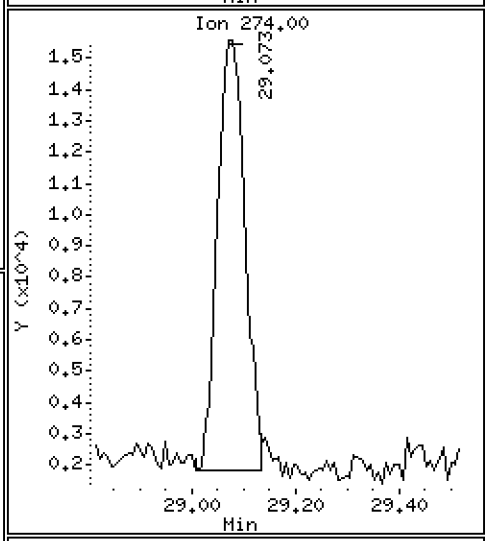


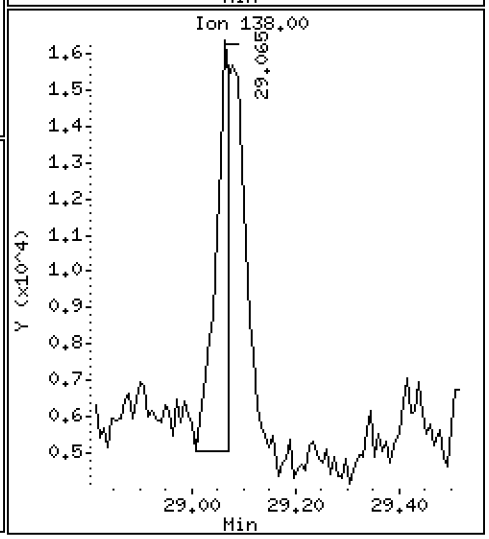












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

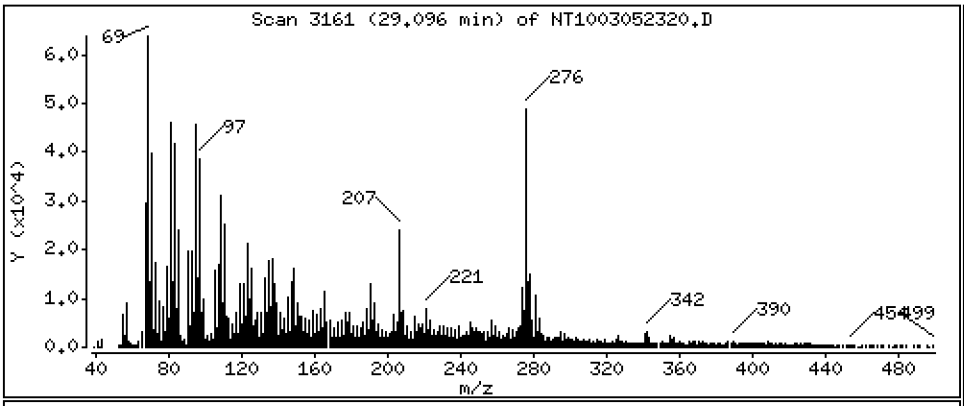
Operator: VTS

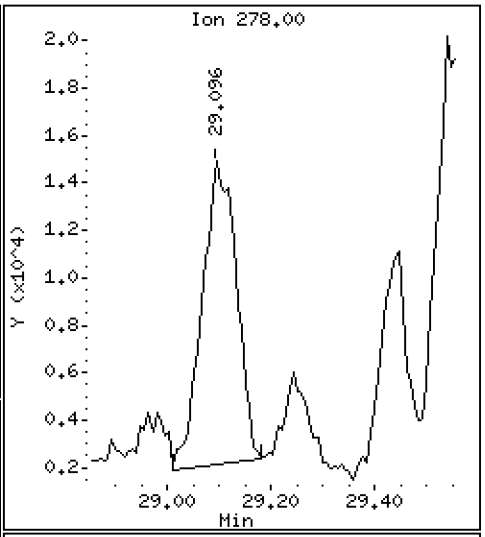
Column phase: ZB-5msi

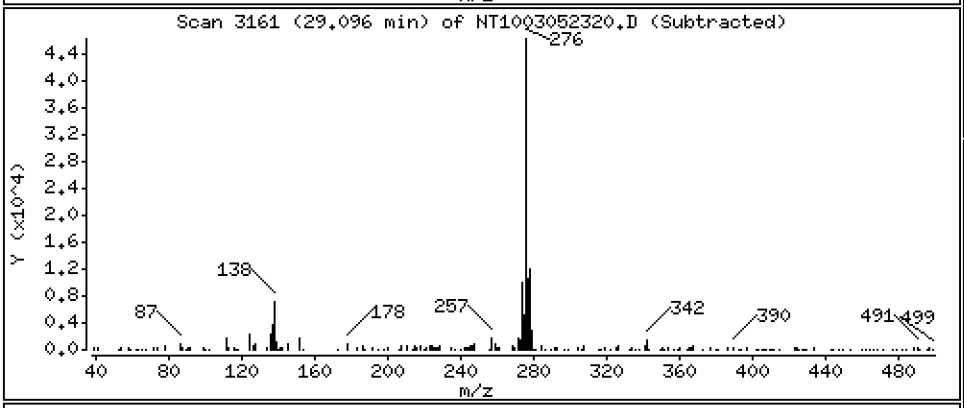
Column diameter: 0.25

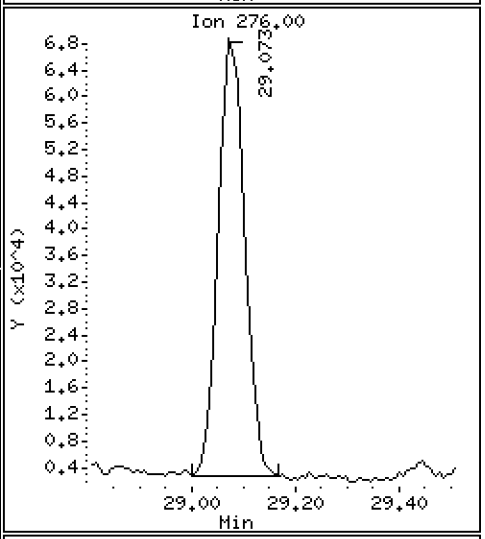
79 Dibenzo(a,h)anthracene

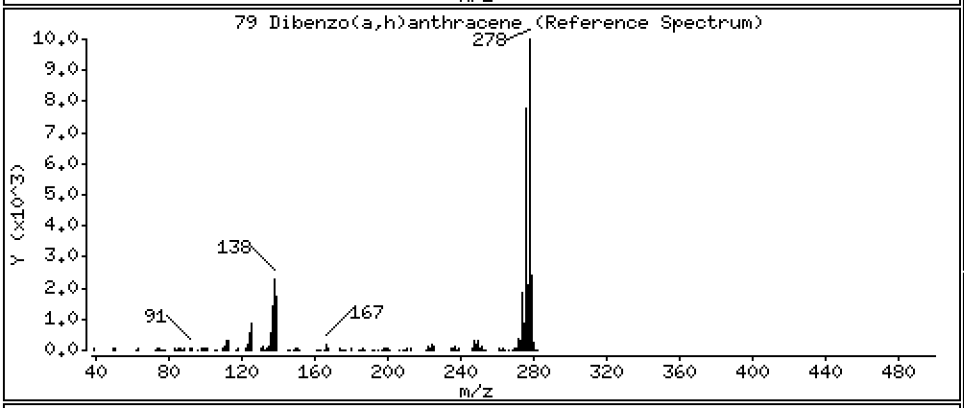
Concentration: 0.2039 ug/mL

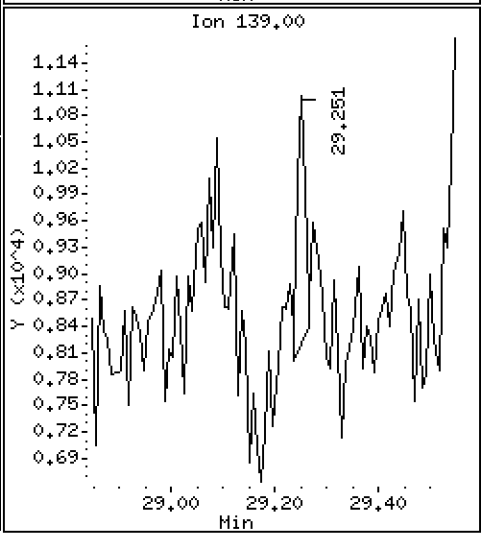


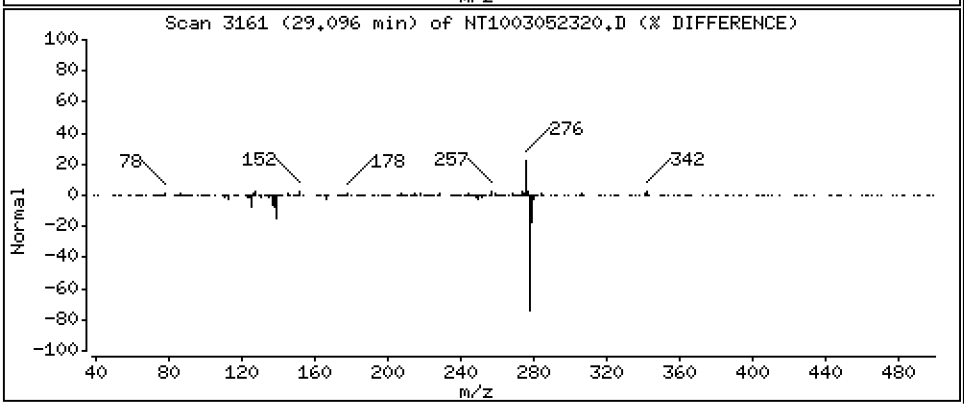












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

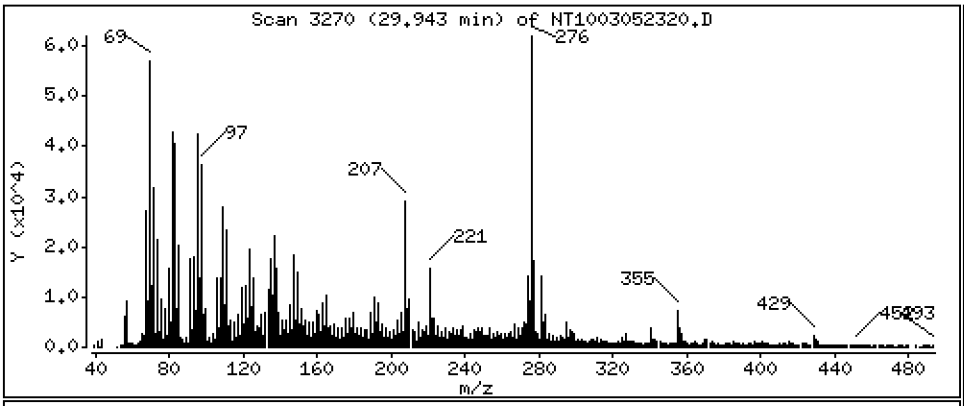
Operator: VTS

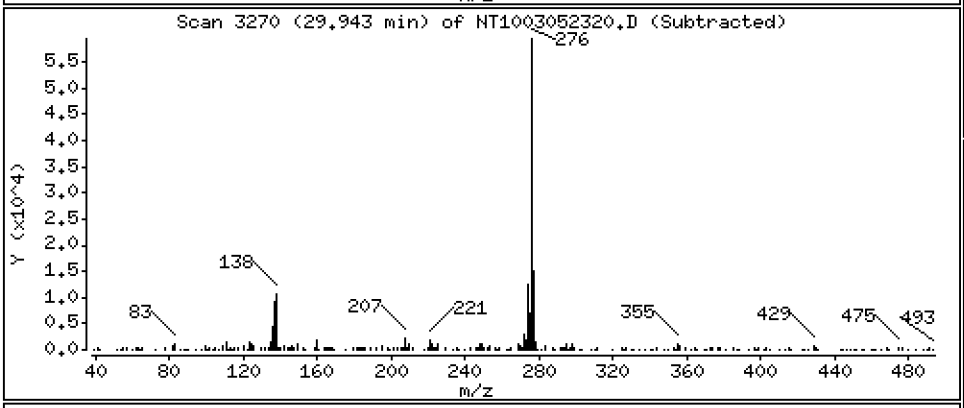
Column phase: ZB-5msi

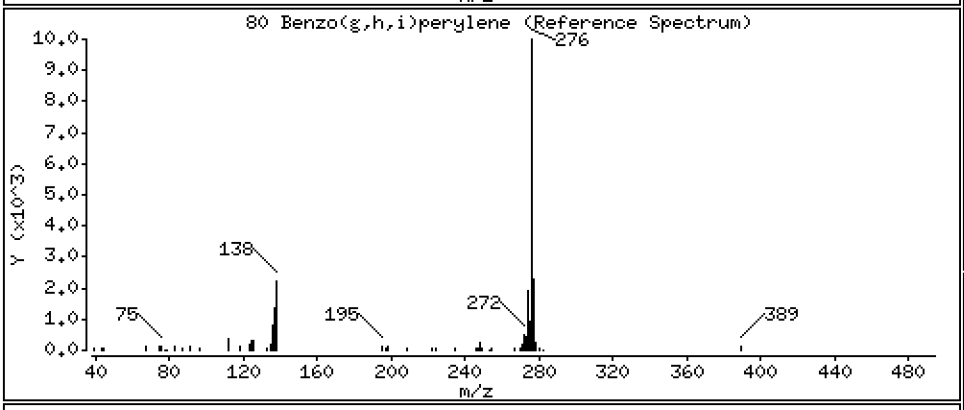
Column diameter: 0.25

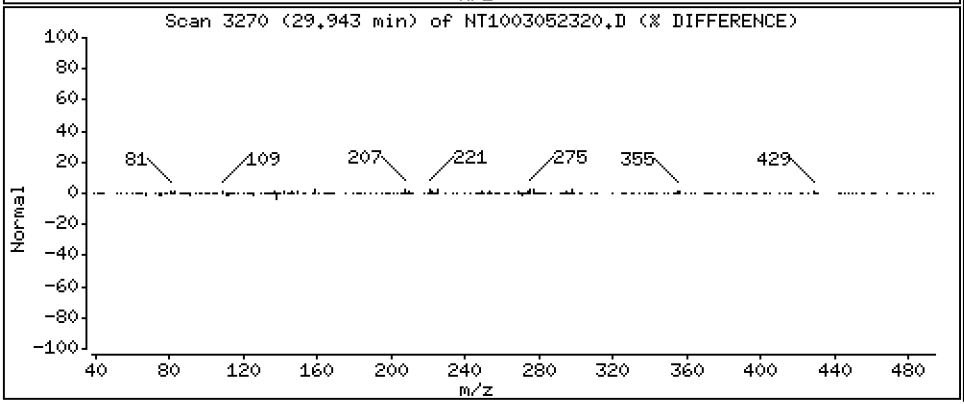
80 Benzo(g,h,i)perylene

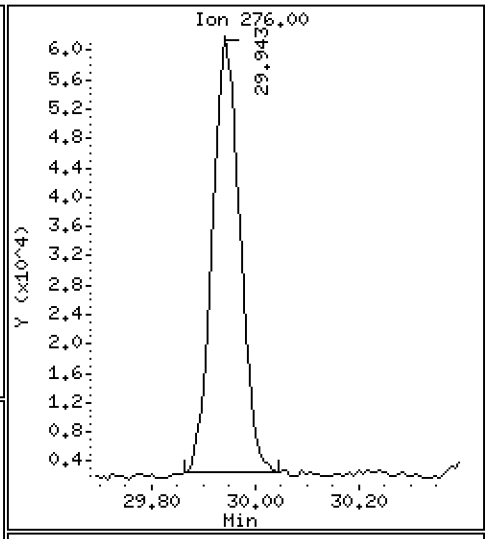
Concentration: 0.7331 ug/mL

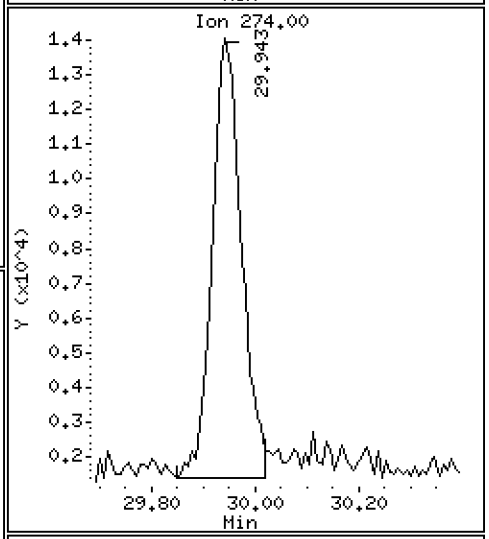


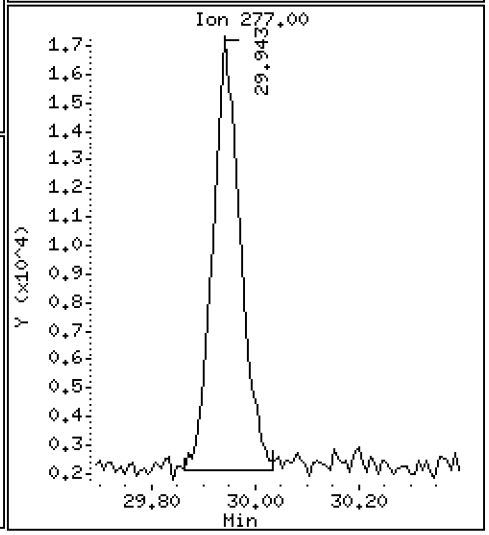












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

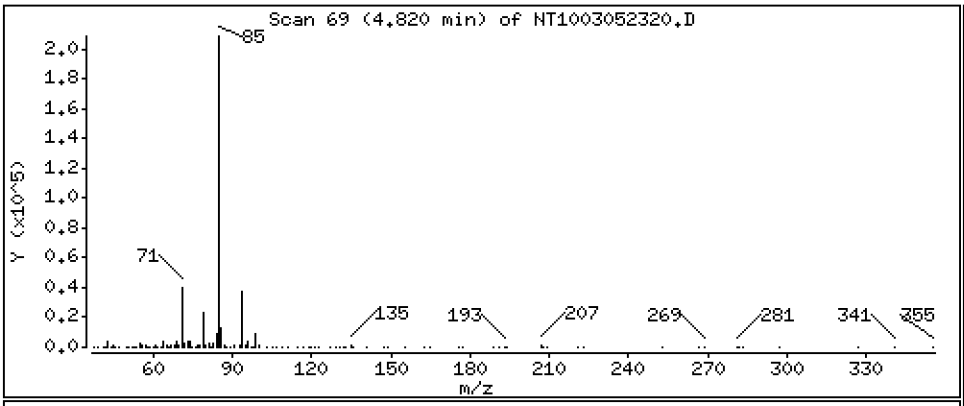
Operator: VTS

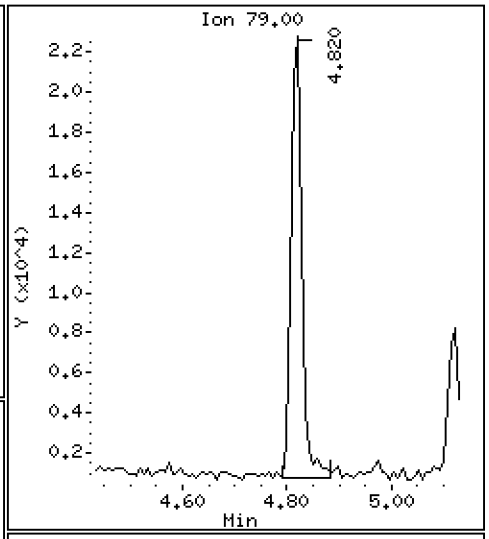
Column phase: ZB-5msi

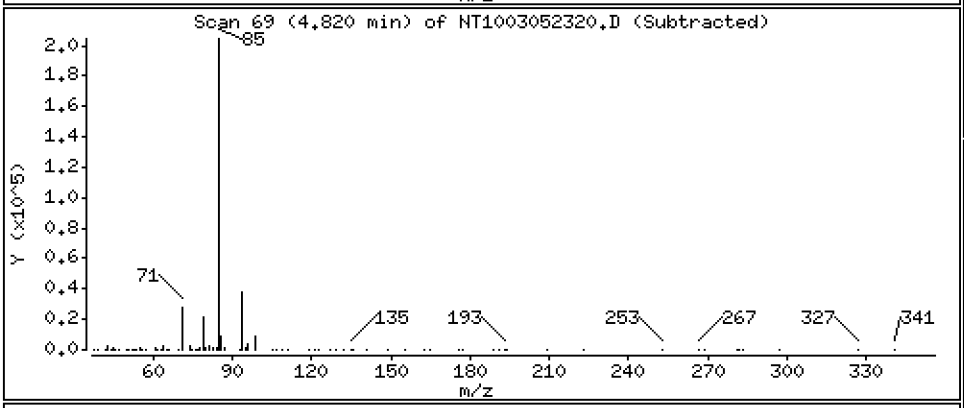
Column diameter: 0.25

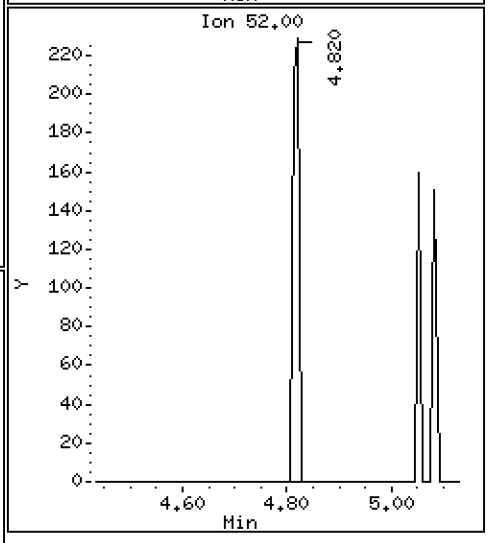
103 Pyridine

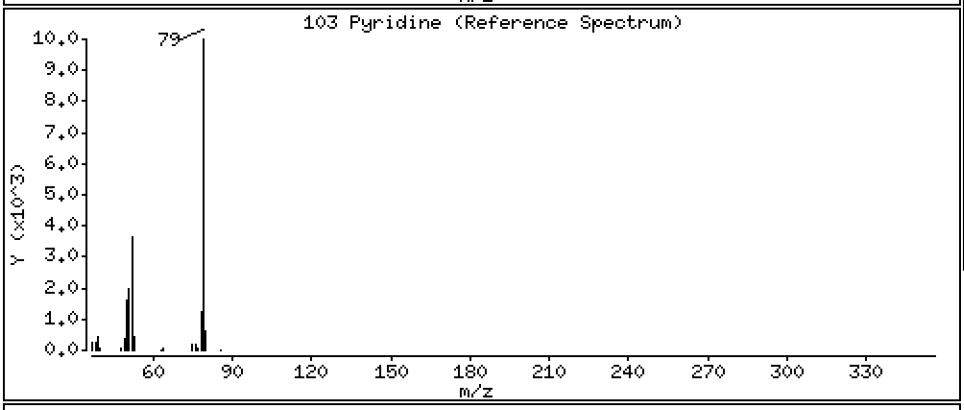
Concentration: 0.3357 ug/mL

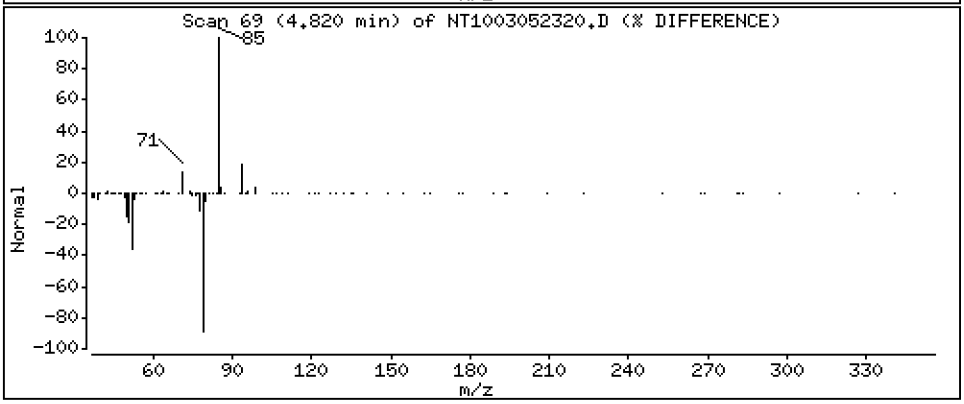












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Page 32

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

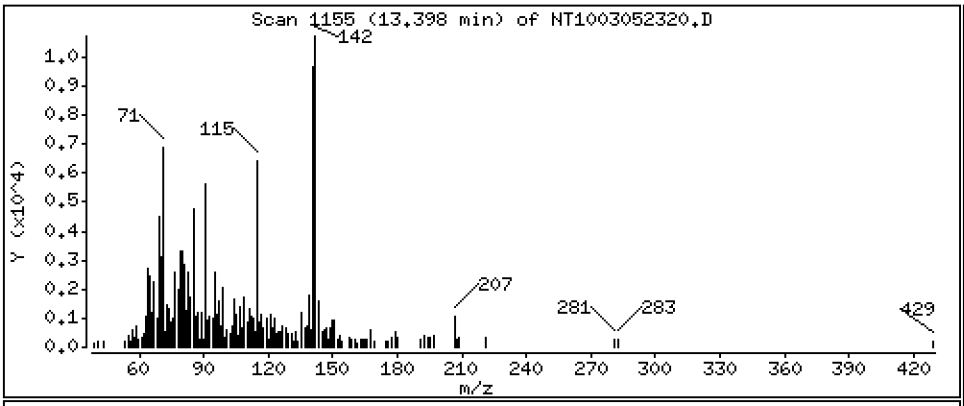
Operator: VTS

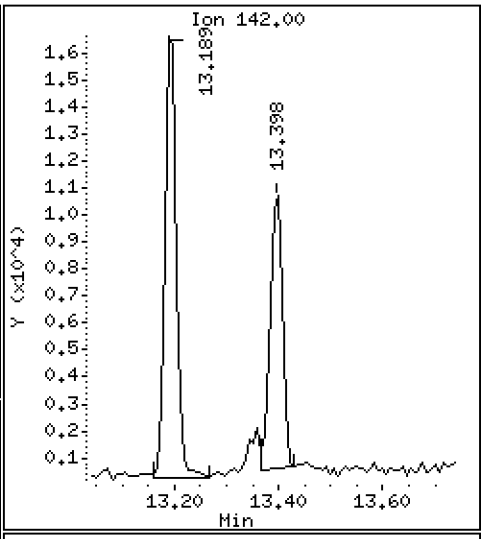
Column phase: ZB-5msi

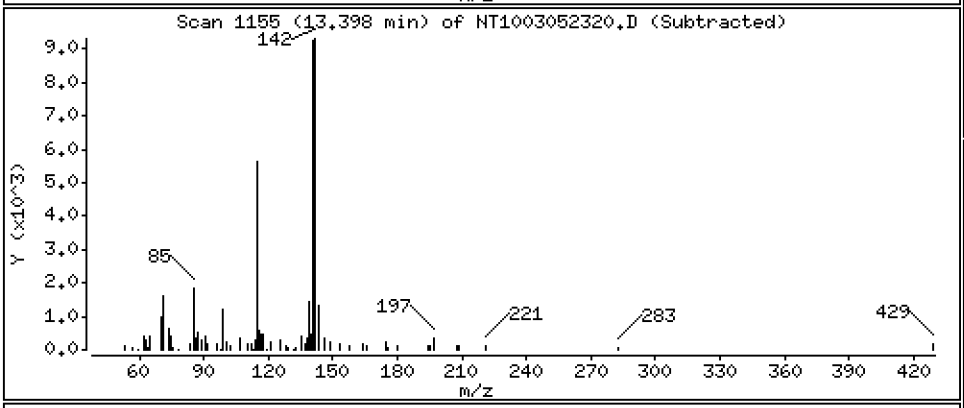
Column diameter: 0.25

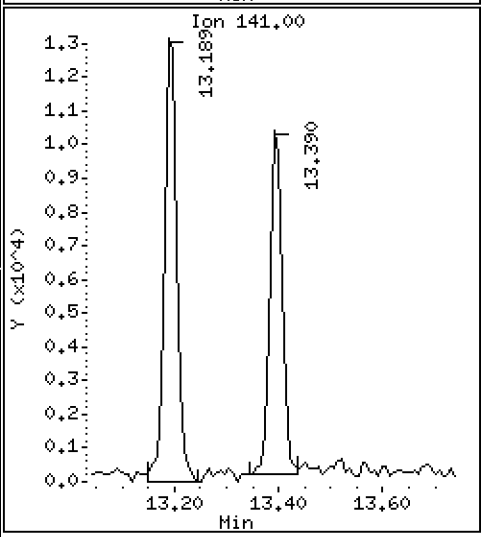
105 1-methylnaphthalene

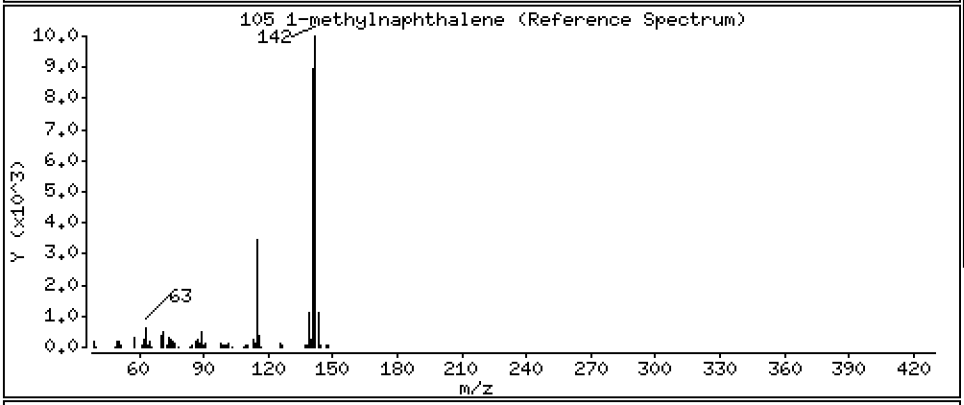
Concentration: 0.09936 ug/mL

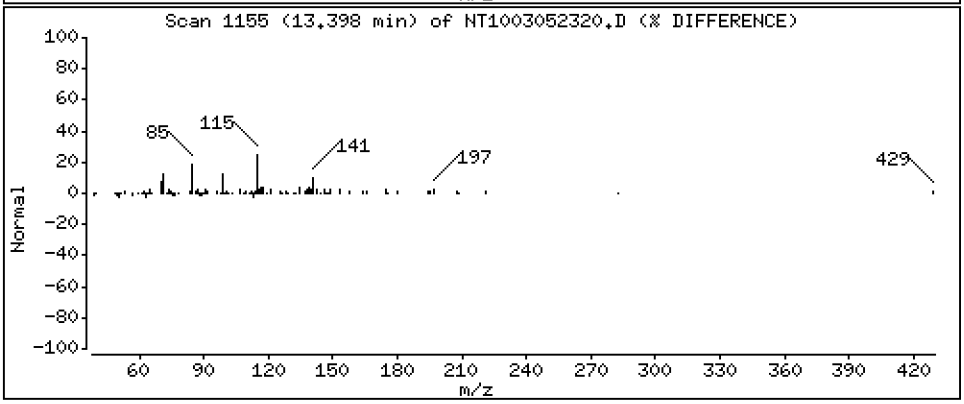












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

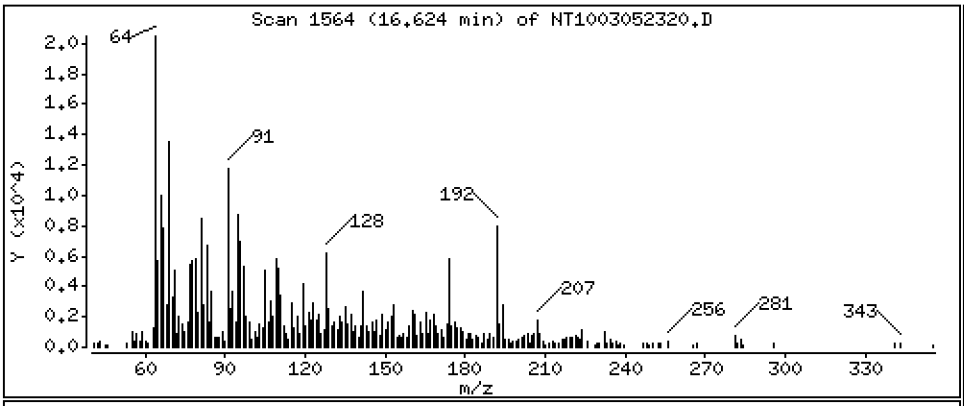
Operator: VTS

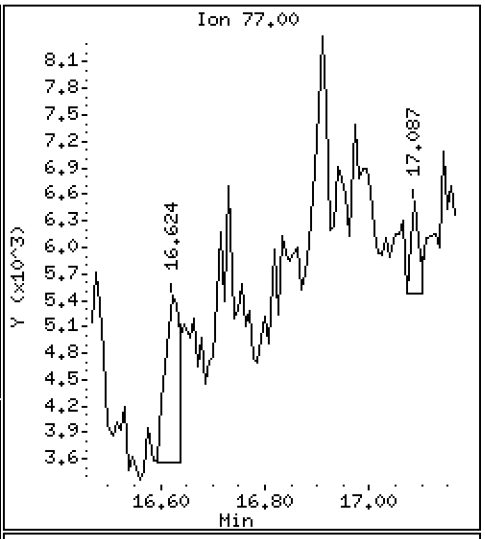
Column phase: ZB-5msi

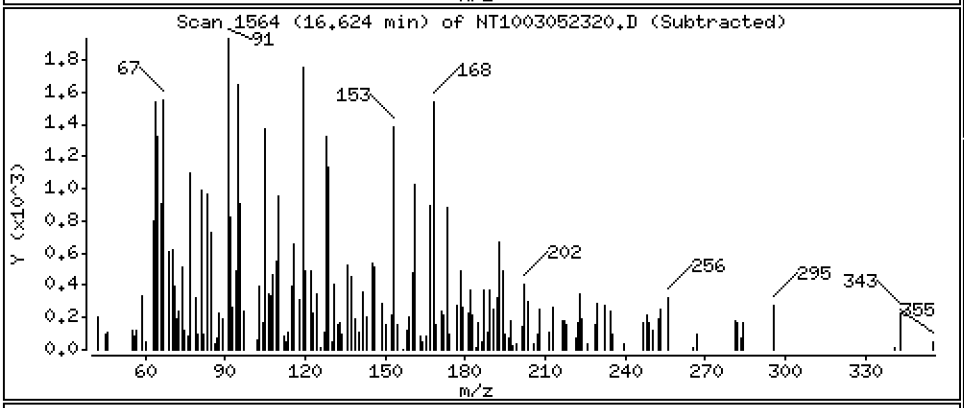
Column diameter: 0.25

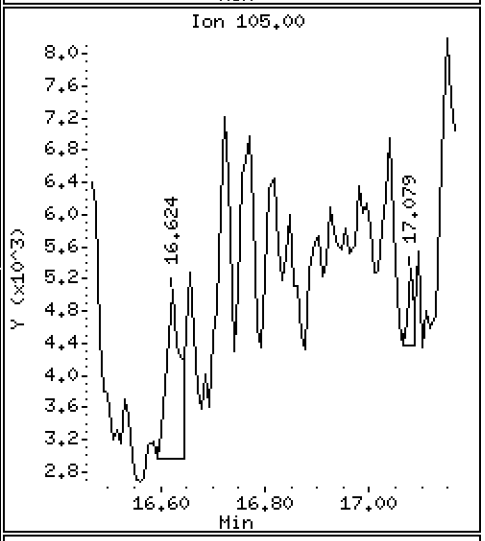
111 Azobenzene (1,2-DP-Hydrazine)

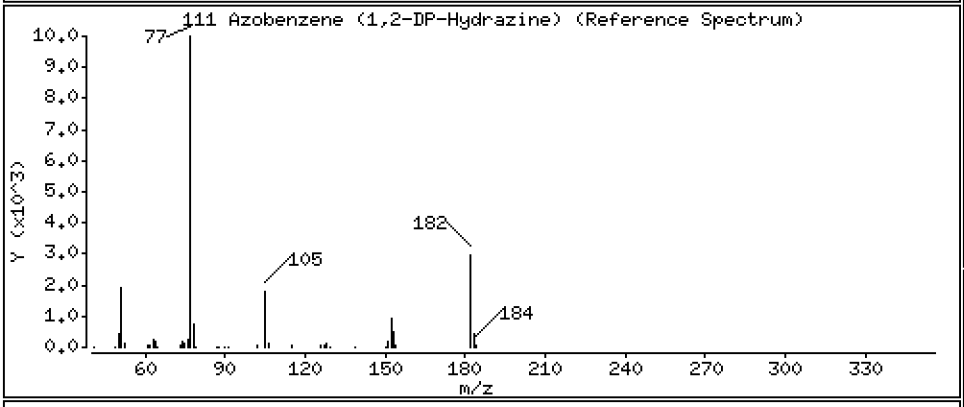
Concentration: 0.01517 ug/mL

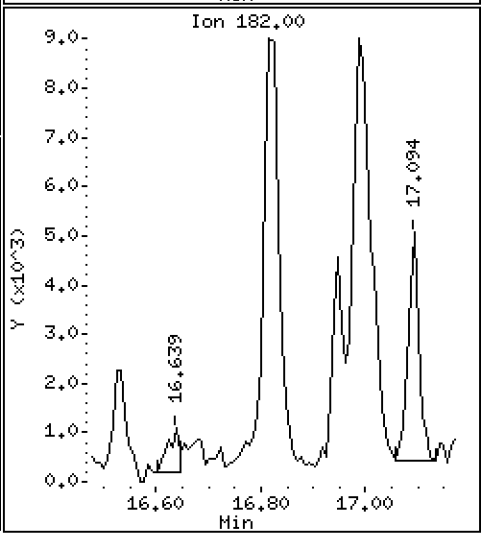


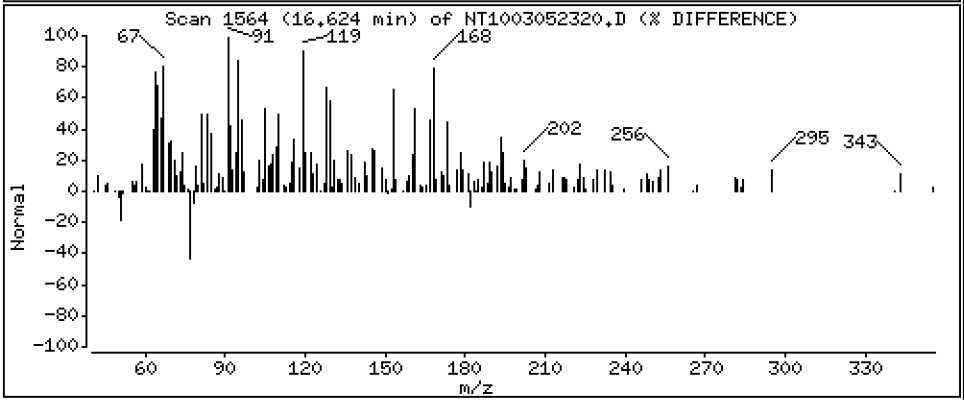












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

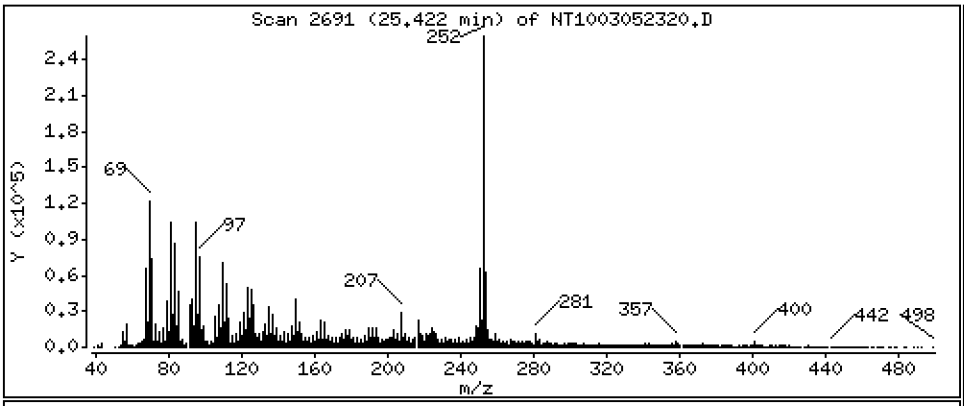
Operator: VTS

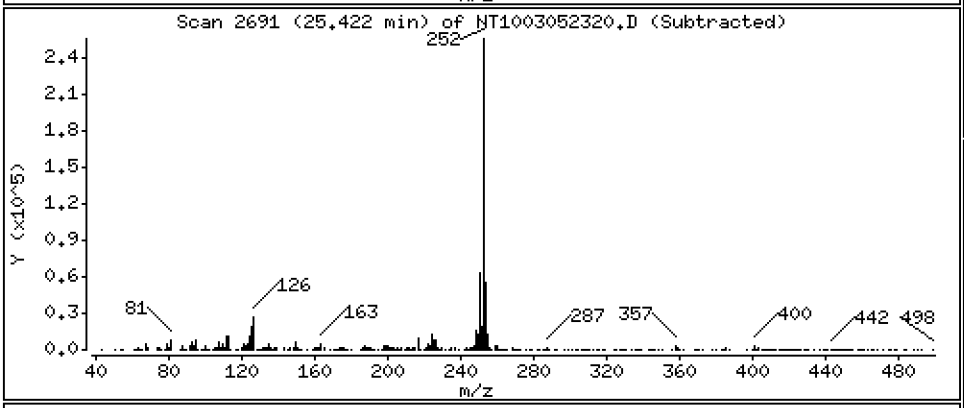
Column phase: ZB-5msi

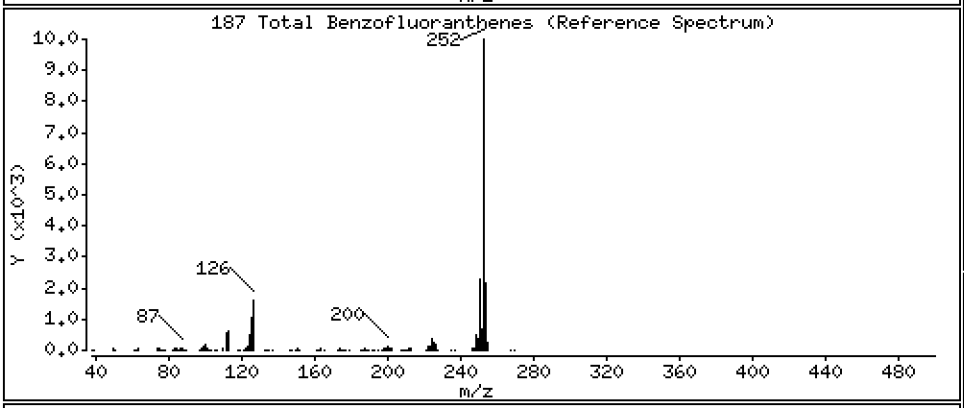
Column diameter: 0.25

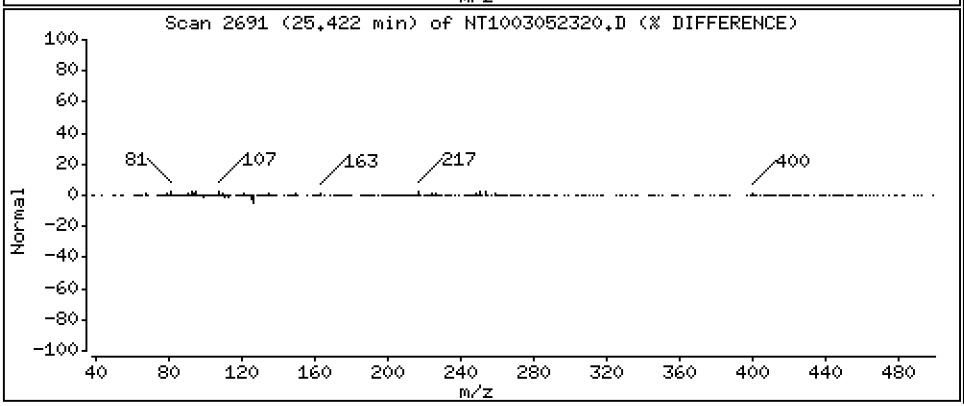
187 Total Benzofluoranthenes

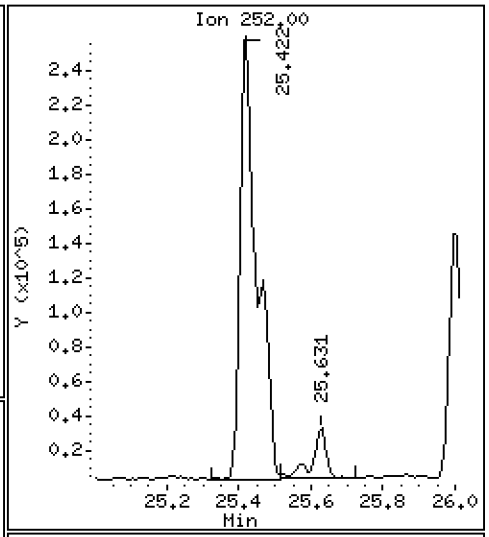
Concentration: 2.473 ug/mL

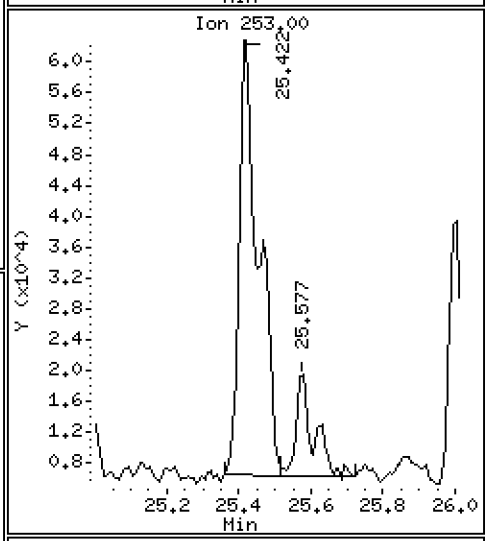


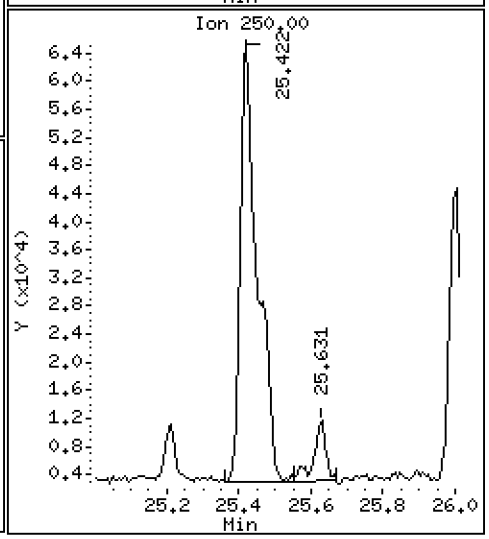












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305A.b\NT1003052320.D
Lab Smp Id: 23A0313-10
Inj Date : 06-MAR-2023 01:25
Operator : VTS Inst ID: nt10.i
Smp Info : 23A0313-10
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Meth Date : 27-Mar-2023 13:49 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

							CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.913	6.905	(0.746)	496679	5.63057	5.631
$	2 Phenol-d5	99	8.528	8.512	(0.921)	618662	6.04089	6.041
	3 Phenol	94	8.551	8.535	(0.923)	173379	1.59232	1.592
$	5 2-Chlorophenol-d4	132	8.836	8.821	(0.954)	538641	6.16466	6.165
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	9.262	9.247	(1.000)	280367	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.549	9.542	(1.031)	235766	3.61160	3.612
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	9.503	9.487	(1.026)	10705	0.19170	0.1917
	14 2,2'-oxybis(1-Chloropropane)	121	9.728	9.736	(1.050)	8741	0.31510	0.3151
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	10.186	9.984	(1.100)	5101	0.07764	0.07764
	15 4-Methylphenol	108	9.984	9.961	(1.078)	25697	0.24296	0.2430
$	18 Nitrobenzene-d5	82	10.318	10.302	(0.878)	458362	4.17773	4.178
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.188	11.205	(0.952)	17652	0.30269	0.3027(M)
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.750	11.734	(1.000)	999488	4.00000	
	28 Naphthalene	128	11.796	11.780	(1.004)	36144	0.14089	0.1409(H)
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.188	13.181	(1.122)	25955	0.14322	0.1432
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	13.939	13.931	(0.908)	825616	4.42966	4.430
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	15.061	15.054	(0.981)	20749	0.08226	0.08226
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	15.348	15.340	(1.000)	522549	4.00000	
	43	3-Nitroaniline	138	15.301	15.255	(0.997)	1084	0.02547	0.02547
	44	Acenaphthene	153	15.417	15.409	(1.005)	13767	0.09049	0.09049
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	15.773	15.773	(1.028)	25384	0.11243	0.1124
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	16.237	16.244	(1.058)	29590	0.16552	0.1655
	49	Fluorene	166	16.492	16.492	(1.075)	25819	0.13744	0.1374
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	16.994	16.994	(1.107)	234242	6.94920	6.949
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	17.627	17.627	(0.955)	79	0.00121	0.001208
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	18.455	18.455	(1.000)	968354	4.00000	
	60	Phenanthrene	178	18.502	18.509	(1.002)	179792	0.72550	0.7255
	61	Anthracene	178	18.610	18.618	(1.008)	101972	0.42435	0.4243
	62	Carbazole	167	18.951	18.950	(1.027)	30689	0.13940	0.1394
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	20.908	20.892	(0.890)	472373	1.47615	1.476
	65	Pyrene	202	21.334	21.326	(0.908)	570505	1.75084	1.751
$	66	Terphenyl-d14	244	21.597	21.604	(0.919)	1044695	3.96234	3.962
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	23.486	23.501	(0.999)	290895	0.88688	0.8869
*	69	Chrysene-d12	240	23.502	23.517	(1.000)	930222	4.00000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	23.548	23.563	(1.002)	398462	1.49479	1.495
	72	bis(2-Ethylhexyl)phthalate	149	23.471	23.494	(0.956)	398271	1.77088	1.771
*	134	Di-n-octylphthalate-d4	153	24.562	24.593	(1.000)	1588066	4.00000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	25.421	25.452	(0.969)	657754	1.79159	1.792
	75	Benzo(k)fluoranthene	252	25.468	25.507	(0.970)	251148	0.71873	0.7187(M)
	76	Benzo(a)pyrene	252	26.118	26.157	(0.995)	303705	0.93415	0.9341
*	77	Perylene-d12	264	26.242	26.289	(1.000)	1058029	4.00000	
	78	Indeno(1,2,3-cd)pyrene	276	29.072	29.158	(1.108)	233951	0.61743	0.6174
	79	Dibenzo(a,h)anthracene	278	29.096	29.204	(1.109)	58343	0.20391	0.2039(M)
	80	Benzo(g,h,i)perylene	276	29.942	30.043	(1.141)	221372	0.73307	0.7331
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	4.820	4.781	(0.520)	33906	0.33573	0.3357
	105	1-methylnaphthalene	142	13.397	13.390	(1.140)	16297	0.09936	0.09936
	111	Azobenzene (1,2-DP-Hydrazine)	77	16.624	16.816	(1.083)	4051	0.01517	0.01517

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.421	25.507	(0.969)	866928	2.47262	2.473
120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052320.D
Lab Smp Id: 23A0313-10
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 21:38
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	264922	132461	529844	280367	5.83
27 Naphthalene-d8	947542	473771	1895084	999488	5.48
42 Acenaphthene-d10	505666	252833	1011332	522549	3.34
59 Phenanthrene-d10	940283	470142	1880566	968354	2.99
69 Chrysene-d12	987952	493976	1975904	930222	-5.84
134 Di-n-octylphthala	1625017	812509	3250034	1588066	-2.27
77 Perylene-d12	1073798	536899	2147596	1058029	-1.47

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.26	0.17
27 Naphthalene-d8	11.73	11.23	12.23	11.75	0.13
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	0.00
69 Chrysene-d12	23.52	23.02	24.02	23.50	-0.07
134 Di-n-octylphthala	24.59	24.09	25.09	24.56	-0.13
77 Perylene-d12	26.29	25.79	26.79	26.24	-0.18

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052320.D

Lab ID: 23A0313-10
nt10.i, 20230305A.b\ABN.m,   06-MAR-2023 01:25

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.100	1.080	0.0200	N-Nitroso-di-n-propylamine
1.083	1.096	-0.0131	Azobenzene (1,2-DP-Hydrazine)

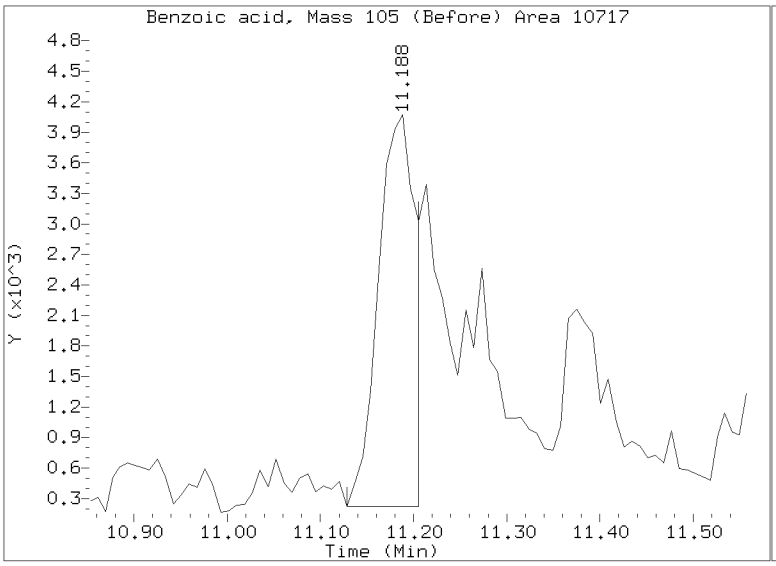
RRT check based on Ccal File: NT1003052314.D

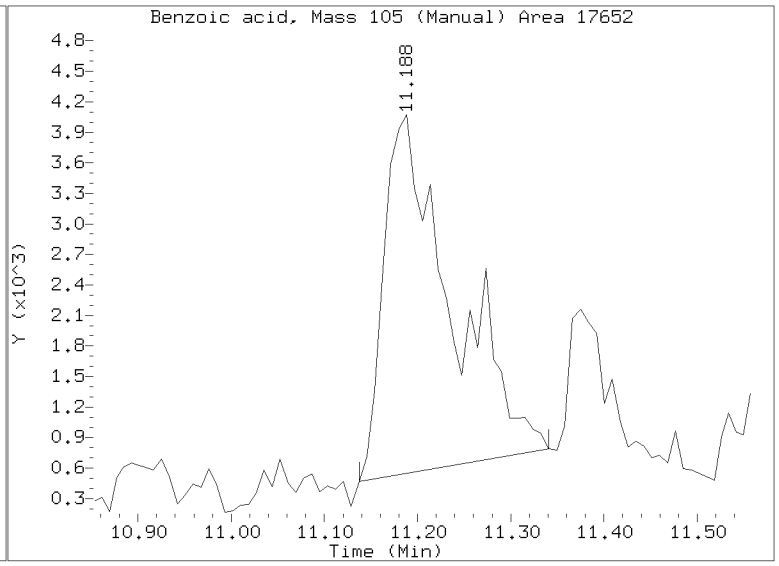
On Column LOD for nt10.i, 20230305A.b\ABN.m, ICAL.sub = 0.0000

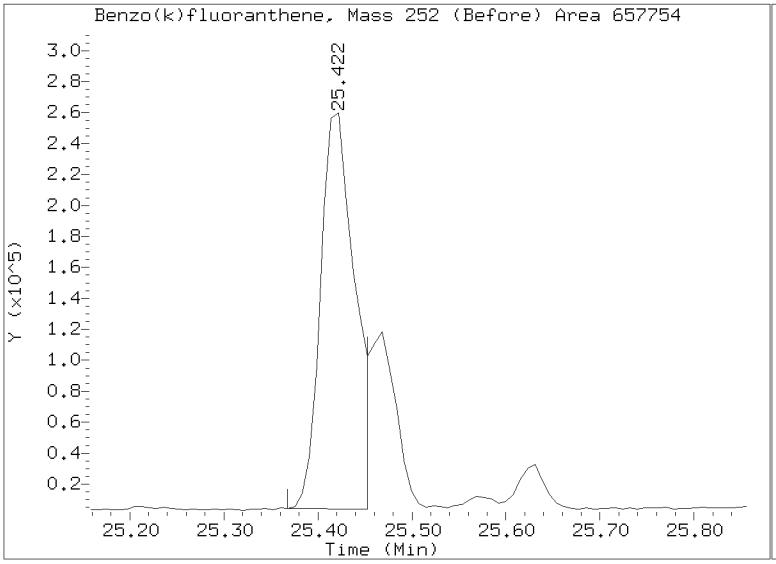
* Only compounds listed in the work order have been verified by the analyst *

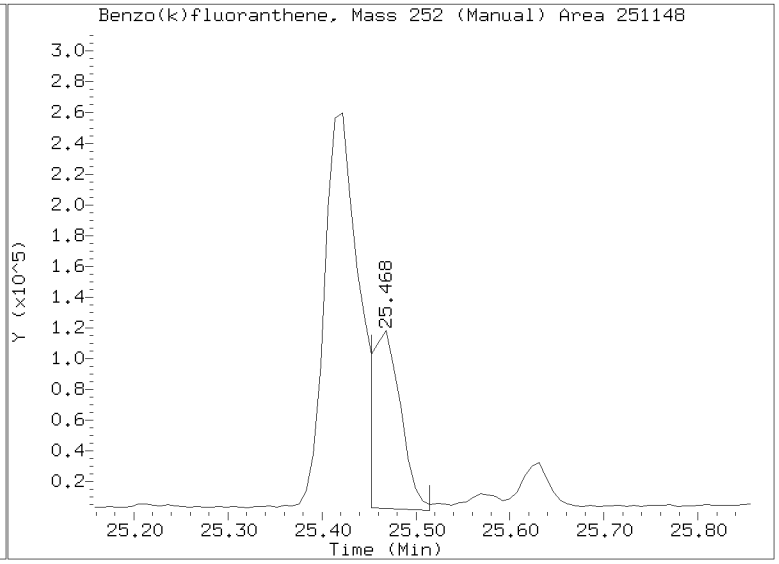
Quant Ion Manual Peak Adjustment Report

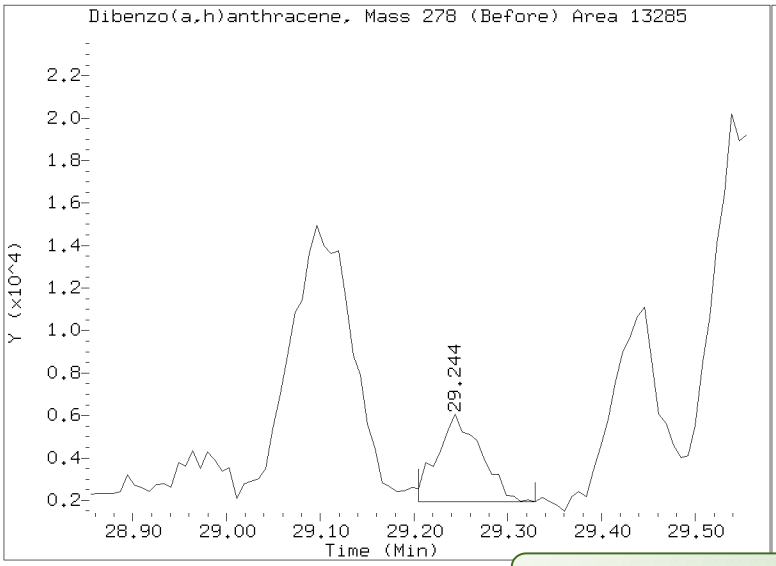
Datafile: //target/share/chem3/nt10.i/20230305A.b/NT1003052320.D
Injection Date: 06-MAR-2023 01:25
Lab ID:23A0313-10 Client ID:
Report Date: 03/27/2023 13:57

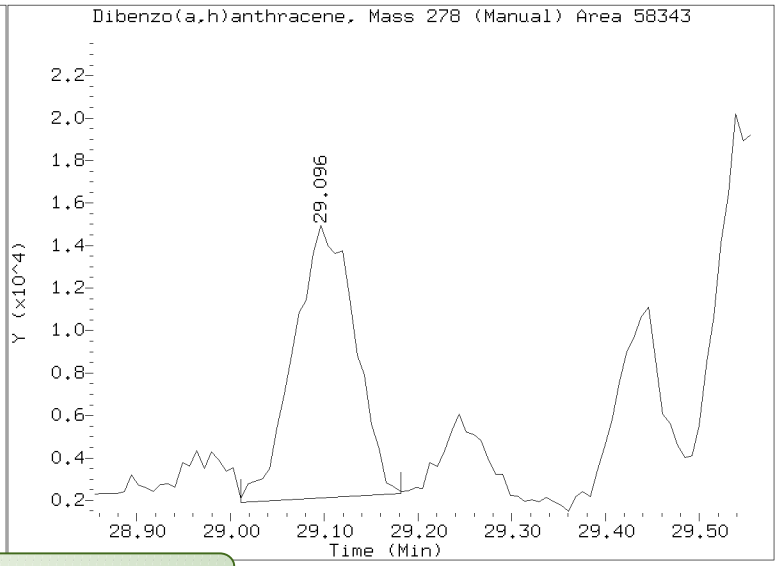












APPROVED
By Deenay Dunmore at 2:09 pm, Mar 27, 2023

LDW23-SC1012B

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E

Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-11 A	SDG:	23A0313
Sampled:	01/16/23 13:13	Prepared:	02/02/23 13:06	File ID:	NT1003052321.D
% Solids:	58.66	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/06/23 02:02
Batch:	BLA0685	Sequence:	SLC0415	Initial/Final:	17.95 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00019
Cleanups:	GPC				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	13.0	J	4.2	19.0
106-44-5	4-Methylphenol	1	19.0	U	7.0	19.0
91-20-3	Naphthalene	1	15.5	J	4.0	19.0
91-57-6	2-Methylnaphthalene	1	12.6	J	4.3	19.0
208-96-8	Acenaphthylene	1	11.9	J	5.9	19.0
131-11-3	Dimethylphthalate	1	11.5	J	4.2	19.0
83-32-9	Acenaphthene	1	7.8	J	5.0	19.0
132-64-9	Dibenzofuran	1	19.0	U	13.4	19.0
86-73-7	Fluorene	1	19.0	U	13.8	19.0
85-01-8	Phenanthrene	1	72.9		8.3	19.0
120-12-7	Anthracene	1	38.8		6.8	19.0
206-44-0	Fluoranthene	1	120		5.8	19.0
129-00-0	Pyrene	1	275		5.4	19.0
85-68-7	Butylbenzylphthalate	1	19.0	U	8.9	19.0
56-55-3	Benzo(a)anthracene	1	84.3		5.7	19.0
218-01-9	Chrysene	1	137		5.8	19.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	192		5.2	47.5
	Benzofluoranthenes, Total	1	352		9.5	38.0
50-32-8	Benzo(a)pyrene	1	131		4.0	19.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	89.2		13.9	19.0
53-70-3	Dibenzo(a,h)anthracene	1	30.8		16.4	19.0
191-24-2	Benzo(g,h,i)perylene	1	109		12.9	19.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	712.29	553	77.6	27 - 120	
Phenol-d5	712.29	604	84.8	29 - 120	
2-Chlorophenol-d4	712.29	609	85.5	31 - 120	
1,2-Dichlorobenzene-d4	474.86	361	76.1	32 - 120	
Nitrobenzene-d5	474.86	403	84.8	30 - 120	
2-Fluorobiphenyl	474.86	424	89.4	35 - 120	

LDW23-SC1012B

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E

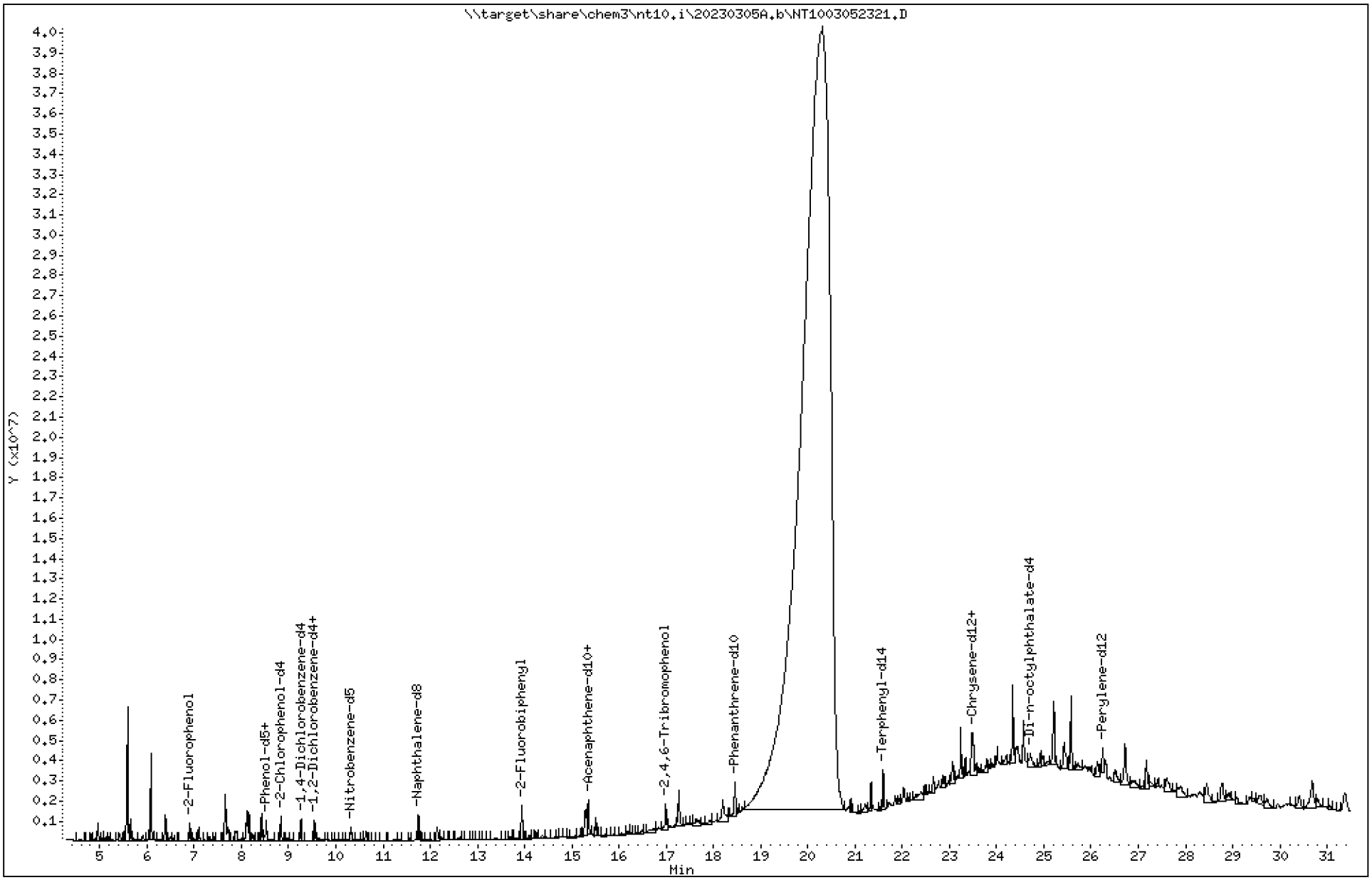
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-11 A	SDG:	23A0313
Sampled:	01/16/23 13:13	Prepared:	02/02/23 13:06	File ID:	NT1003052321.D
% Solids:	58.66	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/06/23 02:02
Batch:	BLA0685	Sequence:	SLC0415	Initial/Final:	17.95 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00019
Cleanups:	GPC				

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	712.29	625	87.8	24 - 134	
p-Terphenyl-d14	474.86	342	72.0	37 - 120	

Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052321.D
Date : 06-MAR-2023 02:02
Client ID:
Sample Info: 23A0313-11

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

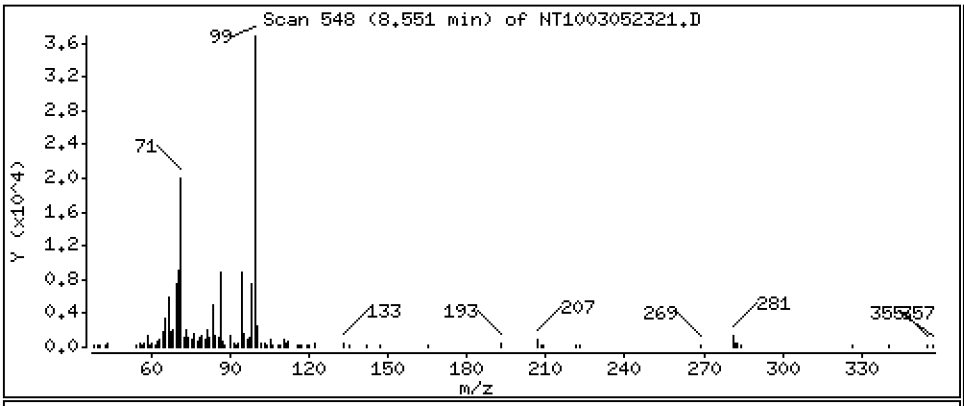
Operator: VTS

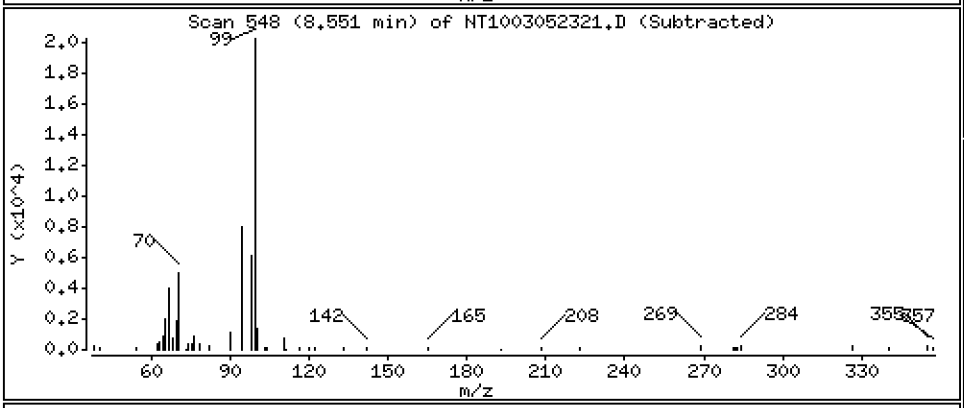
Column phase: ZB-5msi

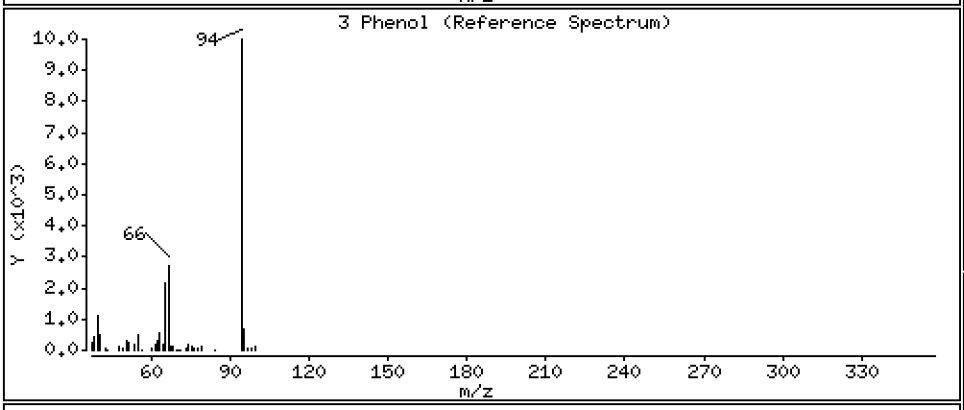
Column diameter: 0.25

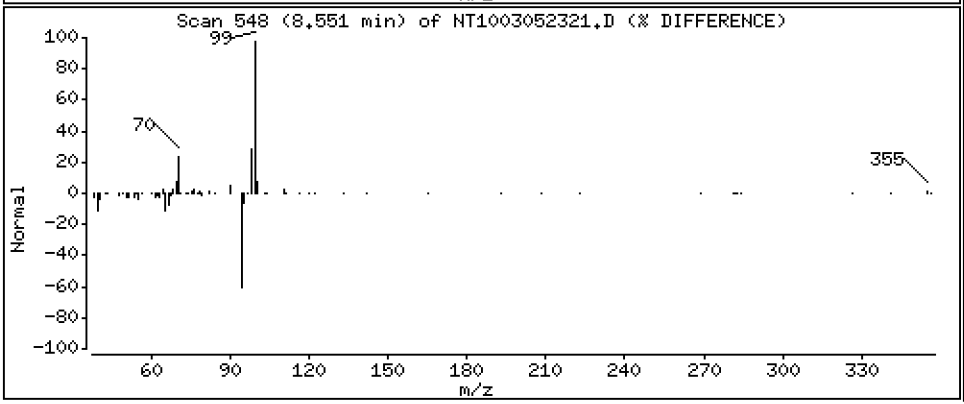
3 Phenol

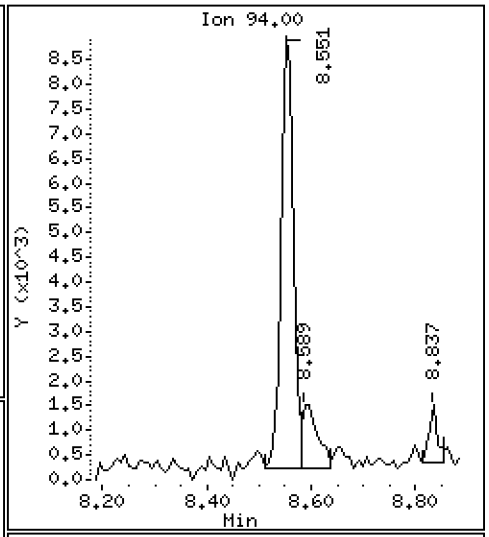
Concentration: 0.1371 ug/mL

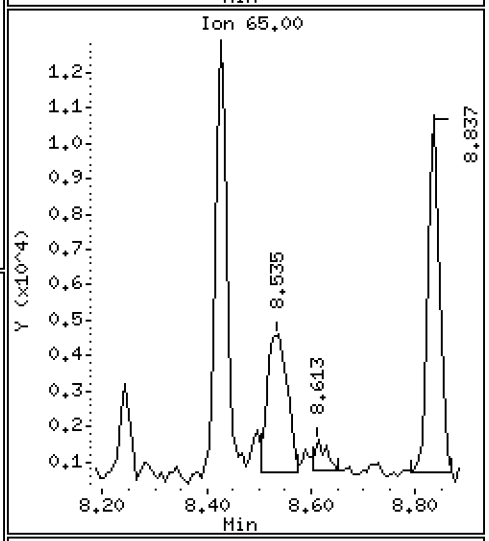


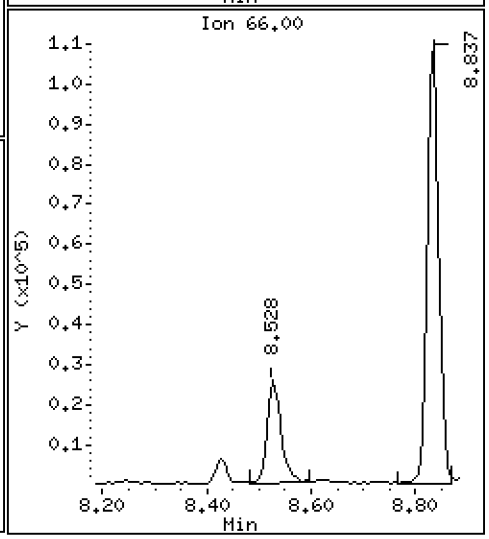












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

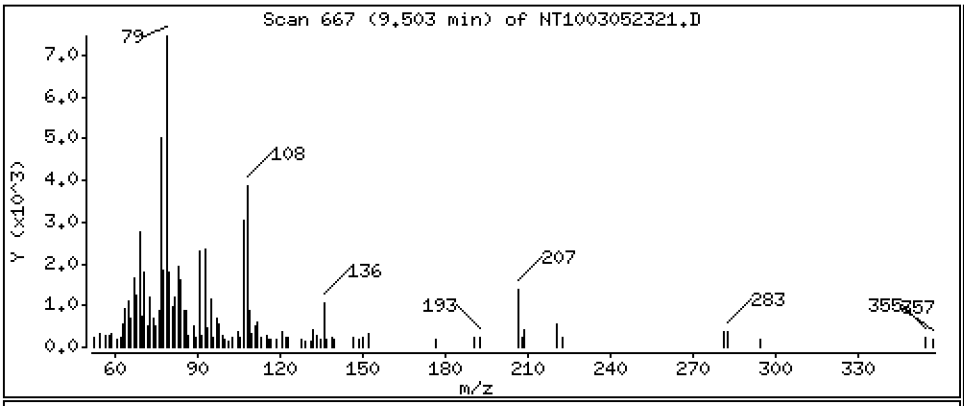
Operator: VTS

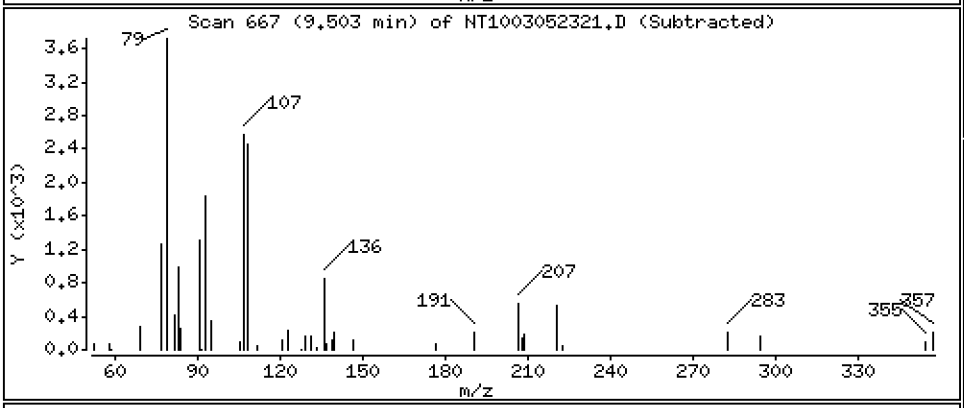
Column phase: ZB-5msi

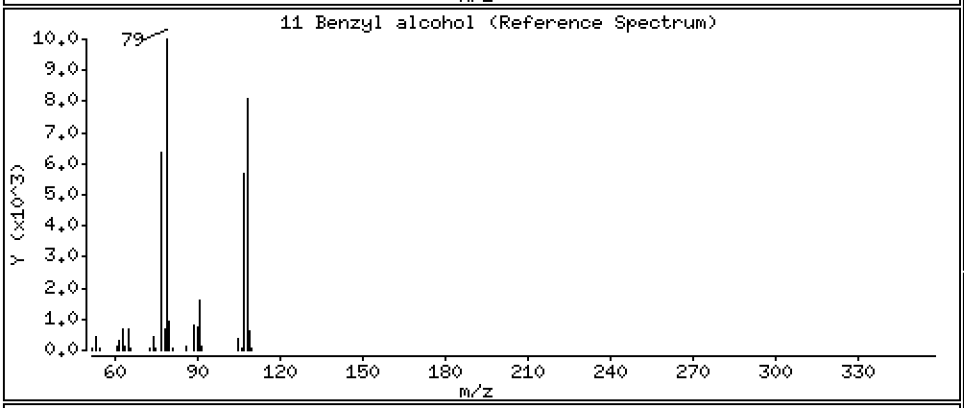
Column diameter: 0.25

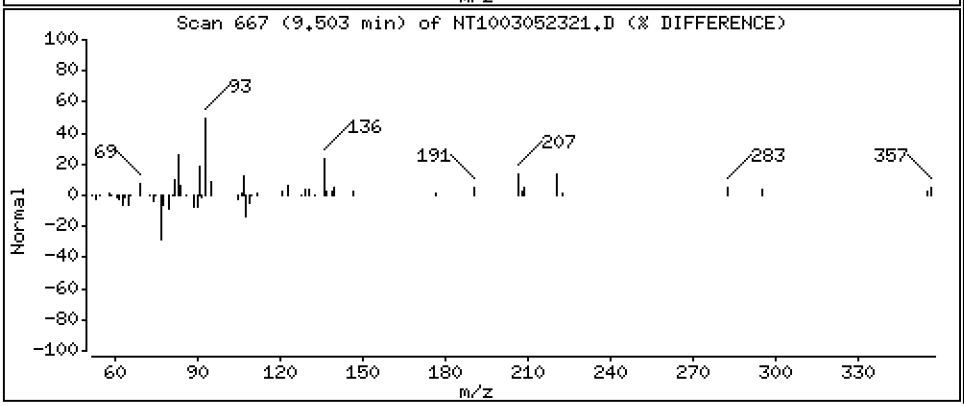
11 Benzyl alcohol

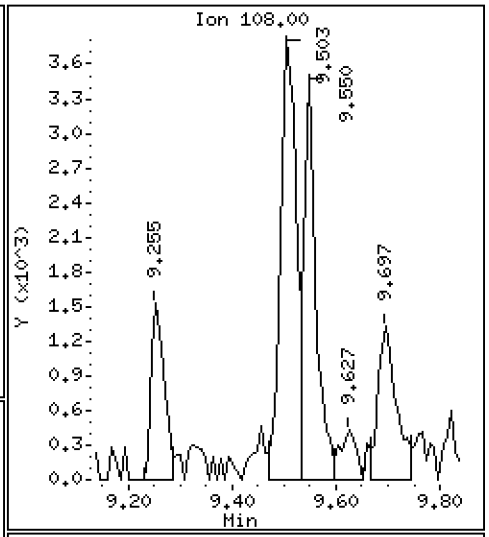
Concentration: 0.1514 ug/mL

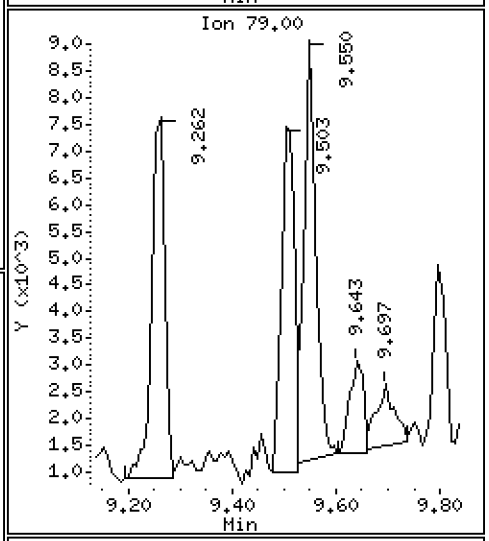


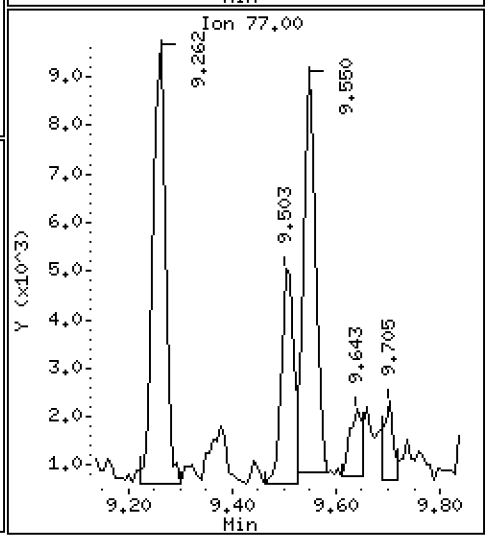












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

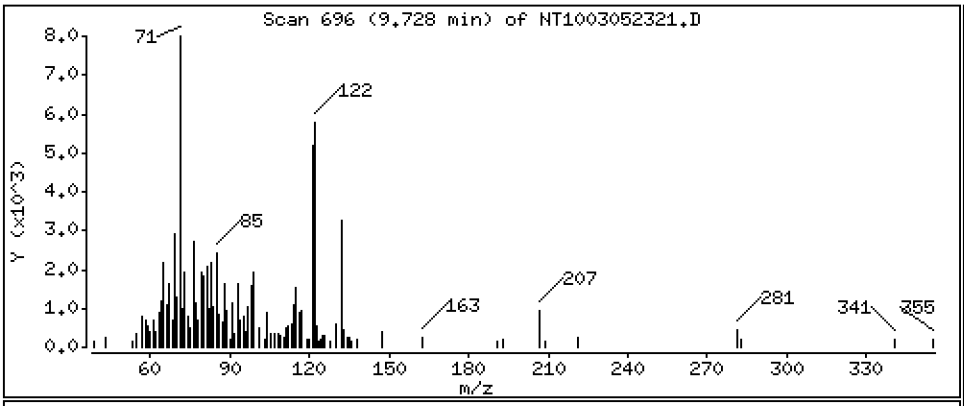
Operator: VTS

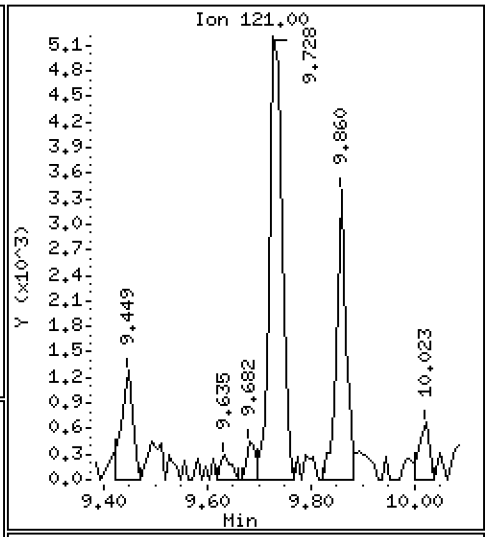
Column phase: ZB-5msi

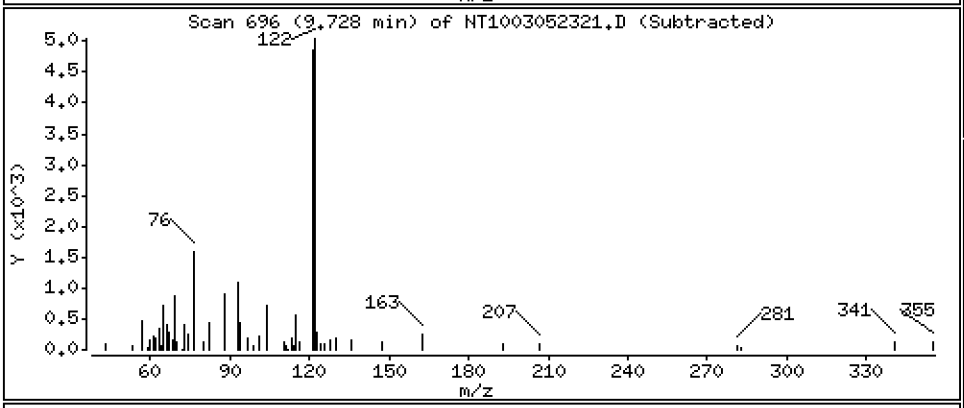
Column diameter: 0.25

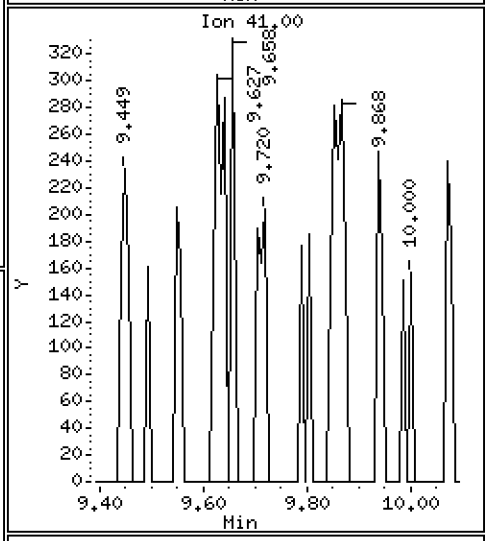
14 2,2'-oxybis(1-Chloropropane)

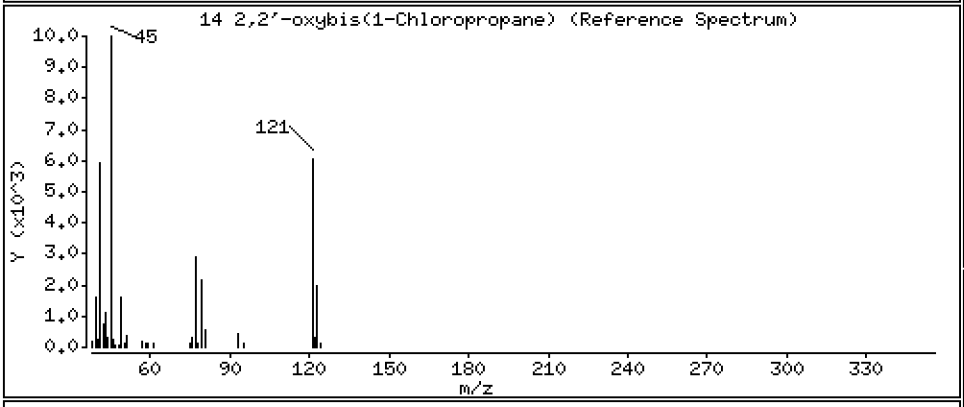
Concentration: 0.2997 ug/mL

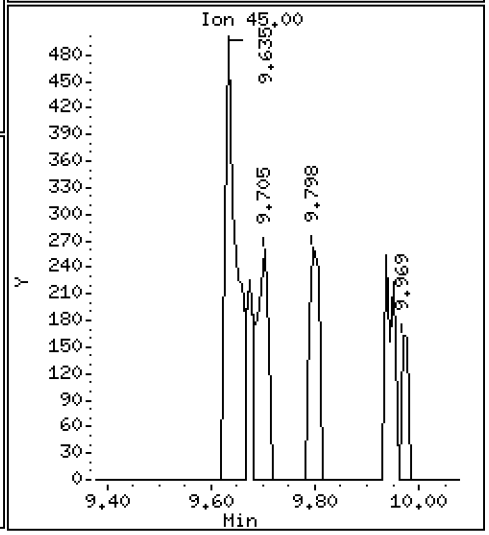


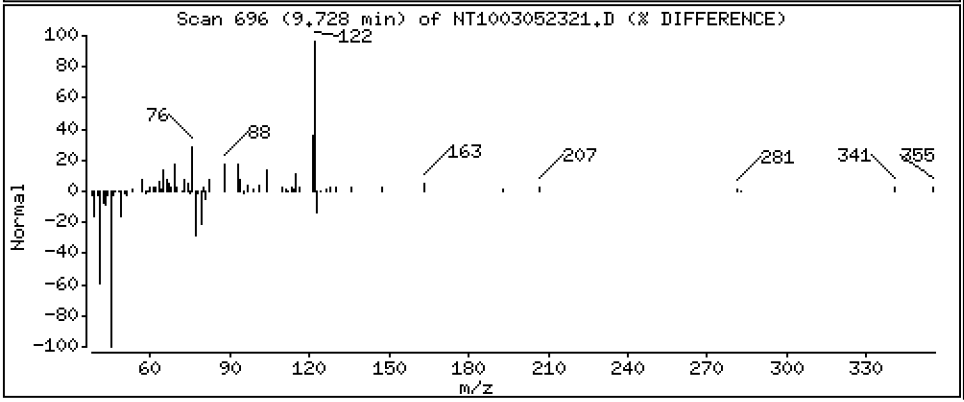












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

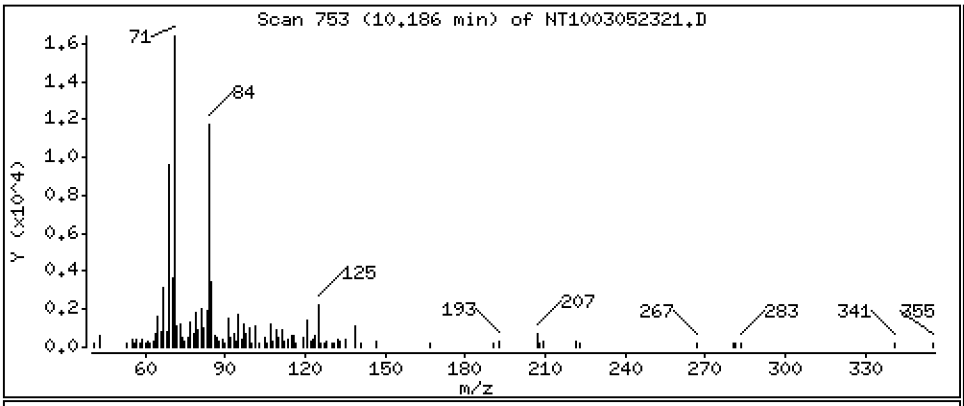
Operator: VTS

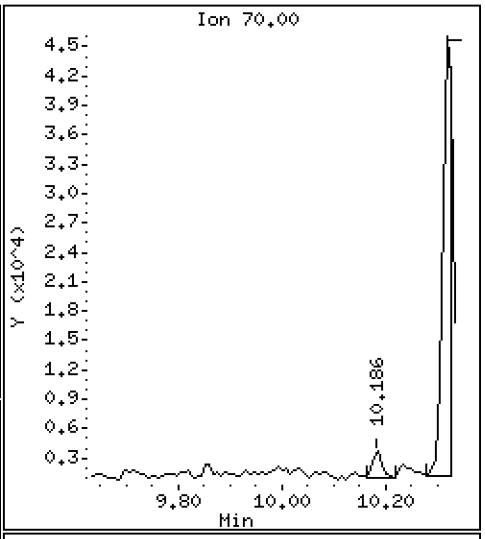
Column phase: ZB-5msi

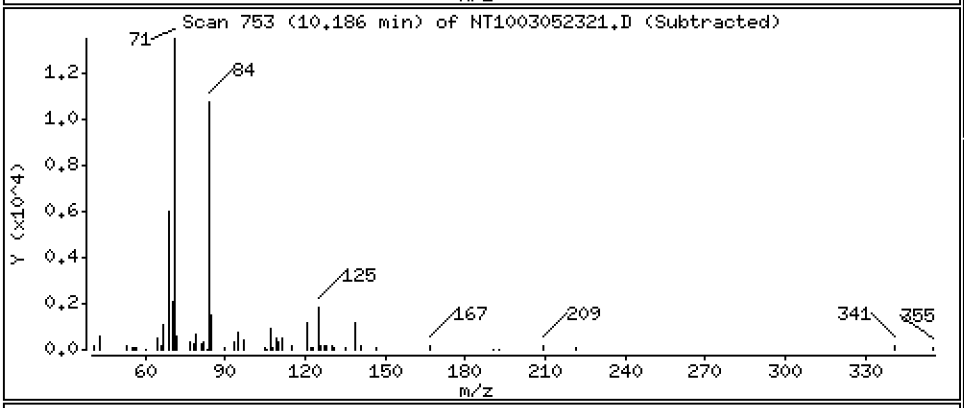
Column diameter: 0.25

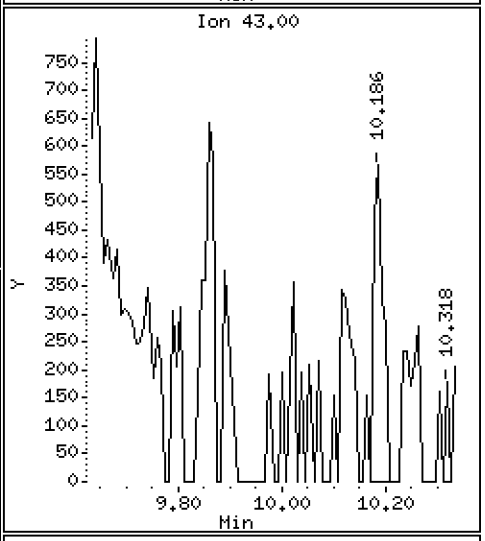
16 N-Nitroso-di-n-propylamine

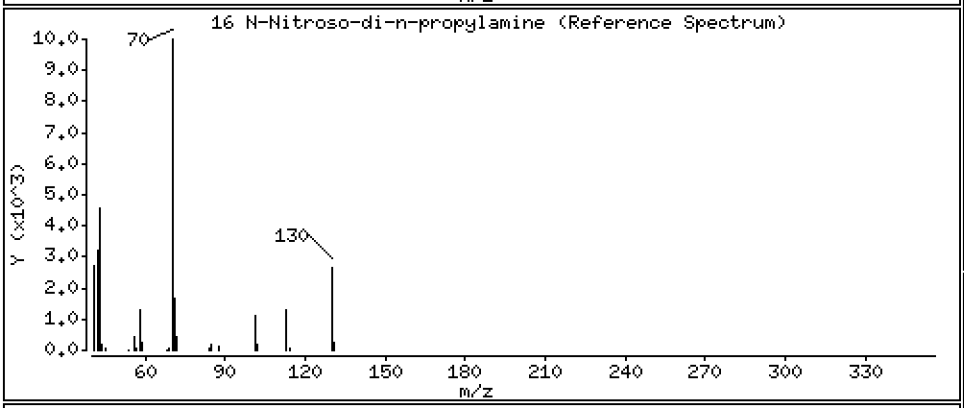
Concentration: 0.05361 ug/mL

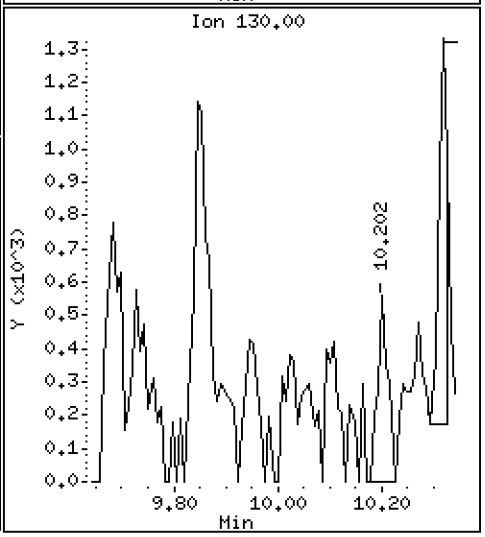


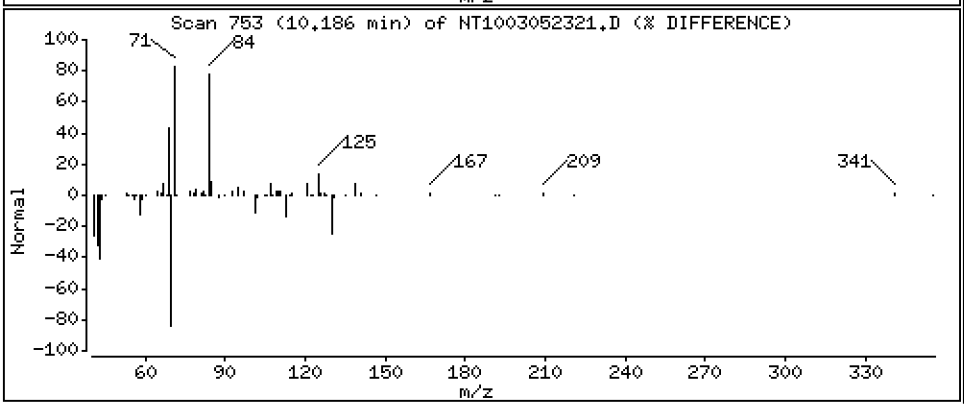












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052321.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

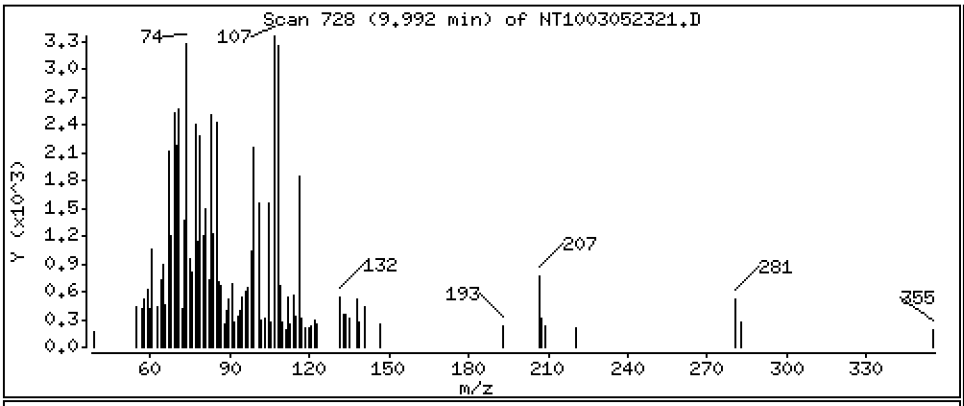
Operator: VTS

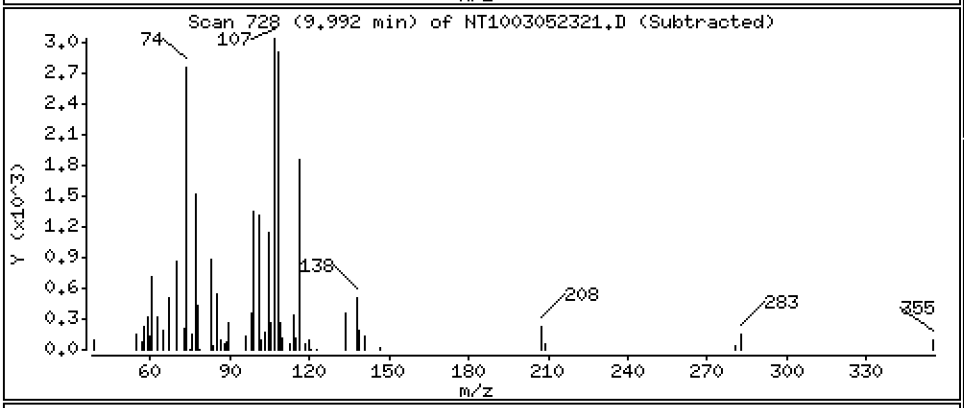
Column phase: ZB-5msi

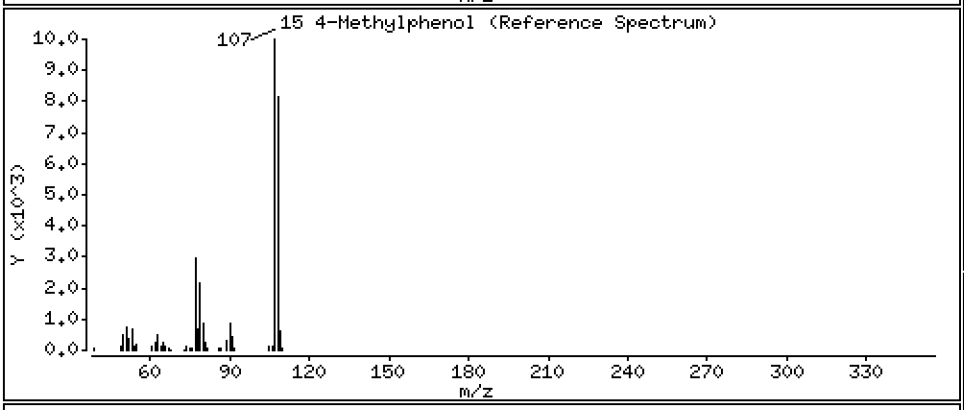
Column diameter: 0.25

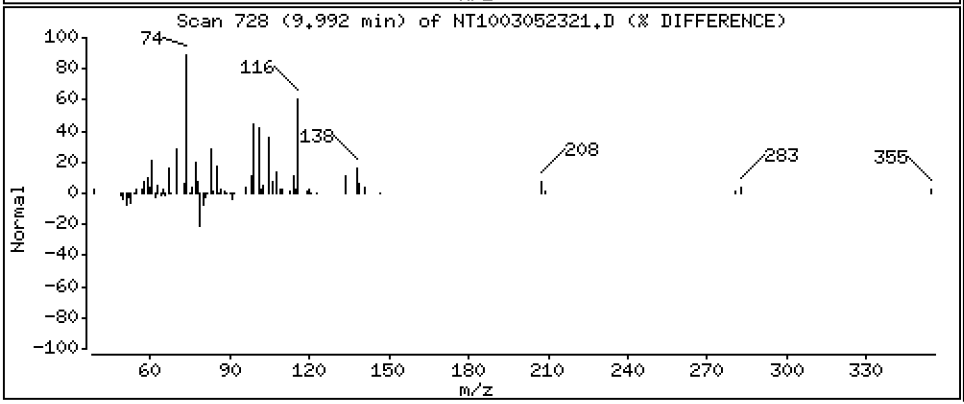
15 4-Methylphenol

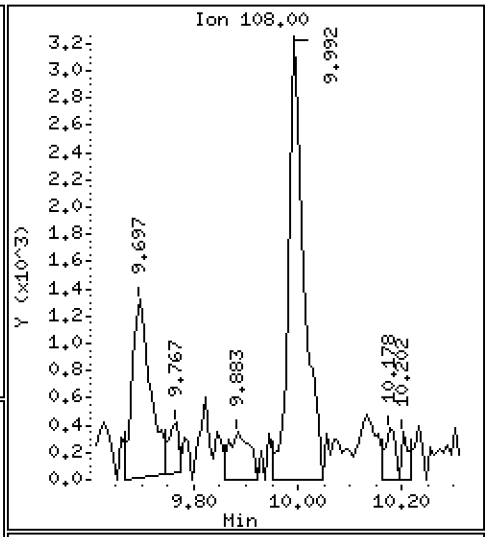
Concentration: 0.06479 ug/mL

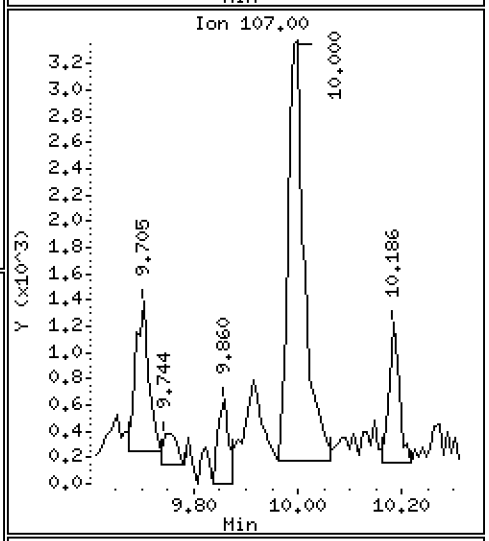


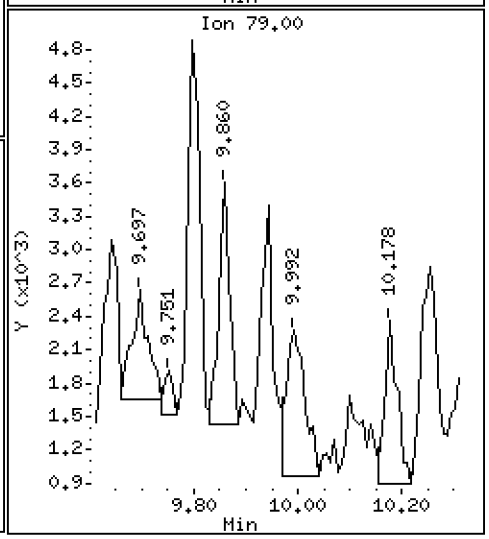












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052321.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

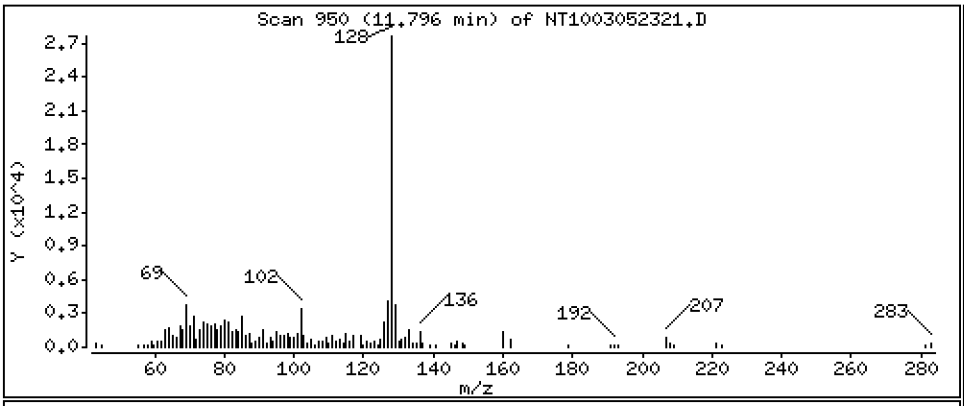
Operator: VTS

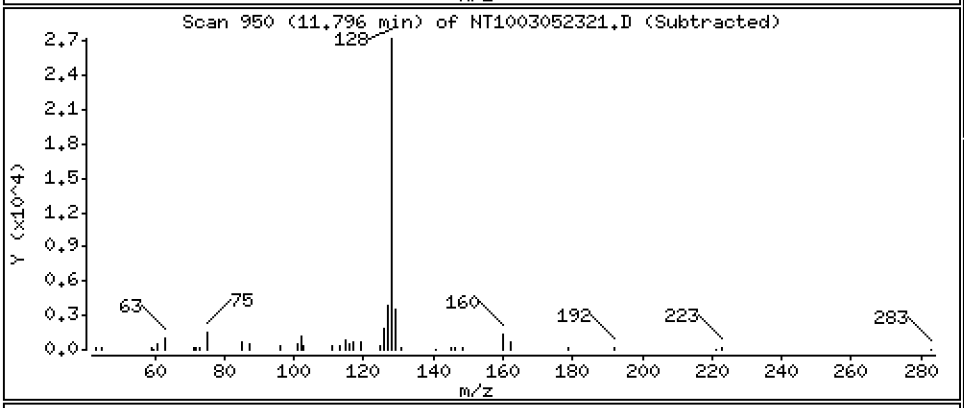
Column phase: ZB-5msi

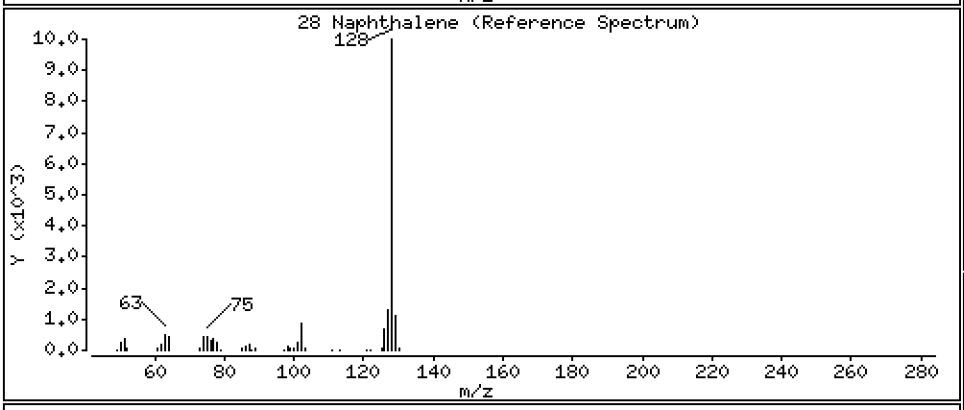
Column diameter: 0.25

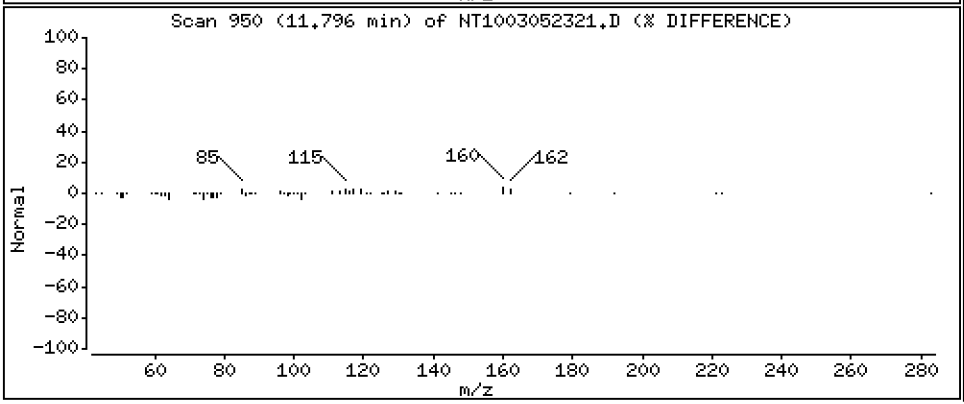
28 Naphthalene

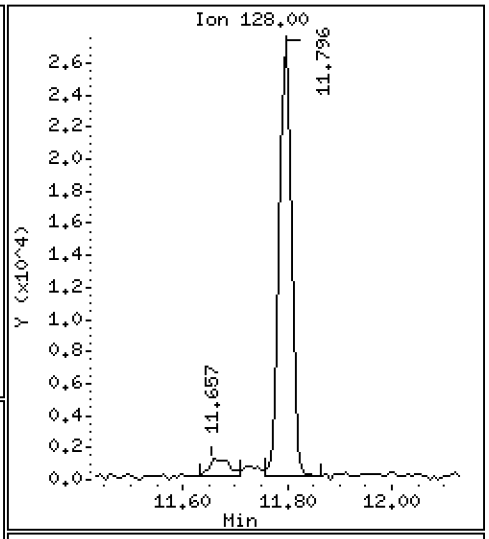
Concentration: 0.1627 ug/mL

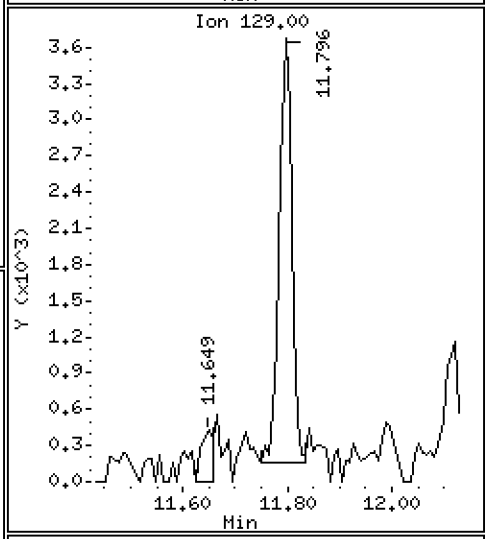


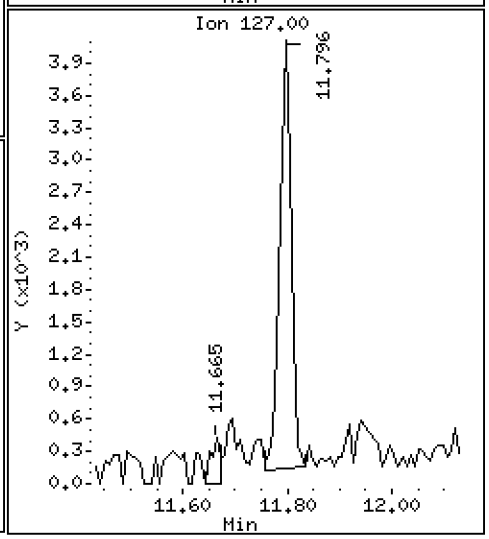












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

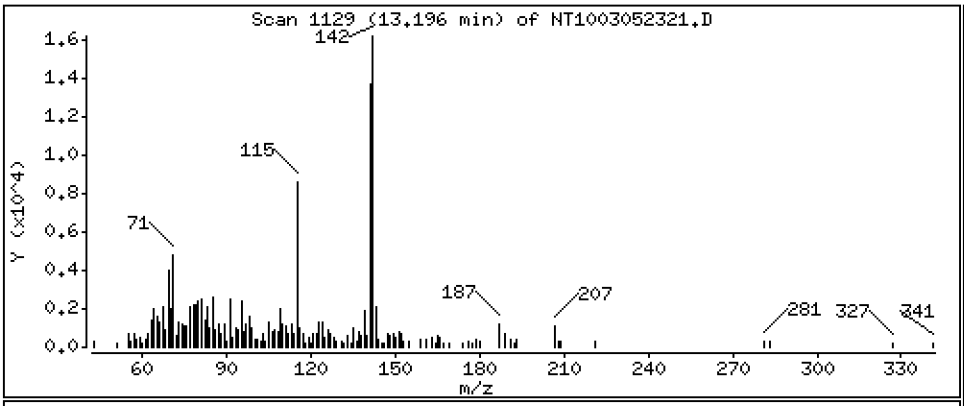
Operator: VTS

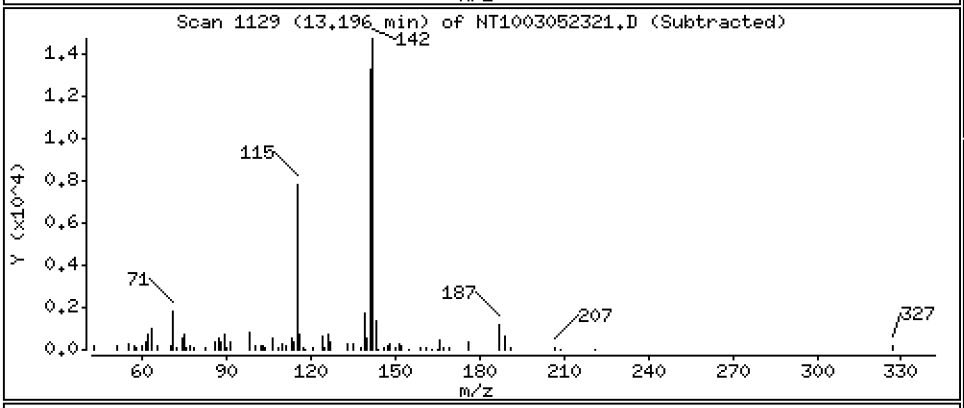
Column phase: ZB-5msi

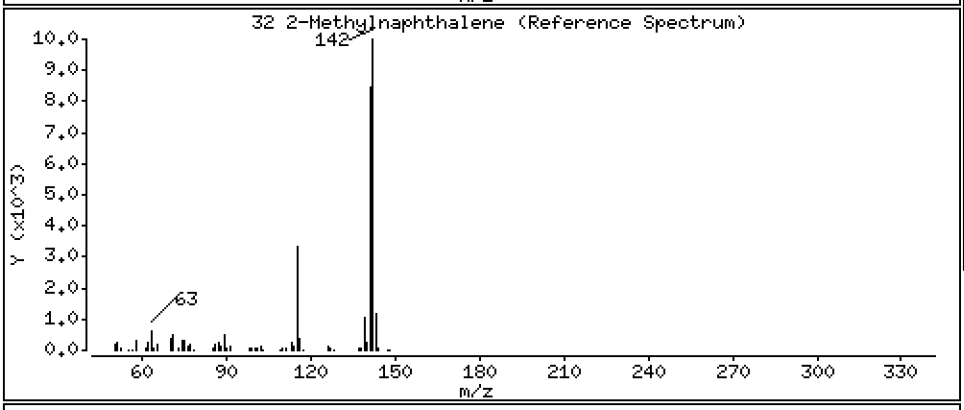
Column diameter: 0.25

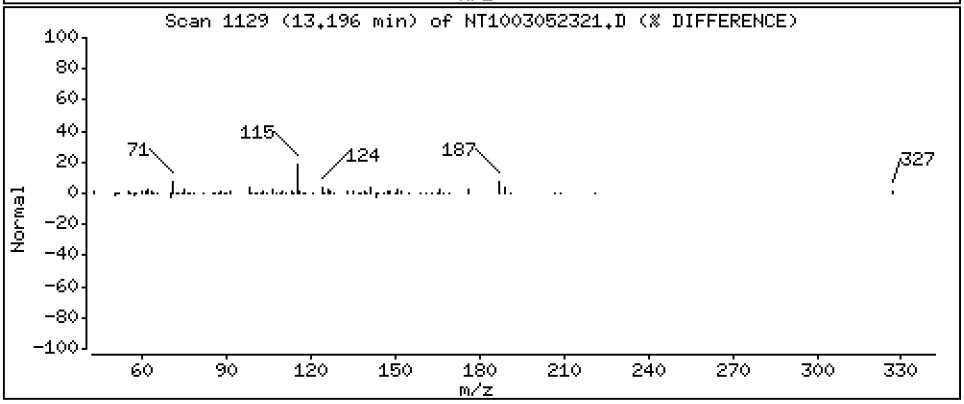
32 2-Methylnaphthalene

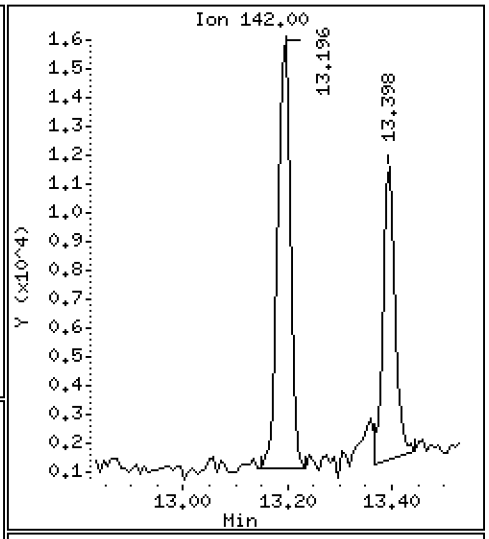
Concentration: 0.1324 ug/mL

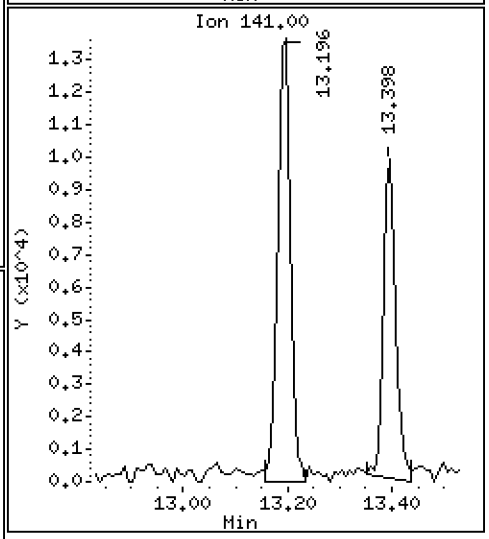












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052321.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

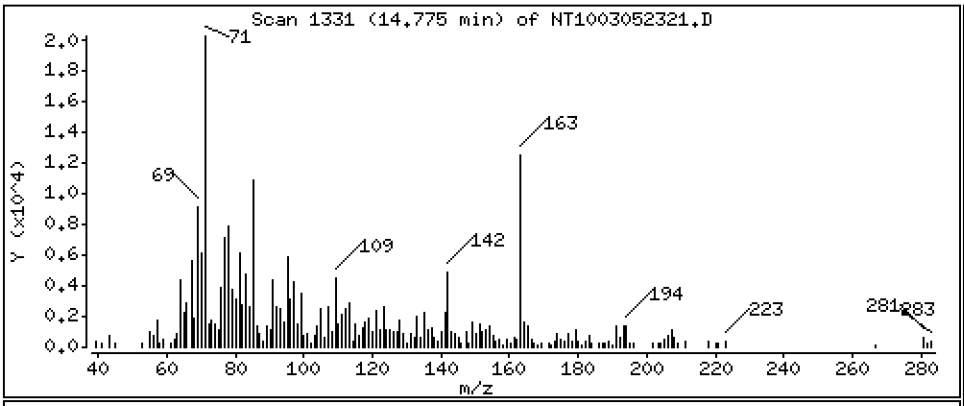
Operator: VTS

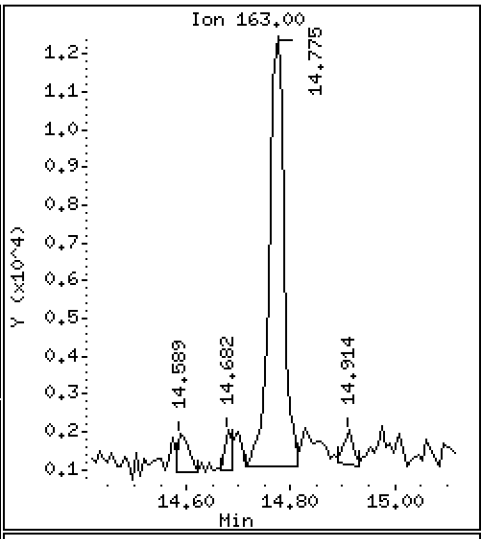
Column phase: ZB-5msi

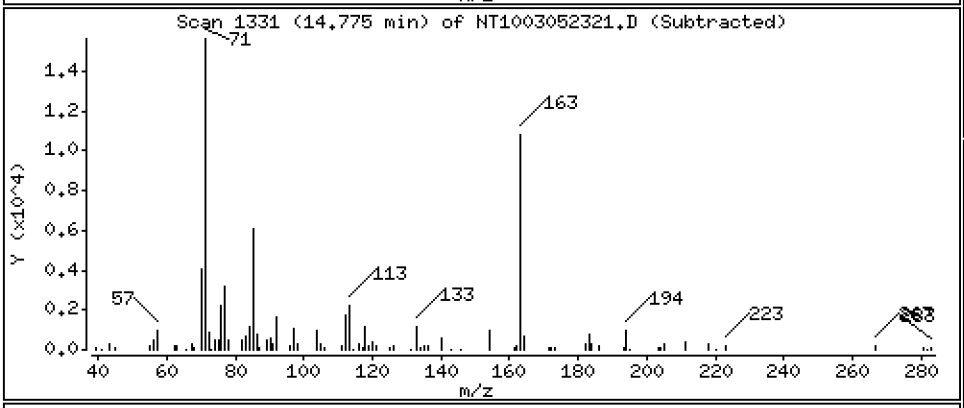
Column diameter: 0.25

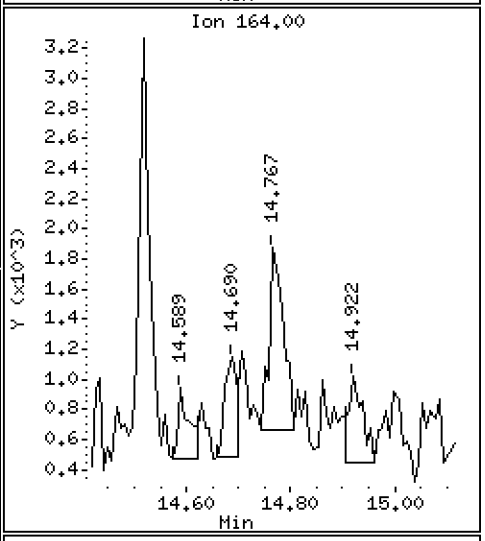
39 Dimethylphthalate

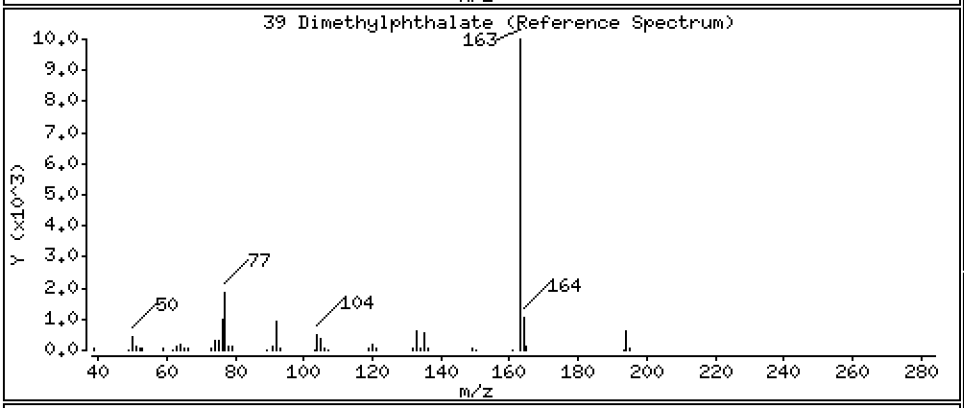
Concentration: 0.1215 ug/mL

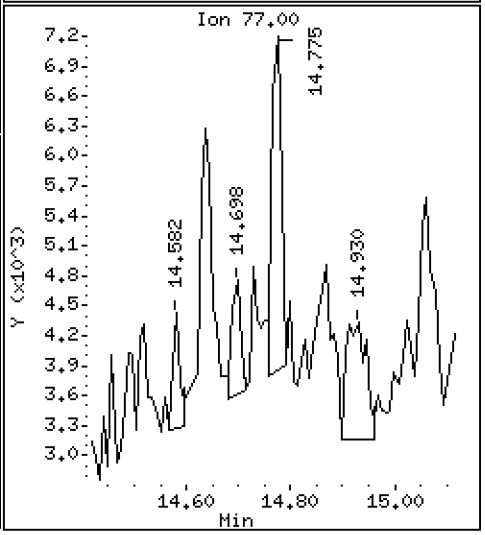


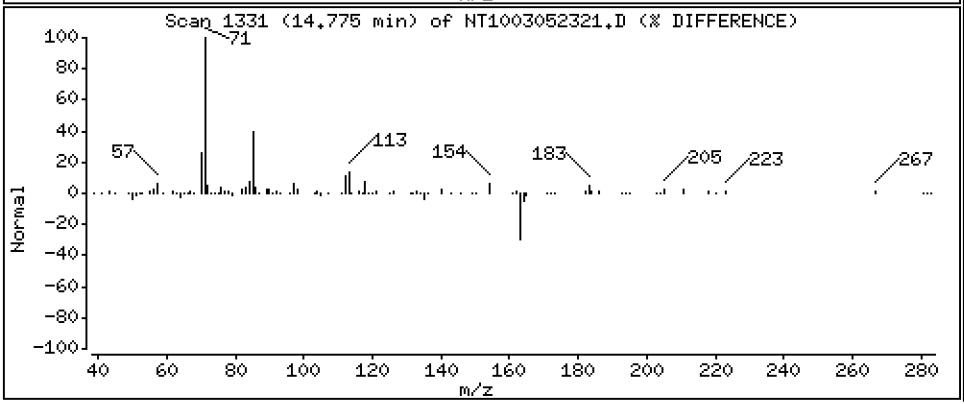












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

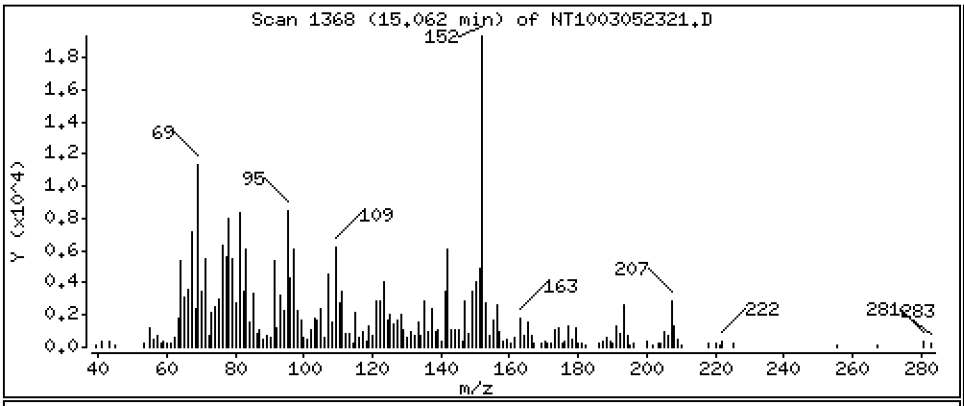
Operator: VTS

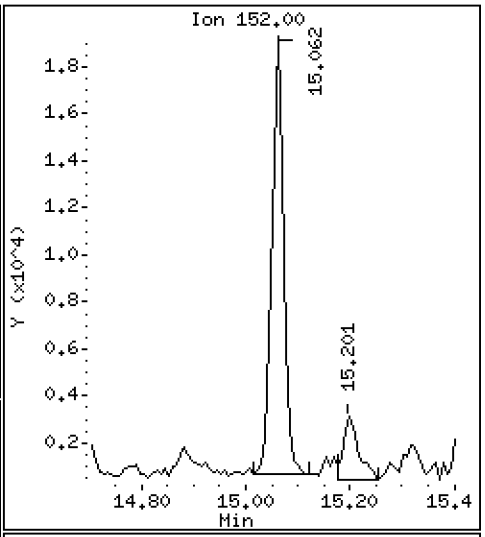
Column phase: ZB-5msi

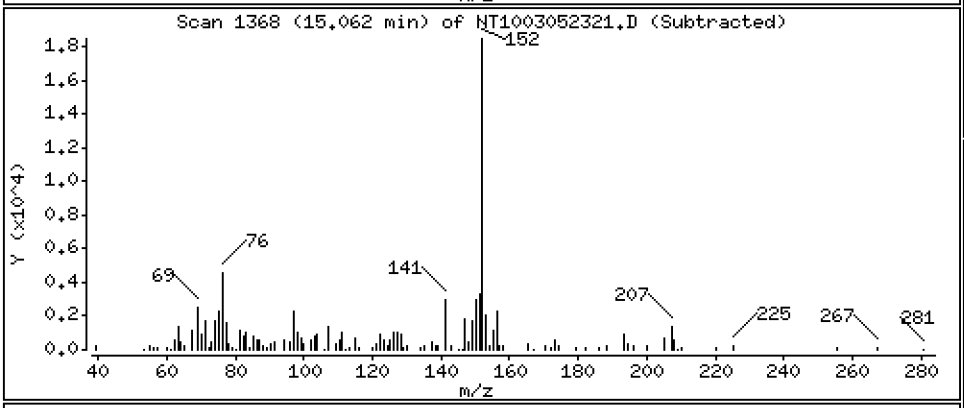
Column diameter: 0.25

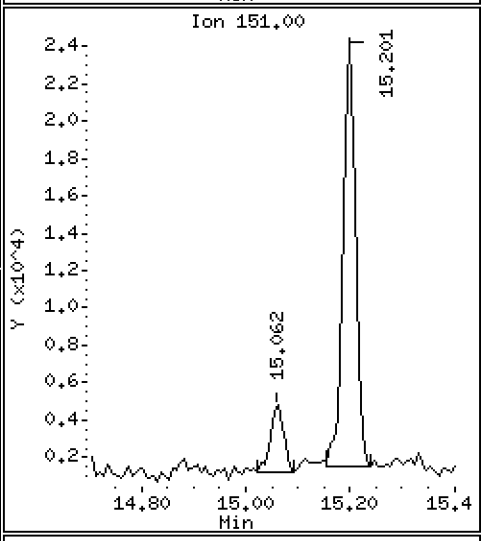
40 Acenaphthylene

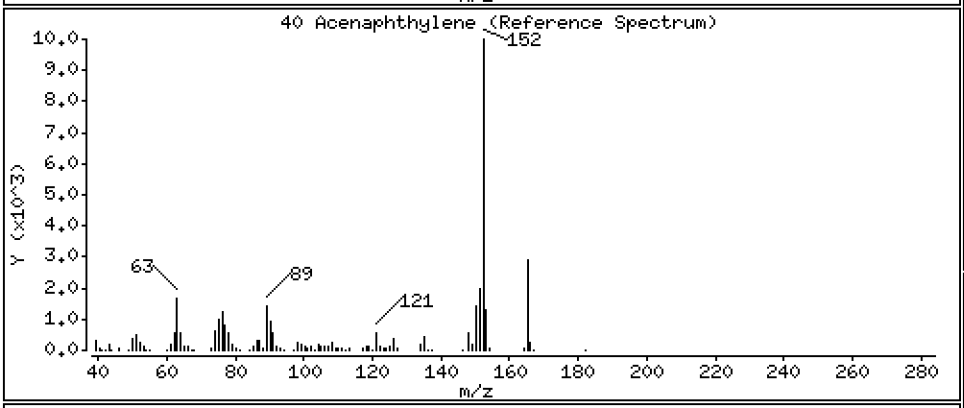
Concentration: 0.1251 ug/mL

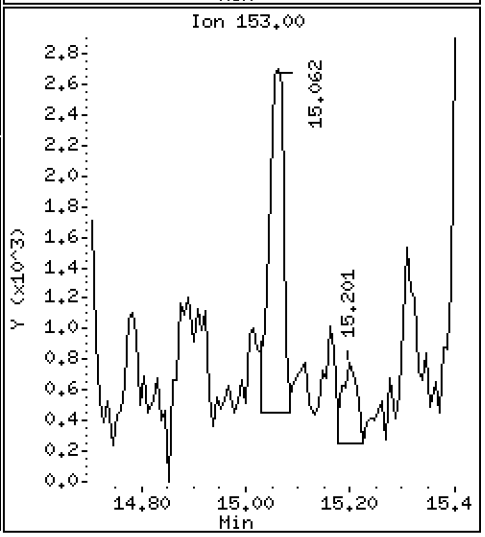


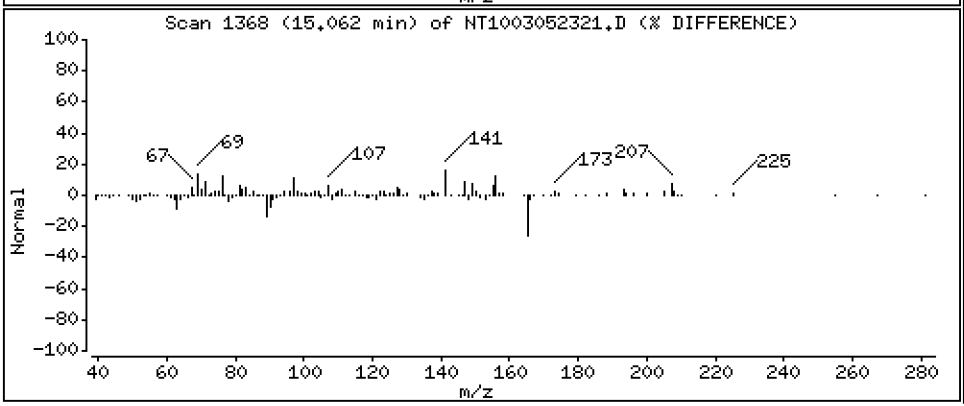












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

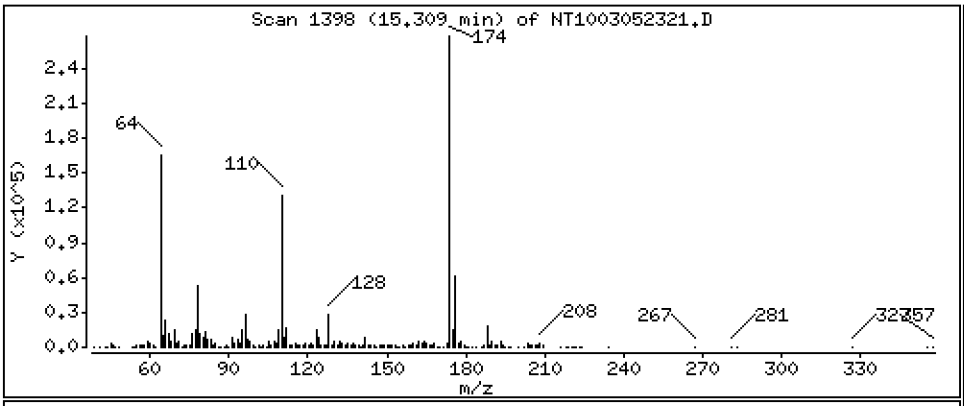
Operator: VTS

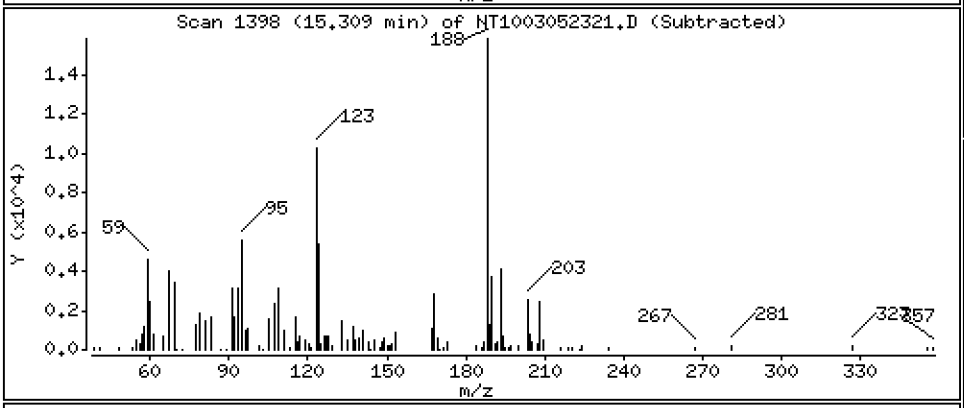
Column phase: ZB-5msi

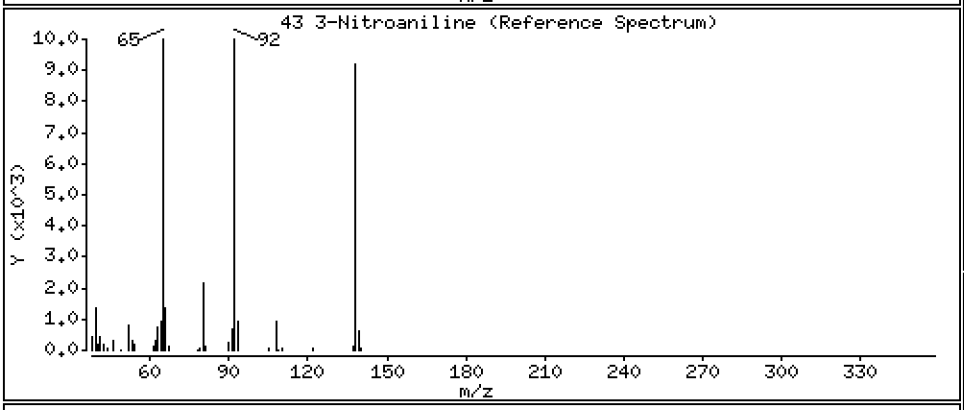
Column diameter: 0.25

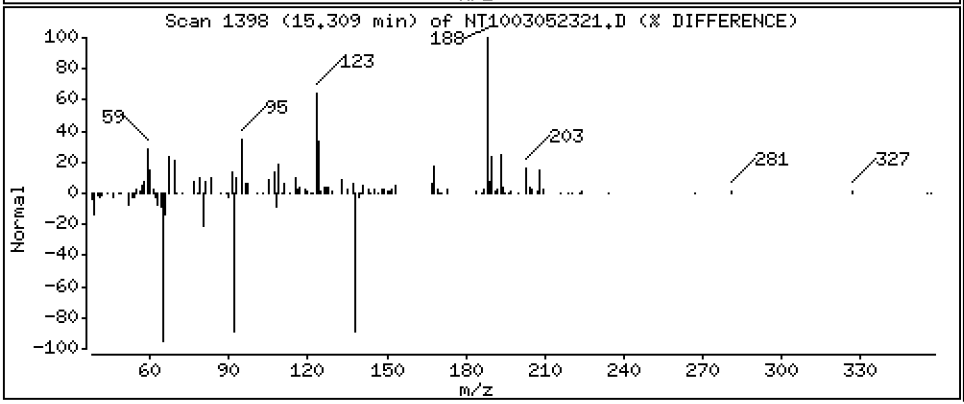
43 3-Nitroaniline

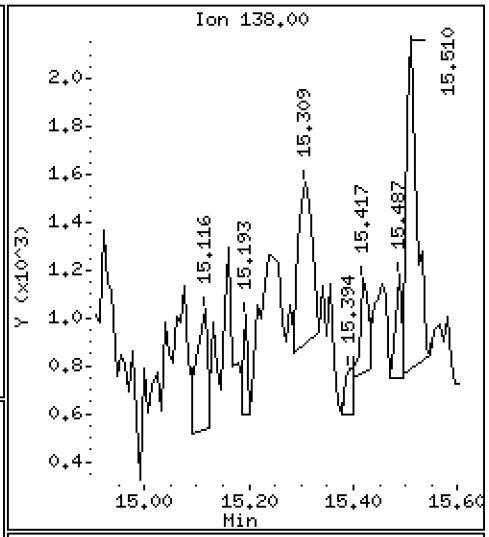
Concentration: 0.02854 ug/mL

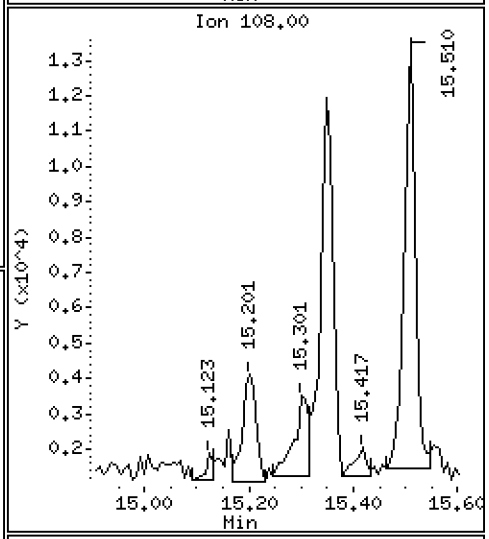


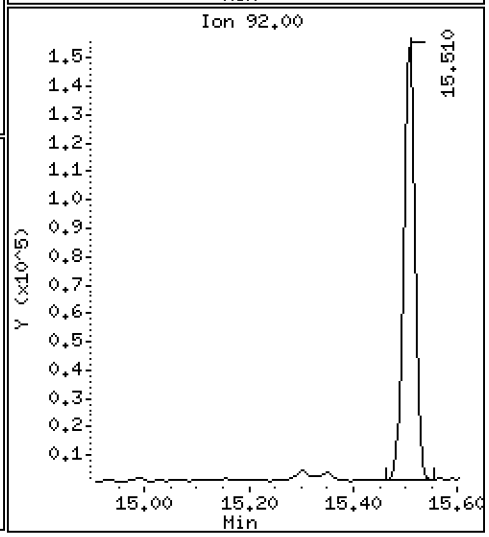












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

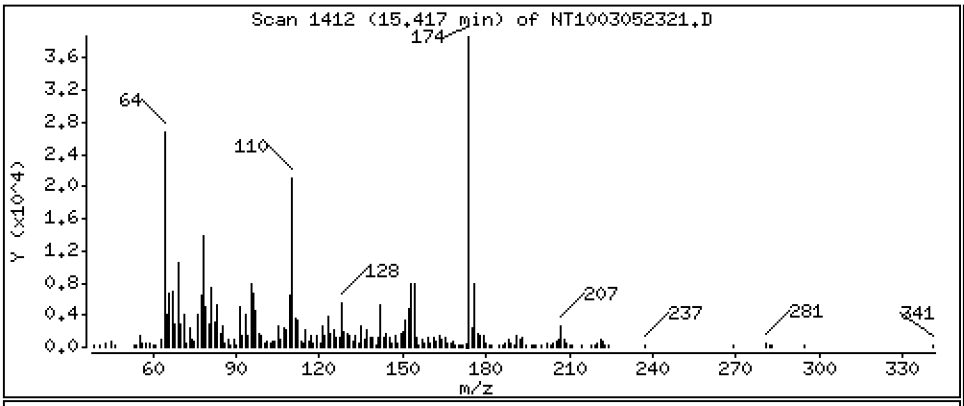
Operator: VTS

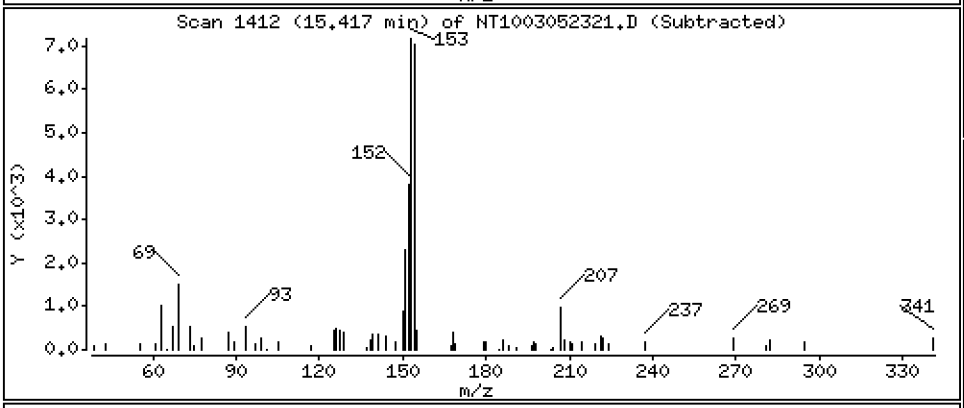
Column phase: ZB-5msi

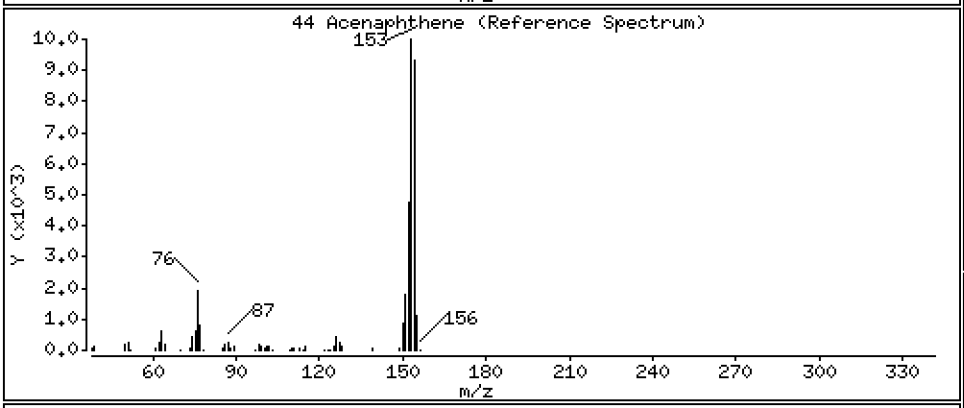
Column diameter: 0.25

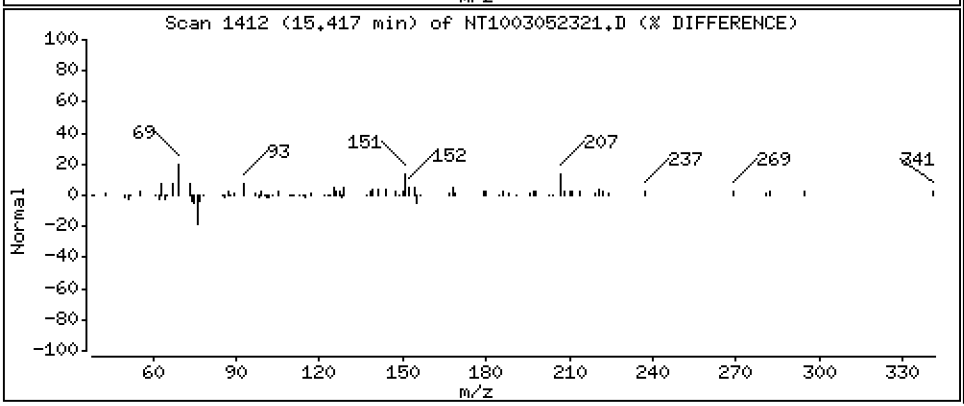
44 Acenaphthene

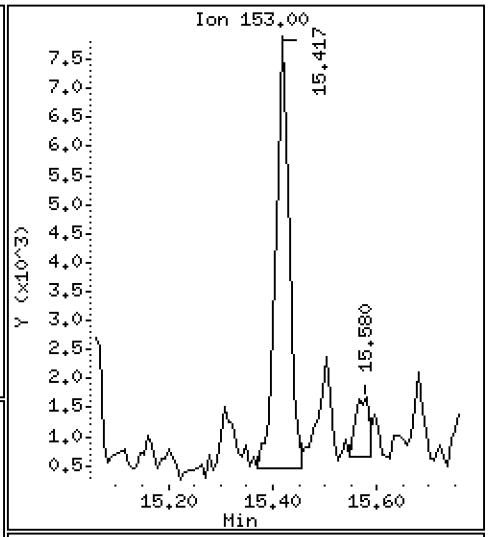
Concentration: 0.08227 ug/mL

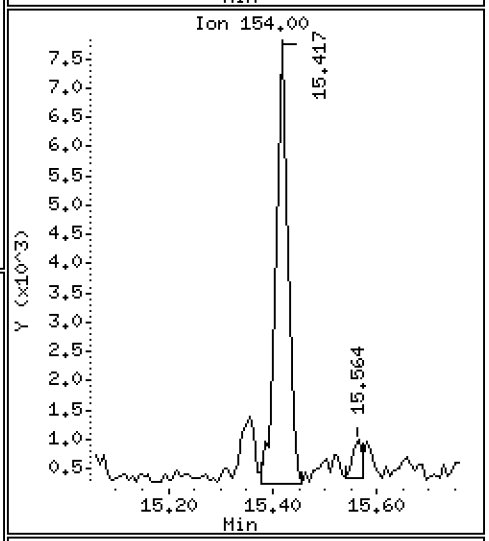


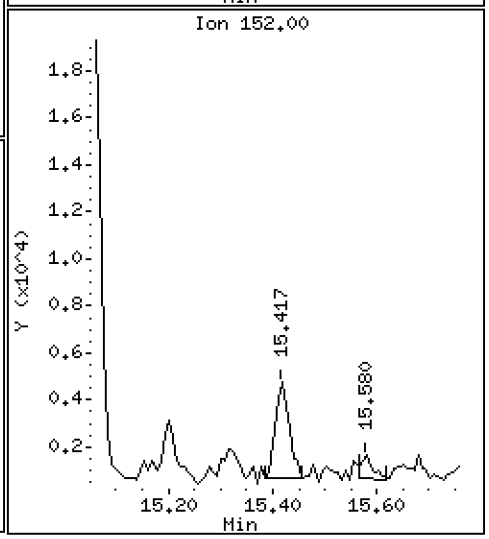












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

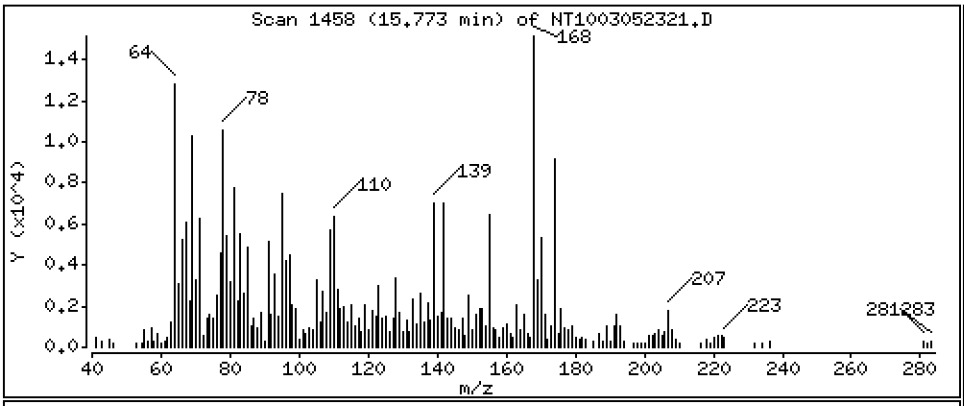
Operator: VTS

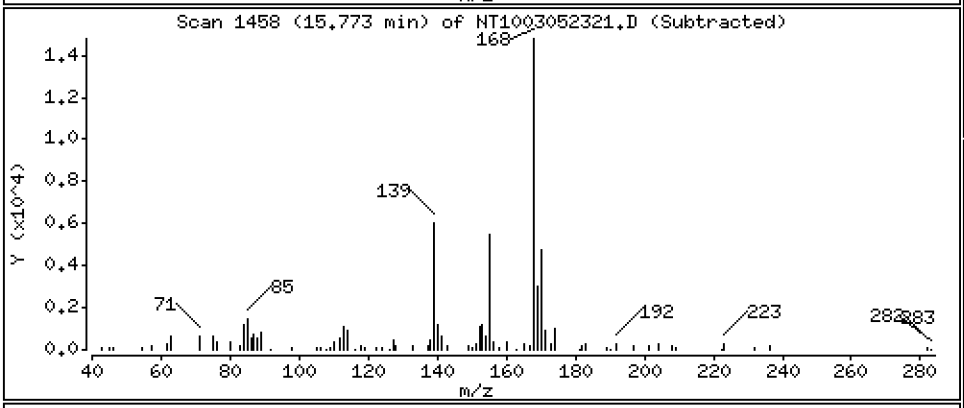
Column phase: ZB-5msi

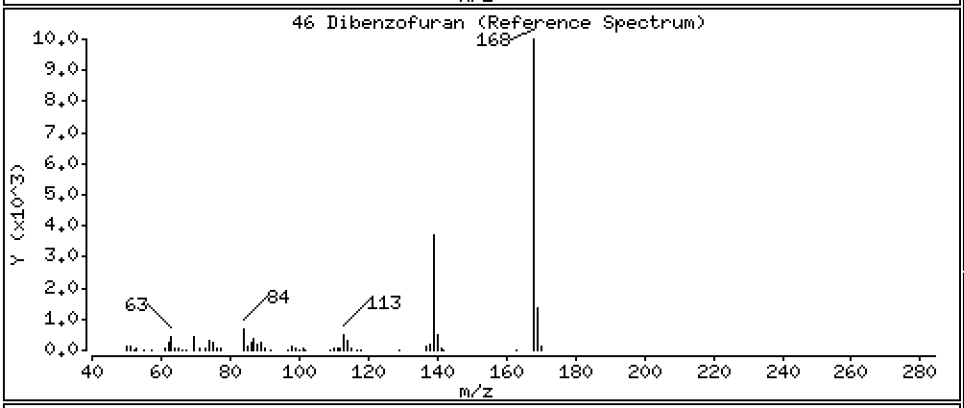
Column diameter: 0.25

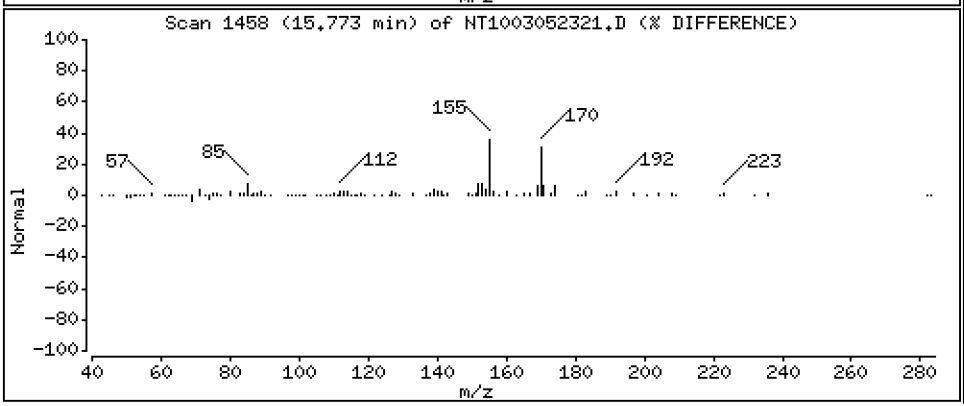
46 Dibenzofuran

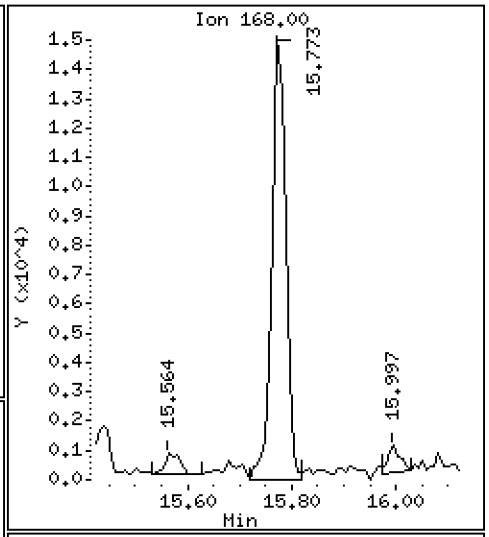
Concentration: 0.1119 ug/mL

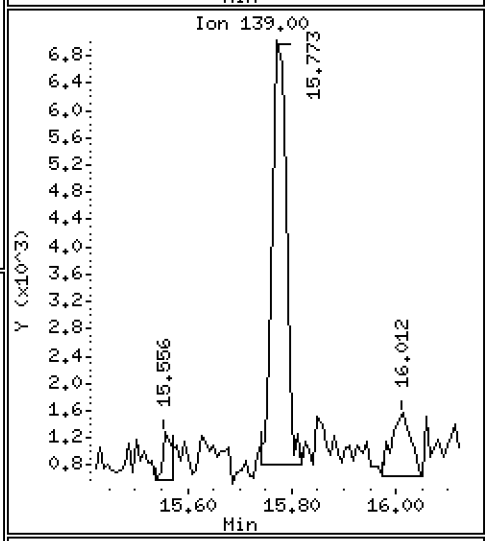


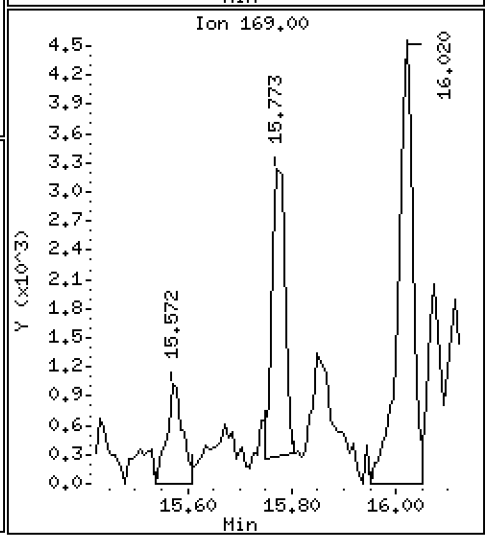












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052321.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

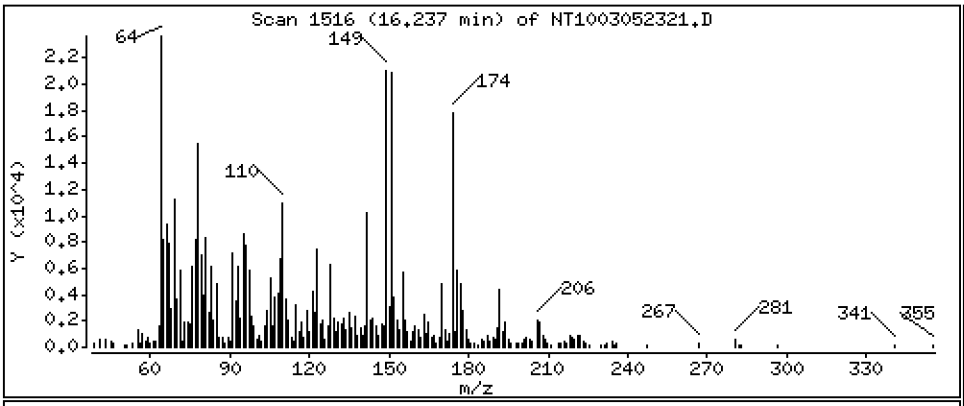
Operator: VTS

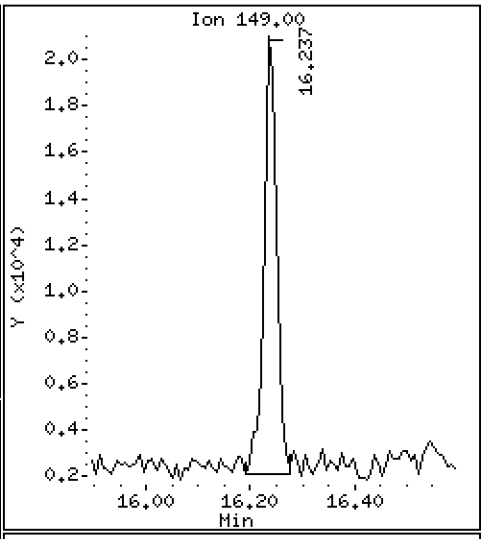
Column phase: ZB-5msi

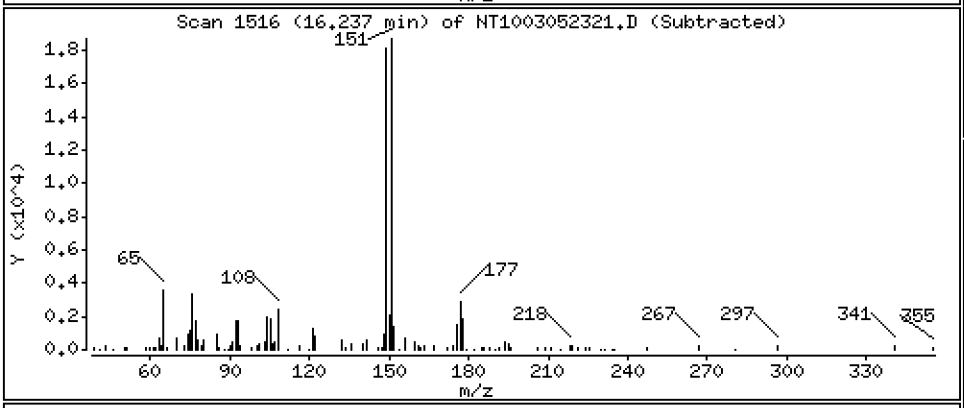
Column diameter: 0.25

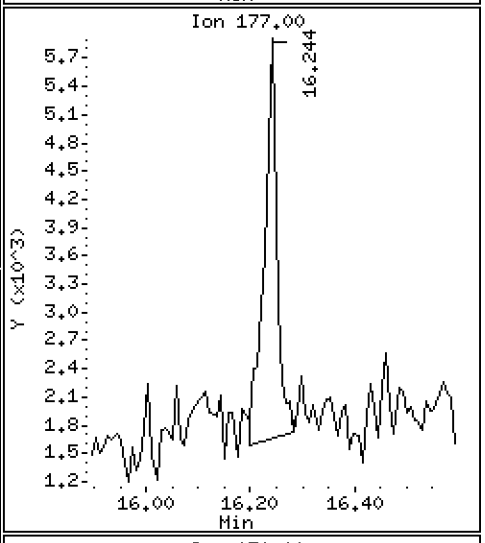
50 Diethylphthalate

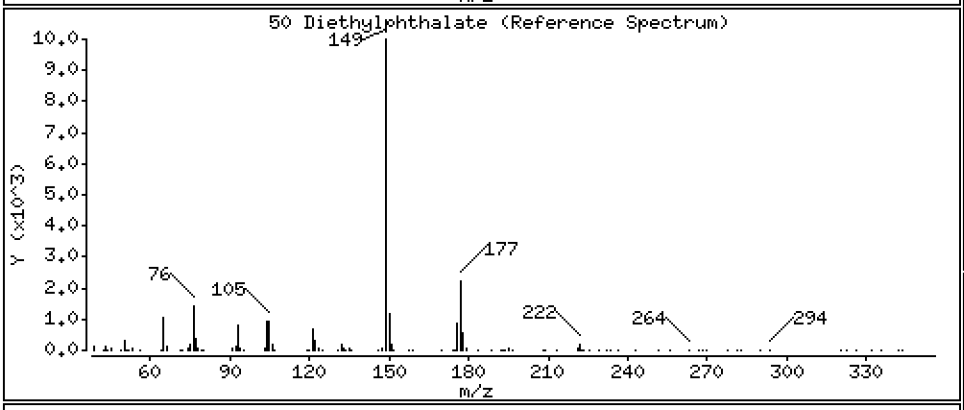
Concentration: 0.1646 ug/mL

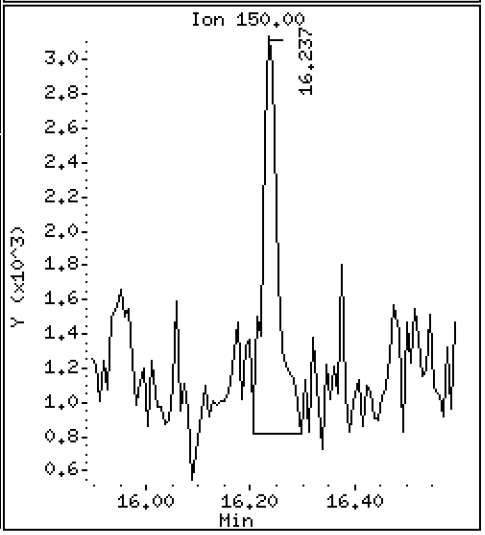


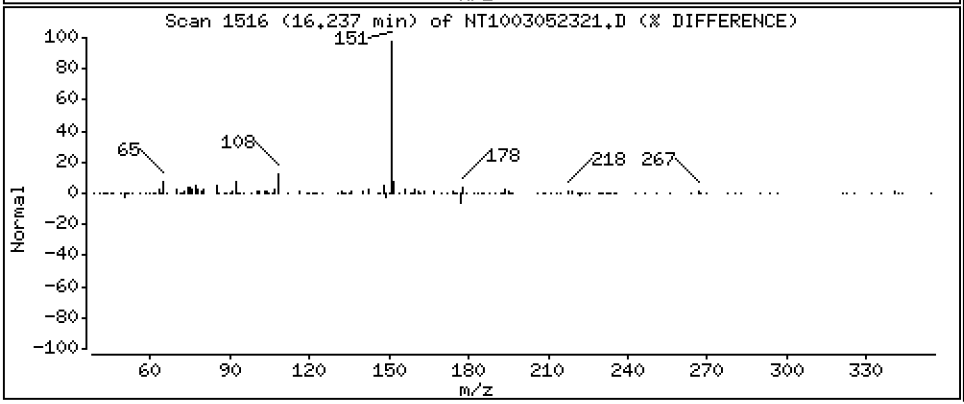












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

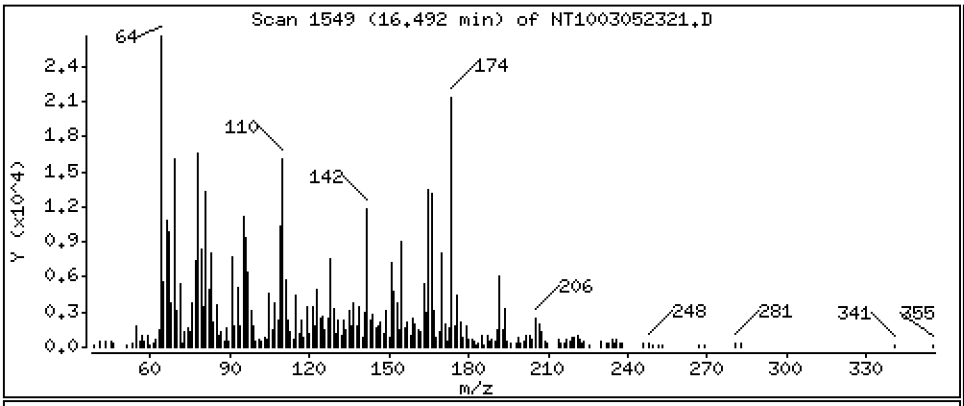
Operator: VTS

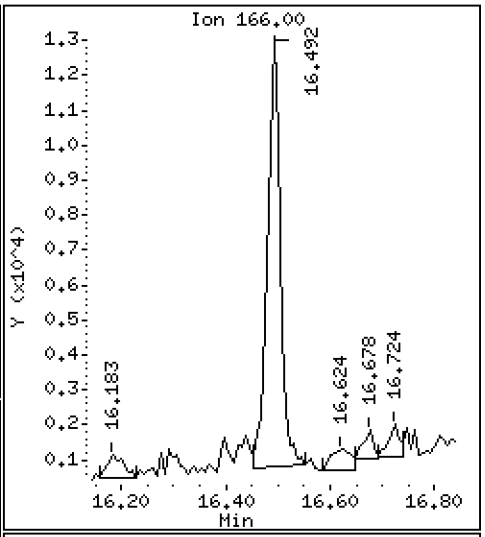
Column phase: ZB-5msi

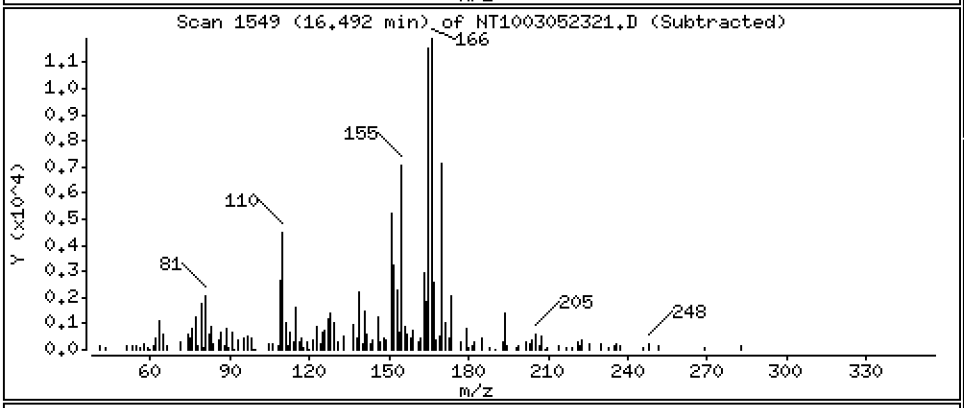
Column diameter: 0.25

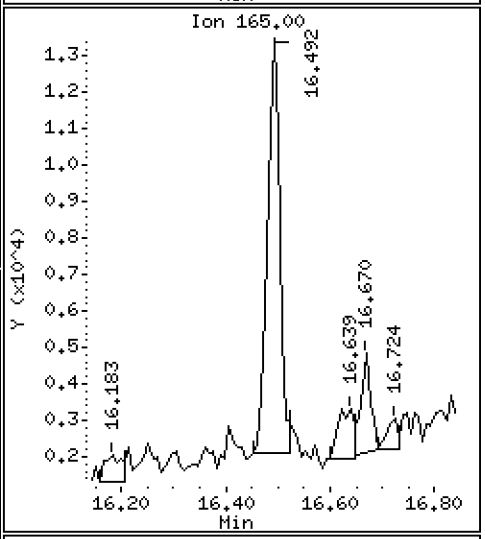
49 Fluorene

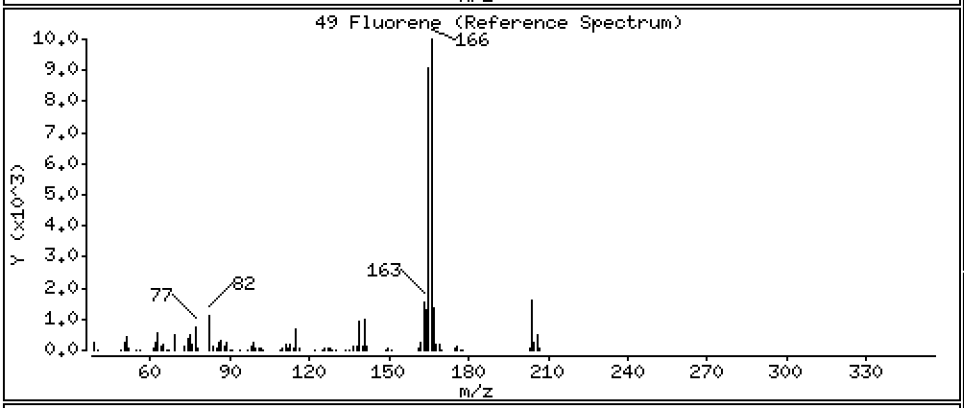
Concentration: 0.1054 ug/mL

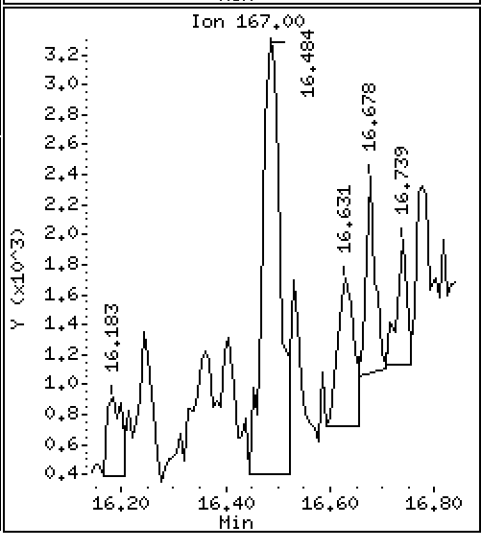


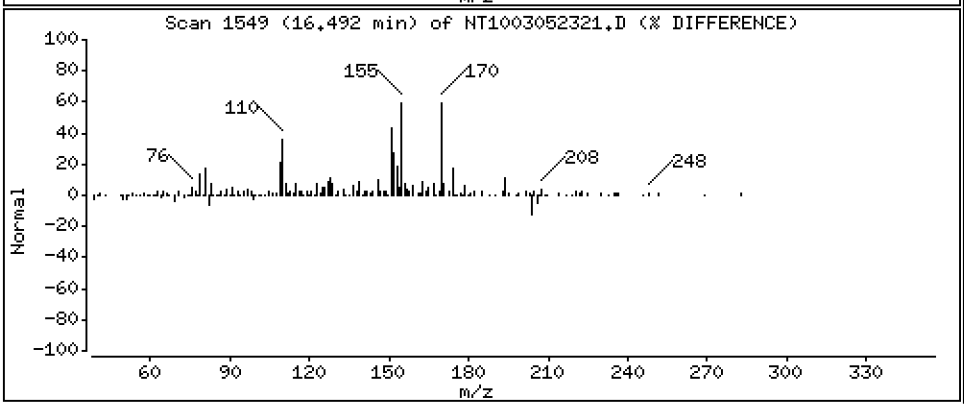












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

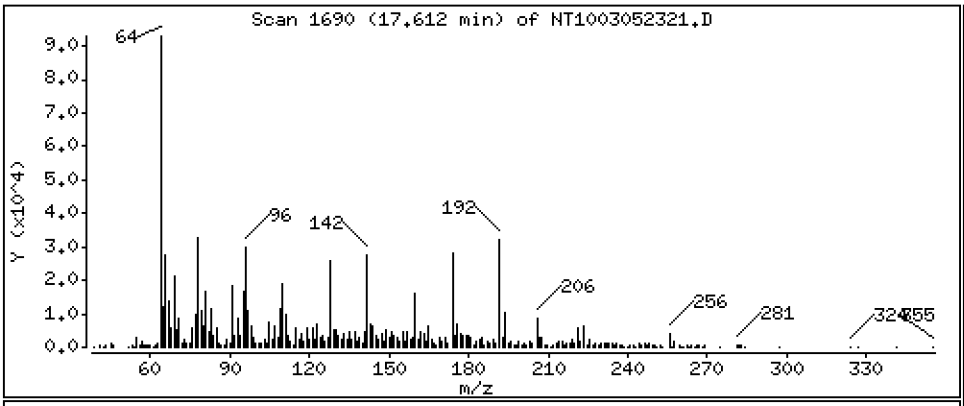
Operator: VTS

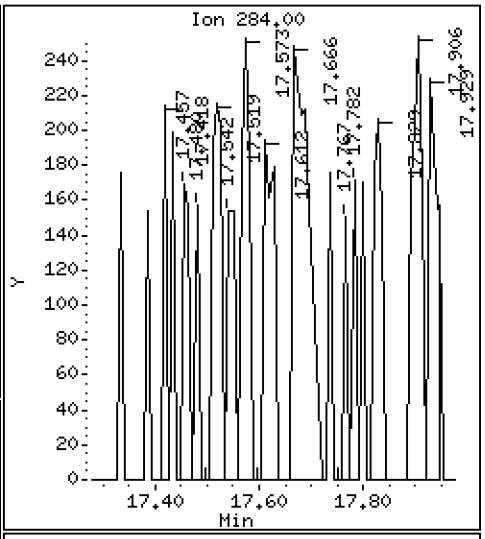
Column phase: ZB-5msi

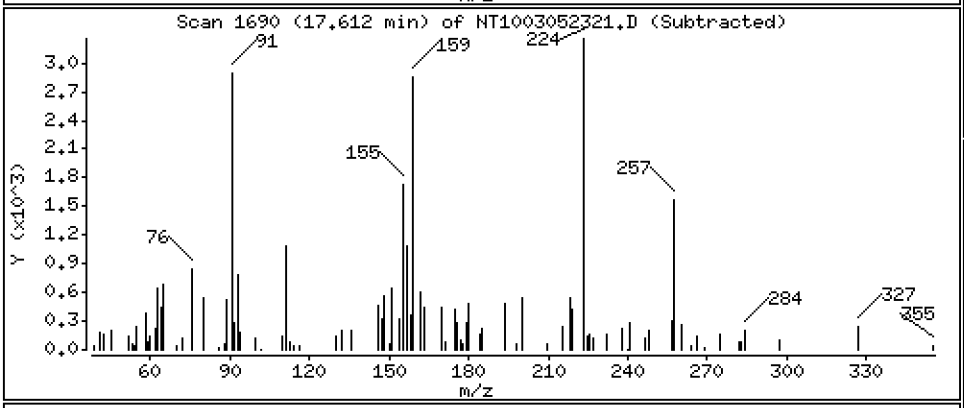
Column diameter: 0.25

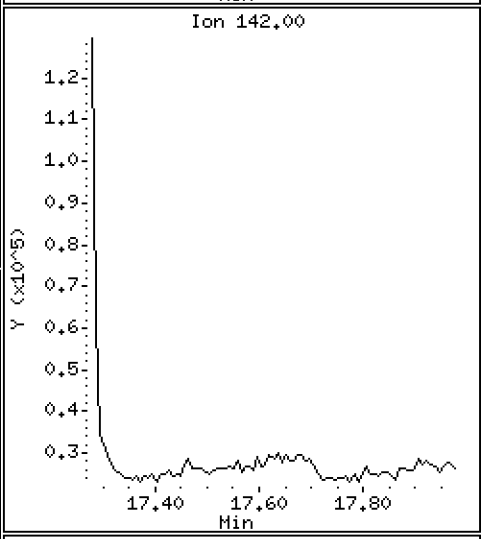
57 Hexachlorobenzene

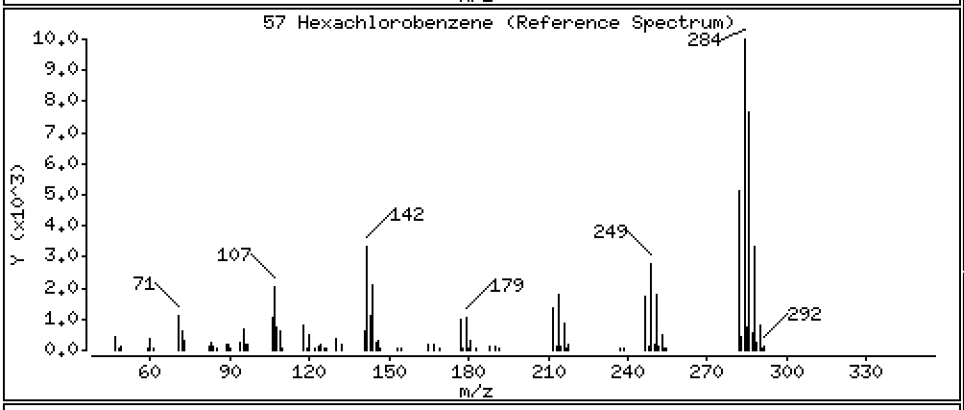
Concentration: 0.003691 ug/mL

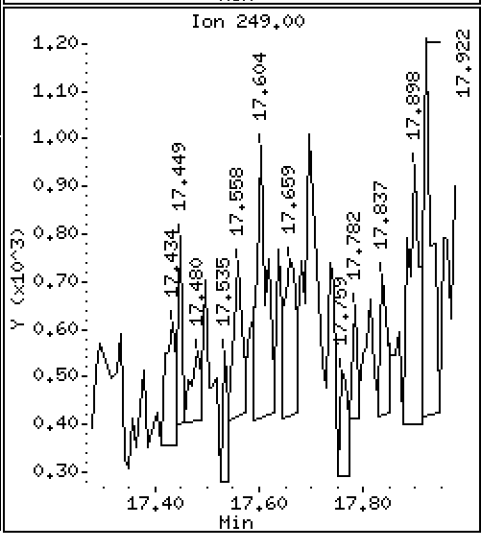


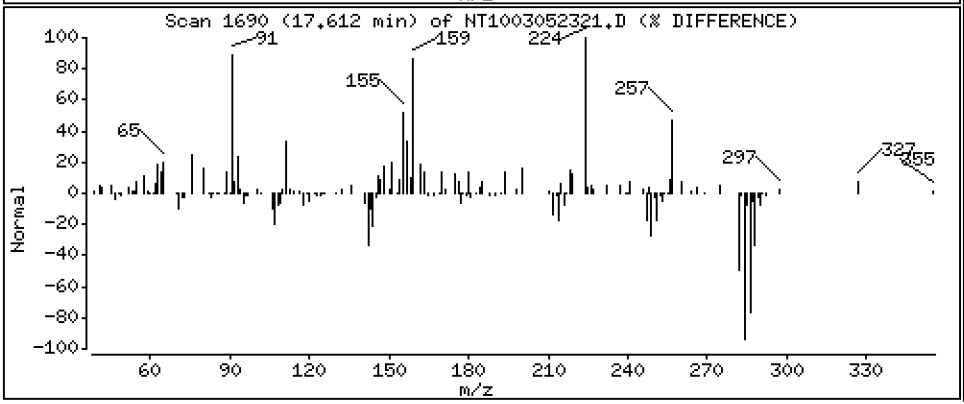












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

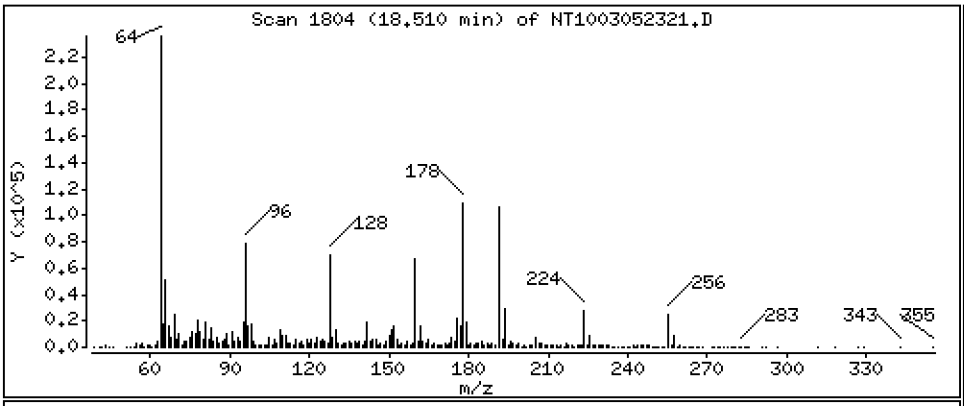
Operator: VTS

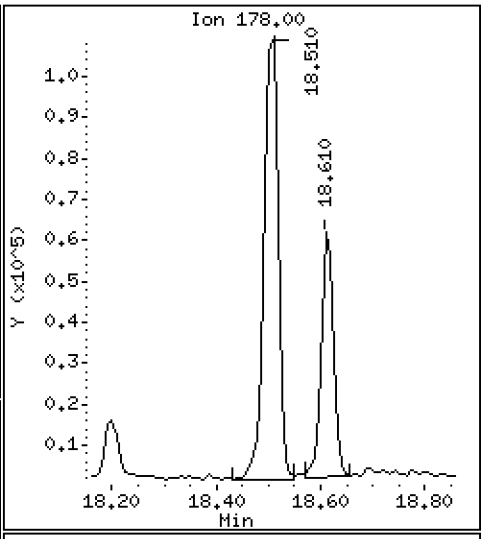
Column phase: ZB-5msi

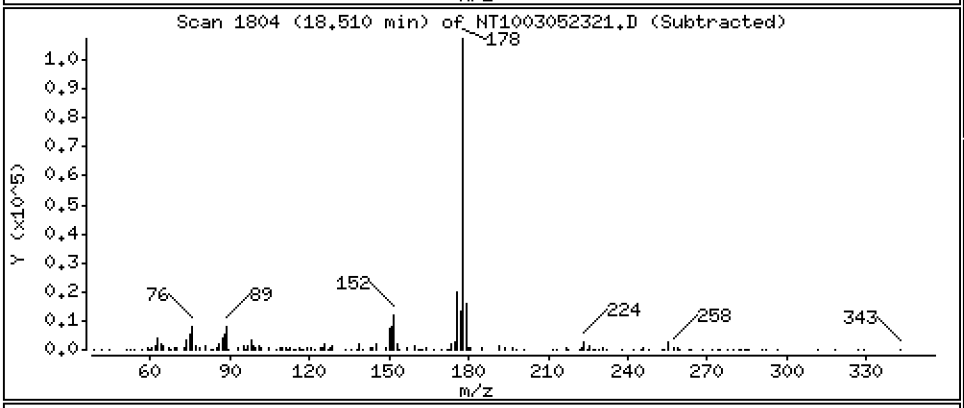
Column diameter: 0.25

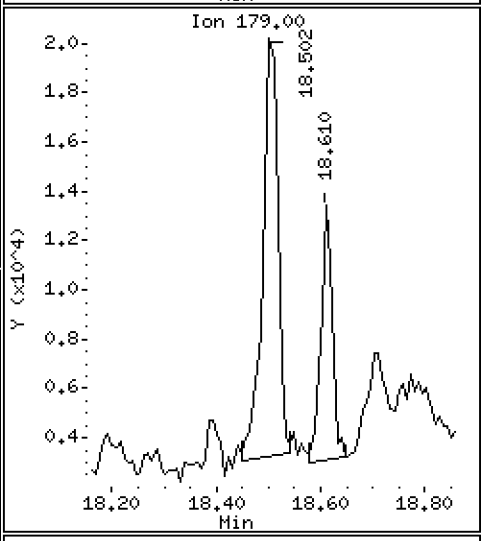
60 Phenanthrene

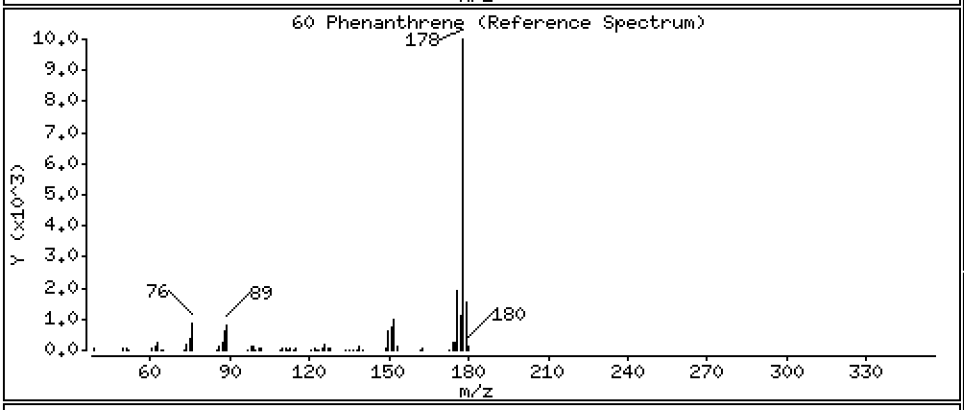
Concentration: 0.7677 ug/mL

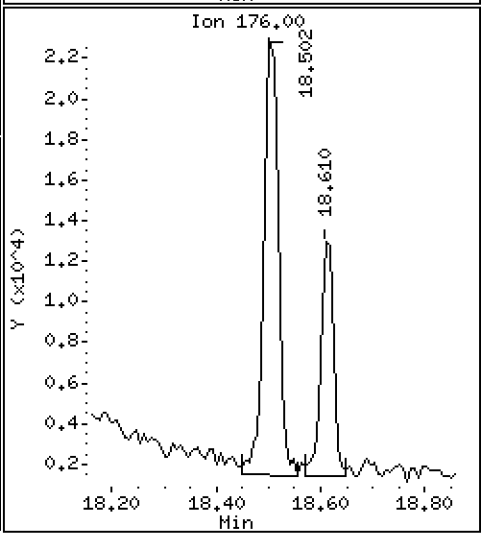


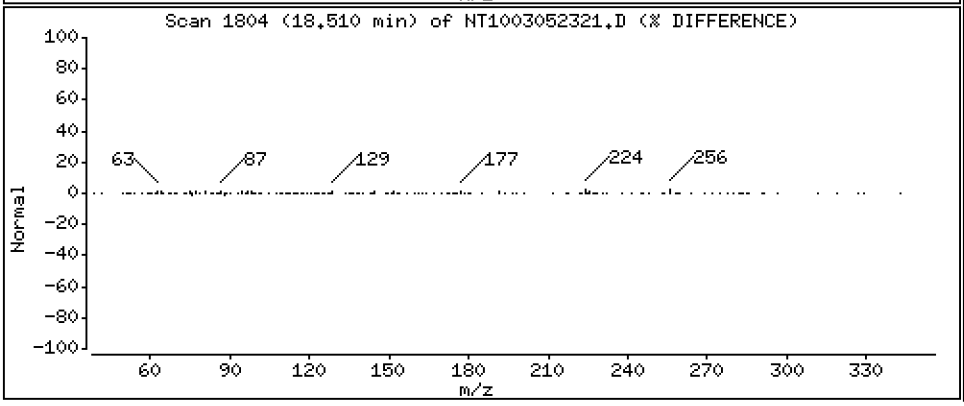












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

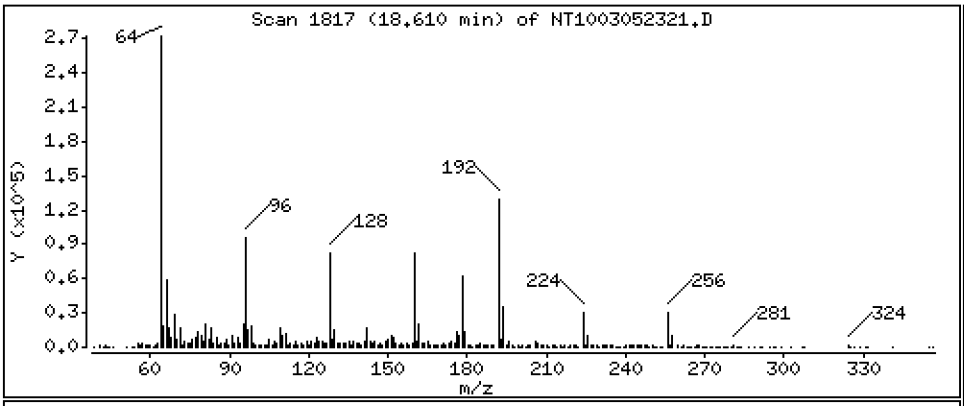
Operator: VTS

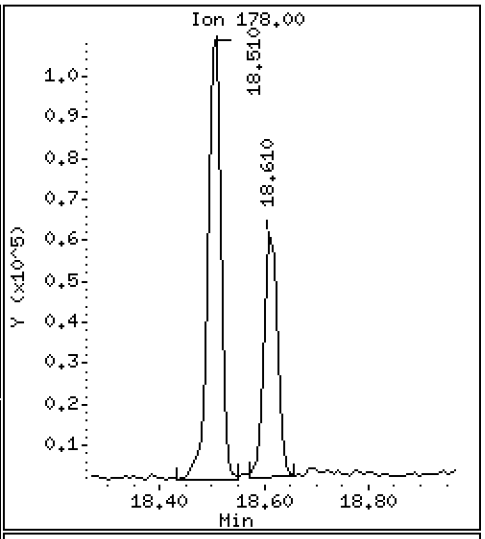
Column phase: ZB-5msi

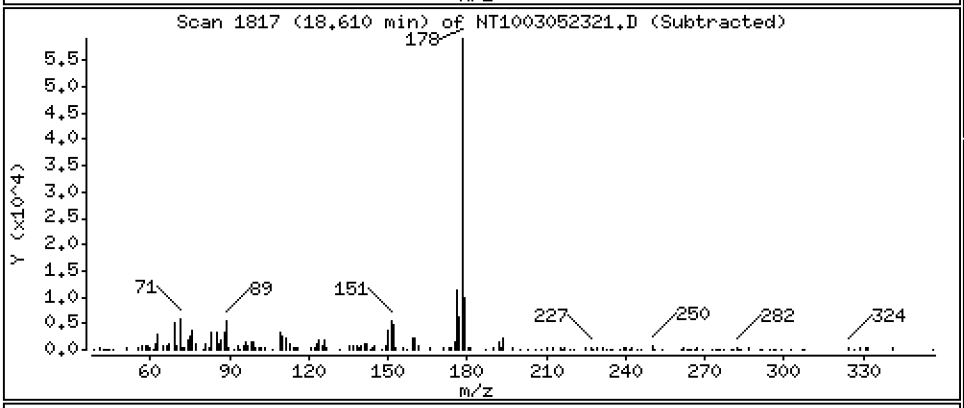
Column diameter: 0.25

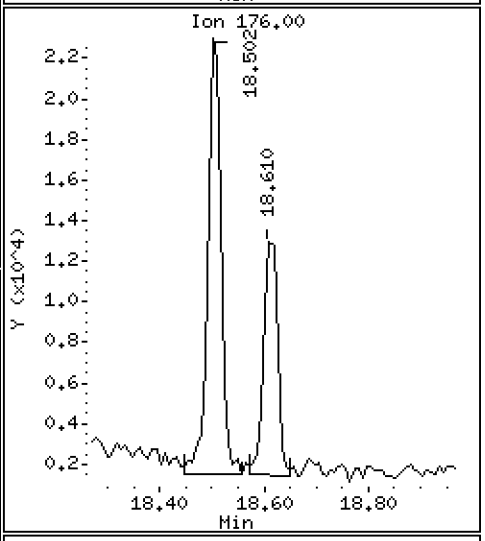
61 Anthracene

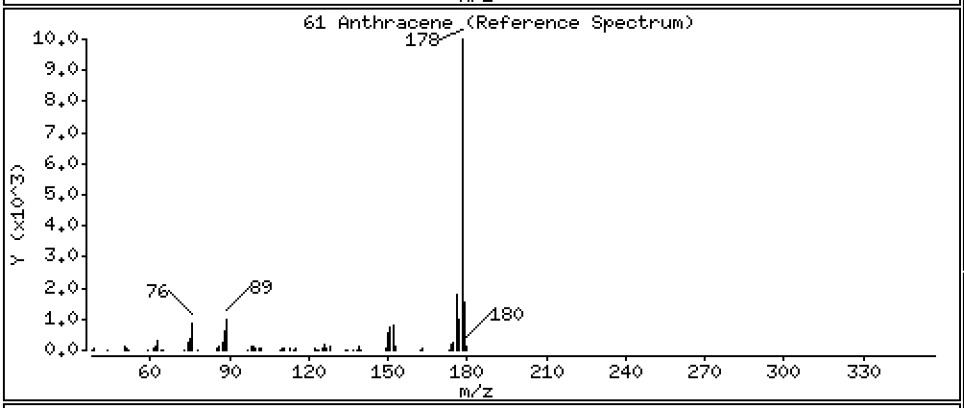
Concentration: 0.4084 ug/mL

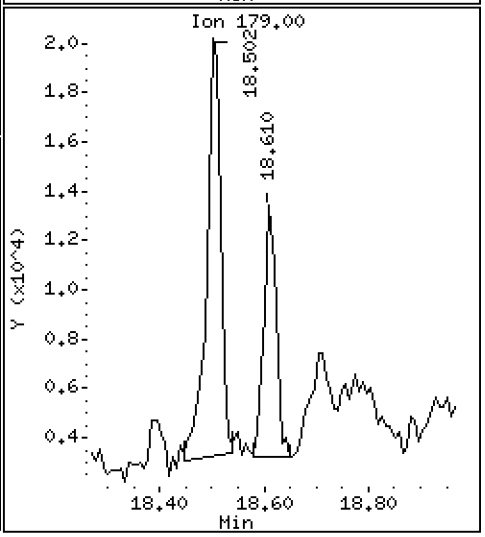


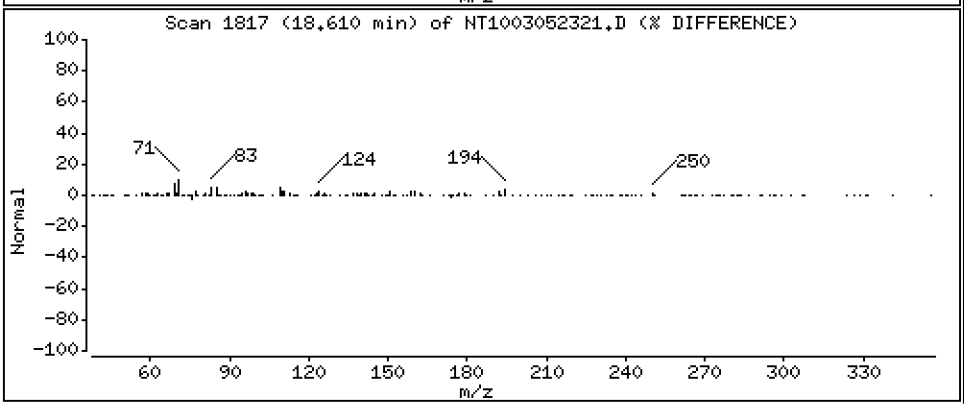












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

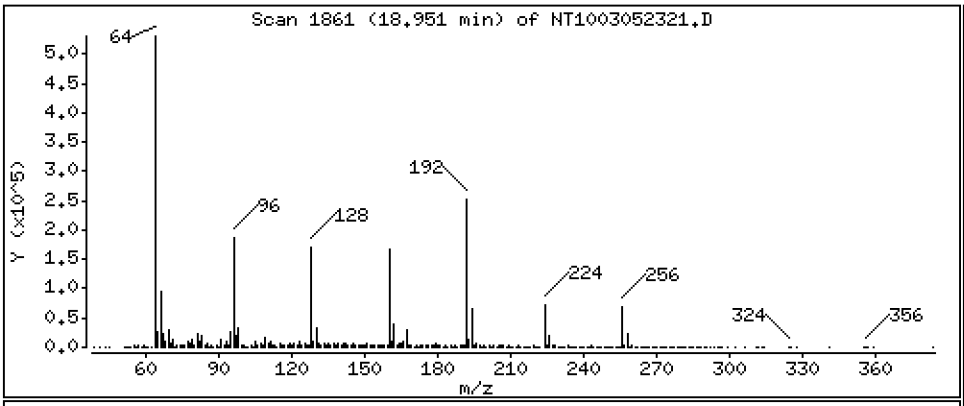
Operator: VTS

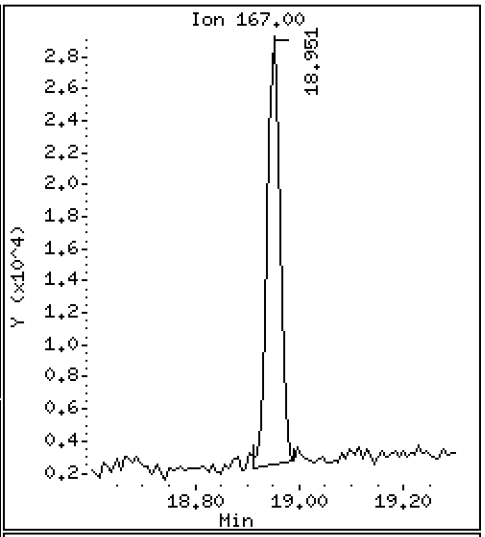
Column phase: ZB-5msi

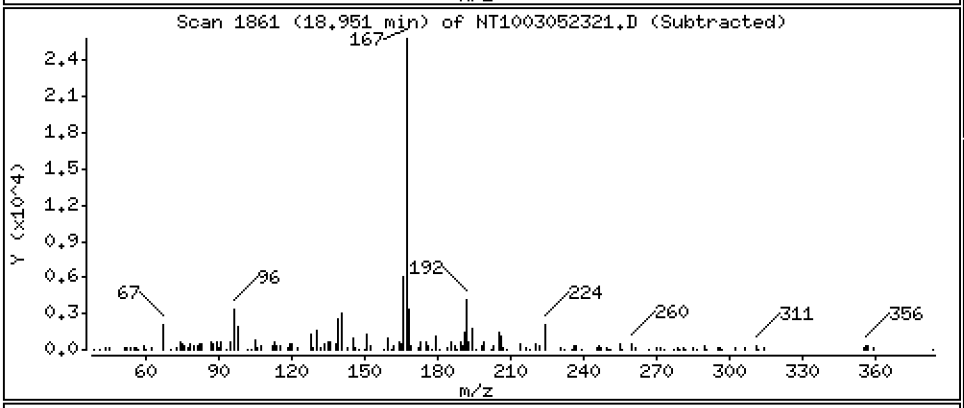
Column diameter: 0.25

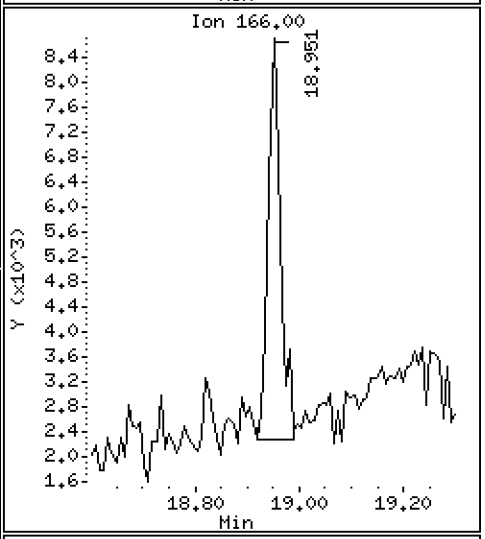
62 Carbazole

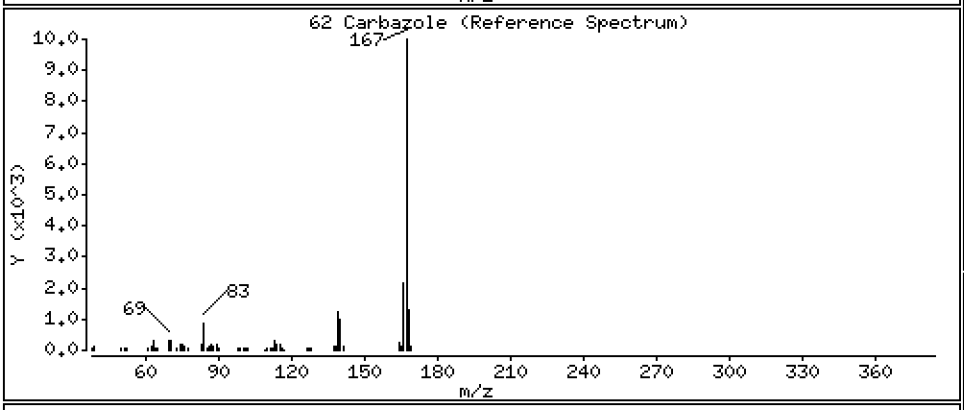
Concentration: 0.1912 ug/mL

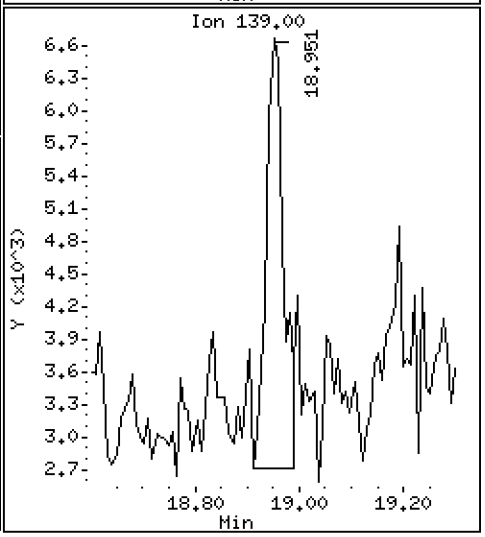


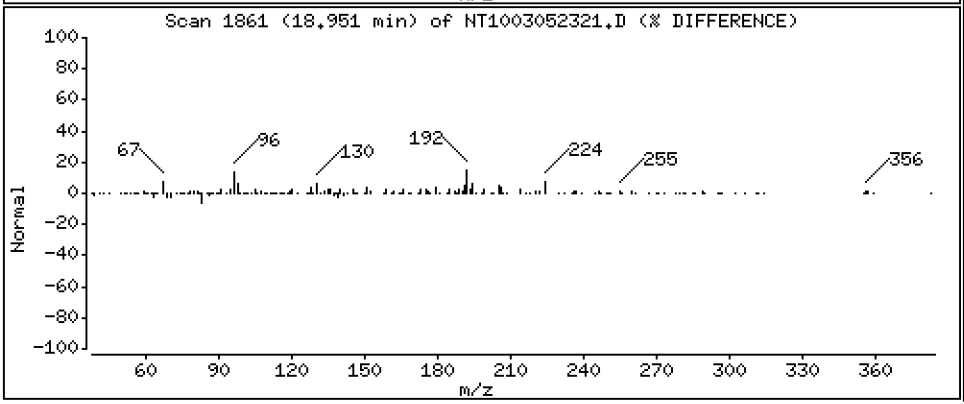












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

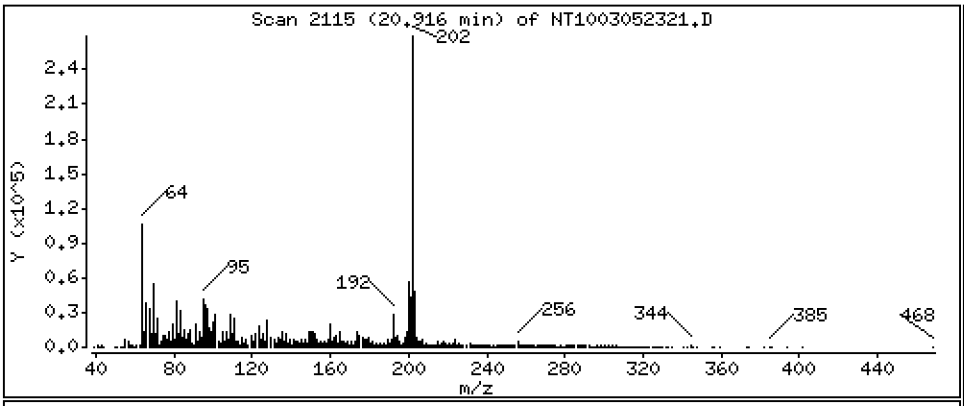
Operator: VTS

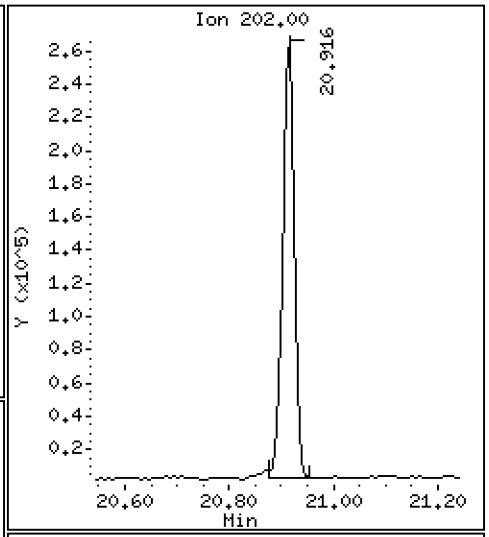
Column phase: ZB-5msi

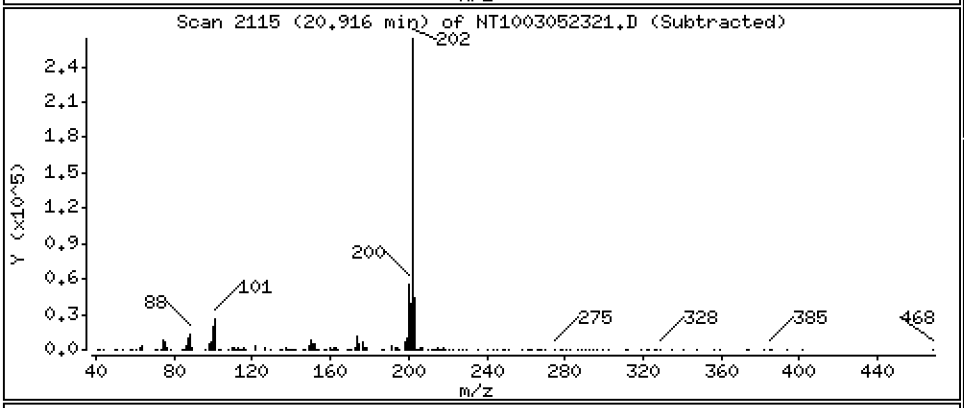
Column diameter: 0.25

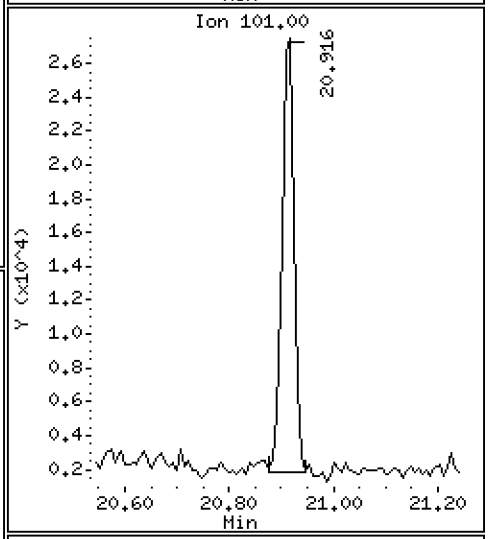
64 Fluoranthene

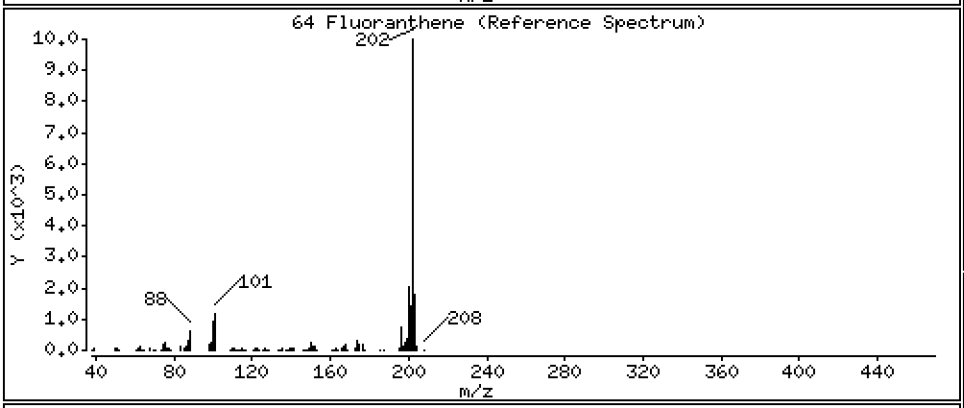
Concentration: 1.262 ug/mL

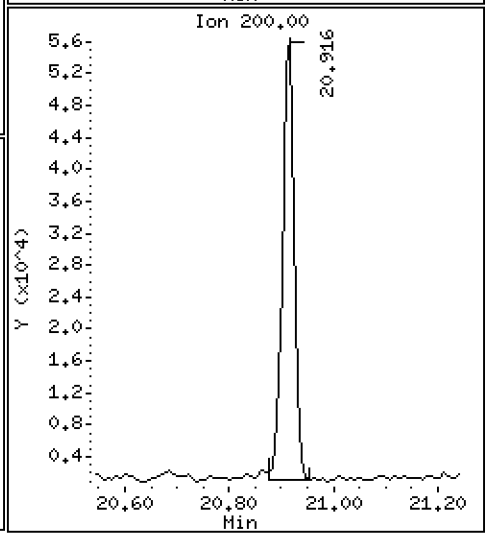


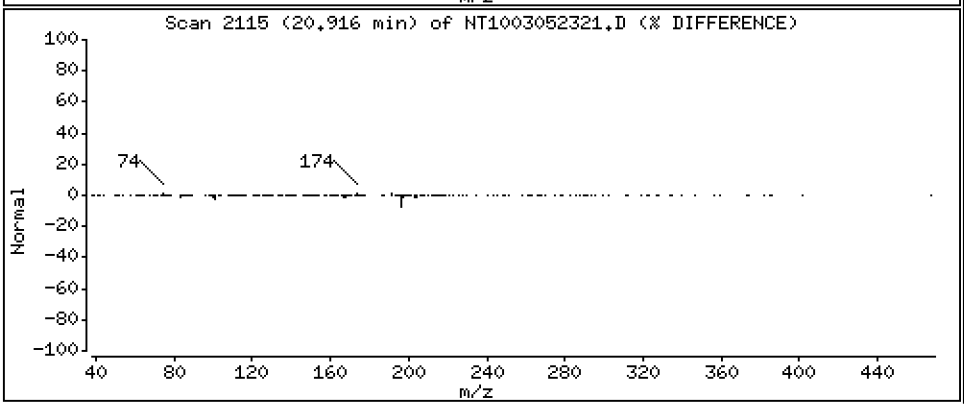












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052321.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

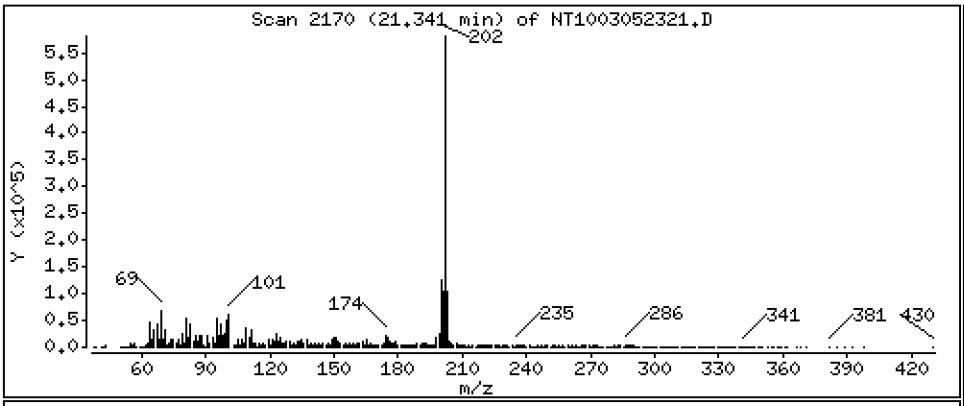
Operator: VTS

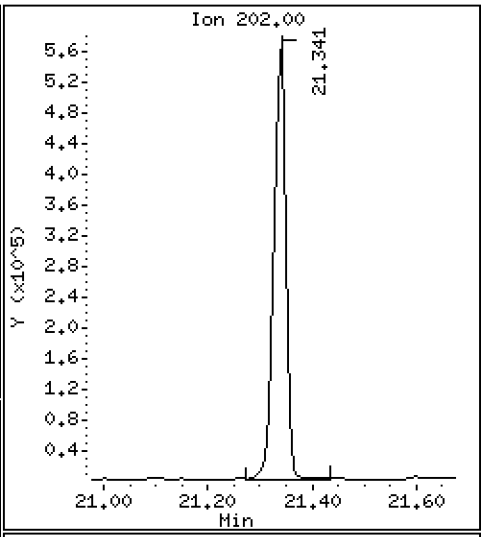
Column phase: ZB-5msi

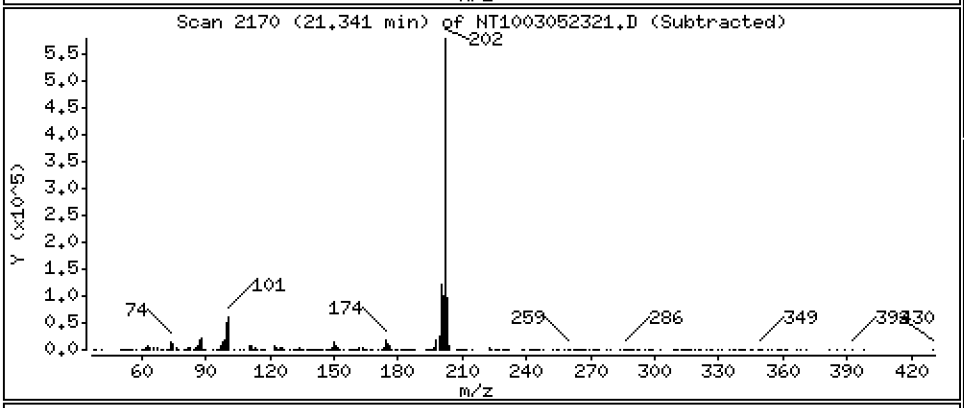
Column diameter: 0.25

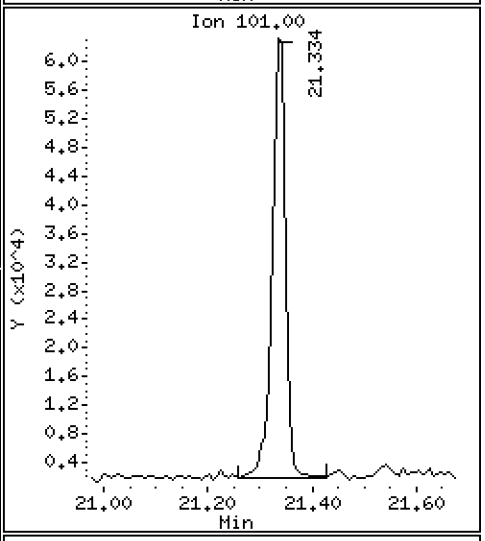
65 Pyrene

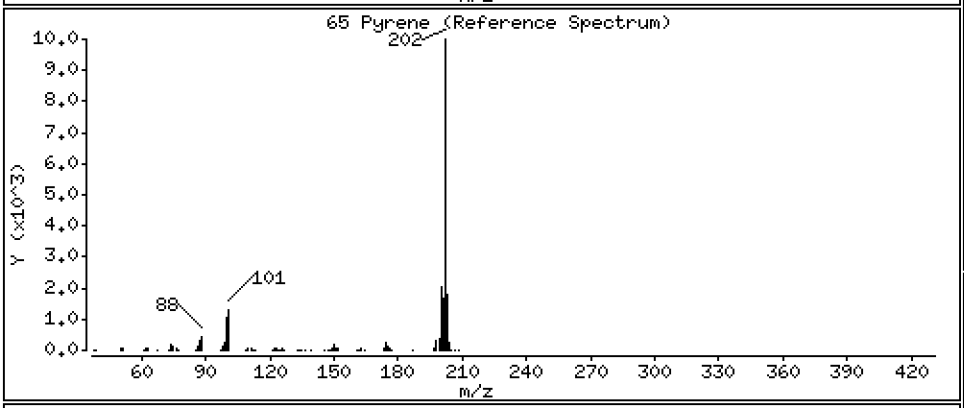
Concentration: 2.894 ug/mL

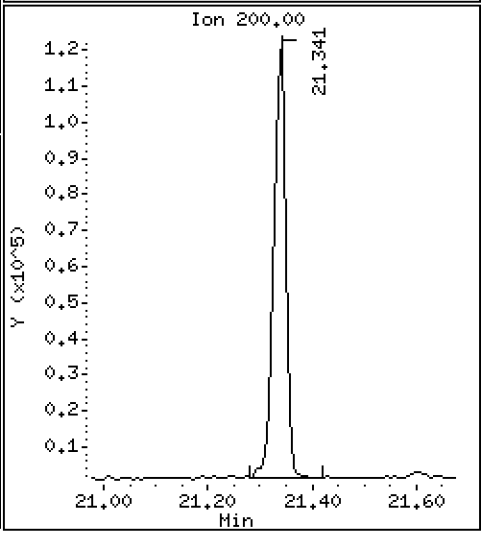


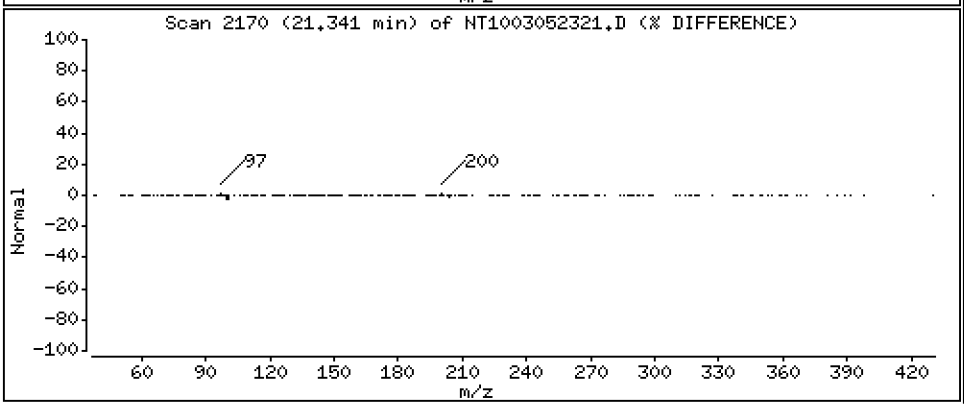












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

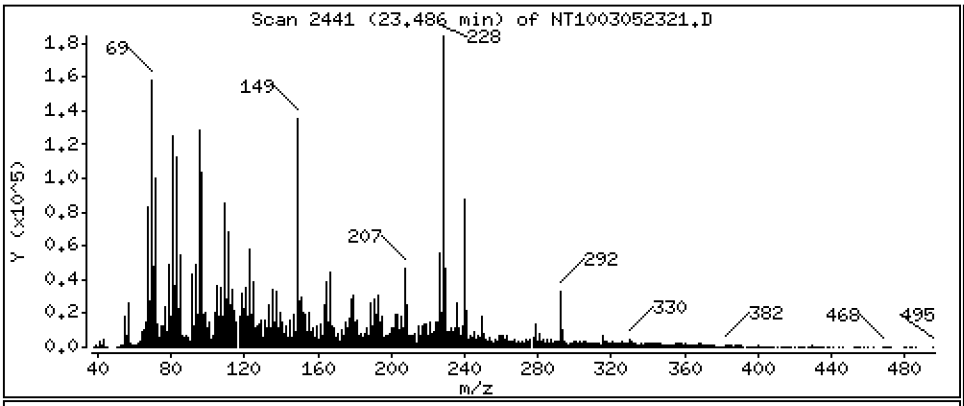
Operator: VTS

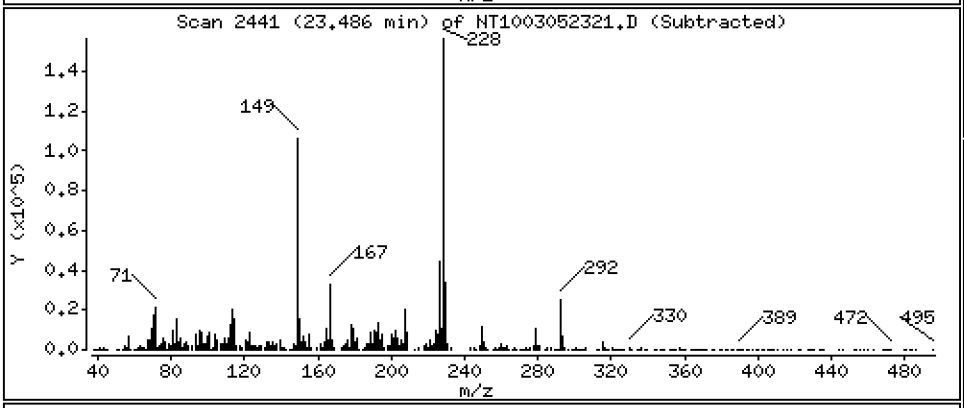
Column phase: ZB-5msi

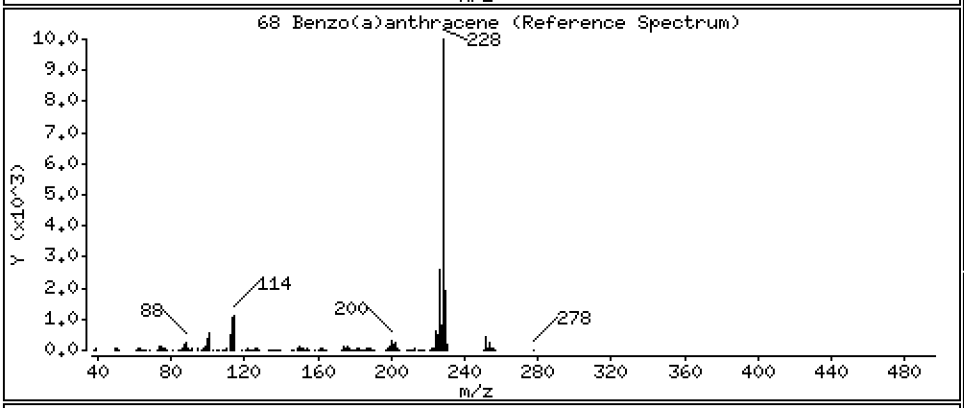
Column diameter: 0.25

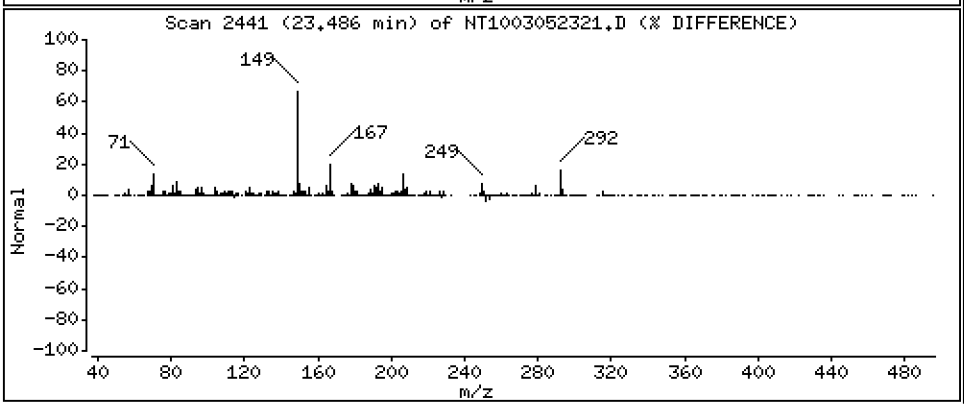
68 Benzo(a)anthracene

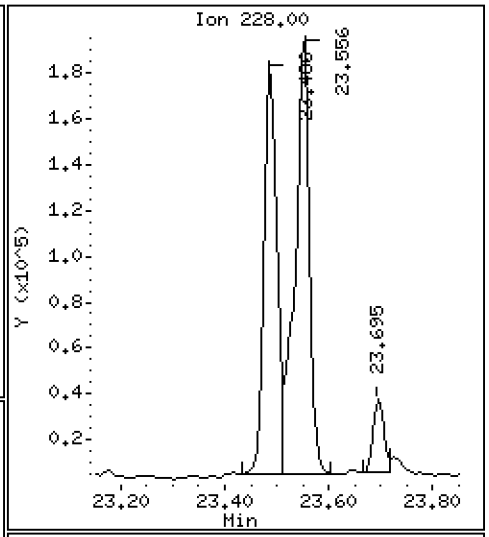
Concentration: 0.8874 ug/mL

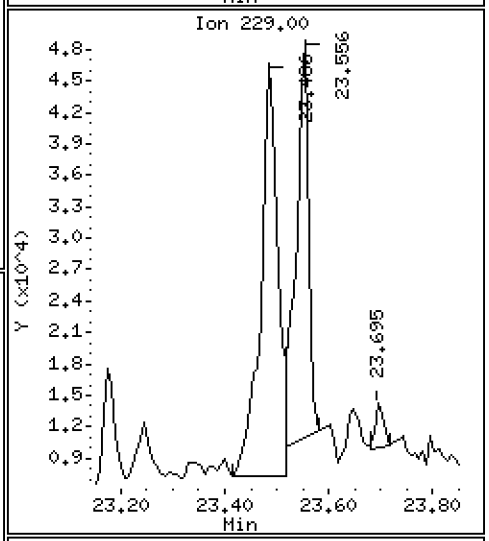


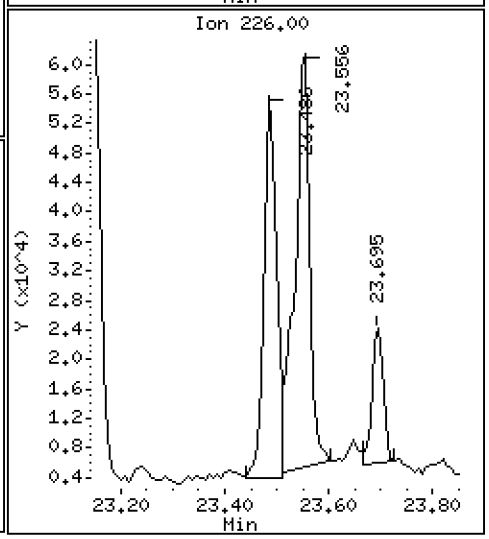












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052321.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

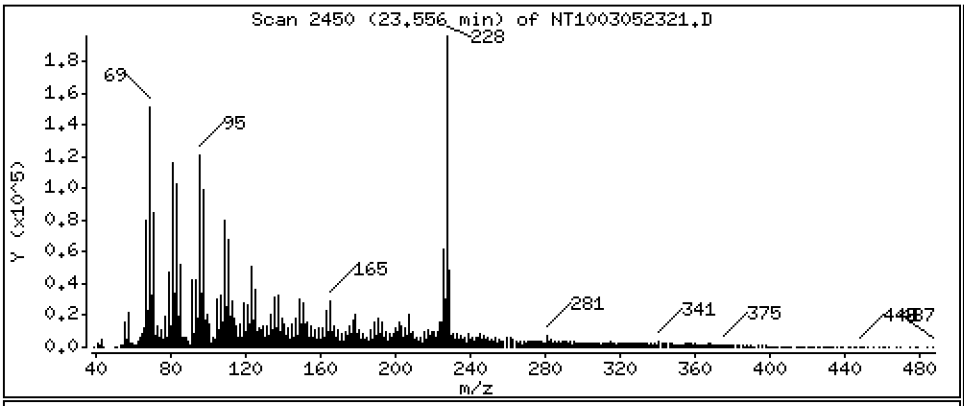
Operator: VTS

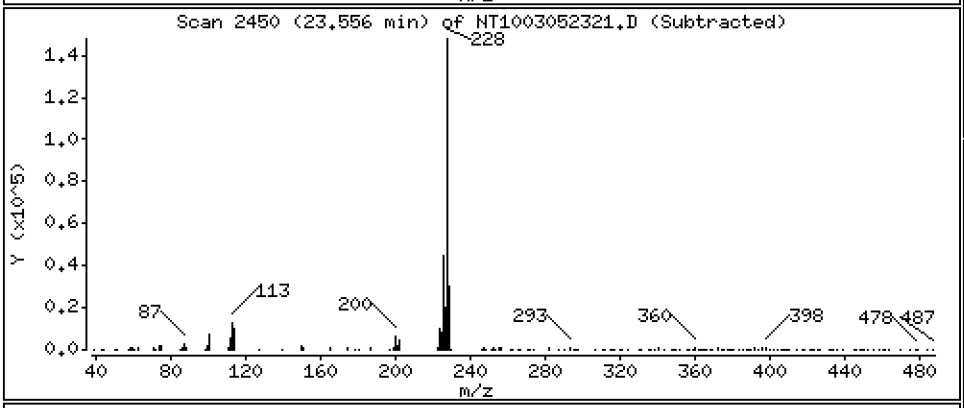
Column phase: ZB-5msi

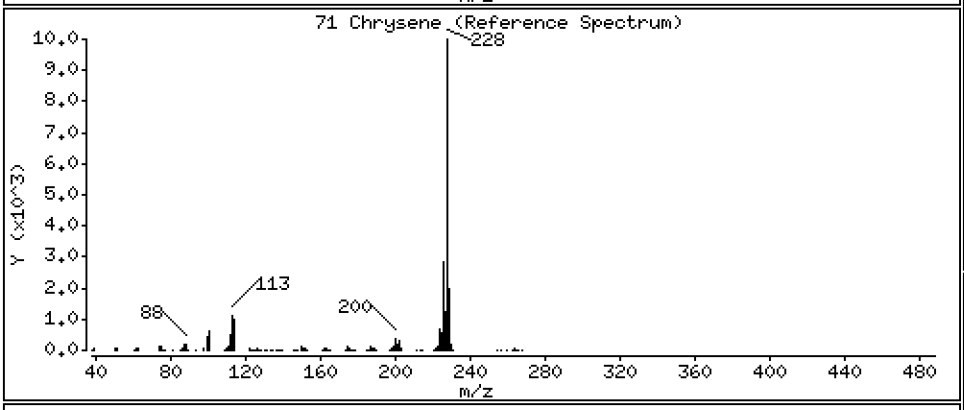
Column diameter: 0.25

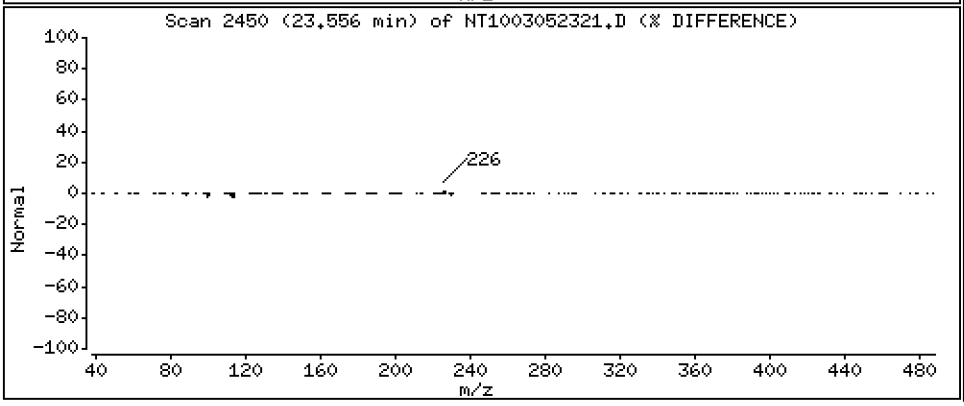
71 Chrysene

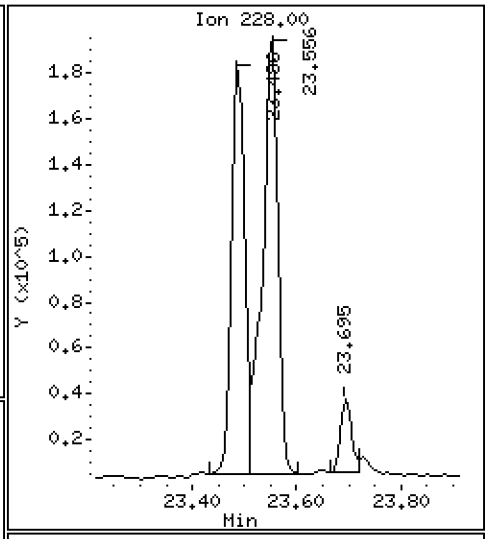
Concentration: 1.439 ug/mL

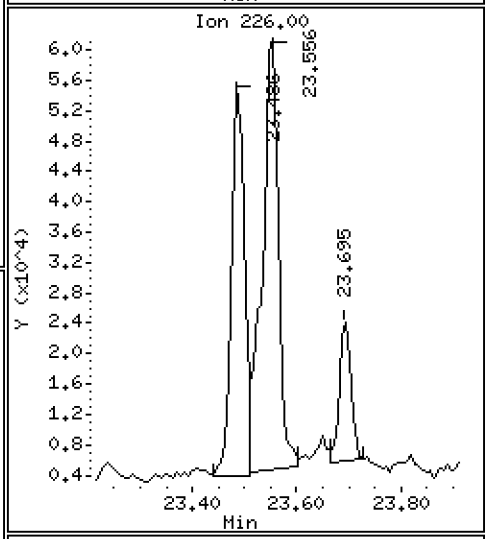


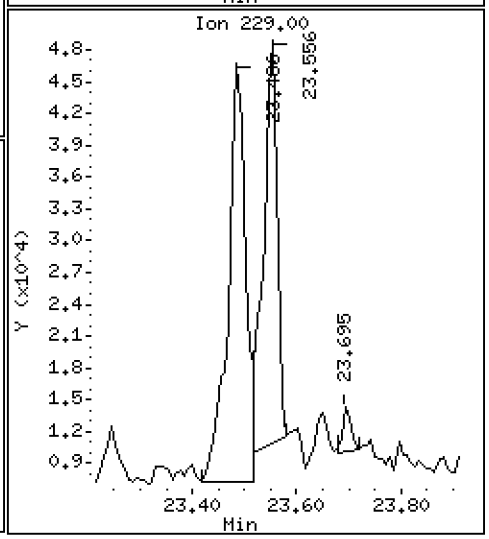












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

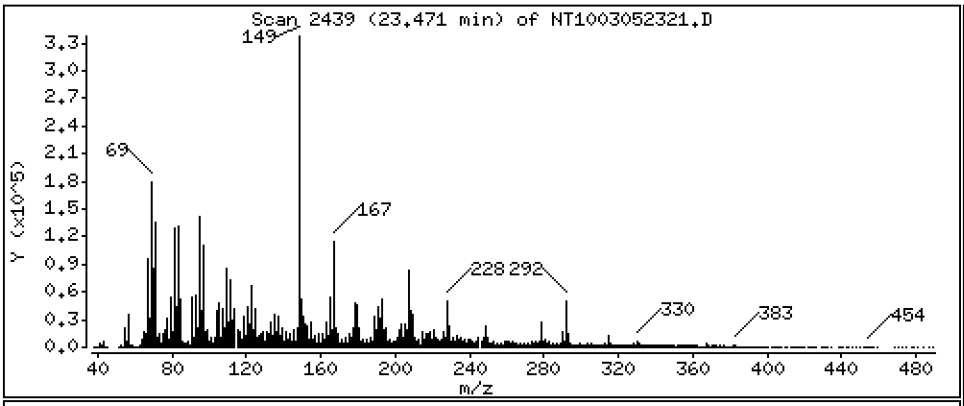
Operator: VTS

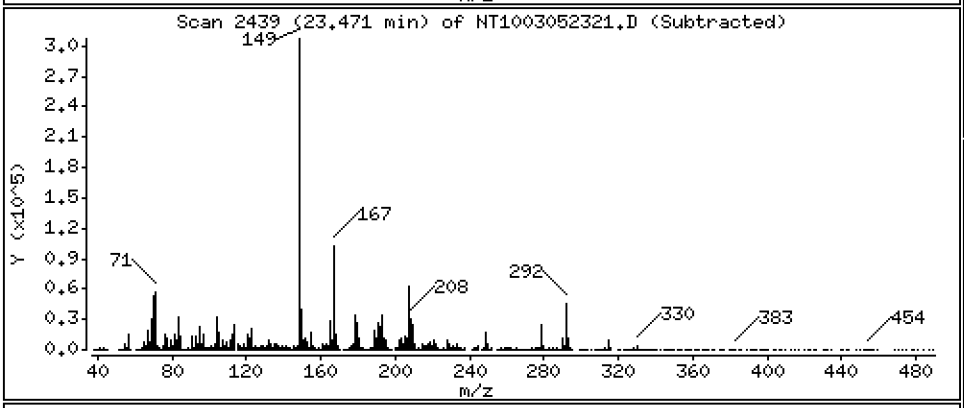
Column phase: ZB-5msi

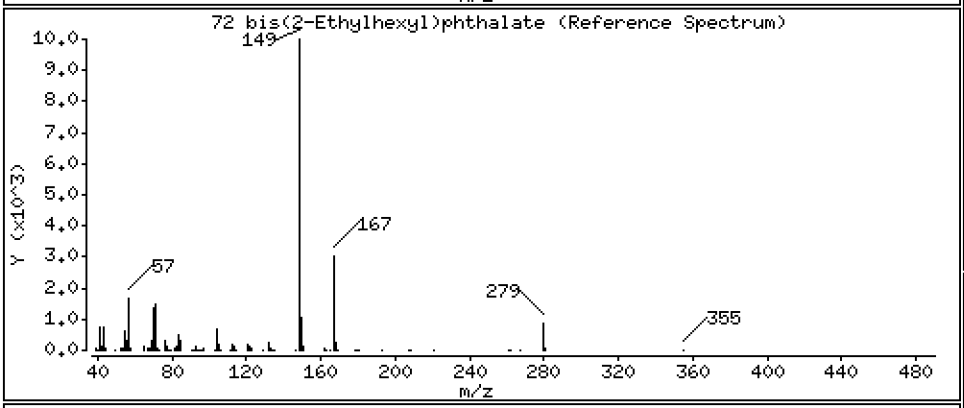
Column diameter: 0.25

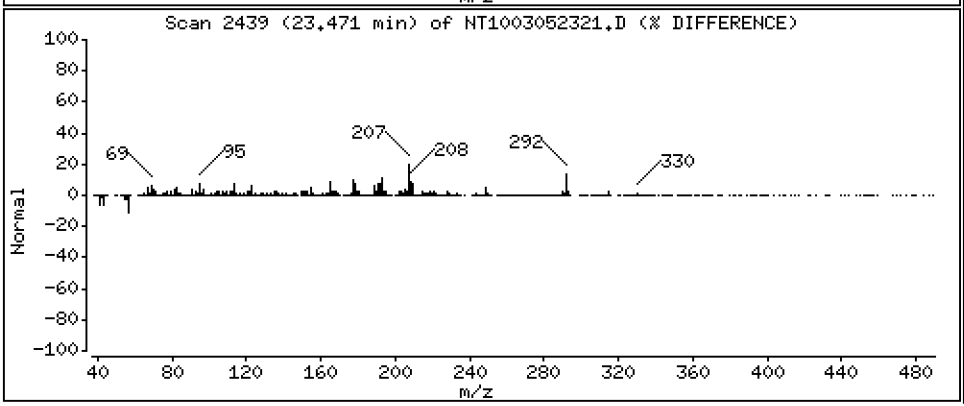
72 bis(2-Ethylhexyl)phthalate

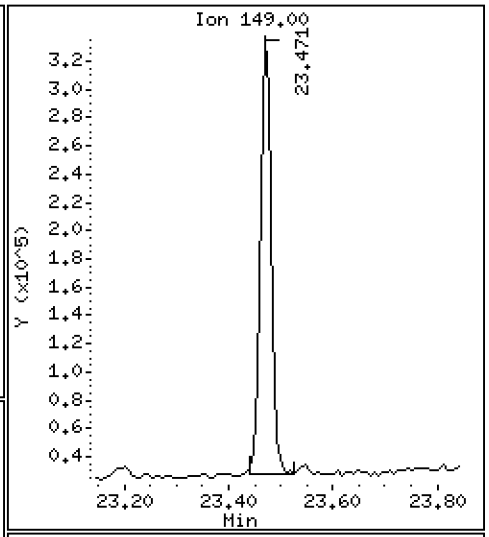
Concentration: 2.020 ug/mL

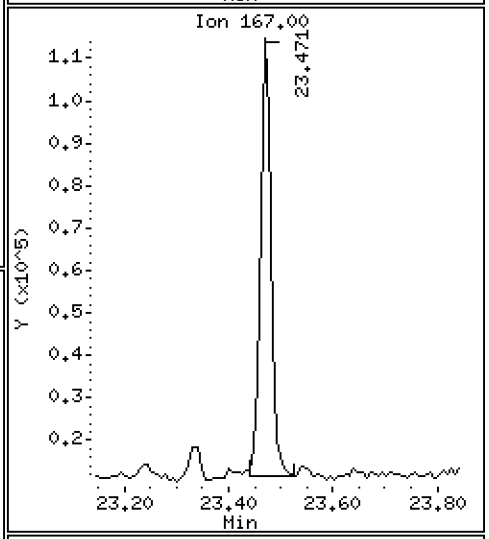


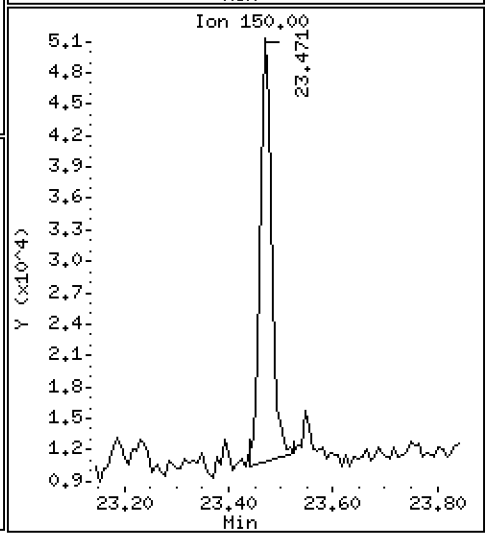












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

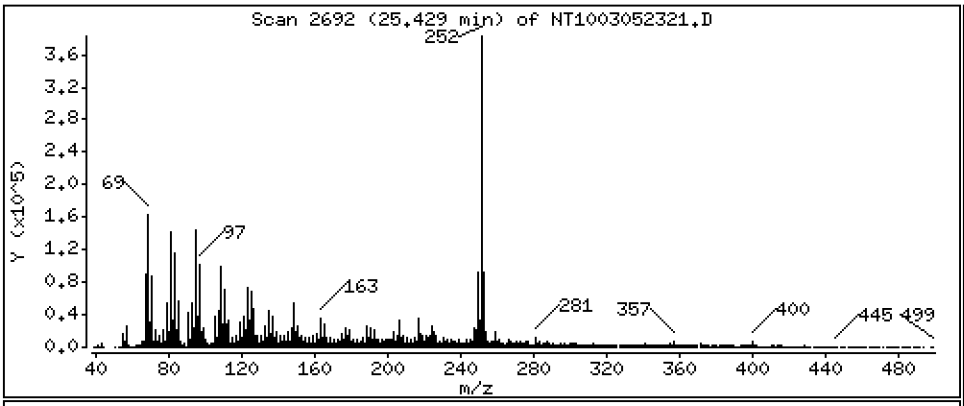
Operator: VTS

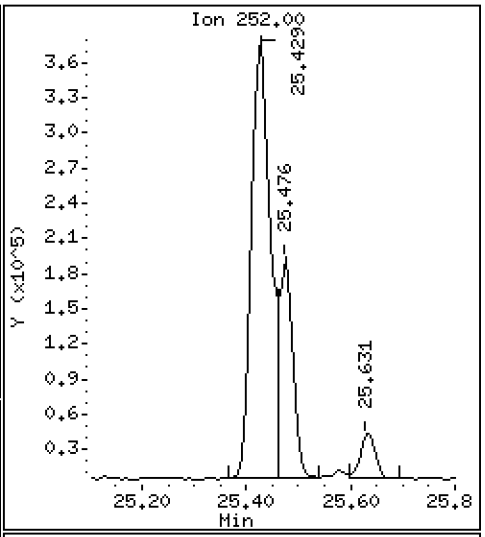
Column phase: ZB-5msi

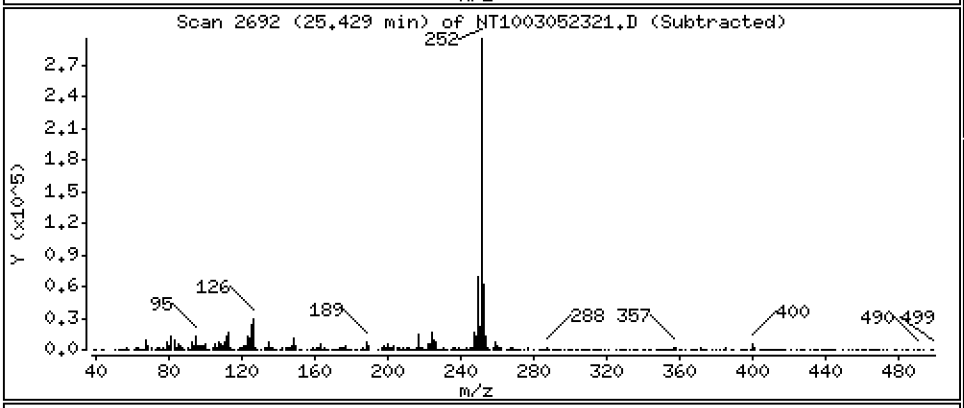
Column diameter: 0.25

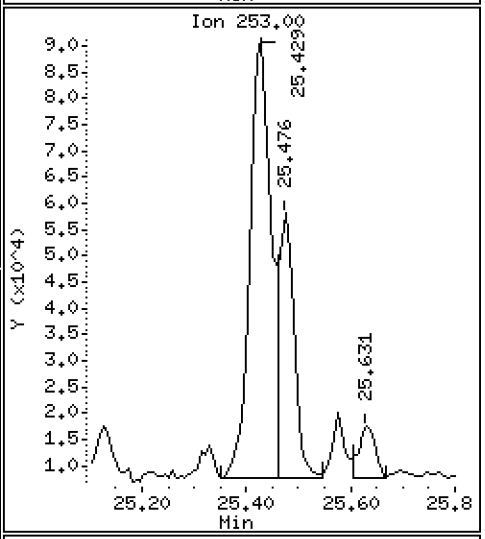
74 Benzo(b)fluoranthene

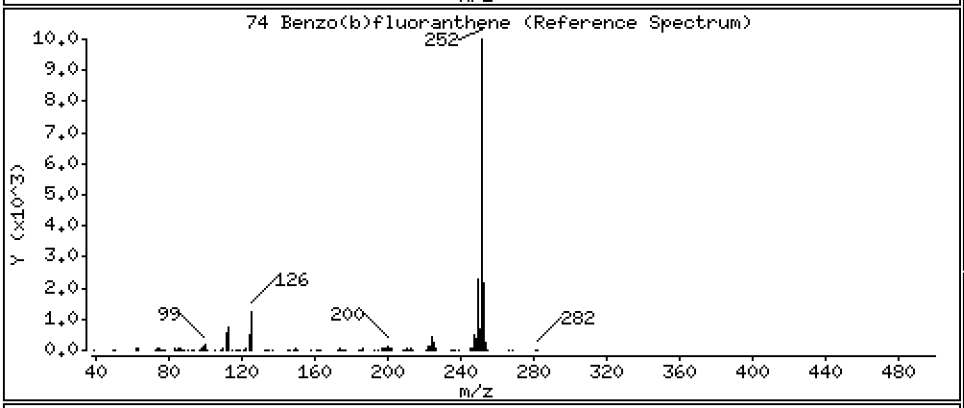
Concentration: 2.670 ug/mL

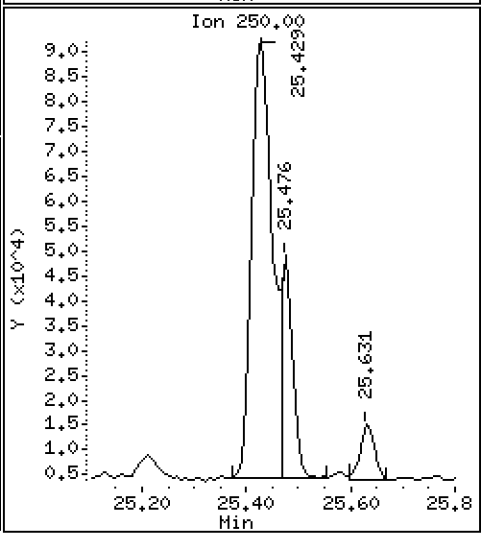


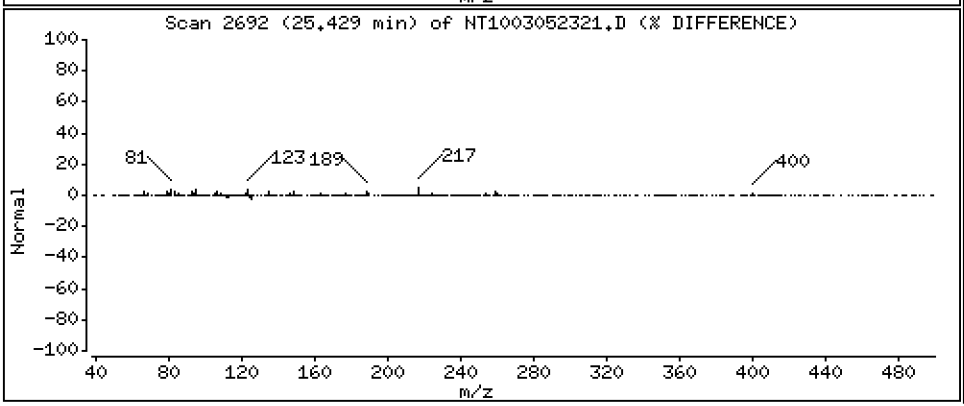












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

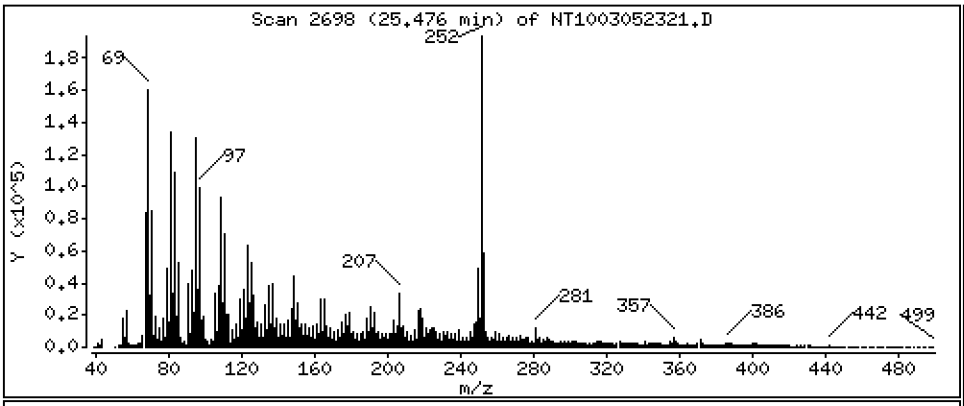
Operator: VTS

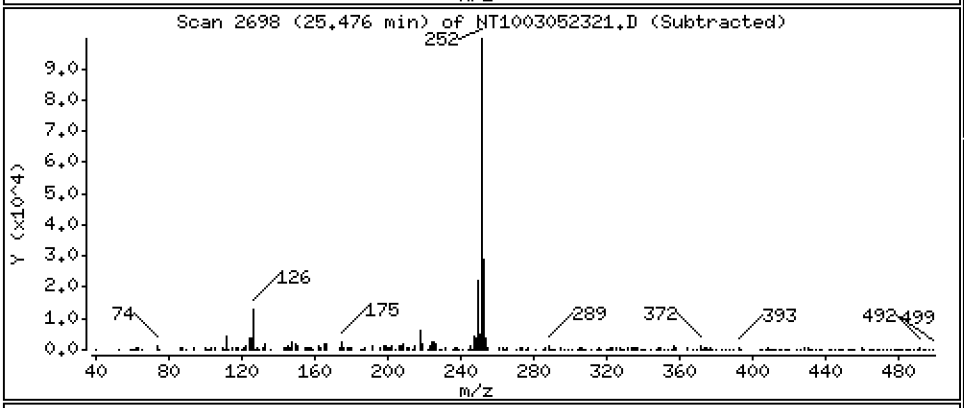
Column phase: ZB-5msi

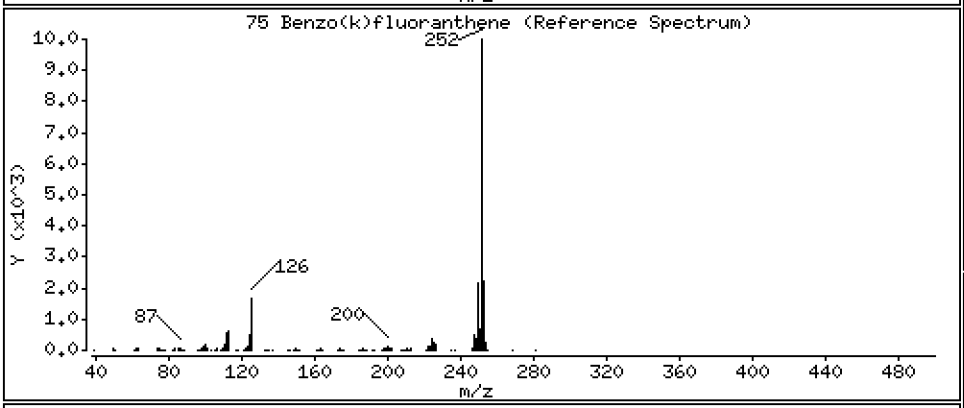
Column diameter: 0.25

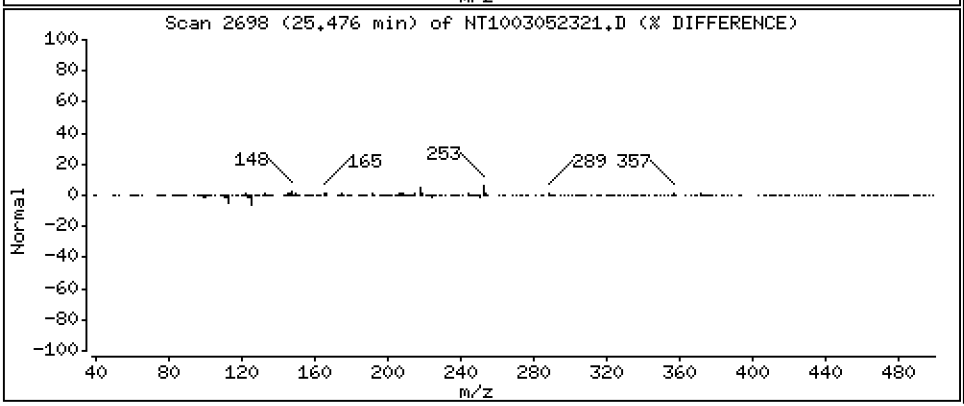
75 Benzo(k)fluoranthene

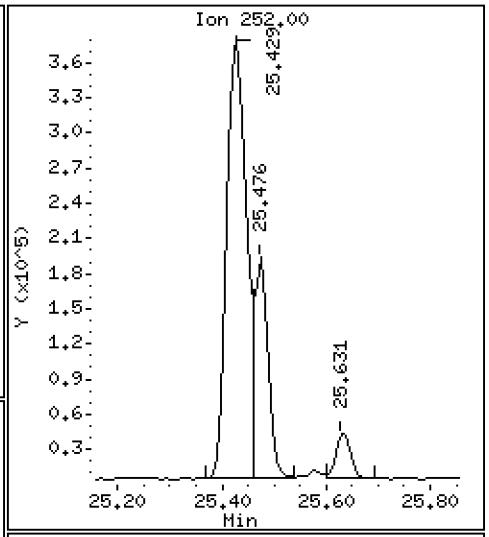
Concentration: 1.076 ug/mL

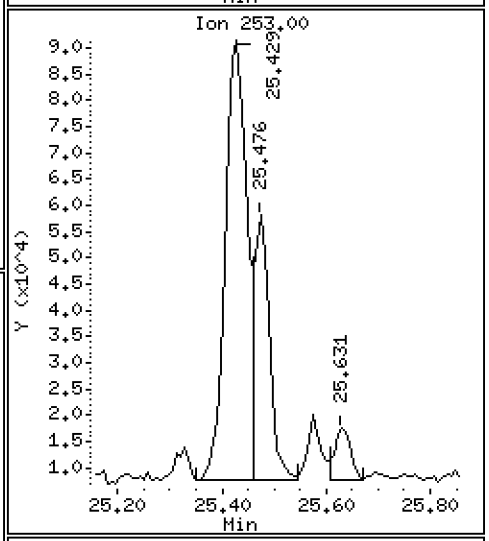


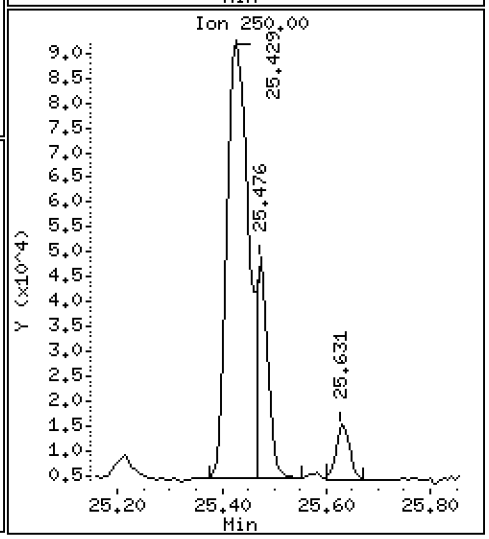












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

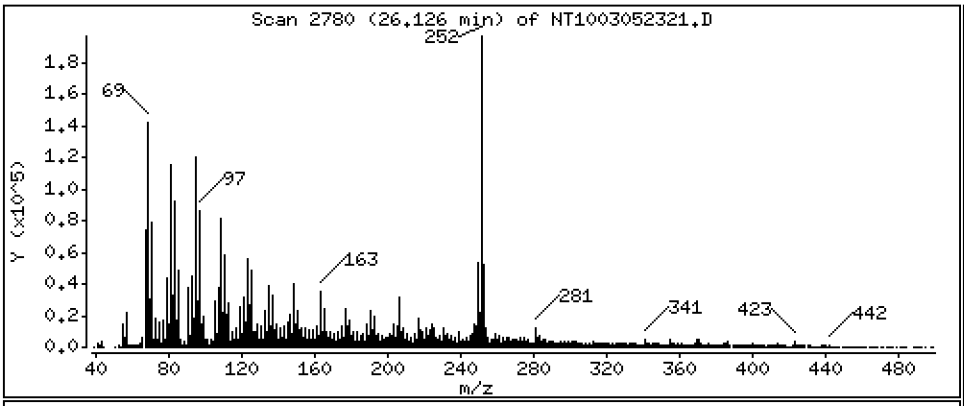
Operator: VTS

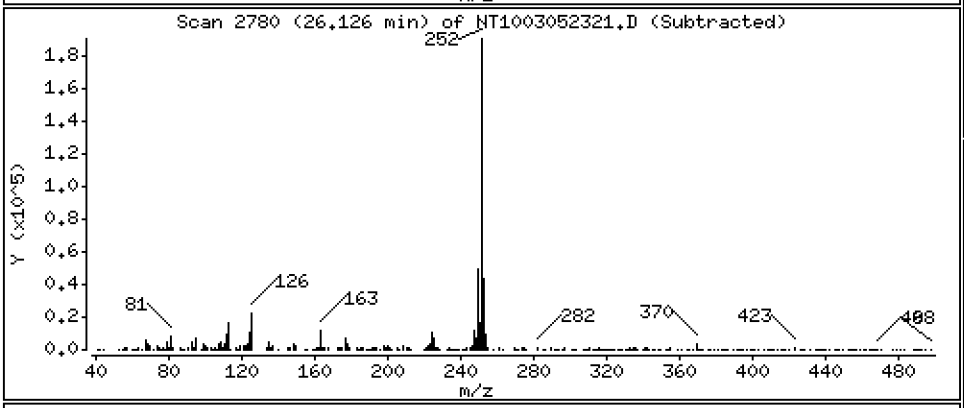
Column phase: ZB-5msi

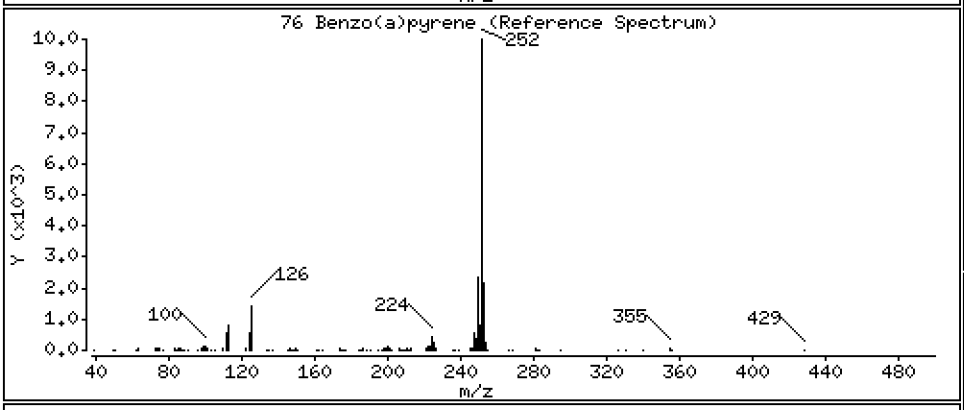
Column diameter: 0.25

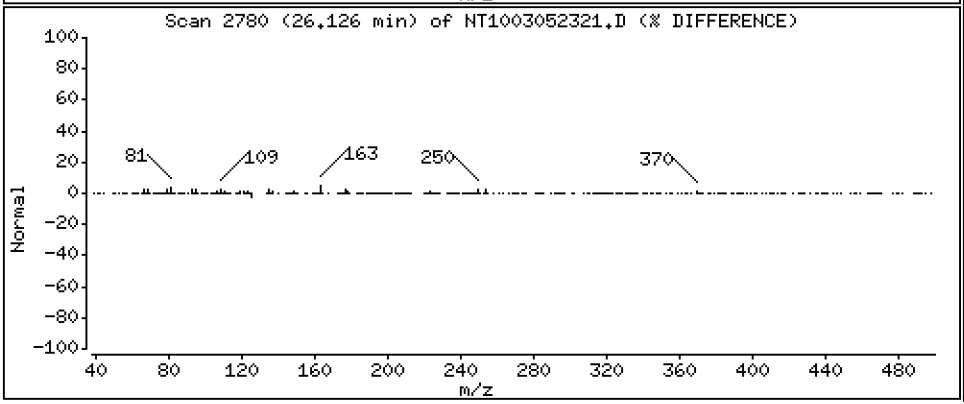
76 Benzo(a)pyrene

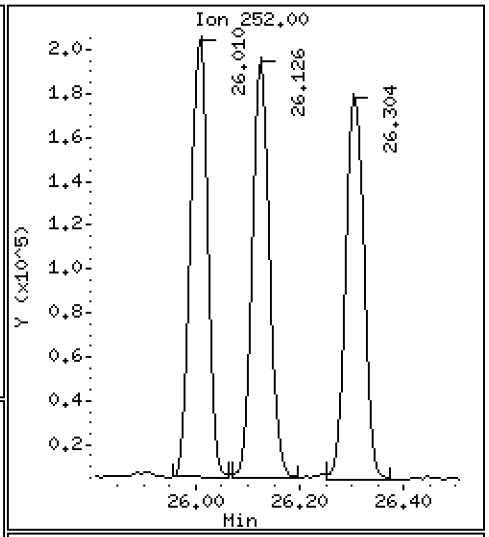
Concentration: 1.379 ug/mL

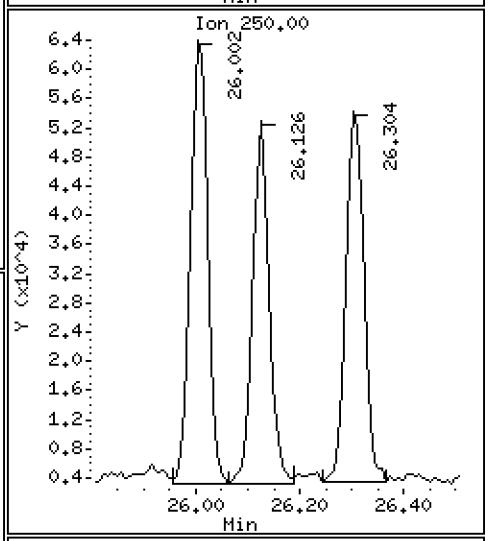


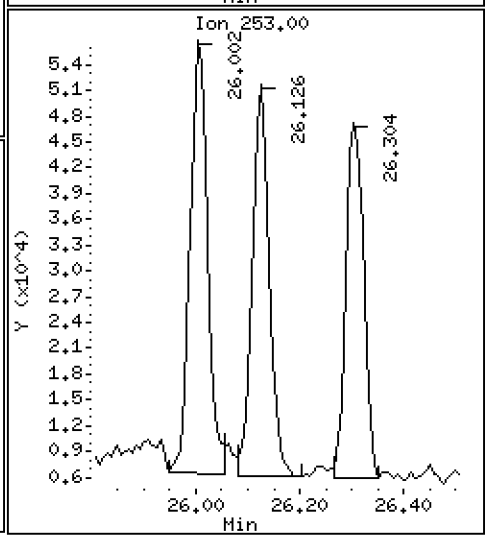












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052321.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

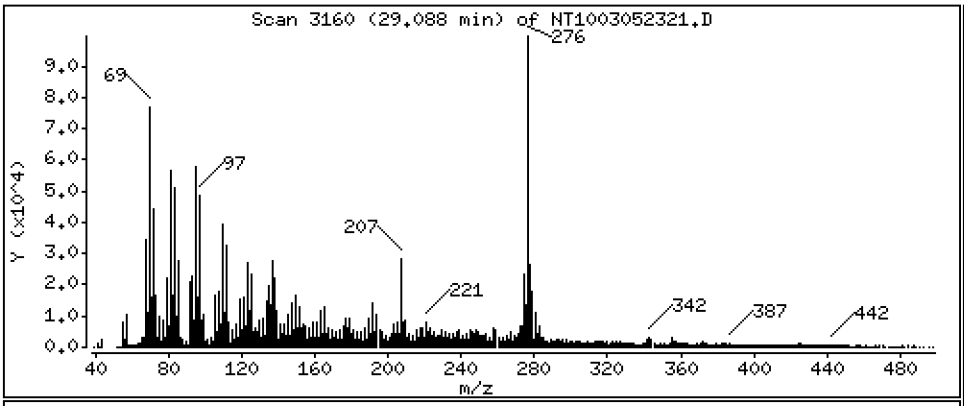
Operator: VTS

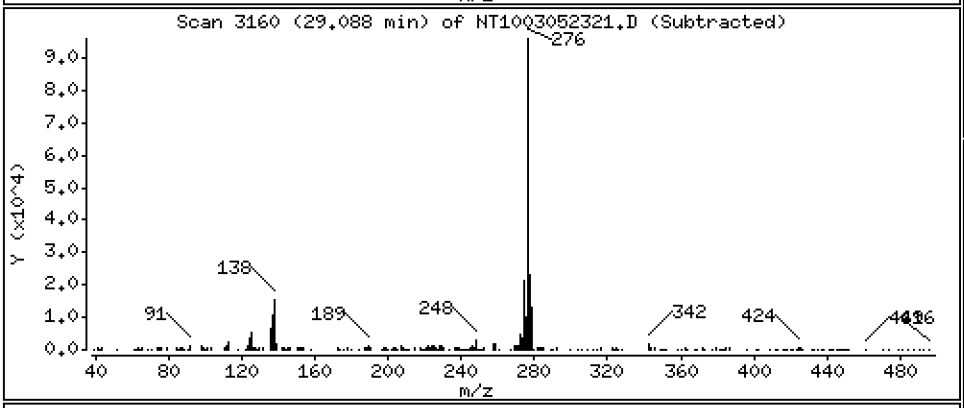
Column phase: ZB-5msi

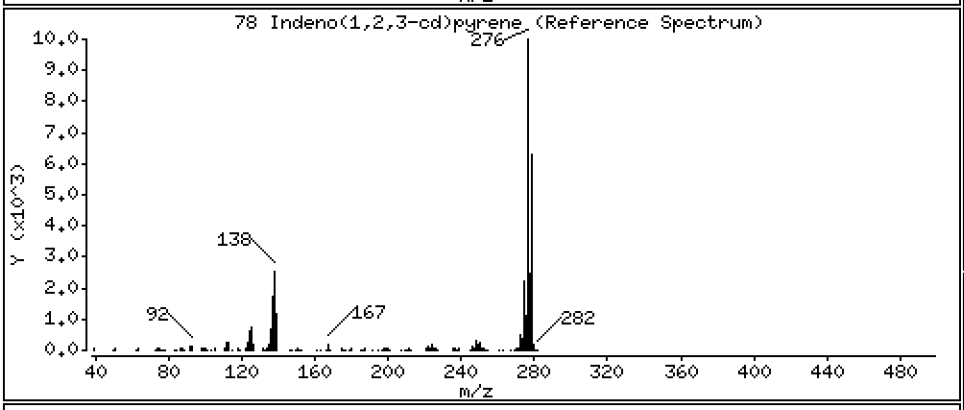
Column diameter: 0.25

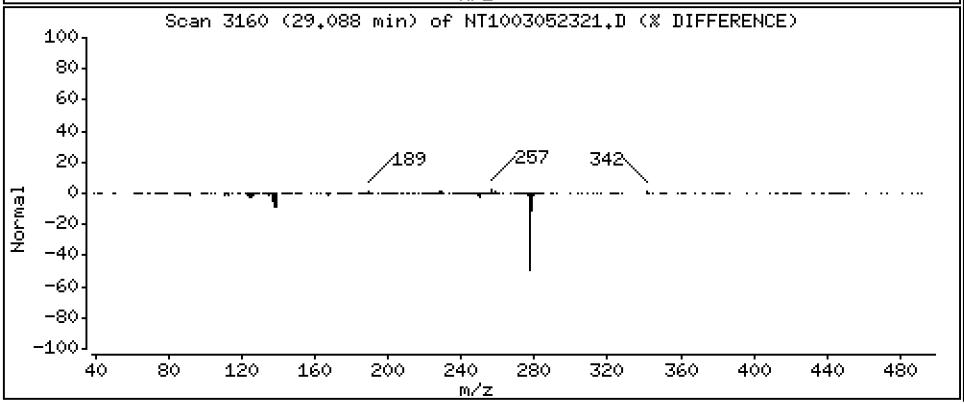
78 Indeno(1,2,3-cd)pyrene

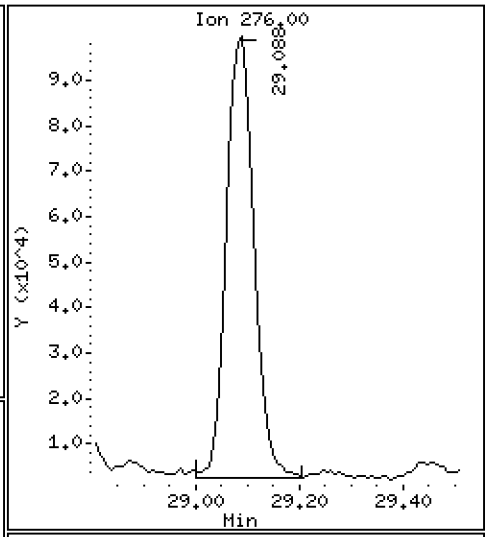
Concentration: 0.9396 ug/mL

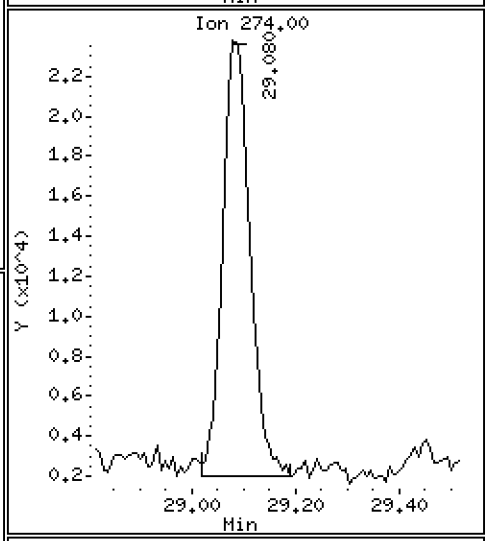


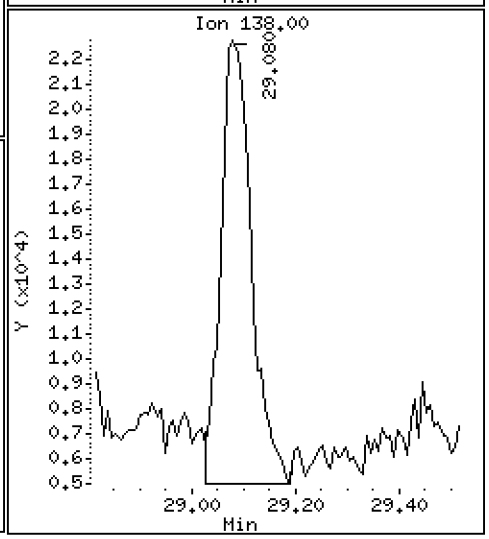












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

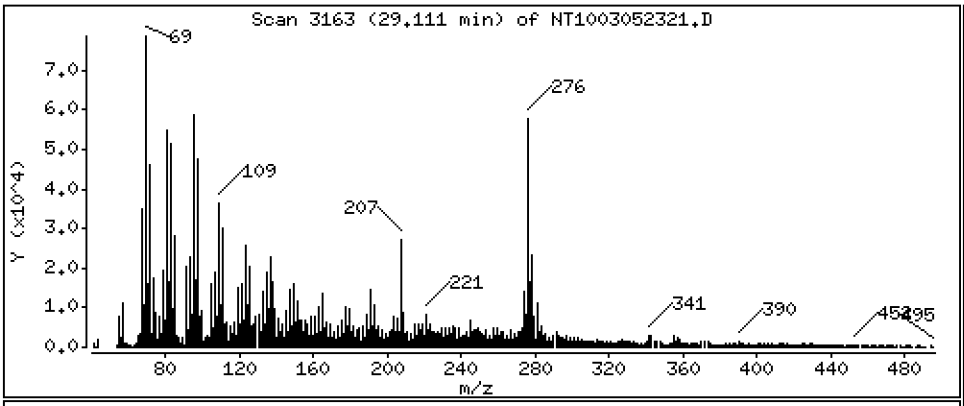
Operator: VTS

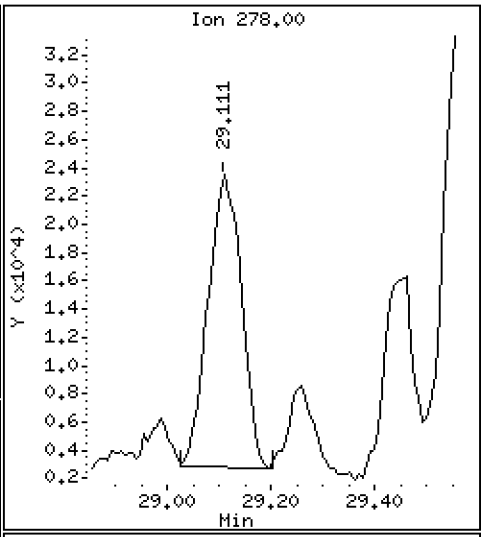
Column phase: ZB-5msi

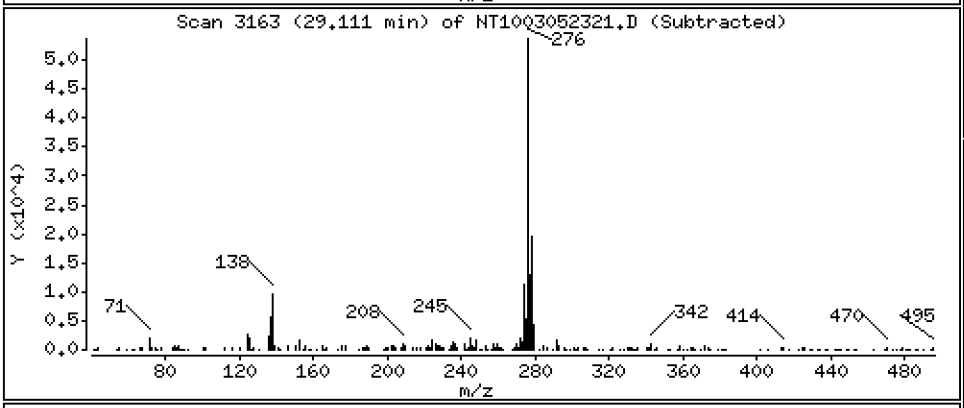
Column diameter: 0.25

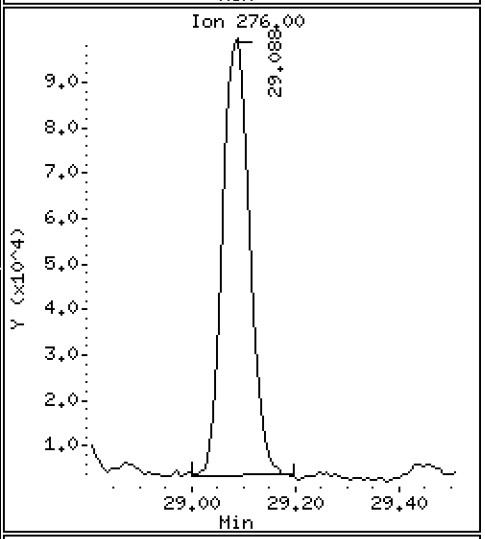
79 Dibenzo(a,h)anthracene

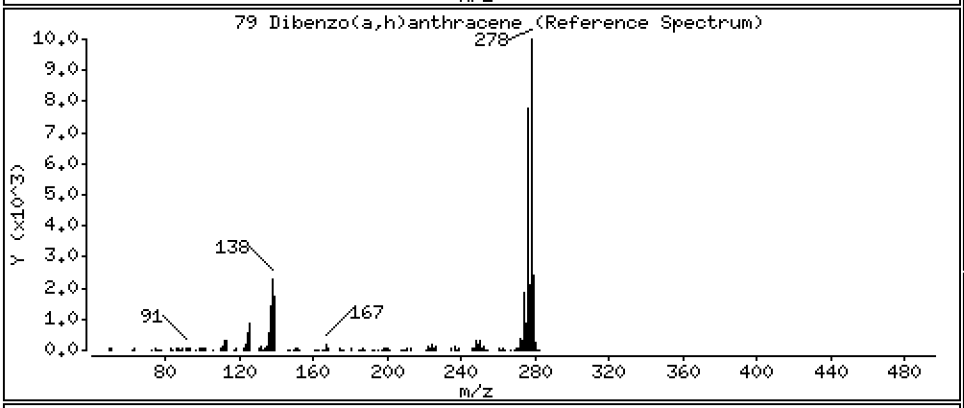
Concentration: 0.3241 ug/mL

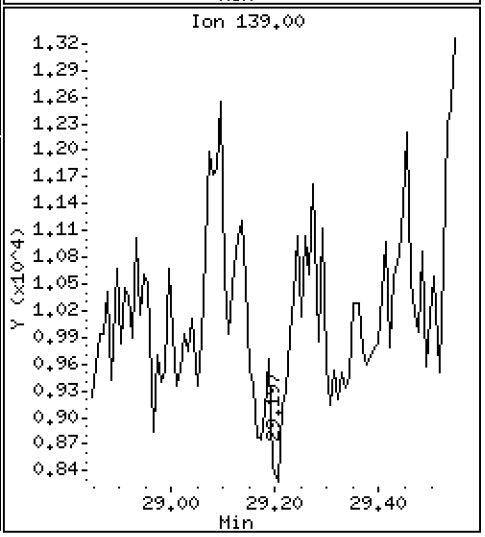


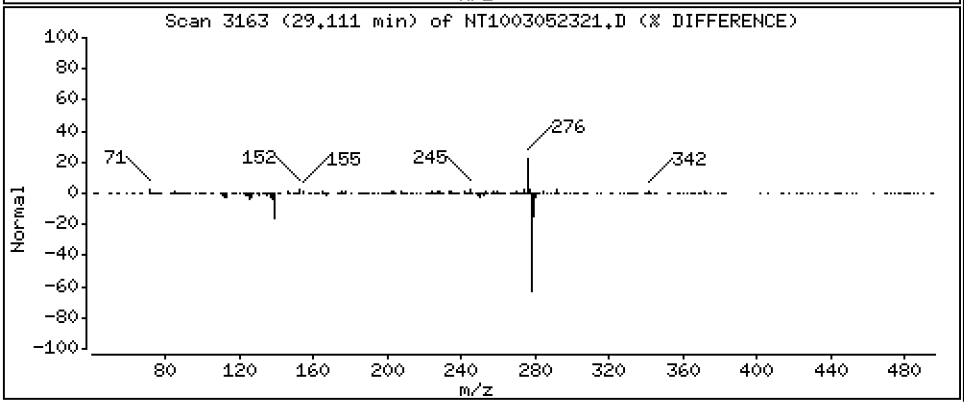












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

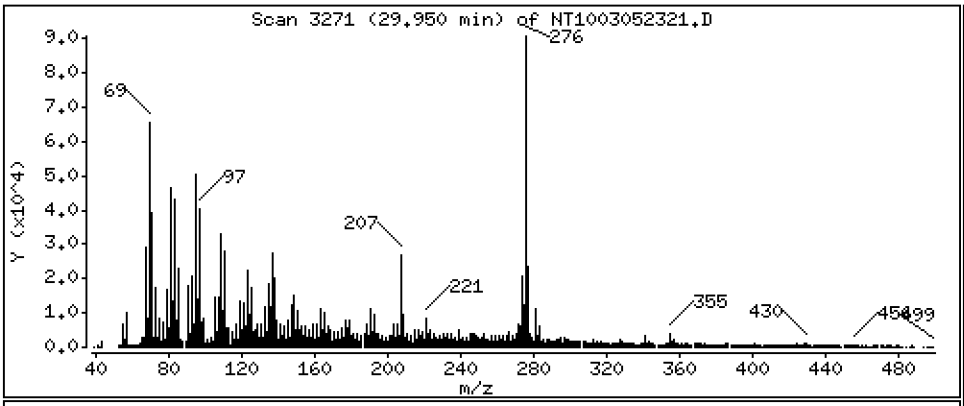
Operator: VTS

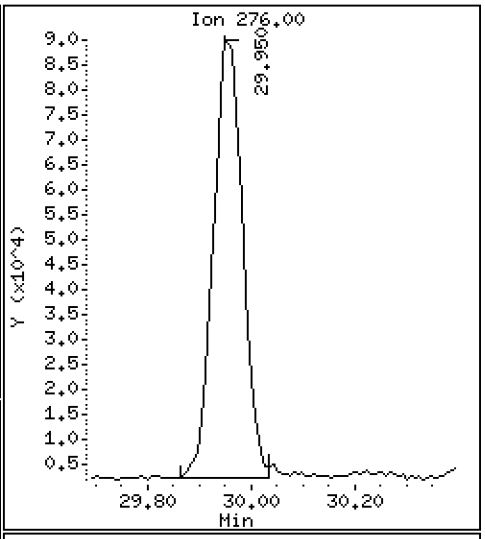
Column phase: ZB-5msi

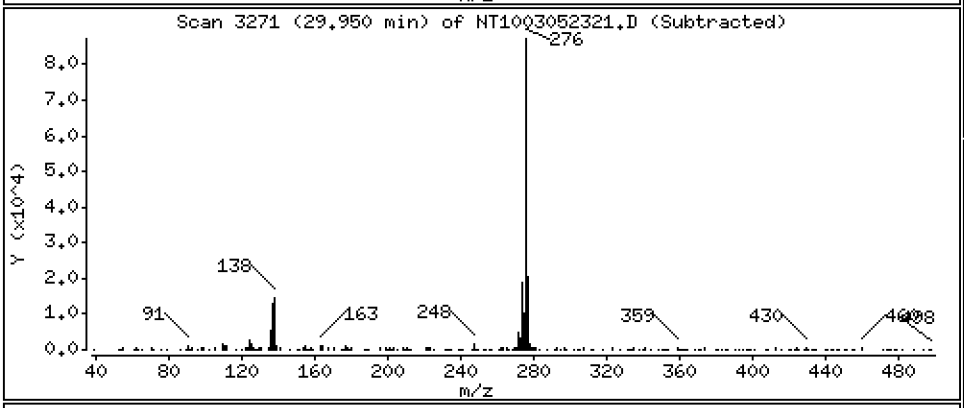
Column diameter: 0.25

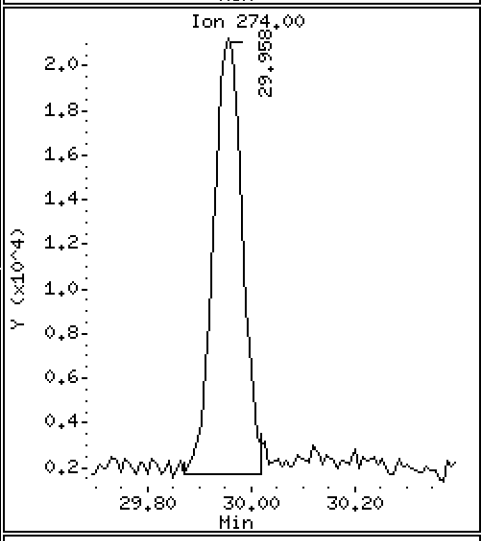
80 Benzo(g,h,i)perylene

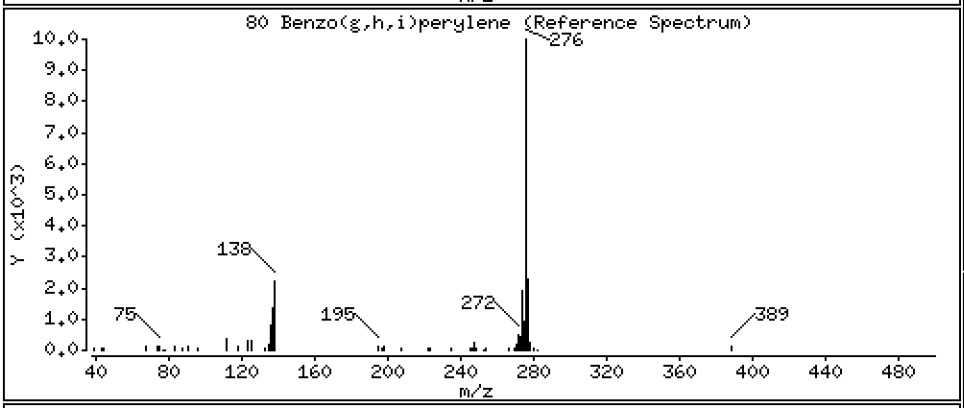
Concentration: 1.148 ug/mL

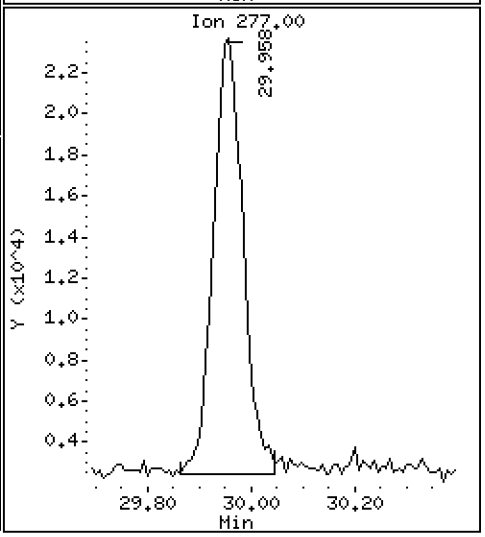


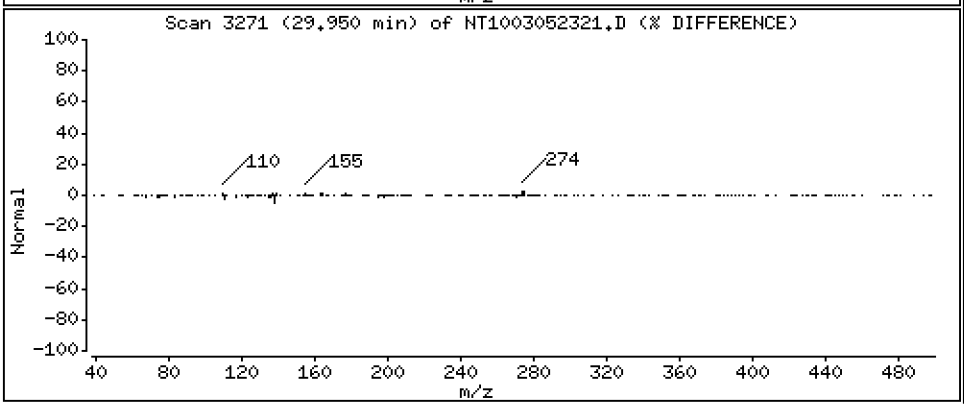












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

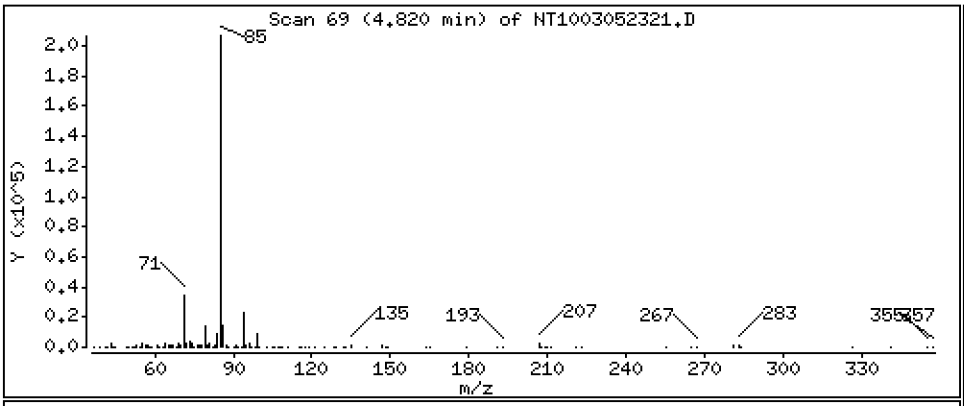
Operator: VTS

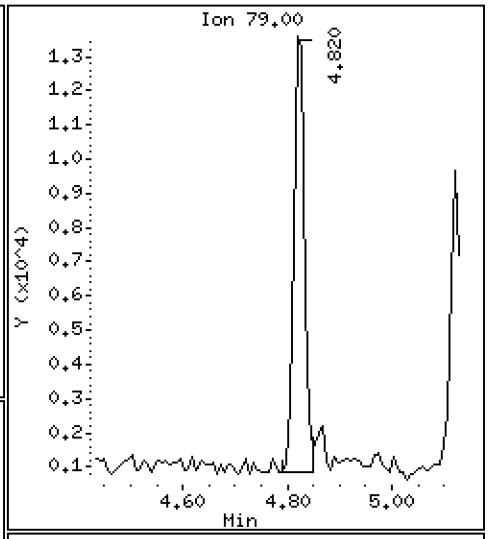
Column phase: ZB-5msi

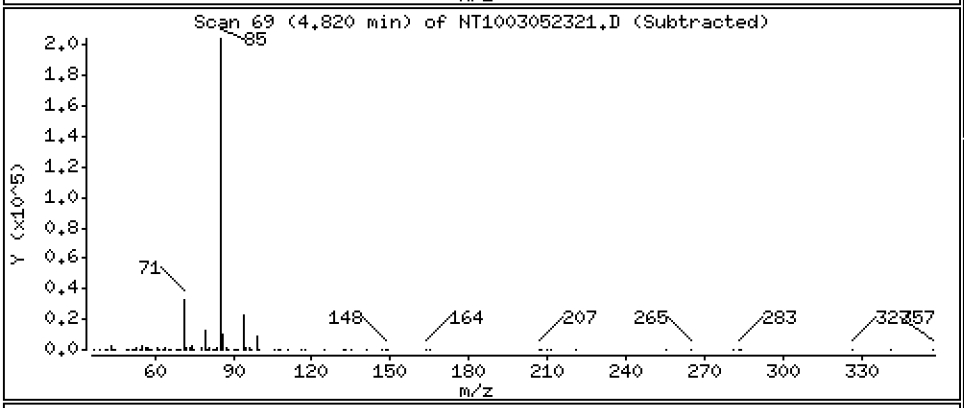
Column diameter: 0.25

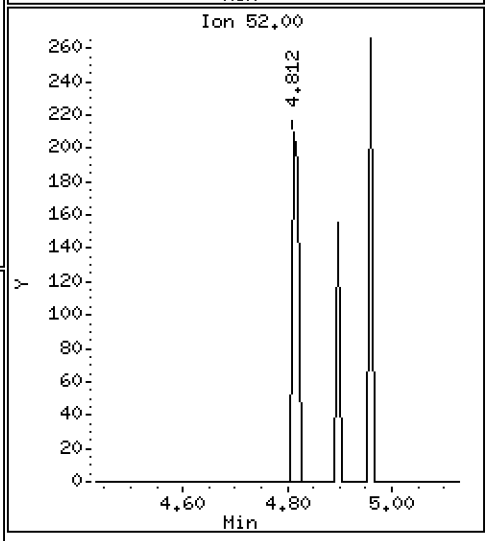
103 Pyridine

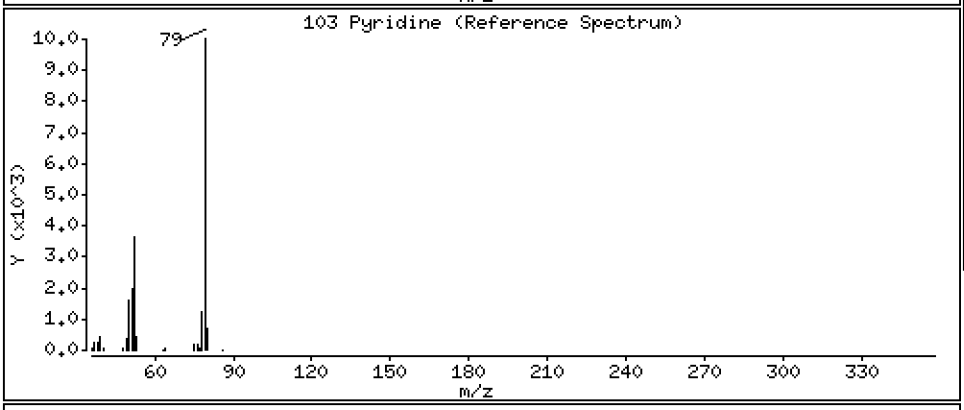
Concentration: 0.1892 ug/mL

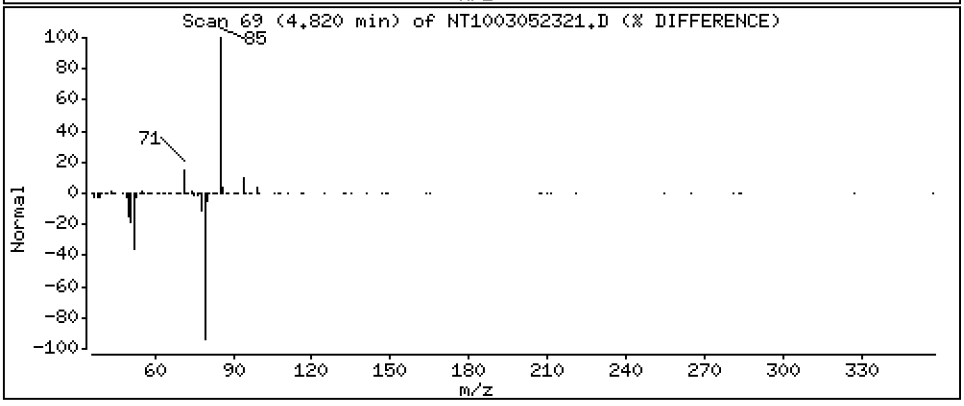












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

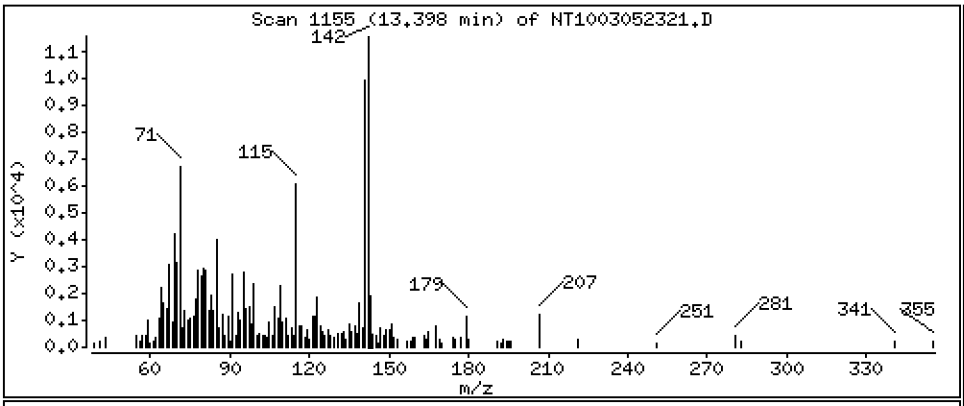
Operator: VTS

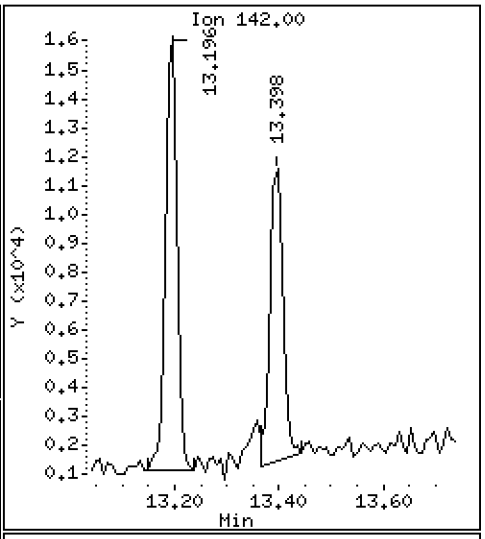
Column phase: ZB-5msi

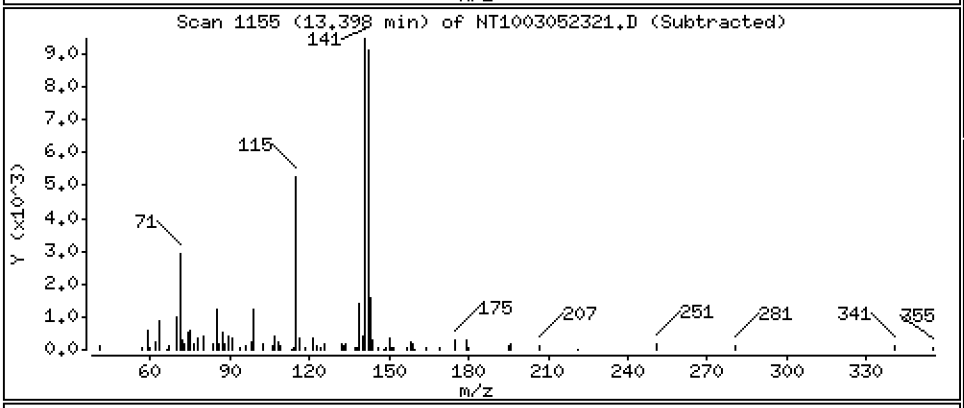
Column diameter: 0.25

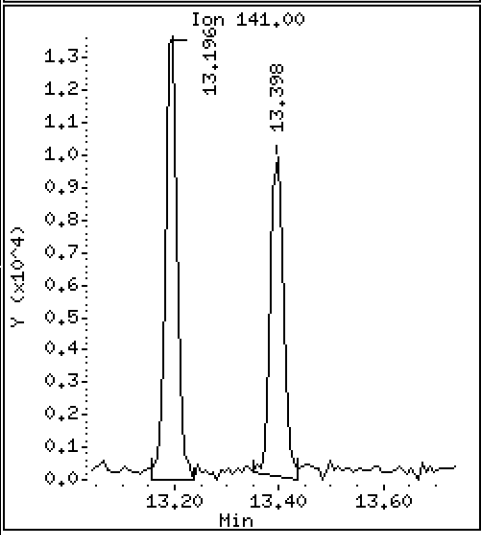
105 1-methylnaphthalene

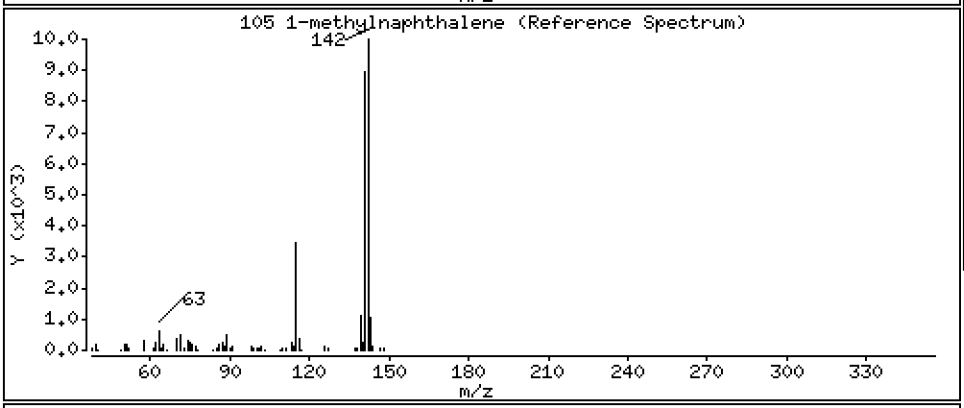
Concentration: 0.1019 ug/mL

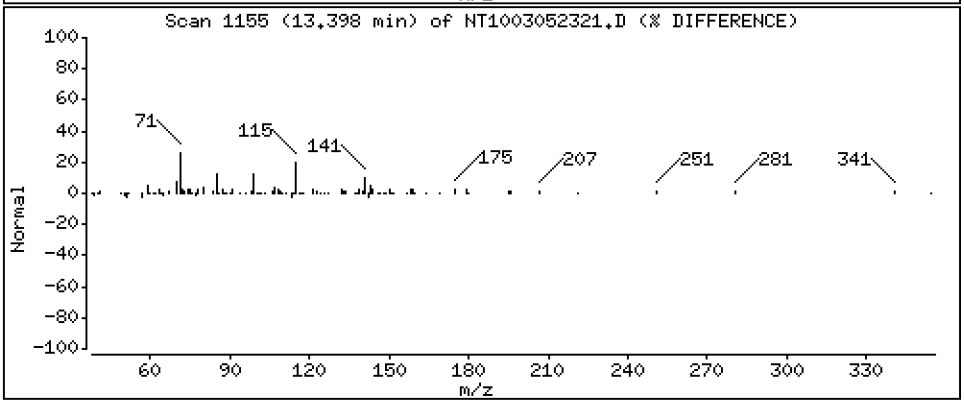












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

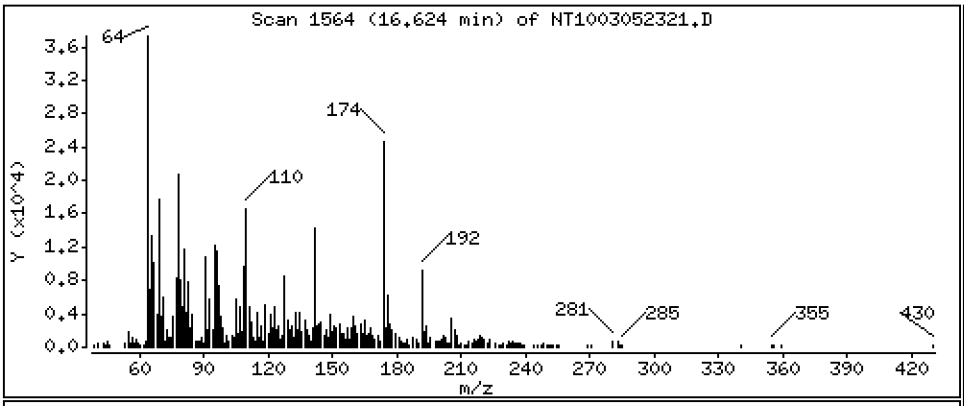
Operator: VTS

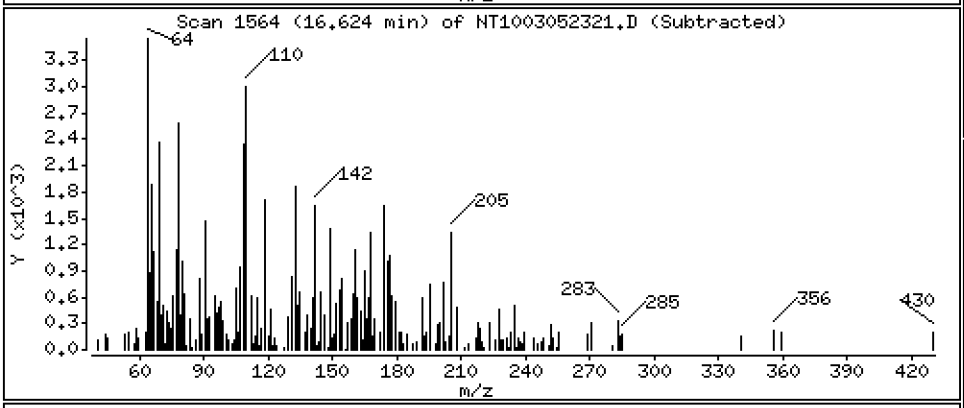
Column phase: ZB-5msi

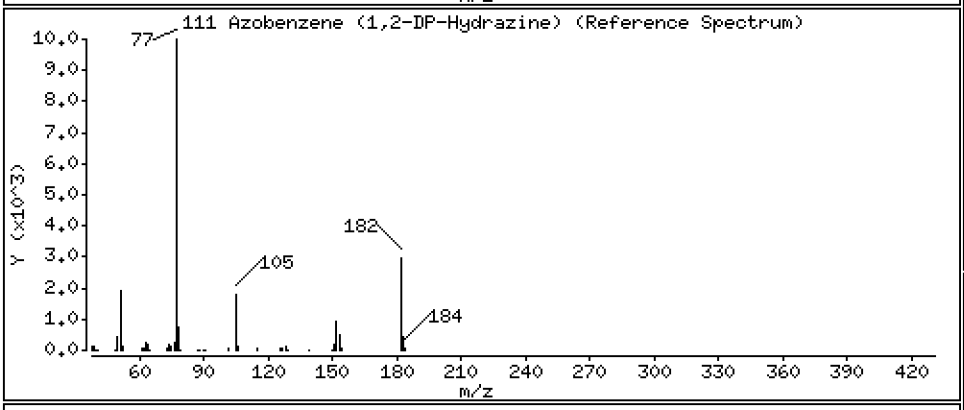
Column diameter: 0.25

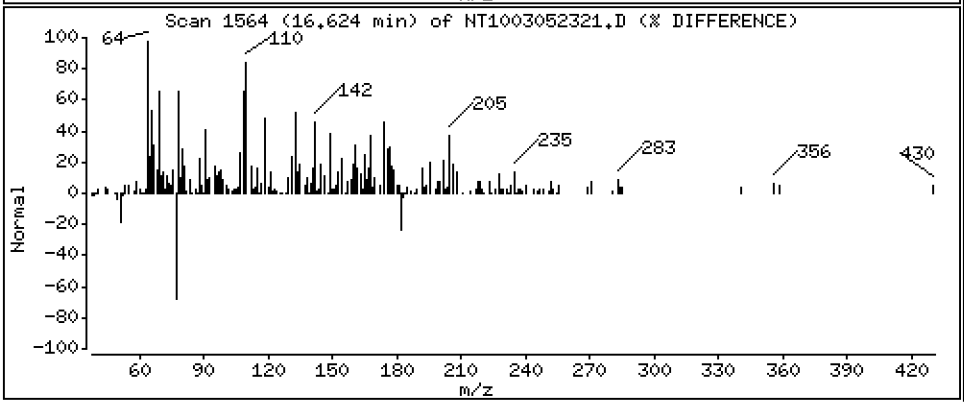
111 Azobenzene (1,2-DP-Hydrazine)

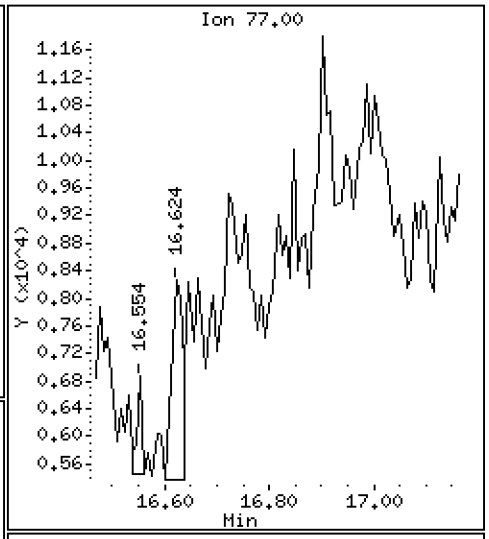
Concentration: 0.01975 ug/mL

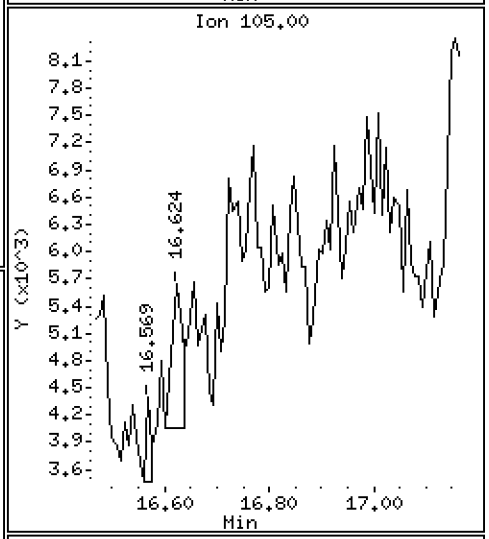


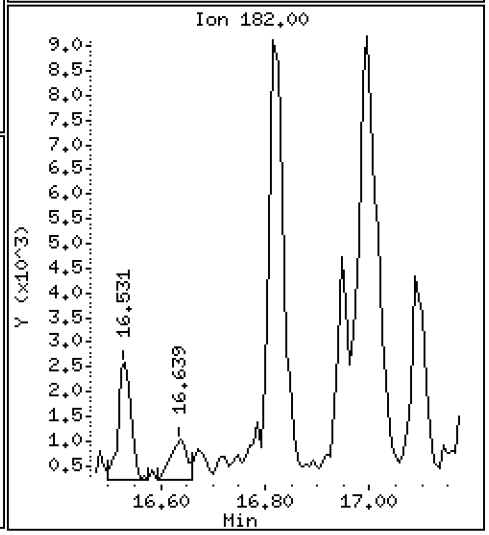












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052321.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

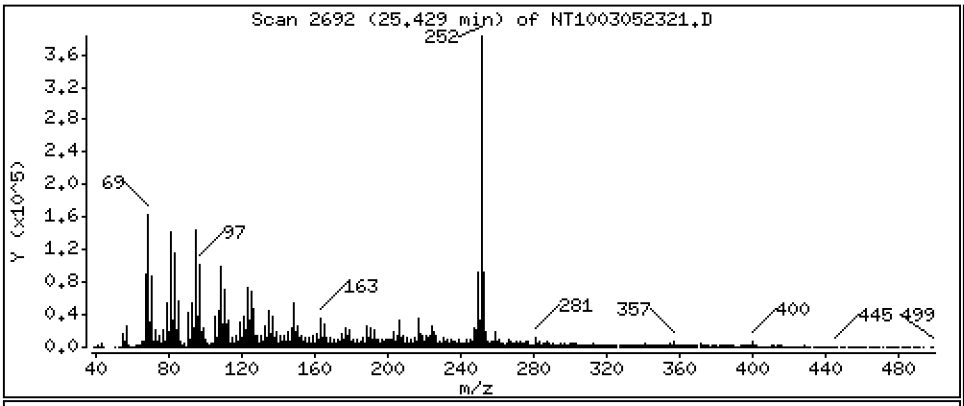
Operator: VTS

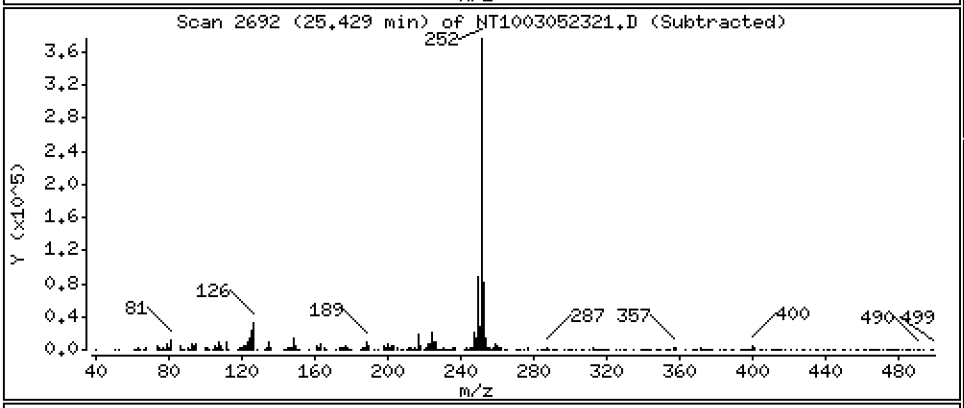
Column phase: ZB-5msi

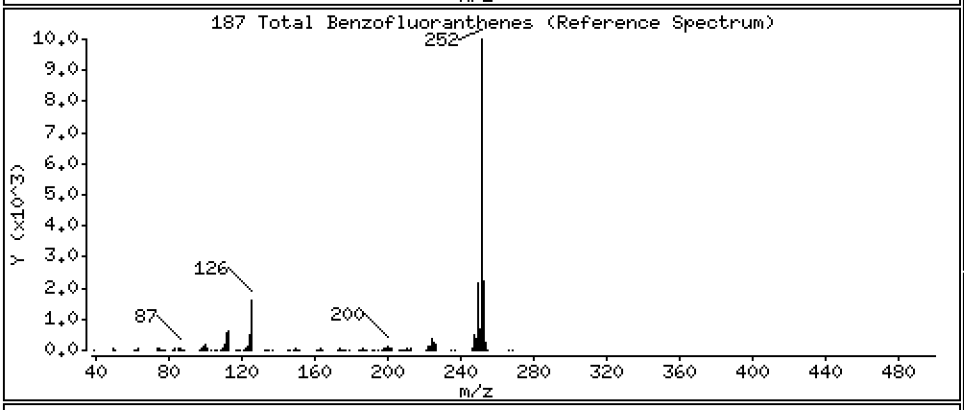
Column diameter: 0.25

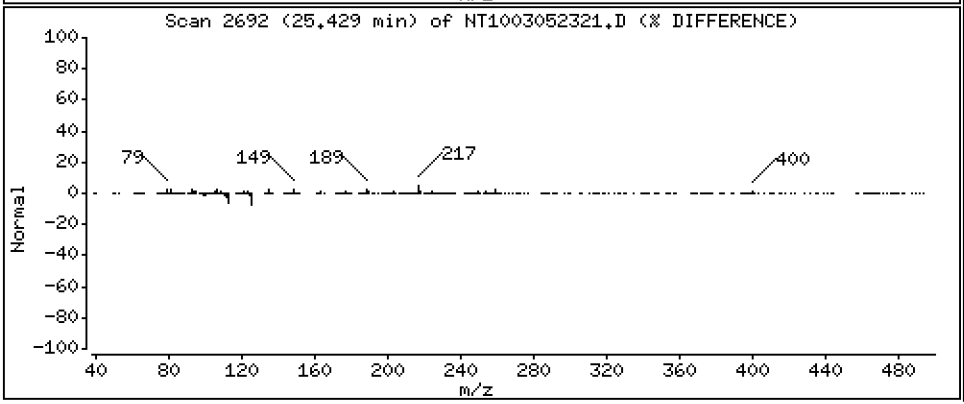
187 Total Benzofluoranthenes

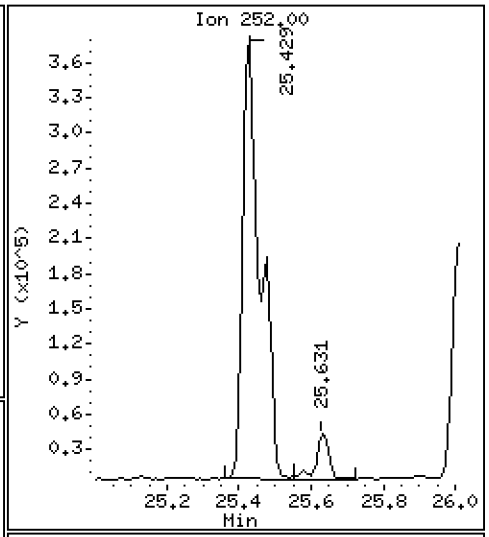
Concentration: 3.702 ug/mL

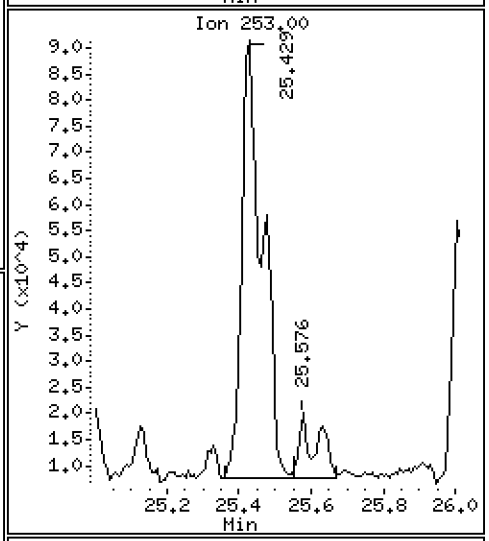


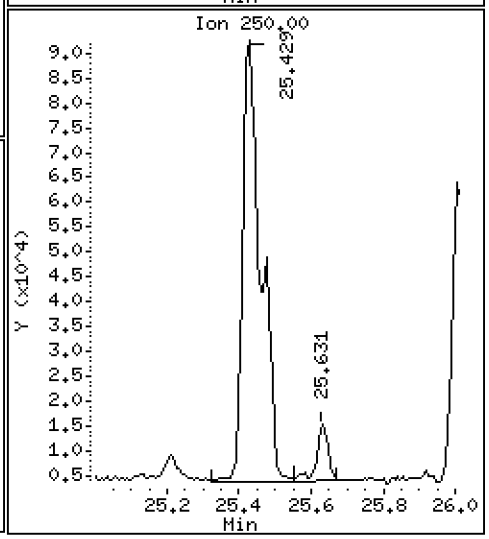












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305A.b\NT1003052321.D
Lab Smp Id: 23A0313-11
Inj Date : 06-MAR-2023 02:02
Operator : VTS Inst ID: nt10.i
Smp Info : 23A0313-11
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Meth Date : 27-Mar-2023 13:49 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.904	6.905	(0.745)	514387	5.82035	5.820
$	2 Phenol-d5	99	8.527	8.512	(0.921)	652891	6.36313	6.363
	3 Phenol	94	8.550	8.535	(0.923)	14961	0.13714	0.1371
$	5 2-Chlorophenol-d4	132	8.836	8.821	(0.954)	561040	6.40895	6.409
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	9.262	9.247	(1.000)	280895	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.549	9.542	(1.031)	248861	3.80503	3.805
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	9.502	9.487	(1.026)	8471	0.15144	0.1514
	14 2,2'-oxybis(1-Chloropropane)	121	9.728	9.736	(1.050)	8329	0.29969	0.2997
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	10.186	9.984	(1.100)	3529	0.05361	0.05361
	15 4-Methylphenol	108	9.992	9.961	(1.079)	6868	0.06479	0.06479
$	18 Nitrobenzene-d5	82	10.318	10.302	(0.878)	472205	4.24028	4.240
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.749	11.734	(1.000)	1014485	4.00000	
	28 Naphthalene	128	11.795	11.780	(1.004)	42375	0.16274	0.1627
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.196	13.181	(1.123)	24346	0.13235	0.1324
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	13.939	13.931	(0.908)	876952	4.46779	4.468
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	14.775	14.767	(0.963)	21594	0.12151	0.1215
	40	Acenaphthylene	152	15.061	15.054	(0.981)	33238	0.12512	0.1251
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	15.347	15.340	(1.000)	550303	4.00000	
	43	3-Nitroaniline	138	15.308	15.255	(0.997)	1279	0.02854	0.02854
	44	Acenaphthene	153	15.417	15.409	(1.005)	13180	0.08227	0.08227
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	15.772	15.773	(1.028)	26616	0.11194	0.1119
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	16.236	16.244	(1.058)	30987	0.16459	0.1646
	49	Fluorene	166	16.492	16.492	(1.075)	20843	0.10536	0.1054
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	16.993	16.994	(1.107)	233123	6.58585	6.586
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	17.612	17.627	(0.954)	249	0.00369	0.003691
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	18.455	18.455	(1.000)	999299	4.00000	
	60	Phenanthrene	178	18.509	18.509	(1.003)	196335	0.76772	0.7677
	61	Anthracene	178	18.610	18.618	(1.008)	101288	0.40845	0.4084
	62	Carbazole	167	18.950	18.950	(1.027)	43431	0.19117	0.1912
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	20.915	20.892	(0.890)	413114	1.26185	1.262
	65	Pyrene	202	21.341	21.326	(0.908)	964883	2.89437	2.894
$	66	Terphenyl-d14	244	21.596	21.604	(0.919)	971682	3.60229	3.602
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	23.486	23.501	(0.999)	297793	0.88743	0.8874
*	69	Chrysene-d12	240	23.509	23.517	(1.000)	951686	4.00000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	23.555	23.563	(1.002)	392517	1.43928	1.439
	72	bis(2-Ethylhexyl)phthalate	149	23.470	23.494	(0.956)	464543	2.01978	2.020
*	134	Di-n-octylphthalate-d4	153	24.562	24.593	(1.000)	1621502	4.00000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	25.429	25.452	(0.969)	988597	2.67042	2.670
	75	Benzo(k)fluoranthene	252	25.475	25.507	(0.971)	376978	1.07618	1.076
	76	Benzo(a)pyrene	252	26.126	26.157	(0.996)	449693	1.37864	1.379
*	77	Perylene-d12	264	26.242	26.289	(1.000)	1056489	4.00000	
	78	Indeno(1,2,3-cd)pyrene	276	29.087	29.158	(1.108)	356710	0.93963	0.9396
	79	Dibenzo(a,h)anthracene	278	29.111	29.204	(1.109)	92711	0.32406	0.3241(M)
	80	Benzo(g,h,i)perylene	276	29.950	30.043	(1.141)	347263	1.14754	1.148
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	4.819	4.781	(0.520)	19139	0.18915	0.1892
	105	1-methylnaphthalene	142	13.397	13.390	(1.140)	16970	0.10193	0.1019
	111	Azobenzene (1,2-DP-Hydrazine)	77	16.623	16.816	(1.083)	5553	0.01975	0.01975

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.429	25.507	(0.969)	1305024	3.70225	3.702
120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052321.D
Lab Smp Id: 23A0313-11
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 21:38
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	264922	132461	529844	280895	6.03
27 Naphthalene-d8	947542	473771	1895084	1014485	7.06
42 Acenaphthene-d10	505666	252833	1011332	550303	8.83
59 Phenanthrene-d10	940283	470142	1880566	999299	6.28
69 Chrysene-d12	987952	493976	1975904	951686	-3.67
134 Di-n-octylphthala	1625017	812509	3250034	1621502	-0.22
77 Perylene-d12	1073798	536899	2147596	1056489	-1.61

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.26	0.16
27 Naphthalene-d8	11.73	11.23	12.23	11.75	0.13
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	-0.00
69 Chrysene-d12	23.52	23.02	24.02	23.51	-0.03
134 Di-n-octylphthala	24.59	24.09	25.09	24.56	-0.13
77 Perylene-d12	26.29	25.79	26.79	26.24	-0.18

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052321.D

Lab ID: 23A0313-11
nt10.i, 20230305A.b\ABN.m,   06-MAR-2023 02:02

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.100	1.080	0.0200	N-Nitroso-di-n-propylamine
1.083	1.096	-0.0131	Azobenzene (1,2-DP-Hydrazine)

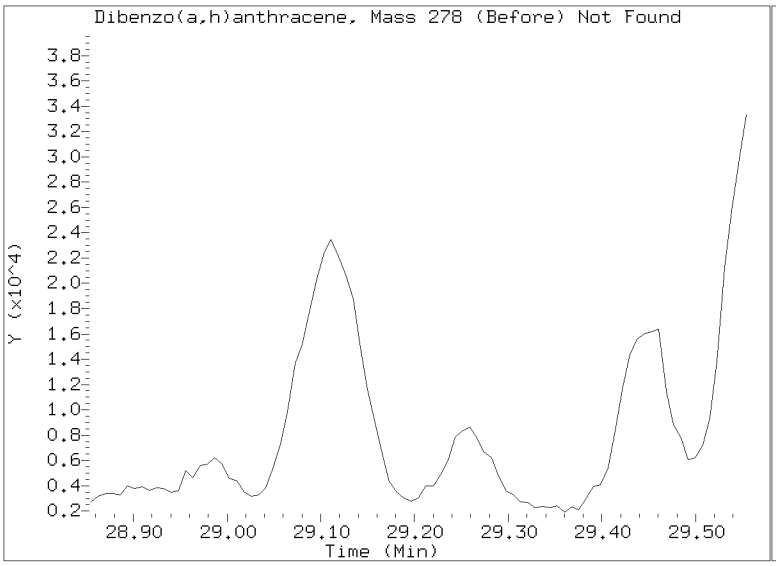
RRT check based on Ccal File: NT1003052314.D

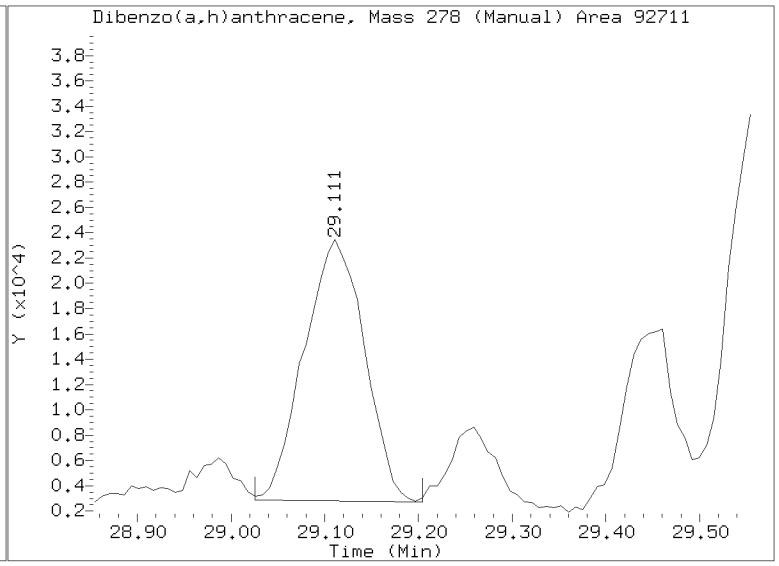
On Column LOD for nt10.i, 20230305A.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305A.b/NT1003052321.D
Injection Date: 06-MAR-2023 02:02
Lab ID:23A0313-11 Client ID:
Report Date: 03/27/2023 13:57





APPROVED

By Deenay Dunmore at 2:07 pm, Mar 27, 2023

Analytical Resources, LLC
Analytical Chemists and Consultants

LDW23-SC1159

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E

Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-13 A	SDG:	23A0313
Sampled:	01/16/23 14:26	Prepared:	02/02/23 13:06	File ID:	NT1003052322.D
% Solids:	84.73	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/06/23 02:40
Batch:	BLA0685	Sequence:	SLC0415	Initial/Final:	11.8 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00019
Cleanups:	GPC				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	114		4.4	20.0
106-44-5	4-Methylphenol	1	20.0	U	7.4	20.0
91-20-3	Naphthalene	1	12.3	J	4.2	20.0
91-57-6	2-Methylnaphthalene	1	11.8	J	4.5	20.0
208-96-8	Acenaphthylene	1	14.2	J	6.2	20.0
131-11-3	Dimethylphthalate	1	20.0	U	4.4	20.0
83-32-9	Acenaphthene	1	14.3	J	5.2	20.0
132-64-9	Dibenzofuran	1	15.4	J	14.1	20.0
86-73-7	Fluorene	1	20.0	U	14.6	20.0
85-01-8	Phenanthrene	1	79.5		8.7	20.0
120-12-7	Anthracene	1	45.8		7.2	20.0
206-44-0	Fluoranthene	1	224		6.1	20.0
129-00-0	Pyrene	1	349		5.7	20.0
85-68-7	Butylbenzylphthalate	1	20.0	U	9.4	20.0
56-55-3	Benzo(a)anthracene	1	163		6.0	20.0
218-01-9	Chrysene	1	222		6.1	20.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	125		5.5	50.0
	Benzofluoranthenes, Total	1	334		10.0	40.0
50-32-8	Benzo(a)pyrene	1	119		4.2	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	67.1		14.7	20.0
53-70-3	Dibenzo(a,h)anthracene	1	25.7		17.2	20.0
191-24-2	Benzo(g,h,i)perylene	1	78.2		13.6	20.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	750.14	567	75.5	27 - 120	
Phenol-d5	750.14	614	81.8	29 - 120	
2-Chlorophenol-d4	750.14	630	83.9	31 - 120	
1,2-Dichlorobenzene-d4	500.09	370	73.9	32 - 120	
Nitrobenzene-d5	500.09	436	87.1	30 - 120	
2-Fluorobiphenyl	500.09	446	89.1	35 - 120	

LDW23-SC1159

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E

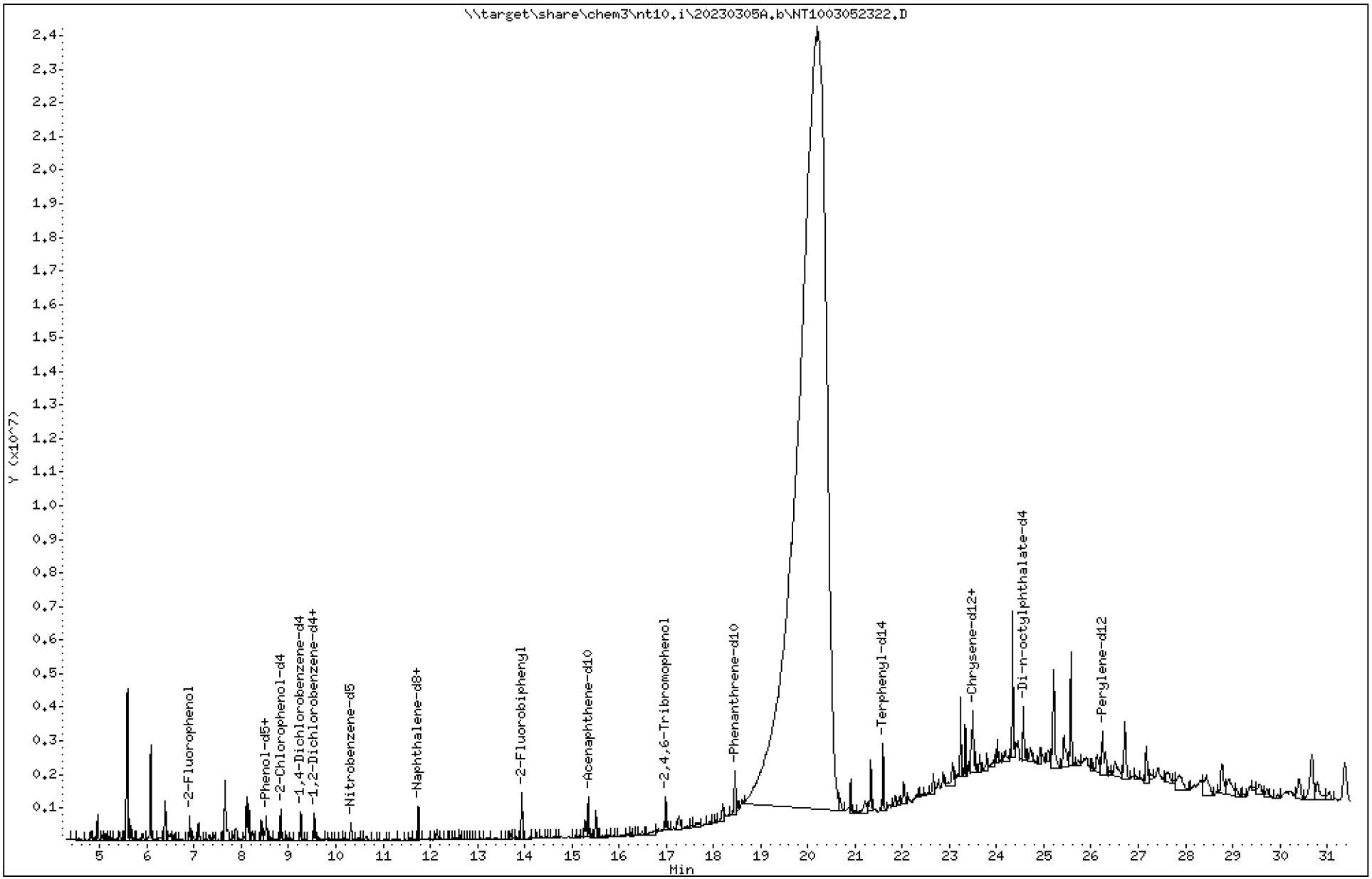
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-13 A	SDG:	23A0313
Sampled:	01/16/23 14:26	Prepared:	02/02/23 13:06	File ID:	NT1003052322.D
% Solids:	84.73	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/06/23 02:40
Batch:	BLA0685	Sequence:	SLC0415	Initial/Final:	11.8 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00019
Cleanups:	GPC				

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	750.14	656	87.5	24 - 134	
p-Terphenyl-d14	500.09	423	84.5	37 - 120	

Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052322.D
Date : 06-MAR-2023 02:40
Client ID:
Sample Info: 23A0313-13

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052322.D

Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

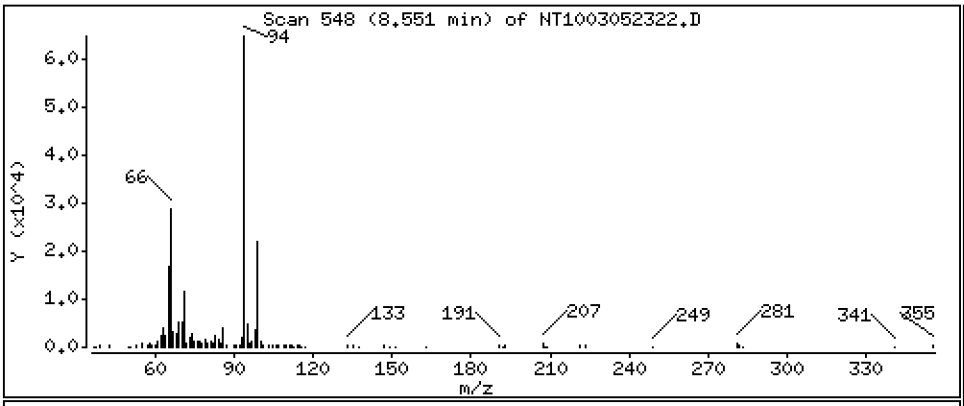
Operator: VTS

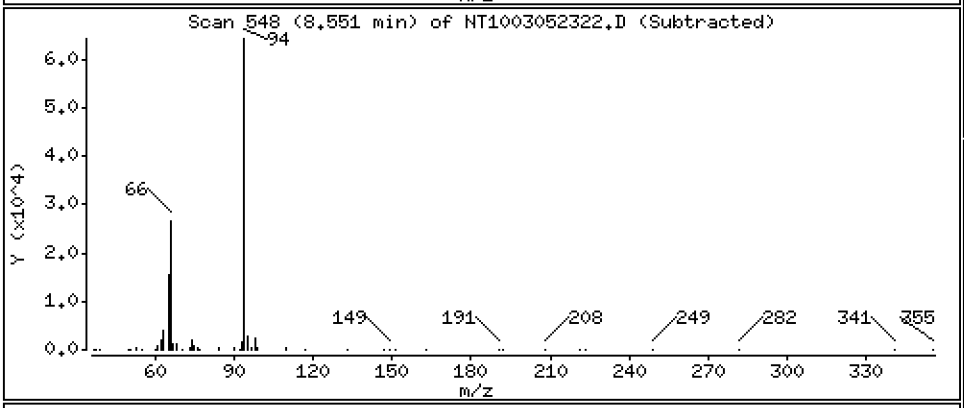
Column phase: ZB-5msi

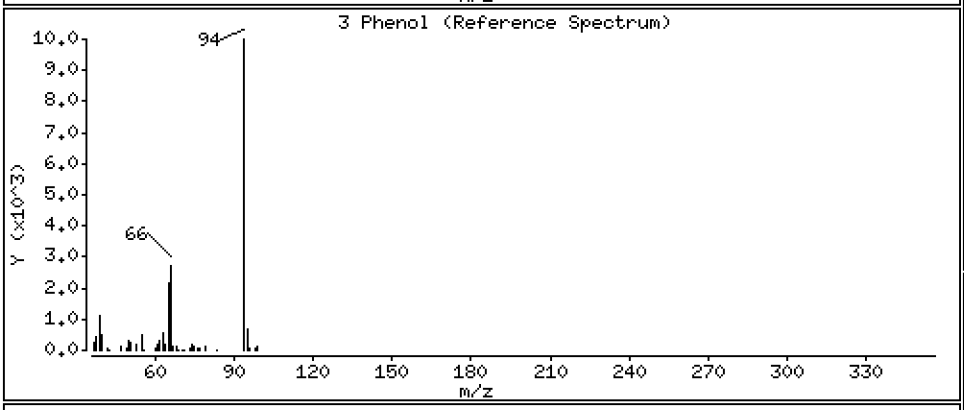
Column diameter: 0.25

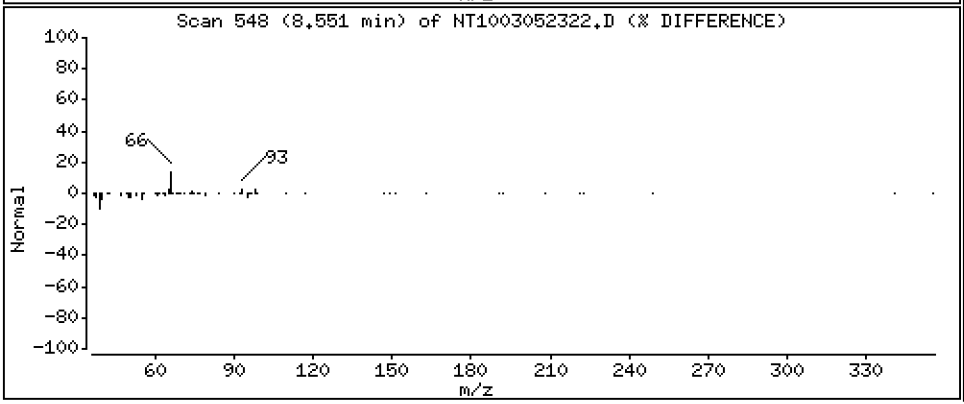
3 Phenol

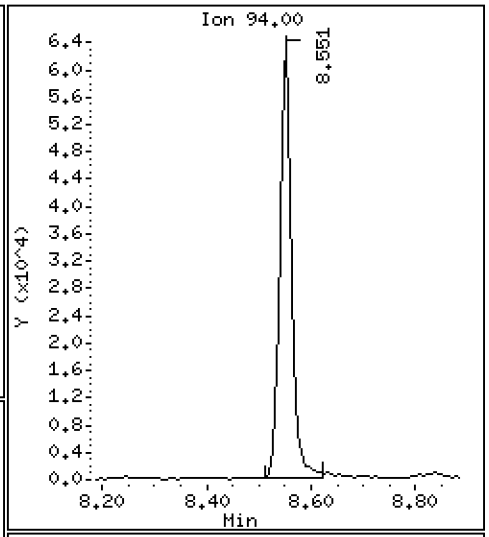
Concentration: 1.145 ug/mL

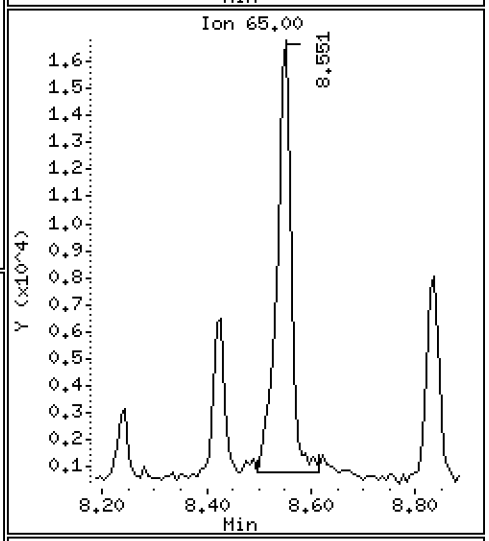


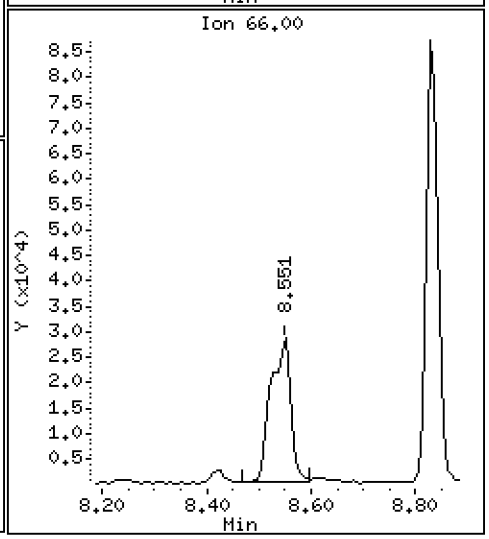












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

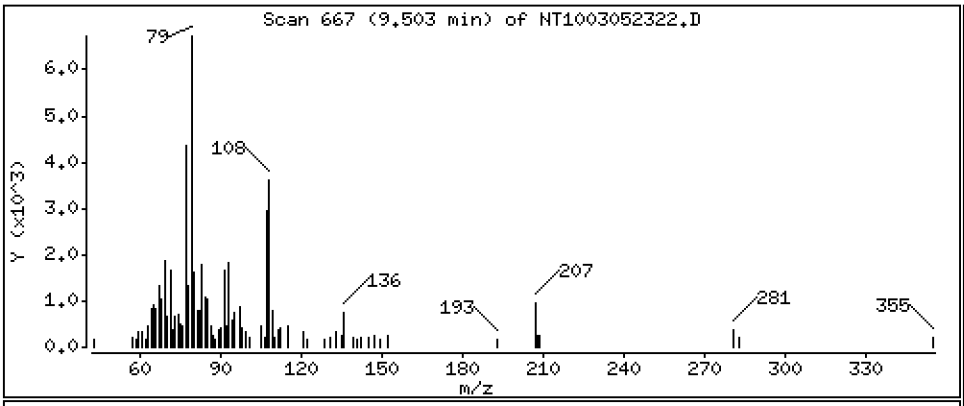
Operator: VTS

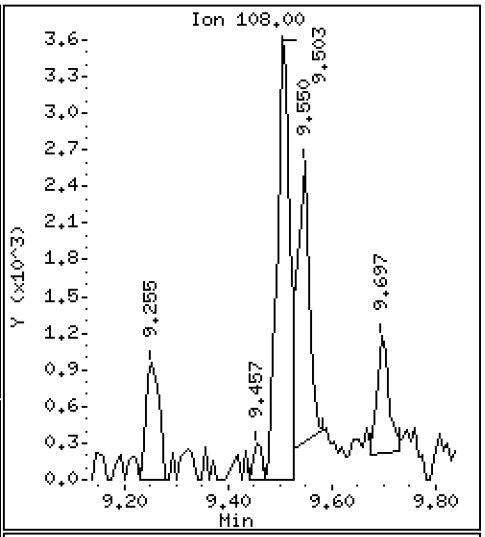
Column phase: ZB-5msi

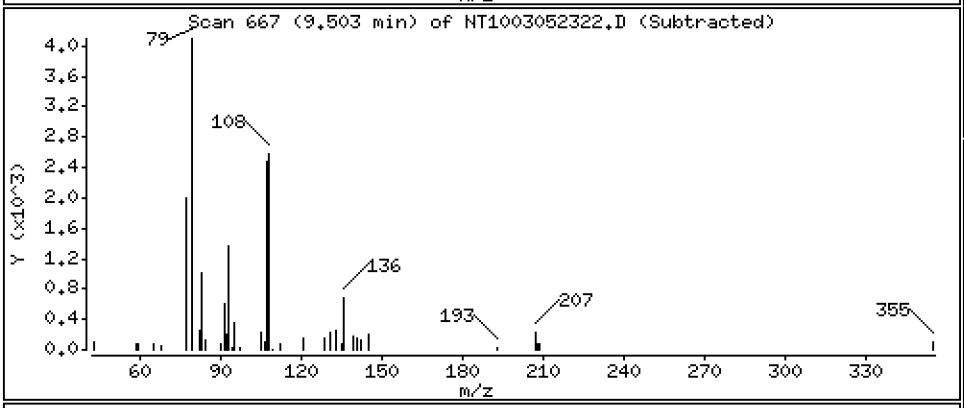
Column diameter: 0.25

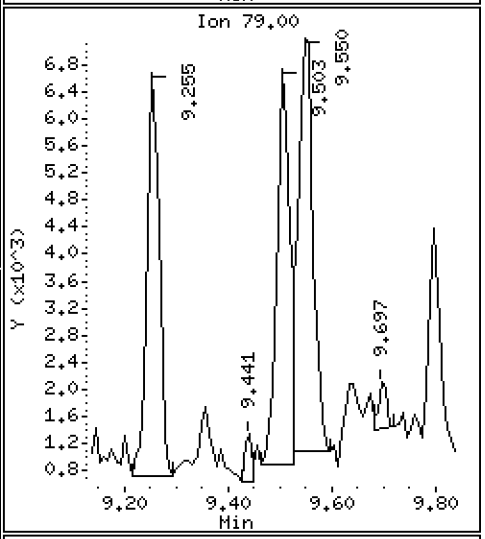
11 Benzyl alcohol

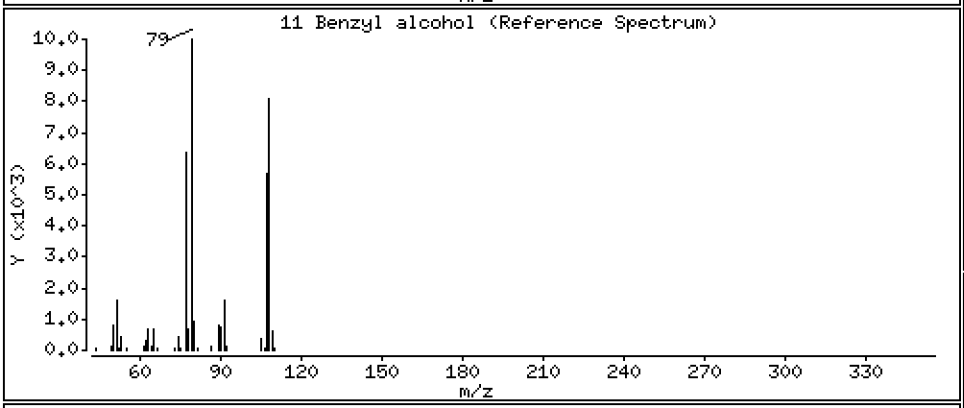
Concentration: 0.1414 ug/mL

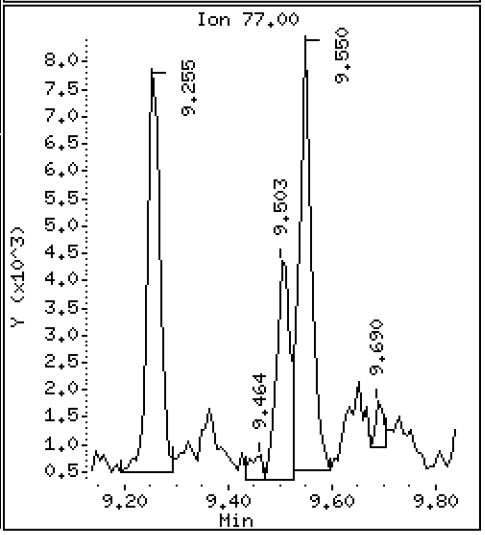


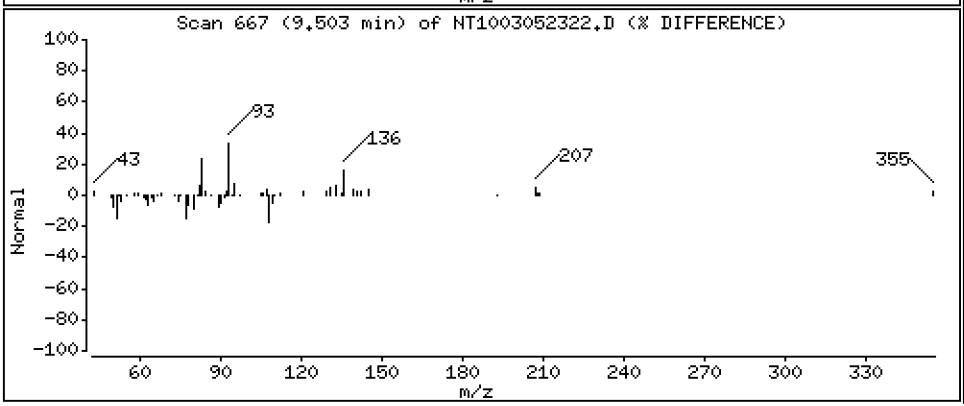












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

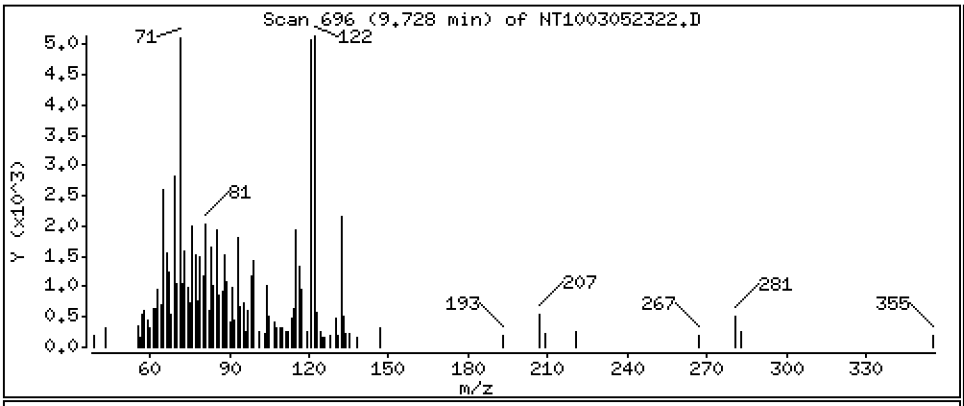
Operator: VTS

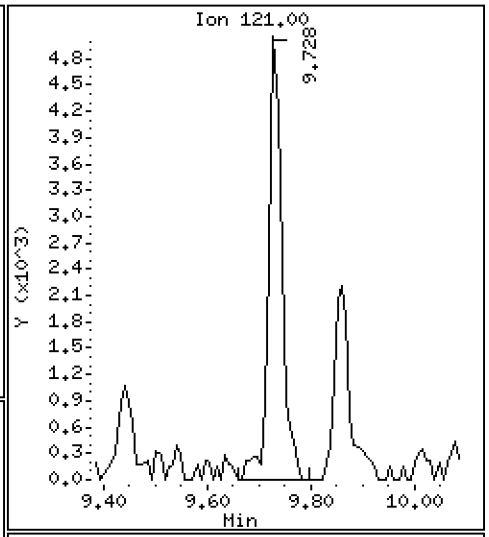
Column phase: ZB-5msi

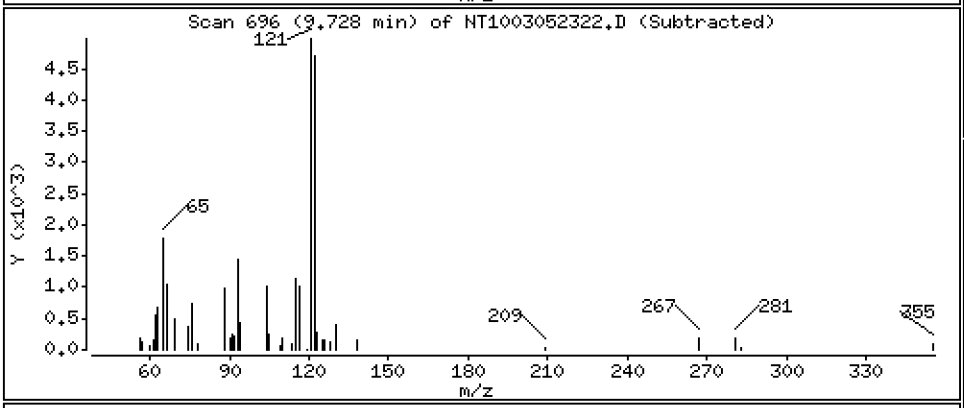
Column diameter: 0.25

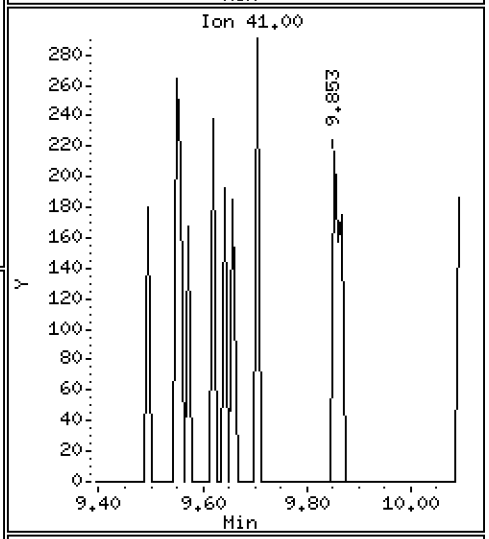
14 2,2'-oxybis(1-Chloropropane)

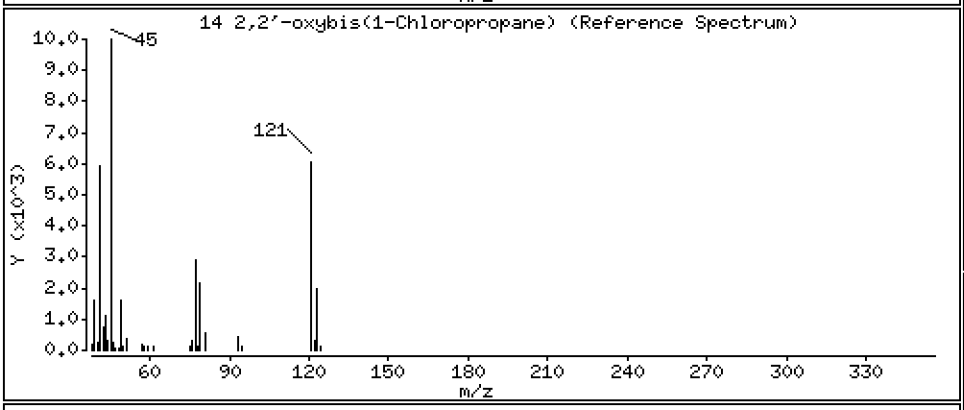
Concentration: 0.3868 ug/mL

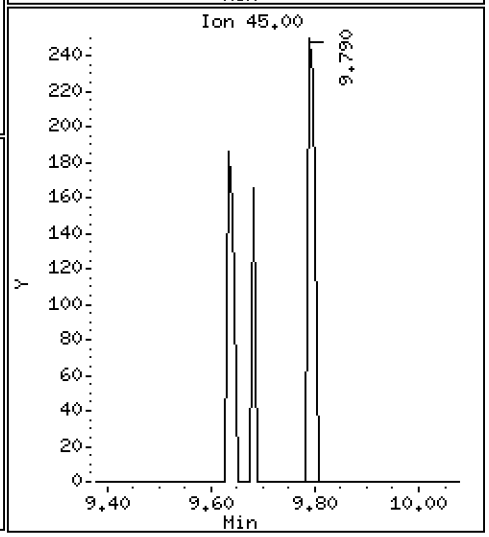


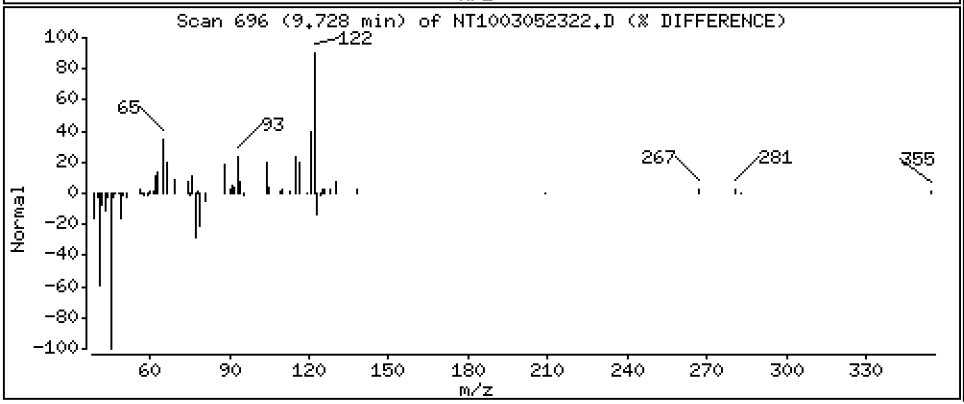












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

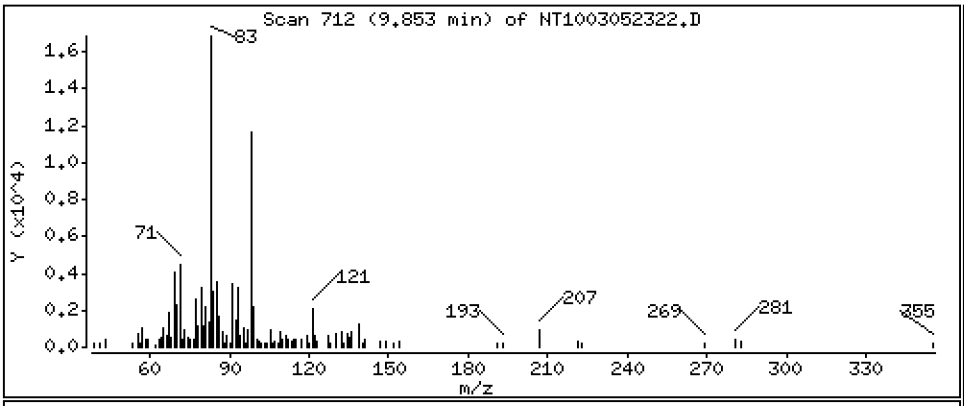
Operator: VTS

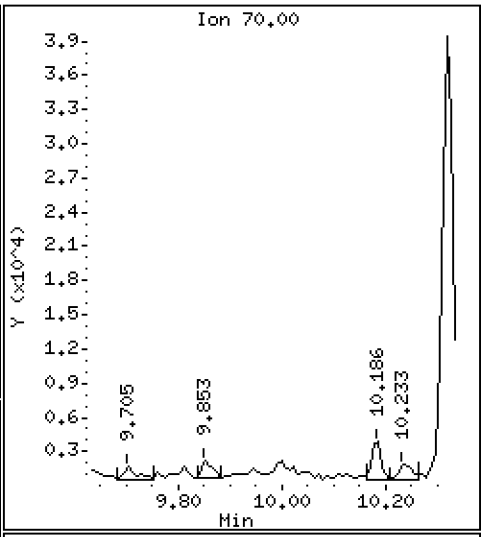
Column phase: ZB-5msi

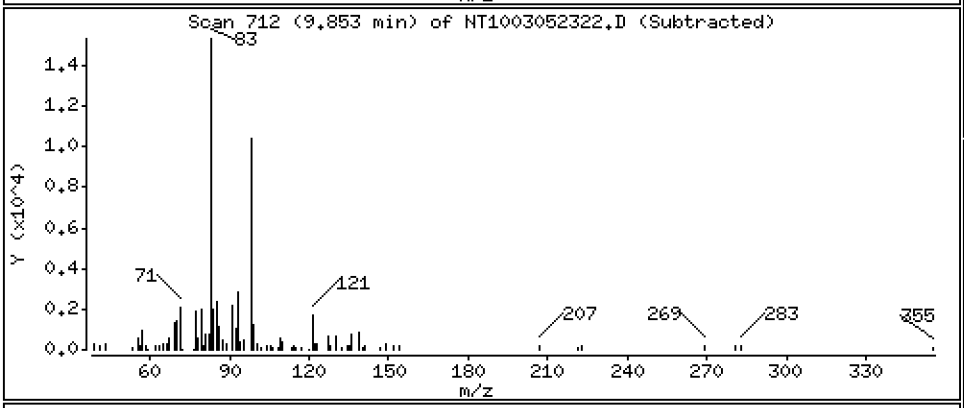
Column diameter: 0.25

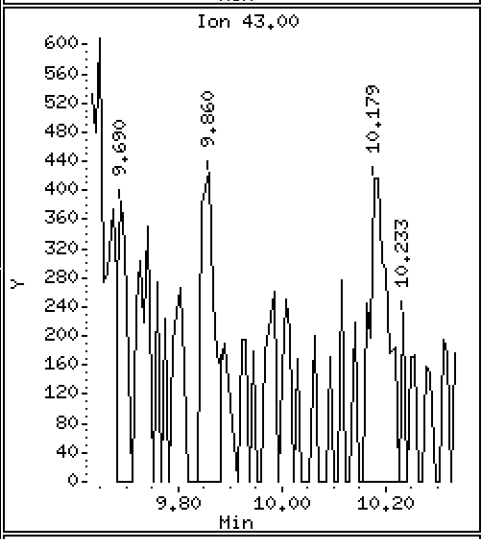
16 N-Nitroso-di-n-propylamine

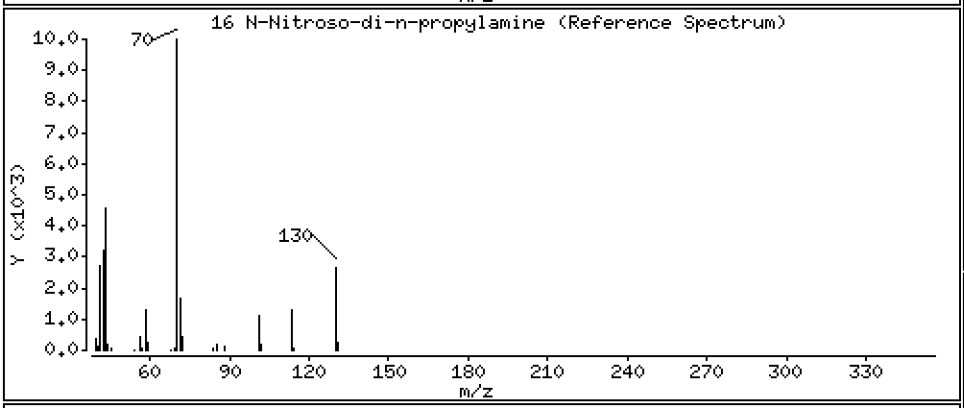
Concentration: 0.04373 ug/mL

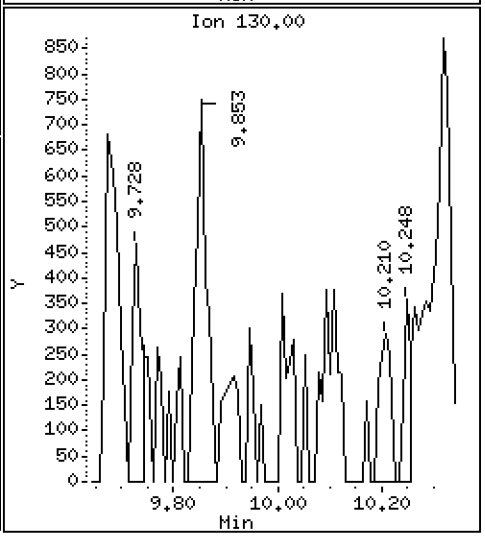


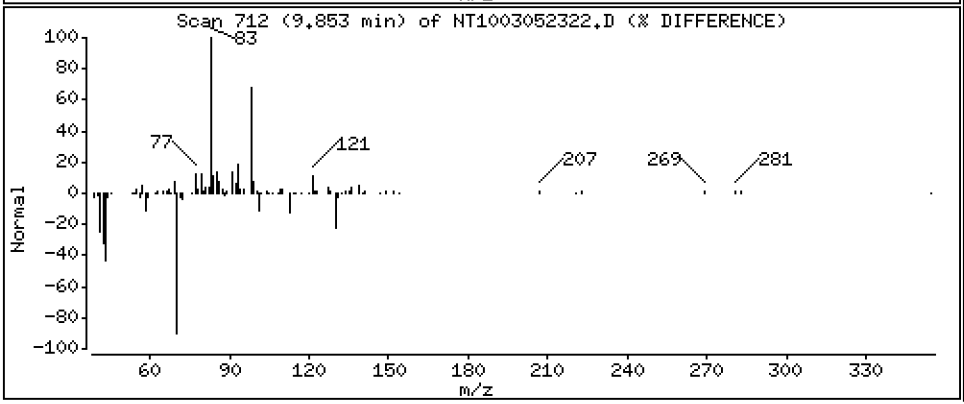












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

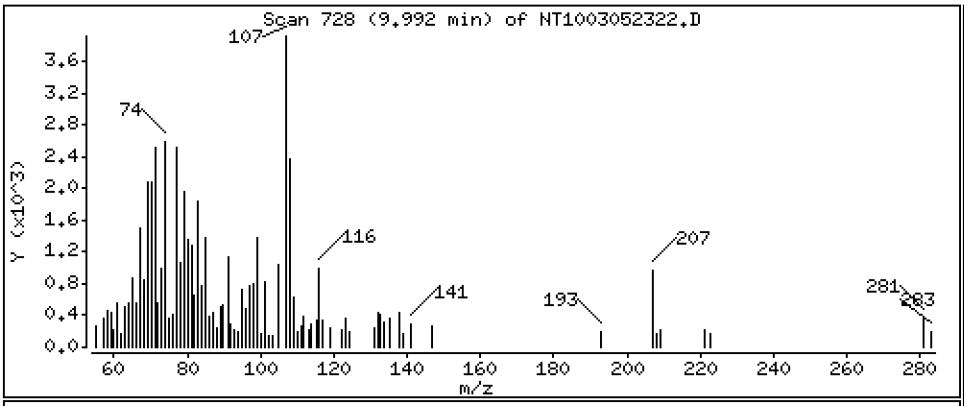
Operator: VTS

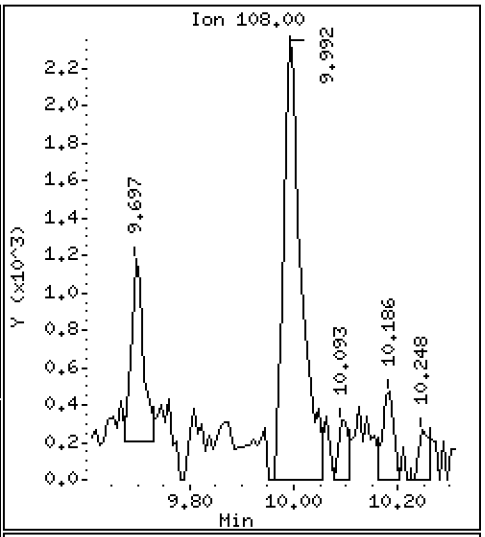
Column phase: ZB-5msi

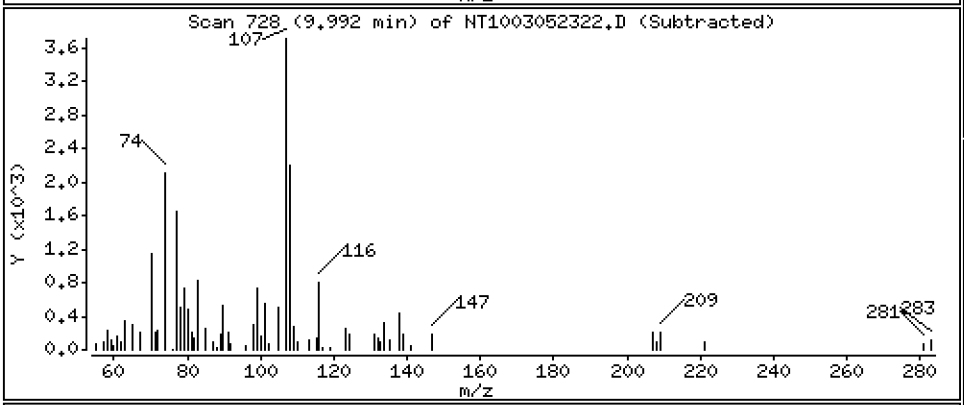
Column diameter: 0.25

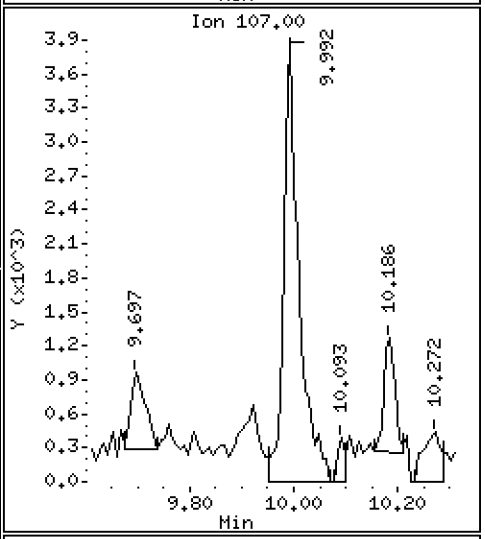
15 4-Methylphenol

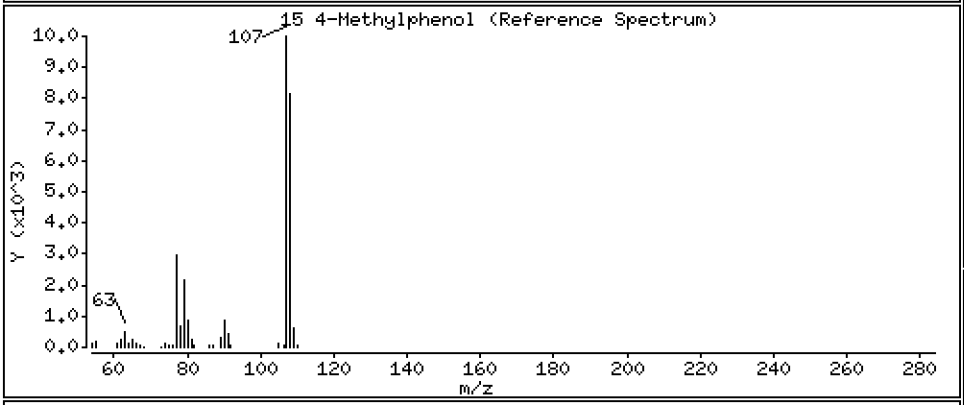
Concentration: 0.06900 ug/mL

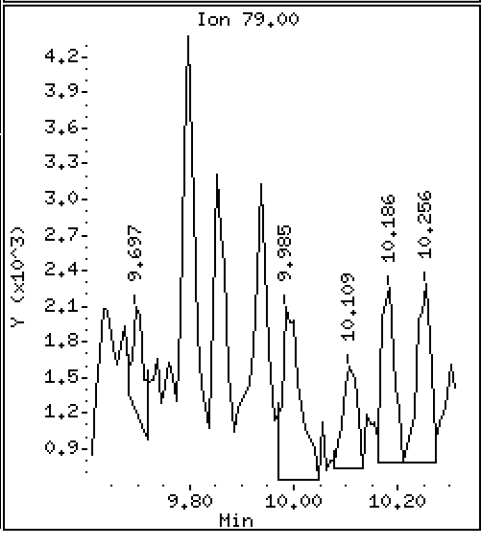


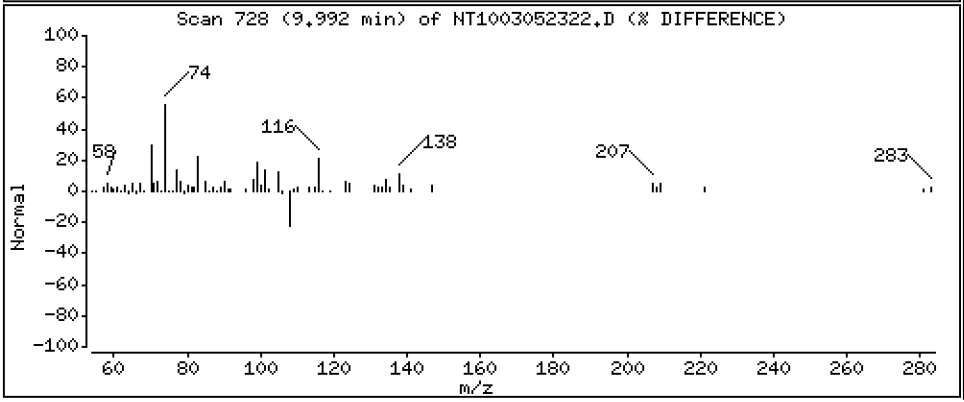












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

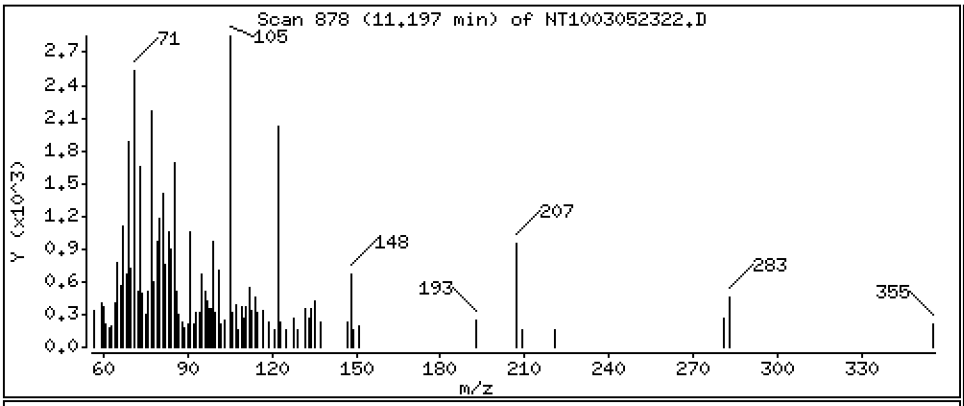
Operator: VTS

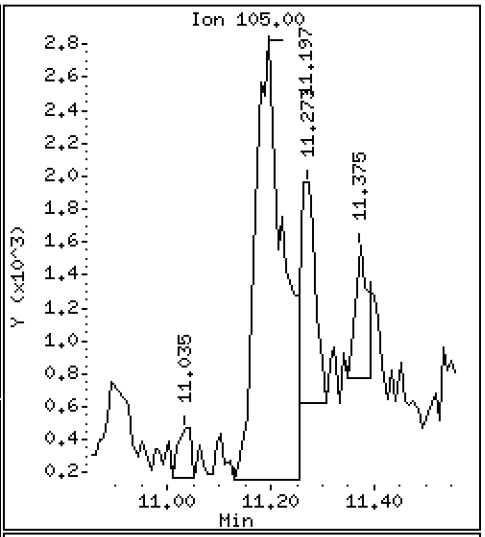
Column phase: ZB-5msi

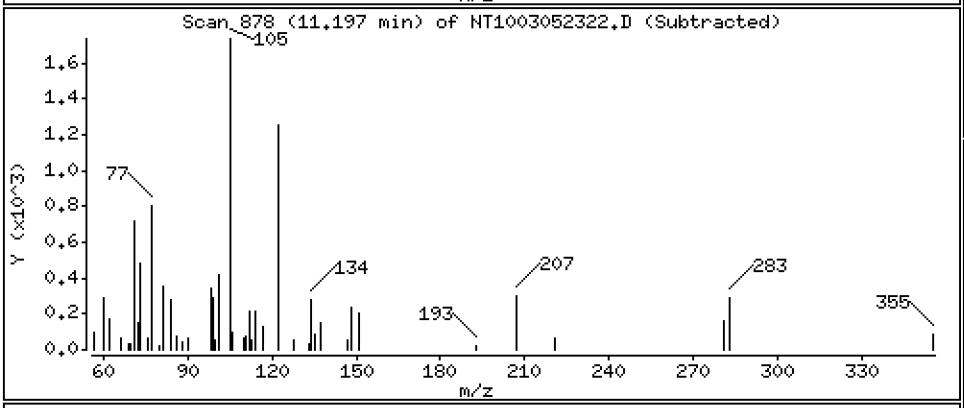
Column diameter: 0.25

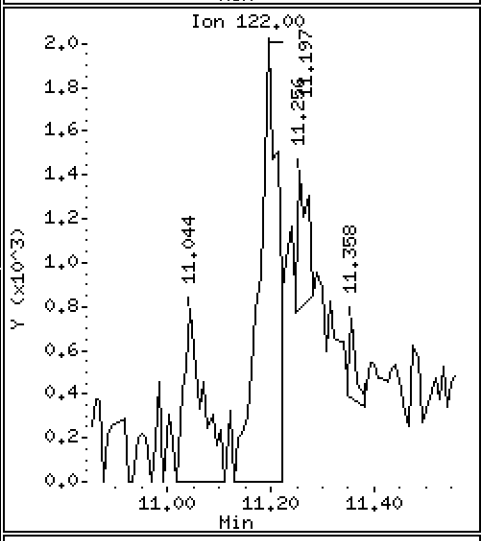
24 Benzoic acid

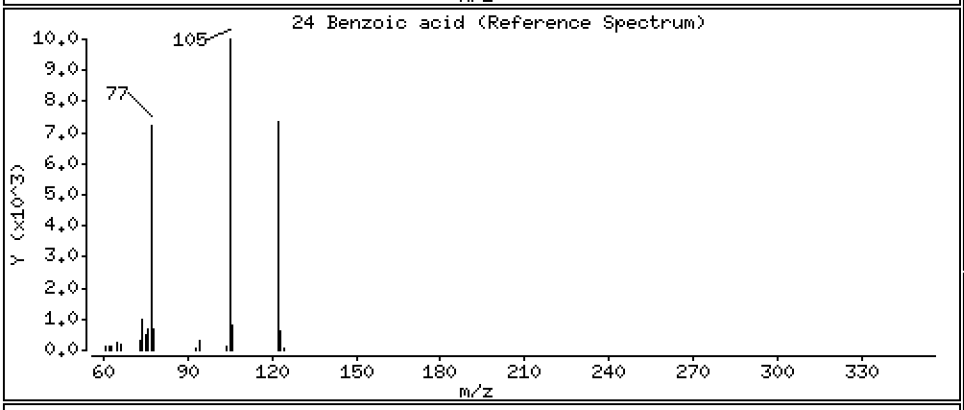
Concentration: 0.2265 ug/mL

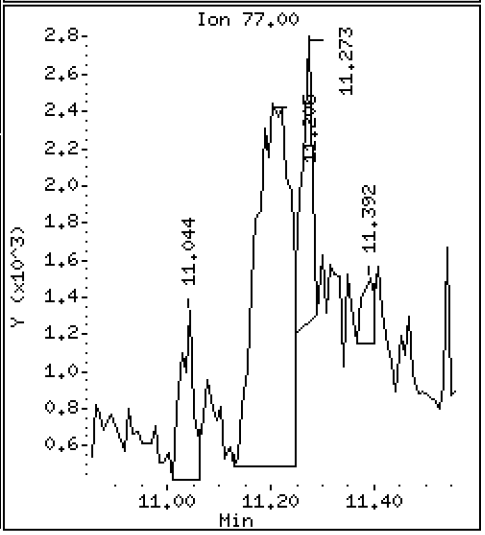


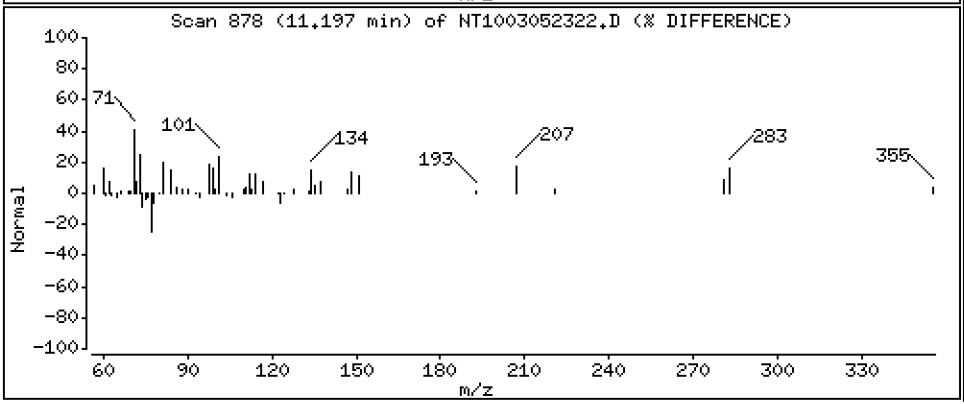












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

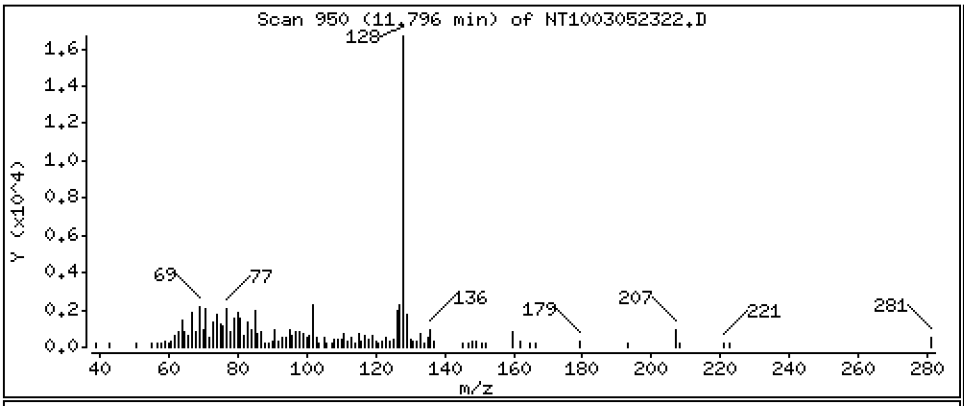
Operator: VTS

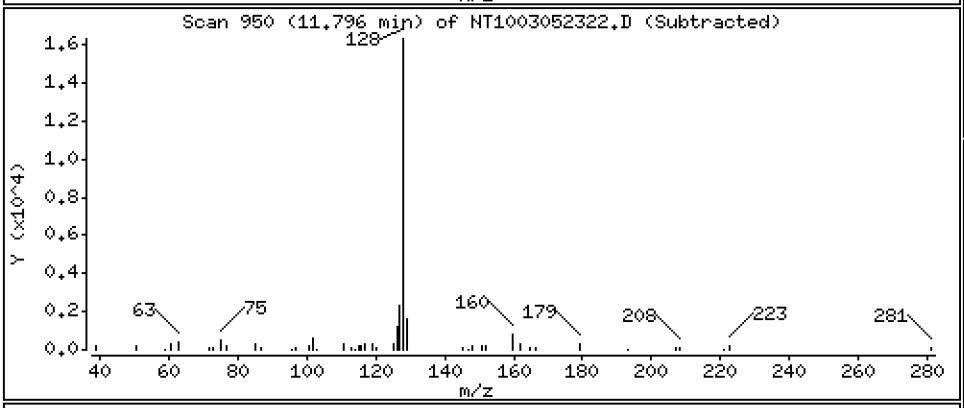
Column phase: ZB-5msi

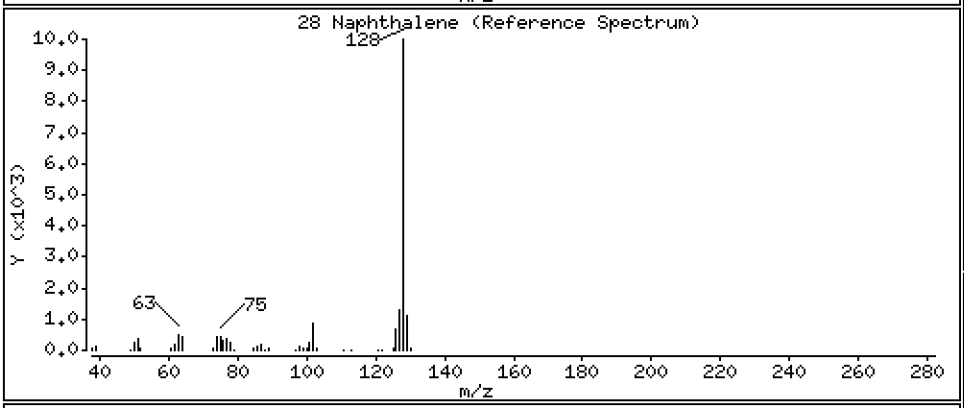
Column diameter: 0.25

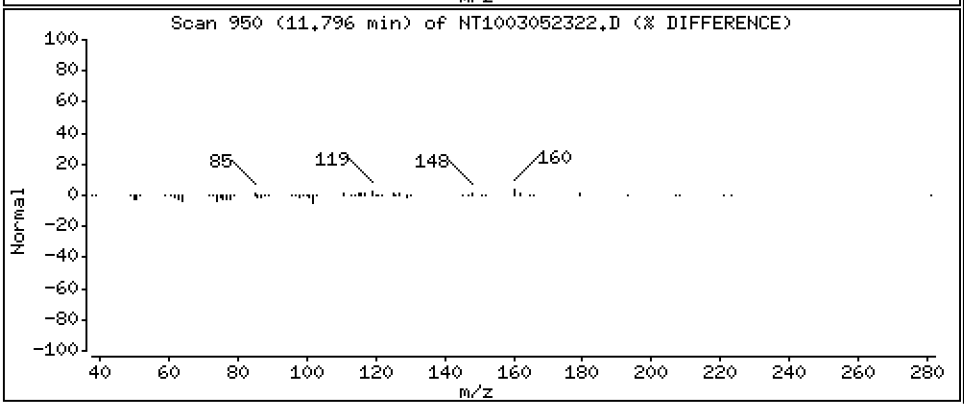
28 Naphthalene

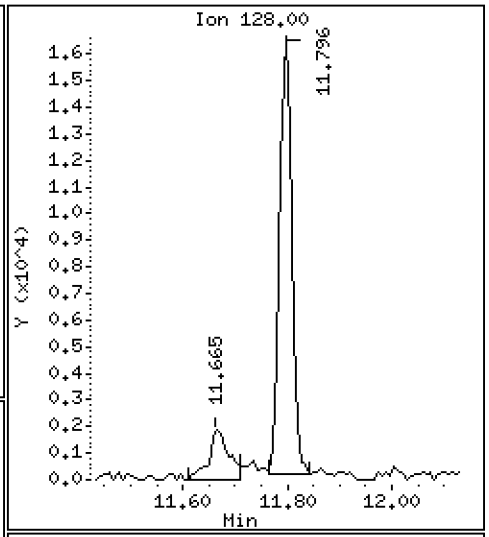
Concentration: 0.1234 ug/mL

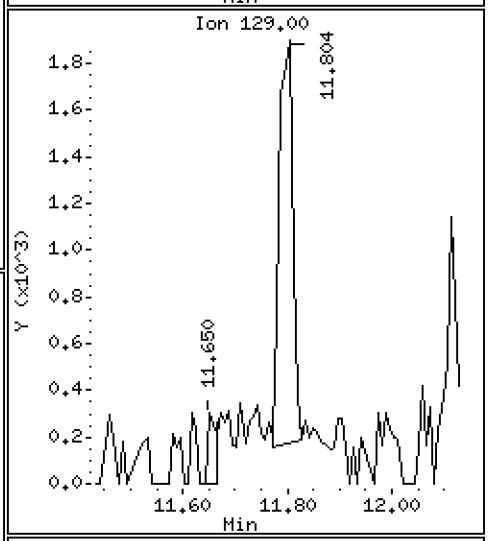


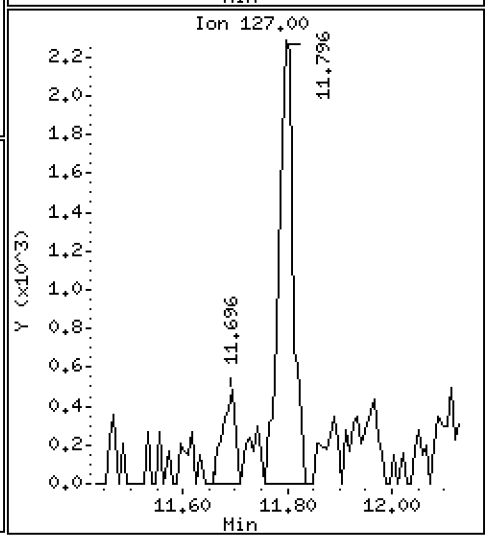












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

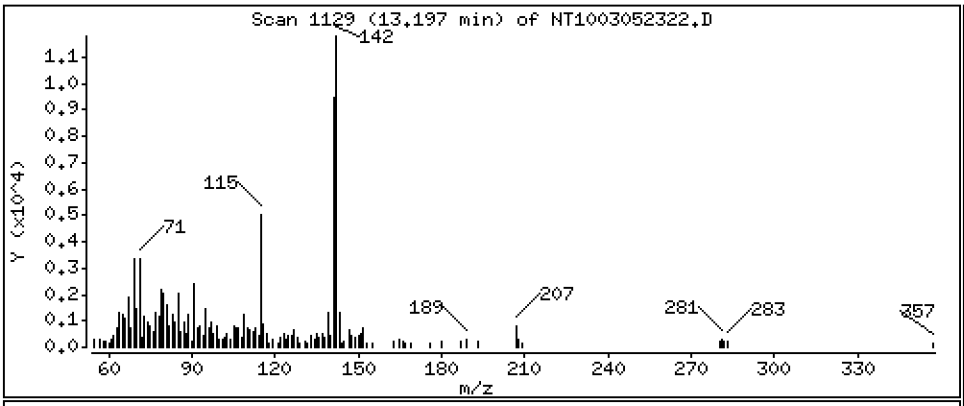
Operator: VTS

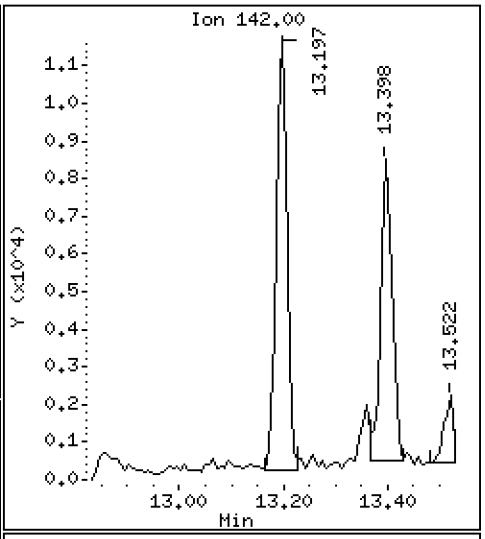
Column phase: ZB-5msi

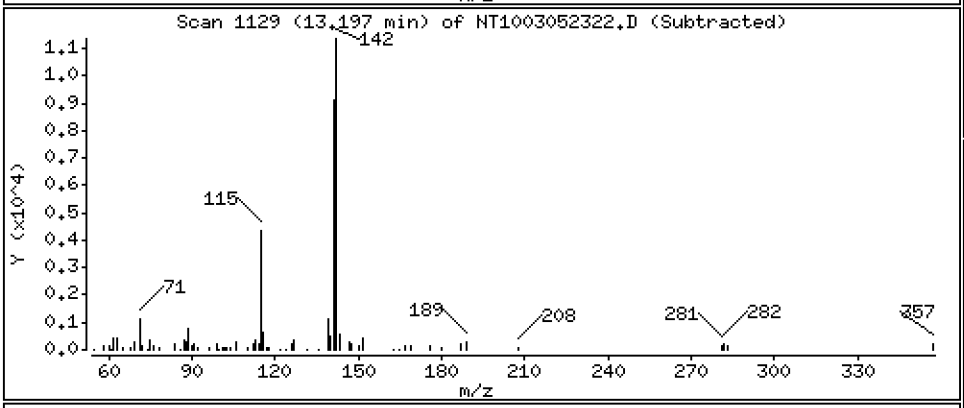
Column diameter: 0.25

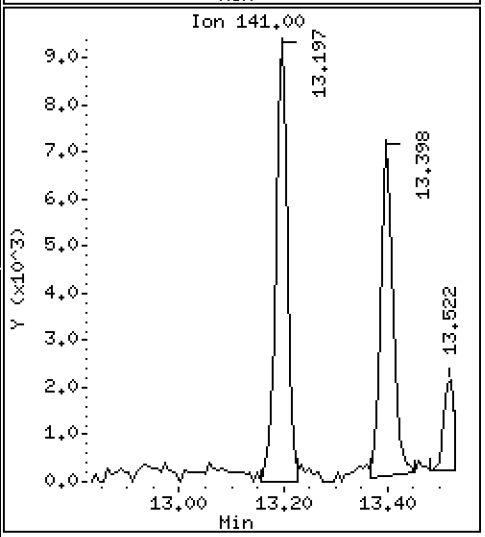
32 2-Methylnaphthalene

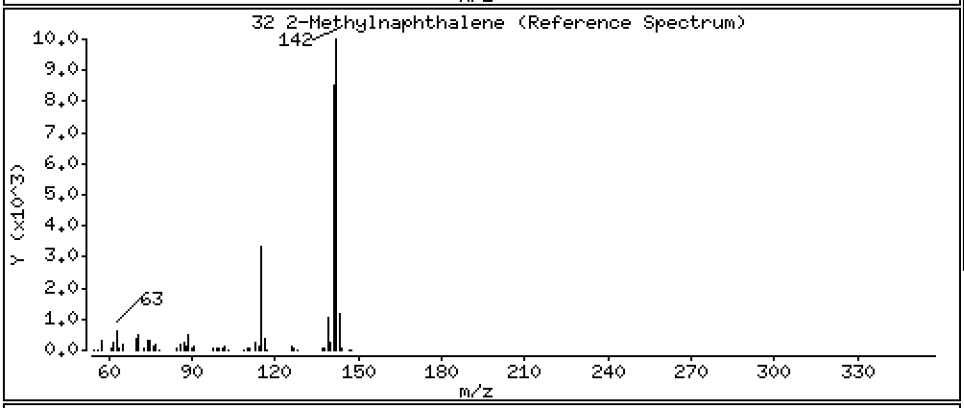
Concentration: 0.1181 ug/mL

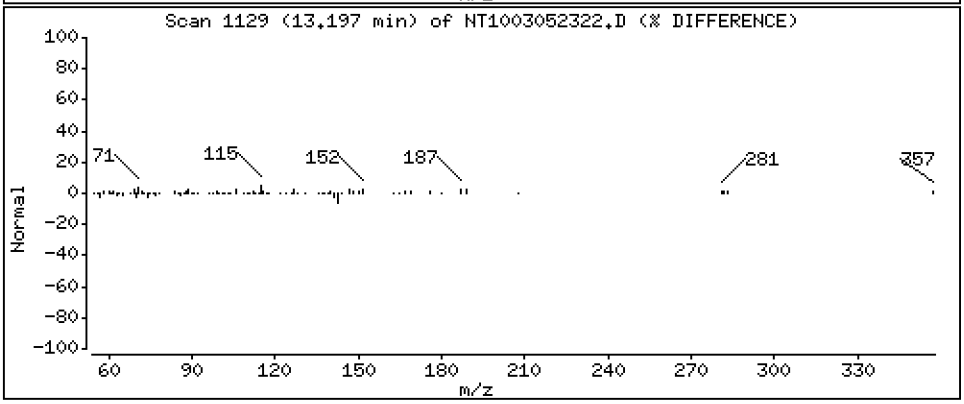












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052322.D

Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

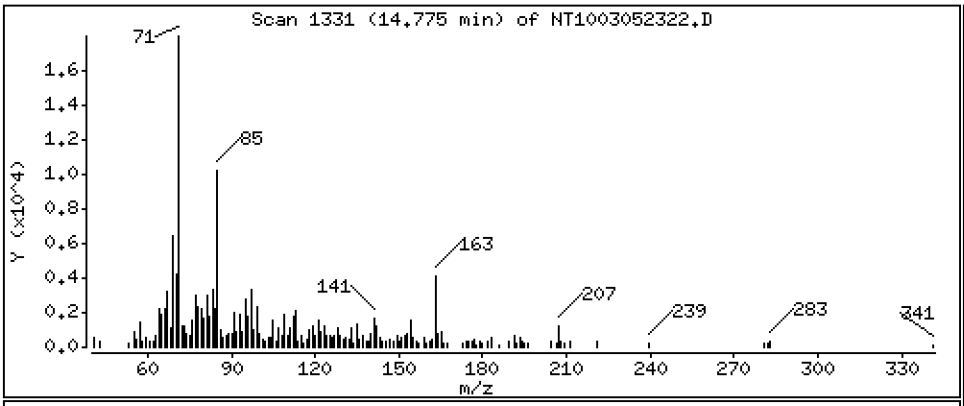
Operator: VTS

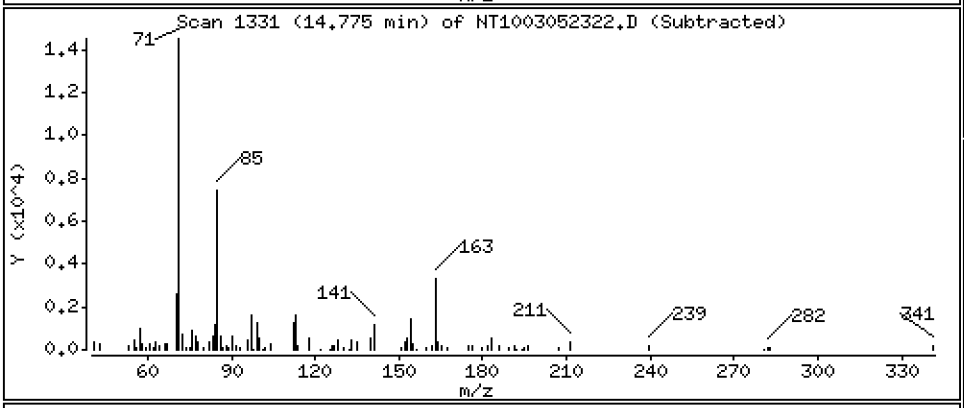
Column phase: ZB-5msi

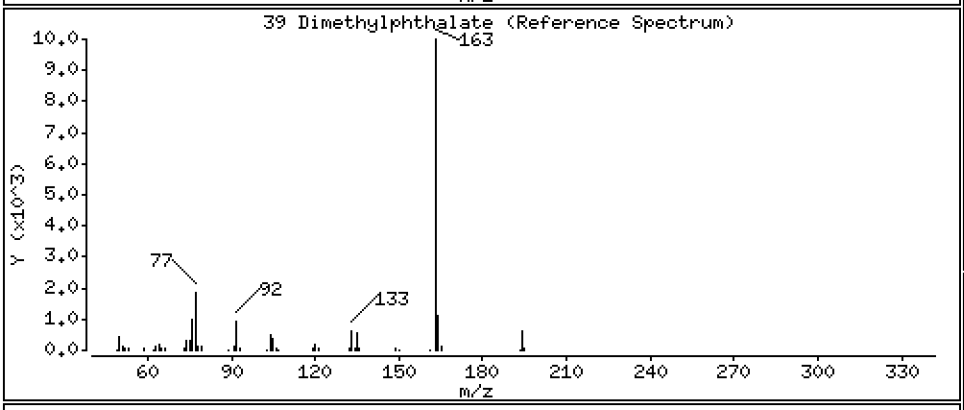
Column diameter: 0.25

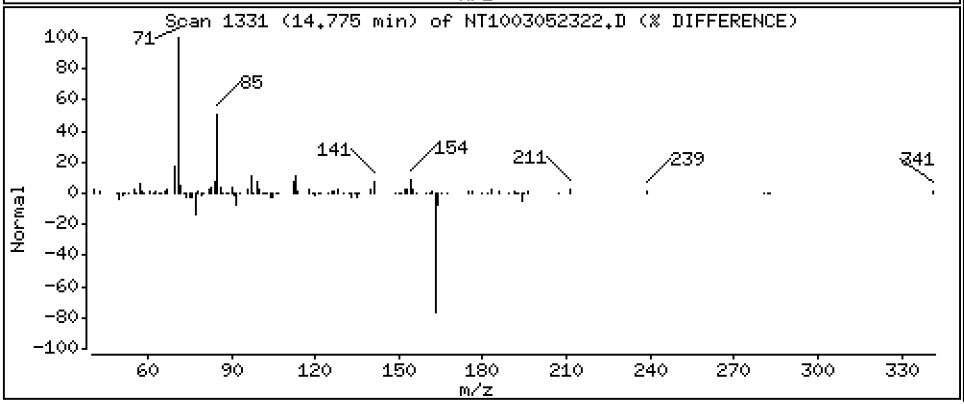
39 Dimethylphthalate

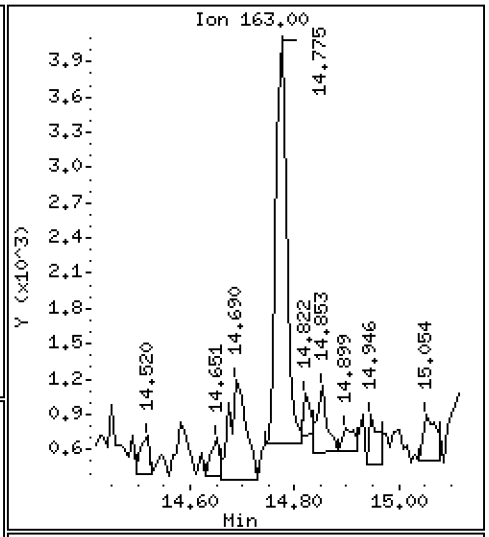
Concentration: 0.03289 ug/mL

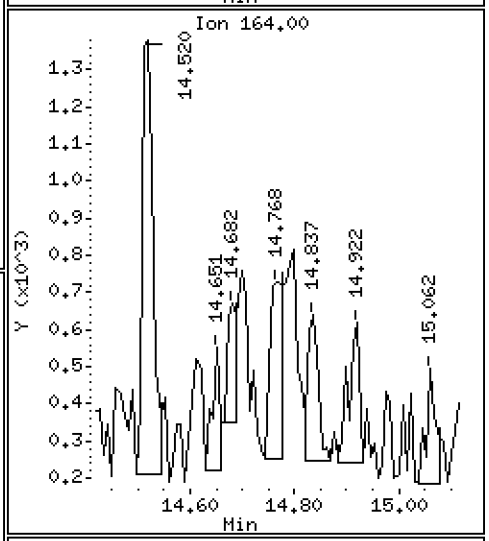


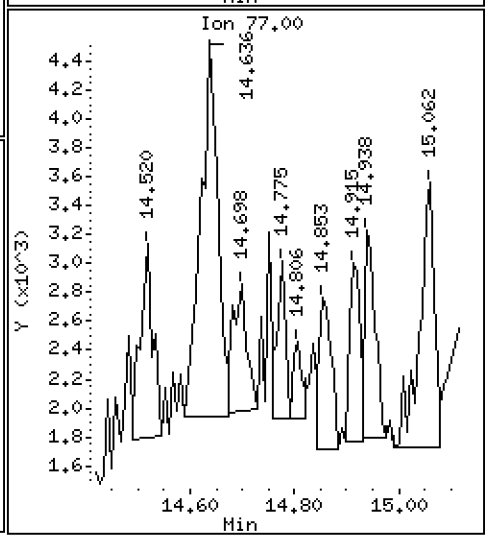












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

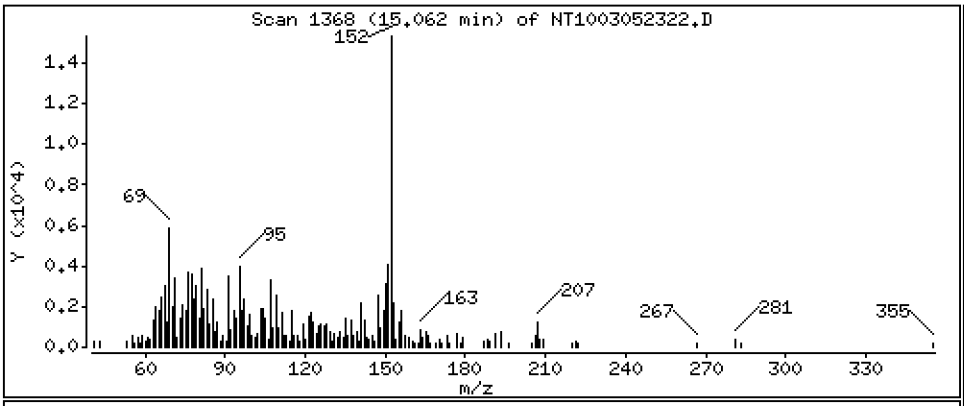
Operator: VTS

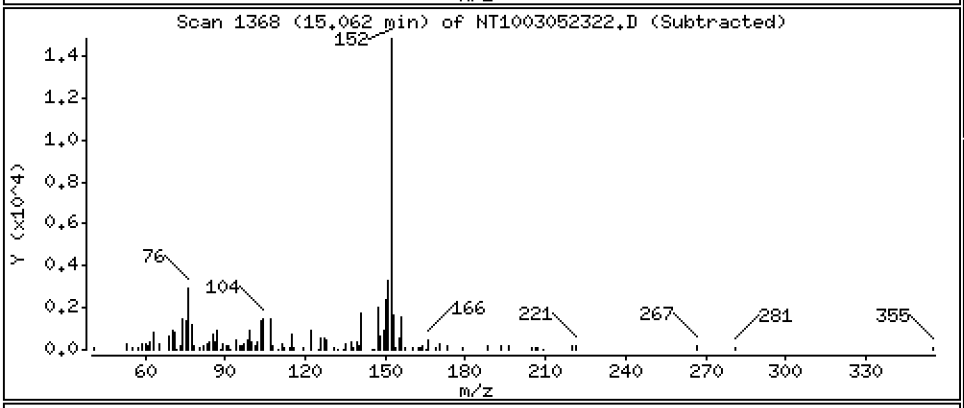
Column phase: ZB-5msi

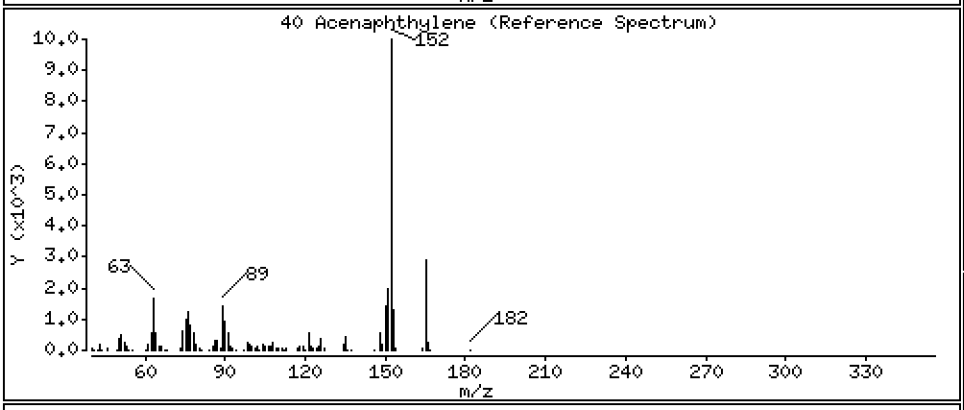
Column diameter: 0.25

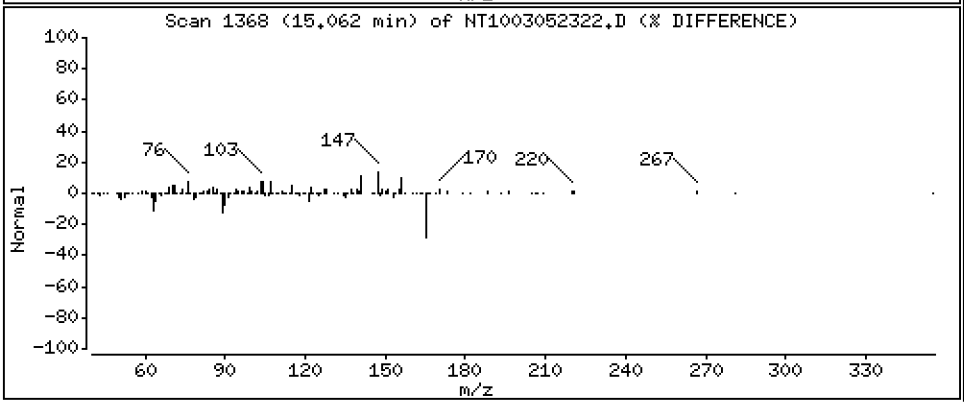
40 Acenaphthylene

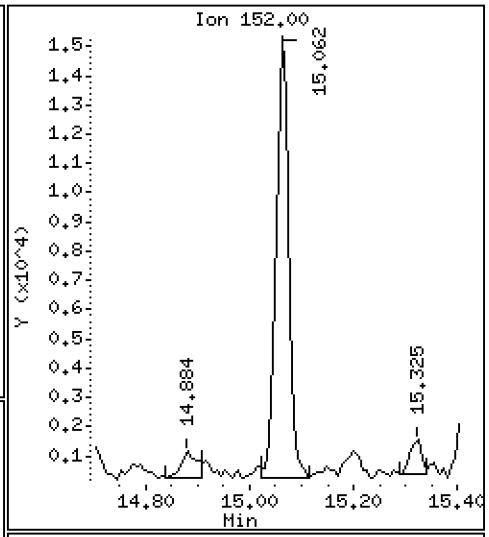
Concentration: 0.1418 ug/mL

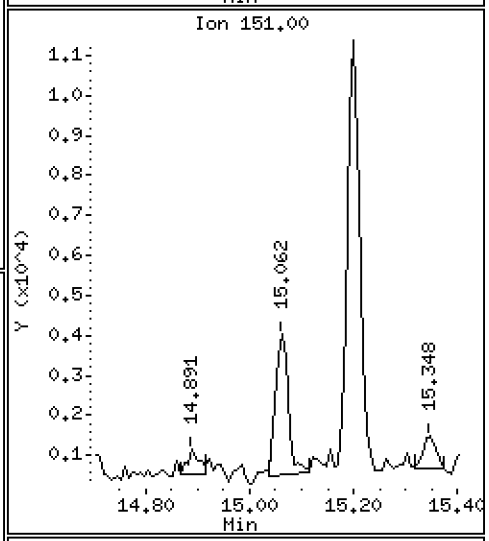


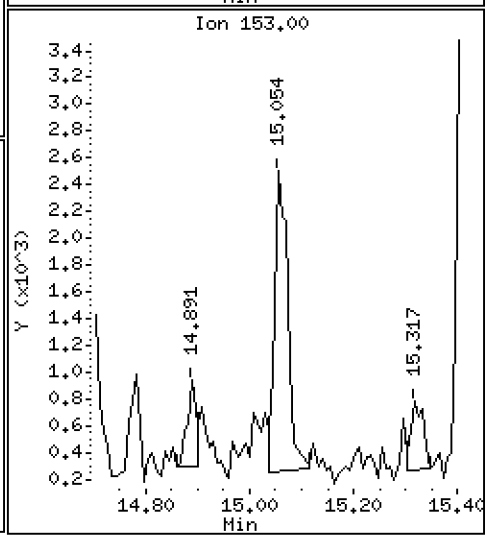












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

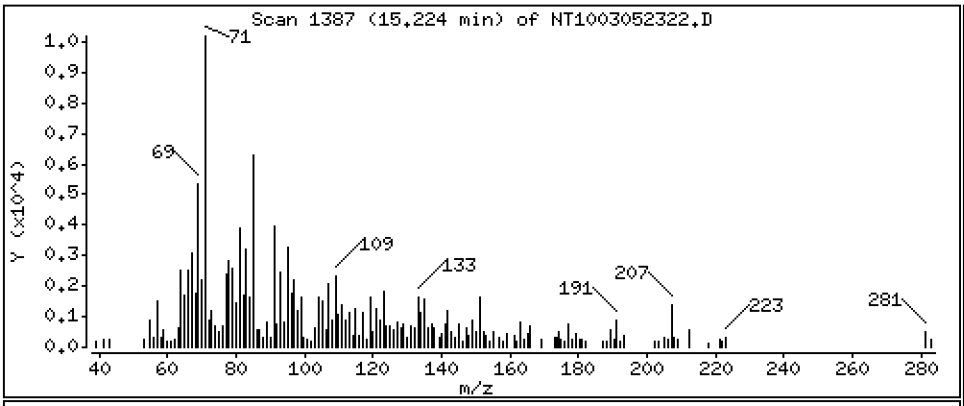
Operator: VTS

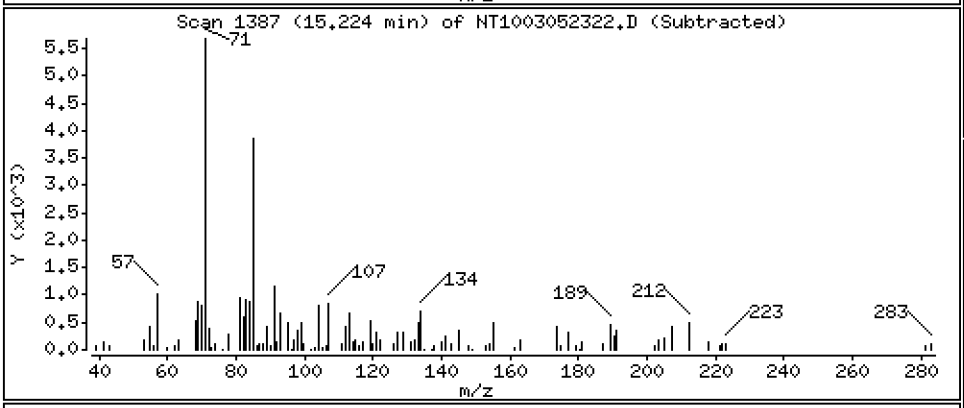
Column phase: ZB-5msi

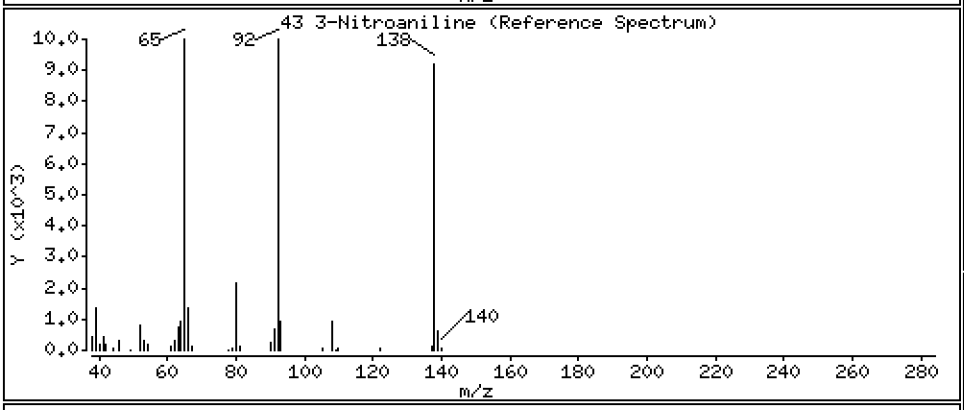
Column diameter: 0.25

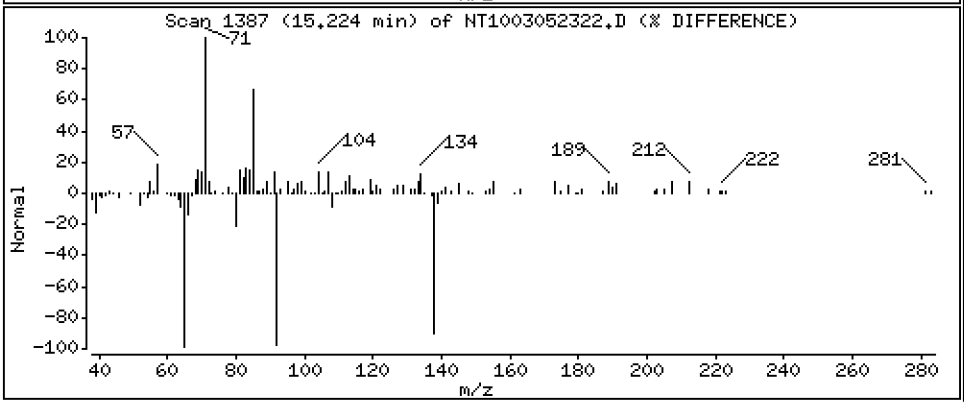
43 3-Nitroaniline

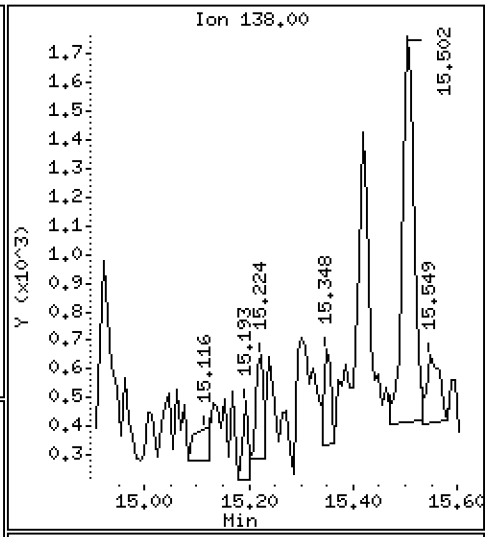
Concentration: 0.01160 ug/mL

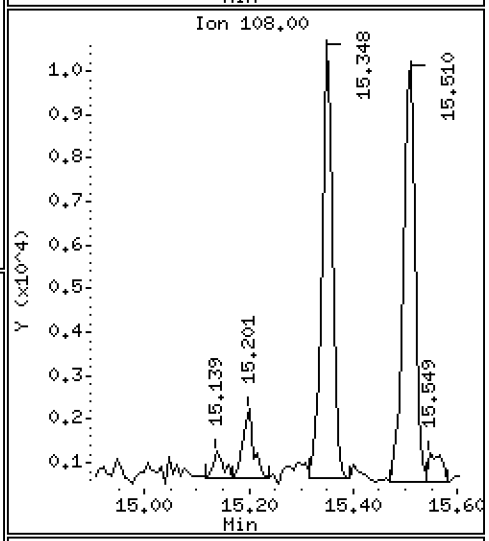


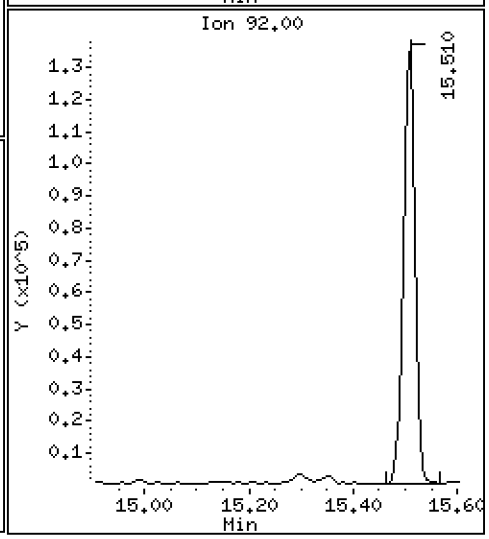












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

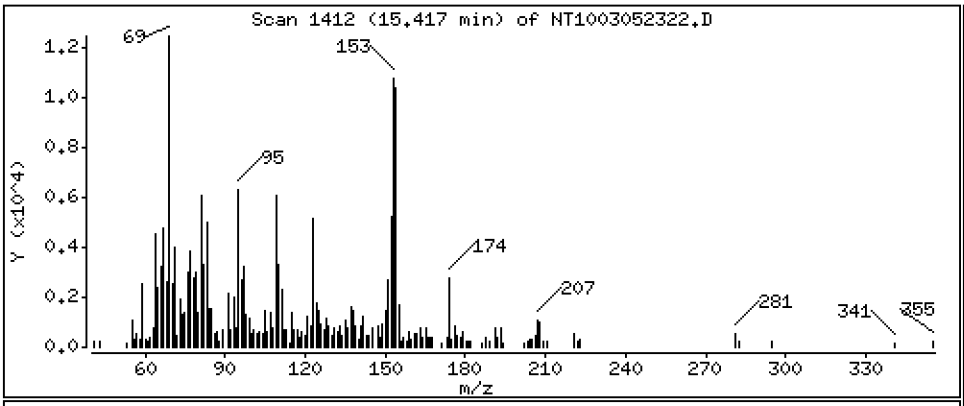
Operator: VTS

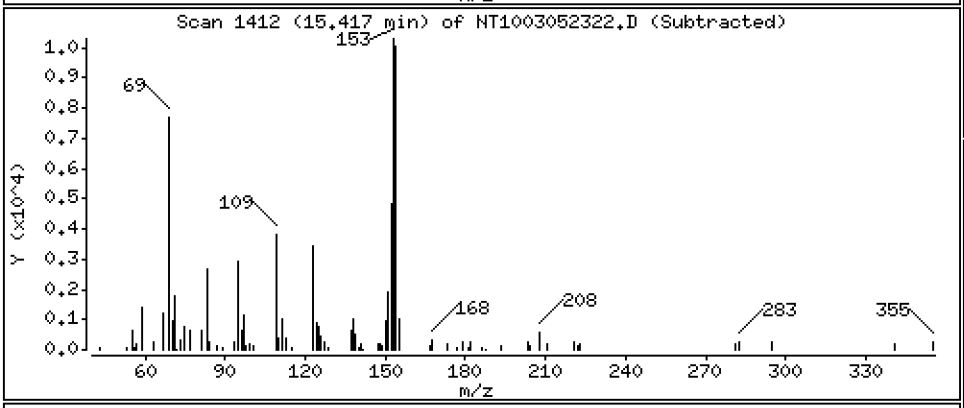
Column phase: ZB-5msi

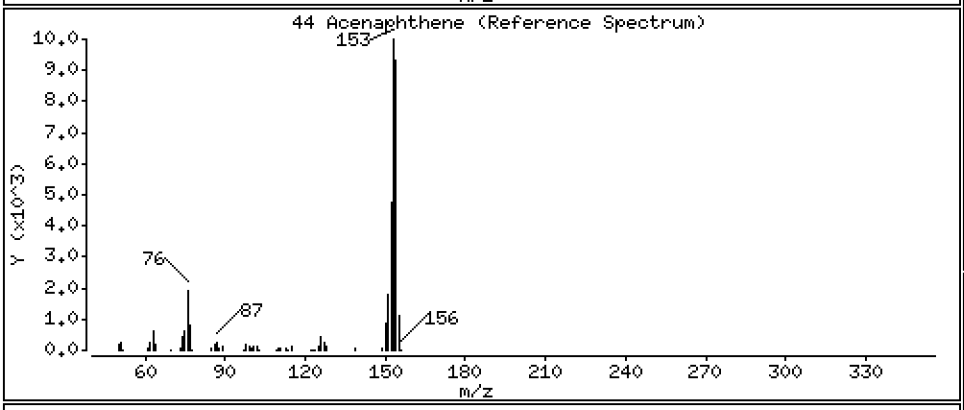
Column diameter: 0.25

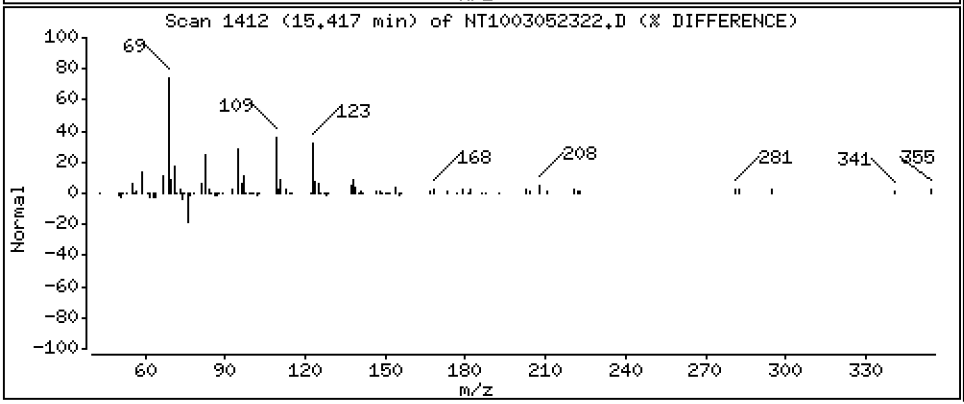
44 Acenaphthene

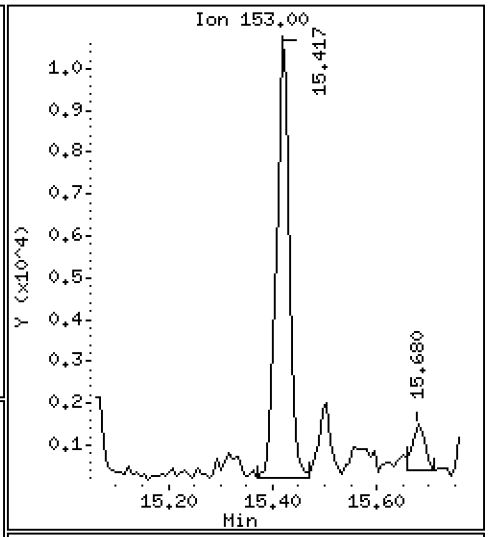
Concentration: 0.1427 ug/mL

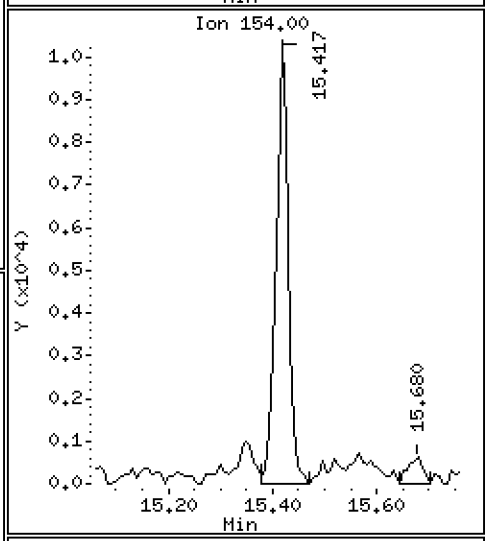


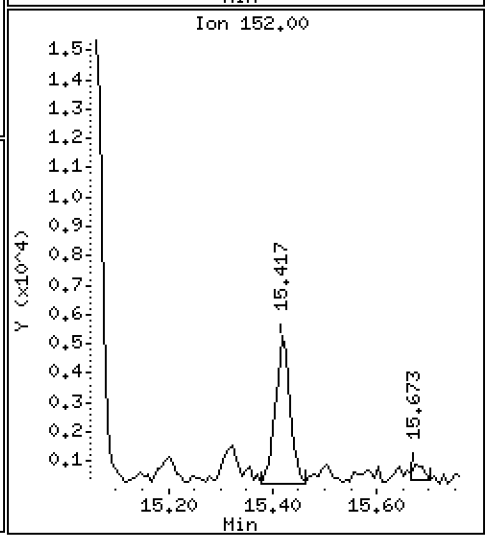












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

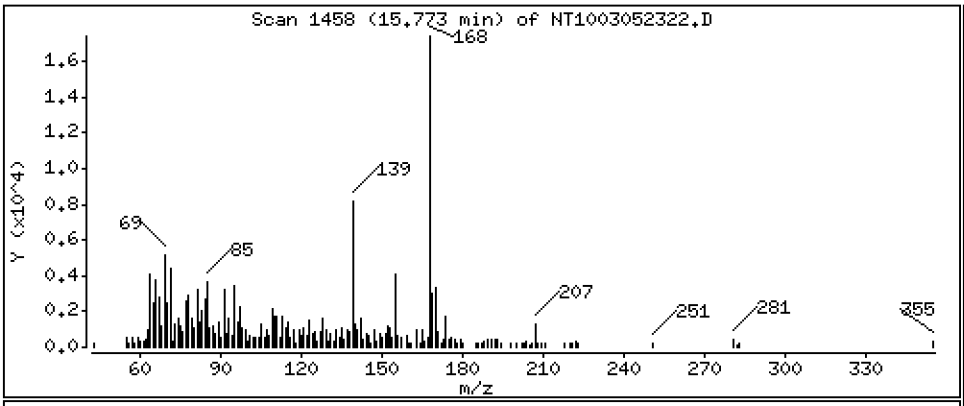
Operator: VTS

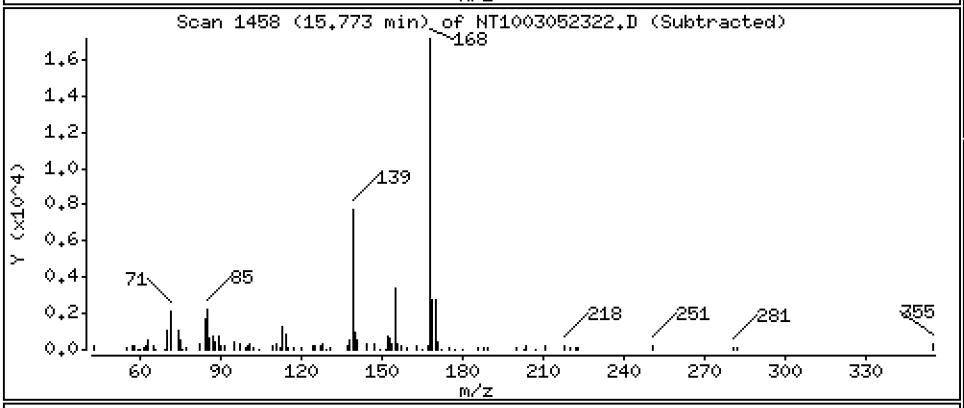
Column phase: ZB-5msi

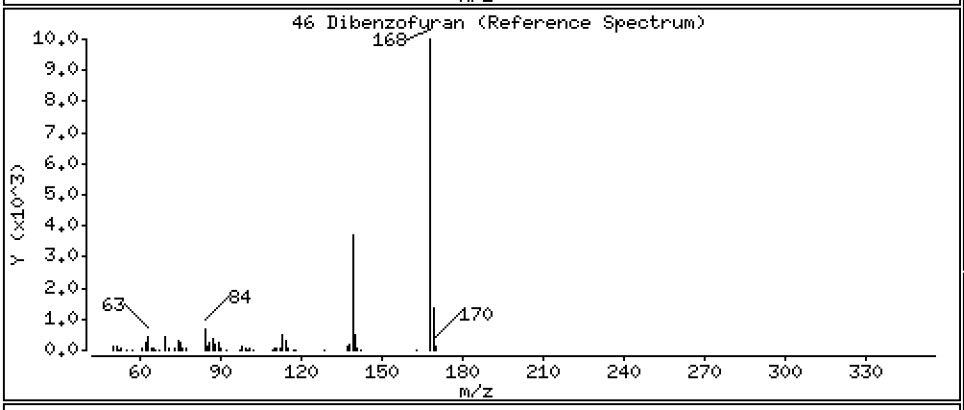
Column diameter: 0.25

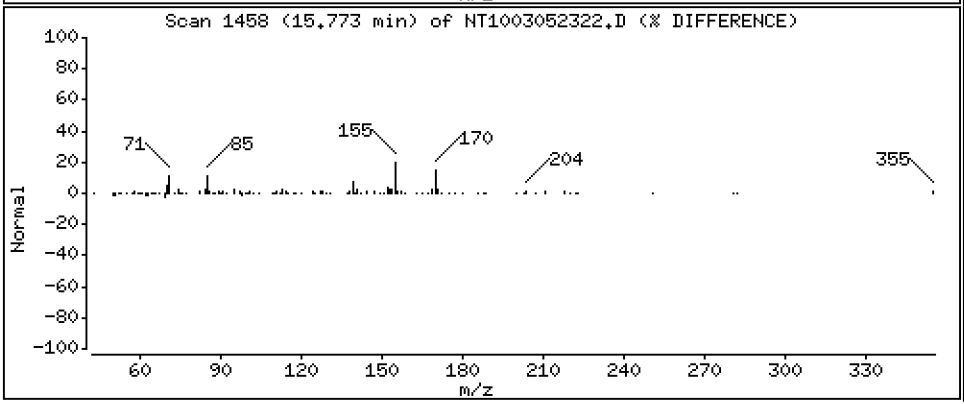
46 Dibenzofuran

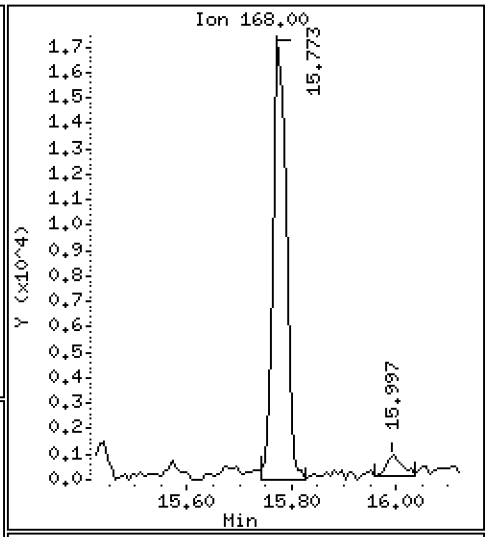
Concentration: 0.1543 ug/mL

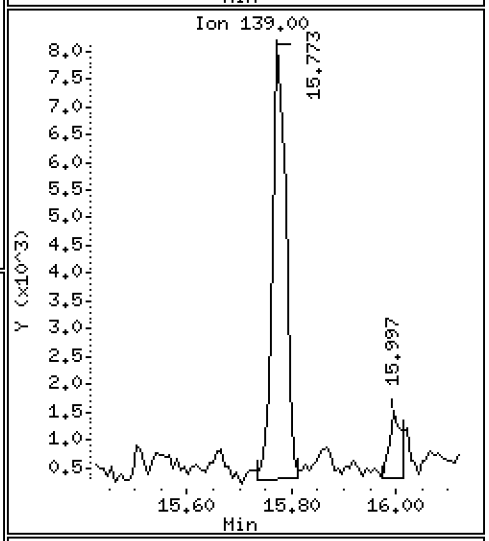


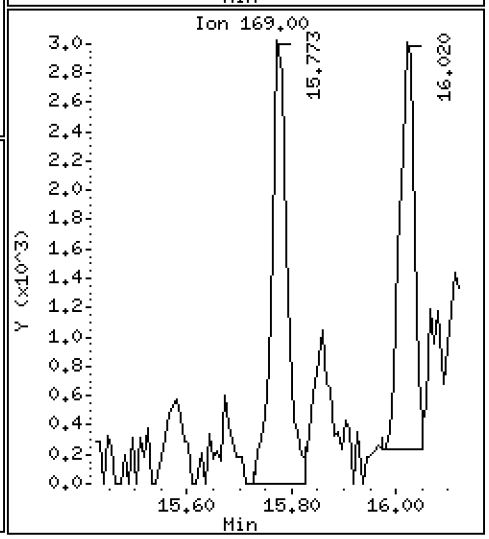












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

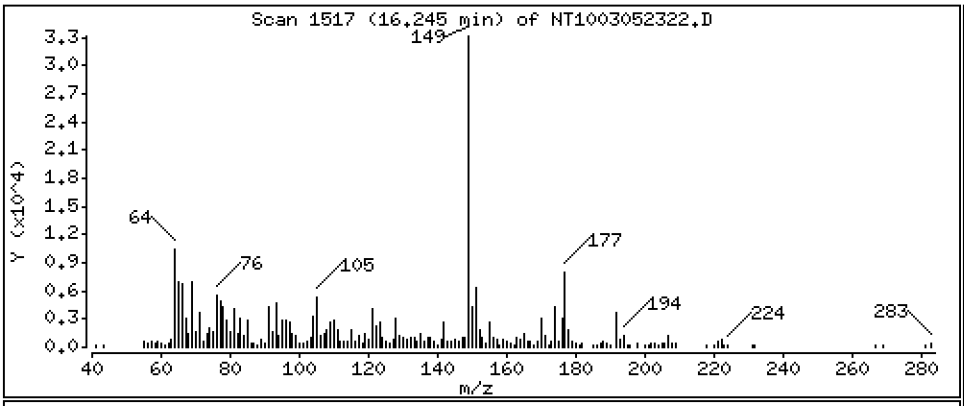
Operator: VTS

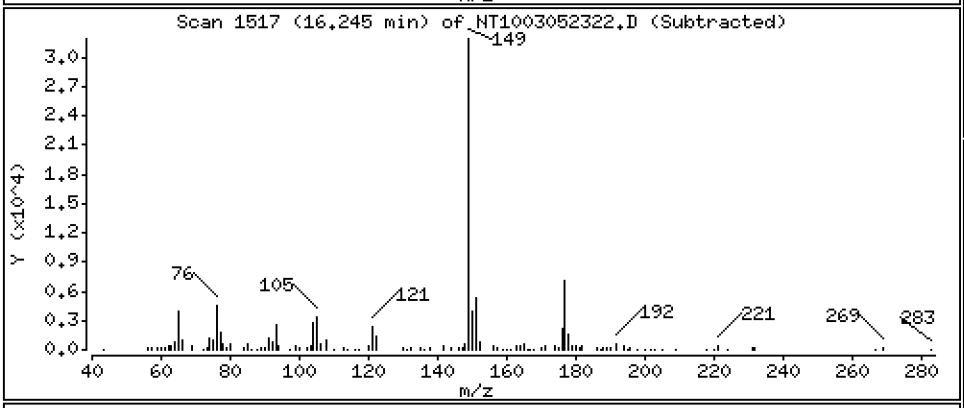
Column phase: ZB-5msi

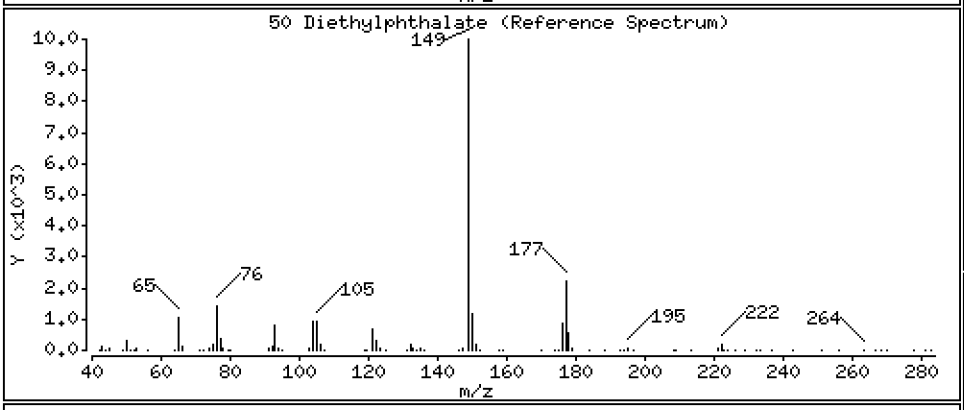
Column diameter: 0.25

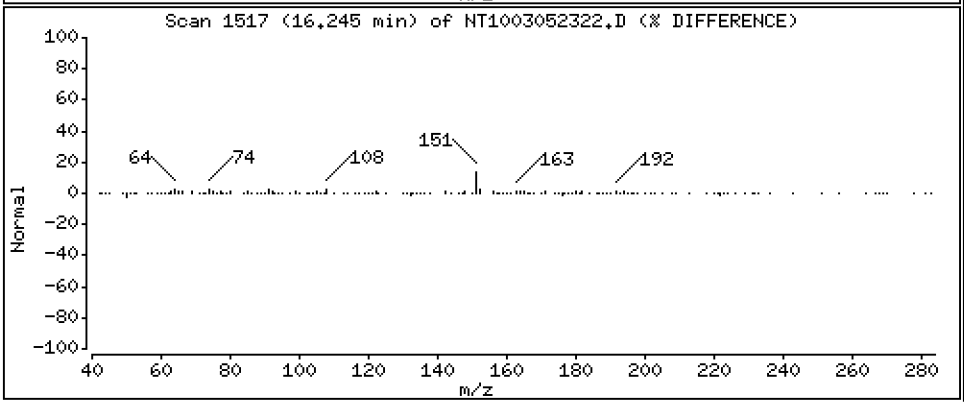
50 Diethylphthalate

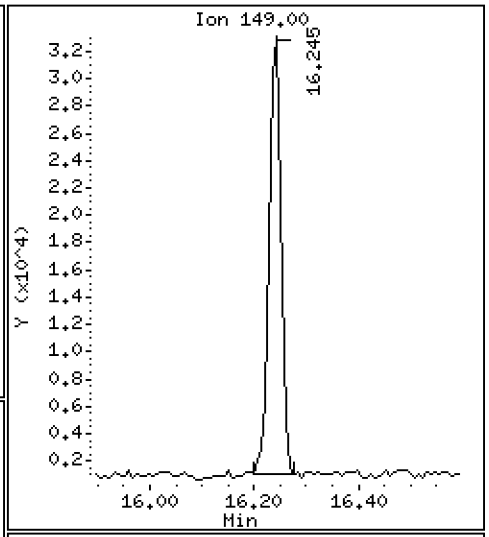
Concentration: 0.3291 ug/mL

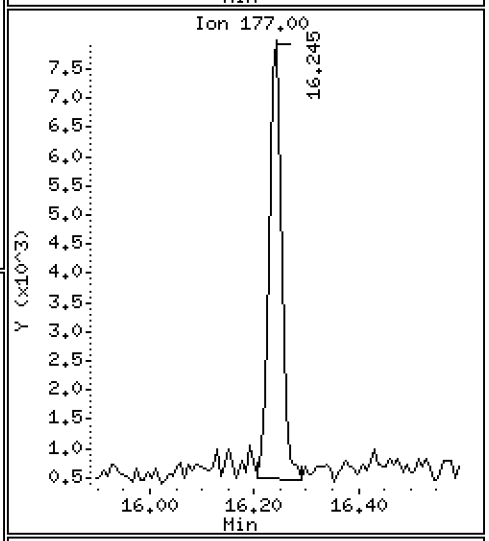


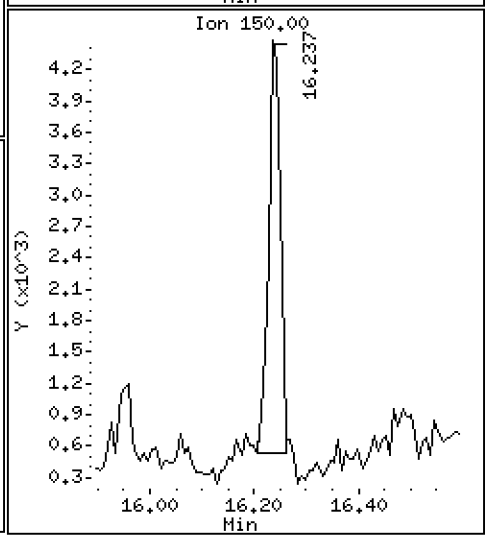












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

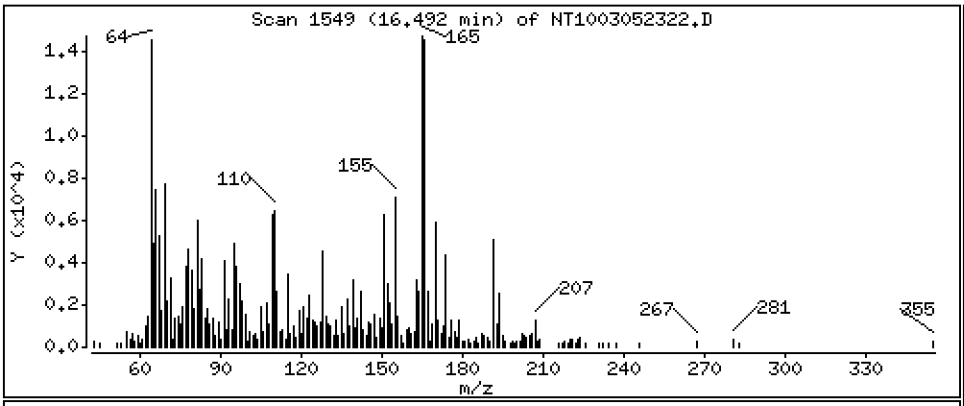
Operator: VTS

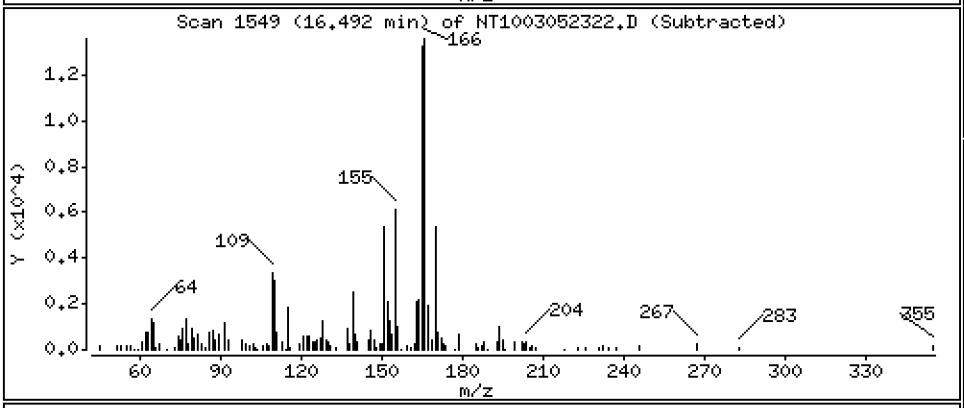
Column phase: ZB-5msi

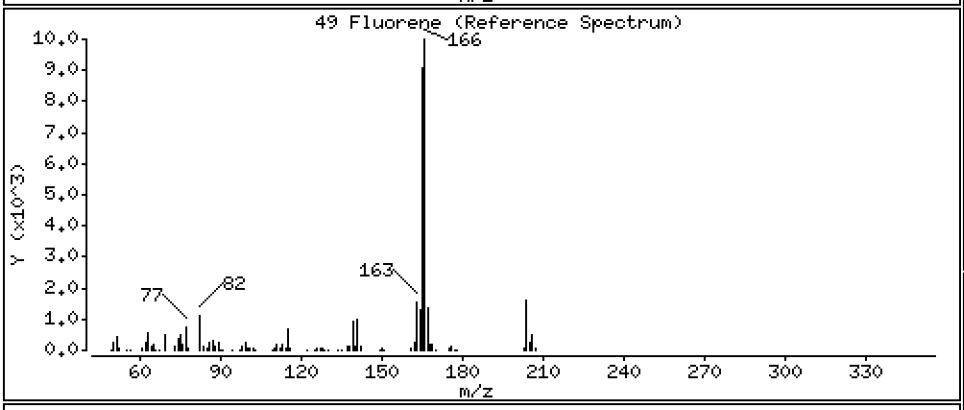
Column diameter: 0.25

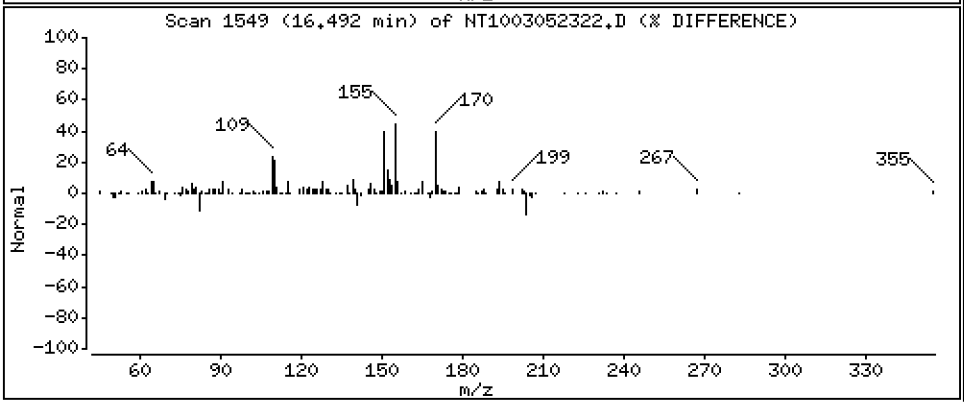
49 Fluorene

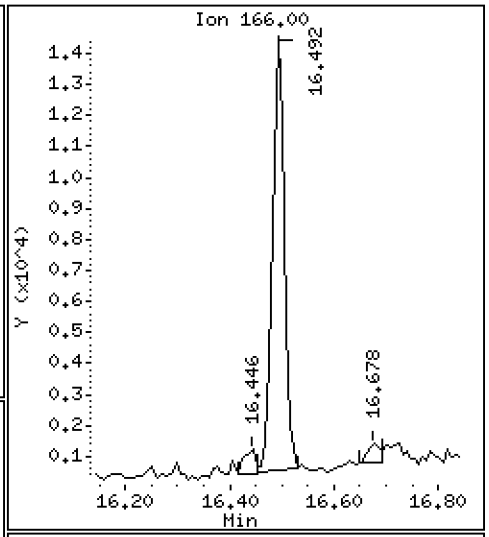
Concentration: 0.1403 ug/mL

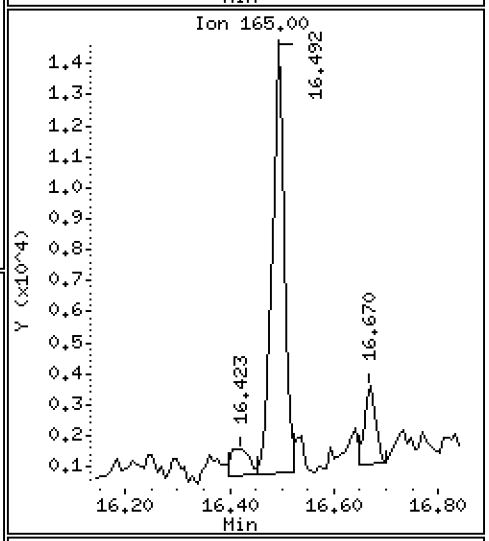


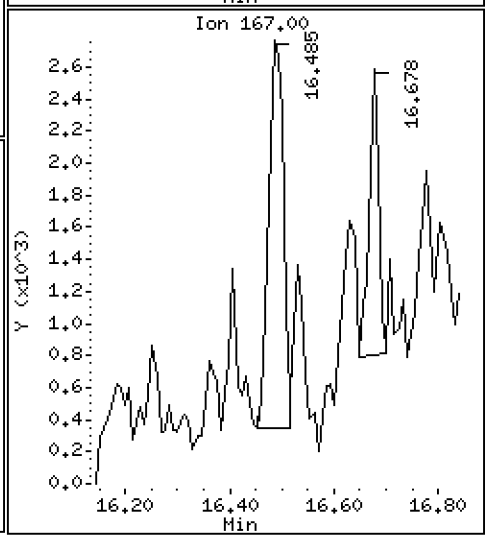












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

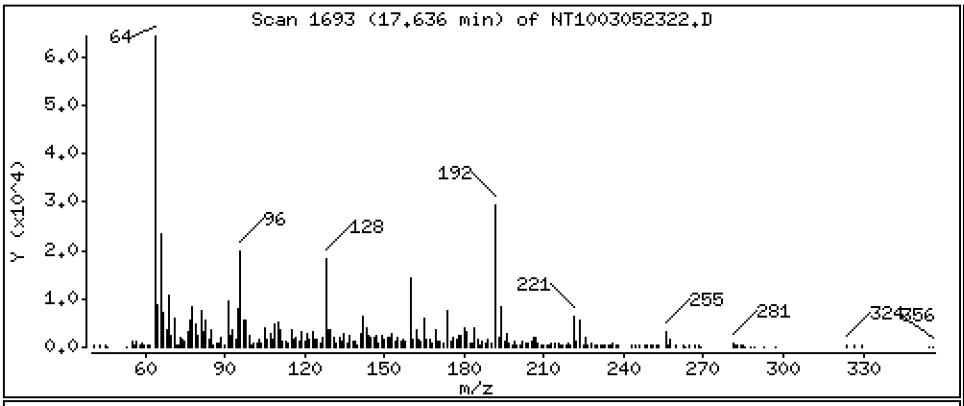
Operator: VTS

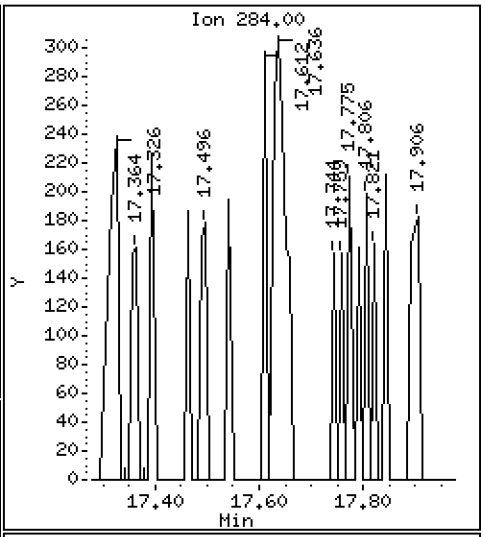
Column phase: ZB-5msi

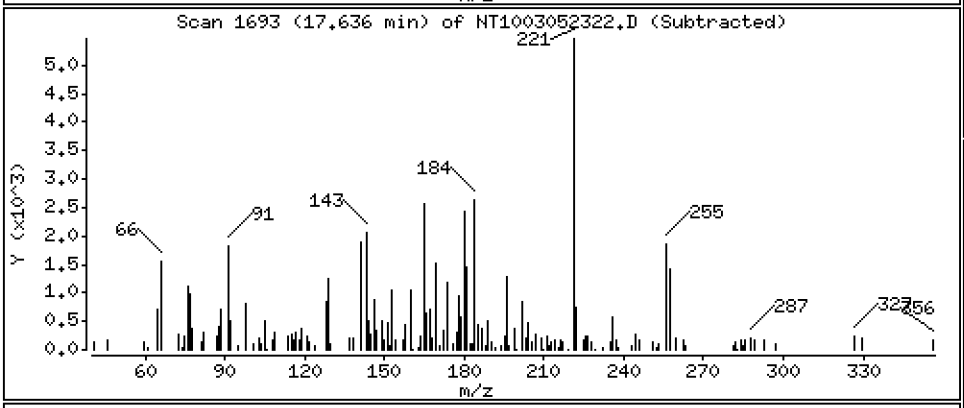
Column diameter: 0.25

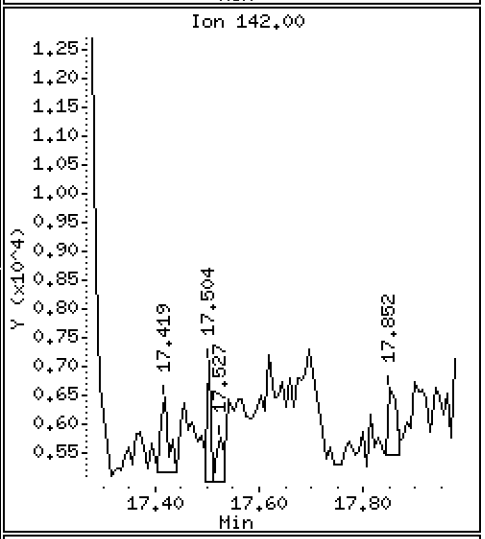
57 Hexachlorobenzene

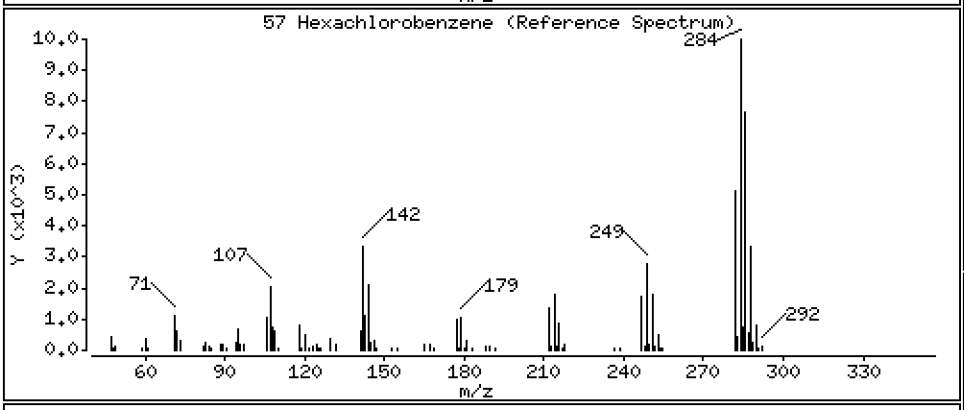
Concentration: 0.009734 ug/mL

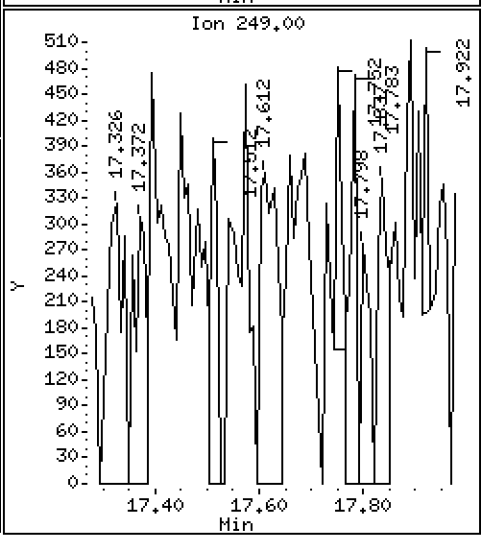


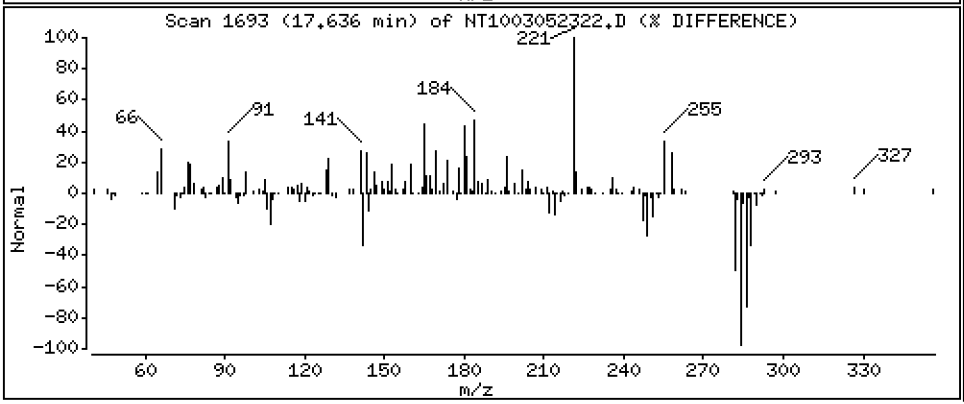












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

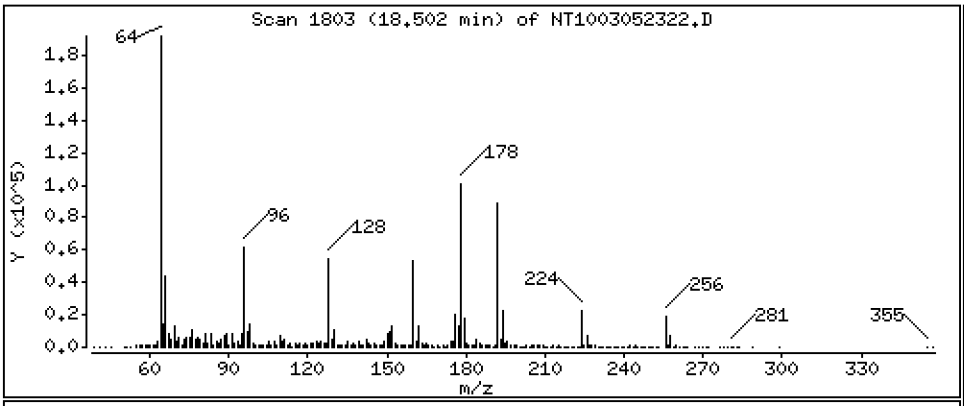
Operator: VTS

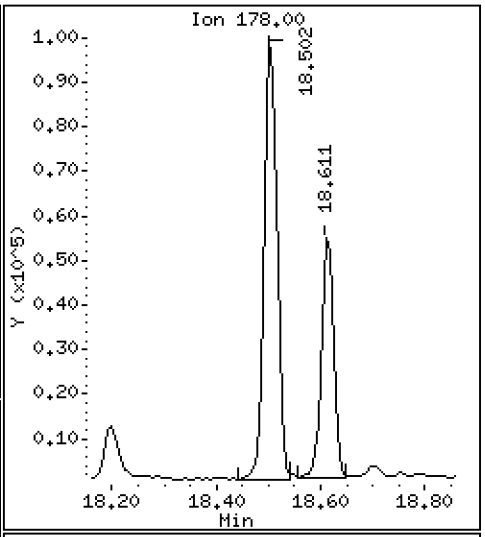
Column phase: ZB-5msi

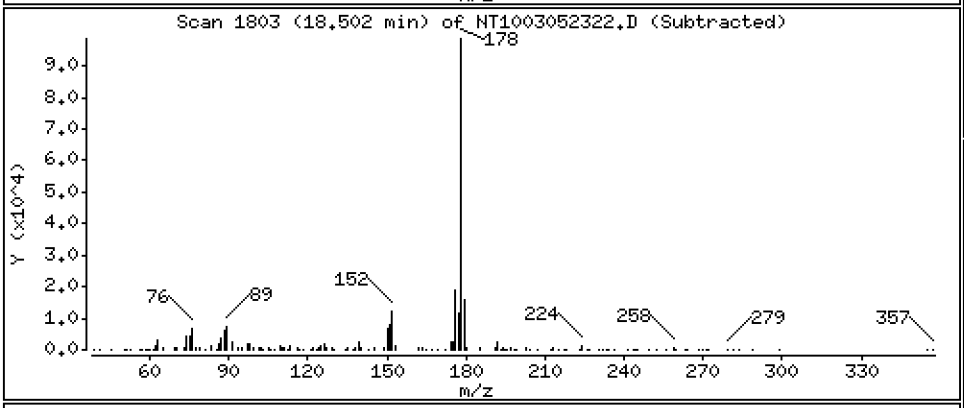
Column diameter: 0.25

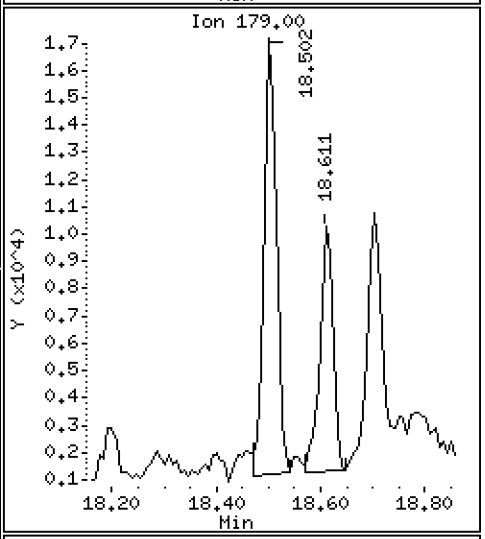
60 Phenanthrene

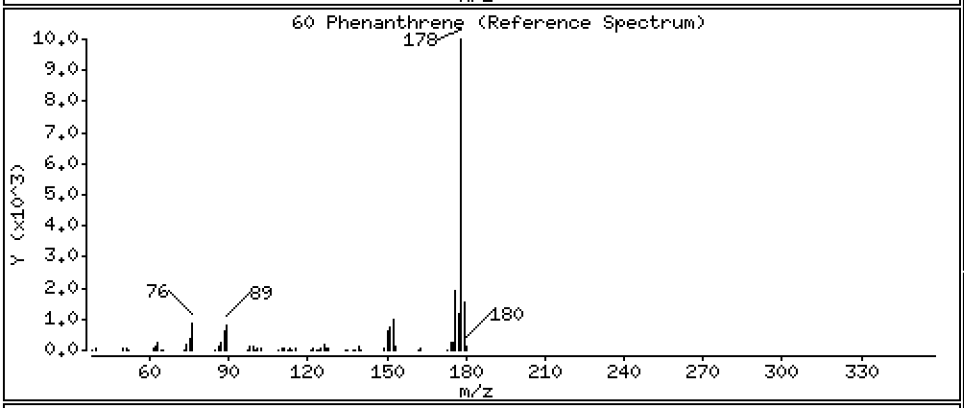
Concentration: 0.7949 ug/mL

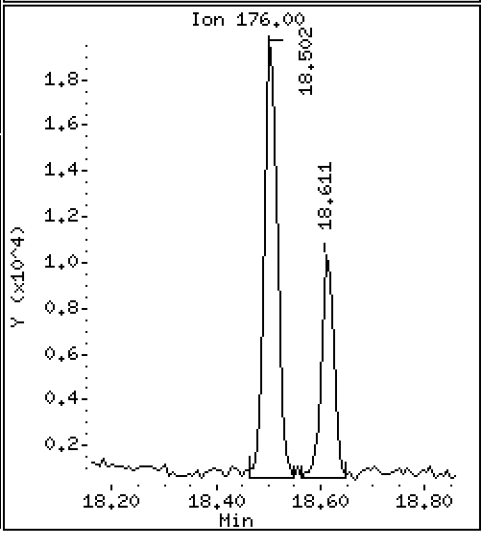


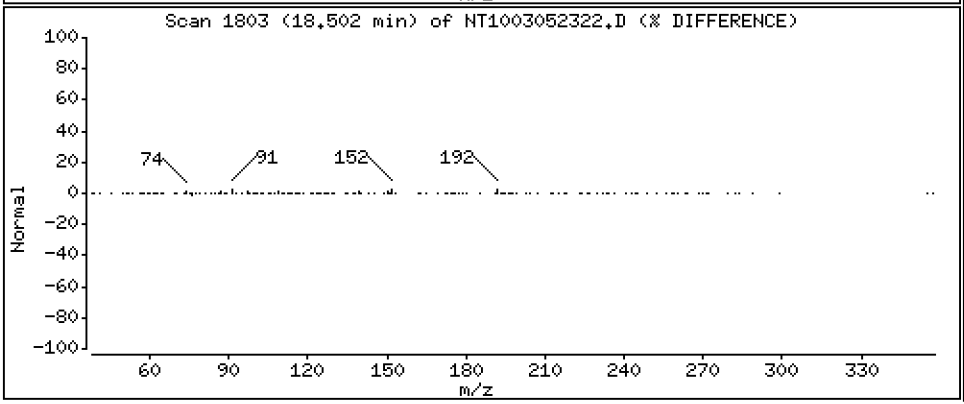












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

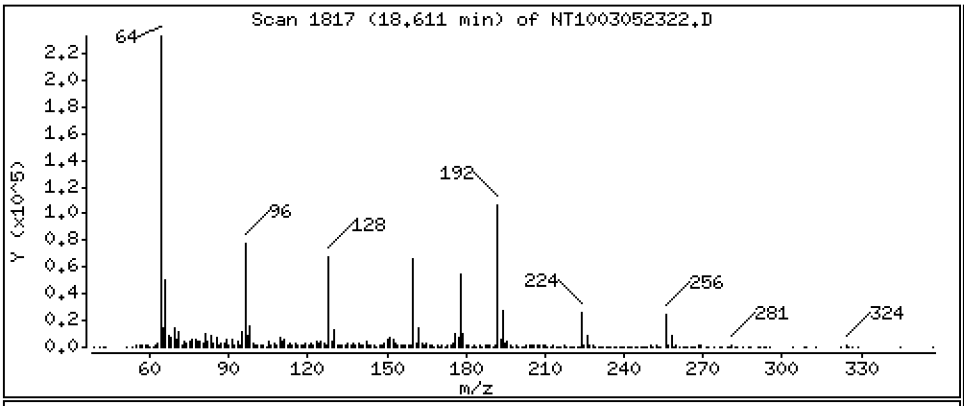
Operator: VTS

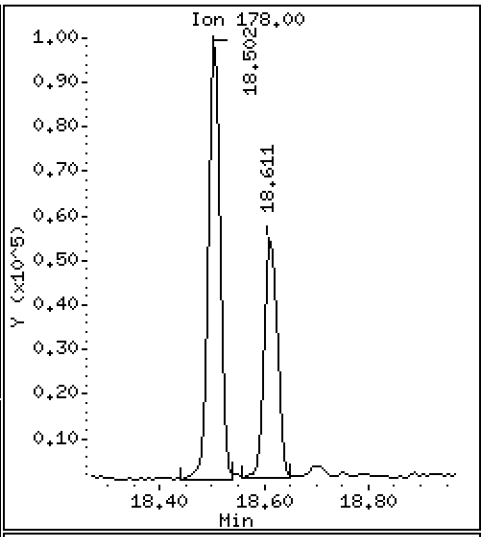
Column phase: ZB-5msi

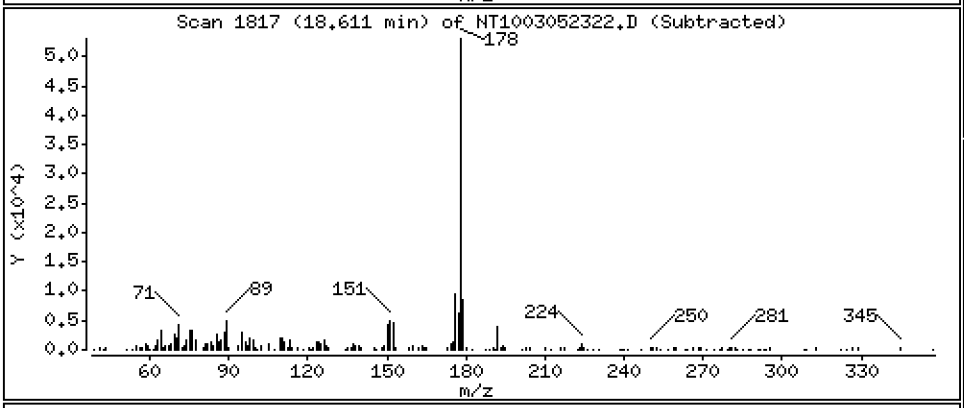
Column diameter: 0.25

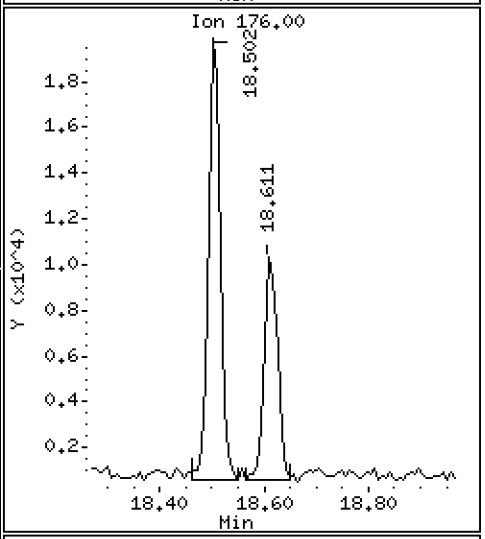
61 Anthracene

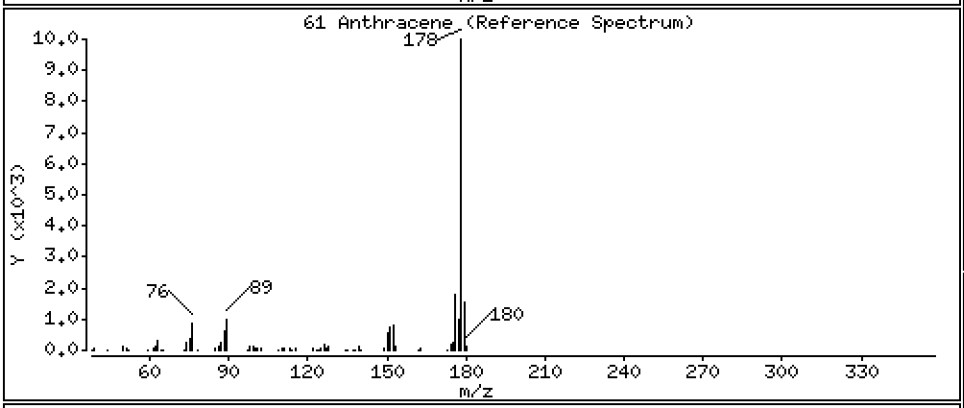
Concentration: 0.4584 ug/mL

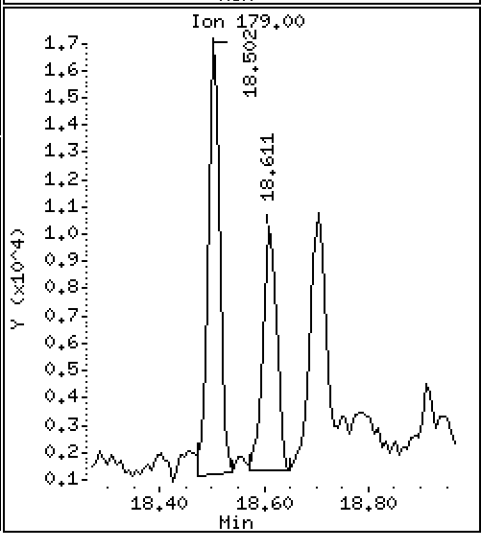


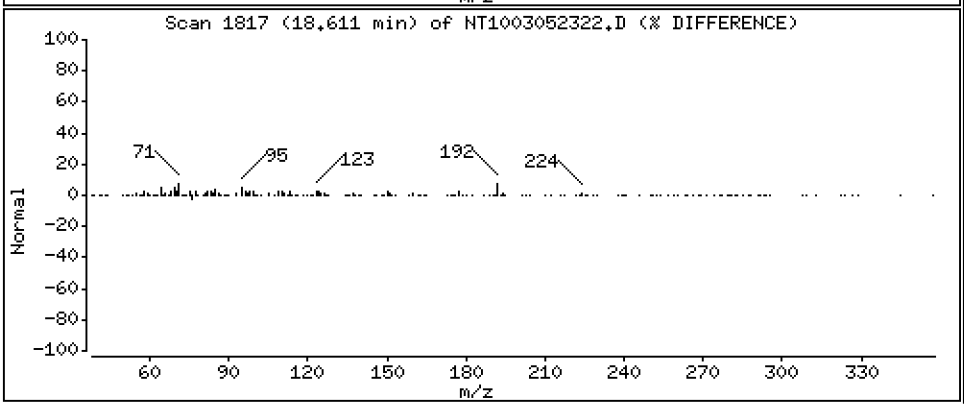












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

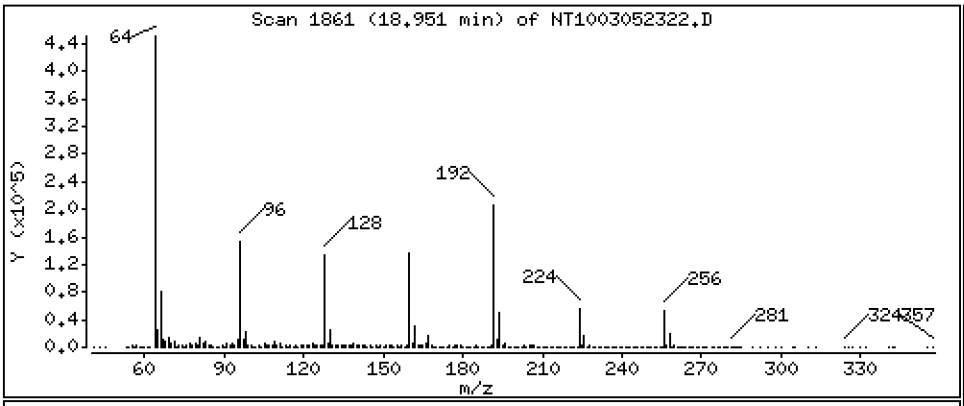
Operator: VTS

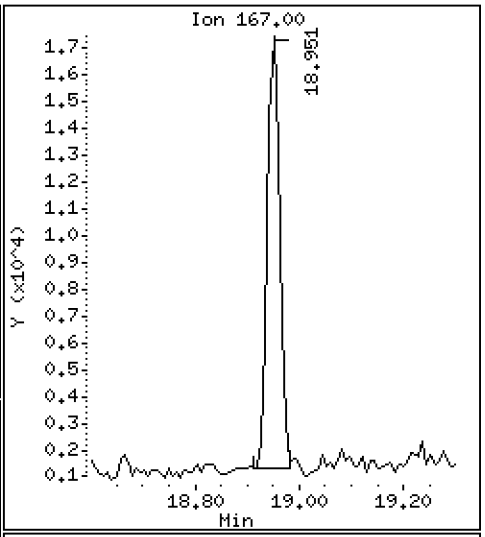
Column phase: ZB-5msi

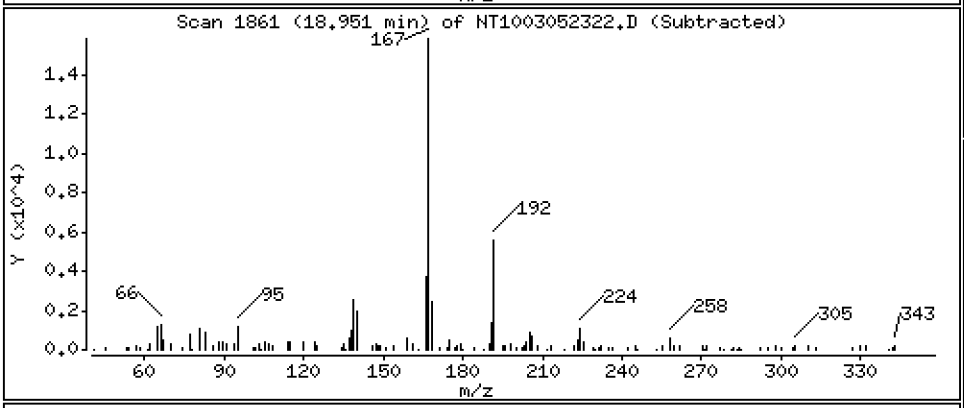
Column diameter: 0.25

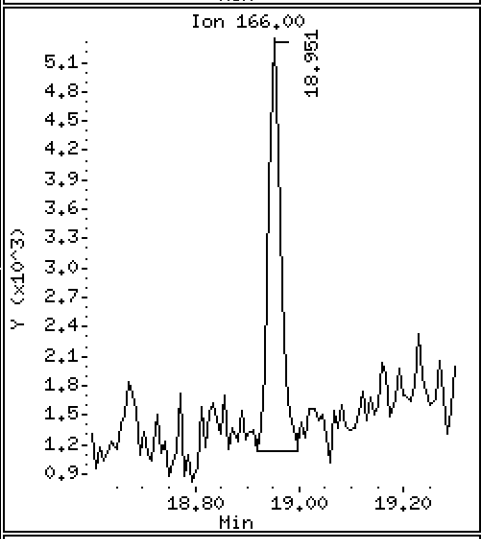
62 Carbazole

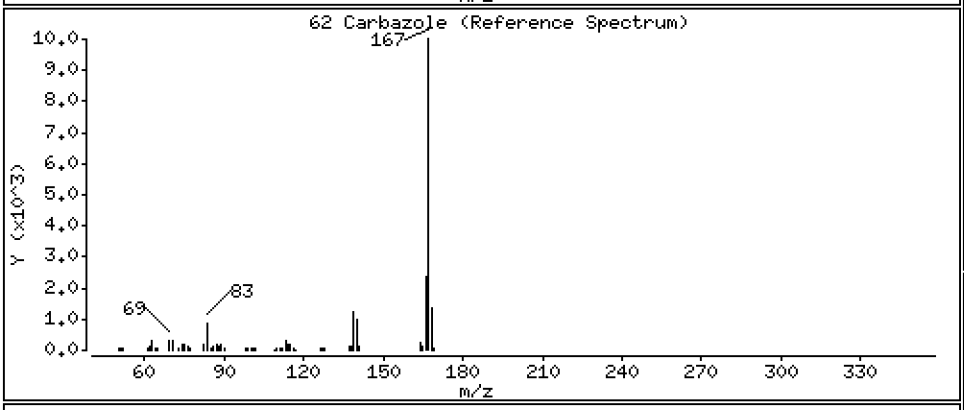
Concentration: 0.1366 ug/mL

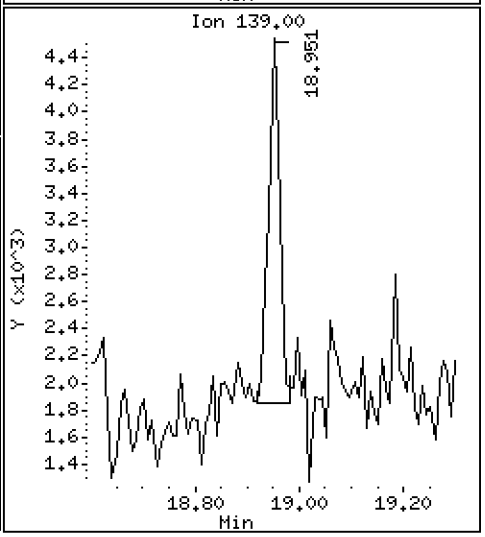


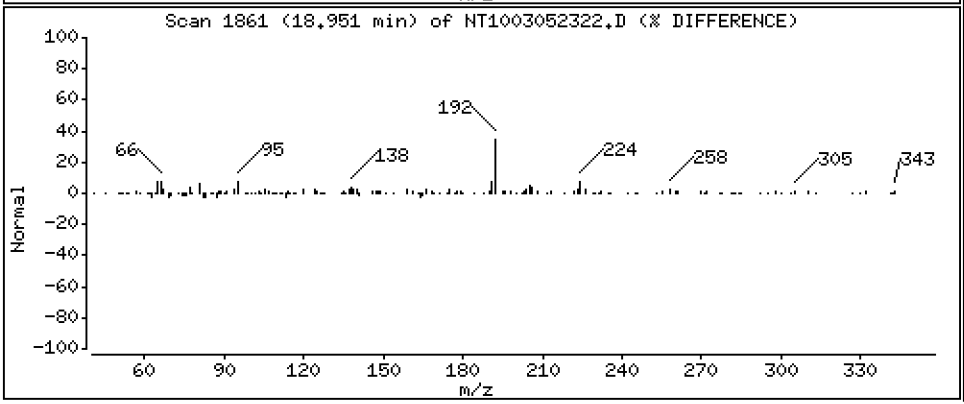












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

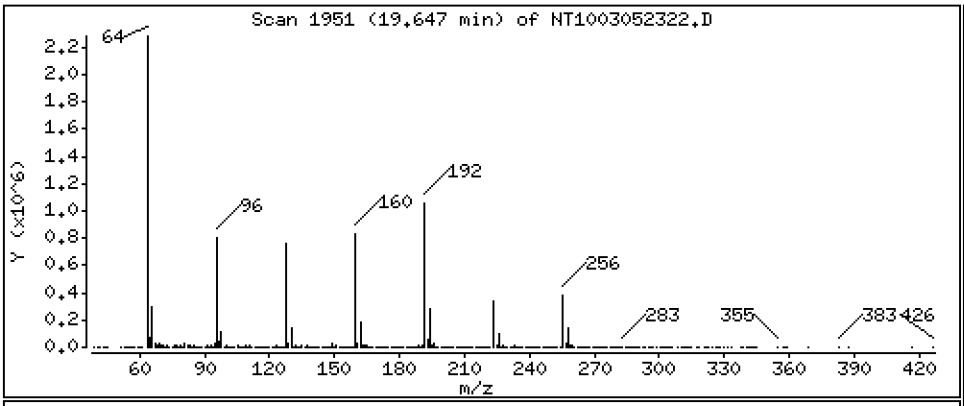
Operator: VTS

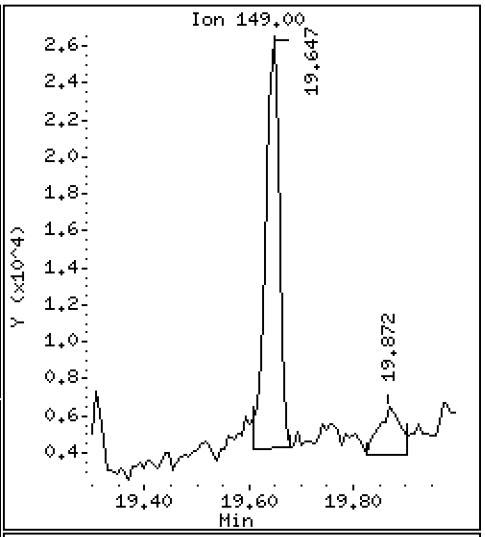
Column phase: ZB-5msi

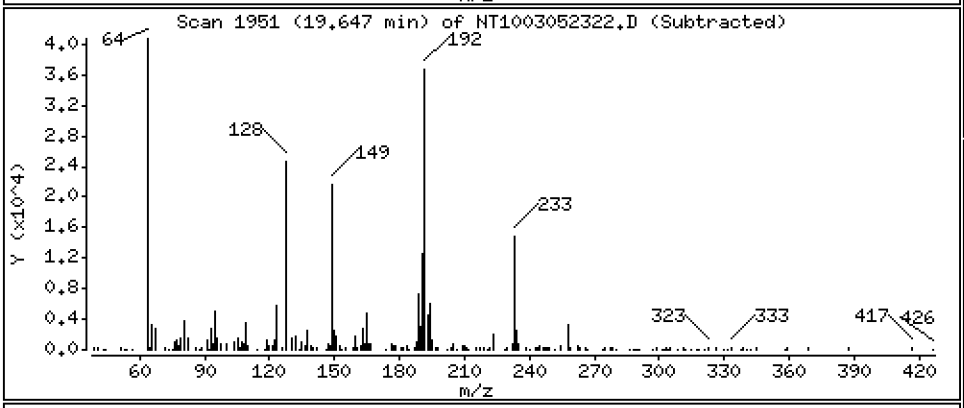
Column diameter: 0.25

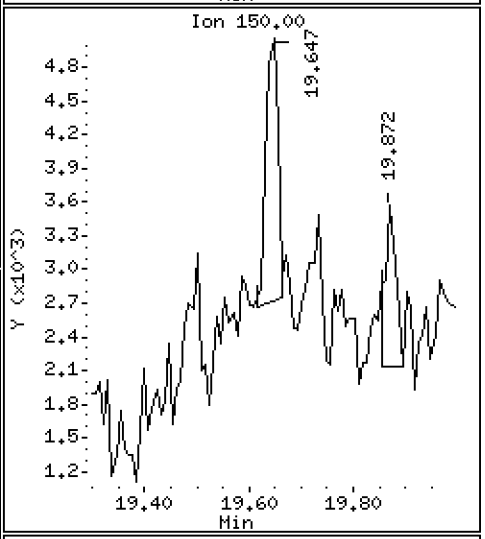
63 Di-n-butylphthalate

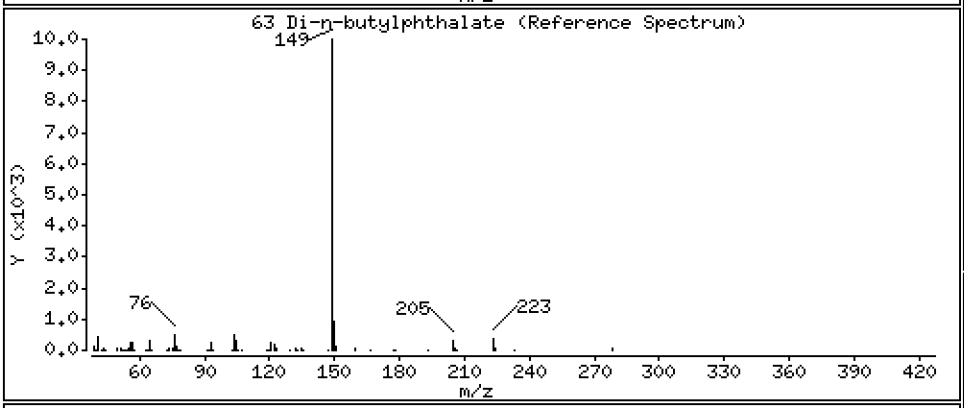
Concentration: 0.1550 ug/mL

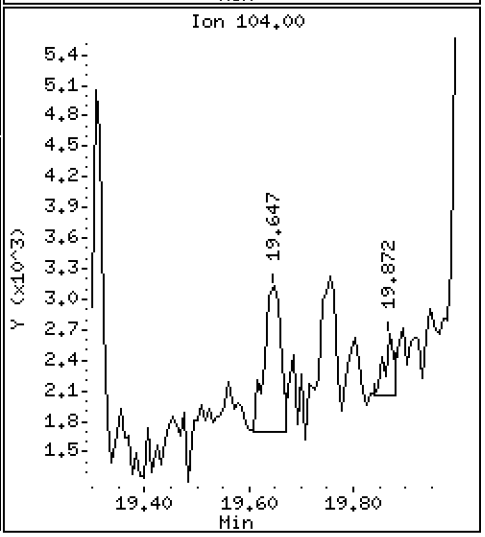


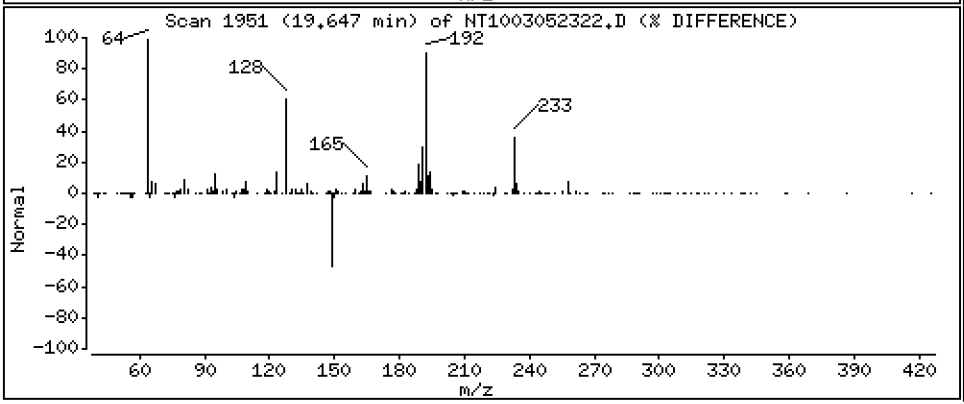












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

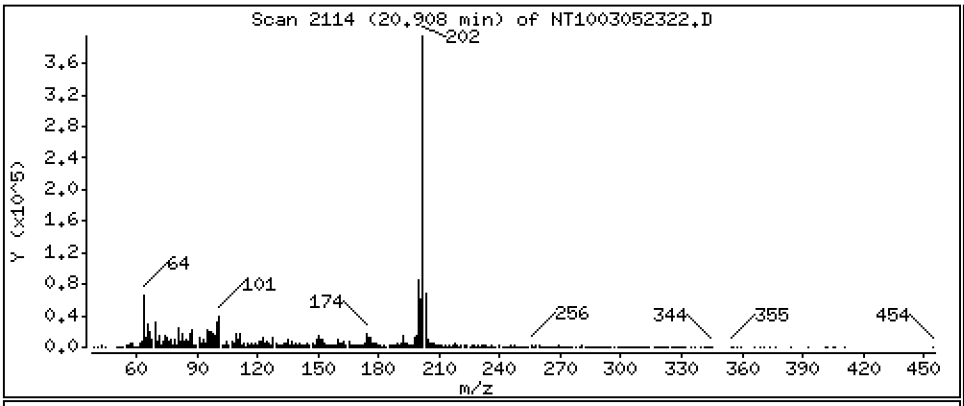
Operator: VTS

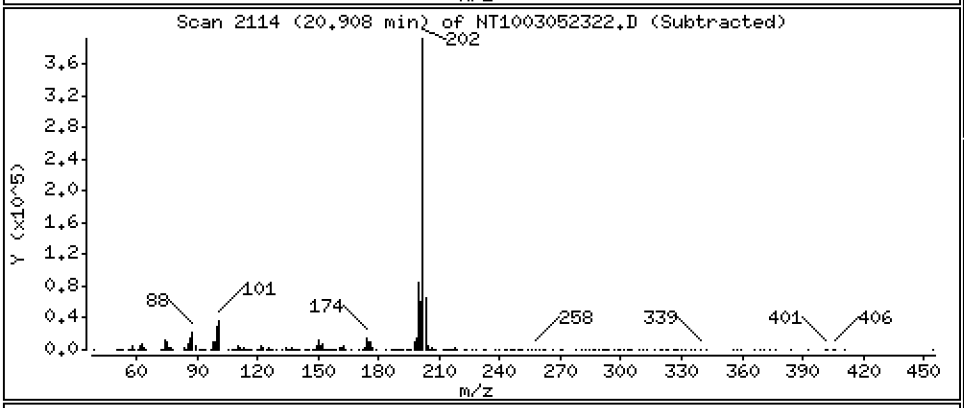
Column phase: ZB-5msi

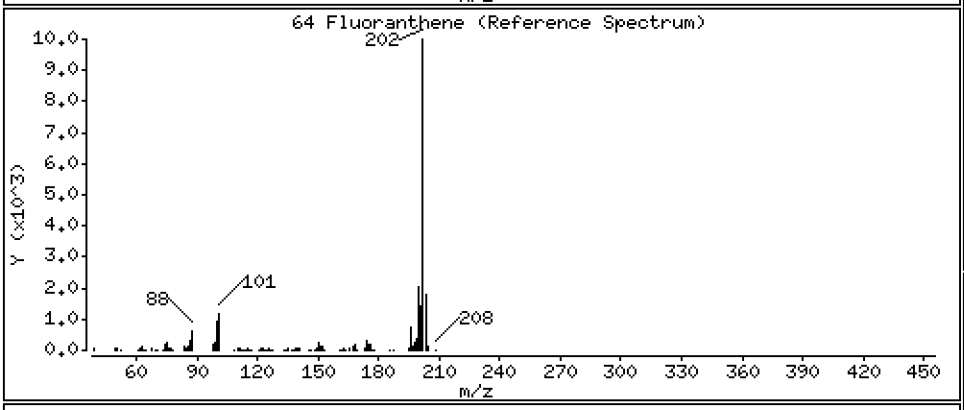
Column diameter: 0.25

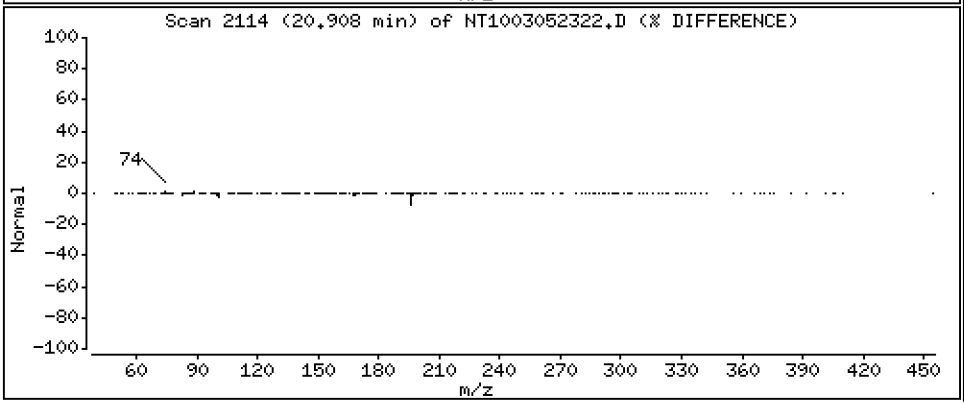
64 Fluoranthene

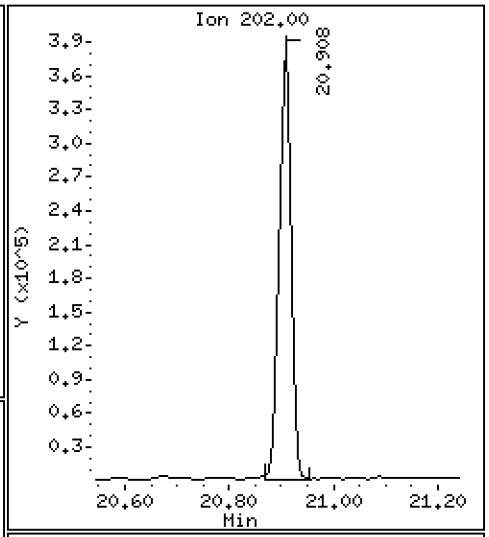
Concentration: 2.238 ug/mL

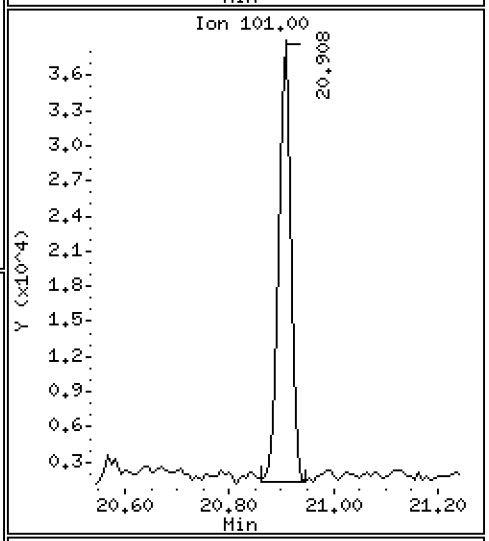


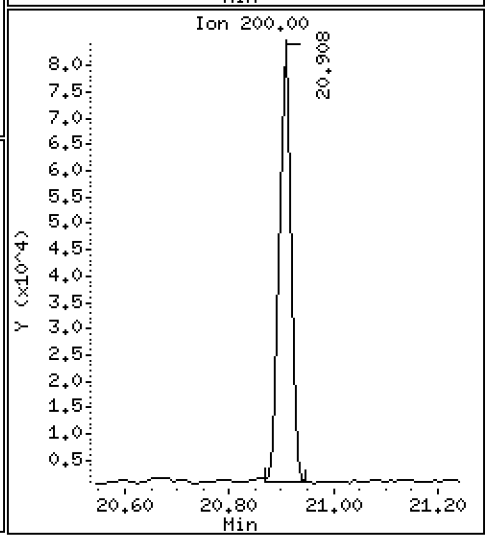












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

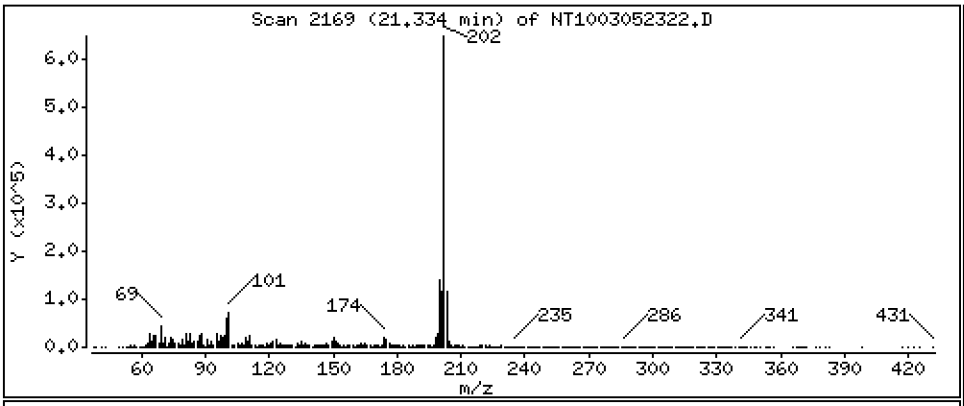
Operator: VTS

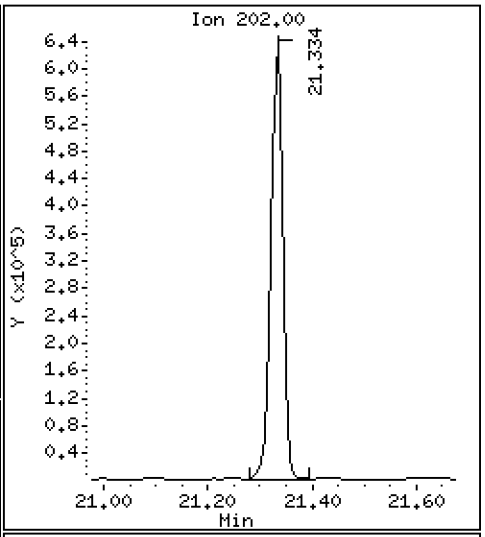
Column phase: ZB-5msi

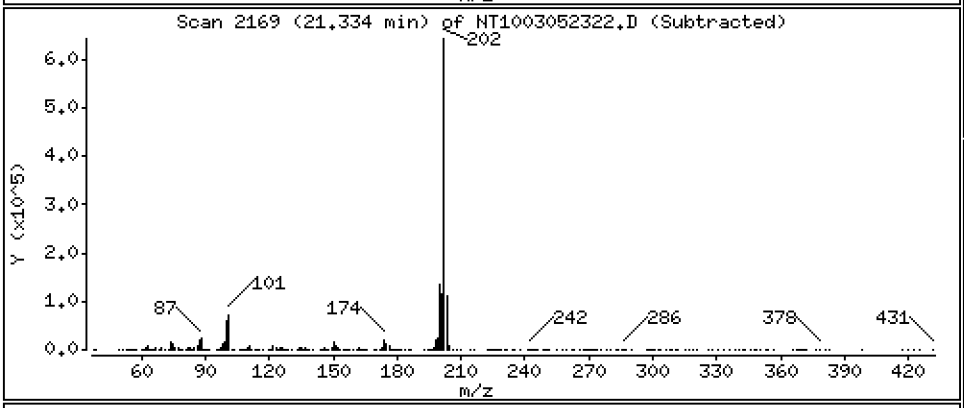
Column diameter: 0.25

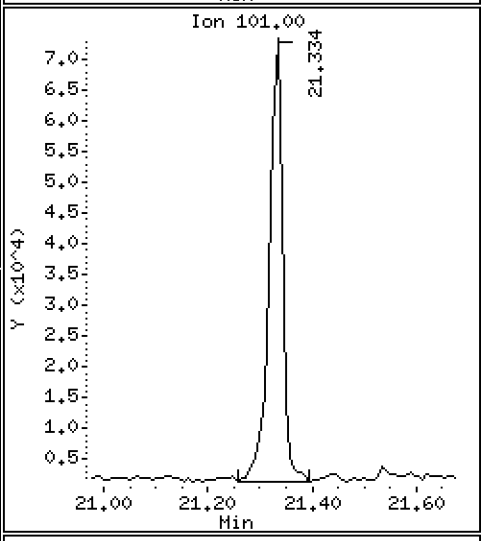
65 Pyrene

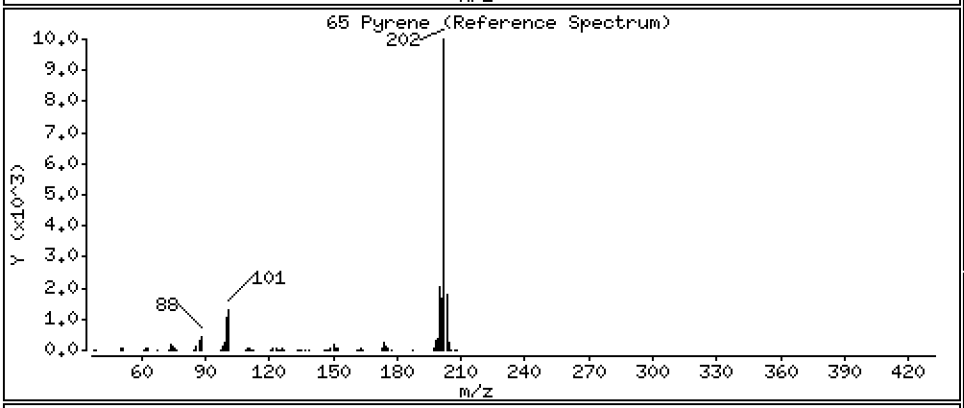
Concentration: 3.492 ug/mL

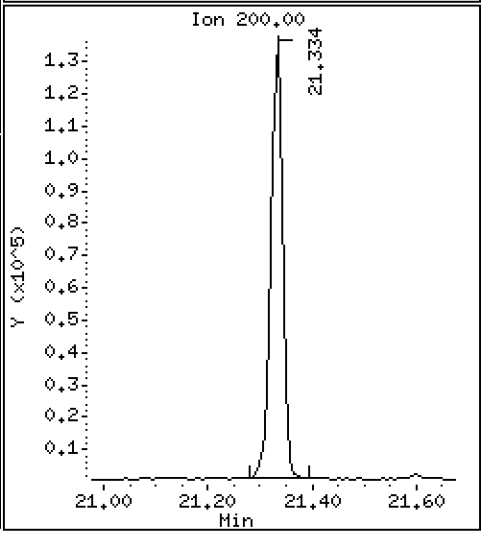


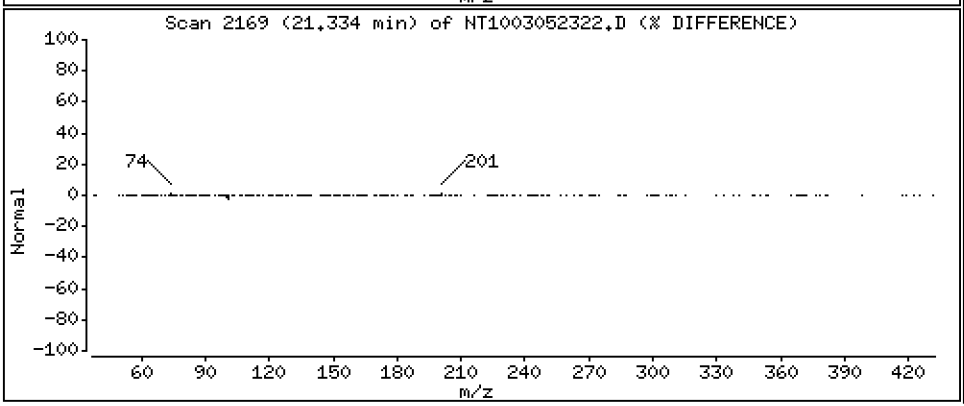












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

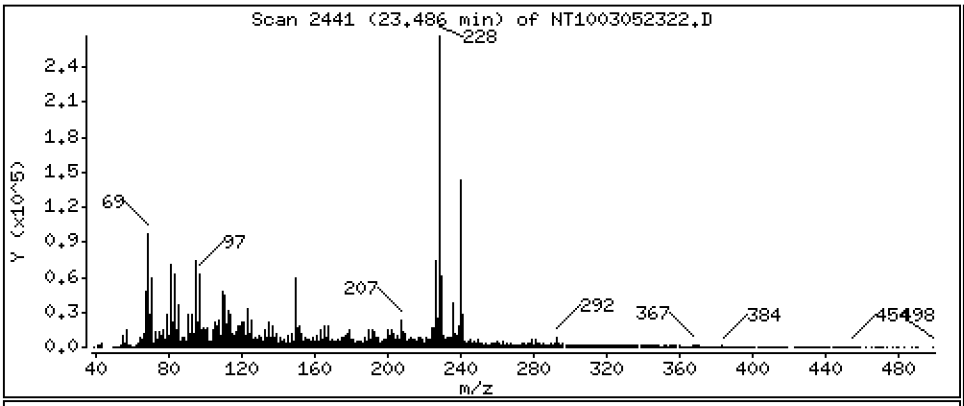
Operator: VTS

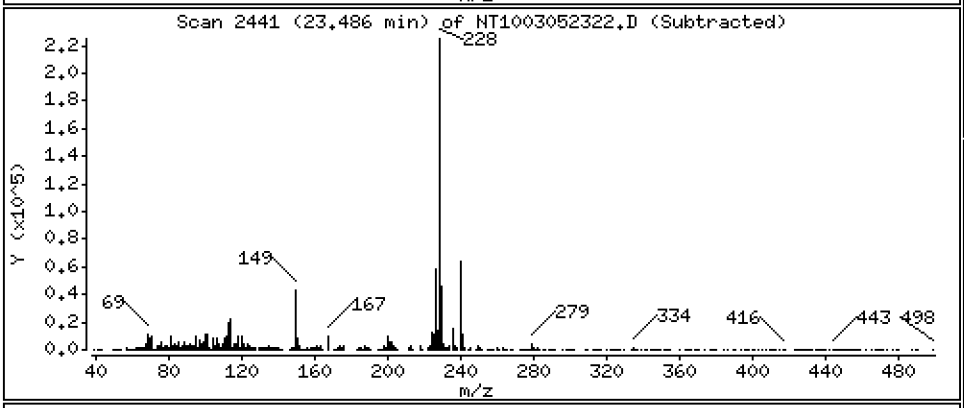
Column phase: ZB-5msi

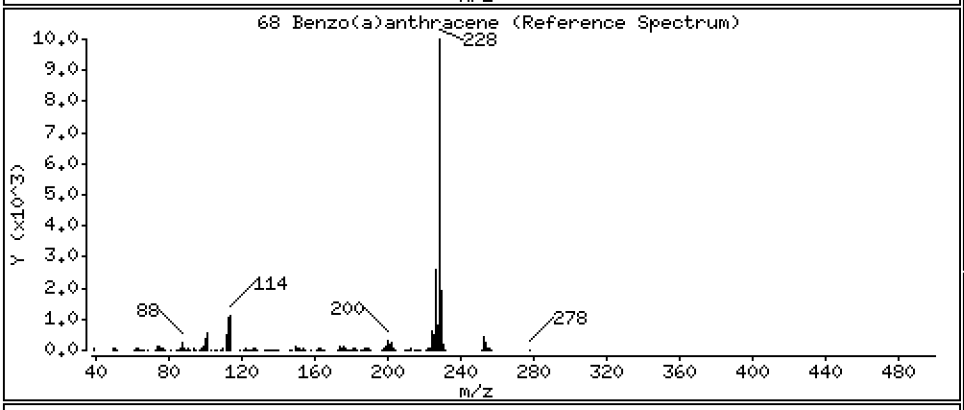
Column diameter: 0.25

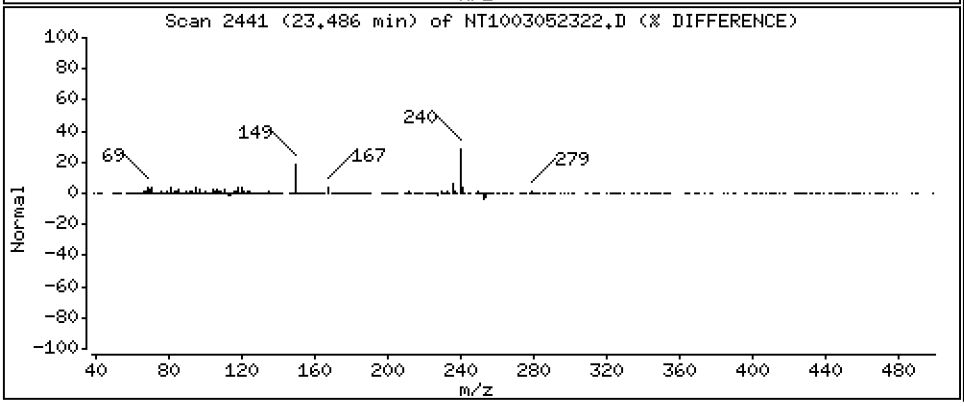
68 Benzo(a)anthracene

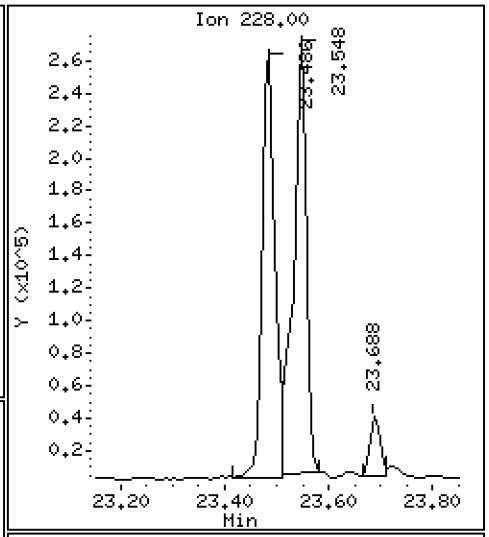
Concentration: 1.628 ug/mL

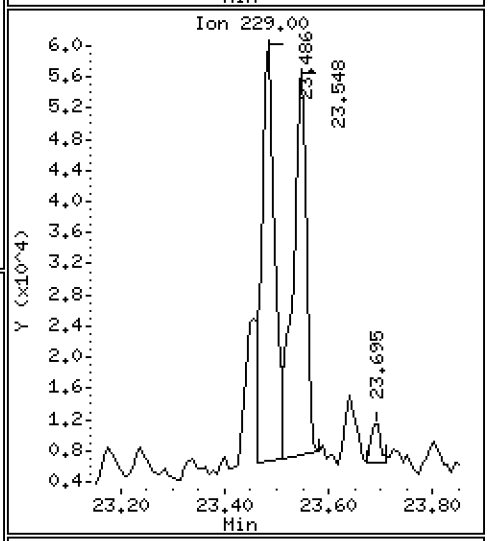


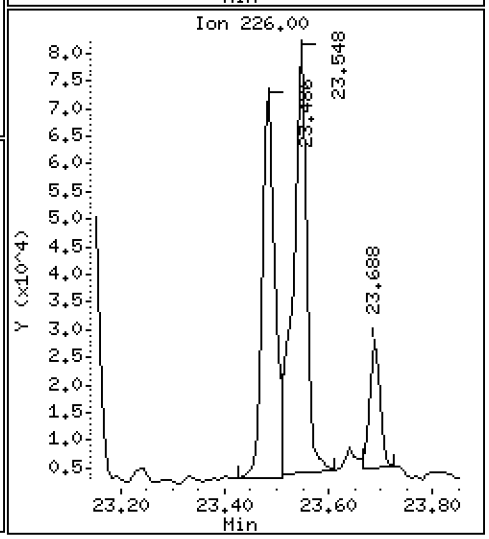












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

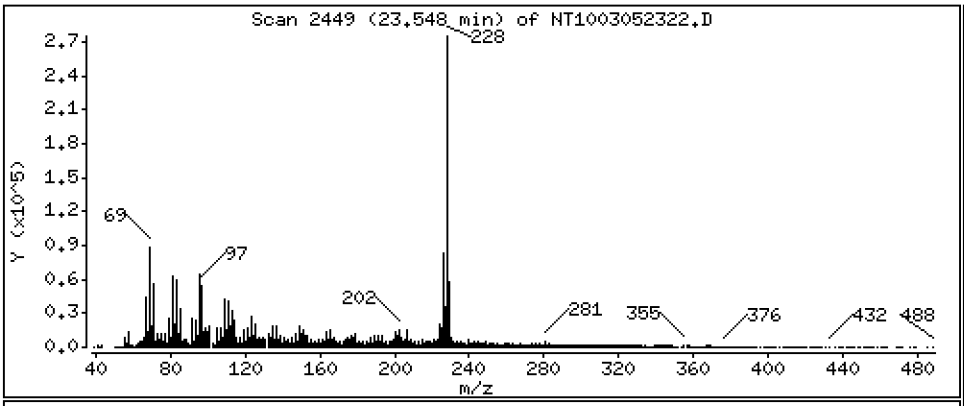
Operator: VTS

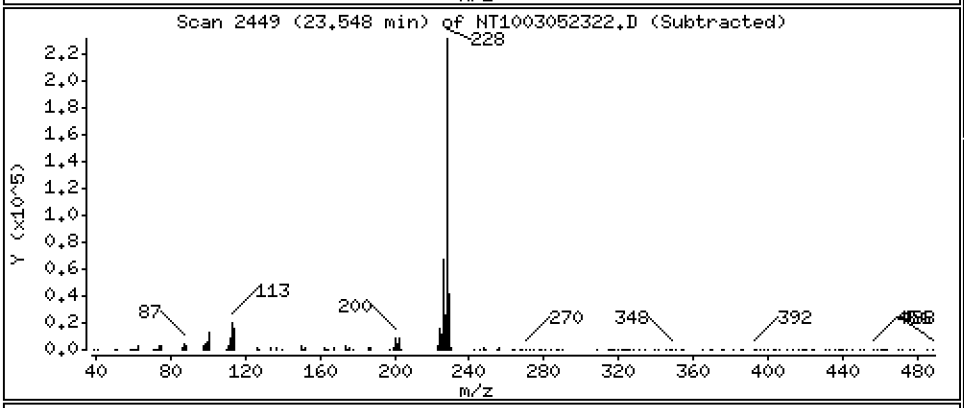
Column phase: ZB-5msi

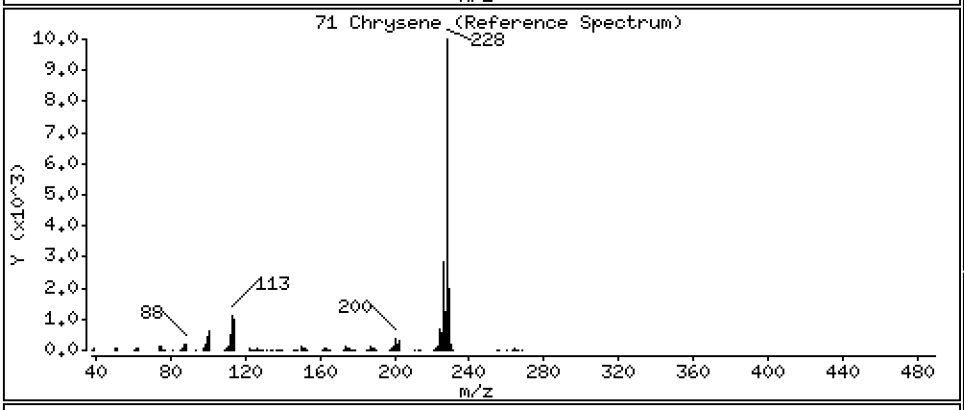
Column diameter: 0.25

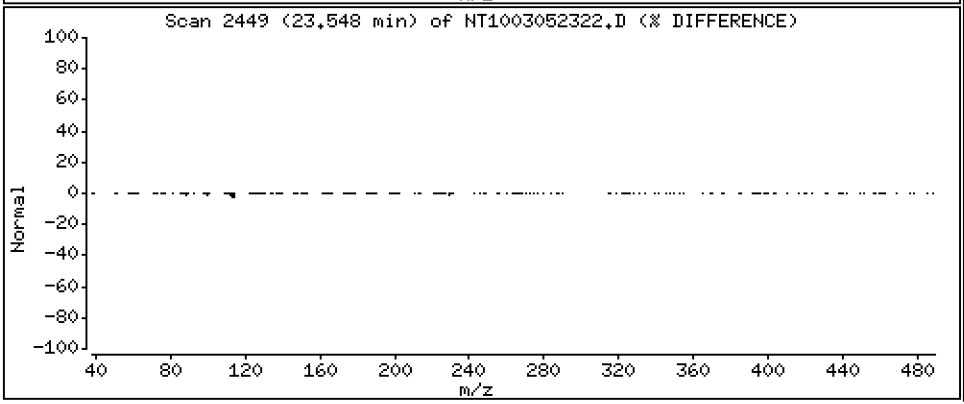
71 Chrysene

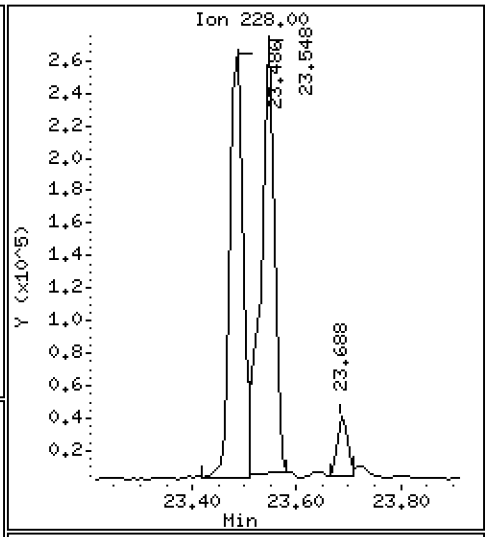
Concentration: 2.221 ug/mL

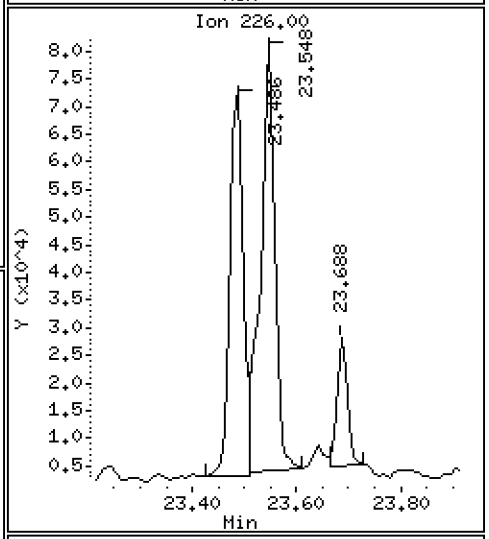


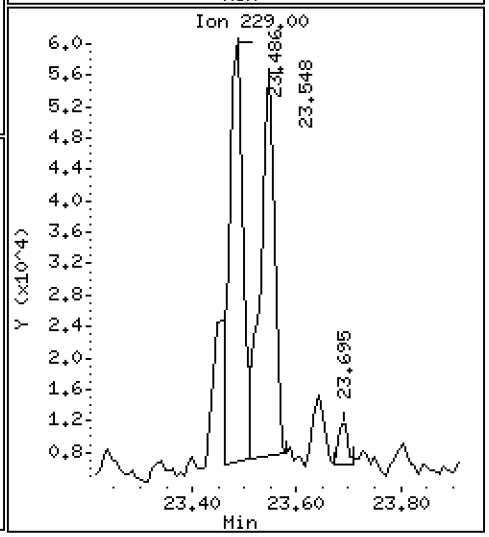












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

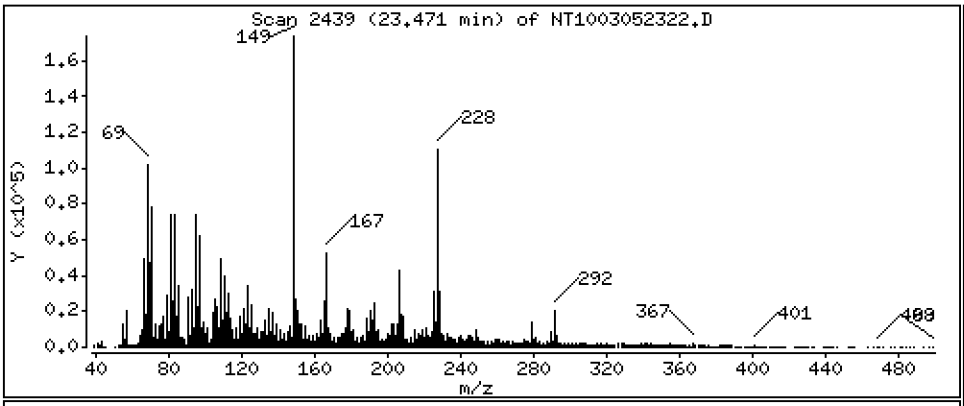
Operator: VTS

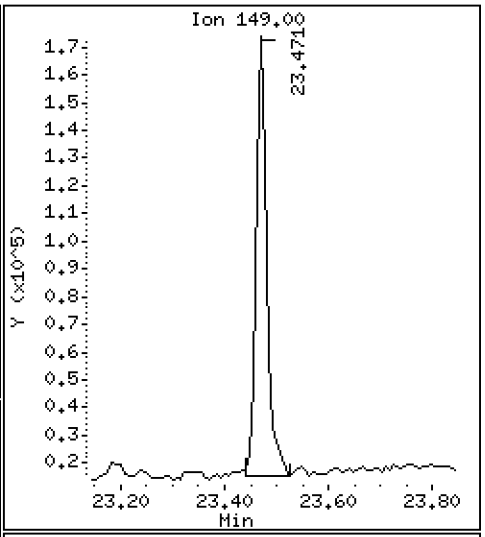
Column phase: ZB-5msi

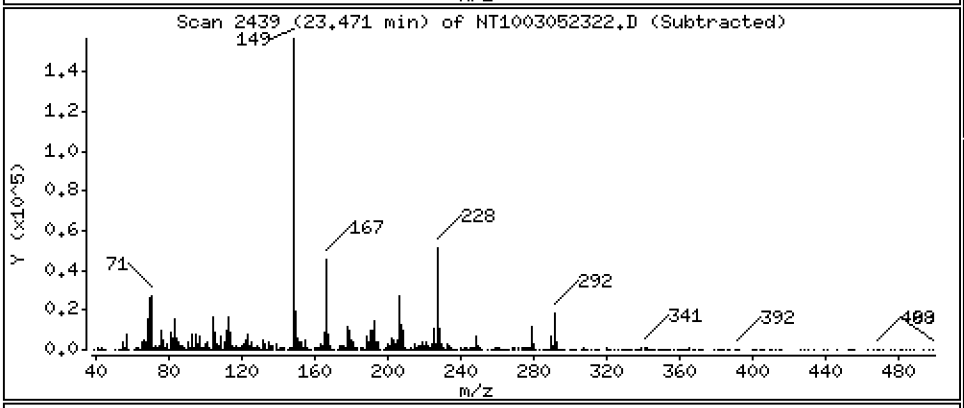
Column diameter: 0.25

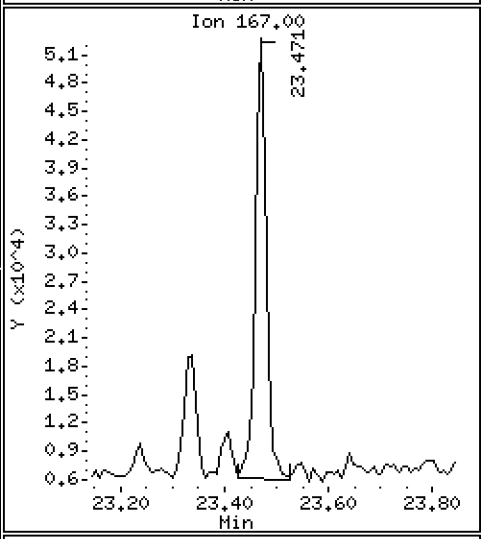
72 bis(2-Ethylhexyl)phthalate

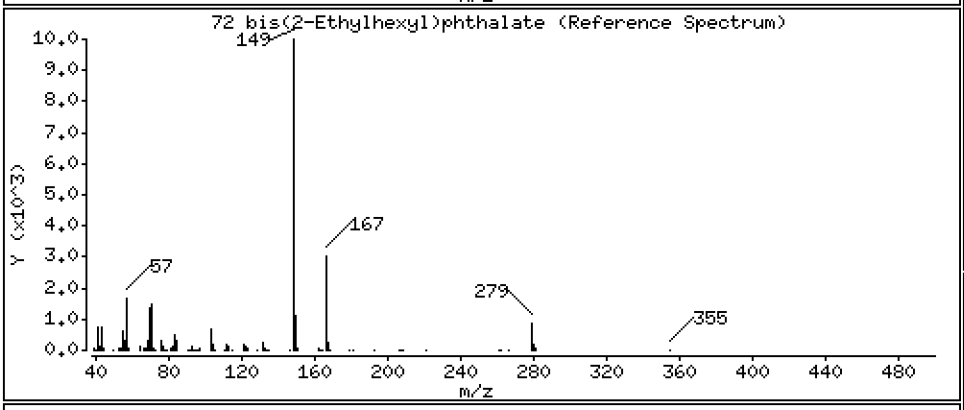
Concentration: 1.252 ug/mL

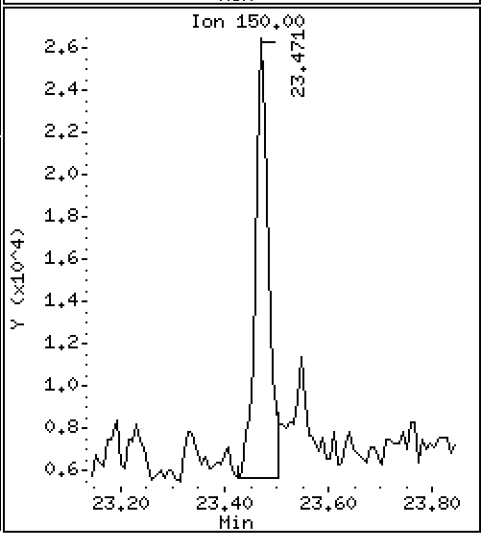


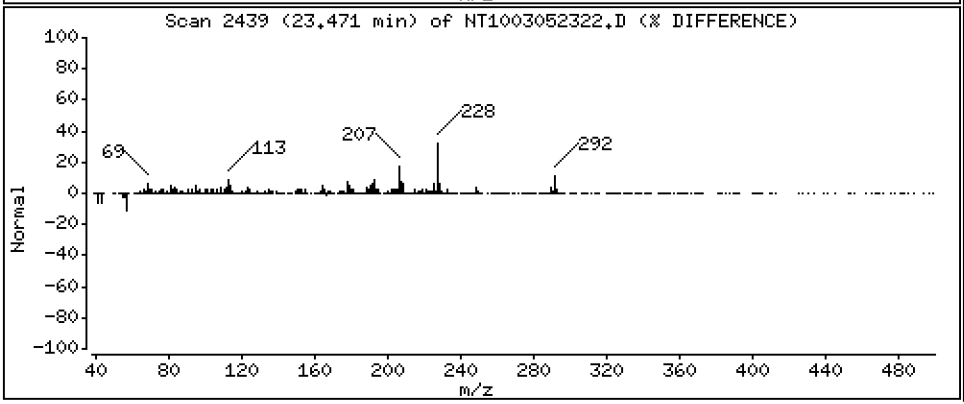












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

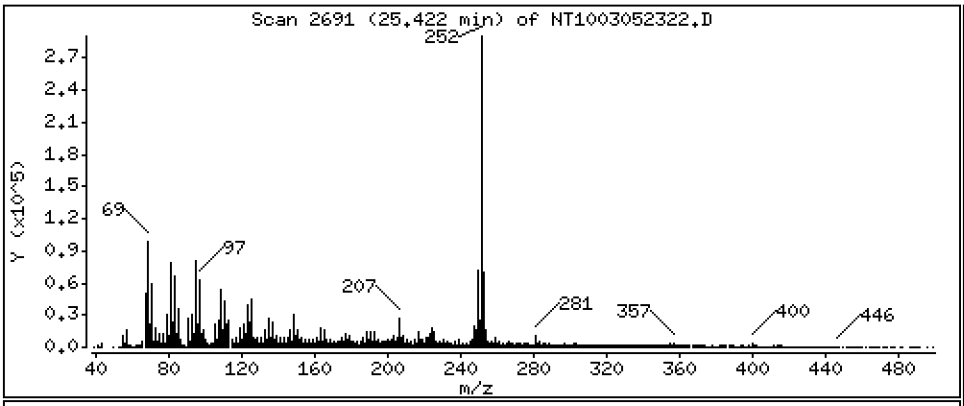
Operator: VTS

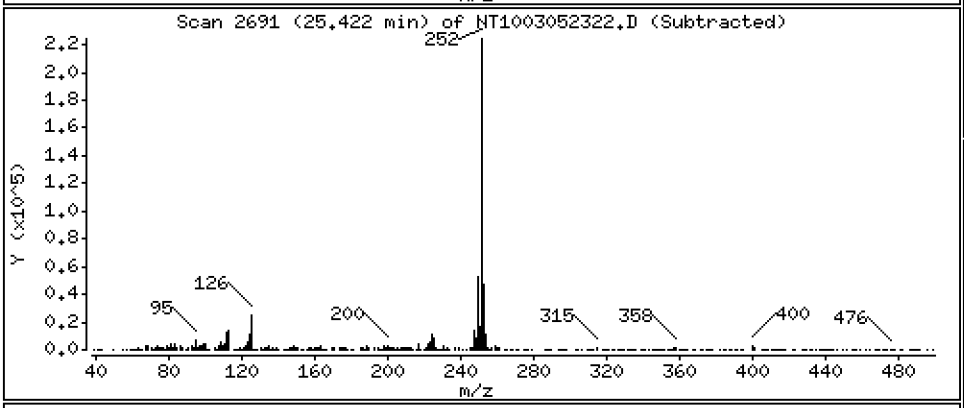
Column phase: ZB-5msi

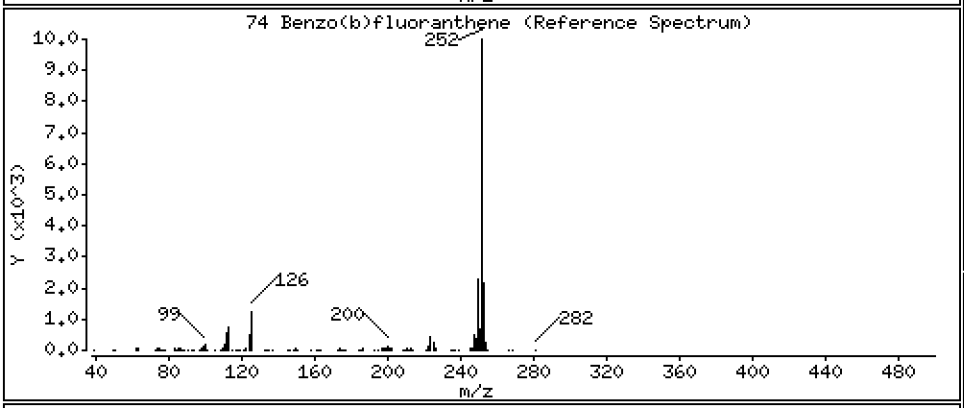
Column diameter: 0.25

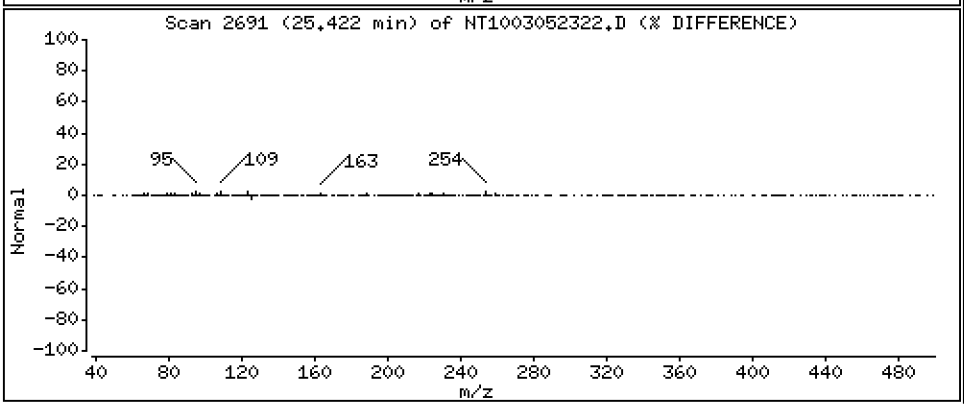
74 Benzo(b)fluoranthene

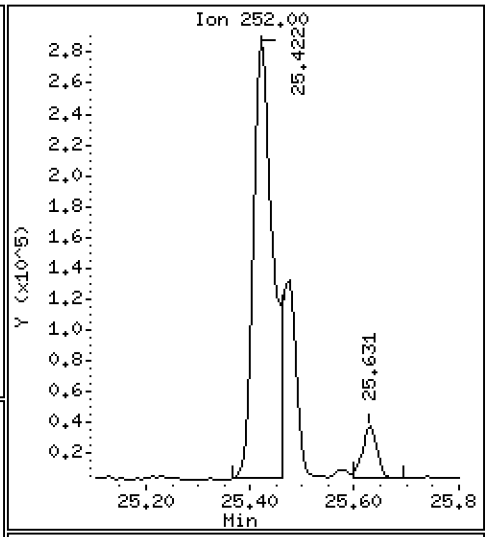
Concentration: 2.479 ug/mL

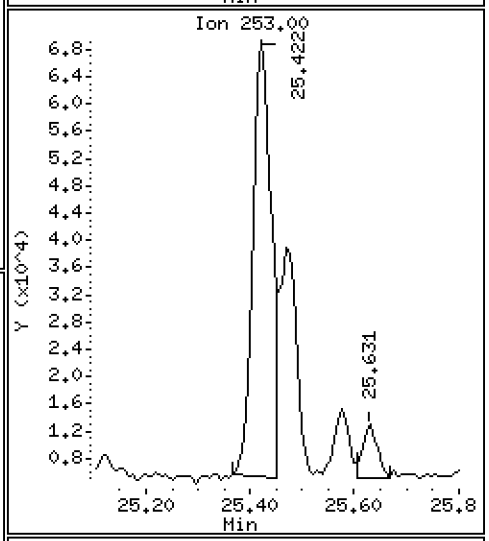


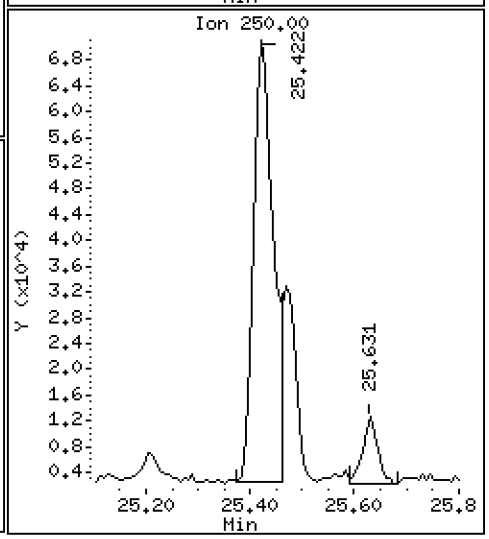












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

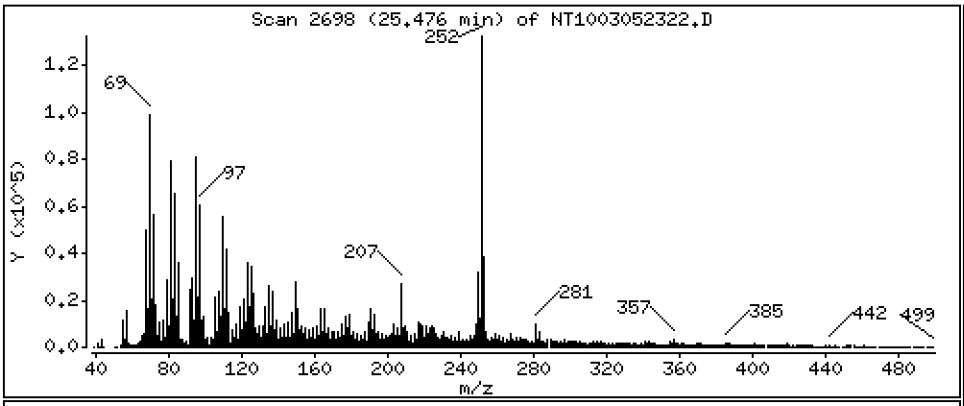
Operator: VTS

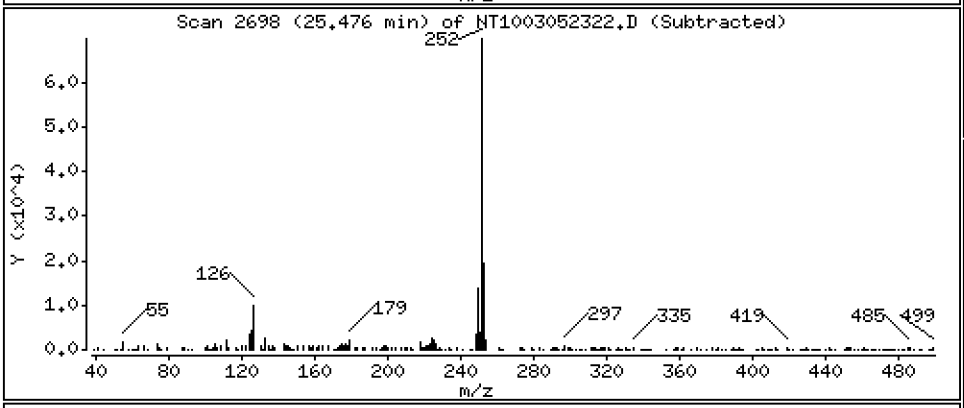
Column phase: ZB-5msi

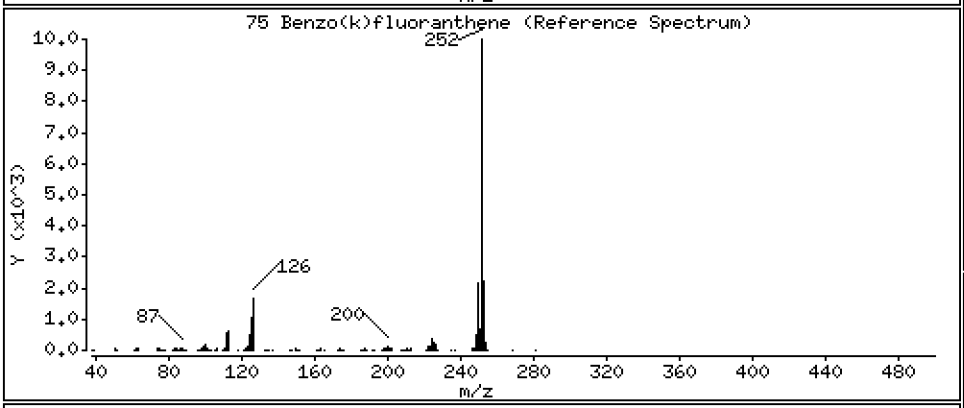
Column diameter: 0.25

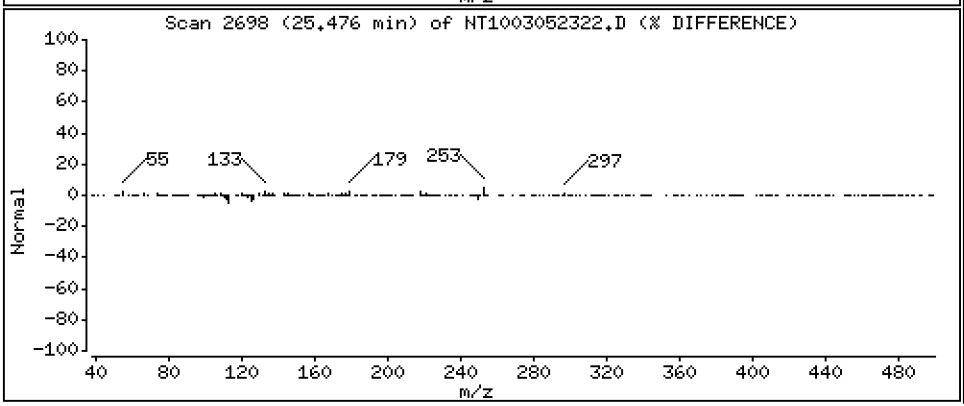
75 Benzo(k)fluoranthene

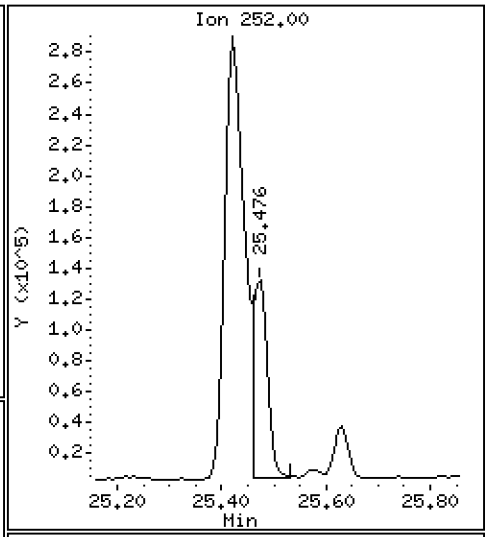
Concentration: 0.8911 ug/mL

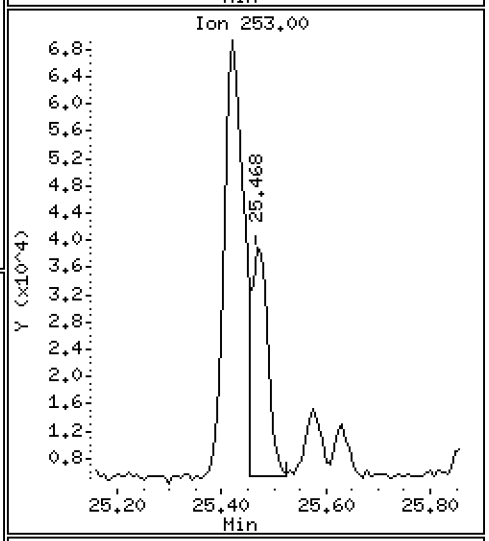


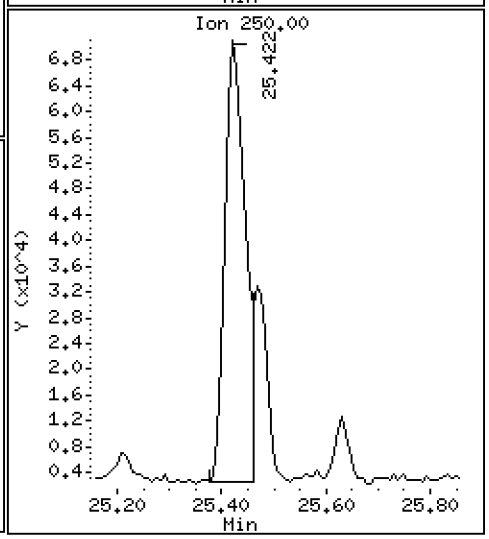












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

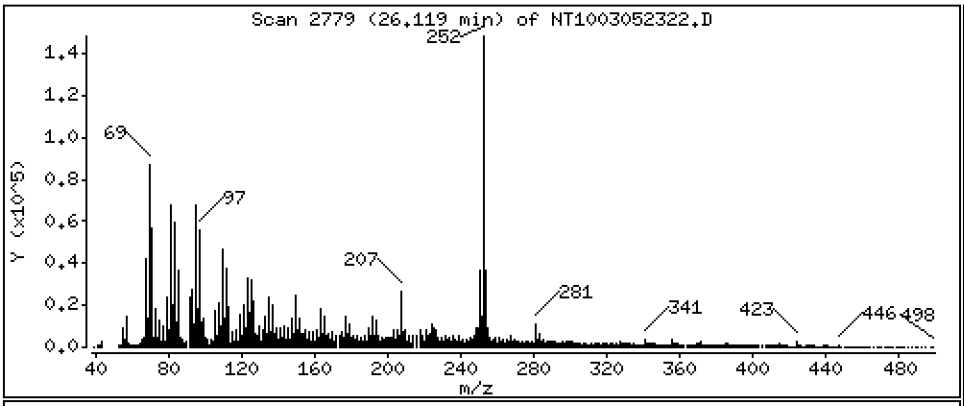
Operator: VTS

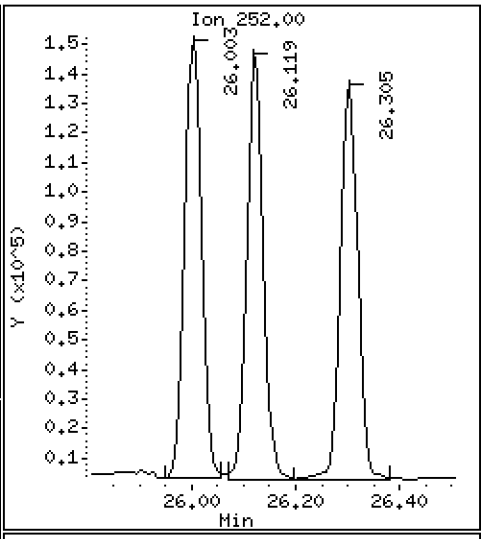
Column phase: ZB-5msi

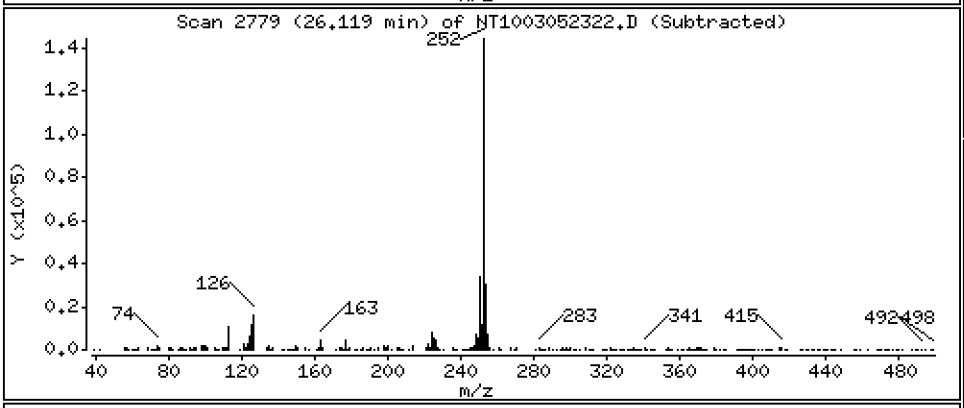
Column diameter: 0.25

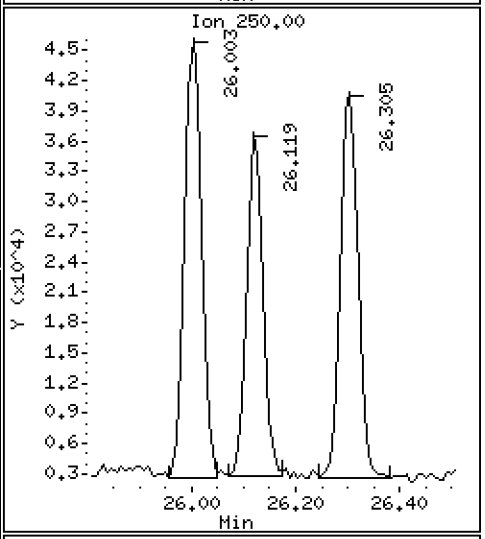
76 Benzo(a)pyrene

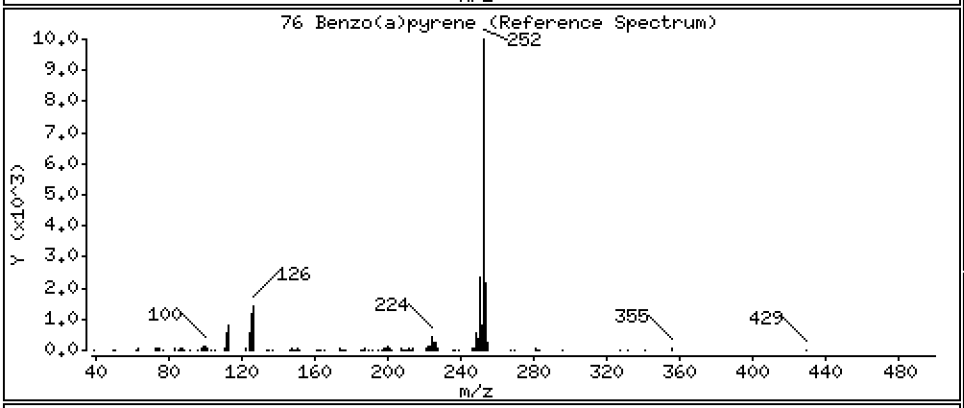
Concentration: 1.191 ug/mL

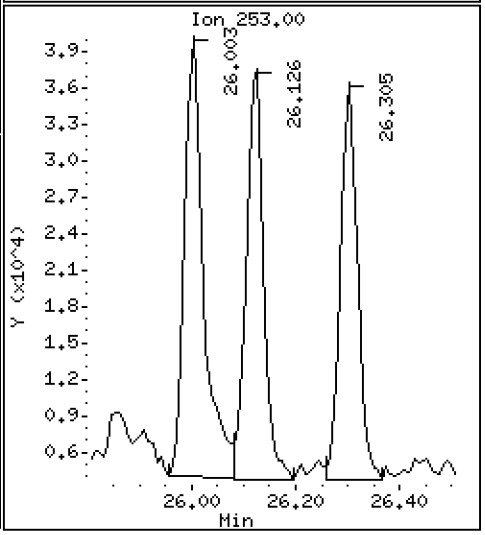


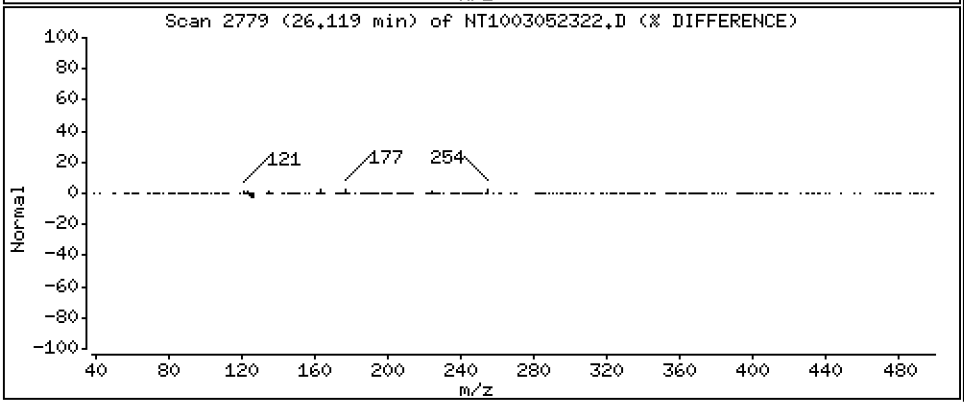












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

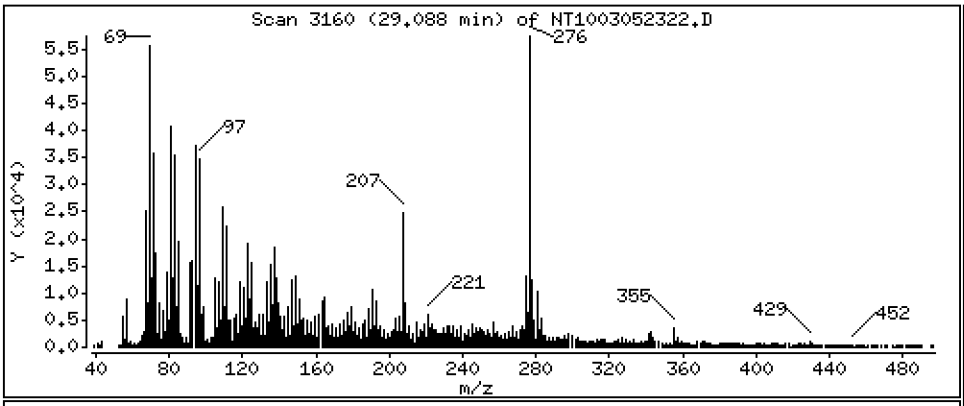
Operator: VTS

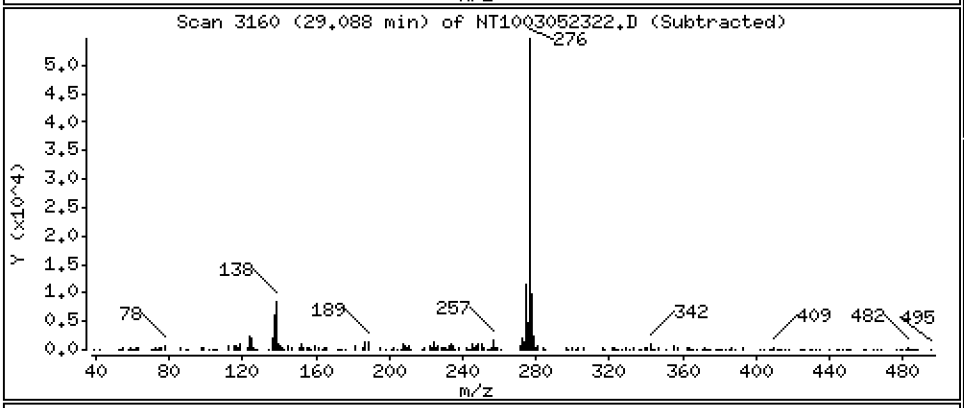
Column phase: ZB-5msi

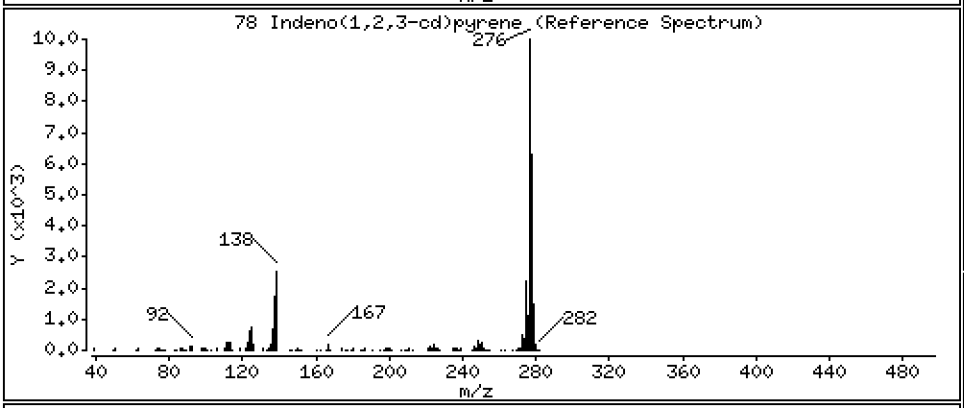
Column diameter: 0.25

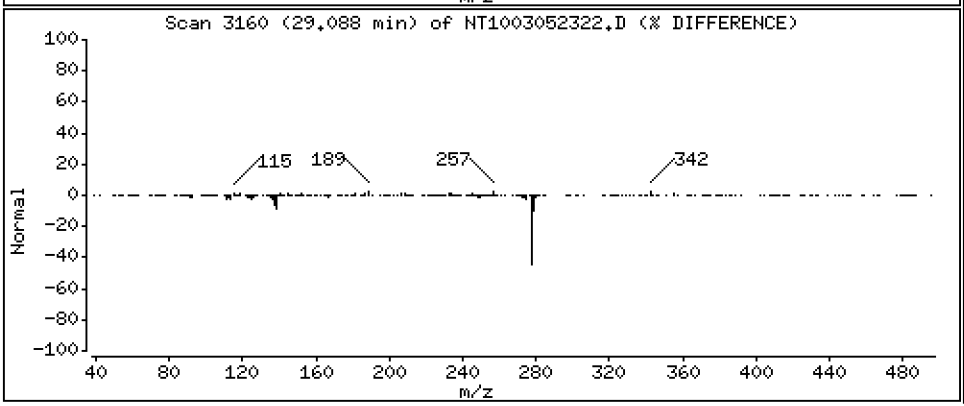
78 Indeno(1,2,3-cd)pyrene

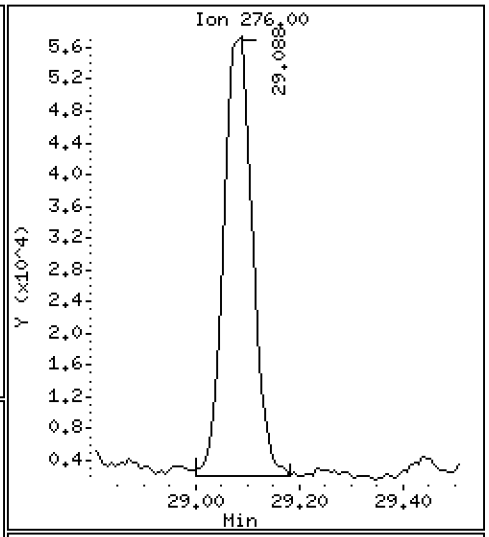
Concentration: 0.6704 ug/mL

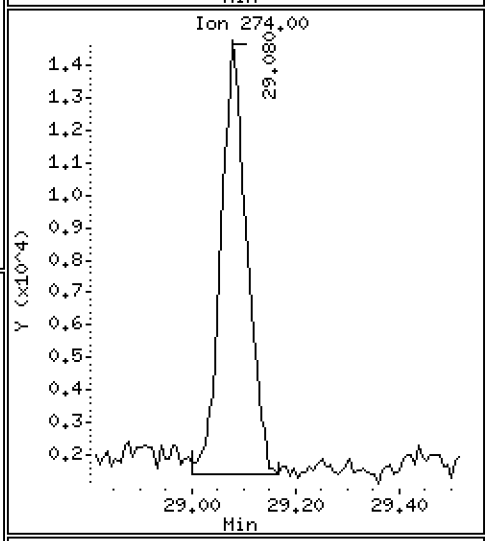


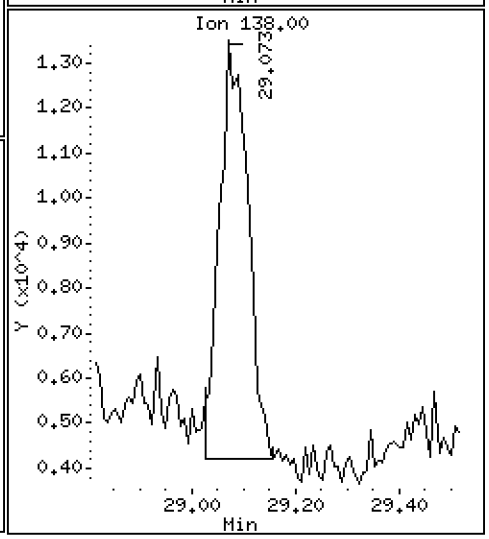












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

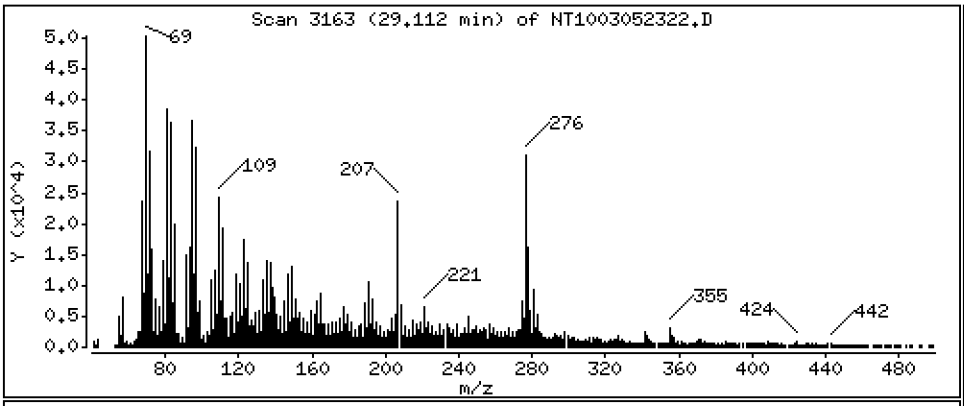
Operator: VTS

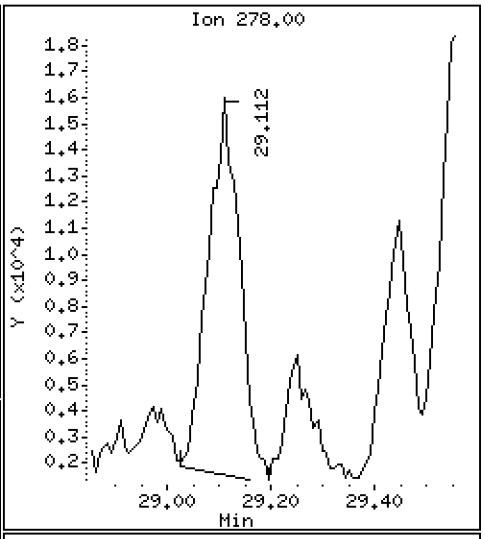
Column phase: ZB-5msi

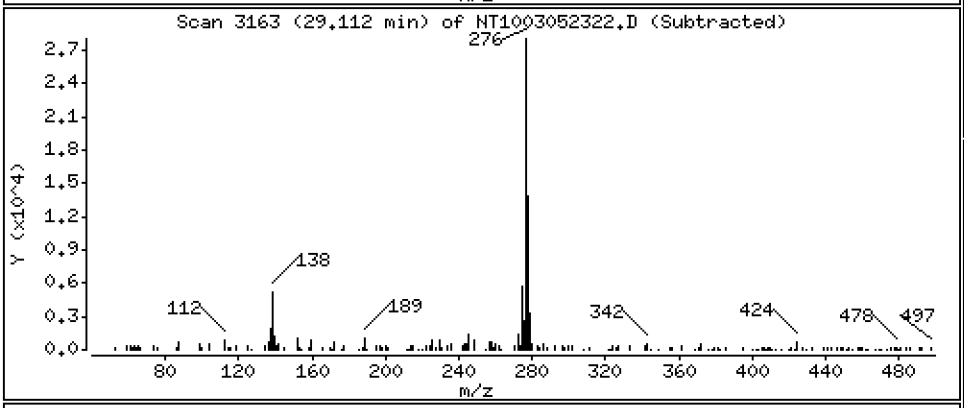
Column diameter: 0.25

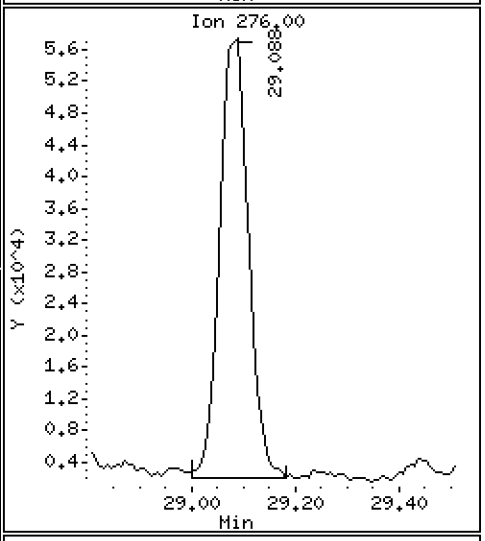
79 Dibenzo(a,h)anthracene

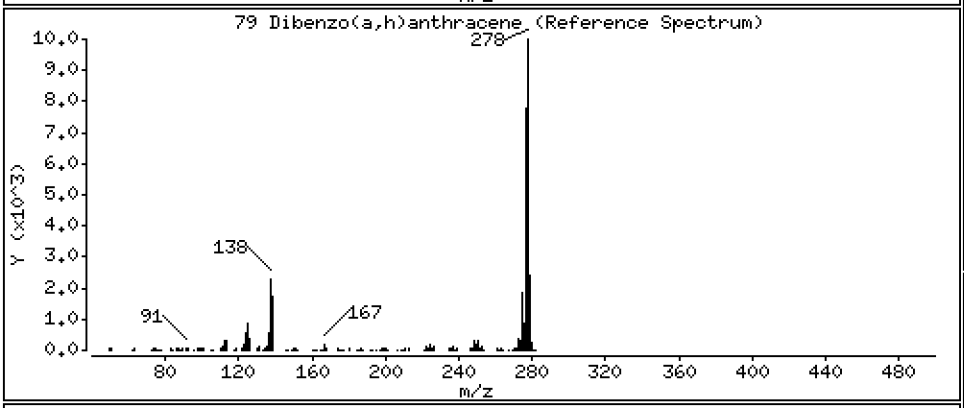
Concentration: 0.2568 ug/mL

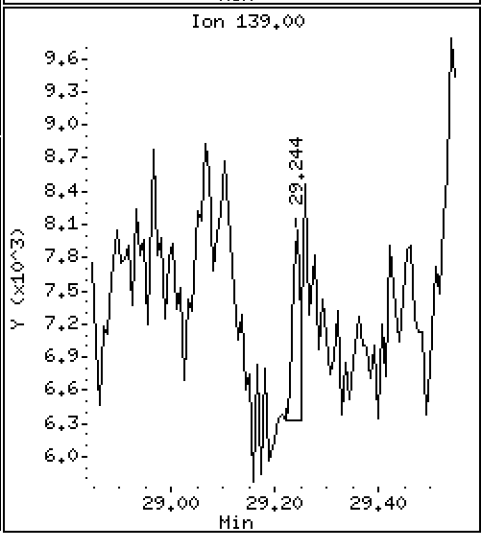


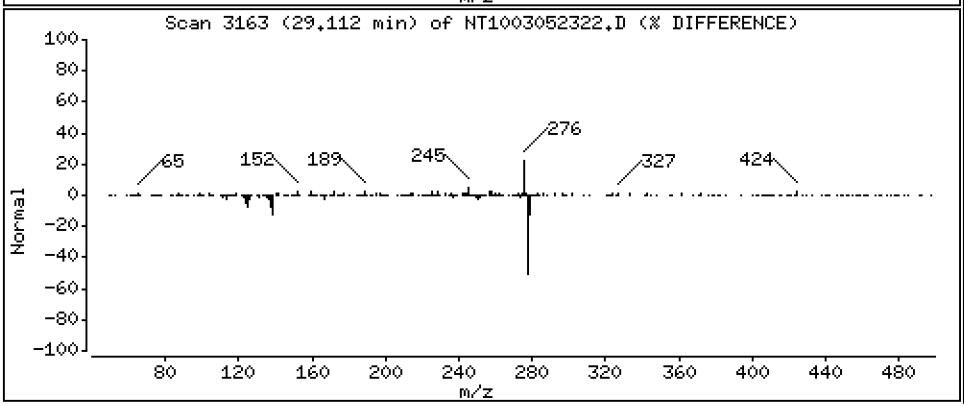












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

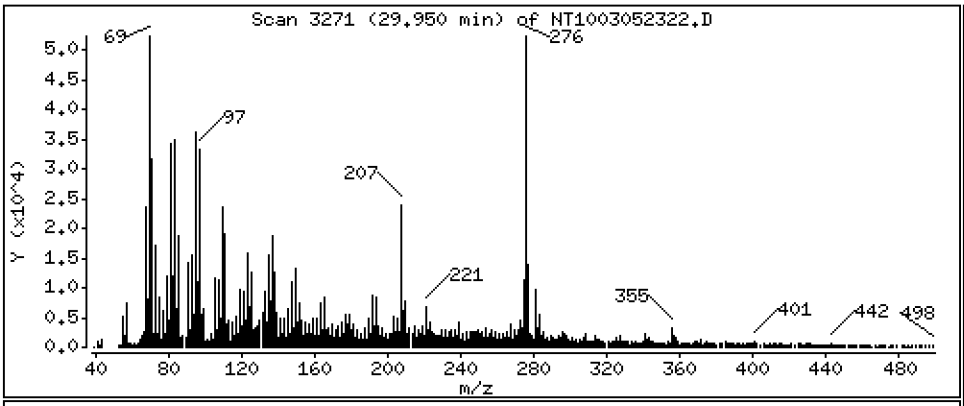
Operator: VTS

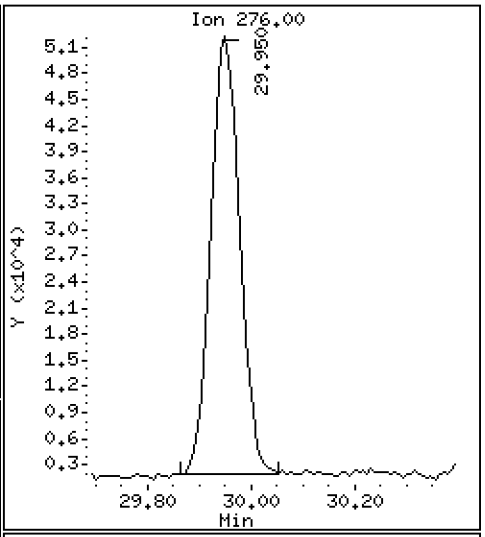
Column phase: ZB-5msi

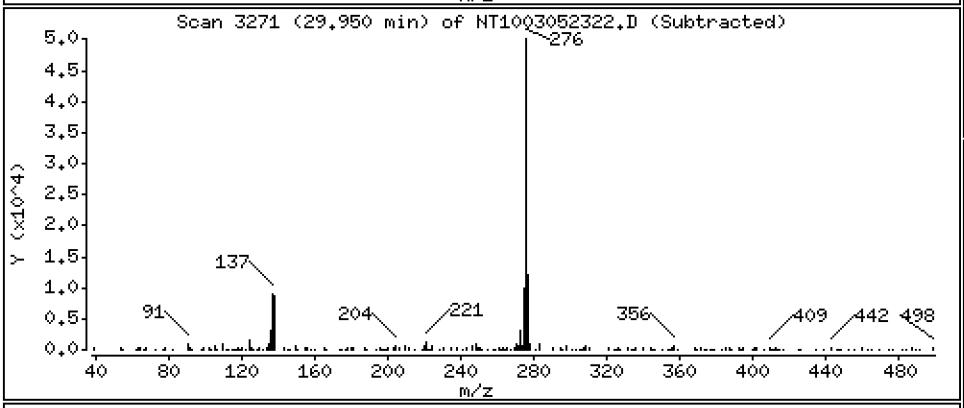
Column diameter: 0.25

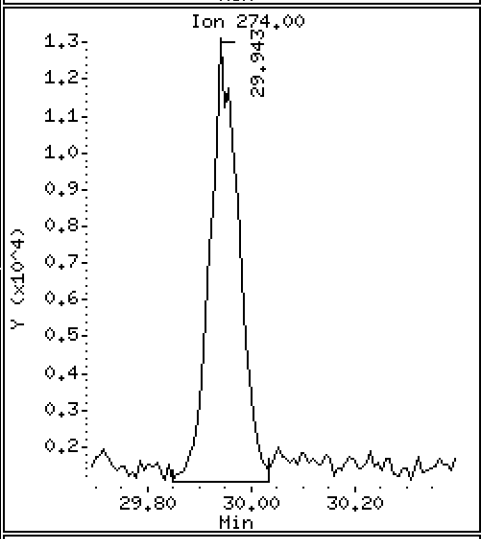
80 Benzo(g,h,i)perylene

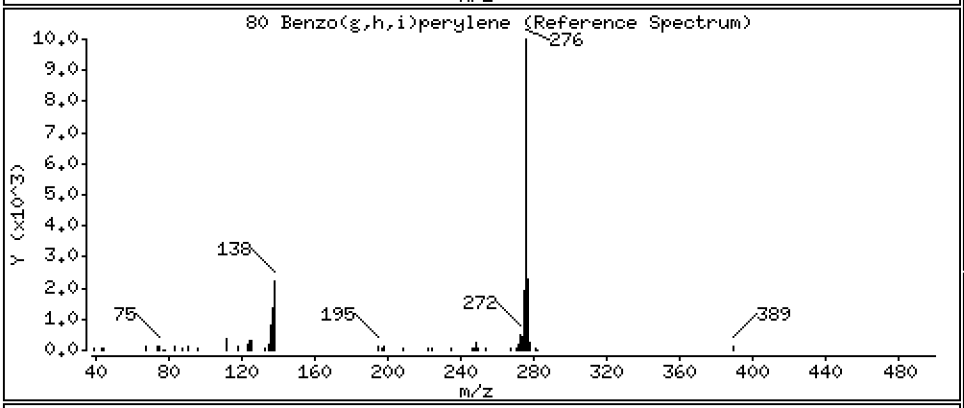
Concentration: 0.7816 ug/mL

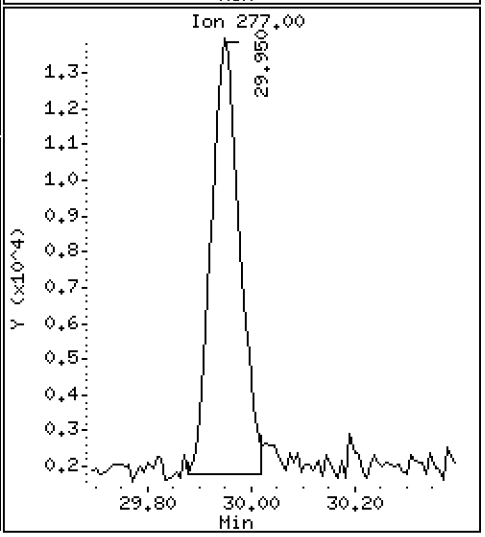


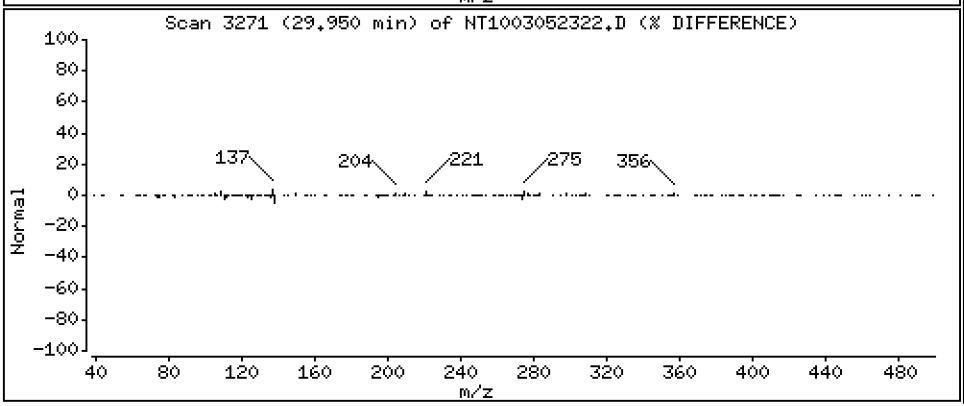












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

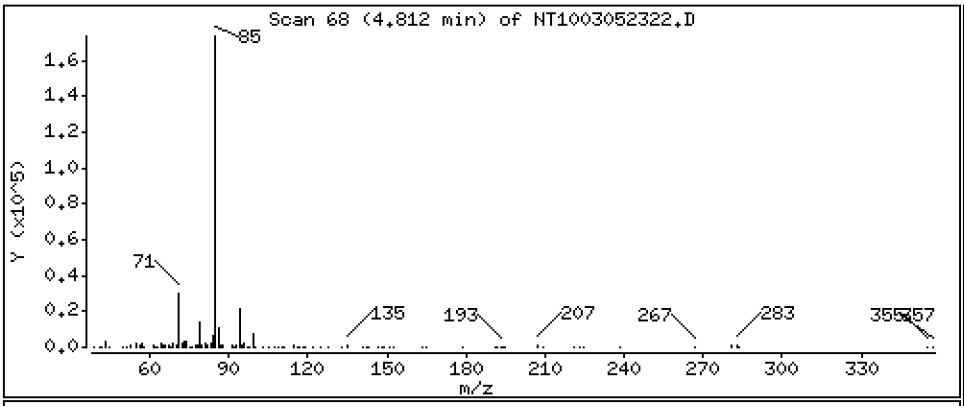
Operator: VTS

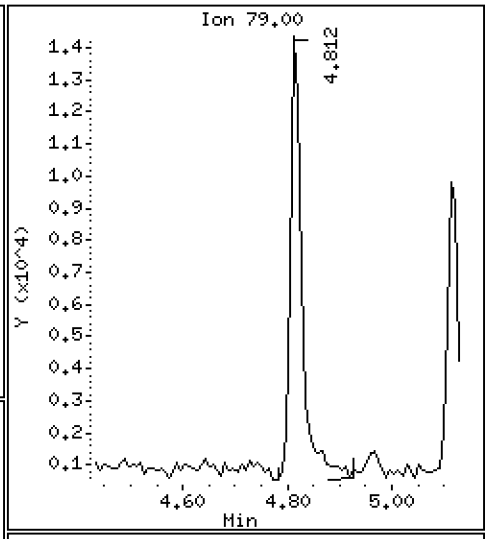
Column phase: ZB-5msi

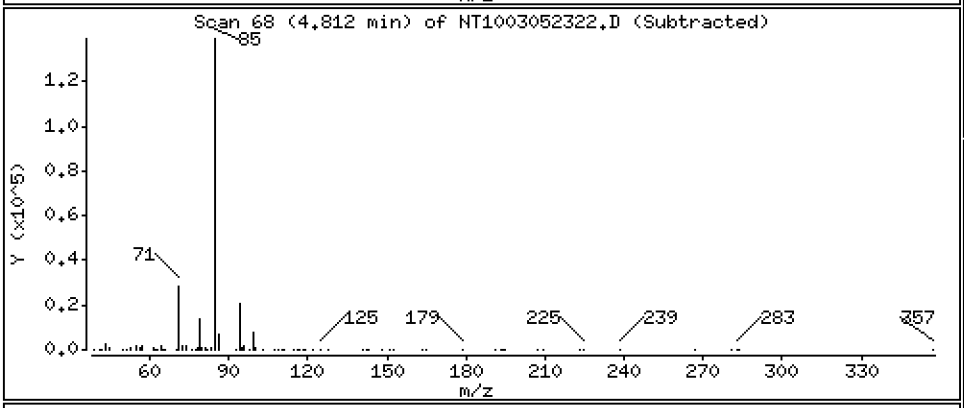
Column diameter: 0.25

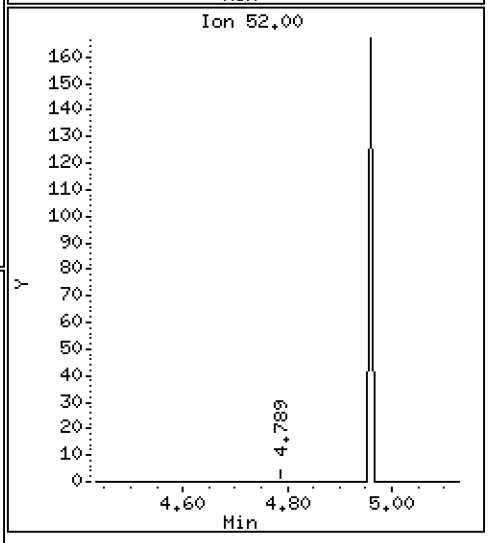
103 Pyridine

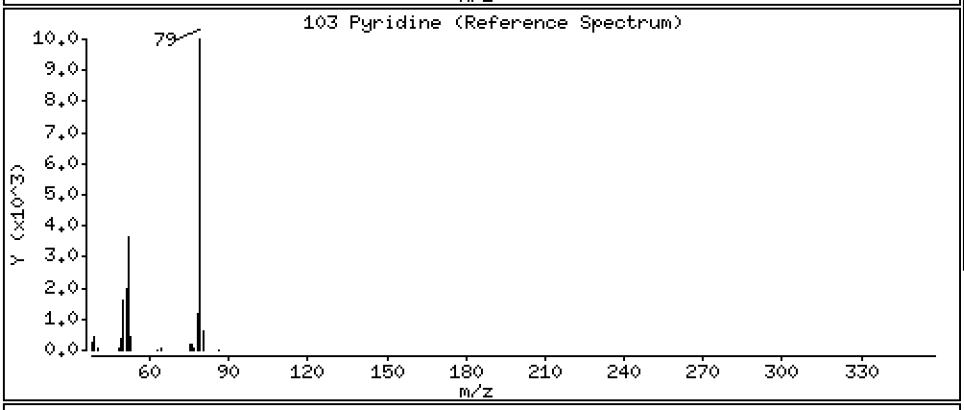
Concentration: 0.2899 ug/mL

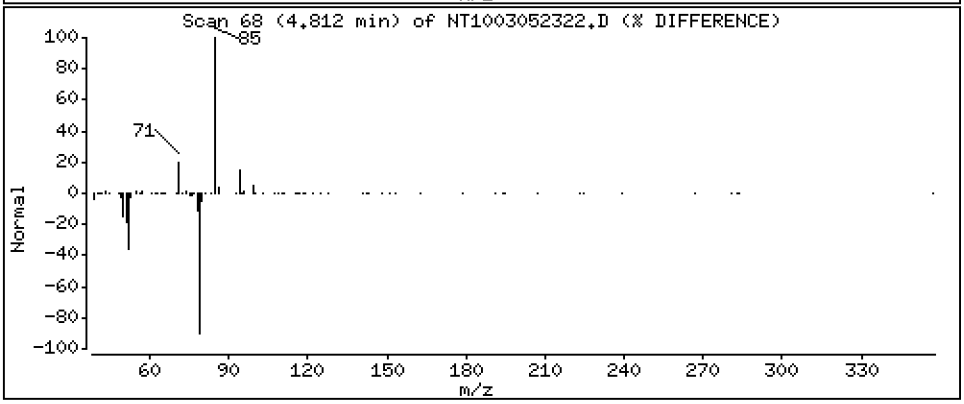












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

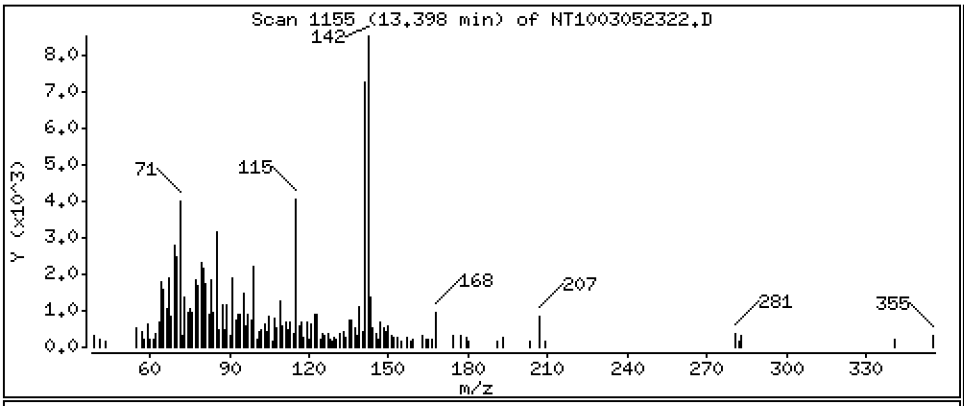
Operator: VTS

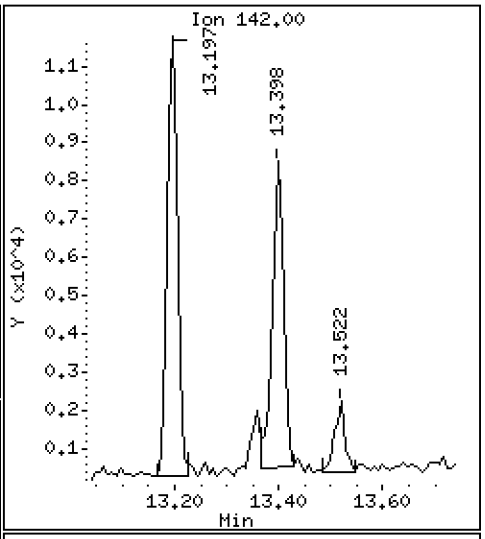
Column phase: ZB-5msi

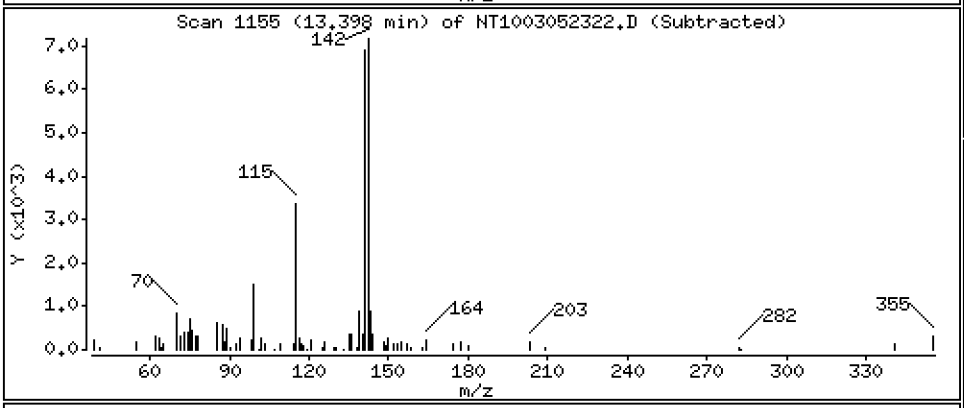
Column diameter: 0.25

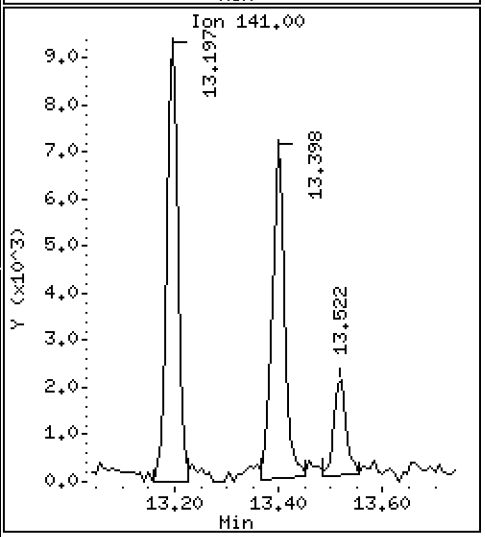
105 1-methylnaphthalene

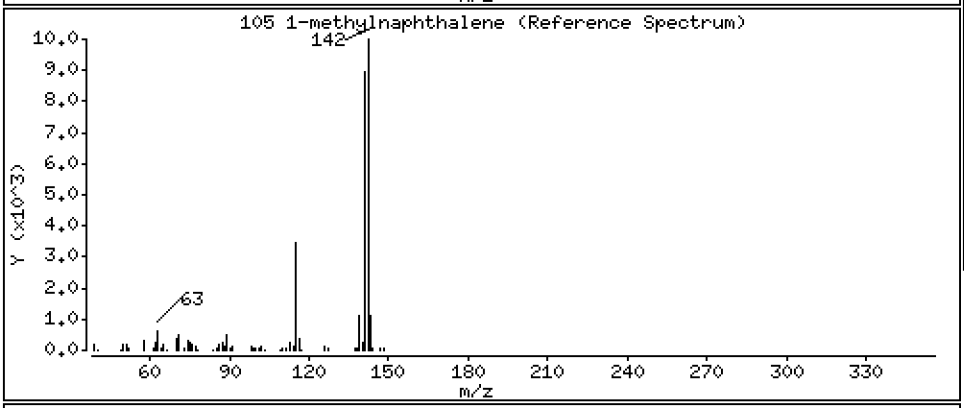
Concentration: 0.09292 ug/mL

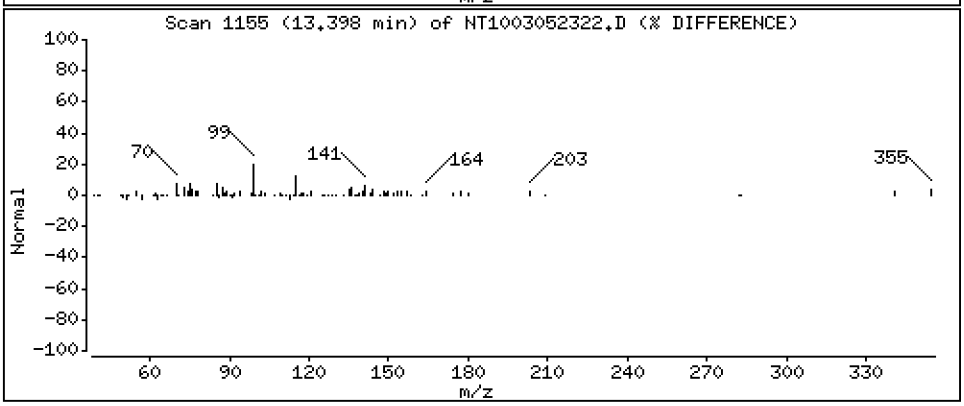












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

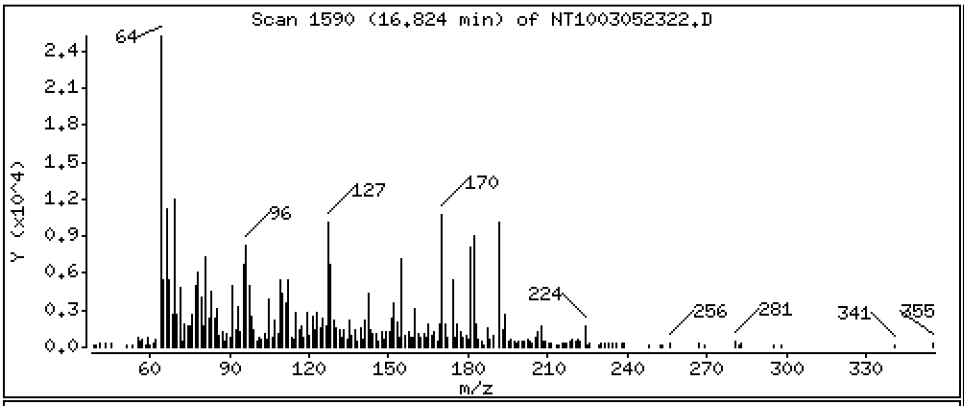
Operator: VTS

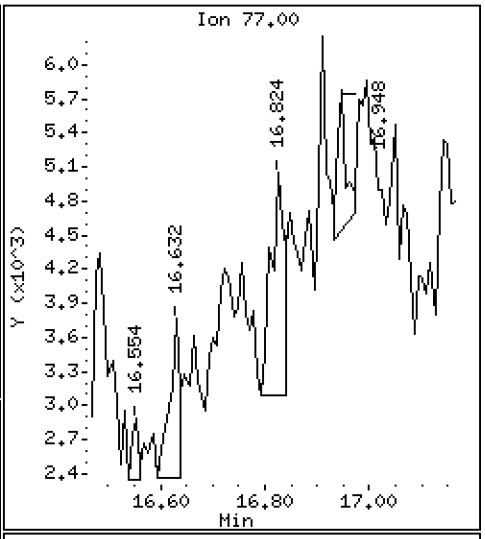
Column phase: ZB-5msi

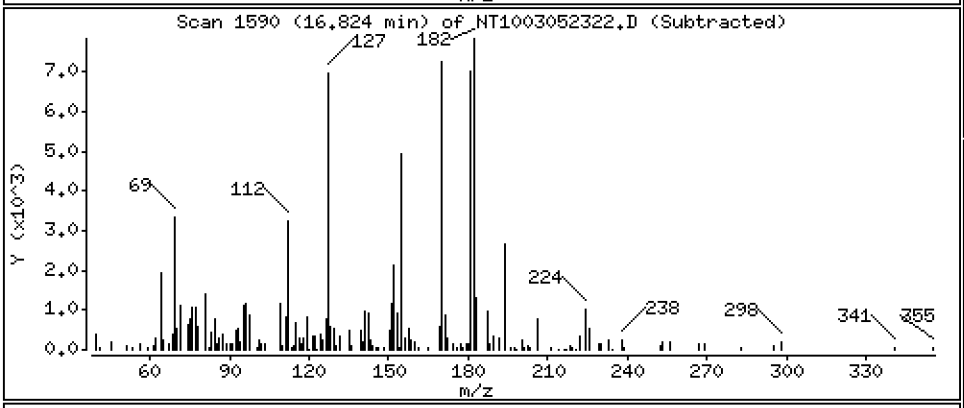
Column diameter: 0.25

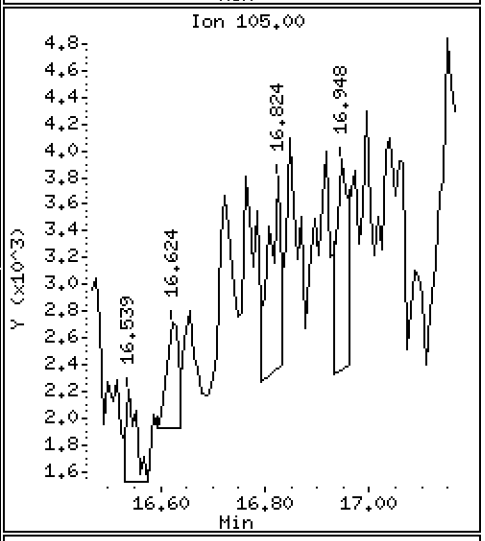
111 Azobenzene (1,2-DP-Hydrazine)

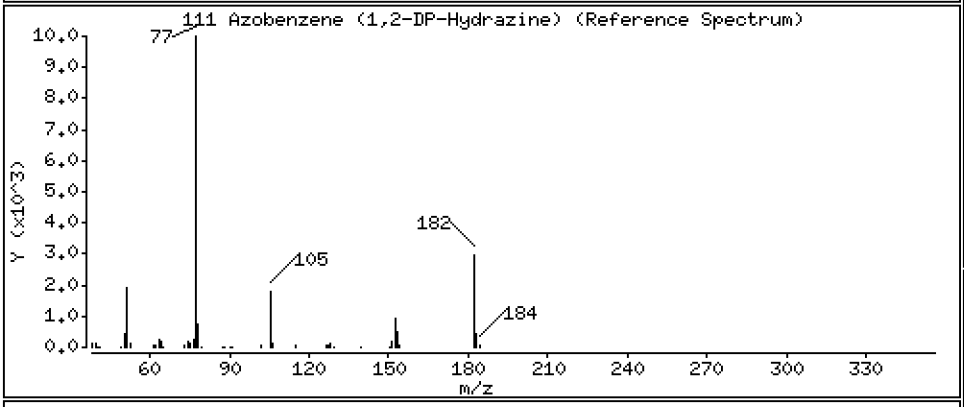
Concentration: 0.01579 ug/mL

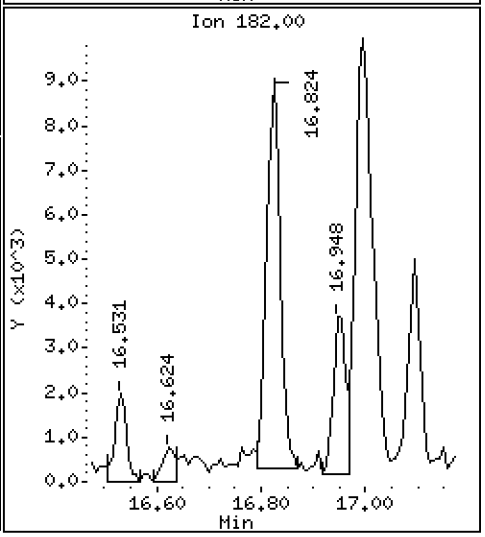


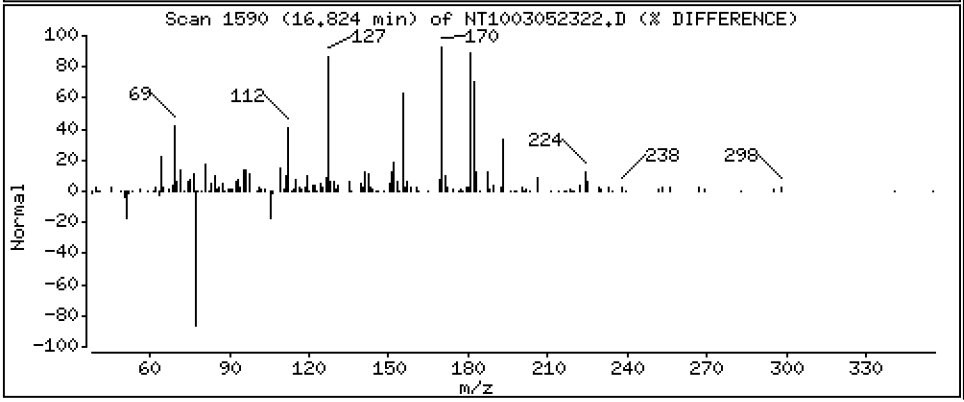












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

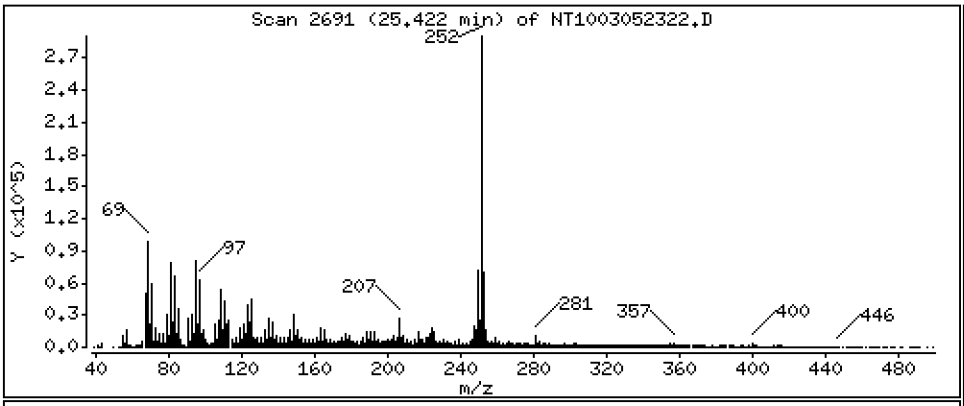
Operator: VTS

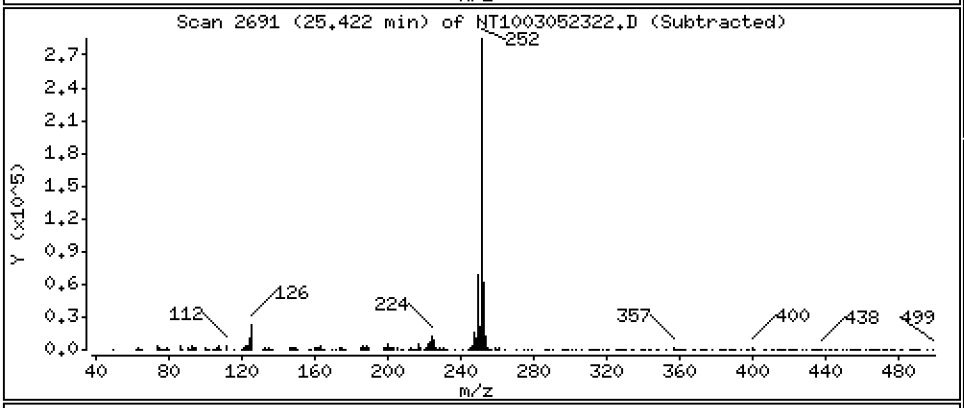
Column phase: ZB-5msi

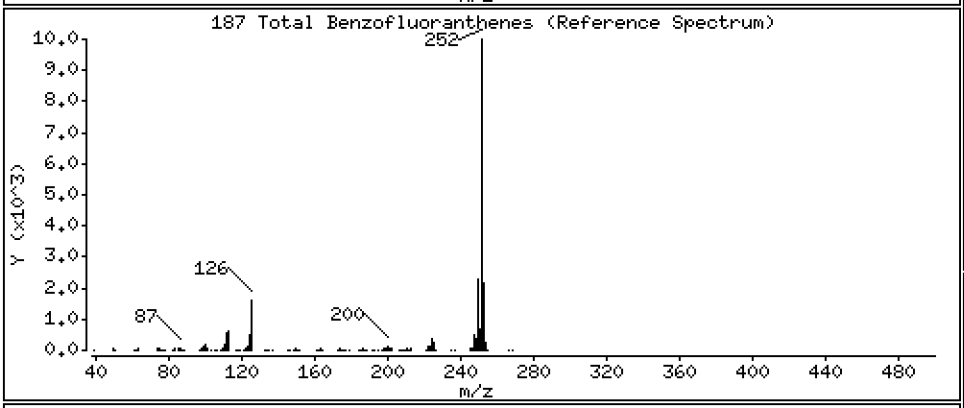
Column diameter: 0.25

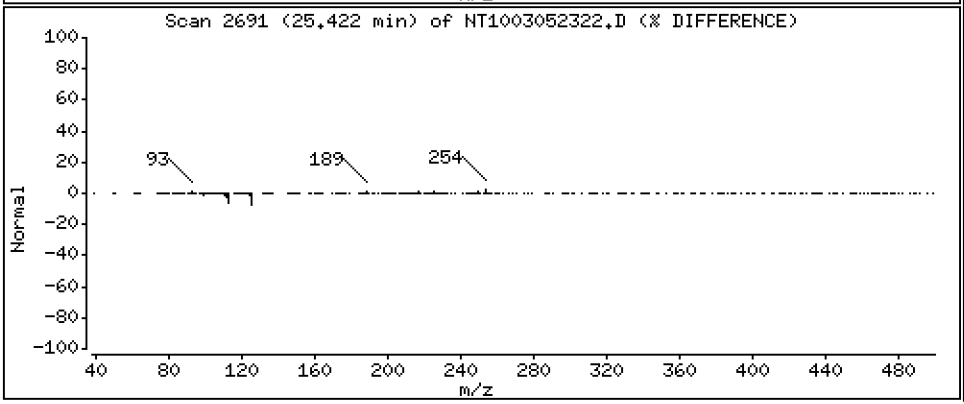
187 Total Benzofluoranthenes

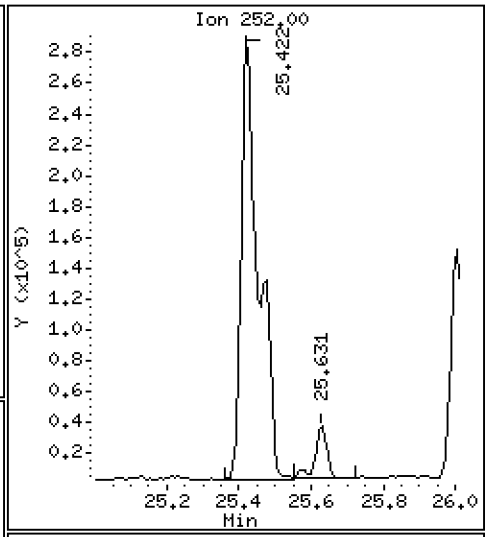
Concentration: 3.339 ug/mL

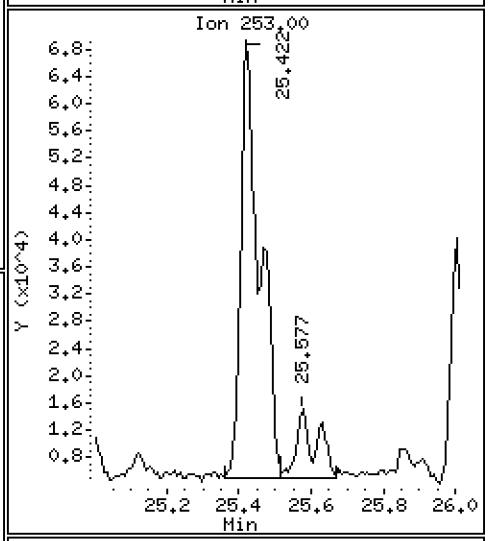


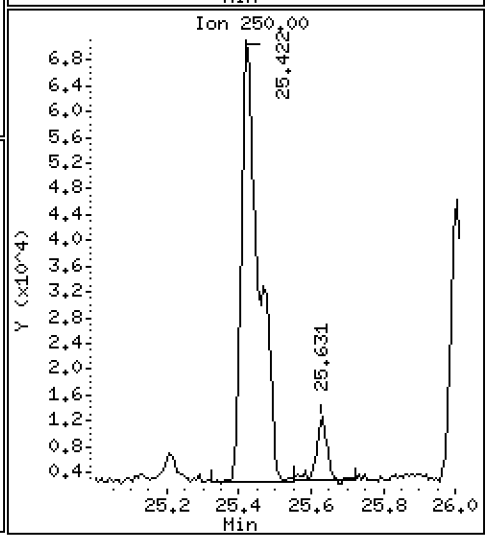












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305A.b\NT1003052322.D
Lab Smp Id: 23A0313-13
Inj Date : 06-MAR-2023 02:40
Operator : VTS Inst ID: nt10.i
Smp Info : 23A0313-13
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Meth Date : 27-Mar-2023 13:49 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

							CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.905	6.905	(0.746)	398744	5.66415	5.664
$	2 Phenol-d5	99	8.527	8.512	(0.921)	501703	6.13844	6.138
	3 Phenol	94	8.551	8.535	(0.924)	99468	1.14467	1.145
$	5 2-Chlorophenol-d4	132	8.829	8.821	(0.954)	439026	6.29599	6.296
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	9.254	9.247	(1.000)	223750	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.549	9.542	(1.032)	192520	3.69537	3.695
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	9.503	9.487	(1.027)	6302	0.14145	0.1414
	14 2,2'-oxybis(1-Chloropropane)	121	9.728	9.736	(1.051)	8564	0.38684	0.3868(M)
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	9.852	9.984	(1.065)	2293	0.04373	0.04373
	15 4-Methylphenol	108	9.992	9.961	(1.080)	5827	0.06900	0.06900
$	18 Nitrobenzene-d5	82	10.318	10.302	(0.878)	378929	4.35648	4.356
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.196	11.205	(0.953)	10471	0.22652	0.2265
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.749	11.734	(1.000)	792377	4.00000	
	28 Naphthalene	128	11.796	11.780	(1.004)	25087	0.12335	0.1234
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	13.196	13.181	(1.123)	16965	0.11808	0.1181
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	13.939	13.931	(0.908)	686440	4.45686	4.457
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	14.775	14.767	(0.963)	4587	0.03289	0.03289
	40	Acenaphthylene	152	15.061	15.054	(0.981)	29568	0.14185	0.1418
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	15.347	15.340	(1.000)	431810	4.00000	
	43	3-Nitroaniline	138	15.224	15.255	(0.992)	408	0.01160	0.01160
	44	Acenaphthene	153	15.417	15.409	(1.005)	17940	0.14271	0.1427
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	15.773	15.773	(1.028)	28786	0.15428	0.1543
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	16.244	16.244	(1.058)	48619	0.32910	0.3291
	49	Fluorene	166	16.492	16.492	(1.075)	21777	0.14029	0.1403
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	16.993	16.994	(1.107)	182242	6.56241	6.562
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	17.635	17.627	(0.956)	529	0.00973	0.009734
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	18.455	18.455	(1.000)	804967	4.00000	
	60	Phenanthrene	178	18.502	18.509	(1.002)	163758	0.79492	0.7949
	61	Anthracene	178	18.610	18.618	(1.008)	91566	0.45839	0.4584
	62	Carbazole	167	18.950	18.950	(1.027)	25006	0.13664	0.1366
	63	Di-n-butylphthalate	149	19.647	19.647	(1.065)	38496	0.15503	0.1550
	64	Fluoranthene	202	20.908	20.892	(0.890)	593687	2.23807	2.238
	65	Pyrene	202	21.333	21.326	(0.908)	943118	3.49161	3.492
$	66	Terphenyl-d14	244	21.597	21.604	(0.919)	923765	4.22665	4.227
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	23.486	23.501	(0.999)	442665	1.62808	1.628
*	69	Chrysene-d12	240	23.501	23.517	(1.000)	771106	4.00000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	23.548	23.563	(1.002)	490757	2.22092	2.221
	72	bis(2-Ethylhexyl)phthalate	149	23.470	23.494	(0.956)	233608	1.25171	1.252
*	134	Di-n-octylphthalate-d4	153	24.562	24.593	(1.000)	1322148	4.00000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	25.421	25.452	(0.969)	763203	2.47917	2.479
	75	Benzo(k)fluoranthene	252	25.475	25.507	(0.971)	259595	0.89108	0.8911(M)
	76	Benzo(a)pyrene	252	26.118	26.157	(0.995)	323105	1.19103	1.191
*	77	Perylene-d12	264	26.242	26.289	(1.000)	880428	4.00000	
	78	Indeno(1,2,3-cd)pyrene	276	29.088	29.158	(1.108)	211498	0.67040	0.6704
	79	Dibenzo(a,h)anthracene	278	29.111	29.204	(1.109)	61176	0.25679	0.2568(M)
	80	Benzo(g,h,i)perylene	276	29.950	30.043	(1.141)	196478	0.78156	0.7816
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	4.812	4.781	(0.520)	23368	0.28993	0.2899(M)
	105	1-methylnaphthalene	142	13.397	13.390	(1.140)	12083	0.09292	0.09292
	111	Azobenzene (1,2-DP-Hydrazine)	77	16.824	16.816	(1.096)	3483	0.01579	0.01579

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.421	25.507	(0.969)	978778	3.33875	3.339
120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052322.D
Lab Smp Id: 23A0313-13
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 21:38
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	264922	132461	529844	223750	-15.54
27 Naphthalene-d8	947542	473771	1895084	792377	-16.38
42 Acenaphthene-d10	505666	252833	1011332	431810	-14.61
59 Phenanthrene-d10	940283	470142	1880566	804967	-14.39
69 Chrysene-d12	987952	493976	1975904	771106	-21.95
134 Di-n-octylphthala	1625017	812509	3250034	1322148	-18.64
77 Perylene-d12	1073798	536899	2147596	880428	-18.01

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.75	0.13
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	-0.00
69 Chrysene-d12	23.52	23.02	24.02	23.50	-0.07
134 Di-n-octylphthala	24.59	24.09	25.09	24.56	-0.13
77 Perylene-d12	26.29	25.79	26.79	26.24	-0.18

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052322.D

Lab ID: 23A0313-13
nt10.i, 20230305A.b\ABN.m,   06-MAR-2023 02:40

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.065	1.080	-0.0152	N-Nitroso-di-n-propylamine

RRT check based on Ccal File: NT1003052314.D

On Column LOD for nt10.i, 20230305A.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052322.D Page 1
Report Date: 27-Mar-2023 13:50

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305A.b\NT1003052322.D
Lab Smp Id: 23A0313-13
Inj Date : 06-MAR-2023 02:40
Operator : VTS   Inst ID: nt10.i
Smp Info : 23A0313-13
Misc Info :
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Meth Date : 27-Mar-2023 13:49 deenayd   Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15   Cal File: NT1003012307.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)

$	1	2-Fluorophenol	112	6.905	6.905 (0.746)	398744	5.66415	5.664	
$	2	Phenol-d5	99	8.527	8.512 (0.921)	501703	6.13844	6.138	
	3	Phenol	94	8.551	8.535 (0.924)	99468	1.14467	1.145	
$	5	2-Chlorophenol-d4	132	8.829	8.821 (0.954)	439026	6.29599	6.296	
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	9.254	9.247 (1.000)	223750	4.00000		
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	9.549	9.542 (1.032)	192520	3.69537	3.695	
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	9.503	9.487 (1.027)	6302	0.14145	0.1414	
	14	2,2'-oxybis(1-Chloropropane)	121	9.728	9.736 (1.051)	8564	0.38684	0.3868(M)	
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	9.852	9.984 (1.065)	2293	0.04373	0.04373	
	15	4-Methylphenol	108	9.992	9.961 (1.080)	5827	0.06900	0.06900	
$	18	Nitrobenzene-d5	82	10.318	10.302 (0.878)	378929	4.35648	4.356	
	19	Nitrobenzene	77	Compound Not Detected.					
	20	Isophorone	82	Compound Not Detected.					
	21	2-Nitrophenol	139	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24	Benzoic acid	105	11.196	11.205 (0.953)	10471	0.22652	0.2265	
	25	2,4-Dichlorophenol	162	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	11.749	11.734 (1.000)	792377	4.00000		
	28	Naphthalene	128	11.796	11.780 (1.004)	25087	0.12335	0.1234	
	29	4-Chloroaniline	127	Compound Not Detected.					
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32	2-Methylnaphthalene	142	13.196	13.181 (1.123)	16965	0.11808	0.1181	
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

							CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.939	13.931	(0.908)	686440	4.45686	4.457
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	14.775	14.767	(0.963)	4587	0.03289	0.03289
	40 Acenaphthylene	152	15.061	15.054	(0.981)	29568	0.14185	0.1418
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	15.347	15.340	(1.000)	431810	4.00000	
	43 3-Nitroaniline	138	15.224	15.255	(0.992)	408	0.01160	0.01160
	44 Acenaphthene	153	15.417	15.409	(1.005)	17940	0.14271	0.1427
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	15.773	15.773	(1.028)	28786	0.15428	0.1543
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	16.244	16.244	(1.058)	48619	0.32910	0.3291
	49 Fluorene	166	16.492	16.492	(1.075)	21777	0.14029	0.1403
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	16.993	16.994	(1.107)	182242	6.56241	6.562
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	17.635	17.627	(0.956)	529	0.00973	0.009734
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.455	18.455	(1.000)	804967	4.00000	
	60 Phenanthrene	178	18.502	18.509	(1.002)	163758	0.79492	0.7949
	61 Anthracene	178	18.610	18.618	(1.008)	91566	0.45839	0.4584
	62 Carbazole	167	18.950	18.950	(1.027)	25006	0.13664	0.1366
	63 Di-n-butylphthalate	149	19.647	19.647	(1.065)	38496	0.15503	0.1550
	64 Fluoranthene	202	20.908	20.892	(0.890)	593687	2.23807	2.238
	65 Pyrene	202	21.333	21.326	(0.908)	943118	3.49161	3.492
$	66 Terphenyl-d14	244	21.597	21.604	(0.919)	923765	4.22665	4.227
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	23.486	23.501	(0.999)	442665	1.62808	1.628
*	69 Chrysene-d12	240	23.501	23.517	(1.000)	771106	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	23.548	23.563	(1.002)	490757	2.22092	2.221
	72 bis(2-Ethylhexyl)phthalate	149	23.470	23.494	(0.956)	233608	1.25171	1.252
*	134 Di-n-octylphthalate-d4	153	24.562	24.593	(1.000)	1322148	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	25.421	25.452	(0.969)	763203	2.47917	2.479
	75 Benzo(k)fluoranthene	252	25.475	25.507	(0.971)	259595	0.89108	0.8911(M)
	76 Benzo(a)pyrene	252	26.118	26.157	(0.995)	323105	1.19103	1.191
*	77 Perylene-d12	264	26.242	26.289	(1.000)	880428	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	29.088	29.158	(1.108)	211498	0.67040	0.6704
	79 Dibenzo(a,h)anthracene	278	29.111	29.204	(1.109)	61176	0.25679	0.2568(M)
	80 Benzo(g,h,i)perylene	276	29.950	30.043	(1.141)	196478	0.78156	0.7816
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	4.812	4.781	(0.520)	23368	0.28993	0.2899(M)
	105 1-methylnaphthalene	142	13.397	13.390	(1.140)	12083	0.09292	0.09292
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.824	16.816	(1.096)	3483	0.01579	0.01579

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.421	25.507	(0.969)	978778	3.33875	3.339
120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052322.D
Lab Smp Id: 23A0313-13
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 21:38
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	264922	132461	529844	223750	-15.54
27 Naphthalene-d8	947542	473771	1895084	792377	-16.38
42 Acenaphthene-d10	505666	252833	1011332	431810	-14.61
59 Phenanthrene-d10	940283	470142	1880566	804967	-14.39
69 Chrysene-d12	987952	493976	1975904	771106	-21.95
134 Di-n-octylphthala	1625017	812509	3250034	1322148	-18.64
77 Perylene-d12	1073798	536899	2147596	880428	-18.01

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.75	0.13
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	-0.00
69 Chrysene-d12	23.52	23.02	24.02	23.50	-0.07
134 Di-n-octylphthala	24.59	24.09	25.09	24.56	-0.13
77 Perylene-d12	26.29	25.79	26.79	26.24	-0.18

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052322.D

Lab ID: 23A0313-13
nt10.i, 20230305A.b\ABN.m,   06-MAR-2023 02:40

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.065	1.080	-0.0152	N-Nitroso-di-n-propylamine

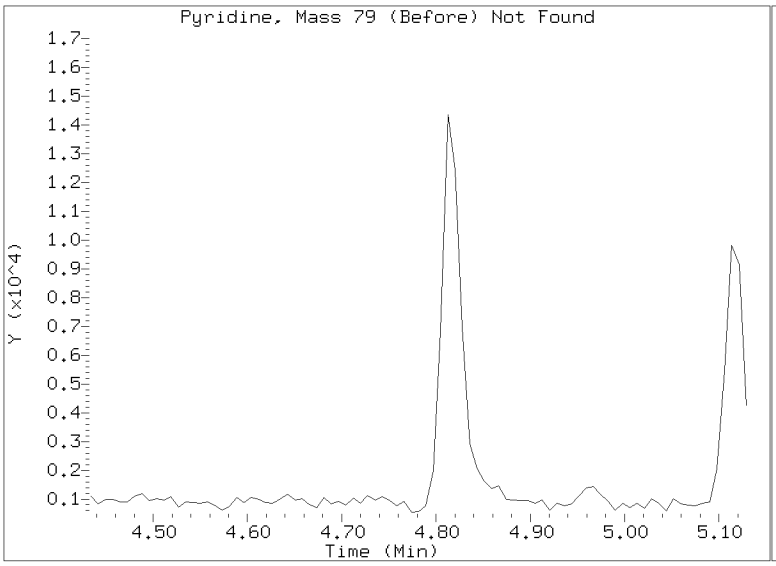
RRT check based on Ccal File: NT1003052314.D

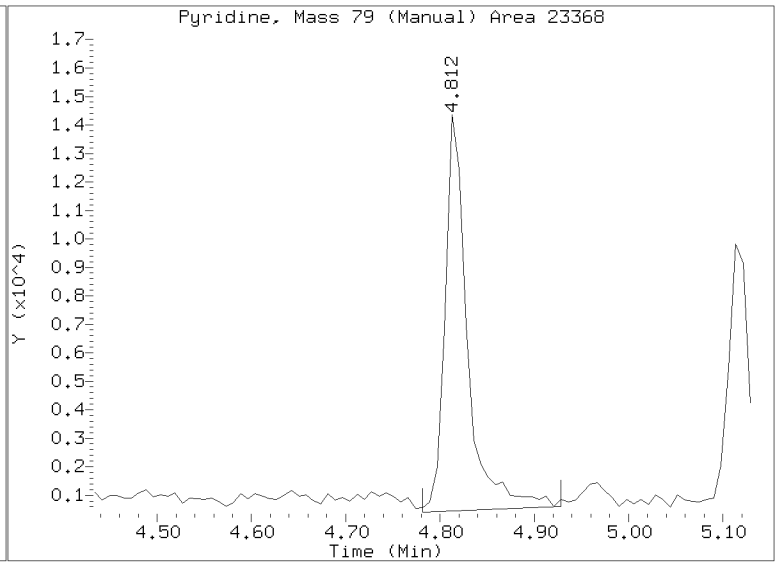
On Column LOD for nt10.i, 20230305A.b\ABN.m, ICAL.sub = 0.0000

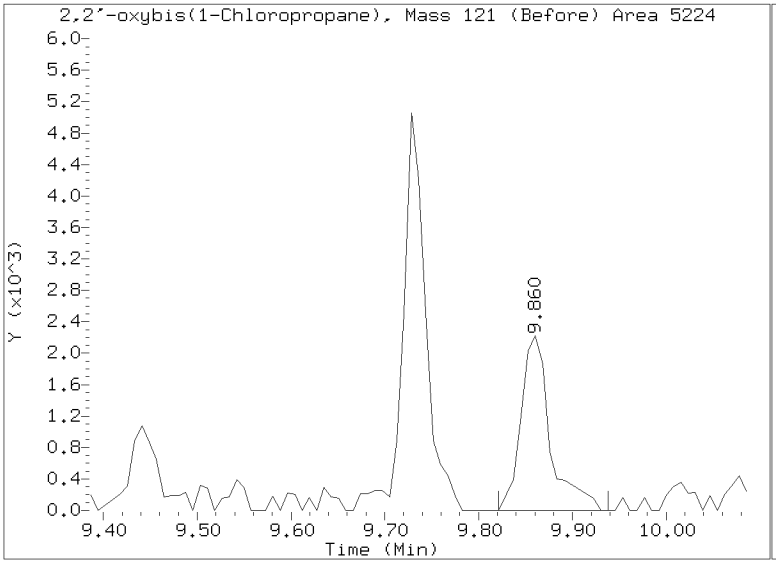
* Only compounds listed in the work order have been verified by the analyst *

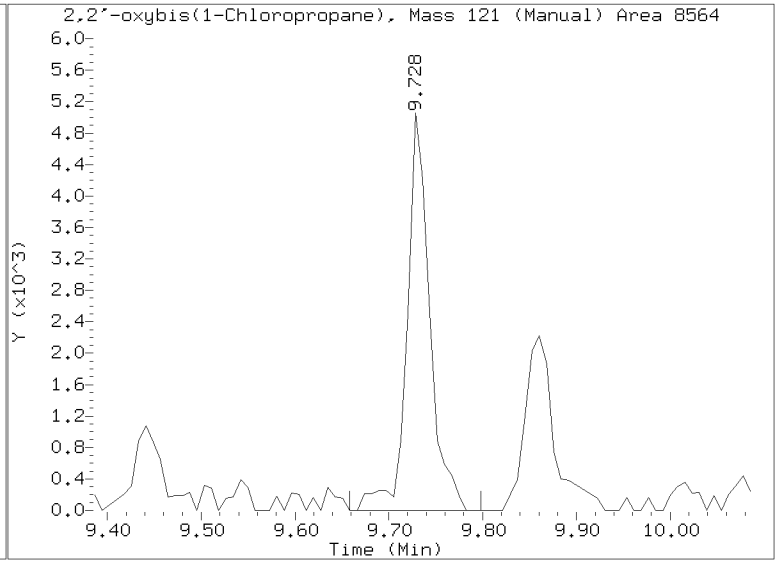
Quant Ion Manual Peak Adjustment Report

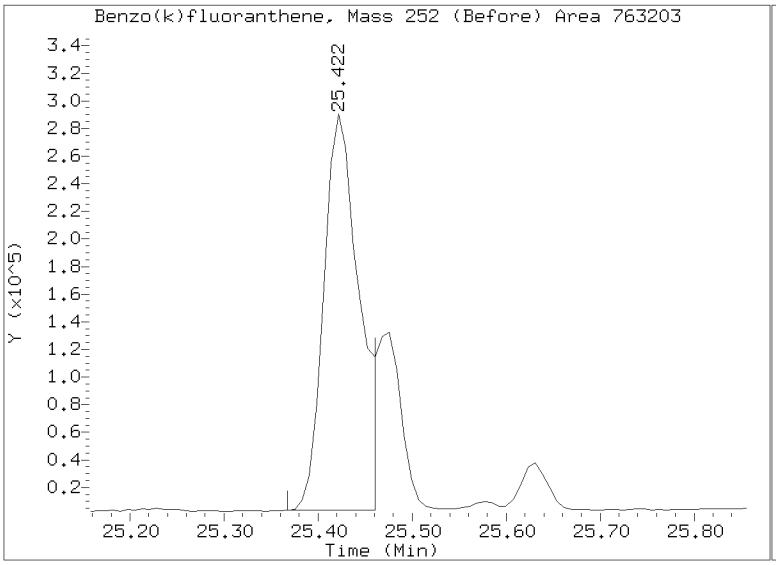
Datafile: //target/share/chem3/nt10.i/20230305A.b/NT1003052322.D
Injection Date: 06-MAR-2023 02:40
Lab ID:23A0313-13 Client ID:
Report Date: 03/27/2023 13:50

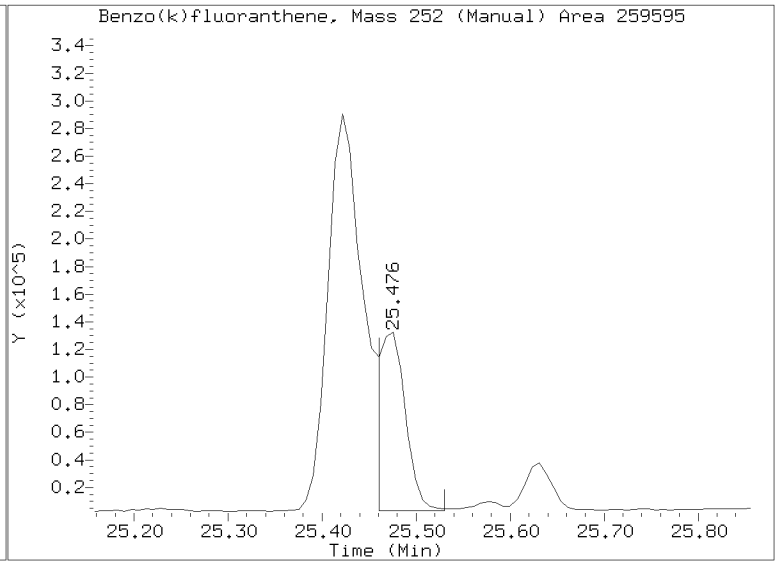






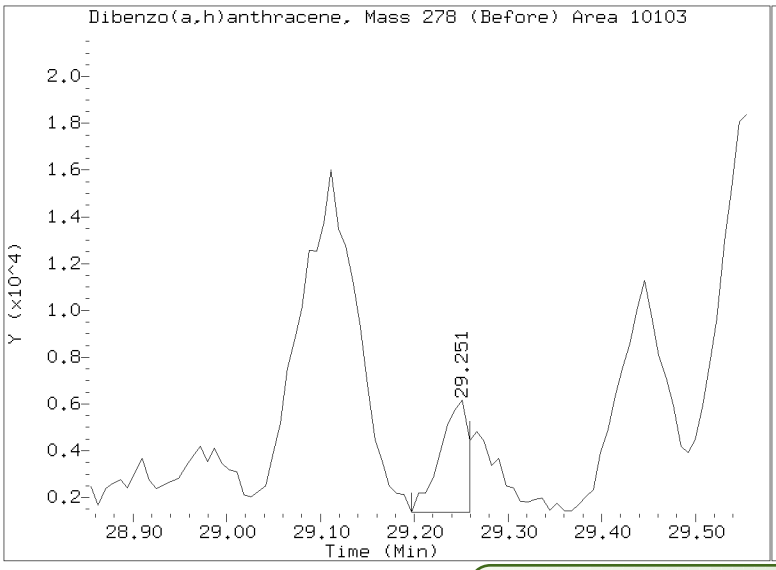


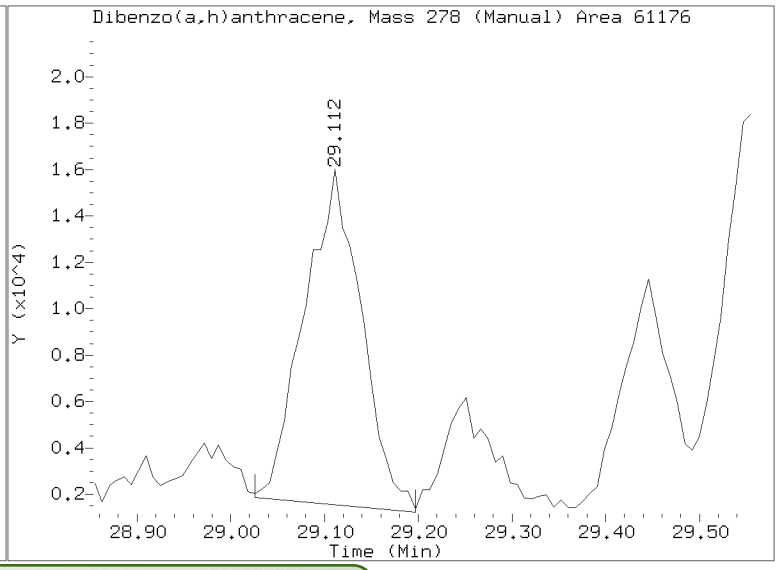




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305A.b/NT1003052322.D
Injection Date: 06-MAR-2023 02:40
Lab ID:23A0313-13 Client ID:
Report Date: 03/27/2023 13:50





APPROVED

By Deenay Dunmore at 2:09 pm, Mar 27, 2023

PREPARATION BATCH SUMMARY

EPA 8270E

Laboratory: Analytical Resources, LLC SDG: 23A0313

Client: Anchor QEA, LLC Project: AOC5 MR Phase 1

Batch: BLA0685 Batch Matrix: Solid Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1016A	23A0313-08	NT1003052313.D	02/02/23 13:06	
LDW23-SC1011A	23A0313-09	NT1003052319.D	02/02/23 13:06	
LDW23-SC1006A	23A0313-10	NT1003052320.D	02/02/23 13:06	
LDW23-SC1012B	23A0313-11	NT1003052321.D	02/02/23 13:06	
LDW23-SC1159	23A0313-13	NT1003052322.D	02/02/23 13:06	
Blank	BLA0685-BLK1	NT1003052307.D	02/02/23 13:06	
LCS	BLA0685-BS1	NT1003052308.D	02/02/23 13:06	
LCS Dup	BLA0685-BSD1	NT1003052309.D	02/02/23 13:06	
LDW23-SC1159	BLA0685-MS1	NT1003052310.D	02/02/23 13:06	
LDW23-SC1159	BLA0685-MSD1	NT1003052311.D	02/02/23 13:06	
Reference	BLA0685-SRM1	NT1003052312.D	02/02/23 13:06	

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0685

Prepared using: EPA 3546 (Microwave)

8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf) in Solid (Version:AOC4 List)

Matrix: Solid Date Prepared: 2/2/23 Balance ID: B13929802 Set Up By: CTO 1/28/23

WO Comments

23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

The following standards may be missing from this batch!

Designator	Description
39	Benzidine Spike
QLS 14	QLS Spike (Freezer)

Analysis: 8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf)

Lab Number & Container	% Solids	Initial (g) Target Dry: 10 (Wet) Actual	(REQ) GPC C/U (1:1) 1 2 3	Water Wash 1mL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
23A0313-08 A	56.1	(17.84) 17.95	(1:1)	1mL	1	0.5	
23A0313-09 A	52.3	(19.11) 19.42	(1:1)	1mL	1	0.5	
23A0313-10 A	54.1	(18.48) 18.53	(1:1)	1mL	1	0.5	
23A0313-11 A	58.7	(17.05) 17.95	(1:1)	1mL	1	0.5	
23A0313-13 A	84.7	(11.80) 11.80	(1:1)	1mL	1	0.5	
23A0326-01 A	59.0	(16.96) 17.67	(1:1)	1mL	1	0.5	
23A0326-02 A	57.3	(17.46) 17.56	(1:1)	1mL	1	0.5	
23A0326-04 A	51.6	(19.37) 19.39	(1:1)	1mL	1	0.5	
23A0326-05 A	54.6	(18.30) 18.67	(1:1)	1mL	1	0.5	
23A0326-10 A	54.6	(18.31) 18.88	(1:1)	1mL	1	0.5	
23A0326-11 A	52.6	(19.02) 19.80	(1:1)	1mL	1	0.5	
23A0326-12 A	51.4	(19.45) 20.14	(1:1)	1mL	1	0.5	

Batch QC

Lab Number	% Solids	Initial (g) Target Dry: 10 (Wet) Actual	(REQ) GPC C/U (1:1) 1 2 3	Water Wash 1mL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BLA0685-BLK1	100.0	(10.00) 10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLA0685-BS1	100.0	(10.00) 10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLA0685-BSD1	100.0	(10.00) 10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLA0685-MS1	84.7	(11.80) 11.80	(1:1)	1mL	1	0.5	Use 23A0313-13
BLA0685-MSD1	84.7	(11.80) 11.80	(1:1)	1mL	1	0.5	Use 23A0313-13
BLA0685-SRM1	100.0	~~(10.00)~~ (1.00) 1.00 +1g DI WATER	(1:1)	1mL	1	0.5	Use K003477

CR 2/2/23
Client ID verified By Date

LJ 2/15/23
Preparation Reviewed By Date

02/02/23 13:06
Extraction Date and Time

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0685

Prepared using: EPA 3546 (Microwave)

8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf) in Solid (Version:AOC4 List)

WO Comments

23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Steps	Reagents Used	
Microwave 1 2 3 CR 2/2/23 Analyst/Date	**Station/Reagent**	**Standard ID**
	Microwave **Analyst:** CR **Date:** 2/2/23	
	Anhydrous Sodium Sulfate	L0000759
	1:1 Methylene Chloride/Acetone	L0002891
	Methylene Chloride	L0003808
	Pre-Deactivated Glass Wool	L0000252
Pre-GPC KD 100°C Exchange to Hexane (add 10 mL to KD) 0 2 4 5 6 LD/AW 2-10 Analyst/Date	**Pre GPC KD** **Analyst:** LD/AW **Date:** 2-10-23	
	Pre-Deactivated Glass Wool	
	Anhydrous Sodium Sulfate	
	Methylene Chloride	L0000000
	Hexane	VH011477
TurboVap Pre GPC 1 2 3 4 5 NKS 2/12/23 Analyst/Date	**GPC Filter Prep** **Analyst:** NKS **Date:** 2/12/23	
Post GPC KD 80-85°C 1 0 2 4 5 6 LD 2-15 Analyst/Date	Methylene Chloride	L0000808
	GPC **Analyst:** ZH/AR/RB **Date:** 2/13/23	
	Methylene Chloride	~~L0000000~~ LD 2-15
	GPC Calibration File	CLA0166
TurboVap 1 2 3 4 5 LJ 2/15/23 Analyst/Date	**Post GPC KD** **Analyst:** LD **Date:** 2-15-23	
	Methylene Chloride	L0000808
Water Wash LJ 2/15/23 Analyst/Date	**Vialing** **Analyst:** LJ **Date:** 2/15/23	
	Methylene Chloride	L0000808

Surrogates & Spike Standards Used

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Surrogate 100/150µg/mL	**A** K010466 Exp Date: 5/9/23	50µL	CR	MT
Full List Spike (Freezer) 100µg/mL	**7** K011369 (V) Exp K011297 Date: 8/31/23	50µL	CR	MT
Base Spike 200µg/mL	**56** K011369 (V) Exp K003759 Date: 4/19/23	50µL	CR	MT
Acid Spike 100/200µg/mL	**38** K011369 (V) Exp K003760 Date: 4/19/23	50µL	CR	MT

MANUALLY ENTER EXPIRATION DATES!

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0685

Prepared using: EPA 3546 (Microwave)

8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf) in Solid (Version:AOC4 List)

WO Comments

23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add DCM ONLY to the vessels (until solvent is 3 inches above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 10-15 min in Refridgerator 05. Re-homogenize while cool. 7. Decant DCM into Erlenmeyer flask with a funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using 1:1 DCM/ACE. 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM. 11. KD: Add 10 mL Hexane directly to extract in the KD. 12. GPC REQUIRED 100°C water bath (CLP) KD to 5mL. 13. Vialers to take 1:5 Split Pre- GPC. 14. (After GPC): KD at 80°C. 15. TurboVap to 1mL in DCM. 16. WATER WASH REQUIRED: 16a. Vial 1mL of all extracts in 2mL amber vials in DCM. 16b. Add ~0.5mL DI water and vortex for ~5 seconds each. 16c. Centrifuge extracts for 5 minutes at 1500-2000rpm. 16d. Transfer and vial 0.5mL to new 2mL amber vials (Avoiding collecting water in syringe and cleaning syringe with Acetone and DCM between each vial). 17. Archive water wahed vials and deliever new vials to GC Department for analysis. A. Need Total Solids Y / (N) B. Archive/Freeze (Y) N	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: SVOA Extraction Batch: BLA0685

Total Solids Batch: BLA0919 Work Order(s): 23A0313

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
[X] No Anomalies (standard soil/wet sediment/sand/gravel)= 2.1	VJ 01/27/23
[X] Standing Water Decanted (Not shared)= 01, 02, 05-11, 13 01/27/23	VJ 01/27/23
[ ] Standing Water Homogenized (Shared samples)=	
[ ] Clay/Clumps (Difficult to homogenize)=	
[ ] Rocks (%+size)?	
[ ] Organics (Leaves/sticks/grass)=	
[X] Oily, obvious fuel/sulfur odors= sulfur odor = 01, 02, 05 — 11, 13 included 03, 04.	VJ 01/27/23
[ ] Received in 32oz jar(s)=Homogenized in Pyrex dish=	
[ ] Previously Frozen =	
[ ] Other (Details)=	
Aqueous:	
[ ] No Anomalies	
[ ] Turbid/Color=	
[ ] Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
[ ] Emulsions (%)=	
[ ] Oily, obvious fuel/sulfur odors=	
[ ] Other (Details)=	
[ ] Received in 1.0L Bottle(s)=No Bottle Rinse=	
[X] Other Notes/Comments= (Note problems, concerns, corrective actions).	
pH — 313 09 stopped on GPC over night lost 25 mL of the total 75 mL (around)	NRB 2/1/23
[X] Share Samples Y / N	VJ 01/27/23
[X] Multiple Jars Y / N	VJ 01/27/23
[ ] Sample Pre-Screens indicate analyte activity=	
[ ] Sample weights/volumes reduced based on Pre-Screen=	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: SVOA Extraction Batch: BLA0685

Total Solids Batch: BLA0320 Work Order(s): 23A0320

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☒ No Anomalies (standard soil/wet sediment/sand/gravel)= ϕ7, ϕ8.	NV ϕ1/27/23
☒ Standing Water Decanted (Not shared)= ϕ1 – 12	NV ϕ1/27/23
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☒ Oily, obvious fuel/sulfur odors= ϕ1 – ϕ6, ϕ9 – 12.	NV ϕ1/27/23
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Previously Frozen =	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☒ Share Samples Y / N	NV ϕ1/27/23
☒ Multiple Jars Y / N	NV ϕ1/27/23
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0136	Cleanup Type:	GPC
Cleanup Method:	EPA 3640A GPC Cleanup 1:1	Analysis:	EPA 8270E

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LCS Dup	BLA0685-BSD1	NT1003052309.D	02/15/2023	
LDW23-SC1011A	23A0313-09	NT1003052319.D	02/15/2023	
LDW23-SC1012B	23A0313-11	NT1003052321.D	02/15/2023	
LDW23-SC1016A	23A0313-08	NT1003052313.D	02/15/2023	
LDW23-SC1006A	23A0313-10	NT1003052320.D	02/15/2023	
LCS	BLA0685-BS1	NT1003052308.D	02/15/2023	
Matrix Spike	BLA0685-MS1	NT1003052310.D	02/15/2023	
Matrix Spike Dup	BLA0685-MSD1	NT1003052311.D	02/15/2023	
Reference	BLA0685-SRM1	NT1003052312.D	02/15/2023	
Blank	BLA0685-BLK1	NT1003052307.D	02/15/2023	
LDW23-SC1159	23A0313-13	NT1003052322.D	02/15/2023	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0136

Matrix: Solid **Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1** **Check Standard: CLA0166-GPC1** **Printed: 2/15/2023 2:29:55PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0313-08	A	LDW23-SC1016A	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0313-08	A	LDW23-SC1016A	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0313-09	A	LDW23-SC1011A	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0313-09	A	LDW23-SC1011A	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0313-10	A	LDW23-SC1006A	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0313-10	A	LDW23-SC1006A	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0313-11	A	LDW23-SC1012B	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0313-11	A	LDW23-SC1012B	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0313-13	A	LDW23-SC1159	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0313-13	A	LDW23-SC1159	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-01	A	LDW23-SC1028	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0326-01	A	LDW23-SC1028	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-02	A	LDW23-SC1032	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-02	A	LDW23-SC1032	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0326-04	A	LDW23-SC1170A	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0326-04	A	LDW23-SC1170A	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-05	A	LDW23-SC1169C	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0326-05	A	LDW23-SC1169C	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-10	A	LDW23-SC1161	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0326-10	A	LDW23-SC1161	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-11	A	LDW23-SC1155	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-11	A	LDW23-SC1155	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0136

Matrix: Solid **Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1** **Check Standard: CLA0166-GPC1** **Printed: 2/15/2023 2:29:55PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0326-12	A	LDW23-SC1162B	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0326-12	A	LDW23-SC1162B	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
BLA0685-BLK1	-	Blank	-	1	1	-	2/15/2023	LMJ	
BLA0685-BLK2	-	Blank	-	1	1	-	2/15/2023	LMJ	
BLA0685-BS1	-	LCS	-	1	1	-	2/15/2023	LMJ	
BLA0685-BS2	-	LCS	-	1	1	-	2/15/2023	LMJ	
BLA0685-BSD1	-	LCS Dup	-	1	1	-	2/15/2023	LMJ	
BLA0685-BSD2	-	LCS Dup	-	1	1	-	2/15/2023	LMJ	
BLA0685-MS1	-	Matrix Spike	-	1	1	-	2/15/2023	LMJ	
BLA0685-MS2	-	Matrix Spike	-	1	1	-	2/15/2023	LMJ	
BLA0685-MSD1	-	Matrix Spike Dup	-	1	1	-	2/15/2023	LMJ	
BLA0685-MSD2	-	Matrix Spike Dup	-	1	1	-	2/15/2023	LMJ	
BLA0685-SRM1	-	Reference	-	1	1	-	2/15/2023	LMJ	
BLA0685-SRM2	-	Reference	-	1	1	-	2/15/2023	LMJ	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I

METHOD BLANK DATA SHEET

EPA 8270E

Blank

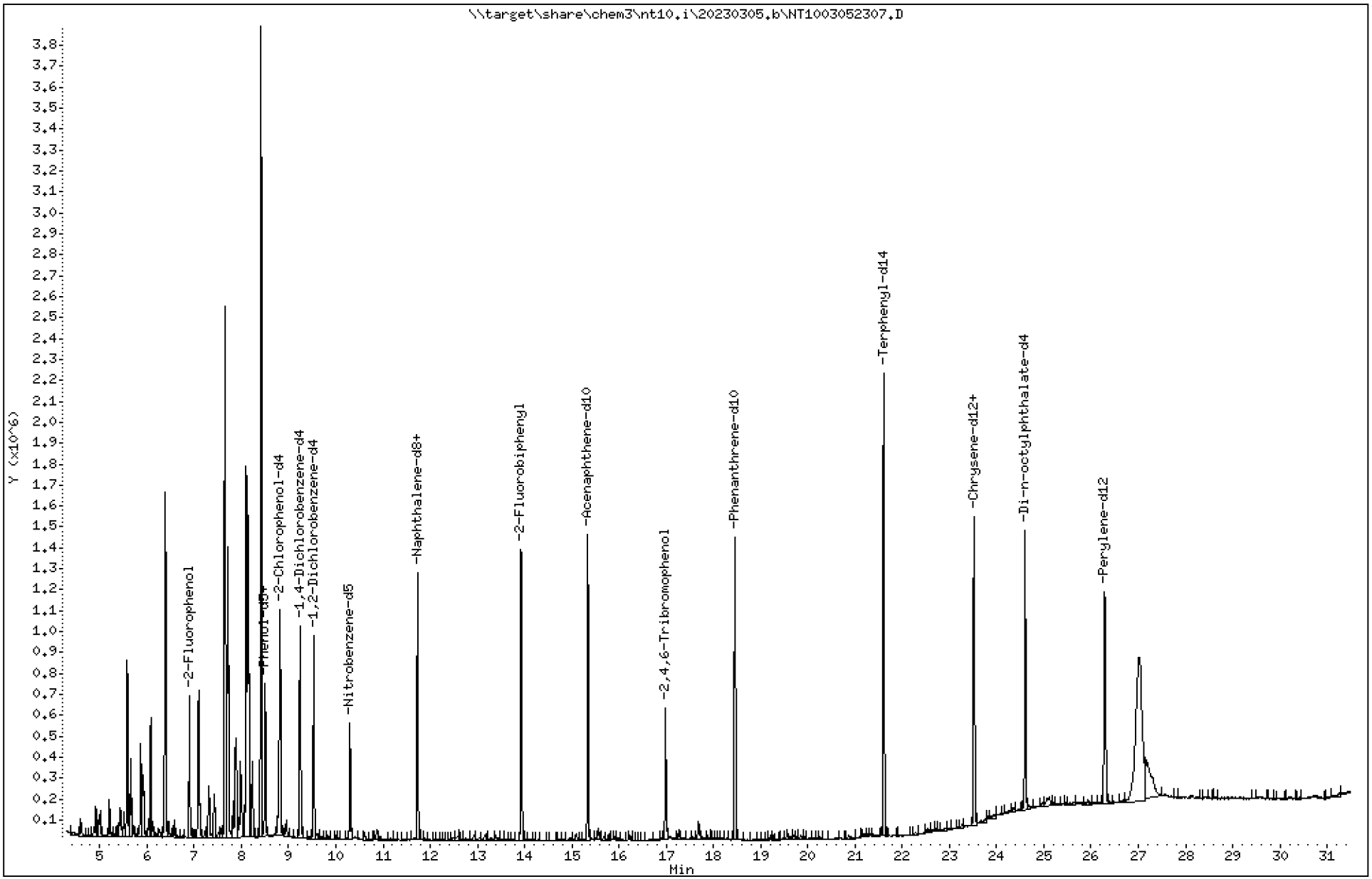
Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	BLA0685-BLK1	File ID:	NT1003052307.D
Sampled:	N/A	Prepared:	02/02/23 13:06	Analyzed:	03/05/23 17:12
Solids:		Preparation:	EPA 3546 (Microwave)	Initial/Final:	10 g / 1 mL
Batch:	BLA0685	Sequence:	SLC0401	Calibration:	GC00019
Instrument:	NT10	Column:	ZB-5MSi	Cleanups:	GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
108-95-2	Phenol	1	20.0	U	4.4	20.0
106-44-5	4-Methylphenol	1	20.0	U	7.4	20.0
91-20-3	Naphthalene	1	20.0	U	4.2	20.0
91-57-6	2-Methylnaphthalene	1	20.0	U	4.5	20.0
208-96-8	Acenaphthylene	1	20.0	U	6.2	20.0
131-11-3	Dimethylphthalate	1	20.0	U	4.4	20.0
83-32-9	Acenaphthene	1	20.0	U	5.2	20.0
132-64-9	Dibenzofuran	1	20.0	U	14.1	20.0
86-73-7	Fluorene	1	20.0	U	14.6	20.0
85-01-8	Phenanthrene	1	20.0	U	8.7	20.0
120-12-7	Anthracene	1	20.0	U	7.2	20.0
206-44-0	Fluoranthene	1	20.0	U	6.1	20.0
129-00-0	Pyrene	1	20.0	U	5.7	20.0
85-68-7	Butylbenzylphthalate	1	20.0	U	9.4	20.0
56-55-3	Benzo(a)anthracene	1	20.0	U	6.0	20.0
218-01-9	Chrysene	1	20.0	U	6.1	20.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	50.0	U	5.5	50.0
	Benzofluoranthenes, Total	1	40.0	U	10.0	40.0
50-32-8	Benzo(a)pyrene	1	20.0	U	4.2	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	20.0	U	14.7	20.0
53-70-3	Dibenzo(a,h)anthracene	1	20.0	U	17.2	20.0
191-24-2	Benzo(g,h,i)perylene	1	20.0	U	13.6	20.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
2-Fluorophenol	750.00	436	58.1	27 - 120	
Phenol-d5	750.00	507	67.6	29 - 120	
2-Chlorophenol-d4	750.00	549	73.2	31 - 120	
1,2-Dichlorobenzene-d4	500.00	363	72.5	32 - 120	
Nitrobenzene-d5	500.00	387	77.4	30 - 120	
2-Fluorobiphenyl	500.00	404	80.7	35 - 120	
2,4,6-Tribromophenol	750.00	356	47.4	24 - 134	
p-Terphenyl-d14	500.00	485	96.9	37 - 120	

Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052307.D
Date : 05-MAR-2023 17:12
Client ID:
Sample Info: BLA0685-BLK1

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



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Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK1

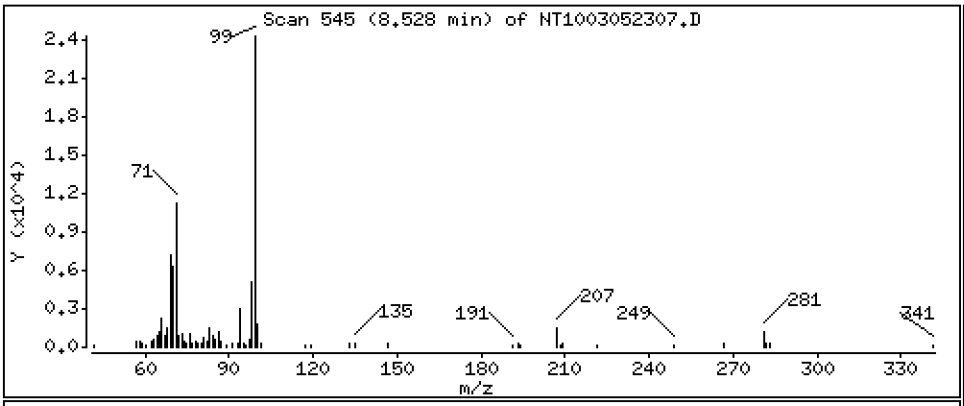
Operator: VTS

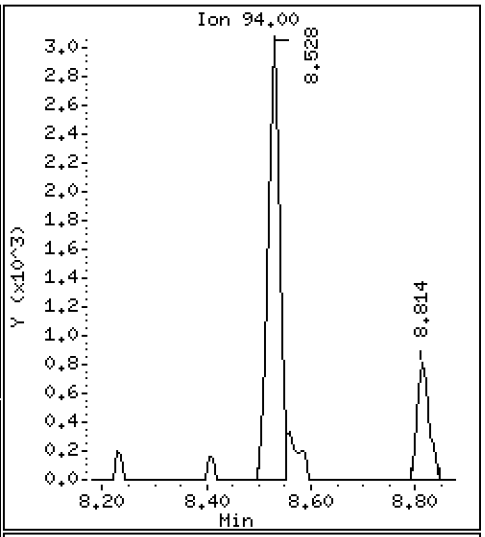
Column phase: ZB-5msi

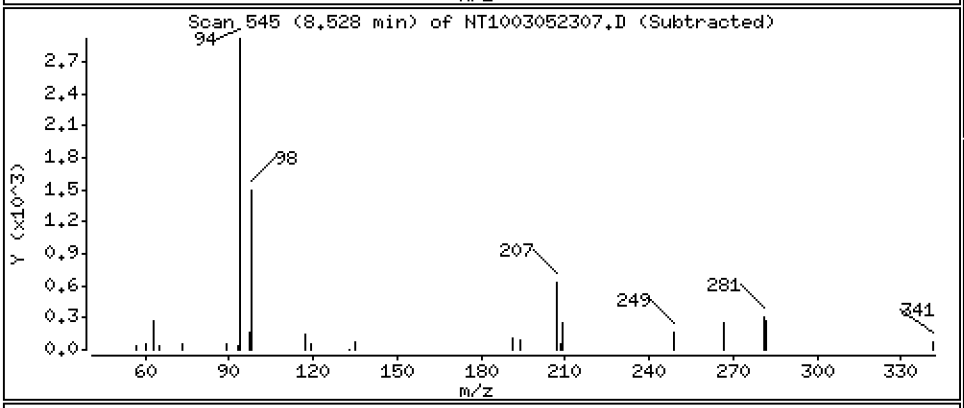
Column diameter: 0.25

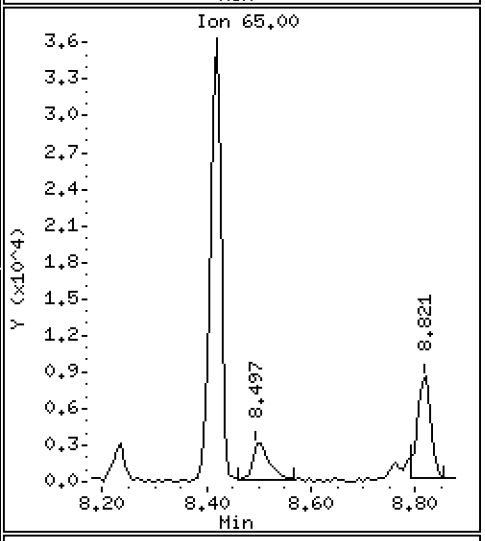
3 Phenol

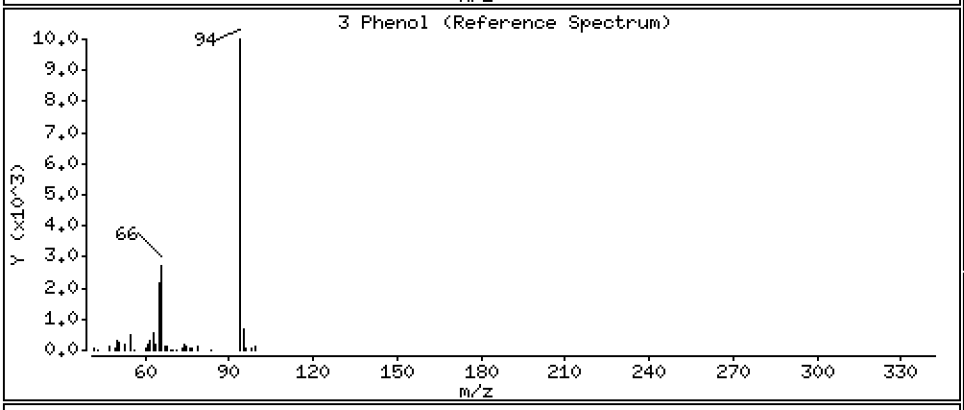
Concentration: 0.04247 ug/mL

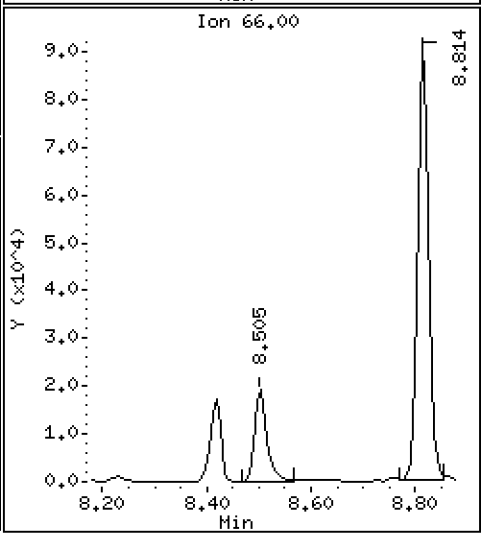


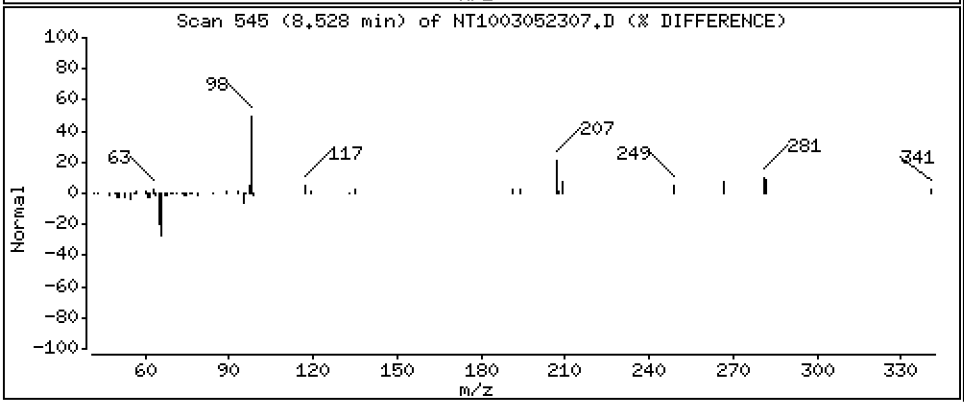












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Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK1

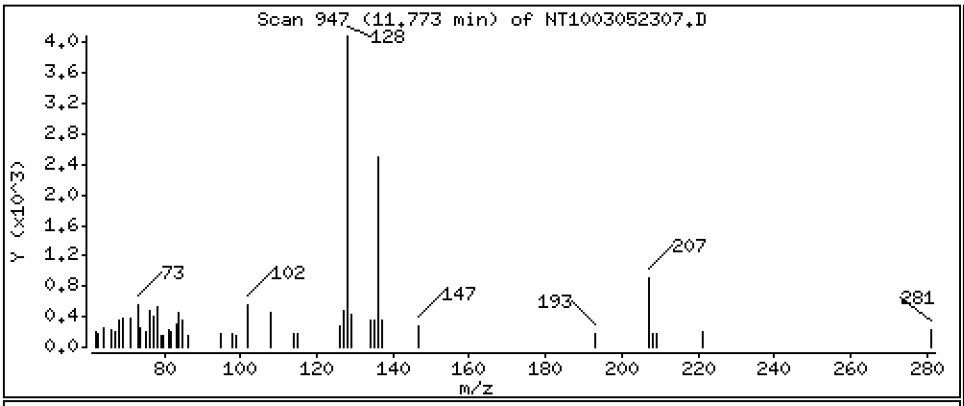
Operator: VTS

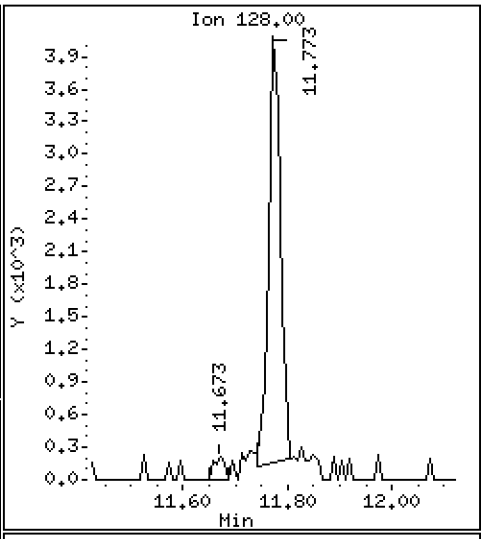
Column phase: ZB-5msi

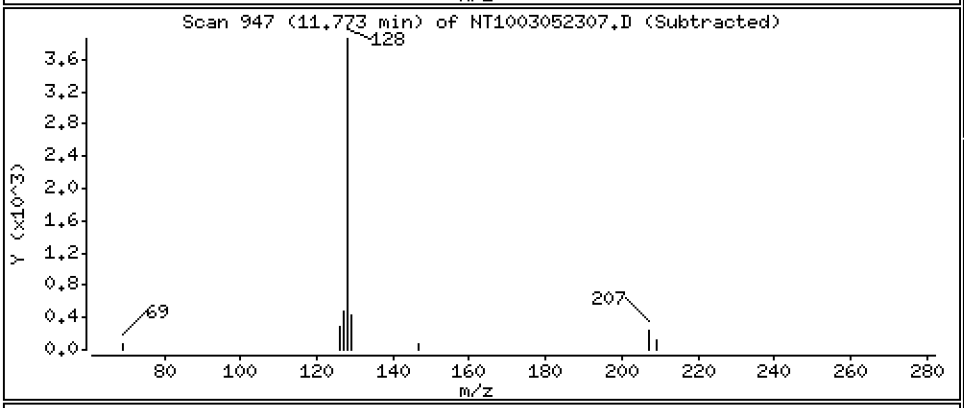
Column diameter: 0.25

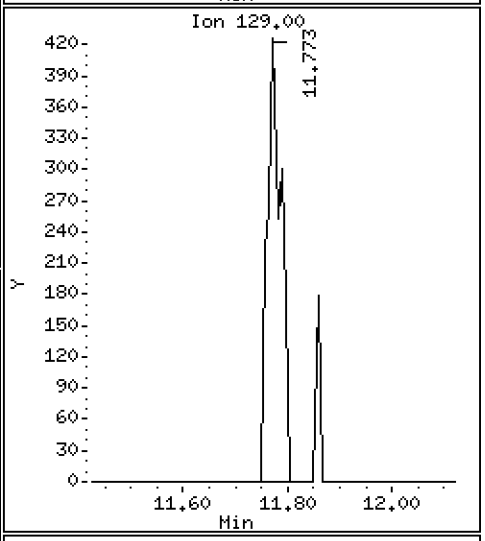
28 Naphthalene

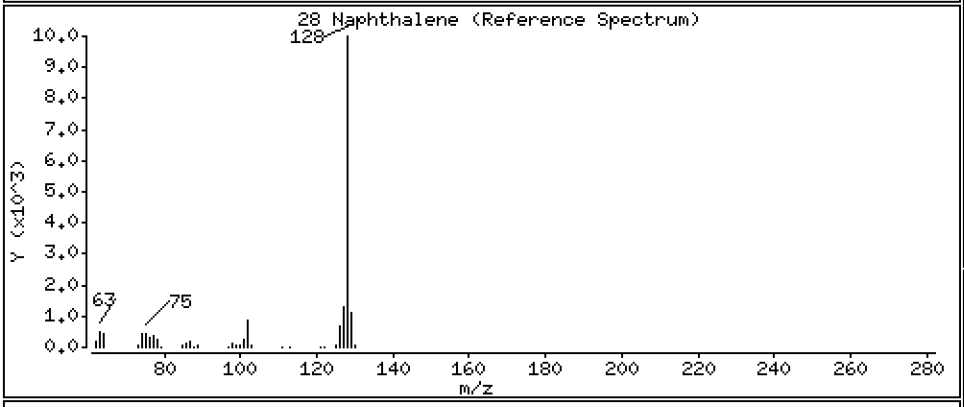
Concentration: 0.02300 ug/mL

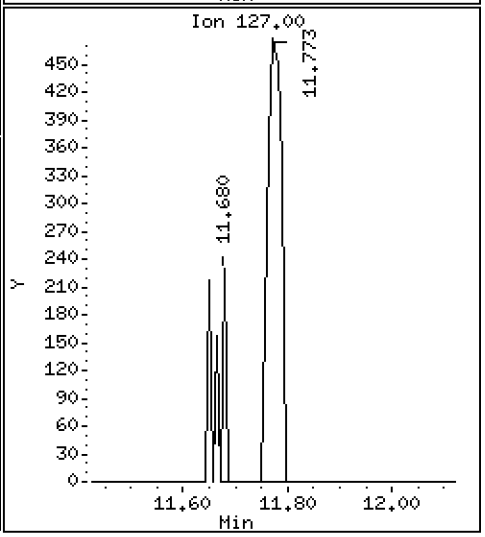


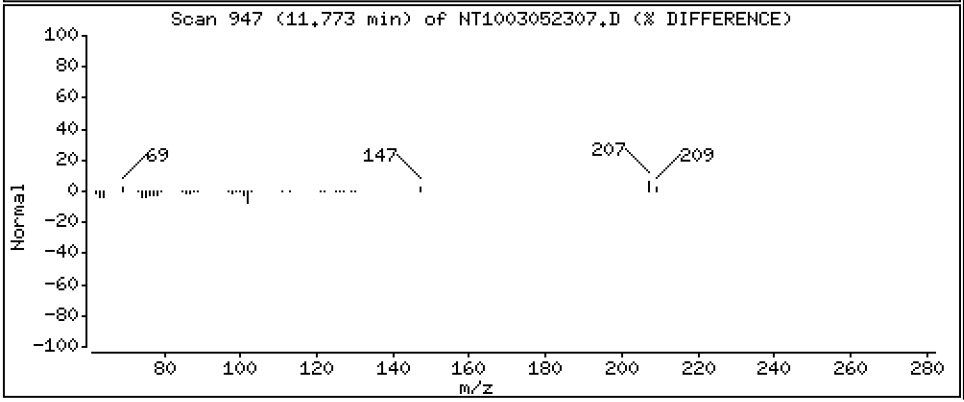












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Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK1

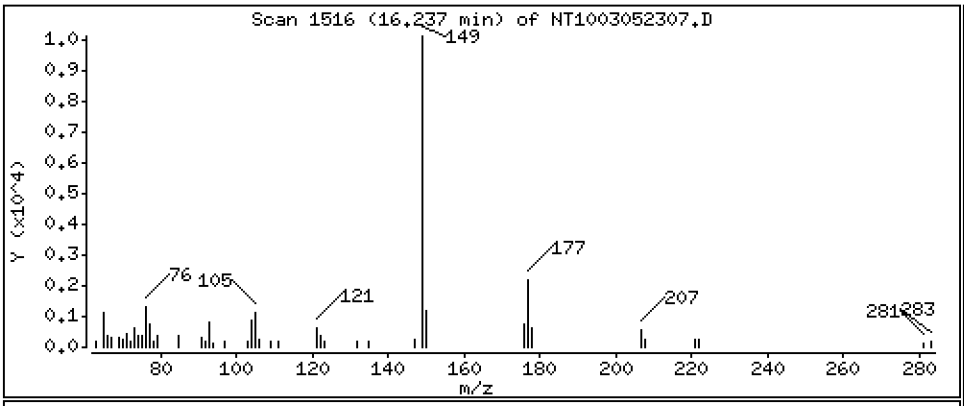
Operator: VTS

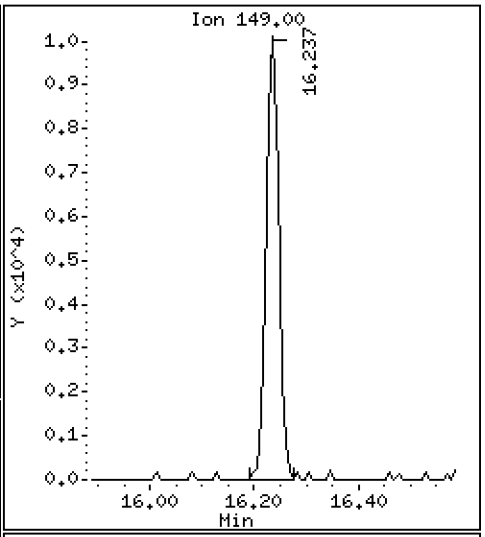
Column phase: ZB-5msi

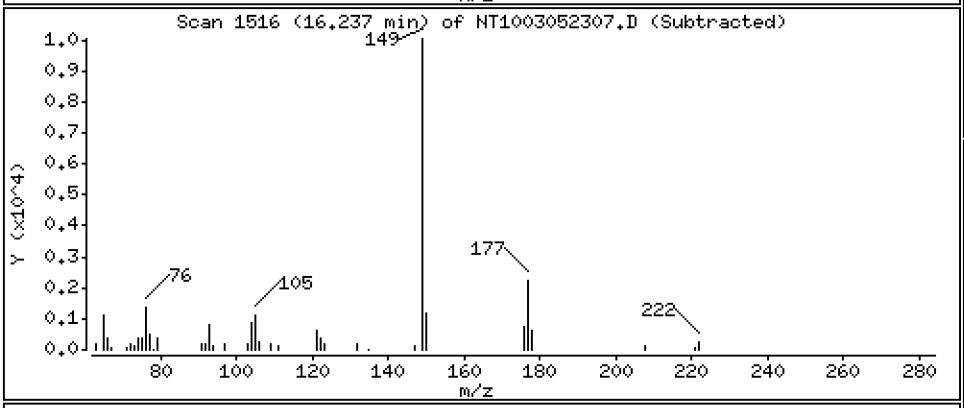
Column diameter: 0.25

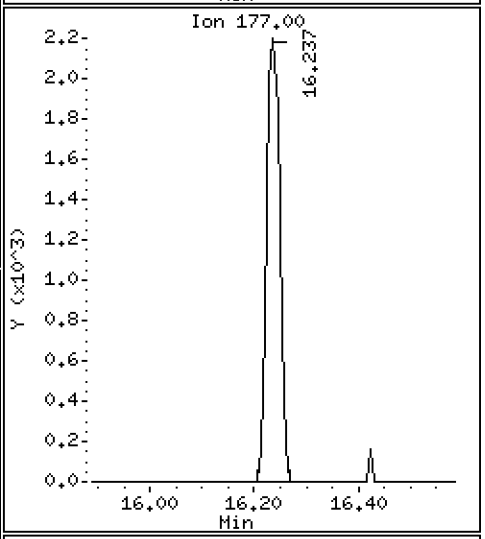
50 Diethylphthalate

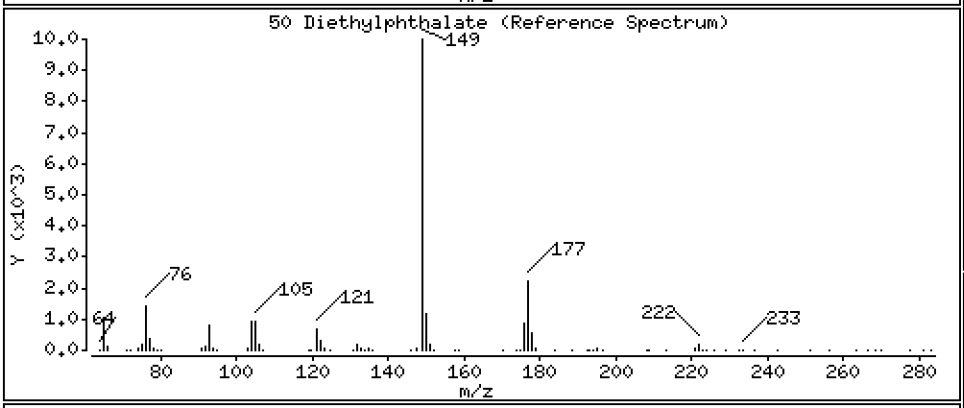
Concentration: 0.09163 ug/mL

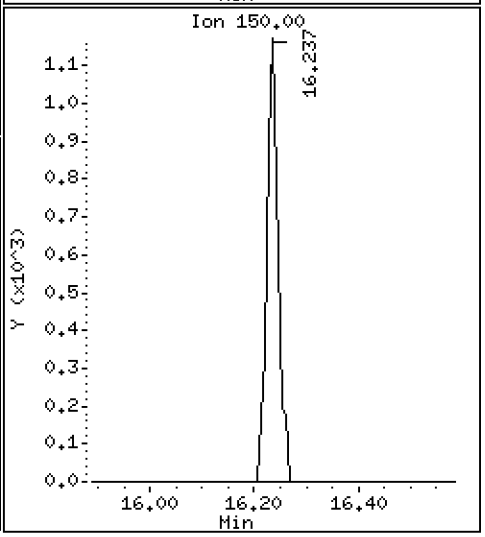


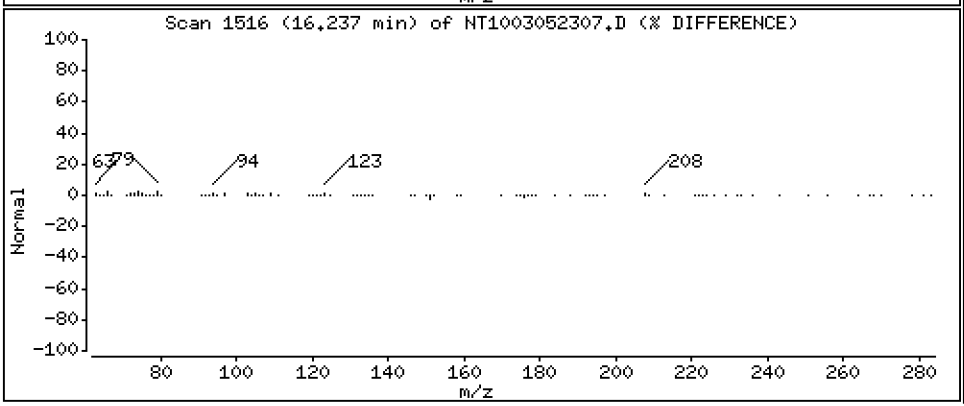












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Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK1

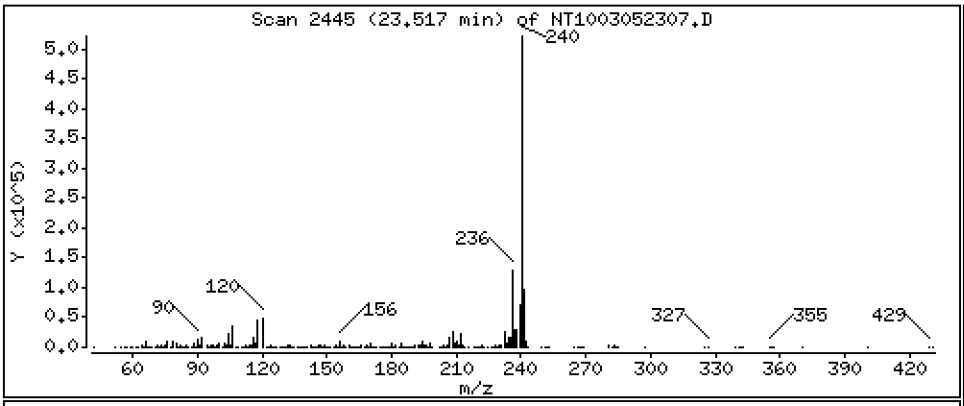
Operator: VTS

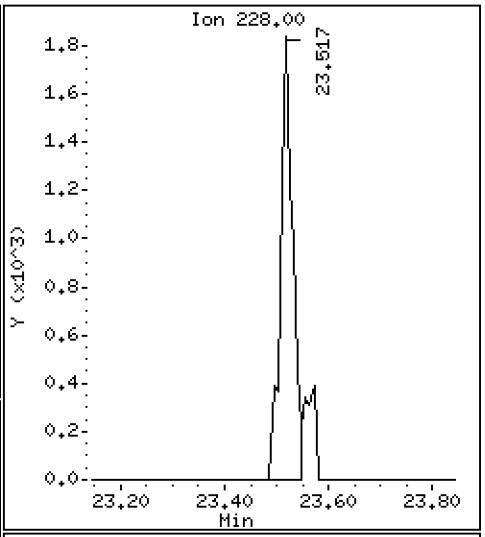
Column phase: ZB-5msi

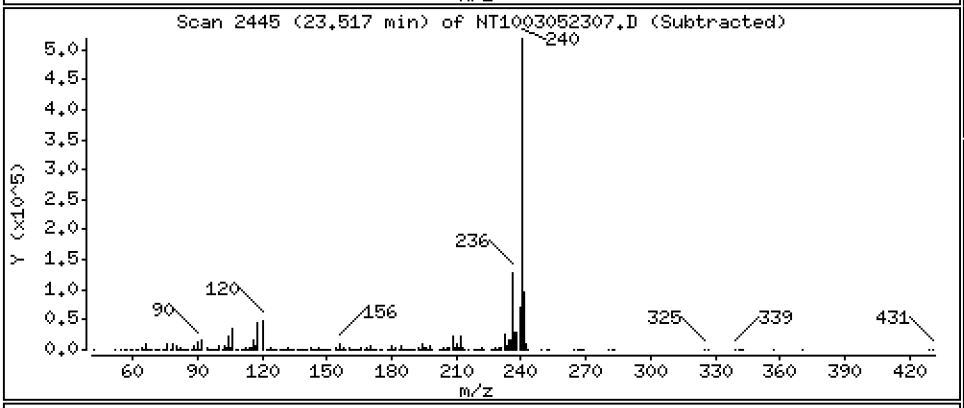
Column diameter: 0.25

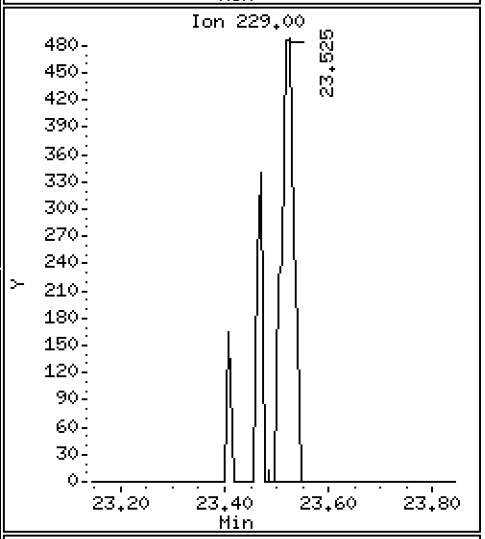
68 Benzo(a)anthracene

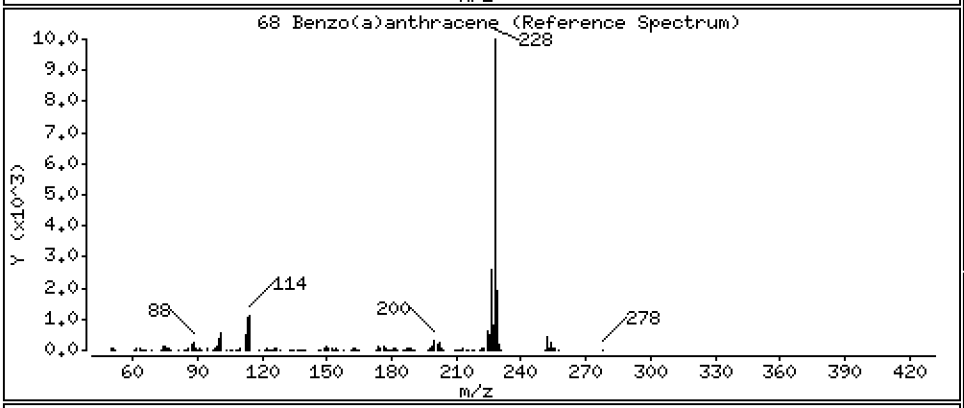
Concentration: 0.01071 ug/mL

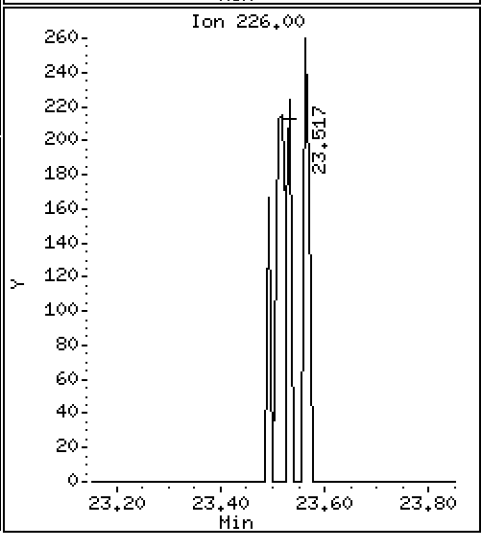


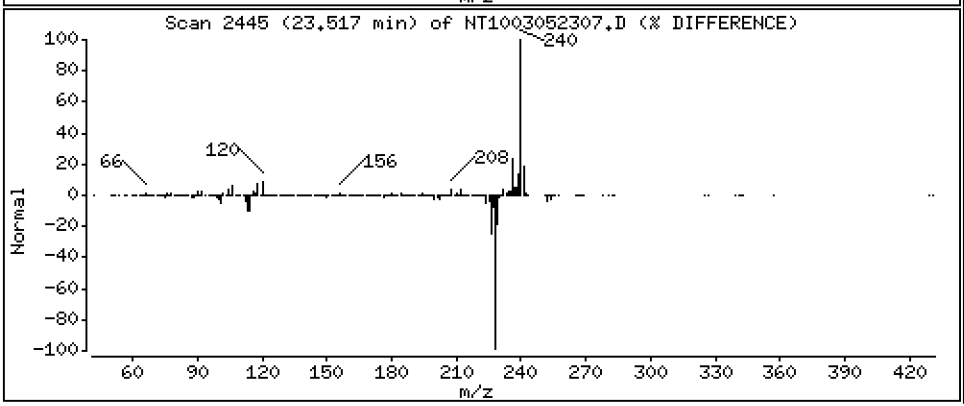












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Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK1

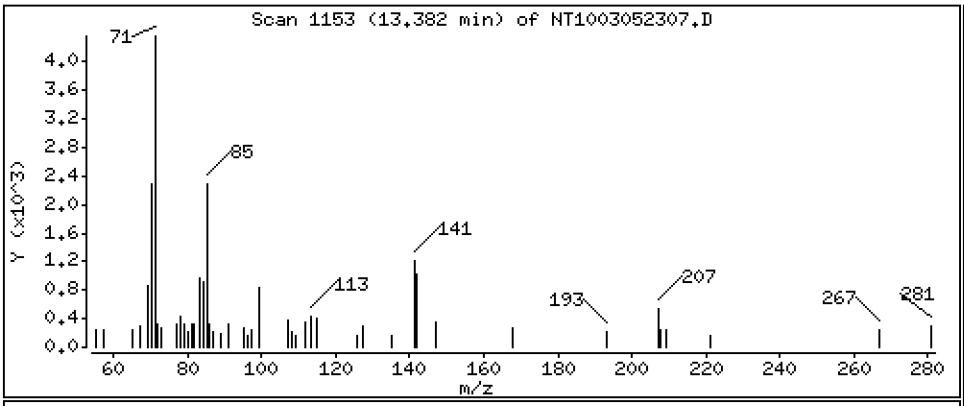
Operator: VTS

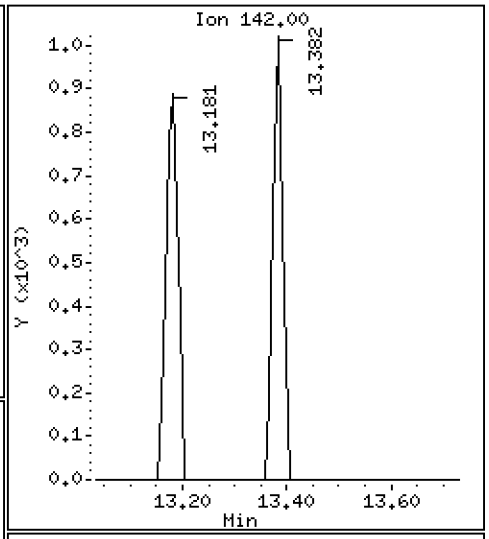
Column phase: ZB-5msi

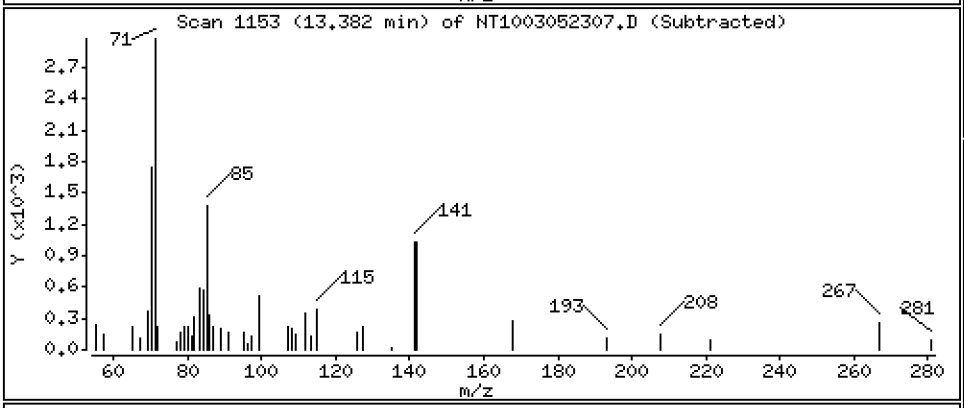
Column diameter: 0.25

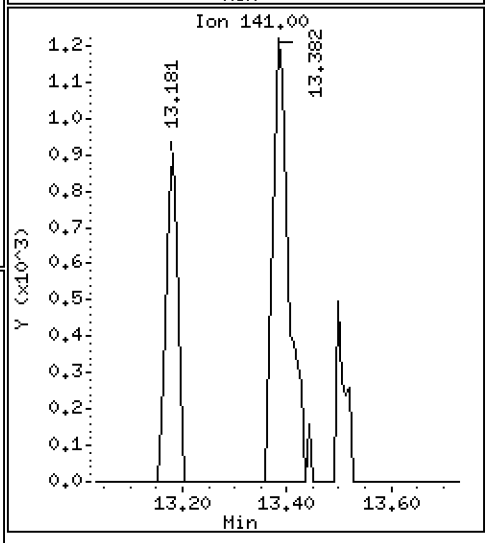
105 1-methylnaphthalene

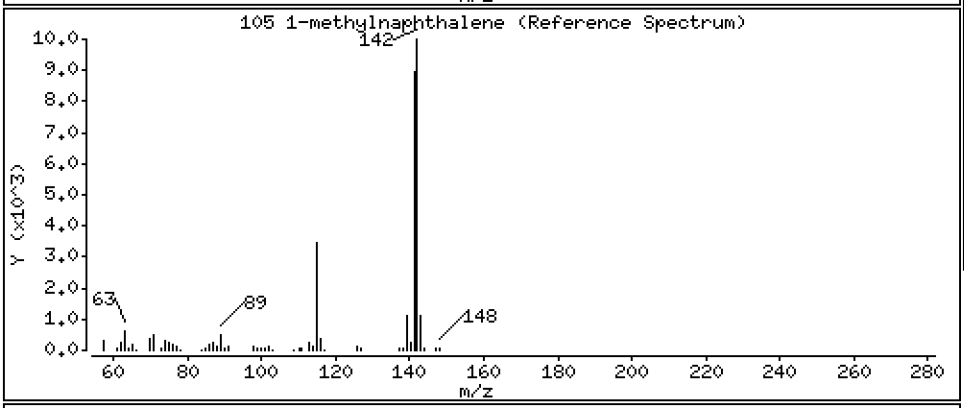
Concentration: 0.007726 ug/mL

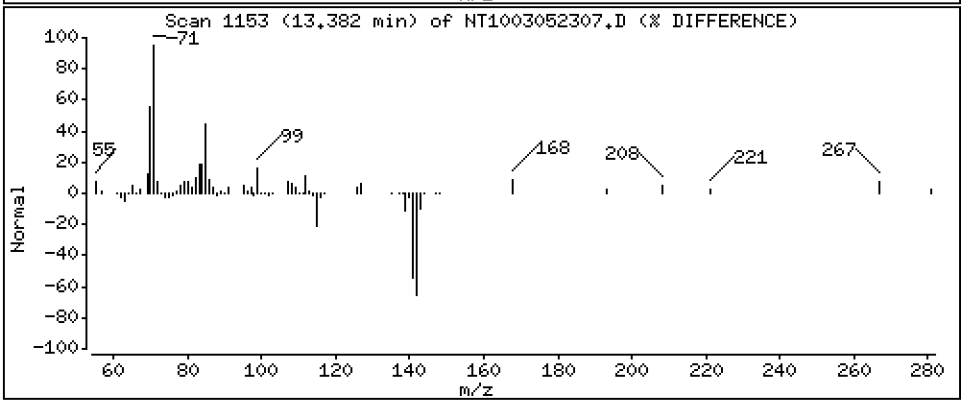












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305.b\NT1003052307.D
Lab Smp Id: BLA0685-BLK1
Inj Date : 05-MAR-2023 17:12
Operator : VTS Inst ID: nt10.i
Smp Info : BLA0685-BLK1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305.b\ABN.m
Meth Date : 27-Mar-2023 11:22 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

								CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.897	6.897	(0.746)	370282		4.35864	4.359
$	2 Phenol-d5	99	8.504	8.504	(0.920)	500322		5.07270	5.073
	3 Phenol	94	8.527	8.528	(0.922)	4454		0.04247	0.04247
$	5 2-Chlorophenol-d4	132	8.813	8.813	(0.953)	462048		5.49085	5.491
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.						
	6 2-Chlorophenol	128	Compound Not Detected.						
	7 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	8 1,4-Dichlorobenzene-d4	152	9.247	9.239	(1.000)	270013		4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.						
$	10 1,2-Dichlorobenzene-d4	152	9.534	9.534	(1.031)	228058		3.62749	3.627
	12 1,2-Dichlorobenzene	146	Compound Not Detected.						
	11 Benzyl alcohol	108	Compound Not Detected.						
	14 2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.						
	13 2-Methylphenol	108	Compound Not Detected.						
	17 Hexachloroethane	117	Compound Not Detected.						
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.						
	15 4-Methylphenol	108	Compound Not Detected.						
$	18 Nitrobenzene-d5	82	10.302	10.302	(0.878)	414266		3.86841	3.868
	19 Nitrobenzene	77	Compound Not Detected.						
	20 Isophorone	82	Compound Not Detected.						
	21 2-Nitrophenol	139	Compound Not Detected.						
	22 2,4-Dimethylphenol	107	Compound Not Detected.						
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.						
	24 Benzoic acid	105	Compound Not Detected.						
	25 2,4-Dichlorophenol	162	Compound Not Detected.						
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
*	27 Naphthalene-d8	136	11.734	11.726	(1.000)	975565		4.00000	
	28 Naphthalene	128	11.773	11.773	(1.003)	5758		0.02300	0.02300
	29 4-Chloroaniline	127	Compound Not Detected.						
	30 Hexachlorobutadiene	225	Compound Not Detected.						
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.						
	32 2-Methylnaphthalene	142	Compound Not Detected.						
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.						

			QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	13.931	13.924	(0.908)	744632	4.03608	4.036
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	15.340	15.340	(1.000)	517251	4.00000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	16.237	16.237	(1.058)	16215	0.09163	0.09163
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	16.986	16.986	(1.107)	115629	3.55524	3.555
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	18.455	18.448	(1.000)	919568	4.00000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	21.604	21.597	(0.919)	1132297	4.84730	4.847
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	23.517	23.494	(1.000)	3111	0.01071	0.01071
*	69	Chrysene-d12	240	23.517	23.517	(1.000)	824155	4.00000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	24.601	24.593	(1.000)	1193964	4.00000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	26.289	26.281	(1.000)	859021	4.00000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	142	13.382	13.382	(1.140)	1237	0.00773	0.007726
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					
120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052307.D
Lab Smp Id: BLA0685-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:03
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	297263	148632	594526	270013	-9.17
27 Naphthalene-d8	1085336	542668	2170672	975565	-10.11
42 Acenaphthene-d10	563464	281732	1126928	517251	-8.20
59 Phenanthrene-d10	1038318	519159	2076636	919568	-11.44
69 Chrysene-d12	1012751	506376	2025502	824155	-18.62
134 Di-n-octylphthala	1628890	814445	3257780	1193964	-26.70
77 Perylene-d12	1152264	576132	2304528	859021	-25.45

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.06
42 Acenaphthene-d10	15.34	14.84	15.84	15.34	-0.00
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.52	23.02	24.02	23.52	-0.00
134 Di-n-octylphthala	24.59	24.09	25.09	24.60	0.03
77 Perylene-d12	26.28	25.78	26.78	26.29	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052307.D

Lab ID: BLA0685-BLK1
nt10.i, 20230305.b\ABN.m,   05-MAR-2023 17:12

RT	CO-ELUTION COMPOUNDS
23.517	Chrysene-d12 and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

RRT check based on Ccal File: NT1003052302.D

On Column LOD for nt10.i, 20230305.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

LCS / LCS DUPLICATE RECOVERY

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	03/05/23 17:50
Batch:	BLA0685	Laboratory ID:	BLA0685-BS1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	LCS
Initial/Final:	10 g / 1 mL		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Phenol	500	480		96.0	34 - 120
4-Methylphenol	500	297		59.4	29 - 120
Naphthalene	500	403		80.5	43 - 120
2-Methylnaphthalene	500	395		78.9	43 - 120
Acenaphthylene	500	443		88.6	42 - 120
Dimethylphthalate	500	493		98.6	43 - 120
Acenaphthene	500	437		87.5	45 - 120
Dibenzofuran	500	447		89.3	43 - 120
Fluorene	500	451		90.2	45 - 120
Phenanthrene	500	469		93.8	49 - 120
Anthracene	500	388		77.6	45 - 120
Fluoranthene	500	481		96.1	53 - 145
Pyrene	500	518		104	52 - 134
Butylbenzylphthalate	500	401	Q	80.3	45 - 132
Benzo(a)anthracene	500	467		93.4	49 - 120
Chrysene	500	511		102	47 - 120
bis(2-Ethylhexyl)phthalate	500	480		95.9	34 - 130
Benzofluoranthenes, Total	1000	952		95.2	30 - 160
Benzo(a)pyrene	500	405		81.1	42 - 120
Indeno(1,2,3-cd)pyrene	500	495		99.0	42 - 163
Dibenzo(a,h)anthracene	500	549		110	30 - 133
Benzo(g,h,i)perylene	500	518		104	46 - 148

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	500	461		92.2	3.97	30	34 - 120
4-Methylphenol	500	331		66.2	10.9	30	29 - 120
Naphthalene	500	444		88.7	9.69	30	43 - 120
2-Methylnaphthalene	500	433		86.7	9.42	30	43 - 120
Acenaphthylene	500	488		97.7	9.73	30	42 - 120
Dimethylphthalate	500	513		103	4.01	30	43 - 120
Acenaphthene	500	465		93.1	6.16	30	45 - 120

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 8270E

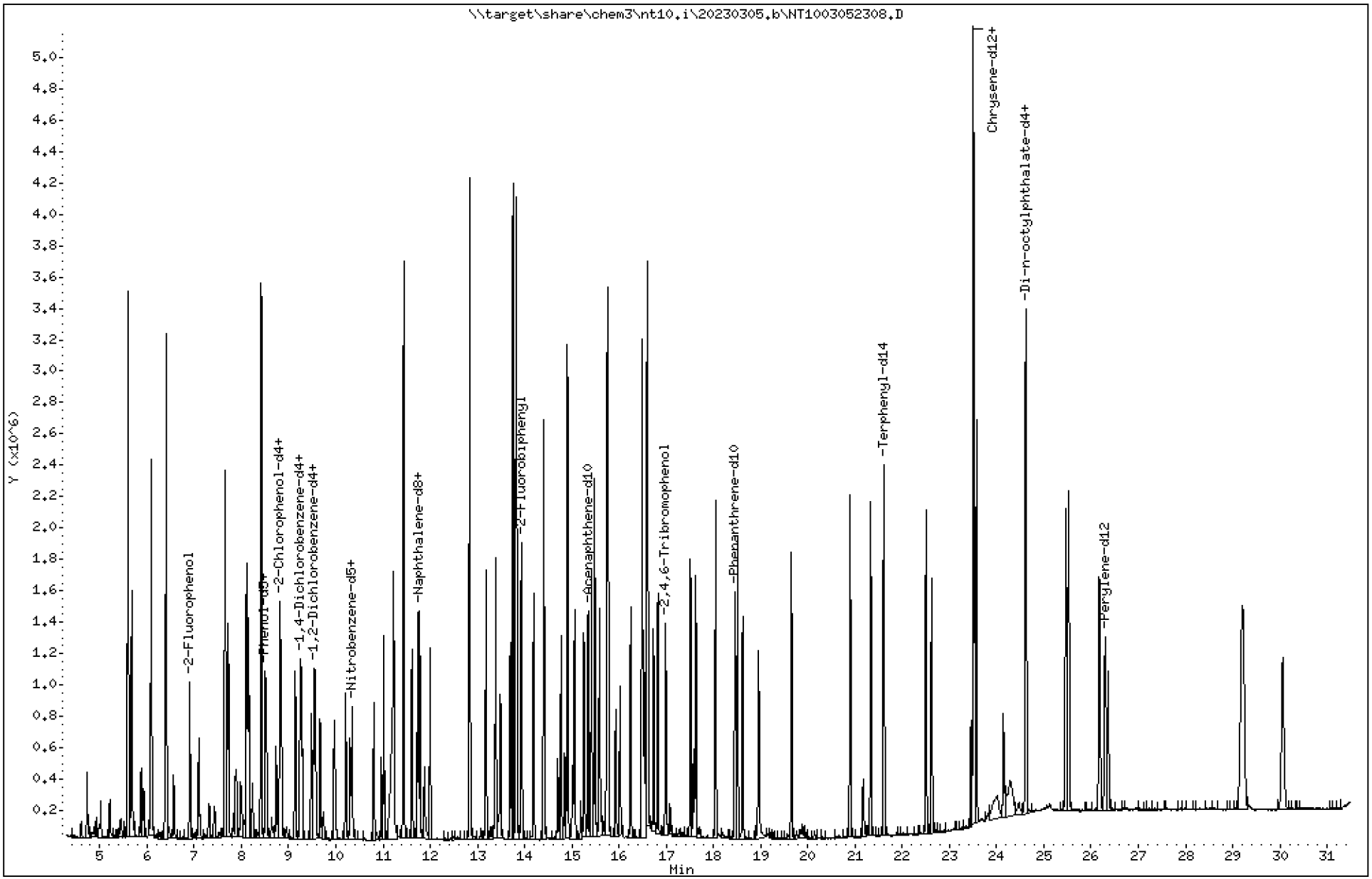
Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	03/05/23 18:28
Batch:	BLA0685	Laboratory ID:	BLA0685-BSD1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	LCS Dup
Initial/Final:	10 g / 1 mL		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Dibenzofuran	500	472		94.5	5.58	30	43 - 120
Fluorene	500	475		95.0	5.16	30	45 - 120
Phenanthrene	500	485		96.9	3.23	30	49 - 120
Anthracene	500	414		82.7	6.38	30	45 - 120
Fluoranthene	500	484		96.9	0.784	30	53 - 145
Pyrene	500	465		92.9	10.9	30	52 - 134
Butylbenzylphthalate	500	385	Q	77.0	4.14	30	45 - 132
Benzo(a)anthracene	500	460		92.0	1.48	30	49 - 120
Chrysene	500	489		97.8	4.49	30	47 - 120
bis(2-Ethylhexyl)phthalate	500	512		102	6.45	30	34 - 130
Benzofluoranthenes, Total	1000	921		92.1	3.28	30	30 - 160
Benzo(a)pyrene	500	414		82.8	2.08	30	42 - 120
Indeno(1,2,3-cd)pyrene	500	488		97.6	1.47	30	42 - 163
Dibenzo(a,h)anthracene	500	540		108	1.53	30	30 - 133
Benzo(g,h,i)perylene	500	515		103	0.542	30	46 - 148

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052308.D
Date : 05-MAR-2023 17:50
Client ID:
Sample Info: BLA0685-BS1

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

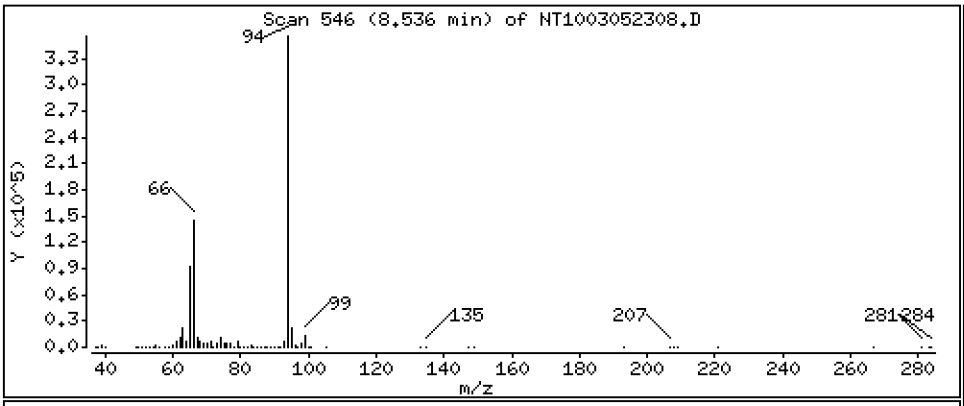
Operator: VTS

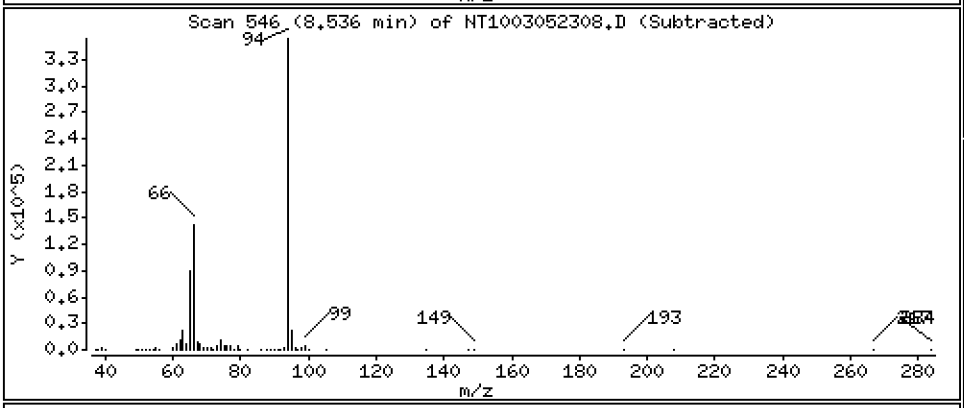
Column phase: ZB-5msi

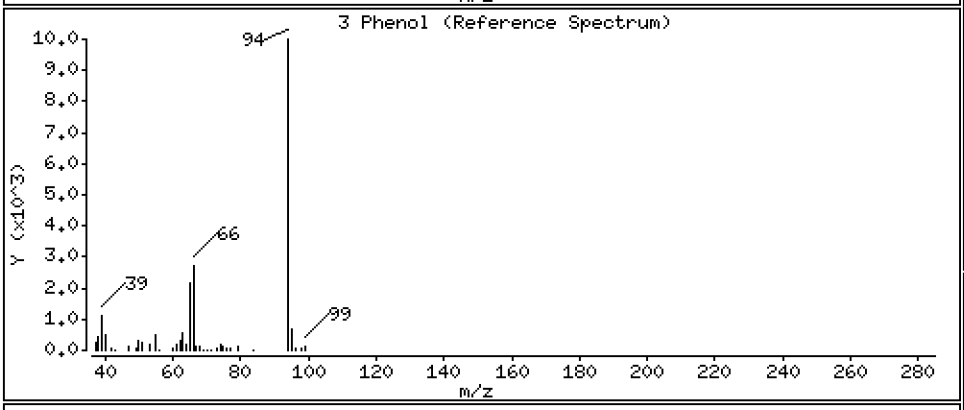
Column diameter: 0.25

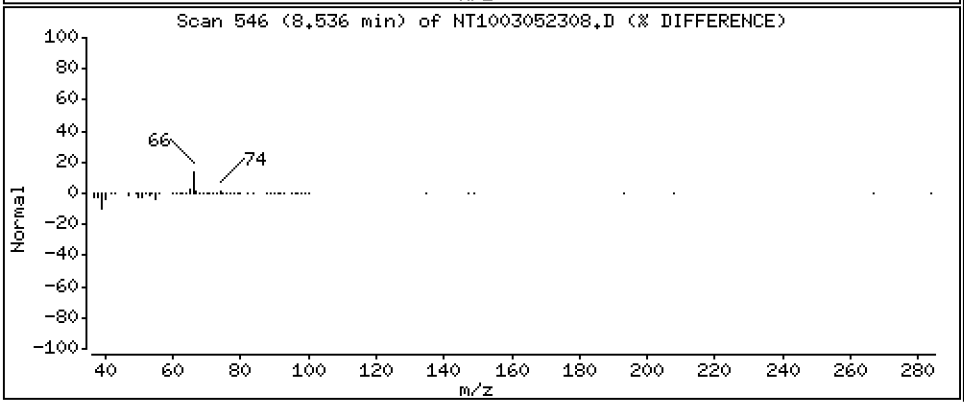
3 Phenol

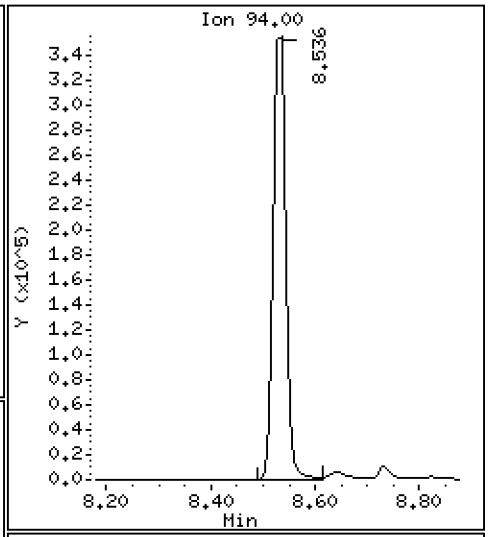
Concentration: 4.798 ug/mL

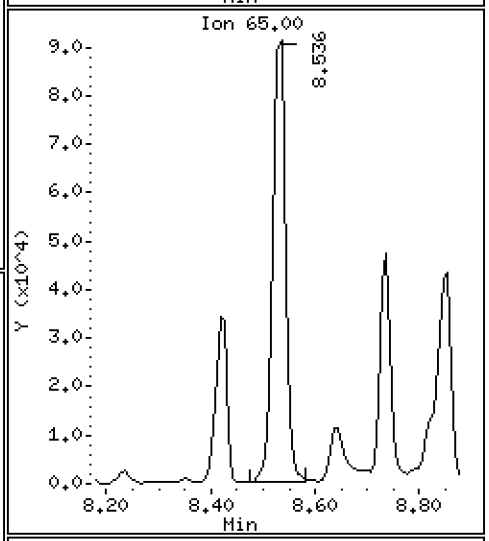


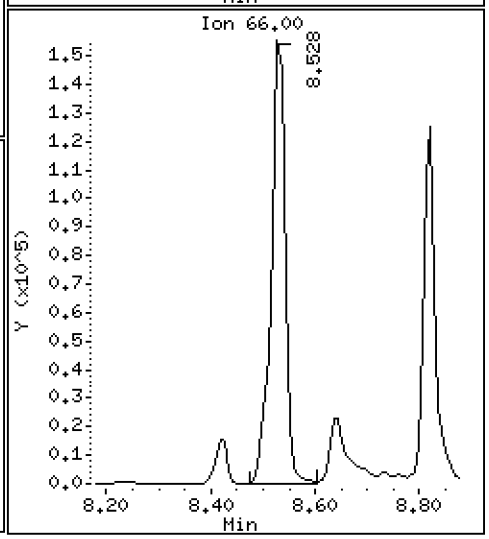












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

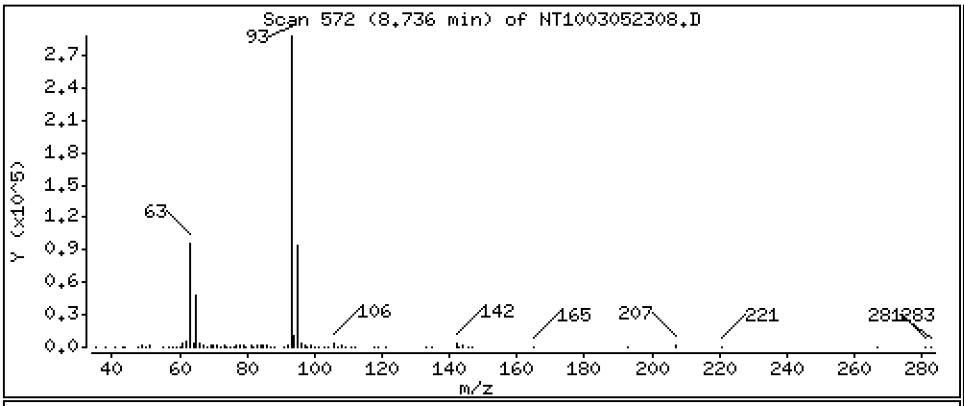
Operator: VTS

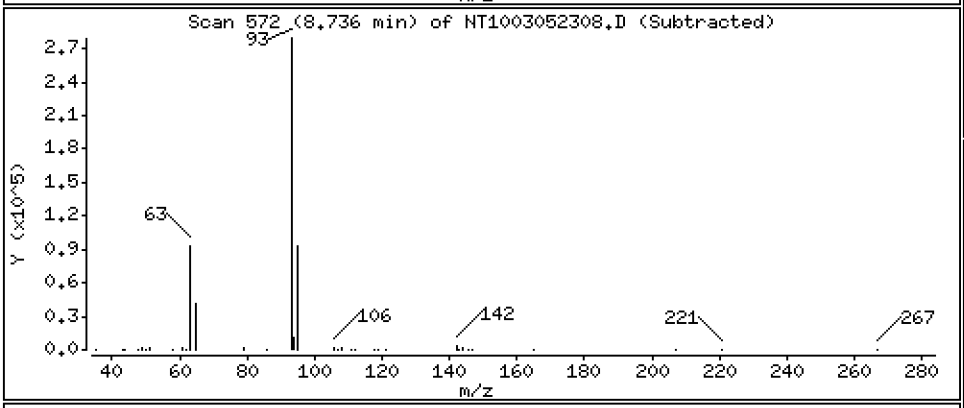
Column phase: ZB-5msi

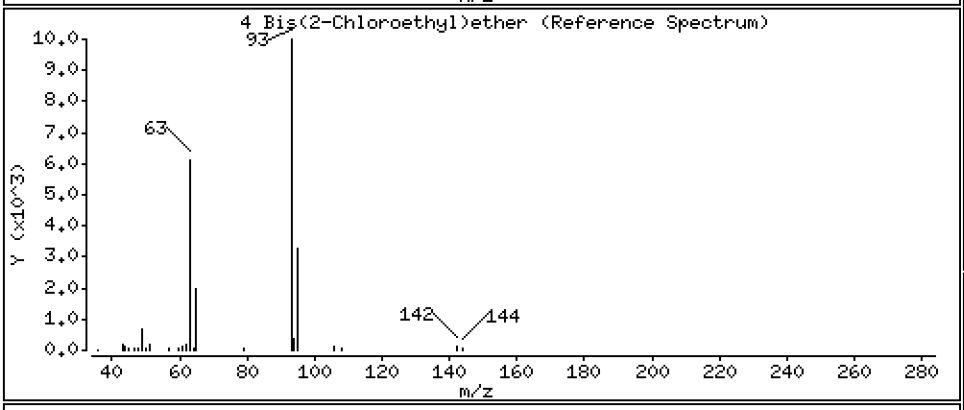
Column diameter: 0.25

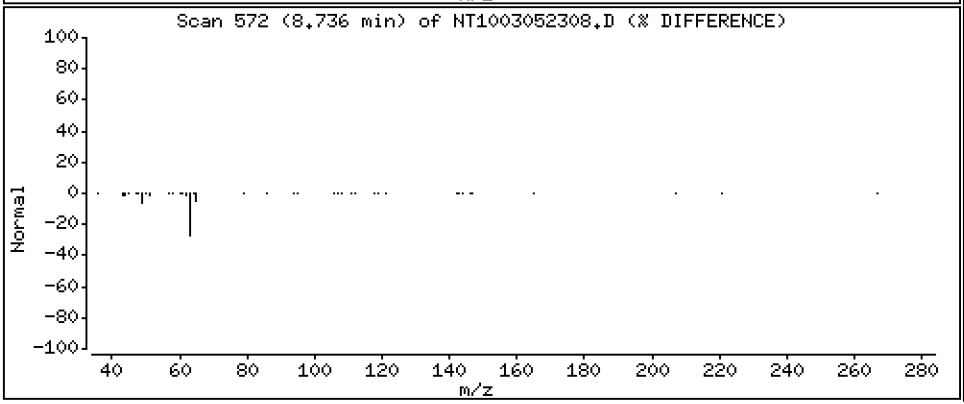
4 Bis(2-Chloroethyl)ether

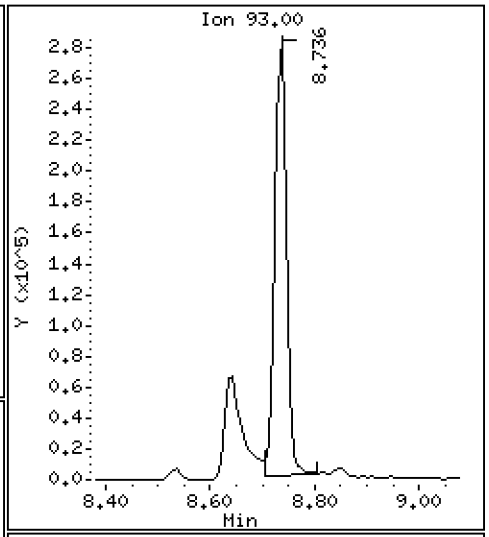
Concentration: 4.656 ug/mL

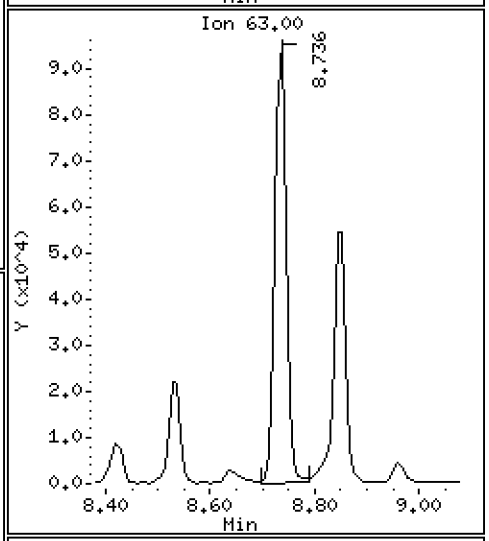


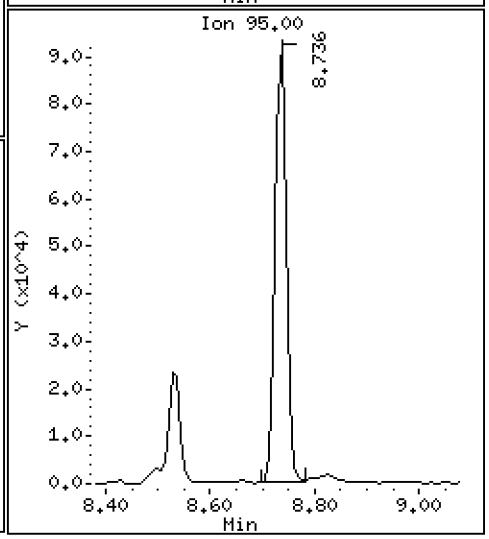












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

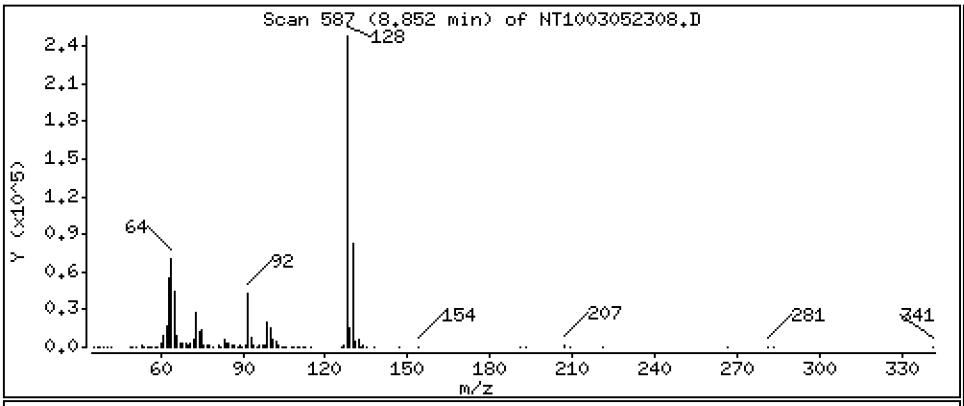
Operator: VTS

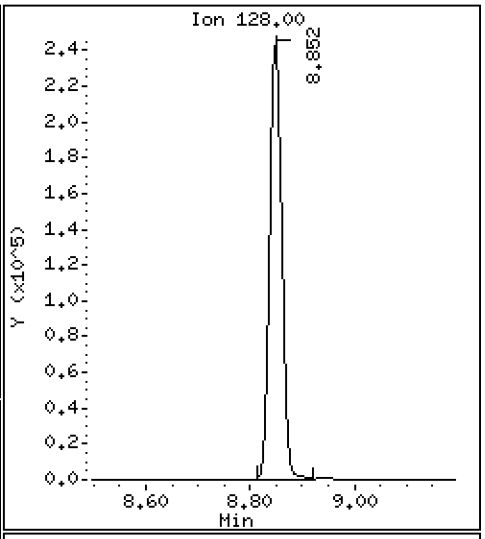
Column phase: ZB-5msi

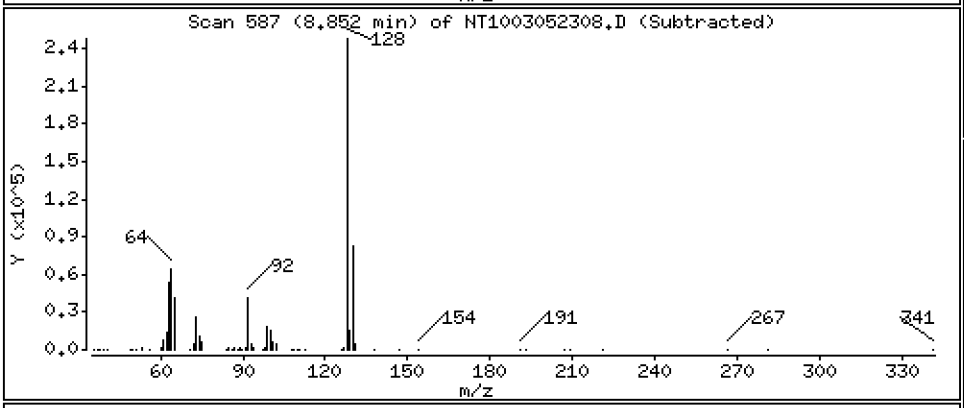
Column diameter: 0.25

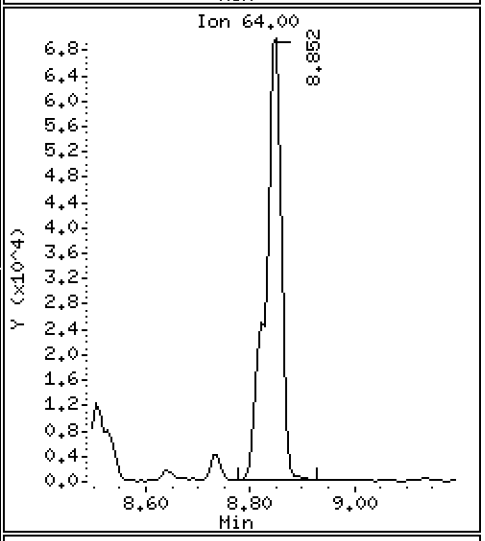
6 2-Chlorophenol

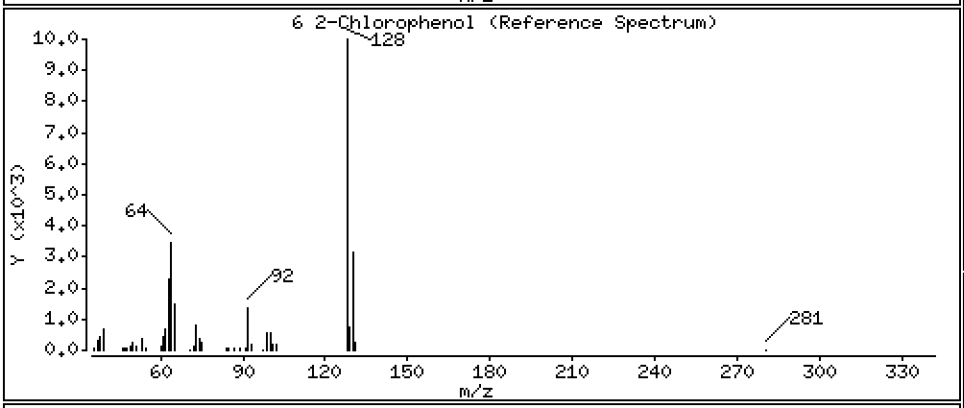
Concentration: 3.866 ug/mL

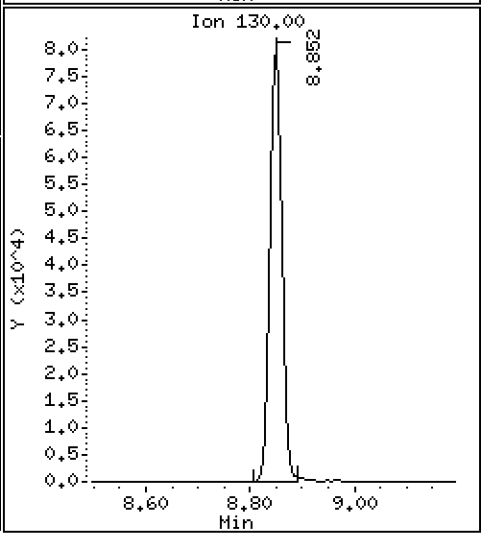


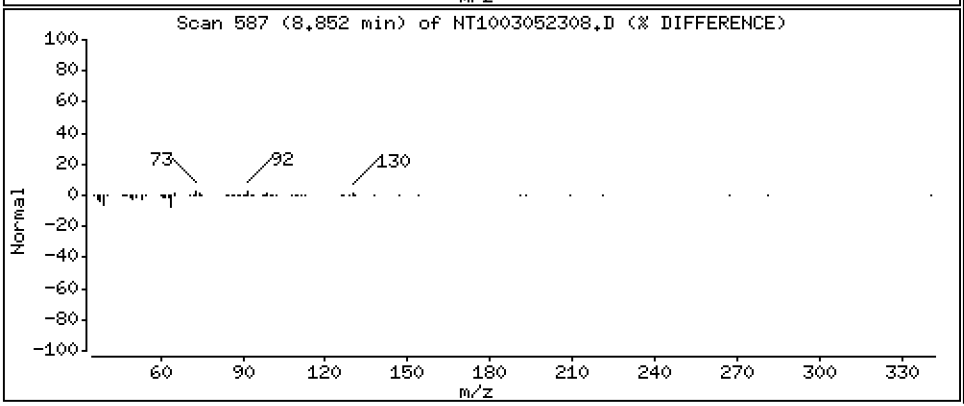












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

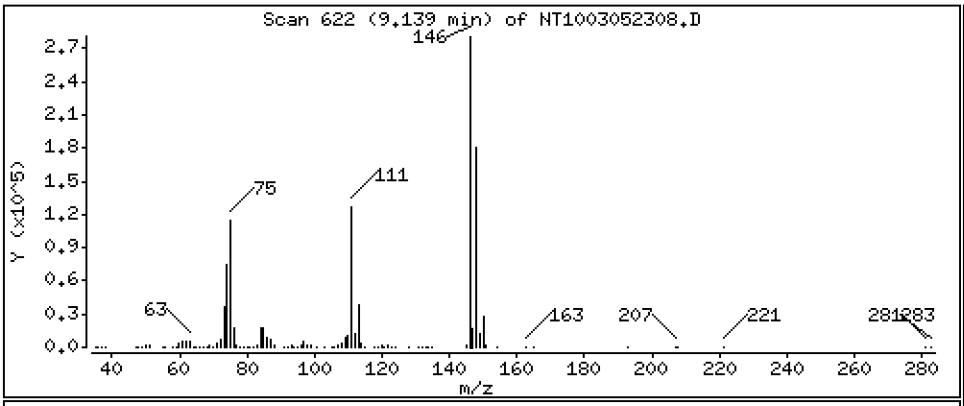
Operator: VTS

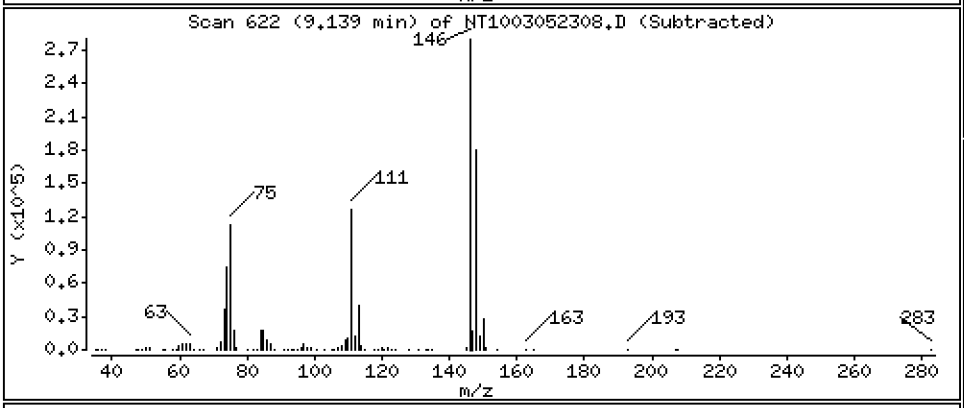
Column phase: ZB-5msi

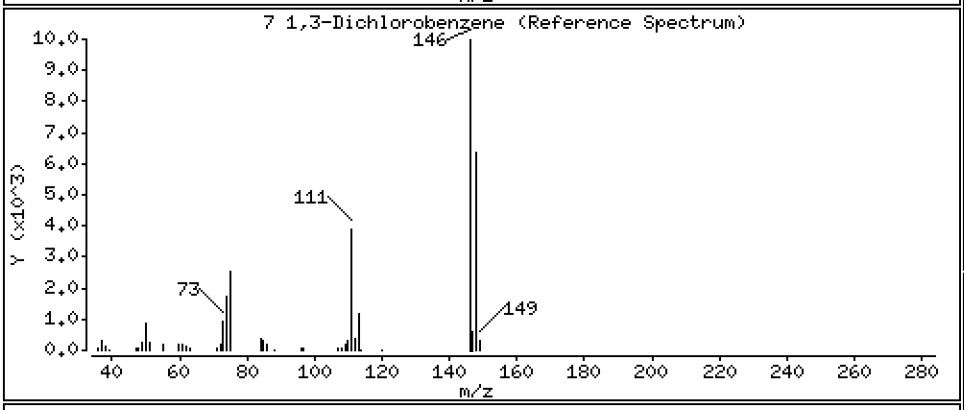
Column diameter: 0.25

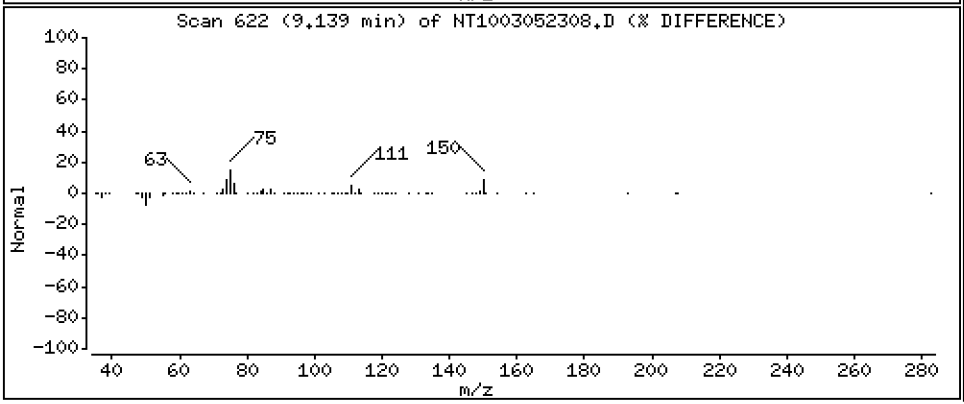
7 1,3-Dichlorobenzene

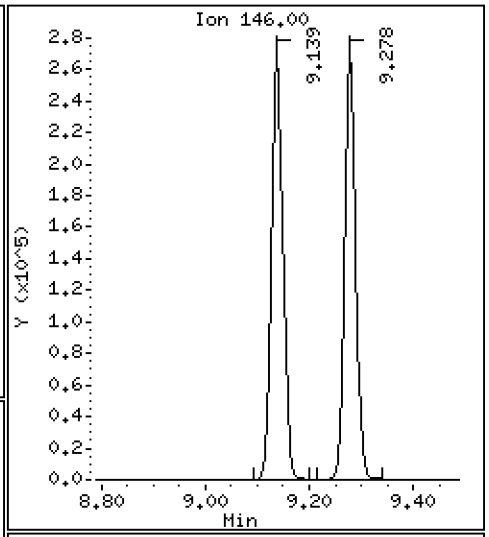
Concentration: 3.812 ug/mL

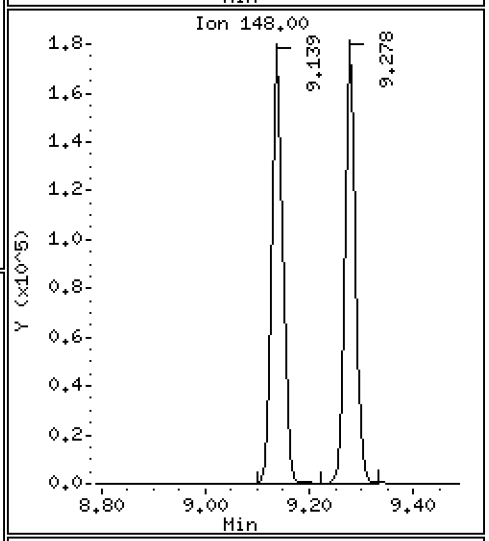


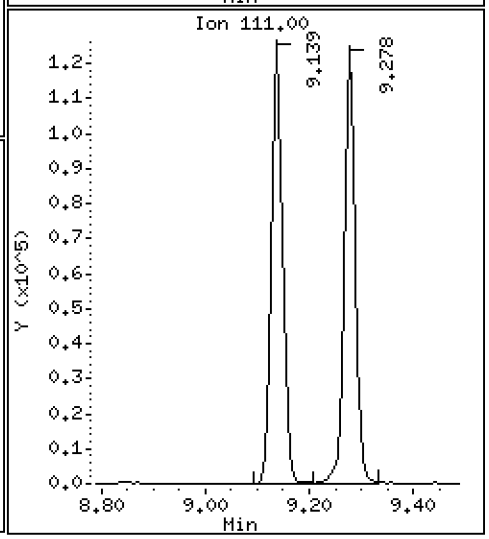












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

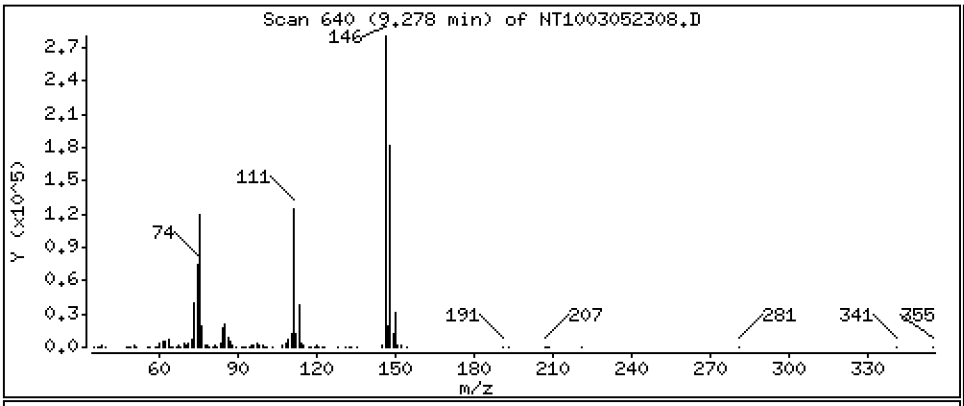
Operator: VTS

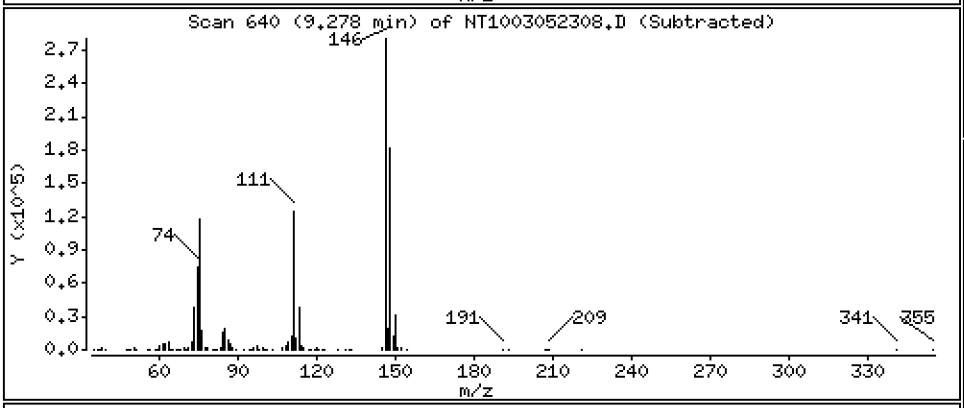
Column phase: ZB-5msi

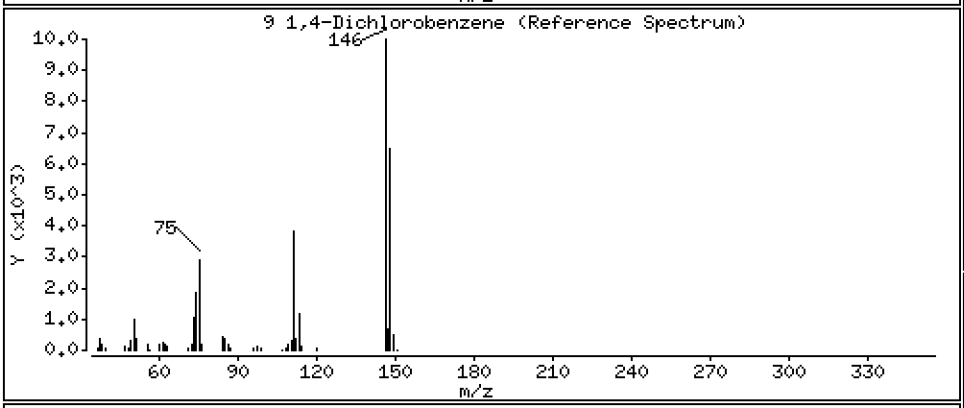
Column diameter: 0.25

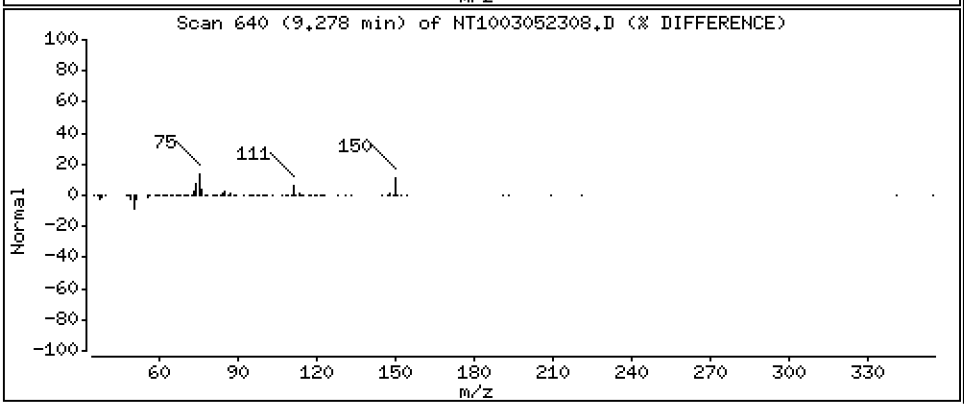
9 1,4-Dichlorobenzene

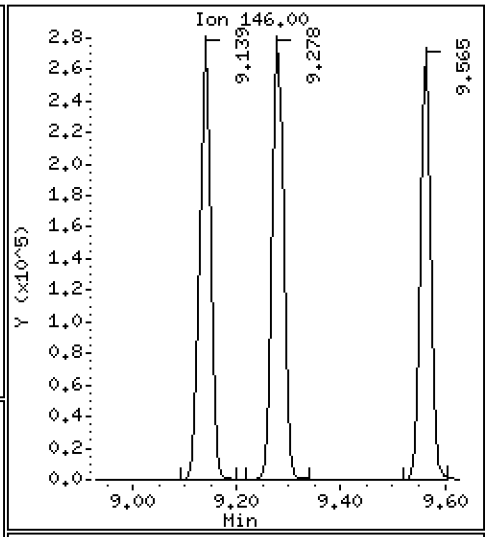
Concentration: 3.814 ug/mL

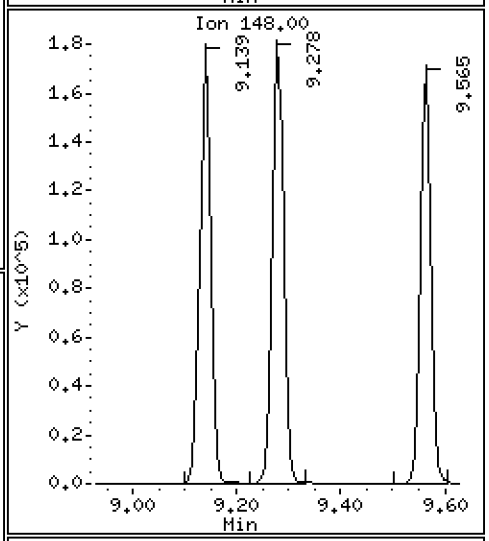


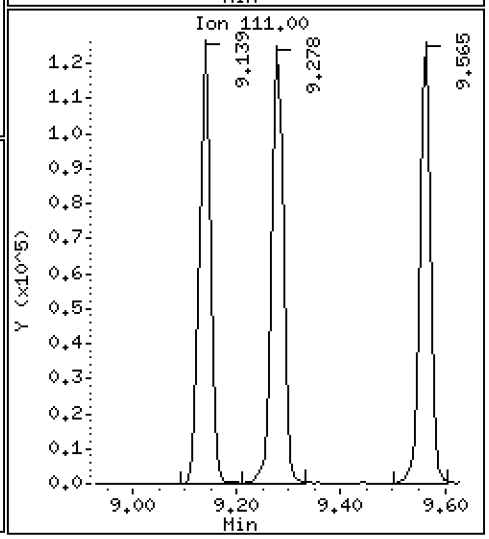












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

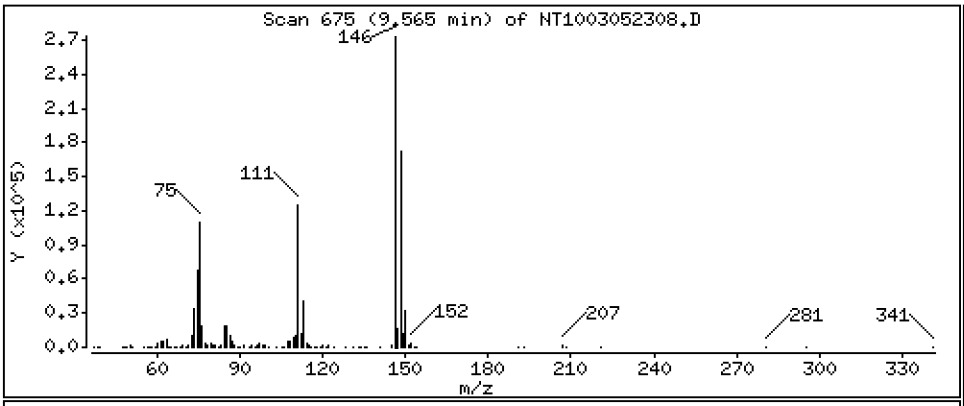
Operator: VTS

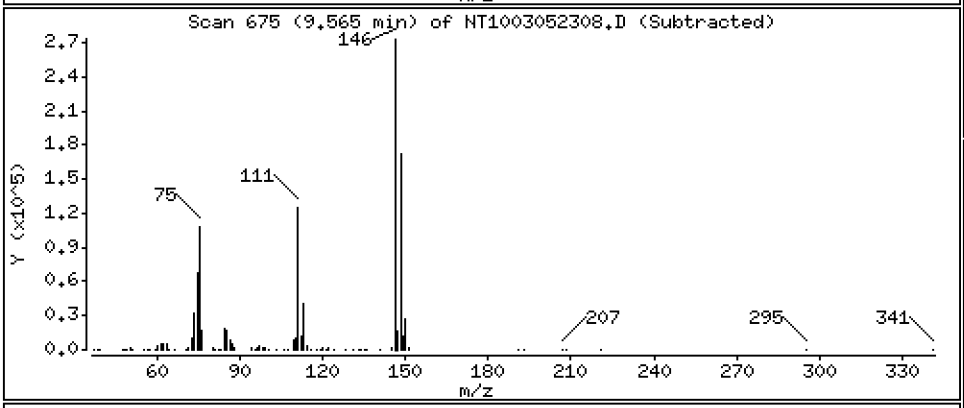
Column phase: ZB-5msi

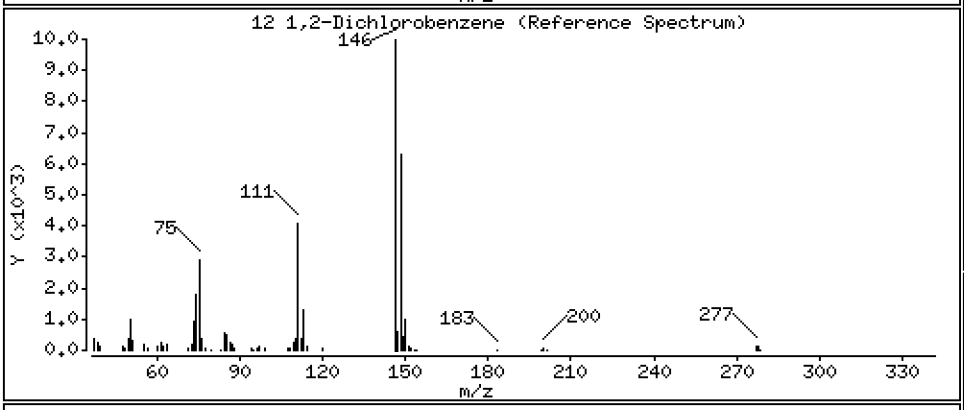
Column diameter: 0.25

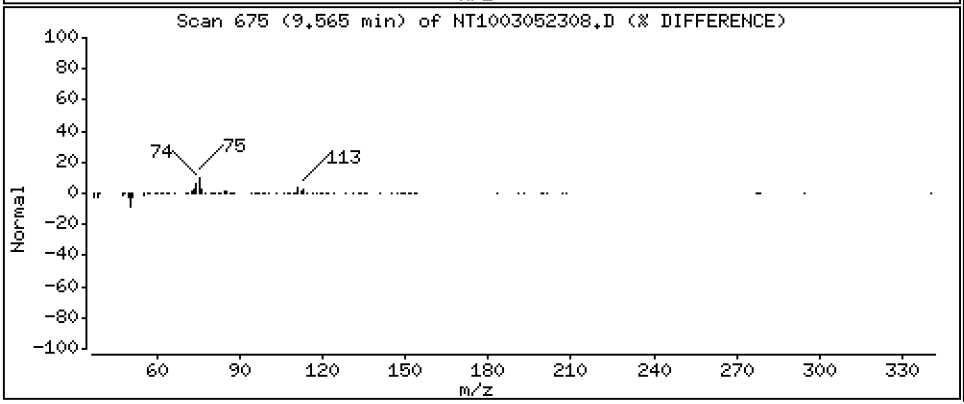
12 1,2-Dichlorobenzene

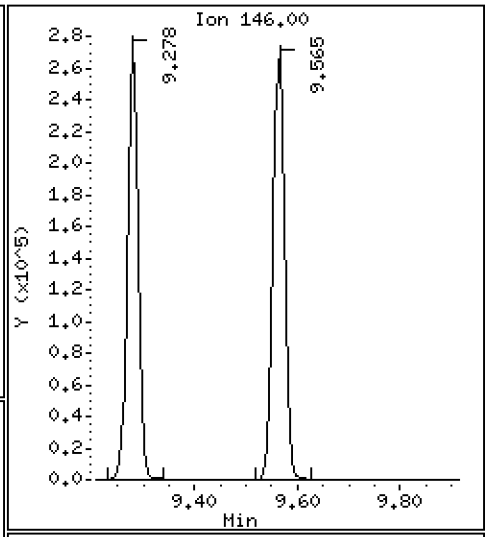
Concentration: 3.861 ug/mL

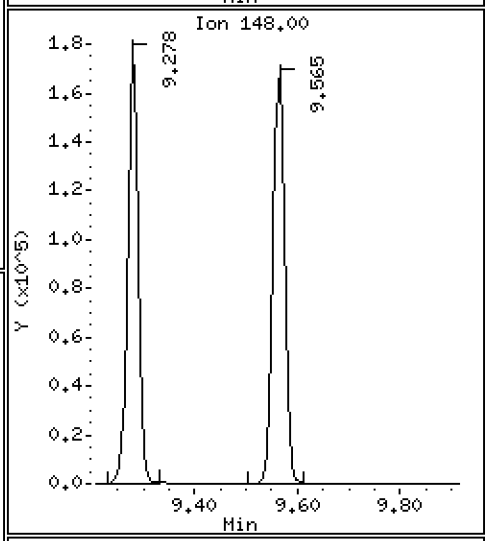


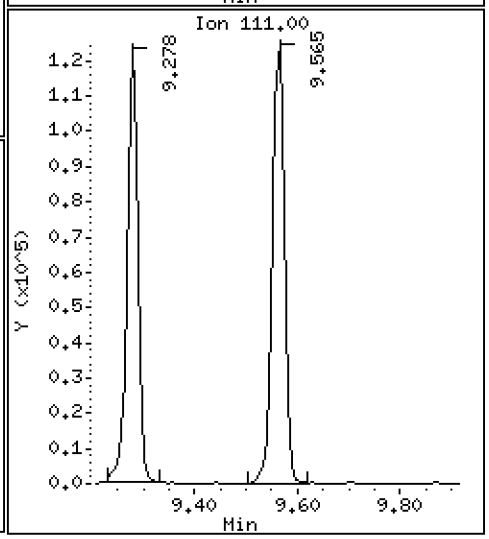












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

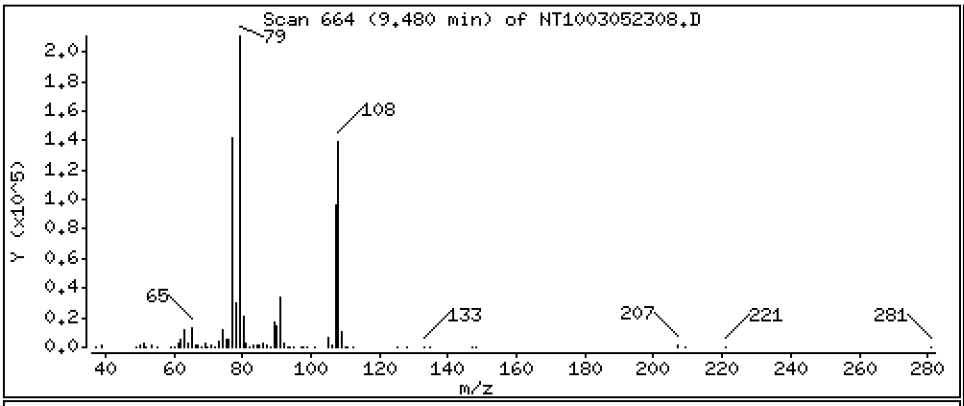
Operator: VTS

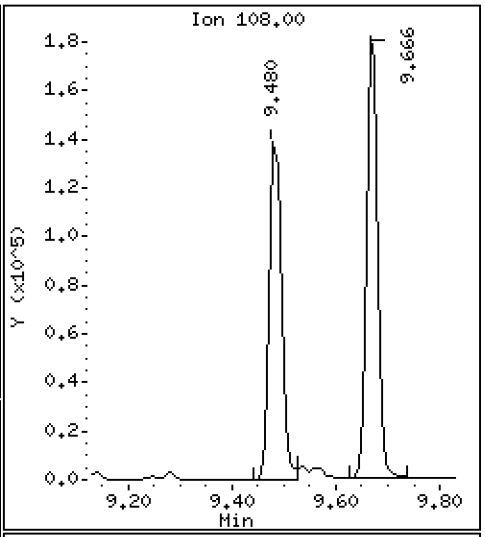
Column phase: ZB-5msi

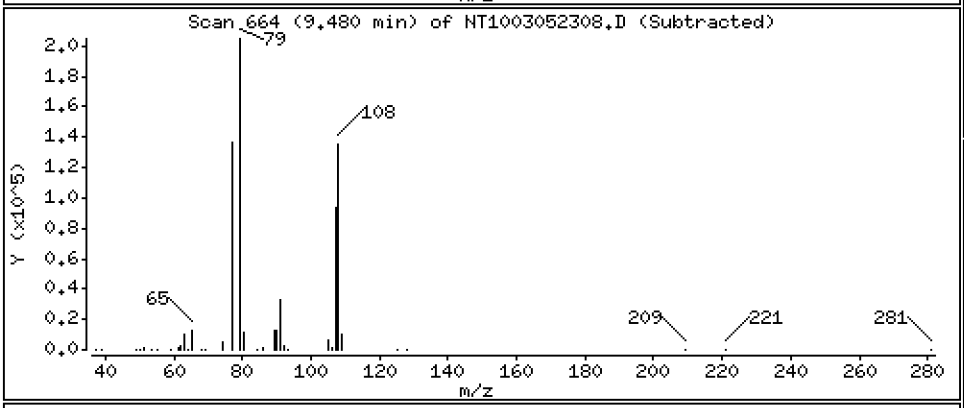
Column diameter: 0.25

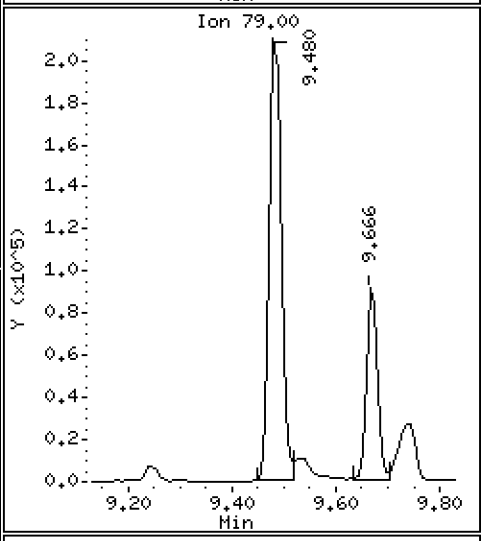
11 Benzyl alcohol

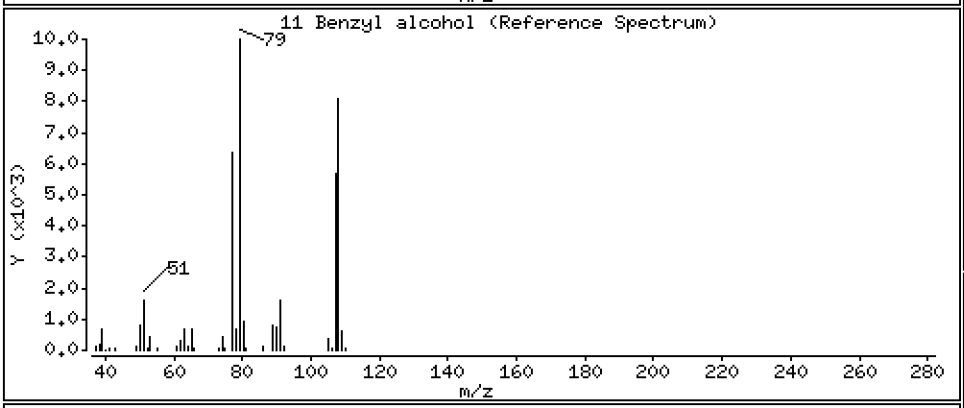
Concentration: 3.605 ug/mL

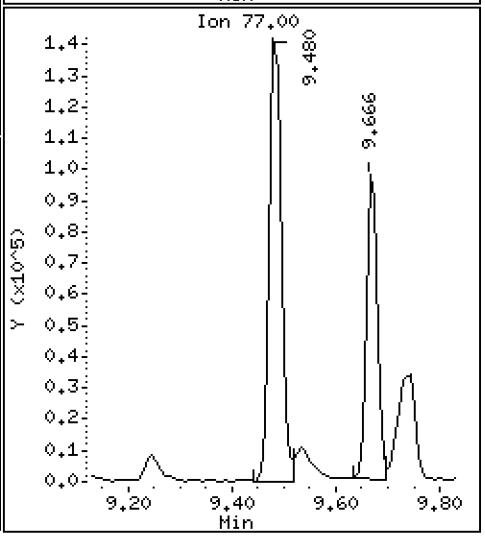


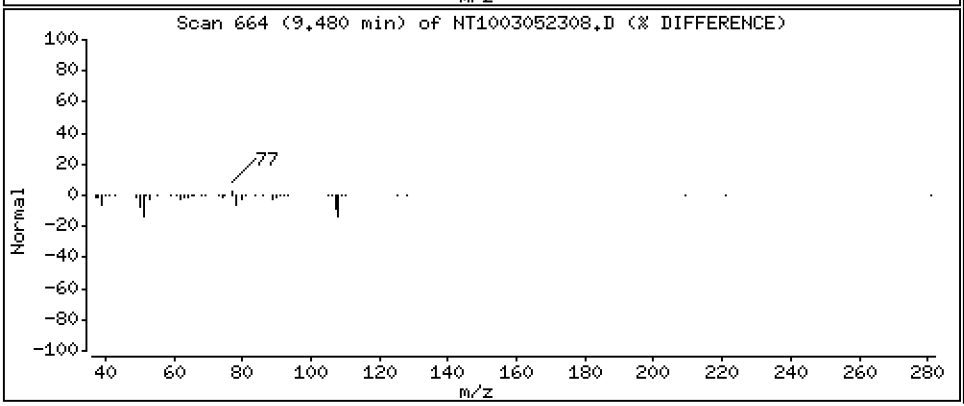












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

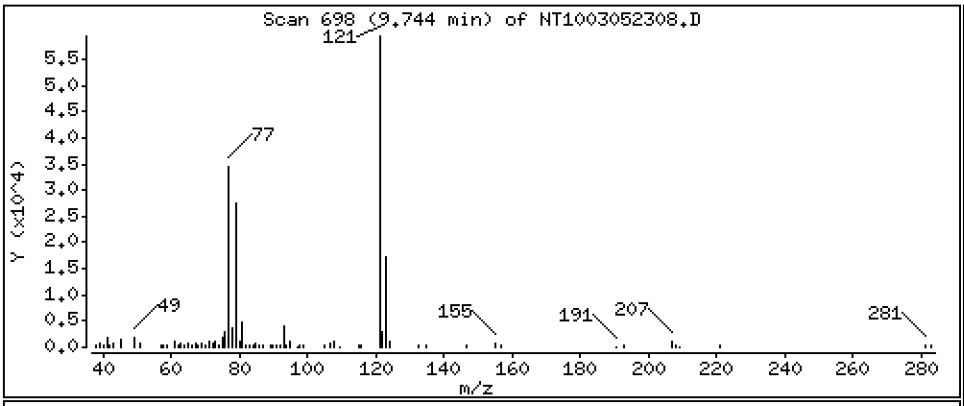
Operator: VTS

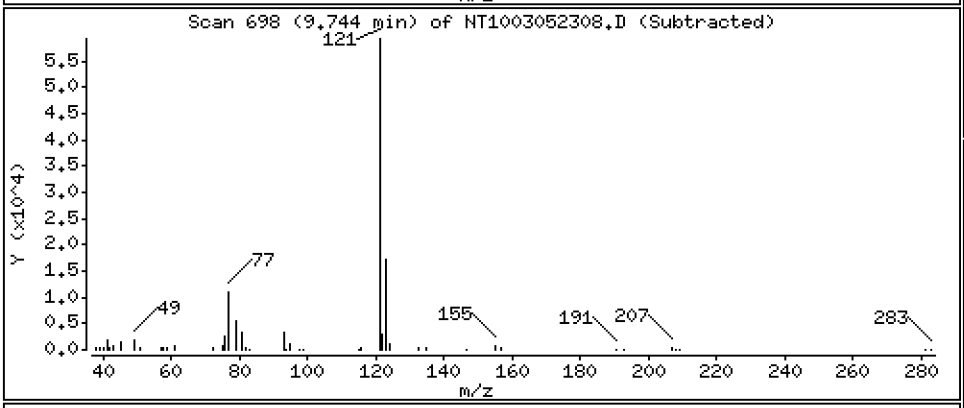
Column phase: ZB-5msi

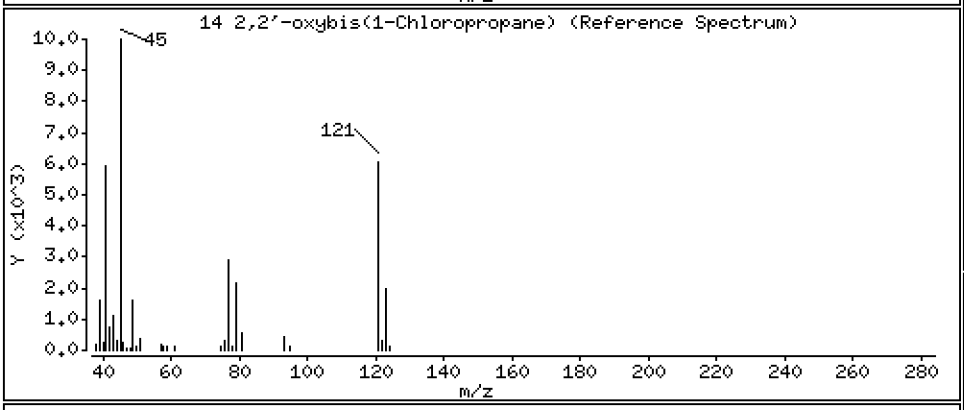
Column diameter: 0.25

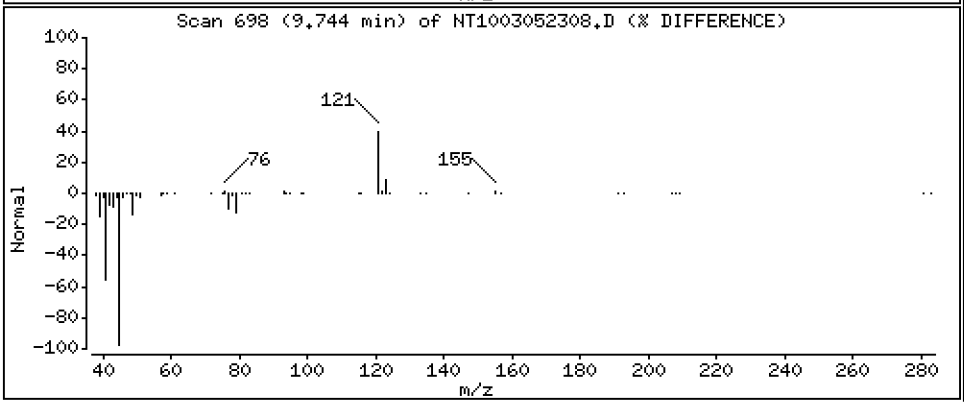
14 2,2'-oxybis(1-Chloropropane)

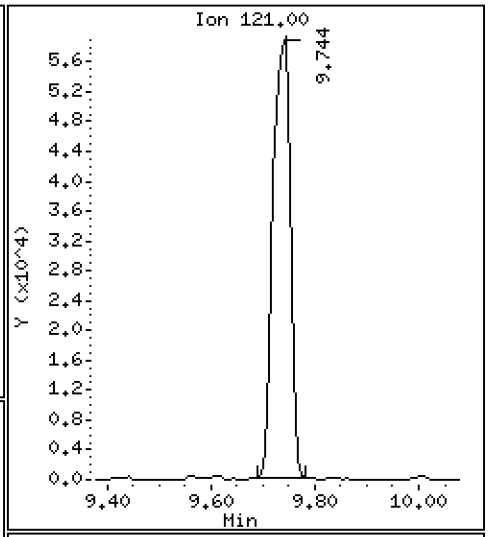
Concentration: 4.575 ug/mL

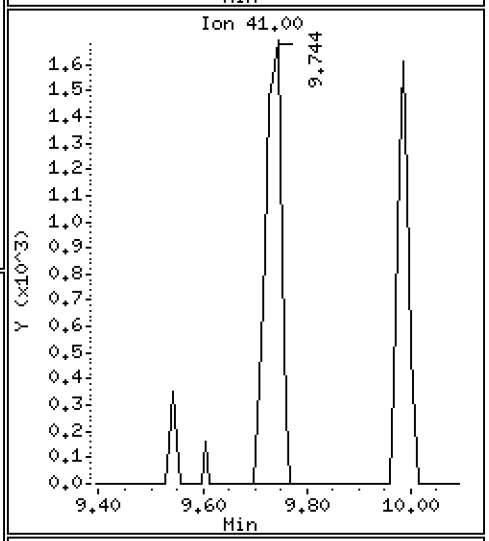


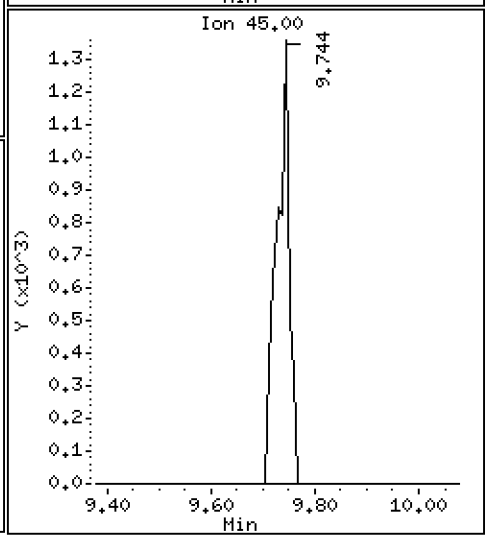












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

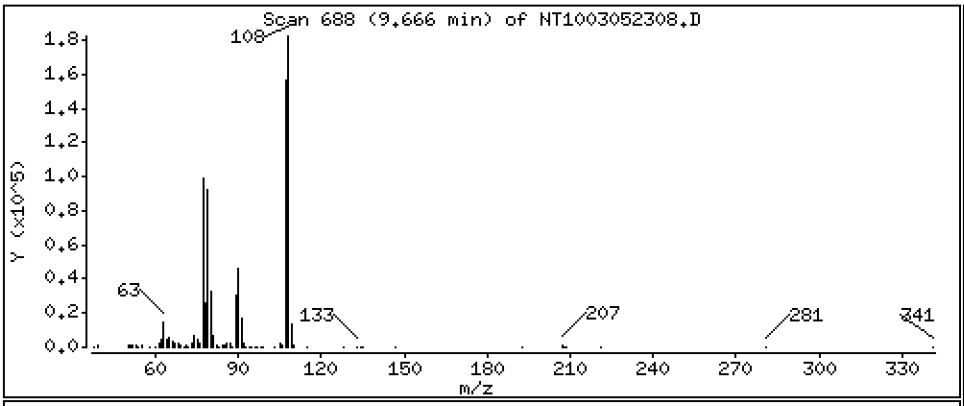
Operator: VTS

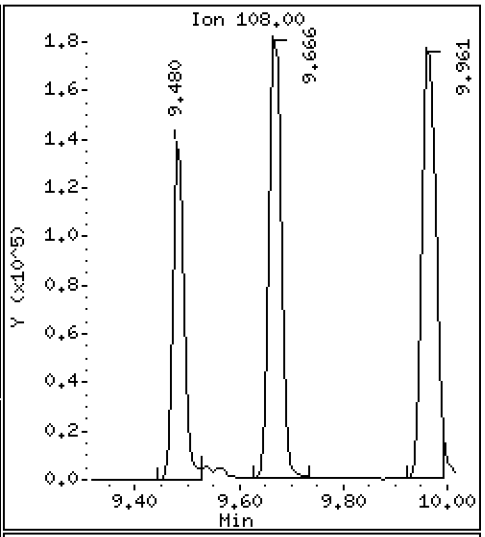
Column phase: ZB-5msi

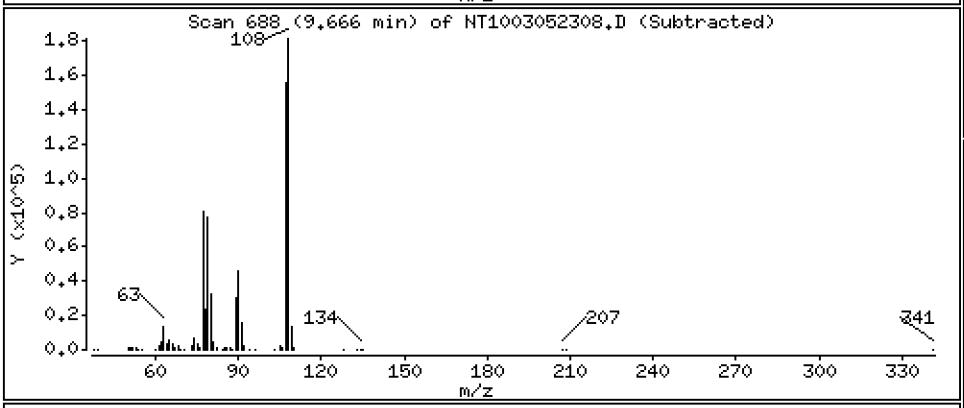
Column diameter: 0.25

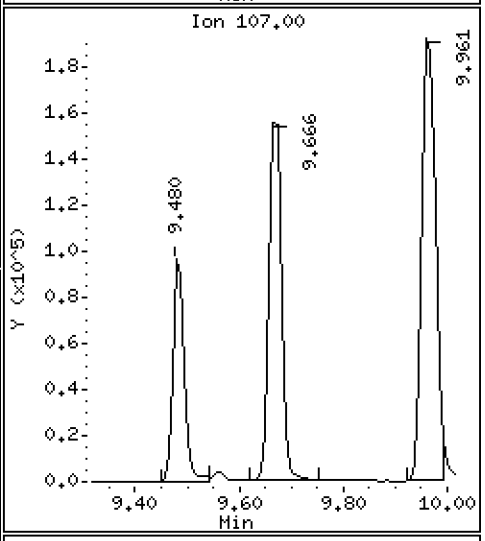
13 2-Methylphenol

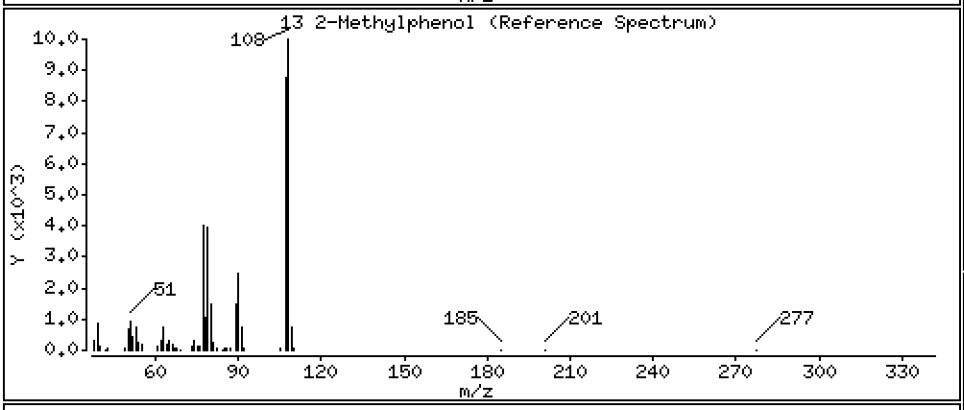
Concentration: 3.106 ug/mL

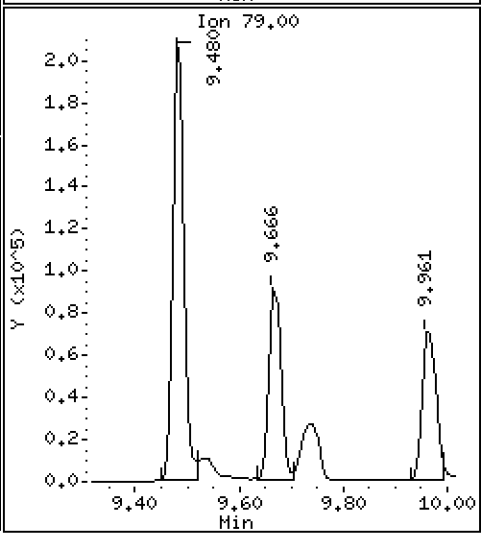


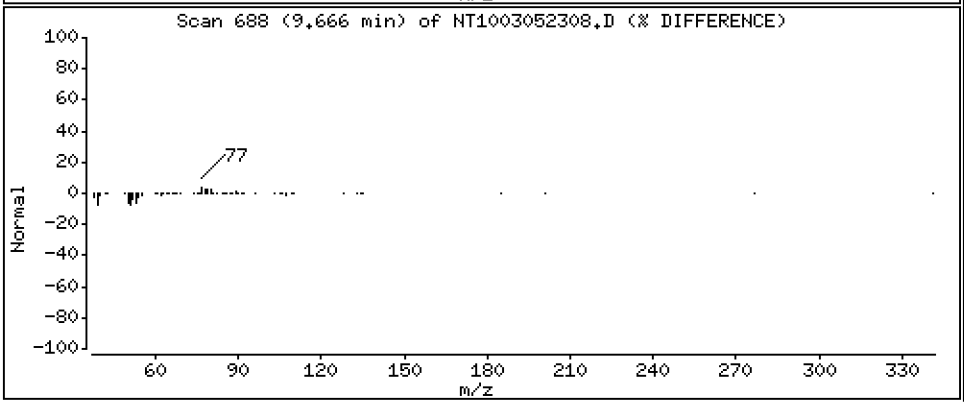












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

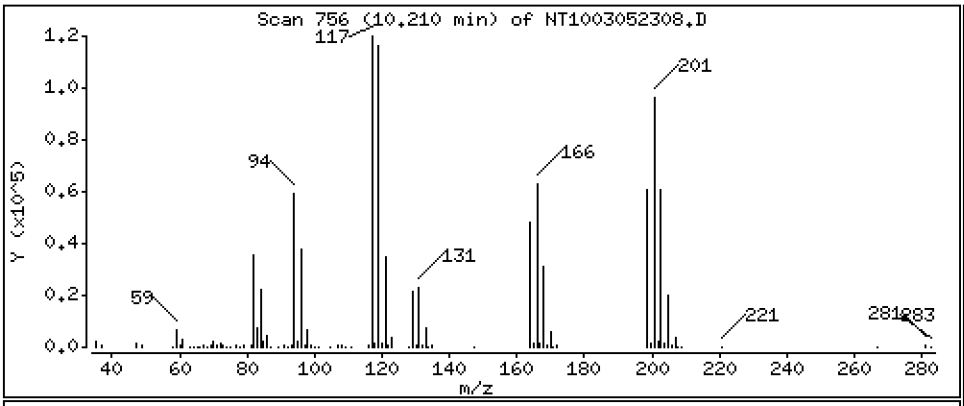
Operator: VTS

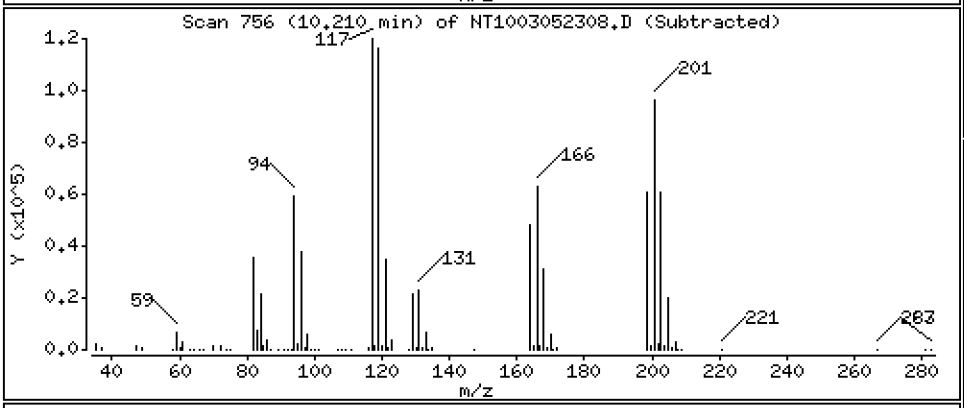
Column phase: ZB-5msi

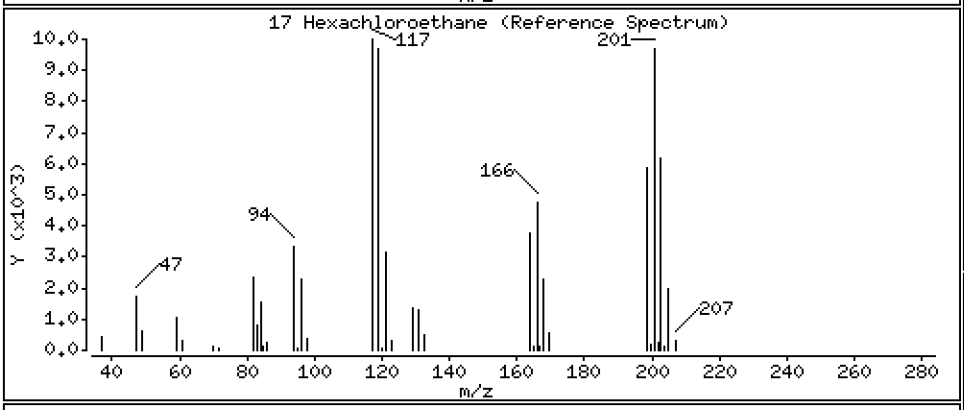
Column diameter: 0.25

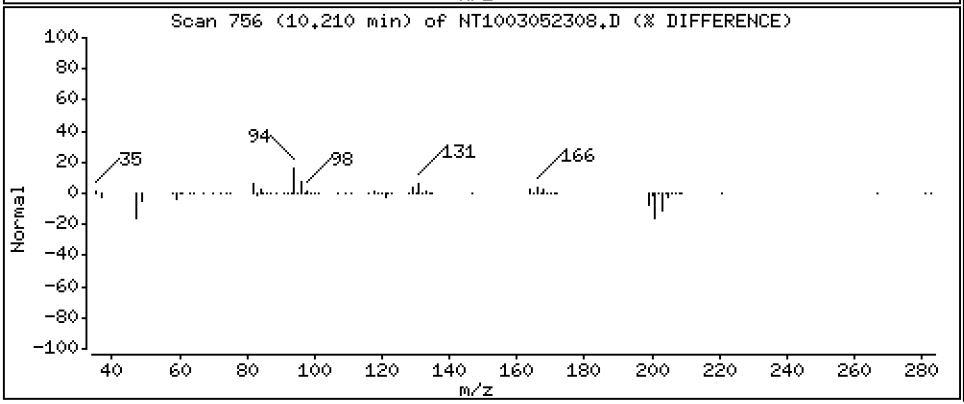
17 Hexachloroethane

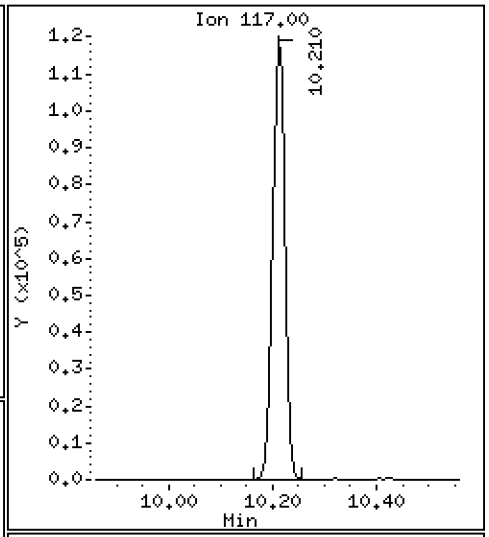
Concentration: 4.237 ug/mL

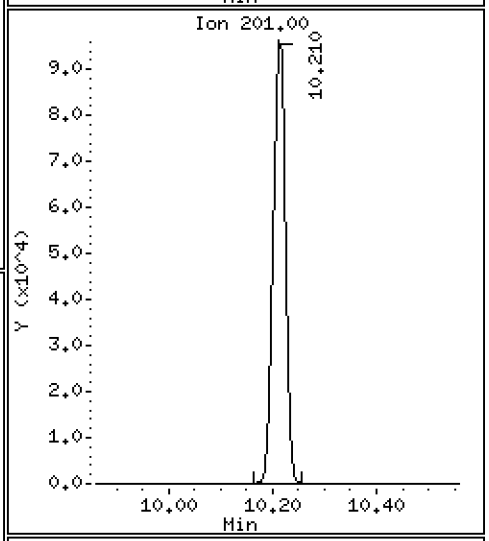


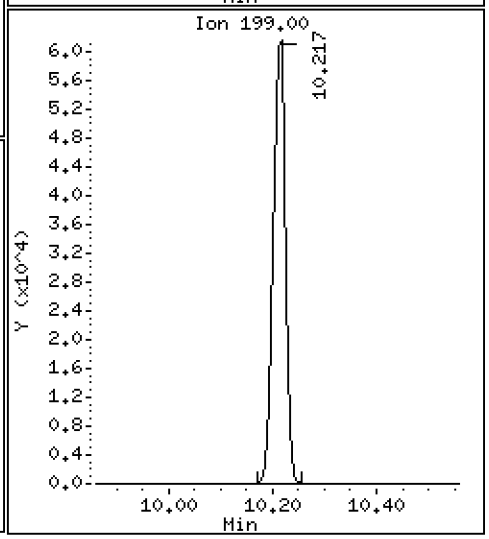












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

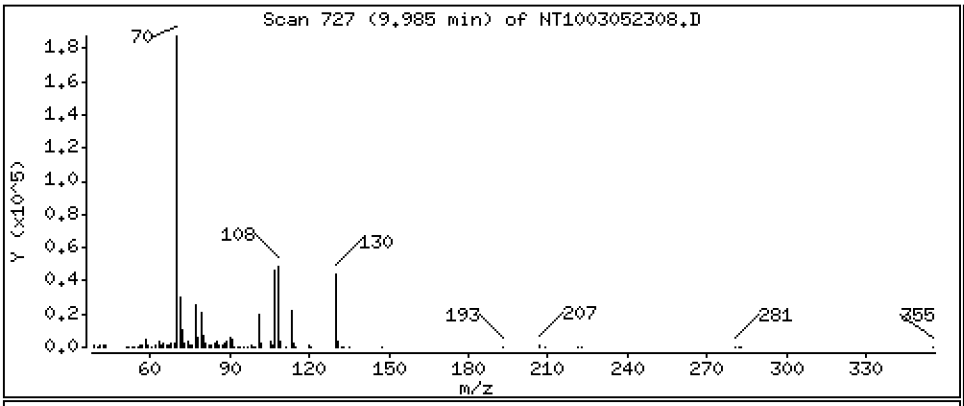
Operator: VTS

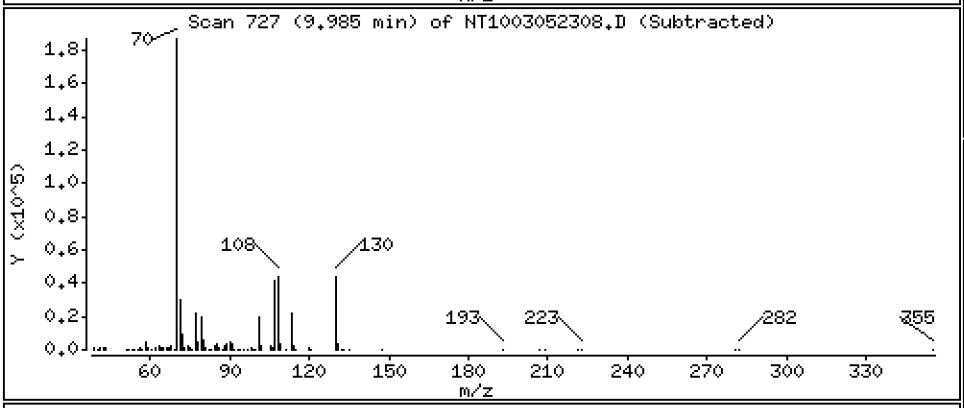
Column phase: ZB-5msi

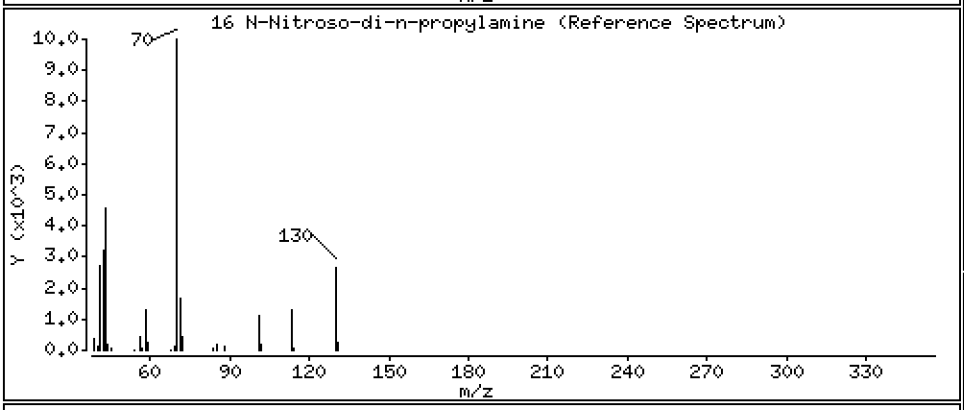
Column diameter: 0.25

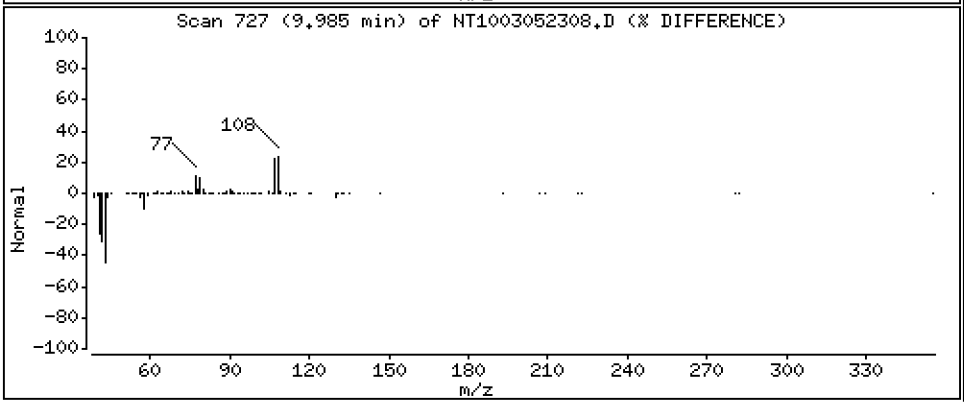
16 N-Nitroso-di-n-propylamine

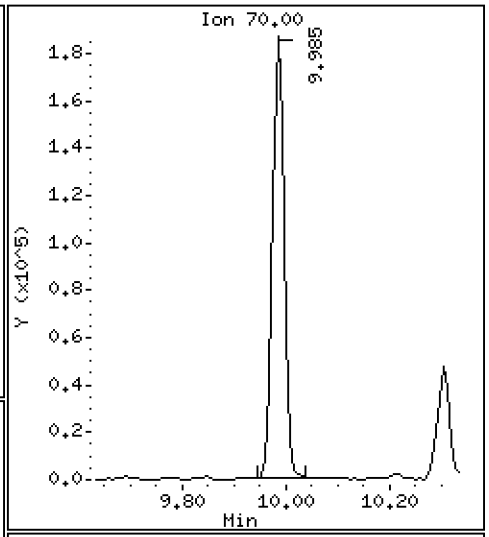
Concentration: 3.918 ug/mL

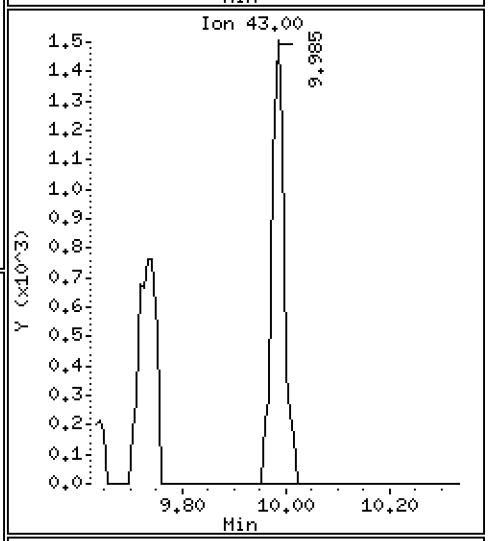


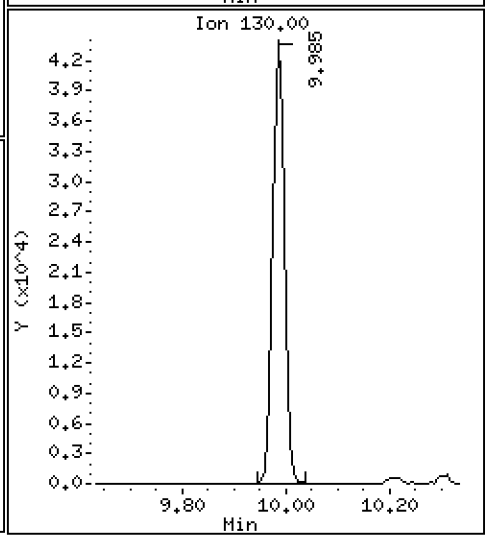












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

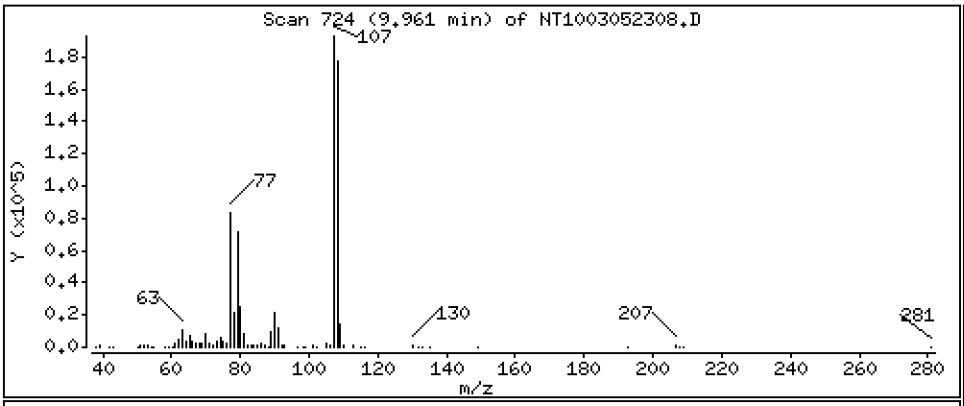
Operator: VTS

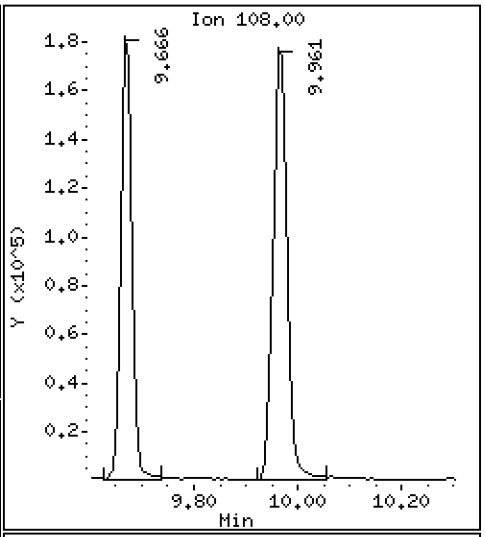
Column phase: ZB-5msi

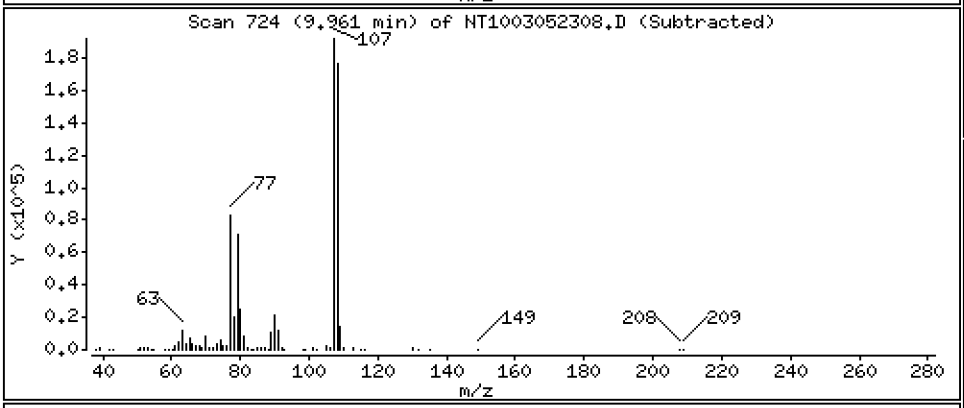
Column diameter: 0.25

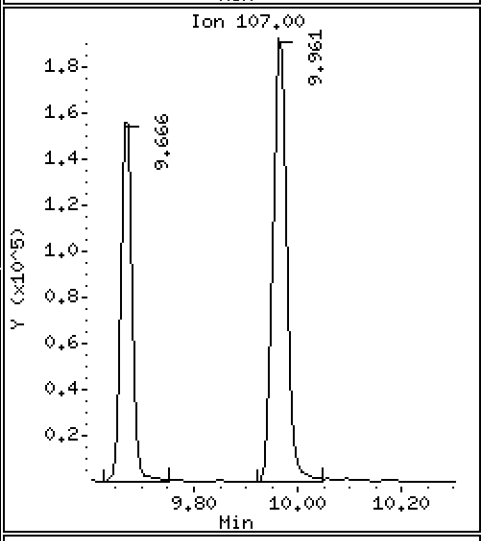
15 4-Methylphenol

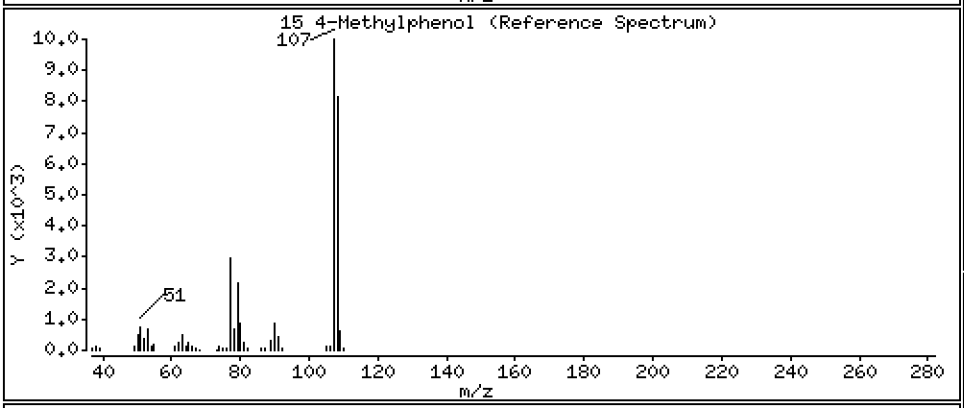
Concentration: 2.968 ug/mL

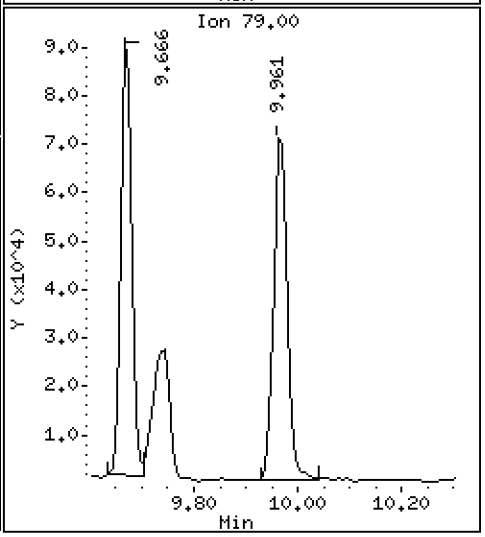


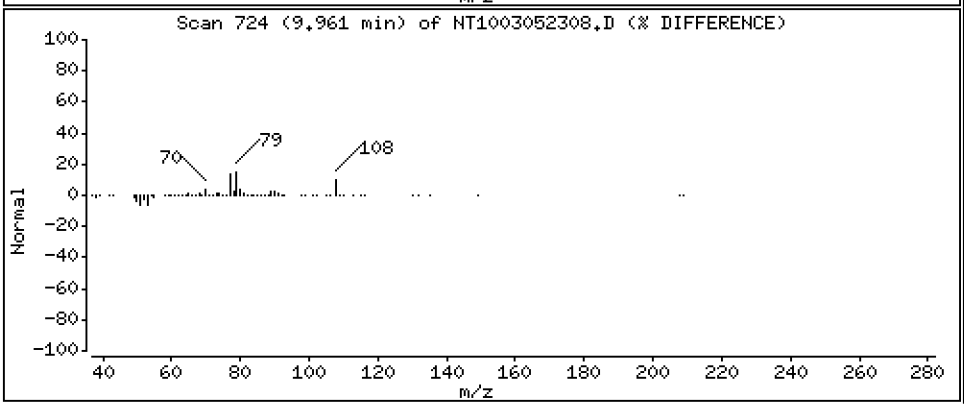












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

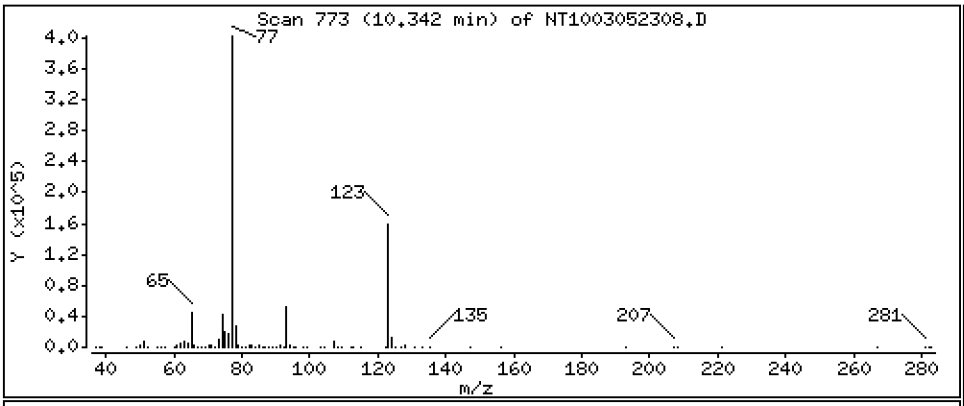
Operator: VTS

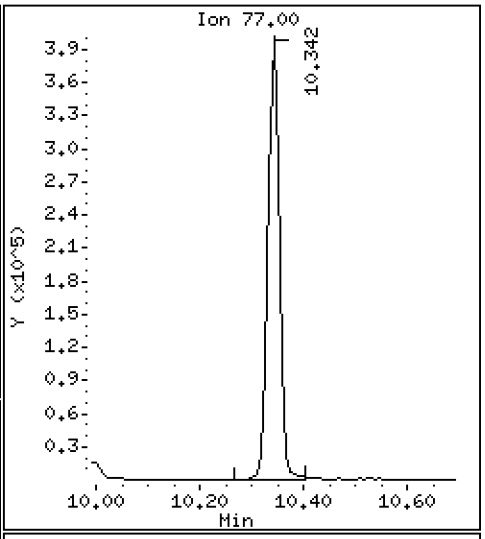
Column phase: ZB-5msi

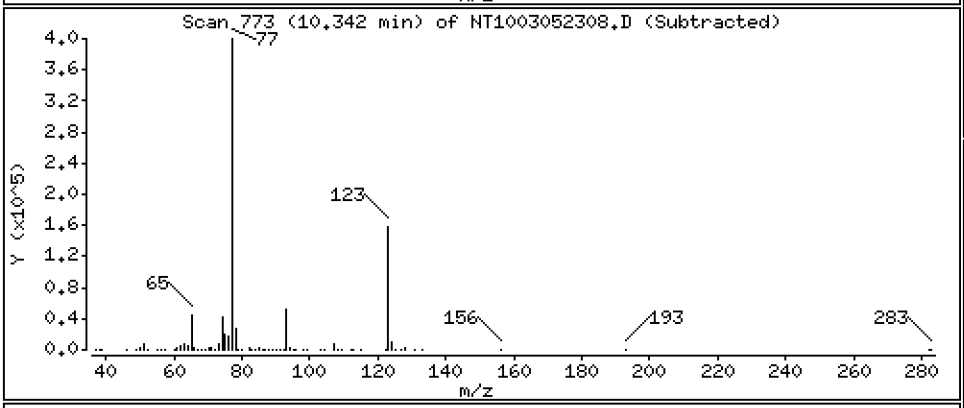
Column diameter: 0.25

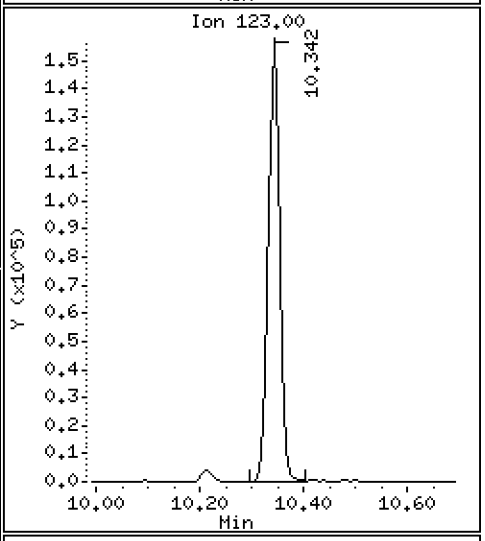
19 Nitrobenzene

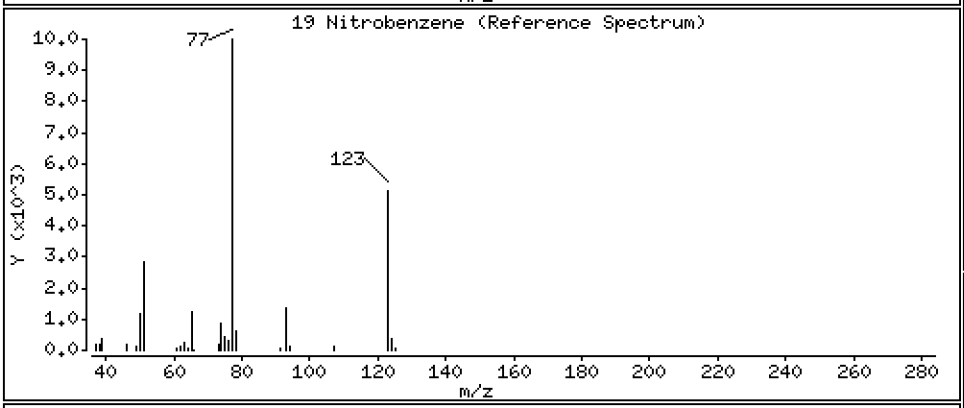
Concentration: 5.219 ug/mL

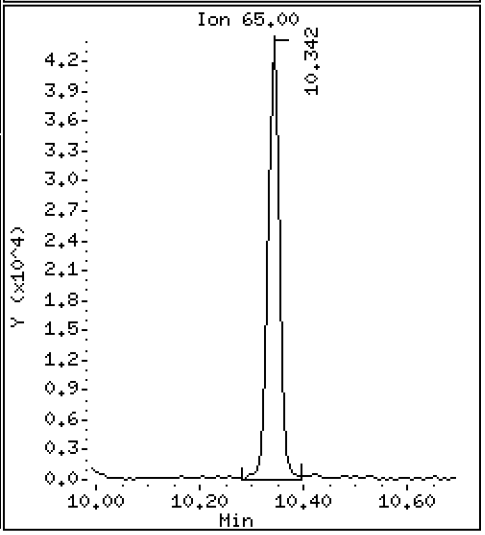


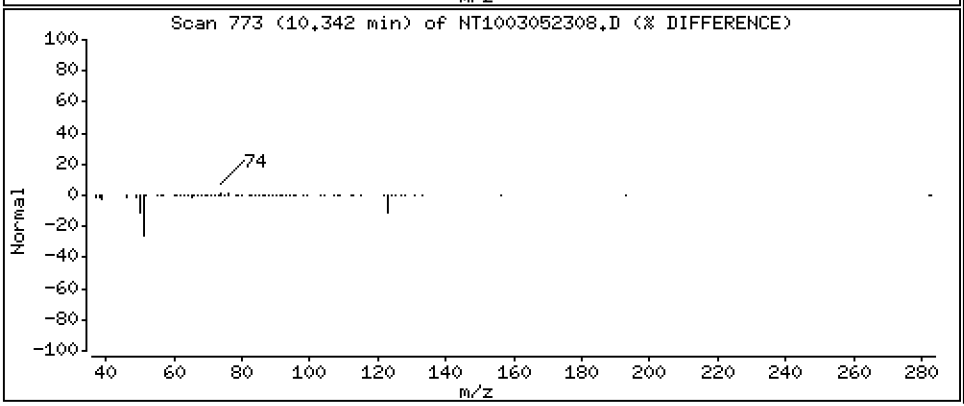












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

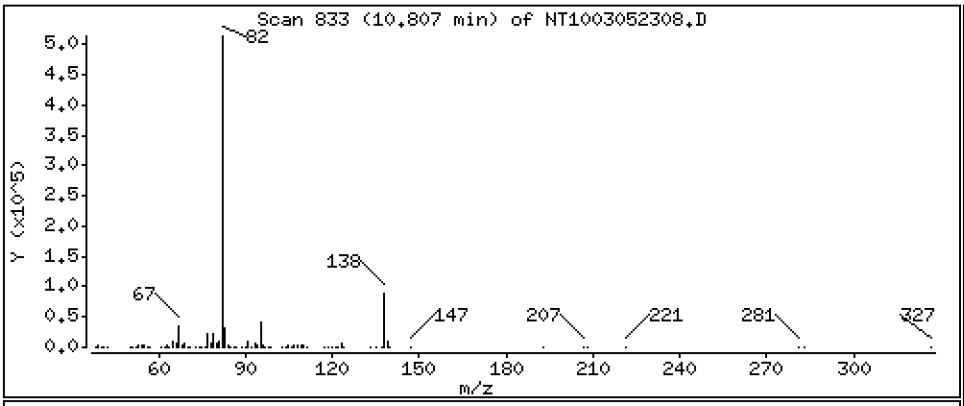
Operator: VTS

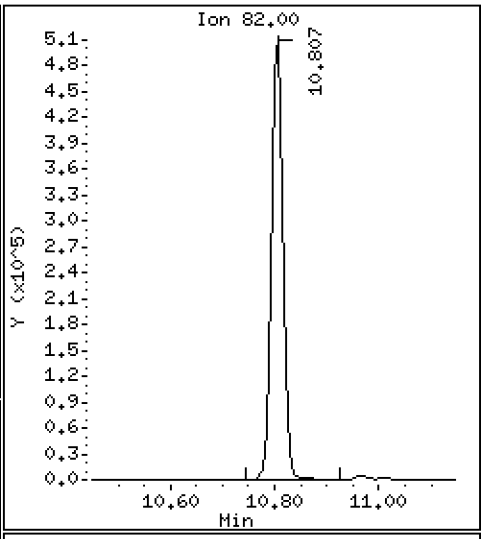
Column phase: ZB-5msi

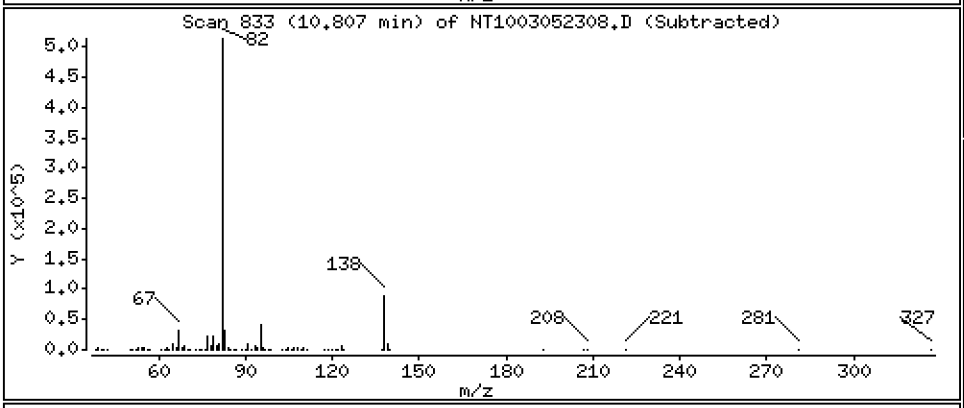
Column diameter: 0.25

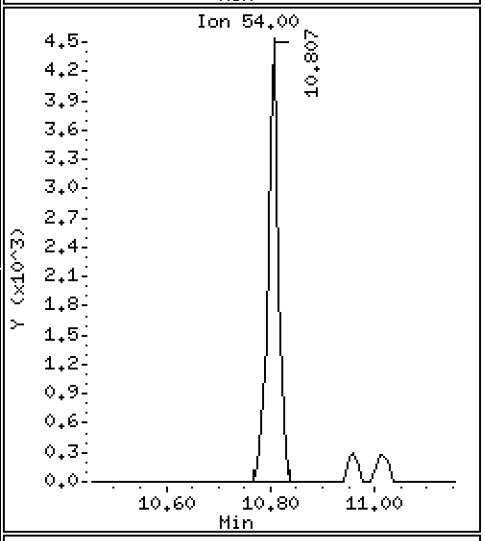
20 Isophorone

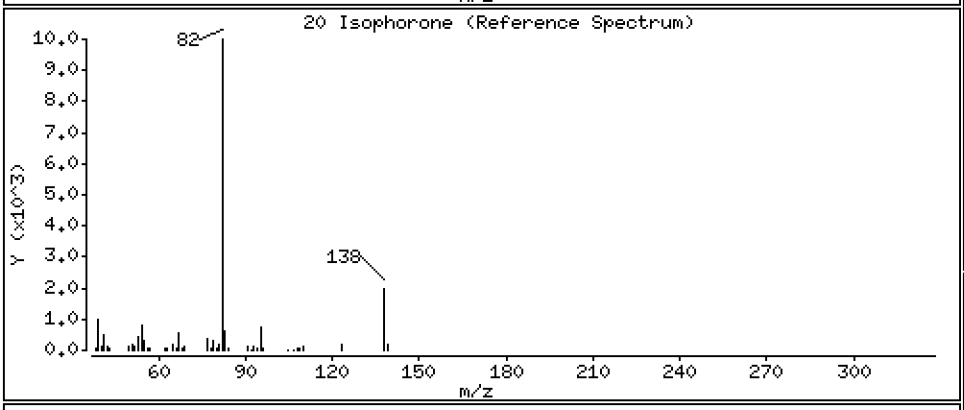
Concentration: 6.469 ug/mL

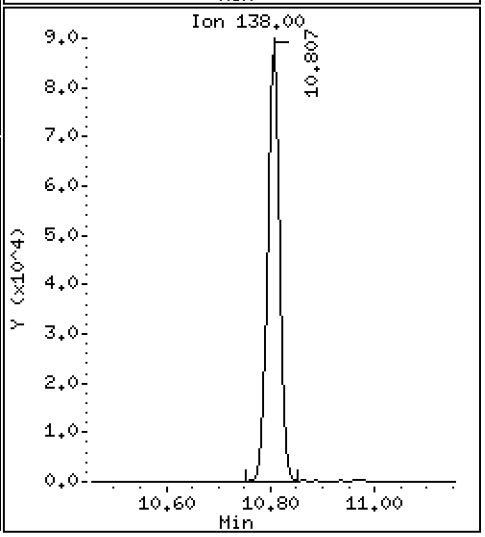


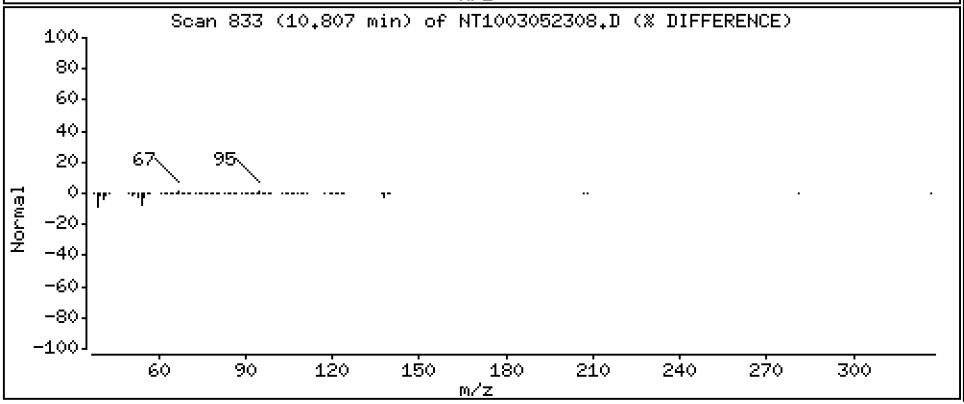












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

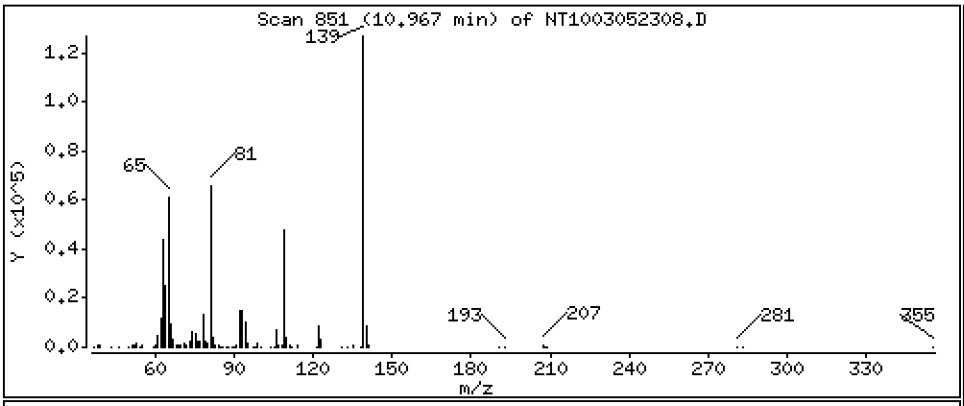
Operator: VTS

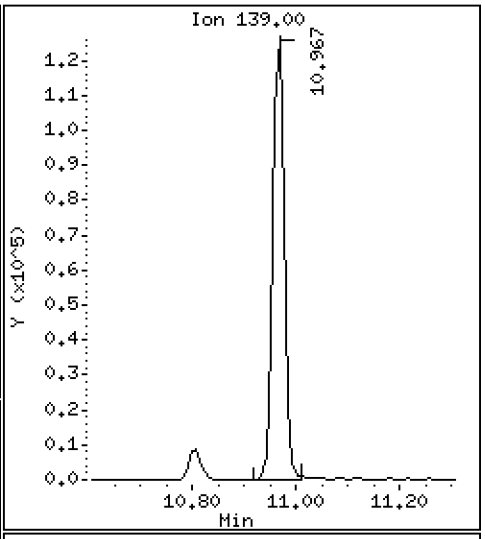
Column phase: ZB-5msi

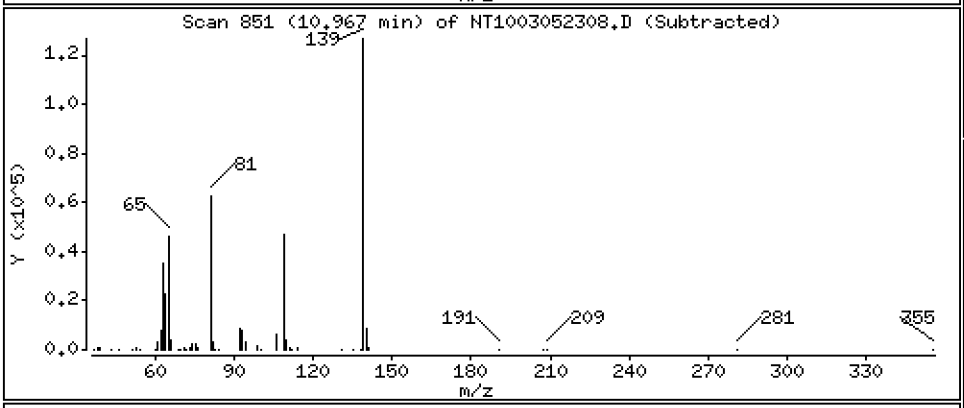
Column diameter: 0.25

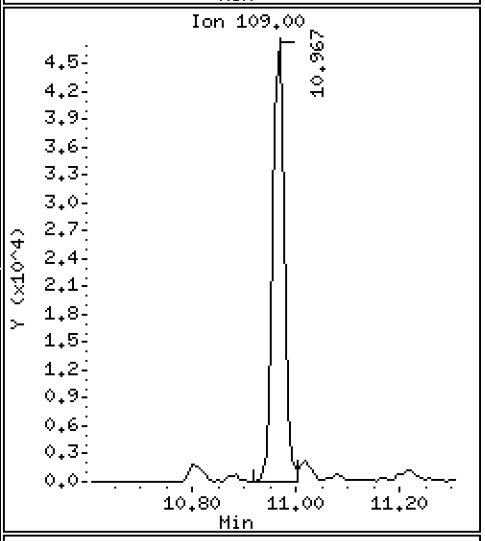
21 2-Nitrophenol

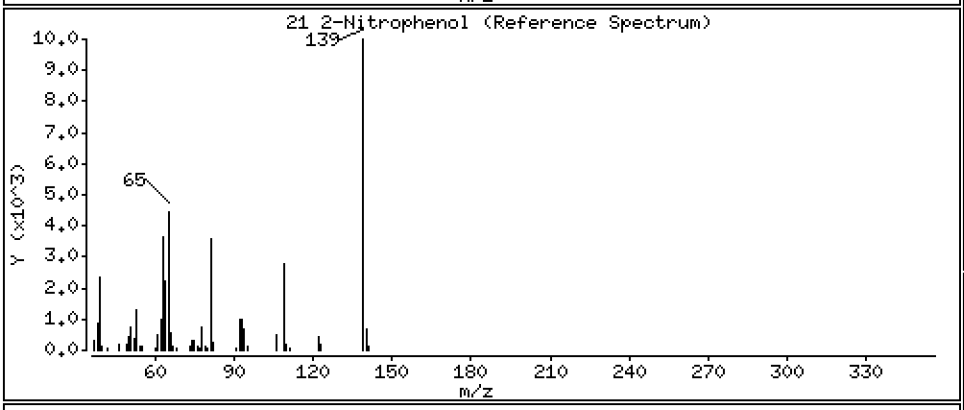
Concentration: 3.260 ug/mL

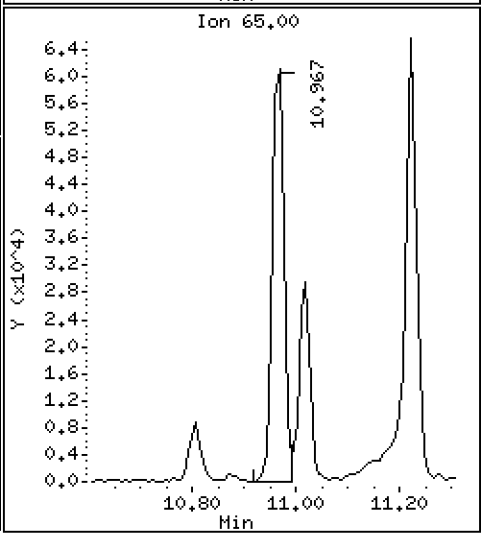


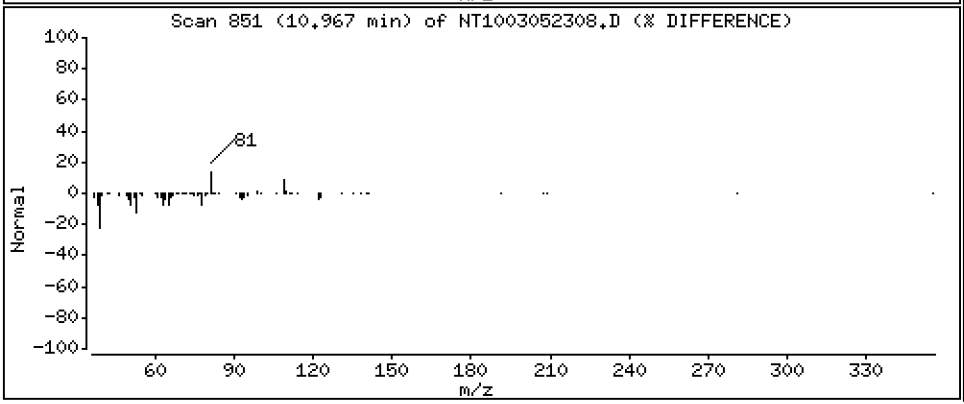












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

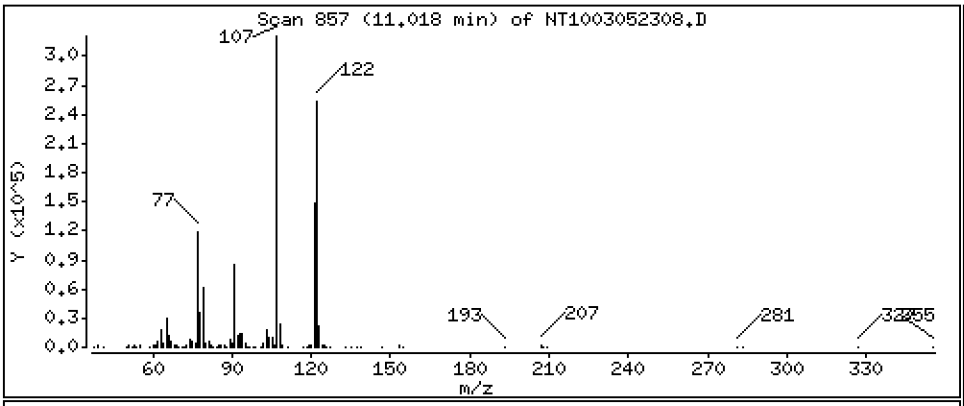
Operator: VTS

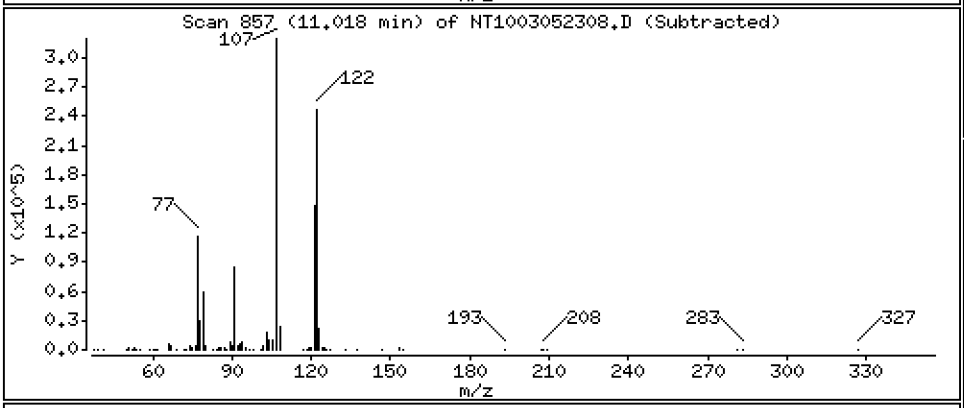
Column phase: ZB-5msi

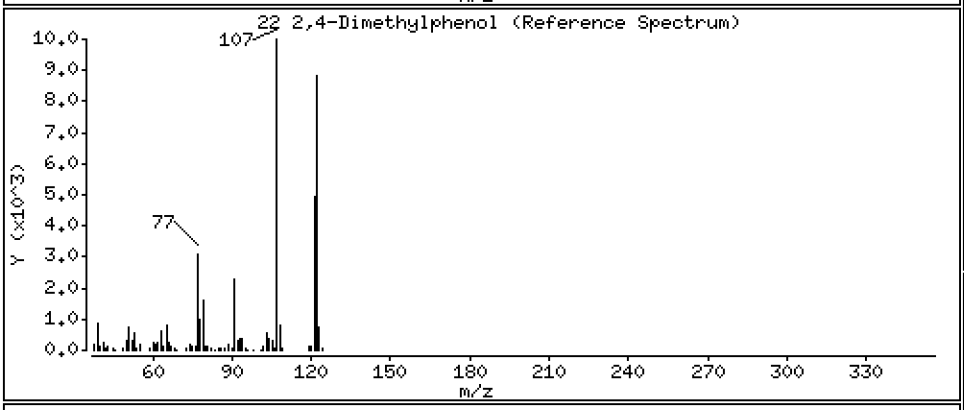
Column diameter: 0.25

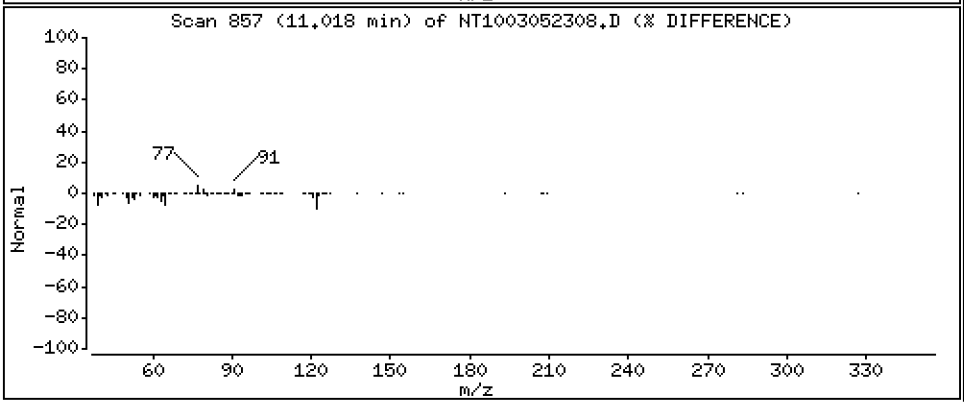
22 2,4-Dimethylphenol

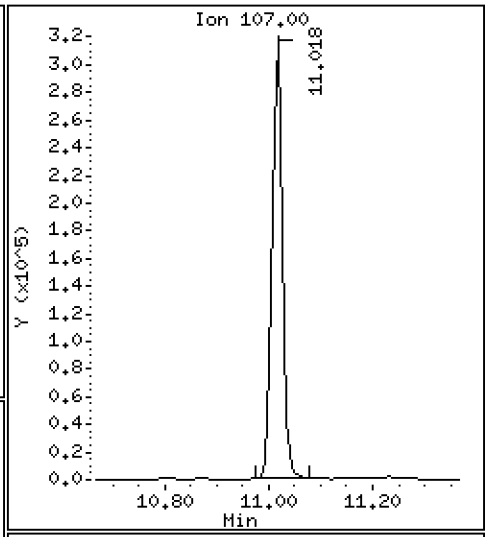
Concentration: 4.275 ug/mL

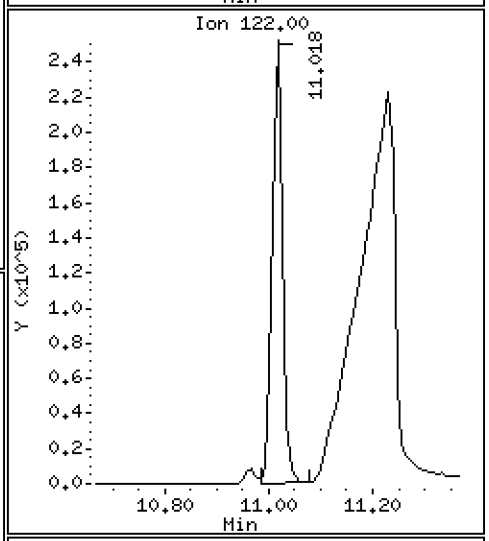


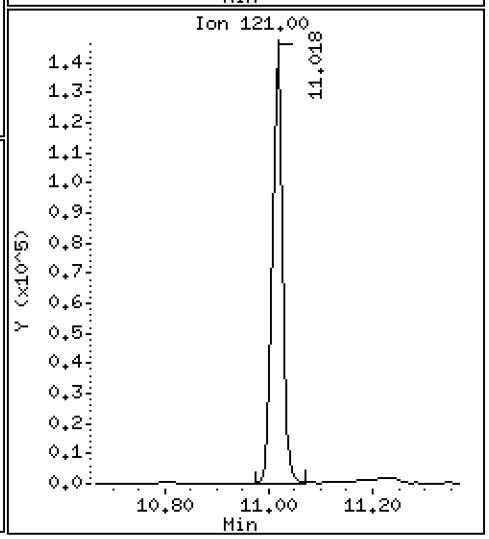












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

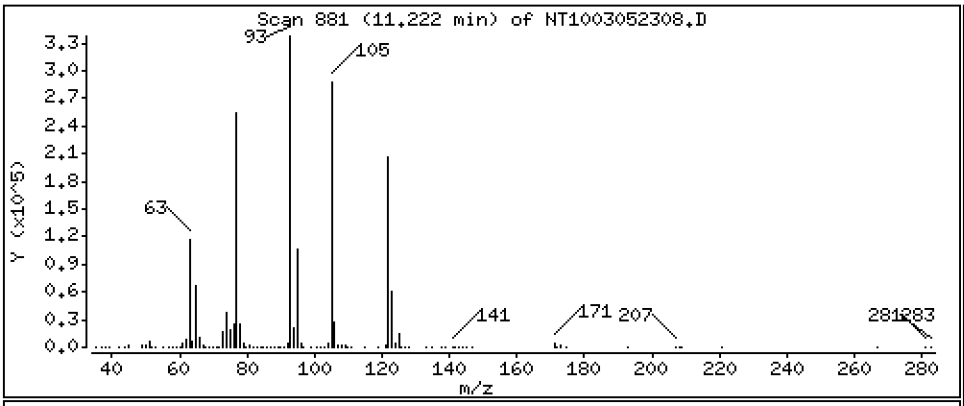
Operator: VTS

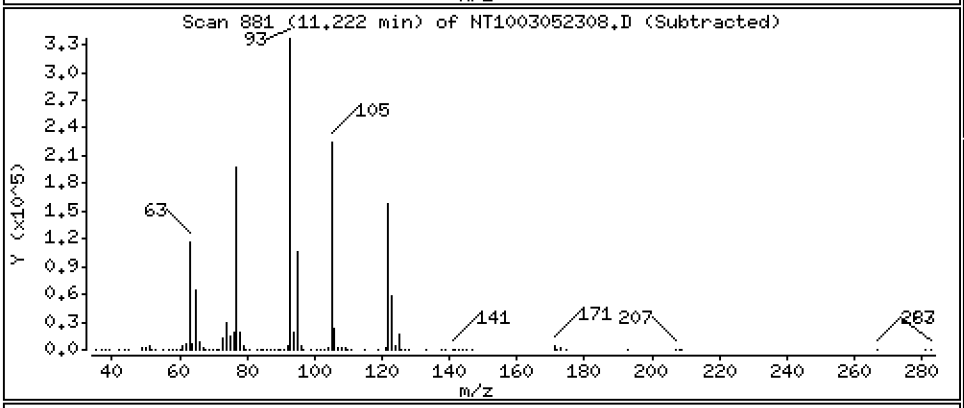
Column phase: ZB-5msi

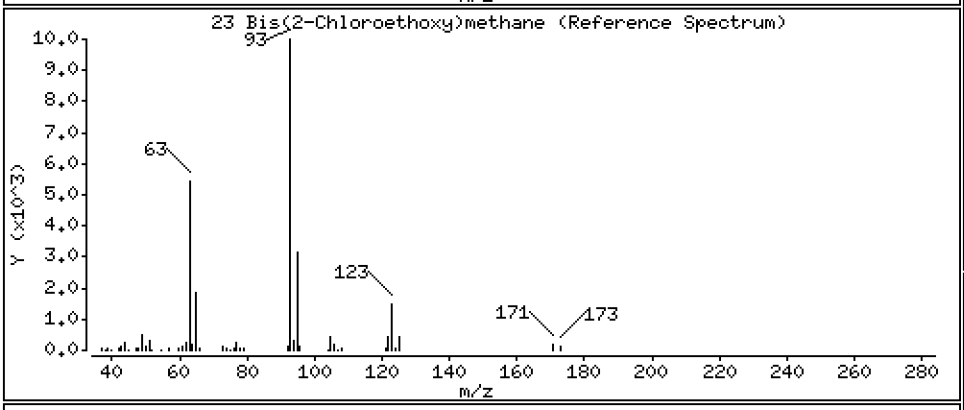
Column diameter: 0.25

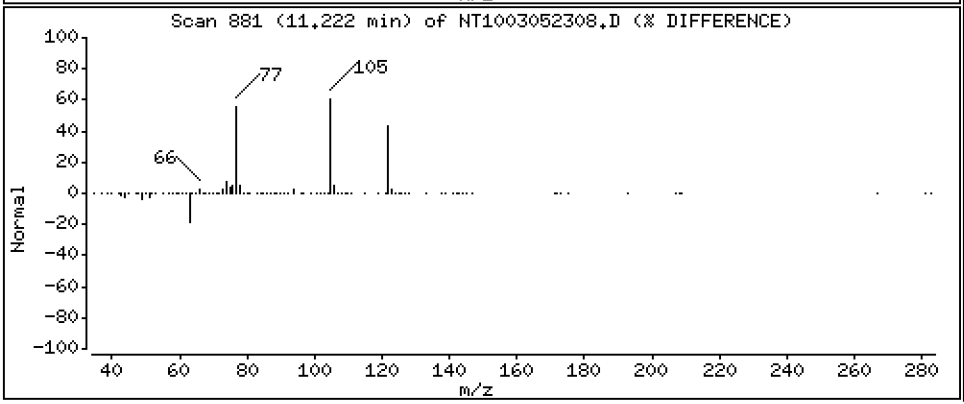
23 Bis(2-Chloroethoxy)methane

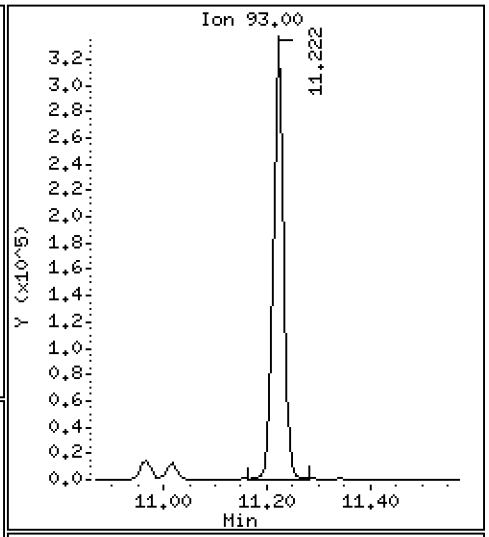
Concentration: 5.441 ug/mL

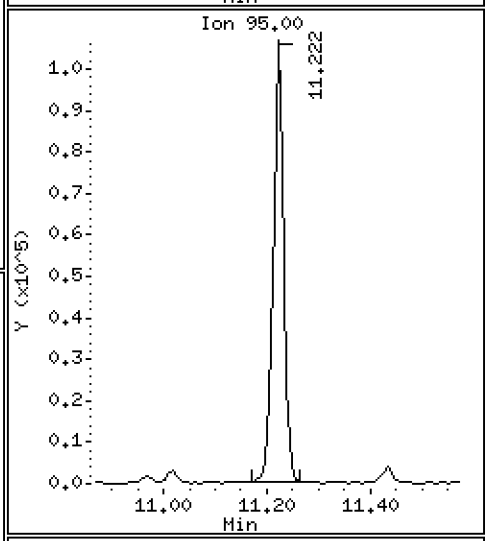


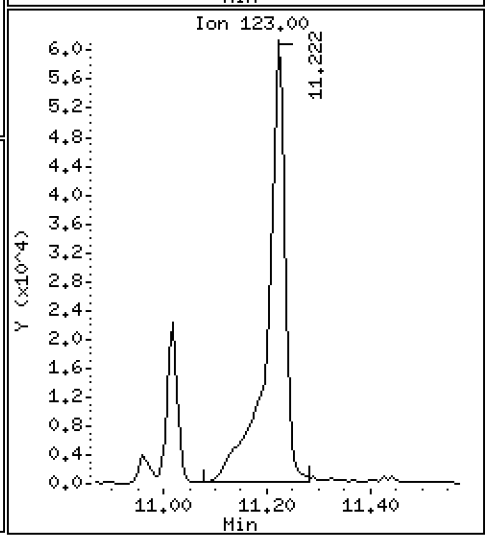












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

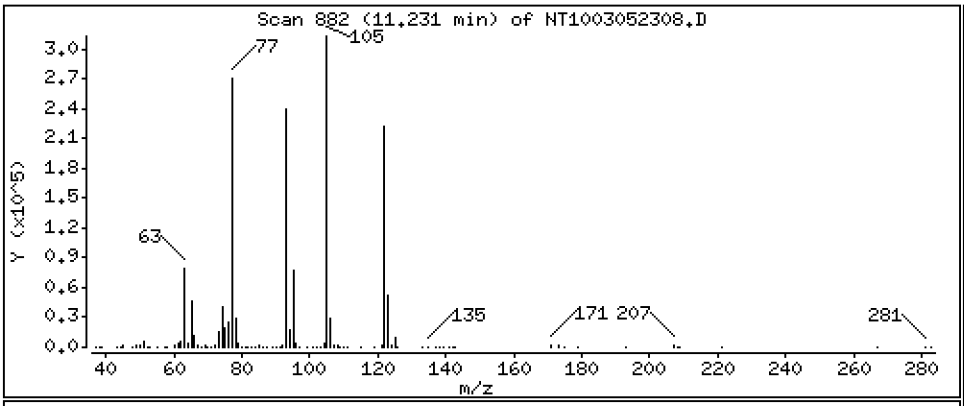
Operator: VTS

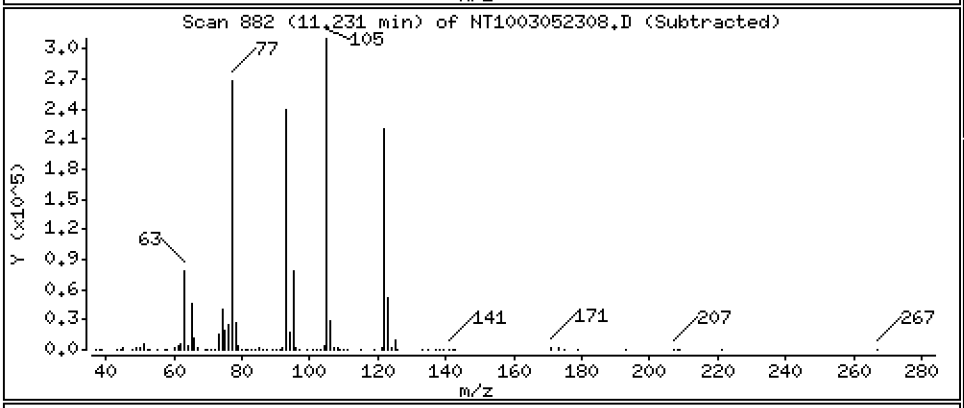
Column phase: ZB-5msi

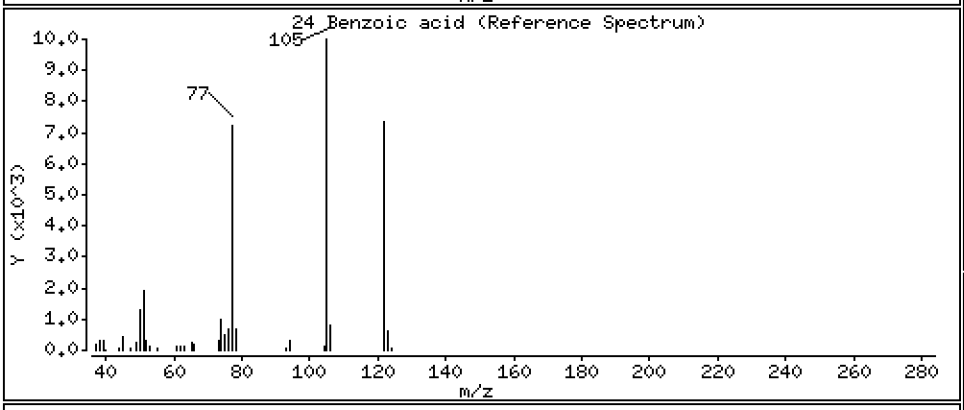
Column diameter: 0.25

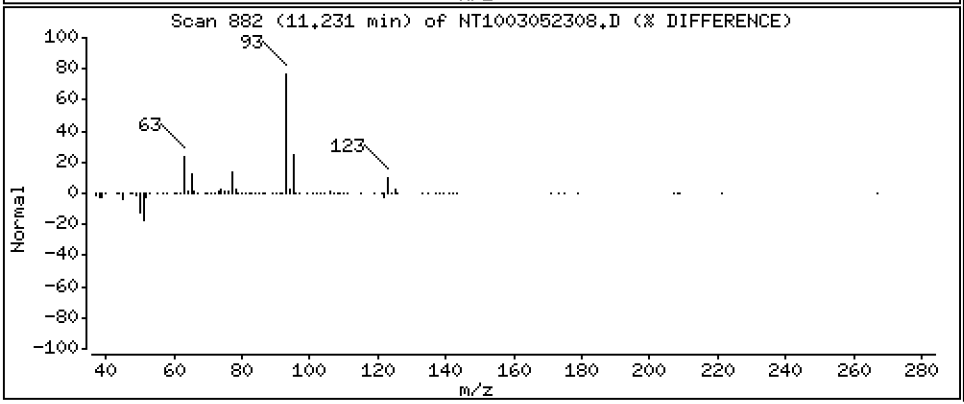
24 Benzoic acid

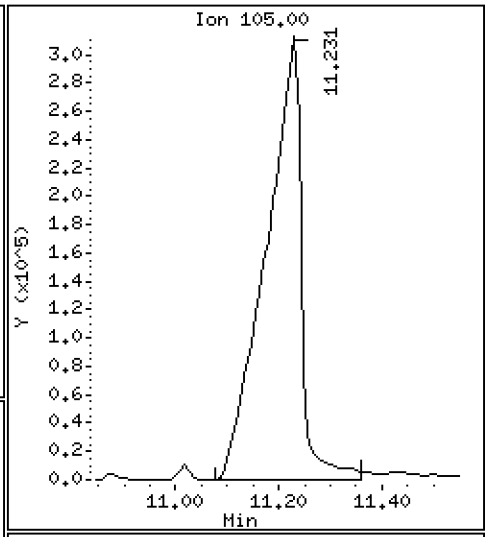
Concentration: 22.53 ug/mL

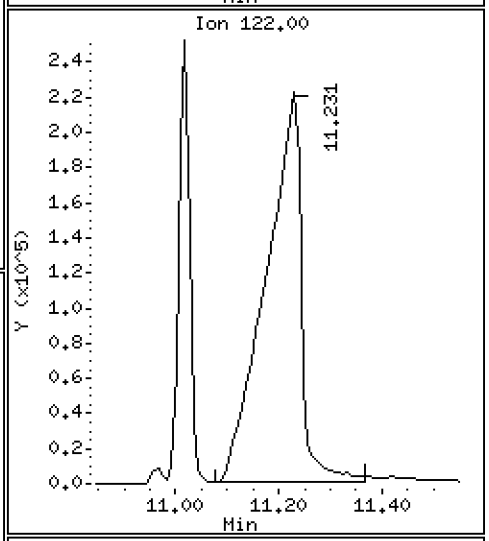


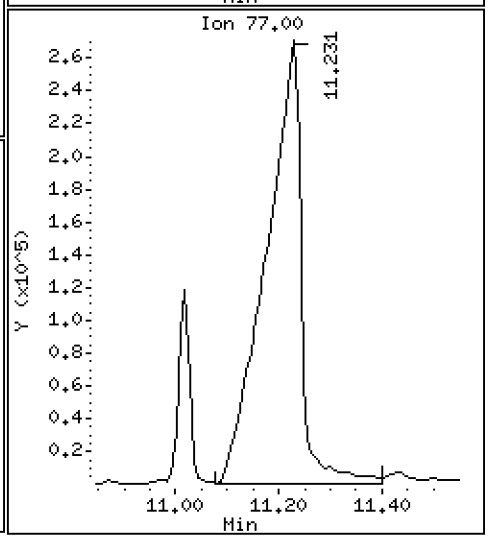












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

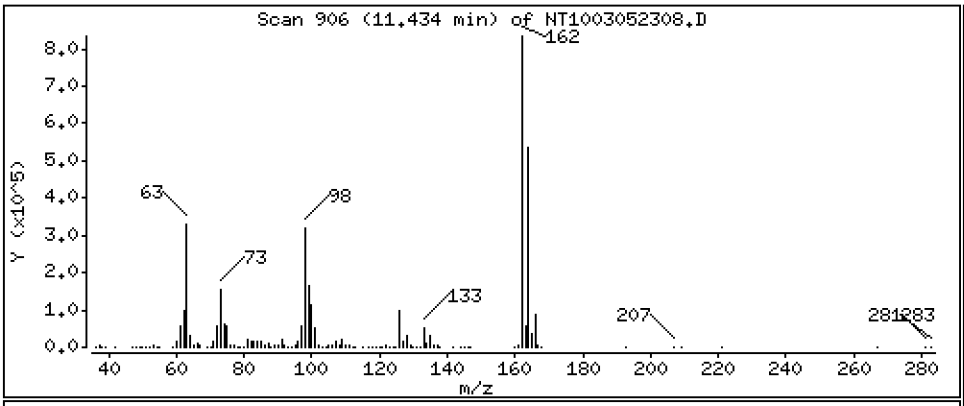
Operator: VTS

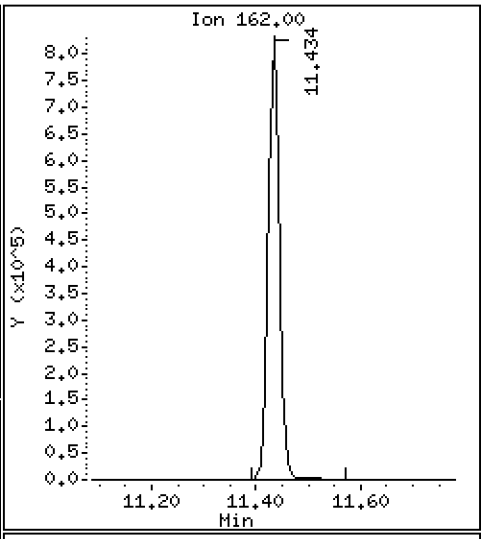
Column phase: ZB-5msi

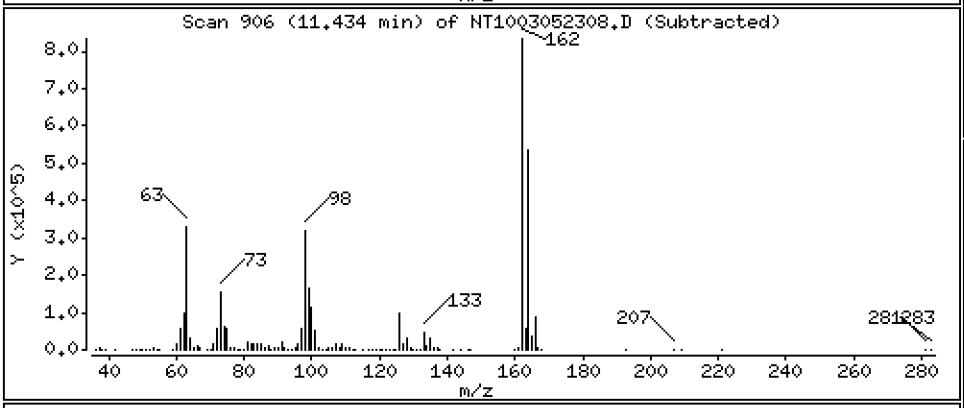
Column diameter: 0.25

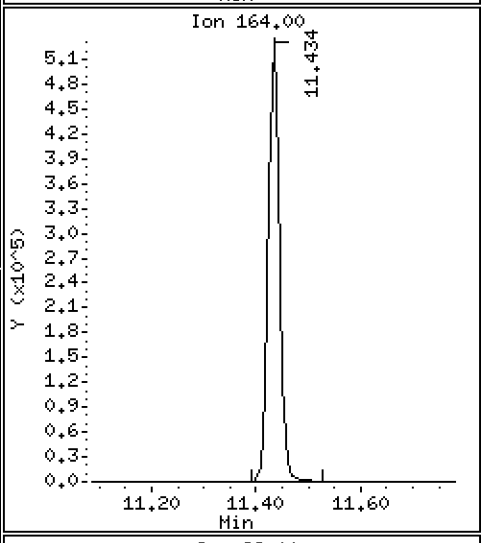
25 2,4-Dichlorophenol

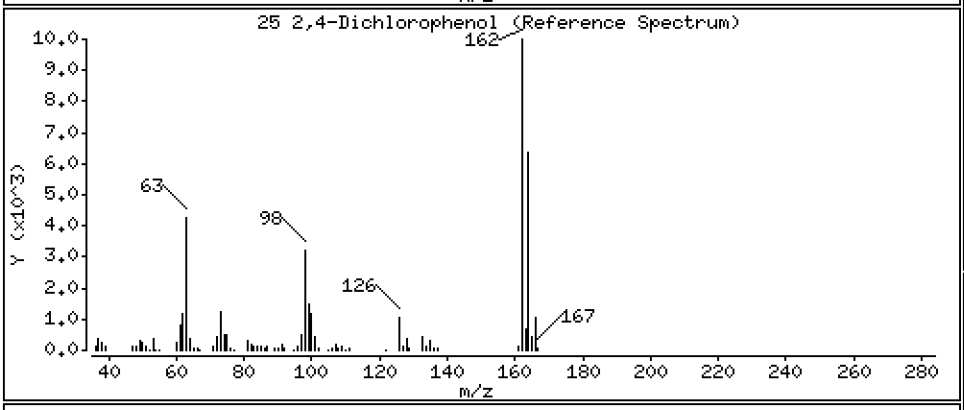
Concentration: 14.98 ug/mL

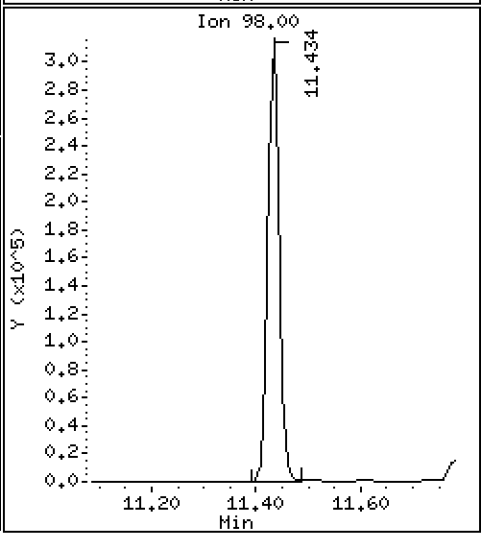


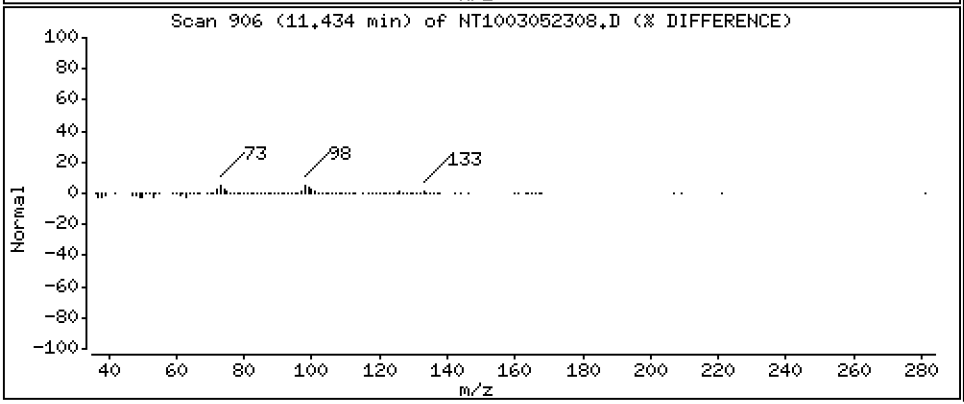












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

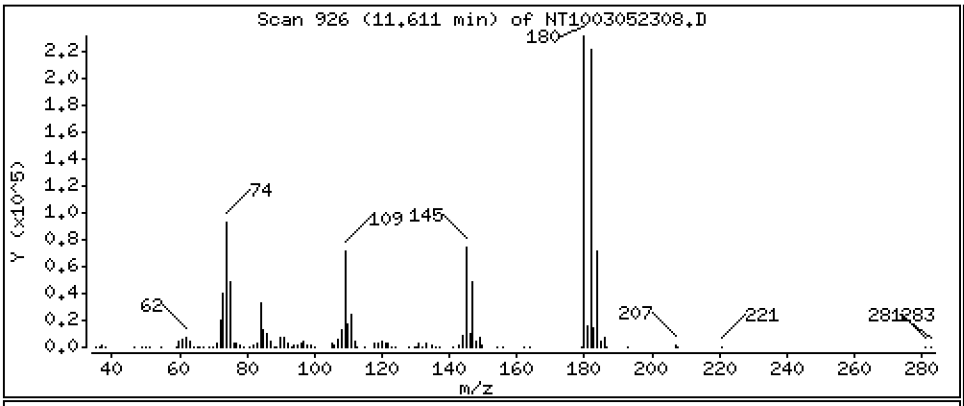
Operator: VTS

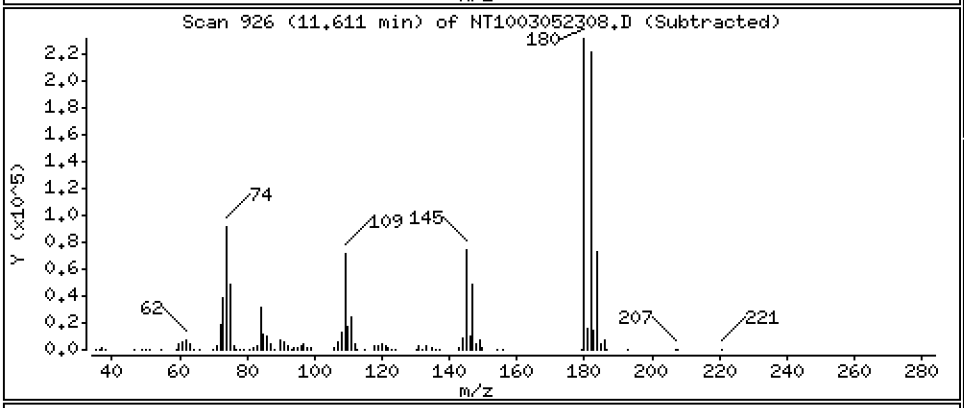
Column phase: ZB-5msi

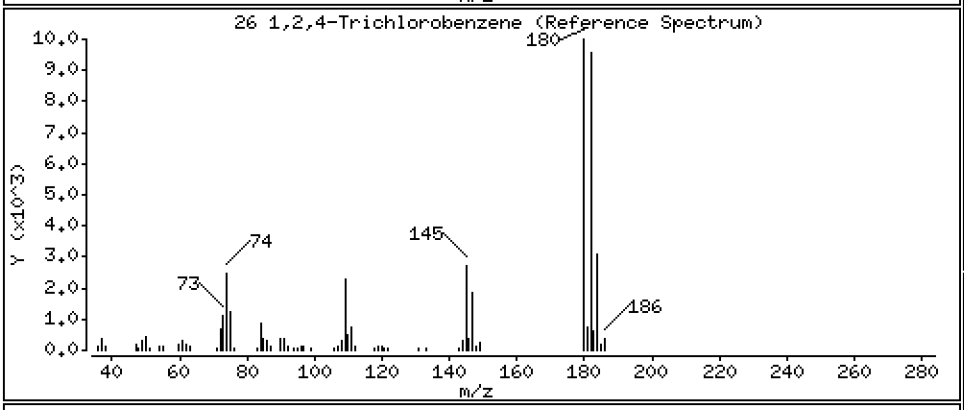
Column diameter: 0.25

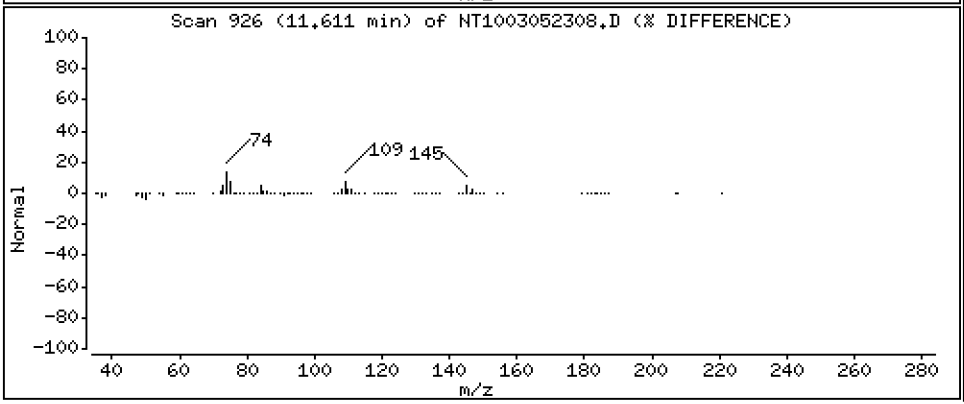
26 1,2,4-Trichlorobenzene

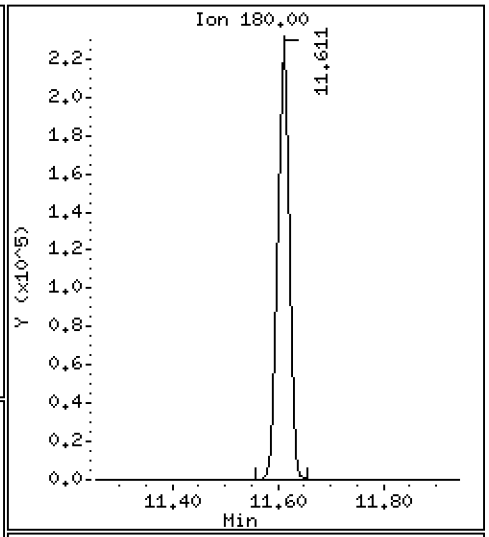
Concentration: 4.149 ug/mL

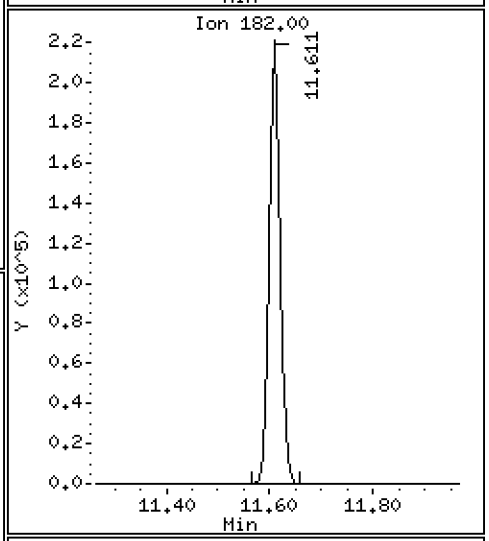


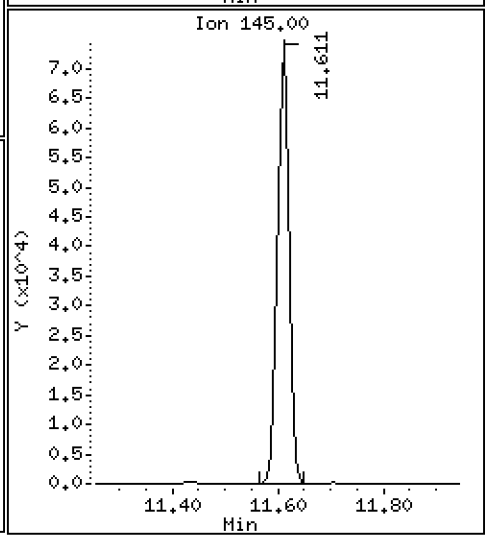












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

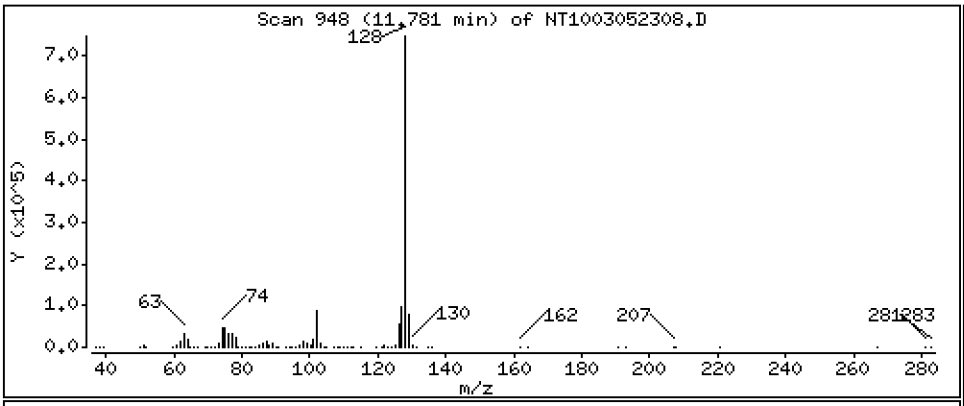
Operator: VTS

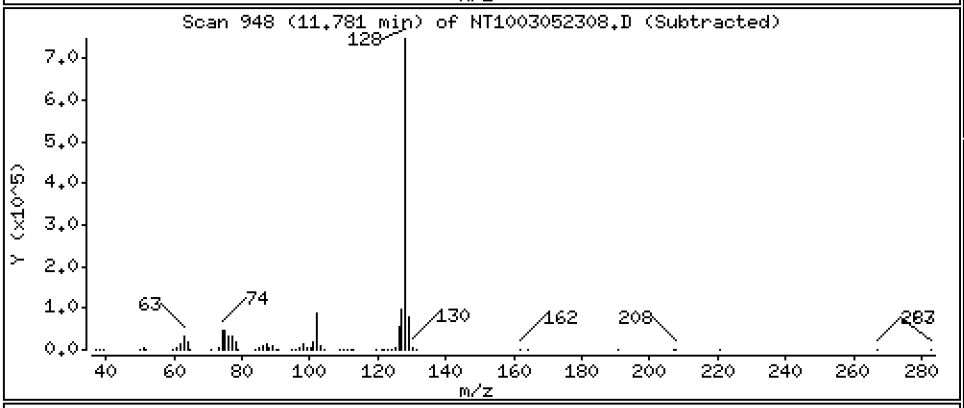
Column phase: ZB-5msi

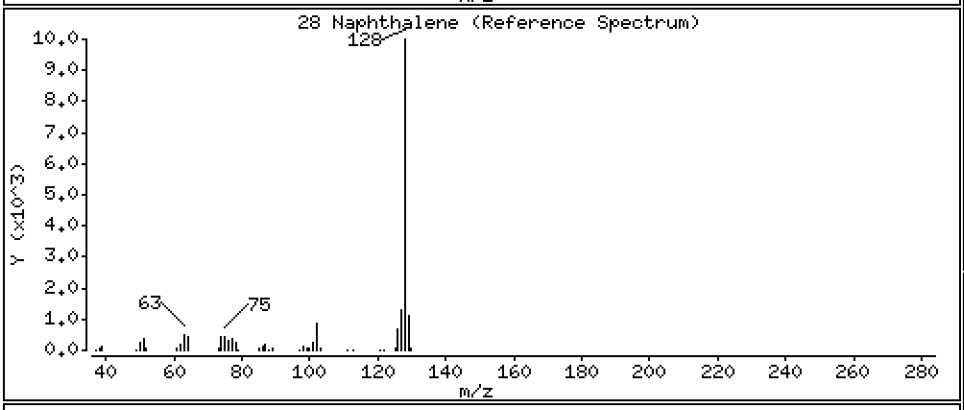
Column diameter: 0.25

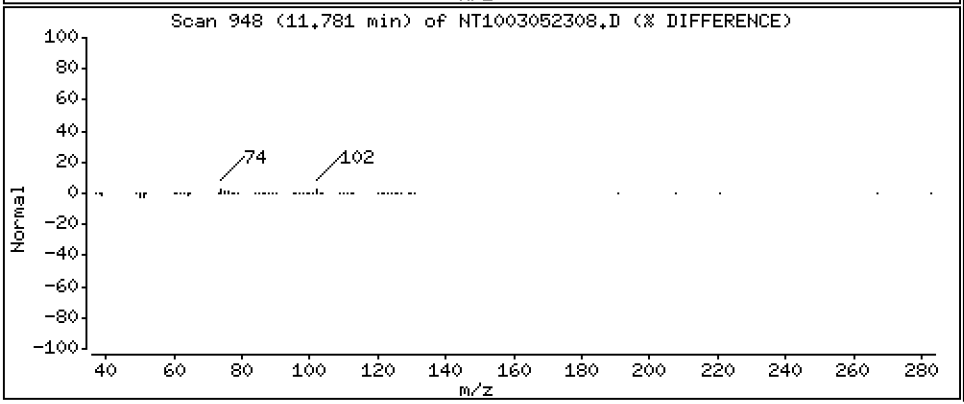
28 Naphthalene

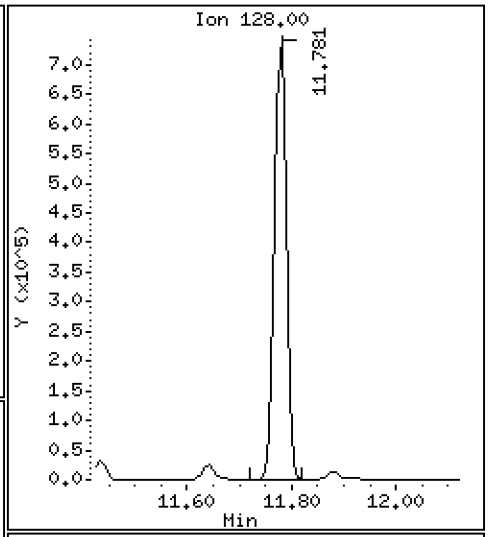
Concentration: 4.027 ug/mL

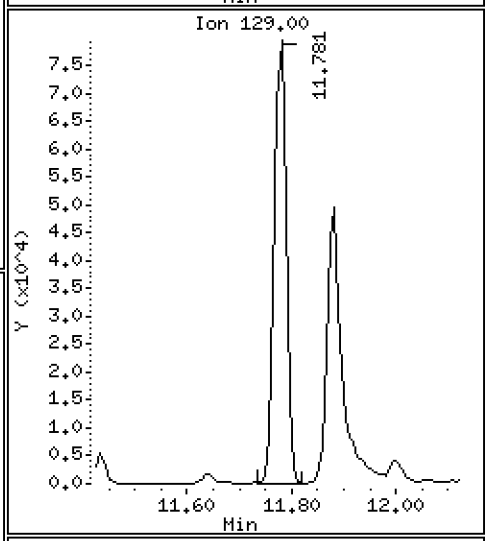


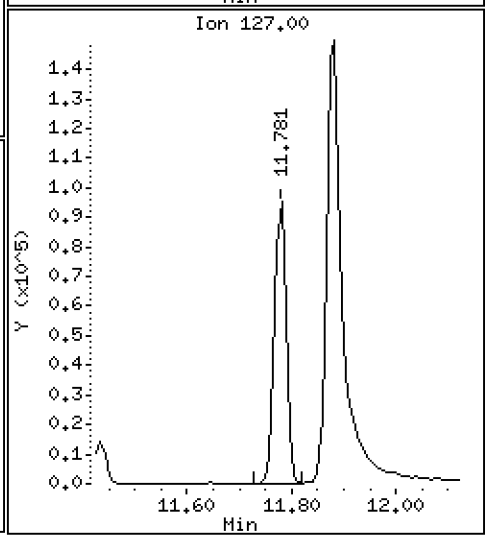












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

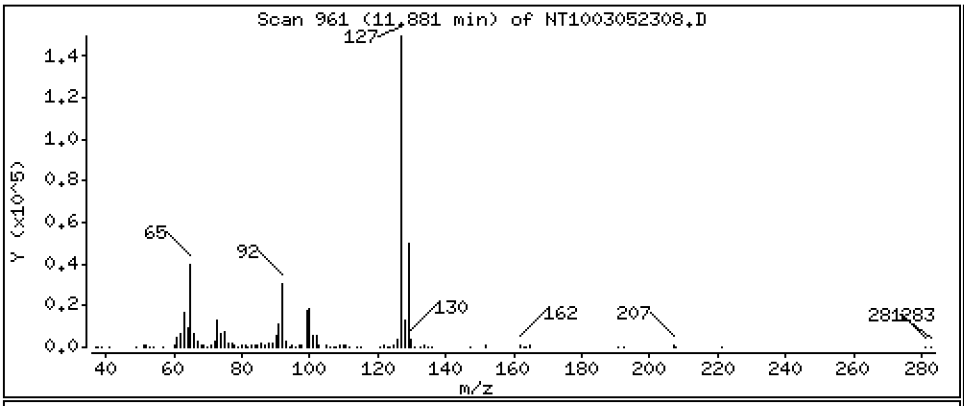
Operator: VTS

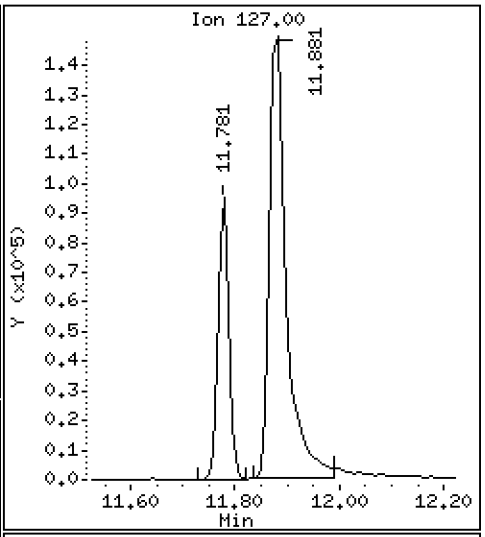
Column phase: ZB-5msi

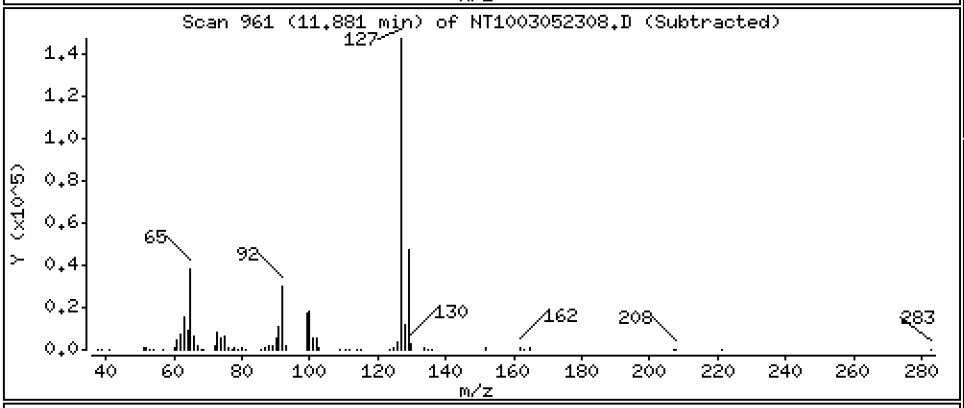
Column diameter: 0.25

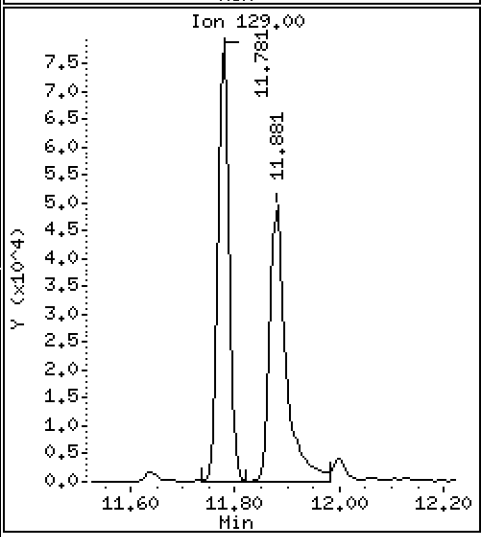
29 4-Chloroaniline

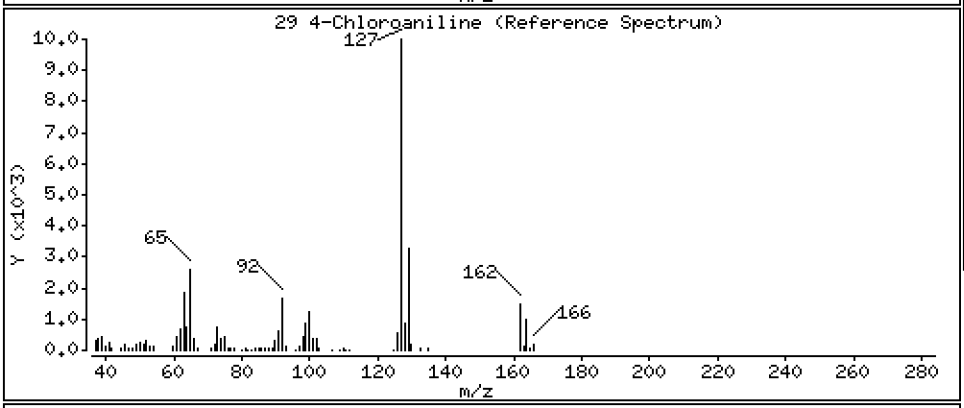
Concentration: 2.929 ug/mL

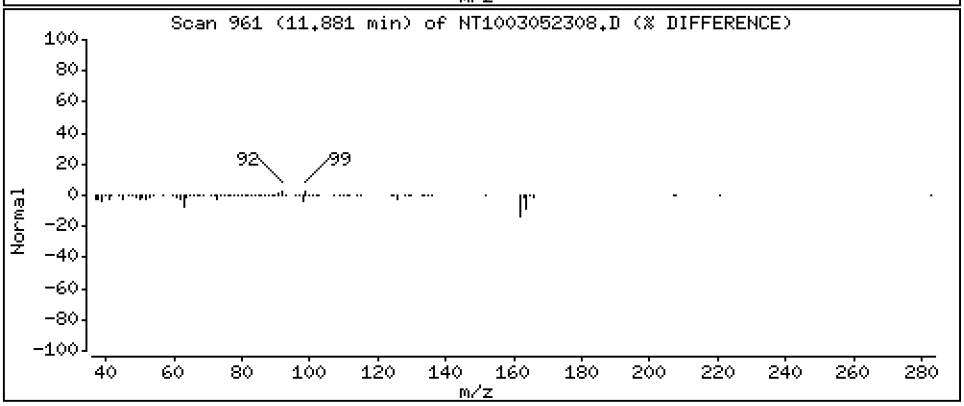












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

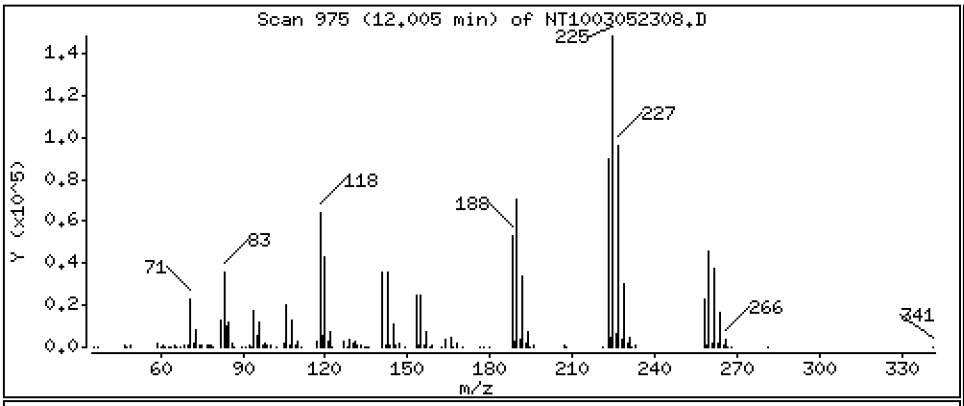
Operator: VTS

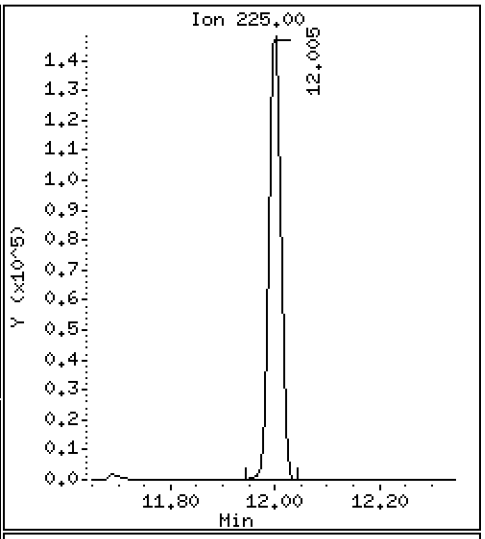
Column phase: ZB-5msi

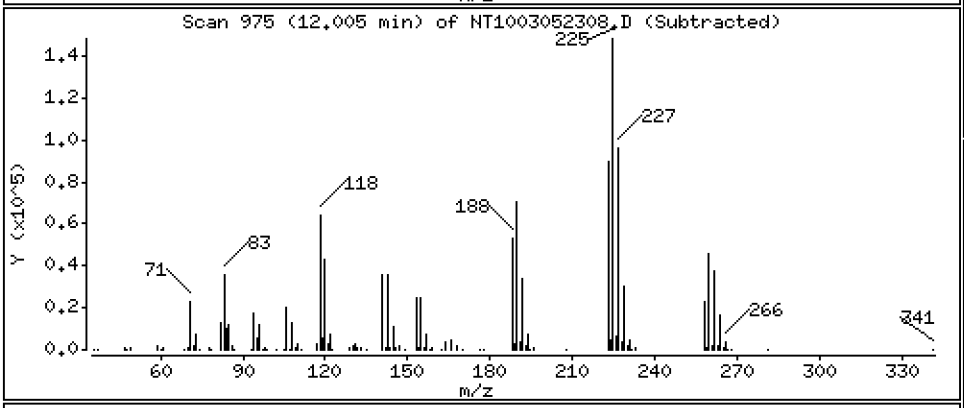
Column diameter: 0.25

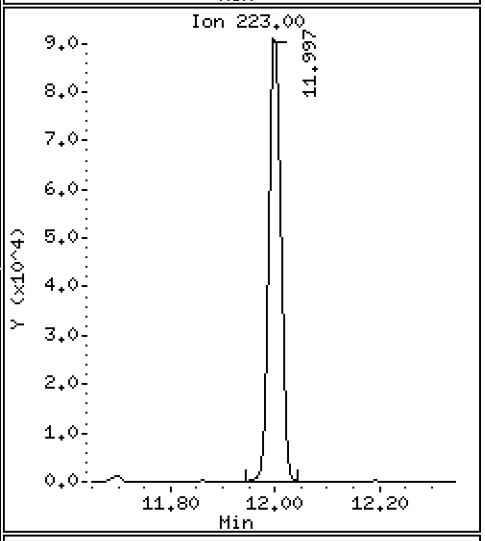
30 Hexachlorobutadiene

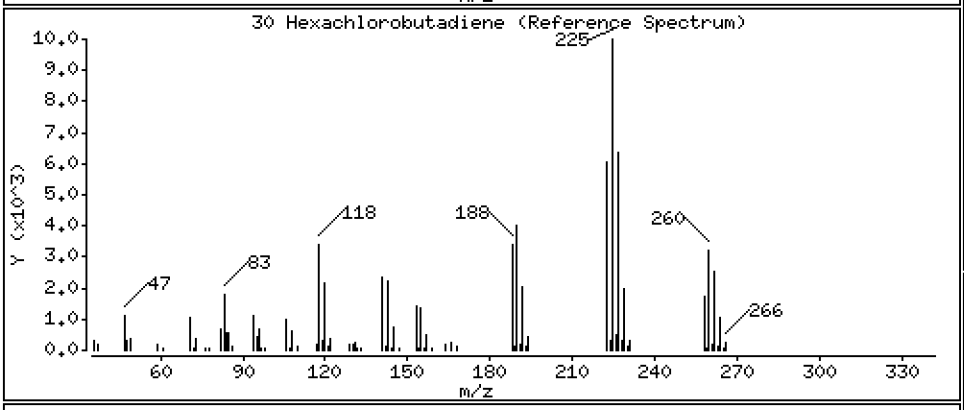
Concentration: 4.417 ug/mL

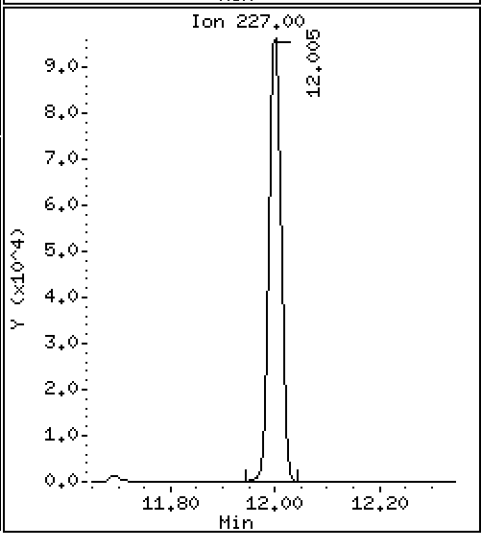


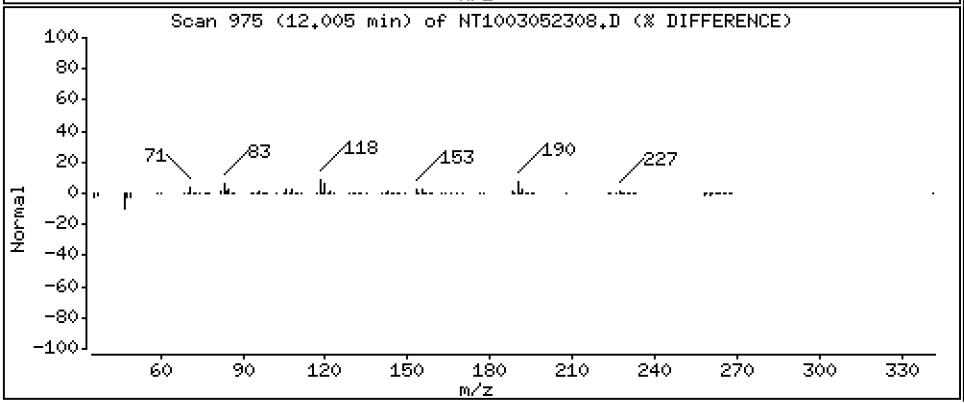












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

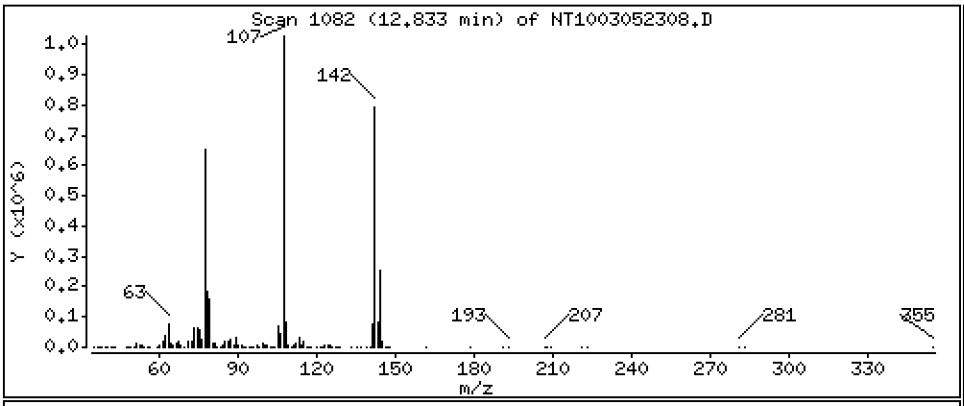
Operator: VTS

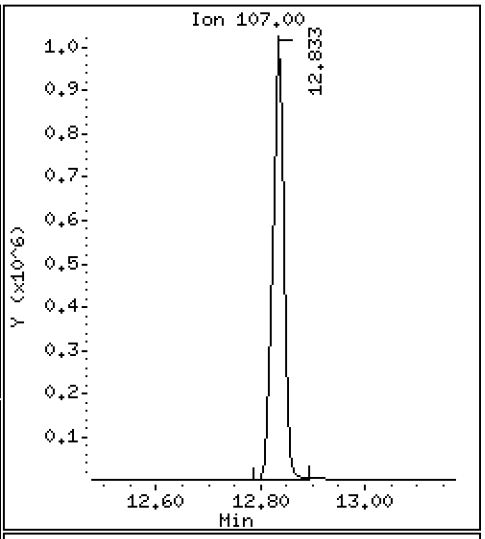
Column phase: ZB-5msi

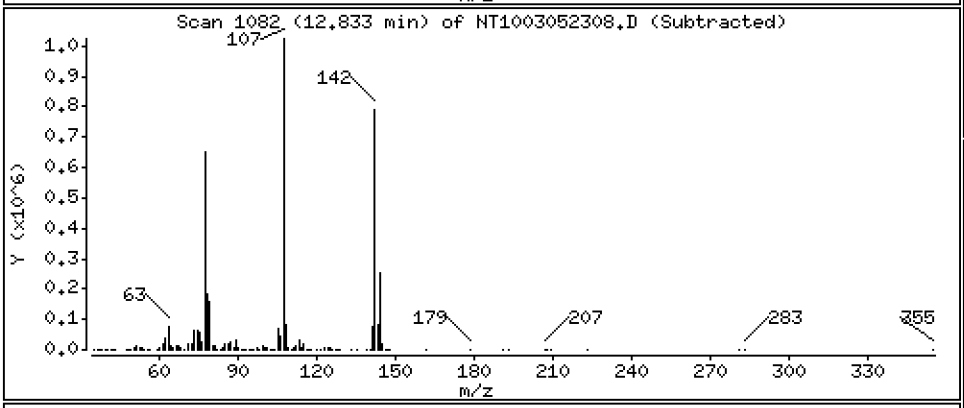
Column diameter: 0.25

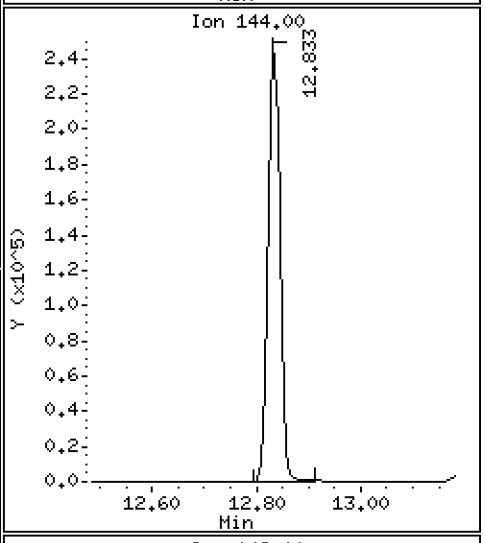
31 4-Chloro-3-methylphenol

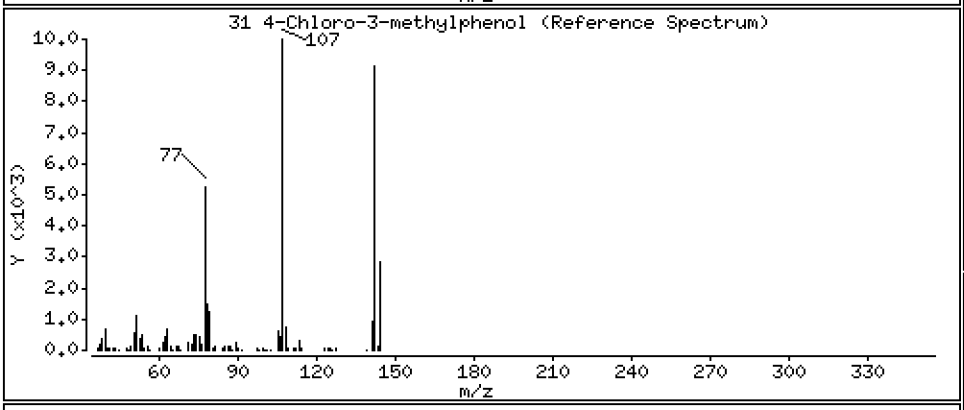
Concentration: 15.78 ug/mL

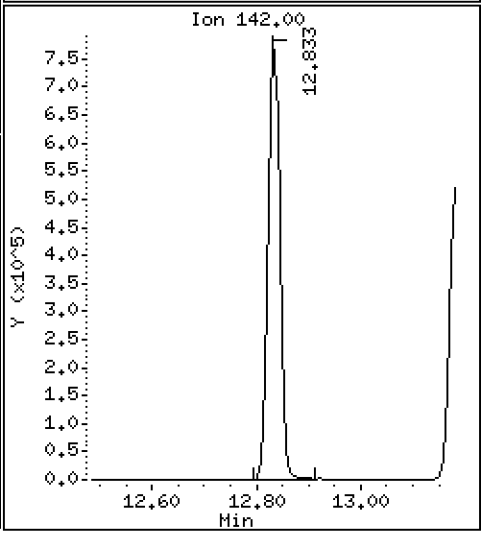


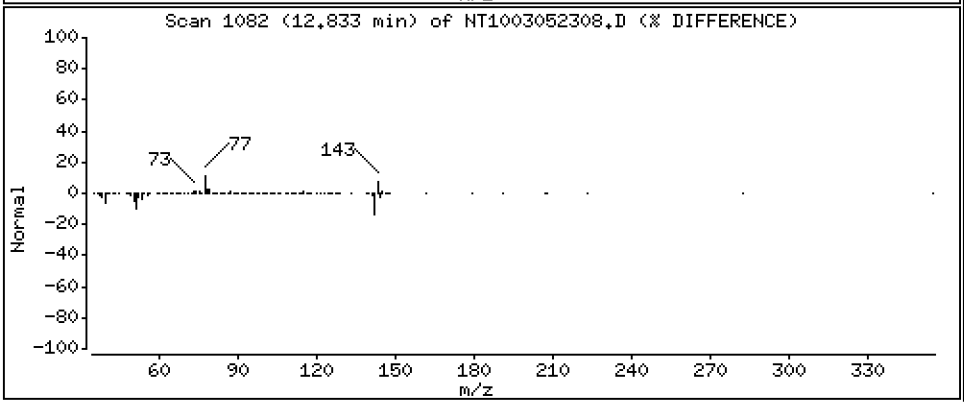












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

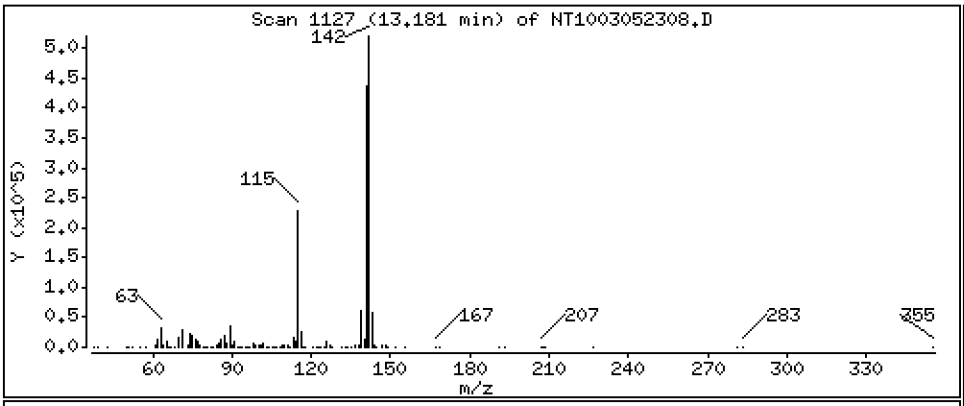
Operator: VTS

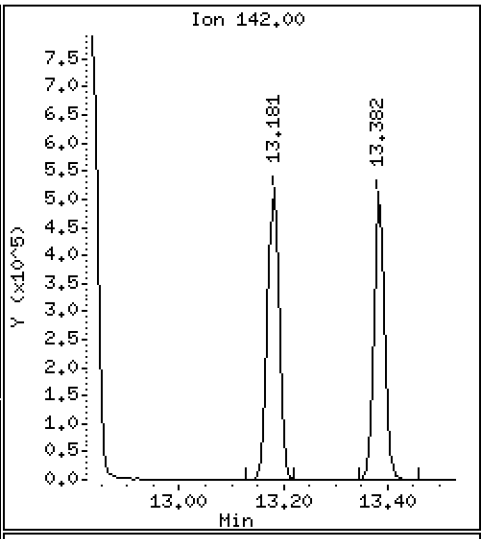
Column phase: ZB-5msi

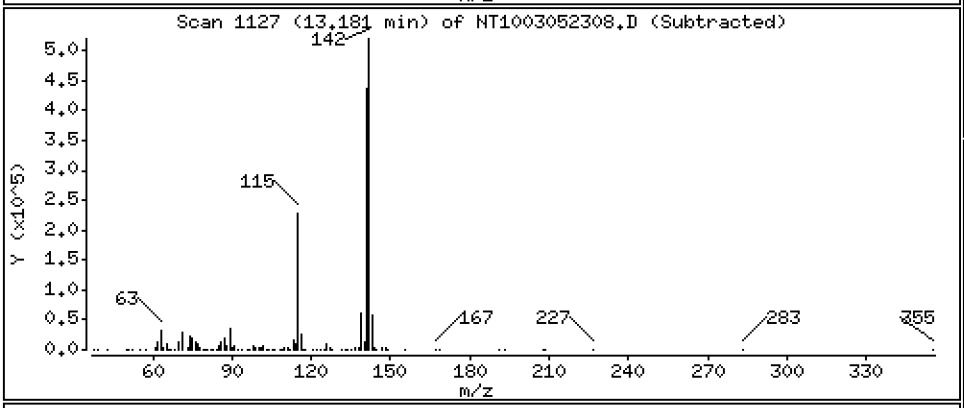
Column diameter: 0.25

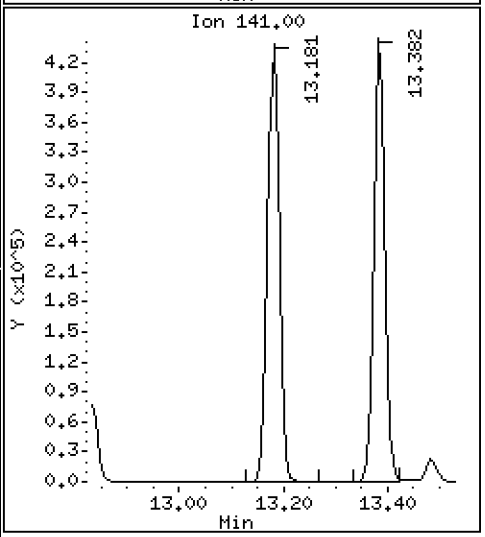
32 2-Methylnaphthalene

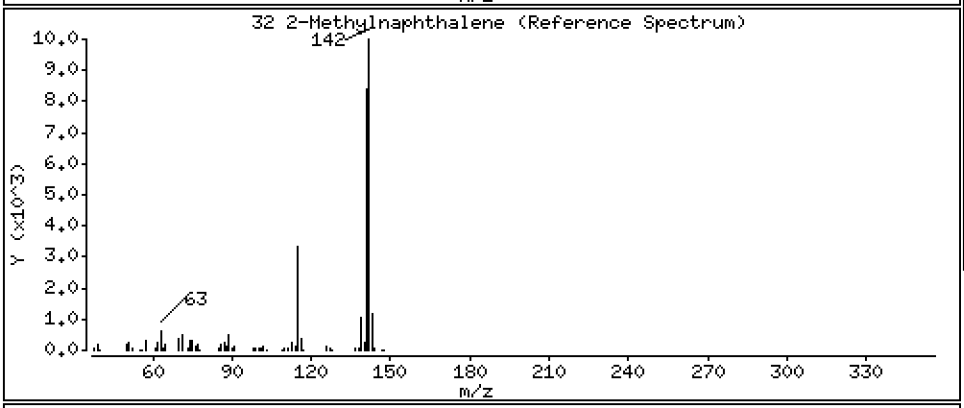
Concentration: 3.945 ug/mL

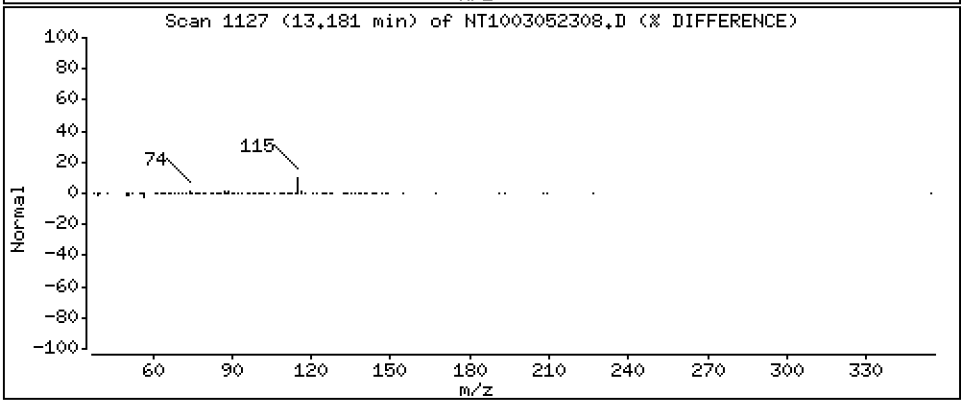












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

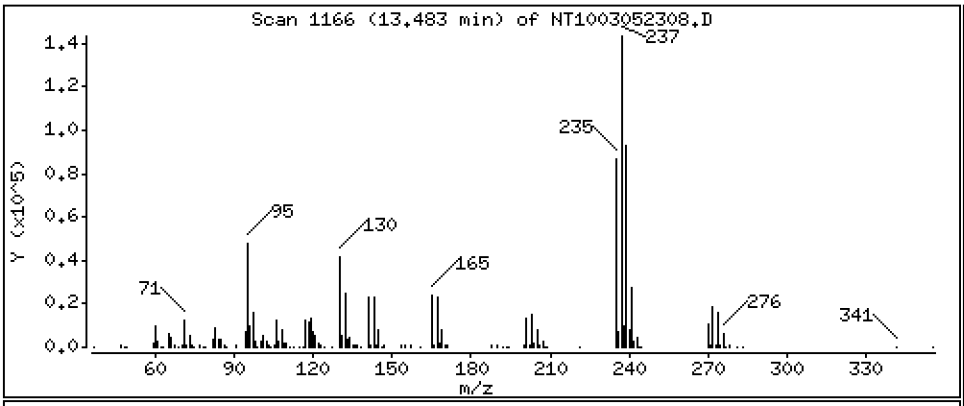
Operator: VTS

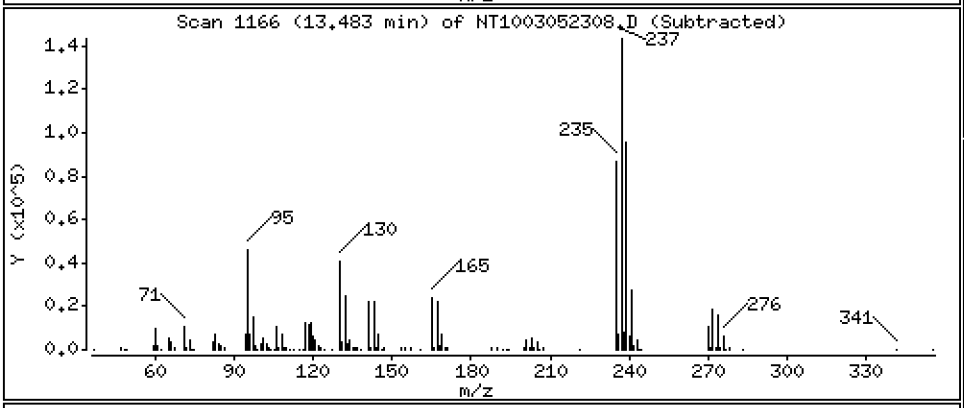
Column phase: ZB-5msi

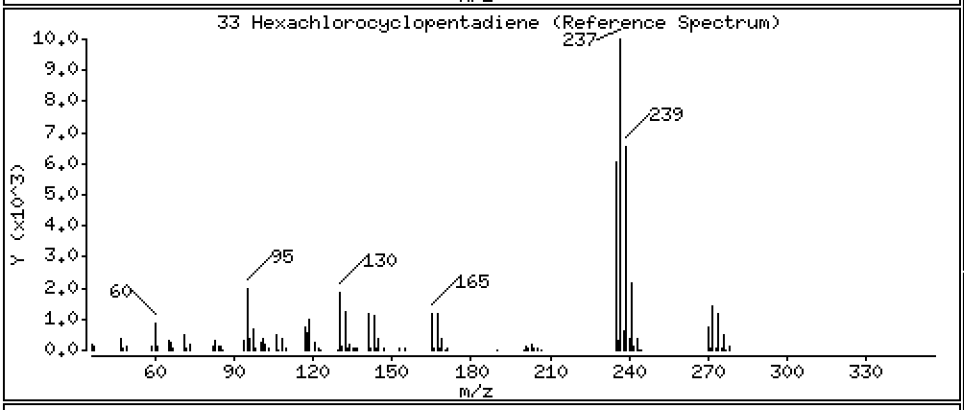
Column diameter: 0.25

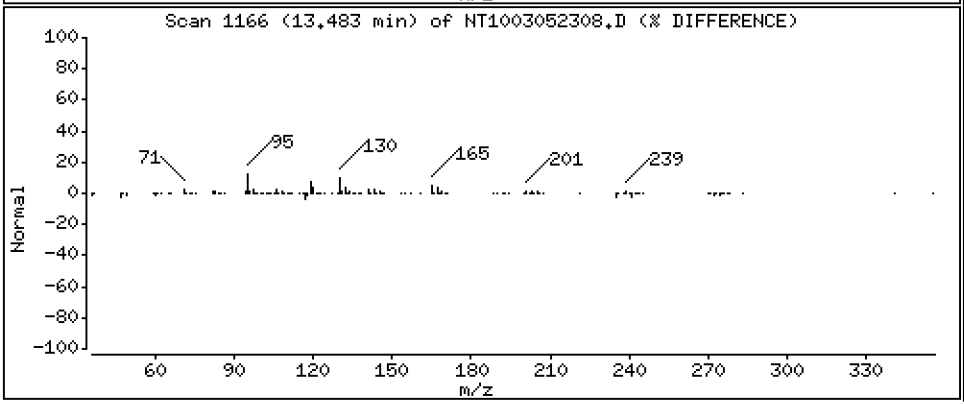
33 Hexachlorocyclopentadiene

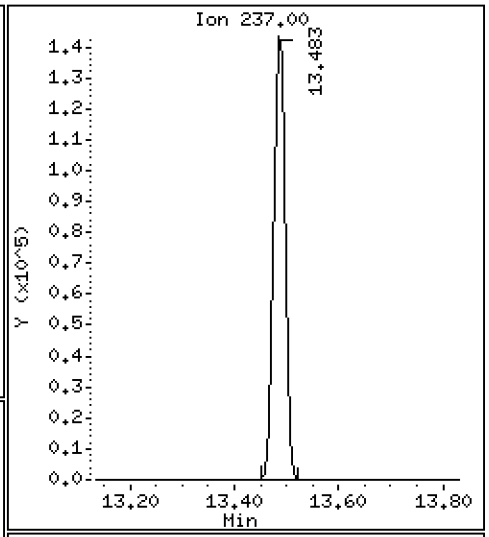
Concentration: 10.58 ug/mL

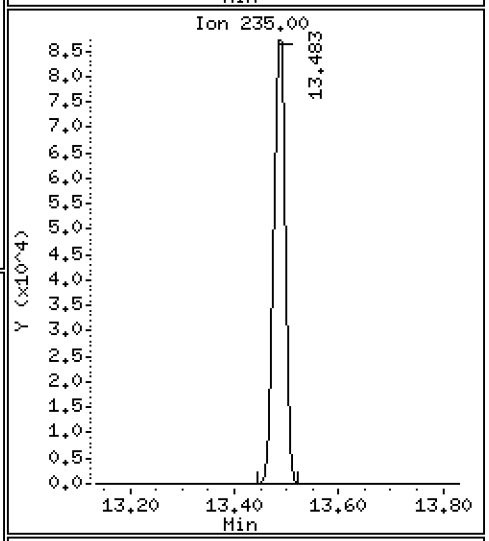


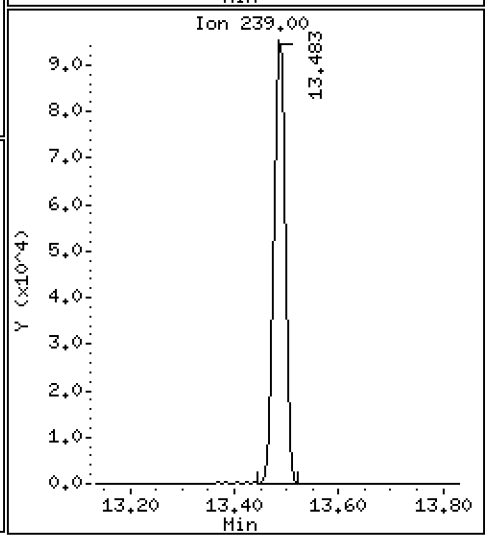












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

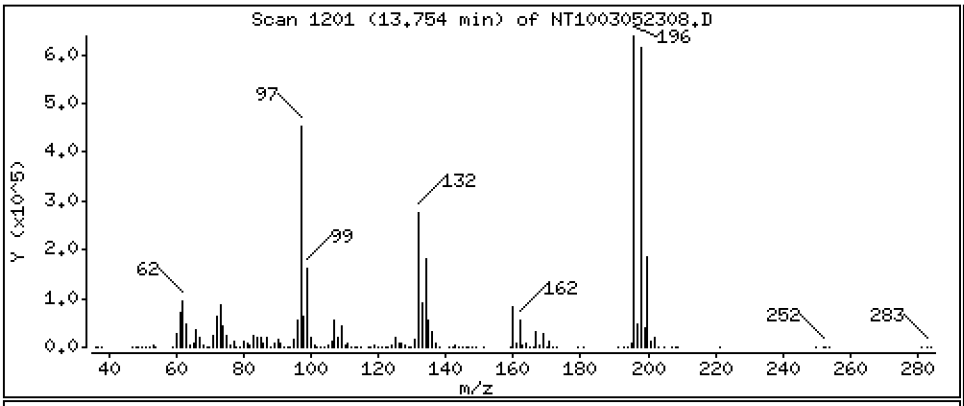
Operator: VTS

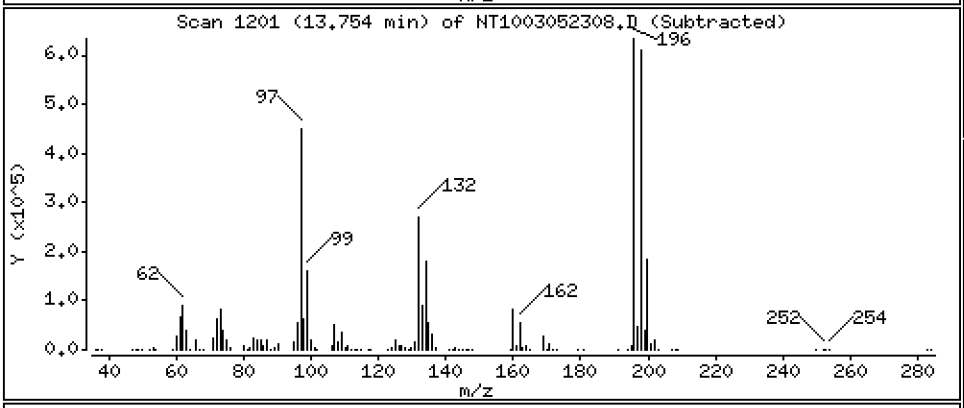
Column phase: ZB-5msi

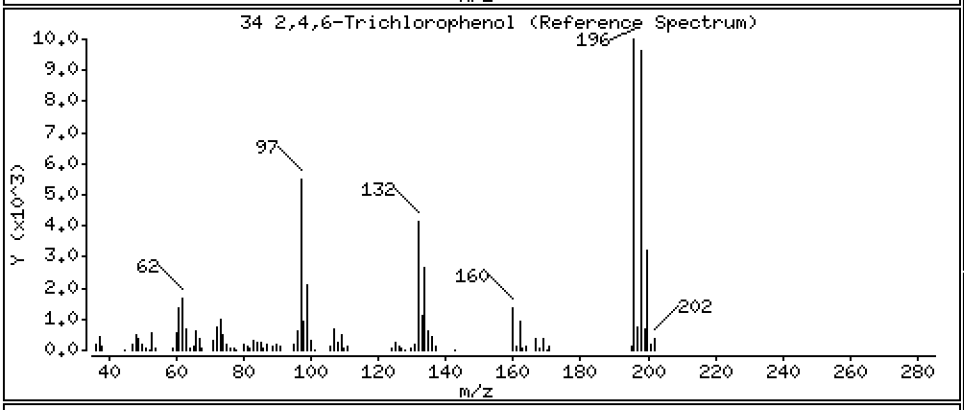
Column diameter: 0.25

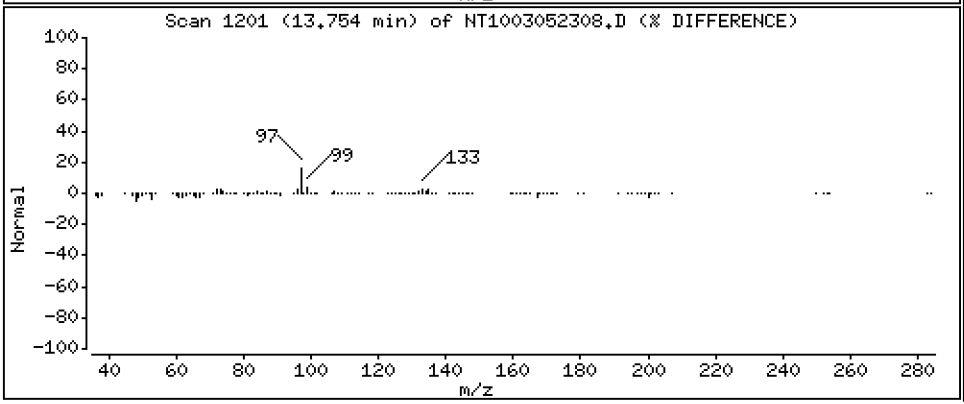
34 2,4,6-Trichlorophenol

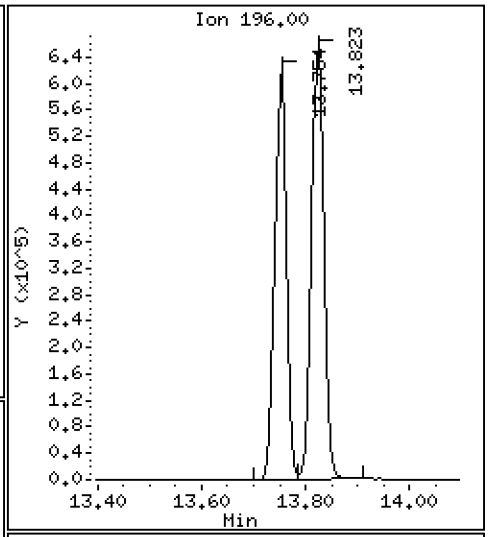
Concentration: 16.25 ug/mL

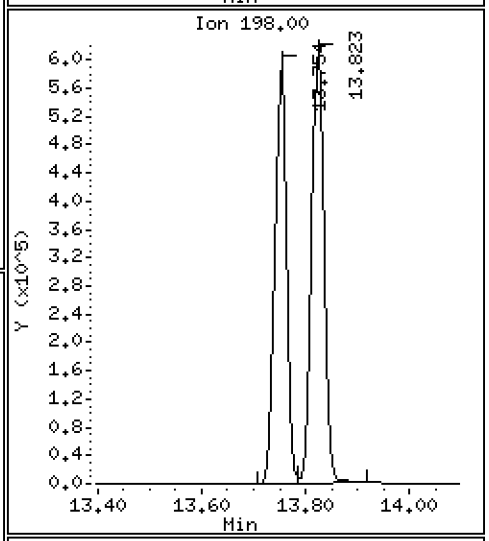


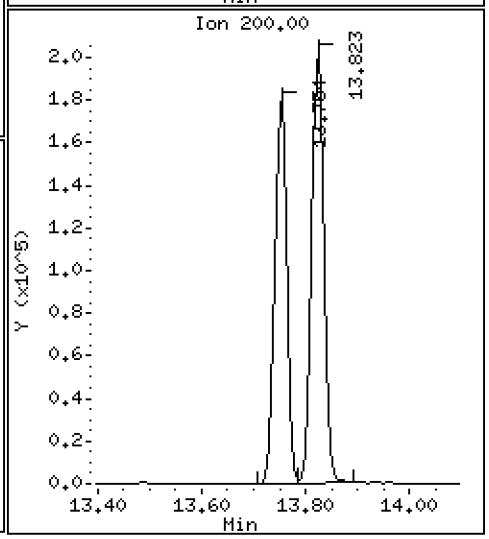












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

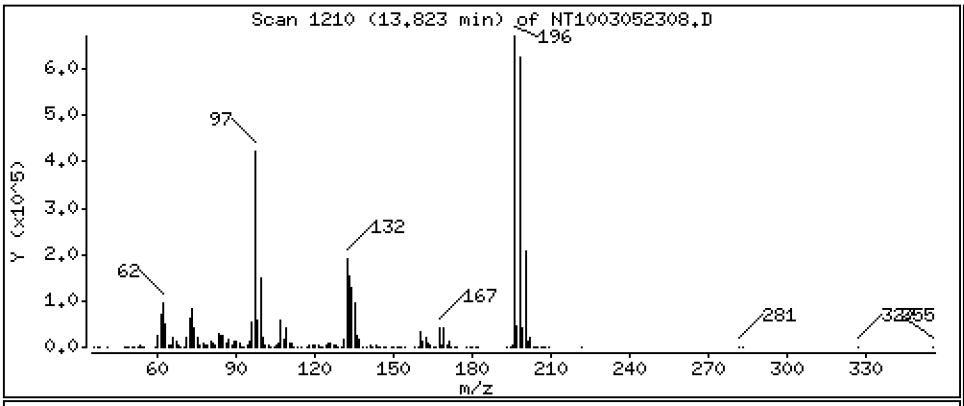
Operator: VTS

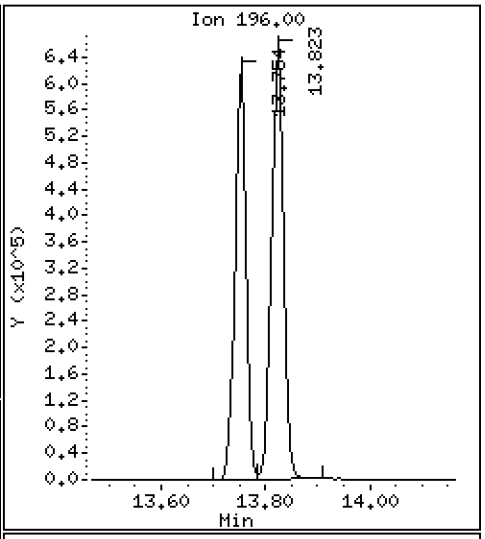
Column phase: ZB-5msi

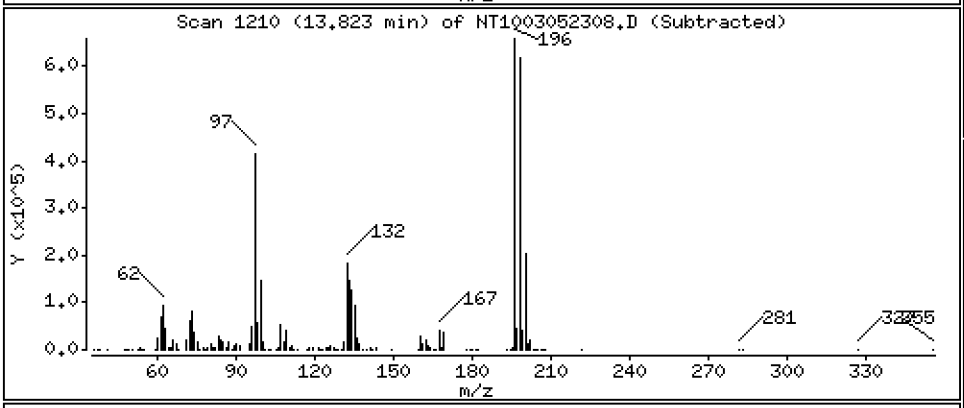
Column diameter: 0.25

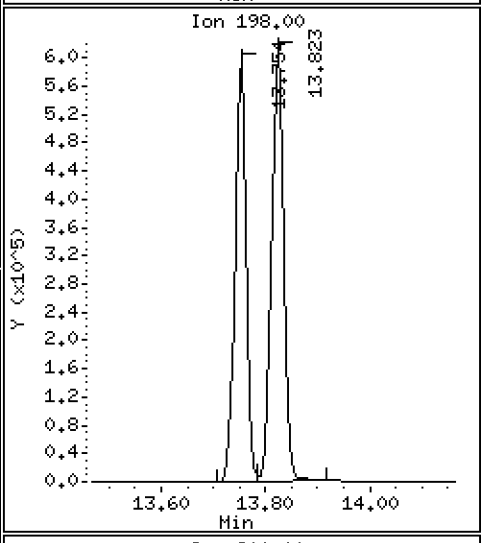
35 2,4,5-Trichlorophenol

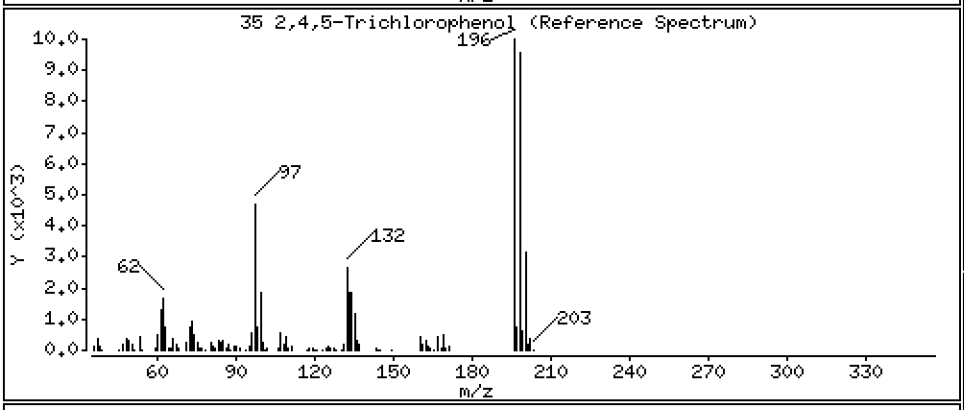
Concentration: 16.66 ug/mL

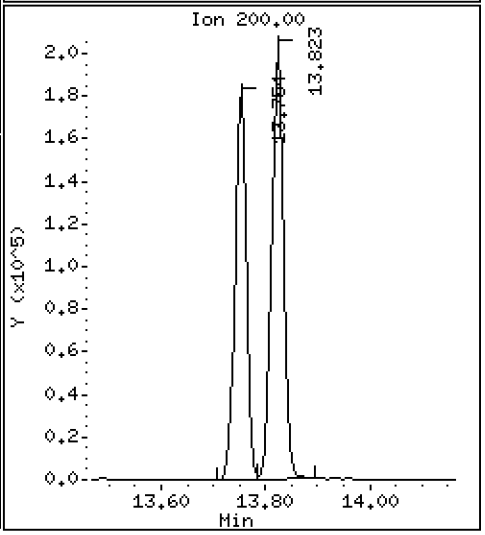


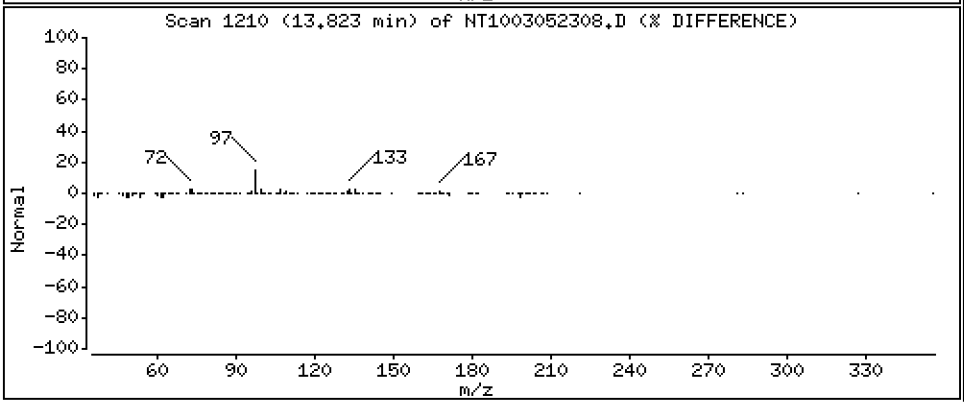












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

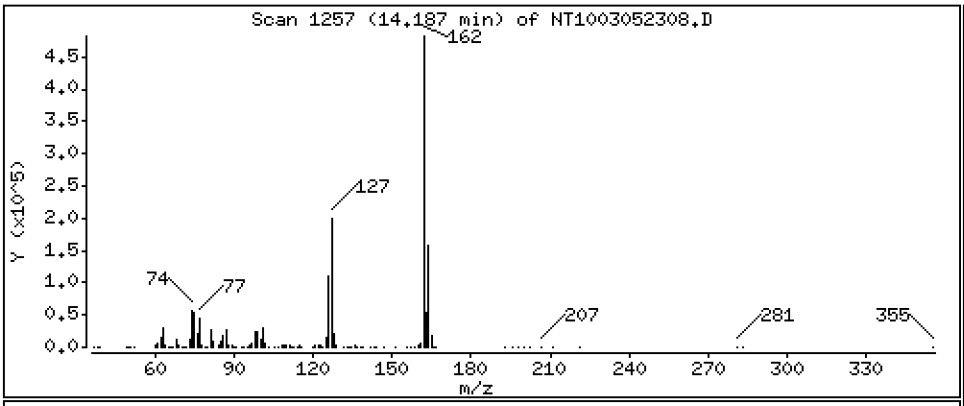
Operator: VTS

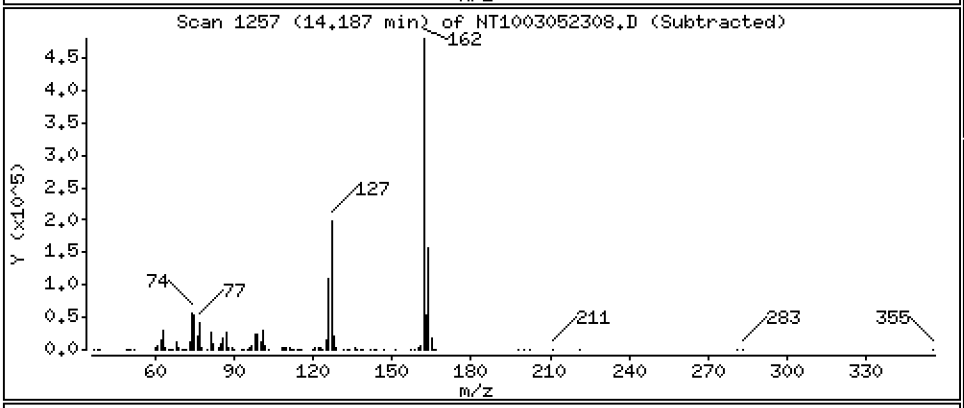
Column phase: ZB-5msi

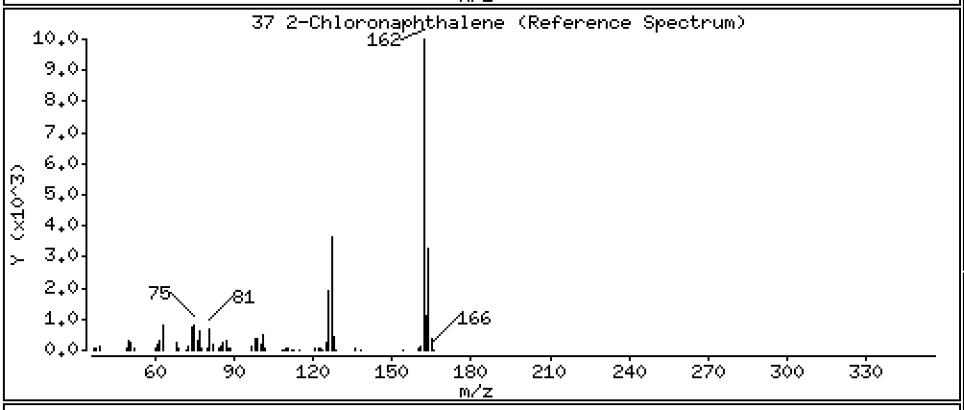
Column diameter: 0.25

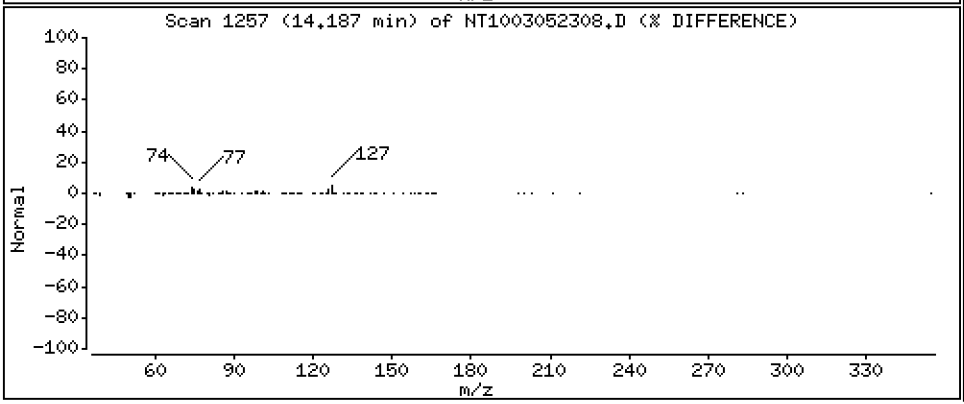
37 2-Chloronaphthalene

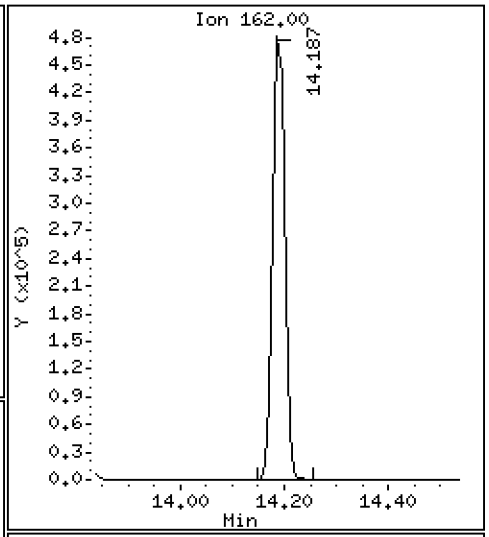
Concentration: 4.691 ug/mL

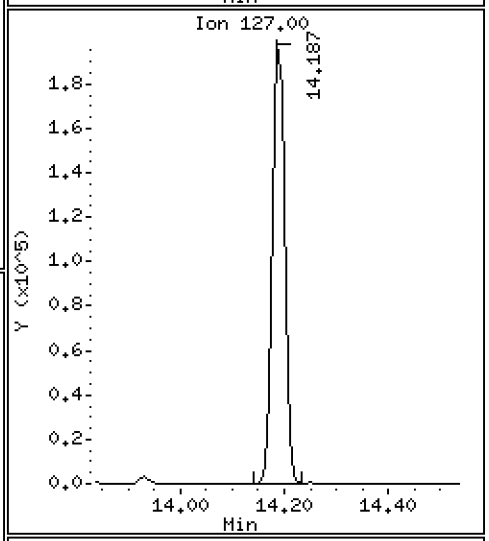


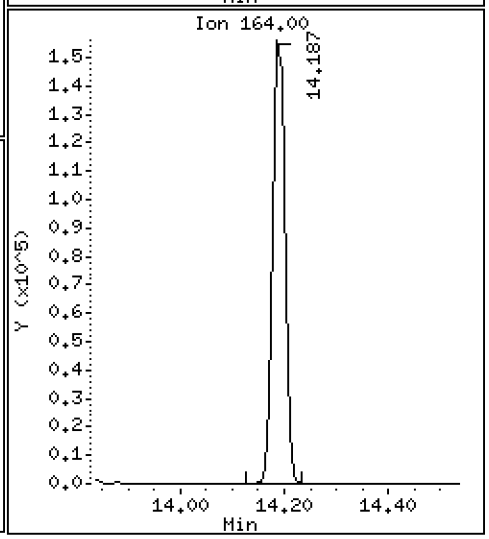












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

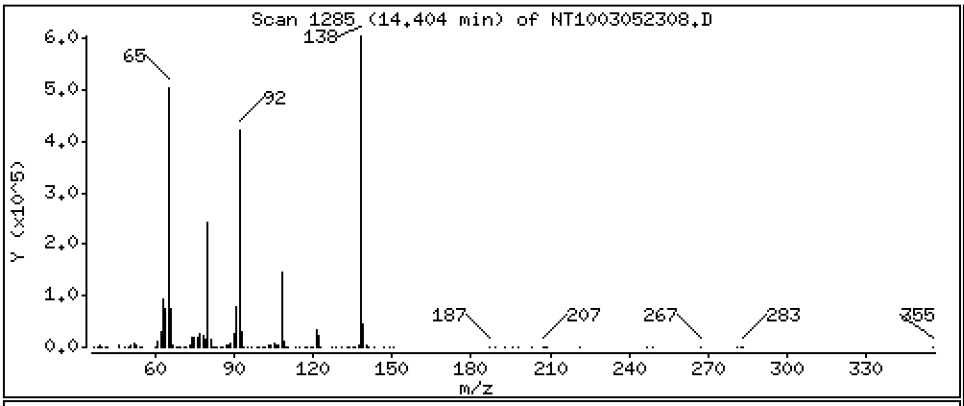
Operator: VTS

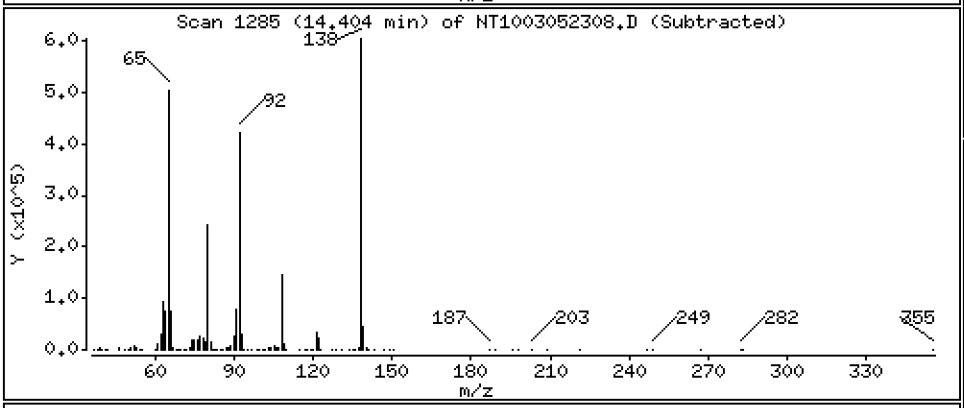
Column phase: ZB-5msi

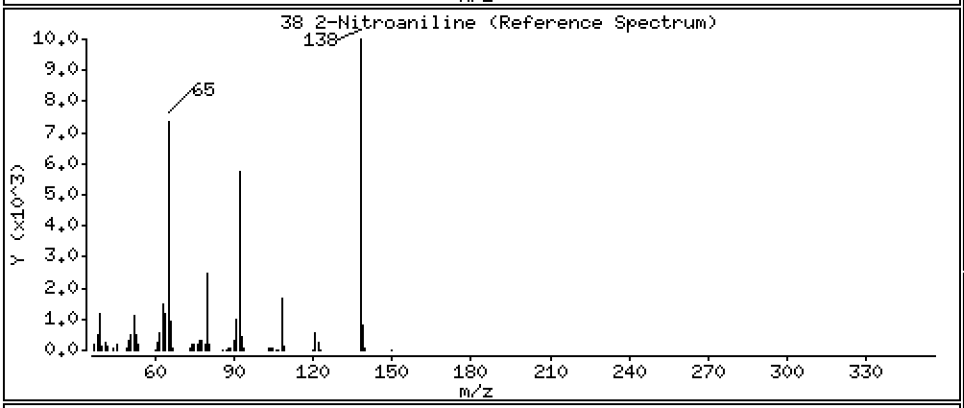
Column diameter: 0.25

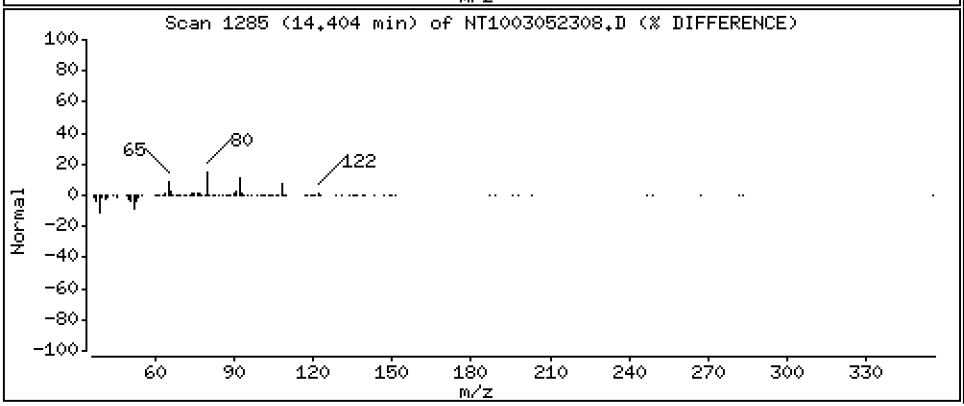
38 2-Nitroaniline

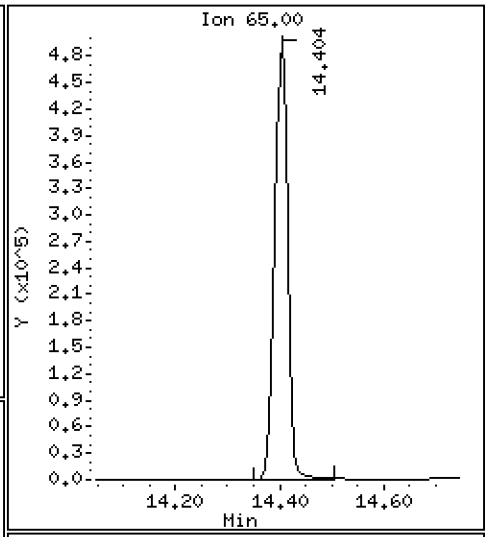
Concentration: 17.98 ug/mL

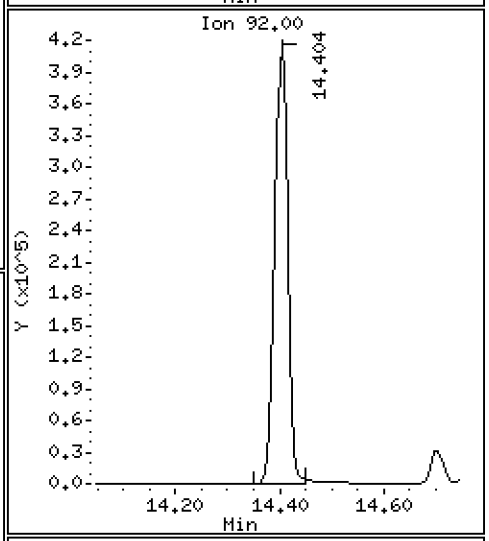


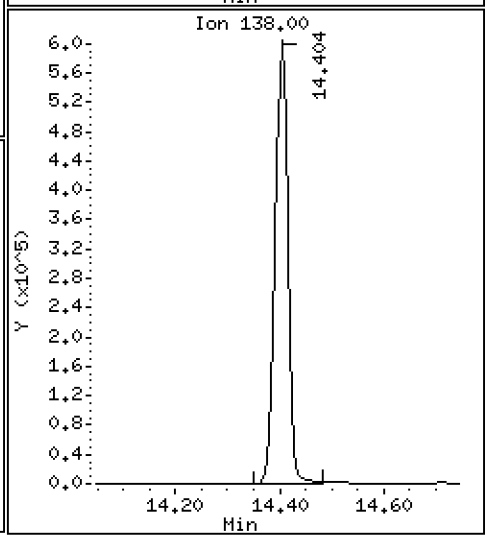












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

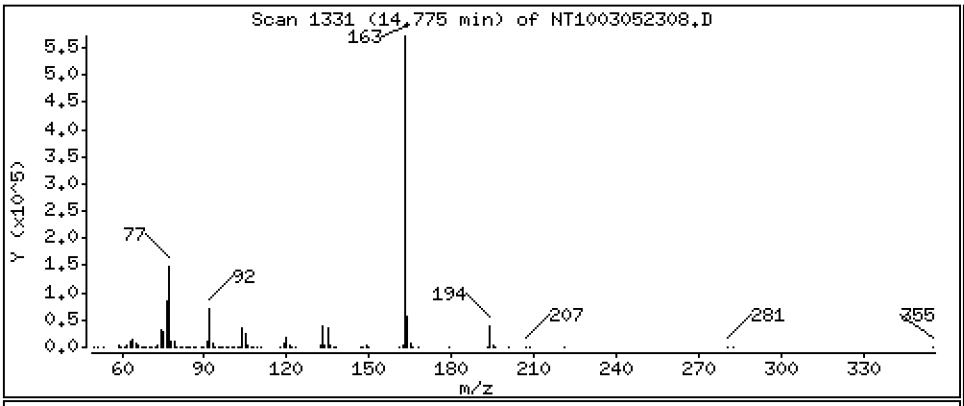
Operator: VTS

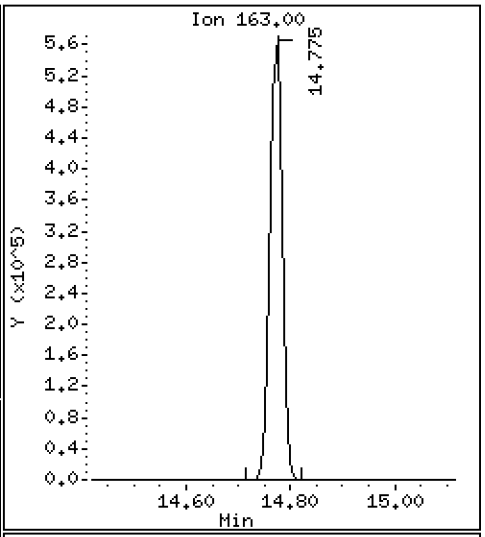
Column phase: ZB-5msi

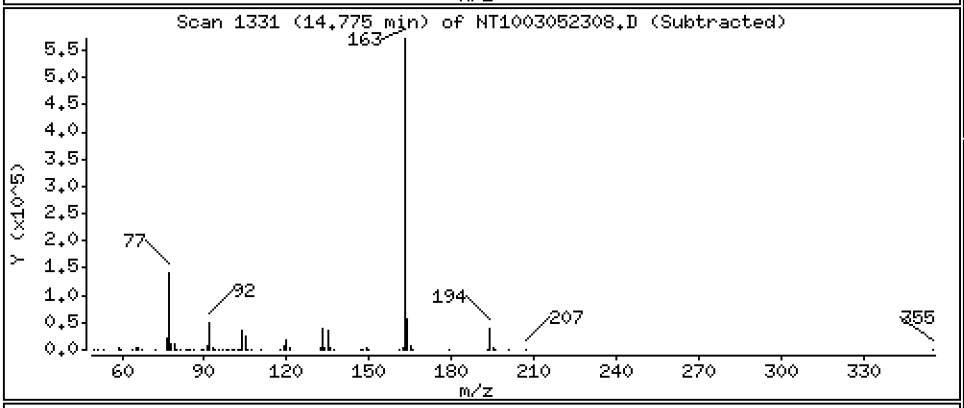
Column diameter: 0.25

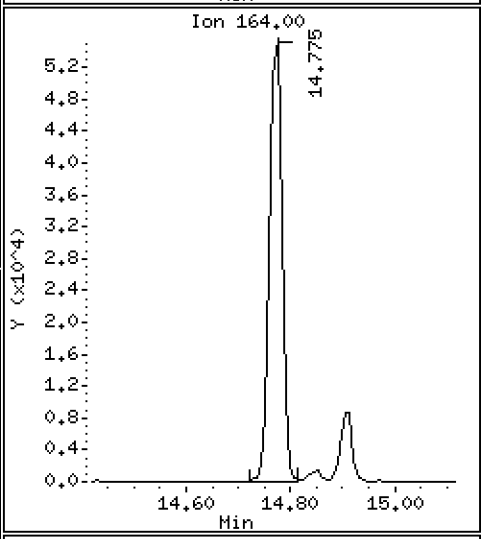
39 Dimethylphthalate

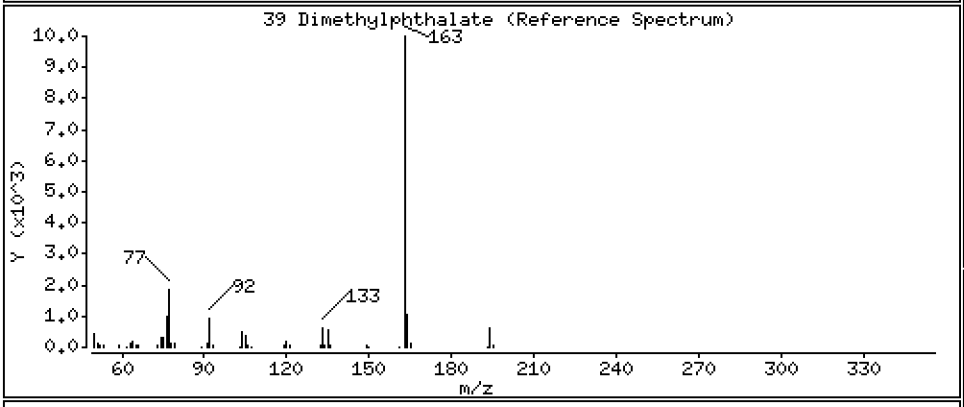
Concentration: 4.929 ug/mL

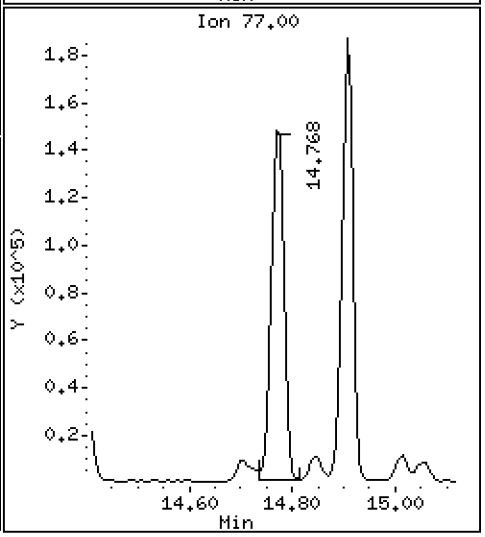


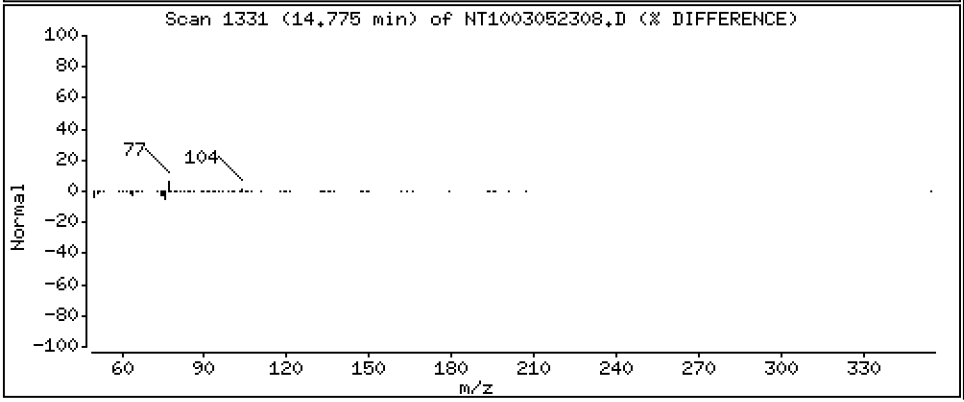












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

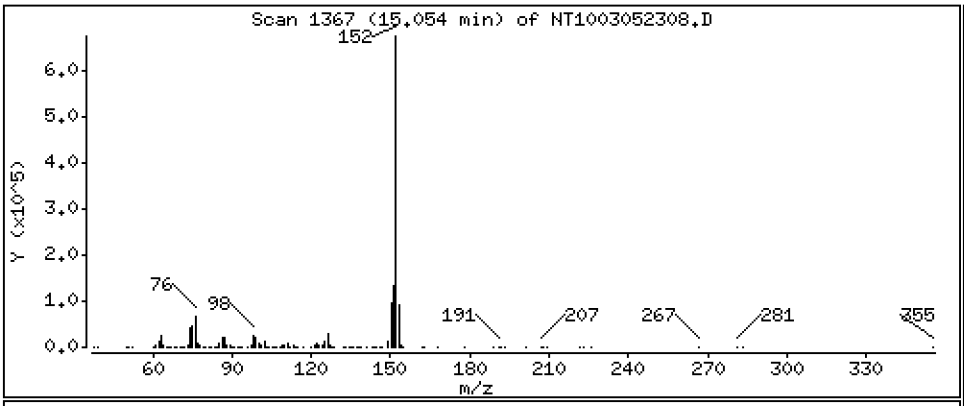
Operator: VTS

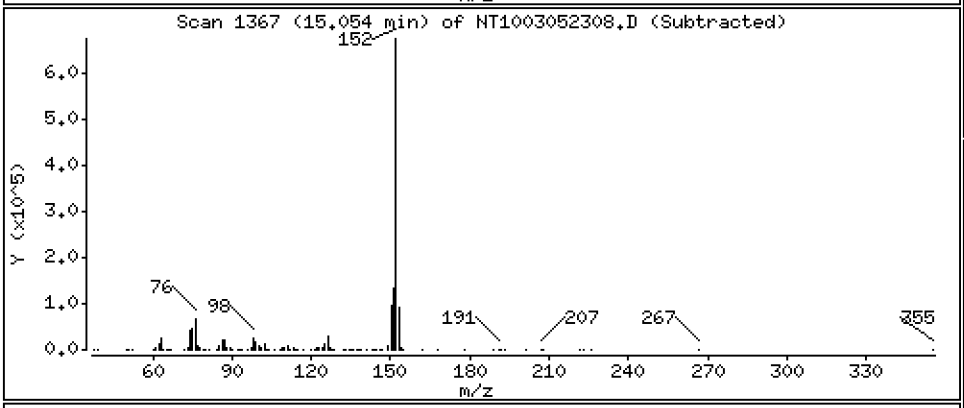
Column phase: ZB-5msi

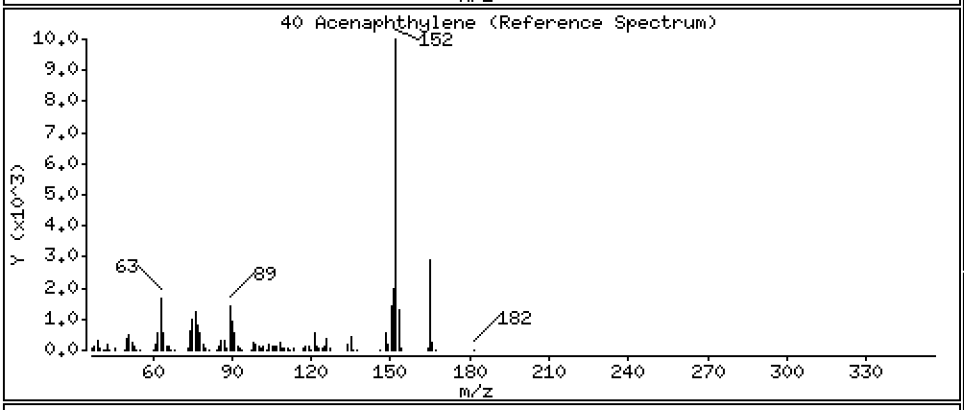
Column diameter: 0.25

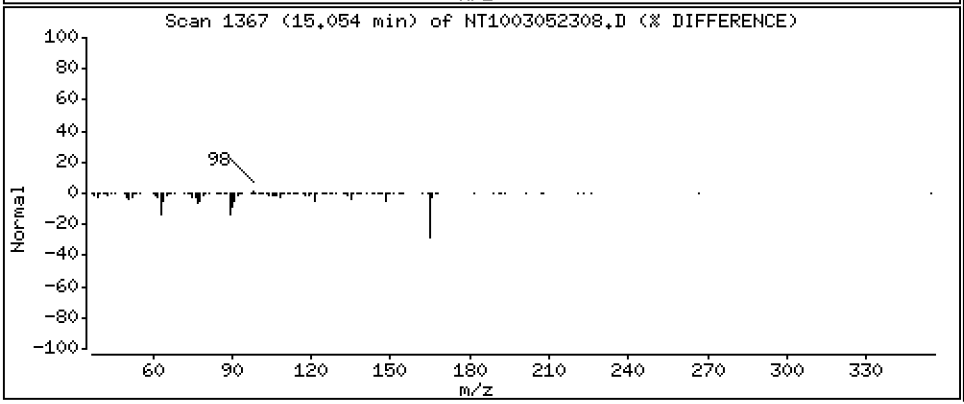
40 Acenaphthylene

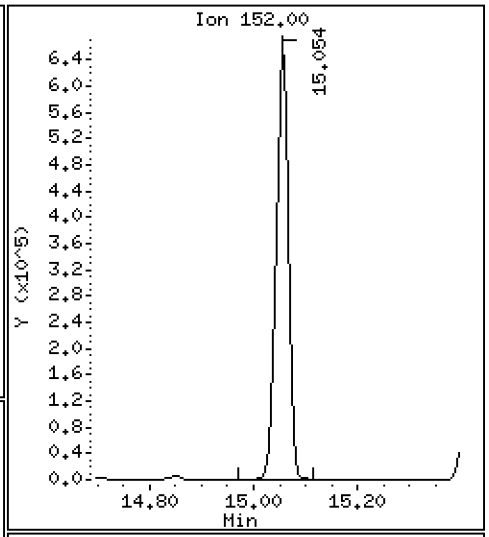
Concentration: 4.431 ug/mL

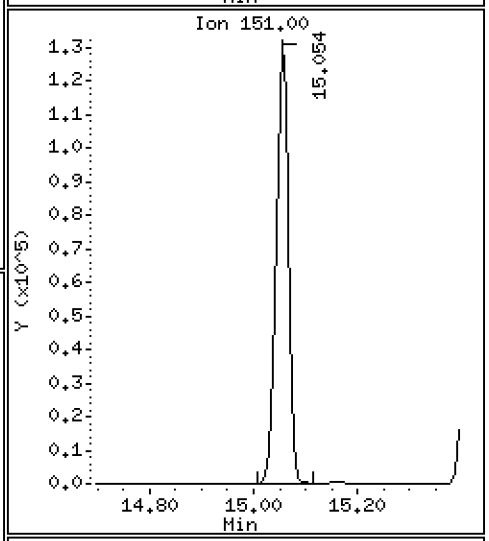


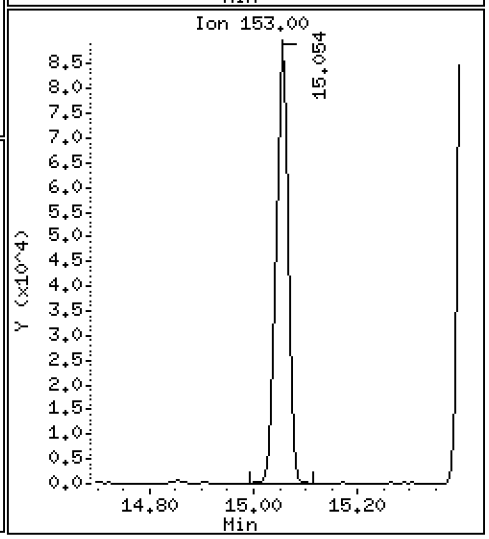












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052308.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

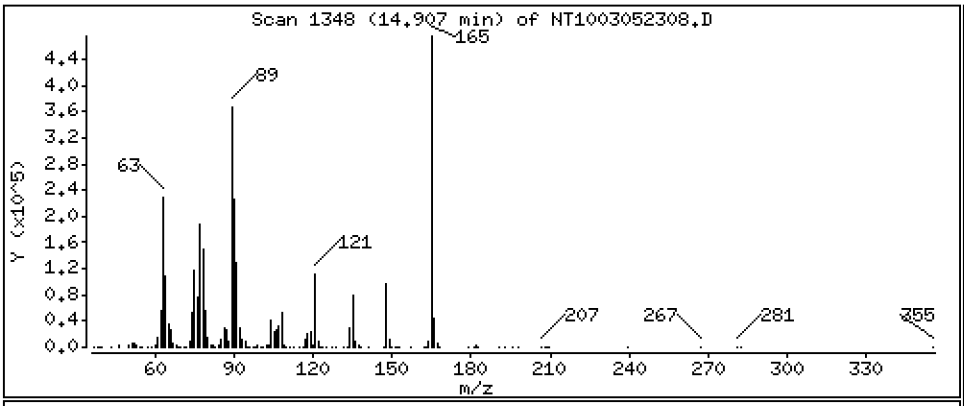
Operator: VTS

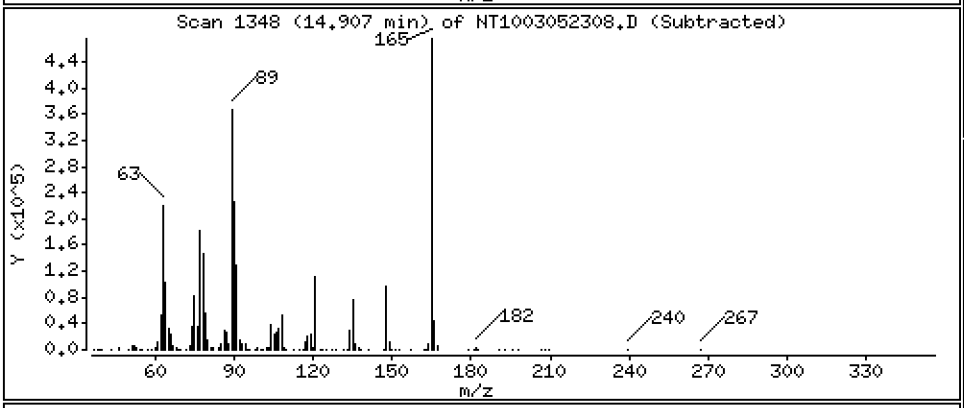
Column phase: ZB-5msi

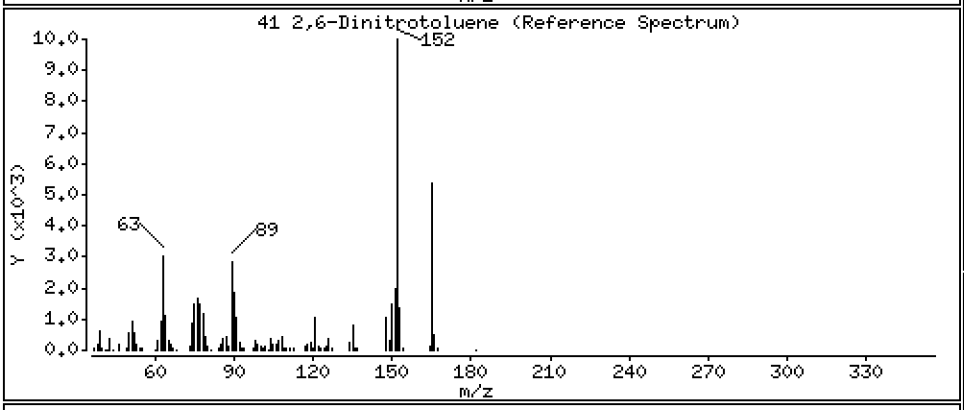
Column diameter: 0.25

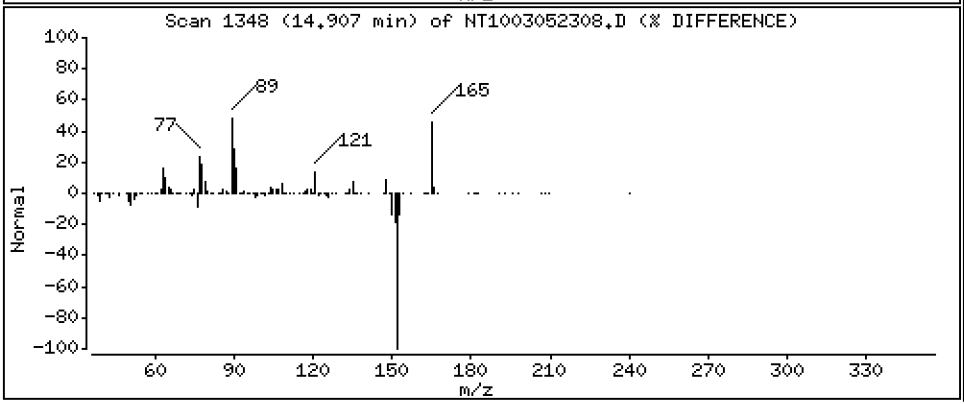
41 2,6-Dinitrotoluene

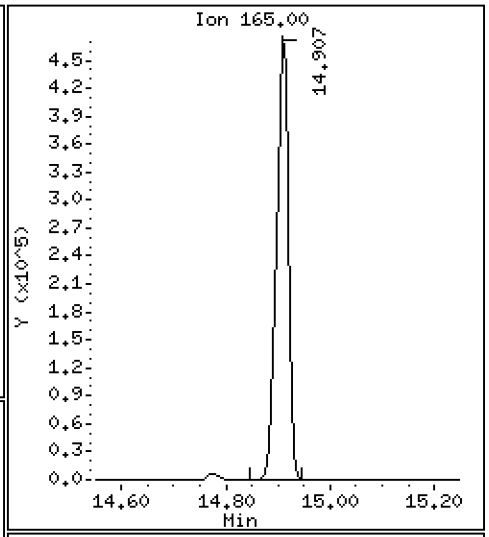
Concentration: 17.71 ug/mL

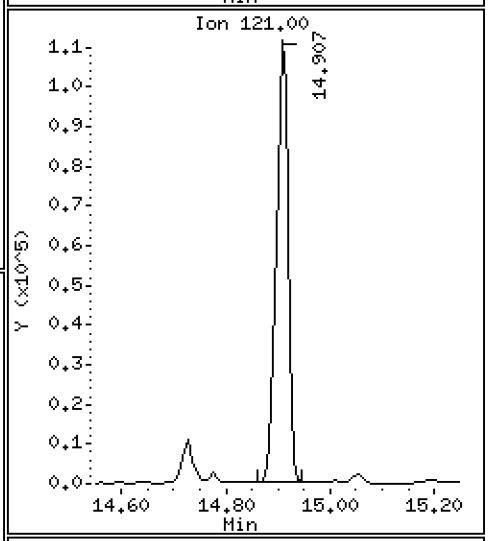


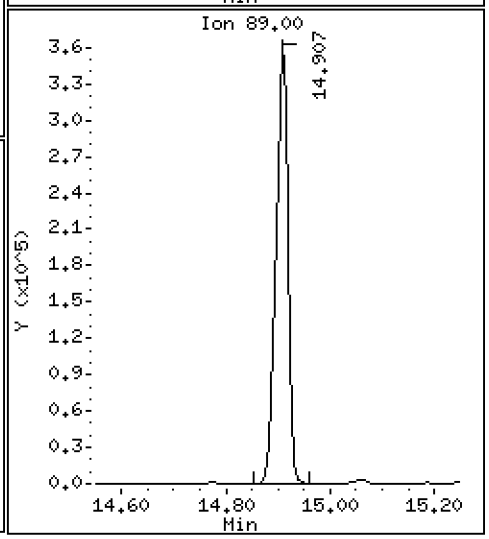












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

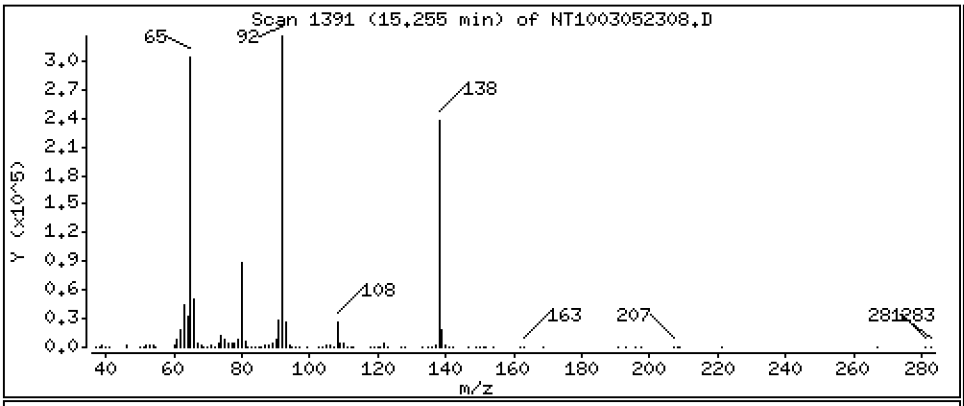
Operator: VTS

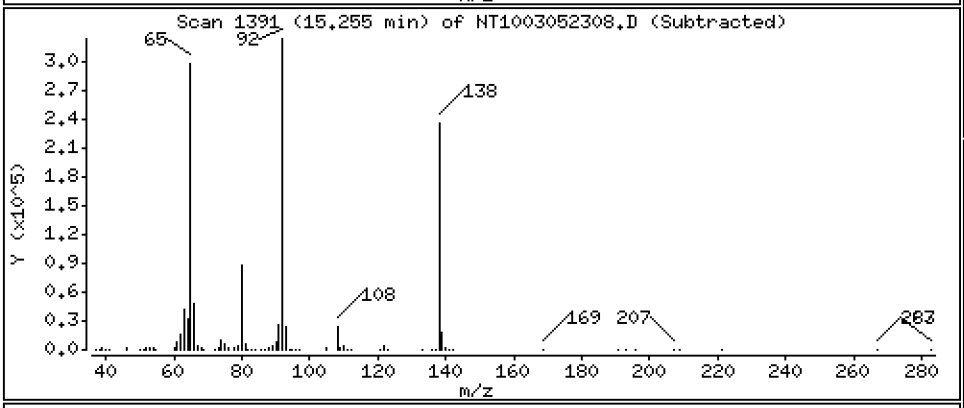
Column phase: ZB-5msi

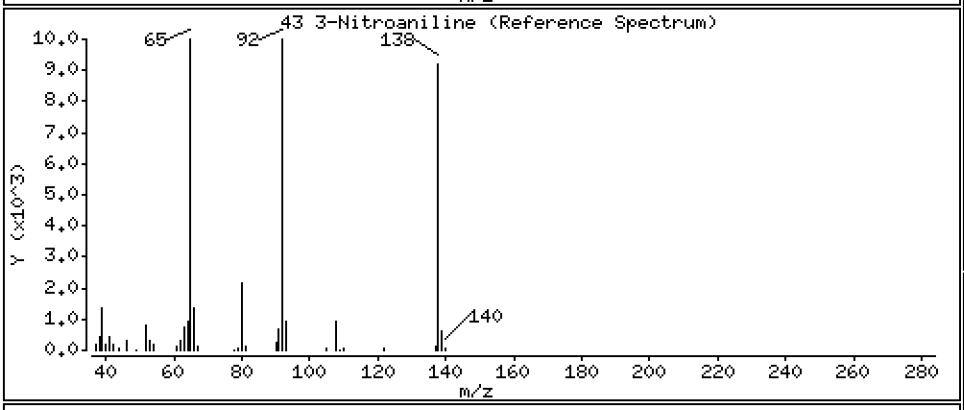
Column diameter: 0.25

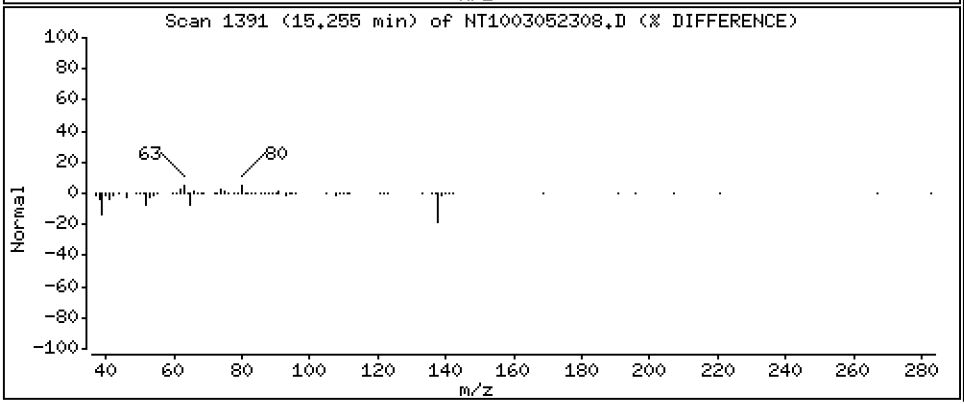
43 3-Nitroaniline

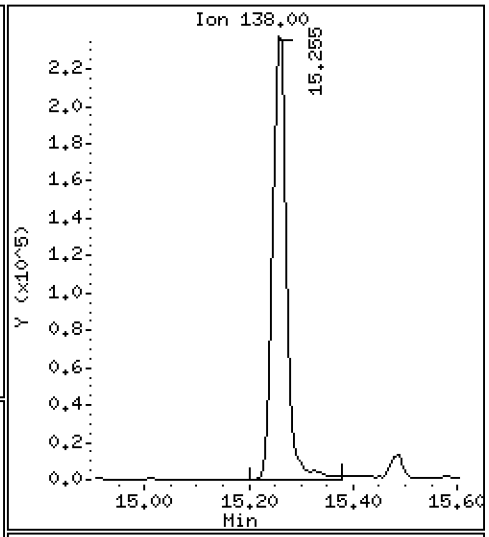
Concentration: 9.425 ug/mL

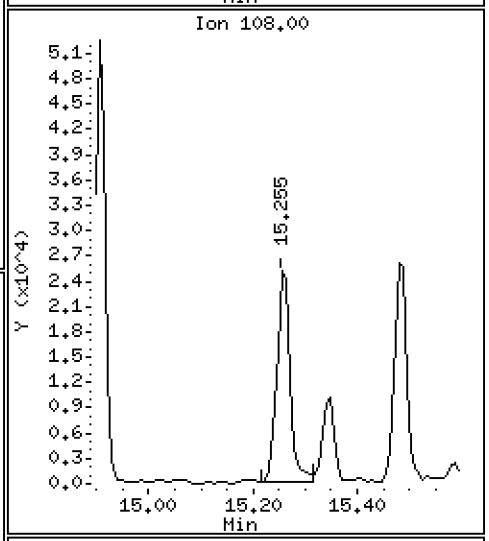


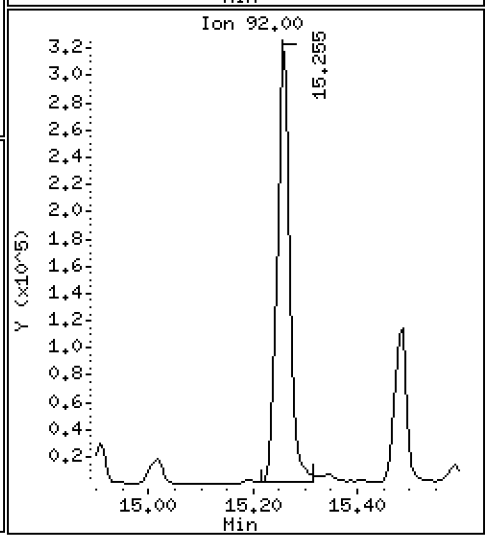












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

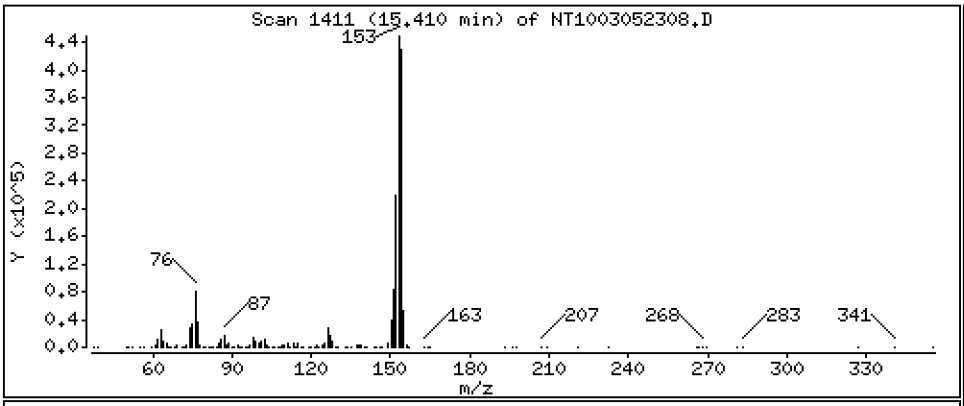
Operator: VTS

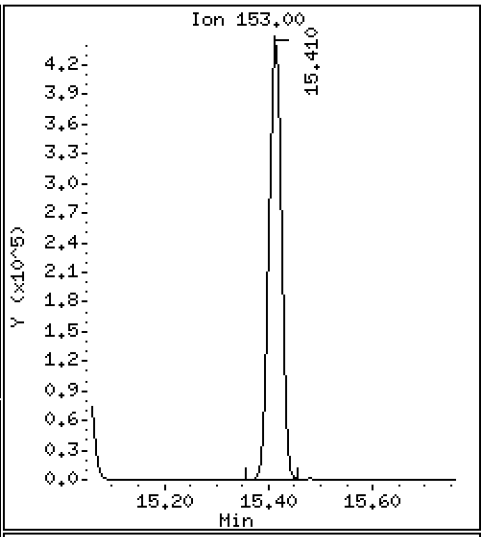
Column phase: ZB-5msi

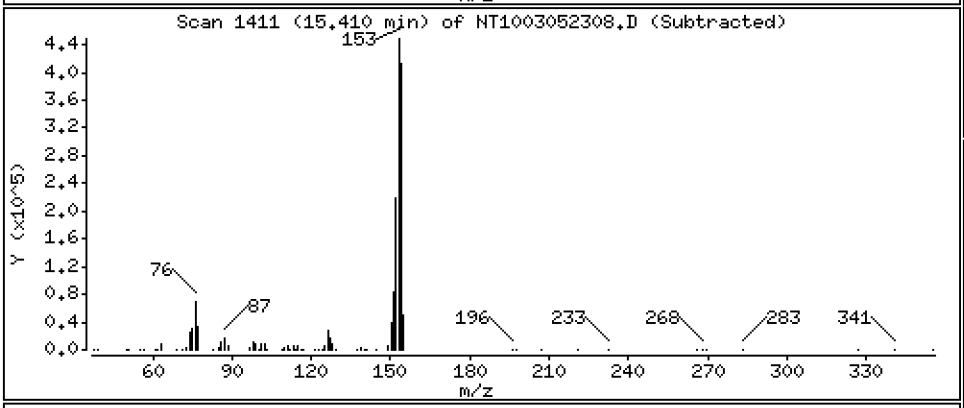
Column diameter: 0.25

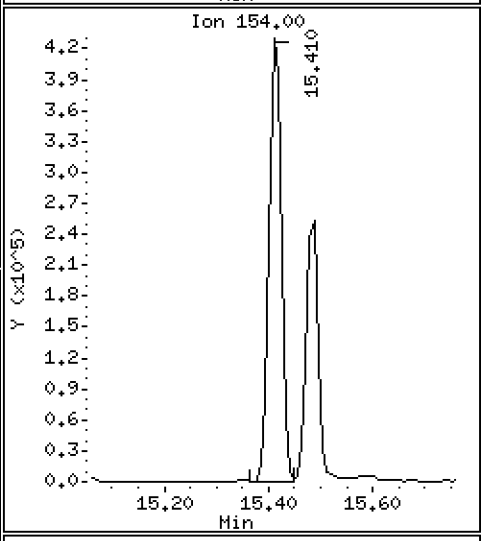
44 Acenaphthene

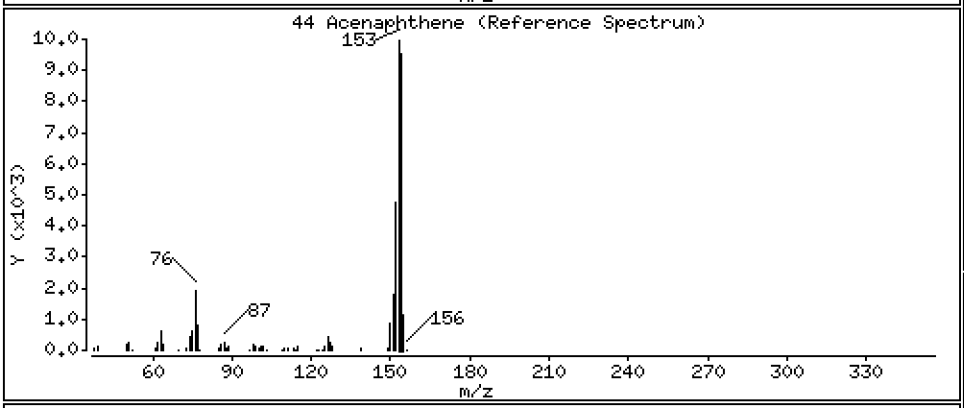
Concentration: 4.375 ug/mL

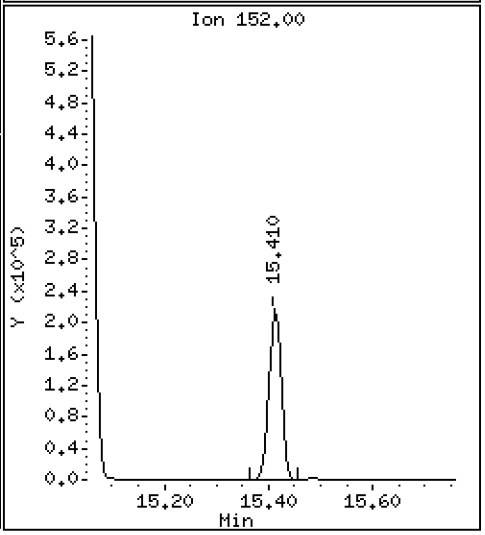


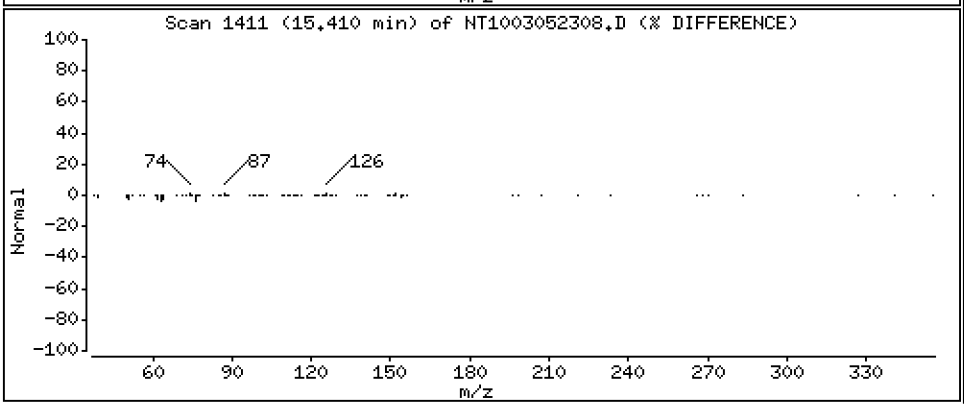












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

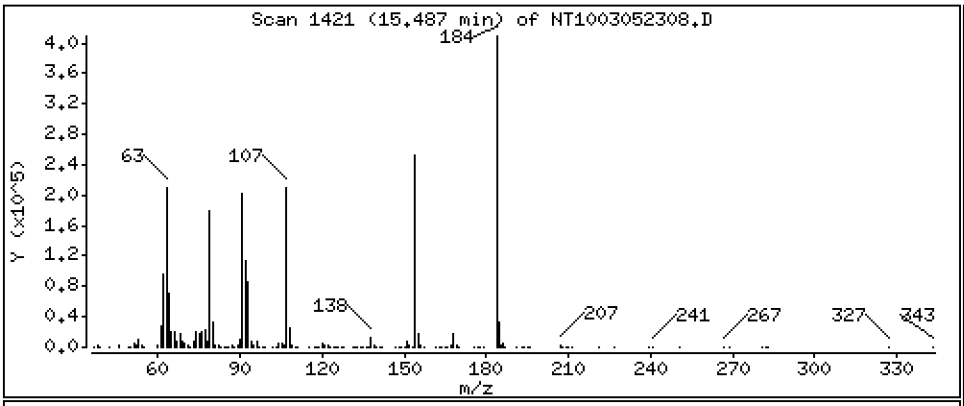
Operator: VTS

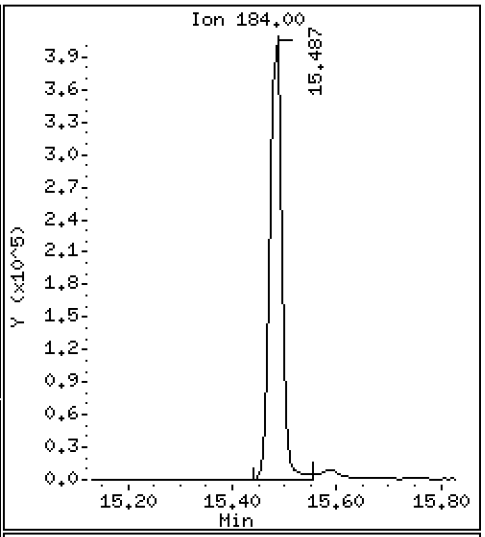
Column phase: ZB-5msi

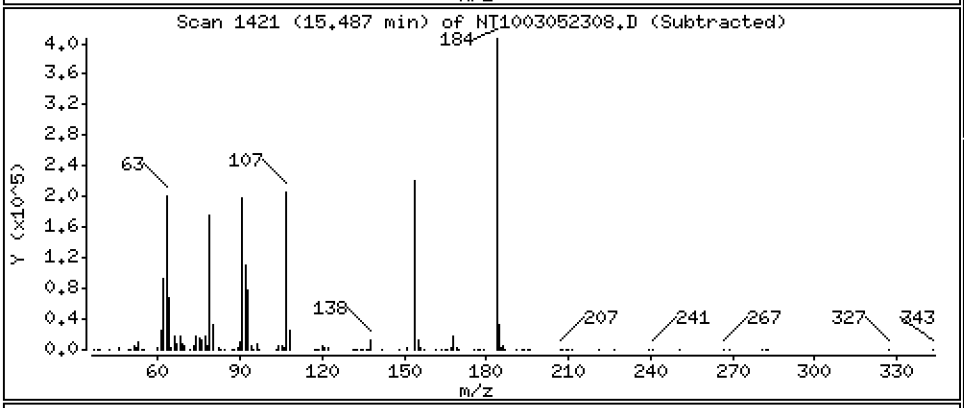
Column diameter: 0.25

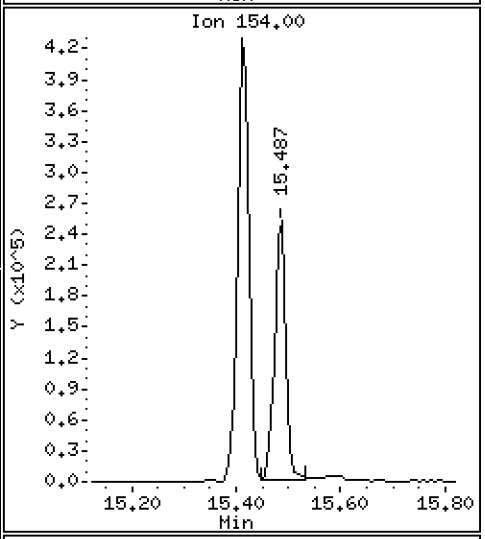
45 2,4-Dinitrophenol

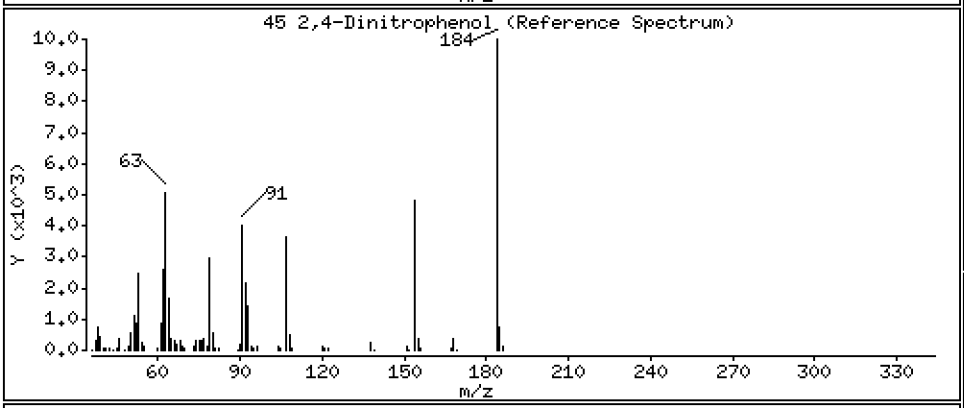
Concentration: 48.10 ug/mL

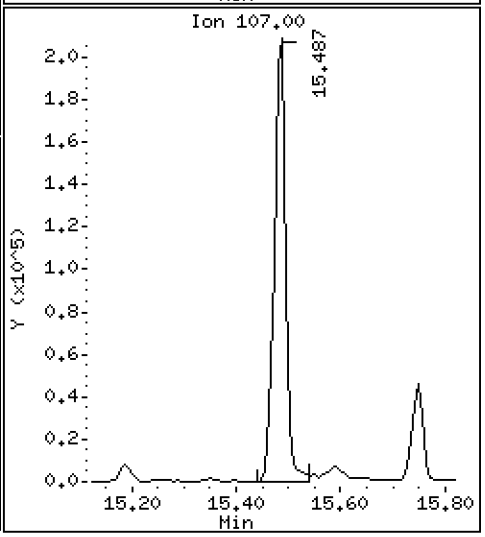


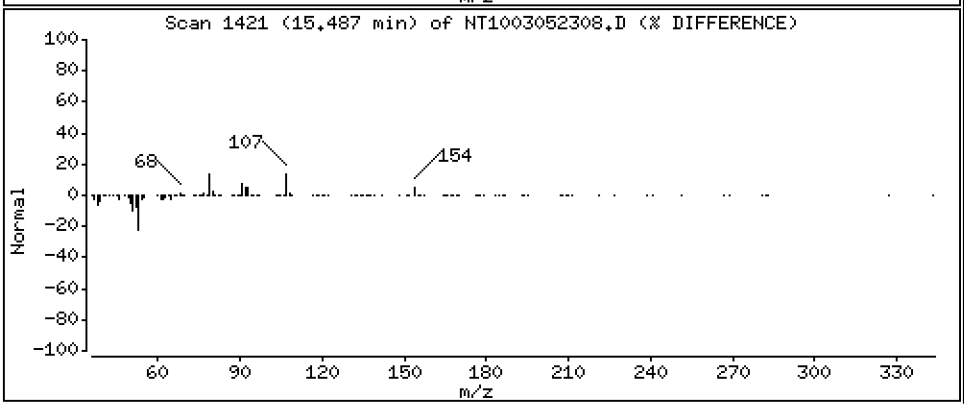












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

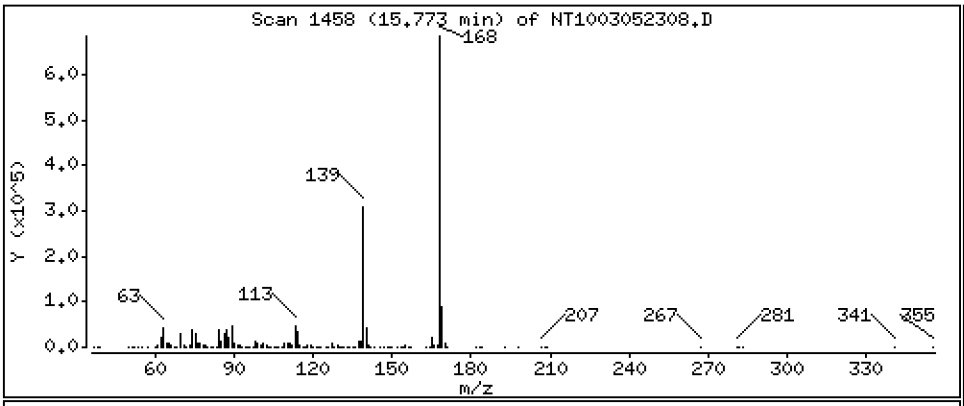
Operator: VTS

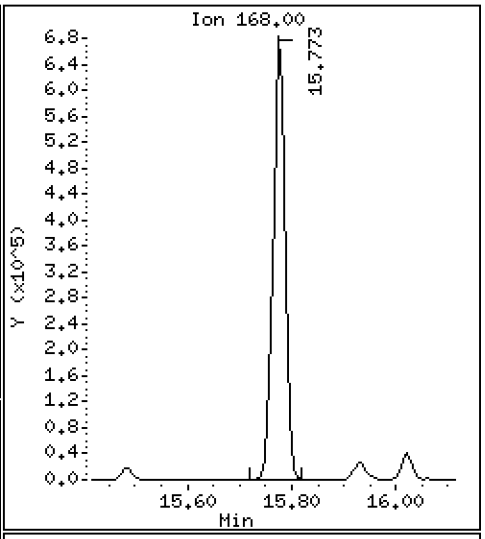
Column phase: ZB-5msi

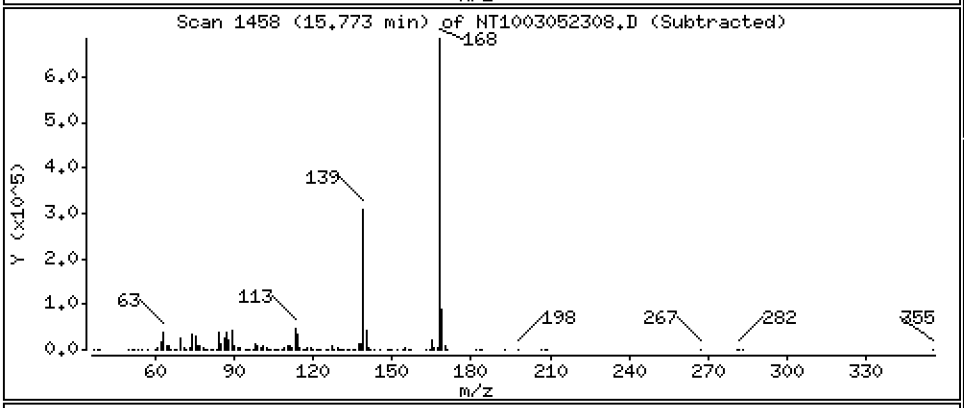
Column diameter: 0.25

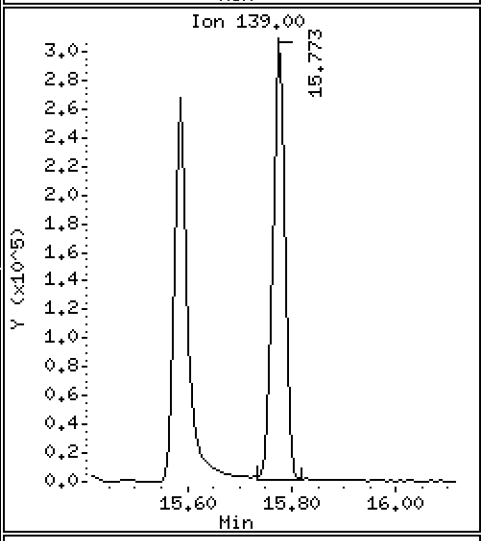
46 Dibenzofuran

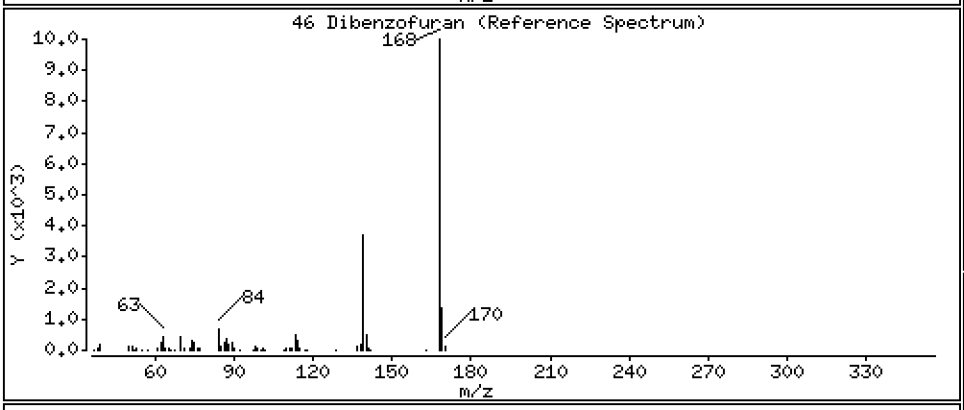
Concentration: 4.466 ug/mL

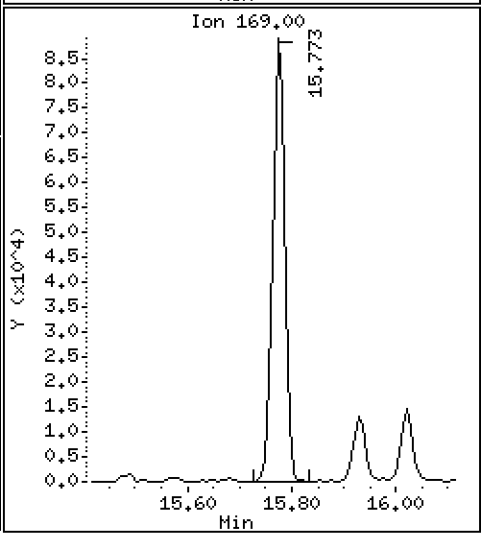


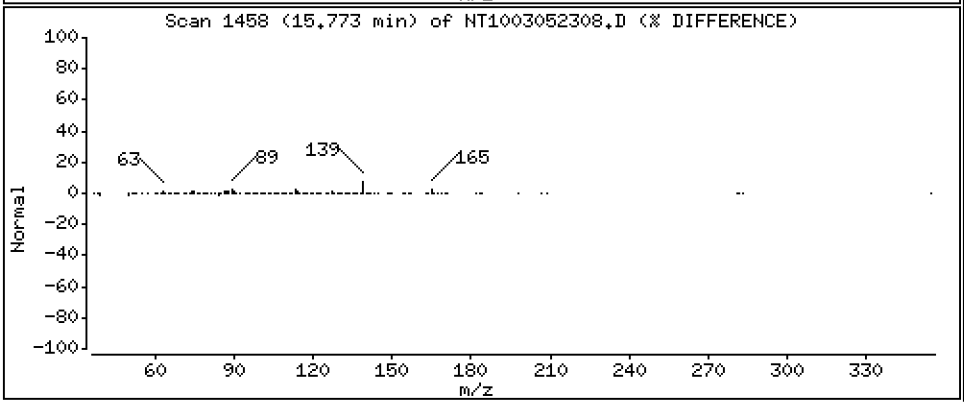












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

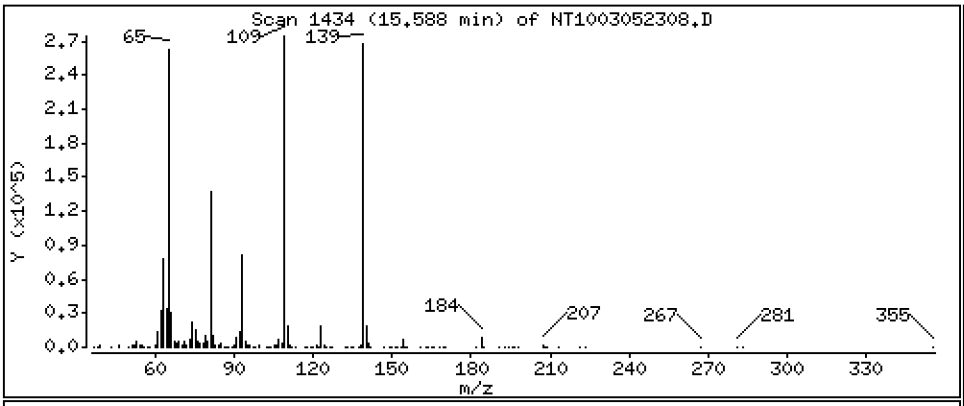
Operator: VTS

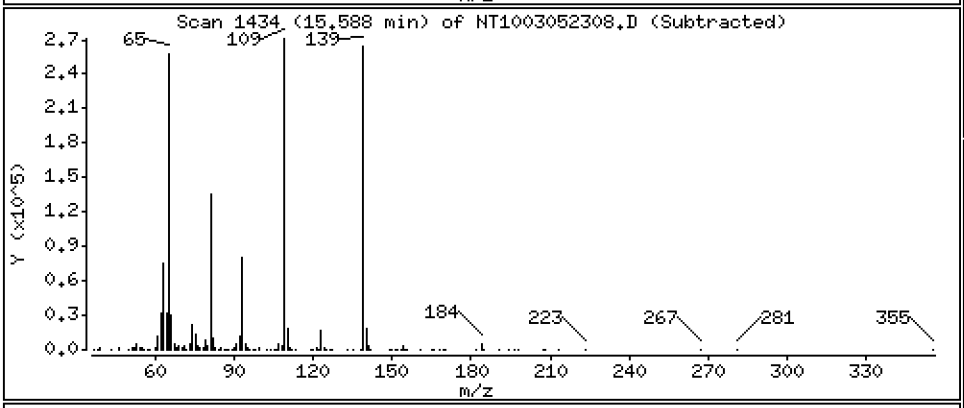
Column phase: ZB-5msi

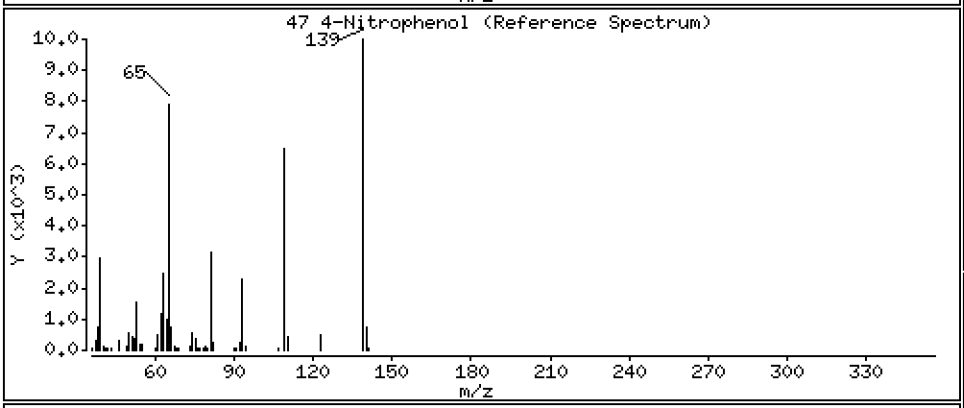
Column diameter: 0.25

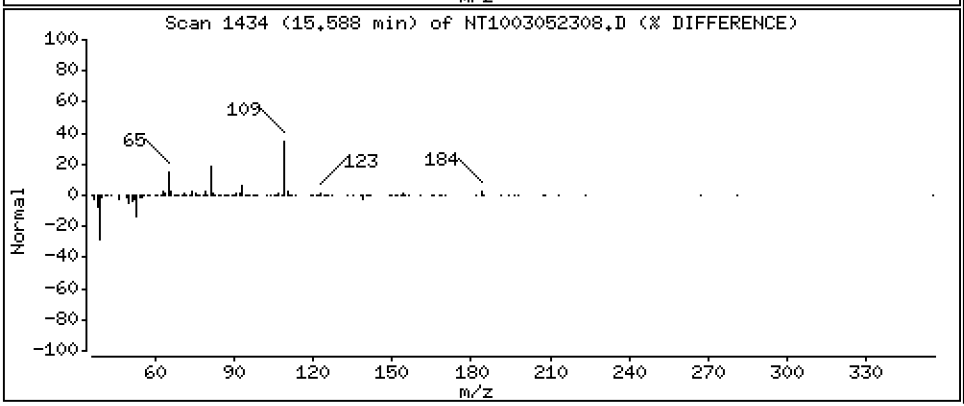
47 4-Nitrophenol

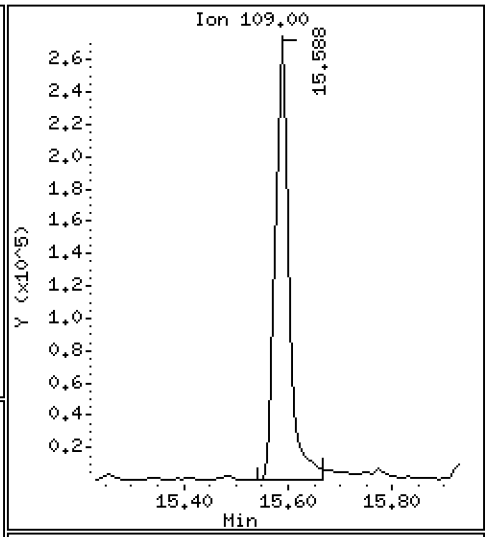
Concentration: 14.54 ug/mL

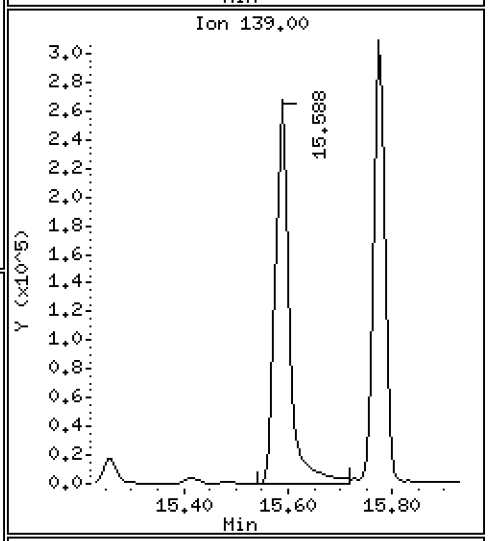


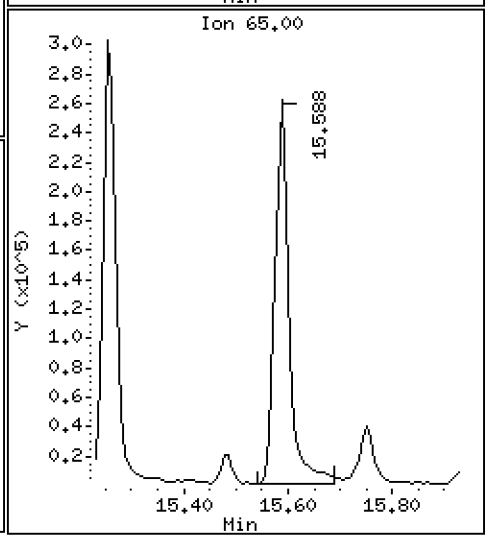












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

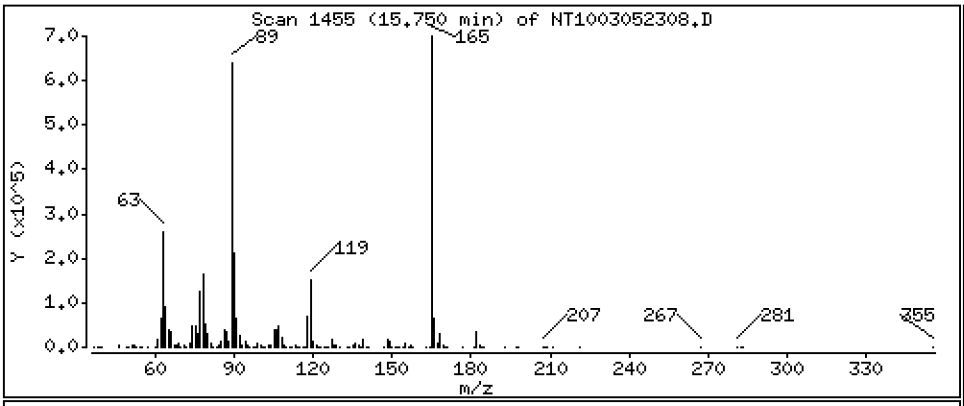
Operator: VTS

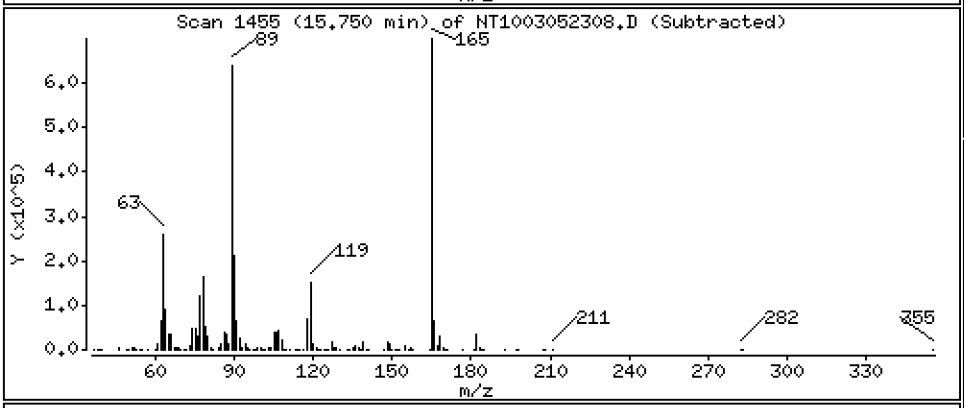
Column phase: ZB-5msi

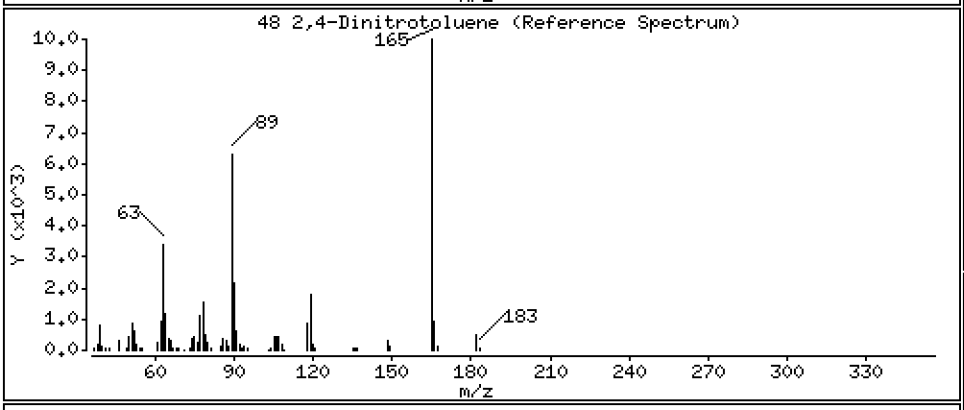
Column diameter: 0.25

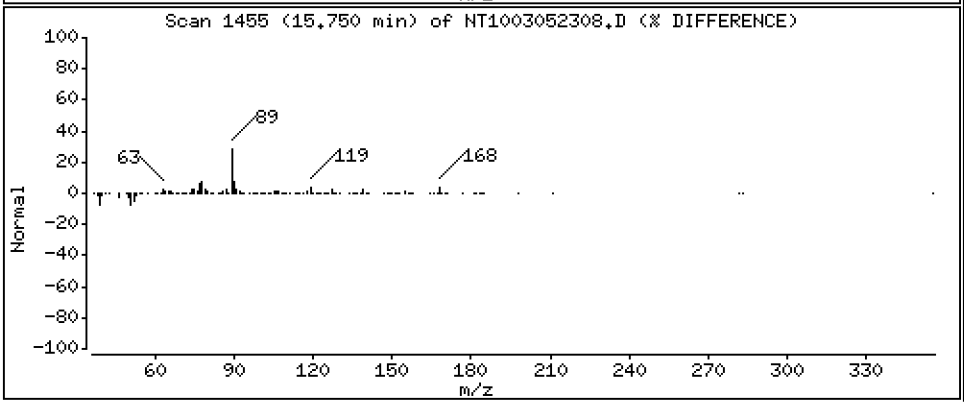
48 2,4-Dinitrotoluene

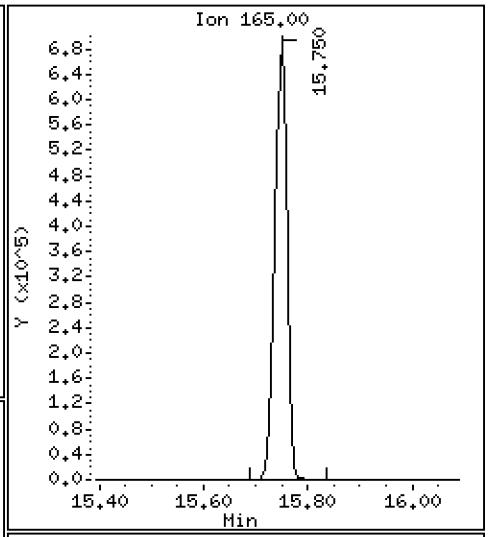
Concentration: 17.29 ug/mL

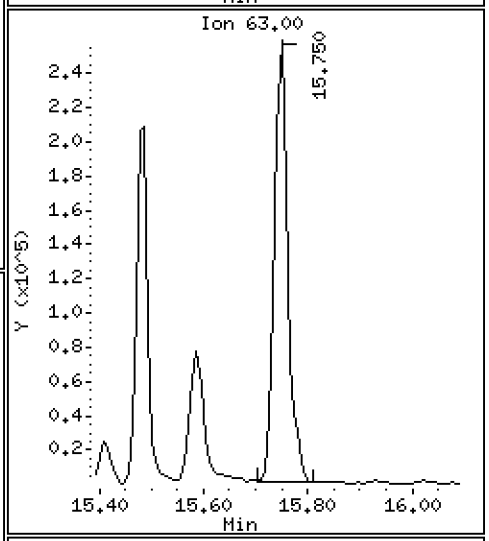


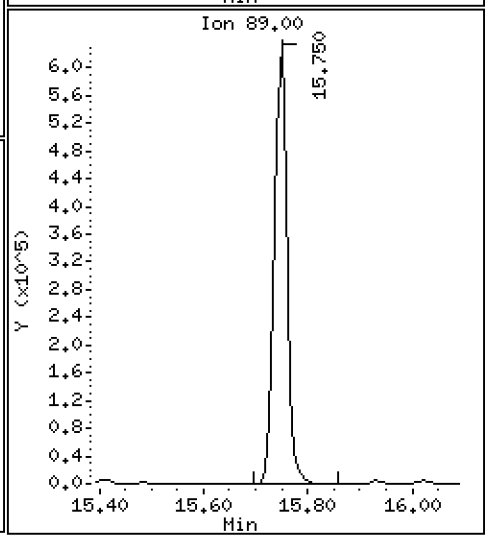












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052308.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

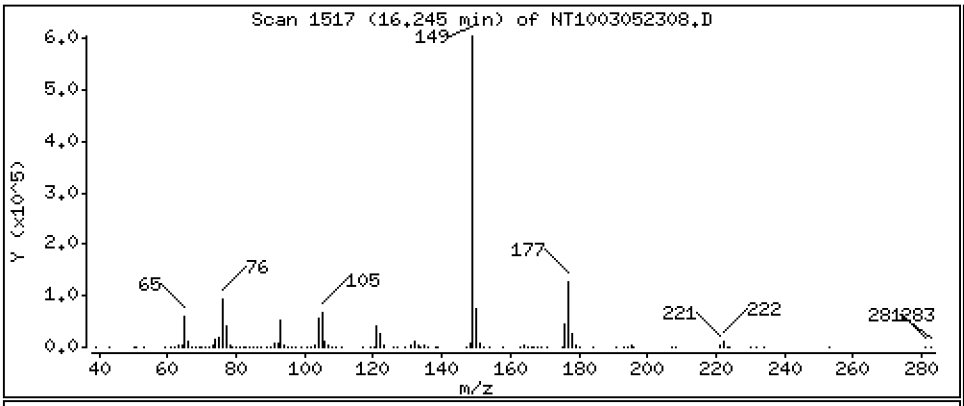
Operator: VTS

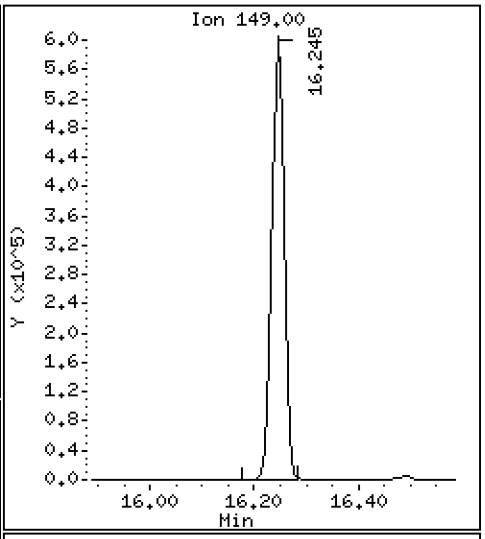
Column phase: ZB-5msi

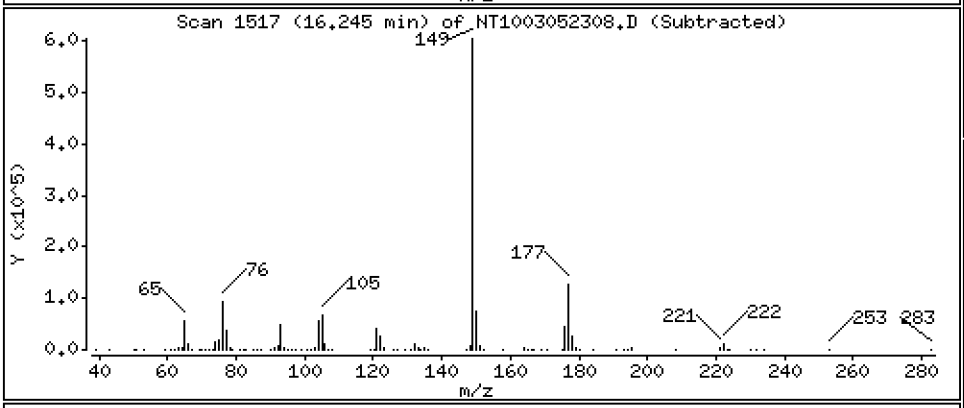
Column diameter: 0.25

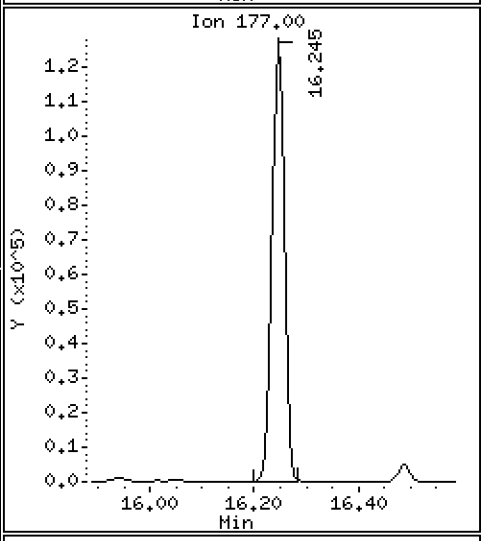
50 Diethylphthalate

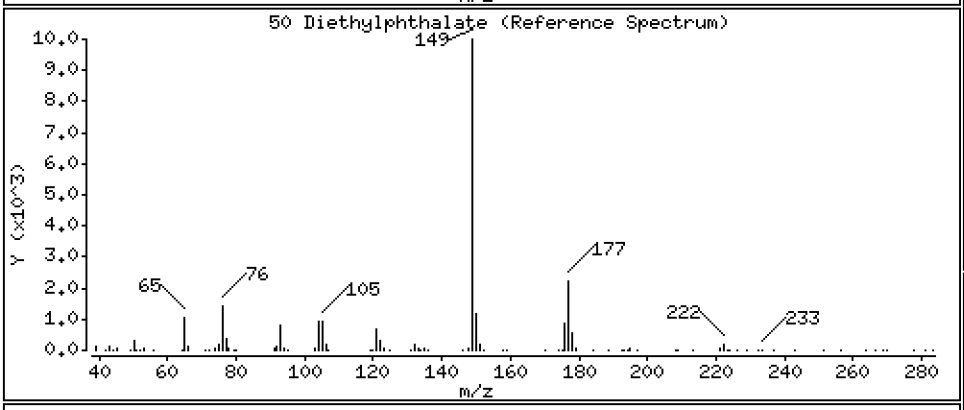
Concentration: 4.924 ug/mL

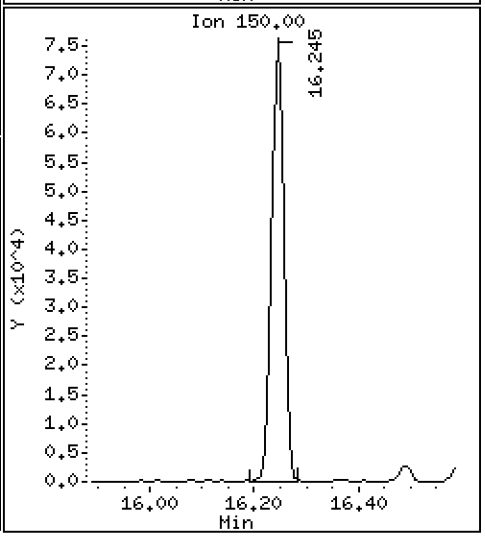


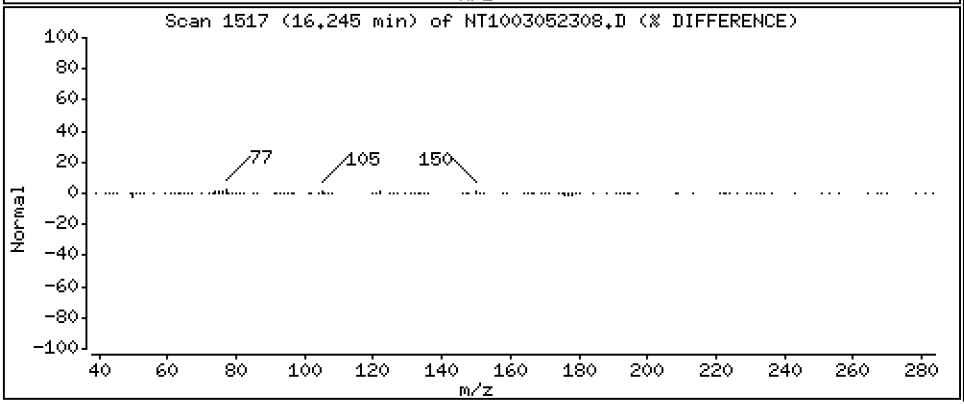












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

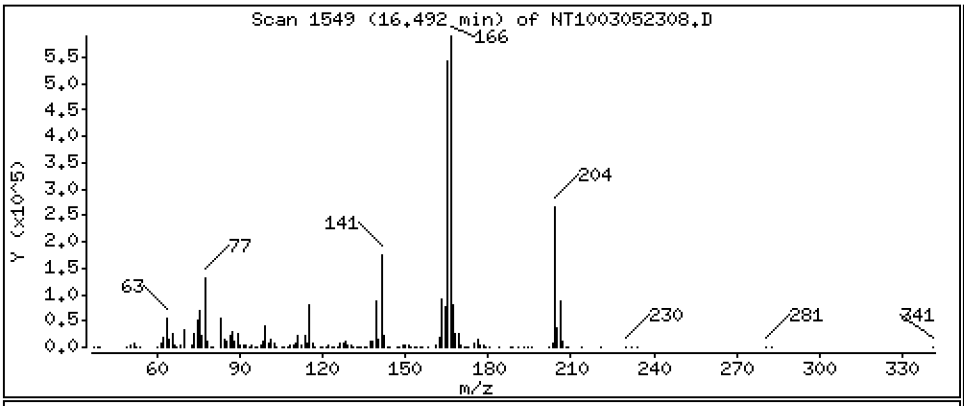
Operator: VTS

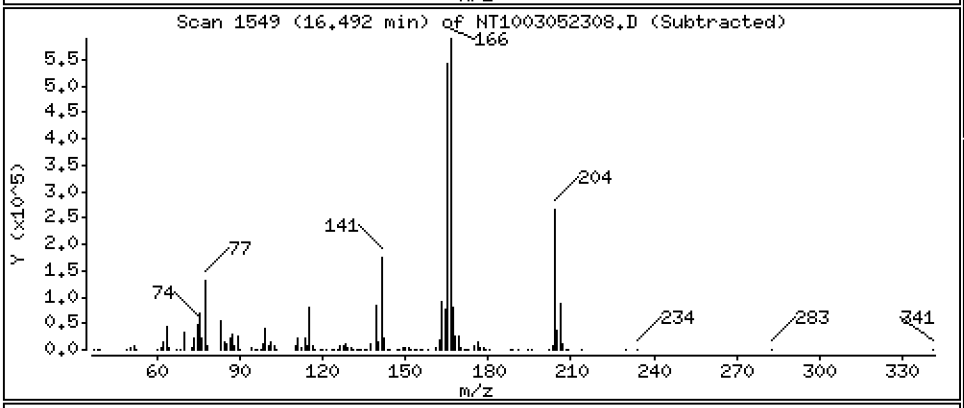
Column phase: ZB-5msi

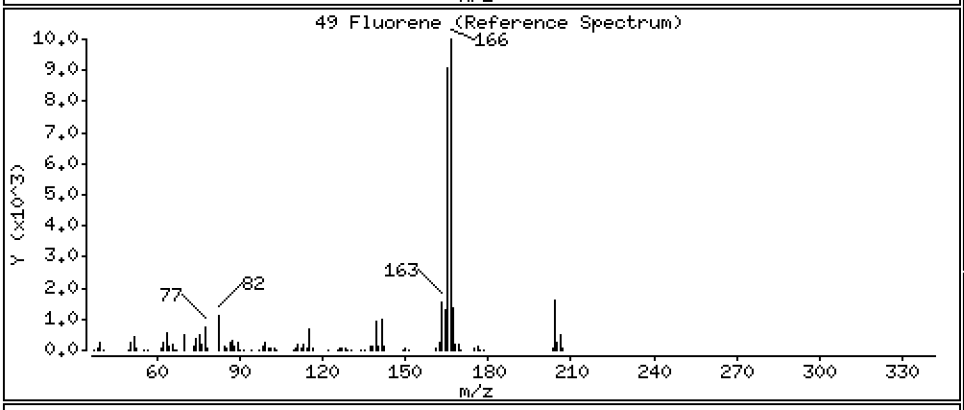
Column diameter: 0.25

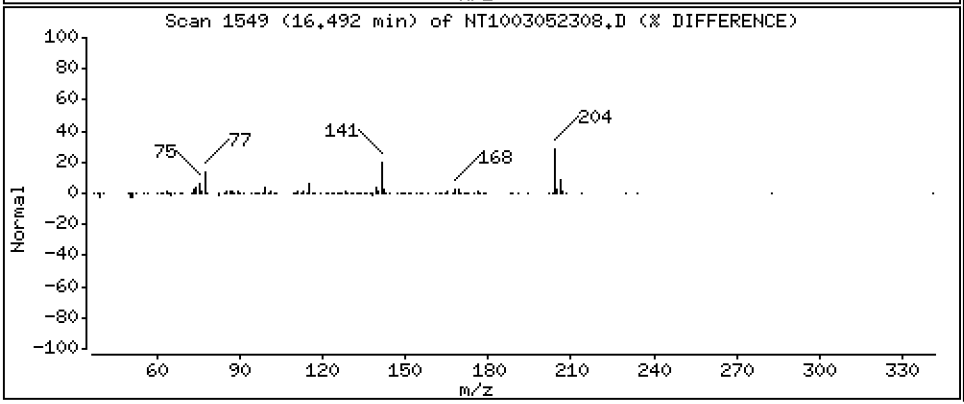
49 Fluorene

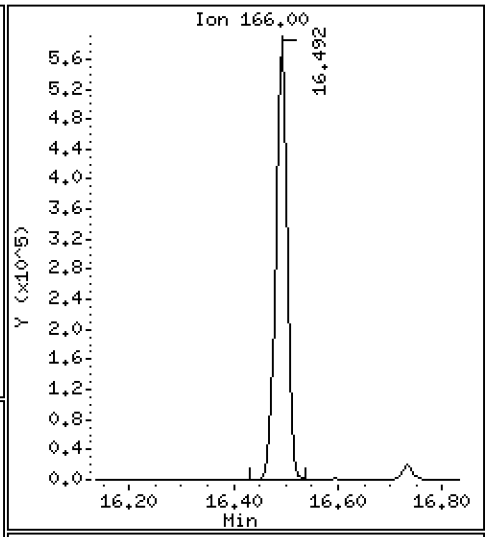
Concentration: 4.509 ug/mL

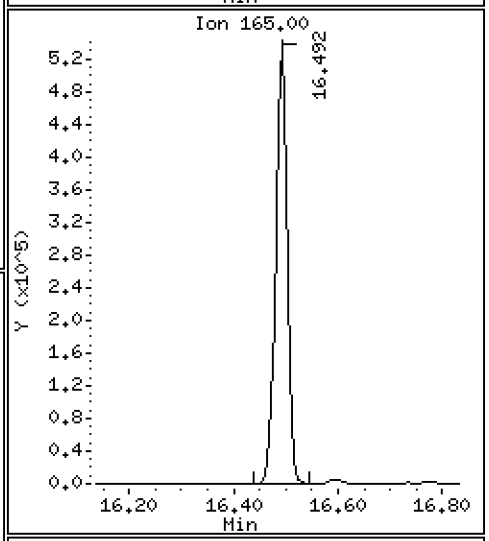


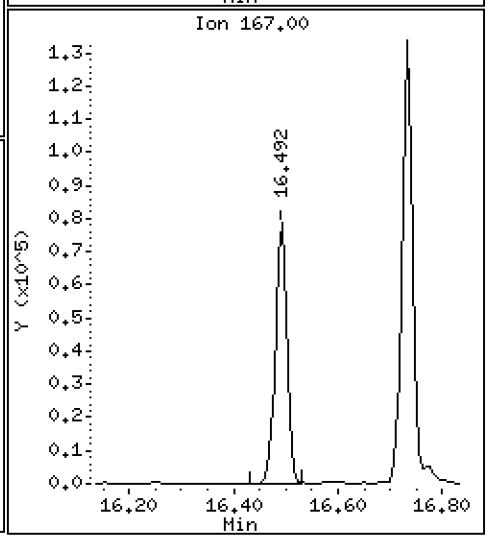












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

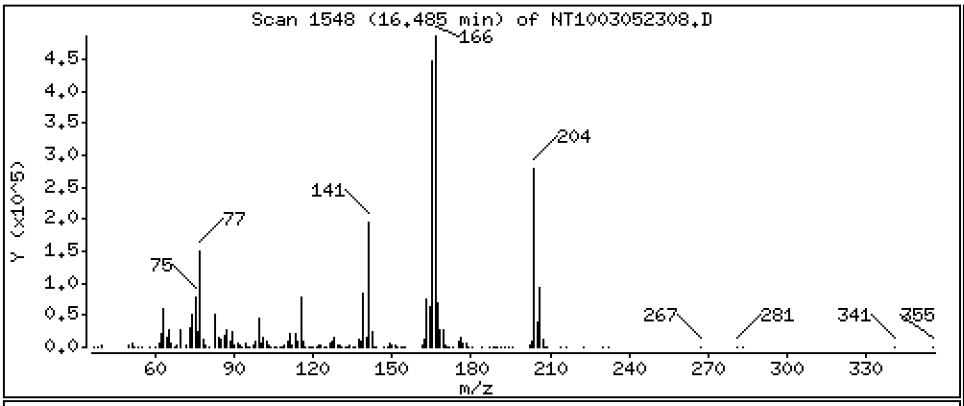
Operator: VTS

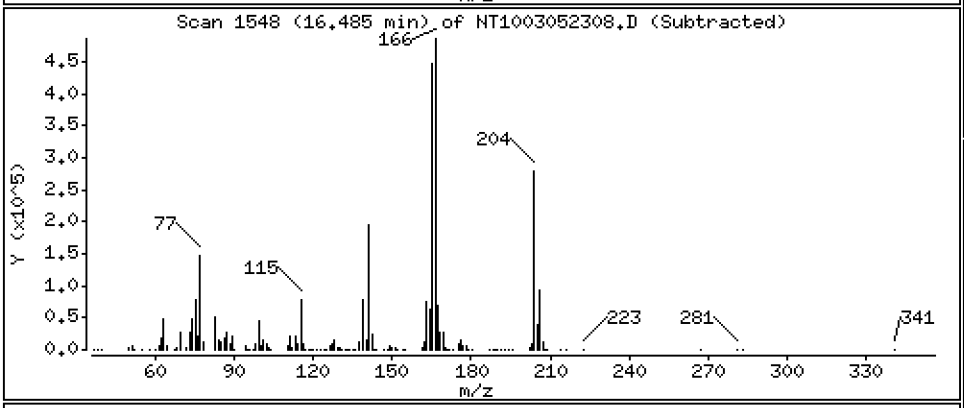
Column phase: ZB-5msi

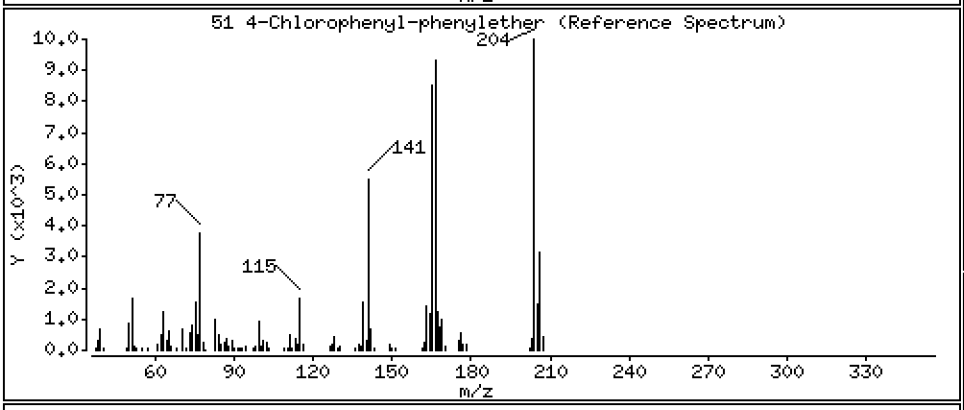
Column diameter: 0.25

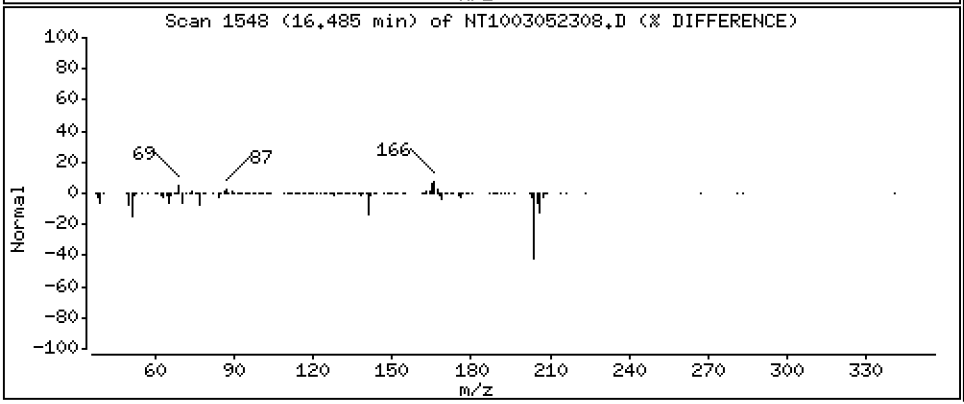
51 4-Chlorophenyl-phenylether

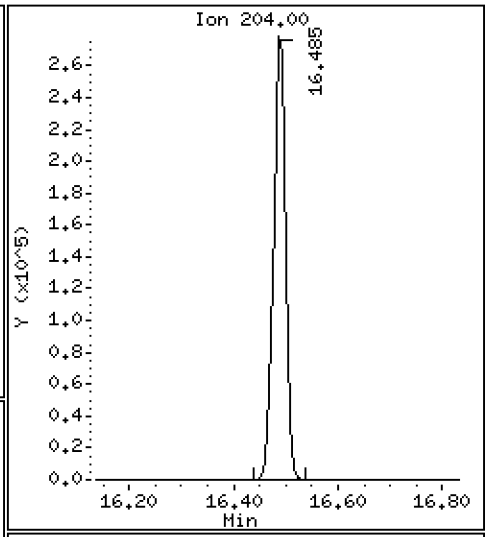
Concentration: 4.846 ug/mL

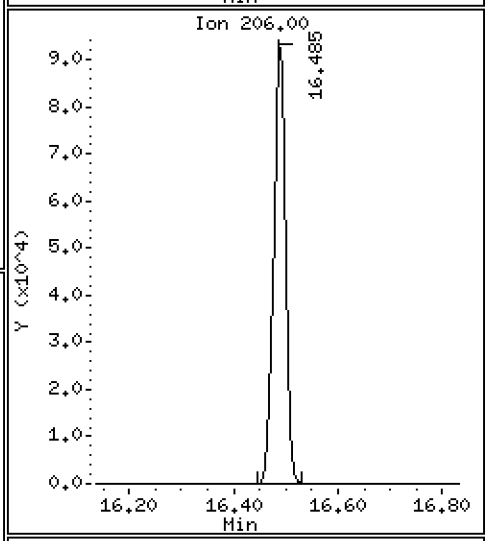


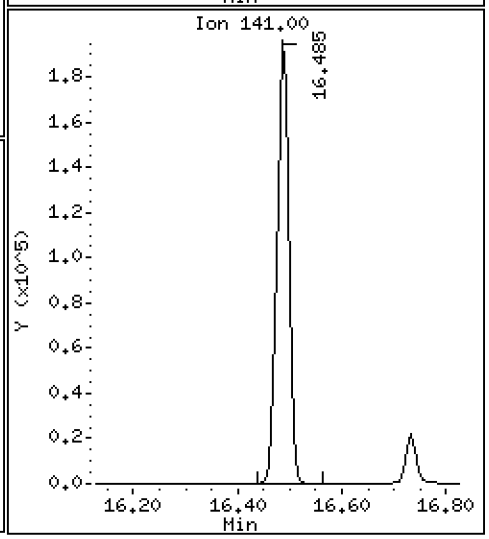












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

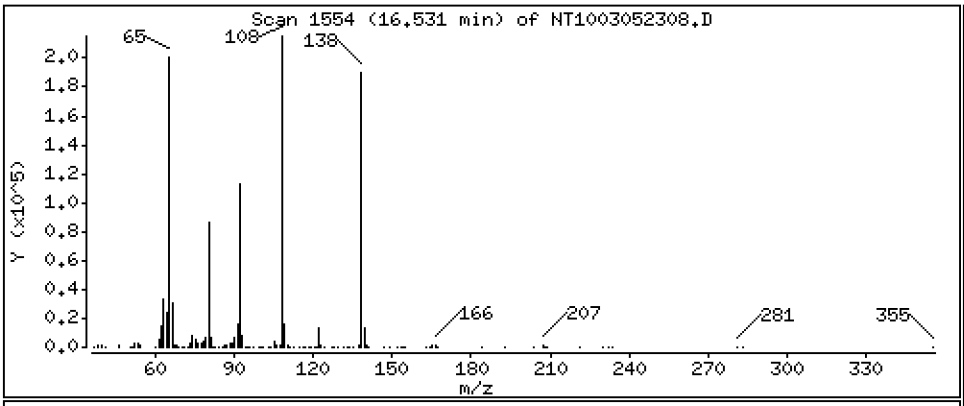
Operator: VTS

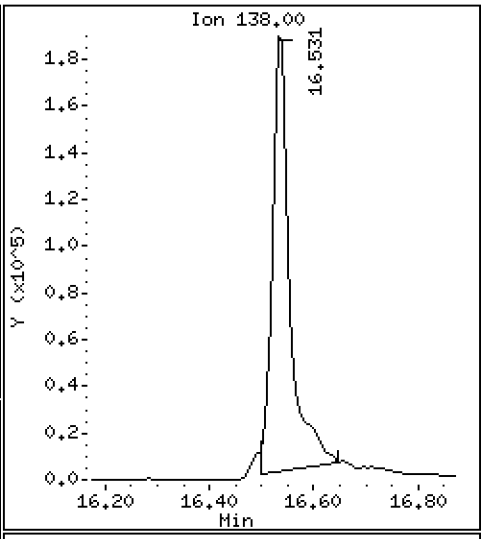
Column phase: ZB-5msi

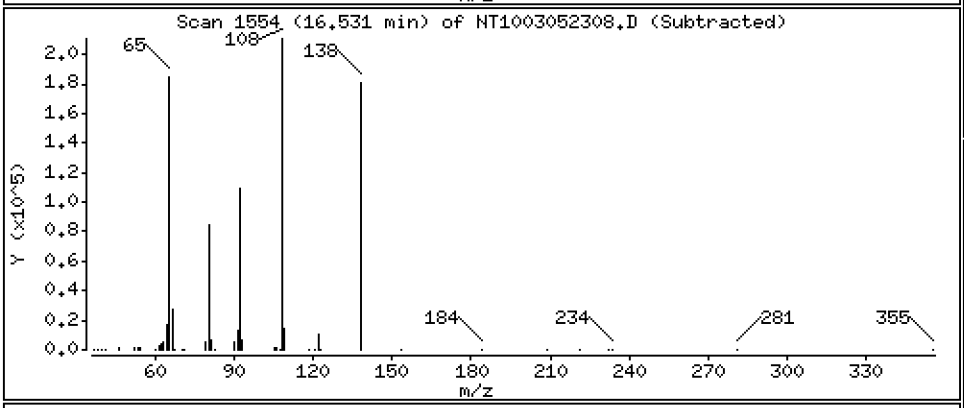
Column diameter: 0.25

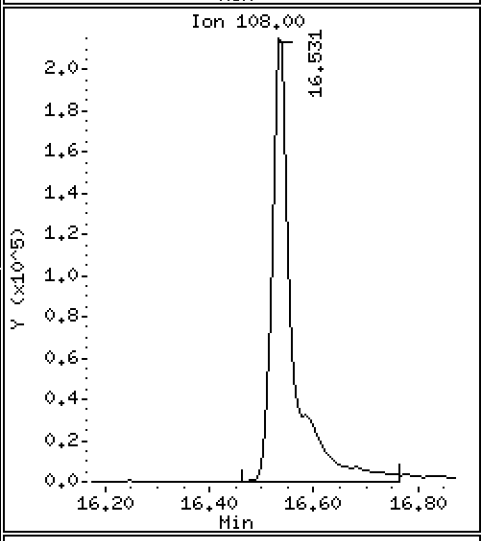
52 4-Nitroaniline

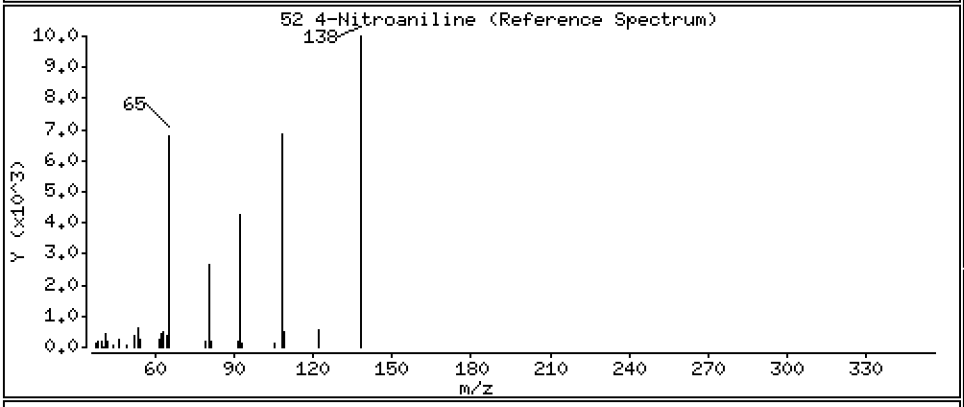
Concentration: 10.04 ug/mL

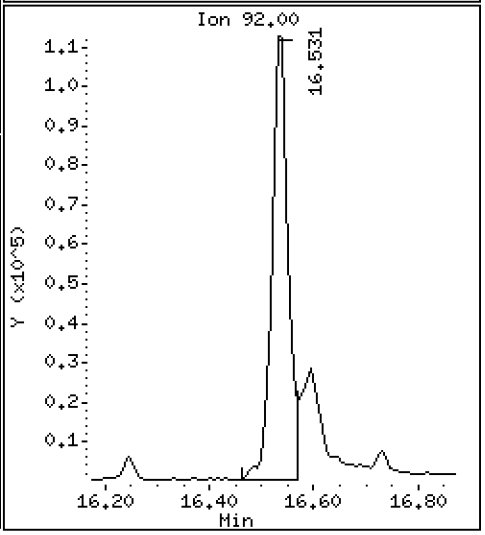


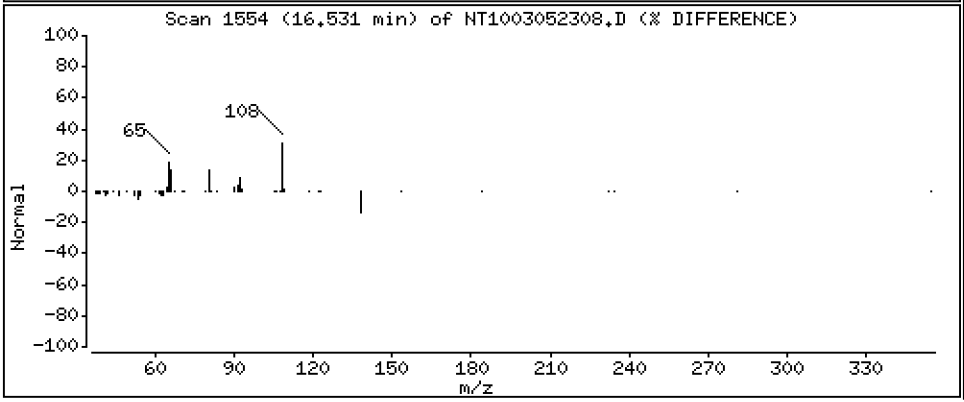












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

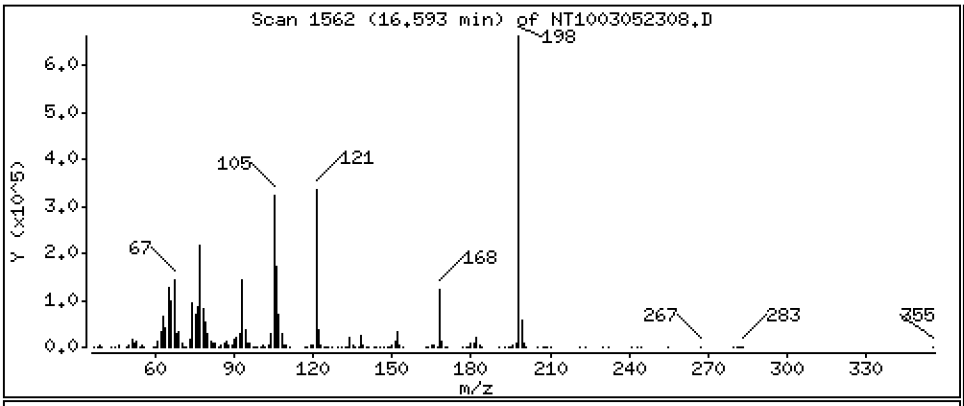
Operator: VTS

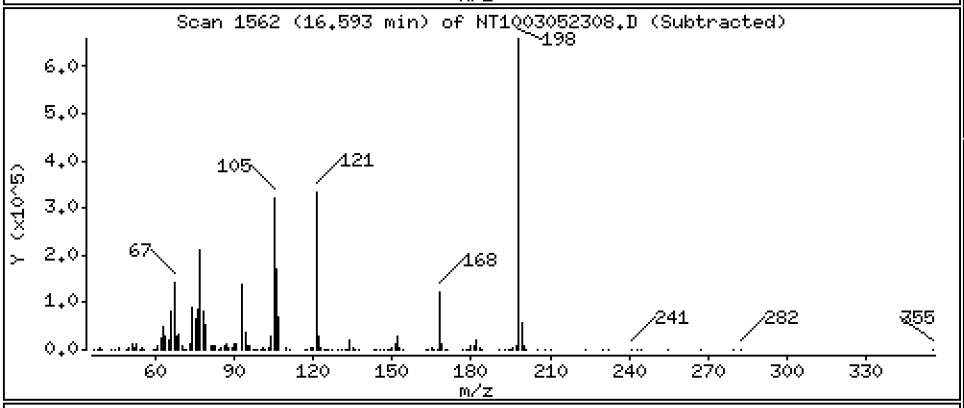
Column phase: ZB-5msi

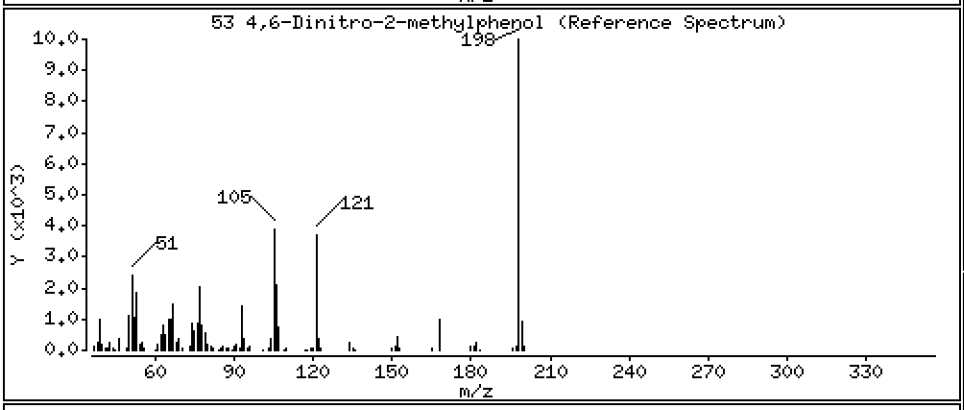
Column diameter: 0.25

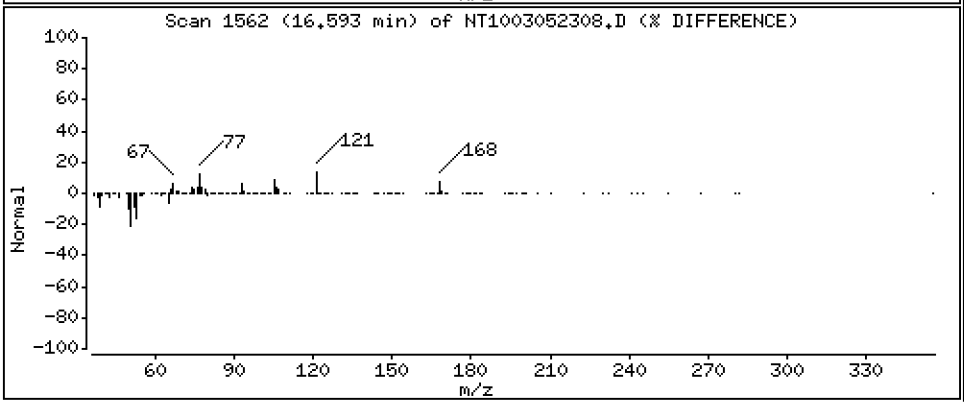
53 4,6-Dinitro-2-methylphenol

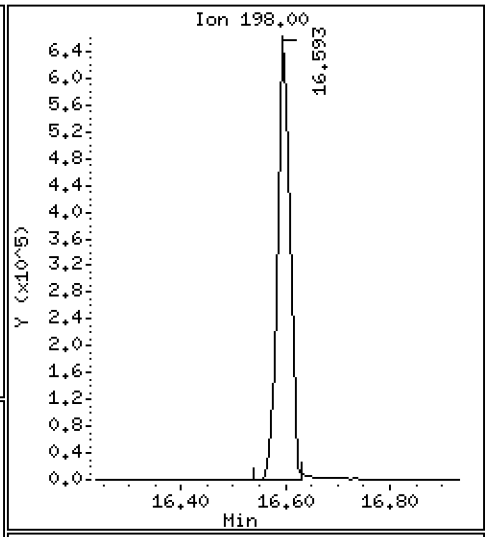
Concentration: 38.35 ug/mL

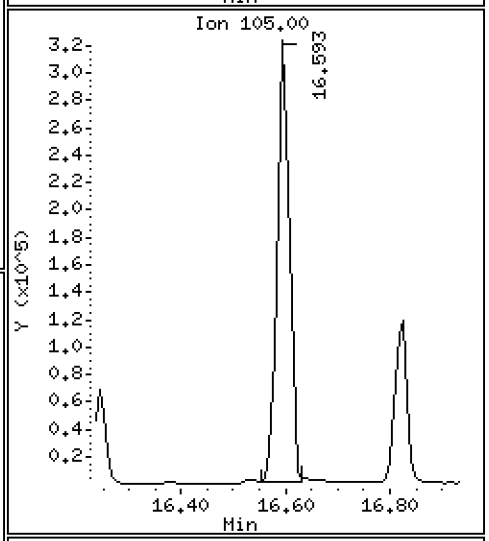


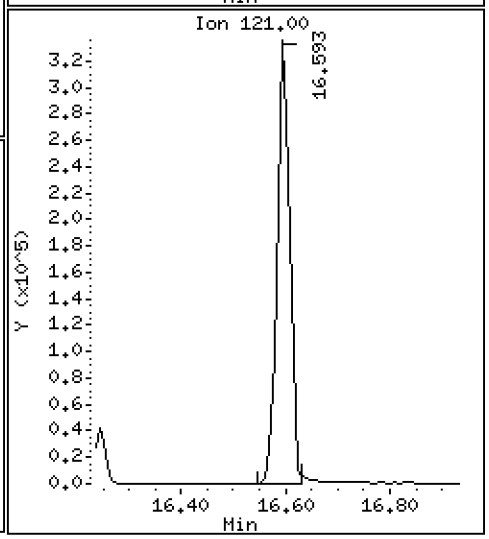












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

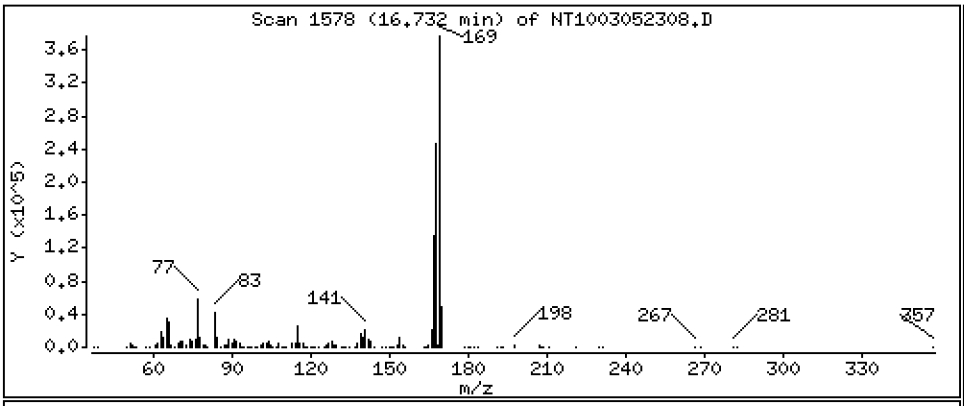
Operator: VTS

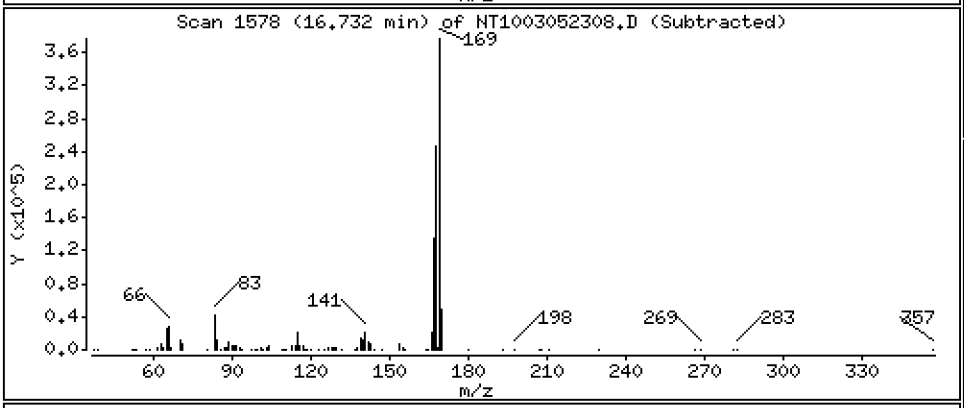
Column phase: ZB-5msi

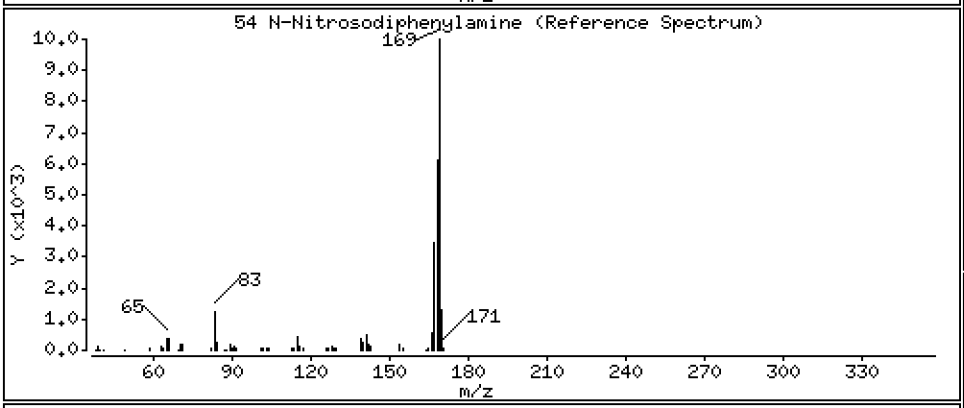
Column diameter: 0.25

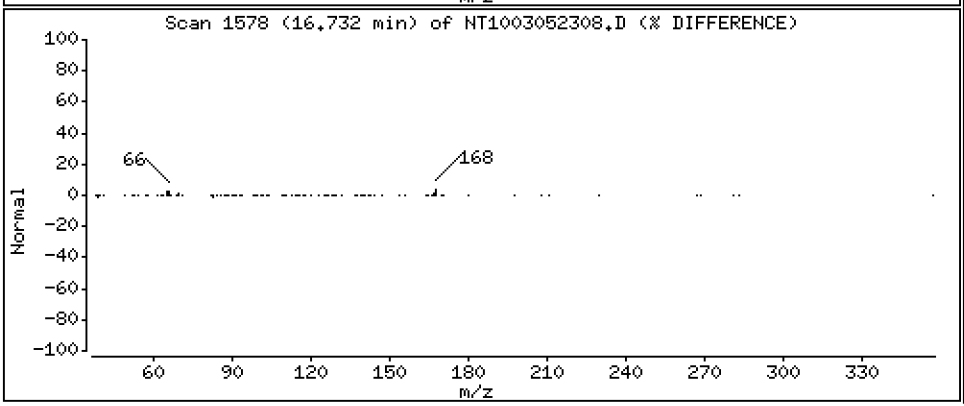
54 N-Nitrosodiphenylamine

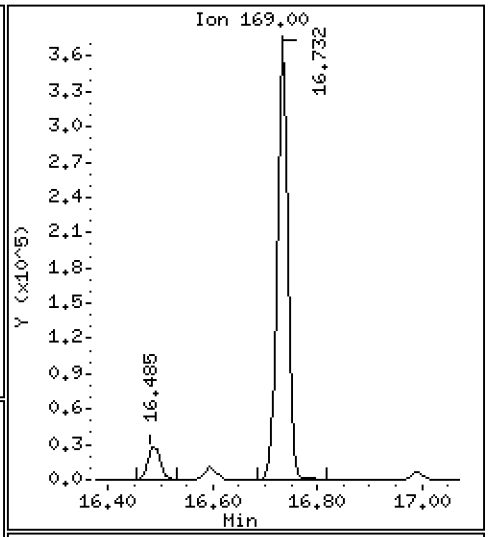
Concentration: 3.606 ug/mL

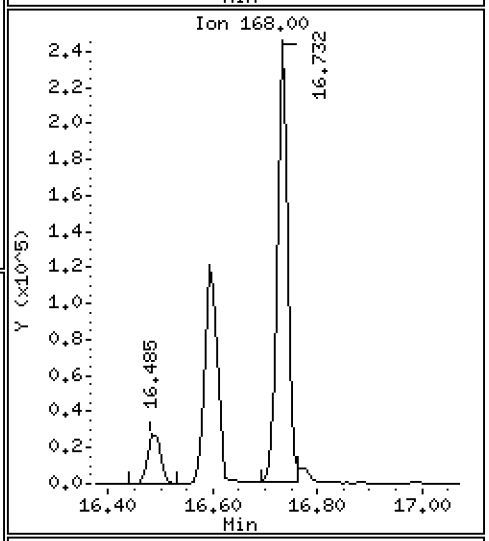


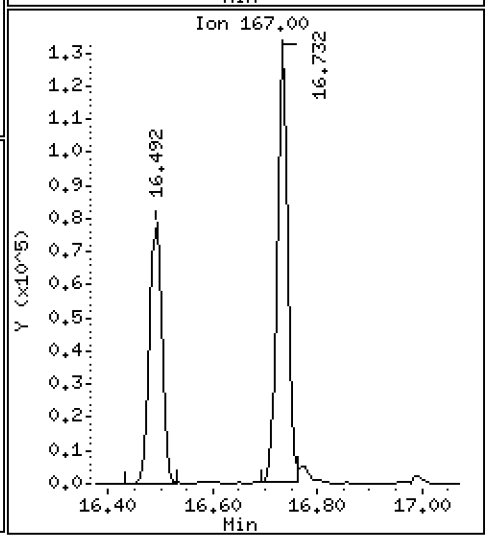












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

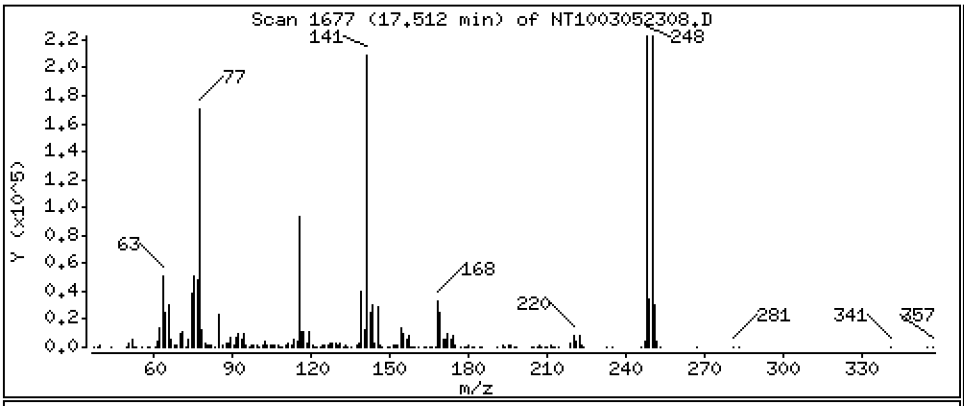
Operator: VTS

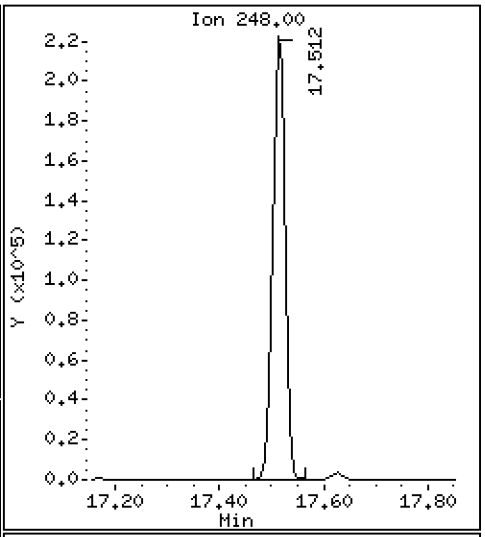
Column phase: ZB-5msi

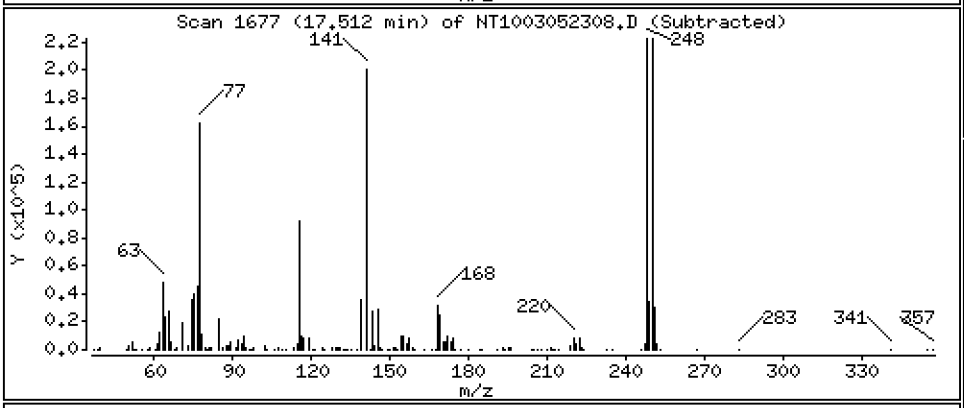
Column diameter: 0.25

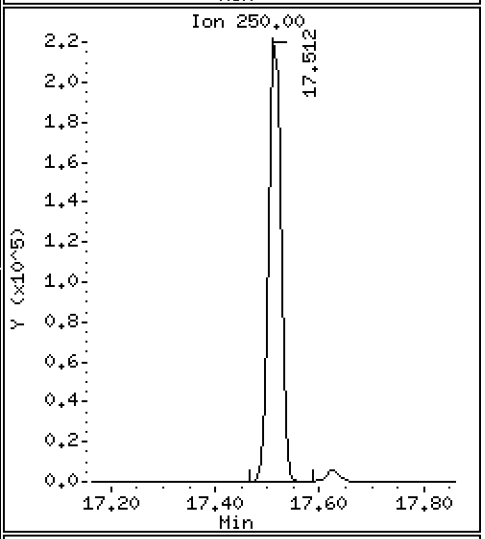
56 4-Bromophenyl-phenylether

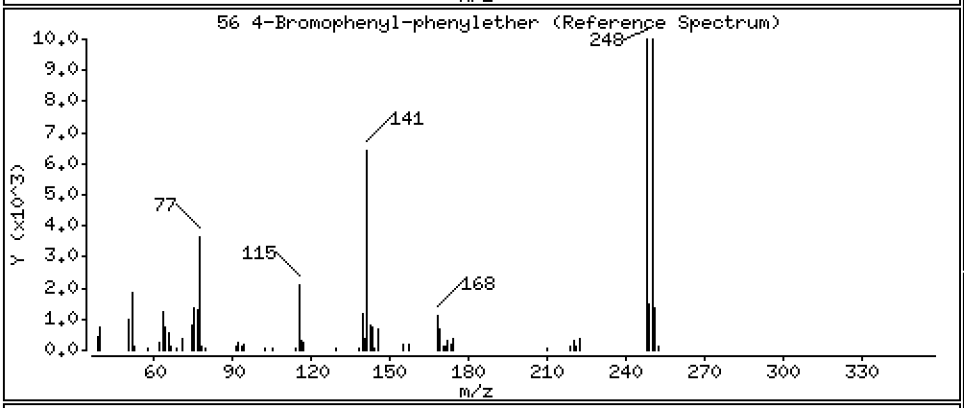
Concentration: 5.740 ug/mL

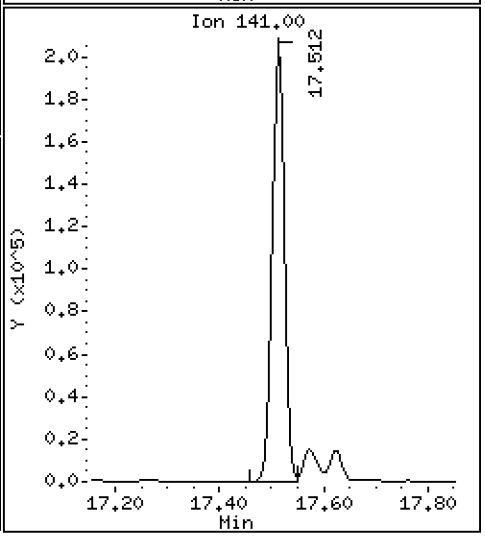


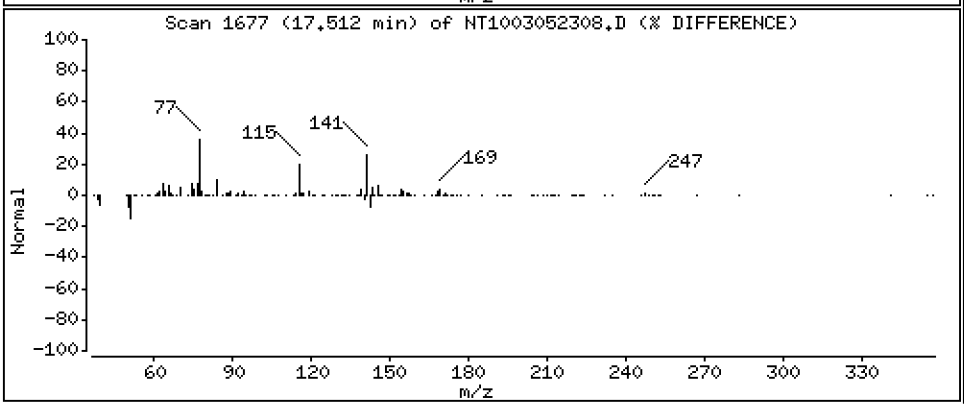












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052308.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

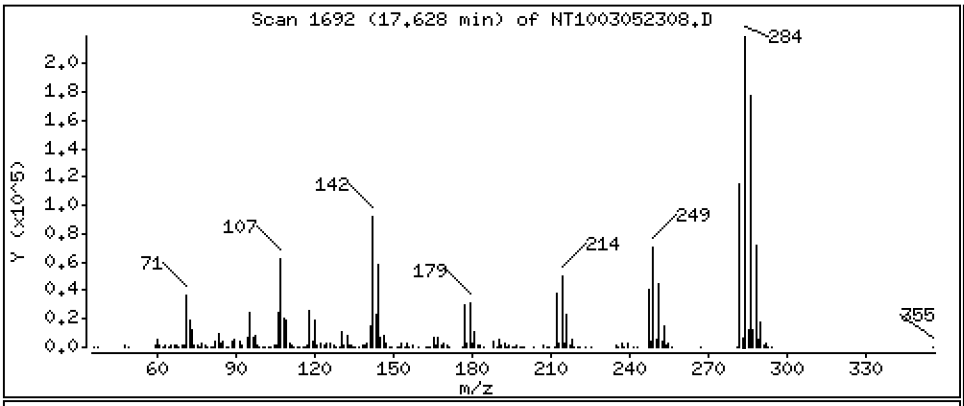
Operator: VTS

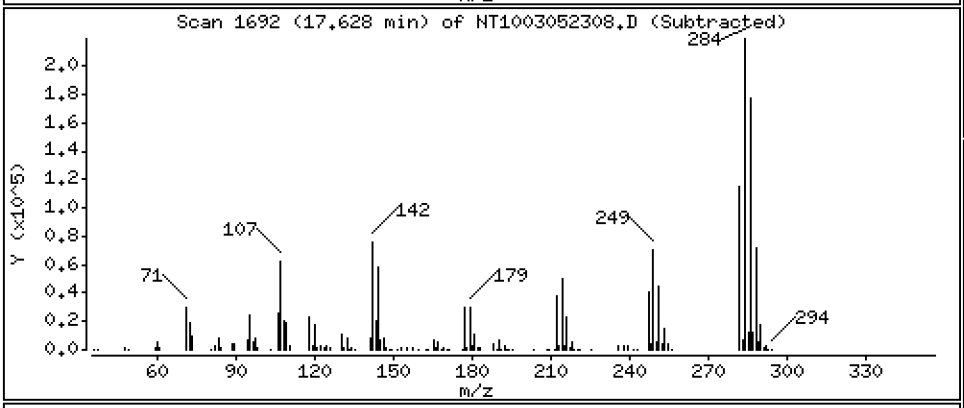
Column phase: ZB-5msi

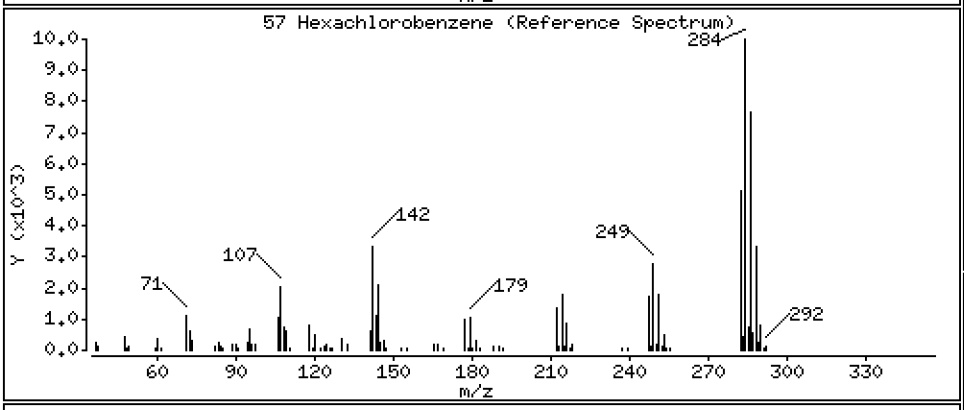
Column diameter: 0.25

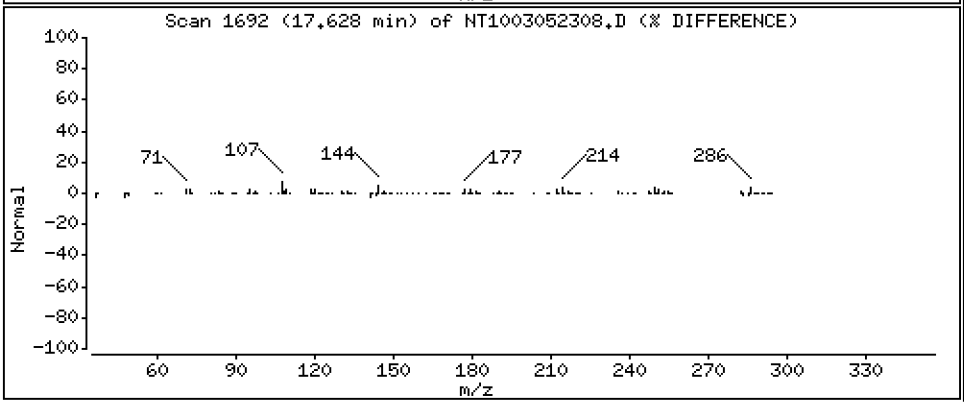
57 Hexachlorobenzene

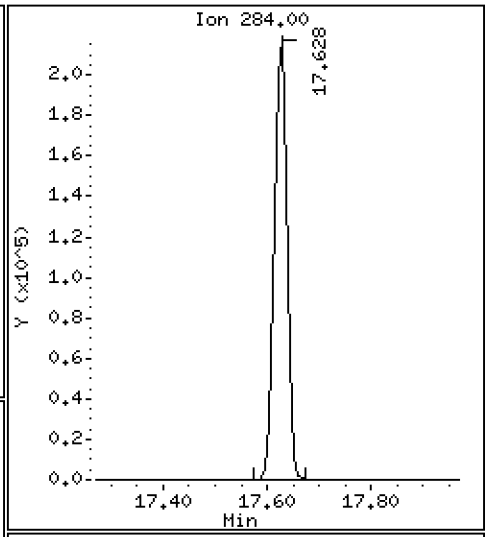
Concentration: 5.261 ug/mL

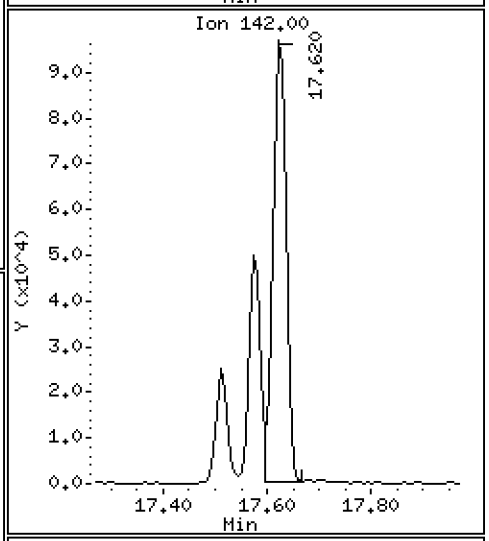


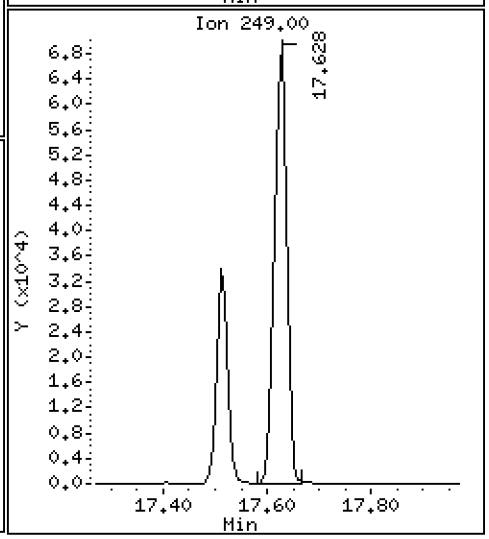












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

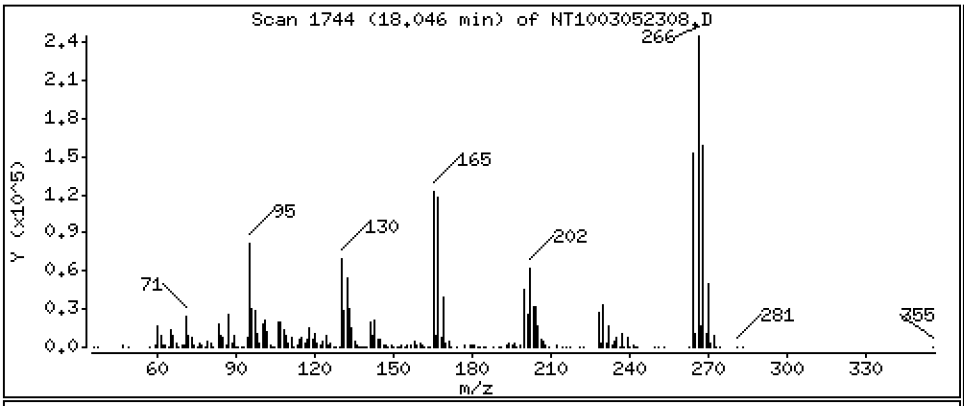
Operator: VTS

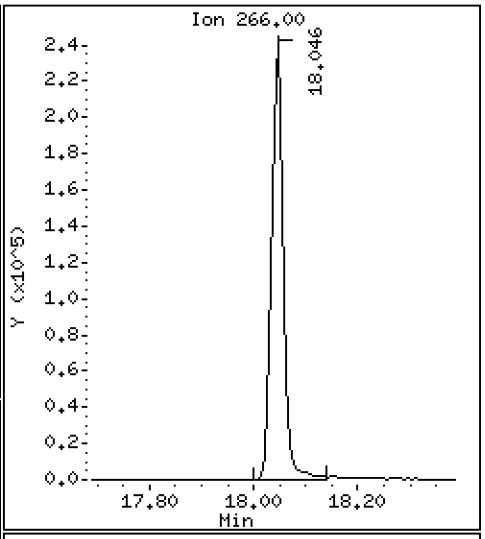
Column phase: ZB-5msi

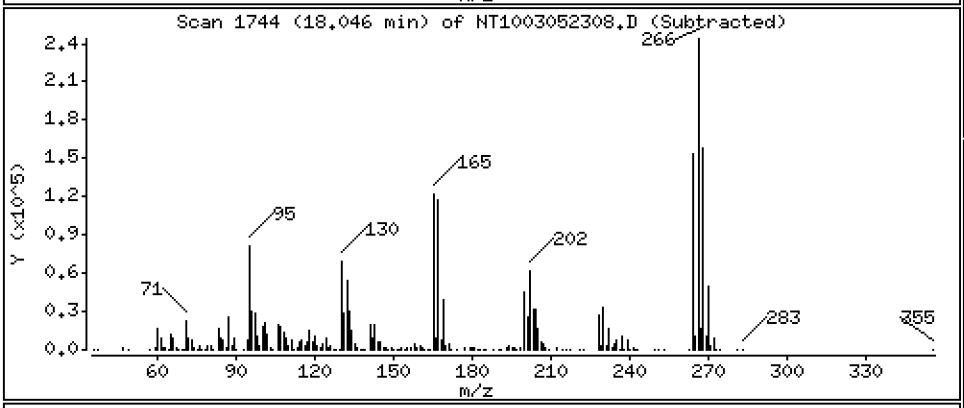
Column diameter: 0.25

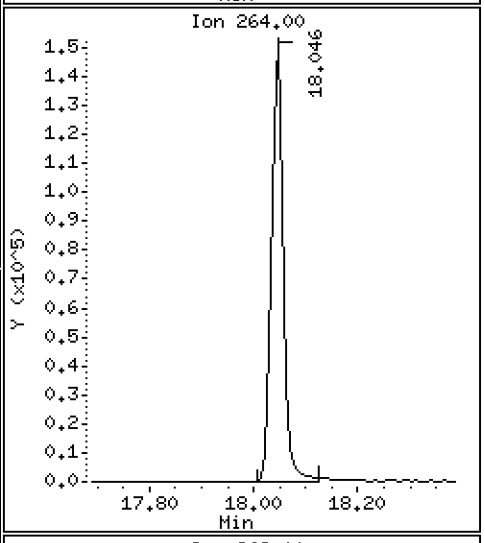
58 Pentachlorophenol

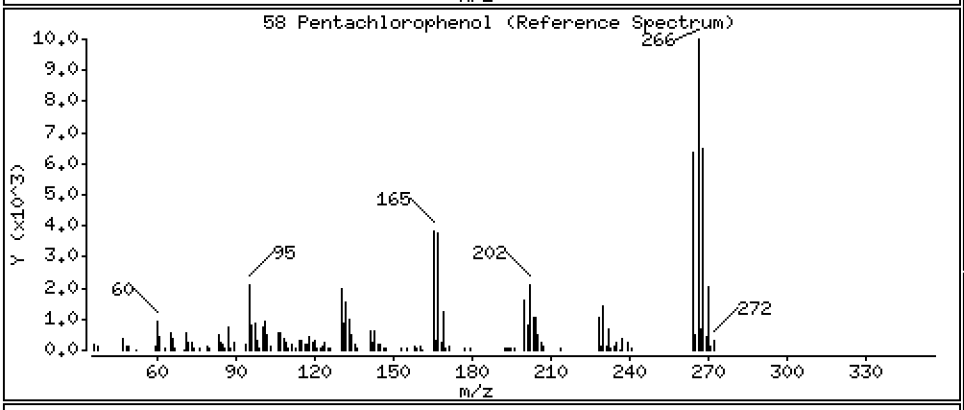
Concentration: 10.91 ug/mL

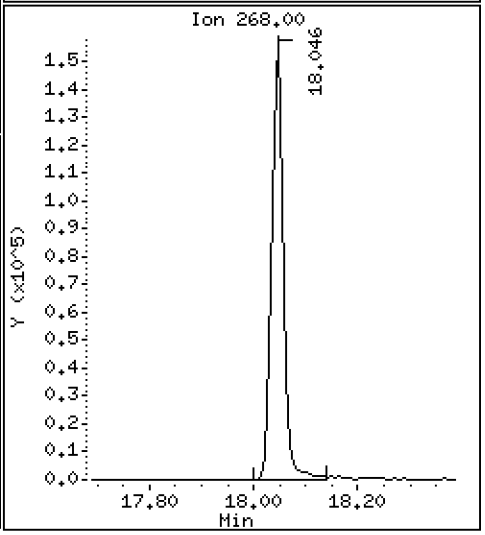


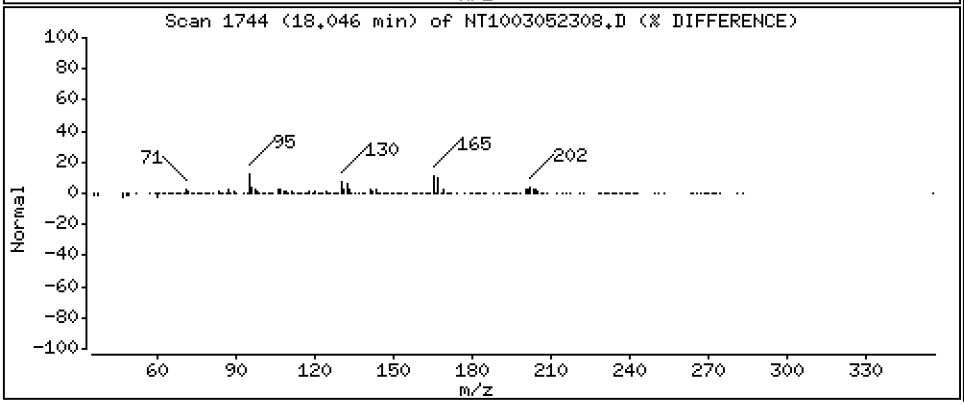












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

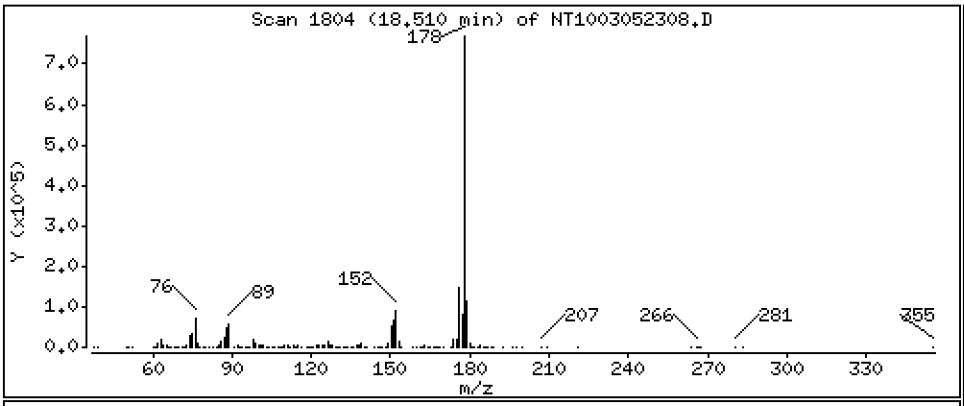
Operator: VTS

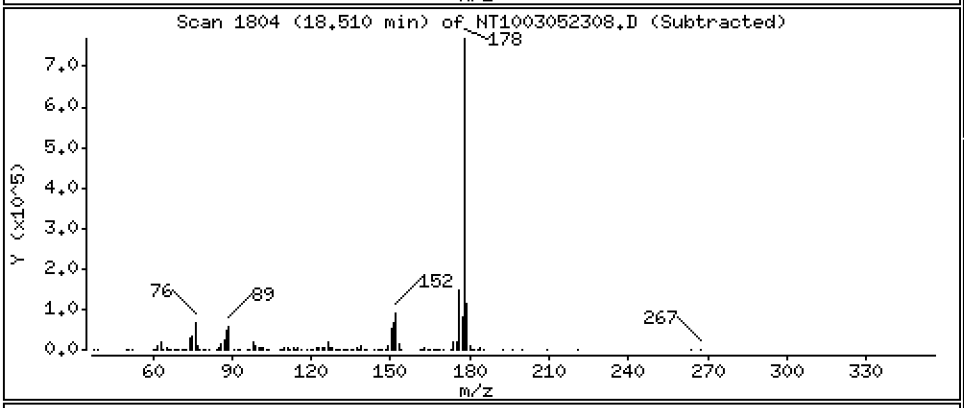
Column phase: ZB-5msi

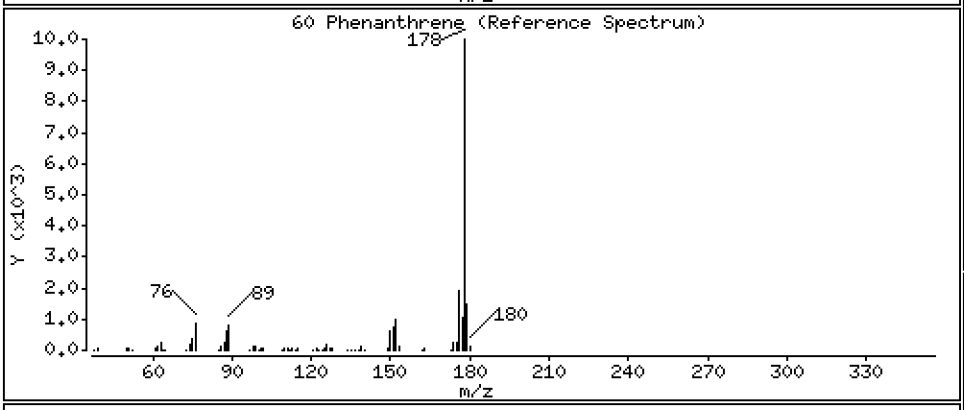
Column diameter: 0.25

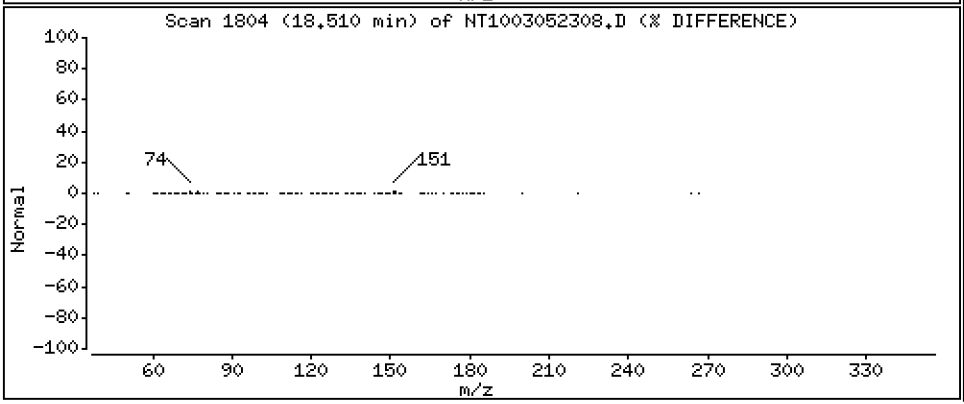
60 Phenanthrene

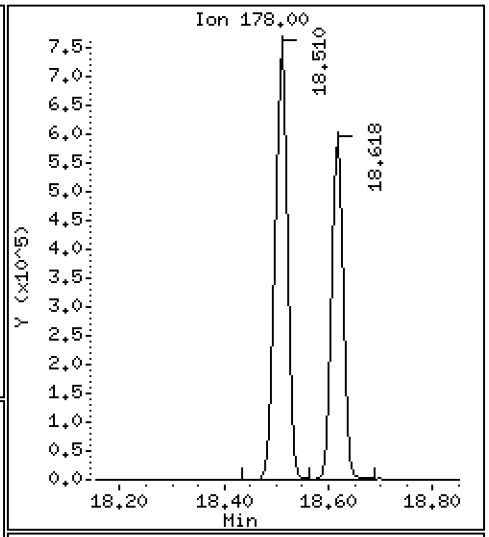
Concentration: 4.691 ug/mL

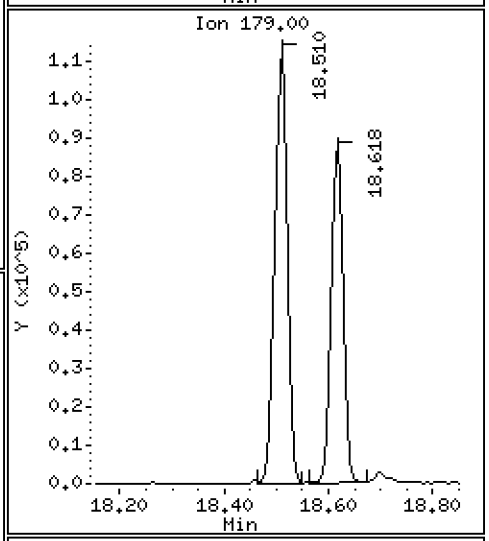


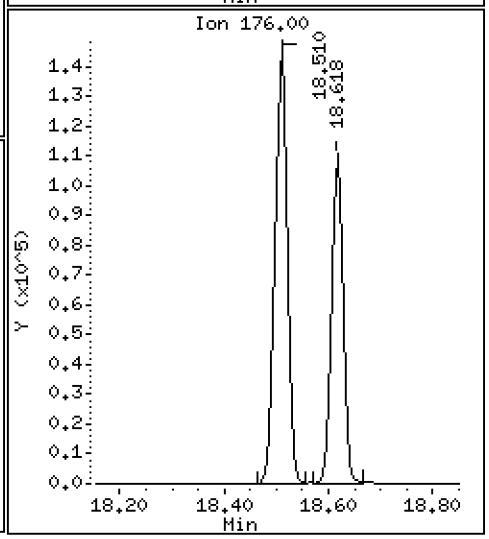












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

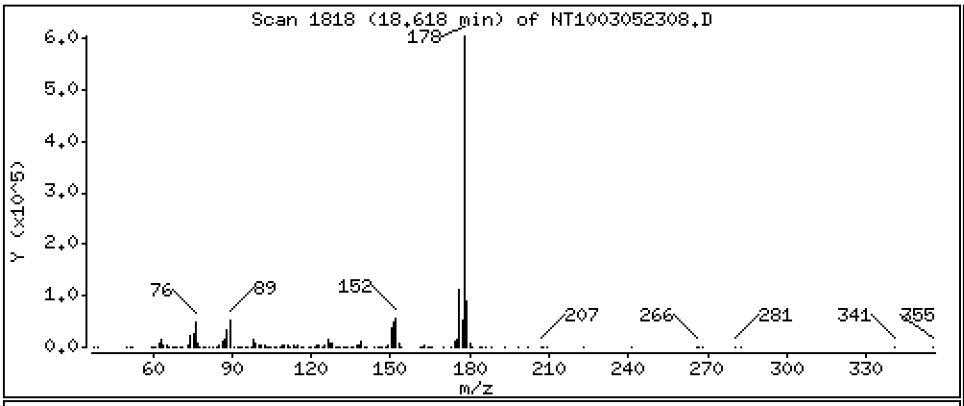
Operator: VTS

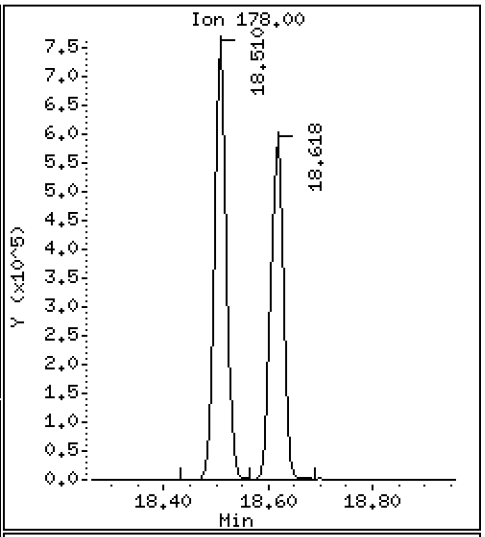
Column phase: ZB-5msi

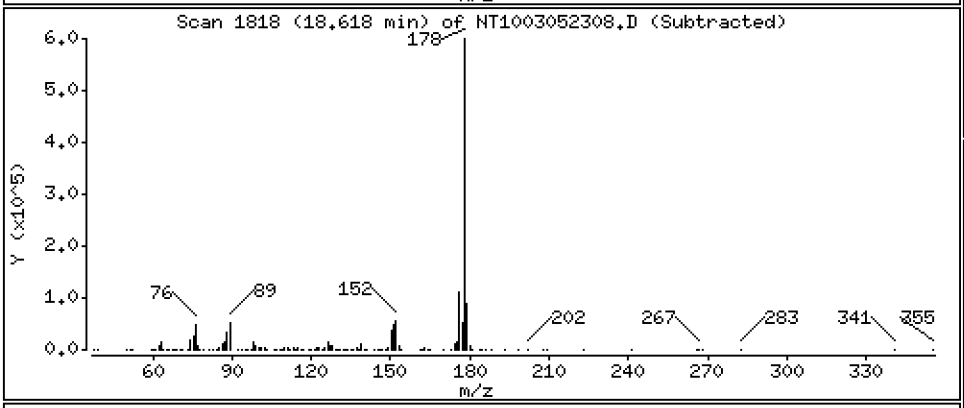
Column diameter: 0.25

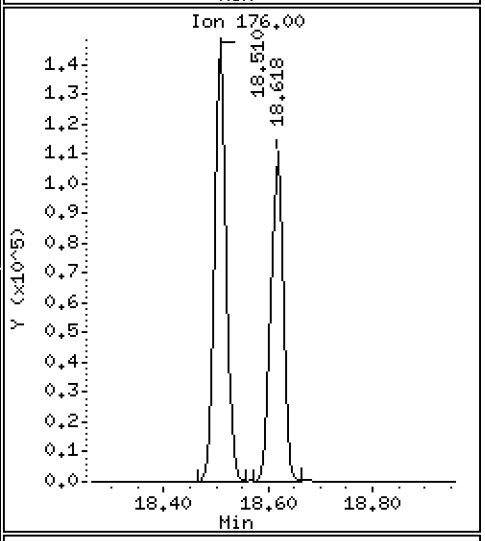
61 Anthracene

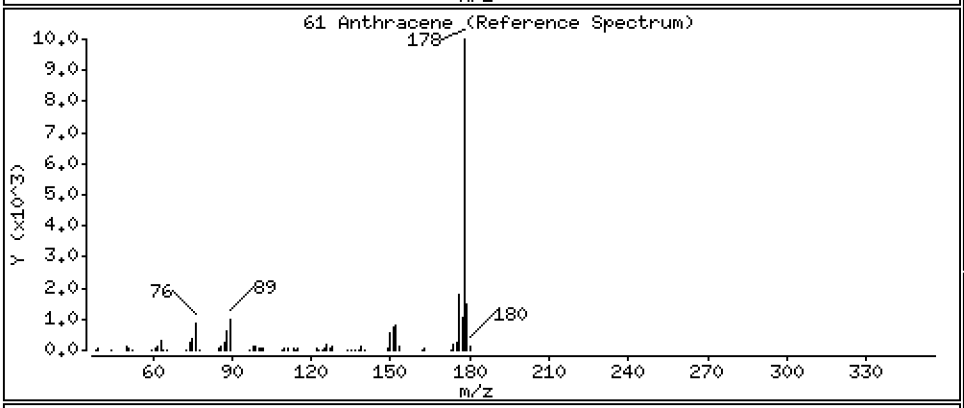
Concentration: 3.882 ug/mL

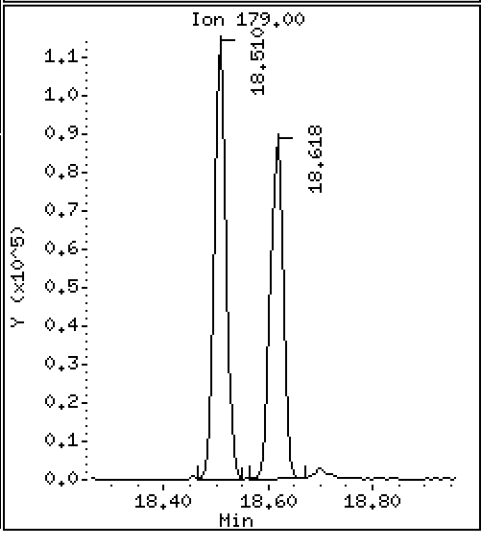


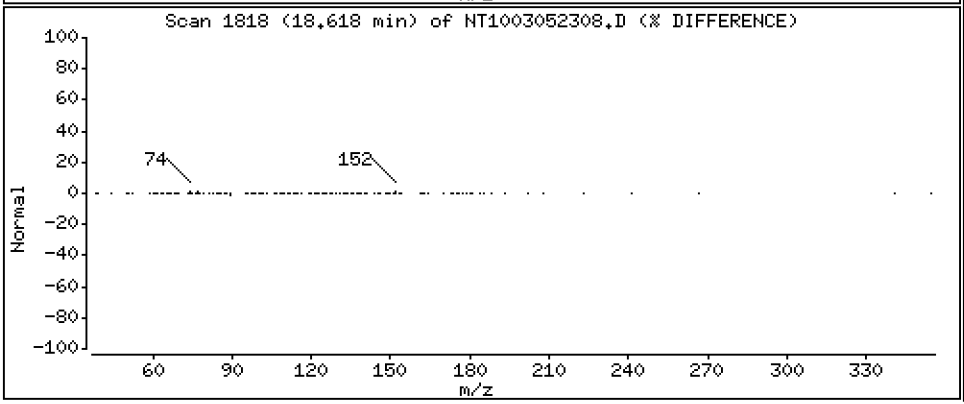












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

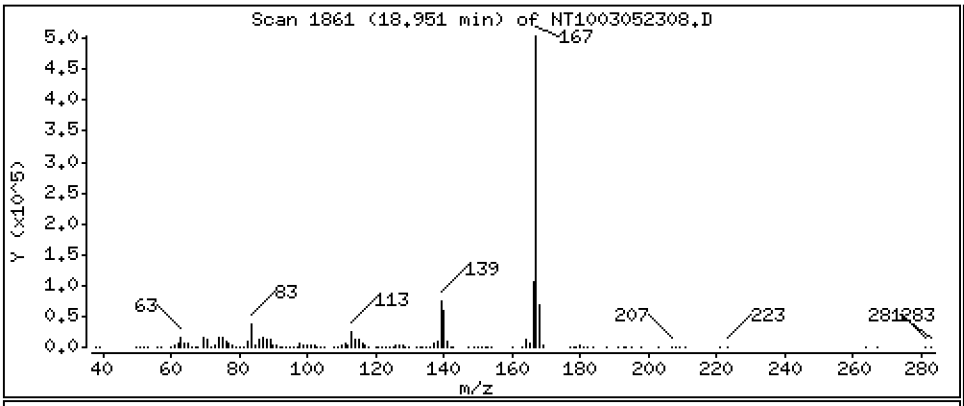
Operator: VTS

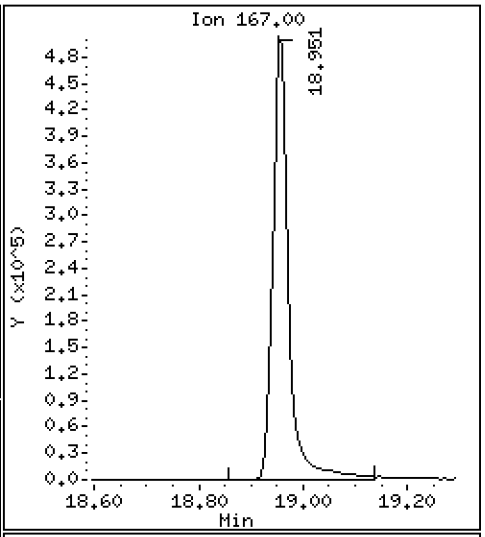
Column phase: ZB-5msi

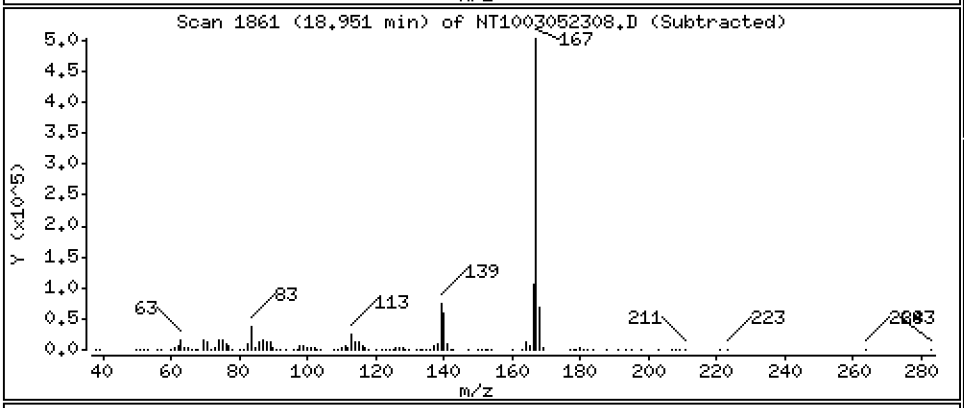
Column diameter: 0.25

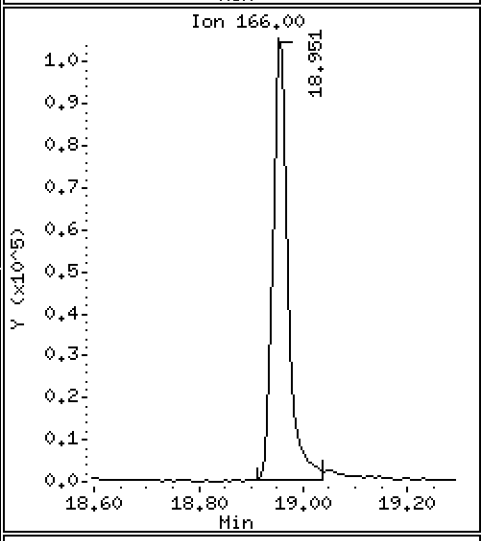
62 Carbazole

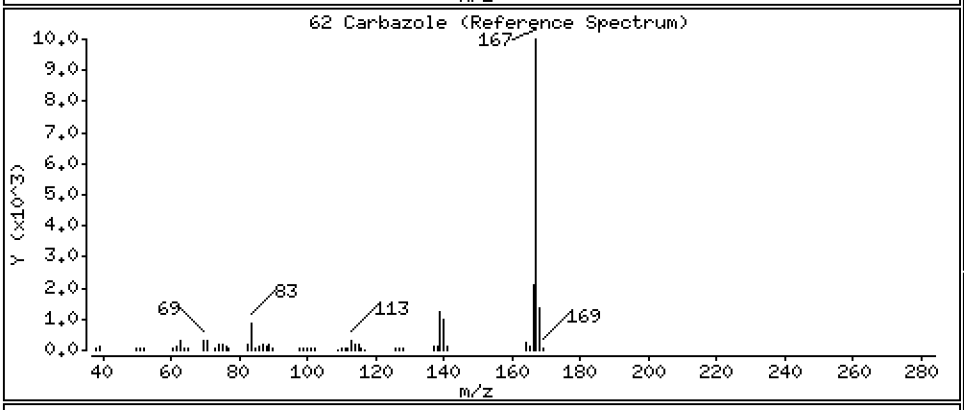
Concentration: 4.640 ug/mL

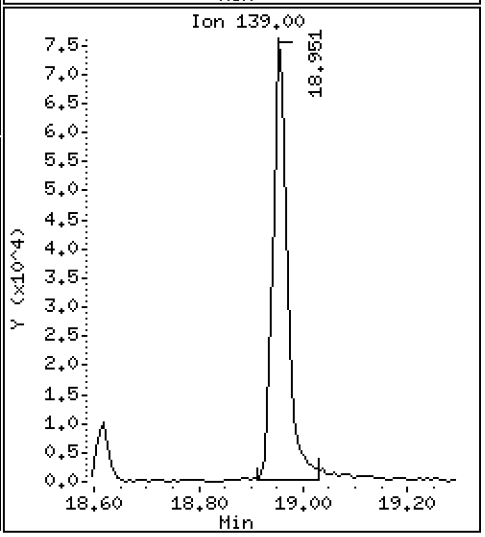


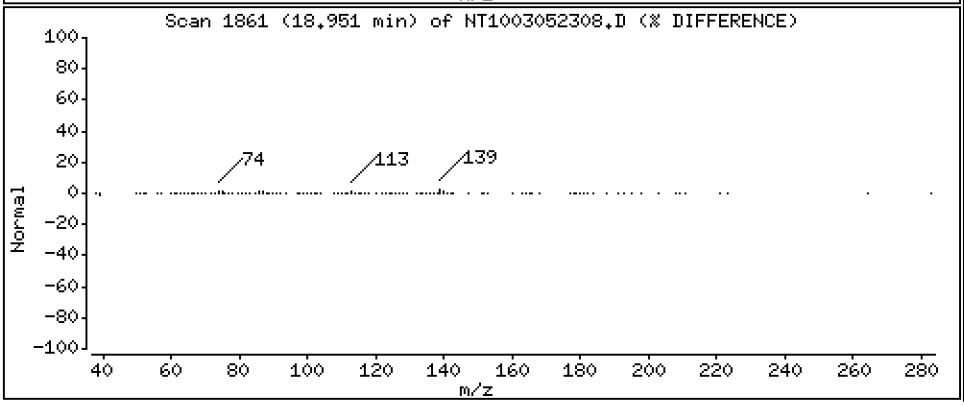












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

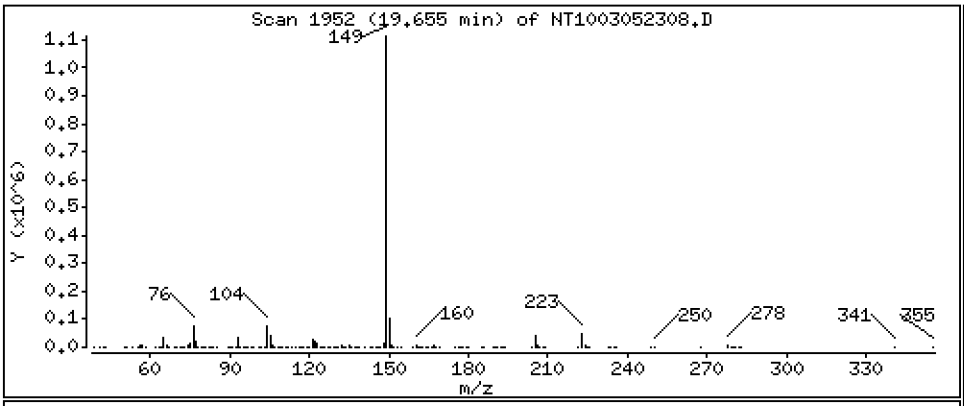
Operator: VTS

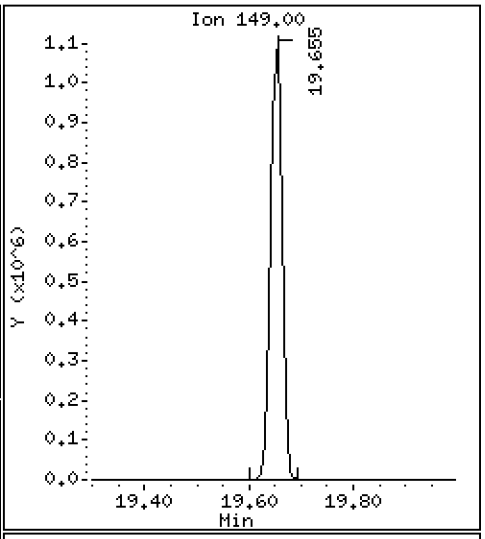
Column phase: ZB-5msi

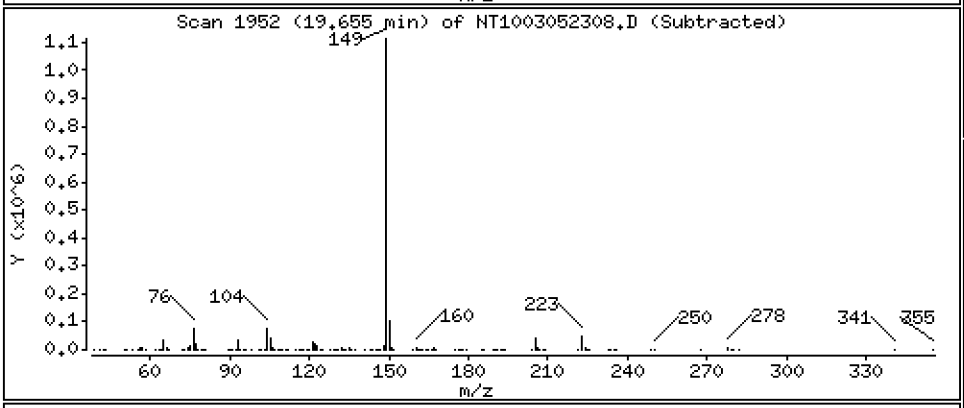
Column diameter: 0.25

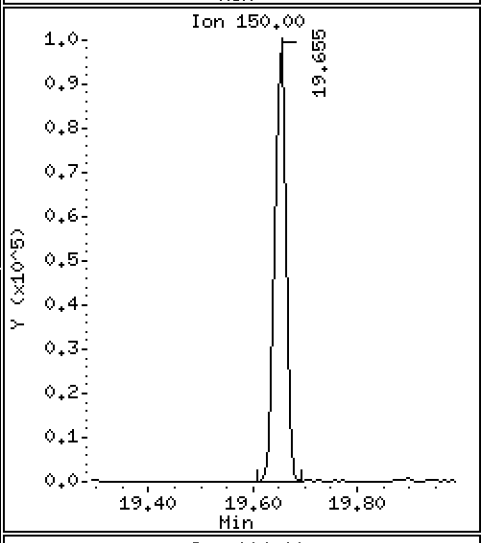
63 Di-n-butylphthalate

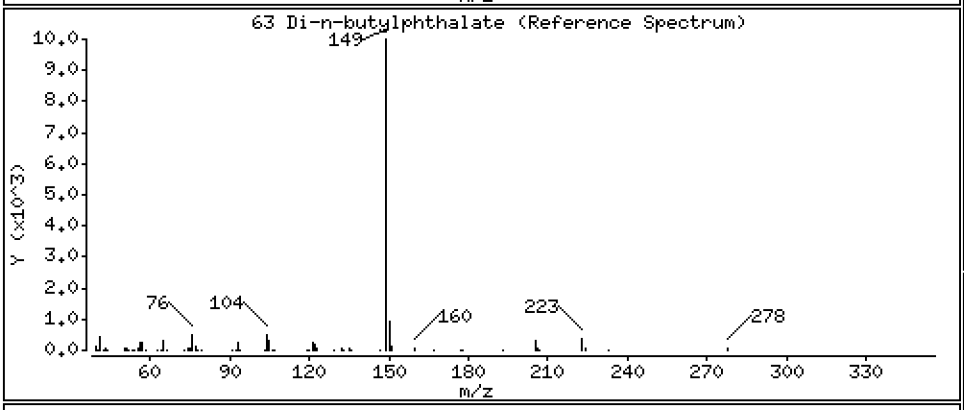
Concentration: 4.941 ug/mL

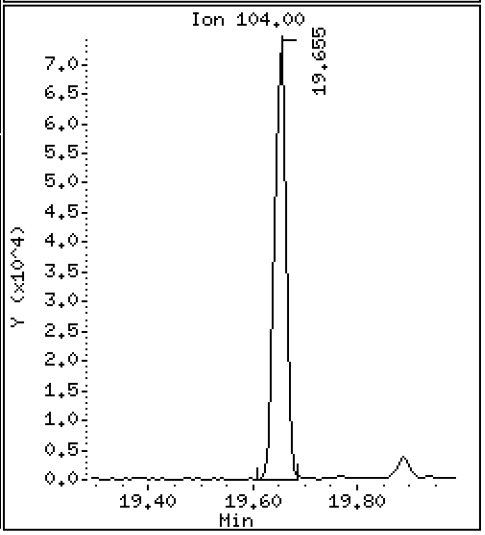


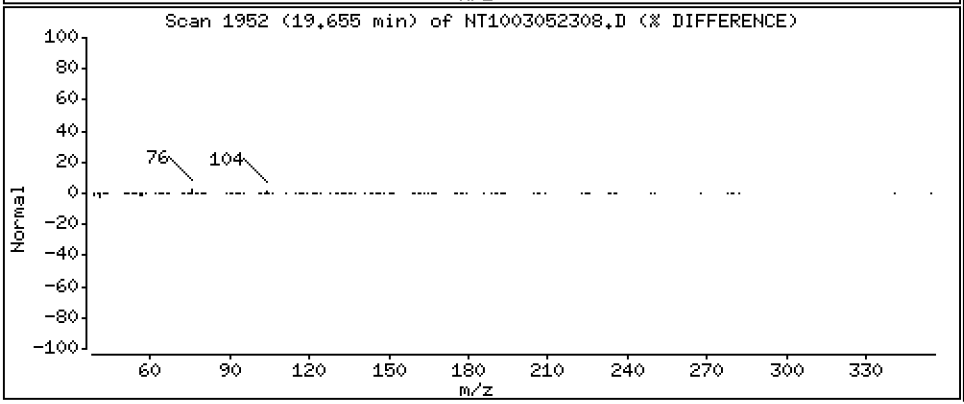












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

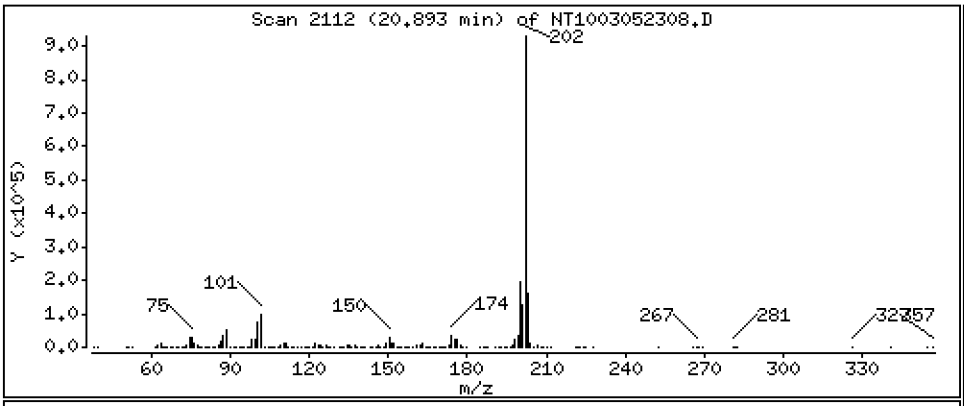
Operator: VTS

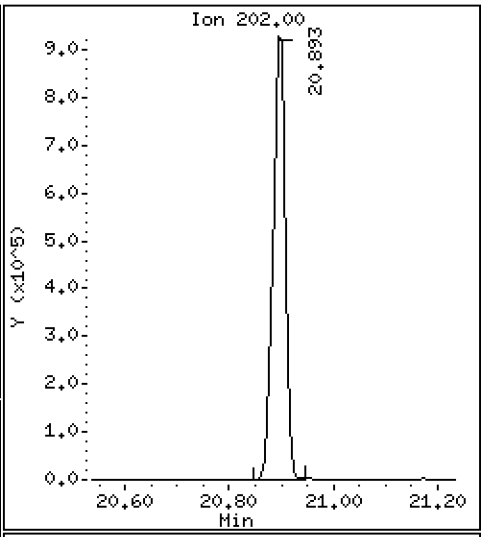
Column phase: ZB-5msi

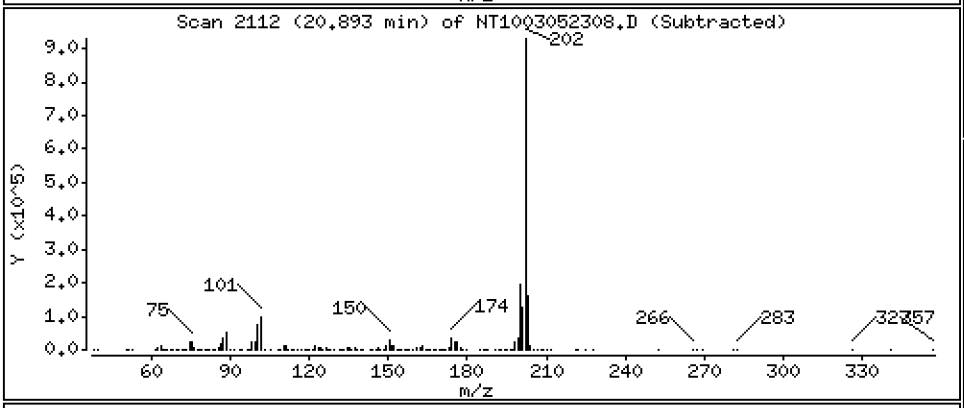
Column diameter: 0.25

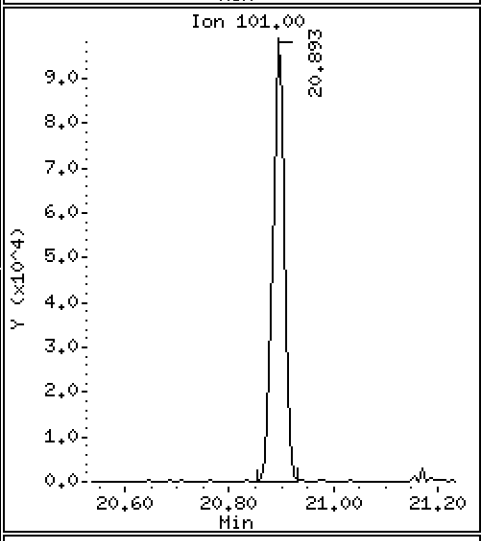
64 Fluoranthene

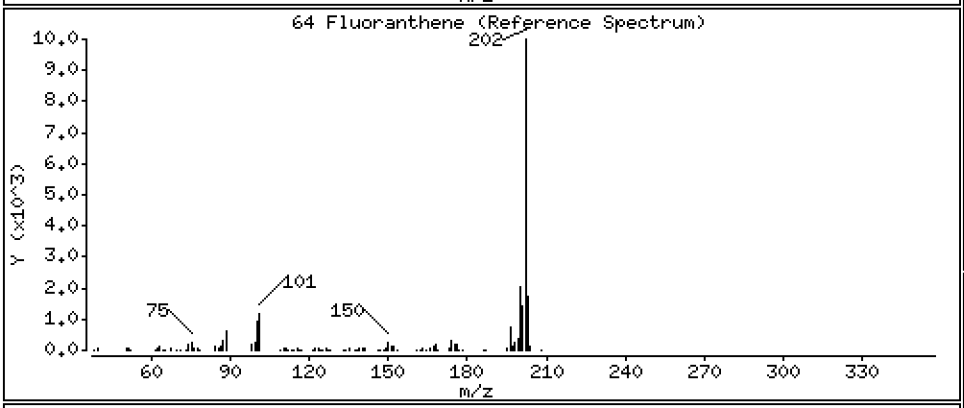
Concentration: 4.805 ug/mL

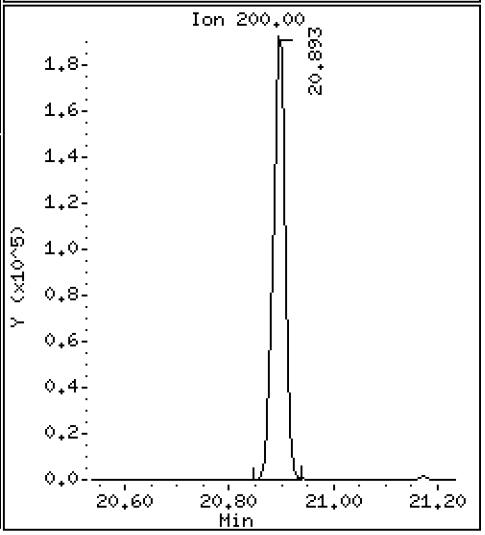


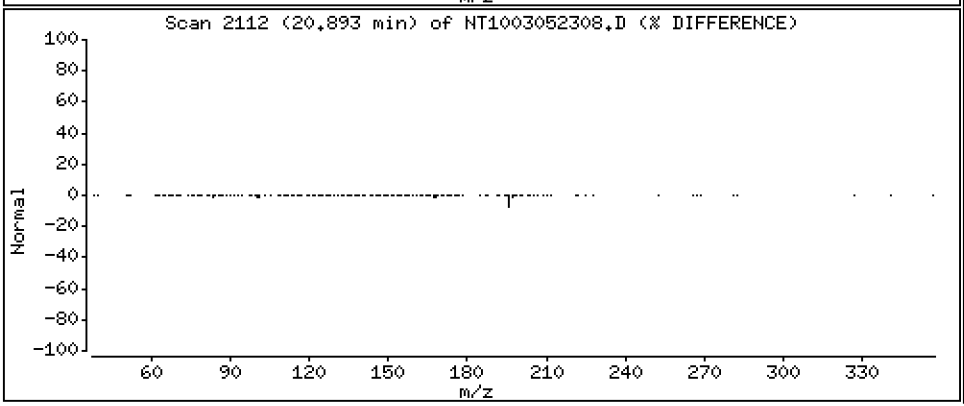












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052308.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

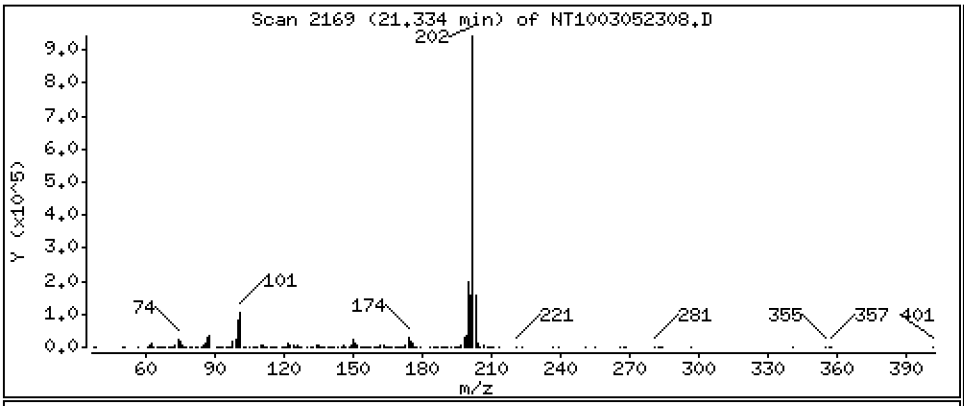
Operator: VTS

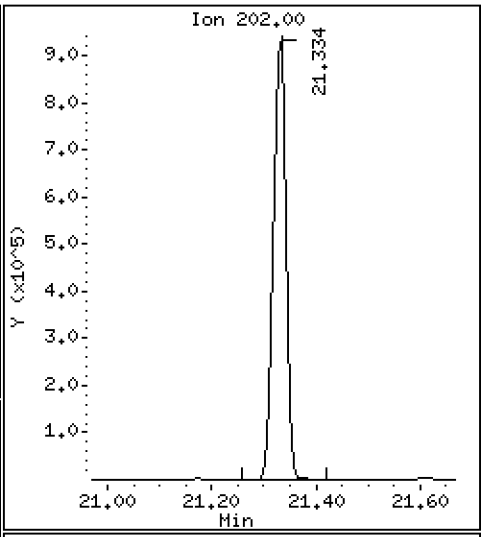
Column phase: ZB-5msi

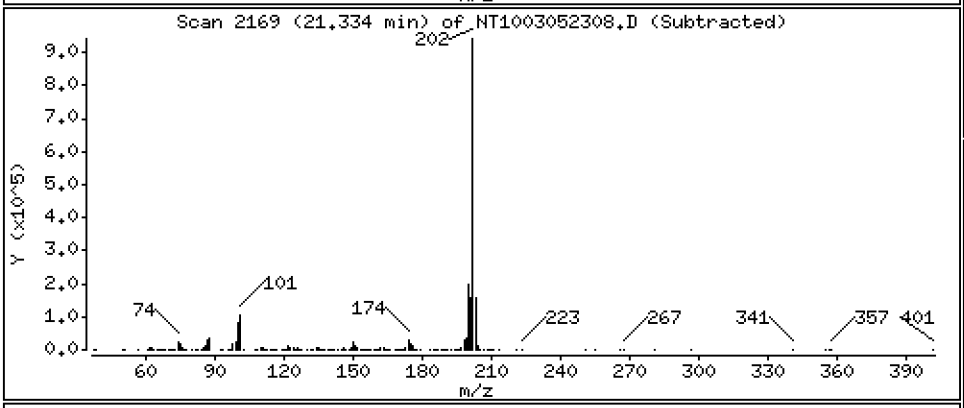
Column diameter: 0.25

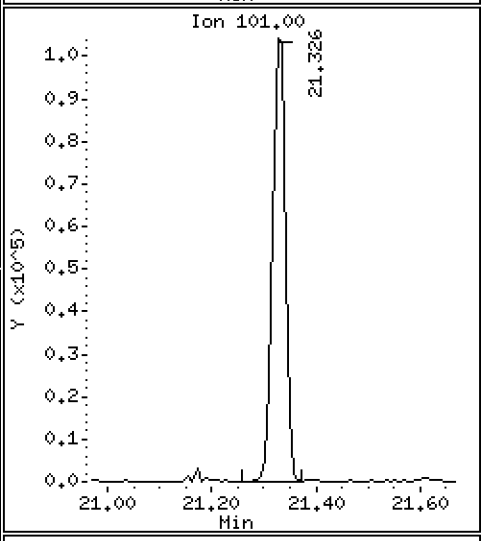
65 Pyrene

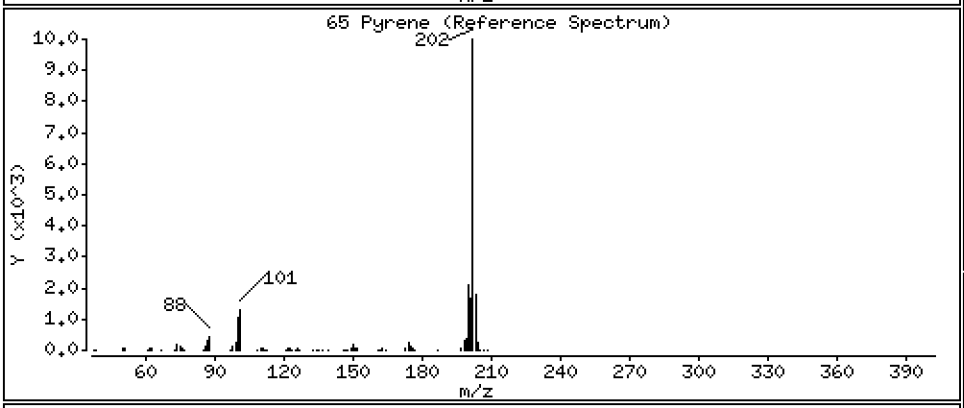
Concentration: 5.182 ug/mL

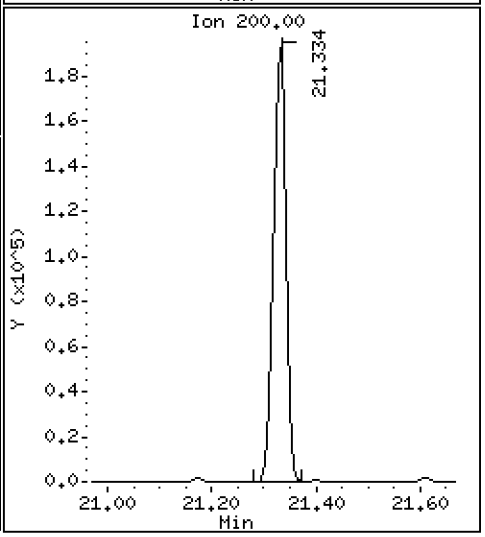


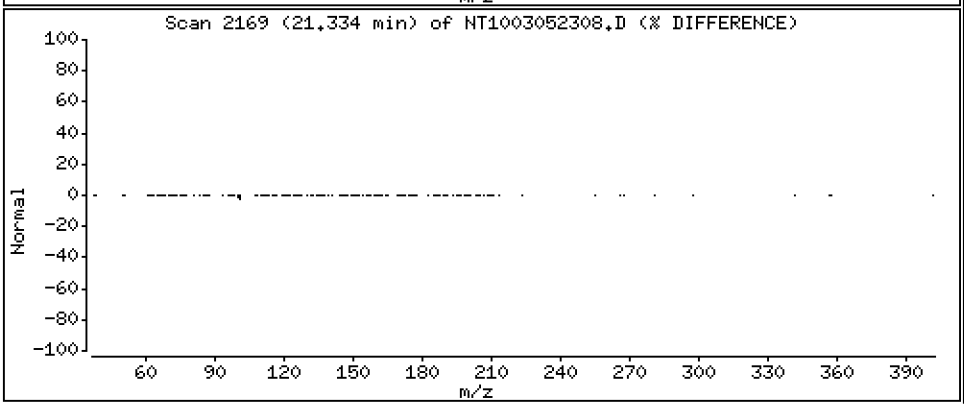












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

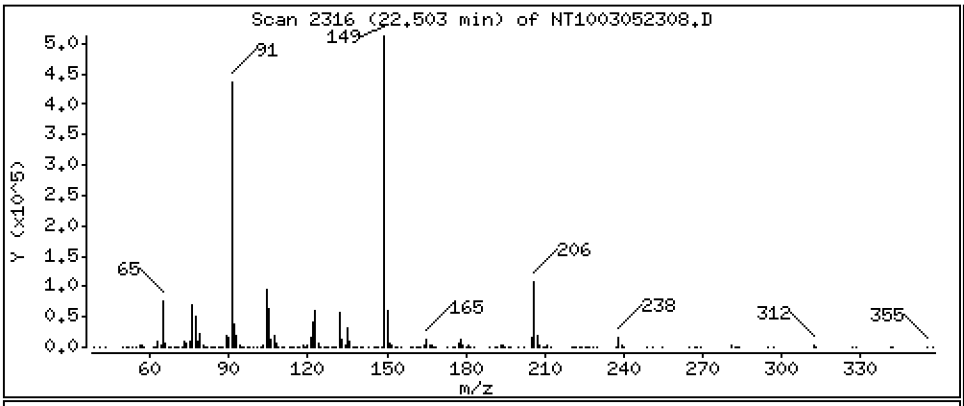
Operator: VTS

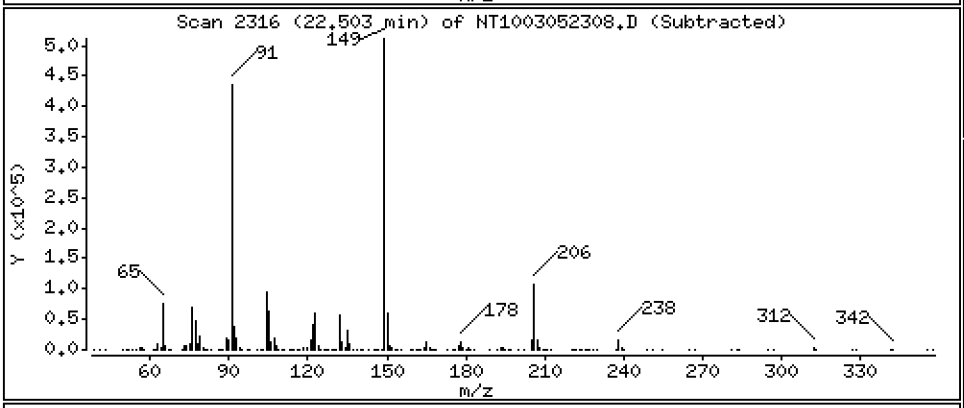
Column phase: ZB-5msi

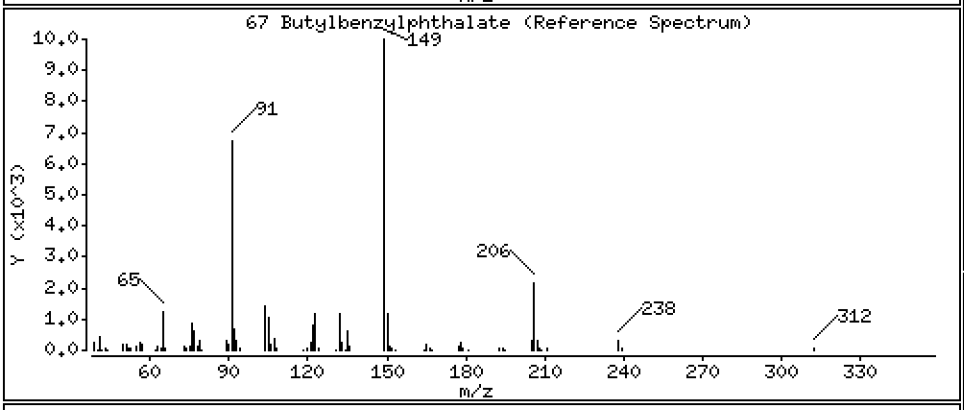
Column diameter: 0.25

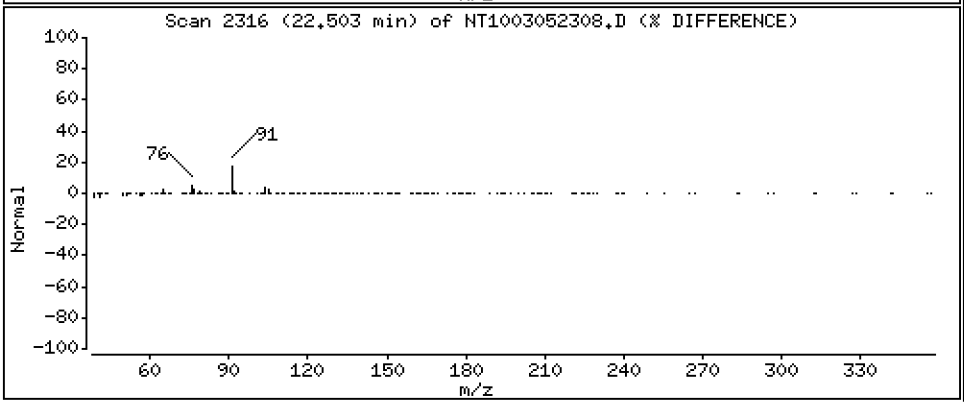
67 Butylbenzylphthalate

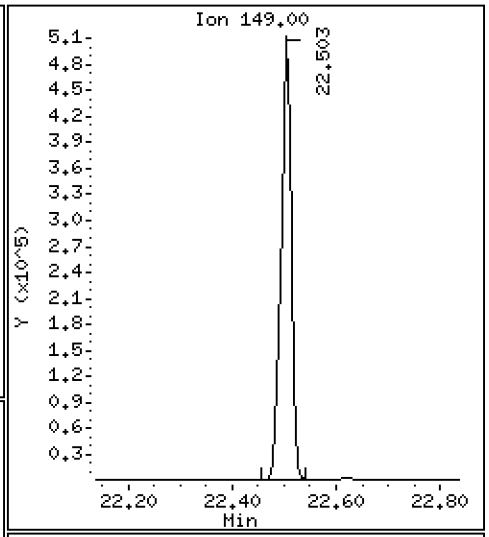
Concentration: 4.015 ug/mL

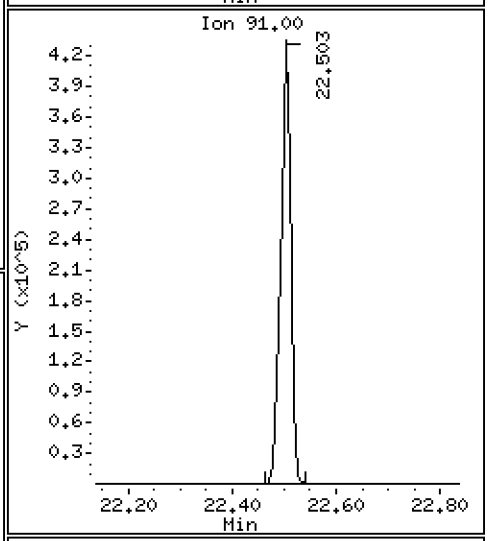


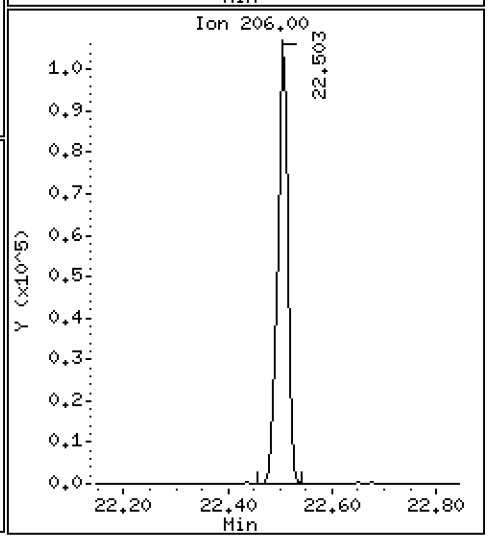












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

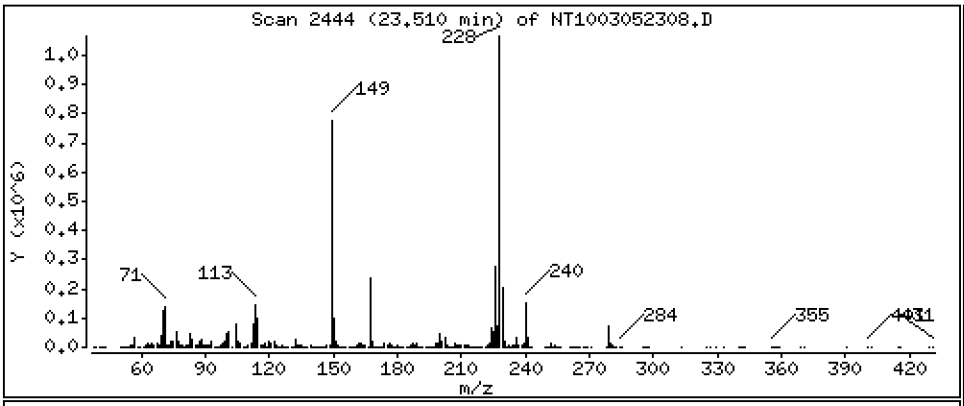
Operator: VTS

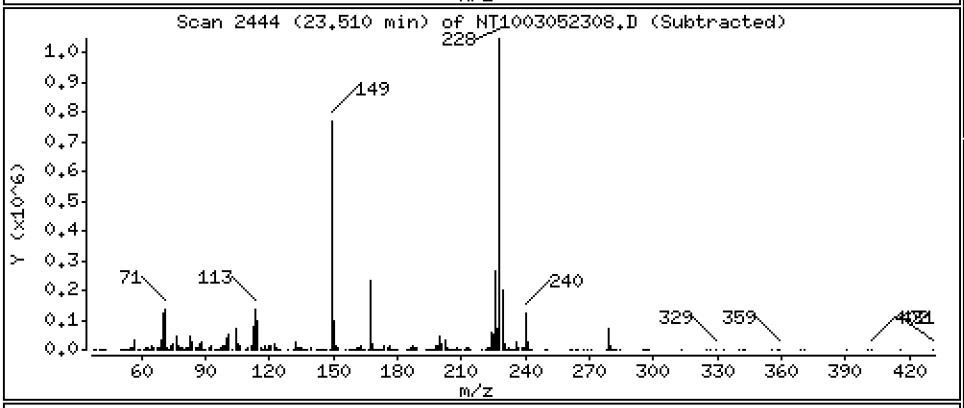
Column phase: ZB-5msi

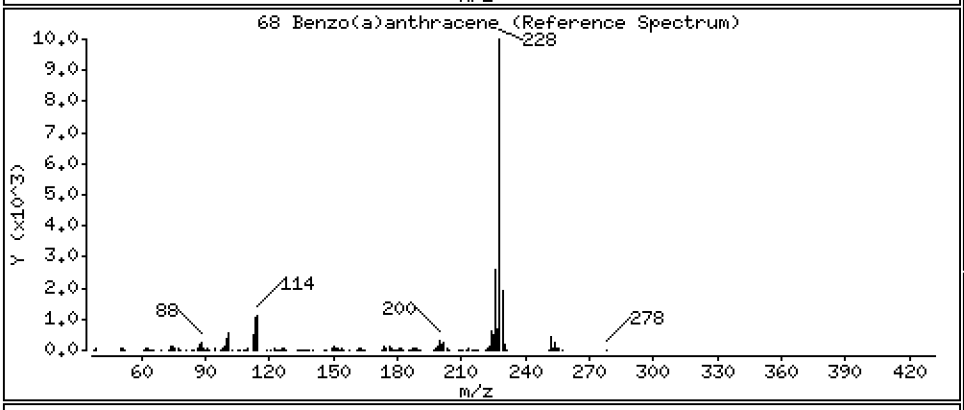
Column diameter: 0.25

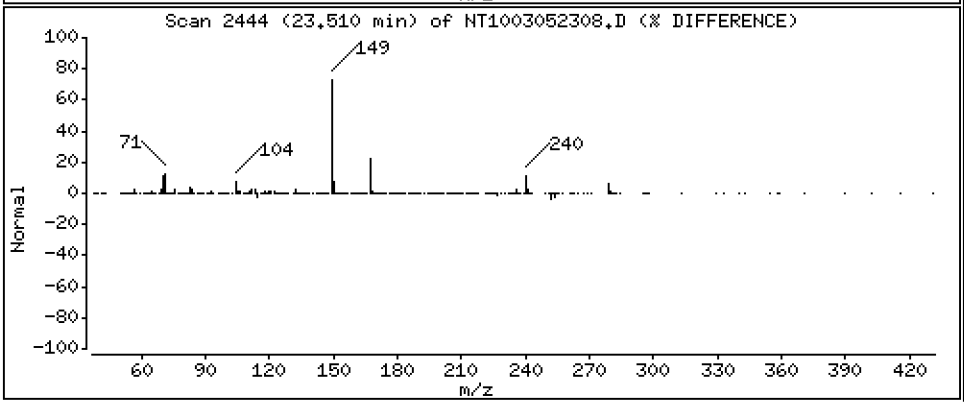
68 Benzo(a)anthracene

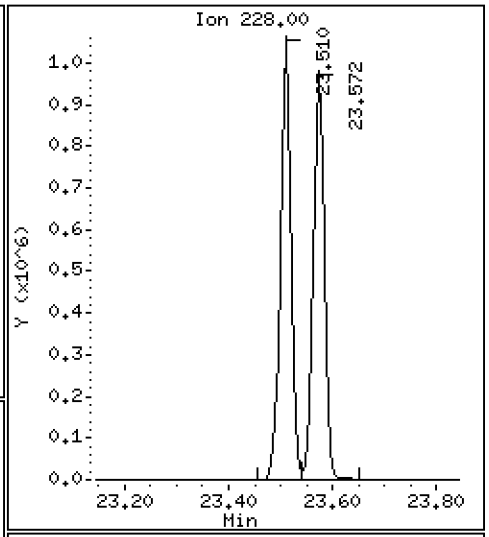
Concentration: 4.671 ug/mL

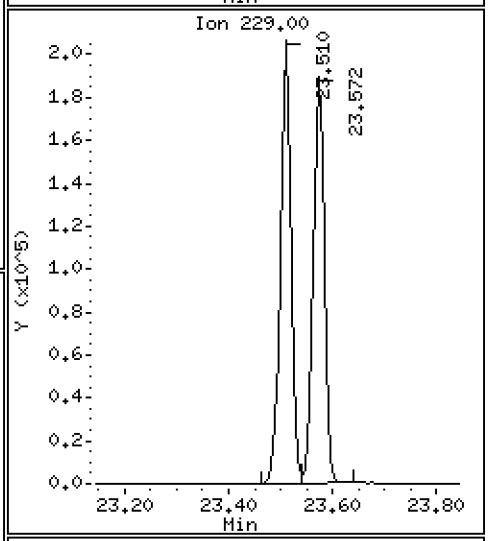


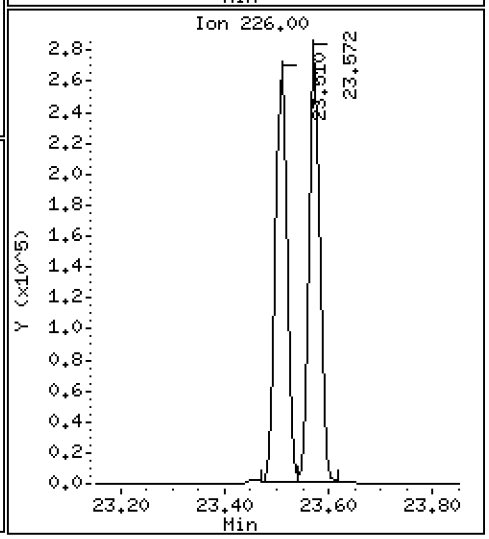












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

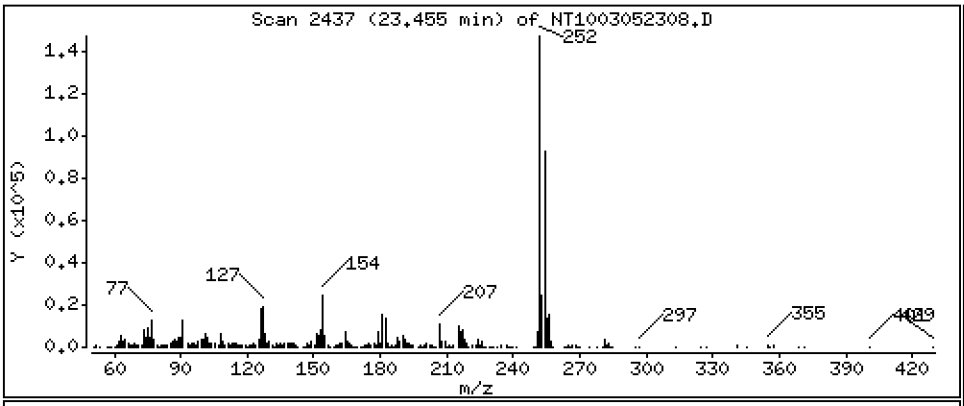
Operator: VTS

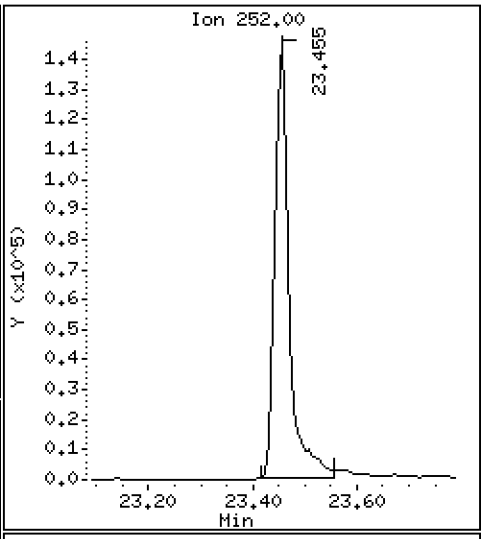
Column phase: ZB-5msi

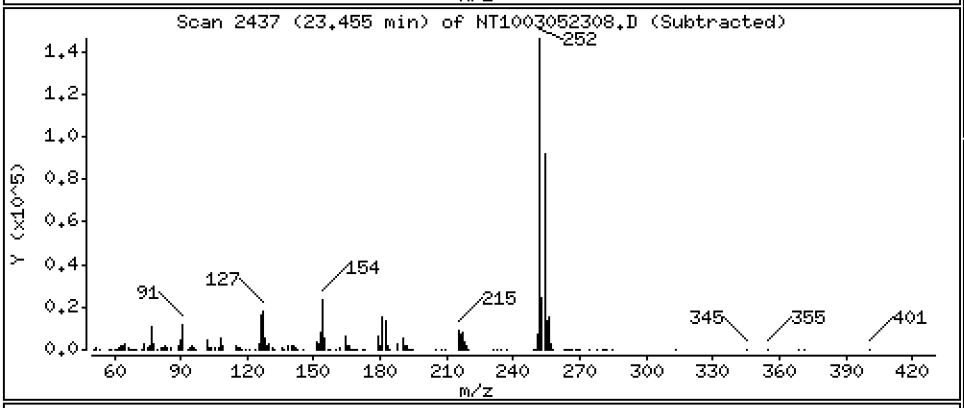
Column diameter: 0.25

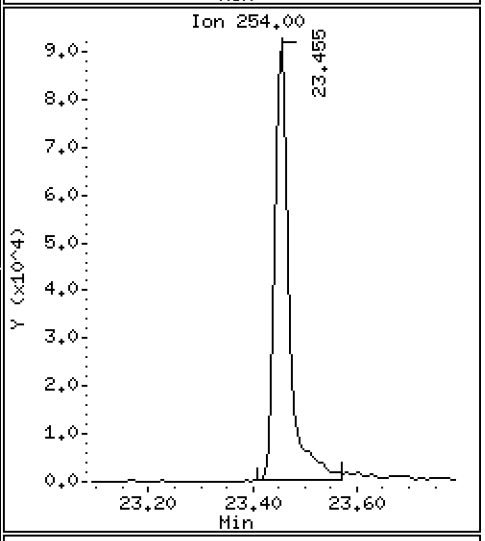
70 3,3'-Dichlorobenzidine

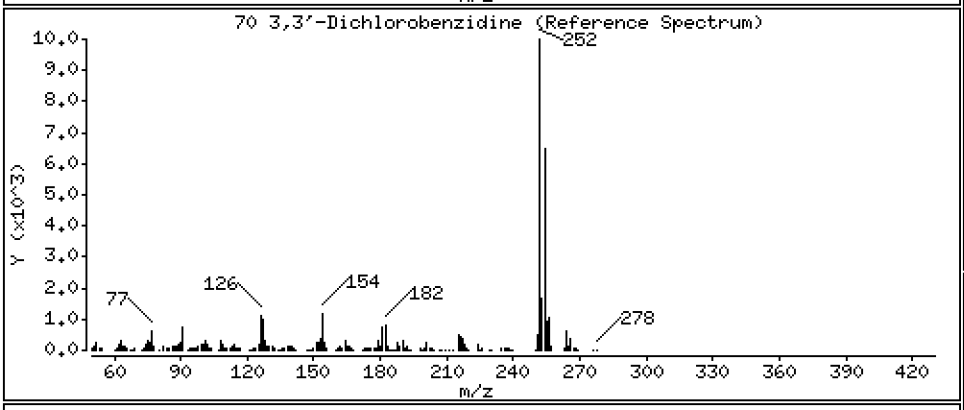
Concentration: 1.869 ug/mL

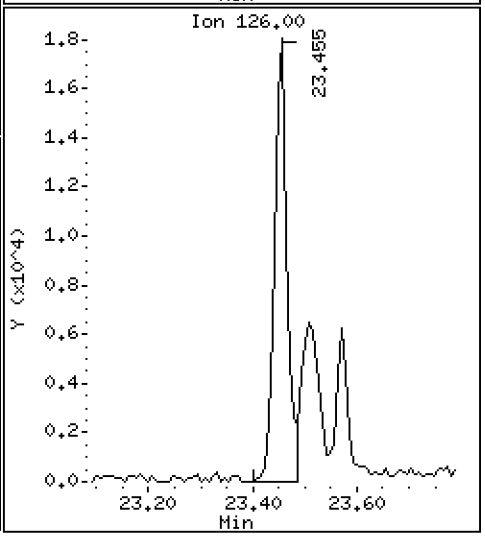


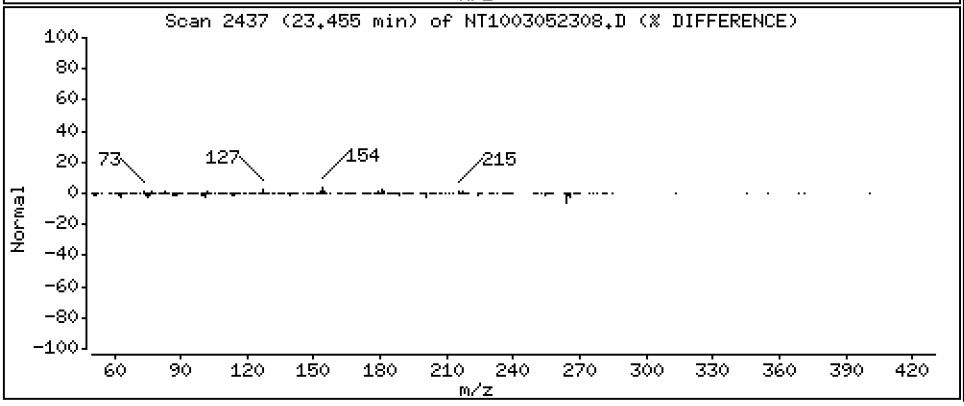












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

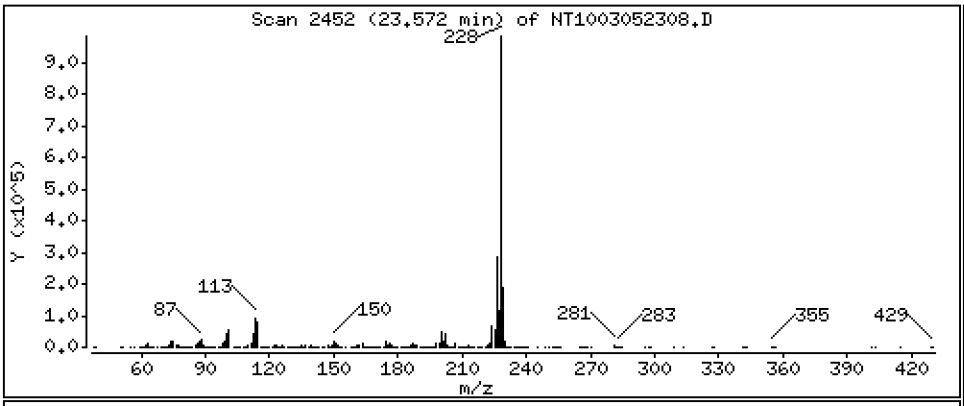
Operator: VTS

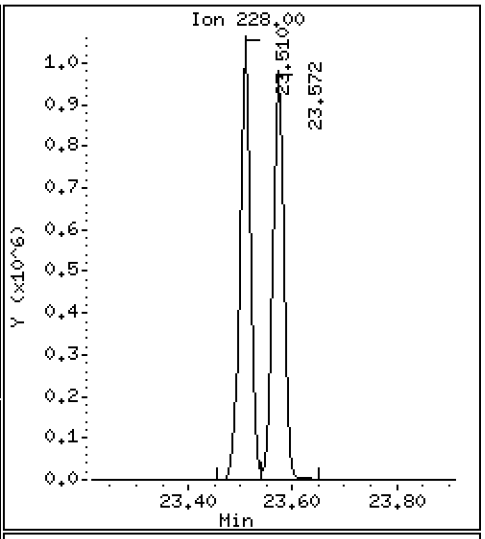
Column phase: ZB-5msi

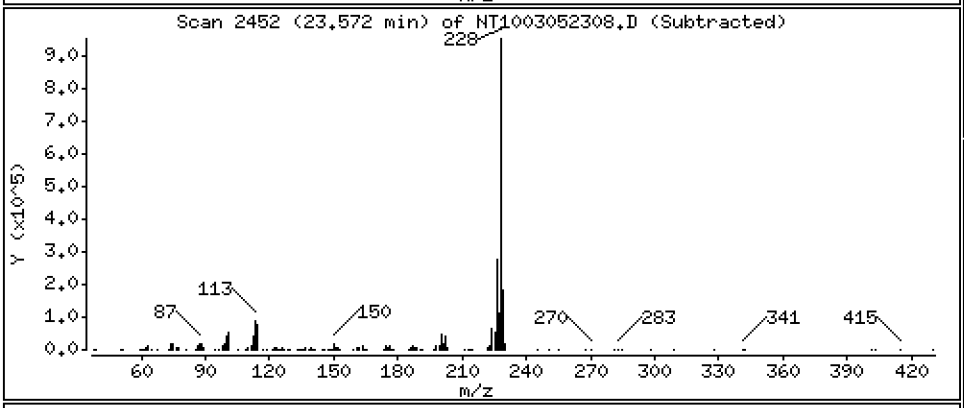
Column diameter: 0.25

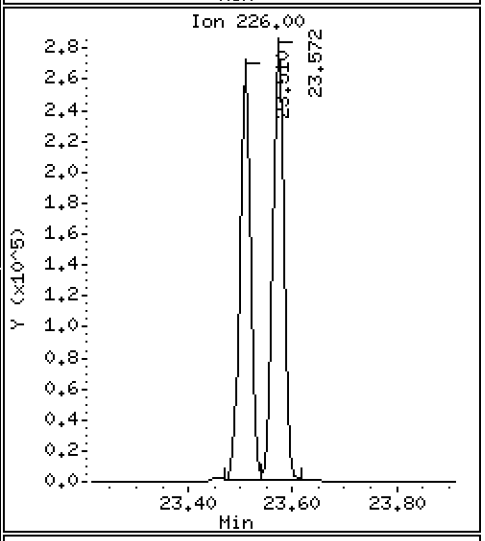
71 Chrysene

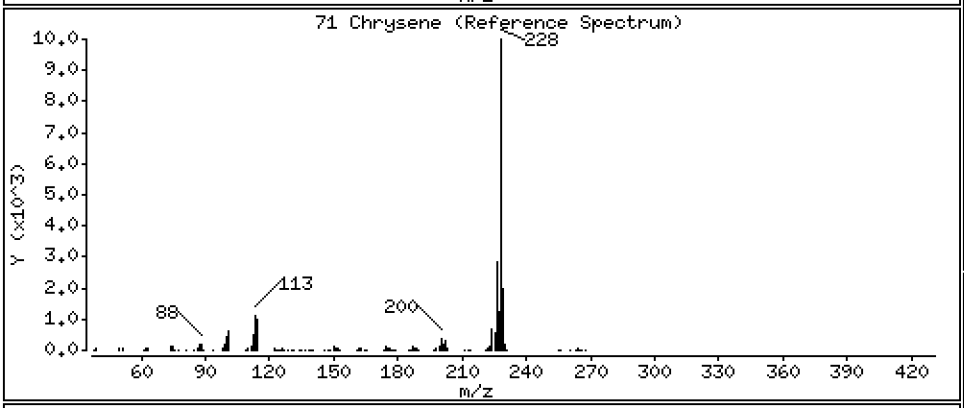
Concentration: 5.112 ug/mL

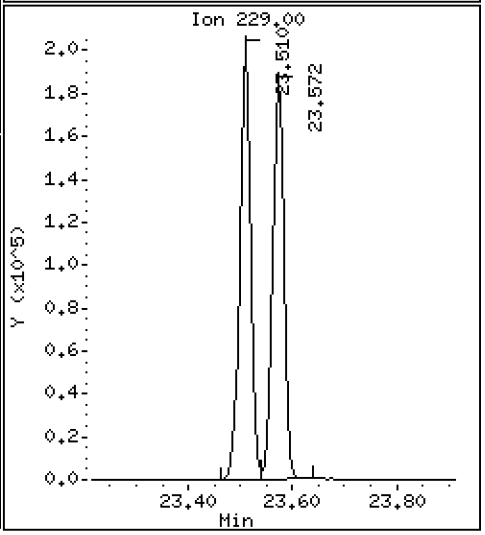


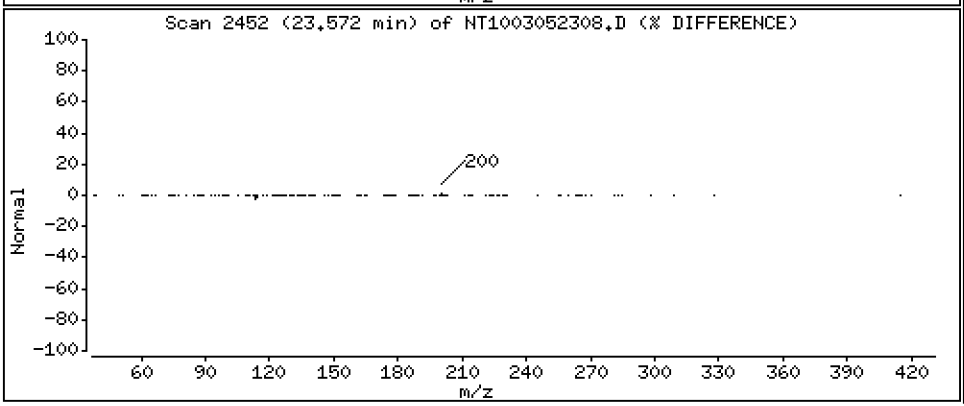












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

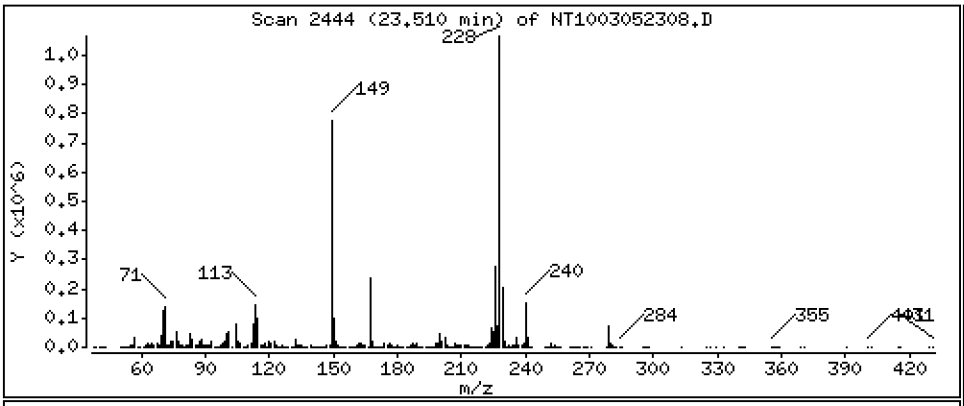
Operator: VTS

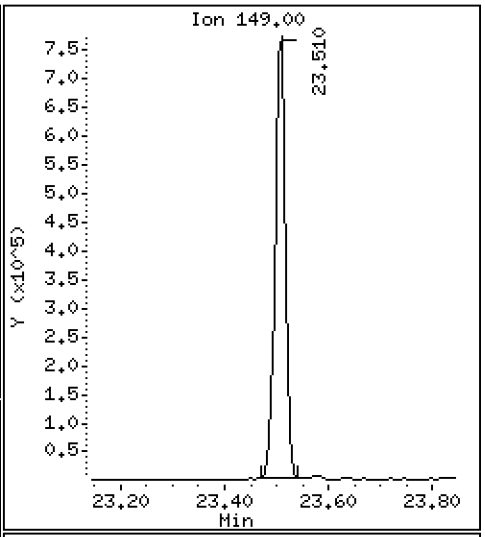
Column phase: ZB-5msi

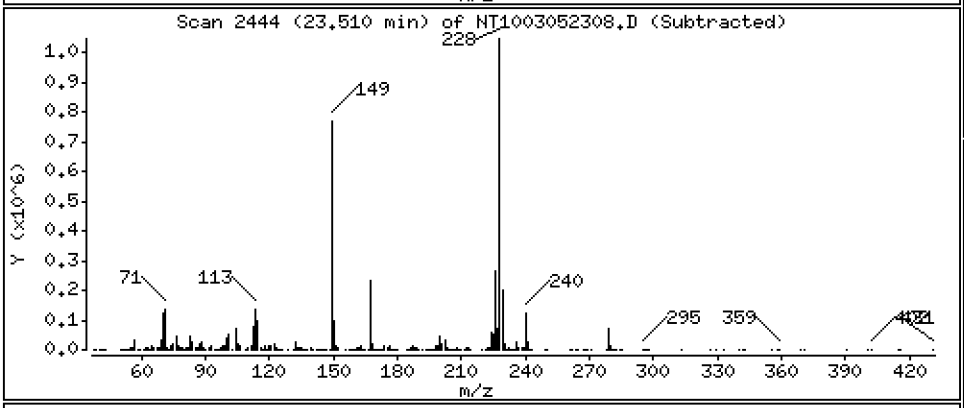
Column diameter: 0.25

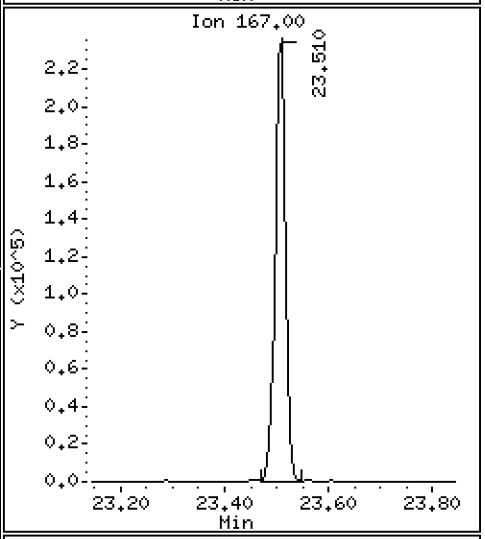
72 bis(2-Ethylhexyl)phthalate

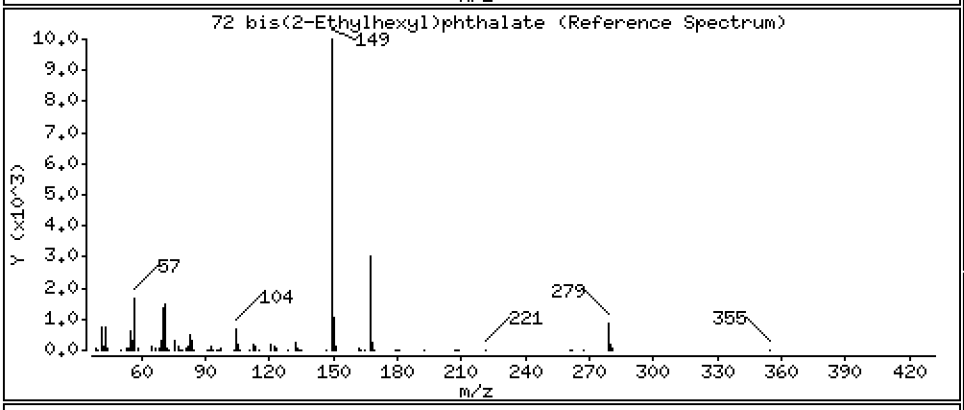
Concentration: 4.797 ug/mL

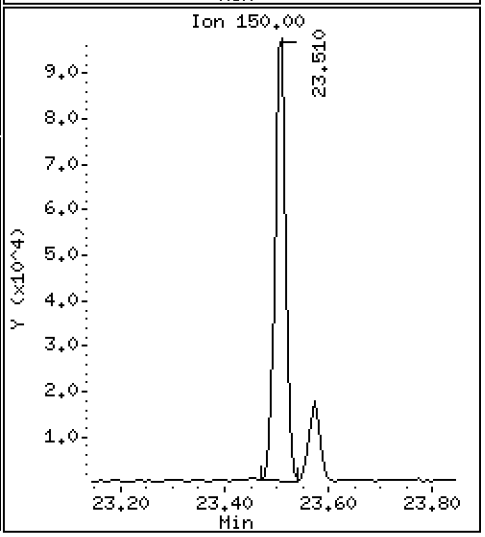


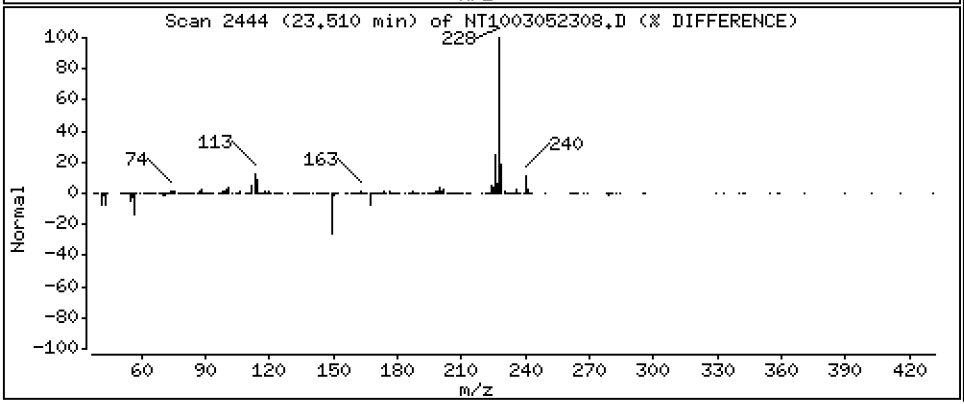












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

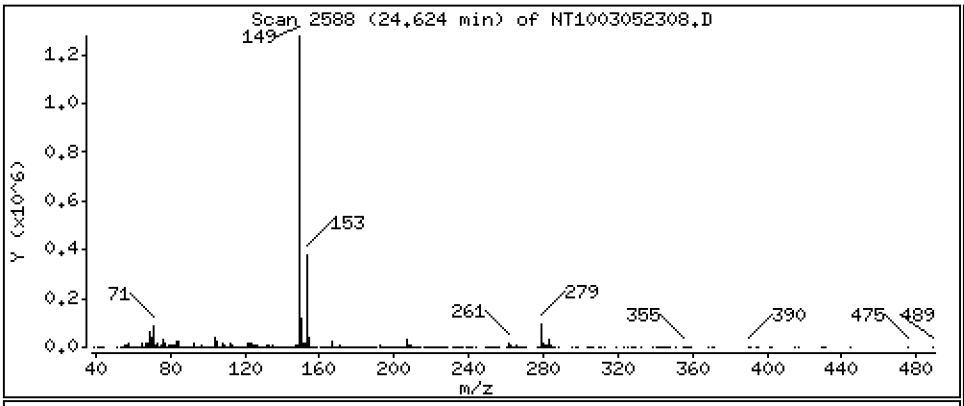
Operator: VTS

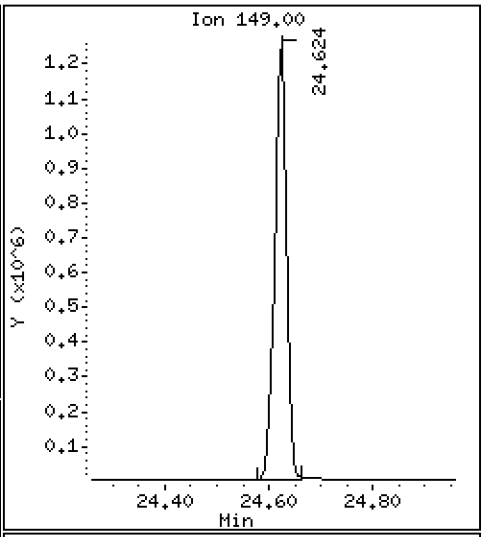
Column phase: ZB-5msi

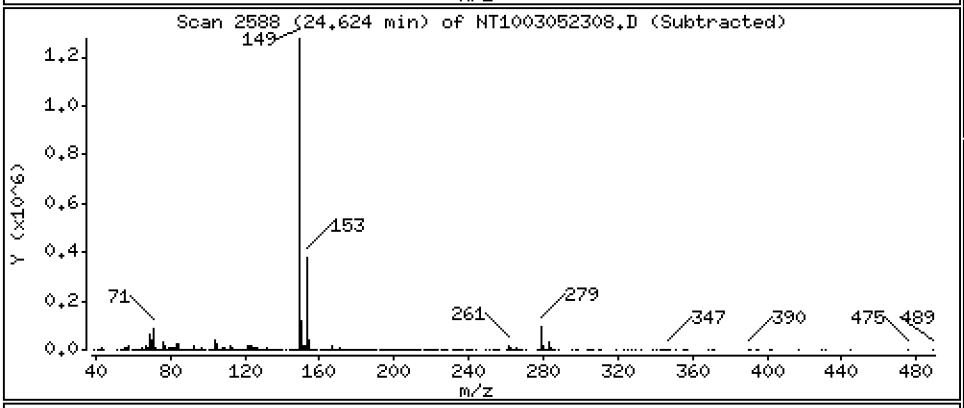
Column diameter: 0.25

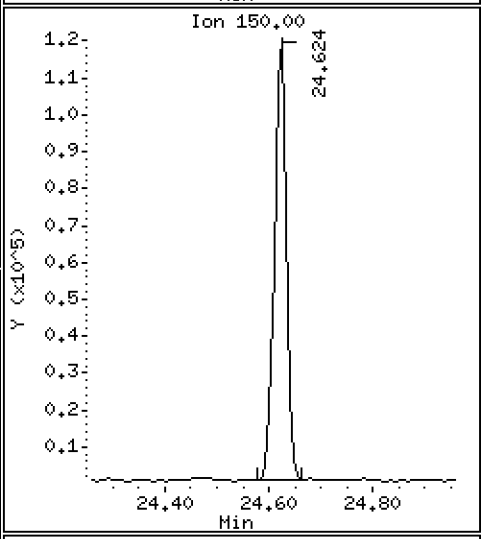
73 Di-n-octylphthalate

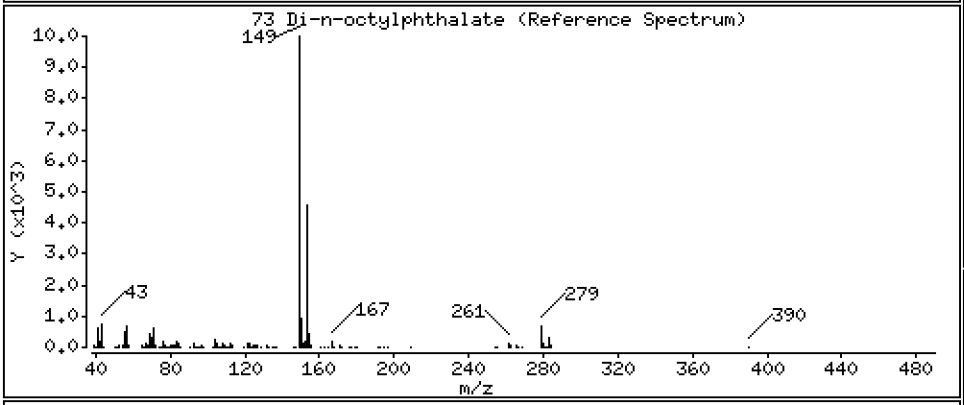
Concentration: 5.819 ug/mL

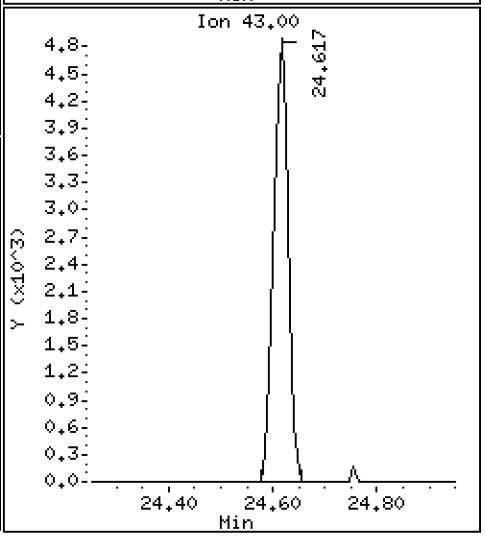


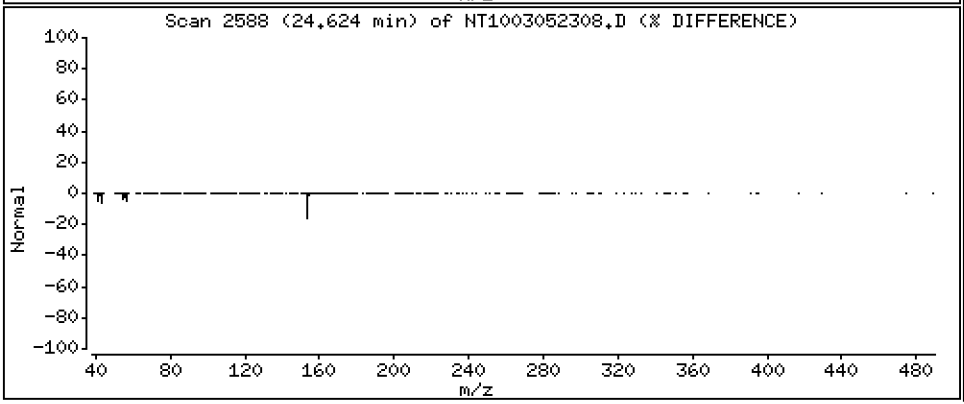












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

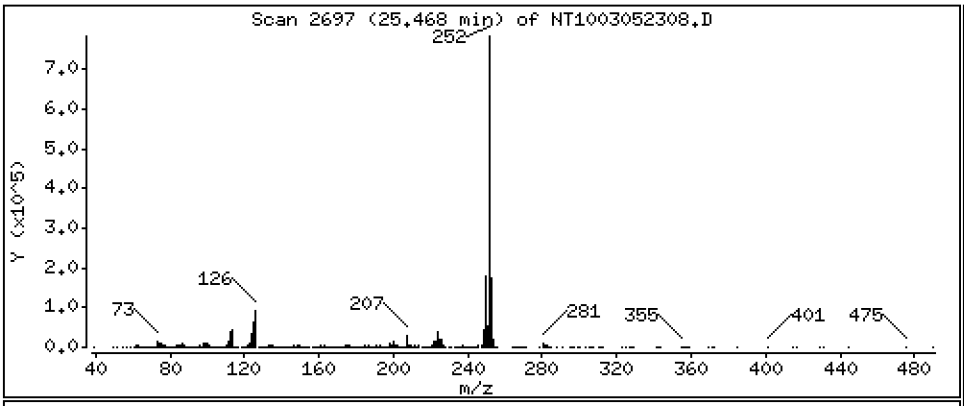
Operator: VTS

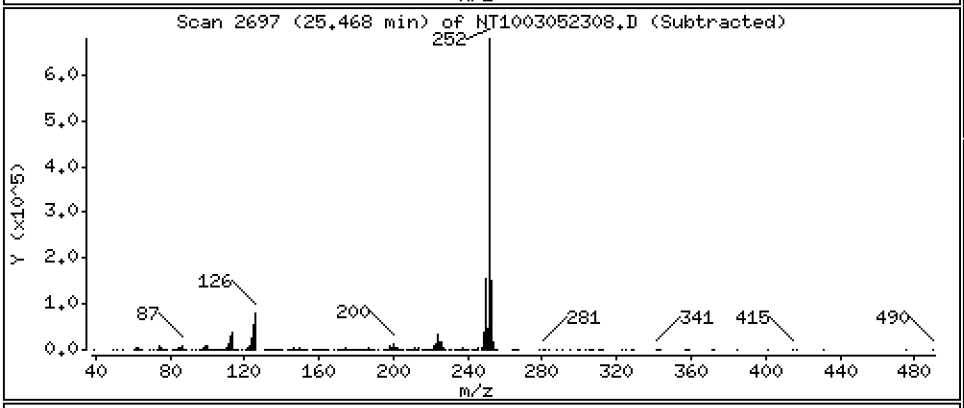
Column phase: ZB-5msi

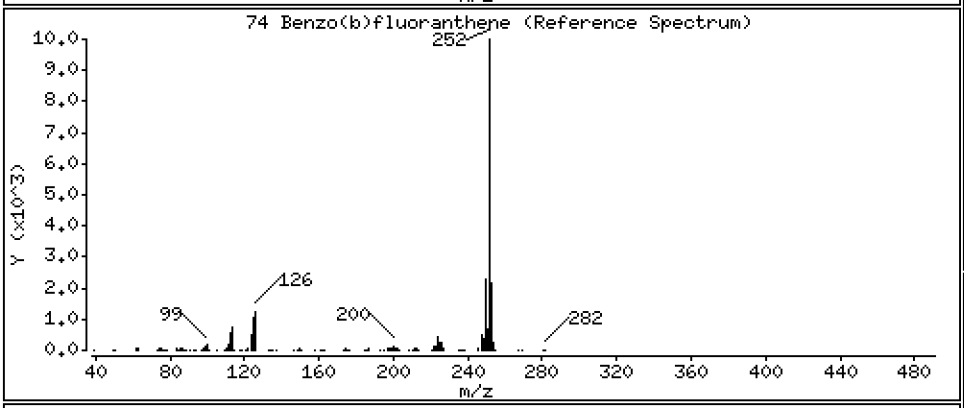
Column diameter: 0.25

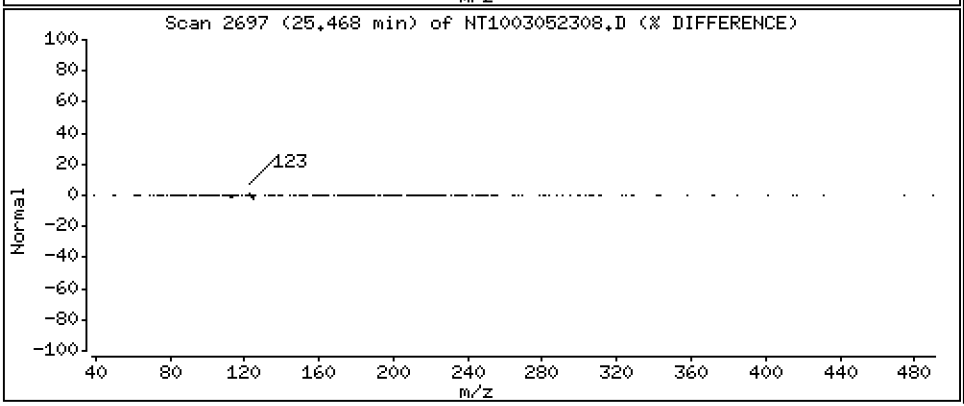
74 Benzo(b)fluoranthene

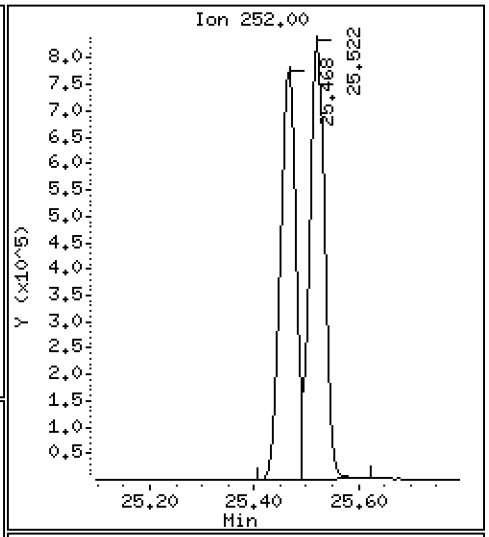
Concentration: 4.648 ug/mL

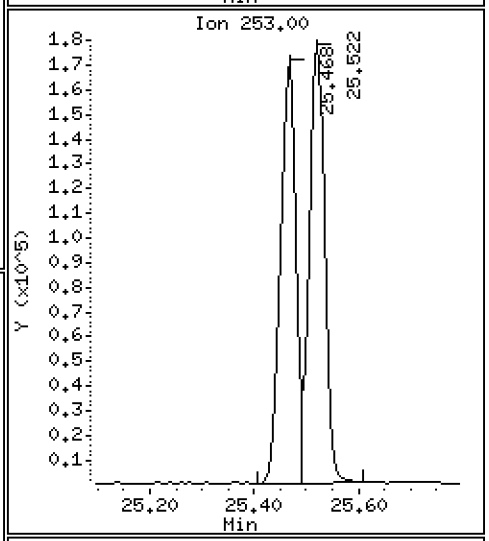


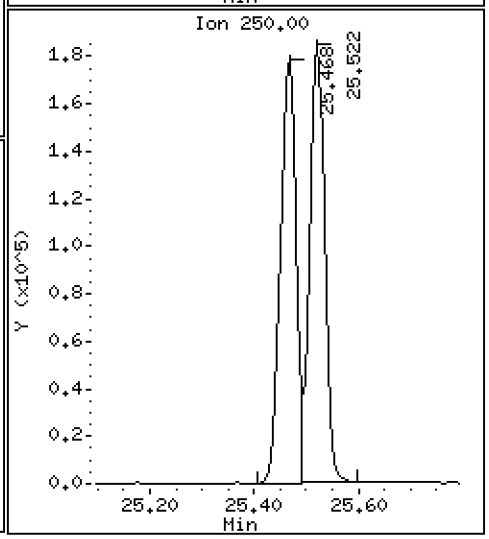












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

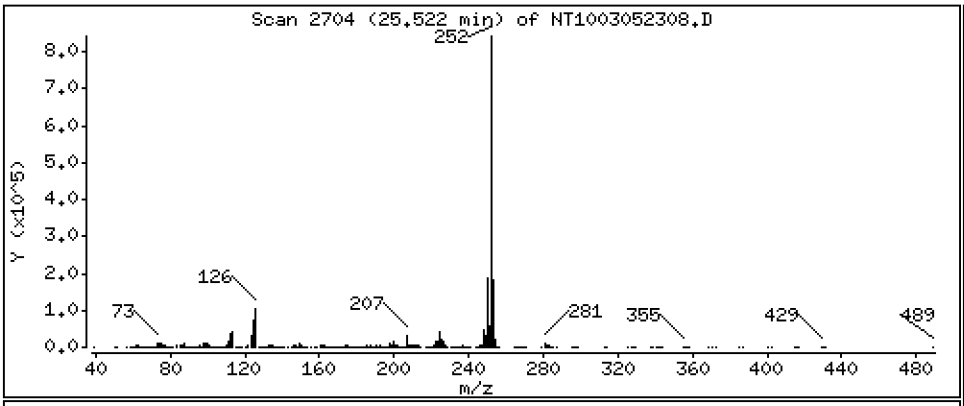
Operator: VTS

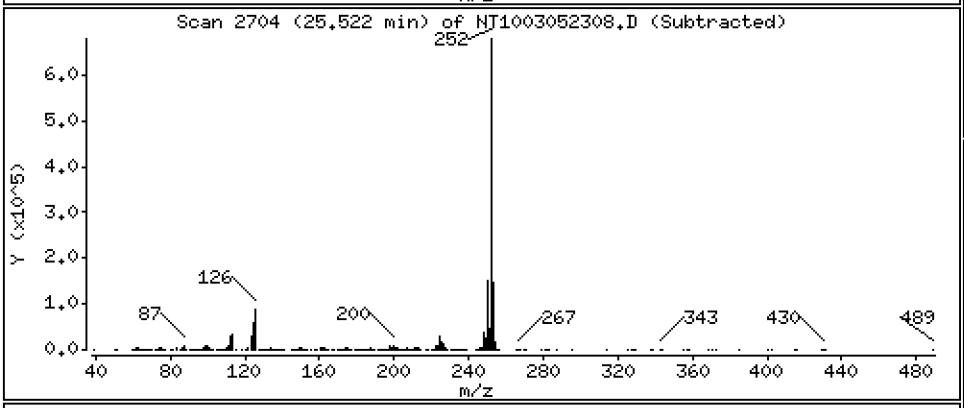
Column phase: ZB-5msi

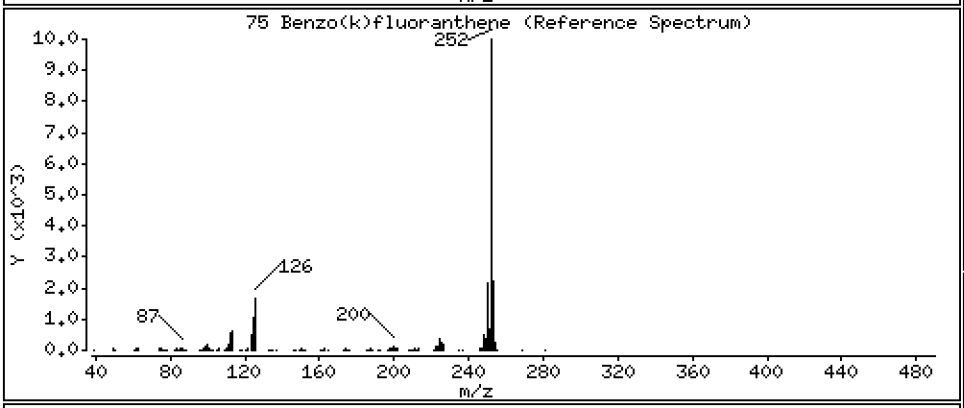
Column diameter: 0.25

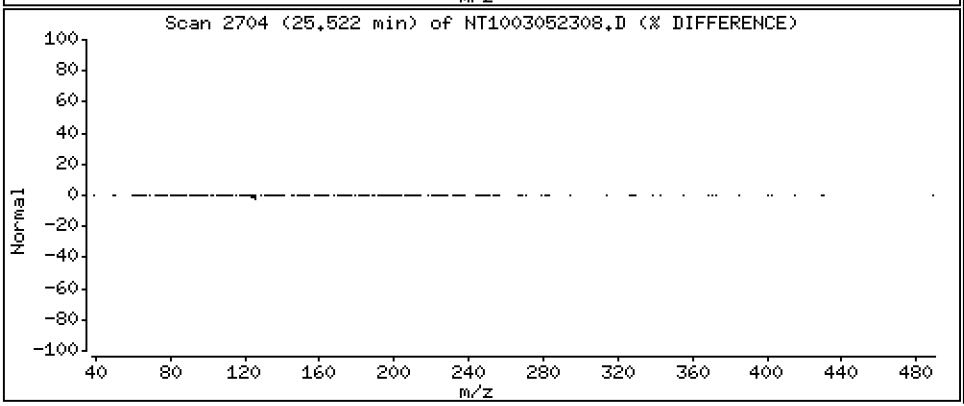
75 Benzo(k)fluoranthene

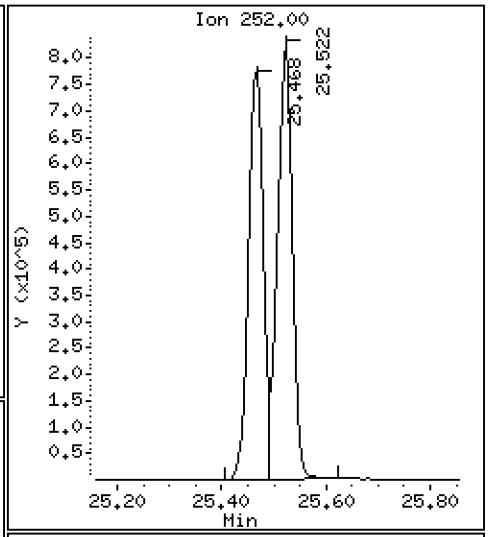
Concentration: 4.852 ug/mL

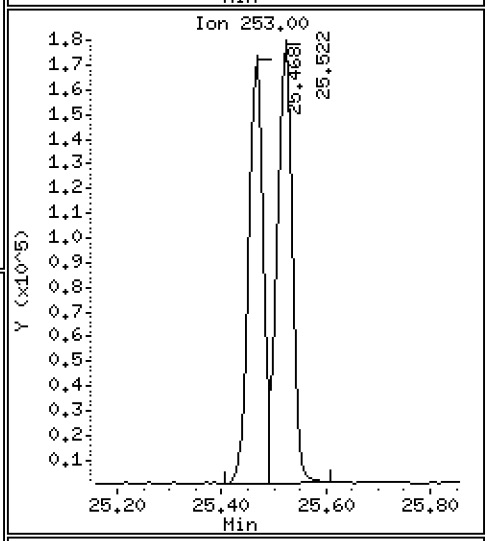


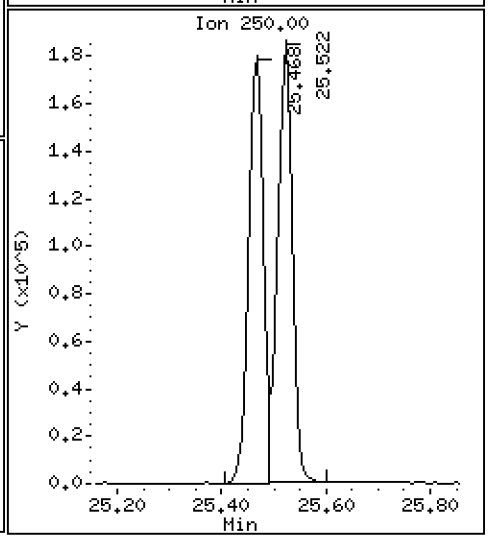












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

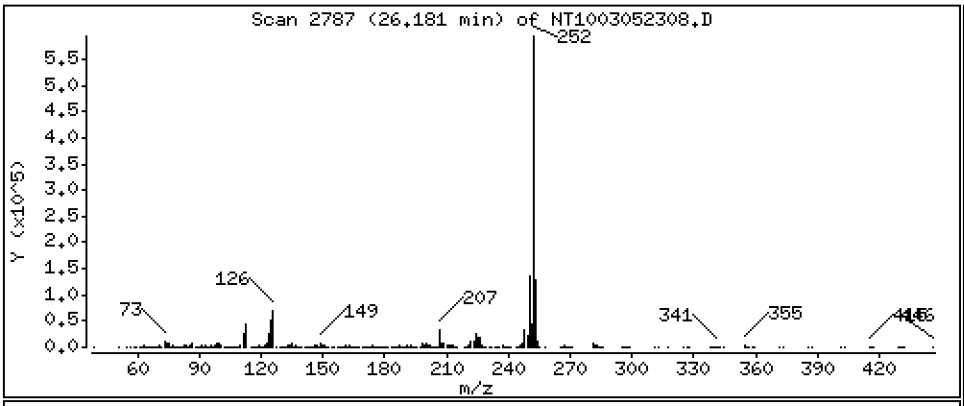
Operator: VTS

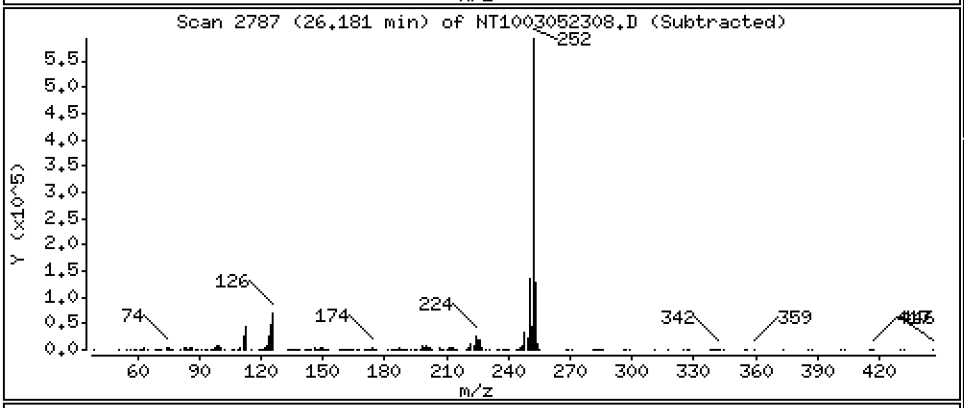
Column phase: ZB-5msi

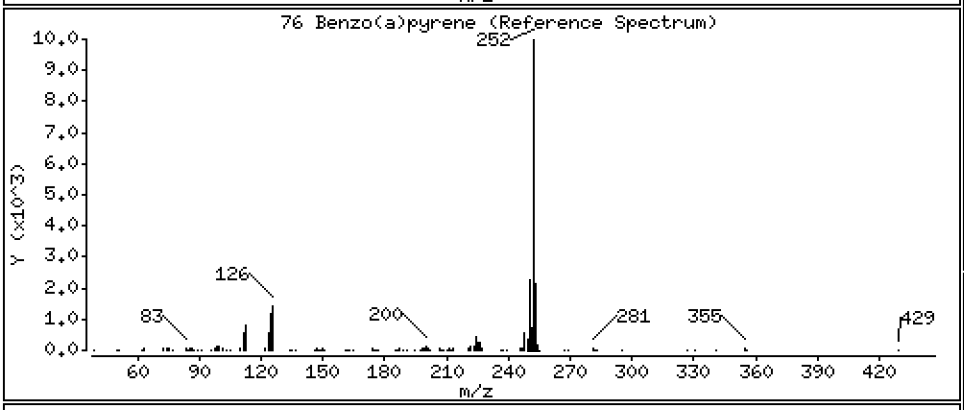
Column diameter: 0.25

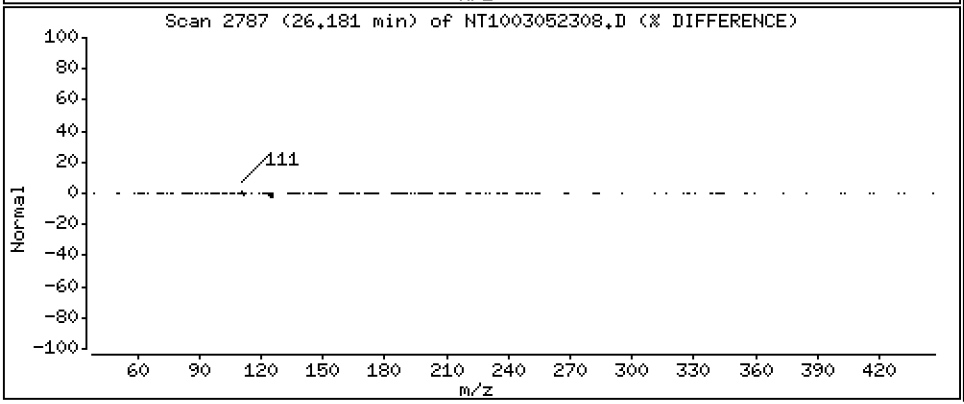
76 Benzo(a)pyrene

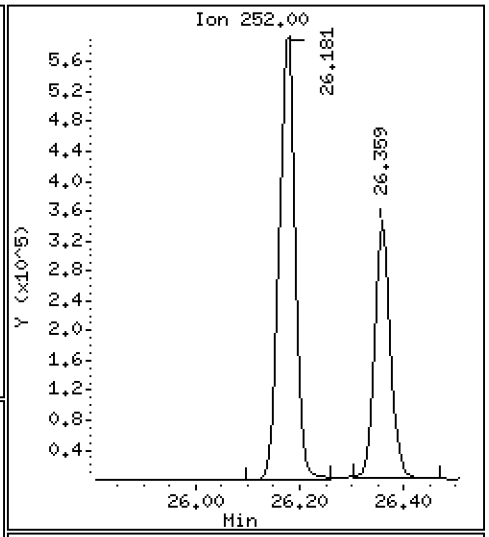
Concentration: 4.053 ug/mL

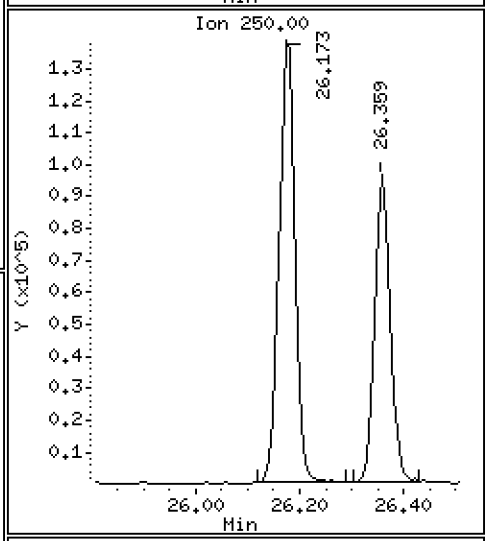


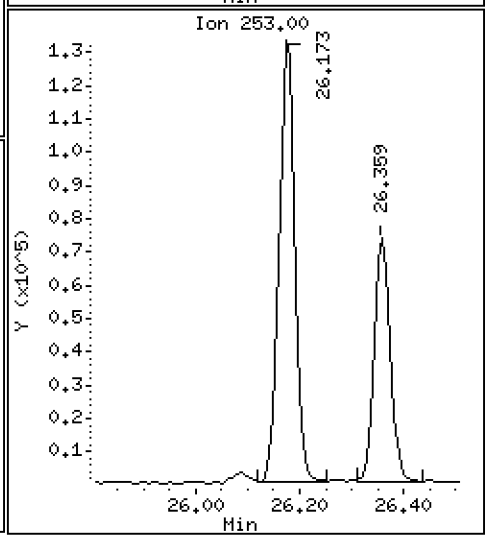












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

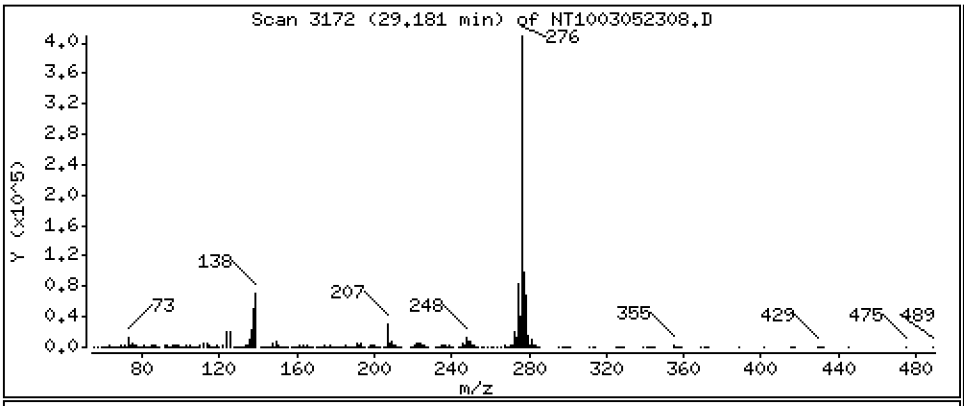
Operator: VTS

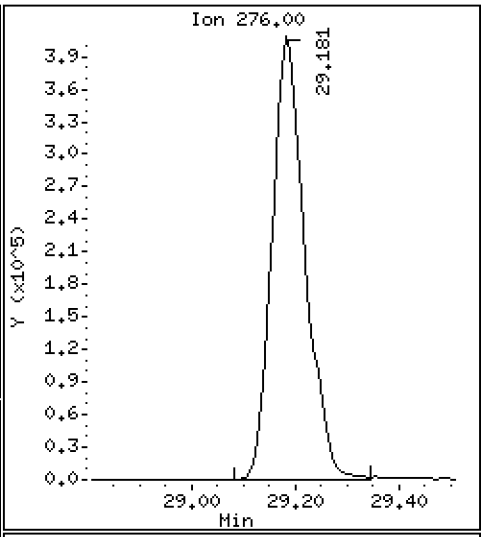
Column phase: ZB-5msi

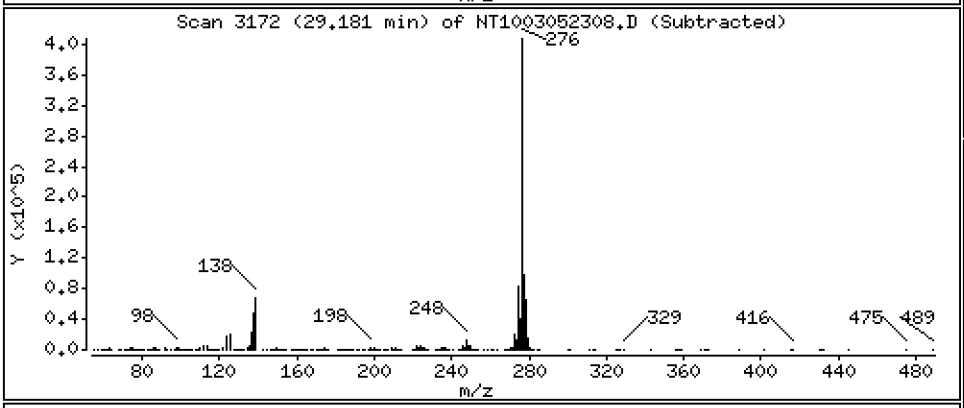
Column diameter: 0.25

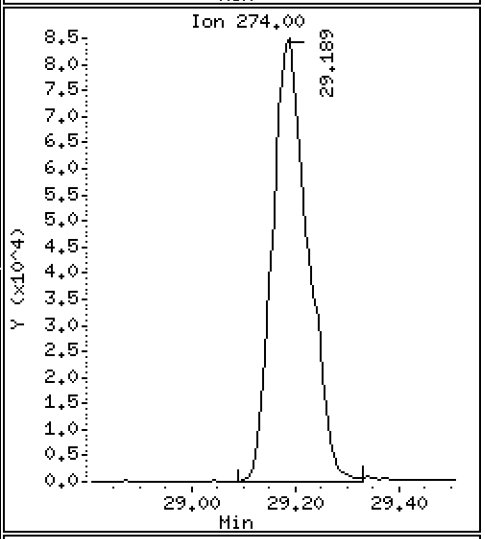
78 Indeno(1,2,3-cd)pyrene

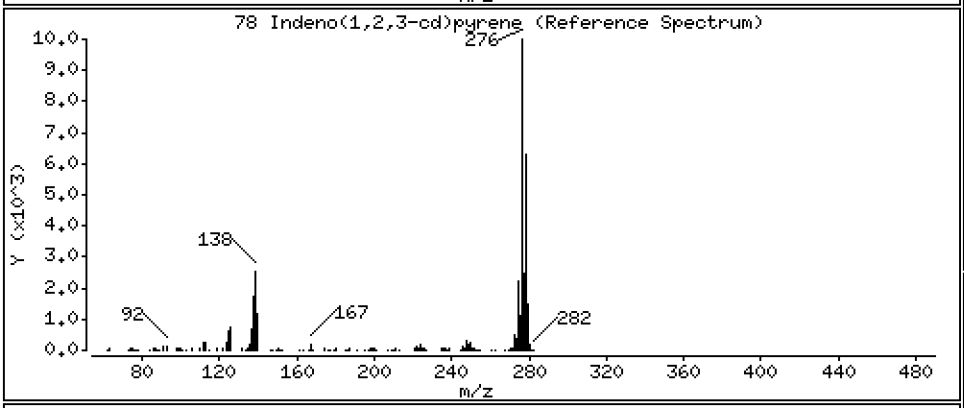
Concentration: 4.951 ug/mL

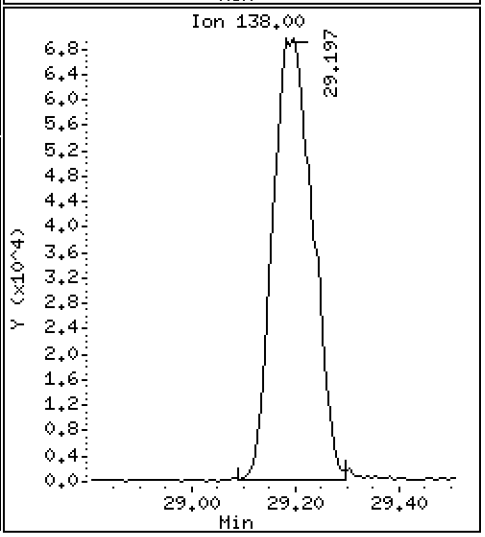


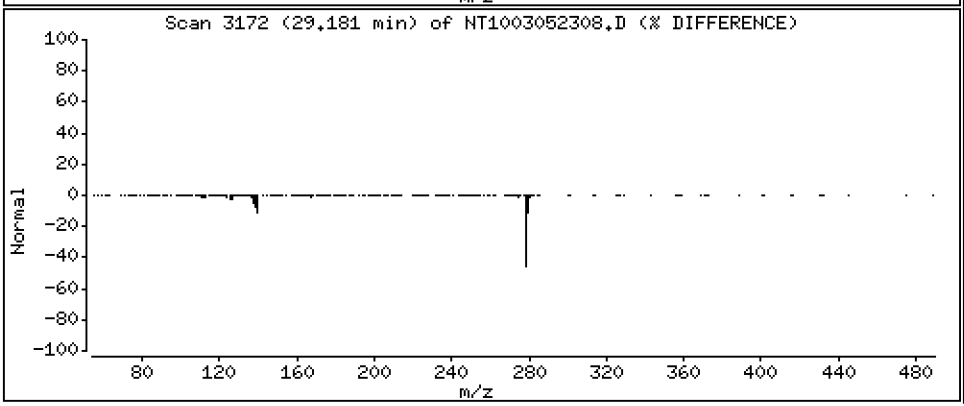












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

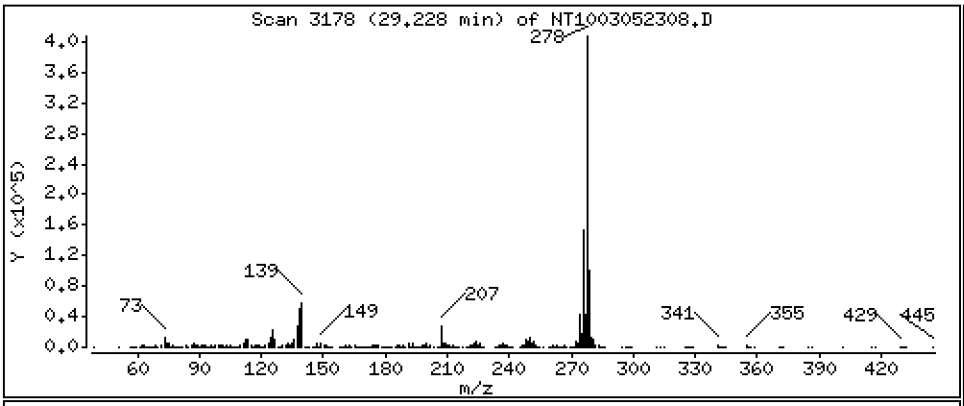
Operator: VTS

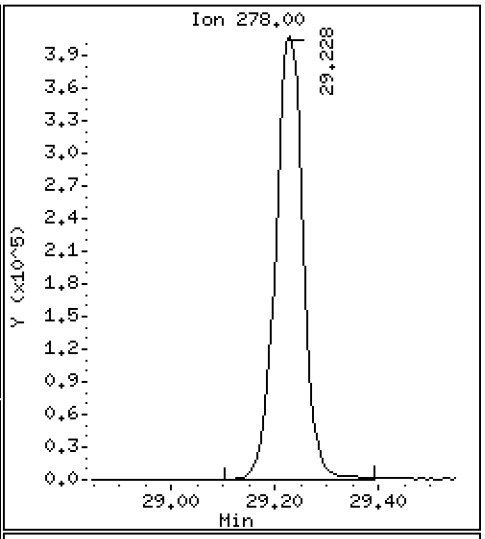
Column phase: ZB-5msi

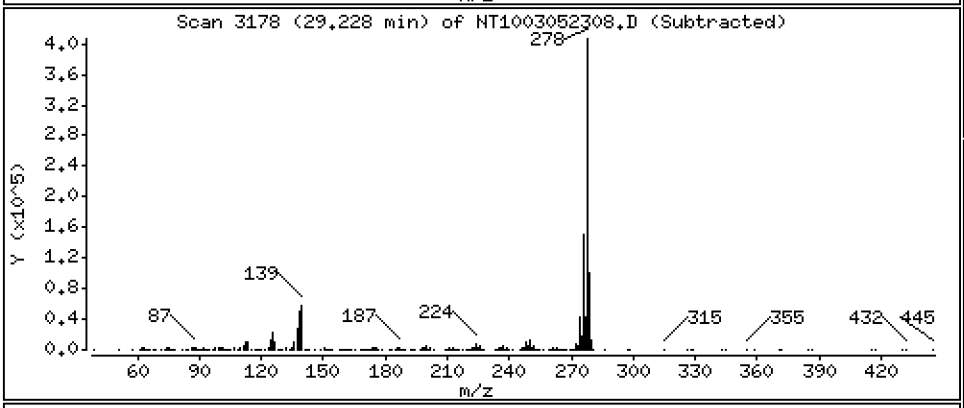
Column diameter: 0.25

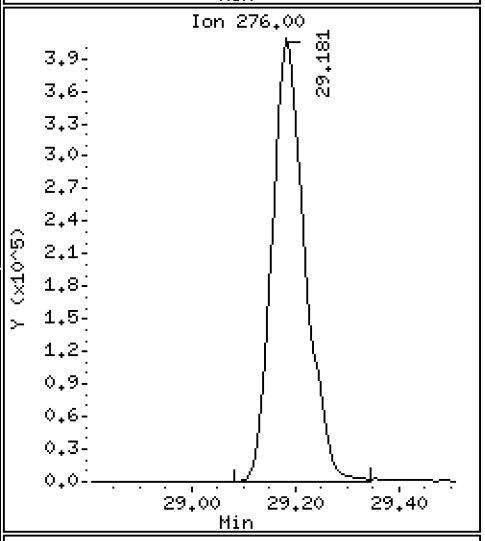
79 Dibenzo(a,h)anthracene

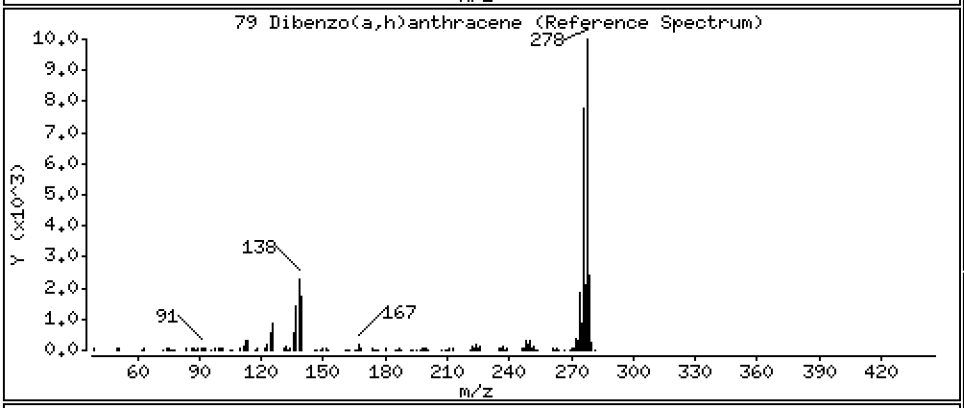
Concentration: 5.488 ug/mL

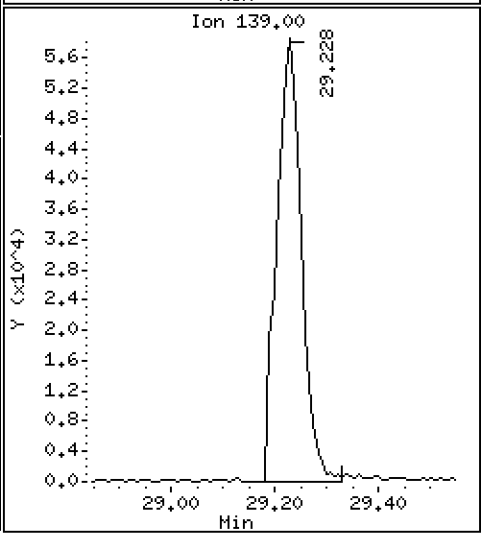


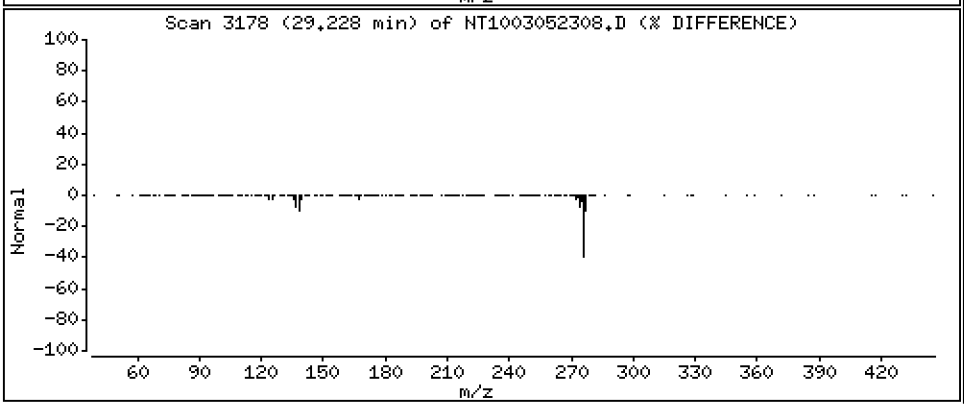












Date : 05-MAR-2023 17:50

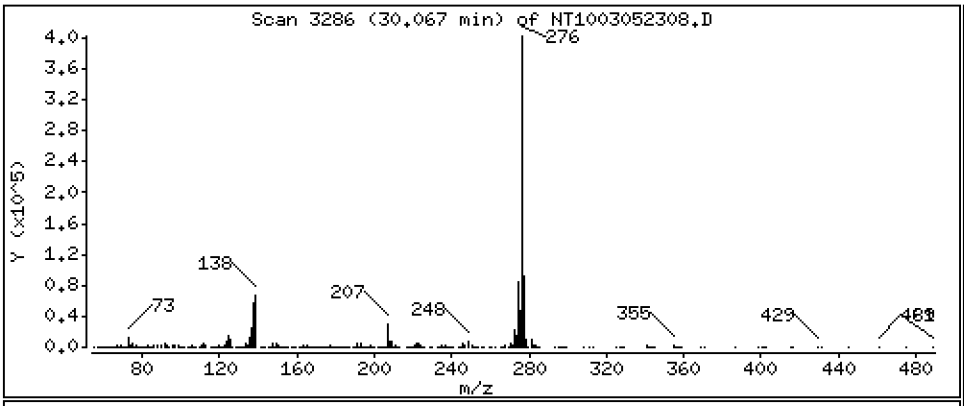
Client ID: Instrument: nt10.i

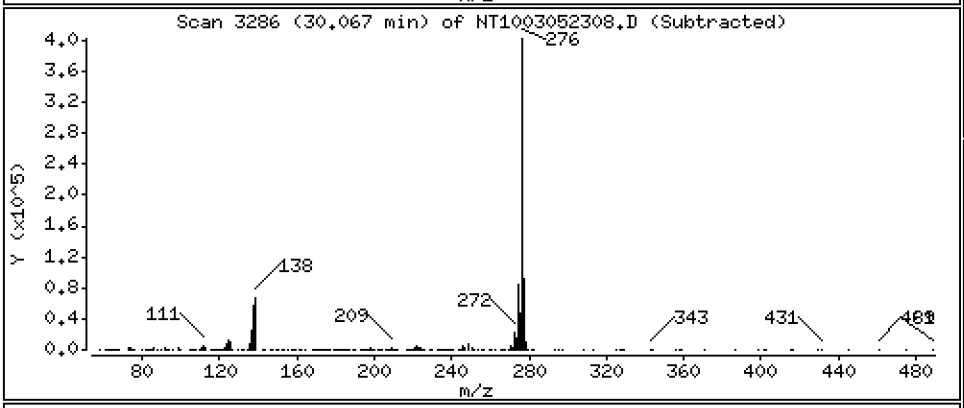
Sample Info: BLA0685-BS1

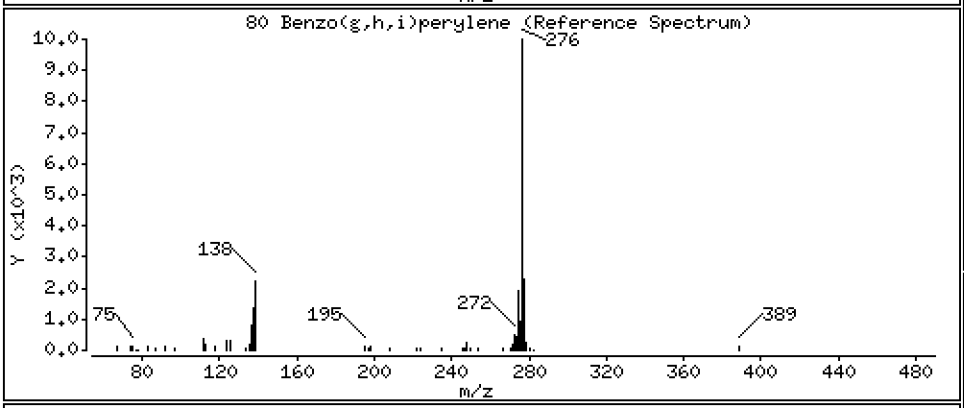
Operator: VTS

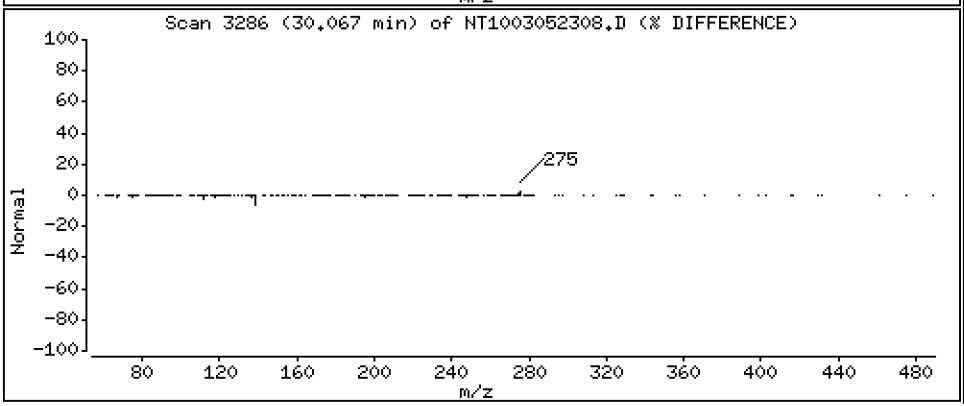
Column phase: ZB-5msi Column diameter: 0.25

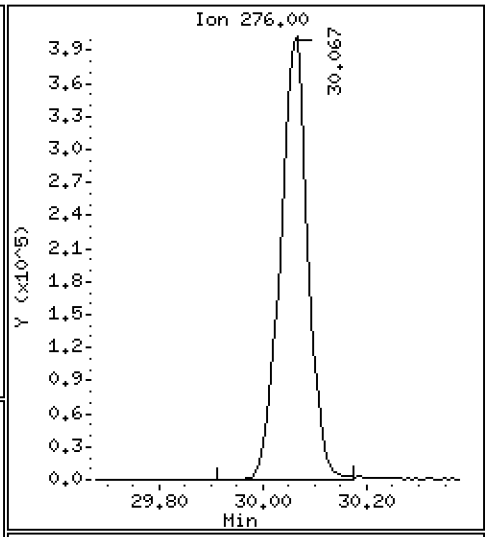
80 Benzo(g,h,i)perylene Concentration: 5.176 ug/mL

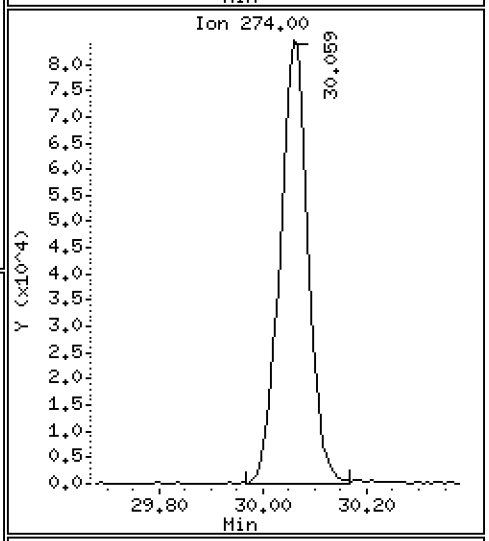


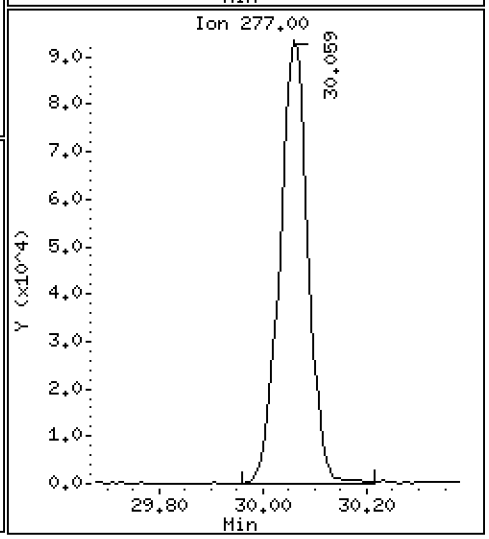












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

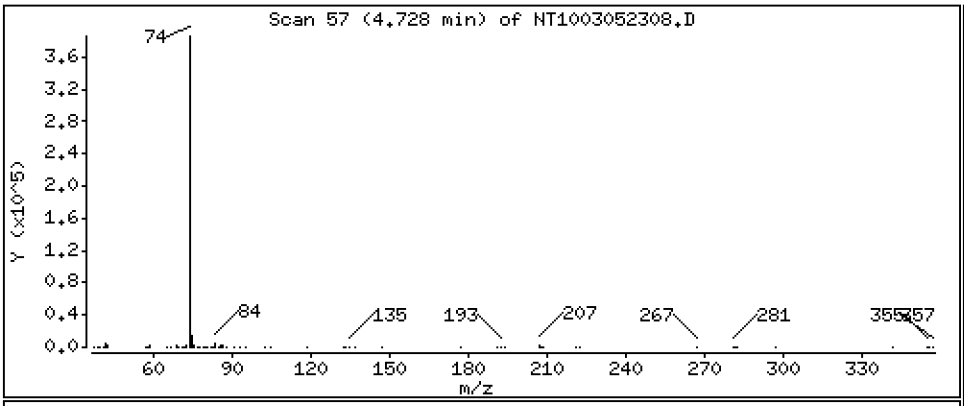
Operator: VTS

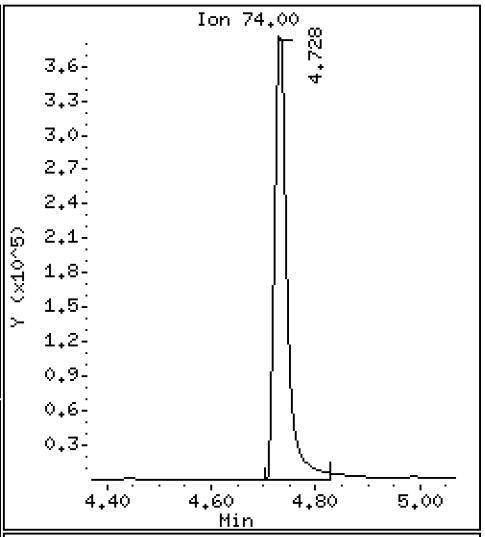
Column phase: ZB-5msi

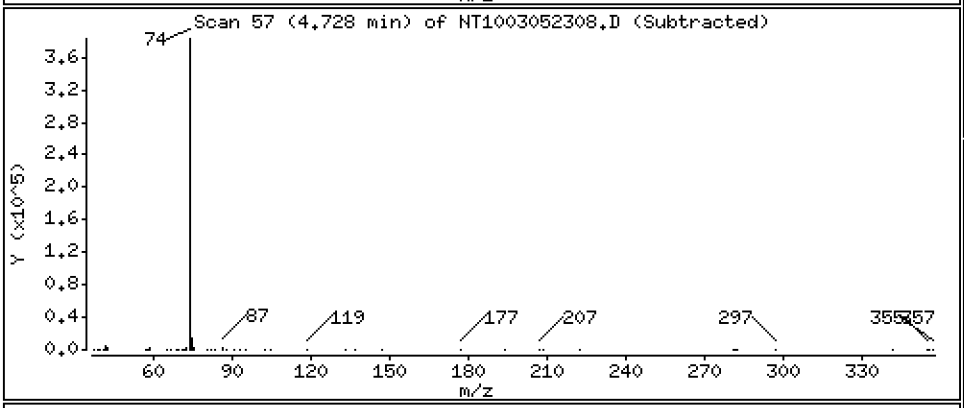
Column diameter: 0.25

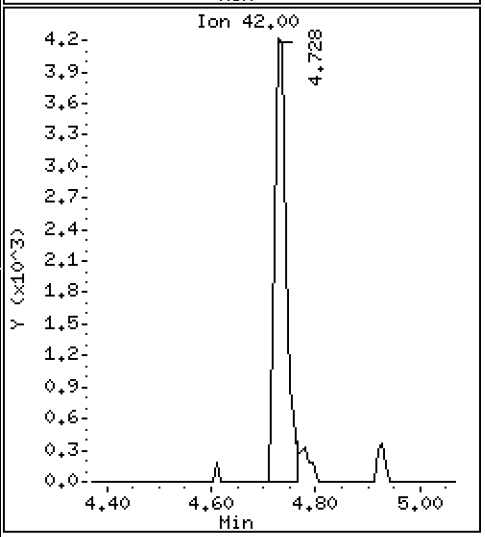
90 N-Nitrosodimethylamine

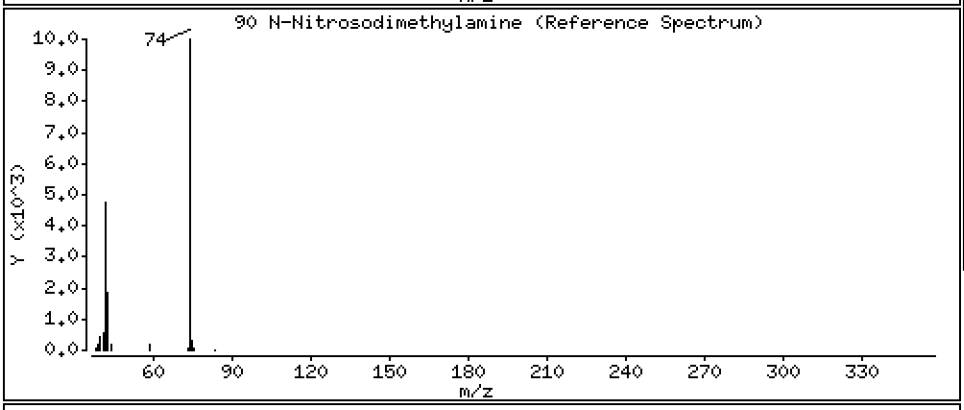
Concentration: 10.32 ug/mL

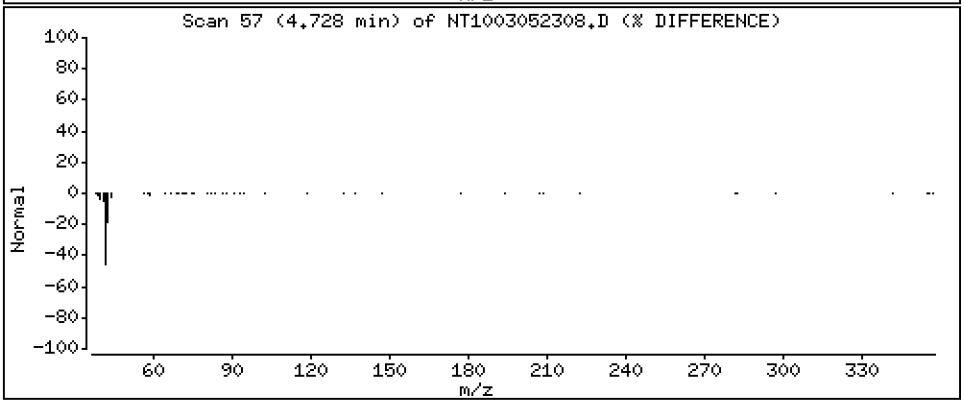












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052308.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

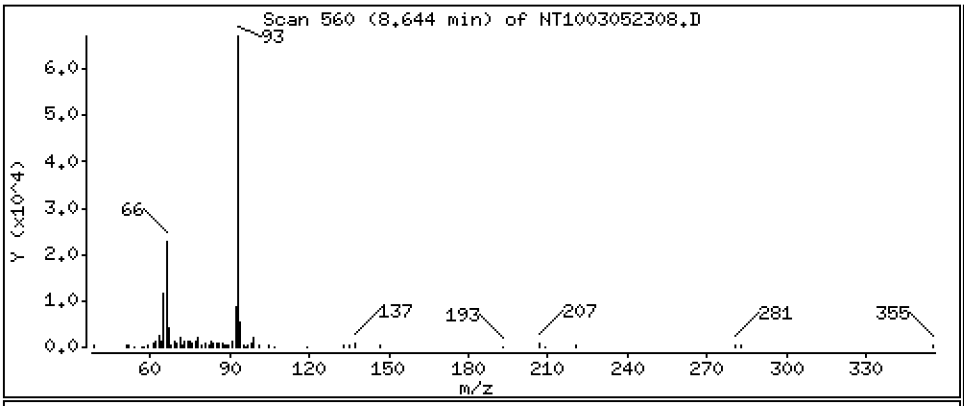
Operator: VTS

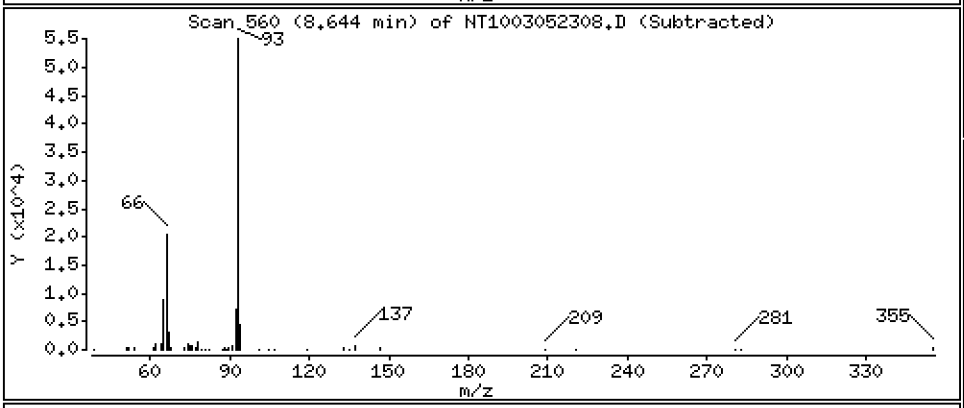
Column phase: ZB-5msi

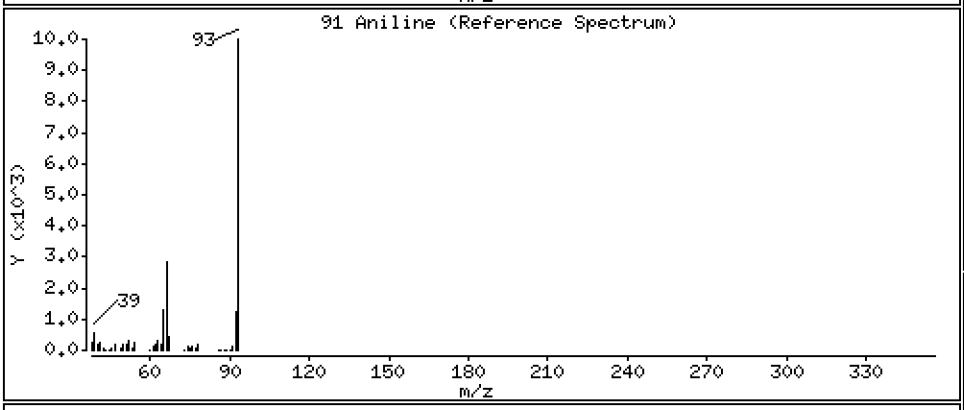
Column diameter: 0.25

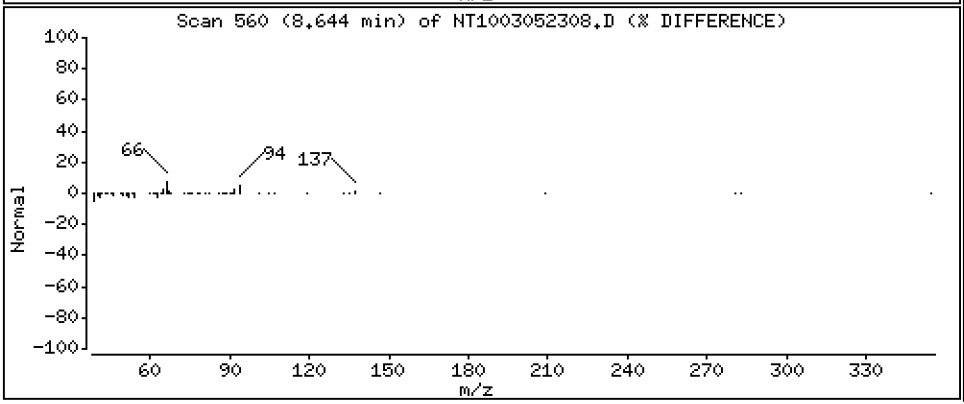
91 Aniline

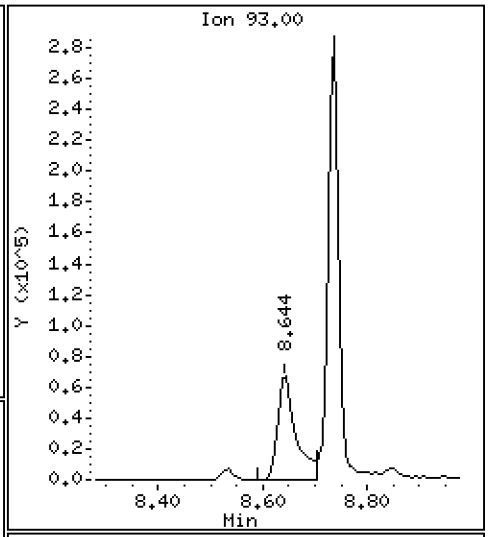
Concentration: 1.266 ug/mL

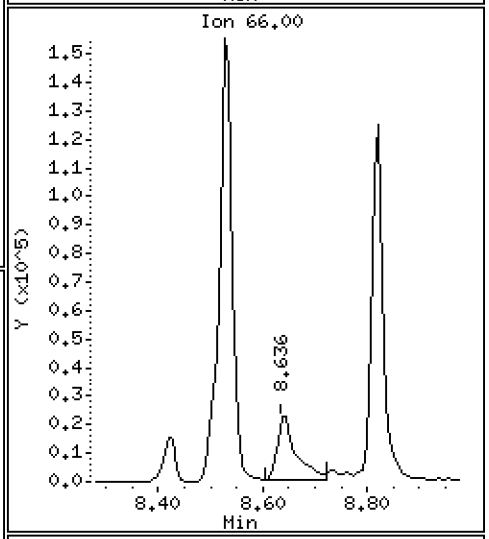


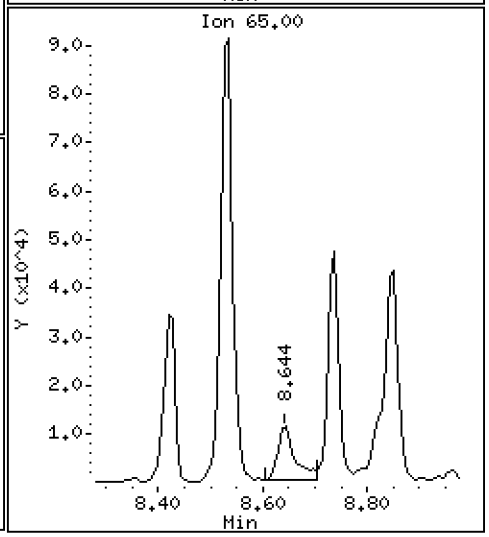












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

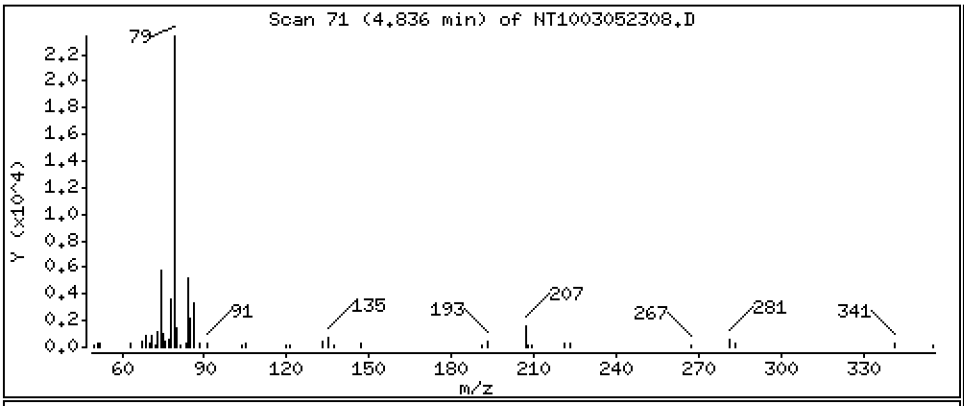
Operator: VTS

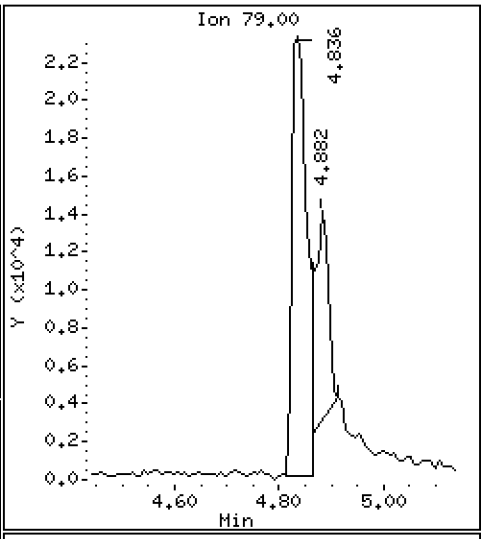
Column phase: ZB-5msi

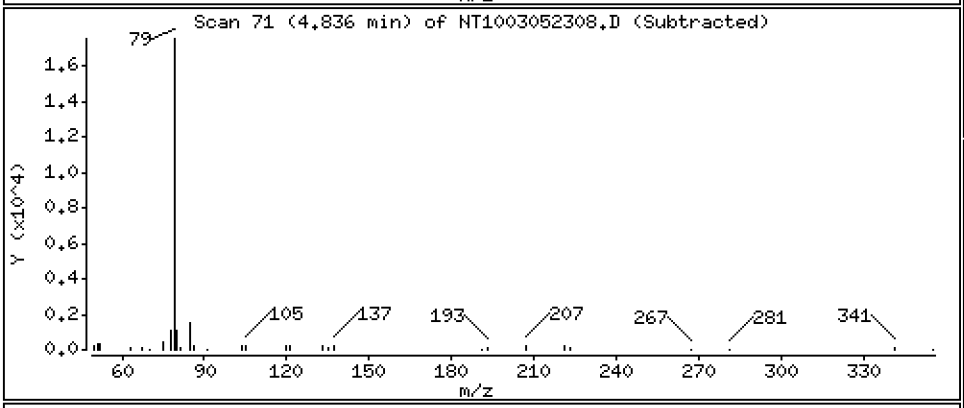
Column diameter: 0.25

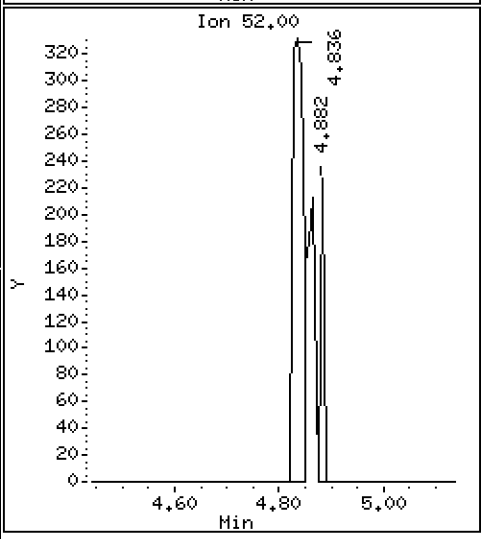
103 Pyridine

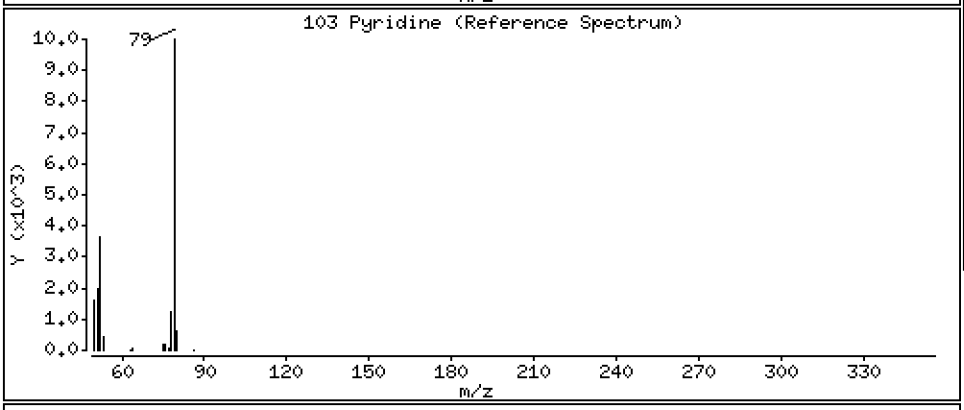
Concentration: 0.4704 ug/mL

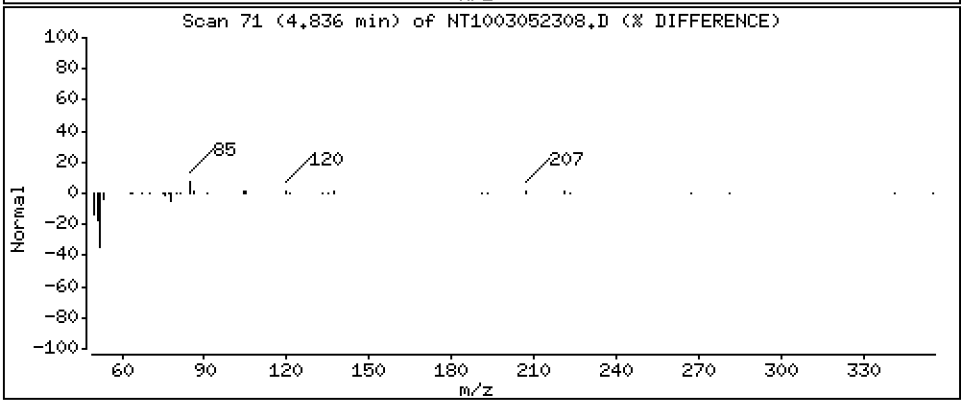












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

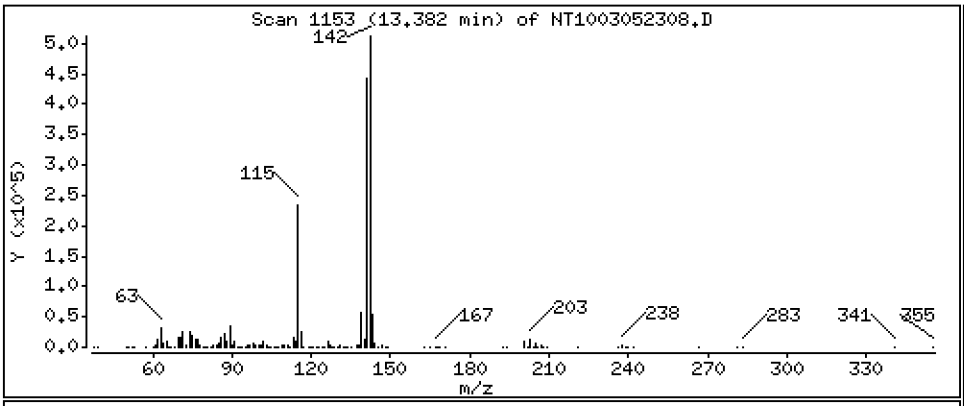
Operator: VTS

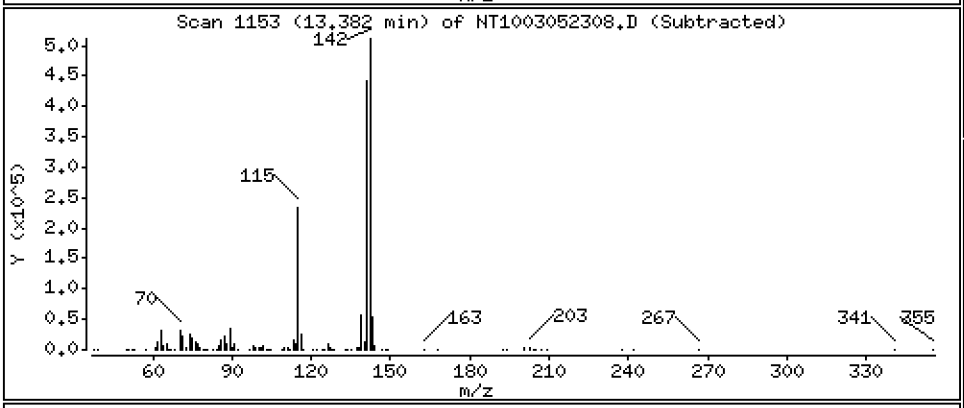
Column phase: ZB-5msi

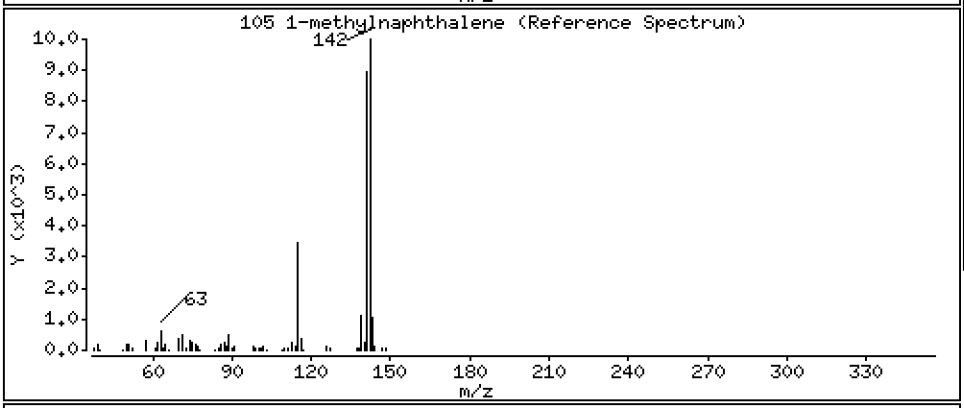
Column diameter: 0.25

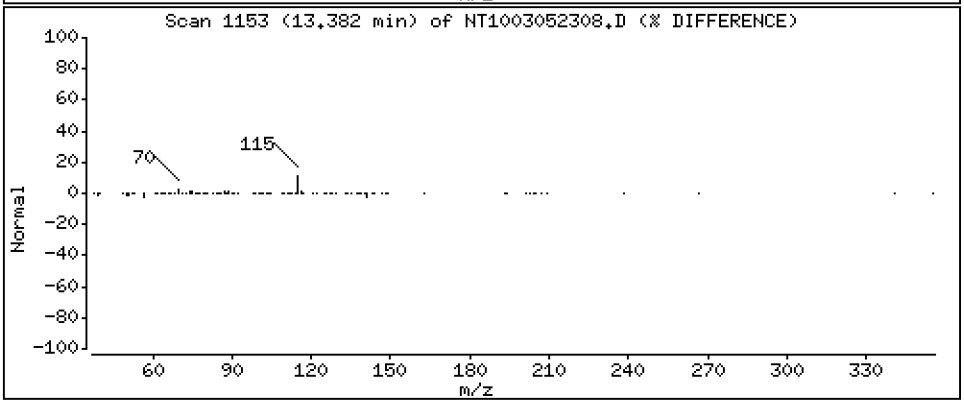
105 1-methylnaphthalene

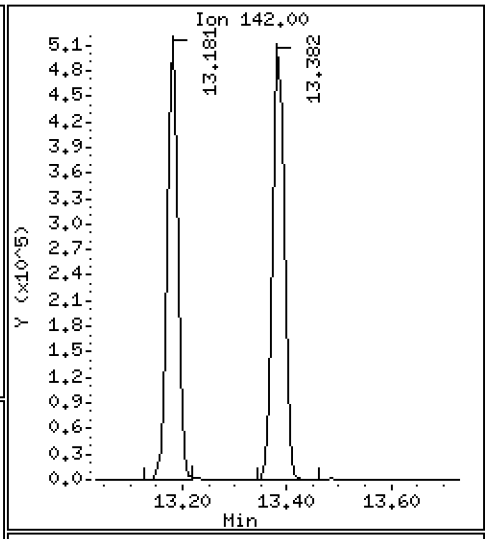
Concentration: 4.230 ug/mL

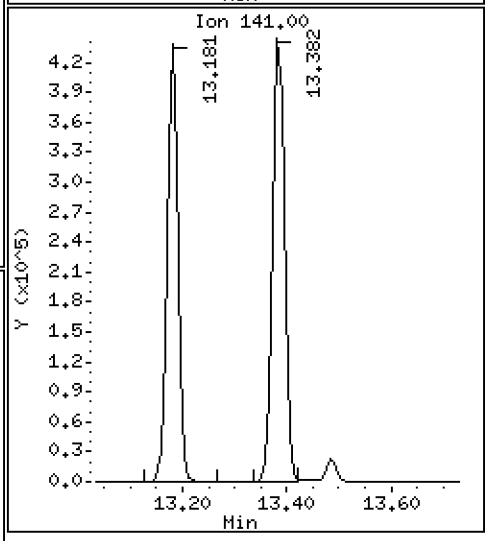












Date : 05-MAR-2023 17:50

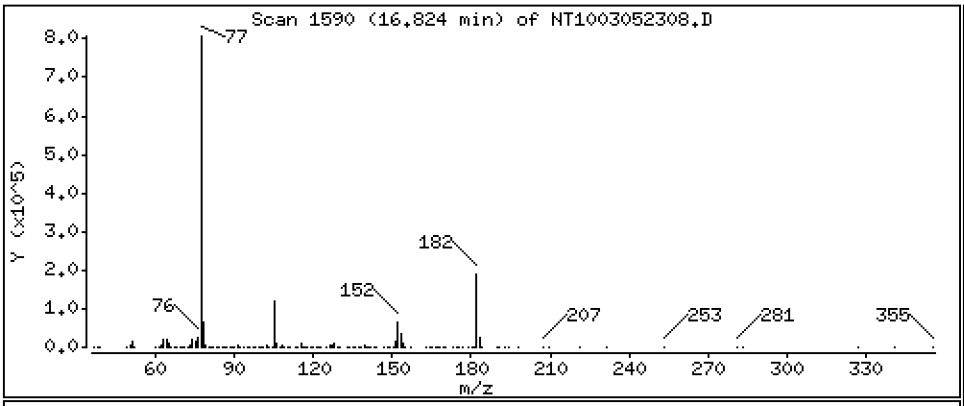
Client ID: Instrument: nt10.i

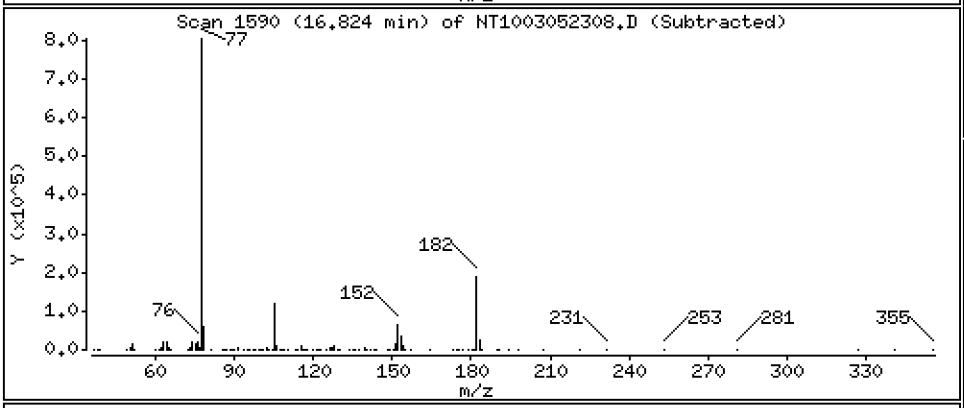
Sample Info: BLA0685-BS1

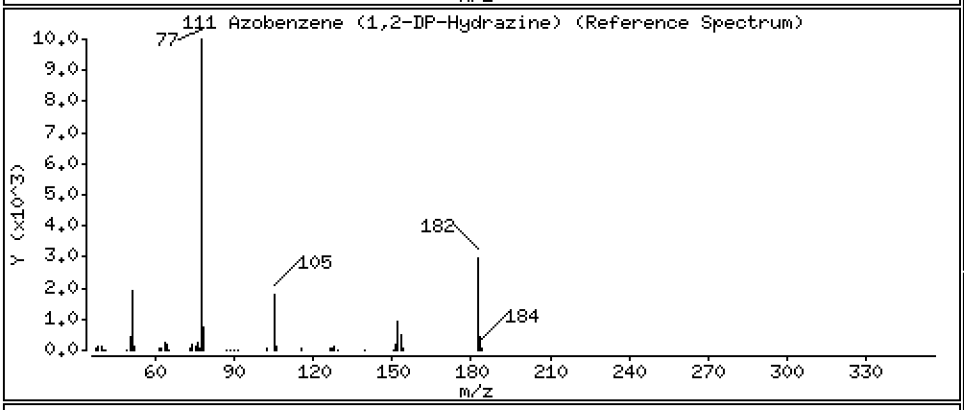
Operator: VTS

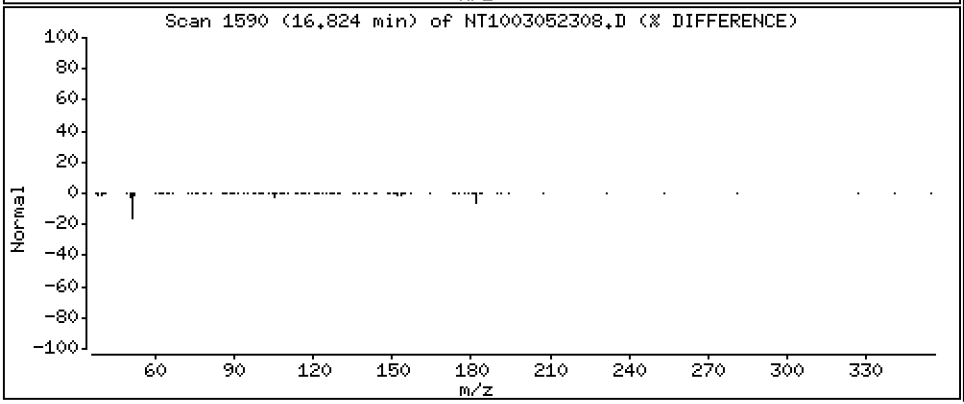
Column phase: ZB-5msi Column diameter: 0.25

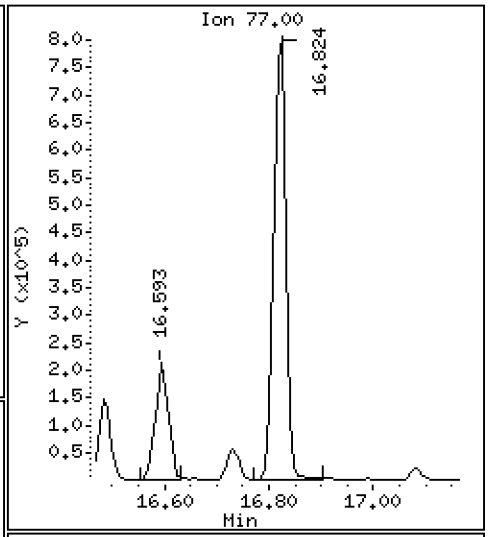
111 Azobenzene (1,2-DP-Hydrazine) Concentration: 4.359 ug/mL

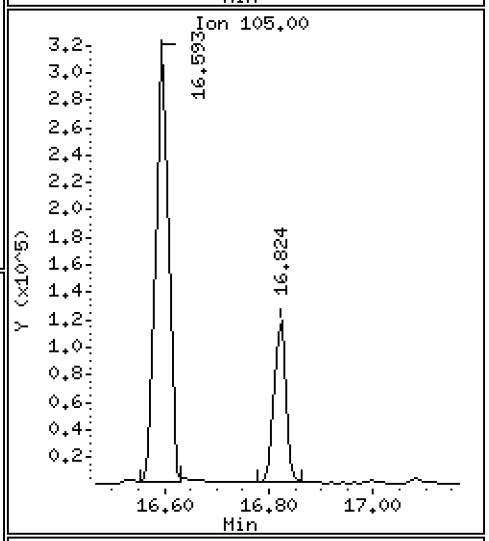


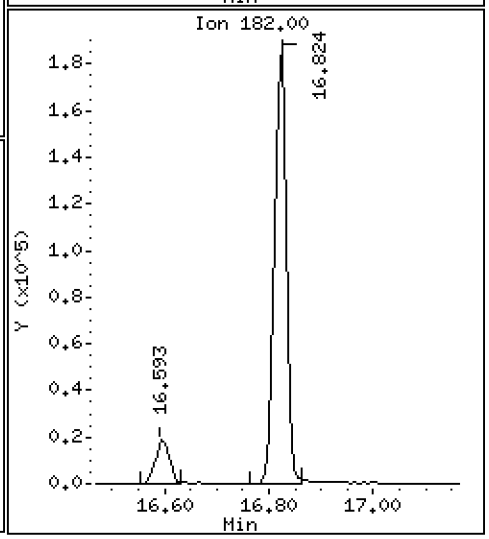












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

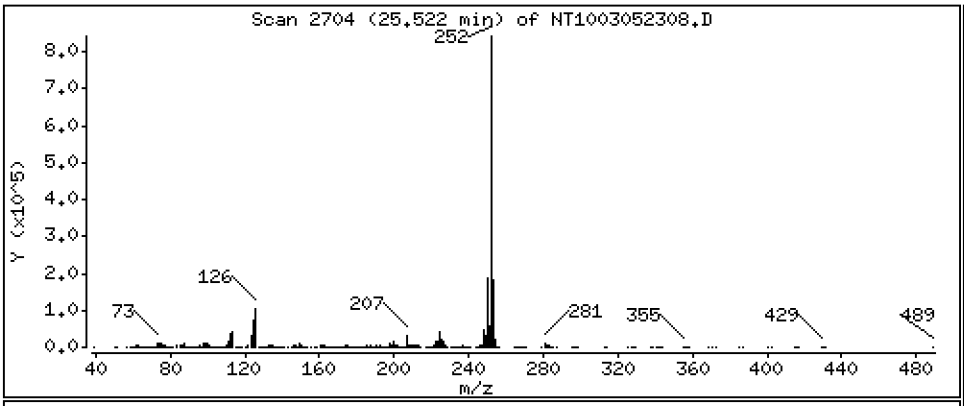
Operator: VTS

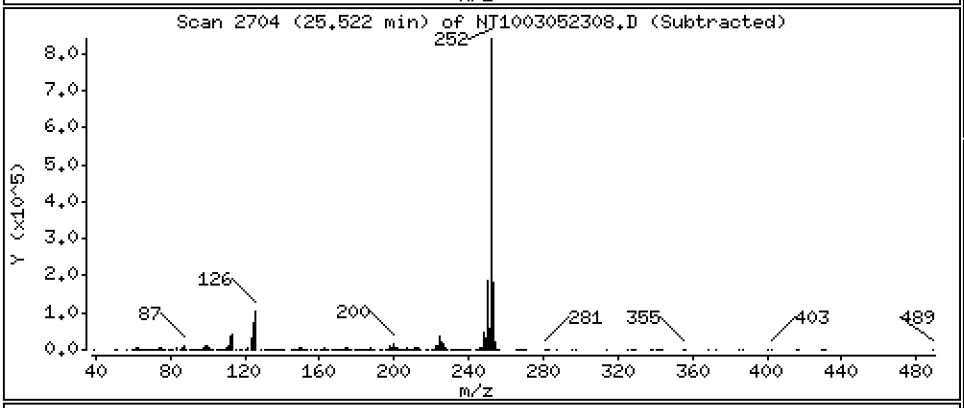
Column phase: ZB-5msi

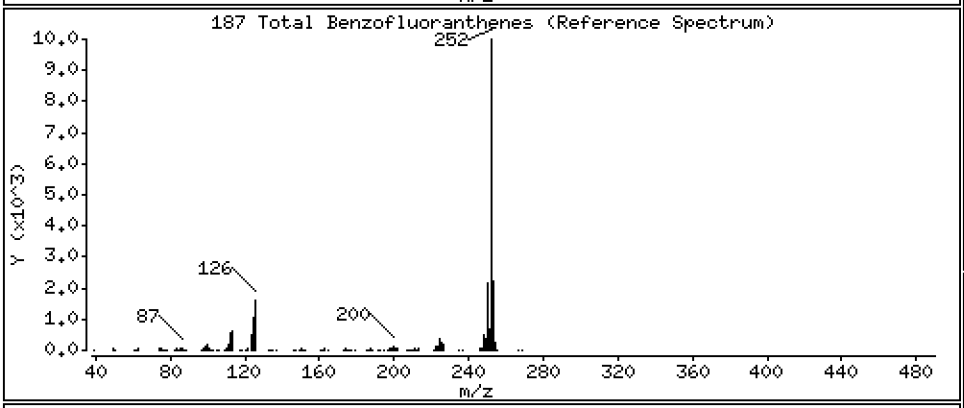
Column diameter: 0.25

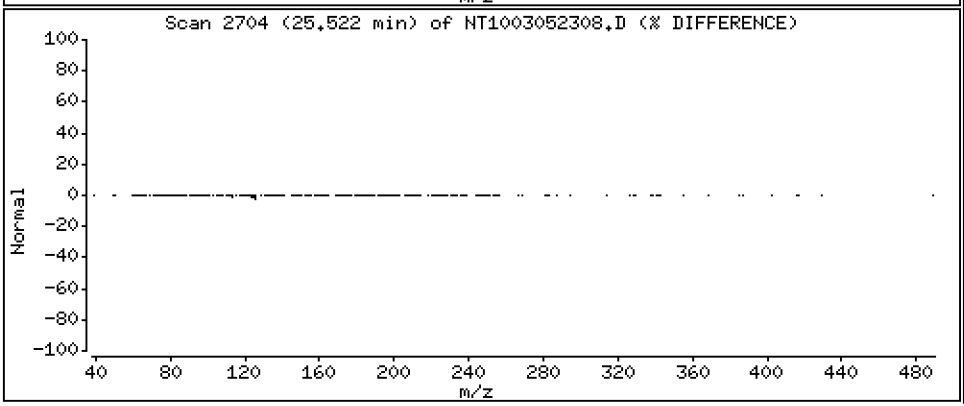
187 Total Benzofluoranthenes

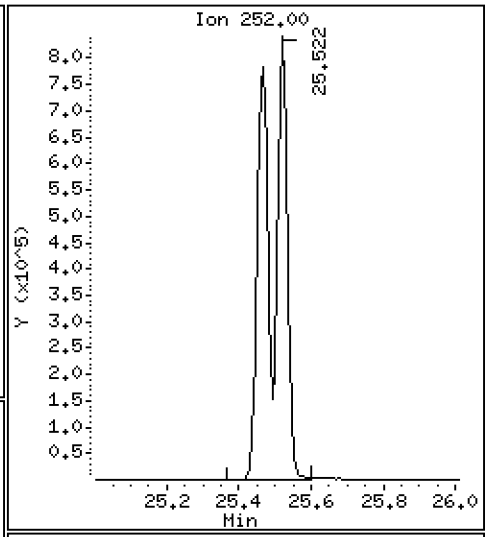
Concentration: 9.517 ug/mL

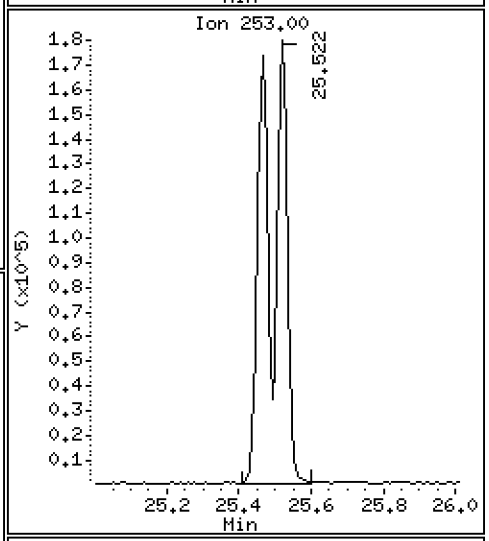


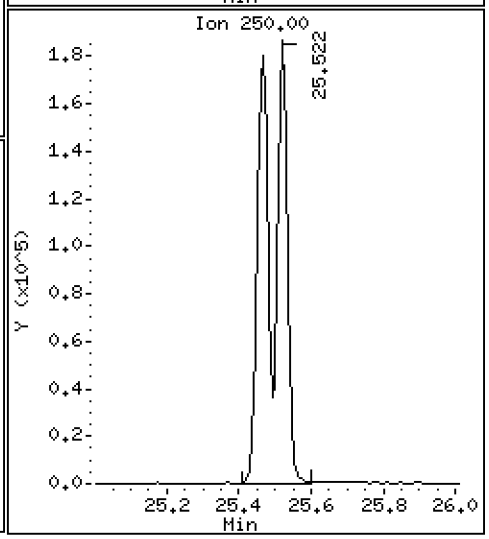












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS1

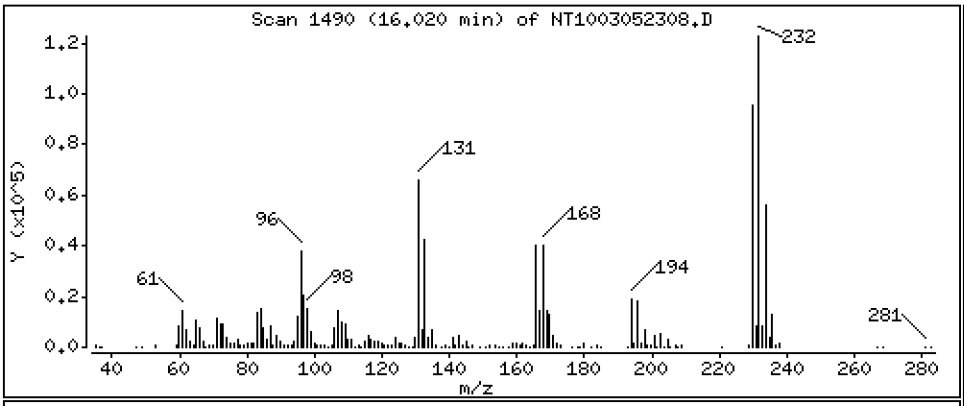
Operator: VTS

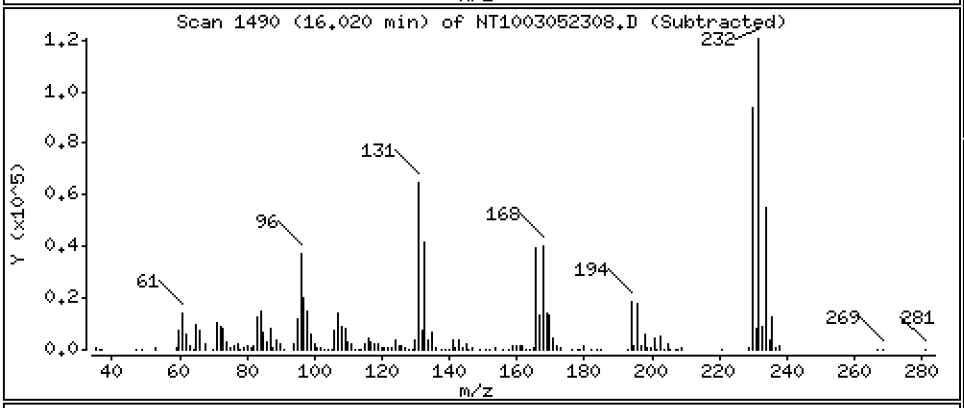
Column phase: ZB-5msi

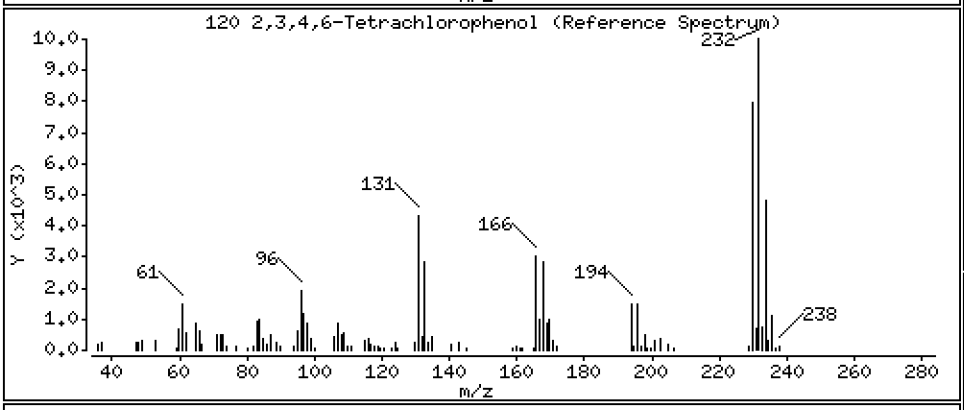
Column diameter: 0.25

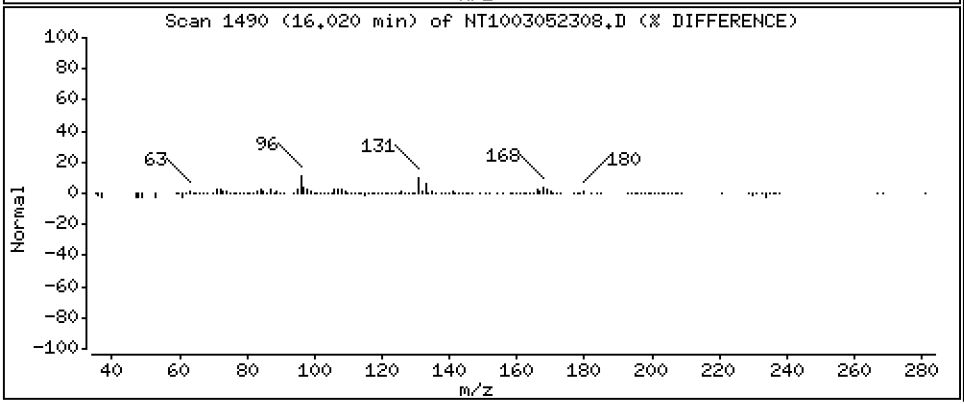
120 2,3,4,6-Tetrachlorophenol

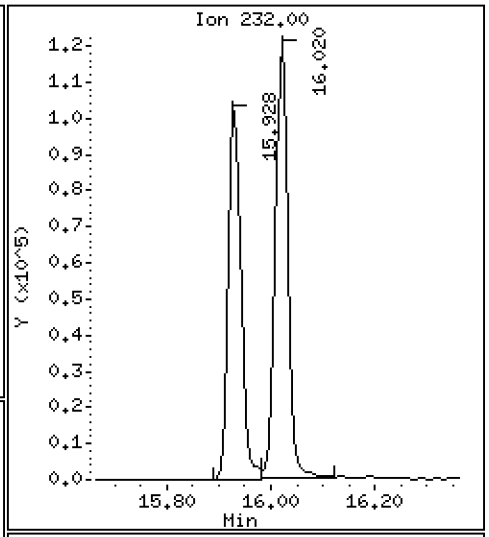
Concentration: 3.972 ug/mL

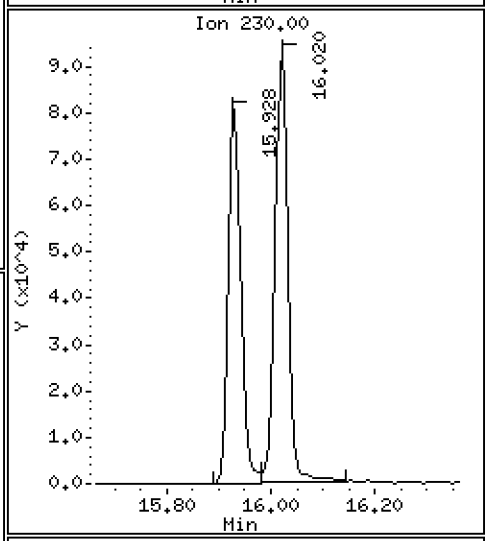


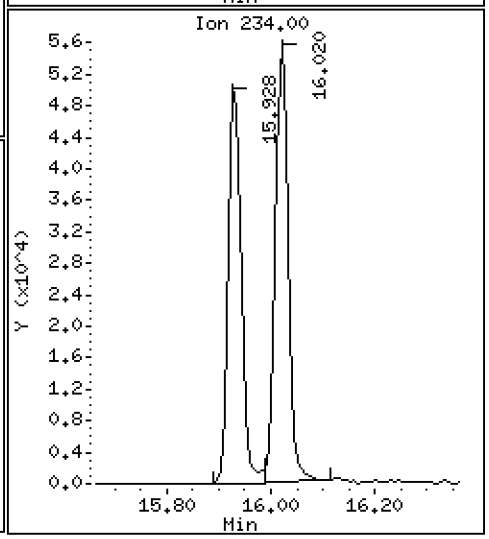












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305.b\NT1003052308.D
Lab Smp Id: BLA0685-BS1
Inj Date : 05-MAR-2023 17:50
Operator : VTS Inst ID: nt10.i
Smp Info : BLA0685-BS1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305.b\ABN.m
Meth Date : 27-Mar-2023 11:22 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.905	6.897	(0.747)	544441	5.81565	5.816
$	2 Phenol-d5	99	8.504	8.504	(0.920)	704321	6.48022	6.480
	3 Phenol	94	8.535	8.528	(0.923)	554446	4.79804	4.798
$	5 2-Chlorophenol-d4	132	8.821	8.813	(0.954)	595424	6.42107	6.421
	4 Bis(2-Chloroethyl)ether	93	8.736	8.728	(0.945)	411133	4.65591	4.656
	6 2-Chlorophenol	128	8.852	8.844	(0.957)	372438	3.86612	3.866
	7 1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	404842	3.81166	3.812
*	8 1,4-Dichlorobenzene-d4	152	9.247	9.239	(1.000)	297547	4.00000	
	9 1,4-Dichlorobenzene	146	9.278	9.278	(1.003)	402376	3.81399	3.814
$	10 1,2-Dichlorobenzene-d4	152	9.534	9.534	(1.031)	257736	3.72018	3.720
	12 1,2-Dichlorobenzene	146	9.565	9.557	(1.034)	394280	3.86113	3.861
	11 Benzyl alcohol	108	9.479	9.480	(1.025)	217514	3.60481	3.605
	14 2,2'-oxybis(1-Chloropropane)	121	9.743	9.728	(1.054)	134676	4.57461	4.575
	13 2-Methylphenol	108	9.666	9.666	(1.045)	281987	3.10625	3.106
	17 Hexachloroethane	117	10.209	10.209	(1.104)	183484	4.23717	4.237
	16 N-Nitroso-di-n-propylamine	70	9.984	9.984	(1.080)	273228	3.91832	3.918
	15 4-Methylphenol	108	9.961	9.953	(1.077)	330874	2.96802	2.968
$	18 Nitrobenzene-d5	82	10.302	10.302	(0.878)	498032	4.21889	4.219
	19 Nitrobenzene	77	10.341	10.341	(0.881)	577906	5.21882	5.219
	20 Isophorone	82	10.807	10.799	(0.921)	914358	6.46862	6.469
	21 2-Nitrophenol	139	10.967	10.959	(0.935)	196026	3.26001	3.260
	22 2,4-Dimethylphenol	107	11.018	11.018	(0.939)	457384	4.27483	4.275
	23 Bis(2-Chloroethoxy)methane	93	11.222	11.222	(0.956)	475320	5.44133	5.441
	24 Benzoic acid	105	11.230	11.196	(0.957)	1490105	22.5273	22.53
	25 2,4-Dichlorophenol	162	11.434	11.434	(0.974)	1303101	14.9830	14.98
	26 1,2,4-Trichlorobenzene	180	11.610	11.603	(0.989)	344787	4.14876	4.149
*	27 Naphthalene-d8	136	11.734	11.726	(1.000)	1075395	4.00000	
	28 Naphthalene	128	11.780	11.773	(1.004)	1111513	4.02701	4.027
	29 4-Chloroaniline	127	11.881	11.873	(1.012)	356959	2.92866	2.929(H)
	30 Hexachlorobutadiene	225	12.004	11.997	(1.023)	267265	4.41668	4.417
	31 4-Chloro-3-methylphenol	107	12.832	12.825	(1.094)	1482312	15.7768	15.78
	32 2-Methylnaphthalene	142	13.181	13.181	(1.123)	769252	3.94506	3.945
	33 Hexachlorocyclopentadiene	237	13.482	13.483	(0.878)	208742	10.5765	10.58

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
34	2,4,6-Trichlorophenol	196	13.753	13.746	(0.896)	930295	16.2504	16.25
35	2,4,5-Trichlorophenol	196	13.823	13.815	(0.901)	1024907	16.6577	16.66
$ 36	2-Fluorobiphenyl	172	13.931	13.924	(0.908)	886483	4.46333	4.463
37	2-Chloronaphthalene	162	14.187	14.187	(0.924)	731428	4.69112	4.691
38	2-Nitroaniline	65	14.403	14.396	(0.938)	818085	17.9814	17.98
39	Dimethylphthalate	163	14.775	14.767	(0.963)	886419	4.92919	4.929
40	Acenaphthylene	152	15.054	15.046	(0.981)	1191053	4.43092	4.431
41	2,6-Dinitrotoluene	165	14.906	14.899	(0.971)	743068	17.7143	17.71
* 42	Acenaphthene-d10	164	15.347	15.340	(1.000)	556840	4.00000	
43	3-Nitroaniline	138	15.255	15.255	(0.994)	427416	9.42488	9.425
44	Acenaphthene	153	15.409	15.409	(1.004)	709193	4.37467	4.375
45	2,4-Dinitrophenol	184	15.487	15.479	(1.009)	610080	48.1039	48.10
46	Dibenzofuran	168	15.773	15.765	(1.028)	1074587	4.46628	4.466
47	4-Nitrophenol	109	15.587	15.579	(1.016)	492400	14.5386	14.54
48	2,4-Dinitrotoluene	165	15.749	15.742	(1.026)	1061935	17.2945	17.29
50	Diethylphthalate	149	16.244	16.237	(1.058)	937969	4.92354	4.924
49	Fluorene	166	16.492	16.484	(1.075)	902611	4.50896	4.509
51	4-Chlorophenyl-phenylether	204	16.484	16.484	(1.074)	443823	4.84602	4.846
52	4-Nitroaniline	138	16.531	16.523	(1.077)	489565	10.0430	10.04
53	4,6-Dinitro-2-methylphenol	198	16.592	16.585	(0.899)	1036508	38.3469	38.35
54	N-Nitrosodiphenylamine	169	16.731	16.724	(0.907)	537160	3.60624	3.606
$ 55	2,4,6-Tribromophenol	330	16.994	16.986	(1.107)	268105	7.43543	7.435
56	4-Bromophenyl-phenylether	248	17.511	17.504	(0.949)	346440	5.74000	5.740
57	Hexachlorobenzene	284	17.627	17.620	(0.955)	357543	5.26065	5.261
58	Pentachlorophenol	266	18.045	18.038	(0.978)	365832	10.9057	10.91
* 59	Phenanthrene-d10	188	18.455	18.448	(1.000)	1006737	4.00000	
60	Phenanthrene	178	18.509	18.502	(1.003)	1208646	4.69118	4.691
61	Anthracene	178	18.618	18.610	(1.009)	969747	3.88167	3.882
62	Carbazole	167	18.950	18.943	(1.027)	1061981	4.64008	4.640
63	Di-n-butylphthalate	149	19.655	19.647	(1.065)	1589951	4.94149	4.941
64	Fluoranthene	202	20.892	20.885	(0.888)	1515531	4.80511	4.805
65	Pyrene	202	21.333	21.318	(0.907)	1664139	5.18168	5.182
$ 66	Terphenyl-d14	244	21.612	21.597	(0.919)	1297122	4.99157	4.992
67	Butylbenzylphthalate	149	22.503	22.487	(0.957)	683692	4.01470	4.015
68	Benzo(a)anthracene	228	23.509	23.494	(0.999)	1510090	4.67117	4.671
* 69	Chrysene-d12	240	23.525	23.517	(1.000)	916837	4.00000	
70	3,3'-Dichlorobenzidine	252	23.455	23.440	(0.997)	269633	1.86893	1.869
71	Chrysene	228	23.571	23.563	(1.002)	1343146	5.11225	5.112
72	bis(2-Ethylhexyl)phthalate	149	23.509	23.494	(0.955)	1066721	4.79745	4.797
* 134	Di-n-octylphthalate-d4	153	24.608	24.593	(1.000)	1539451	4.00000	
73	Di-n-octylphthalate	149	24.624	24.609	(1.001)	1986544	5.81923	5.819
74	Benzo(b)fluoranthene	252	25.468	25.445	(0.968)	1628733	4.64757	4.648(H)
75	Benzo(k)fluoranthene	252	25.522	25.507	(0.971)	1643477	4.85177	4.852
76	Benzo(a)pyrene	252	26.180	26.157	(0.996)	1260150	4.05259	4.053
* 77	Perylene-d12	264	26.296	26.281	(1.000)	977237	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	29.181	29.158	(1.110)	1817937	4.95062	4.951
79	Dibenzo(a,h)anthracene	278	29.228	29.197	(1.111)	1549447	5.48824	5.488
80	Benzo(g,h,i)perylene	276	30.066	30.028	(1.143)	1503241	5.17613	5.176
90	N-Nitrosodimethylamine	74	4.727	4.719	(0.511)	623570	10.3180	10.32
91	Aniline	93	8.643	8.628	(0.935)	169568	1.26557	1.266
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	4.835	4.789	(0.523)	50416	0.47039	0.4704
105	1-methylnaphthalene	142	13.382	13.382	(1.140)	746580	4.23027	4.230
111	Azobenzene (1,2-DP-Hydrazine)	77	16.824	16.816	(1.096)	1240177	4.35938	4.359

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.522	25.507	(0.971)	3211482	9.51745	9.517
120 2,3,4,6-Tetrachlorophenol	232	16.020	16.012	(1.044)	216495	3.97187	3.972

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052308.D
Lab Smp Id: BLA0685-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:03
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	297263	148632	594526	297547	0.10
27 Naphthalene-d8	1085336	542668	2170672	1075395	-0.92
42 Acenaphthene-d10	563464	281732	1126928	556840	-1.18
59 Phenanthrene-d10	1038318	519159	2076636	1006737	-3.04
69 Chrysene-d12	1012751	506376	2025502	916837	-9.47
134 Di-n-octylphthala	1628890	814445	3257780	1539451	-5.49
77 Perylene-d12	1152264	576132	2304528	977237	-15.19

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.06
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.52	23.02	24.02	23.53	0.03
134 Di-n-octylphthala	24.59	24.09	25.09	24.61	0.06
77 Perylene-d12	26.28	25.78	26.78	26.30	0.06

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052308.D

Lab ID: BLA0685-BS1
nt10.i, 20230305.b\ABN.m,   05-MAR-2023 17:50

RT	CO-ELUTION COMPOUNDS
23.510	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

RRT check based on Ccal File: NT1003052302.D

On Column LOD for nt10.i, 20230305.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052309.D

Page 1

Date : 05-MAR-2023 18:28

Client ID:

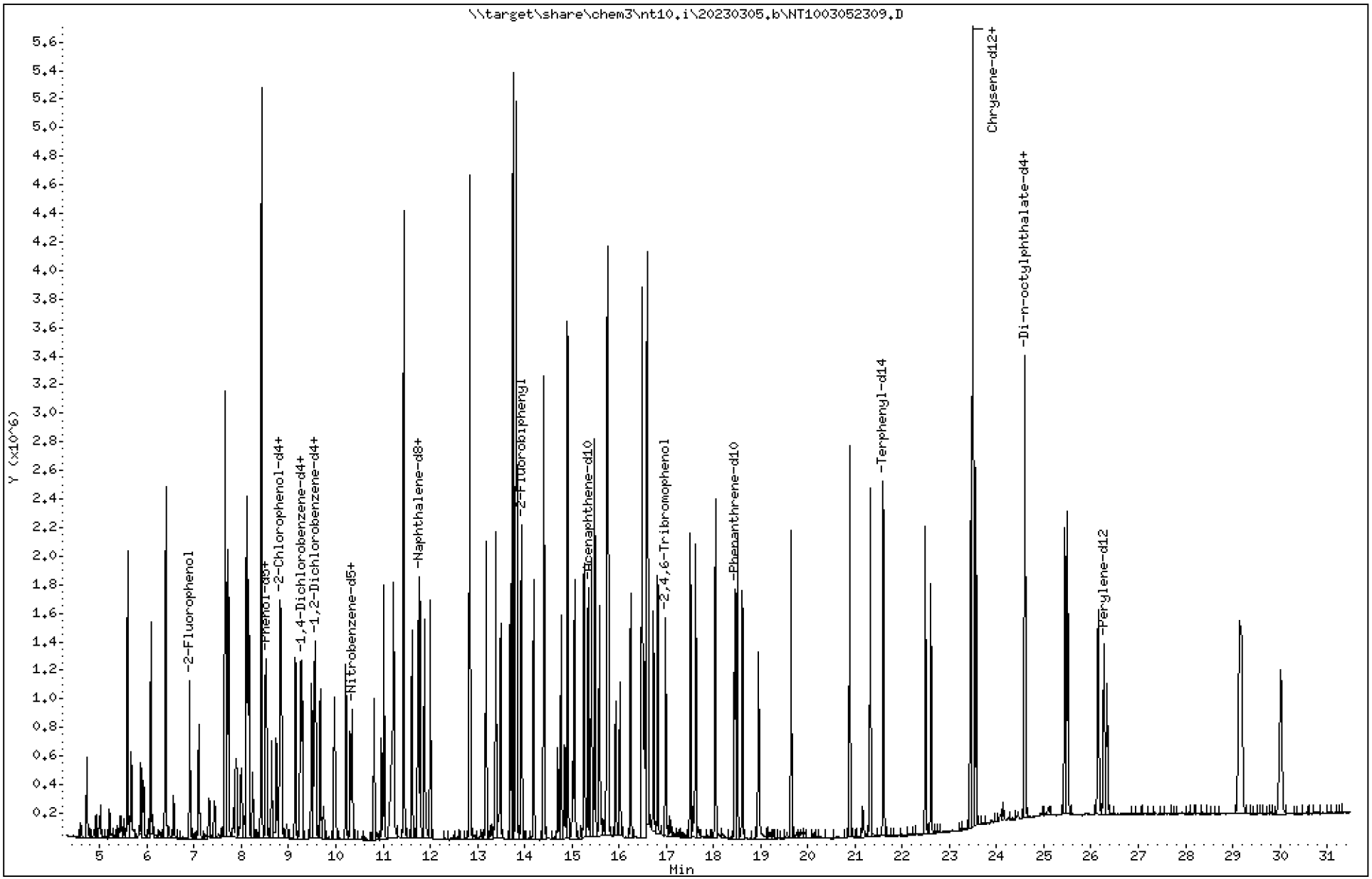
Instrument: nt10.i

Sample Info: BLA0685-BSD1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

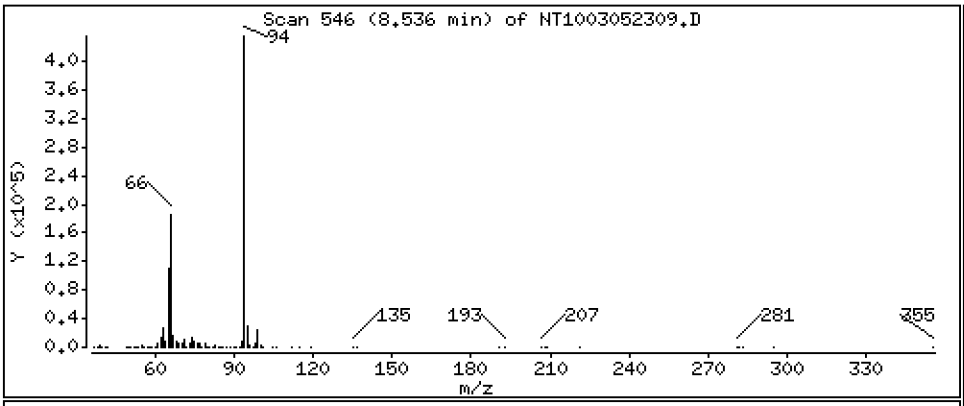
Operator: VTS

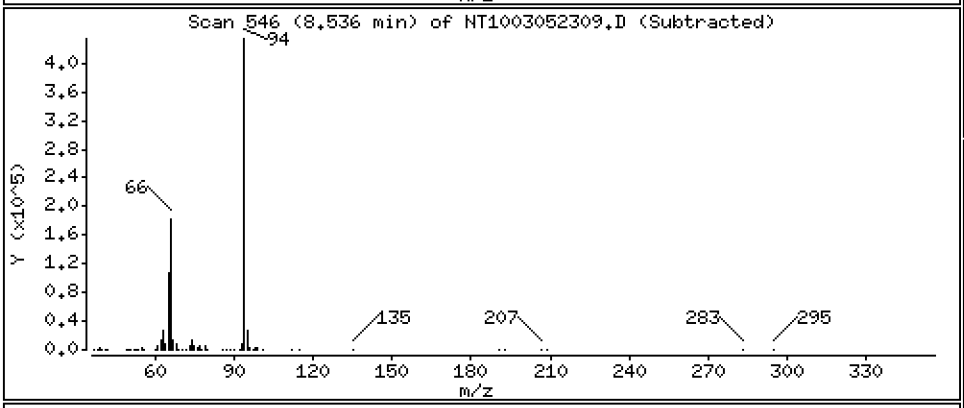
Column phase: ZB-5msi

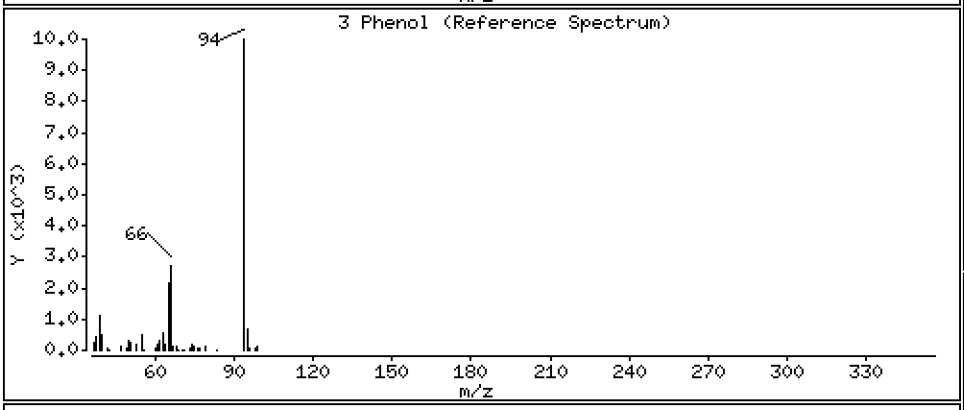
Column diameter: 0.25

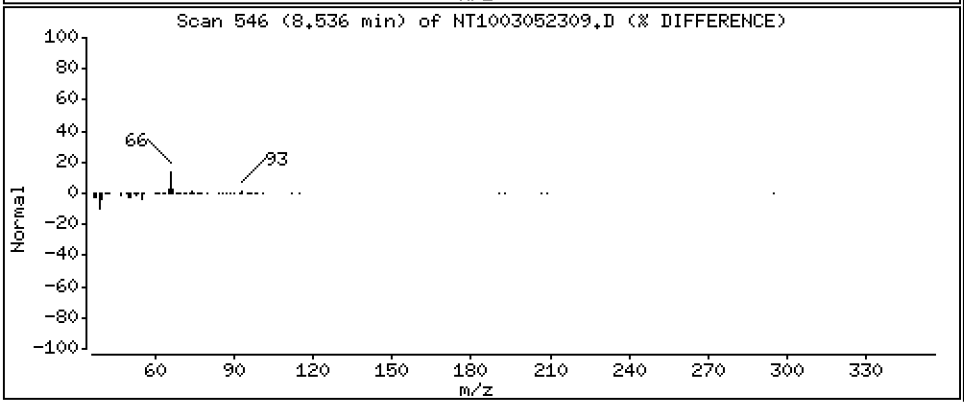
3 Phenol

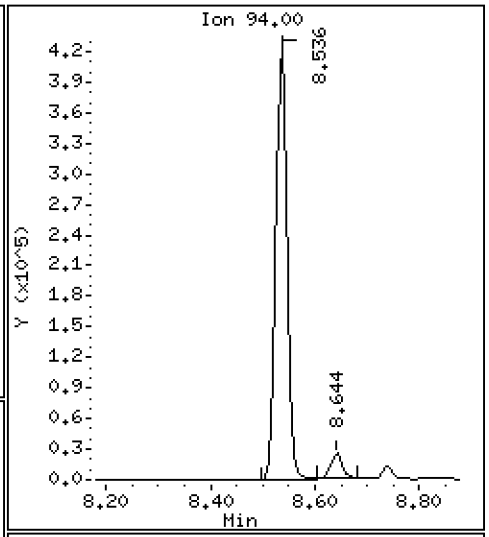
Concentration: 4.611 ug/mL

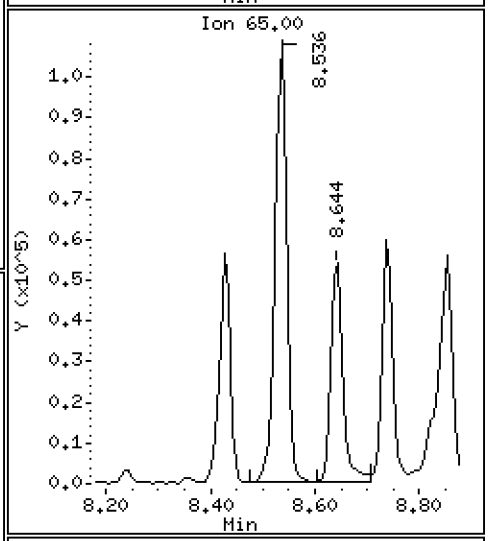


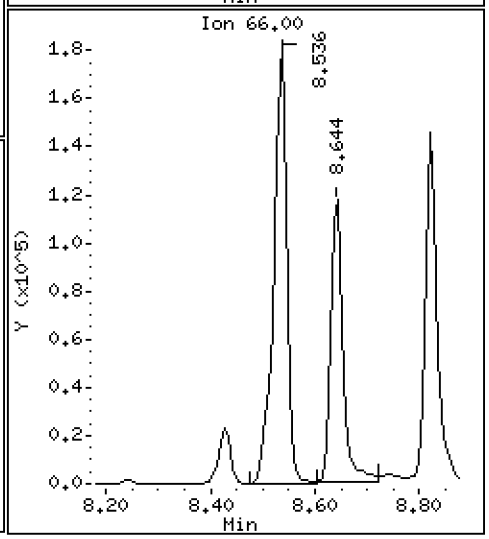












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

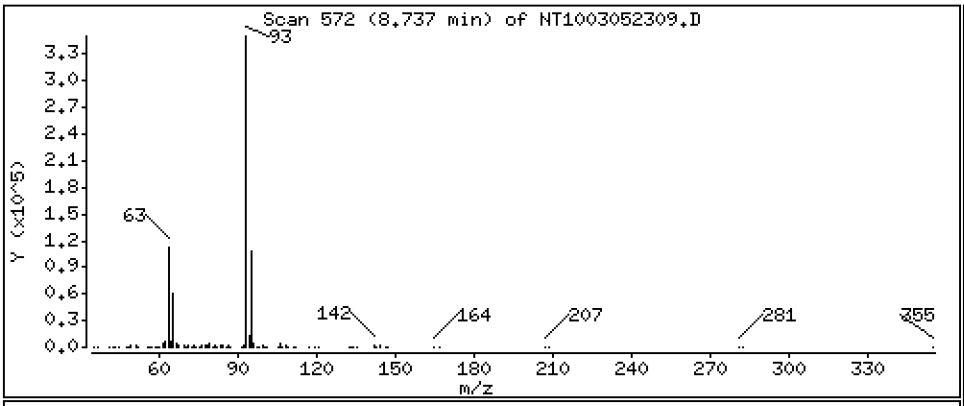
Operator: VTS

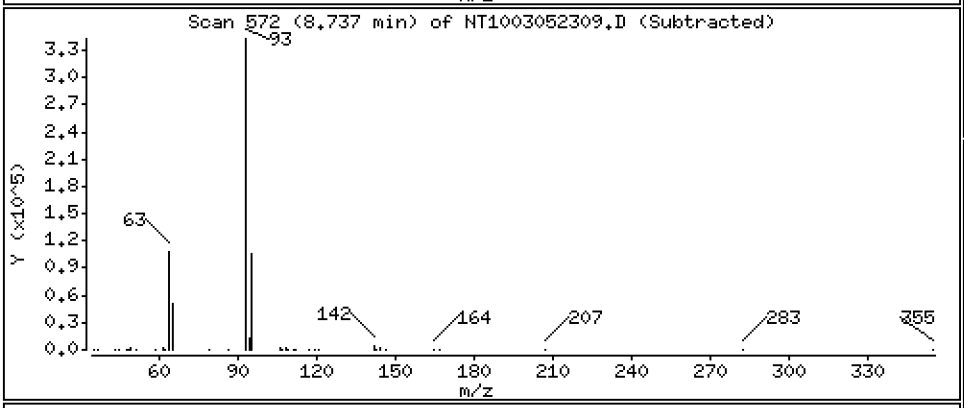
Column phase: ZB-5msi

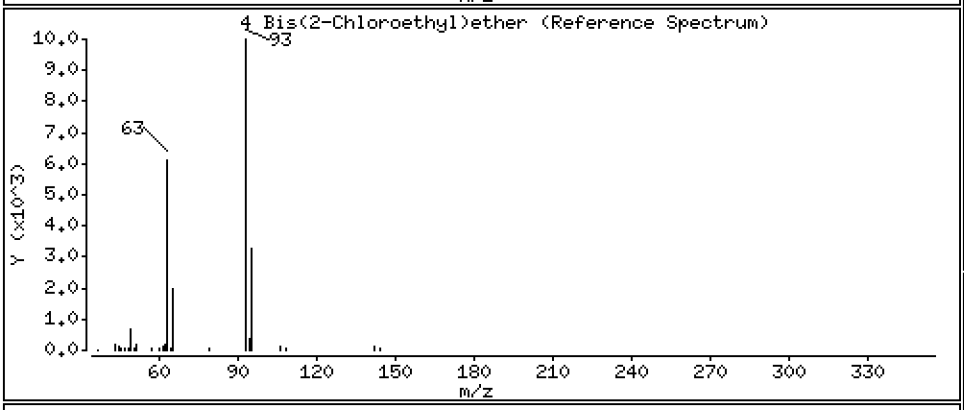
Column diameter: 0.25

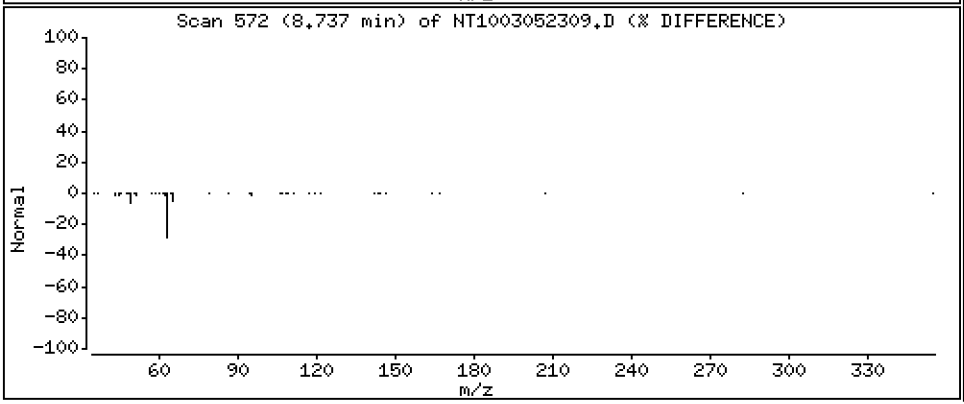
4 Bis(2-Chloroethyl)ether

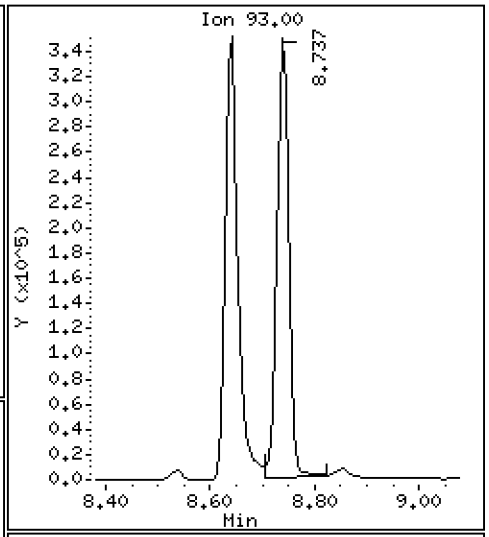
Concentration: 5.262 ug/mL

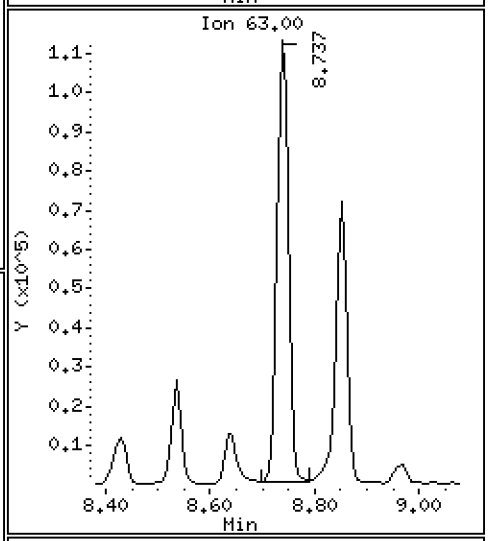


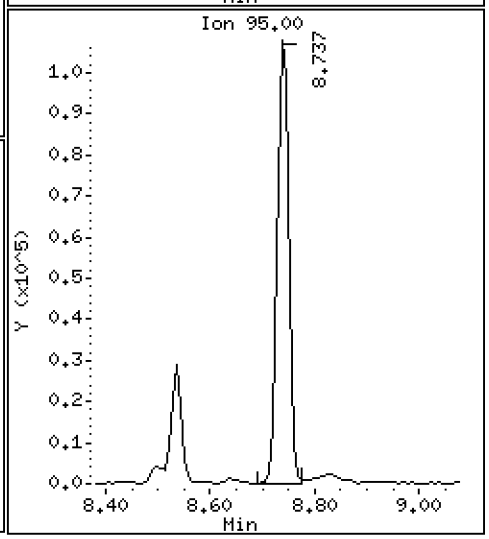












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

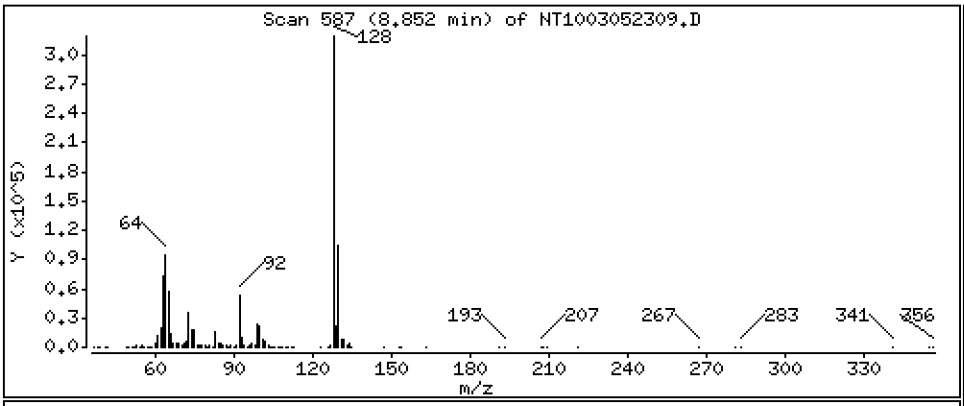
Operator: VTS

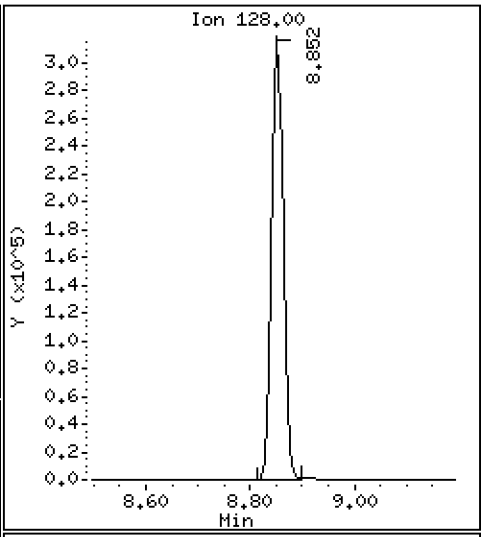
Column phase: ZB-5msi

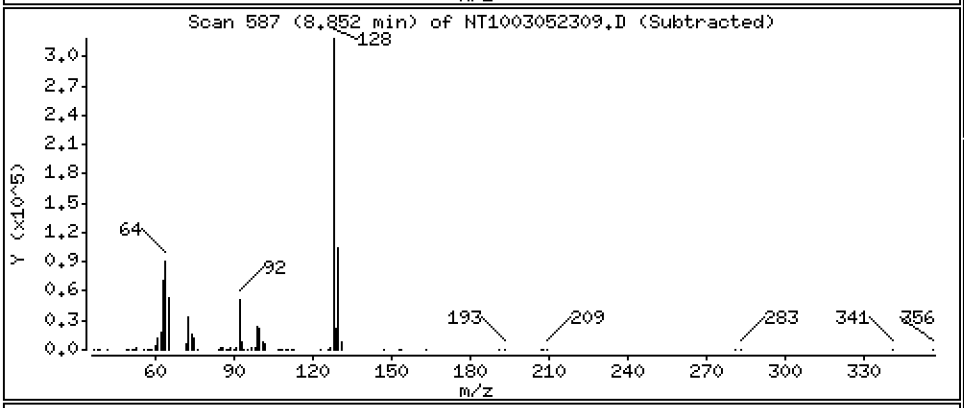
Column diameter: 0.25

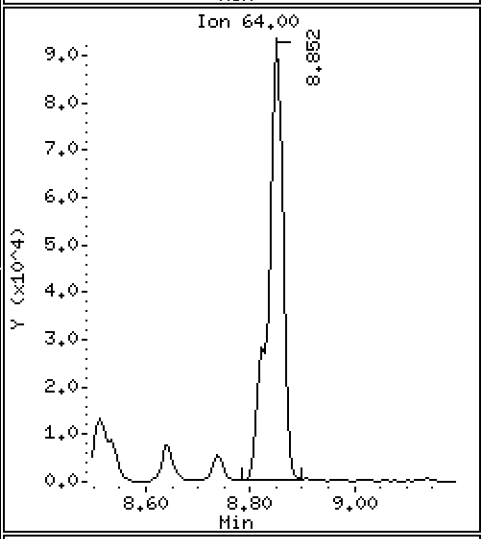
6 2-Chlorophenol

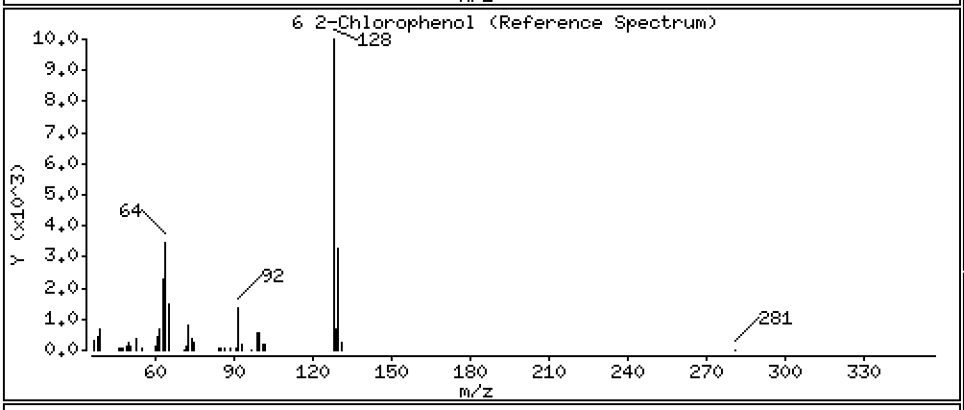
Concentration: 4.337 ug/mL

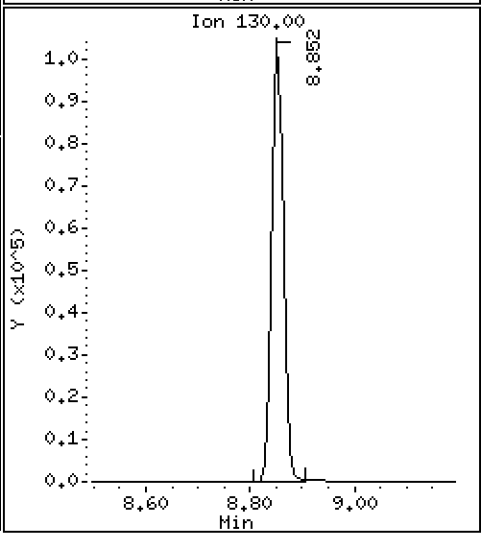


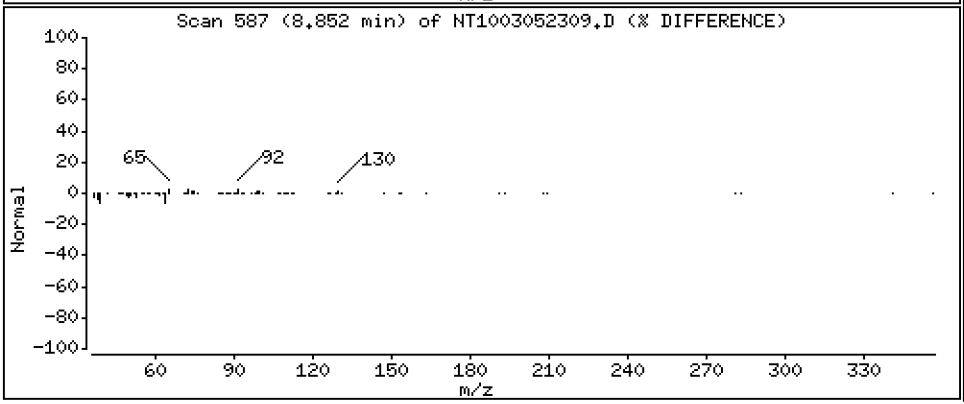












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

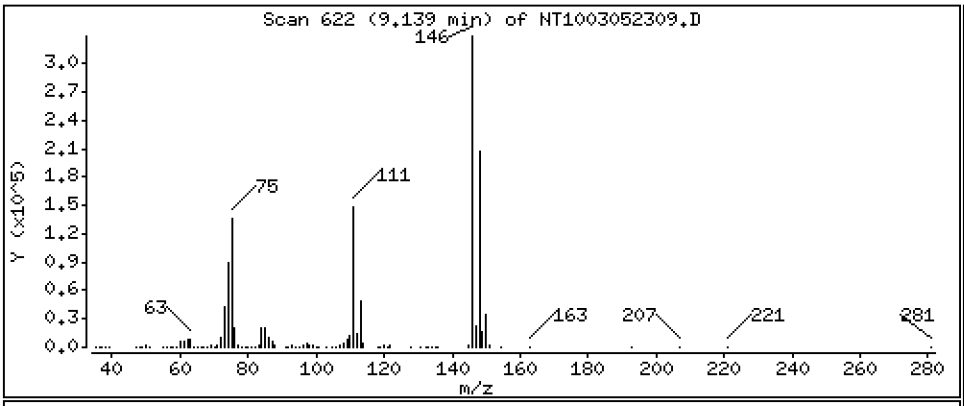
Operator: VTS

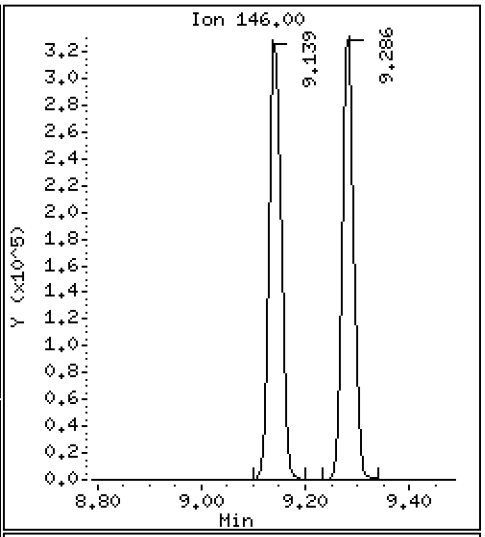
Column phase: ZB-5msi

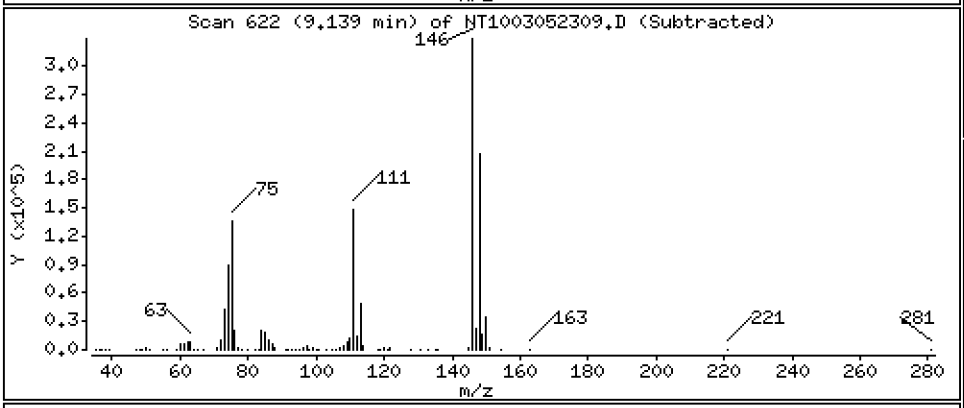
Column diameter: 0.25

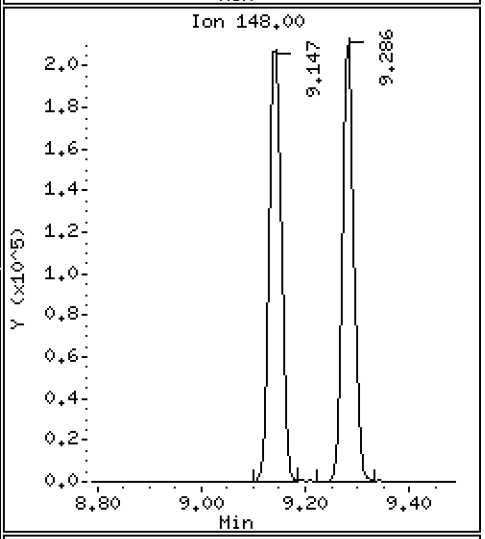
7 1,3-Dichlorobenzene

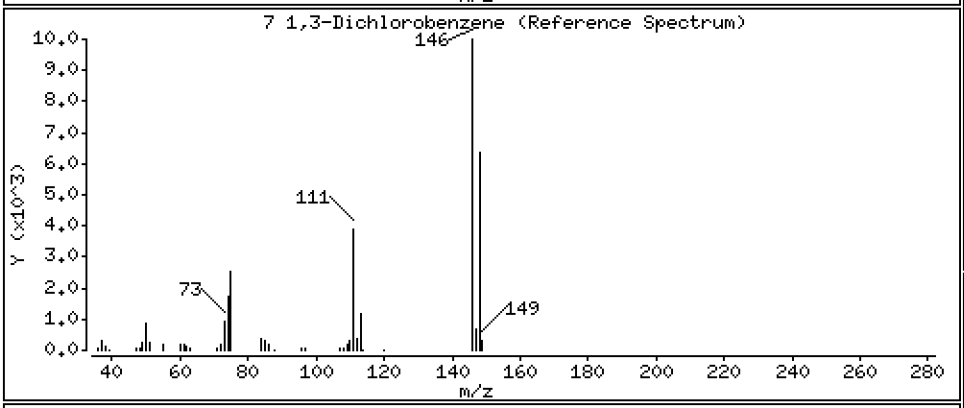
Concentration: 4.344 ug/mL

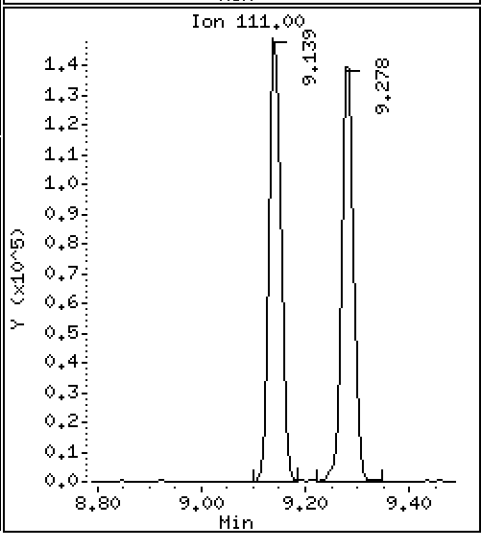


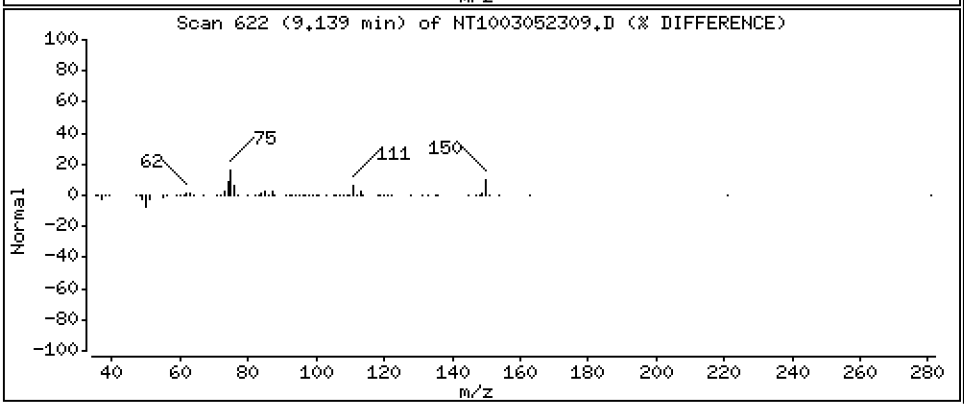












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052309.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

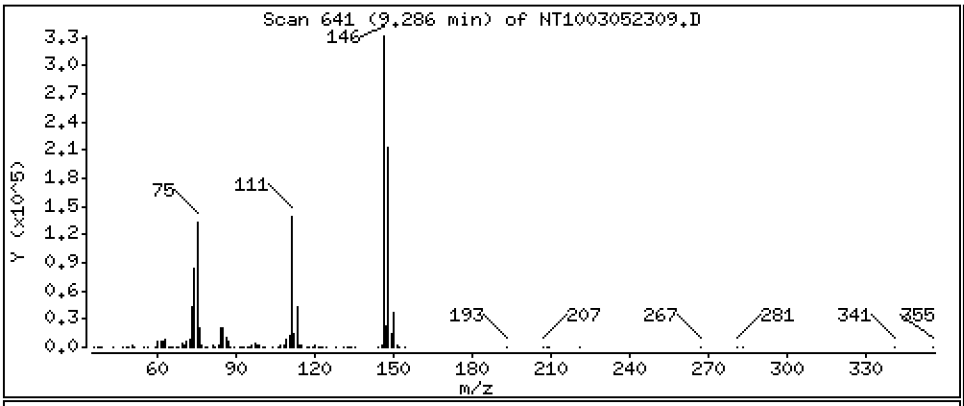
Operator: VTS

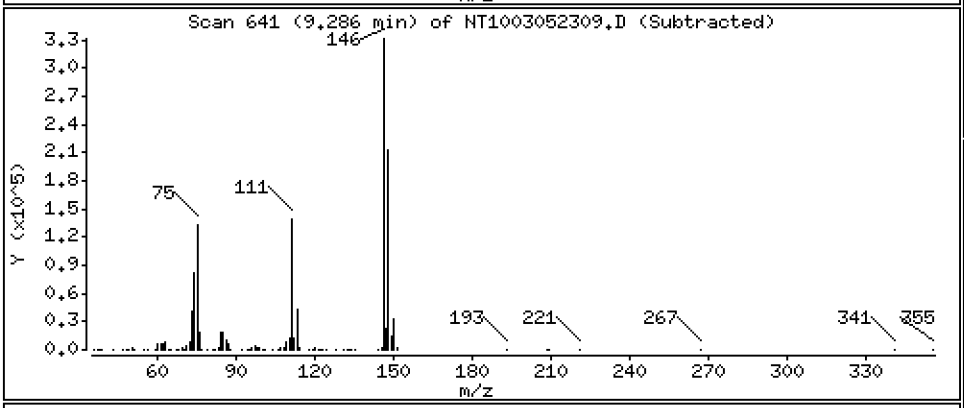
Column phase: ZB-5msi

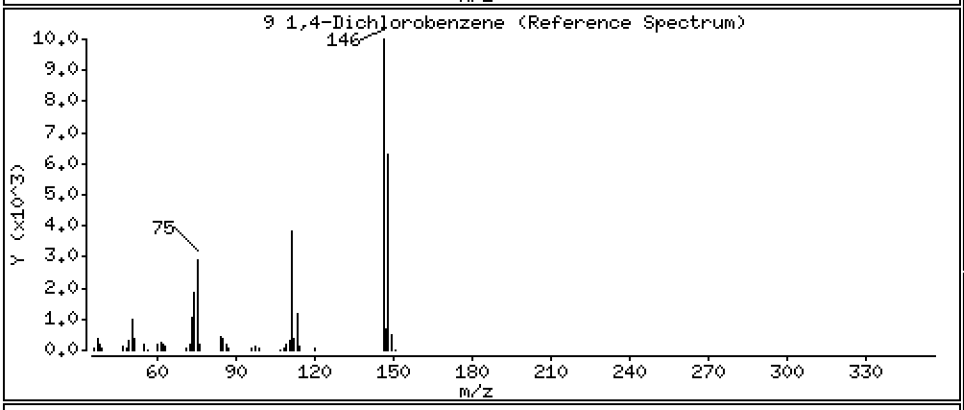
Column diameter: 0.25

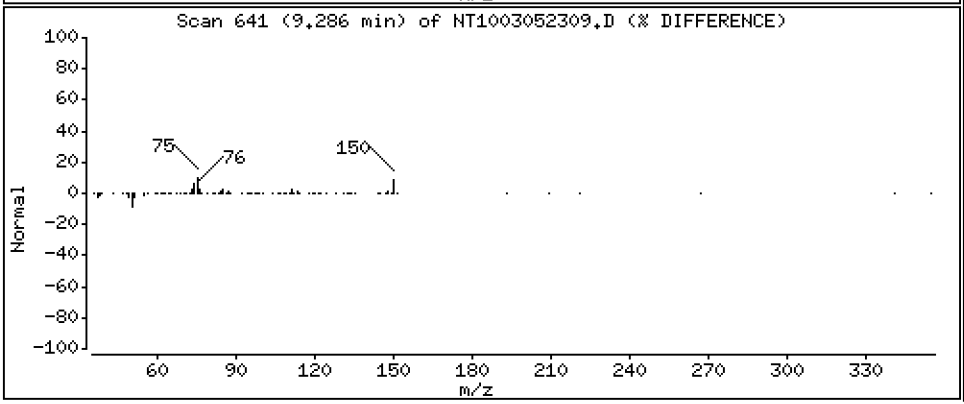
9 1,4-Dichlorobenzene

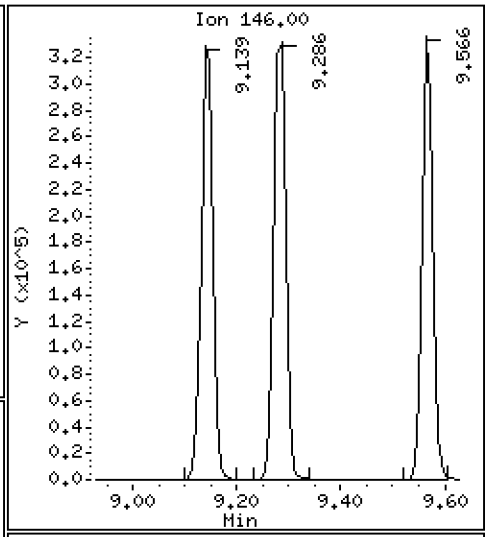
Concentration: 4.350 ug/mL

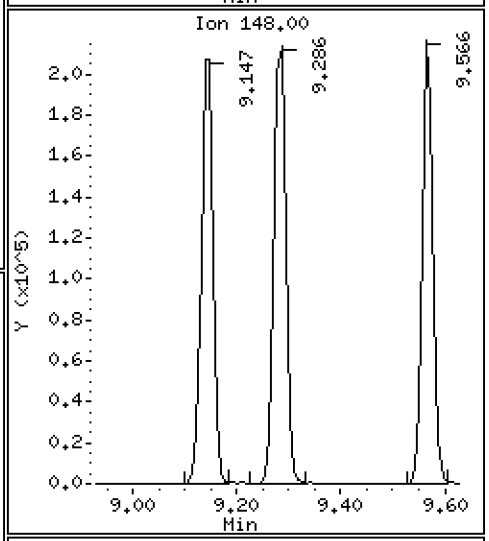


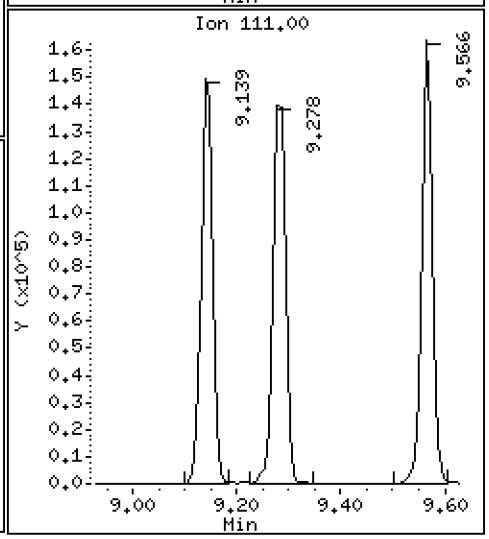












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

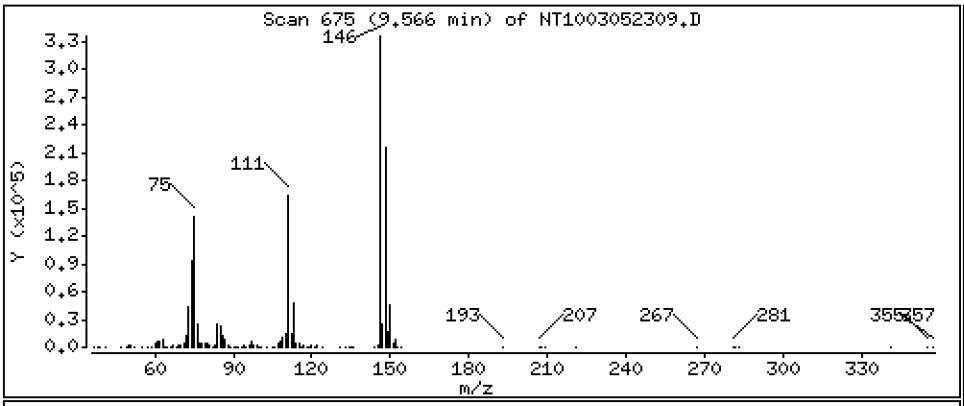
Operator: VTS

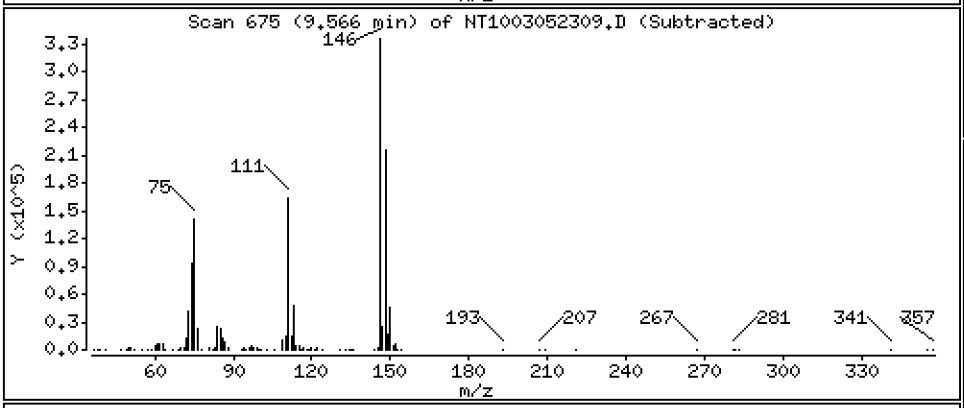
Column phase: ZB-5msi

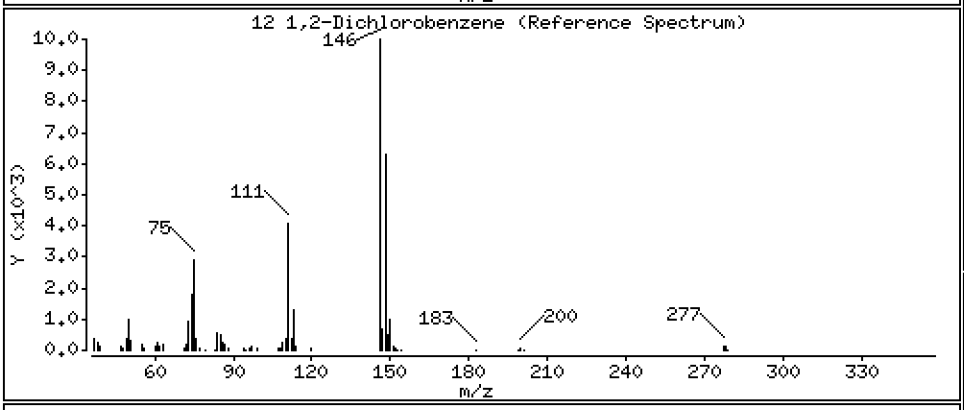
Column diameter: 0.25

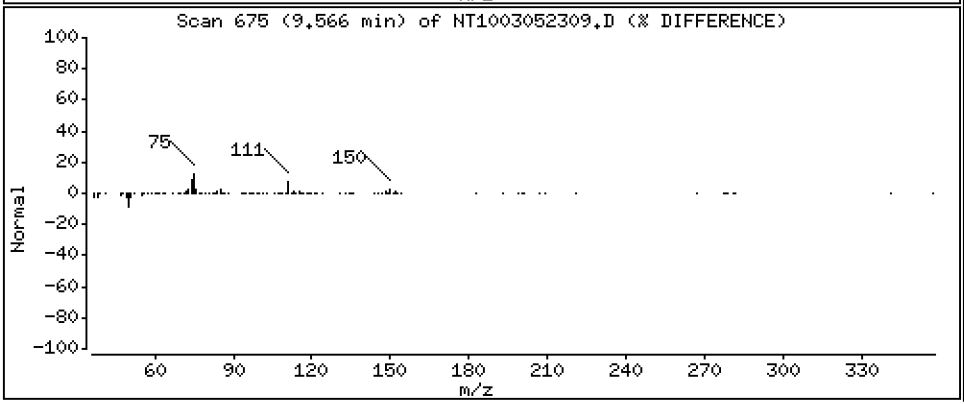
12 1,2-Dichlorobenzene

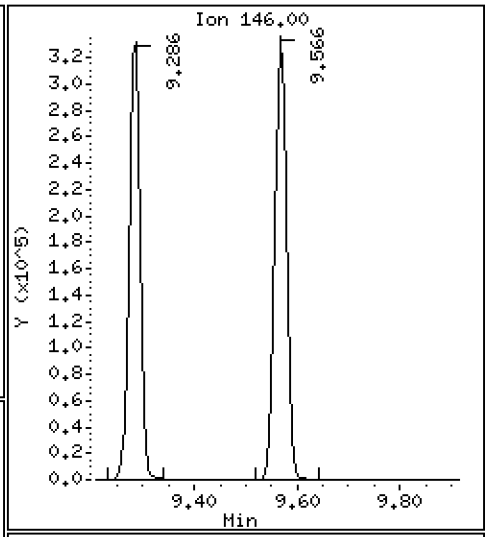
Concentration: 4.409 ug/mL

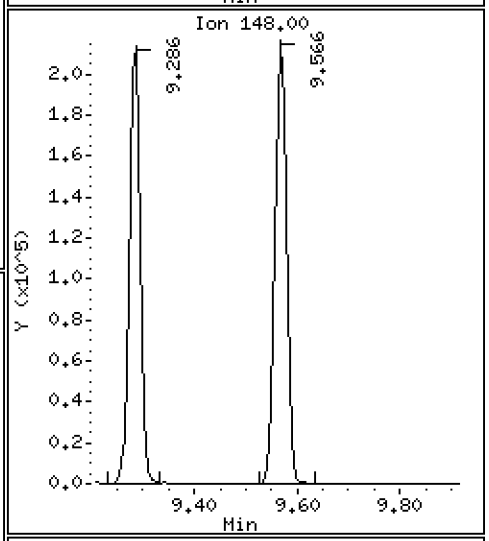


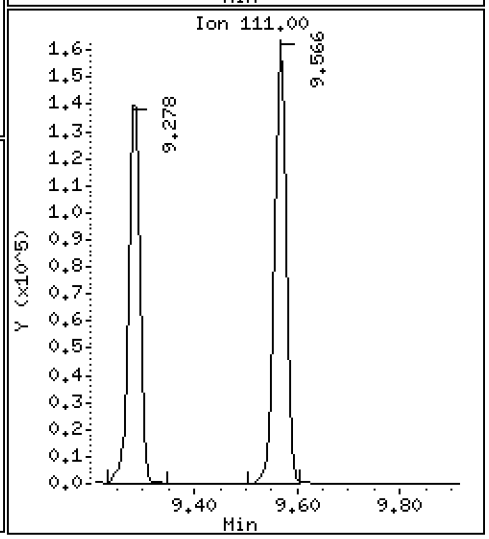












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

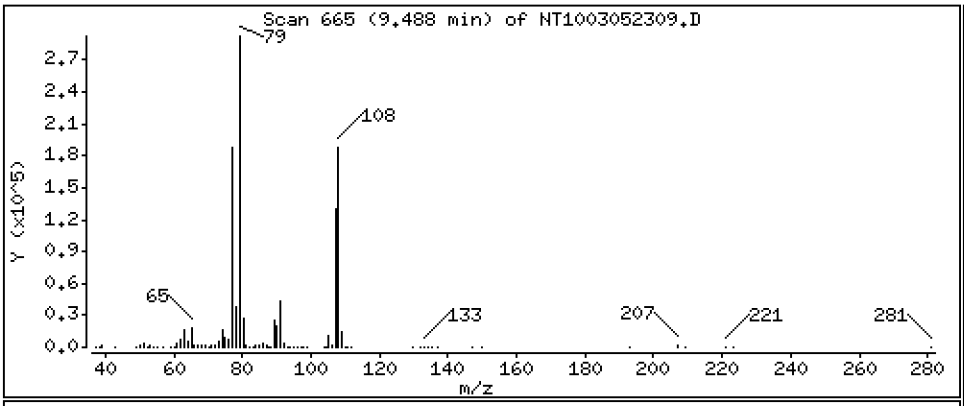
Operator: VTS

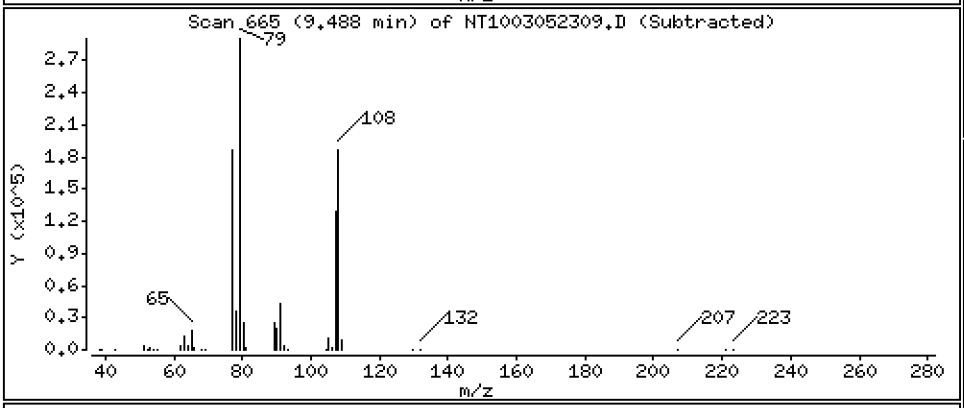
Column phase: ZB-5msi

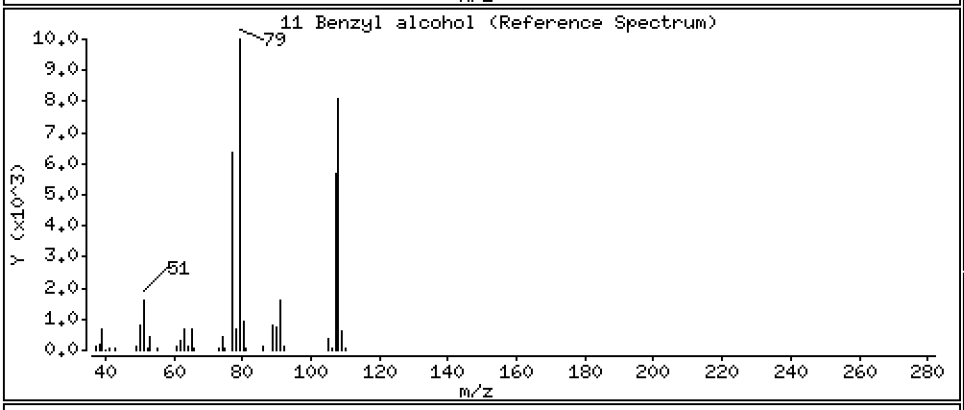
Column diameter: 0.25

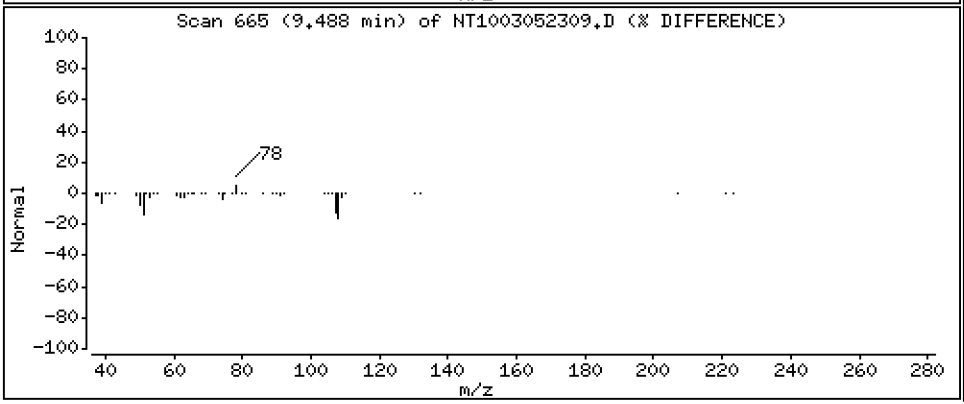
11 Benzyl alcohol

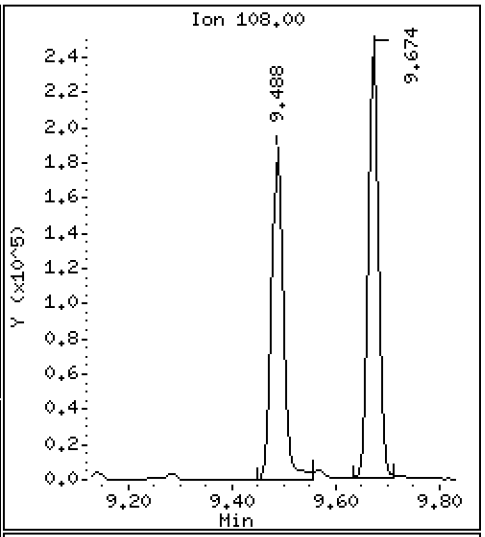
Concentration: 4.223 ug/mL

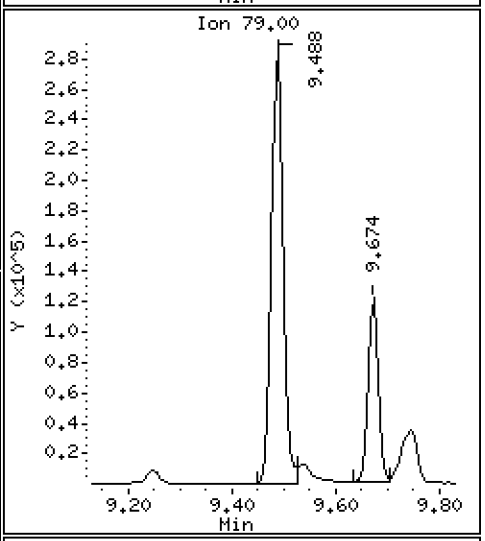


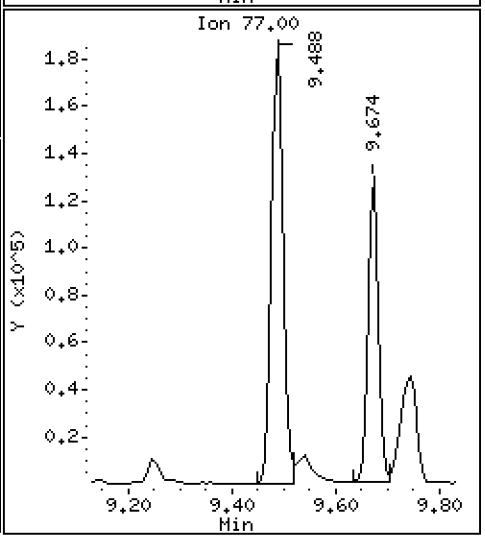












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

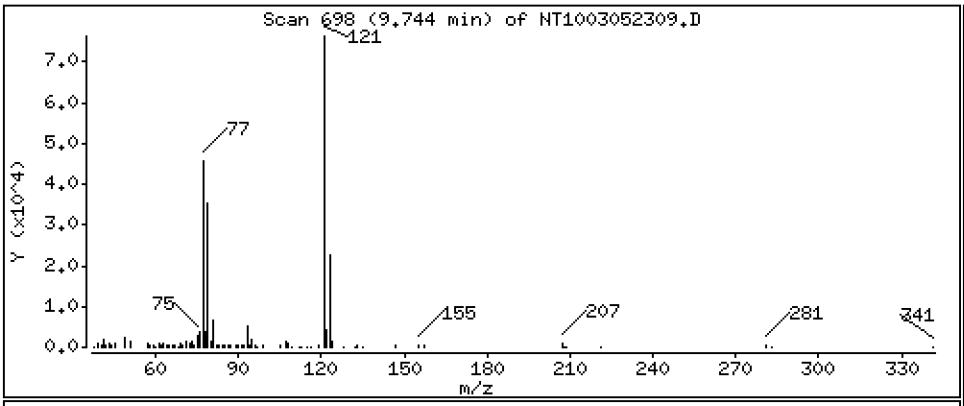
Operator: VTS

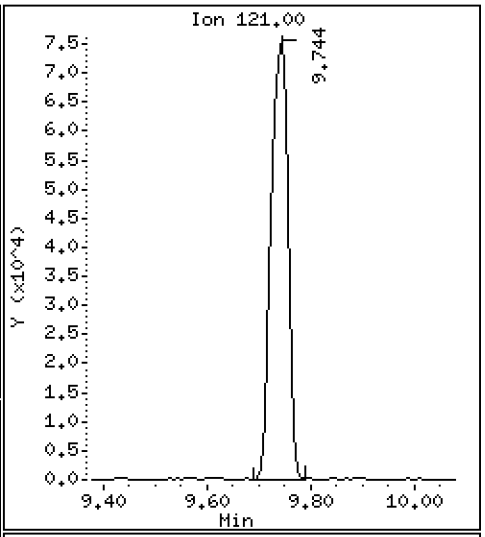
Column phase: ZB-5msi

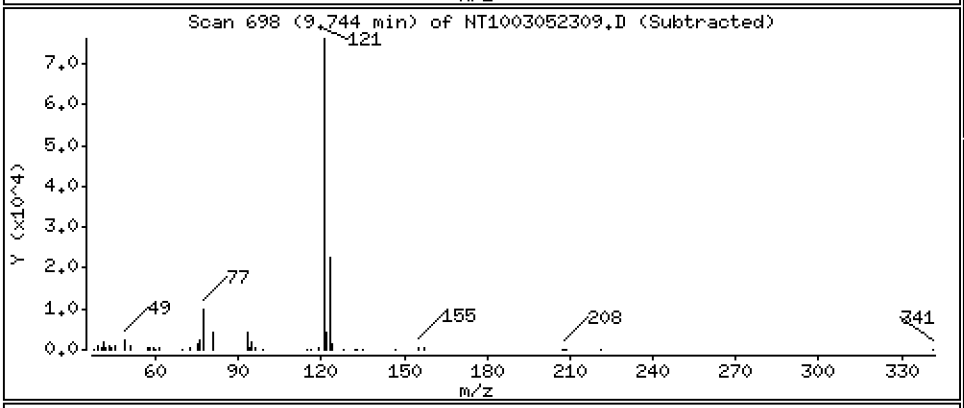
Column diameter: 0.25

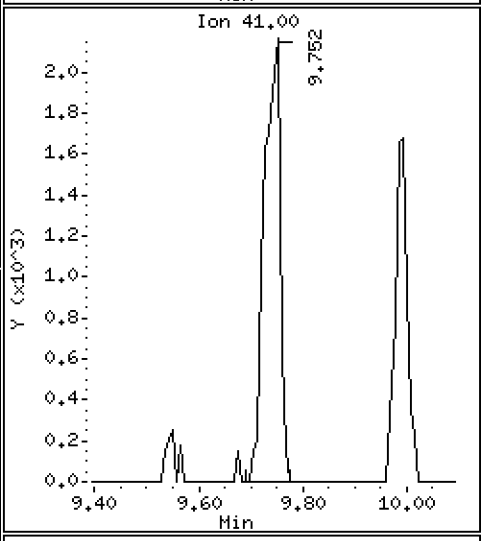
14 2,2'-oxybis(1-Chloropropane)

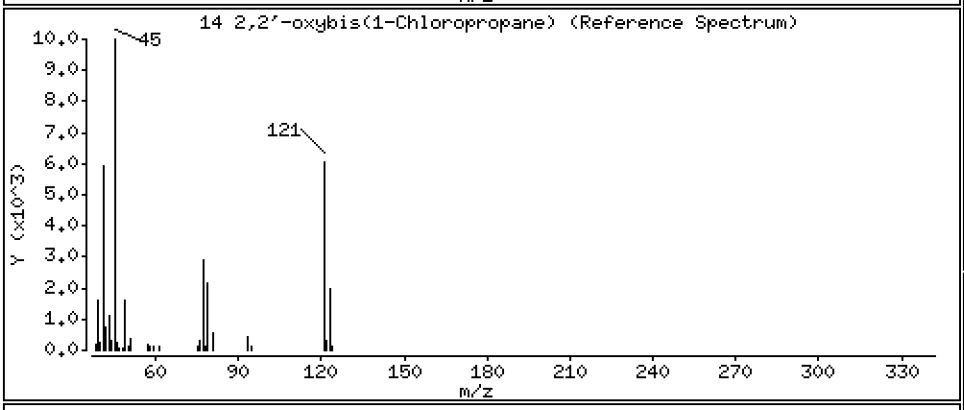
Concentration: 5.234 ug/mL

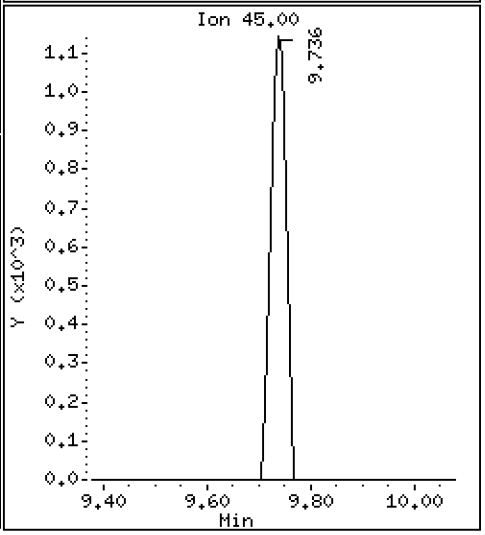


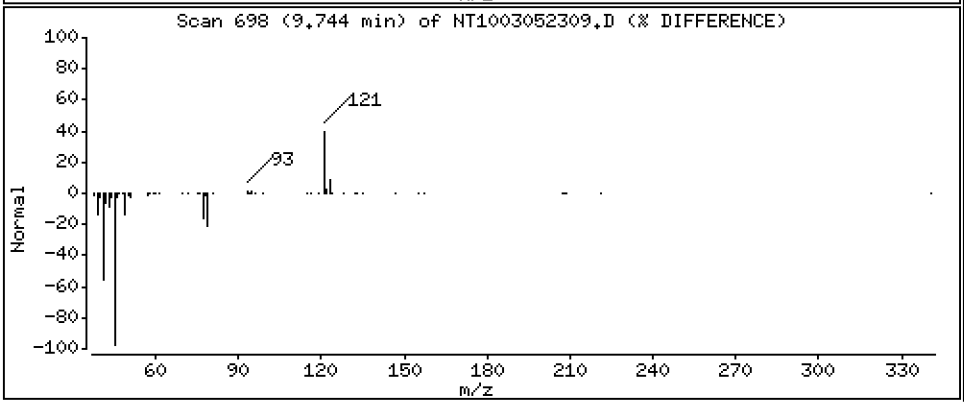












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

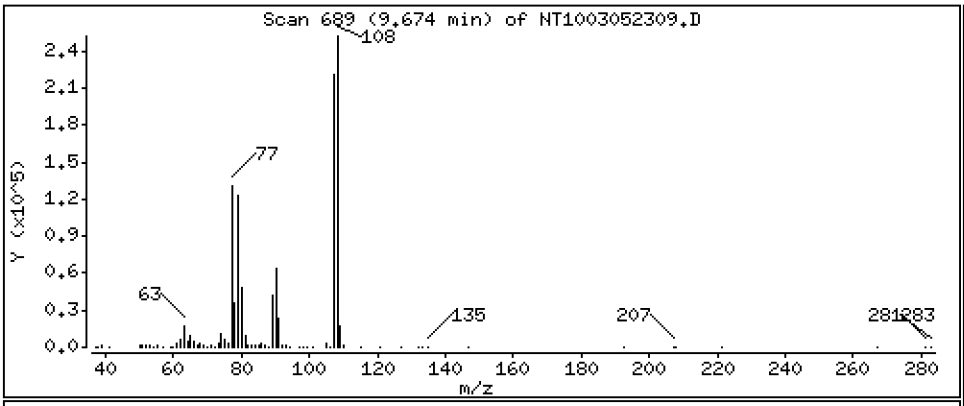
Operator: VTS

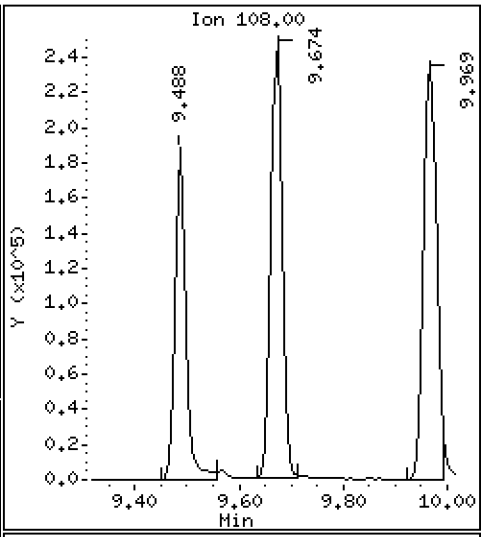
Column phase: ZB-5msi

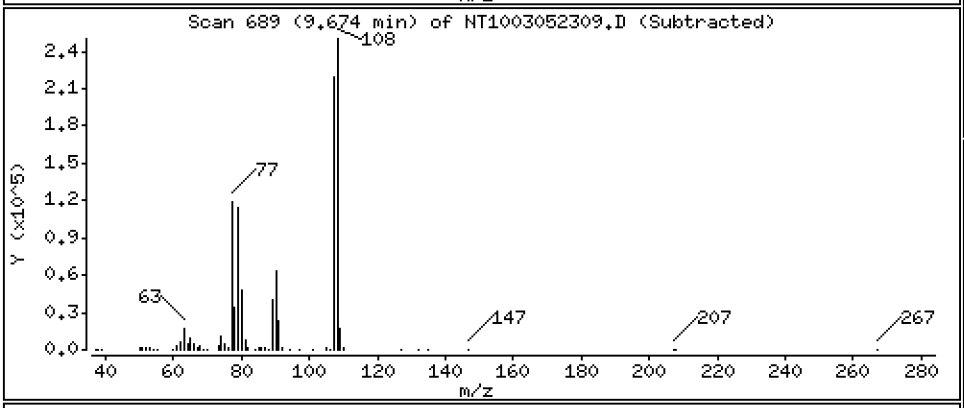
Column diameter: 0.25

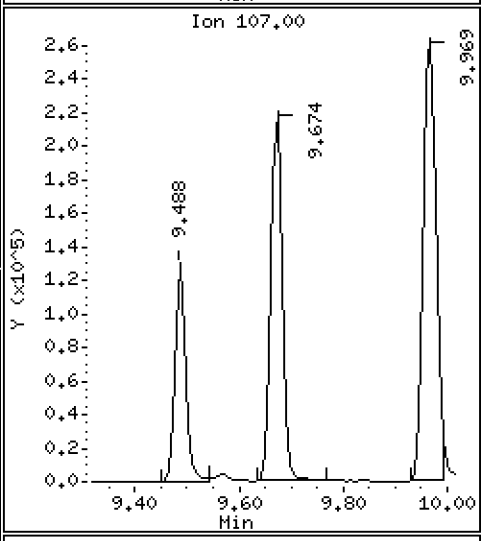
13 2-Methylphenol

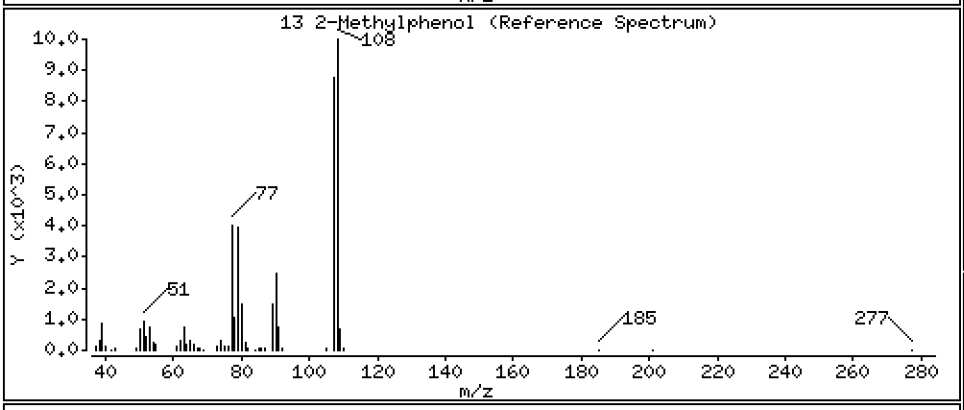
Concentration: 3.511 ug/mL

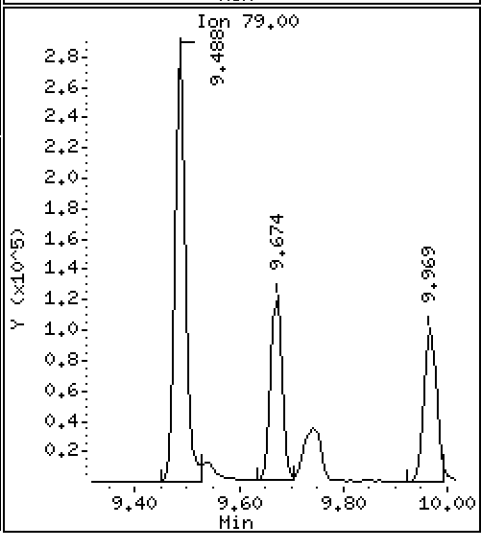


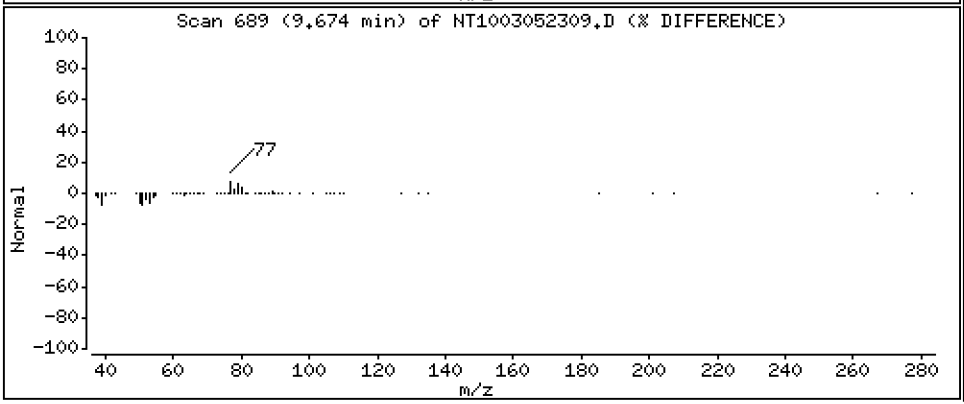












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

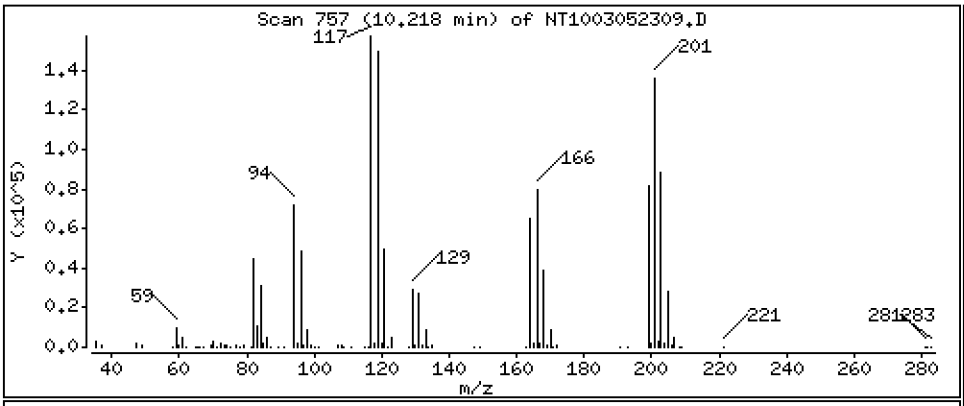
Operator: VTS

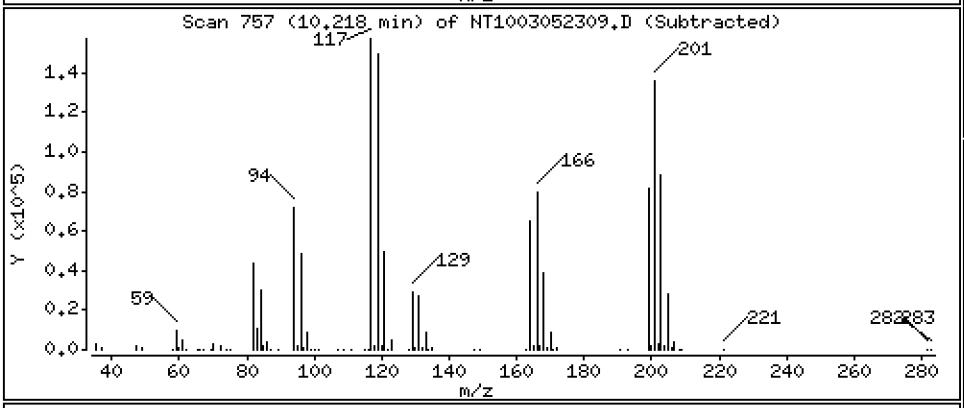
Column phase: ZB-5msi

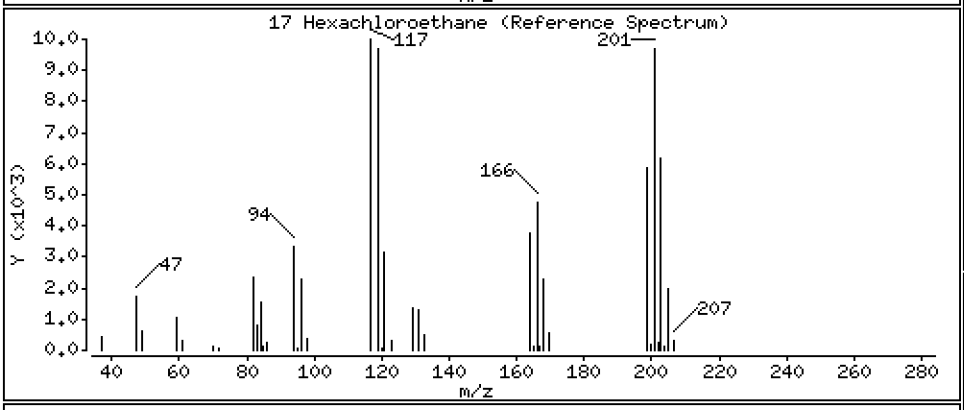
Column diameter: 0.25

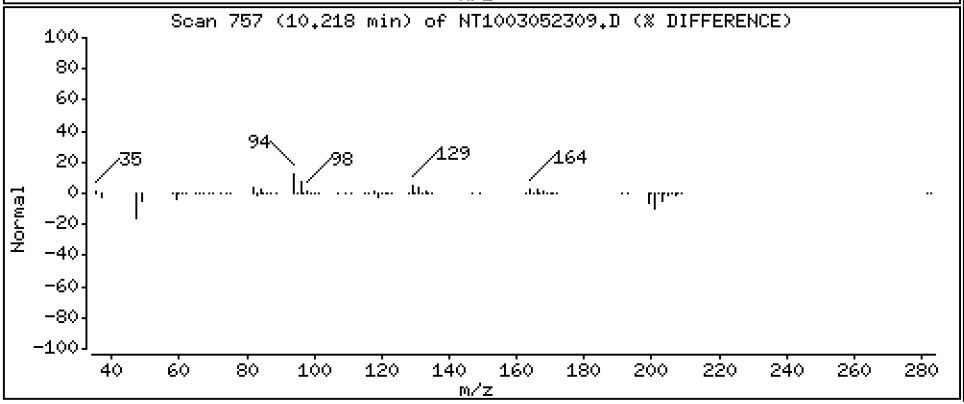
17 Hexachloroethane

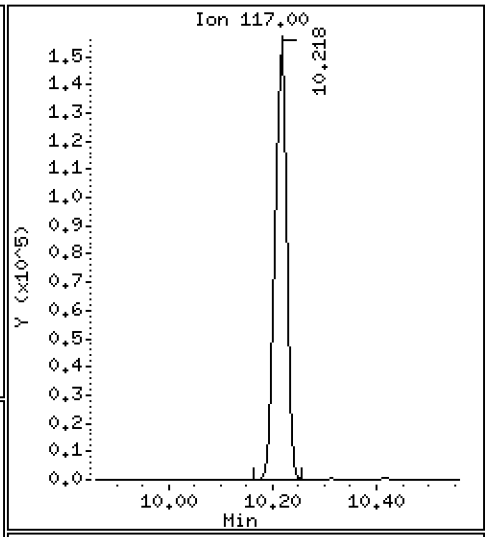
Concentration: 4.906 ug/mL

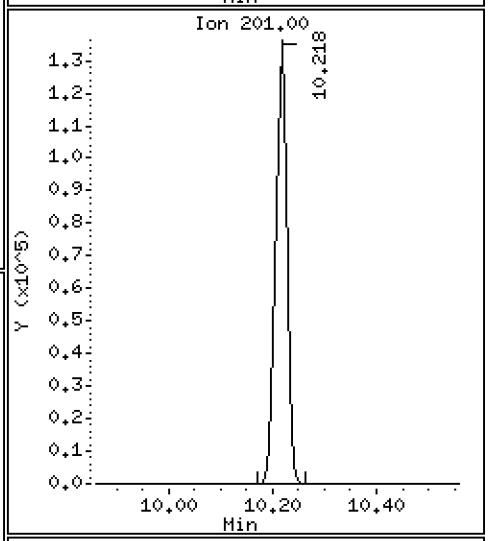


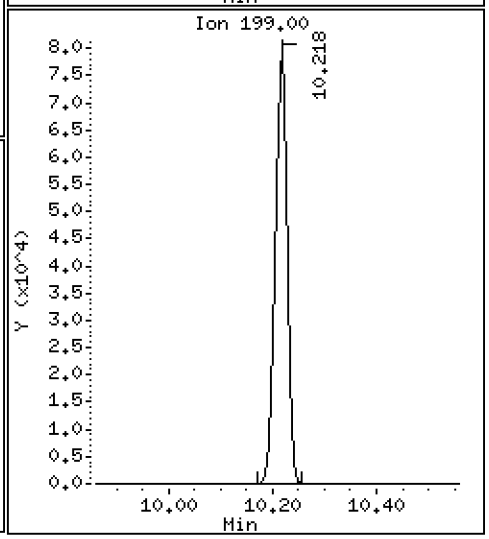












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

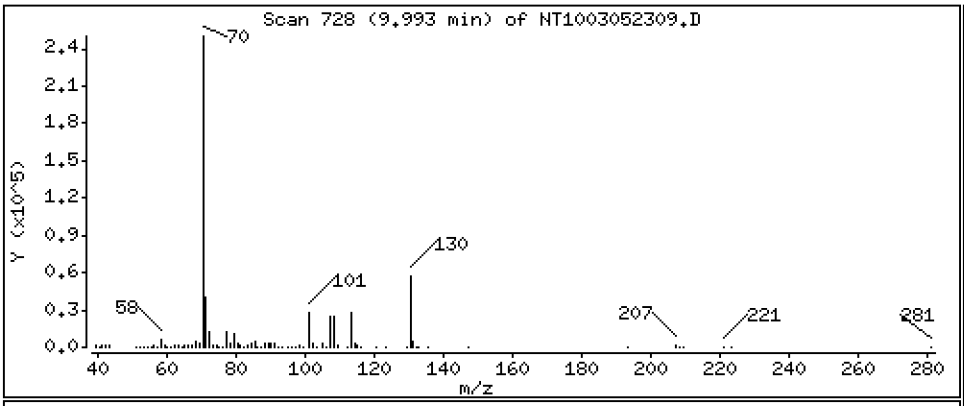
Operator: VTS

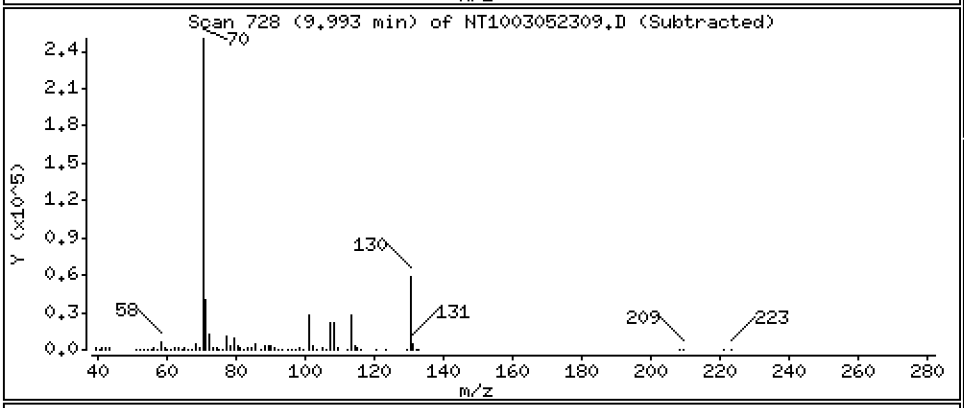
Column phase: ZB-5msi

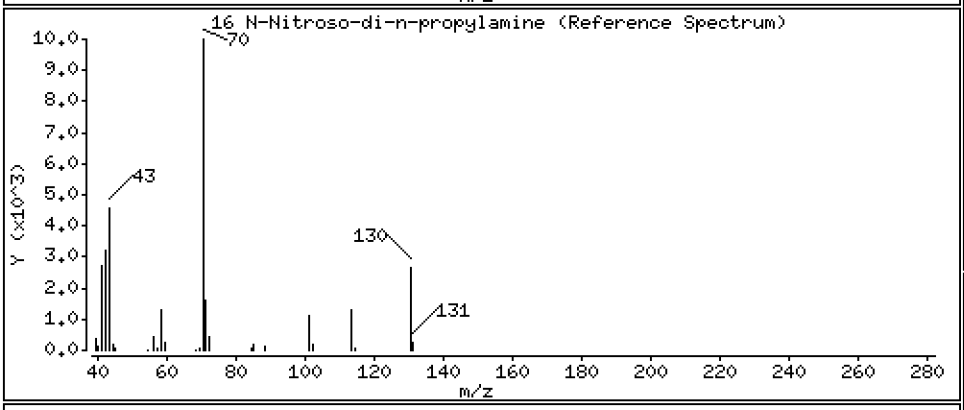
Column diameter: 0.25

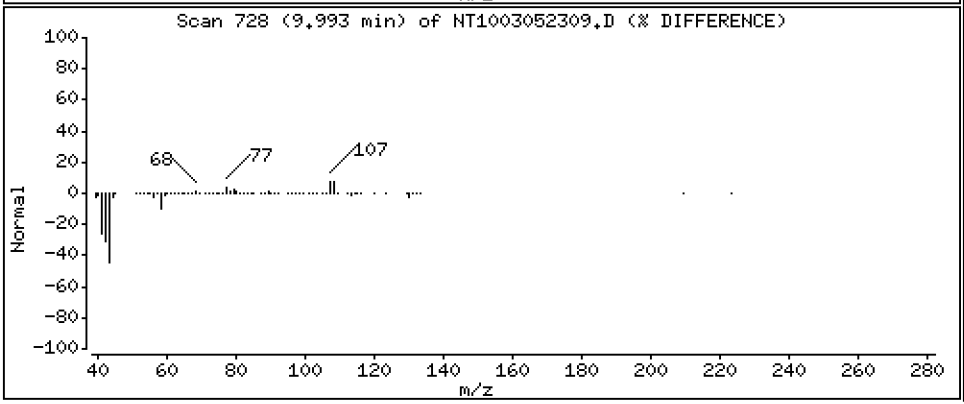
16 N-Nitroso-di-n-propylamine

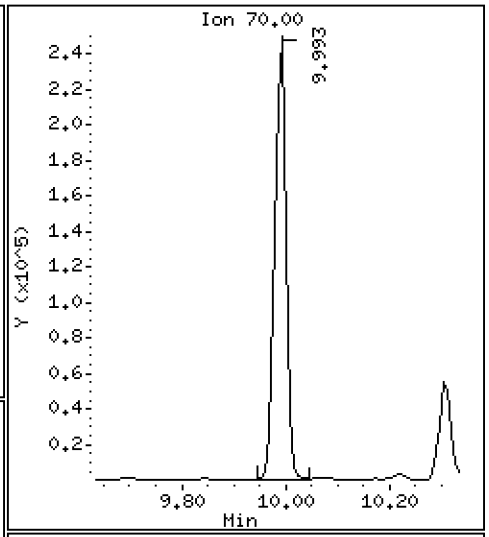
Concentration: 4.652 ug/mL

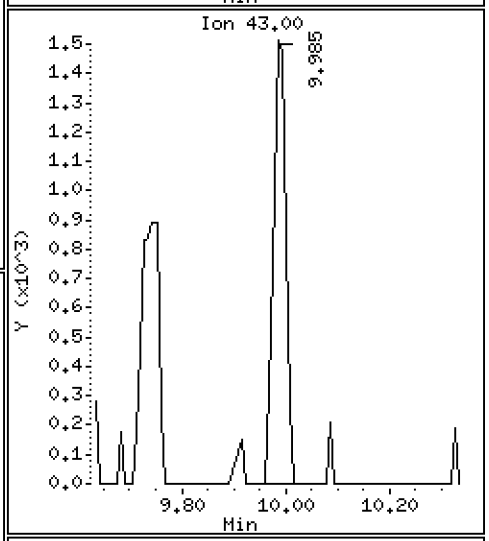


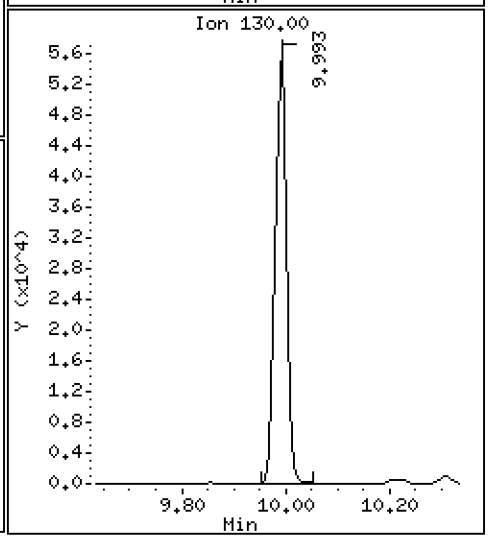












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

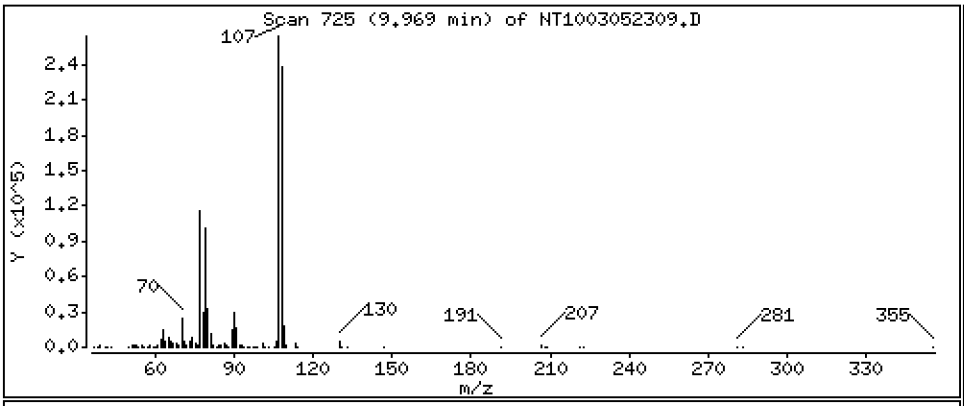
Operator: VTS

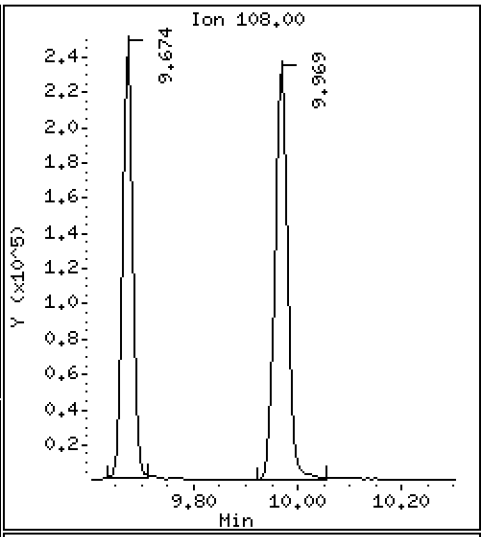
Column phase: ZB-5msi

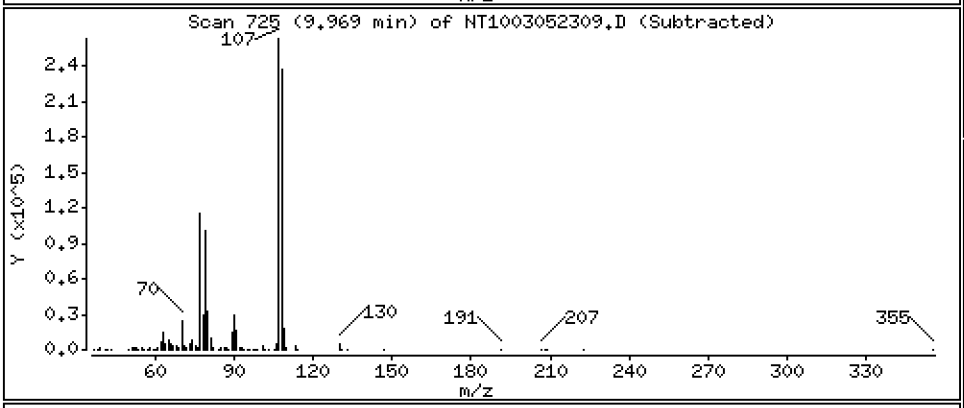
Column diameter: 0.25

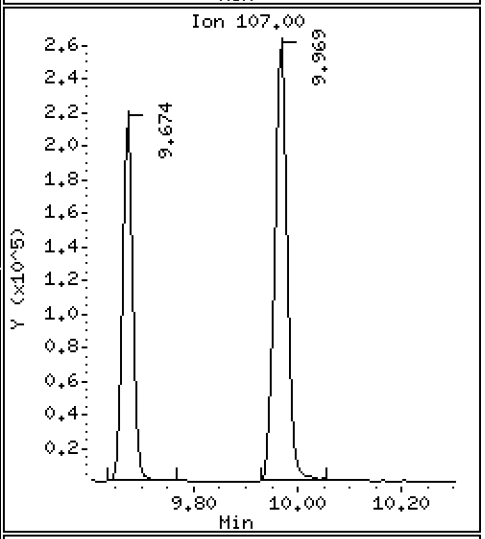
15 4-Methylphenol

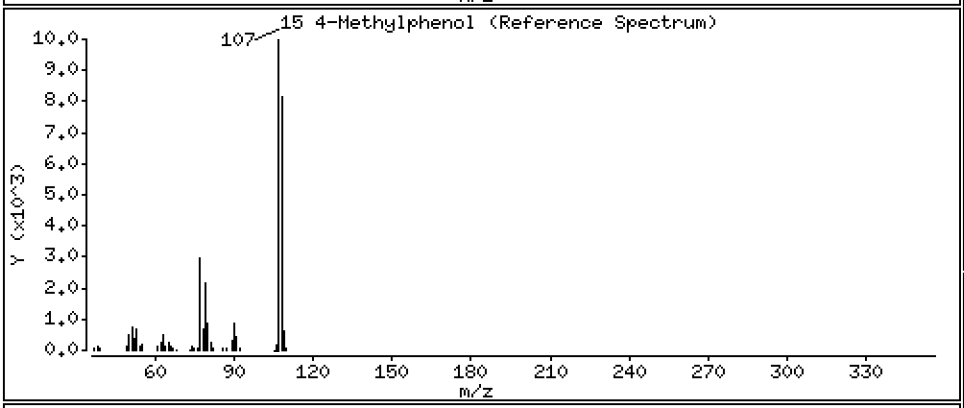
Concentration: 3.310 ug/mL

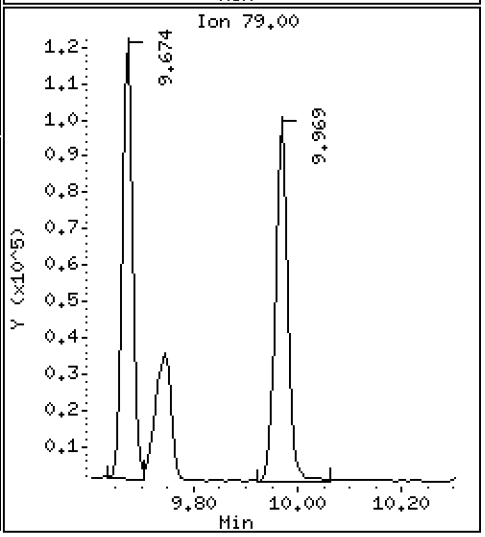


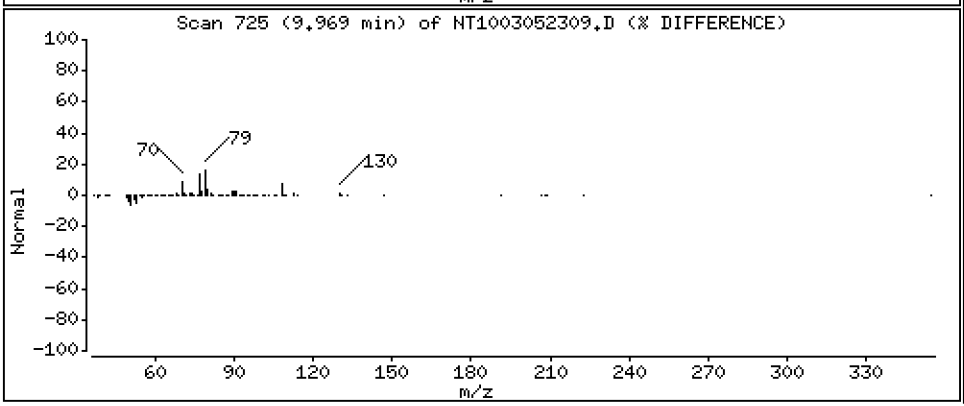












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

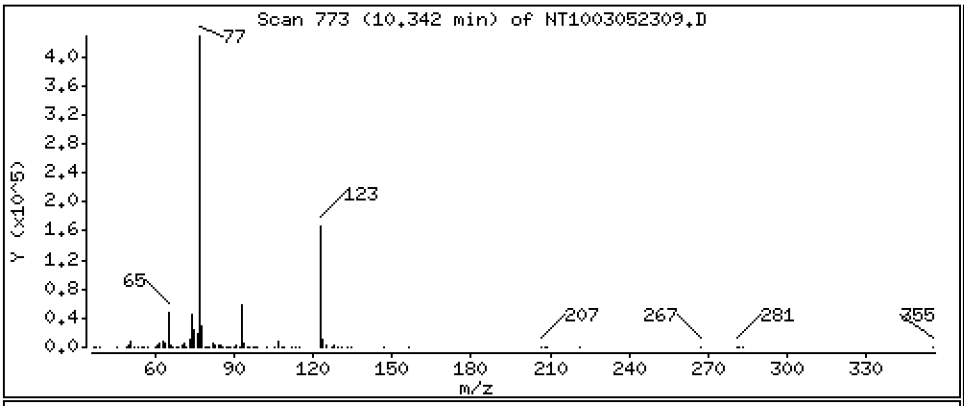
Operator: VTS

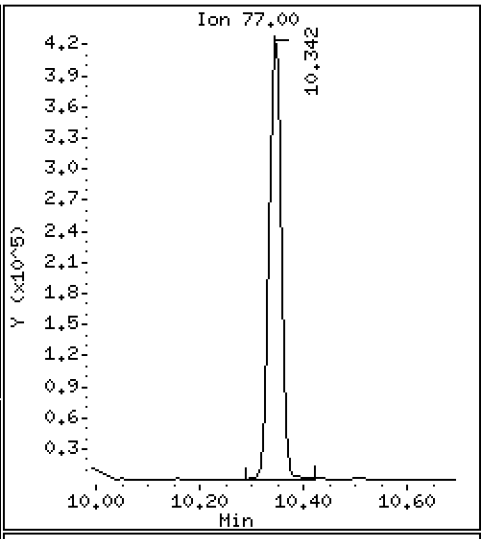
Column phase: ZB-5msi

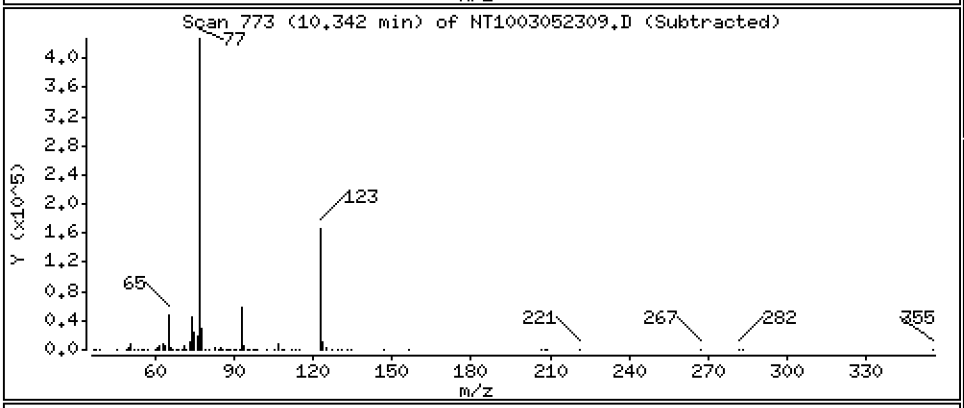
Column diameter: 0.25

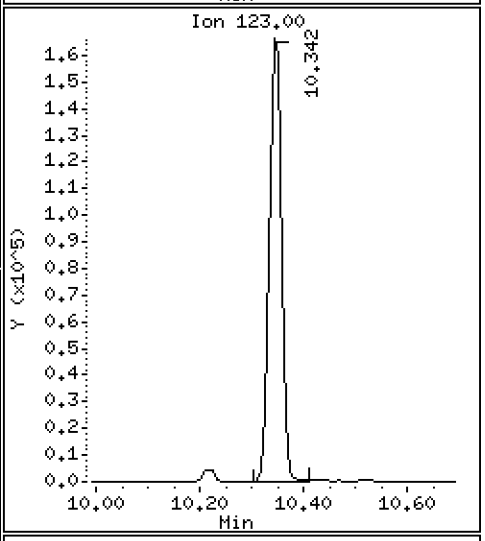
19 Nitrobenzene

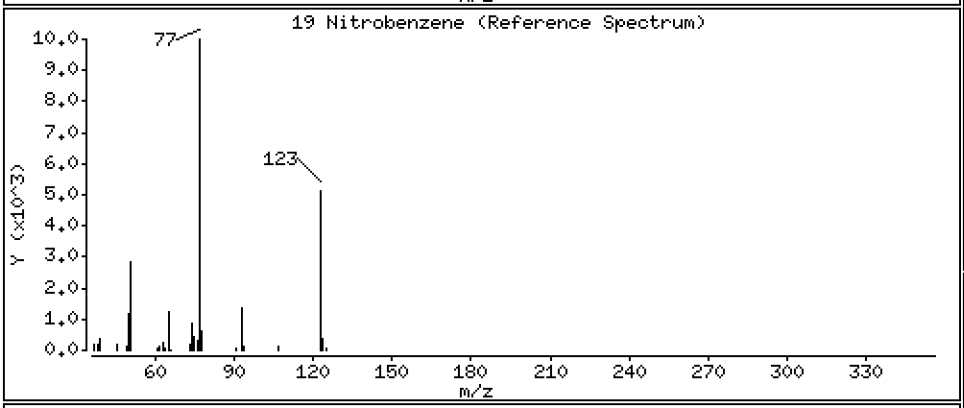
Concentration: 5.331 ug/mL

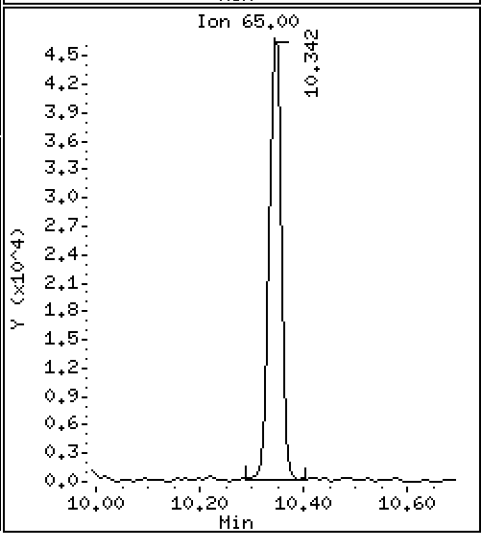


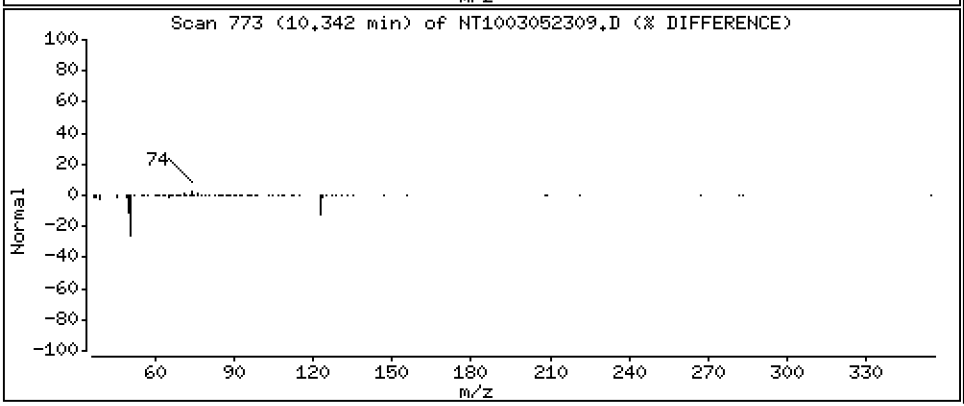












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

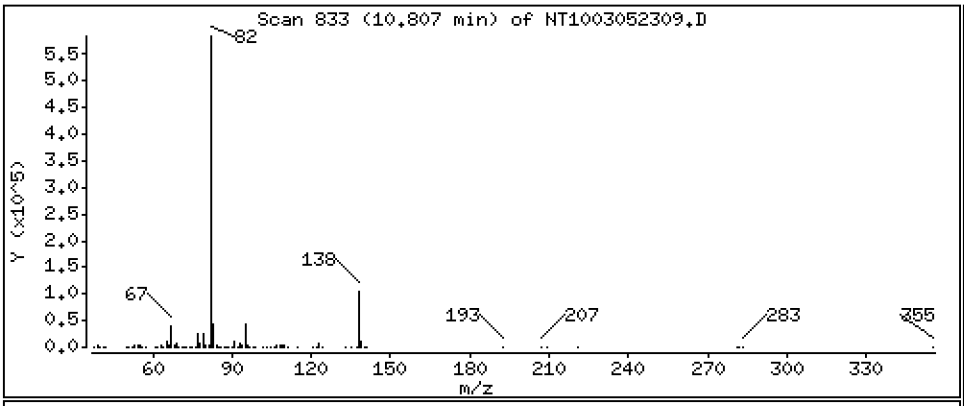
Operator: VTS

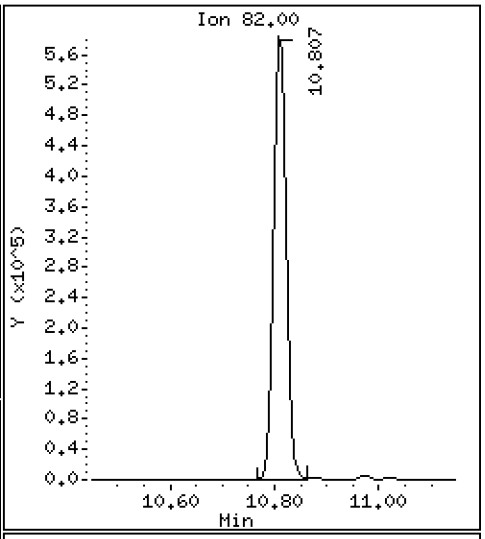
Column phase: ZB-5msi

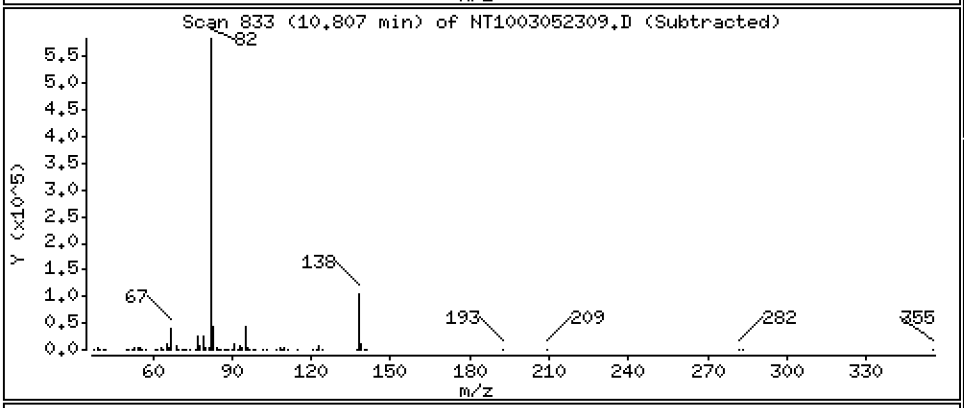
Column diameter: 0.25

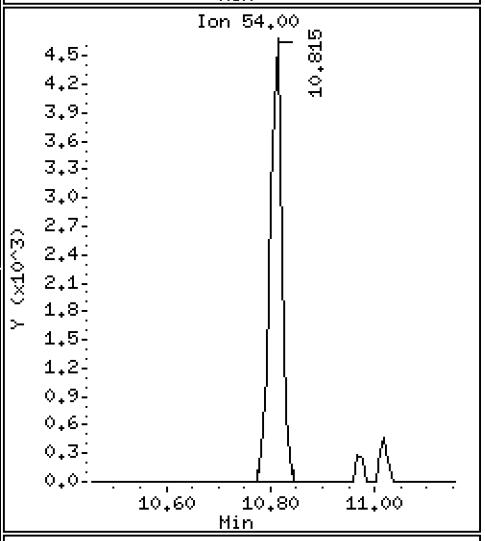
20 Isophorone

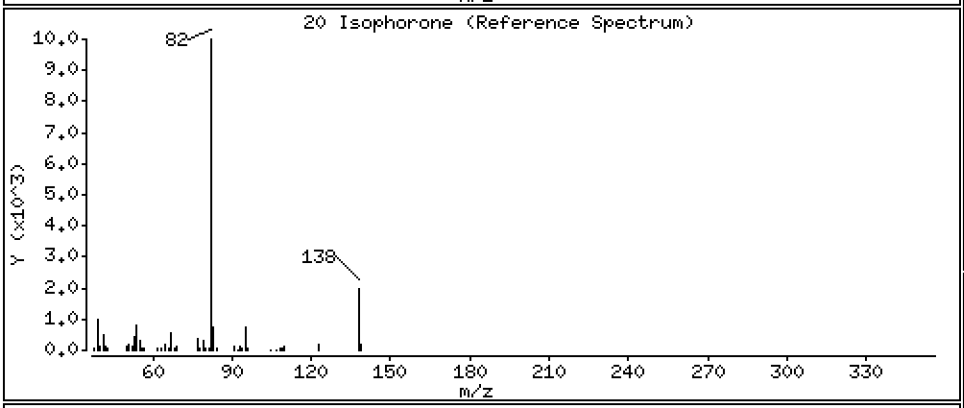
Concentration: 6.595 ug/mL

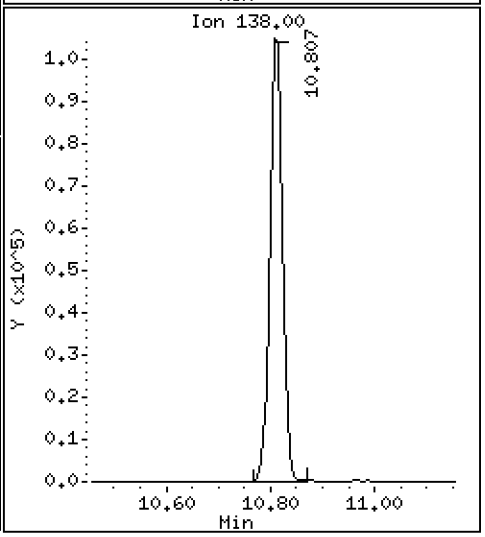


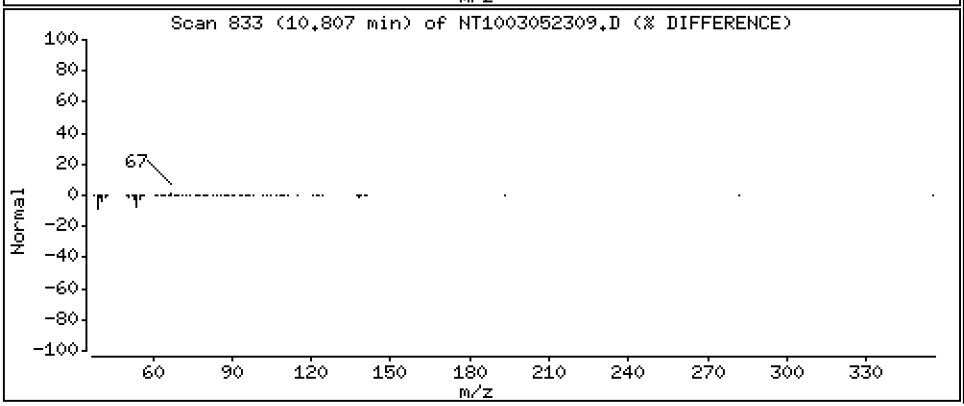












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

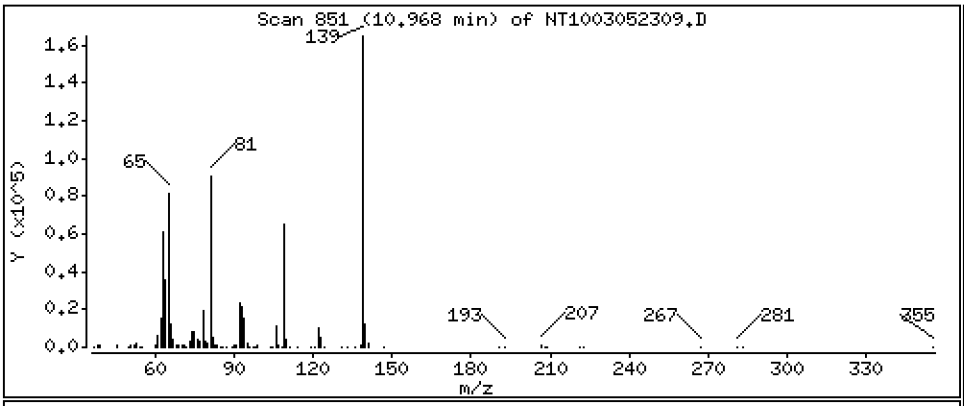
Operator: VTS

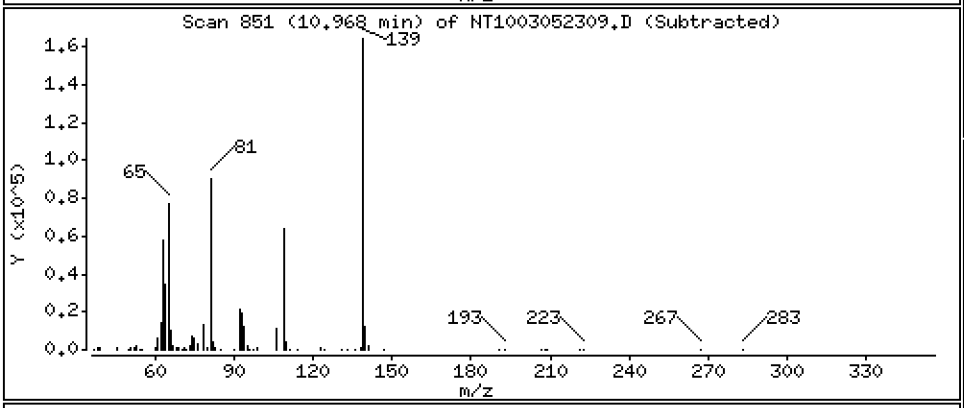
Column phase: ZB-5msi

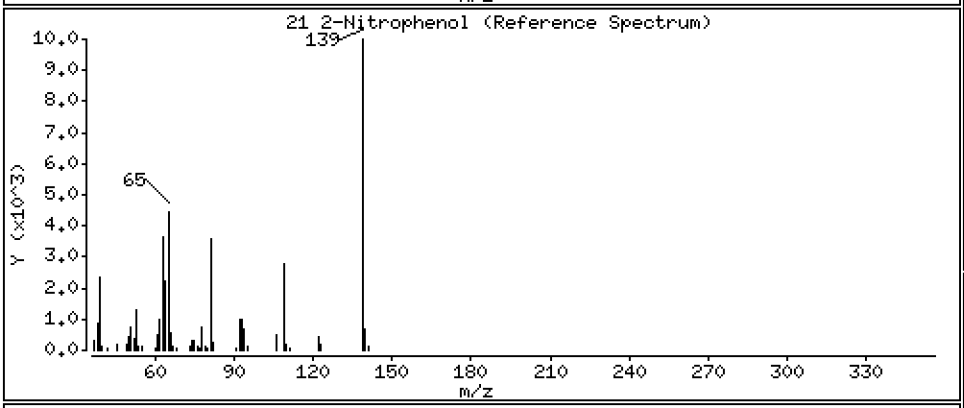
Column diameter: 0.25

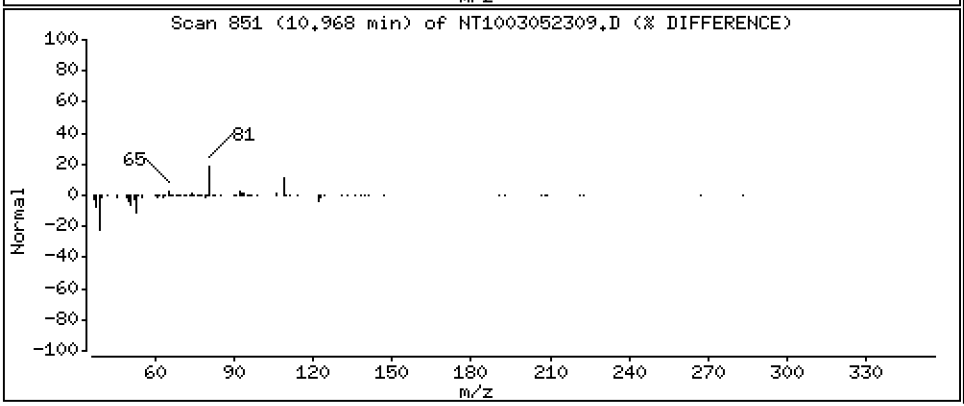
21 2-Nitrophenol

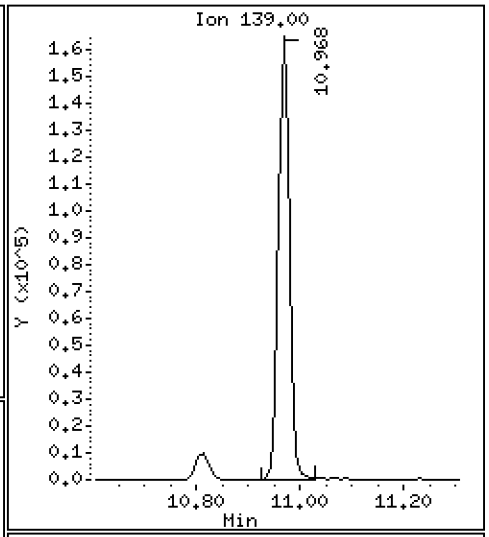
Concentration: 3.704 ug/mL

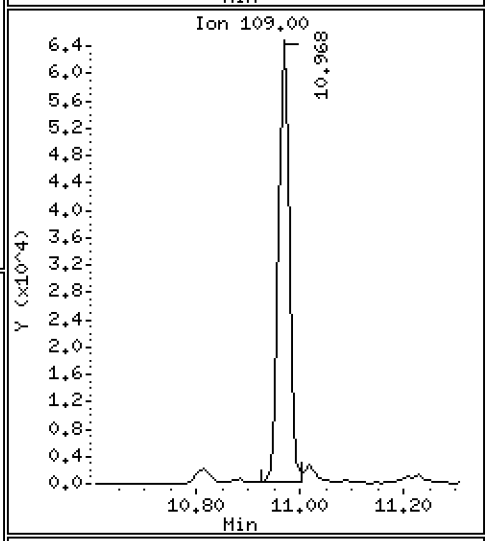


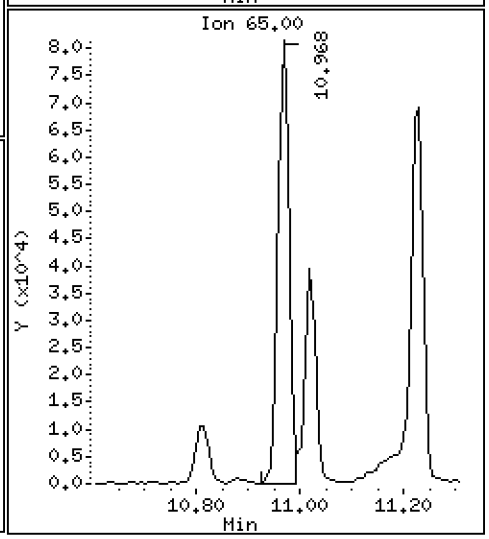












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

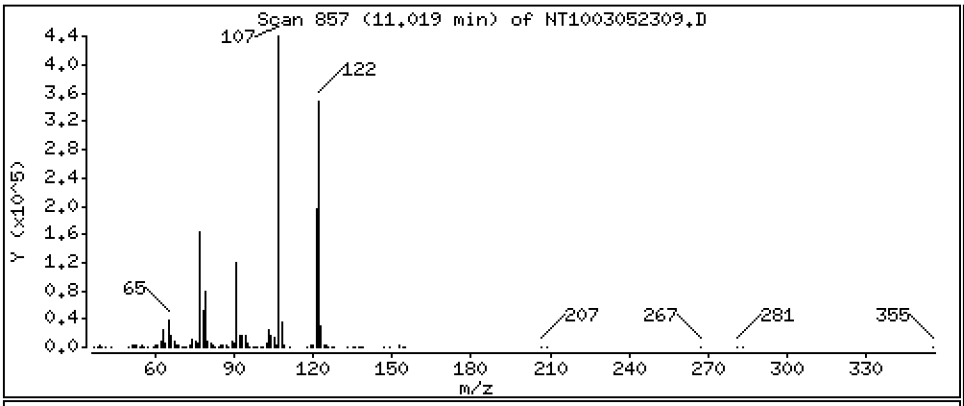
Operator: VTS

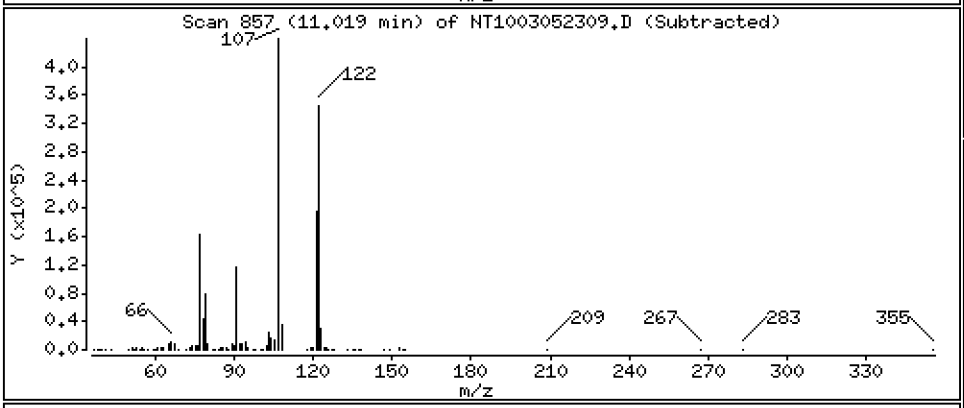
Column phase: ZB-5msi

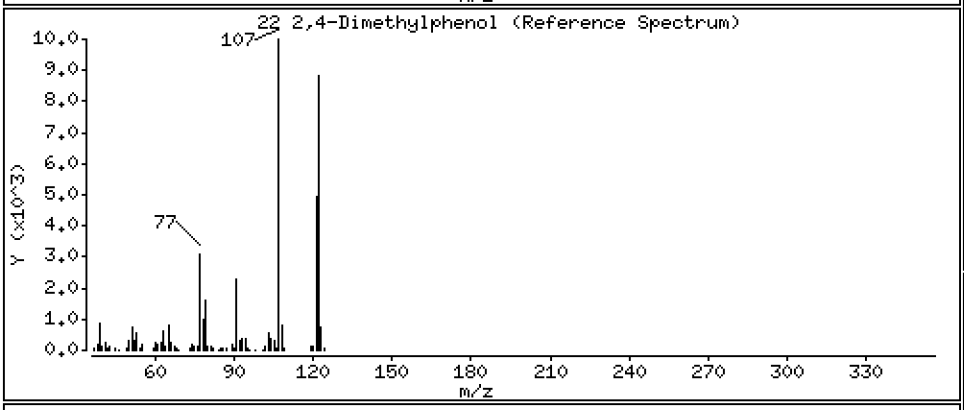
Column diameter: 0.25

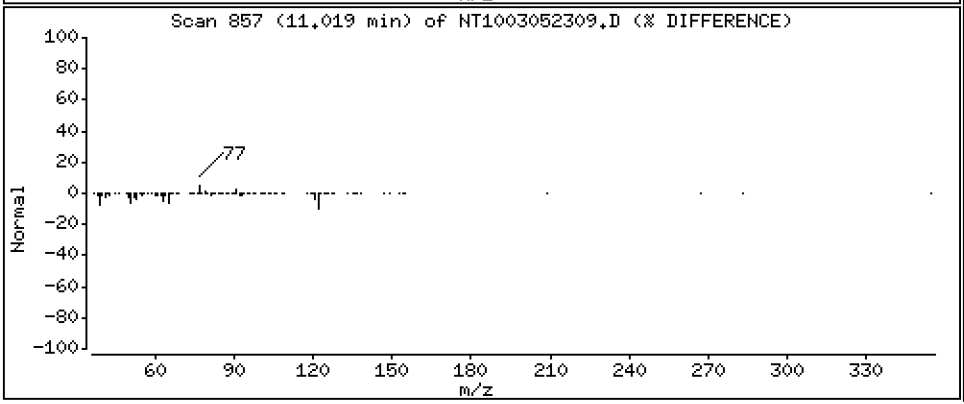
22 2,4-Dimethylphenol

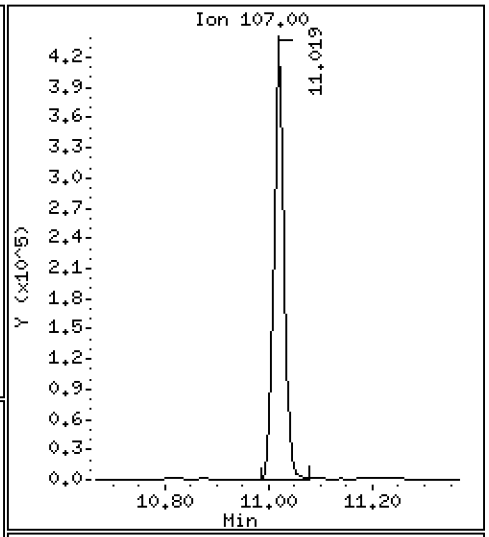
Concentration: 5.128 ug/mL

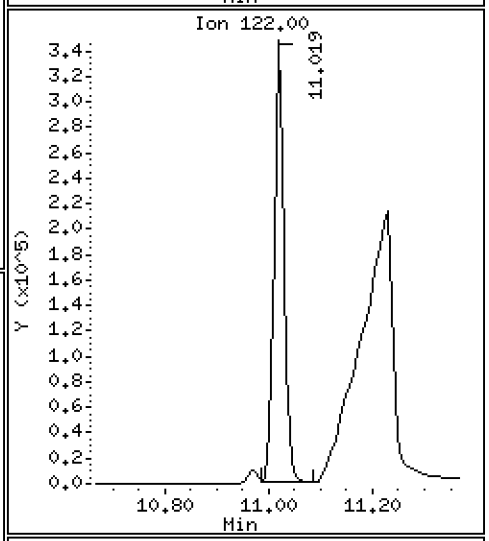


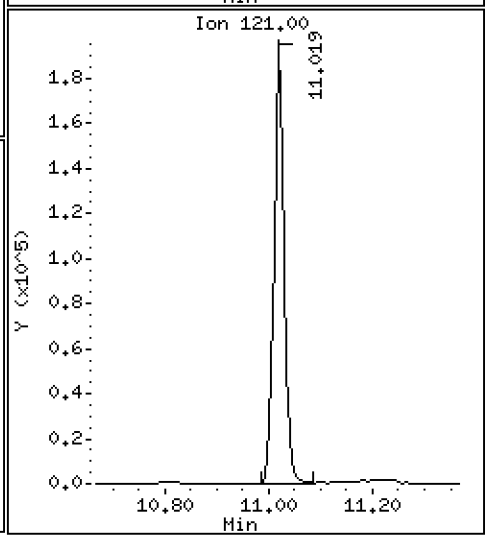












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

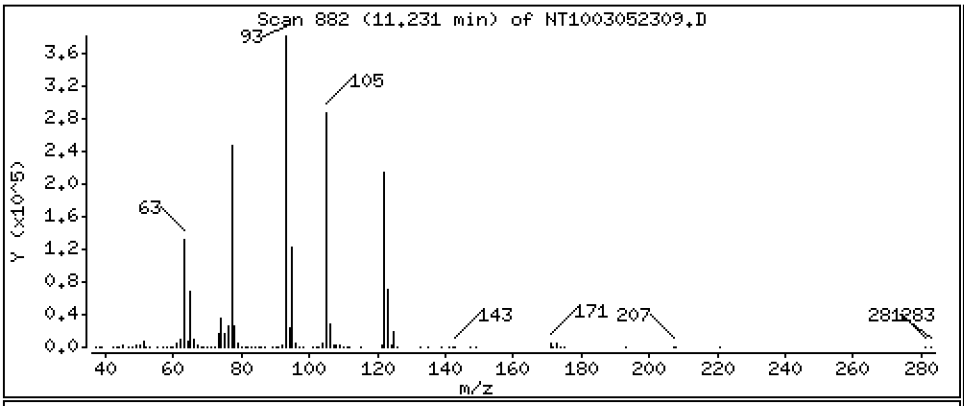
Operator: VTS

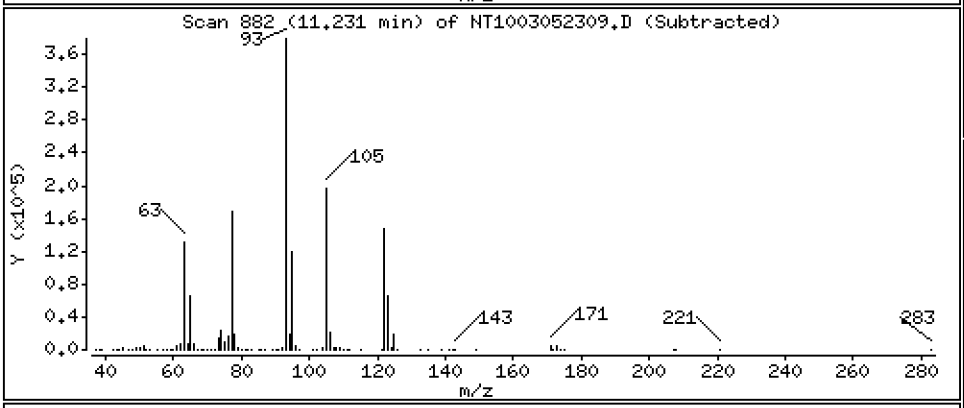
Column phase: ZB-5msi

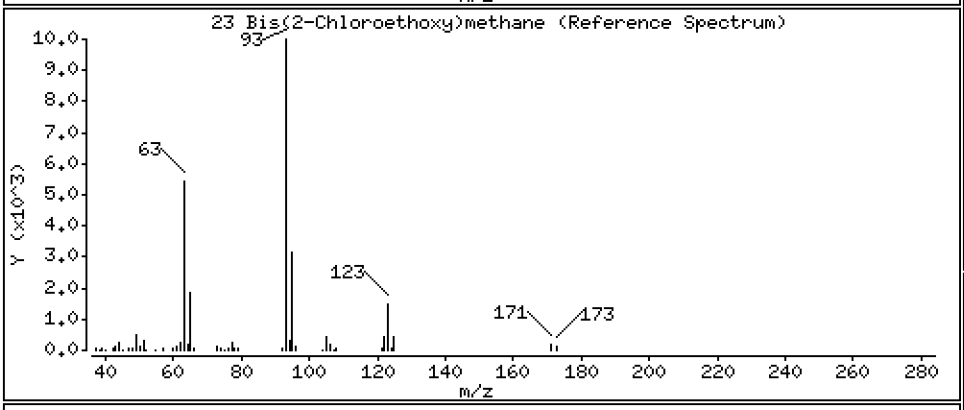
Column diameter: 0.25

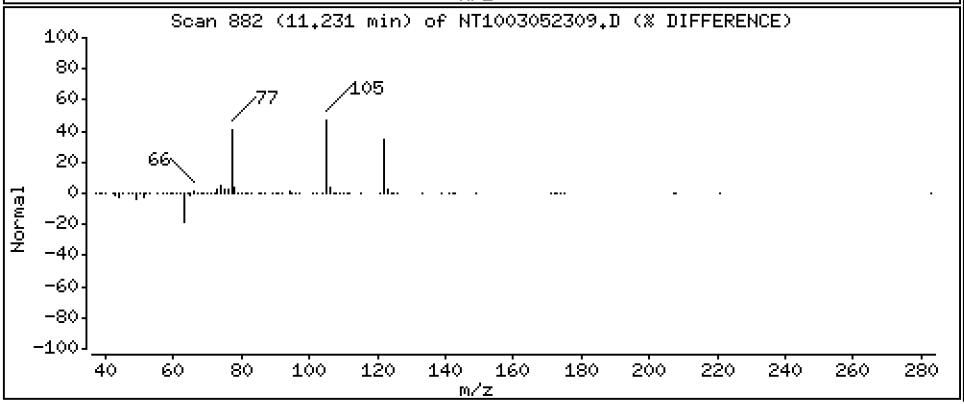
23 Bis(2-Chloroethoxy)methane

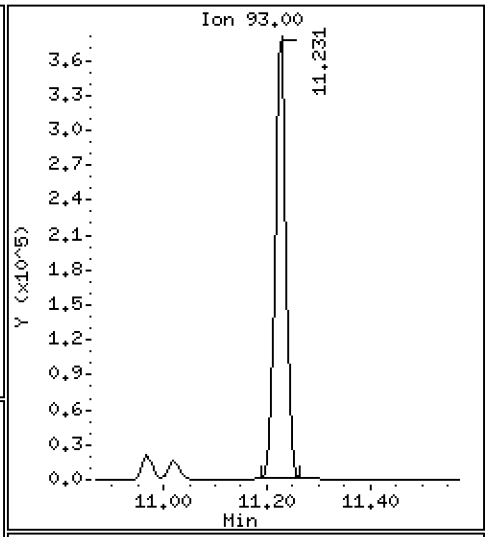
Concentration: 5.891 ug/mL

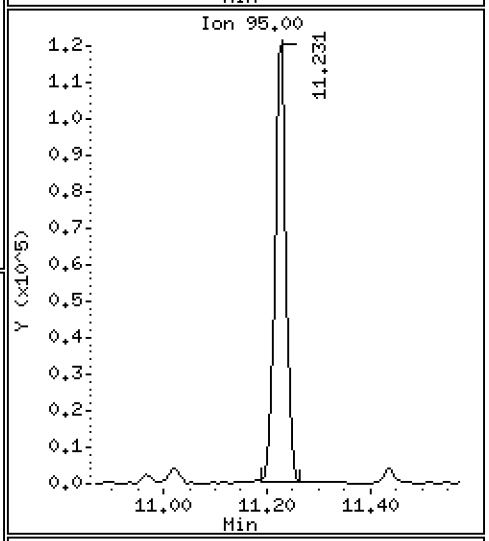


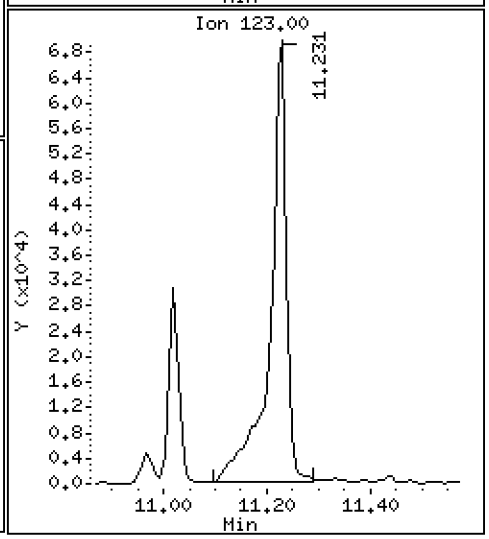












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

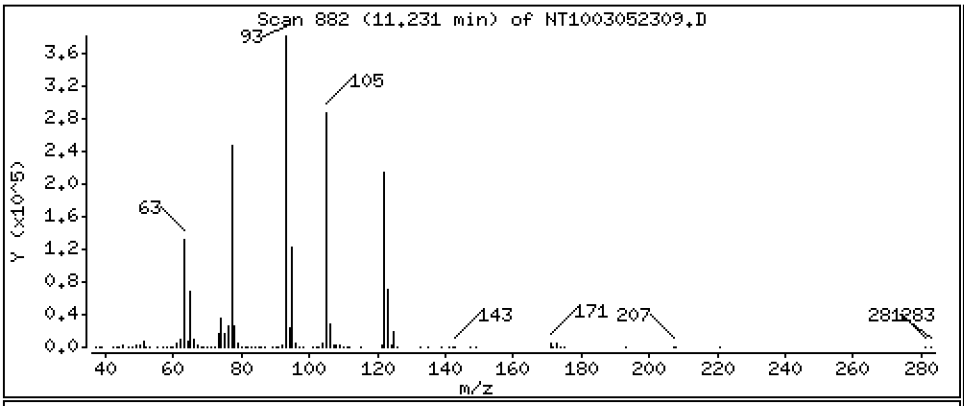
Operator: VTS

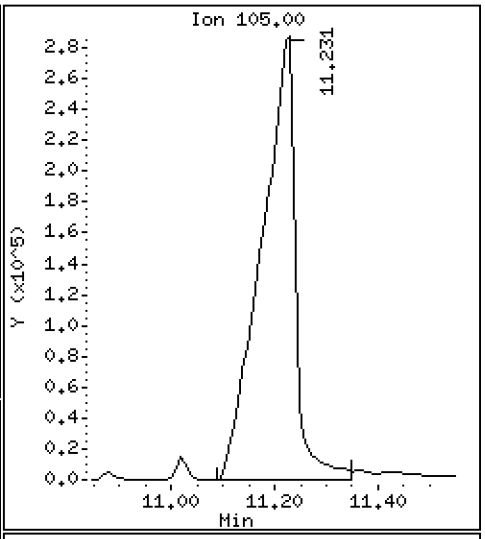
Column phase: ZB-5msi

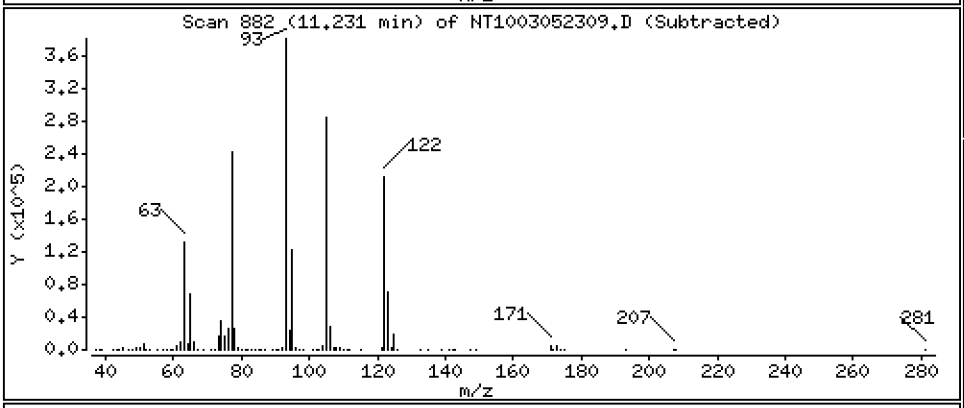
Column diameter: 0.25

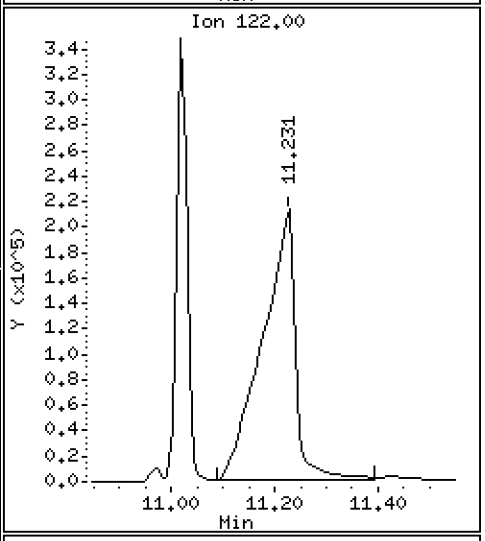
24 Benzoic acid

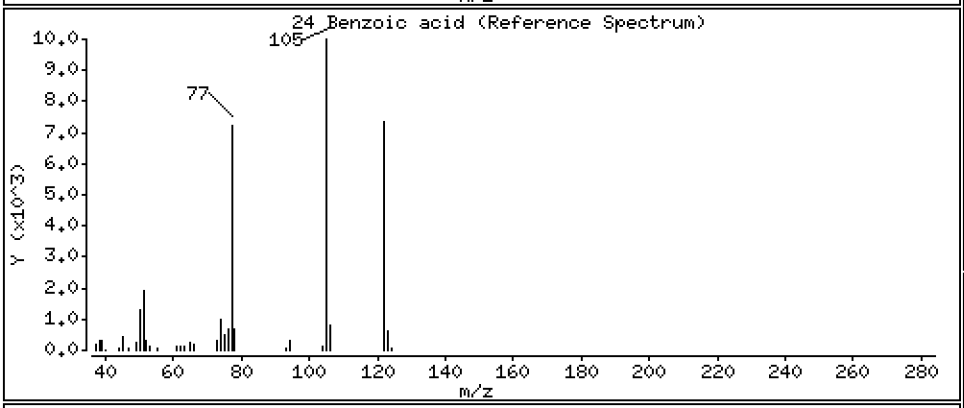
Concentration: 18.17 ug/mL

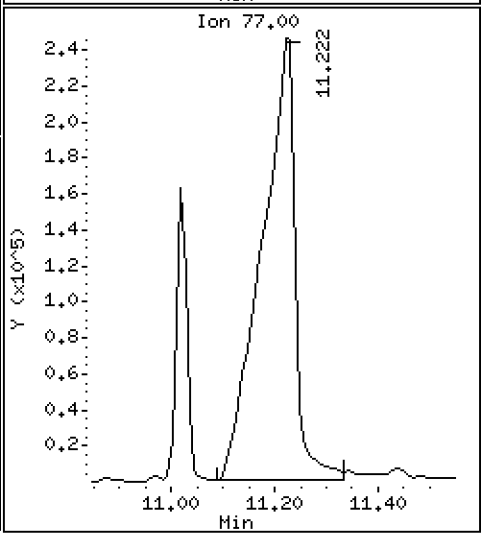


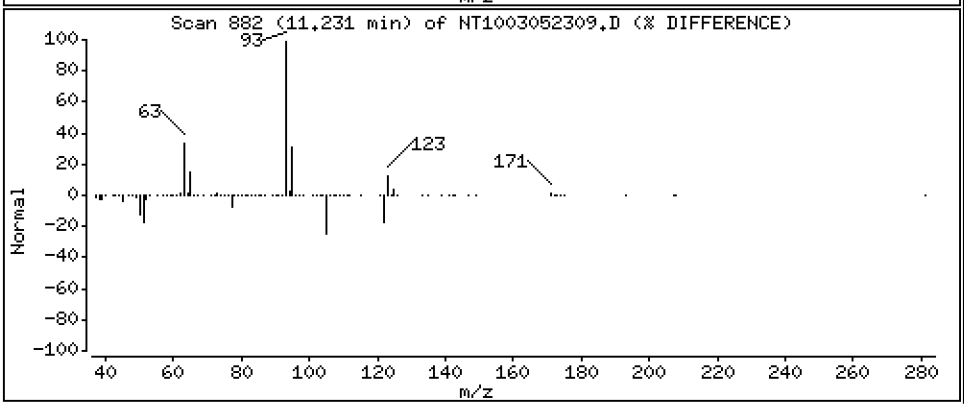












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052309.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

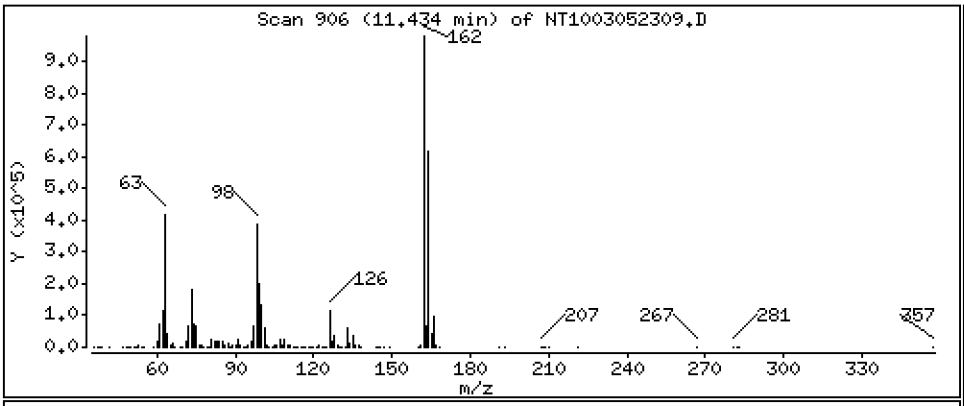
Operator: VTS

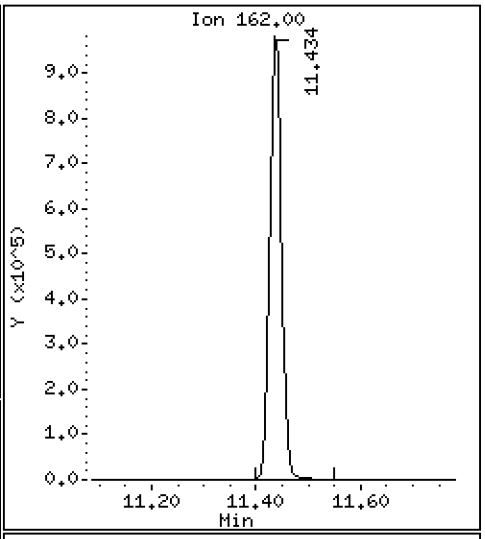
Column phase: ZB-5msi

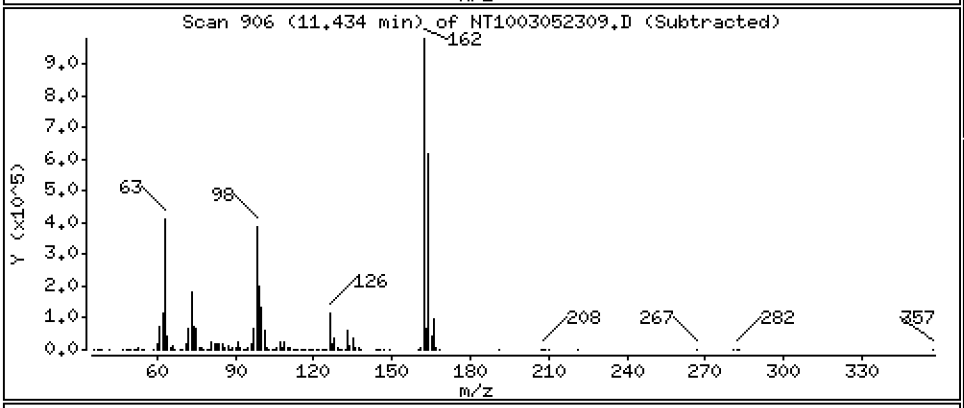
Column diameter: 0.25

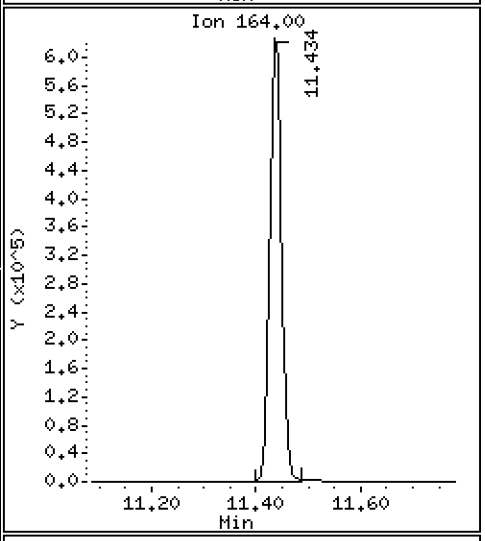
25 2,4-Dichlorophenol

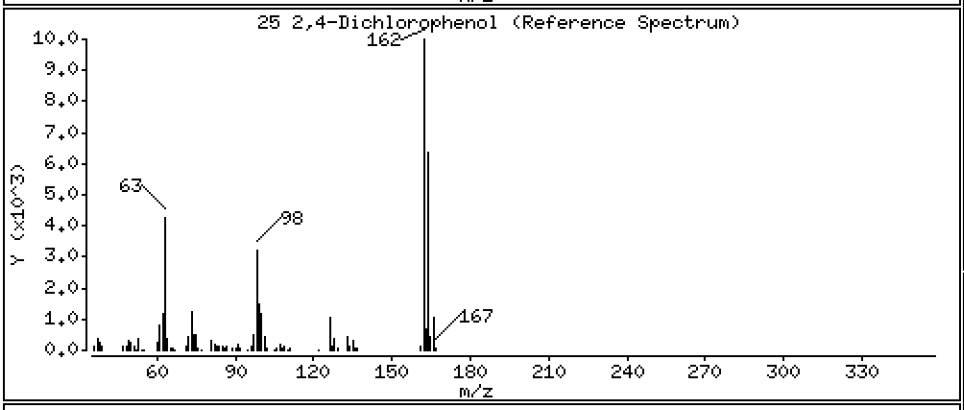
Concentration: 17.10 ug/mL

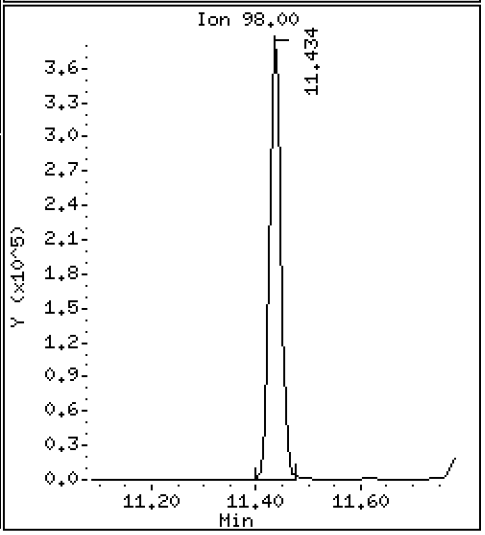


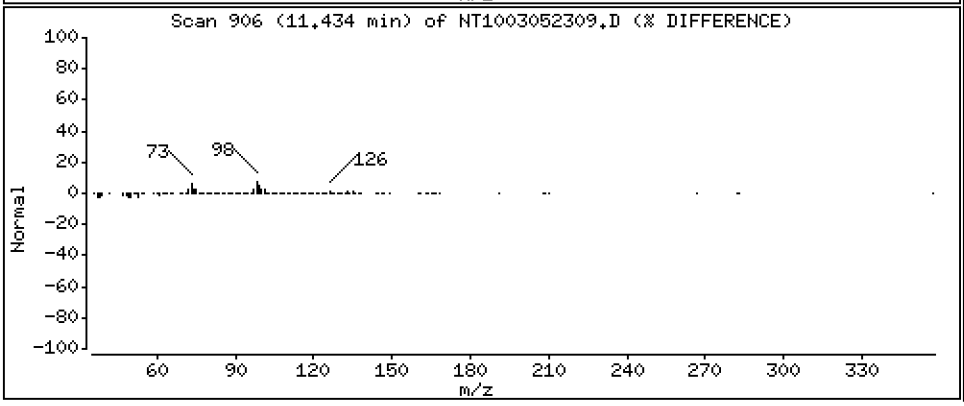












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

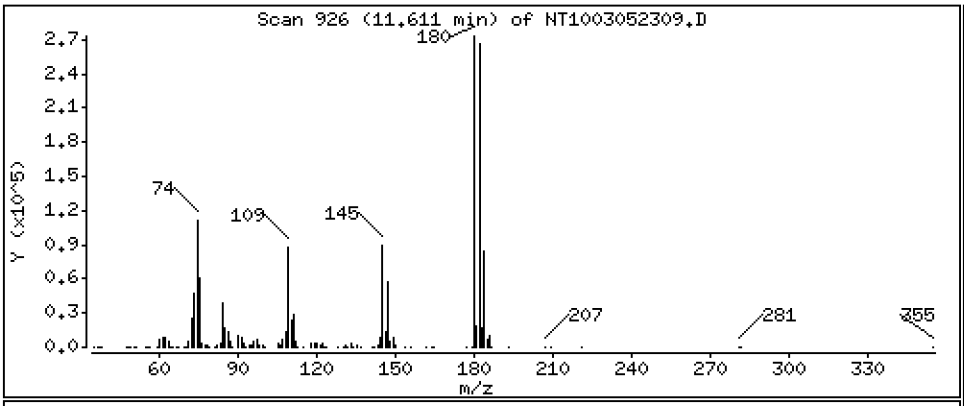
Operator: VTS

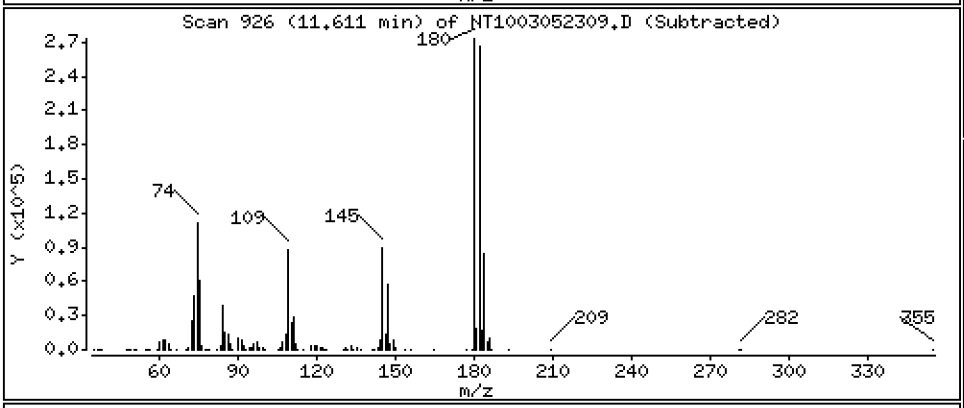
Column phase: ZB-5msi

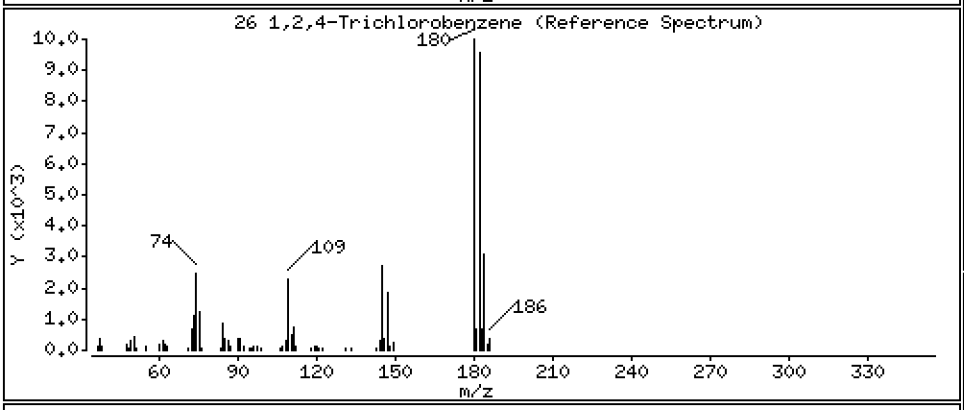
Column diameter: 0.25

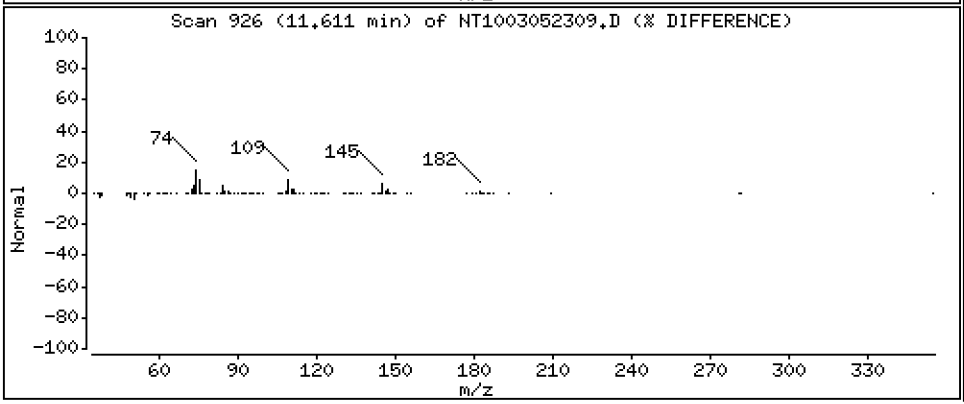
26 1,2,4-Trichlorobenzene

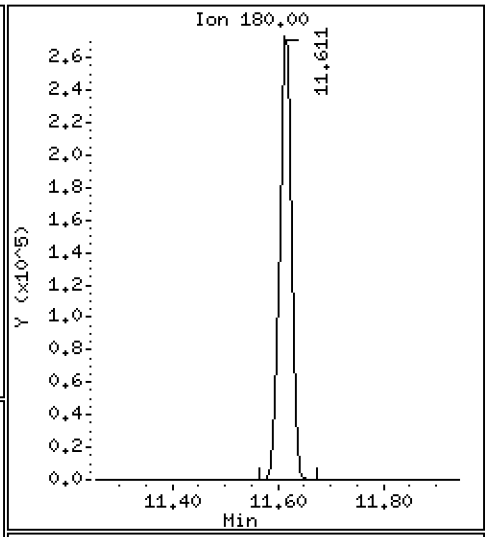
Concentration: 4.684 ug/mL

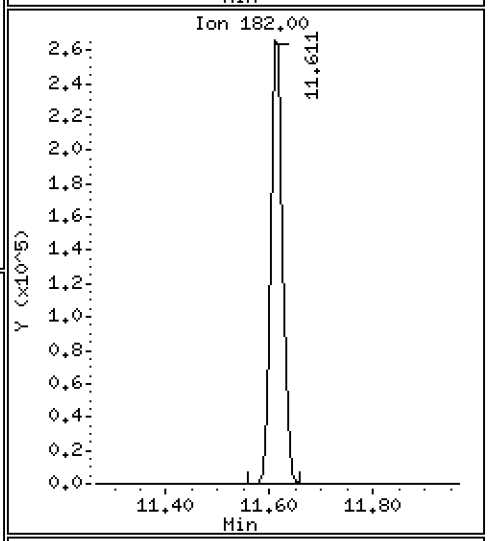


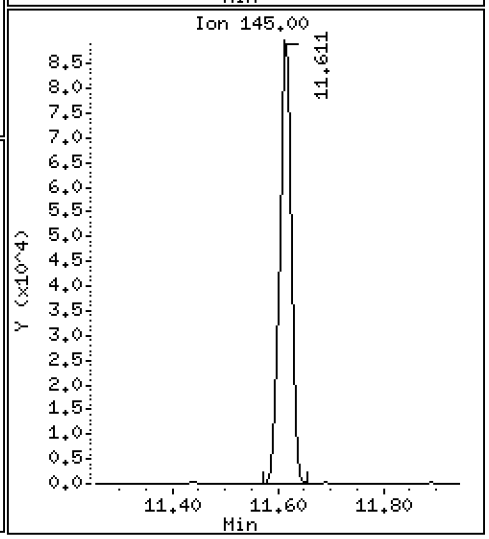












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052309.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

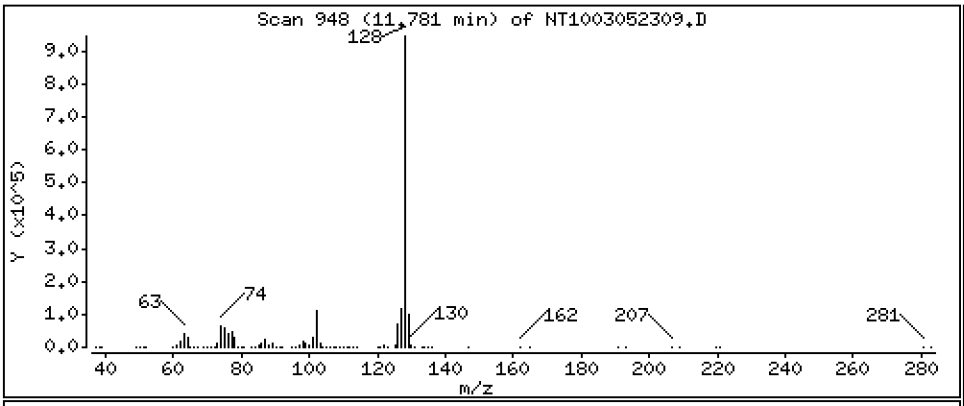
Operator: VTS

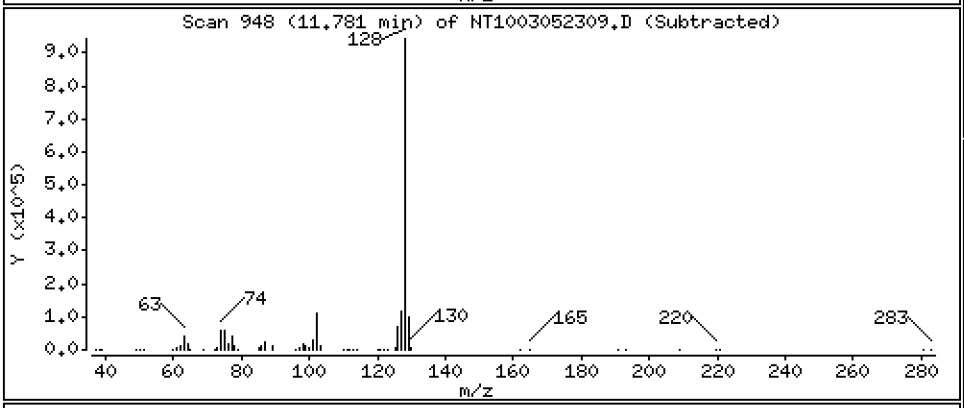
Column phase: ZB-5msi

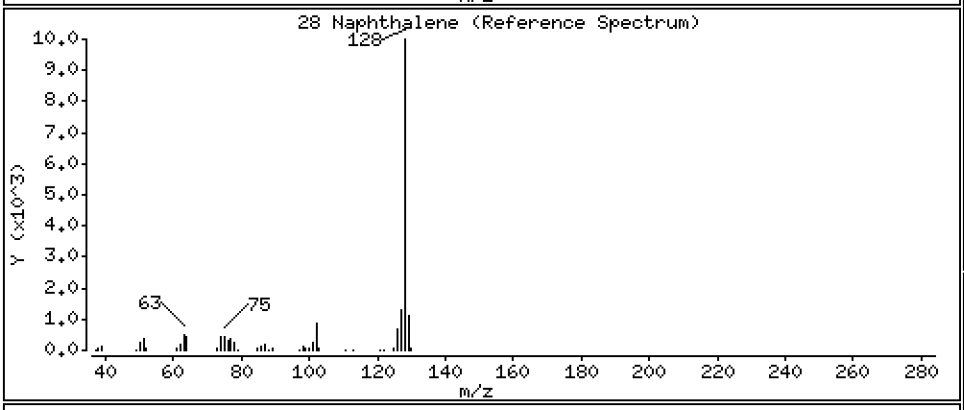
Column diameter: 0.25

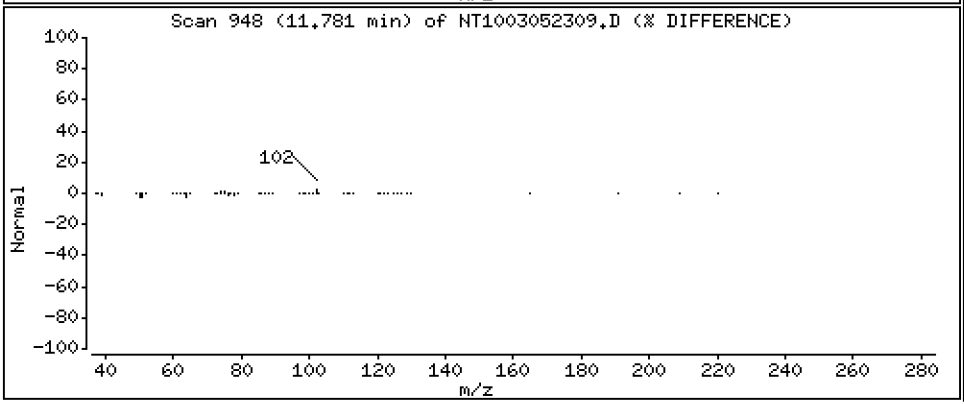
28 Naphthalene

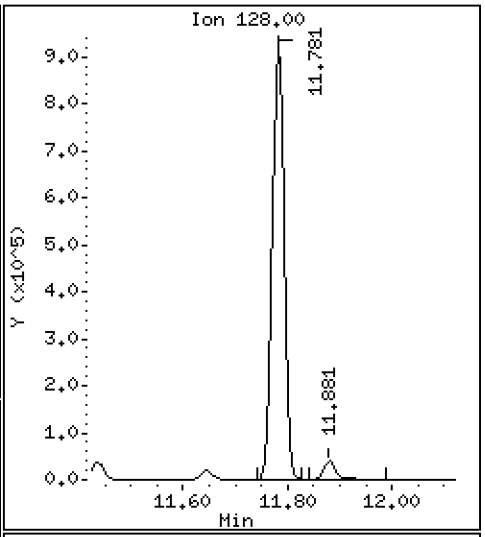
Concentration: 4.437 ug/mL

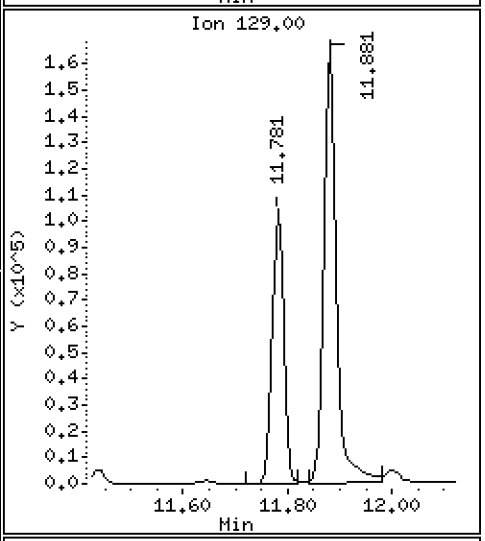


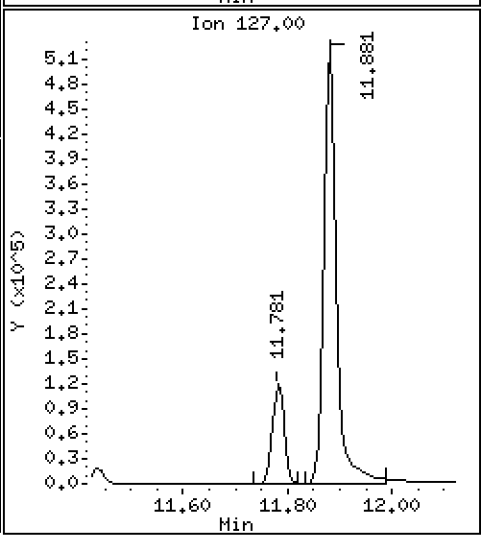












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052309.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

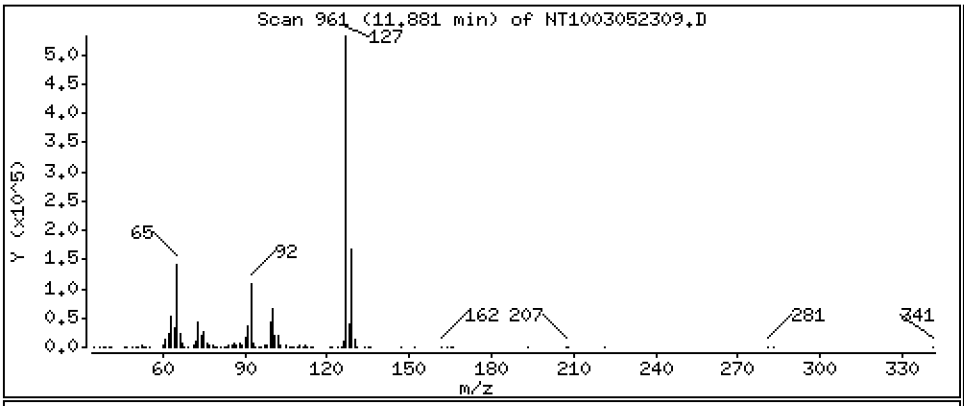
Operator: VTS

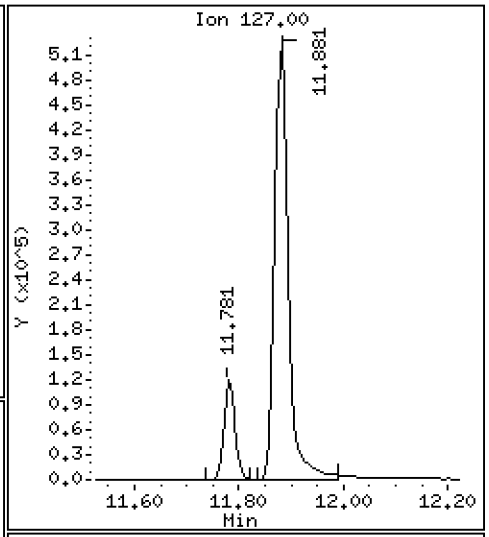
Column phase: ZB-5msi

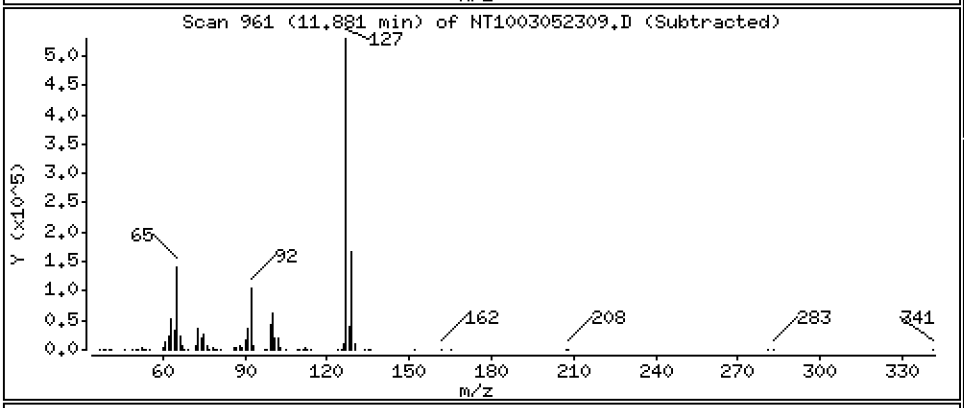
Column diameter: 0.25

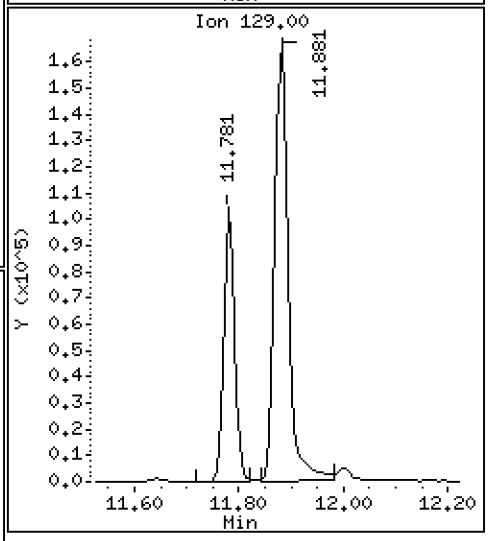
29 4-Chloroaniline

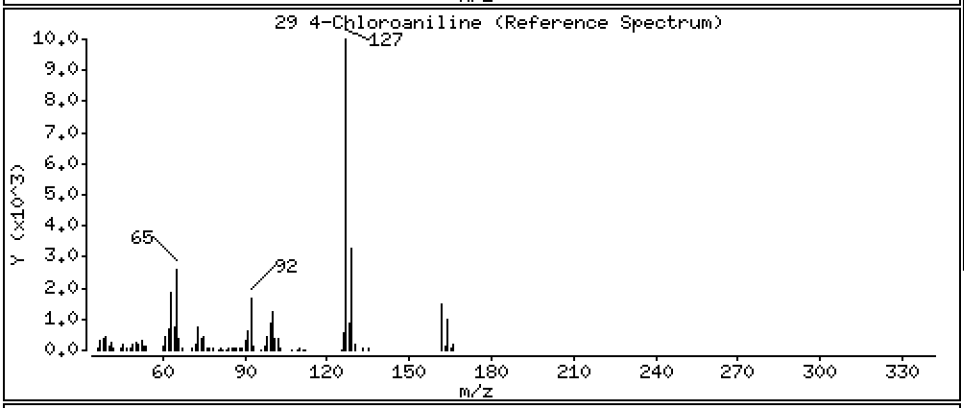
Concentration: 7.266 ug/mL

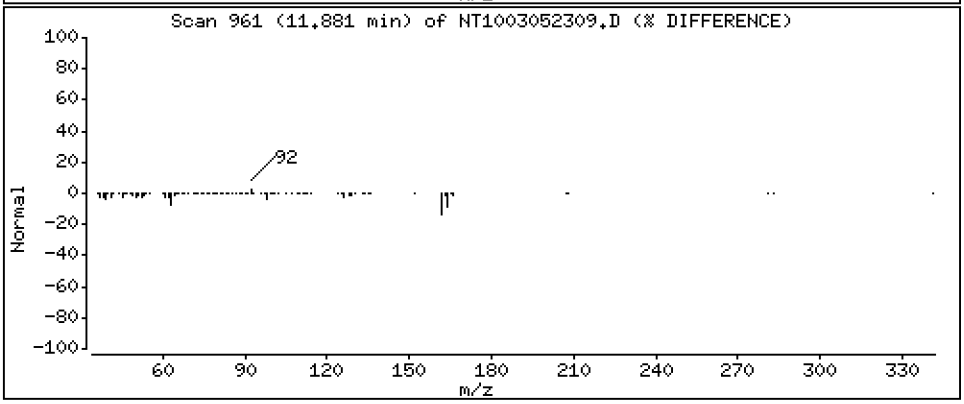












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

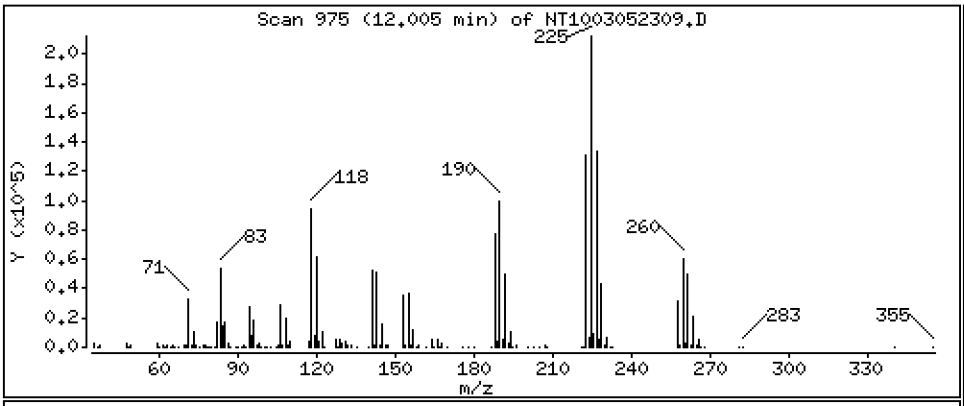
Operator: VTS

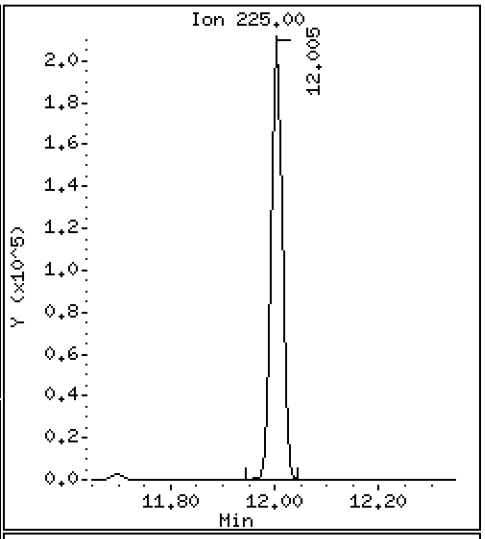
Column phase: ZB-5msi

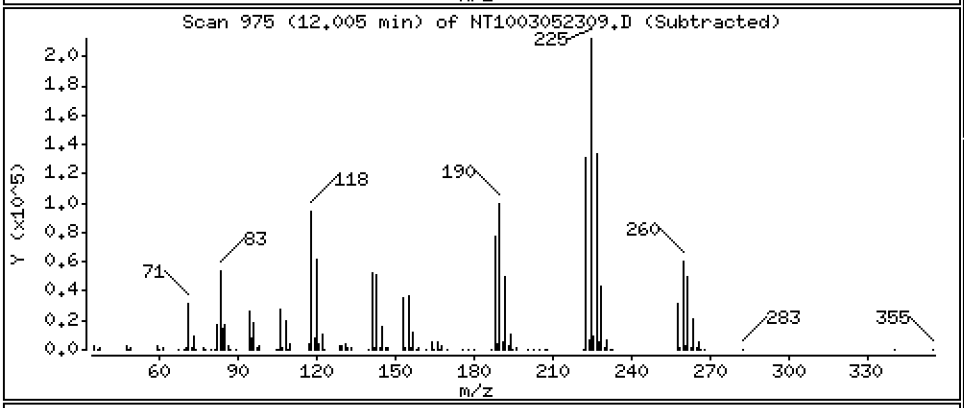
Column diameter: 0.25

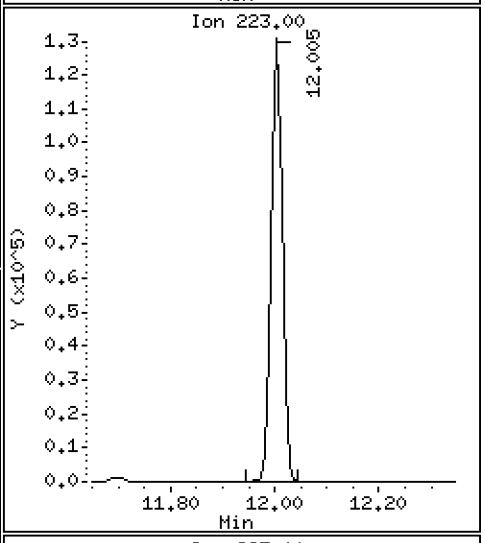
30 Hexachlorobutadiene

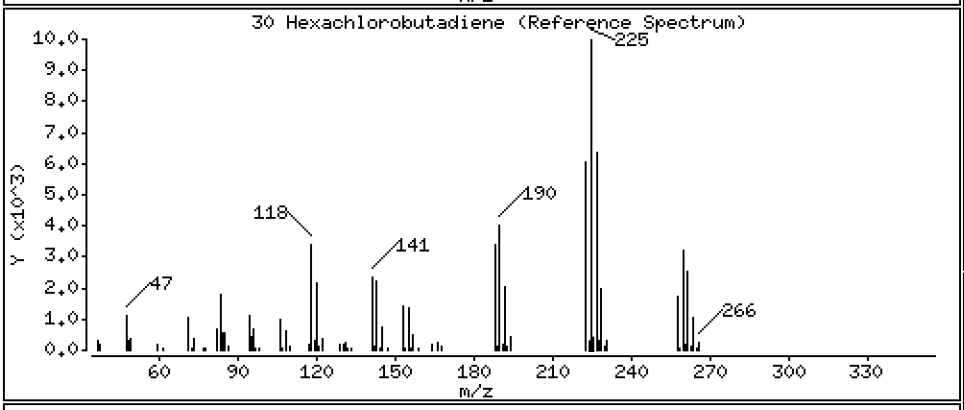
Concentration: 5.077 ug/mL

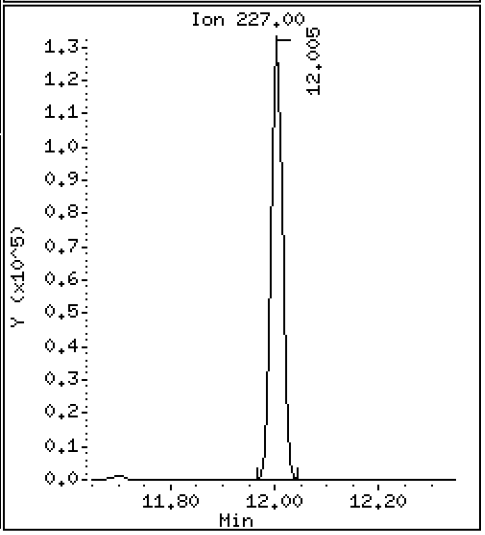


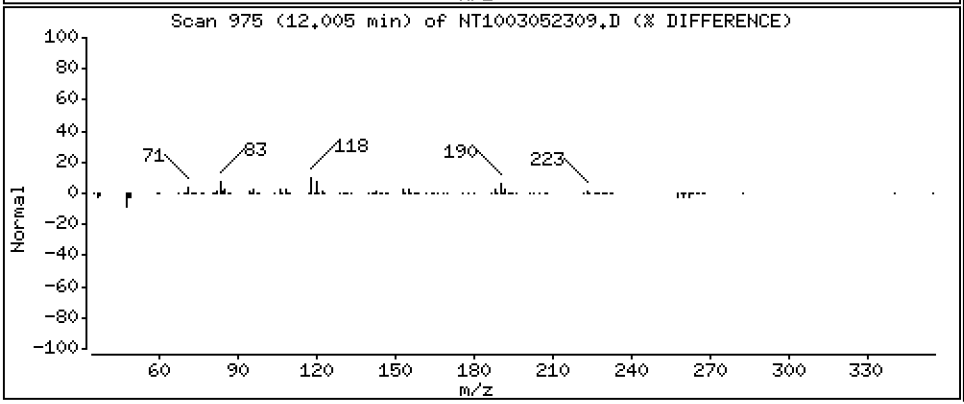












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052309.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

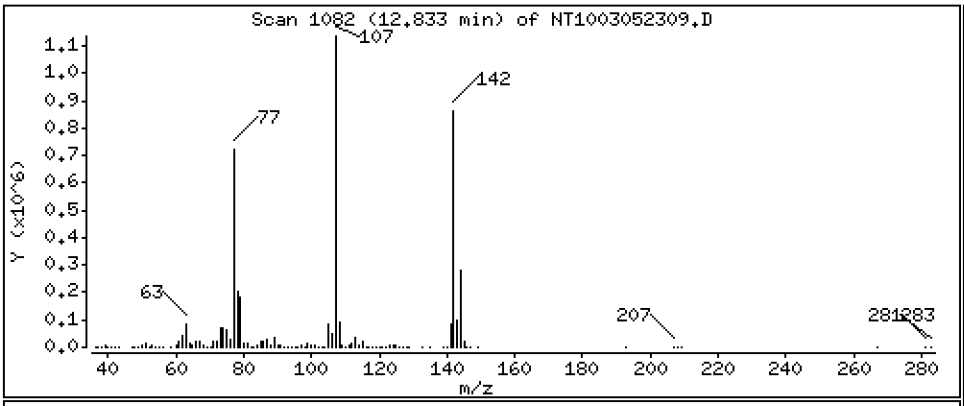
Operator: VTS

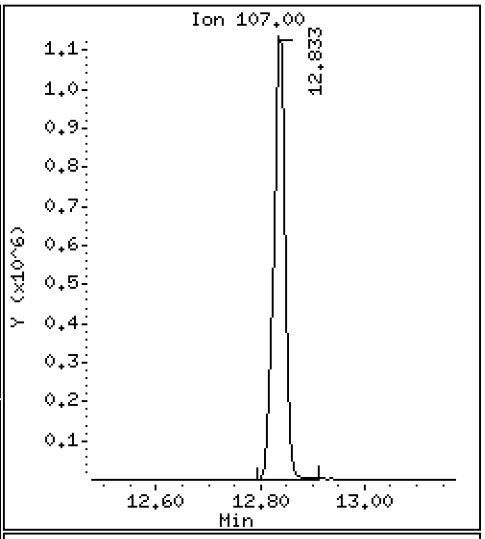
Column phase: ZB-5msi

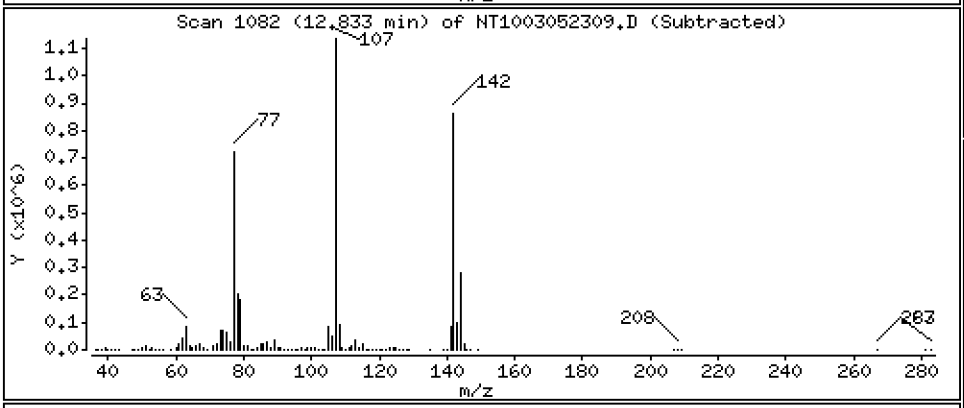
Column diameter: 0.25

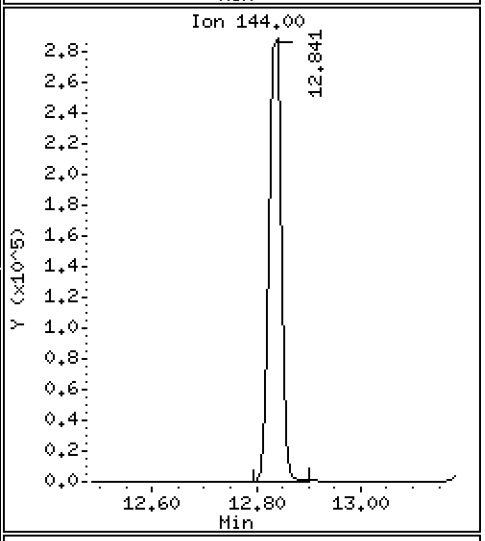
31 4-Chloro-3-methylphenol

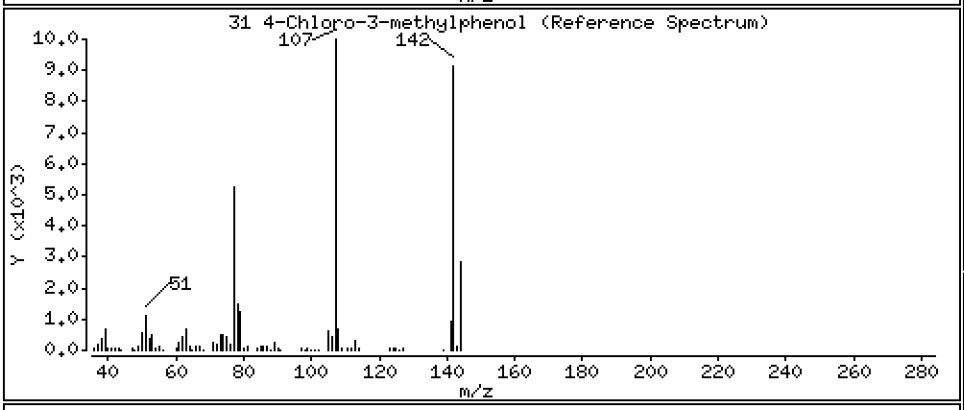
Concentration: 16.53 ug/mL

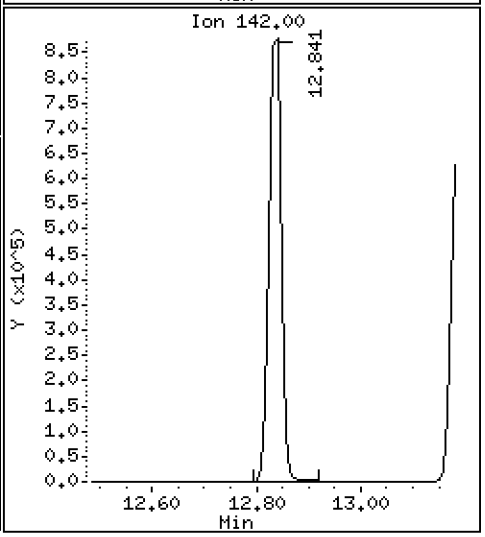


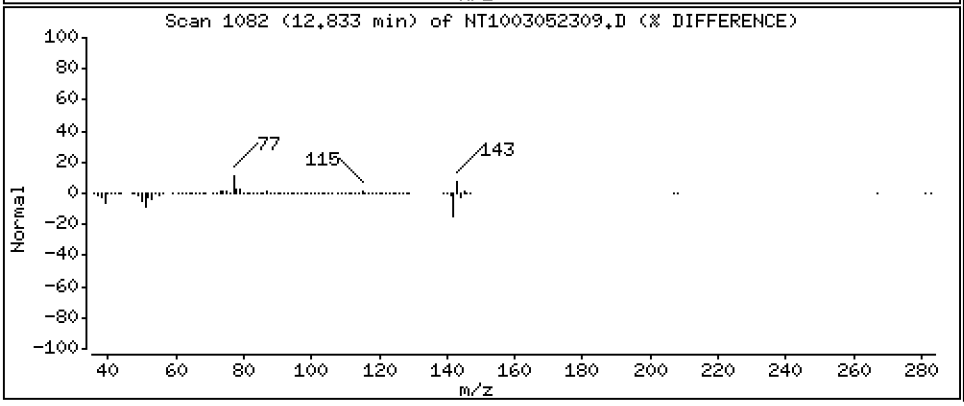












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052309.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

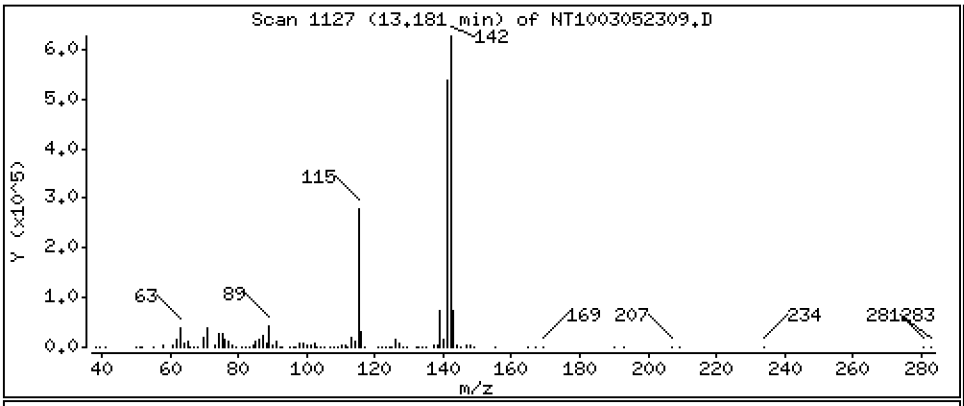
Operator: VTS

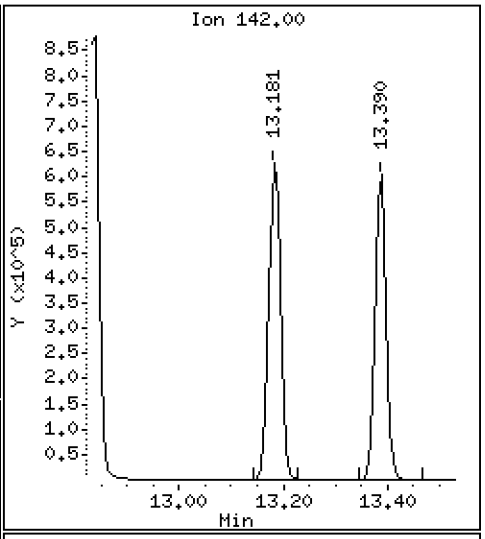
Column phase: ZB-5msi

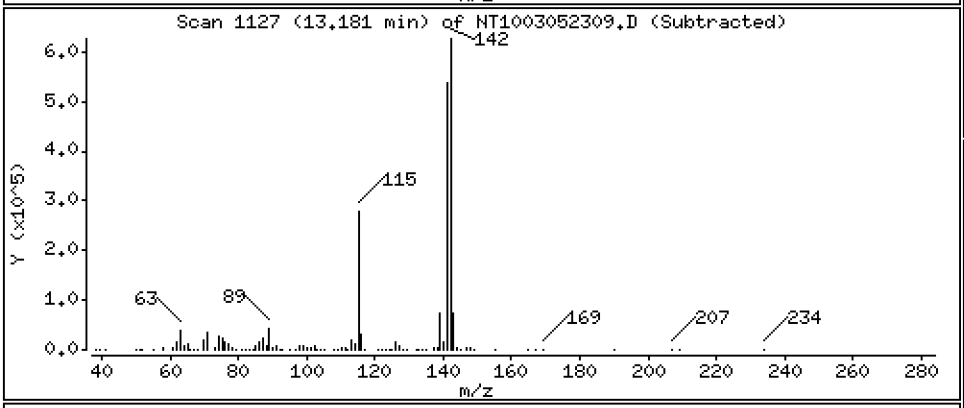
Column diameter: 0.25

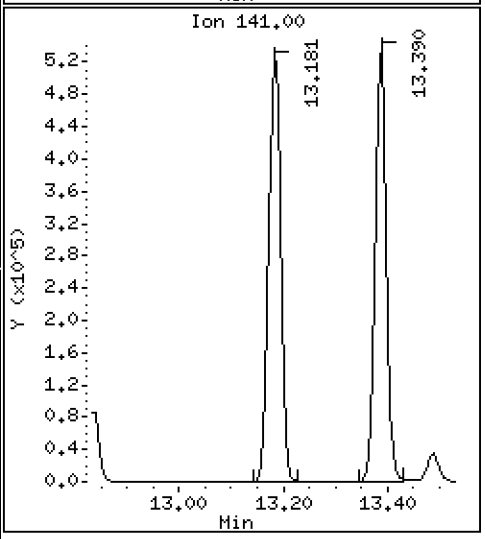
32 2-Methylnaphthalene

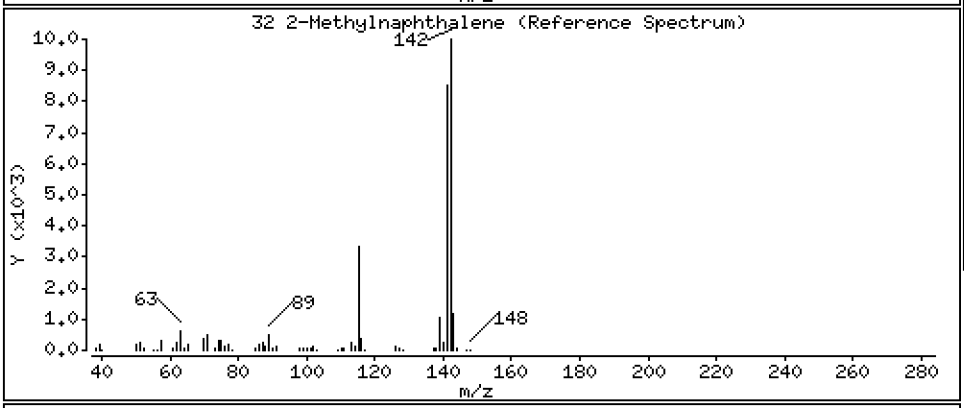
Concentration: 4.335 ug/mL

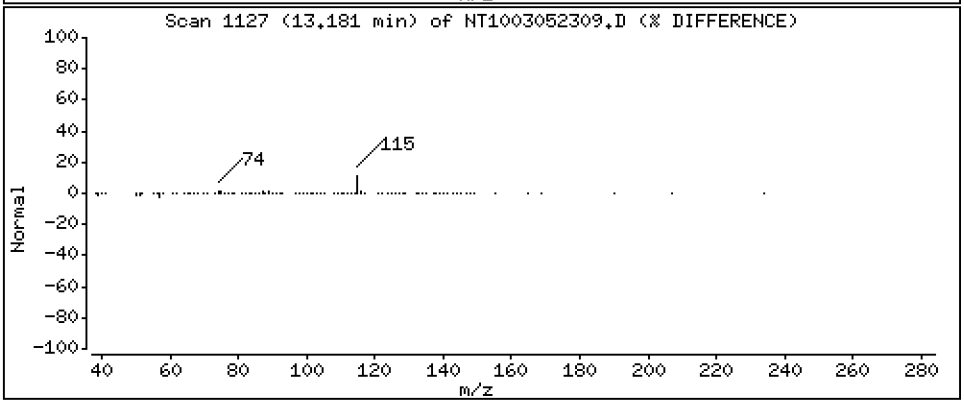












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052309.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

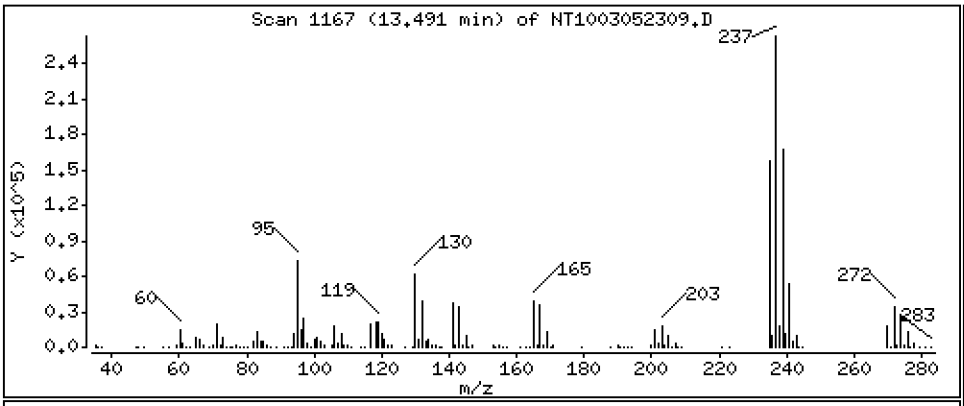
Operator: VTS

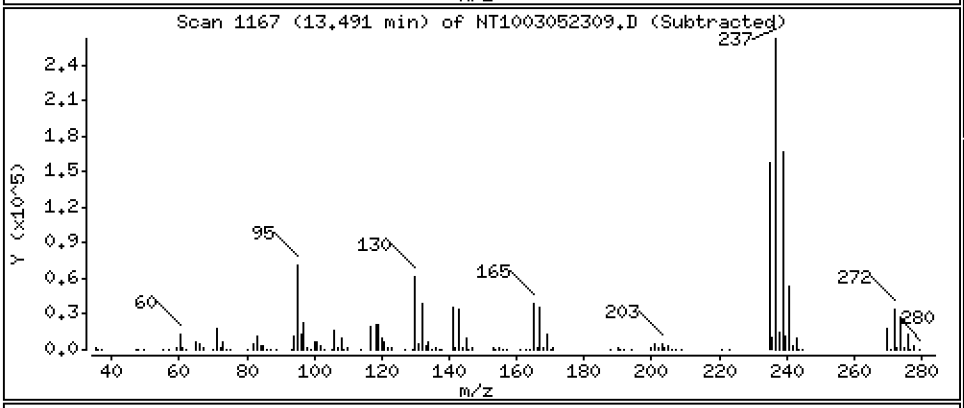
Column phase: ZB-5msi

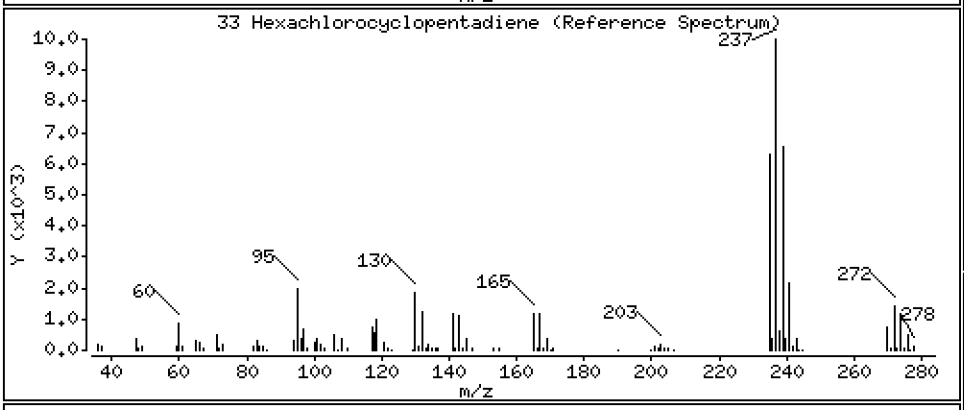
Column diameter: 0.25

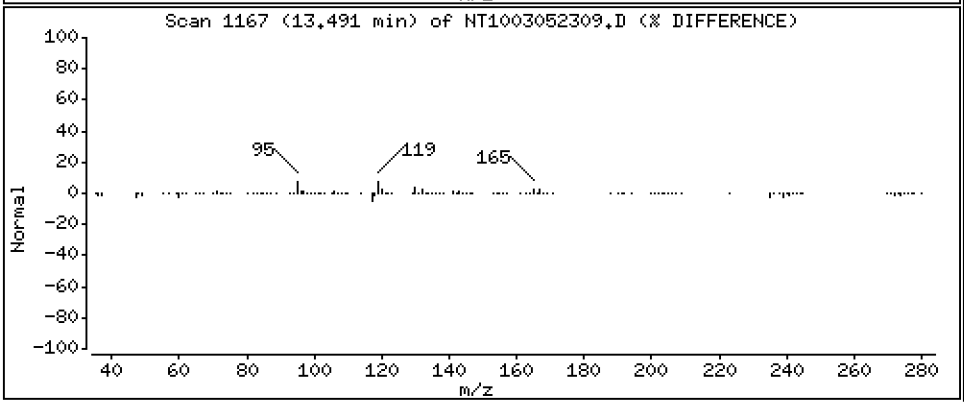
33 Hexachlorocyclopentadiene

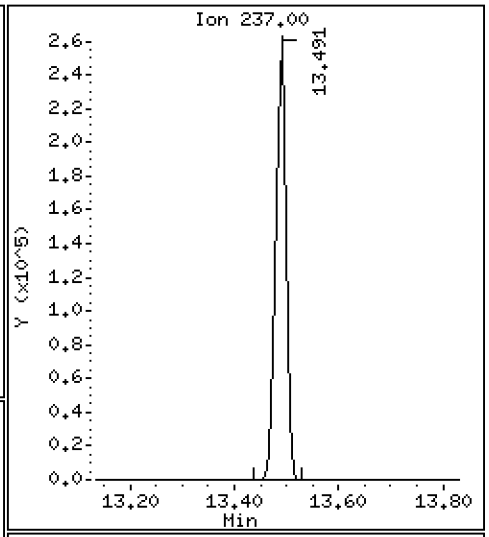
Concentration: 15.07 ug/mL

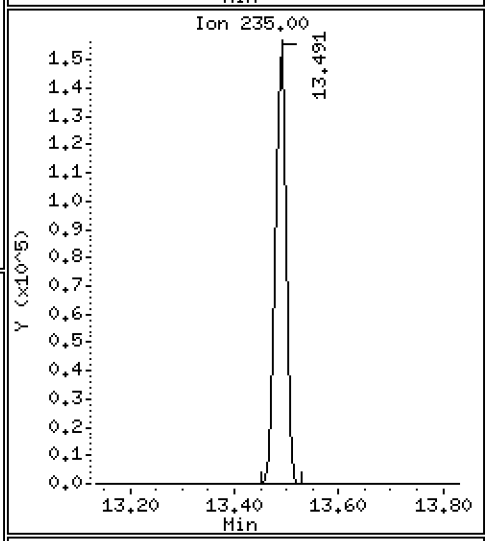


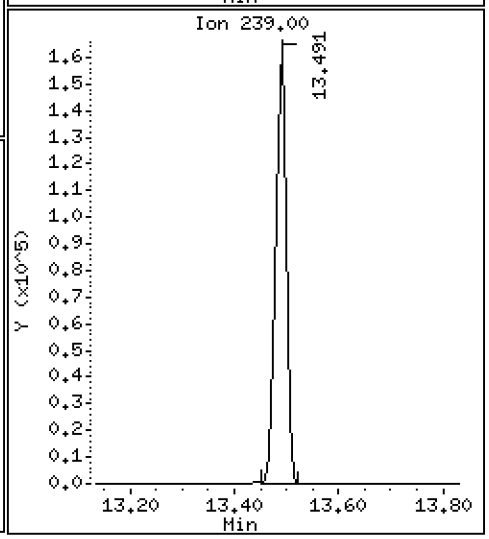












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

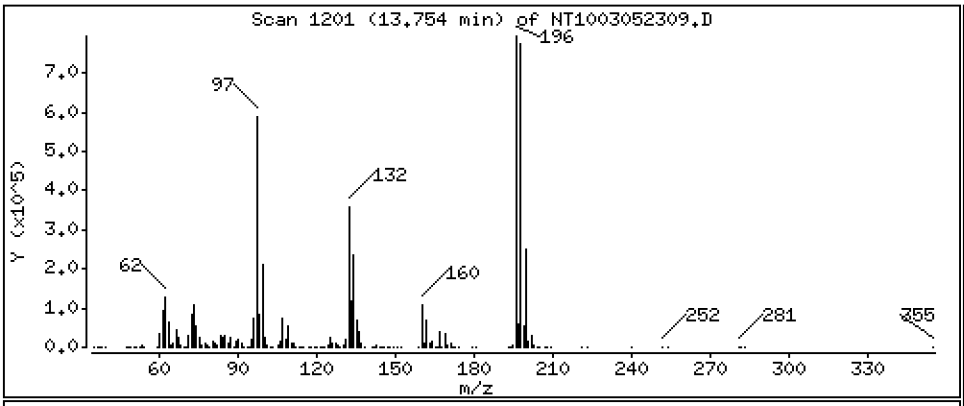
Operator: VTS

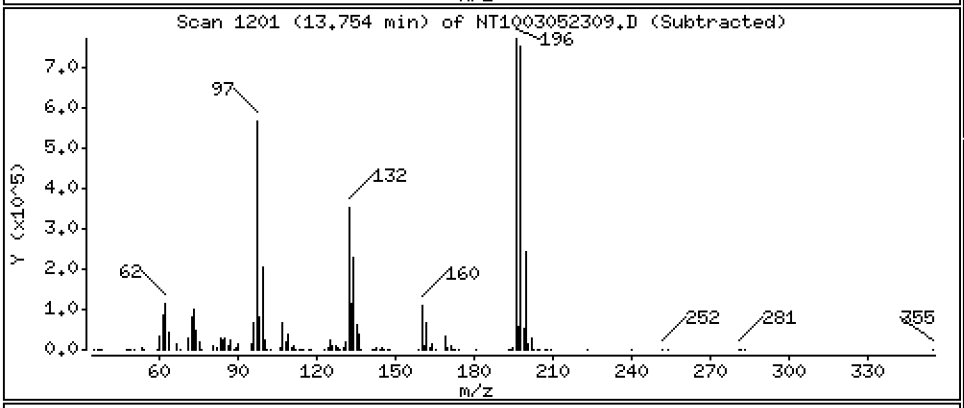
Column phase: ZB-5msi

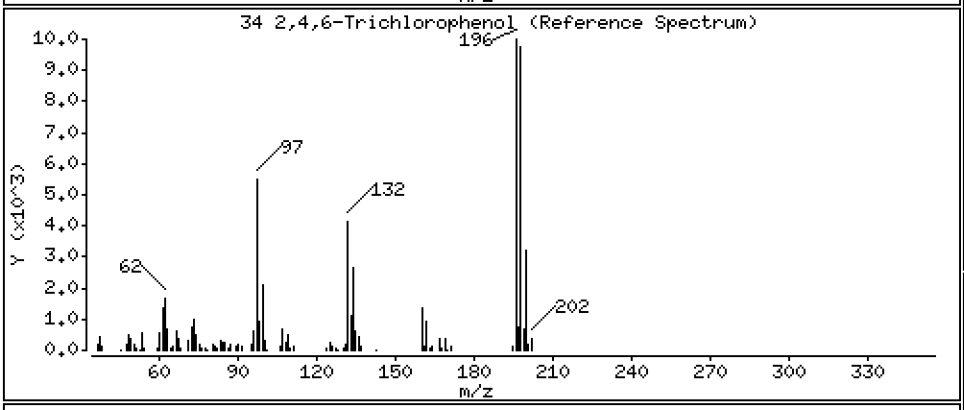
Column diameter: 0.25

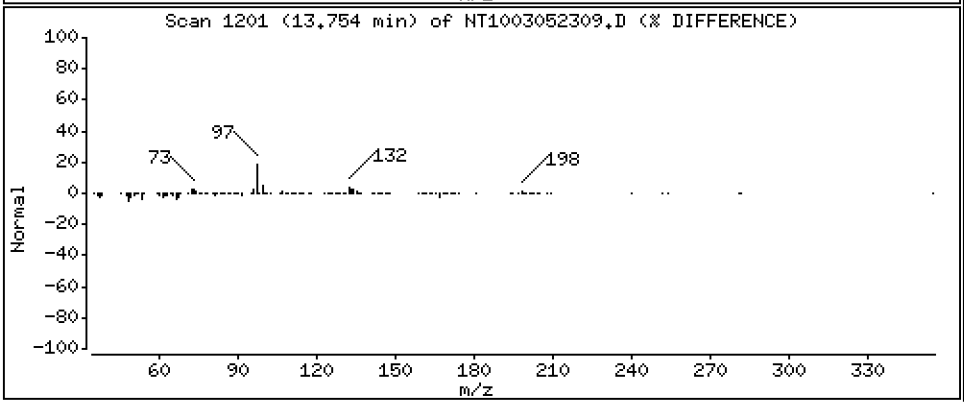
34 2,4,6-Trichlorophenol

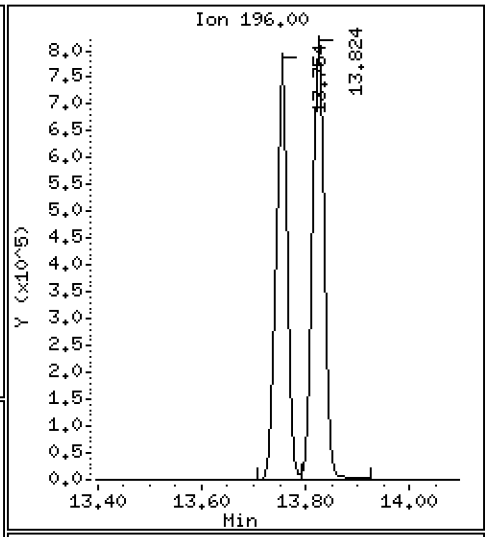
Concentration: 17.42 ug/mL

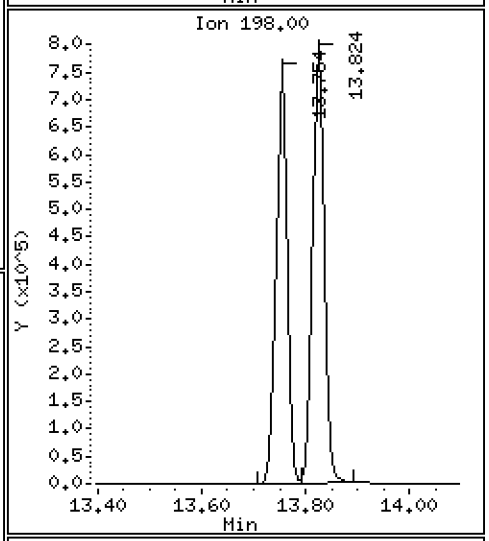


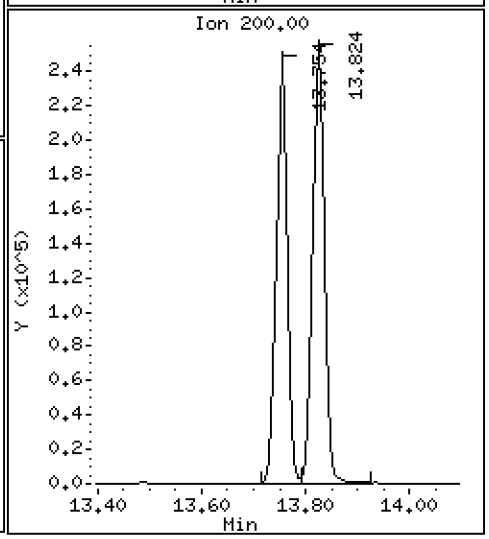












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

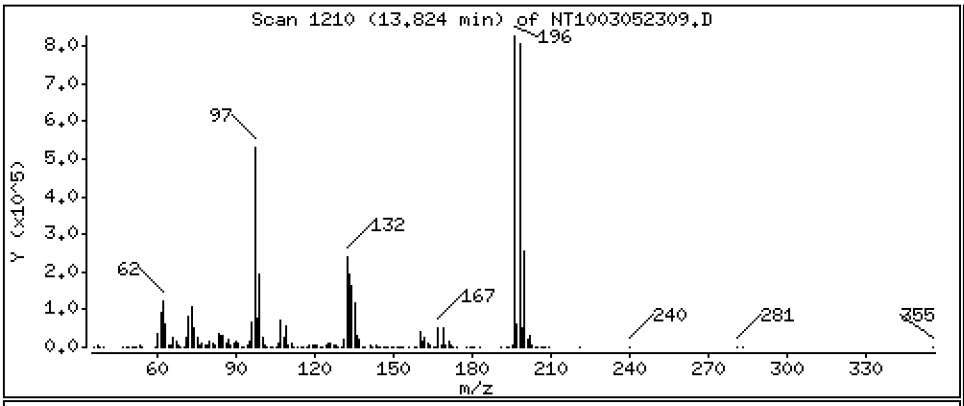
Operator: VTS

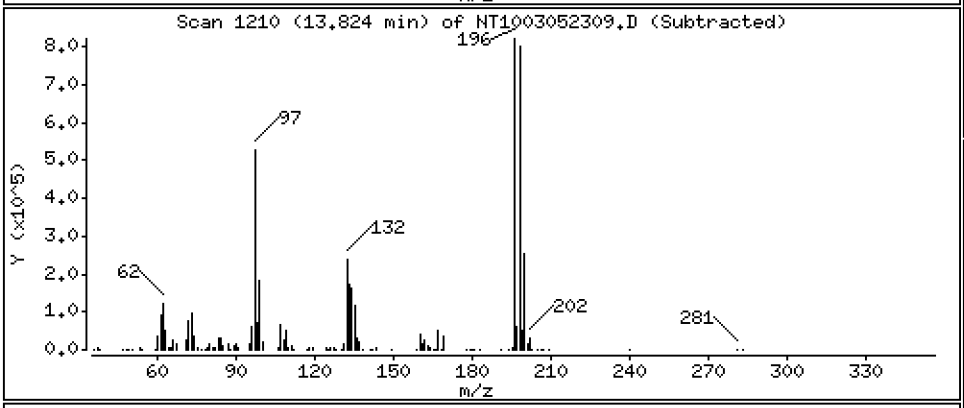
Column phase: ZB-5msi

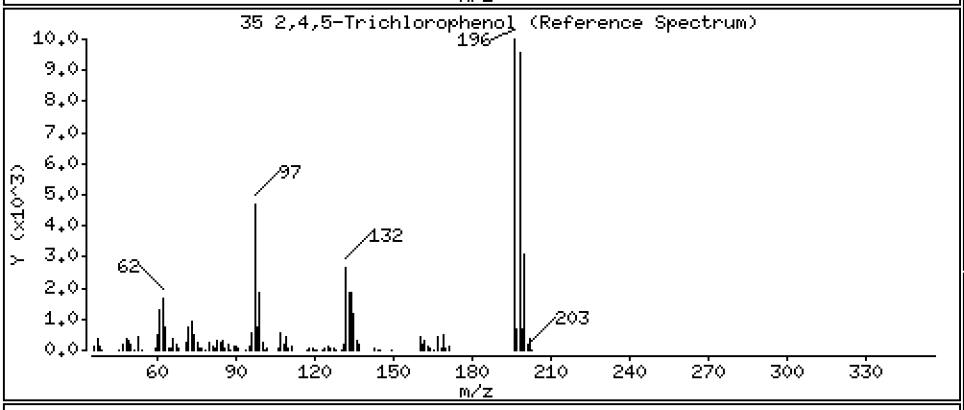
Column diameter: 0.25

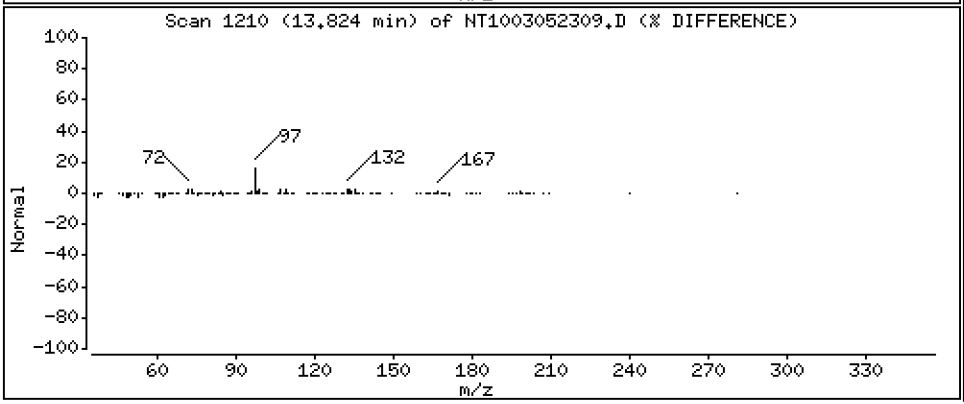
35 2,4,5-Trichlorophenol

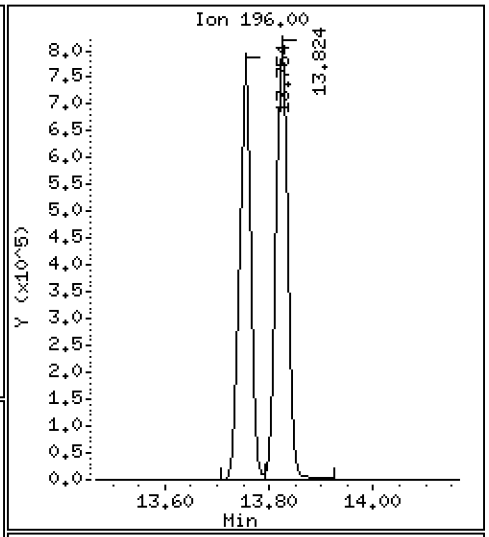
Concentration: 17.36 ug/mL

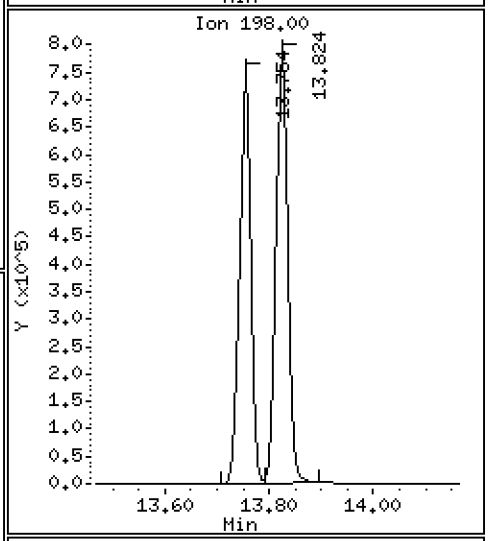


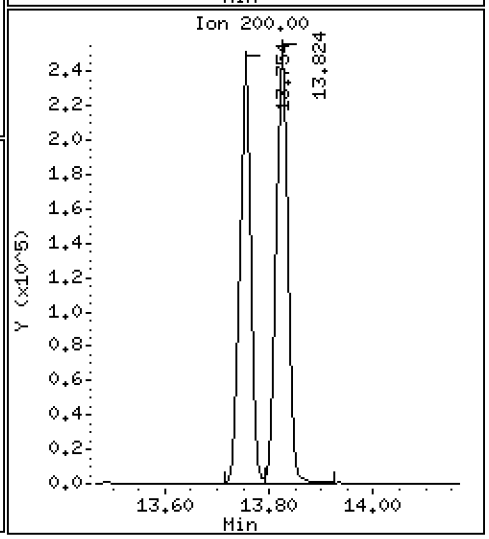












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

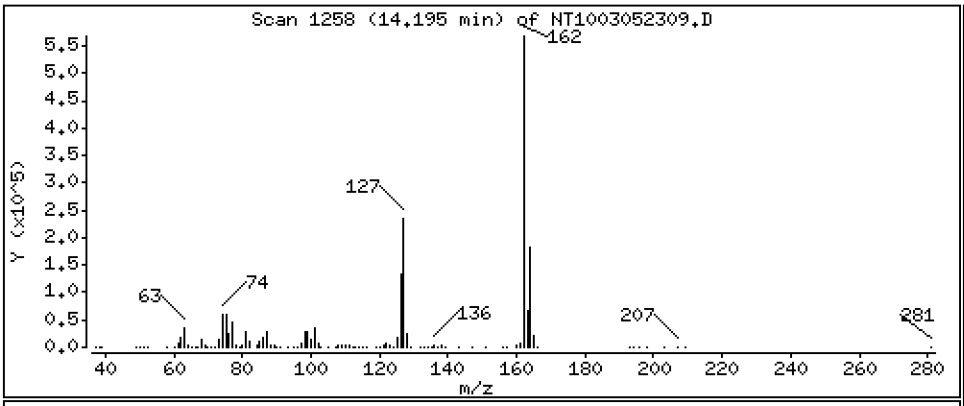
Operator: VTS

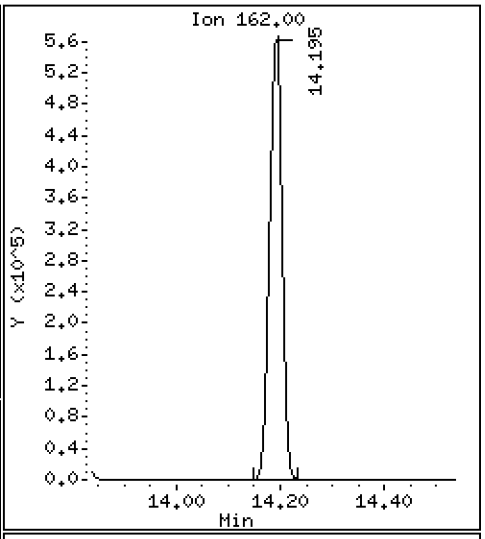
Column phase: ZB-5msi

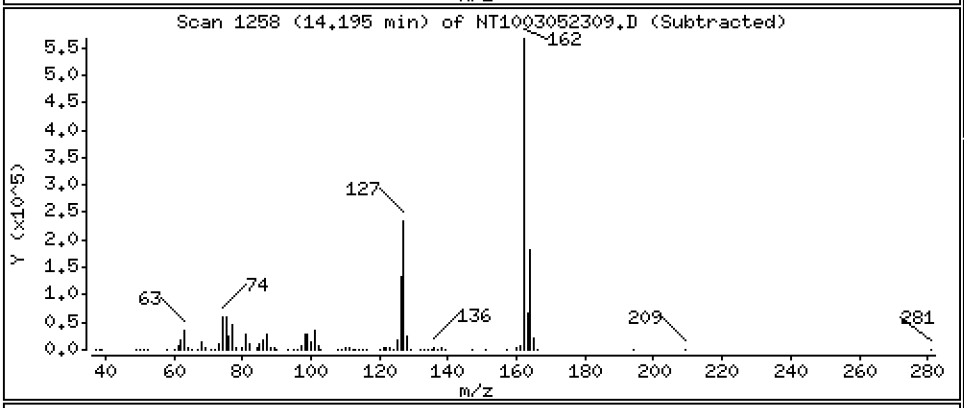
Column diameter: 0.25

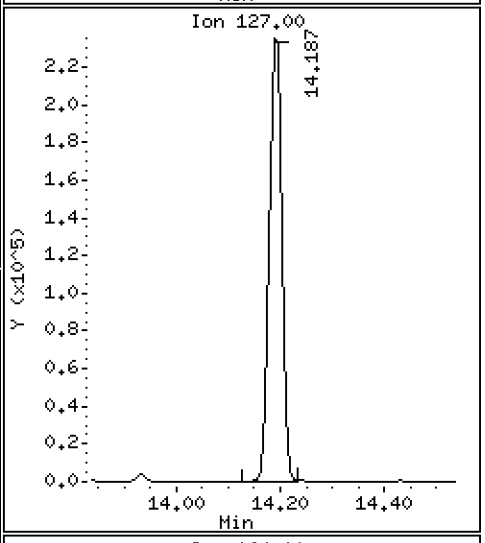
37 2-Chloronaphthalene

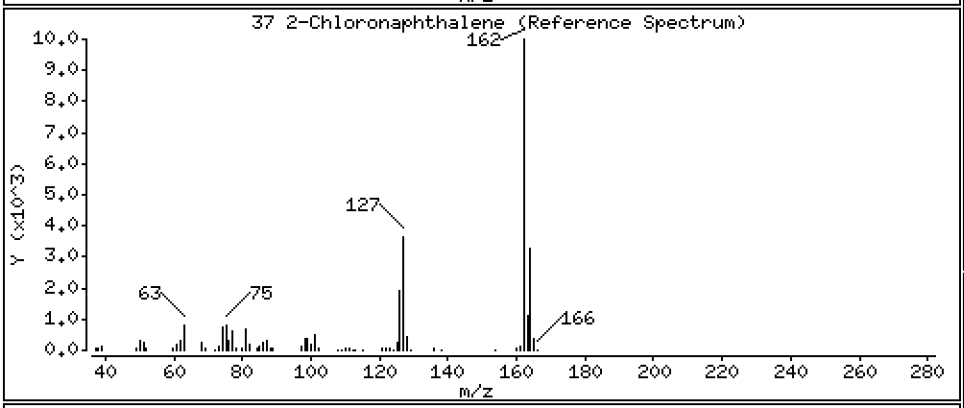
Concentration: 5.114 ug/mL

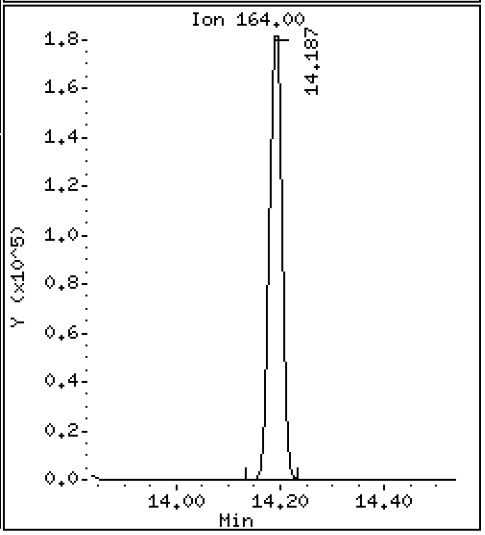


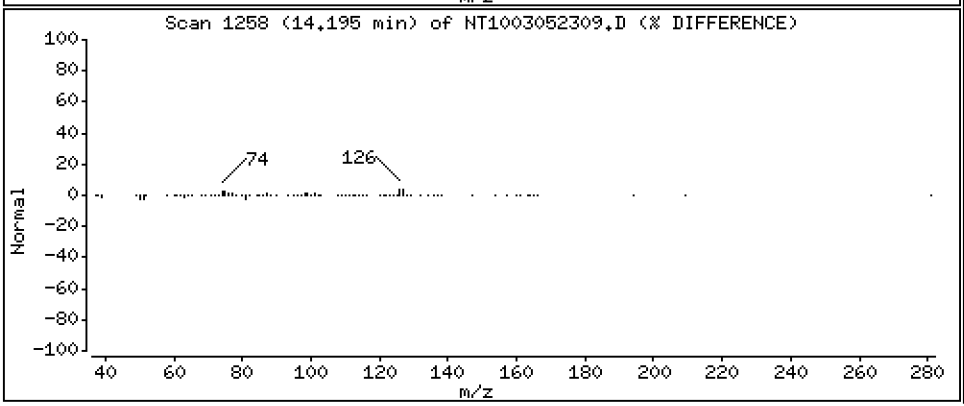












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

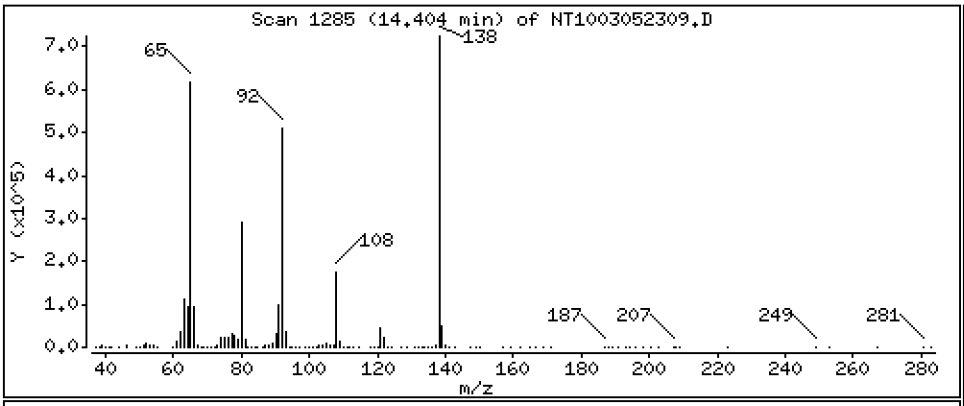
Operator: VTS

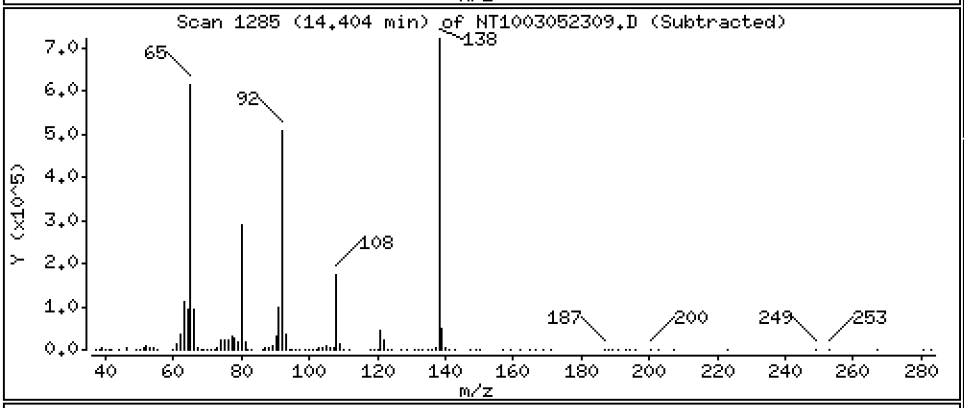
Column phase: ZB-5msi

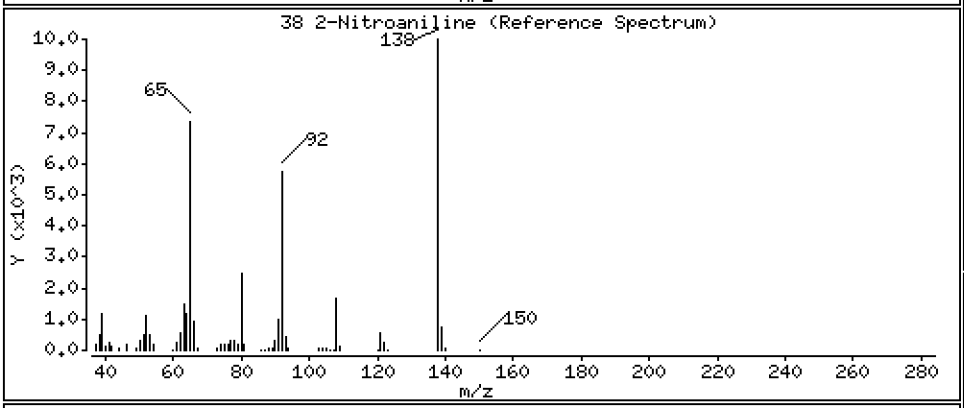
Column diameter: 0.25

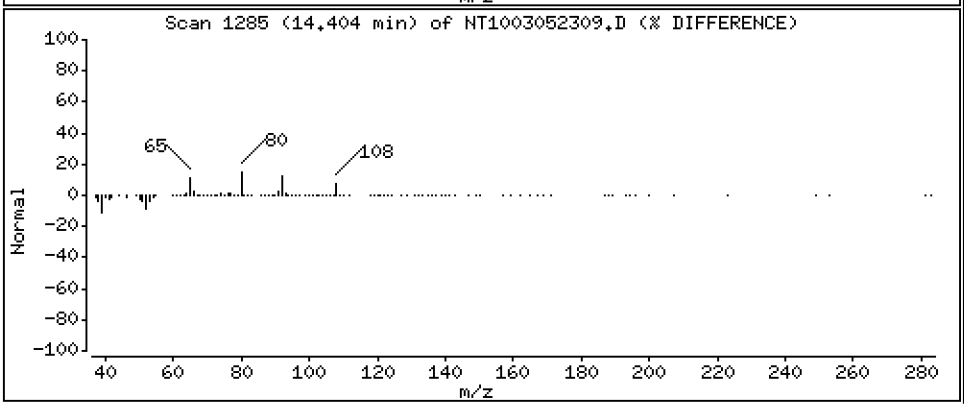
38 2-Nitroaniline

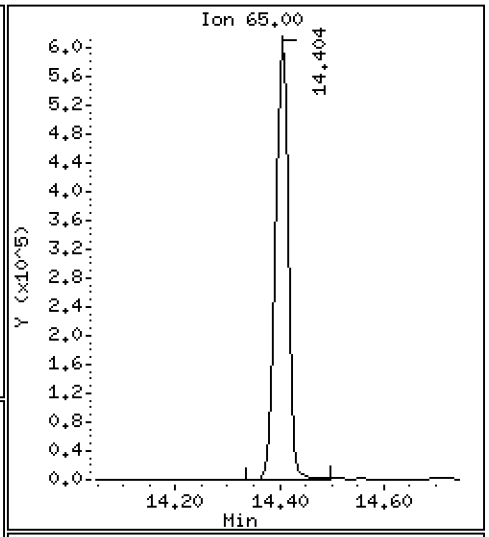
Concentration: 19.13 ug/mL

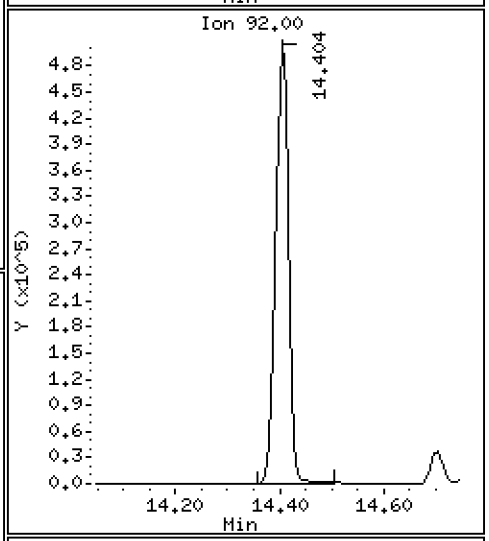


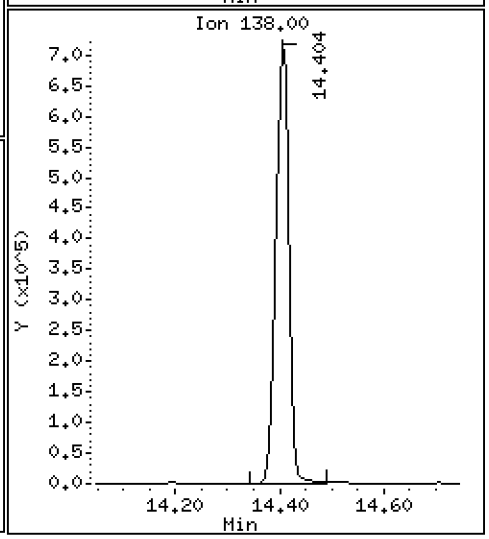












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

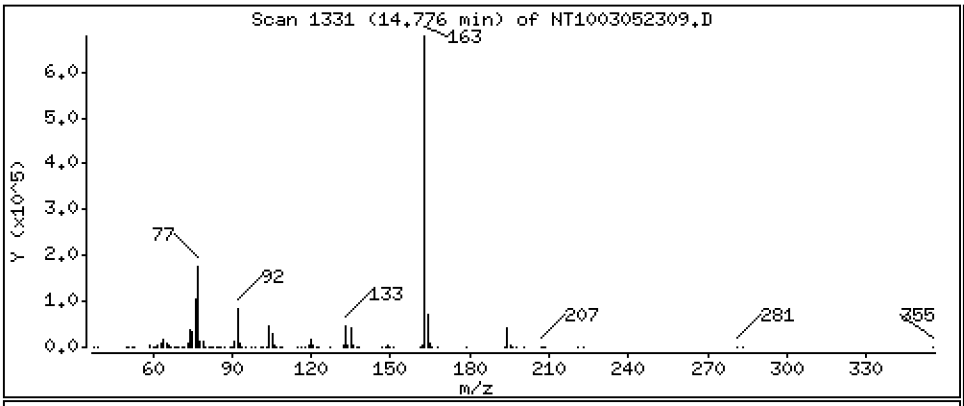
Operator: VTS

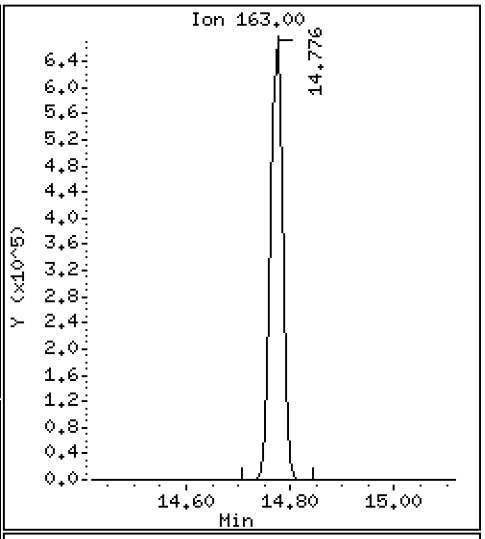
Column phase: ZB-5msi

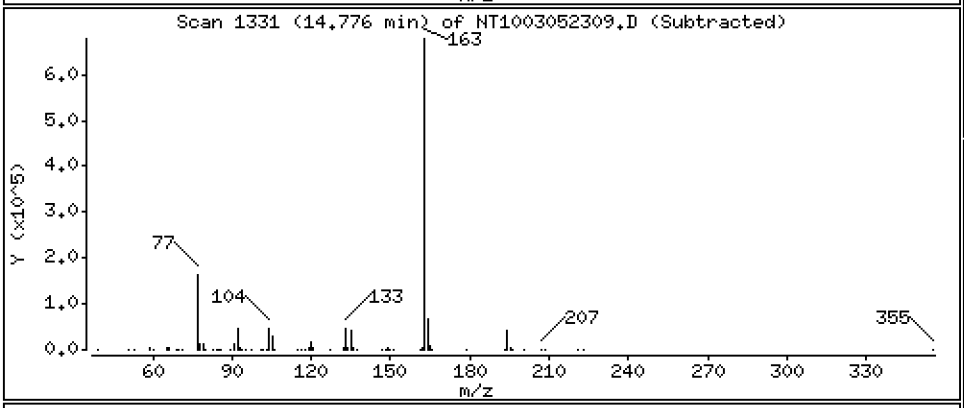
Column diameter: 0.25

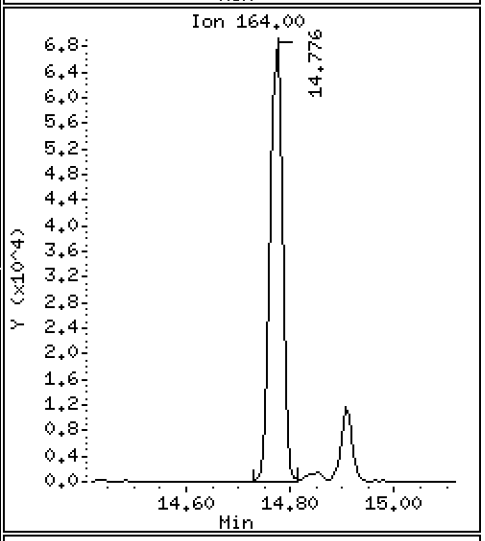
39 Dimethylphthalate

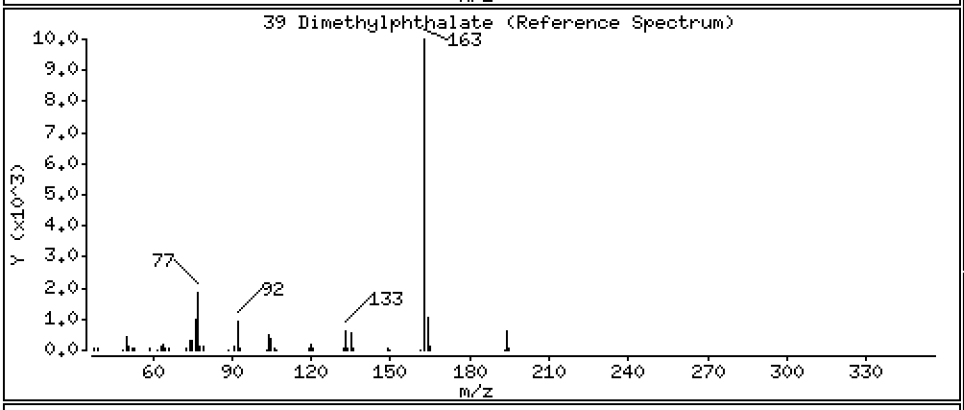
Concentration: 5.131 ug/mL

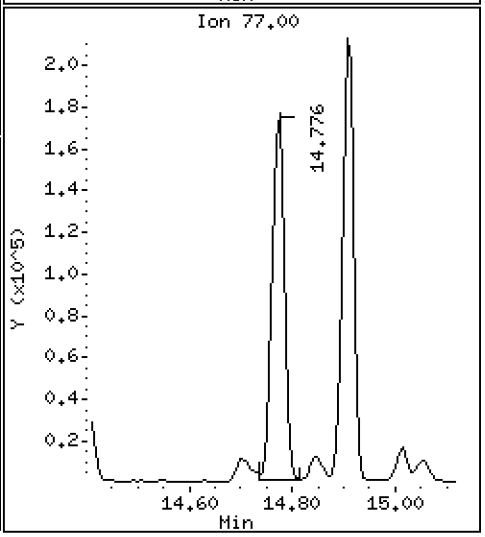


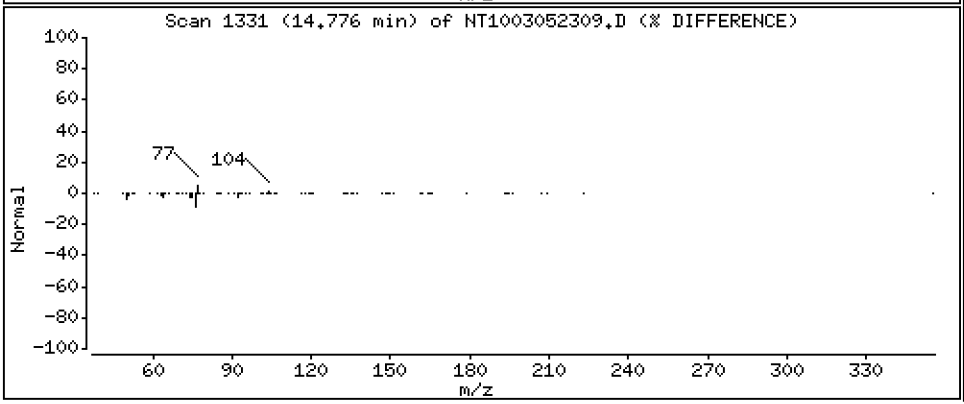












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

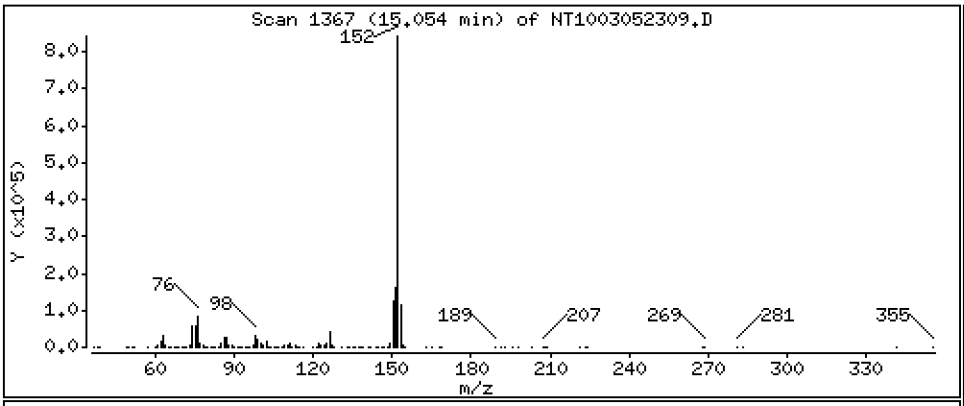
Operator: VTS

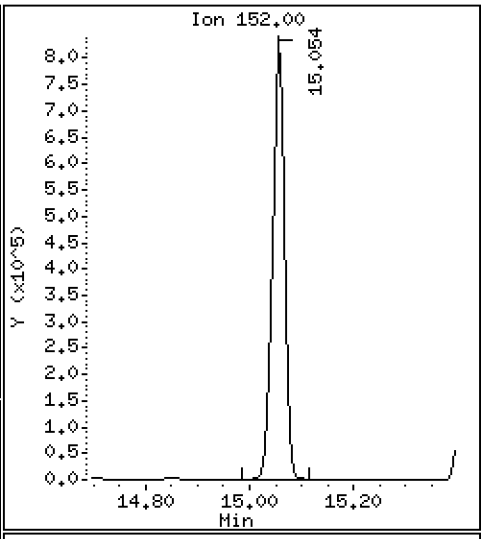
Column phase: ZB-5msi

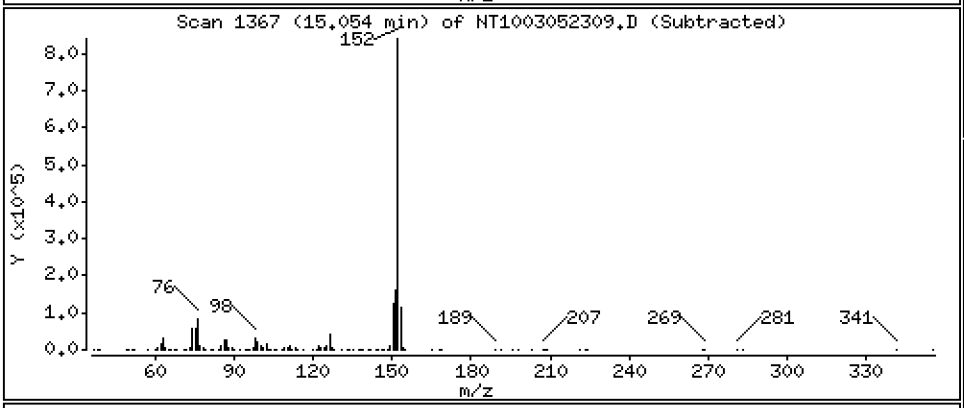
Column diameter: 0.25

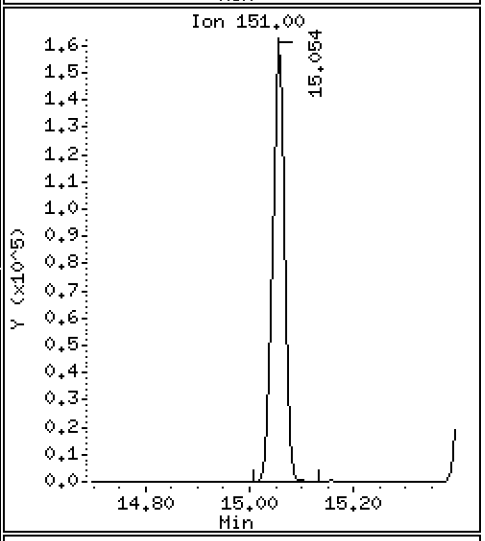
40 Acenaphthylene

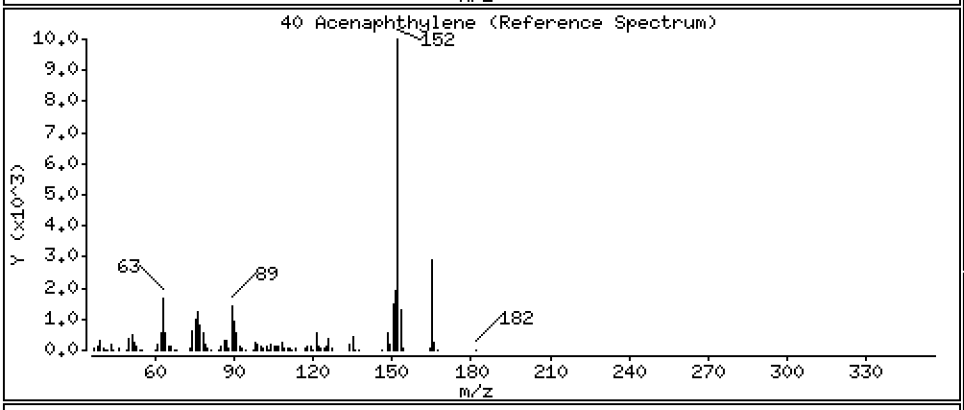
Concentration: 4.884 ug/mL

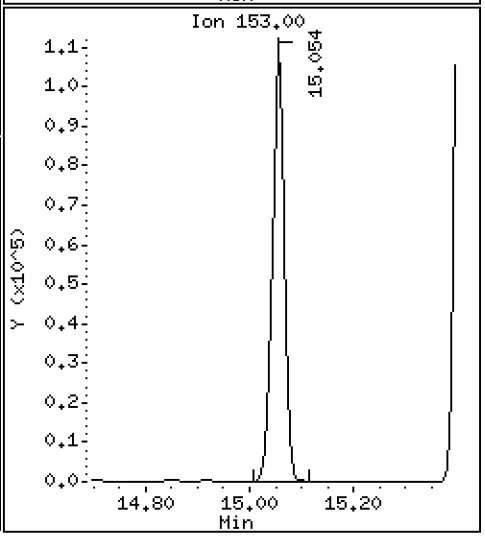


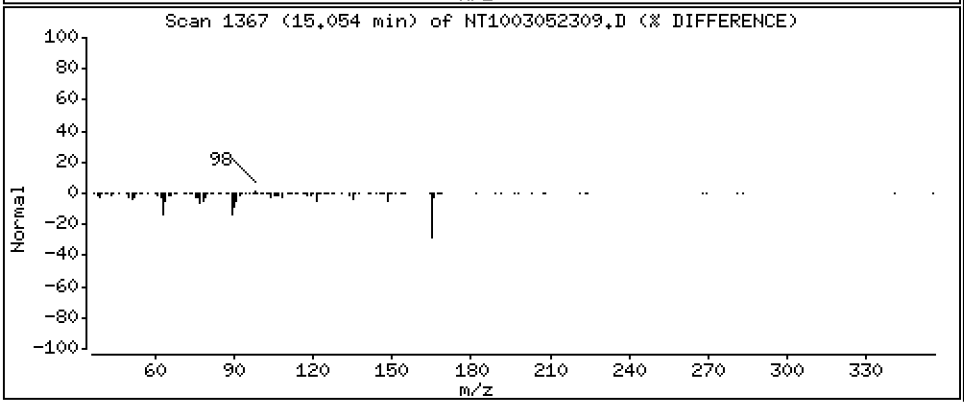












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

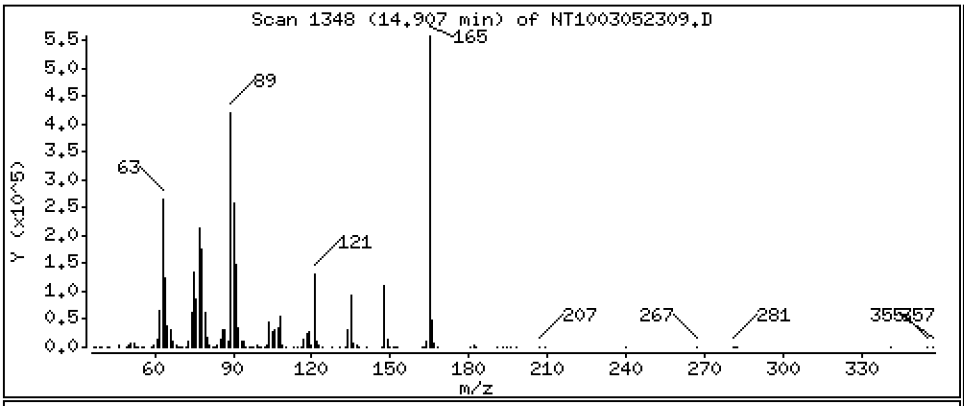
Operator: VTS

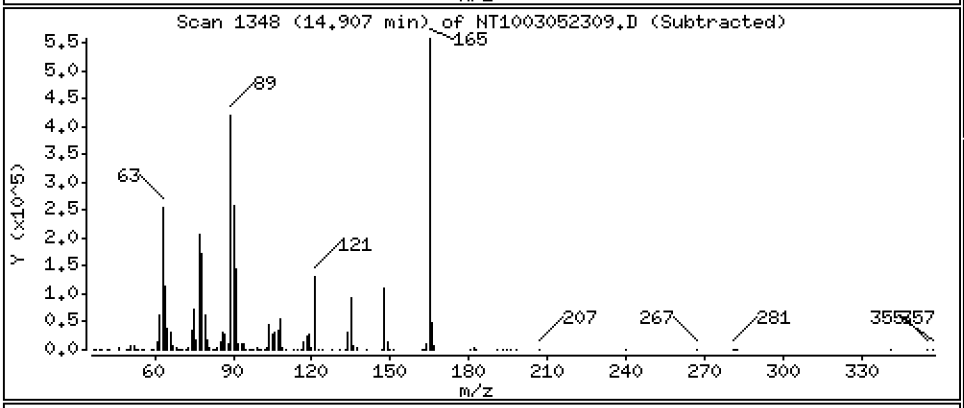
Column phase: ZB-5msi

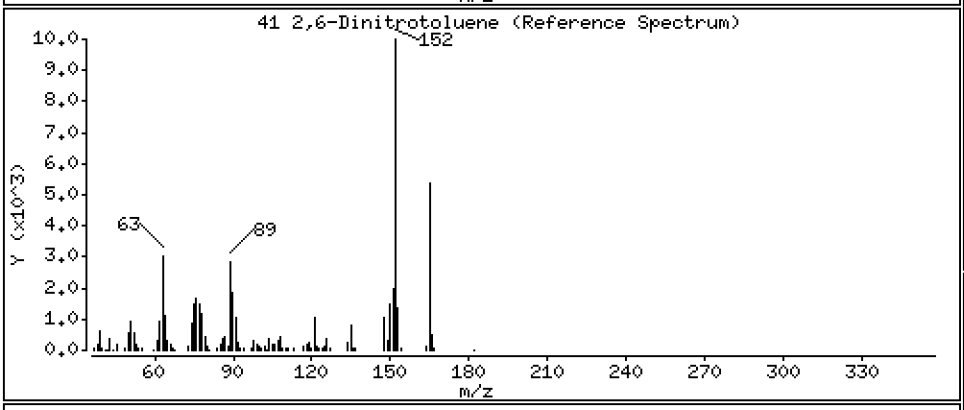
Column diameter: 0.25

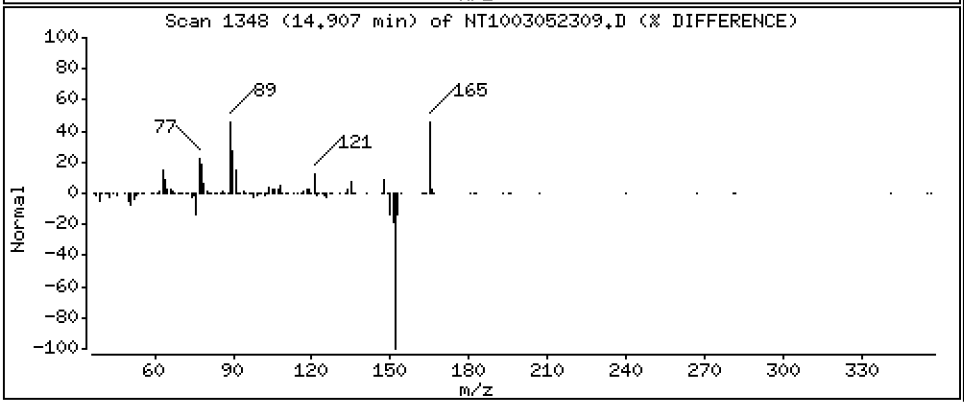
41 2,6-Dinitrotoluene

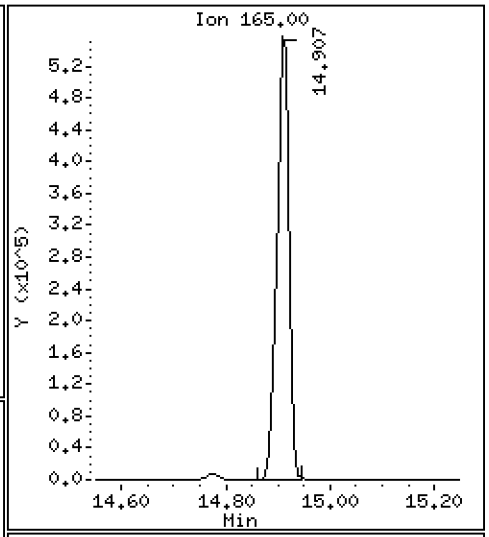
Concentration: 18.67 ug/mL

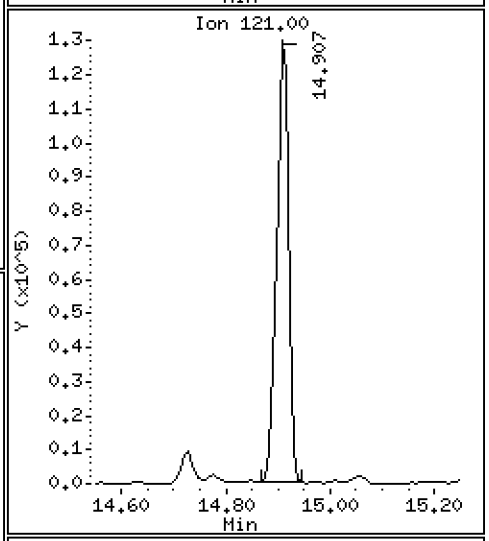


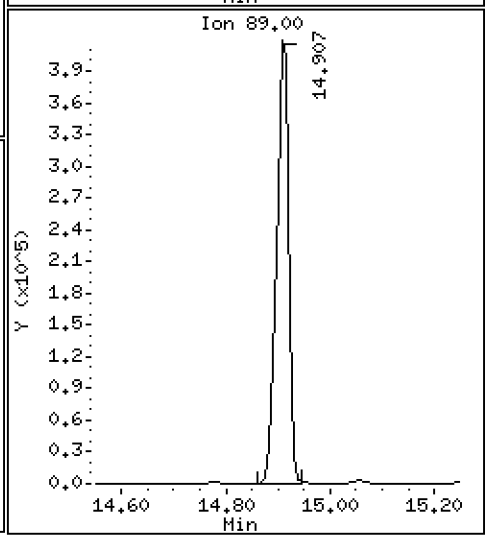












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

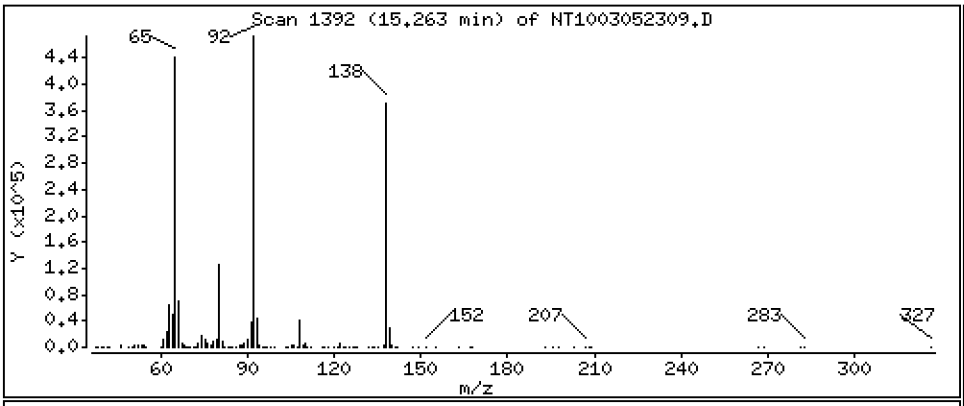
Operator: VTS

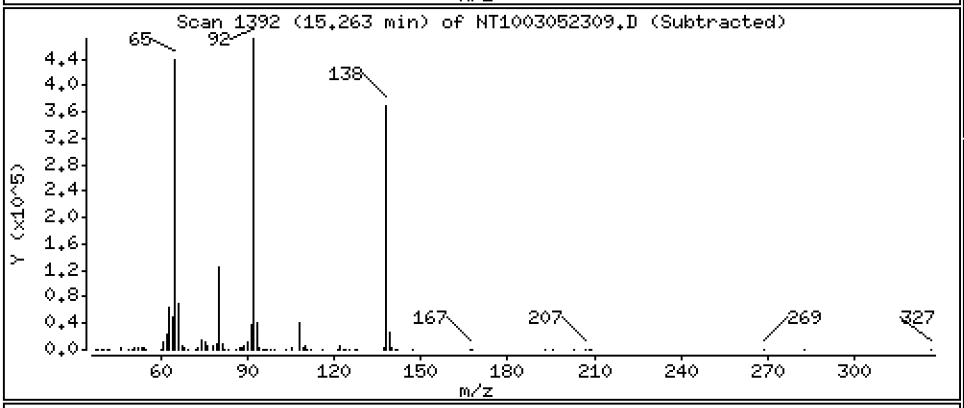
Column phase: ZB-5msi

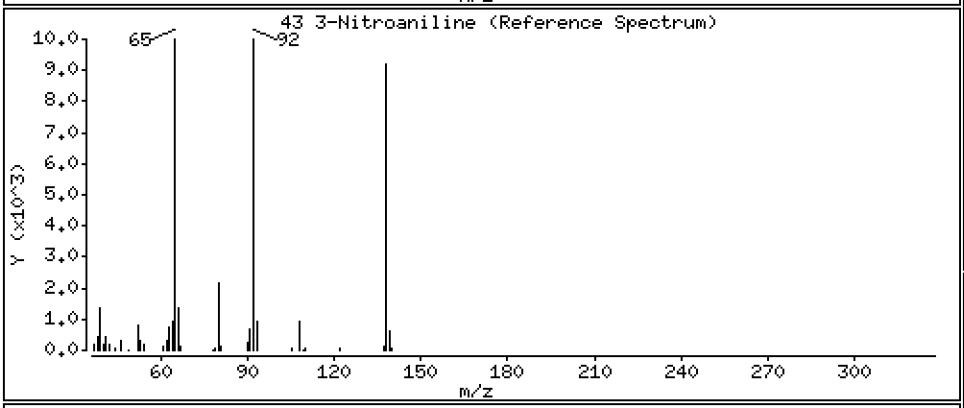
Column diameter: 0.25

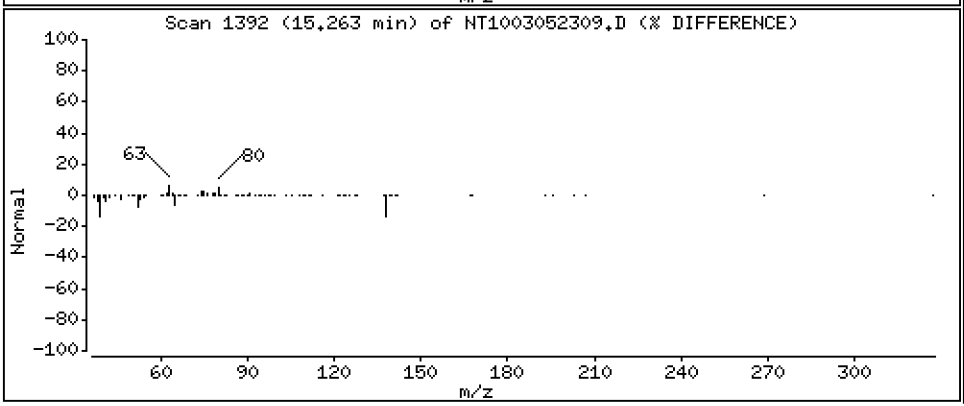
43 3-Nitroaniline

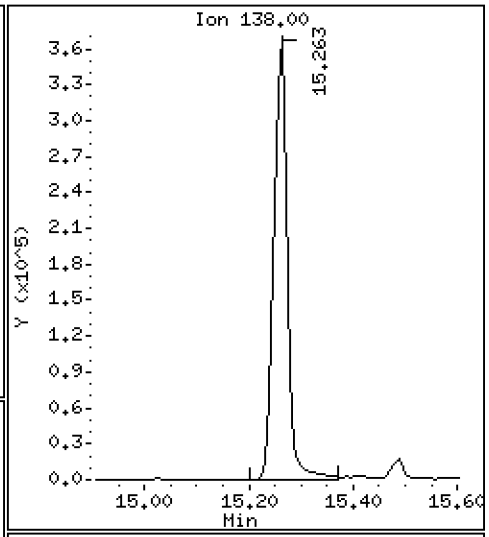
Concentration: 12.53 ug/mL

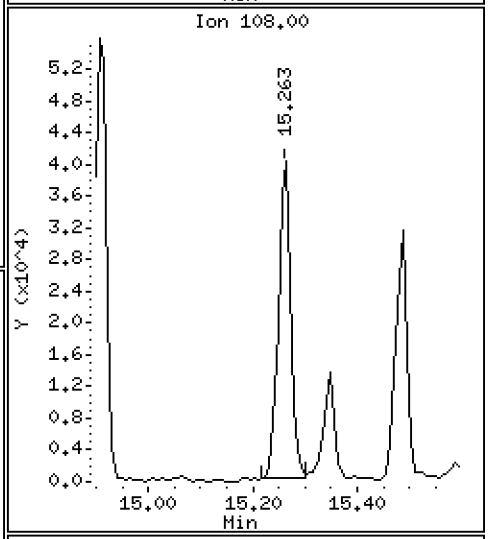


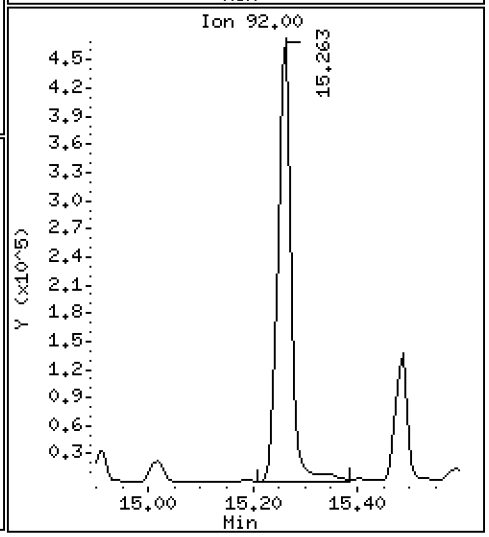












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

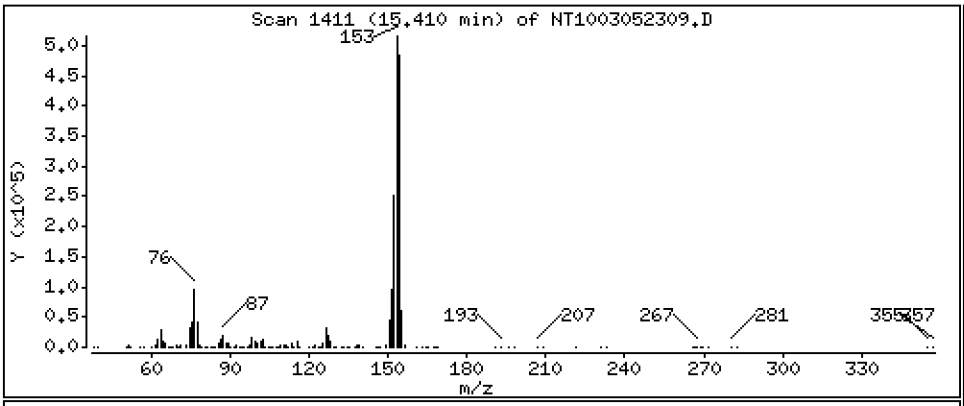
Operator: VTS

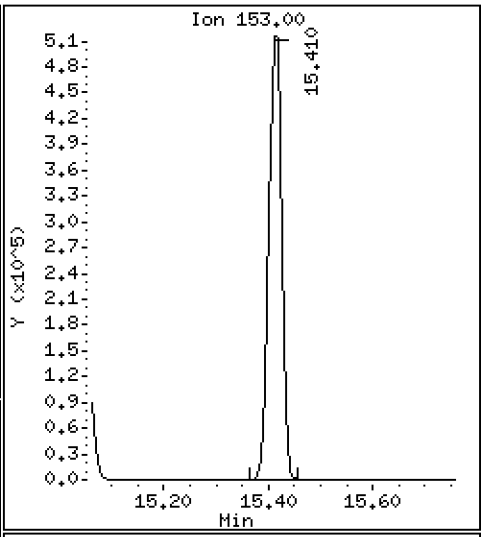
Column phase: ZB-5msi

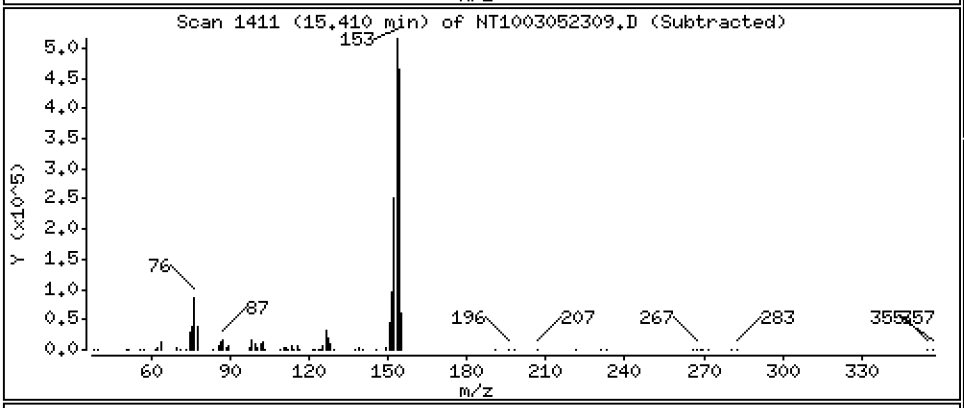
Column diameter: 0.25

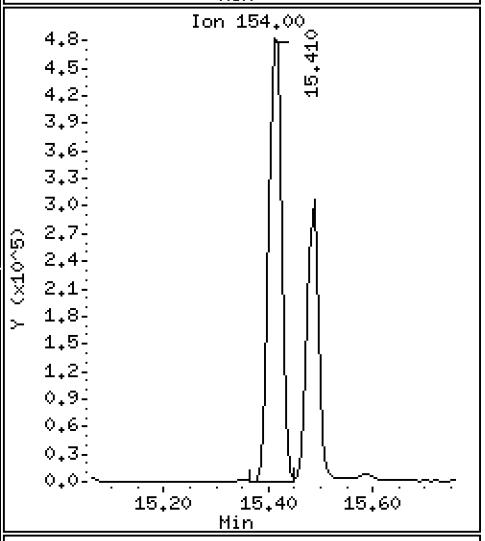
44 Acenaphthene

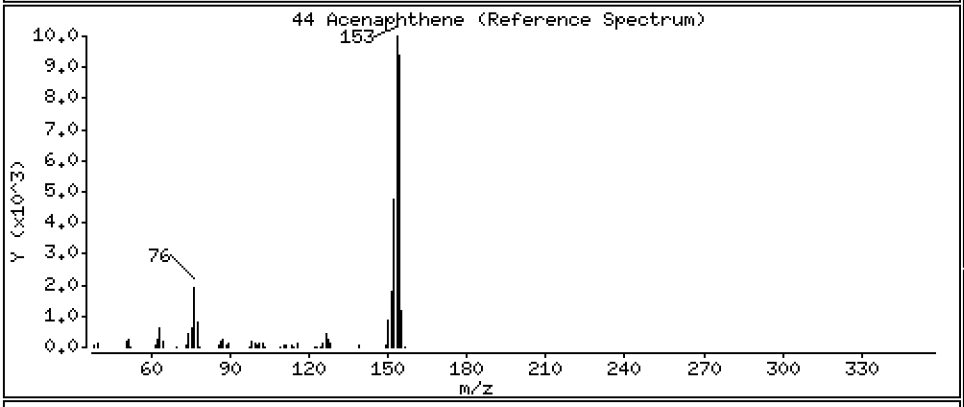
Concentration: 4.653 ug/mL

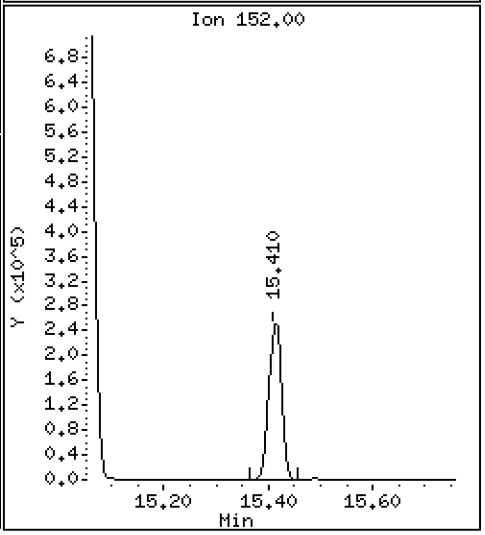


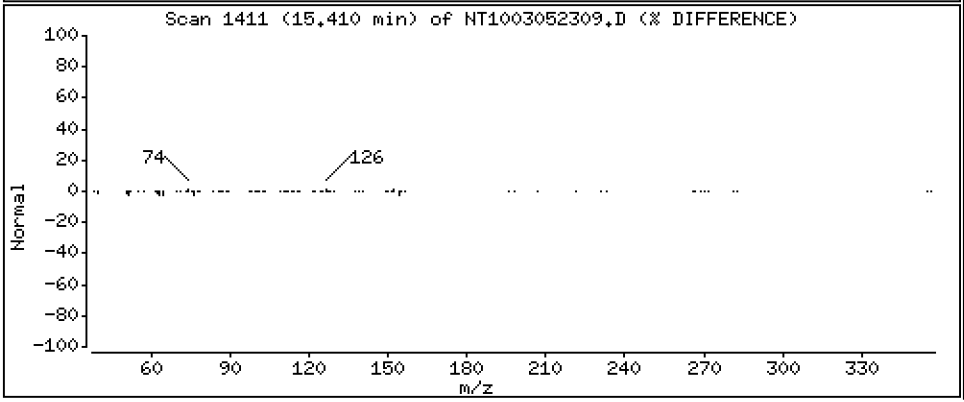












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

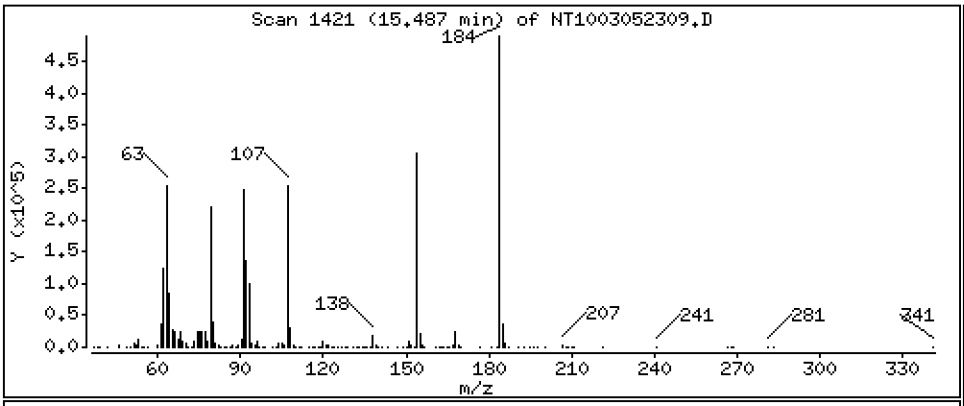
Operator: VTS

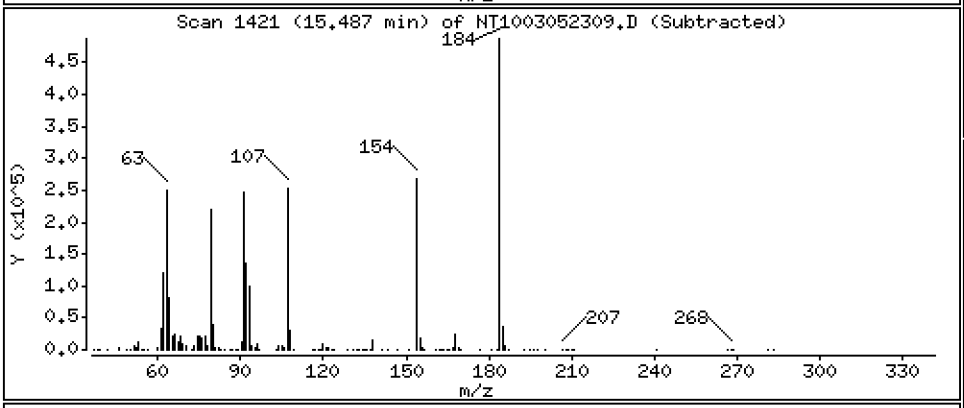
Column phase: ZB-5msi

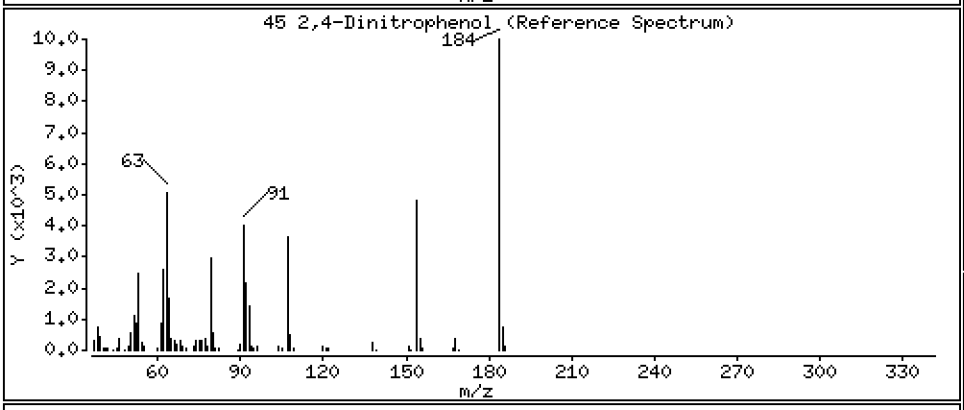
Column diameter: 0.25

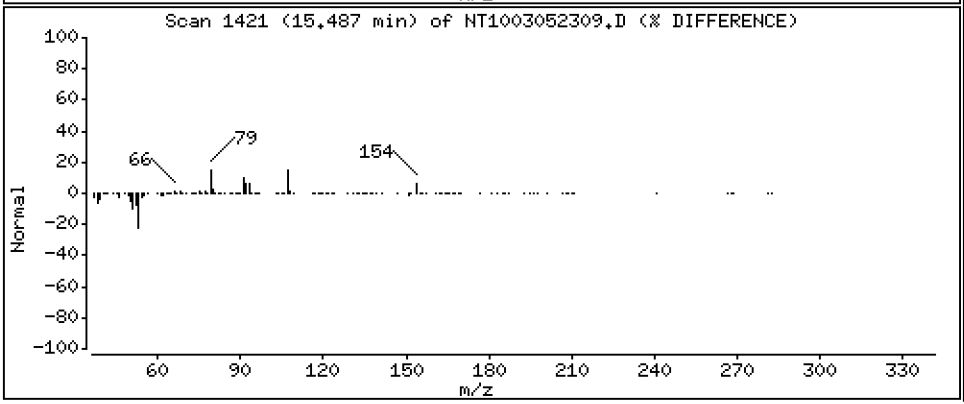
45 2,4-Dinitrophenol

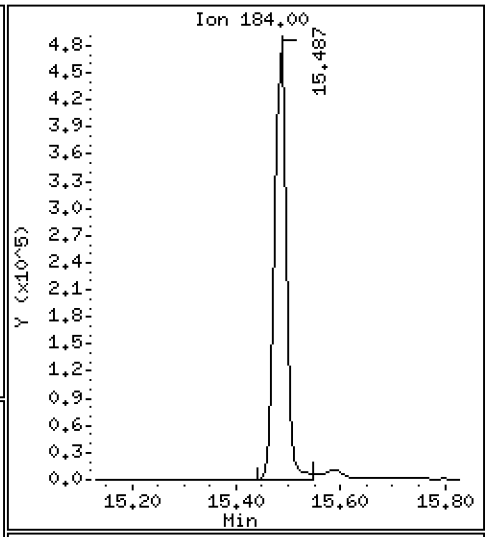
Concentration: 49.13 ug/mL

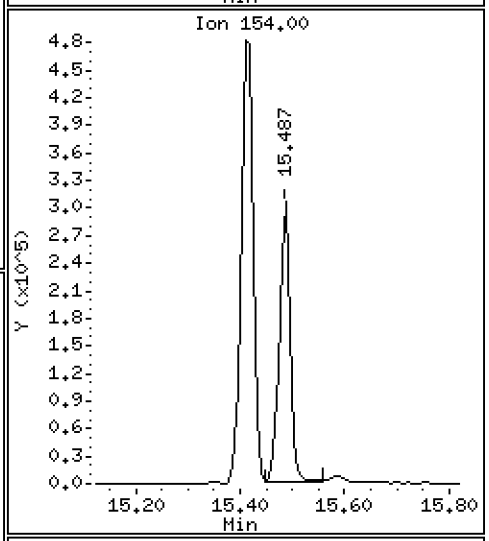


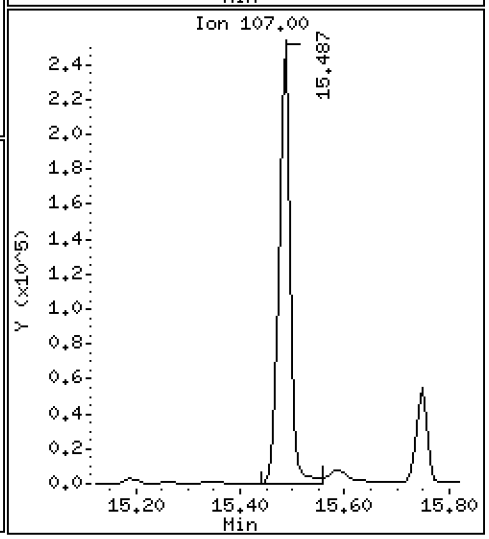












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

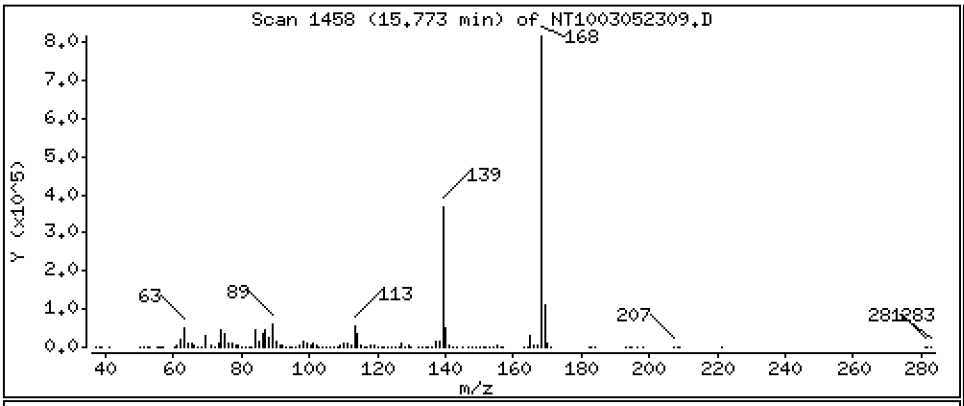
Operator: VTS

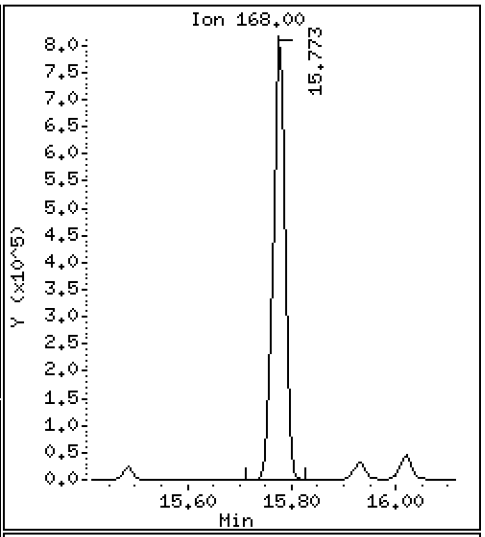
Column phase: ZB-5msi

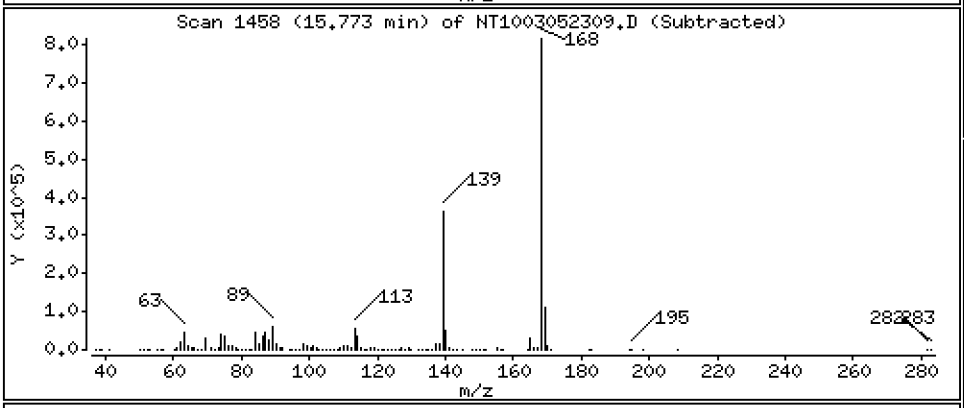
Column diameter: 0.25

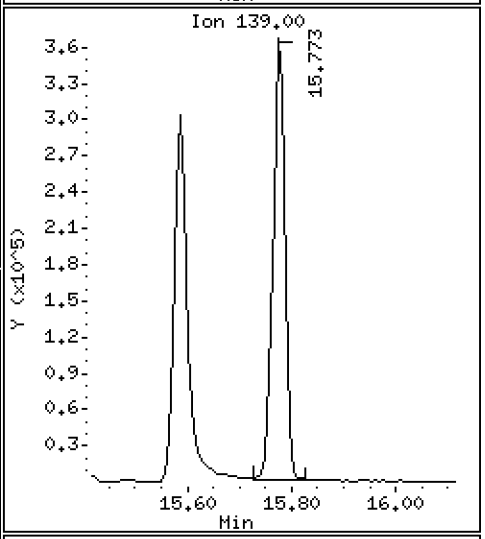
46 Dibenzofuran

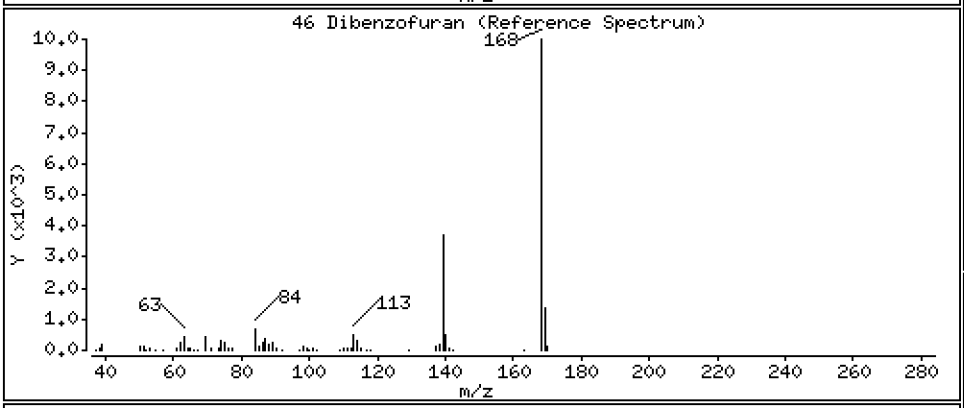
Concentration: 4.723 ug/mL

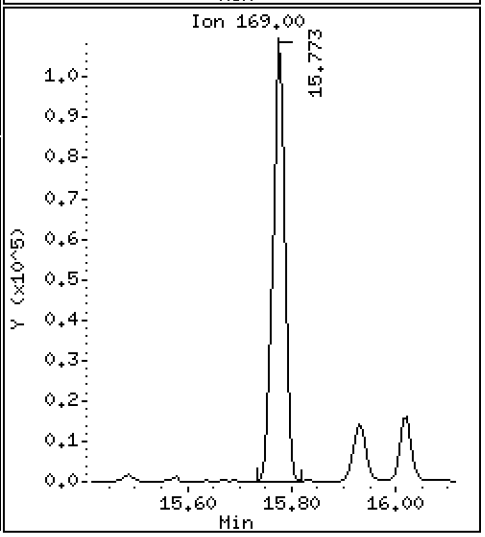


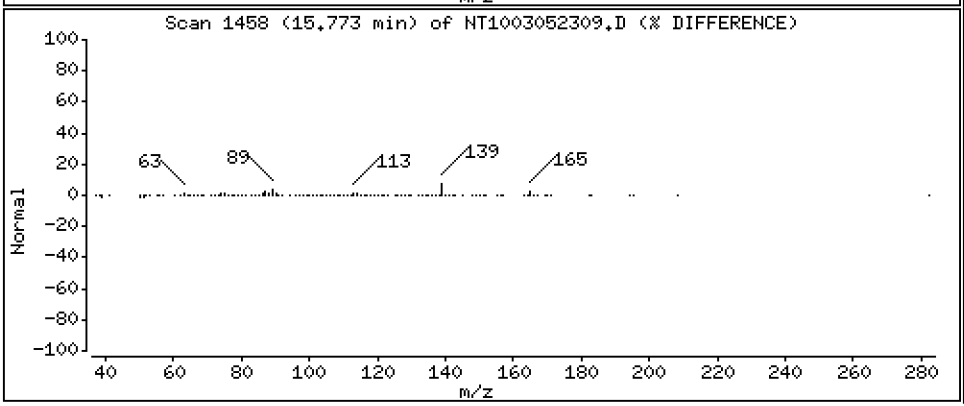












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

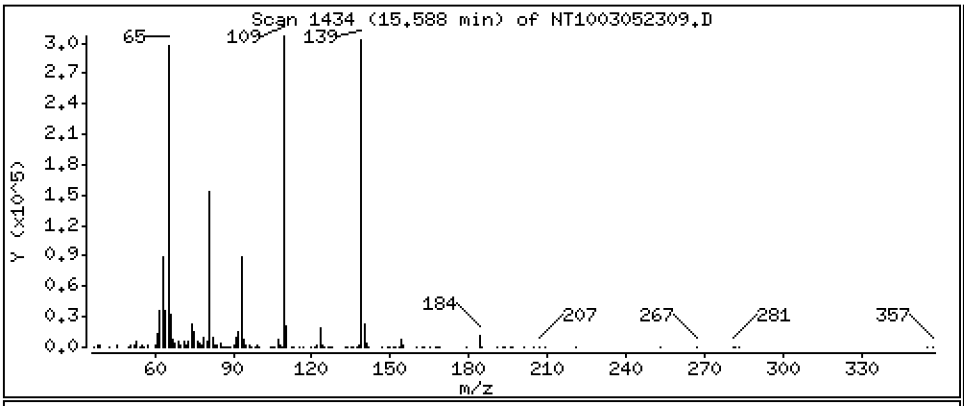
Operator: VTS

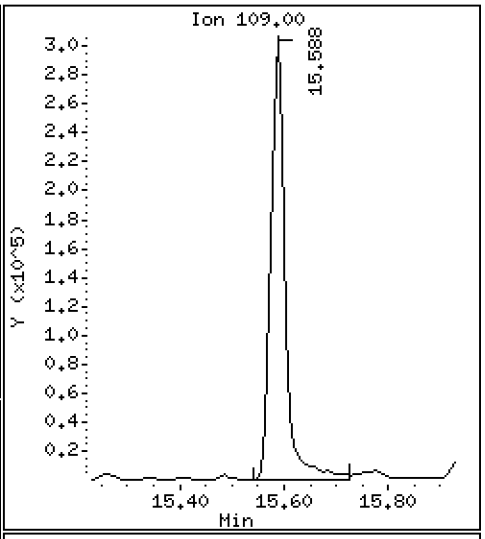
Column phase: ZB-5msi

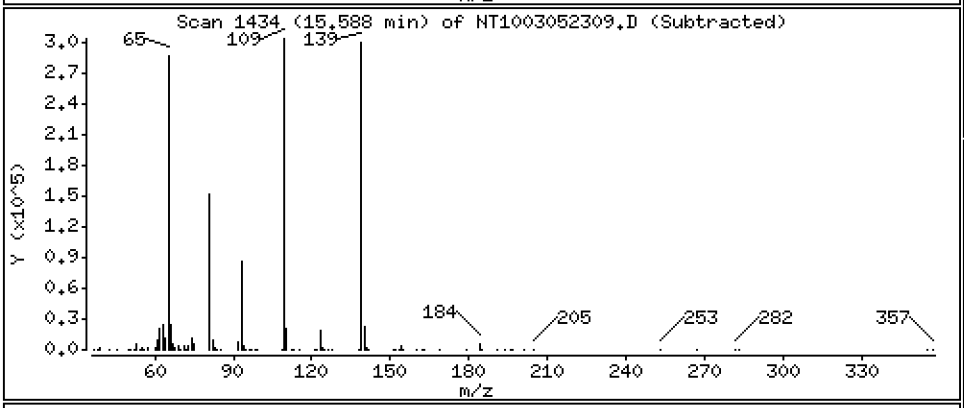
Column diameter: 0.25

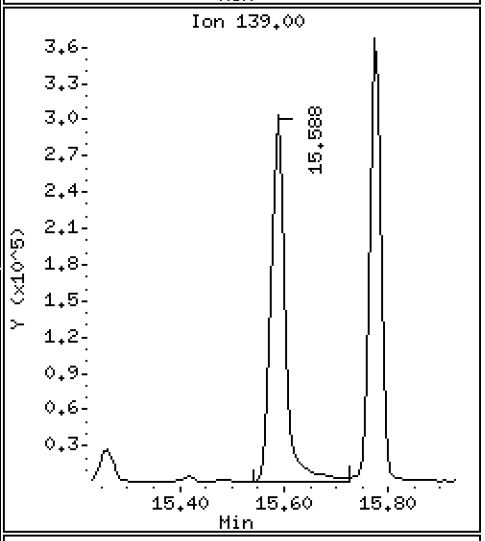
47 4-Nitrophenol

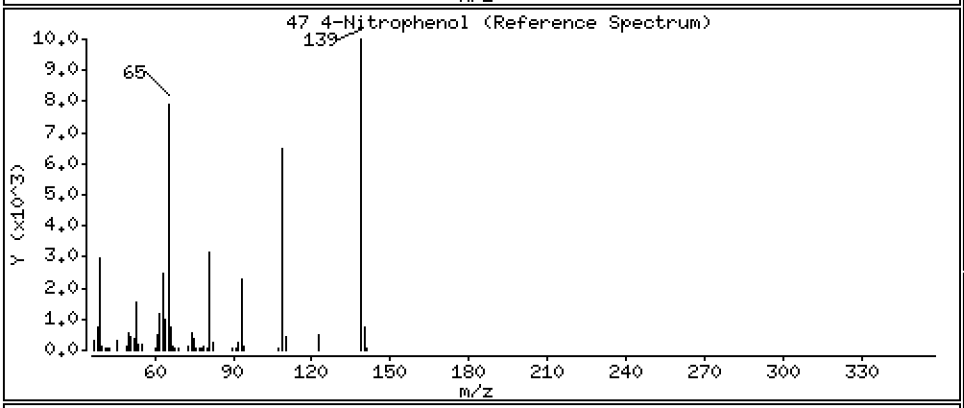
Concentration: 14.95 ug/mL

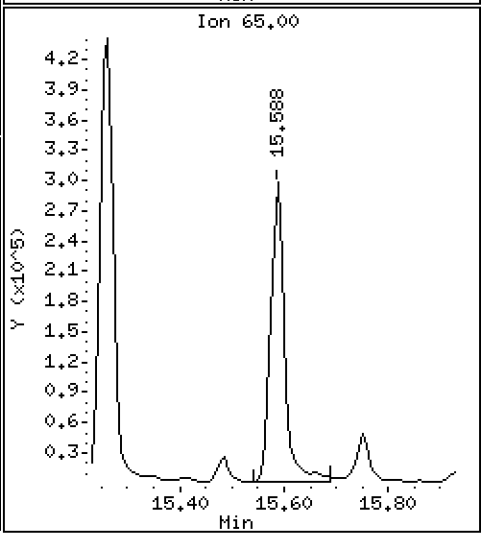


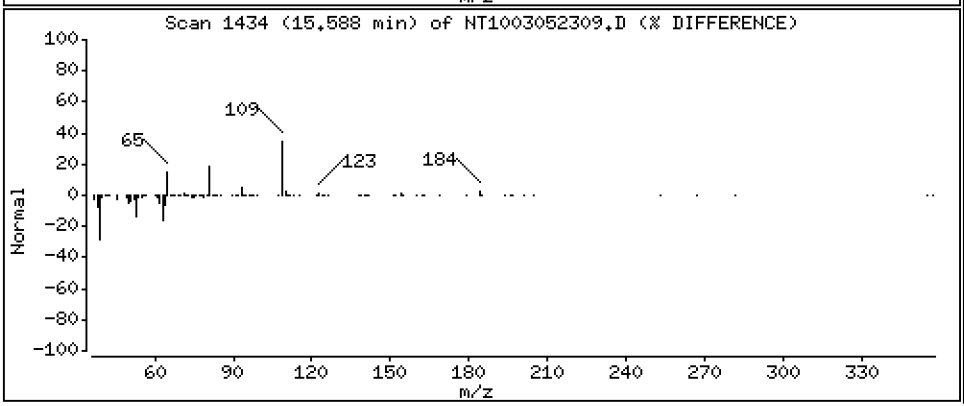












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

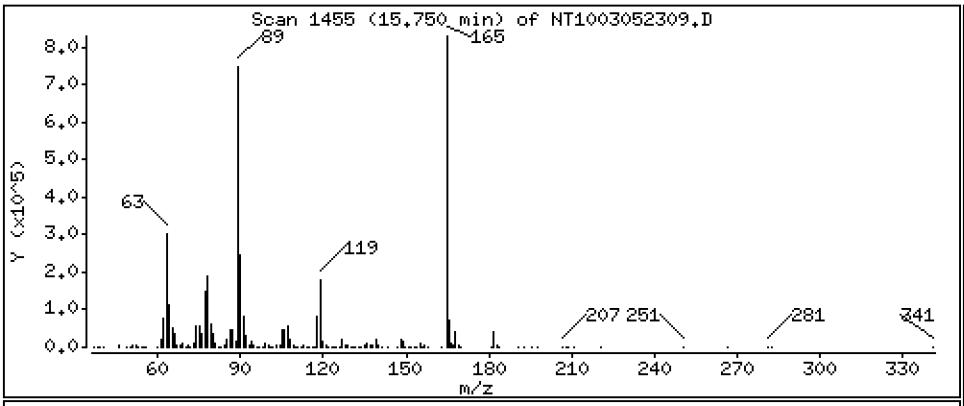
Operator: VTS

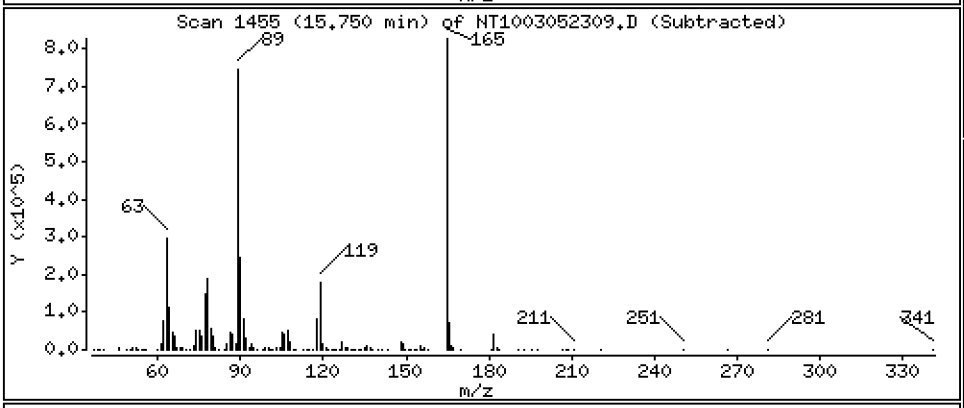
Column phase: ZB-5msi

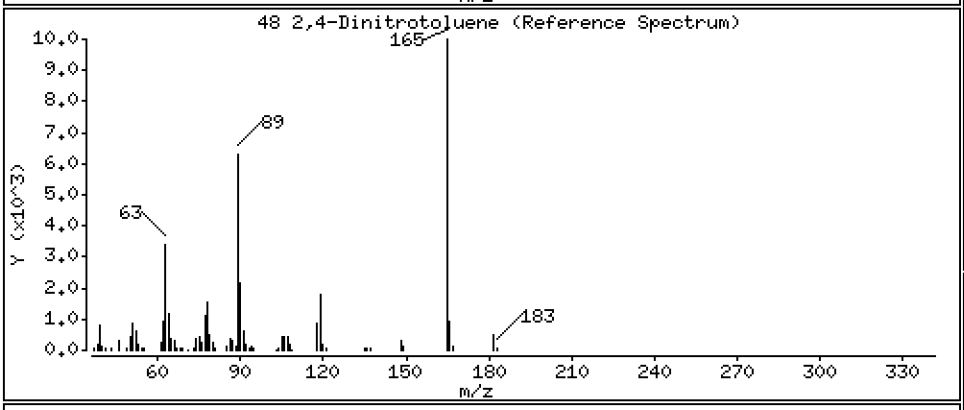
Column diameter: 0.25

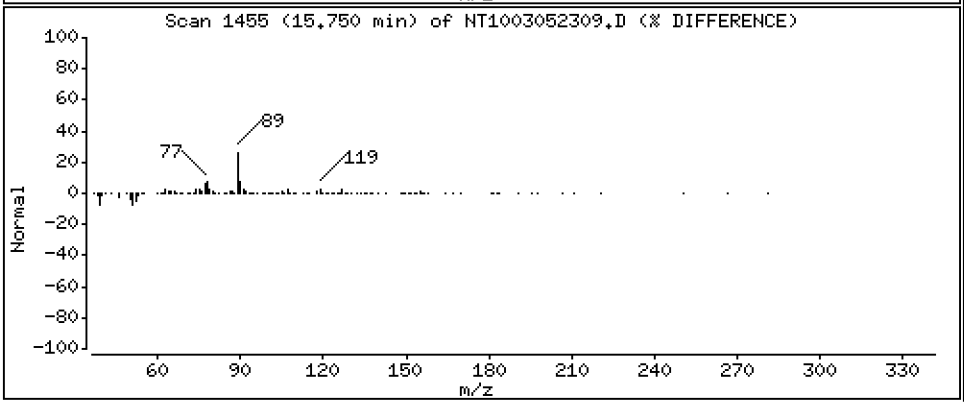
48 2,4-Dinitrotoluene

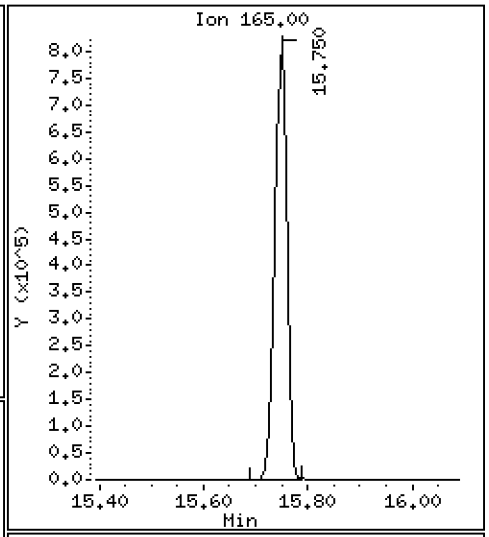
Concentration: 17.93 ug/mL

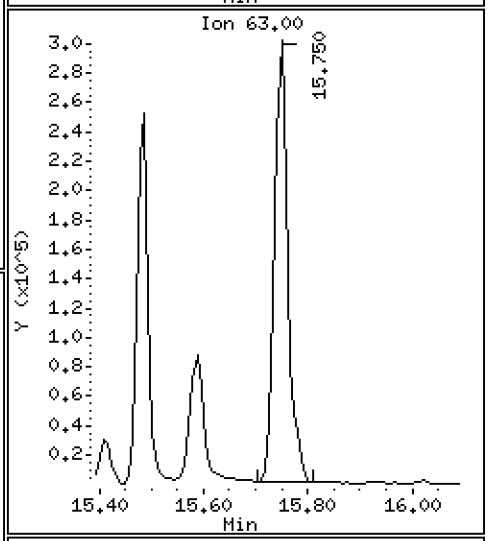


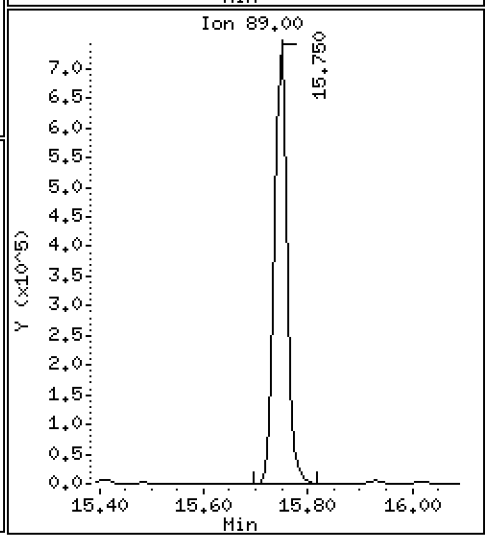












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052309.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

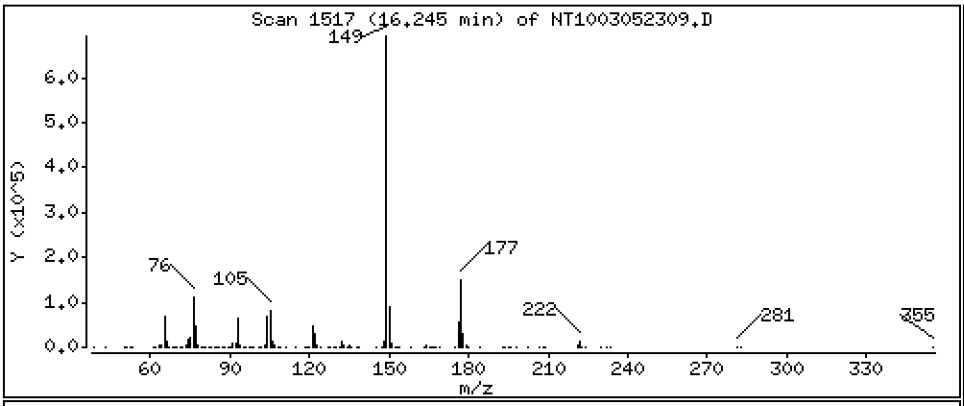
Operator: VTS

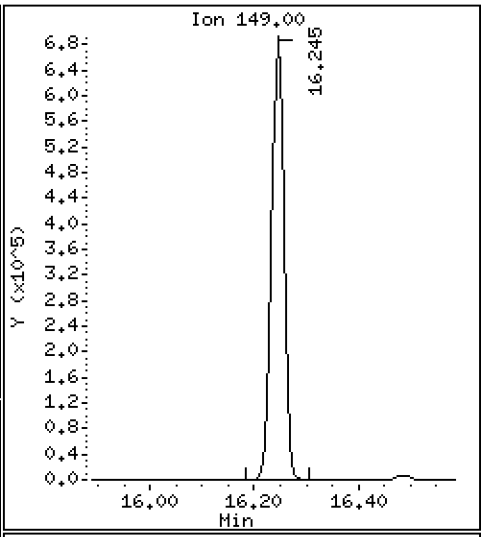
Column phase: ZB-5msi

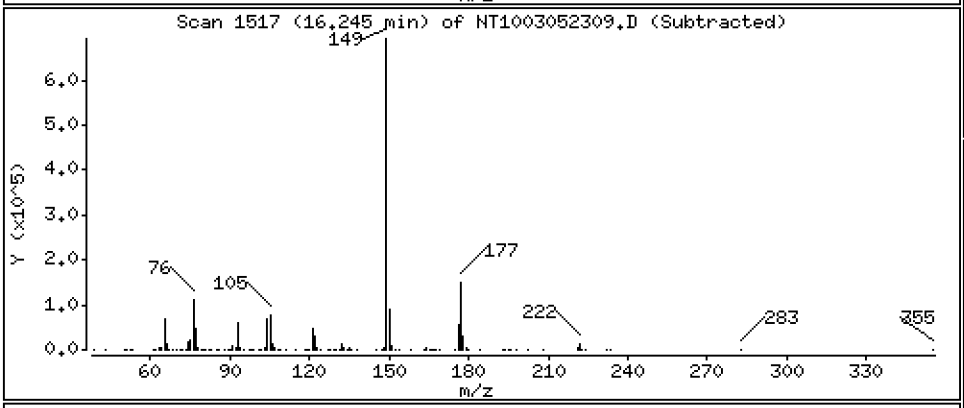
Column diameter: 0.25

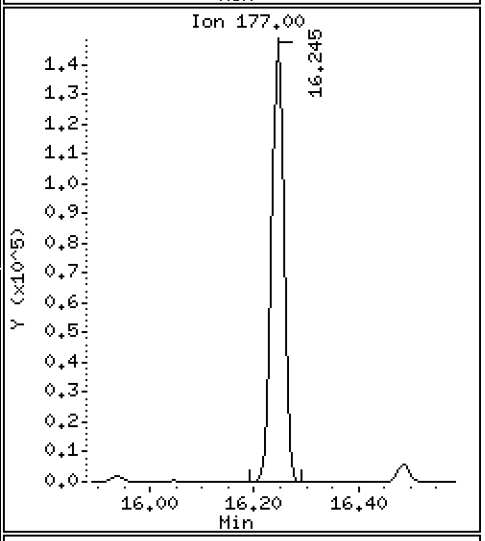
50 Diethylphthalate

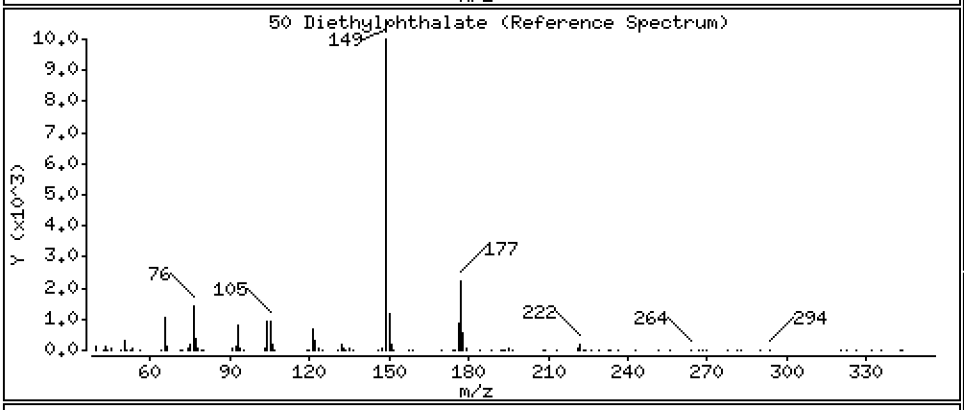
Concentration: 5.041 ug/mL

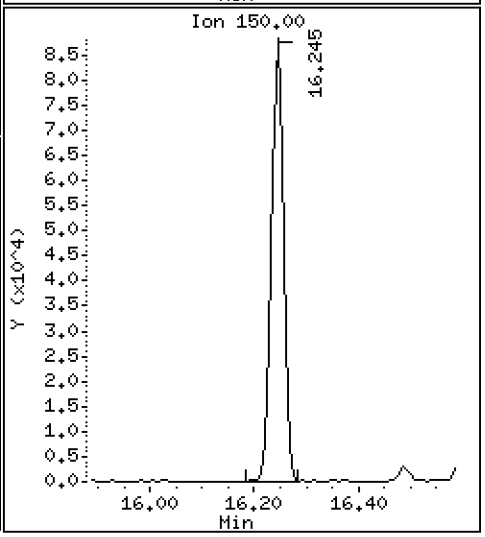


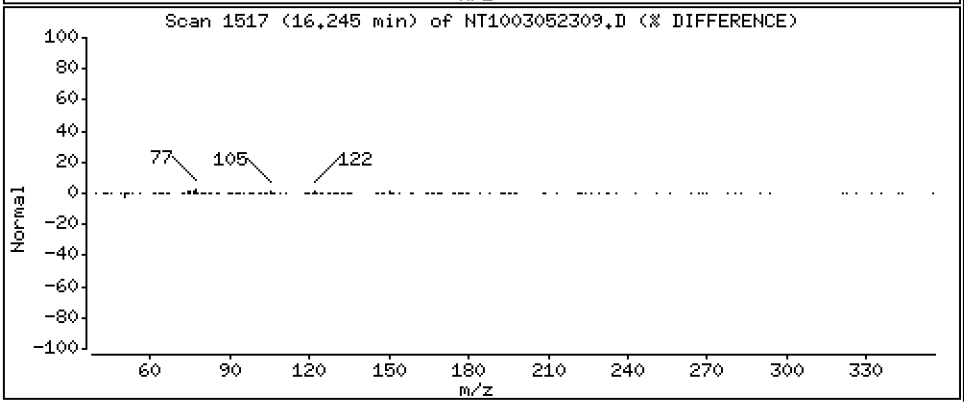












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

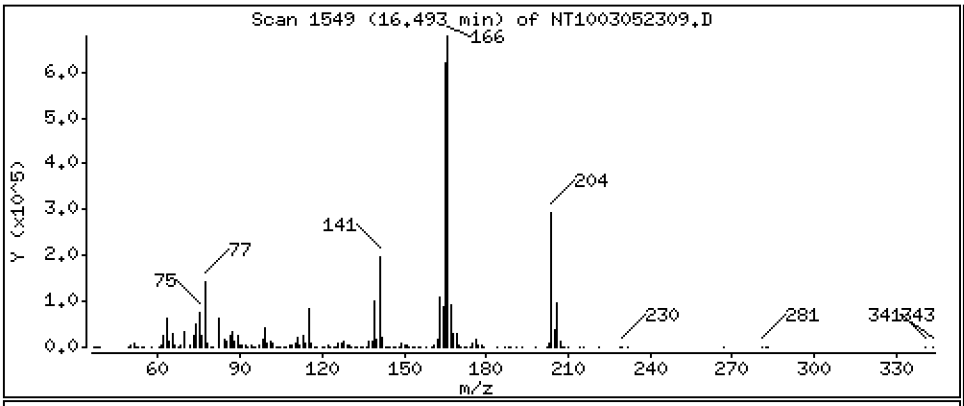
Operator: VTS

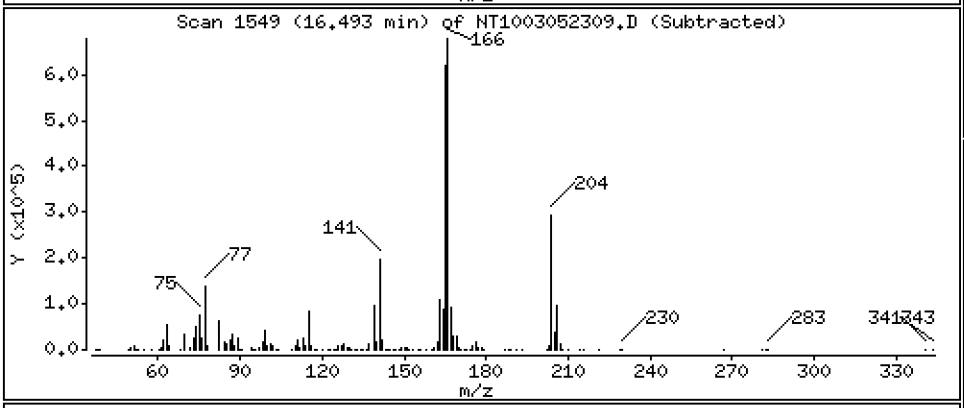
Column phase: ZB-5msi

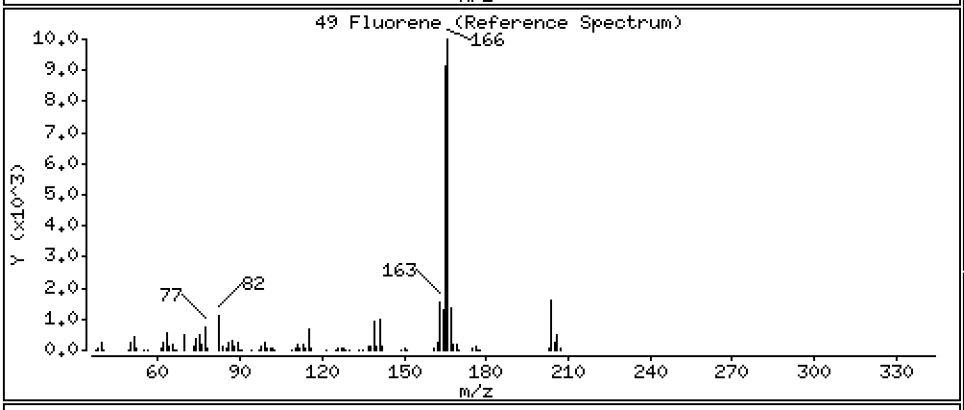
Column diameter: 0.25

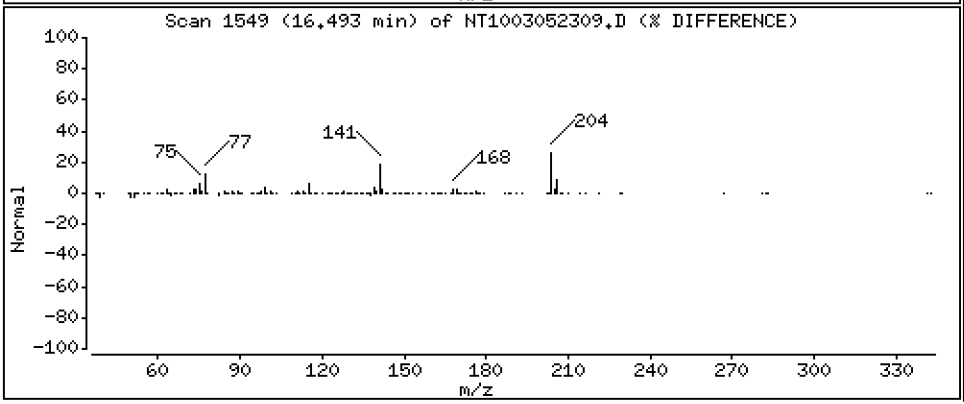
49 Fluorene

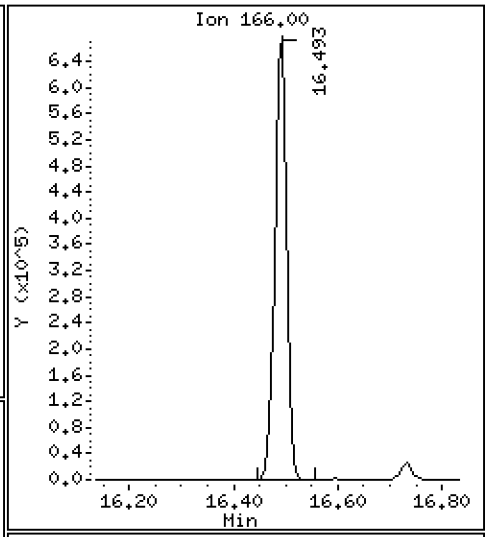
Concentration: 4.748 ug/mL

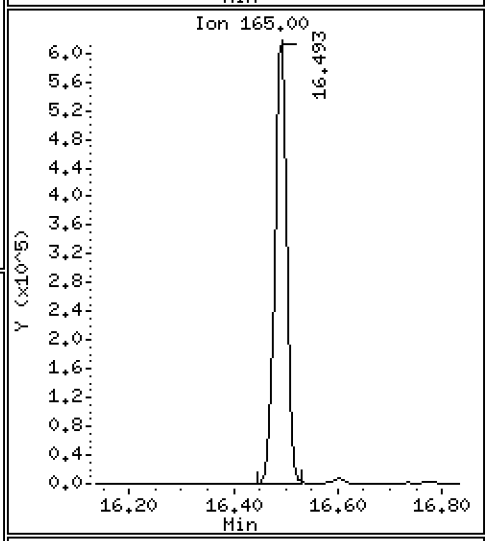


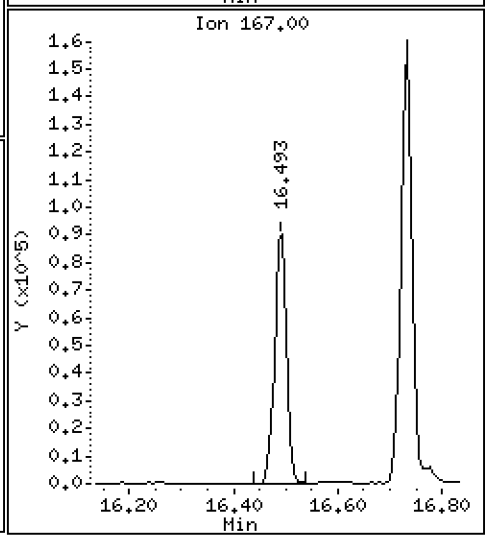












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

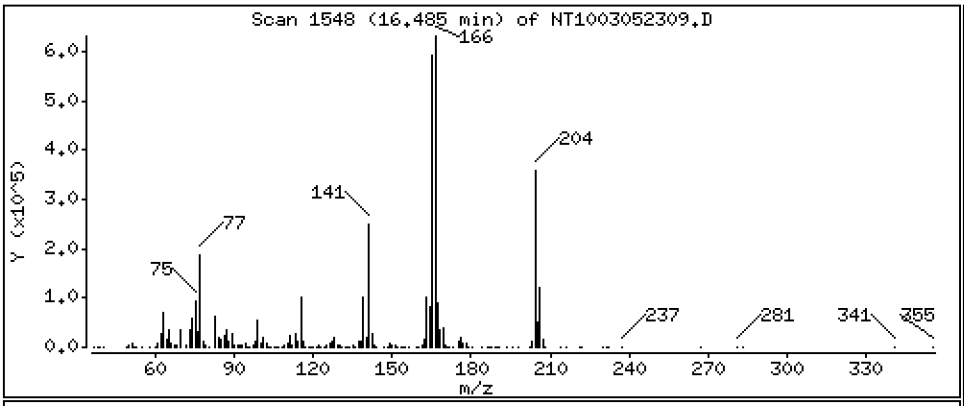
Operator: VTS

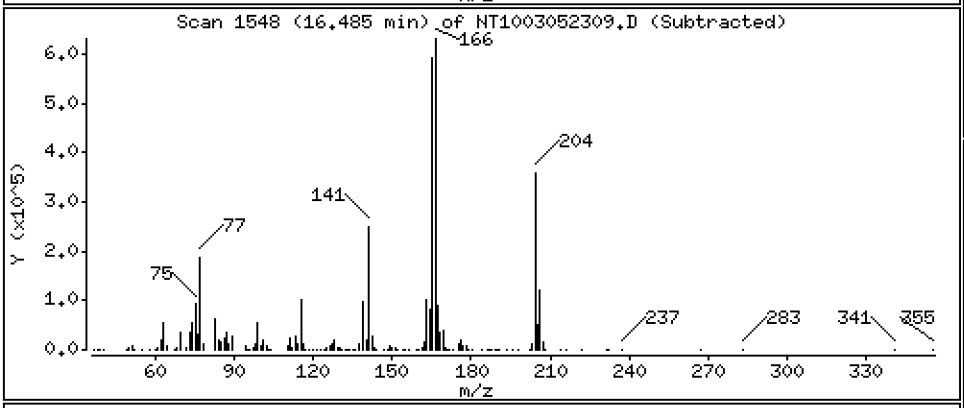
Column phase: ZB-5msi

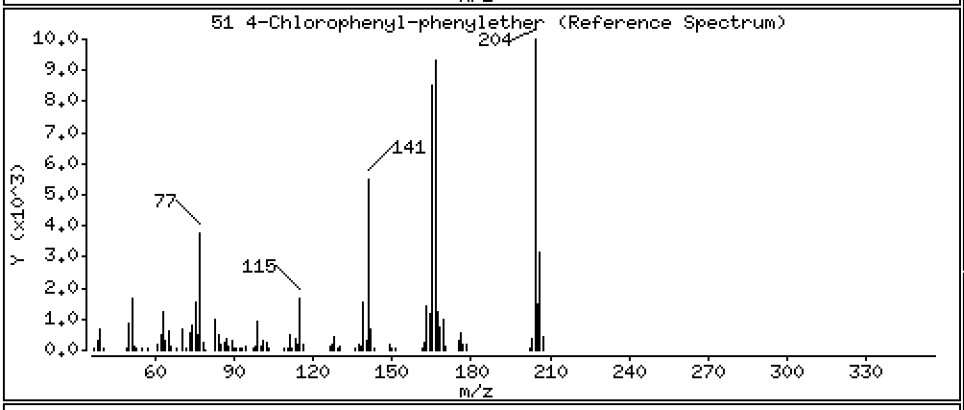
Column diameter: 0.25

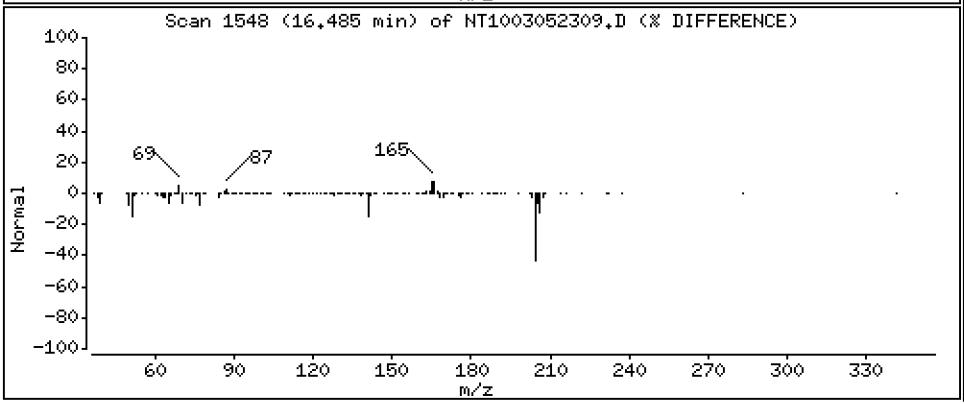
51 4-Chlorophenyl-phenylether

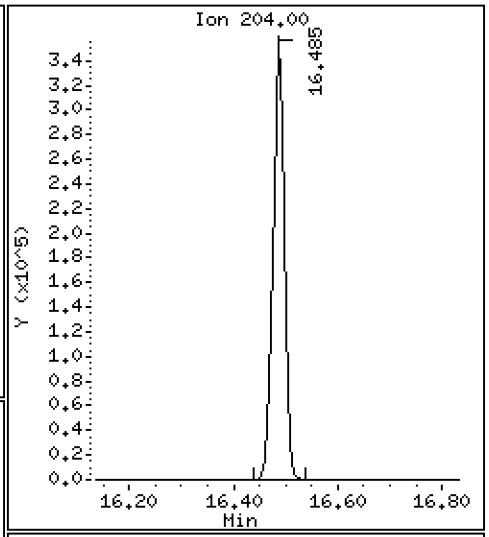
Concentration: 5.122 ug/mL

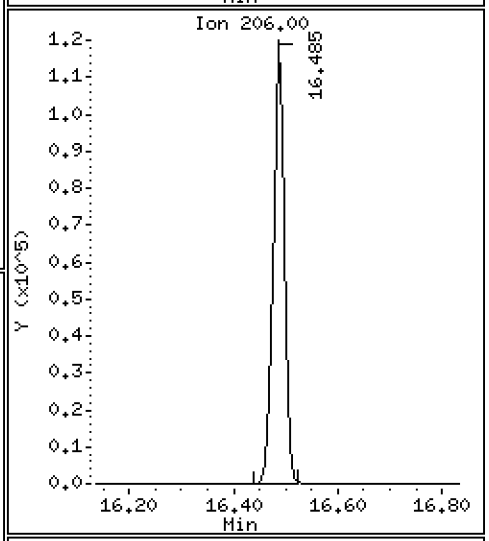


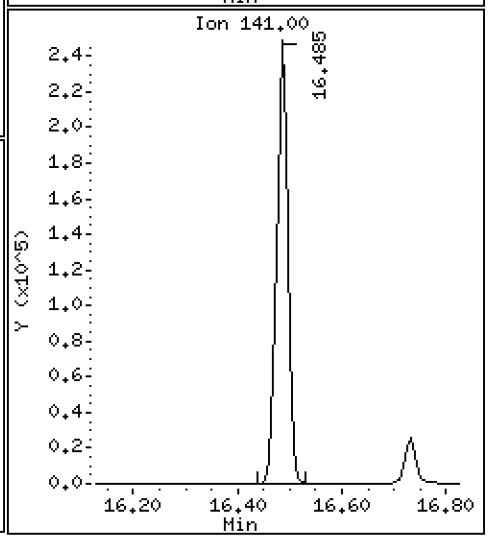












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

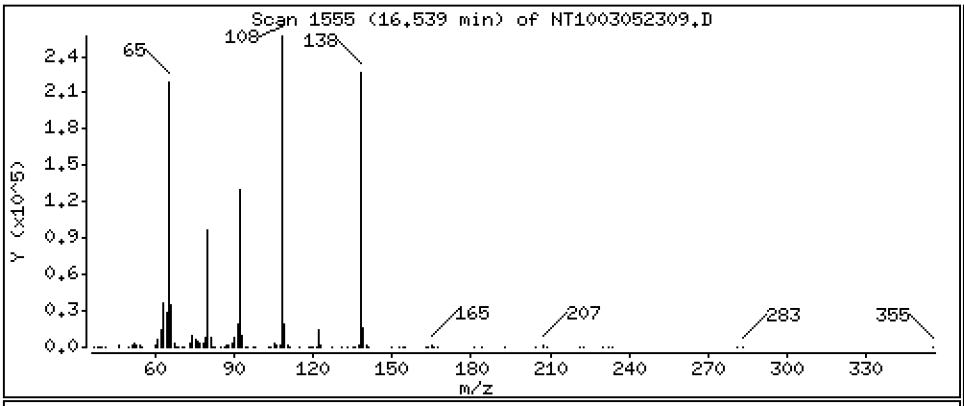
Operator: VTS

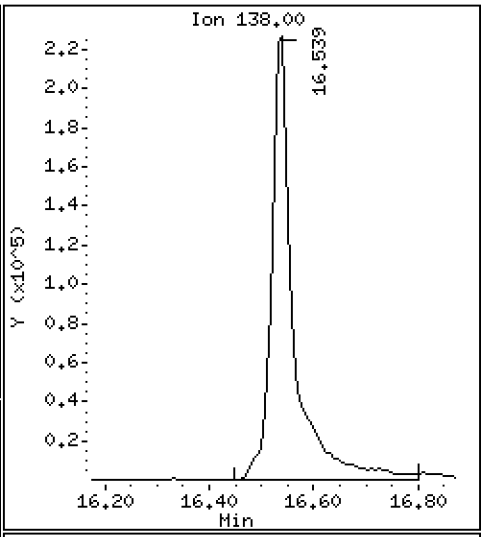
Column phase: ZB-5msi

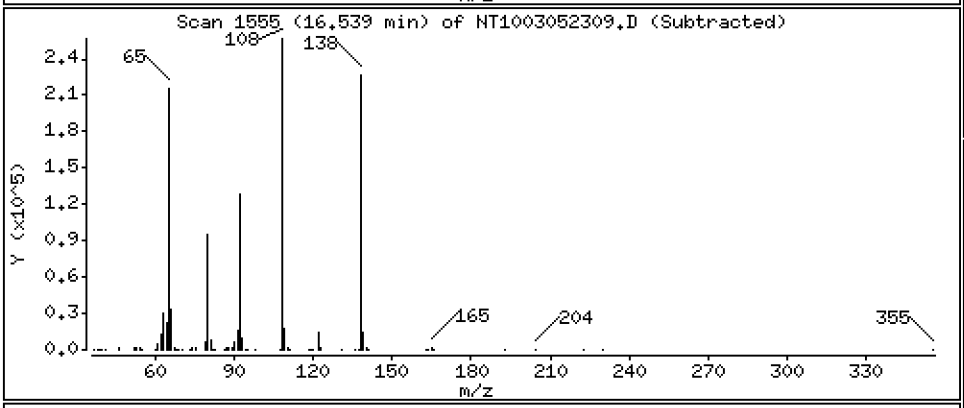
Column diameter: 0.25

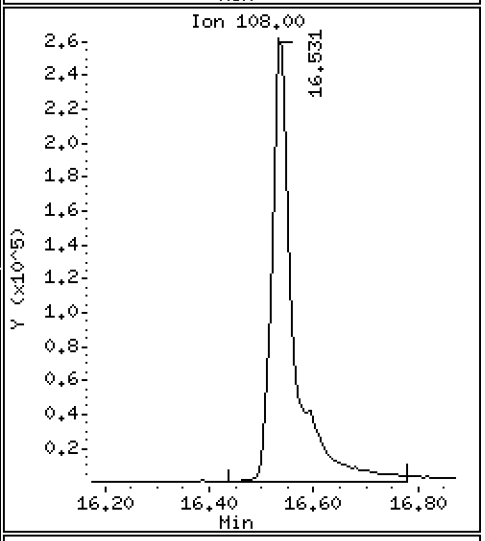
52 4-Nitroaniline

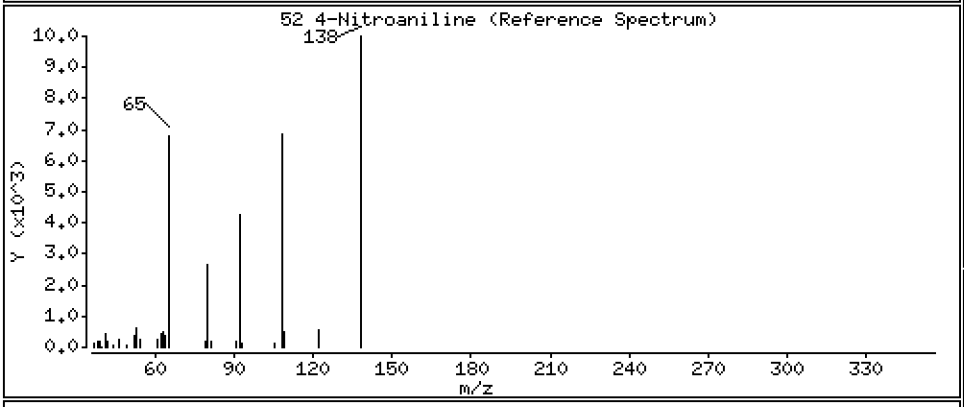
Concentration: 12.60 ug/mL

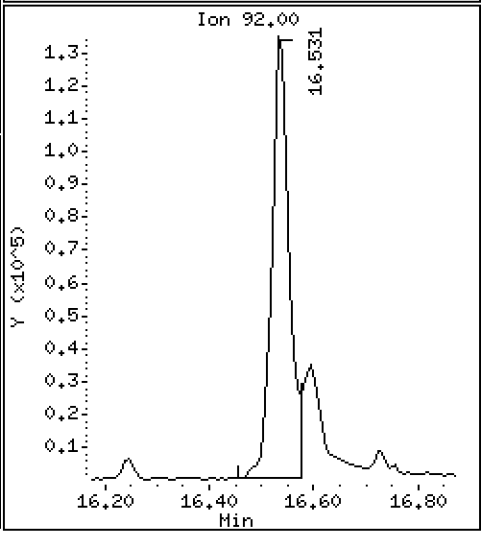


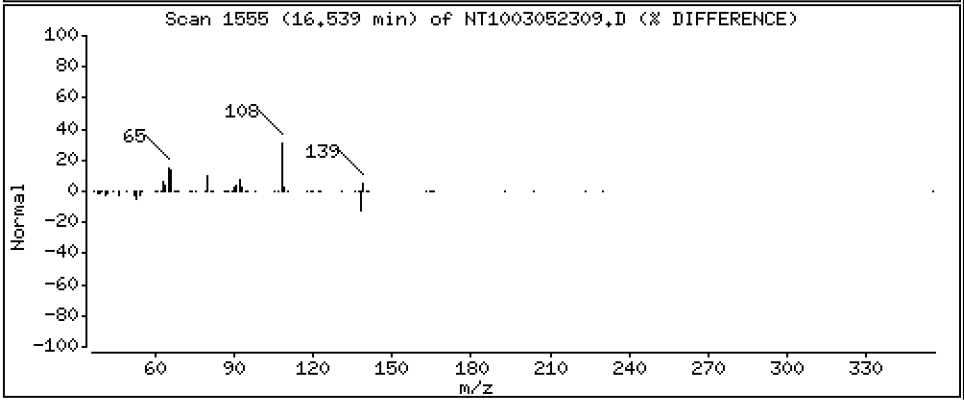












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

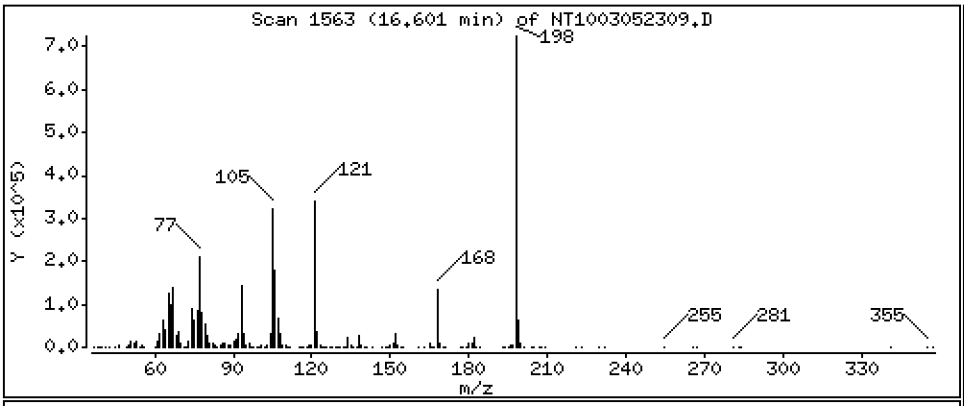
Operator: VTS

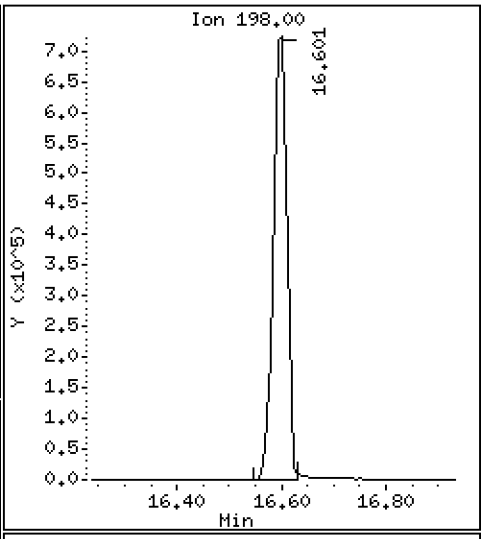
Column phase: ZB-5msi

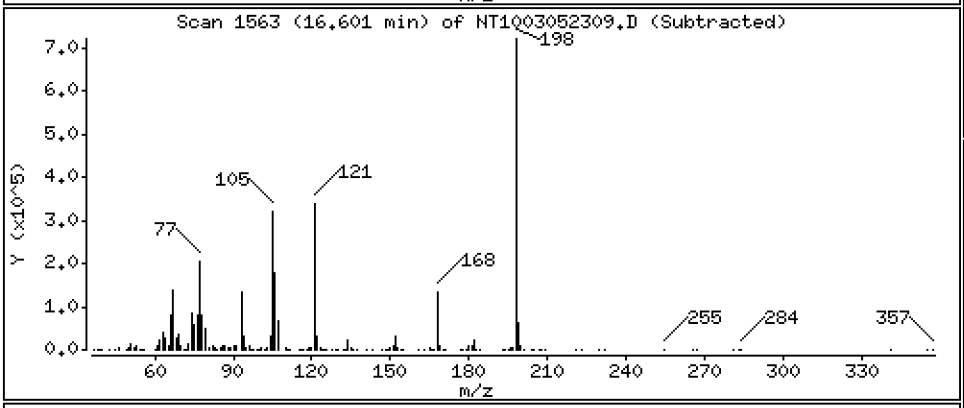
Column diameter: 0.25

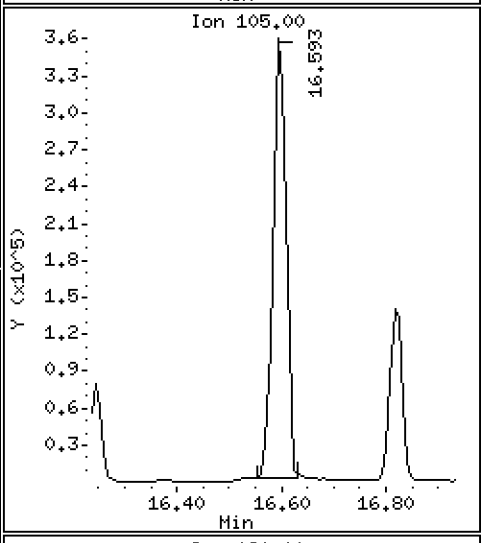
53 4,6-Dinitro-2-methylphenol

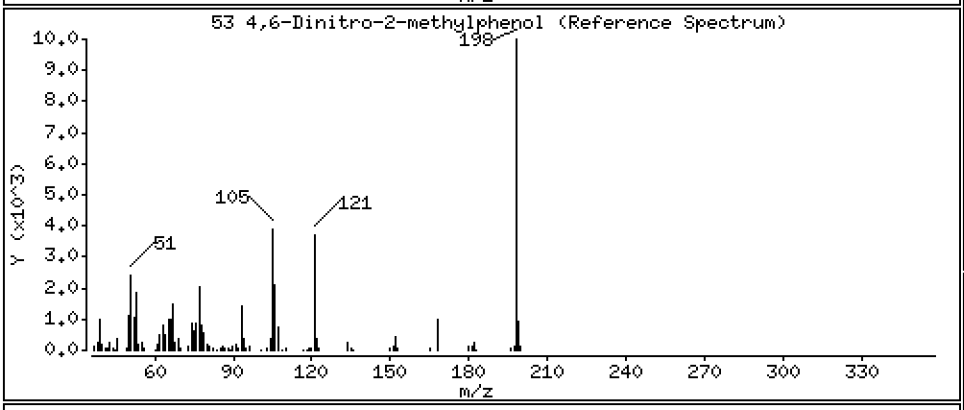
Concentration: 40.69 ug/mL

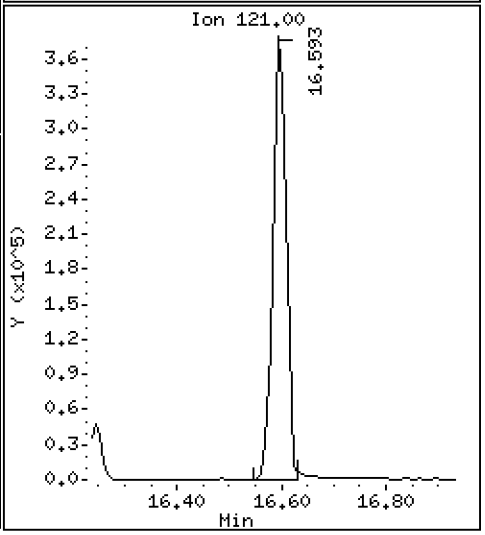


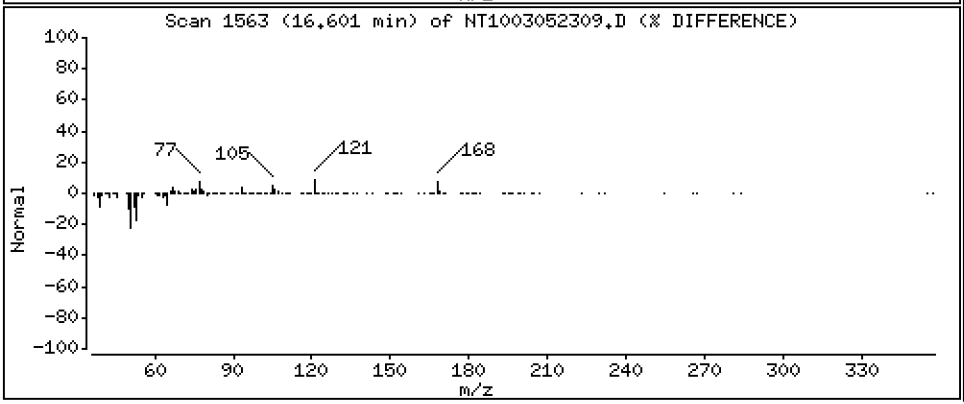












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

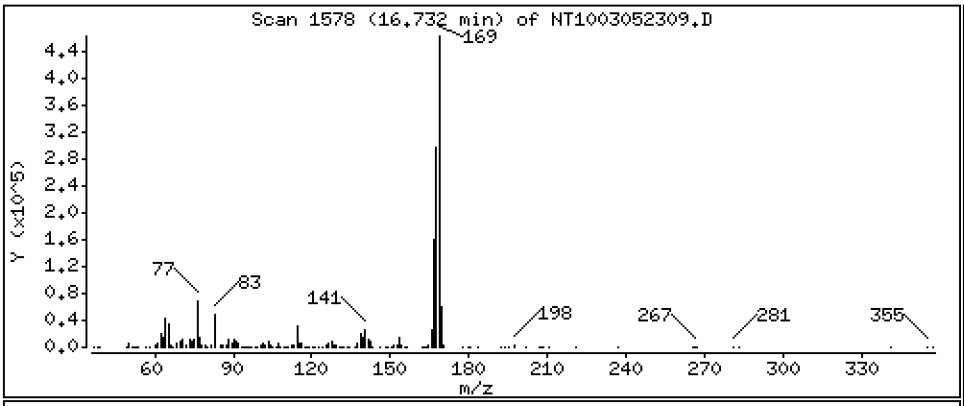
Operator: VTS

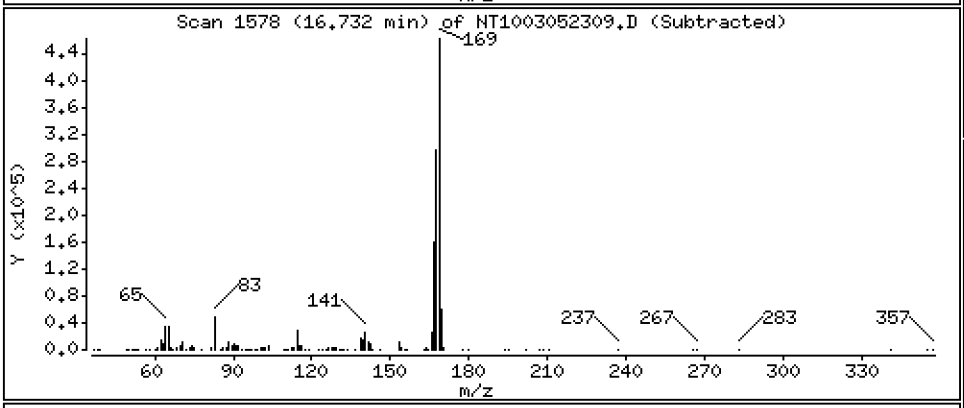
Column phase: ZB-5msi

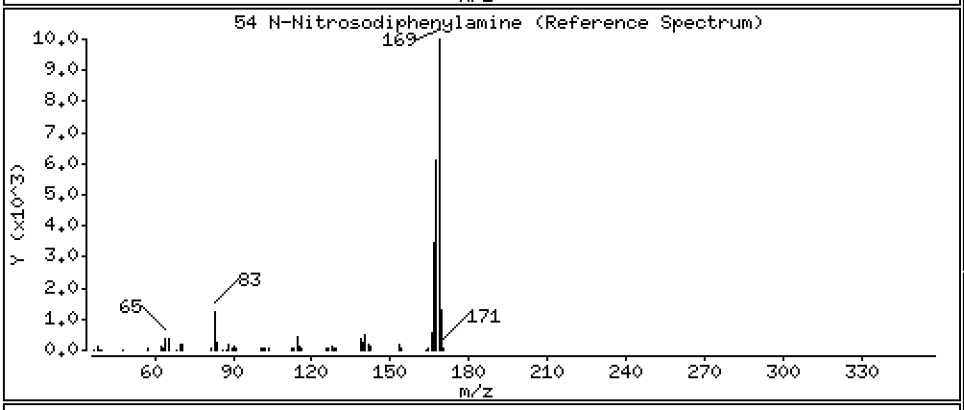
Column diameter: 0.25

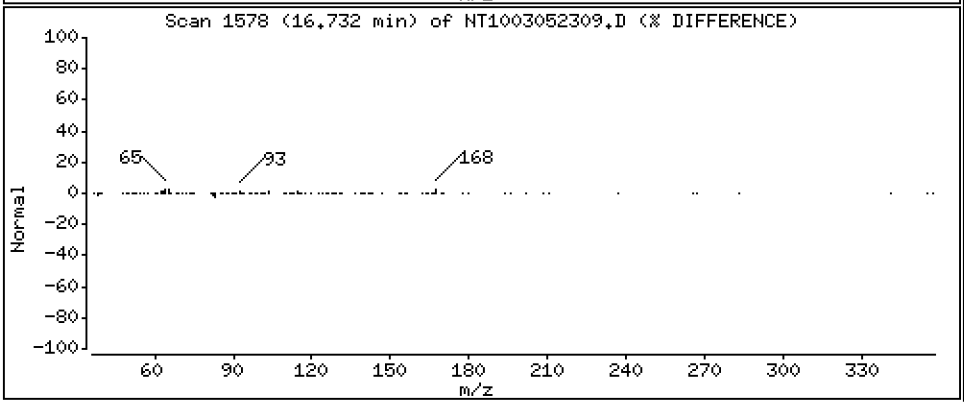
54 N-Nitrosodiphenylamine

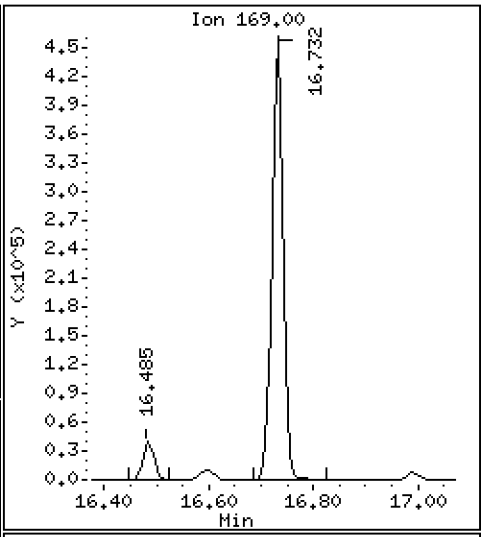
Concentration: 4.102 ug/mL

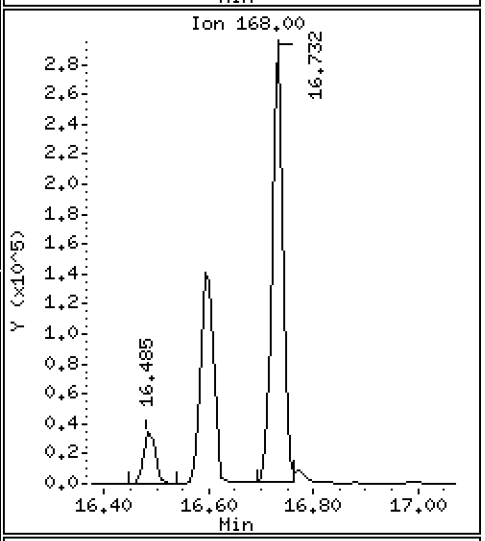


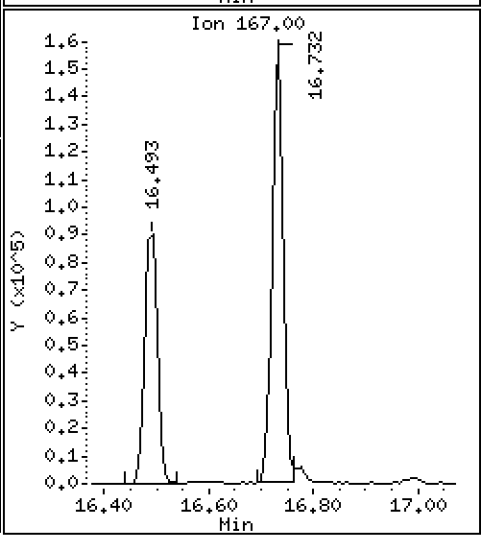












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

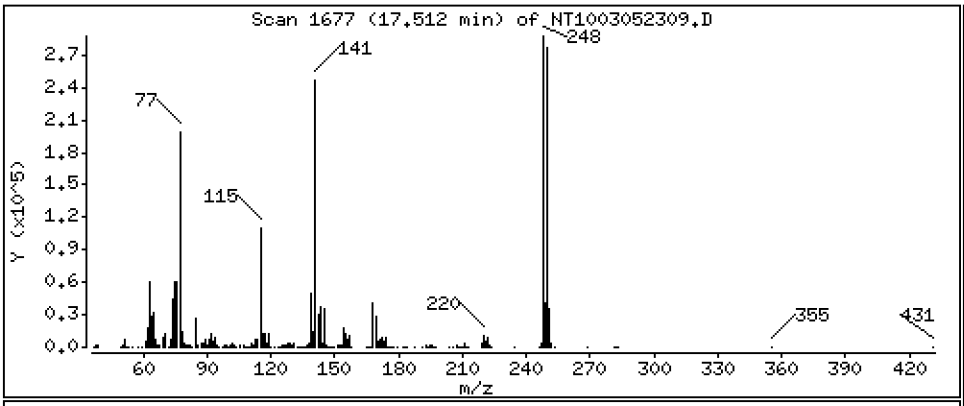
Operator: VTS

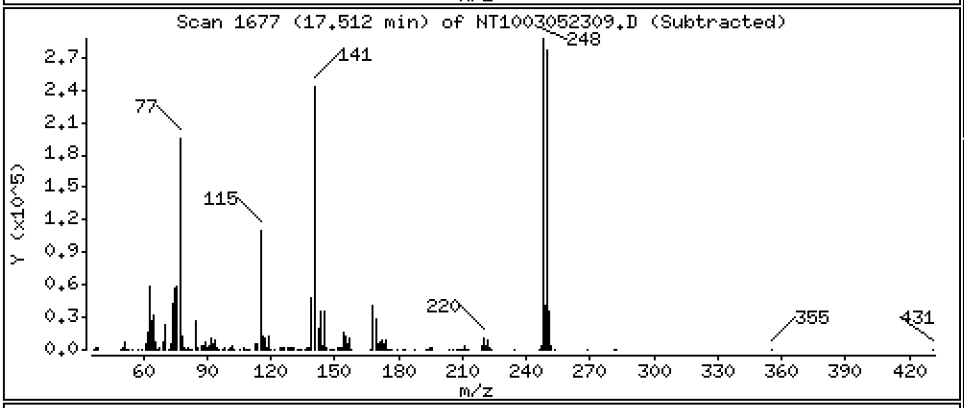
Column phase: ZB-5msi

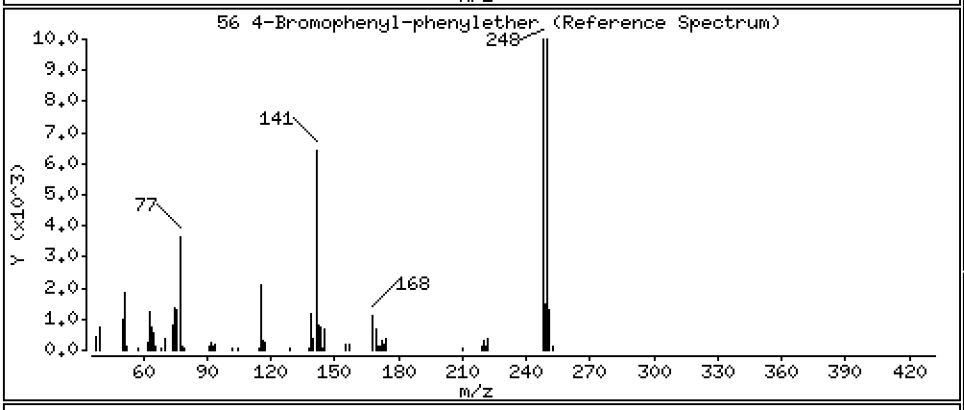
Column diameter: 0.25

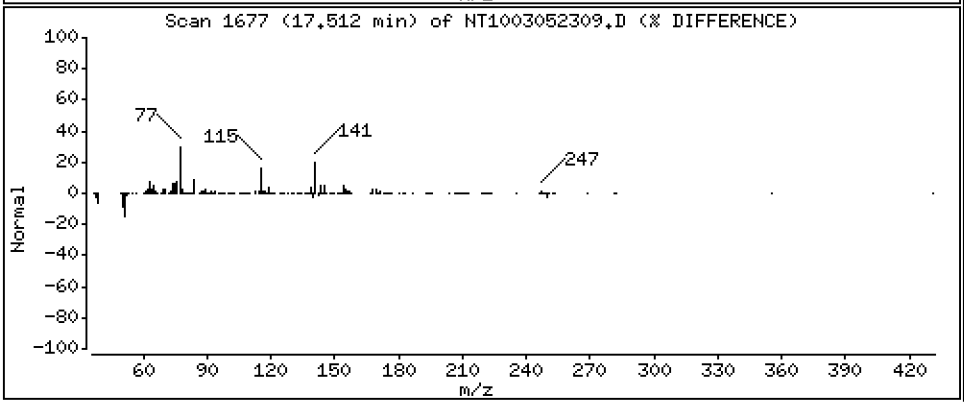
56 4-Bromophenyl-phenylether

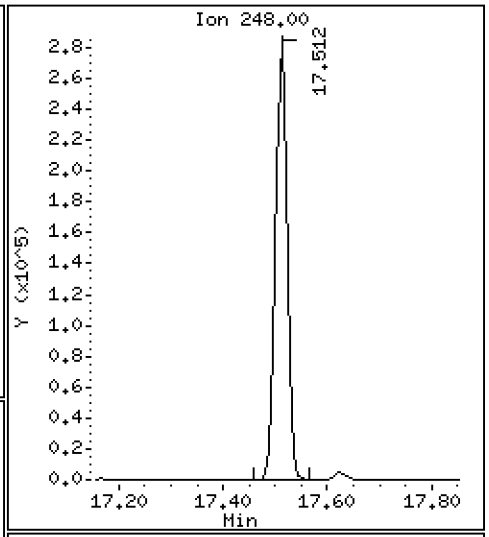
Concentration: 6.120 ug/mL

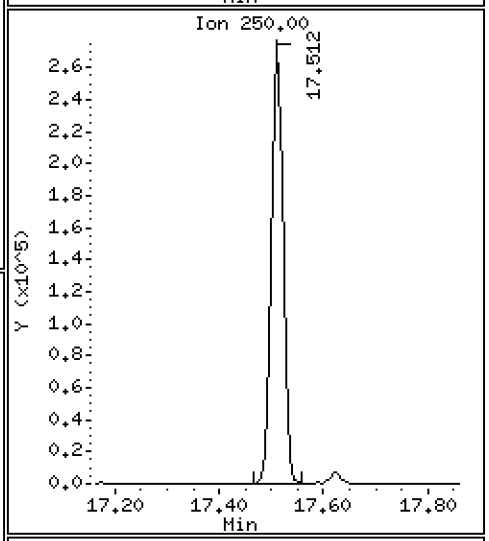


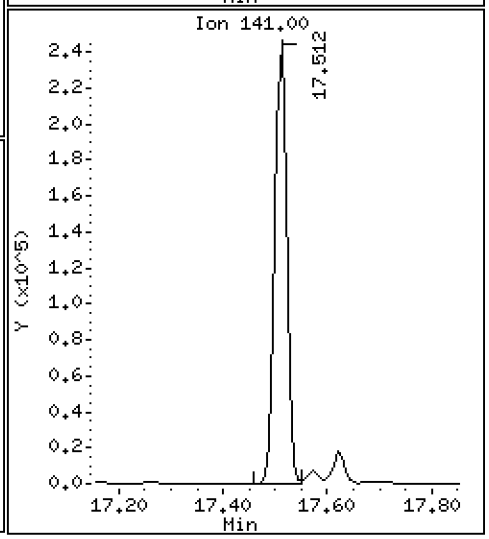












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052309.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

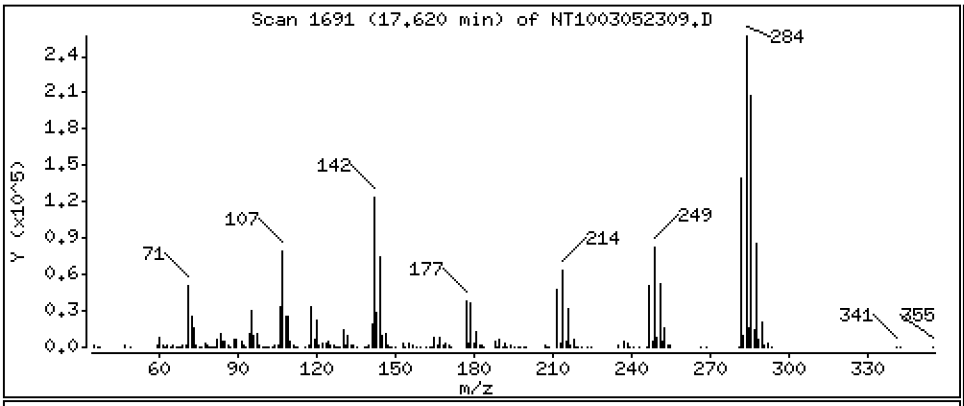
Operator: VTS

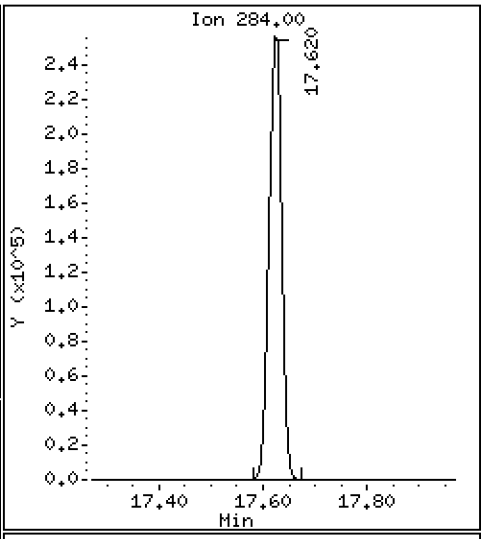
Column phase: ZB-5msi

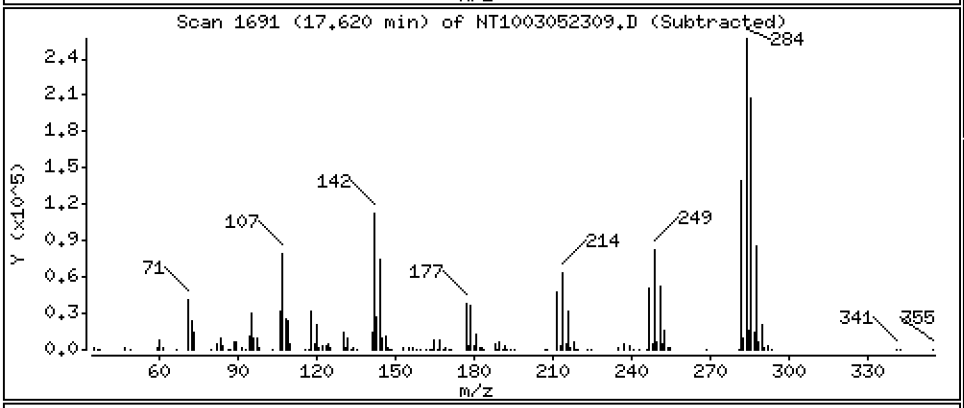
Column diameter: 0.25

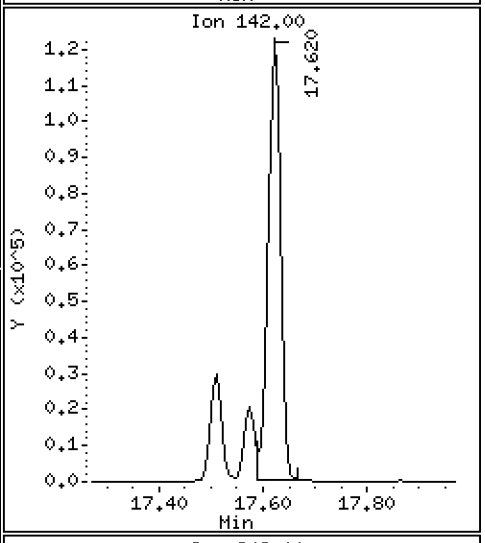
57 Hexachlorobenzene

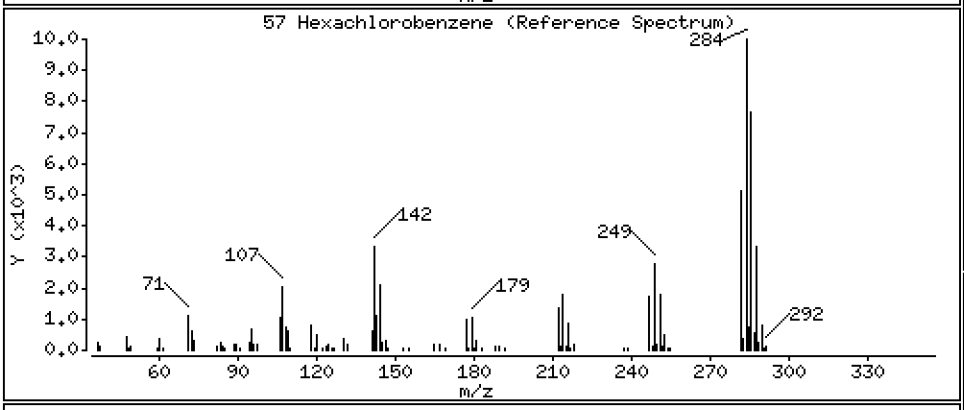
Concentration: 5.452 ug/mL

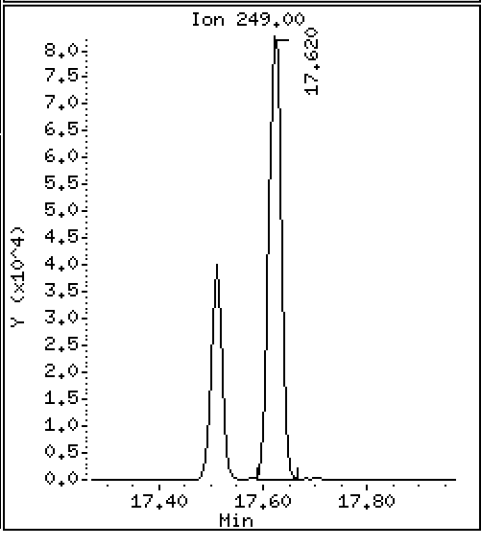


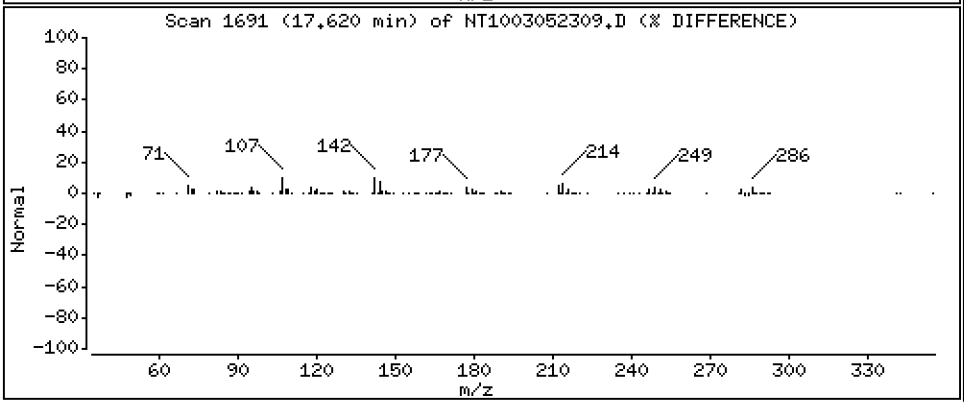












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

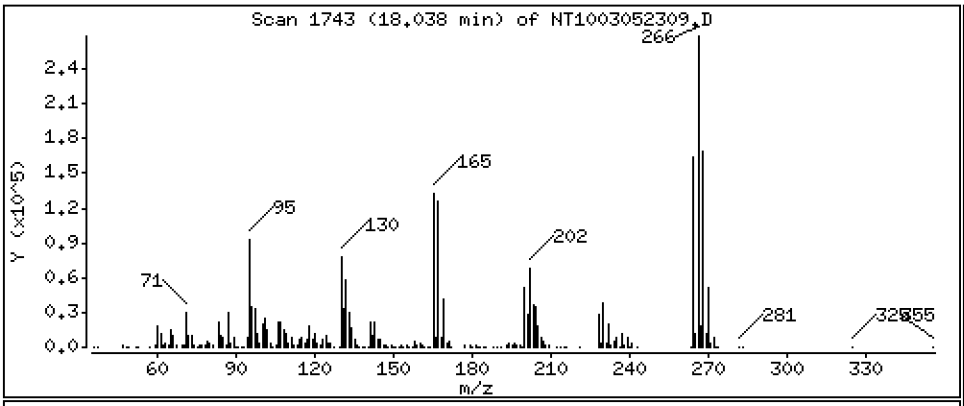
Operator: VTS

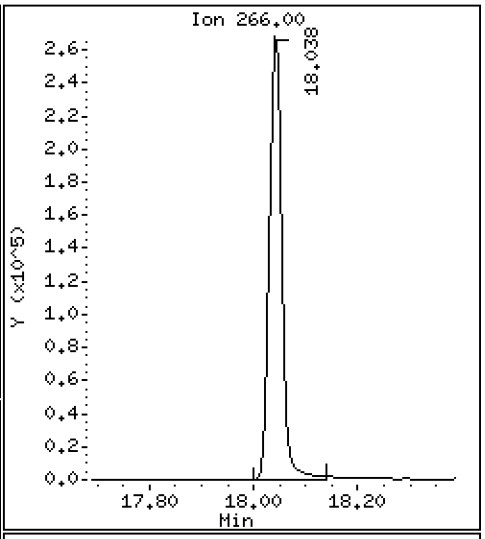
Column phase: ZB-5msi

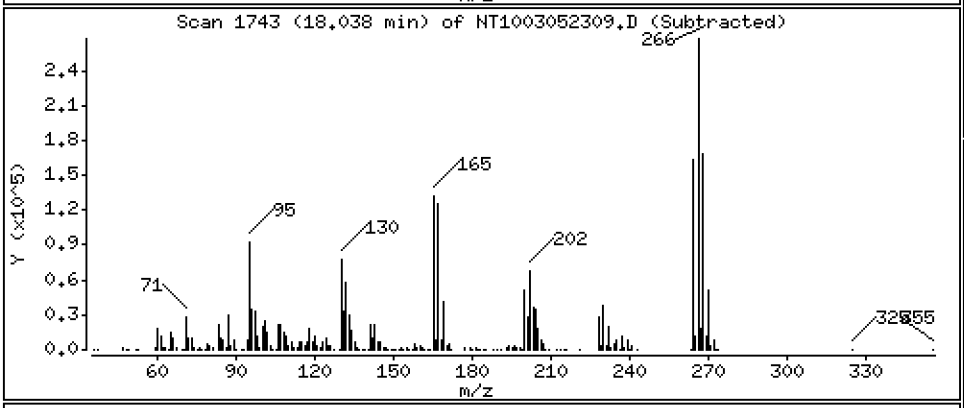
Column diameter: 0.25

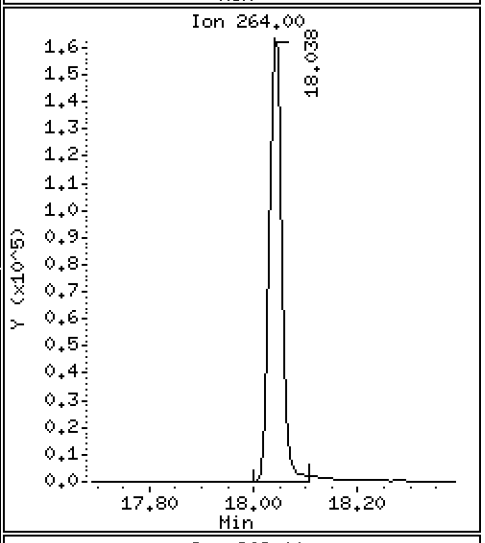
58 Pentachlorophenol

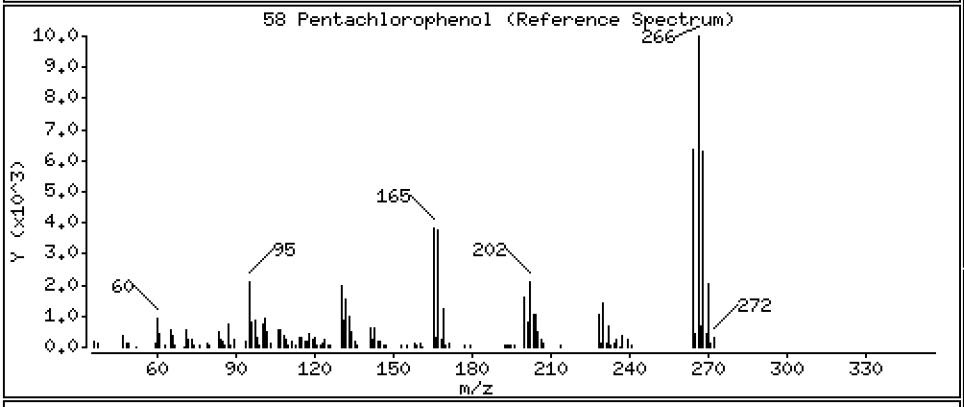
Concentration: 11.33 ug/mL

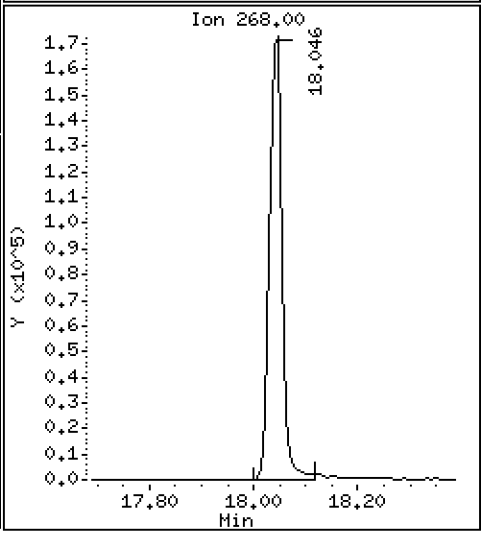


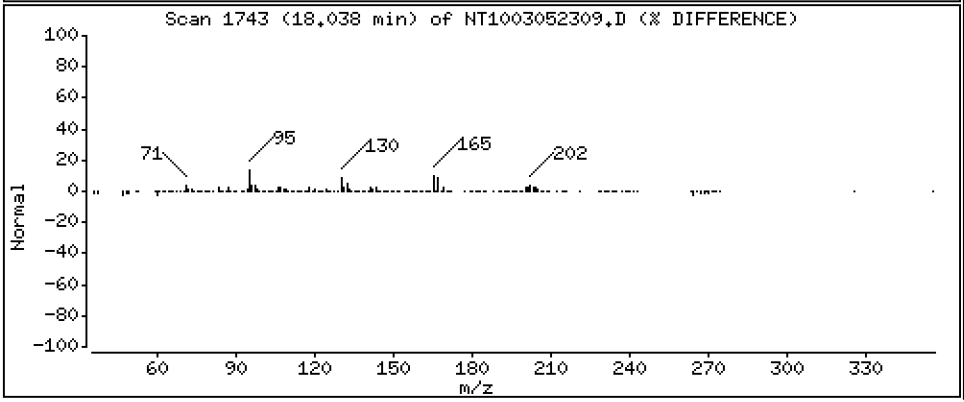












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

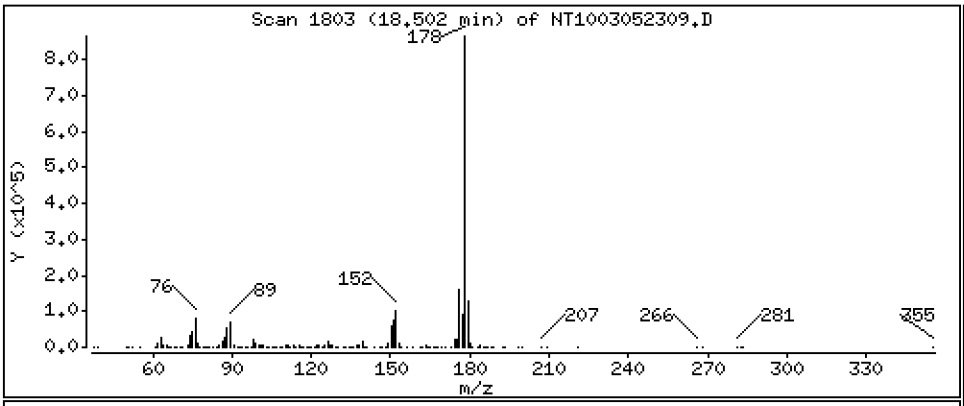
Operator: VTS

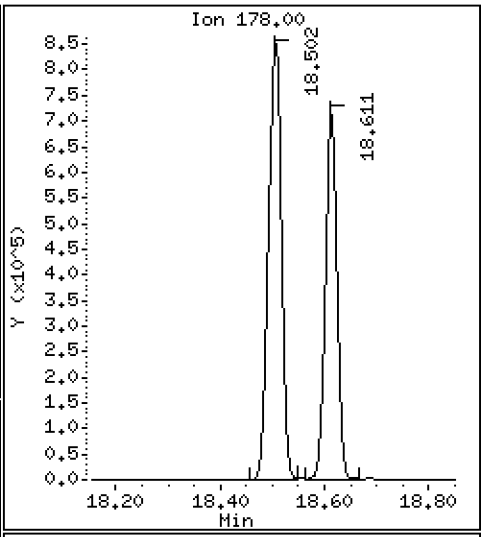
Column phase: ZB-5msi

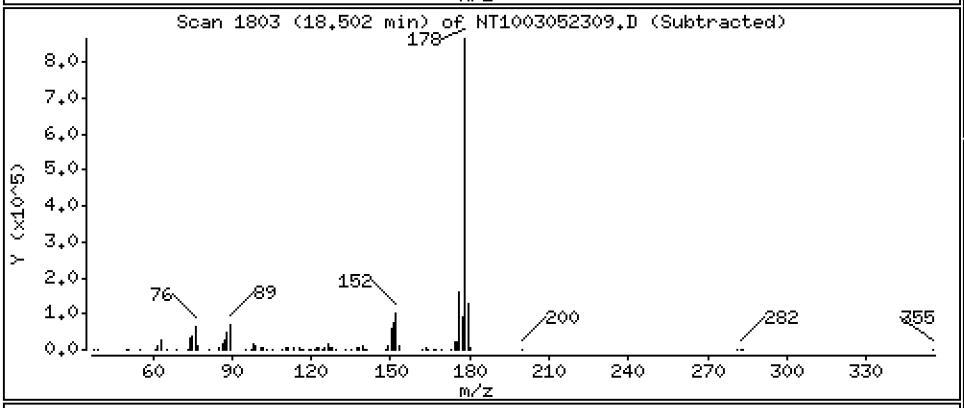
Column diameter: 0.25

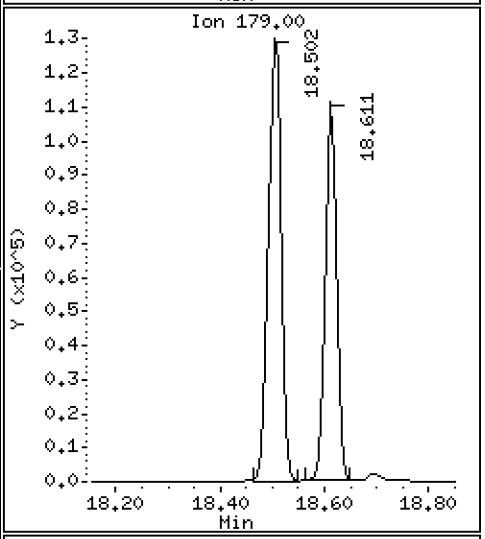
60 Phenanthrene

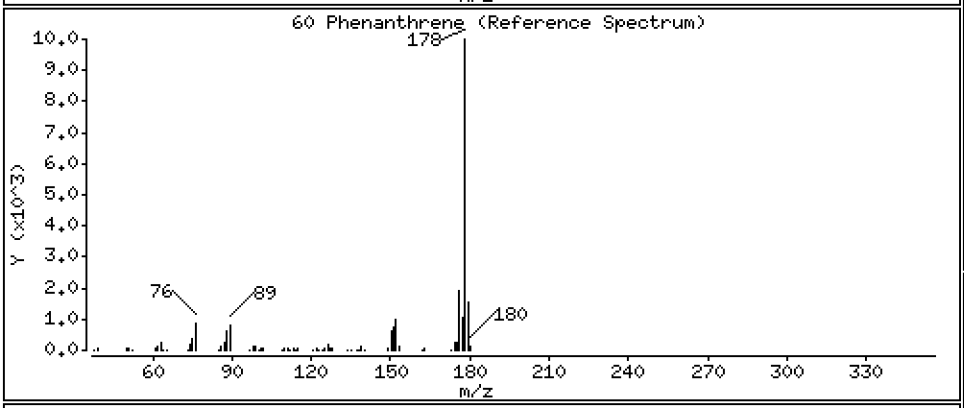
Concentration: 4.845 ug/mL

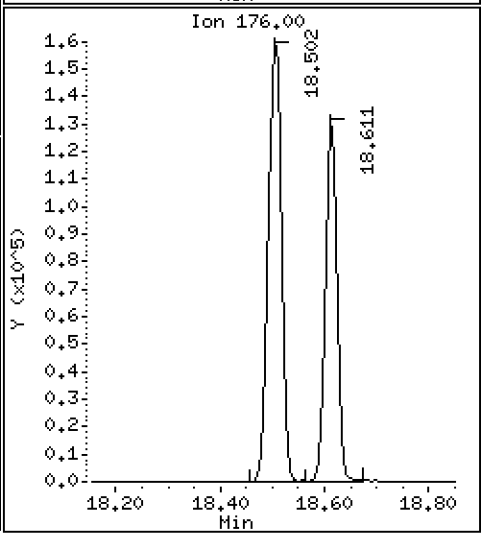


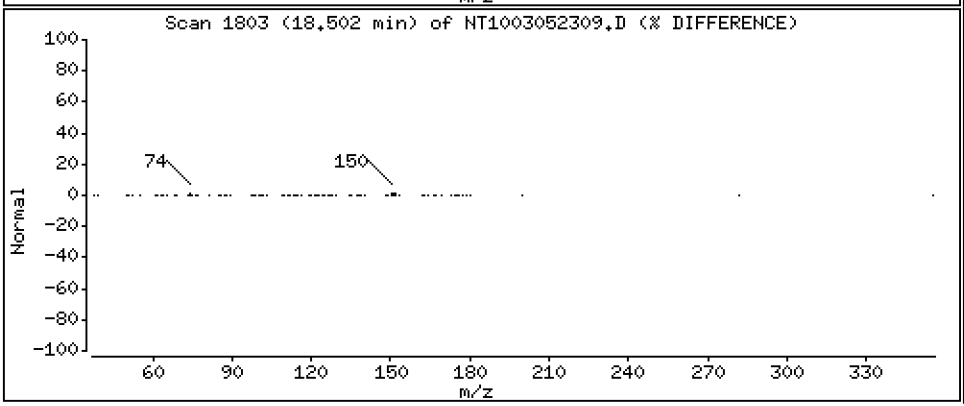












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

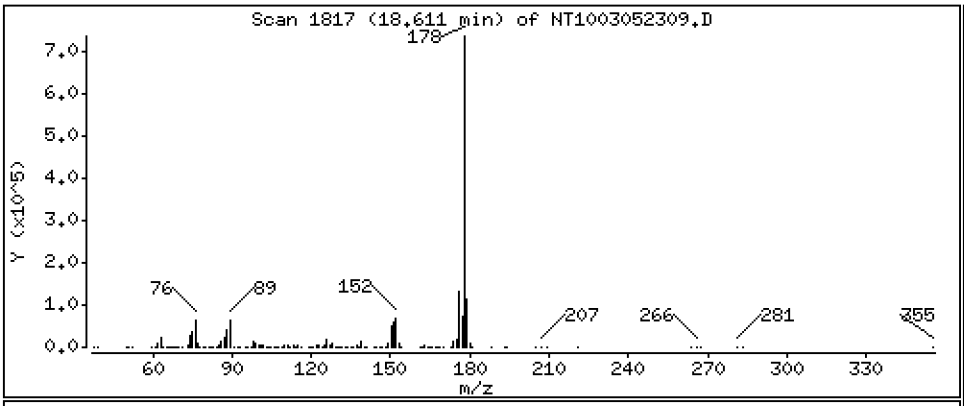
Operator: VTS

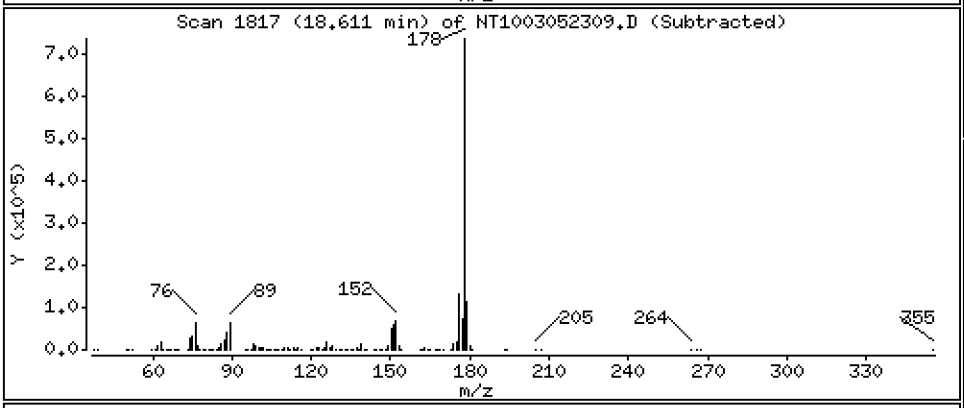
Column phase: ZB-5msi

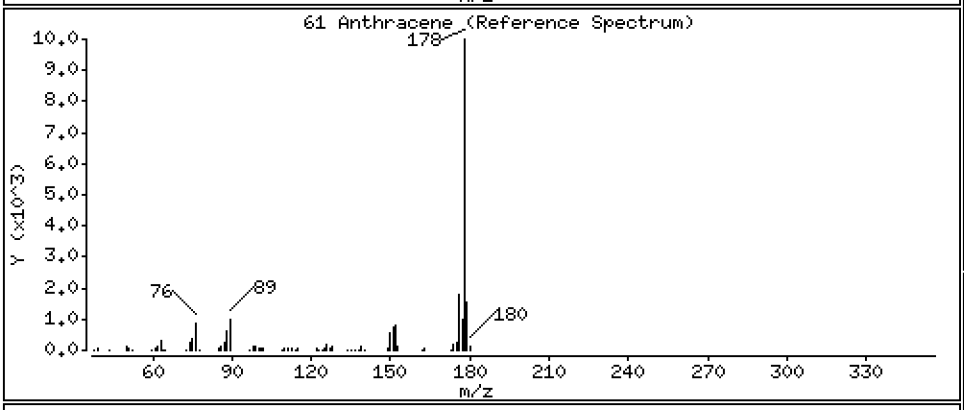
Column diameter: 0.25

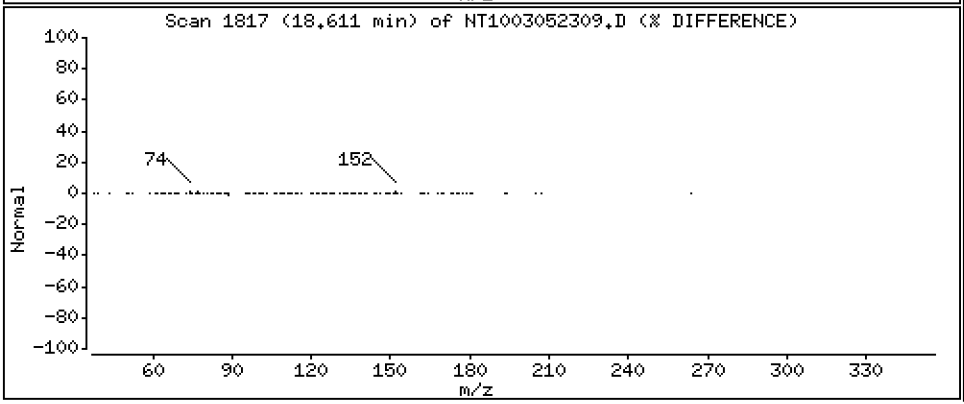
61 Anthracene

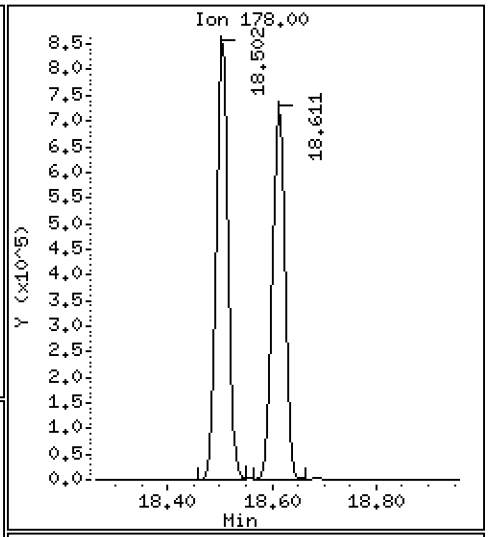
Concentration: 4.137 ug/mL

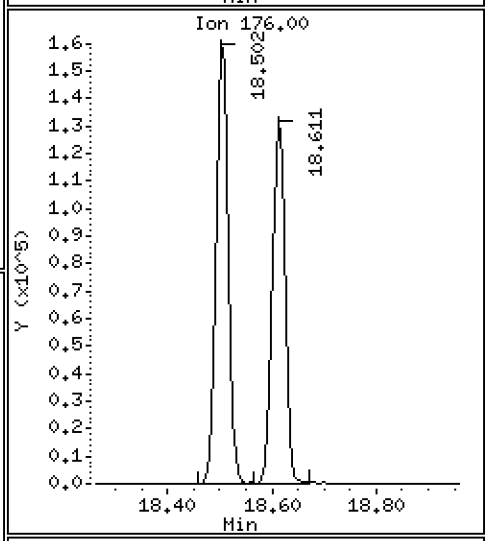


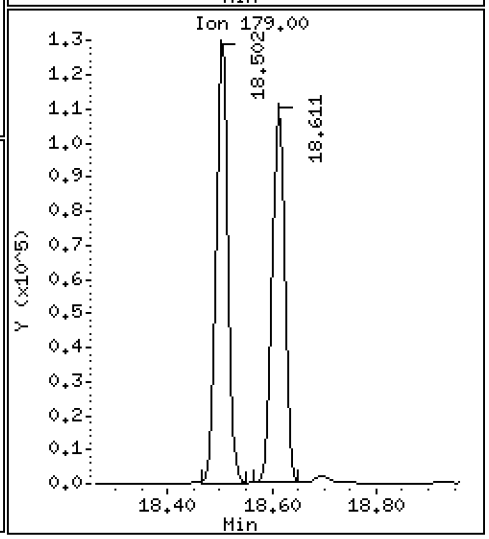












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

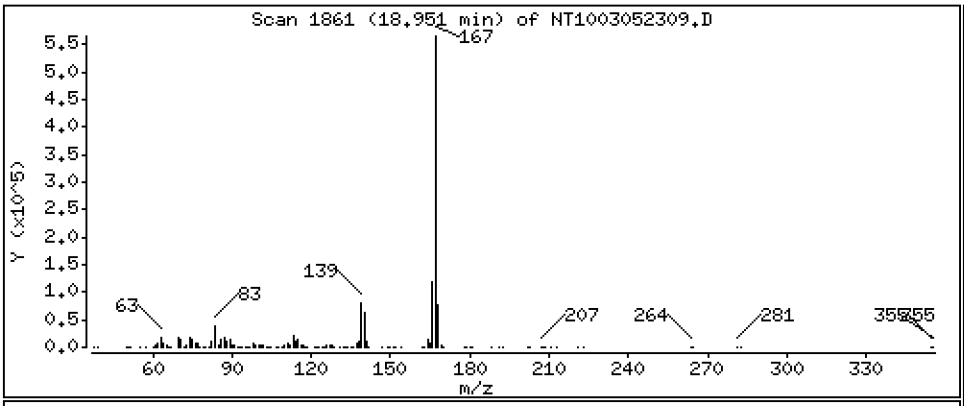
Operator: VTS

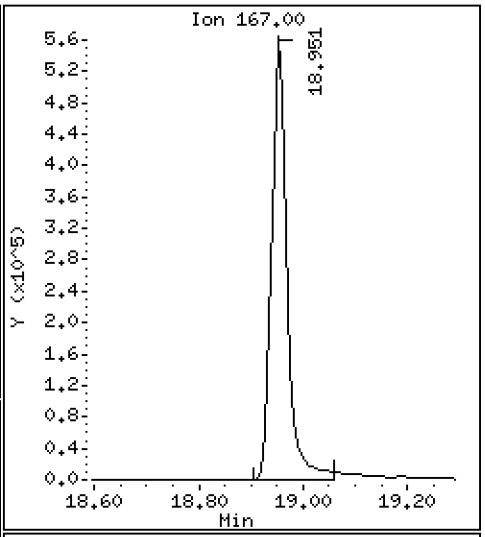
Column phase: ZB-5msi

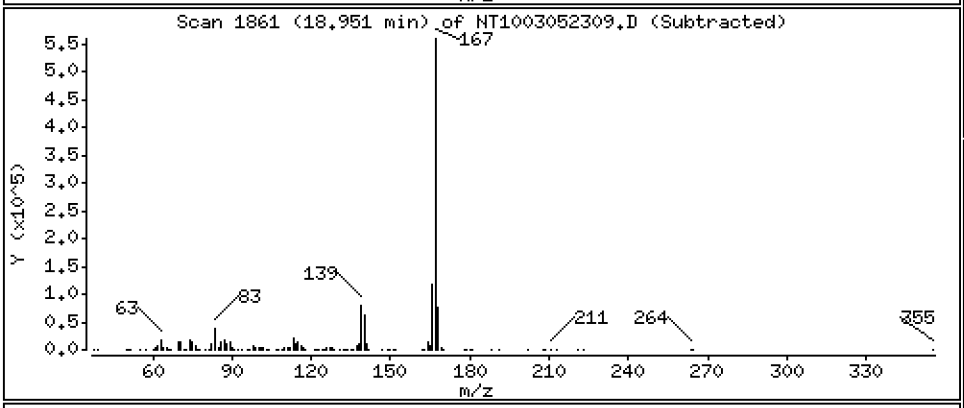
Column diameter: 0.25

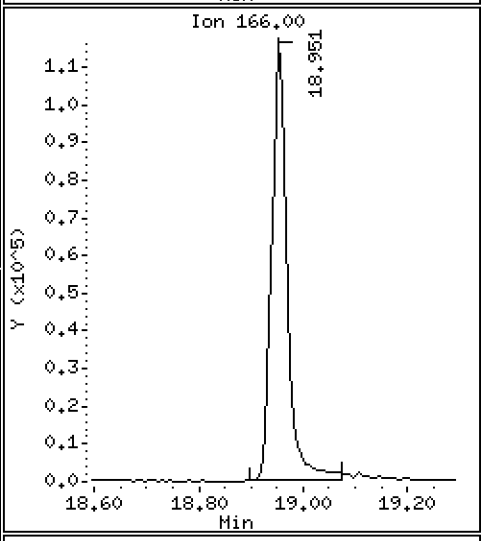
62 Carbazole

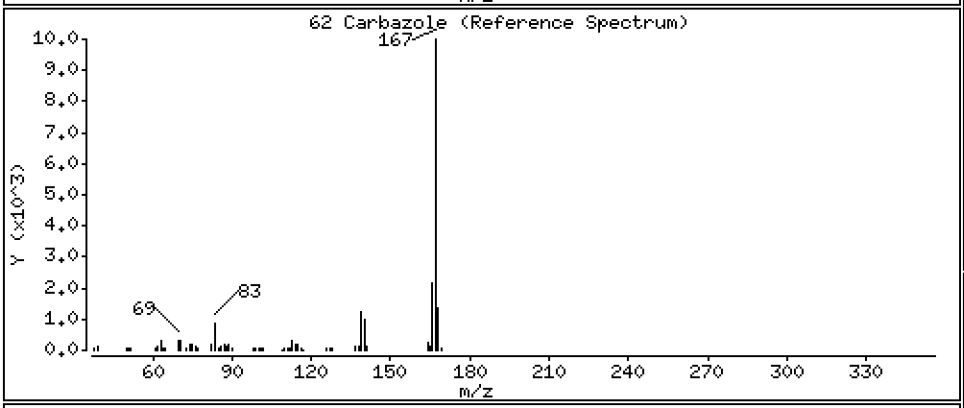
Concentration: 4.413 ug/mL

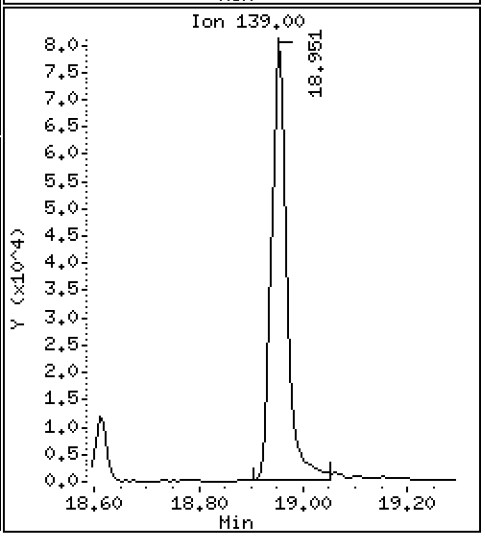


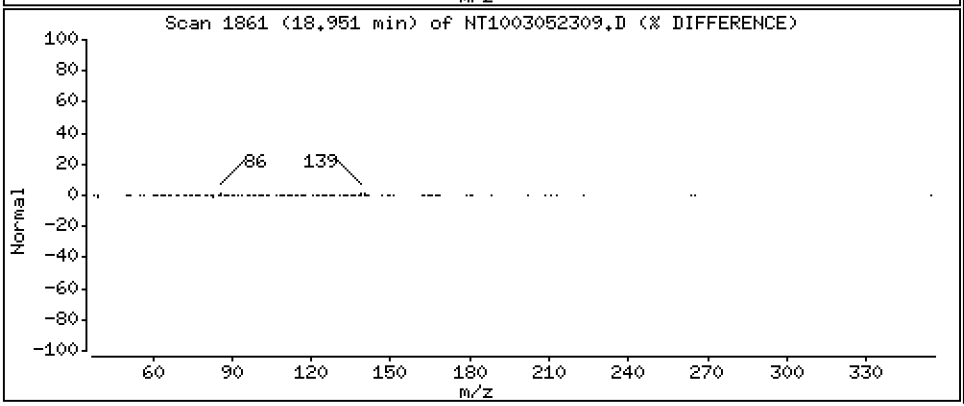












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

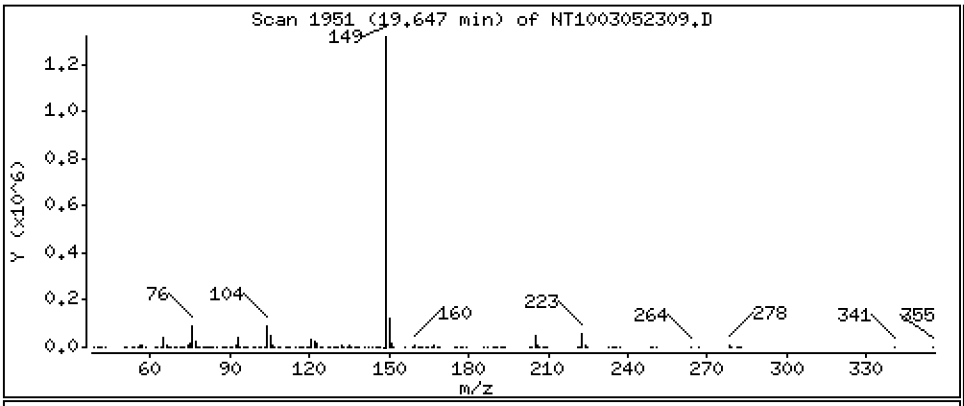
Operator: VTS

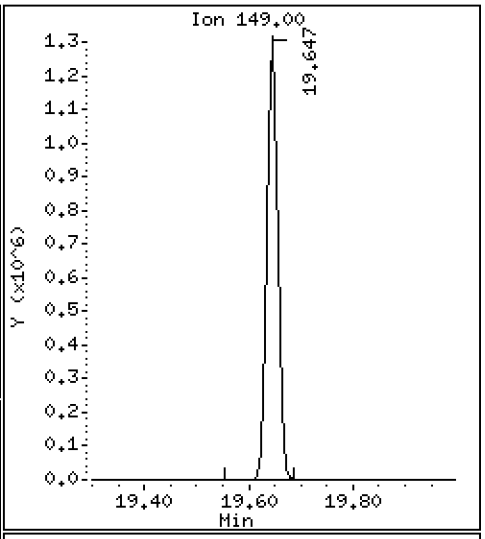
Column phase: ZB-5msi

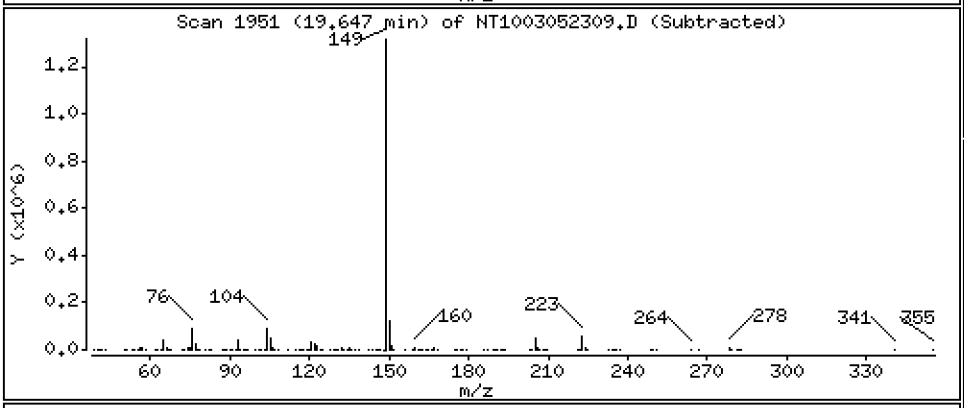
Column diameter: 0.25

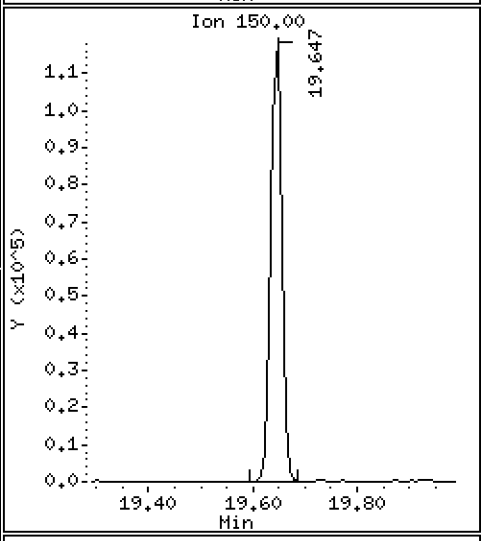
63 Di-n-butylphthalate

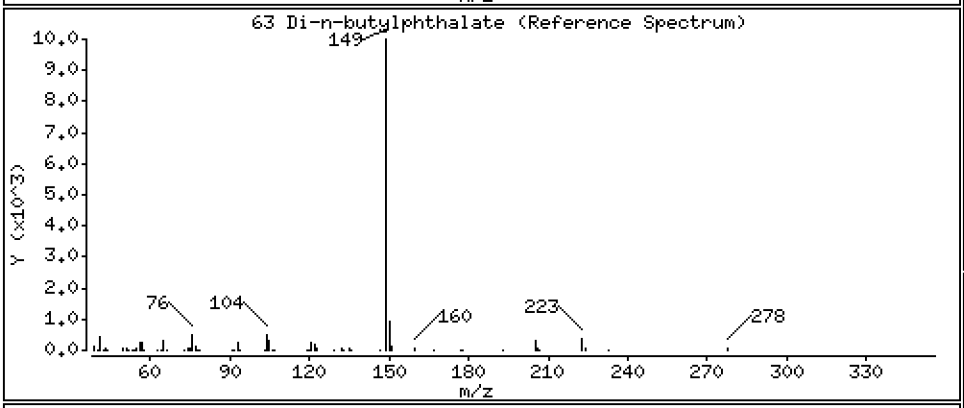
Concentration: 4.918 ug/mL

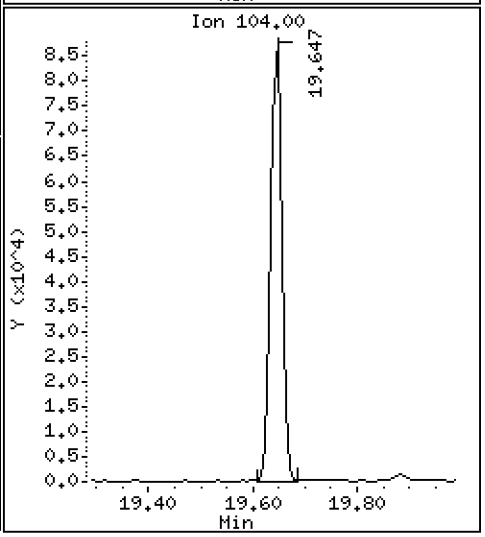


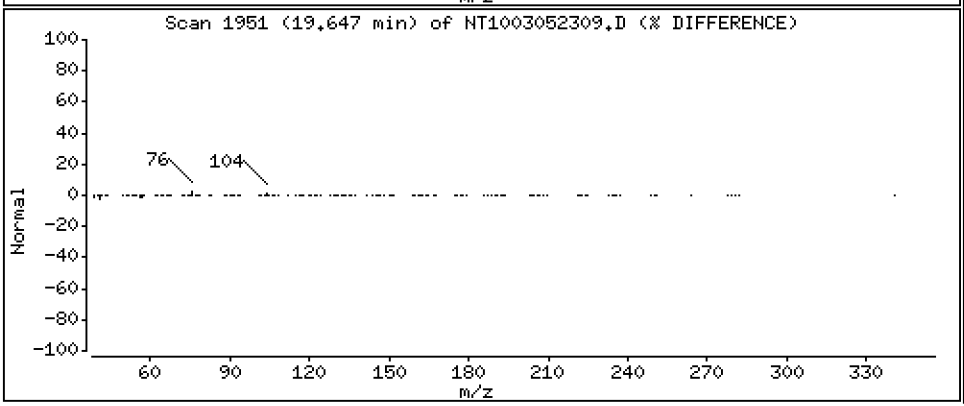












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

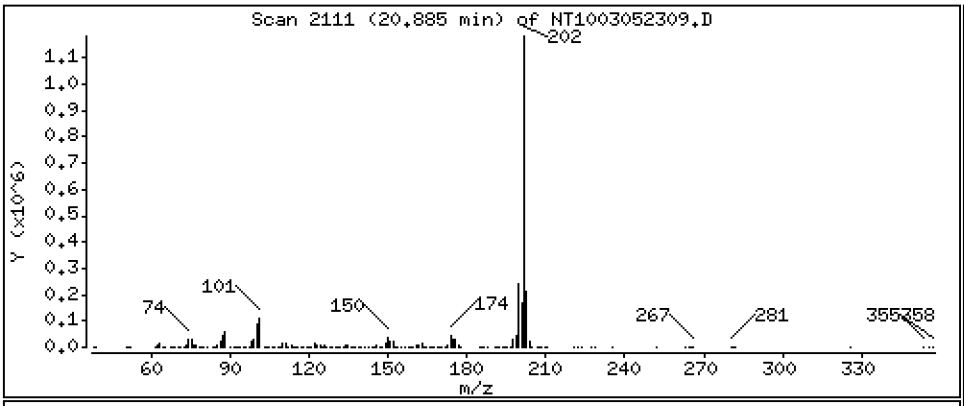
Operator: VTS

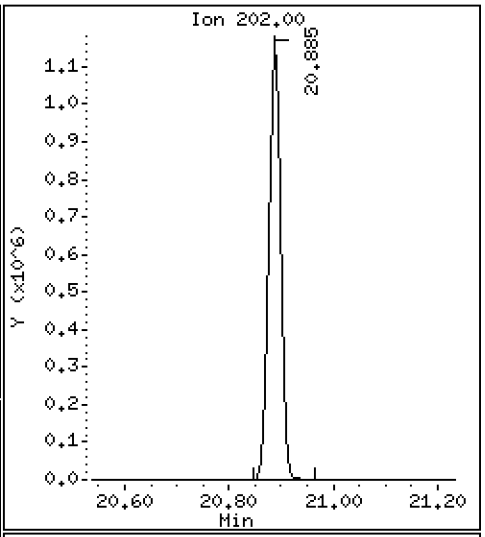
Column phase: ZB-5msi

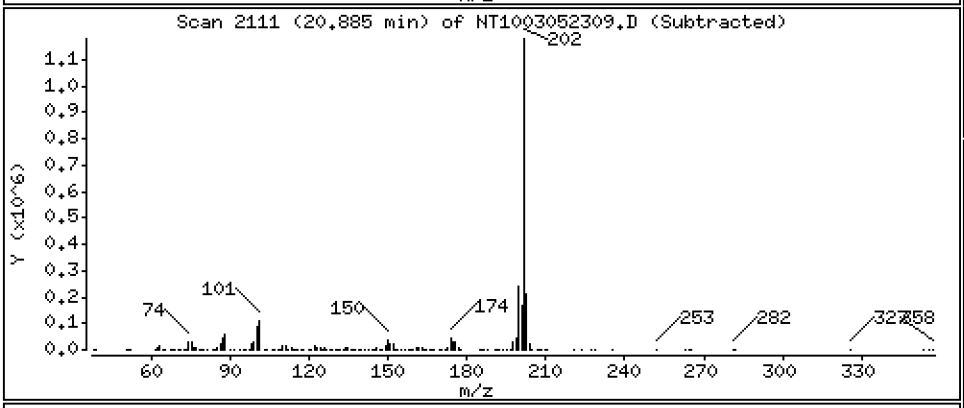
Column diameter: 0.25

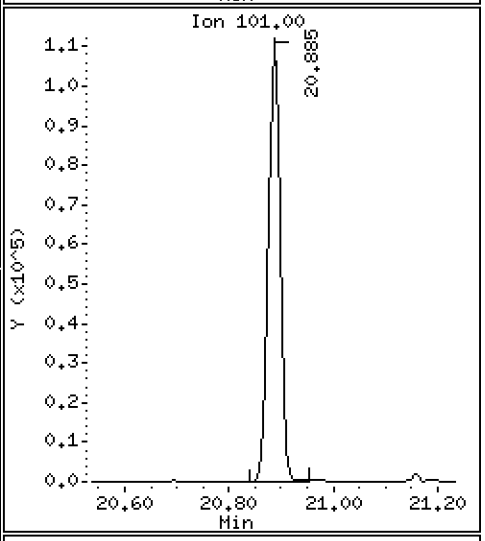
64 Fluoranthene

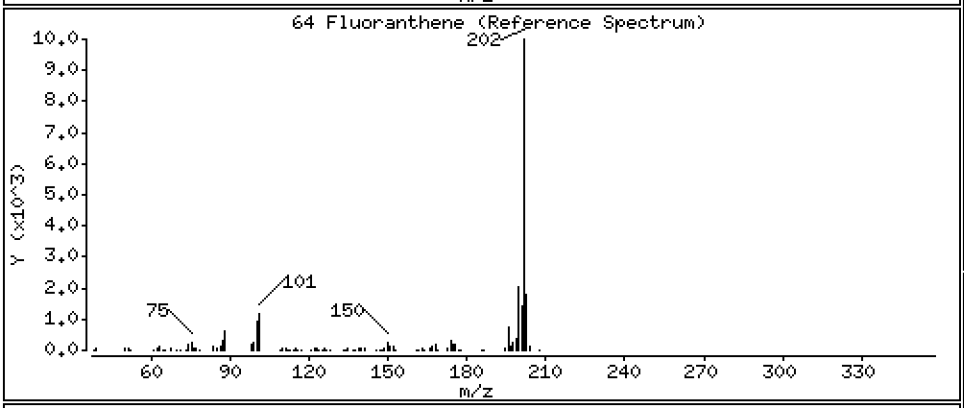
Concentration: 4.843 ug/mL

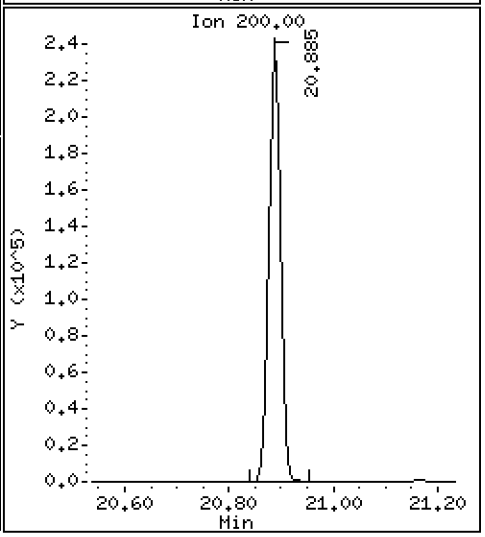


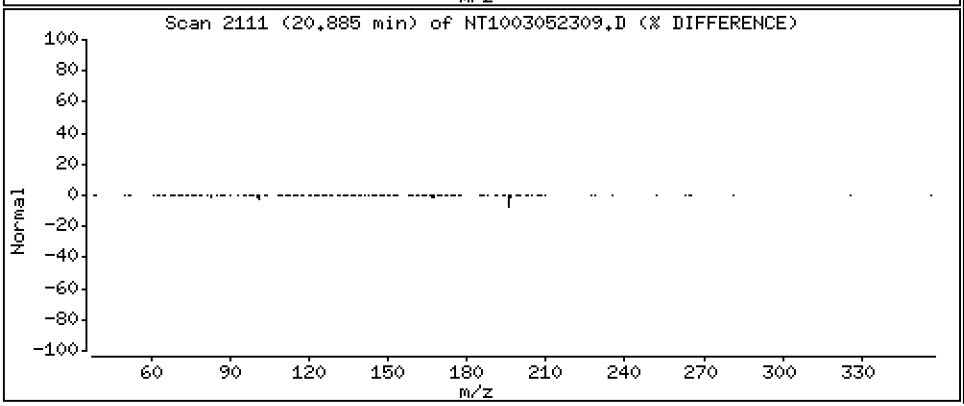












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052309.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

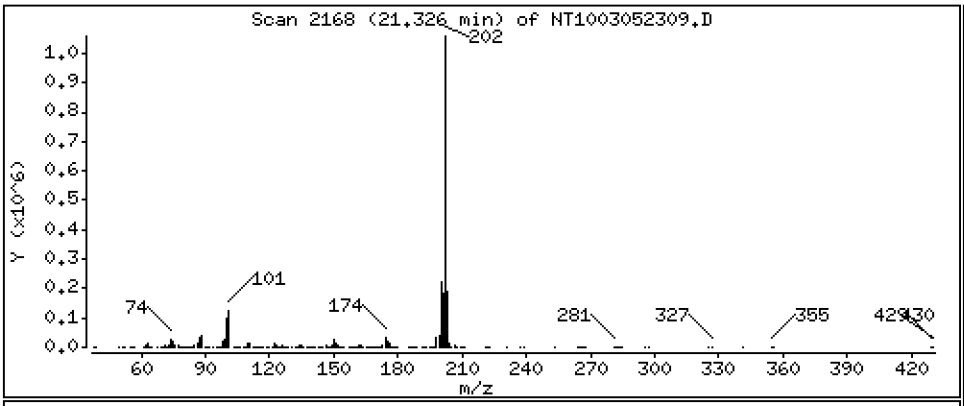
Operator: VTS

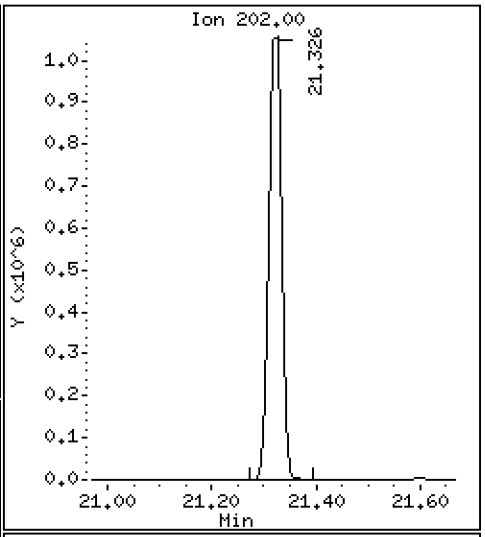
Column phase: ZB-5msi

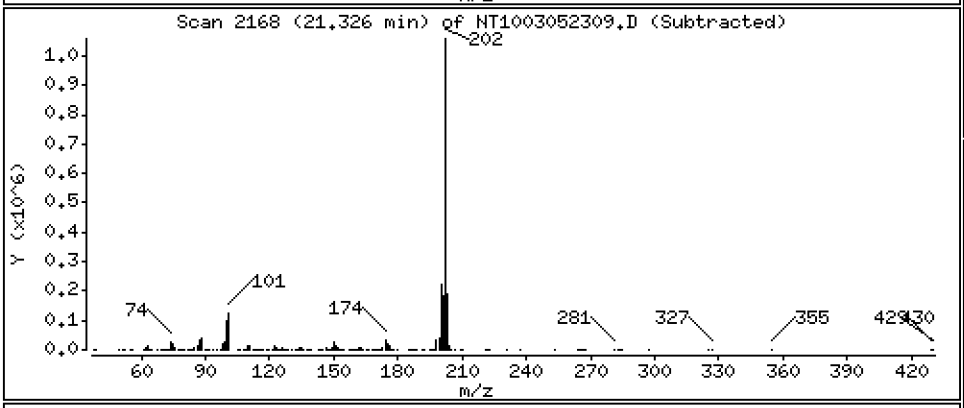
Column diameter: 0.25

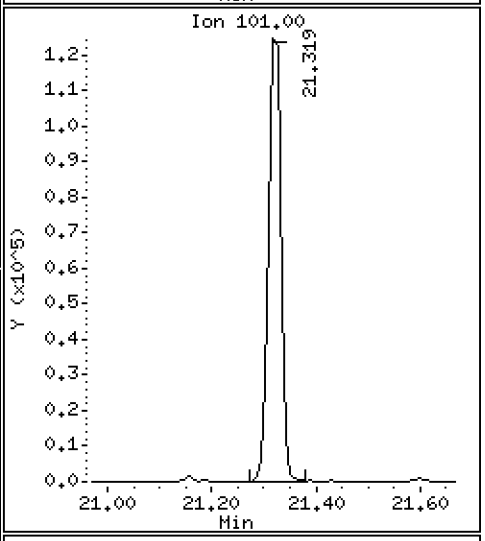
65 Pyrene

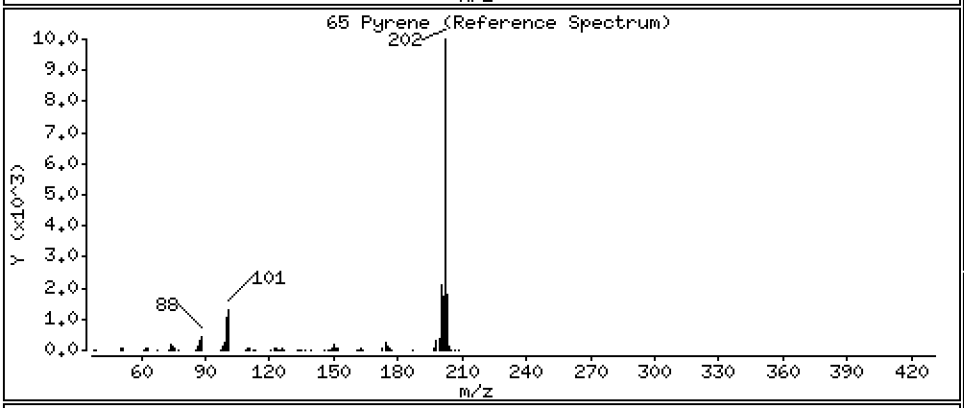
Concentration: 4.647 ug/mL

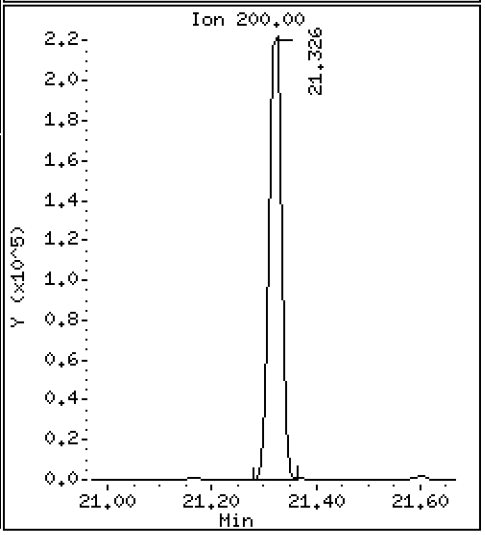


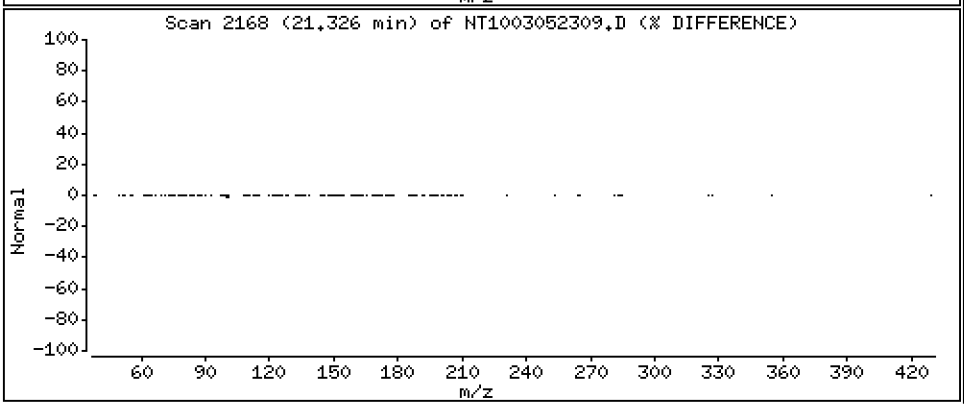












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

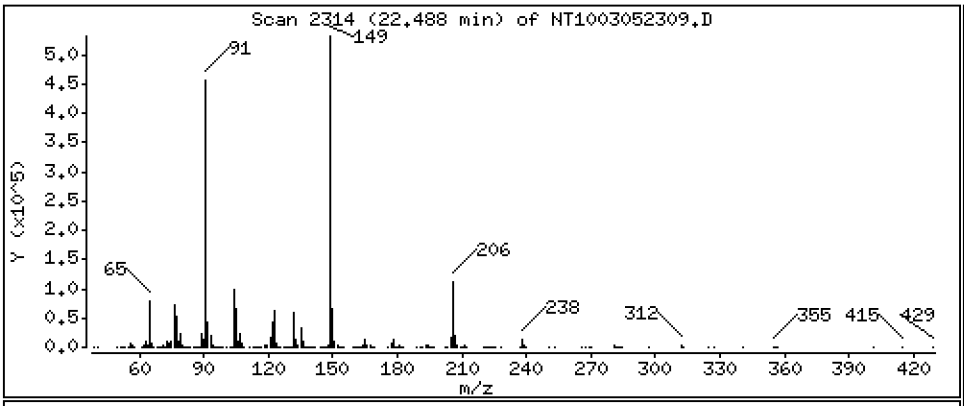
Operator: VTS

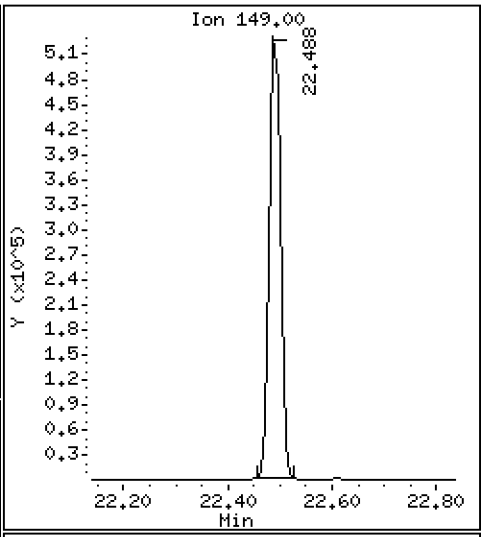
Column phase: ZB-5msi

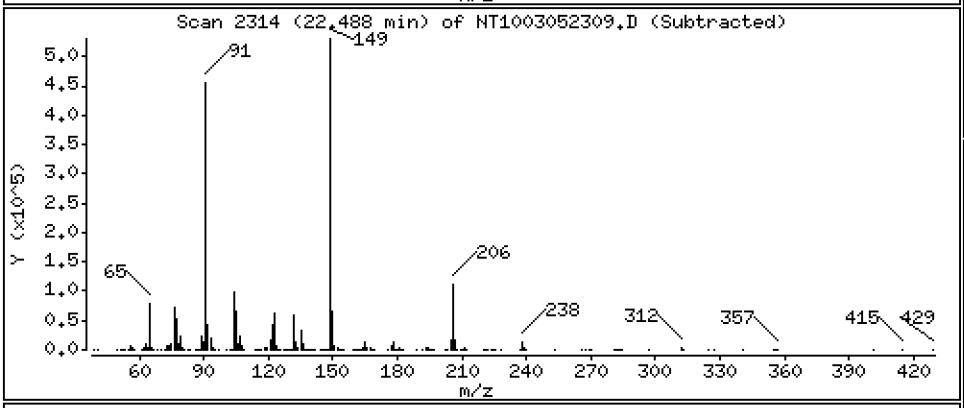
Column diameter: 0.25

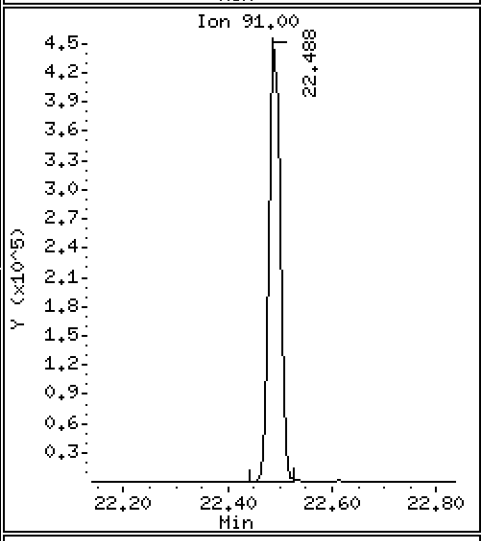
67 Butylbenzylphthalate

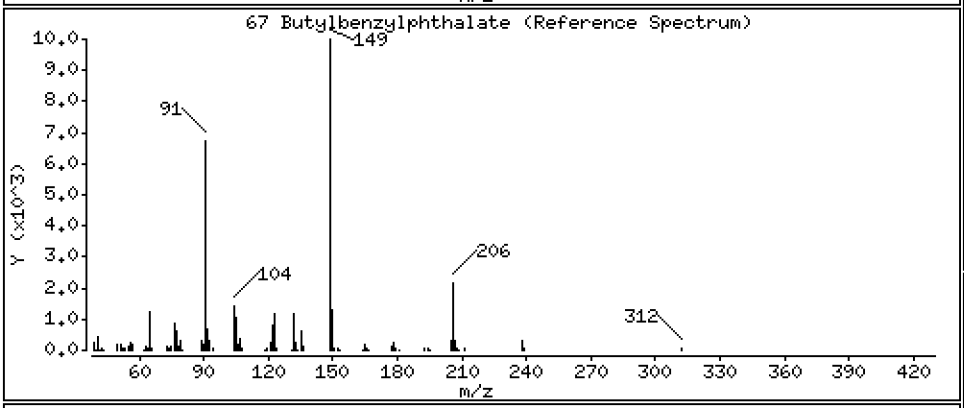
Concentration: 3.852 ug/mL

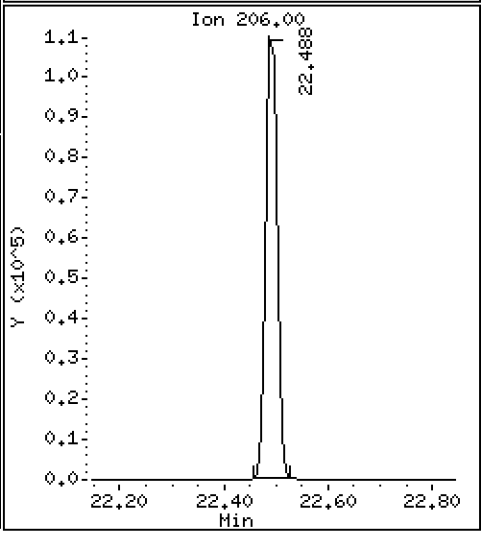


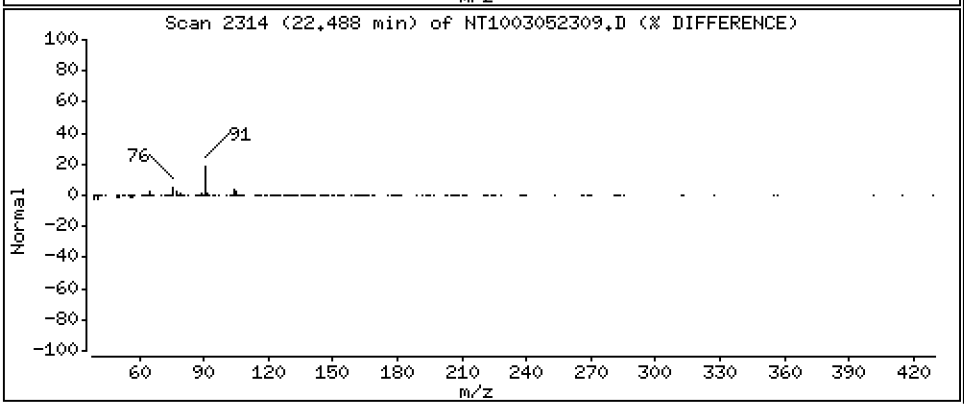












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052309.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

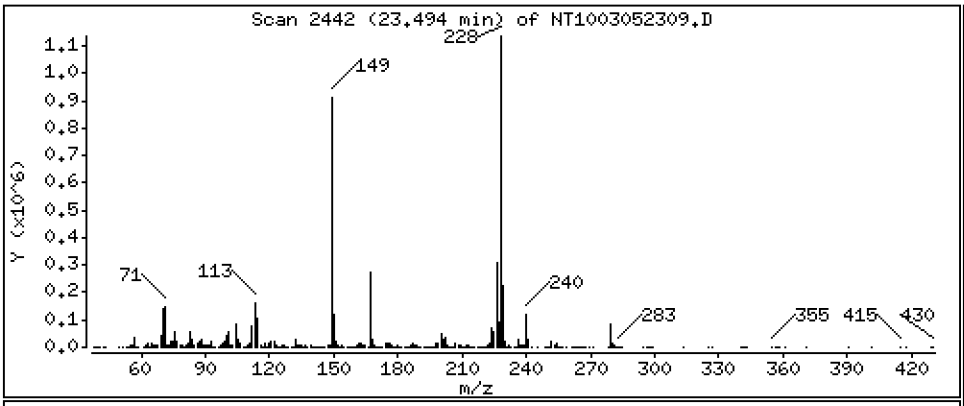
Operator: VTS

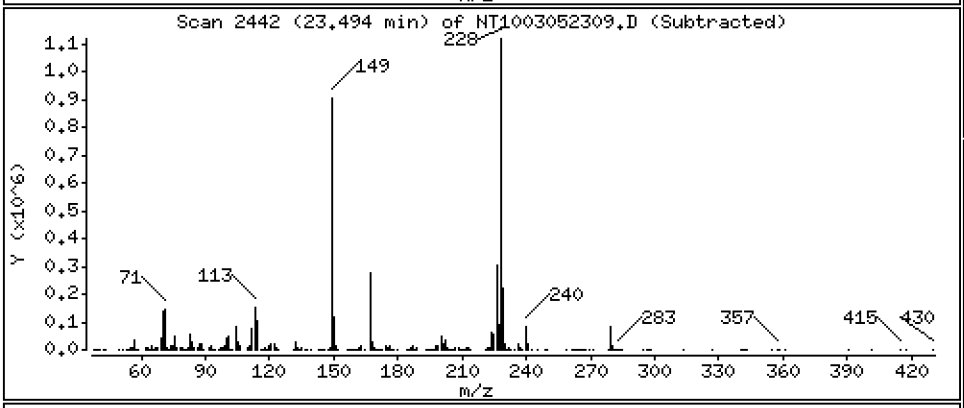
Column phase: ZB-5msi

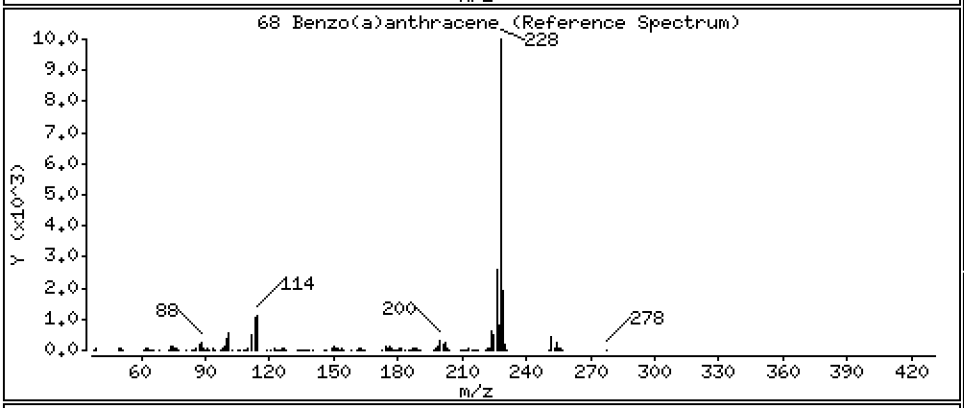
Column diameter: 0.25

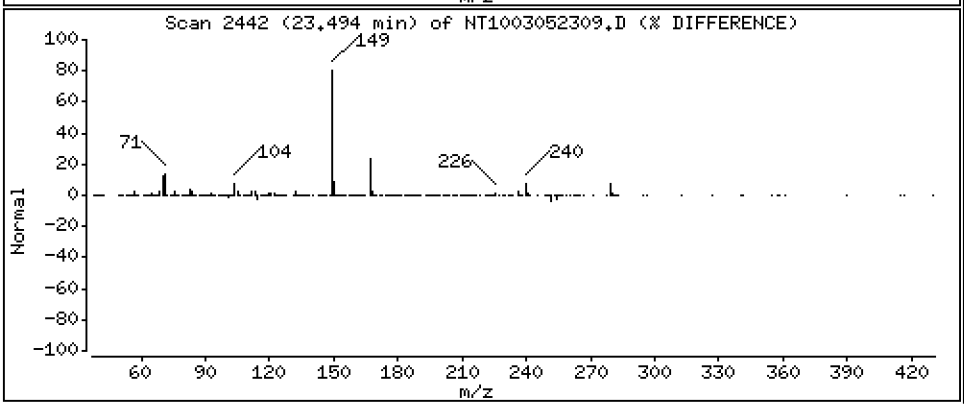
68 Benzo(a)anthracene

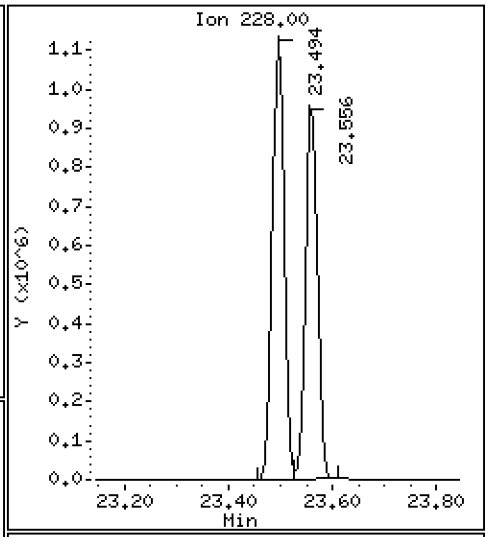
Concentration: 4.602 ug/mL

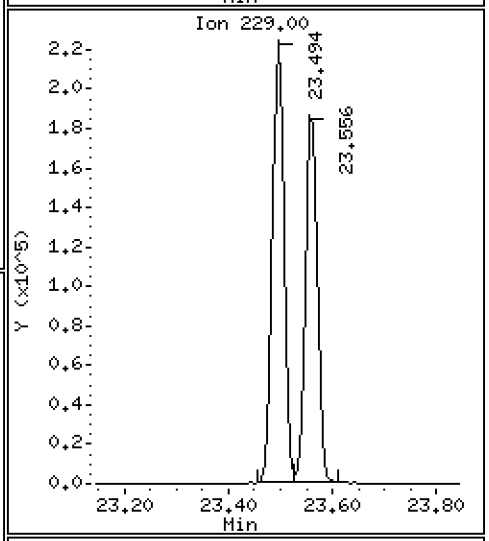


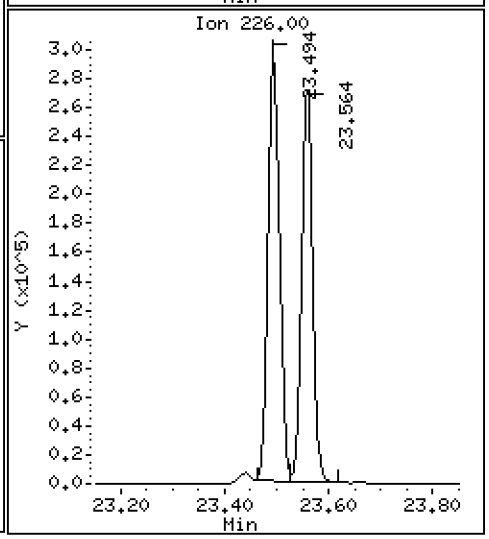












Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

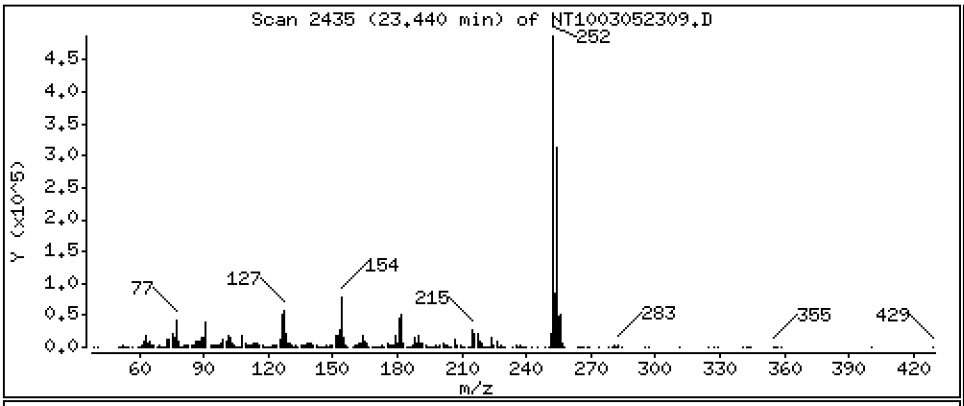
Operator: VTS

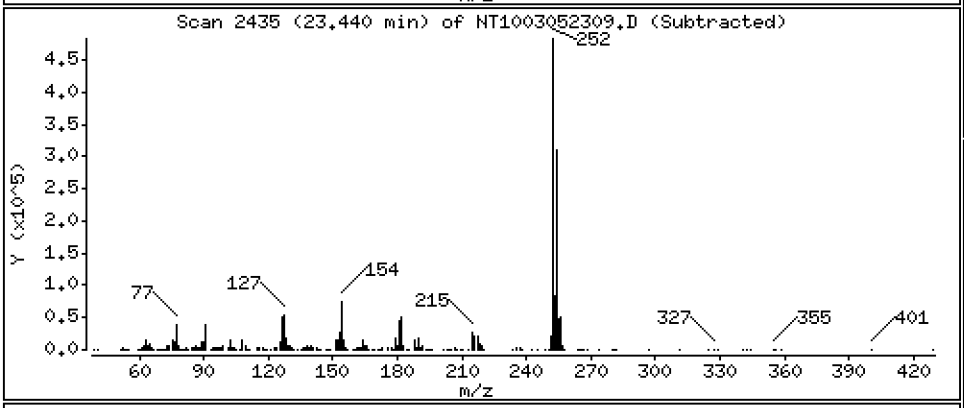
Column phase: ZB-5msi

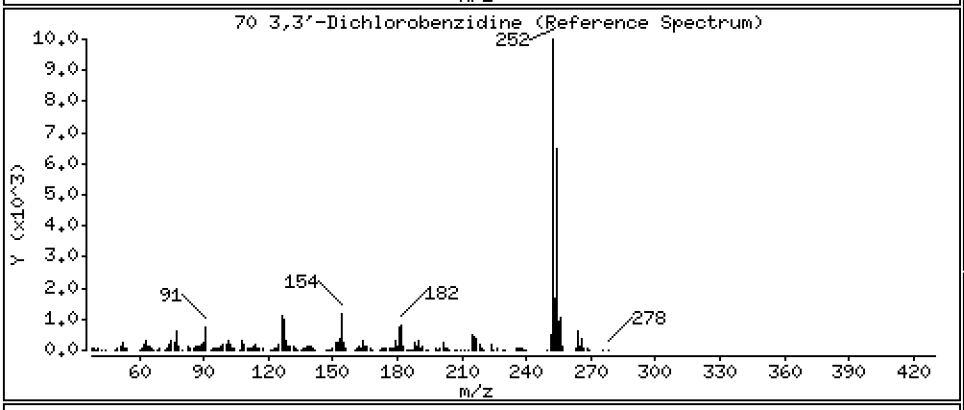
Column diameter: 0.25

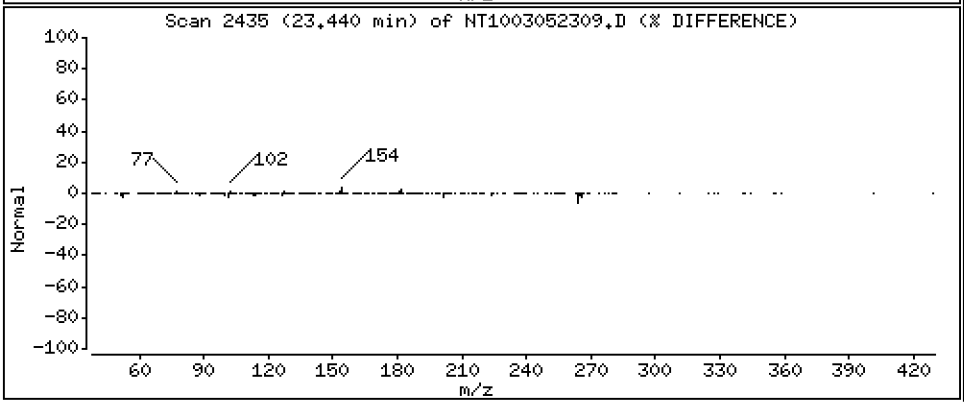
70 3,3'-Dichlorobenzidine

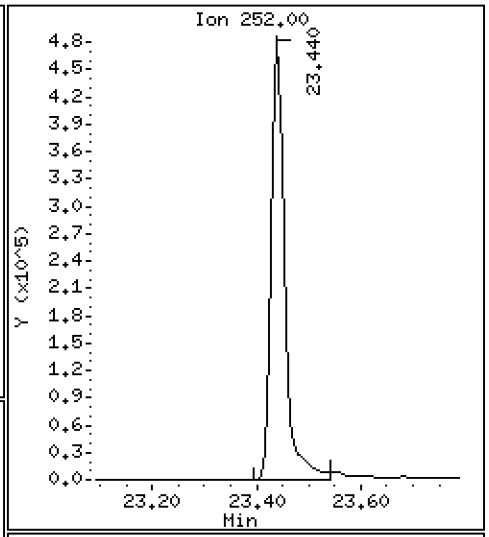
Concentration: 5.068 ug/mL

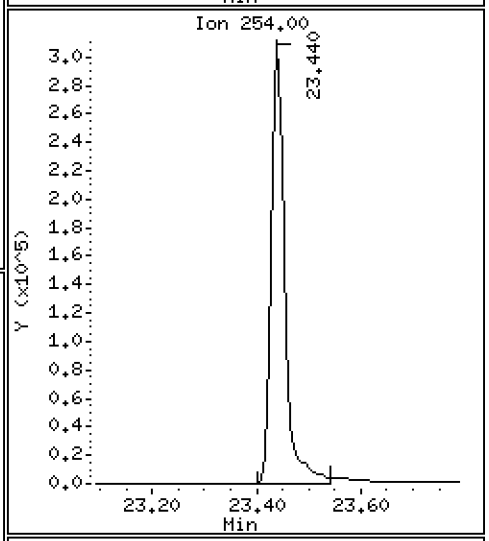


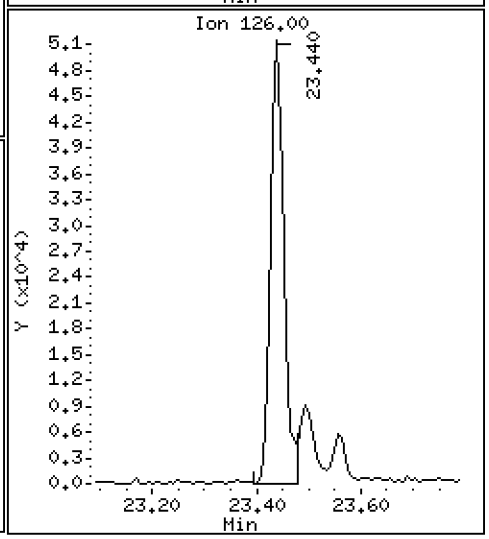












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052309.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

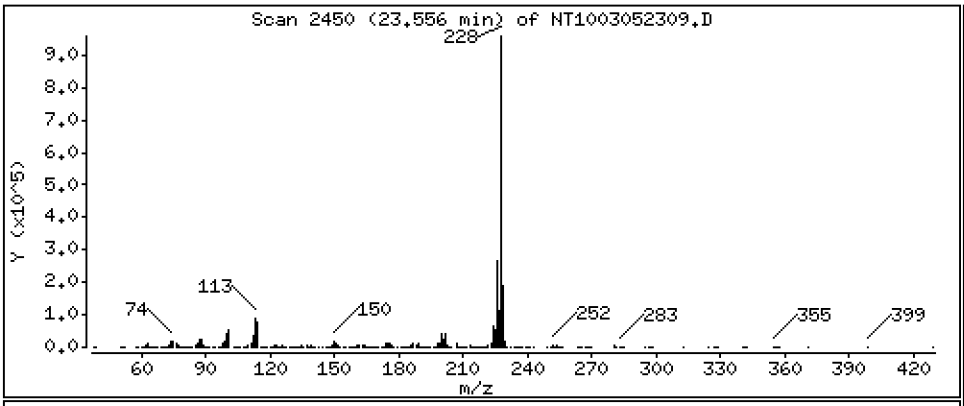
Operator: VTS

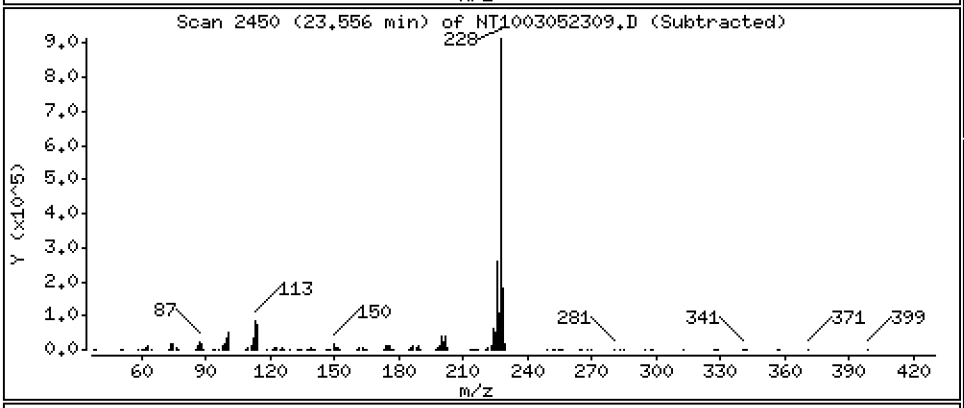
Column phase: ZB-5msi

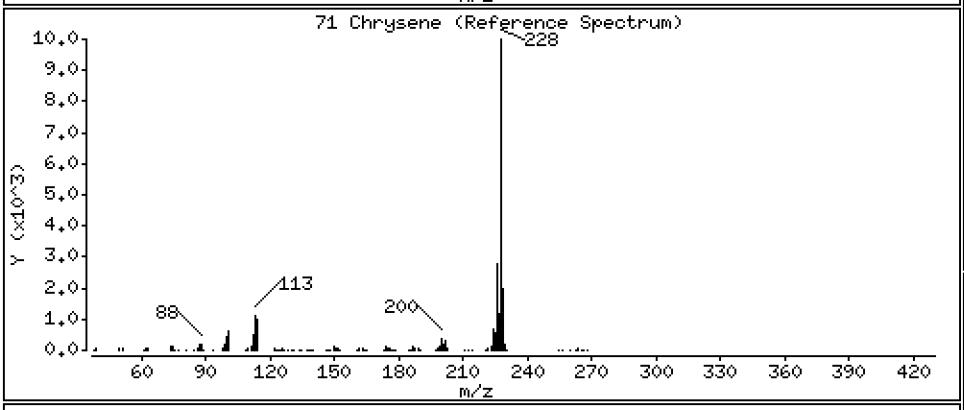
Column diameter: 0.25

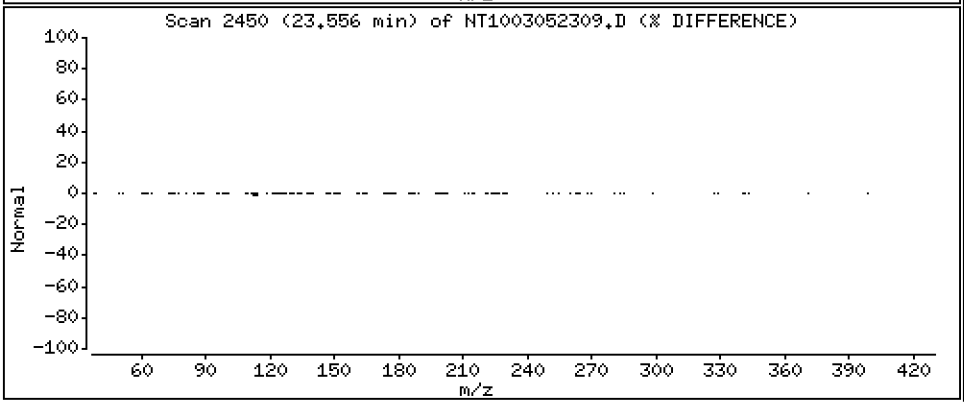
71 Chrysene

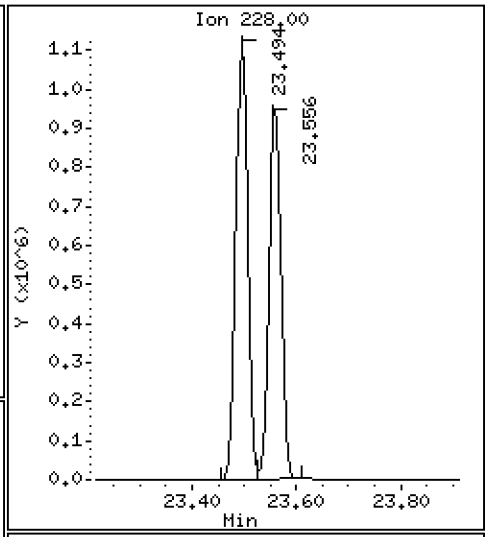
Concentration: 4.888 ug/mL

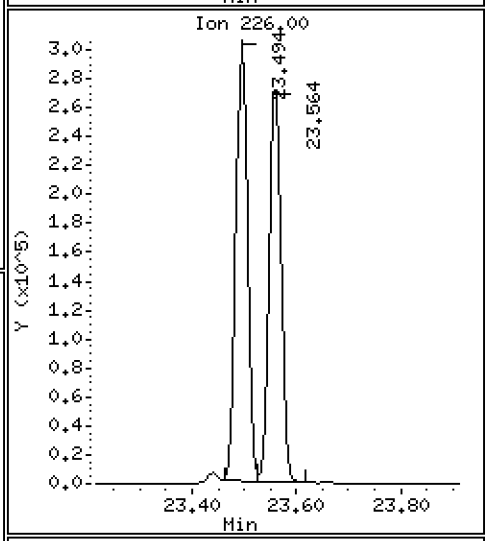


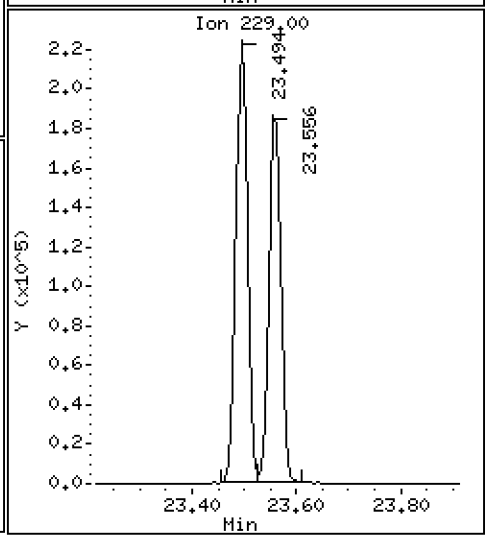












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

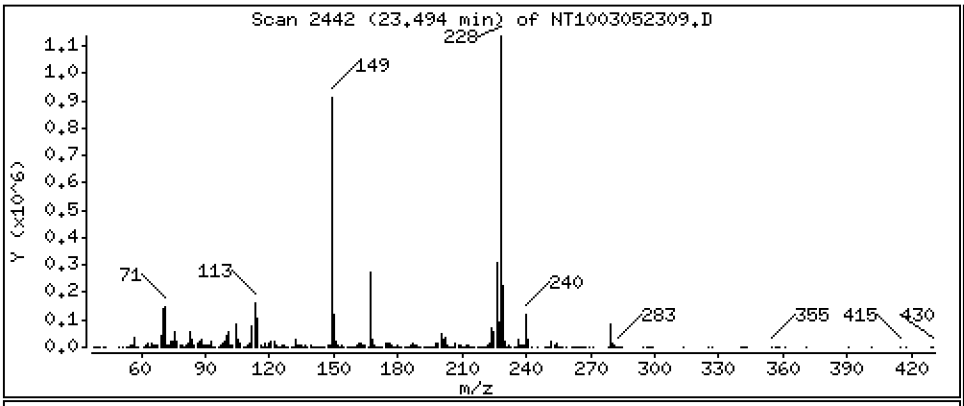
Operator: VTS

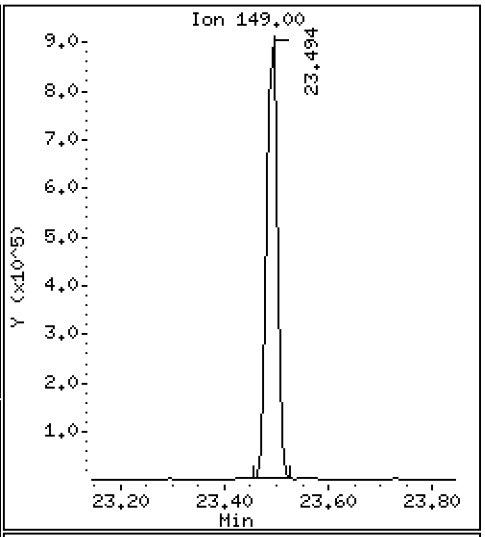
Column phase: ZB-5msi

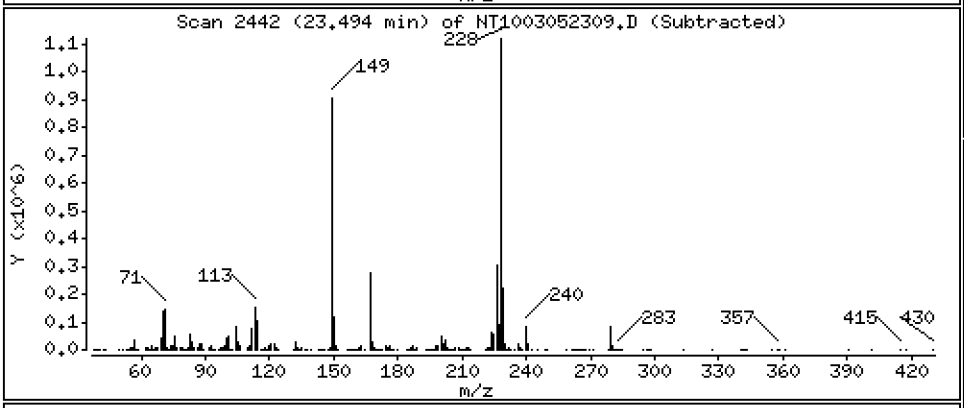
Column diameter: 0.25

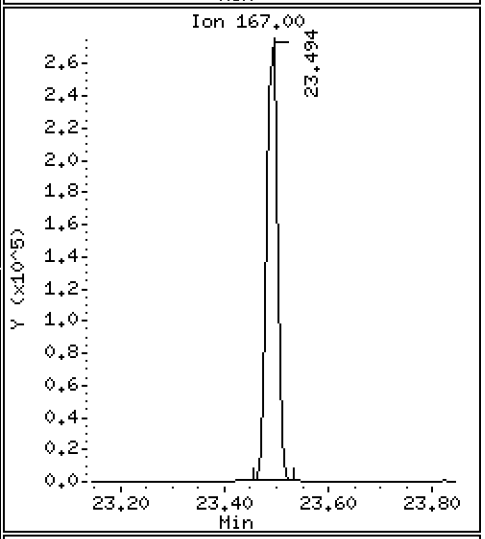
72 bis(2-Ethylhexyl)phthalate

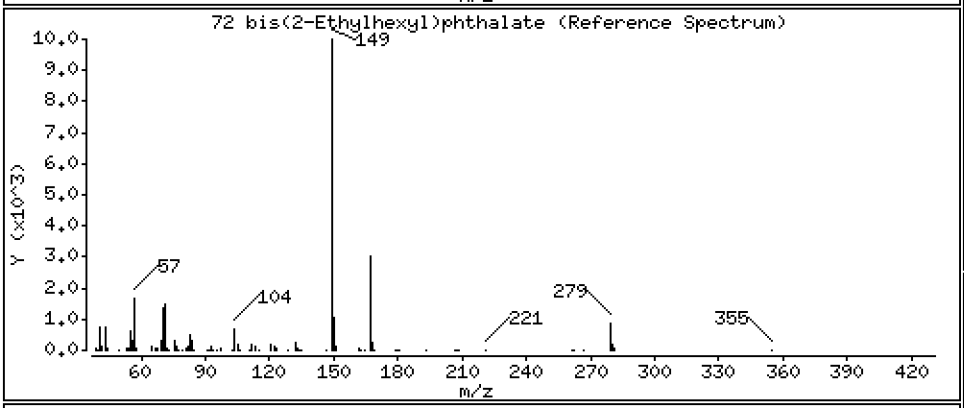
Concentration: 5.117 ug/mL

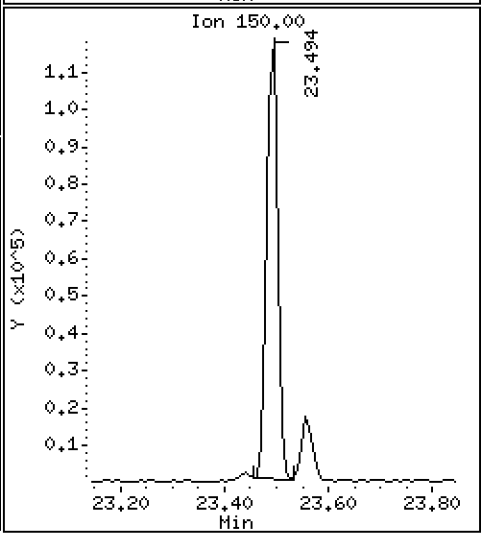


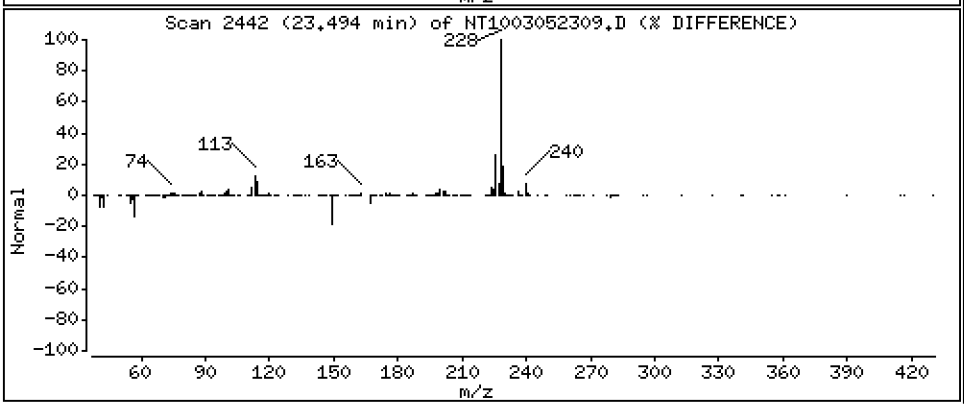












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

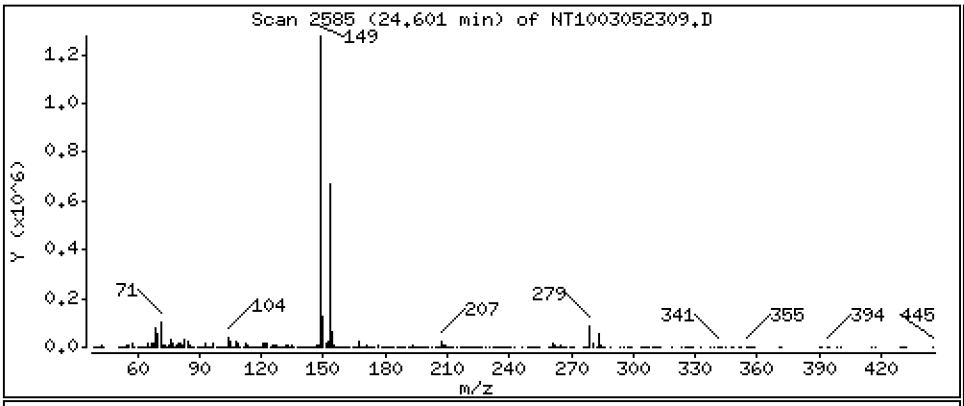
Operator: VTS

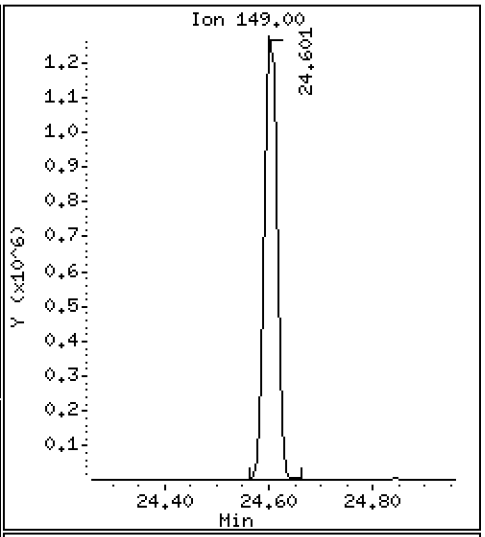
Column phase: ZB-5msi

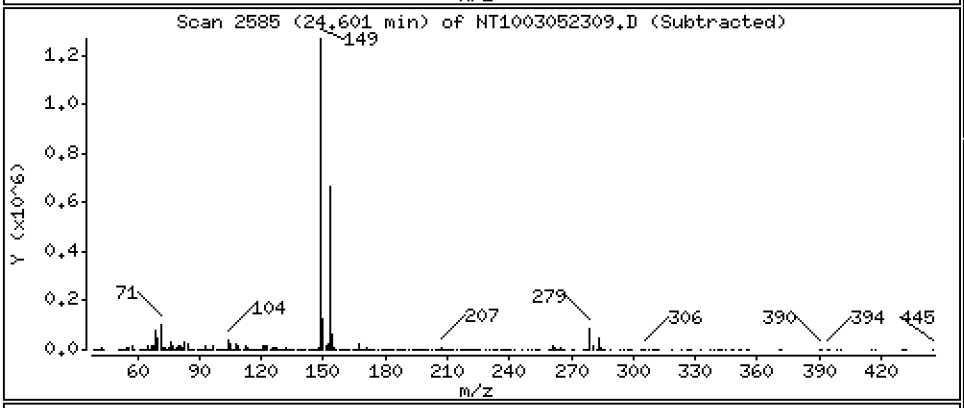
Column diameter: 0.25

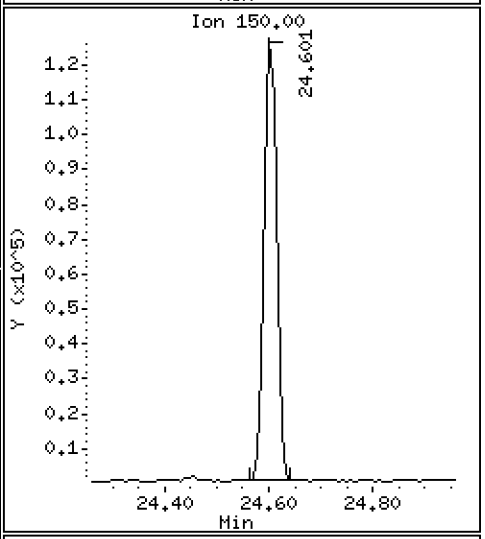
73 Di-n-octylphthalate

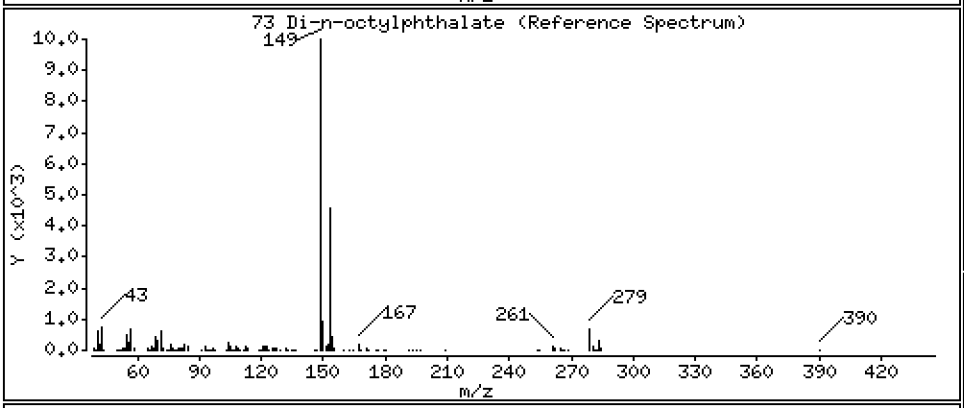
Concentration: 5.667 ug/mL

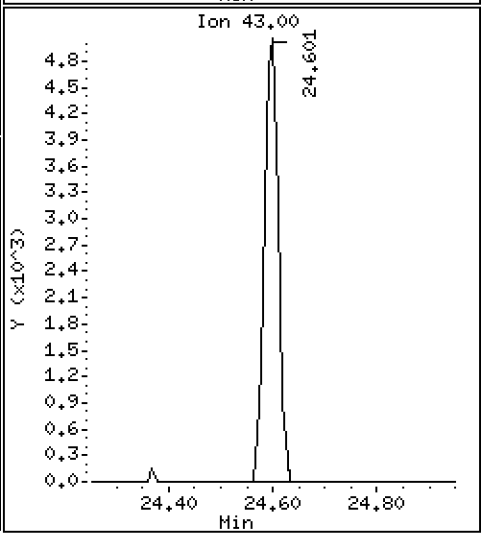


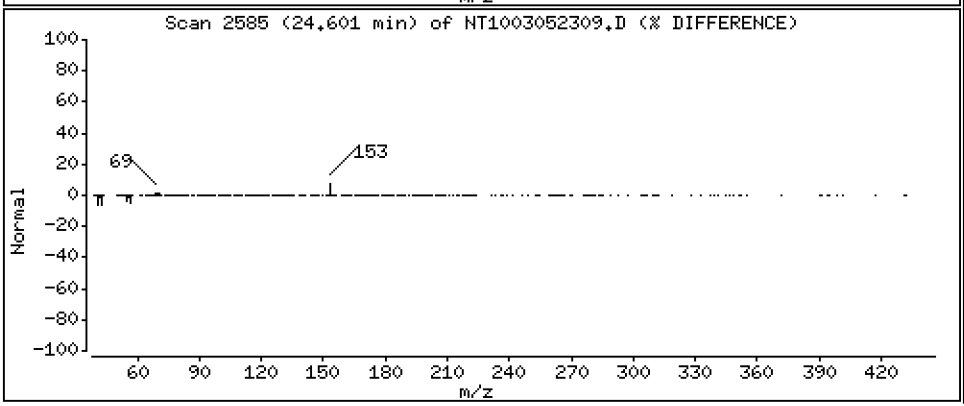












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

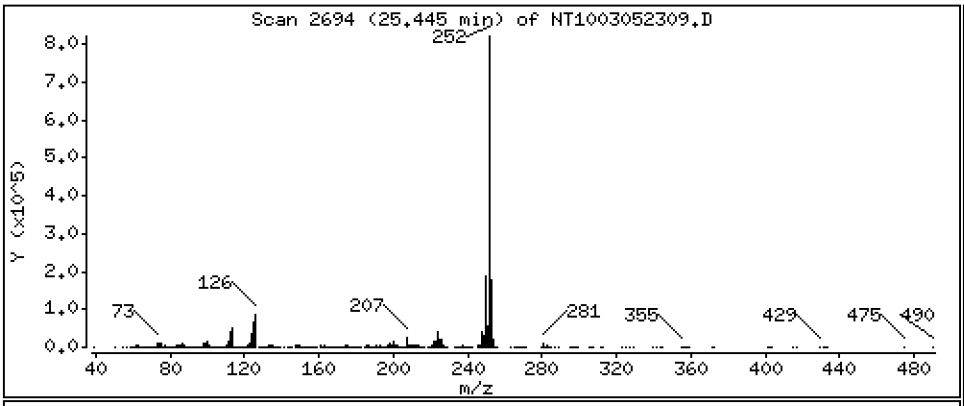
Operator: VTS

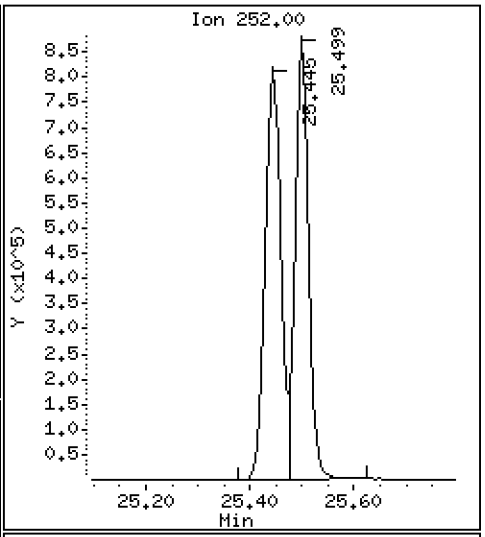
Column phase: ZB-5msi

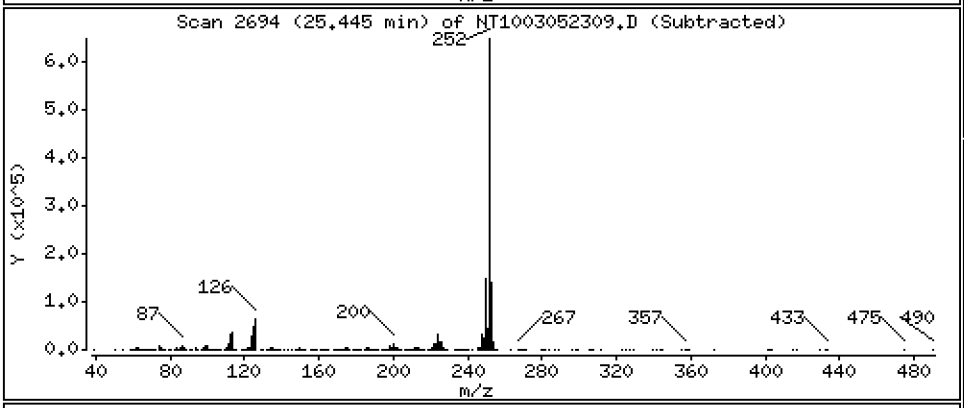
Column diameter: 0.25

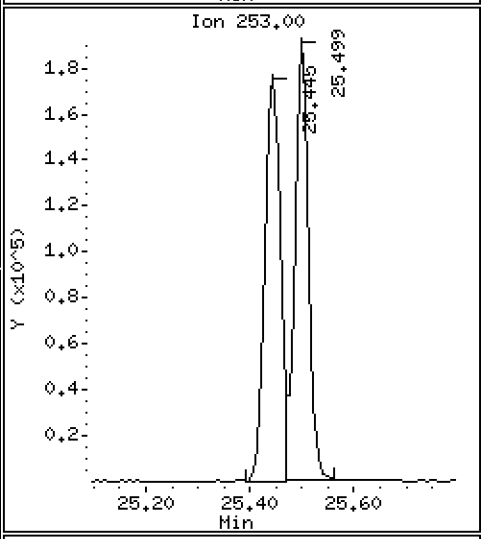
74 Benzo(b)fluoranthene

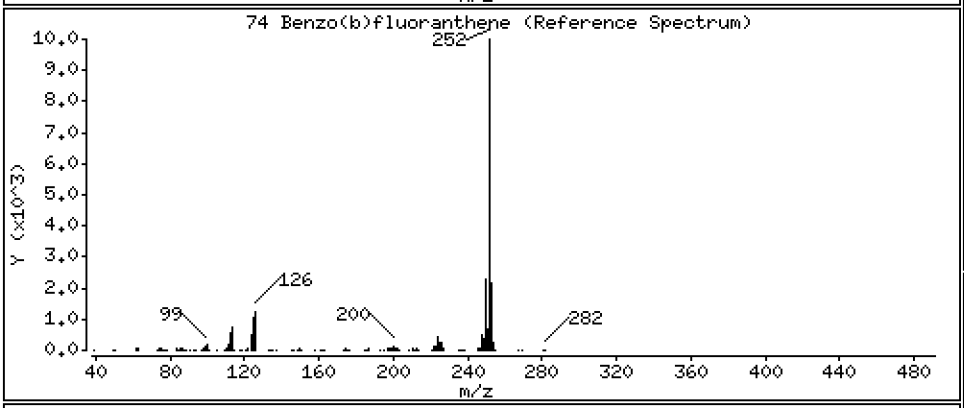
Concentration: 4.599 ug/mL

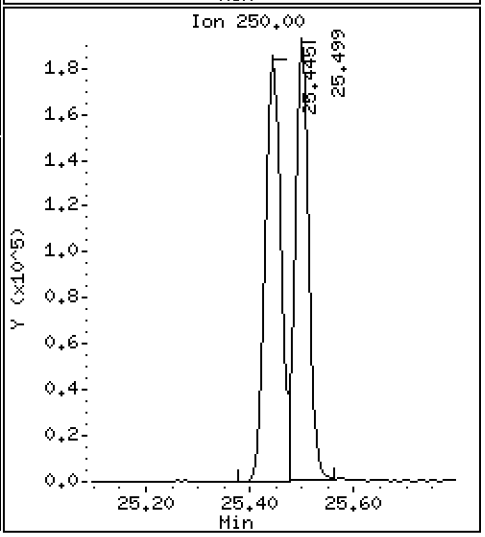


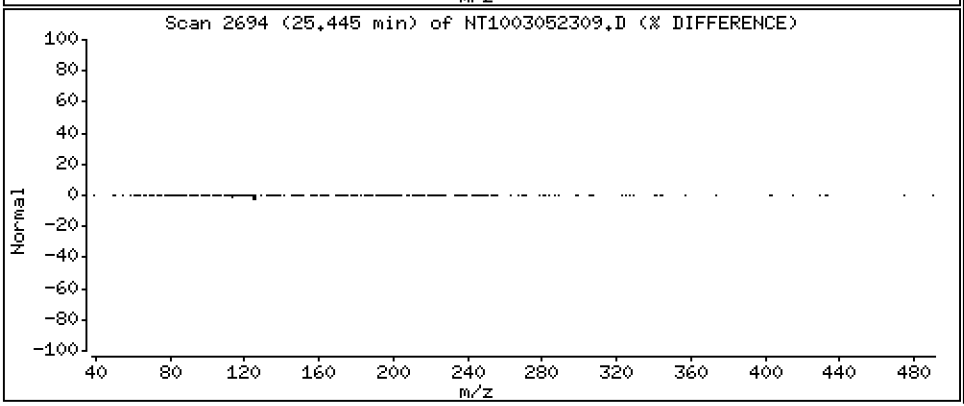












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

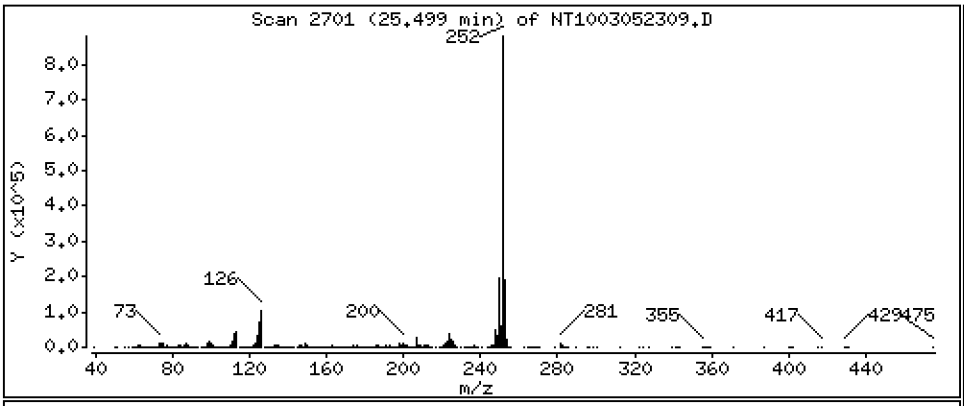
Operator: VTS

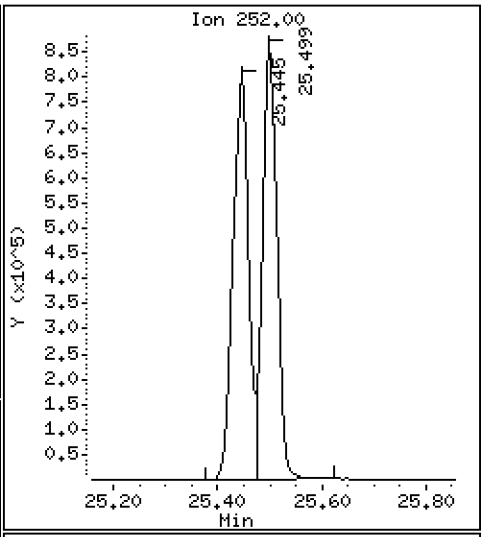
Column phase: ZB-5msi

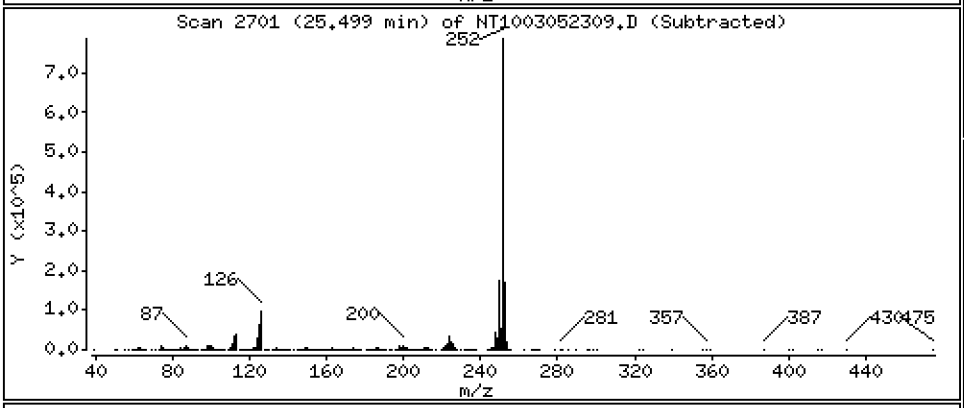
Column diameter: 0.25

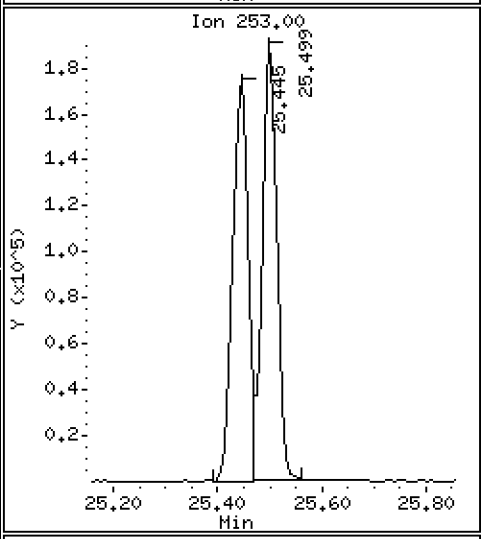
75 Benzo(k)fluoranthene

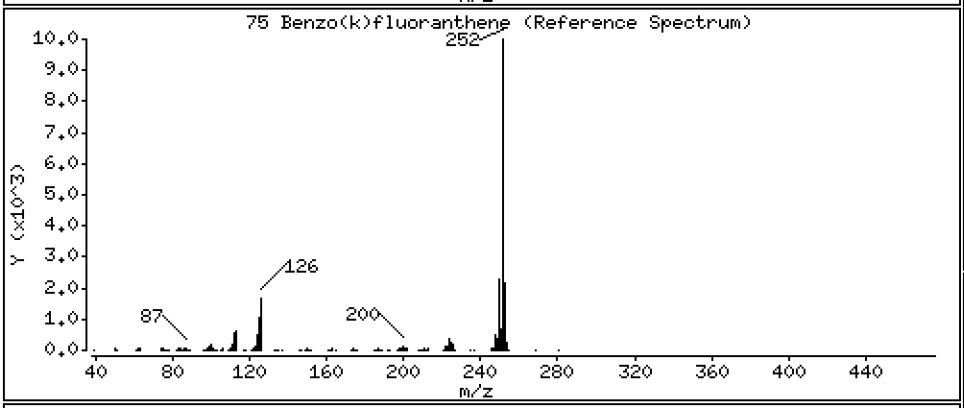
Concentration: 4.621 ug/mL

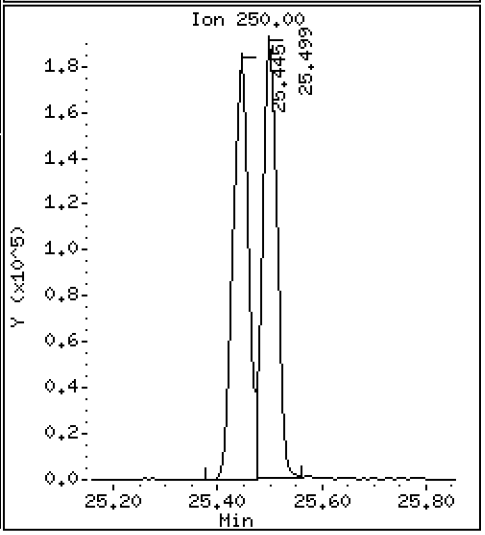


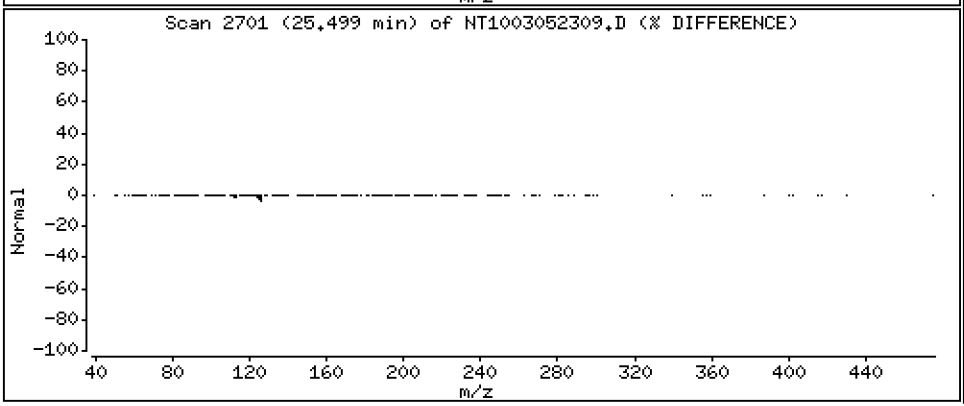












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

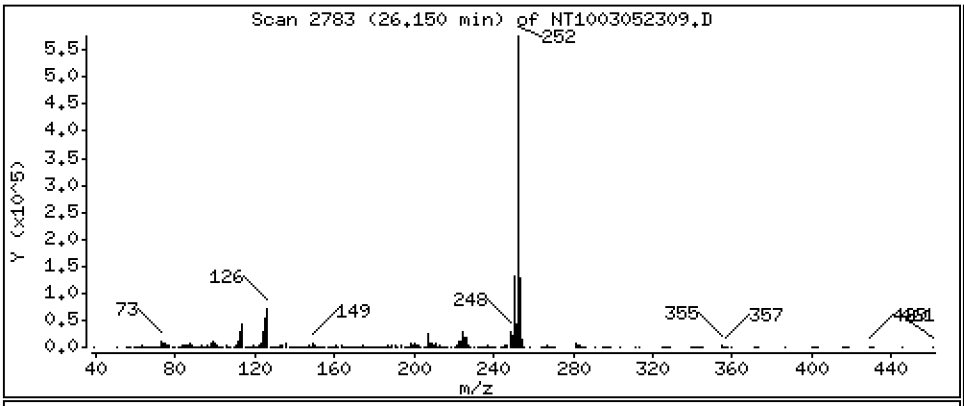
Operator: VTS

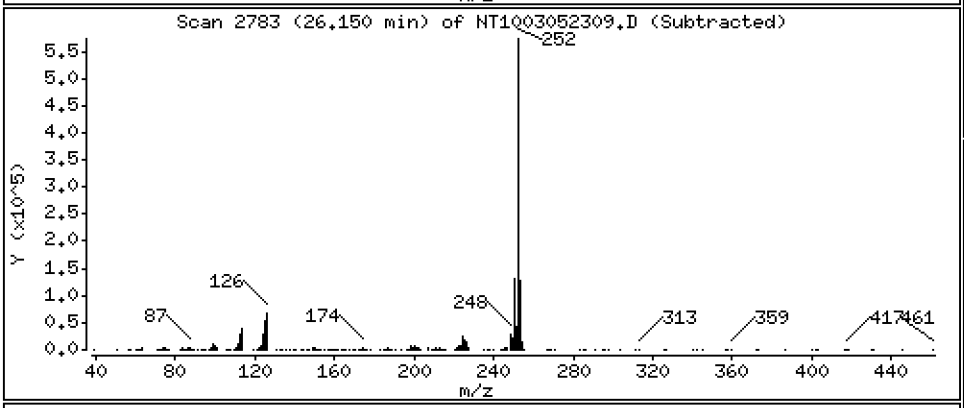
Column phase: ZB-5msi

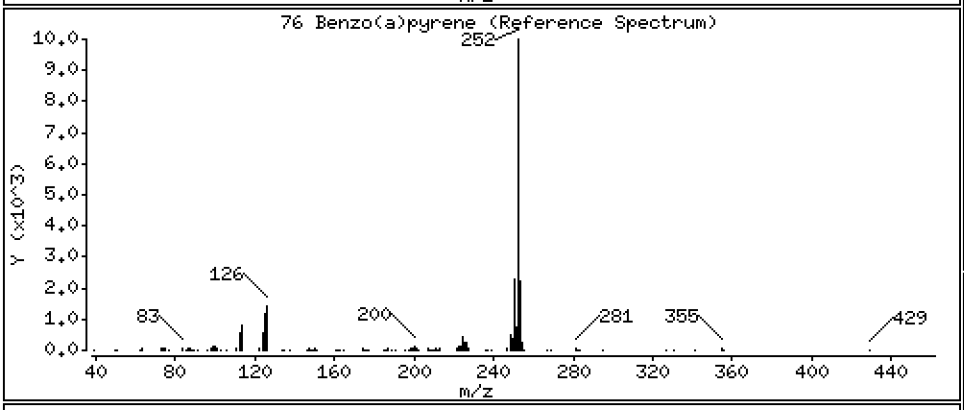
Column diameter: 0.25

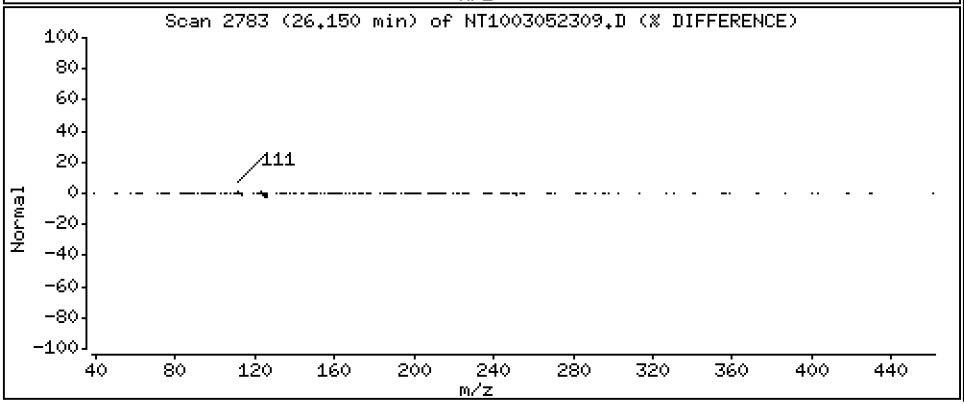
76 Benzo(a)pyrene

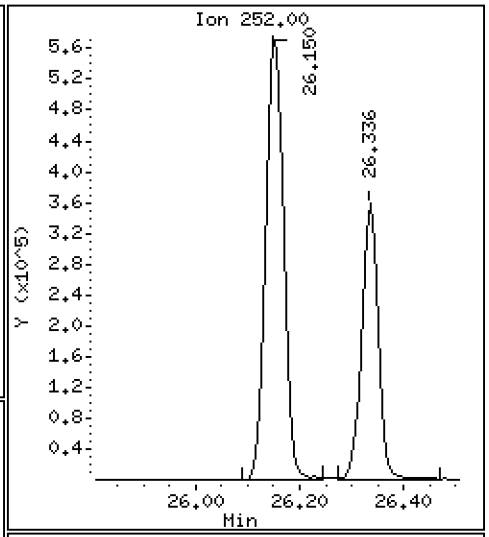
Concentration: 4.138 ug/mL

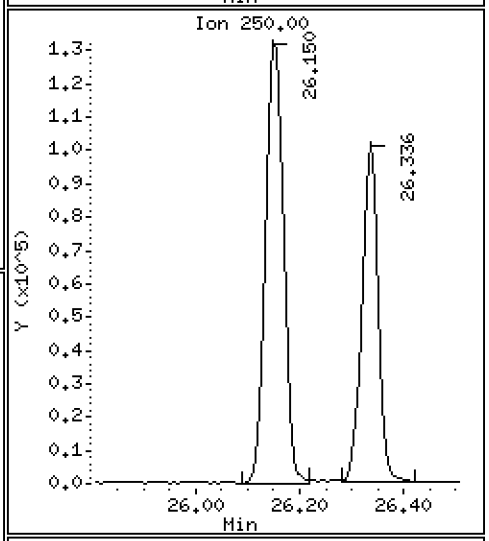


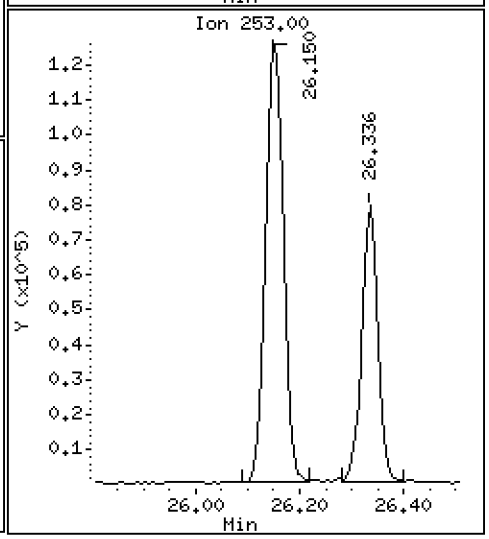












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

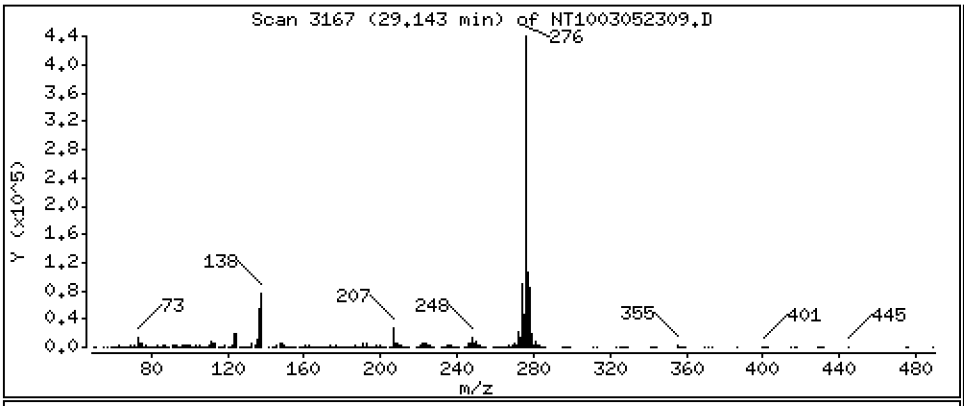
Operator: VTS

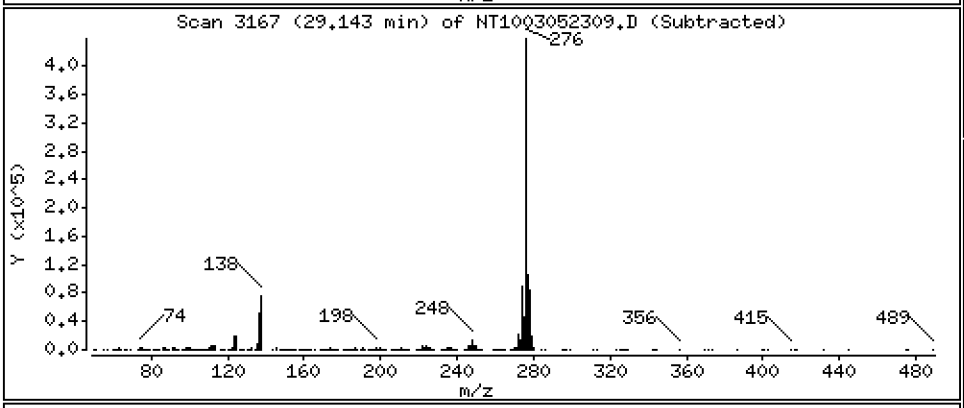
Column phase: ZB-5msi

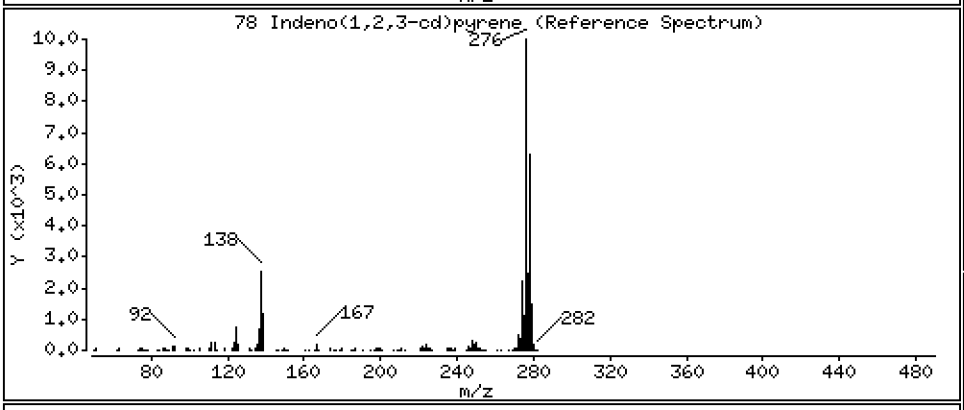
Column diameter: 0.25

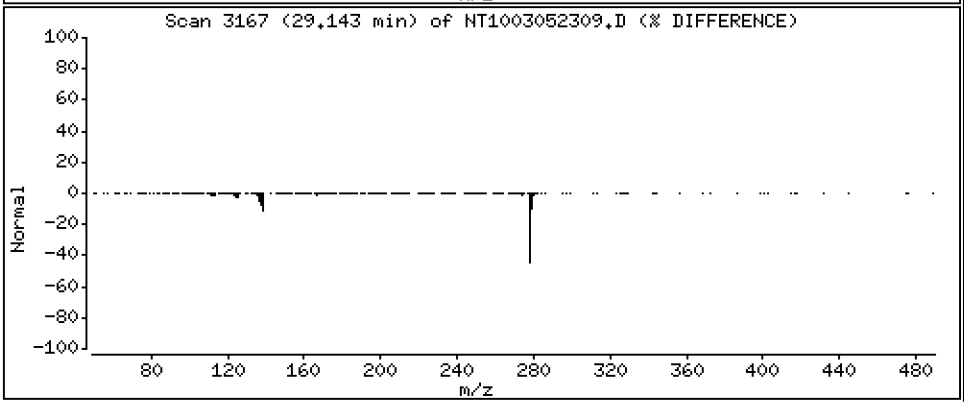
78 Indeno(1,2,3-cd)pyrene

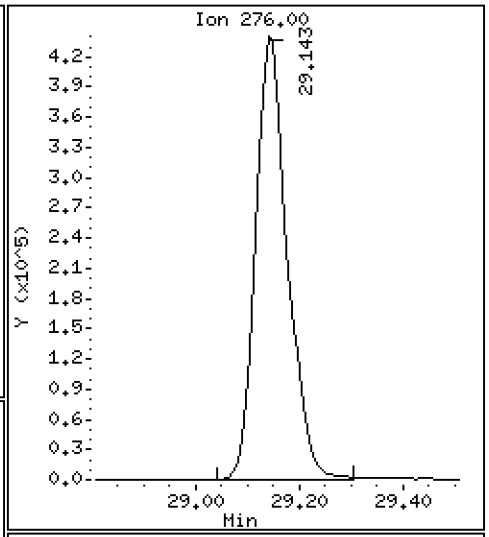
Concentration: 4.879 ug/mL

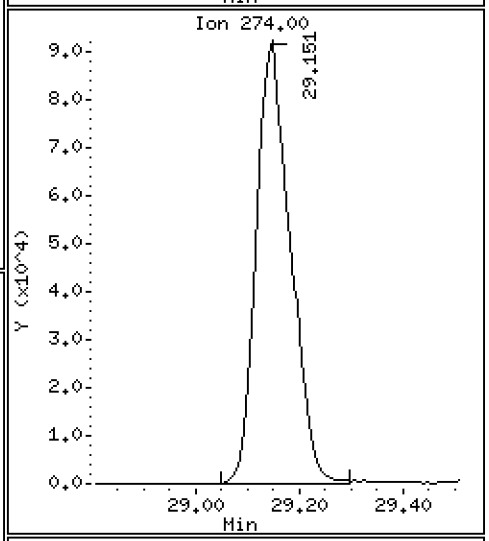


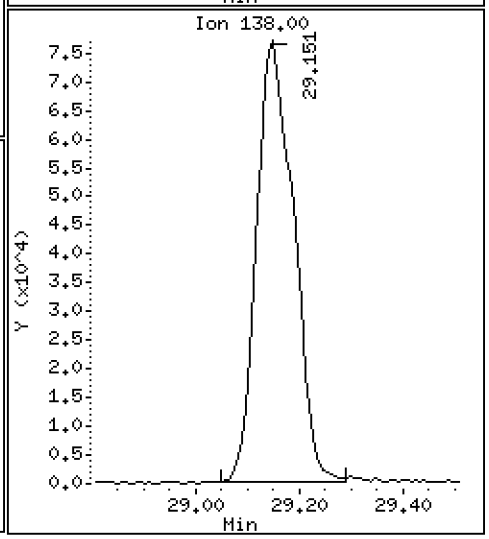












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

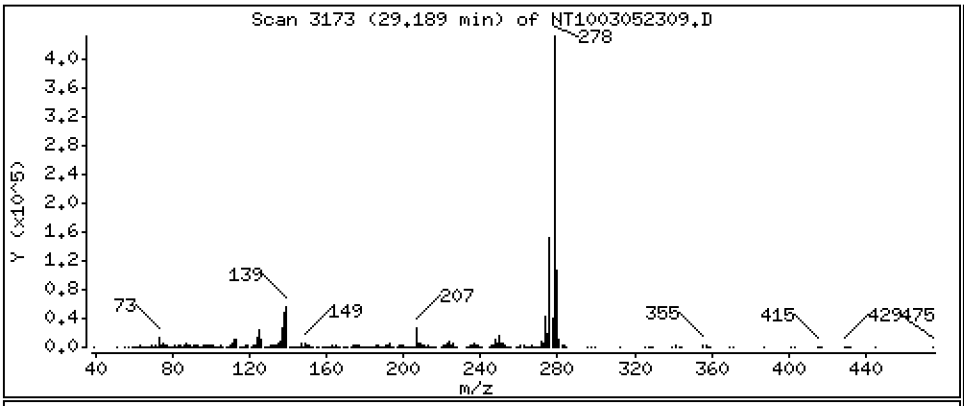
Operator: VTS

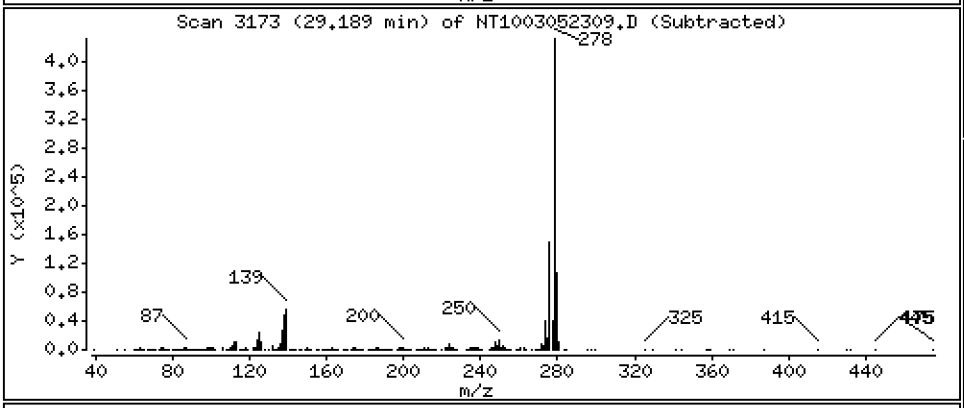
Column phase: ZB-5msi

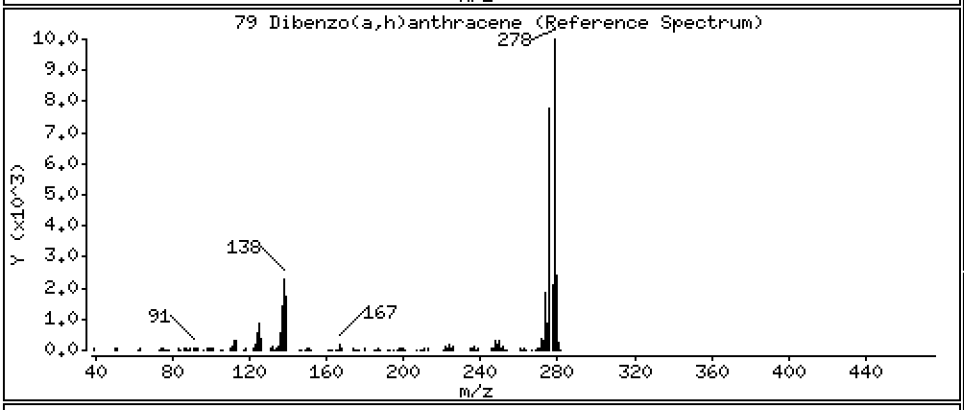
Column diameter: 0.25

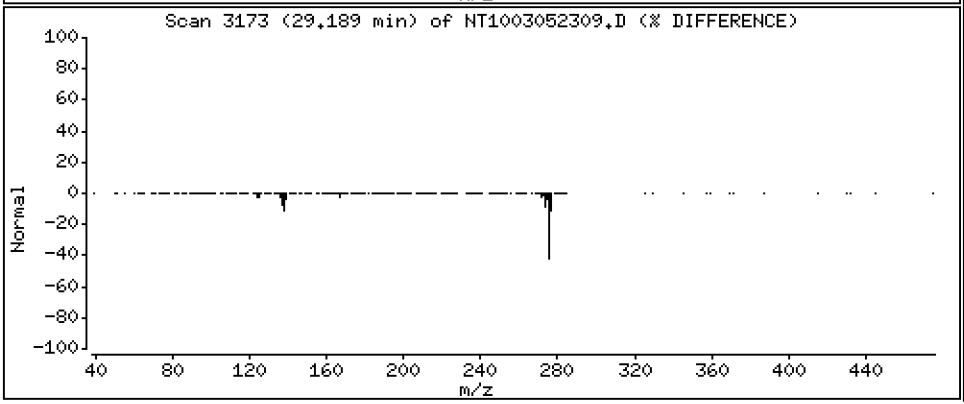
79 Dibenzo(a,h)anthracene

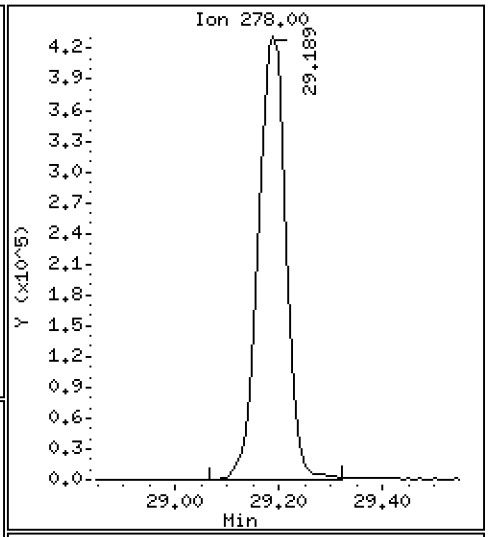
Concentration: 5.405 ug/mL

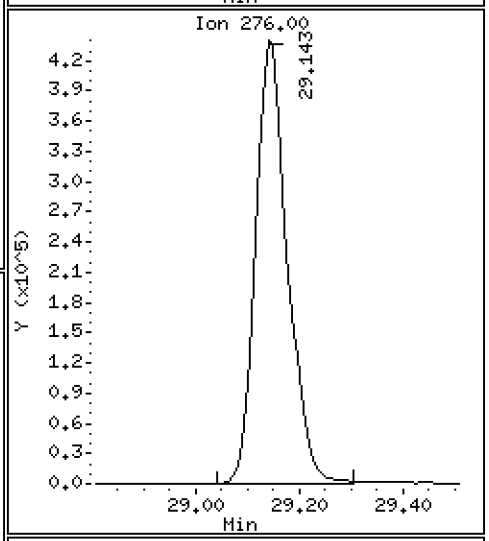


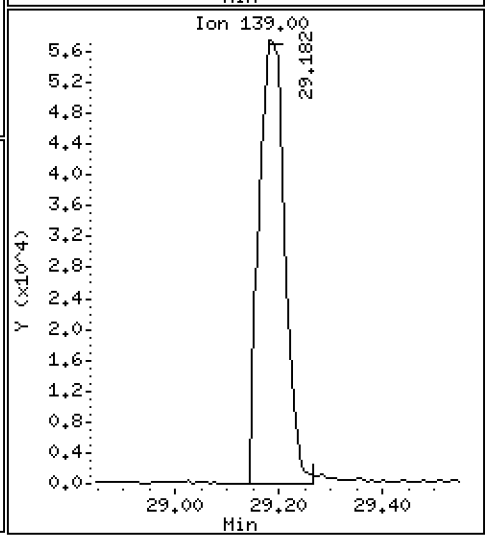












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

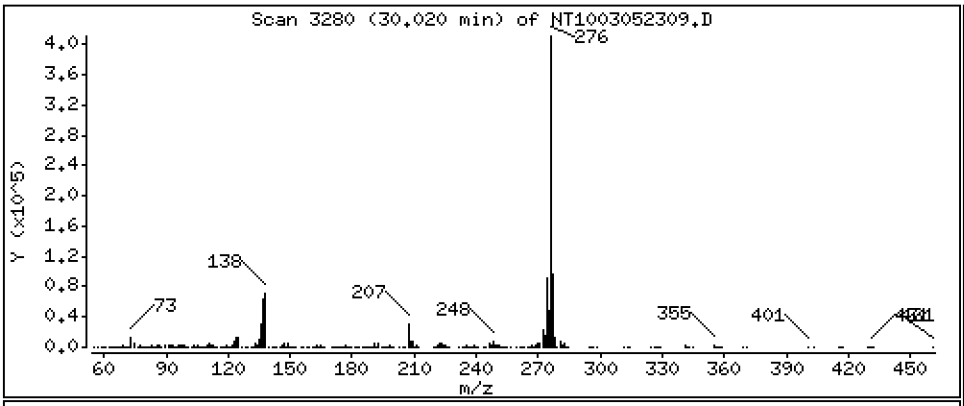
Operator: VTS

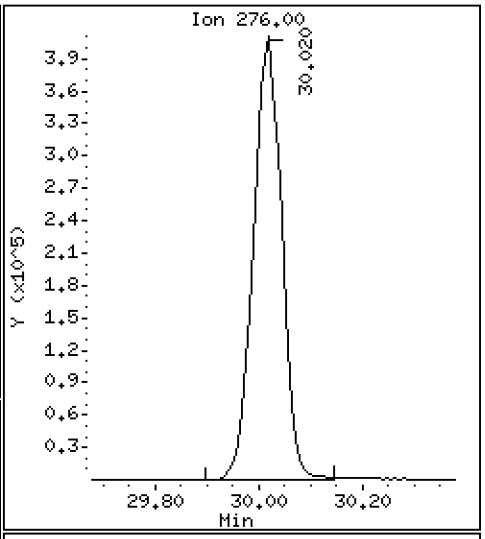
Column phase: ZB-5msi

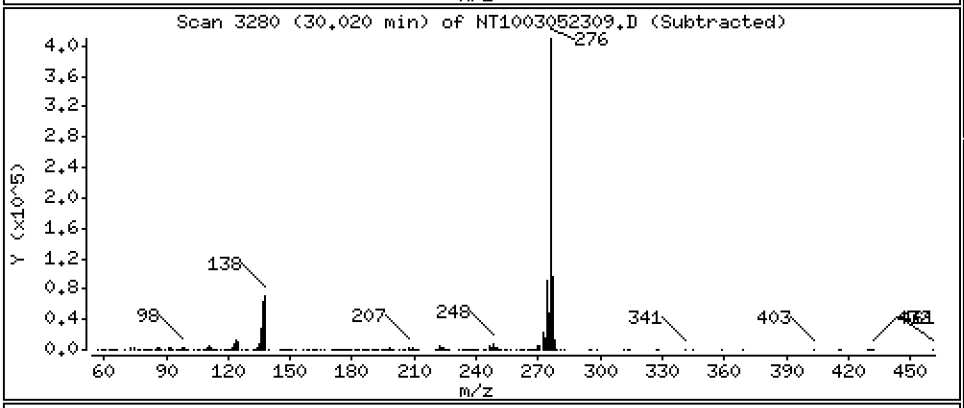
Column diameter: 0.25

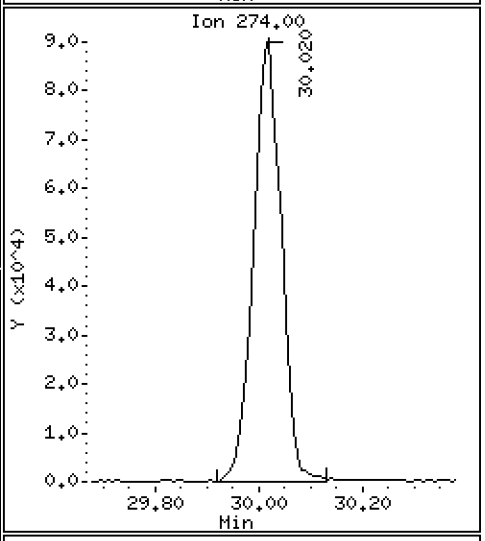
80 Benzo(g,h,i)perylene

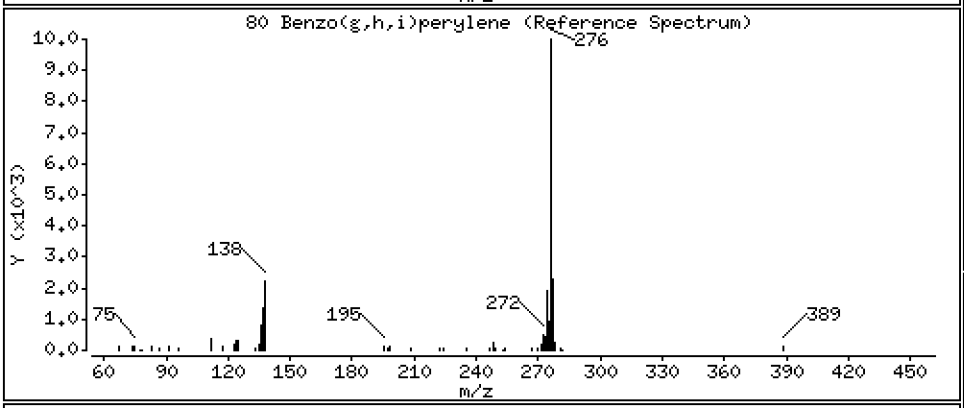
Concentration: 5.148 ug/mL

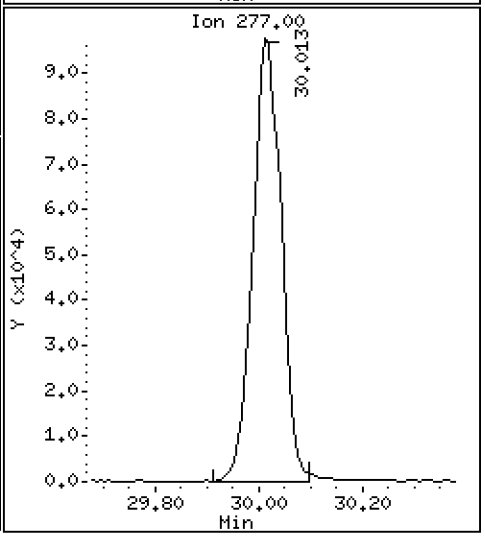


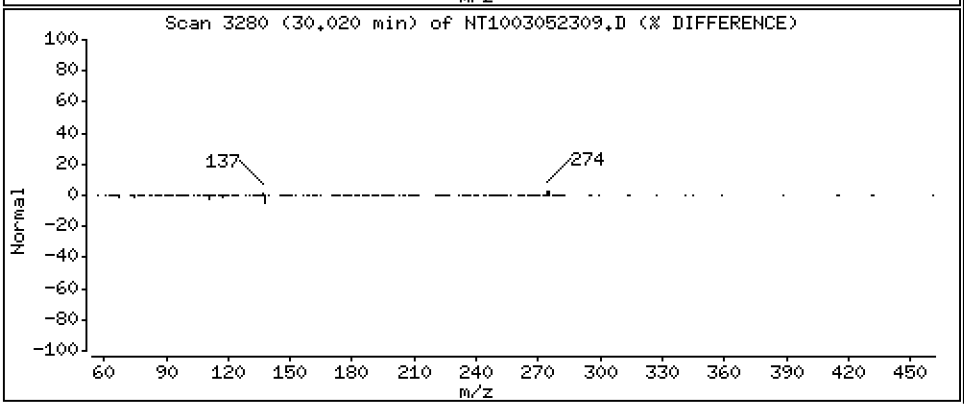












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

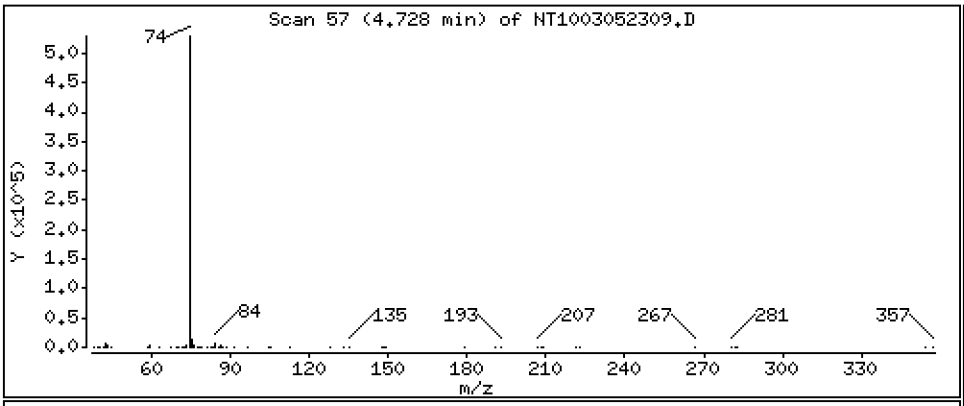
Operator: VTS

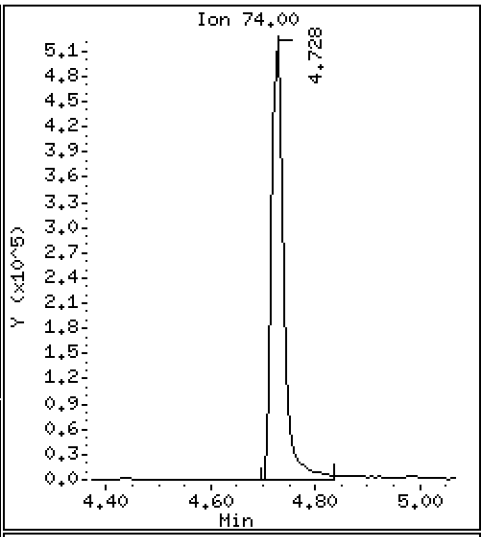
Column phase: ZB-5msi

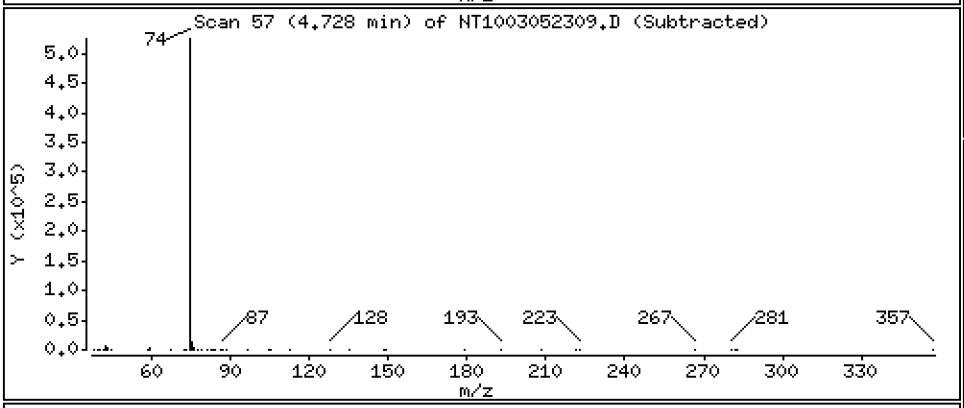
Column diameter: 0.25

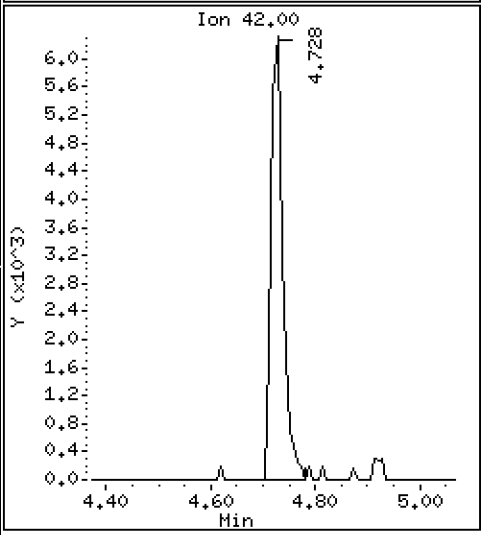
90 N-Nitrosodimethylamine

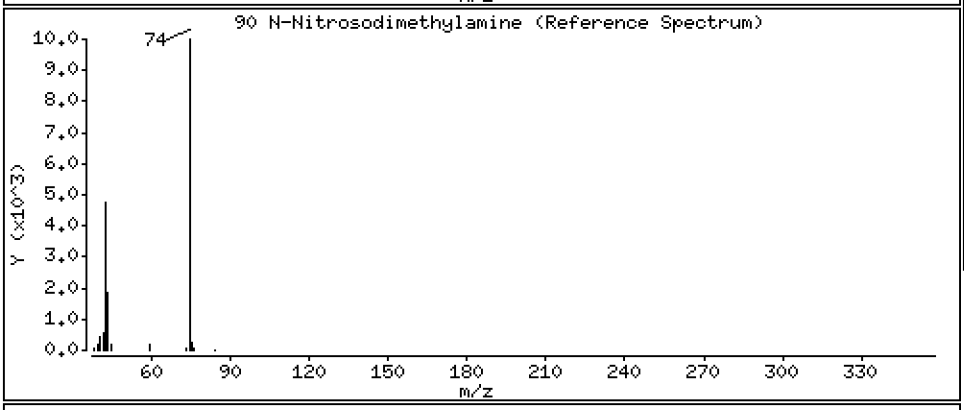
Concentration: 11.91 ug/mL

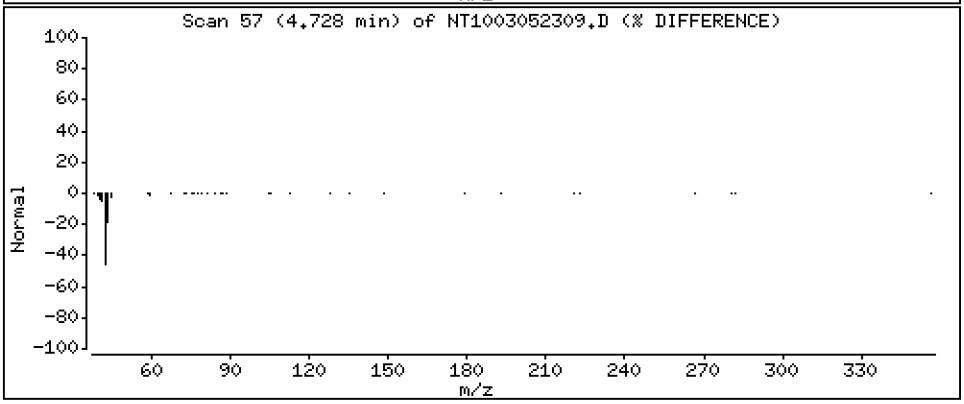












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

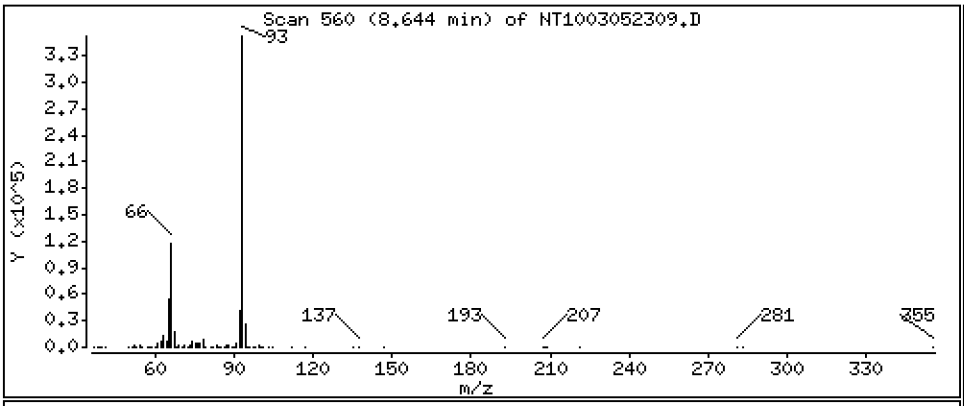
Operator: VTS

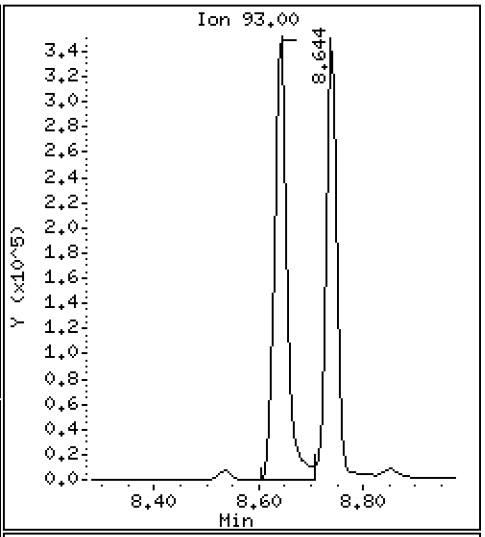
Column phase: ZB-5msi

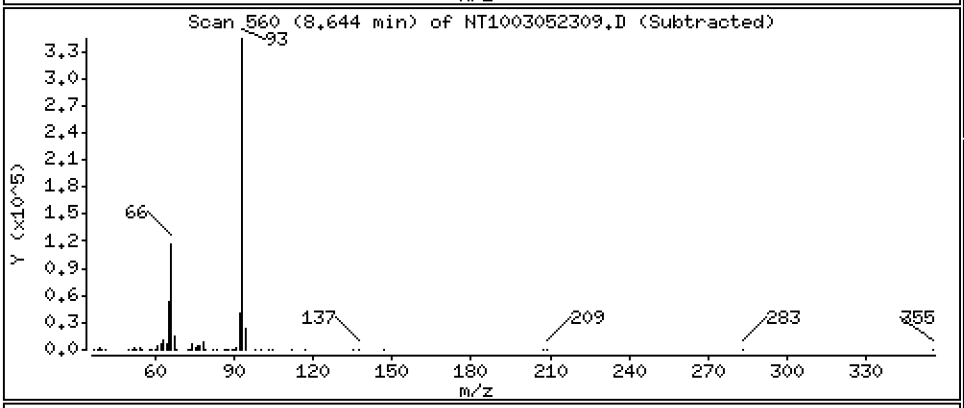
Column diameter: 0.25

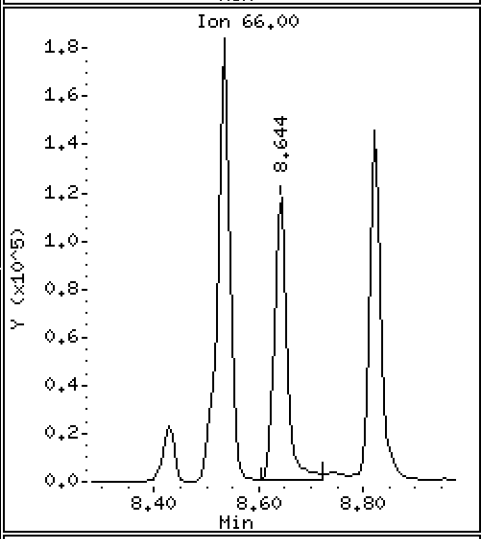
91 Aniline

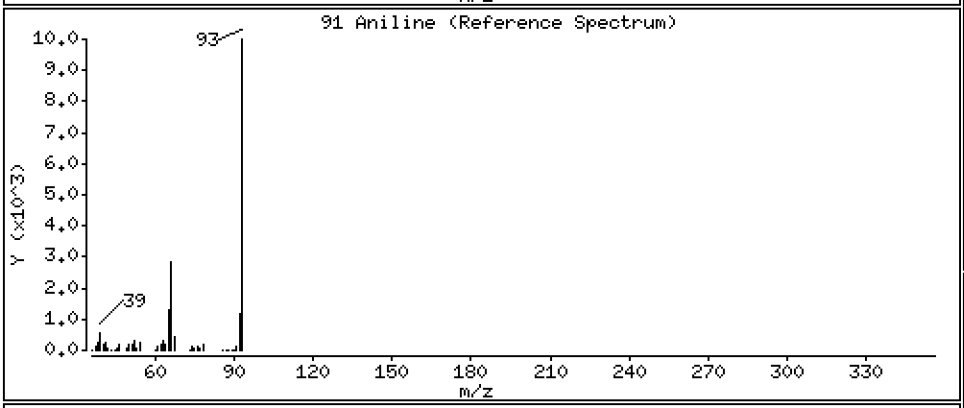
Concentration: 3.987 ug/mL

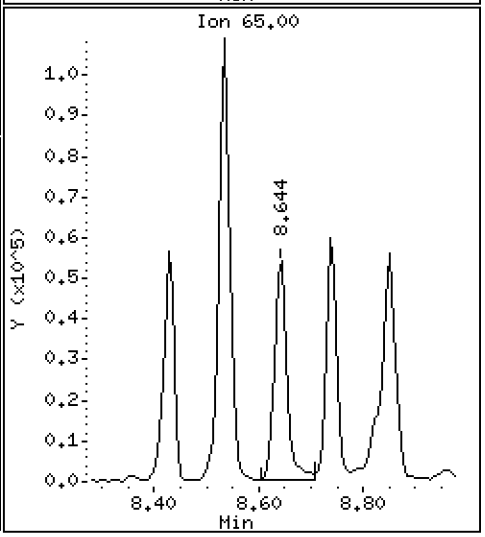


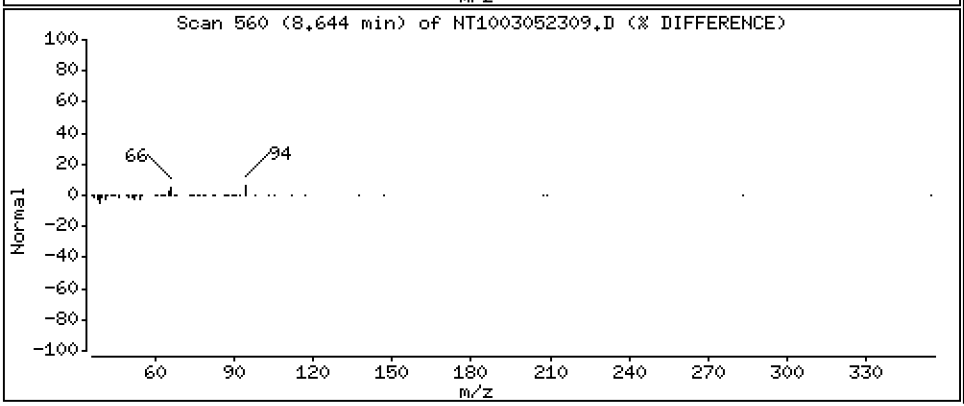












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

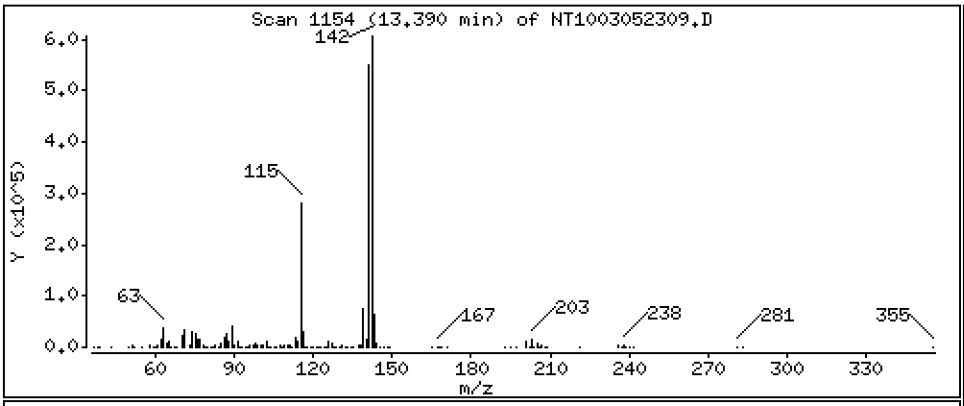
Operator: VTS

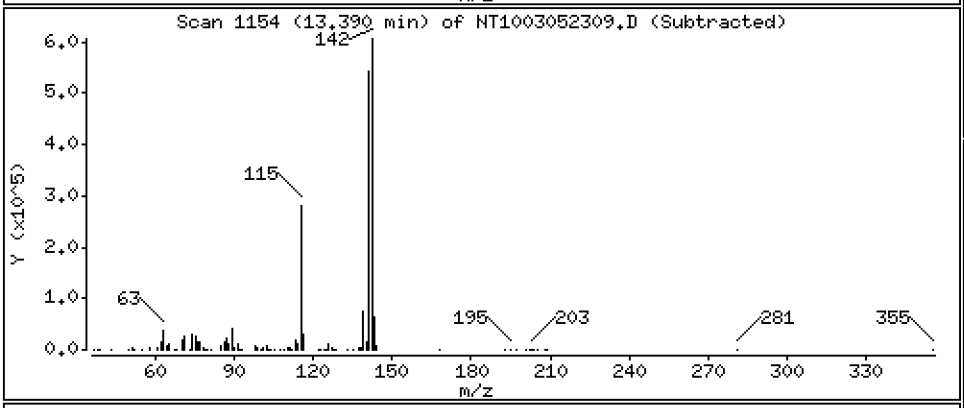
Column phase: ZB-5msi

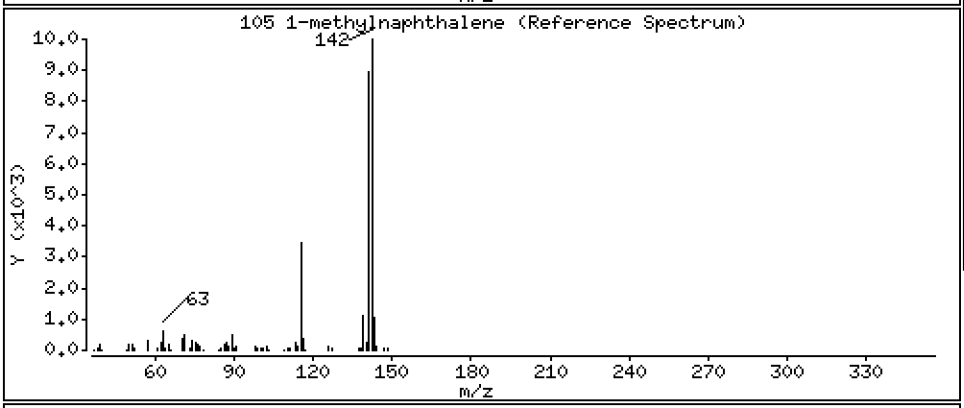
Column diameter: 0.25

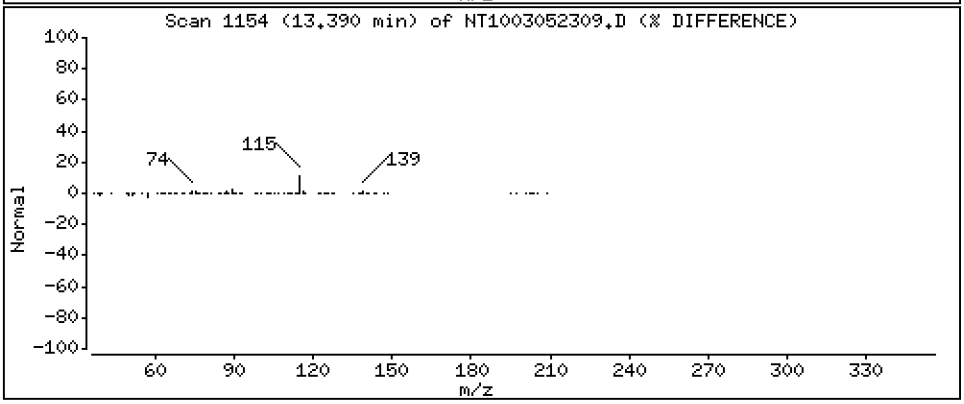
105 1-methylnaphthalene

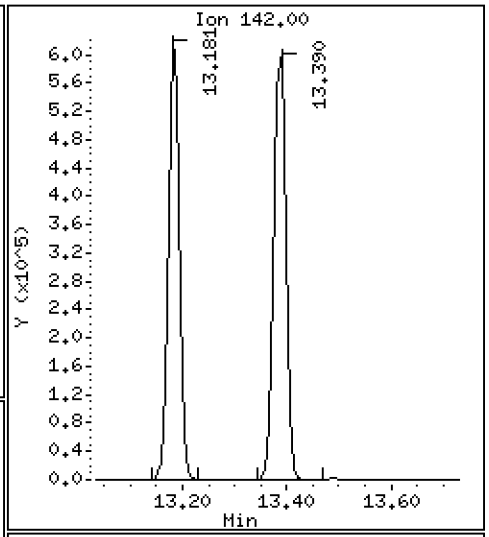
Concentration: 4.654 ug/mL

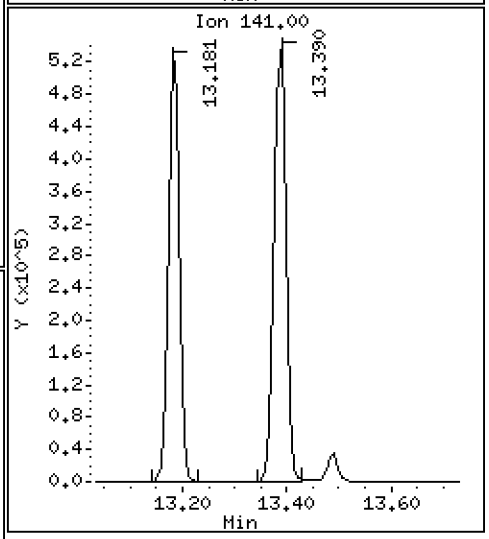












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

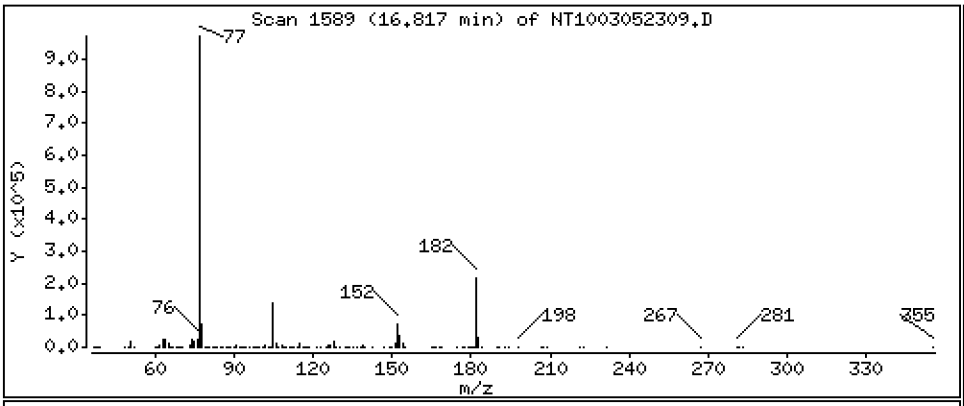
Operator: VTS

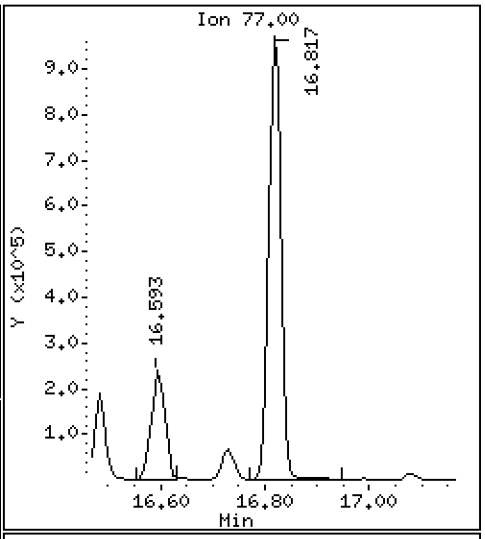
Column phase: ZB-5msi

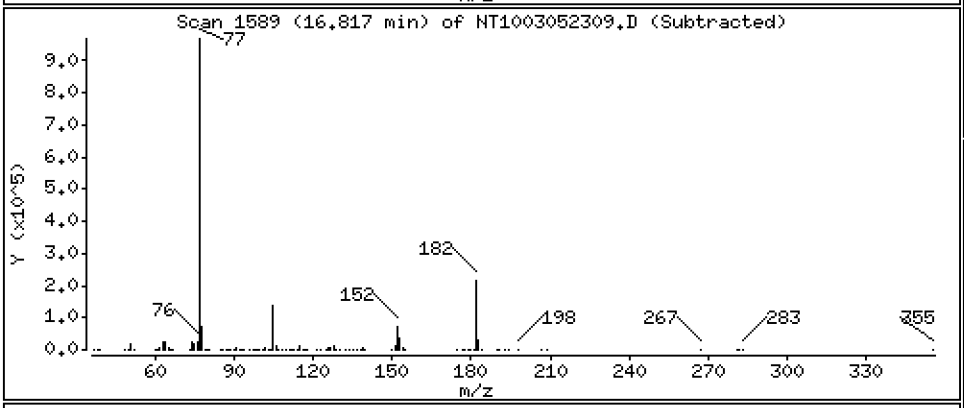
Column diameter: 0.25

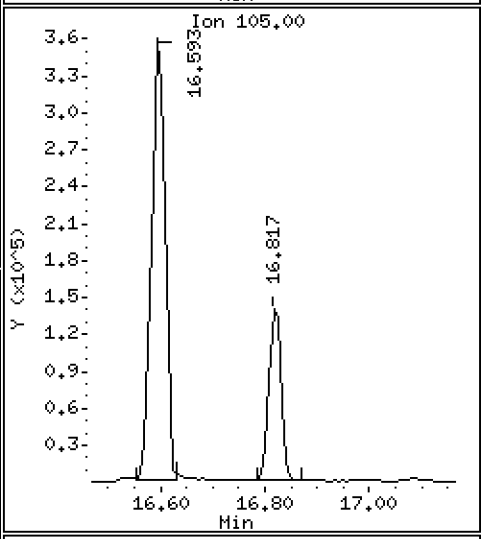
111 Azobenzene (1,2-DP-Hydrazine)

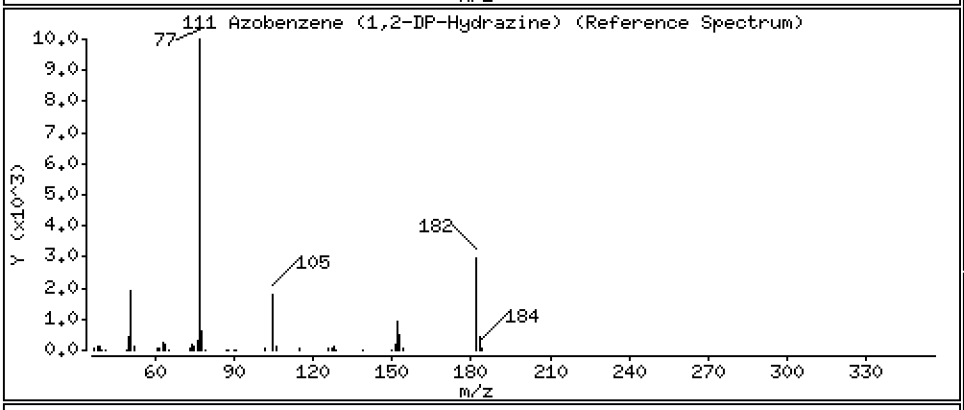
Concentration: 4.674 ug/mL

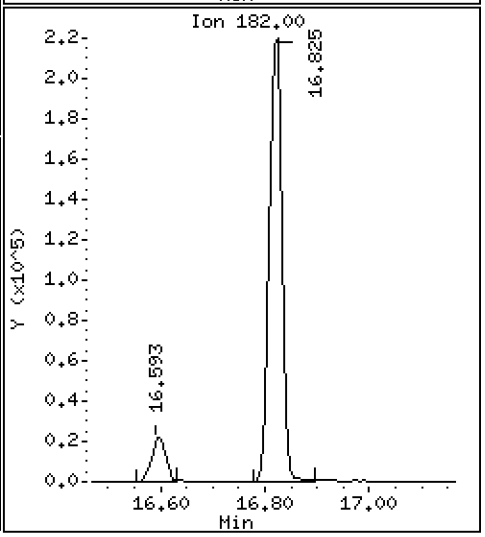


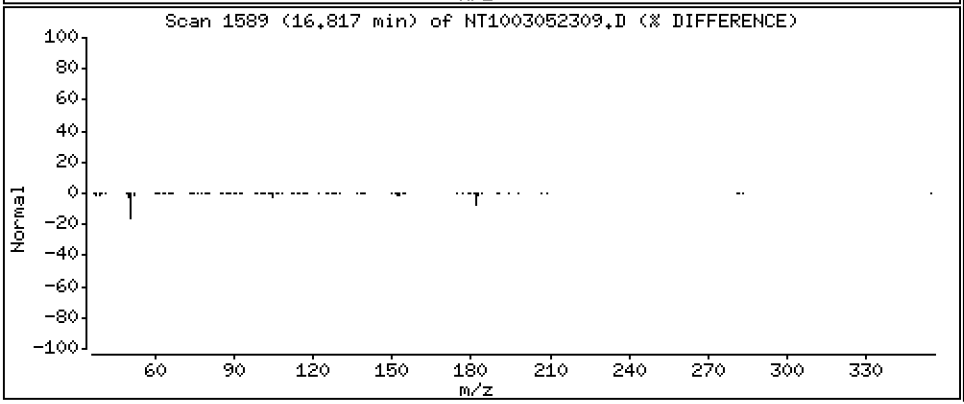












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

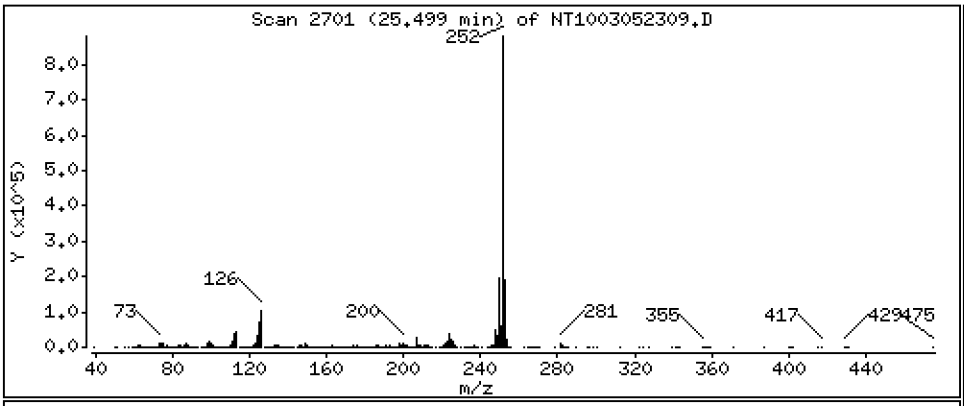
Operator: VTS

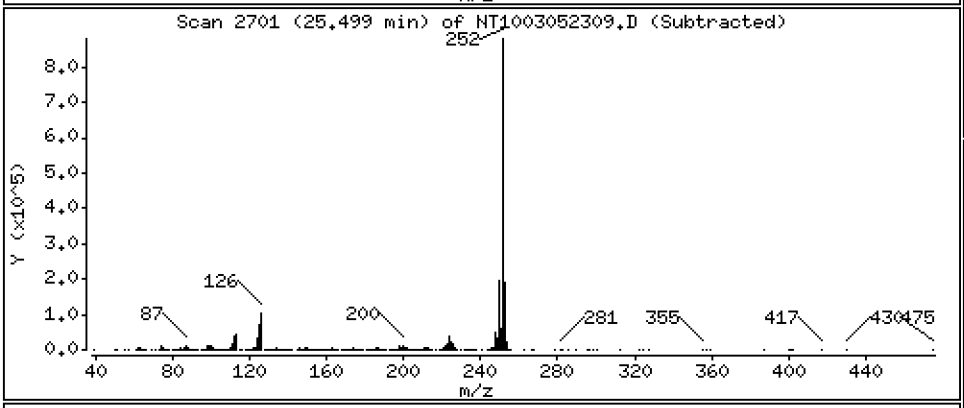
Column phase: ZB-5msi

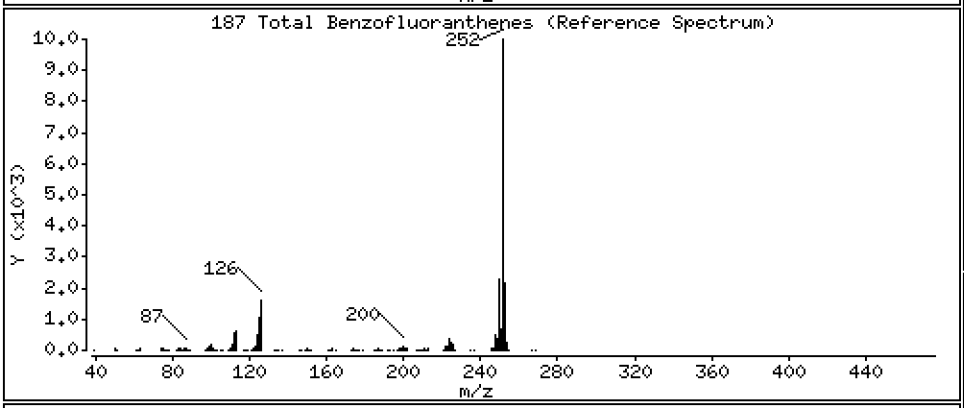
Column diameter: 0.25

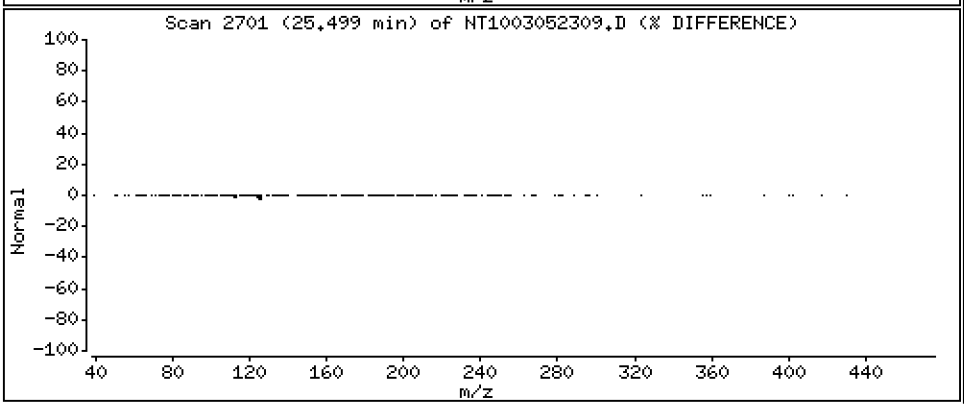
187 Total Benzofluoranthenes

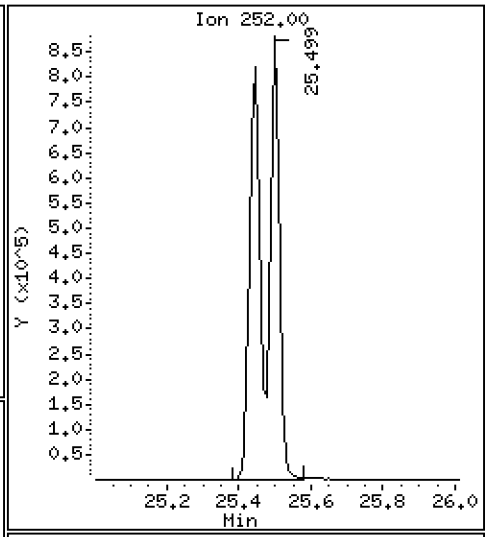
Concentration: 9.211 ug/mL

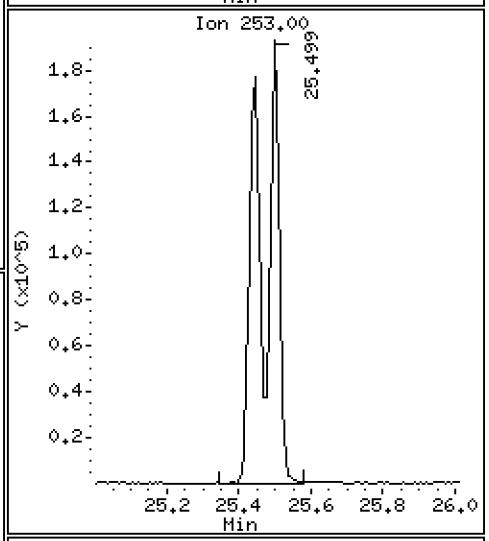


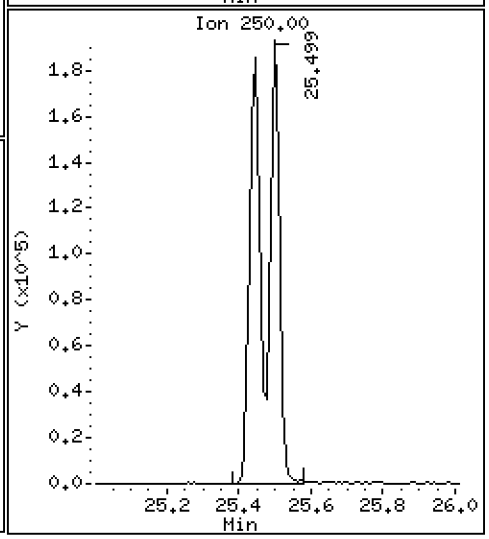












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Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD1

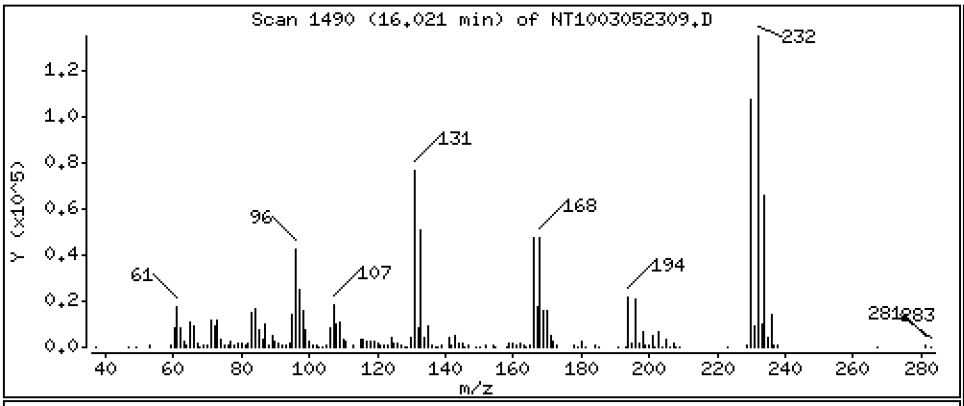
Operator: VTS

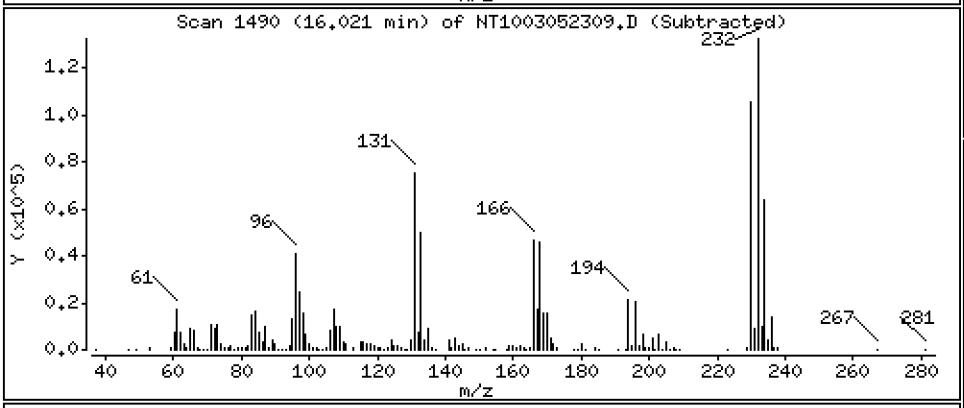
Column phase: ZB-5msi

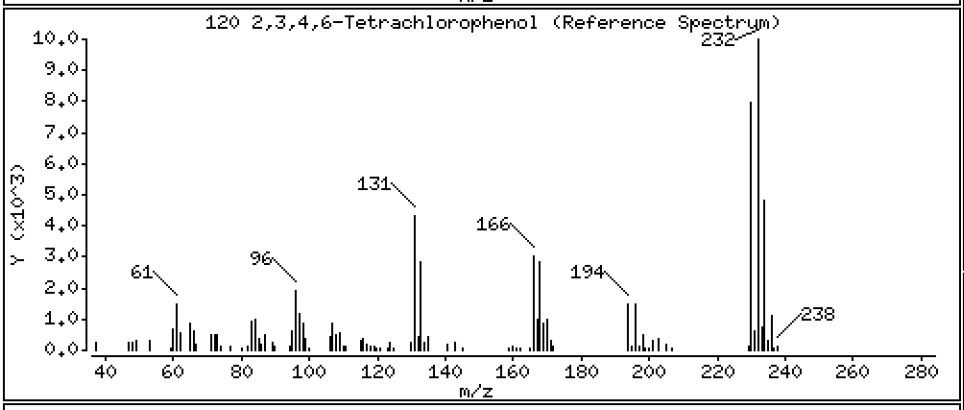
Column diameter: 0.25

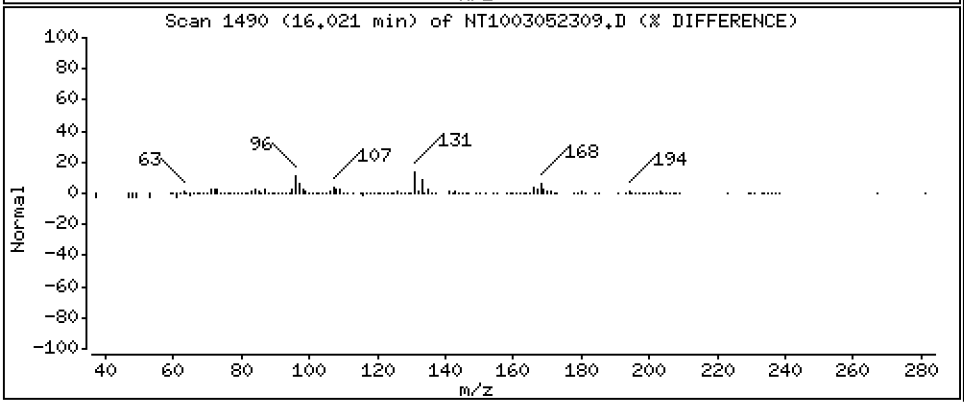
120 2,3,4,6-Tetrachlorophenol

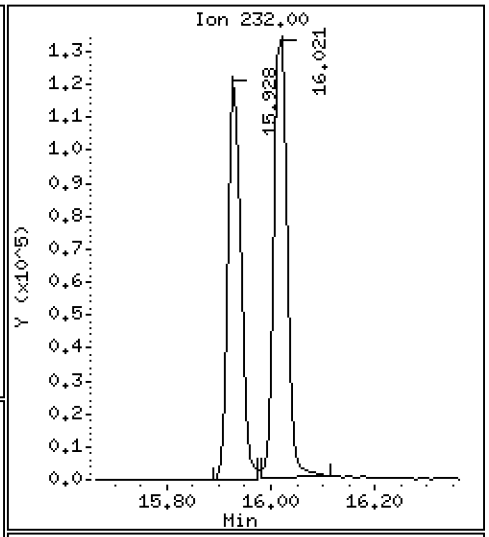
Concentration: 4.133 ug/mL

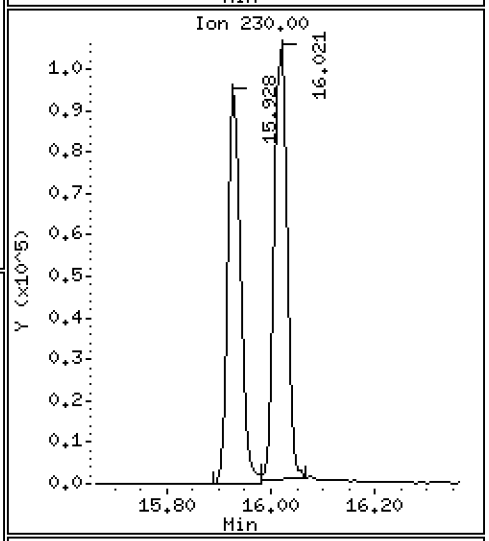


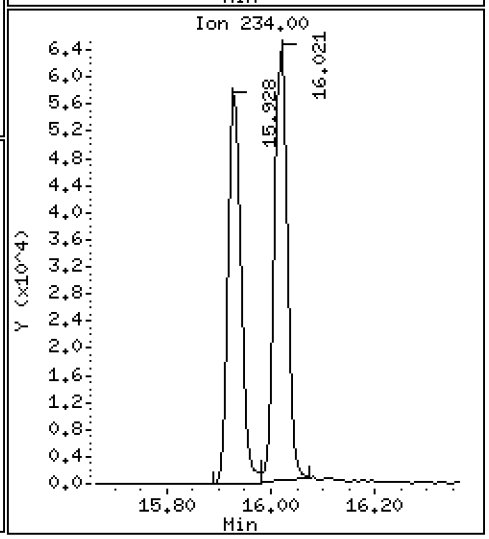












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

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Lab Smp Id: BLA0685-BSD1
Inj Date : 05-MAR-2023 18:28
Operator : VTS Inst ID: nt10.i
Smp Info : BLA0685-BSD1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305.b\ABN.m
Meth Date : 27-Mar-2023 11:22 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

							CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.905	6.897	(0.747)	593512	5.72822	5.728
$	2 Phenol-d5	99	8.512	8.504	(0.921)	803604	6.68042	6.680
	3 Phenol	94	8.535	8.528	(0.923)	589738	4.61112	4.611
$	5 2-Chlorophenol-d4	132	8.821	8.813	(0.954)	685965	6.68384	6.684
	4 Bis(2-Chloroethyl)ether	93	8.736	8.728	(0.945)	514218	5.26153	5.262
	6 2-Chlorophenol	128	8.852	8.844	(0.957)	462389	4.33683	4.337
	7 1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	510620	4.34380	4.344
*	8 1,4-Dichlorobenzene-d4	152	9.247	9.239	(1.000)	329316	4.00000	
	9 1,4-Dichlorobenzene	146	9.286	9.278	(1.004)	507867	4.34951	4.350
$	10 1,2-Dichlorobenzene-d4	152	9.542	9.534	(1.032)	303676	3.96043	3.960
	12 1,2-Dichlorobenzene	146	9.565	9.557	(1.034)	498291	4.40896	4.409
	11 Benzyl alcohol	108	9.487	9.480	(1.026)	283002	4.22342	4.223
	14 2,2'-oxybis(1-Chloropropane)	121	9.744	9.728	(1.054)	170528	5.23362	5.234
	13 2-Methylphenol	108	9.674	9.666	(1.046)	353496	3.51139	3.511
	17 Hexachloroethane	117	10.217	10.209	(1.105)	235125	4.90591	4.906
	16 N-Nitroso-di-n-propylamine	70	9.992	9.984	(1.081)	359009	4.65182	4.652
	15 4-Methylphenol	108	9.969	9.953	(1.078)	407995	3.30956	3.310
$	18 Nitrobenzene-d5	82	10.302	10.302	(0.877)	582175	4.42546	4.425
	19 Nitrobenzene	77	10.341	10.341	(0.881)	657881	5.33121	5.331
	20 Isophorone	82	10.807	10.799	(0.920)	1038837	6.59487	6.595
	21 2-Nitrophenol	139	10.967	10.959	(0.934)	247504	3.70444	3.704
	22 2,4-Dimethylphenol	107	11.018	11.018	(0.938)	612735	5.12759	5.128
	23 Bis(2-Chloroethoxy)methane	93	11.230	11.222	(0.956)	573444	5.89079	5.891
	24 Benzoic acid	105	11.230	11.196	(0.956)	1324358	18.1661	18.17
	25 2,4-Dichlorophenol	162	11.434	11.434	(0.974)	1667651	17.0972	17.10
	26 1,2,4-Trichlorobenzene	180	11.611	11.603	(0.989)	433816	4.68421	4.684
*	27 Naphthalene-d8	136	11.742	11.726	(1.000)	1198408	4.00000	
	28 Naphthalene	128	11.780	11.773	(1.003)	1364778	4.43705	4.437
	29 4-Chloroaniline	127	11.881	11.873	(1.012)	1001798	7.26570	7.266
	30 Hexachlorobutadiene	225	12.004	11.997	(1.022)	342382	5.07724	5.077
	31 4-Chloro-3-methylphenol	107	12.832	12.825	(1.093)	1736674	16.5262	16.53
	32 2-Methylnaphthalene	142	13.181	13.181	(1.123)	941950	4.33487	4.335
	33 Hexachlorocyclopentadiene	237	13.490	13.483	(0.879)	347955	15.0684	15.07

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	13.753	13.746	(0.896)	1131843	17.4150	17.42
	35	2,4,5-Trichlorophenol	196	13.823	13.815	(0.901)	1209430	17.3583	17.36
$	36	2-Fluorobiphenyl	172	13.931	13.924	(0.908)	1015314	4.53461	4.535
	37	2-Chloronaphthalene	162	14.195	14.187	(0.925)	898928	5.11424	5.114
	38	2-Nitroaniline	65	14.404	14.396	(0.938)	985640	19.1276	19.13
	39	Dimethylphthalate	163	14.775	14.767	(0.963)	1040148	5.13077	5.131
	40	Acenaphthylene	152	15.054	15.046	(0.981)	1480024	4.88408	4.884
	41	2,6-Dinitrotoluene	165	14.907	14.899	(0.971)	886055	18.6684	18.67
*	42	Acenaphthene-d10	164	15.348	15.340	(1.000)	627739	4.00000	
	43	3-Nitroaniline	138	15.263	15.255	(0.994)	640604	12.5304	12.53
	44	Acenaphthene	153	15.409	15.409	(1.004)	850329	4.65285	4.653
	45	2,4-Dinitrophenol	184	15.487	15.479	(1.009)	706812	49.1309	49.13
	46	Dibenzofuran	168	15.773	15.765	(1.028)	1281007	4.72288	4.723
	47	4-Nitrophenol	109	15.587	15.579	(1.016)	572191	14.9493	14.95
	48	2,4-Dinitrotoluene	165	15.750	15.742	(1.026)	1244784	17.9297	17.93
	50	Diethylphthalate	149	16.244	16.237	(1.058)	1082684	5.04130	5.041
	49	Fluorene	166	16.492	16.484	(1.075)	1071476	4.74798	4.748
	51	4-Chlorophenyl-phenylether	204	16.484	16.484	(1.074)	530465	5.12160	5.122
	52	4-Nitroaniline	138	16.538	16.523	(1.078)	692579	12.6030	12.60
	53	4,6-Dinitro-2-methylphenol	198	16.600	16.585	(0.899)	1245681	40.6854	40.69
	54	N-Nitrosodiphenylamine	169	16.732	16.724	(0.907)	684441	4.10239	4.102
$	55	2,4,6-Tribromophenol	330	16.986	16.986	(1.107)	287857	7.10034	7.100
	56	4-Bromophenyl-phenylether	248	17.511	17.504	(0.949)	413755	6.12038	6.120
	57	Hexachlorobenzene	284	17.620	17.620	(0.955)	415037	5.45191	5.452
	58	Pentachlorophenol	266	18.038	18.038	(0.977)	426820	11.3254	11.33
*	59	Phenanthrene-d10	188	18.455	18.448	(1.000)	1127626	4.00000	
	60	Phenanthrene	178	18.502	18.502	(1.002)	1398267	4.84533	4.845
	61	Anthracene	178	18.610	18.610	(1.008)	1157757	4.13741	4.137
	62	Carbazole	167	18.951	18.943	(1.027)	1131273	4.41293	4.413
	63	Di-n-butylphthalate	149	19.647	19.647	(1.065)	1772032	4.91787	4.918
	64	Fluoranthene	202	20.885	20.885	(0.888)	1725833	4.84291	4.843
	65	Pyrene	202	21.326	21.318	(0.907)	1686243	4.64697	4.647
$	66	Terphenyl-d14	244	21.597	21.597	(0.919)	1353239	4.60892	4.609
	67	Butylbenzylphthalate	149	22.487	22.487	(0.957)	741619	3.85183	3.852
	68	Benzo(a)anthracene	228	23.494	23.494	(0.999)	1681101	4.60240	4.602
*	69	Chrysene-d12	240	23.509	23.517	(1.000)	1035914	4.00000	
	70	3,3'-Dichlorobenzidine	252	23.440	23.440	(0.997)	829523	5.06805	5.068
	71	Chrysene	228	23.556	23.563	(1.002)	1450933	4.88770	4.888
	72	bis(2-Ethylhexyl)phthalate	149	23.494	23.494	(0.955)	1200370	5.11736	5.117
*	134	Di-n-octylphthalate-d4	153	24.593	24.593	(1.000)	1620537	4.00000	
	73	Di-n-octylphthalate	149	24.601	24.609	(1.000)	2036563	5.66725	5.667
	74	Benzo(b)fluoranthene	252	25.445	25.445	(0.968)	1681117	4.59885	4.599(H)
	75	Benzo(k)fluoranthene	252	25.499	25.507	(0.971)	1628887	4.62070	4.621
	76	Benzo(a)pyrene	252	26.149	26.157	(0.995)	1344229	4.13777	4.138
*	77	Perylene-d12	264	26.273	26.281	(1.000)	1019954	4.00000	
	78	Indeno(1,2,3-cd)pyrene	276	29.142	29.158	(1.109)	1868183	4.87858	4.879
	79	Dibenzo(a,h)anthracene	278	29.189	29.197	(1.111)	1590721	5.40471	5.405
	80	Benzo(g,h,i)perylene	276	30.020	30.028	(1.143)	1560050	5.14816	5.148
	90	N-Nitrosodimethylamine	74	4.727	4.719	(0.511)	796822	11.9128	11.91
	91	Aniline	93	8.643	8.628	(0.935)	591227	3.98693	3.987
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	142	13.390	13.382	(1.140)	915349	4.65417	4.654
	111	Azobenzene (1,2-DP-Hydrazine)	77	16.816	16.816	(1.096)	1499083	4.67432	4.674

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.499	25.507	(0.971)	3237676	9.21074	9.211
120 2,3,4,6-Tetrachlorophenol	232	16.020	16.012	(1.044)	254441	4.13260	4.133

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052309.D
Lab Smp Id: BLA0685-BSD1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:03
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	297263	148632	594526	329316	10.78
27 Naphthalene-d8	1085336	542668	2170672	1198408	10.42
42 Acenaphthene-d10	563464	281732	1126928	627739	11.41
59 Phenanthrene-d10	1038318	519159	2076636	1127626	8.60
69 Chrysene-d12	1012751	506376	2025502	1035914	2.29
134 Di-n-octylphthala	1628890	814445	3257780	1620537	-0.51
77 Perylene-d12	1152264	576132	2304528	1019954	-11.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.74	0.13
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.52	23.02	24.02	23.51	-0.03
134 Di-n-octylphthala	24.59	24.09	25.09	24.59	0.00
77 Perylene-d12	26.28	25.78	26.78	26.27	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052309.D

Lab ID: BLA0685-BSD1
nt10.i, 20230305.b\ABN.m,   05-MAR-2023 18:28

RT	CO-ELUTION COMPOUNDS
23.494	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

RRT check based on Ccal File: NT1003052302.D

On Column LOD for nt10.i, 20230305.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, LLC
Analytical Chemists and Consultants

LDW23-SC1159

MS / MS DUPLICATE RECOVERY
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	03/05/23 19:06
Batch:	BLA0685	Laboratory ID:	BLA0685-MS1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	Matrix Spike
Initial/Final:	11.8 g / 1 mL	Source Sample:	LDW23-SC1159

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Phenol	500	114		528		82.7	34 - 120
4-Methylphenol	500	ND	U	272		54.4	29 - 120
Naphthalene	500	12.3	J	470		91.5	43 - 120
2-Methylnaphthalene	500	11.8	J	447		87.0	43 - 120
Acenaphthylene	500	14.2	J	464		89.9	42 - 120
Dimethylphthalate	500	ND	U	505		101	43 - 120
Acenaphthene	500	14.3	J	474		92.0	45 - 120
Dibenzofuran	500	15.4	J	485		94.0	43 - 120
Fluorene	500	ND	U	490		98.0	45 - 120
Phenanthrene	500	79.5		557		95.4	49 - 120
Anthracene	500	45.8		420		74.8	45 - 120
Fluoranthene	500	224		611		77.3	53 - 145
Pyrene	500	349		739		78.0	52 - 134
Butylbenzylphthalate	500	ND	U	376		75.2	45 - 132
Benzo(a)anthracene	500	163		603		88.0	49 - 120
Chrysene	500	222		652		85.9	47 - 120
bis(2-Ethylhexyl)phthalate	500	125		605		96.0	34 - 130
Benzofluoranthenes, Total	1000	334		1140		80.3	30 - 160
Benzo(a)pyrene	500	119		491		74.4	42 - 120
Indeno(1,2,3-cd)pyrene	500	67.1		504		87.4	42 - 163
Dibenzo(a,h)anthracene	500	25.7		512		97.3	30 - 133
Benzo(g,h,i)perylene	500	78.2		540		92.4	46 - 148

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	03/05/23 19:44
Batch:	BLA0685	Laboratory ID:	BLA0685-MSD1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	Matrix Spike Dup
Initial/Final:	11.8 g / 1 mL	Source Sample:	LDW23-SC1159

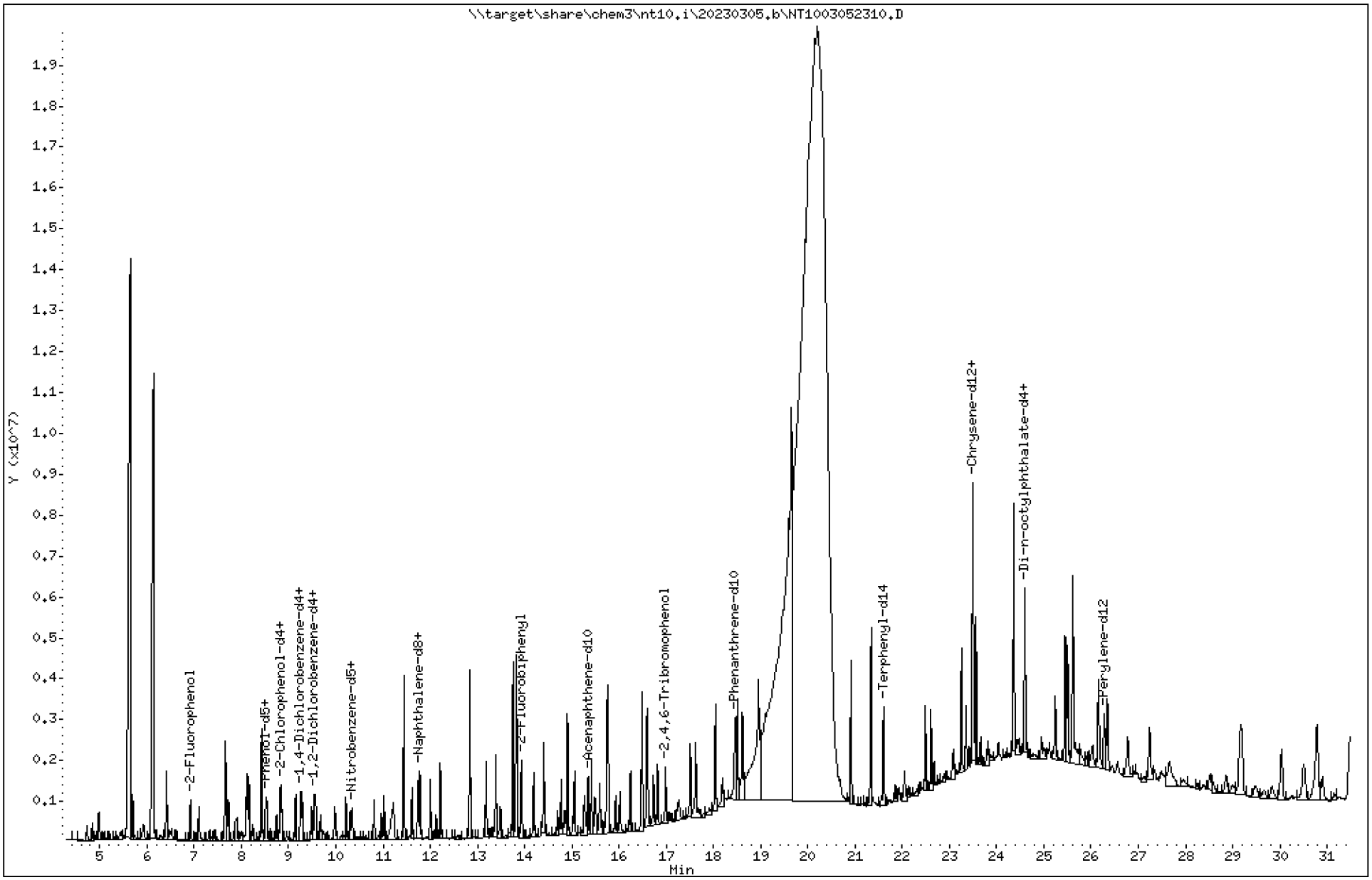
COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	500	499		76.9	5.69	30	34 - 120
4-Methylphenol	500	227		45.5	17.9	30	29 - 120
Naphthalene	500	408		79.2	14.0	30	43 - 120
2-Methylnaphthalene	500	416		80.8	7.18	30	43 - 120
Acenaphthylene	500	450		87.2	2.96	30	42 - 120
Dimethylphthalate	500	478		95.5	5.50	30	43 - 120
Acenaphthene	500	451		87.3	4.99	30	45 - 120
Dibenzofuran	500	458		88.5	5.77	30	43 - 120
Fluorene	500	458		91.6	6.73	30	45 - 120
Phenanthrene	500	595		103	6.72	30	49 - 120
Anthracene	500	442		79.2	5.10	30	45 - 120
Fluoranthene	500	647		84.7	5.83	30	53 - 145
Pyrene	500	869		104	16.1	30	52 - 134
Butylbenzylphthalate	500	384		76.8	2.14	30	45 - 132
Benzo(a)anthracene	500	641		95.6	6.14	30	49 - 120
Chrysene	500	792		114	19.4	30	47 - 120
bis(2-Ethylhexyl)phthalate	500	582		91.3	3.96	30	34 - 130
Benzofluoranthenes, Total	1000	1170		83.7	2.93	30	30 - 160
Benzo(a)pyrene	500	519		80.0	5.53	30	42 - 120
Indeno(1,2,3-cd)pyrene	500	507		88.0	0.633	30	42 - 163
Dibenzo(a,h)anthracene	500	503		95.5	1.83	30	30 - 133
Benzo(g,h,i)perylene	500	534		91.1	1.20	30	46 - 148

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052310.D
Date : 05-MAR-2023 19:06
Client ID:
Sample Info: BLA0685-MS1

Instrument: nt10.i
Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

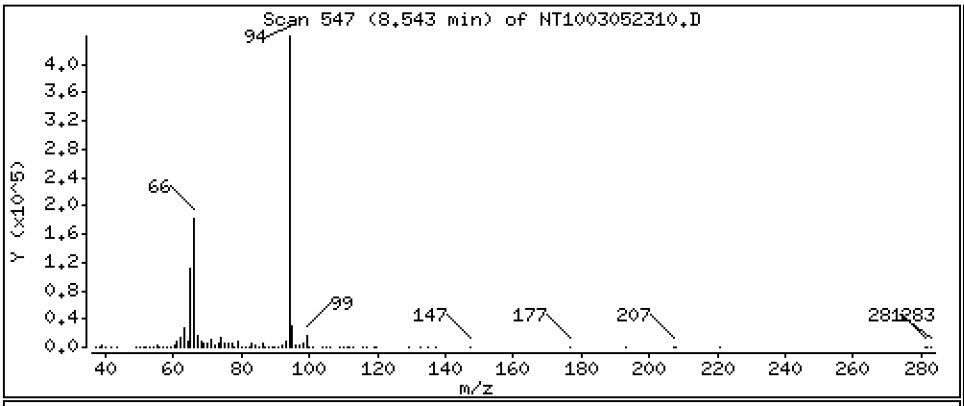
Operator: VTS

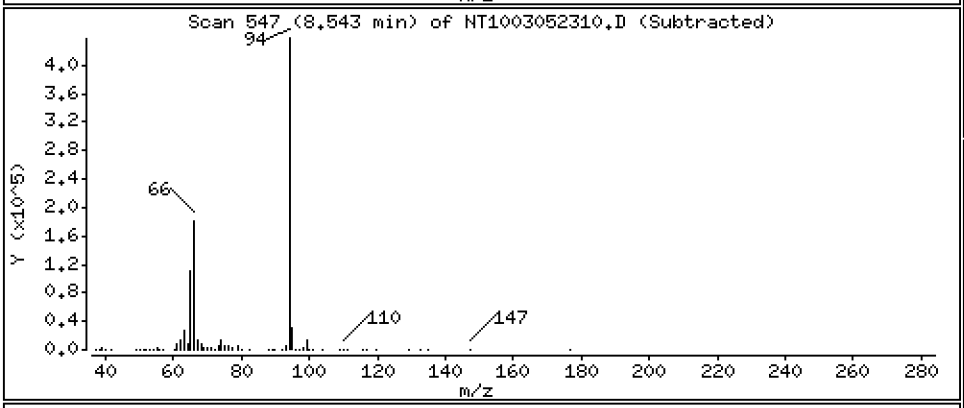
Column phase: ZB-5msi

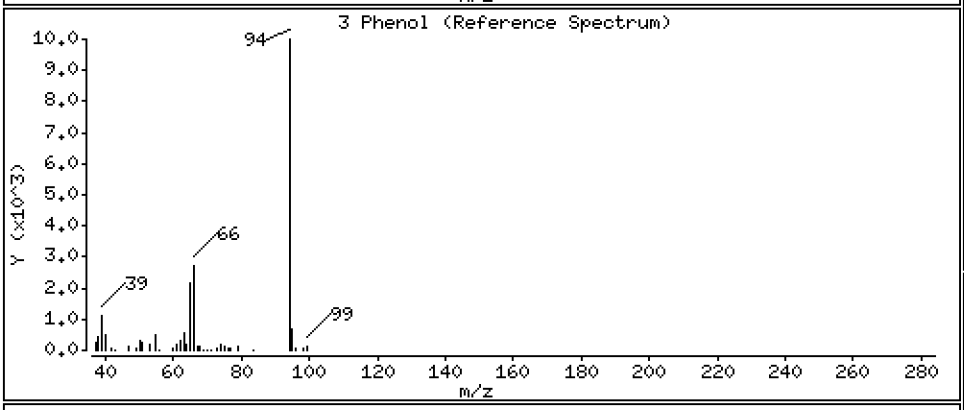
Column diameter: 0.25

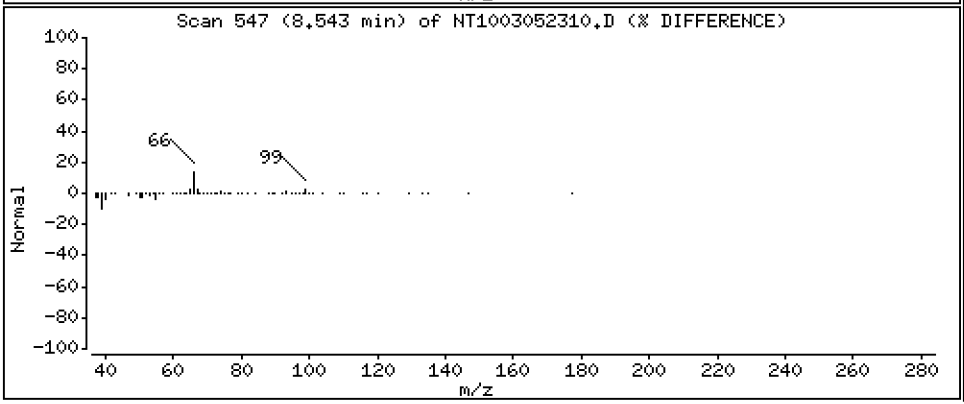
3 Phenol

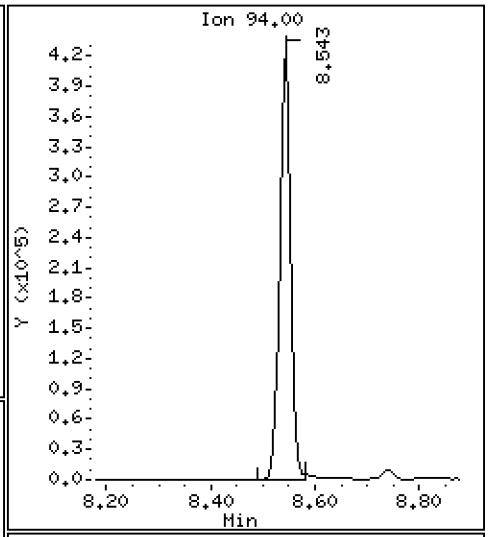
Concentration: 5.280 ug/mL

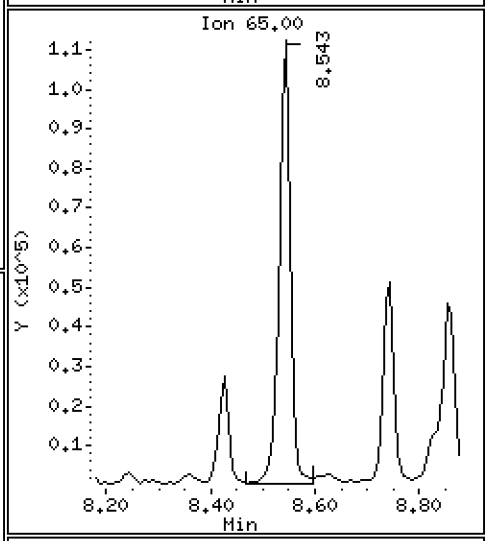


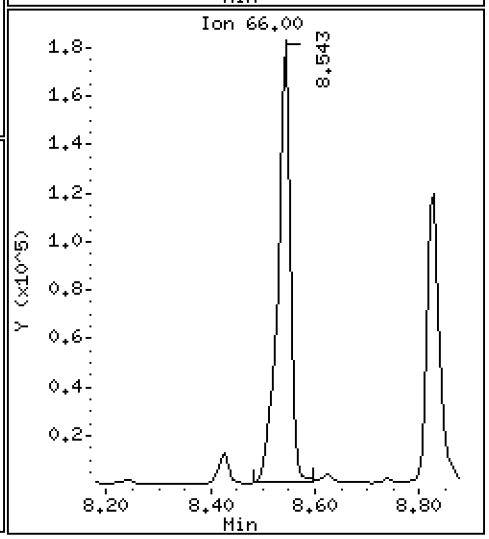












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

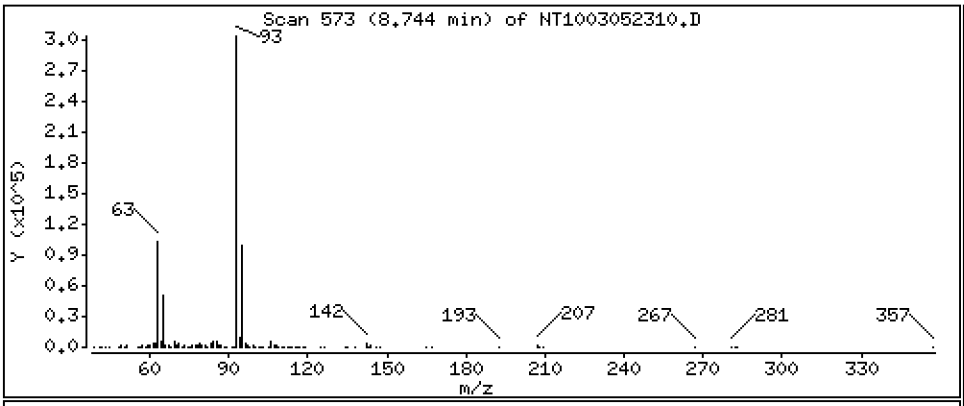
Operator: VTS

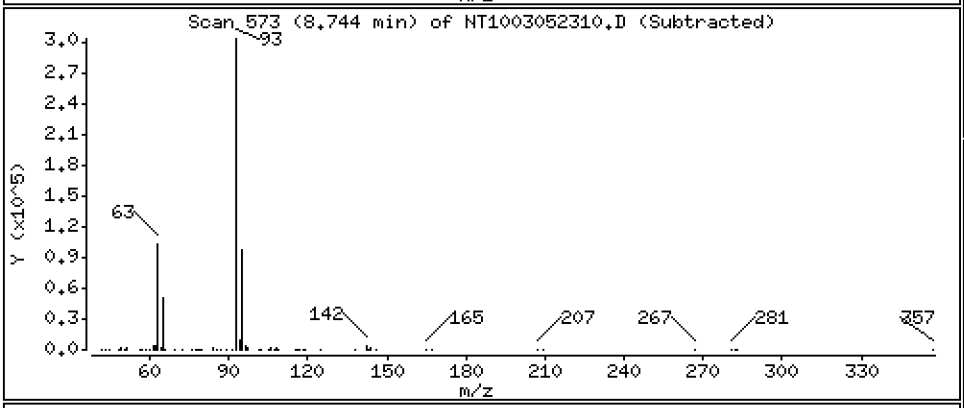
Column phase: ZB-5msi

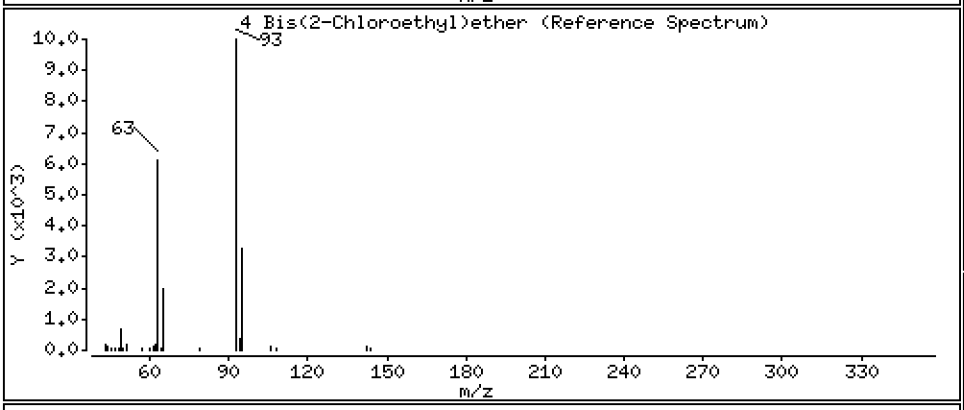
Column diameter: 0.25

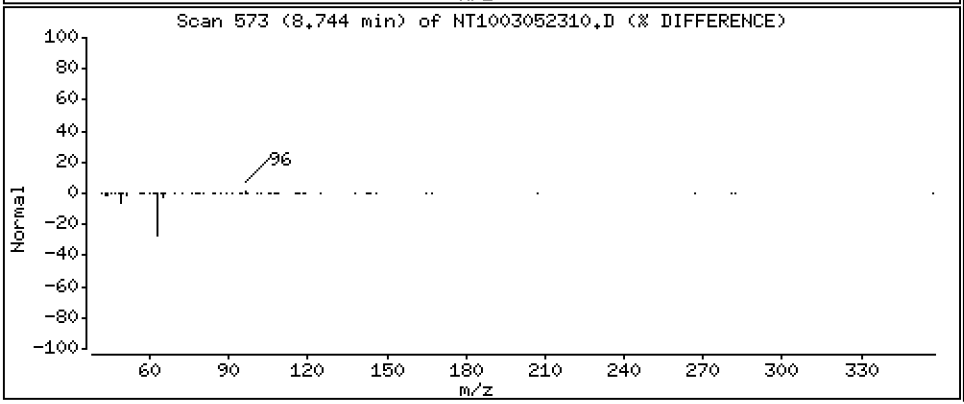
4 Bis(2-Chloroethyl)ether

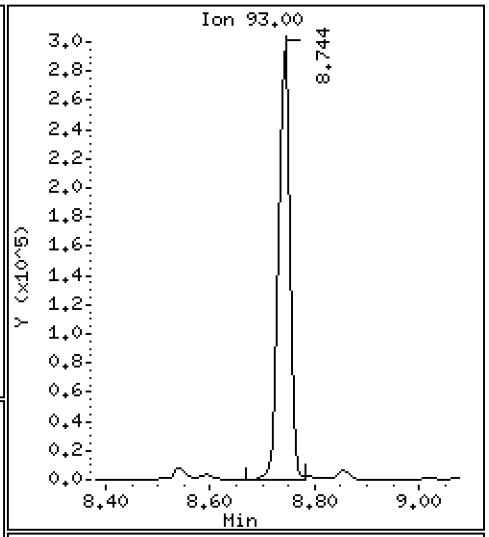
Concentration: 4.795 ug/mL

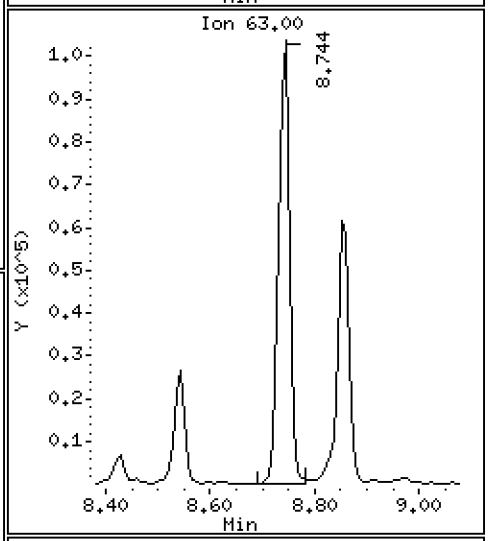


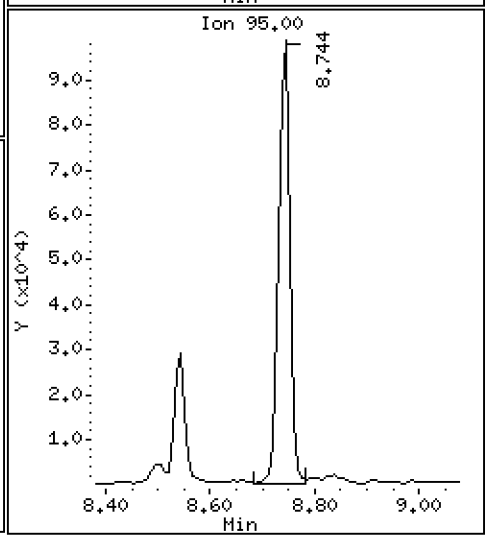












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

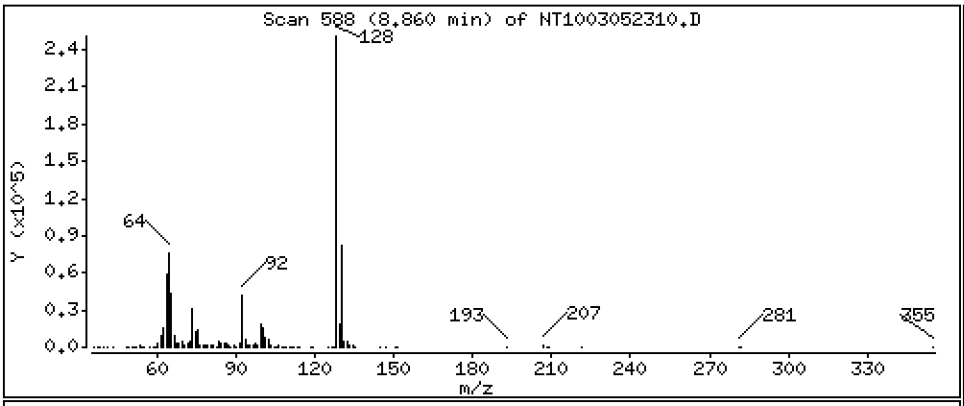
Operator: VTS

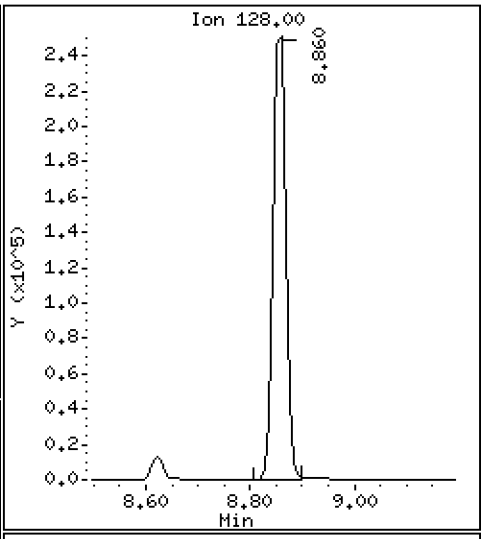
Column phase: ZB-5msi

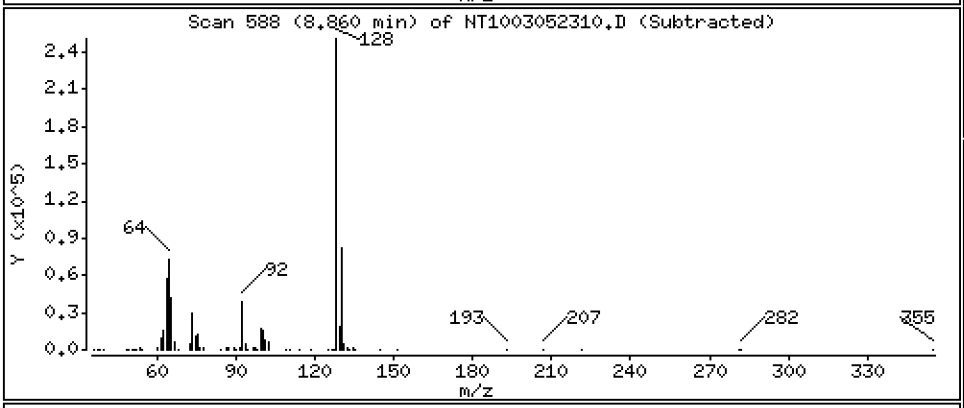
Column diameter: 0.25

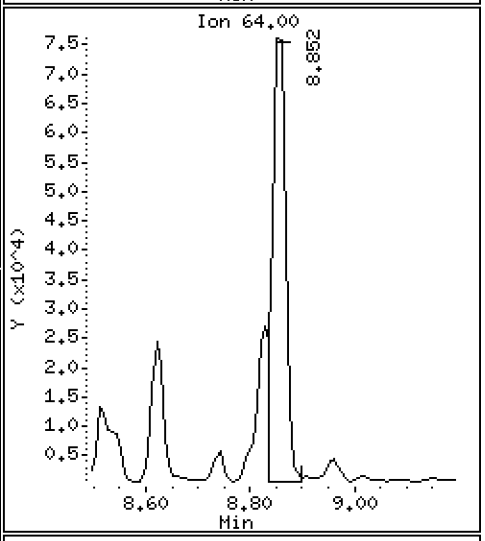
6 2-Chlorophenol

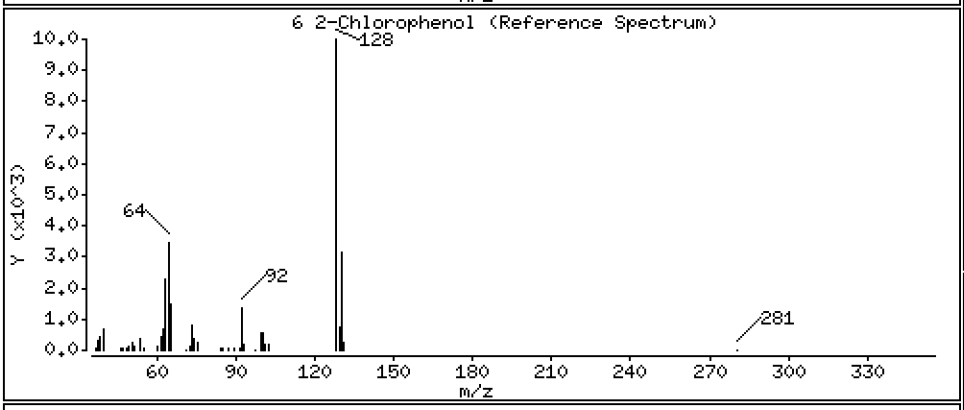
Concentration: 4.041 ug/mL

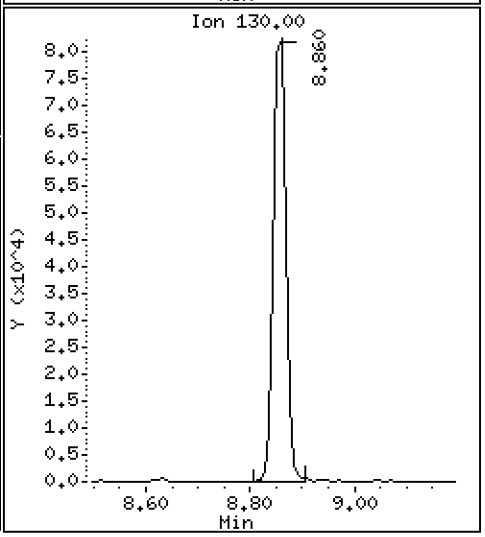


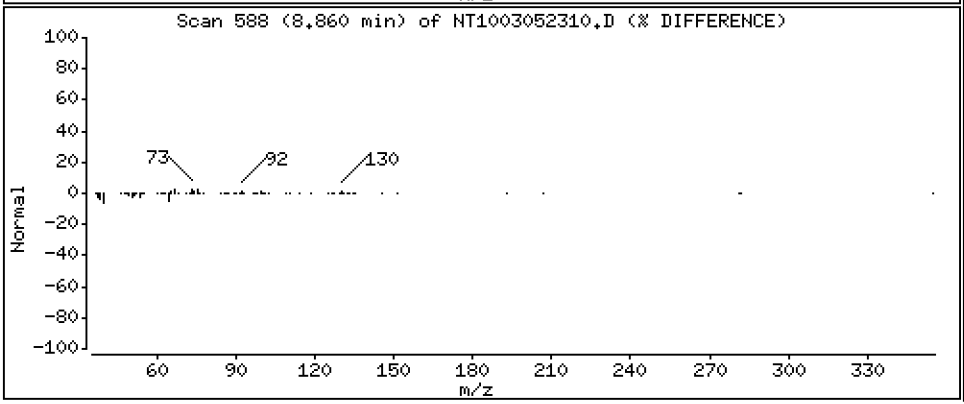












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

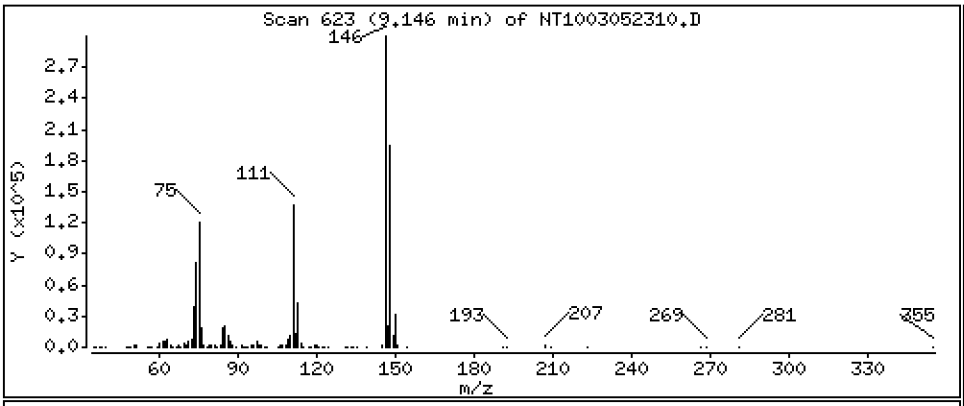
Operator: VTS

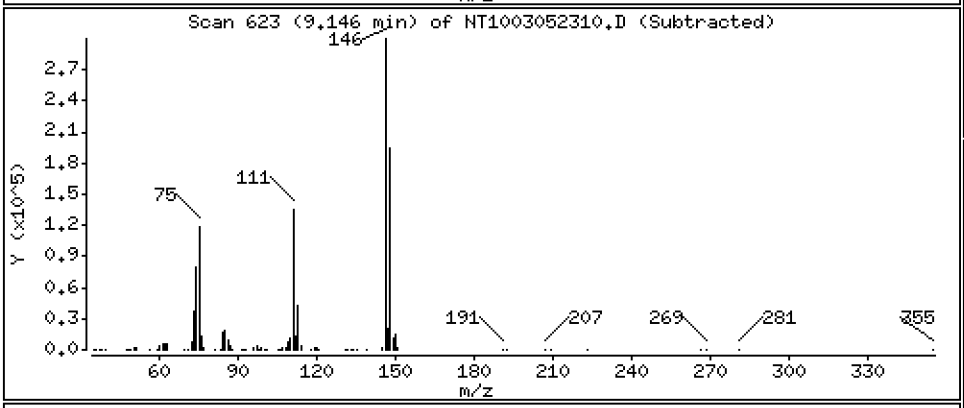
Column phase: ZB-5msi

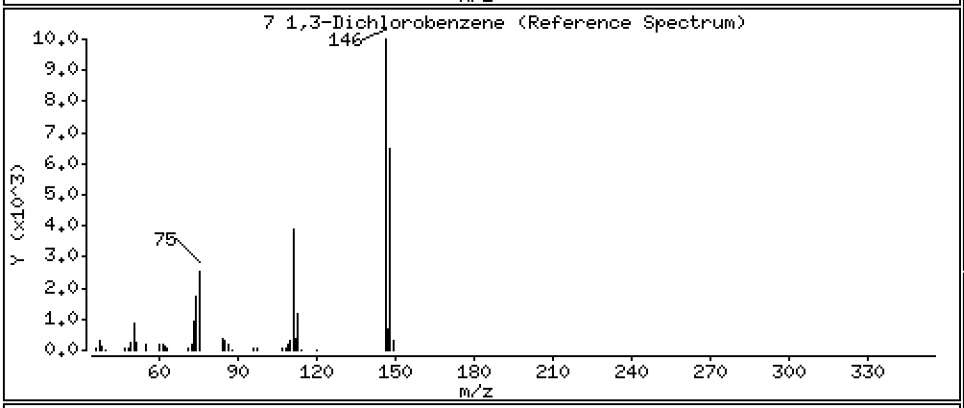
Column diameter: 0.25

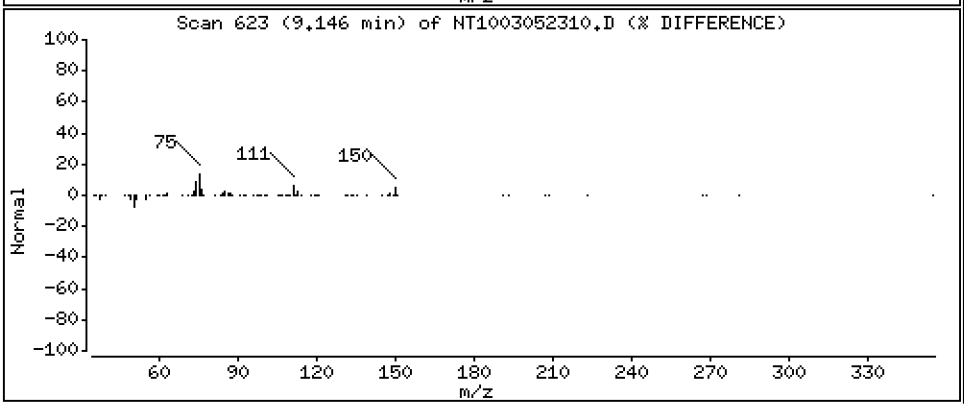
7 1,3-Dichlorobenzene

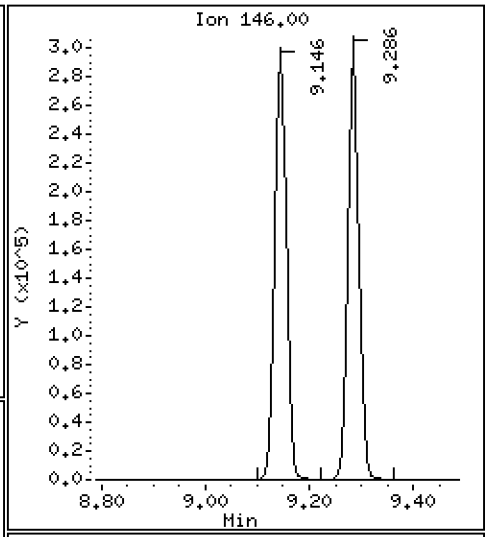
Concentration: 4.019 ug/mL

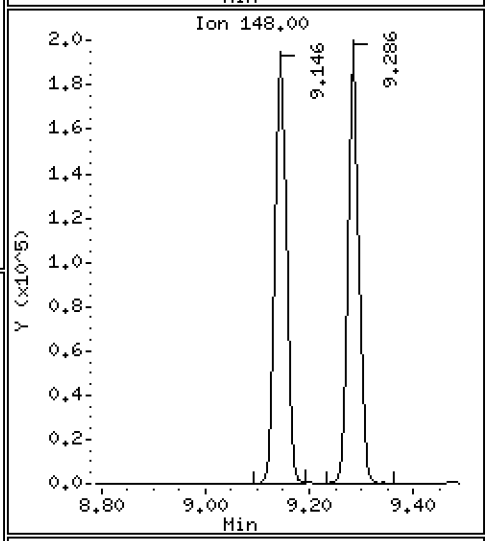


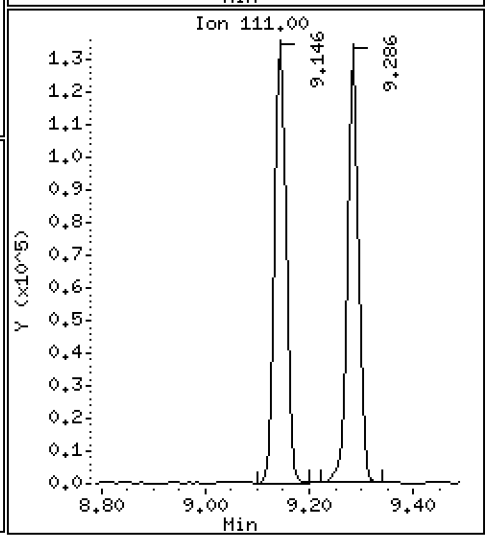












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

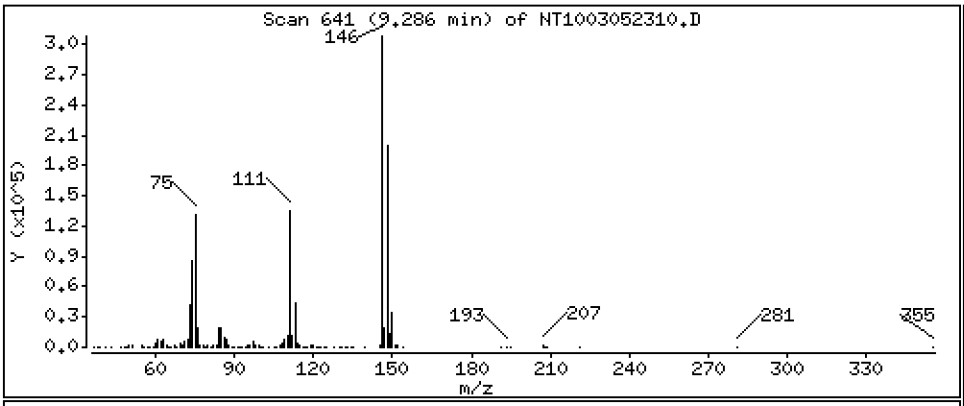
Operator: VTS

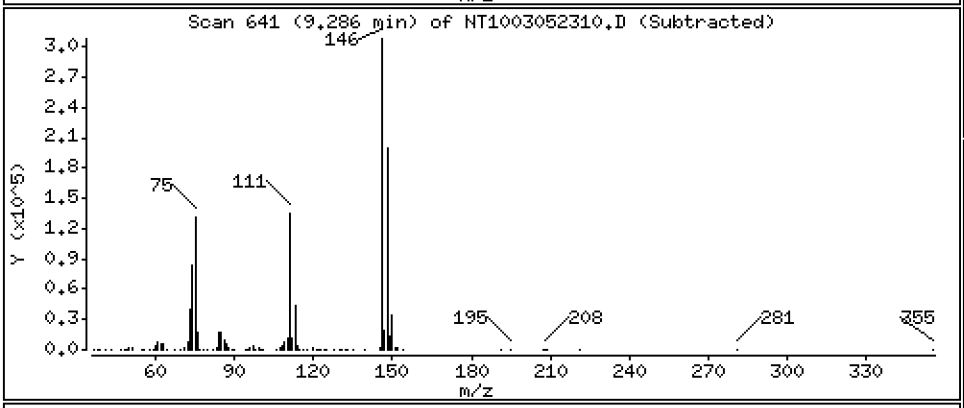
Column phase: ZB-5msi

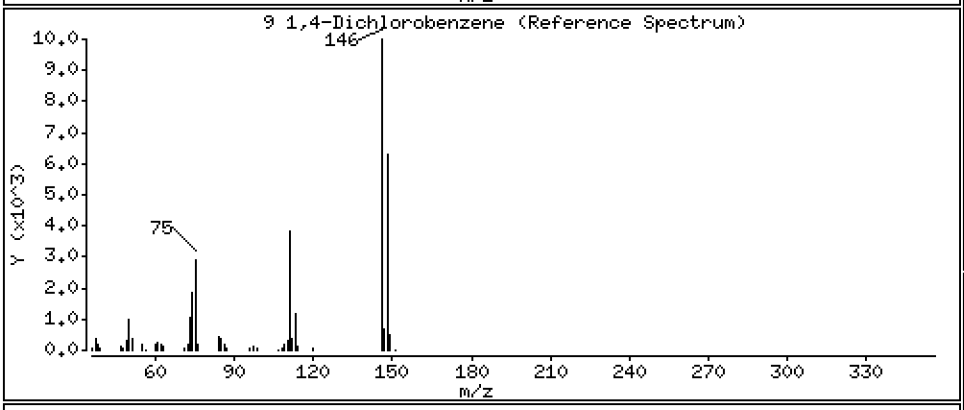
Column diameter: 0.25

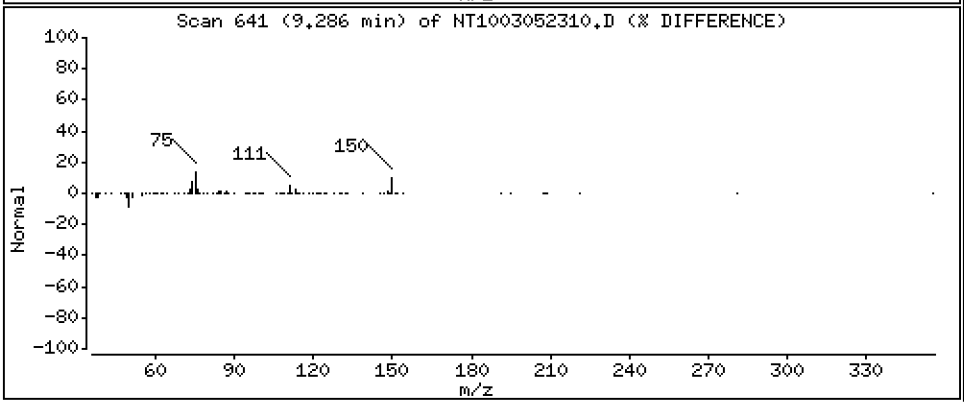
9 1,4-Dichlorobenzene

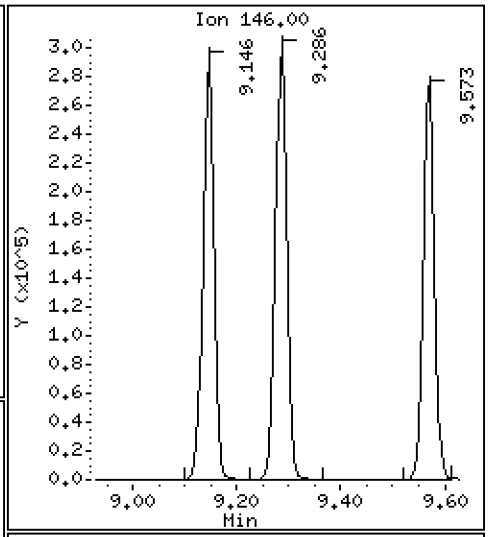
Concentration: 4.013 ug/mL

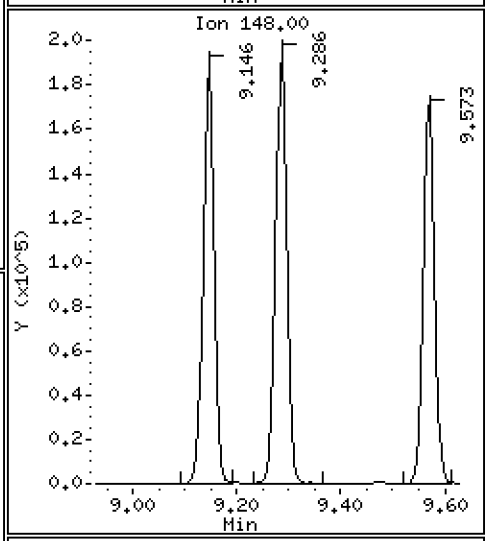


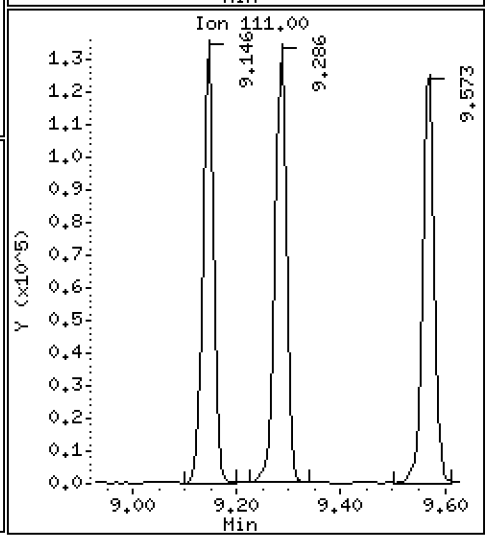












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

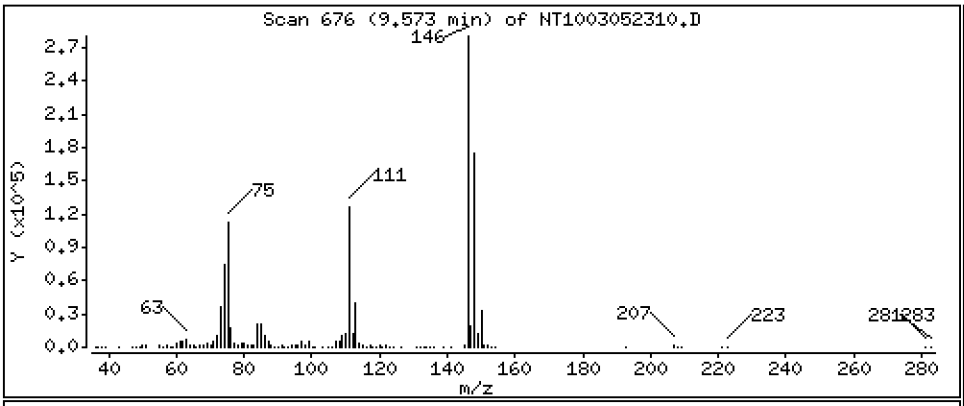
Operator: VTS

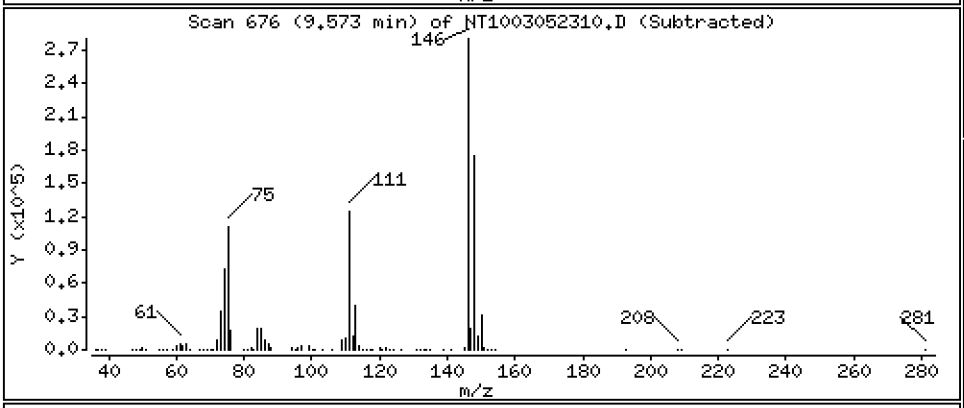
Column phase: ZB-5msi

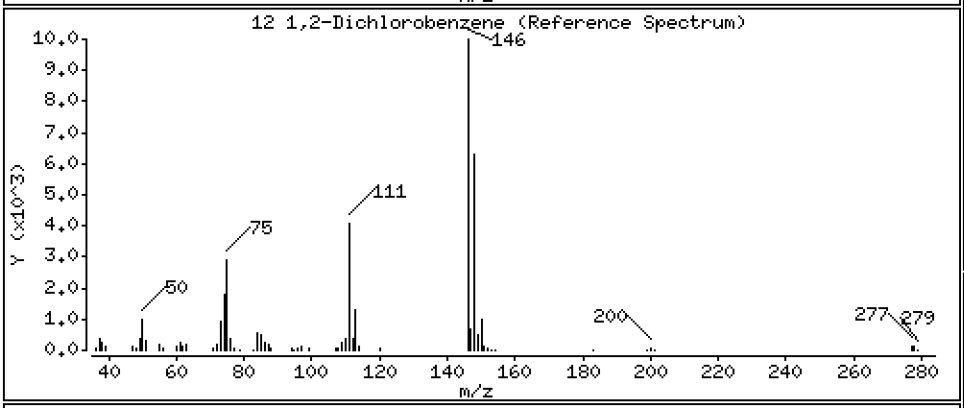
Column diameter: 0.25

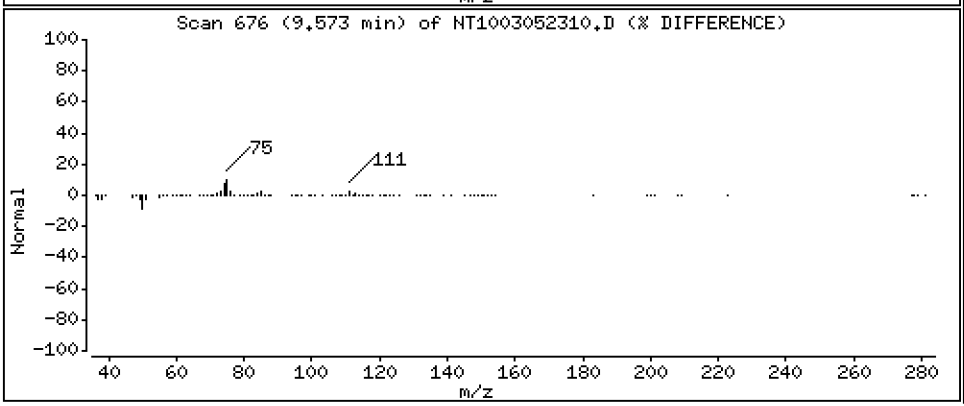
12 1,2-Dichlorobenzene

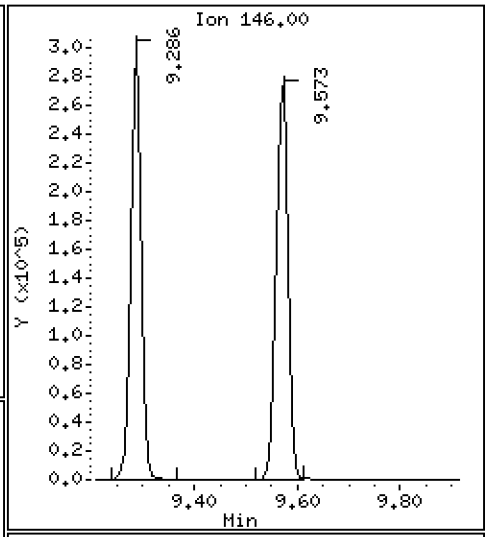
Concentration: 4.047 ug/mL

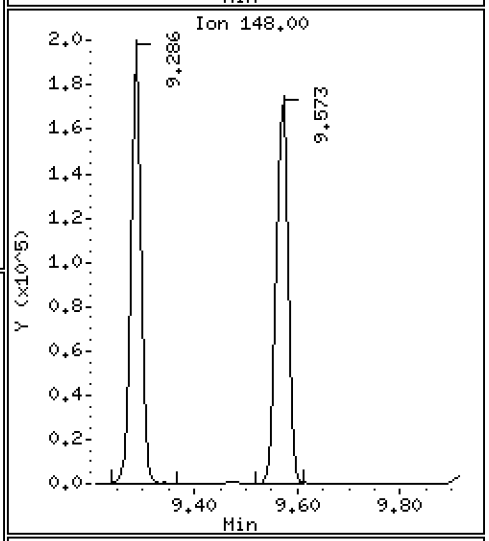


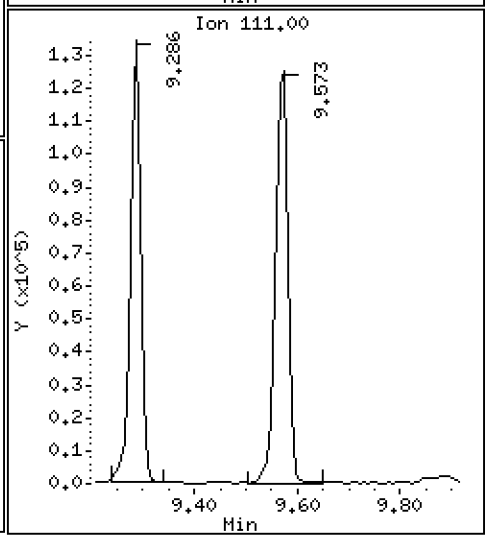












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

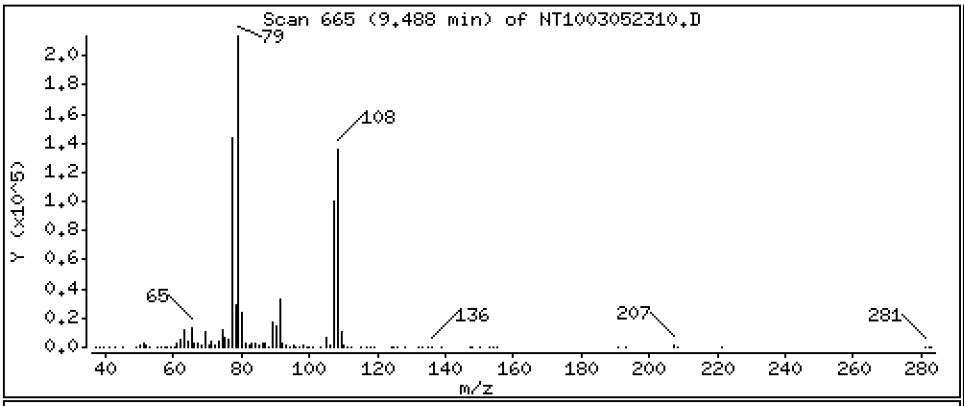
Operator: VTS

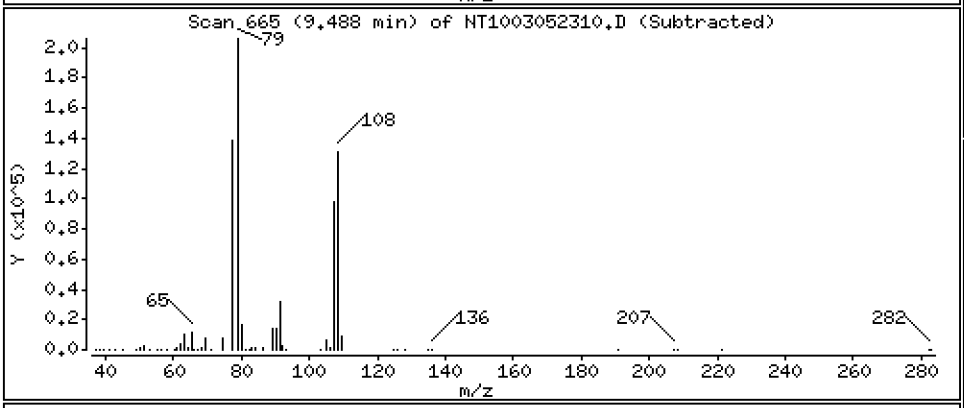
Column phase: ZB-5msi

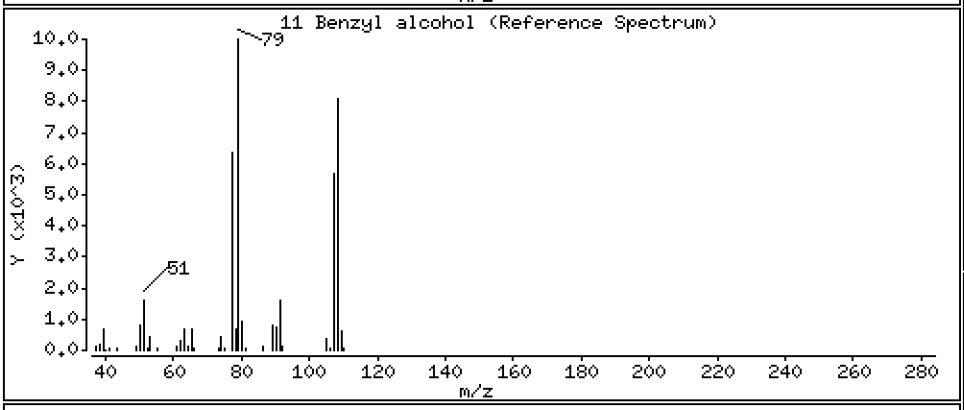
Column diameter: 0.25

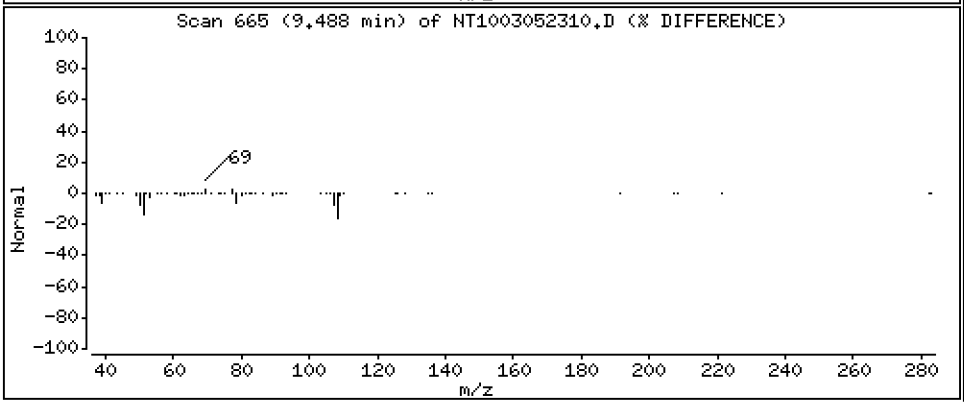
11 Benzyl alcohol

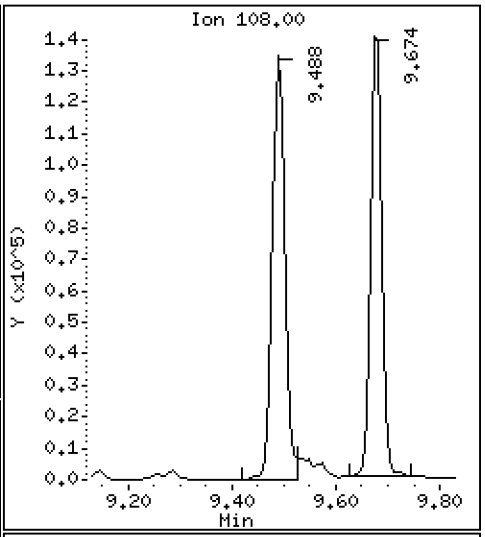
Concentration: 3.544 ug/mL

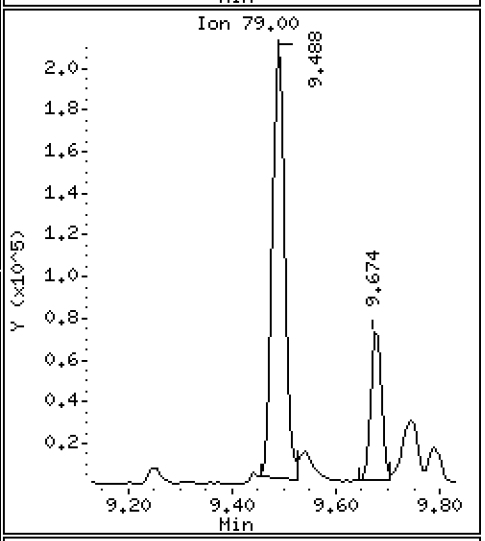


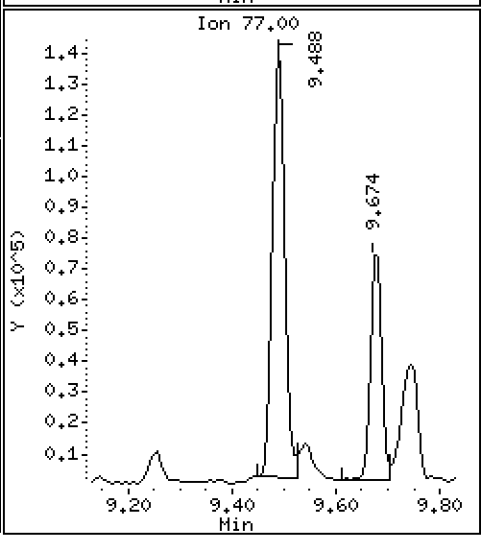












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

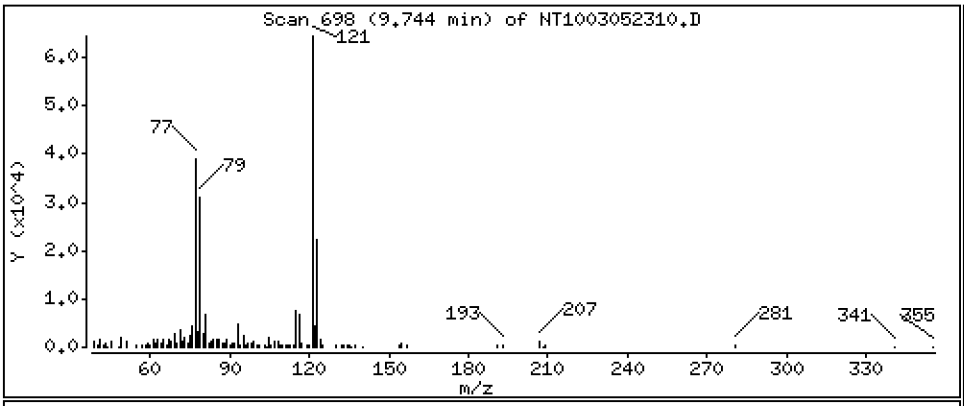
Operator: VTS

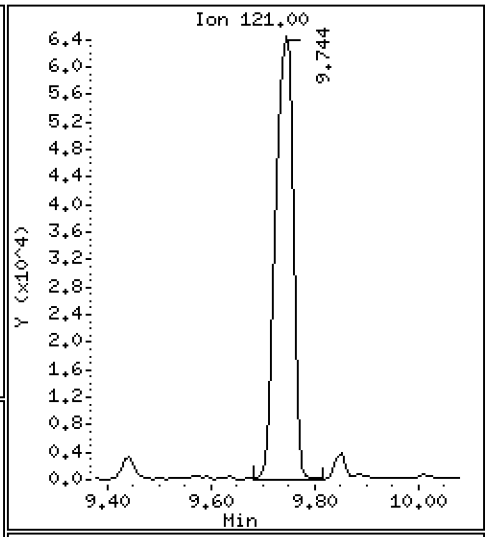
Column phase: ZB-5msi

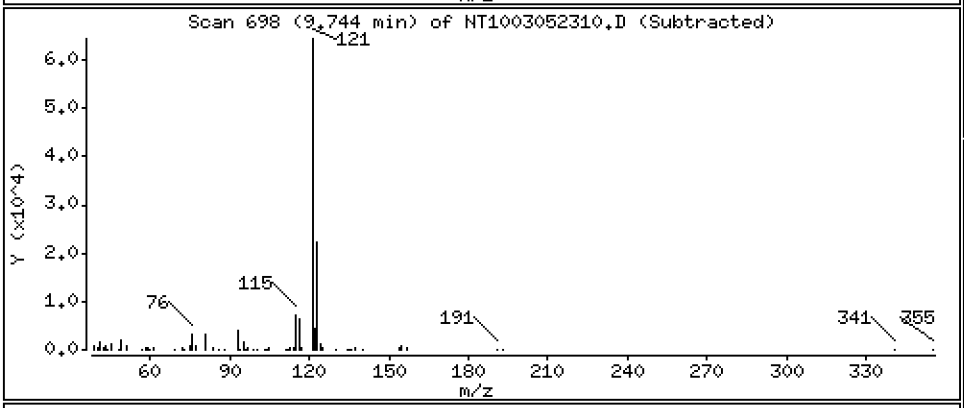
Column diameter: 0.25

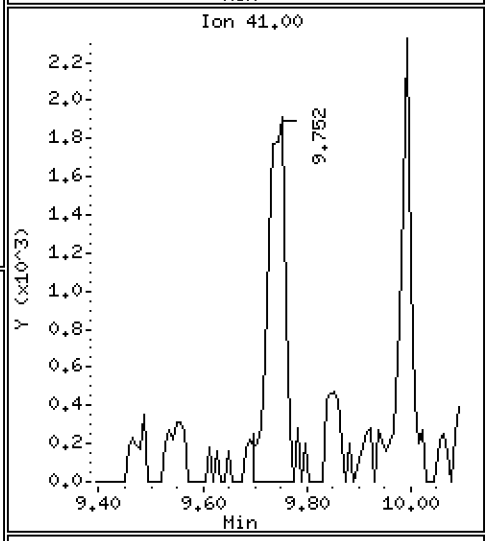
14 2,2'-oxybis(1-Chloropropane)

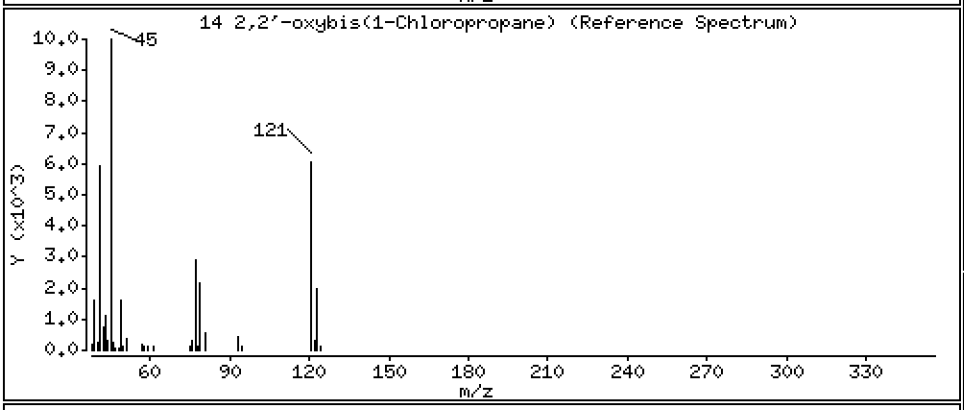
Concentration: 5.095 ug/mL

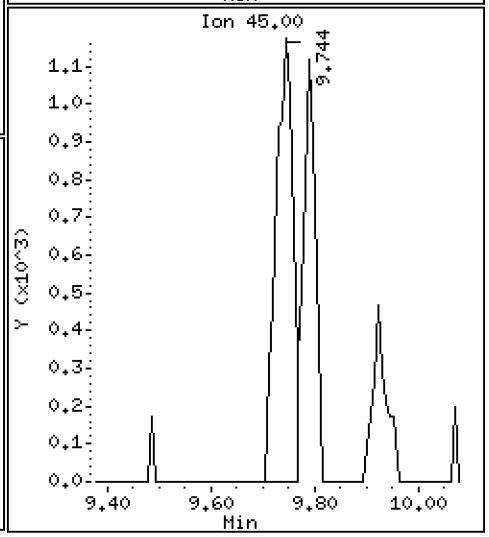


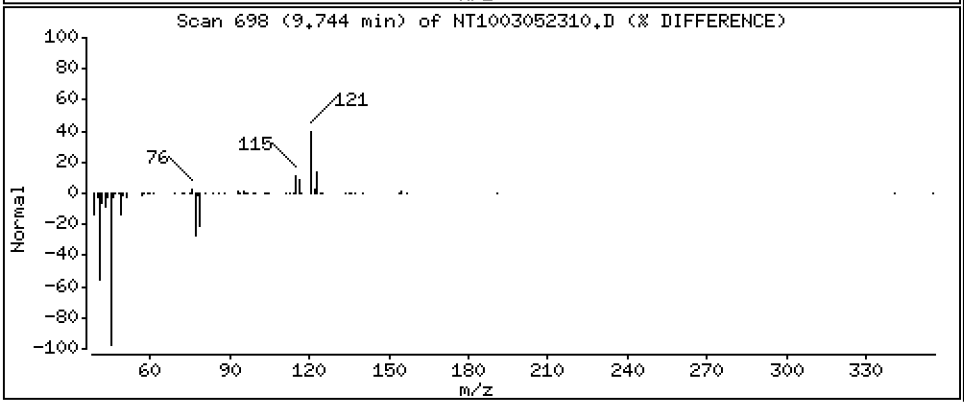












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

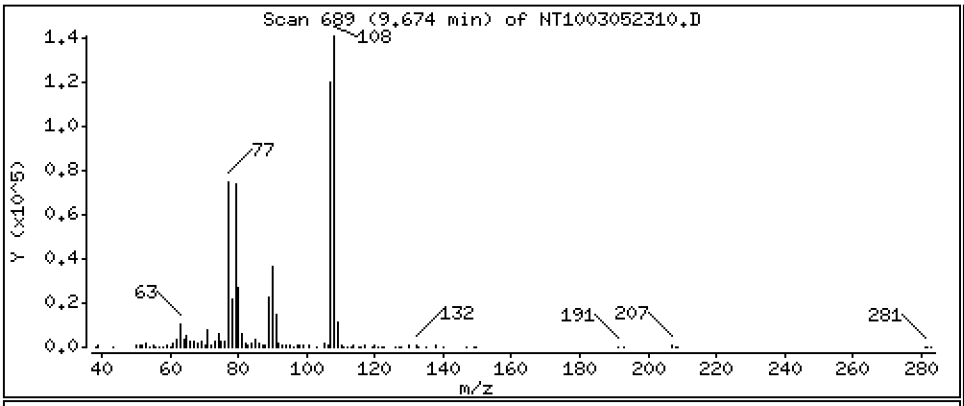
Operator: VTS

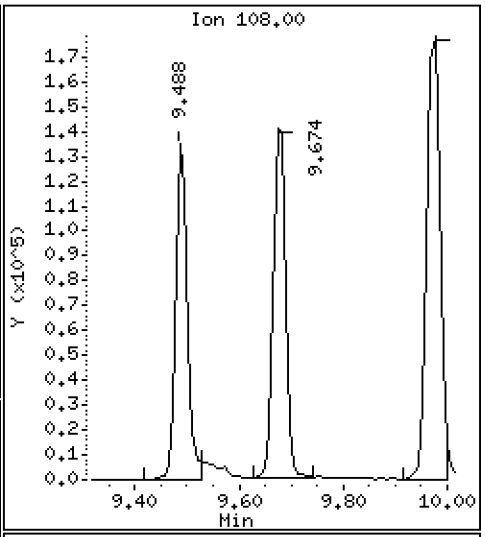
Column phase: ZB-5msi

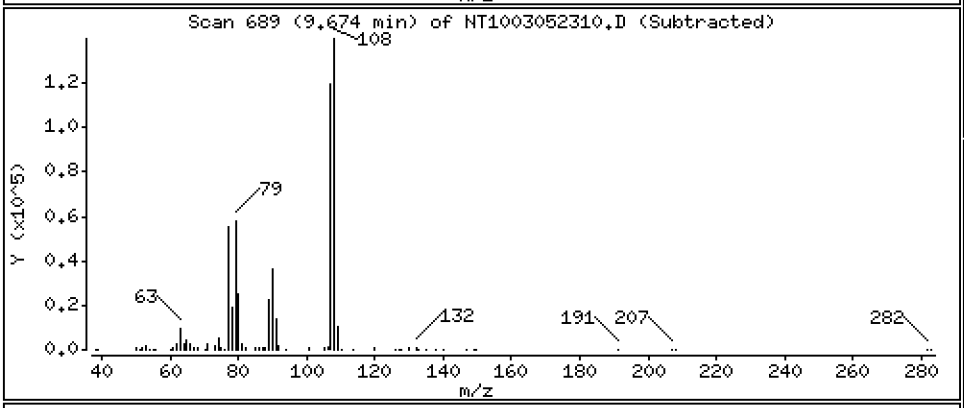
Column diameter: 0.25

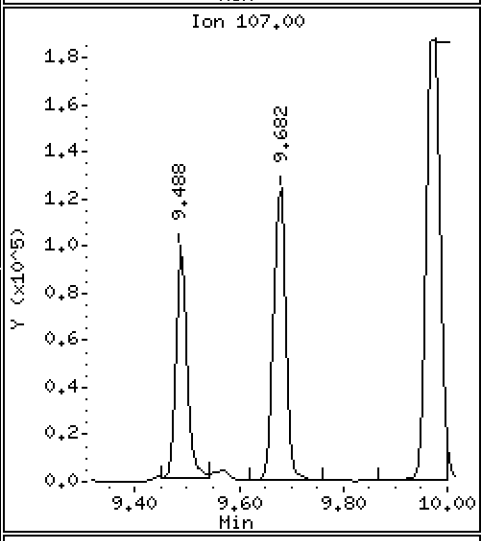
13 2-Methylphenol

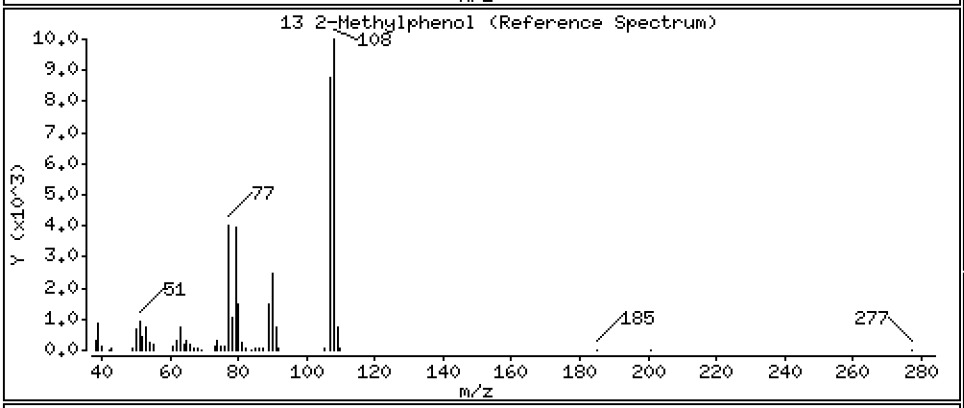
Concentration: 2.376 ug/mL

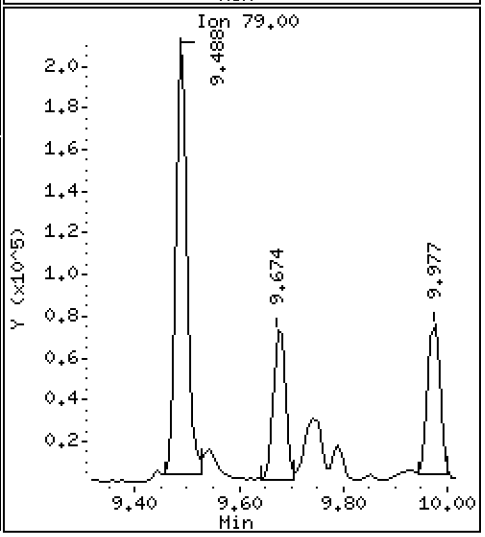


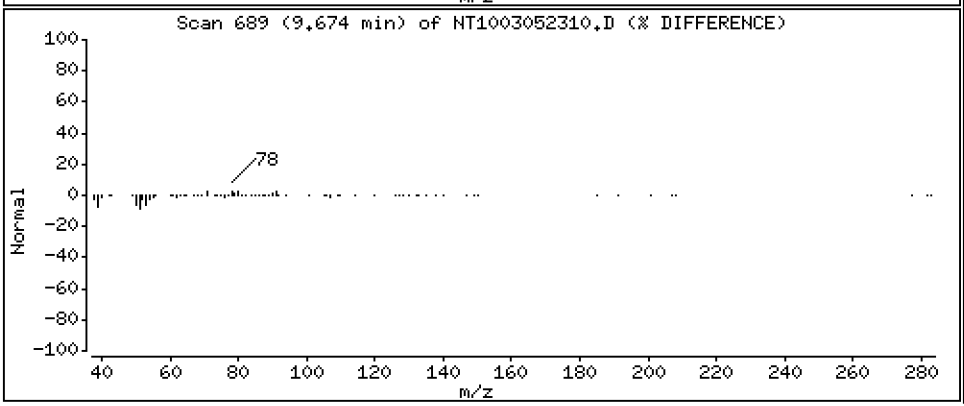












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

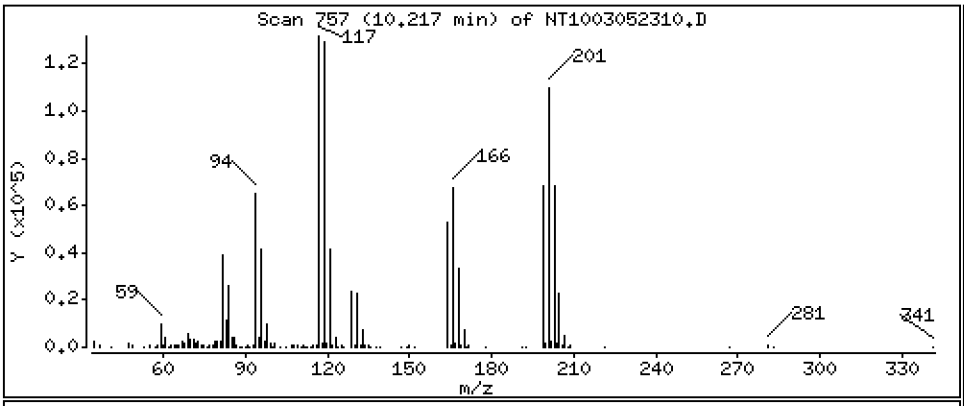
Operator: VTS

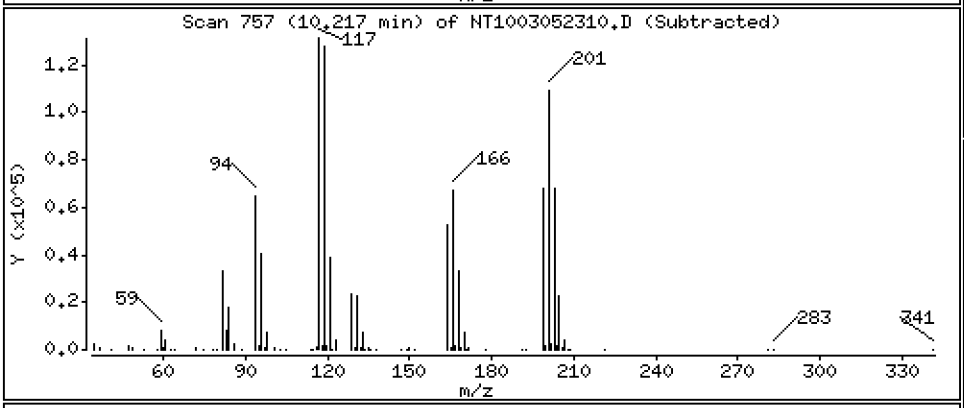
Column phase: ZB-5msi

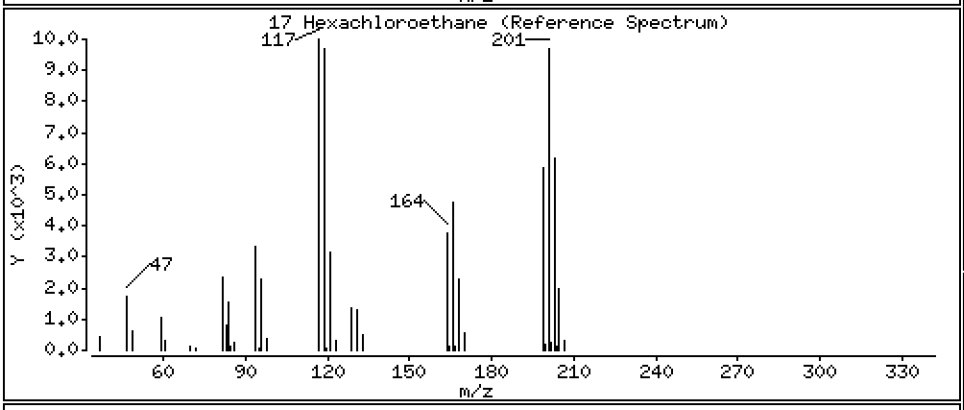
Column diameter: 0.25

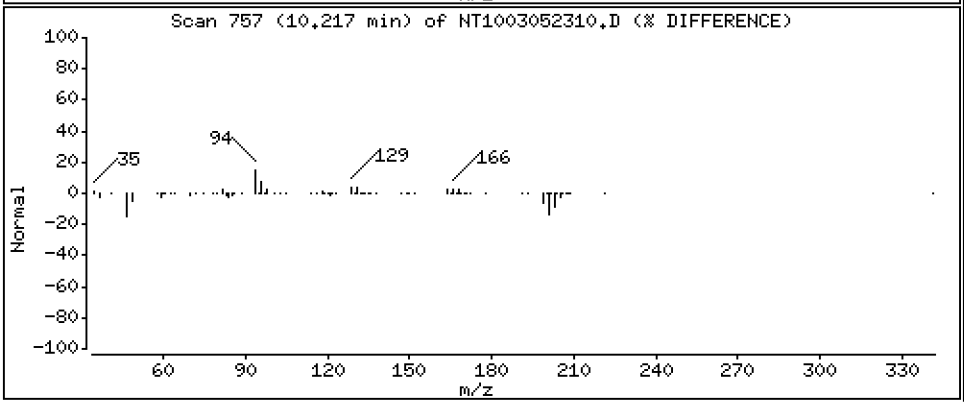
17 Hexachloroethane

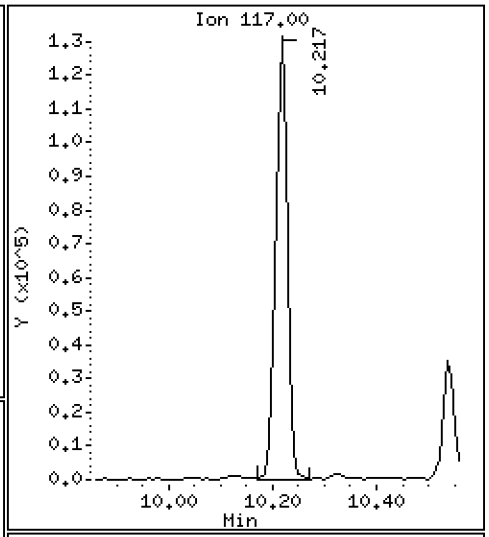
Concentration: 4.515 ug/mL

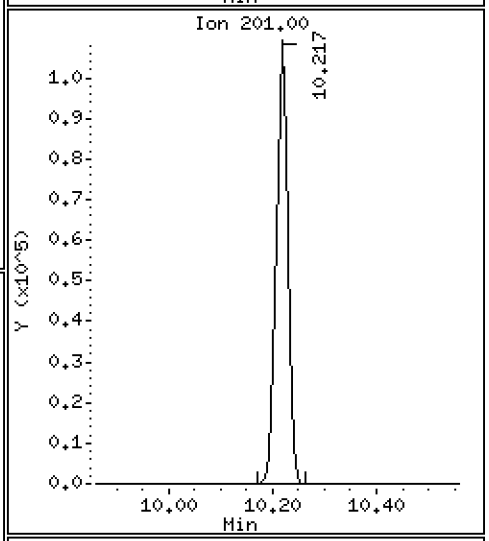


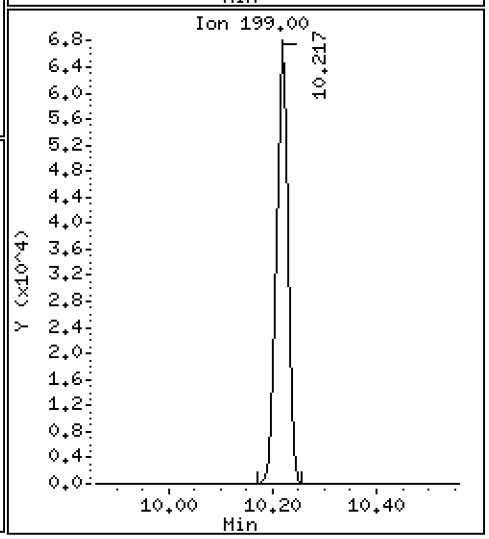












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052310.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

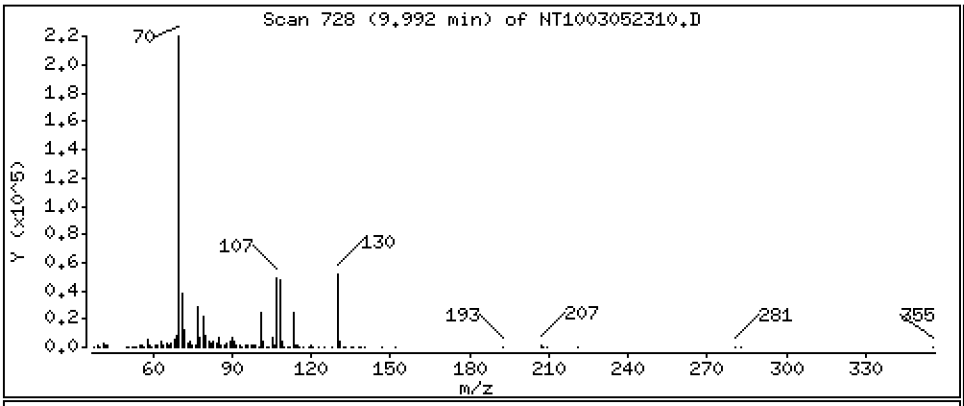
Operator: VTS

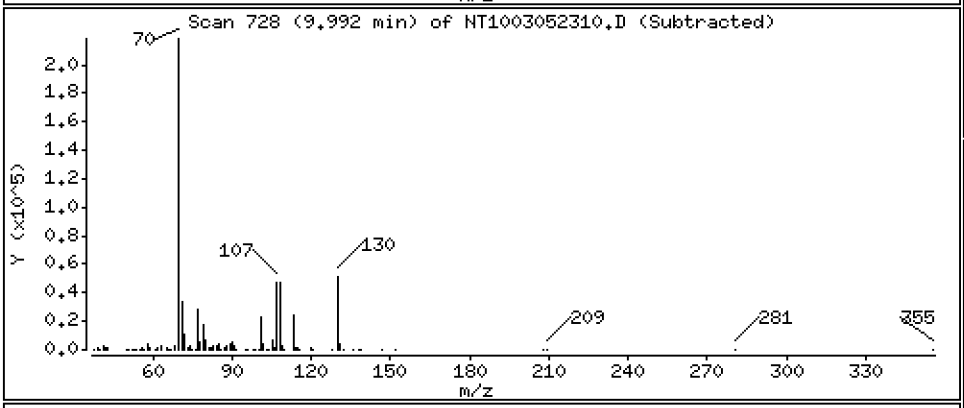
Column phase: ZB-5msi

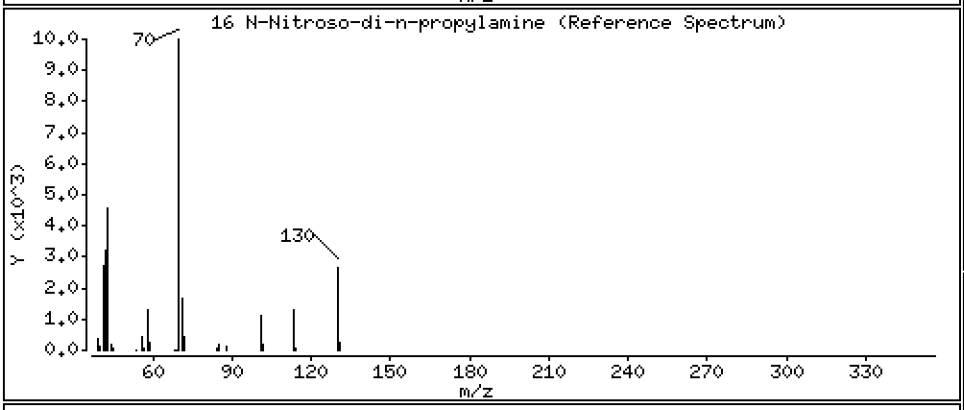
Column diameter: 0.25

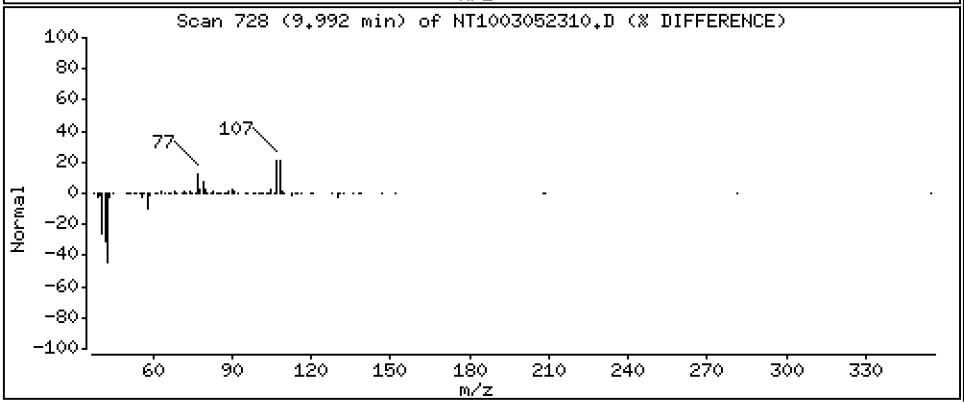
16 N-Nitroso-di-n-propylamine

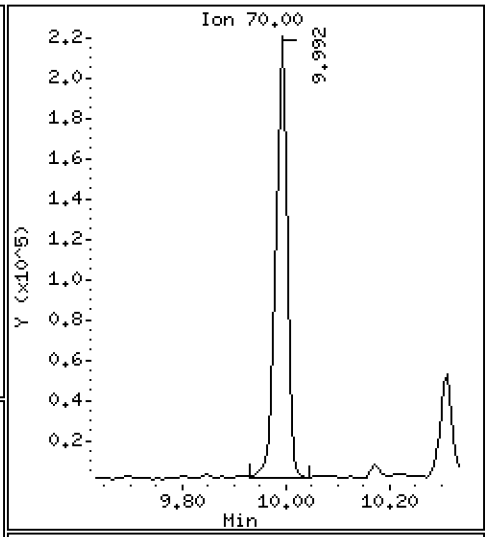
Concentration: 4.563 ug/mL

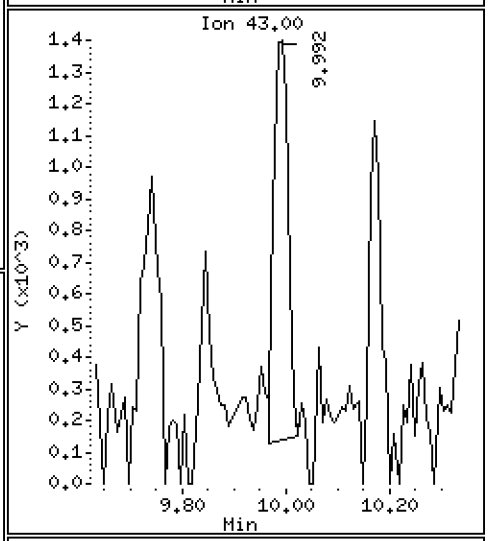


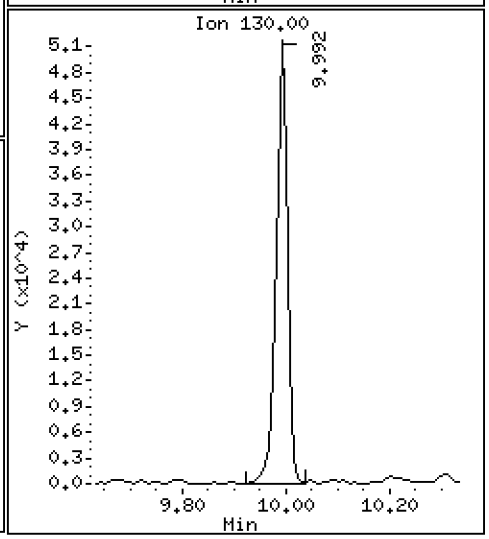












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

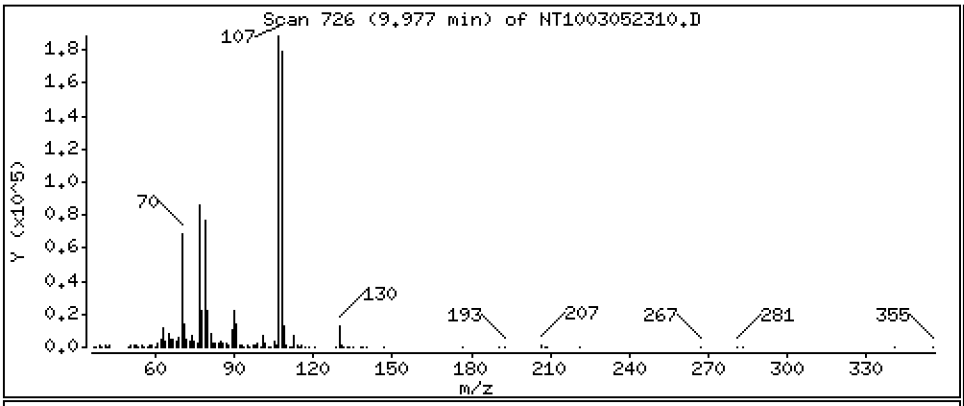
Operator: VTS

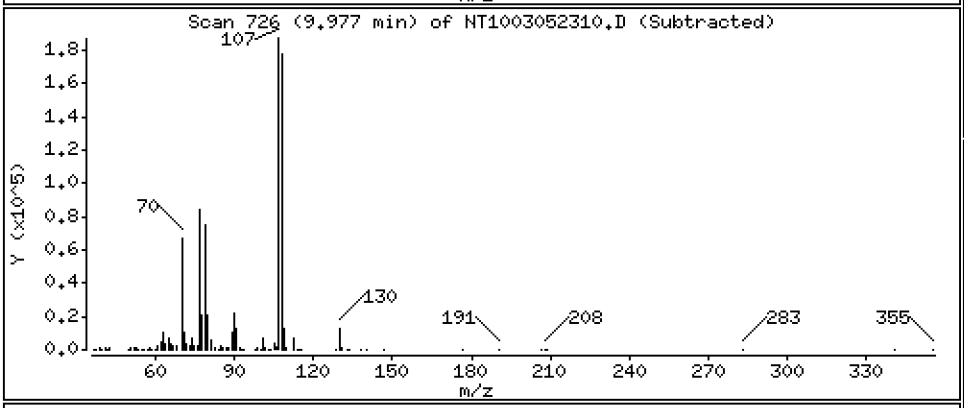
Column phase: ZB-5msi

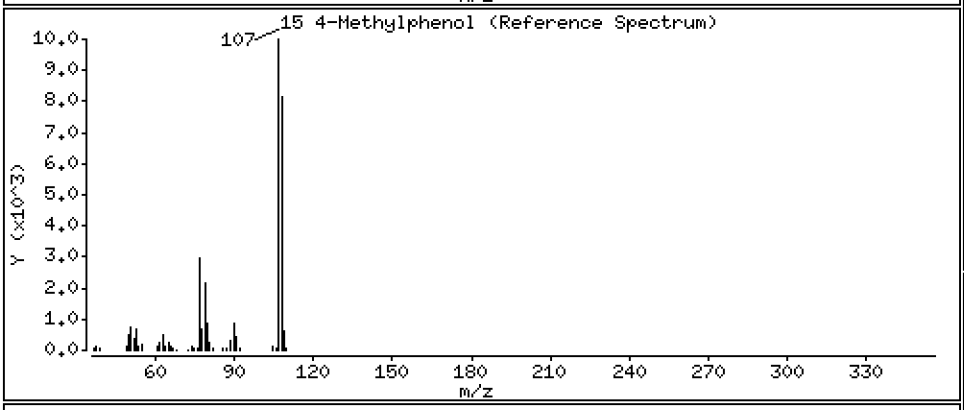
Column diameter: 0.25

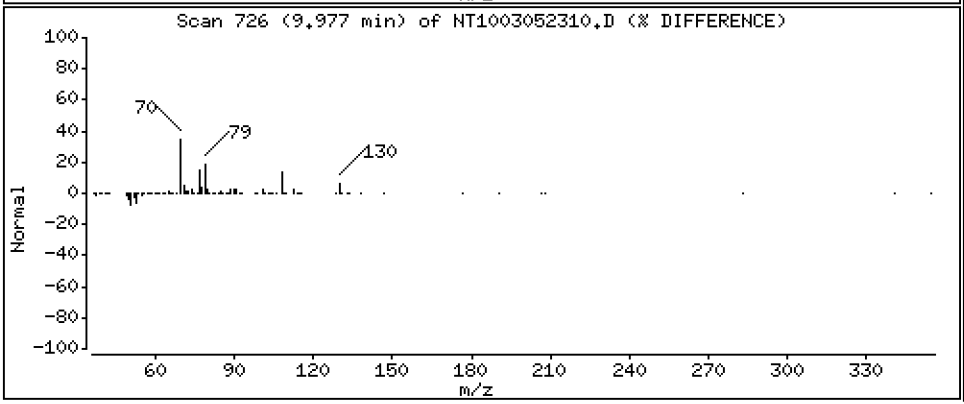
15 4-Methylphenol

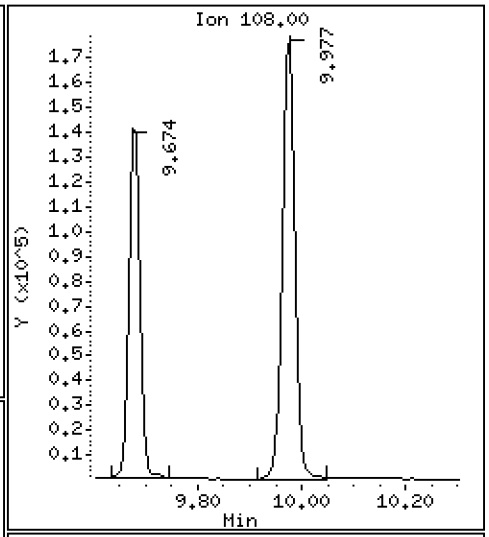
Concentration: 2.720 ug/mL

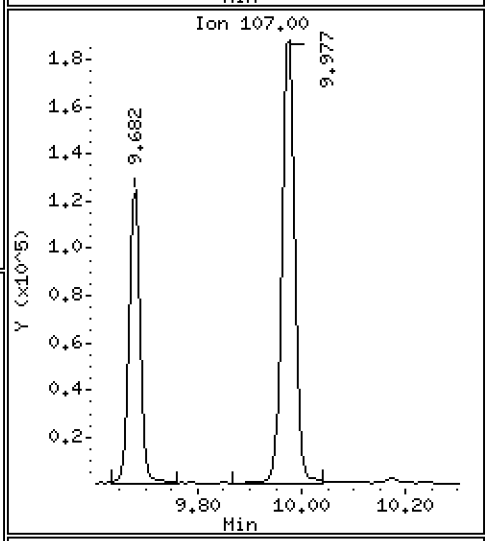


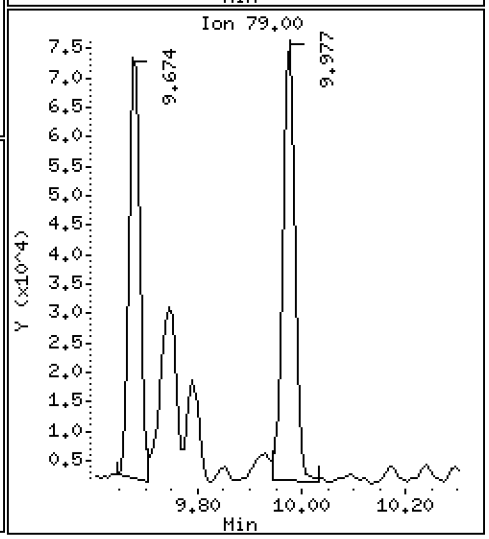












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

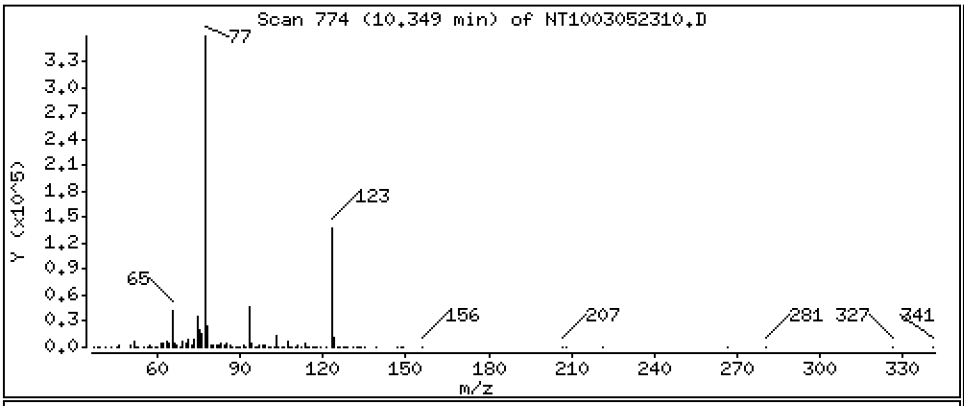
Operator: VTS

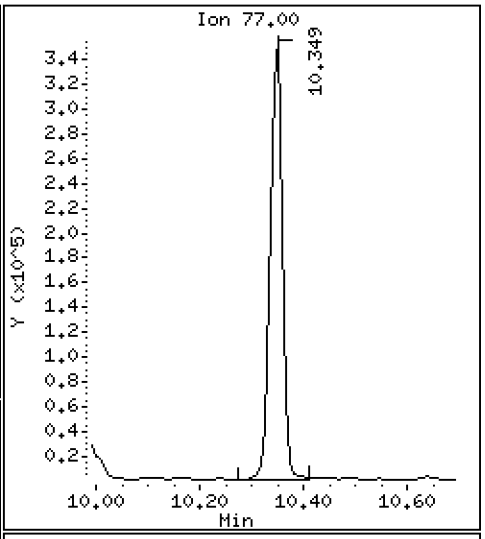
Column phase: ZB-5msi

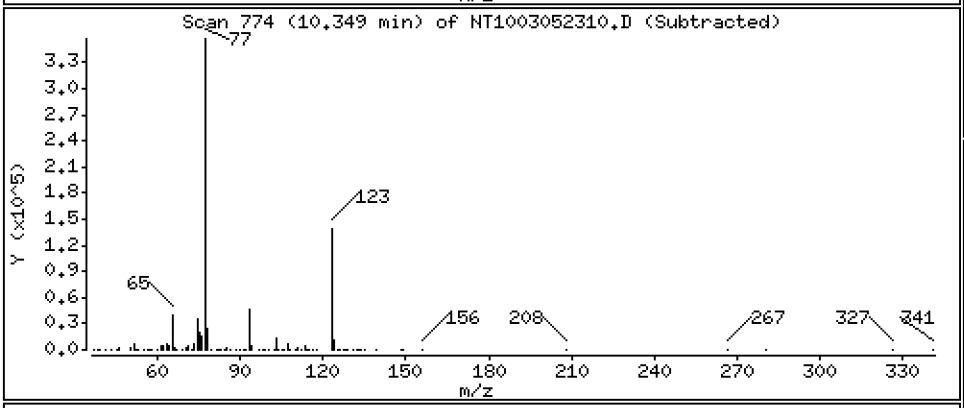
Column diameter: 0.25

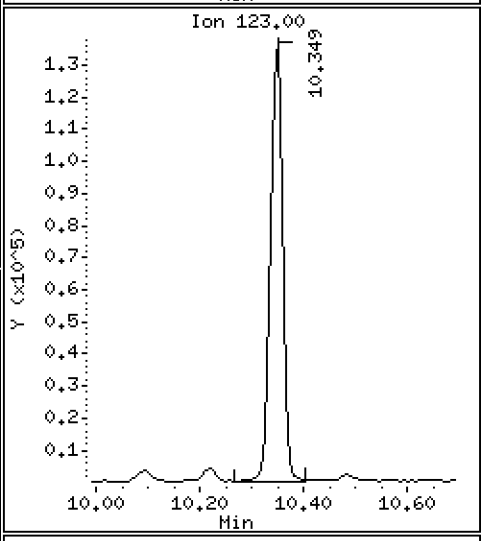
19 Nitrobenzene

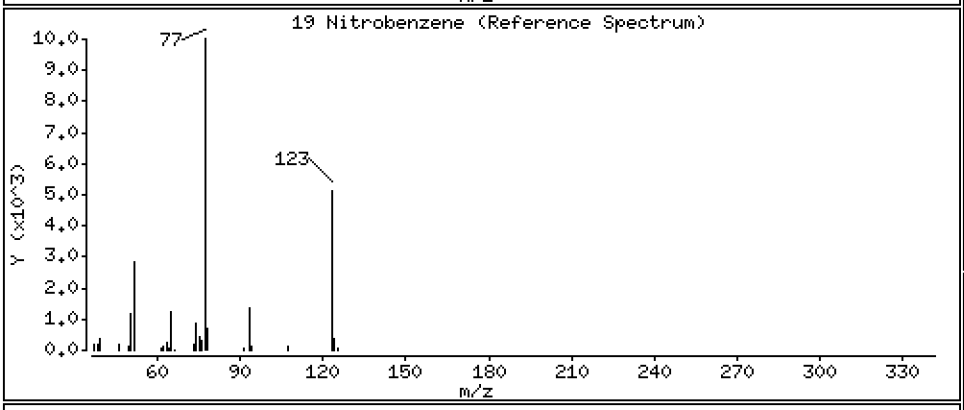
Concentration: 4.920 ug/mL

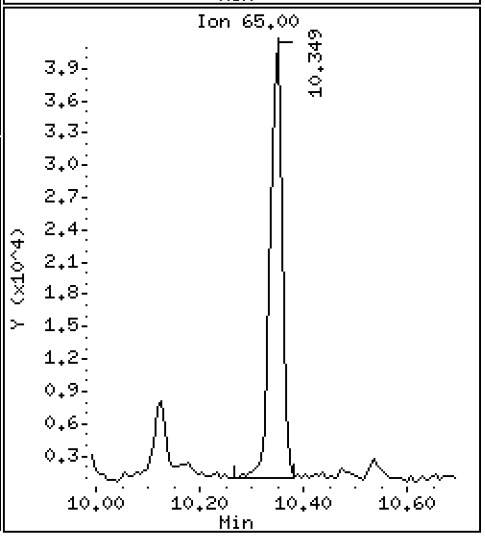


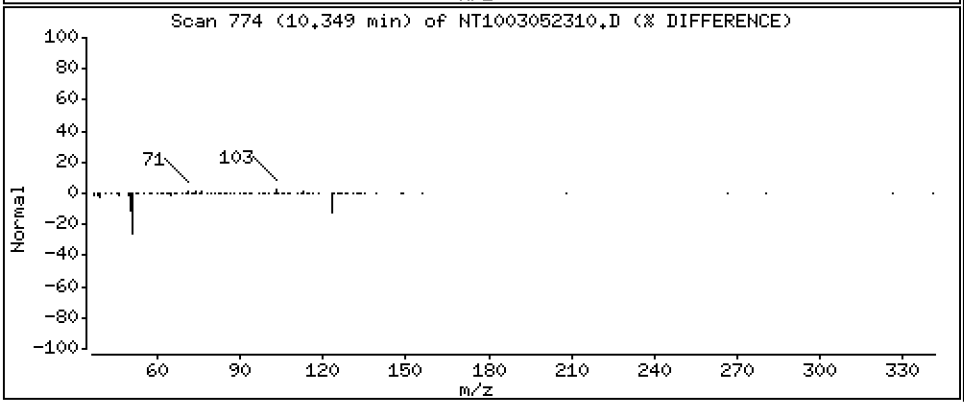












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

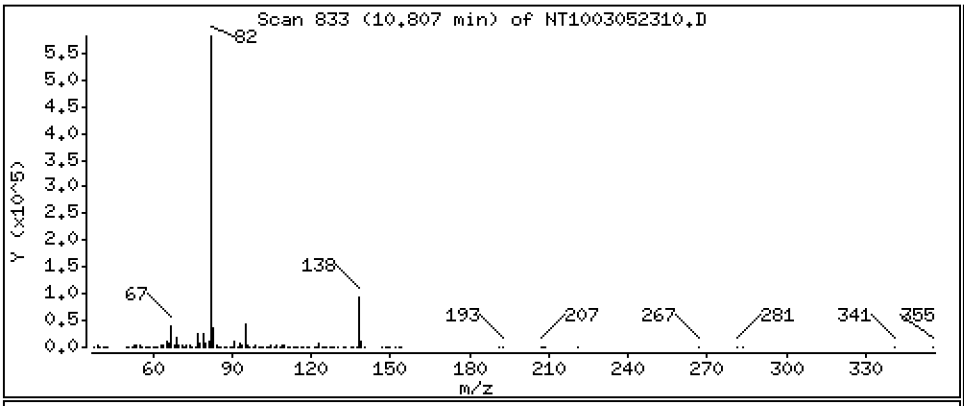
Operator: VTS

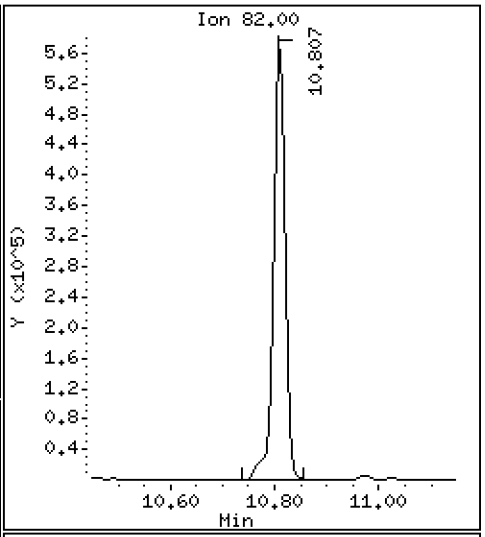
Column phase: ZB-5msi

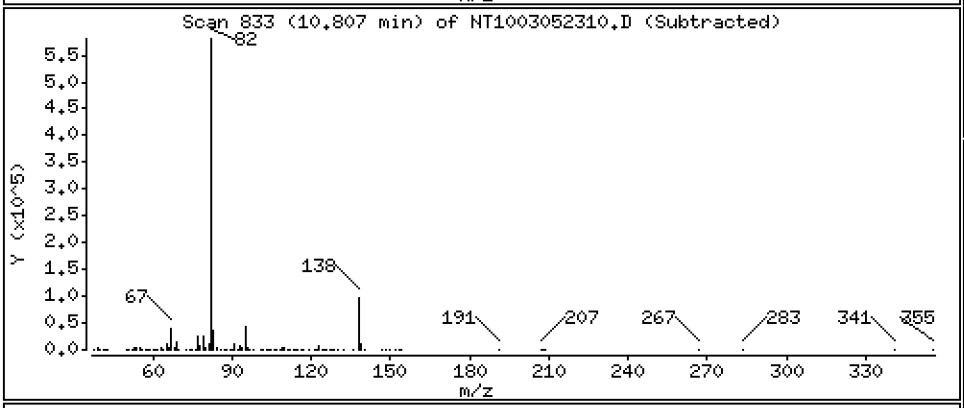
Column diameter: 0.25

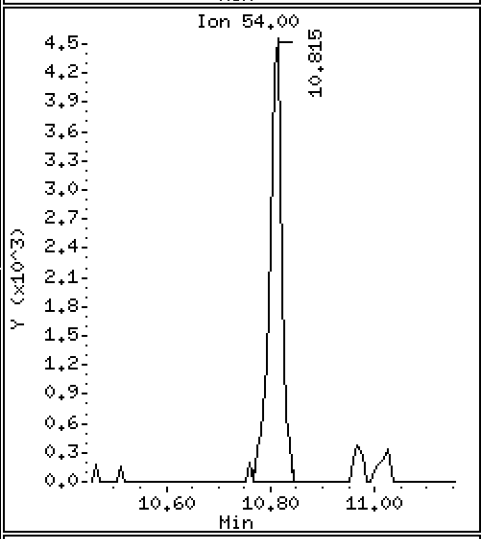
20 Isophorone

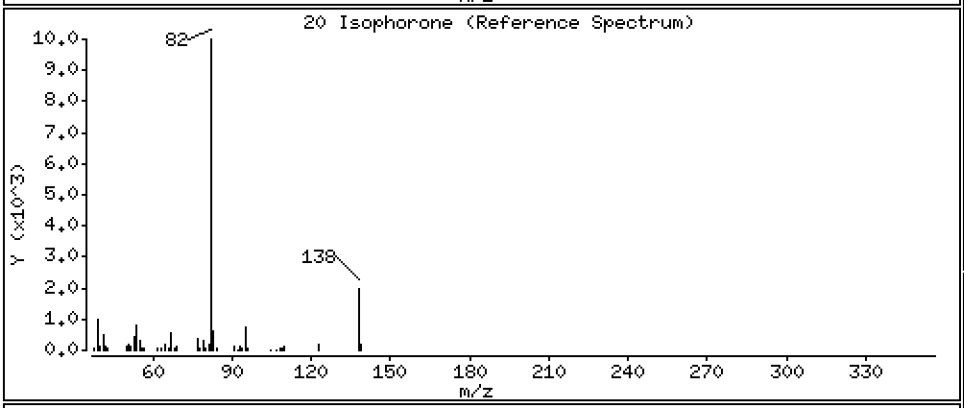
Concentration: 6.497 ug/mL

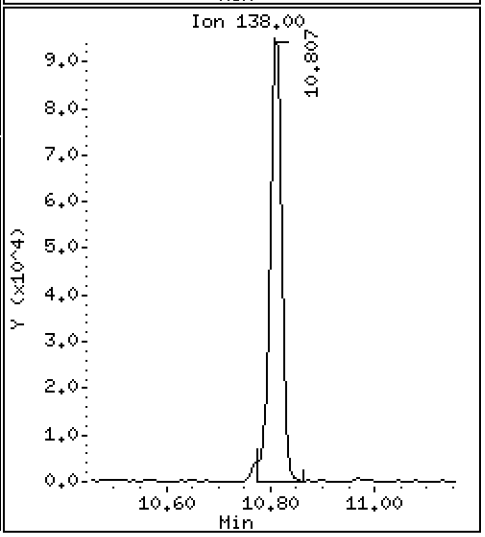


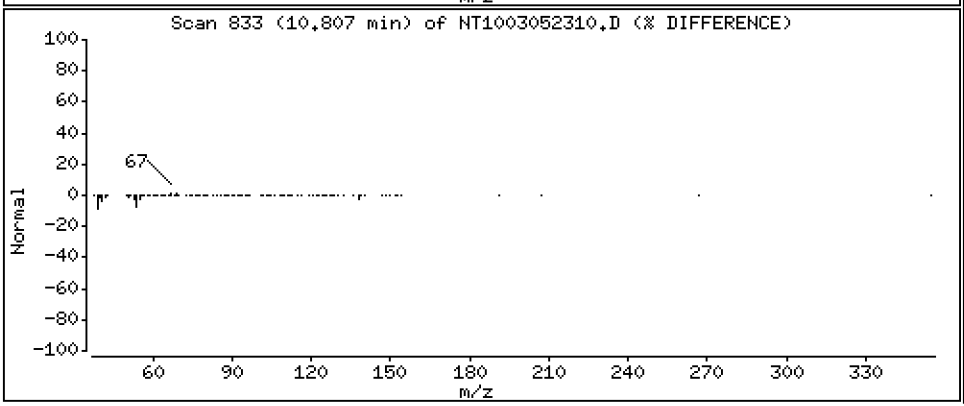












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

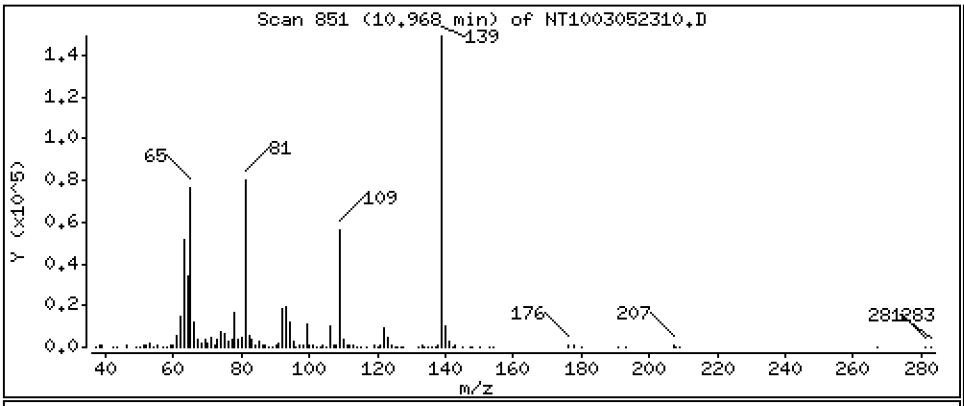
Operator: VTS

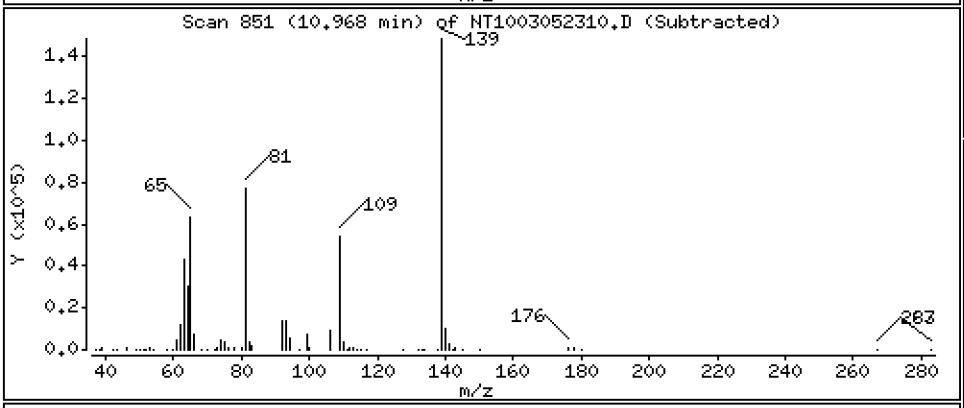
Column phase: ZB-5msi

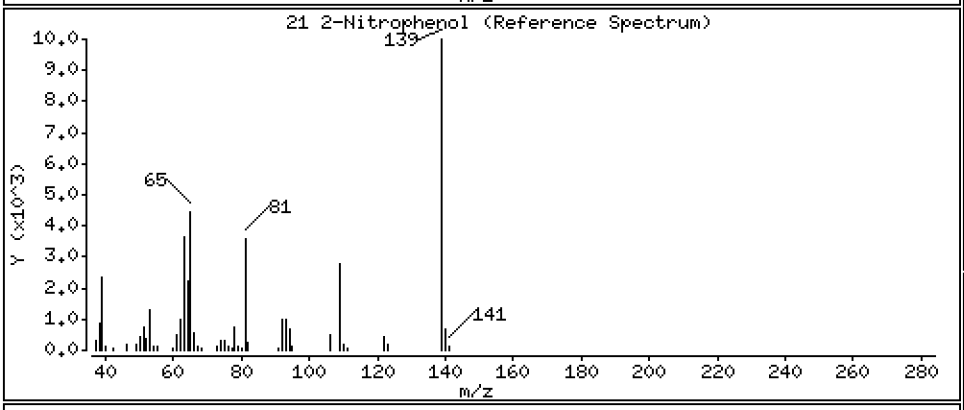
Column diameter: 0.25

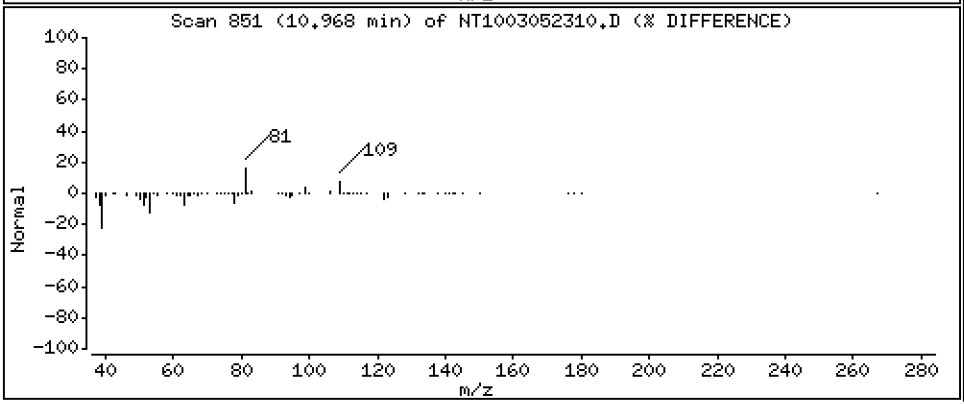
21 2-Nitrophenol

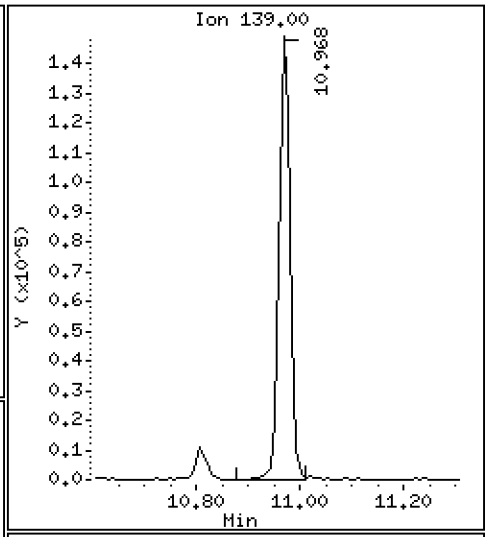
Concentration: 4.099 ug/mL

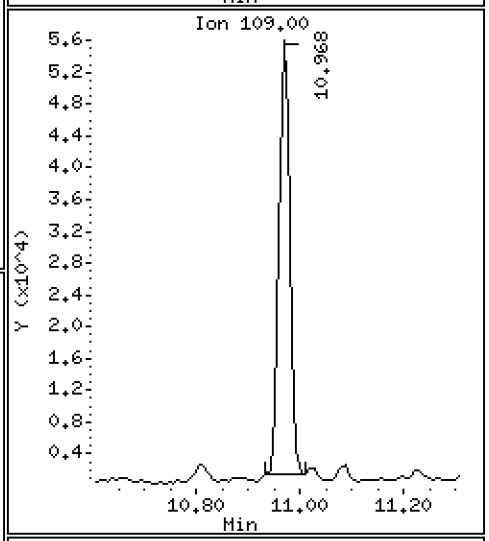


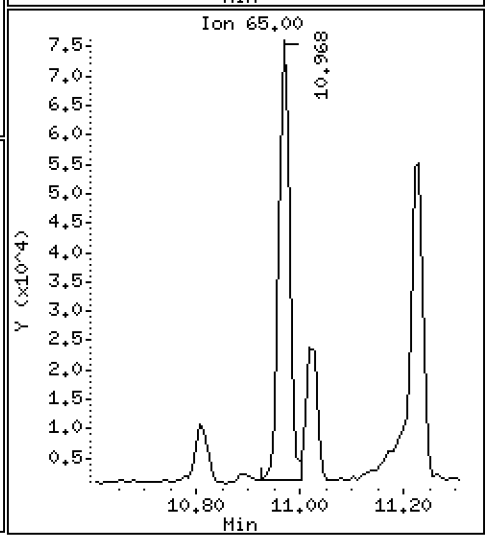












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

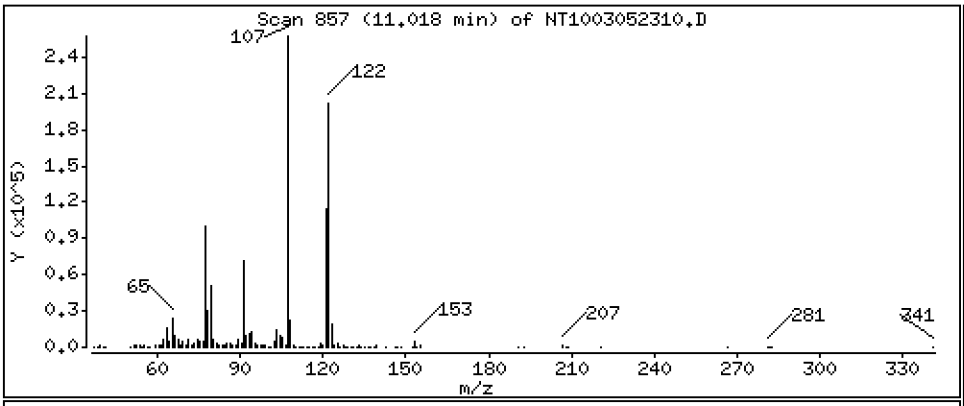
Operator: VTS

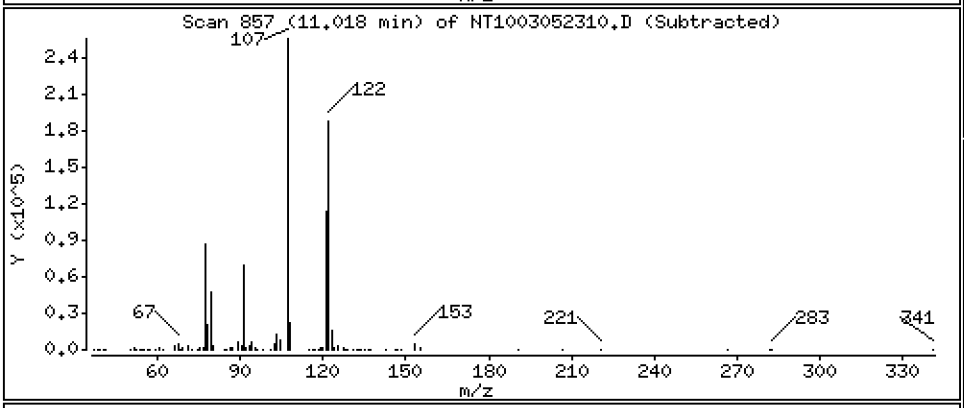
Column phase: ZB-5msi

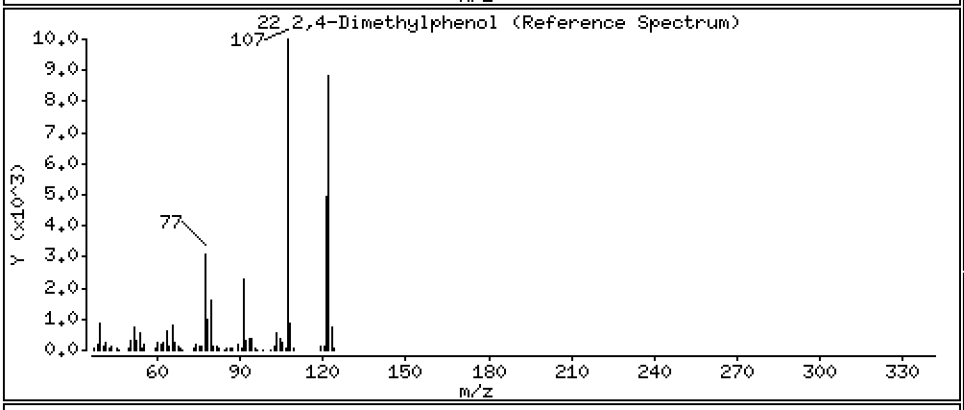
Column diameter: 0.25

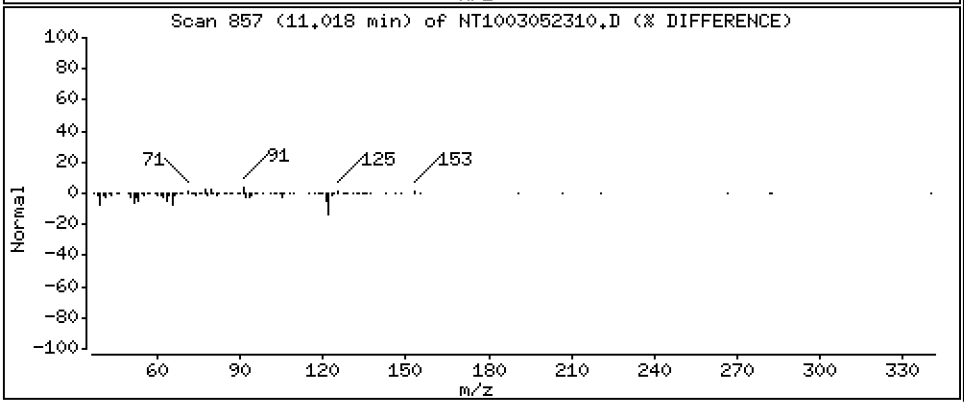
22 2,4-Dimethylphenol

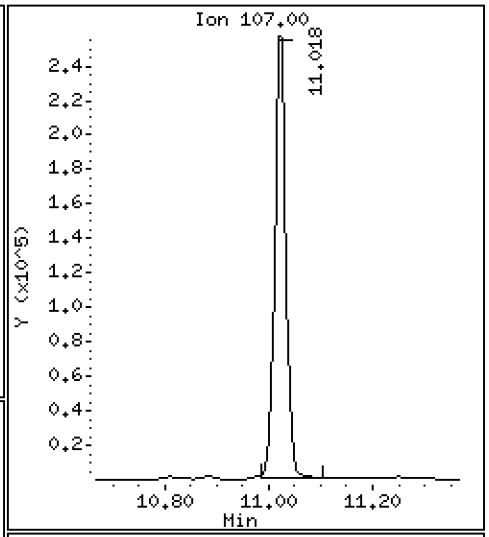
Concentration: 3.729 ug/mL

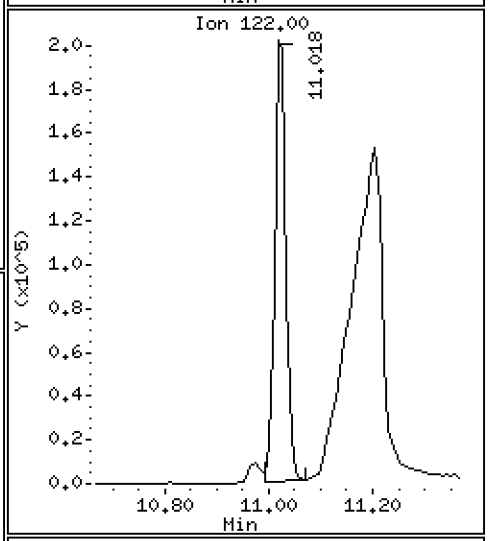


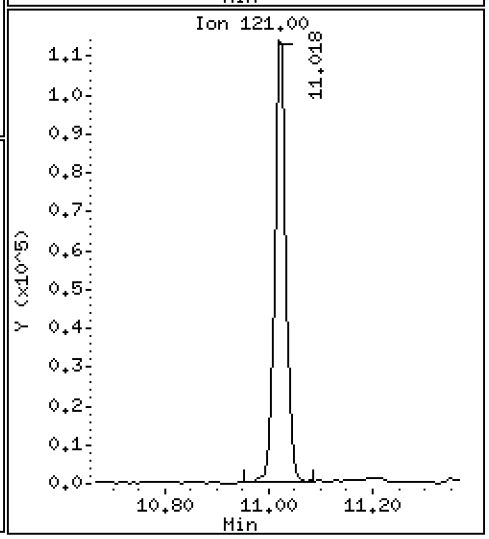












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

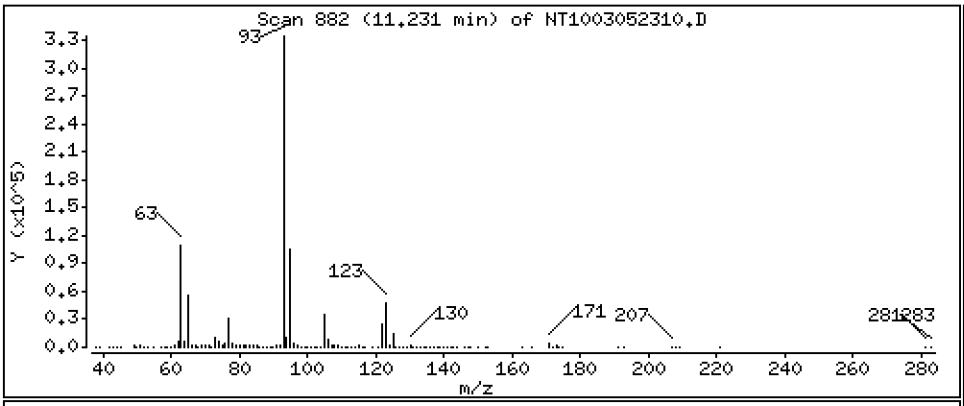
Operator: VTS

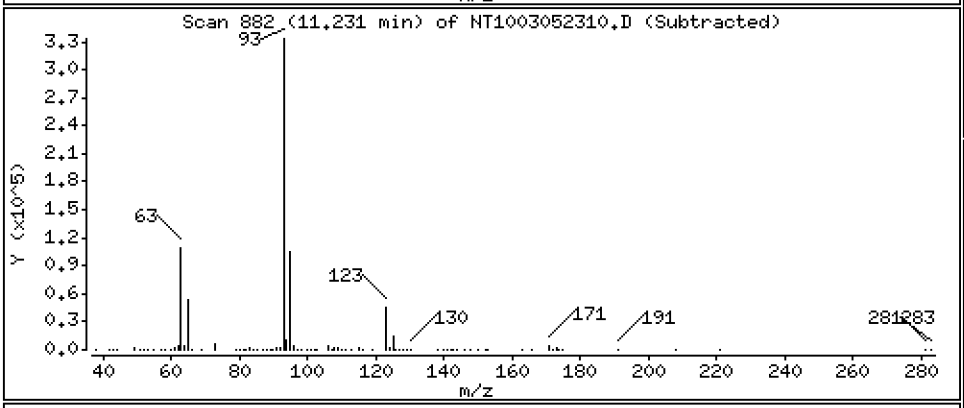
Column phase: ZB-5msi

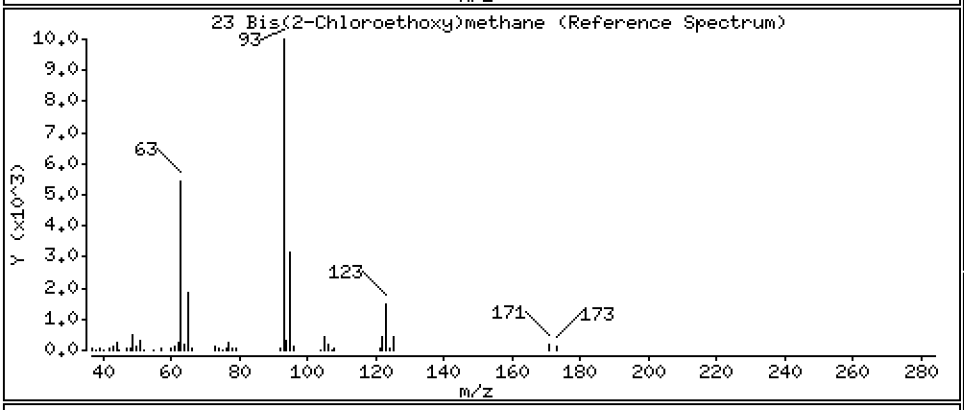
Column diameter: 0.25

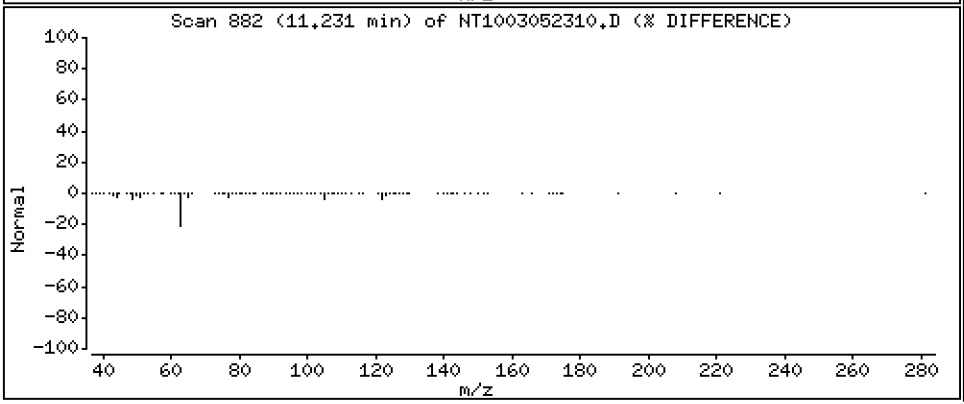
23 Bis(2-Chloroethoxy)methane

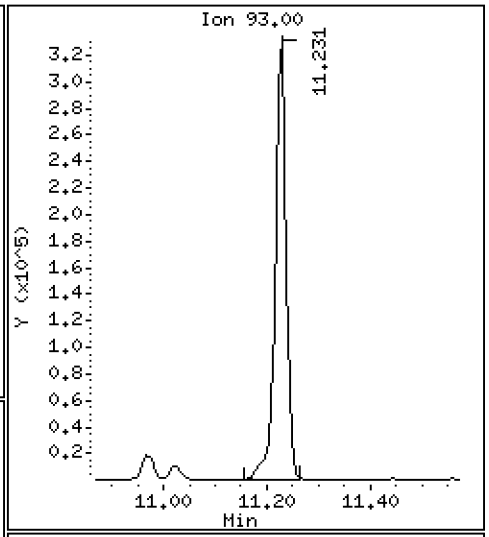
Concentration: 5.697 ug/mL

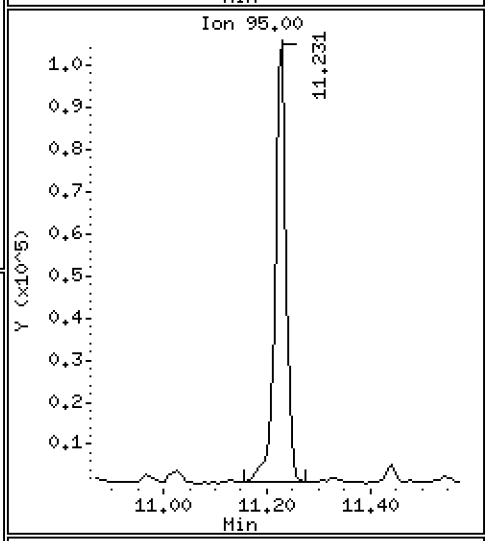


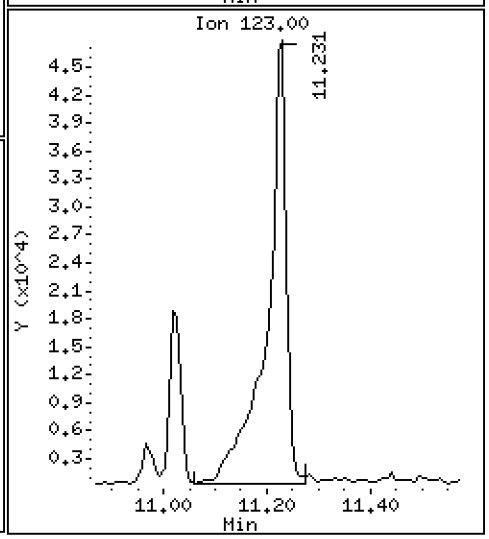












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

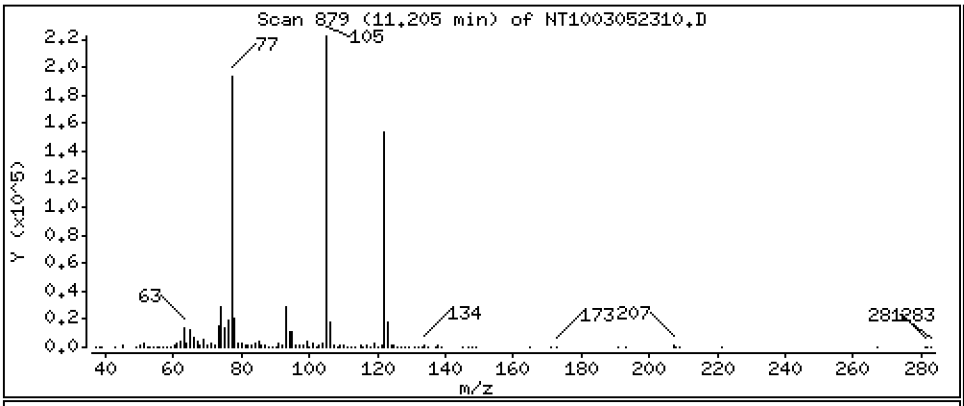
Operator: VTS

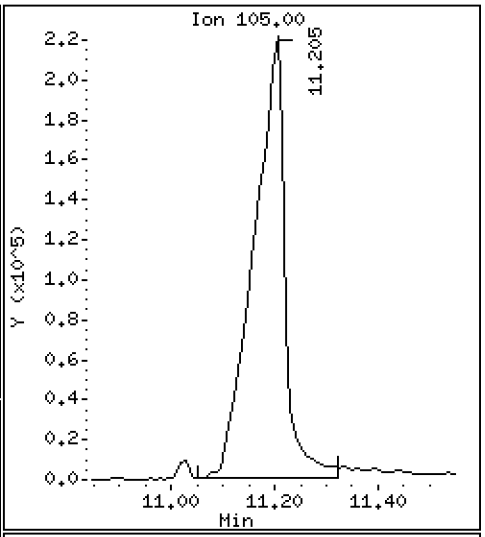
Column phase: ZB-5msi

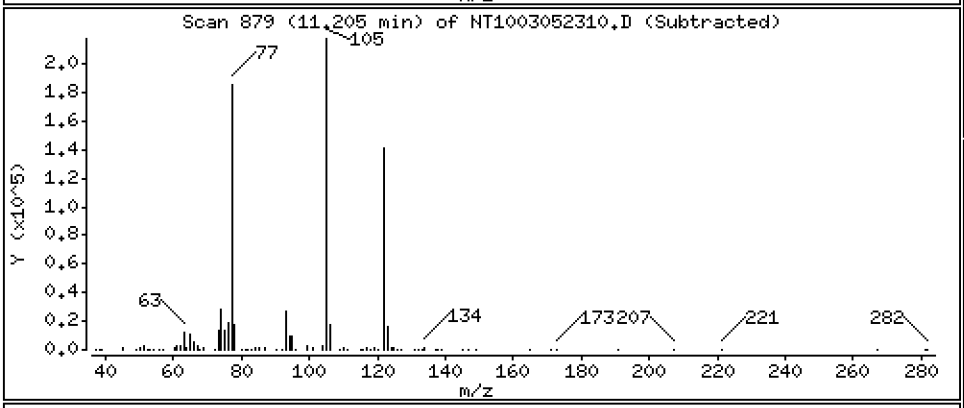
Column diameter: 0.25

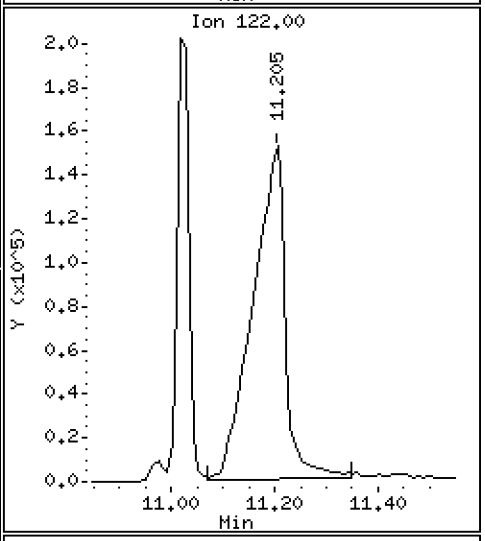
24 Benzoic acid

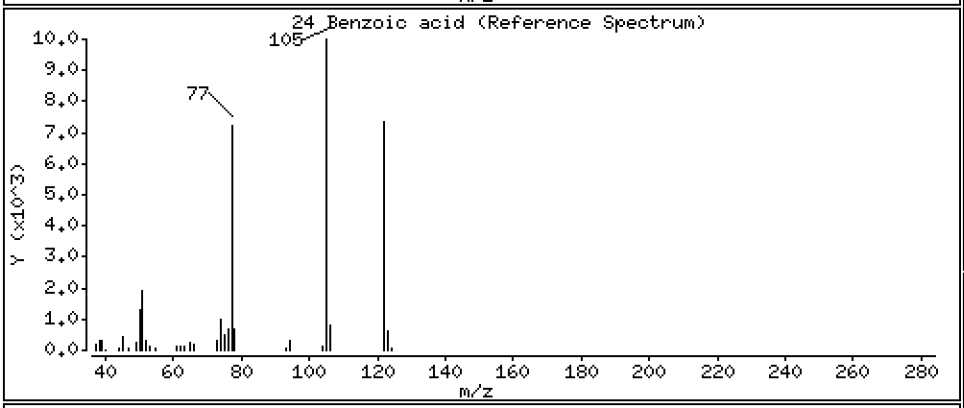
Concentration: 14.32 ug/mL

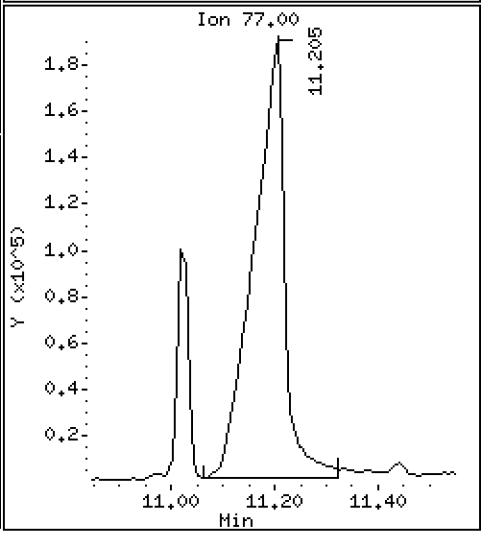


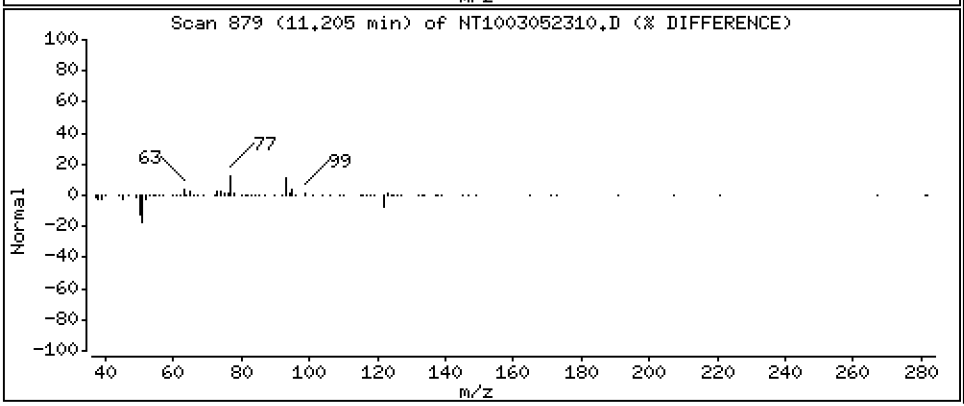












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

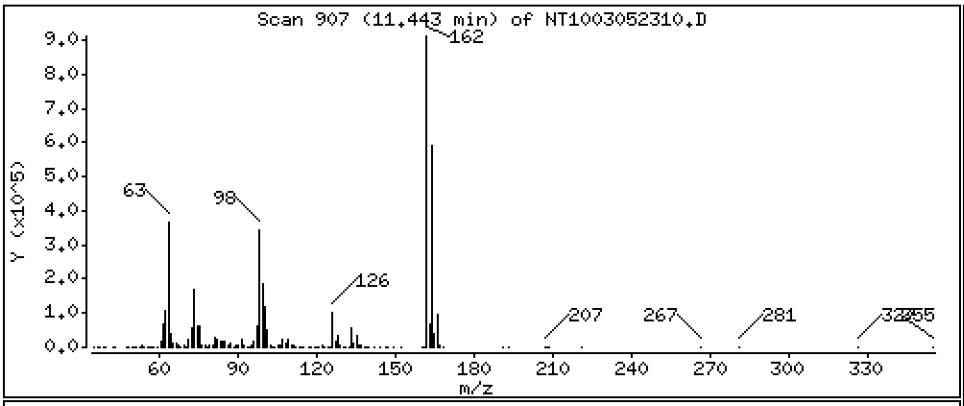
Operator: VTS

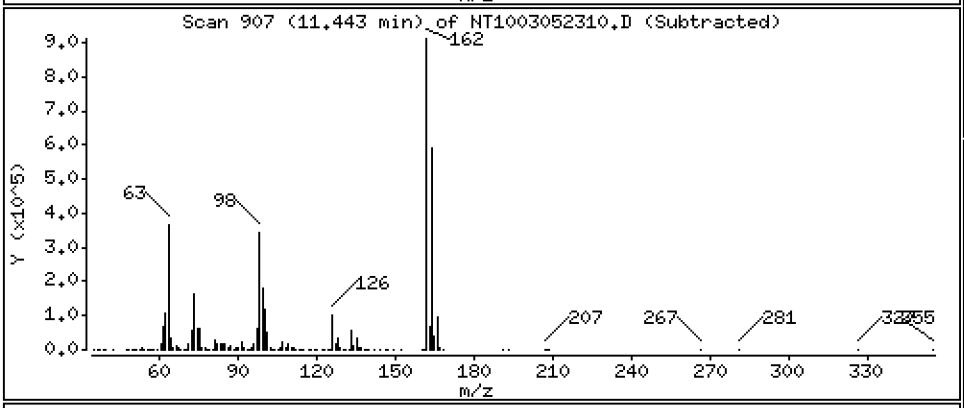
Column phase: ZB-5msi

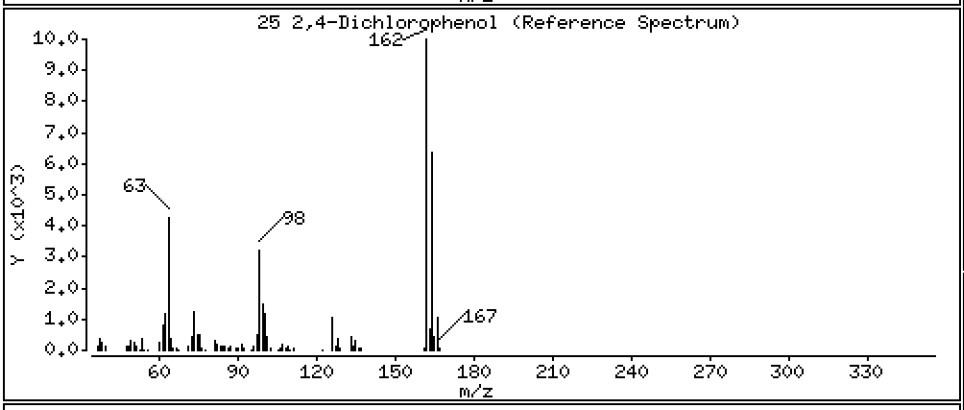
Column diameter: 0.25

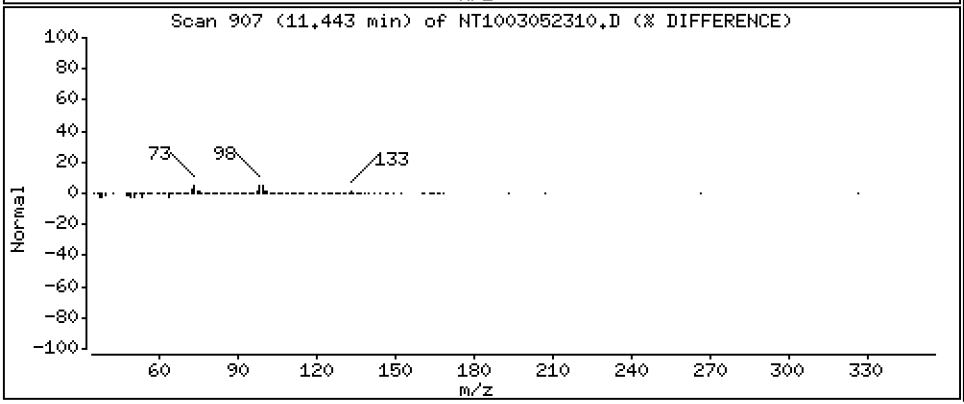
25 2,4-Dichlorophenol

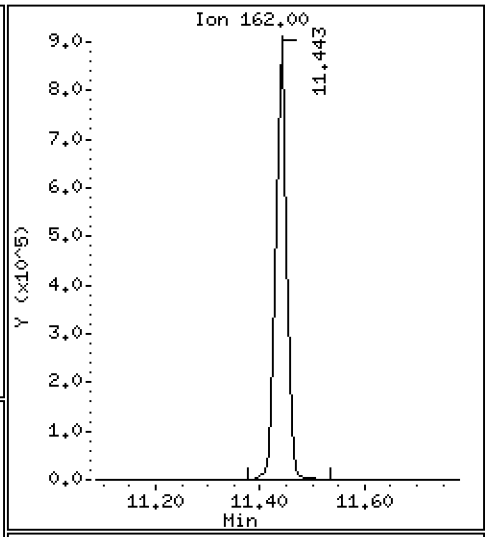
Concentration: 16.29 ug/mL

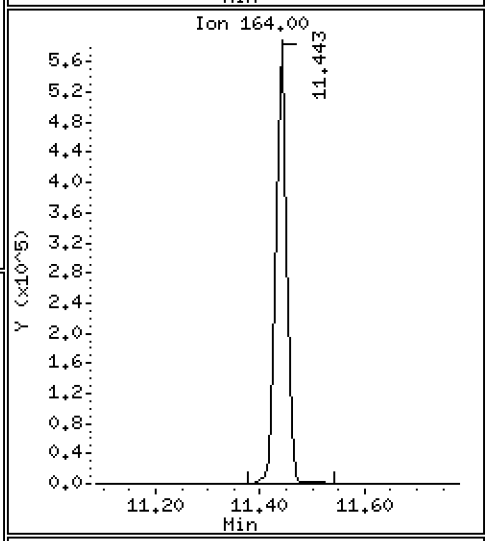


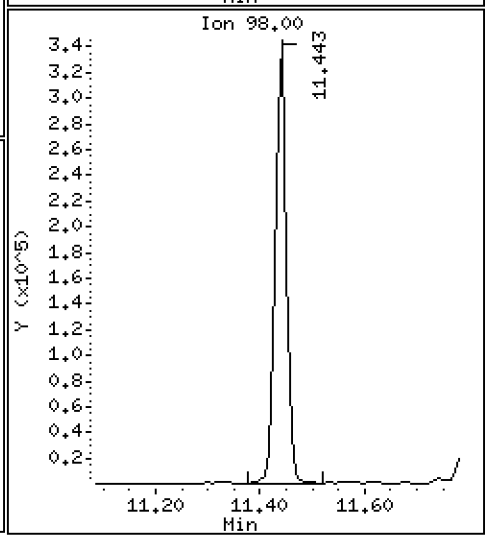












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

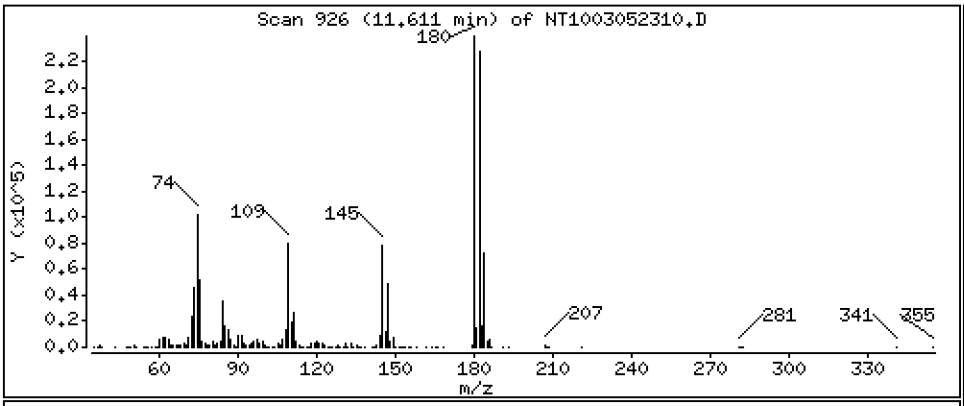
Operator: VTS

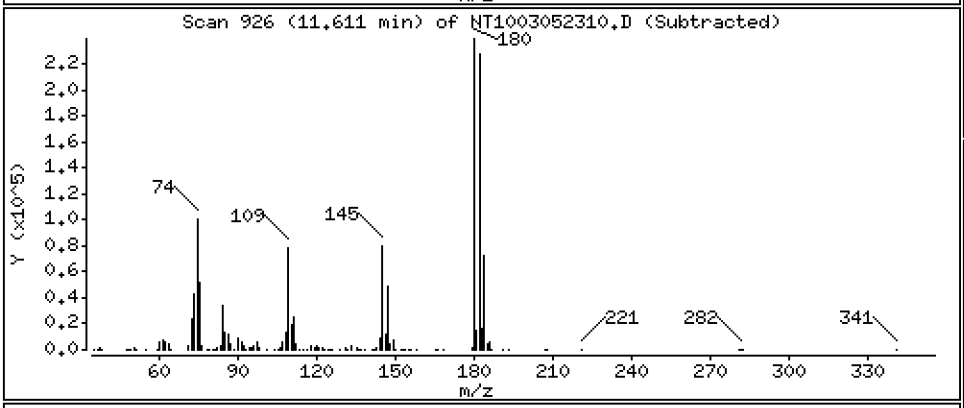
Column phase: ZB-5msi

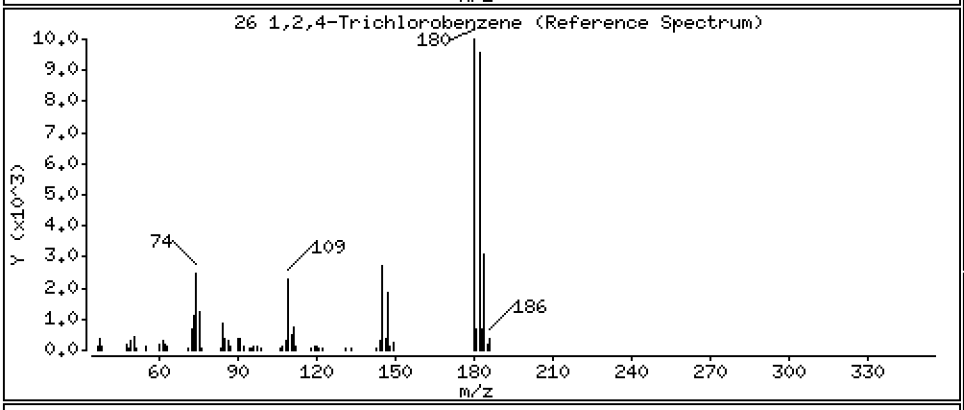
Column diameter: 0.25

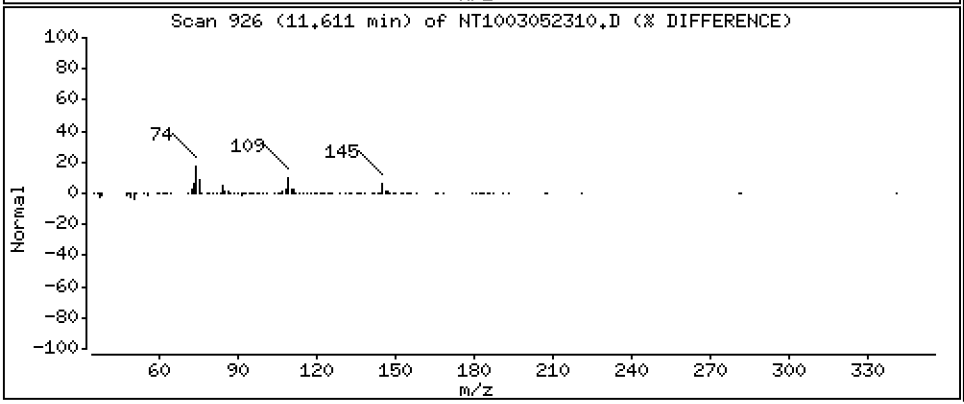
26 1,2,4-Trichlorobenzene

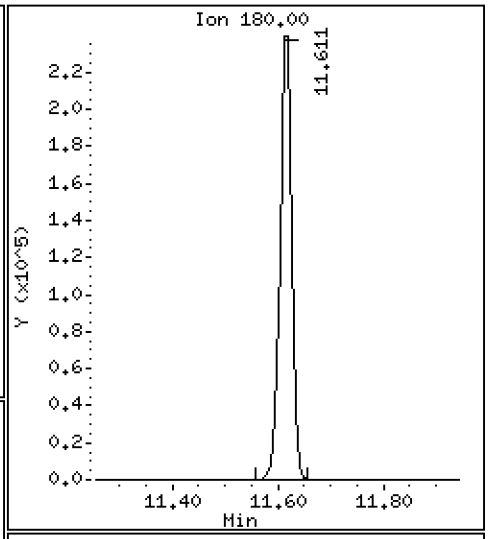
Concentration: 4.481 ug/mL

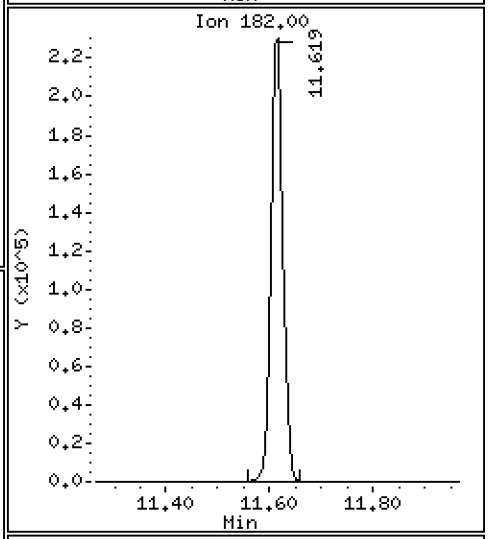


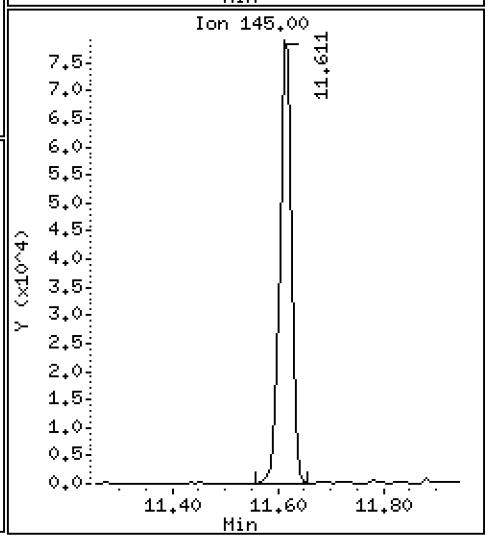












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

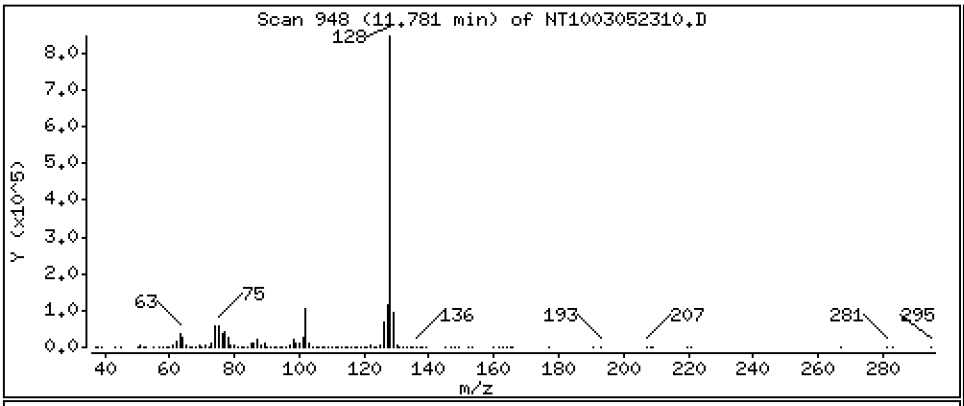
Operator: VTS

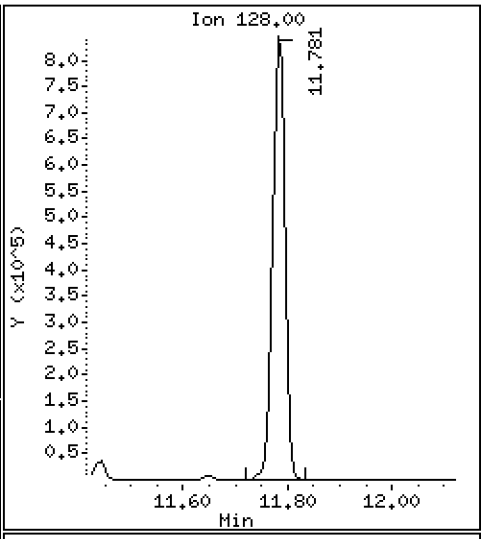
Column phase: ZB-5msi

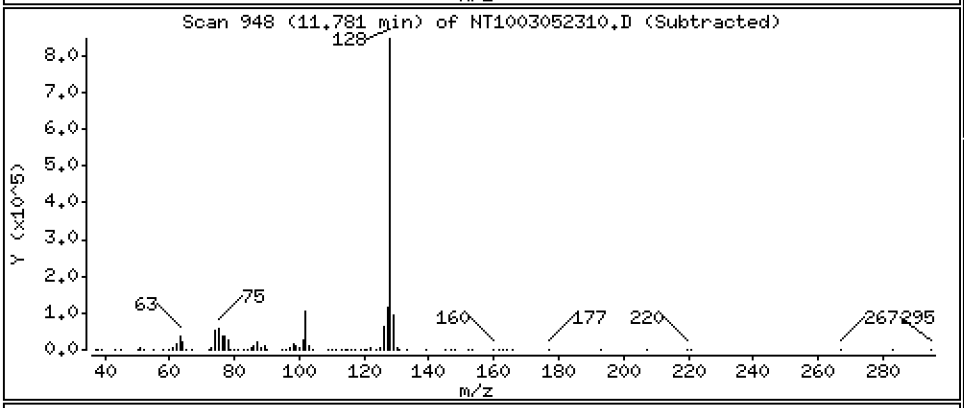
Column diameter: 0.25

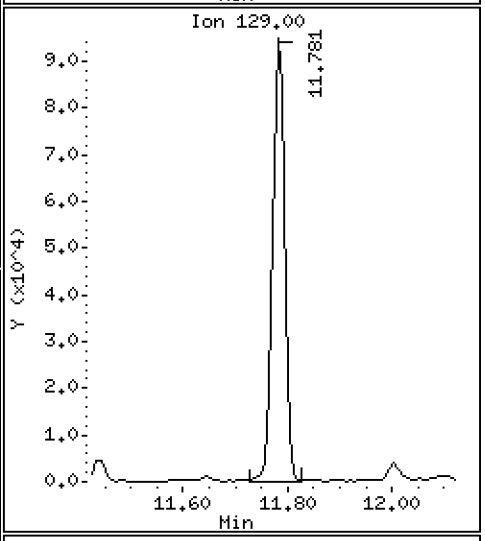
28 Naphthalene

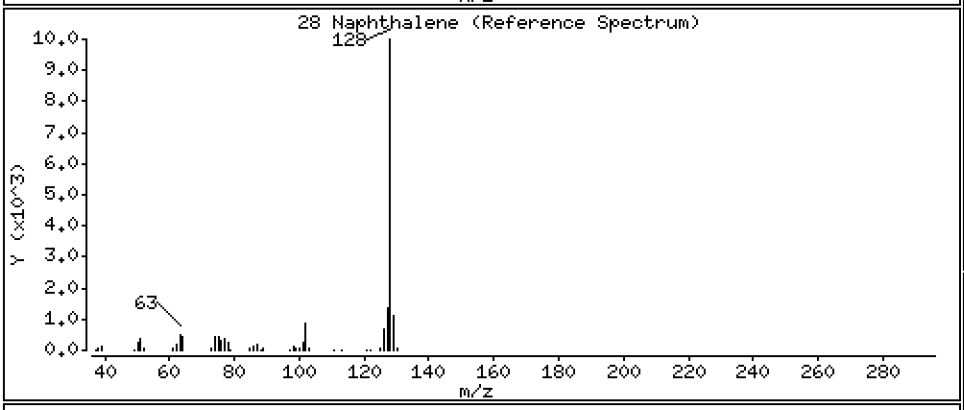
Concentration: 4.700 ug/mL

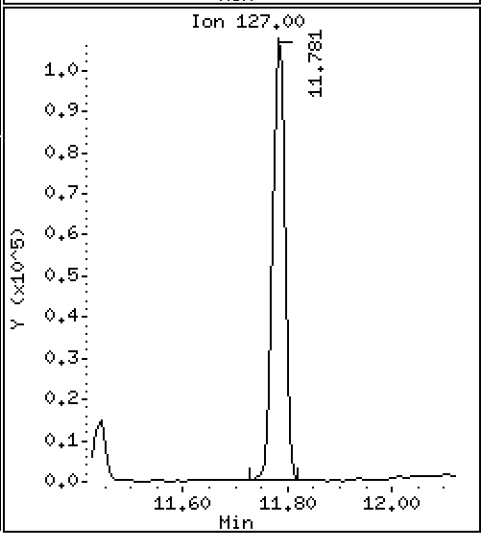


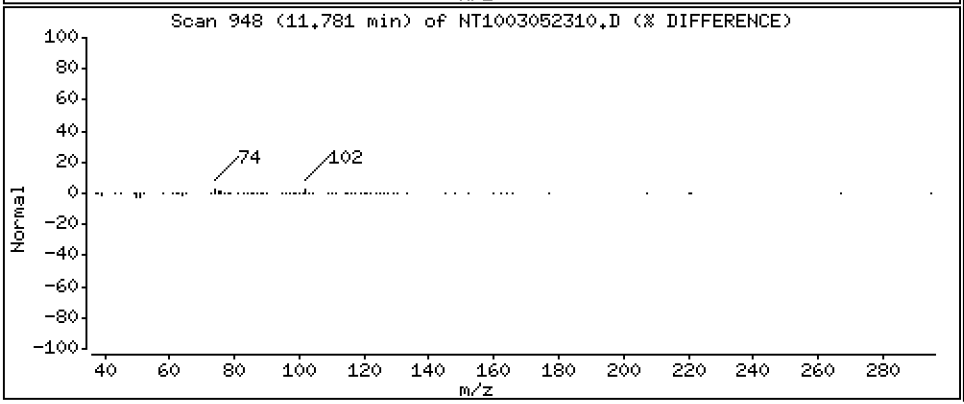












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

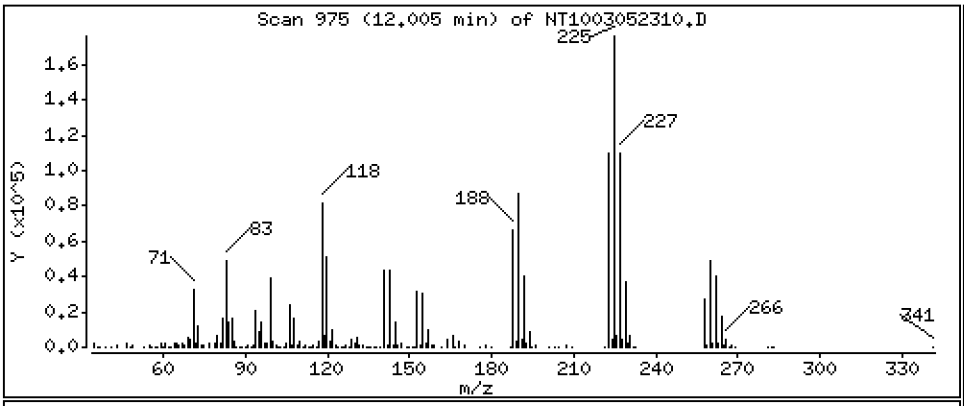
Operator: VTS

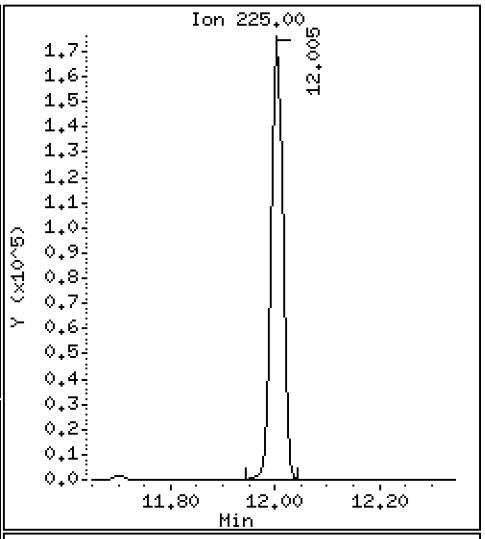
Column phase: ZB-5msi

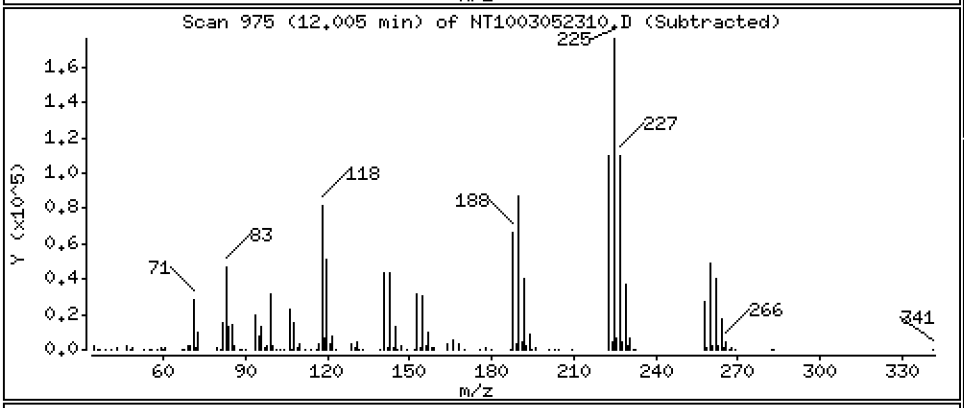
Column diameter: 0.25

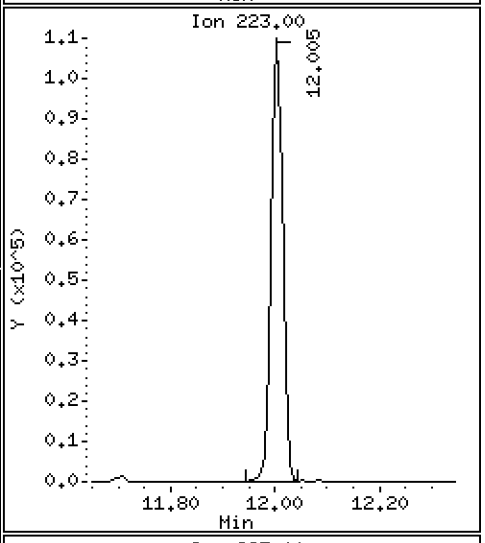
30 Hexachlorobutadiene

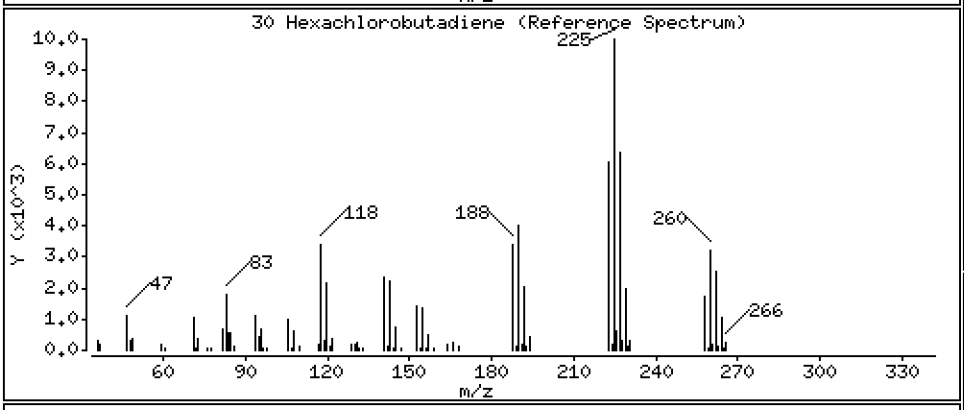
Concentration: 4.887 ug/mL

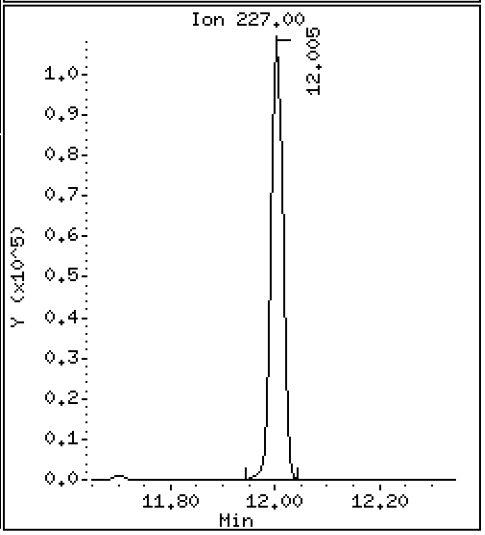


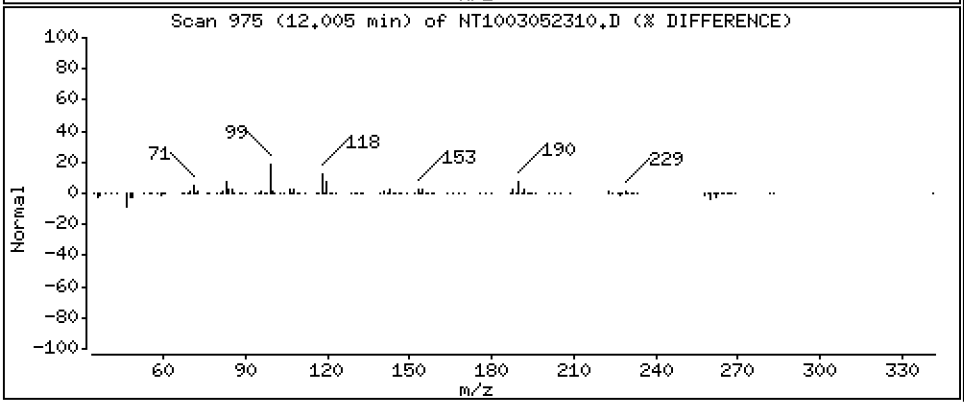












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

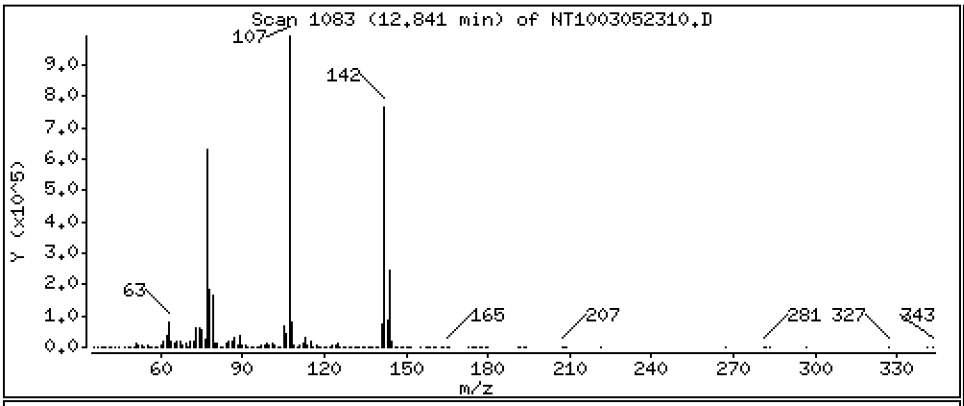
Operator: VTS

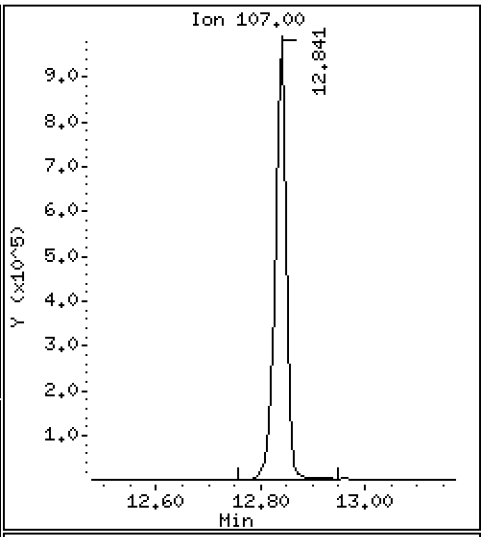
Column phase: ZB-5msi

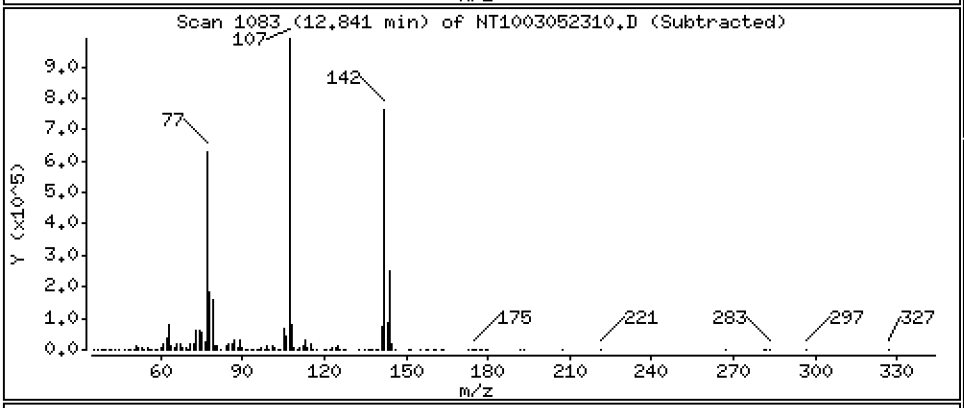
Column diameter: 0.25

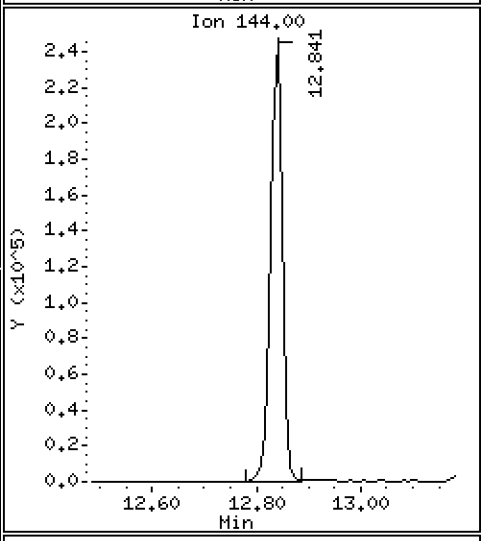
31 4-Chloro-3-methylphenol

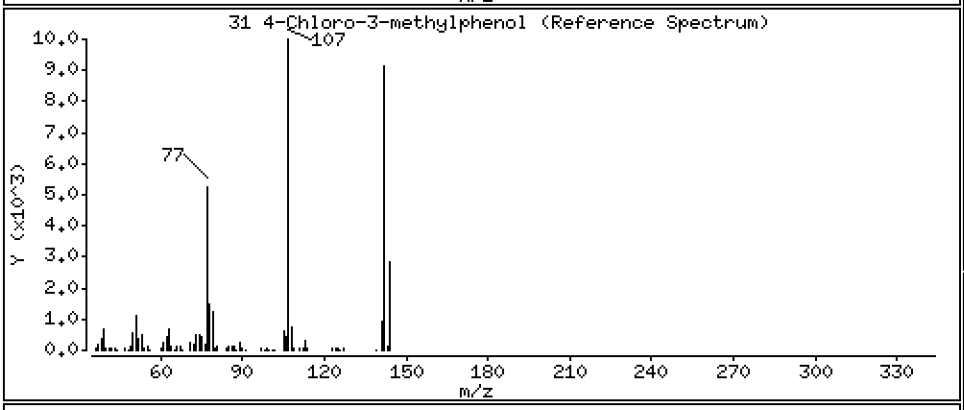
Concentration: 15.50 ug/mL

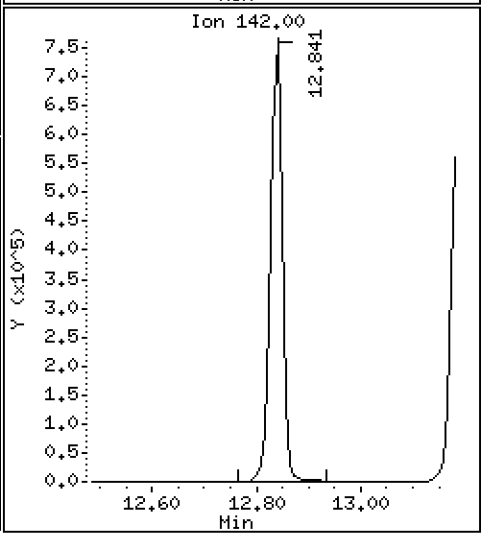


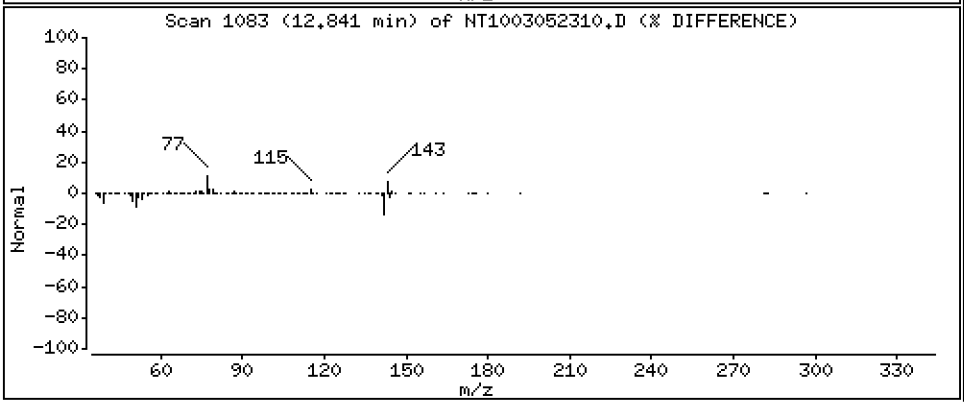












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

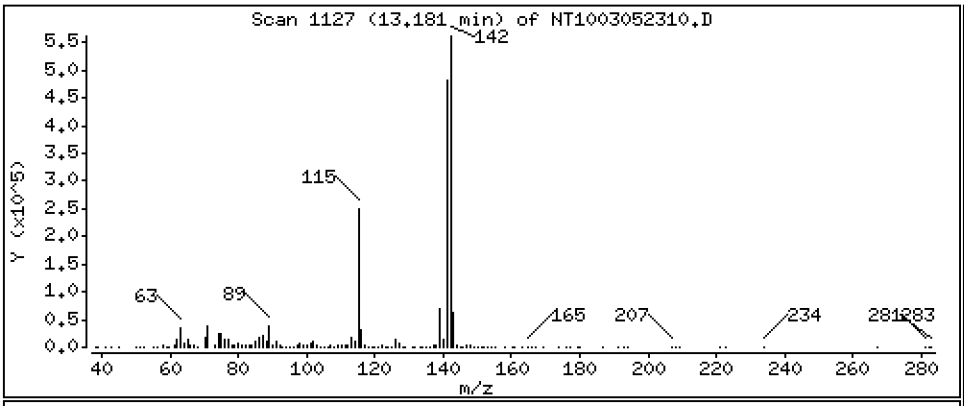
Operator: VTS

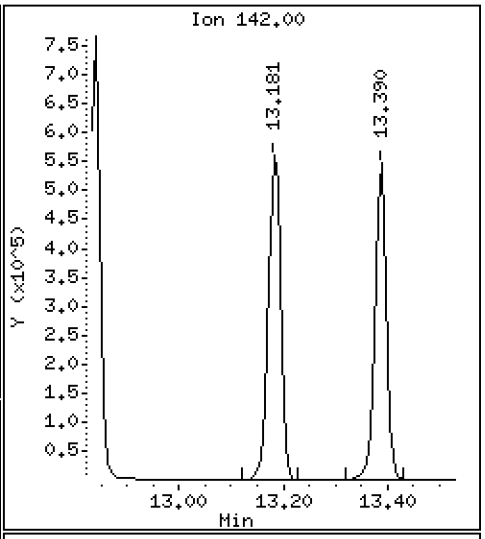
Column phase: ZB-5msi

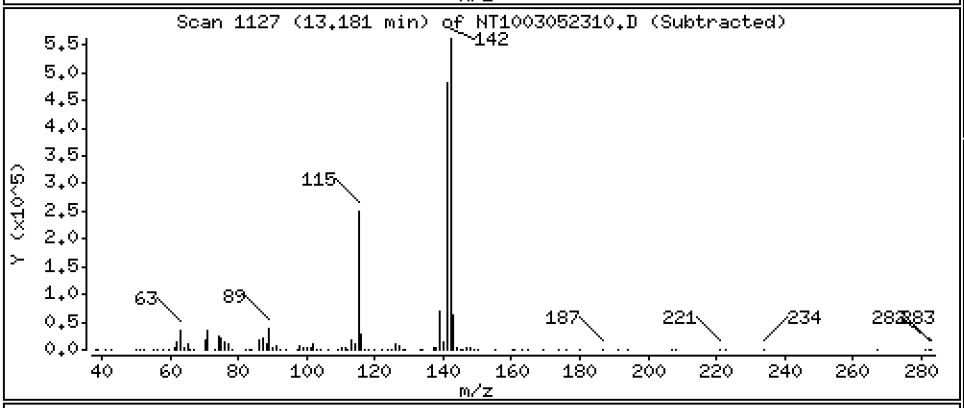
Column diameter: 0.25

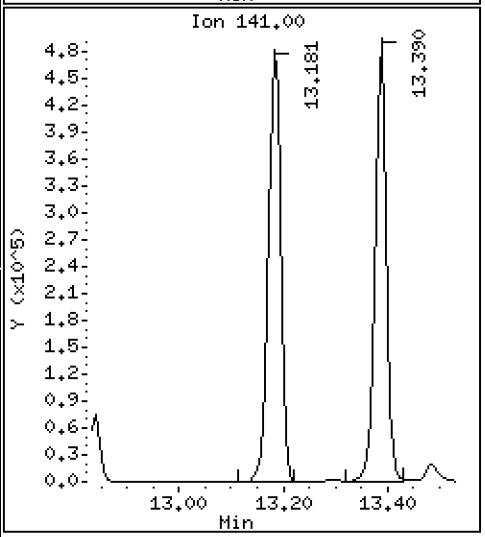
32 2-Methylnaphthalene

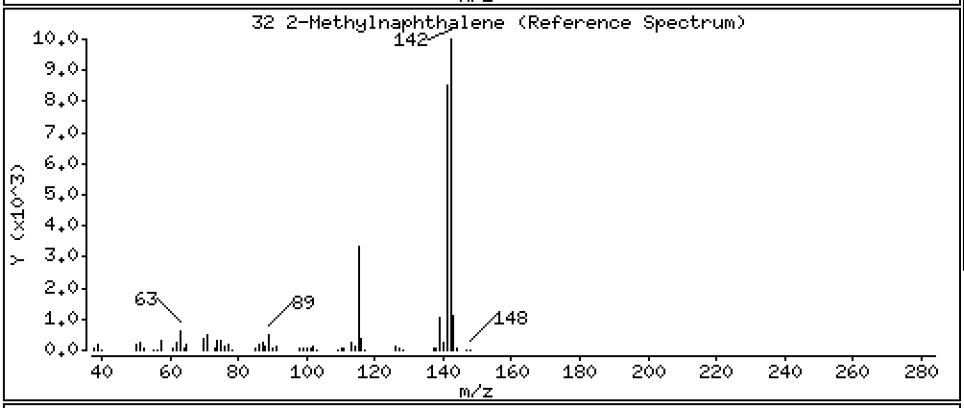
Concentration: 4.468 ug/mL

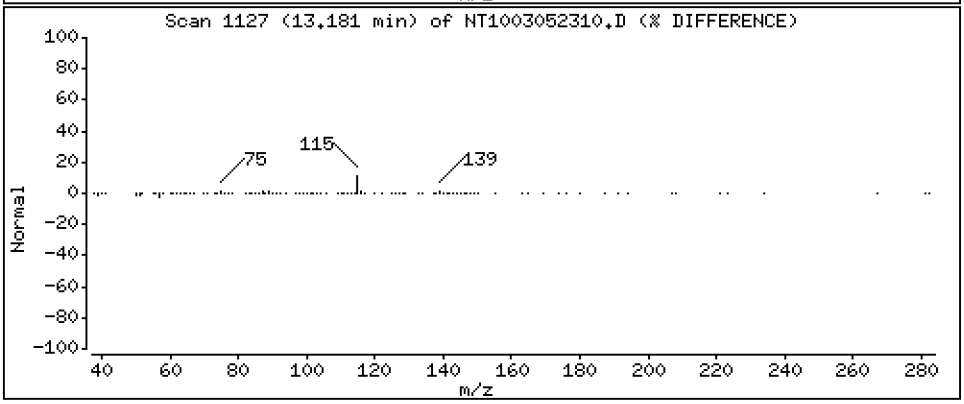












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052310.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

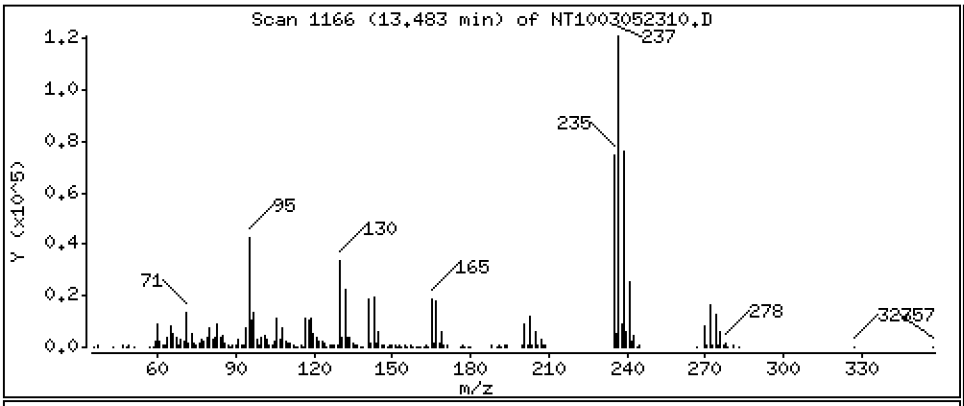
Operator: VTS

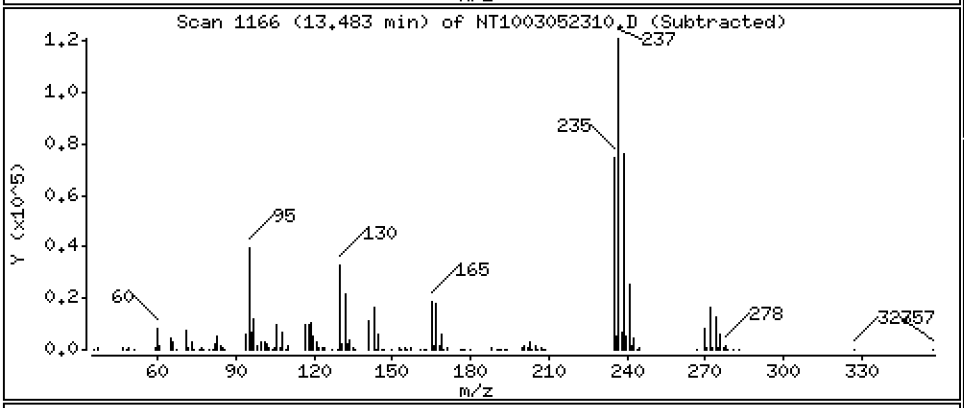
Column phase: ZB-5msi

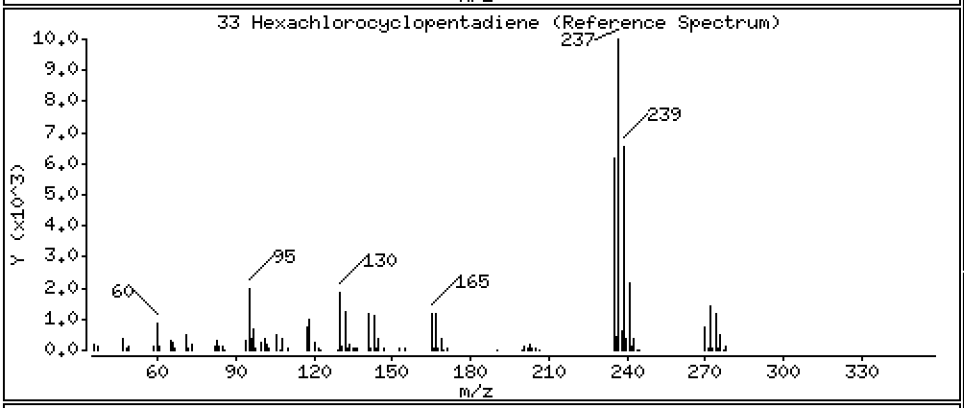
Column diameter: 0.25

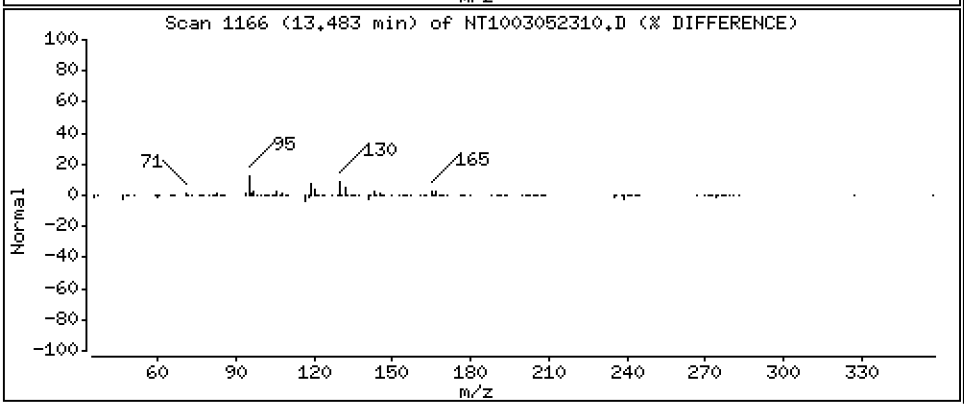
33 Hexachlorocyclopentadiene

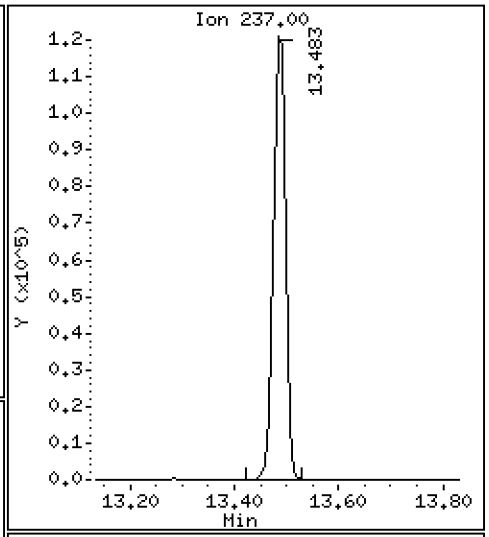
Concentration: 9.395 ug/mL

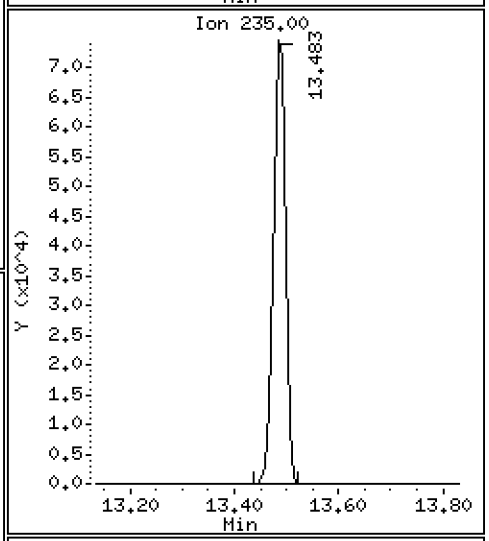


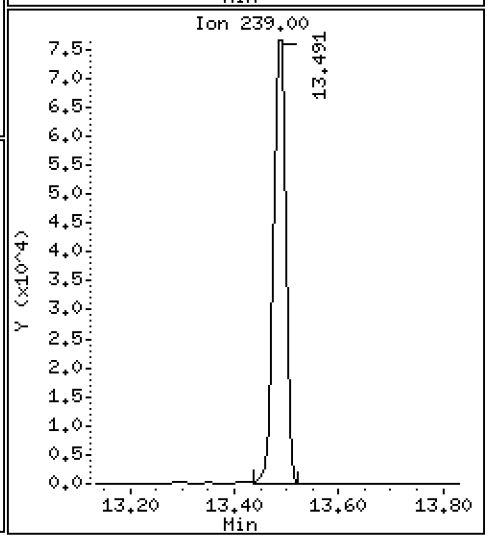












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

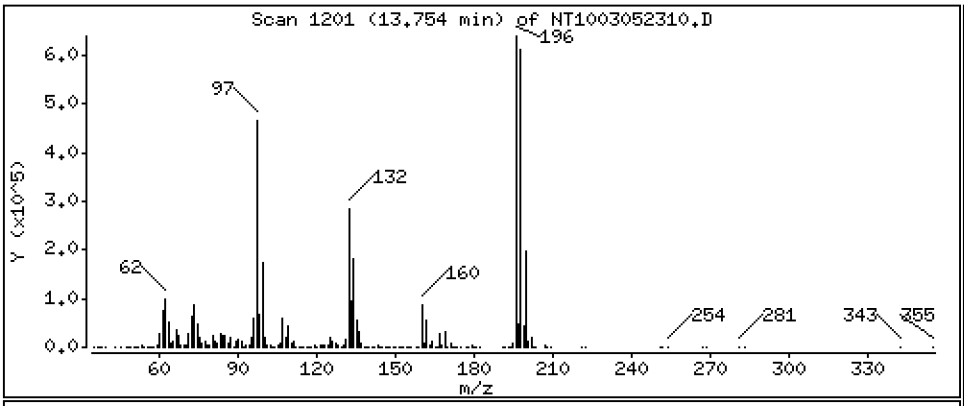
Operator: VTS

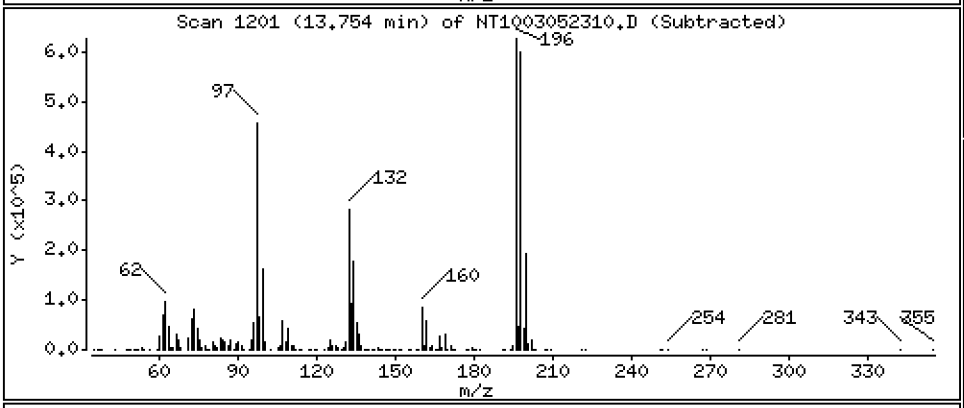
Column phase: ZB-5msi

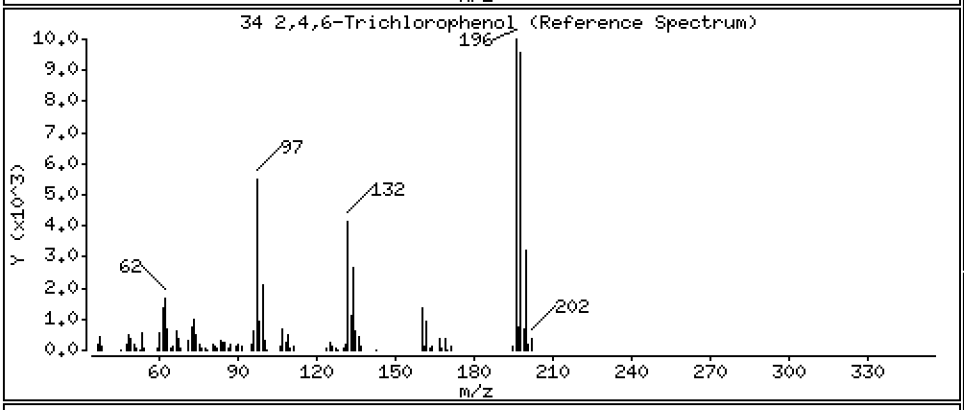
Column diameter: 0.25

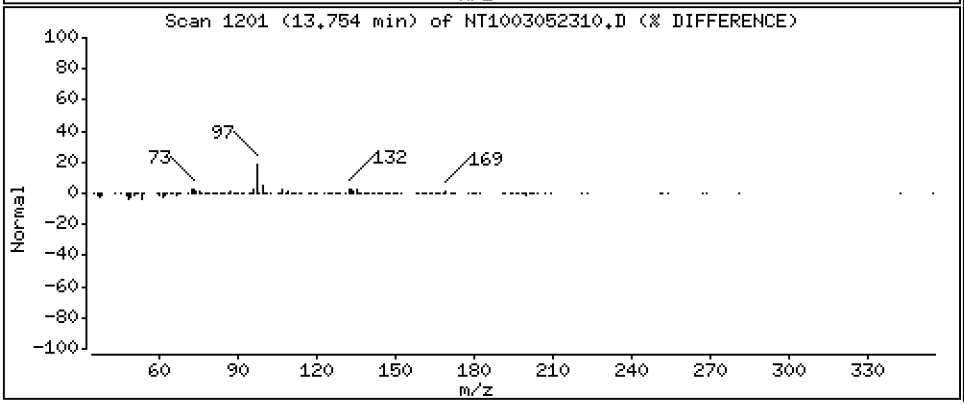
34 2,4,6-Trichlorophenol

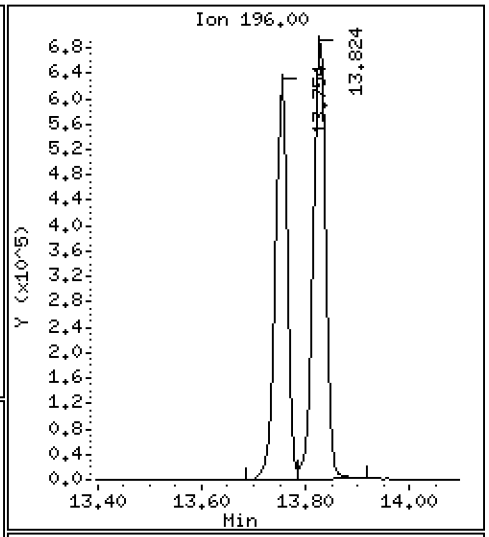
Concentration: 16.26 ug/mL

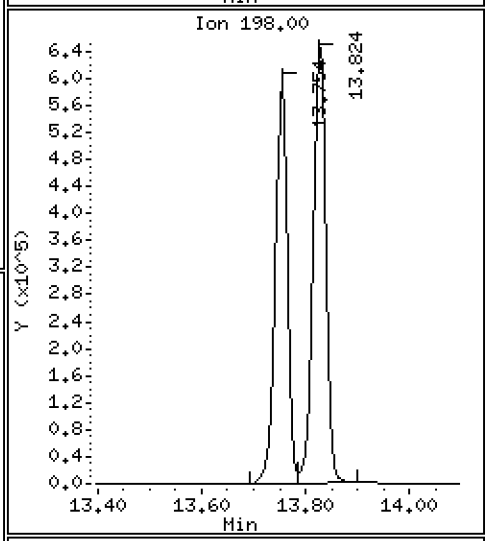


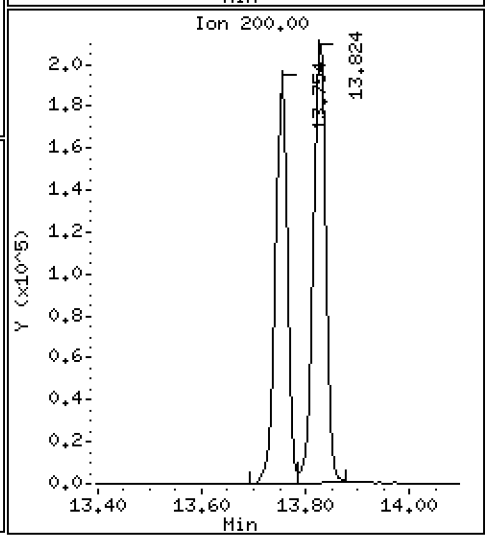












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

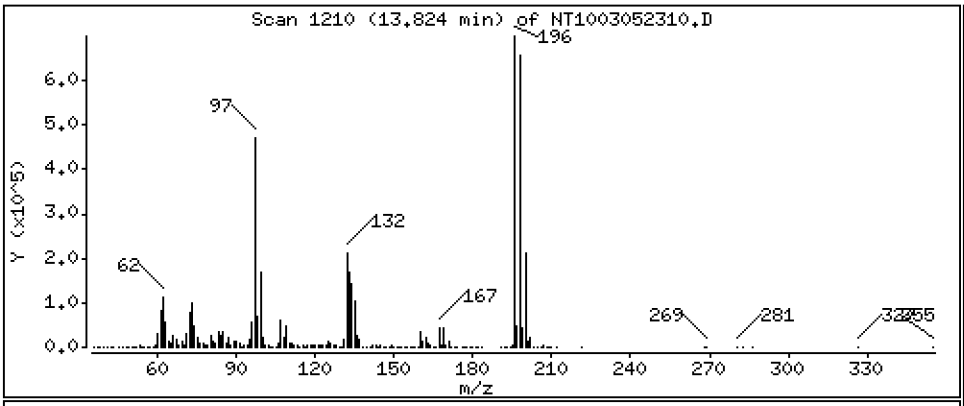
Operator: VTS

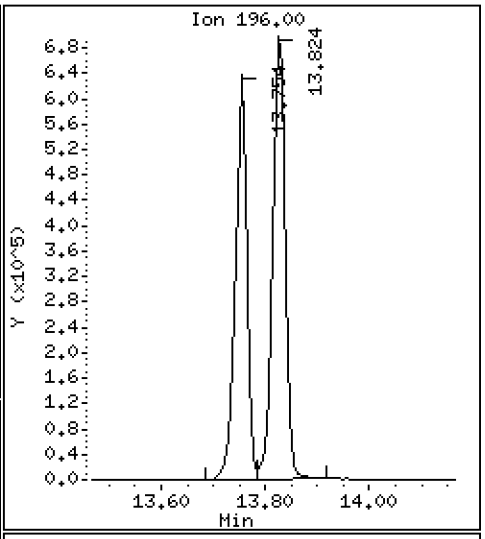
Column phase: ZB-5msi

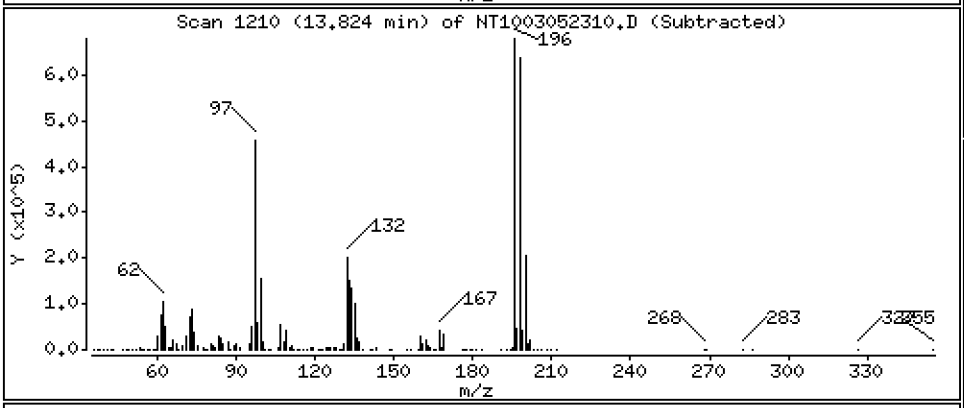
Column diameter: 0.25

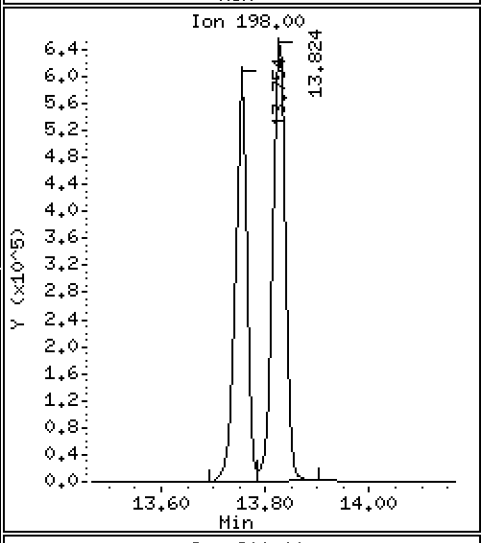
35 2,4,5-Trichlorophenol

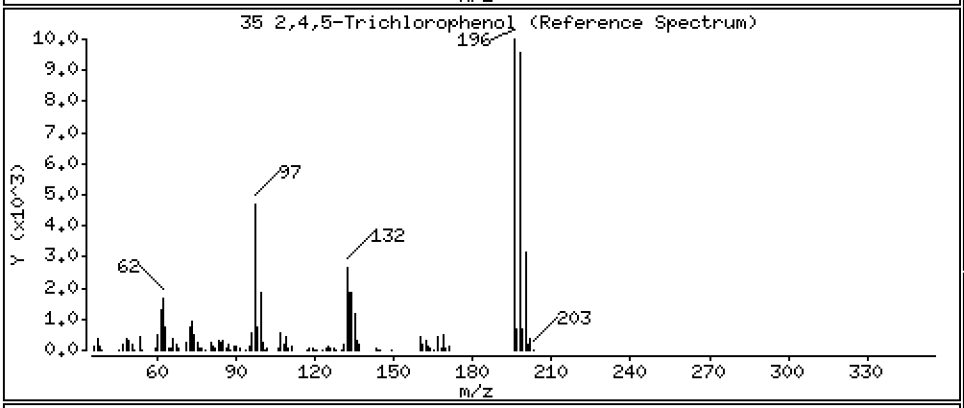
Concentration: 17.52 ug/mL

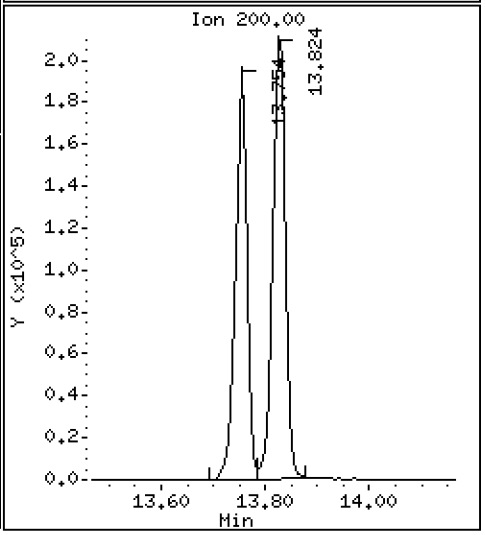


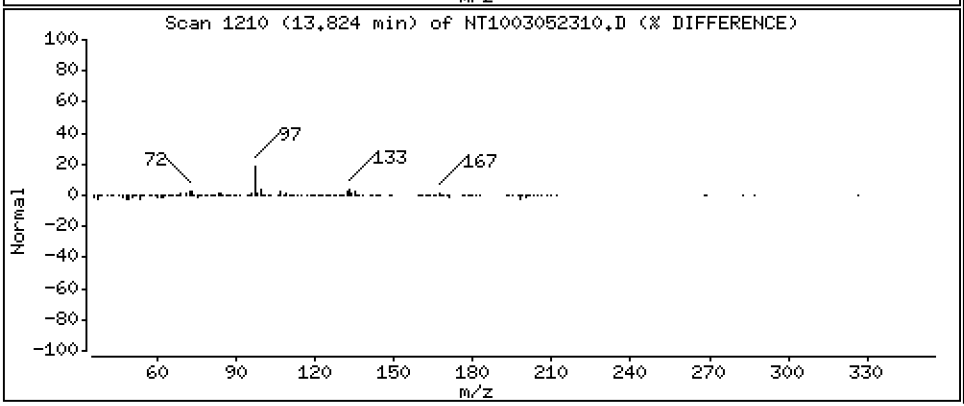












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

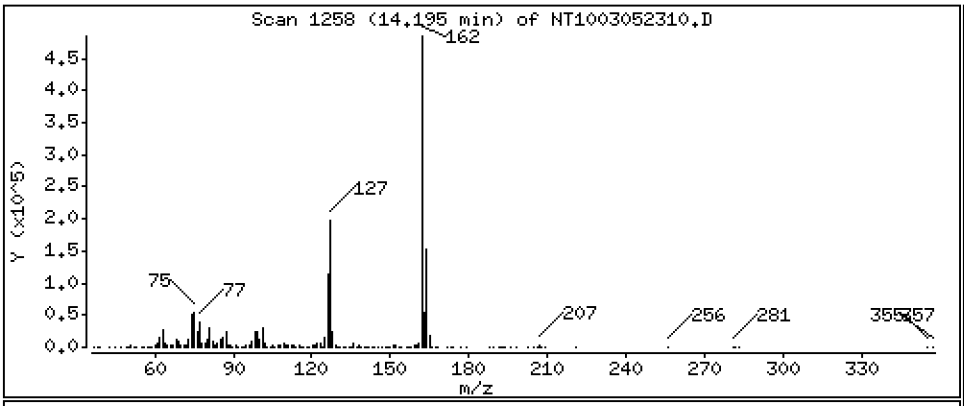
Operator: VTS

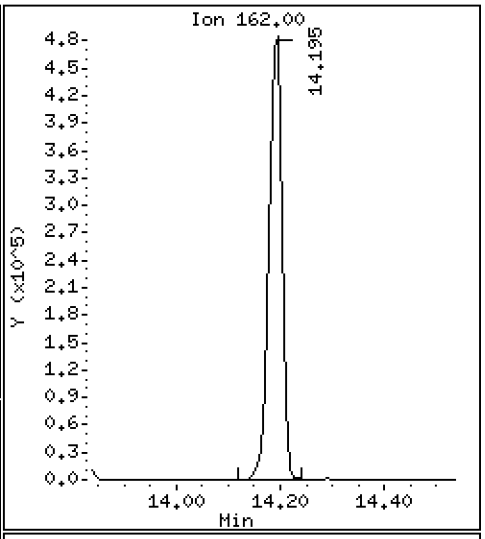
Column phase: ZB-5msi

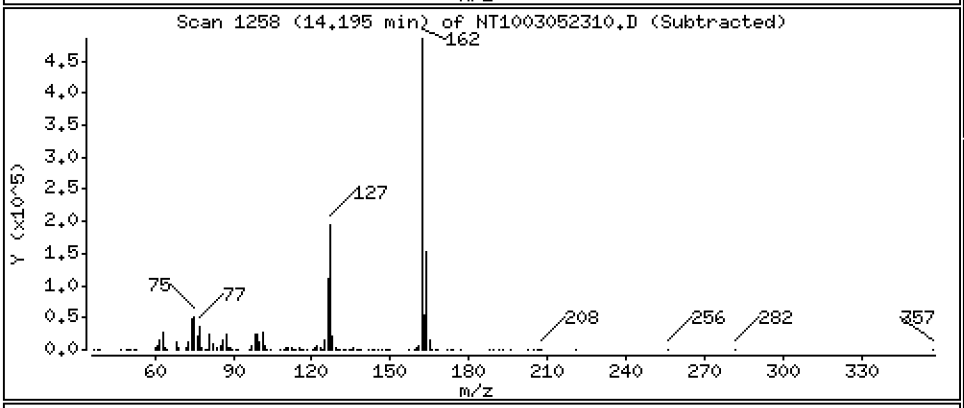
Column diameter: 0.25

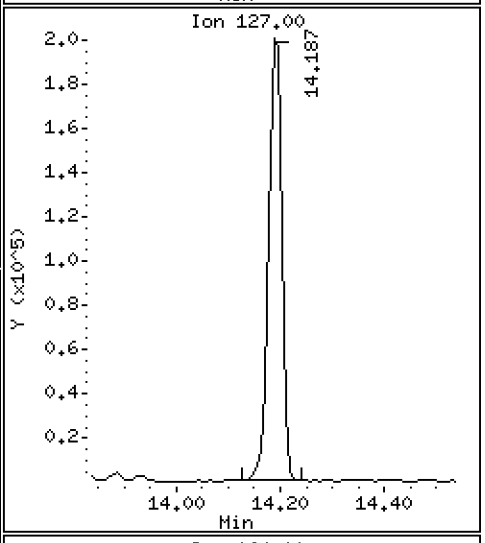
37 2-Chloronaphthalene

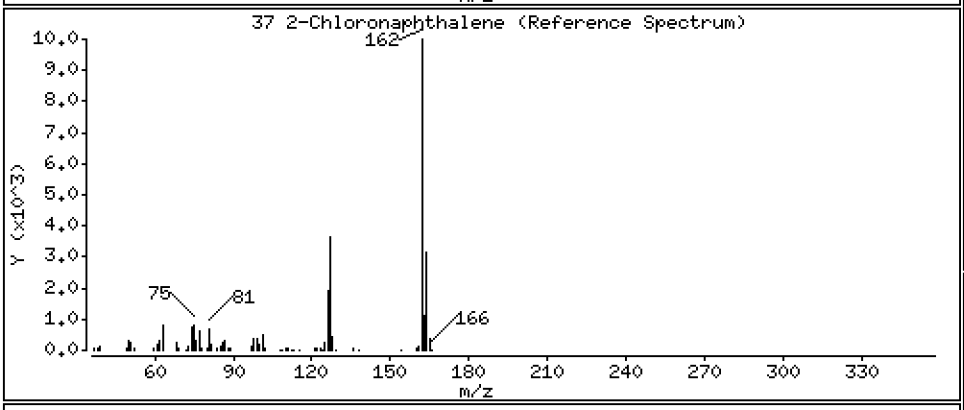
Concentration: 5.097 ug/mL

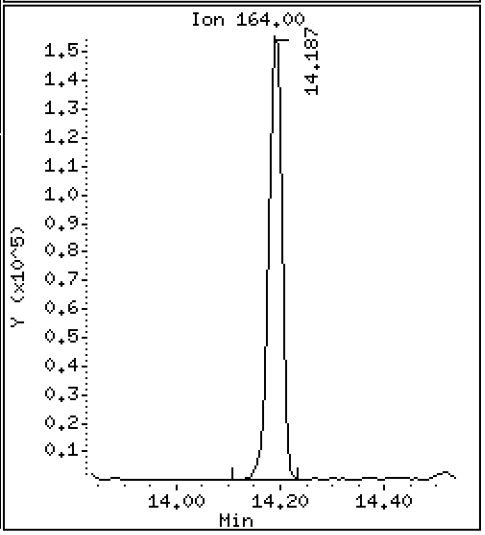


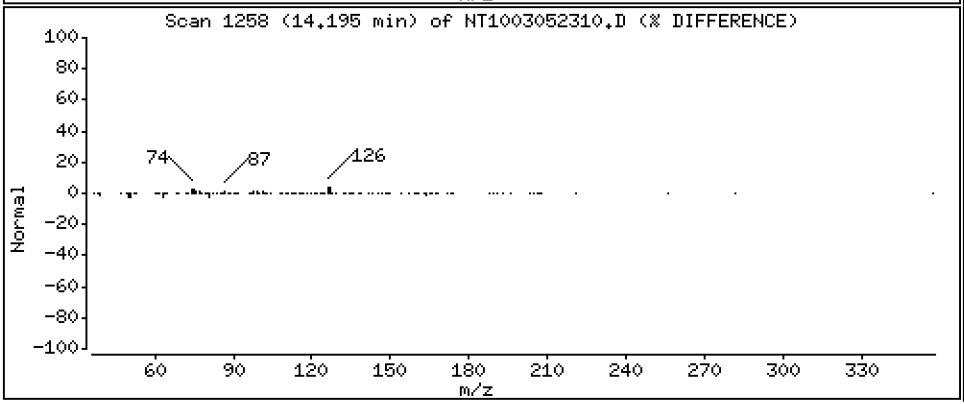












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

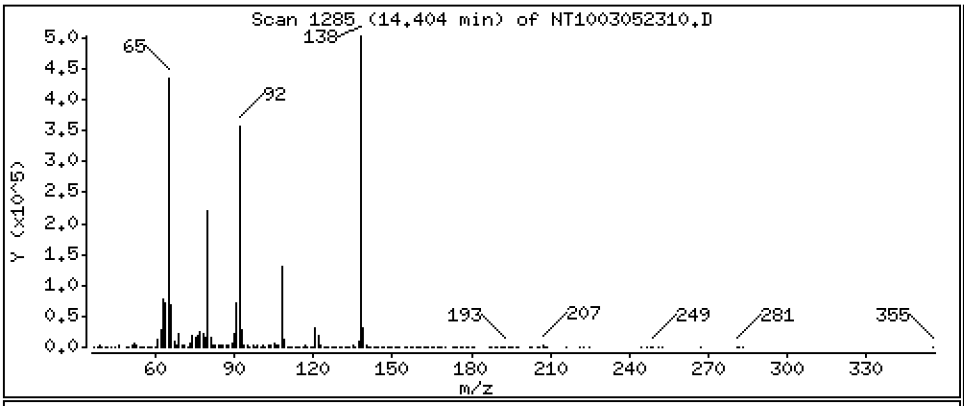
Operator: VTS

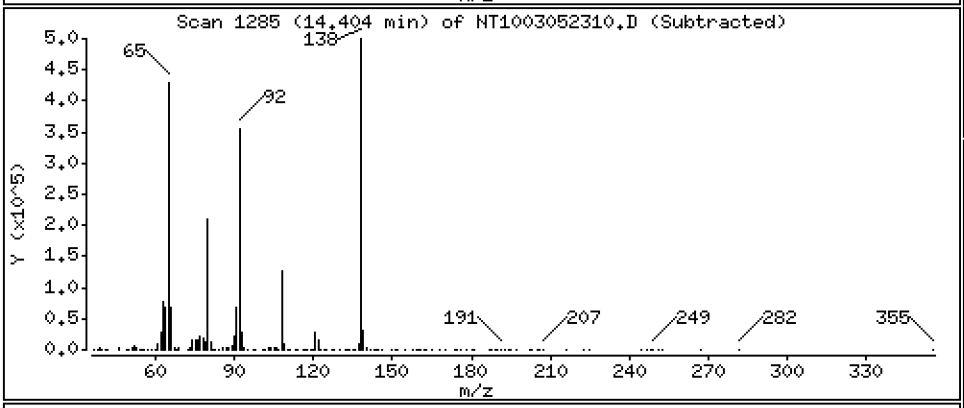
Column phase: ZB-5msi

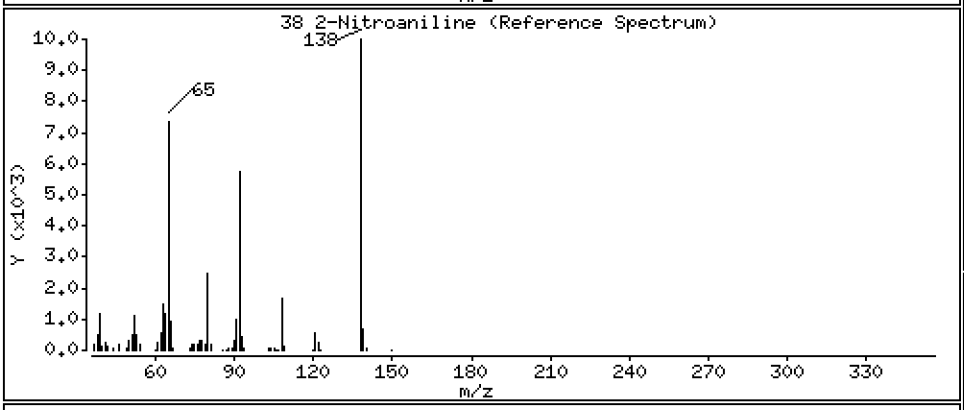
Column diameter: 0.25

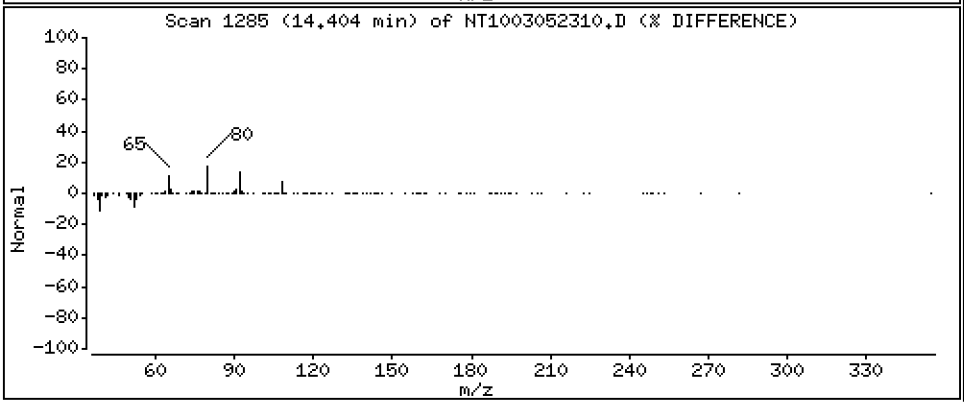
38 2-Nitroaniline

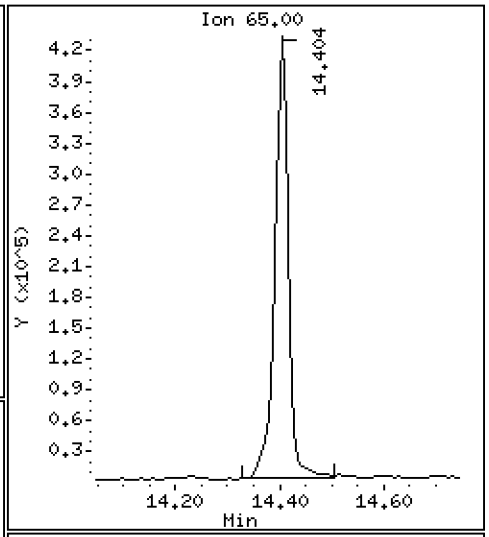
Concentration: 16.14 ug/mL

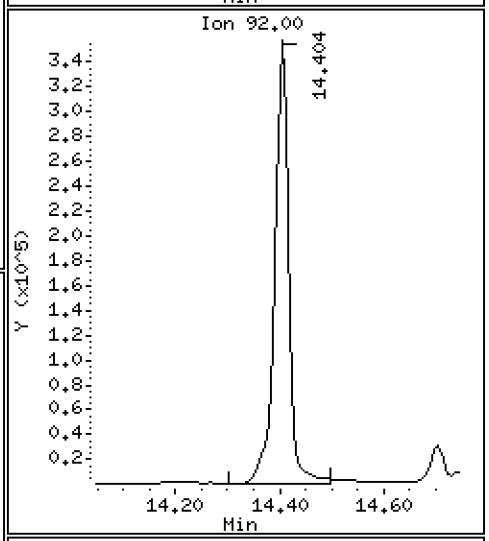


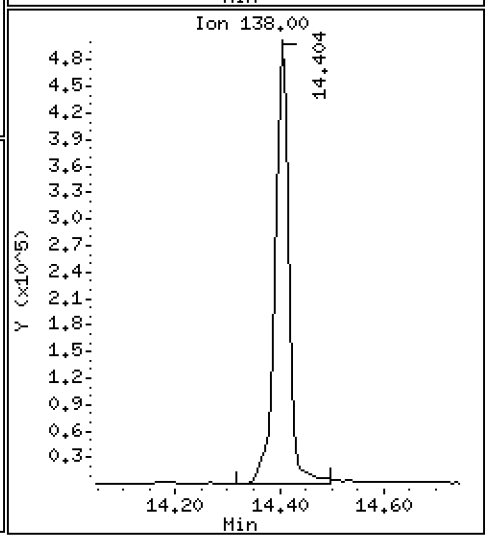












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

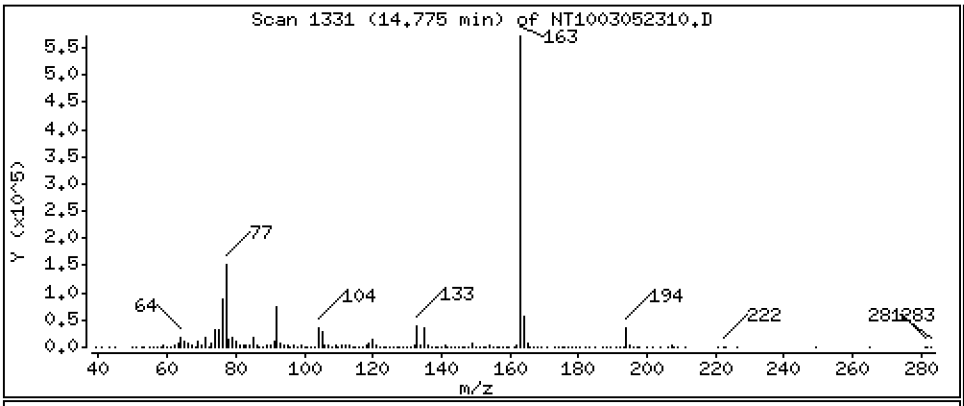
Operator: VTS

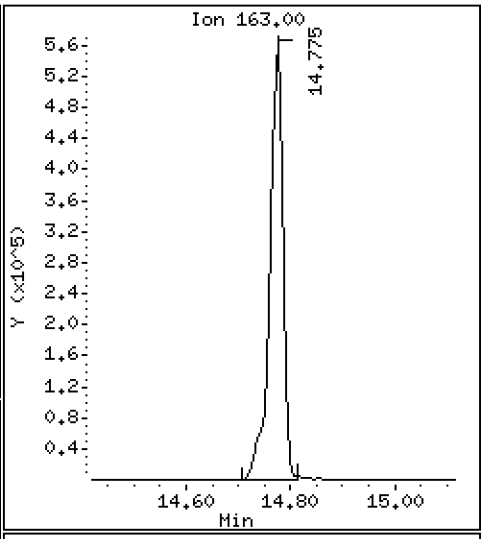
Column phase: ZB-5msi

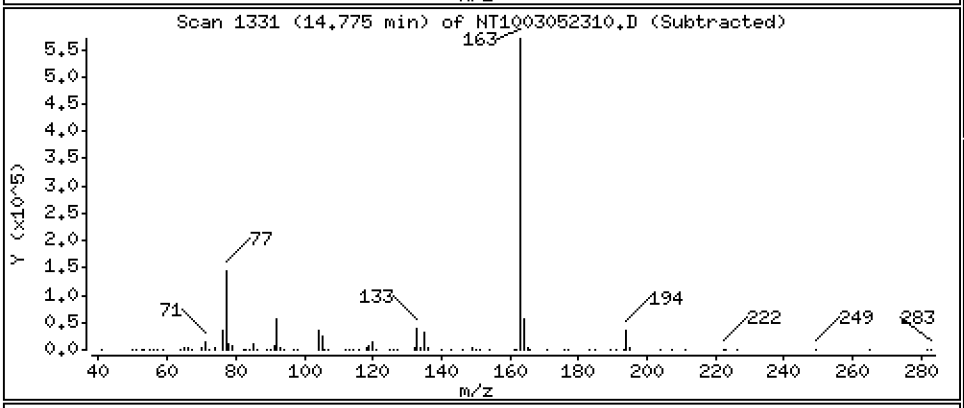
Column diameter: 0.25

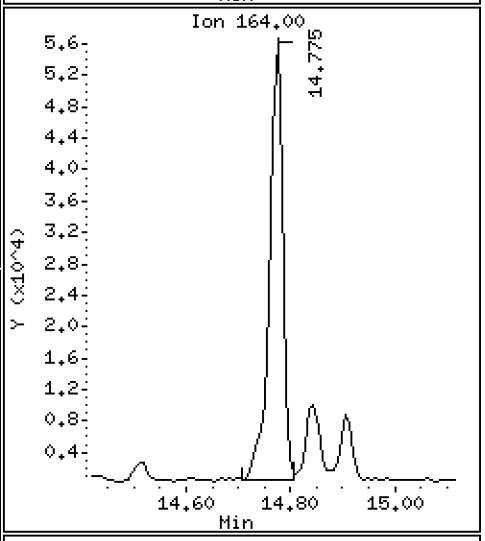
39 Dimethylphthalate

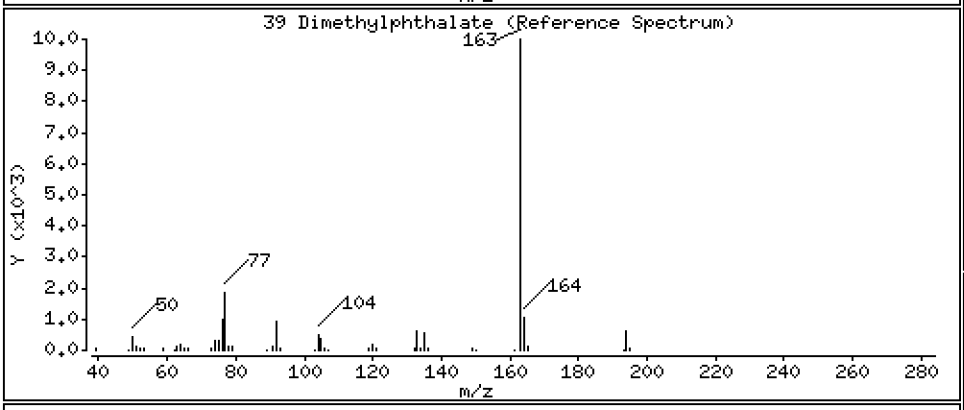
Concentration: 5.045 ug/mL

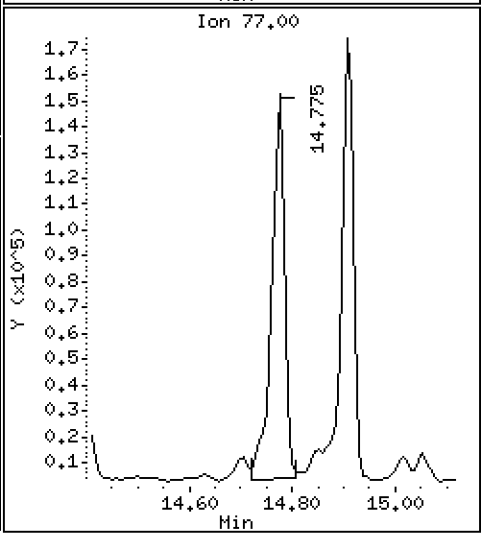


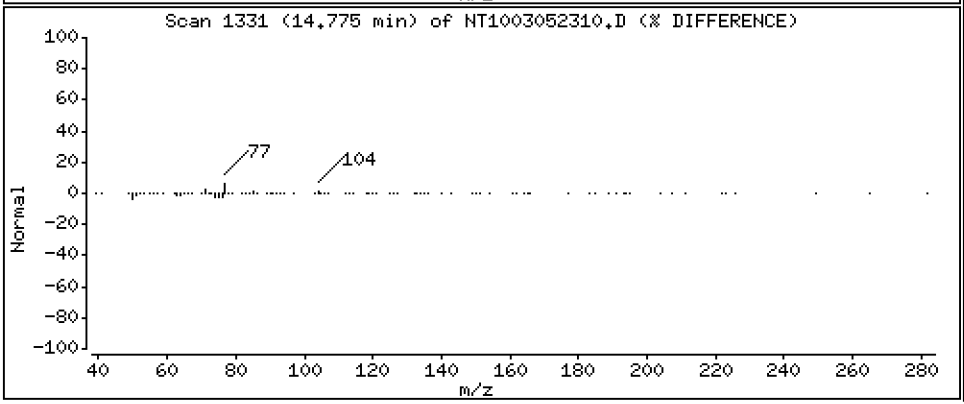












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

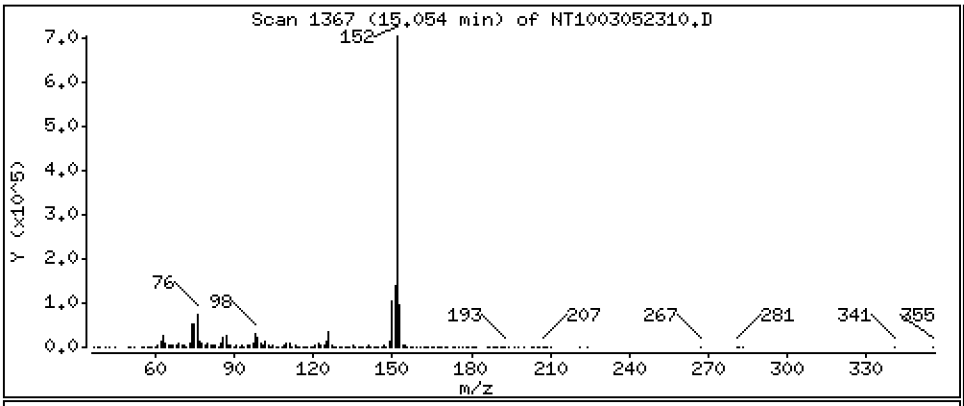
Operator: VTS

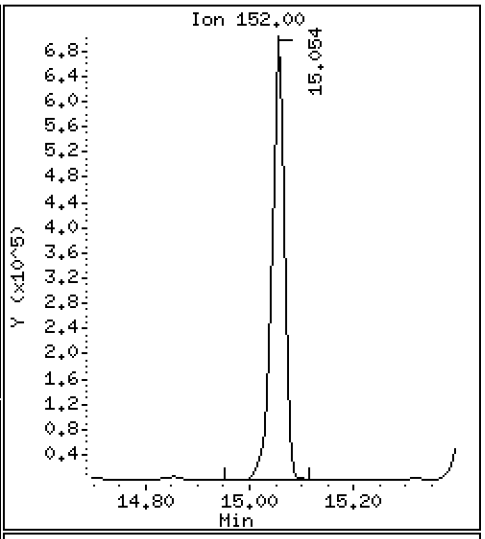
Column phase: ZB-5msi

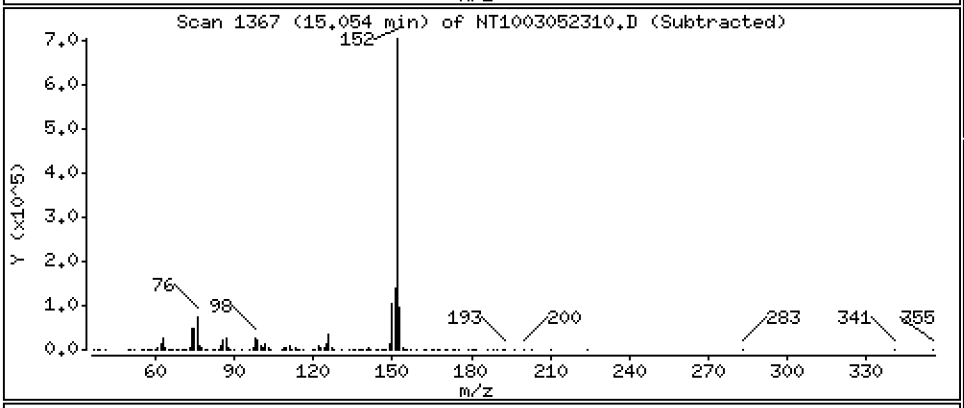
Column diameter: 0.25

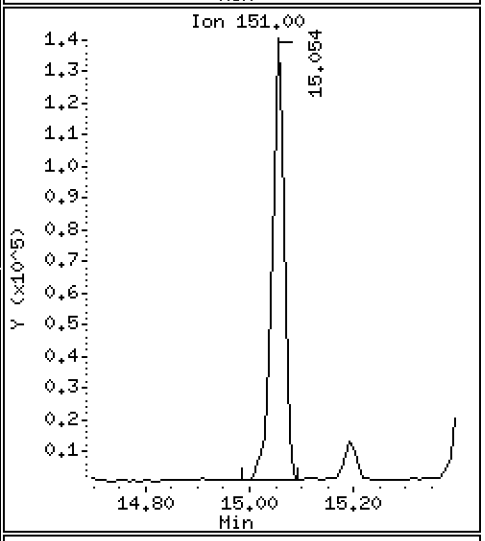
40 Acenaphthylene

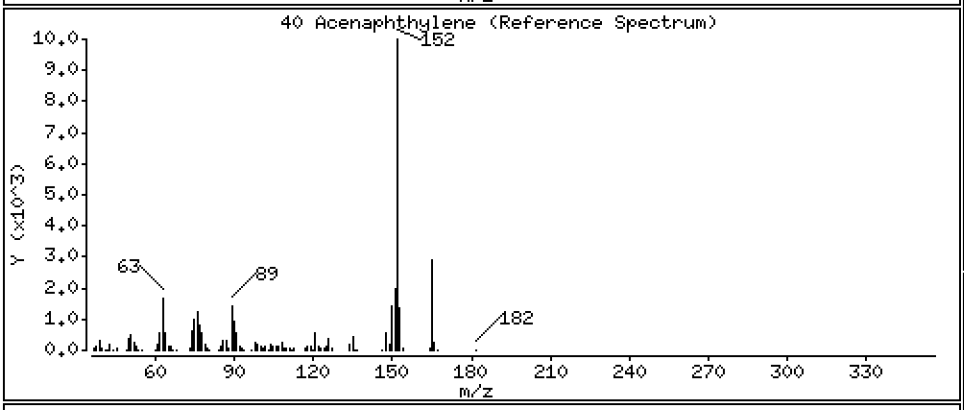
Concentration: 4.638 ug/mL

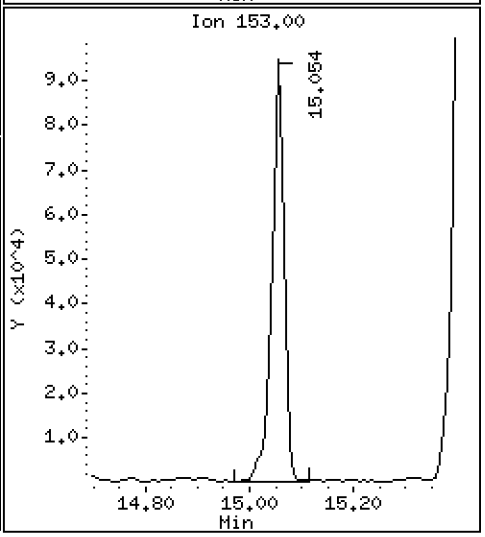


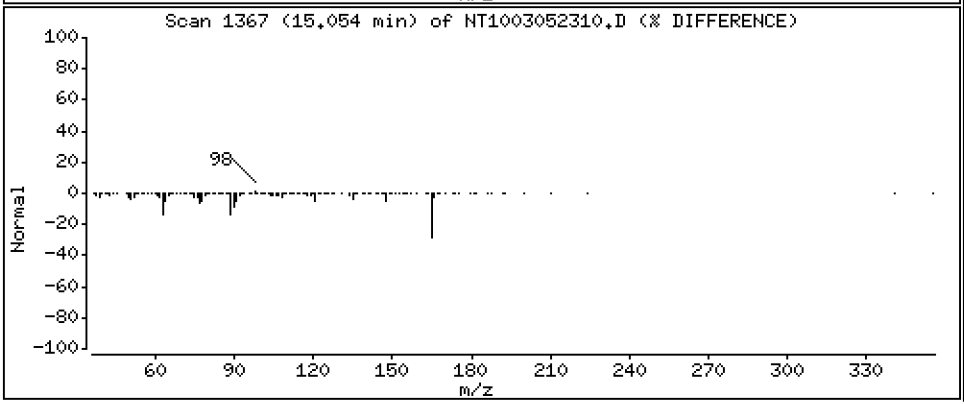












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

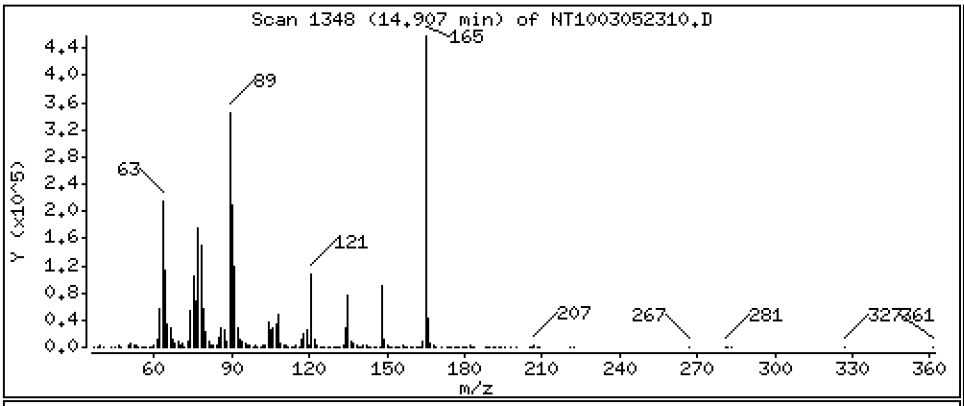
Operator: VTS

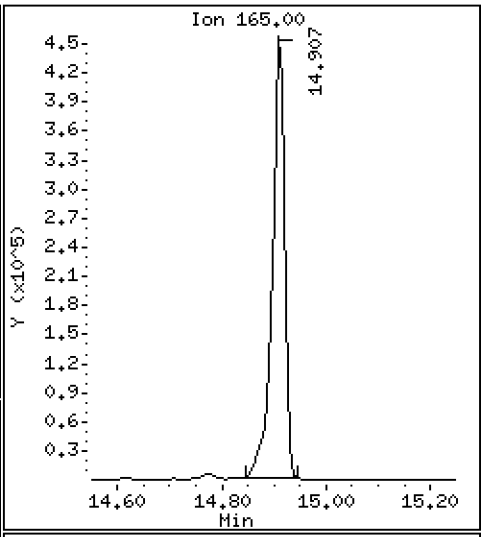
Column phase: ZB-5msi

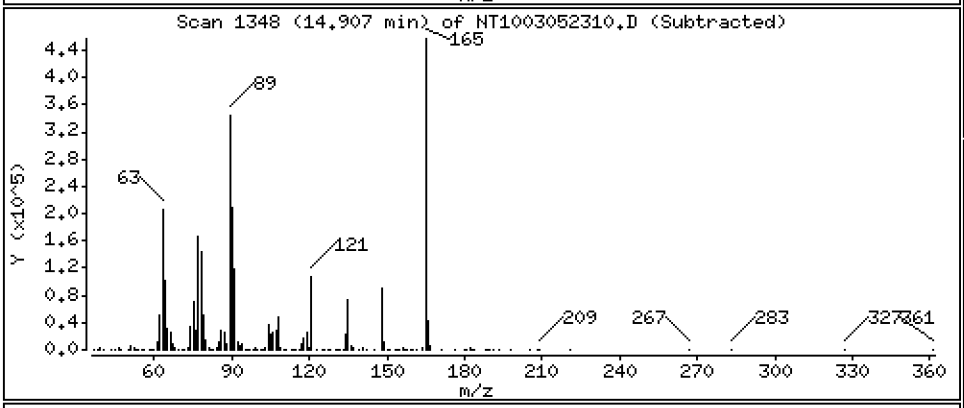
Column diameter: 0.25

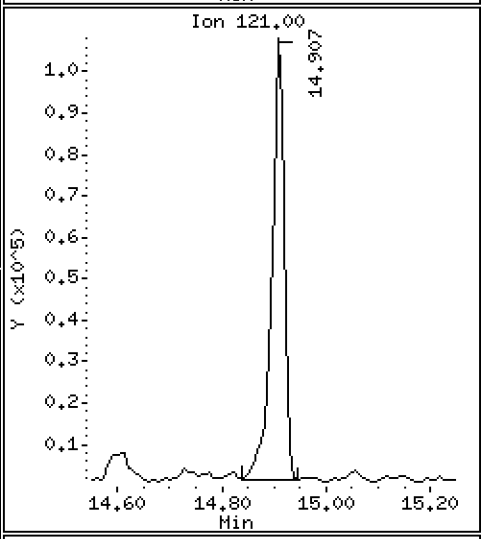
41 2,6-Dinitrotoluene

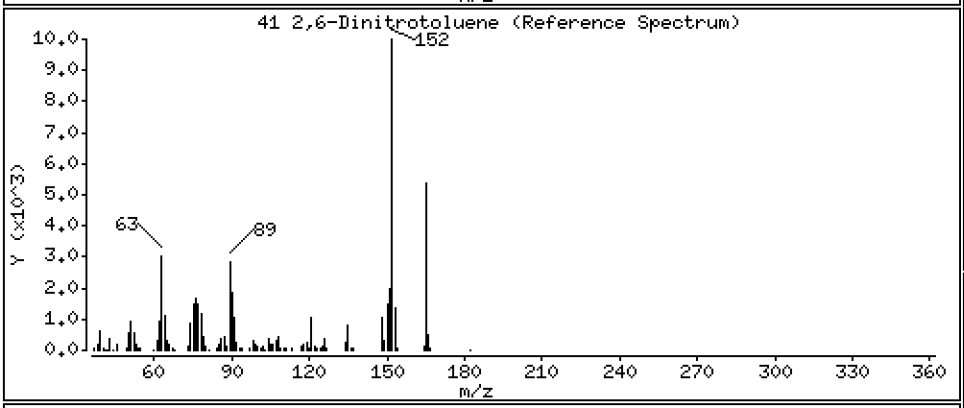
Concentration: 17.42 ug/mL

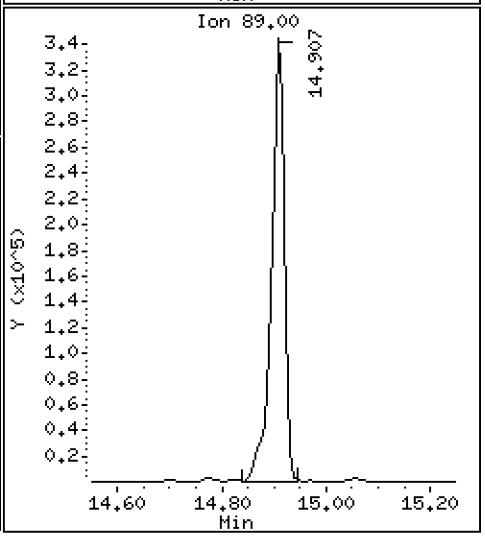


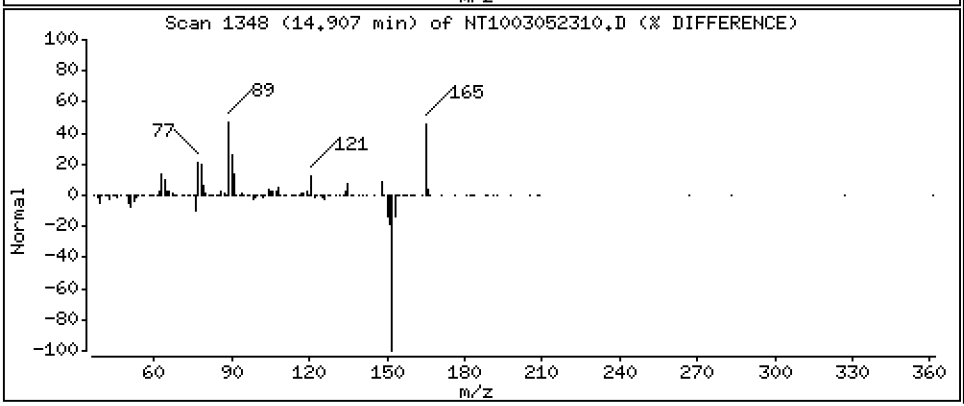












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

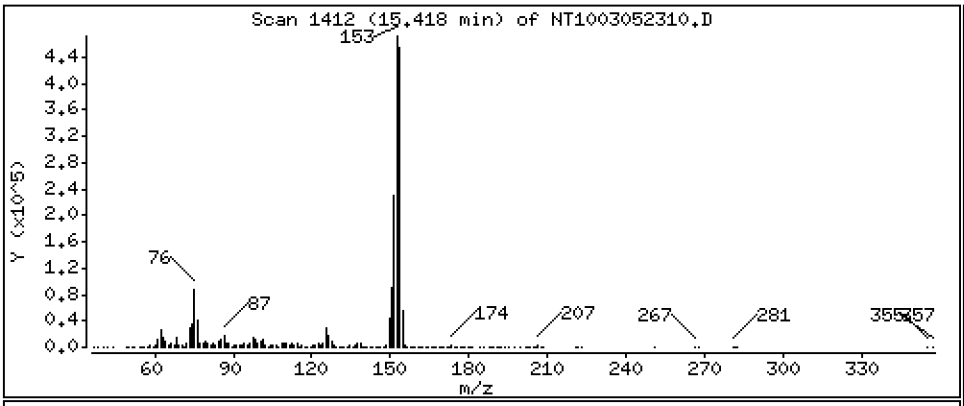
Operator: VTS

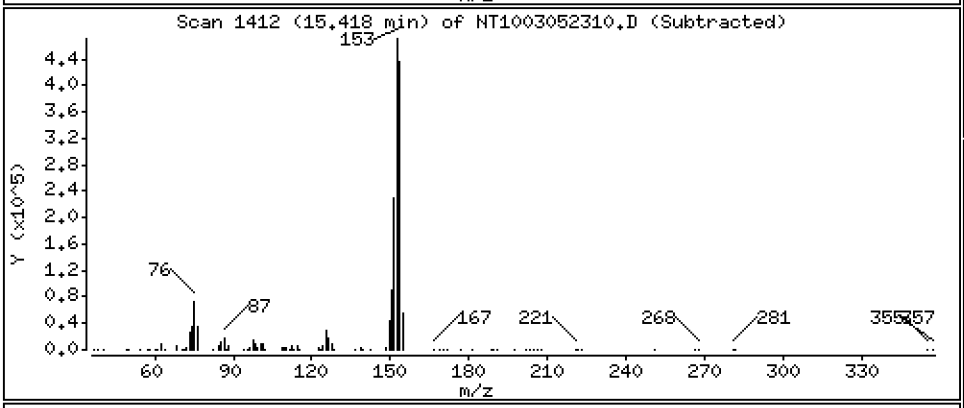
Column phase: ZB-5msi

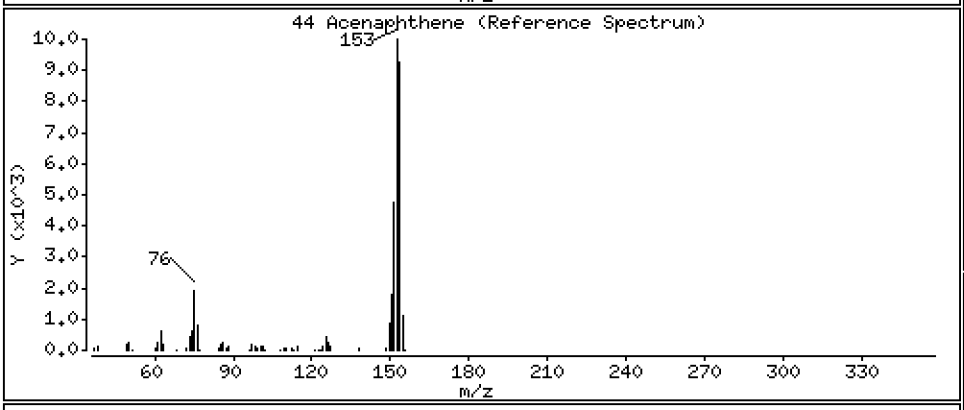
Column diameter: 0.25

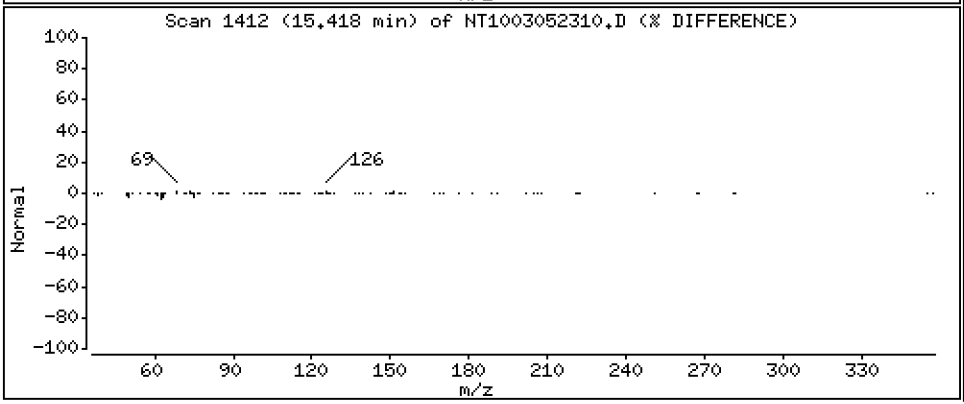
44 Acenaphthene

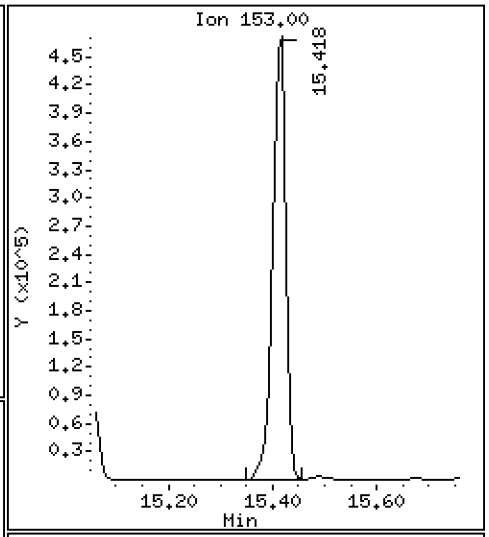
Concentration: 4.741 ug/mL

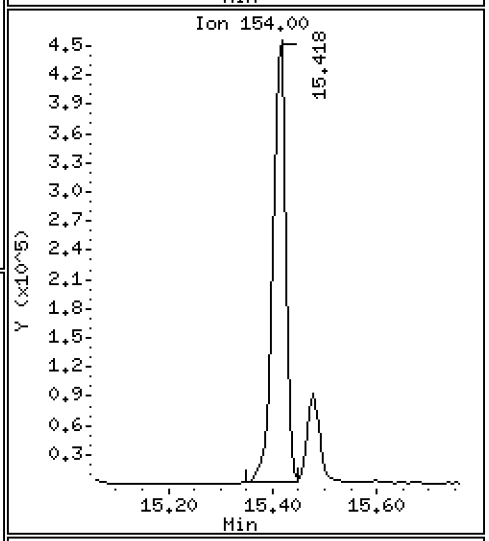


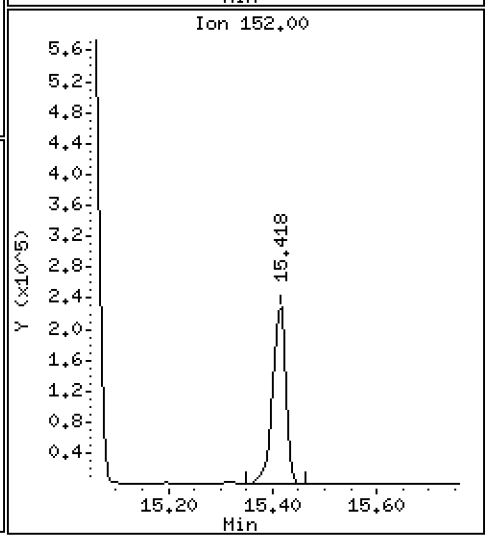












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

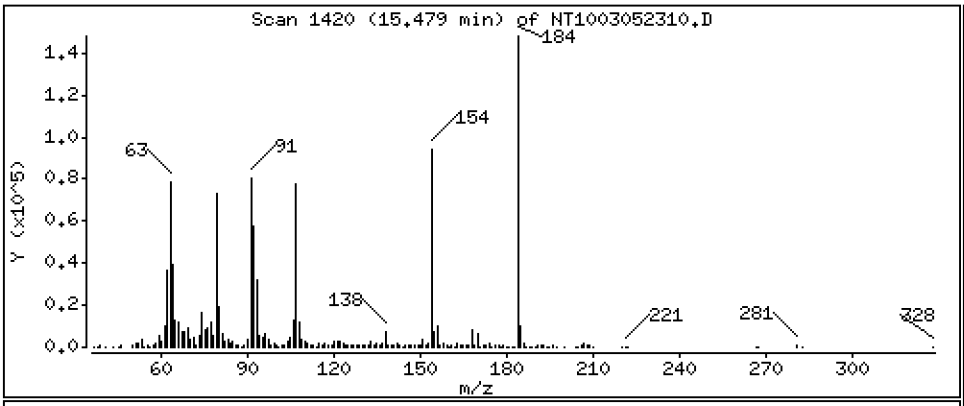
Operator: VTS

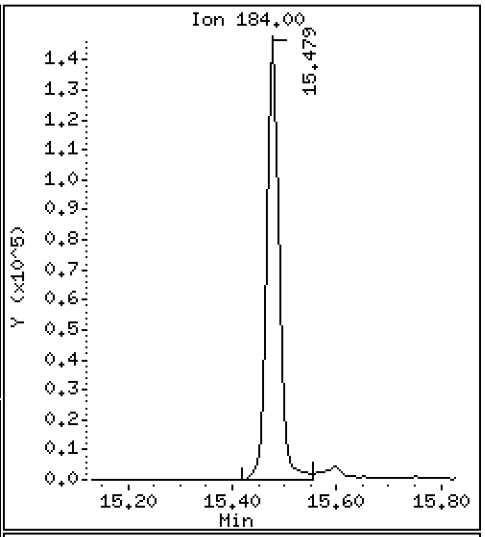
Column phase: ZB-5msi

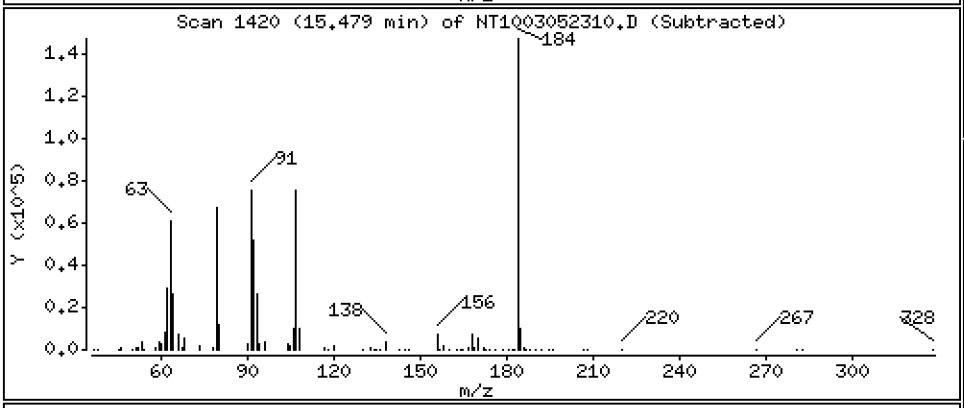
Column diameter: 0.25

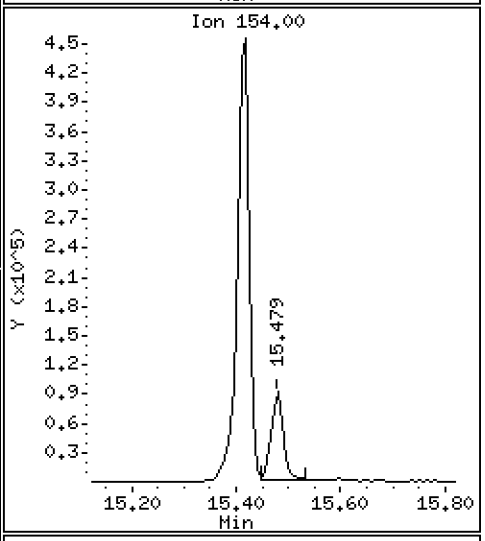
45 2,4-Dinitrophenol

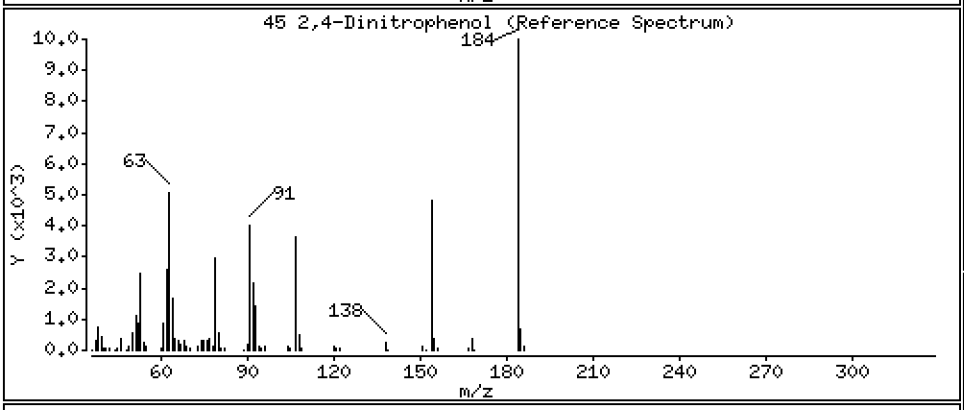
Concentration: 20.30 ug/mL

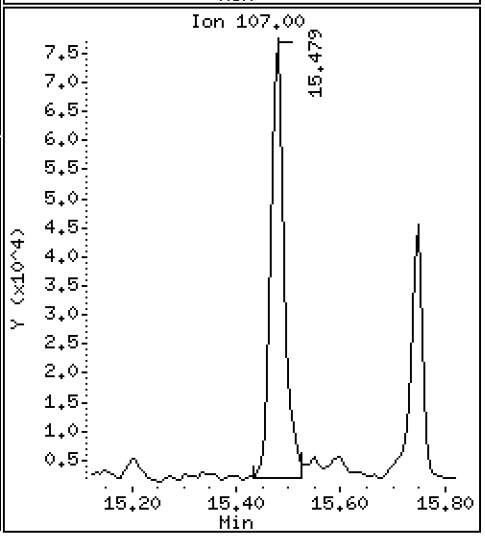


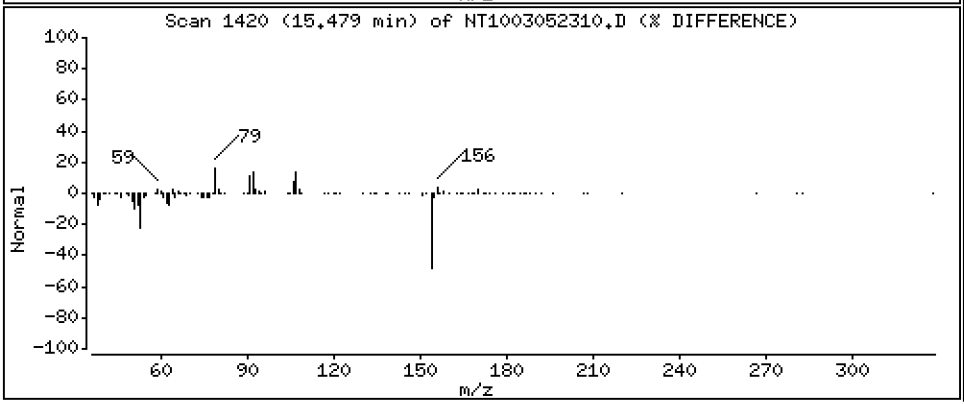












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

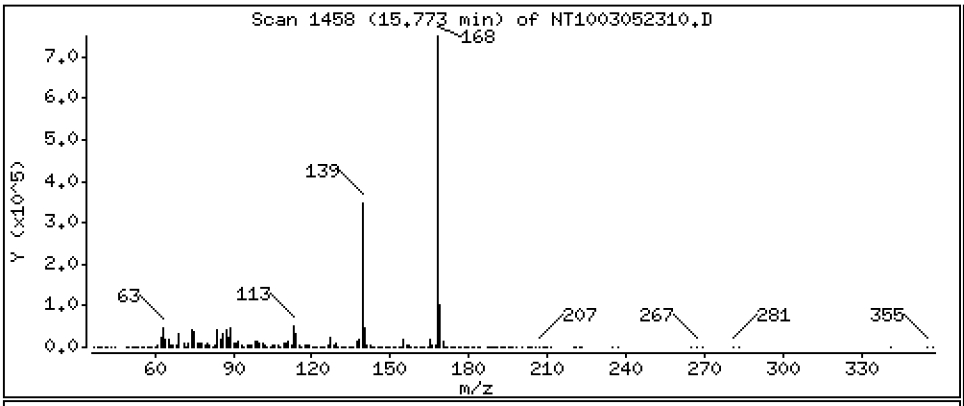
Operator: VTS

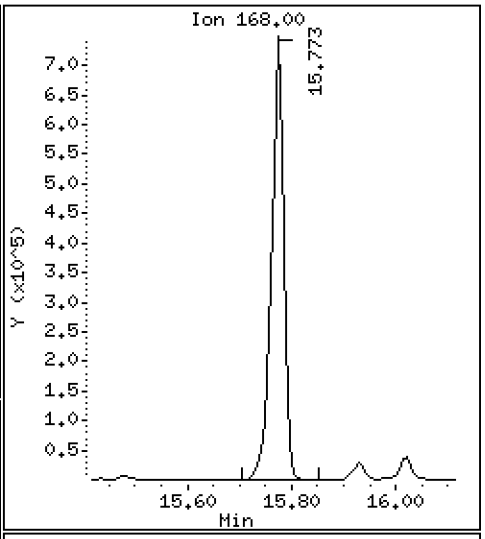
Column phase: ZB-5msi

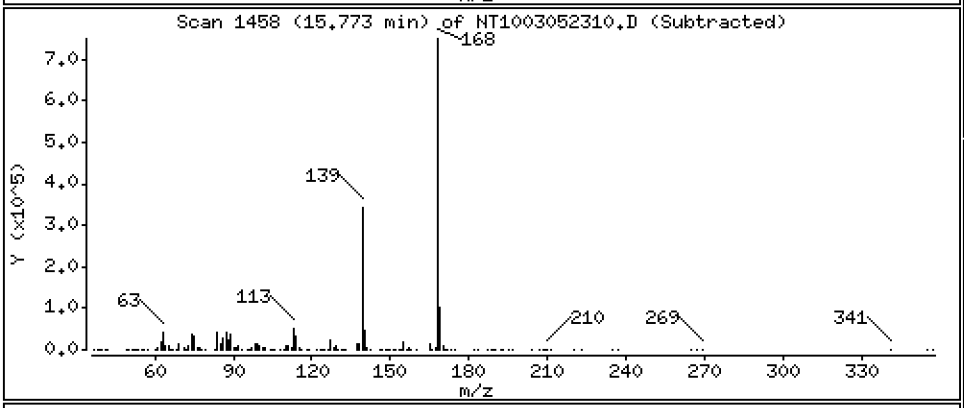
Column diameter: 0.25

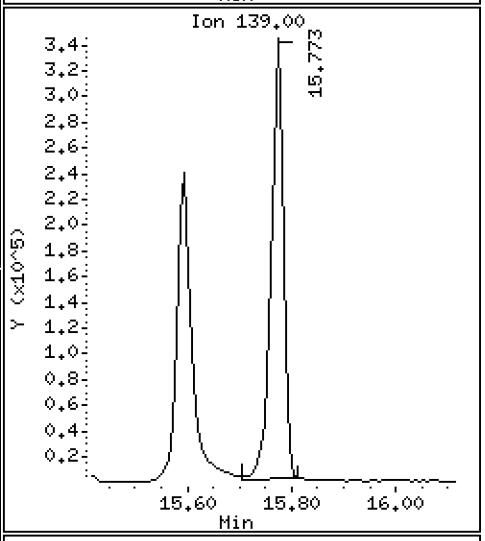
46 Dibenzofuran

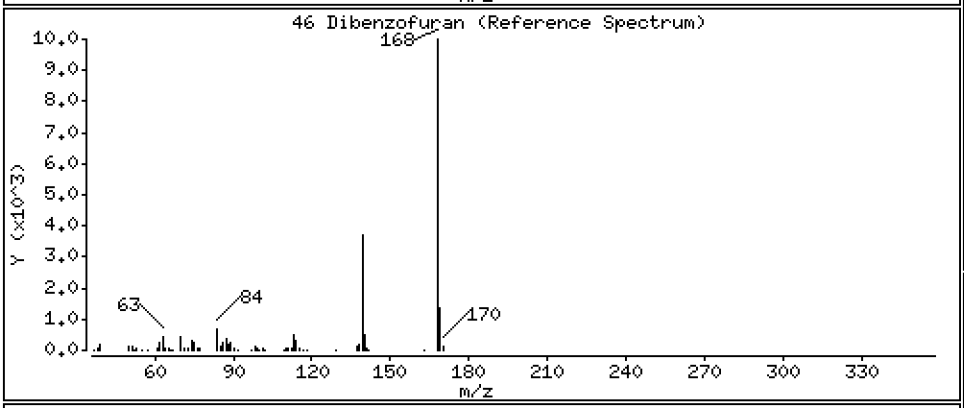
Concentration: 4.853 ug/mL

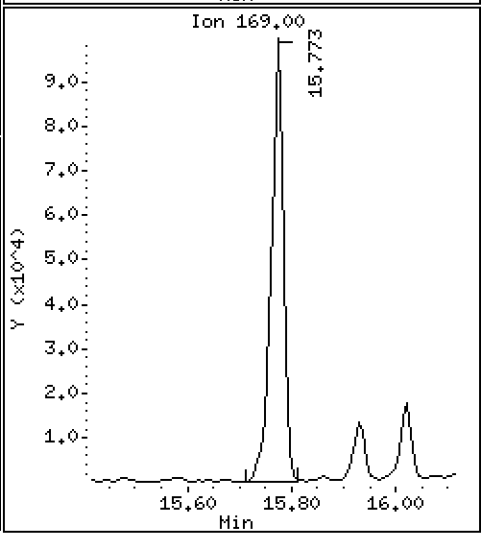


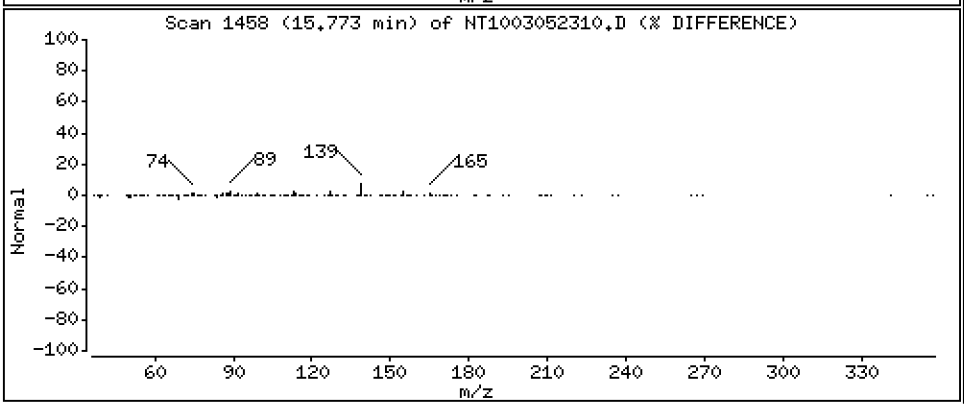












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

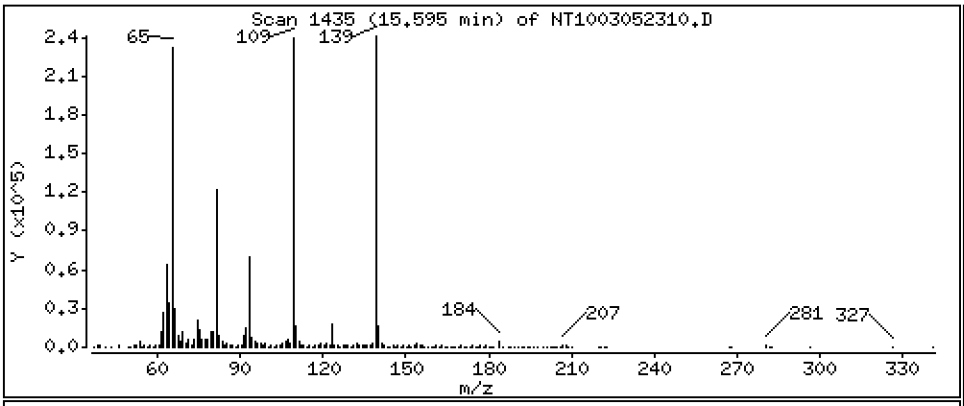
Operator: VTS

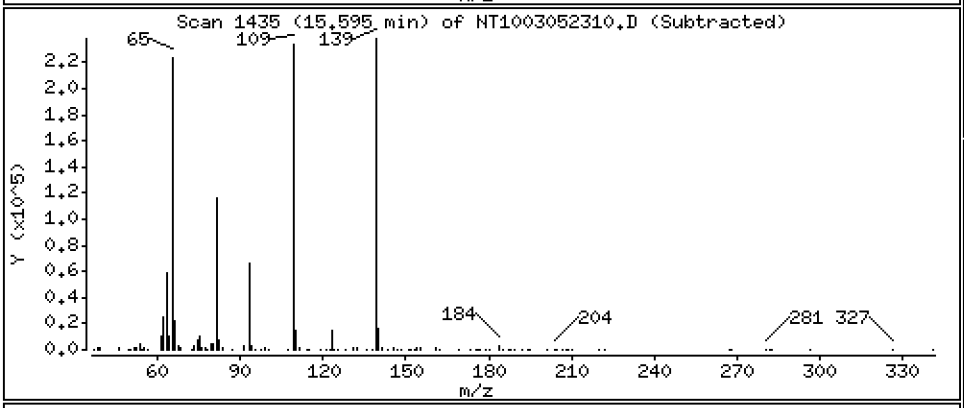
Column phase: ZB-5msi

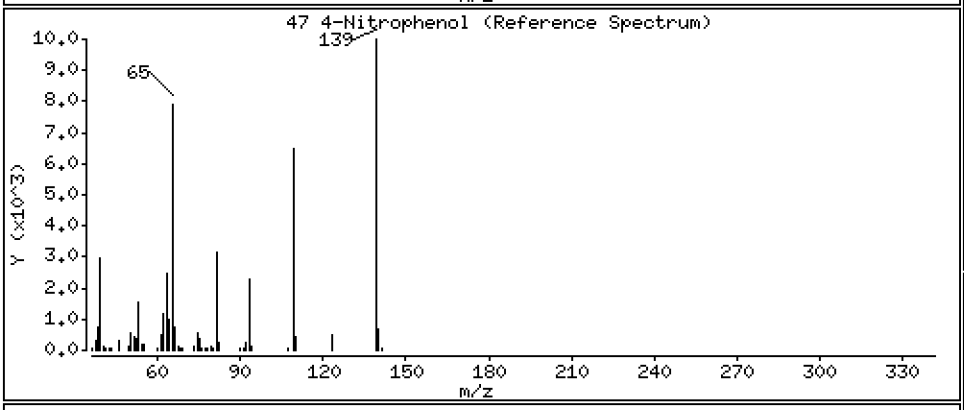
Column diameter: 0.25

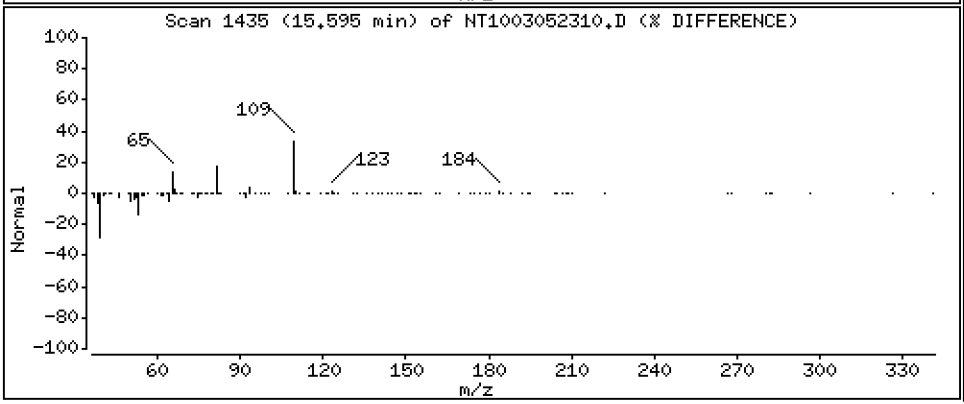
47 4-Nitrophenol

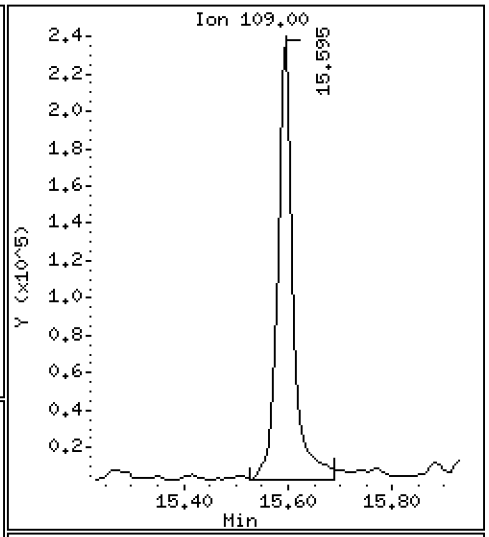
Concentration: 13.97 ug/mL

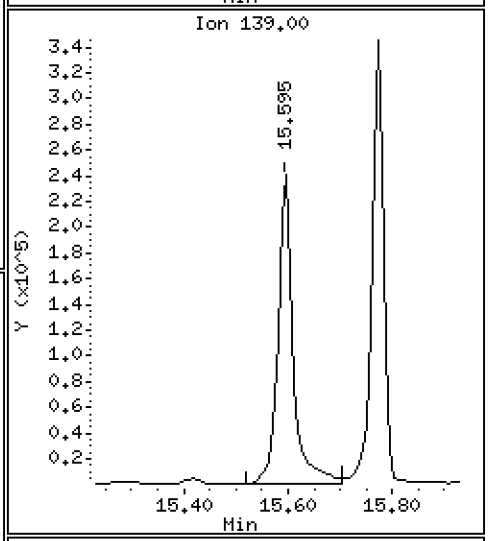


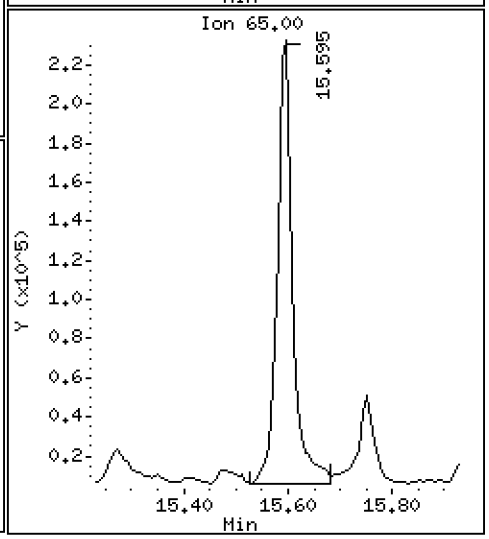












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

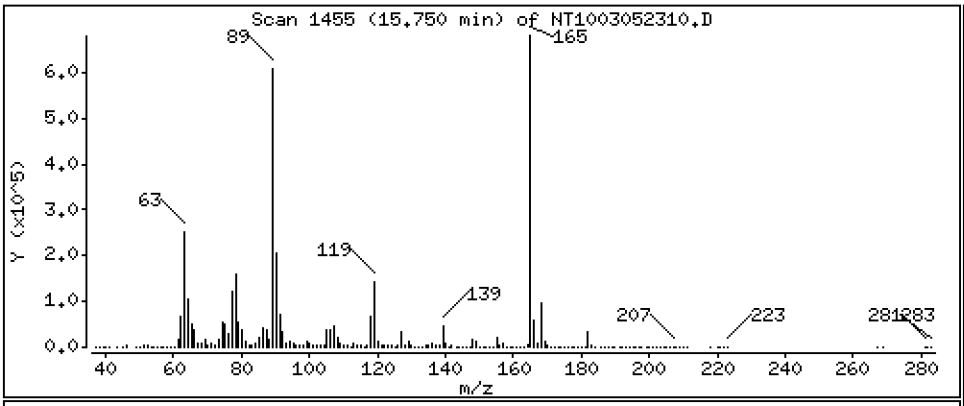
Operator: VTS

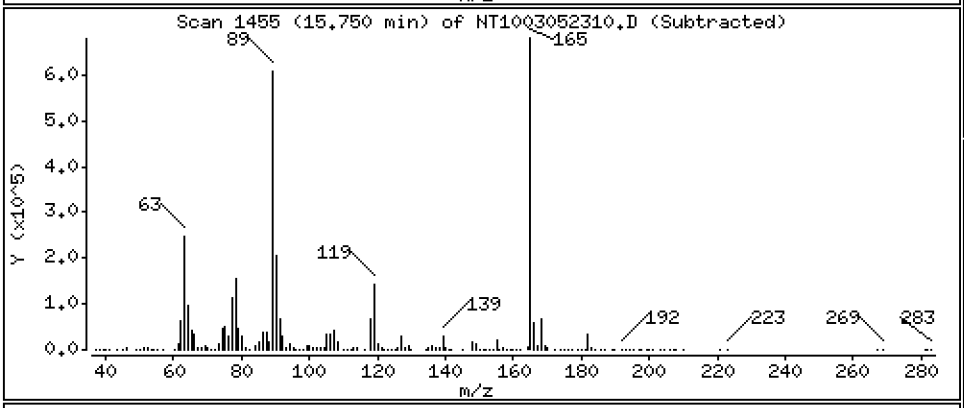
Column phase: ZB-5msi

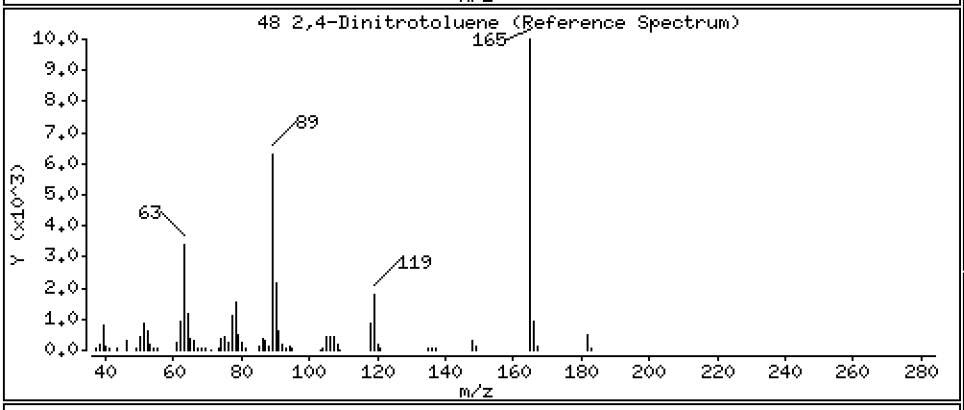
Column diameter: 0.25

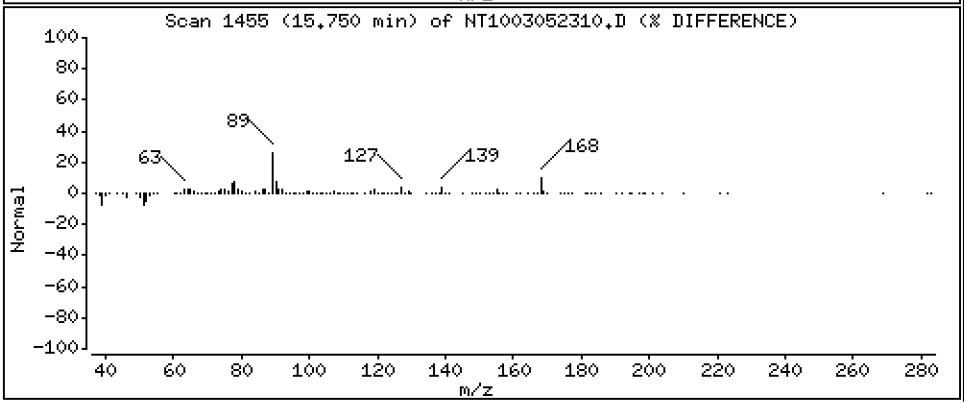
48 2,4-Dinitrotoluene

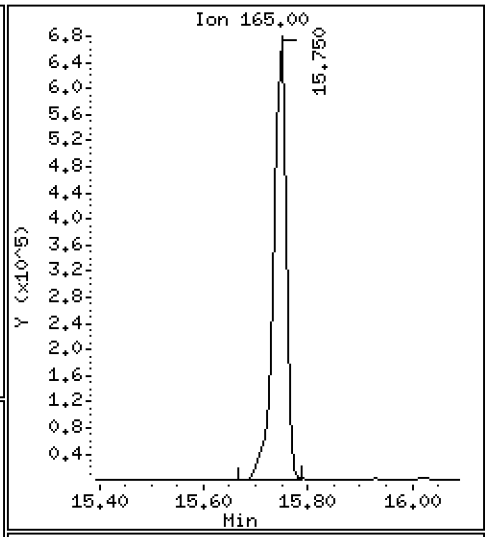
Concentration: 16.99 ug/mL

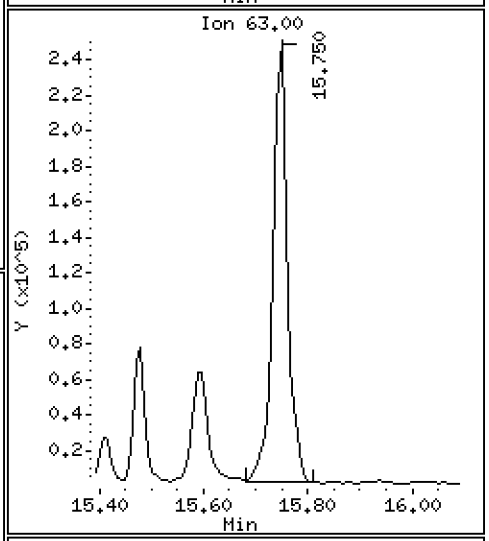


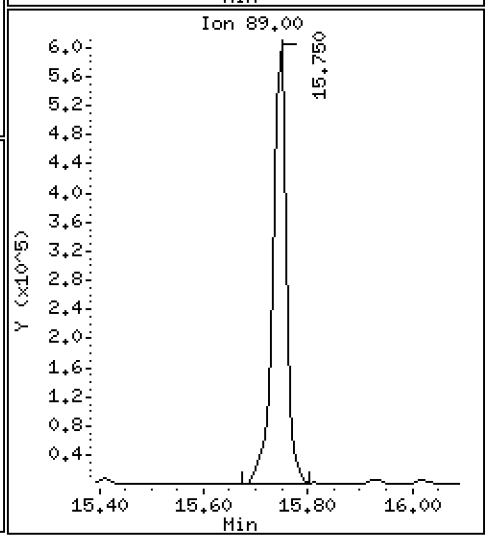












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

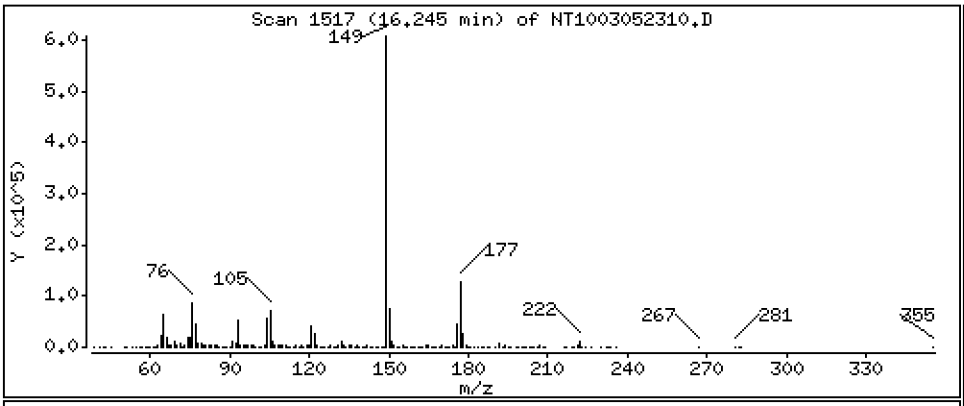
Operator: VTS

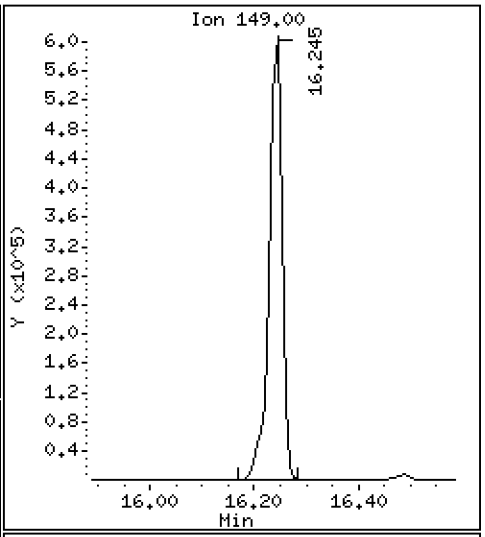
Column phase: ZB-5msi

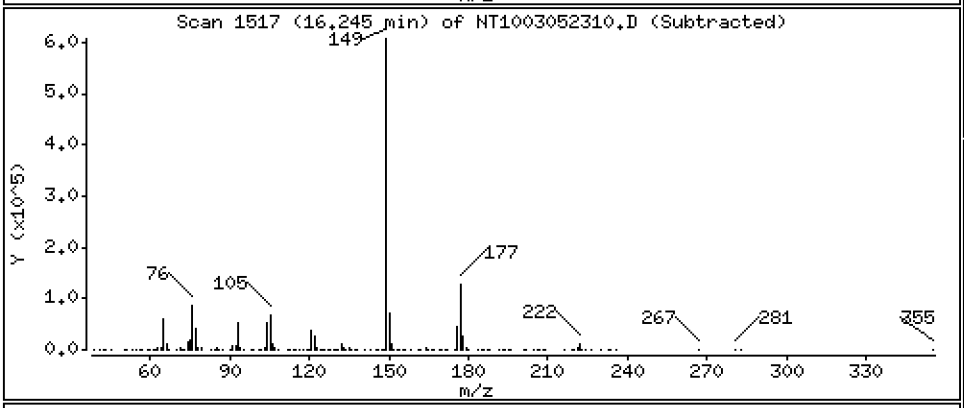
Column diameter: 0.25

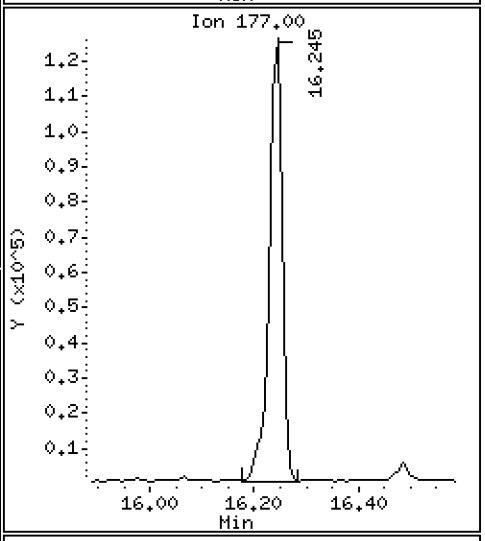
50 Diethylphthalate

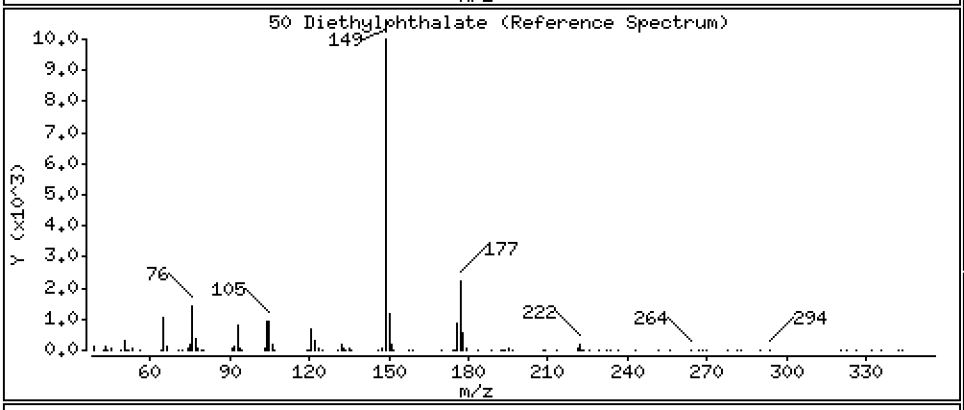
Concentration: 5.056 ug/mL

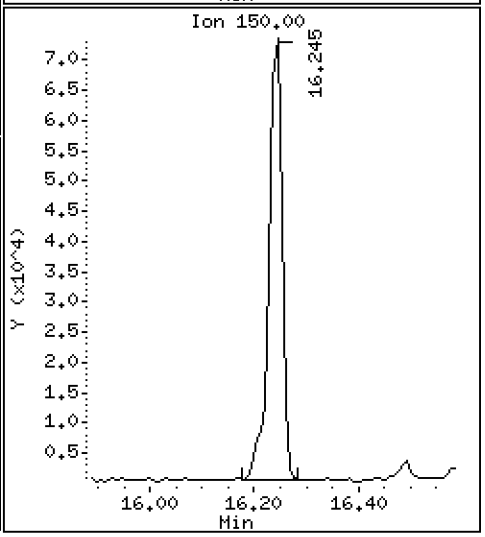


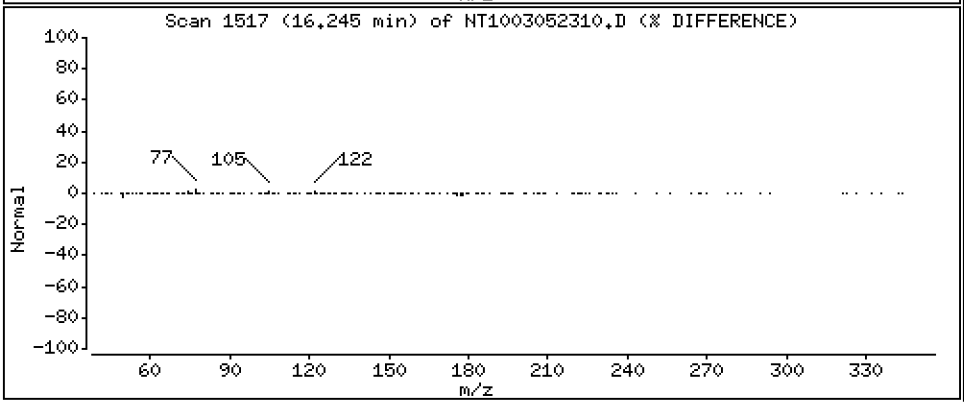












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052310.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

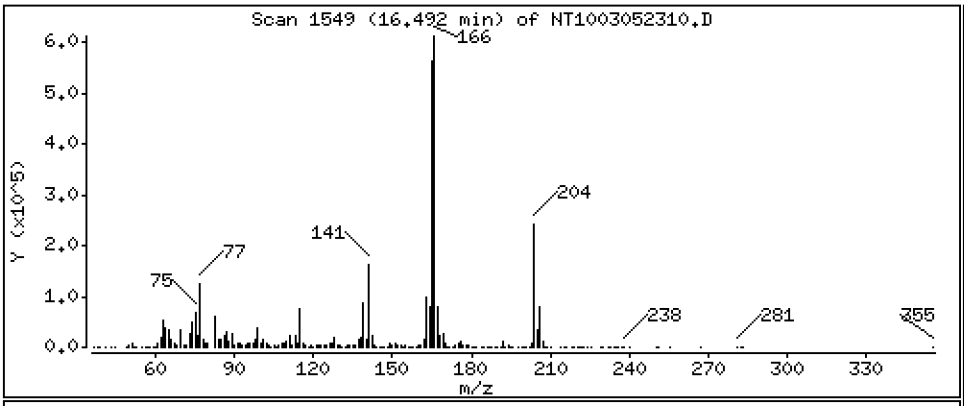
Operator: VTS

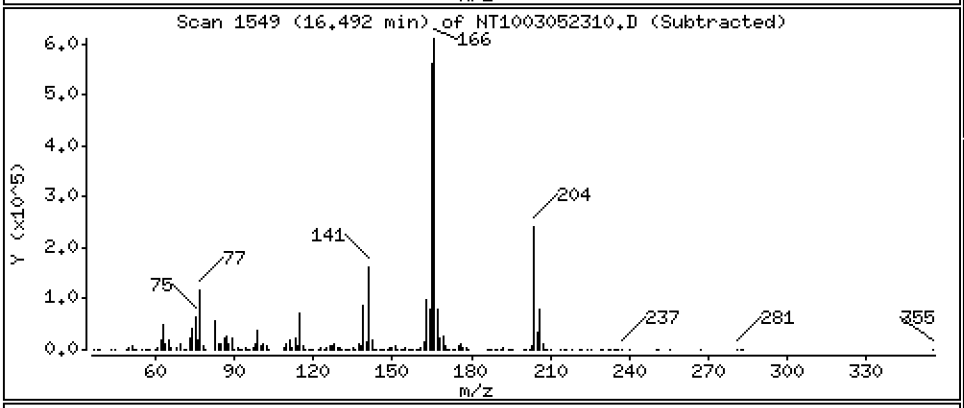
Column phase: ZB-5msi

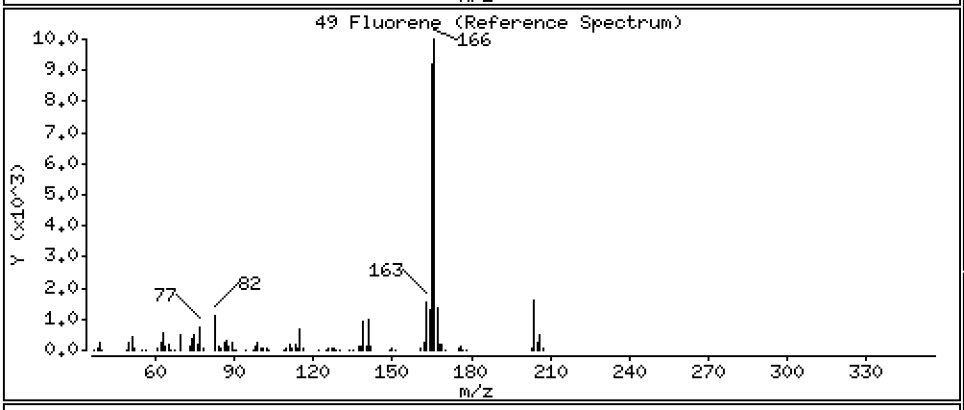
Column diameter: 0.25

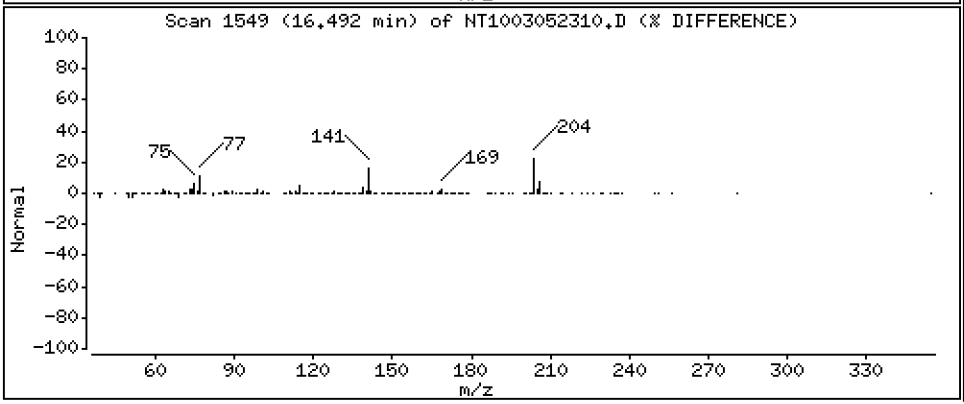
49 Fluorene

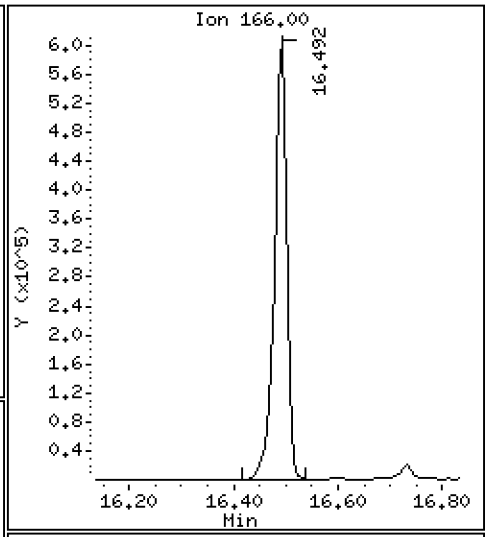
Concentration: 4.901 ug/mL

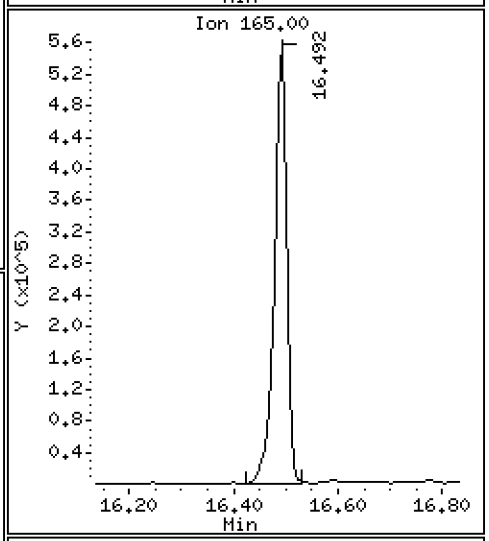


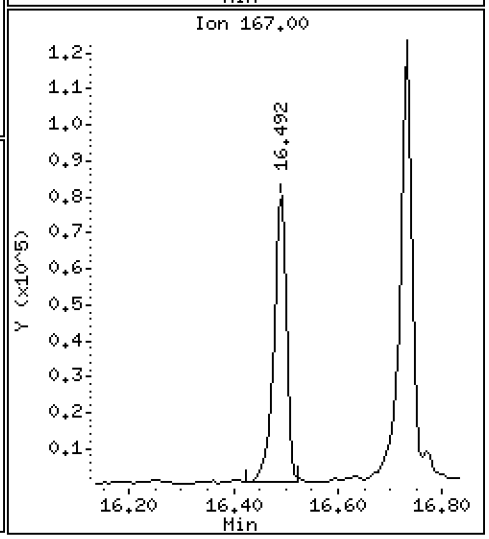












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

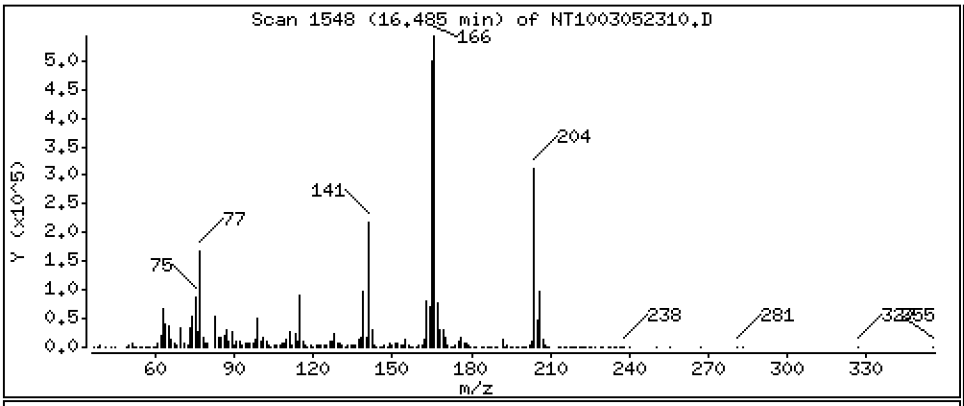
Operator: VTS

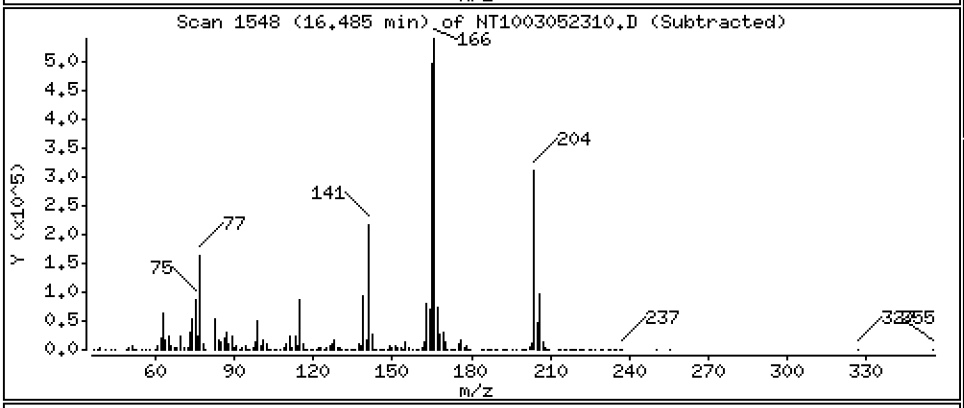
Column phase: ZB-5msi

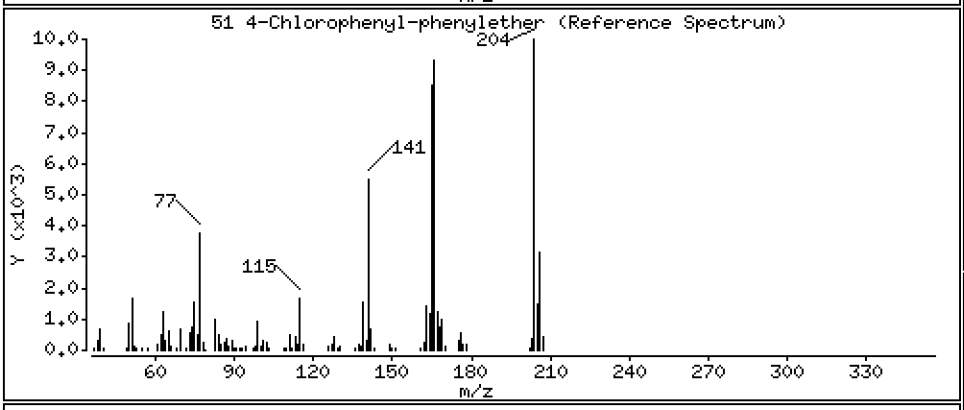
Column diameter: 0.25

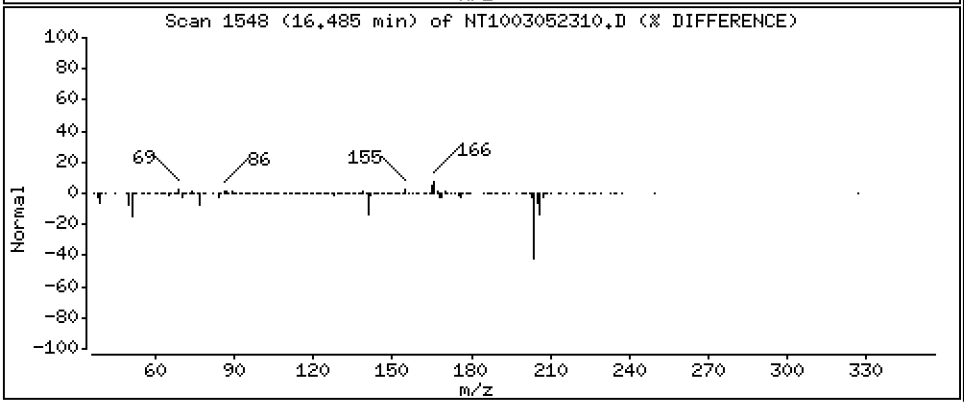
51 4-Chlorophenyl-phenylether

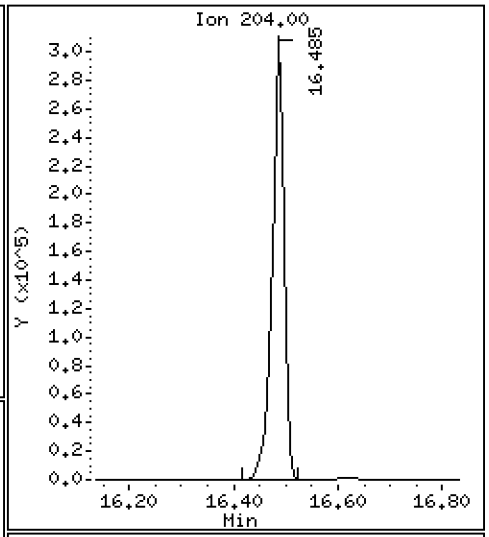
Concentration: 5.076 ug/mL

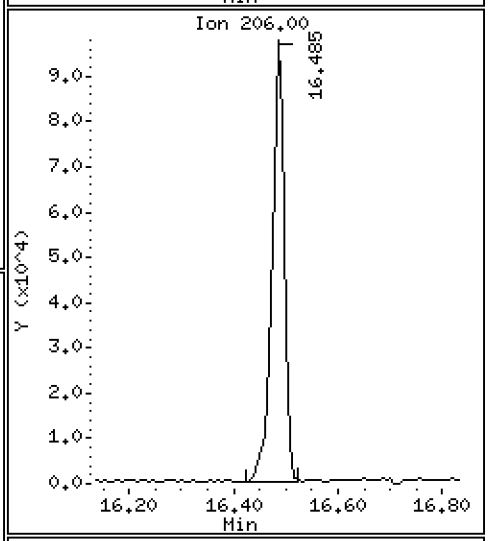


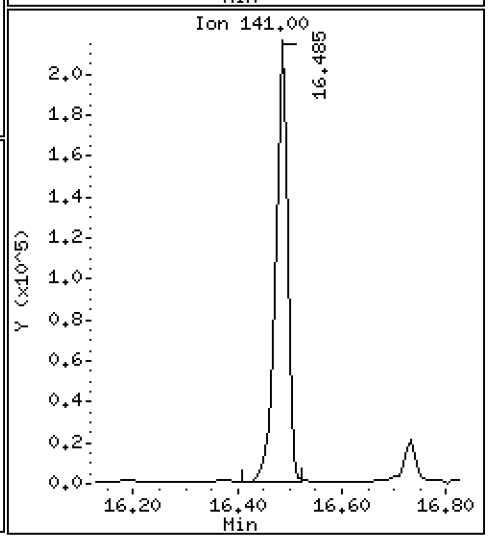












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

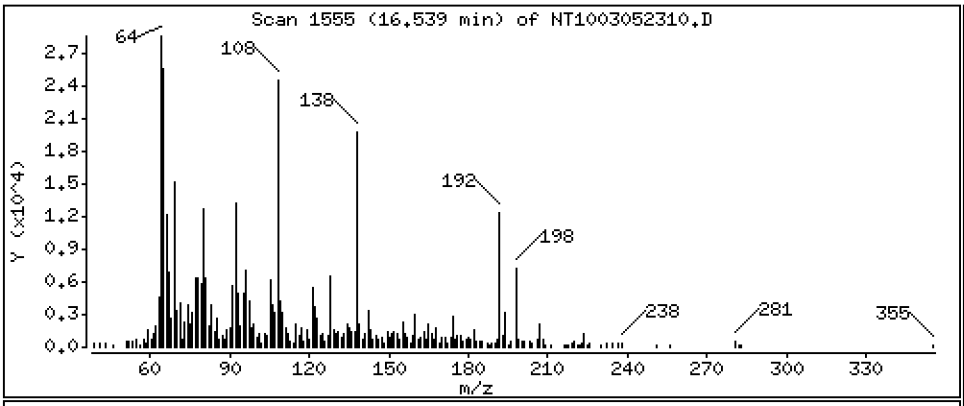
Operator: VTS

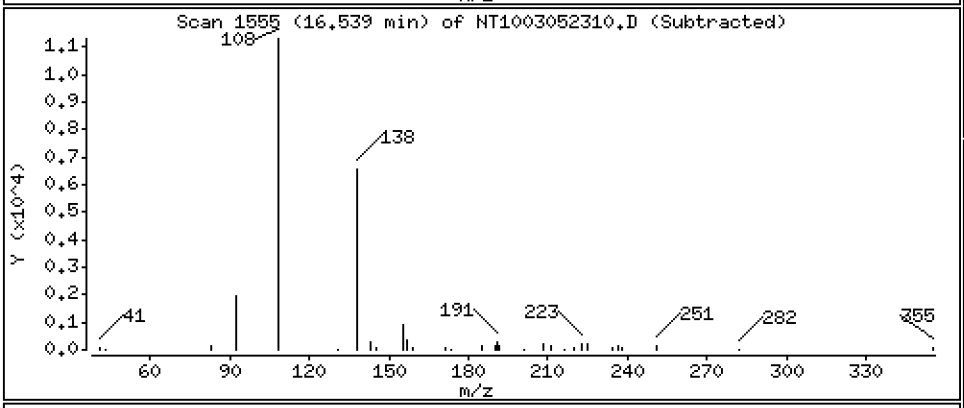
Column phase: ZB-5msi

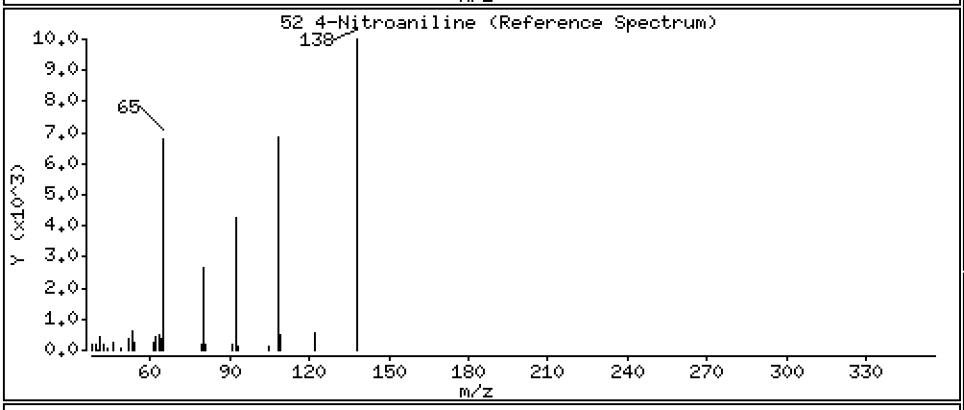
Column diameter: 0.25

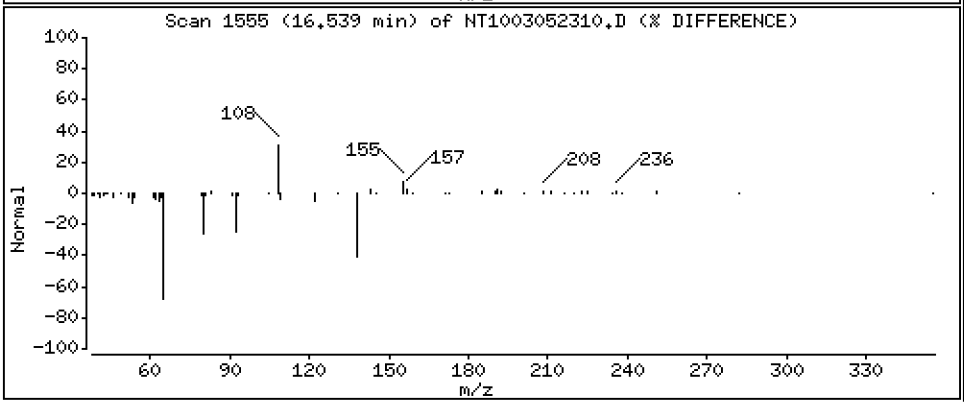
52 4-Nitroaniline

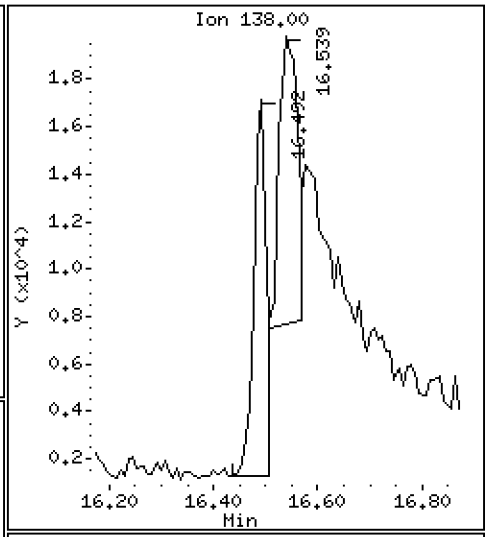
Concentration: 0.6270 ug/mL

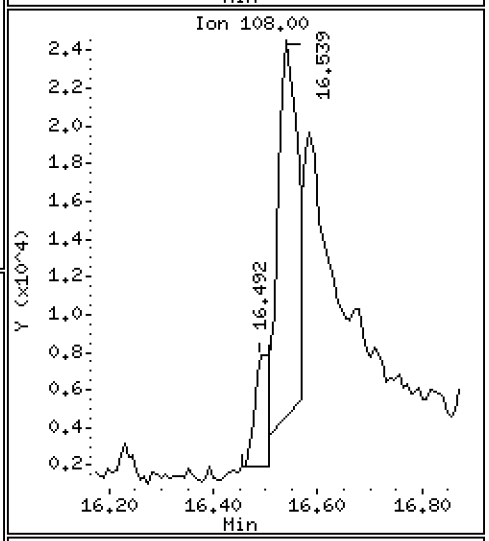


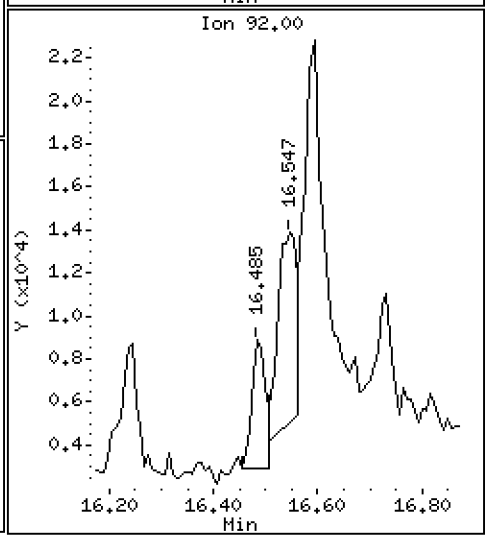












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

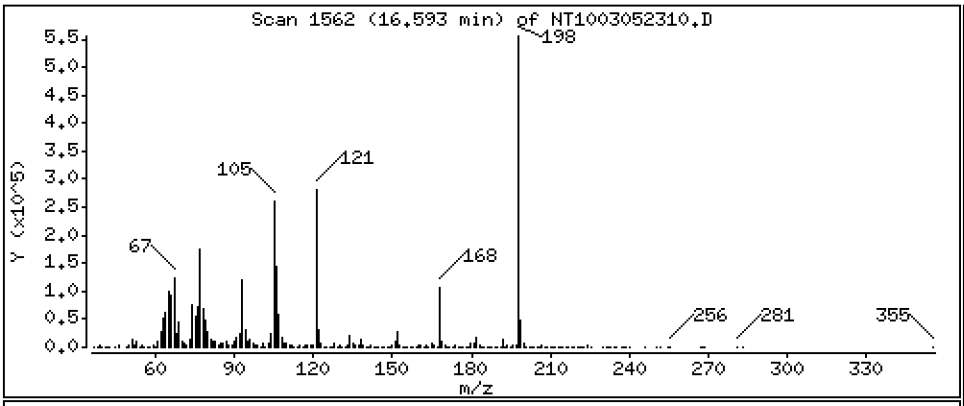
Operator: VTS

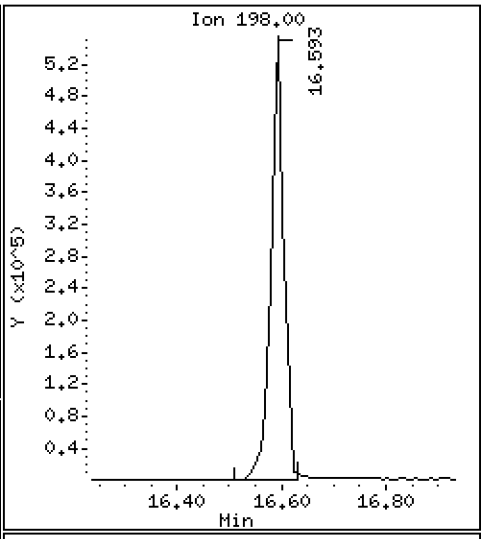
Column phase: ZB-5msi

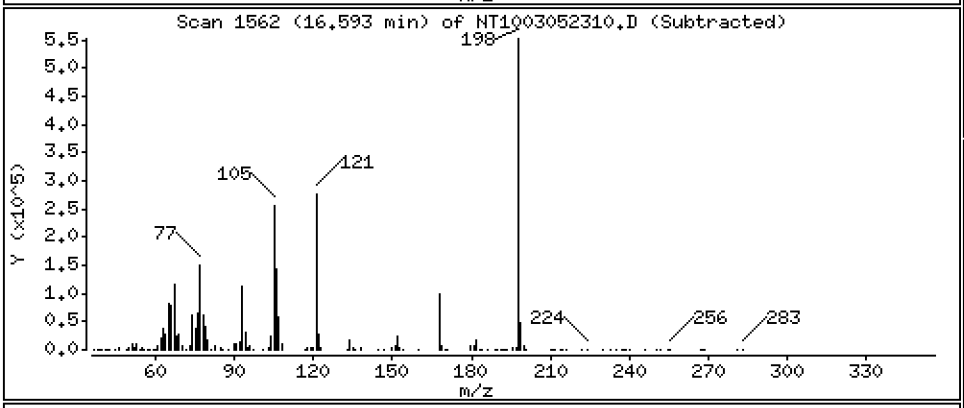
Column diameter: 0.25

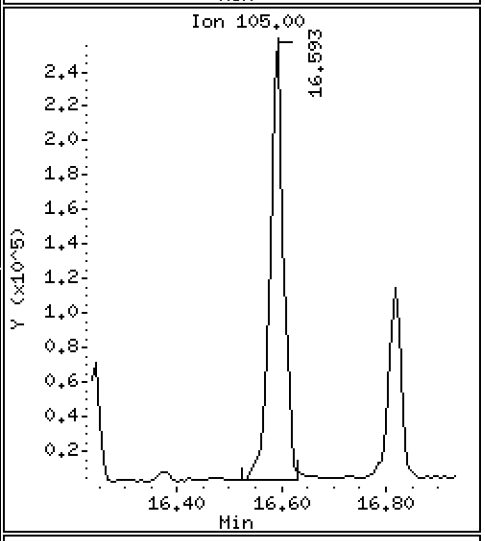
53 4,6-Dinitro-2-methylphenol

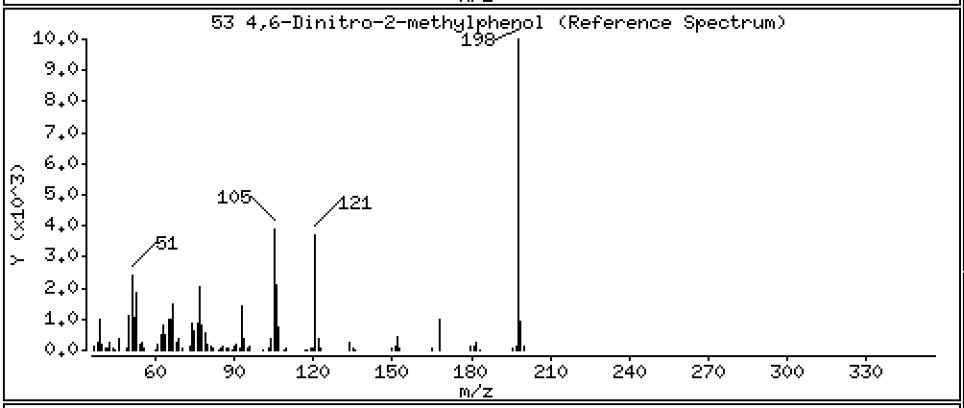
Concentration: 33.00 ug/mL

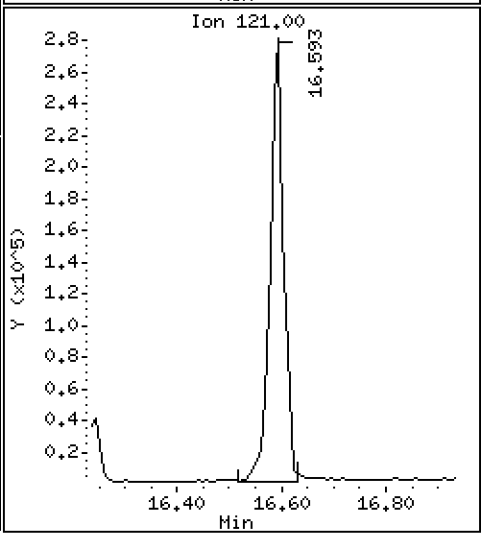


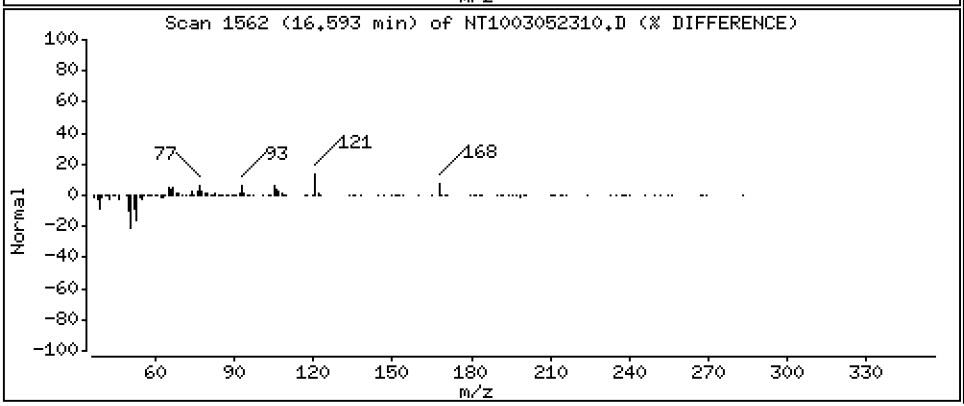












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

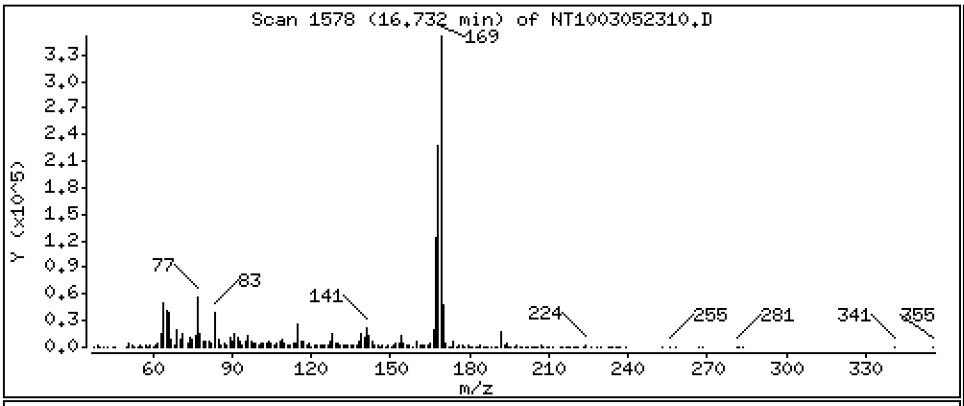
Operator: VTS

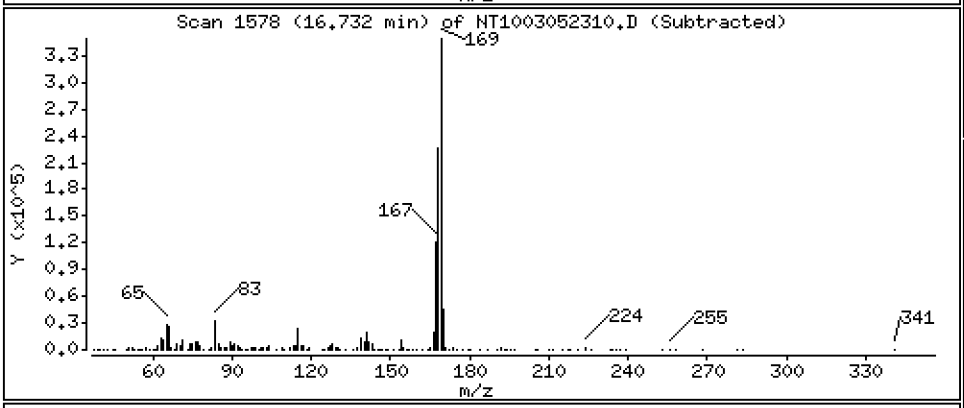
Column phase: ZB-5msi

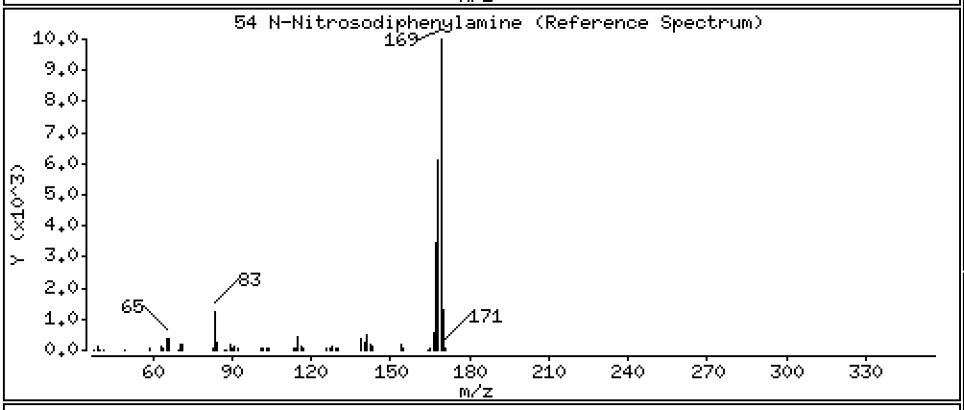
Column diameter: 0.25

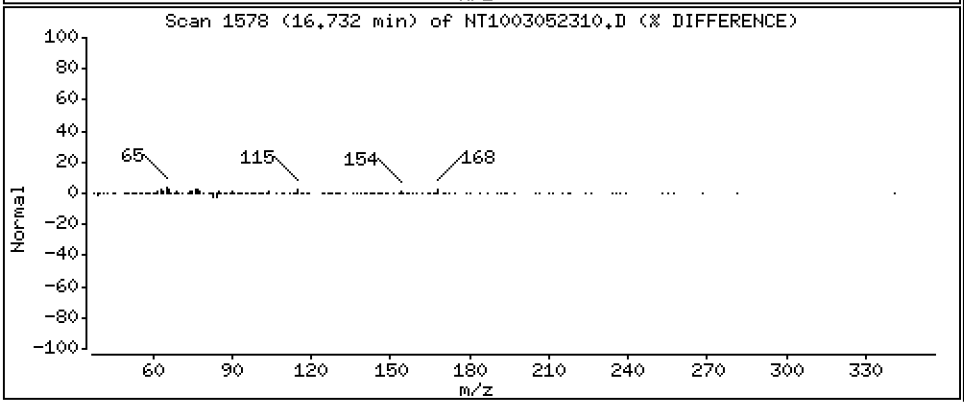
54 N-Nitrosodiphenylamine

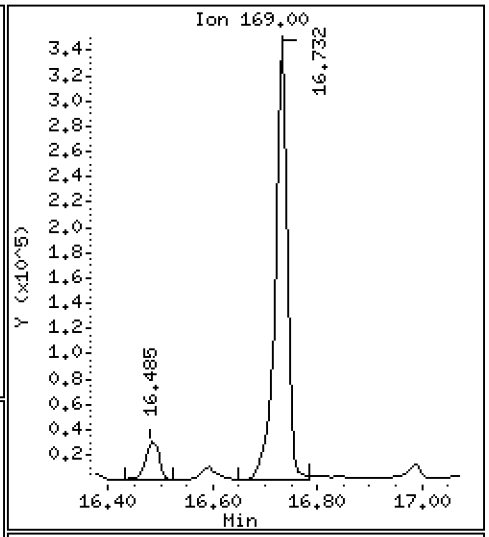
Concentration: 3.564 ug/mL

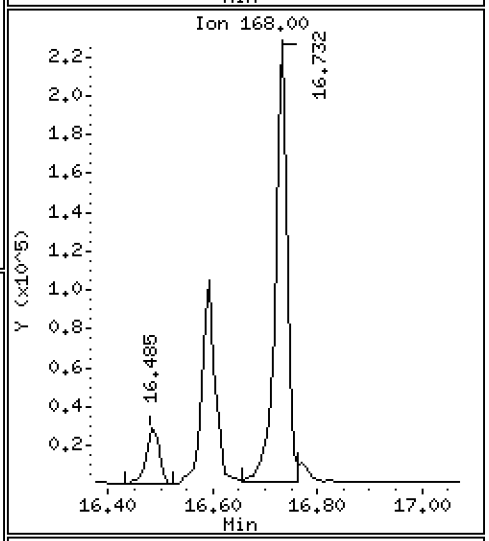


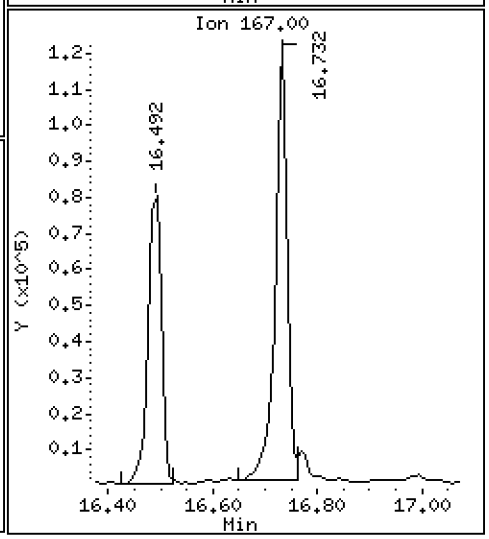












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

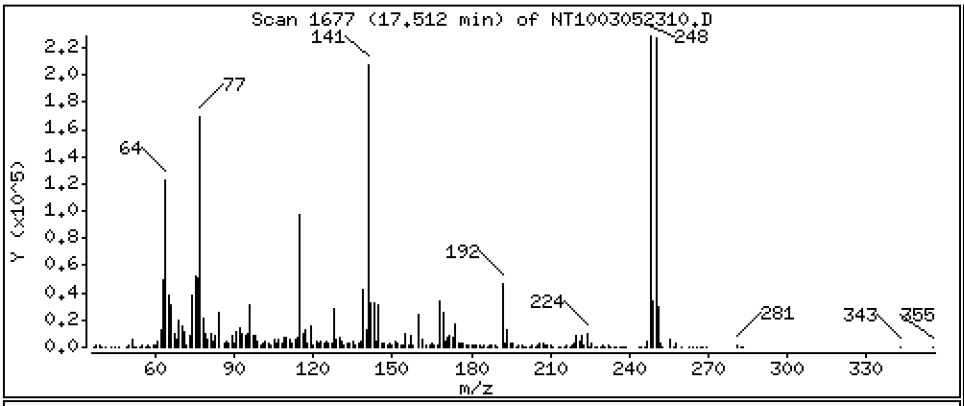
Operator: VTS

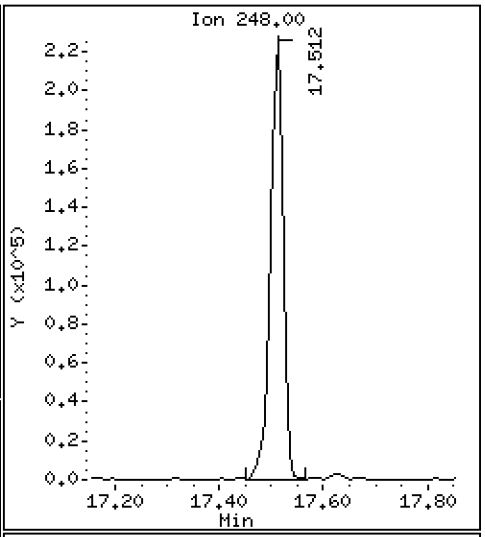
Column phase: ZB-5msi

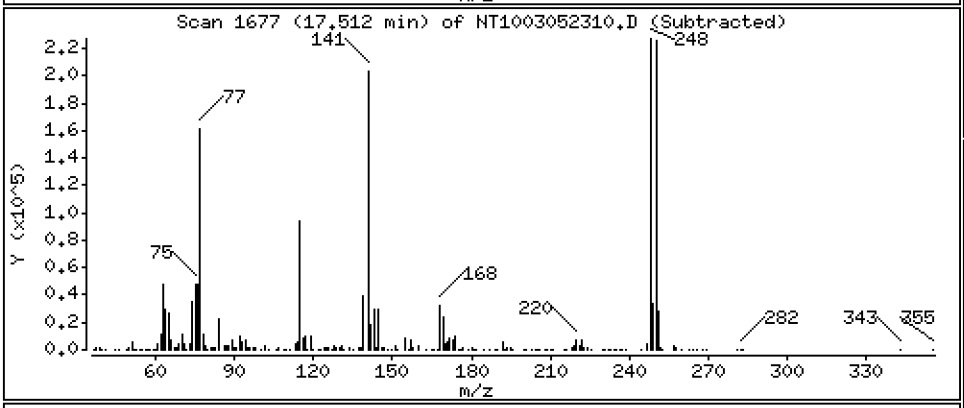
Column diameter: 0.25

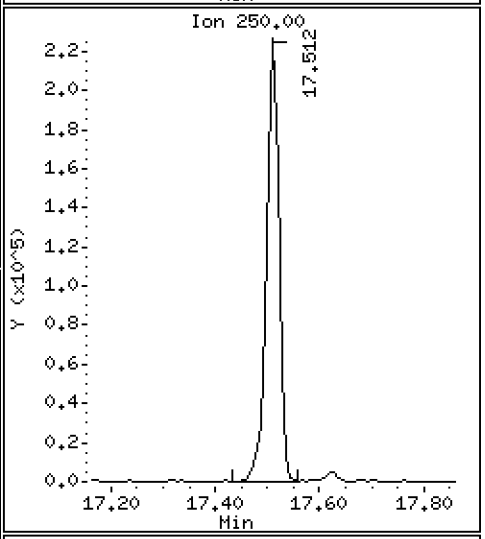
56 4-Bromophenyl-phenylether

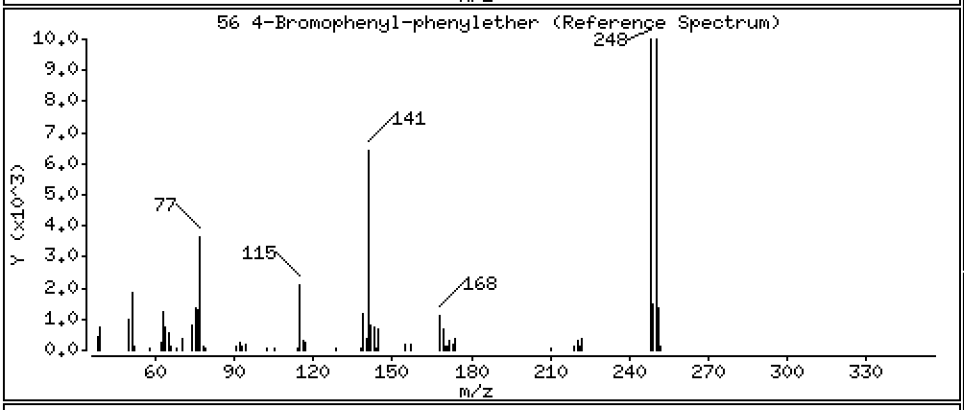
Concentration: 5.670 ug/mL

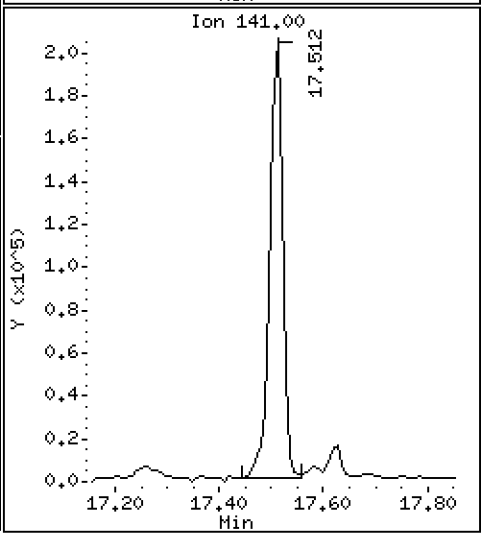


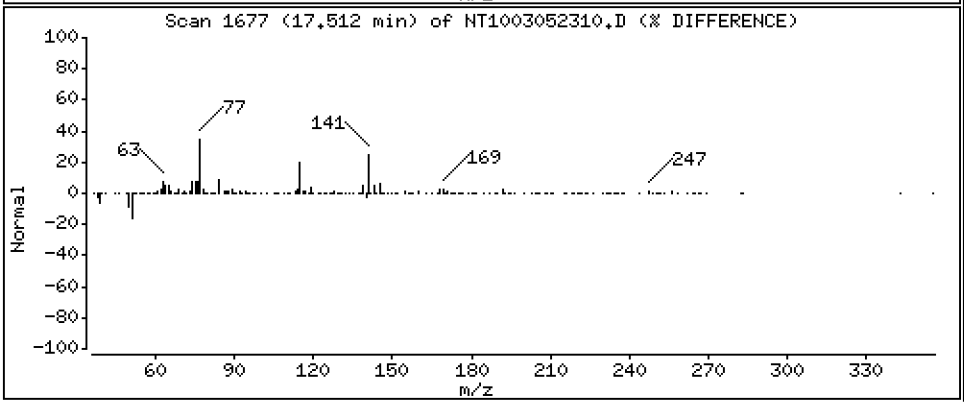












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

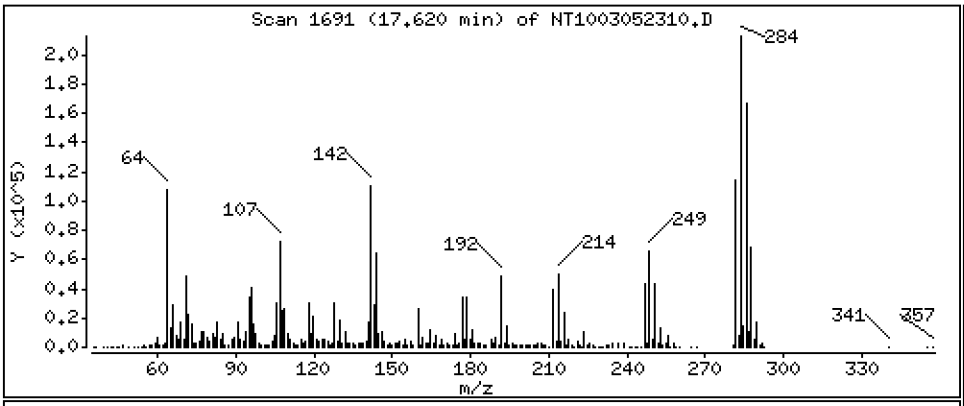
Operator: VTS

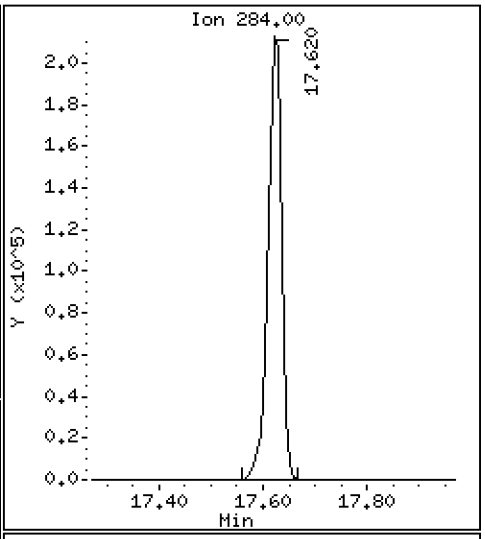
Column phase: ZB-5msi

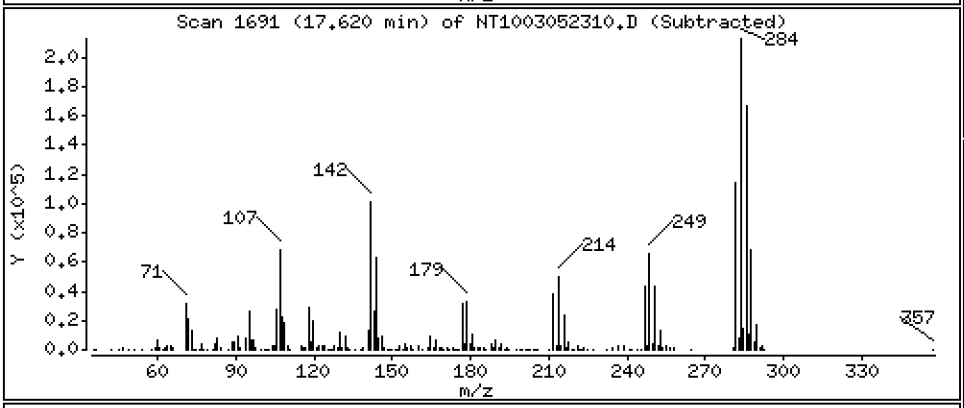
Column diameter: 0.25

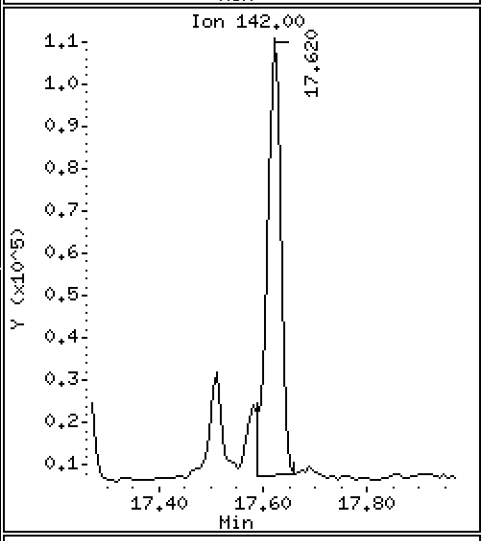
57 Hexachlorobenzene

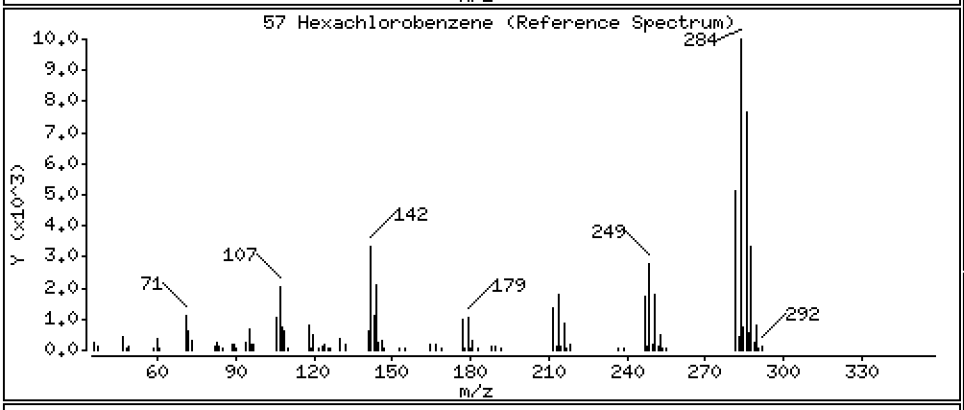
Concentration: 5.133 ug/mL

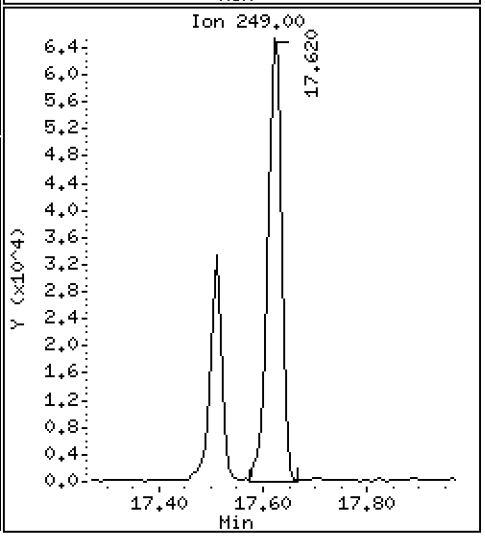


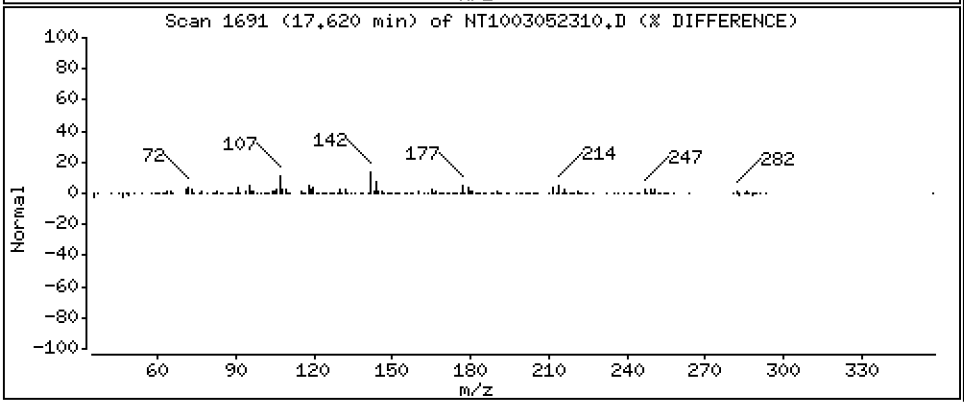












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052310.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

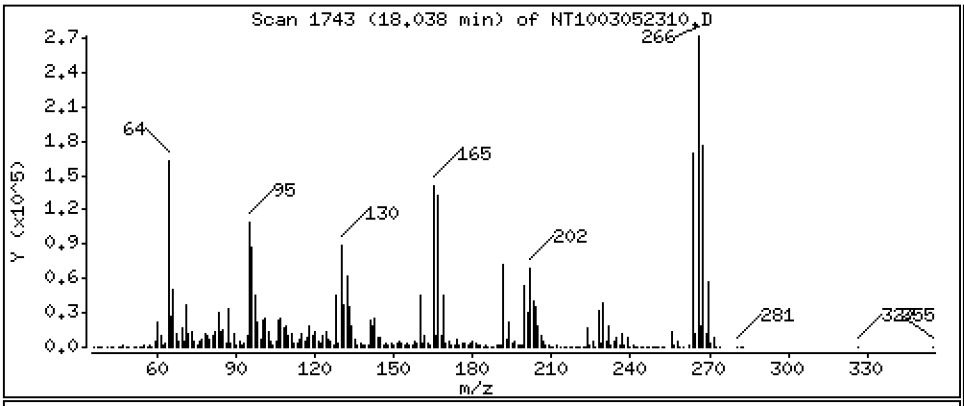
Operator: VTS

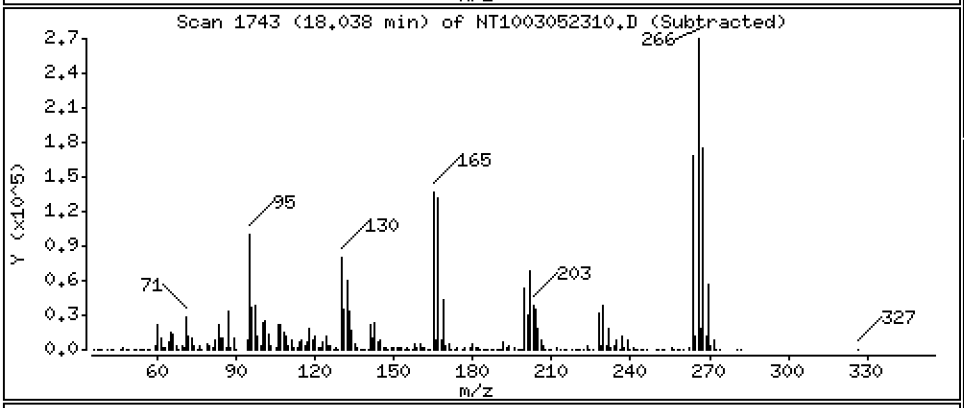
Column phase: ZB-5msi

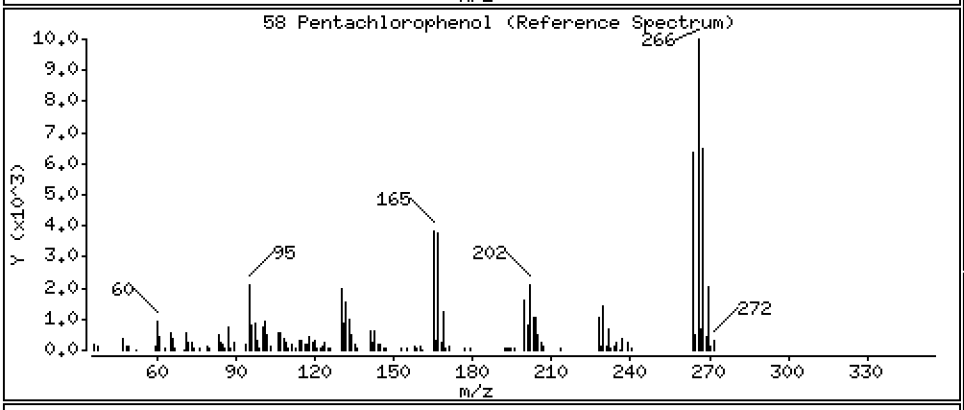
Column diameter: 0.25

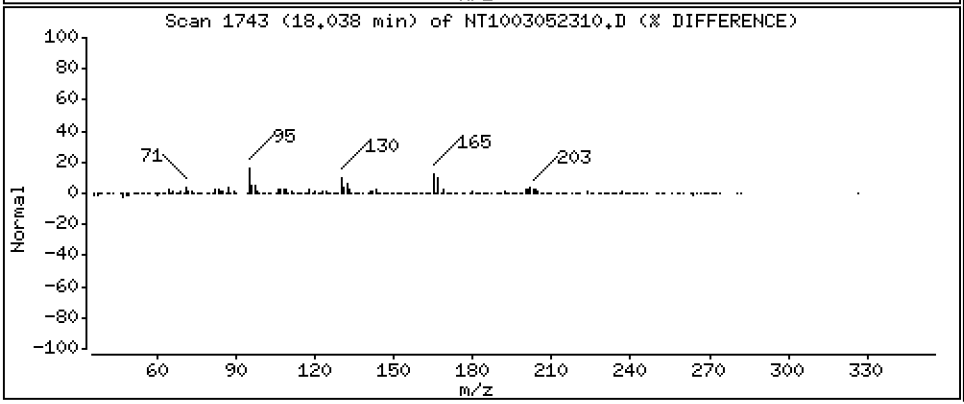
58 Pentachlorophenol

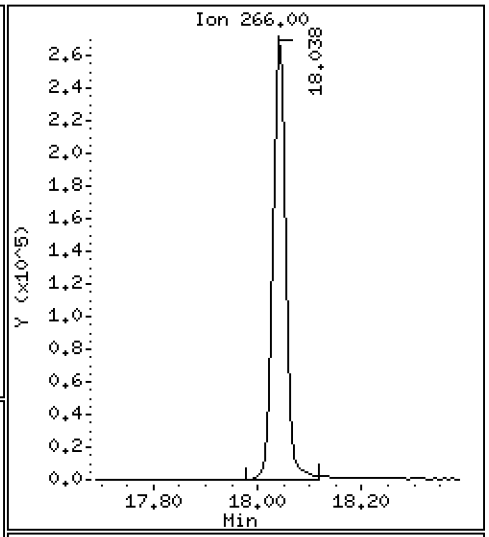
Concentration: 12.32 ug/mL

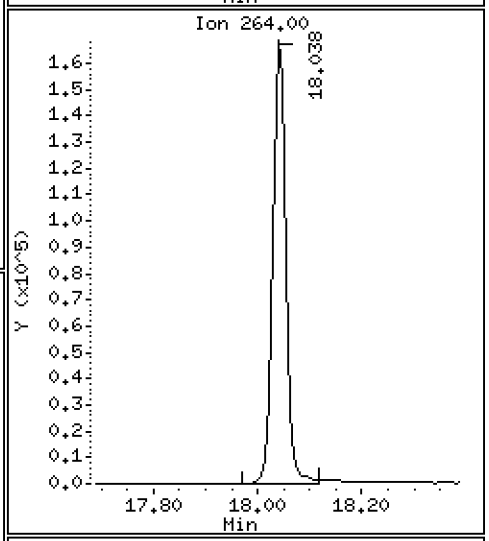


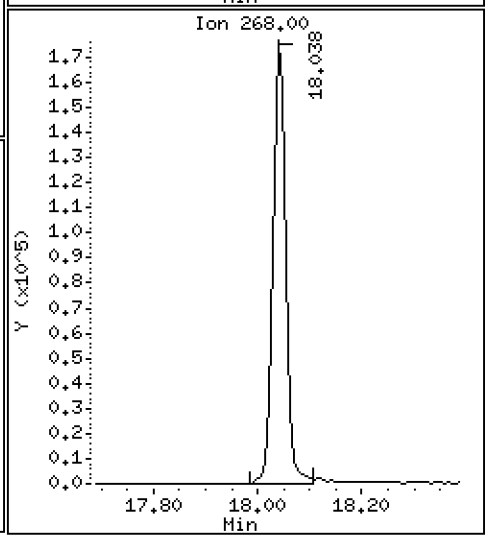












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

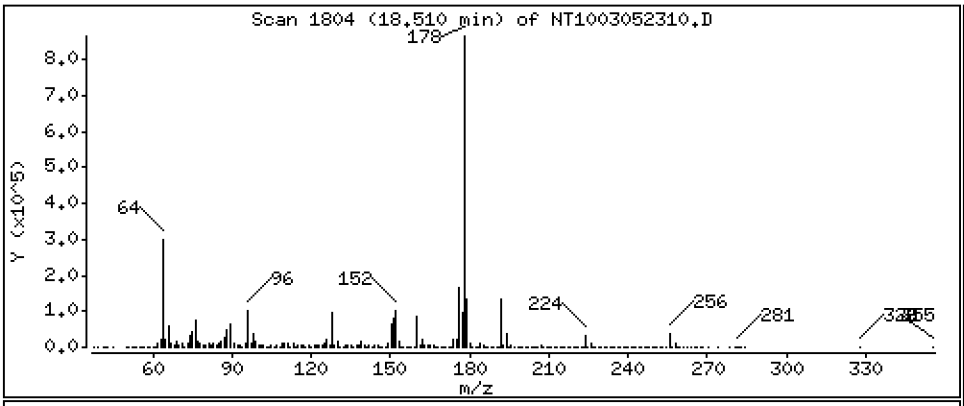
Operator: VTS

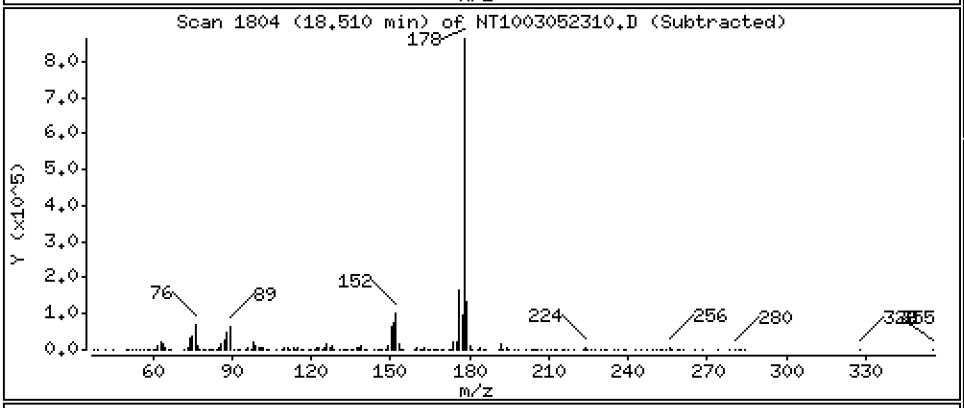
Column phase: ZB-5msi

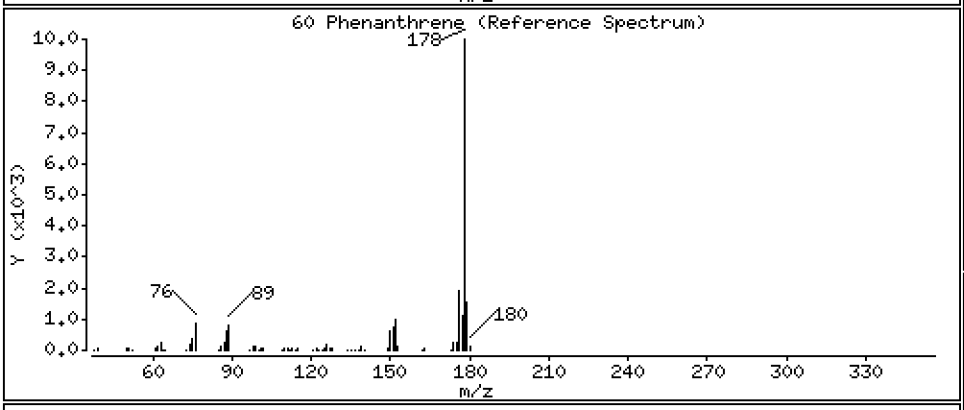
Column diameter: 0.25

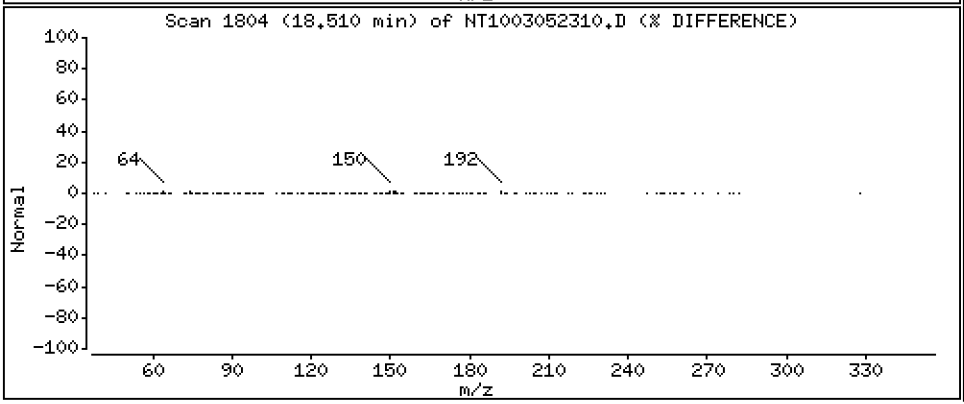
60 Phenanthrene

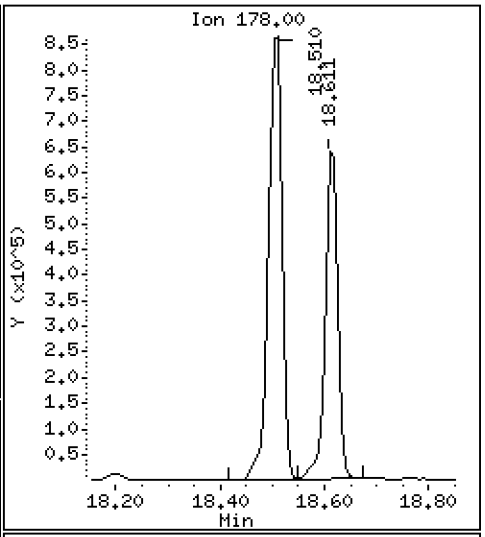
Concentration: 5.564 ug/mL

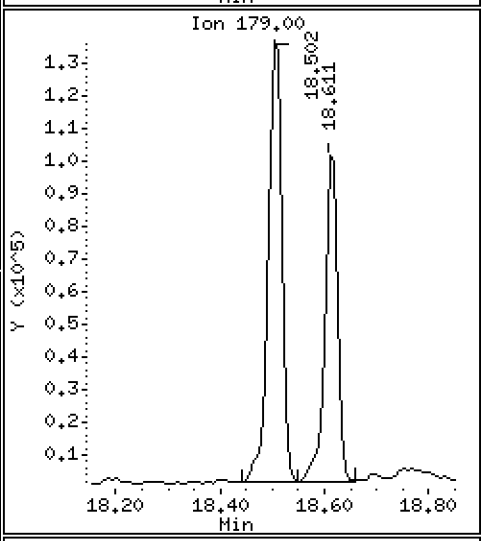


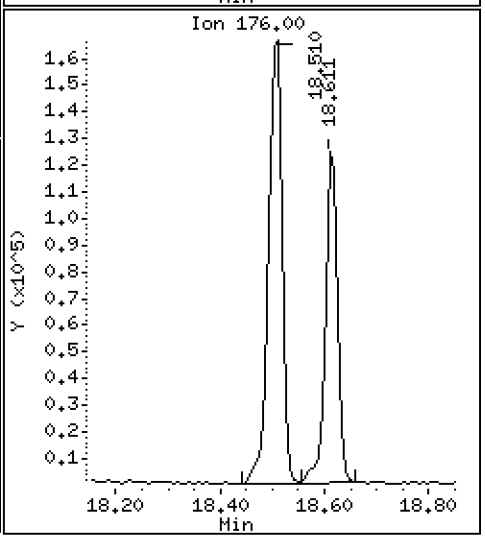












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052310.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

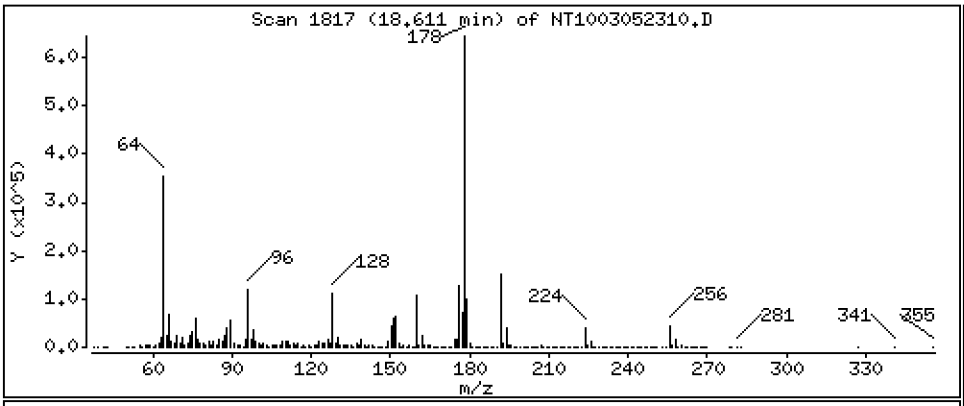
Operator: VTS

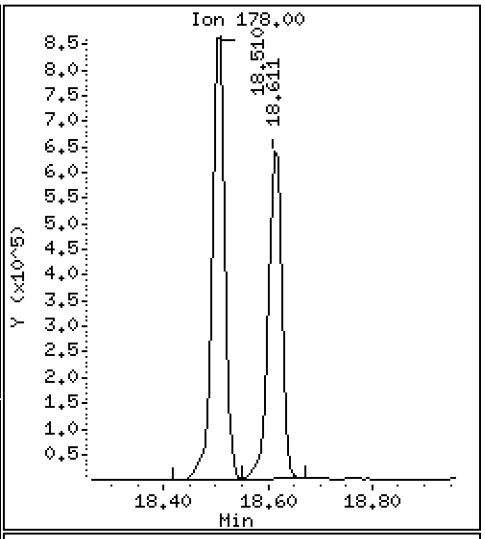
Column phase: ZB-5msi

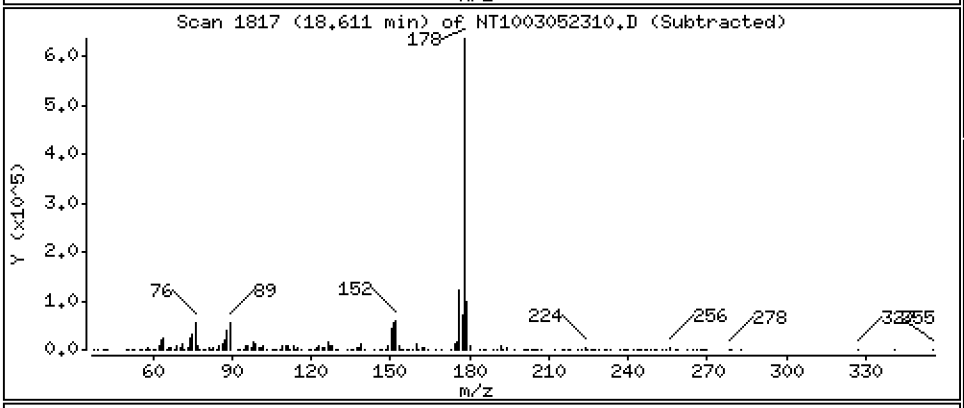
Column diameter: 0.25

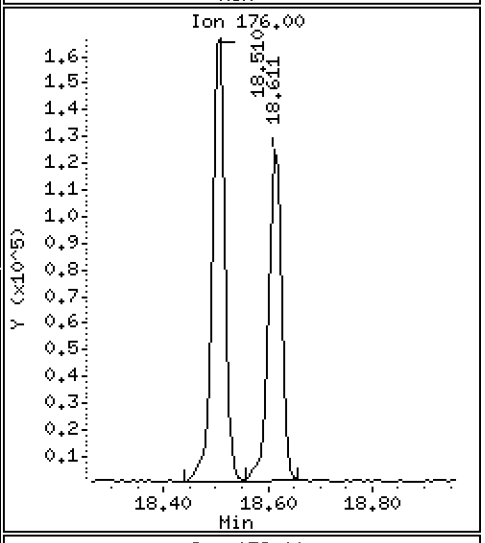
61 Anthracene

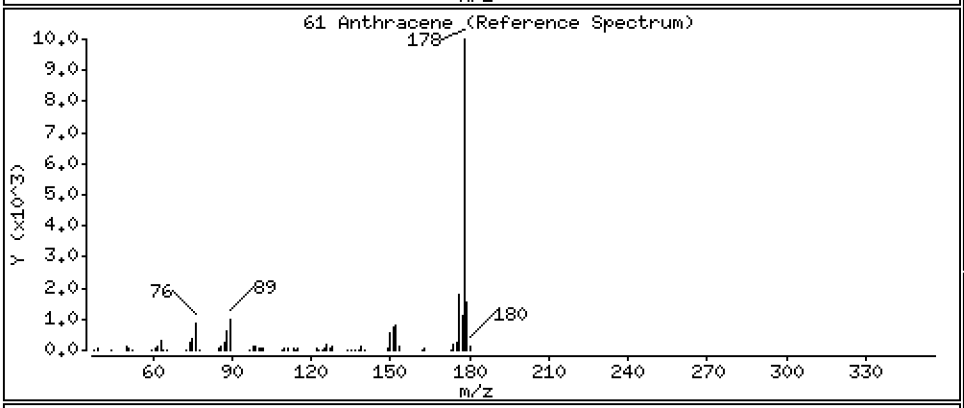
Concentration: 4.201 ug/mL

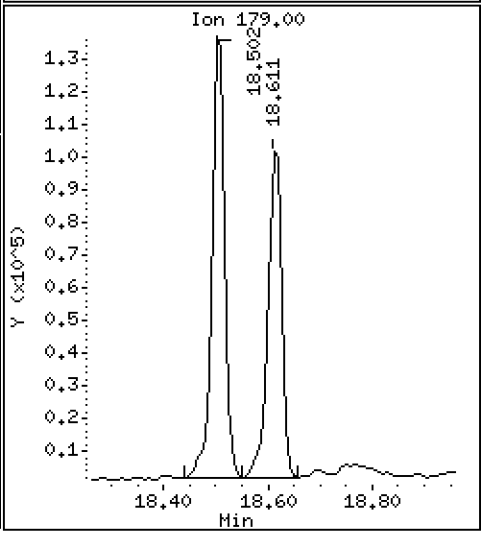


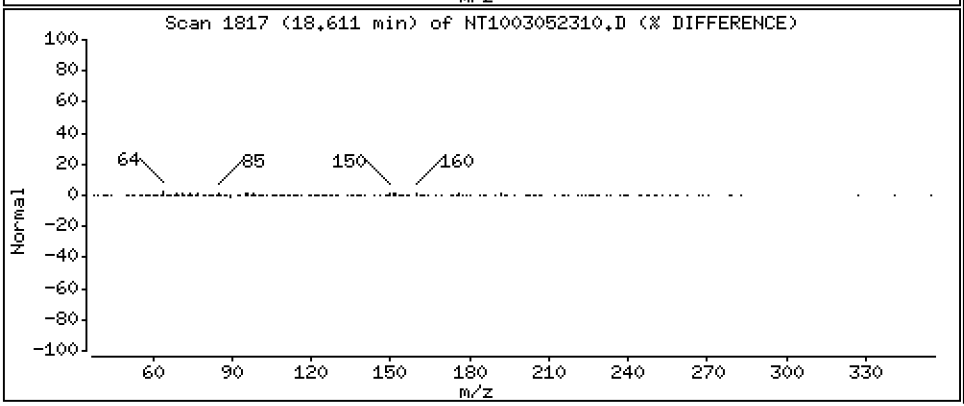












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

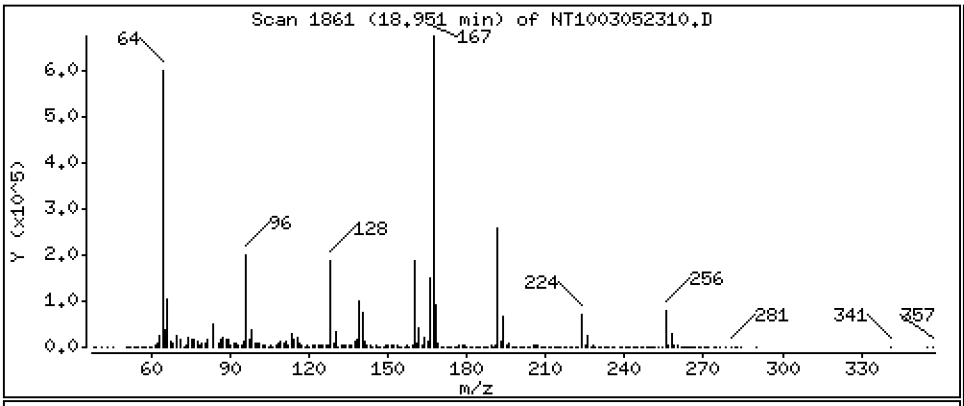
Operator: VTS

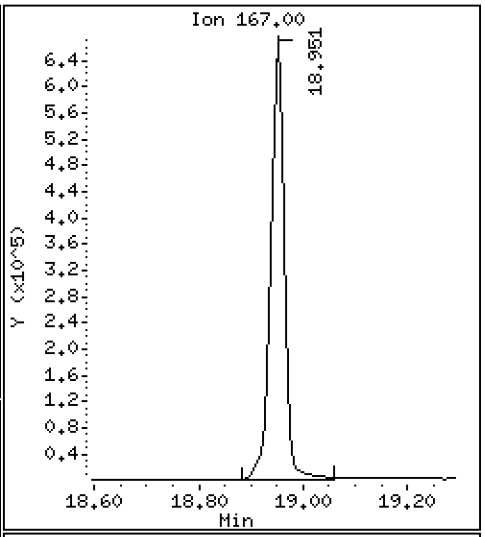
Column phase: ZB-5msi

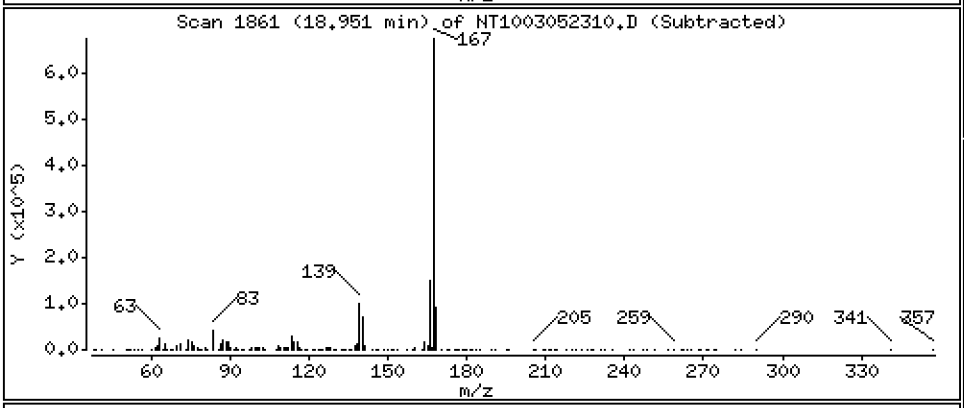
Column diameter: 0.25

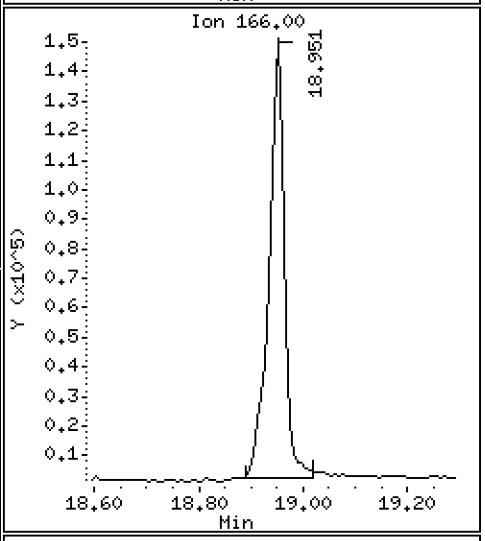
62 Carbazole

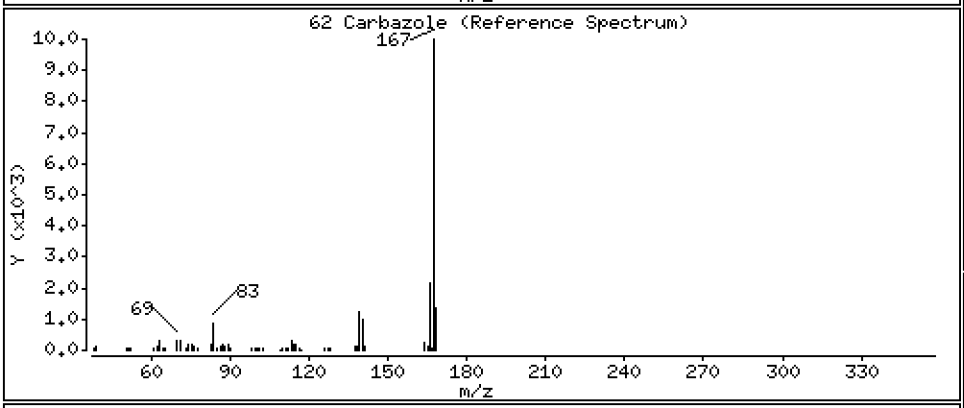
Concentration: 4.887 ug/mL

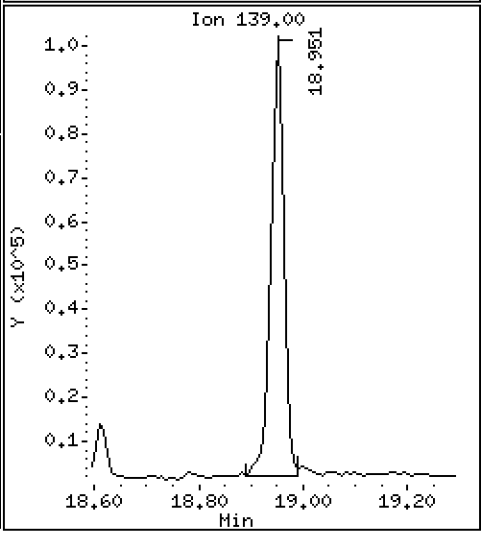


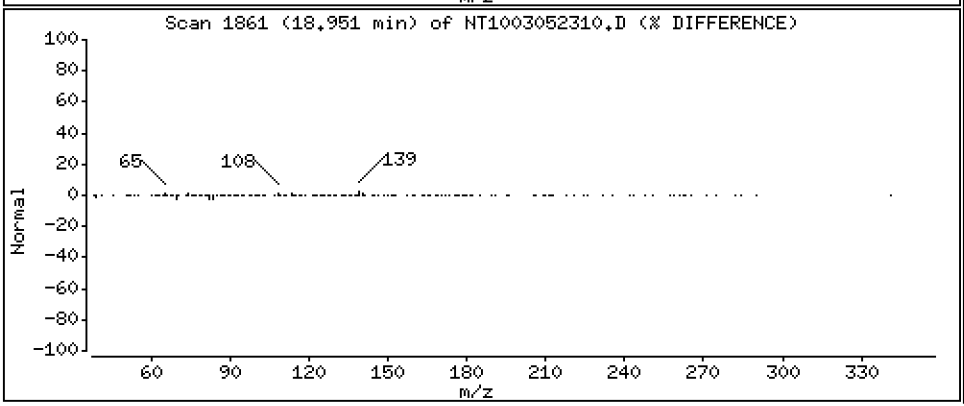












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

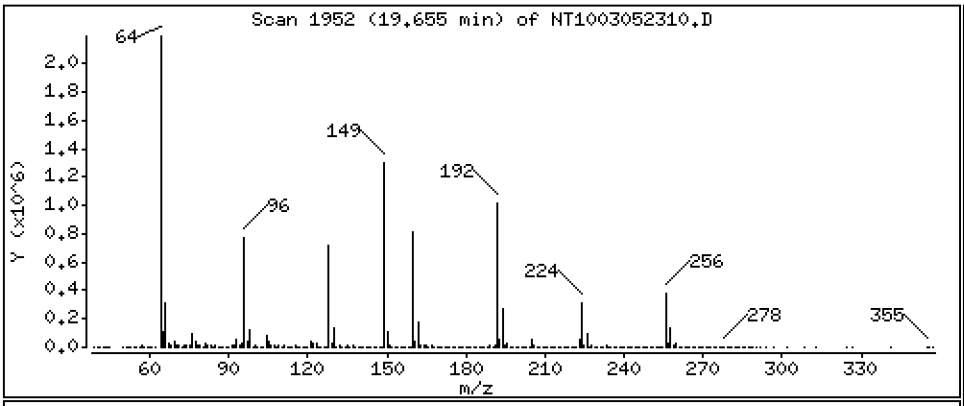
Operator: VTS

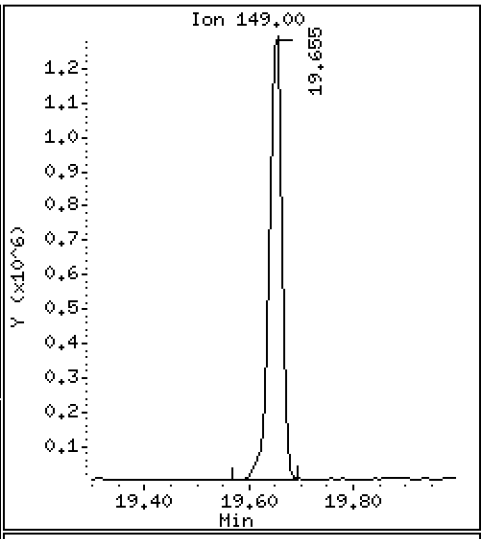
Column phase: ZB-5msi

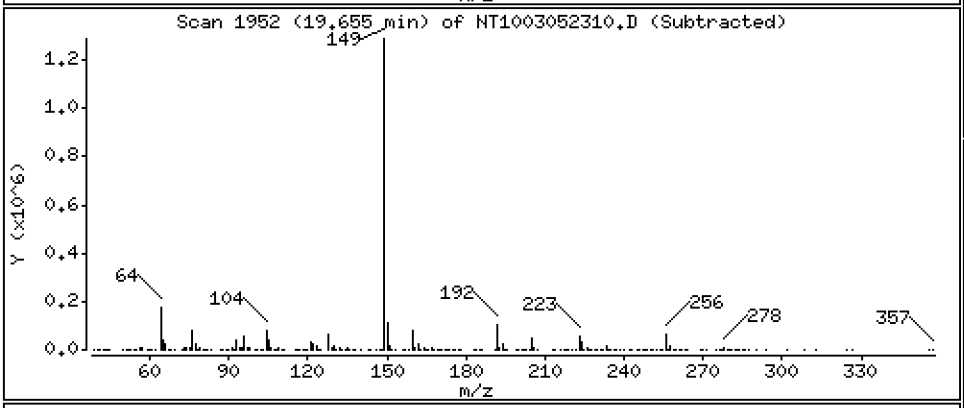
Column diameter: 0.25

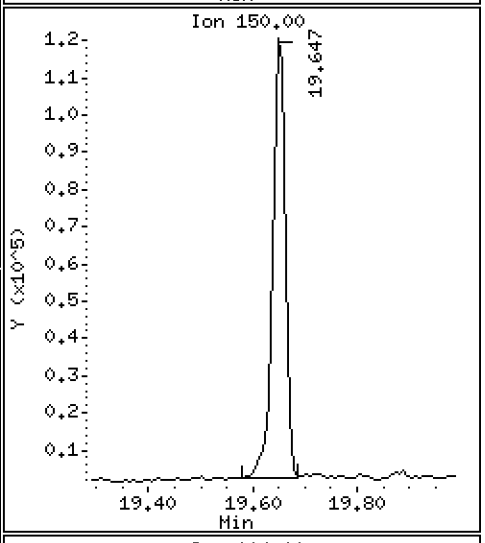
63 Di-n-butylphthalate

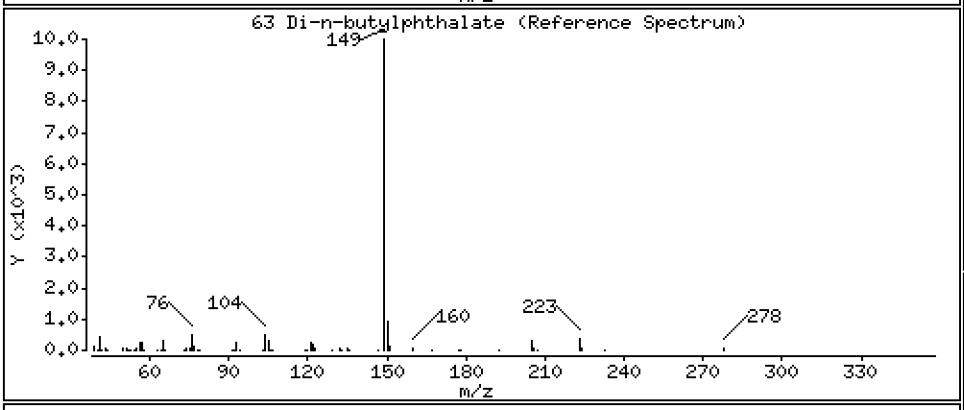
Concentration: 6.082 ug/mL

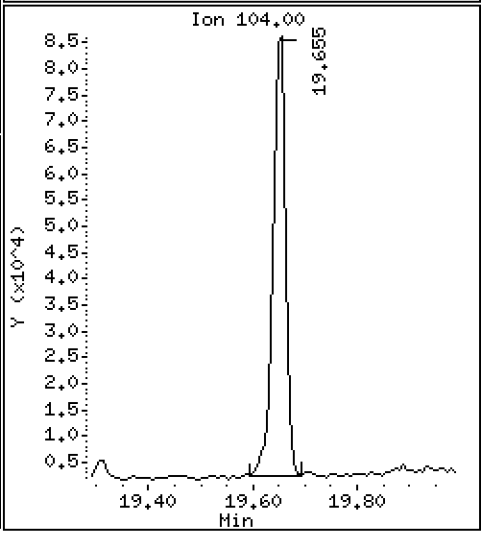


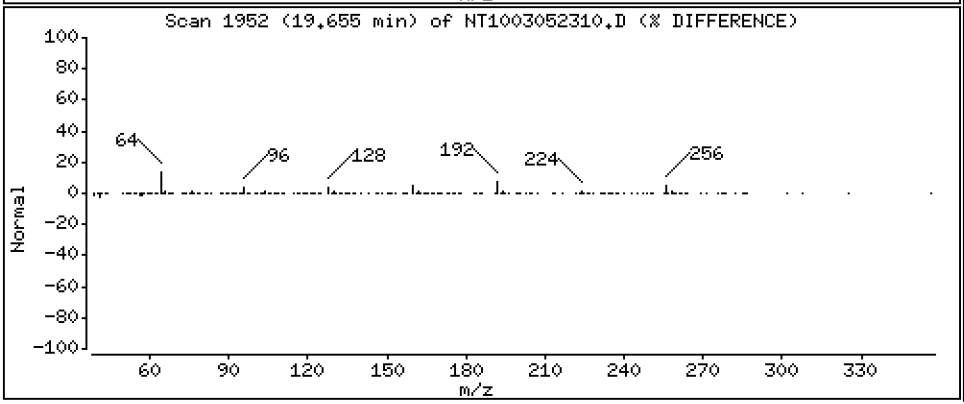












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

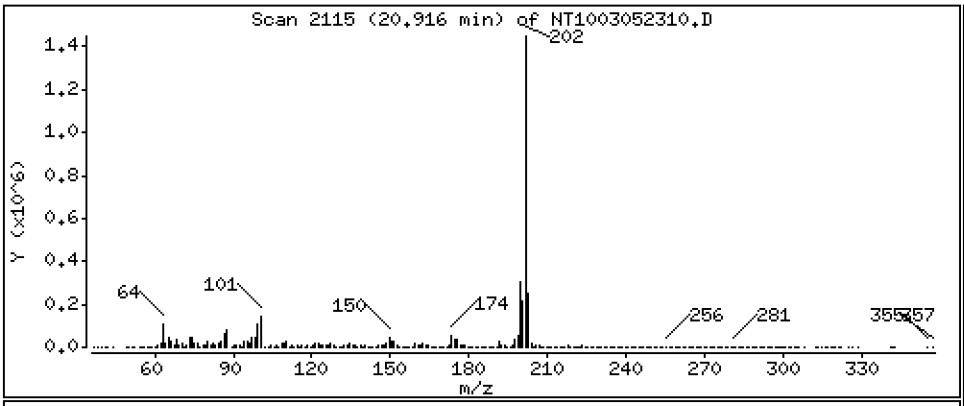
Operator: VTS

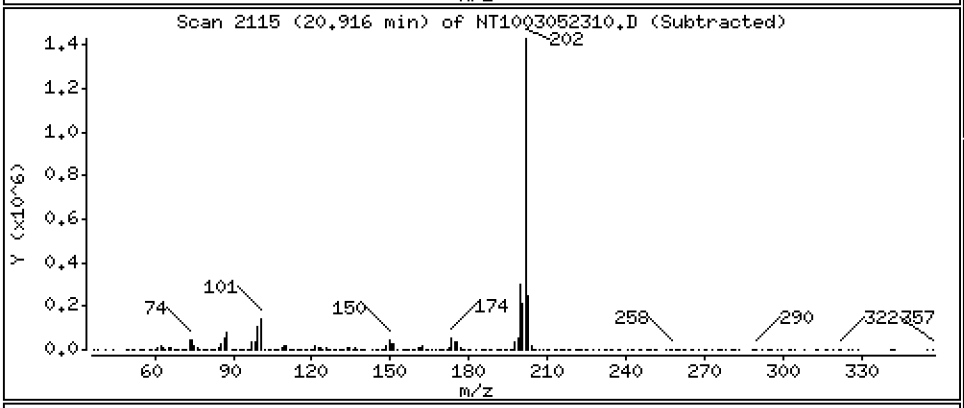
Column phase: ZB-5msi

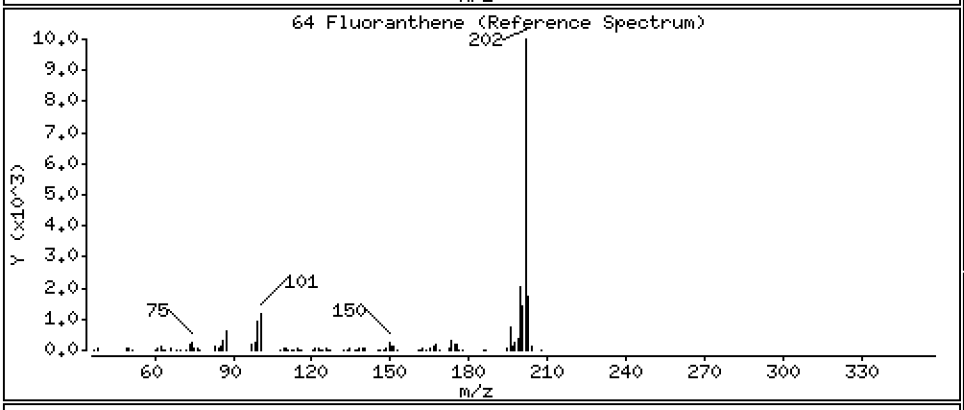
Column diameter: 0.25

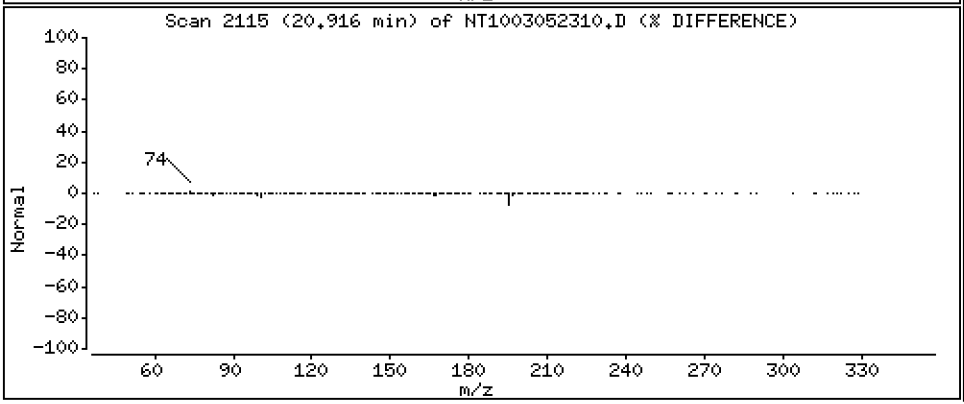
64 Fluoranthene

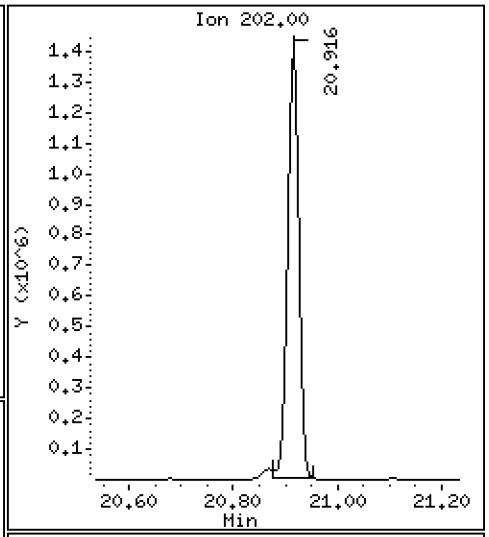
Concentration: 6.105 ug/mL

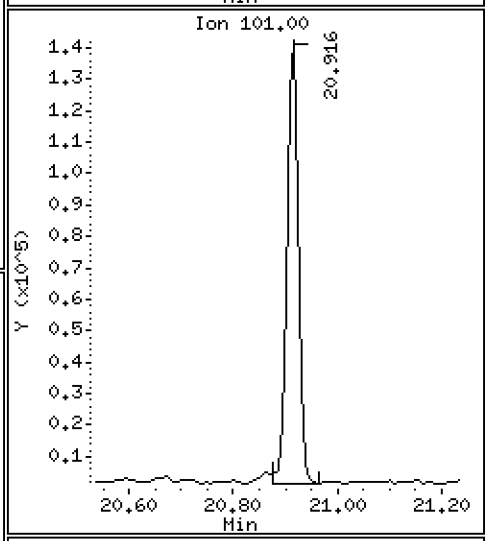


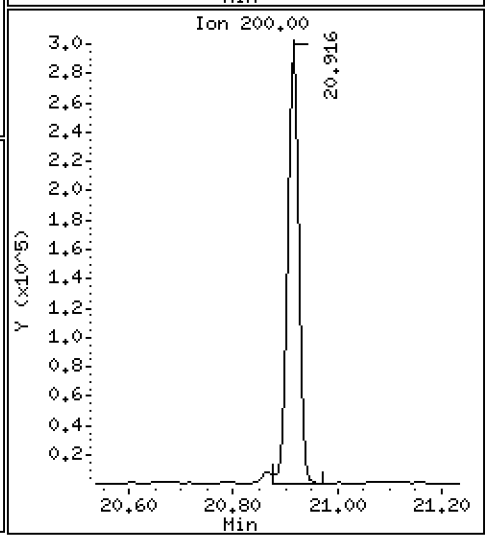












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

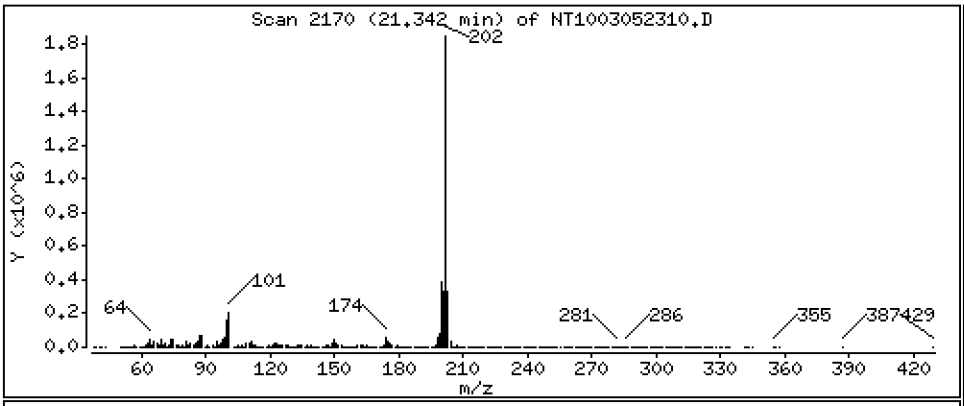
Operator: VTS

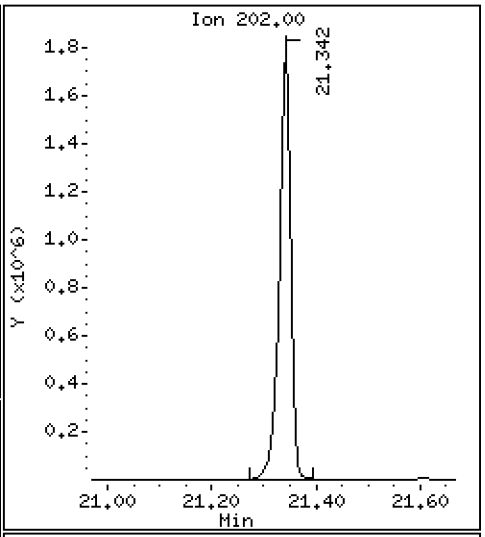
Column phase: ZB-5msi

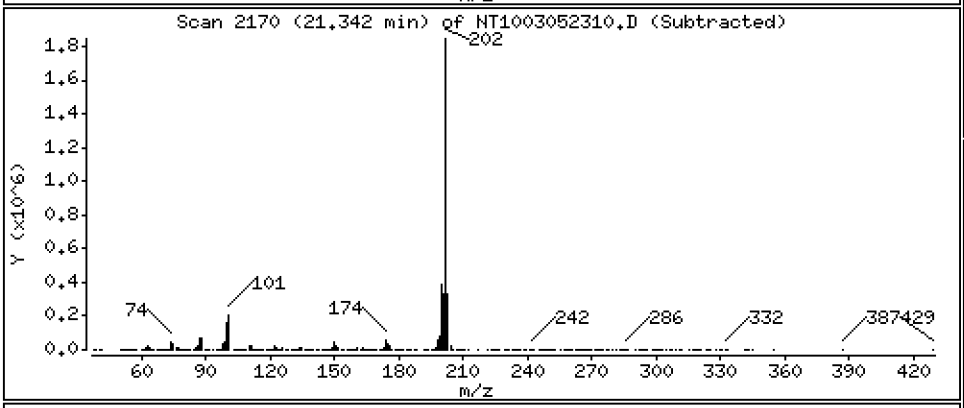
Column diameter: 0.25

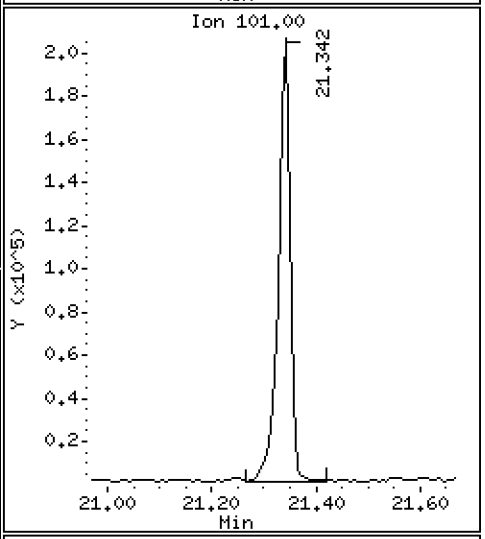
65 Pyrene

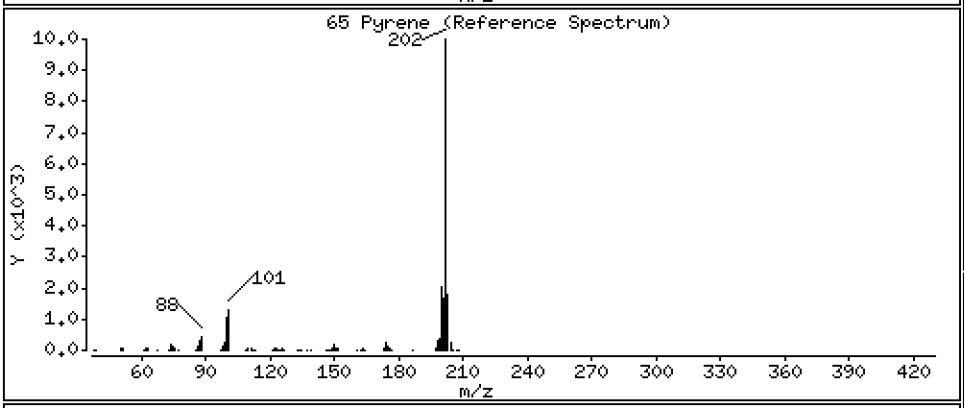
Concentration: 7.393 ug/mL

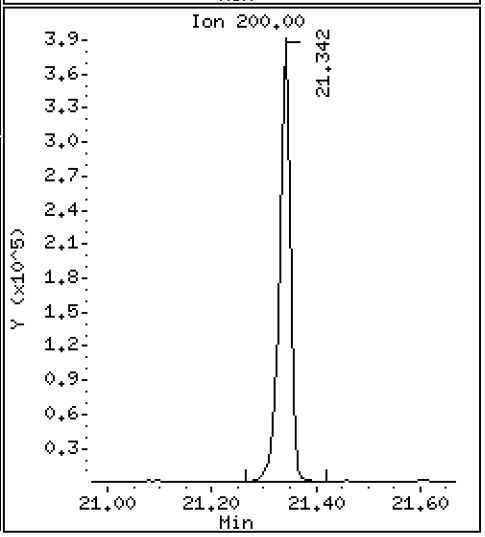


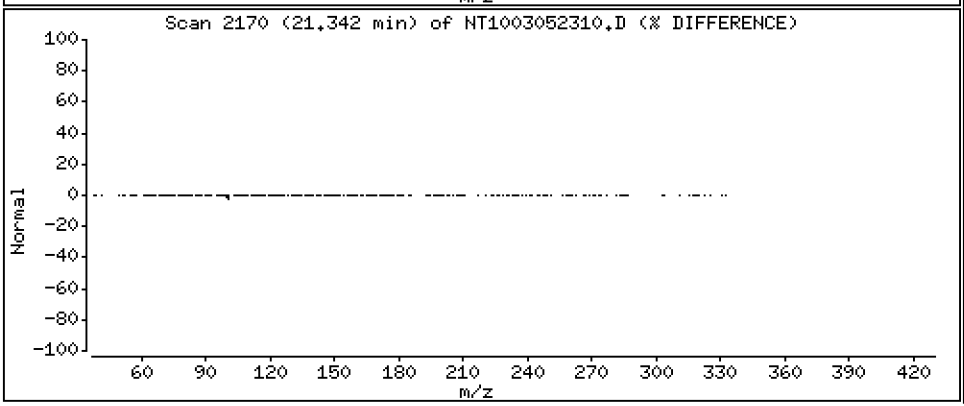












Date : 05-MAR-2023 19:06

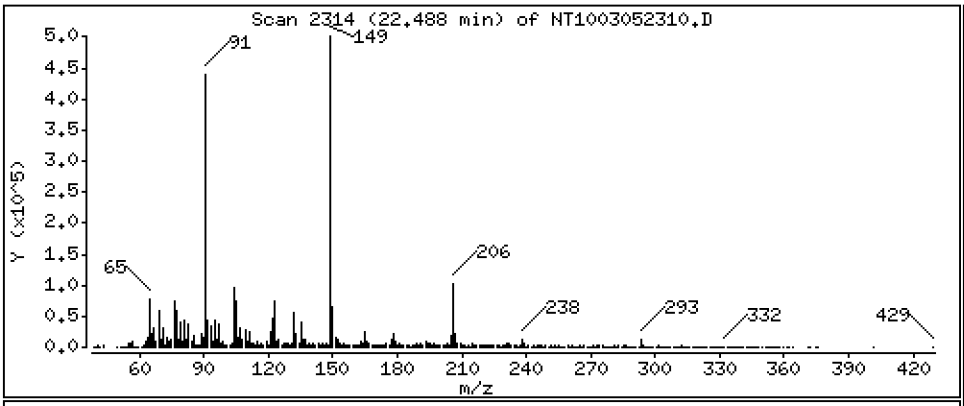
Client ID: Instrument: nt10.i

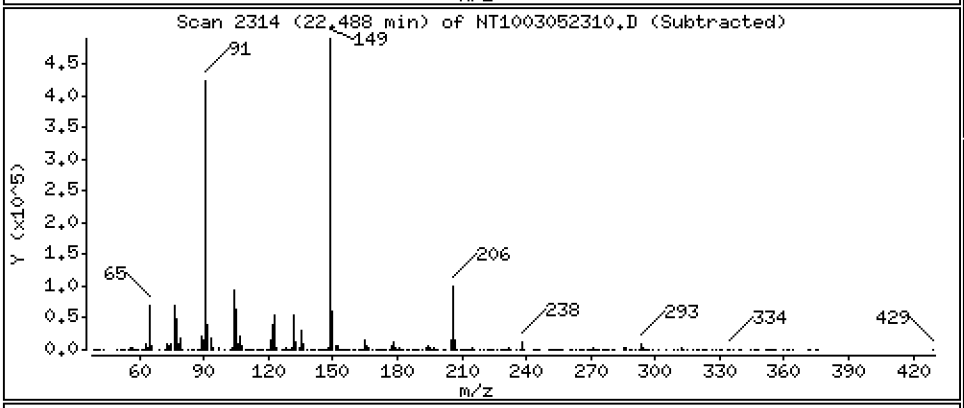
Sample Info: BLA0685-MS1

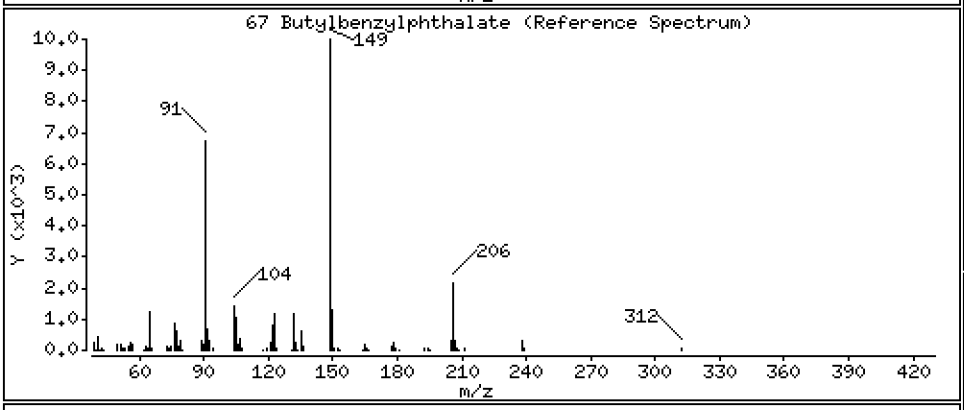
Operator: VTS

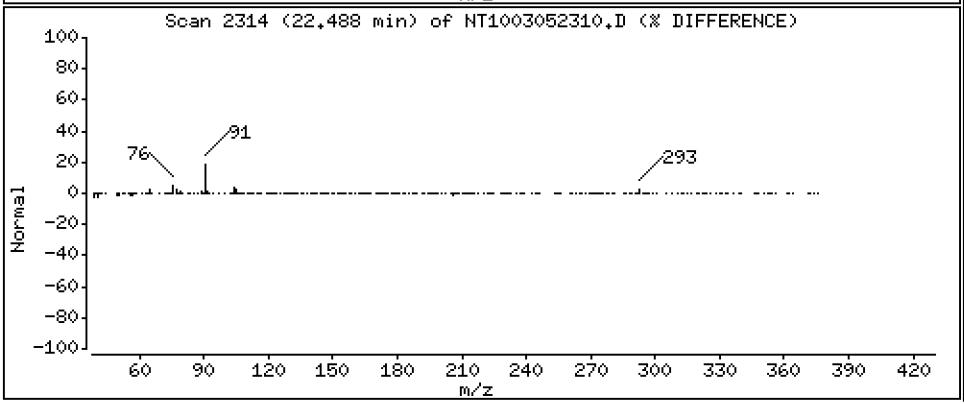
Column phase: ZB-5msi Column diameter: 0.25

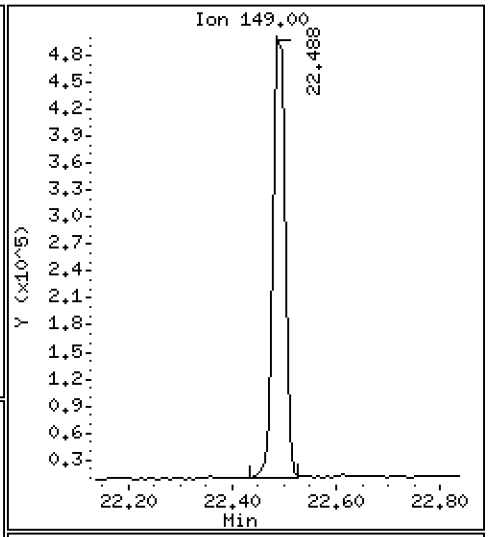
67 Butylbenzylphthalate Concentration: 3.760 ug/mL

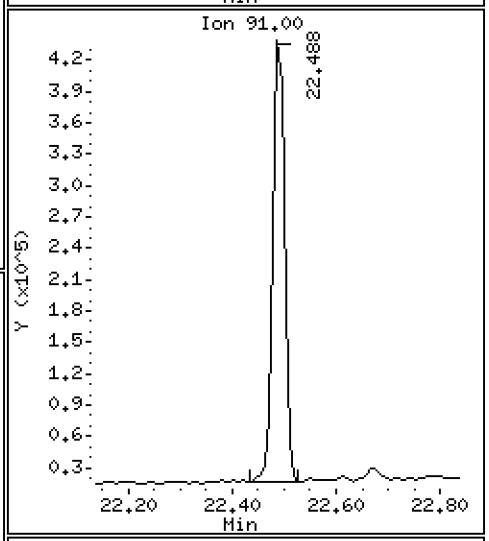


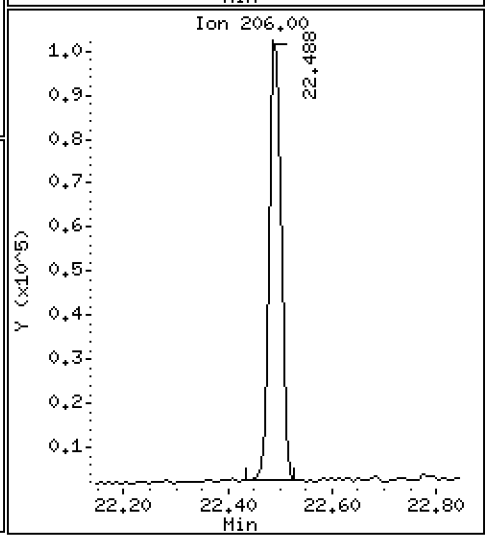












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052310.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

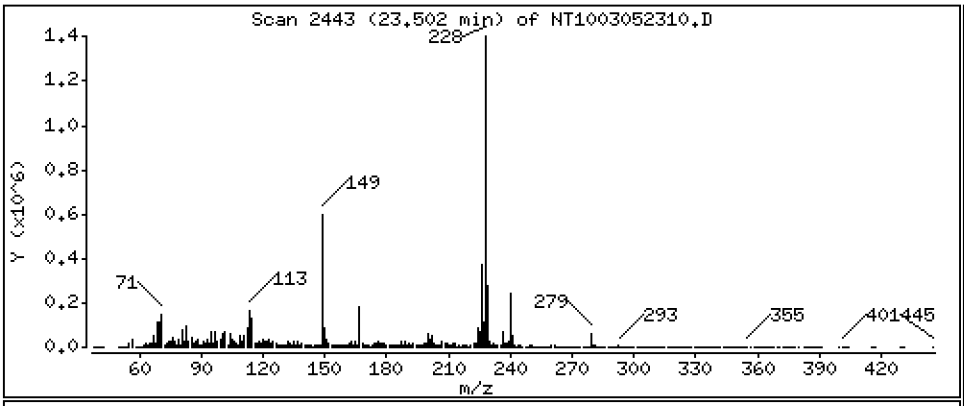
Operator: VTS

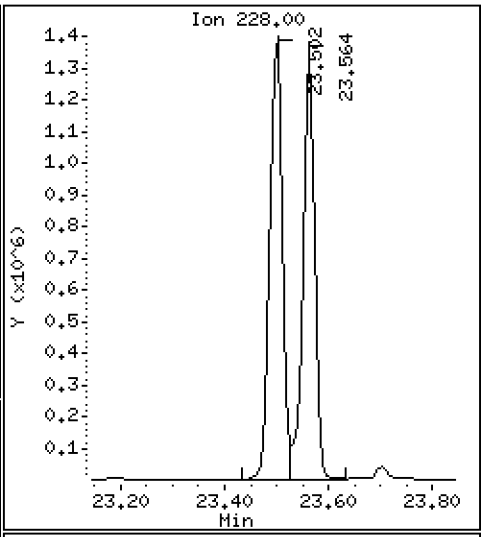
Column phase: ZB-5msi

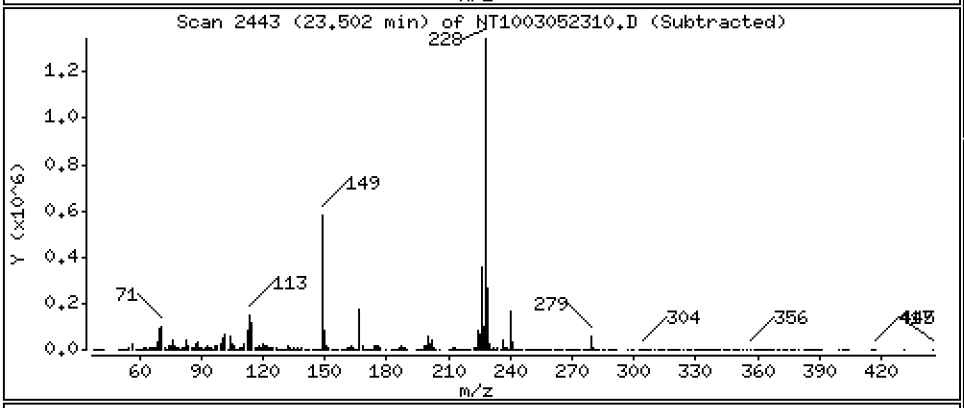
Column diameter: 0.25

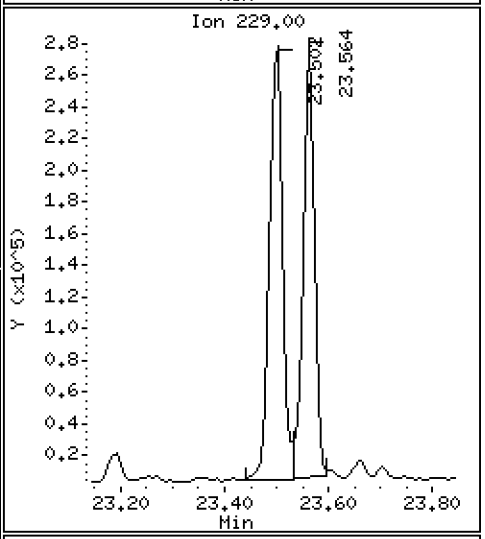
68 Benzo(a)anthracene

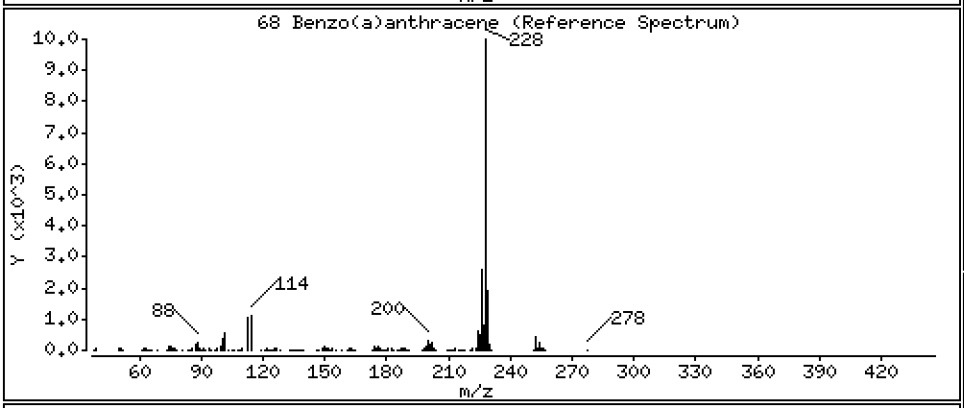
Concentration: 6.028 ug/mL

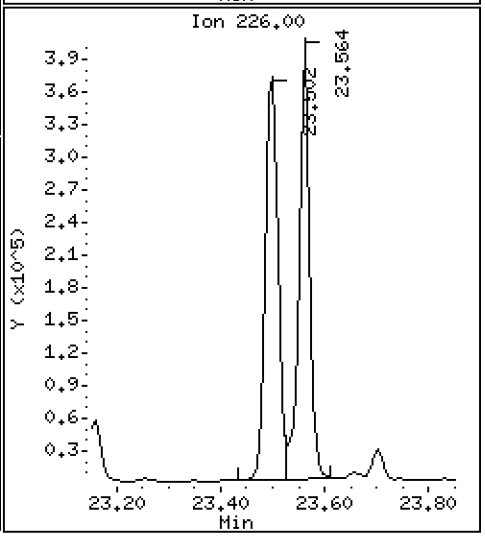


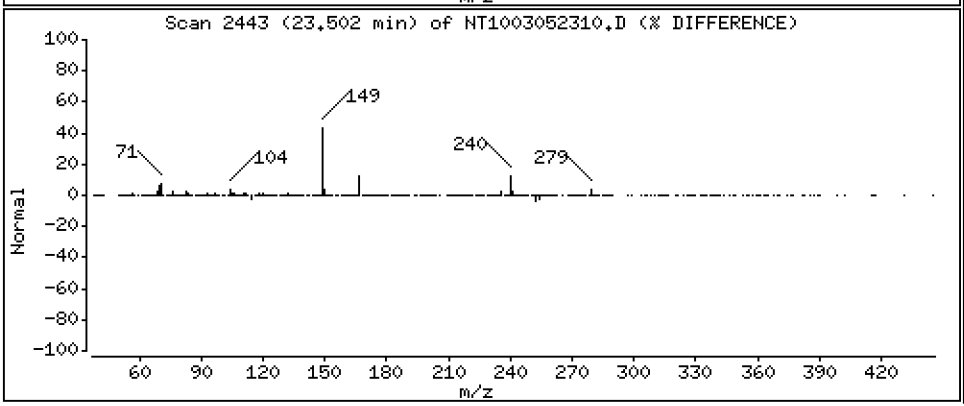












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052310.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

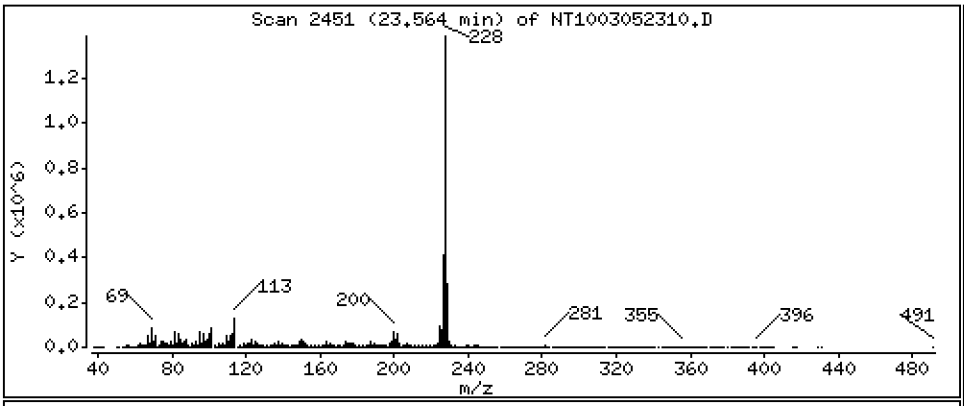
Operator: VTS

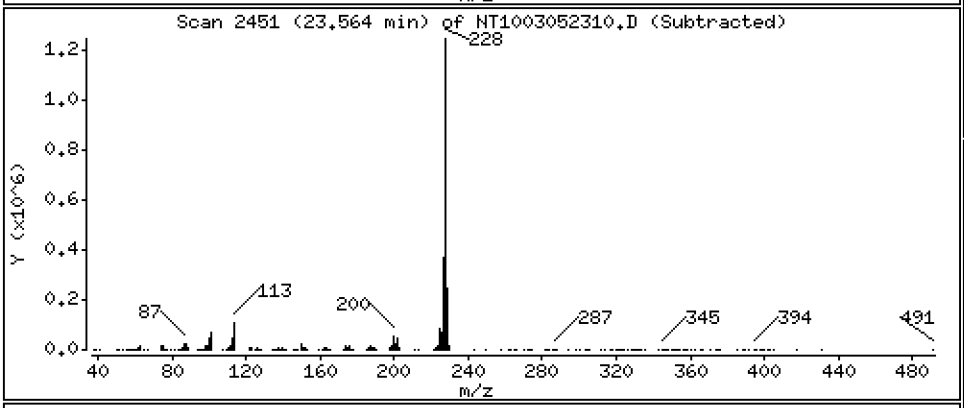
Column phase: ZB-5msi

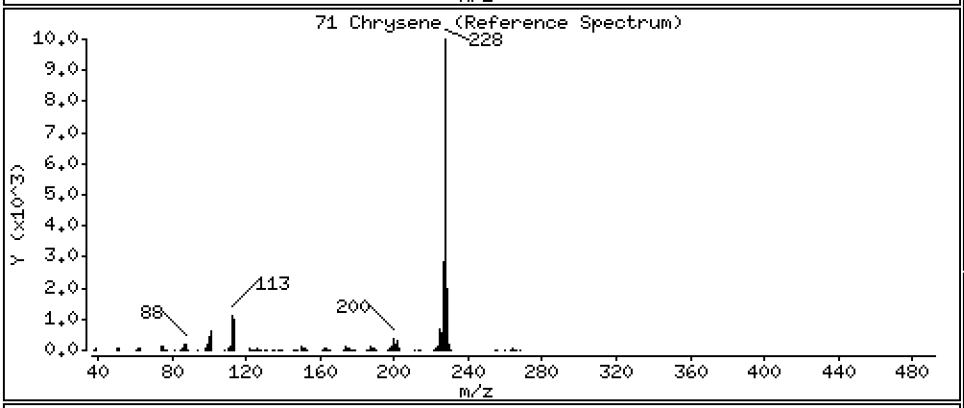
Column diameter: 0.25

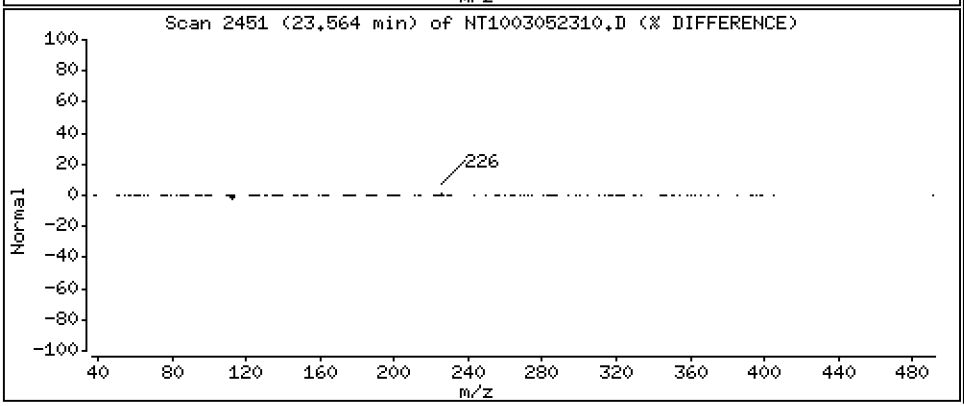
71 Chrysene

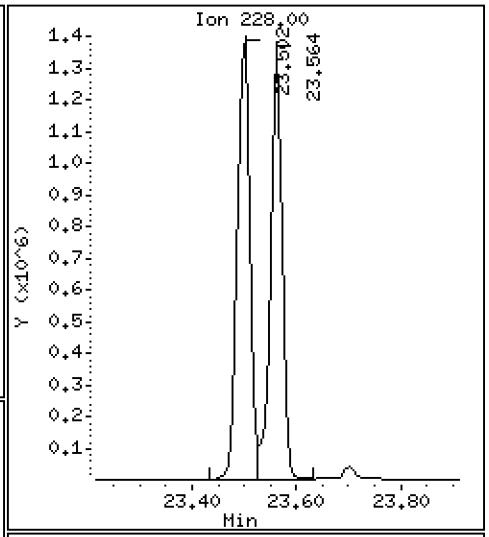
Concentration: 6.515 ug/mL

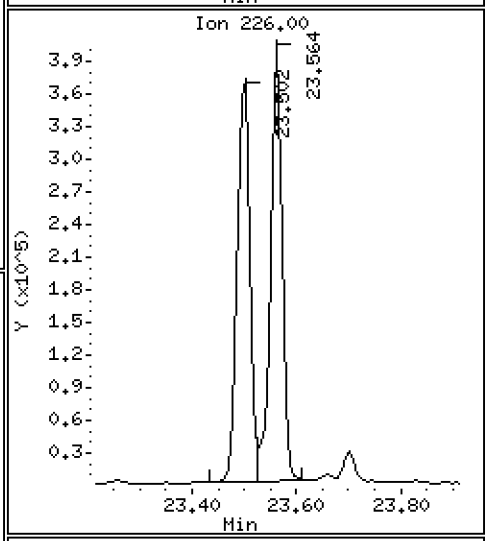


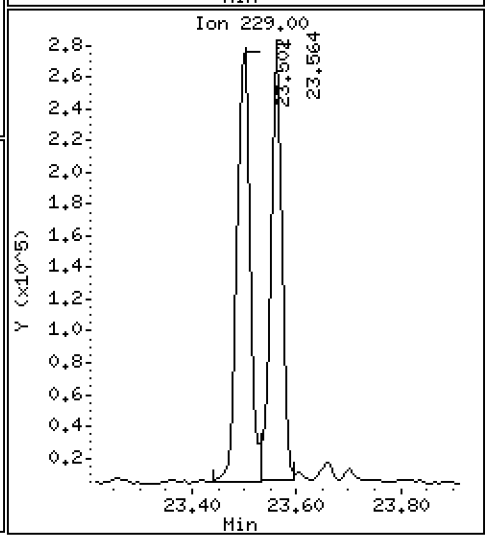












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052310.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

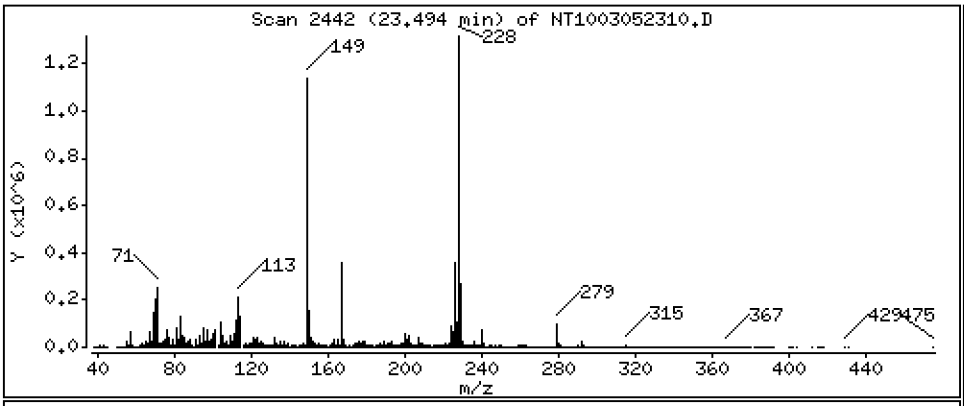
Operator: VTS

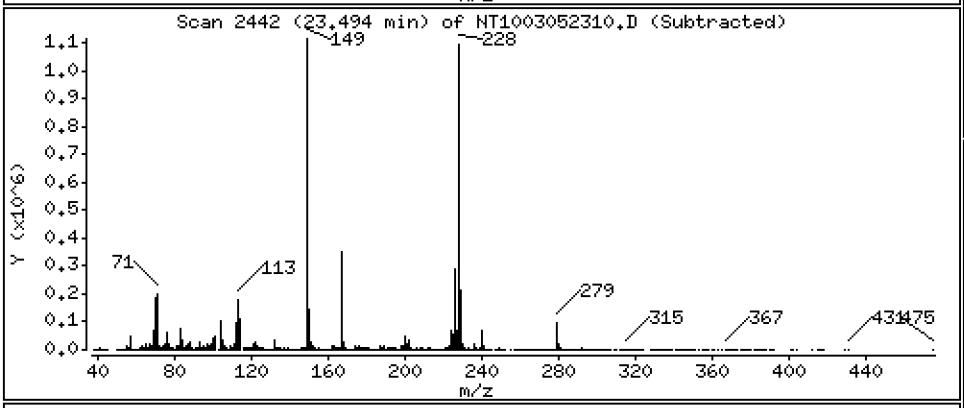
Column phase: ZB-5msi

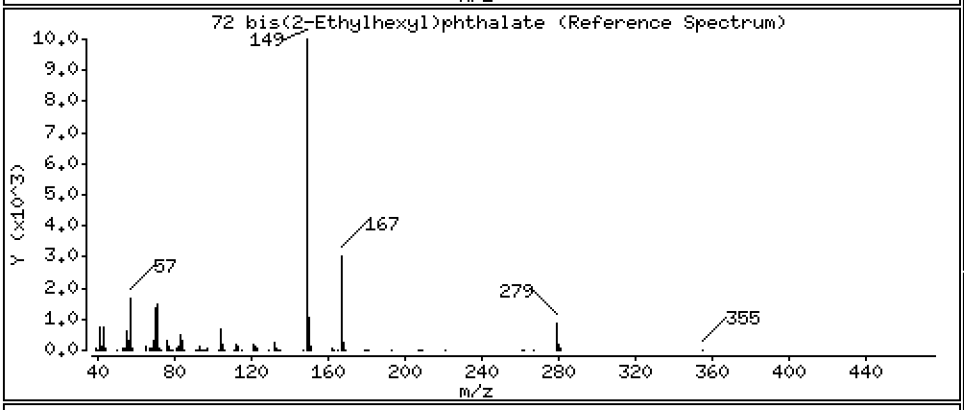
Column diameter: 0.25

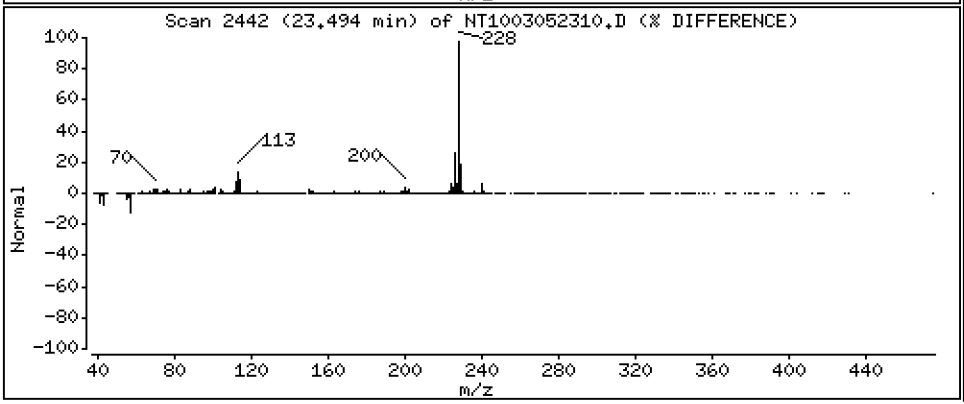
72 bis(2-Ethylhexyl)phthalate

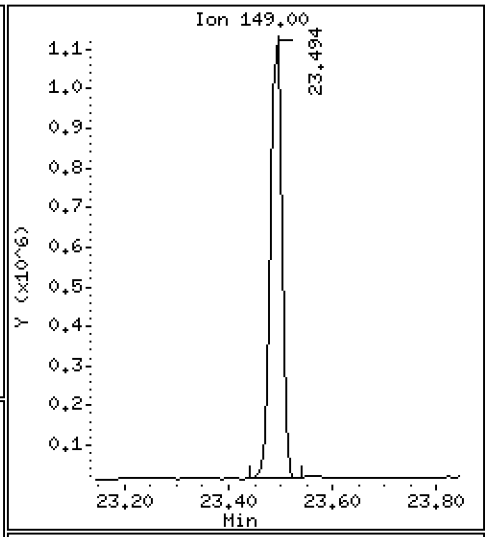
Concentration: 6.051 ug/mL

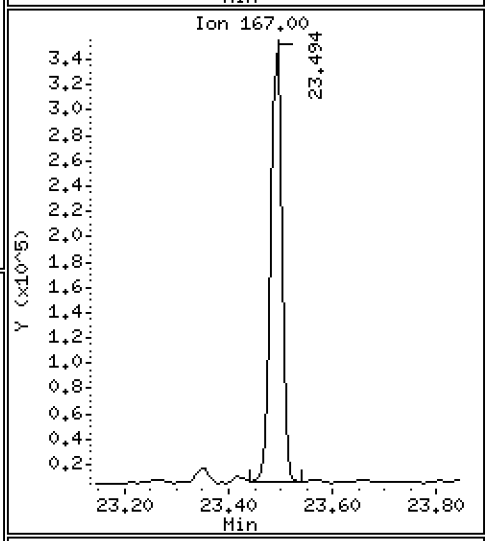


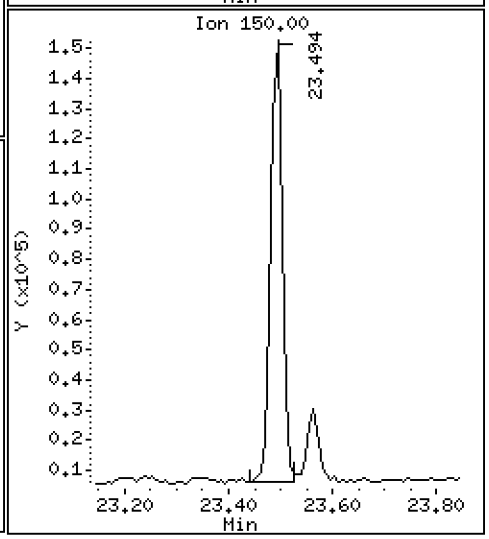












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

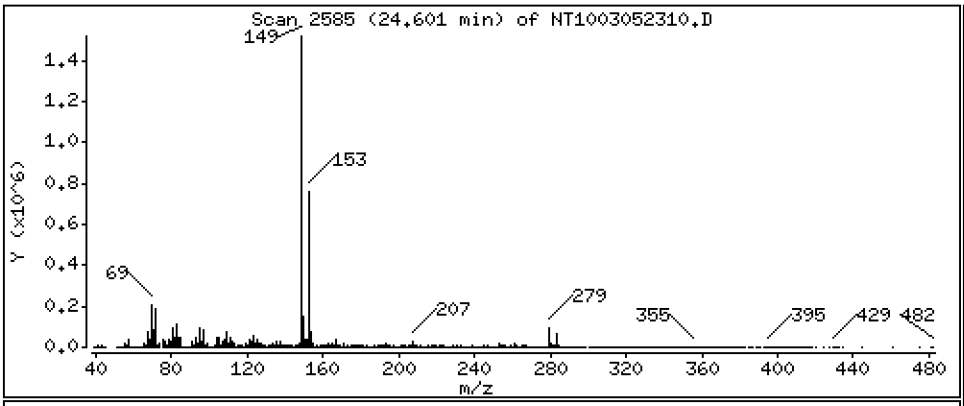
Operator: VTS

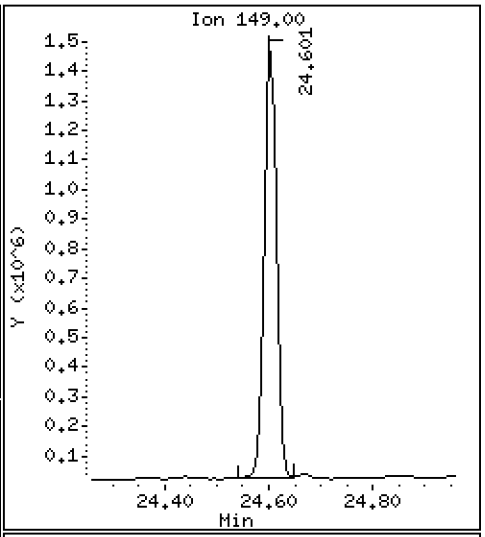
Column phase: ZB-5msi

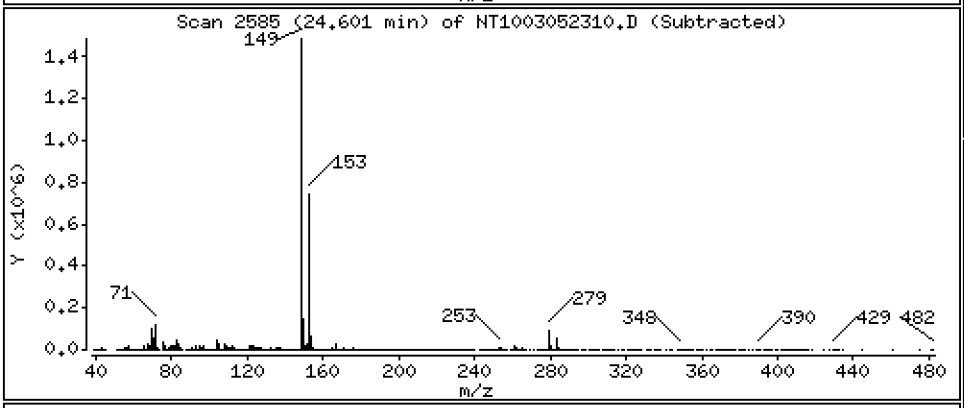
Column diameter: 0.25

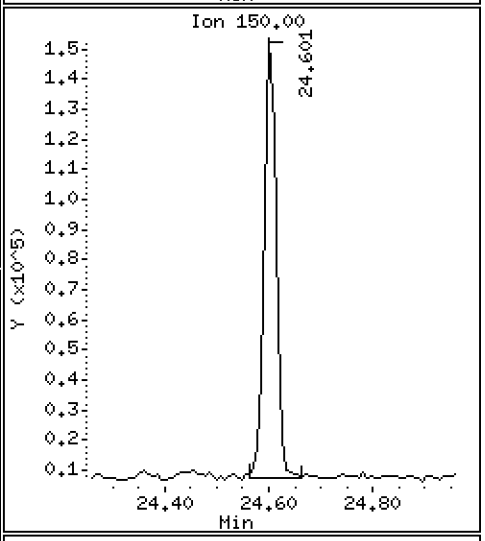
73 Di-n-octylphthalate

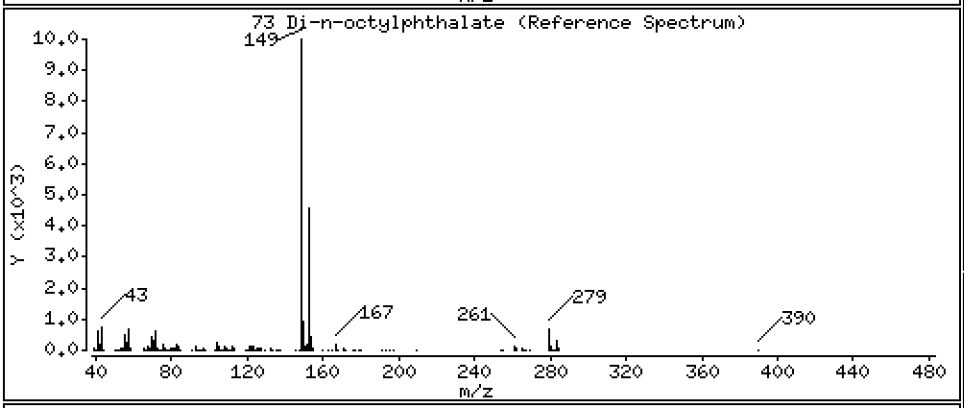
Concentration: 5.605 ug/mL

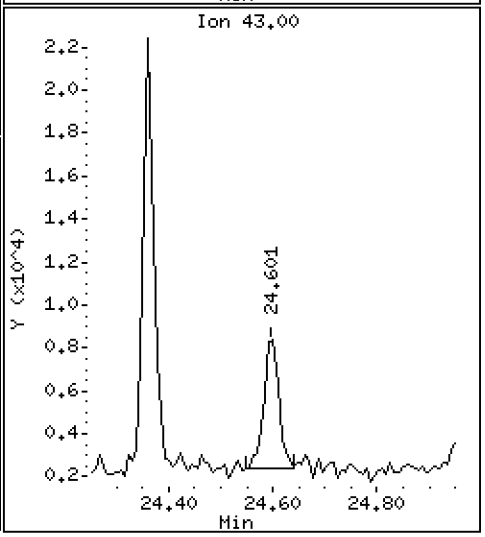


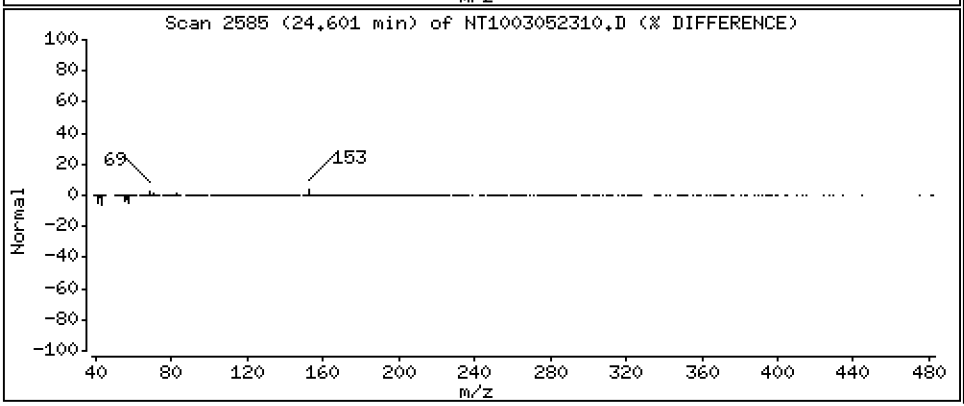












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

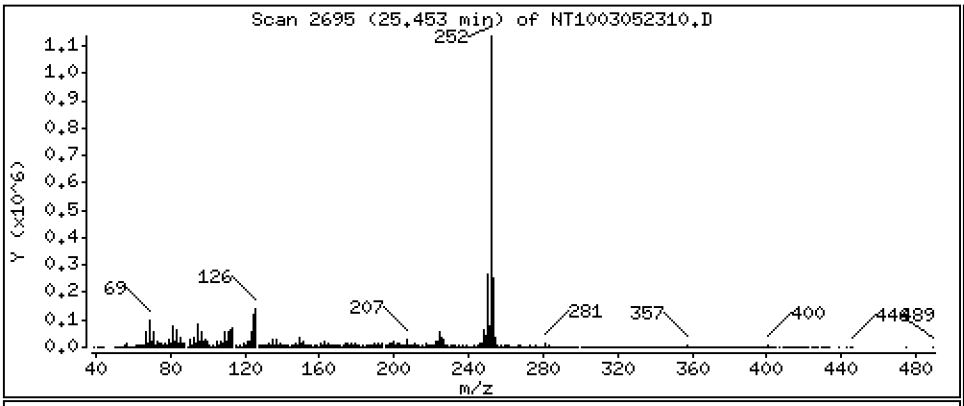
Operator: VTS

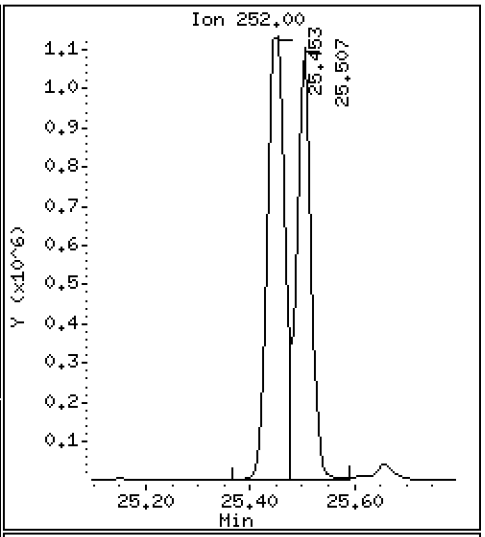
Column phase: ZB-5msi

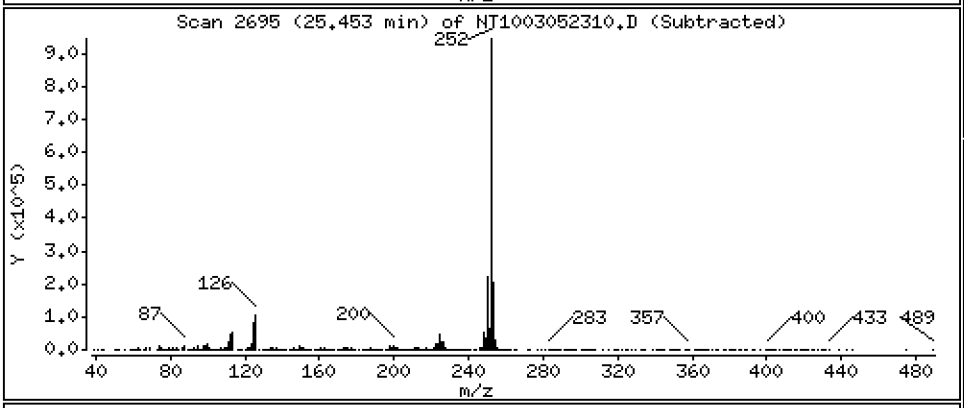
Column diameter: 0.25

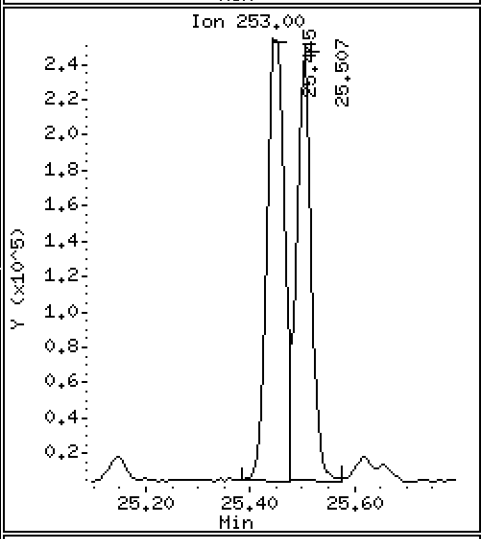
74 Benzo(b)fluoranthene

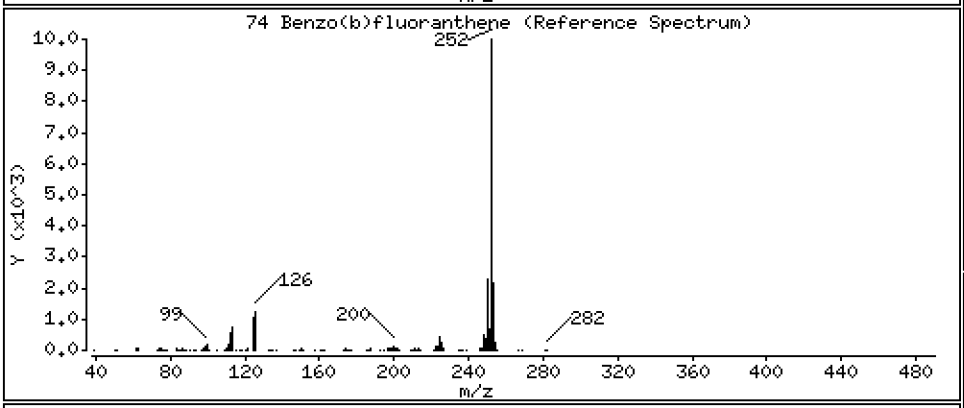
Concentration: 6.007 ug/mL

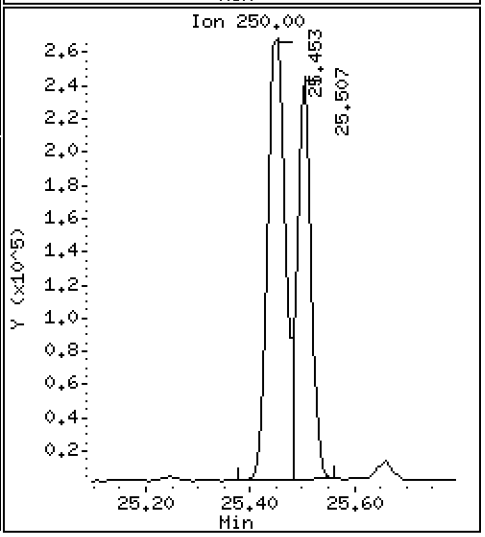


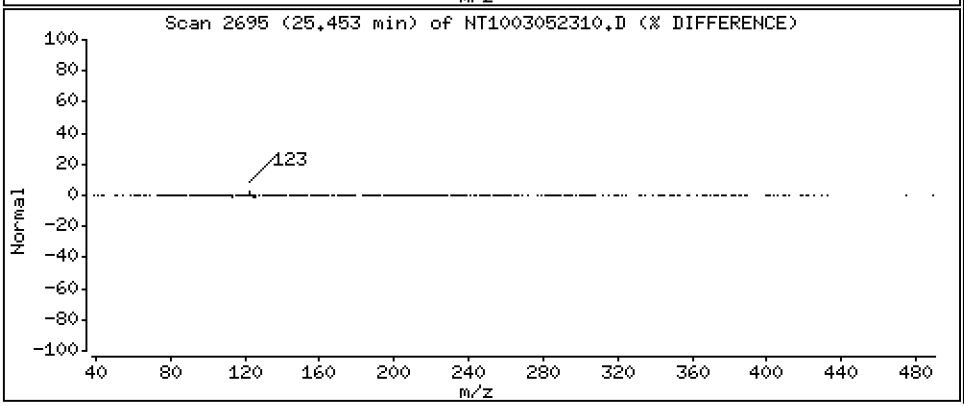












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052310.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

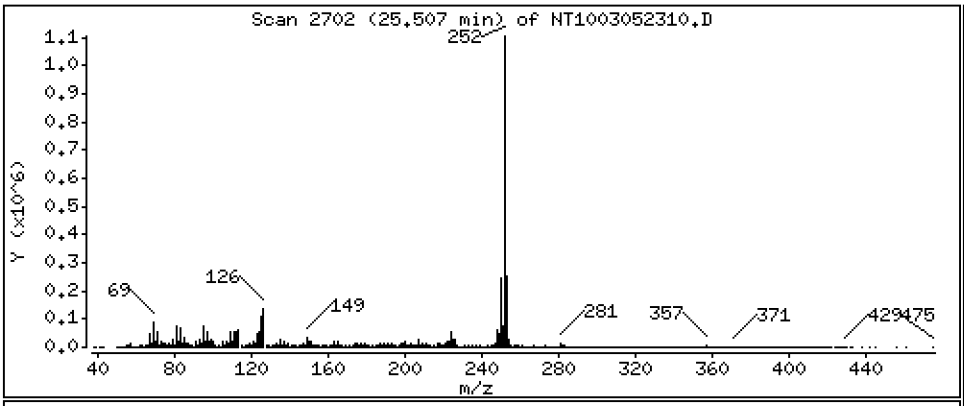
Operator: VTS

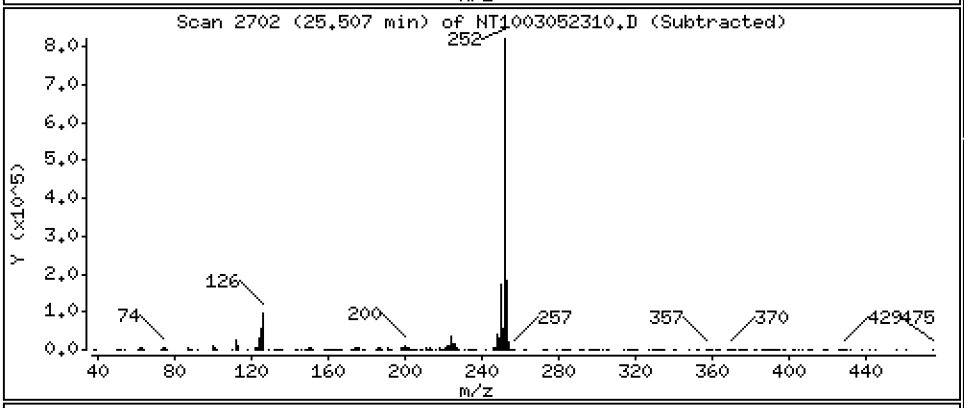
Column phase: ZB-5msi

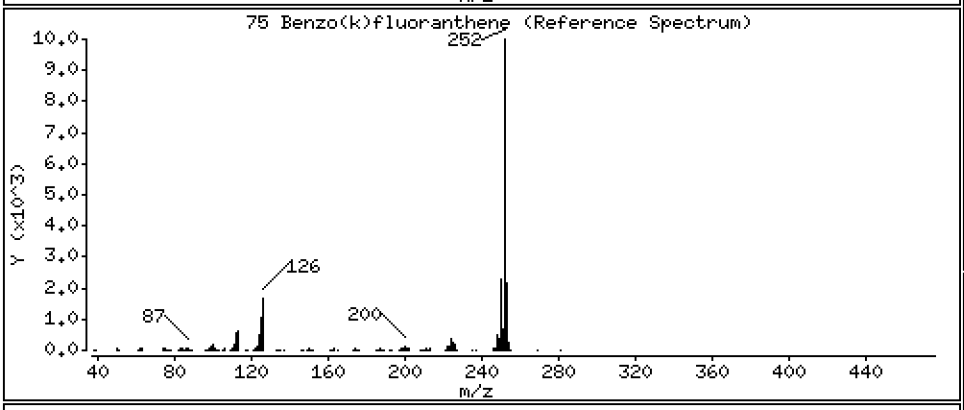
Column diameter: 0.25

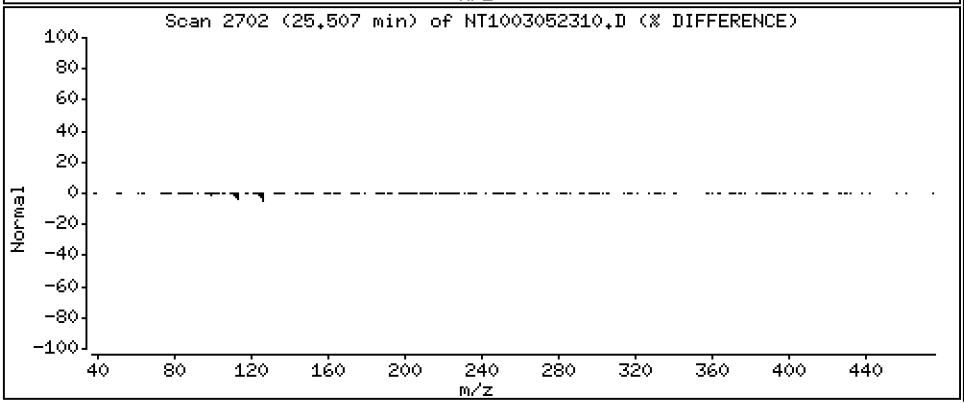
75 Benzo(k)fluoranthene

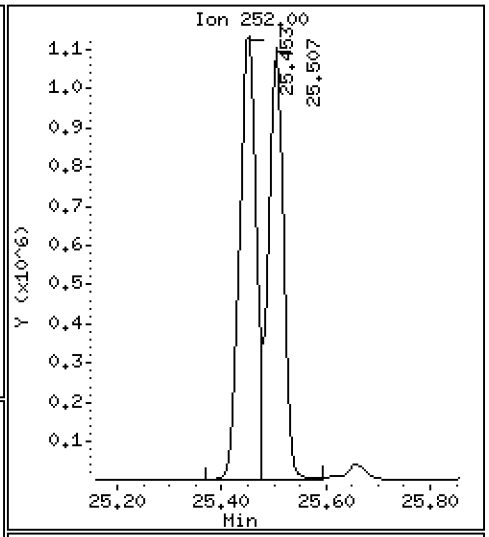
Concentration: 5.480 ug/mL

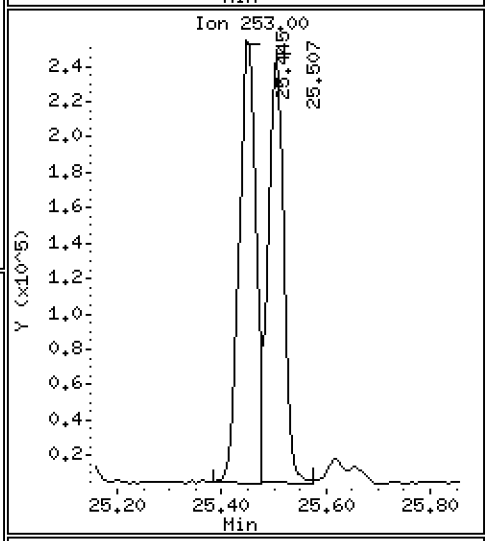


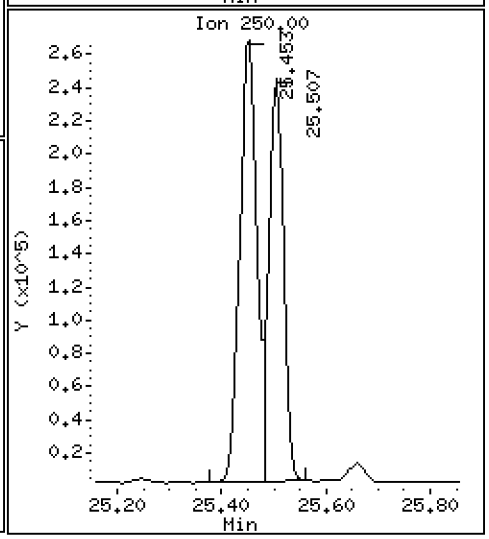












Date : 05-MAR-2023 19:06

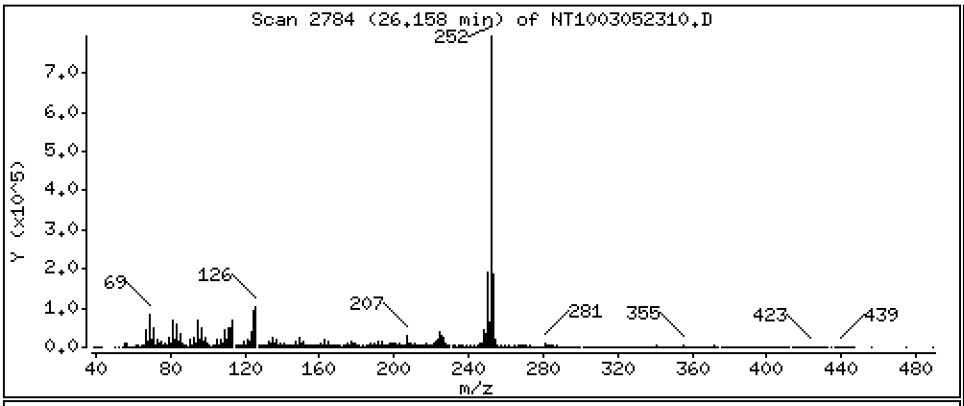
Client ID: Instrument: nt10.i

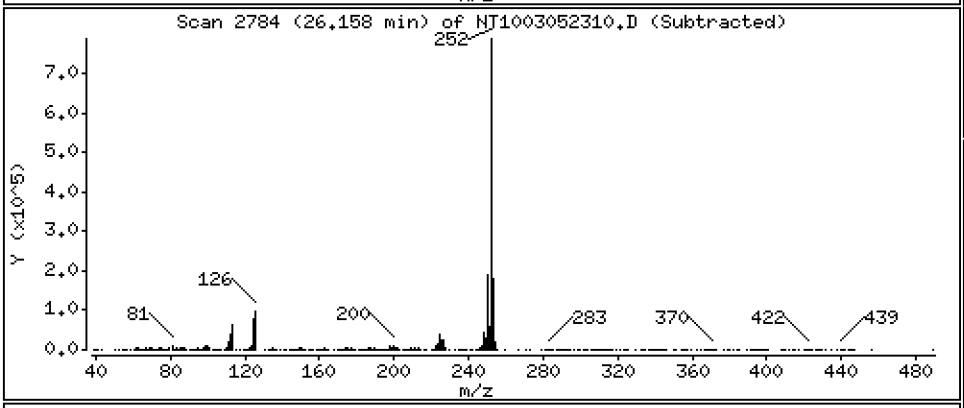
Sample Info: BLA0685-MS1

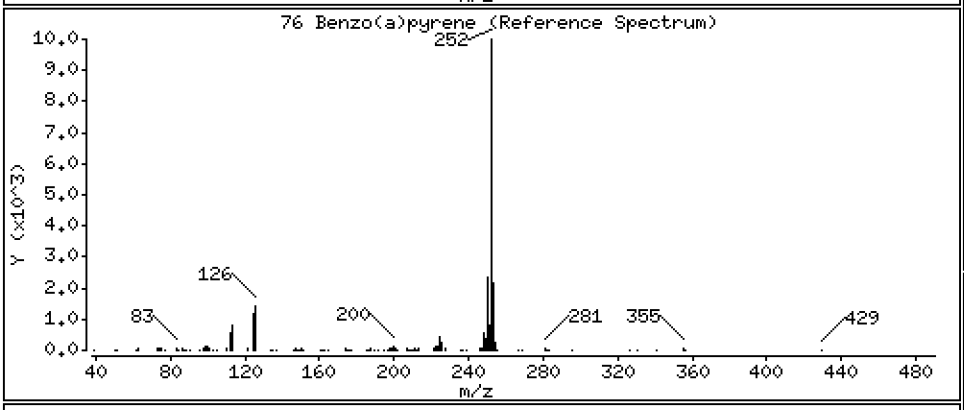
Operator: VTS

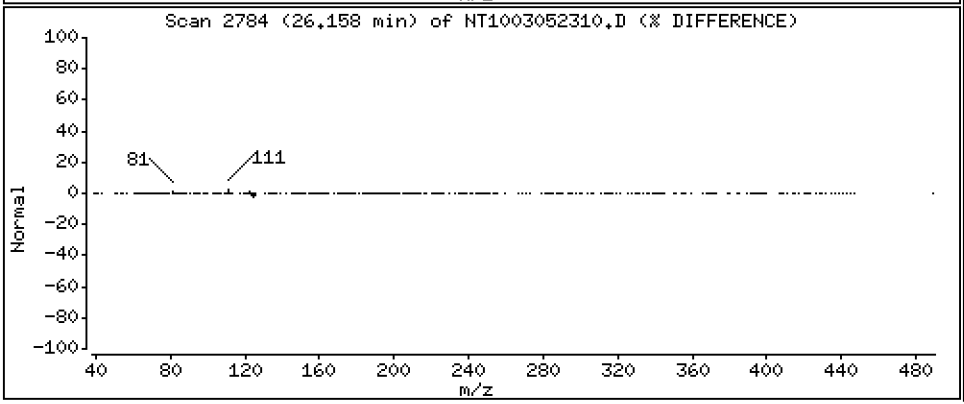
Column phase: ZB-5msi Column diameter: 0.25

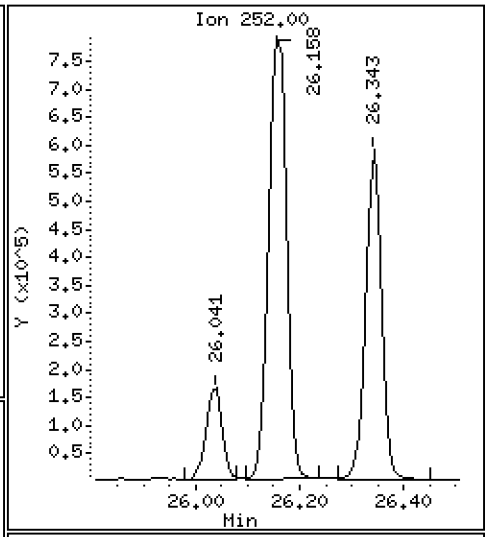
76 Benzo(a)pyrene Concentration: 4.911 ug/mL

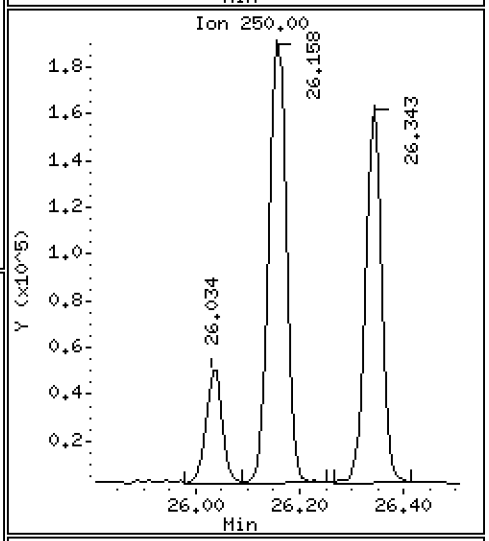


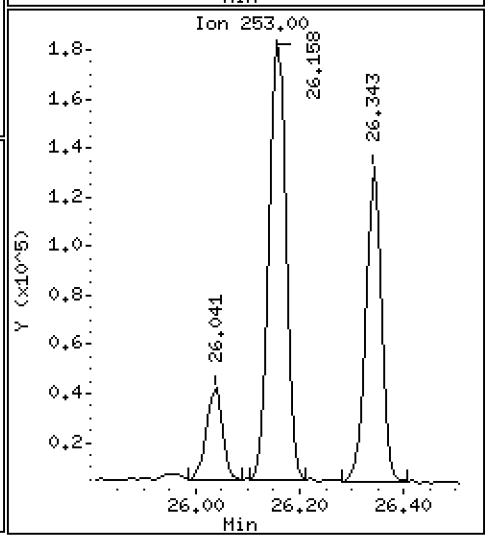












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

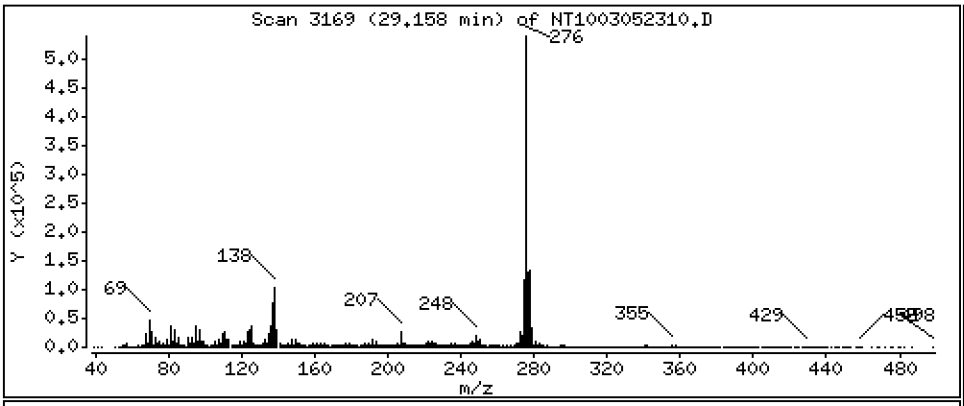
Operator: VTS

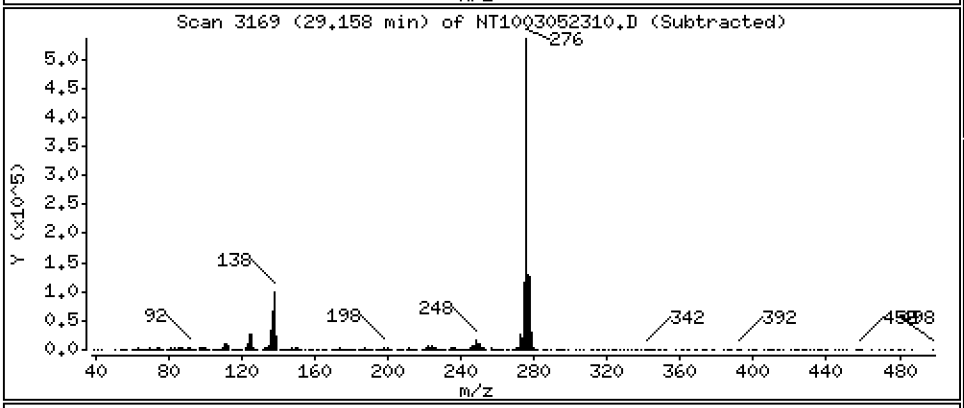
Column phase: ZB-5msi

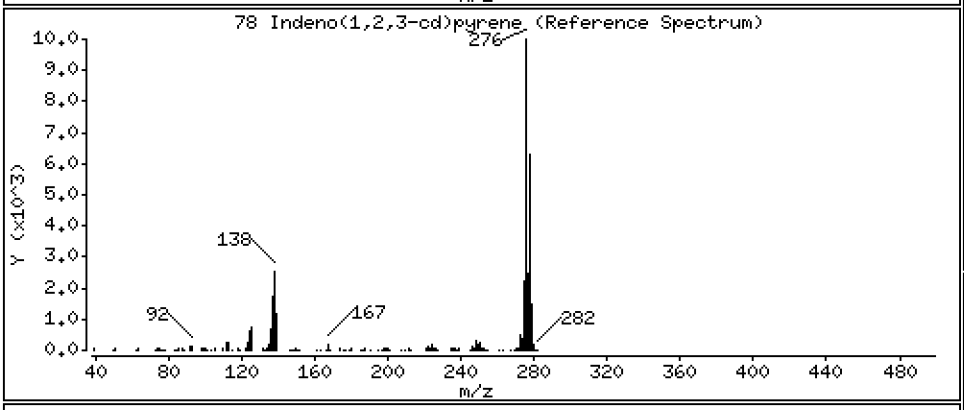
Column diameter: 0.25

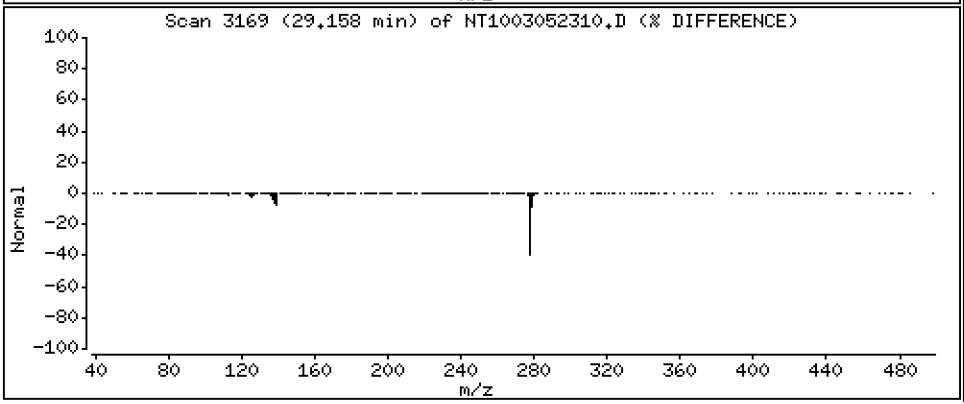
78 Indeno(1,2,3-cd)pyrene

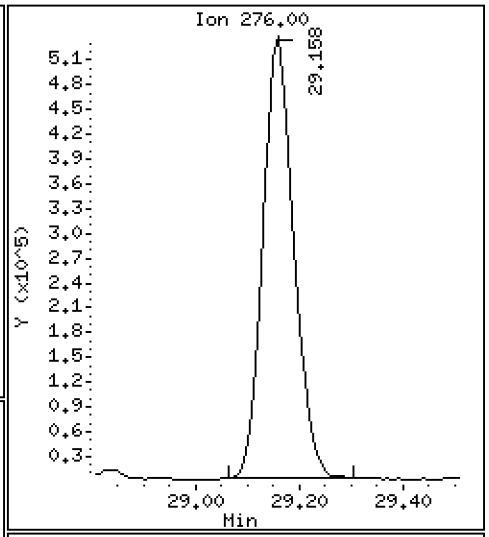
Concentration: 5.038 ug/mL

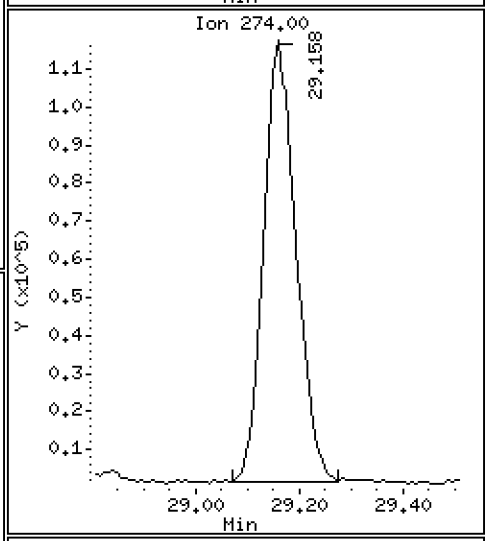


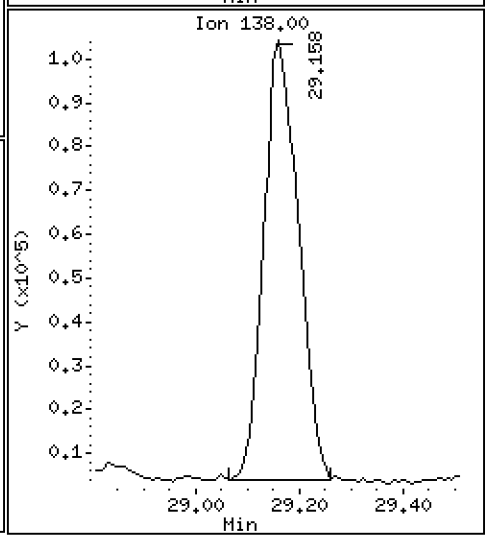












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

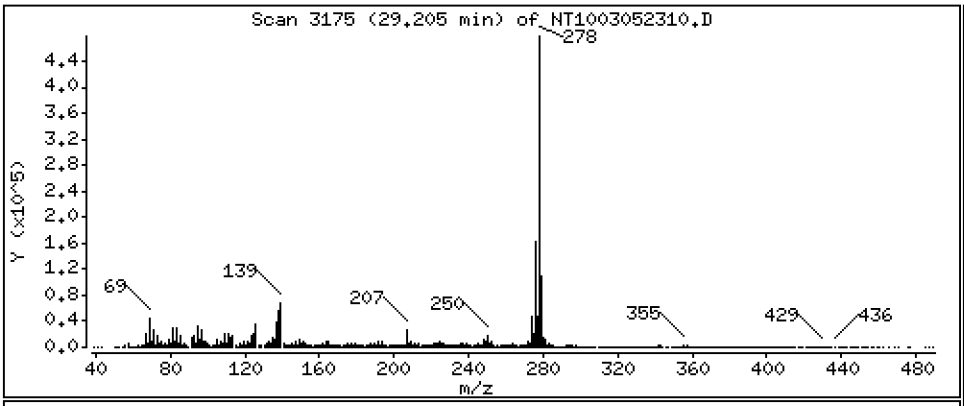
Operator: VTS

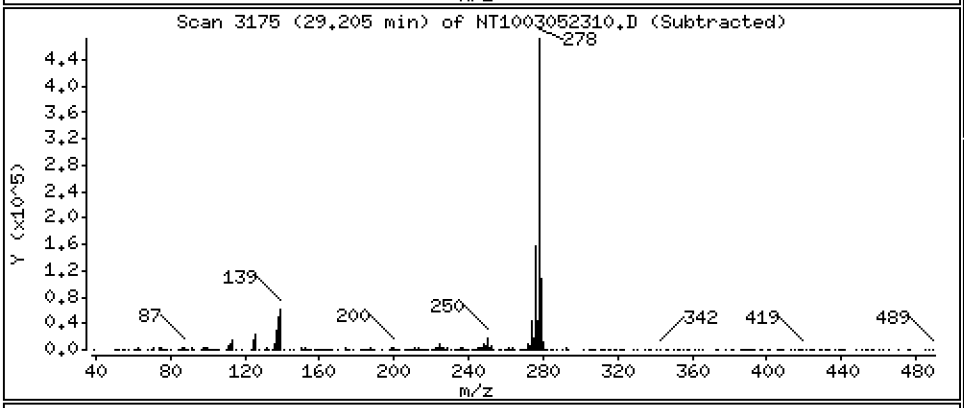
Column phase: ZB-5msi

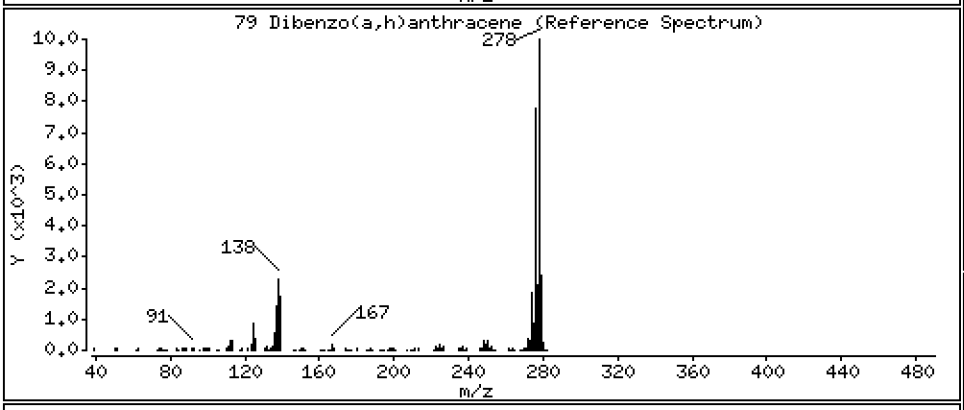
Column diameter: 0.25

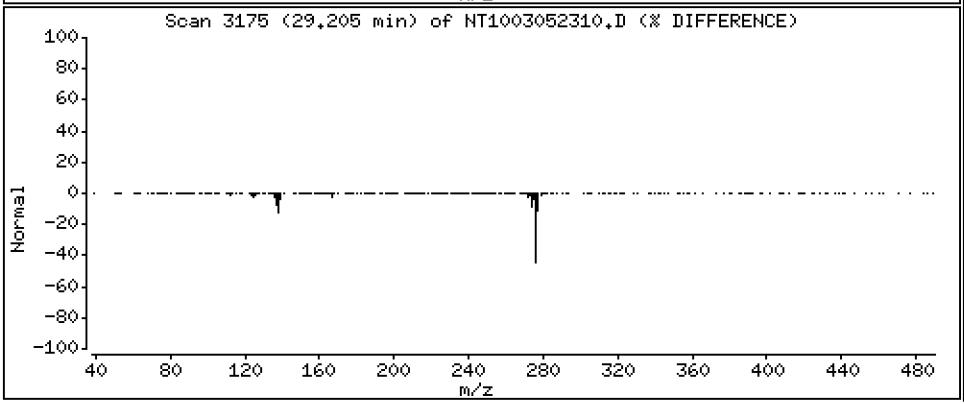
79 Dibenzo(a,h)anthracene

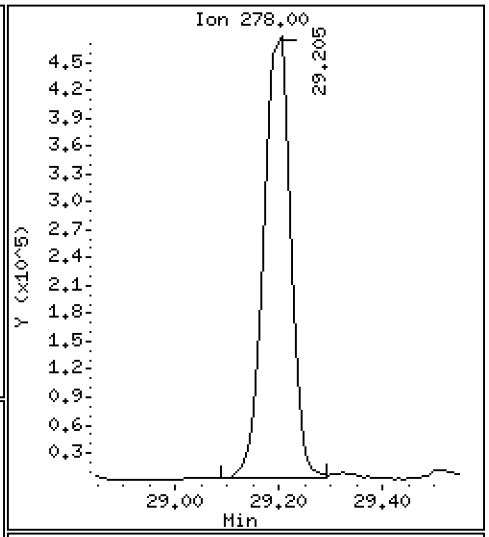
Concentration: 5.122 ug/mL

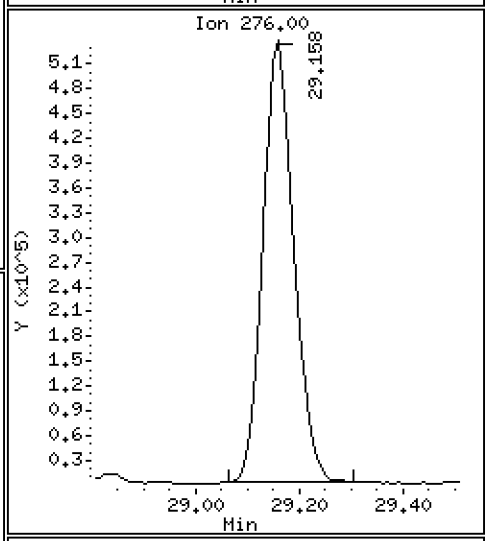


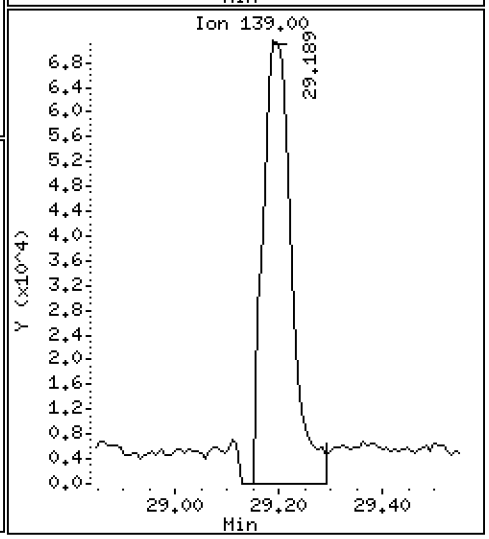












Date : 05-MAR-2023 19:06

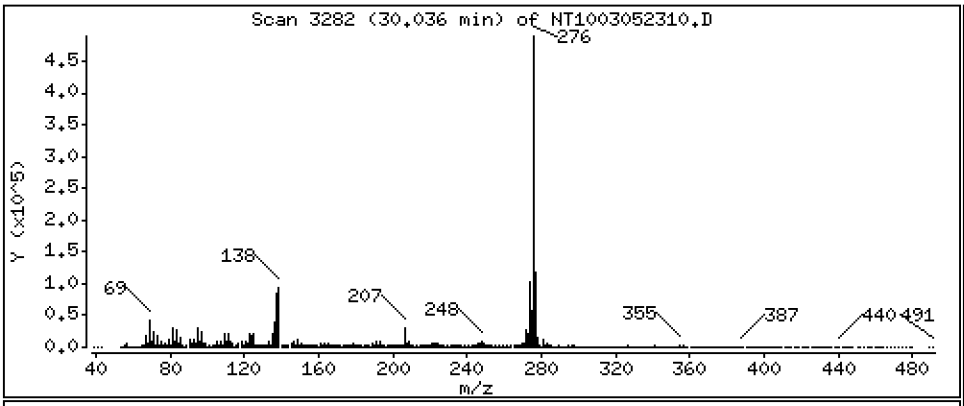
Client ID: Instrument: nt10.i

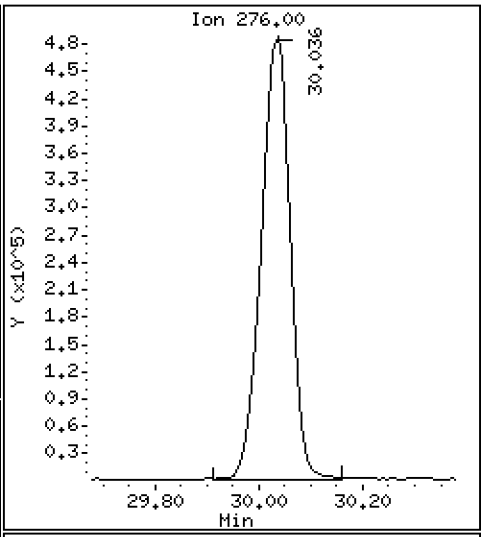
Sample Info: BLA0685-MS1

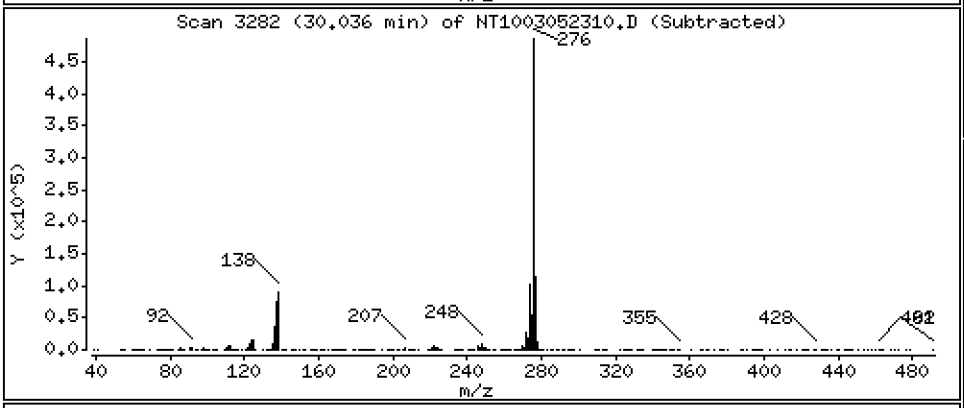
Operator: VTS

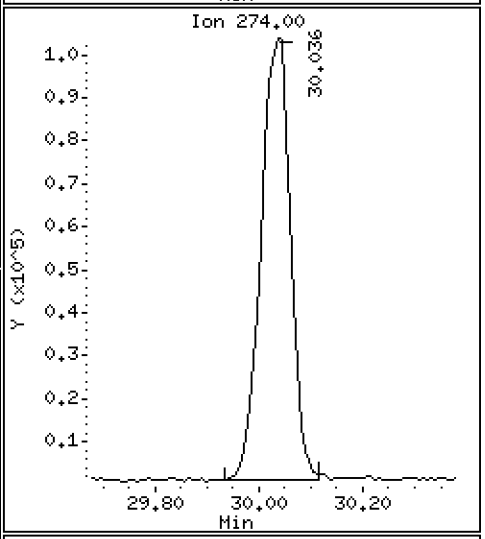
Column phase: ZB-5msi Column diameter: 0.25

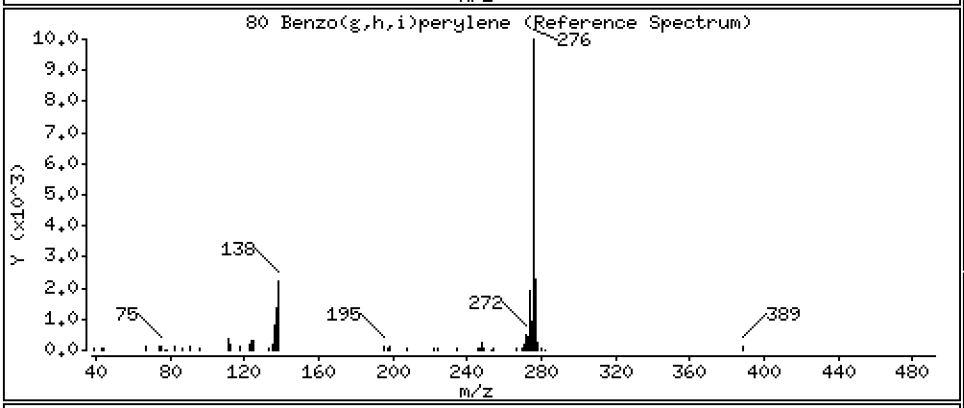
80 Benzo(g,h,i)perylene Concentration: 5.403 ug/mL

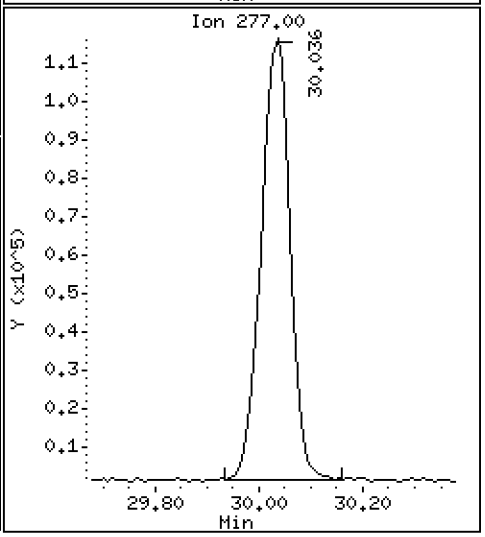


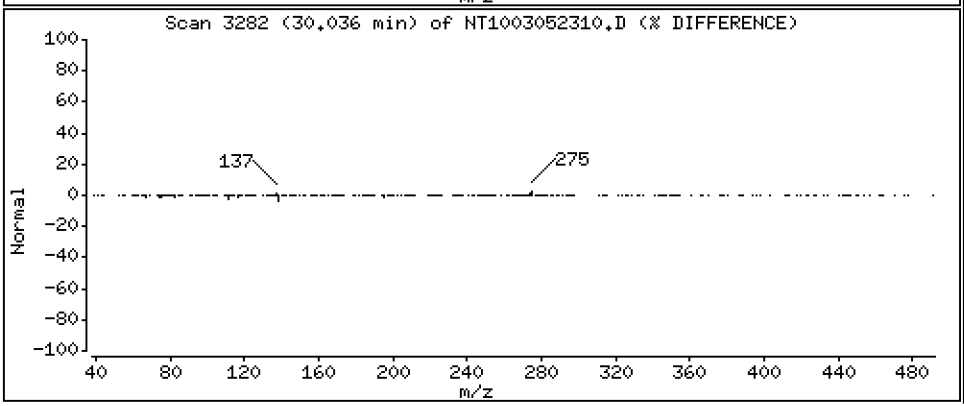












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

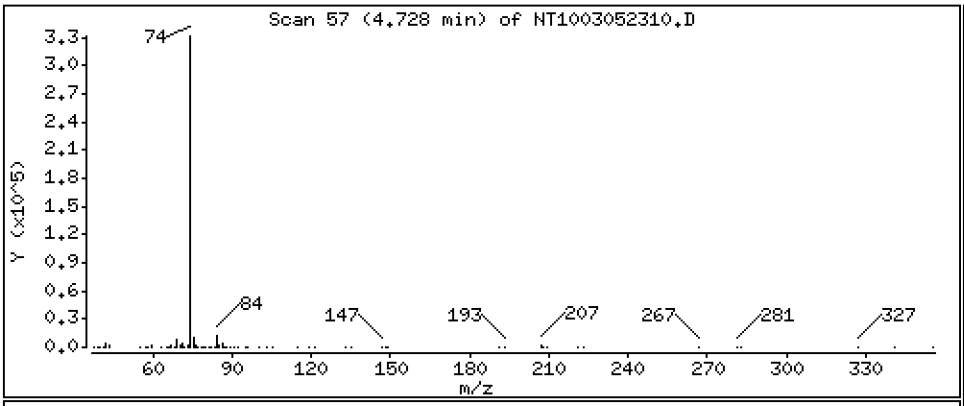
Operator: VTS

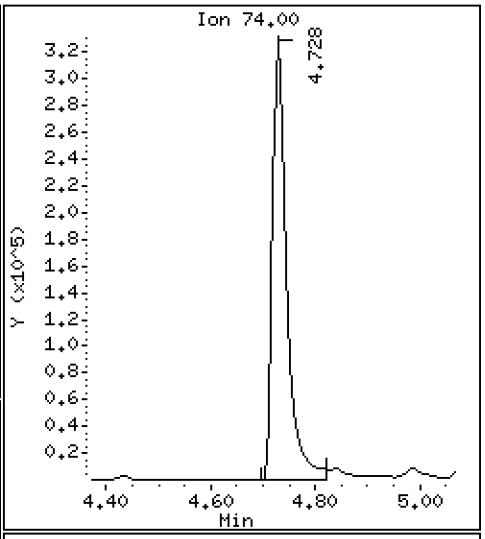
Column phase: ZB-5msi

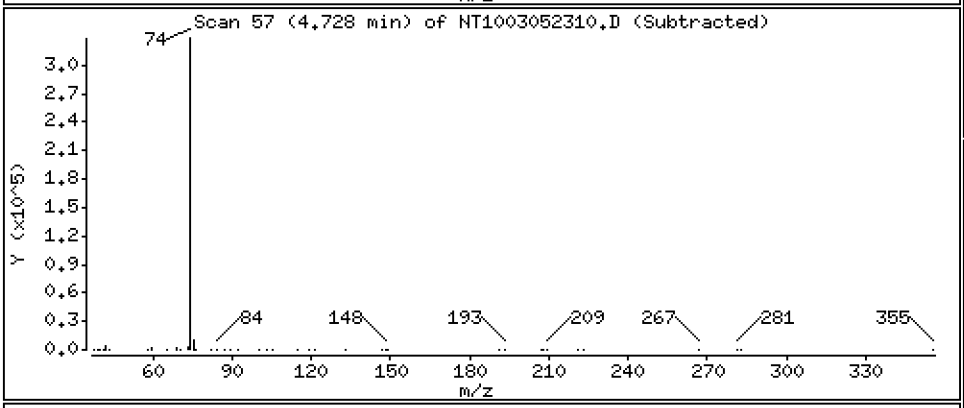
Column diameter: 0.25

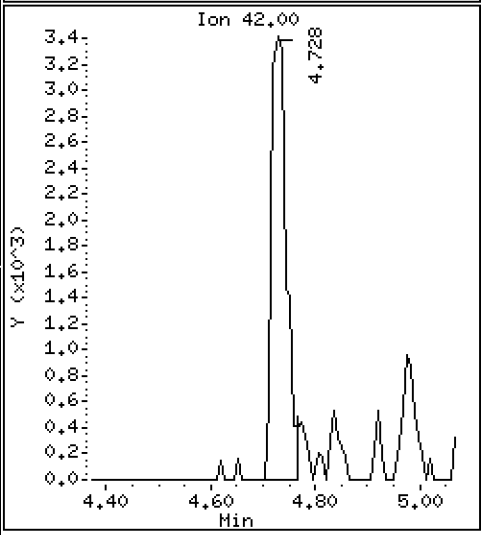
90 N-Nitrosodimethylamine

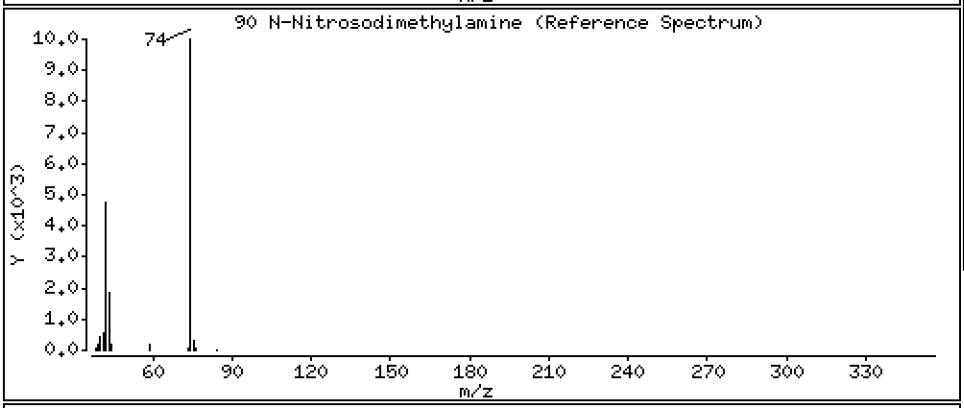
Concentration: 9.568 ug/mL

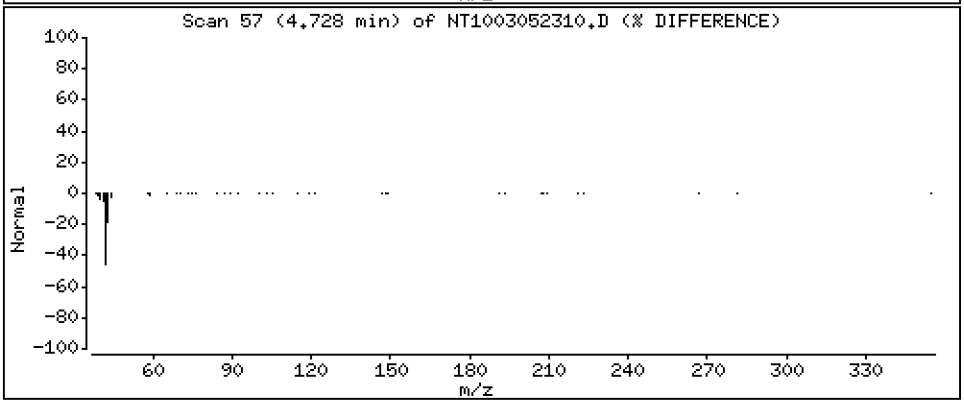












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

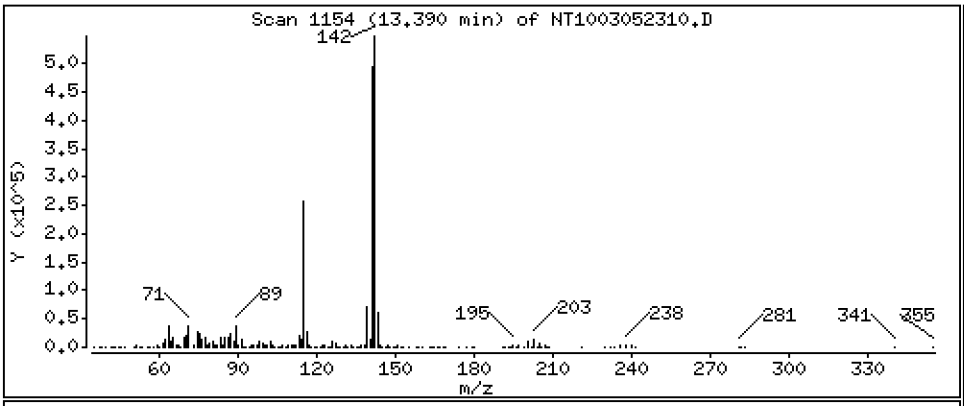
Operator: VTS

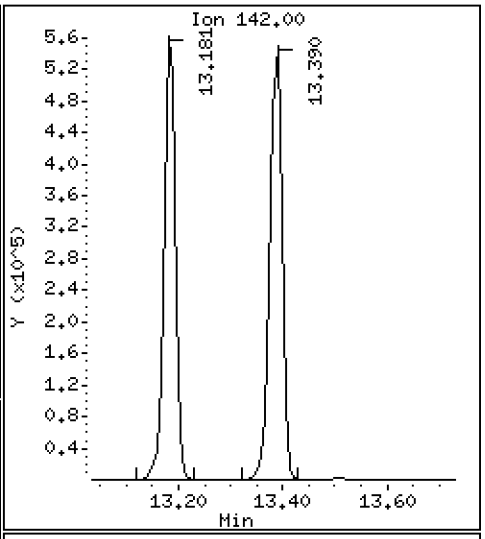
Column phase: ZB-5msi

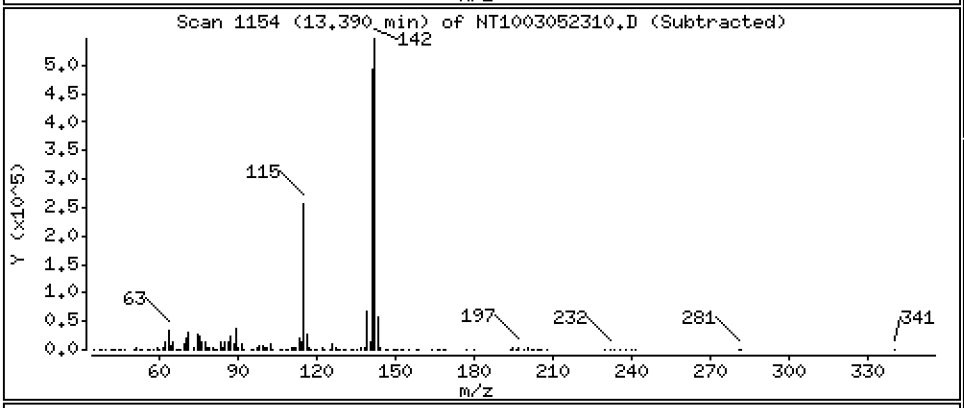
Column diameter: 0.25

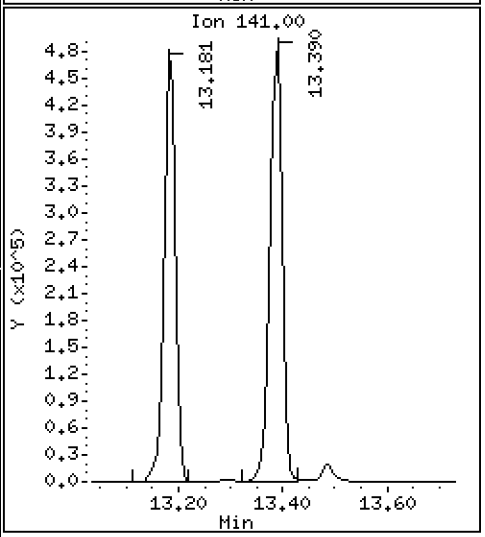
105 1-methylnaphthalene

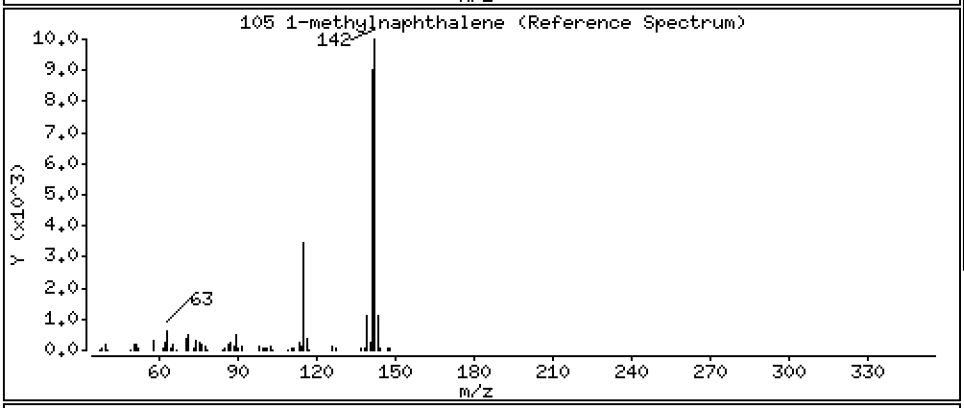
Concentration: 4.759 ug/mL

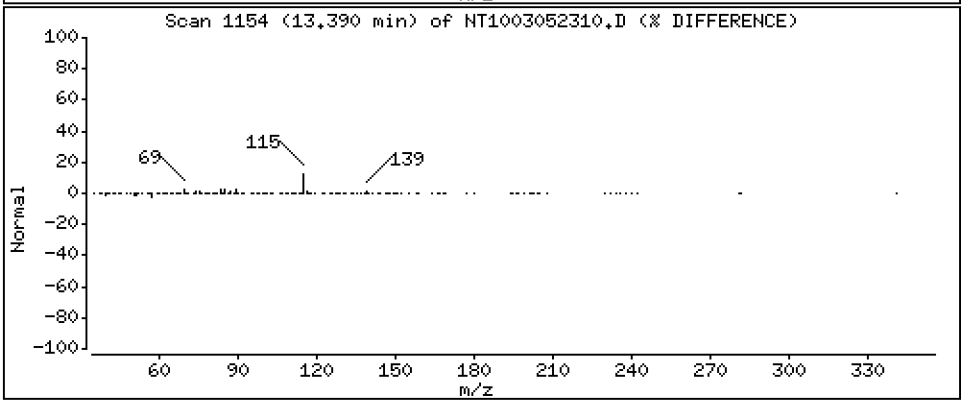












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052310.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

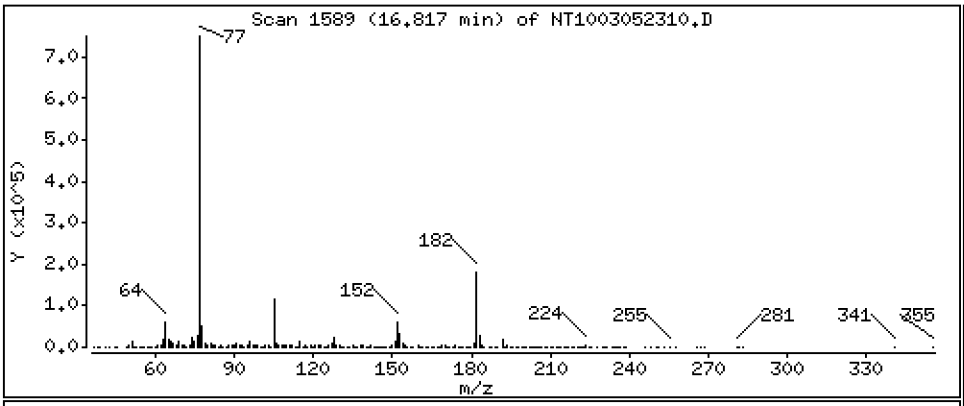
Operator: VTS

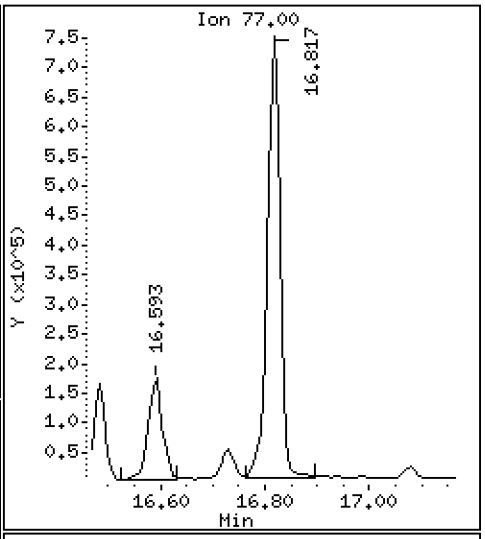
Column phase: ZB-5msi

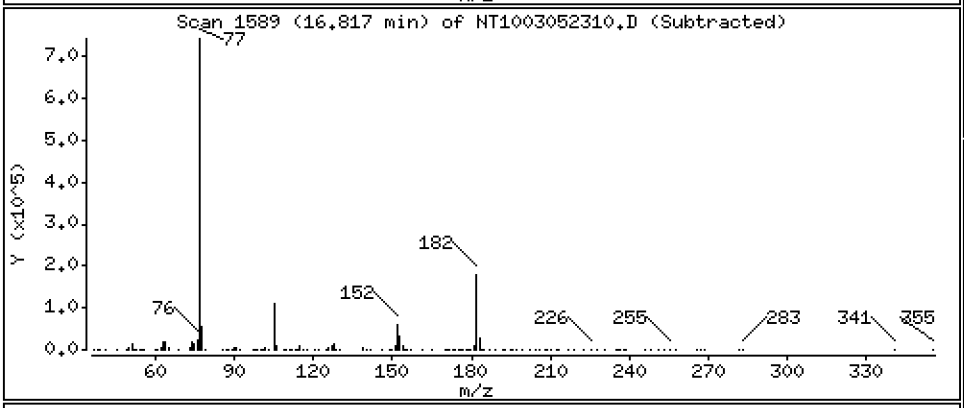
Column diameter: 0.25

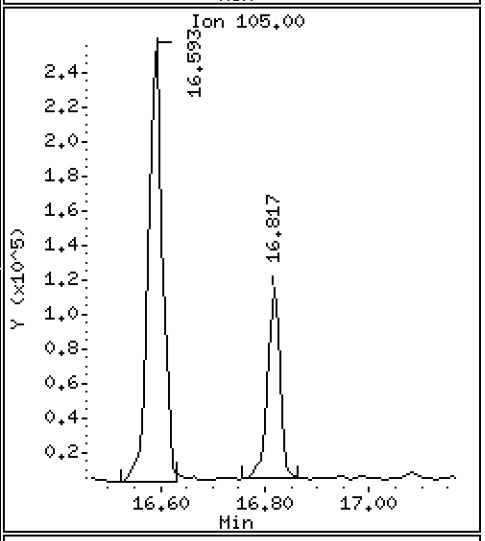
111 Azobenzene (1,2-DP-Hydrazine)

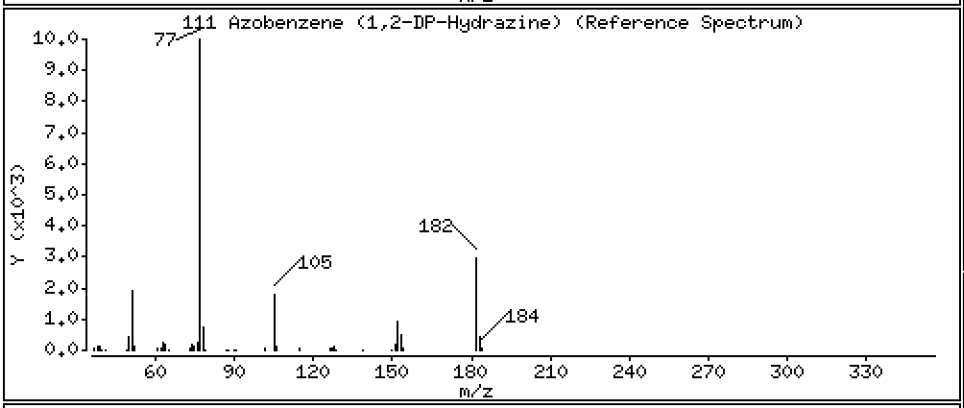
Concentration: 4.093 ug/mL

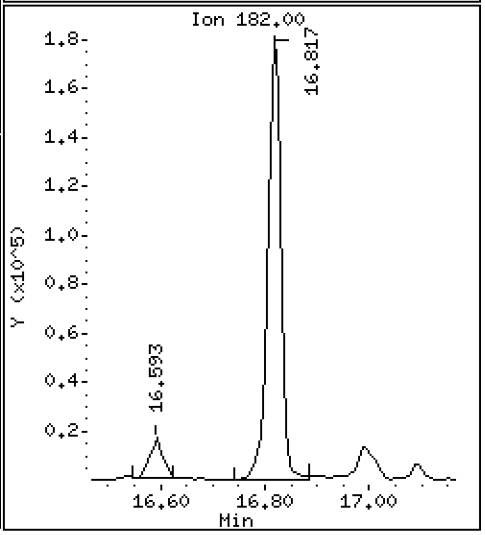


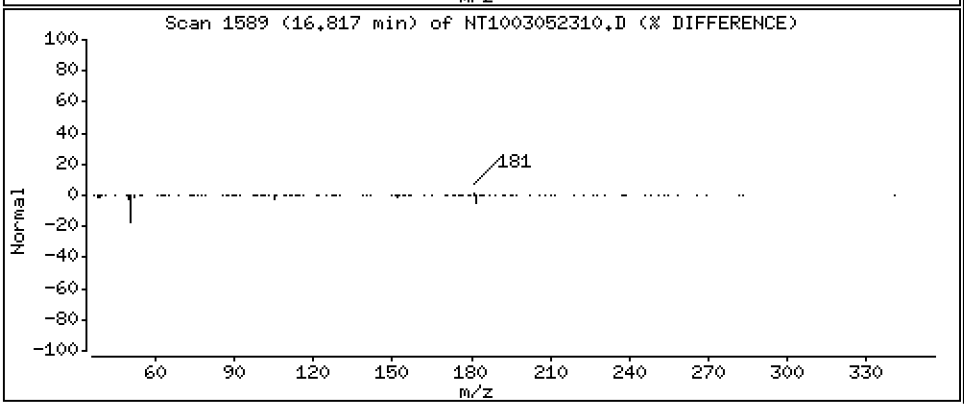












Date : 05-MAR-2023 19:06

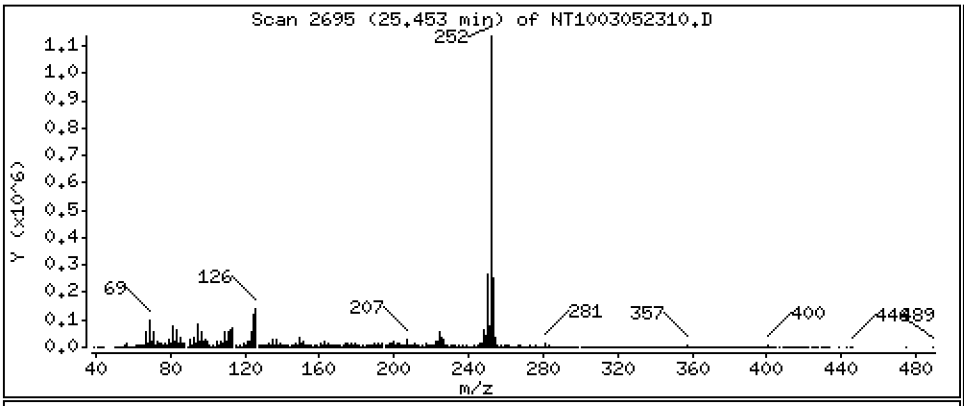
Client ID: Instrument: nt10.i

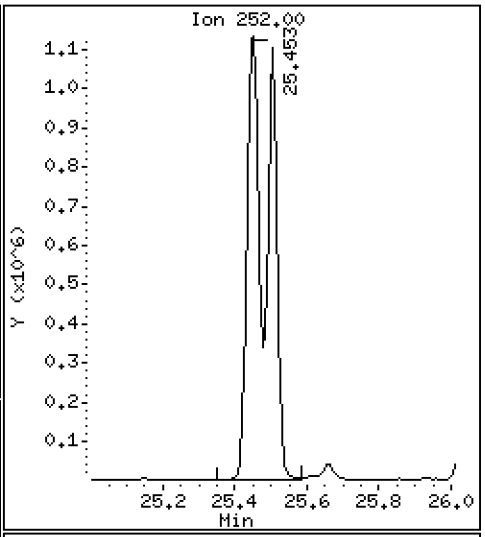
Sample Info: BLA0685-MS1

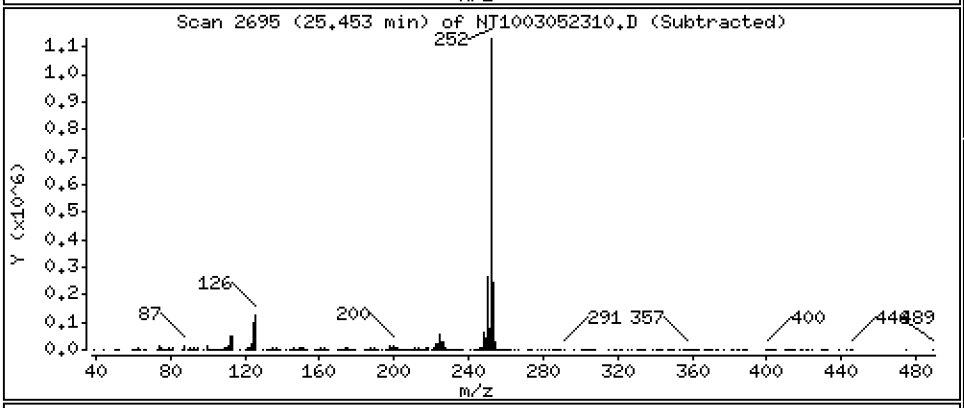
Operator: VTS

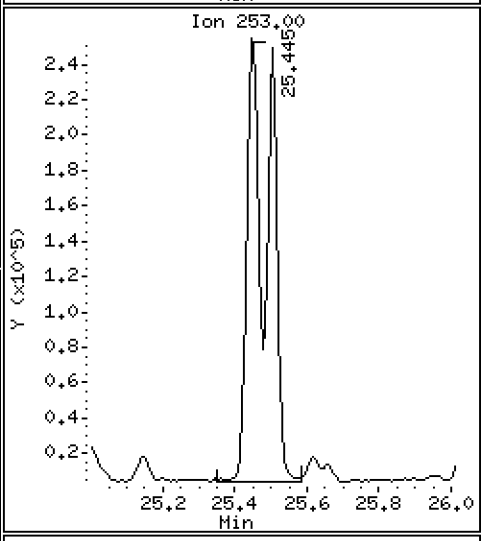
Column phase: ZB-5msi Column diameter: 0.25

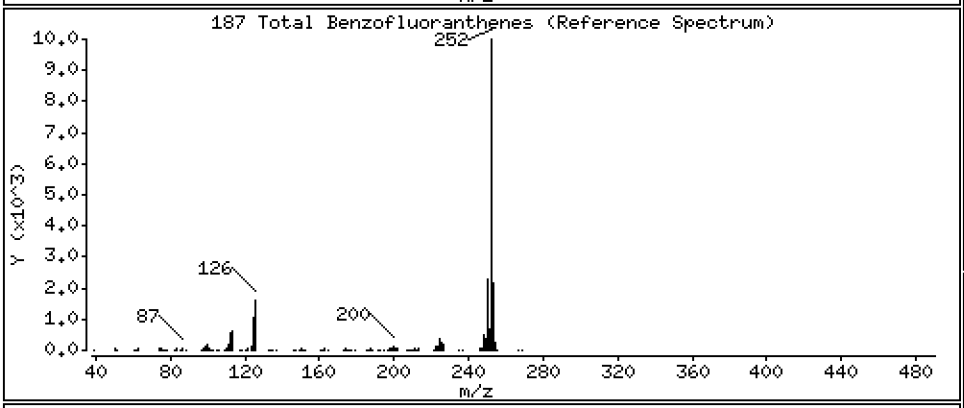
187 Total Benzofluoranthenes Concentration: 11.37 ug/mL

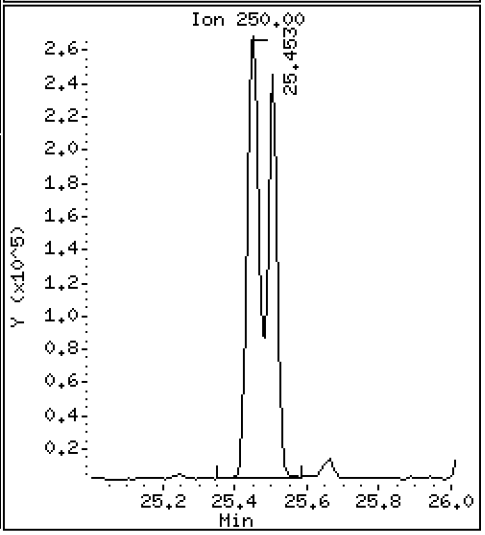


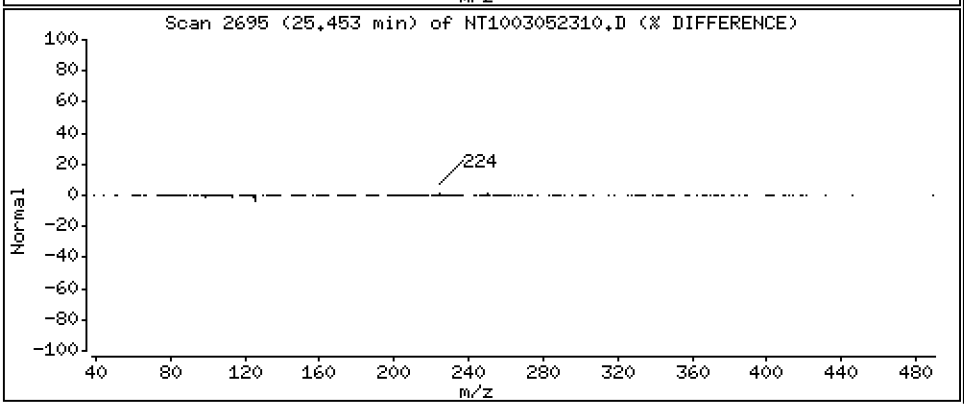












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS1

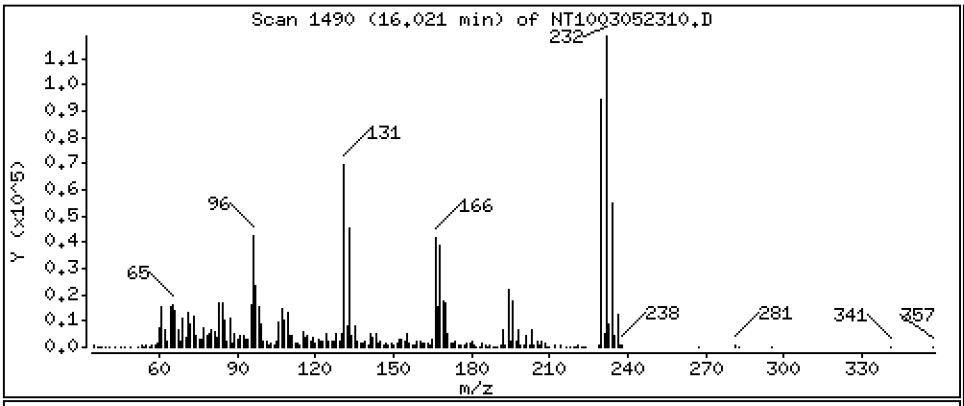
Operator: VTS

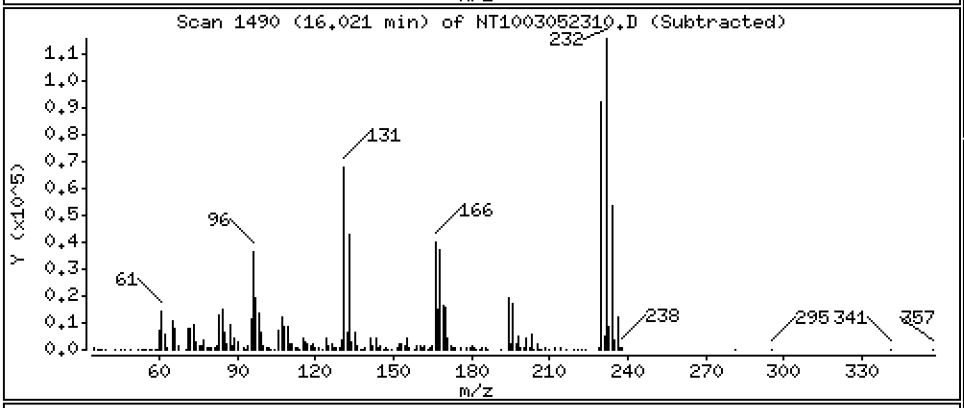
Column phase: ZB-5msi

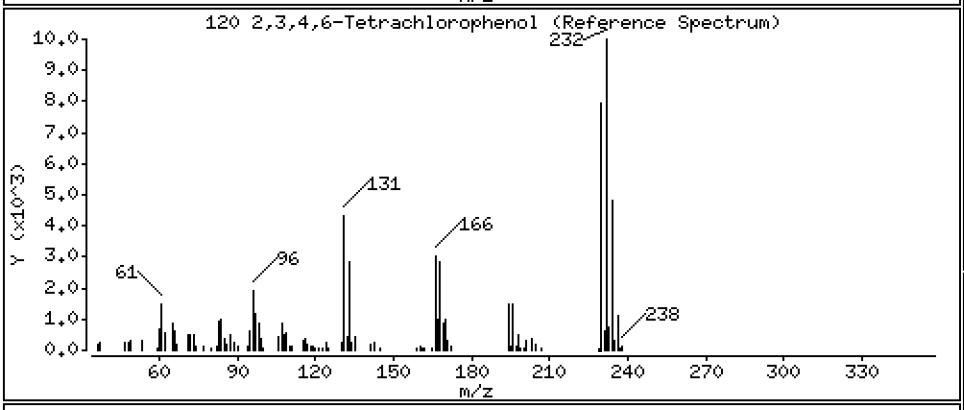
Column diameter: 0.25

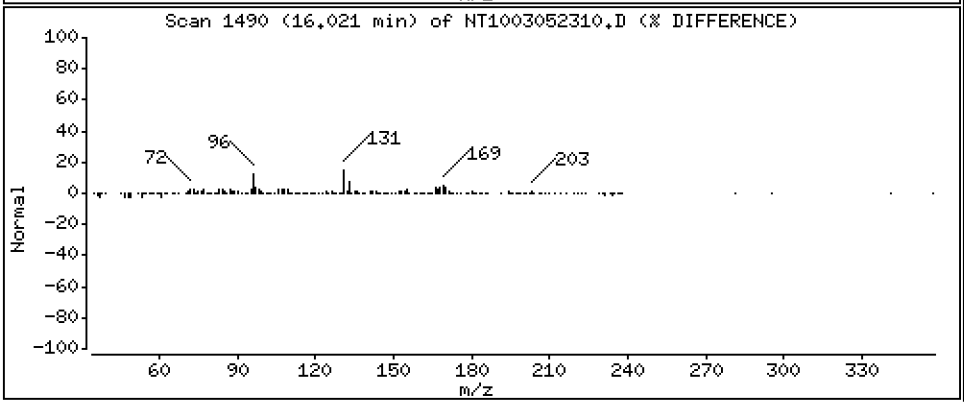
120 2,3,4,6-Tetrachlorophenol

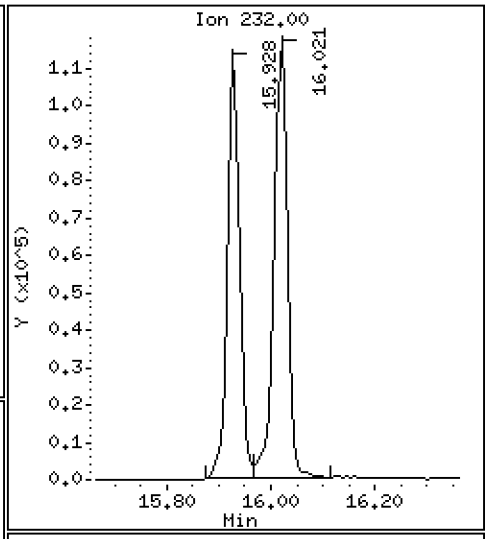
Concentration: 4.028 ug/mL

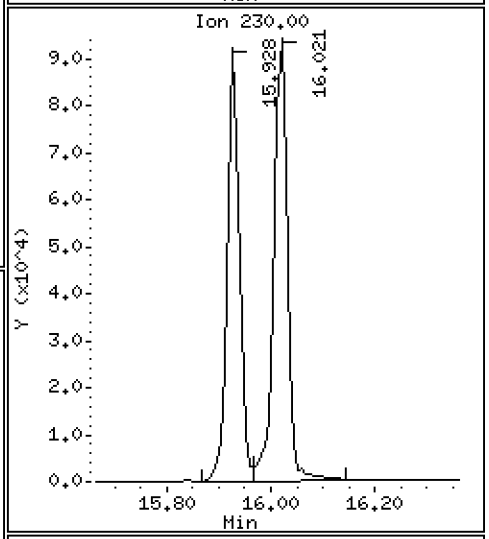


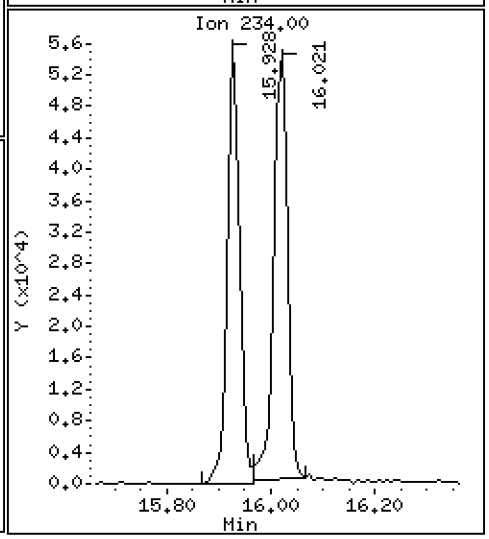












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

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Lab Smp Id: BLA0685-MS1
Inj Date : 05-MAR-2023 19:06
Operator : VTS Inst ID: nt10.i
Smp Info : BLA0685-MS1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305.b\ABN.m
Meth Date : 27-Mar-2023 11:22 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.920	6.897	(0.748)	524297	5.48140	5.481
$	2 Phenol-d5	99	8.520	8.504	(0.921)	684324	6.16236	6.162
	3 Phenol	94	8.543	8.528	(0.923)	623412	5.28015	5.280
$	5 2-Chlorophenol-d4	132	8.829	8.813	(0.954)	601397	6.34759	6.348
	4 Bis(2-Chloroethyl)ether	93	8.744	8.728	(0.945)	432637	4.79526	4.795
	6 2-Chlorophenol	128	8.860	8.844	(0.957)	397718	4.04076	4.041
	7 1,3-Dichlorobenzene	146	9.146	9.138	(0.988)	436178	4.01938	4.019
*	8 1,4-Dichlorobenzene-d4	152	9.255	9.239	(1.000)	304011	4.00000	
	9 1,4-Dichlorobenzene	146	9.286	9.278	(1.003)	432566	4.01297	4.013
$	10 1,2-Dichlorobenzene-d4	152	9.542	9.534	(1.031)	260127	3.67486	3.675
	12 1,2-Dichlorobenzene	146	9.573	9.557	(1.034)	422219	4.04682	4.047
	11 Benzyl alcohol	108	9.487	9.480	(1.025)	218417	3.54398	3.544
	14 2,2'-oxybis(1-Chloropropane)	121	9.744	9.728	(1.053)	153261	5.09520	5.095
	13 2-Methylphenol	108	9.674	9.666	(1.045)	219592	2.37586	2.376
	17 Hexachloroethane	117	10.217	10.209	(1.104)	199744	4.51459	4.515
	16 N-Nitroso-di-n-propylamine	70	9.992	9.984	(1.080)	325078	4.56277	4.563
	15 4-Methylphenol	108	9.976	9.953	(1.078)	310032	2.72025	2.720
$	18 Nitrobenzene-d5	82	10.310	10.302	(0.878)	530631	4.43824	4.438
	19 Nitrobenzene	77	10.349	10.341	(0.881)	551817	4.92025	4.920
	20 Isophorone	82	10.807	10.799	(0.920)	930063	6.49658	6.497
	21 2-Nitrophenol	139	10.967	10.959	(0.934)	248263	4.09908	4.099
	22 2,4-Dimethylphenol	107	11.018	11.018	(0.938)	403559	3.72935	3.729
	23 Bis(2-Chloroethoxy)methane	93	11.230	11.222	(0.956)	504063	5.69746	5.697
	24 Benzoic acid	105	11.205	11.196	(0.954)	939554	14.3152	14.32
	25 2,4-Dichlorophenol	162	11.442	11.434	(0.974)	1440398	16.2885	16.29
	26 1,2,4-Trichlorobenzene	180	11.611	11.603	(0.989)	377136	4.48067	4.481
*	27 Naphthalene-d8	136	11.742	11.726	(1.000)	1089158	4.00000	
	28 Naphthalene	128	11.780	11.773	(1.003)	1313847	4.69992	4.700
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	12.004	11.997	(1.022)	299487	4.88662	4.887
	31 4-Chloro-3-methylphenol	107	12.840	12.825	(1.094)	1472624	15.4966	15.50
	32 2-Methylnaphthalene	142	13.181	13.181	(1.123)	882279	4.46754	4.468
	33 Hexachlorocyclopentadiene	237	13.482	13.483	(0.878)	187965	9.39480	9.395

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
34	2,4,6-Trichlorophenol	196	13.753	13.746	(0.896)	952545	16.2639	16.26
35	2,4,5-Trichlorophenol	196	13.823	13.815	(0.901)	1108663	17.5169	17.52
$ 36	2-Fluorobiphenyl	172	13.931	13.924	(0.908)	924946	4.55235	4.552
37	2-Chloronaphthalene	162	14.194	14.187	(0.925)	813015	5.09723	5.097
38	2-Nitroaniline	65	14.403	14.396	(0.938)	745872	16.1443	16.14
39	Dimethylphthalate	163	14.775	14.767	(0.963)	928174	5.04541	5.045
40	Acenaphthylene	152	15.054	15.046	(0.981)	1275482	4.63839	4.638
41	2,6-Dinitrotoluene	165	14.907	14.899	(0.971)	746685	17.4202	17.42
* 42	Acenaphthene-d10	164	15.348	15.340	(1.000)	569639	4.00000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	15.417	15.409	(1.005)	786184	4.74063	4.741
45	2,4-Dinitrophenol	184	15.479	15.479	(1.009)	230849	20.2955	20.30
46	Dibenzofuran	168	15.773	15.765	(1.028)	1194398	4.85270	4.853
47	4-Nitrophenol	109	15.595	15.579	(1.016)	482447	13.9718	13.97
48	2,4-Dinitrotoluene	165	15.749	15.742	(1.026)	1065923	16.9930	16.99
50	Diethylphthalate	149	16.244	16.237	(1.058)	985263	5.05559	5.056
49	Fluorene	166	16.492	16.484	(1.075)	1003610	4.90085	4.901
51	4-Chlorophenyl-phenylether	204	16.484	16.484	(1.074)	476879	5.07648	5.076
52	4-Nitroaniline	138	16.538	16.523	(1.078)	31267	0.62700	0.6270
53	4,6-Dinitro-2-methylphenol	198	16.593	16.585	(0.899)	923035	32.9997	33.00
54	N-Nitrosodiphenylamine	169	16.731	16.724	(0.907)	562736	3.56355	3.564
$ 55	2,4,6-Tribromophenol	330	16.986	16.986	(1.107)	261212	7.10027	7.100
56	4-Bromophenyl-phenylether	248	17.511	17.504	(0.949)	362819	5.67025	5.670
57	Hexachlorobenzene	284	17.620	17.620	(0.955)	369863	5.13310	5.133
58	Pentachlorophenol	266	18.038	18.038	(0.977)	442728	12.3212	12.32
* 59	Phenanthrene-d10	188	18.455	18.448	(1.000)	1067304	4.00000	
60	Phenanthrene	178	18.510	18.502	(1.003)	1519818	5.56419	5.564
61	Anthracene	178	18.610	18.610	(1.008)	1112578	4.20067	4.201
62	Carbazole	167	18.951	18.943	(1.027)	1185861	4.88732	4.887
63	Di-n-butylphthalate	149	19.655	19.647	(1.065)	2093370	6.08170	6.082
64	Fluoranthene	202	20.916	20.885	(0.889)	2226472	6.10461	6.105
65	Pyrene	202	21.341	21.318	(0.907)	2745587	7.39295	7.393
$ 66	Terphenyl-d14	244	21.604	21.597	(0.919)	1155084	3.84389	3.844
67	Butylbenzylphthalate	149	22.487	22.487	(0.956)	741154	3.75986	3.760
68	Benzo(a)anthracene	228	23.501	23.494	(0.999)	2253404	6.02786	6.028
* 69	Chrysene-d12	240	23.517	23.517	(1.000)	1060207	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.563	23.563	(1.002)	1979232	6.51459	6.515
72	bis(2-Ethylhexyl)phthalate	149	23.494	23.494	(0.955)	1581703	6.05062	6.051
* 134	Di-n-octylphthalate-d4	153	24.593	24.593	(1.000)	1794535	4.00000	
73	Di-n-octylphthalate	149	24.601	24.609	(1.000)	2230536	5.60519	5.605
74	Benzo(b)fluoranthene	252	25.452	25.445	(0.968)	2542059	6.00740	6.007(H)
75	Benzo(k)fluoranthene	252	25.507	25.507	(0.971)	2221390	5.47975	5.480
76	Benzo(a)pyrene	252	26.157	26.157	(0.995)	1831661	4.91095	4.911
* 77	Perylene-d12	264	26.281	26.281	(1.000)	1160159	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	29.158	29.158	(1.109)	2198757	5.03830	5.038
79	Dibenzo(a,h)anthracene	278	29.204	29.197	(1.111)	1708206	5.12232	5.122
80	Benzo(g,h,i)perylene	276	30.035	30.028	(1.143)	1867133	5.40350	5.403
90	N-Nitrosodimethylamine	74	4.727	4.719	(0.511)	590820	9.56826	9.568
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	13.390	13.382	(1.140)	850680	4.75921	4.759
111	Azobenzene (1,2-DP-Hydrazine)	77	16.816	16.816	(1.096)	1191183	4.09308	4.093

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.452	25.507	(0.968)	4607721	11.3682	11.37
120 2,3,4,6-Tetrachlorophenol	232	16.020	16.012	(1.044)	224752	4.02793	4.028

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052310.D
Lab Smp Id: BLA0685-MS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:03
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	297263	148632	594526	304011	2.27
27 Naphthalene-d8	1085336	542668	2170672	1089158	0.35
42 Acenaphthene-d10	563464	281732	1126928	569639	1.10
59 Phenanthrene-d10	1038318	519159	2076636	1067304	2.79
69 Chrysene-d12	1012751	506376	2025502	1060207	4.69
134 Di-n-octylphthala	1628890	814445	3257780	1794535	10.17
77 Perylene-d12	1152264	576132	2304528	1160159	0.69

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.26	0.17
27 Naphthalene-d8	11.73	11.23	12.23	11.74	0.13
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.52	23.02	24.02	23.52	-0.00
134 Di-n-octylphthala	24.59	24.09	25.09	24.59	-0.00
77 Perylene-d12	26.28	25.78	26.78	26.28	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052310.D

Lab ID: BLA0685-MS1
nt10.i, 20230305.b\ABN.m,   05-MAR-2023 19:06

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

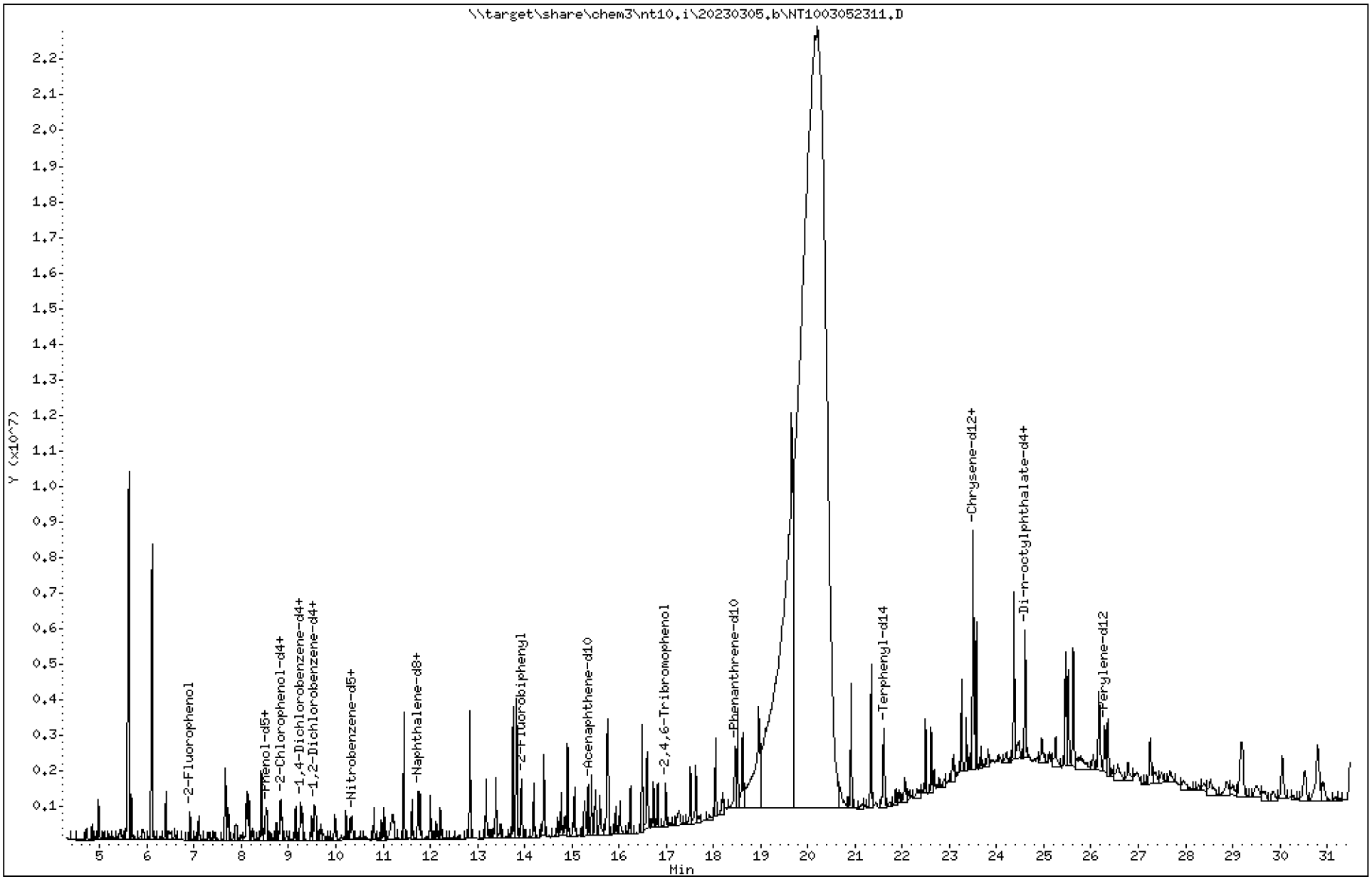
RRT check based on Ccal File: NT1003052302.D

On Column LOD for nt10.i, 20230305.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D
Date : 05-MAR-2023 19:44
Client ID:
Sample Info: BLA0685-MSD1

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

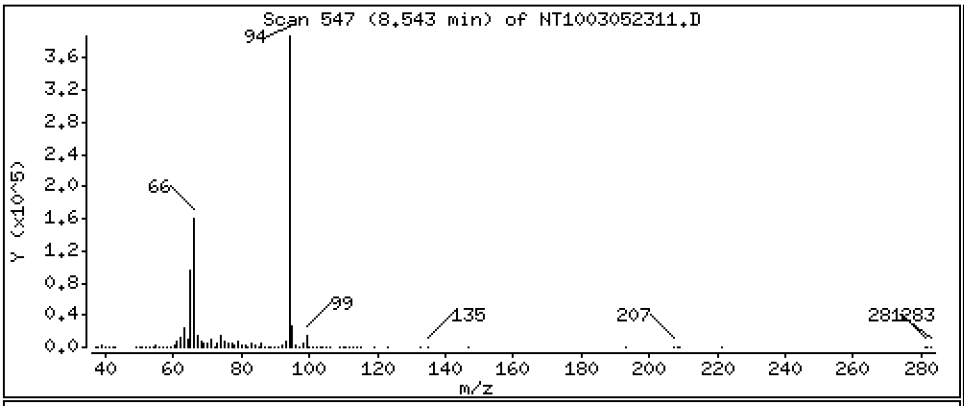
Operator: VTS

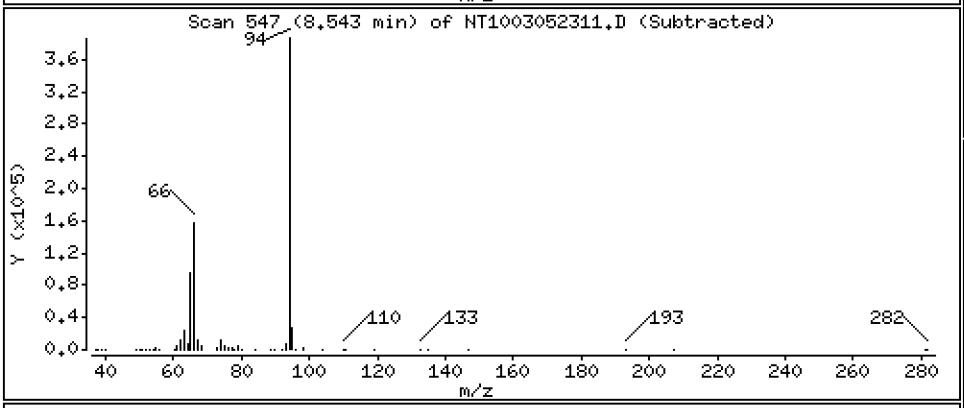
Column phase: ZB-5msi

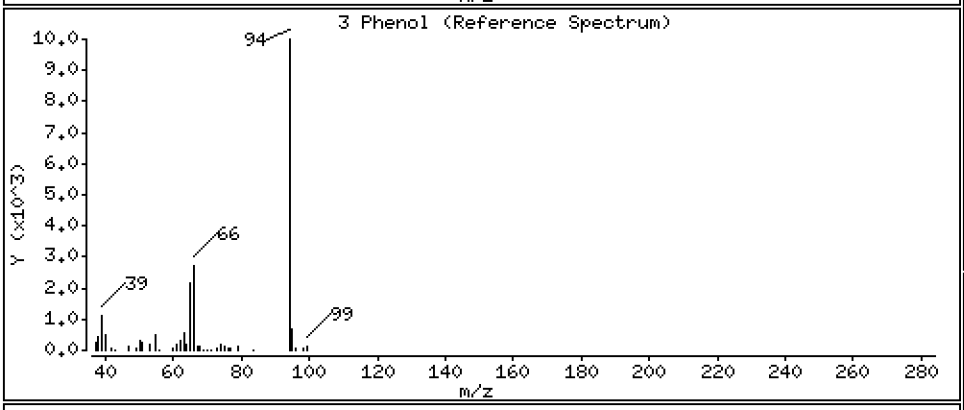
Column diameter: 0.25

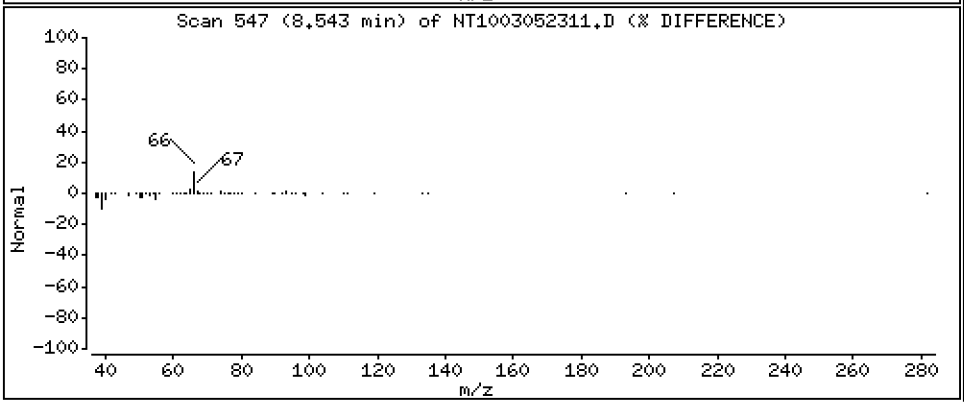
3 Phenol

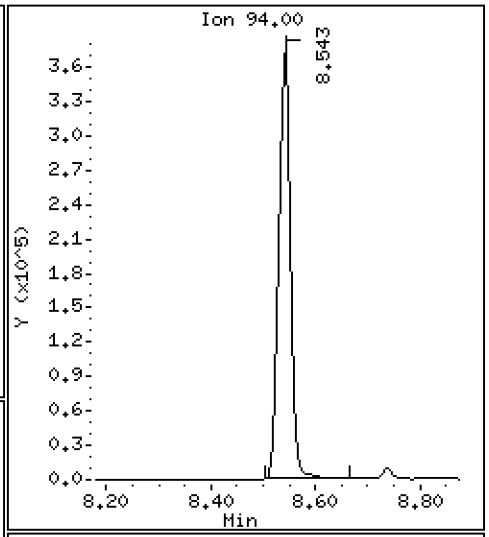
Concentration: 4.988 ug/mL

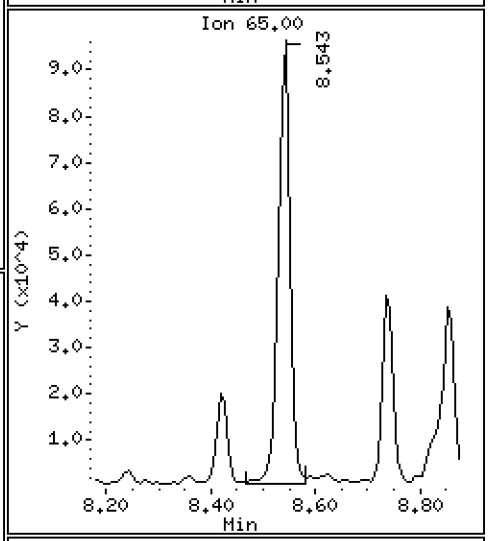


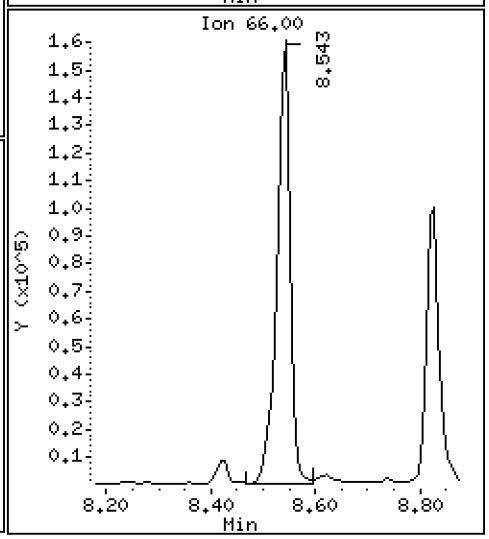












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

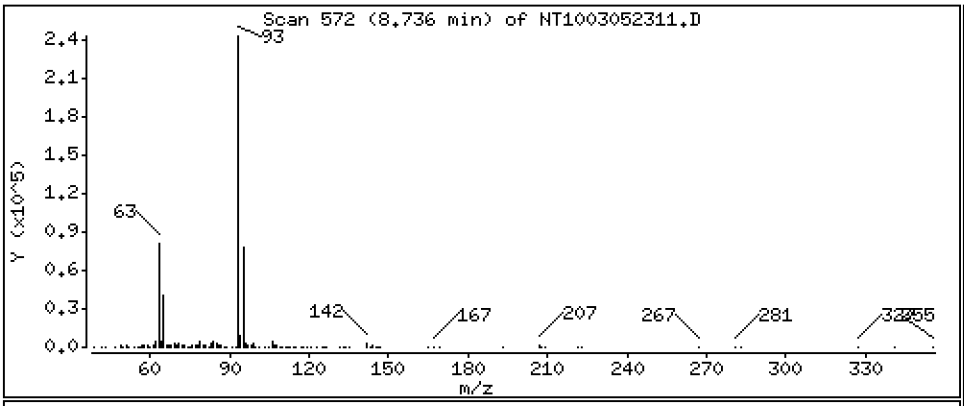
Operator: VTS

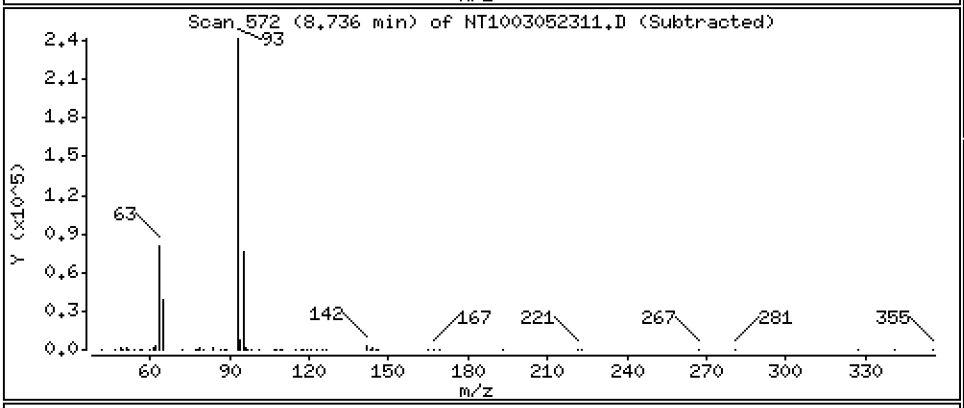
Column phase: ZB-5msi

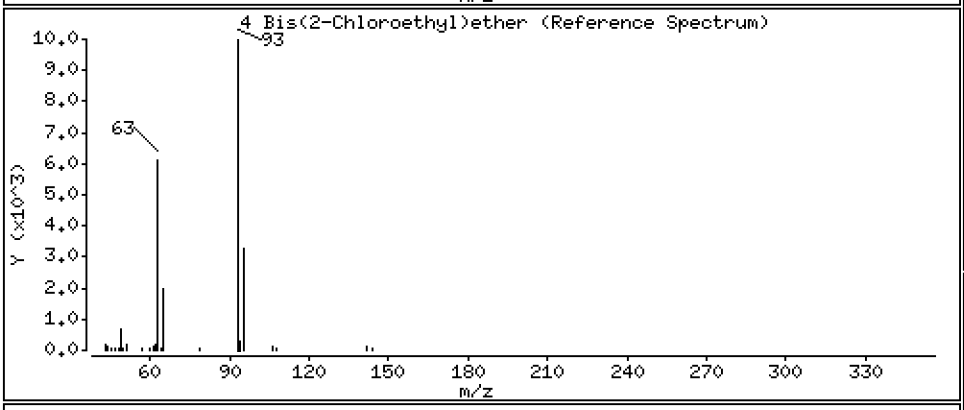
Column diameter: 0.25

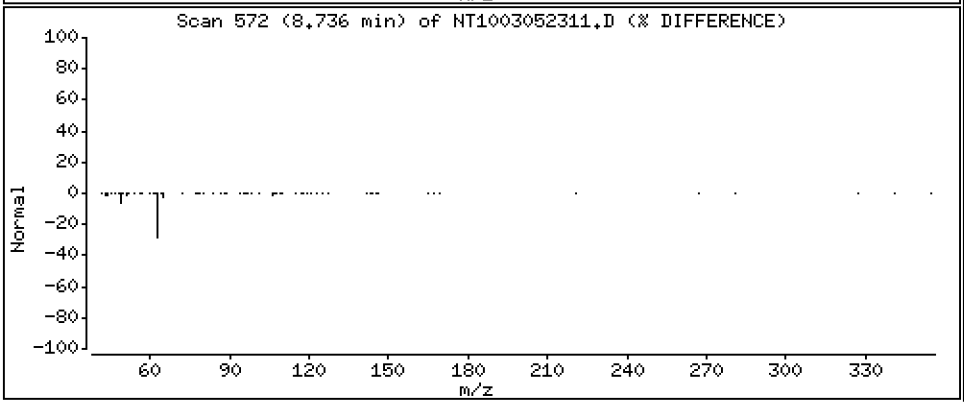
4 Bis(2-Chloroethyl)ether

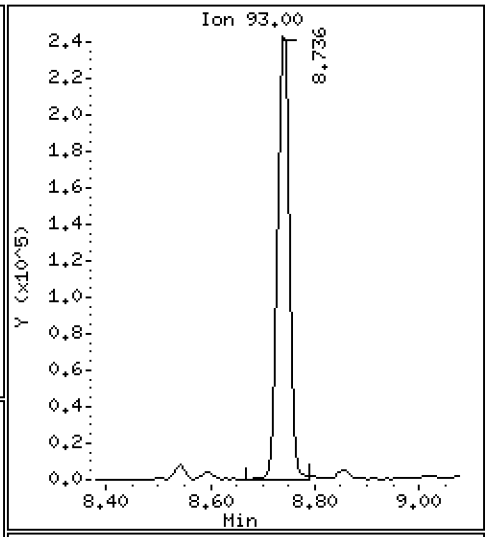
Concentration: 4.275 ug/mL

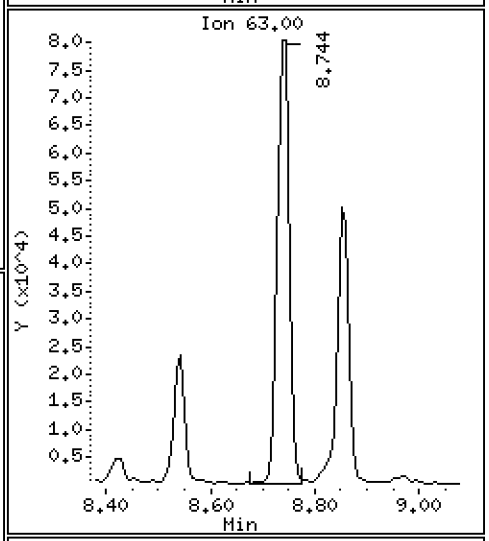


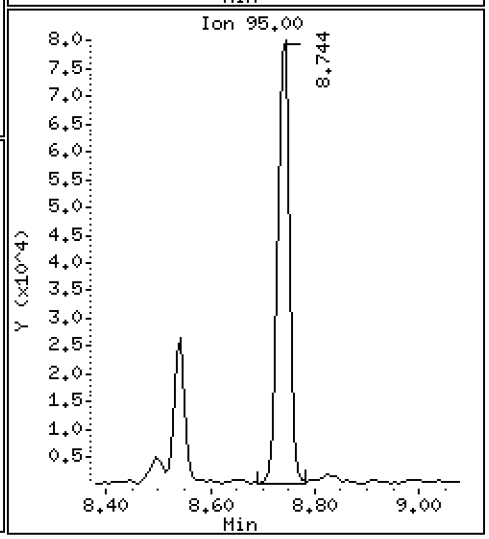












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

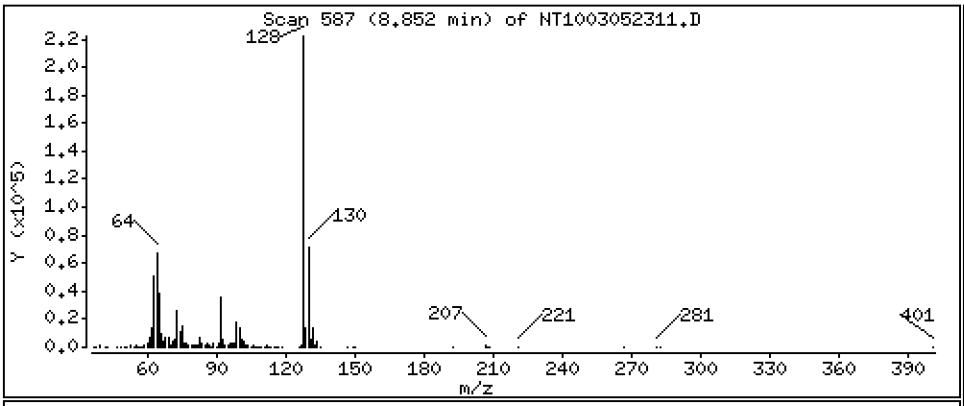
Operator: VTS

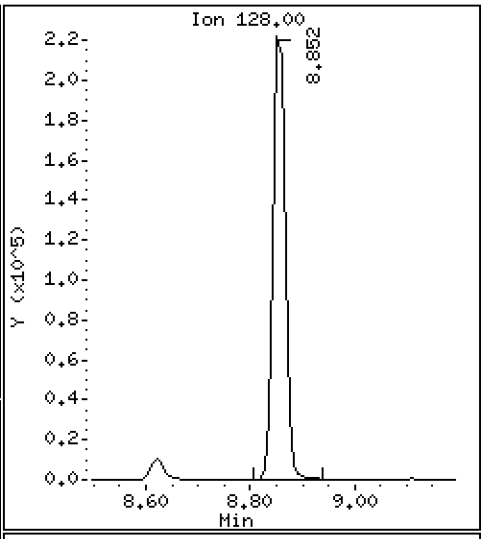
Column phase: ZB-5msi

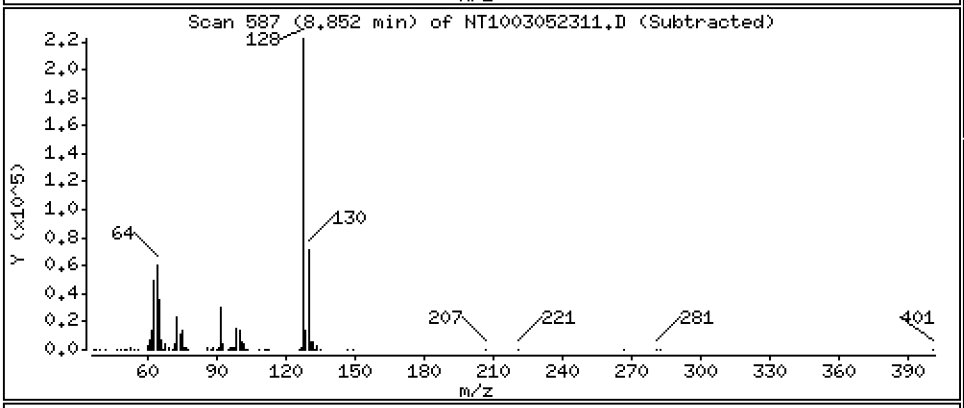
Column diameter: 0.25

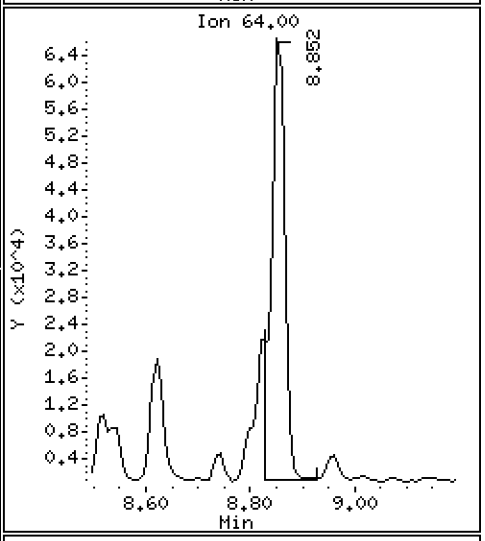
6 2-Chlorophenol

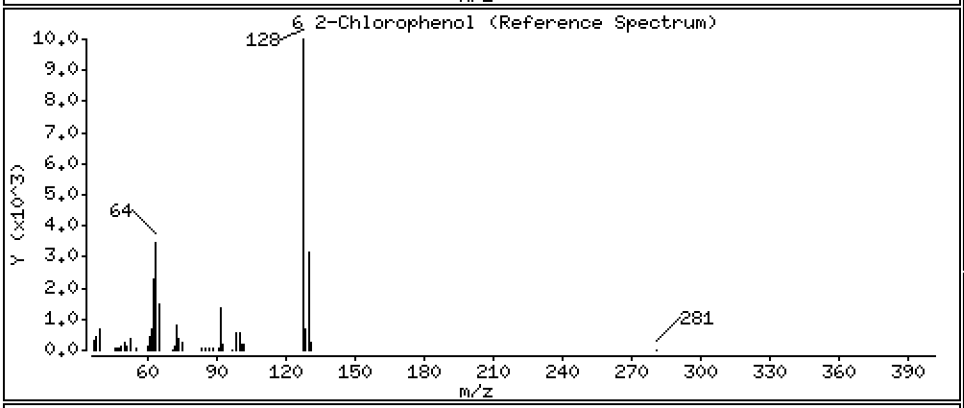
Concentration: 3.664 ug/mL

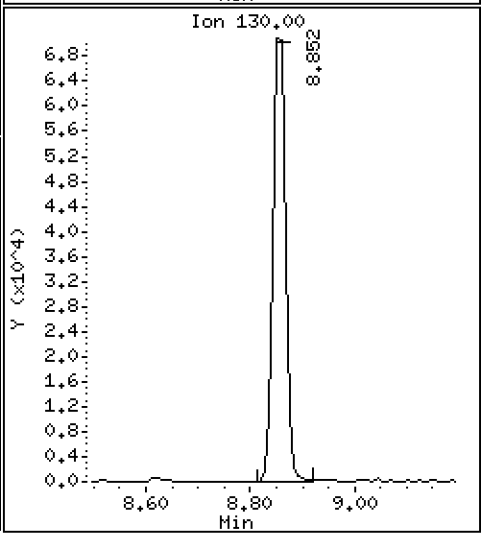


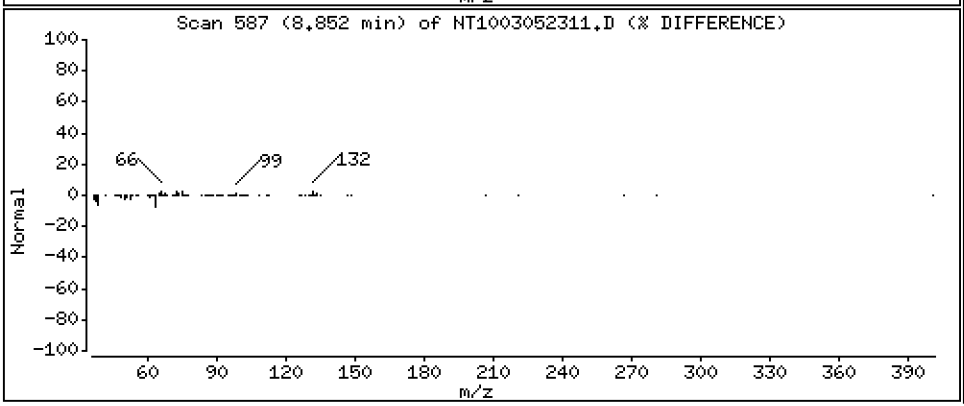












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

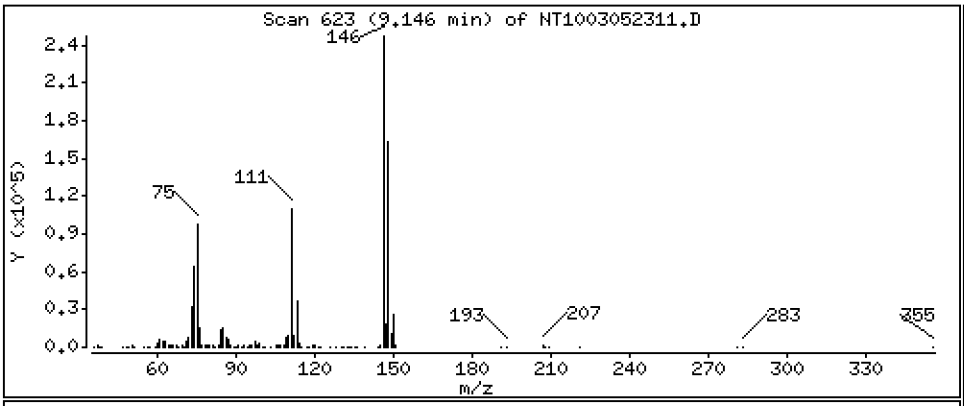
Operator: VTS

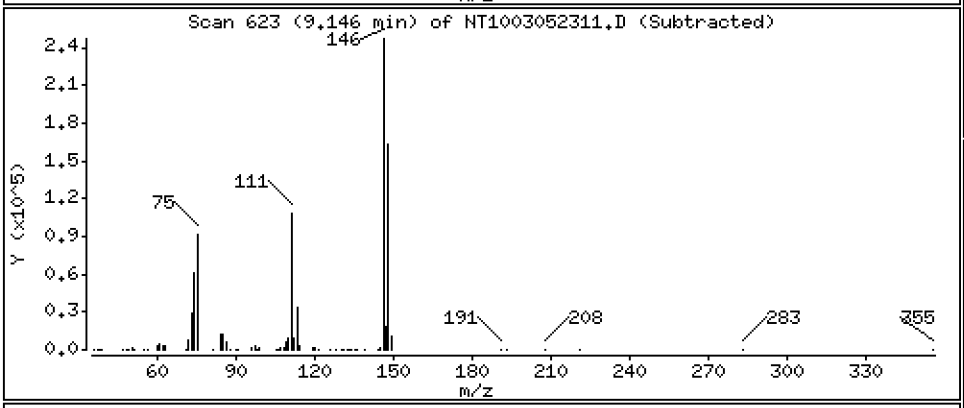
Column phase: ZB-5msi

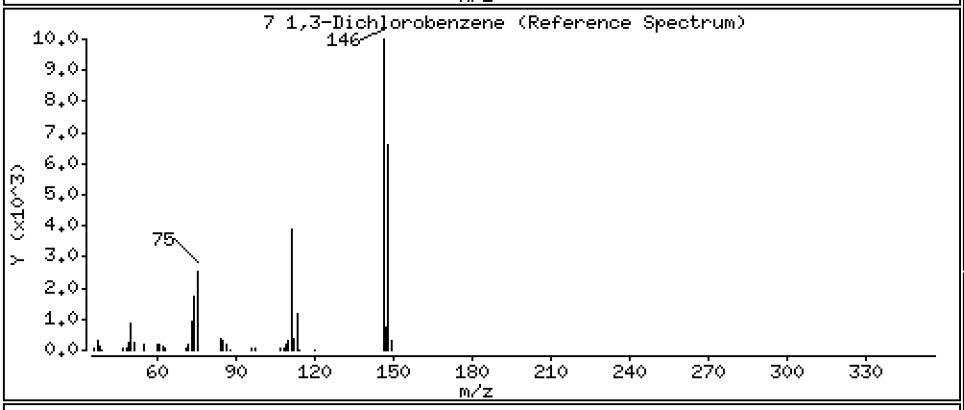
Column diameter: 0.25

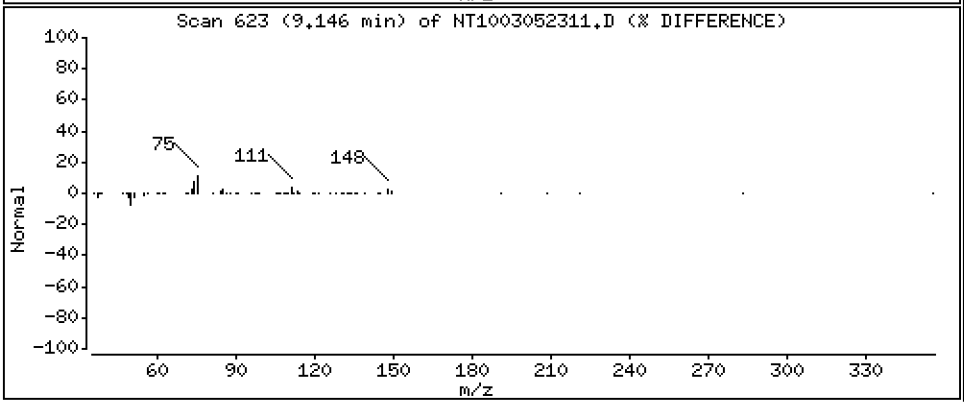
7 1,3-Dichlorobenzene

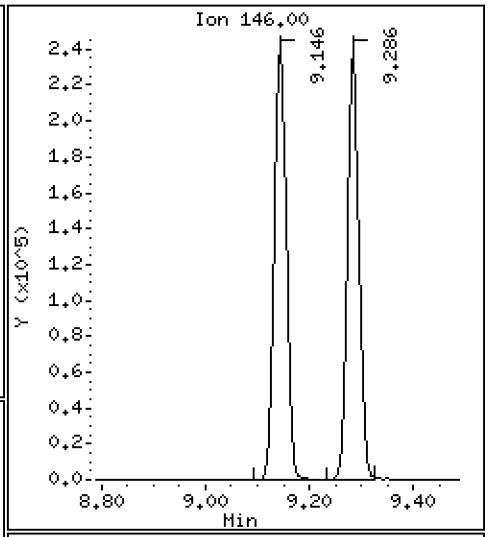
Concentration: 3.566 ug/mL

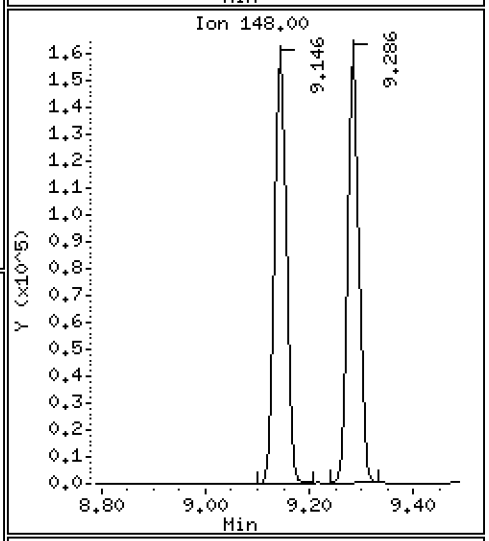


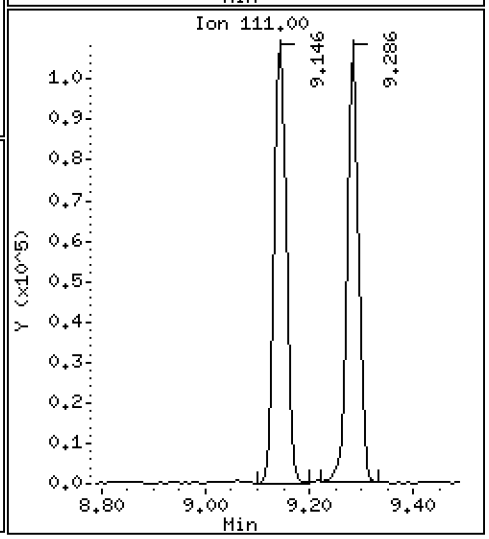












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

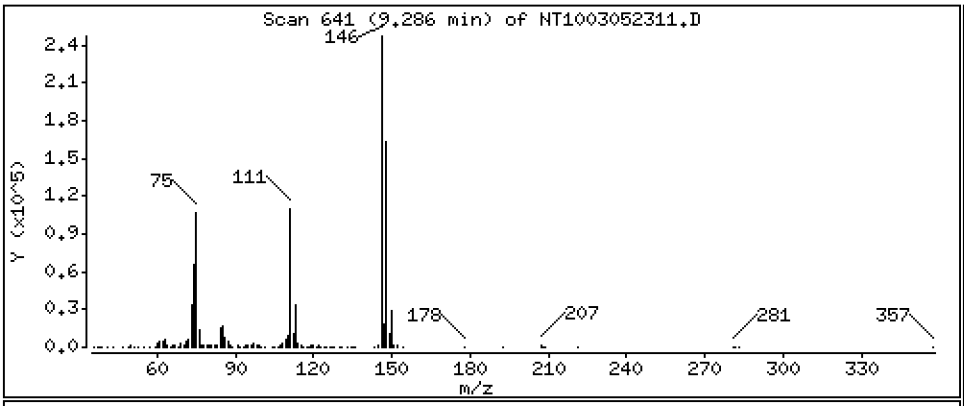
Operator: VTS

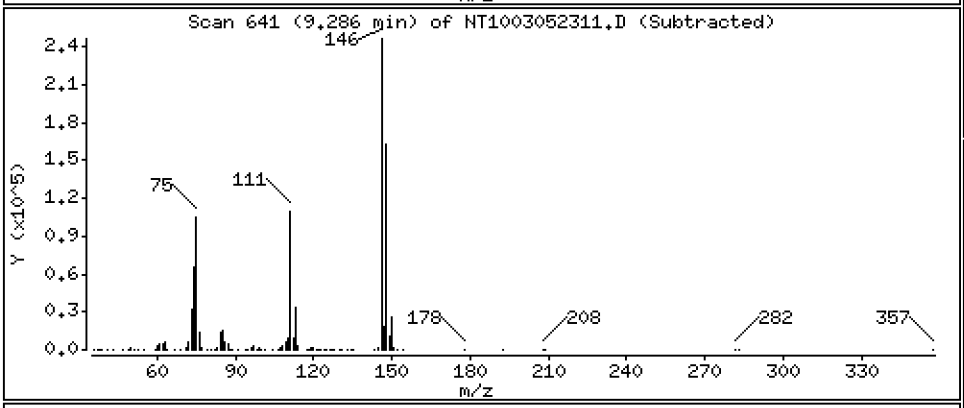
Column phase: ZB-5msi

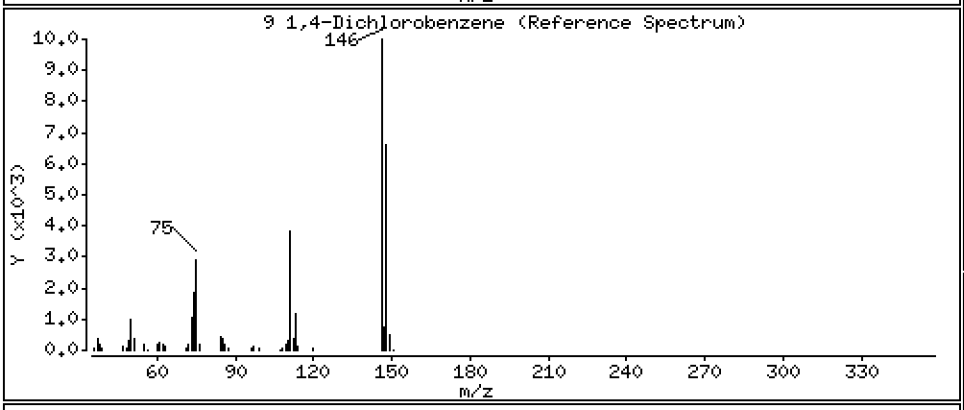
Column diameter: 0.25

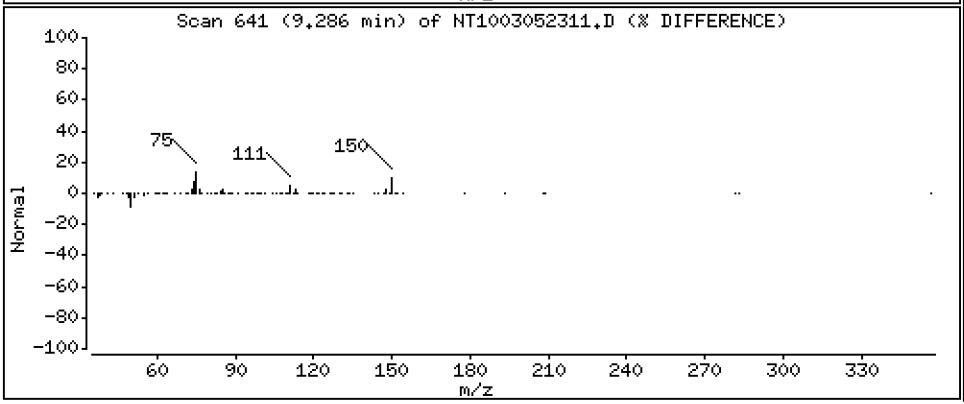
9 1,4-Dichlorobenzene

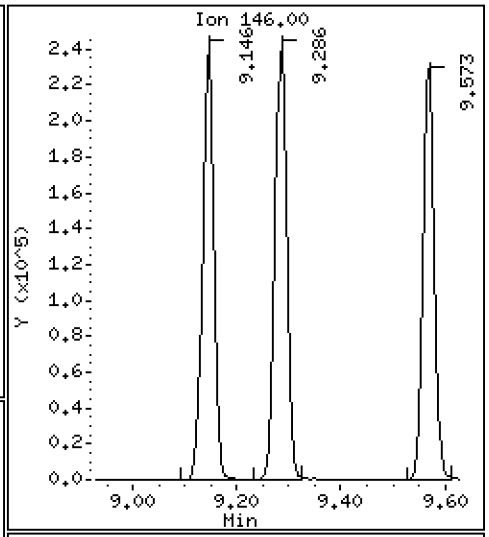
Concentration: 3.527 ug/mL

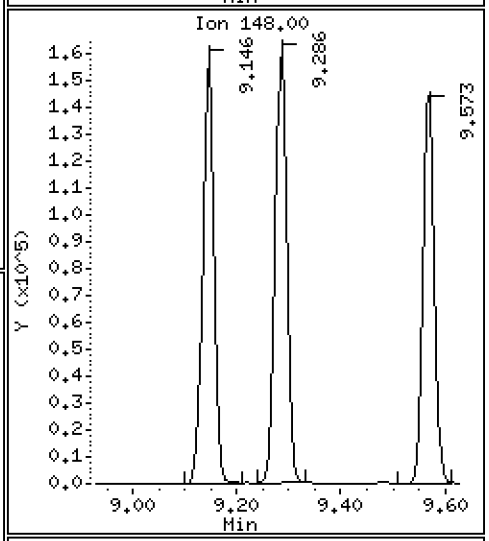


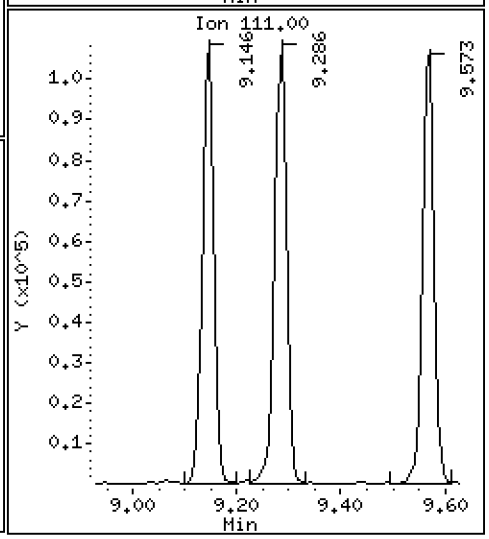












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

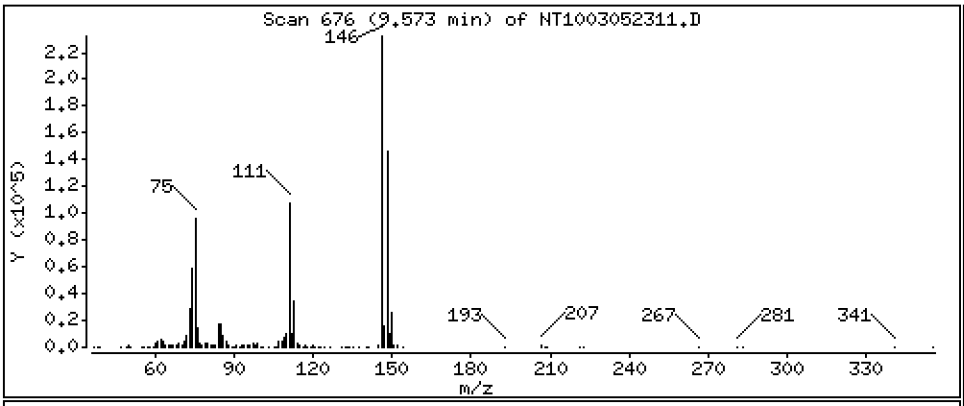
Operator: VTS

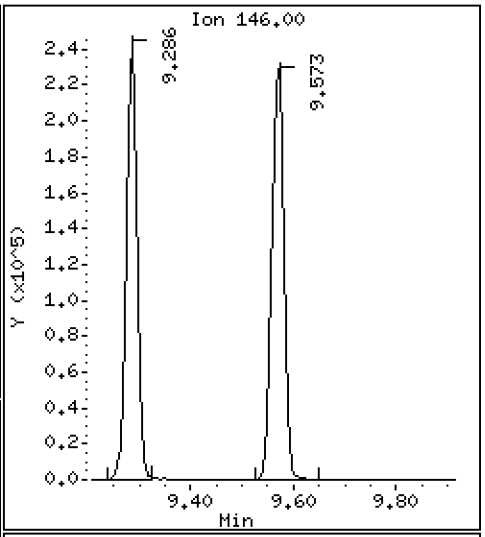
Column phase: ZB-5msi

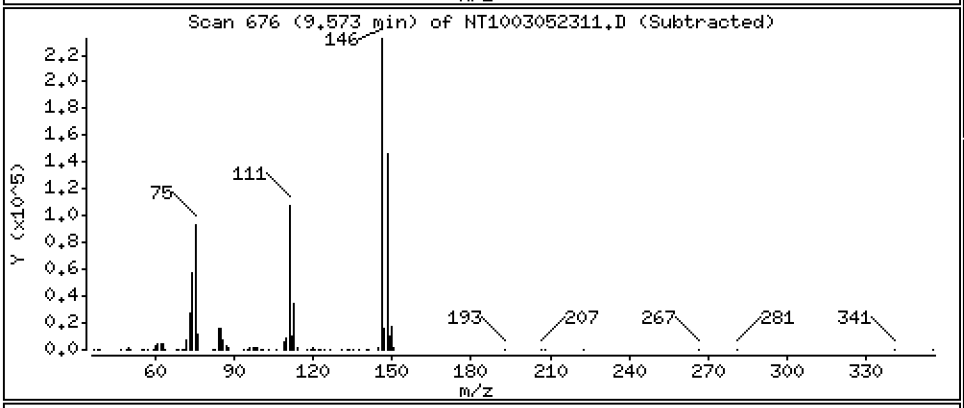
Column diameter: 0.25

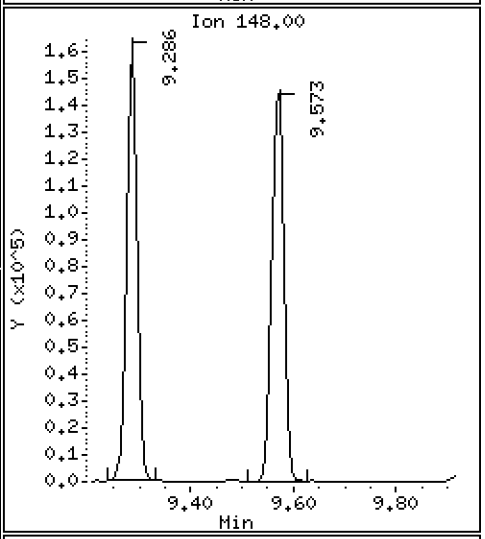
12 1,2-Dichlorobenzene

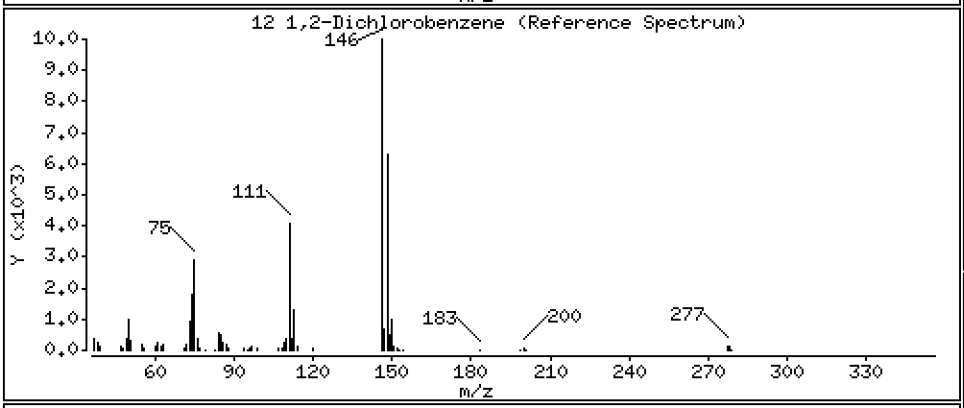
Concentration: 3.623 ug/mL

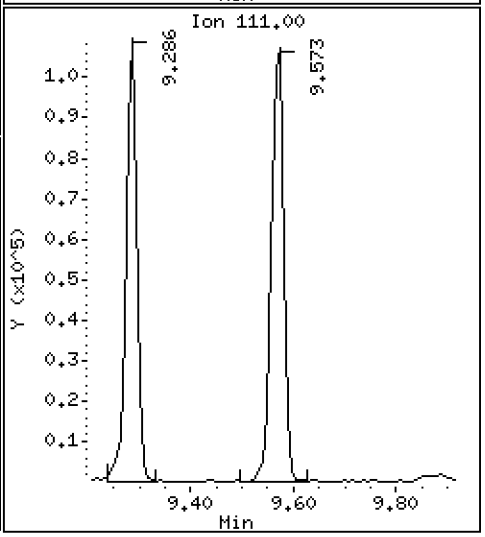


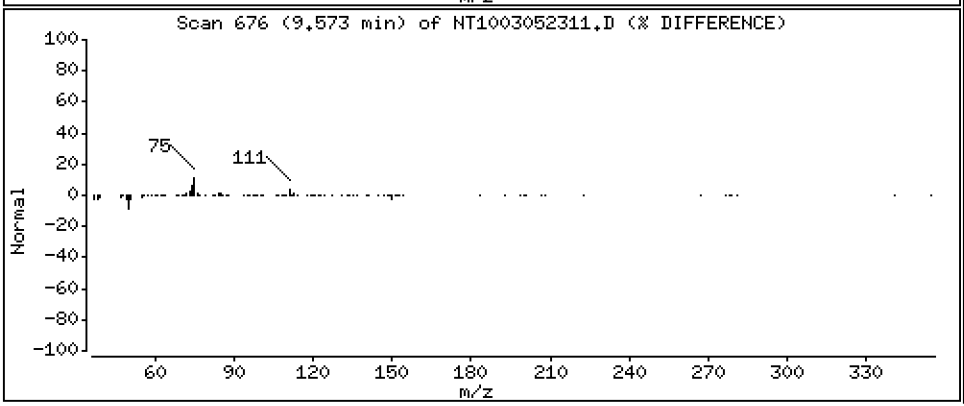












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

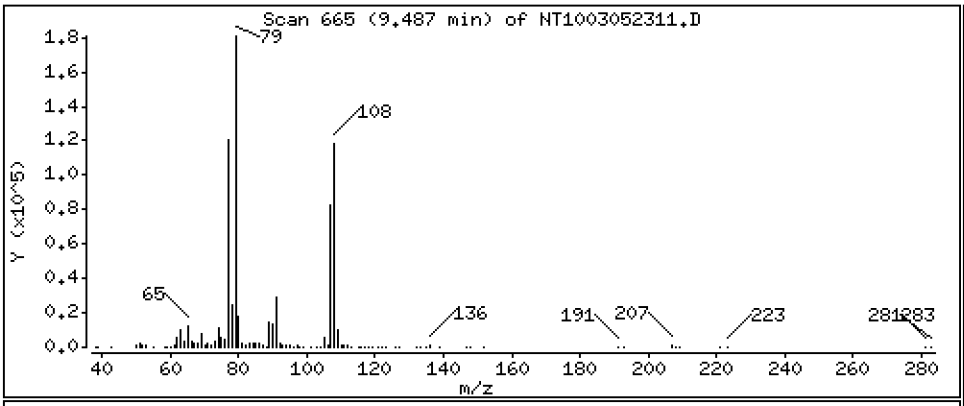
Operator: VTS

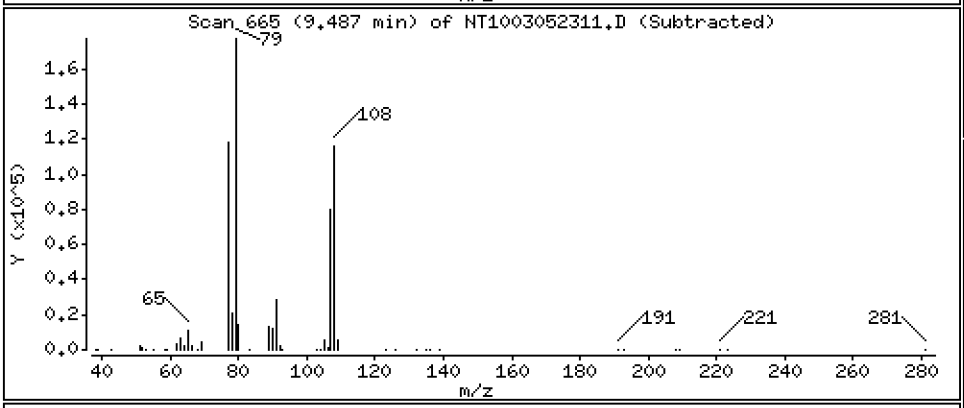
Column phase: ZB-5msi

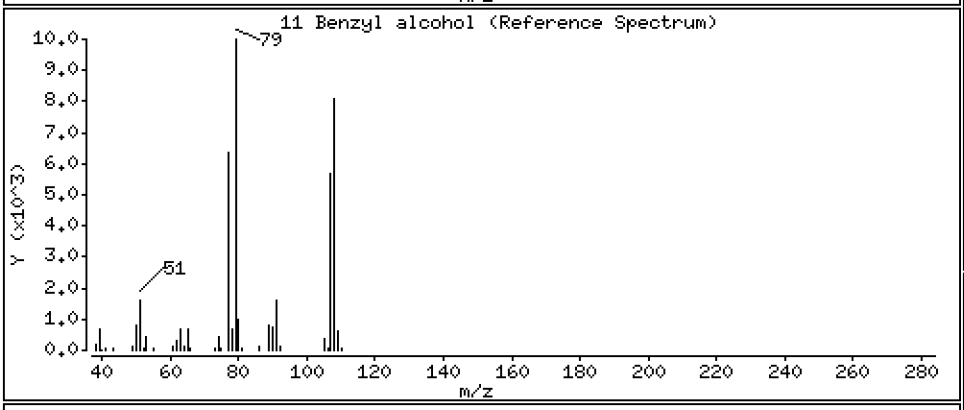
Column diameter: 0.25

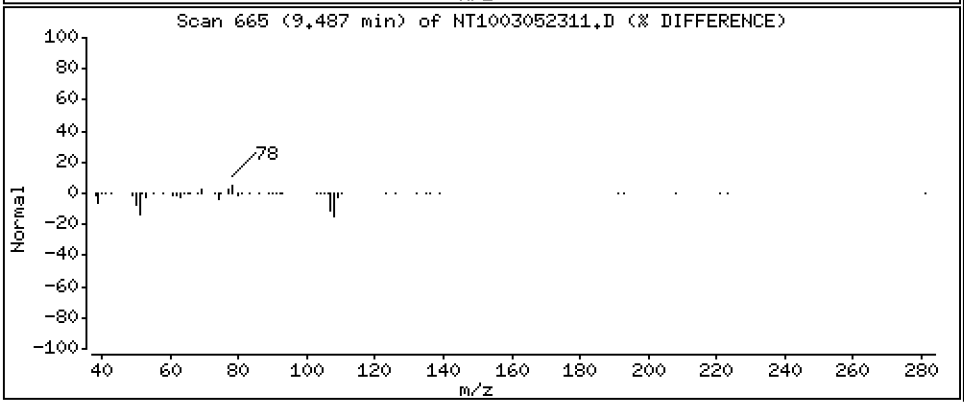
11 Benzyl alcohol

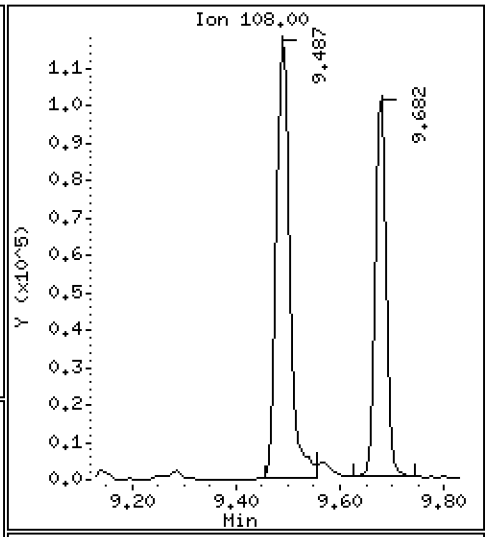
Concentration: 3.451 ug/mL

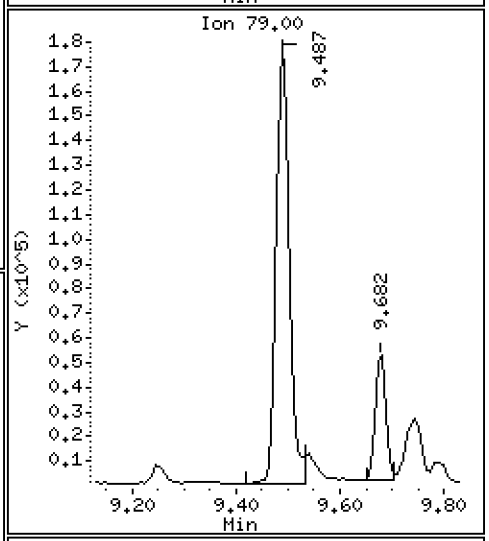


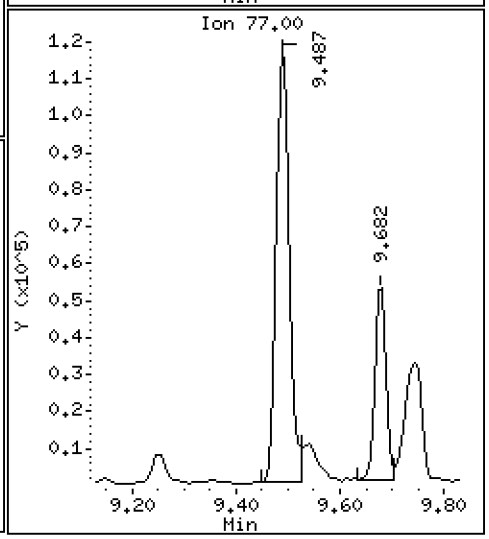












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

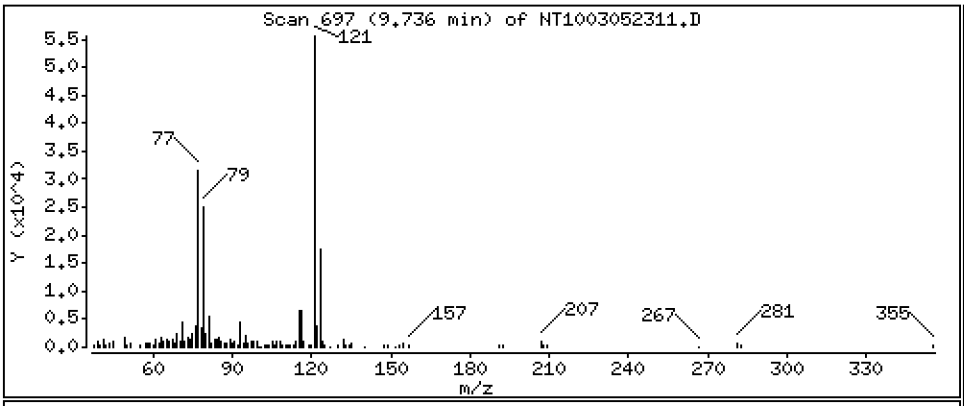
Operator: VTS

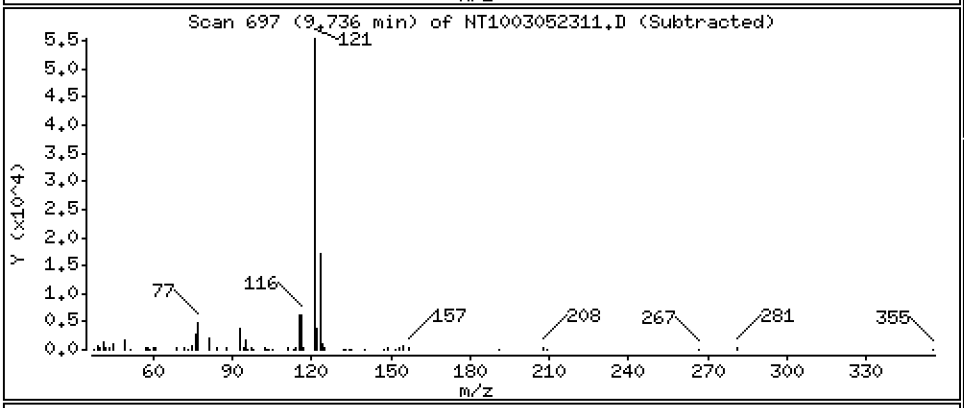
Column phase: ZB-5msi

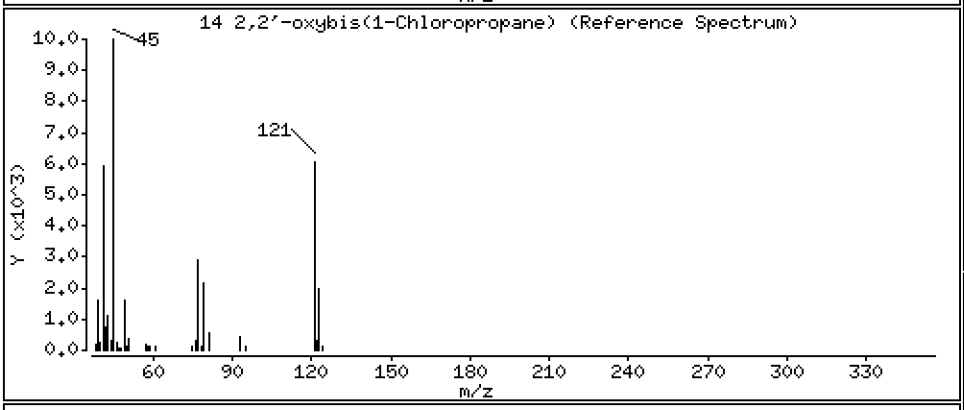
Column diameter: 0.25

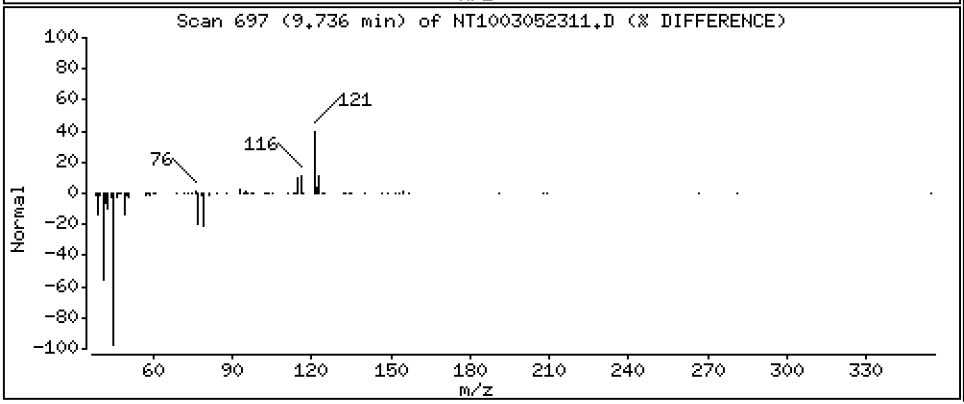
14 2,2'-oxybis(1-Chloropropane)

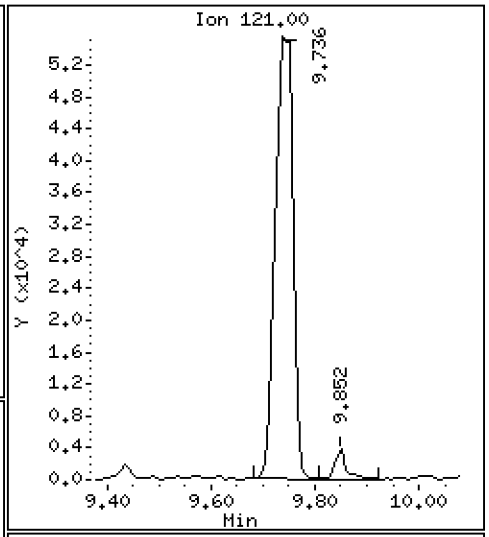
Concentration: 4.641 ug/mL

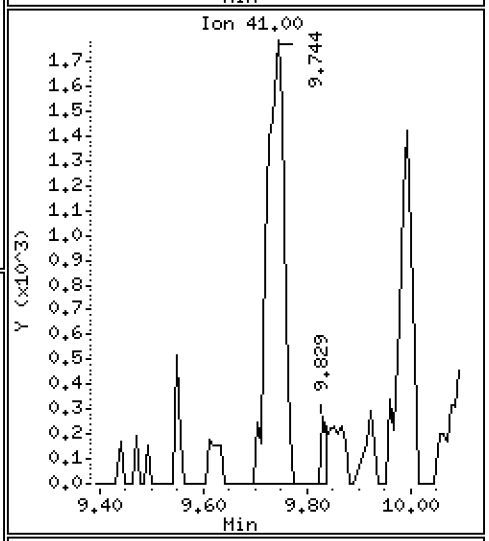


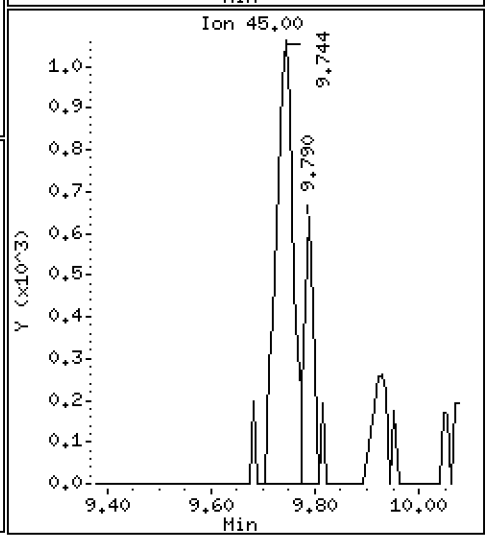












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

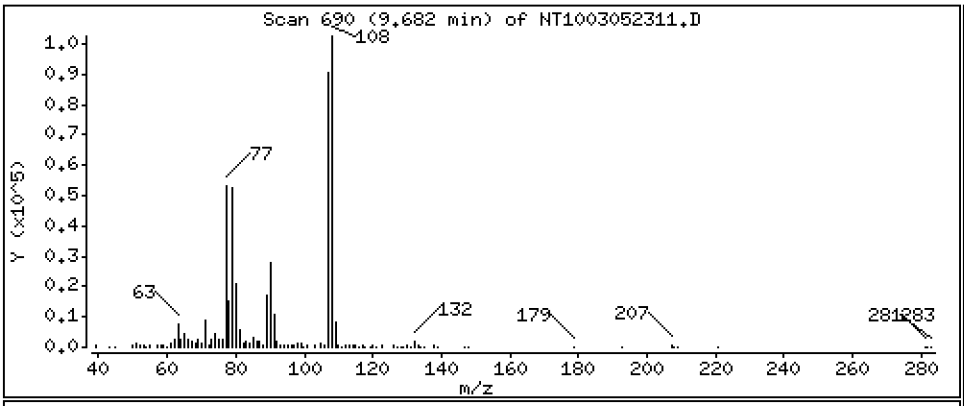
Operator: VTS

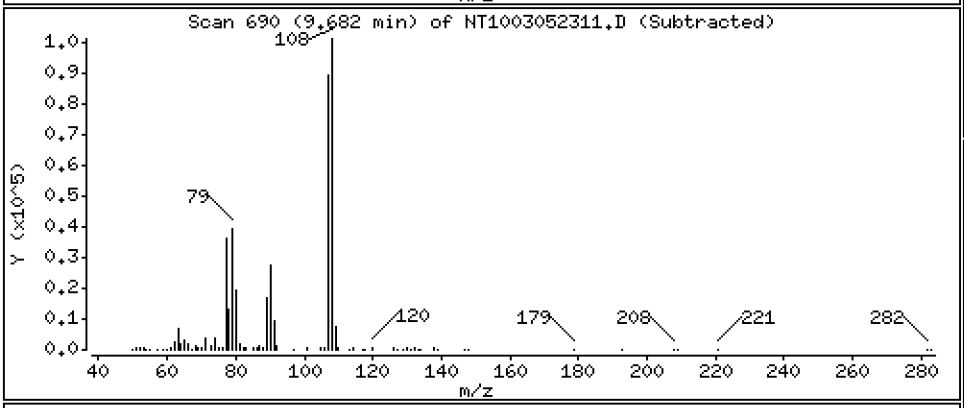
Column phase: ZB-5msi

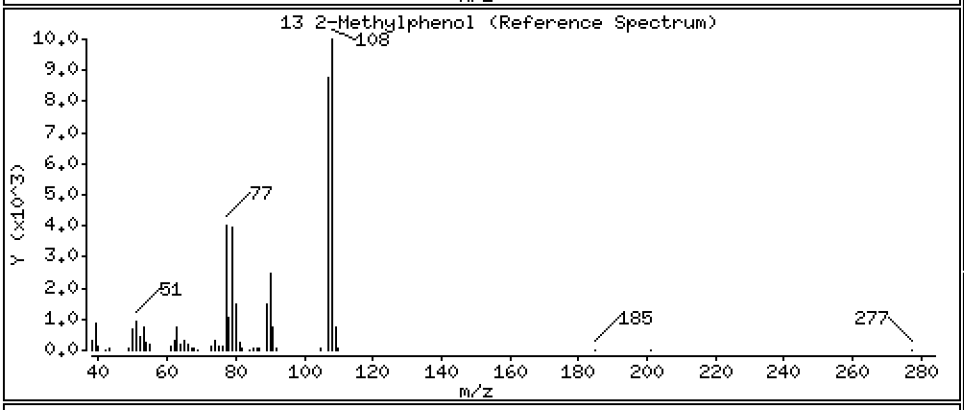
Column diameter: 0.25

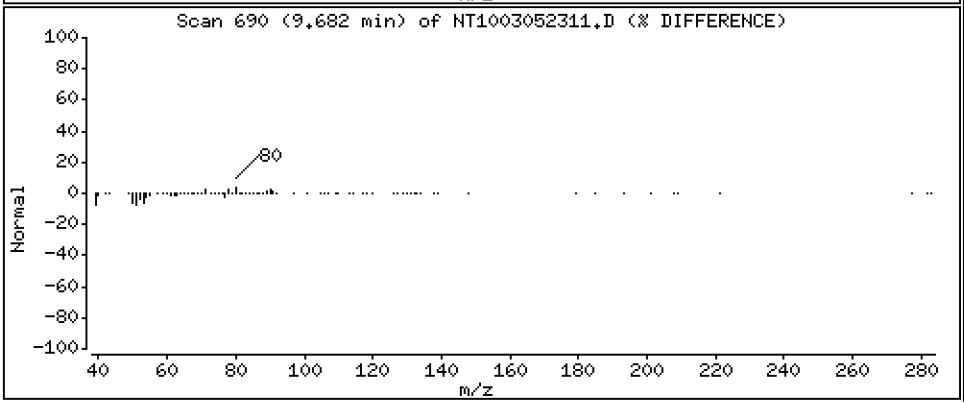
13 2-Methylphenol

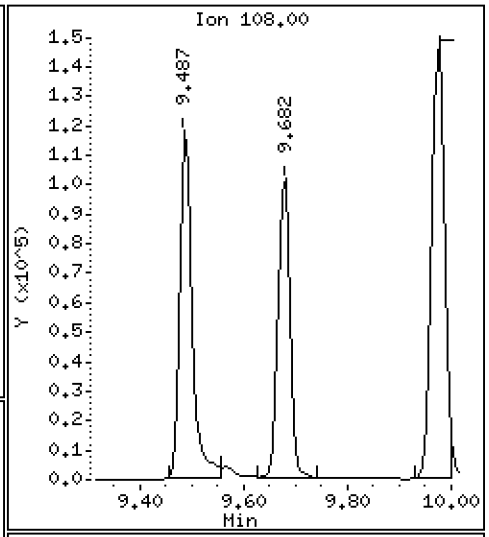
Concentration: 1.782 ug/mL

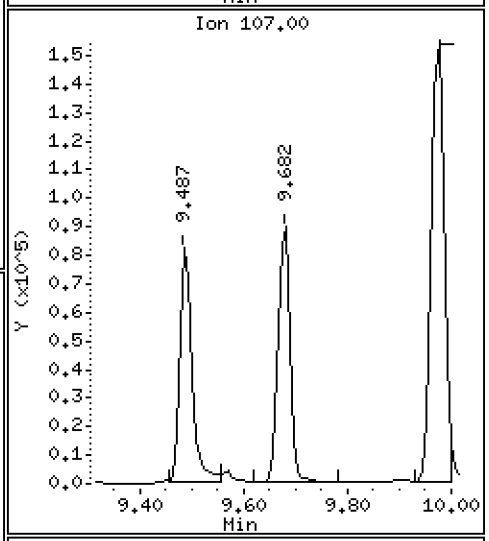


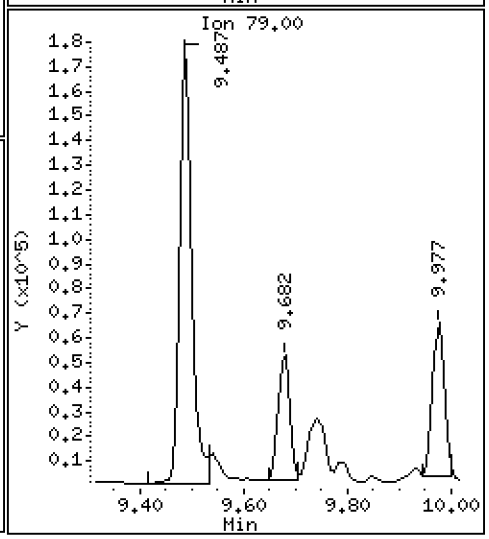












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

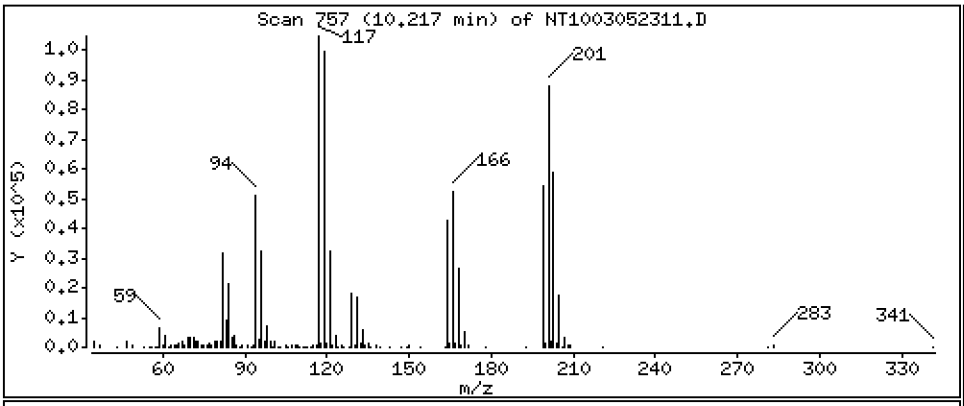
Operator: VTS

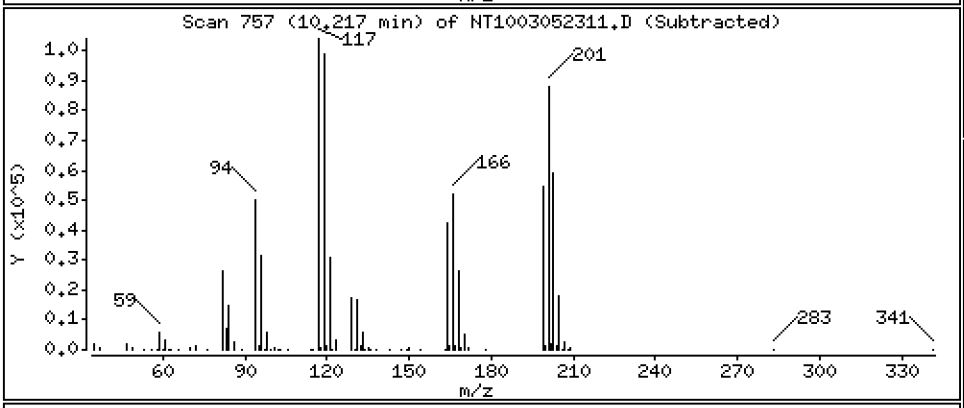
Column phase: ZB-5msi

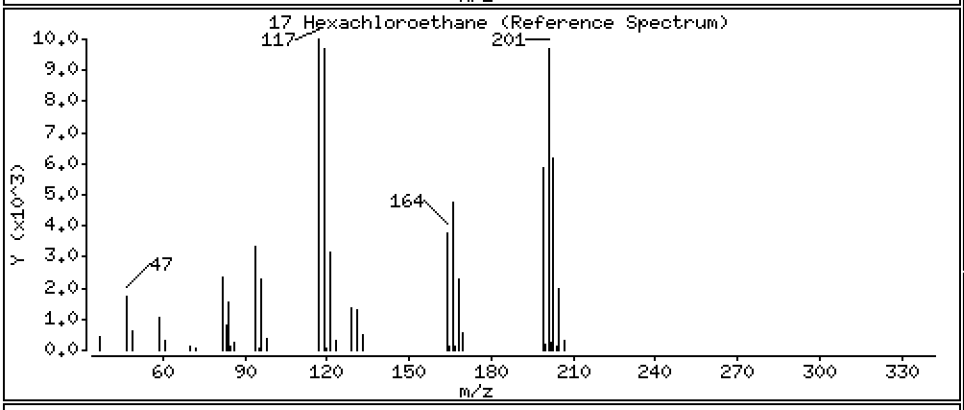
Column diameter: 0.25

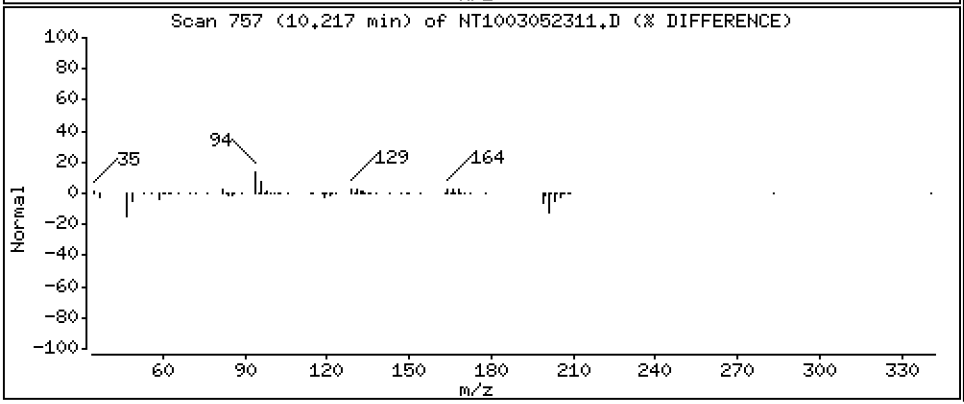
17 Hexachloroethane

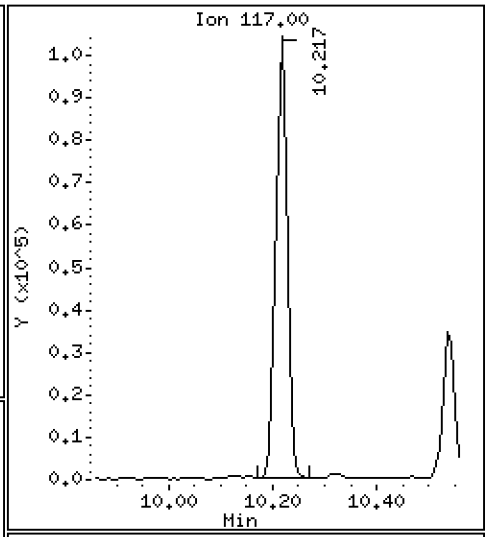
Concentration: 3.714 ug/mL

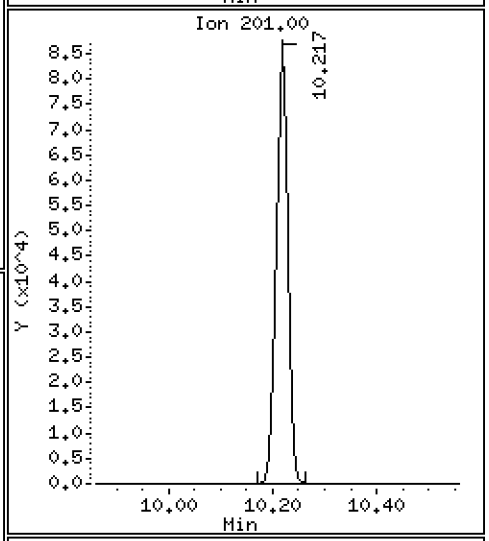


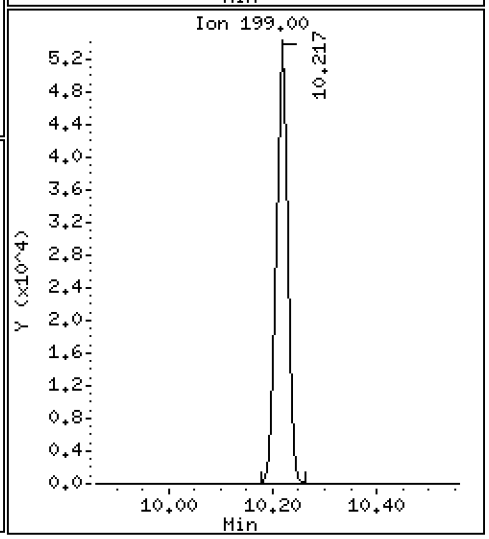












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

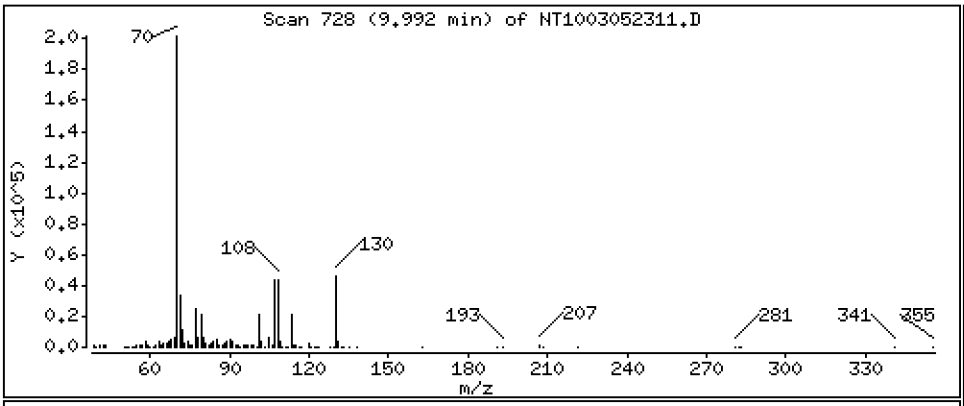
Operator: VTS

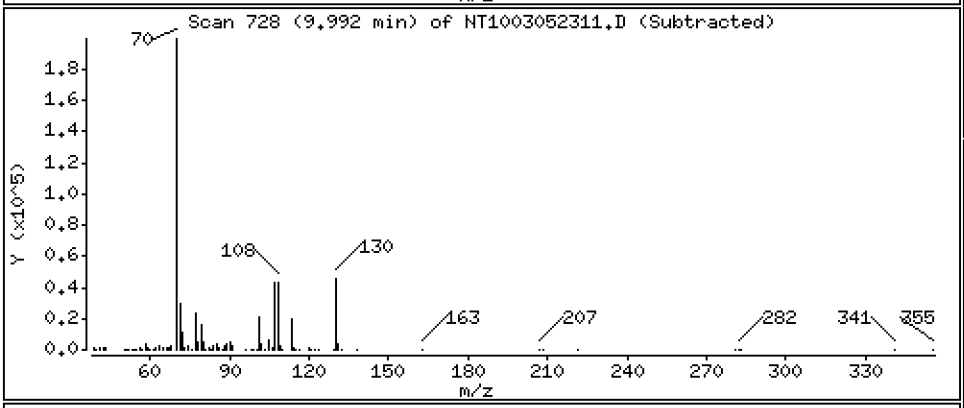
Column phase: ZB-5msi

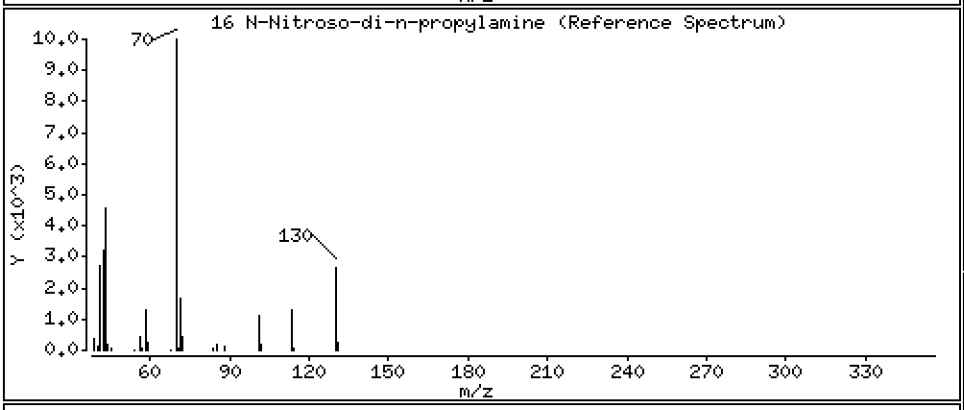
Column diameter: 0.25

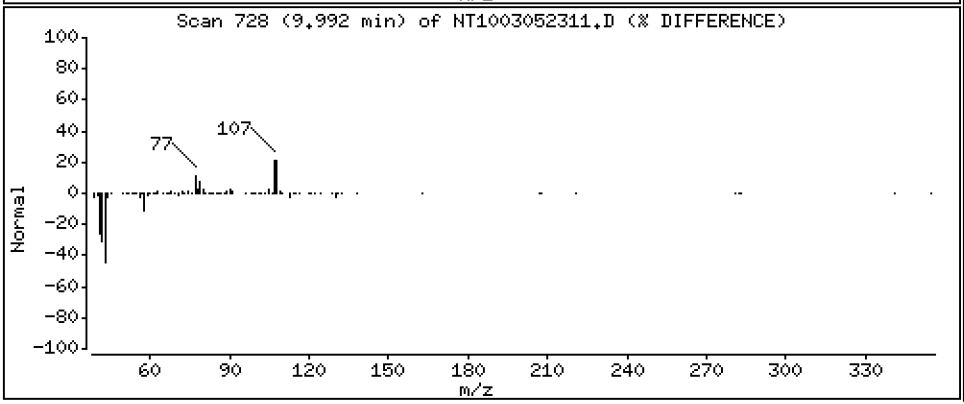
16 N-Nitroso-di-n-propylamine

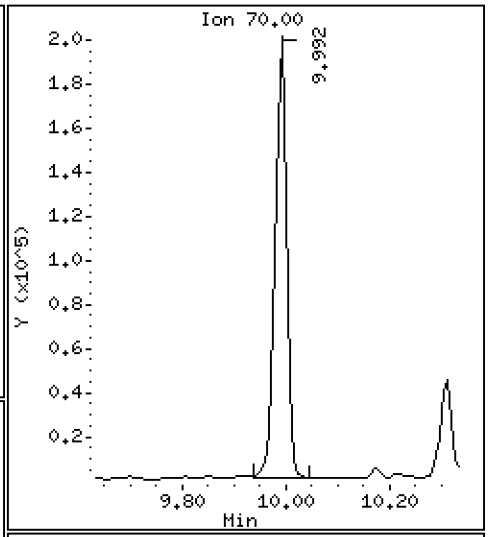
Concentration: 4.417 ug/mL

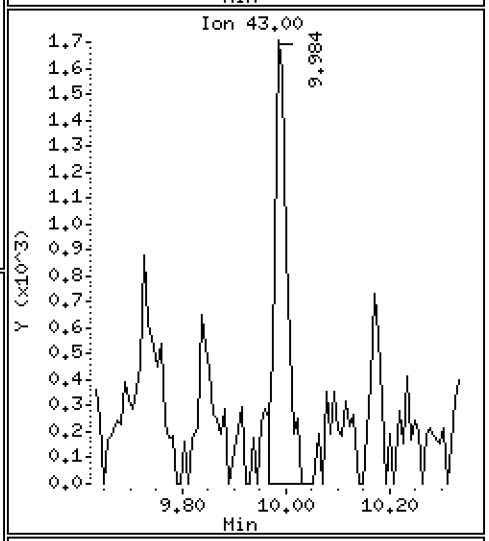


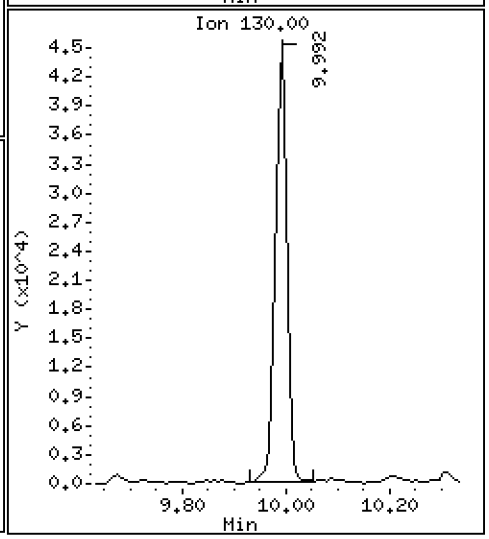












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

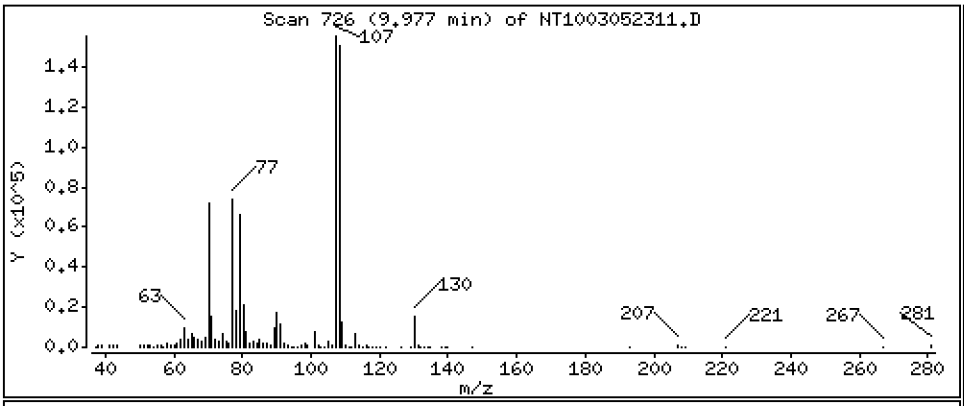
Operator: VTS

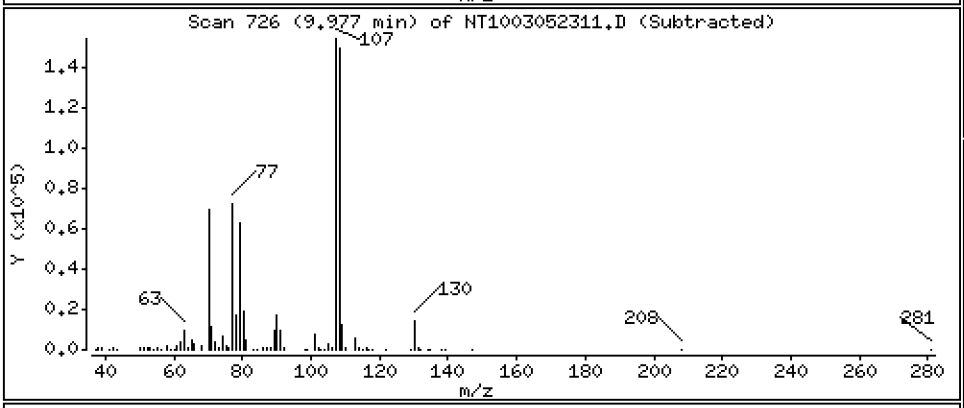
Column phase: ZB-5msi

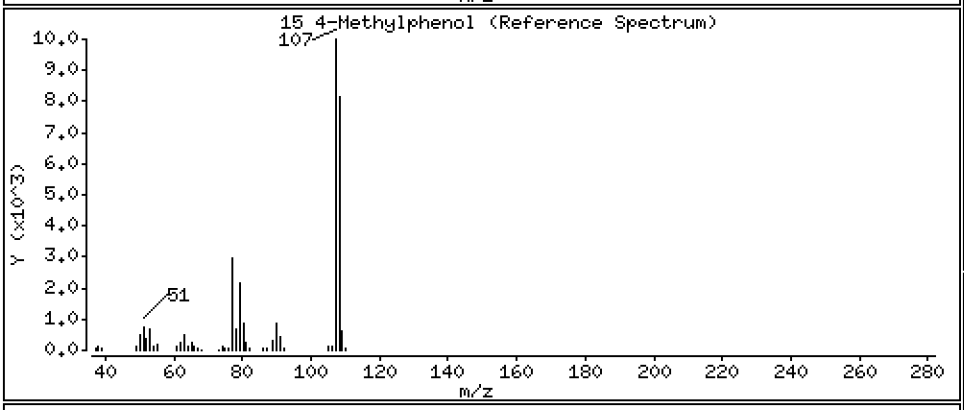
Column diameter: 0.25

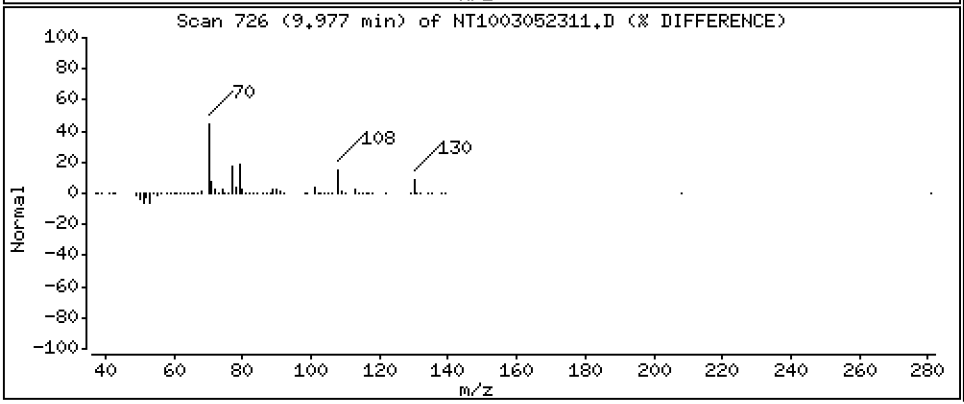
15 4-Methylphenol

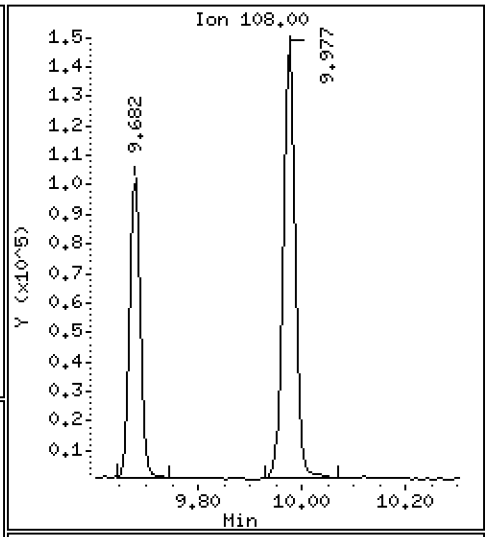
Concentration: 2.274 ug/mL

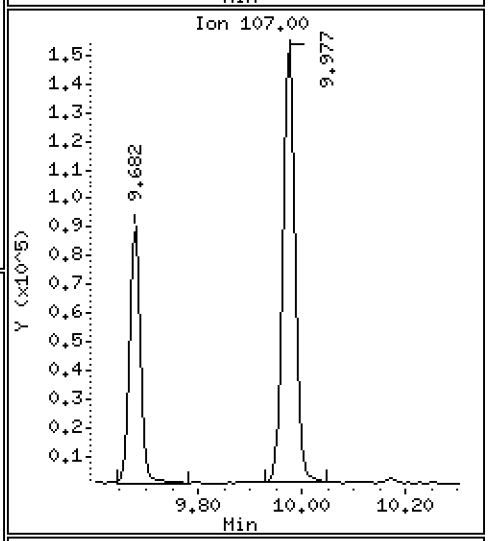


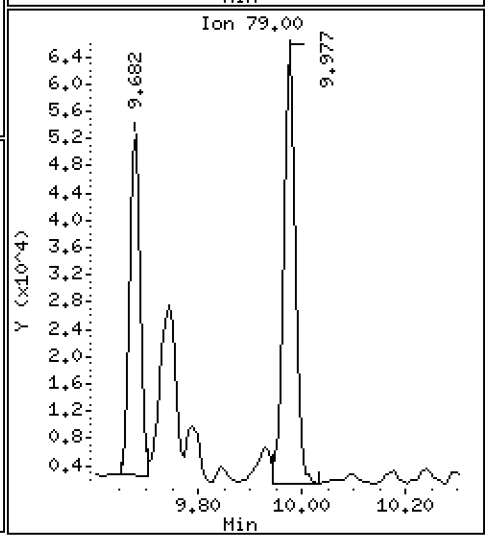












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

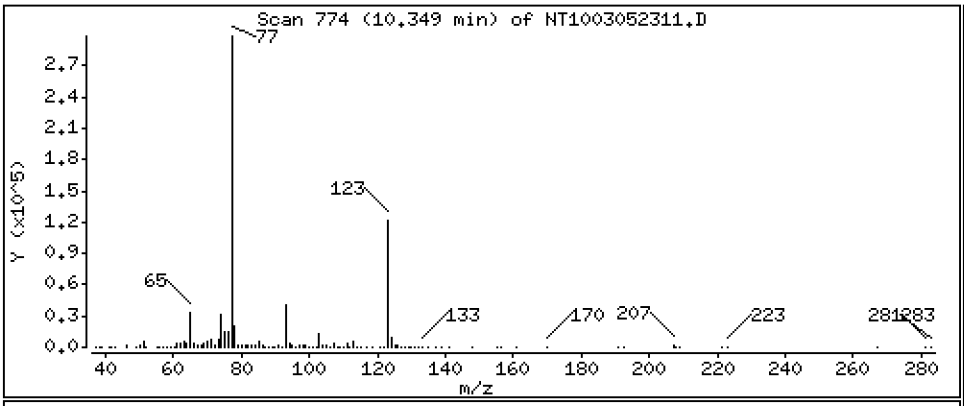
Operator: VTS

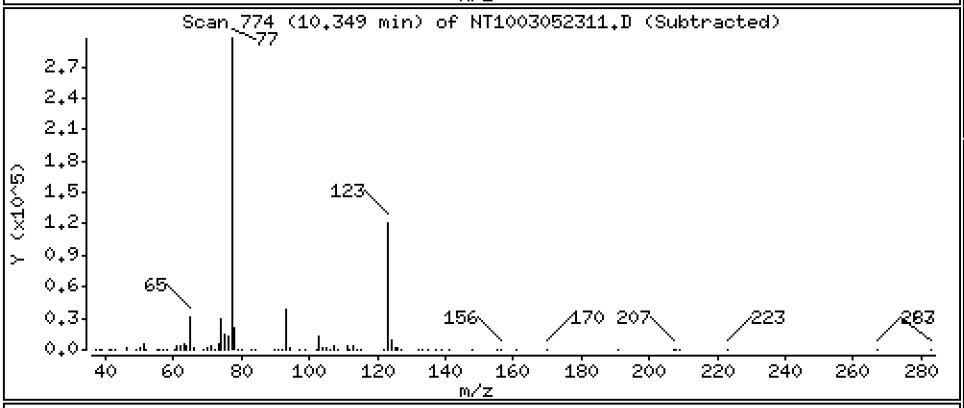
Column phase: ZB-5msi

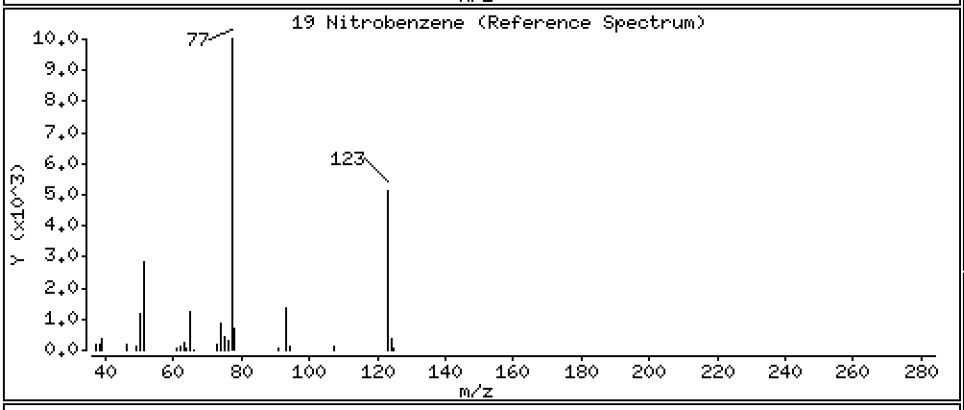
Column diameter: 0.25

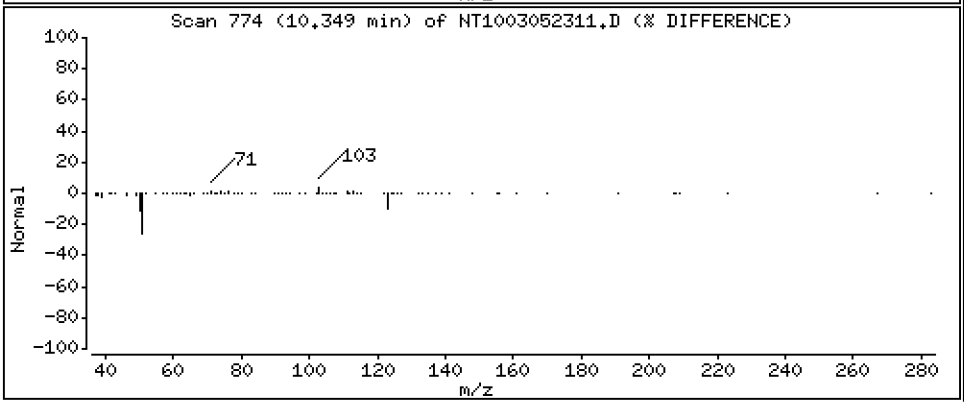
19 Nitrobenzene

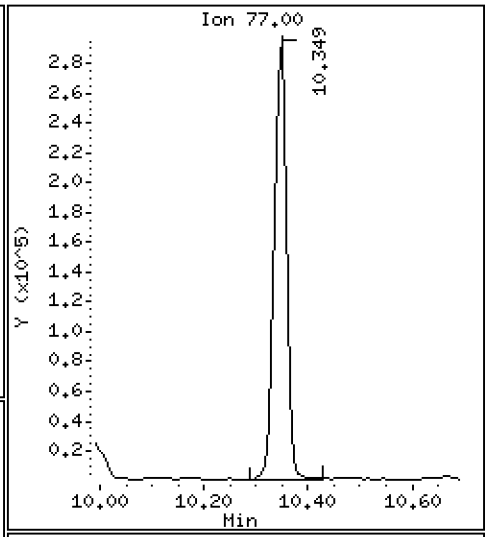
Concentration: 4.398 ug/mL

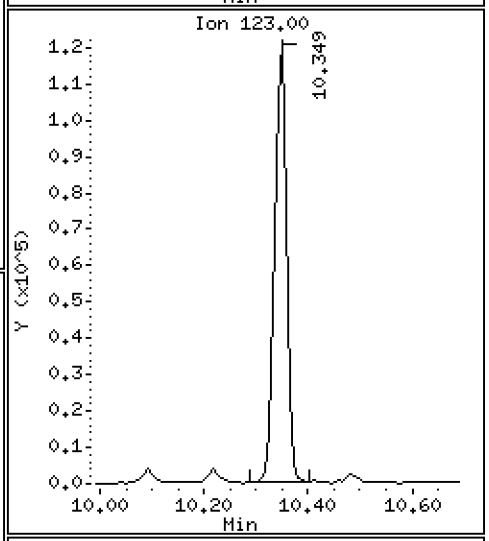


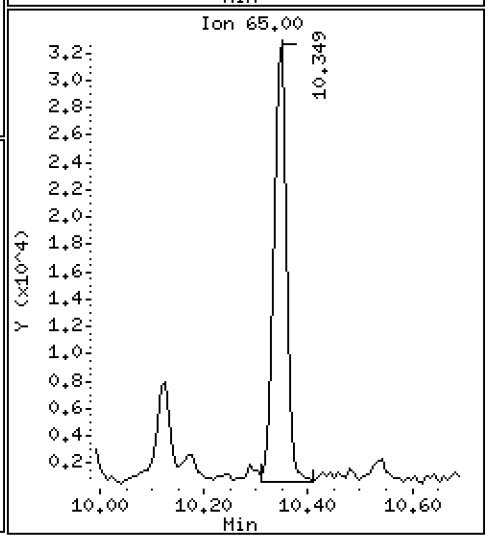












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

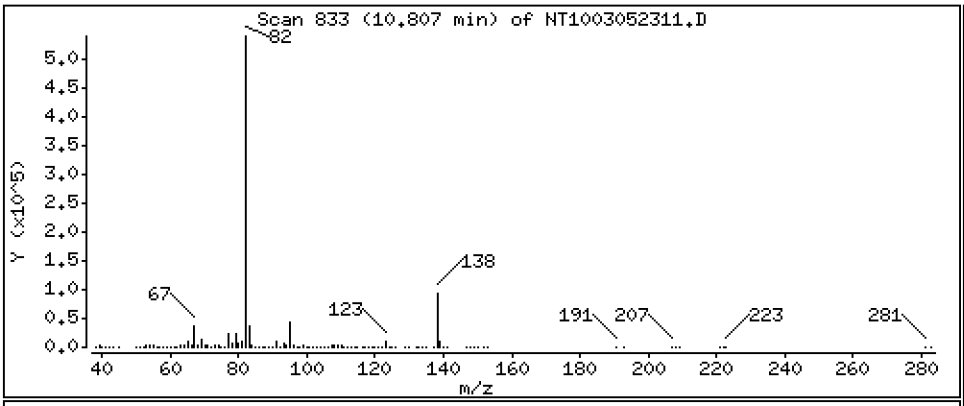
Operator: VTS

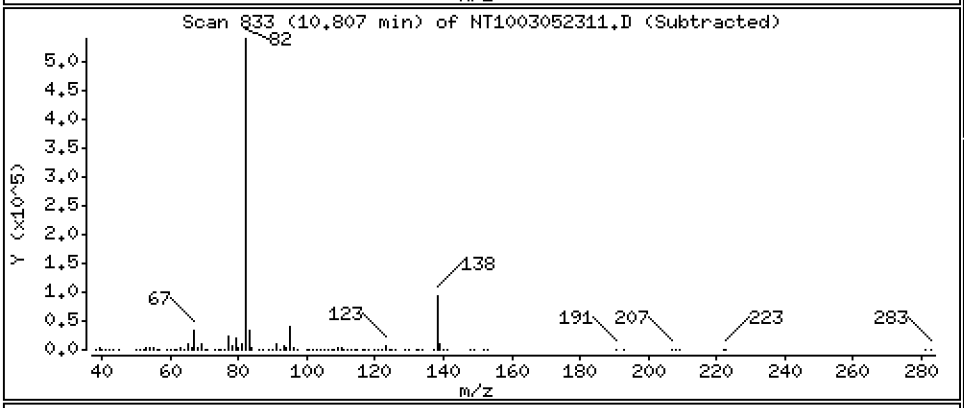
Column phase: ZB-5msi

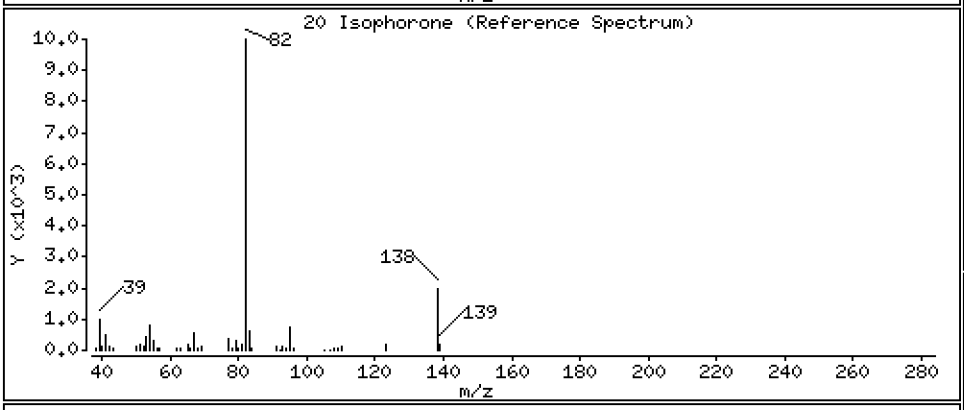
Column diameter: 0.25

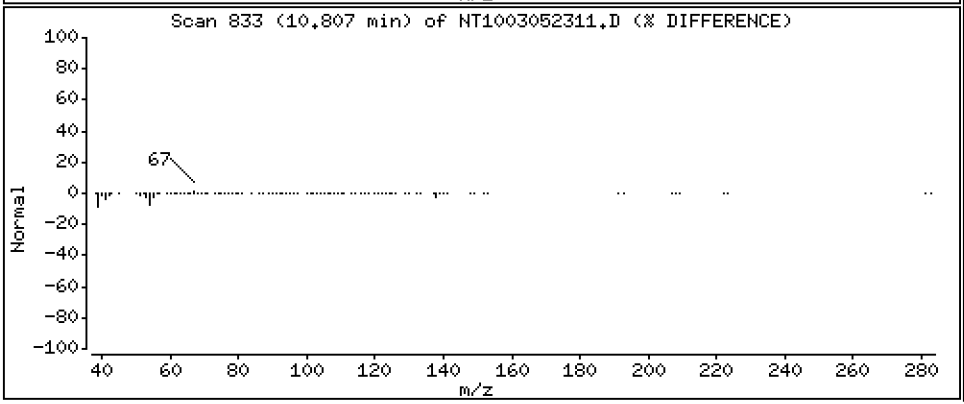
20 Isophorone

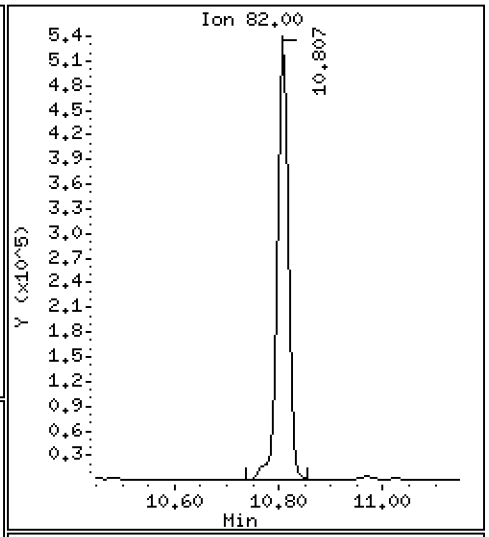
Concentration: 6.087 ug/mL

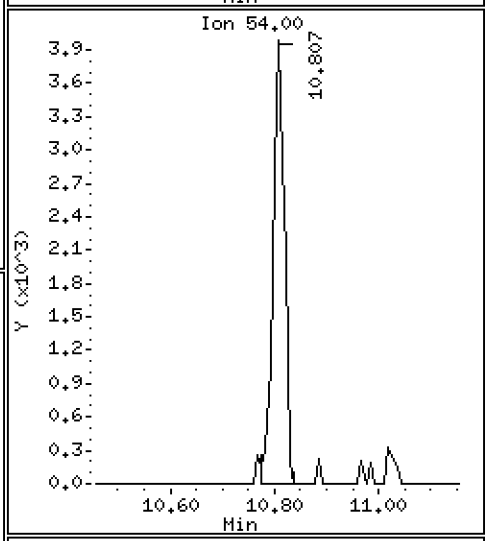


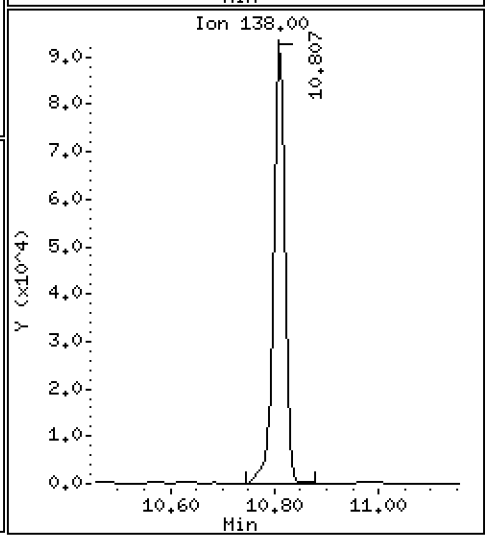












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

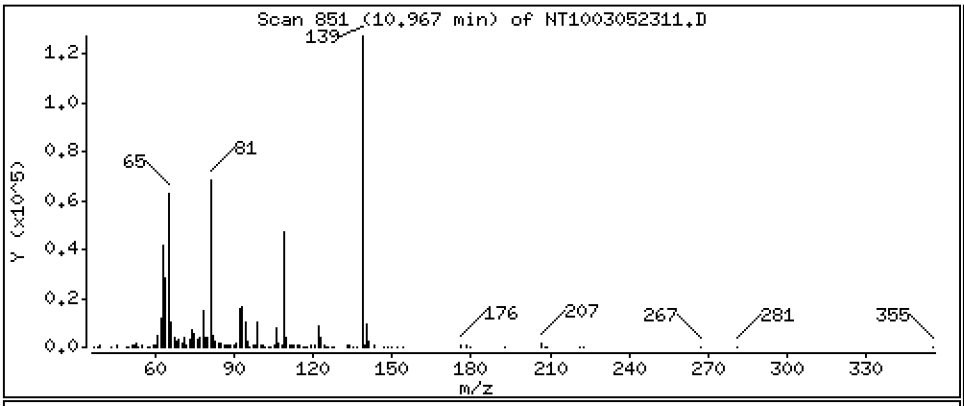
Operator: VTS

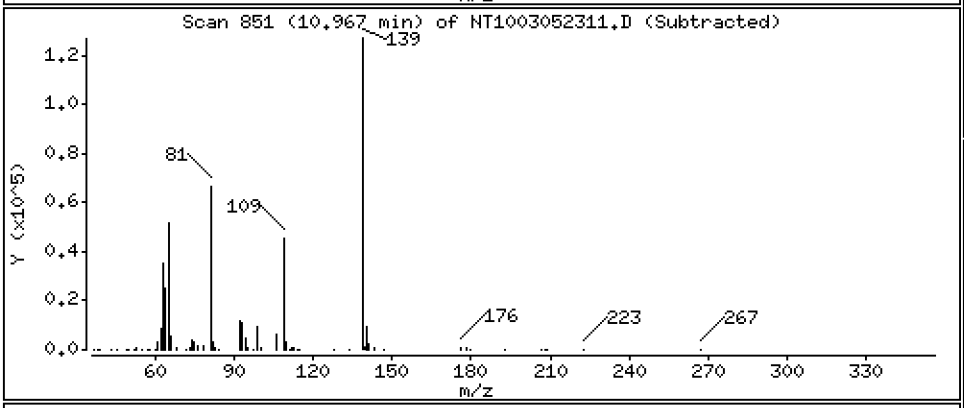
Column phase: ZB-5msi

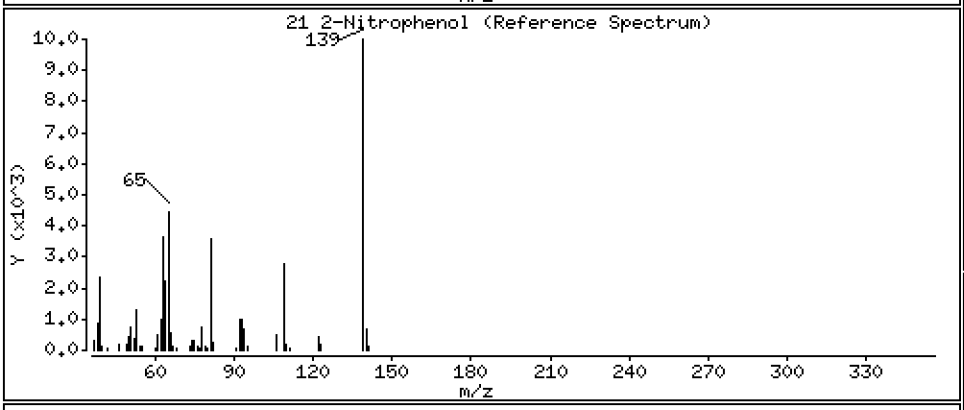
Column diameter: 0.25

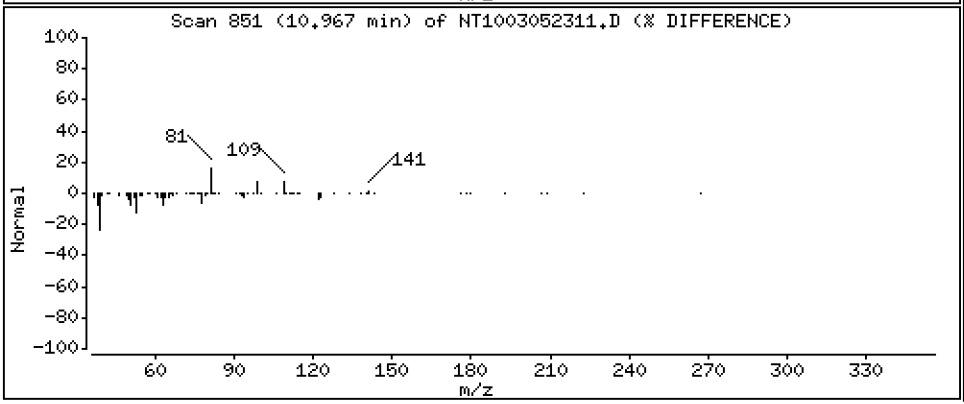
21 2-Nitrophenol

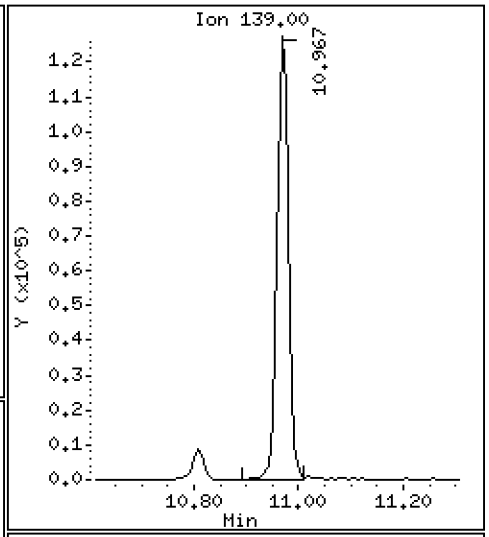
Concentration: 3.915 ug/mL

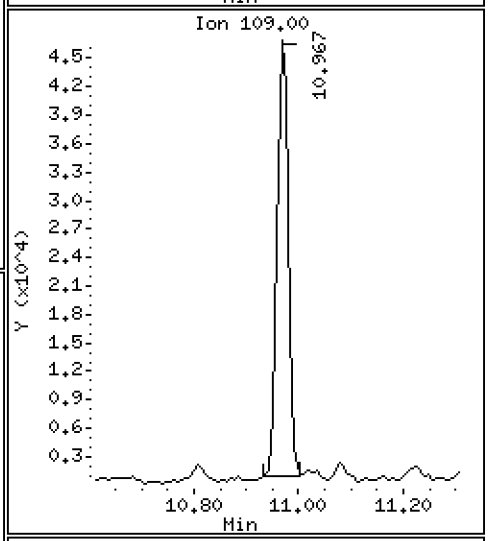


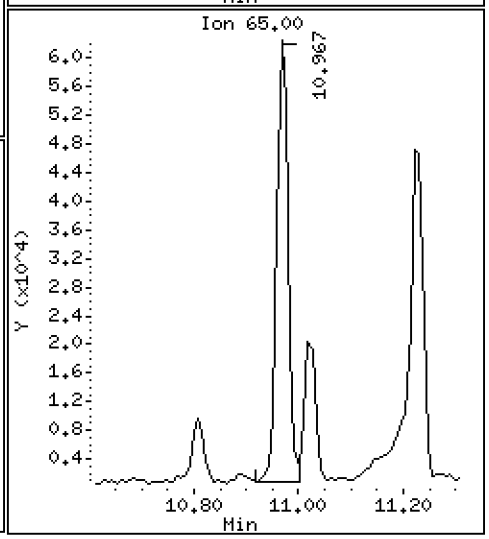












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

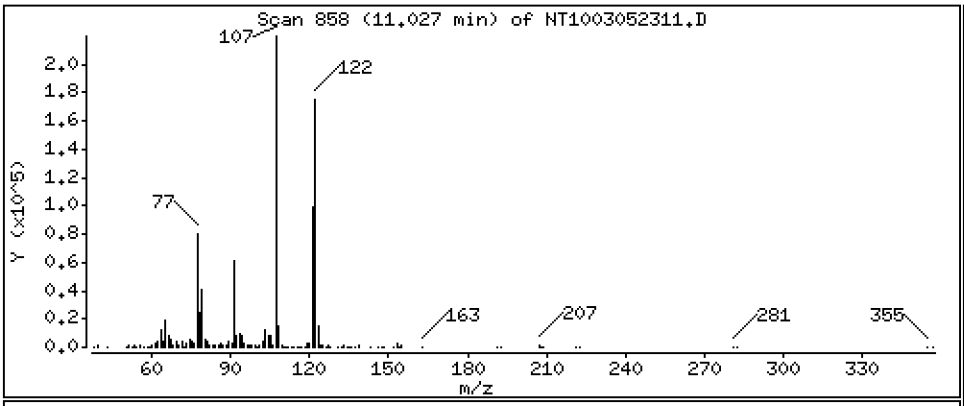
Operator: VTS

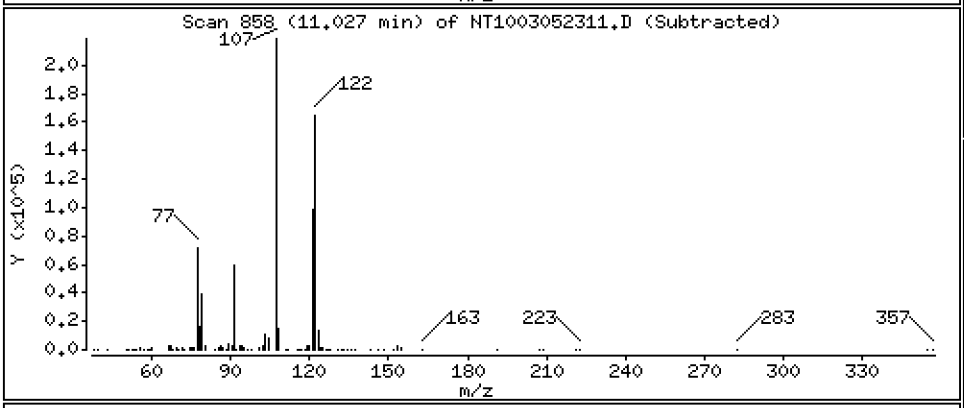
Column phase: ZB-5msi

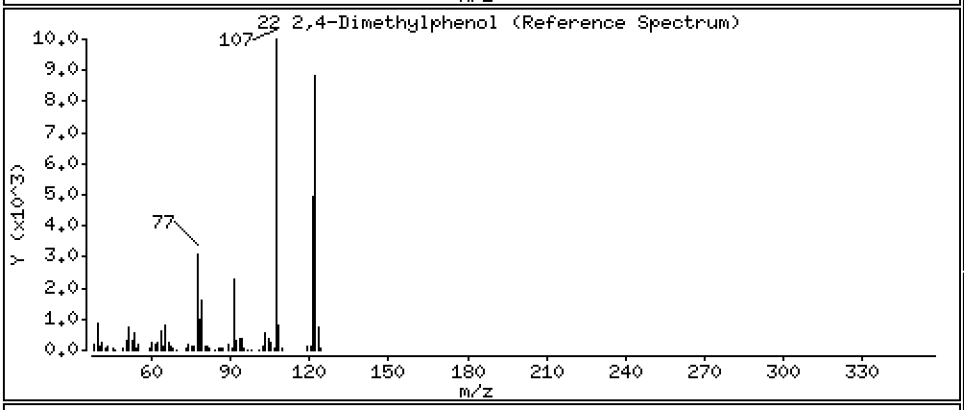
Column diameter: 0.25

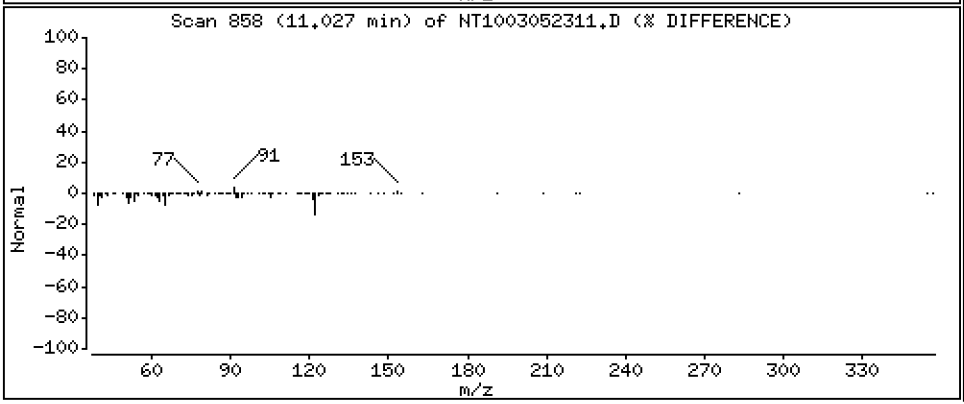
22 2,4-Dimethylphenol

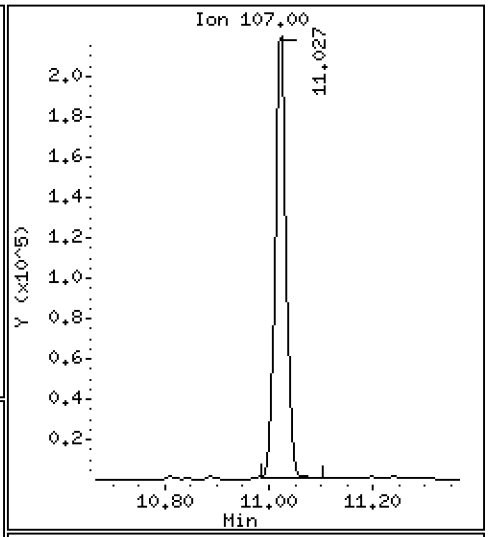
Concentration: 3.330 ug/mL

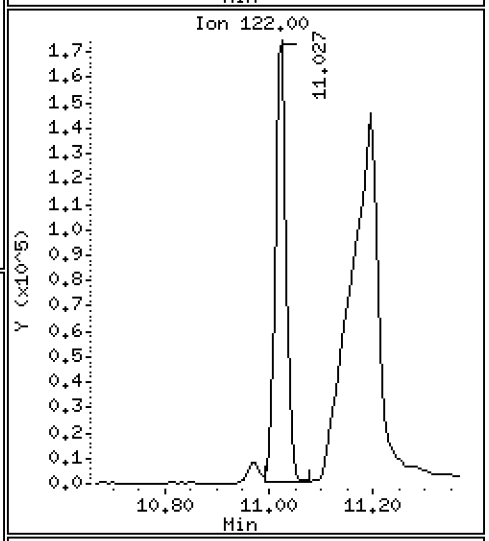


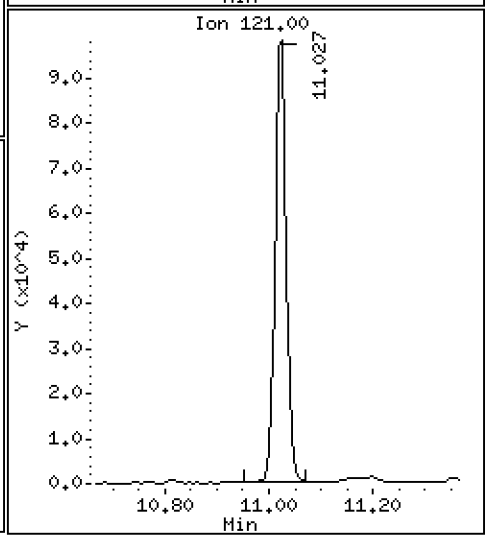












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

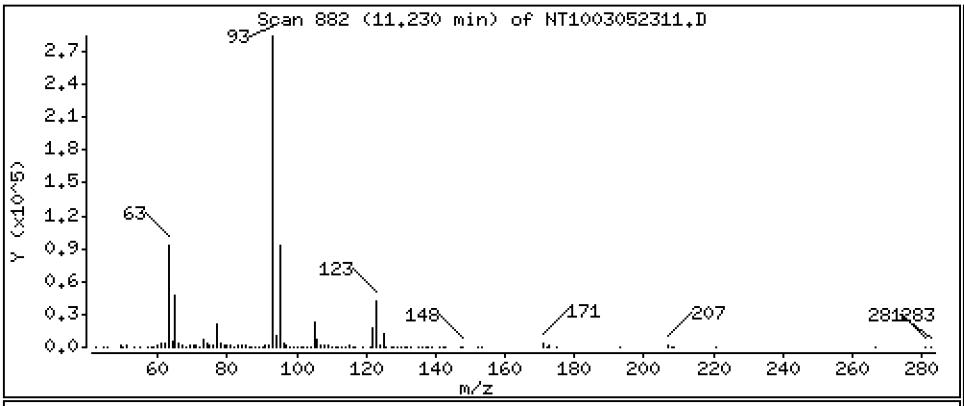
Operator: VTS

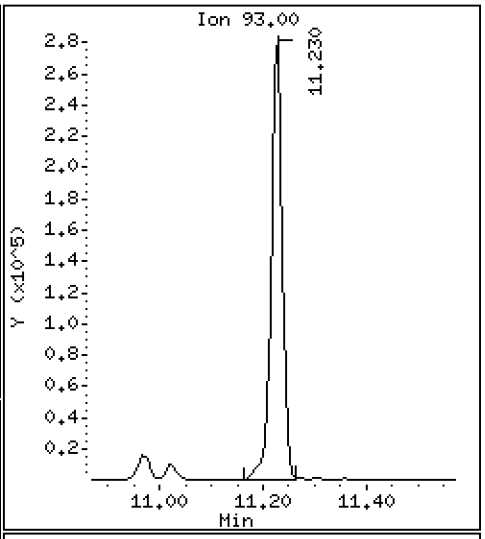
Column phase: ZB-5msi

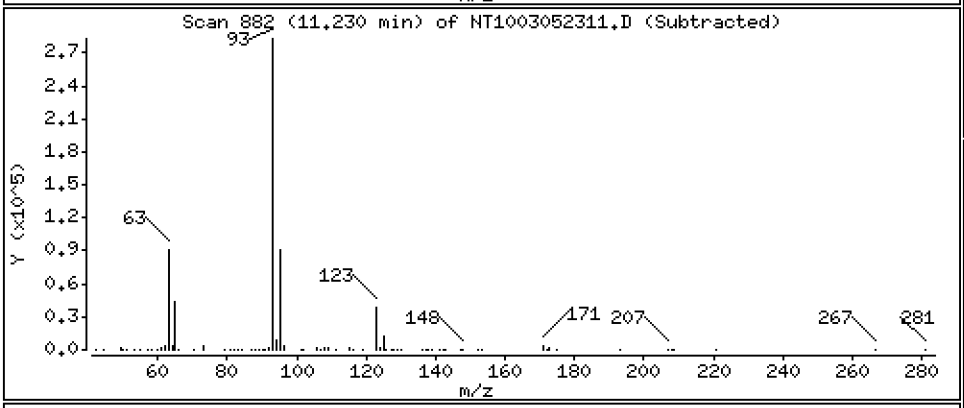
Column diameter: 0.25

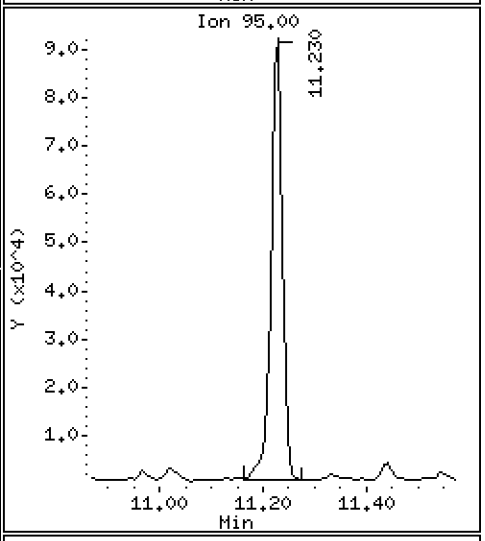
23 Bis(2-Chloroethoxy)methane

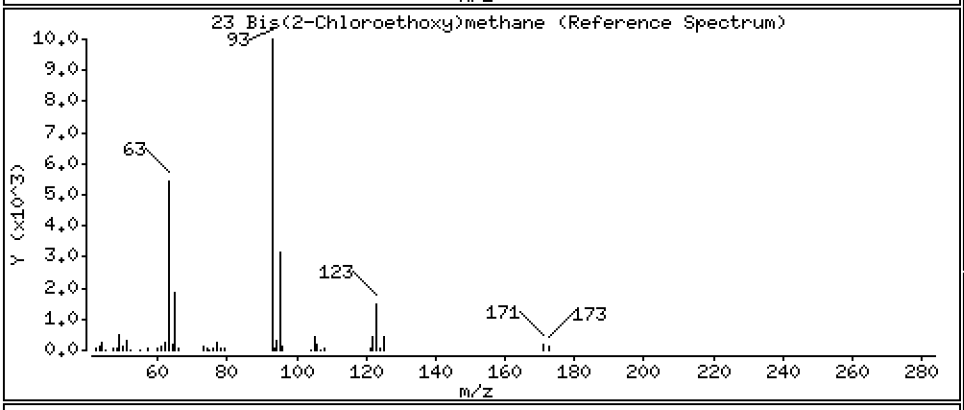
Concentration: 5.220 ug/mL

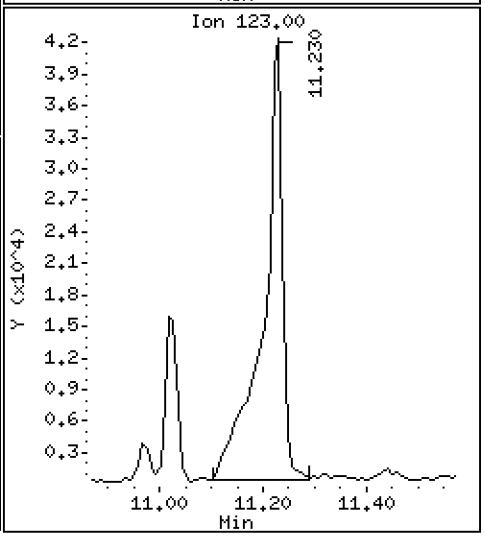


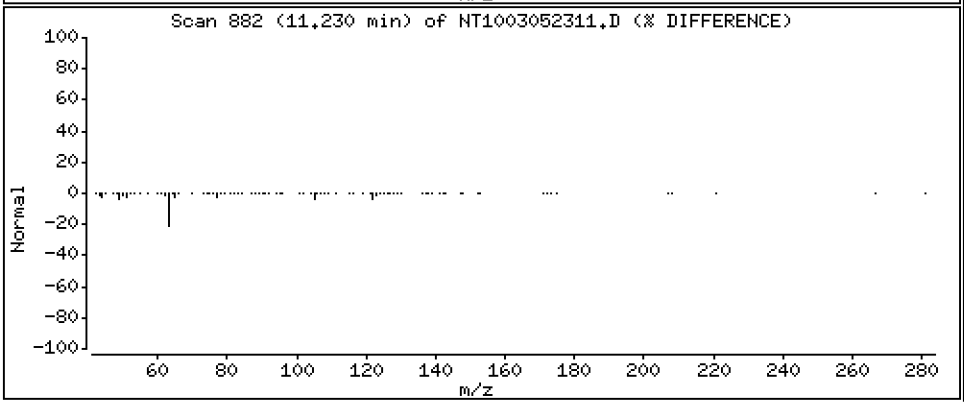












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

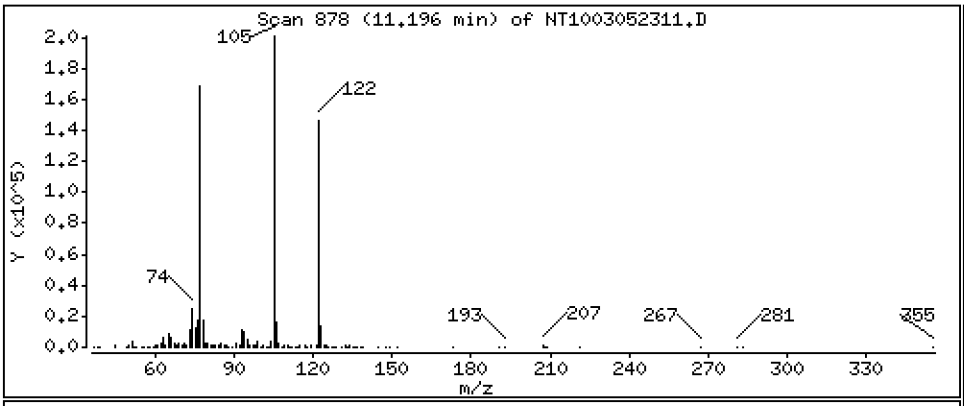
Operator: VTS

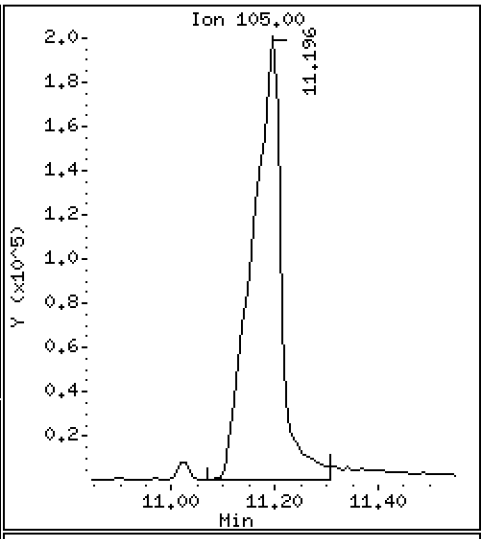
Column phase: ZB-5msi

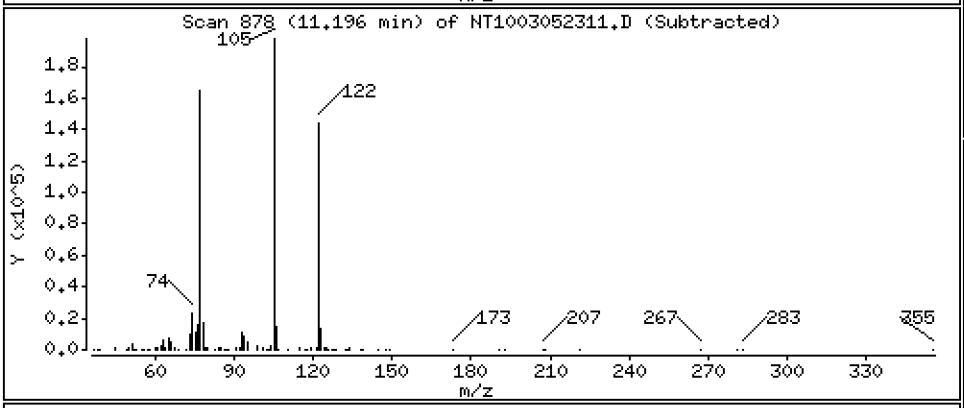
Column diameter: 0.25

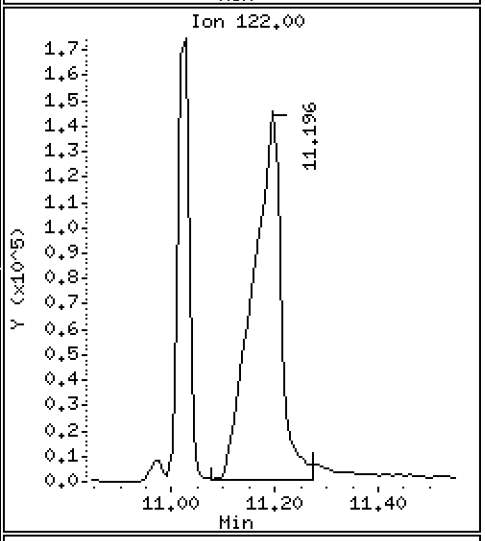
24 Benzoic acid

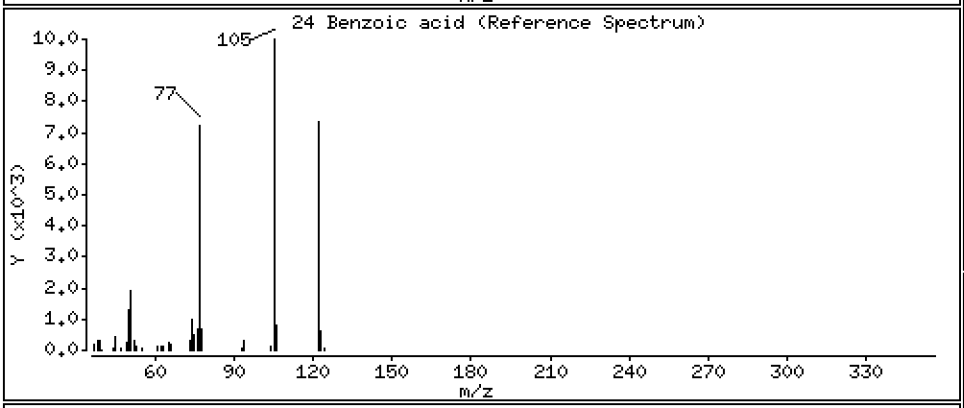
Concentration: 12.71 ug/mL

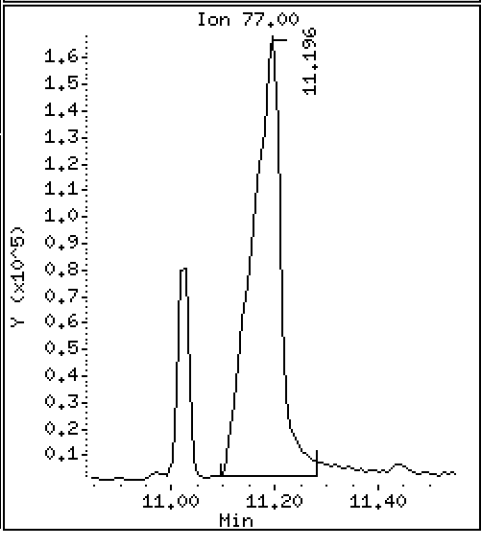


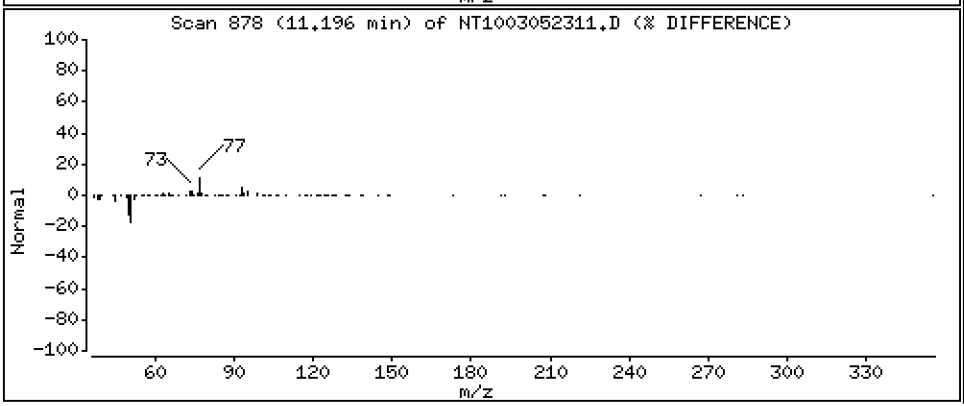












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

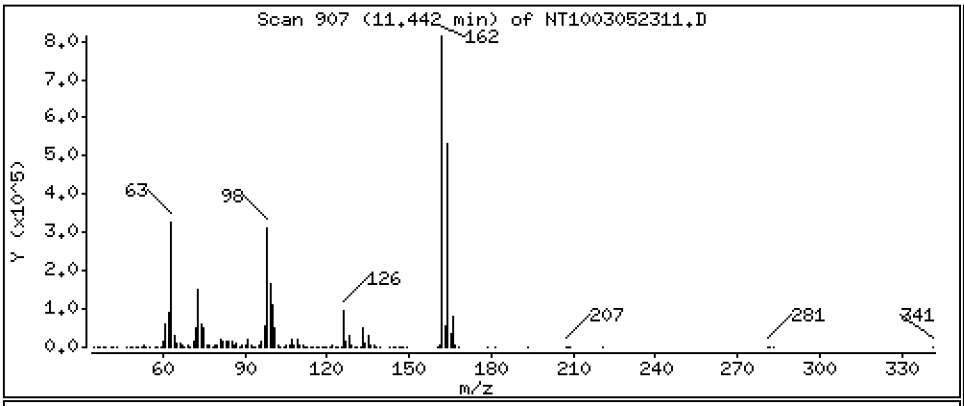
Operator: VTS

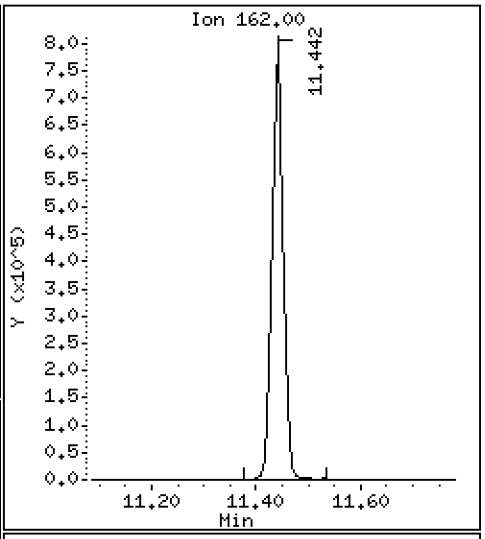
Column phase: ZB-5msi

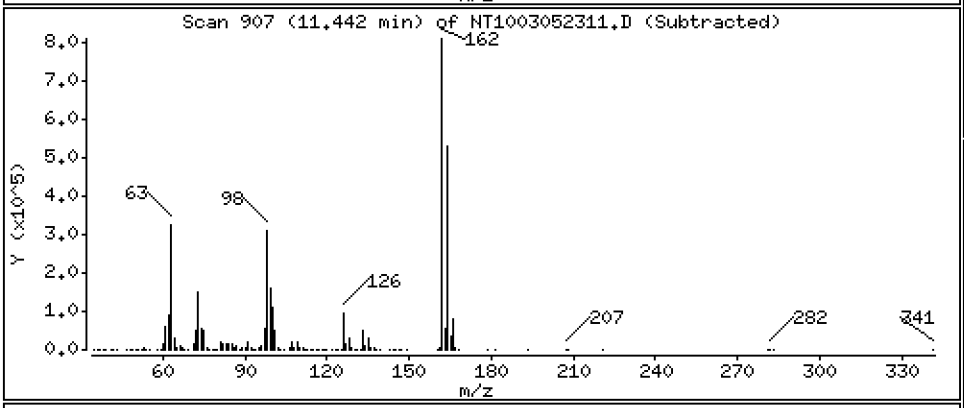
Column diameter: 0.25

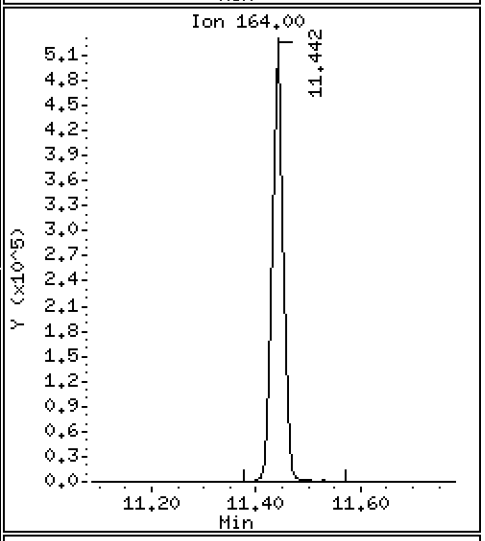
25 2,4-Dichlorophenol

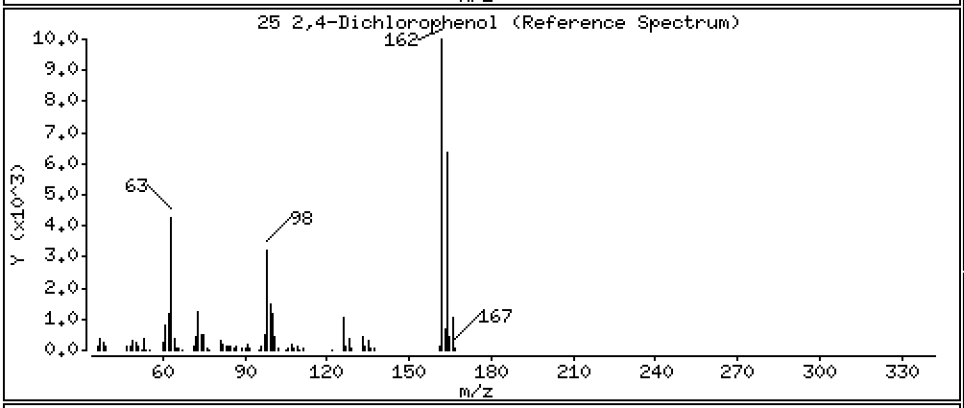
Concentration: 15.51 ug/mL

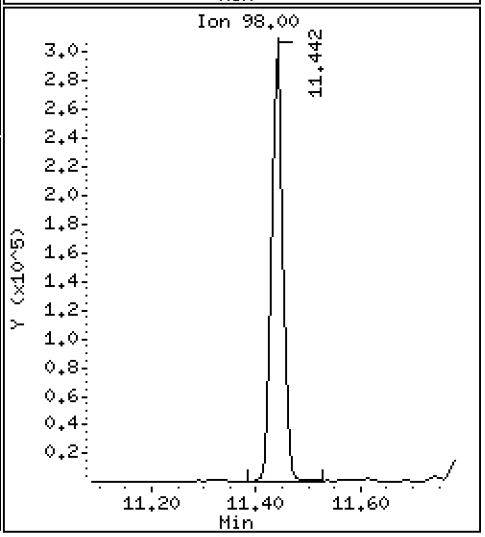


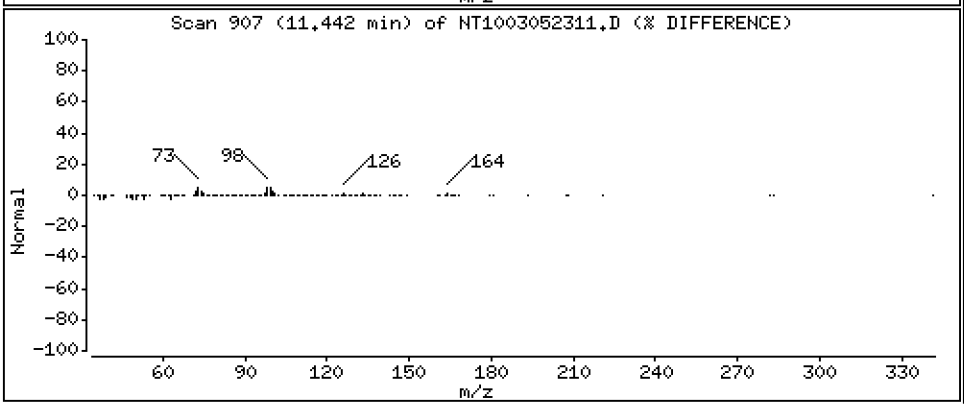












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

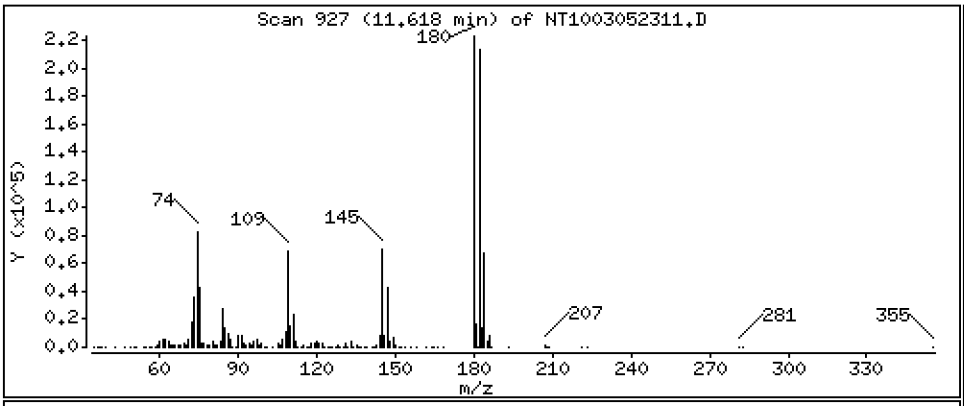
Operator: VTS

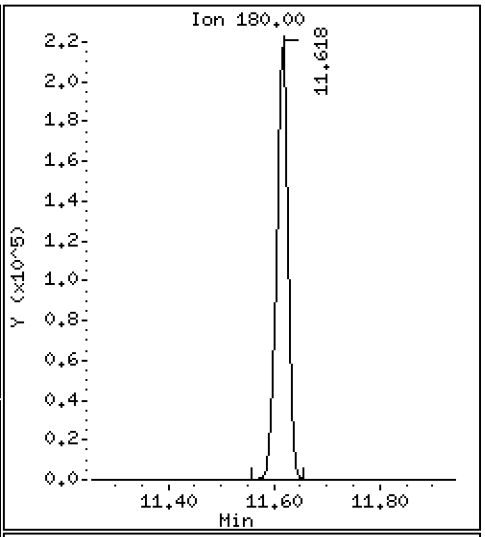
Column phase: ZB-5msi

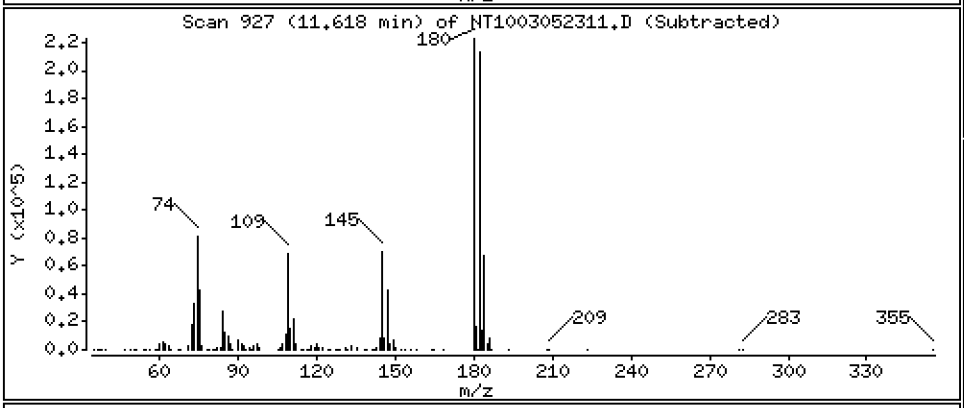
Column diameter: 0.25

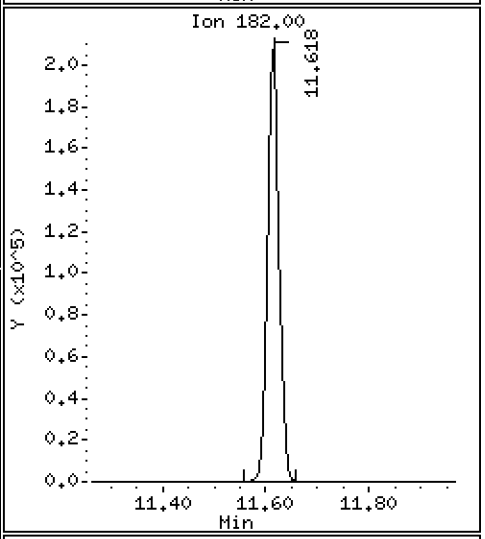
26 1,2,4-Trichlorobenzene

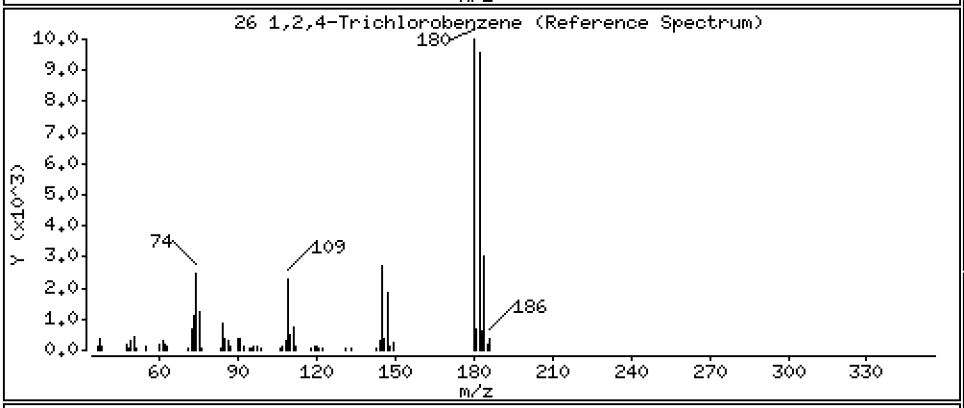
Concentration: 4.217 ug/mL

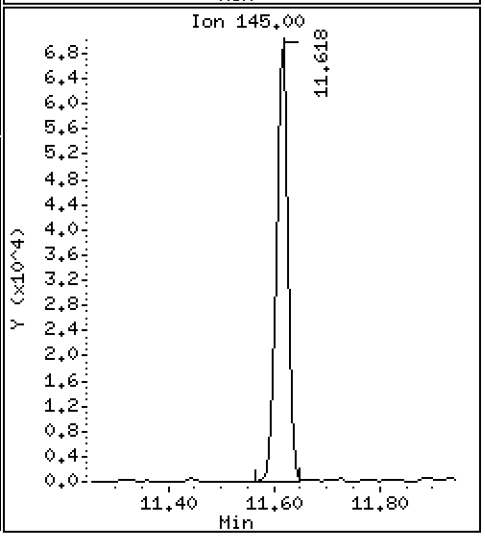


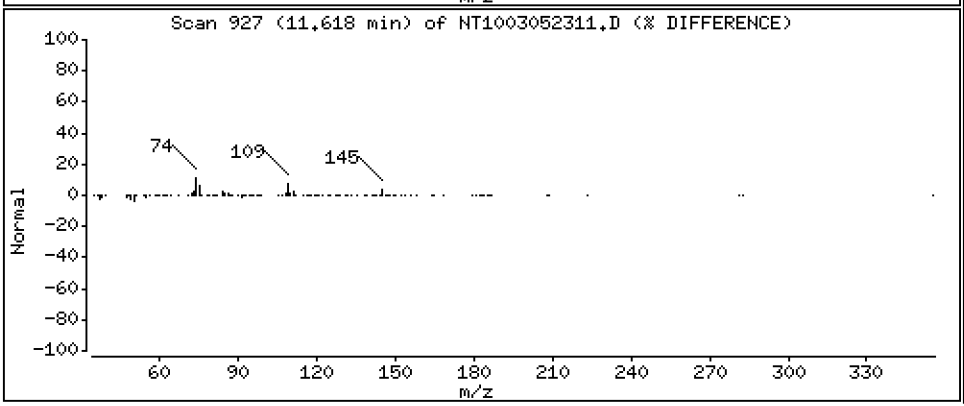












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

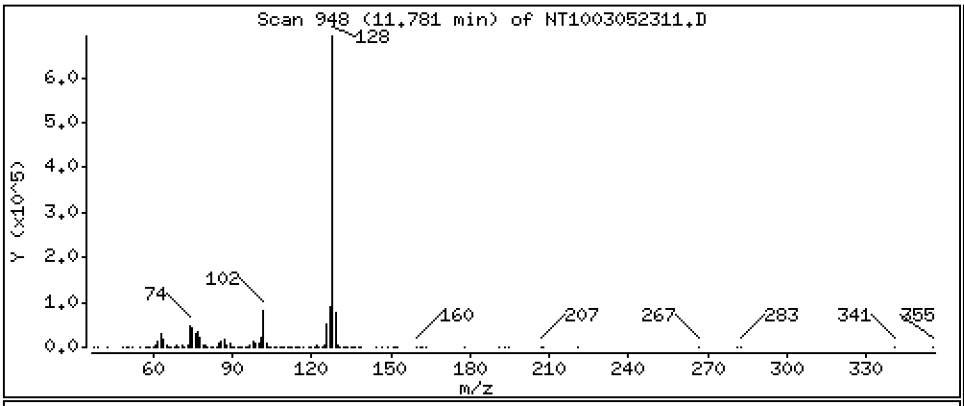
Operator: VTS

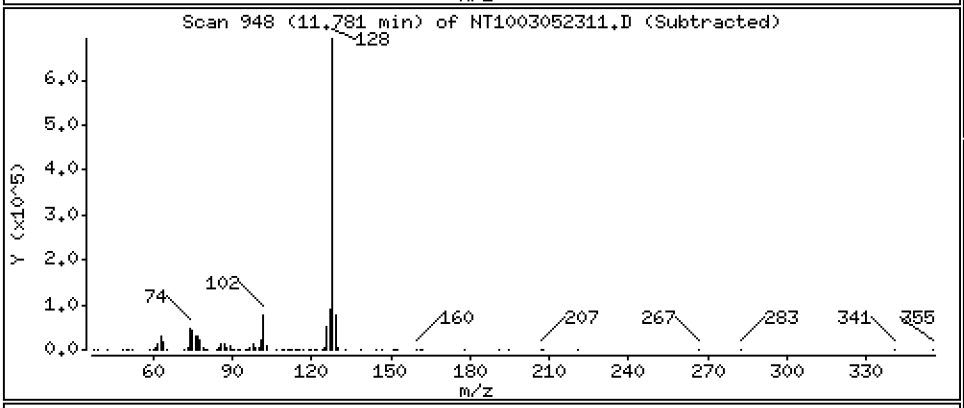
Column phase: ZB-5msi

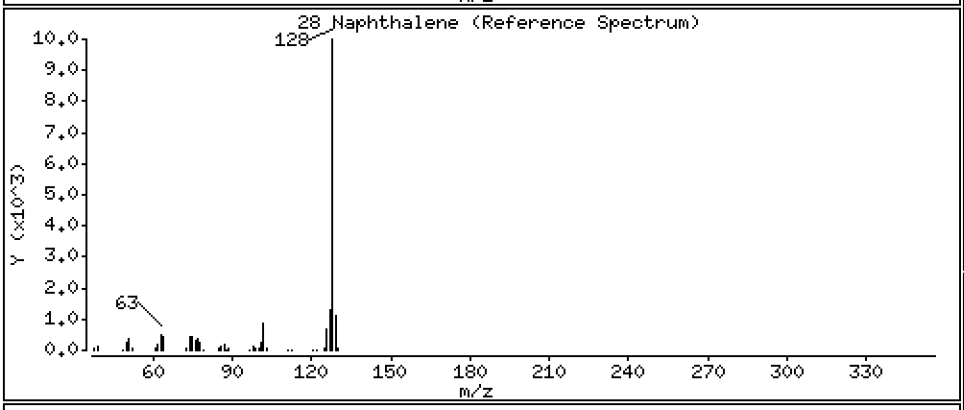
Column diameter: 0.25

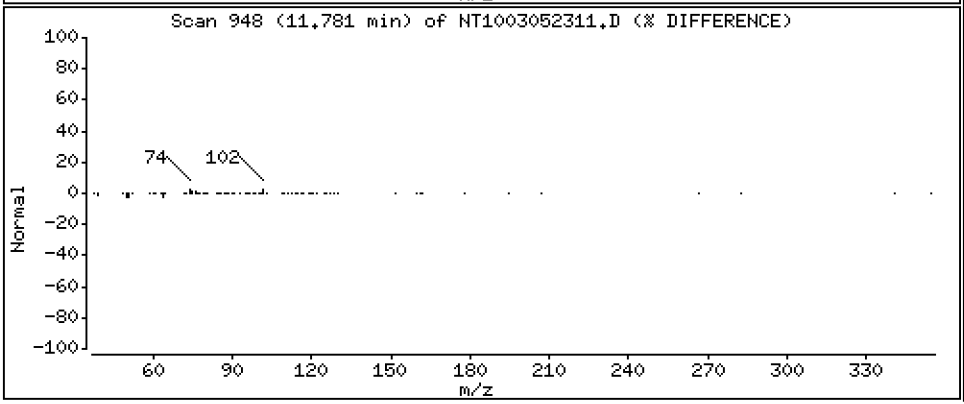
28 Naphthalene

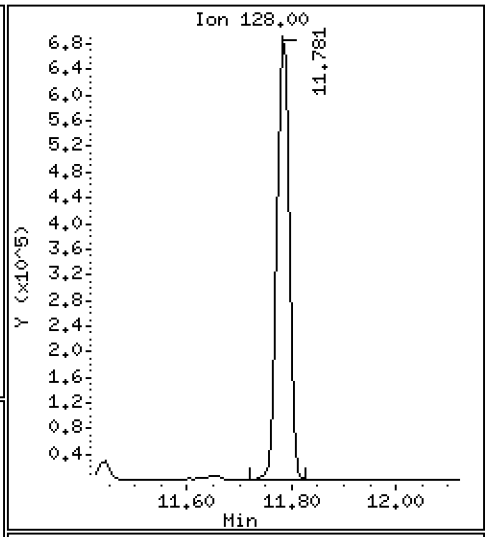
Concentration: 4.084 ug/mL

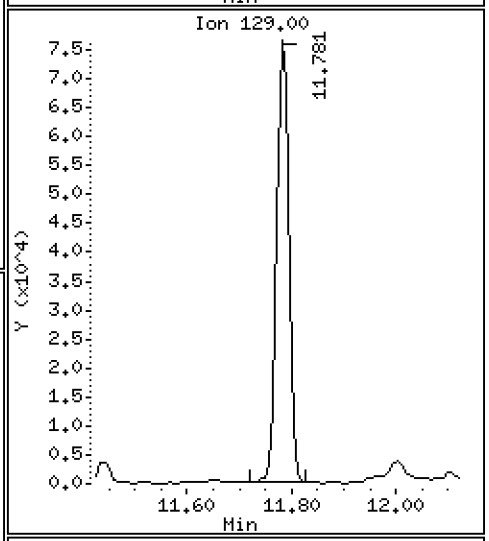


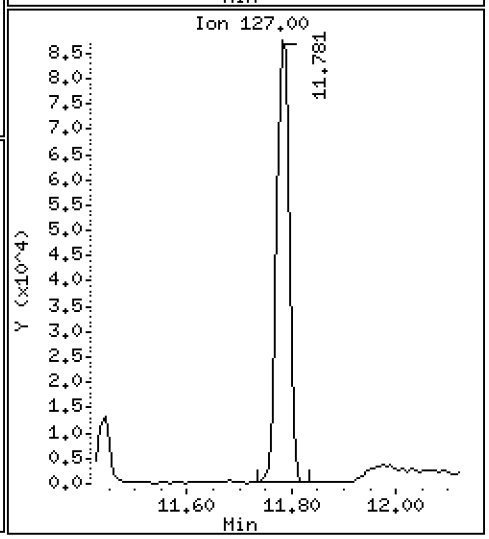












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

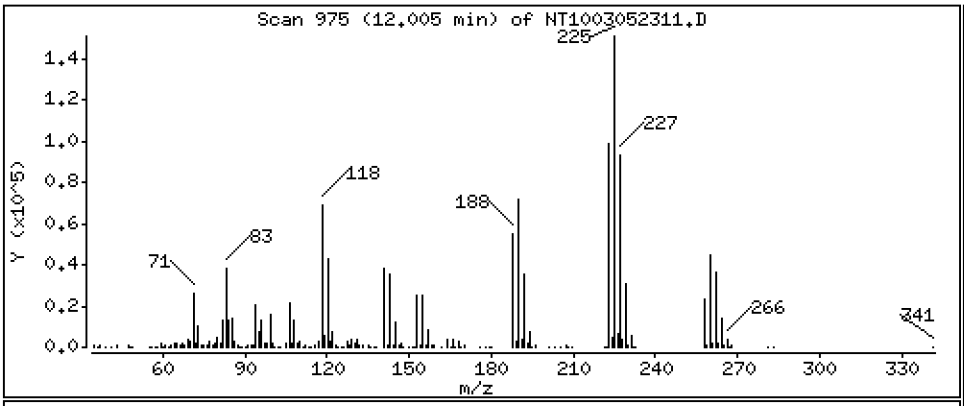
Operator: VTS

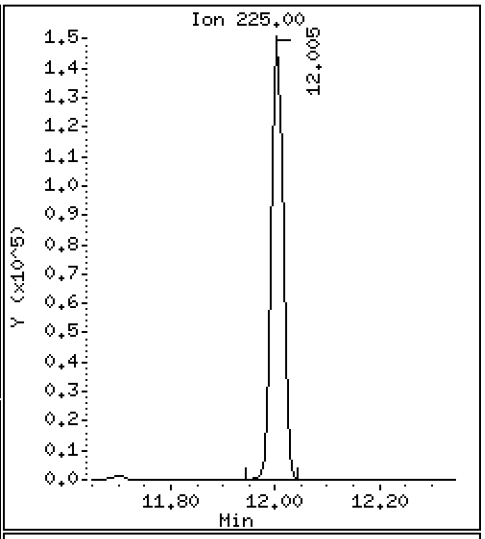
Column phase: ZB-5msi

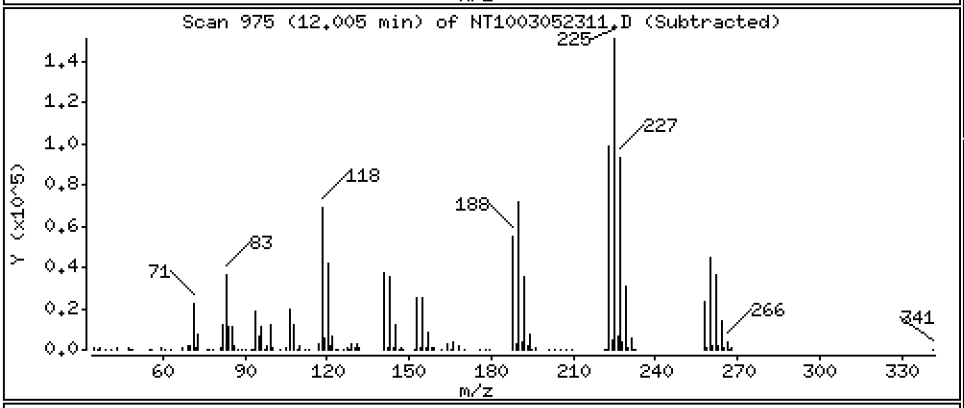
Column diameter: 0.25

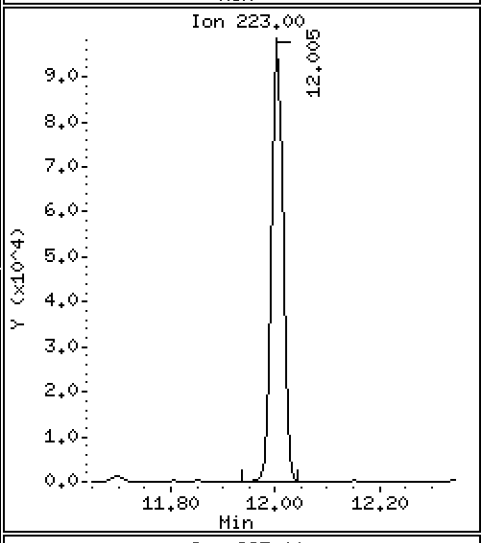
30 Hexachlorobutadiene

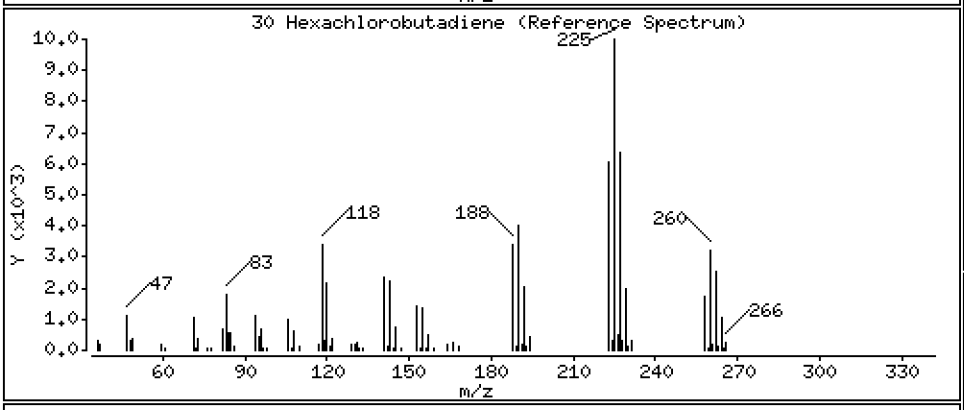
Concentration: 4.494 ug/mL

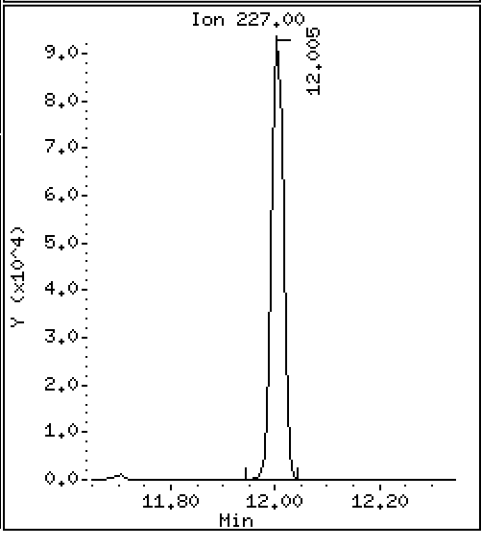


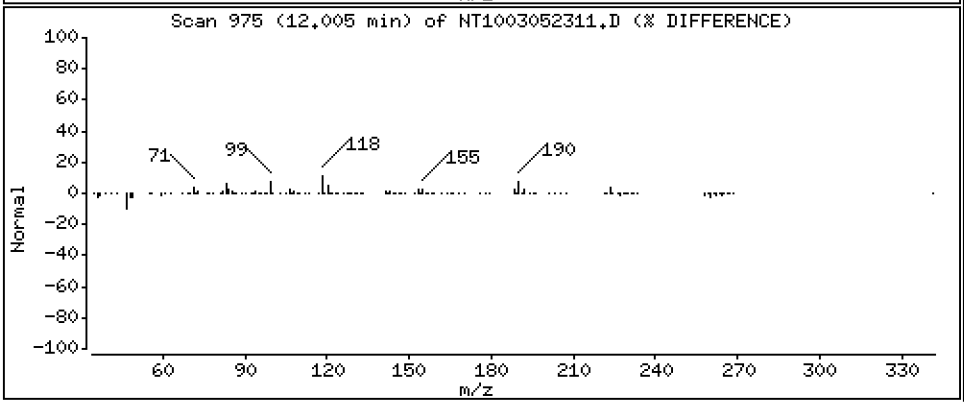












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

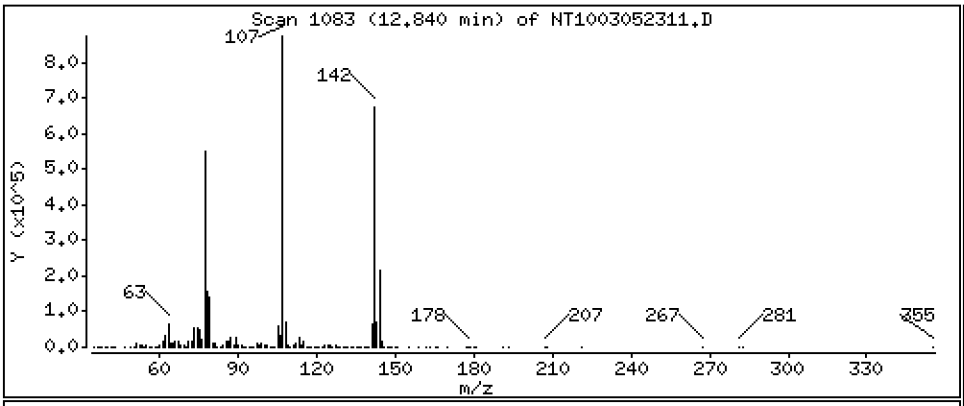
Operator: VTS

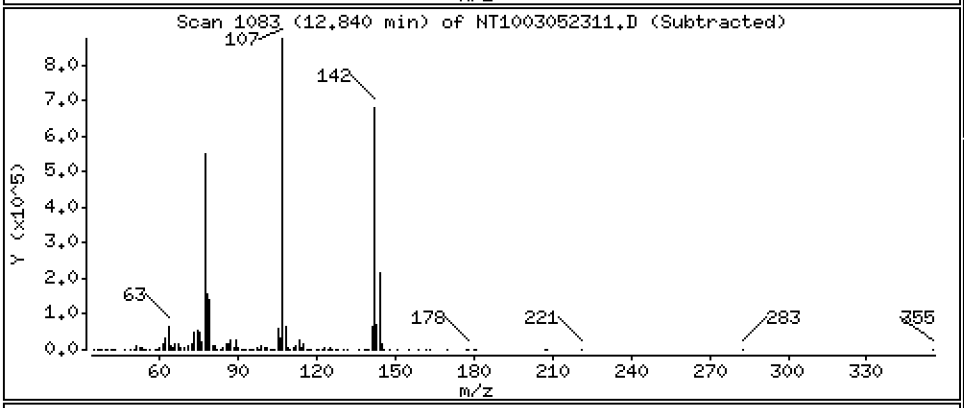
Column phase: ZB-5msi

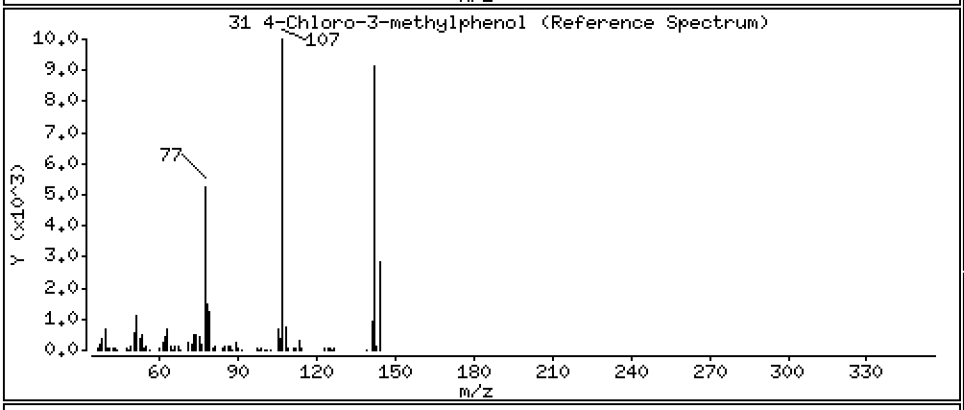
Column diameter: 0.25

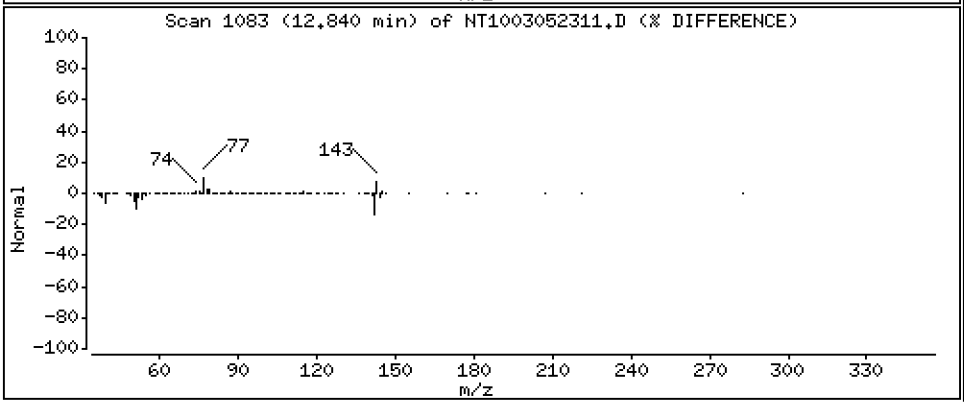
31 4-Chloro-3-methylphenol

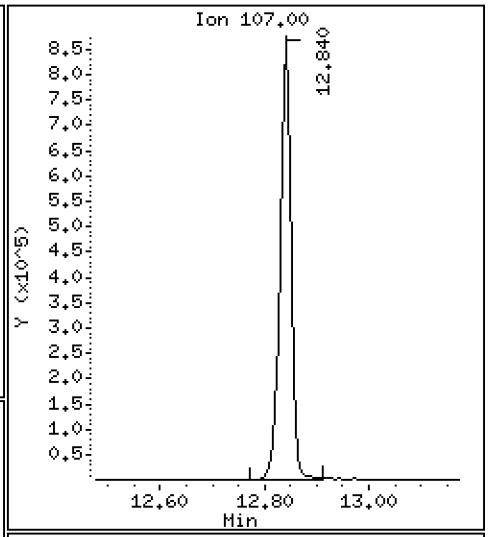
Concentration: 14.44 ug/mL

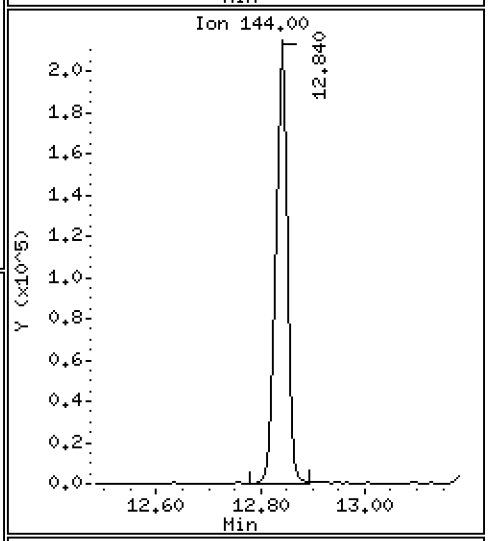


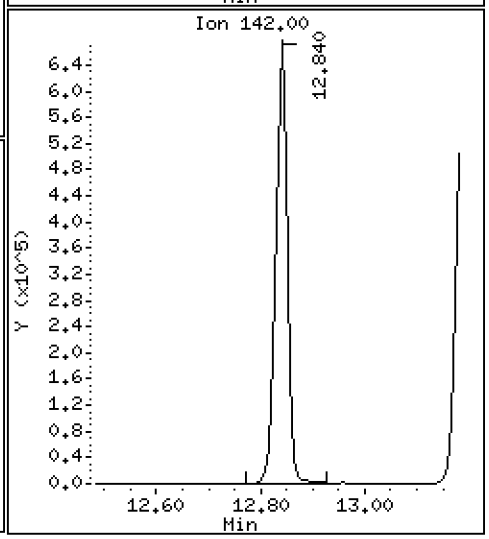












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

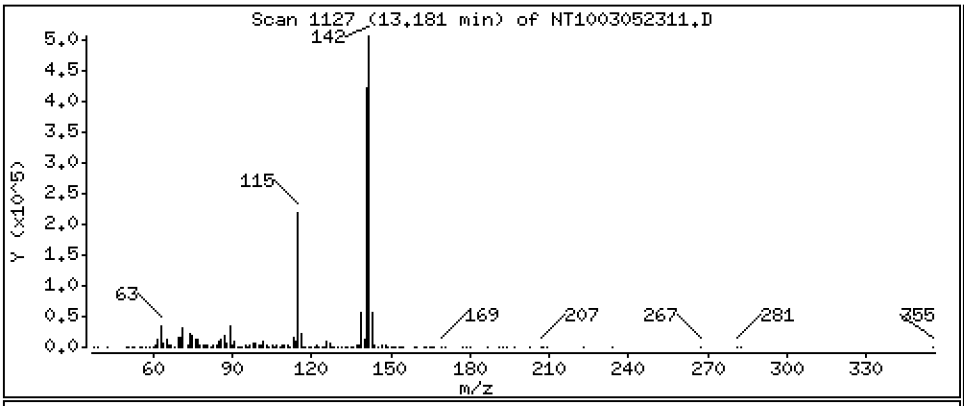
Operator: VTS

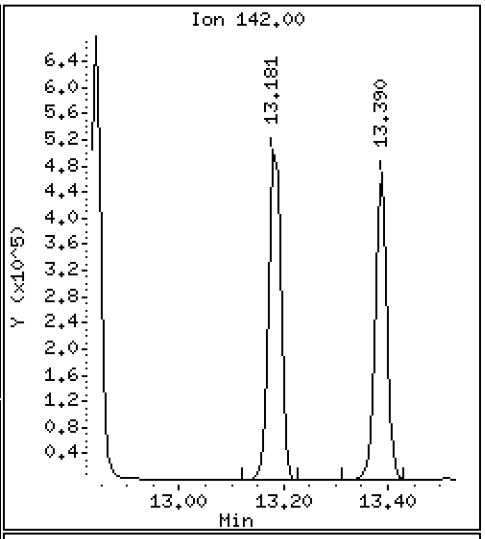
Column phase: ZB-5msi

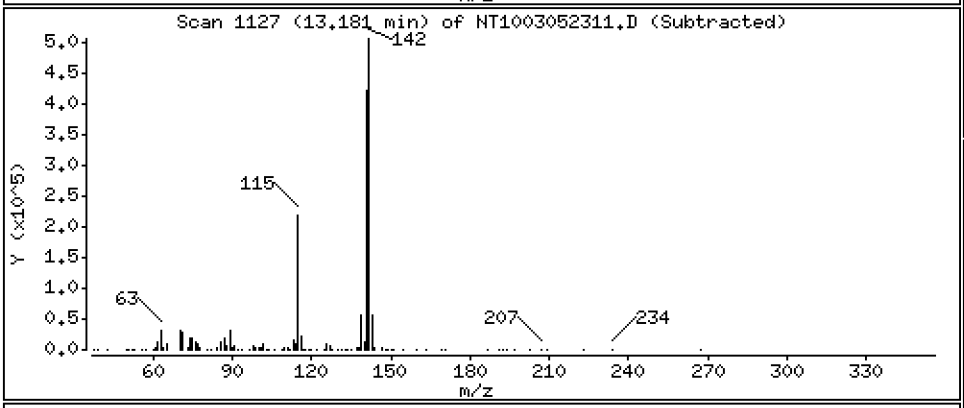
Column diameter: 0.25

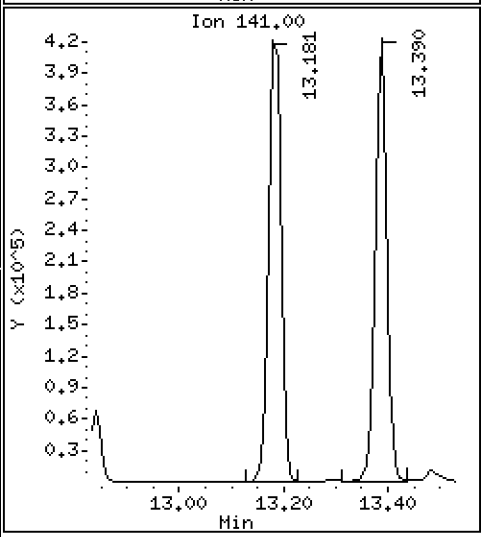
32 2-Methylnaphthalene

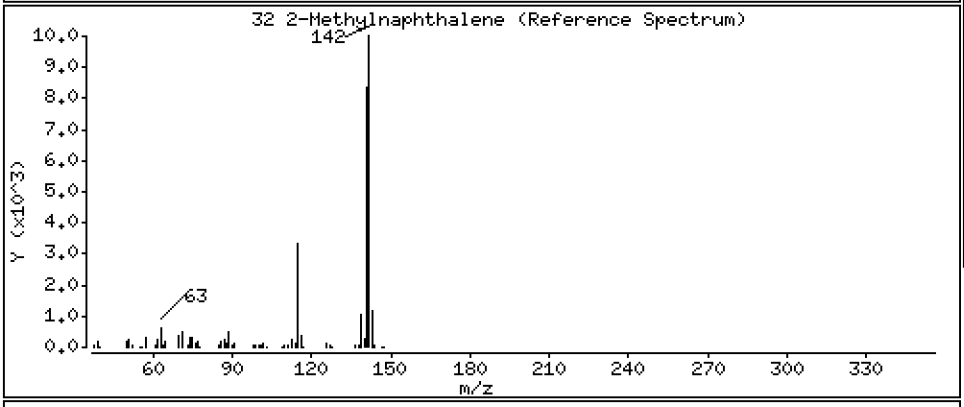
Concentration: 4.158 ug/mL

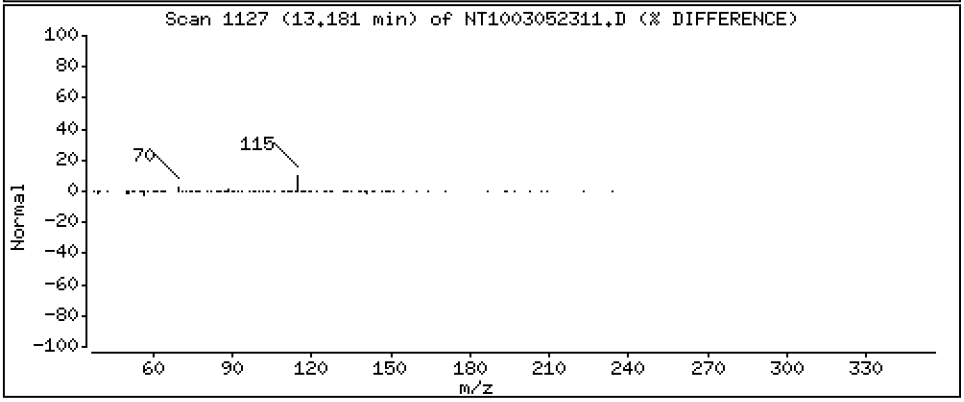












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

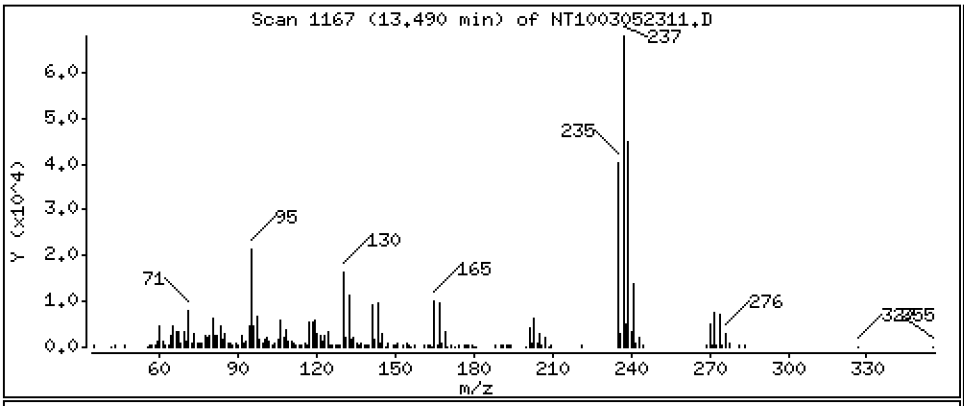
Operator: VTS

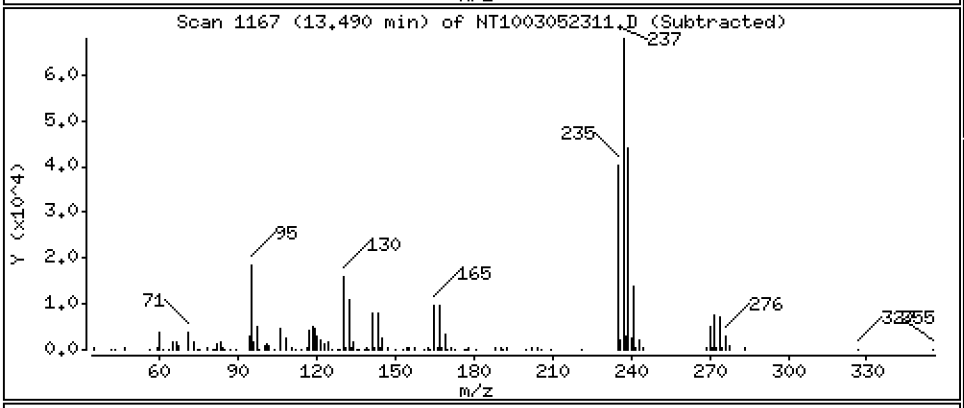
Column phase: ZB-5msi

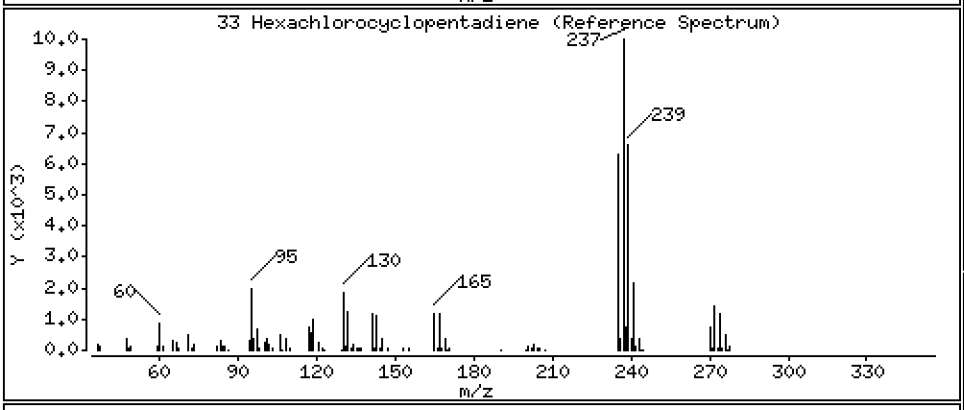
Column diameter: 0.25

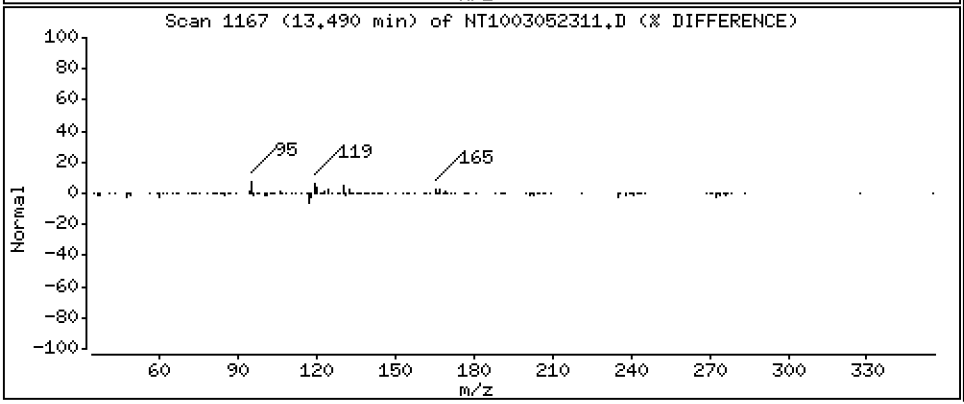
33 Hexachlorocyclopentadiene

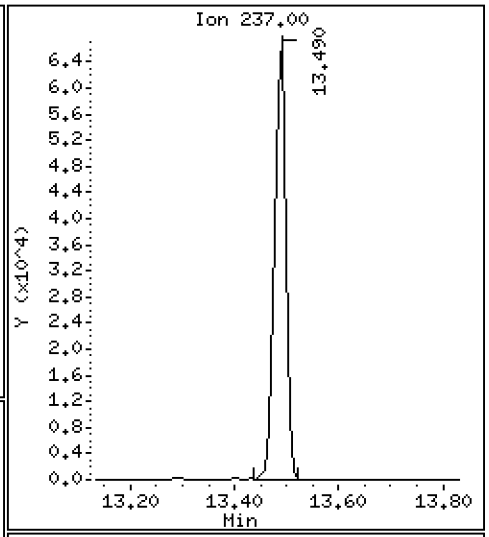
Concentration: 5.201 ug/mL

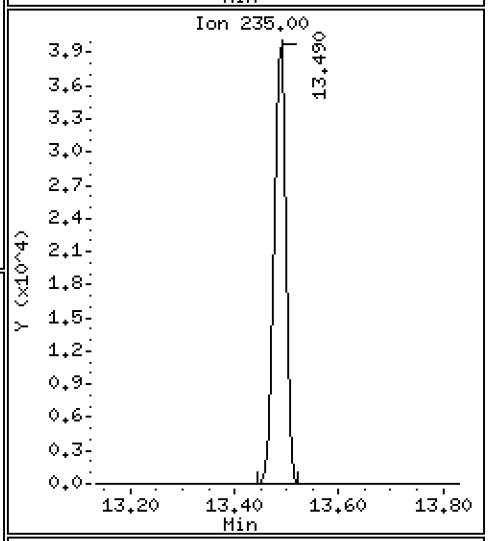


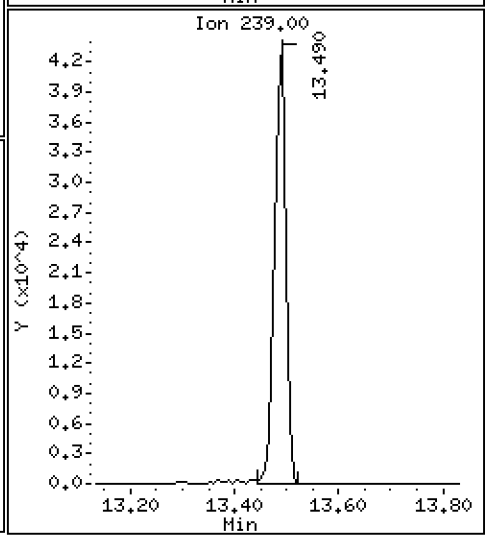












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

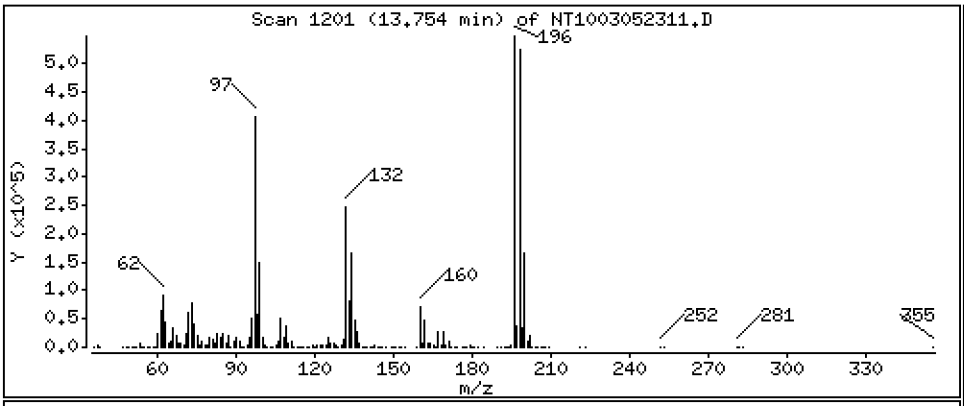
Operator: VTS

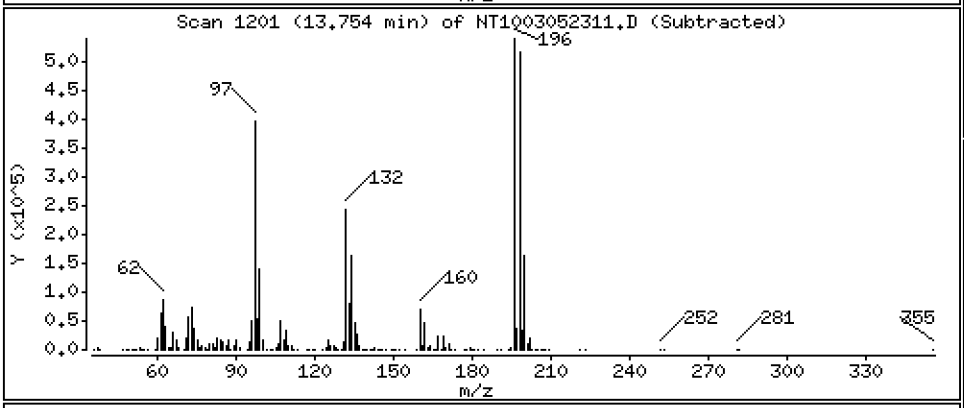
Column phase: ZB-5msi

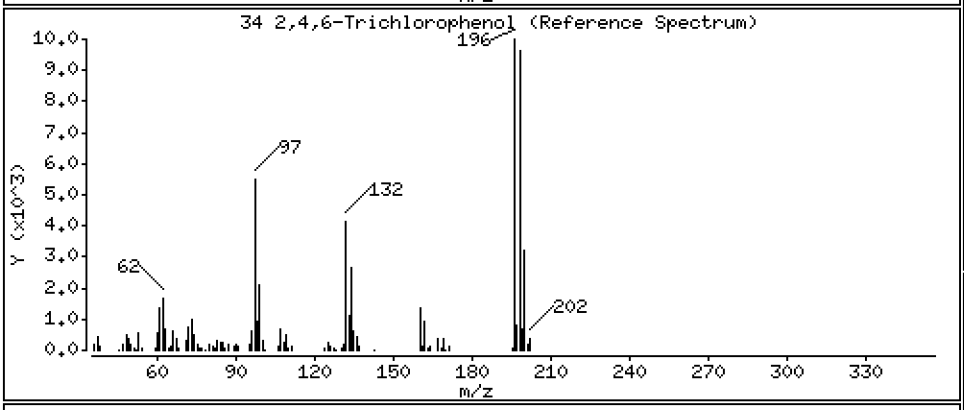
Column diameter: 0.25

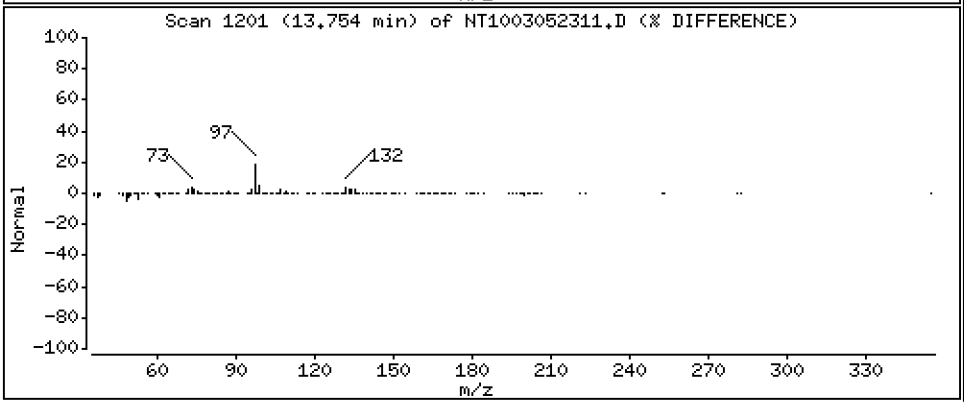
34 2,4,6-Trichlorophenol

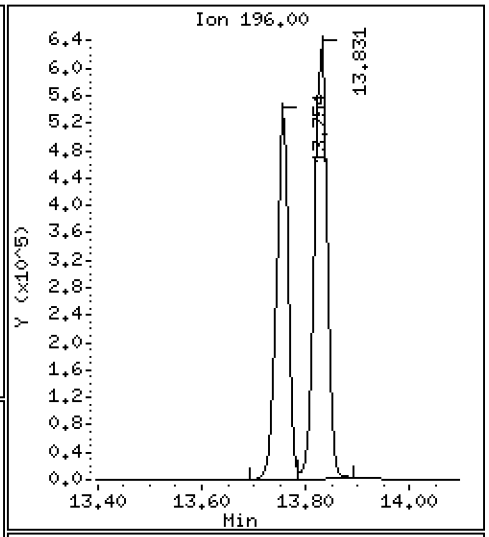
Concentration: 15.00 ug/mL

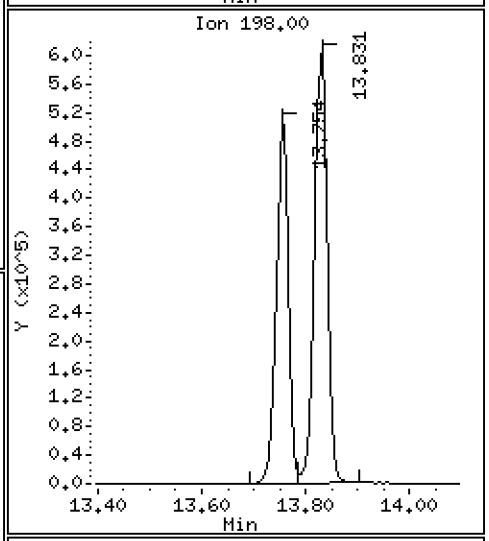


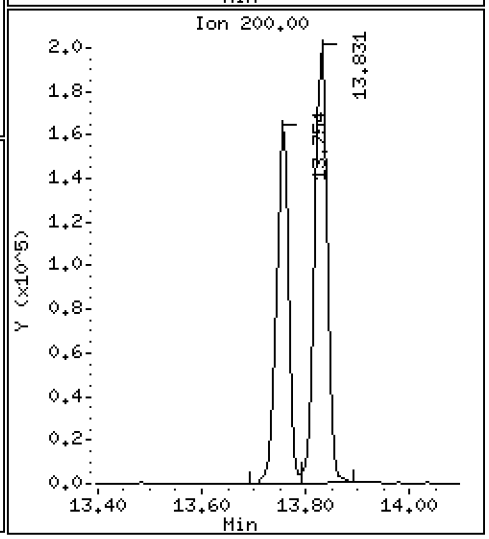












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

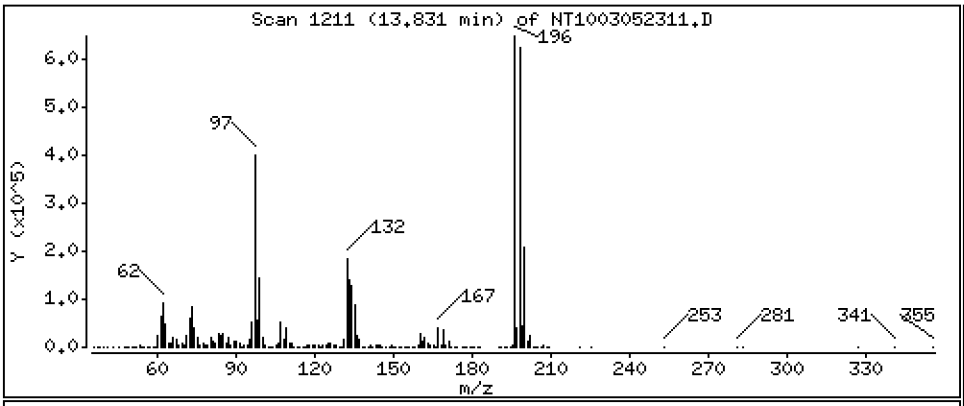
Operator: VTS

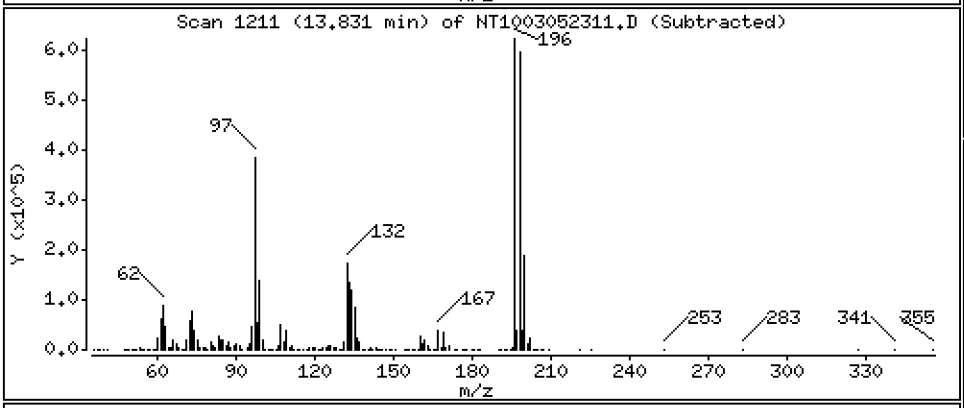
Column phase: ZB-5msi

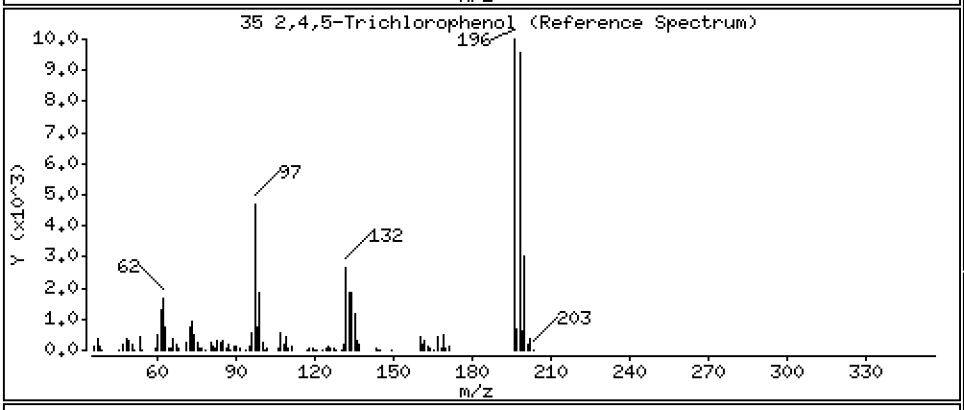
Column diameter: 0.25

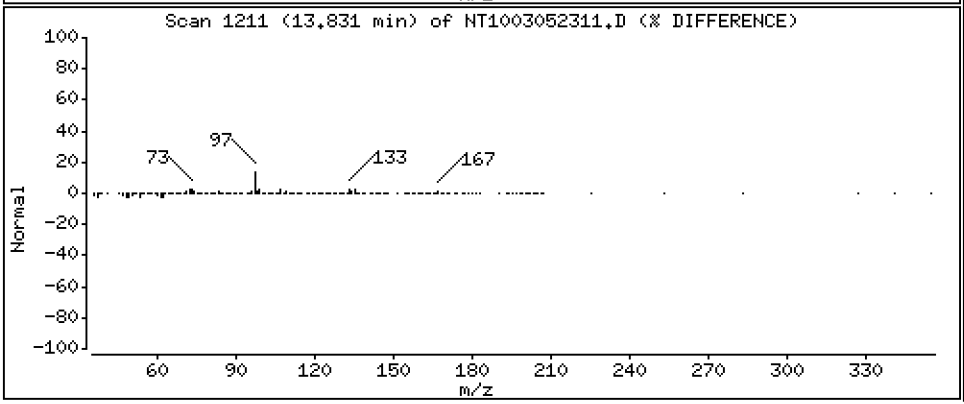
35 2,4,5-Trichlorophenol

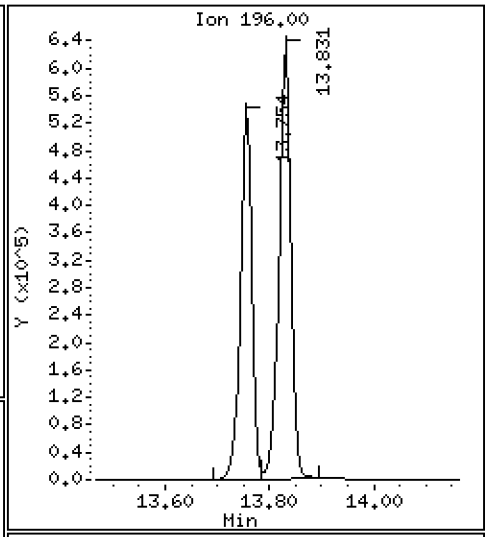
Concentration: 16.66 ug/mL

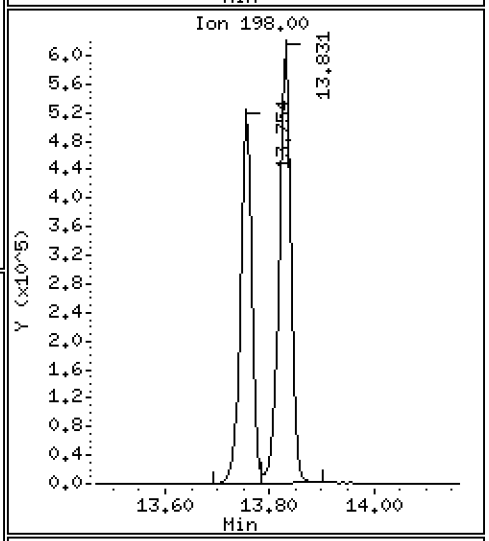


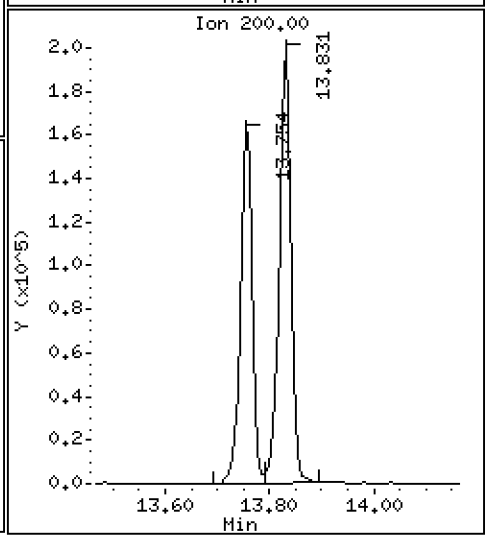












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

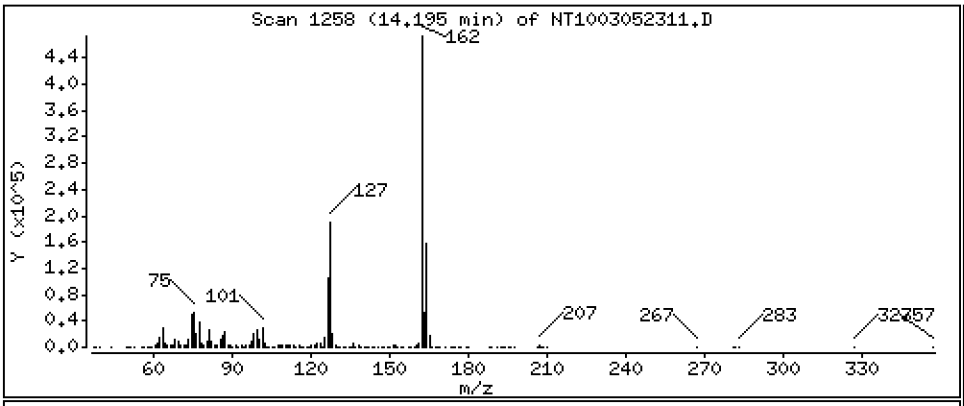
Operator: VTS

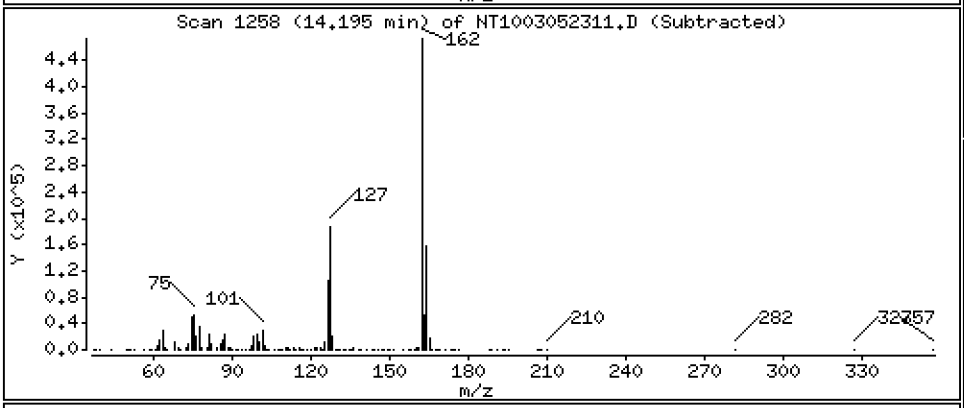
Column phase: ZB-5msi

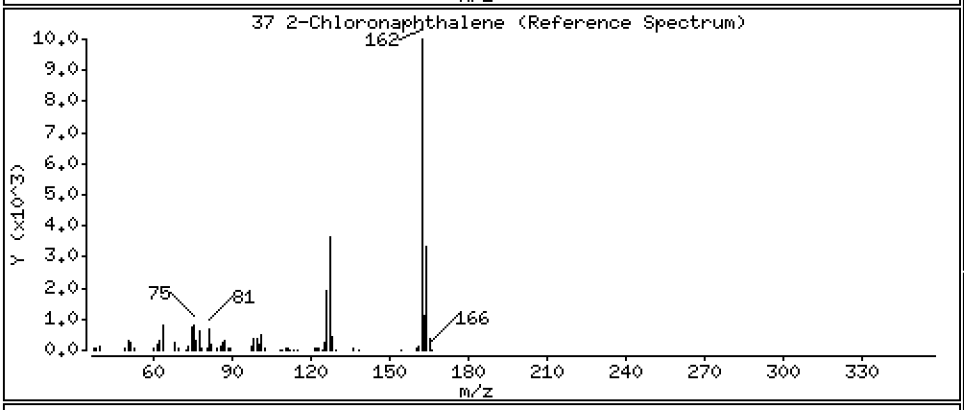
Column diameter: 0.25

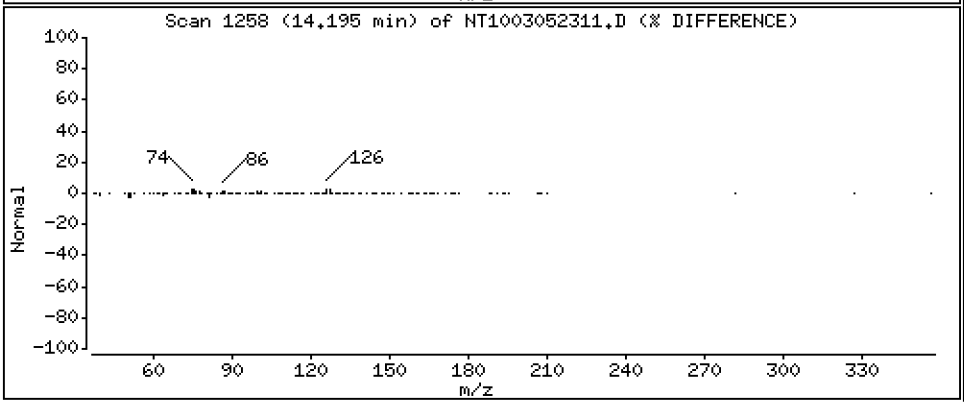
37 2-Chloronaphthalene

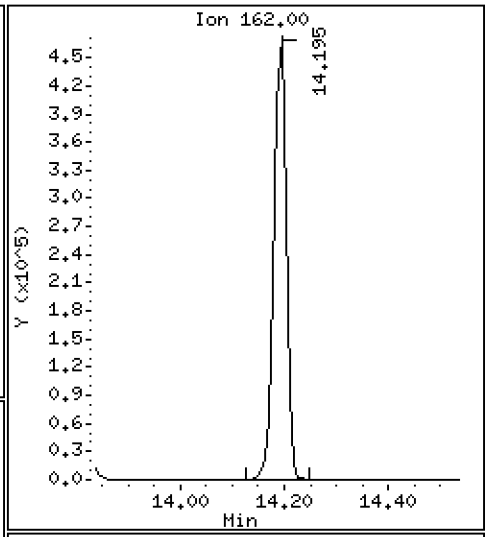
Concentration: 4.771 ug/mL

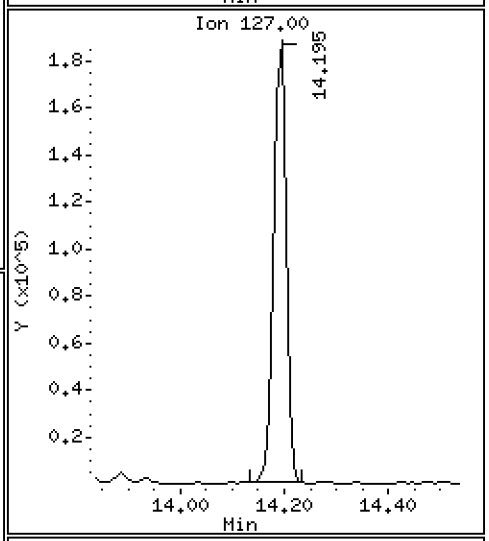


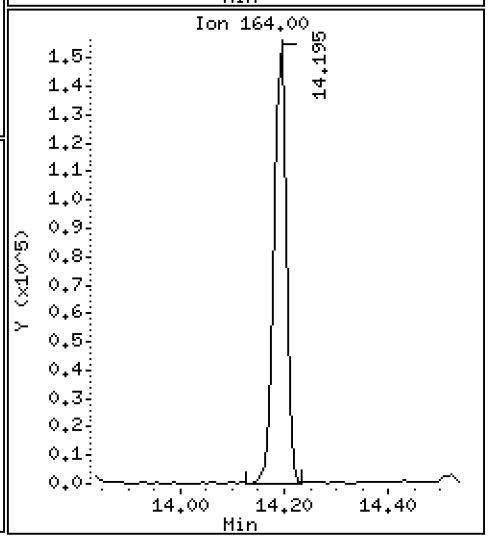












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

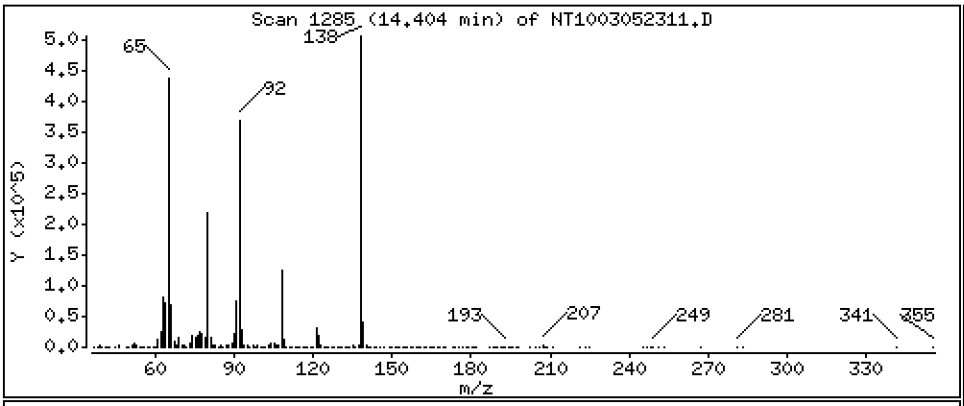
Operator: VTS

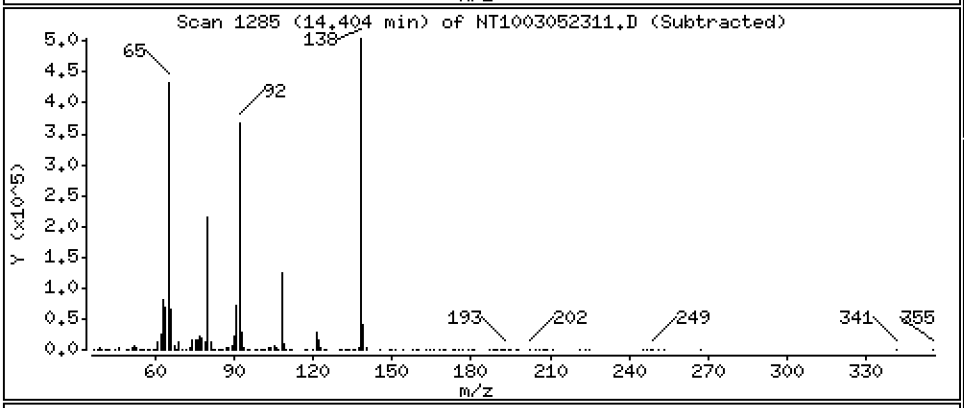
Column phase: ZB-5msi

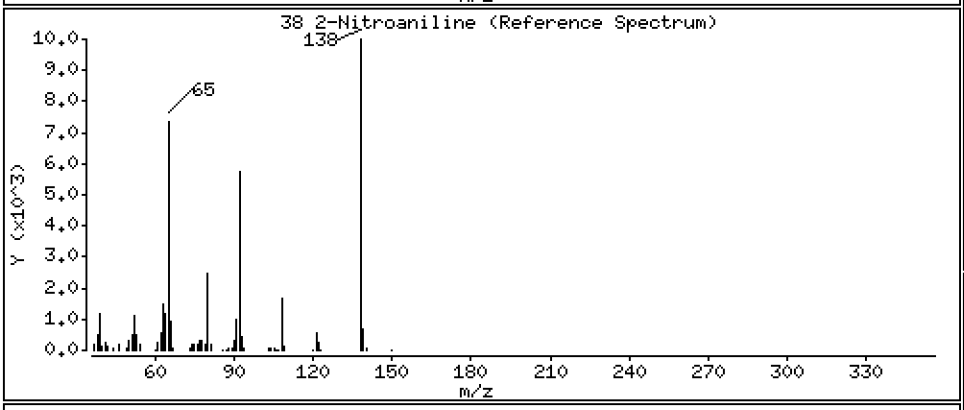
Column diameter: 0.25

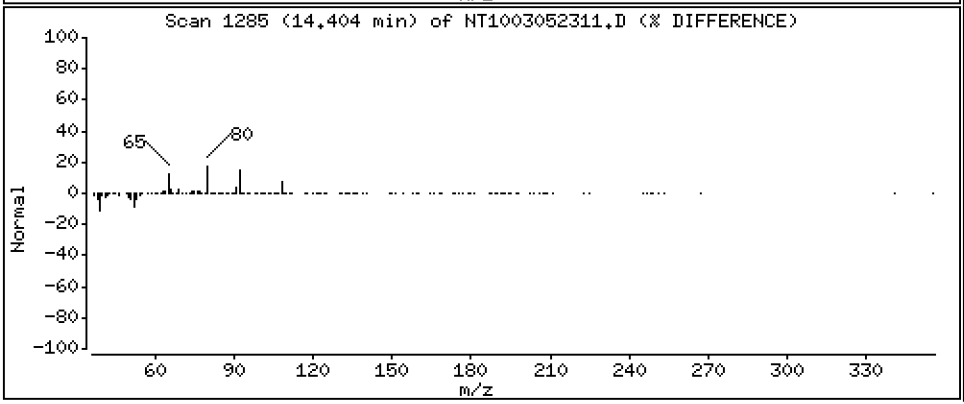
38 2-Nitroaniline

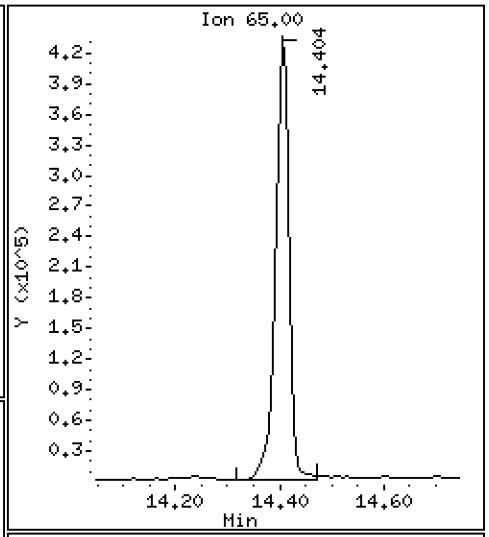
Concentration: 16.60 ug/mL

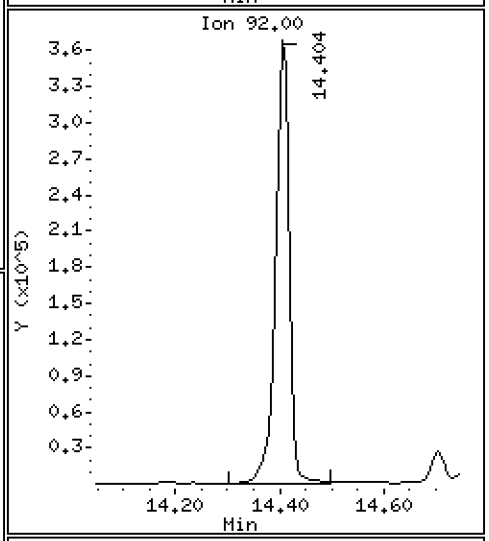


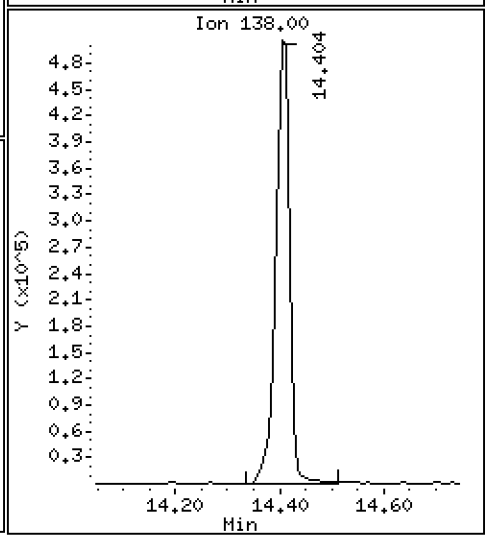












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

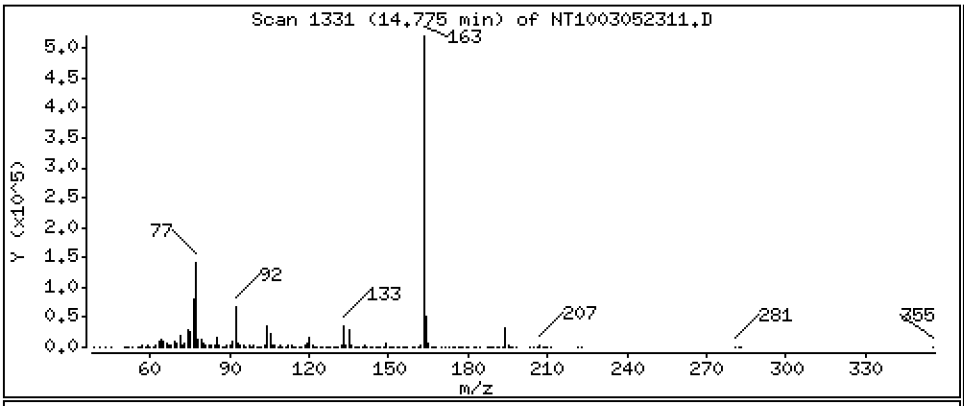
Operator: VTS

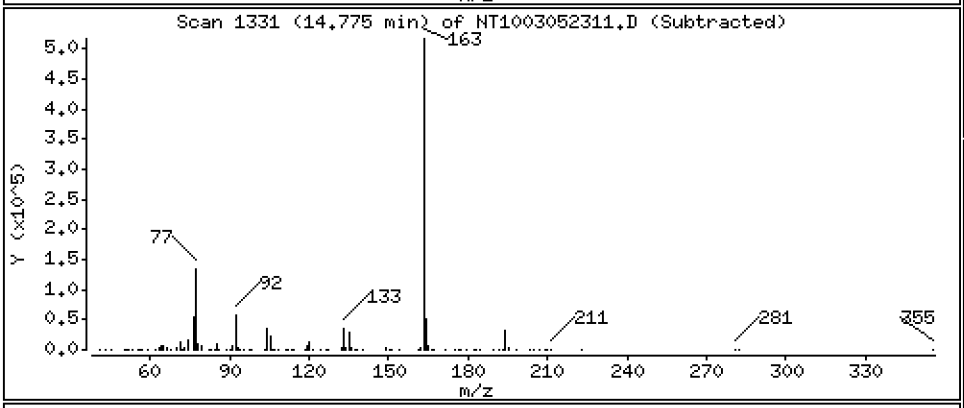
Column phase: ZB-5msi

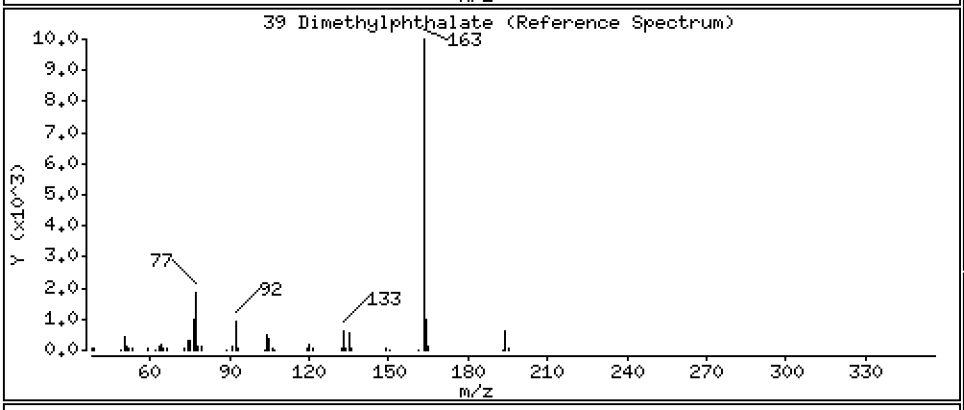
Column diameter: 0.25

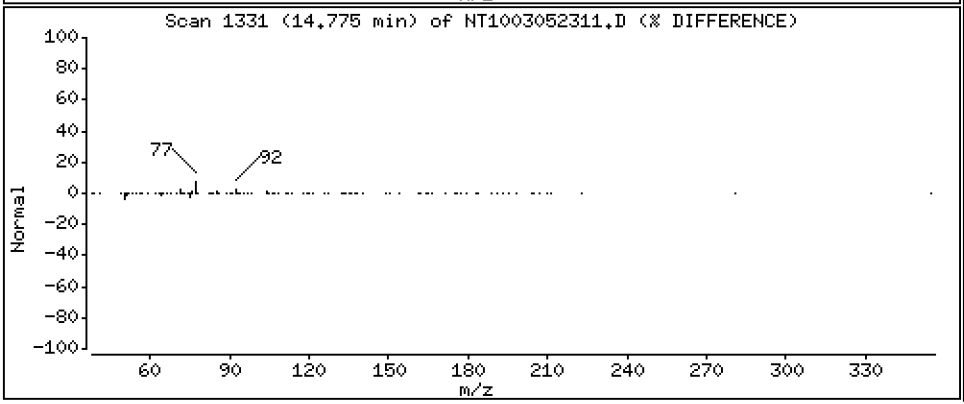
39 Dimethylphthalate

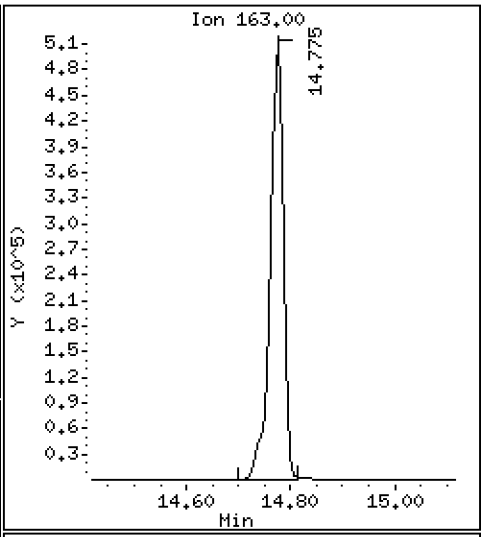
Concentration: 4.776 ug/mL

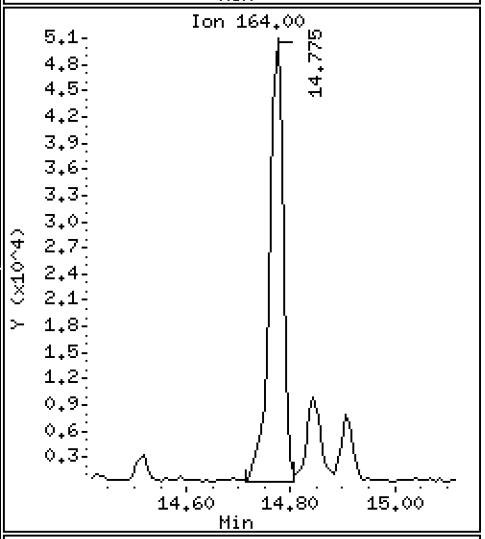


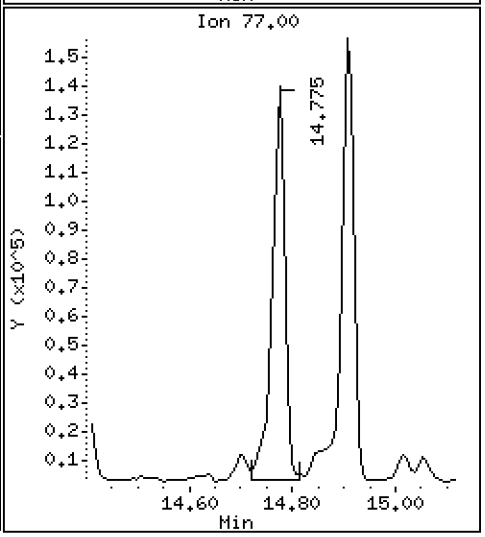












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

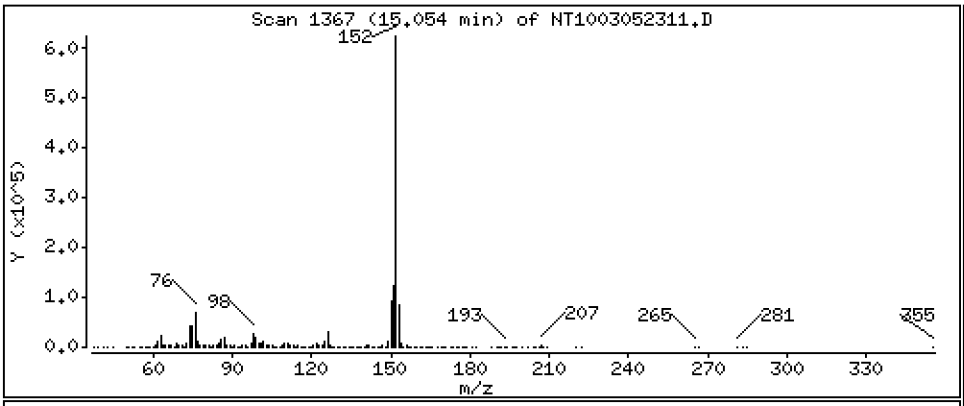
Operator: VTS

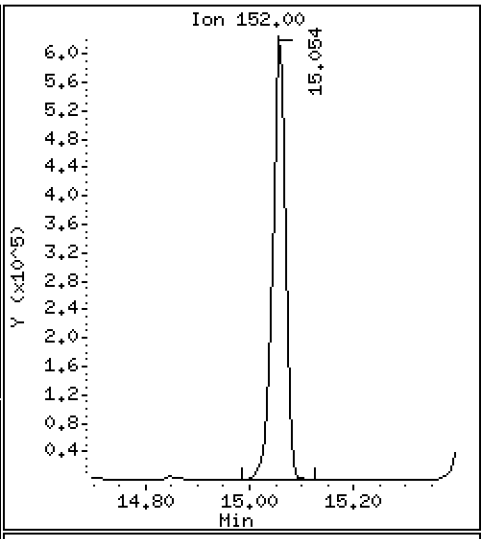
Column phase: ZB-5msi

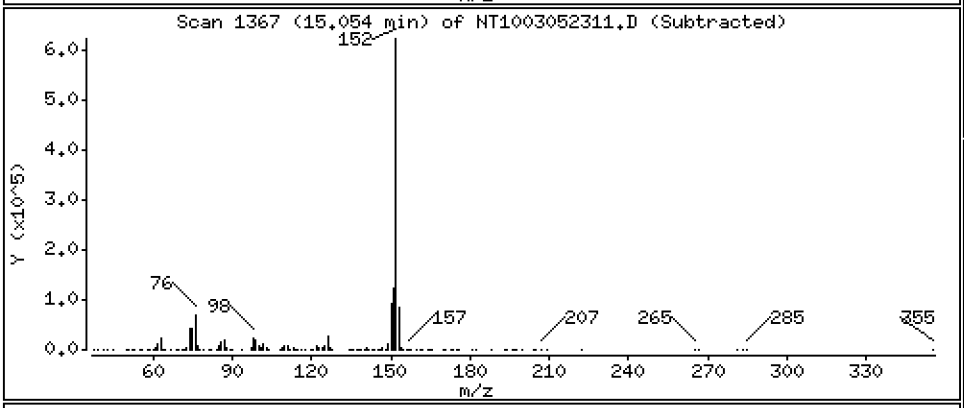
Column diameter: 0.25

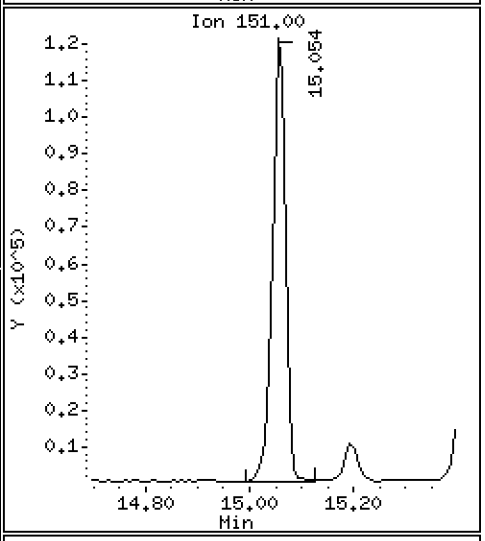
40 Acenaphthylene

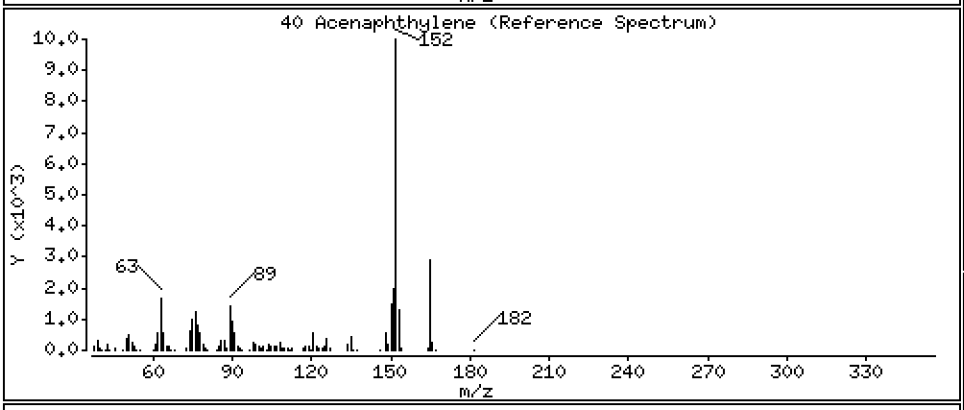
Concentration: 4.503 ug/mL

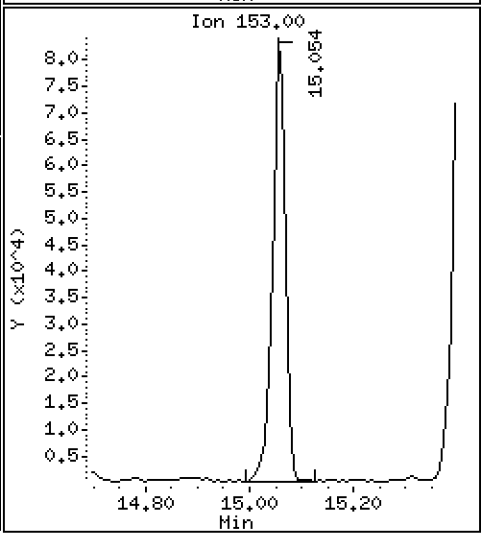


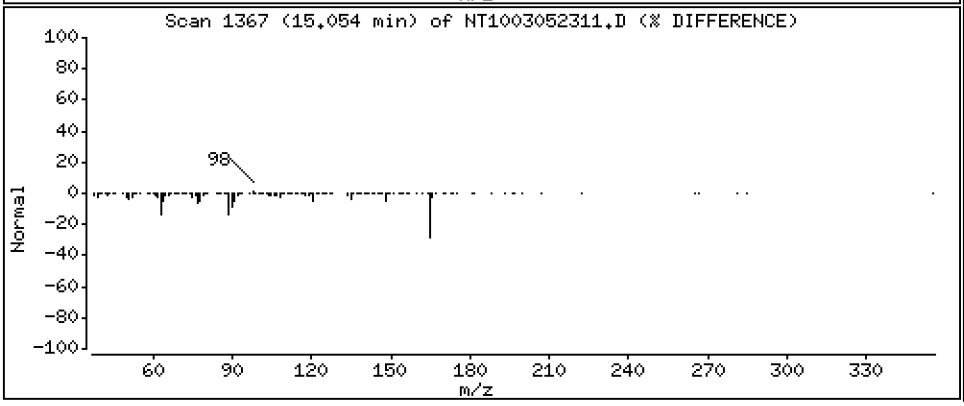












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

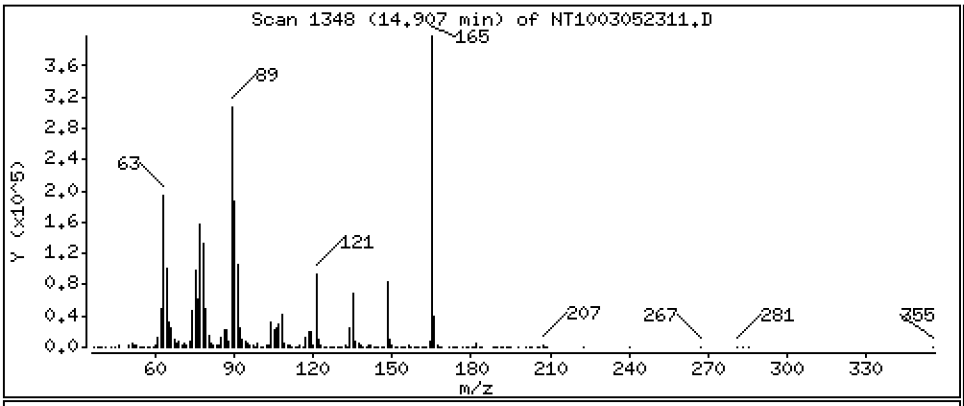
Operator: VTS

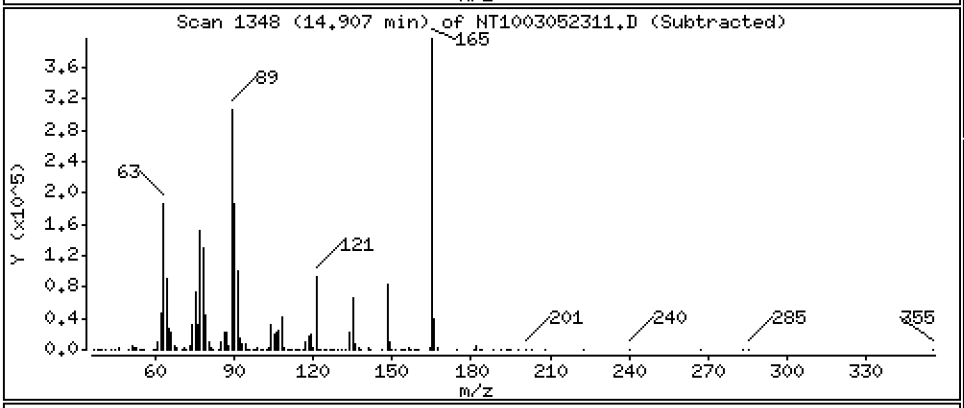
Column phase: ZB-5msi

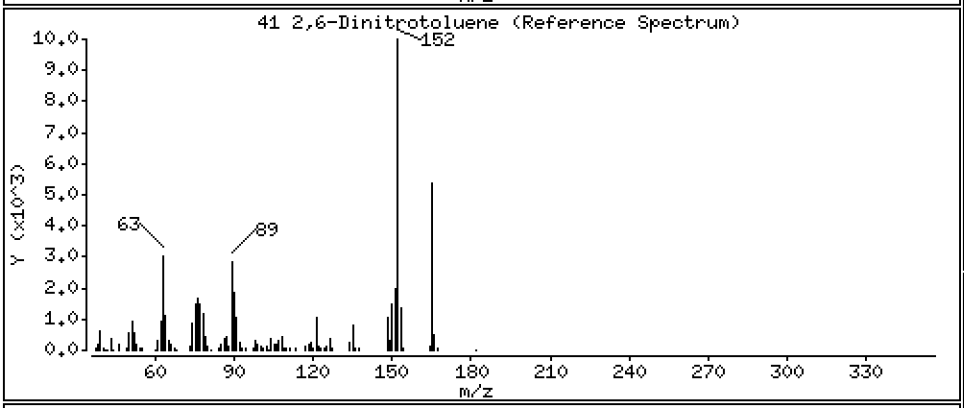
Column diameter: 0.25

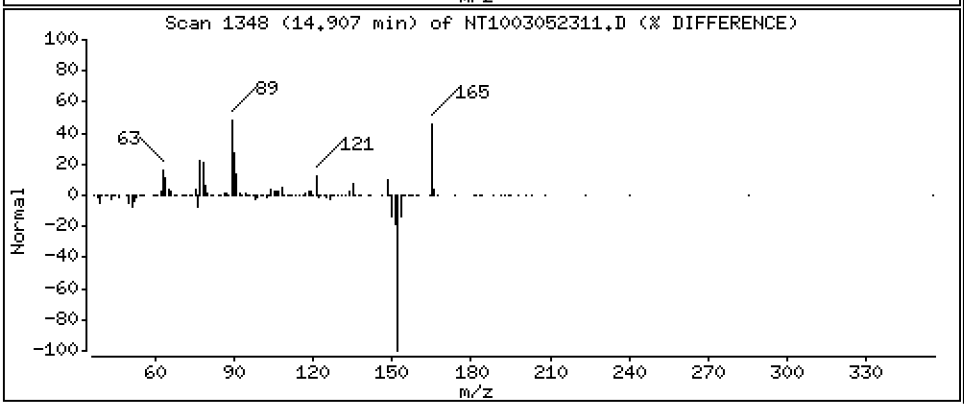
41 2,6-Dinitrotoluene

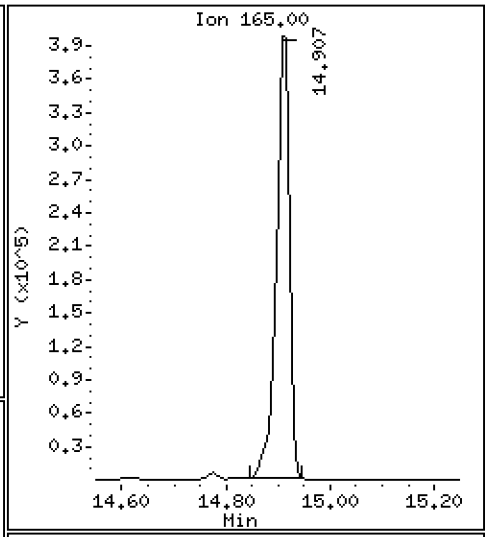
Concentration: 16.81 ug/mL

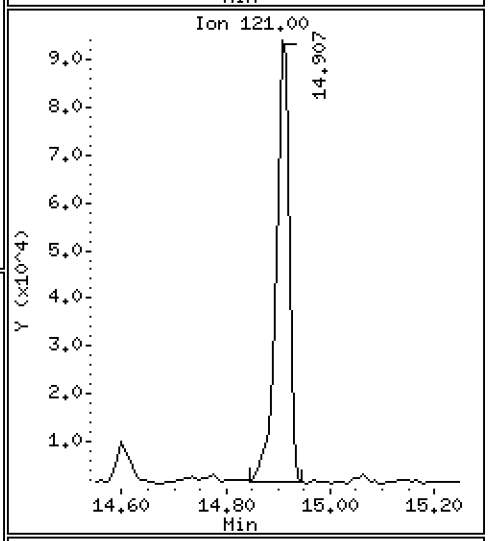


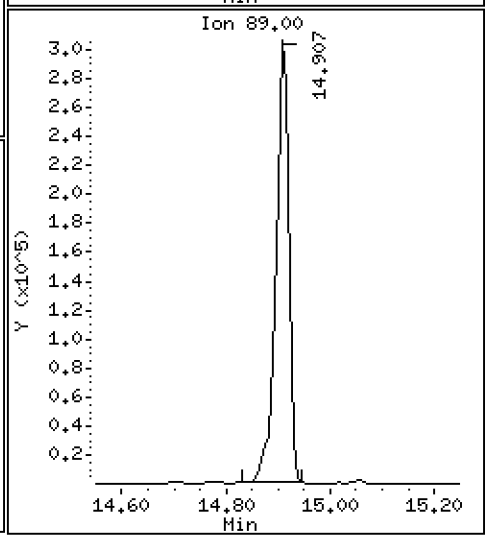












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

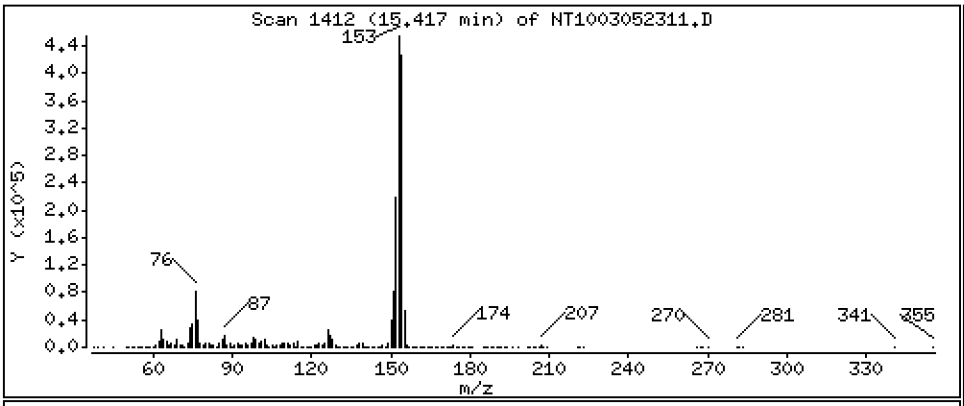
Operator: VTS

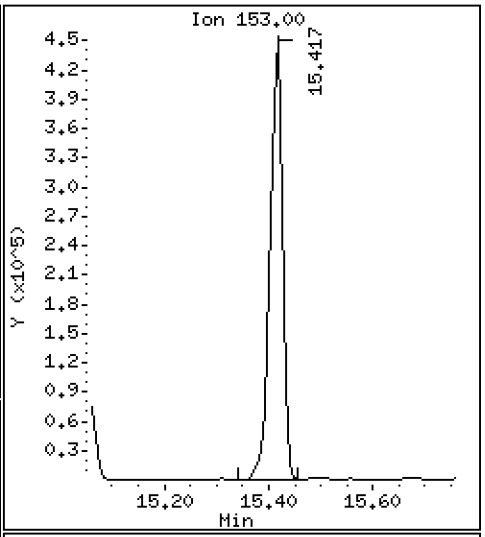
Column phase: ZB-5msi

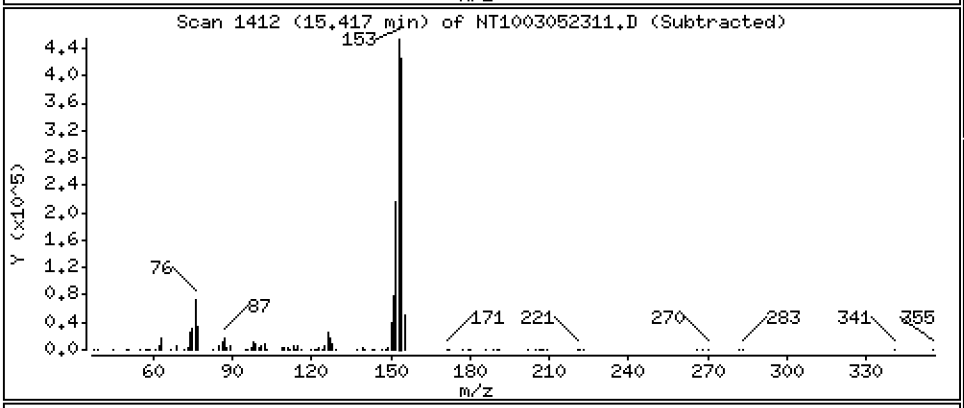
Column diameter: 0.25

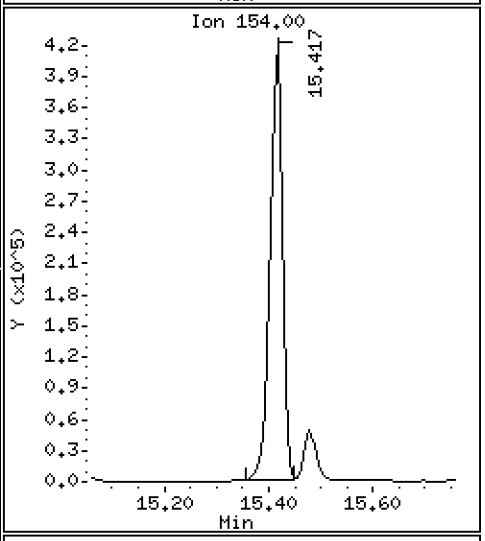
44 Acenaphthene

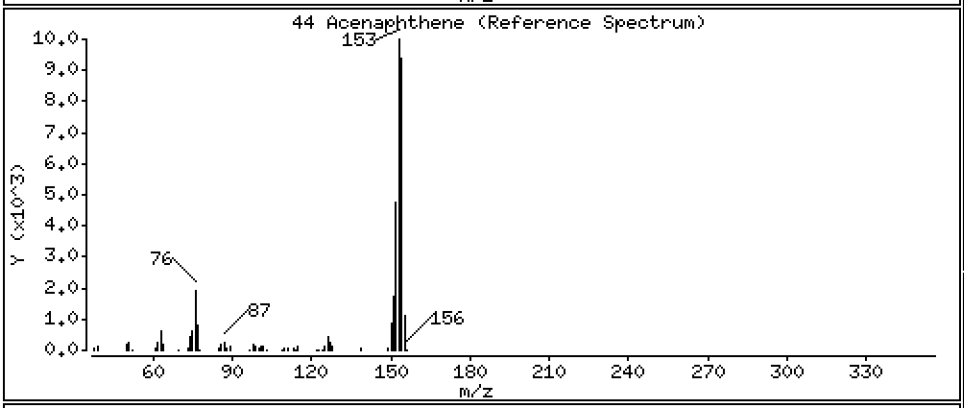
Concentration: 4.510 ug/mL

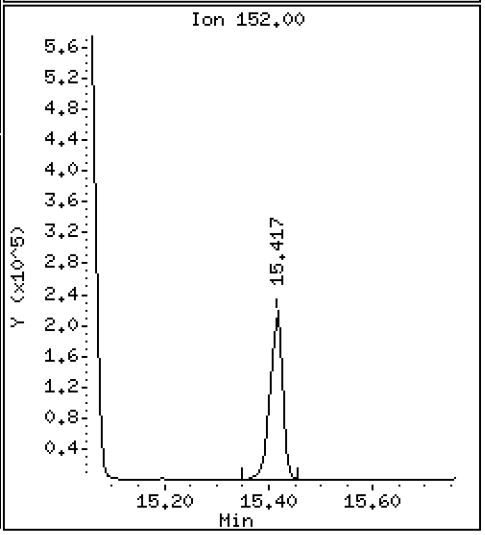


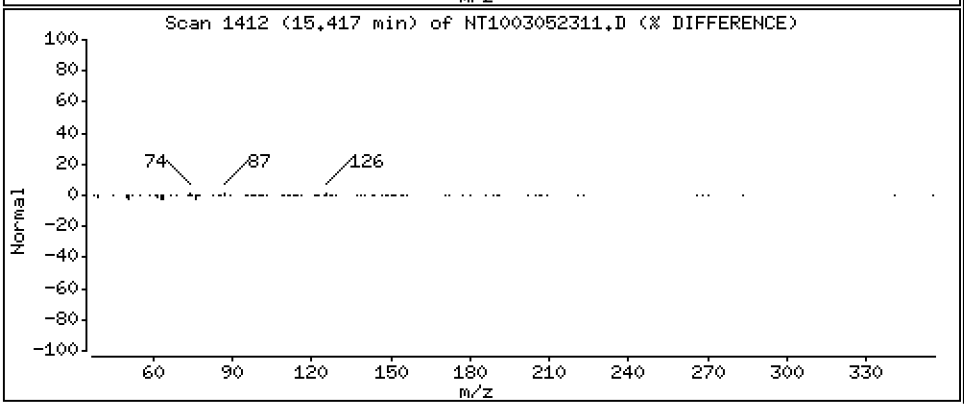












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

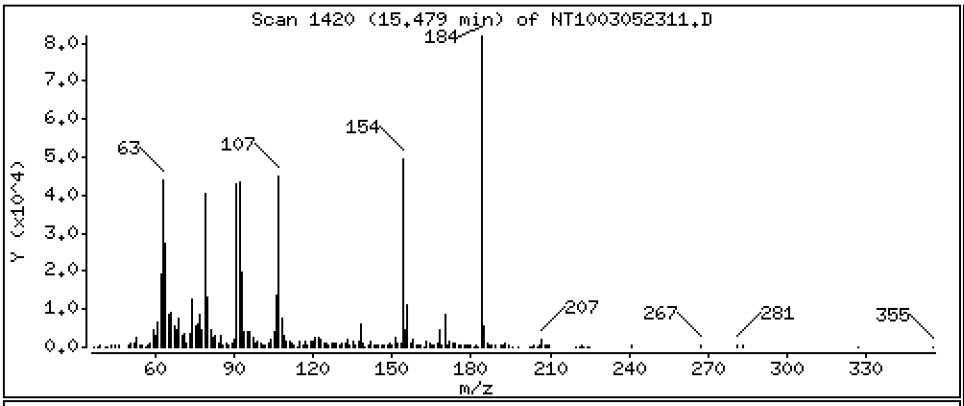
Operator: VTS

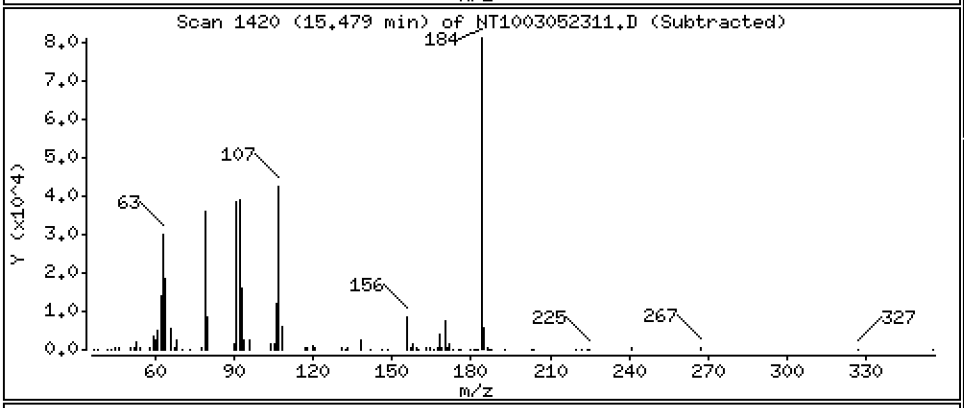
Column phase: ZB-5msi

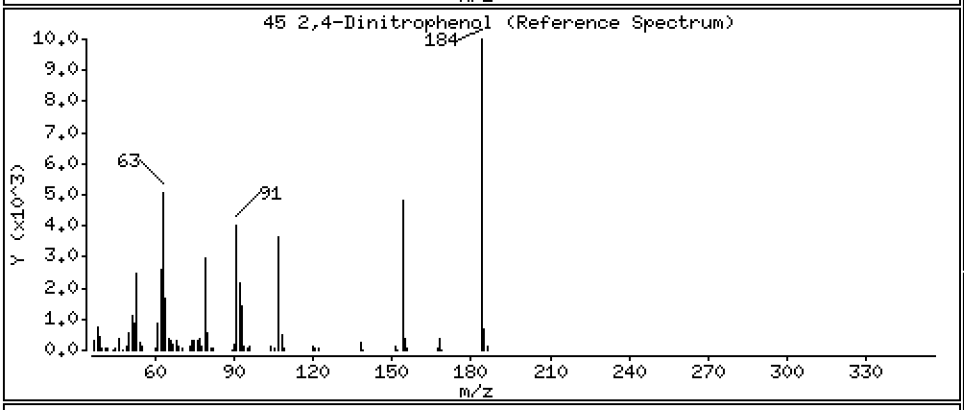
Column diameter: 0.25

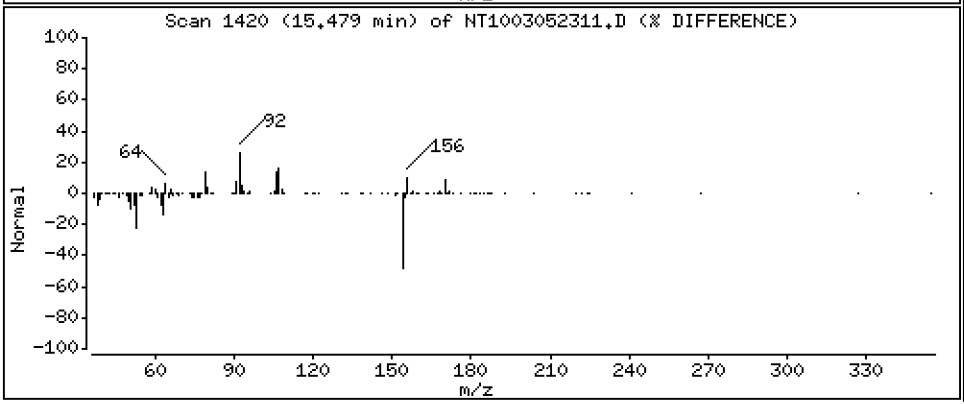
45 2,4-Dinitrophenol

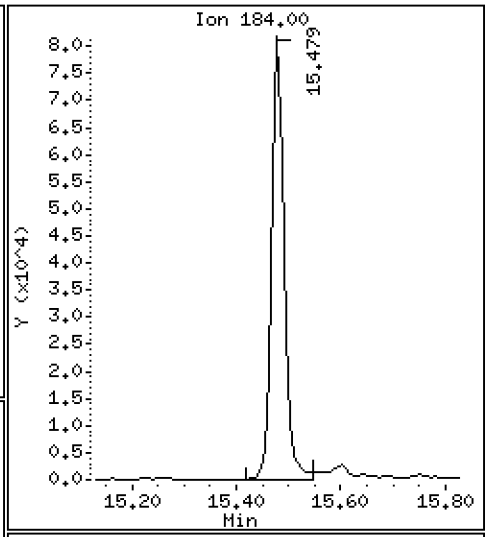
Concentration: 12.03 ug/mL

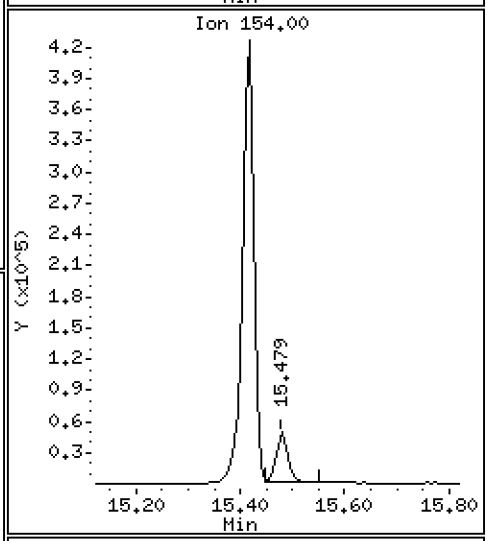


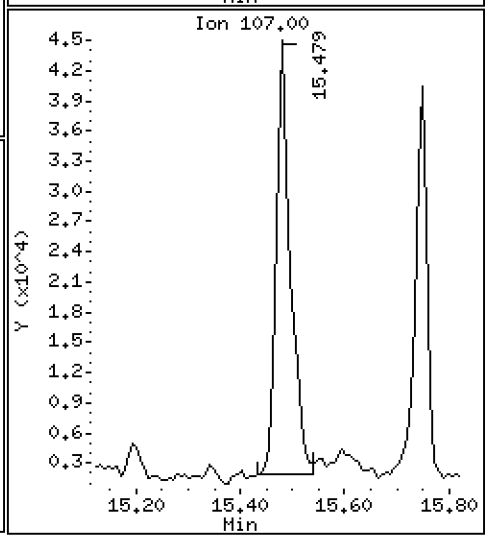












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

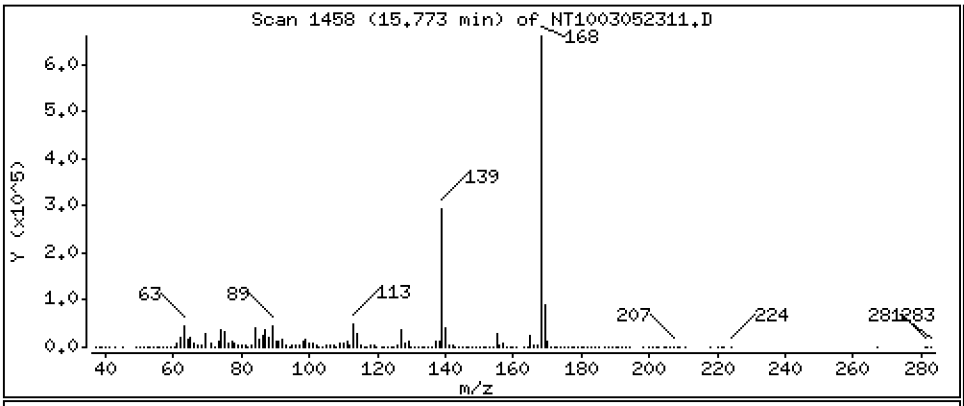
Operator: VTS

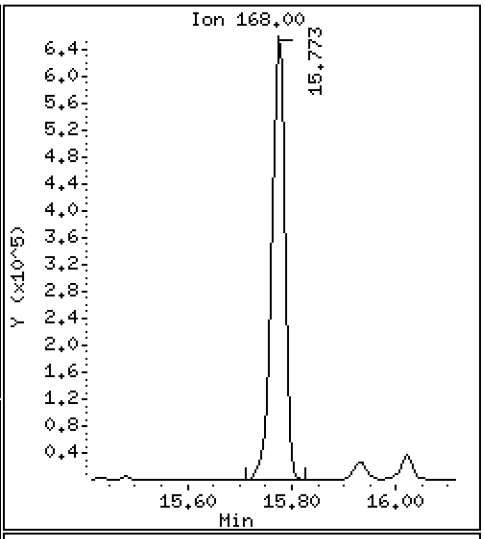
Column phase: ZB-5msi

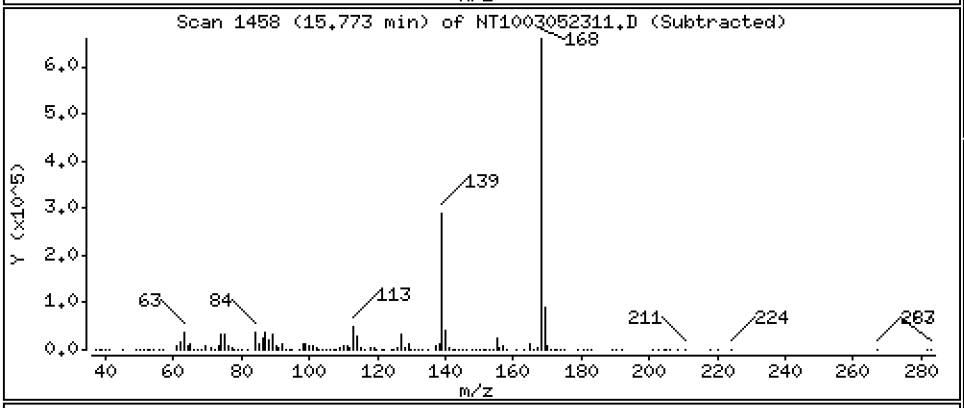
Column diameter: 0.25

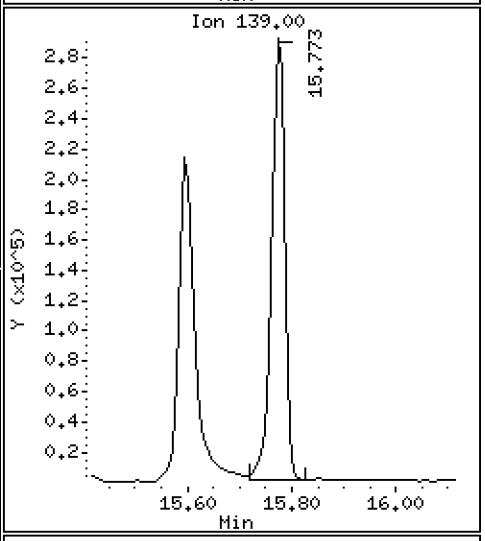
46 Dibenzofuran

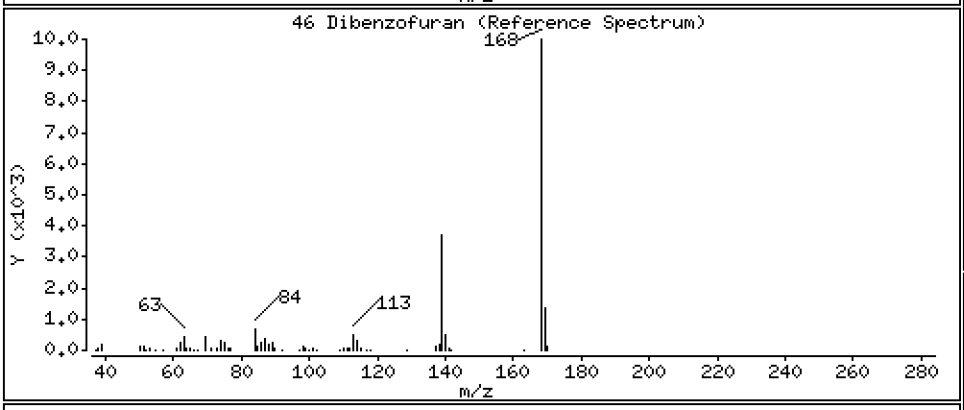
Concentration: 4.580 ug/mL

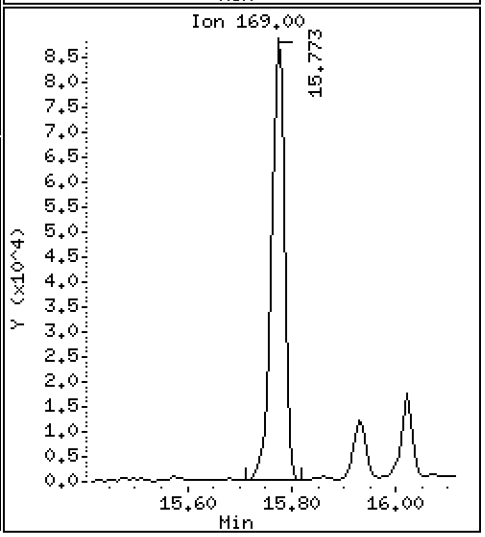


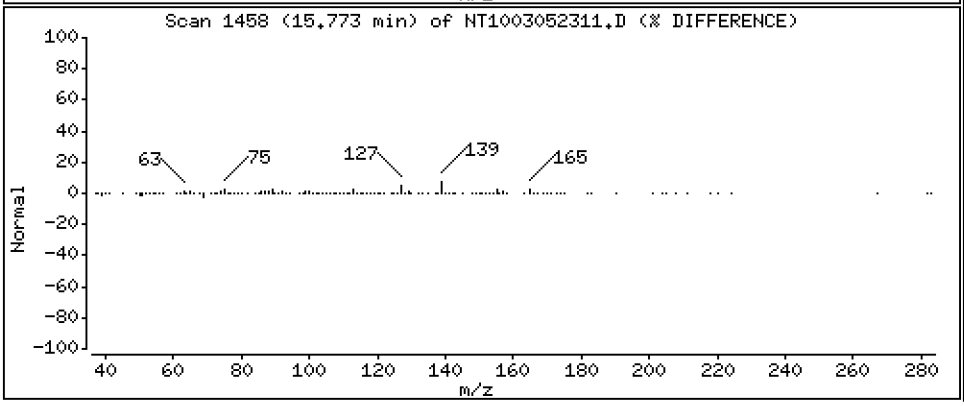












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

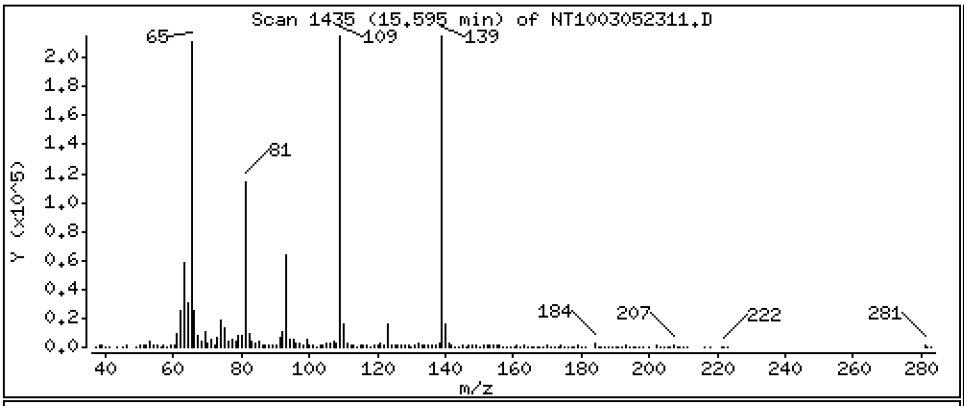
Operator: VTS

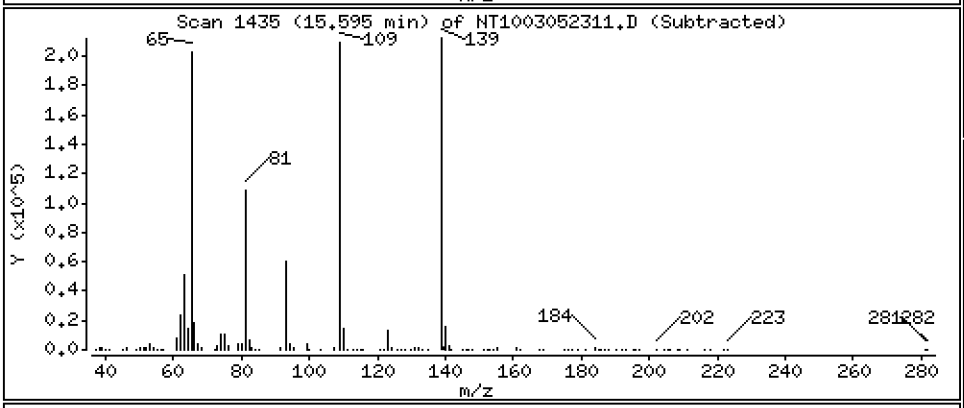
Column phase: ZB-5msi

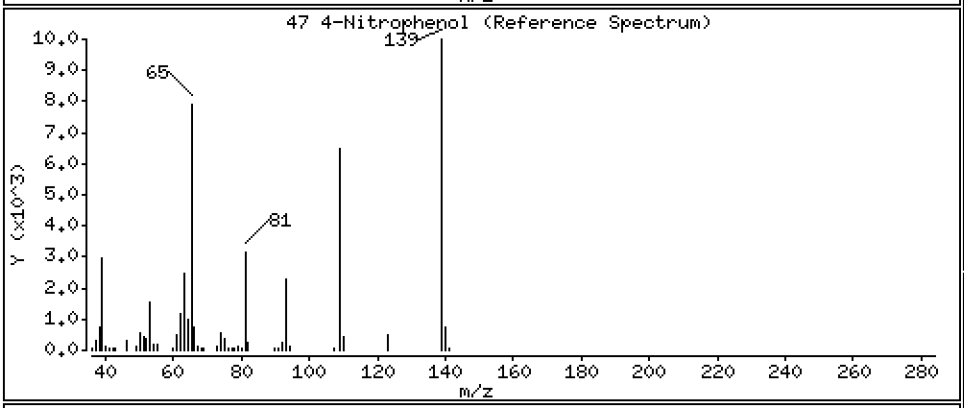
Column diameter: 0.25

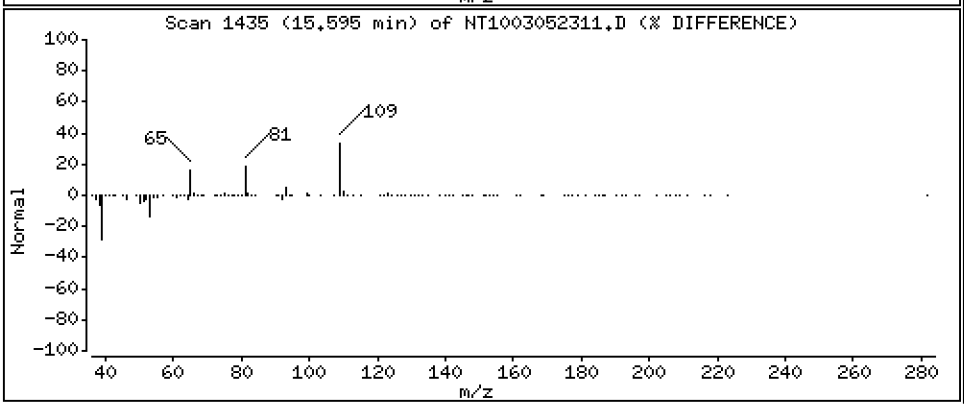
47 4-Nitrophenol

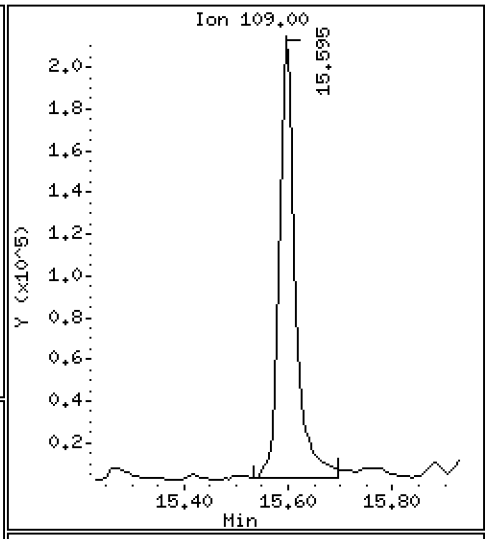
Concentration: 13.33 ug/mL

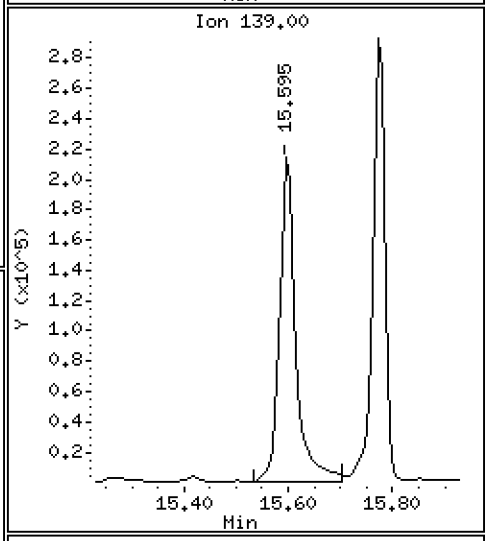


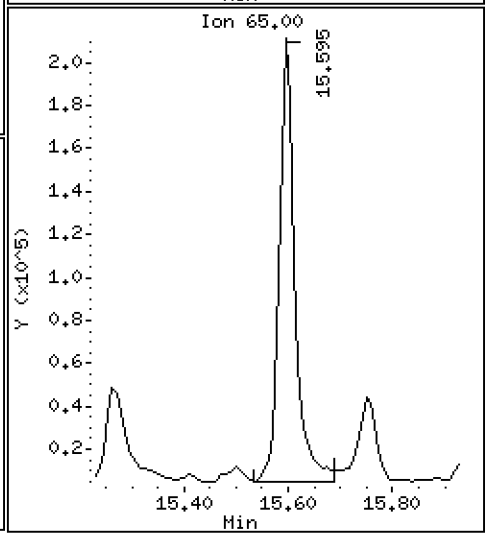












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

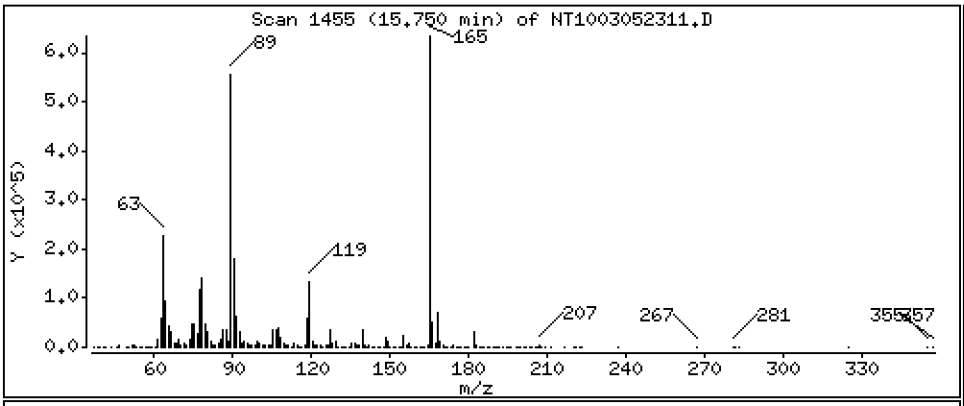
Operator: VTS

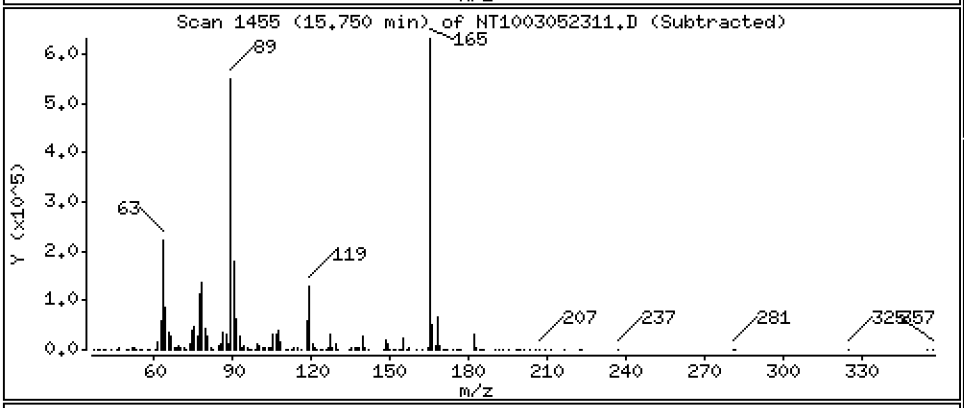
Column phase: ZB-5msi

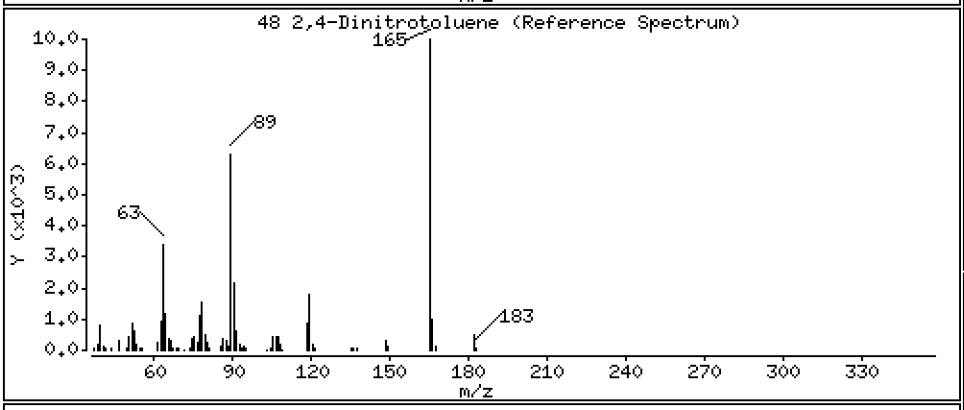
Column diameter: 0.25

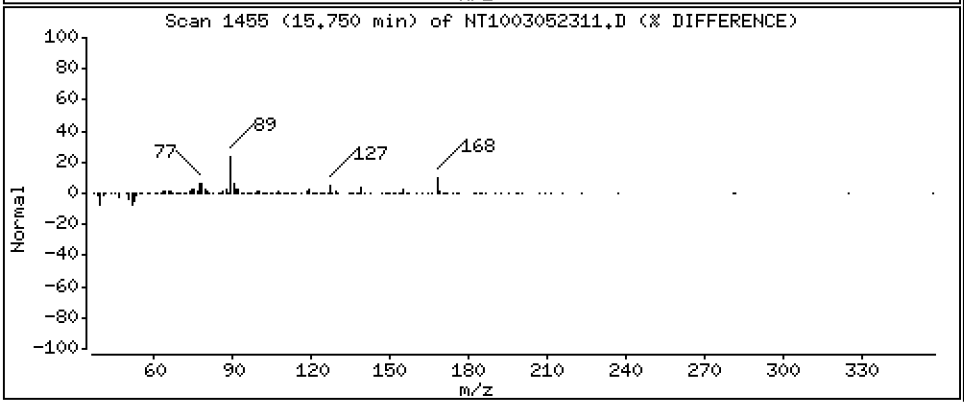
48 2,4-Dinitrotoluene

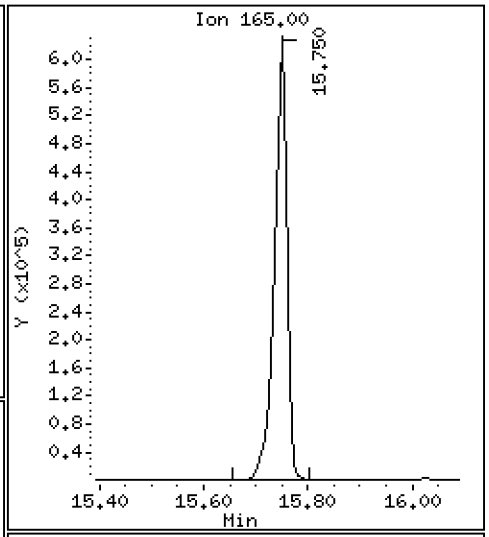
Concentration: 16.71 ug/mL

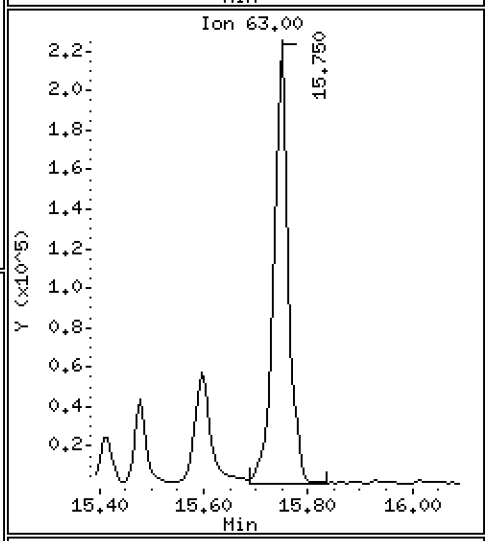


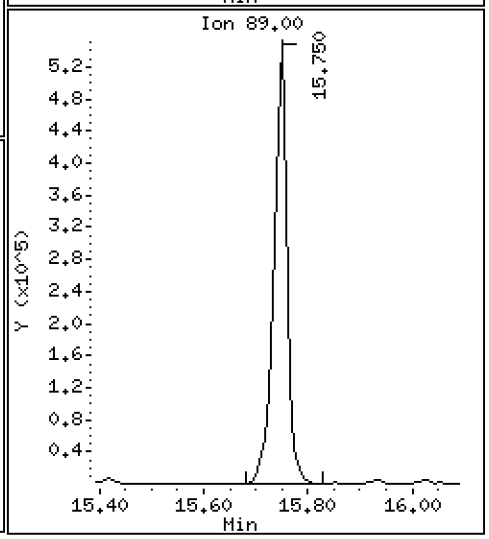












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

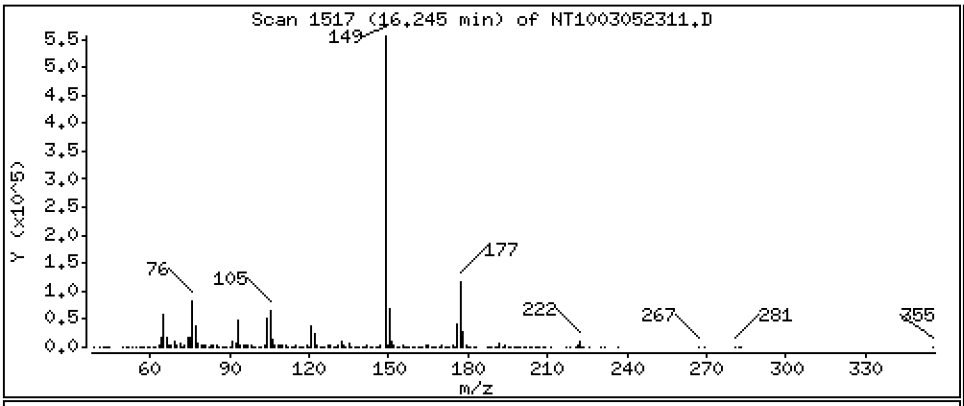
Operator: VTS

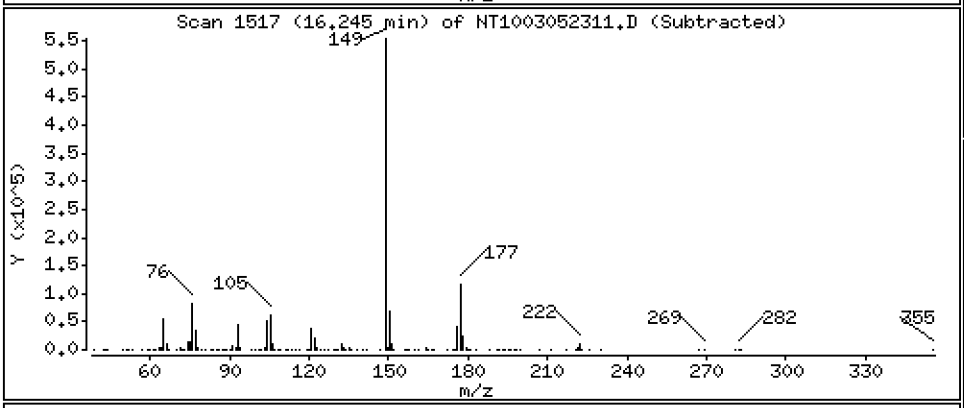
Column phase: ZB-5msi

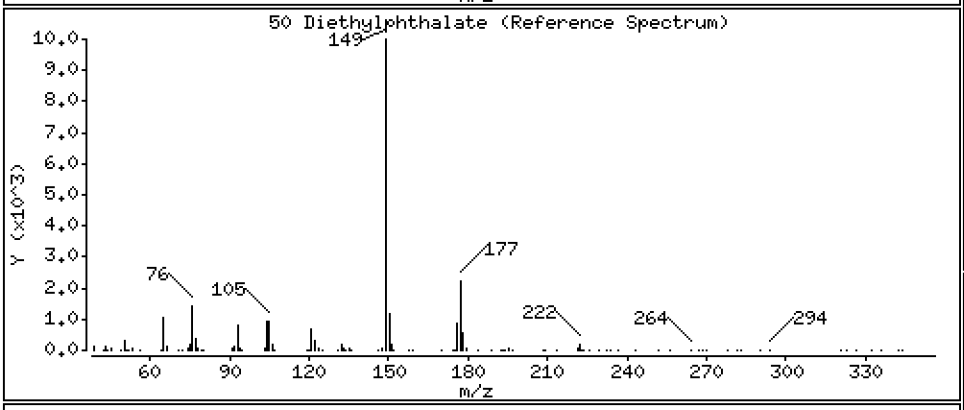
Column diameter: 0.25

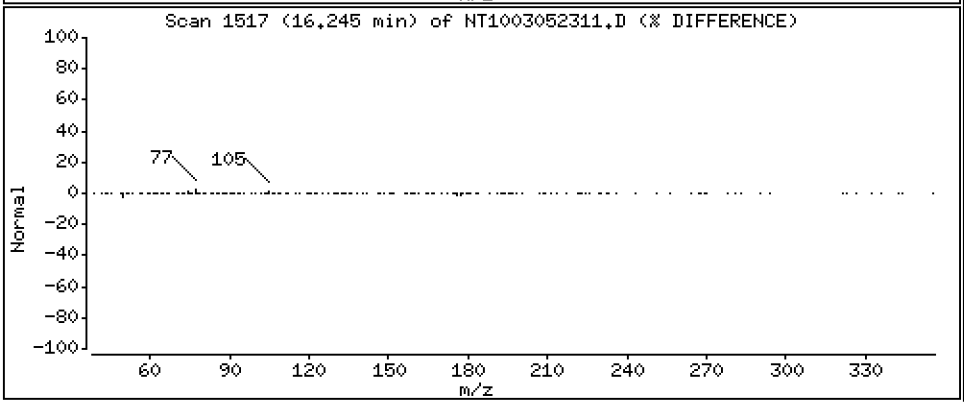
50 Diethylphthalate

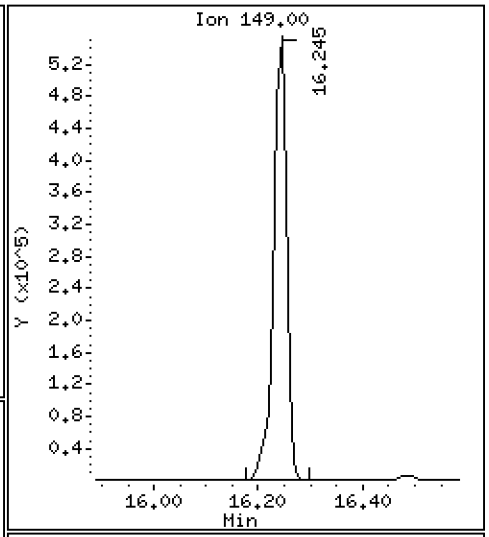
Concentration: 4.825 ug/mL

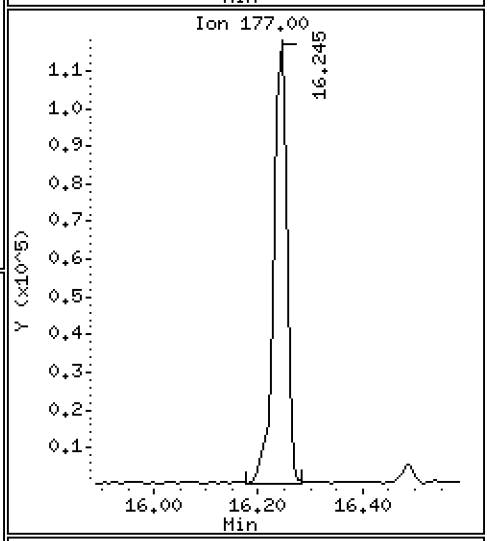


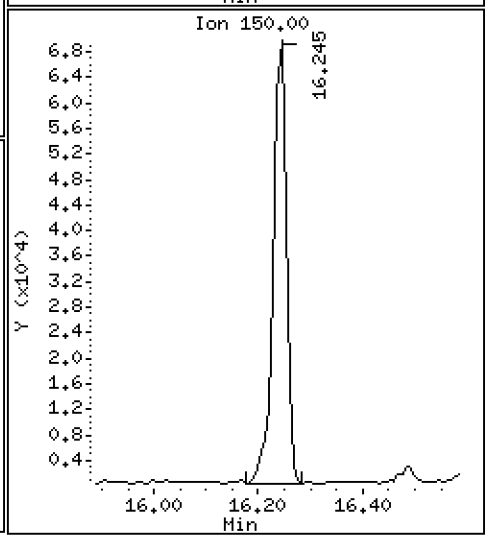












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

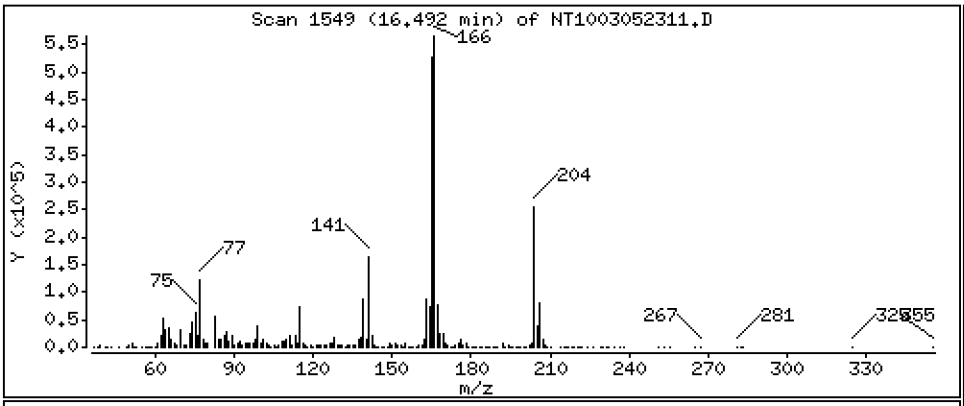
Operator: VTS

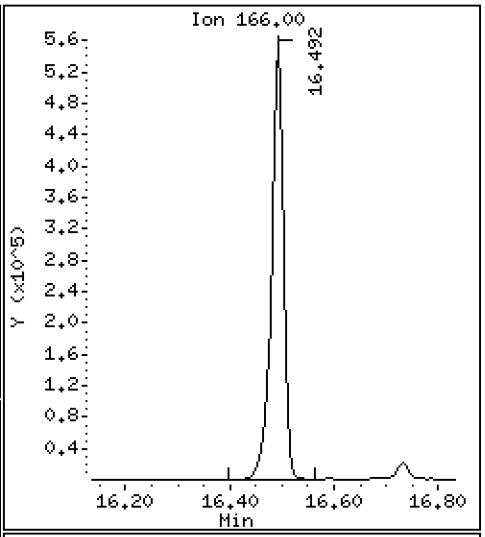
Column phase: ZB-5msi

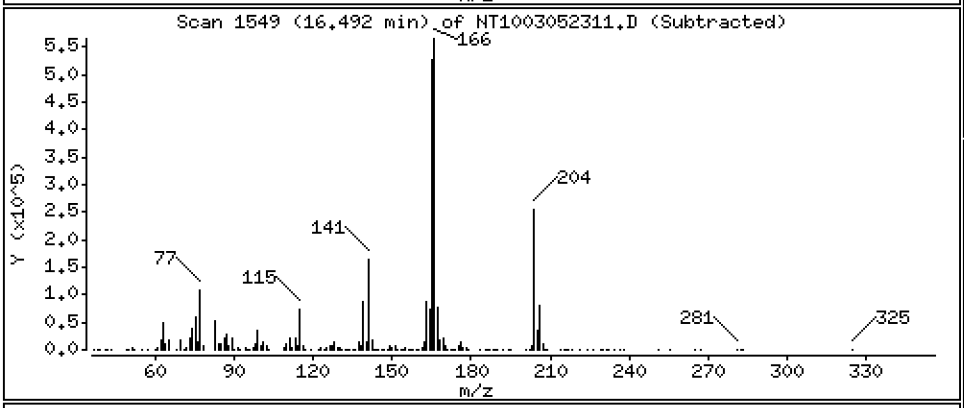
Column diameter: 0.25

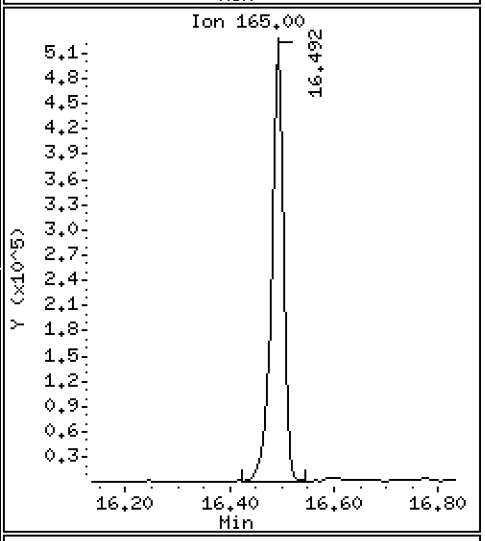
49 Fluorene

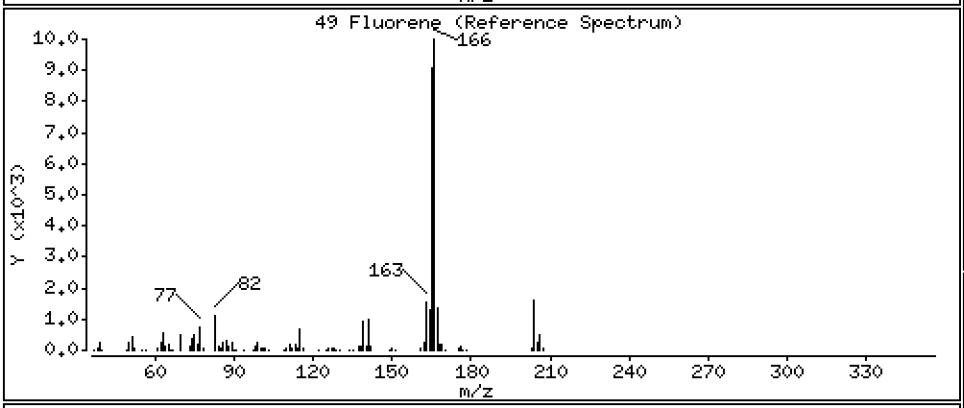
Concentration: 4.582 ug/mL

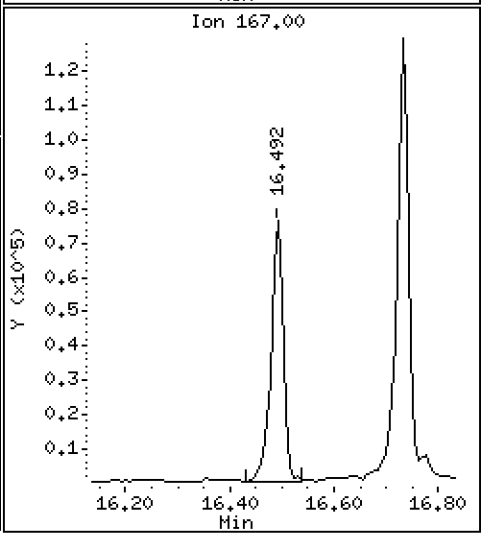


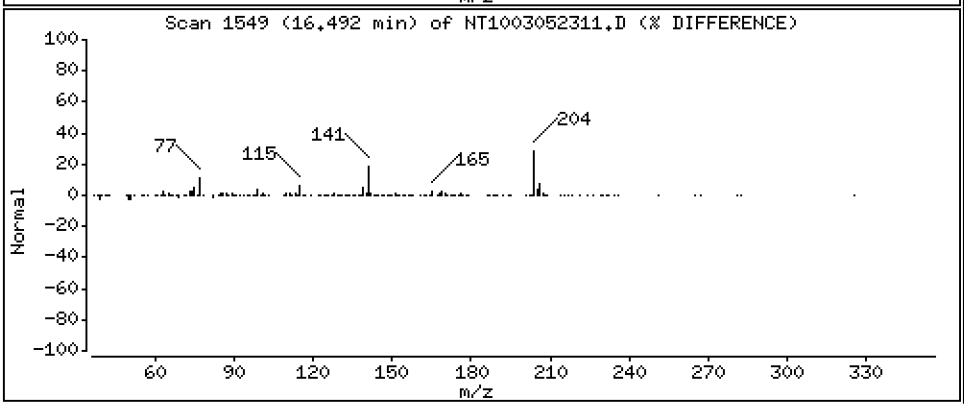












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

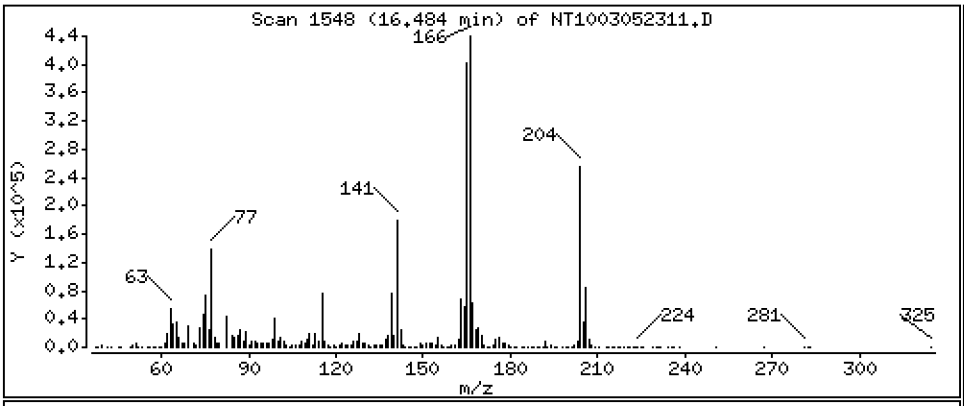
Operator: VTS

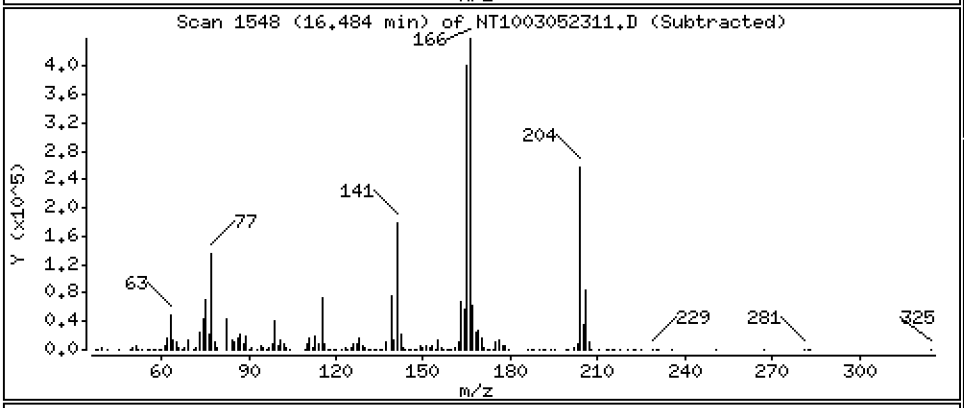
Column phase: ZB-5msi

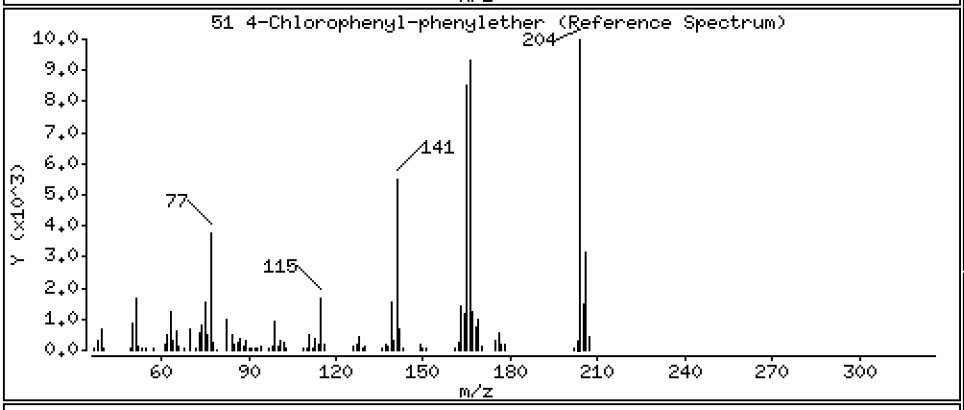
Column diameter: 0.25

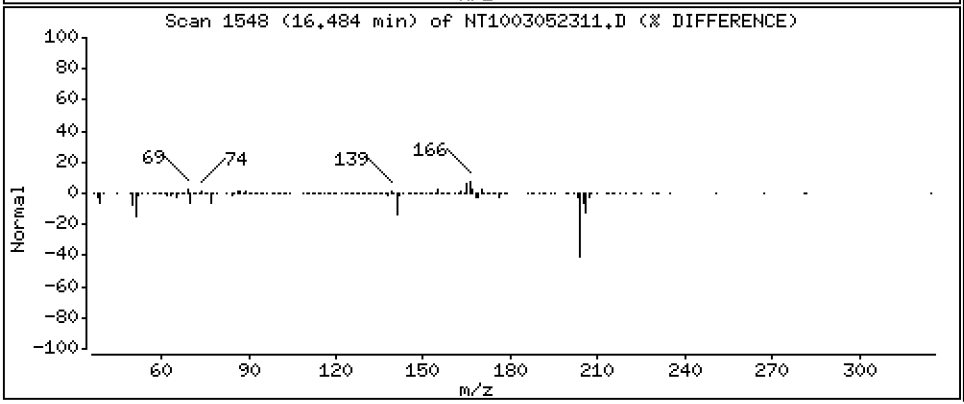
51 4-Chlorophenyl-phenylether

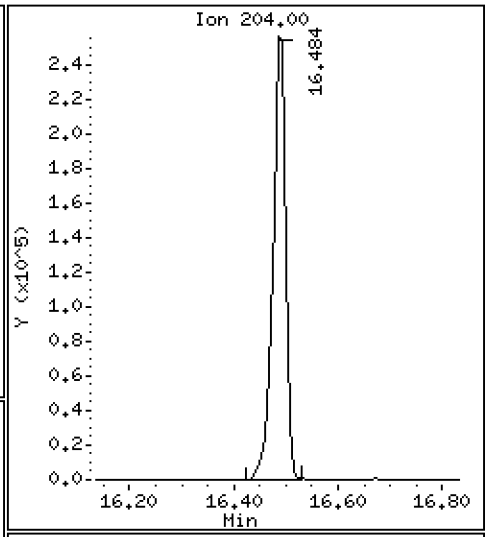
Concentration: 4.771 ug/mL

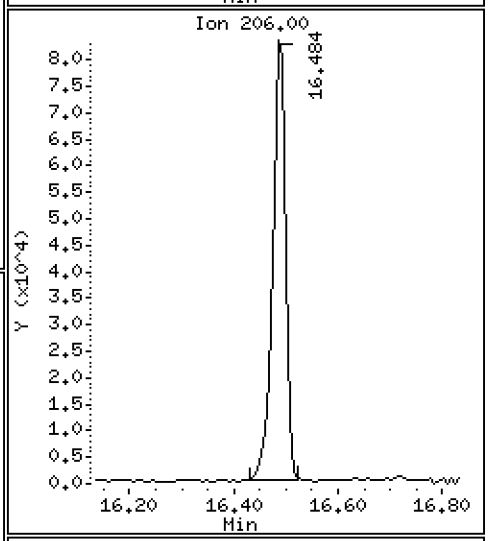


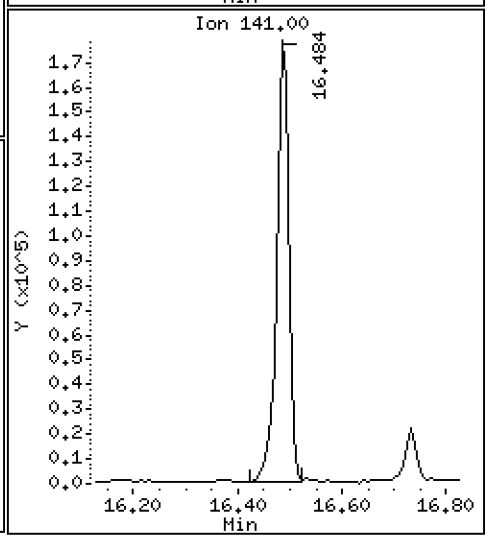












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

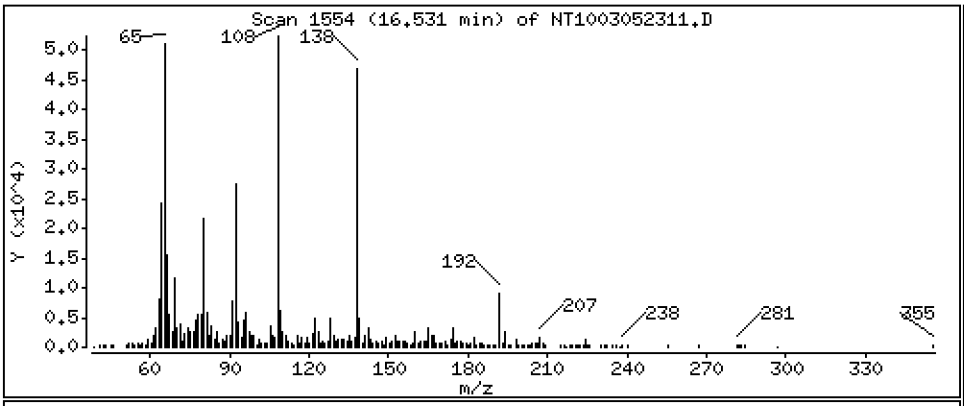
Operator: VTS

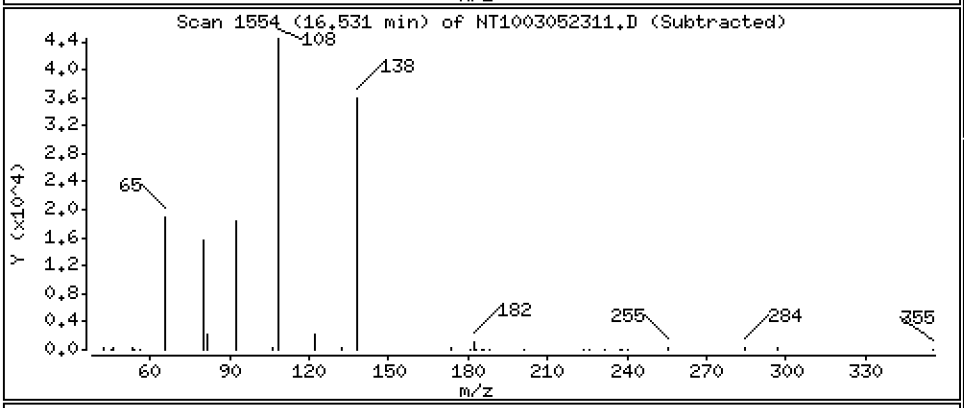
Column phase: ZB-5msi

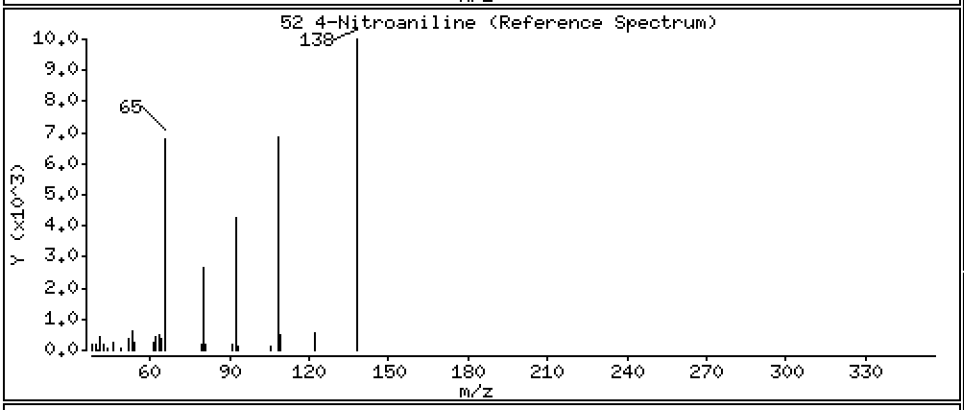
Column diameter: 0.25

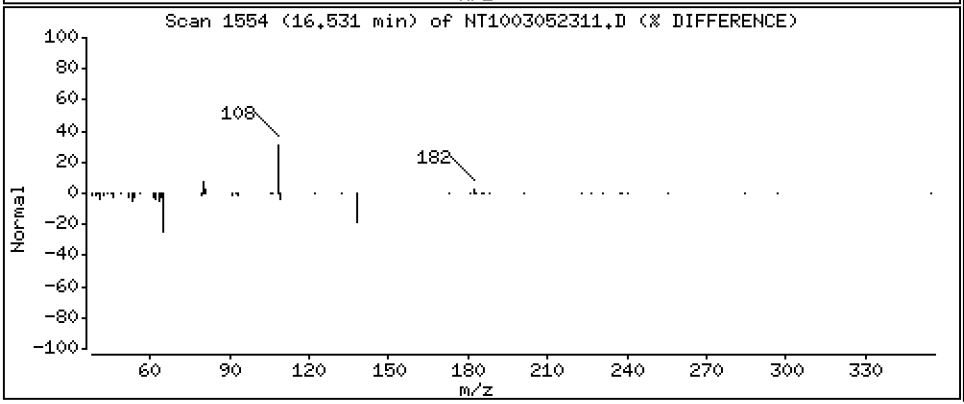
52 4-Nitroaniline

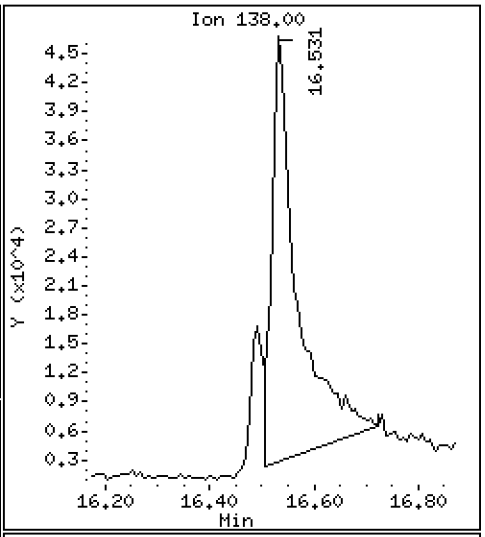
Concentration: 3.244 ug/mL

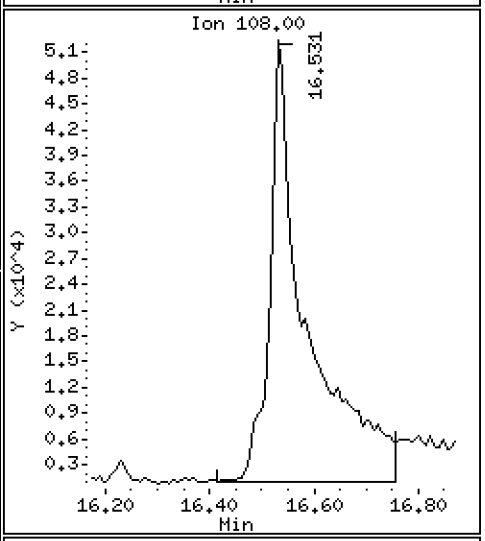


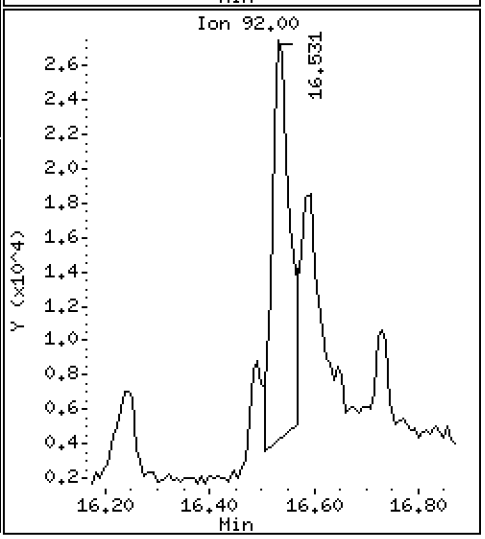












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

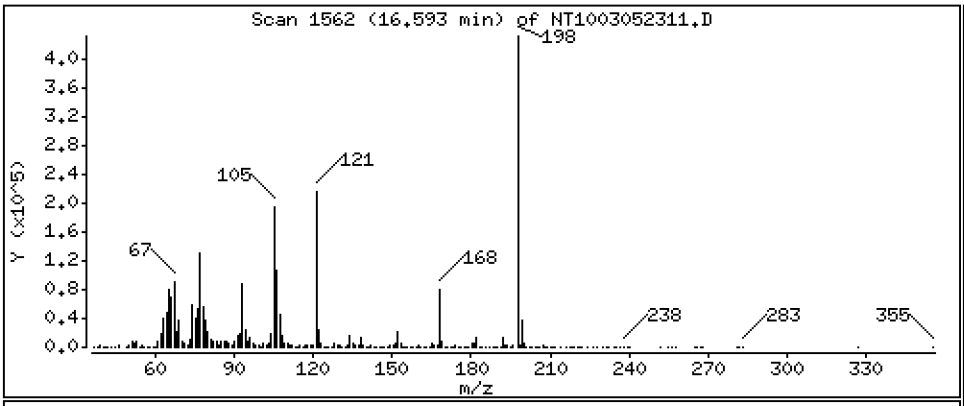
Operator: VTS

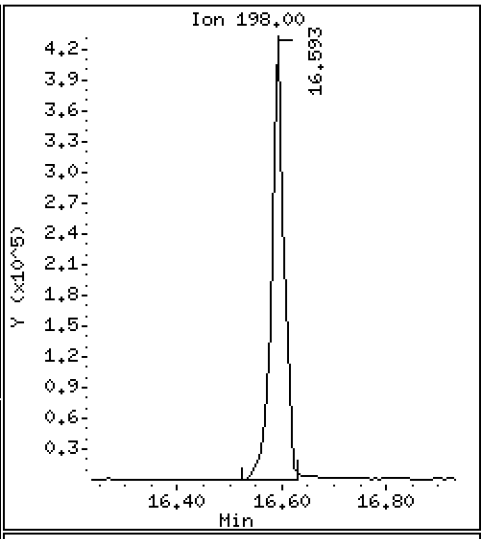
Column phase: ZB-5msi

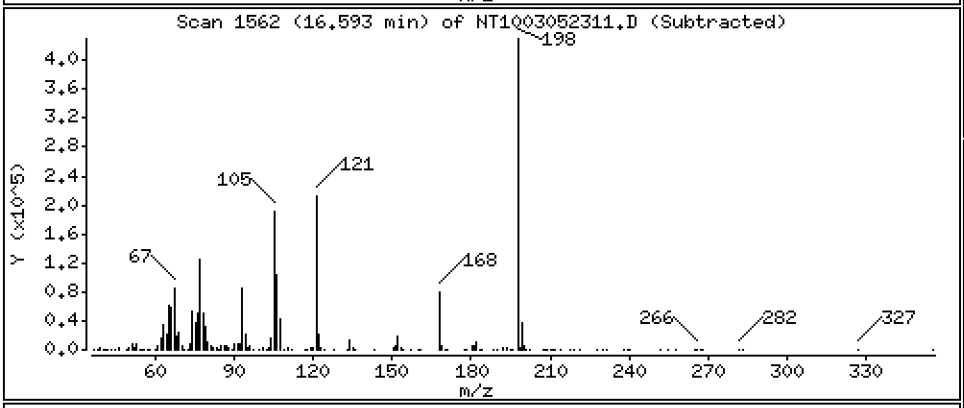
Column diameter: 0.25

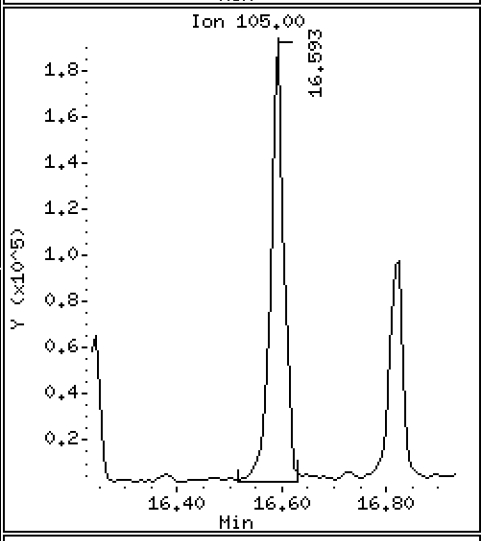
53 4,6-Dinitro-2-methylphenol

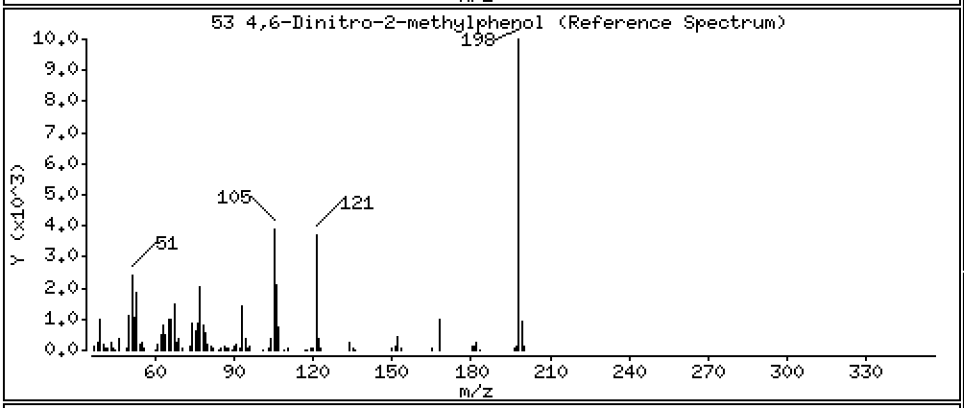
Concentration: 26.84 ug/mL

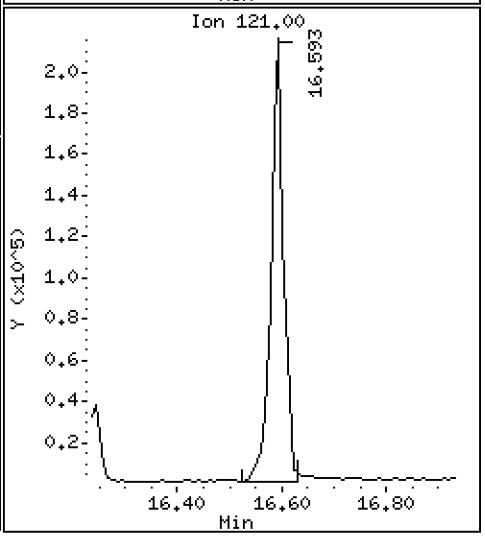


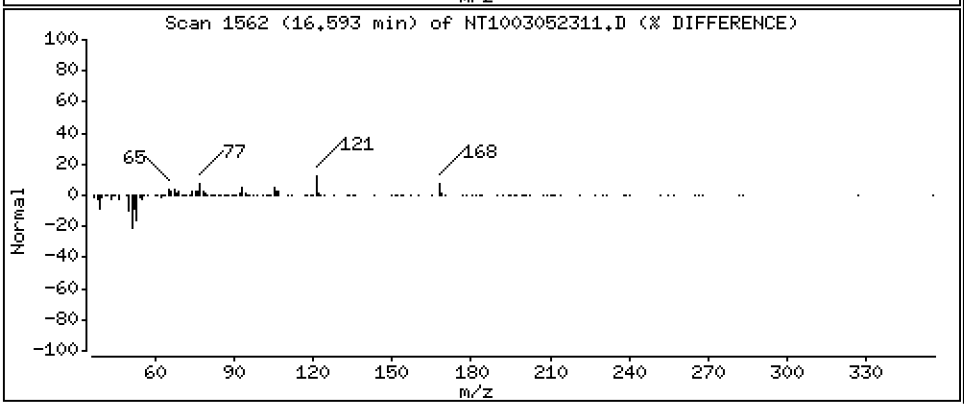












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

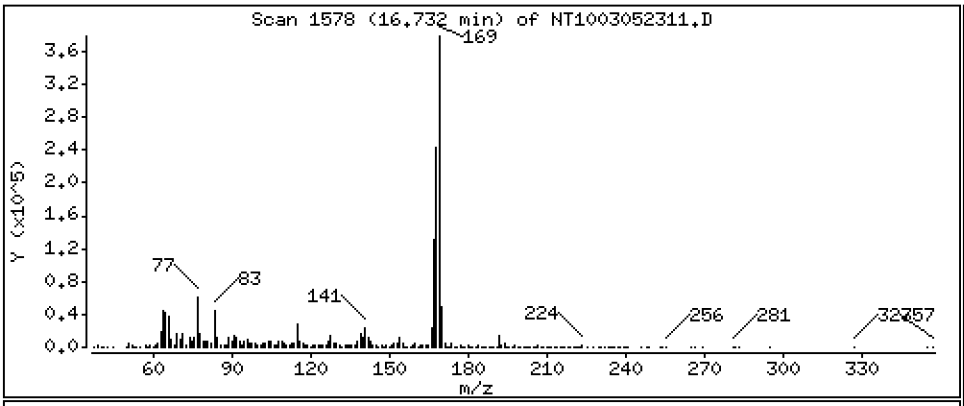
Operator: VTS

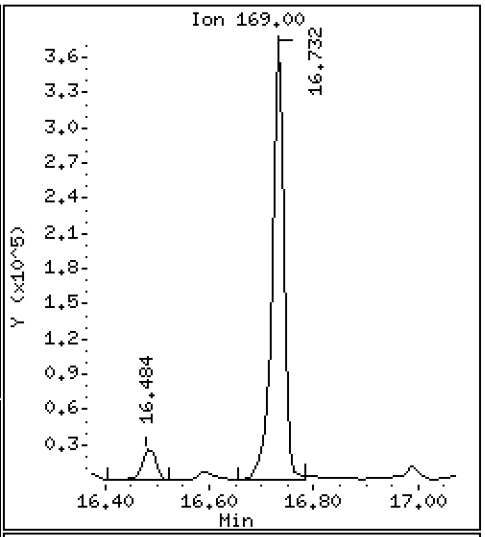
Column phase: ZB-5msi

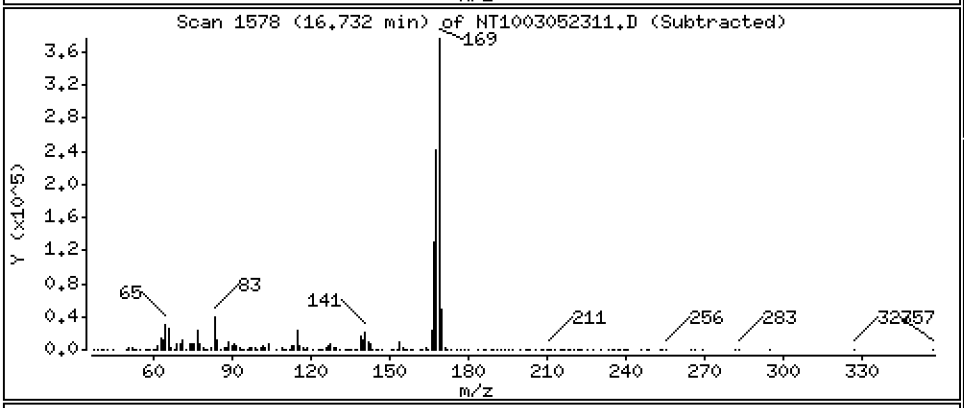
Column diameter: 0.25

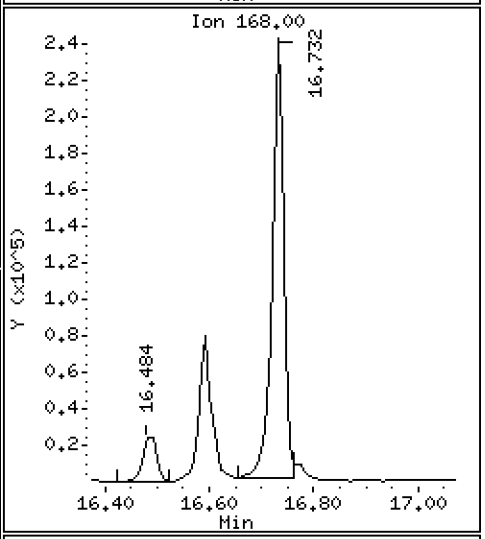
54 N-Nitrosodiphenylamine

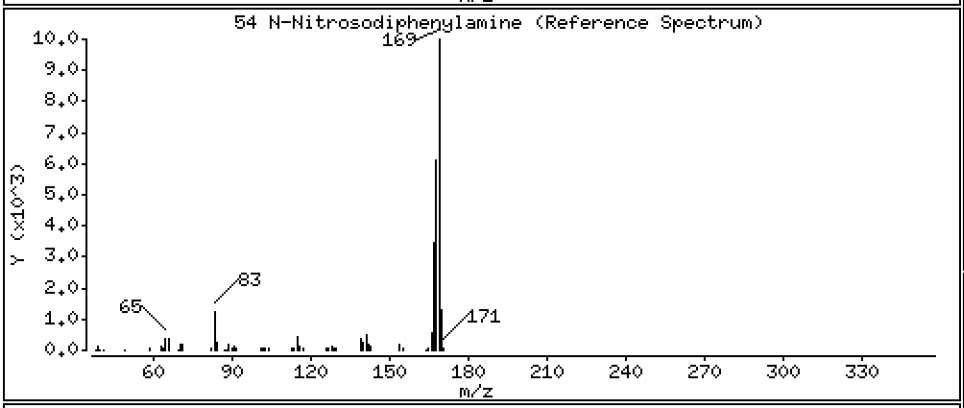
Concentration: 3.963 ug/mL

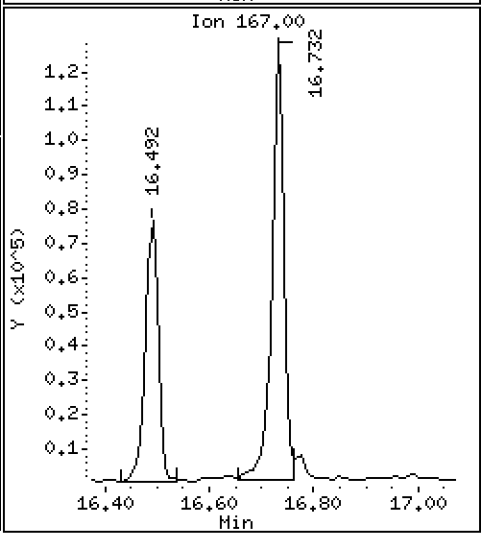


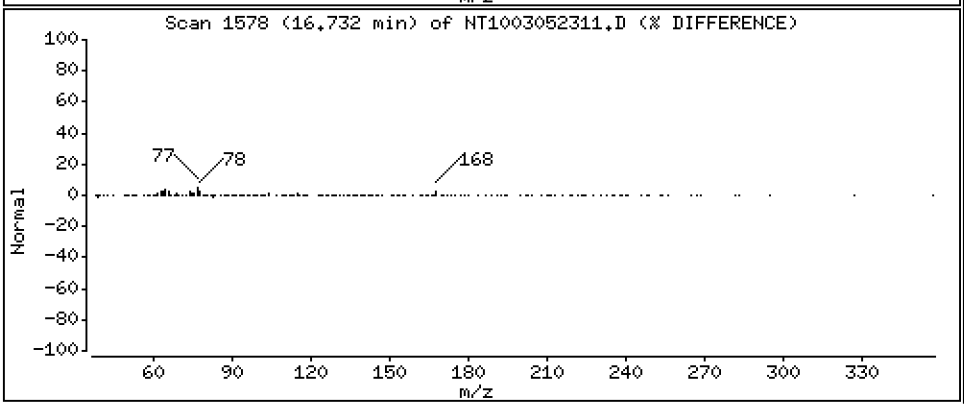












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

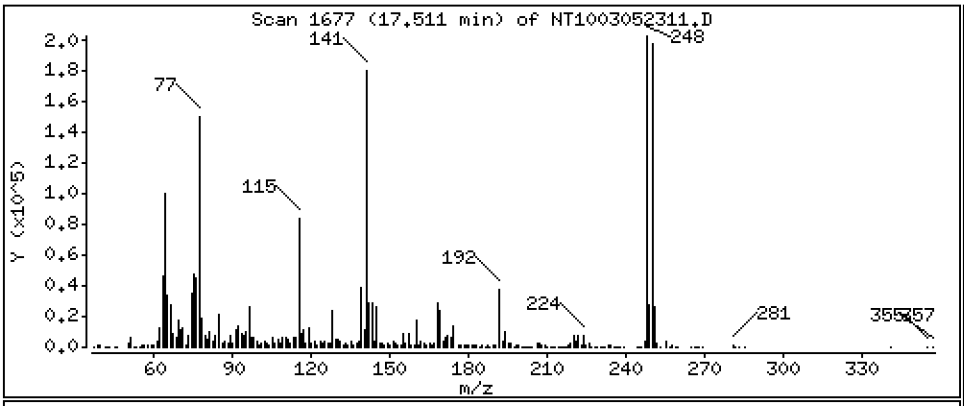
Operator: VTS

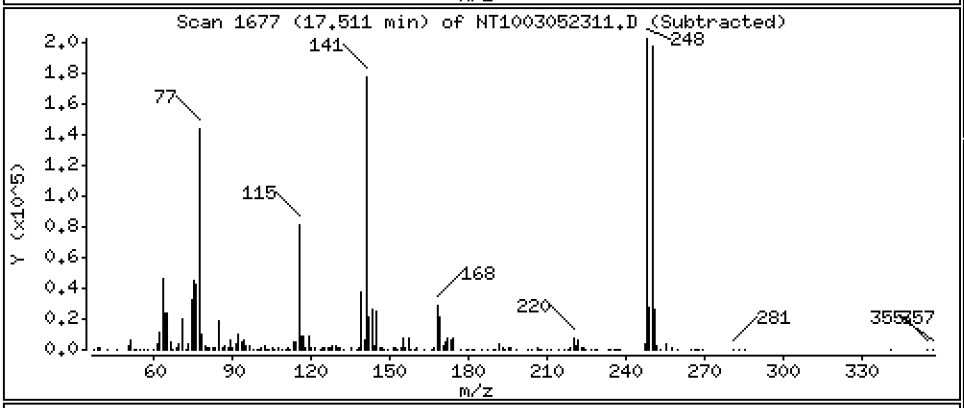
Column phase: ZB-5msi

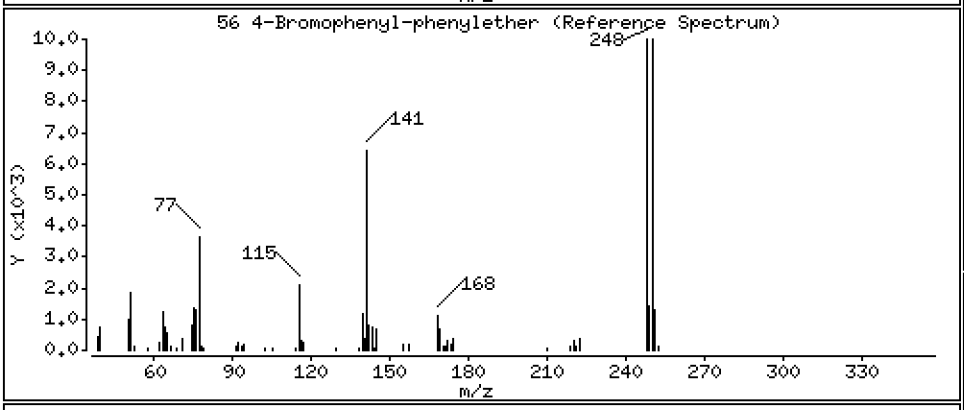
Column diameter: 0.25

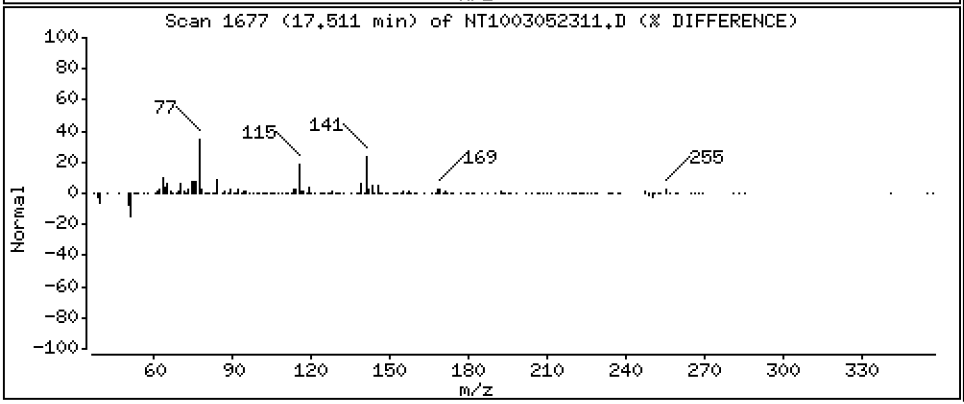
56 4-Bromophenyl-phenylether

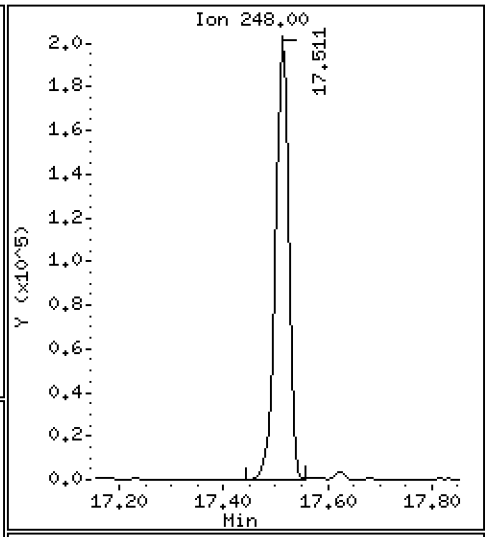
Concentration: 5.527 ug/mL

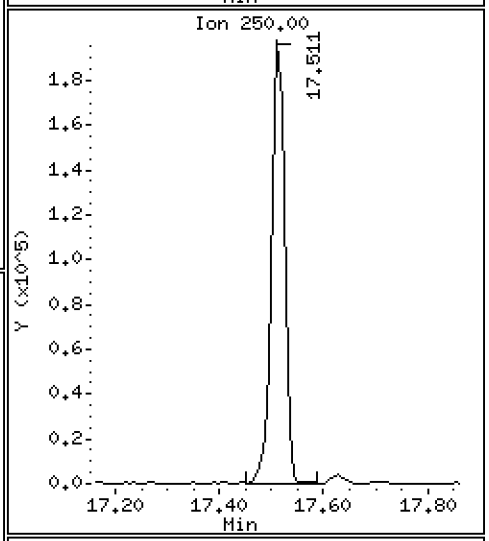


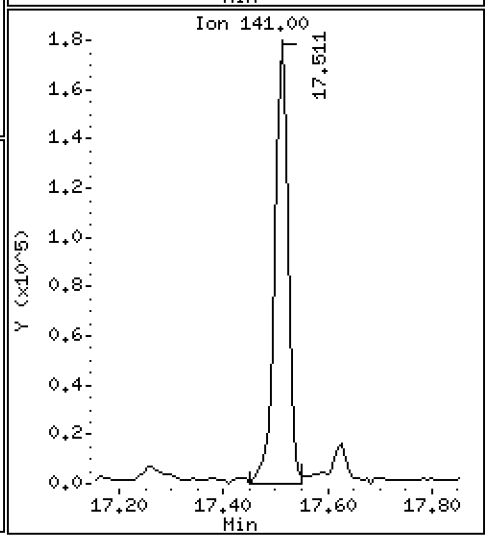












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

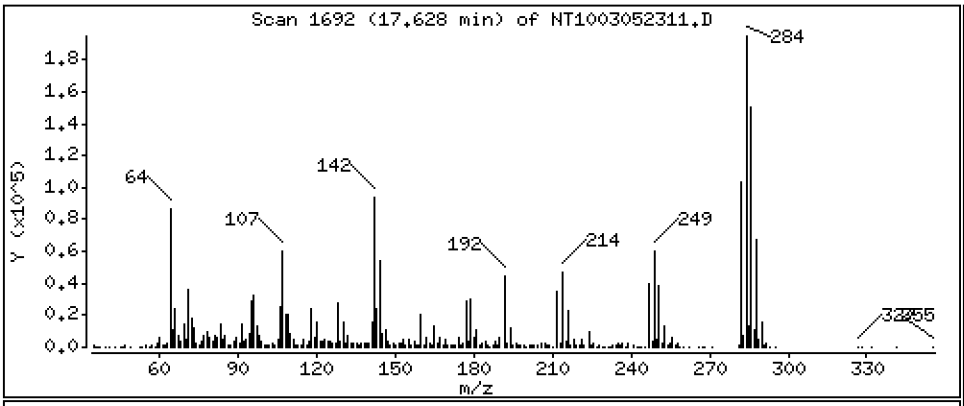
Operator: VTS

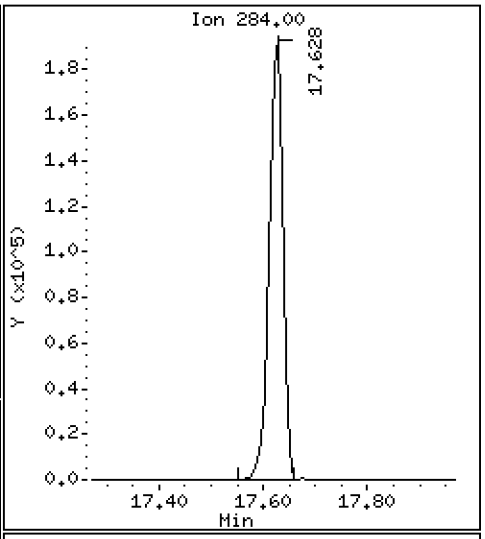
Column phase: ZB-5msi

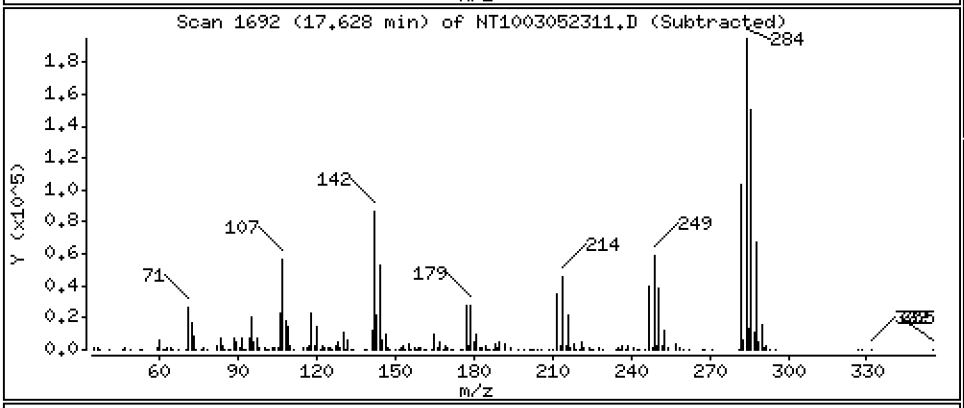
Column diameter: 0.25

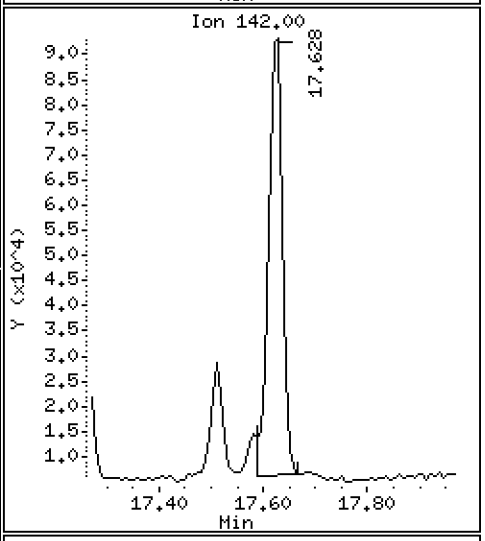
57 Hexachlorobenzene

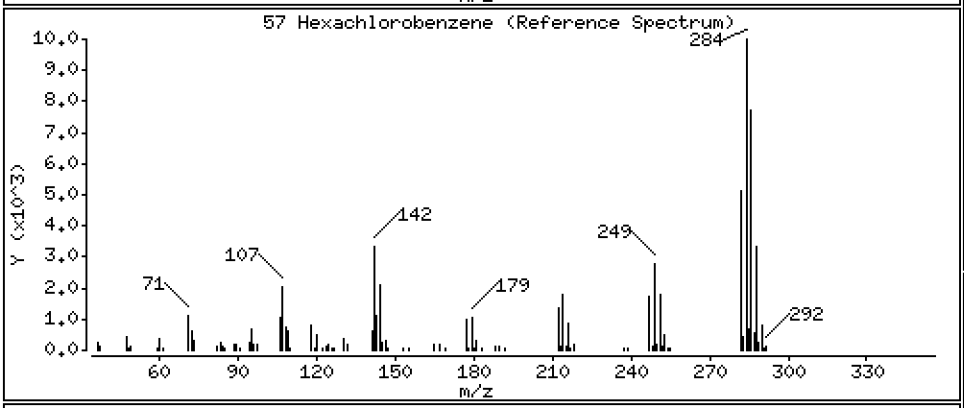
Concentration: 4.997 ug/mL

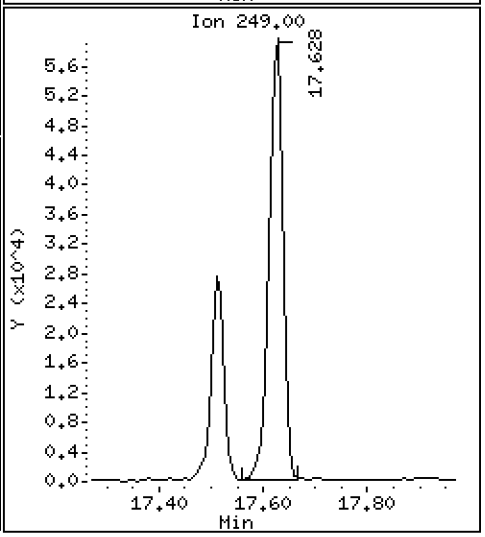


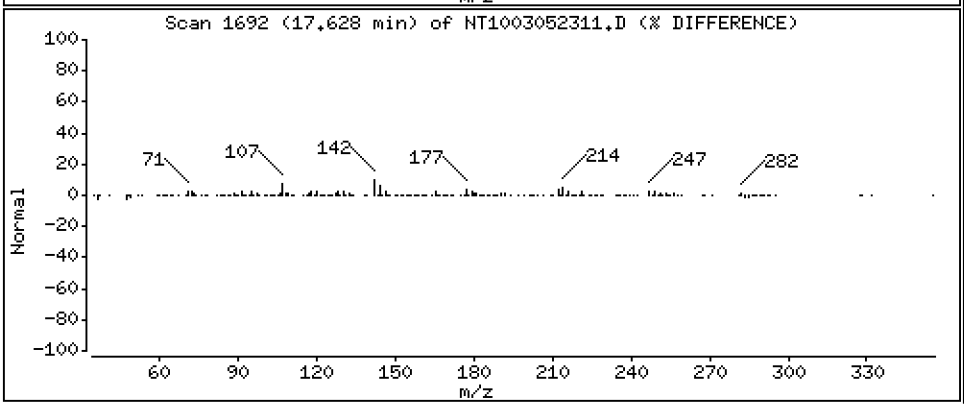












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

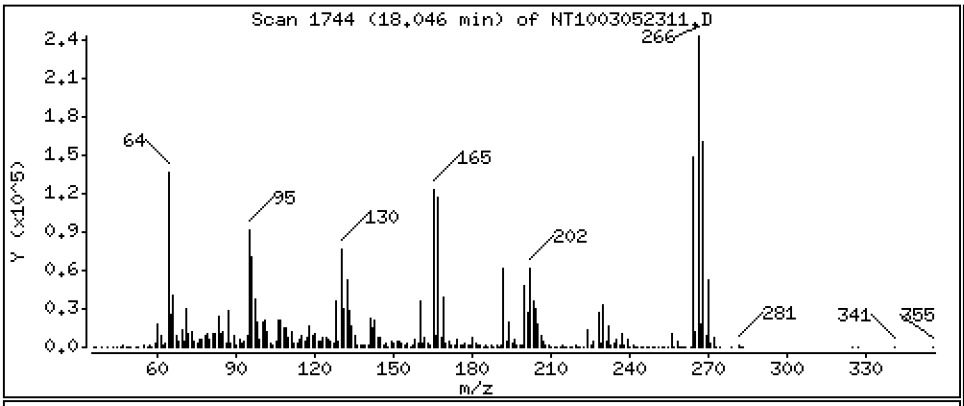
Operator: VTS

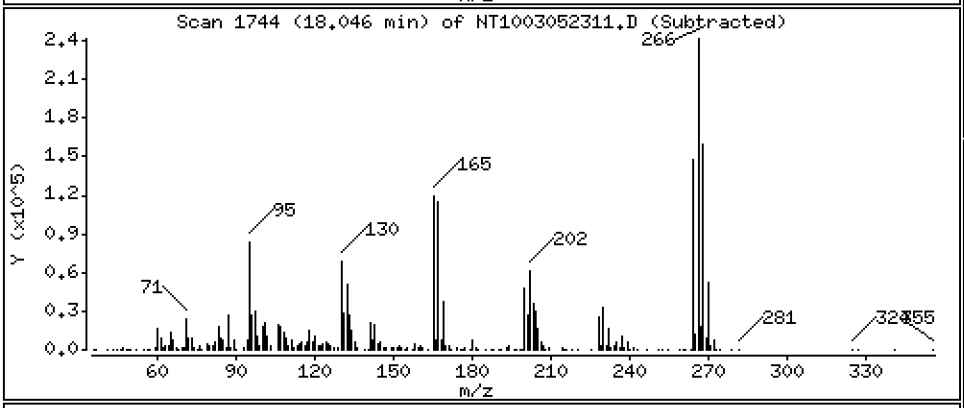
Column phase: ZB-5msi

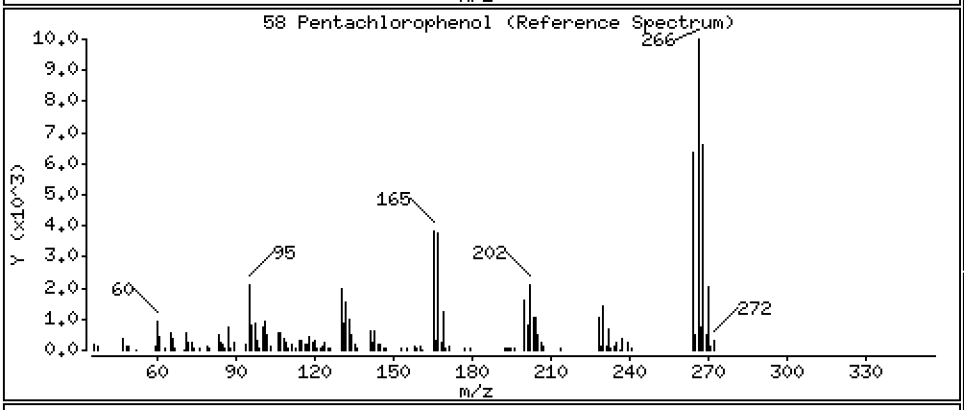
Column diameter: 0.25

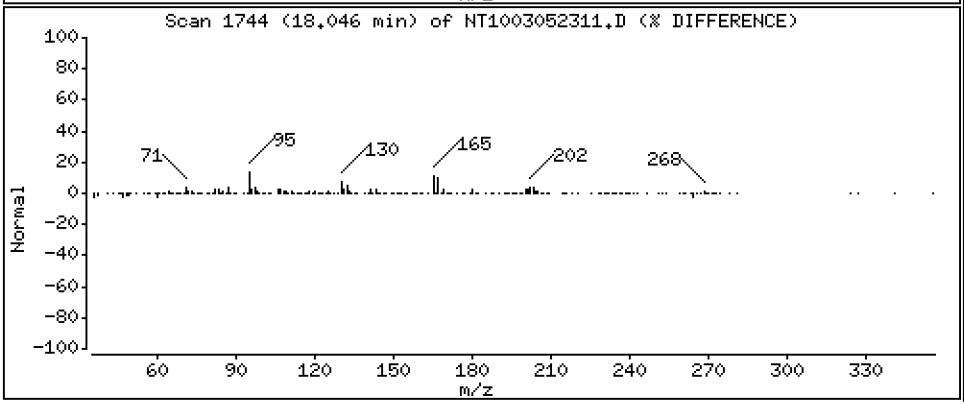
58 Pentachlorophenol

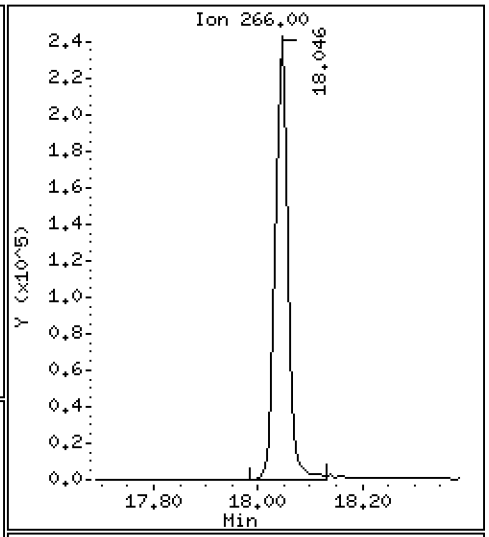
Concentration: 11.77 ug/mL

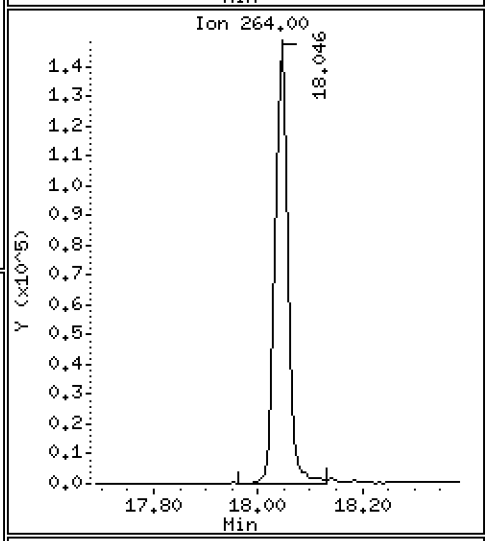


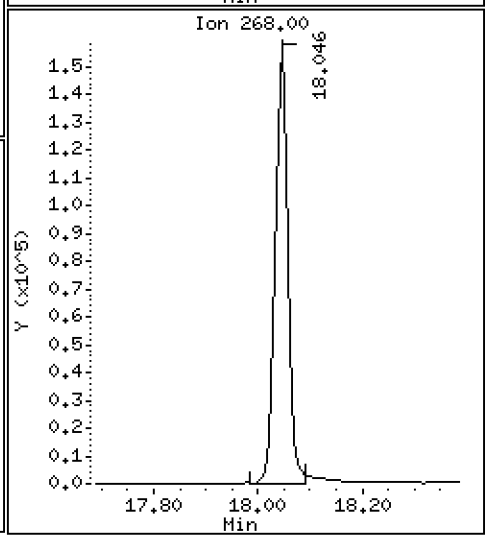












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

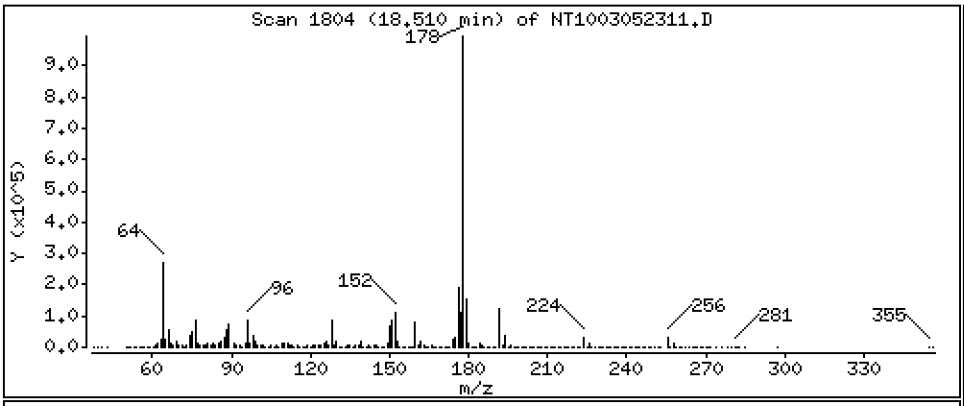
Operator: VTS

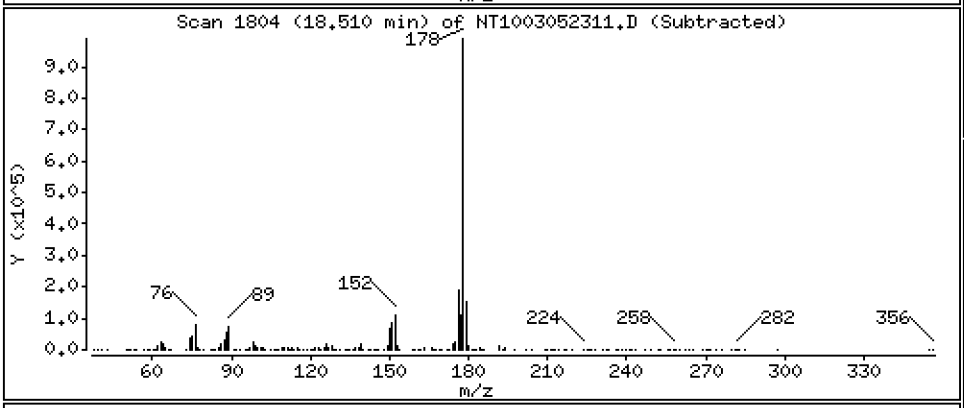
Column phase: ZB-5msi

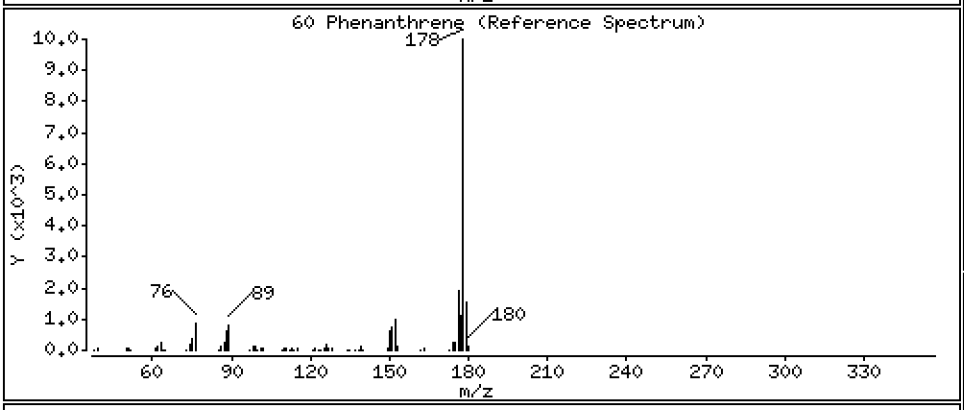
Column diameter: 0.25

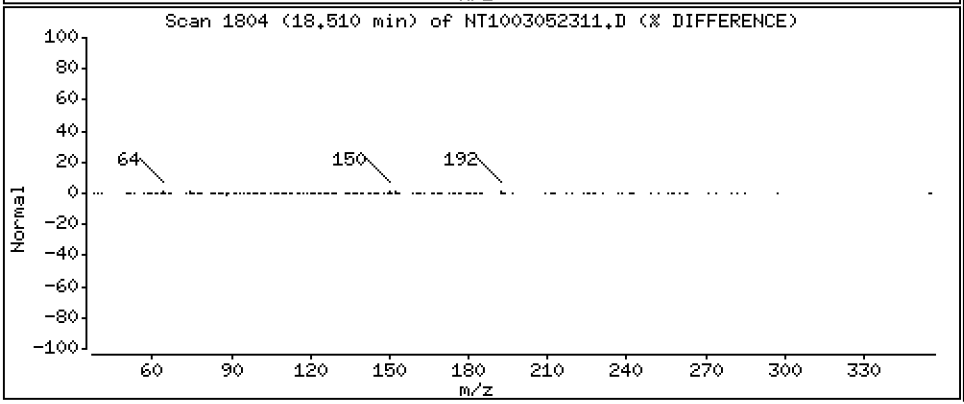
60 Phenanthrene

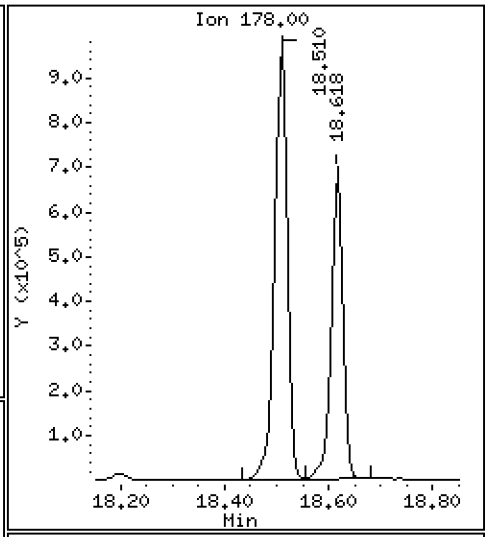
Concentration: 5.951 ug/mL

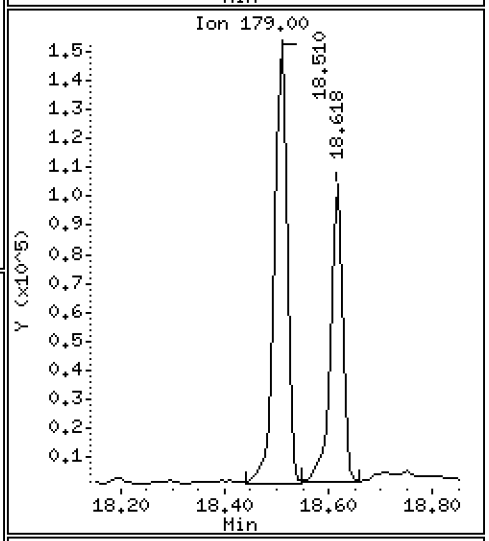


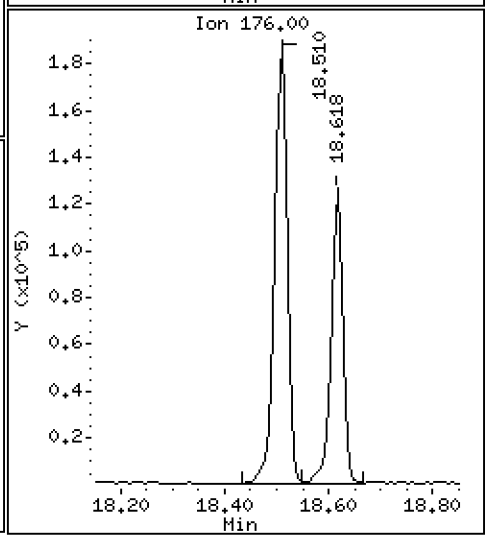












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

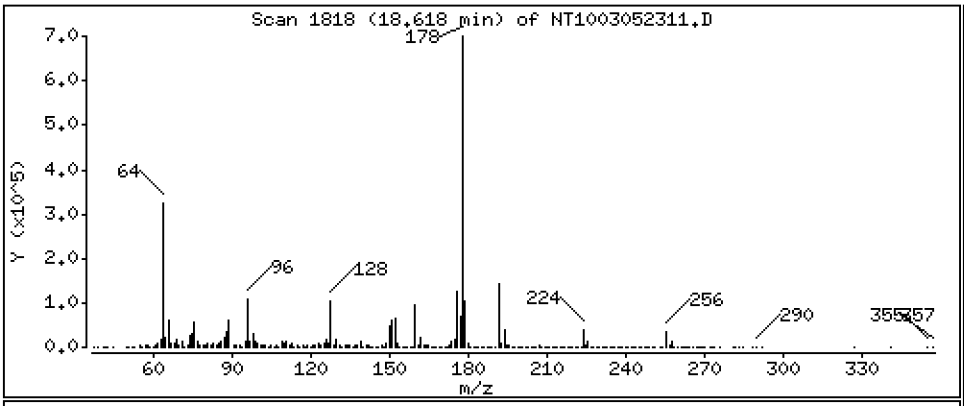
Operator: VTS

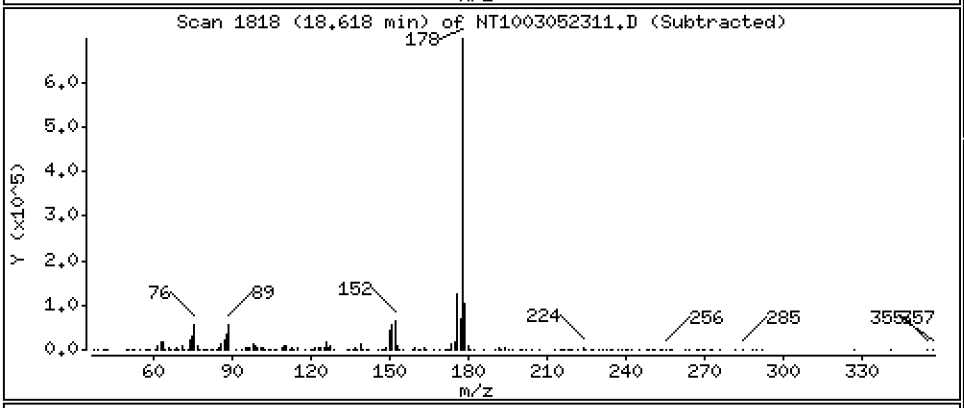
Column phase: ZB-5msi

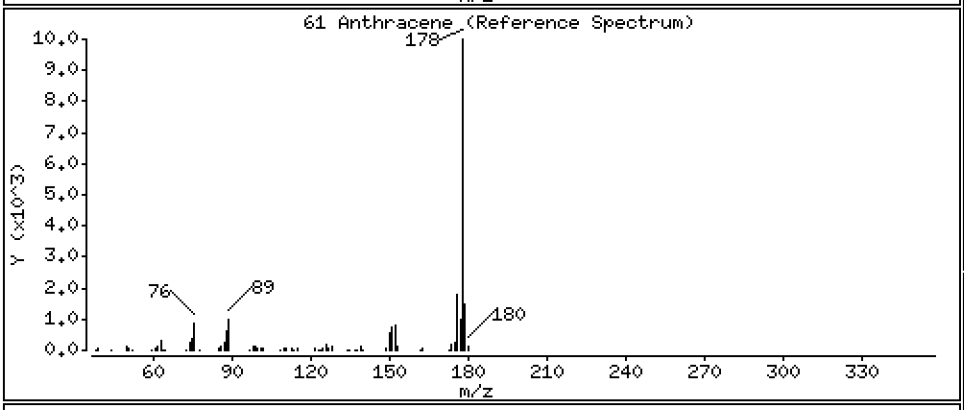
Column diameter: 0.25

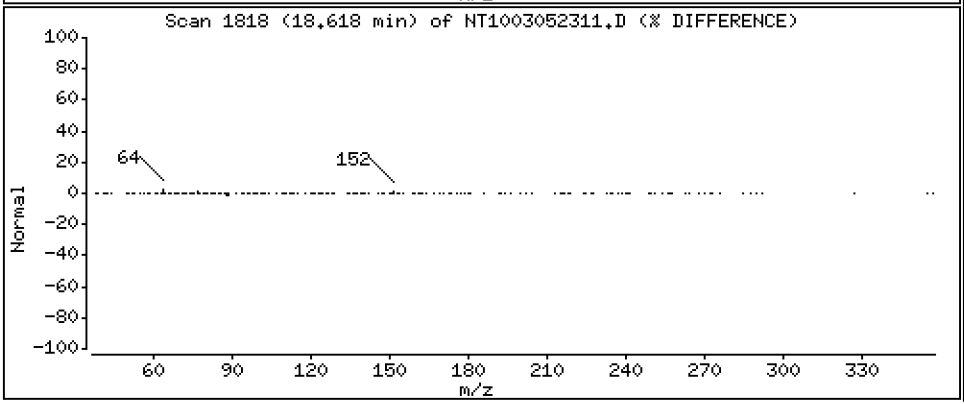
61 Anthracene

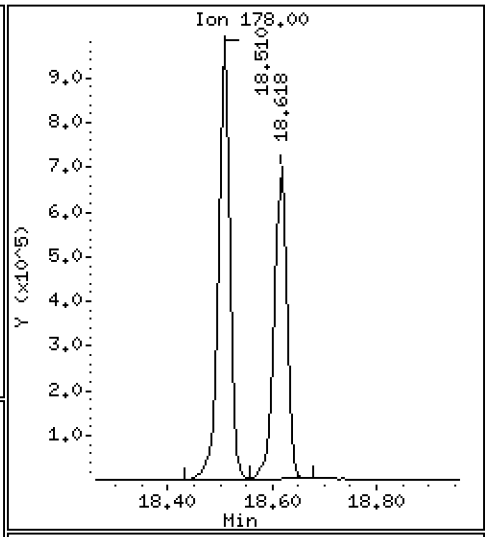
Concentration: 4.421 ug/mL

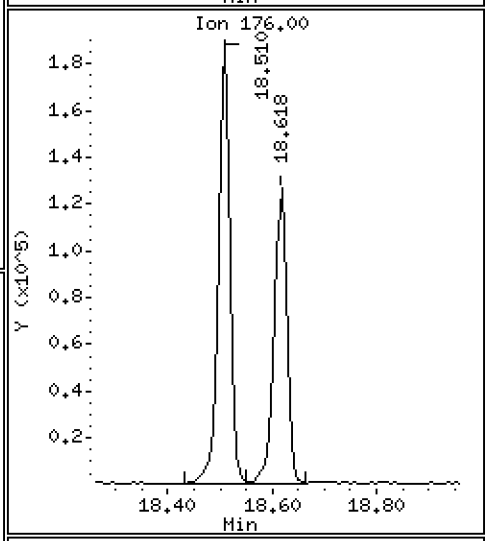


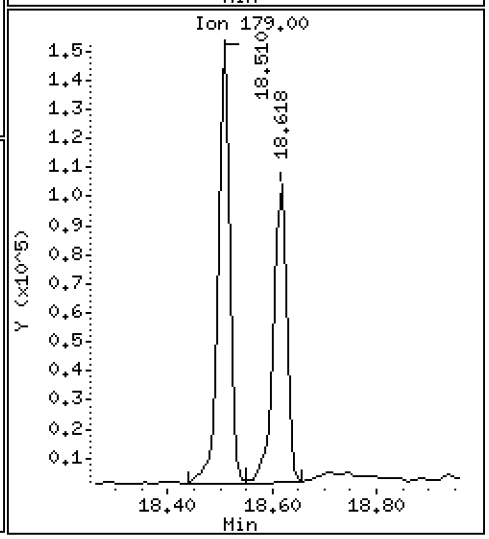












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

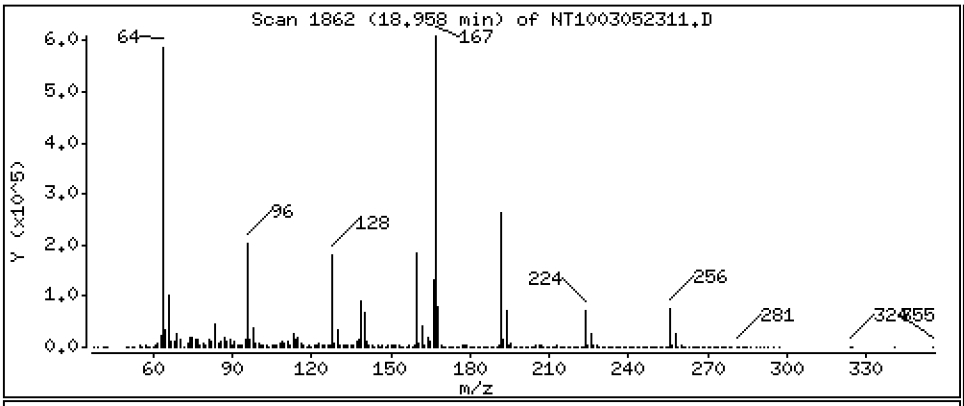
Operator: VTS

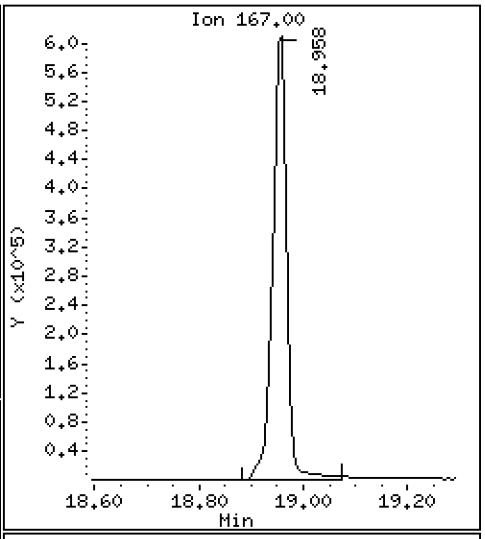
Column phase: ZB-5msi

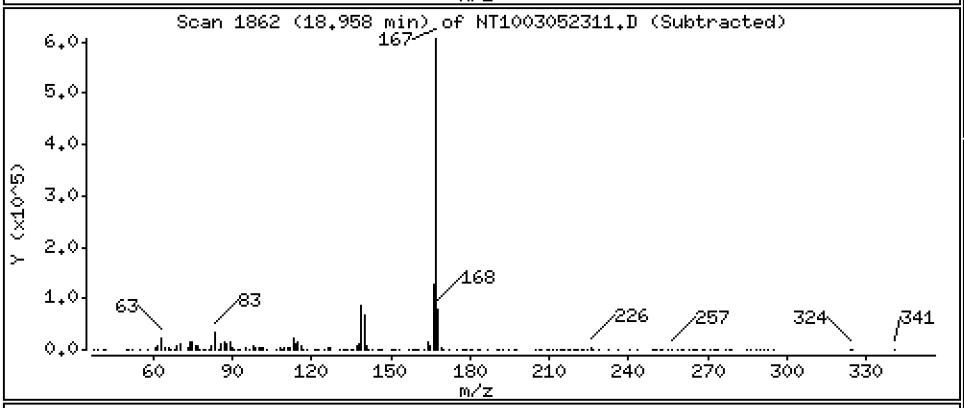
Column diameter: 0.25

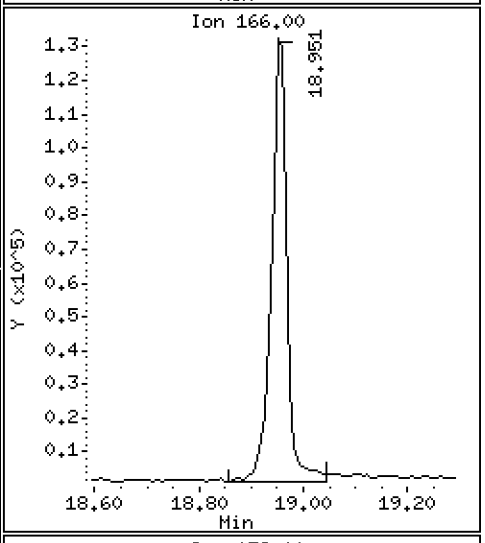
62 Carbazole

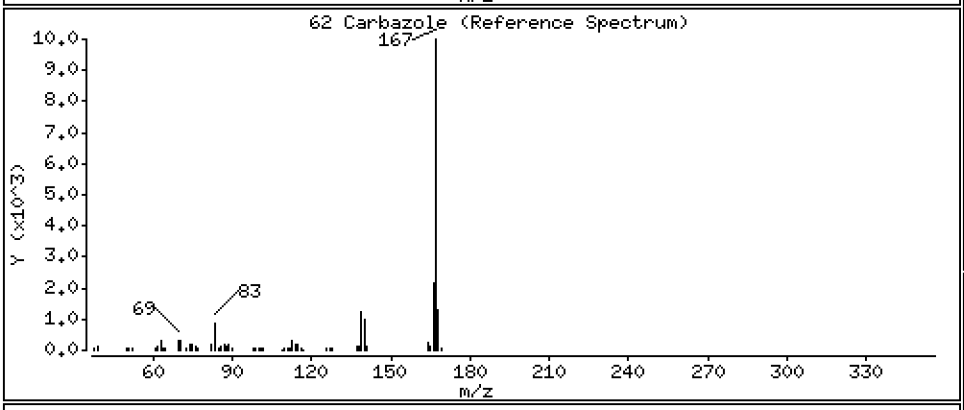
Concentration: 4.953 ug/mL

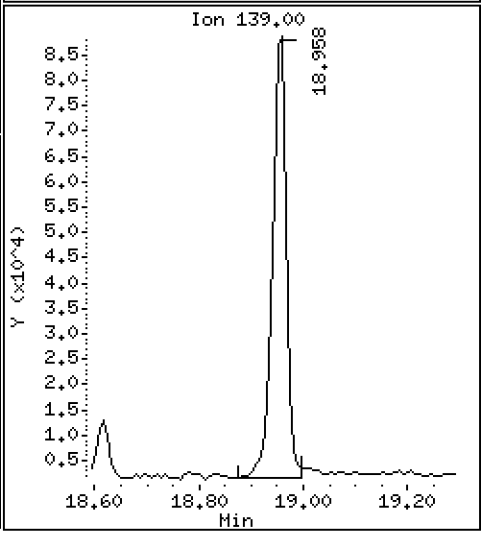


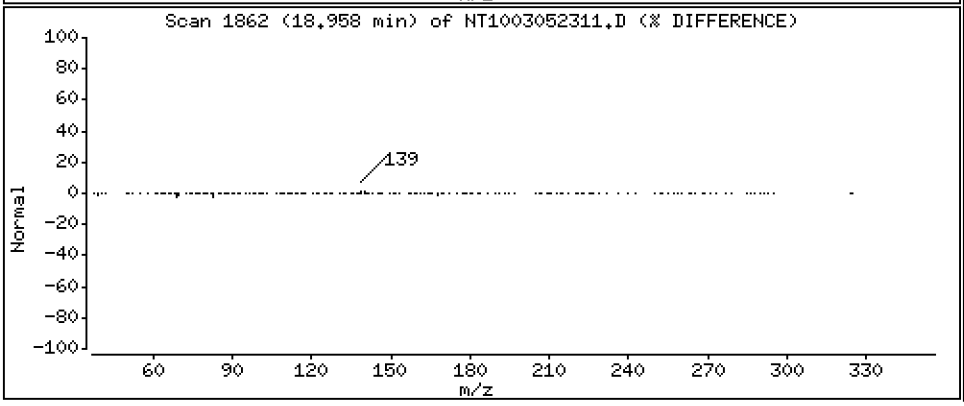












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

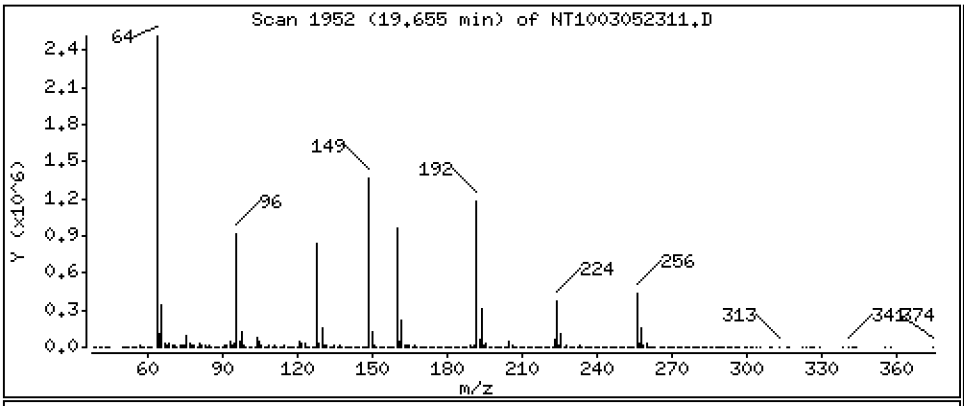
Operator: VTS

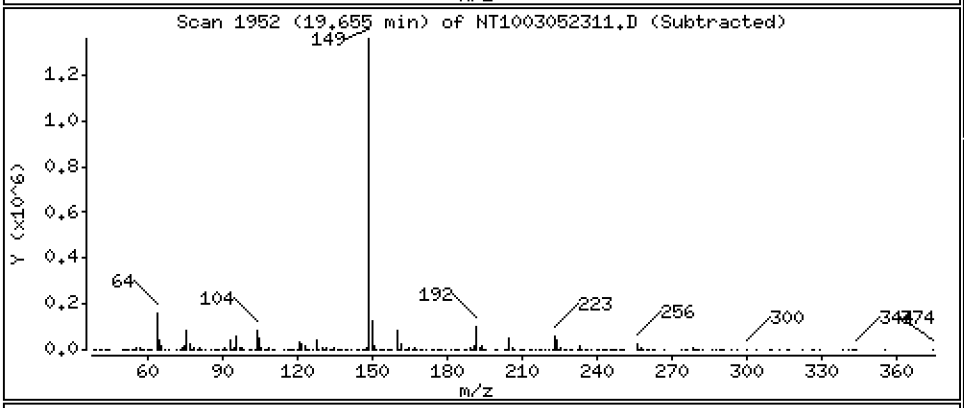
Column phase: ZB-5msi

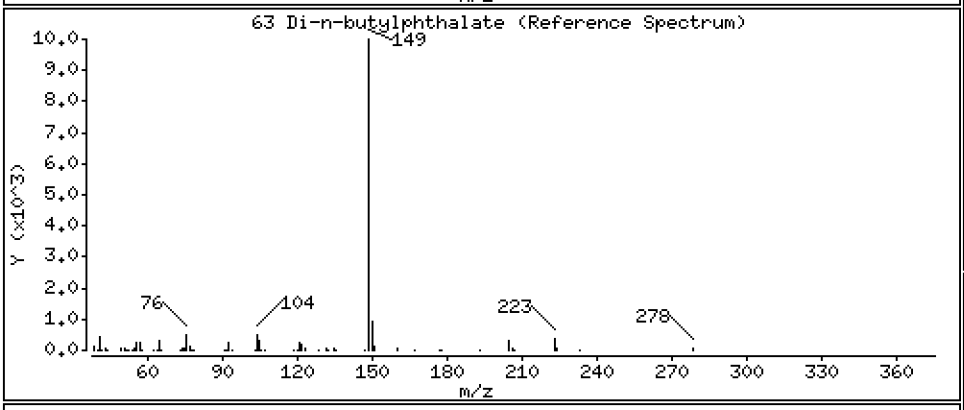
Column diameter: 0.25

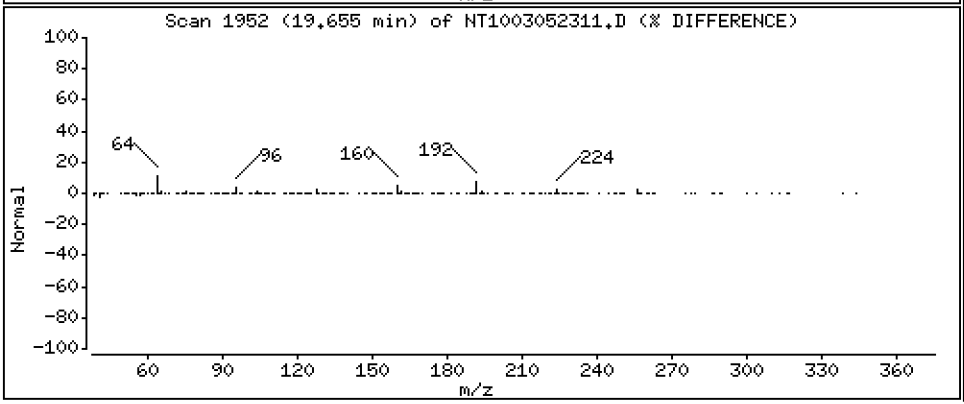
63 Di-n-butylphthalate

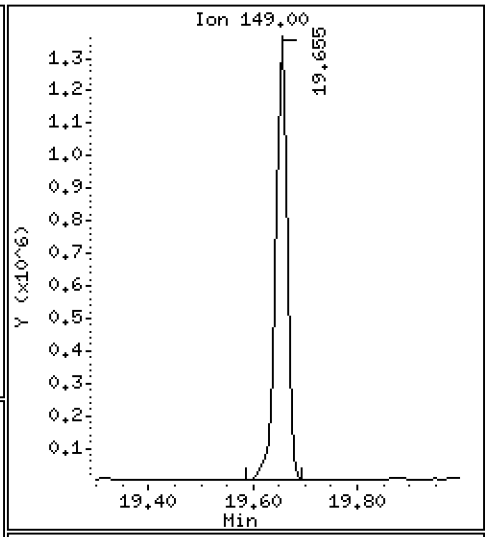
Concentration: 5.927 ug/mL

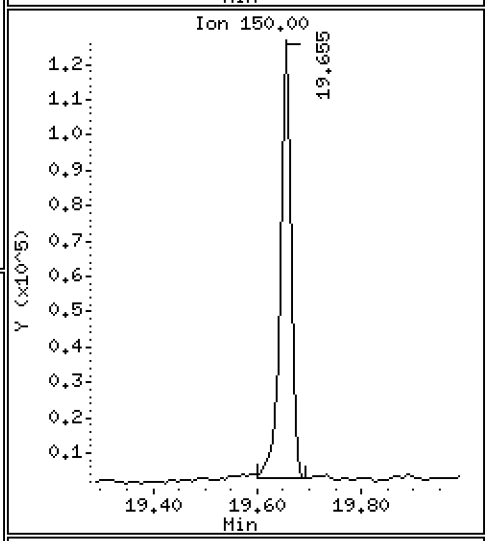


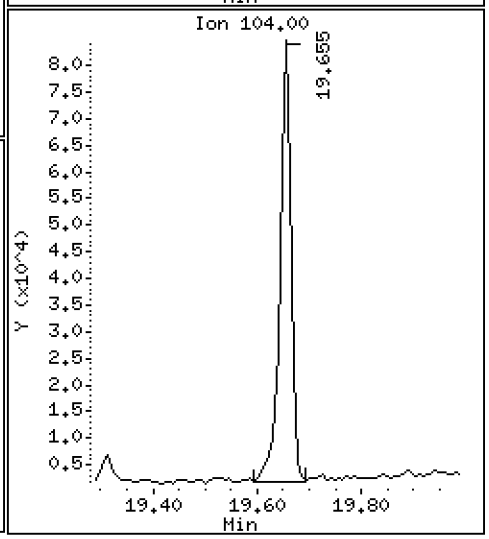












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

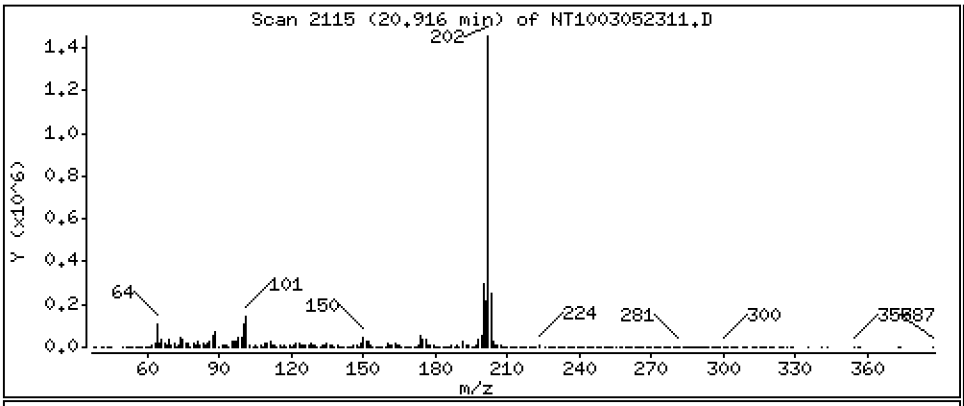
Operator: VTS

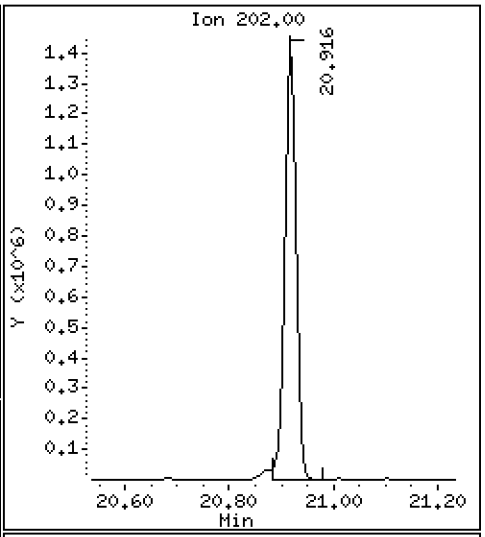
Column phase: ZB-5msi

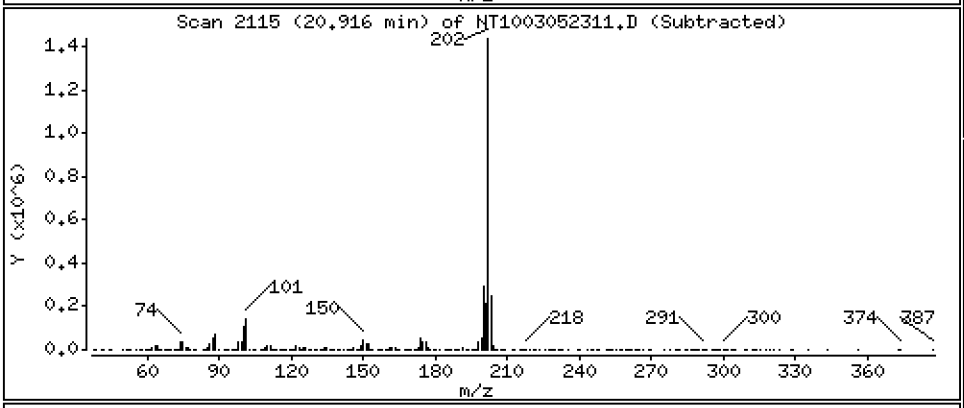
Column diameter: 0.25

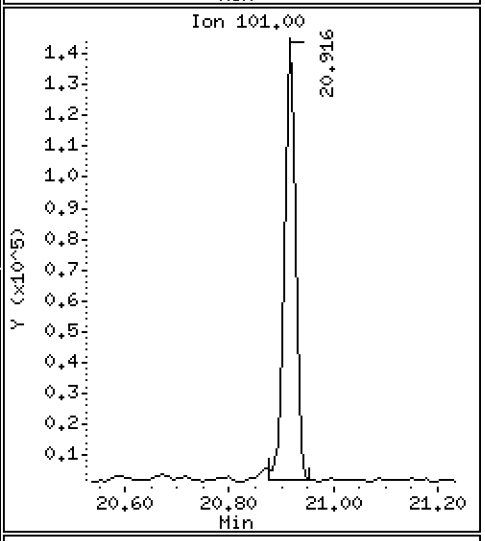
64 Fluoranthene

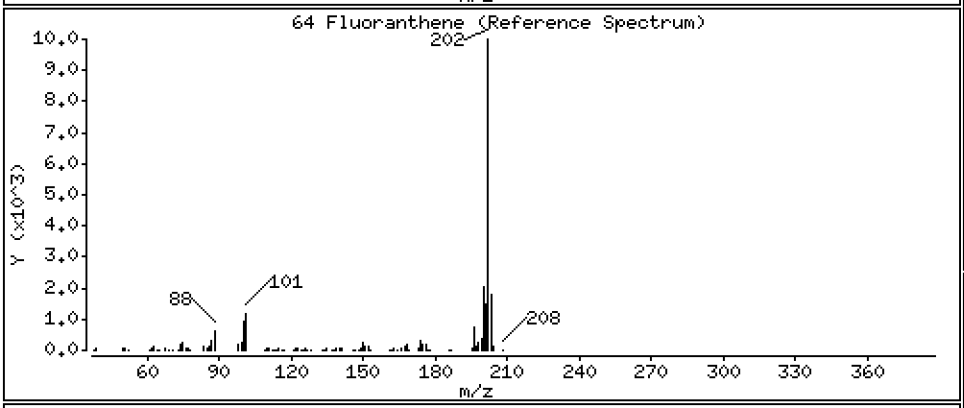
Concentration: 6.471 ug/mL

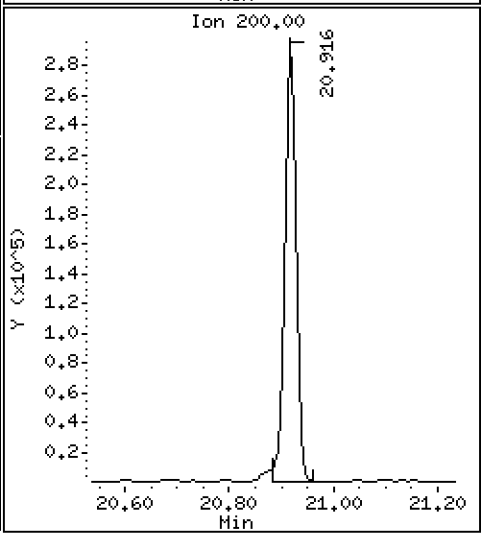


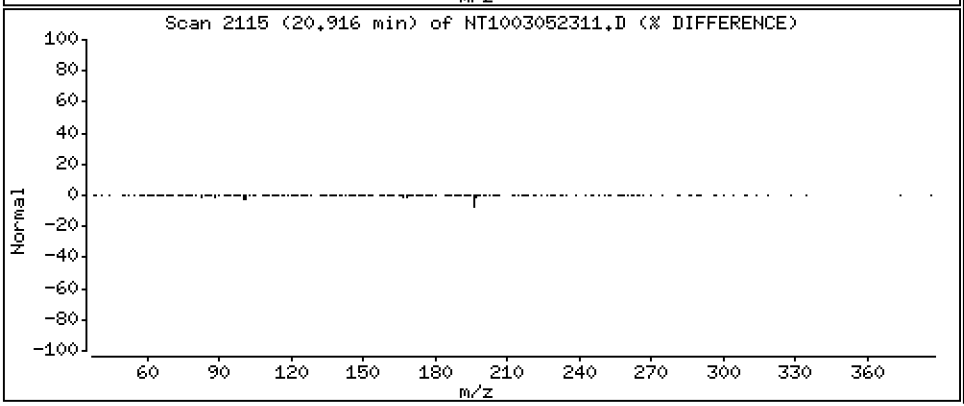












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

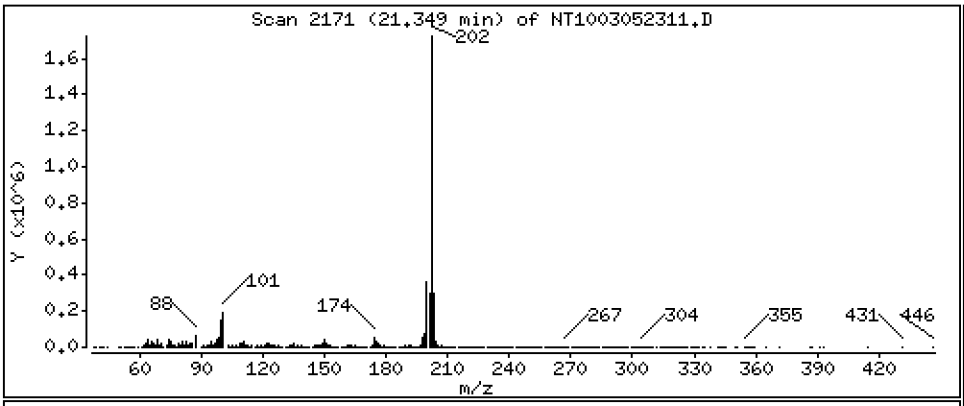
Operator: VTS

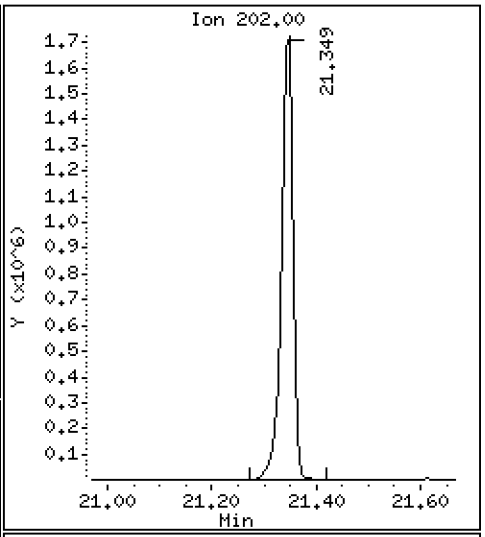
Column phase: ZB-5msi

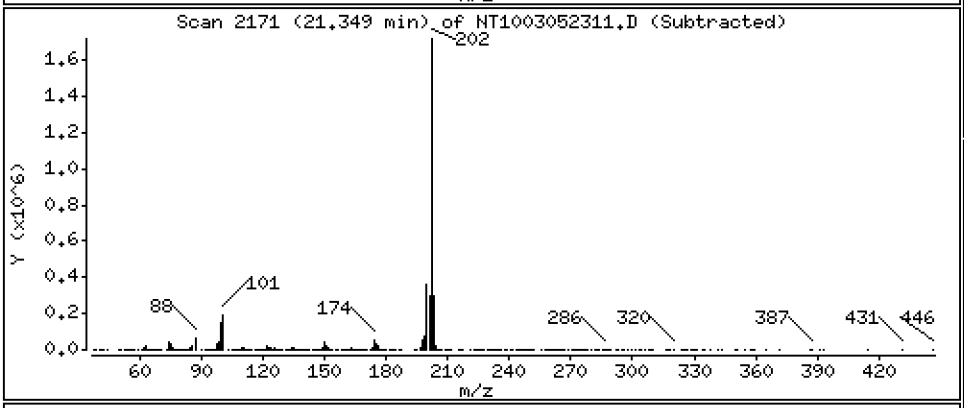
Column diameter: 0.25

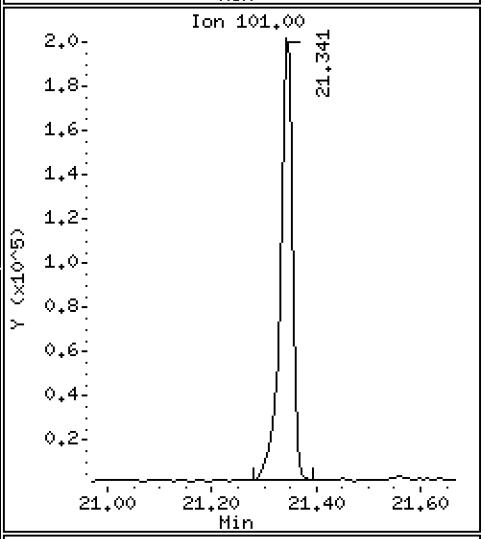
65 Pyrene

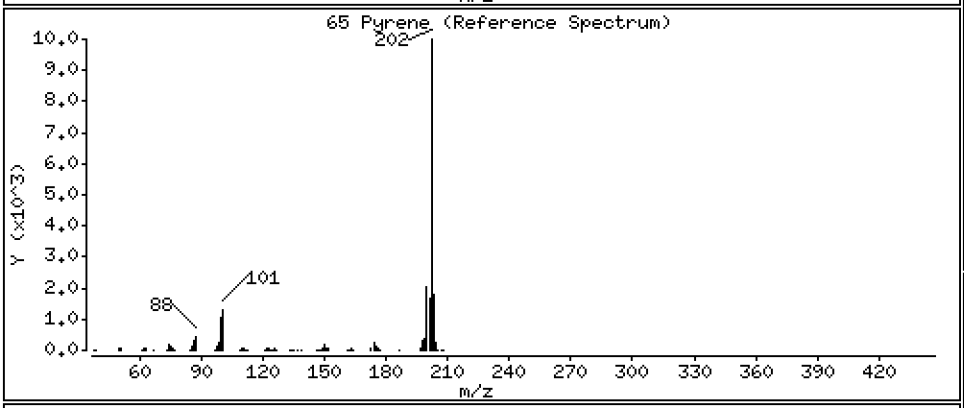
Concentration: 8.688 ug/mL

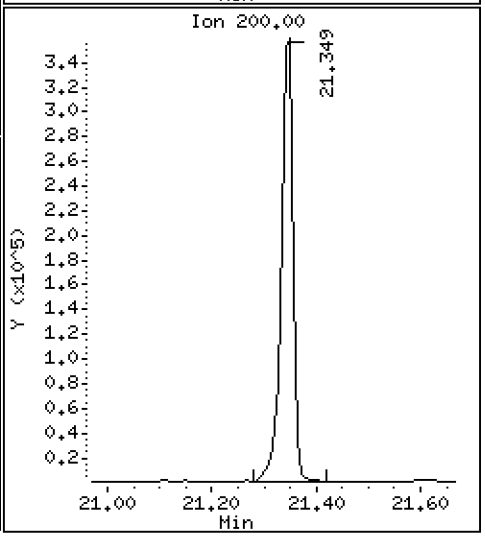


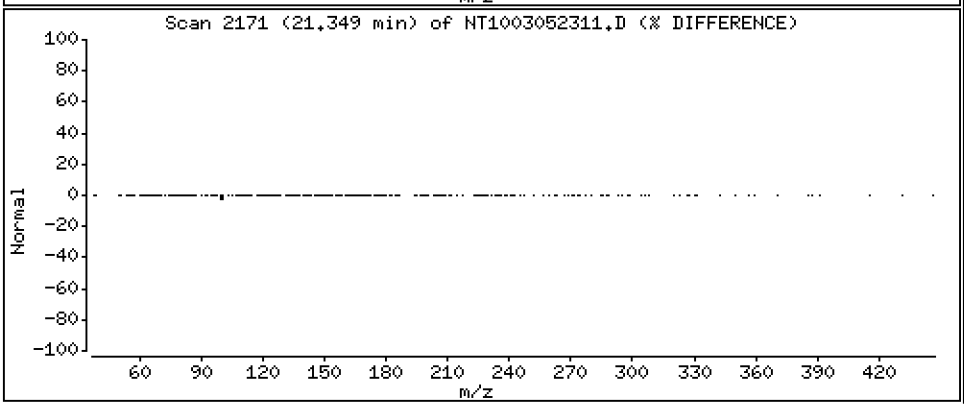












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

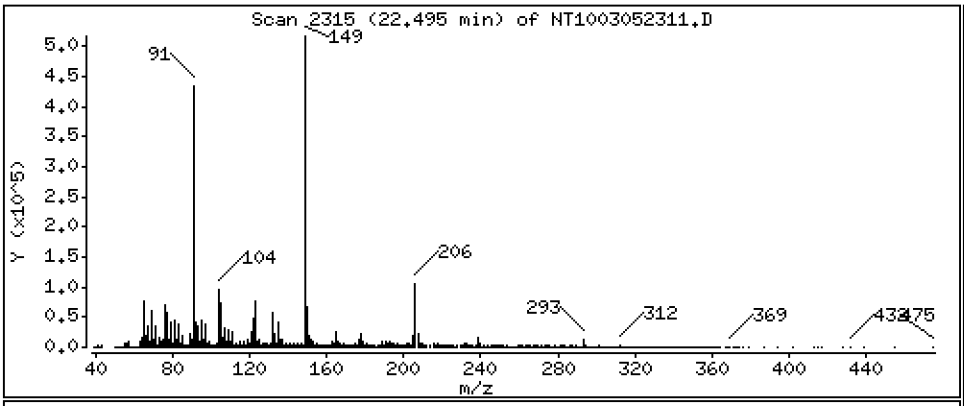
Operator: VTS

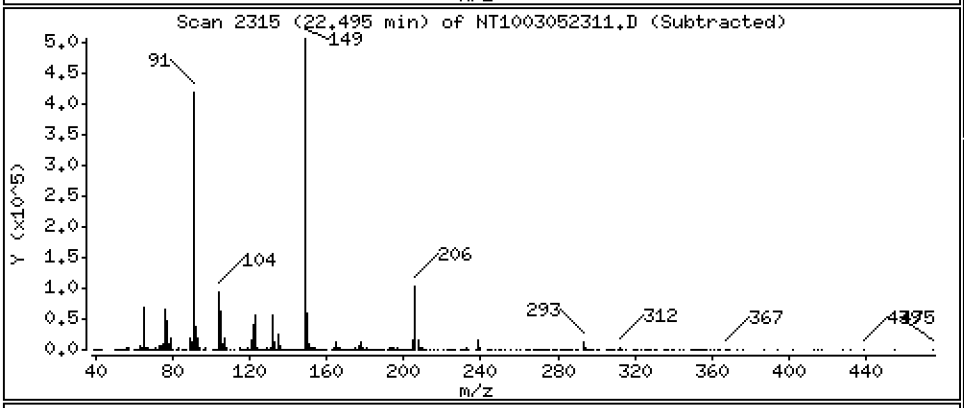
Column phase: ZB-5msi

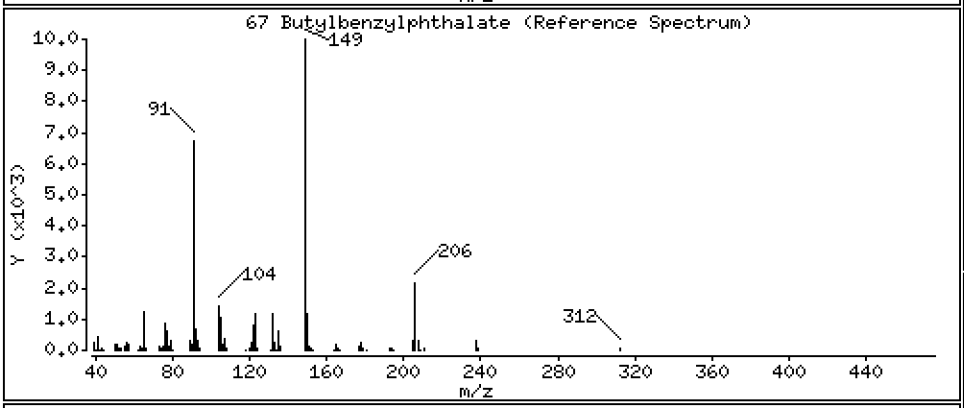
Column diameter: 0.25

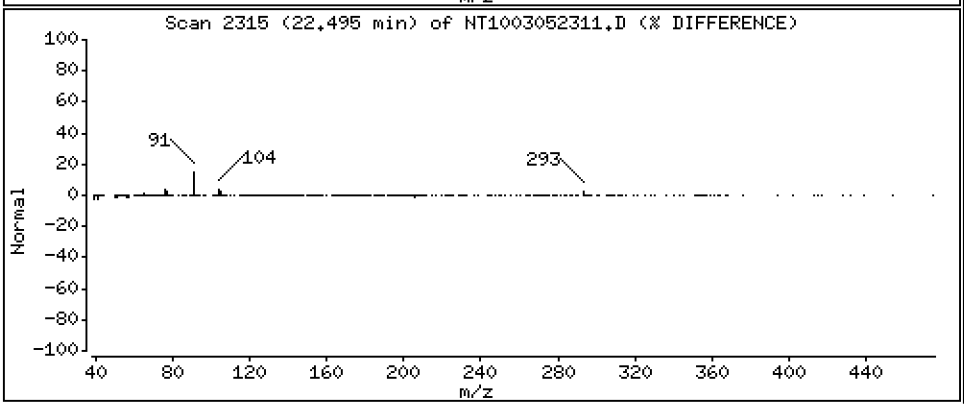
67 Butylbenzylphthalate

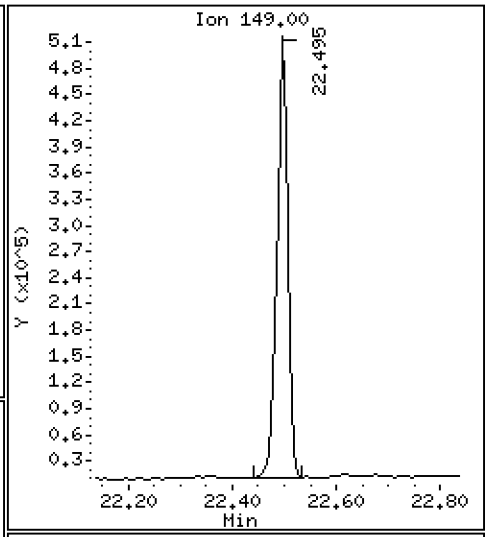
Concentration: 3.841 ug/mL

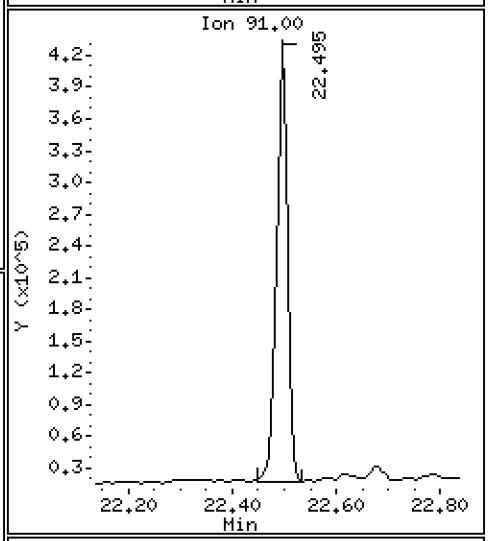


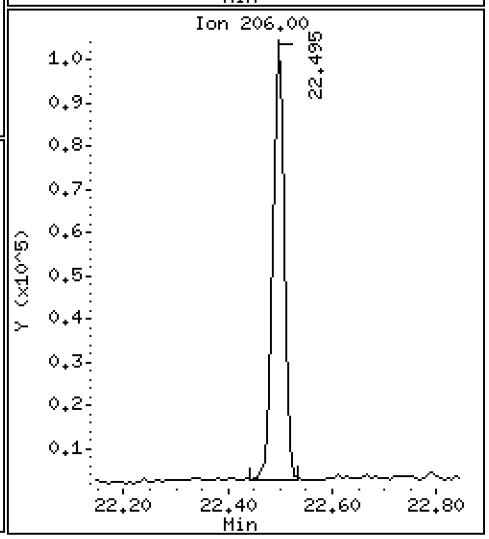












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

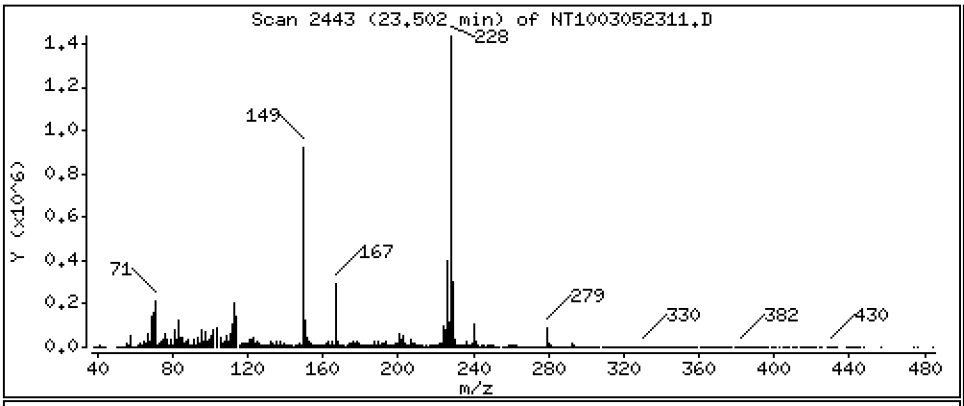
Operator: VTS

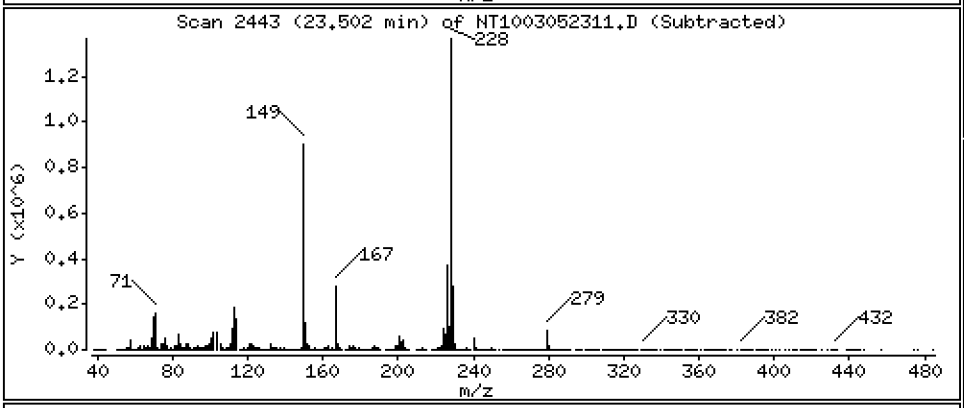
Column phase: ZB-5msi

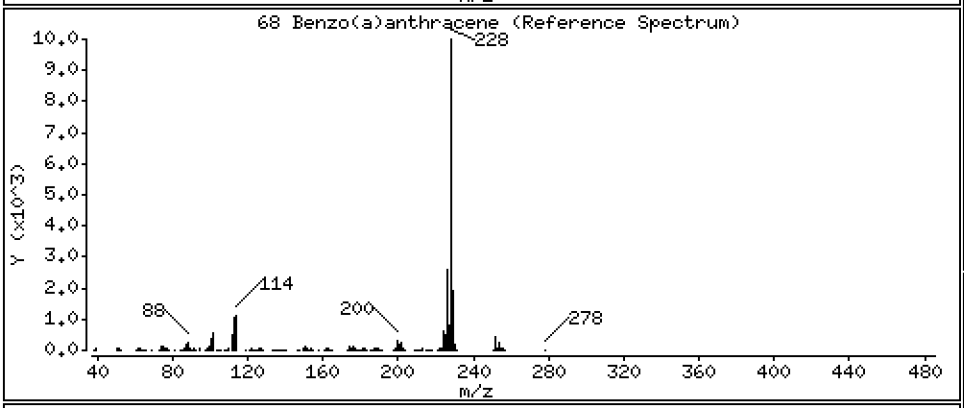
Column diameter: 0.25

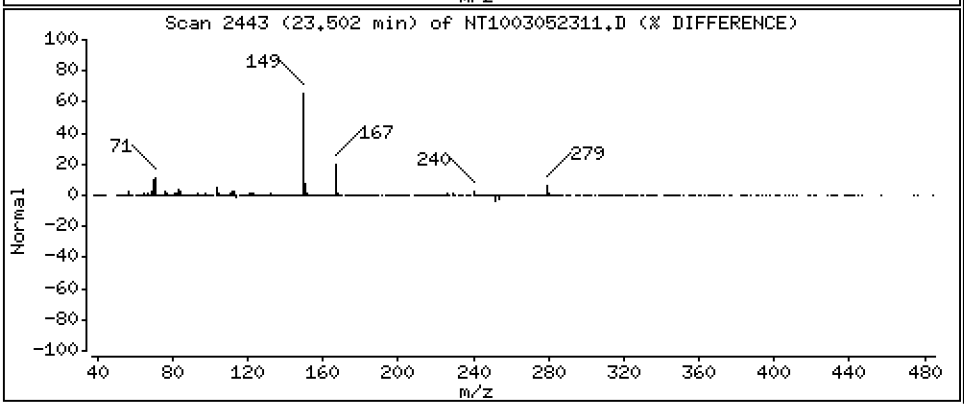
68 Benzo(a)anthracene

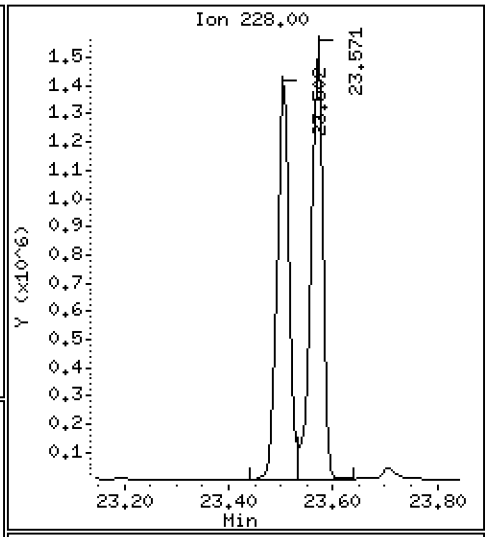
Concentration: 6.409 ug/mL

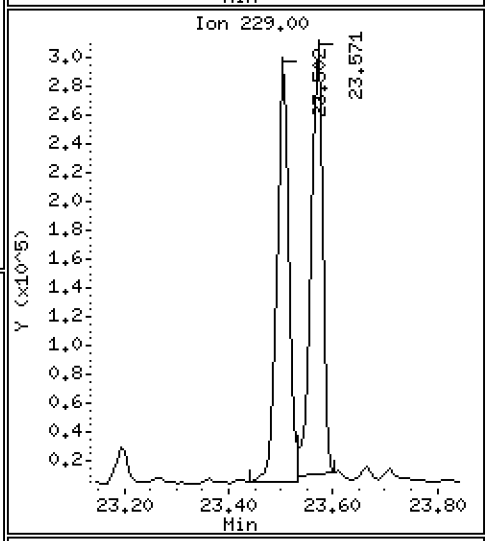


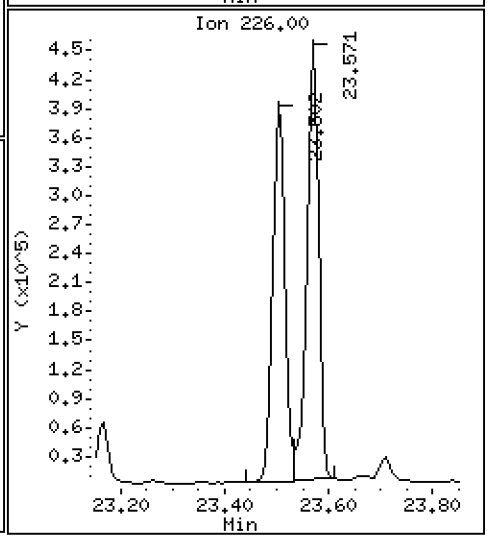












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

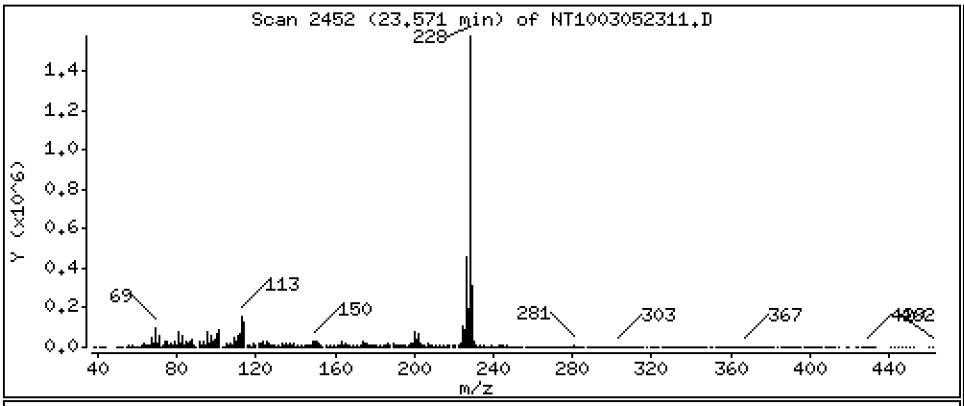
Operator: VTS

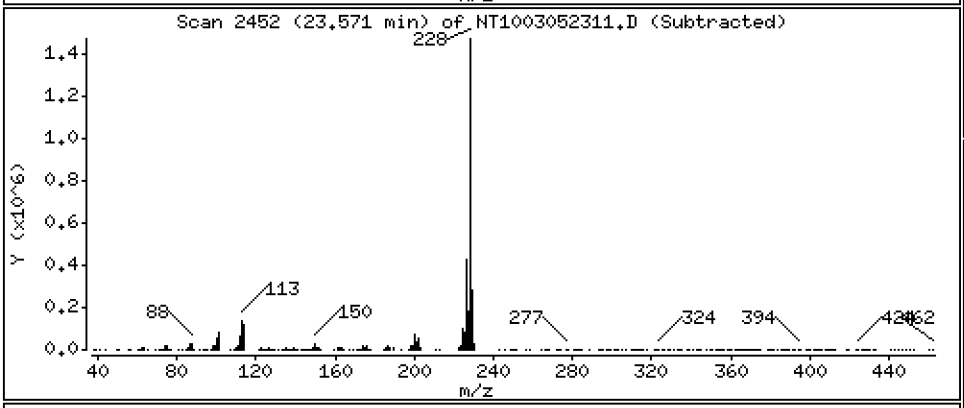
Column phase: ZB-5msi

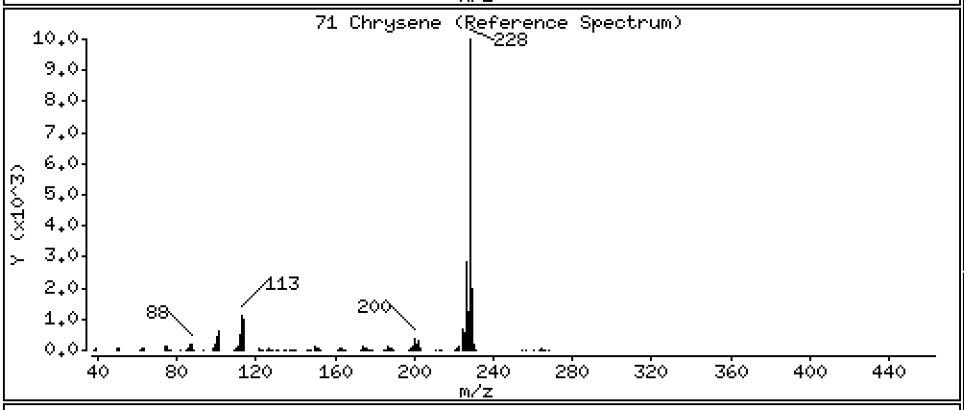
Column diameter: 0.25

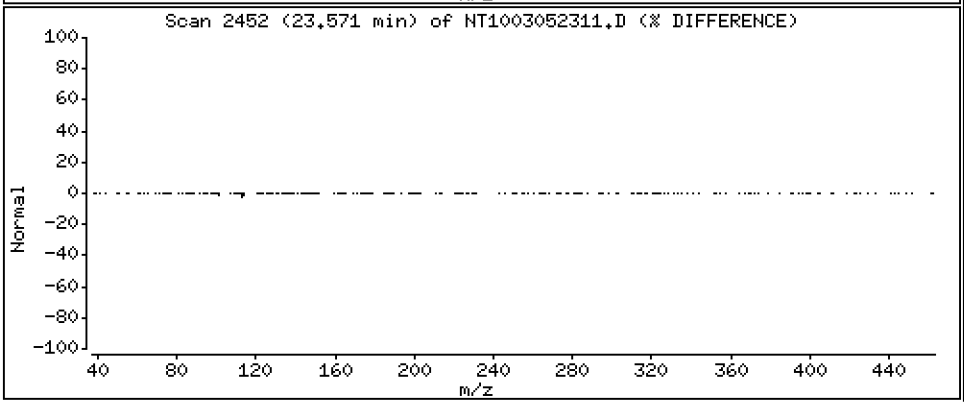
71 Chrysene

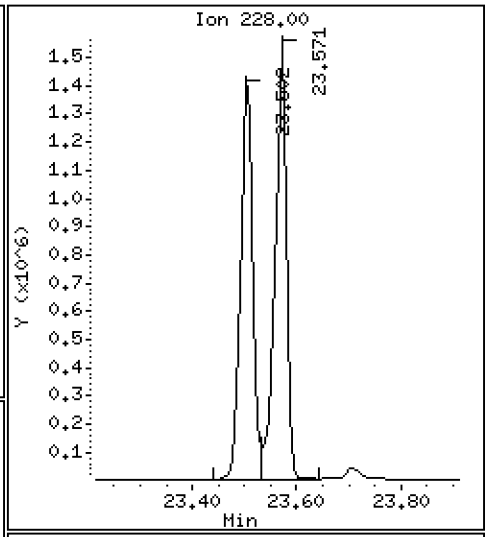
Concentration: 7.918 ug/mL

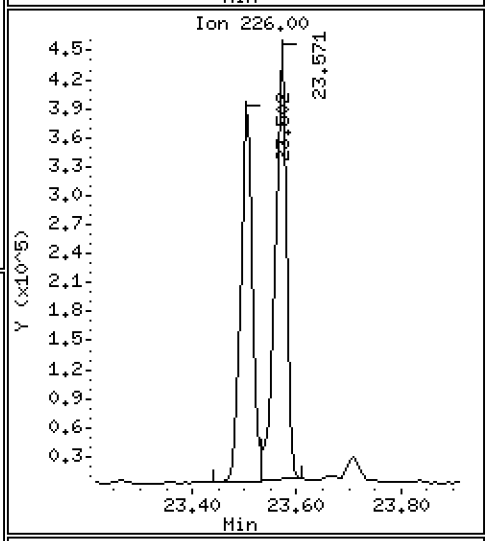


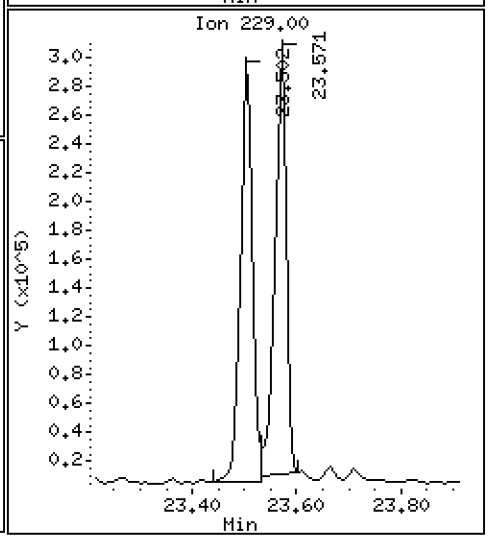












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

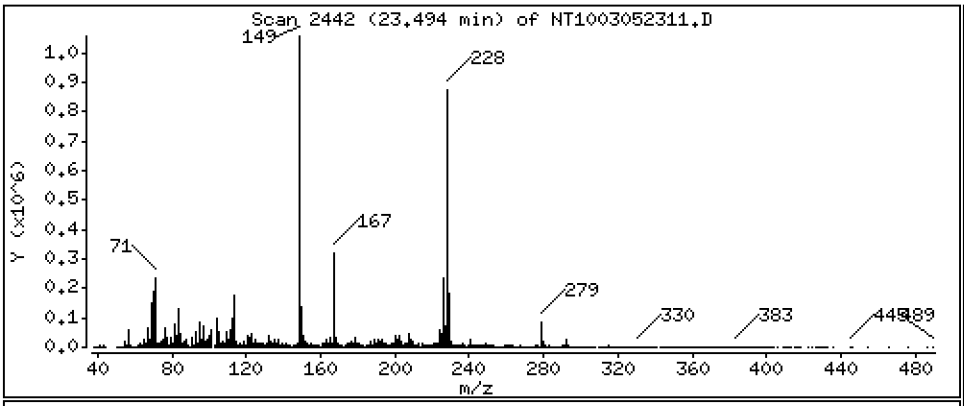
Operator: VTS

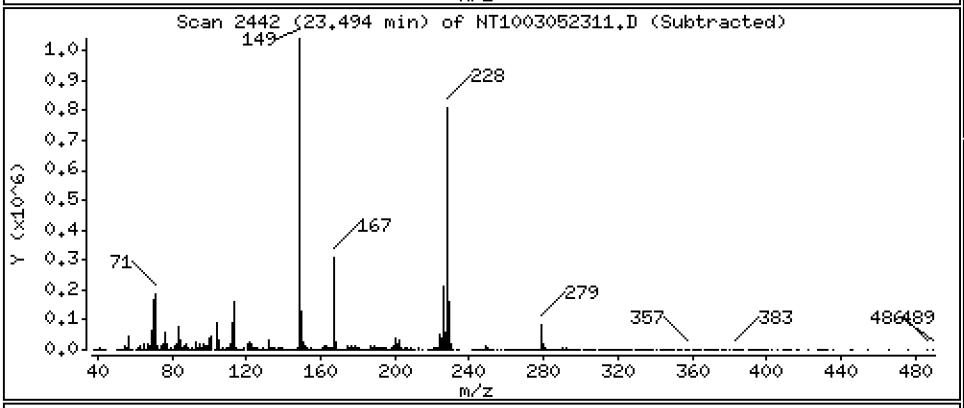
Column phase: ZB-5msi

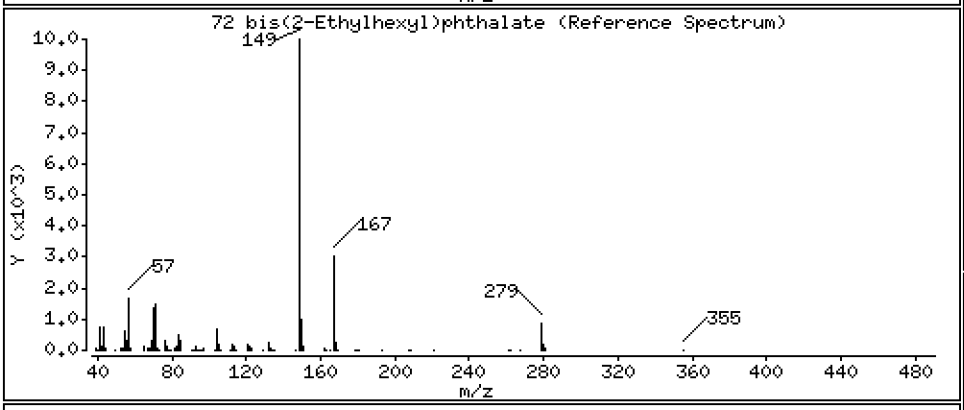
Column diameter: 0.25

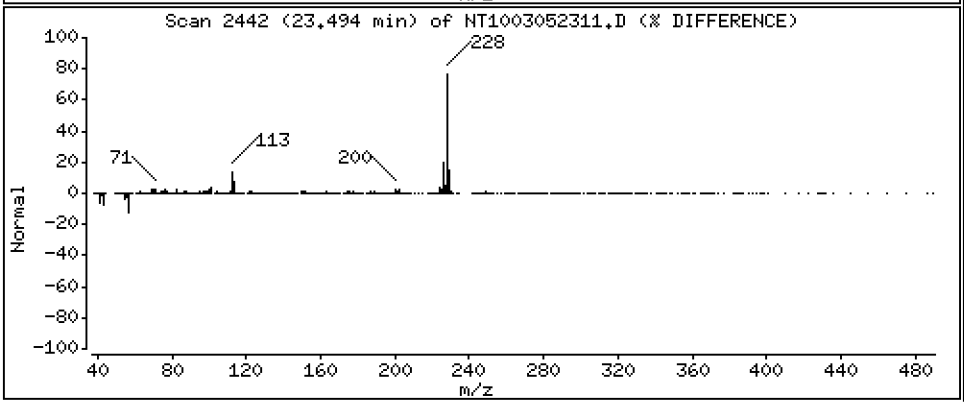
72 bis(2-Ethylhexyl)phthalate

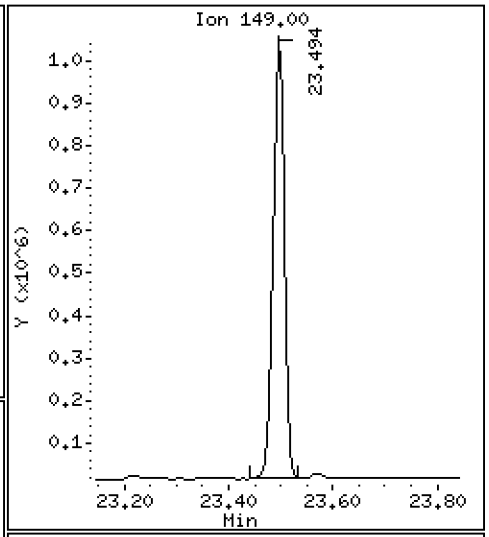
Concentration: 5.816 ug/mL

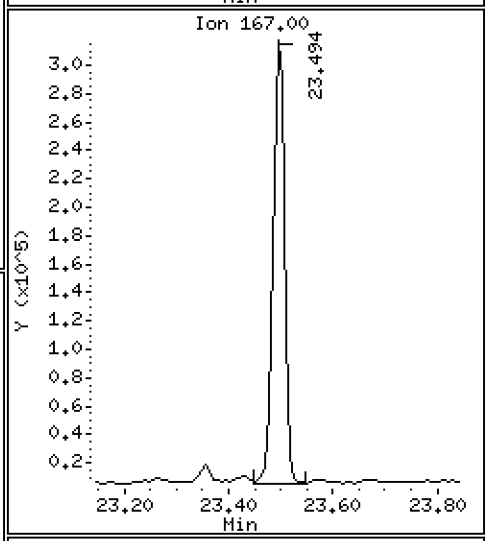


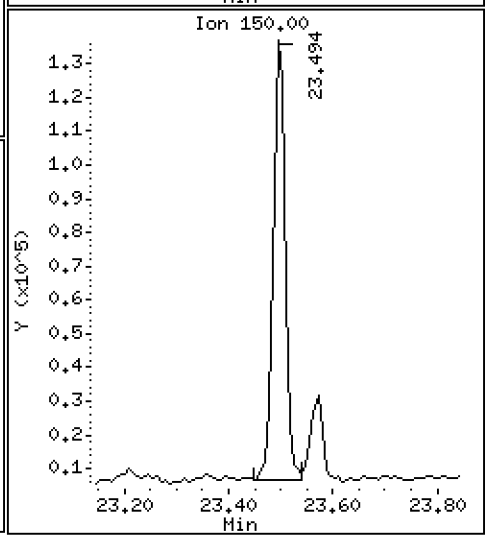












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

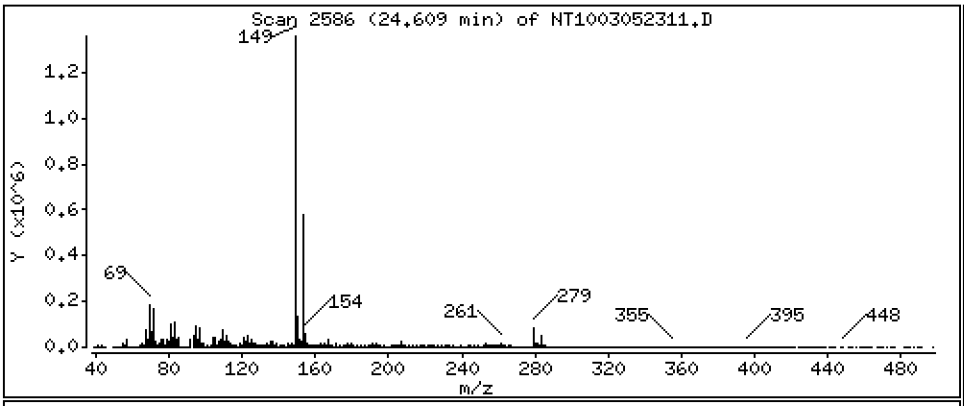
Operator: VTS

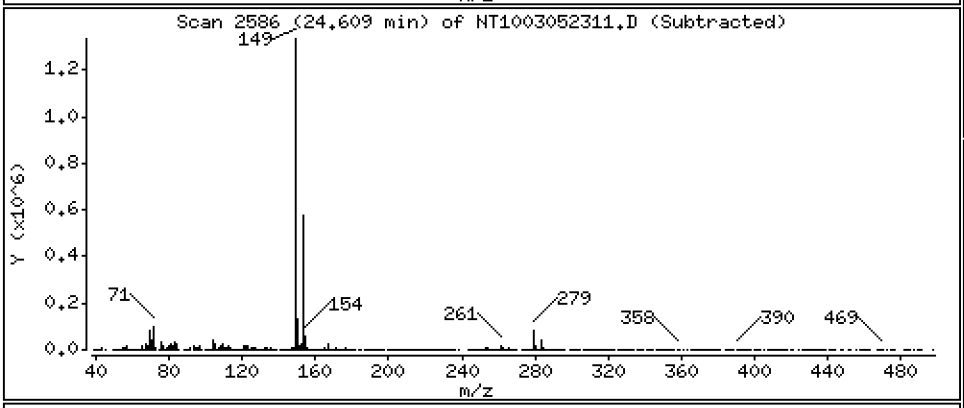
Column phase: ZB-5msi

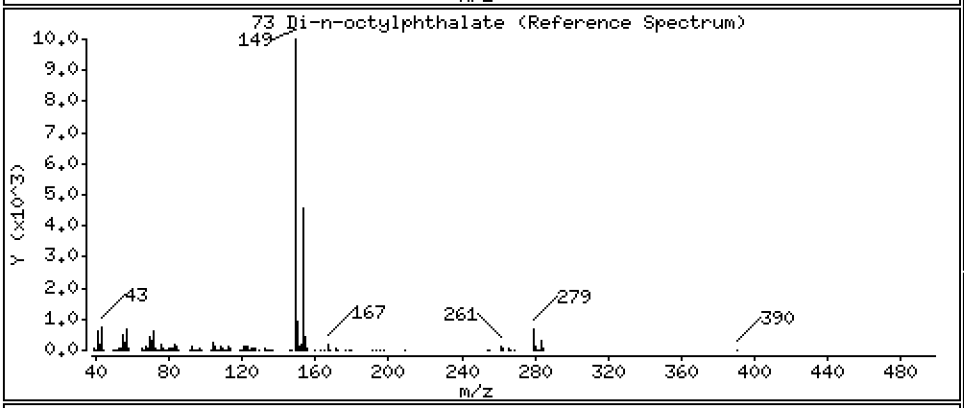
Column diameter: 0.25

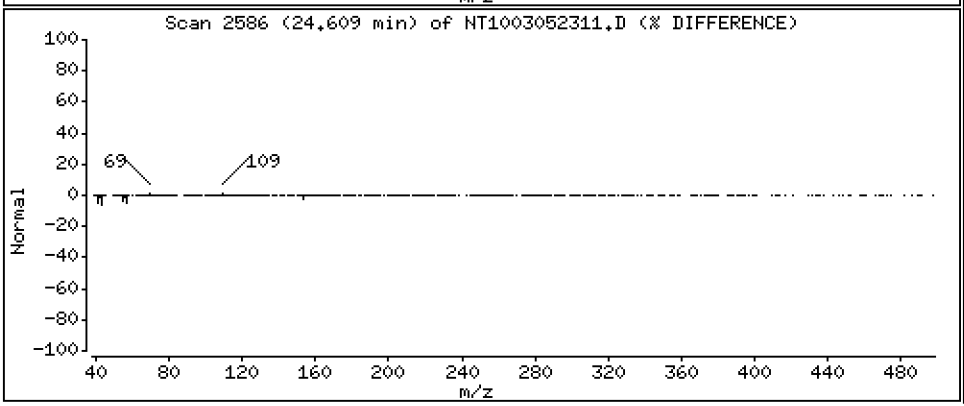
73 Di-n-octylphthalate

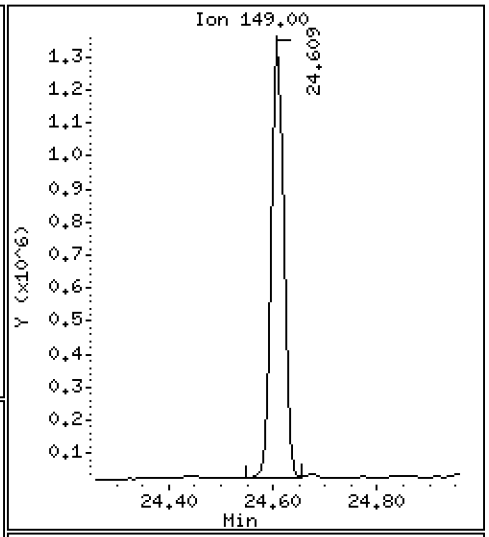
Concentration: 5.492 ug/mL

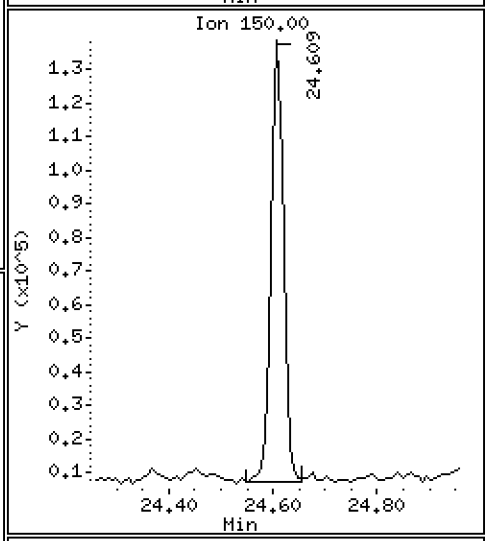


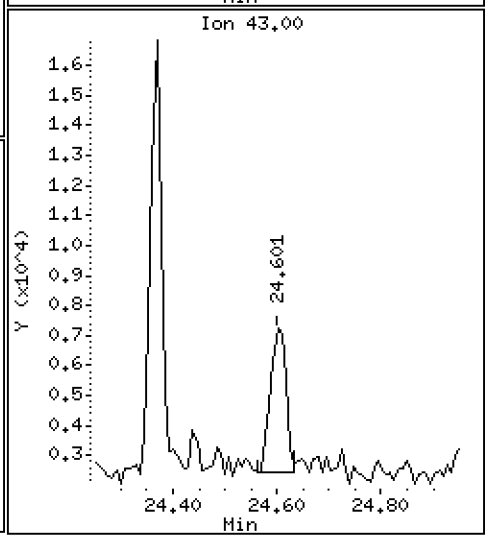












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

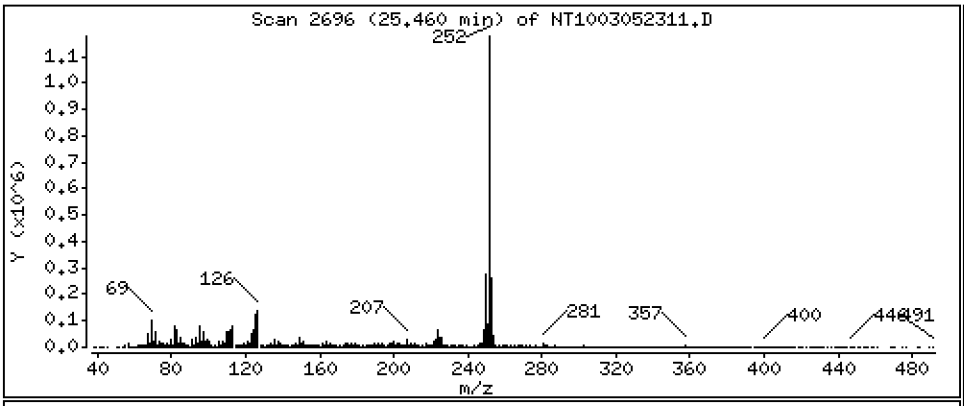
Operator: VTS

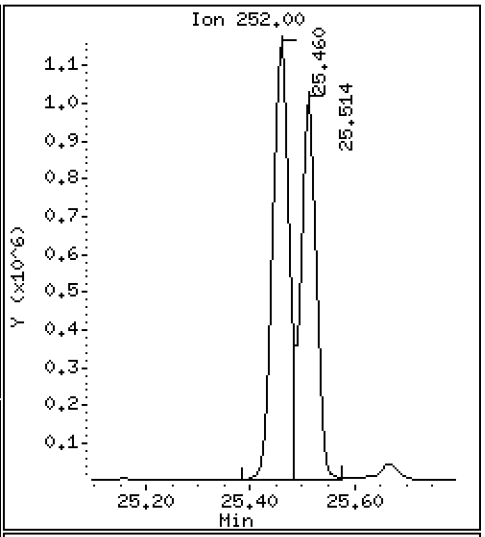
Column phase: ZB-5msi

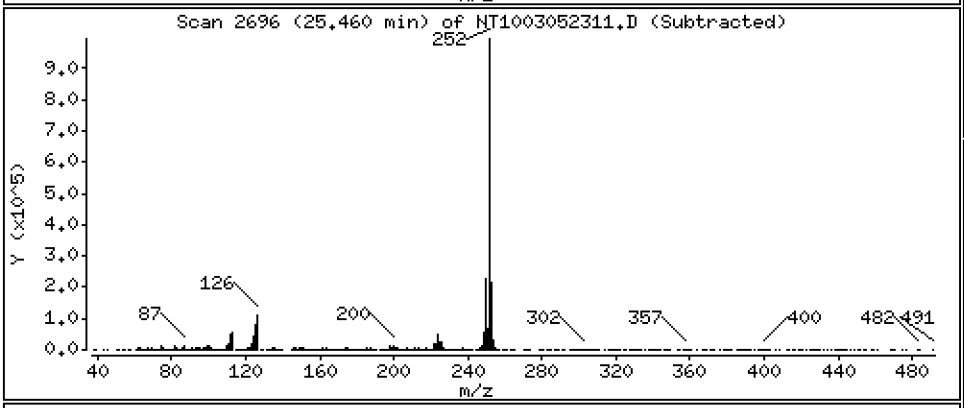
Column diameter: 0.25

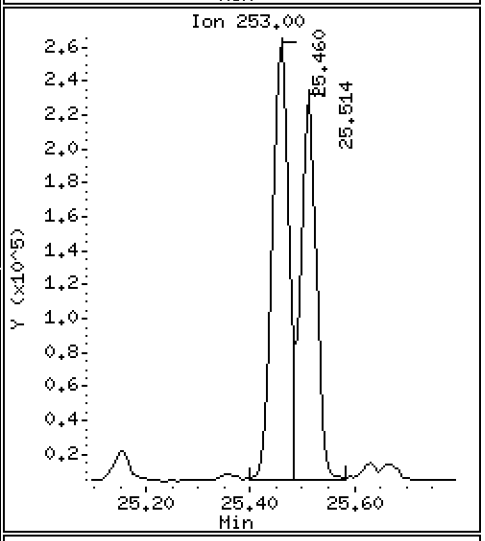
74 Benzo(b)fluoranthene

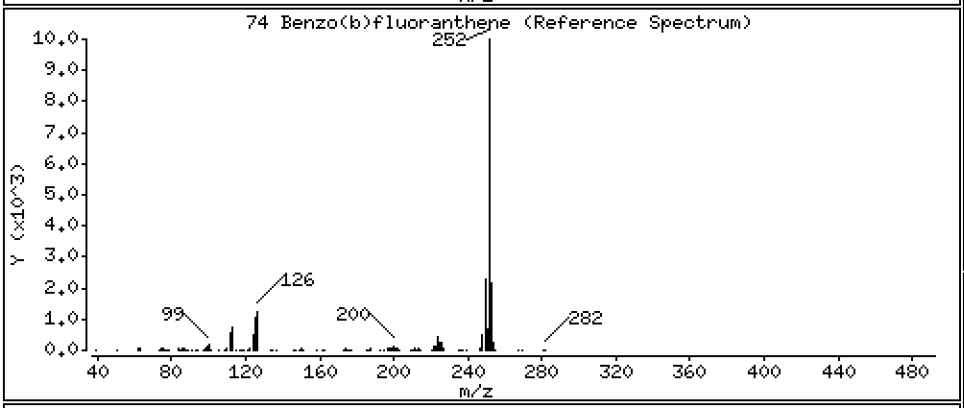
Concentration: 6.199 ug/mL

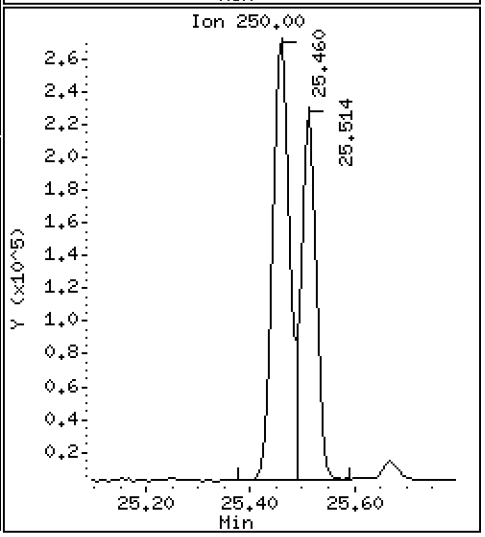


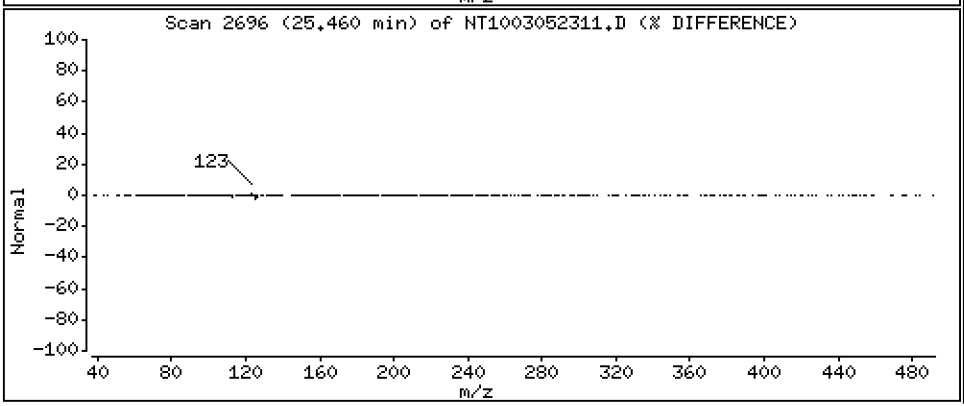












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

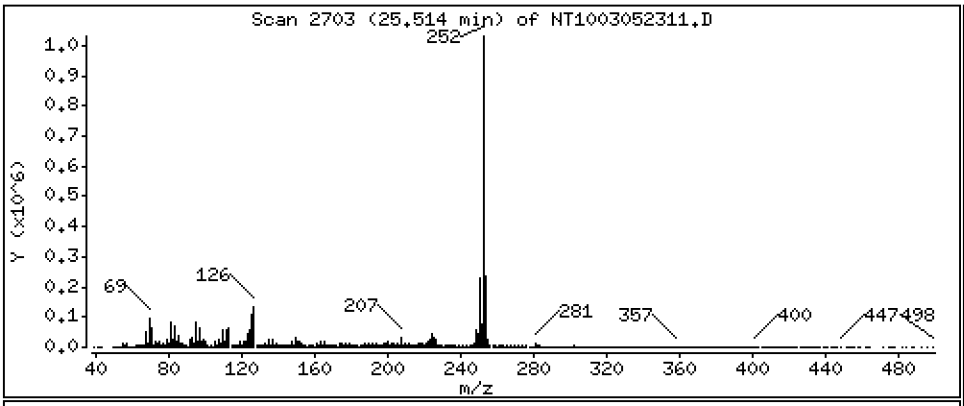
Operator: VTS

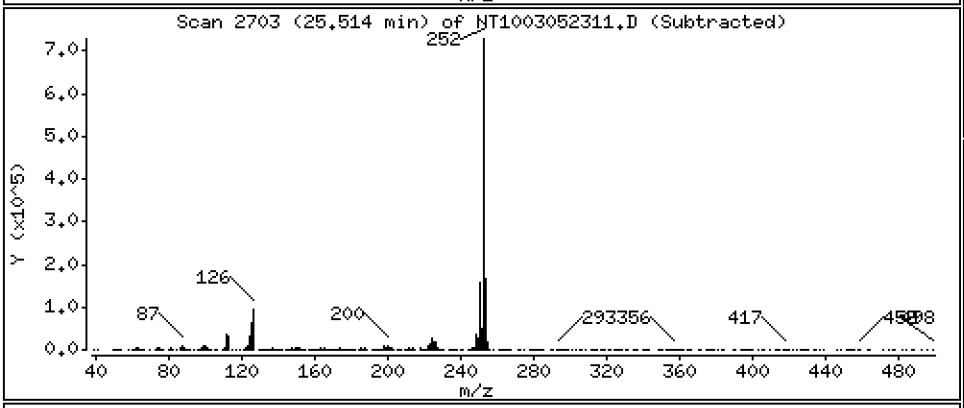
Column phase: ZB-5msi

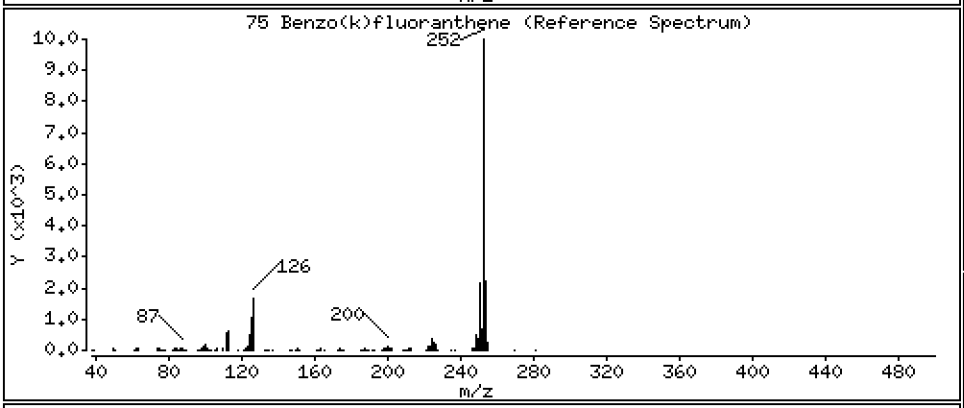
Column diameter: 0.25

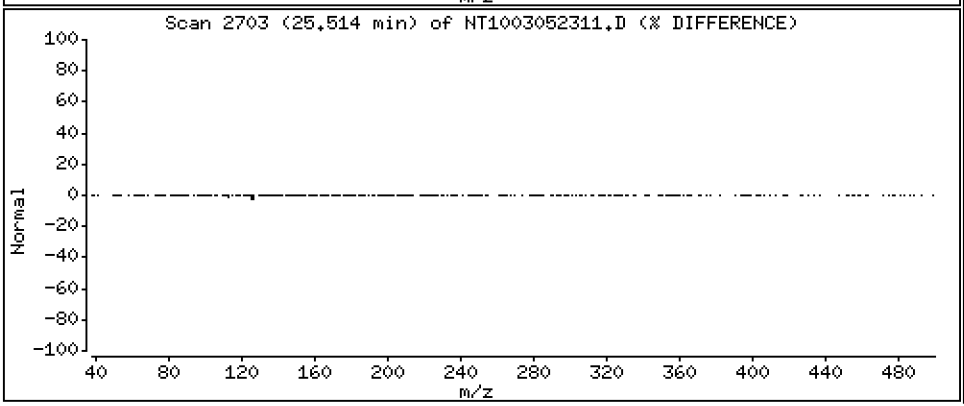
75 Benzo(k)fluoranthene

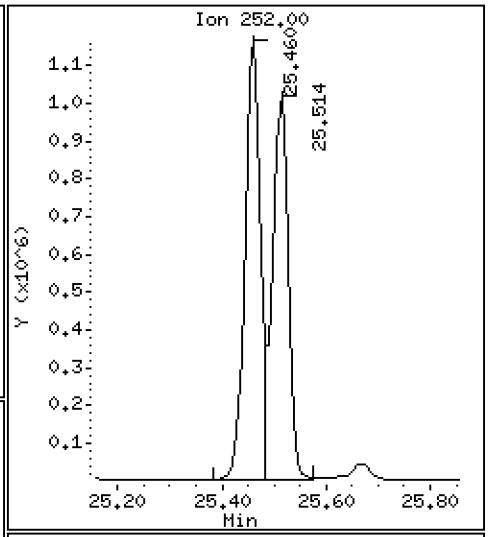
Concentration: 5.649 ug/mL

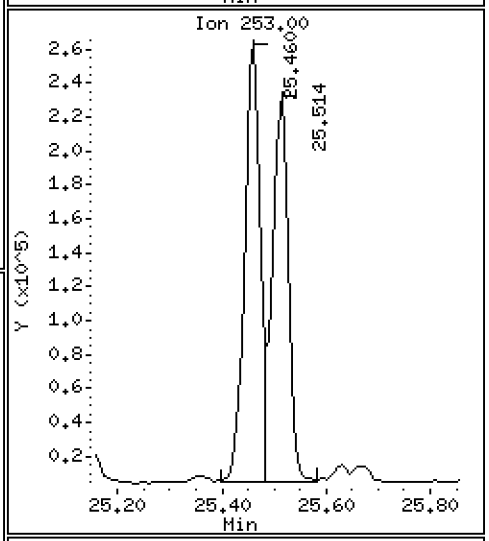


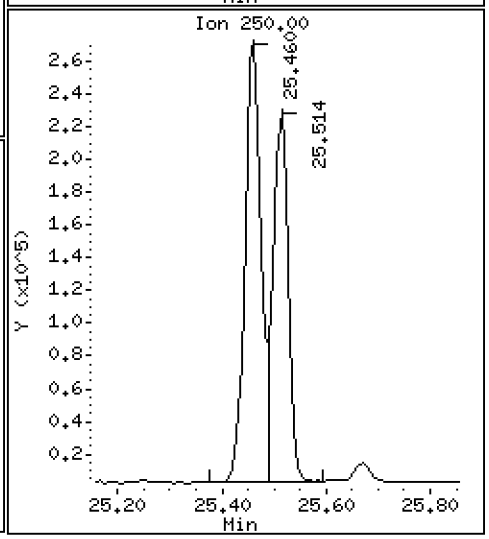












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

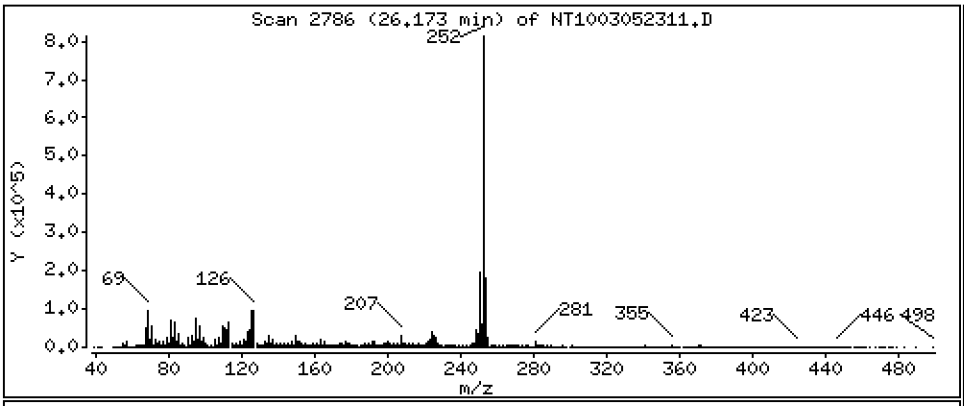
Operator: VTS

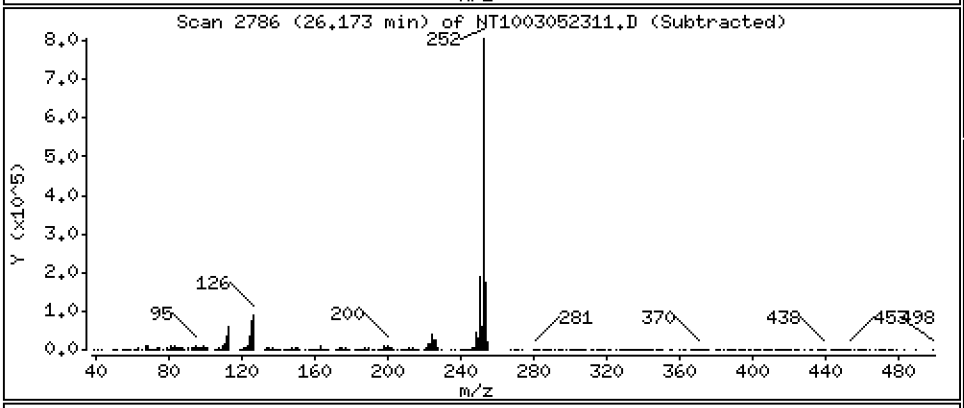
Column phase: ZB-5msi

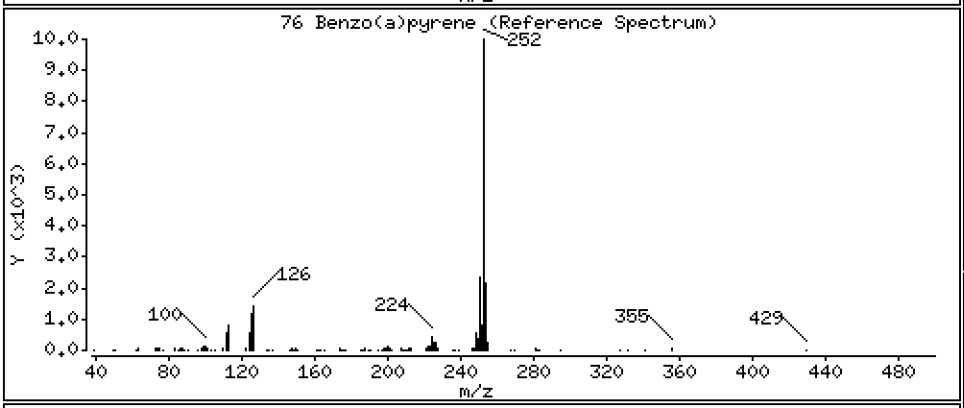
Column diameter: 0.25

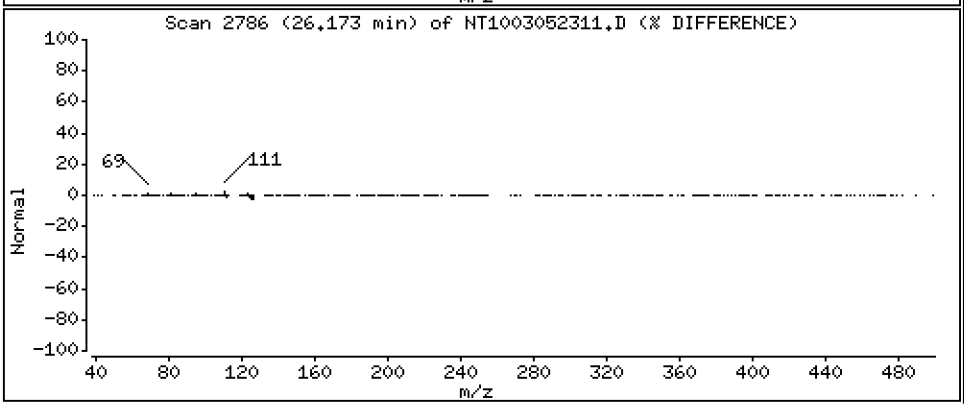
76 Benzo(a)pyrene

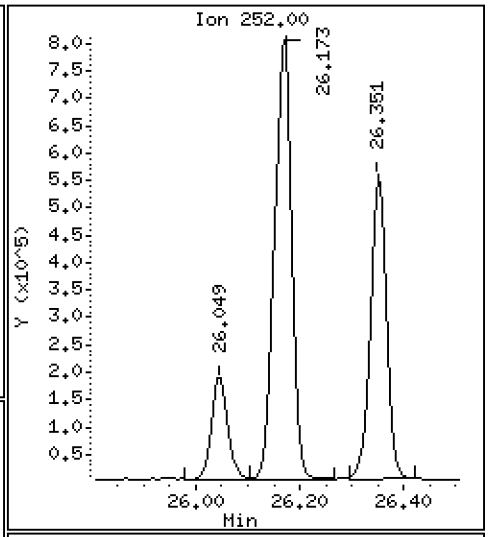
Concentration: 5.190 ug/mL

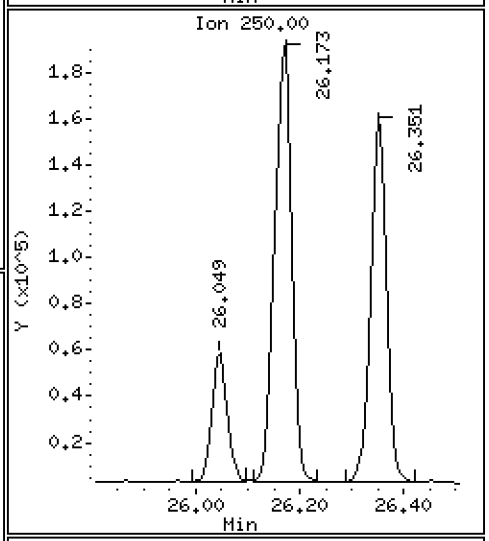


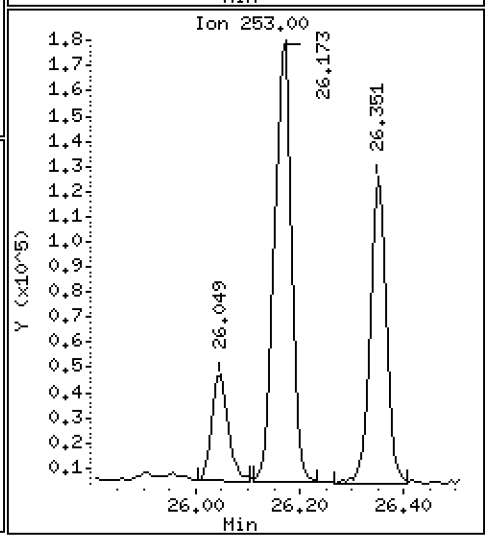












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

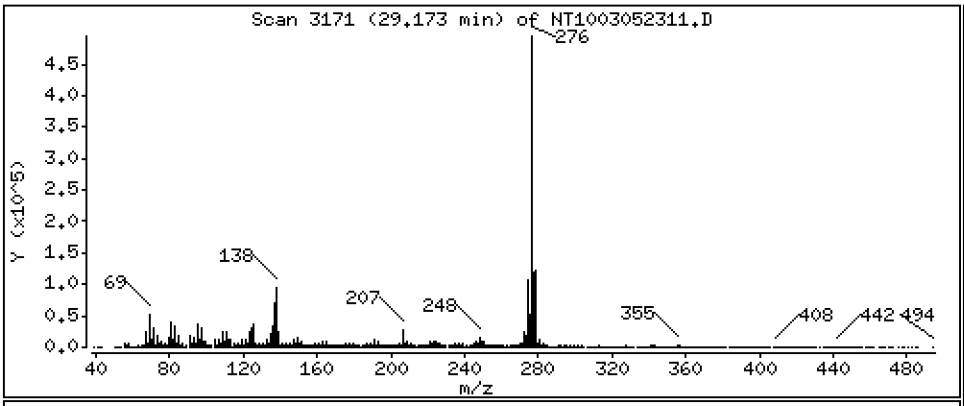
Operator: VTS

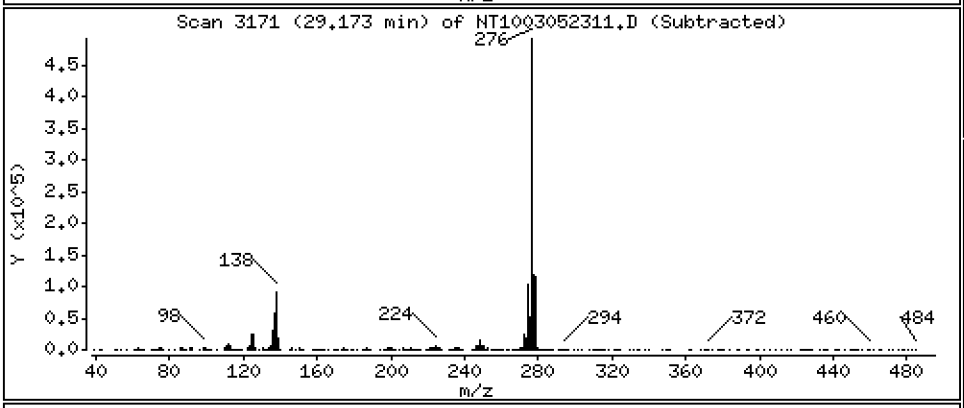
Column phase: ZB-5msi

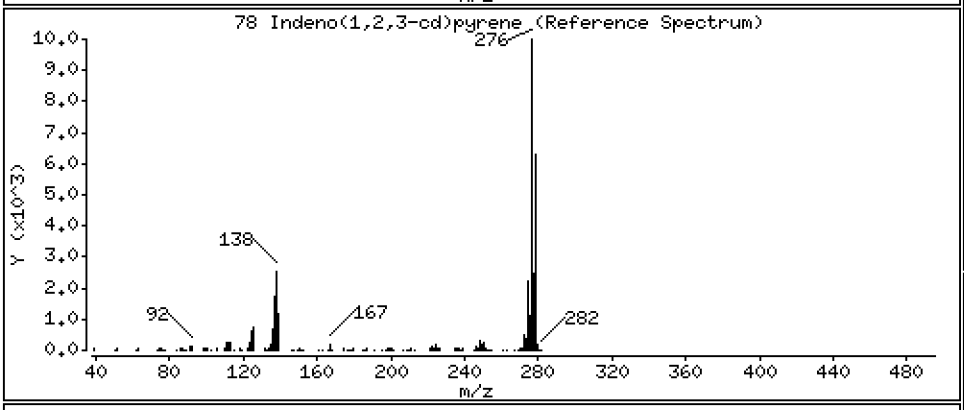
Column diameter: 0.25

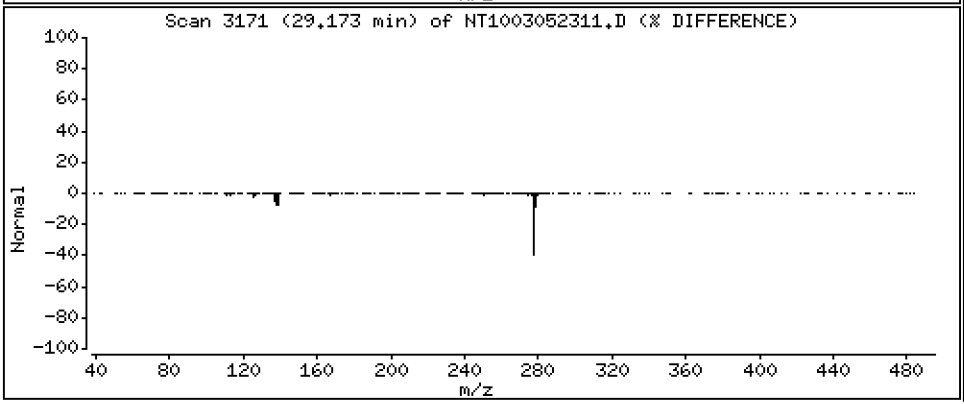
78 Indeno(1,2,3-cd)pyrene

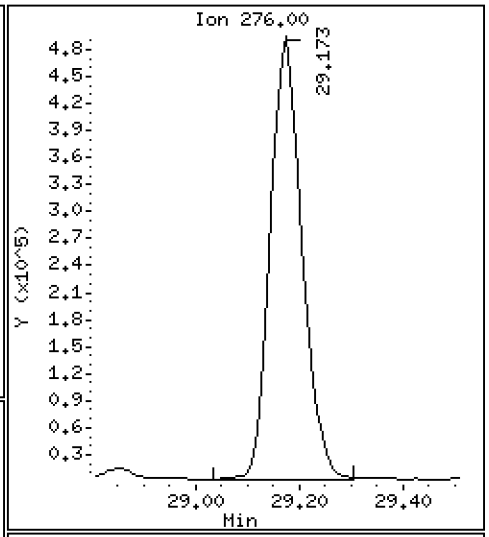
Concentration: 5.070 ug/mL

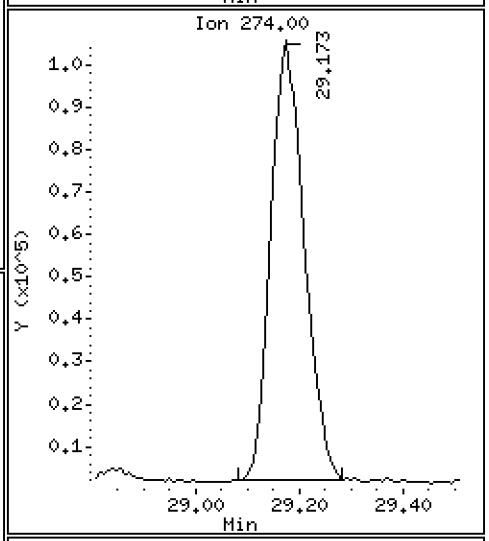


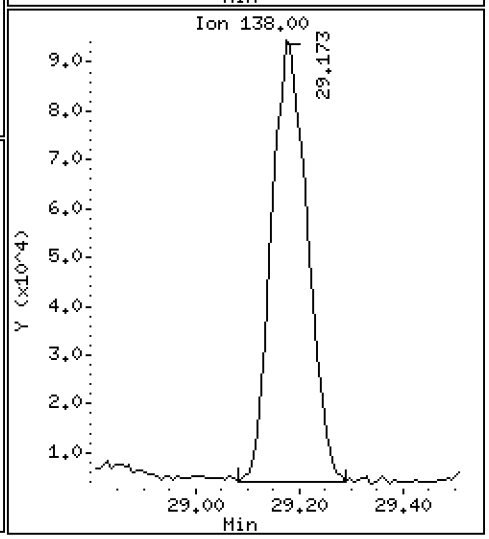












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

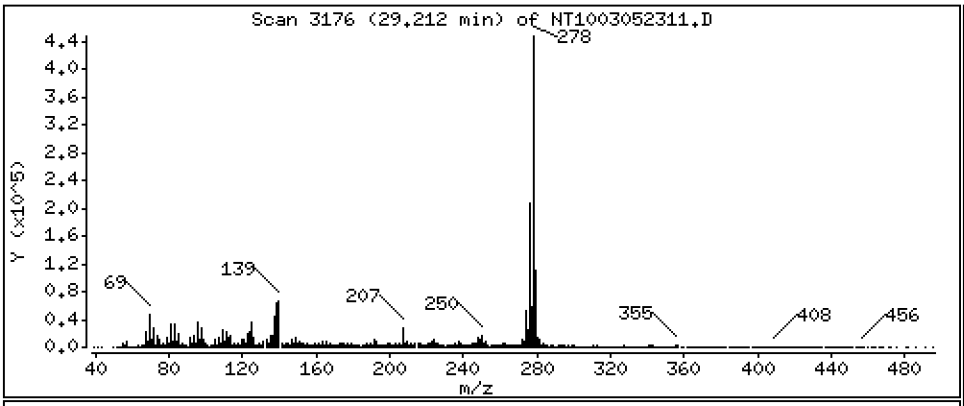
Operator: VTS

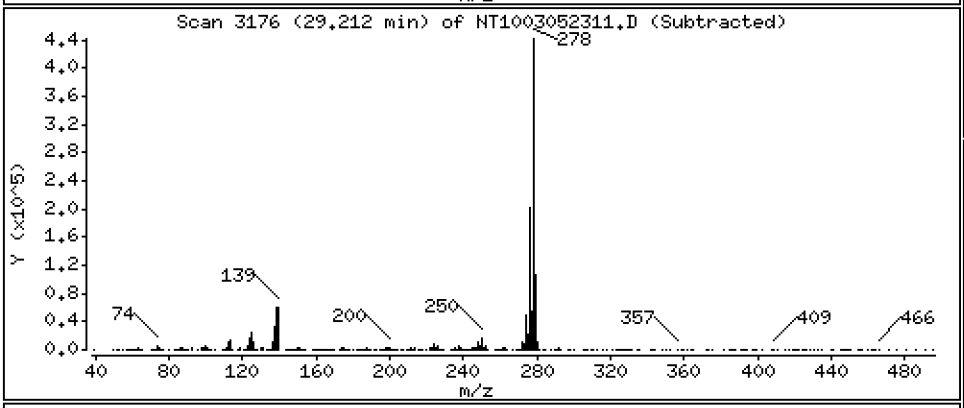
Column phase: ZB-5msi

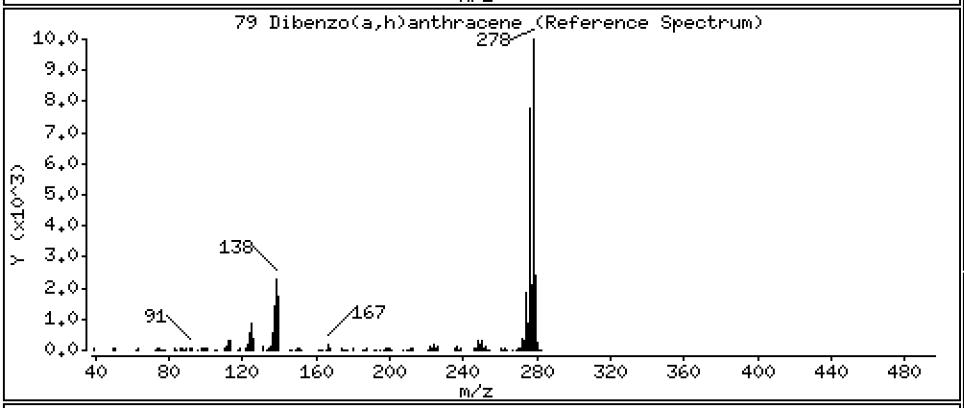
Column diameter: 0.25

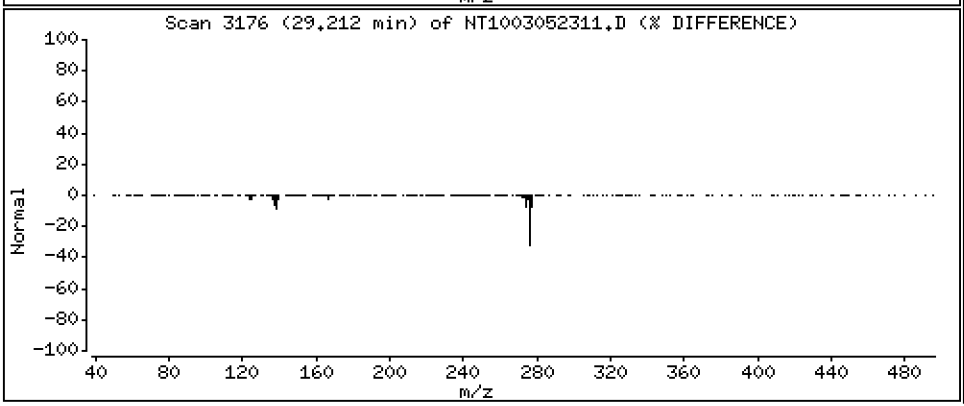
79 Dibenzo(a,h)anthracene

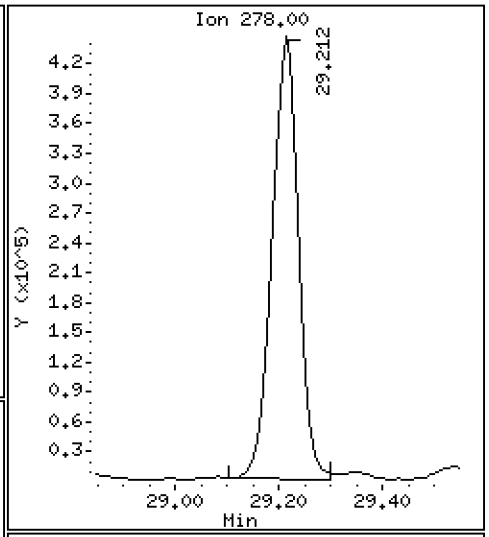
Concentration: 5.030 ug/mL

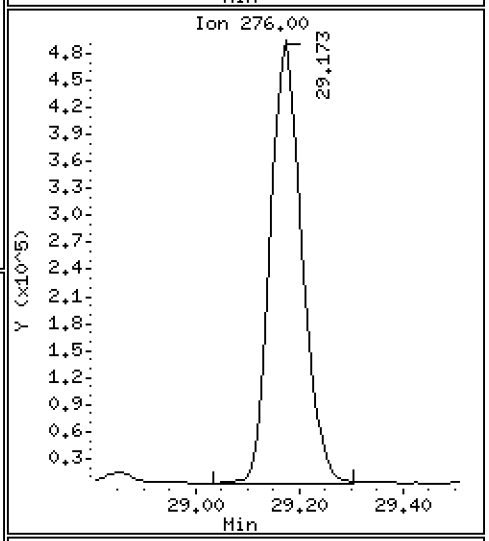


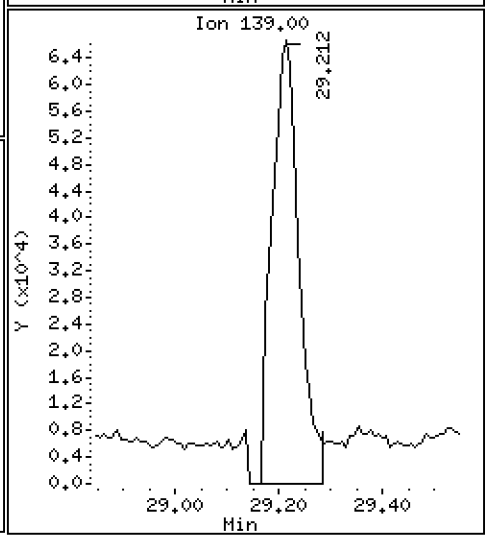












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

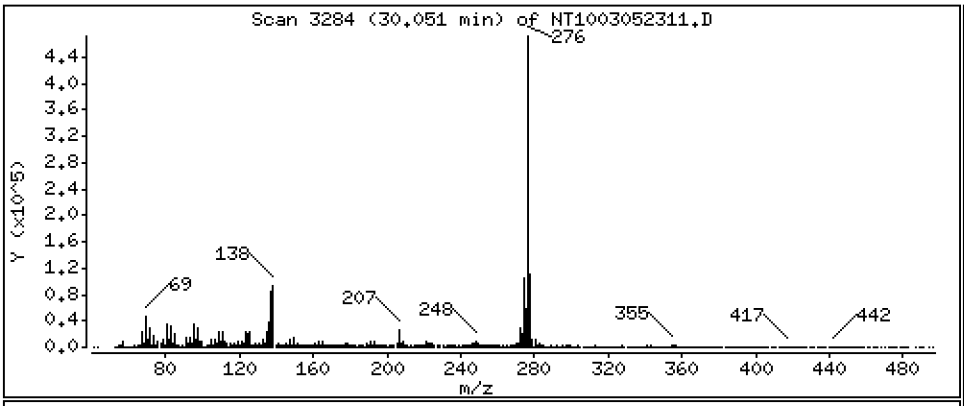
Operator: VTS

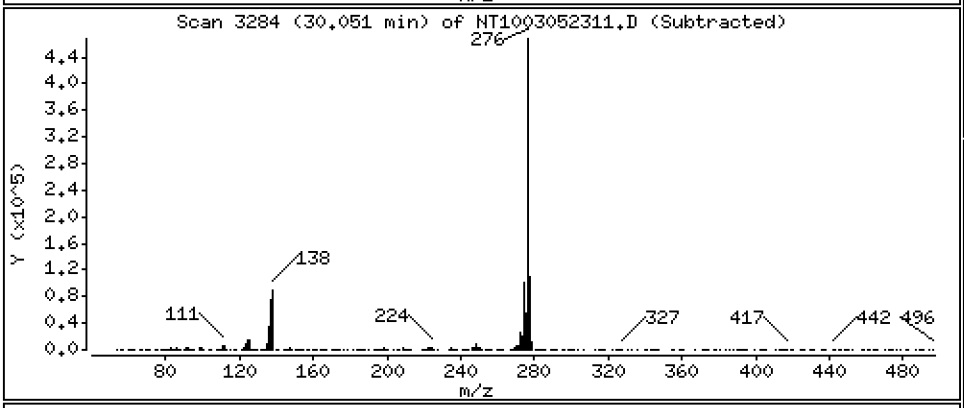
Column phase: ZB-5msi

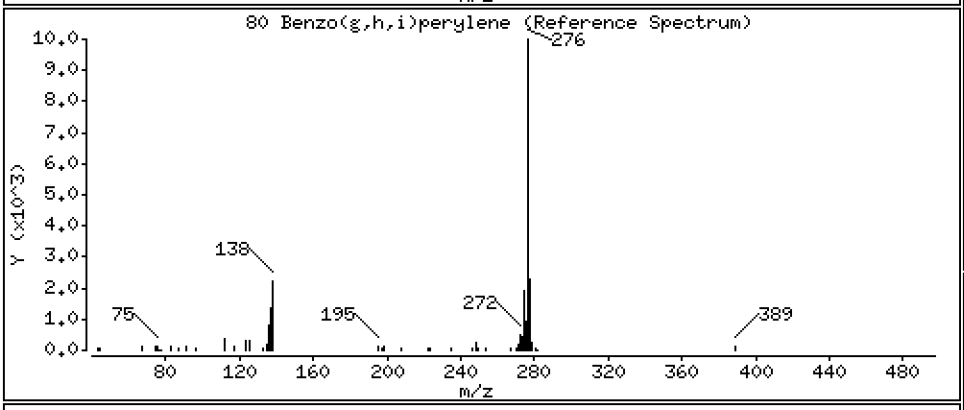
Column diameter: 0.25

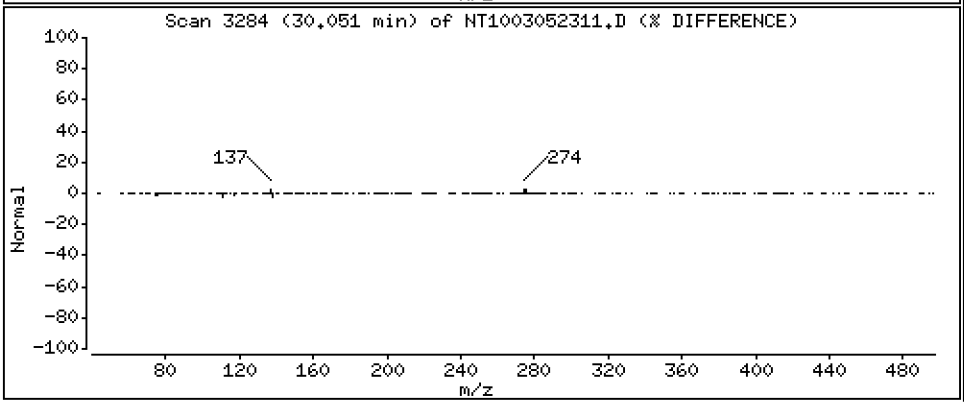
80 Benzo(g,h,i)perylene

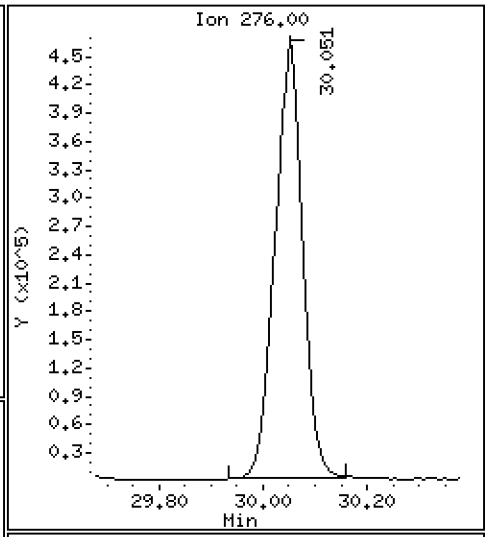
Concentration: 5.339 ug/mL

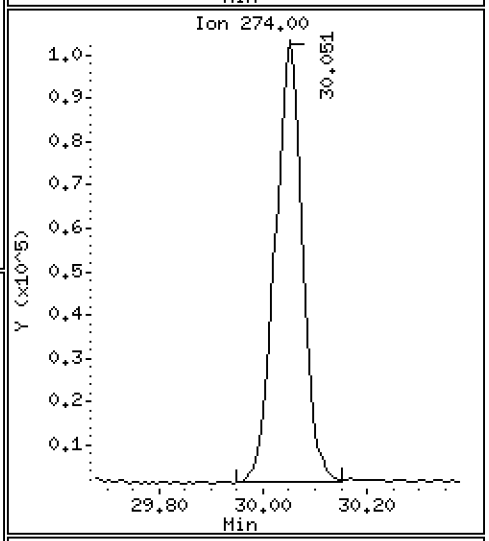


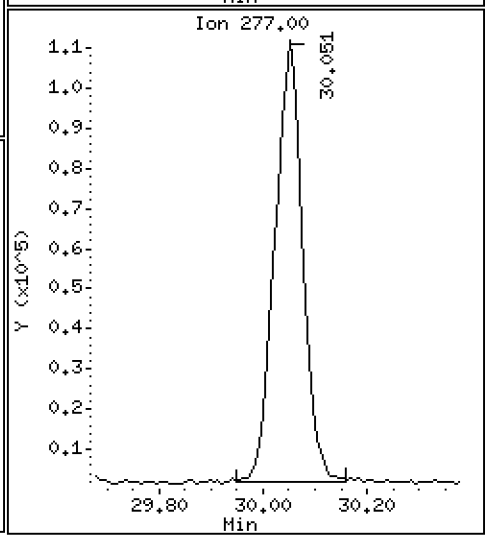












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

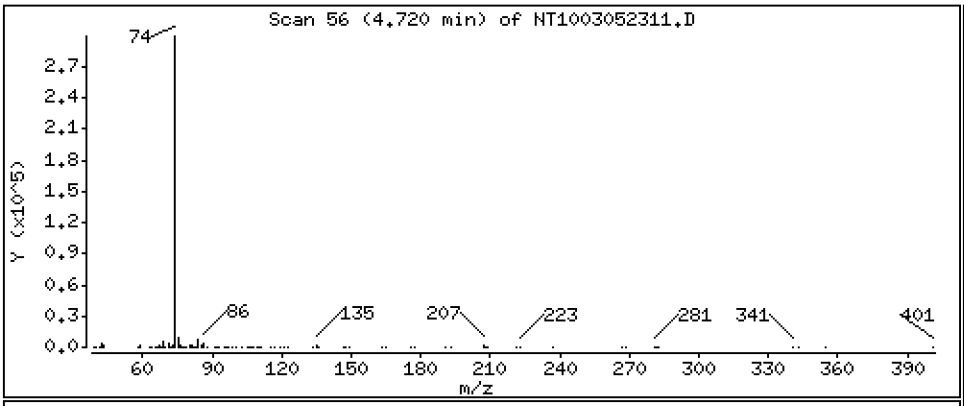
Operator: VTS

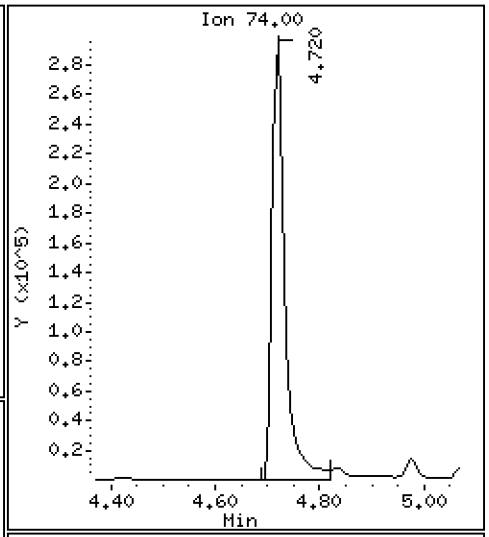
Column phase: ZB-5msi

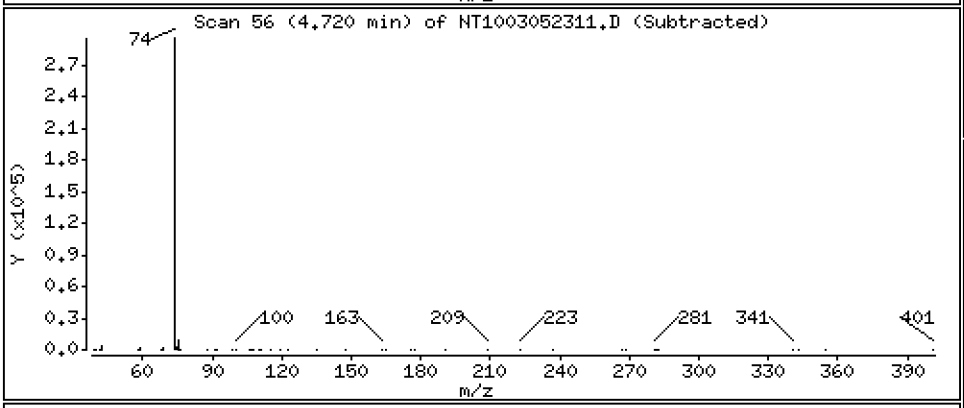
Column diameter: 0.25

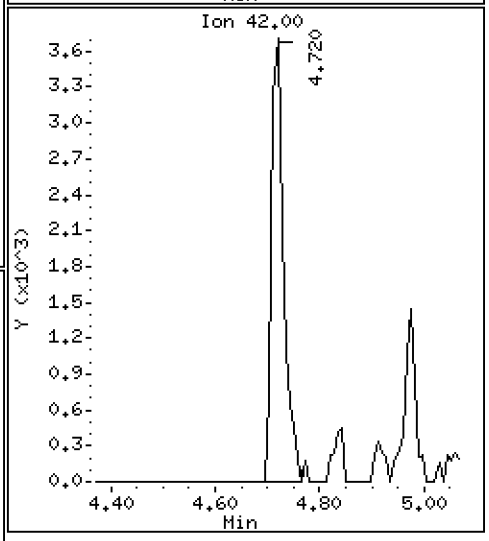
90 N-Nitrosodimethylamine

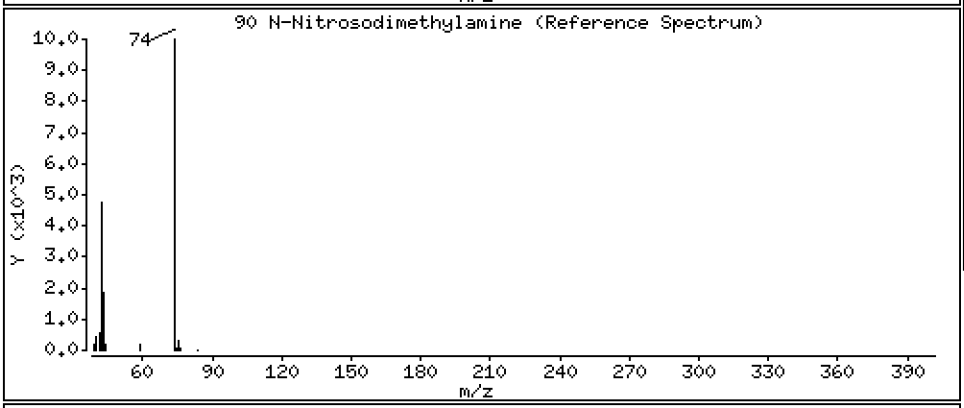
Concentration: 8.159 ug/mL

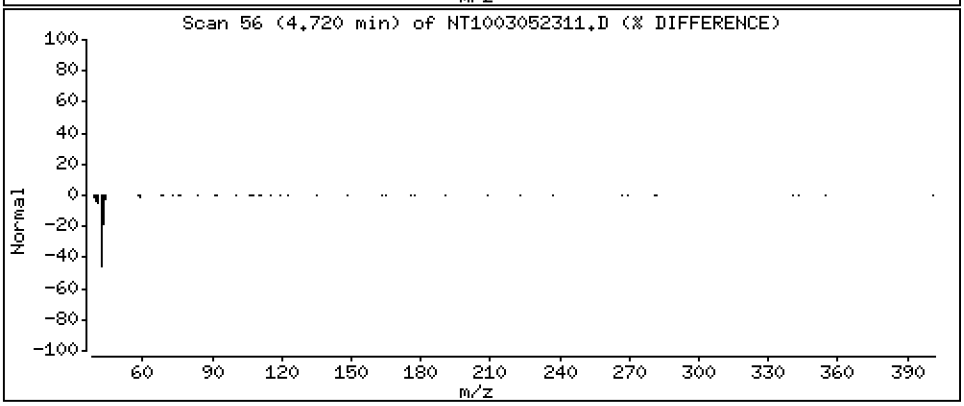












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

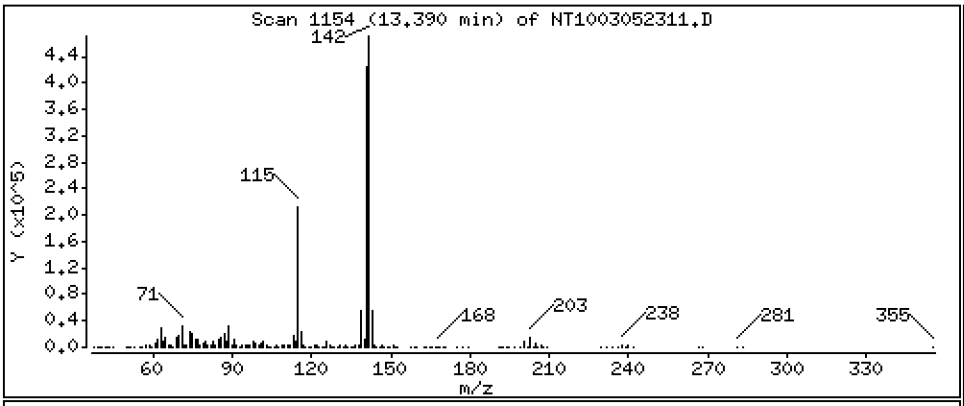
Operator: VTS

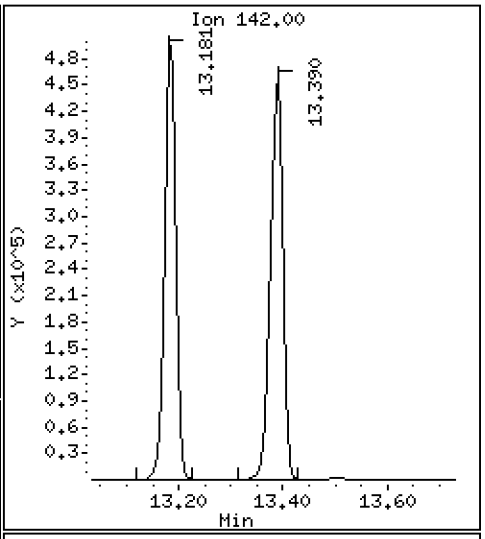
Column phase: ZB-5msi

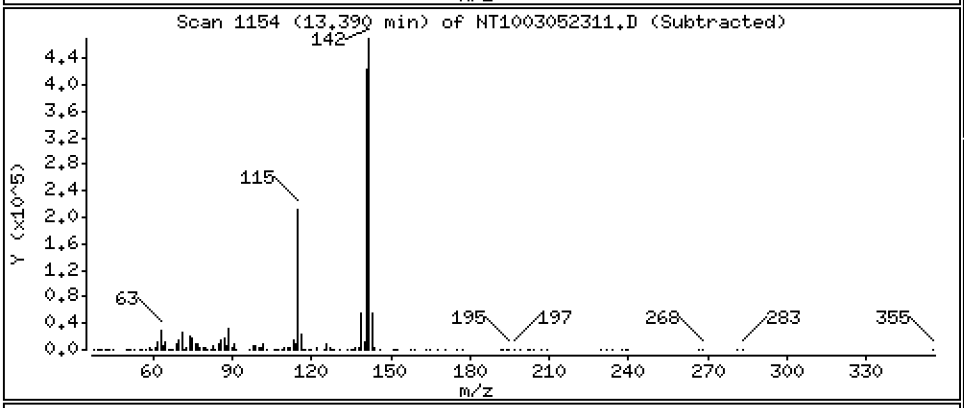
Column diameter: 0.25

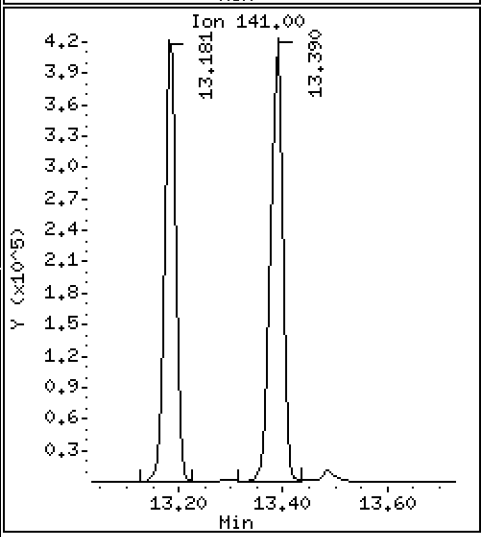
105 1-methylnaphthalene

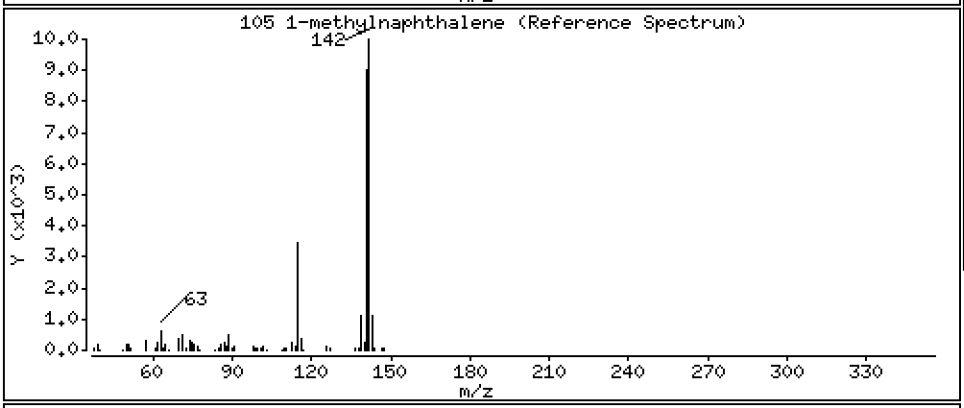
Concentration: 4.377 ug/mL

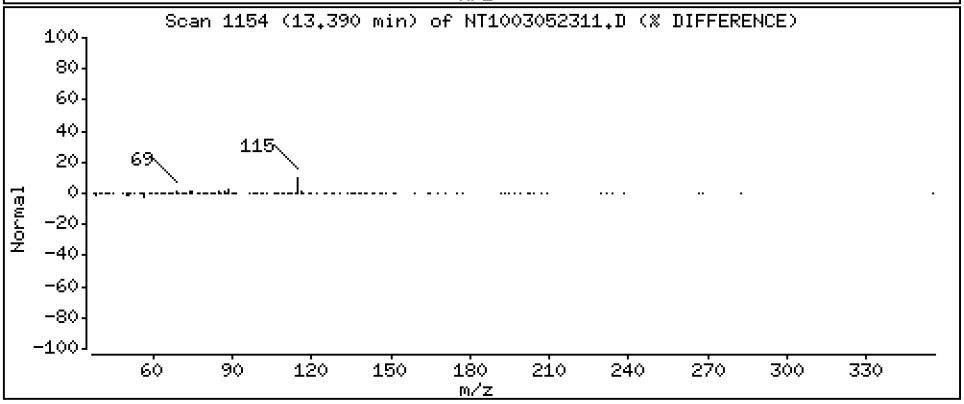












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

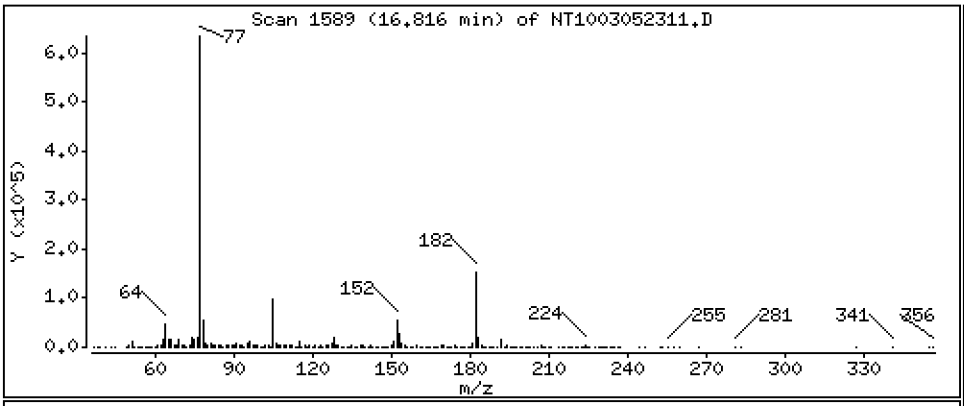
Operator: VTS

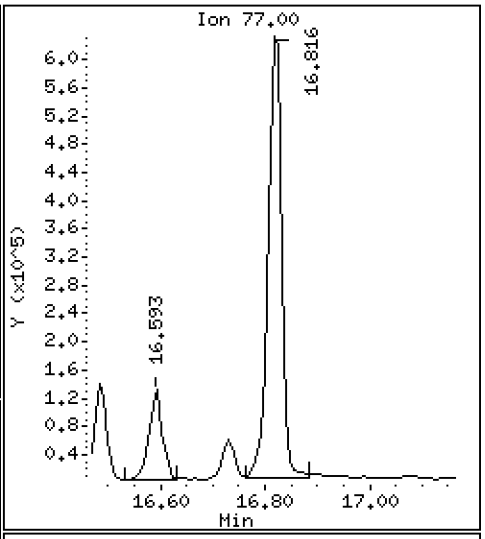
Column phase: ZB-5msi

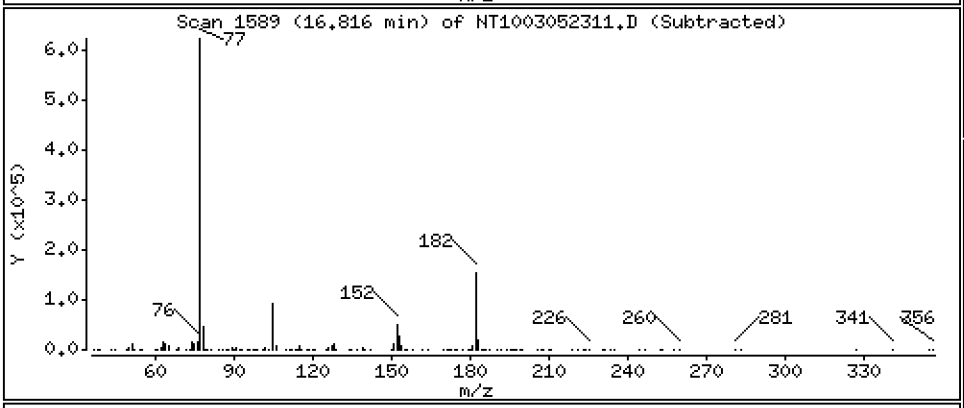
Column diameter: 0.25

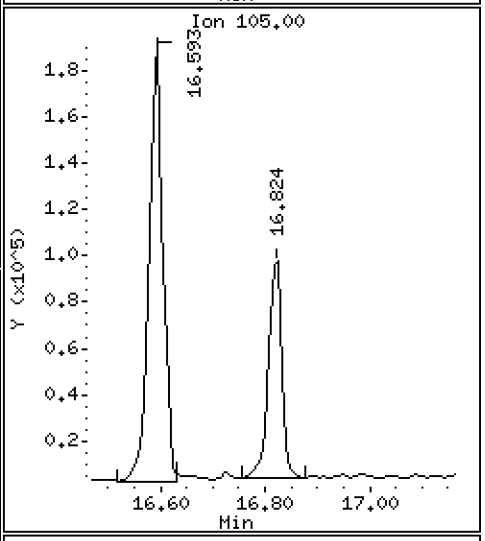
111 Azobenzene (1,2-DP-Hydrazine)

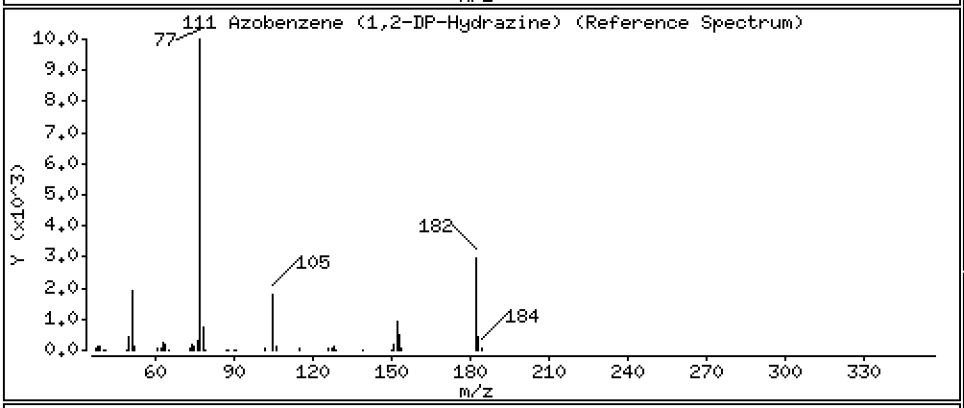
Concentration: 3.823 ug/mL

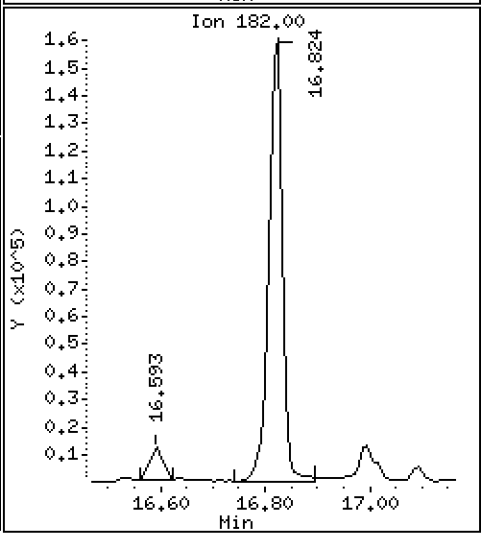


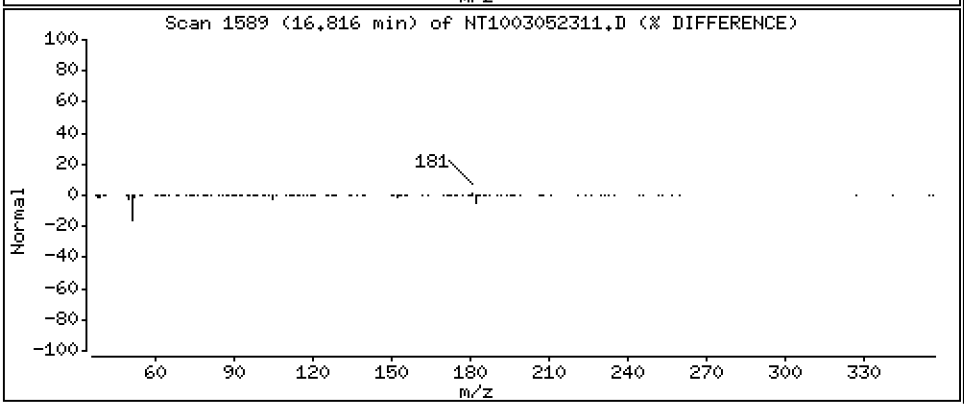












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

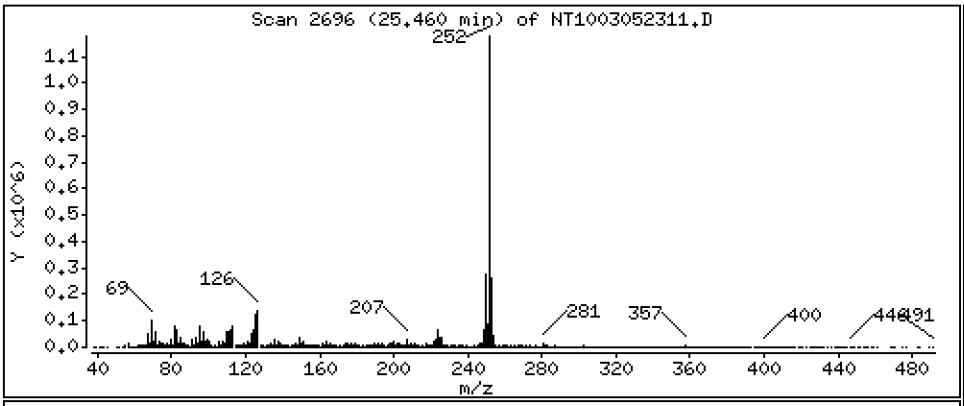
Operator: VTS

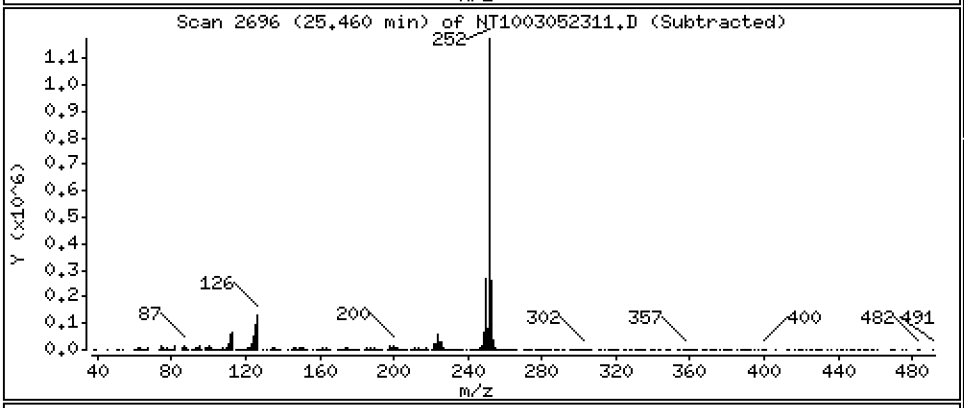
Column phase: ZB-5msi

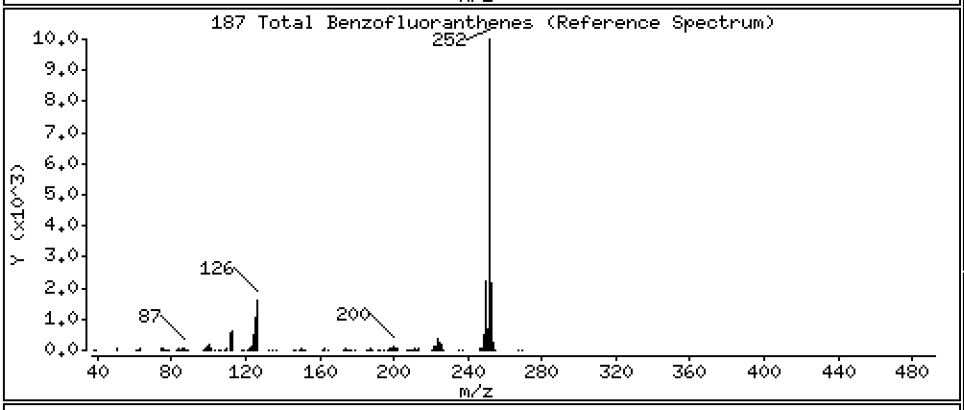
Column diameter: 0.25

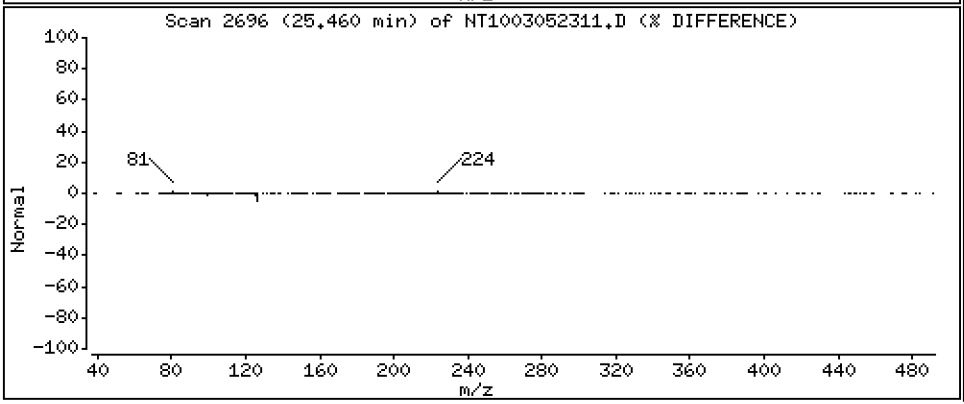
187 Total Benzofluoranthenes

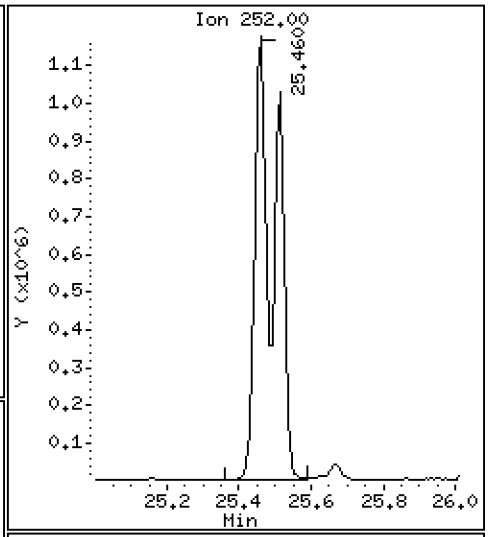
Concentration: 11.71 ug/mL

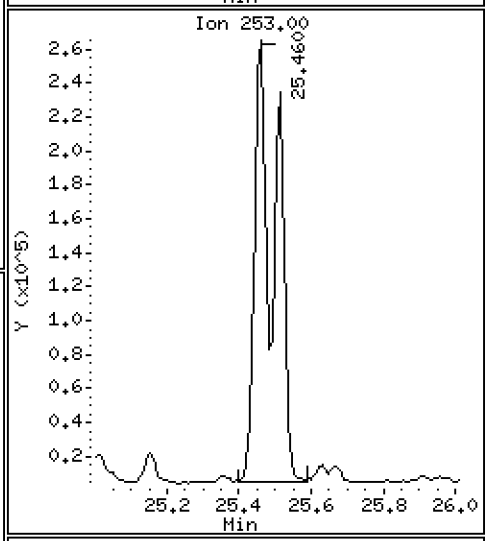


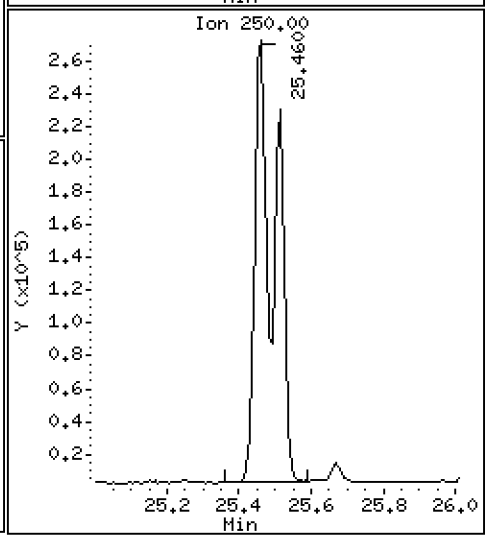












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD1

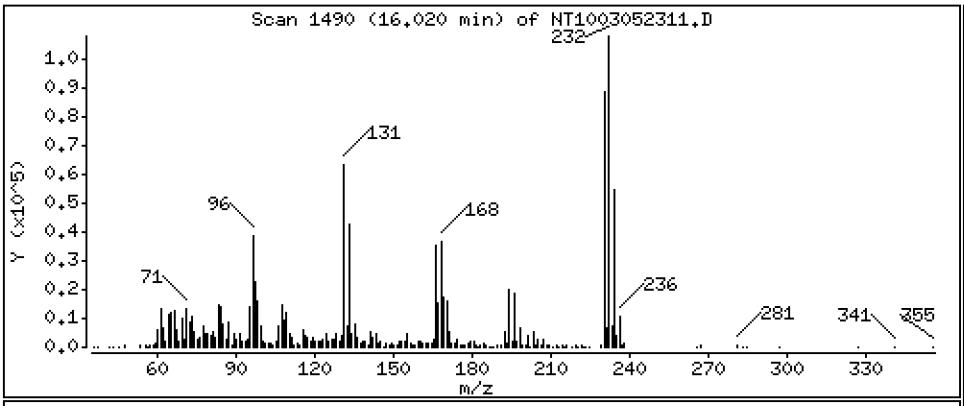
Operator: VTS

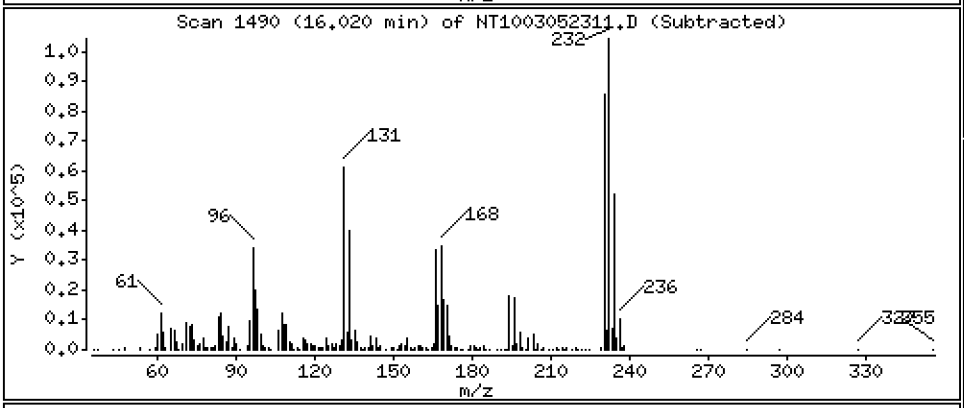
Column phase: ZB-5msi

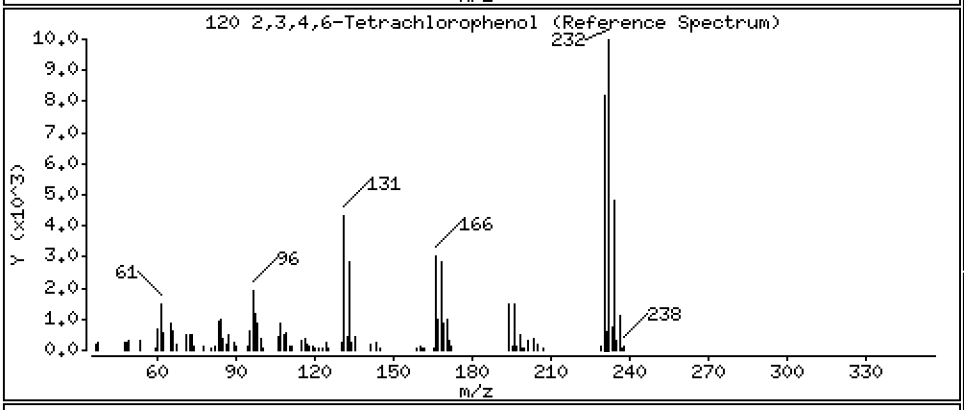
Column diameter: 0.25

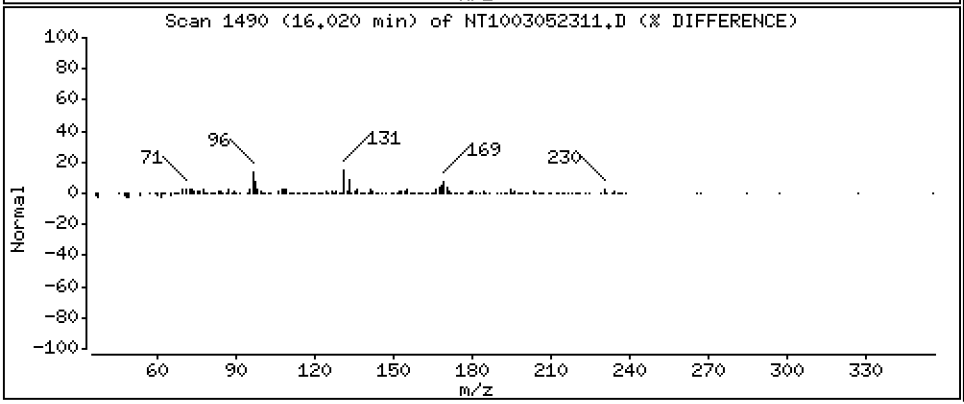
120 2,3,4,6-Tetrachlorophenol

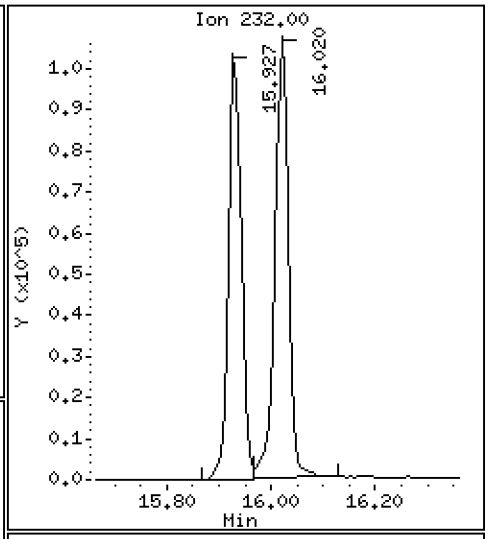
Concentration: 3.774 ug/mL

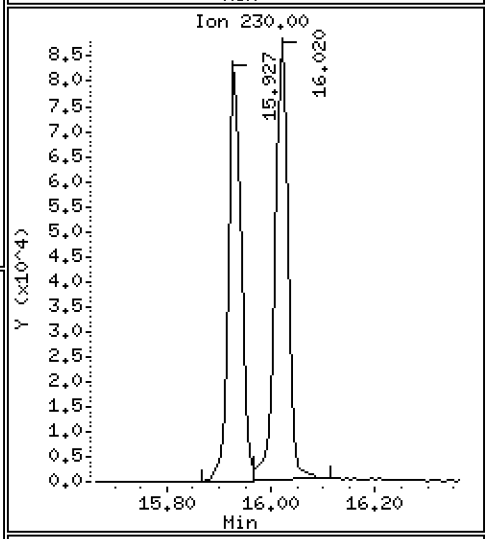


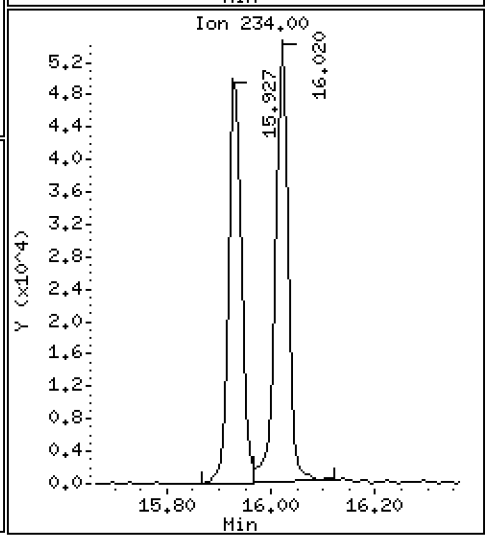












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305.b\NT1003052311.D
Lab Smp Id: BLA0685-MSD1
Inj Date : 05-MAR-2023 19:44
Operator : VTS Inst ID: nt10.i
Smp Info : BLA0685-MSD1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305.b\ABN.m
Meth Date : 27-Mar-2023 11:22 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.912	6.897	(0.747)	431544	4.74345	4.743
$	2 Phenol-d5	99	8.512	8.504	(0.920)	596161	5.64422	5.644
	3 Phenol	94	8.543	8.528	(0.923)	560161	4.98815	4.988
$	5 2-Chlorophenol-d4	132	8.828	8.813	(0.954)	528178	5.86116	5.861
	4 Bis(2-Chloroethyl)ether	93	8.736	8.728	(0.944)	366824	4.27466	4.275
	6 2-Chlorophenol	128	8.852	8.844	(0.956)	343014	3.66400	3.664
	7 1,3-Dichlorobenzene	146	9.146	9.138	(0.988)	368076	3.56606	3.566
*	8 1,4-Dichlorobenzene-d4	152	9.254	9.239	(1.000)	289157	4.00000	
	9 1,4-Dichlorobenzene	146	9.285	9.278	(1.003)	361602	3.52695	3.527
$	10 1,2-Dichlorobenzene-d4	152	9.541	9.534	(1.031)	227247	3.37528	3.375
	12 1,2-Dichlorobenzene	146	9.572	9.557	(1.034)	359544	3.62313	3.623
	11 Benzyl alcohol	108	9.487	9.480	(1.025)	202192	3.45098	3.451
	14 2,2'-oxybis(1-Chloropropane)	121	9.735	9.728	(1.052)	132771	4.64076	4.641
	13 2-Methylphenol	108	9.681	9.666	(1.046)	156193	1.78178	1.782
	17 Hexachloroethane	117	10.217	10.209	(1.104)	156276	3.71357	3.714
	16 N-Nitroso-di-n-propylamine	70	9.992	9.984	(1.080)	299320	4.41705	4.417
	15 4-Methylphenol	108	9.976	9.953	(1.078)	246737	2.27357	2.274
$	18 Nitrobenzene-d5	82	10.310	10.302	(0.878)	465397	4.09930	4.099
	19 Nitrobenzene	77	10.349	10.341	(0.881)	468398	4.39820	4.398
	20 Isophorone	82	10.806	10.799	(0.920)	827492	6.08701	6.087
	21 2-Nitrophenol	139	10.967	10.959	(0.934)	225404	3.91454	3.915
	22 2,4-Dimethylphenol	107	11.026	11.018	(0.939)	341809	3.32984	3.330
	23 Bis(2-Chloroethoxy)methane	93	11.230	11.222	(0.956)	438524	5.21984	5.220
	24 Benzoic acid	105	11.196	11.196	(0.954)	789359	12.7143	12.71
	25 2,4-Dichlorophenol	162	11.442	11.434	(0.974)	1299375	15.5101	15.51
	26 1,2,4-Trichlorobenzene	180	11.618	11.603	(0.989)	337017	4.21662	4.217
*	27 Naphthalene-d8	136	11.741	11.726	(1.000)	1034245	4.00000	
	28 Naphthalene	128	11.780	11.773	(1.003)	1084059	4.08382	4.084
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	12.004	11.997	(1.022)	261553	4.49426	4.494
	31 4-Chloro-3-methylphenol	107	12.840	12.825	(1.094)	1296805	14.4436	14.44
	32 2-Methylnaphthalene	142	13.180	13.181	(1.123)	779764	4.15808	4.158
	33 Hexachlorocyclopentadiene	237	13.490	13.483	(0.879)	97790	5.20121	5.201

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
34	2,4,6-Trichlorophenol	196	13.753	13.746	(0.896)	844512	14.9978	15.00
35	2,4,5-Trichlorophenol	196	13.830	13.815	(0.901)	1015806	16.6609	16.66
$ 36	2-Fluorobiphenyl	172	13.931	13.924	(0.908)	836590	4.25078	4.251
37	2-Chloronaphthalene	162	14.194	14.187	(0.925)	737130	4.77107	4.771
38	2-Nitroaniline	65	14.403	14.396	(0.938)	744126	16.5979	16.60
39	Dimethylphthalate	163	14.775	14.767	(0.963)	850975	4.77551	4.776
40	Acenaphthylene	152	15.053	15.046	(0.981)	1199499	4.50328	4.503
41	2,6-Dinitrotoluene	165	14.906	14.899	(0.971)	696481	16.8137	16.81
* 42	Acenaphthene-d10	164	15.347	15.340	(1.000)	551777	4.00000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	15.417	15.409	(1.005)	724467	4.50989	4.510
45	2,4-Dinitrophenol	184	15.479	15.479	(1.009)	128601	12.0311	12.03
46	Dibenzofuran	168	15.772	15.765	(1.028)	1092016	4.58036	4.580
47	4-Nitrophenol	109	15.595	15.579	(1.016)	444188	13.3305	13.33
48	2,4-Dinitrotoluene	165	15.749	15.742	(1.026)	1014184	16.7131	16.71
50	Diethylphthalate	149	16.244	16.237	(1.058)	910867	4.82515	4.825
49	Fluorene	166	16.492	16.484	(1.075)	908820	4.58163	4.582
51	4-Chlorophenyl-phenylether	204	16.484	16.484	(1.074)	432589	4.77080	4.771
52	4-Nitroaniline	138	16.530	16.523	(1.077)	156710	3.24426	3.244
53	4,6-Dinitro-2-methylphenol	198	16.592	16.585	(0.899)	697323	26.8401	26.84
54	N-Nitrosodiphenylamine	169	16.731	16.724	(0.907)	596461	3.96341	3.963
$ 55	2,4,6-Tribromophenol	330	16.993	16.986	(1.107)	229069	6.46033	6.460
56	4-Bromophenyl-phenylether	248	17.511	17.504	(0.949)	337037	5.52711	5.527
57	Hexachlorobenzene	284	17.627	17.620	(0.955)	343099	4.99652	4.997
58	Pentachlorophenol	266	18.045	18.038	(0.978)	401347	11.7683	11.77
* 59	Phenanthrene-d10	188	18.455	18.448	(1.000)	1017136	4.00000	
60	Phenanthrene	178	18.509	18.502	(1.003)	1549057	5.95096	5.951
61	Anthracene	178	18.618	18.610	(1.009)	1115808	4.42065	4.421
62	Carbazole	167	18.958	18.943	(1.027)	1145207	4.95256	4.953
63	Di-n-butylphthalate	149	19.654	19.647	(1.065)	1941909	5.92727	5.927
64	Fluoranthene	202	20.915	20.885	(0.889)	2242619	6.47113	6.471
65	Pyrene	202	21.349	21.318	(0.908)	3065980	8.68833	8.688
$ 66	Terphenyl-d14	244	21.612	21.597	(0.919)	1093521	3.82974	3.830
67	Butylbenzylphthalate	149	22.495	22.487	(0.956)	719247	3.84116	3.841
68	Benzo(a)anthracene	228	23.501	23.494	(0.999)	2276734	6.40944	6.409
* 69	Chrysene-d12	240	23.524	23.517	(1.000)	1007411	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.571	23.563	(1.002)	2285807	7.91797	7.918
72	bis(2-Ethylhexyl)phthalate	149	23.493	23.494	(0.955)	1442328	5.81583	5.816
* 134	Di-n-octylphthalate-d4	153	24.600	24.593	(1.000)	1705215	4.00000	
73	Di-n-octylphthalate	149	24.608	24.609	(1.000)	2076589	5.49167	5.492
74	Benzo(b)fluoranthene	252	25.460	25.445	(0.968)	2469135	6.19928	6.199(H)
75	Benzo(k)fluoranthene	252	25.514	25.507	(0.971)	2154962	5.64918	5.649
76	Benzo(a)pyrene	252	26.172	26.157	(0.996)	1823776	5.19005	5.190
* 77	Perylene-d12	264	26.288	26.281	(1.000)	1089312	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	29.173	29.158	(1.110)	2078381	5.07027	5.070
79	Dibenzo(a,h)anthracene	278	29.212	29.197	(1.111)	1572881	5.02963	5.030
80	Benzo(g,h,i)perylene	276	30.051	30.028	(1.143)	1731089	5.33896	5.339
90	N-Nitrosodimethylamine	74	4.719	4.719	(0.510)	479166	8.15867	8.159
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	13.389	13.382	(1.140)	742922	4.37703	4.377
111	Azobenzene (1,2-DP-Hydrazine)	77	16.816	16.816	(1.096)	1077772	3.82327	3.823

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.460	25.507	(0.968)	4464566	11.7057	11.71
120 2,3,4,6-Tetrachlorophenol	232	16.020	16.012	(1.044)	203322	3.77359	3.774

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052311.D
Lab Smp Id: BLA0685-MSD1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:03
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	297263	148632	594526	289157	-2.73
27 Naphthalene-d8	1085336	542668	2170672	1034245	-4.71
42 Acenaphthene-d10	563464	281732	1126928	551777	-2.07
59 Phenanthrene-d10	1038318	519159	2076636	1017136	-2.04
69 Chrysene-d12	1012751	506376	2025502	1007411	-0.53
134 Di-n-octylphthala	1628890	814445	3257780	1705215	4.69
77 Perylene-d12	1152264	576132	2304528	1089312	-5.46

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.16
27 Naphthalene-d8	11.73	11.23	12.23	11.74	0.13
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.52	23.02	24.02	23.52	0.03
134 Di-n-octylphthala	24.59	24.09	25.09	24.60	0.03
77 Perylene-d12	26.28	25.78	26.78	26.29	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052311.D

Lab ID: BLA0685-MSD1
nt10.i, 20230305.b\ABN.m,   05-MAR-2023 19:44

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

RRT check based on Ccal File: NT1003052302.D

On Column LOD for nt10.i, 20230305.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, LLC
Analytical Chemists and Consultants

STANDARD REFERENCE MATERIAL RECOVERY

EPA 8270E

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Laboratory ID: BLA0685-SRM1
Batch: BLA0685
Initial/Final: 1 g / 1 mL
Preparation: EPA 3546 (Microwave)
Analyzed: 03/05/2023 20:22
Standard ID: K003477
Expires: 01/31/2024
Standard Lot#: CRM 143 (LRAC8918)
Description: CRM 143 BNAs - Sandy Loam

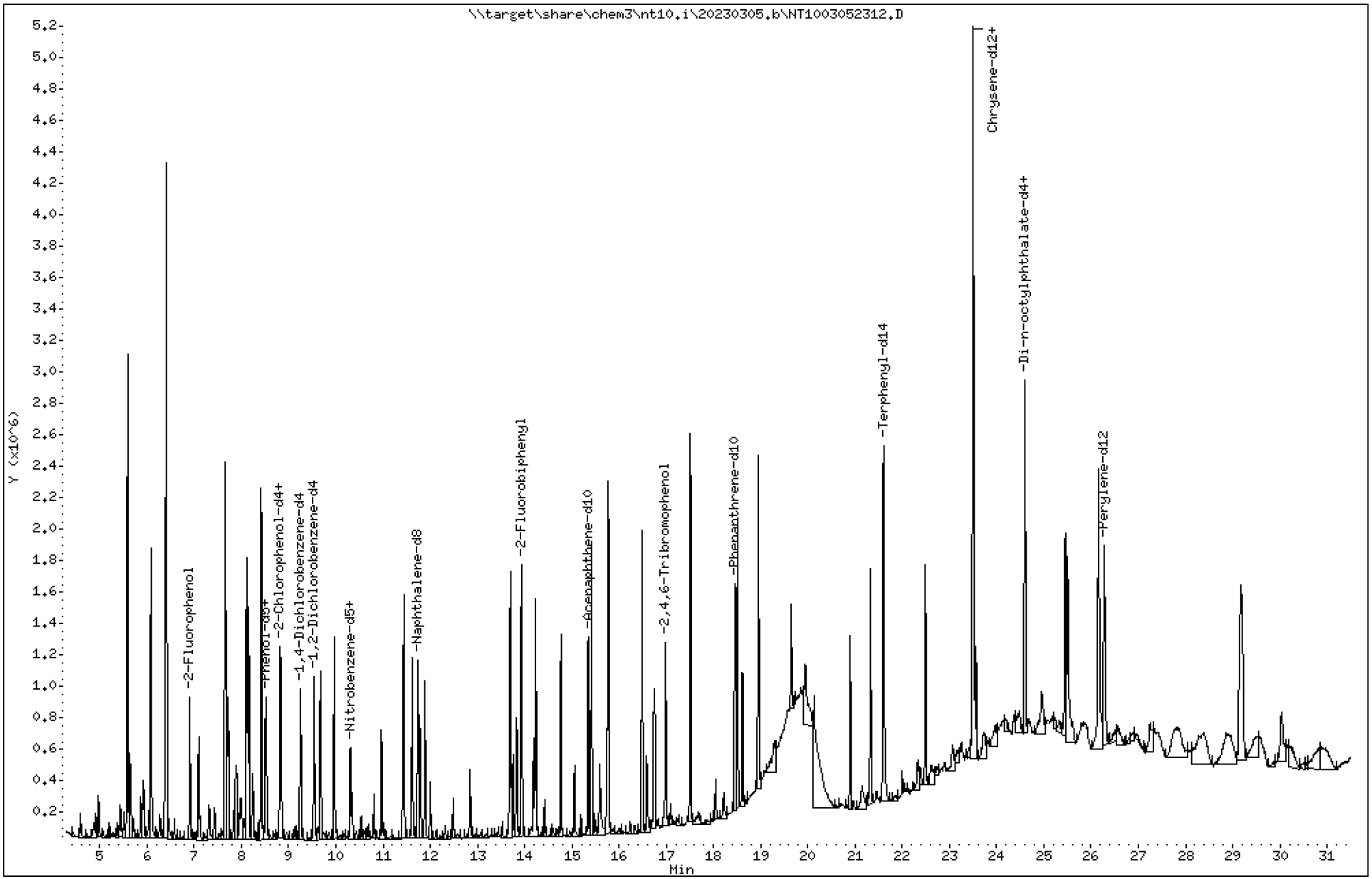
ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Phenol	2660.0	2790	43.9	200		105	26 - 174
4-Methylphenol	6617.0	5190	73.9	200		78.4	40 - 160
Naphthalene	4458.0	2470	42.4	200		55.4	25 - 175
Acenaphthylene	1948.0	1560	62.4	200		79.8	37 - 167
Dimethylphthalate	4537.0	5270	43.9	200		116	41 - 159
Acenaphthene	5489.0	5550	52.2	200		101	41 - 159
Dibenzofuran	6130.0	6570	141	200		107	45 - 155
Fluorene	3724.0	3900	146	200		105	44 - 156
Phenanthrene	5052.0	5370	87.2	200		106	46 - 154
Anthracene	2866.0	2500	71.9	200		87.1	42 - 158
Fluoranthene	2497.0	2310	60.9	200		92.3	39 - 161
Pyrene	2964.0	3230	56.8	200		109	38 - 162
Butylbenzylphthalate	3511.0	3150	94.1	200	Q	89.6	36 - 164
Benzo(a)anthracene	5751.0	6170	59.6	200		107	49 - 151
Chrysene	1477.0	1600	60.6	200		108	45 - 155
bis(2-Ethylhexyl)phthalate	2905.0	3330	54.6	500		114	26 - 174
Benzofluoranthenes, Total	6534.0	5360	100	400		82.1	40 - 160
Benzo(a)pyrene	5902.0	4540	42.3	200		76.9	43 - 157
Indeno(1,2,3-cd)pyrene	3914.0	4180	147	200		107	22 - 178
Dibenzo(a,h)anthracene	3420.0	4160	172	200		122	37 - 163
Benzo(g,h,i)perylene	1380.0	1600	136	200		116	35 - 165

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D
Date : 05-MAR-2023 20:22
Client ID:
Sample Info: BLA0685-SRM1

Instrument: nt10.i
Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

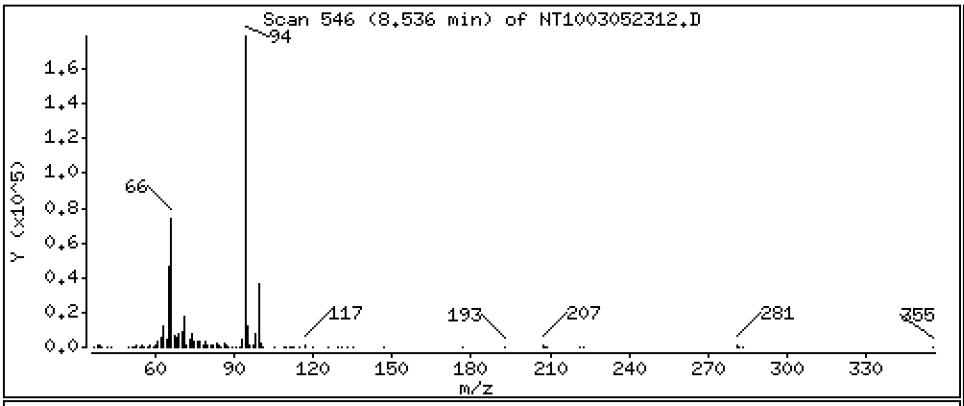
Operator: VTS

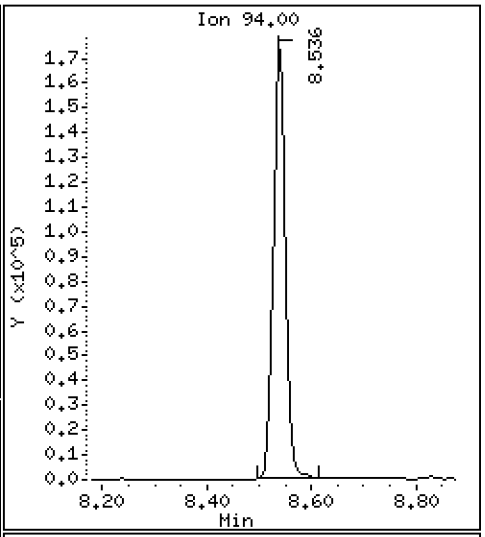
Column phase: ZB-5msi

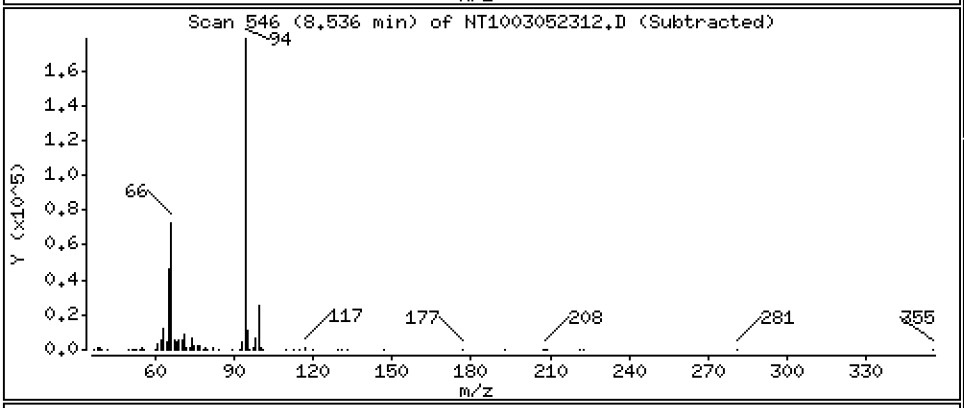
Column diameter: 0.25

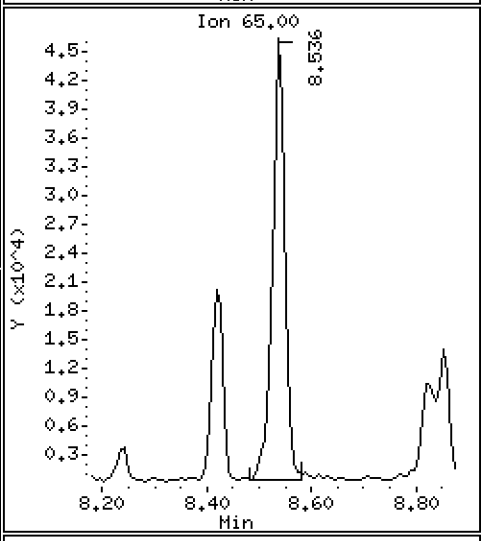
3 Phenol

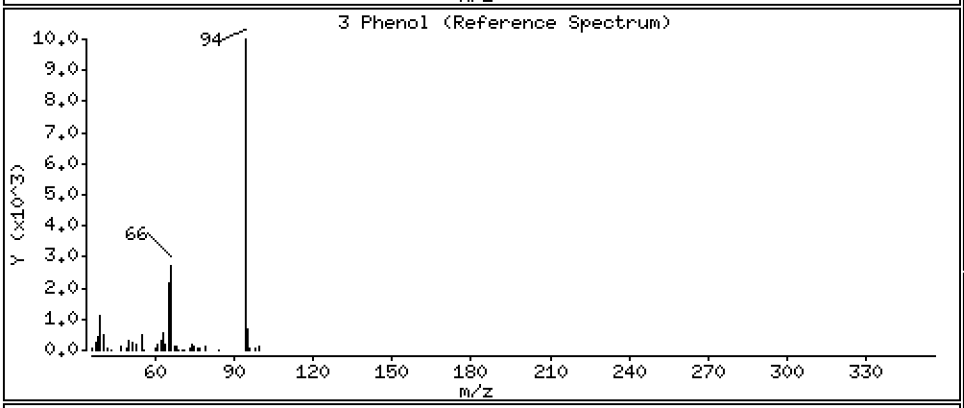
Concentration: 2.787 ug/mL

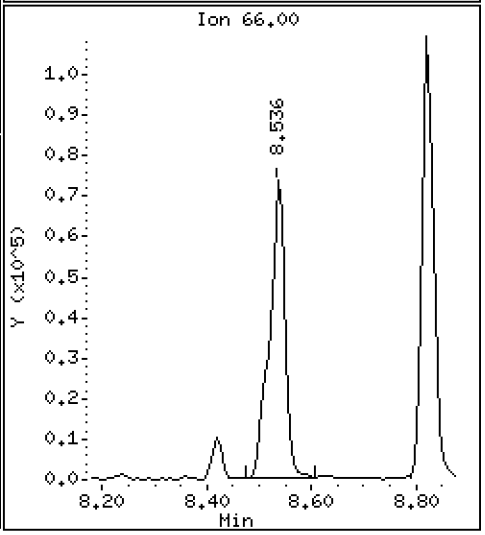


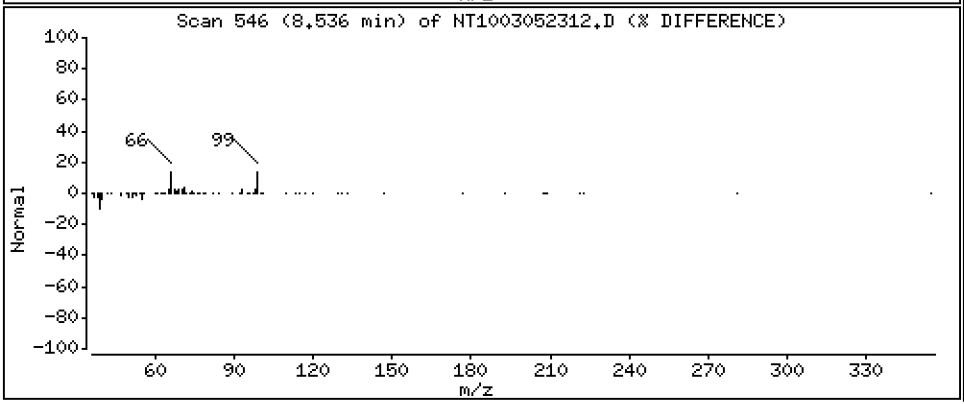












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

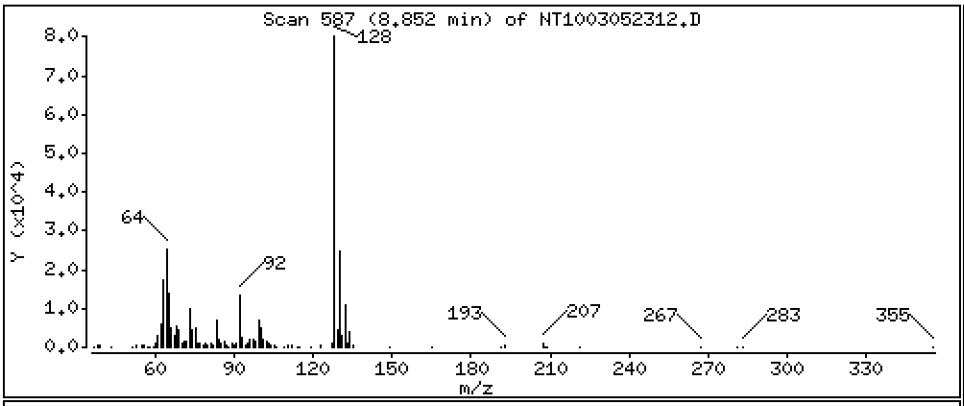
Operator: VTS

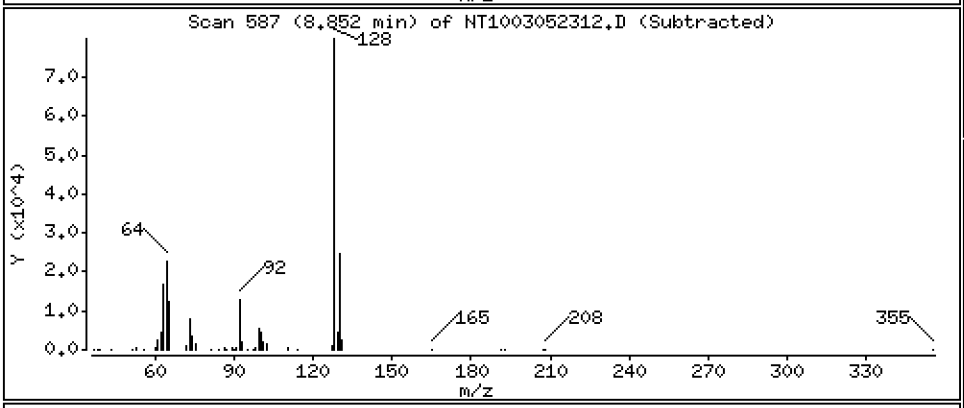
Column phase: ZB-5msi

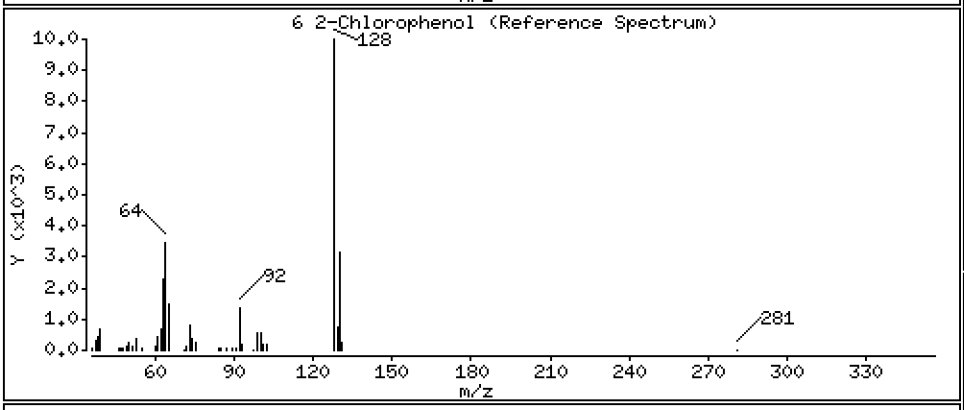
Column diameter: 0.25

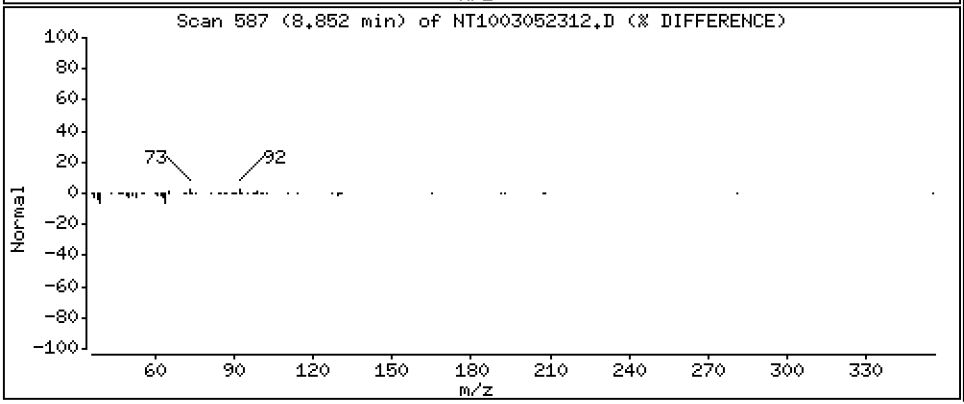
6 2-Chlorophenol

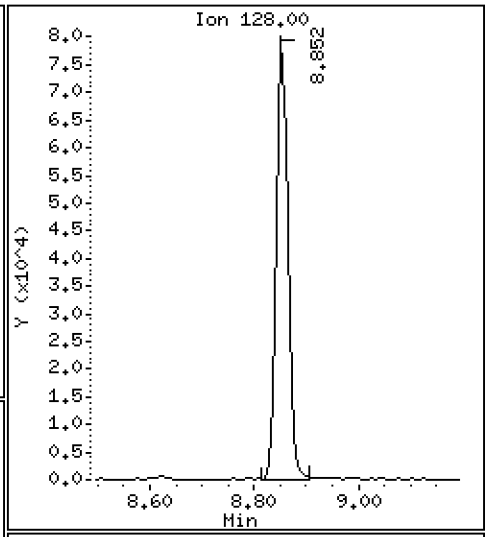
Concentration: 1.379 ug/mL

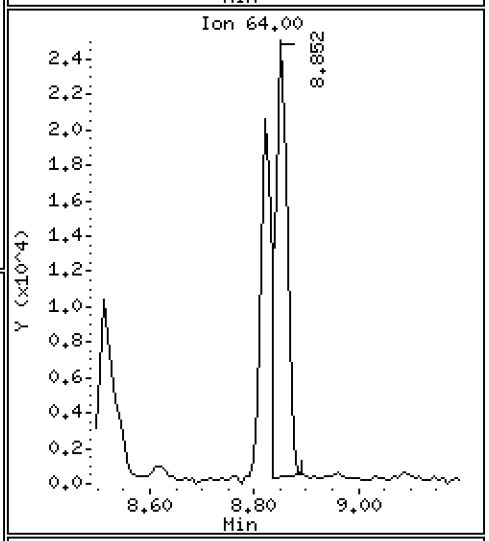


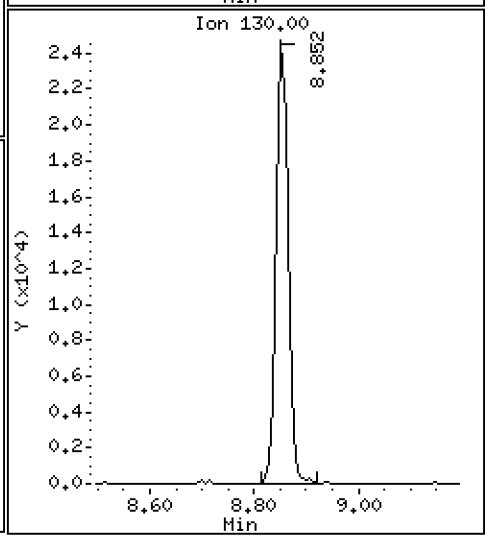












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

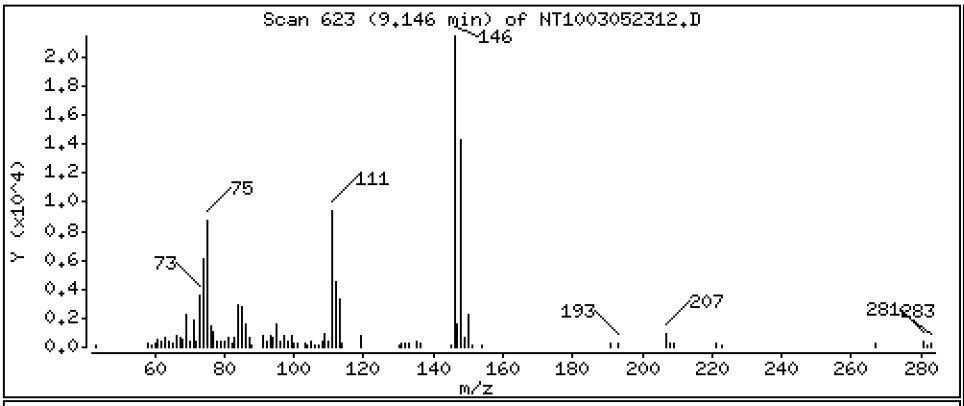
Operator: VTS

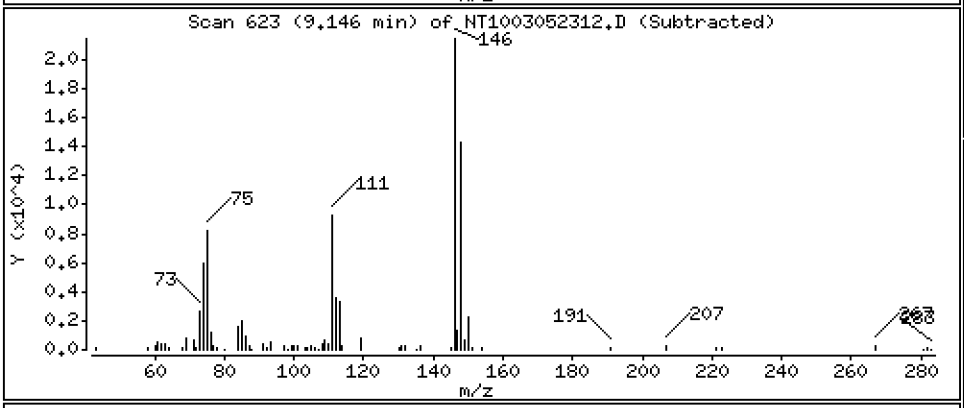
Column phase: ZB-5msi

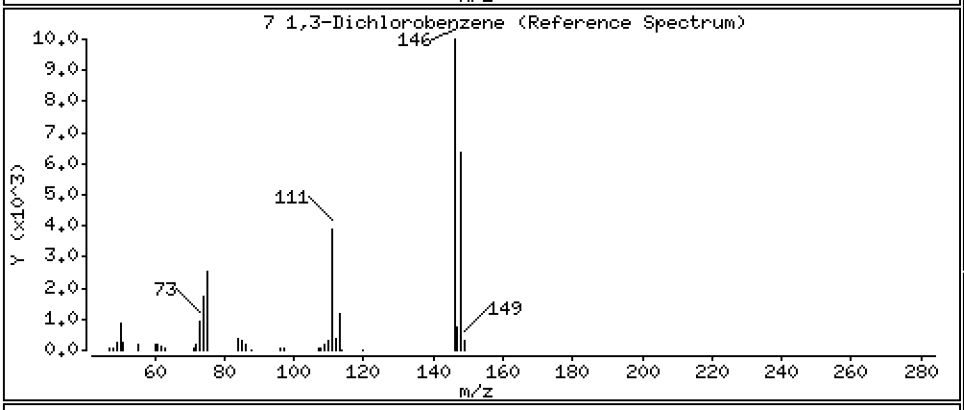
Column diameter: 0.25

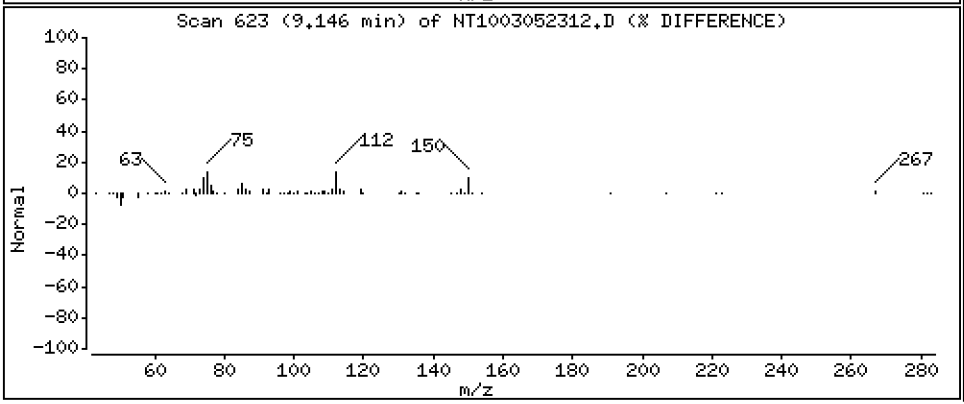
7 1,3-Dichlorobenzene

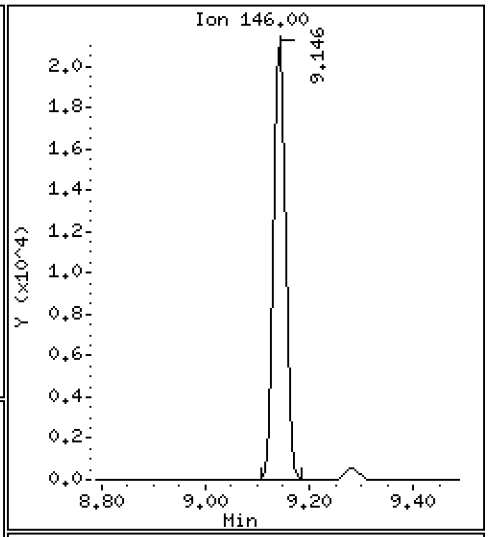
Concentration: 0.3527 ug/mL

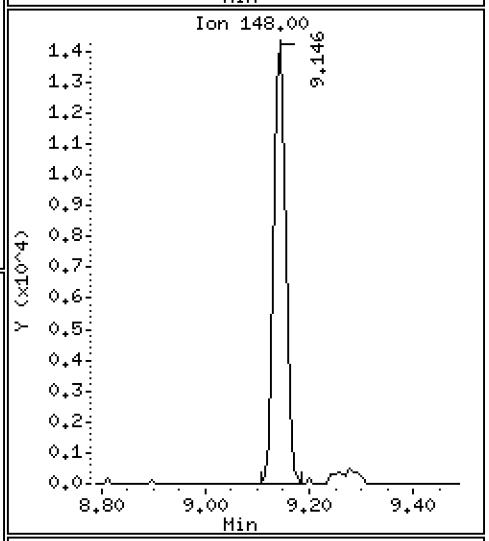


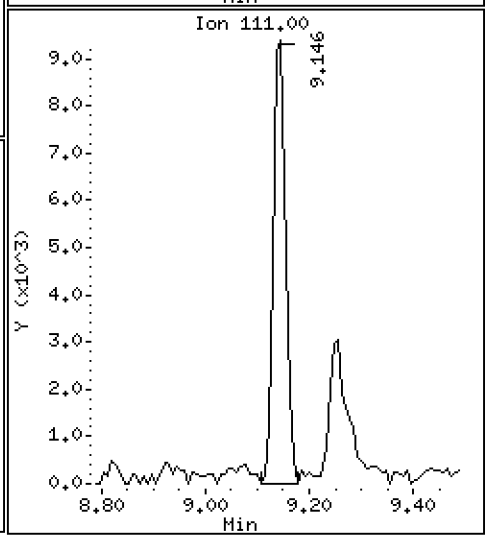












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

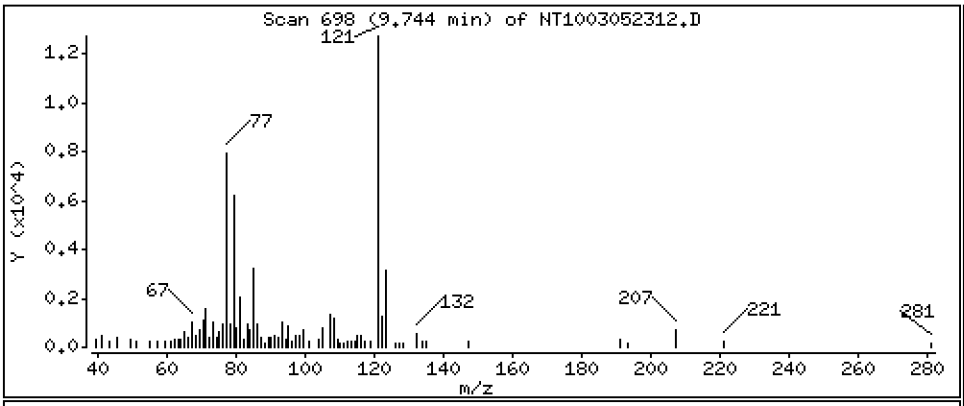
Operator: VTS

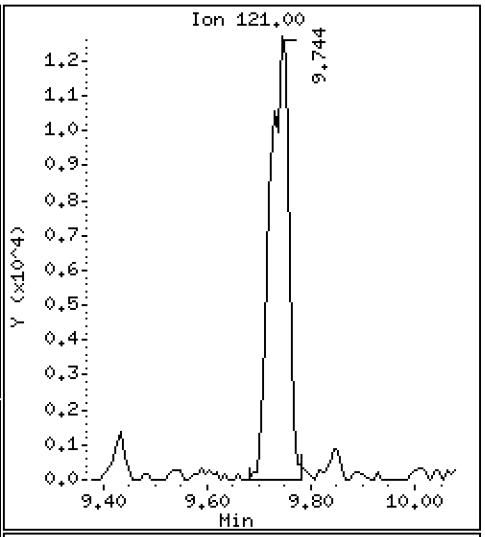
Column phase: ZB-5msi

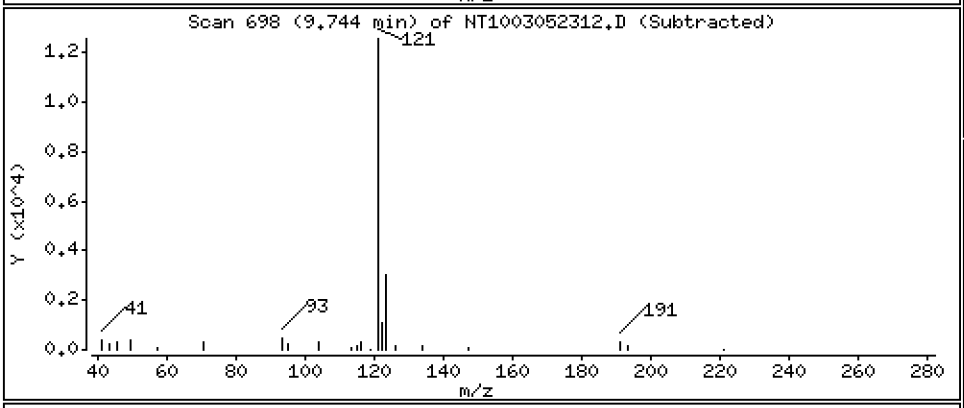
Column diameter: 0.25

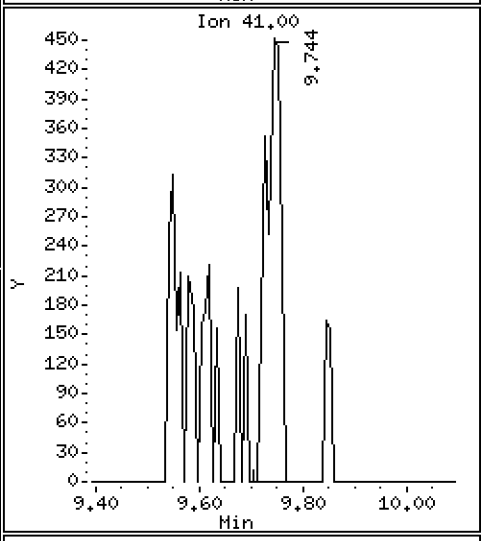
14 2,2'-oxybis(1-Chloropropane)

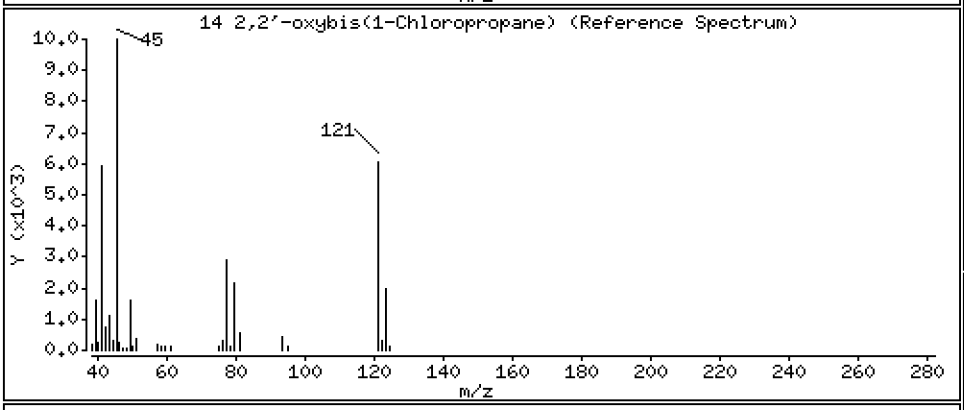
Concentration: 1.254 ug/mL

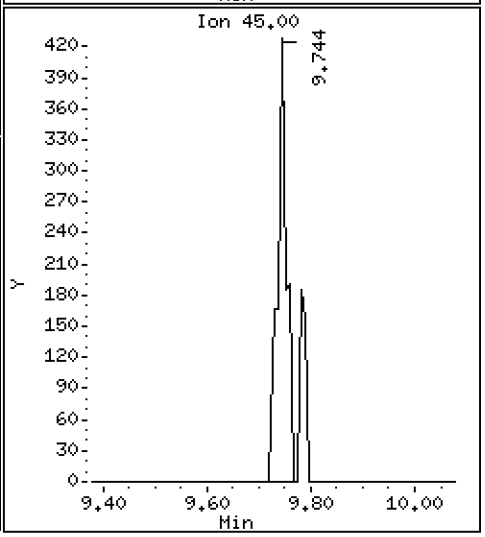


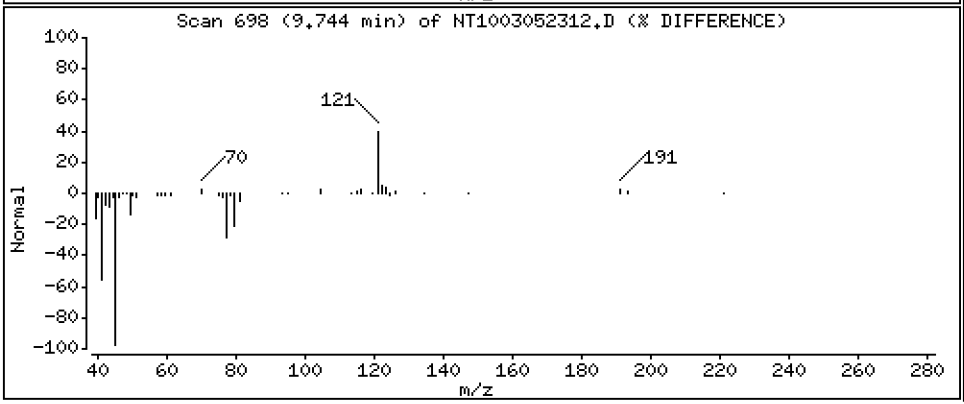












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

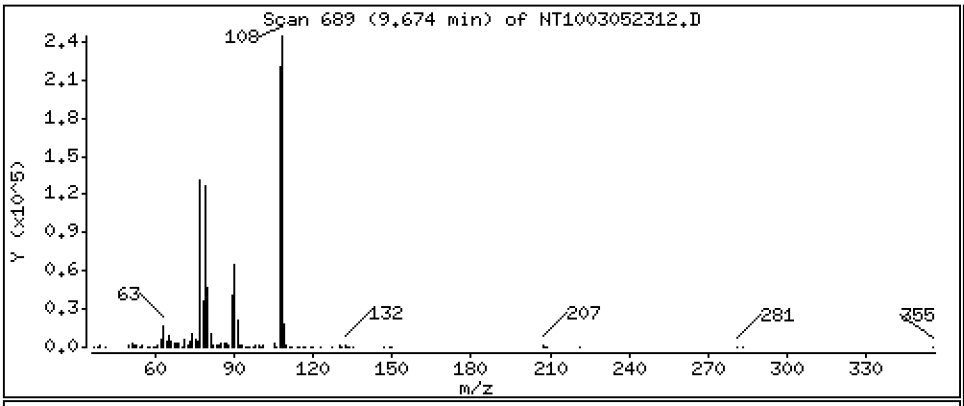
Operator: VTS

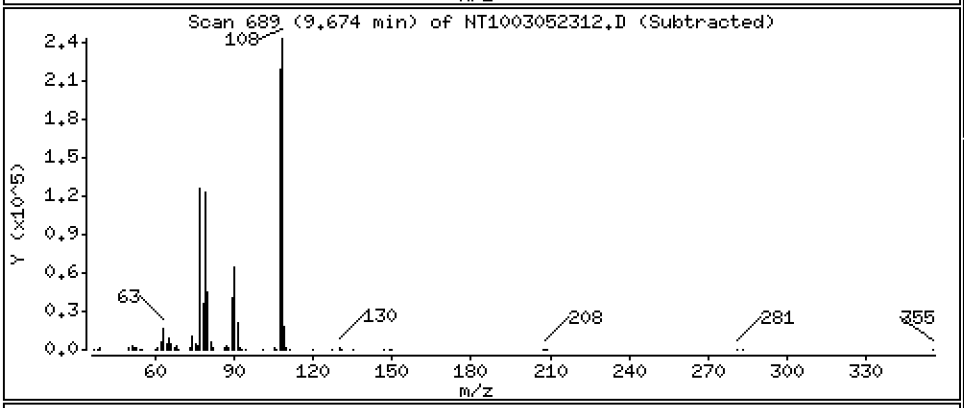
Column phase: ZB-5msi

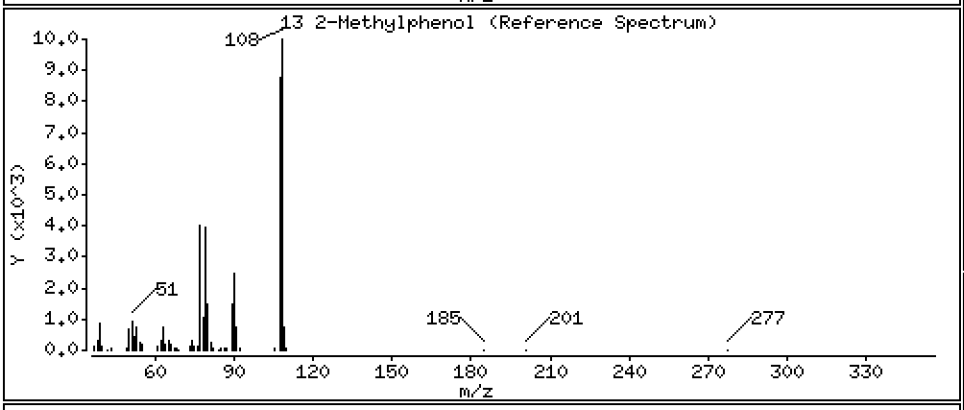
Column diameter: 0.25

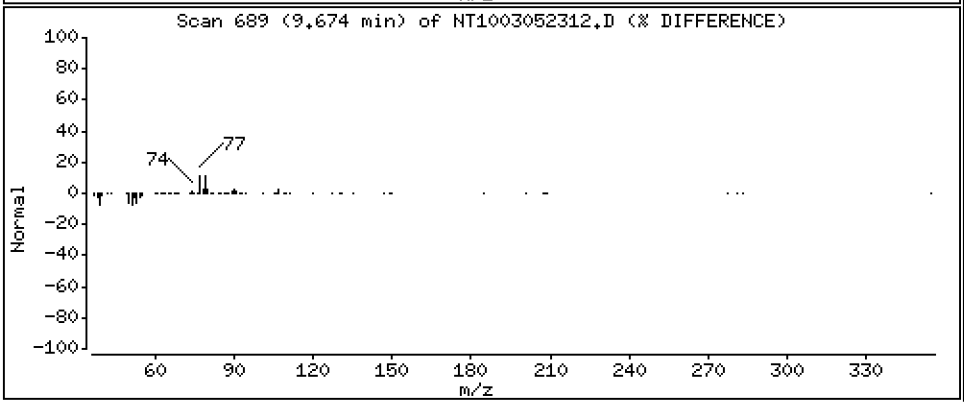
13 2-Methylphenol

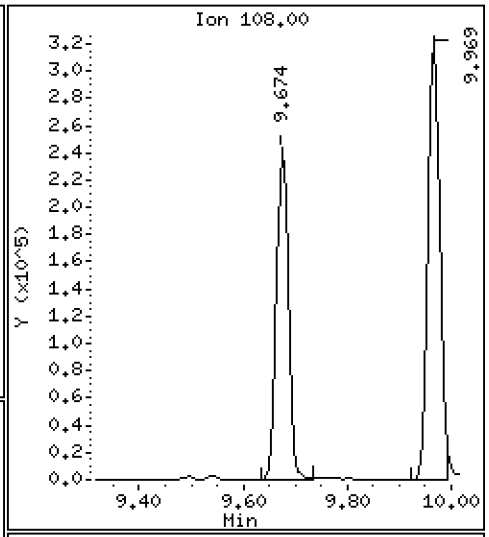
Concentration: 4.714 ug/mL

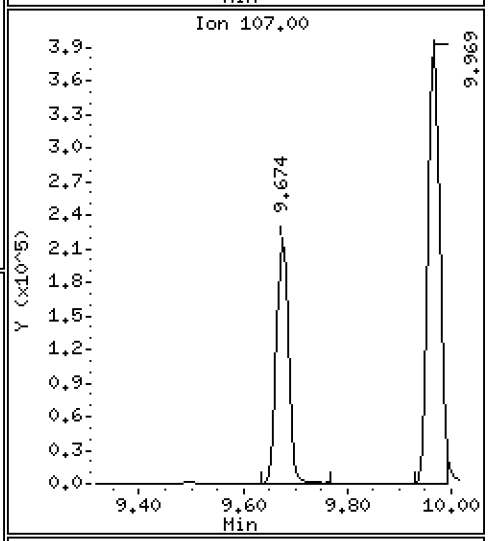


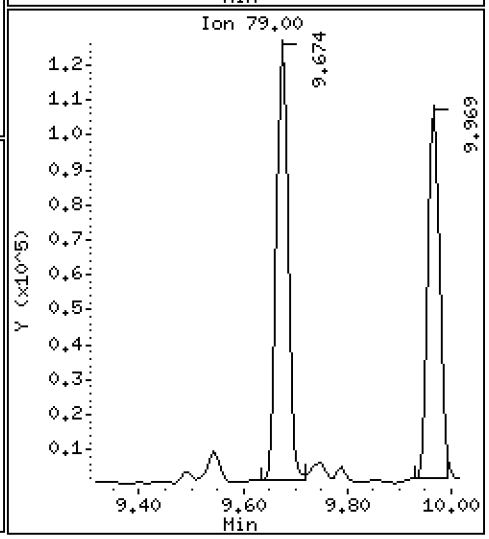












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

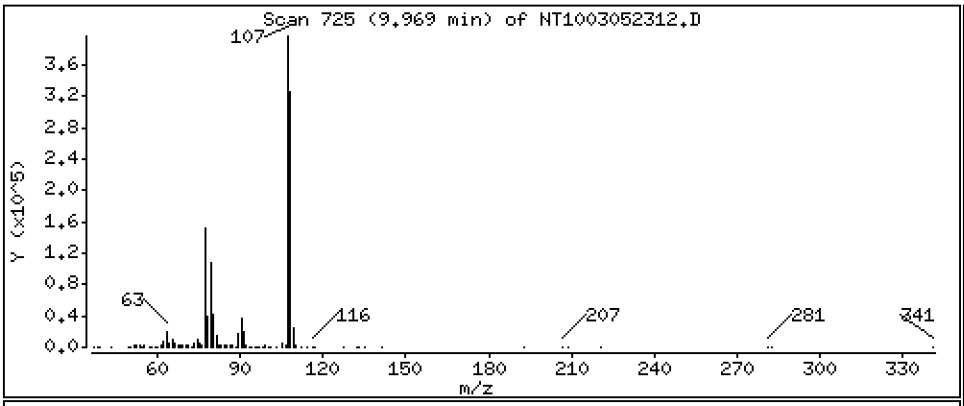
Operator: VTS

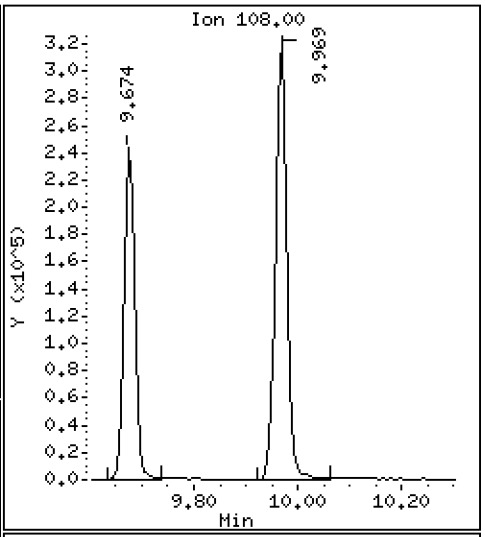
Column phase: ZB-5msi

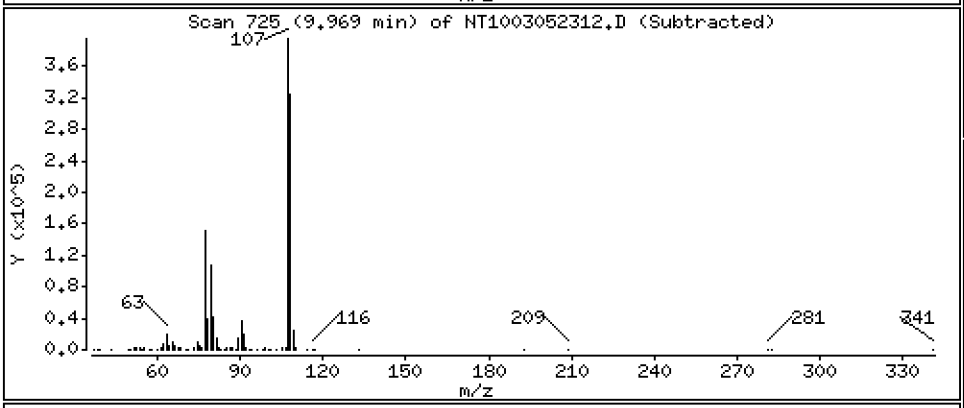
Column diameter: 0.25

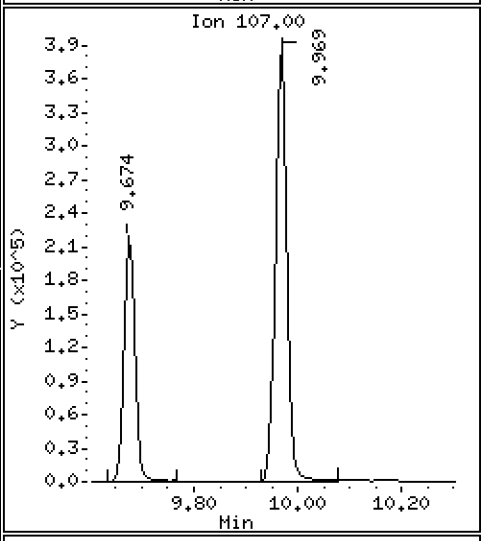
15 4-Methylphenol

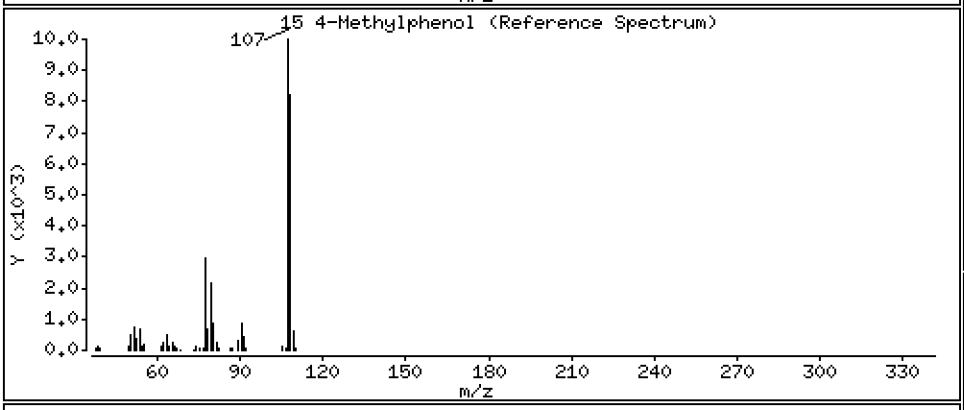
Concentration: 5.190 ug/mL

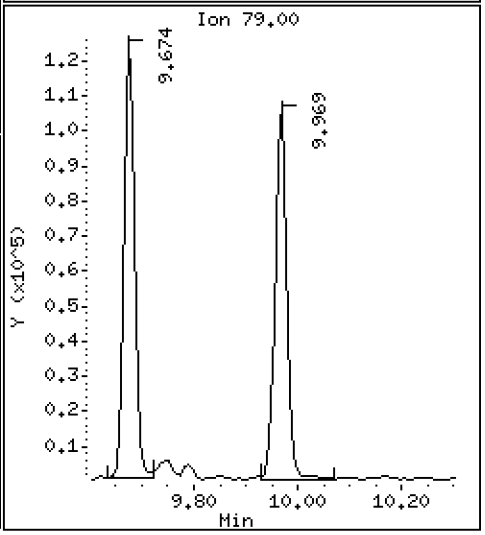


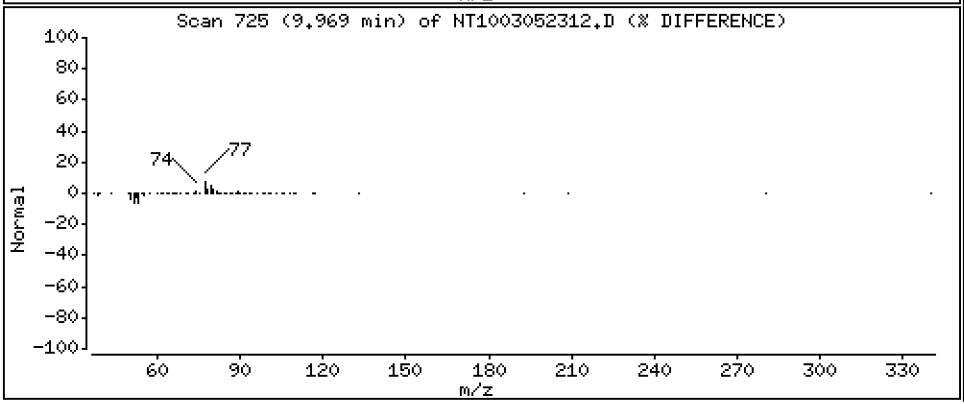












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

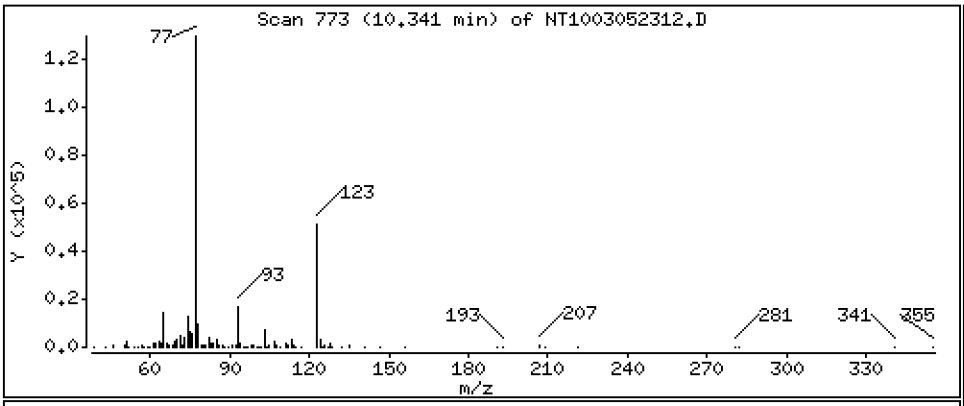
Operator: VTS

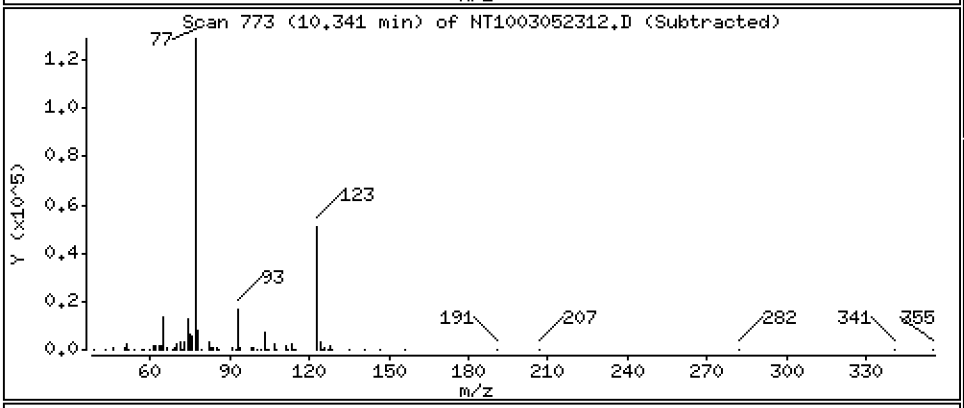
Column phase: ZB-5msi

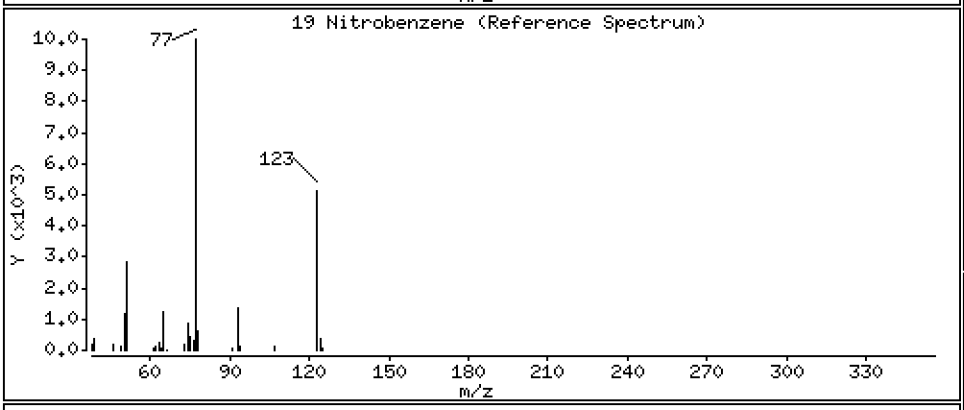
Column diameter: 0.25

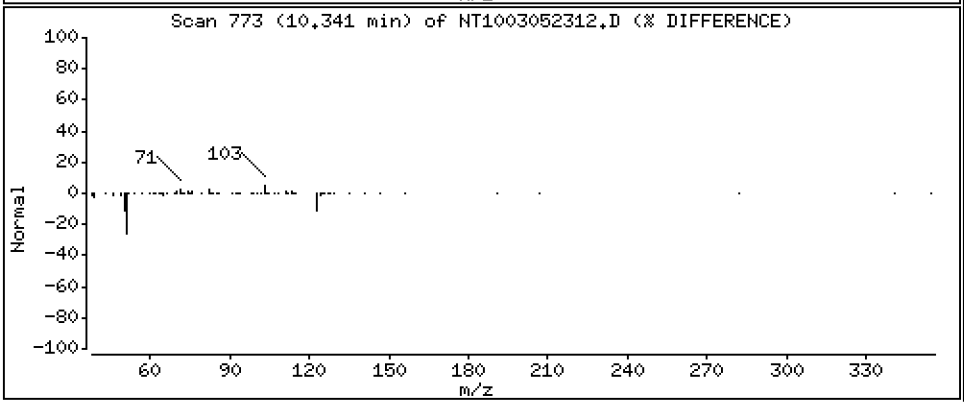
19 Nitrobenzene

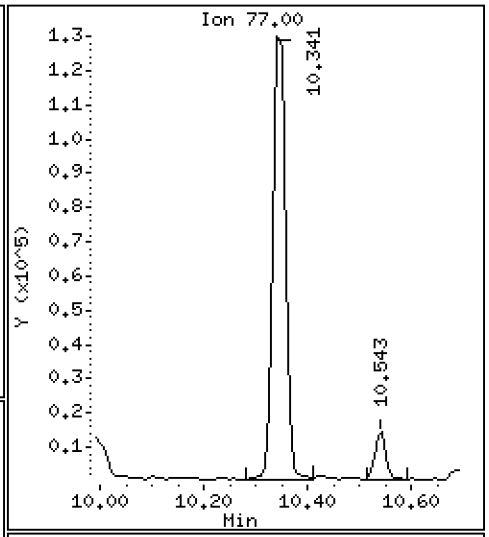
Concentration: 2.187 ug/mL

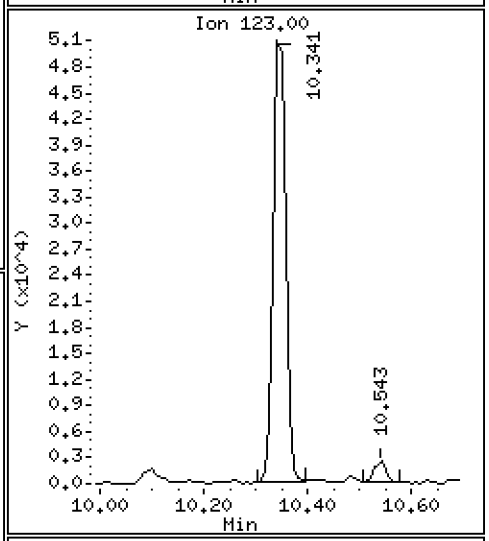


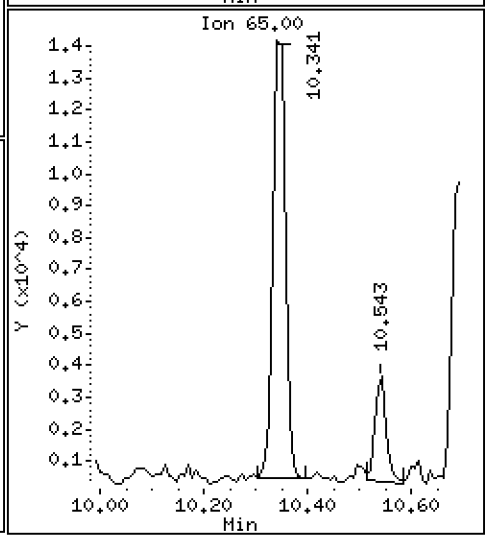












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

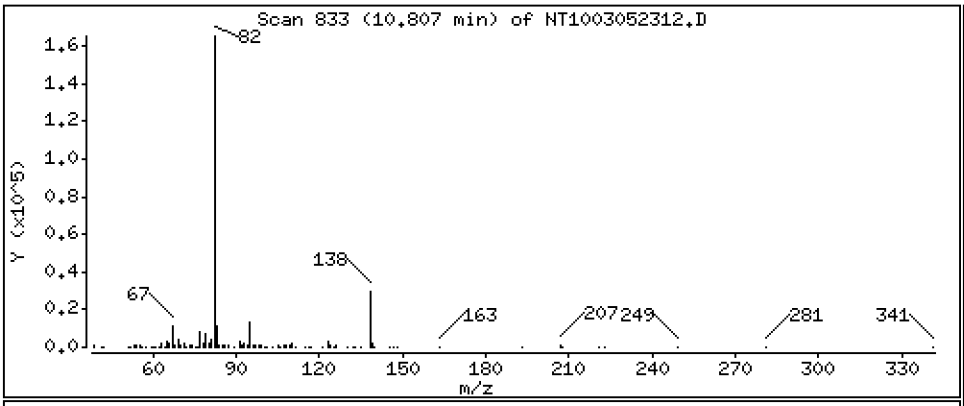
Operator: VTS

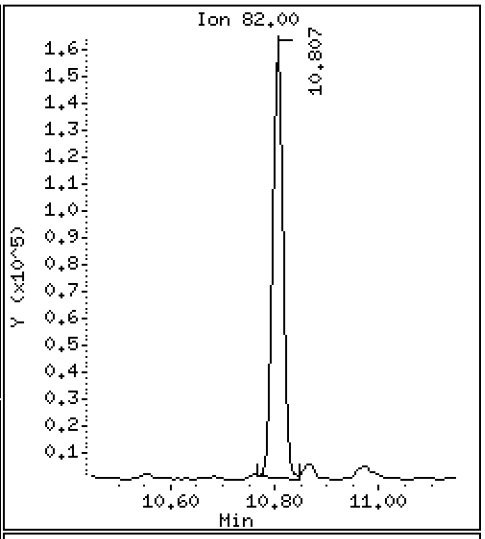
Column phase: ZB-5msi

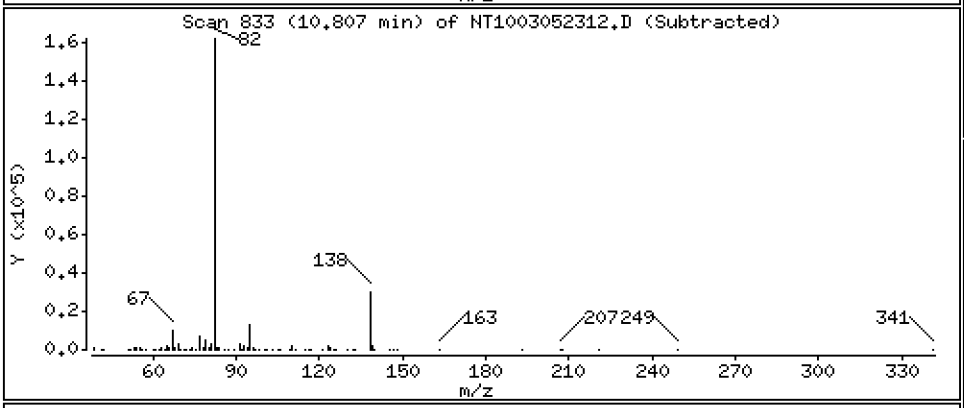
Column diameter: 0.25

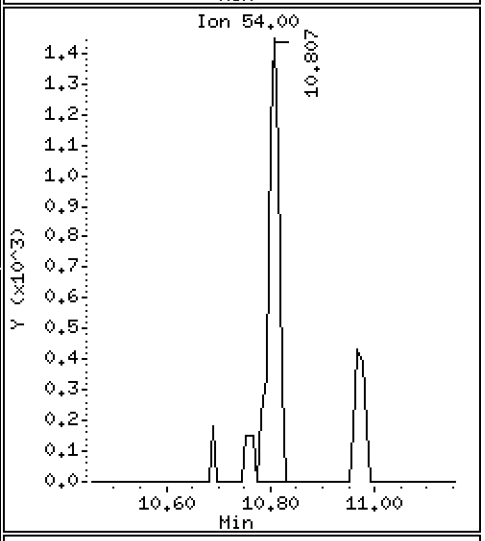
20 Isophorone

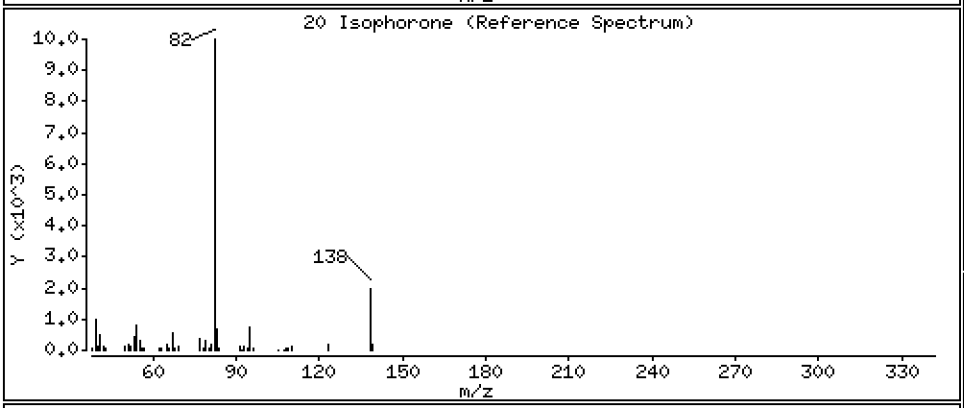
Concentration: 1.965 ug/mL

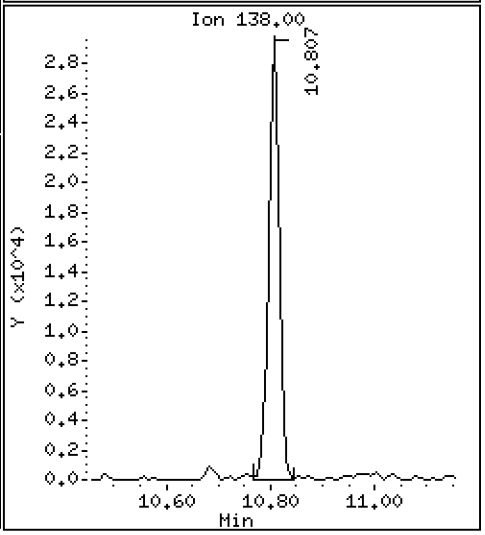


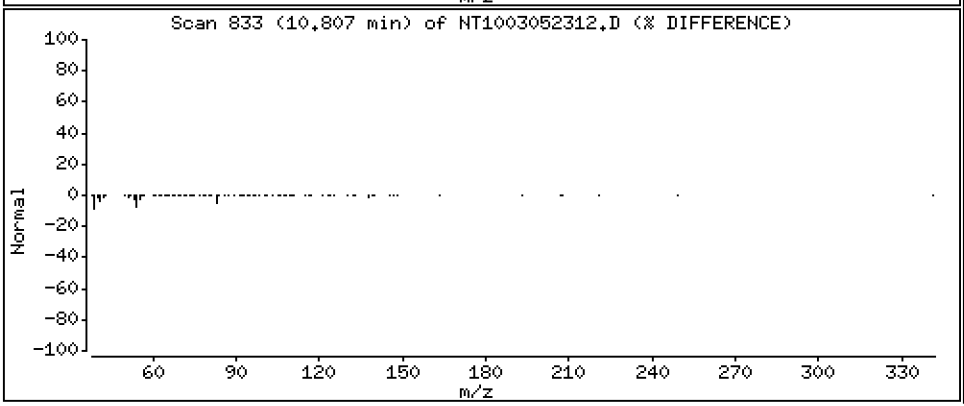












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

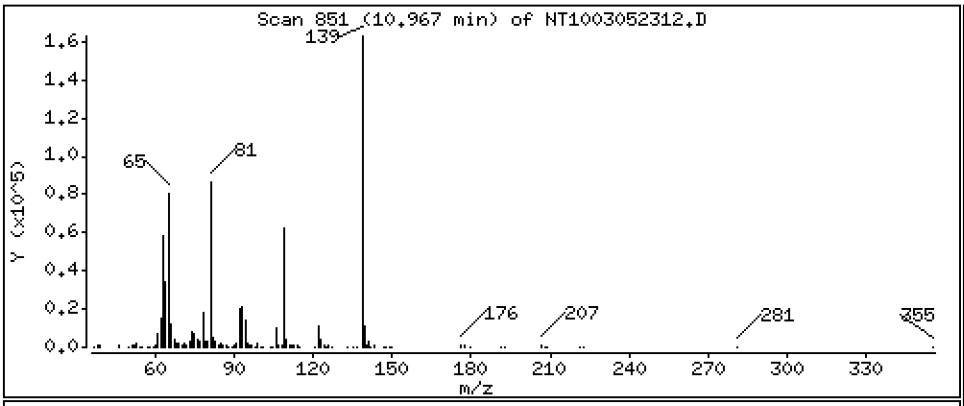
Operator: VTS

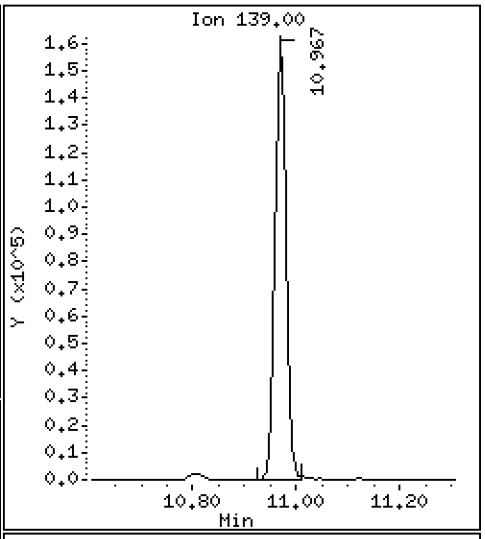
Column phase: ZB-5msi

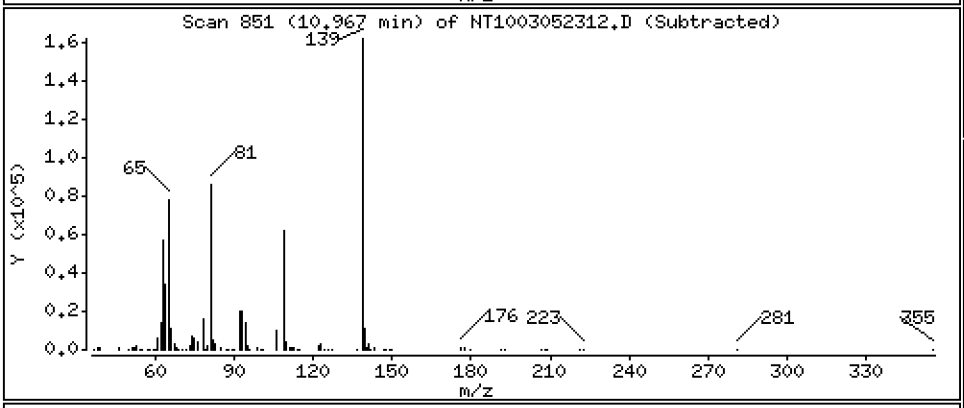
Column diameter: 0.25

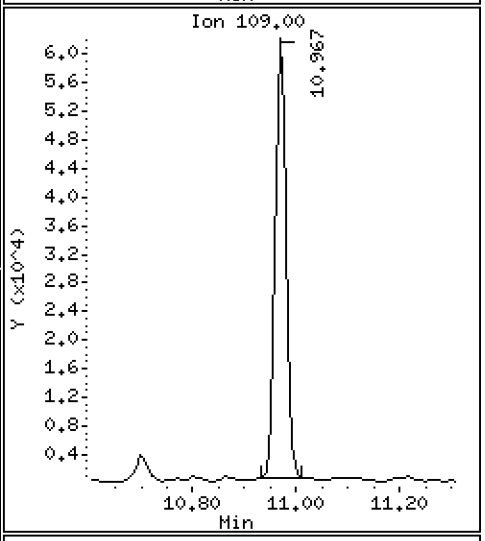
21 2-Nitrophenol

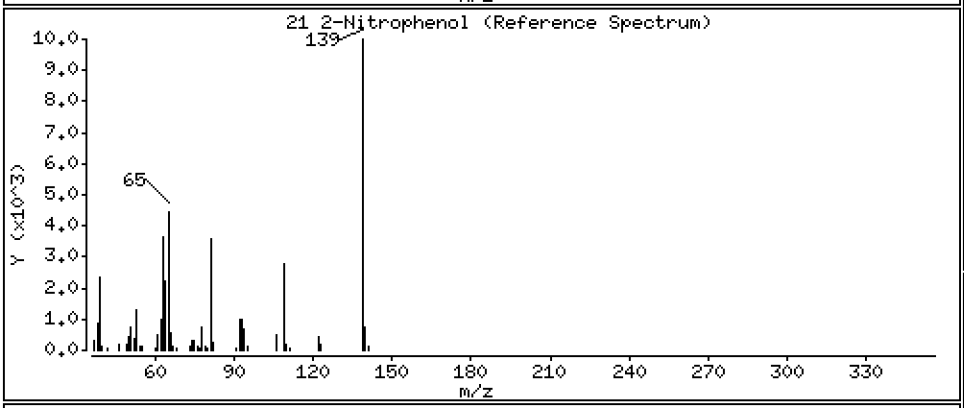
Concentration: 4.757 ug/mL

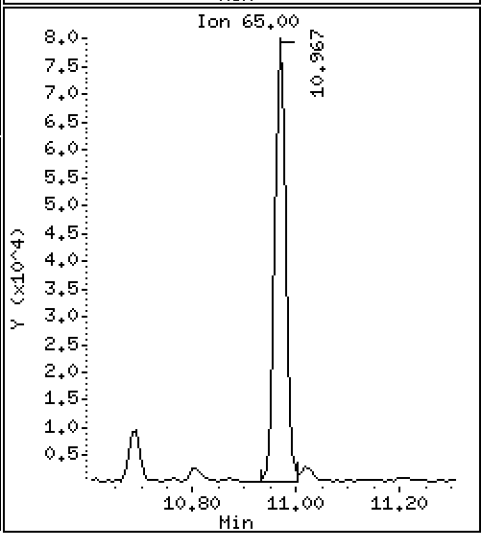


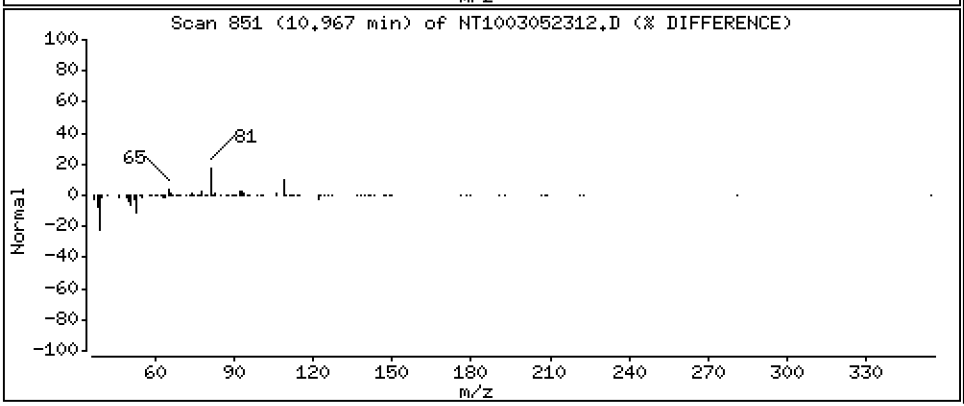












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

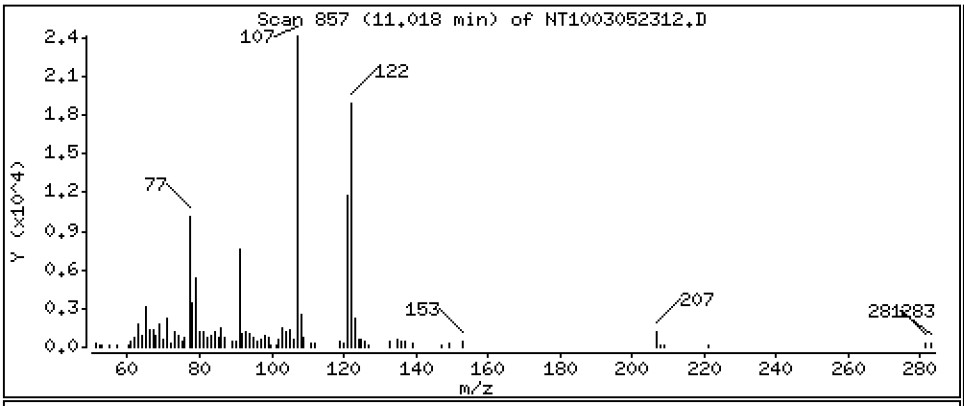
Operator: VTS

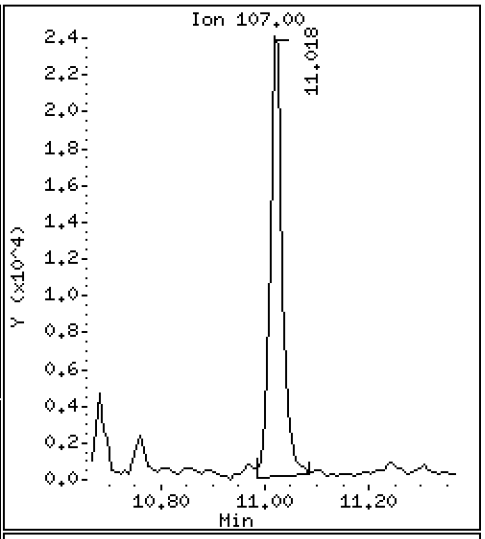
Column phase: ZB-5msi

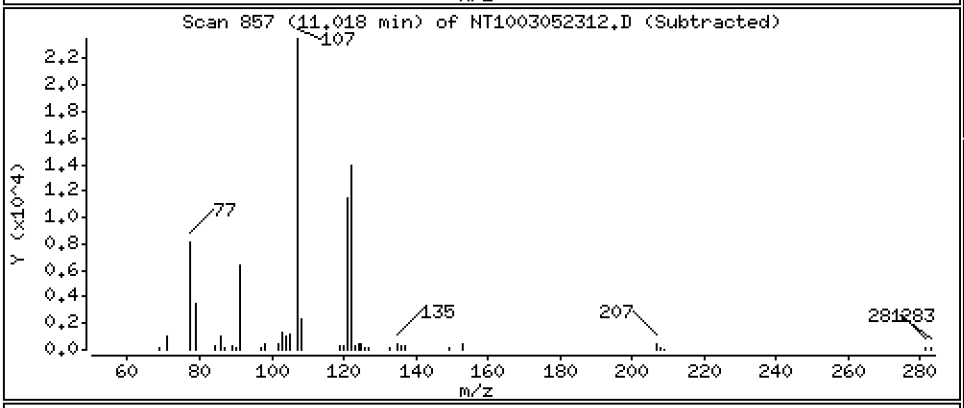
Column diameter: 0.25

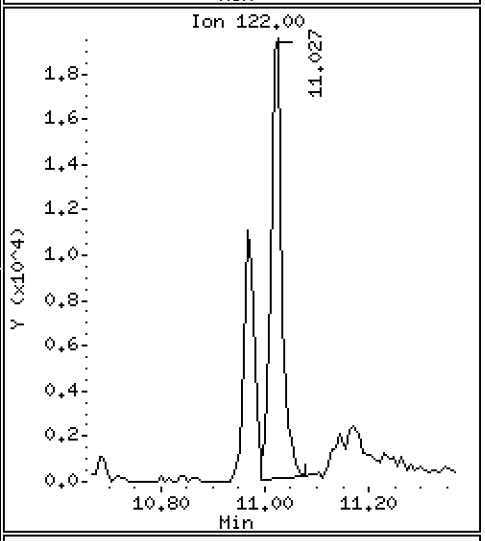
22 2,4-Dimethylphenol

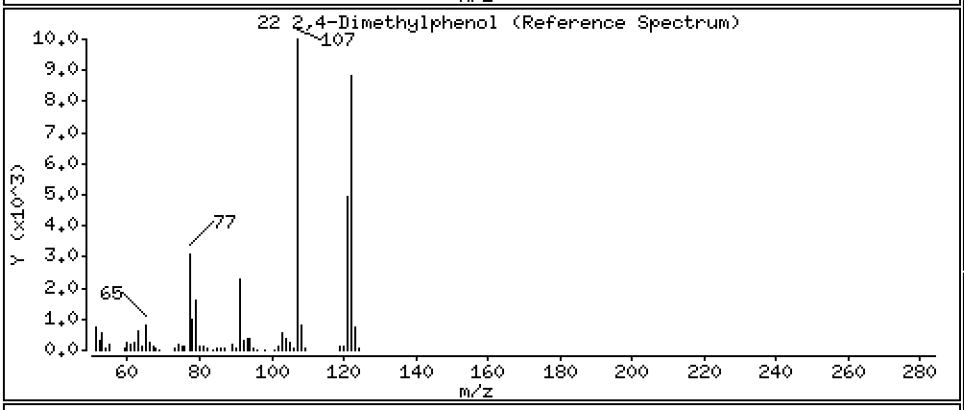
Concentration: 0.4572 ug/mL

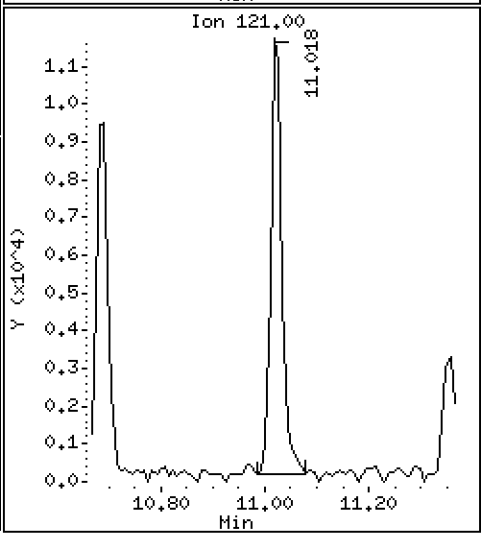


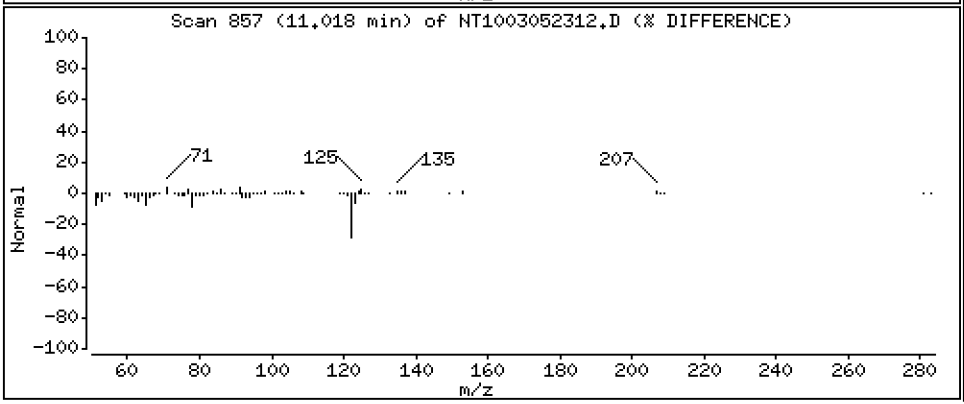












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

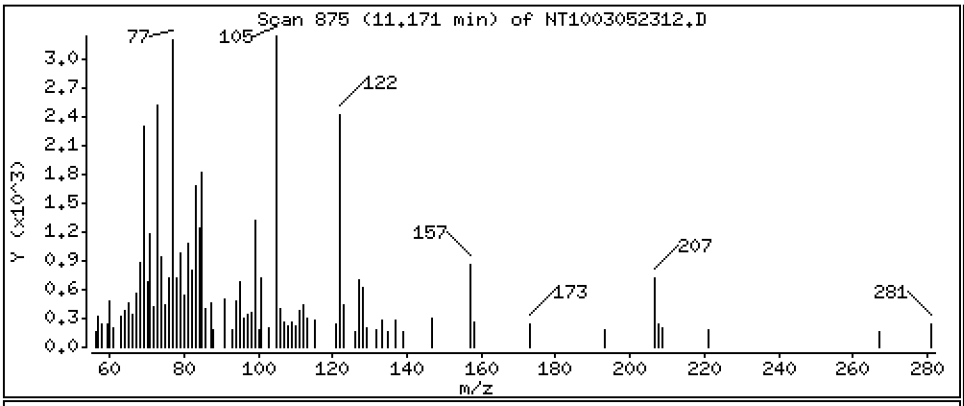
Operator: VTS

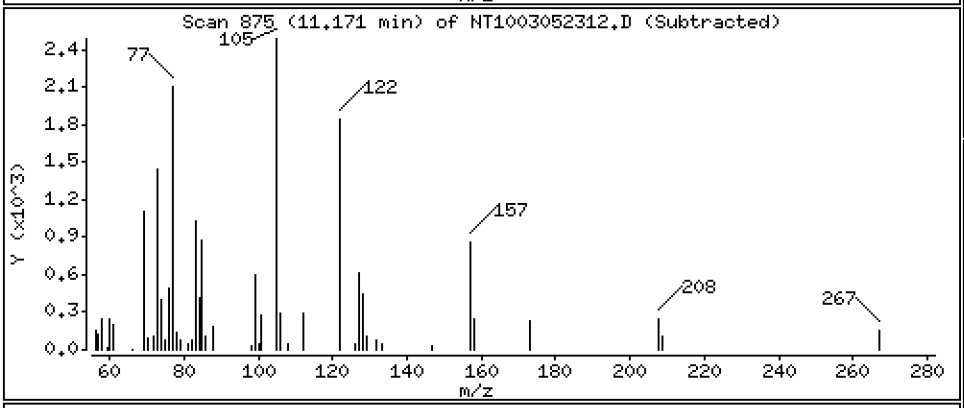
Column phase: ZB-5msi

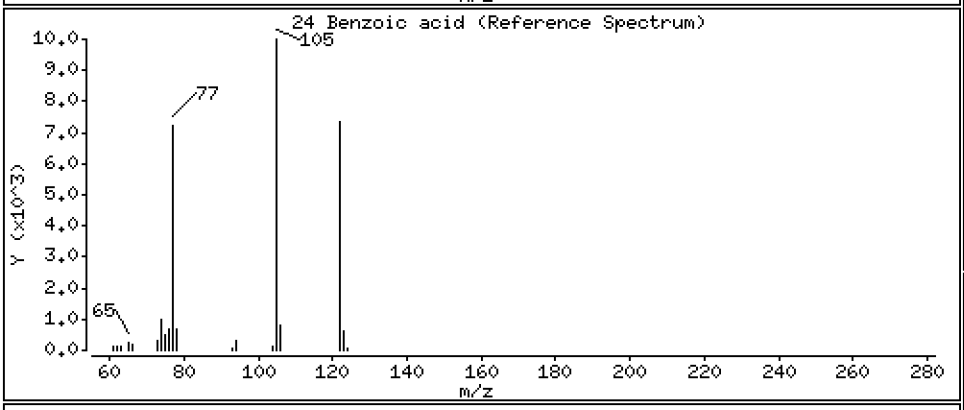
Column diameter: 0.25

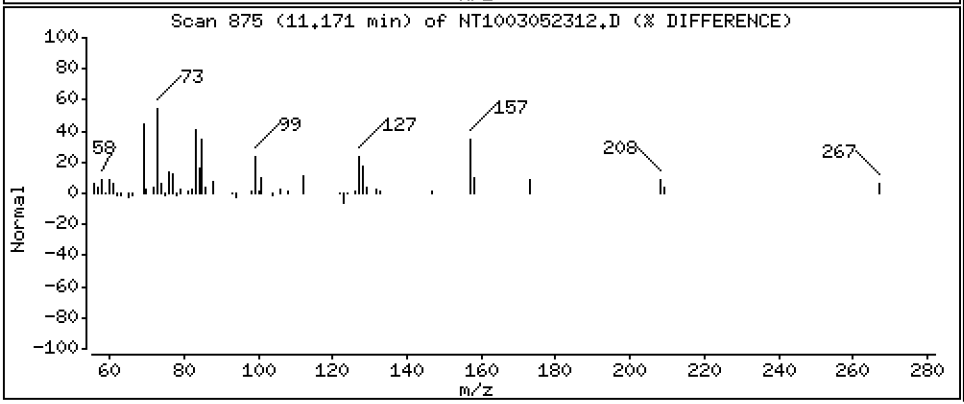
24 Benzoic acid

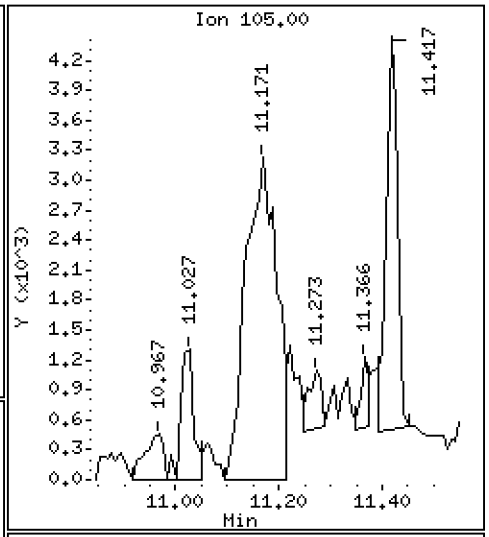
Concentration: 0.2539 ug/mL

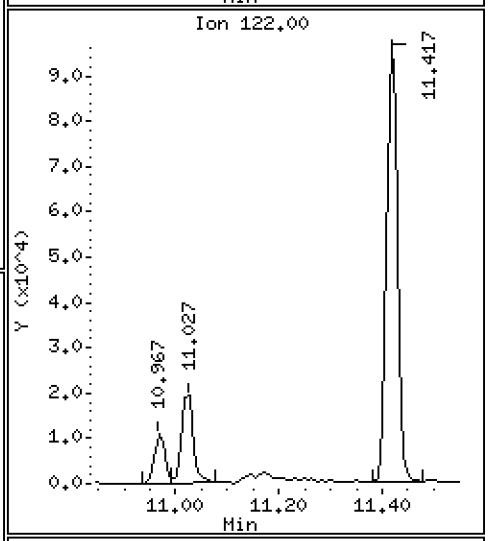


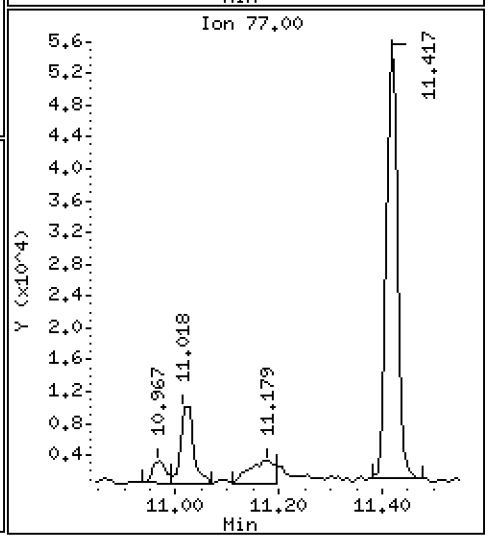












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

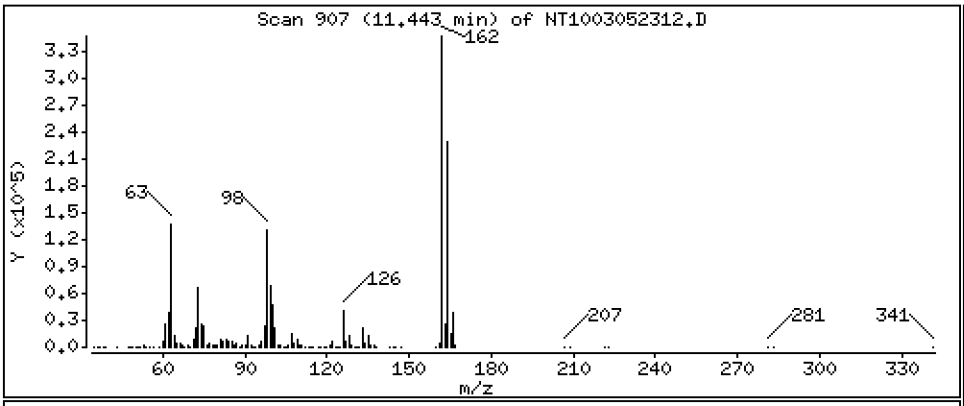
Operator: VTS

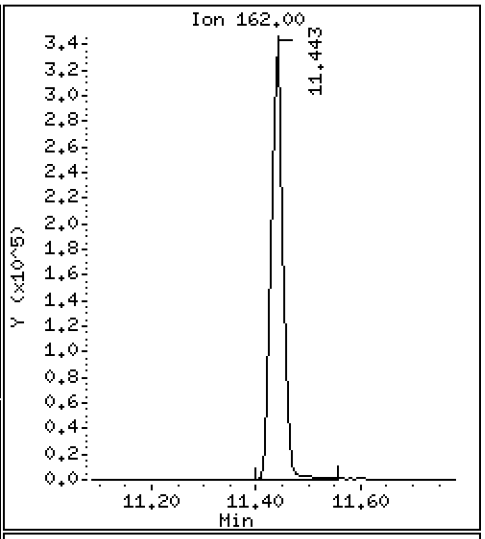
Column phase: ZB-5msi

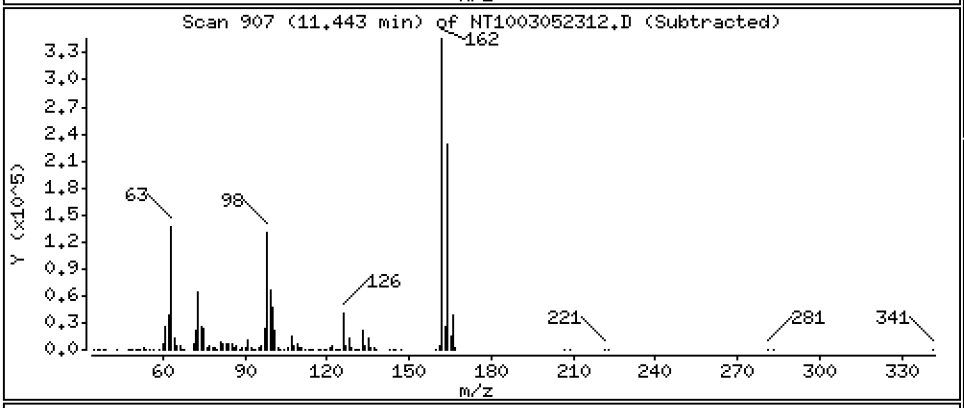
Column diameter: 0.25

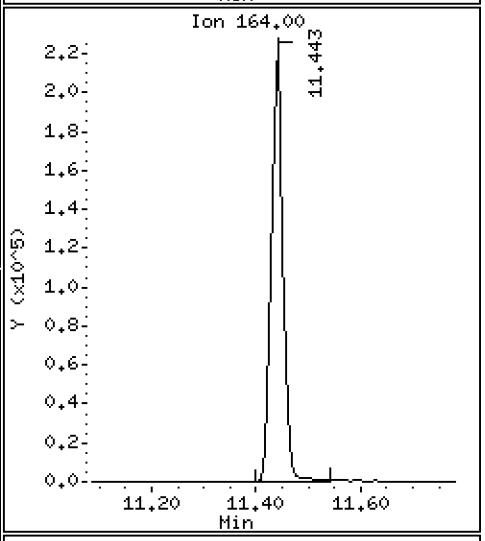
25 2,4-Dichlorophenol

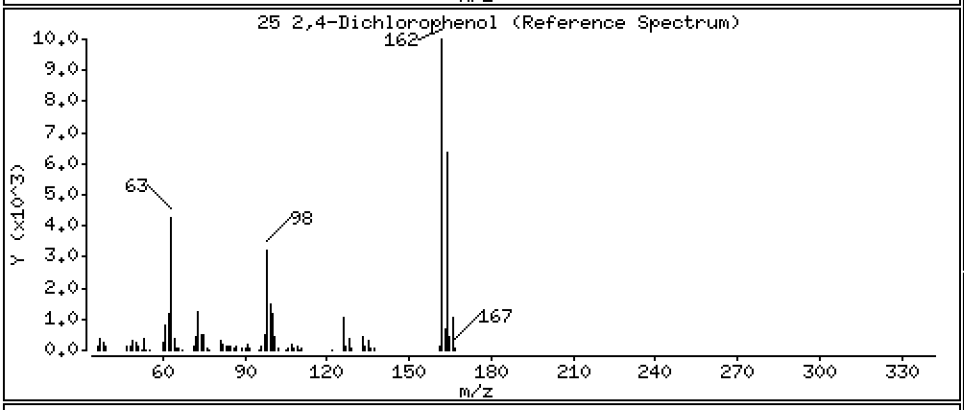
Concentration: 7.986 ug/mL

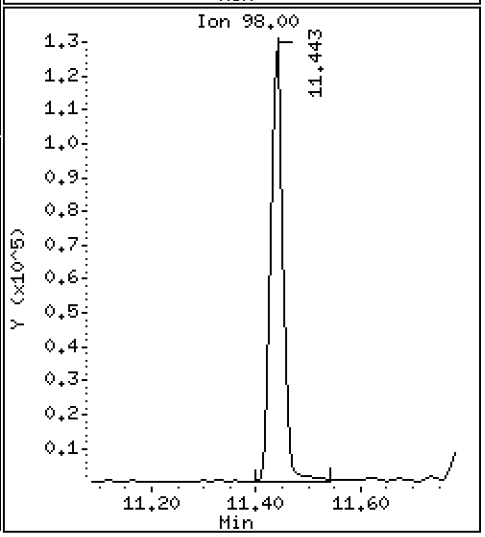


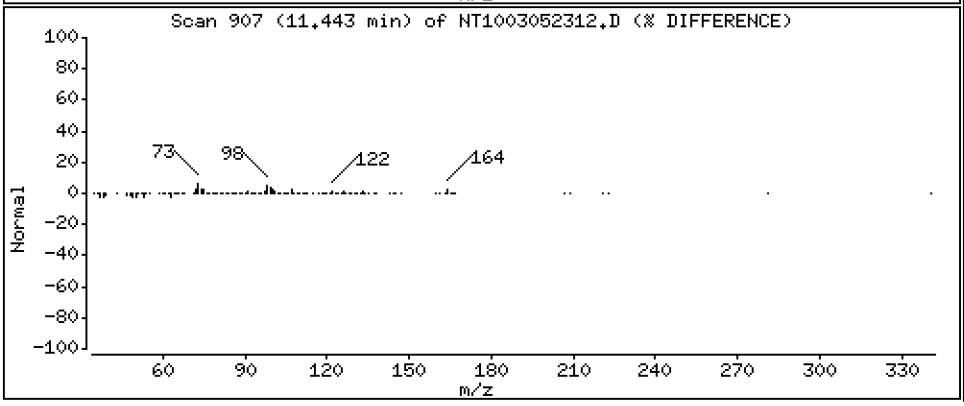












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

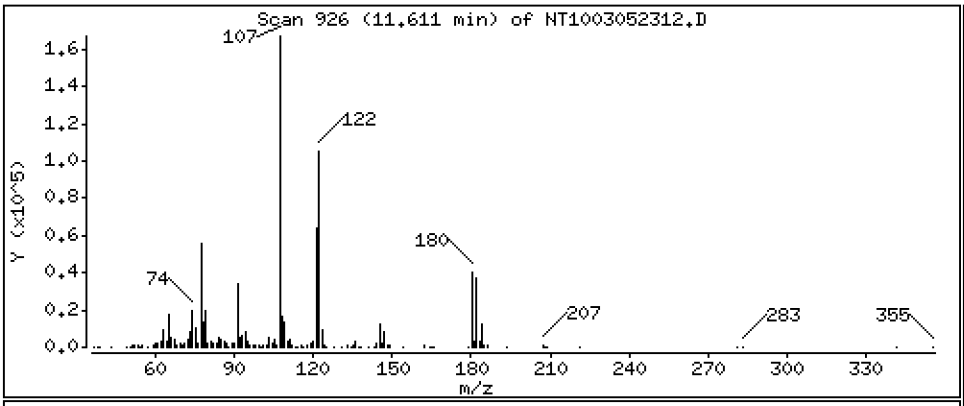
Operator: VTS

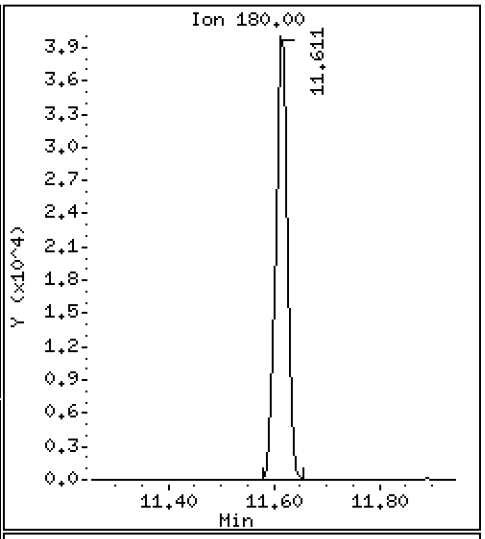
Column phase: ZB-5msi

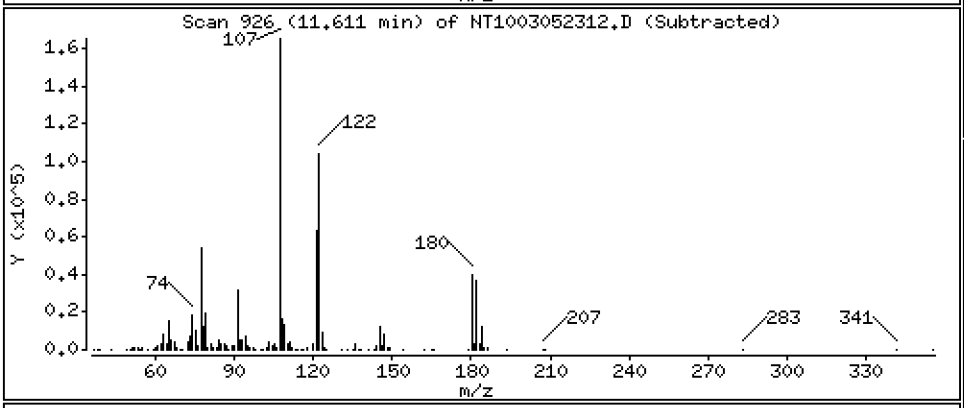
Column diameter: 0.25

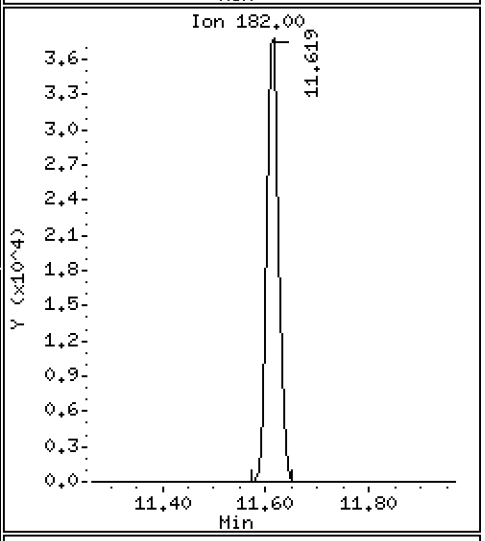
26 1,2,4-Trichlorobenzene

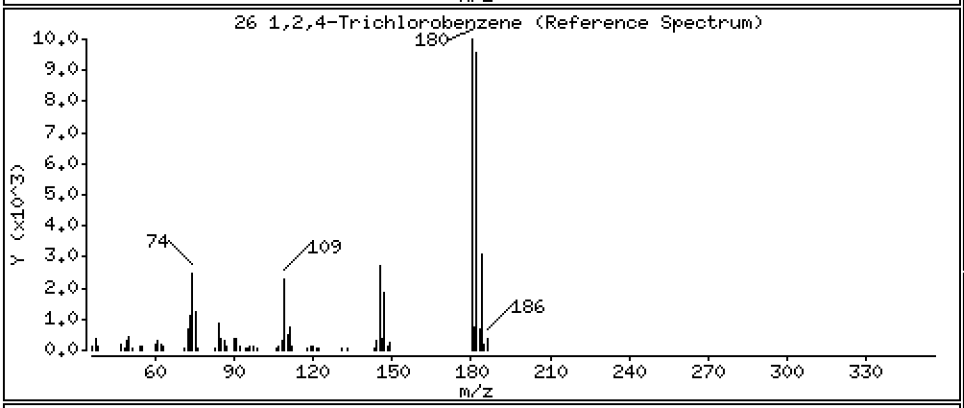
Concentration: 0.8764 ug/mL

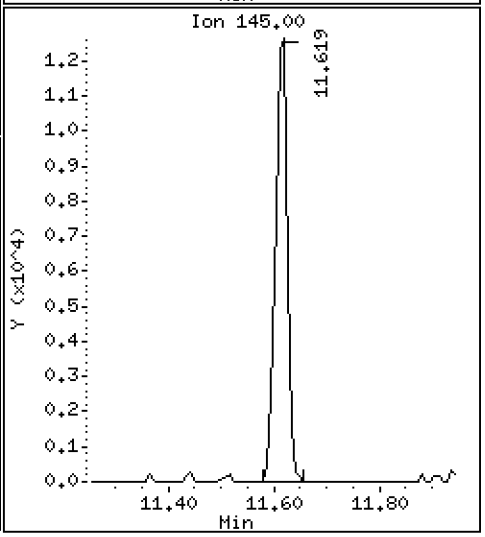


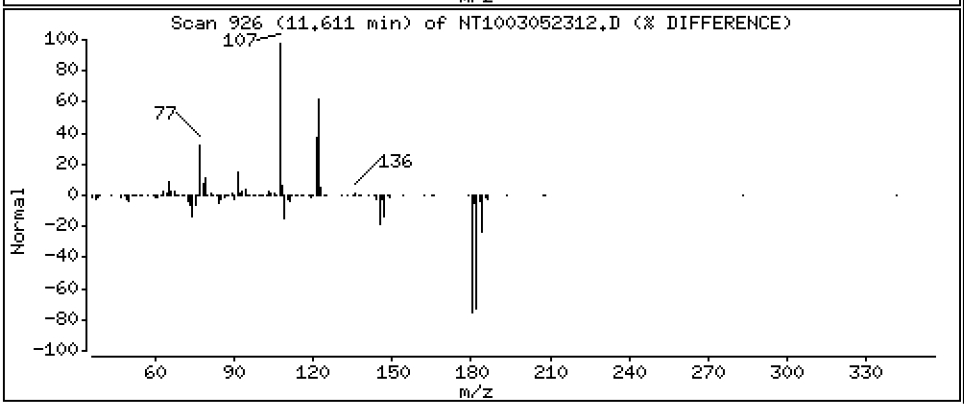












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

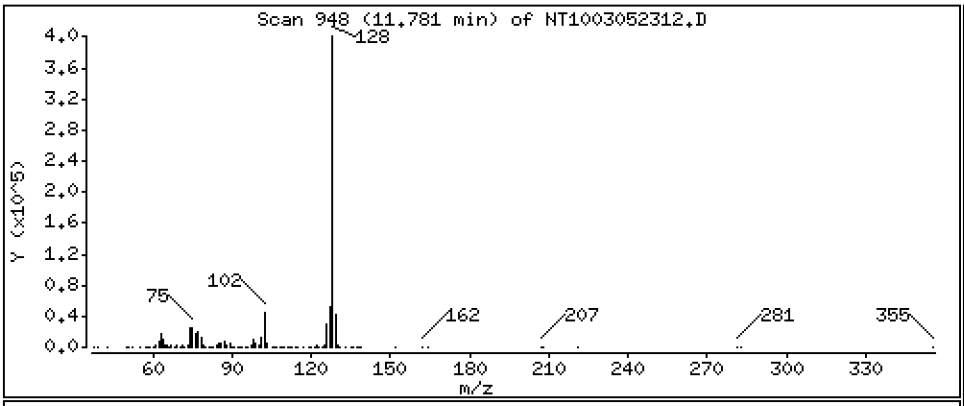
Operator: VTS

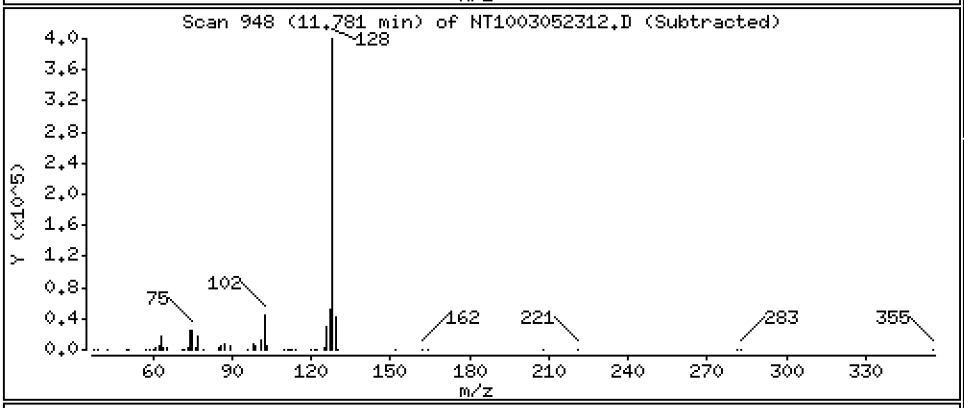
Column phase: ZB-5msi

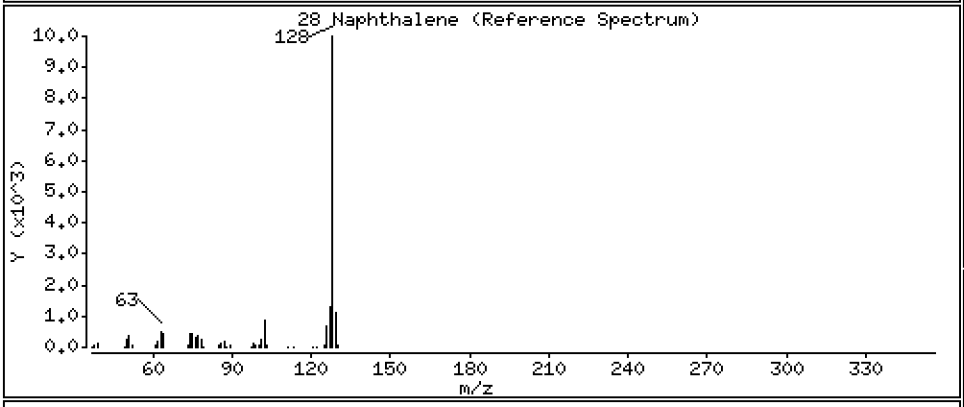
Column diameter: 0.25

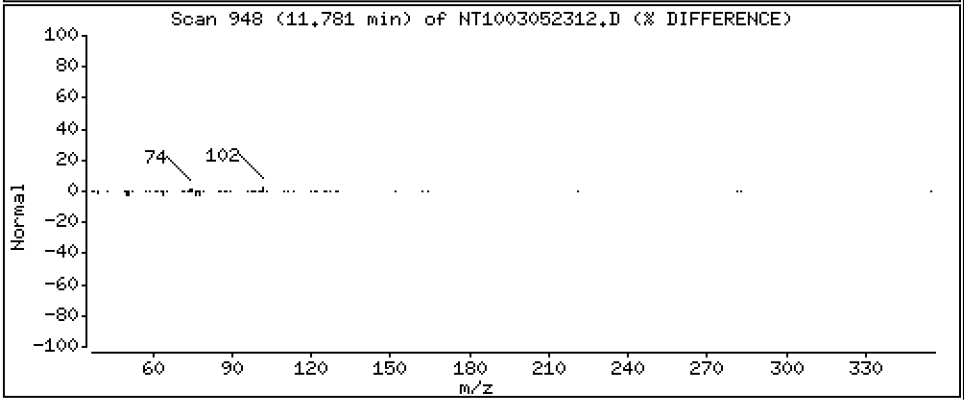
28 Naphthalene

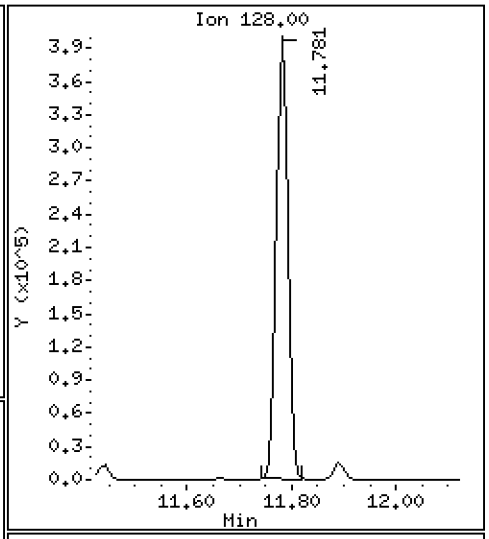
Concentration: 2.471 ug/mL

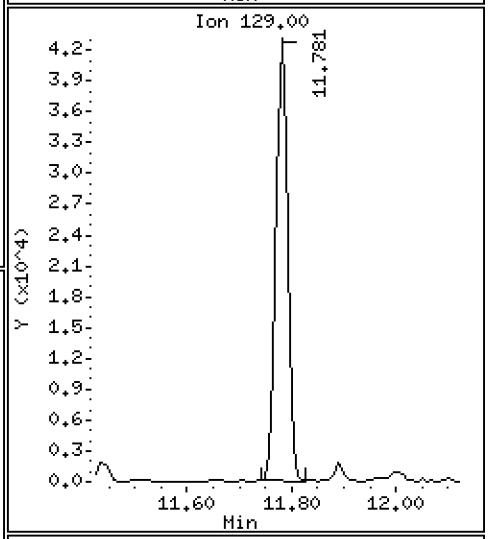


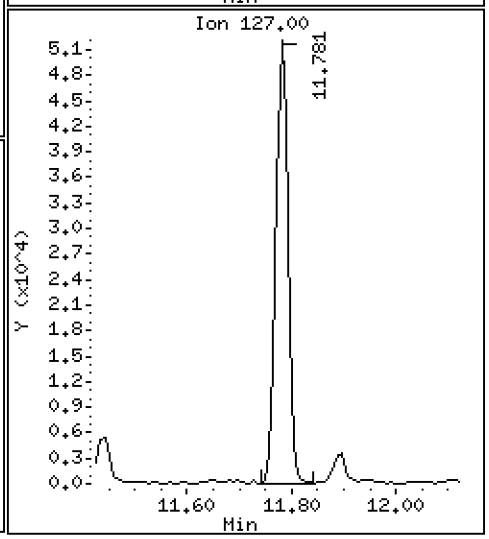












Date : 05-MAR-2023 20:22

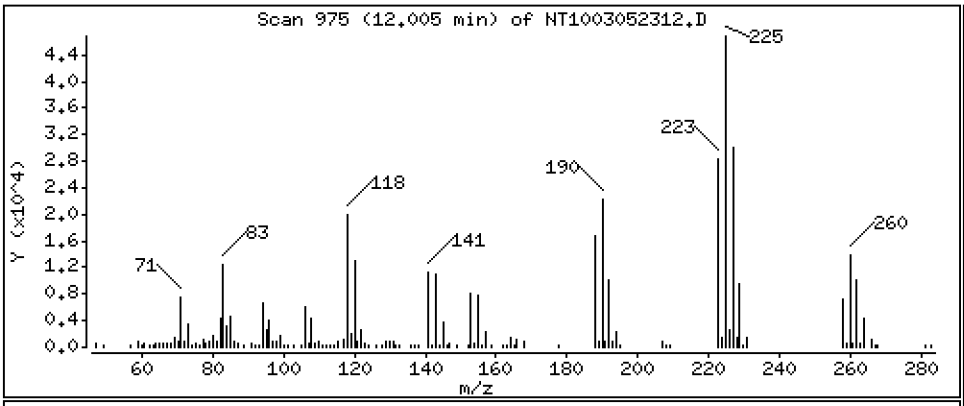
Client ID: Instrument: nt10.i

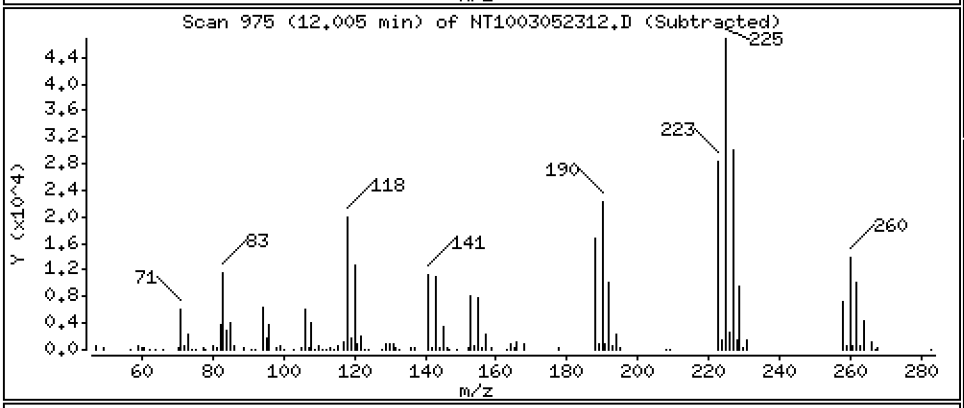
Sample Info: BLA0685-SRM1

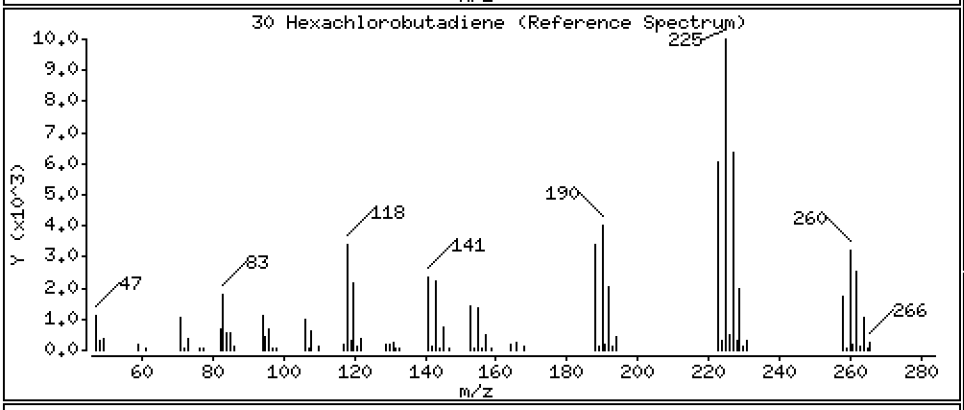
Operator: VTS

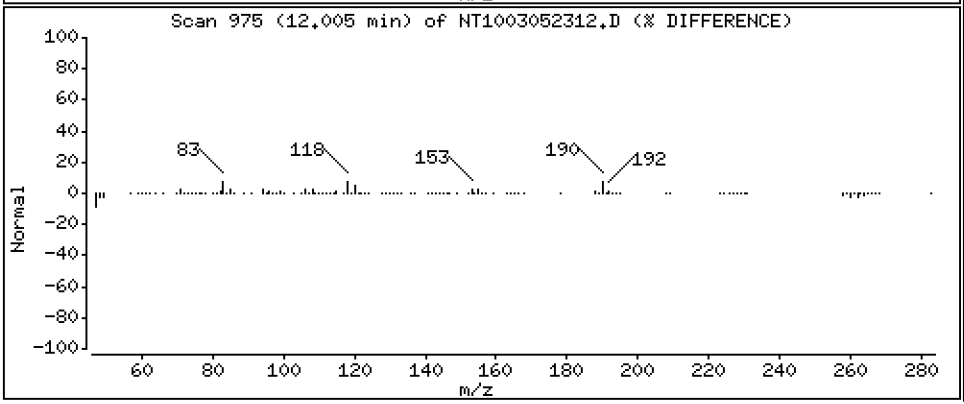
Column phase: ZB-5msi Column diameter: 0.25

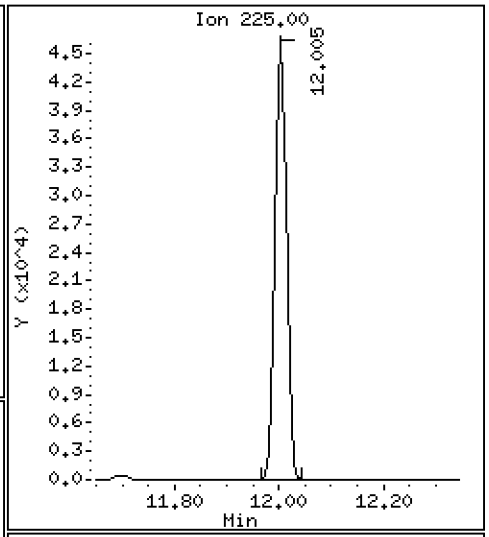
30 Hexachlorobutadiene Concentration: 1.300 ug/mL

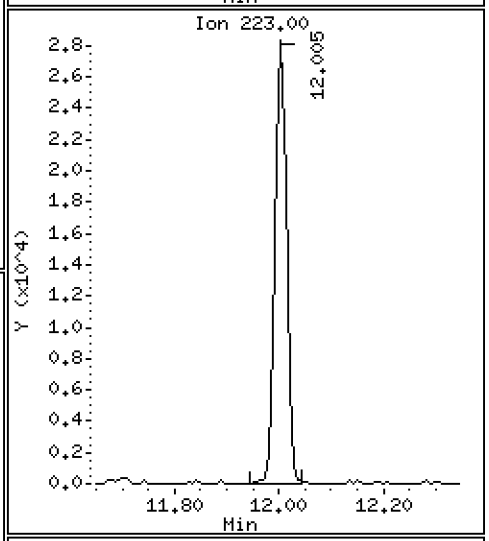


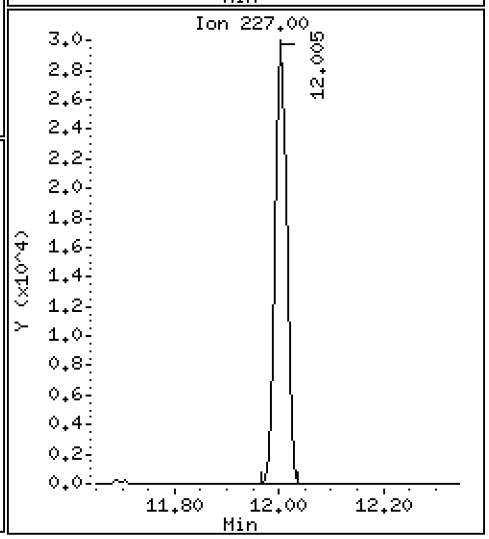












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

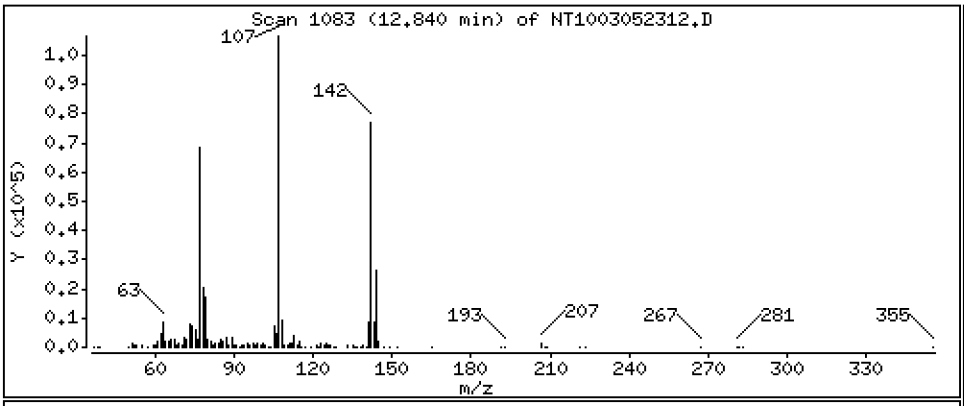
Operator: VTS

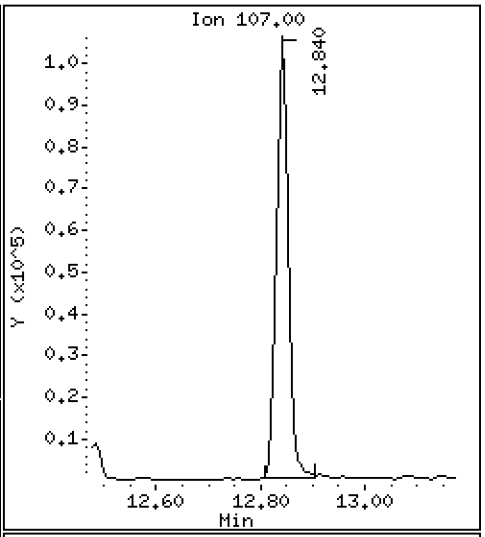
Column phase: ZB-5msi

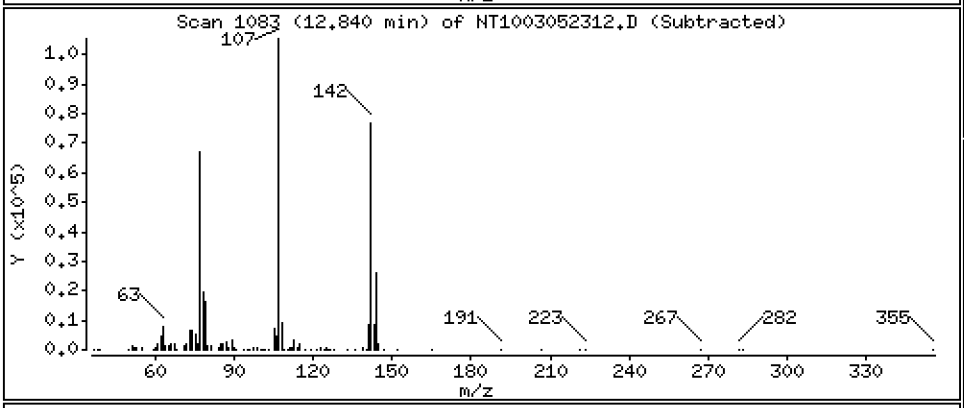
Column diameter: 0.25

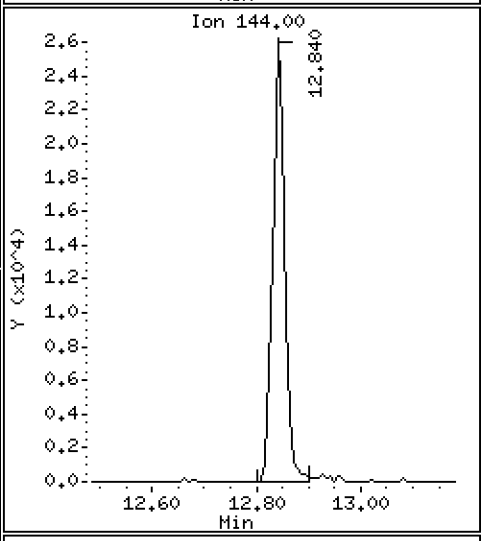
31 4-Chloro-3-methylphenol

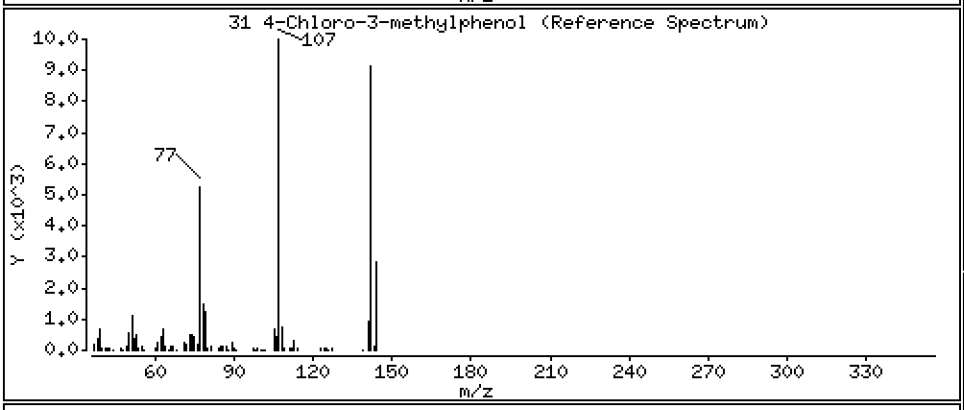
Concentration: 2.174 ug/mL

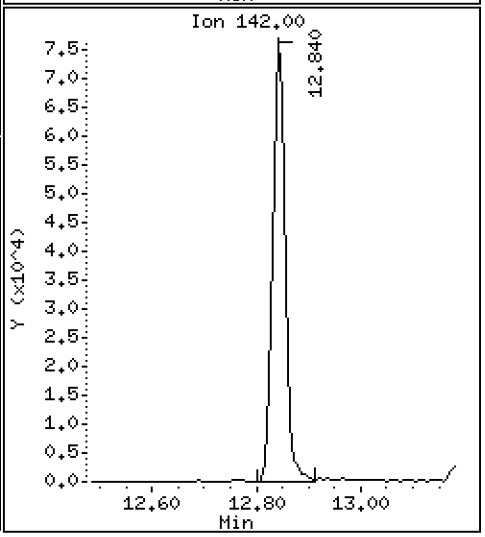


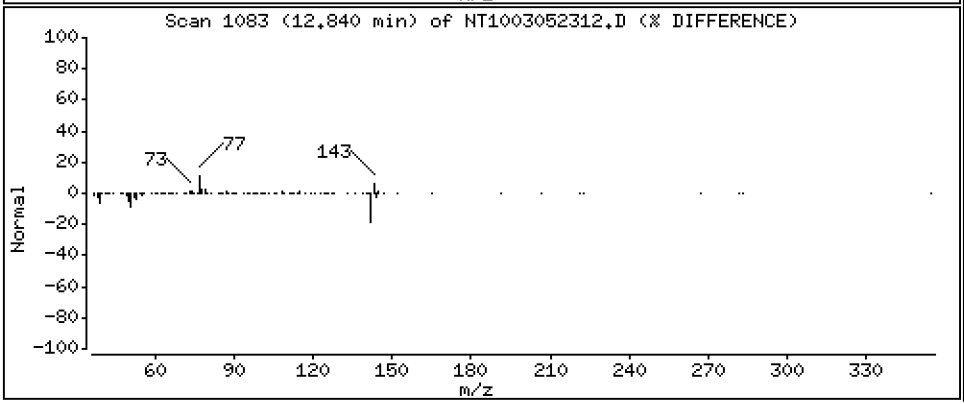












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

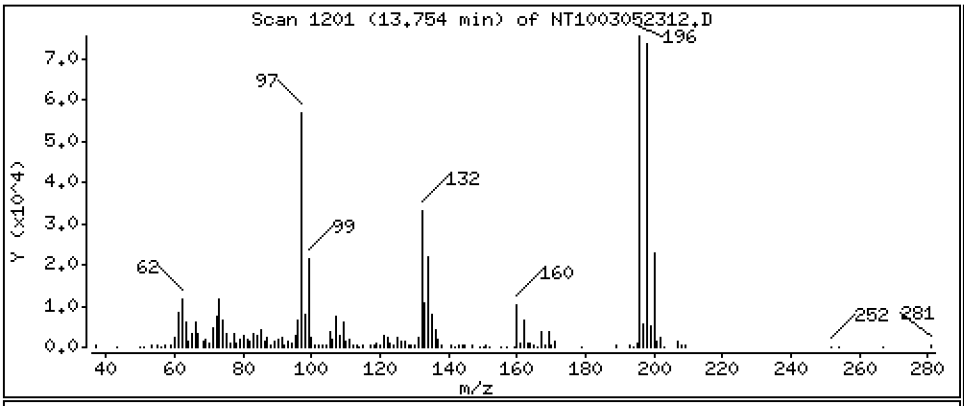
Operator: VTS

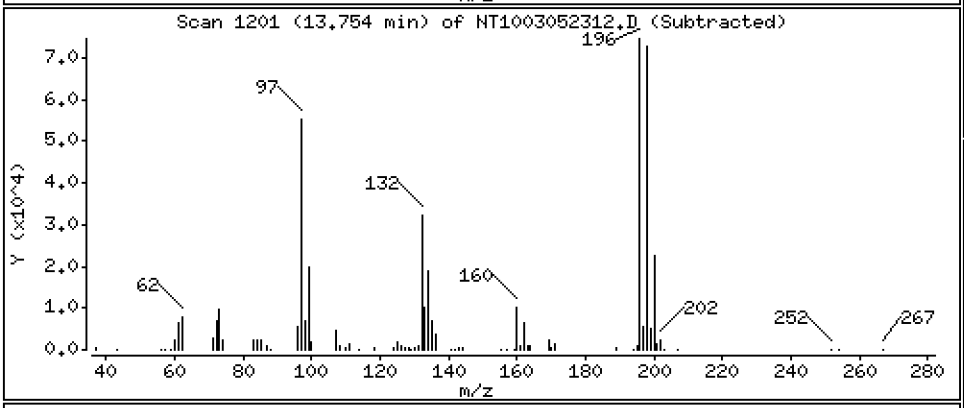
Column phase: ZB-5msi

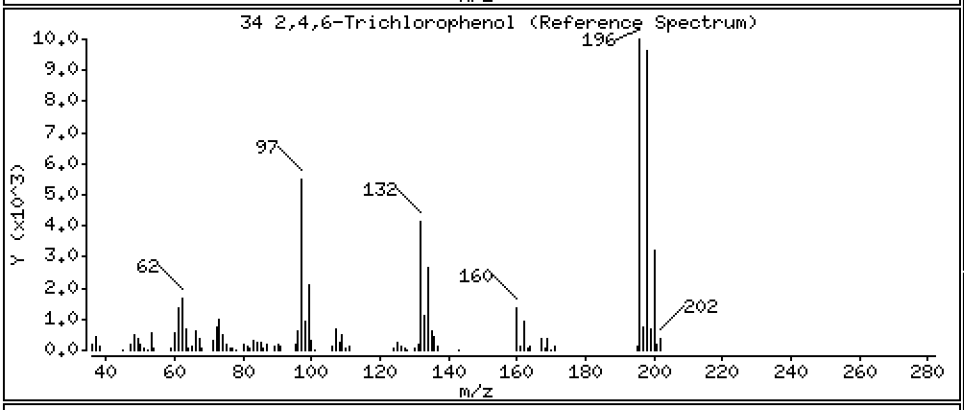
Column diameter: 0.25

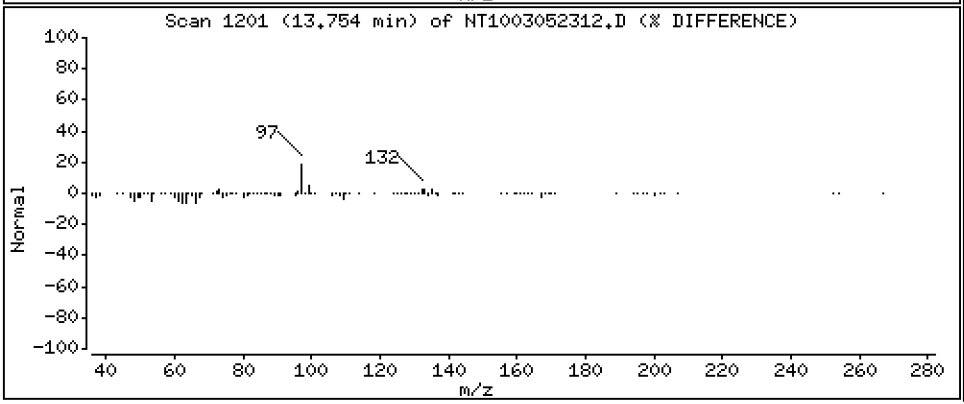
34 2,4,6-Trichlorophenol

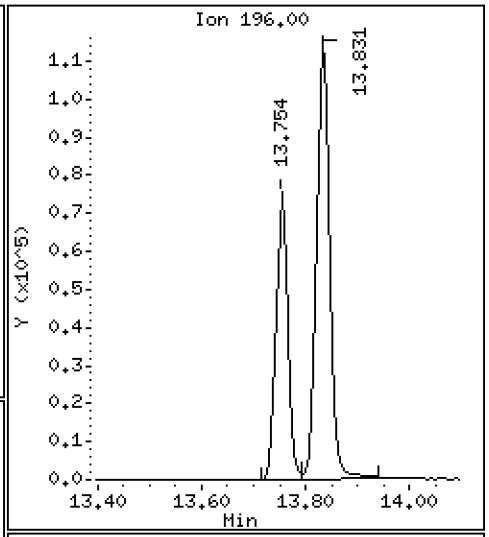
Concentration: 2.442 ug/mL

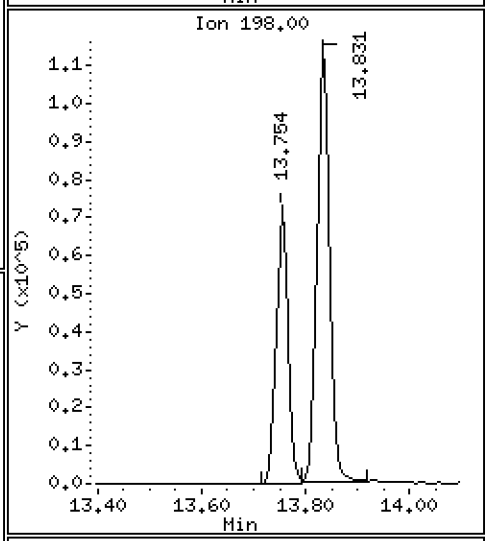


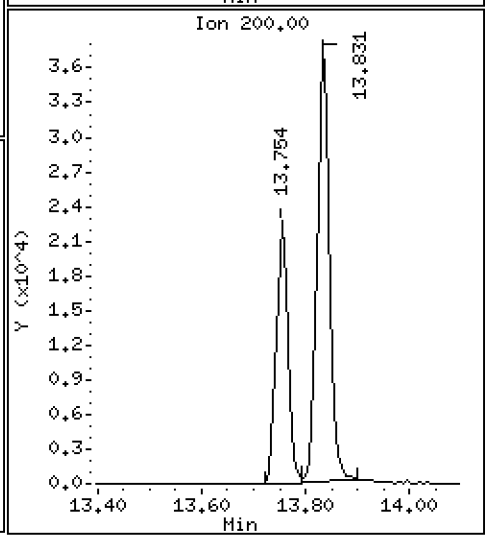












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

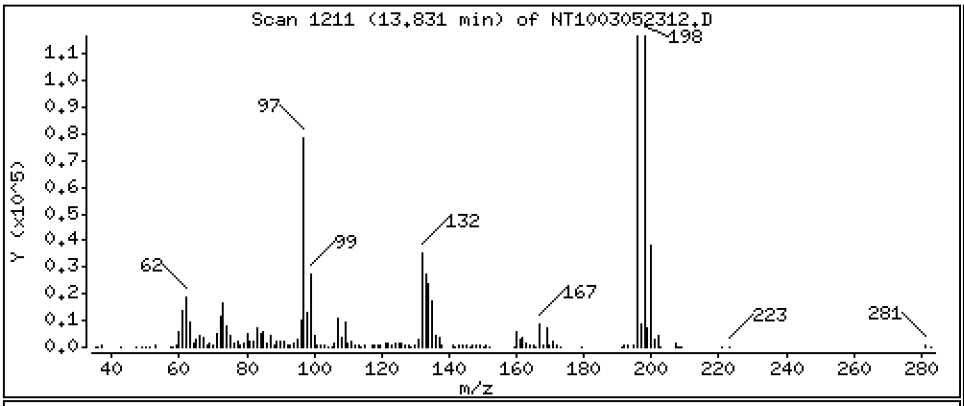
Operator: VTS

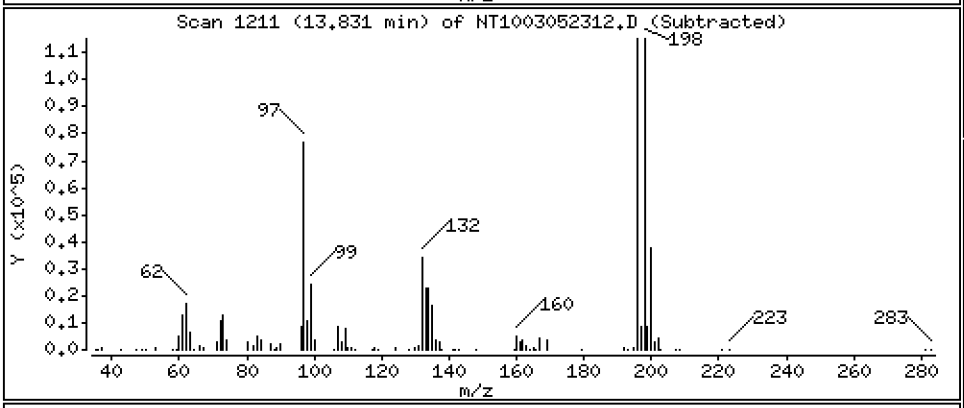
Column phase: ZB-5msi

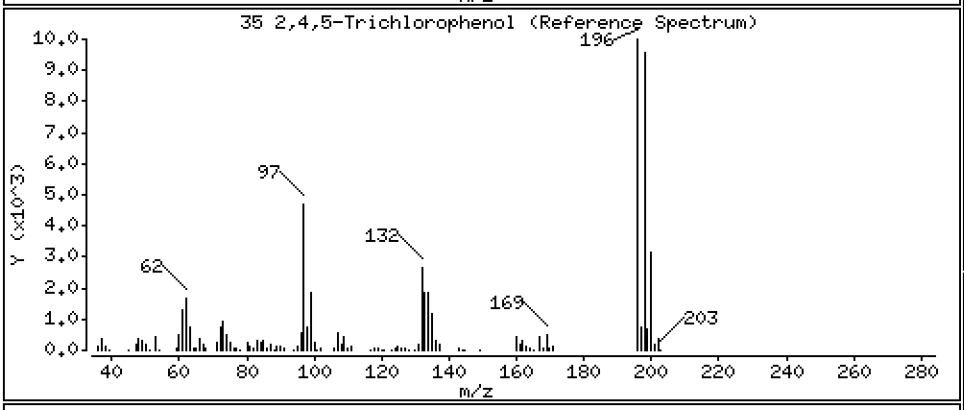
Column diameter: 0.25

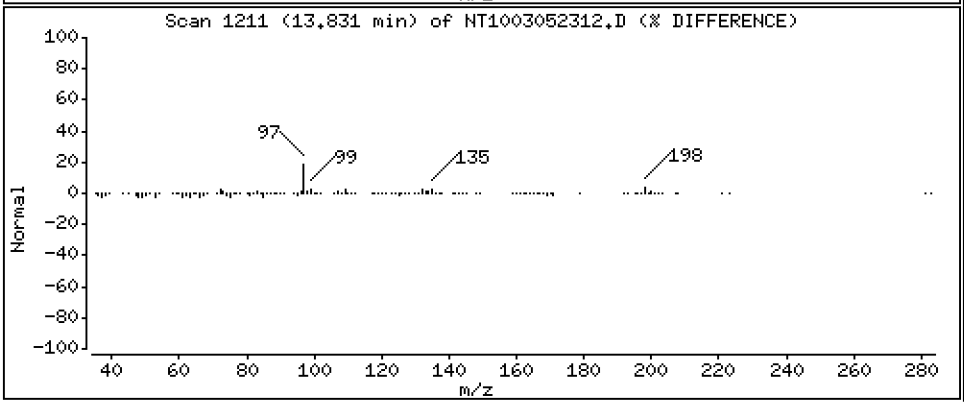
35 2,4,5-Trichlorophenol

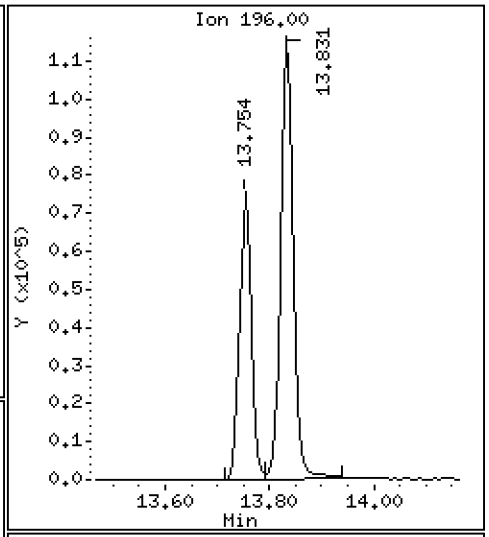
Concentration: 3.880 ug/mL

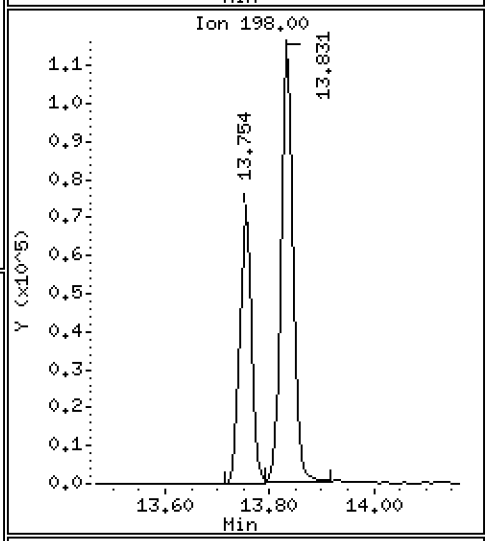


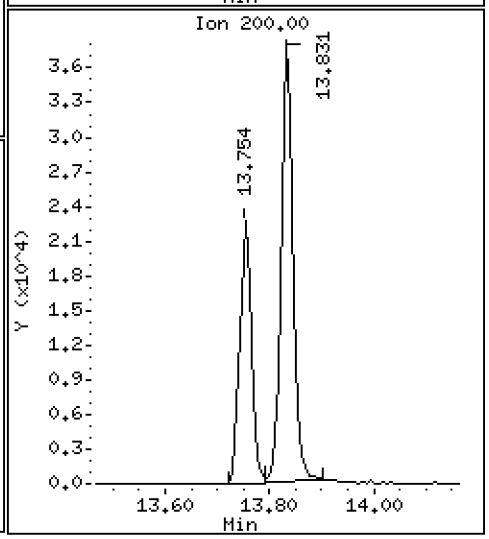












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

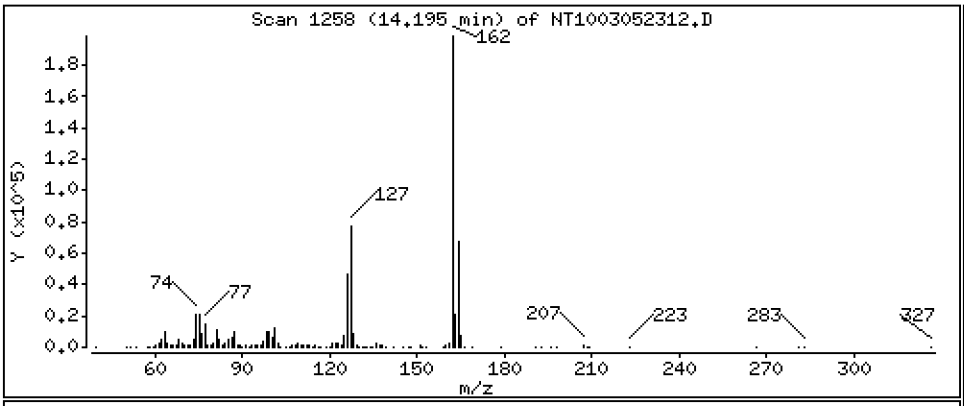
Operator: VTS

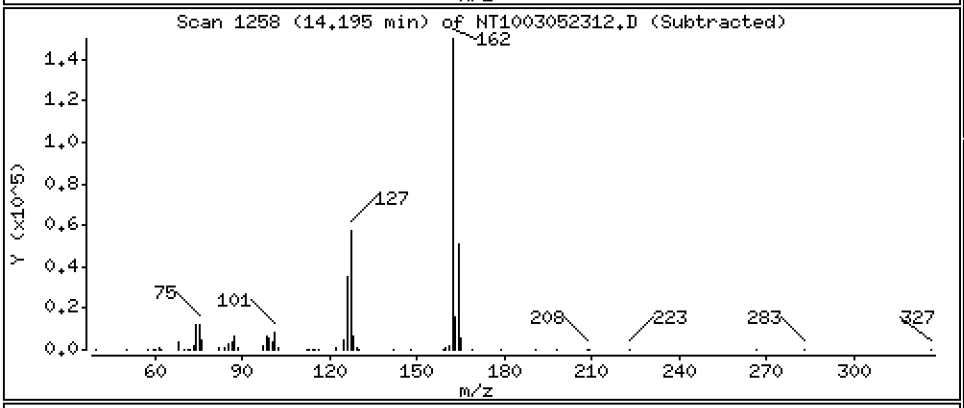
Column phase: ZB-5msi

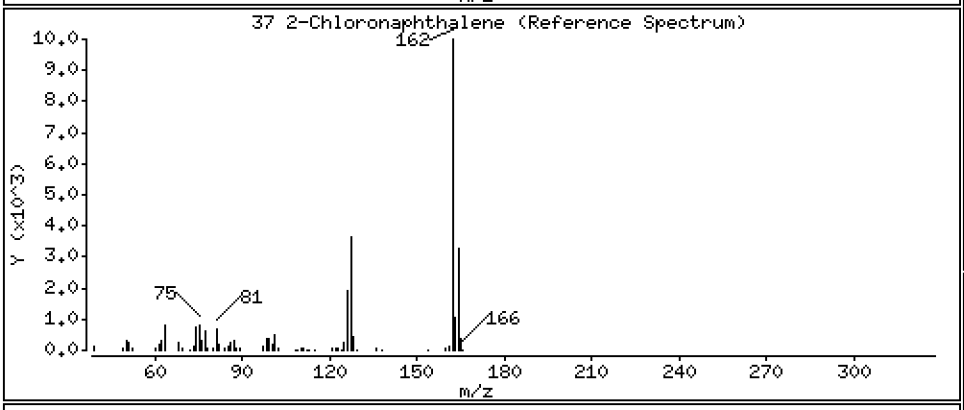
Column diameter: 0.25

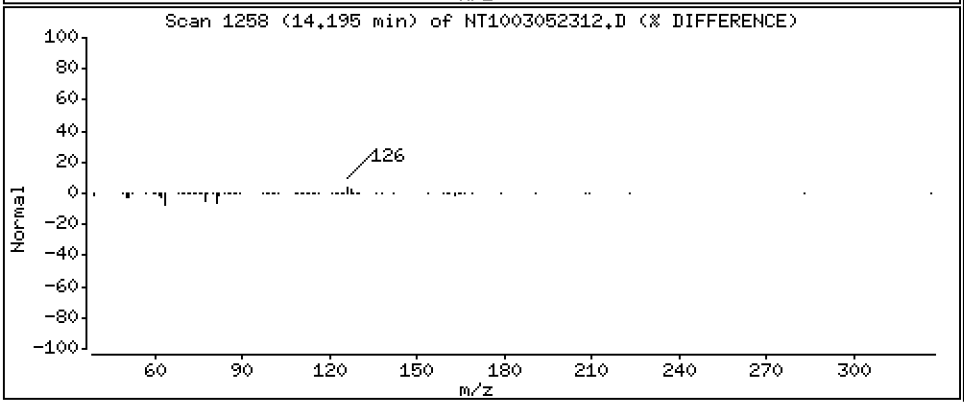
37 2-Chloronaphthalene

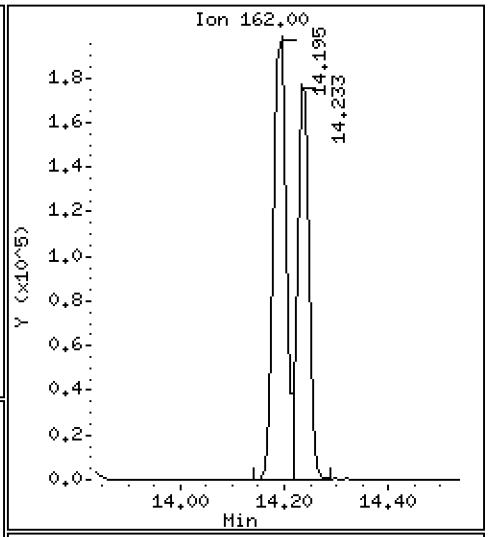
Concentration: 2.369 ug/mL

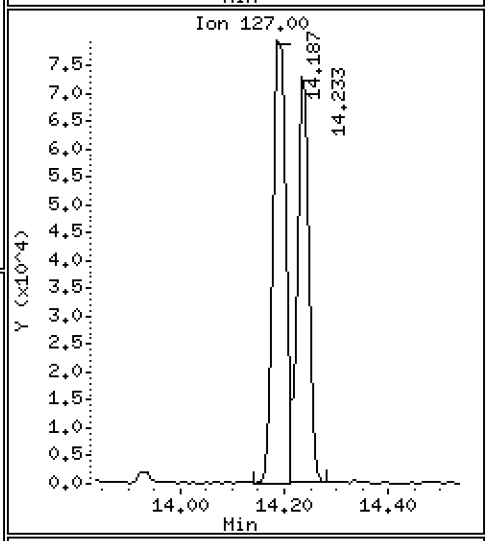


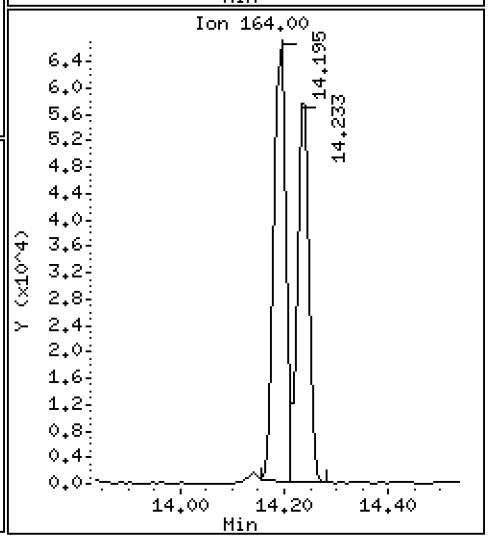












Date : 05-MAR-2023 20:22

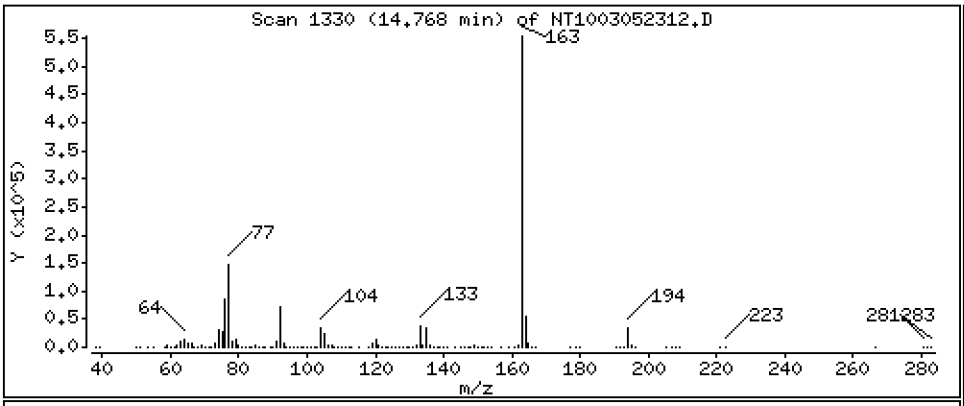
Client ID: Instrument: nt10.i

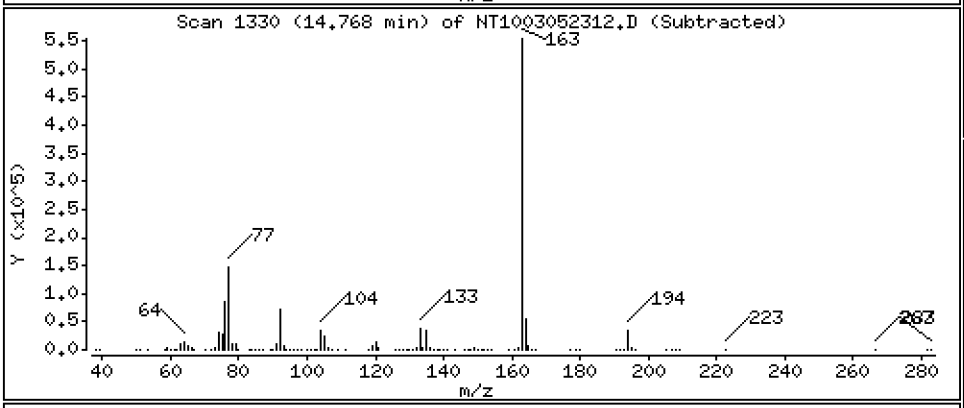
Sample Info: BLA0685-SRM1

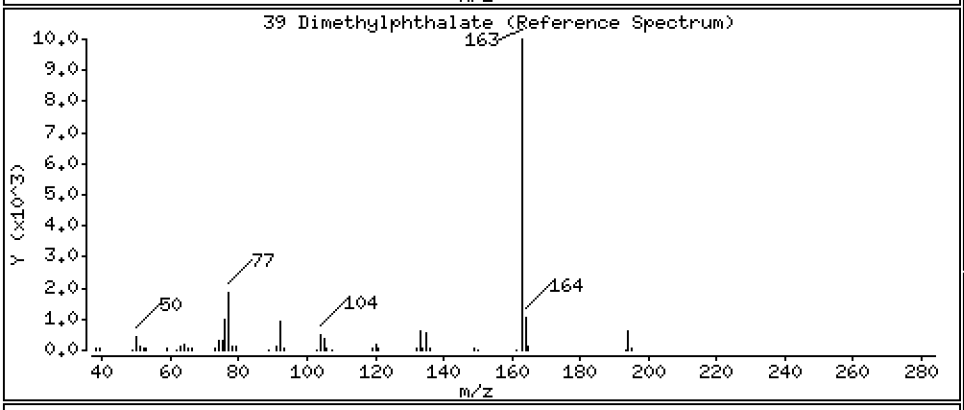
Operator: VTS

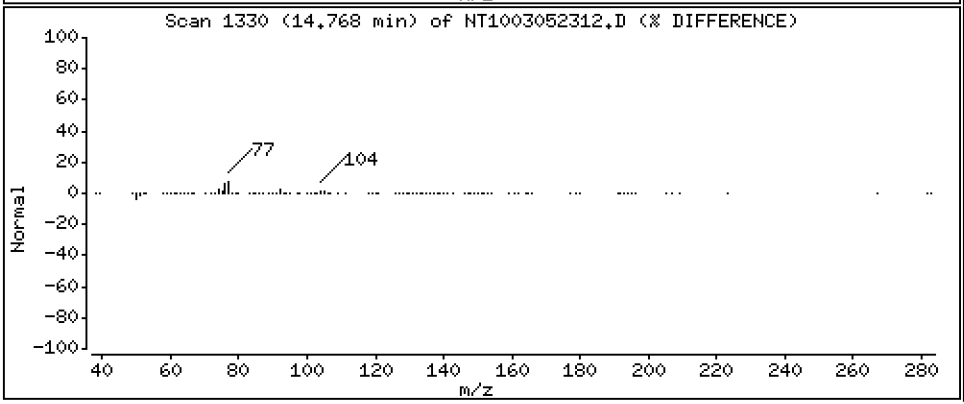
Column phase: ZB-5msi Column diameter: 0.25

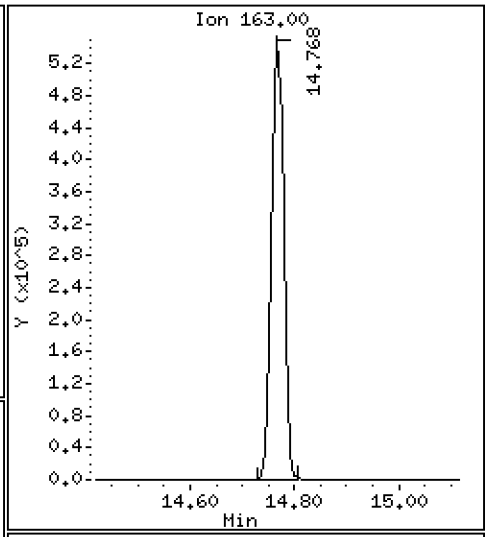
39 Dimethylphthalate Concentration: 5.265 ug/mL

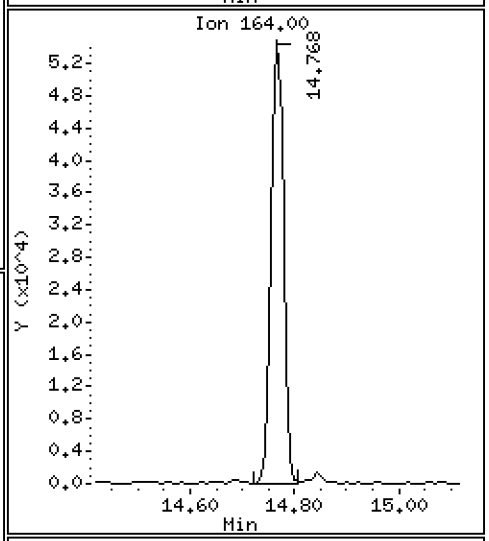


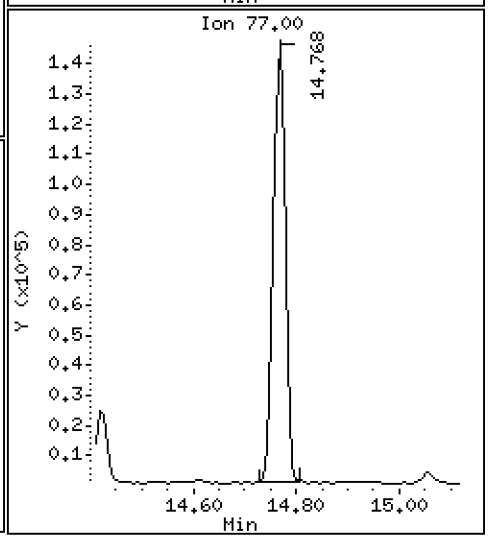












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

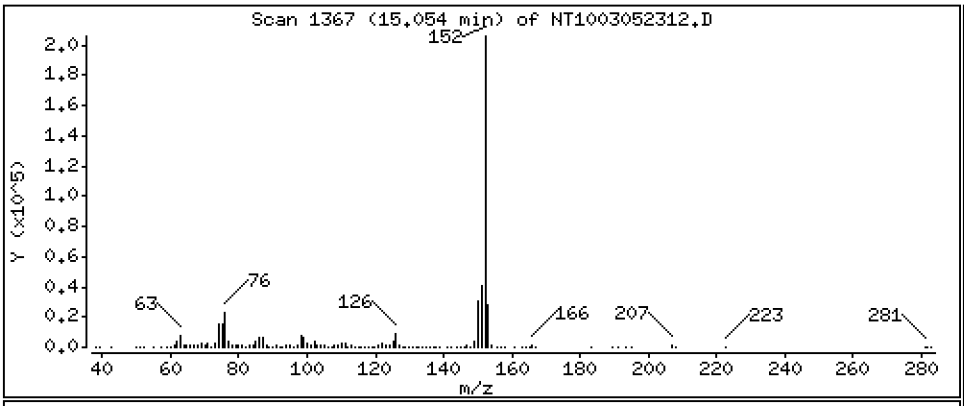
Operator: VTS

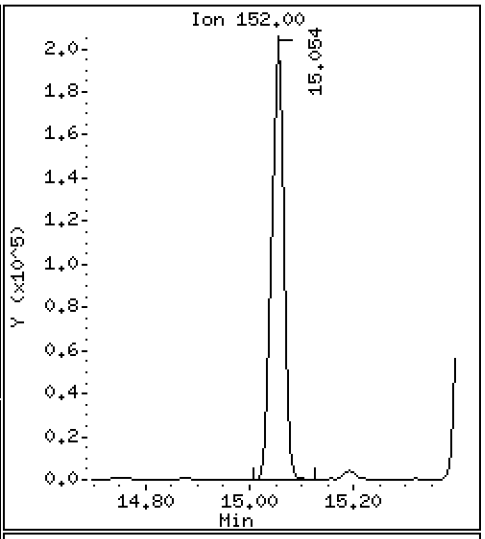
Column phase: ZB-5msi

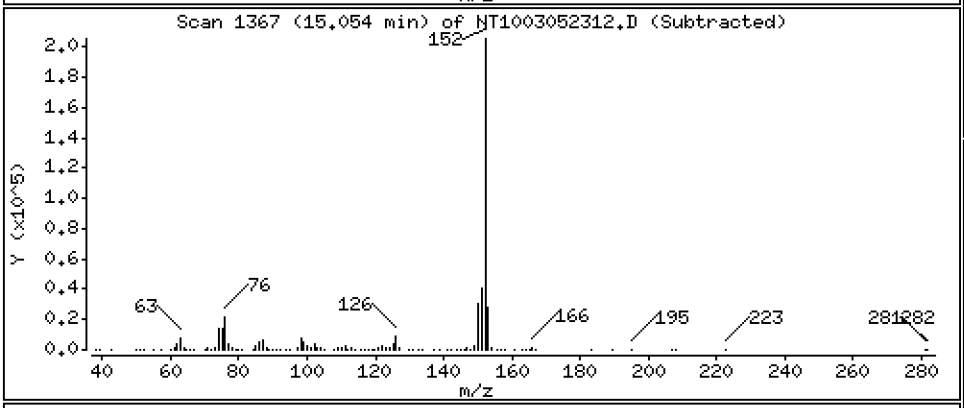
Column diameter: 0.25

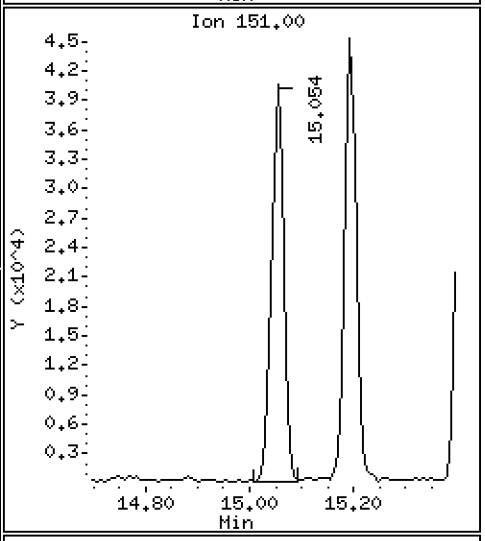
40 Acenaphthylene

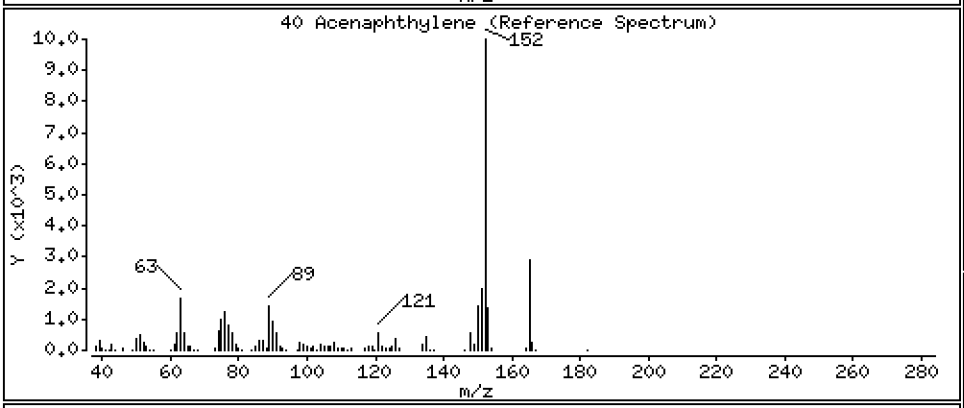
Concentration: 1.555 ug/mL

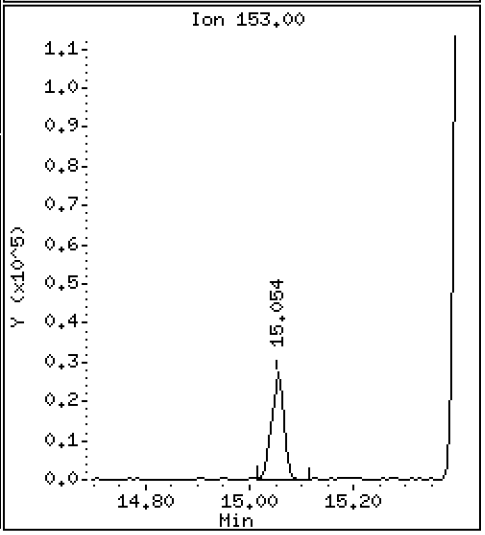


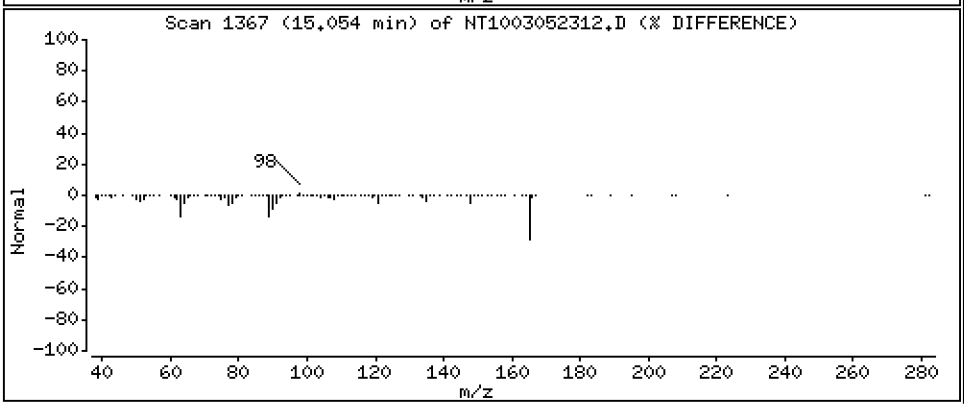












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

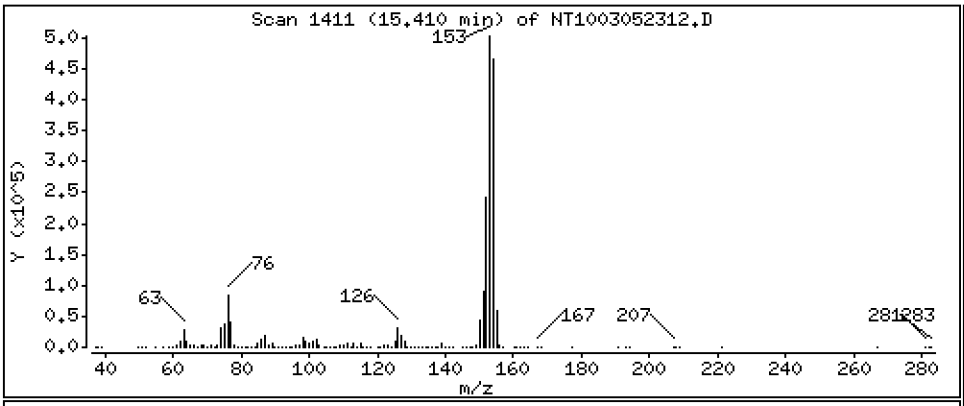
Operator: VTS

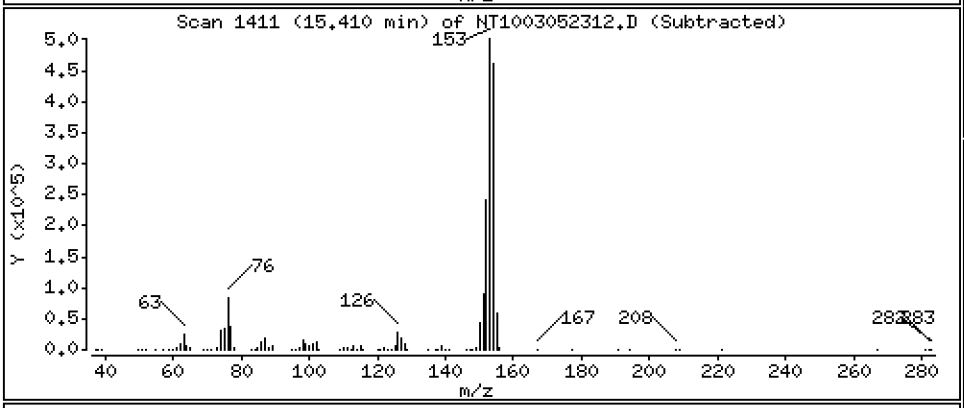
Column phase: ZB-5msi

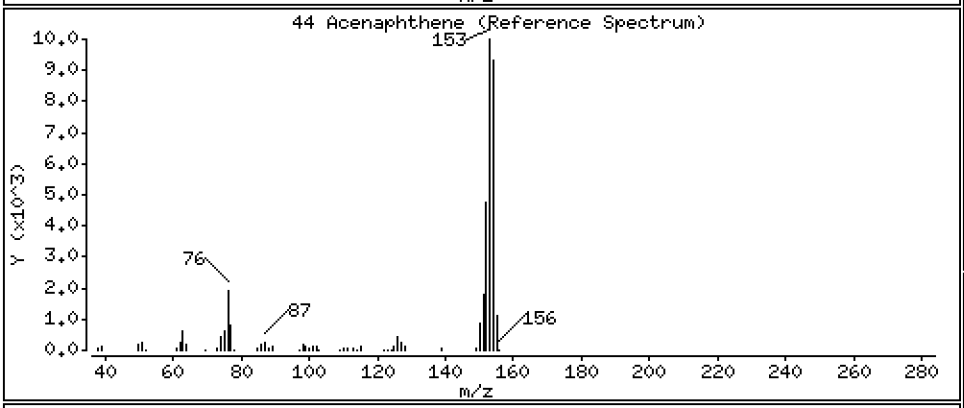
Column diameter: 0.25

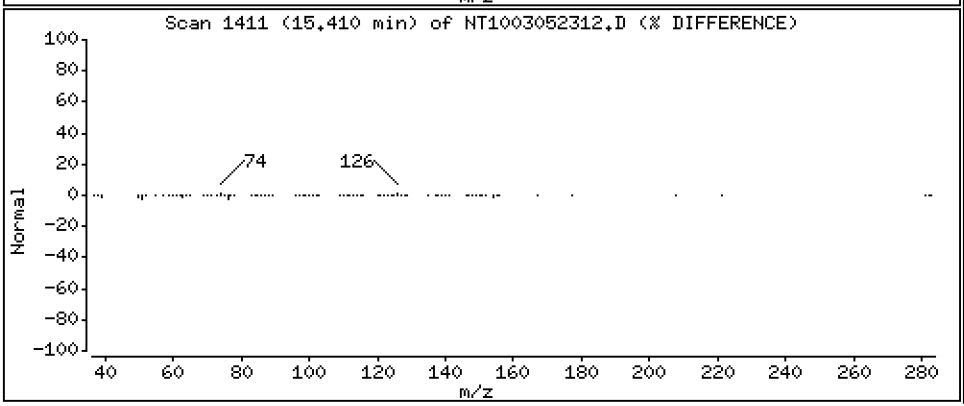
44 Acenaphthene

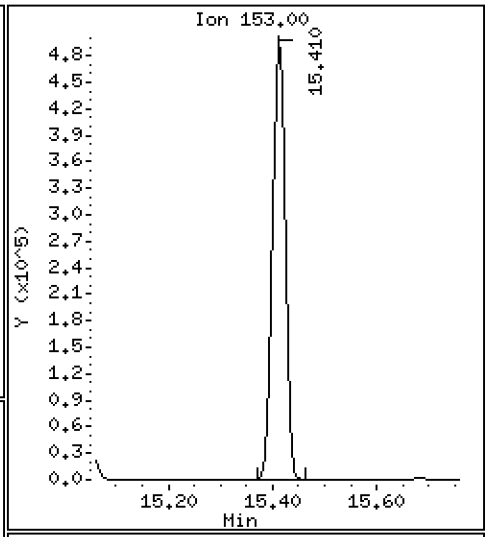
Concentration: 5.547 ug/mL

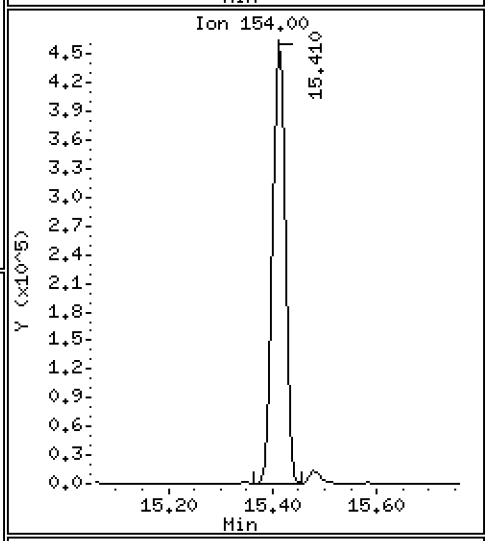


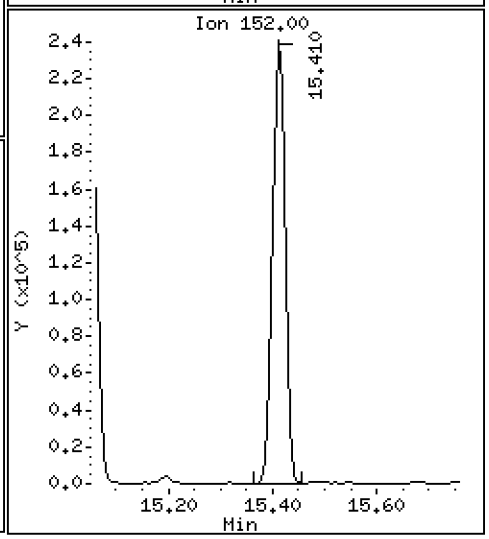












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

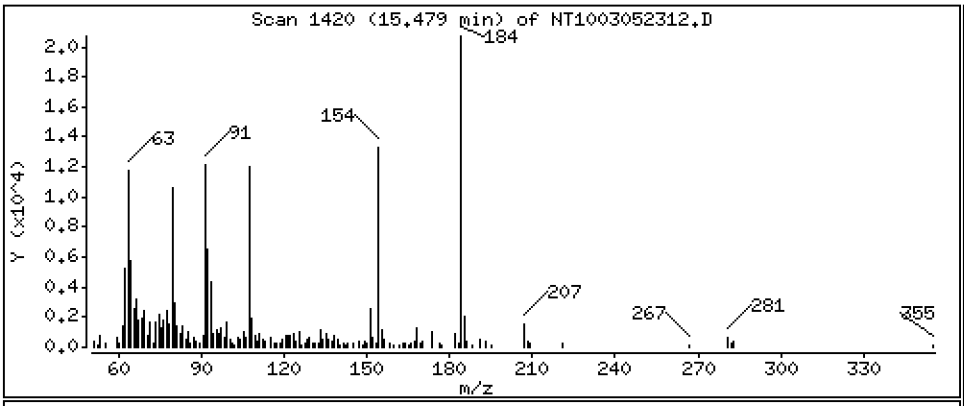
Operator: VTS

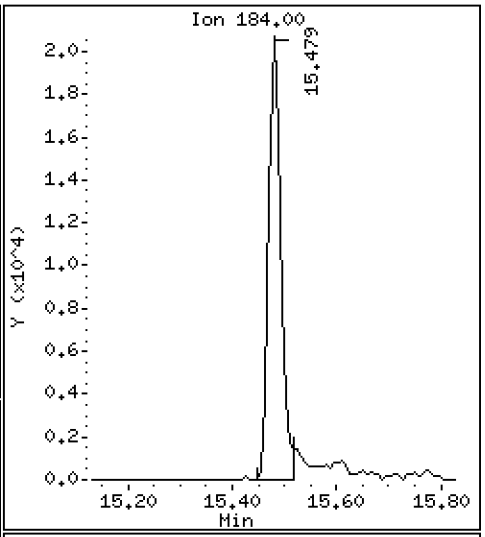
Column phase: ZB-5msi

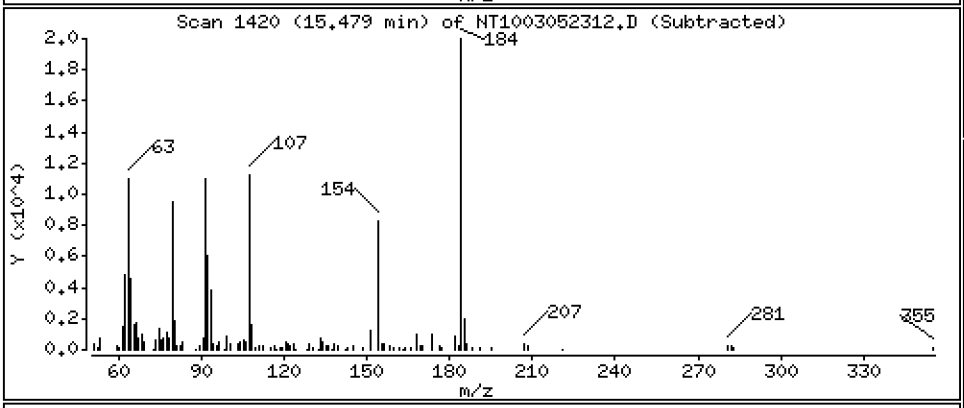
Column diameter: 0.25

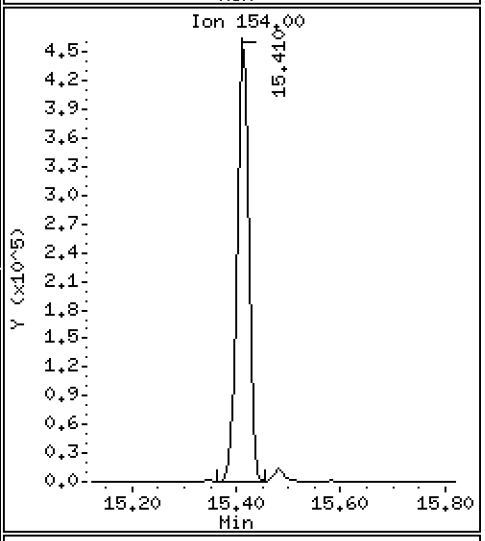
45 2,4-Dinitrophenol

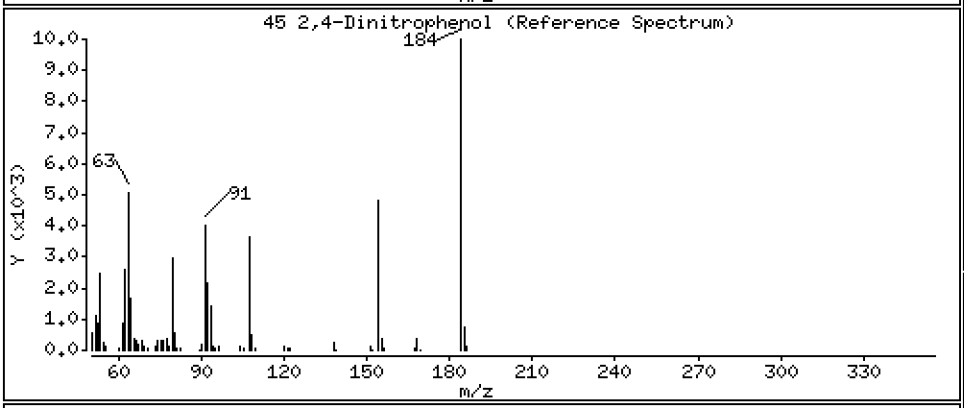
Concentration: 3.470 ug/mL

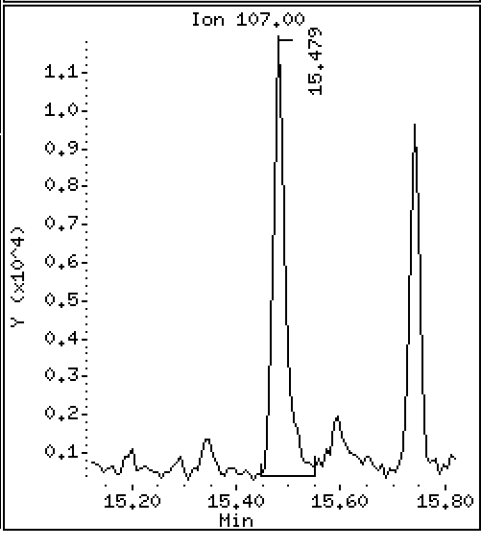


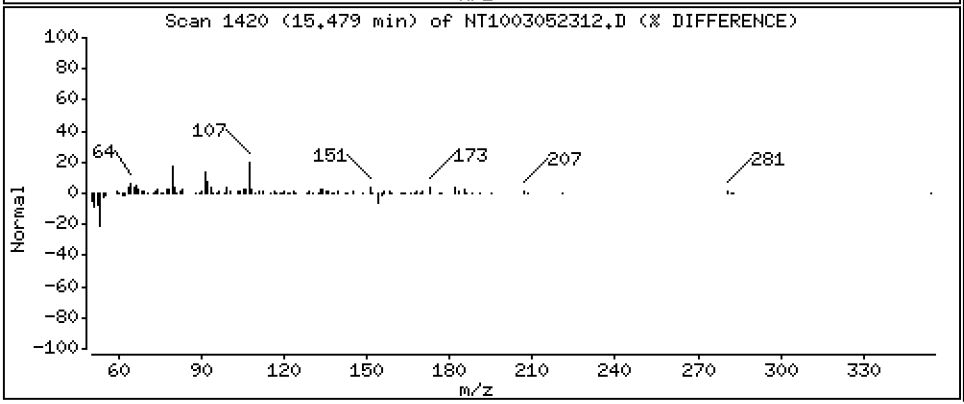












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

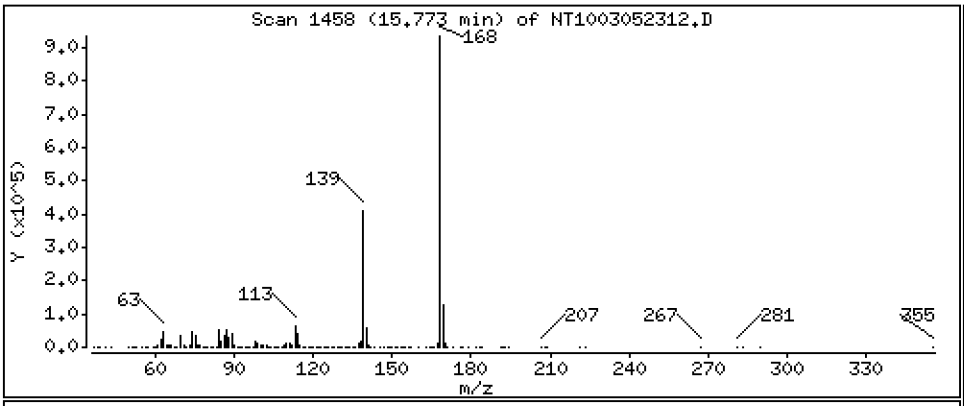
Operator: VTS

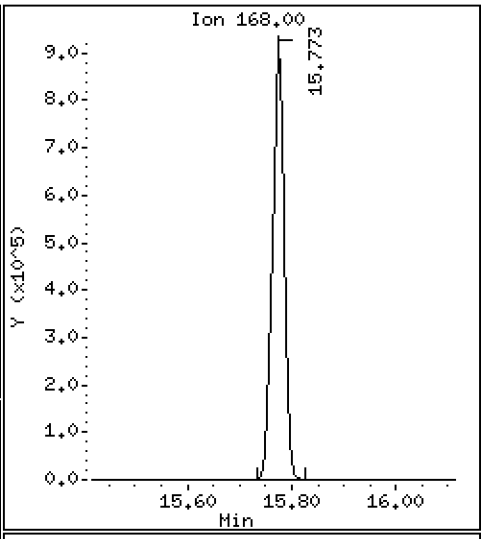
Column phase: ZB-5msi

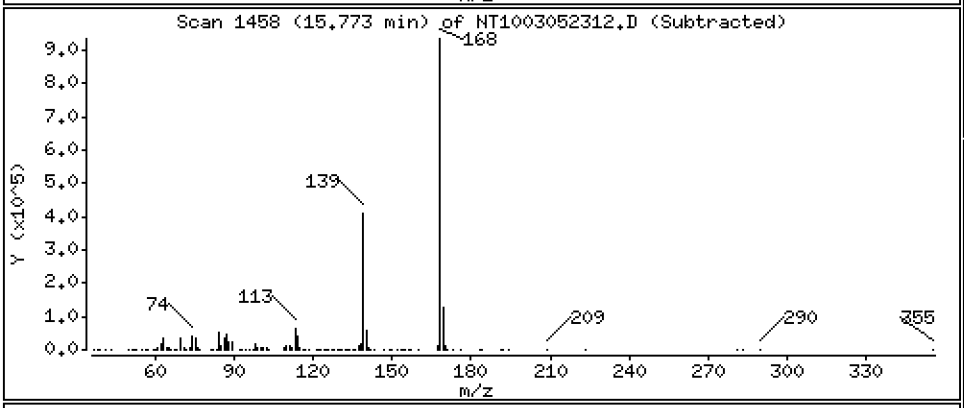
Column diameter: 0.25

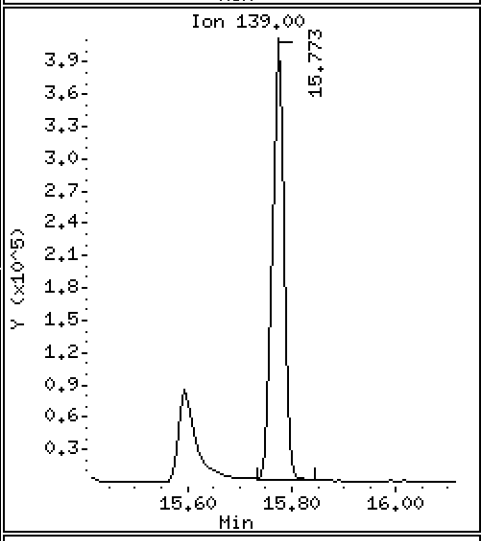
46 Dibenzofuran

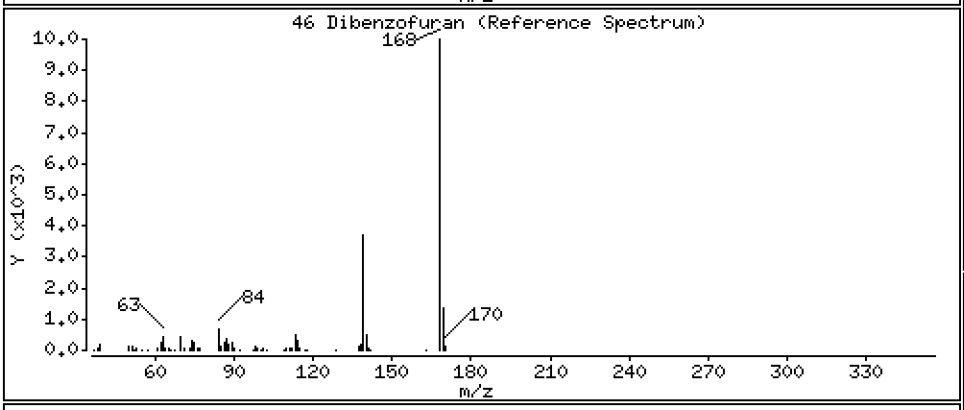
Concentration: 6.573 ug/mL

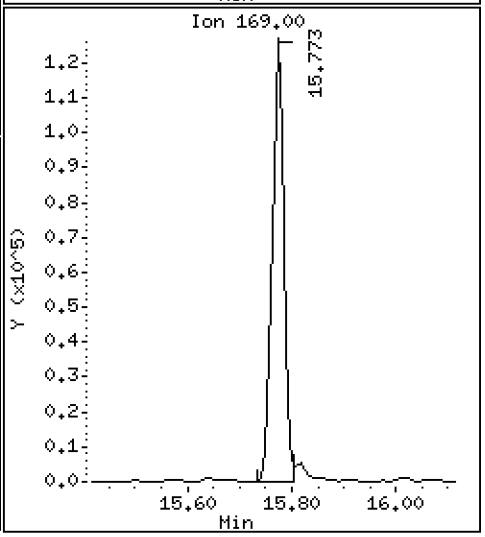


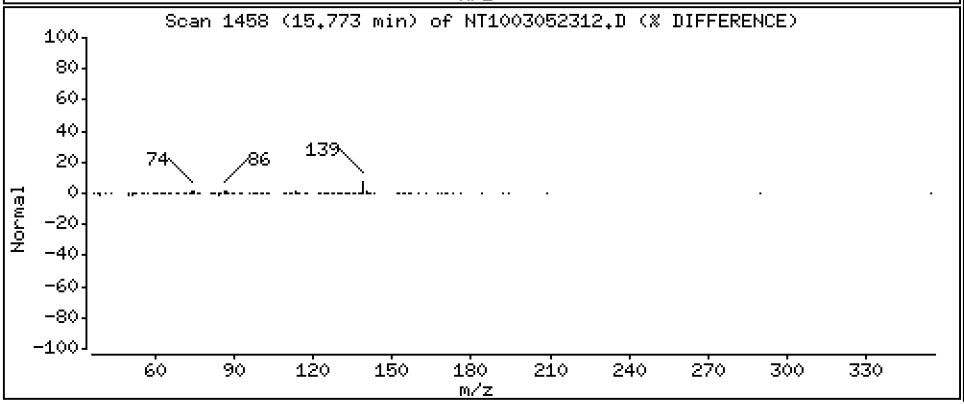












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

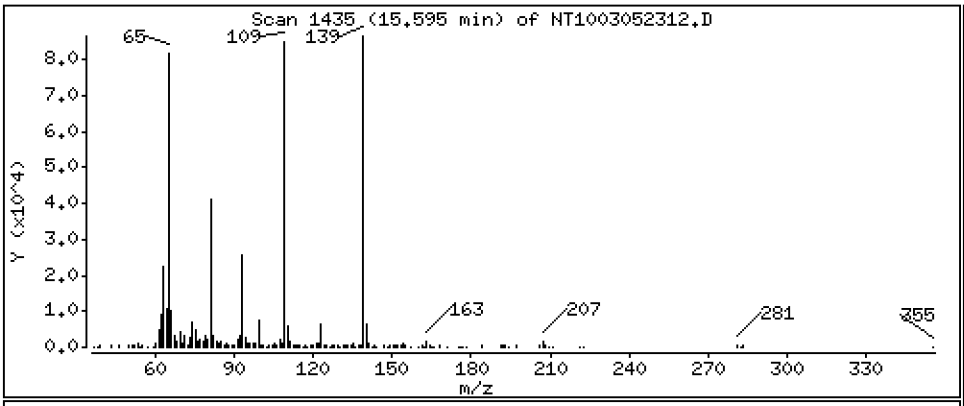
Operator: VTS

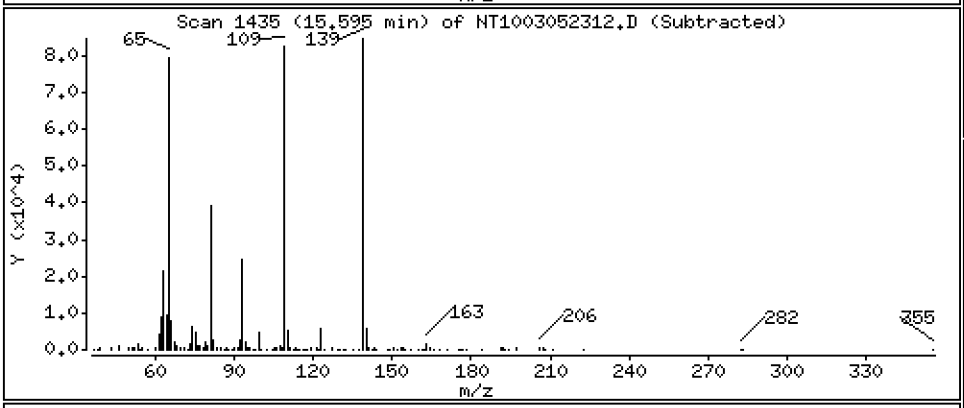
Column phase: ZB-5msi

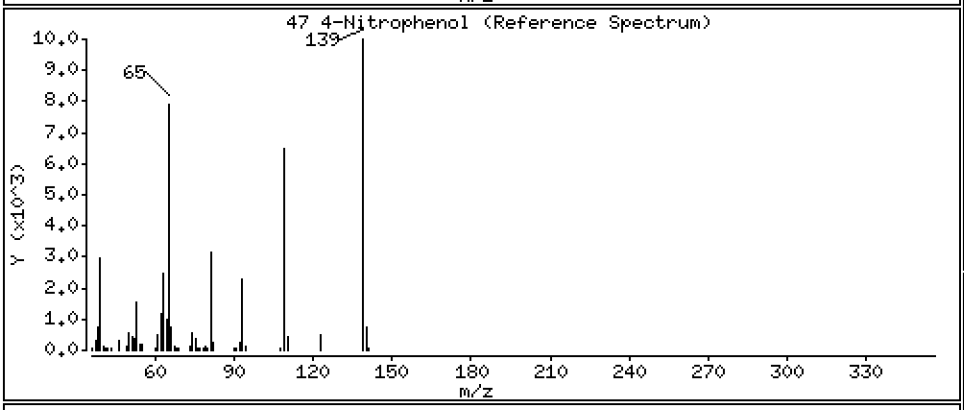
Column diameter: 0.25

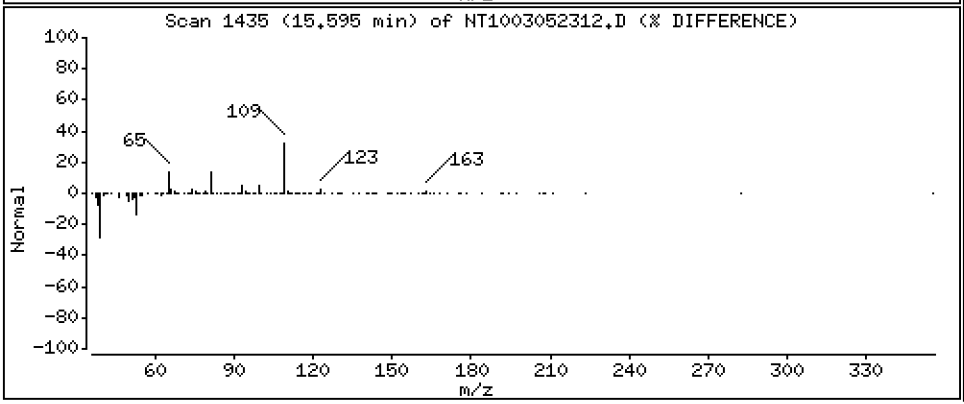
47 4-Nitrophenol

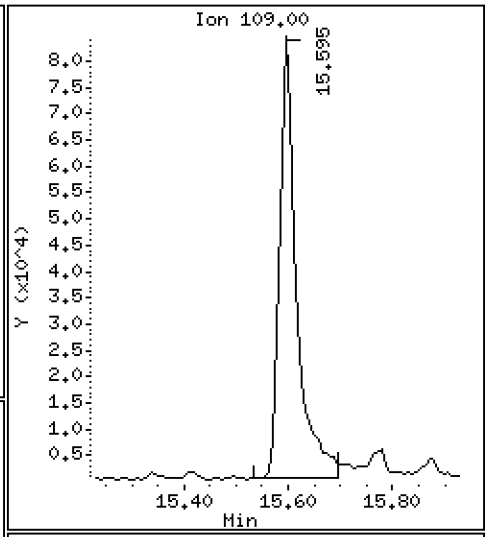
Concentration: 6.515 ug/mL

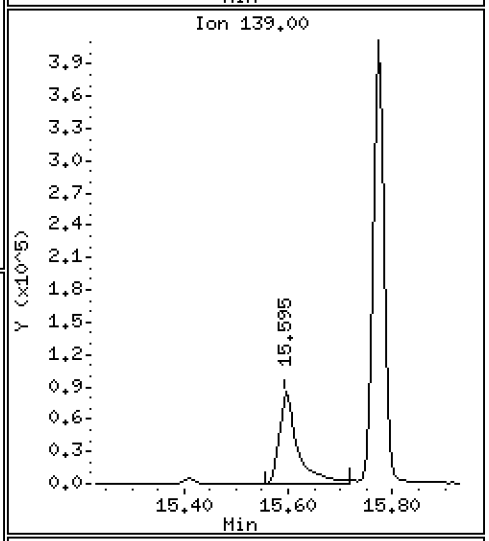


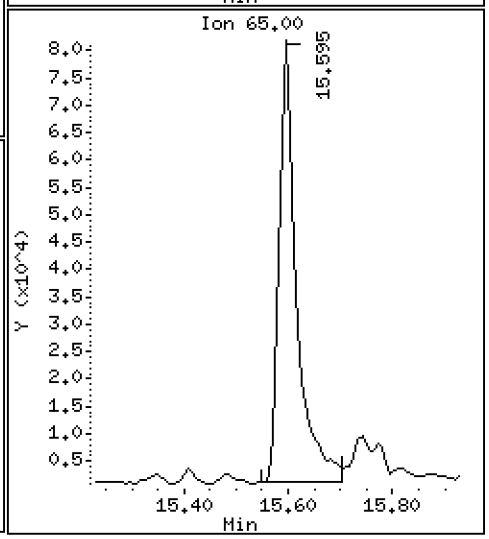












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

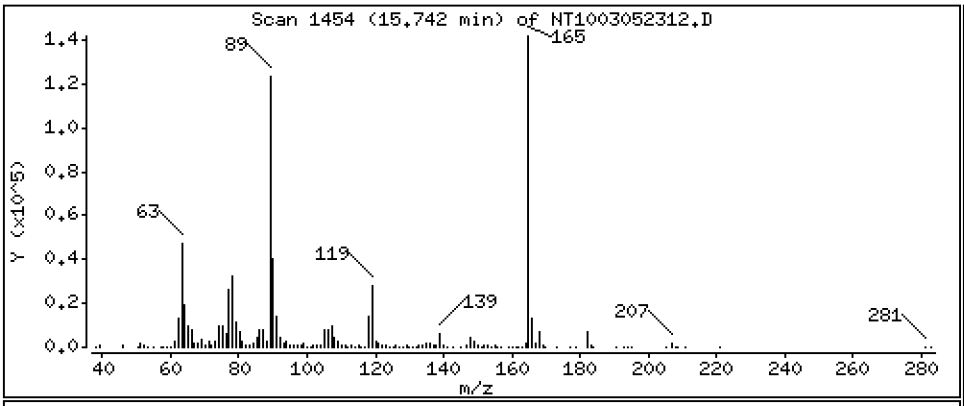
Operator: VTS

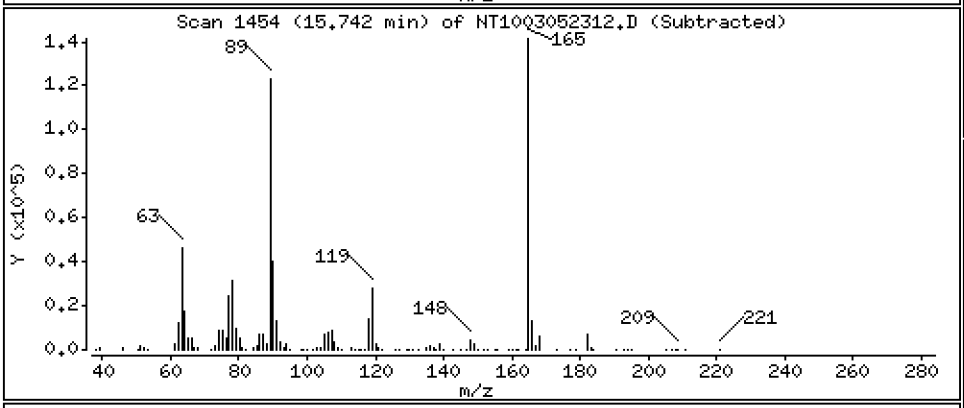
Column phase: ZB-5msi

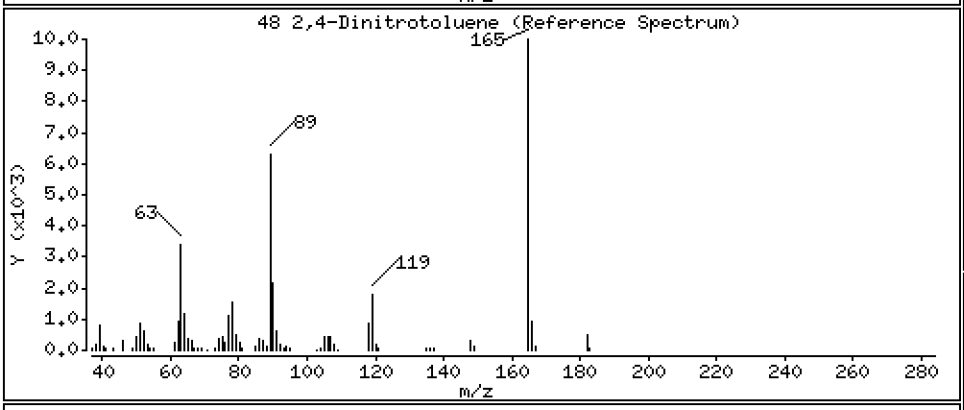
Column diameter: 0.25

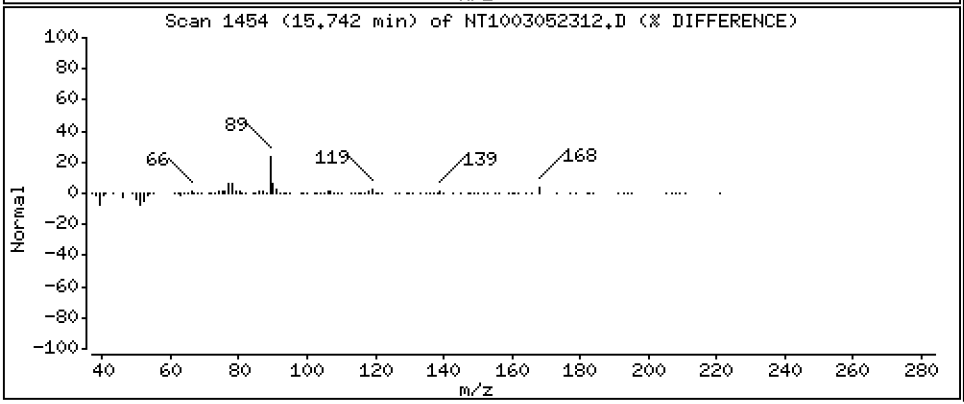
48 2,4-Dinitrotoluene

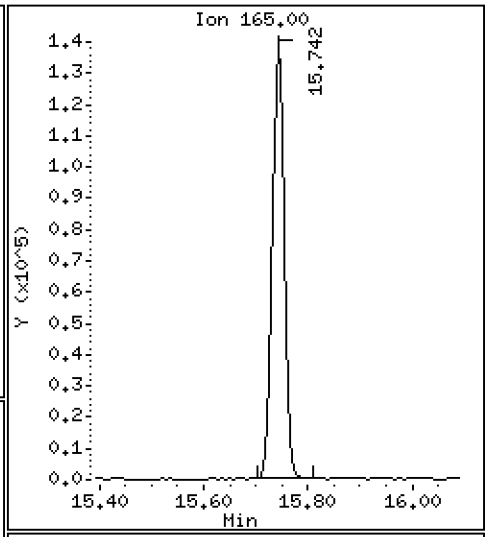
Concentration: 4.010 ug/mL

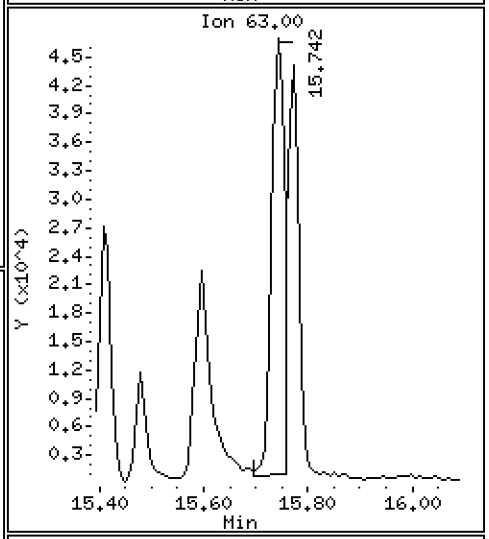


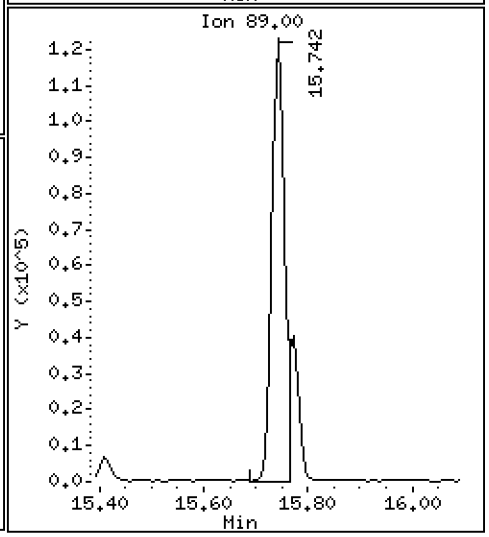












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

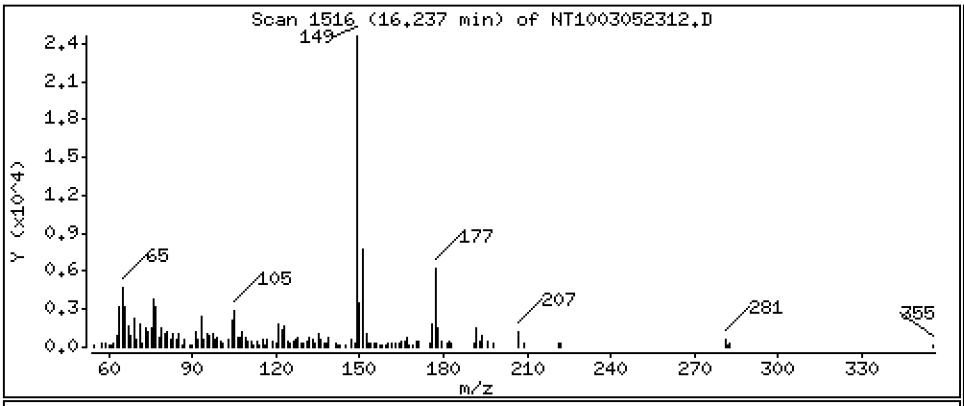
Operator: VTS

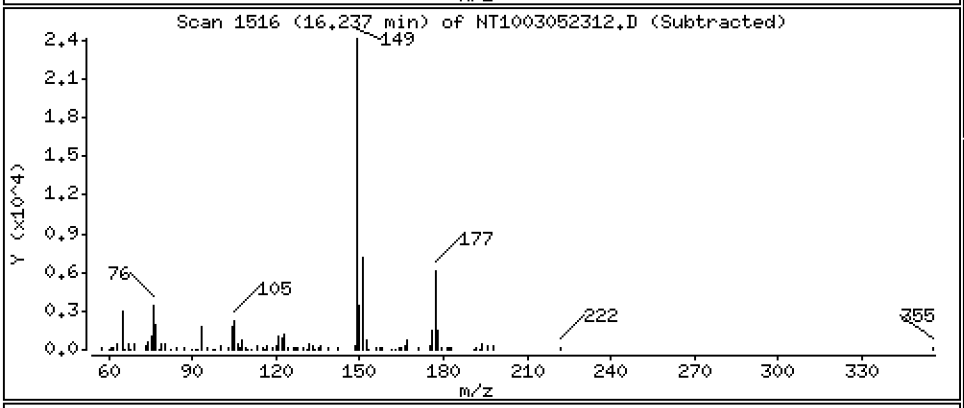
Column phase: ZB-5msi

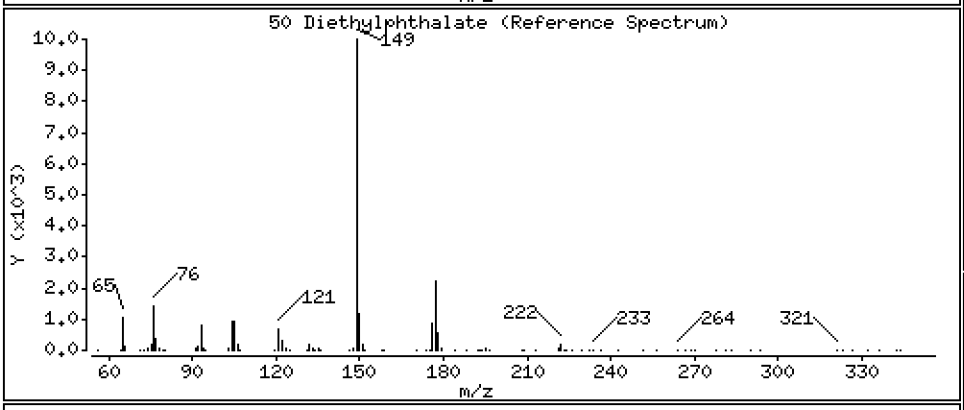
Column diameter: 0.25

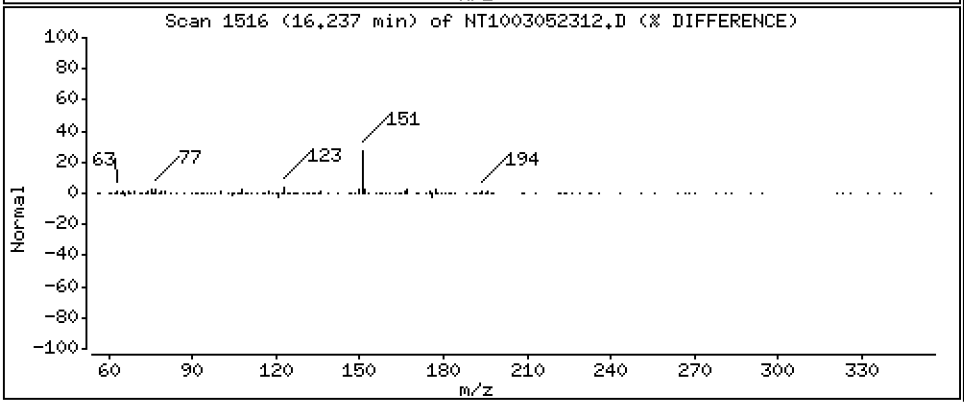
50 Diethylphthalate

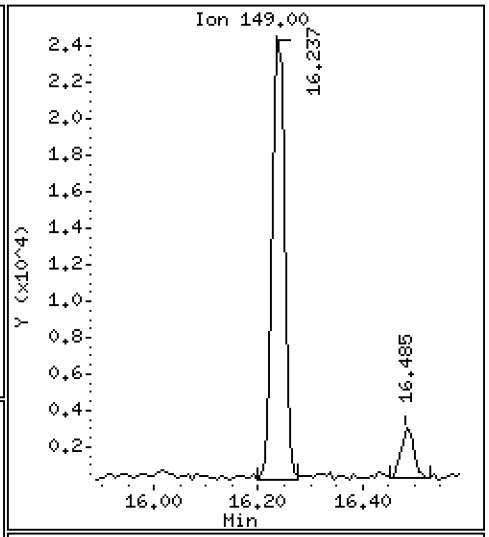
Concentration: 0.2234 ug/mL

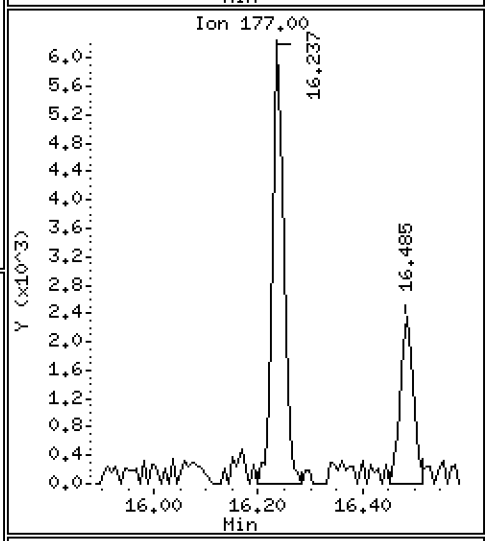


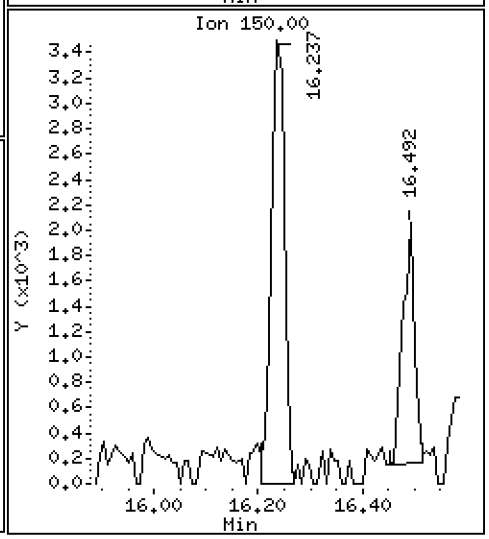












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

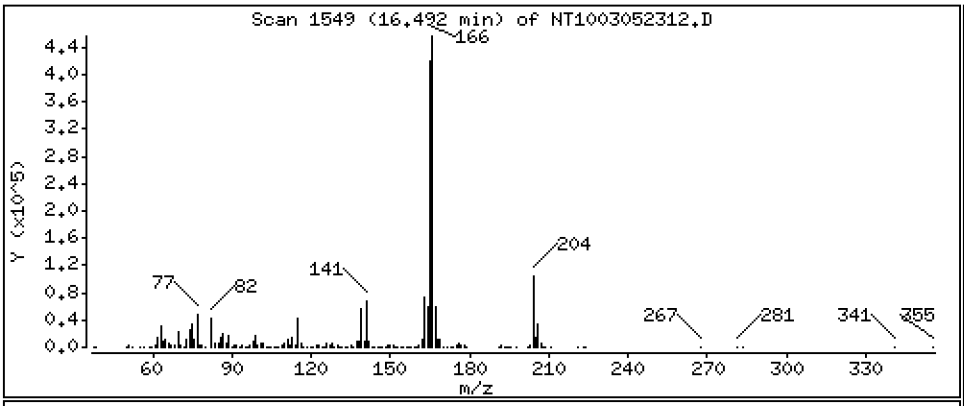
Operator: VTS

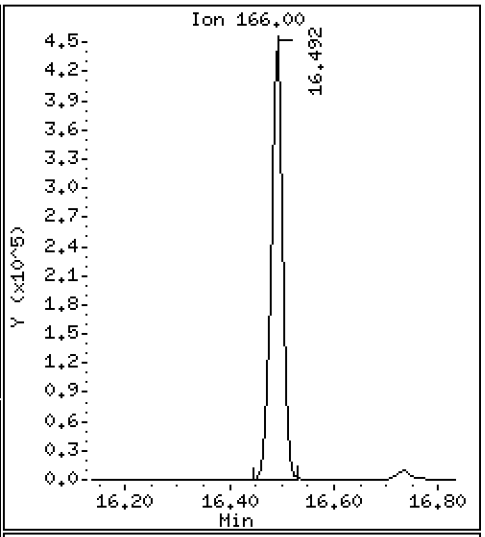
Column phase: ZB-5msi

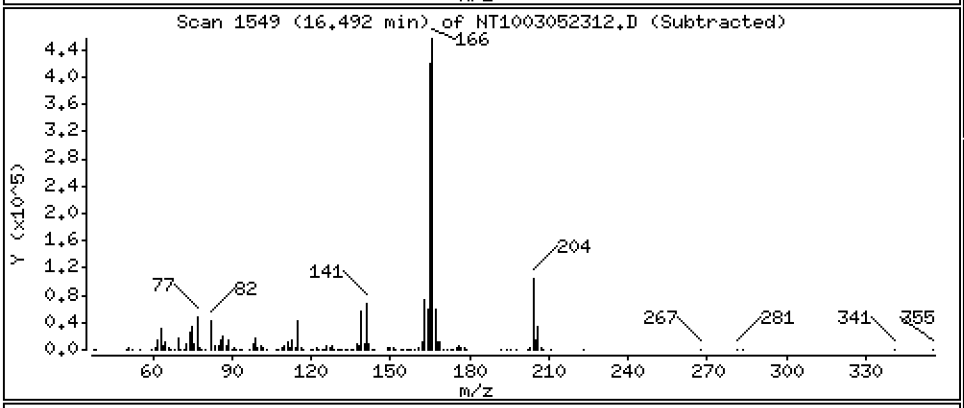
Column diameter: 0.25

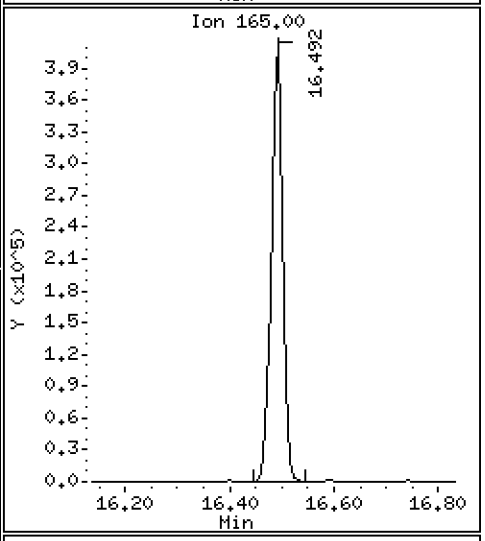
49 Fluorene

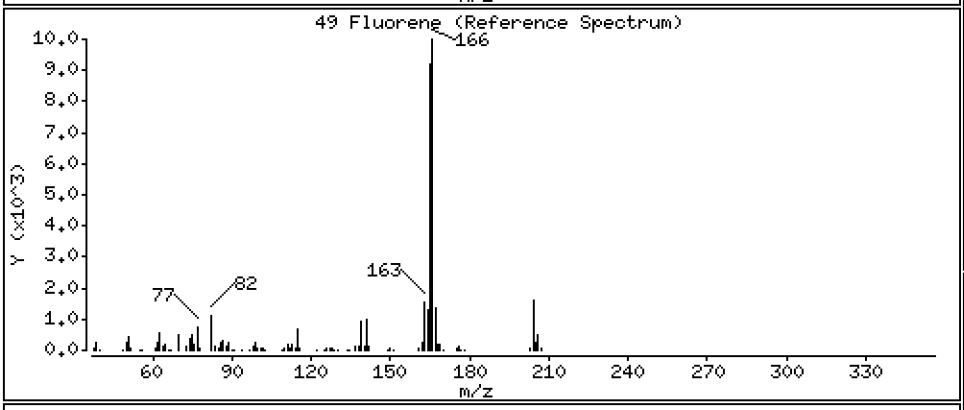
Concentration: 3.900 ug/mL

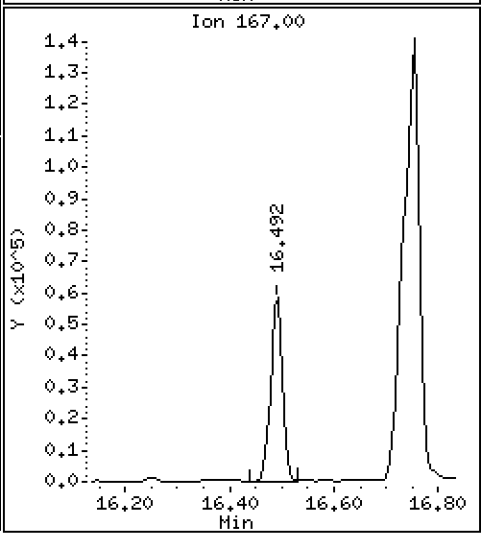


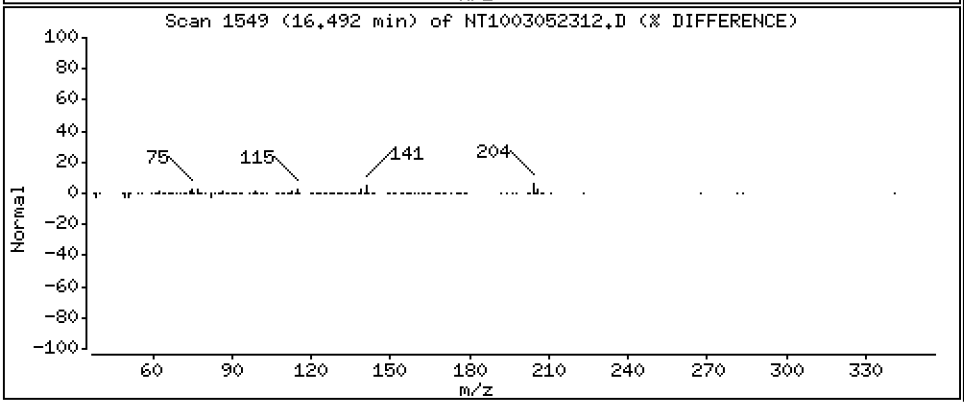












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

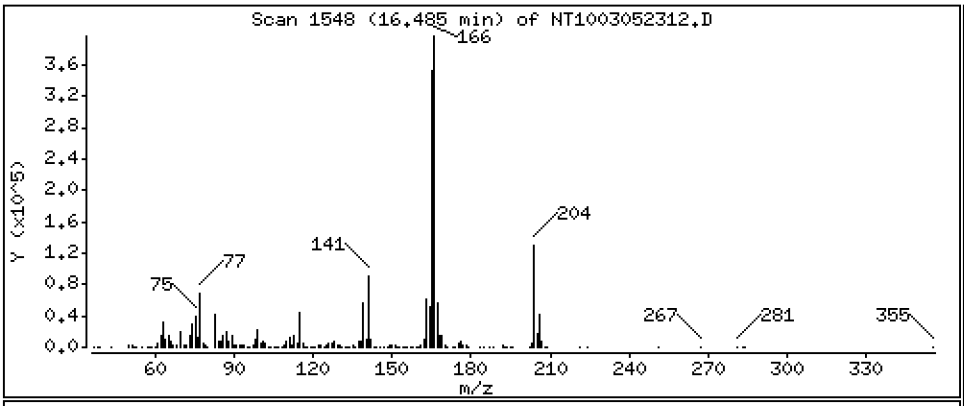
Operator: VTS

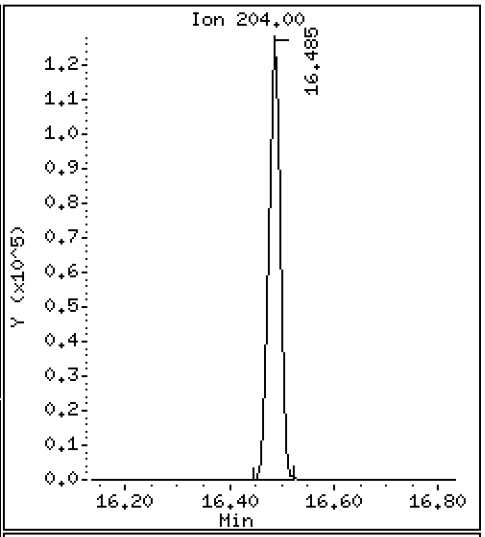
Column phase: ZB-5msi

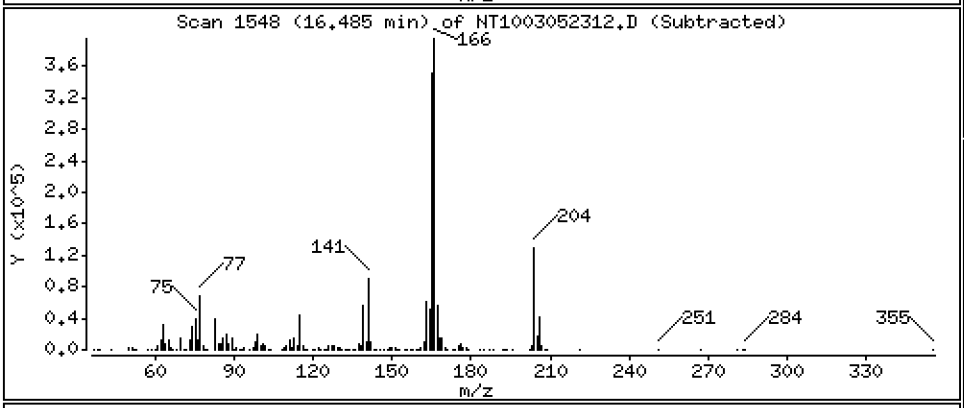
Column diameter: 0.25

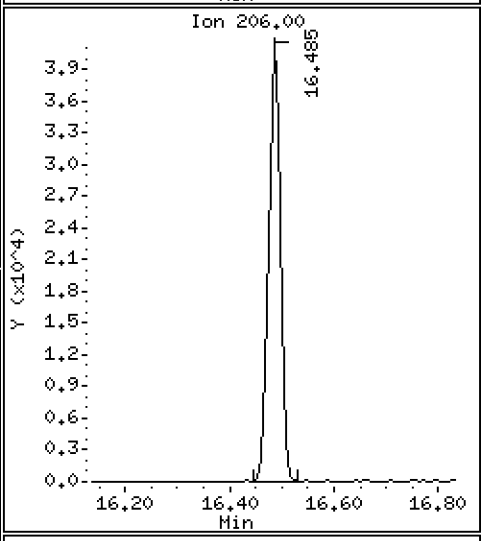
51 4-Chlorophenyl-phenylether

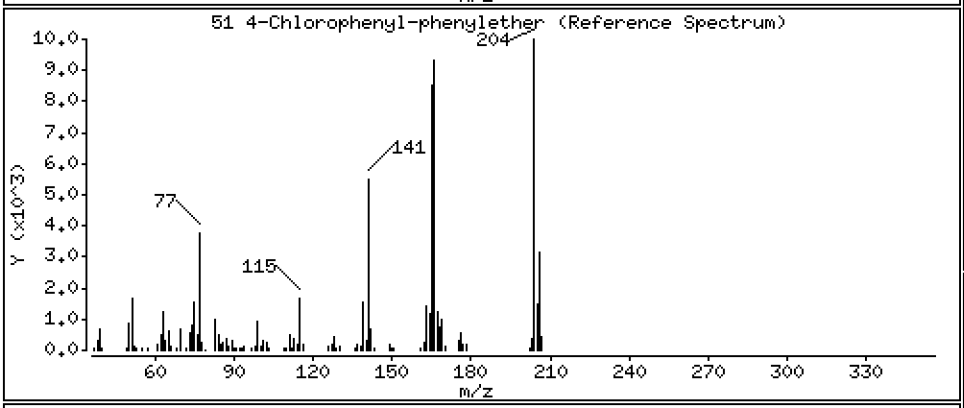
Concentration: 2.427 ug/mL

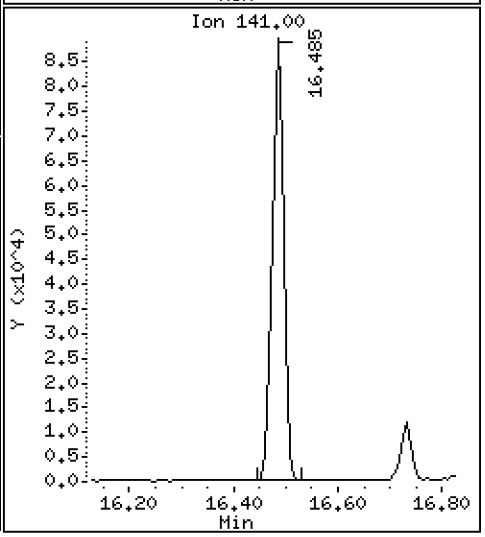


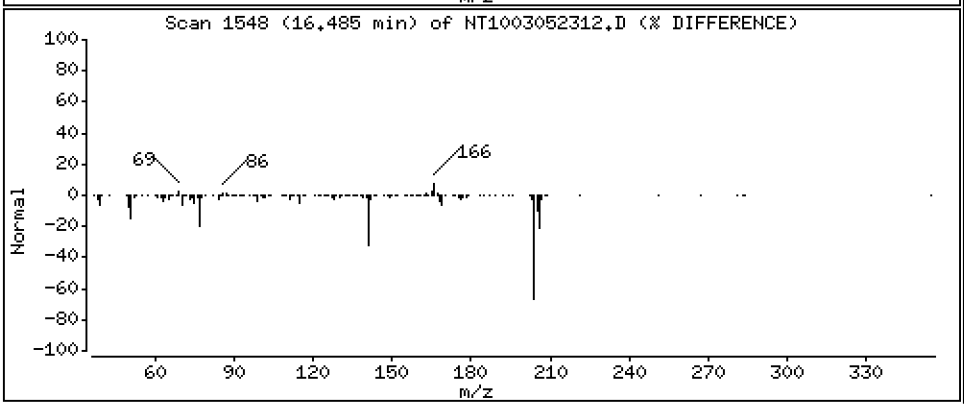












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

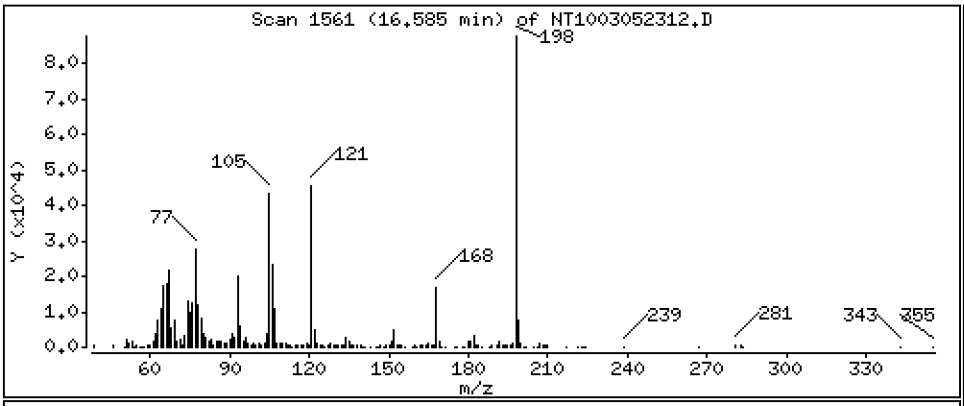
Operator: VTS

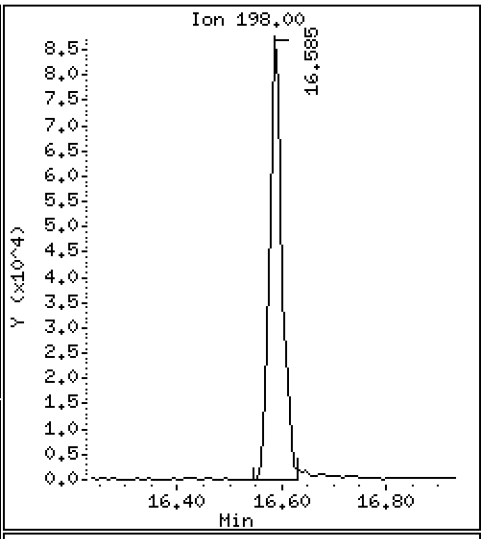
Column phase: ZB-5msi

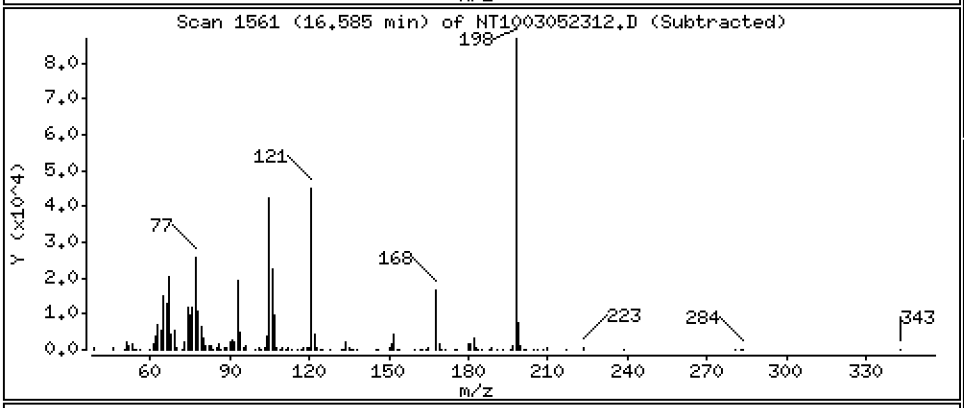
Column diameter: 0.25

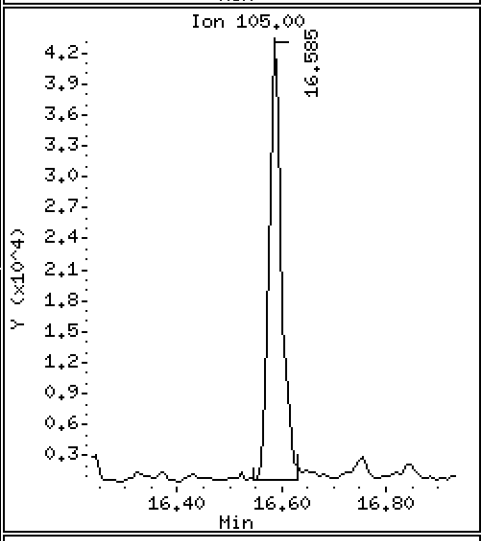
53 4,6-Dinitro-2-methylphenol

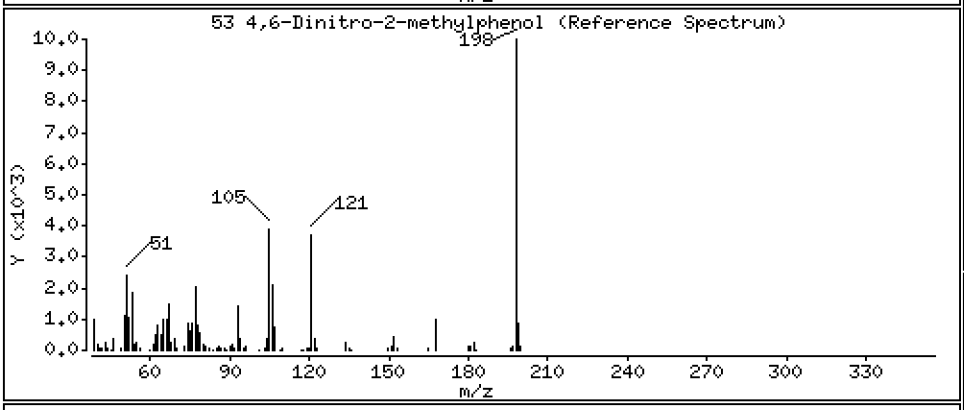
Concentration: 7.211 ug/mL

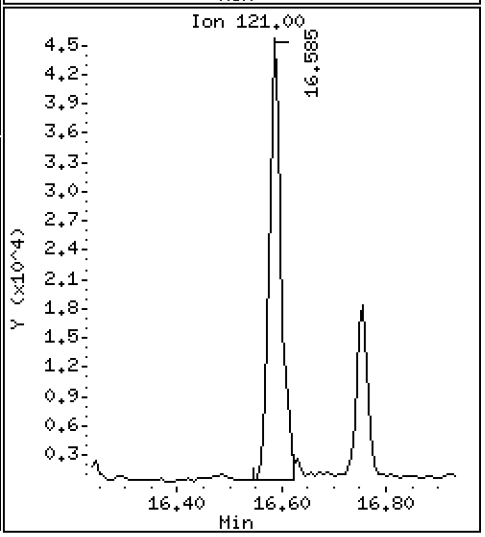


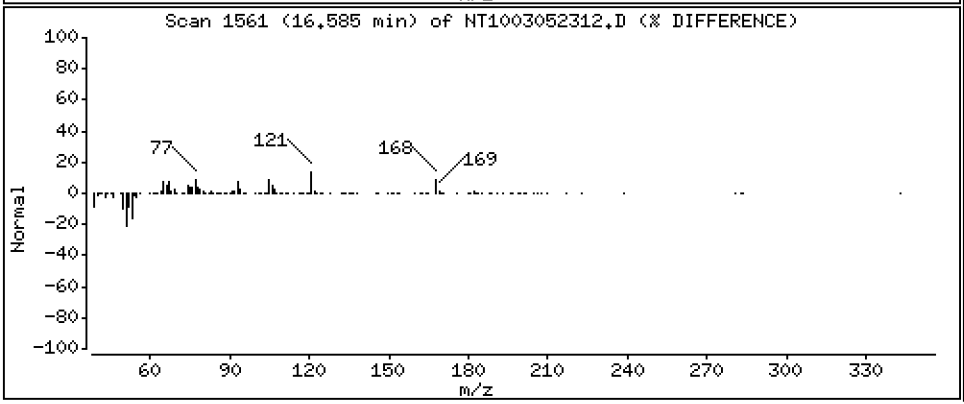












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

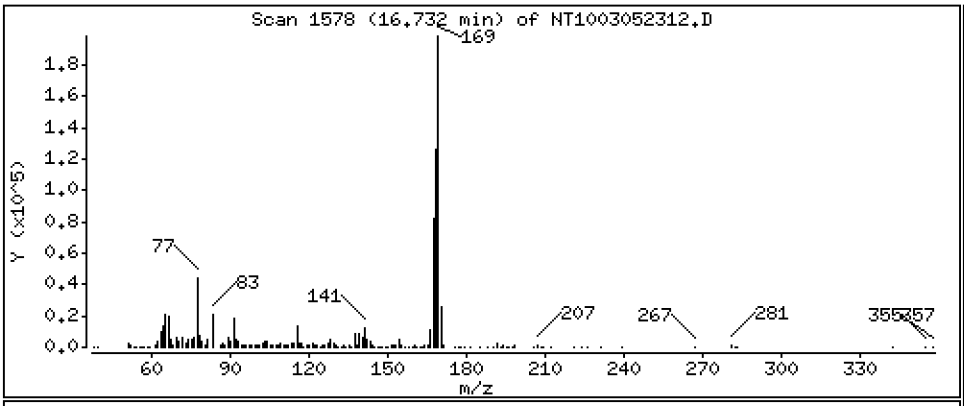
Operator: VTS

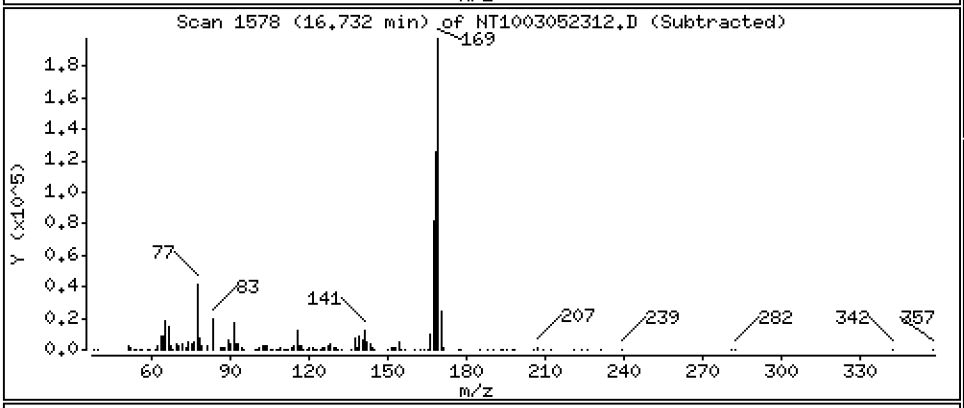
Column phase: ZB-5msi

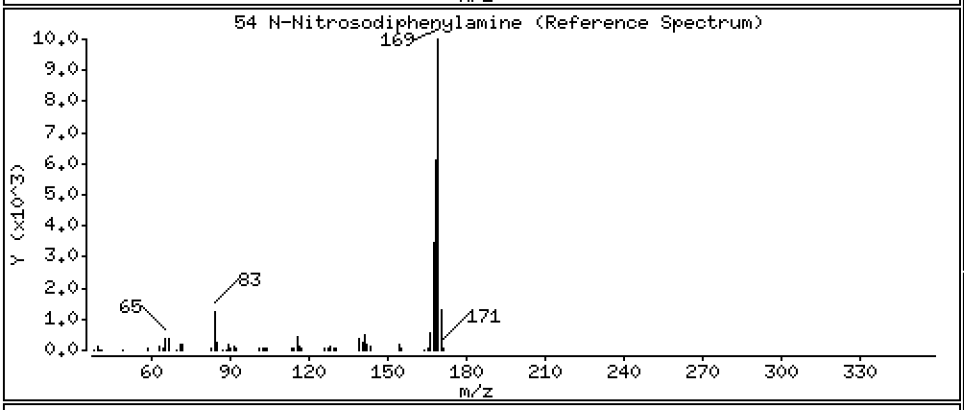
Column diameter: 0.25

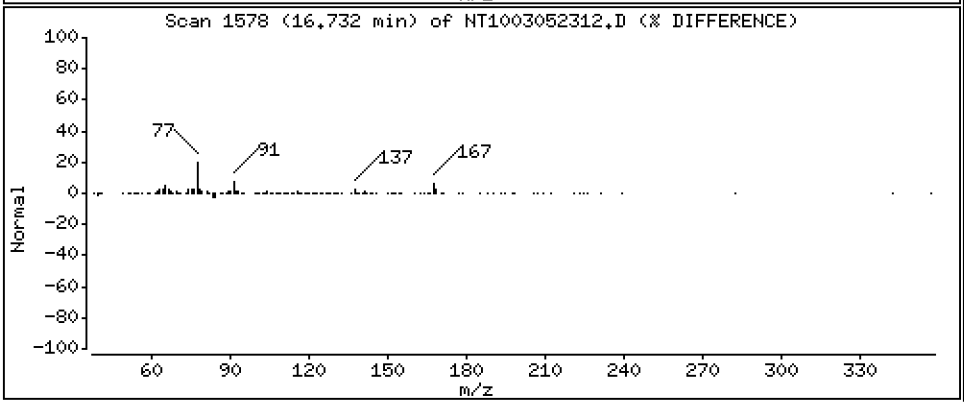
54 N-Nitrosodiphenylamine

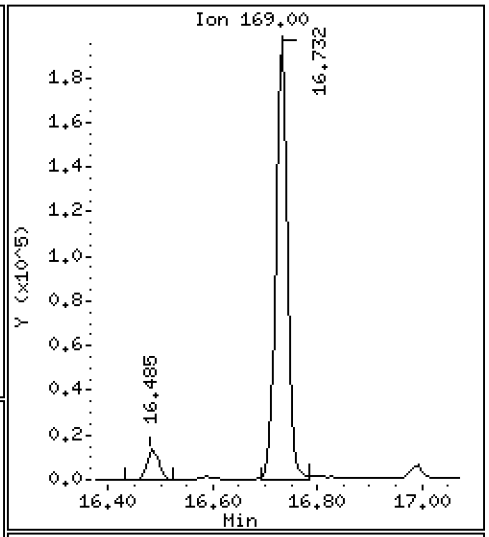
Concentration: 2.263 ug/mL

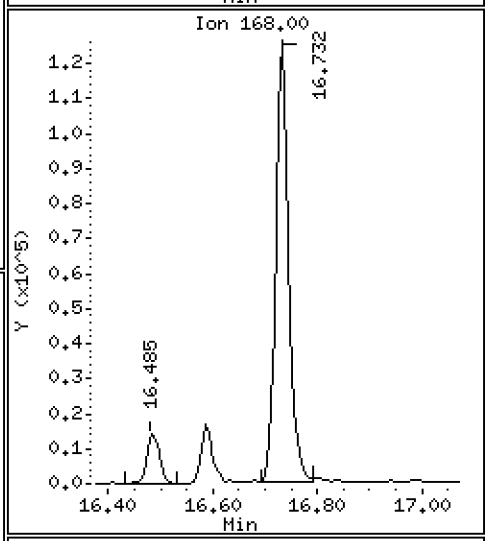


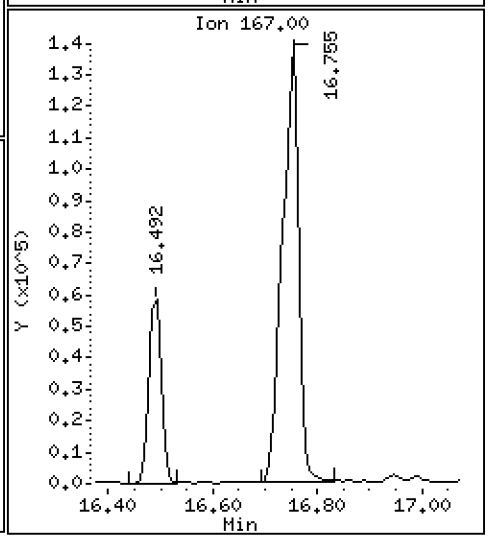












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

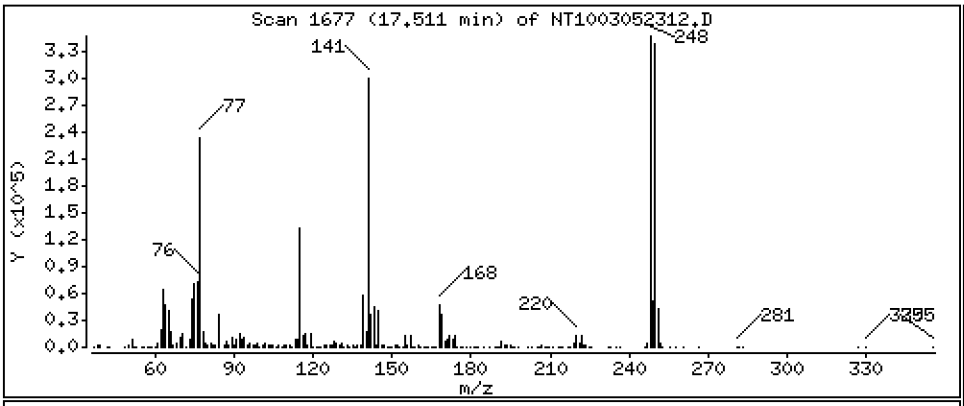
Operator: VTS

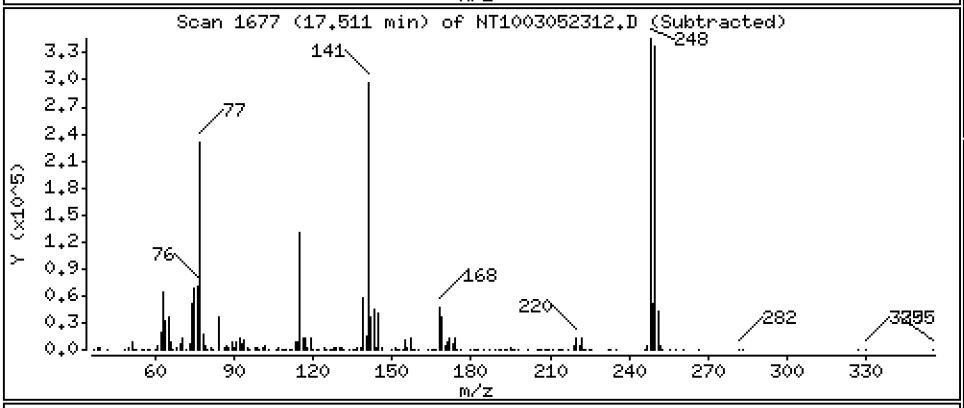
Column phase: ZB-5msi

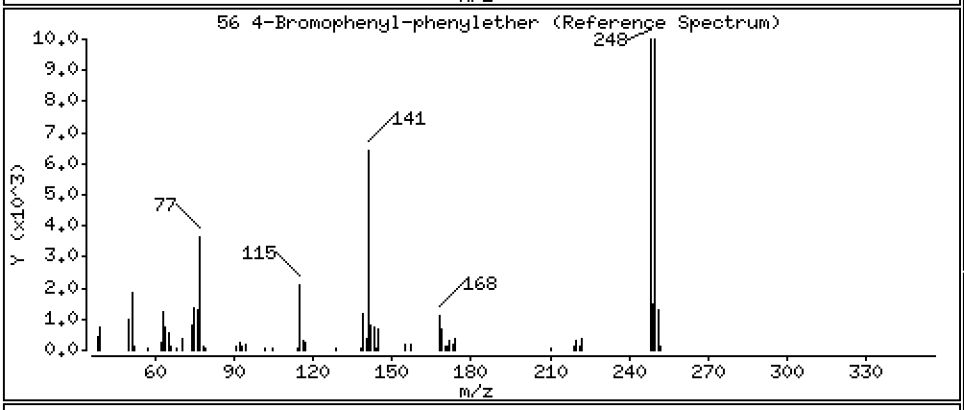
Column diameter: 0.25

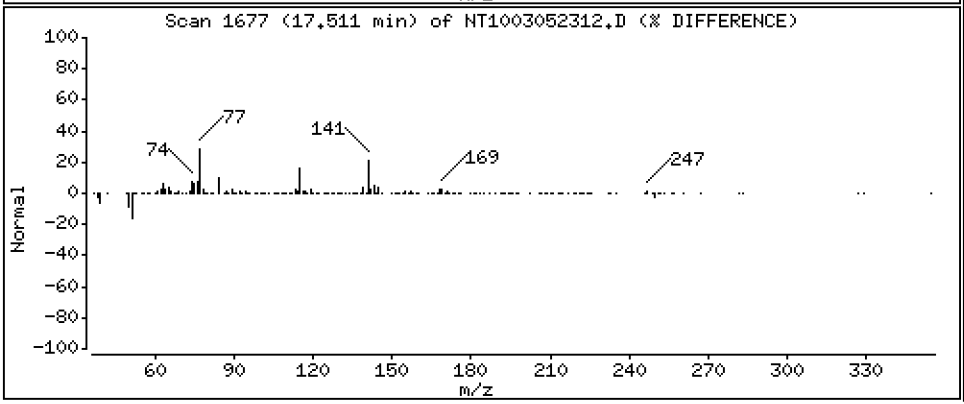
56 4-Bromophenyl-phenylether

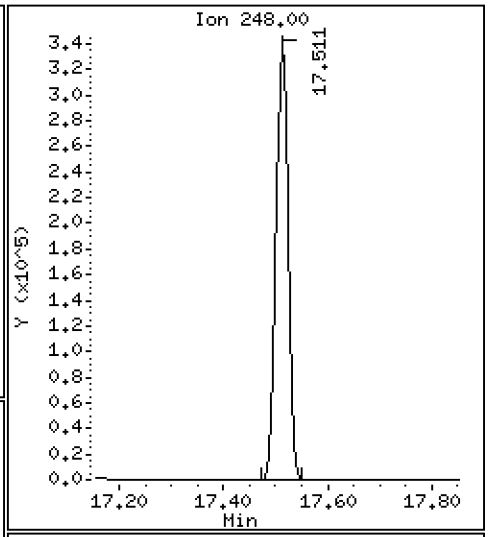
Concentration: 9.435 ug/mL

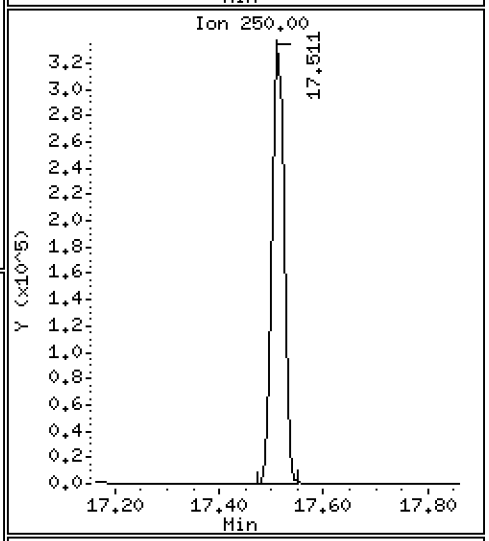


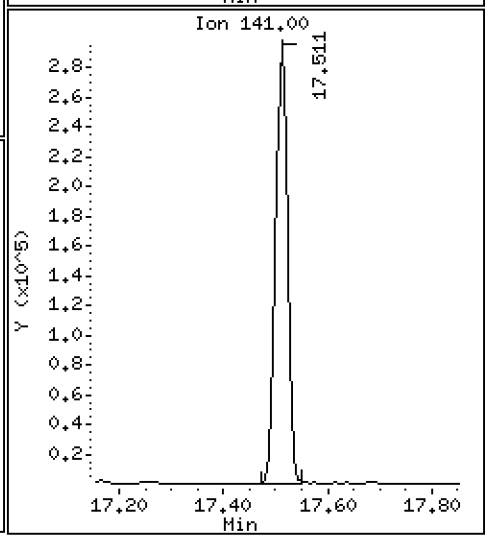












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

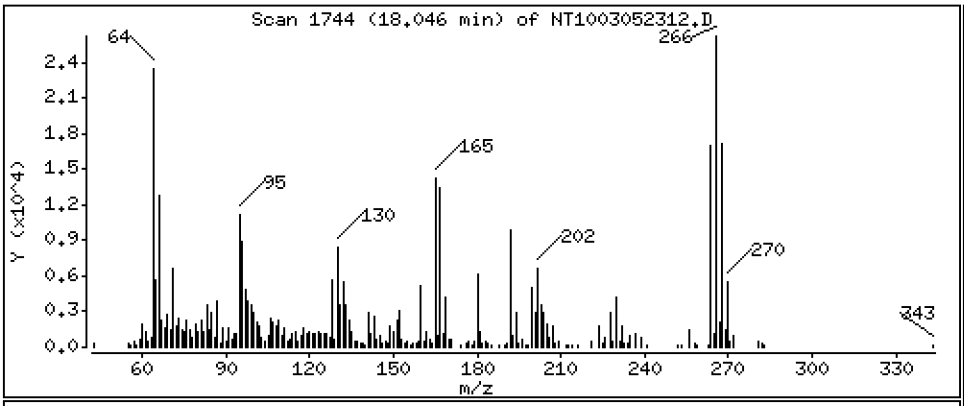
Operator: VTS

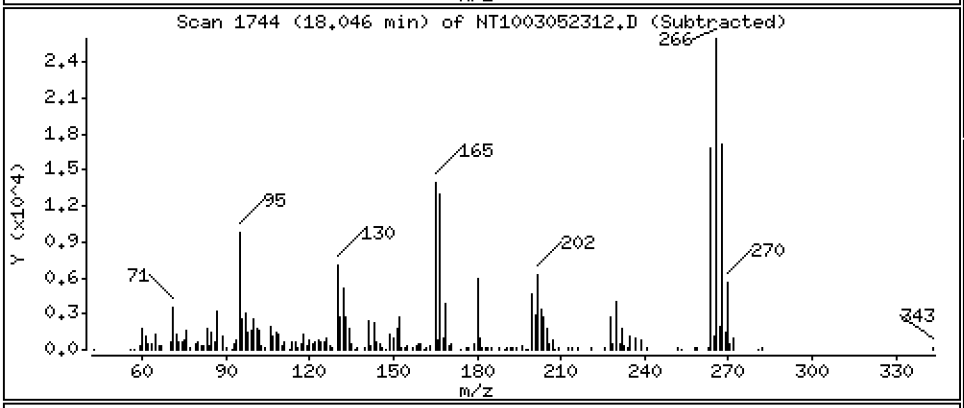
Column phase: ZB-5msi

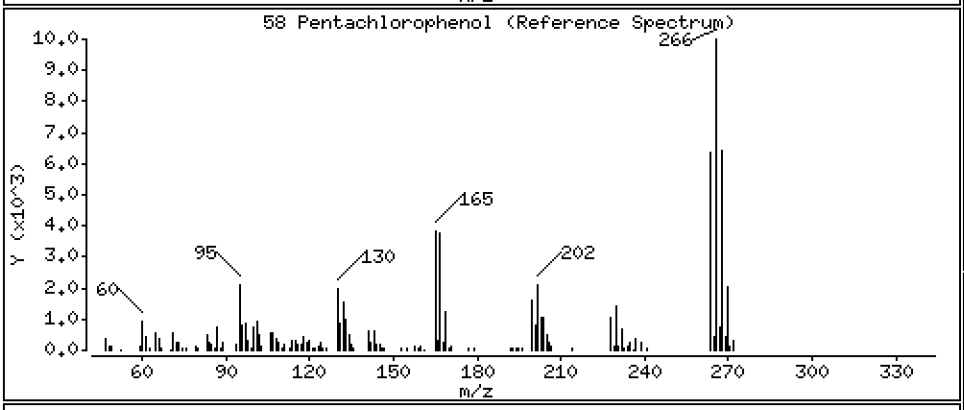
Column diameter: 0.25

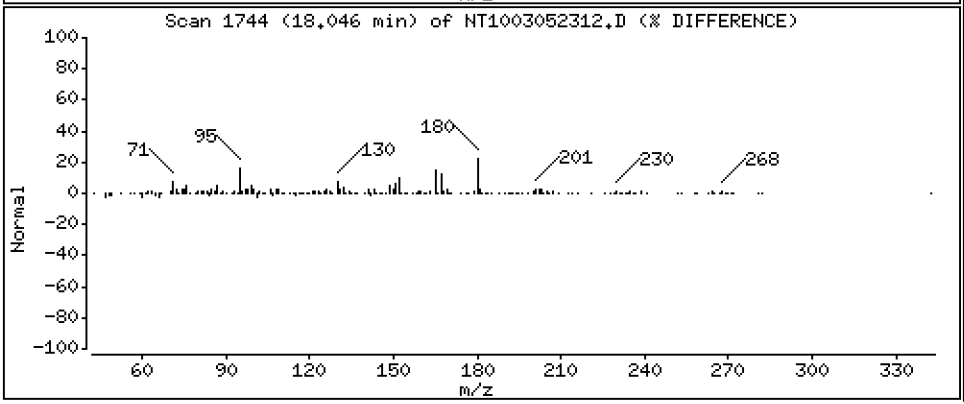
58 Pentachlorophenol

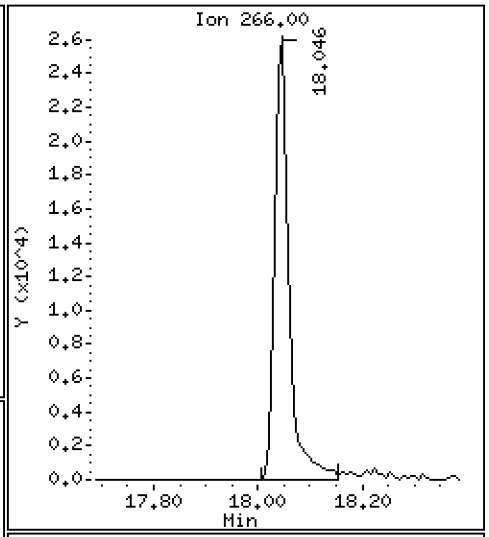
Concentration: 1.690 ug/mL

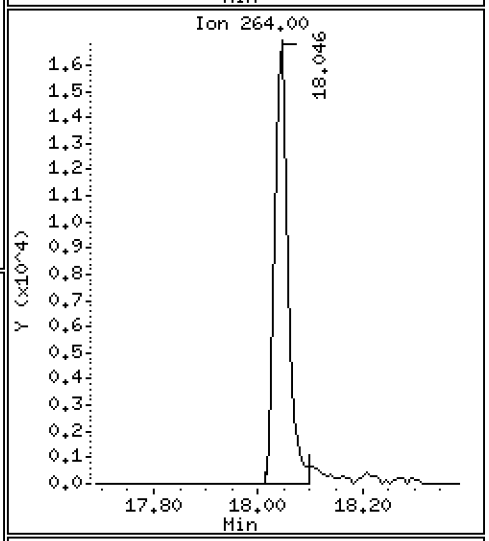


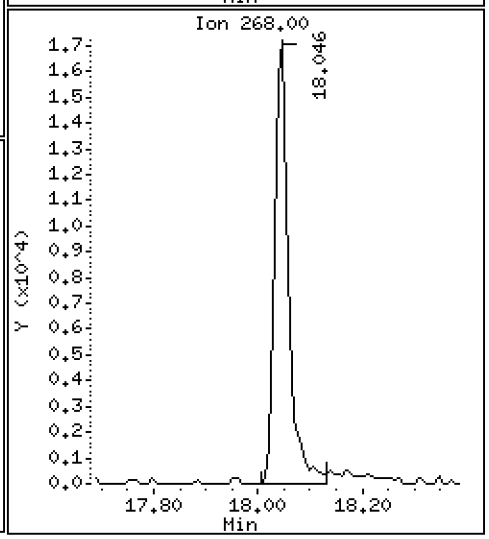












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

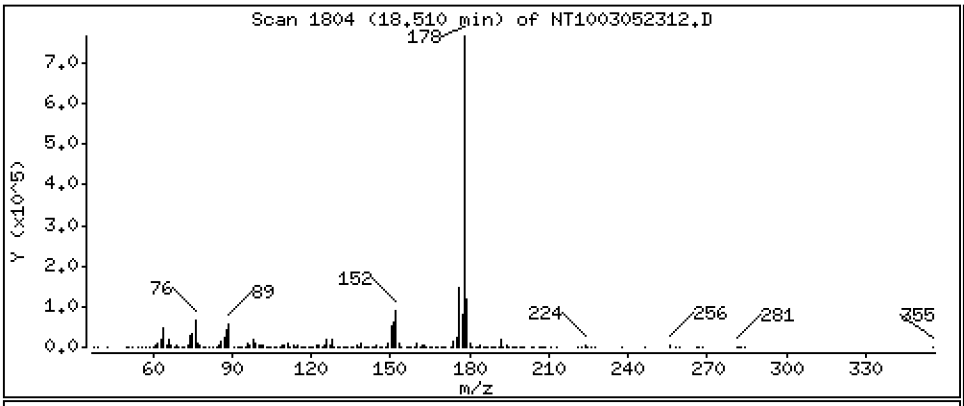
Operator: VTS

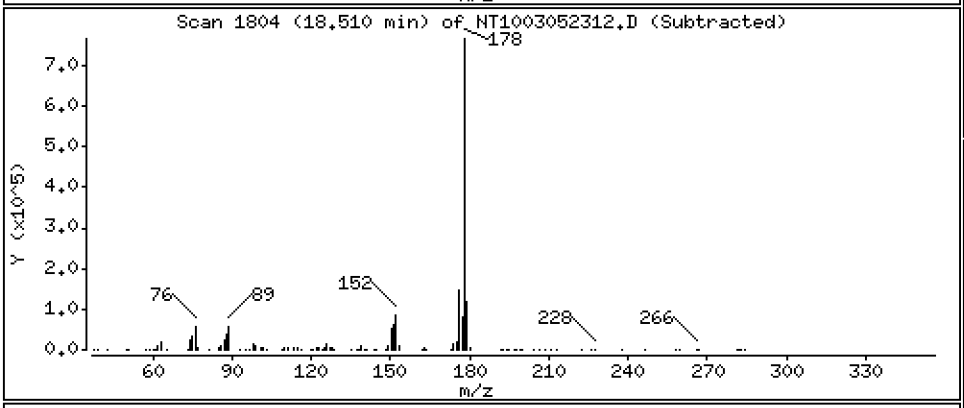
Column phase: ZB-5msi

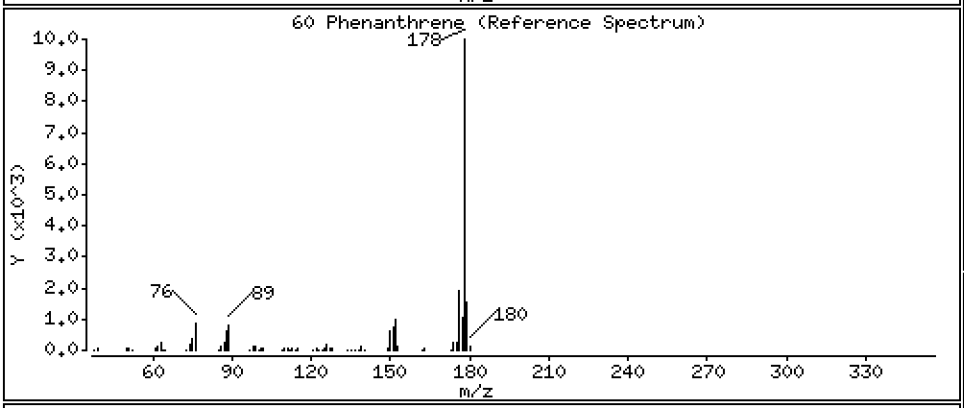
Column diameter: 0.25

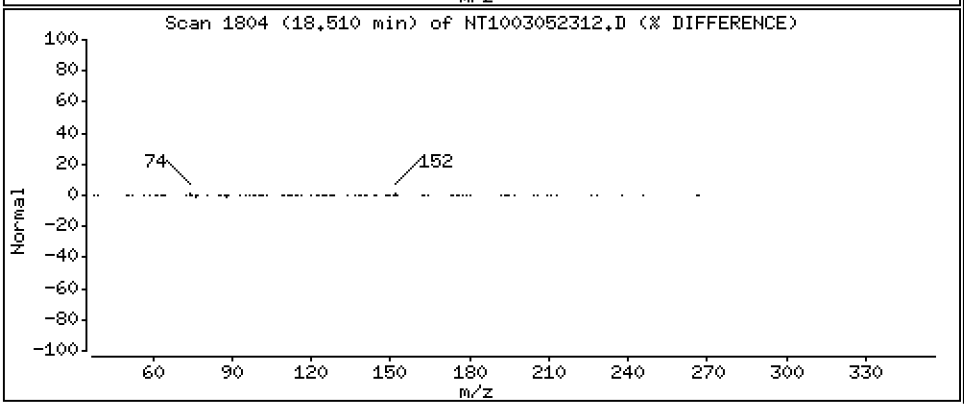
60 Phenanthrene

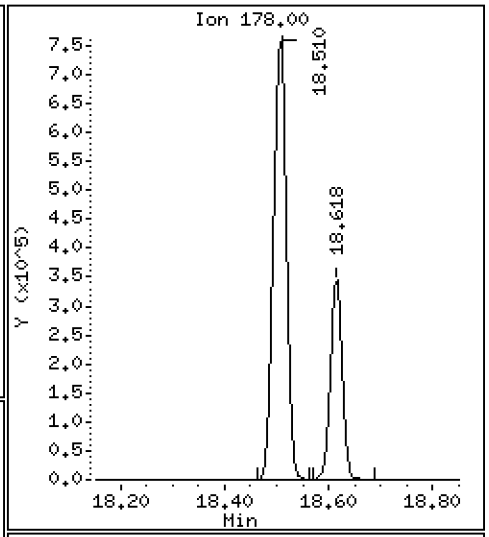
Concentration: 5.366 ug/mL

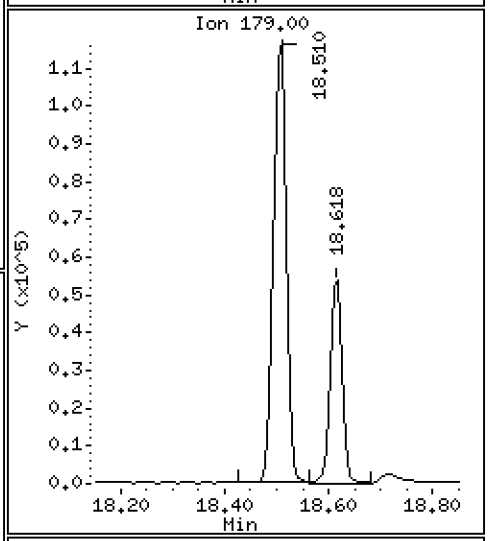


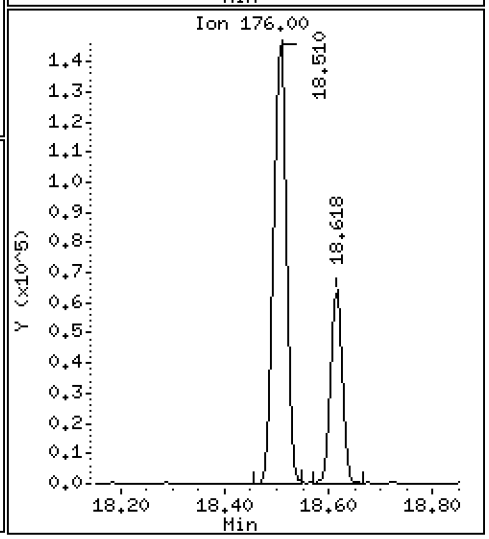












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

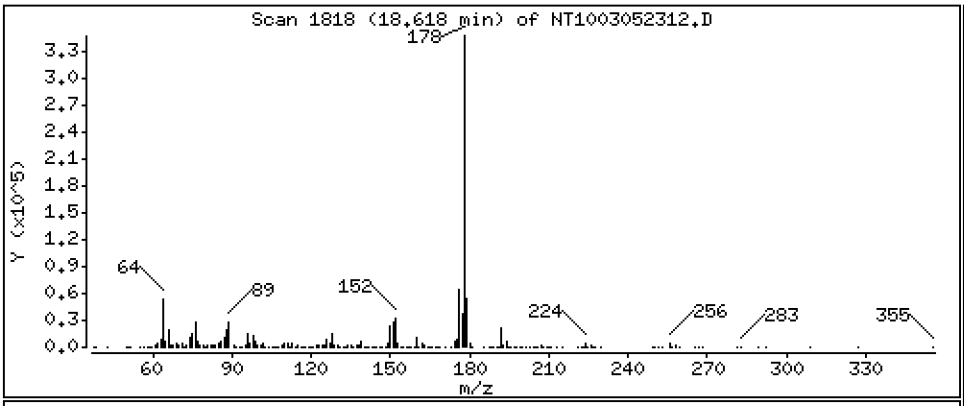
Operator: VTS

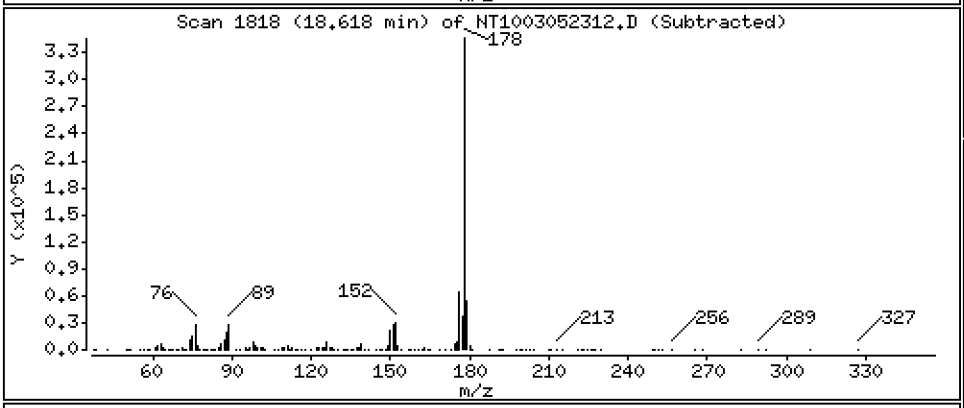
Column phase: ZB-5msi

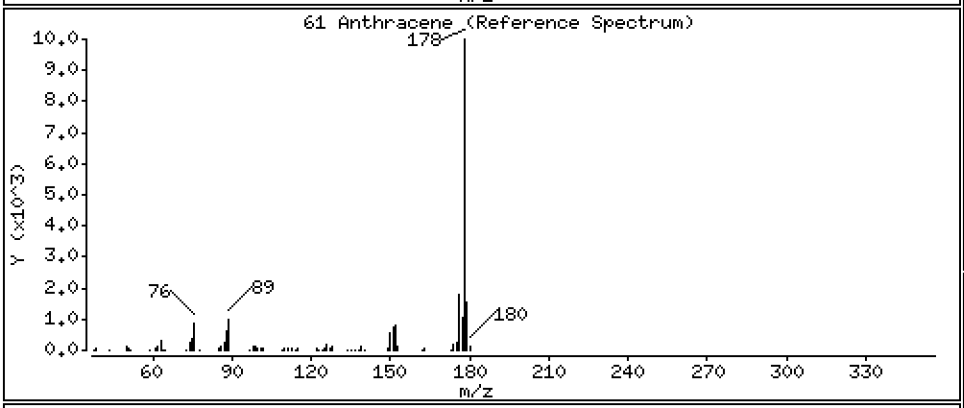
Column diameter: 0.25

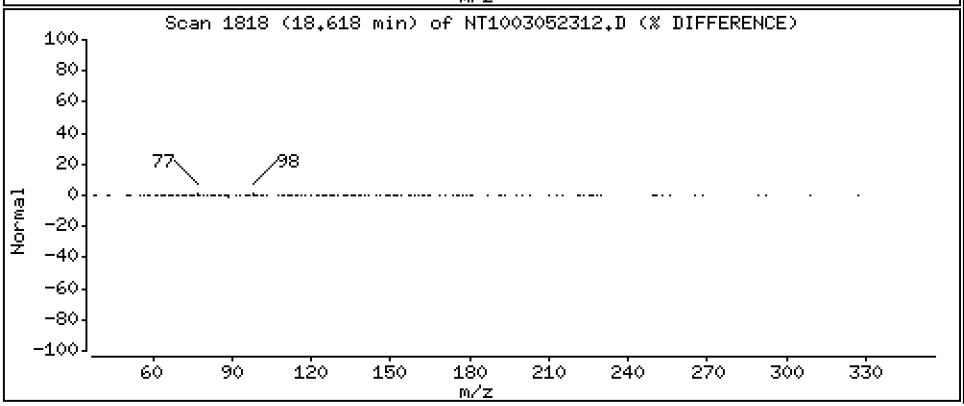
61 Anthracene

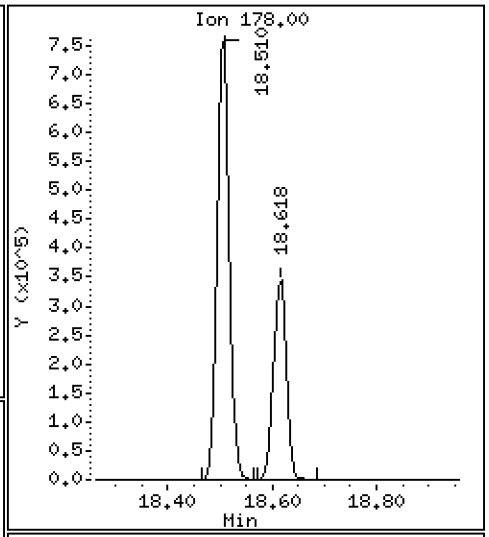
Concentration: 2.498 ug/mL

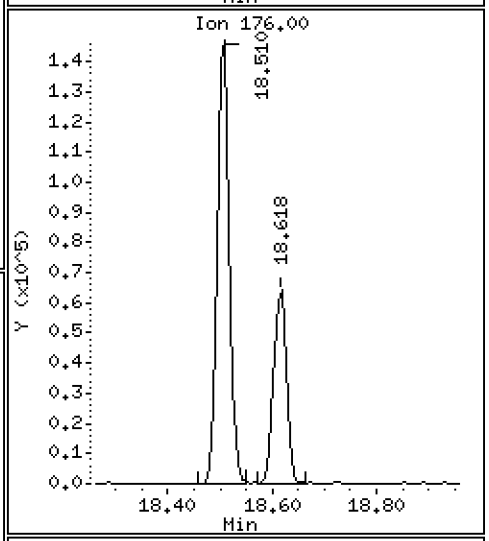


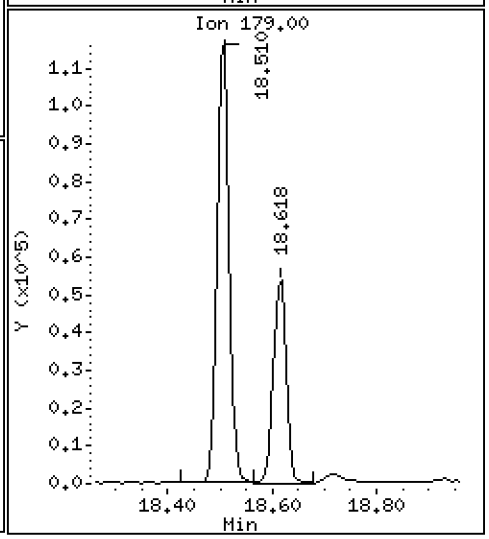












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

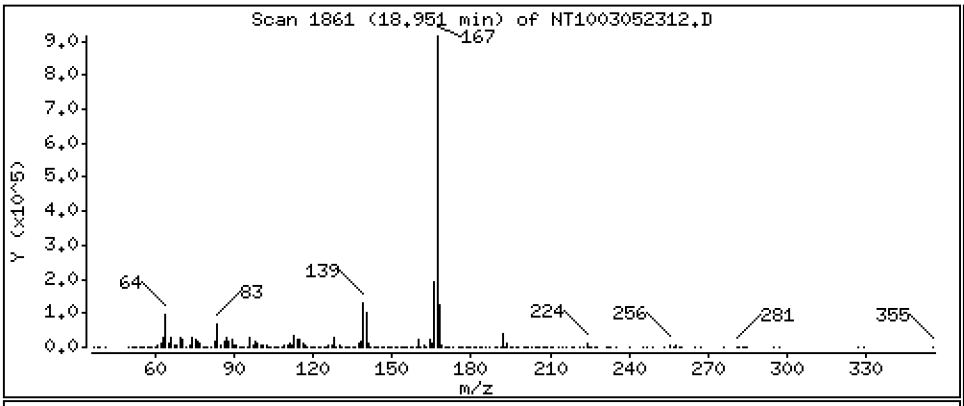
Operator: VTS

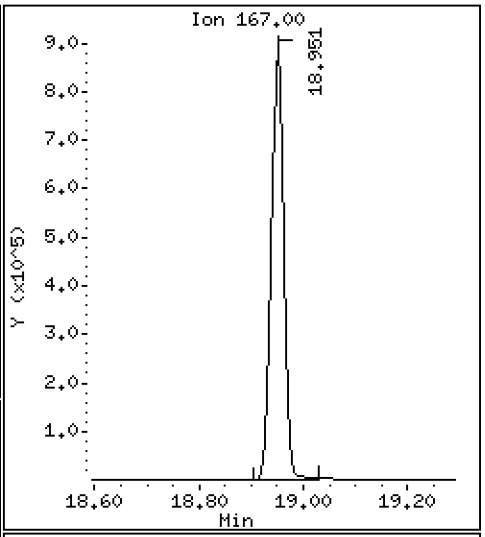
Column phase: ZB-5msi

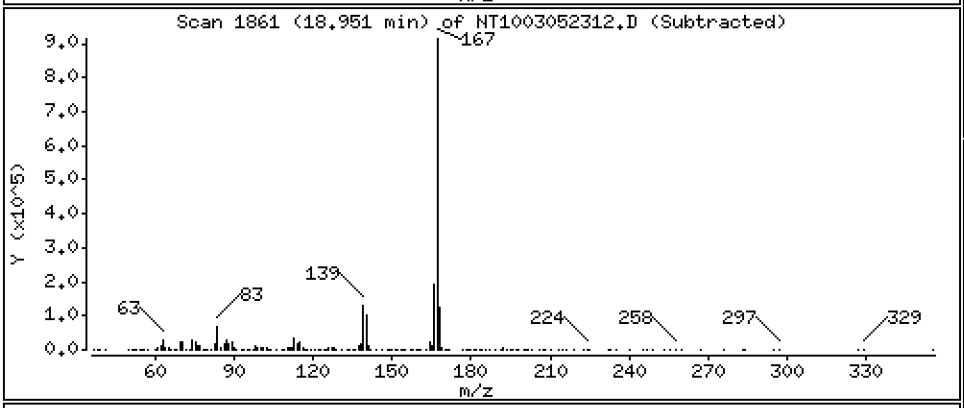
Column diameter: 0.25

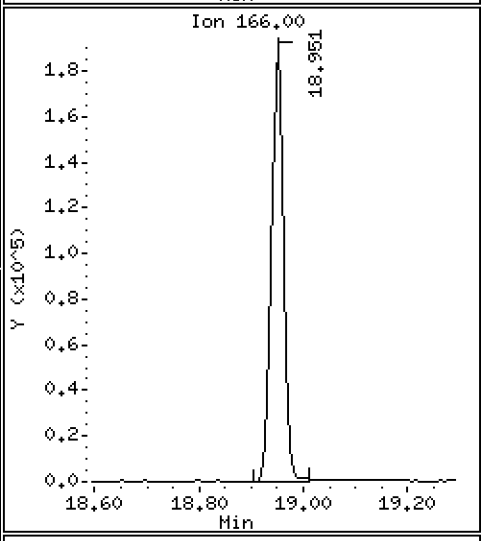
62 Carbazole

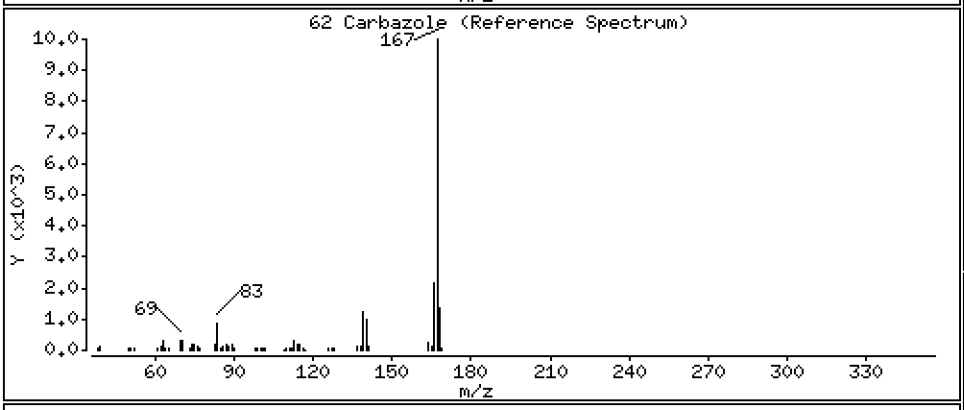
Concentration: 6.638 ug/mL

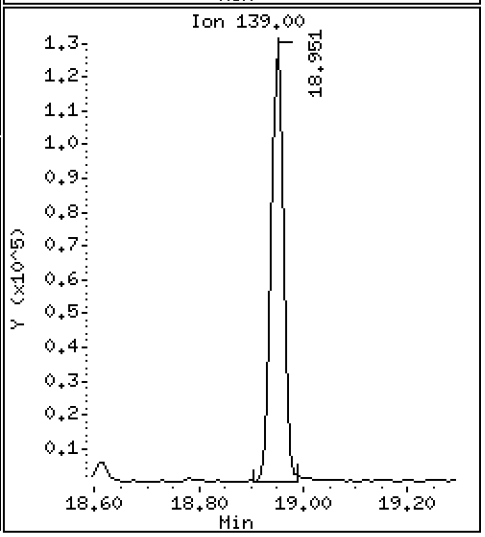


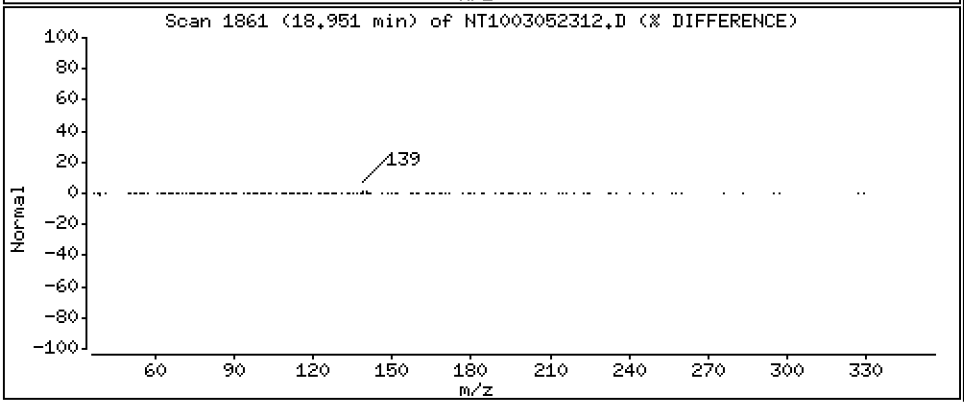












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

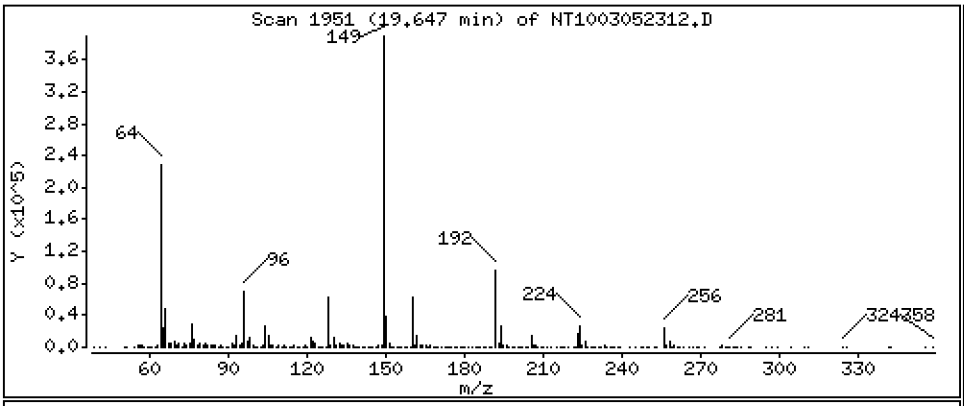
Operator: VTS

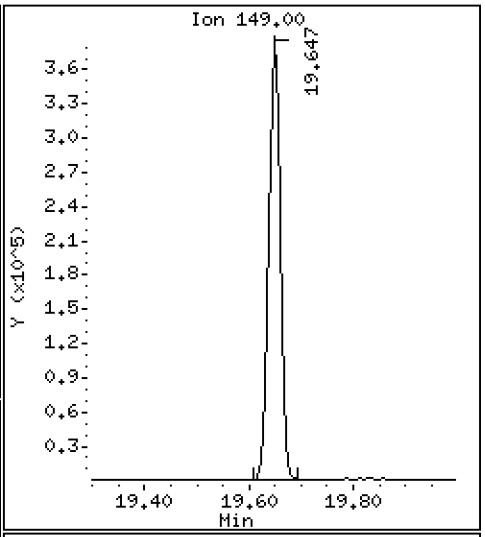
Column phase: ZB-5msi

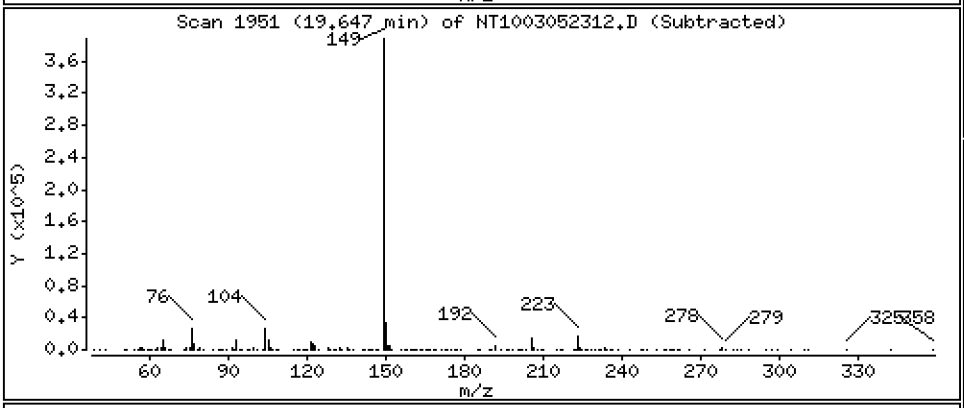
Column diameter: 0.25

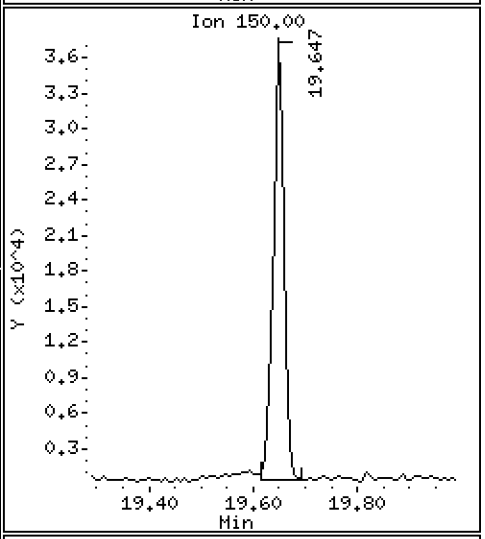
63 Di-n-butylphthalate

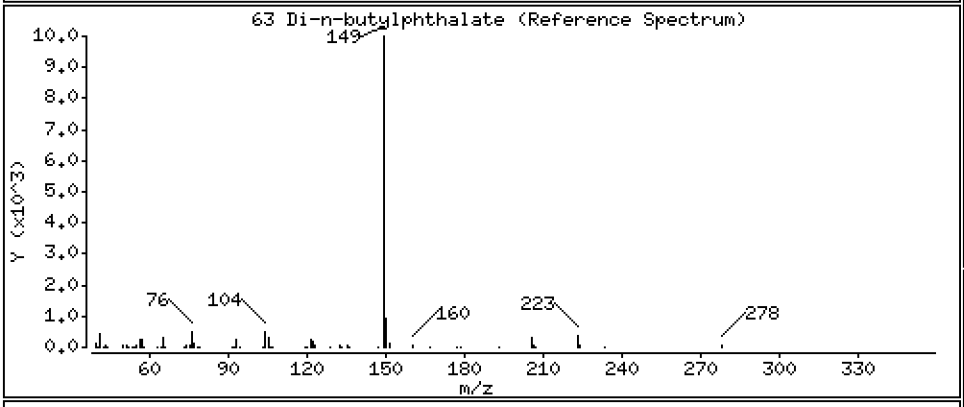
Concentration: 1.929 ug/mL

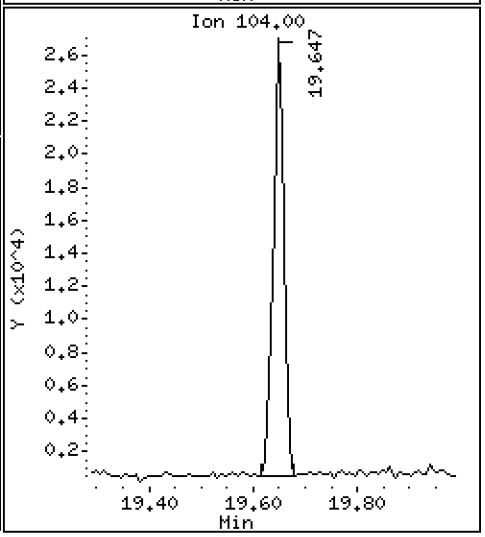


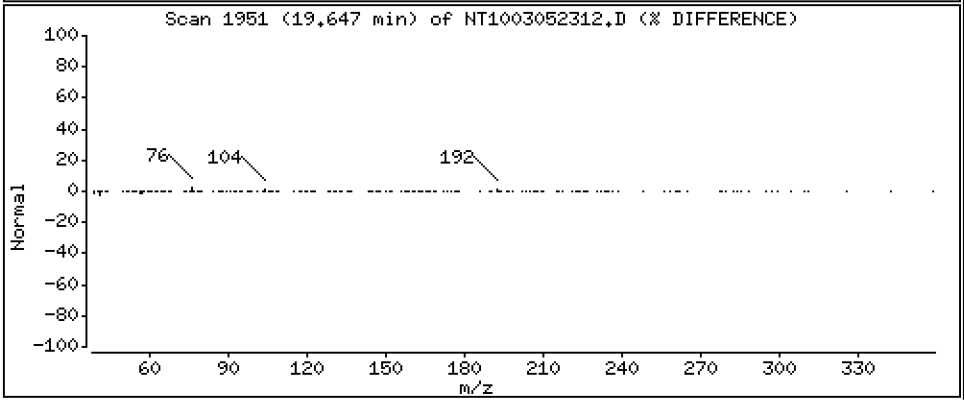












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

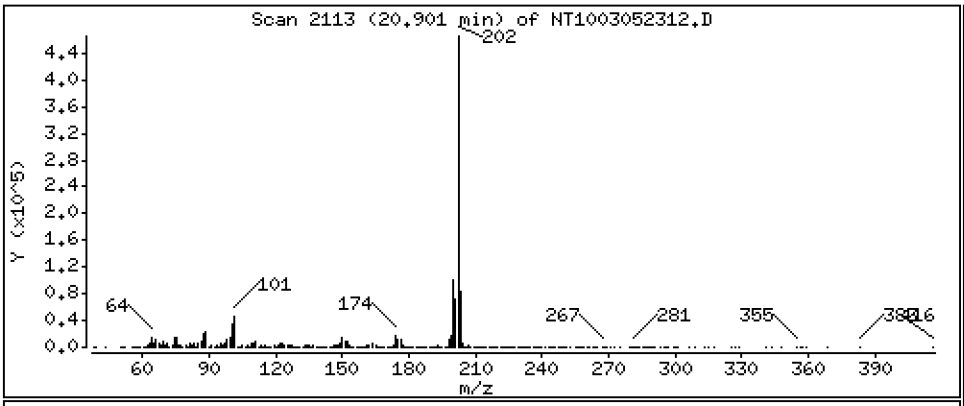
Operator: VTS

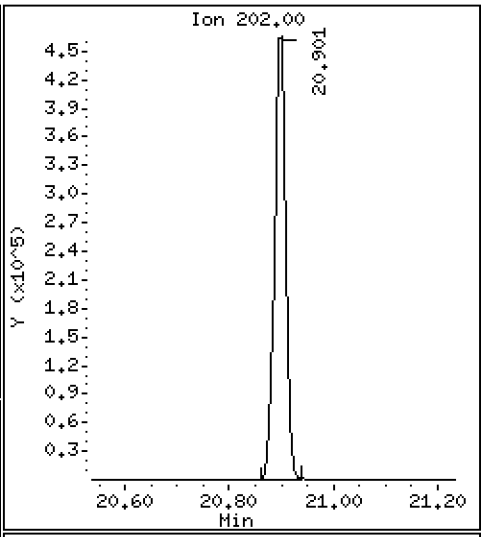
Column phase: ZB-5msi

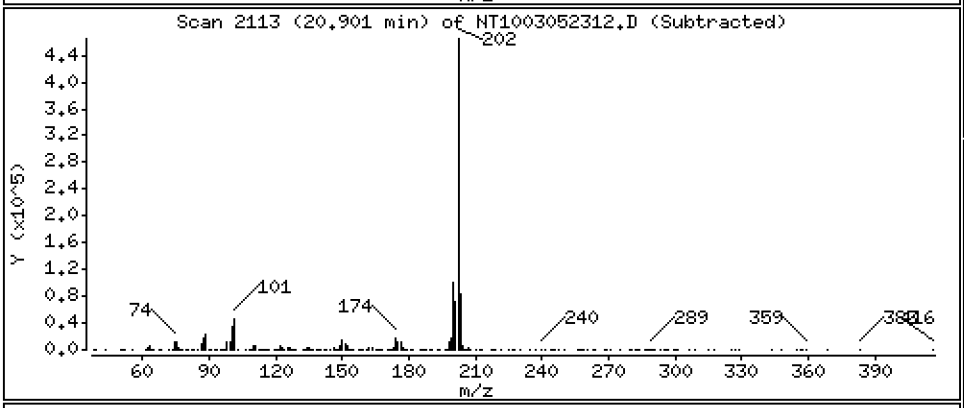
Column diameter: 0.25

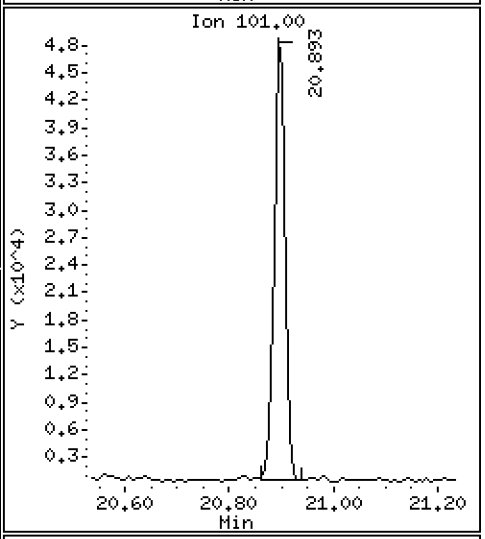
64 Fluoranthene

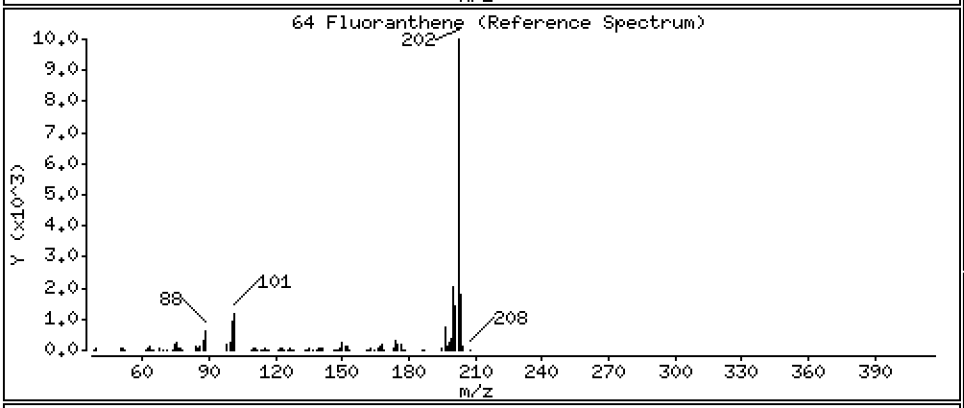
Concentration: 2.306 ug/mL

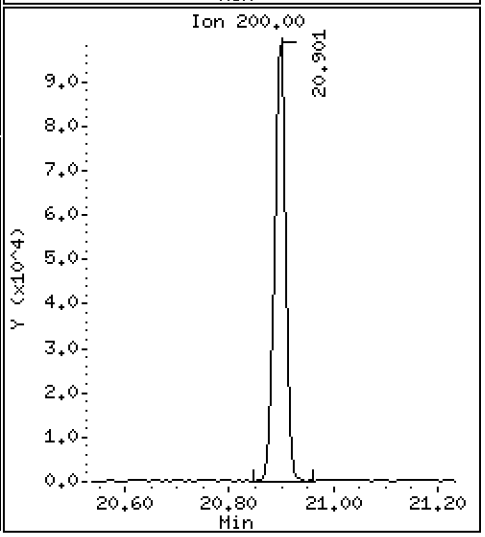


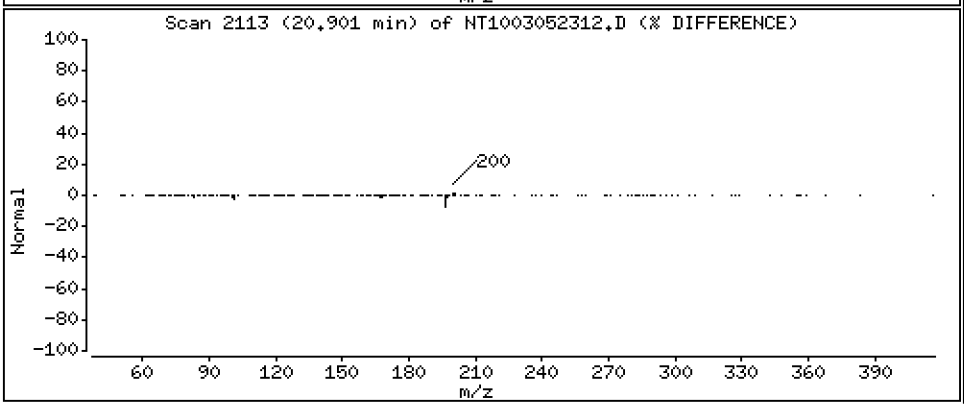












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

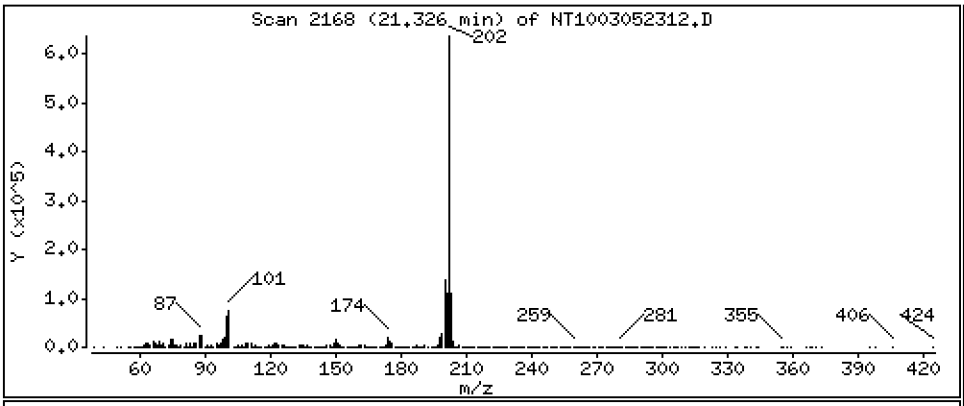
Operator: VTS

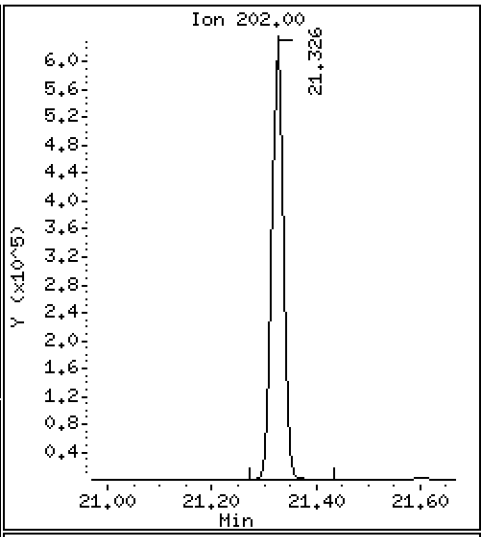
Column phase: ZB-5msi

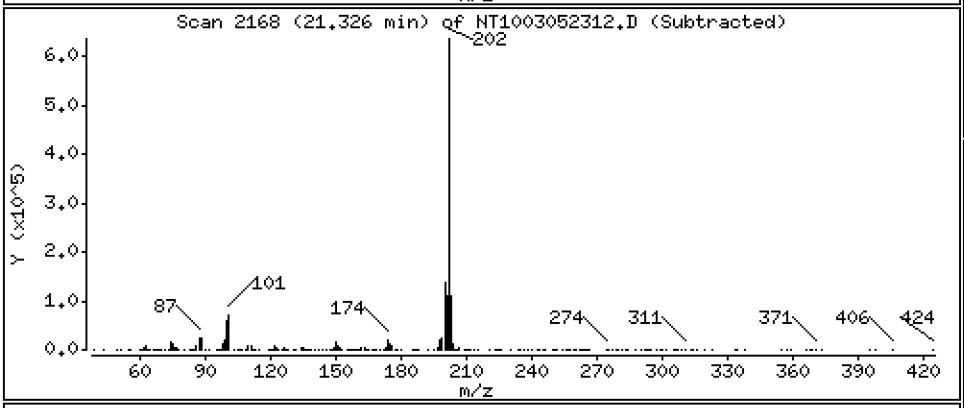
Column diameter: 0.25

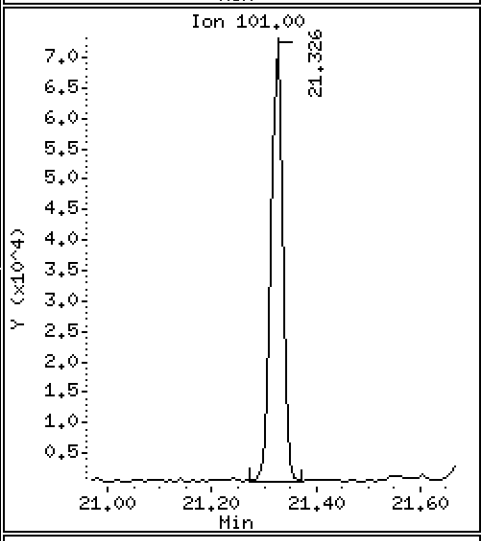
65 Pyrene

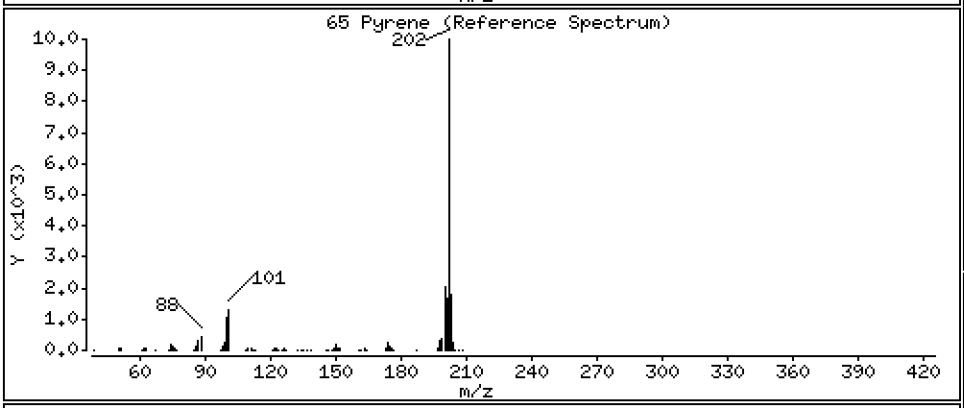
Concentration: 3.228 ug/mL

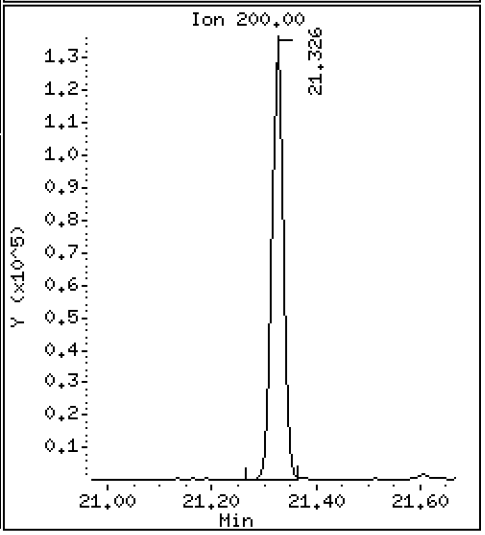


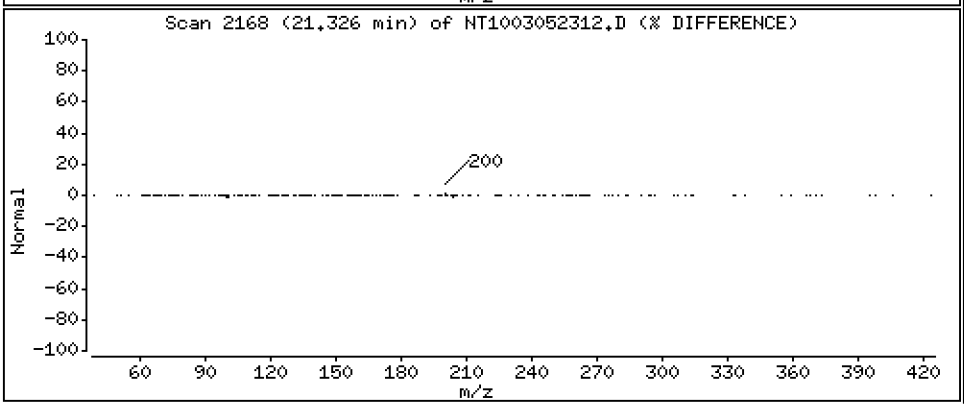












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

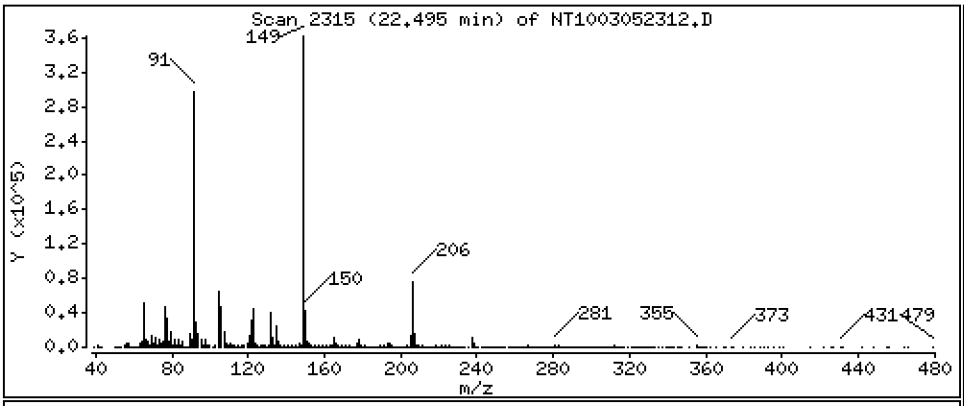
Operator: VTS

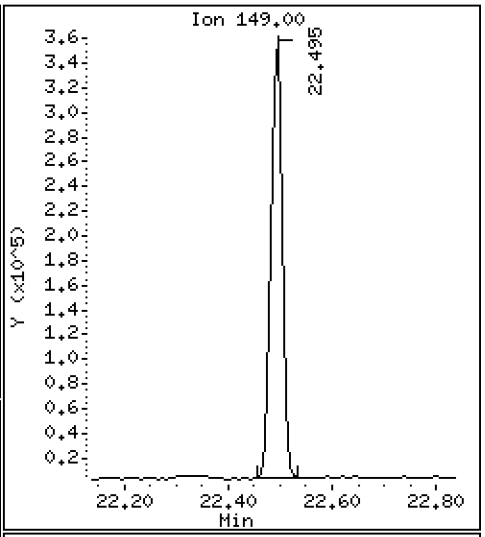
Column phase: ZB-5msi

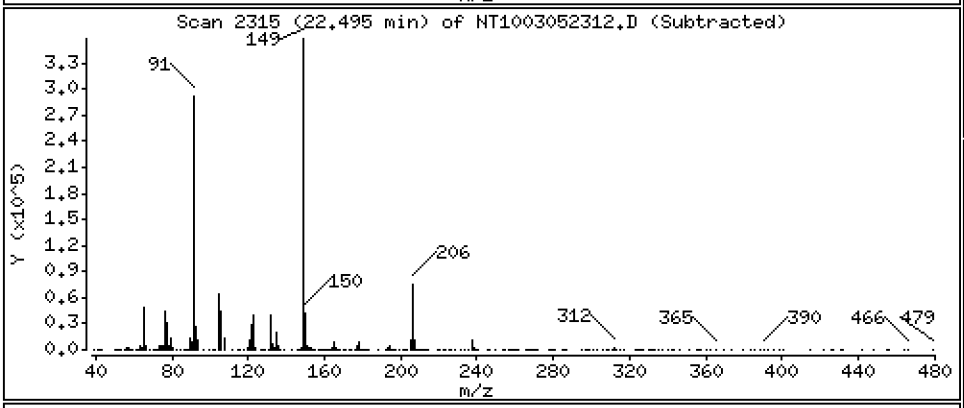
Column diameter: 0.25

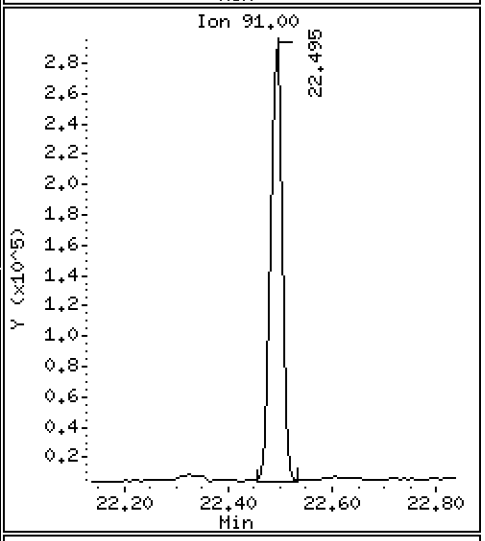
67 Butylbenzylphthalate

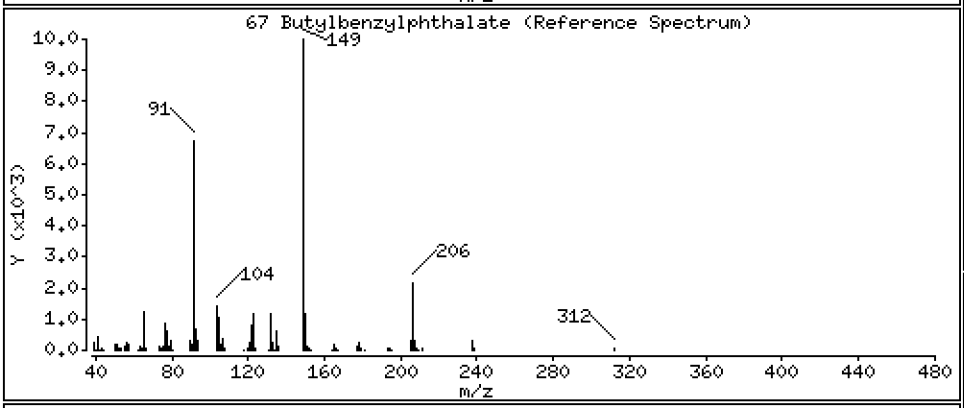
Concentration: 3.148 ug/mL

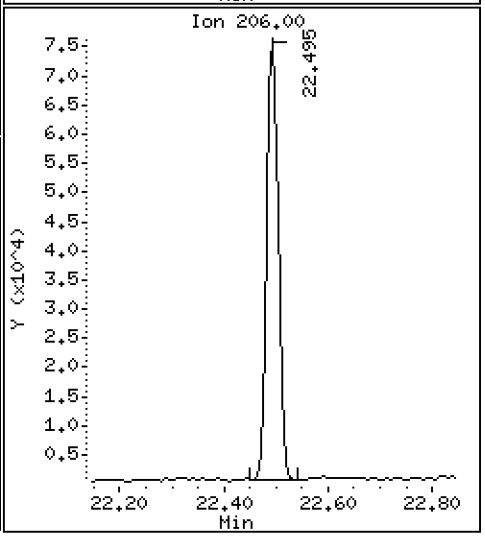


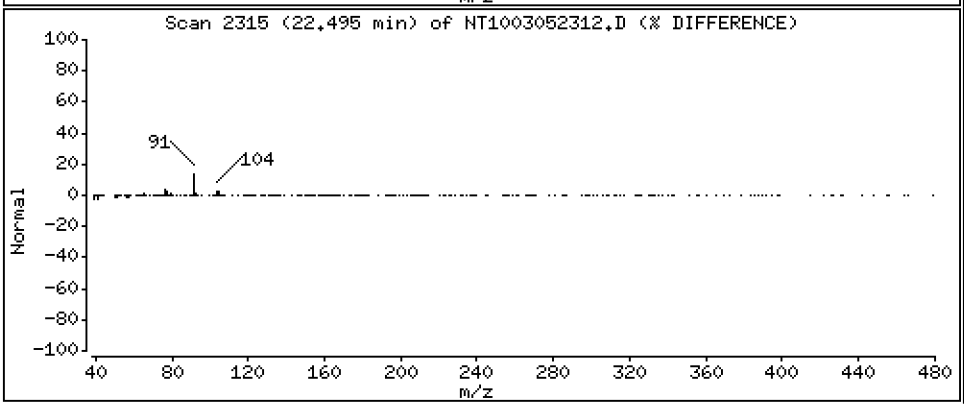












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

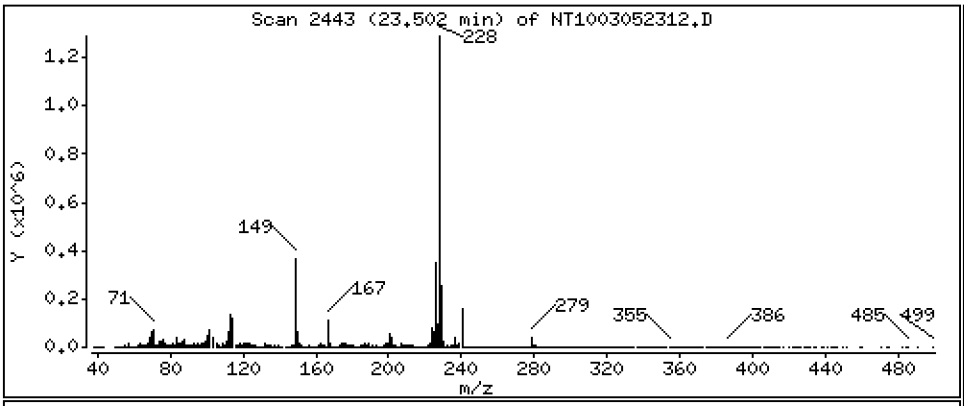
Operator: VTS

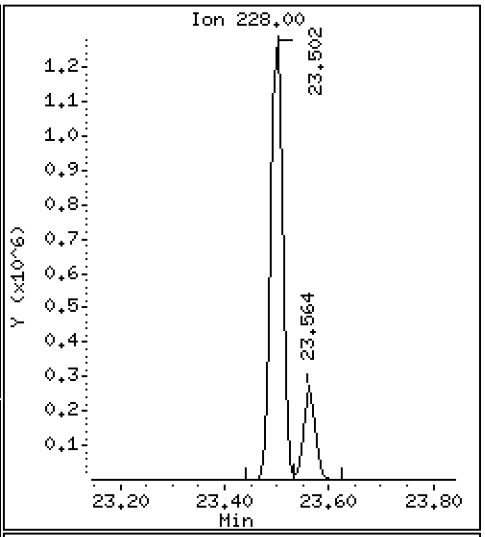
Column phase: ZB-5msi

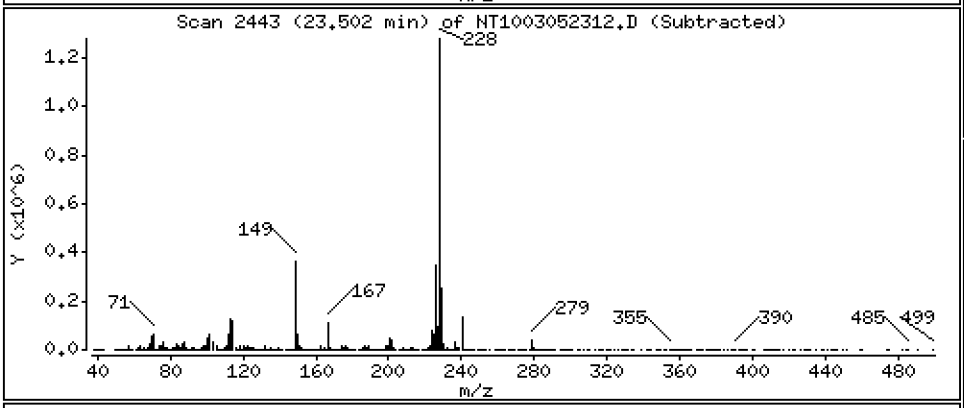
Column diameter: 0.25

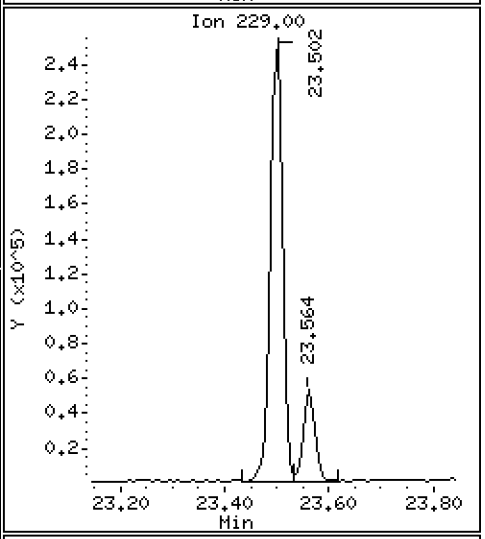
68 Benzo(a)anthracene

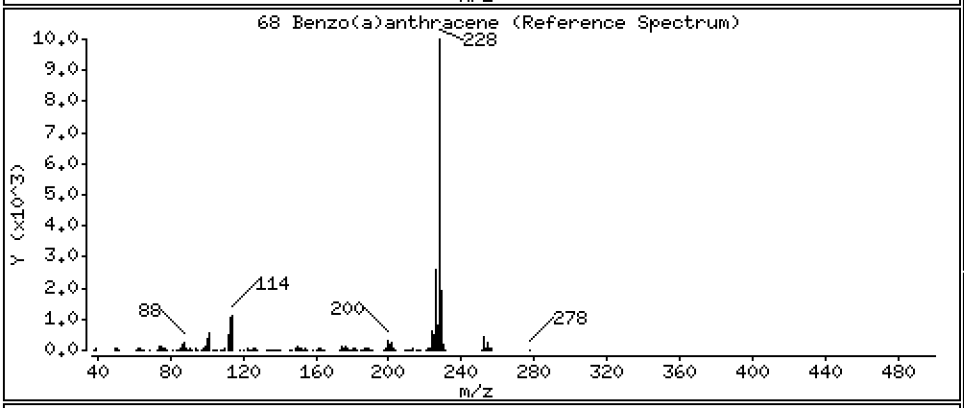
Concentration: 6.174 ug/mL

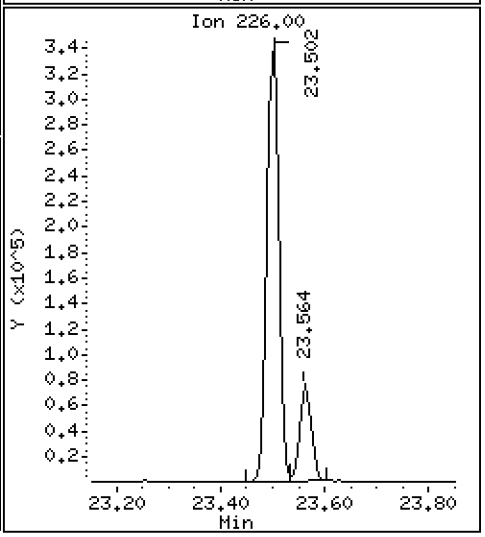


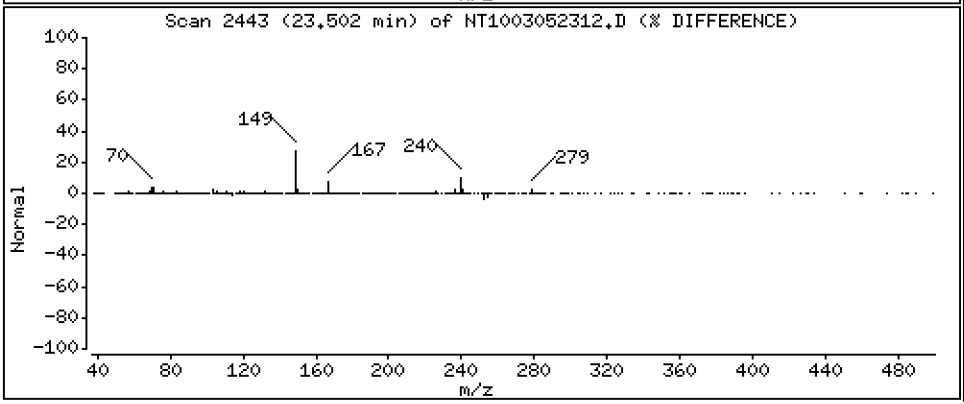












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

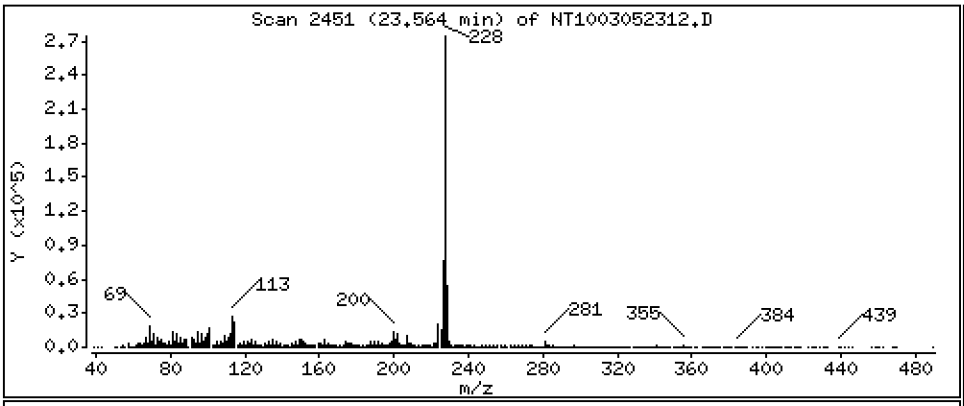
Operator: VTS

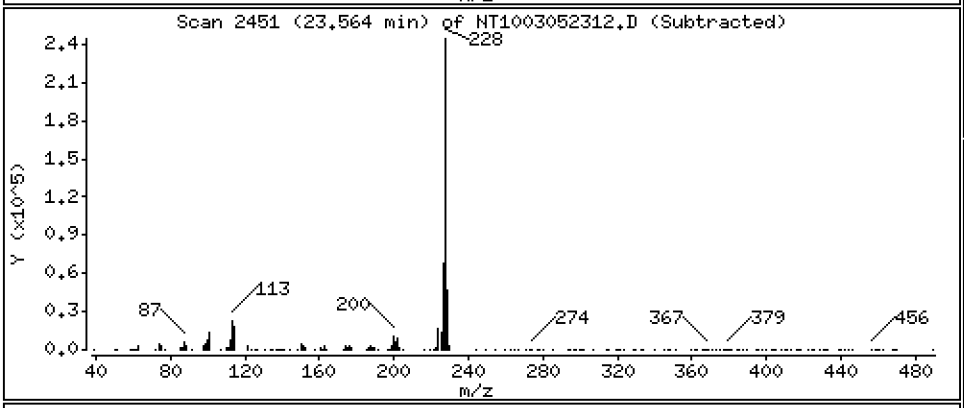
Column phase: ZB-5msi

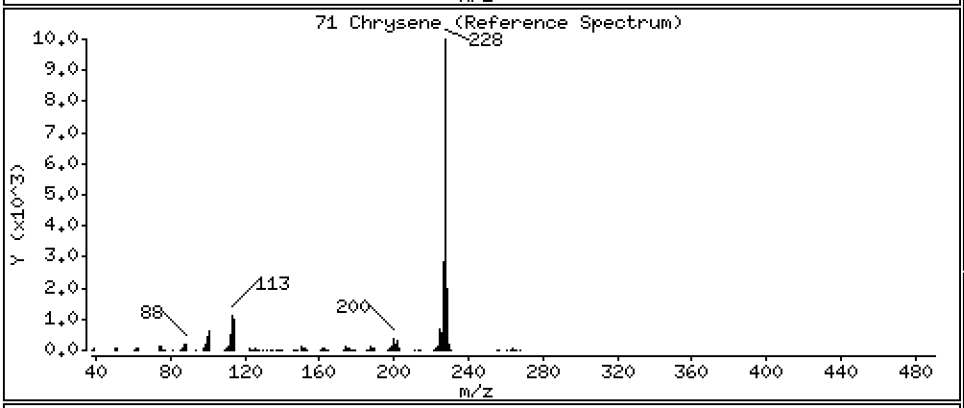
Column diameter: 0.25

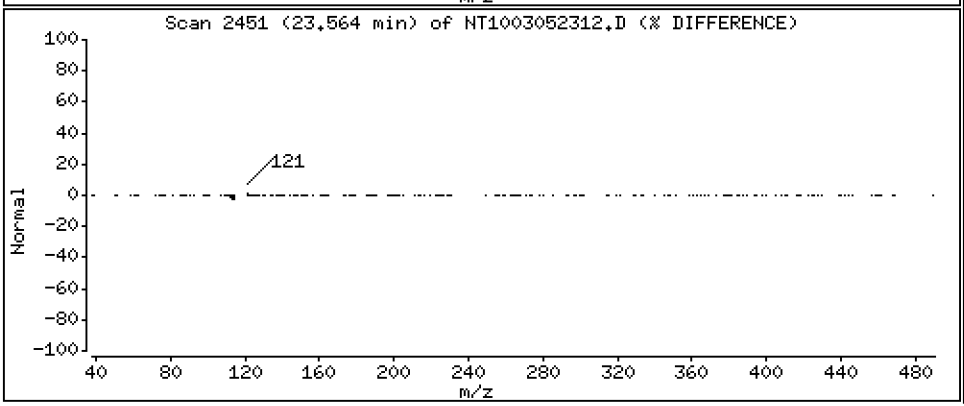
71 Chrysene

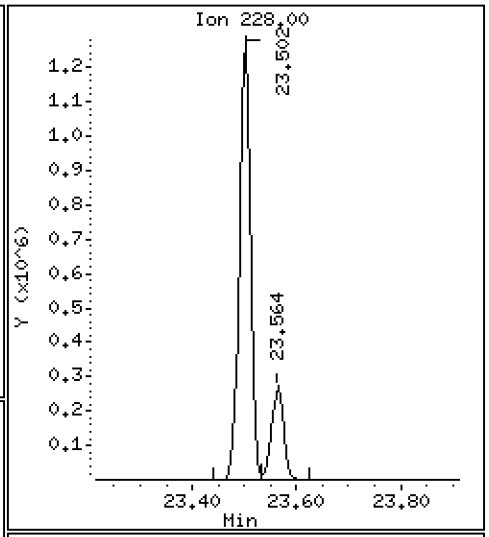
Concentration: 1.597 ug/mL

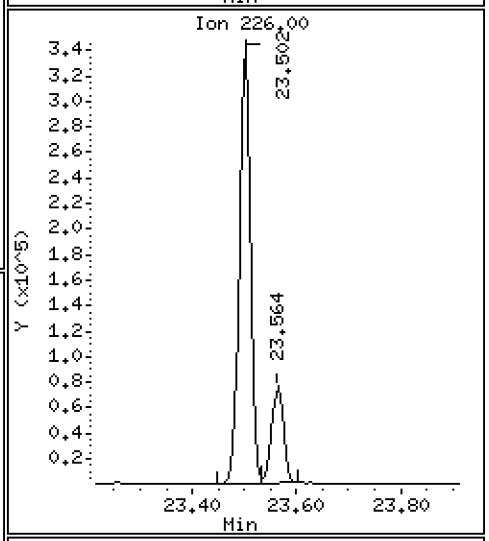


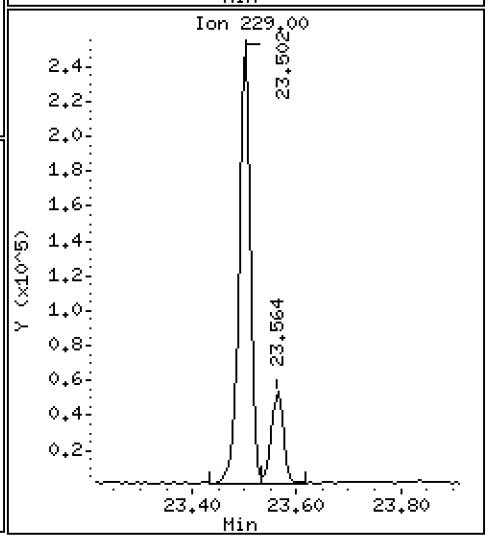












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

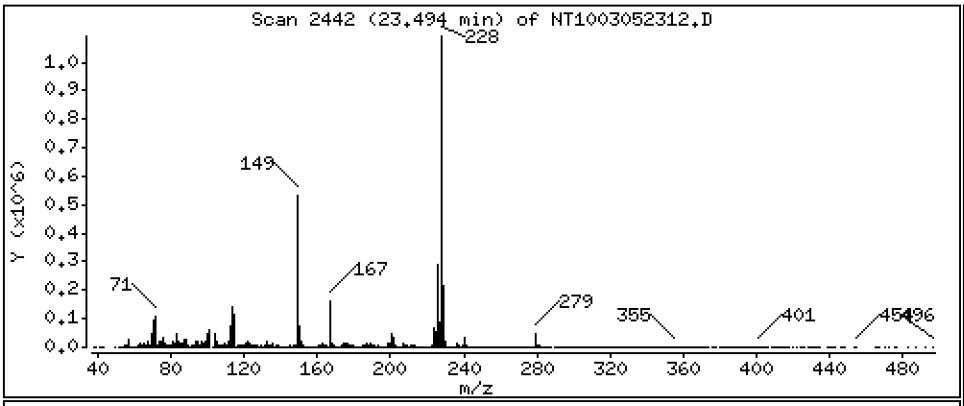
Operator: VTS

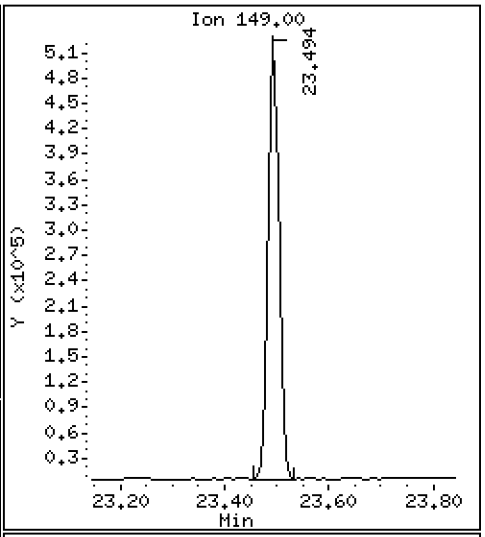
Column phase: ZB-5msi

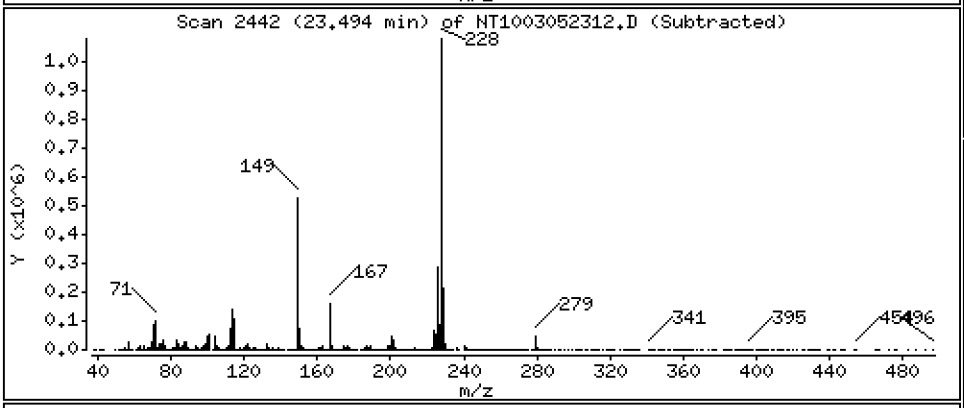
Column diameter: 0.25

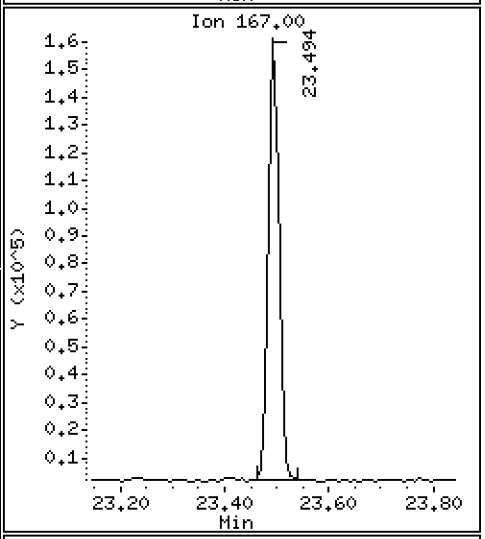
72 bis(2-Ethylhexyl)phthalate

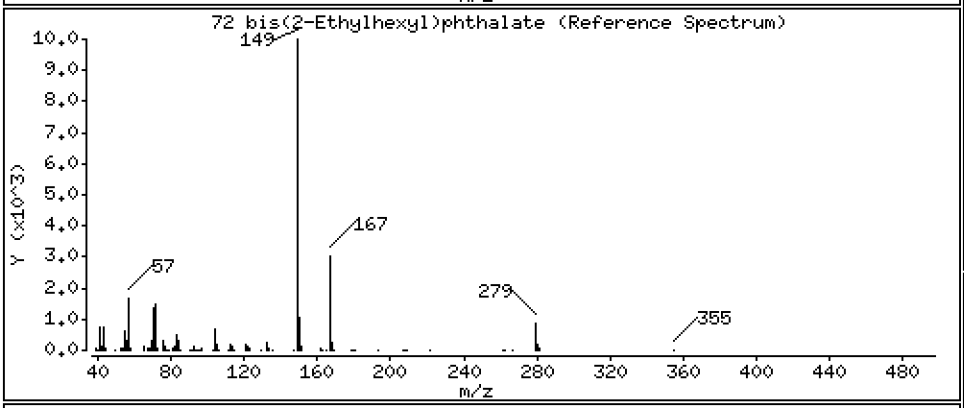
Concentration: 3.326 ug/mL

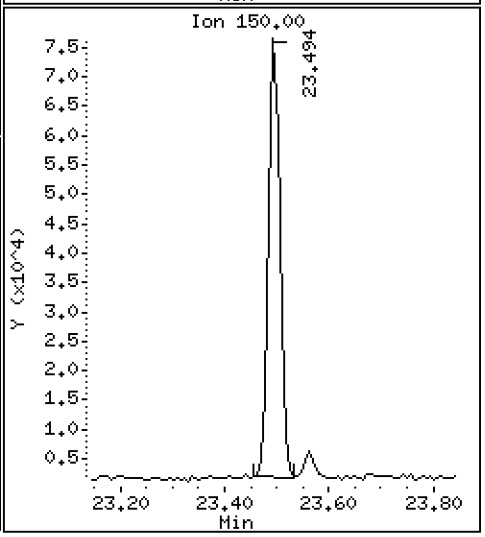


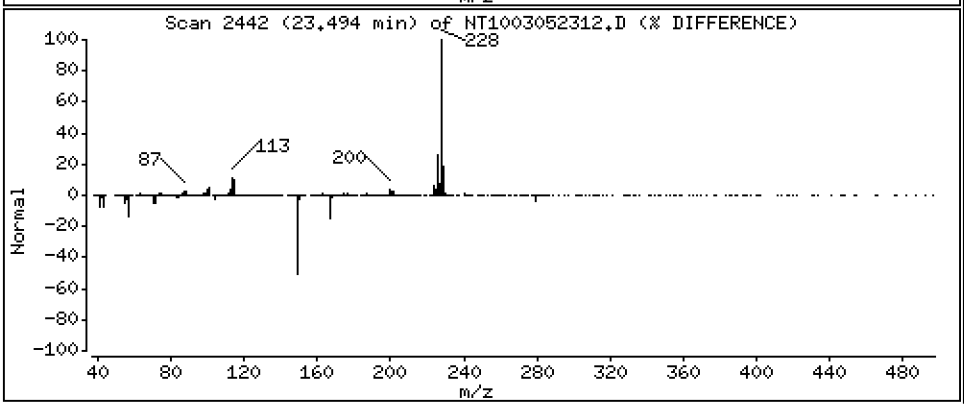












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

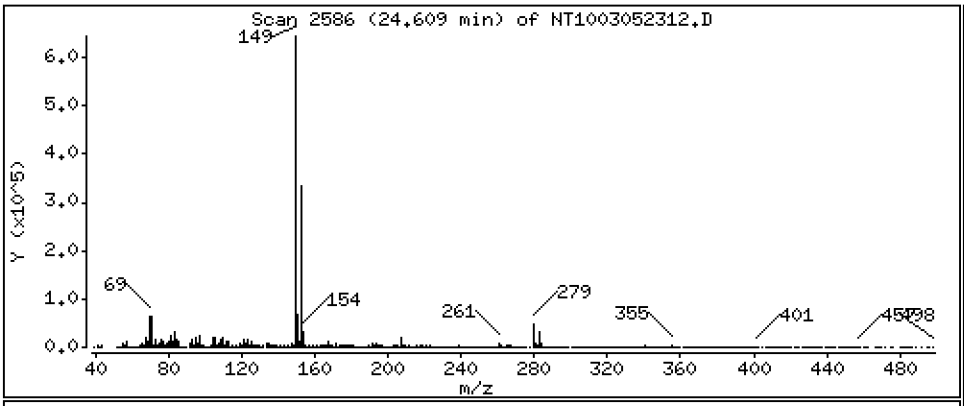
Operator: VTS

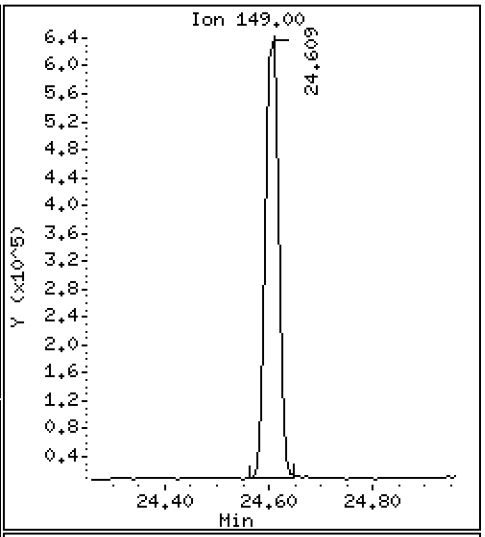
Column phase: ZB-5msi

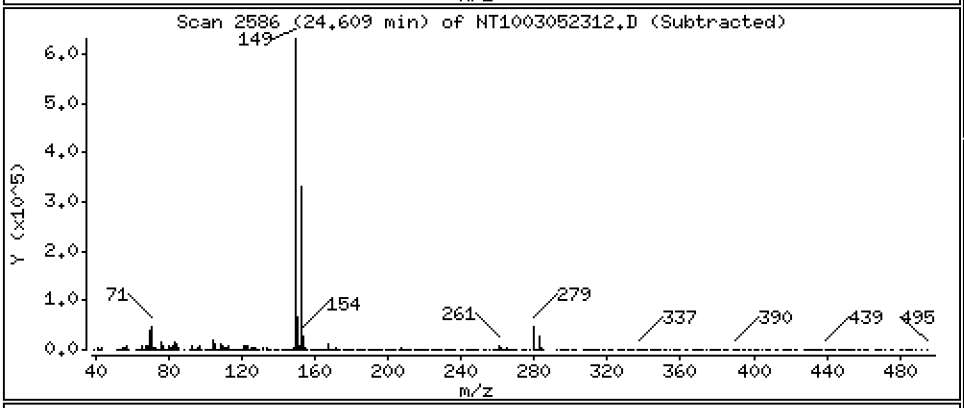
Column diameter: 0.25

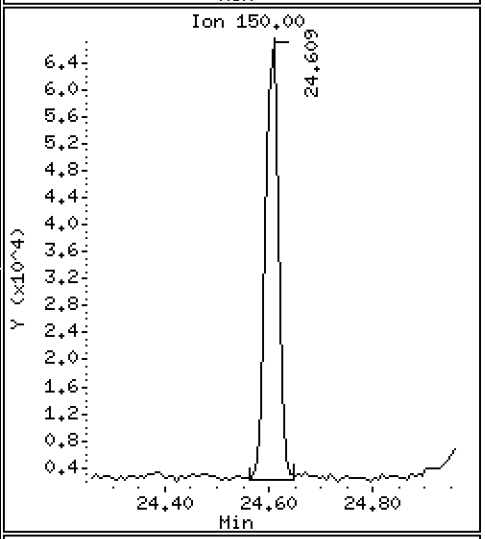
73 Di-n-octylphthalate

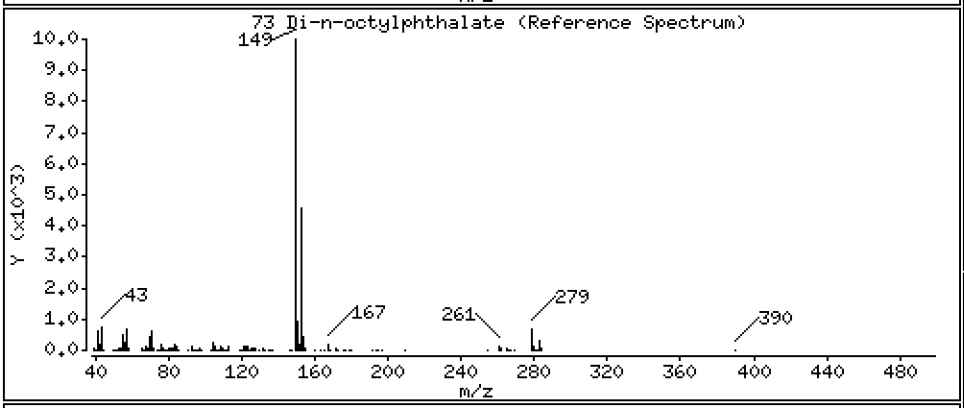
Concentration: 3.226 ug/mL

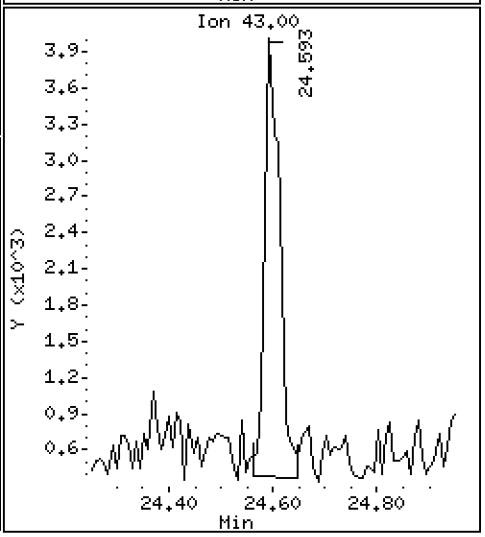


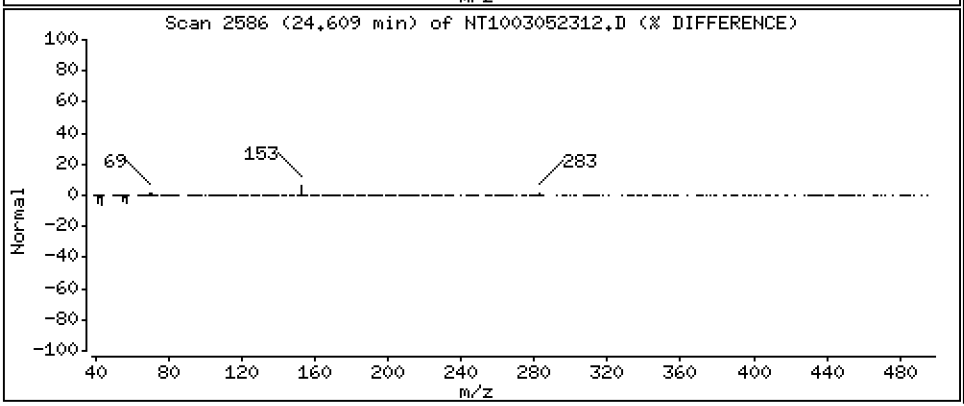












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

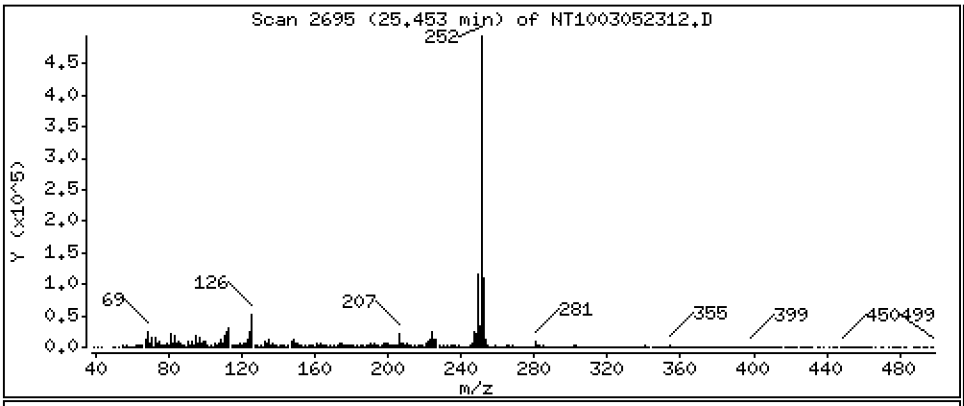
Operator: VTS

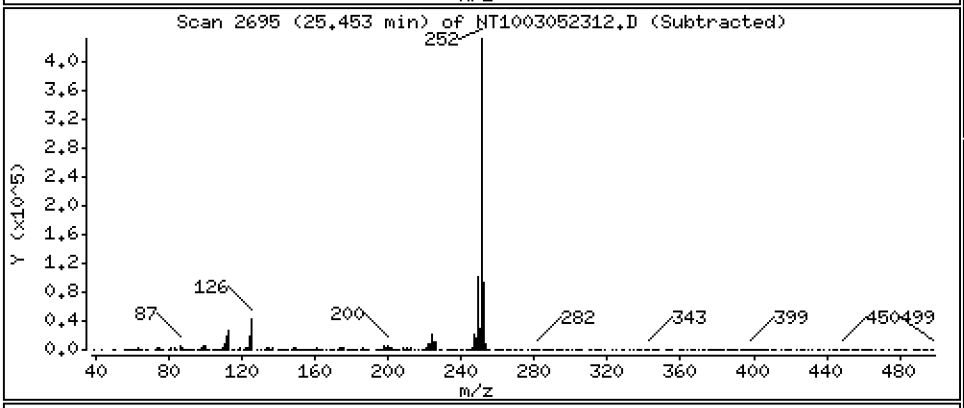
Column phase: ZB-5msi

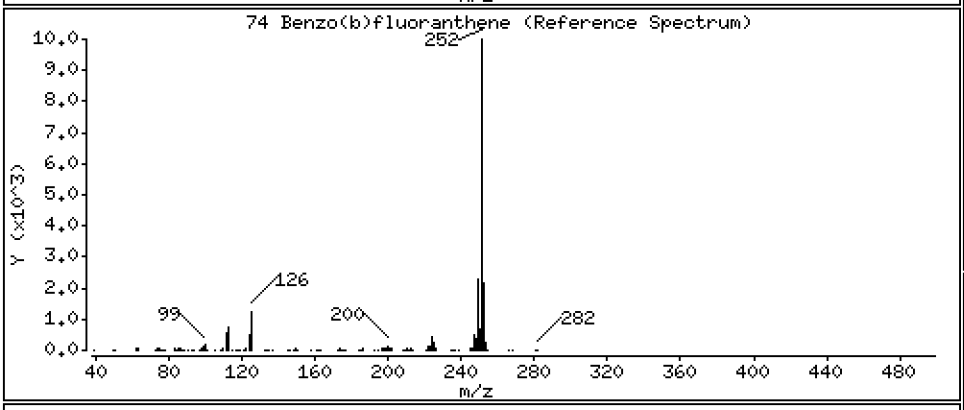
Column diameter: 0.25

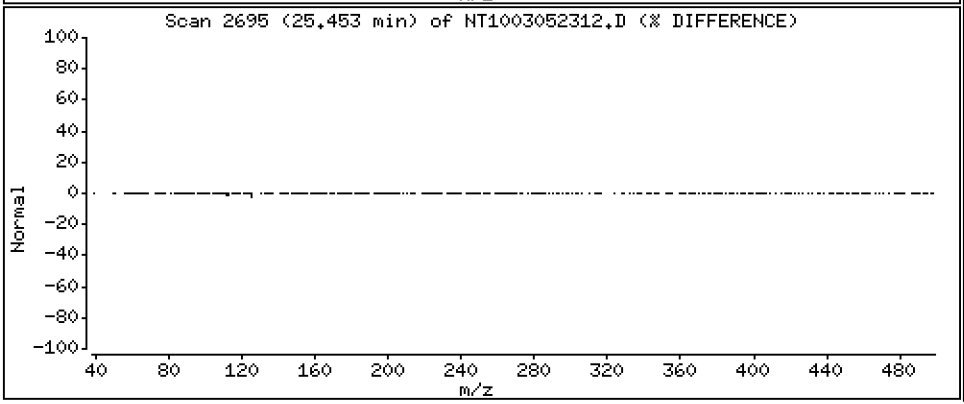
74 Benzo(b)fluoranthene

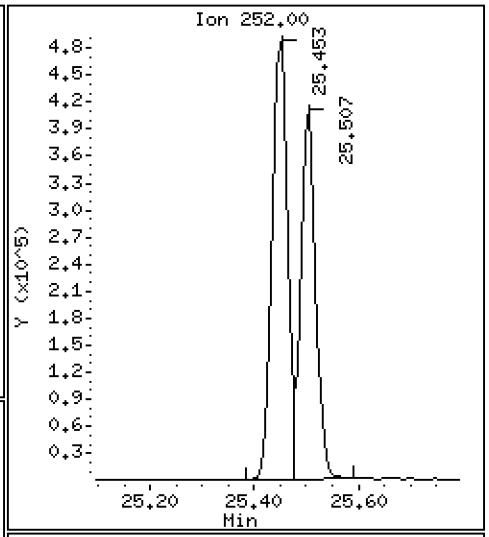
Concentration: 2.805 ug/mL

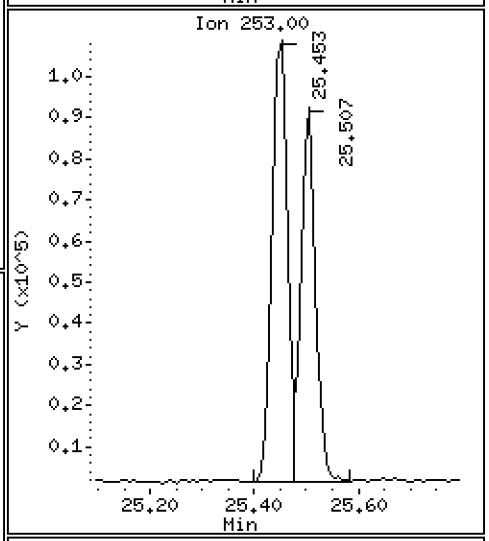


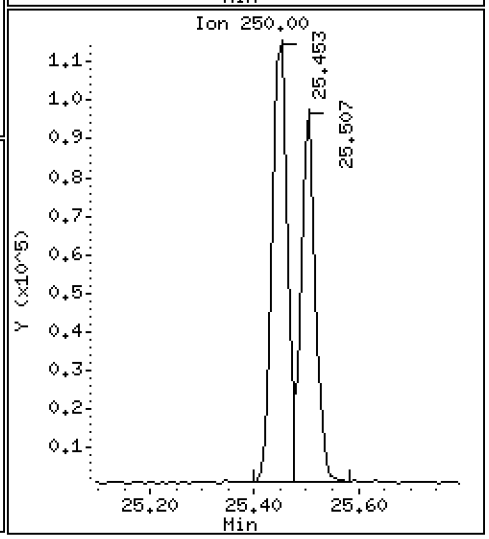












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

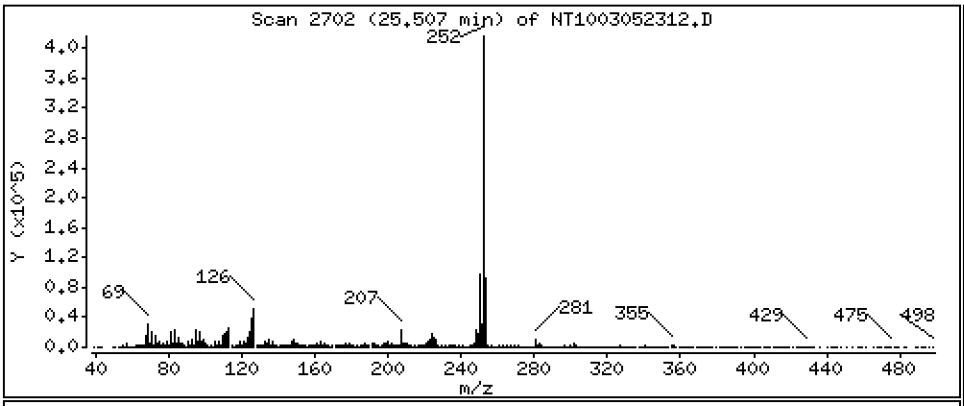
Operator: VTS

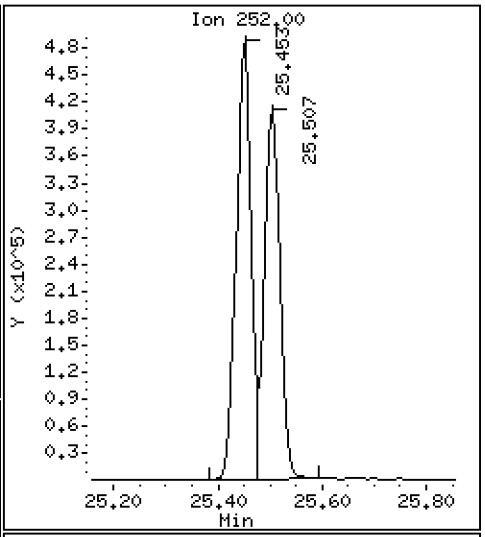
Column phase: ZB-5msi

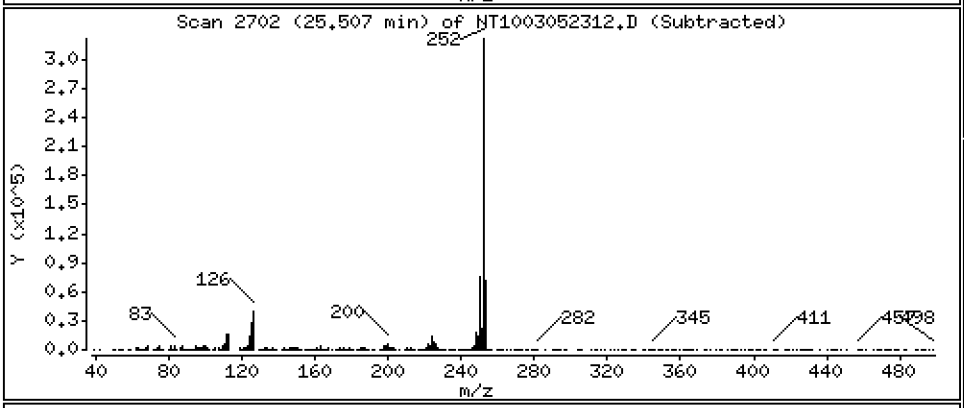
Column diameter: 0.25

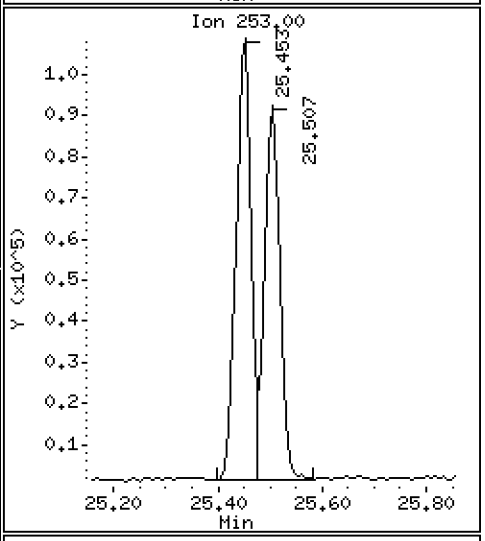
75 Benzo(k)fluoranthene

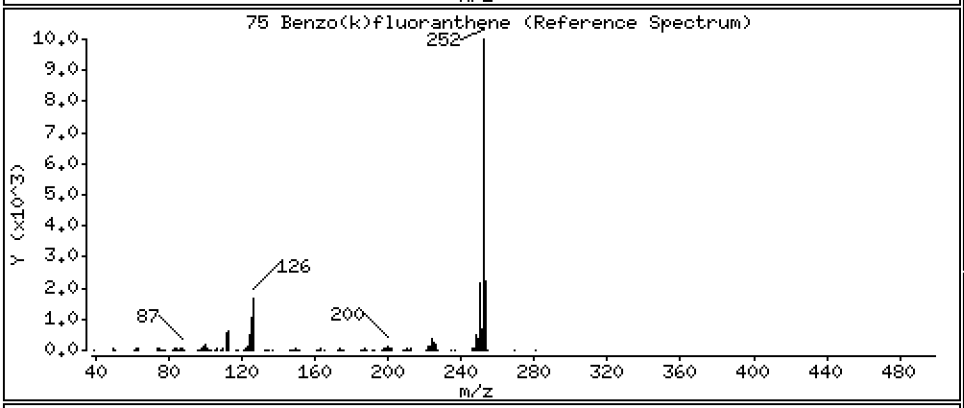
Concentration: 2.542 ug/mL

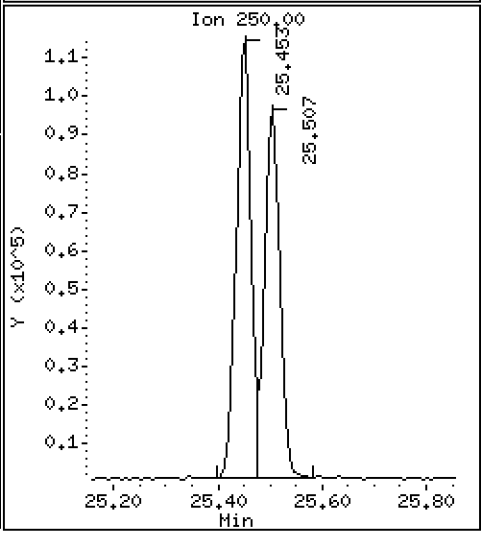


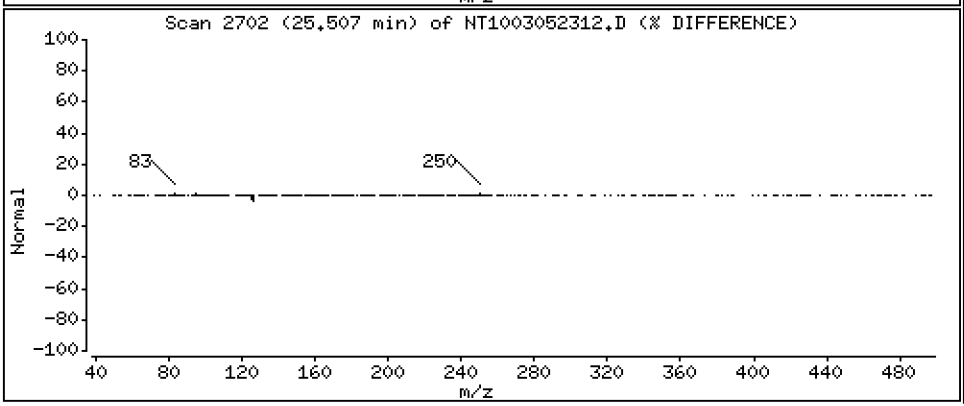












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

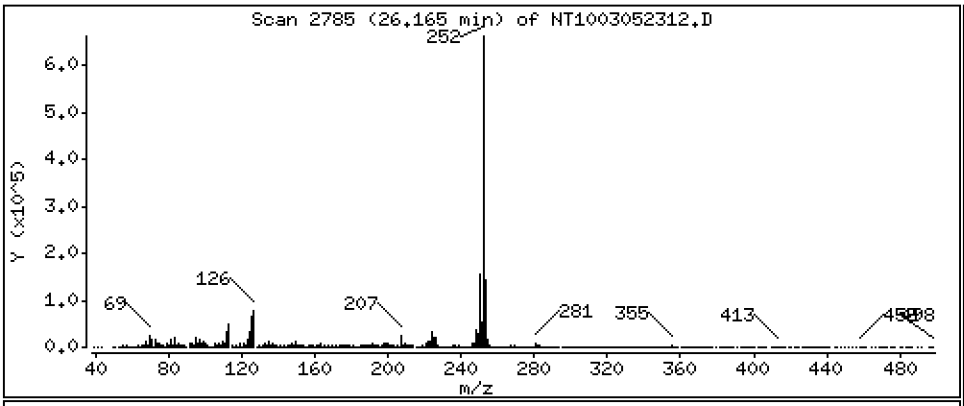
Operator: VTS

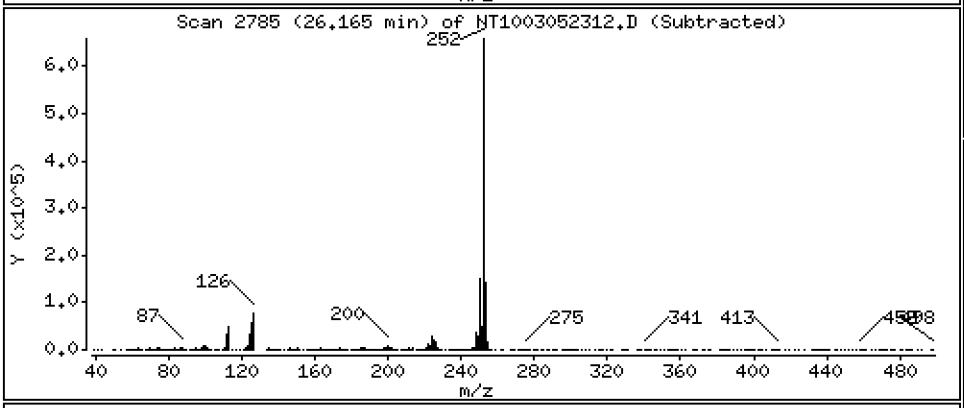
Column phase: ZB-5msi

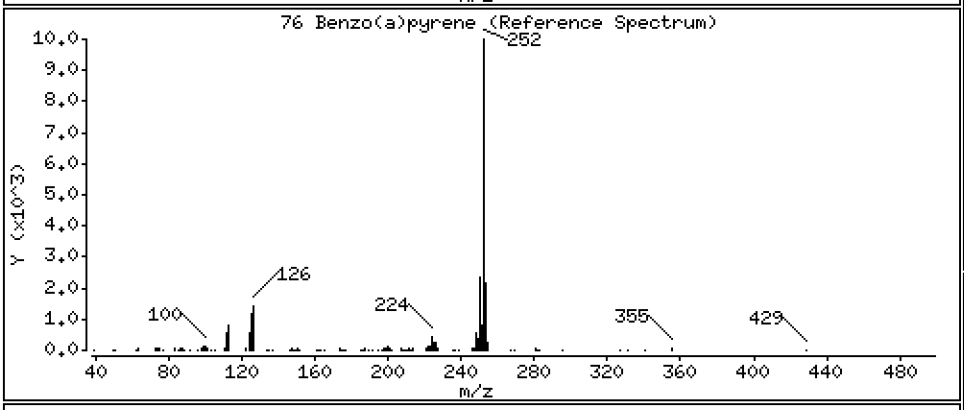
Column diameter: 0.25

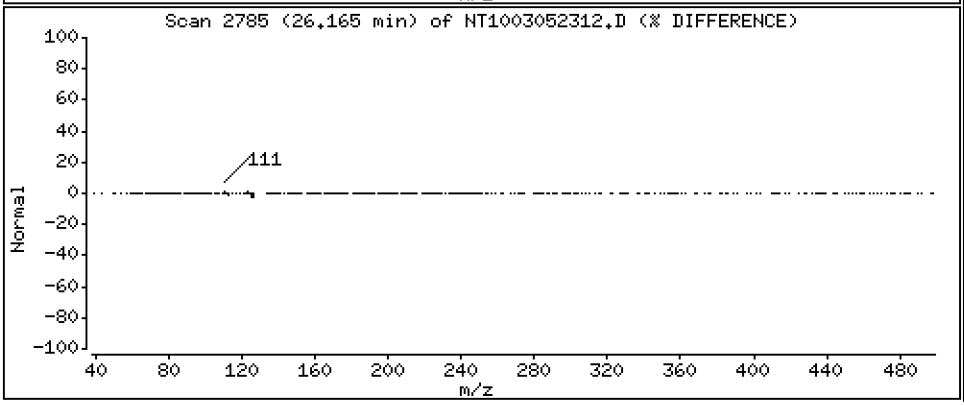
76 Benzo(a)pyrene

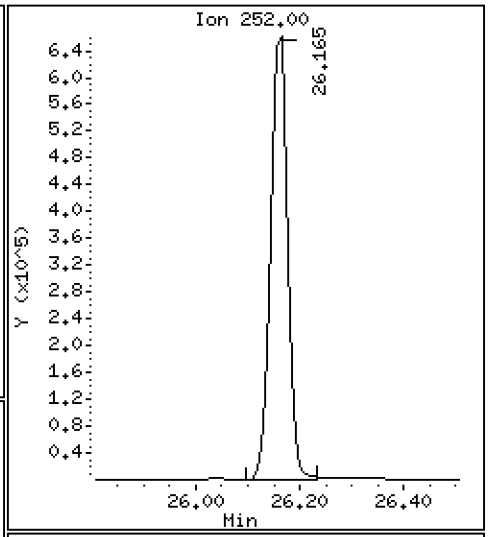
Concentration: 4.540 ug/mL

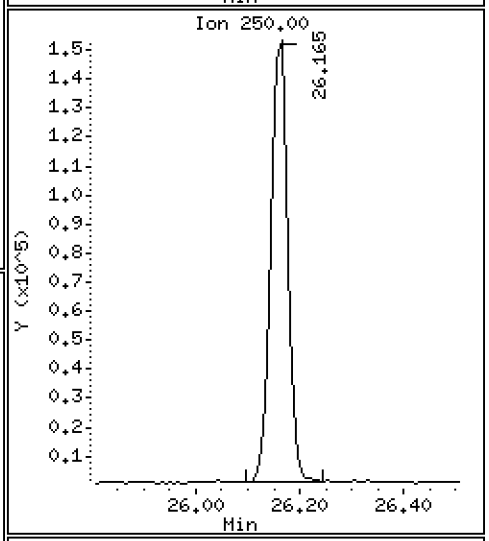


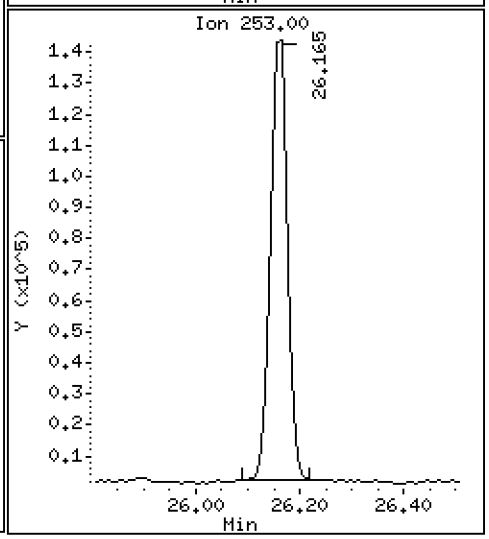












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

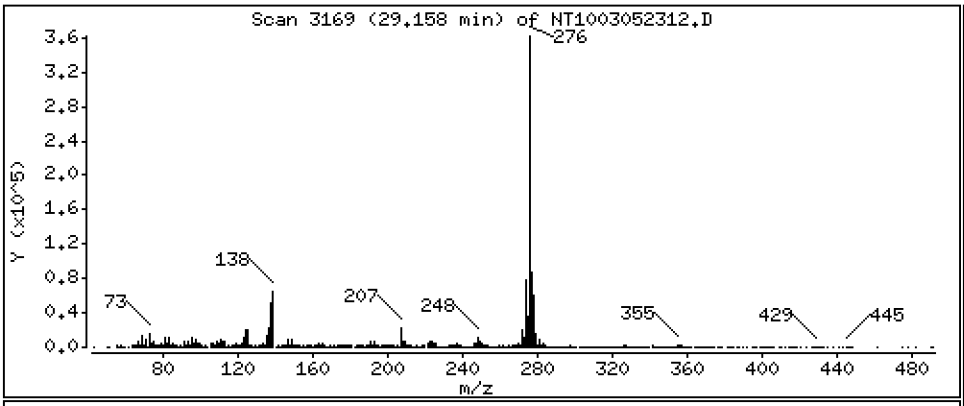
Operator: VTS

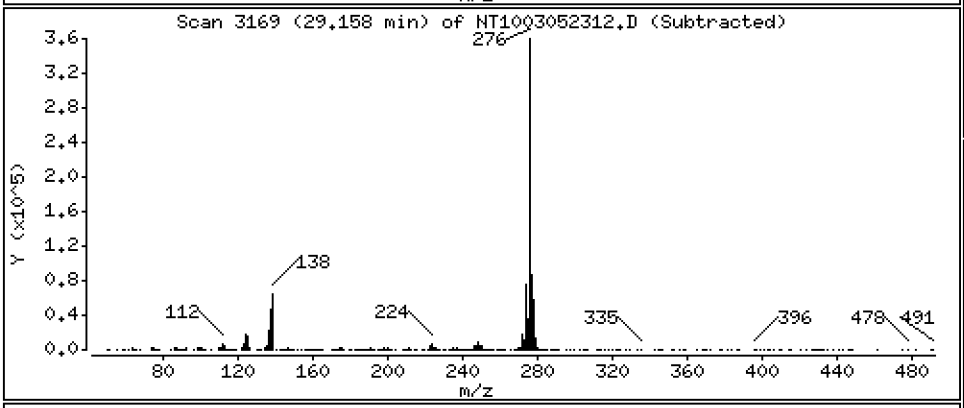
Column phase: ZB-5msi

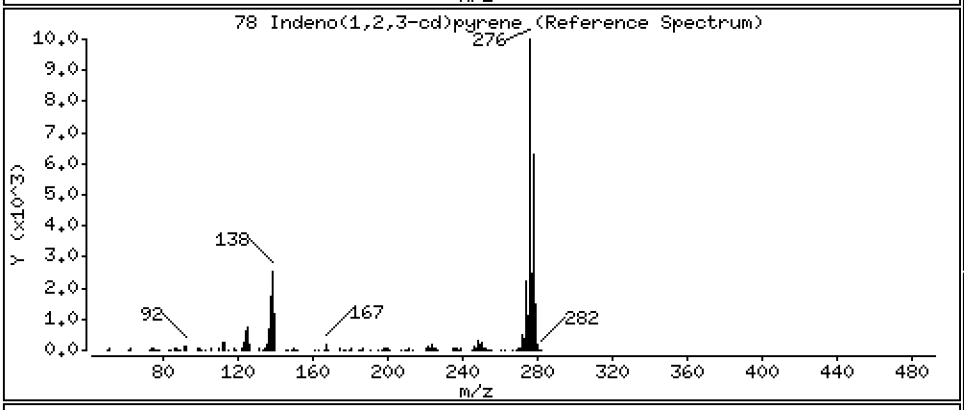
Column diameter: 0.25

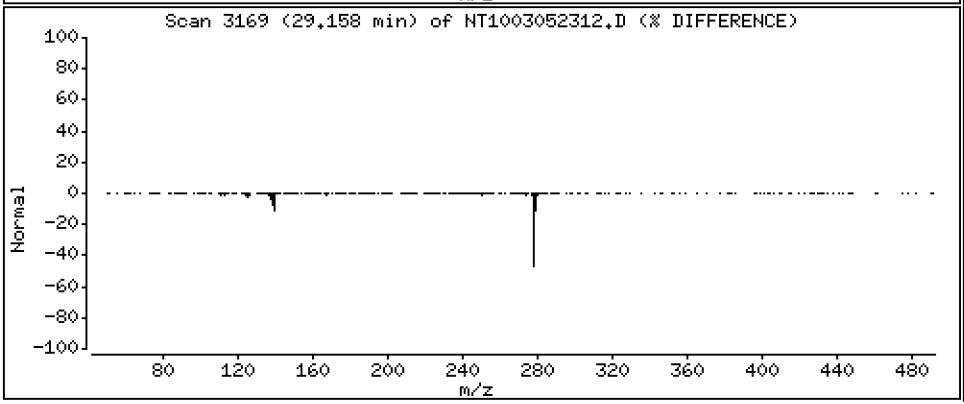
78 Indeno(1,2,3-cd)pyrene

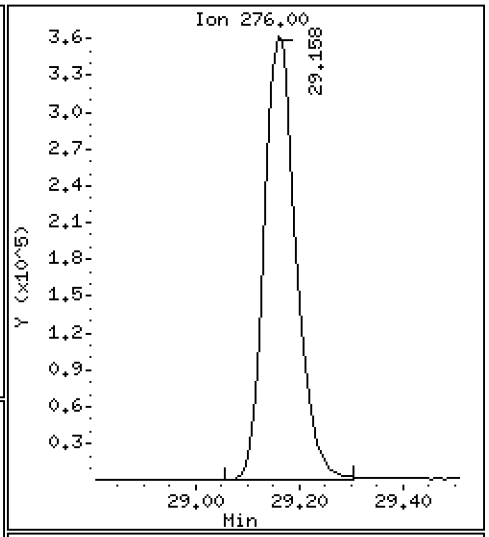
Concentration: 4.177 ug/mL

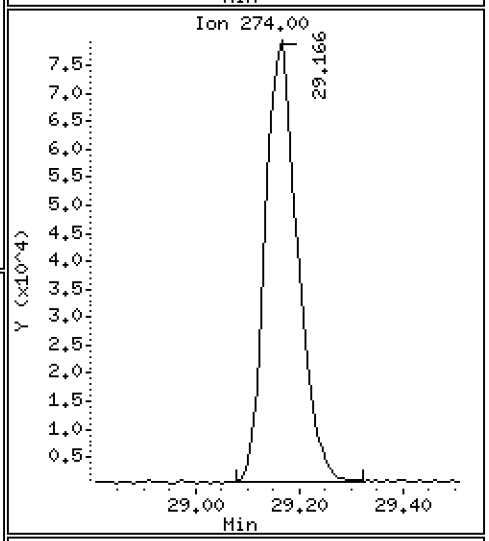


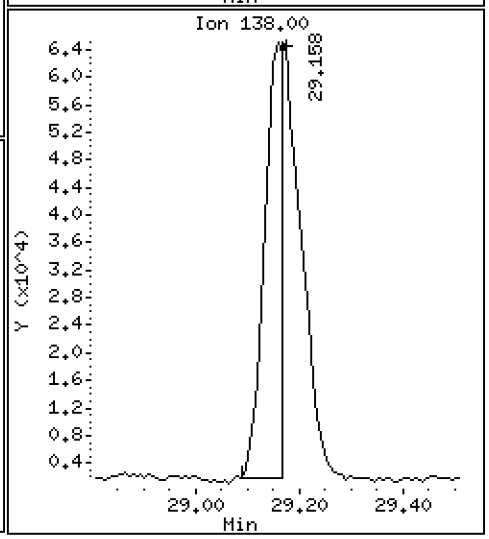












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

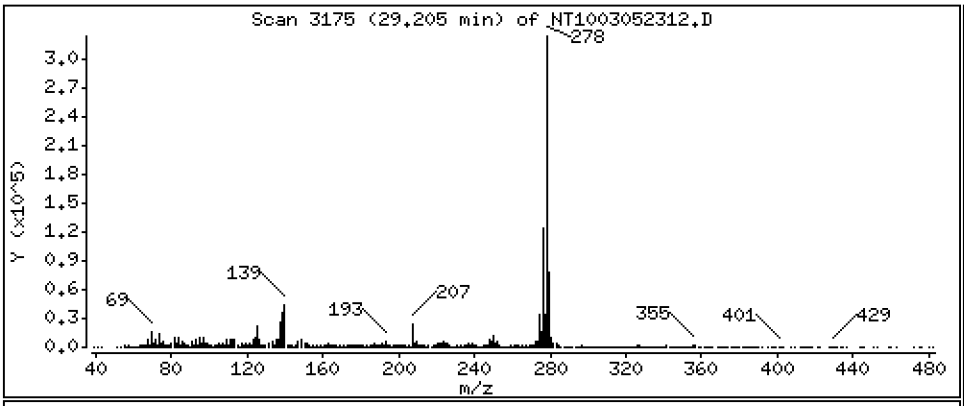
Operator: VTS

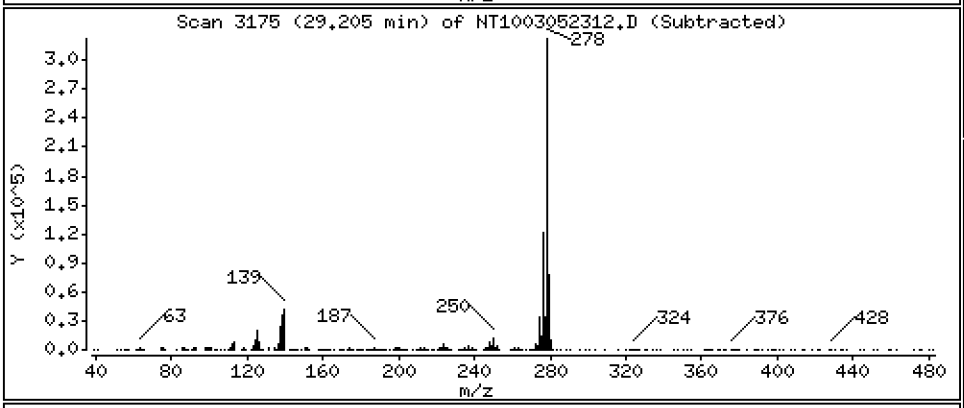
Column phase: ZB-5msi

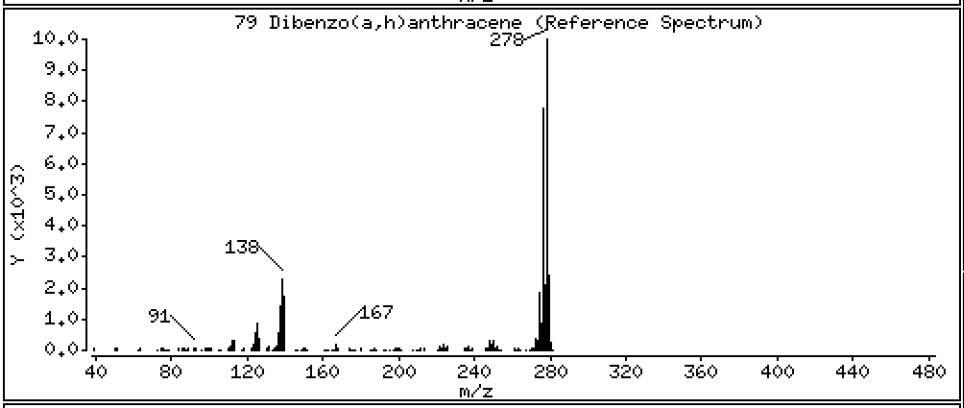
Column diameter: 0.25

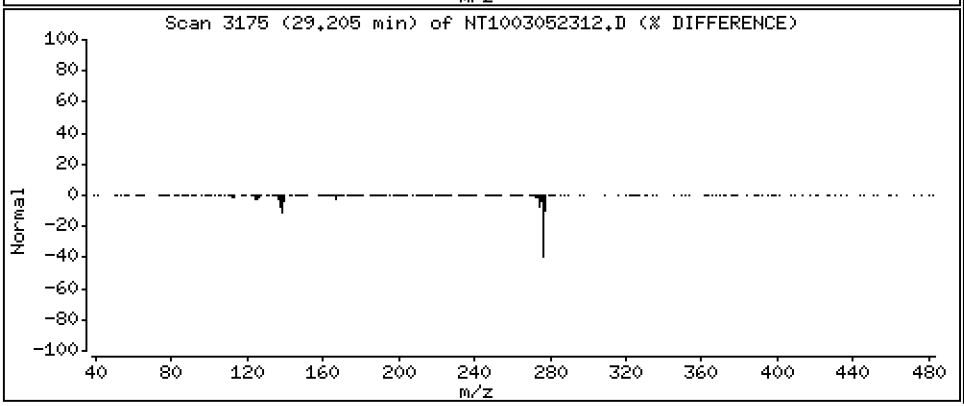
79 Dibenzo(a,h)anthracene

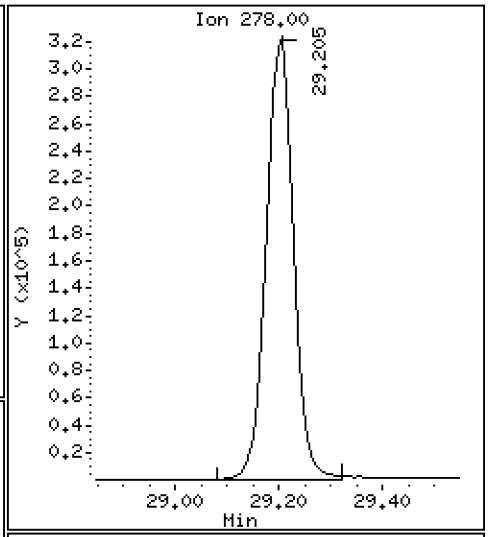
Concentration: 4.163 ug/mL

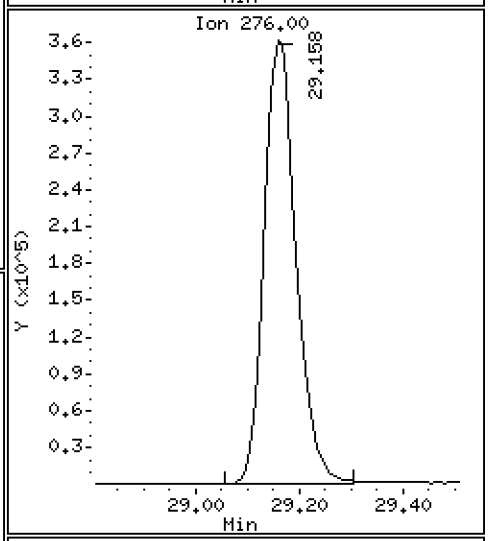


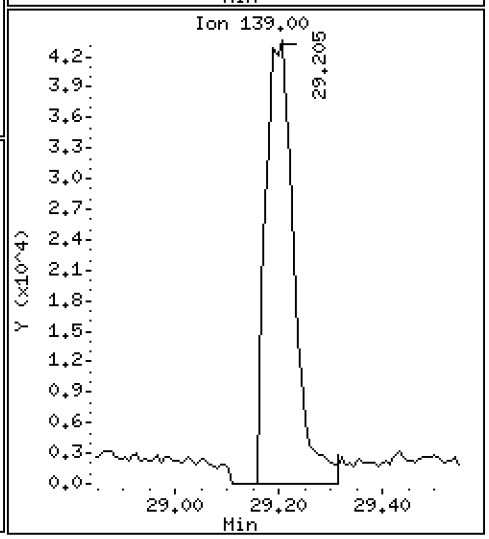












Date : 05-MAR-2023 20:22

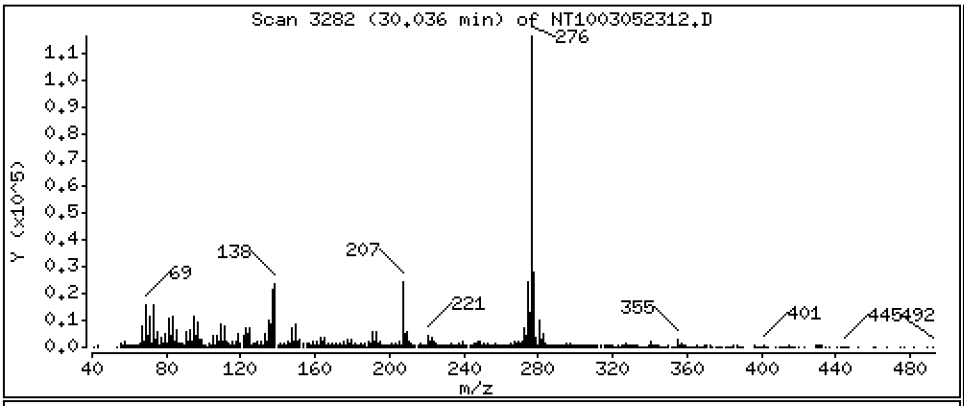
Client ID: Instrument: nt10.i

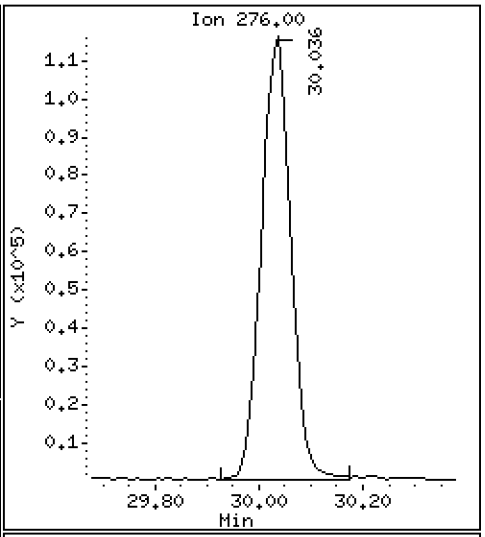
Sample Info: BLA0685-SRM1

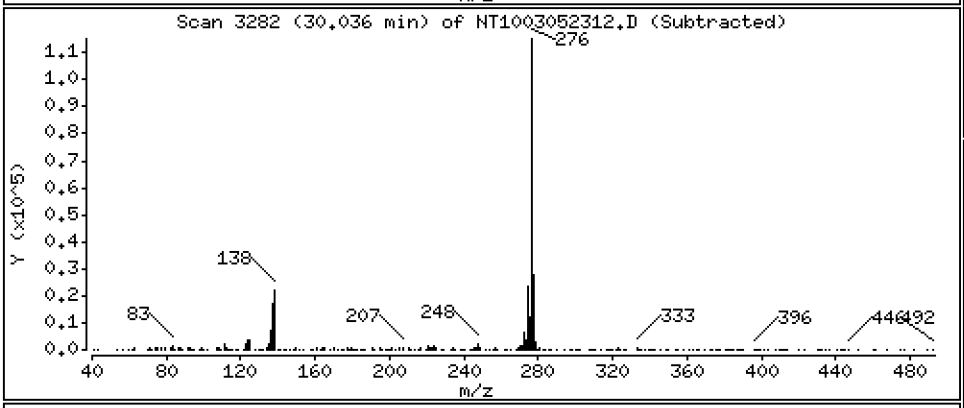
Operator: VTS

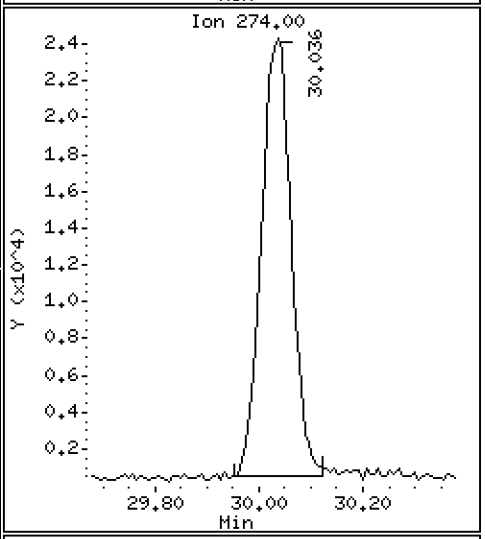
Column phase: ZB-5msi Column diameter: 0.25

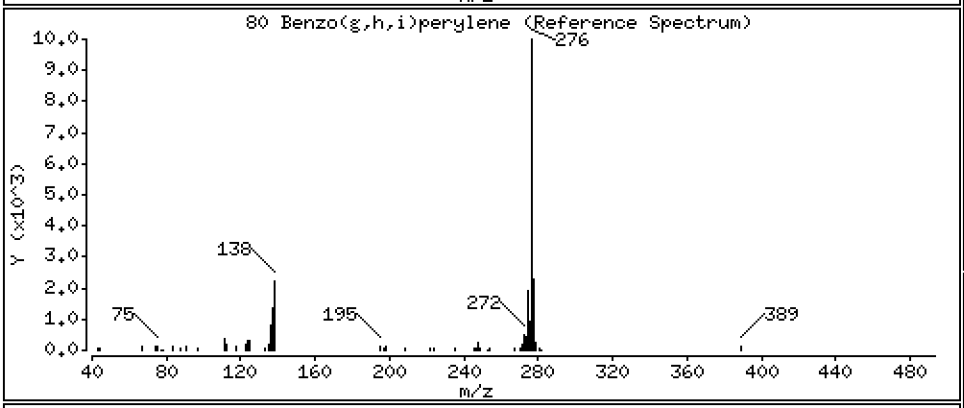
80 Benzo(g,h,i)perylene Concentration: 1.603 ug/mL

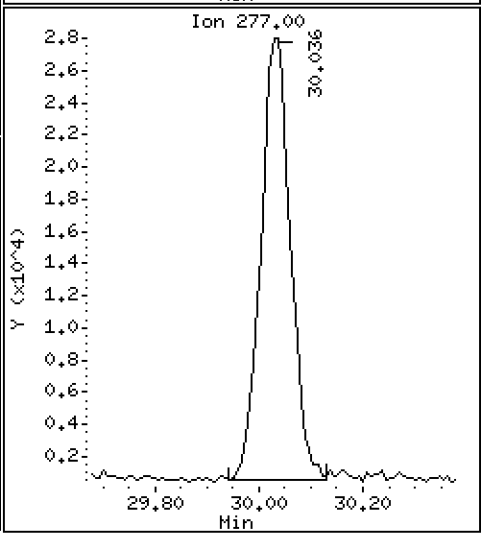


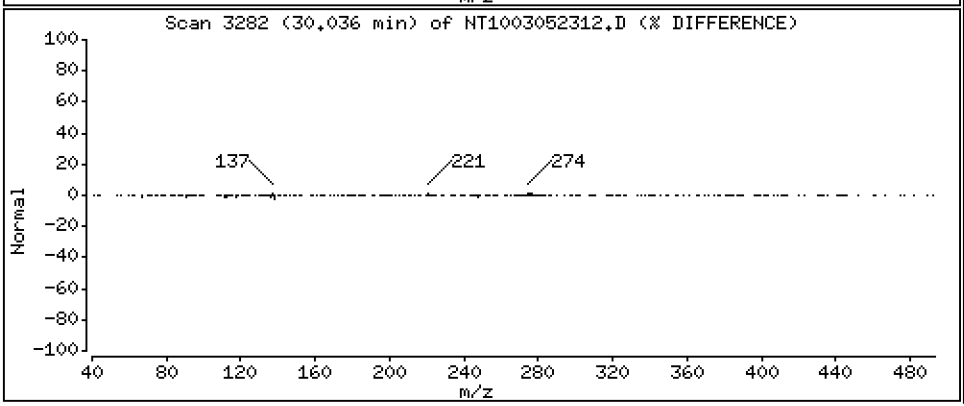












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

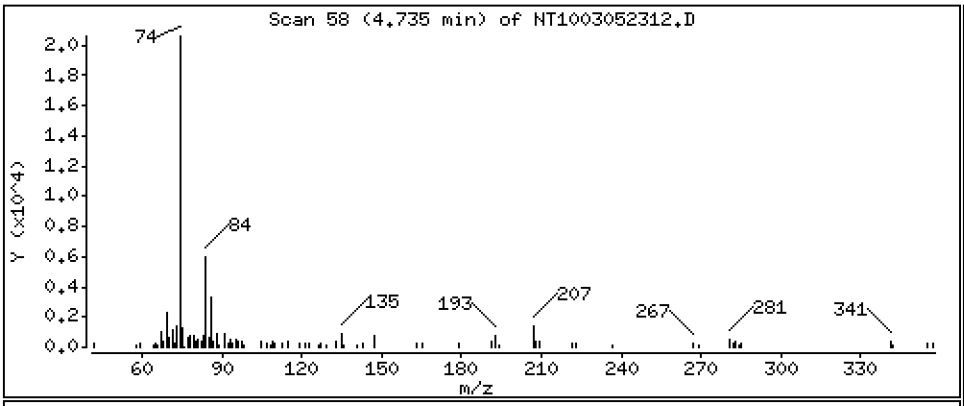
Operator: VTS

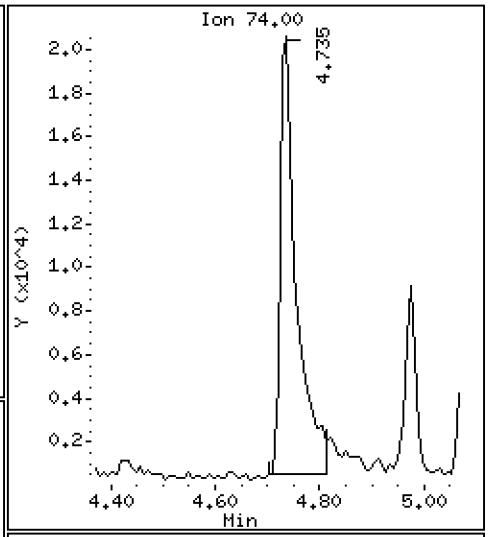
Column phase: ZB-5msi

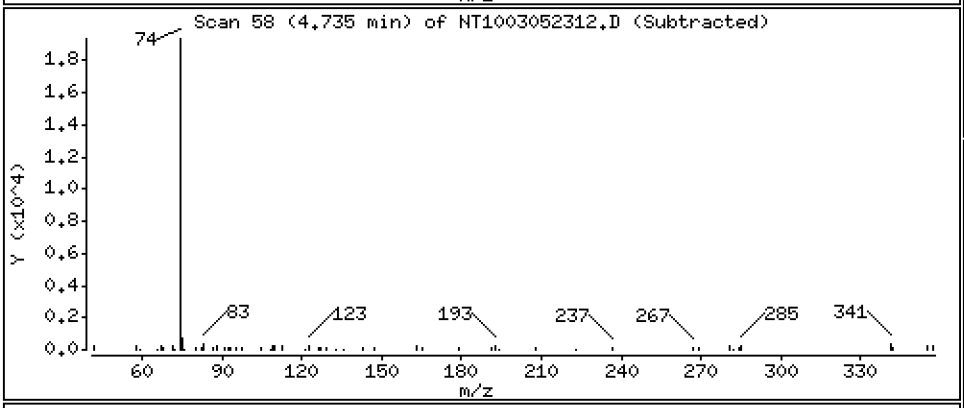
Column diameter: 0.25

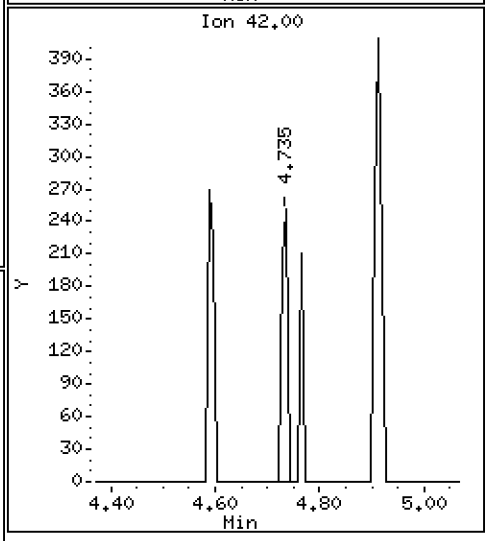
90 N-Nitrosodimethylamine

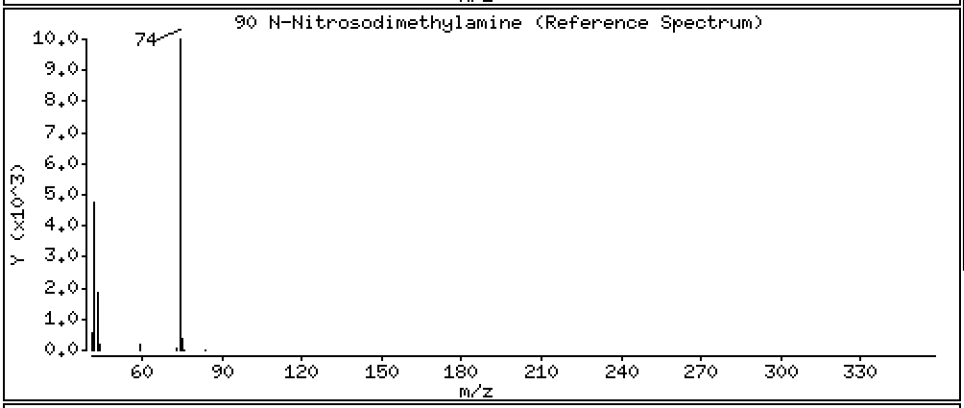
Concentration: 0.8622 ug/mL

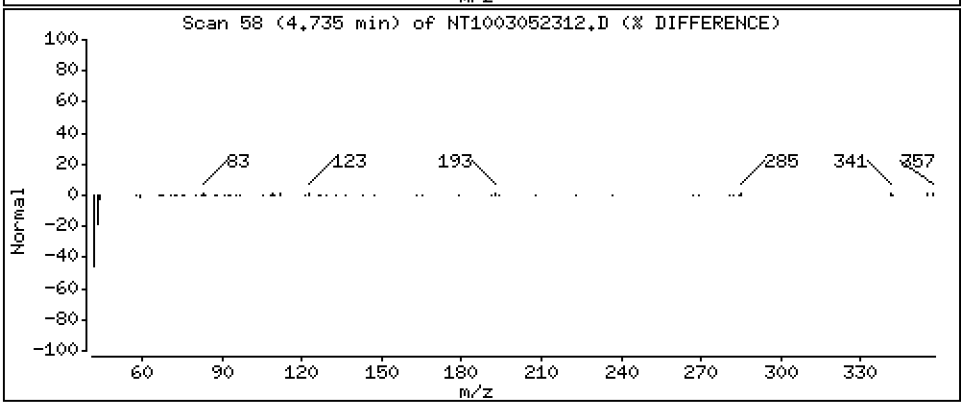












Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

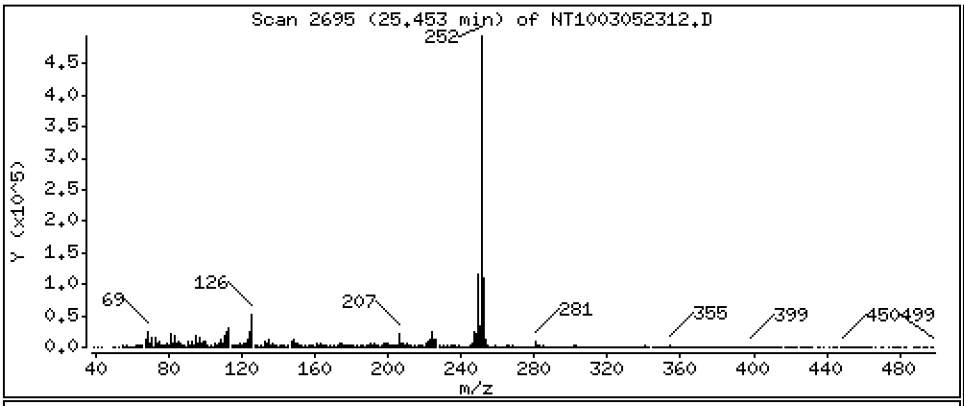
Operator: VTS

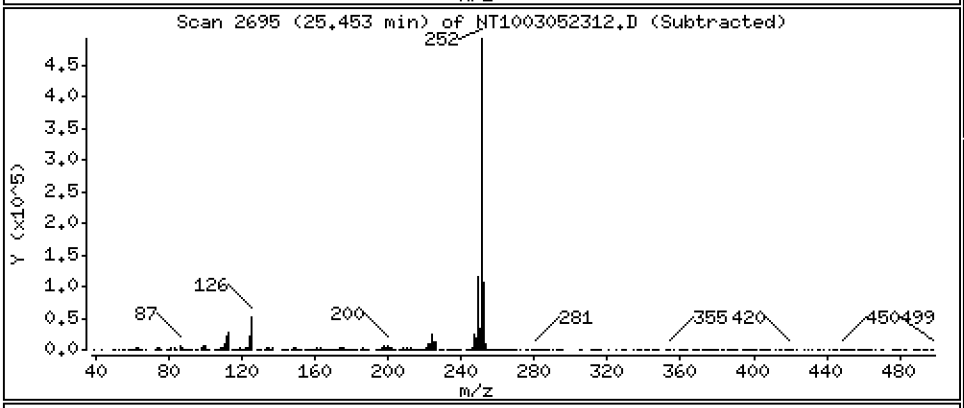
Column phase: ZB-5msi

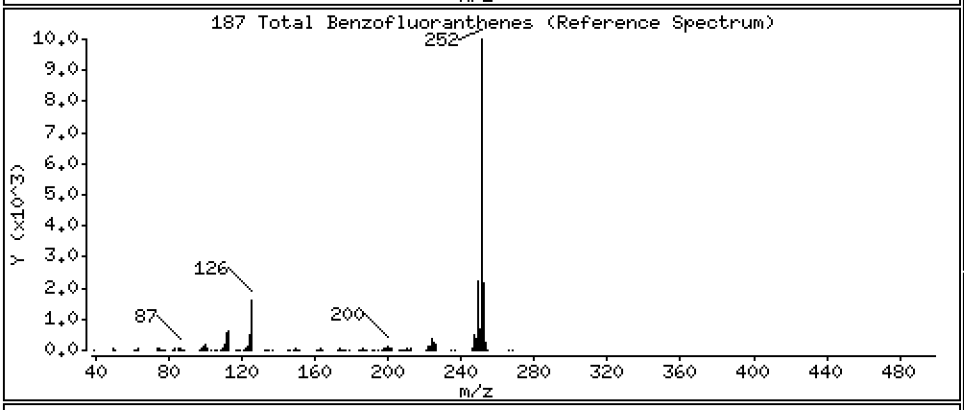
Column diameter: 0.25

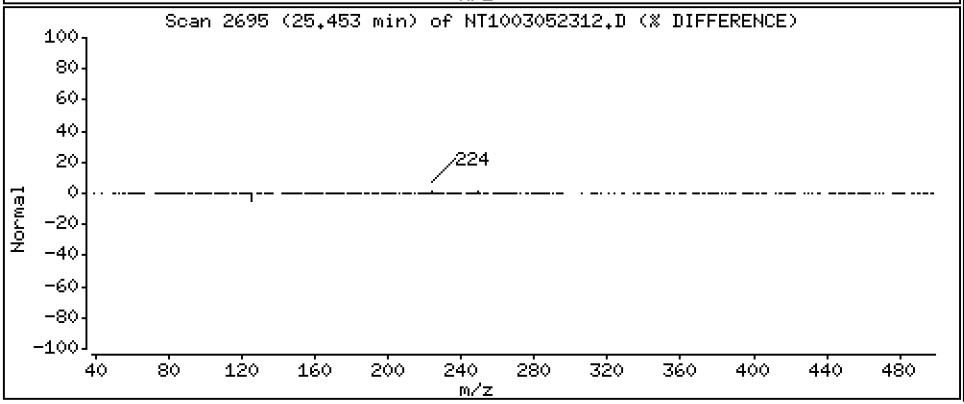
187 Total Benzofluoranthenes

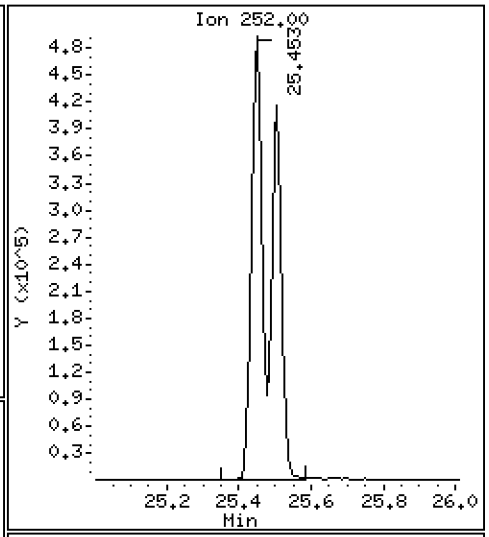
Concentration: 5.362 ug/mL

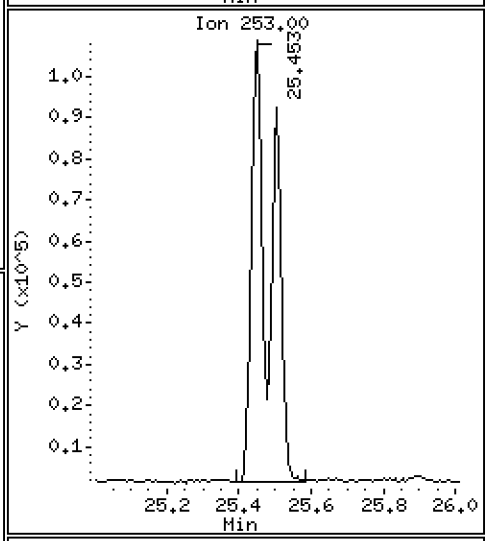


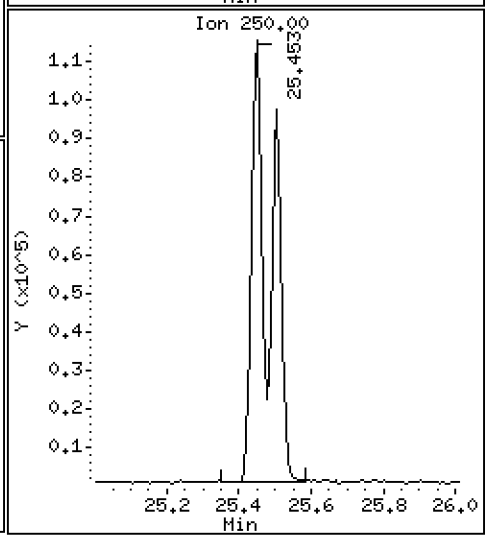












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM1

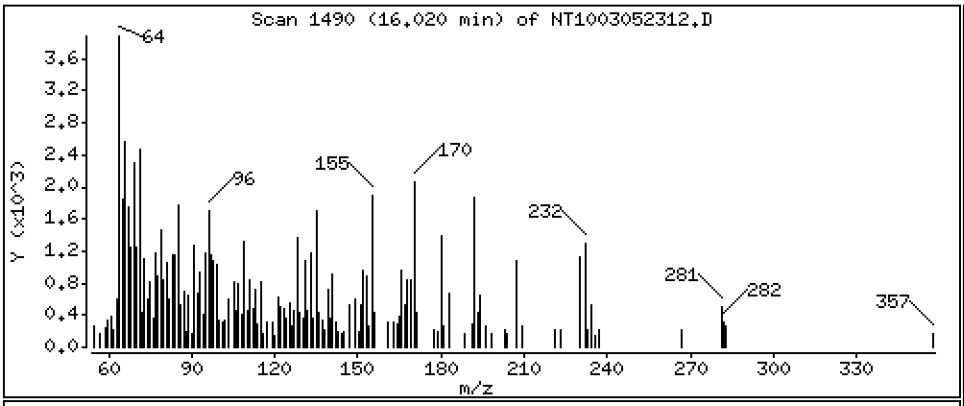
Operator: VTS

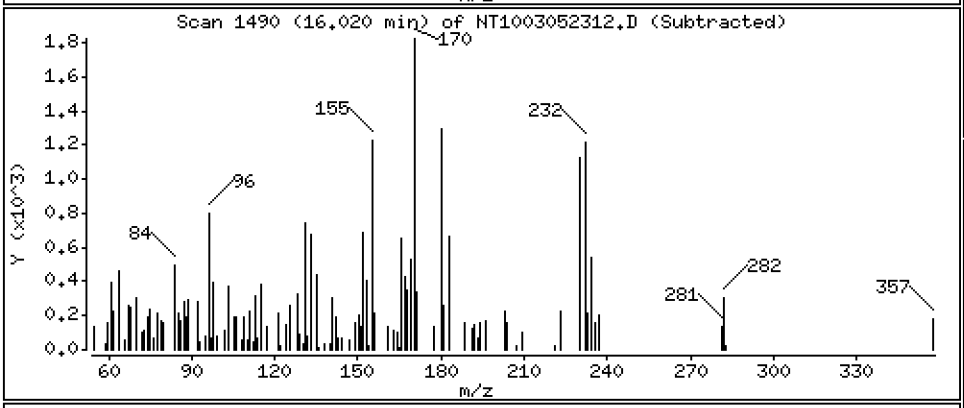
Column phase: ZB-5msi

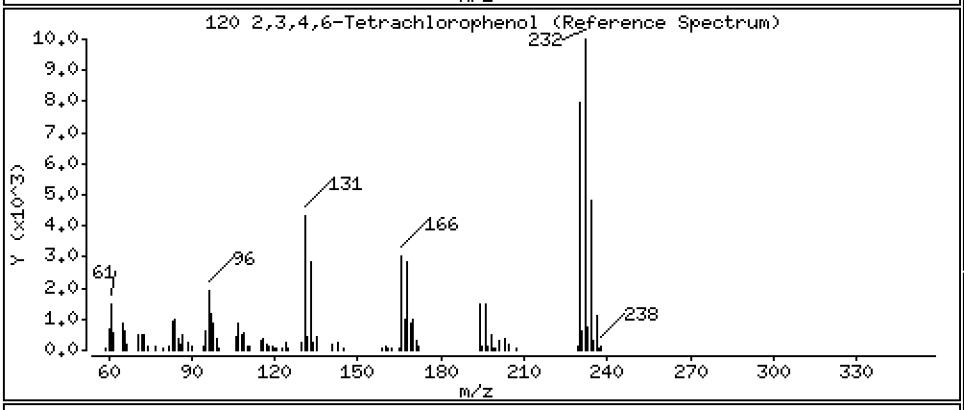
Column diameter: 0.25

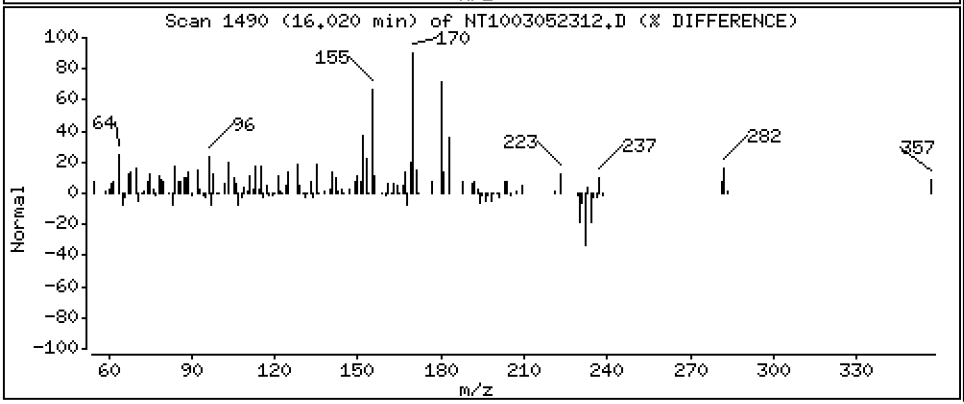
120 2,3,4,6-Tetrachlorophenol

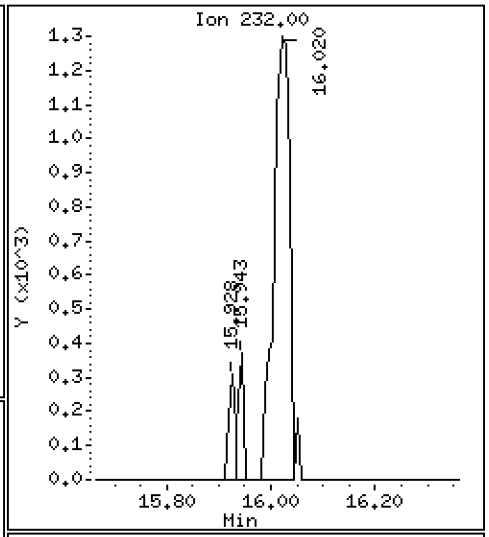
Concentration: 0.05610 ug/mL

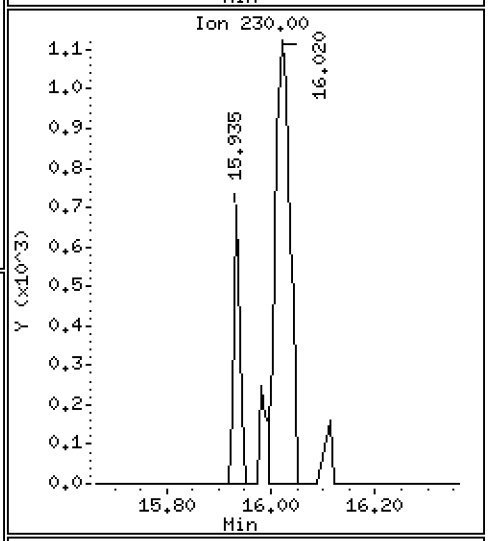


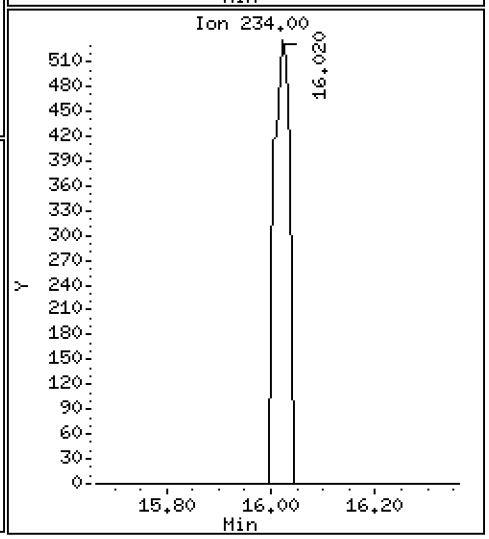












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305.b\NT1003052312.D
Lab Smp Id: BLA0685-SRM1
Inj Date : 05-MAR-2023 20:22
Operator : VTS Inst ID: nt10.i
Smp Info : BLA0685-SRM1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305.b\ABN.m
Meth Date : 27-Mar-2023 11:22 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.905	6.897	(0.747)	487412	6.03072	6.031
$	2 Phenol-d5	99	8.512	8.504	(0.921)	603026	6.42658	6.427
	3 Phenol	94	8.535	8.528	(0.923)	278057	2.78717	2.787
$	5 2-Chlorophenol-d4	132	8.821	8.813	(0.954)	540310	6.74916	6.749
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	8.852	8.844	(0.957)	114711	1.37928	1.379
	7 1,3-Dichlorobenzene	146	9.146	9.138	(0.989)	32338	0.35267	0.3527
*	8 1,4-Dichlorobenzene-d4	152	9.247	9.239	(1.000)	256880	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	9.541	9.534	(1.032)	242079	4.04736	4.047
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	121	9.743	9.728	(1.054)	31872	1.25400	1.254
	13 2-Methylphenol	108	9.673	9.666	(1.046)	372351	4.71368	4.714
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.968	9.953	(1.078)	496760	5.18986	5.190
$	18 Nitrobenzene-d5	82	10.310	10.302	(0.878)	457915	4.54480	4.545
	19 Nitrobenzene	77	10.341	10.341	(0.881)	206666	2.18661	2.187
	20 Isophorone	82	10.807	10.799	(0.920)	237048	1.96481	1.965
	21 2-Nitrophenol	139	10.967	10.959	(0.934)	241758	4.75681	4.757
	22 2,4-Dimethylphenol	107	11.018	11.018	(0.938)	41345	0.45717	0.4572
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	11.171	11.196	(0.951)	13598	0.25394	0.2539
	25 2,4-Dichlorophenol	162	11.442	11.434	(0.974)	580931	7.98558	7.986
	26 1,2,4-Trichlorobenzene	180	11.610	11.603	(0.989)	62168	0.87644	0.8764
*	27 Naphthalene-d8	136	11.742	11.726	(1.000)	917867	4.00000	
	28 Naphthalene	128	11.780	11.773	(1.003)	582009	2.47051	2.471
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	12.004	11.997	(1.022)	67138	1.29990	1.300
	31 4-Chloro-3-methylphenol	107	12.840	12.825	(1.094)	164211	2.17428	2.174
	32 2-Methylnaphthalene	142	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
34	2,4,6-Trichlorophenol	196	13.753	13.746	(0.896)	115531	2.44183	2.442
35	2,4,5-Trichlorophenol	196	13.831	13.815	(0.901)	197473	3.88005	3.880
$ 36	2-Fluorobiphenyl	172	13.931	13.924	(0.908)	788921	4.46604	4.466
37	2-Chloronaphthalene	162	14.194	14.187	(0.925)	328461	2.36859	2.369
38	2-Nitroaniline	65	Compound Not Detected.					
39	Dimethylphthalate	163	14.767	14.767	(0.962)	842171	5.26547	5.265
40	Acenaphthylene	152	15.053	15.046	(0.981)	371844	1.55533	1.555
41	2,6-Dinitrotoluene	165	Compound Not Detected.					
* 42	Acenaphthene-d10	164	15.347	15.340	(1.000)	495256	4.00000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	15.409	15.409	(1.004)	799777	5.54690	5.547
45	2,4-Dinitrophenol	184	15.479	15.479	(1.009)	32348	3.46965	3.470(H)
46	Dibenzofuran	168	15.772	15.765	(1.028)	1406463	6.57253	6.573
47	4-Nitrophenol	109	15.595	15.579	(1.016)	187654	6.51517	6.515
48	2,4-Dinitrotoluene	165	15.742	15.742	(1.026)	207041	4.01029	4.010
50	Diethylphthalate	149	16.236	16.237	(1.058)	37859	0.22344	0.2234
49	Fluorene	166	16.492	16.484	(1.075)	694328	3.89979	3.900
51	4-Chlorophenyl-phenylether	204	16.484	16.484	(1.074)	192538	2.42738	2.427
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	16.585	16.585	(0.899)	157538	7.21108	7.211
54	N-Nitrosodiphenylamine	169	16.731	16.724	(0.907)	307220	2.26328	2.263
$ 55	2,4,6-Tribromophenol	330	16.993	16.986	(1.107)	229306	7.16547	7.165
56	4-Bromophenyl-phenylether	248	17.511	17.504	(0.949)	518968	9.43548	9.435
57	Hexachlorobenzene	284	Compound Not Detected.					
58	Pentachlorophenol	266	18.045	18.038	(0.978)	48632	1.68953	1.690
* 59	Phenanthrene-d10	188	18.455	18.448	(1.000)	917438	4.00000	
60	Phenanthrene	178	18.509	18.502	(1.003)	1259949	5.36630	5.366
61	Anthracene	178	18.618	18.610	(1.009)	568619	2.49759	2.498
62	Carbazole	167	18.950	18.943	(1.027)	1384571	6.63840	6.638
63	Di-n-butylphthalate	149	19.647	19.647	(1.065)	553041	1.92948	1.929
64	Fluoranthene	202	20.900	20.885	(0.889)	700730	2.30577	2.306
65	Pyrene	202	21.326	21.318	(0.907)	998869	3.22787	3.228
$ 66	Terphenyl-d14	244	21.604	21.597	(0.919)	1061995	4.24136	4.241
67	Butylbenzylphthalate	149	22.495	22.487	(0.957)	518232	3.14755	3.148
68	Benzo(a)anthracene	228	23.501	23.494	(0.999)	1923107	6.17379	6.174
* 69	Chrysene-d12	240	23.517	23.517	(1.000)	883418	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.563	23.563	(1.002)	404248	1.59684	1.597
72	bis(2-Ethylhexyl)phthalate	149	23.494	23.494	(0.955)	702075	3.32561	3.326
* 134	Di-n-octylphthalate-d4	153	24.593	24.593	(1.000)	1475913	4.00000	
73	Di-n-octylphthalate	149	24.608	24.609	(1.001)	1055694	3.22560	3.226
74	Benzo(b)fluoranthene	252	25.452	25.445	(0.968)	971965	2.80490	2.805(H)
75	Benzo(k)fluoranthene	252	25.506	25.507	(0.971)	845975	2.54163	2.542
76	Benzo(a)pyrene	252	26.165	26.157	(0.996)	1434710	4.53999	4.540
* 77	Perylene-d12	264	26.281	26.281	(1.000)	987411	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	29.158	29.158	(1.109)	1535912	4.17742	4.177
79	Dibenzo(a,h)anthracene	278	29.204	29.197	(1.111)	1166425	4.16276	4.163
80	Benzo(g,h,i)perylene	276	30.035	30.028	(1.143)	455110	1.60277	1.603
90	N-Nitrosodimethylamine	74	4.735	4.719	(0.512)	44983	0.86215	0.8622
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.452	25.507	(0.968)	1783119	5.36169	5.362
120 2,3,4,6-Tetrachlorophenol	232	16.020	16.012	(1.044)	2600	0.05610	0.05610

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052312.D
Lab Smp Id: BLA0685-SRM1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:03
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	297263	148632	594526	256880	-13.58
27 Naphthalene-d8	1085336	542668	2170672	917867	-15.43
42 Acenaphthene-d10	563464	281732	1126928	495256	-12.11
59 Phenanthrene-d10	1038318	519159	2076636	917438	-11.64
69 Chrysene-d12	1012751	506376	2025502	883418	-12.77
134 Di-n-octylphthala	1628890	814445	3257780	1475913	-9.39
77 Perylene-d12	1152264	576132	2304528	987411	-14.31

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.74	0.13
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.52	23.02	24.02	23.52	-0.00
134 Di-n-octylphthala	24.59	24.09	25.09	24.59	-0.00
77 Perylene-d12	26.28	25.78	26.78	26.28	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052312.D

Lab ID: BLA0685-SRM1
nt10.i, 20230305.b\ABN.m,   05-MAR-2023 20:22

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: NT1003052302.D

On Column LOD for nt10.i, 20230305.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, LLC
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E

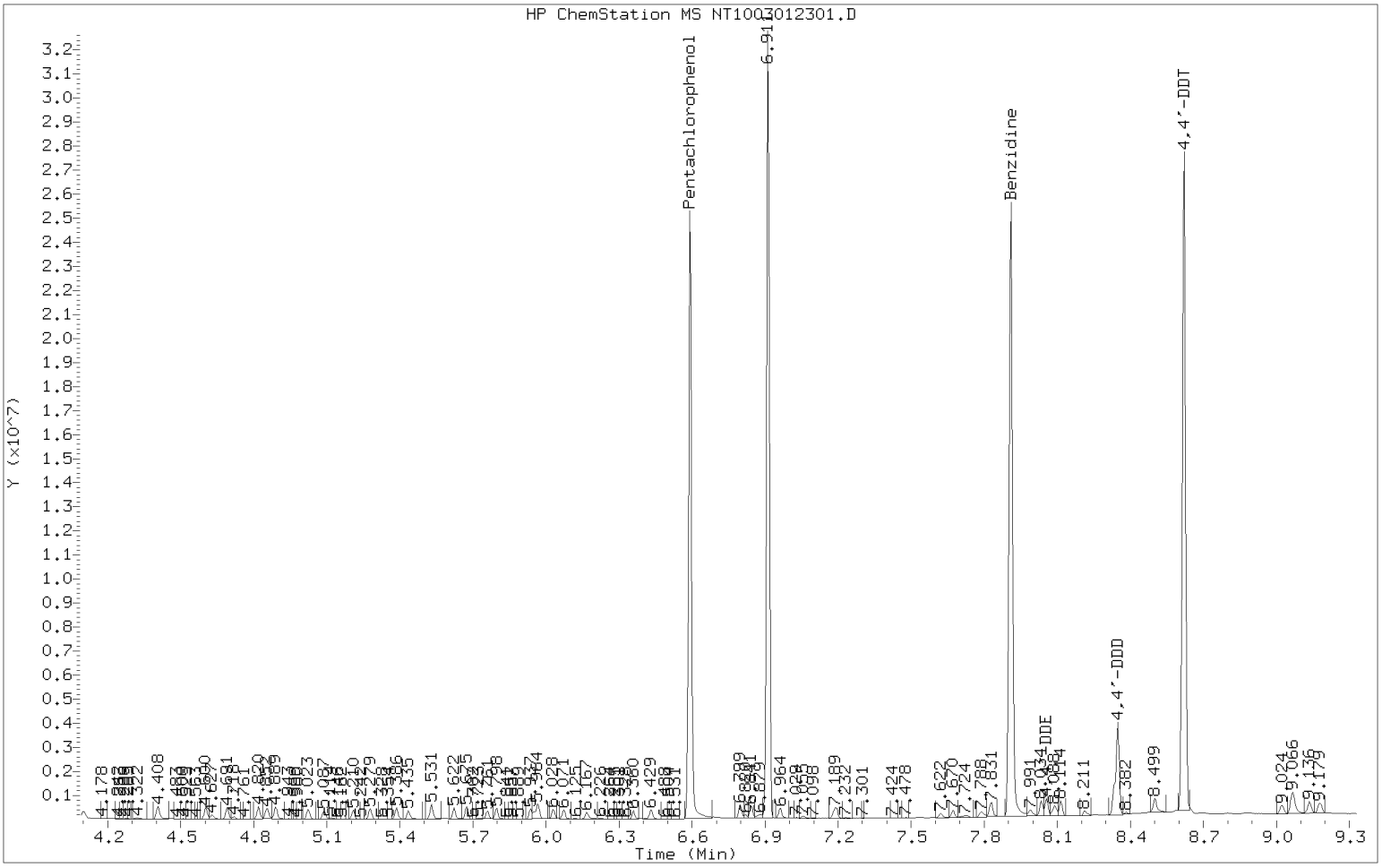
Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Lab File ID:	NT1003012301.D	Injection Date:	03/01/23
Instrument ID:	NT10	Injection Time:	15:49
Sequence:	SLC0084	Lab Sample ID:	SLC0084-TUN1

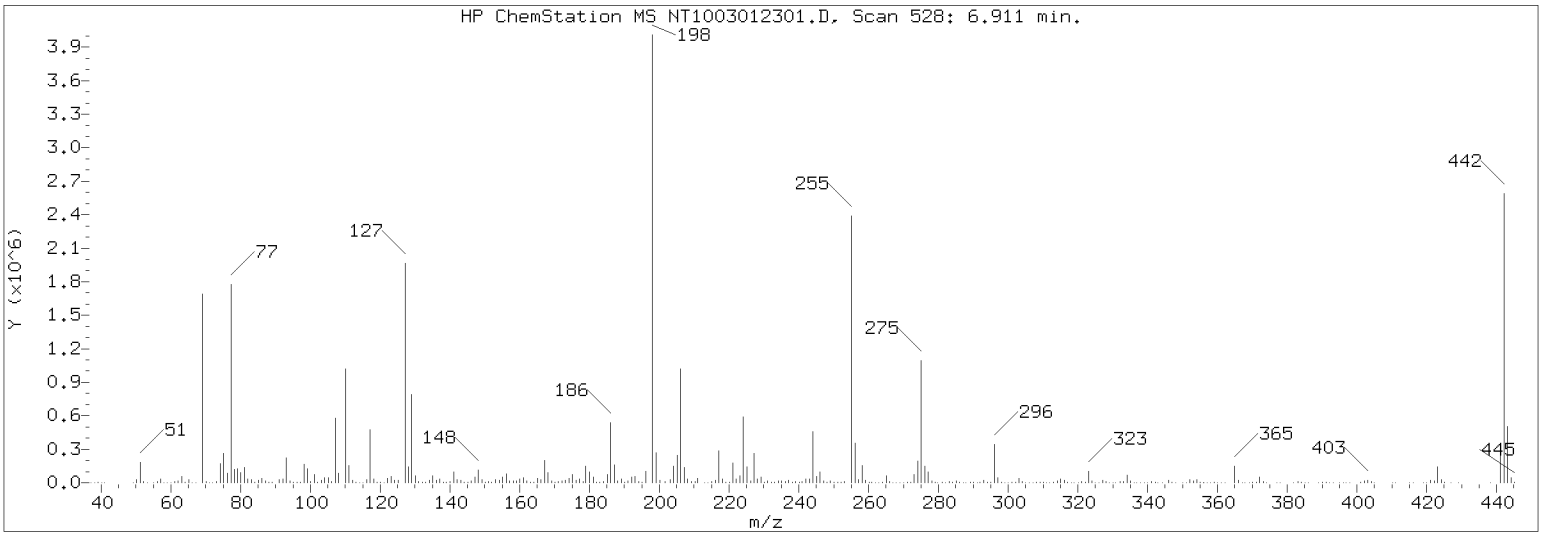
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	0.793	PASS
69	Less than 100% of 198	41.1	PASS
70	Less than 2% of 69	0.366	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.67	PASS
365	1 - 100% of 198	4.33	PASS
441	Less than 150% of 443	73.4	PASS
442	1 - 200% of 198	80.1	PASS
443	15 - 24% of 442	19.1	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SLC0084-TUN1	NT1003012301.D	03/01/2023	15:49
Cal Standard	SLC0084-CAL7	NT1003012302.D	03/01/2023	16:04
Cal Standard	SLC0084-CAL6	NT1003012303.D	03/01/2023	16:42
Cal Standard	SLC0084-CAL5	NT1003012304.D	03/01/2023	17:21
Cal Standard	SLC0084-CAL4	NT1003012305.D	03/01/2023	17:59
Cal Standard	SLC0084-CAL3	NT1003012306.D	03/01/2023	18:37
Cal Standard	SLC0084-CAL2	NT1003012307.D	03/01/2023	19:15
Cal Standard	SLC0084-CAL1	NT1003012308.D	03/01/2023	19:53
Secondary Cal Check	SLC0084-SCV1	NT1003012311.D	03/01/2023	21:46
Initial Cal Blank	SLC0084-ICB1	NT1003012312.D	03/01/2023	22:24

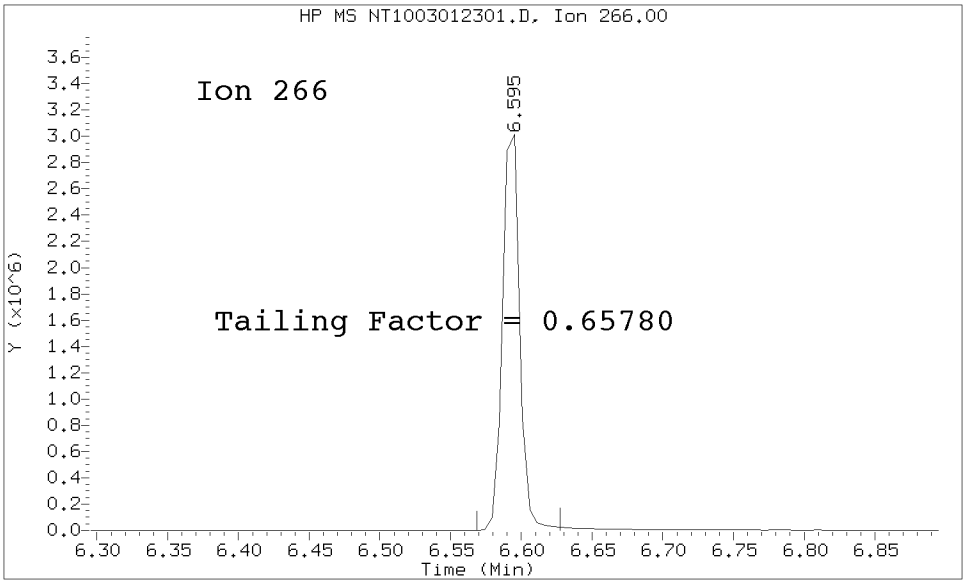
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230301.b/NT1003012301.D/NT1003012301.D
Method Used: \20230301.b\DFTPP8270E.m Inst: nt10
Injection Date: 01-MAR-2023 15:49 Operator: JGR
Sample Info: SLC0084-TUN1 SEQ-TUN1
Report Date: 03/07/2023 12:33



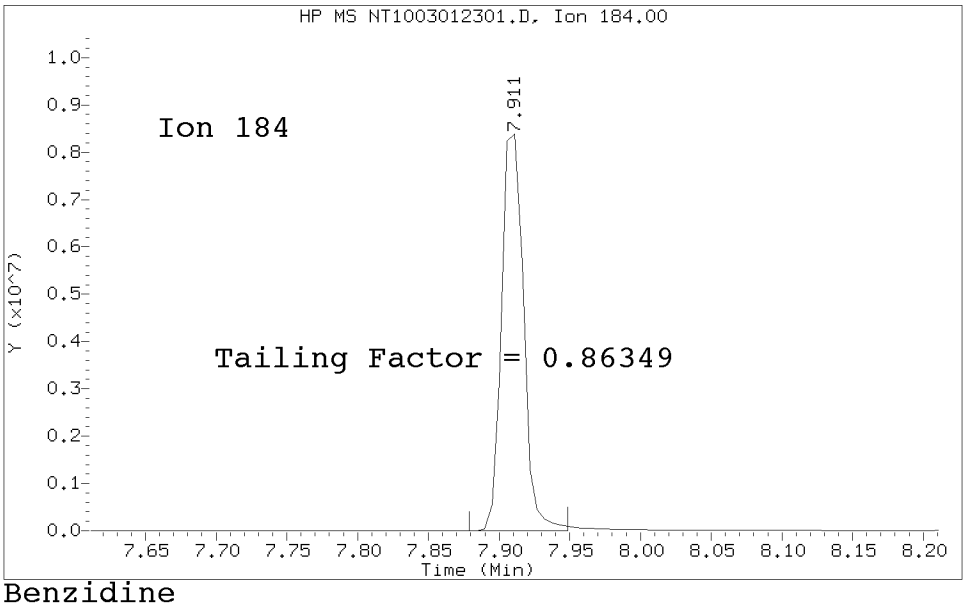


Datafile Analyzed: /20230301.b/NT1003012301.D/NT1003012301.D
Method Used: \20230301.b\DFTPP8270E.m\sw846ddt.m Inst: nt10
Injection Date: 01-MAR-2023 15:49 Operator: JGR
Sample Info: SEQ-TUN1
Report Date: 03/07/2023 12:33



Pentachlorophenol
==========
 Exp. RT = 6.590
Found RT = 6.595

Tail Factor = 0.658 Maximum Allowed = 2.0



Benzidine
==========
 Exp. RT = 7.911
Found RT = 7.911

Tail Factor = 0.863 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.6578035	2.000	PASS
Benzidine	0.8634886	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	4780124			N/A
4,4-DDE	47256	1.0	20.0	PASS
4,4-DDD	542360	10.2	20.0	PASS
4,4-DDD + DDE	589616	11.0	20.0	PASS

Tuning Sample, nt10.i/20230301.b/NT1003012301.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.33 (0.79)
69	Mass 69 relative abundance	41.10
70	Less than 2.00% of mass 69	0.15 (0.37)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.67
365	1.00 - 100.00% of mass 198	4.33
441	Less than 150.00% of mass 443	11.23 (73.44)
442	Less than 200.00% of mass 198	80.08
443	15.00 - 24.00% of mass 442	15.30 (19.10)

Data File: NT1003012301.D
Spectrum: Avg. Scans 527-529 (6.91), Background Scan 522
Location of Maximum: 198.00
Number of points: 369

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	462	140.00	7430	237.00	14976	332.00	6725
38.00	1113	141.00	70248	238.00	2080	333.00	7901
39.00	4743	142.00	22264	239.00	7687	334.00	53800
40.00	108	143.00	15456	240.00	6126	335.00	13827
45.00	84	144.00	4558	241.00	9927	336.00	1422
49.00	890	145.00	3575	242.00	22800	337.00	158
50.00	20560	146.00	12885	243.00	23656	338.00	111
51.00	115400	147.00	37000	244.00	334528	339.00	1435
52.00	5980	148.00	83184	245.00	44200	340.00	1368
53.00	270	151.00	6891	246.00	75208	341.00	9189
55.00	1004	152.00	4801	247.00	14506	342.00	2530
56.00	6893	153.00	21920	248.00	2995	343.00	476
57.00	20032	154.00	16872	249.00	12012	344.00	229
58.00	1173	155.00	39720	250.00	2462	346.00	19040
59.00	381	156.00	58960	251.00	2978	347.00	3868
60.00	603	157.00	10415	252.00	3463	348.00	369
61.00	8555	158.00	12758	253.00	7543	350.00	680
62.00	12181	159.00	10289	254.00	2201	351.00	1509
63.00	36888	160.00	23104	255.00	1779712	352.00	24280
64.00	5850	161.00	32336	256.00	261248	353.00	16313
65.00	19656	162.00	10036	257.00	19960	354.00	23616
66.00	1277	163.00	2211	258.00	115664	355.00	4277
67.00	218	164.00	3370	259.00	18720	356.00	395
68.00	9335	165.00	26672	260.00	3097	357.00	288
69.00	1177088	166.00	21880	261.00	2983	358.00	496
70.00	4303	167.00	140736	262.00	311	359.00	2088
72.00	118	168.00	67144	263.00	1088	360.00	426
73.00	8187	169.00	12299	264.00	2758	361.00	287
74.00	117944	170.00	4307	265.00	46872	362.00	66
75.00	186240	171.00	6152	266.00	6551	363.00	78
76.00	58584	172.00	12323	267.00	641	364.00	312
77.00	1243648	173.00	16696	268.00	1031	365.00	124024
78.00	82568	174.00	30816	269.00	334	366.00	17240
79.00	86720	175.00	56392	270.00	1777	367.00	1640
80.00	67968	176.00	14808	271.00	3758	368.00	51
81.00	95752	177.00	24968	272.00	4667	369.00	81
82.00	22136	178.00	8414	273.00	54184	370.00	2231
83.00	20016	179.00	108176	274.00	145920	371.00	6578
84.00	1703	180.00	69200	275.00	822080	372.00	39896
85.00	15260	181.00	35088	276.00	108424	373.00	10420
86.00	27208	182.00	5707	277.00	76856	374.00	902
87.00	12947	183.00	2410	278.00	12879	377.00	1108
88.00	4317	184.00	9057	281.00	1271	378.00	190
89.00	1969	185.00	53272	282.00	1654	379.00	112
90.00	227	186.00	390848	283.00	8058	382.00	88
91.00	20144	187.00	115736	284.00	6096	383.00	11296
92.00	22872	188.00	12489	285.00	13310	384.00	3498
93.00	159616	189.00	26224	286.00	2664	385.00	1140
94.00	9906	190.00	3820	287.00	301	386.00	187

95.00	2189	191.00	11505	288.00	1049	388.00	81
96.00	5767	192.00	34688	289.00	3146	389.00	105
97.00	2485	193.00	41016	290.00	2684	390.00	4929
98.00	117552	194.00	9131	291.00	1791	391.00	3340
99.00	90792	195.00	3653	292.00	3510	392.00	2390
100.00	7885	196.00	74504	293.00	16520	393.00	475
101.00	52896	198.00	2863616	294.00	4295	395.00	216
102.00	3052	199.00	190976	295.00	4987	396.00	208
103.00	16416	200.00	14335	296.00	267904	397.00	274
104.00	30568	201.00	9948	297.00	37320	398.00	254
105.00	30136	203.00	20560	298.00	2786	401.00	2284
106.00	9766	204.00	107568	299.00	508	402.00	15386
107.00	410176	205.00	182464	300.00	217	403.00	21456
108.00	62280	206.00	743232	301.00	3180	404.00	8460
109.00	6029	207.00	96144	302.00	4702	405.00	1217
110.00	711808	208.00	26352	303.00	29528	408.00	105
111.00	108280	209.00	9347	304.00	7967	410.00	539
112.00	13160	210.00	10562	305.00	1122	411.00	56
113.00	4333	211.00	27120	306.00	358	415.00	1010
114.00	392	212.00	2578	307.00	530	416.00	312
115.00	1356	213.00	2139	308.00	3845	419.00	166
116.00	22112	214.00	764	309.00	2265	420.00	193
117.00	350208	215.00	8027	310.00	3023	421.00	17744
118.00	25424	216.00	16051	311.00	1030	422.00	15463
119.00	2716	217.00	211072	312.00	626	423.00	129392
120.00	4884	218.00	26304	313.00	2222	424.00	25976
121.00	587	219.00	2900	314.00	12766	425.00	2691
122.00	25416	220.00	3351	315.00	29288	426.00	96
123.00	40488	221.00	123968	316.00	15518	427.00	197
124.00	17936	222.00	24608	317.00	2892	429.00	55
125.00	15919	223.00	46856	318.00	260	437.00	78
127.00	1391616	224.00	432000	319.00	629	438.00	106
128.00	102568	225.00	107056	320.00	924	439.00	148
129.00	561152	226.00	10788	321.00	8267	440.00	550
130.00	46696	227.00	195904	322.00	3948	441.00	321664
131.00	8637	228.00	27456	323.00	81096	442.00	2293248
132.00	4190	229.00	39984	324.00	14693	443.00	438016
133.00	1654	230.00	5777	325.00	1371	444.00	39248
134.00	15899	231.00	15009	326.00	1762	445.00	2356
135.00	44024	232.00	3043	327.00	15694	446.00	82
136.00	18272	233.00	3542	328.00	7475	489.00	54
137.00	22936	234.00	12458	329.00	1733		
138.00	5085	235.00	13429	330.00	352		
139.00	2552	236.00	8601	331.00	463		

INITIAL CALIBRATION DATA

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00019	Instrument:	NT10
Calibration Date:	03/01/2023	Column (1):	ZB-5MSi

Calibration Comments: ABN PSDDA
32 to 33 Analytes Quad. fit.

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	**RRF**	Conc	RRF	Conc	RRF	Conc	**RRF**	Conc	**RRF**
Phenol	0.2	1.237789	0.5	1.423375	1	1.52938	2.5	1.629375	5	1.651228	10	1.692958
bis(2-chloroethyl) ether	0.2	1.190382	0.5	1.202362	1	1.196973	2.5	1.177642	5	1.166505	10	1.182602
2-Chlorophenol	0.2	1.073761	0.5	1.276853	1	1.223013	2.5	1.300179	5	1.349028	10	1.392071
1,3-Dichlorobenzene	0.2	1.470962	0.5	1.463804	1	1.376309	2.5	1.413283	5	1.404678	10	1.407452
1,4-Dichlorobenzene	0.2	1.402764	0.5	1.454668	1	1.390445	2.5	1.327854	5	1.35838	10	1.394084
1,2-Dichlorobenzene	0.2	1.375403	0.5	1.449362	1	1.336466	2.5	1.343903	5	1.31661	10	1.366347
Benzyl Alcohol	0.2	0.3823688	0.5	0.5839947	1	0.6982351	2.5	0.7409103	5	0.8185546	10	0.8502382
2,2'-Oxybis(1-chloropropane)	0.2	0.3729552	0.5	0.4128573	1	0.4068658	2.5	0.3853497	5	0.3936868	10	0.397541
2-Methylphenol	0.2	0.6579371	0.5	0.9084103	1	1.072411	2.5	1.186631	5	1.230888	10	1.271372
Hexachloroethane	0.2	0.5951571	0.5	0.558966	1	0.5181683	2.5	0.5567259	5	0.5780767	10	0.6094776
N-Nitroso-di-n-Propylamine	0.2	0.817833	0.5	0.8639436	1	0.921424	2.5	0.9713214	5	0.968534	10	0.999017
4-Methylphenol	0.2	0.790134	0.5	0.8856075	1	1.097191	2.5	1.303514	5	1.426452	10	1.524046
Nitrobenzene	0.2	0.3593022	0.5	0.4125847	1	0.4194648	2.5	0.417506	5	0.4107371	10	0.427064
Isophorone	0.2	0.5124437	0.5	0.4761757	1	0.5036907	2.5	0.5303679	5	0.5387453	10	0.5589046
2-Nitrophenol	0.2	9.230907E-02	0.5	0.1219809	1	0.133764	2.5	0.1583716	5	0.2032402	10	0.2276972
2,4-Dimethylphenol			1	0.3151268	2	0.3442643	5	0.3800013	10	0.3929658	20	0.422898
Bis(2-Chloroethoxy)methane	0.2	0.267607	0.5	0.3091581	1	0.3293925	2.5	0.3364165	5	0.32793	10	0.3486418
2,4-Dichlorophenol	0.4	0.1660521	1	0.1807178	2	0.2119252	5	0.2913602	10	0.2838135	20	0.3447133
1,2,4-Trichlorobenzene	0.2	0.2896704	0.5	0.3213408	1	0.2998494	2.5	0.3028357	5	0.2998697	10	0.3151722
Naphthalene	0.2	1.007084	0.5	1.029387	1	0.9802583	2.5	1.002021	5	1.01875	10	1.050723
Benzoic acid			2	0.087499	4	0.122722	10	0.1741775	20	0.2267779	40	0.2711873
4-Chloroaniline	0.4	0.2878287	1	0.3052292	2	0.3445382	5	0.3843126	10	0.4612308	20	0.4932998
Hexachlorobutadiene	0.2	0.1902735	0.5	0.2353681	1	0.2127128	2.5	0.2258722	5	0.2286682	10	0.2332442
4-Chloro-3-Methylphenol			1	0.2577252	2	0.241096	5	0.3007188	10	0.3327581	20	0.3643688
2-Methylnaphthalene	0.2	0.6308902	0.5	0.7085788	1	0.6911815	2.5	0.7119533	5	0.7395277	10	0.7692108
Hexachlorocyclopentadiene			1	2.900822E-02	2	3.712456E-02	5	6.999604E-02	10	0.1138107	20	0.1661709
2,4,6-Trichlorophenol			1	0.2483337	2	0.2741153	5	0.3423678	10	0.3881395	20	0.4302867

INITIAL CALIBRATION DATA

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00019	Instrument:	NT10
Calibration Date:	03/01/2023	Column (1):	ZB-5MSi

Calibration Comments: ABN PSDDA
32 to 33 Analytes Quad. fit.

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	**RRF**	Conc	RRF	Conc	RRF	Conc	**RRF**	Conc	**RRF**
2,4,5-Trichlorophenol			1	0.3033405	2	0.3019678	5	0.3552101	10	0.4201466	20	0.4608039
2-Chloronaphthalene	0.2	0.9847405	0.5	1.072019	1	1.054807	2.5	1.116004	5	1.139016	10	1.210507
2-Nitroaniline			1	0.1792621	2	0.2232641	5	0.3034832	10	0.3117416	20	0.3338102
Acenaphthylene	0.2	1.852595	0.5	1.718894	1	1.783836	2.5	1.831493	5	1.933401	10	2.276419
Dimethylphthalate	0.2	1.113155	0.5	1.295456	1	1.252652	2.5	1.299909	5	1.337911	10	1.339362
2,6-Dinitrotoluene			1	0.2056607	2	0.2310775	5	0.2626011	10	0.2951861	20	0.3068193
Acenaphthene	0.2	1.085113	0.5	1.124305	1	1.089364	2.5	1.116268	5	1.183736	10	1.222169
3-Nitroaniline			1	0.2839907	2	0.301451	5	0.3031841	10	0.3306409	20	0.3549581
2,4-Dinitrophenol	0.8		2	3.606356E-04	4	4.900991E-03	10	1.999184E-02	20	4.950252E-02	40	0.0951736
Dibenzofuran	0.2	1.529371	0.5	1.587544	1	1.606734	2.5	1.663489	5	1.814226	10	1.887051
4-Nitrophenol			1	9.050643E-02	2	0.1581923	5	0.1969452	10	0.2224502	20	0.2613282
2,4-Dinitrotoluene			1	0.2448191	2	0.3202929	5	0.3622655	10	0.4301237	20	0.4529644
Fluorene	0.2	1.182861	0.5	1.290603	1	1.323395	2.5	1.382538	5	1.488351	10	1.596706
4-Chlorophenylphenyl ether	0.2	0.5206595	0.5	0.5683749	1	0.5782613	2.5	0.6079906	5	0.663476	10	0.7052926
Diethyl phthalate	0.2	1.187883	0.5	1.317395	1	1.347048	2.5	1.355846	5	1.418462	10	1.437326
4-Nitroaniline			1	0.3099499	2	0.290066	5	0.3199367	10	0.3767291	20	0.3861115
4,6-Dinitro-2-methylphenol			2	7.890743E-03	4	1.867191E-02	10	0.0534178	20	7.636342E-02	40	0.117748
N-Nitrosodiphenylamine	0.2	0.4752356	0.5	0.5110202	1	0.5805407	2.5	0.6104635	5	0.6118214	10	0.6466191
4-Bromophenyl phenyl ether	0.2	0.1783261	0.5	0.2334774	1	0.2290381	2.5	0.236359	5	0.2450947	10	0.2619947
Hexachlorobenzene	0.2	0.264642	0.5	0.2787358	1	0.2521605	2.5	0.2543999	5	0.2673938	10	0.2689649
Pentachlorophenol			1	4.829203E-02	2	6.768589E-02	5	0.1039548	10	0.1237917	20	0.1491481
Phenanthrene	0.2	0.9192374	0.5	0.9749482	1	0.9741612	2.5	0.9910938	5	1.016959	10	1.094028
Anthracene	0.2	0.8232807	0.5	0.9126948	1	0.9131284	2.5	0.969178	5	1.016018	10	1.100731
Carbazole	0.2	0.762805	0.5	0.8378231	1	0.8791639	2.5	0.914396	5	0.9244507	10	0.9809884
Di-n-Butylphthalate	0.2	0.897945	0.5	0.9983239	1	1.099341	2.5	1.18703	5	1.25964	10	1.351168
Fluoranthene	0.2	1.08313	0.5	1.244509	1	1.329339	2.5	1.464169	5	1.56619	10	1.538862
Pyrene	0.2	1.207927	0.5	1.314345	1	1.36291	2.5	1.45954	5	1.554002	10	1.496866

INITIAL CALIBRATION DATA

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00019	Instrument:	NT10
Calibration Date:	03/01/2023	Column (1):	ZB-5MSi

Calibration Comments: ABN PSDDA
32 to 33 Analytes Quad. fit.

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	**RRF**	Conc	RRF	Conc	RRF	Conc	**RRF**	Conc	**RRF**
Butylbenzylphthalate	0.2	0.4551824	0.5	0.5606288	1	0.6258917	2.5	0.7113312	5	0.7485187	10	0.7299492
Benzo(a)anthracene	0.2	1.222677	0.5	1.26331	1	1.303592	2.5	1.350765	5	1.417005	10	1.593218
3,3'-Dichlorobenzidine			1.5	0.3781026	3	0.4318944	7.5	0.5089537	15	0.5886671	30	0.6867233
Chrysene	0.2	1.160355	0.5	1.121026	1	1.107342	2.5	1.07249	5	1.118093	10	1.166851
bis(2-Ethylhexyl)phthalate	0.2	0.3999472	0.5	0.473416	1	0.5092929	2.5	0.5327348	5	0.5502302	10	0.6148331
Di-n-Octylphthalate	0.2	0.9200329	0.5	0.9194176	1	0.8859107	2.5	0.8660992	5	0.8513586	10	0.887873
Benzofluoranthenes, Total	0.4	1.086703	1	1.163268	2	1.165762	5	1.235897	10	1.32605	20	1.520944
Benzo(a)pyrene	0.2	0.9326916	0.5	1.087162	1	1.10904	2.5	1.137554	5	1.227546	10	1.412948
Indeno(1,2,3-cd)pyrene	0.2	1.041732	0.5	1.137871	1	1.214088	2.5	1.354999	5	1.455807	10	1.640022
Dibenzo(a,h)anthracene	0.2	0.8390162	0.5	0.9499121	1	0.9616022	2.5	1.052088	5	1.103072	10	1.263728
Benzo(g,h,i)perylene	0.2	0.9192859	0.5	0.9590816	1	1.000648	2.5	1.115522	5	1.172504	10	1.263363
1-Methylnaphthalene	0.2	0.5875448	0.5	0.6383146	1	0.6280282	2.5	0.6495483	5	0.6746664	10	0.6854012
2-Fluorophenol	0.3	1.15591	0.75	1.261064	1.5	1.266294	3.75	1.259175	7.5	1.262003	15	1.298348
Phenol-d5	0.3	1.206252	0.75	1.242342	1.5	1.387843	3.75	1.498376	7.5	1.55432	15	1.664825
2-Chlorophenol-d4	0.3	0.9559445	0.75	1.127215	1.5	1.205728	3.75	1.271792	7.5	1.319434	15	1.380813
1,2-Dichlorobenzene-d4	0.2	0.9107501	0.5	0.9962826	1	0.908125	2.5	0.8838883	5	0.9100577	10	0.9338885
Nitrobenzene-d5	0.2	0.3600835	0.5	0.4235407	1	0.4367567	2.5	0.4596222	5	0.4535854	10	0.4648953
2-Fluorobiphenyl	0.2	1.243586	0.5	1.361144	1	1.361419	2.5	1.405476	5	1.475165	10	1.512933
2,4,6-Tribromophenol	0.3	0.1450166	0.75	0.1658224	1.5	0.1889403	3.75	0.2219042	7.5	0.2583988	15	0.2811215
p-Terphenyl-d14	0.2	1.000908	0.5	1.047604	1	1.075873	2.5	1.16204	5	1.238279	10	1.225061

INITIAL CALIBRATION DATA

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00019	Instrument:	NT10
Calibration Date:	03/01/2023	Column (1):	ZB-5MSi

Calibration Comments: ABN PSDDA
32 to 33 Analytes Quad. fit.

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Phenol	20	1.710108										
bis(2-chloroethyl) ether	20	1.19314										
2-Chlorophenol	20	1.450363										
1,3-Dichlorobenzene	20	1.458296										
1,4-Dichlorobenzene	20	1.599659										
1,2-Dichlorobenzene	20	1.421225										
Benzyl Alcohol	20	0.8989961										
2,2'-Oxybis(1-chloropropane)	20	0.4011212										
2-Methylphenol	20	1.340478										
Hexachloroethane	20	0.6583989										
N-Nitroso-di-n-Propylamine	20	1.019793										
4-Methylphenol	20	1.434435										
Nitrobenzene	20	0.4365429										
Isophorone	20	0.5600685										
2-Nitrophenol	20	0.2015619										
2,4-Dimethylphenol	40	0.4429856										
Bis(2-Chloroethoxy)methane	20	0.3552745										
2,4-Dichlorophenol	40	0.3503969										
1,2,4-Trichlorobenzene	20	0.3350871										
Naphthalene	20	1.098343										
Benzoic acid	80	0.2999431										
4-Chloroaniline	40	0.5304621										
Hexachlorobutadiene	20	0.2494264										
4-Chloro-3-Methylphenol	40	0.4045101										
2-Methylnaphthalene	20	0.8256305										
Hexachlorocyclopentadiene	40	0.2416717										
2,4,6-Trichlorophenol	40	0.4978498										

INITIAL CALIBRATION DATA

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00019	Instrument:	NT10
Calibration Date:	03/01/2023	Column (1):	ZB-5MSi

Calibration Comments: ABN PSDDA
32 to 33 Analytes Quad. fit.

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
2,4,5-Trichlorophenol	40	0.5431348										
2-Chloronaphthalene	20	1.263021										
2-Nitroaniline	40	0.3626974										
Acenaphthylene	20	2.119888										
Dimethylphthalate	20	1.404111										
2,6-Dinitrotoluene	40	0.3326913										
Acenaphthene	20	1.330718										
3-Nitroaniline	40	0.3803653										
2,4-Dinitrophenol	80	0.165298										
Dibenzofuran	20	2.009868										
4-Nitrophenol	40	0.300473										
2,4-Dinitrotoluene	40	0.5008524										
Fluorene	20	1.801433										
4-Chlorophenylphenyl ether	20	0.8527636										
Diethyl phthalate	20	1.515442										
4-Nitroaniline	40	0.4182217										
4,6-Dinitro-2-methylphenol	80	0.1534116										
N-Nitrosodiphenylamine	20	0.7070765										
4-Bromophenyl phenyl ether	20	0.294352										
Hexachlorobenzene	20	0.3040043										
Pentachlorophenol	40	0.1944574										
Phenanthrene	20	1.195283										
Anthracene	20	1.213327										
Carbazole	20	1.06588										
Di-n-Butylphthalate	20	1.479832										
Fluoranthene	20	1.406035										
Pyrene	20	1.412502										

INITIAL CALIBRATION DATA

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00019	Instrument:	NT10
Calibration Date:	03/01/2023	Column (1):	ZB-5MSi

Calibration Comments: ABN PSDDA
32 to 33 Analytes Quad. fit.

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Butylbenzylphthalate	20	0.7013138										
Benzo(a)anthracene	20	1.722304										
3,3'-Dichlorobenzidine	60	0.6806052										
Chrysene	20	1.277591										
bis(2-Ethylhexyl)phthalate	20	0.6518326										
Di-n-Octylphthalate	20	0.8783523										
Benzofluoranthenes, Total	40	1.869524										
Benzo(a)pyrene	20	1.711472										
Indeno(1,2,3-cd)pyrene	20	1.978991										
Dibenzo(a,h)anthracene	20	1.636061										
Benzo(g,h,i)perylene	20	1.441266										
1-Methylnaphthalene	20	0.7316309										
2-Fluorophenol	30	1.306775										
Phenol-d5	30	1.673875										
2-Chlorophenol-d4	30	1.465192										
1,2-Dichlorobenzene-d4	20	0.9764885										
Nitrobenzene-d5	20	0.4751259										
2-Fluorobiphenyl	20	1.627365										
2,4,6-Tribromophenol	30	0.3402775										
p-Terphenyl-d14	20	1.18638										

INITIAL CALIBRATION DATA

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00019	Instrument:	NT10
Calibration Date:	03/01/2023	Column (1):	ZB-5MSi

Calibration Comments: ABN PSDDA
32 to 33 Analytes Quad. fit.

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Phenol	1.553459	11.0			RSD (15)	
bis(2-chloroethyl) ether	1.187087	1.0			RSD (15)	
2-Chlorophenol	1.295038	9.5			RSD (15)	
1,3-Dichlorobenzene	1.427826	2.5			RSD (15)	
1,4-Dichlorobenzene	1.418265	6.3			RSD (15)	
1,2-Dichlorobenzene	1.372759	3.5			RSD (15)	
Benzyl Alcohol	0.7104711	25.1		0.9997	QCOD (0.99)	
2,2'-Oxybis(1-chloropropane)	0.3957681	3.4			RSD (15)	
2-Methylphenol	1.095447	21.9		0.9999	QCOD (0.99)	
Hexachloroethane	0.5821386	7.7			RSD (15)	
N-Nitroso-di-n-Propylamine	0.9374094	7.9			RSD (15)	
4-Methylphenol	1.208768	23.9		0.9987	QCOD (0.99)	
Nitrobenzene	0.411886	6.0			RSD (15)	
Isophorone	0.5257709	5.8			RSD (15)	
2-Nitrophenol	0.1627036	30.6		0.9954	QCOD (0.99)	
2,4-Dimethylphenol	0.3830403	12.5		0.9997	QCOD (0.99)	
Bis(2-Chloroethoxy)methane	0.3249172	9.0			RSD (15)	
2,4-Dichlorophenol	0.2612827	28.9		0.9978	QCOD (0.99)	
1,2,4-Trichlorobenzene	0.3091179	5.0			RSD (15)	
Naphthalene	1.026652	3.8			RSD (15)	
Benzoic acid	0.1970511	42.5		0.9961	QCOD (0.99)	
4-Chloroaniline	0.4009859	23.7		0.9991	QCOD (0.99)	
Hexachlorobutadiene	0.2250808	8.4			RSD (15)	
4-Chloro-3-Methylphenol	0.3168628	19.8		0.9993	QCOD (0.99)	
2-Methylnaphthalene	0.7252818	8.5			RSD (15)	
Hexachlorocyclopentadiene	0.1096304	75.2		0.9881	QCOD (0.99)	*
2,4,6-Trichlorophenol	0.3635155	26.0		0.9991	QCOD (0.99)	
2,4,5-Trichlorophenol	0.397434	24.0		0.9992	QCOD (0.99)	
2-Chloronaphthalene	1.120016	8.5			RSD (15)	

INITIAL CALIBRATION DATA

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00019	Instrument:	NT10
Calibration Date:	03/01/2023	Column (1):	ZB-5MSi

Calibration Comments: ABN PSDDA
32 to 33 Analytes Quad. fit.

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
2-Nitroaniline	0.2857098	24.5		0.9995	QCOD (0.99)	
Acenaphthylene	1.930932	10.3			RSD (15)	
Dimethylphthalate	1.291794	7.1			RSD (15)	
2,6-Dinitrotoluene	0.2723393	17.7		0.9996	QCOD (0.99)	
Acenaphthene	1.164525	7.6			RSD (15)	
3-Nitroaniline	0.325765	11.2			RSD (15)	
2,4-Dinitrophenol	5.587126E-02	114.7		0.9701	QCOD (0.99)	*
Dibenzofuran	1.728326	10.3			RSD (15)	
4-Nitrophenol	0.2049826	36.5		0.9982	QCOD (0.99)	
2,4-Dinitrotoluene	0.3852197	24.5		0.9992	QCOD (0.99)	
Fluorene	1.437984	14.6			RSD (15)	
4-Chlorophenylphenyl ether	0.6424026	17.3		0.9999	QCOD (0.99)	
Diethyl phthalate	1.368486	7.6			RSD (15)	
4-Nitroaniline	0.3501692	14.4			RSD (15)	
4,6-Dinitro-2-methylphenol	7.125058E-02	79.5		0.9864	QCOD (0.99)	*
N-Nitrosodiphenylamine	0.5918253	13.3			RSD (15)	
4-Bromophenyl phenyl ether	0.239806	14.7			RSD (15)	
Hexachlorobenzene	0.270043	6.5			RSD (15)	
Pentachlorophenol	0.114555	46.8		0.9974	QCOD (0.99)	
Phenanthrene	1.023673	9.0			RSD (15)	
Anthracene	0.9926226	13.2			RSD (15)	
Carbazole	0.9093581	10.8			RSD (15)	
Di-n-Butylphthalate	1.181897	17.1		0.9998	QCOD (0.99)	
Fluoranthene	1.376033	12.5			RSD (15)	
Pyrene	1.401156	8.4			RSD (15)	
Butylbenzylphthalate	0.6475451	16.6		0.9998	QCOD (0.99)	
Benzo(a)anthracene	1.41041	13.0			RSD (15)	
3,3'-Dichlorobenzidine	0.5458244	23.5		0.9972	QCOD (0.99)	
Chrysene	1.14625	5.8			RSD (15)	

INITIAL CALIBRATION DATA

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00019	Instrument:	NT10
Calibration Date:	03/01/2023	Column (1):	ZB-5MSi

Calibration Comments: ABN PSDDA
32 to 33 Analytes Quad. fit.

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
bis(2-Ethylhexyl)phthalate	0.5331838	15.9		0.9995	QCOD (0.99)	
Di-n-Octylphthalate	0.8870063	2.9			RSD (15)	
Benzofluoranthenes, Total	1.338307	20.5		0.9996	QCOD (0.99)	
Benzo(a)pyrene	1.231202	20.9		0.9995	QCOD (0.99)	
Indeno(1,2,3-cd)pyrene	1.403359	23.1		0.9996	QCOD (0.99)	
Dibenzo(a,h)anthracene	1.115069	23.9		0.9997	QCOD (0.99)	
Benzo(g,h,i)perylene	1.124524	16.5		0.9999	QCOD (0.99)	
1-Methylnaphthalene	0.6564478	7.0			RSD (15)	
2-Fluorophenol	1.25851	3.9			RSD (15)	
Phenol-d5	1.461119	13.0			RSD (15)	
2-Chlorophenol-d4	1.246588	13.6			RSD (15)	
1,2-Dichlorobenzene-d4	0.9313544	4.4			RSD (15)	
Nitrobenzene-d5	0.4390871	8.9			RSD (15)	
2-Fluorobiphenyl	1.426727	8.7			RSD (15)	
2,4,6-Tribromophenol	0.228783	30.2		0.9994	QCOD (0.99)	
p-Terphenyl-d14	1.133735	8.2			RSD (15)	

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLC0084

Instrument: NT10
Calibration ID: UNASSIGNED

Printed: 3/7/2023 1:01:11PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLC0084-TUN1	QC		1		K004775			
SLC0084-CAL1	QC		2		K011105	K010831		
SLC0084-CAL2	QC		3		K011106	K010831		
SLC0084-CAL3	QC		4		K011107	K010831		
SLC0084-CAL4	QC		5		K011108	K010831		
SLC0084-CAL5	QC		6		K011109	K010831		
SLC0084-CAL6	QC		7		K011110	K010831		
SLC0084-CAL7	QC		8		K011111	K010831		
SLC0084-SCV1	QC		9		K010066	K010831		
SLC0084-ICB1	QC		10		K005156	K010831		

Samples Loaded By Date

Data Processed By Date

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230301.b

	Time	Filename	LabID	ClientId	DF															
1	1549	NT1003012301.D	SLC0084-TUN1		1	|NO ISTDS FOUND||														
2	1604	NT1003012302.D	SLC0084-CAL7		1	9.25	350339	11.73	1337321	15.32	721926	18.41	1389567	23.42	1382735	26.11	1052577	24.49	2772507	
3	1642	NT1003012303.D	SLC0084-CAL6		1	9.25	343229	11.72	1283371	15.32	697310	18.40	1340795	23.42	1088479	26.11	973894	24.48	2152692	
4	1721	NT1003012304.D	SLC0084-CAL5		1	9.25	337641	11.72	1265187	15.31	692385	18.40	1376777	23.42	1019524	26.10	1027409	24.48	2027111	
5	1759	NT1003012305.D	SLC0084-CAL4		1	9.25	320922	11.72	1174958	15.31	642002	18.40	1218560	23.42	904733	26.10	947785	24.48	1785837	
6	1837	NT1003012306.D	SLC0084-CAL3		1	9.25	301377	11.72	1117281	15.31	611509	18.40	1193129	23.42	938680	26.10	995239	24.49	1744984	
7	1915	NT1003012307.D	SLC0084-CAL2		1	9.25	309085	11.72	1141293	15.31	610034	18.40	1173527	23.42	1001661	26.10	1066145	24.49	1783007	
8	1953	NT1003012308.D	SLC0084-CAL1		1	9.25	295317	11.72	1075084	15.32	525641	18.40	1064230	23.42	908515	26.10	969731	24.48	1659419	
9	2030	NT1003012309.D	SEQ-SIM2		1	9.25	285326	11.72	1006391	15.31	485266	18.40	993728	23.42	888551	26.10	1001314	24.49	1646702	
10	2109	NT1003012310.D	SEQ-SIM1		1	9.25	350039	11.72	1219070	15.31	587402	18.40	1179509	23.42	1044485	26.10	1189301	24.48	1916581	
11	2146	NT1003012311.D	SLC0084-SCV1		1	9.25	283537	11.72	1089120	15.32	607772	18.40	1205858	23.42	1219436	26.10	1289108	24.49	2317357	
12	2224	NT1003012312.D	SLC0084-ICB1		1	9.25	480761	11.72	1681746	15.31	836849	18.40	1648281	23.42	1391477	26.10	1542419	24.48	2481481	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230301.b

ARI Job No.: SLC0 Method: DFTPP8270E.m Instrument: nt10.i Date: 01-MAR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1549	NT1003012301.D	SLC0084-TUN1		1	NO MANUAL INTEGRATION
1604	NT1003012302.D	SLC0084-CAL7		1	2,2'-oxybis(1-Chloropropane), 2,4-Dinitrophenol,
1642	NT1003012303.D	SLC0084-CAL6		1	2,2'-oxybis(1-Chloropropane), 2,4-Dinitrophenol,
1721	NT1003012304.D	SLC0084-CAL5		1	2,2'-oxybis(1-Chloropropane), 2,4-Dinitrophenol,
1759	NT1003012305.D	SLC0084-CAL4		1	2,2'-oxybis(1-Chloropropane), 2,4-Dinitrophenol, 4-Nitrophenol,
1837	NT1003012306.D	SLC0084-CAL3		1	2,2'-oxybis(1-Chloropropane), Benzoic acid, 3-Nitroaniline, 2,4-Dinitrophenol, 4-Nitrophenol,
1915	NT1003012307.D	SLC0084-CAL2		1	2,2'-oxybis(1-Chloropropane), Benzoic acid, 4-Chloro-3-methylphenol, 2,4,5-Trichlorophenol, 3-Nitroaniline, 2,4-Dinitropheno 4-Nitrophenol, 4-Nitroaniline, N-Nitrosodimethylamine, Benzidine,
1953	NT1003012308.D	SLC0084-CAL1		1	2,2'-oxybis(1-Chloropropane), N-Nitroso-di-n-propylamine, 4-Methylphenol, Isophorone, 2,4-Dichlorophenol, Benzoic acid, 4-Chloroaniline, 4-Chloro-3-methylphenol, 2,4,5-Trichlorophenol, 2-Nitroaniline, 3-Nitroaniline, 4-Nitroaniline, Pentachlorophenol, Carbazole, Chrysene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, N-Nitrosodimethylami
2030	NT1003012309.D	SEQ-SIM2		1	NO MANUAL INTEGRATION
2109	NT1003012310.D	SEQ-SIM1		1	NO MANUAL INTEGRATION
2146	NT1003012311.D	SLC0084-SCV1		1	Bis(2-Chloroethyl)ether, 2,4,5-Trichlorophenol, 4-Nitrophenol,
2224	NT1003012312.D	SLC0084-ICB1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 07-Mar-2023 12:54

NT1003012301.D	Data Locked	yev, 07-
NT1003012302.D	Data Locked	yev, 07-
NT1003012303.D	Data Locked	yev, 07-
NT1003012304.D	Data Locked	yev, 07-
NT1003012305.D	Data Locked	yev, 07-
NT1003012306.D	Data Locked	yev, 07-
NT1003012307.D	Data Locked	yev, 07-
NT1003012308.D	Data Locked	yev, 07-
NT1003012309.D	Data Locked	yev, 07-
NT1003012310.D	Data Locked	yev, 07-
NT1003012311.D	Data Locked	yev, 07-
NT1003012312.D	Data Locked	yev, 07-

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230301.b
Inst ID: nt10.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	NT1003012302	NT1003012303	NT1003012304	NT1003012305	NT1003012306	NT1003012307	NT1003012308
INJ.DATE:	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023
INJ.TIME:	16:04	16:42	17:21	17:59	18:37	19:15	19:53

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	6.905	6.897	6.897	6.897	6.898	6.898	6.897	6.898	3.898-9.898	6.898	0.003
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.785	15.785-21.785	+++++	+++++
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.645	5.645-11.645	+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.455	14.455-20.455	+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.696	17.696-23.696	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.219	16.219-22.219	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.949	19.949-25.949	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.196	16.196-22.196	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.503	17.503-23.503	+++++	+++++
177 p-Benzoquinone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.827	4.827-10.827	+++++	+++++
168 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.842	12.842-18.842	+++++	+++++
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.212	44.212-50.212	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.746	44.746-50.746	+++++	+++++
147 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.216	45.216-51.216	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230301.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.281	44.281-50.281	+++++	+++++
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.387	40.387-46.387	+++++	+++++
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.989	47.989-53.989	+++++	+++++
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	67.733	64.733-70.733	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.067	62.067-68.067	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.917	46.917-52.917	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.383	13.383-19.383	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.317	36.317-42.317	+++++	+++++
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.445	0.000-5.445	+++++	+++++
* 134 Di-n-octylphthalate-d4	24.493	24.485	24.485	24.485	24.485	24.485	24.485	24.485	21.485-27.485	24.486	0.003
133 Butylatedhydroxytoluen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.571	12.571-18.571	+++++	+++++
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.450	62.450-68.450	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	64.400	61.400-67.400	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	62.100	59.100-65.100	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.912	51.912-57.912	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.212	51.212-57.212	+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	57.650	54.650-60.650	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.750	53.750-59.750	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.447	8.447-14.447	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.166	49.166-55.166	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230301.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.252	7.252-13.252	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.697	0.000-5.697	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	15.982	15.981	15.974	15.974	15.982	15.982	15.981	15.982	12.982-18.982	15.979	0.004
178 2-Benzyl-4-Chloropheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.963	15.963-21.963	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.215	18.215-24.215	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.761	13.761-19.761	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.747	15.747-21.747	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.923	13.923-19.923	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.341	11.341-17.341	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.085	11.085-17.085	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	16.793	16.778	16.778	16.778	16.778	16.778	16.778	16.778	13.778-19.778	16.780	0.006
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.140	14.140-20.140	+++++	+++++
109 3,4,5-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.070	12.070-18.070	+++++	+++++
181 3,4,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.232	12.232-18.232	+++++	+++++
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.374	13.374-19.374	+++++	+++++
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.120	10.120-16.120	+++++	+++++
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.096	11.096-17.096	+++++	+++++
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.096	11.096-17.096	+++++	+++++
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.735	8.735-14.735	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230301.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.243	6.243-12.243	+++++	+++++
105 1-methylnaphthalene	13.374	13.367	13.366	13.367	13.367	13.367	13.366	13.367	10.367-16.367	13.368	0.003
151 1,2,4,5-Tetrachloroben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.499	8.499-14.499	+++++	+++++
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.642	24.642-30.642	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.953	22.953-28.953	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.750	24.750-30.750	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.464	23.464-29.464	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.099	24.099-30.099	+++++	+++++
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.513	21.513-27.513	+++++	+++++
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.132	22.132-28.132	+++++	+++++
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.528	16.528-22.528	+++++	+++++
161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
$ 2 Phenol-d5	8.505	8.497	8.489	8.489	8.489	8.489	8.489	8.489	5.489-11.489	8.492	0.006
3 Phenol	8.528	8.520	8.512	8.512	8.513	8.513	8.520	8.513	5.513-11.513	8.517	0.006
4 Bis(2-Chloroethyl)ethe	8.744	8.736	8.728	8.728	8.729	8.729	8.728	8.729	5.729-11.729	8.732	0.006
$ 5 2-Chlorophenol-d4	8.821	8.813	8.813	8.813	8.814	8.814	8.813	8.814	5.814-11.814	8.815	0.003

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230301.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	6 2-Chlorophenol	8.852	8.844	8.844	8.844	8.845	8.845	8.844	8.845	5.845-11.845	8.845	0.003
	7 1,3-Dichlorobenzene	9.146	9.138	9.138	9.138	9.139	9.139	9.138	9.139	6.139-12.139	9.140	0.003
*	8 1,4-Dichlorobenzene-d4	9.247	9.247	9.247	9.247	9.247	9.247	9.247	9.247	6.247-12.247	9.247	0.000
	9 1,4-Dichlorobenzene	9.286	9.278	9.278	9.278	9.278	9.278	9.278	9.278	6.278-12.278	9.279	0.003
$	10 1,2-Dichlorobenzene-d4	9.542	9.534	9.534	9.534	9.534	9.534	9.534	9.534	6.534-12.534	9.535	0.003
	11 Benzyl alcohol	9.480	9.472	9.472	9.472	9.472	9.472	9.480	9.472	6.472-12.472	9.474	0.004
	12 1,2-Dichlorobenzene	9.565	9.565	9.565	9.557	9.558	9.565	9.565	9.565	6.565-12.565	9.563	0.004
	13 2-Methylphenol	9.658	9.650	9.650	9.651	9.651	9.651	9.658	9.651	6.651-12.651	9.653	0.004
	14 2,2'-oxybis(1-Chloropr	9.744	9.736	9.728	9.728	9.728	9.729	9.736	9.729	6.729-12.729	9.733	0.006
	15 4-Methylphenol	9.953	9.945	9.938	9.938	9.946	9.938	9.953	9.938	6.938-12.938	9.945	0.007
	16 N-Nitroso-di-n-propyla	9.992	9.984	9.976	9.977	9.977	9.977	9.976	9.977	6.977-12.977	9.980	0.006
	17 Hexachloroethane	10.217	10.209	10.209	10.209	10.210	10.210	10.209	10.210	7.210-13.210	10.211	0.003
$	18 Nitrobenzene-d5	10.303	10.295	10.295	10.287	10.287	10.295	10.295	10.295	7.295-13.295	10.294	0.005
	19 Nitrobenzene	10.341	10.334	10.333	10.326	10.326	10.326	10.333	10.326	7.326-13.326	10.331	0.006
	20 Isophorone	10.815	10.791	10.791	10.784	10.784	10.784	10.784	10.784	7.784-13.784	10.790	0.011
	21 2-Nitrophenol	10.959	10.950	10.950	10.950	10.951	10.951	10.950	10.951	7.951-13.951	10.952	0.003
	22 2,4-Dimethylphenol	11.010	11.001	11.001	10.993	10.993	10.993	11.001	10.993	7.993-13.993	10.999	0.006
	23 Bis(2-Chloroethoxy)met	11.222	11.213	11.205	11.205	11.205	11.205	11.213	11.205	8.205-14.205	11.210	0.007
	24 Benzoic acid	11.315	11.213	11.162	11.111	11.069	11.052	11.086	11.052	8.052-14.052	11.144	0.094
	25 2,4-Dichlorophenol	11.426	11.417	11.417	11.408	11.417	11.417	11.417	11.417	8.417-14.417	11.417	0.005
	26 1,2,4-Trichlorobenzene	11.603	11.595	11.595	11.595	11.596	11.596	11.595	11.596	8.596-14.596	11.596	0.003
*	27 Naphthalene-d8	11.727	11.719	11.719	11.719	11.719	11.719	11.719	11.719	8.719-14.719	11.720	0.003
	28 Naphthalene	11.773	11.765	11.765	11.765	11.765	11.765	11.765	11.765	8.765-14.765	11.766	0.003
	29 4-Chloroaniline	11.866	11.858	11.858	11.858	11.858	11.858	11.865	11.858	8.858-14.858	11.860	0.004

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230301.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	30 Hexachlorobutadiene	11.997	11.997	11.997	11.989	11.989	11.997	11.997	11.997	8.997-14.997	11.995	0.004
	31 4-Chloro-3-methylpheno	12.817	12.809	12.802	12.802	12.810	12.810	12.817	12.810	9.810-15.810	12.809	0.006
	32 2-Methylnaphthalene	13.165	13.165	13.165	13.165	13.166	13.166	13.165	13.166	10.166-16.166	13.165	0.000
	33 Hexachlorocyclopentadi	13.475	13.467	13.467	13.467	13.467	13.475	13.467	13.475	10.475-16.475	13.469	0.004
	34 2,4,6-Trichlorophenol	13.730	13.730	13.722	13.723	13.723	13.731	13.730	13.731	10.731-16.731	13.727	0.004
	35 2,4,5-Trichlorophenol	13.800	13.792	13.792	13.792	13.793	13.808	13.815	13.808	10.808-16.808	13.799	0.009
$	36 2-Fluorobiphenyl	13.916	13.916	13.908	13.908	13.909	13.909	13.908	13.909	10.909-16.909	13.911	0.004
	37 2-Chloronaphthalene	14.171	14.164	14.164	14.164	14.164	14.164	14.164	14.164	11.164-17.164	14.165	0.003
	38 2-Nitroaniline	14.380	14.373	14.365	14.365	14.365	14.365	14.373	14.365	11.365-17.365	14.369	0.006
	39 Dimethylphthalate	14.752	14.744	14.736	14.736	14.737	14.737	14.744	14.737	11.737-17.737	14.741	0.006
	40 Acenaphthylene	15.031	15.023	15.023	15.023	15.023	15.023	15.023	15.023	12.023-18.023	15.024	0.003
	41 2,6-Dinitrotoluene	14.884	14.876	14.868	14.868	14.868	14.868	14.868	14.868	11.868-17.868	14.871	0.006
*	42 Acenaphthene-d10	15.317	15.317	15.309	15.309	15.309	15.309	15.317	15.309	12.309-18.309	15.312	0.004
	43 3-Nitroaniline	15.240	15.216	15.216	15.216	15.217	15.224	15.232	15.224	12.224-18.224	15.223	0.009
	44 Acenaphthene	15.386	15.386	15.378	15.379	15.379	15.379	15.378	15.379	12.379-18.379	15.381	0.004
	45 2,4-Dinitrophenol	15.448	15.433	15.433	15.433	15.448	15.487	+++++	15.487	12.487-18.487	15.447	0.021
	46 Dibenzofuran	15.750	15.742	15.742	15.734	15.734	15.735	15.742	15.735	12.735-18.735	15.740	0.006
	47 4-Nitrophenol	15.549	15.533	15.525	15.525	15.572	15.603	+++++	15.603	12.603-18.603	15.551	0.031
	48 2,4-Dinitrotoluene	15.719	15.703	15.695	15.696	15.696	15.704	15.703	15.704	12.704-18.704	15.702	0.008
	49 Fluorene	16.461	16.453	16.453	16.453	16.454	16.454	16.453	16.454	13.454-19.454	16.455	0.003
	50 Diethylphthalate	16.221	16.213	16.206	16.198	16.198	16.198	16.198	16.198	13.198-19.198	16.205	0.009
	51 4-Chlorophenyl-phenyle	16.461	16.453	16.446	16.446	16.446	16.454	16.453	16.454	13.454-19.454	16.451	0.006
	52 4-Nitroaniline	16.523	16.492	16.477	16.469	16.477	16.485	16.515	16.485	13.485-19.485	16.491	0.021
	53 4,6-Dinitro-2-methylph	16.562	16.546	16.538	16.531	16.531	16.539	+++++	16.539	13.539-19.539	16.541	0.012

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230301.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	54 N-Nitrosodiphenylamine	16.701	16.693	16.693	16.685	16.686	16.693	16.693	16.693	13.693-19.693	16.692	0.005
$	55 2,4,6-Tribromophenol	16.955	16.947	16.940	16.947	16.948	16.948	16.947	16.948	13.948-19.948	16.948	0.005
	56 4-Bromophenyl-phenylet	17.473	17.473	17.465	17.465	17.473	17.473	17.473	17.473	14.473-20.473	17.470	0.004
	57 Hexachlorobenzene	17.581	17.573	17.573	17.573	17.574	17.574	17.581	17.574	14.574-20.574	17.576	0.004
	58 Pentachlorophenol	17.991	17.984	17.983	17.984	17.984	17.984	17.999	17.984	14.984-20.984	17.987	0.006
*	59 Phenanthrene-d10	18.409	18.401	18.401	18.401	18.402	18.402	18.401	18.402	15.402-21.402	18.403	0.003
	60 Phenanthrene	18.456	18.455	18.448	18.448	18.448	18.448	18.448	18.448	15.448-21.448	18.450	0.004
	61 Anthracene	18.564	18.556	18.556	18.556	18.556	18.557	18.556	18.557	15.557-21.557	18.557	0.003
	62 Carbazole	18.897	18.889	18.881	18.881	18.889	18.889	18.896	18.889	15.889-21.889	18.889	0.006
	63 Di-n-butylphthalate	19.593	19.585	19.585	19.585	19.585	19.586	19.593	19.586	16.586-22.586	19.587	0.004
	64 Fluoranthene	20.823	20.815	20.815	20.815	20.816	20.816	20.815	20.816	17.816-23.816	20.816	0.003
	65 Pyrene	21.256	21.249	21.248	21.241	21.241	21.249	21.248	21.249	18.249-24.249	21.248	0.005
$	66 Terphenyl-d14	21.527	21.527	21.519	21.519	21.520	21.528	21.527	21.528	18.528-24.528	21.524	0.004
	67 Butylbenzylphthalate	22.410	22.410	22.410	22.410	22.410	22.410	22.410	22.410	19.410-25.410	22.410	0.000
	68 Benzo(a)anthracene	23.409	23.401	23.401	23.393	23.394	23.401	23.401	23.401	20.401-26.401	23.400	0.005
*	69 Chrysene-d12	23.424	23.416	23.416	23.416	23.417	23.417	23.416	23.417	20.417-26.417	23.418	0.003
	70 3,3'-Dichlorobenzidine	23.355	23.347	23.347	23.339	23.347	23.347	23.362	23.347	20.347-26.347	23.349	0.007
	71 Chrysene	23.478	23.463	23.463	23.463	23.463	23.463	23.463	23.463	20.463-26.463	23.465	0.006
	72 bis(2-Ethylhexyl)phtha	23.409	23.401	23.401	23.401	23.401	23.409	23.409	23.409	20.409-26.409	23.404	0.004
	73 Di-n-octylphthalate	24.500	24.493	24.492	24.493	24.493	24.493	24.492	24.493	21.493-27.493	24.494	0.003
	74 Benzo(b)fluoranthene	25.321	25.305	25.298	25.298	25.290	25.298	25.298	25.298	22.298-28.298	25.301	0.010
	75 Benzo(k)fluoranthene	25.375	25.360	25.352	25.352	25.352	25.352	25.360	25.352	22.352-28.352	25.357	0.009
	187 Total Benzofluoranthen	25.375	25.360	25.298	25.352	25.352	25.352	25.298	25.352	22.352-28.352	25.341	0.031
	76 Benzo(a)pyrene	26.002	25.987	25.987	25.979	25.979	25.987	25.987	25.987	22.987-28.987	25.987	0.008

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230301.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	77 Perylene-d12	26.111	26.111	26.103	26.103	26.103	26.103	26.103	26.103	23.103-29.103	26.105	0.004
	78 Indeno(1,2,3-cd)pyrene	28.902	28.878	28.870	28.863	28.863	28.863	28.870	28.863	25.863-31.863	28.873	0.014
	79 Dibenzo(a,h)anthracene	28.948	28.933	28.909	28.909	28.910	28.925	28.925	28.925	25.925-31.925	28.923	0.015
	80 Benzo(g,h,i)perylene	29.756	29.725	29.694	29.702	29.694	29.710	29.717	29.710	26.710-32.710	29.714	0.022
$	85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
$	86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
$	87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
$	88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
$	89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
	90 N-Nitrosodimethylamine	4.743	4.727	4.719	4.720	4.720	4.720	4.743	4.720	1.720-7.720	4.727	0.011
	91 Aniline	8.644	8.628	8.628	8.620	8.621	8.628	8.628	8.628	5.628-11.628	8.628	0.008
	92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
	93 Benzidine	21.078	21.063	21.063	21.071	21.071	21.094	21.094	21.094	18.094-24.094	21.076	0.013
$	95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
	96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
	97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
	98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.787	15.787-21.787	+++++	+++++
	99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.361	21.361-27.361	+++++	+++++
	100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.411	22.411-28.411	+++++	+++++
	101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.023	23.023-29.023	+++++	+++++
	102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	79.550	76.550-82.550	+++++	+++++
	103 Pyridine	4.781	4.781	4.781	4.781	4.782	4.789	4.797	4.789	1.789-7.789	4.785	0.006
	188 2,6-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.874	8.874-14.874	+++++	+++++
	189 N-Nitrosomethylethylam	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.818	2.818-8.818	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2022 08:06
End Cal Date : 01-MAR-2023 19:53
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Last Edit : 07-Mar-2023 12:01 yev

Calibration File Names:
Level 1: \\target\share\chem3\nt10.i\20230301.b\NT1003012308.D
Level 2: \\target\share\chem3\nt10.i\20230301.b\NT1003012307.D
Level 3: \\target\share\chem3\nt10.i\20230301.b\NT1003012306.D
Level 4: \\target\share\chem3\nt10.i\20230301.b\NT1003012305.D
Level 5: \\target\share\chem3\nt10.i\20230301.b\NT1003012304.D
Level 6: \\target\share\chem3\nt10.i\20230301.b\NT1003012303.D
Level 7: \\target\share\chem3\nt10.i\20230301.b\NT1003012302.D

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	20.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	

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Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Last Edit : 07-Mar-2023 12:01 yev

Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
170 N,N-Dimethylaniline	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
171 2,3-Dimethylaniline	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
172 2,4-Dimethylaniline	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
173 2,5-Dimethylaniline	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
174 2,6-Dimethylaniline	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
175 3,4-Dimethylaniline	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
176 3,5-Dimethylaniline	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
177 p-Benzoquinone	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
168 Pentachlorobenzene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
145 4,4'-DDE	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
146 4,4'-DDD	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
147 4,4'-DDT	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
148 Dieldrin	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
149 TCMX	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
150 DCBP	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
138 Chlorobenzilate	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
139 Isodrin	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
140 Diallate A	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
141 Diallate B	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
142 1,2-Dibromo-3-Chloropropane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
135 2,3,5,6-Tetrachlorophenol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	20.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
136 2,3,4,5-tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+000		0.000e+000	
133 Butylatedhydroxytoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+000		0.000e+000	<-
132 3,6-Dimethylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+000		0.000e+000	
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+000		0.000e+000	
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+000		0.000e+000	
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+000		0.000e+000	
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+000		0.000e+000	

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
127 2-Isopropylnaphthalene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
126 N-Tetradecane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
144 alpha-Terpineol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
125 Safrole	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
124 3,4-Dimethylphenol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
123 Acetophenone	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
122 Furfuraldehyde	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	

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Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20.0000 Level 7											
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	
120 2,3,4,6-Tetrachlorophenol	0.19782	0.26940	0.29342	0.33469	0.39319	0.43368						
	0.54201						AVRG		0.35203		32.55426	<-
178 2-Benzyl-4-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
116 Dibutyl Phenyl Phosphate	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
115 Tributyl Phosphate	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
114 Beta-Pinene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
113 Diphenyl Oxide	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
112 Biphenyl	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
111 Azobenzene (1,2-DP-Hydrazine)	1.59527 / 2.38768	1.87182	1.97939	2.08840	2.14898	2.23341	AVRG		2.04356		12.66882	
110 Tetrachloroguaiacol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
109 3,4,5-Trichloroguaiacol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
181 3,4,6-Trichloroguaiacol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
108 4,5,6-Trichloroguaiacol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
184 3,4-Dichloroguaiacol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
107 4,5-Dichloroguaiacol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
182 4,6-Dichloroguaiacol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
185 4-Chloroguaiacol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20.0000 Level 7											
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
105 1-methylnaphthalene	0.58754	0.63831	0.62803	0.64955	0.67467	0.68540						
	0.73163						AVRG		0.65645		7.02352	
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	

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Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20.0000 Level 7										
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
161 1,2,3-Trichloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
162 1,2,3,4-Tetrachloronapthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
163 1,2,3,5,8-Pentachloronaphthal	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
164 1,2,3,4,6,7-Hexachloronaphtha	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
165 1,2,3,4,5,6,7-Heptachloronaph	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
166 Octachloronaphthalene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
167 2,2',4,4',5-Pentabromobipheny	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
3 Phenol	1.23779 / 1.71011	1.42338	1.52938	1.62938	1.65123	1.69296	AVRG		1.55346		11.03978
4 Bis(2-Chloroethyl)ether	1.19038 / 1.19314	1.20236	1.19697	1.17764	1.16651	1.18260	AVRG		1.18709		1.03828

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
6 2-Chlorophenol	1.07376	1.27685	1.22301	1.30018	1.34903	1.39207						
	1.45036						AVRG		1.29504		9.50773	
7 1,3-Dichlorobenzene	1.47096	1.46380	1.37631	1.41328	1.40468	1.40745						
	1.45830						AVRG		1.42783		2.54133	
9 1,4-Dichlorobenzene	1.40276	1.45467	1.39044	1.32785	1.35838	1.39408						
	1.59966						AVRG		1.41826		6.27938	
11 Benzyl alcohol	5646	22563	52608	148609	345472	729566						
	1574767						QUAD	0.000e+000	1.25640	-0.03230	0.99987	
12 1,2-Dichlorobenzene	1.37540	1.44936	1.33647	1.34390	1.31661	1.36635						
	1.42123						AVRG		1.37276		3.46403	
13 2-Methylphenol	9715	35097	80800	238010	519498	1090929						
	2348109						QUAD	0.000e+000	0.83157	-0.01283	0.99996	<-
14 2,2'-oxybis(1-Chloropropane)	0.37296	0.41286	0.40687	0.38535	0.39369	0.39754						
	0.40112						AVRG		0.39577		3.39044	

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Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20.0000 Level 7										
15 4-Methylphenol	11667	34216	82667	261454	602036	1307742					
	2512692						QUAD	0.000e+000	0.66231	0.00446	0.99922
16 N-Nitroso-di-n-propylamine	0.81783	0.86394	0.92142	0.97132	0.96853	0.99902					
	1.01979						AVRG		0.93741		7.86962
17 Hexachloroethane	0.59516	0.55897	0.51817	0.55673	0.57808	0.60948					
	0.65840						AVRG		0.58214		7.68993
19 Nitrobenzene	0.35930	0.41258	0.41946	0.41751	0.41074	0.42706					
	0.43654						AVRG		0.41189		6.02434
20 Isophorone	0.51244	0.47618	0.50369	0.53037	0.53875	0.55890					
	0.56007						AVRG		0.52577		5.80463
21 2-Nitrophenol	+++++	17402	37363	116300	321421	730550					
	1347765						QUAD	0.000e+000	4.37246	0.54104	0.99681
22 2,4-Dimethylphenol	27927	89913	192320	558107	1242938	2713675					
	5924139						QUAD	0.000e+000	2.54020	-0.06459	0.99984

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
23 Bis(2-Chloroethoxy)methane	0.26761	0.30916	0.32939	0.33642	0.32793	0.34864					
	0.35527						AVRG		0.32492		9.04183
24 Benzoic acid	14999	49931	137115	511628	1434582	3480339					
	8022405						QUAD	0.000e+000	4.28758	-0.16104	0.99828
25 2,4-Dichlorophenol	17852	51563	118390	427920	897693	2211975					
	4685931						QUAD	0.000e+000	3.22328	-0.10899	0.99847
26 1,2,4-Trichlorobenzene	0.28967	0.32134	0.29985	0.30284	0.29987	0.31517					
	0.33509						AVRG		0.30912		5.02827
28 Naphthalene	1.00708	1.02939	0.98026	1.00202	1.01875	1.05072					
	1.09834						AVRG		1.02665		3.75792
29 4-Chloroaniline	30944	87089	192473	564439	1458858	3165433					
	7093981						QUAD	0.000e+000	2.22739	-0.06517	0.99952
30 Hexachlorobutadiene	0.19027	0.23537	0.21271	0.22587	0.22867	0.23324					
	0.24943						AVRG		0.22508		8.39685

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2022 08:06
End Cal Date : 01-MAR-2023 19:53
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Last Edit : 07-Mar-2023 12:01 yev

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20.0000 Level 7										
31 4-Chloro-3-methylphenol	+++++	73535	134686	441665	1052503	2338102					
	5409598						QUAD	0.000e+000	3.06470	-0.14745	0.99968
32 2-Methylnaphthalene	0.63089	0.70858	0.69118	0.71195	0.73953	0.76921					
	0.82563						AVRG		0.72528		8.48661
33 Hexachlorocyclopentadiene	+++++	4424	11351	56172	197002	579363					
	1744691						QUAD	0.000e+000	7.59108	-1.43409	0.99520
34 2,4,6-Trichlorophenol	+++++	37873	83812	274751	671855	1500216					
	3594107						QUAD	0.000e+000	2.64695	-0.12883	0.99965
35 2,4,5-Trichlorophenol	+++++	46262	92328	285057	727258	1606616					
	3921031						QUAD	0.000e+000	2.47983	-0.11804	0.99960
37 2-Chloronaphthalene	0.98474	1.07202	1.05481	1.11600	1.13902	1.21051					
	1.26302						AVRG		1.12002		8.46019
38 2-Nitroaniline	+++++	27339	68264	243546	539613	1163846					
	2618407						QUAD	0.000e+000	3.26785	-0.14160	0.99979

ARI Labs, Inc.

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Method file : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Last Edit : 07-Mar-2023 12:01 yev

Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
39 Dimethylphthalate	1.11316	1.29546	1.25265	1.29991	1.33791	1.33936						
	1.40411						AVRG		1.29179		7.10389	
40 Acenaphthylene	1.85260	1.71889	1.78384	1.83149	1.93340	2.27642						
	2.11989						AVRG		1.93093		10.30781	
41 2,6-Dinitrotoluene	+++++	31365	70653	210738	510956	1069741						
	2401785						QUAD	0.000e+000	3.53000	-0.15836	0.99982	
43 3-Nitroaniline	+++++	0.28399	0.30145	0.30318	0.33064	0.35496						
	0.38037						AVRG		0.32577		11.23975	
44 Acenaphthene	1.08511	1.12430	1.08936	1.11627	1.18374	1.22217						
	1.33072						AVRG		1.16452		7.61746	
45 2,4-Dinitrophenol	+++++	110	2997	32087	171374	663655						
	2386659						QUAD	0.000e+000	13.42637	-2.23607	0.98860	<-
46 Dibenzofuran	1.52937	1.58754	1.60673	1.66349	1.81423	1.88705						
	2.00987						AVRG		1.72833		10.30238	

ARI Labs, Inc.

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Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Last Edit : 07-Mar-2023 12:01 yev

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20.0000 Level 7										
47 4-Nitrophenol	+++++	13803	48368	158049	385053	911134					
	2169193						QUAD	0.000e+000	4.43996	-0.37279	0.99922
48 2,4-Dinitrotoluene	12046	37337	97931	290719	744528	1579283					
	3615784						QUAD	0.000e+000	2.43502	-0.08802	0.99966
49 Fluorene	1.18286	1.29060	1.32340	1.38254	1.48835	1.59671					
	1.80143						AVRG		1.43798		14.55509
50 Diethylphthalate	1.18788	1.31740	1.34705	1.35585	1.41846	1.43733					
	1.51544						AVRG		1.36849		7.58696
51 4-Chlorophenyl-phenylether	13684	43341	88403	243957	574226	1229519					
	3078161						QUAD	0.000e+000	1.59995	-0.10030	0.99995
52 4-Nitroaniline	+++++	0.30995	0.29007	0.31994	0.37673	0.38611					
	0.41822						AVRG		0.35017		14.43356
53 4,6-Dinitro-2-methylphenol	+++++	4630	22278	162732	525677	1578759					
	4263513						QUAD	0.000e+000	10.73625	-1.38395	0.99450

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
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Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Last Edit : 07-Mar-2023 12:01 yev

Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
54 N-Nitrosodiphenylamine	0.47524	0.51102	0.58054	0.61046	0.61182	0.64662					
	0.70708						AVRG		0.59183		13.31934
56 4-Bromophenyl-phenylether	0.17833	0.23348	0.22904	0.23636	0.24509	0.26199					
	0.29435						AVRG		0.23981		14.68741
57 Hexachlorobenzene	0.26464	0.27874	0.25216	0.25440	0.26739	0.26896					
	0.30400						AVRG		0.27004		6.46858
58 Pentachlorophenol	+++++	14168	40379	158344	426084	999885					
	2702116						QUAD	0.000e+000	8.04768	-1.49919	0.99905
60 Phenanthrene	0.91924	0.97495	0.97416	0.99109	1.01696	1.09403					
	1.19528						AVRG		1.02367		9.02739
61 Anthracene	0.82328	0.91269	0.91313	0.96918	1.01602	1.10073					
	1.21333						AVRG		0.99262		13.19181
62 Carbazole	0.76281	0.83782	0.87916	0.91440	0.92445	0.98099					
	1.06588						AVRG		0.90936		10.75491

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Method file : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Last Edit : 07-Mar-2023 12:01 yev

Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
63 Di-n-butylphthalate	47781	146445	327914	904042	2167805	4529098					
	10281629						QUAD	0.000e+000	0.81130	-0.01841	0.99990
64 Fluoranthene	1.08313	1.24451	1.32934	1.46417	1.56619	1.53886					
	1.40603						AVRG		1.37603		12.46825
65 Pyrene	1.20793	1.31434	1.36291	1.45954	1.55400	1.49687					
	1.41250						AVRG		1.40116		8.36356
67 Butylbenzylphthalate	20677	70195	146878	402228	953916	1986336					
	4848656						QUAD	0.000e+000	1.32463	0.02857	0.99990
68 Benzo(a)anthracene	1.22268	1.26331	1.30359	1.35076	1.41700	1.59322					
	1.72230						AVRG		1.41041		13.02832
70 3,3'-Dichlorobenzidine	+++++	142024	304058	863376	2250601	5606129					
	14116451						QUAD	0.000e+000	1.59250	-0.01279	0.99833
71 Chrysene	1.16036	1.12103	1.10734	1.07249	1.11809	1.16685					
	1.27759						AVRG		1.14625		5.77126

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
72 bis(2-Ethylhexyl)phthalate	33184	105513	222177	594611	1394222	3308866					
	9036052						QUAD	0.000e+000	1.78483	-0.07787	0.99964
73 Di-n-octylphthalate	0.92003	0.91942	0.88591	0.86610	0.85136	0.88787					
	0.87835						AVRG		0.88701		2.88383
74 Benzo(b)fluoranthene	50227	156722	281873	726977	1825423	3823921					
	10113499						QUAD	0.000e+000	0.73435	-0.02233	0.99971
75 Benzo(k)fluoranthene	51821	155908	306114	757491	1645283	3744000					
	9917423						QUAD	0.000e+000	0.76283	-0.02473	0.99939
187 Total Benzofluoranthenes	105381	310053	580106	1464206	3405989	7406193					
	19678177						QUAD	0.000e+000	0.76451	-0.01232	0.99970
76 Benzo(a)pyrene	45223	144884	275940	673848	1576490	3440154					
	9007280						QUAD	0.000e+000	0.82157	-0.02783	0.99964
78 Indeno(1,2,3-cd)pyrene	50510	151642	302077	802655	1869637	3993020					
	10415201						QUAD	0.000e+000	0.70249	-0.01999	0.99979

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
79 Dibenzo(a,h)anthracene	40681	126593	239256	623221	1416633	3076842					
	8610401						QUAD	0.000e+000	0.92660	-0.03862	0.99980
80 Benzo(g,h,i)perylene	44573	127815	248971	660797	1505801	3075954					
	7585215						QUAD	0.000e+000	0.88137	-0.02609	0.99993
90 N-Nitrosodimethylamine	0.87266	0.90410	0.71609	0.80174	0.77322	0.83070					
	0.78859						AVRG		0.81244		7.76269
91 Aniline	1.62276	1.75468	1.78807	1.82664	1.81777	1.88766					
	1.91085						AVRG		1.80121		5.29596
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
93 Benzidine	+++++	0.48550	0.57960	0.68694	0.70001	0.60616					
	0.60694						AVRG		0.61086		12.77852
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
97 Caffeine	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
98 Retene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
99 Perylene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
100 3-beta-Coprostanol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
101 Cholesterol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
102 beta-Sitosterol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
103 Pyridine	1.47269 / 1.42409	1.45222	1.43777	1.41290	1.41588	1.47038	AVRG		1.44085		1.72589	

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
188 2,6-Dichlorophenol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
189 N-Nitrosomethylethylamine	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
$ 1 2-Fluorophenol	1.15591 / 1.30678	1.26106	1.26629	1.25918	1.26200	1.29835	AVRG		1.25851		3.90928	
$ 137 d8-1,4-Dioxane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
$ 2 Phenol-d5	1.20625 / 1.67388	1.24234	1.38784	1.49838	1.55432	1.66483	AVRG		1.46112		12.95640	
$ 5 2-Chlorophenol-d4	0.95594 / 1.46519	1.12722	1.20573	1.27179	1.31943	1.38081	AVRG		1.24659		13.58753	
$ 10 1,2-Dichlorobenzene-d4	0.91075 / 0.97649	0.99628	0.90813	0.88389	0.91006	0.93389	AVRG		0.93135		4.36799	

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 18 Nitrobenzene-d5	0.36008	0.42354	0.43676	0.45962	0.45359	0.46490					
	0.47513						AVRG		0.43909		8.86231
$ 36 2-Fluorobiphenyl	1.24359	1.36114	1.36142	1.40548	1.47517	1.51293					
	1.62737						AVRG		1.42673		8.70703
$ 55 2,4,6-Tribromophenol	5717	18967	43327	133559	335459	735108					
	1842414						QUAD	0.000e+000	4.07583	-0.44670	0.99973
$ 66 Terphenyl-d14	1.00091	1.04760	1.07587	1.16204	1.23828	1.22506					
	1.18638						AVRG		1.13373		8.15209
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000

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Compound	0.2000000 Level 1 / 20.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.5000 Level 4	5.0000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000

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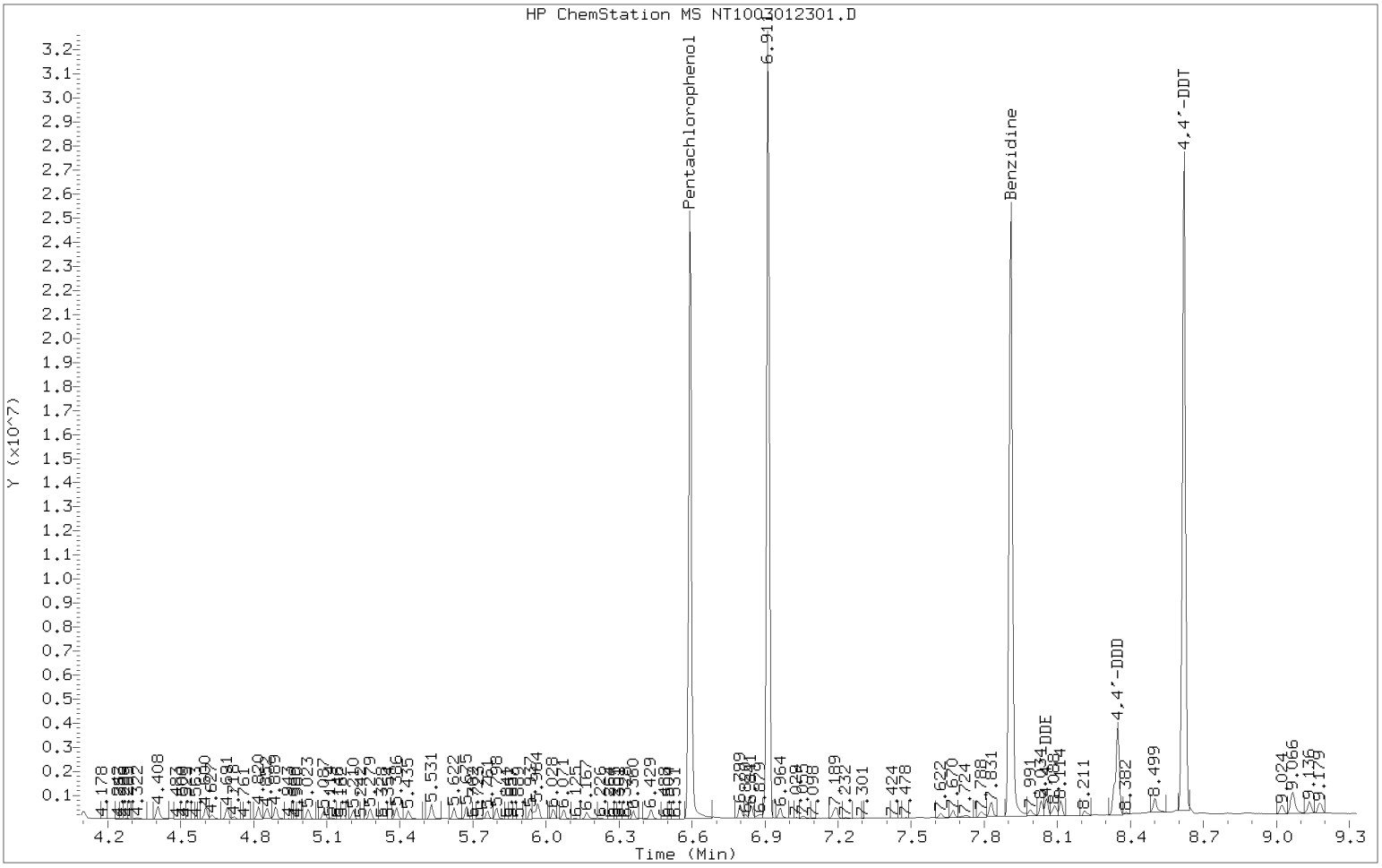
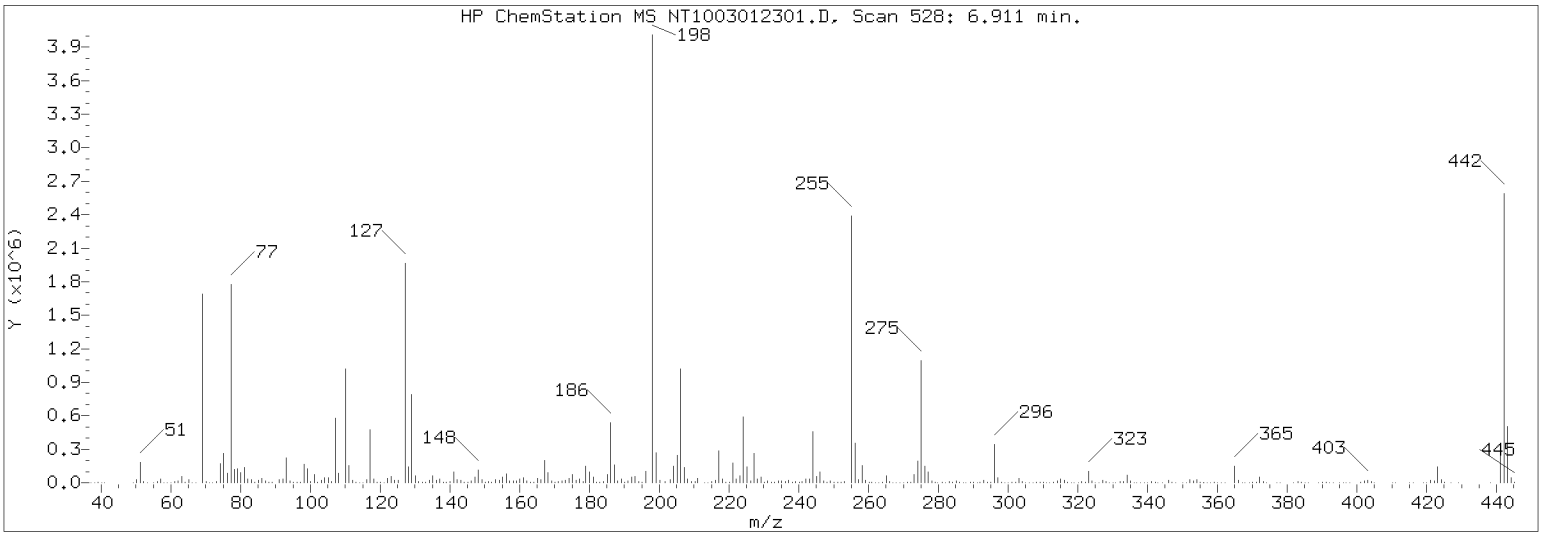
Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

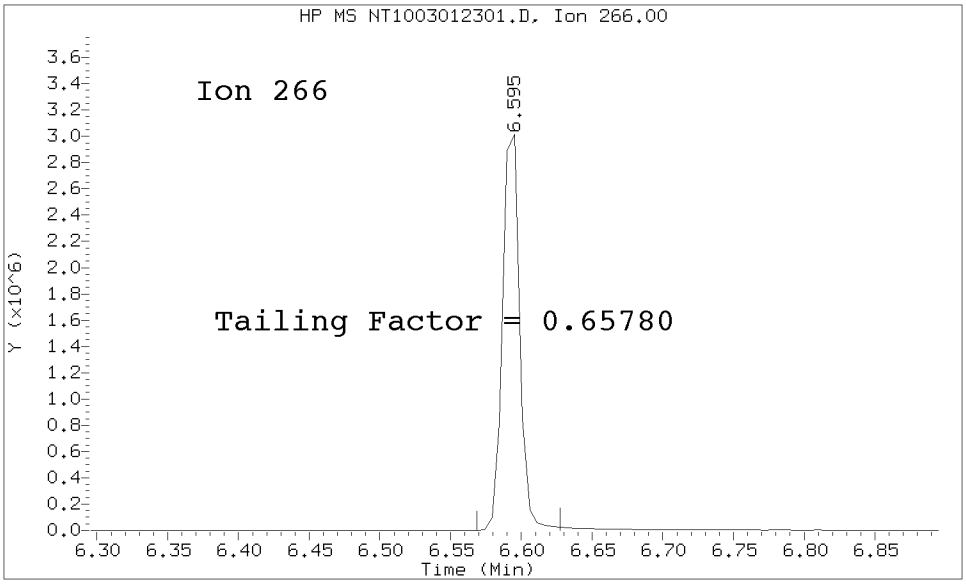
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230301.b/NT1003012301.D/NT1003012301.D
Method Used: \20230301.b\DFTPP8270E.m Inst: nt10
Injection Date: 01-MAR-2023 15:49 Operator: JGR
Sample Info: SLC0084-TUN1 SEQ-TUN1
Report Date: 03/07/2023 12:33



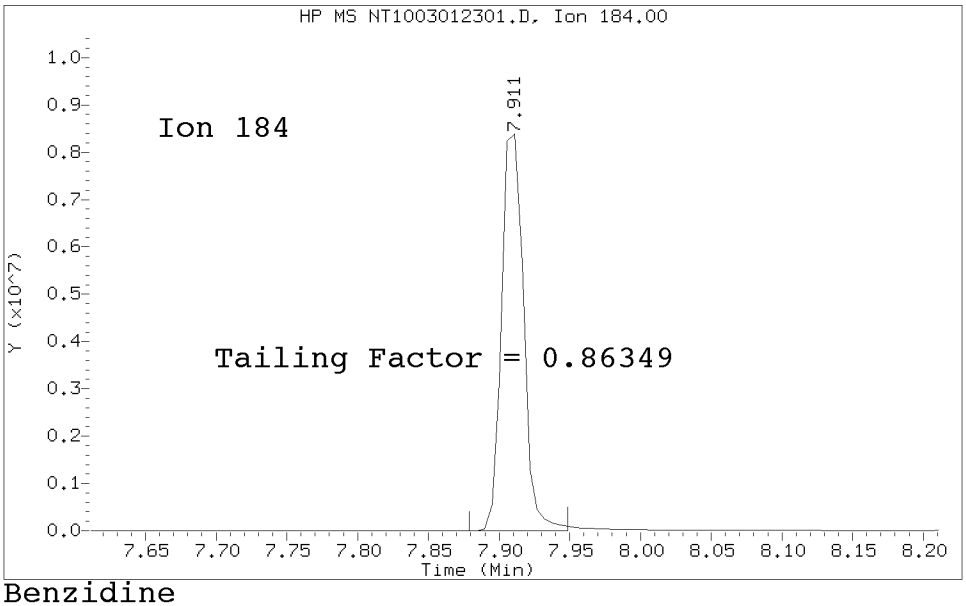


Datafile Analyzed: /20230301.b/NT1003012301.D/NT1003012301.D
Method Used: \20230301.b\DFTPP8270E.m\sw846ddt.m Inst: nt10
Injection Date: 01-MAR-2023 15:49 Operator: JGR
Sample Info: SEQ-TUN1
Report Date: 03/07/2023 12:33



Pentachlorophenol
==========
Exp. RT = 6.590
Found RT = 6.595

Tail Factor = 0.658 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.911
Found RT = 7.911

Tail Factor = 0.863 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.6578035	2.000	PASS
Benzidine	0.8634886	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	4780124			N/A
4,4-DDE	47256	1.0	20.0	PASS
4,4-DDD	542360	10.2	20.0	PASS
4,4-DDD + DDE	589616	11.0	20.0	PASS

Tuning Sample, nt10.i/20230301.b/NT1003012301.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.33 (0.79)
69	Mass 69 relative abundance	41.10
70	Less than 2.00% of mass 69	0.15 (0.37)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.67
365	1.00 - 100.00% of mass 198	4.33
441	Less than 150.00% of mass 443	11.23 (73.44)
442	Less than 200.00% of mass 198	80.08
443	15.00 - 24.00% of mass 442	15.30 (19.10)

Data File: NT1003012301.D
Spectrum: Avg. Scans 527-529 (6.91), Background Scan 522
Location of Maximum: 198.00
Number of points: 369

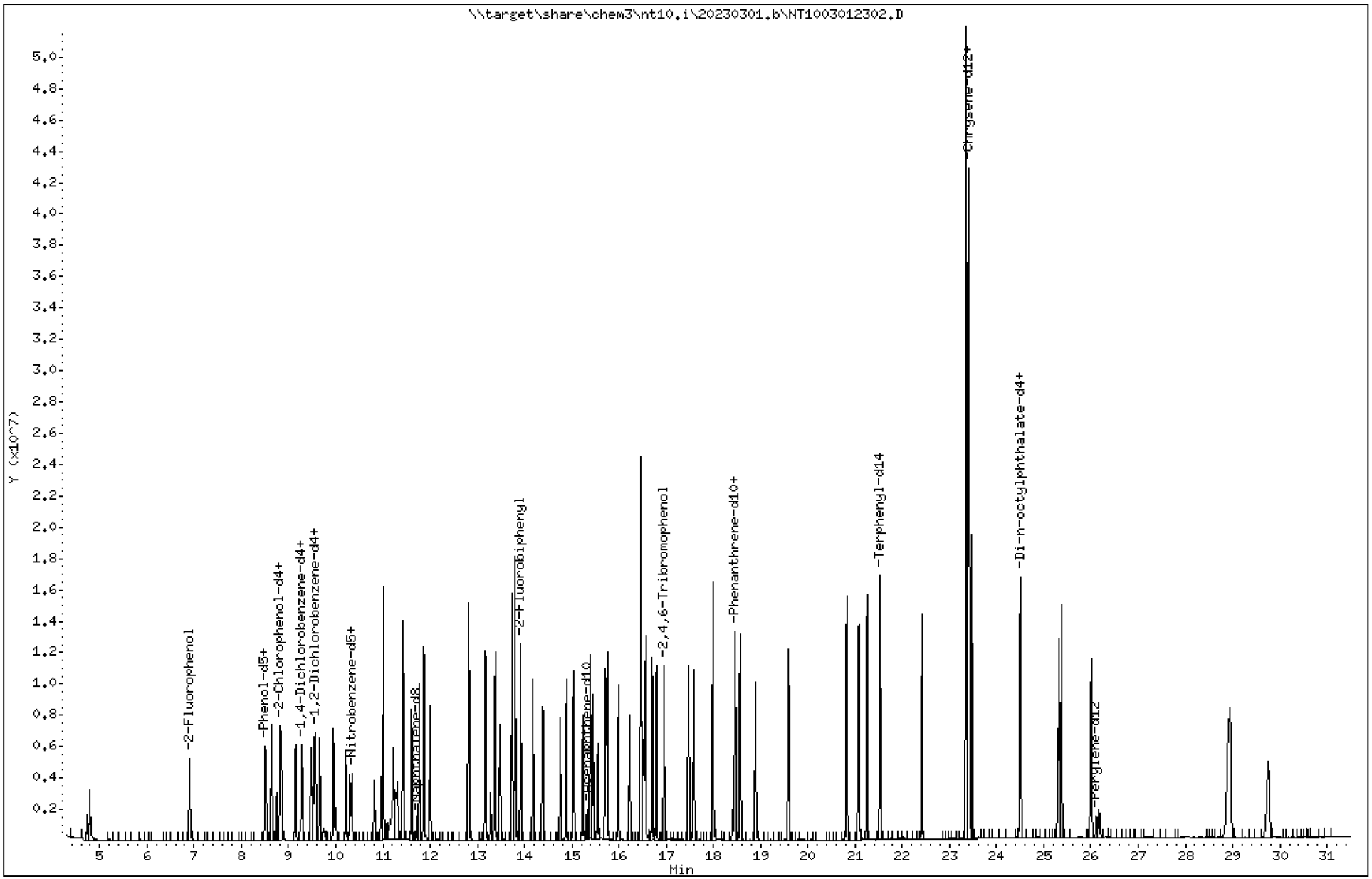
m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	462	140.00	7430	237.00	14976	332.00	6725
38.00	1113	141.00	70248	238.00	2080	333.00	7901
39.00	4743	142.00	22264	239.00	7687	334.00	53800
40.00	108	143.00	15456	240.00	6126	335.00	13827
45.00	84	144.00	4558	241.00	9927	336.00	1422
49.00	890	145.00	3575	242.00	22800	337.00	158
50.00	20560	146.00	12885	243.00	23656	338.00	111
51.00	115400	147.00	37000	244.00	334528	339.00	1435
52.00	5980	148.00	83184	245.00	44200	340.00	1368
53.00	270	151.00	6891	246.00	75208	341.00	9189
55.00	1004	152.00	4801	247.00	14506	342.00	2530
56.00	6893	153.00	21920	248.00	2995	343.00	476
57.00	20032	154.00	16872	249.00	12012	344.00	229
58.00	1173	155.00	39720	250.00	2462	346.00	19040
59.00	381	156.00	58960	251.00	2978	347.00	3868
60.00	603	157.00	10415	252.00	3463	348.00	369
61.00	8555	158.00	12758	253.00	7543	350.00	680
62.00	12181	159.00	10289	254.00	2201	351.00	1509
63.00	36888	160.00	23104	255.00	1779712	352.00	24280
64.00	5850	161.00	32336	256.00	261248	353.00	16313
65.00	19656	162.00	10036	257.00	19960	354.00	23616
66.00	1277	163.00	2211	258.00	115664	355.00	4277
67.00	218	164.00	3370	259.00	18720	356.00	395
68.00	9335	165.00	26672	260.00	3097	357.00	288
69.00	1177088	166.00	21880	261.00	2983	358.00	496
70.00	4303	167.00	140736	262.00	311	359.00	2088
72.00	118	168.00	67144	263.00	1088	360.00	426
73.00	8187	169.00	12299	264.00	2758	361.00	287
74.00	117944	170.00	4307	265.00	46872	362.00	66
75.00	186240	171.00	6152	266.00	6551	363.00	78
76.00	58584	172.00	12323	267.00	641	364.00	312
77.00	1243648	173.00	16696	268.00	1031	365.00	124024
78.00	82568	174.00	30816	269.00	334	366.00	17240
79.00	86720	175.00	56392	270.00	1777	367.00	1640
80.00	67968	176.00	14808	271.00	3758	368.00	51
81.00	95752	177.00	24968	272.00	4667	369.00	81
82.00	22136	178.00	8414	273.00	54184	370.00	2231
83.00	20016	179.00	108176	274.00	145920	371.00	6578
84.00	1703	180.00	69200	275.00	822080	372.00	39896
85.00	15260	181.00	35088	276.00	108424	373.00	10420
86.00	27208	182.00	5707	277.00	76856	374.00	902
87.00	12947	183.00	2410	278.00	12879	377.00	1108
88.00	4317	184.00	9057	281.00	1271	378.00	190
89.00	1969	185.00	53272	282.00	1654	379.00	112
90.00	227	186.00	390848	283.00	8058	382.00	88
91.00	20144	187.00	115736	284.00	6096	383.00	11296
92.00	22872	188.00	12489	285.00	13310	384.00	3498
93.00	159616	189.00	26224	286.00	2664	385.00	1140
94.00	9906	190.00	3820	287.00	301	386.00	187

95.00	2189	191.00	11505	288.00	1049	388.00	81
96.00	5767	192.00	34688	289.00	3146	389.00	105
97.00	2485	193.00	41016	290.00	2684	390.00	4929
98.00	117552	194.00	9131	291.00	1791	391.00	3340
99.00	90792	195.00	3653	292.00	3510	392.00	2390
100.00	7885	196.00	74504	293.00	16520	393.00	475
101.00	52896	198.00	2863616	294.00	4295	395.00	216
102.00	3052	199.00	190976	295.00	4987	396.00	208
103.00	16416	200.00	14335	296.00	267904	397.00	274
104.00	30568	201.00	9948	297.00	37320	398.00	254
105.00	30136	203.00	20560	298.00	2786	401.00	2284
106.00	9766	204.00	107568	299.00	508	402.00	15386
107.00	410176	205.00	182464	300.00	217	403.00	21456
108.00	62280	206.00	743232	301.00	3180	404.00	8460
109.00	6029	207.00	96144	302.00	4702	405.00	1217
110.00	711808	208.00	26352	303.00	29528	408.00	105
111.00	108280	209.00	9347	304.00	7967	410.00	539
112.00	13160	210.00	10562	305.00	1122	411.00	56
113.00	4333	211.00	27120	306.00	358	415.00	1010
114.00	392	212.00	2578	307.00	530	416.00	312
115.00	1356	213.00	2139	308.00	3845	419.00	166
116.00	22112	214.00	764	309.00	2265	420.00	193
117.00	350208	215.00	8027	310.00	3023	421.00	17744
118.00	25424	216.00	16051	311.00	1030	422.00	15463
119.00	2716	217.00	211072	312.00	626	423.00	129392
120.00	4884	218.00	26304	313.00	2222	424.00	25976
121.00	587	219.00	2900	314.00	12766	425.00	2691
122.00	25416	220.00	3351	315.00	29288	426.00	96
123.00	40488	221.00	123968	316.00	15518	427.00	197
124.00	17936	222.00	24608	317.00	2892	429.00	55
125.00	15919	223.00	46856	318.00	260	437.00	78
127.00	1391616	224.00	432000	319.00	629	438.00	106
128.00	102568	225.00	107056	320.00	924	439.00	148
129.00	561152	226.00	10788	321.00	8267	440.00	550
130.00	46696	227.00	195904	322.00	3948	441.00	321664
131.00	8637	228.00	27456	323.00	81096	442.00	2293248
132.00	4190	229.00	39984	324.00	14693	443.00	438016
133.00	1654	230.00	5777	325.00	1371	444.00	39248
134.00	15899	231.00	15009	326.00	1762	445.00	2356
135.00	44024	232.00	3043	327.00	15694	446.00	82
136.00	18272	233.00	3542	328.00	7475	489.00	54
137.00	22936	234.00	12458	329.00	1733		
138.00	5085	235.00	13429	330.00	352		
139.00	2552	236.00	8601	331.00	463		

Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012302.D
Date : 01-MAR-2023 16:04
Client ID:
Sample Info: SEQ-CAL7

Instrument: nt10.i
Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230301.b\NT1003012302.D
Lab Smp Id: SLC0084-CAL7
Inj Date : 01-MAR-2023 16:04
Operator : VTS Inst ID: nt10.i
Smp Info : SEQ-CAL7
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Meth Date : 07-Mar-2023 12:44 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 2 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: ORGDATA102

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.905	6.898	(0.747)	3433608	30.0000	31.15
$	2	Phenol-d5	99	8.504	8.489	(0.920)	4398179	30.0000	34.37
	3	Phenol	94	8.527	8.512	(0.922)	2995587	20.0000	22.02
$	5	2-Chlorophenol-d4	132	8.821	8.813	(0.954)	3849853	30.0000	35.26
	4	Bis(2-Chloroethyl)ether	93	8.743	8.728	(0.946)	2090017	20.0000	20.10
	6	2-Chlorophenol	128	8.852	8.844	(0.957)	2540593	20.0000	22.40
	7	1,3-Dichlorobenzene	146	9.146	9.138	(0.989)	2554489	20.0000	20.43
*	8	1,4-Dichlorobenzene-d4	152	9.247	9.247	(1.000)	350339	4.00000	
	9	1,4-Dichlorobenzene	146	9.285	9.278	(1.004)	2802114	20.0000	22.56
$	10	1,2-Dichlorobenzene-d4	152	9.541	9.534	(1.032)	1710510	20.0000	20.97(H)
	12	1,2-Dichlorobenzene	146	9.565	9.565	(1.034)	2489553	20.0000	20.71
	11	Benzyl alcohol	108	9.479	9.472	(1.025)	1574767	20.0000	19.98
	14	2,2'-oxybis(1-Chloropropane)	121	9.743	9.728	(1.054)	702642	20.0000	20.27(M)
	13	2-Methylphenol	108	9.658	9.650	(1.044)	2348109	20.0000	19.99
	17	Hexachloroethane	117	10.217	10.209	(1.105)	1153314	20.0000	22.62
	16	N-Nitroso-di-n-propylamine	70	9.992	9.976	(1.081)	1786366	20.0000	21.76
	15	4-Methylphenol	108	9.953	9.938	(1.076)	2512692	20.0000	19.92
$	18	Nitrobenzene-d5	82	10.302	10.295	(0.879)	3176979	20.0000	21.64
	19	Nitrobenzene	77	10.341	10.326	(0.882)	2918990	20.0000	21.20
	20	Isophorone	82	10.814	10.784	(0.922)	3744957	20.0000	21.30
	21	2-Nitrophenol	139	10.958	10.951	(0.935)	1347765	20.0000	19.82
	22	2,4-Dimethylphenol	107	11.009	10.993	(0.939)	5924139	40.0000	39.94
	23	Bis(2-Chloroethoxy)methane	93	11.221	11.205	(0.957)	2375580	20.0000	21.87
	24	Benzoic acid	105	11.315	11.052	(0.965)	8022405	80.0000	79.70
	25	2,4-Dichlorophenol	162	11.425	11.417	(0.974)	4685931	40.0000	39.82
	26	1,2,4-Trichlorobenzene	180	11.603	11.595	(0.989)	2240595	20.0000	21.68
*	27	Naphthalene-d8	136	11.726	11.719	(1.000)	1337321	4.00000	
	28	Naphthalene	128	11.772	11.765	(1.004)	7344186	20.0000	21.40
	29	4-Chloroaniline	127	11.865	11.858	(1.012)	7093981	40.0000	39.93
	30	Hexachlorobutadiene	225	11.996	11.997	(1.023)	1667816	20.0000	22.16
	31	4-Chloro-3-methylphenol	107	12.817	12.809	(1.093)	5409598	40.0000	39.94
	32	2-Methylnaphthalene	142	13.165	13.165	(1.123)	5520665	20.0000	22.77
	33	Hexachlorocyclopentadiene	237	13.474	13.475	(0.880)	1744691	40.0000	39.88

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	13.730	13.730	(0.896)	3594107	40.0000	39.94
	35	2,4,5-Trichlorophenol	196	13.800	13.808	(0.901)	3921031	40.0000	39.95
$	36	2-Fluorobiphenyl	172	13.916	13.908	(0.909)	5874186	20.0000	22.81
	37	2-Chloronaphthalene	162	14.171	14.164	(0.925)	4559040	20.0000	22.55
	38	2-Nitroaniline	65	14.380	14.365	(0.939)	2618407	40.0000	39.96
	39	Dimethylphthalate	163	14.751	14.736	(0.963)	5068322	20.0000	21.74
	40	Acenaphthylene	152	15.030	15.023	(0.981)	7652012	20.0000	21.96
	41	2,6-Dinitrotoluene	165	14.883	14.868	(0.972)	2401785	40.0000	39.96
*	42	Acenaphthene-d10	164	15.316	15.309	(1.000)	721926	4.00000	
	43	3-Nitroaniline	138	15.239	15.224	(0.995)	2745956	40.0000	46.70
	44	Acenaphthene	153	15.386	15.378	(1.005)	4803401	20.0000	22.85
	45	2,4-Dinitrophenol	184	15.448	15.487	(1.009)	2386659	80.0000	79.79(M)
	46	Dibenzofuran	168	15.749	15.734	(1.028)	7254880	20.0000	23.26
	47	4-Nitrophenol	109	15.548	15.603	(1.015)	2169193	40.0000	39.90
	48	2,4-Dinitrotoluene	165	15.718	15.703	(1.026)	3615784	40.0000	39.95
	50	Diethylphthalate	149	16.221	16.198	(1.059)	5470185	20.0000	22.15
	49	Fluorene	166	16.461	16.453	(1.075)	6502507	20.0000	25.05
	51	4-Chlorophenyl-phenylether	204	16.461	16.453	(1.075)	3078161	20.0000	19.99
	52	4-Nitroaniline	138	16.523	16.484	(1.079)	3019251	40.0000	47.77
	53	4,6-Dinitro-2-methylphenol	198	16.561	16.538	(0.900)	4263513	80.0000	79.65
	54	N-Nitrosodiphenylamine	169	16.700	16.693	(0.907)	4912651	20.0000	23.89
$	55	2,4,6-Tribromophenol	330	16.955	16.947	(1.107)	1842414	30.0000	29.97
	56	4-Bromophenyl-phenylether	248	17.472	17.472	(0.949)	2045109	20.0000	24.55
	57	Hexachlorobenzene	284	17.581	17.573	(0.955)	2112172	20.0000	22.52
	58	Pentachlorophenol	266	17.991	17.983	(0.977)	2702116	40.0000	39.92
*	59	Phenanthrene-d10	188	18.409	18.401	(1.000)	1389567	4.00000	
	60	Phenanthrene	178	18.455	18.448	(1.003)	8304629	20.0000	23.35
	61	Anthracene	178	18.563	18.556	(1.008)	8429997	20.0000	24.45
	62	Carbazole	167	18.896	18.889	(1.026)	7405556	20.0000	23.44
	63	Di-n-butylphthalate	149	19.592	19.585	(1.064)	10281629	20.0000	19.98
	64	Fluoranthene	202	20.823	20.815	(0.889)	9720868	20.0000	20.44
	65	Pyrene	202	21.256	21.248	(0.907)	9765581	20.0000	20.16
$	66	Terphenyl-d14	244	21.527	21.527	(0.919)	8202245	20.0000	20.93
	67	Butylbenzylphthalate	149	22.409	22.410	(0.957)	4848656	20.0000	19.98
	68	Benzo(a)anthracene	228	23.408	23.401	(0.999)	11907454	20.0000	24.42
*	69	Chrysene-d12	240	23.424	23.416	(1.000)	1382735	4.00000	
	70	3,3'-Dichlorobenzidine	252	23.354	23.347	(0.997)	14116451	60.0000	59.70
	71	Chrysene	228	23.478	23.463	(1.002)	8832851	20.0000	22.29
	72	bis(2-Ethylhexyl)phthalate	149	23.408	23.409	(0.956)	9036052	20.0000	19.96
*	134	Di-n-octylphthalate-d4	153	24.492	24.485	(1.000)	2772507	4.00000	
	73	Di-n-octylphthalate	149	24.500	24.492	(1.000)	12176189	20.0000	19.80
	74	Benzo(b)fluoranthene	252	25.320	25.298	(0.970)	10113499	20.0000	19.98
	75	Benzo(k)fluoranthene	252	25.375	25.352	(0.972)	9917423	20.0000	19.97
	76	Benzo(a)pyrene	252	26.002	25.987	(0.996)	9007280	20.0000	19.97
*	77	Perylene-d12	264	26.110	26.103	(1.000)	1052577	4.00000	
	78	Indeno(1,2,3-cd)pyrene	276	28.901	28.863	(1.107)	10415201	20.0000	19.98
	79	Dibenzo(a,h)anthracene	278	28.948	28.925	(1.109)	8610401	20.0000	19.98
	80	Benzo(g,h,i)perylene	276	29.756	29.709	(1.140)	7585215	20.0000	19.99
	90	N-Nitrosodimethylamine	74	4.742	4.719	(0.513)	2762745	40.0000	38.83
	91	Aniline	93	8.643	8.628	(0.935)	6694460	40.0000	42.43
	93	Benzidine	184	21.078	21.094	(0.900)	8392394	40.0000	39.74
	103	Pyridine	79	4.781	4.789	(0.517)	4989157	40.0000	39.53
	105	1-methylnaphthalene	142	13.374	13.366	(1.141)	4892127	20.0000	22.29
	111	Azobenzene (1,2-DP-Hydrazine)	77	16.793	16.778	(1.096)	8618633	20.0000	23.37

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
187 Total Benzofluoranthenes	252	25.375	25.352	(0.972)	19678177	40.0000	39.95
120 2,3,4,6-Tetrachlorophenol	232	15.981	15.982	(1.043)	1956466	20.0000	19.98

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012302.D
Lab Smp Id: SLC0084-CAL7
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 17:21
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	337641	168821	675282	350339	3.76
27 Naphthalene-d8	1265187	632594	2530374	1337321	5.70
42 Acenaphthene-d10	692385	346193	1384770	721926	4.27
59 Phenanthrene-d10	1376777	688389	2753554	1389567	0.93
69 Chrysene-d12	1019524	509762	2039048	1382735	35.63
134 Di-n-octylphthala	2027111	1013556	4054222	2772507	36.77
77 Perylene-d12	1027409	513705	2054818	1052577	2.45

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.73	0.07
42 Acenaphthene-d10	15.31	14.81	15.81	15.32	0.05
59 Phenanthrene-d10	18.40	17.90	18.90	18.41	0.04
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.03
134 Di-n-octylphthala	24.48	23.98	24.98	24.49	0.03
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012302.D

Lab ID: SLC0084-CAL7
nt10.i, 20230301.b\ABN.m,   01-MAR-2023 16:04

RT	CO-ELUTION COMPOUNDS
23.409	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.965	0.943	0.0218	Benzoic acid

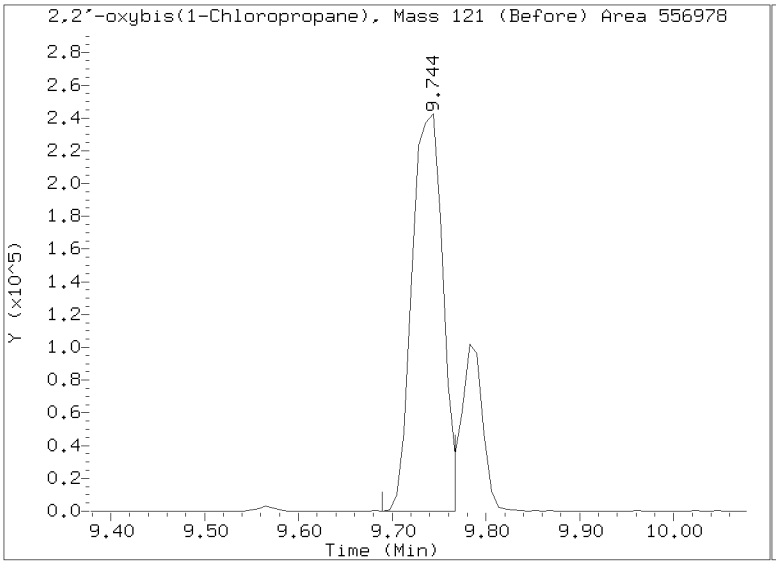
RRT check based on Ccal File: NT1003012307.D

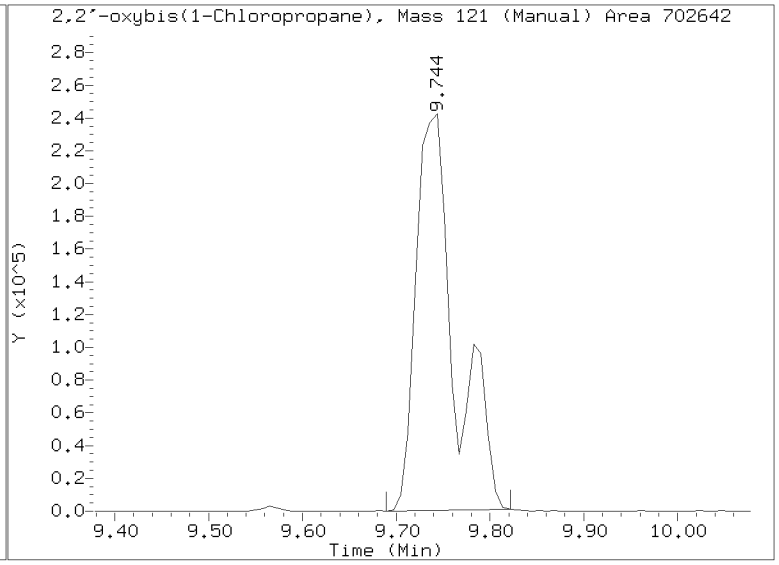
On Column LOD for nt10.i, 20230301.b\ABN.m, ICAL.sub = 0.0000

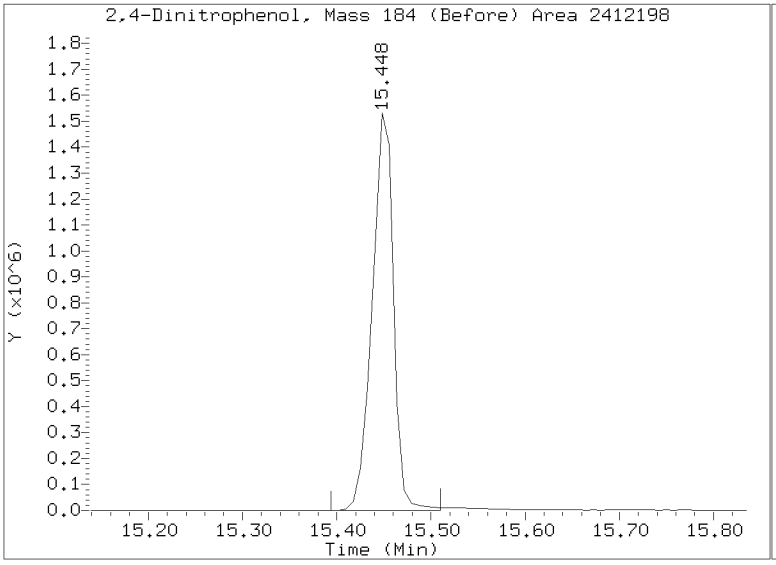
* Only compounds listed in the work order have been verified by the analyst *

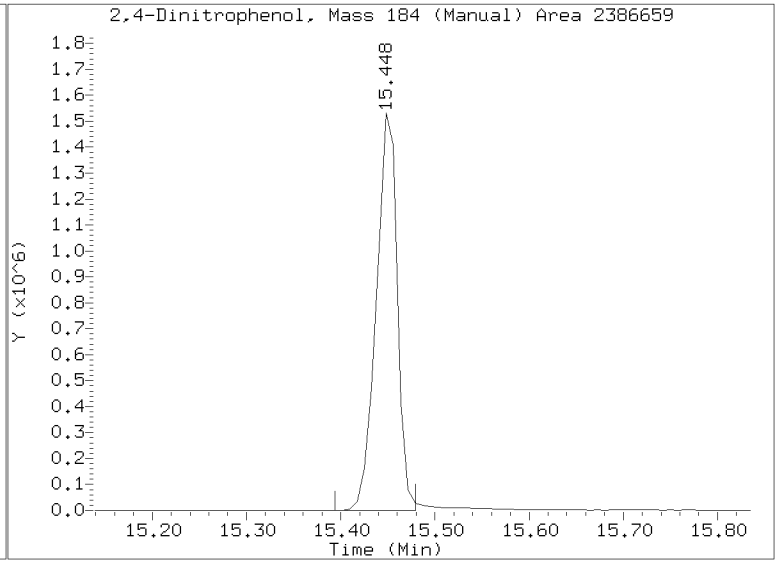
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230301.b/NT1003012302.D
Injection Date: 01-MAR-2023 16:04
Lab ID:SLC0084-CAL7 Client ID:
Report Date: 03/07/2023 12:47



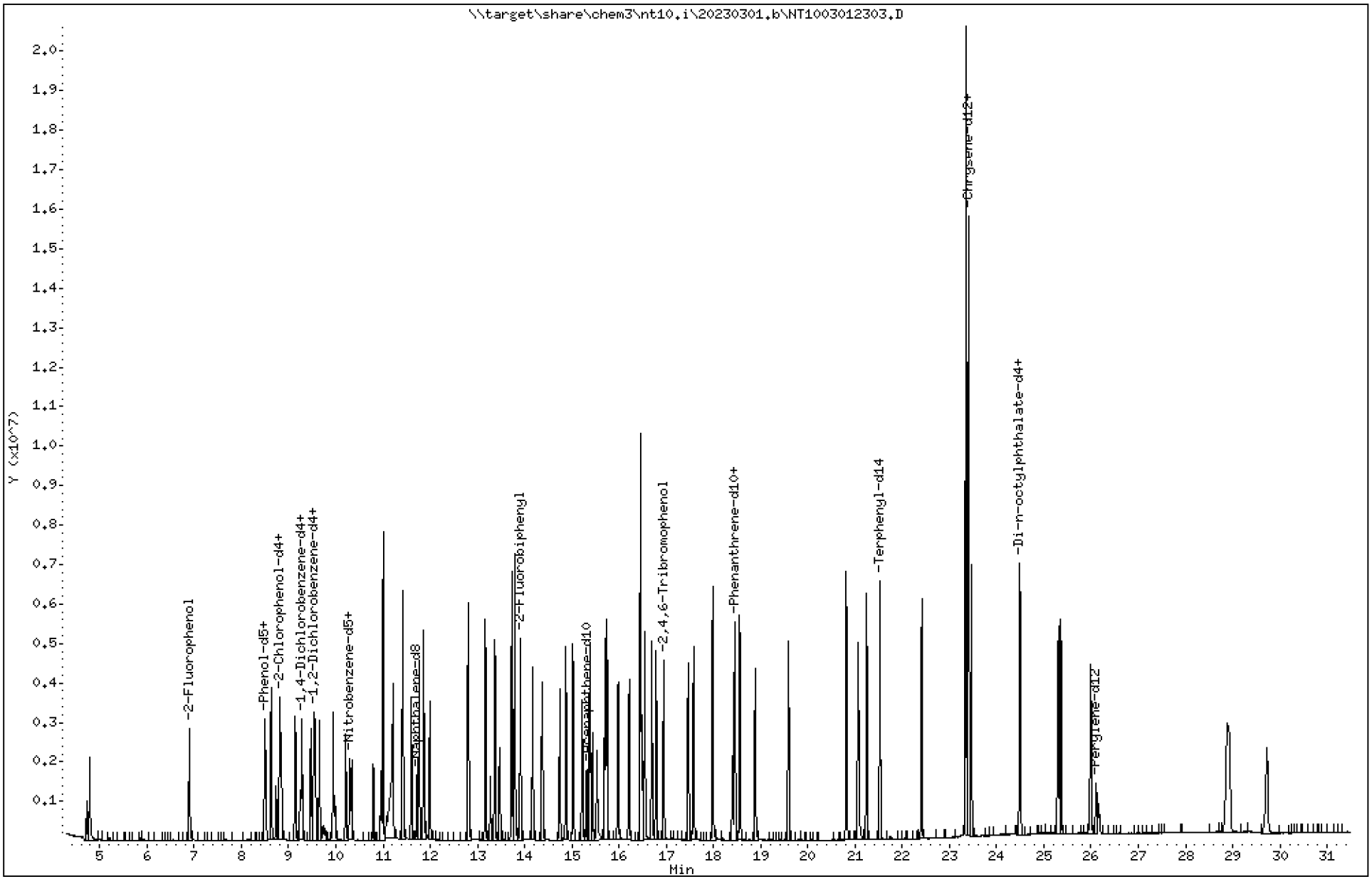






Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012303.D
Date : 01-MAR-2023 16:42
Client ID:
Sample Info: SEQ-CAL6

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230301.b\NT1003012303.D
Lab Smp Id: SLC0084-CAL6
Inj Date : 01-MAR-2023 16:42
Operator : VTS Inst ID: nt10.i
Smp Info : SEQ-CAL6
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Meth Date : 07-Mar-2023 12:44 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: ORGDATA102

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.897	6.898	(0.746)	1671115	15.0000	15.47
$	2	Phenol-d5	99	8.496	8.489	(0.919)	2142811	15.0000	17.09
	3	Phenol	94	8.519	8.512	(0.921)	1452681	10.0000	10.90
$	5	2-Chlorophenol-d4	132	8.813	8.813	(0.953)	1777257	15.0000	16.62
	4	Bis(2-Chloroethyl)ether	93	8.736	8.728	(0.945)	1014758	10.0000	9.962
	6	2-Chlorophenol	128	8.844	8.844	(0.956)	1194498	10.0000	10.75
	7	1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	1207696	10.0000	9.857
*	8	1,4-Dichlorobenzene-d4	152	9.246	9.247	(1.000)	343229	4.00000	
	9	1,4-Dichlorobenzene	146	9.277	9.278	(1.003)	1196225	10.0000	9.830
$	10	1,2-Dichlorobenzene-d4	152	9.533	9.534	(1.031)	801344	10.0000	10.03(H)
	12	1,2-Dichlorobenzene	146	9.565	9.565	(1.034)	1172425	10.0000	9.953
	11	Benzyl alcohol	108	9.471	9.472	(1.024)	729566	10.0000	10.10
	14	2,2'-oxybis(1-Chloropropane)	121	9.735	9.728	(1.053)	341119	10.0000	10.04(M)
	13	2-Methylphenol	108	9.650	9.650	(1.044)	1090929	10.0000	10.05
	17	Hexachloroethane	117	10.209	10.209	(1.104)	522976	10.0000	10.47
	16	N-Nitroso-di-n-propylamine	70	9.984	9.976	(1.080)	857229	10.0000	10.66
	15	4-Methylphenol	108	9.945	9.938	(1.076)	1307742	10.0000	10.35
$	18	Nitrobenzene-d5	82	10.294	10.295	(0.878)	1491583	10.0000	10.59
	19	Nitrobenzene	77	10.333	10.326	(0.882)	1370204	10.0000	10.37
	20	Isophorone	82	10.791	10.784	(0.921)	1793205	10.0000	10.63
	21	2-Nitrophenol	139	10.950	10.951	(0.934)	730550	10.0000	10.66
	22	2,4-Dimethylphenol	107	11.001	10.993	(0.939)	2713675	20.0000	20.33
	23	Bis(2-Chloroethoxy)methane	93	11.213	11.205	(0.957)	1118592	10.0000	10.73
	24	Benzoic acid	105	11.213	11.052	(0.957)	3480339	40.0000	41.77
	25	2,4-Dichlorophenol	162	11.416	11.417	(0.974)	2211975	20.0000	20.93
	26	1,2,4-Trichlorobenzene	180	11.595	11.595	(0.989)	1011207	10.0000	10.20
*	27	Naphthalene-d8	136	11.718	11.719	(1.000)	1283371	4.00000	
	28	Naphthalene	128	11.765	11.765	(1.004)	3371168	10.0000	10.23
	29	4-Chloroaniline	127	11.857	11.858	(1.012)	3165433	20.0000	20.39
	30	Hexachlorobutadiene	225	11.996	11.997	(1.024)	748347	10.0000	10.36
	31	4-Chloro-3-methylphenol	107	12.809	12.809	(1.093)	2338102	20.0000	20.38
	32	2-Methylnaphthalene	142	13.165	13.165	(1.123)	2467957	10.0000	10.61
	33	Hexachlorocyclopentadiene	237	13.467	13.475	(0.879)	579363	20.0000	21.27

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	13.730	13.730	(0.896)	1500216	20.0000	20.39
	35	2,4,5-Trichlorophenol	196	13.792	13.808	(0.900)	1606616	20.0000	20.35
$	36	2-Fluorobiphenyl	172	13.915	13.908	(0.909)	2637459	10.0000	10.60
	37	2-Chloronaphthalene	162	14.163	14.164	(0.925)	2110247	10.0000	10.81
	38	2-Nitroaniline	65	14.372	14.365	(0.938)	1163846	20.0000	20.24
	39	Dimethylphthalate	163	14.744	14.736	(0.963)	2334876	10.0000	10.37
	40	Acenaphthylene	152	15.022	15.023	(0.981)	3968425	10.0000	11.79
	41	2,6-Dinitrotoluene	165	14.875	14.868	(0.971)	1069741	20.0000	20.17
*	42	Acenaphthene-d10	164	15.316	15.309	(1.000)	697310	4.00000	
	43	3-Nitroaniline	138	15.216	15.224	(0.993)	1237579	20.0000	21.79
	44	Acenaphthene	153	15.386	15.378	(1.005)	2130576	10.0000	10.49
	45	2,4-Dinitrophenol	184	15.432	15.487	(1.008)	663655	40.0000	43.01(M)
	46	Dibenzofuran	168	15.741	15.734	(1.028)	3289648	10.0000	10.92
	47	4-Nitrophenol	109	15.533	15.603	(1.014)	911134	20.0000	20.66
	48	2,4-Dinitrotoluene	165	15.703	15.703	(1.025)	1579283	20.0000	20.25
	50	Diethylphthalate	149	16.213	16.198	(1.059)	2505654	10.0000	10.50
	49	Fluorene	166	16.453	16.453	(1.074)	2783498	10.0000	11.10
	51	4-Chlorophenyl-phenylether	204	16.453	16.453	(1.074)	1229519	10.0000	10.04
	52	4-Nitroaniline	138	16.492	16.484	(1.077)	1346197	20.0000	22.05
	53	4,6-Dinitro-2-methylphenol	198	16.546	16.538	(0.899)	1578759	40.0000	42.89
	54	N-Nitrosodiphenylamine	169	16.692	16.693	(0.907)	2167459	10.0000	10.93
$	55	2,4,6-Tribromophenol	330	16.947	16.947	(1.106)	735108	15.0000	15.20
	56	4-Bromophenyl-phenylether	248	17.472	17.472	(0.950)	878203	10.0000	10.93
	57	Hexachlorobenzene	284	17.573	17.573	(0.955)	901567	10.0000	9.960
	58	Pentachlorophenol	266	17.983	17.983	(0.977)	999885	20.0000	20.67
*	59	Phenanthrene-d10	188	18.401	18.401	(1.000)	1340795	4.00000	
	60	Phenanthrene	178	18.455	18.448	(1.003)	3667169	10.0000	10.69
	61	Anthracene	178	18.556	18.556	(1.008)	3689636	10.0000	11.09
	62	Carbazole	167	18.888	18.889	(1.026)	3288261	10.0000	10.79
	63	Di-n-butylphthalate	149	19.585	19.585	(1.064)	4529098	10.0000	10.12
	64	Fluoranthene	202	20.815	20.815	(0.889)	4187547	10.0000	11.18
	65	Pyrene	202	21.248	21.248	(0.907)	4073267	10.0000	10.68
$	66	Terphenyl-d14	244	21.527	21.527	(0.919)	3333633	10.0000	10.81
	67	Butylbenzylphthalate	149	22.409	22.410	(0.957)	1986336	10.0000	10.05
	68	Benzo(a)anthracene	228	23.400	23.401	(0.999)	4335462	10.0000	11.30
*	69	Chrysene-d12	240	23.416	23.416	(1.000)	1088479	4.00000	
	70	3,3'-Dichlorobenzidine	252	23.346	23.347	(0.997)	5606129	30.0000	31.45
	71	Chrysene	228	23.462	23.463	(1.002)	3175231	10.0000	10.18
	72	bis(2-Ethylhexyl)phthalate	149	23.400	23.409	(0.956)	3308866	10.0000	10.24
*	134	Di-n-octylphthalate-d4	153	24.484	24.485	(1.000)	2152692	4.00000	
	73	Di-n-octylphthalate	149	24.492	24.492	(1.000)	4778293	10.0000	10.01
	74	Benzo(b)fluoranthene	252	25.305	25.298	(0.969)	3823921	10.0000	10.16
	75	Benzo(k)fluoranthene	252	25.359	25.352	(0.971)	3744000	10.0000	10.27
	76	Benzo(a)pyrene	252	25.986	25.987	(0.995)	3440154	10.0000	10.22
*	77	Perylene-d12	264	26.110	26.103	(1.000)	973894	4.00000	
	78	Indeno(1,2,3-cd)pyrene	276	28.878	28.863	(1.106)	3993020	10.0000	10.18
	79	Dibenzo(a,h)anthracene	278	28.932	28.925	(1.108)	3076842	10.0000	10.17
	80	Benzo(g,h,i)perylene	276	29.724	29.709	(1.138)	3075954	10.0000	10.09
	90	N-Nitrosodimethylamine	74	4.727	4.719	(0.511)	1425602	20.0000	20.45
	91	Aniline	93	8.628	8.628	(0.933)	3239498	20.0000	20.96
	93	Benzidine	184	21.062	21.094	(0.899)	3298965	20.0000	19.85
	103	Pyridine	79	4.781	4.789	(0.517)	2523388	20.0000	20.41
	105	1-methylnaphthalene	142	13.366	13.366	(1.141)	2199060	10.0000	10.44
	111	Azobenzene (1,2-DP-Hydrazine)	77	16.777	16.778	(1.095)	3893455	10.0000	10.93

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
187 Total Benzofluoranthenes	252	25.359	25.352	(0.971)	7406193	20.0000	20.41
120 2,3,4,6-Tetrachlorophenol	232	15.981	15.982	(1.043)	756020	10.0000	10.15

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012303.D
Lab Smp Id: SLC0084-CAL6
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 17:21
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	337641	168821	675282	343229	1.66
27 Naphthalene-d8	1265187	632594	2530374	1283371	1.44
42 Acenaphthene-d10	692385	346193	1384770	697310	0.71
59 Phenanthrene-d10	1376777	688389	2753554	1340795	-2.61
69 Chrysene-d12	1019524	509762	2039048	1088479	6.76
134 Di-n-octylphthala	2027111	1013556	4054222	2152692	6.20
77 Perylene-d12	1027409	513705	2054818	973894	-5.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.32	0.05
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
134 Di-n-octylphthala	24.48	23.98	24.98	24.48	0.00
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012303.D

Lab ID: SLC0084-CAL6
nt10.i, 20230301.b\ABN.m,   01-MAR-2023 16:42

RT	CO-ELUTION COMPOUNDS
23.401	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.957	0.943	0.0138	Benzoic acid
1.014	1.019	-0.0051	4-Nitrophenol

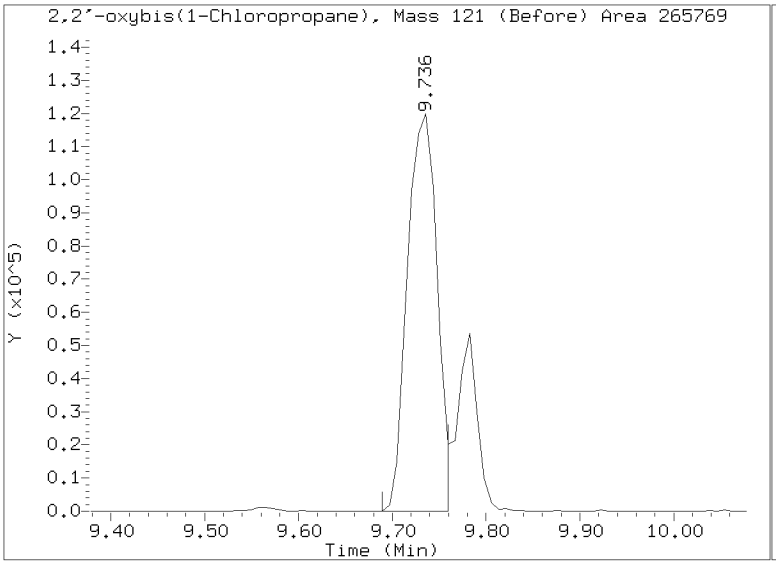
RRT check based on Ccal File: NT1003012307.D

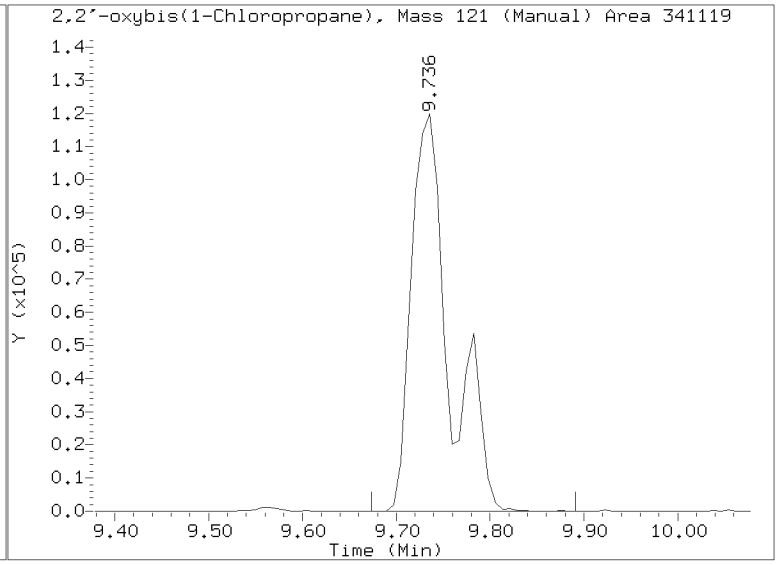
On Column LOD for nt10.i, 20230301.b\ABN.m, ICAL.sub = 0.0000

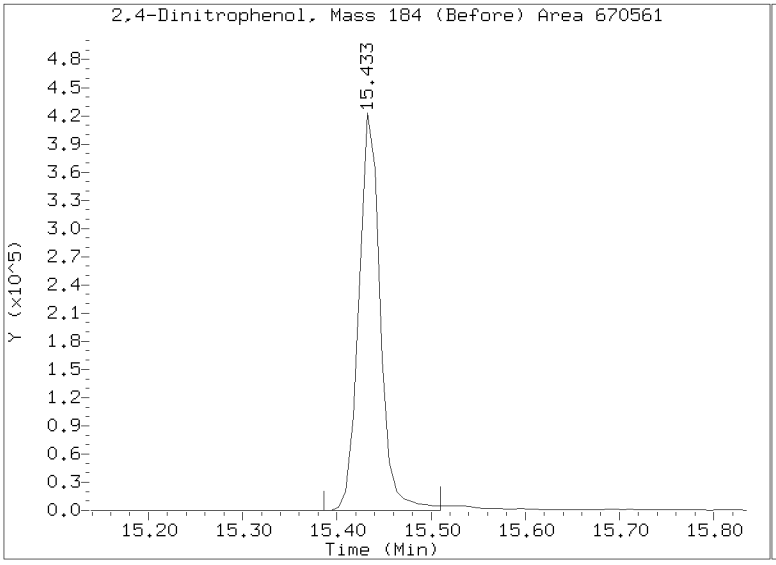
* Only compounds listed in the work order have been verified by the analyst *

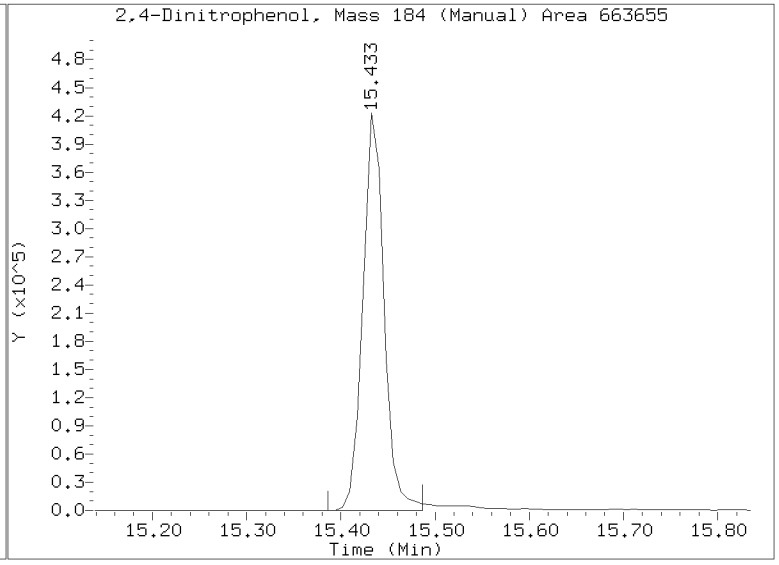
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230301.b/NT1003012303.D
Injection Date: 01-MAR-2023 16:42
Lab ID:SLC0084-CAL6 Client ID:
Report Date: 03/07/2023 12:47



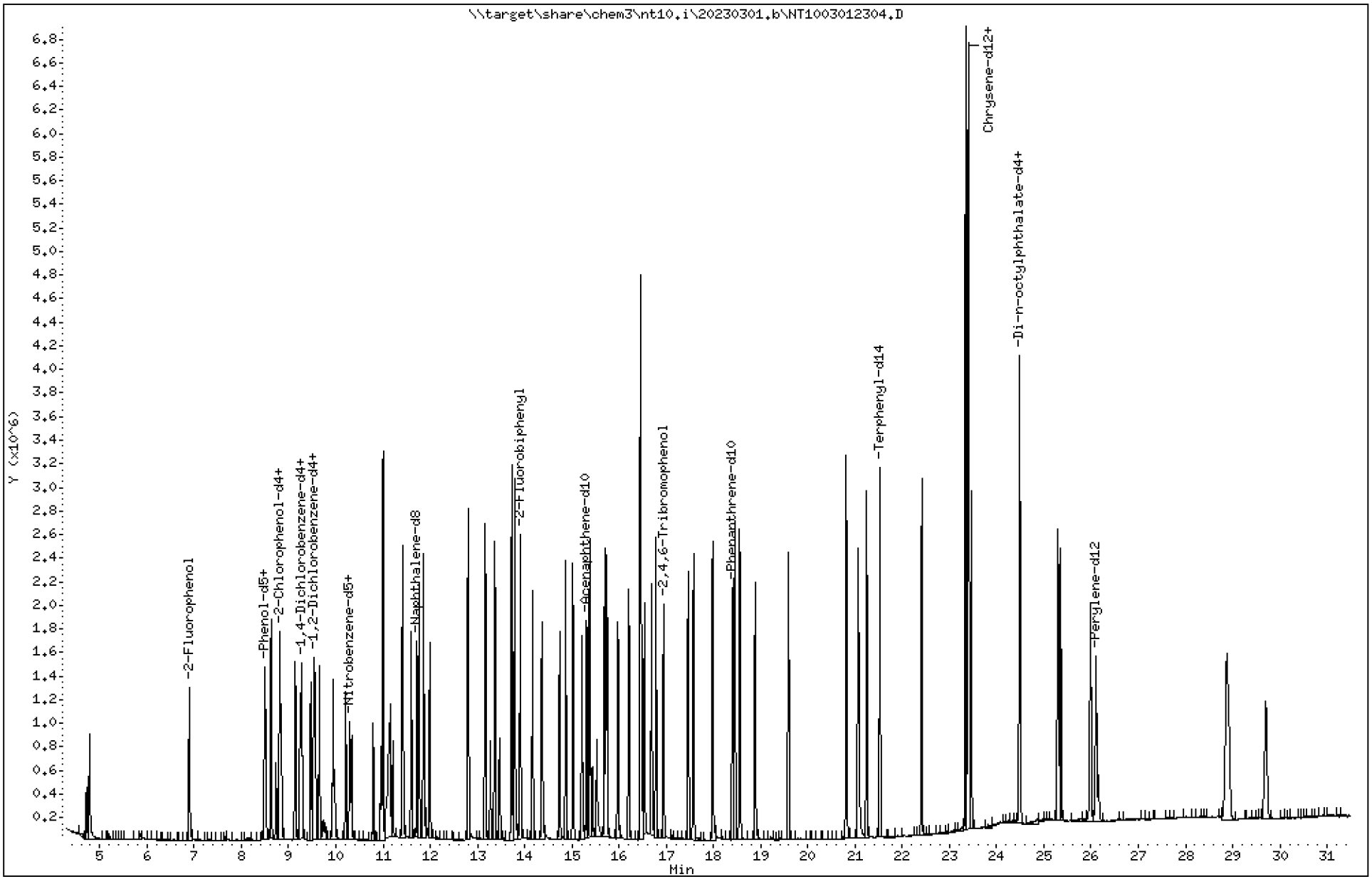






Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012304.D
Date : 01-MAR-2023 17:21
Client ID:
Sample Info: SEQ-CAL5

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230301.b\NT1003012304.D
Lab Smp Id: SLC0084-CAL5
Inj Date : 01-MAR-2023 17:21
Operator : VTS Inst ID: nt10.i
Smp Info : SEQ-CAL5
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Meth Date : 07-Mar-2023 12:44 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 4 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: ORGDATA102

							AMOUNTS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.897	6.898	(0.746)	798945	7.50000	7.521
$	2 Phenol-d5	99	8.488	8.489	(0.918)	984004	7.50000	7.978
	3 Phenol	94	8.512	8.512	(0.921)	696903	5.00000	5.315
$	5 2-Chlorophenol-d4	132	8.813	8.813	(0.953)	835303	7.50000	7.938
	4 Bis(2-Chloroethyl)ether	93	8.728	8.728	(0.944)	492325	5.00000	4.913
	6 2-Chlorophenol	128	8.844	8.844	(0.956)	569359	5.00000	5.208
	7 1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	592846	5.00000	4.919
*	8 1,4-Dichlorobenzene-d4	152	9.246	9.247	(1.000)	337641	4.00000	
	9 1,4-Dichlorobenzene	146	9.277	9.278	(1.003)	573306	5.00000	4.789
$	10 1,2-Dichlorobenzene-d4	152	9.533	9.534	(1.031)	384091	5.00000	4.886(H)
	12 1,2-Dichlorobenzene	146	9.564	9.565	(1.034)	555677	5.00000	4.795
	11 Benzyl alcohol	108	9.471	9.472	(1.024)	345472	5.00000	5.007
	14 2,2'-oxybis(1-Chloropropane)	121	9.728	9.728	(1.052)	166156	5.00000	4.974(M)
	13 2-Methylphenol	108	9.650	9.650	(1.044)	519498	5.00000	4.996
	17 Hexachloroethane	117	10.209	10.209	(1.104)	243978	5.00000	4.965
	16 N-Nitroso-di-n-propylamine	70	9.976	9.976	(1.079)	408771	5.00000	5.166
	15 4-Methylphenol	108	9.937	9.938	(1.075)	602036	5.00000	4.780
$	18 Nitrobenzene-d5	82	10.294	10.295	(0.878)	717338	5.00000	5.165
	19 Nitrobenzene	77	10.333	10.326	(0.882)	649574	5.00000	4.986
	20 Isophorone	82	10.791	10.784	(0.921)	852017	5.00000	5.123
	21 2-Nitrophenol	139	10.950	10.951	(0.934)	321421	5.00000	4.583
	22 2,4-Dimethylphenol	107	11.001	10.993	(0.939)	1242938	10.0000	9.733
	23 Bis(2-Chloroethoxy)methane	93	11.204	11.205	(0.956)	518616	5.00000	5.046
	24 Benzoic acid	105	11.162	11.052	(0.953)	1434582	20.0000	18.62
	25 2,4-Dichlorophenol	162	11.416	11.417	(0.974)	897693	10.0000	8.929
	26 1,2,4-Trichlorobenzene	180	11.595	11.595	(0.989)	474239	5.00000	4.850
*	27 Naphthalene-d8	136	11.718	11.719	(1.000)	1265187	4.00000	
	28 Naphthalene	128	11.764	11.765	(1.004)	1611137	5.00000	4.962
	29 4-Chloroaniline	127	11.857	11.858	(1.012)	1458858	10.0000	9.927
	30 Hexachlorobutadiene	225	11.996	11.997	(1.024)	361635	5.00000	5.080
	31 4-Chloro-3-methylphenol	107	12.801	12.809	(1.092)	1052503	10.0000	9.790
	32 2-Methylnaphthalene	142	13.165	13.165	(1.123)	1169551	5.00000	5.098
	33 Hexachlorocyclopentadiene	237	13.467	13.475	(0.880)	197002	10.0000	8.175

		QUANT SIG					AMOUNTS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34 2,4,6-Trichlorophenol	196	13.722	13.730	(0.896)	671855	10.0000	9.789
	35 2,4,5-Trichlorophenol	196	13.792	13.808	(0.901)	727258	10.0000	9.898
$	36 2-Fluorobiphenyl	172	13.908	13.908	(0.909)	1276728	5.00000	5.170
	37 2-Chloronaphthalene	162	14.163	14.164	(0.925)	985797	5.00000	5.085
	38 2-Nitroaniline	65	14.364	14.365	(0.938)	539613	10.0000	9.843
	39 Dimethylphthalate	163	14.736	14.736	(0.963)	1157937	5.00000	5.179
	40 Acenaphthylene	152	15.022	15.023	(0.981)	1673322	5.00000	5.006
	41 2,6-Dinitrotoluene	165	14.867	14.868	(0.971)	510956	10.0000	10.08
*	42 Acenaphthene-d10	164	15.308	15.309	(1.000)	692385	4.00000	
	43 3-Nitroaniline	138	15.216	15.224	(0.994)	572327	10.0000	10.15
	44 Acenaphthene	153	15.378	15.378	(1.005)	1024501	5.00000	5.082
	45 2,4-Dinitrophenol	184	15.432	15.487	(1.008)	171374	20.0000	12.74(M)
	46 Dibenzofuran	168	15.741	15.734	(1.028)	1570179	5.00000	5.249
	47 4-Nitrophenol	109	15.525	15.603	(1.014)	385053	10.0000	9.416
	48 2,4-Dinitrotoluene	165	15.695	15.703	(1.025)	744528	10.0000	10.07
	50 Diethylphthalate	149	16.205	16.198	(1.059)	1227652	5.00000	5.183
	49 Fluorene	166	16.453	16.453	(1.075)	1288140	5.00000	5.175
	51 4-Chlorophenyl-phenylether	204	16.445	16.453	(1.074)	574226	5.00000	5.032
	52 4-Nitroaniline	138	16.476	16.484	(1.076)	652104	10.0000	10.76
	53 4,6-Dinitro-2-methylphenol	198	16.538	16.538	(0.899)	525677	20.0000	15.59
	54 N-Nitrosodiphenylamine	169	16.692	16.693	(0.907)	1052927	5.00000	5.169
$	55 2,4,6-Tribromophenol	330	16.939	16.947	(1.107)	335459	7.50000	7.479
	56 4-Bromophenyl-phenylether	248	17.464	17.472	(0.949)	421801	5.00000	5.110
	57 Hexachlorobenzene	284	17.573	17.573	(0.955)	460177	5.00000	4.951
	58 Pentachlorophenol	266	17.983	17.983	(0.977)	426084	10.0000	9.388
*	59 Phenanthrene-d10	188	18.401	18.401	(1.000)	1376777	4.00000	
	60 Phenanthrene	178	18.447	18.448	(1.003)	1750157	5.00000	4.967
	61 Anthracene	178	18.556	18.556	(1.008)	1748537	5.00000	5.118
	62 Carbazole	167	18.880	18.889	(1.026)	1590953	5.00000	5.083
	63 Di-n-butylphthalate	149	19.585	19.585	(1.064)	2167805	5.00000	4.927
	64 Fluoranthene	202	20.815	20.815	(0.889)	1995961	5.00000	5.691
	65 Pyrene	202	21.248	21.248	(0.907)	1980428	5.00000	5.545
$	66 Terphenyl-d14	244	21.519	21.527	(0.919)	1578069	5.00000	5.461
	67 Butylbenzylphthalate	149	22.409	22.410	(0.957)	953916	5.00000	5.058
	68 Benzo(a)anthracene	228	23.400	23.401	(0.999)	1805838	5.00000	5.023
*	69 Chrysene-d12	240	23.416	23.416	(1.000)	1019524	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.346	23.347	(0.997)	2250601	15.0000	13.81
	71 Chrysene	228	23.462	23.463	(1.002)	1424903	5.00000	4.877
	72 bis(2-Ethylhexyl)phthalate	149	23.400	23.409	(0.956)	1394222	5.00000	4.763
*	134 Di-n-octylphthalate-d4	153	24.484	24.485	(1.000)	2027111	4.00000	
	73 Di-n-octylphthalate	149	24.492	24.492	(1.000)	2157248	5.00000	4.799
	74 Benzo(b)fluoranthene	252	25.297	25.298	(0.969)	1825423	5.00000	4.937
	75 Benzo(k)fluoranthene	252	25.351	25.352	(0.971)	1645283	5.00000	4.633
	76 Benzo(a)pyrene	252	25.986	25.987	(0.996)	1576490	5.00000	4.781
*	77 Perylene-d12	264	26.102	26.103	(1.000)	1027409	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.870	28.863	(1.106)	1869637	5.00000	4.849
	79 Dibenzo(a,h)anthracene	278	28.909	28.925	(1.108)	1416633	5.00000	4.817
	80 Benzo(g,h,i)perylene	276	29.693	29.709	(1.138)	1505801	5.00000	4.943
	90 N-Nitrosodimethylamine	74	4.719	4.719	(0.510)	652679	10.0000	9.517
	91 Aniline	93	8.627	8.628	(0.933)	1534382	10.0000	10.09
	93 Benzidine	184	21.062	21.094	(0.899)	1784190	10.0000	11.46
	103 Pyridine	79	4.781	4.789	(0.517)	1195147	10.0000	9.827
	105 1-methylnaphthalene	142	13.366	13.366	(1.141)	1066974	5.00000	5.139
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.777	16.778	(1.096)	1859900	5.00000	5.258

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
187 Total Benzofluoranthenes	252	25.297	25.352	(0.969)	3405989	10.0000	9.596
120 2,3,4,6-Tetrachlorophenol	232	15.973	15.982	(1.043)	340297	5.00000	4.959

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012304.D
Lab Smp Id: SLC0084-CAL5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 17:21
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	337641	168821	675282	337641	0.00
27 Naphthalene-d8	1265187	632594	2530374	1265187	0.00
42 Acenaphthene-d10	692385	346193	1384770	692385	0.00
59 Phenanthrene-d10	1376777	688389	2753554	1376777	0.00
69 Chrysene-d12	1019524	509762	2039048	1019524	0.00
134 Di-n-octylphthala	2027111	1013556	4054222	2027111	0.00
77 Perylene-d12	1027409	513705	2054818	1027409	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
134 Di-n-octylphthala	24.48	23.98	24.98	24.48	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012304.D

Lab ID: SLC0084-CAL5
nt10.i, 20230301.b\ABN.m,   01-MAR-2023 17:21

RT	CO-ELUTION COMPOUNDS
23.401	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.953	0.943	0.0094	Benzoic acid
1.014	1.019	-0.0050	4-Nitrophenol

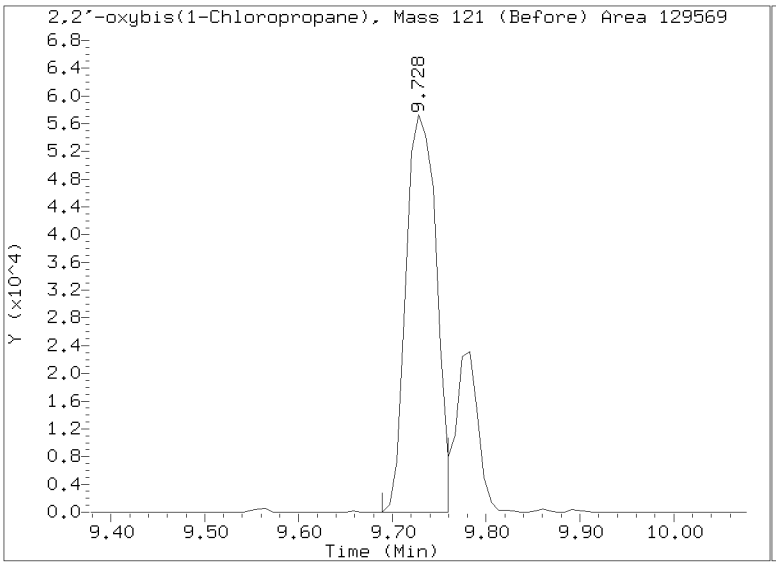
RRT check based on Ccal File: NT1003012307.D

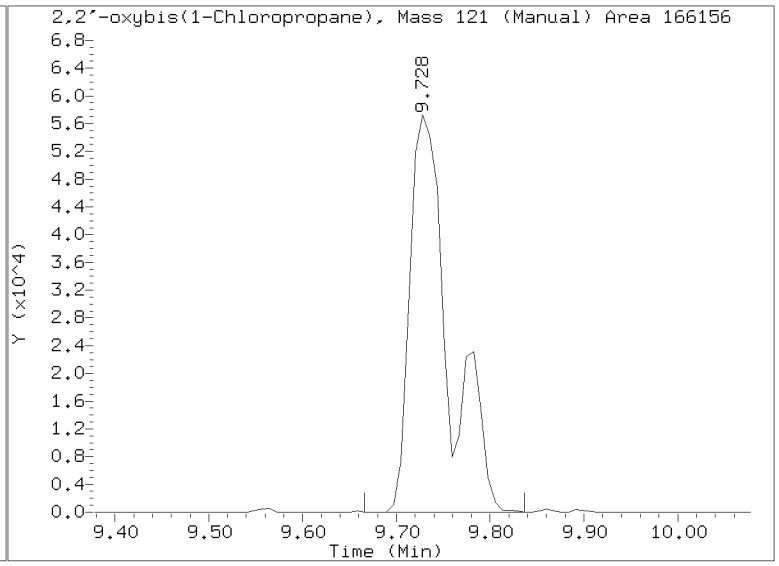
On Column LOD for nt10.i, 20230301.b\ABN.m, ICAL.sub = 0.0000

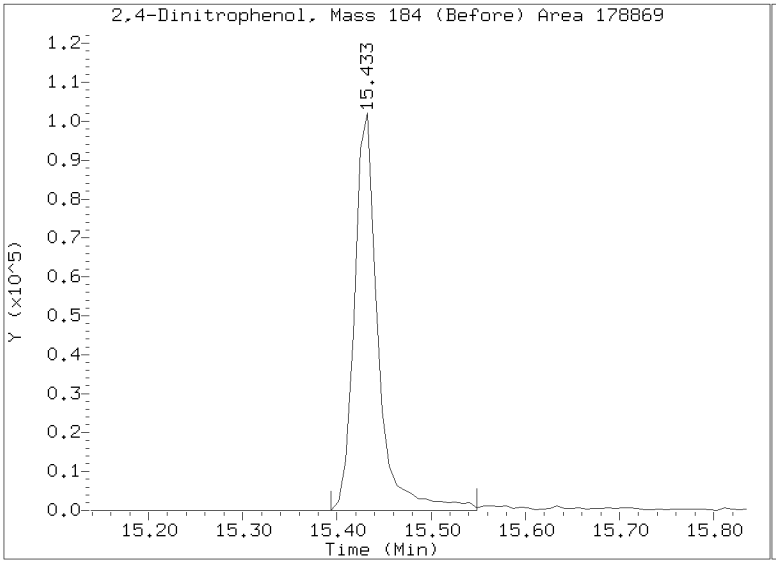
* Only compounds listed in the work order have been verified by the analyst *

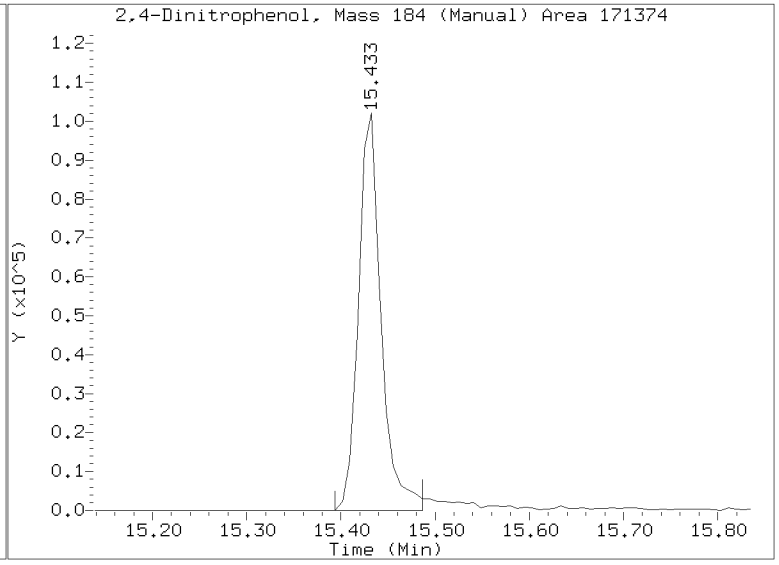
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230301.b/NT1003012304.D
Injection Date: 01-MAR-2023 17:21
Lab ID:SLC0084-CAL5 Client ID:
Report Date: 03/07/2023 12:47



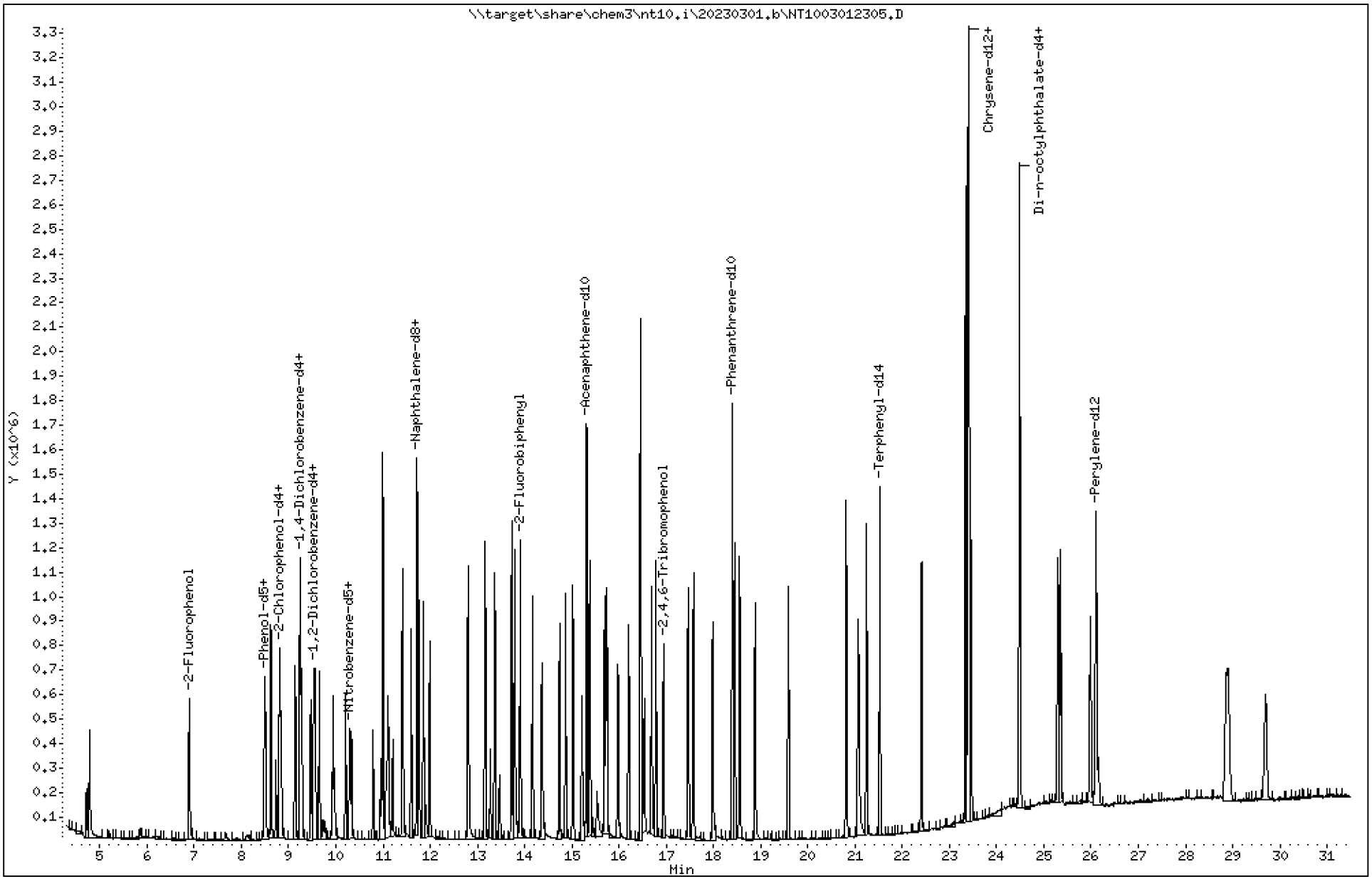






Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012305.D
Date : 01-MAR-2023 17:59
Client ID:
Sample Info: SEQ-CAL4

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230301.b\NT1003012305.D
Lab Smp Id: SLC0084-CAL4
Inj Date : 01-MAR-2023 17:59
Operator : VTS Inst ID: nt10.i
Smp Info : SEQ-CAL4
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Meth Date : 07-Mar-2023 12:44 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: ORGDATA102

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.897	6.898	(0.746)	378841	3.75000	3.752
$	2	Phenol-d5	99	8.489	8.489	(0.918)	450808	3.75000	3.846
	3	Phenol	94	8.512	8.512	(0.921)	326814	2.50000	2.622
$	5	2-Chlorophenol-d4	132	8.813	8.813	(0.953)	382637	3.75000	3.826
	4	Bis(2-Chloroethyl)ether	93	8.728	8.728	(0.944)	236207	2.50000	2.480
	6	2-Chlorophenol	128	8.844	8.844	(0.956)	260785	2.50000	2.510
	7	1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	283471	2.50000	2.475
*	8	1,4-Dichlorobenzene-d4	152	9.246	9.247	(1.000)	320922	4.00000	
	9	1,4-Dichlorobenzene	146	9.277	9.278	(1.003)	266336	2.50000	2.341
$	10	1,2-Dichlorobenzene-d4	152	9.534	9.534	(1.031)	177287	2.50000	2.373(H)
	12	1,2-Dichlorobenzene	146	9.557	9.565	(1.034)	269555	2.50000	2.447
	11	Benzyl alcohol	108	9.471	9.472	(1.024)	148609	2.50000	2.300
	14	2,2'-oxybis(1-Chloropropane)	121	9.728	9.728	(1.052)	77292	2.50000	2.434(M)
	13	2-Methylphenol	108	9.650	9.650	(1.044)	238010	2.50000	2.439
	17	Hexachloroethane	117	10.209	10.209	(1.104)	111666	2.50000	2.391
	16	N-Nitroso-di-n-propylamine	70	9.976	9.976	(1.079)	194824	2.50000	2.590
	15	4-Methylphenol	108	9.937	9.938	(1.075)	261454	2.50000	2.170
$	18	Nitrobenzene-d5	82	10.286	10.295	(0.878)	337523	2.50000	2.617
	19	Nitrobenzene	77	10.325	10.326	(0.881)	306595	2.50000	2.534
	20	Isophorone	82	10.783	10.784	(0.920)	389475	2.50000	2.522
	21	2-Nitrophenol	139	10.950	10.951	(0.934)	116300	2.50000	1.752
	22	2,4-Dimethylphenol	107	10.992	10.993	(0.938)	558107	5.00000	4.768
	23	Bis(2-Chloroethoxy)methane	93	11.204	11.205	(0.956)	247047	2.50000	2.588
	24	Benzoic acid	105	11.111	11.052	(0.948)	511628	10.0000	7.346
	25	2,4-Dichlorophenol	162	11.408	11.417	(0.974)	427920	5.00000	4.638
	26	1,2,4-Trichlorobenzene	180	11.595	11.595	(0.989)	222387	2.50000	2.449
*	27	Naphthalene-d8	136	11.718	11.719	(1.000)	1174958	4.00000	
	28	Naphthalene	128	11.765	11.765	(1.004)	735833	2.50000	2.440
	29	4-Chloroaniline	127	11.857	11.858	(1.012)	564439	5.00000	4.220
	30	Hexachlorobutadiene	225	11.989	11.997	(1.023)	165869	2.50000	2.509
	31	4-Chloro-3-methylphenol	107	12.801	12.809	(1.092)	441665	5.00000	4.525
	32	2-Methylnaphthalene	142	13.165	13.165	(1.123)	522822	2.50000	2.454
	33	Hexachlorocyclopentadiene	237	13.467	13.475	(0.880)	56172	5.00000	2.613

		QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
	34 2,4,6-Trichlorophenol	196	13.722	13.730	(0.896)	274751	5.00000	4.437
	35 2,4,5-Trichlorophenol	196	13.792	13.808	(0.901)	285057	5.00000	4.311
$	36 2-Fluorobiphenyl	172	13.908	13.908	(0.909)	563949	2.50000	2.463
	37 2-Chloronaphthalene	162	14.163	14.164	(0.925)	447798	2.50000	2.491
	38 2-Nitroaniline	65	14.364	14.365	(0.938)	243546	5.00000	4.877
	39 Dimethylphthalate	163	14.736	14.736	(0.963)	521590	2.50000	2.516
	40 Acenaphthylene	152	15.022	15.023	(0.981)	734889	2.50000	2.371
	41 2,6-Dinitrotoluene	165	14.868	14.868	(0.971)	210738	5.00000	4.567
*	42 Acenaphthene-d10	164	15.309	15.309	(1.000)	642002	4.00000	
	43 3-Nitroaniline	138	15.216	15.224	(0.994)	243306	5.00000	4.653
	44 Acenaphthene	153	15.378	15.378	(1.005)	447904	2.50000	2.396
	45 2,4-Dinitrophenol	184	15.432	15.487	(1.008)	32087	10.0000	2.662(M)
	46 Dibenzofuran	168	15.734	15.734	(1.028)	667477	2.50000	2.406
	47 4-Nitrophenol	109	15.525	15.603	(1.014)	158049	5.00000	4.282(M)
	48 2,4-Dinitrotoluene	165	15.695	15.703	(1.025)	290719	5.00000	4.338
	50 Diethylphthalate	149	16.198	16.198	(1.058)	544035	2.50000	2.477
	49 Fluorene	166	16.453	16.453	(1.075)	554745	2.50000	2.404
	51 4-Chlorophenyl-phenylether	204	16.445	16.453	(1.074)	243957	2.50000	2.374
	52 4-Nitroaniline	138	16.468	16.484	(1.076)	256750	5.00000	4.568
	53 4,6-Dinitro-2-methylphenol	198	16.530	16.538	(0.898)	162732	10.0000	5.636
	54 N-Nitrosodiphenylamine	169	16.685	16.693	(0.907)	464929	2.50000	2.579
$	55 2,4,6-Tribromophenol	330	16.947	16.947	(1.107)	133559	3.75000	3.314
	56 4-Bromophenyl-phenylether	248	17.464	17.472	(0.949)	180011	2.50000	2.464
	57 Hexachlorobenzene	284	17.573	17.573	(0.955)	193751	2.50000	2.355
	58 Pentachlorophenol	266	17.983	17.983	(0.977)	158344	5.00000	4.082
*	59 Phenanthrene-d10	188	18.401	18.401	(1.000)	1218560	4.00000	
	60 Phenanthrene	178	18.447	18.448	(1.003)	754817	2.50000	2.420
	61 Anthracene	178	18.556	18.556	(1.008)	738126	2.50000	2.441
	62 Carbazole	167	18.881	18.889	(1.026)	696404	2.50000	2.514
	63 Di-n-butylphthalate	149	19.585	19.585	(1.064)	904042	2.50000	2.367
	64 Fluoranthene	202	20.815	20.815	(0.889)	827926	2.50000	2.660
	65 Pyrene	202	21.240	21.248	(0.907)	825309	2.50000	2.604
$	66 Terphenyl-d14	244	21.519	21.527	(0.919)	657085	2.50000	2.562
	67 Butylbenzylphthalate	149	22.409	22.410	(0.957)	402228	2.50000	2.378
	68 Benzo(a)anthracene	228	23.393	23.401	(0.999)	763801	2.50000	2.394
*	69 Chrysene-d12	240	23.416	23.416	(1.000)	904733	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.339	23.347	(0.997)	863376	7.50000	6.032
	71 Chrysene	228	23.462	23.463	(1.002)	606448	2.50000	2.339
	72 bis(2-Ethylhexyl)phthalate	149	23.400	23.409	(0.956)	594611	2.50000	2.343
*	134 Di-n-octylphthalate-d4	153	24.484	24.485	(1.000)	1785837	4.00000	
	73 Di-n-octylphthalate	149	24.492	24.492	(1.000)	966695	2.50000	2.441
	74 Benzo(b)fluoranthene	252	25.297	25.298	(0.969)	726977	2.50000	2.201
	75 Benzo(k)fluoranthene	252	25.351	25.352	(0.971)	757491	2.50000	2.375
	76 Benzo(a)pyrene	252	25.979	25.987	(0.995)	673848	2.50000	2.280
*	77 Perylene-d12	264	26.102	26.103	(1.000)	947785	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.862	28.863	(1.106)	802655	2.50000	2.322
	79 Dibenzo(a,h)anthracene	278	28.909	28.925	(1.108)	623221	2.50000	2.370
	80 Benzo(g,h,i)perylene	276	29.701	29.709	(1.138)	660797	2.50000	2.407
	90 N-Nitrosodimethylamine	74	4.719	4.719	(0.510)	321620	5.00000	4.934
	91 Aniline	93	8.620	8.628	(0.932)	732763	5.00000	5.071
	93 Benzidine	184	21.070	21.094	(0.900)	776867	5.00000	5.623
	103 Pyridine	79	4.781	4.789	(0.517)	566787	5.00000	4.903
	105 1-methylnaphthalene	142	13.366	13.366	(1.141)	476995	2.50000	2.474
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.777	16.778	(1.096)	837975	2.50000	2.555

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
187 Total Benzofluoranthenes	252	25.351	25.352	(0.971)	1464206	5.00000	4.607
120 2,3,4,6-Tetrachlorophenol	232	15.973	15.982	(1.043)	134294	2.50000	2.183

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012305.D
Lab Smp Id: SLC0084-CAL4
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 17:21
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	337641	168821	675282	320922	-4.95
27 Naphthalene-d8	1265187	632594	2530374	1174958	-7.13
42 Acenaphthene-d10	692385	346193	1384770	642002	-7.28
59 Phenanthrene-d10	1376777	688389	2753554	1218560	-11.49
69 Chrysene-d12	1019524	509762	2039048	904733	-11.26
134 Di-n-octylphthala	2027111	1013556	4054222	1785837	-11.90
77 Perylene-d12	1027409	513705	2054818	947785	-7.75

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
134 Di-n-octylphthala	24.48	23.98	24.98	24.48	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012305.D

Lab ID: SLC0084-CAL4
nt10.i, 20230301.b\ABN.m,   01-MAR-2023 17:59

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.948	0.943	0.0051	Benzoic acid
1.014	1.019	-0.0050	4-Nitrophenol

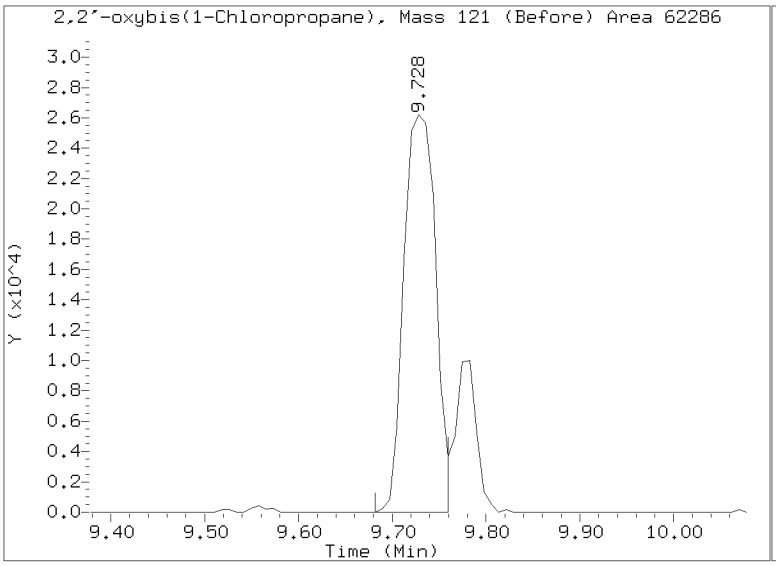
RRT check based on Ccal File: NT1003012307.D

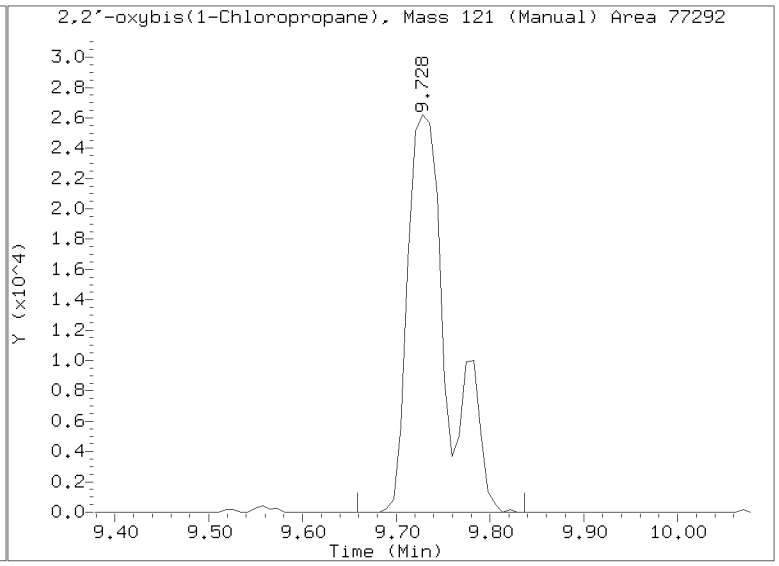
On Column LOD for nt10.i, 20230301.b\ABN.m, ICAL.sub = 0.0000

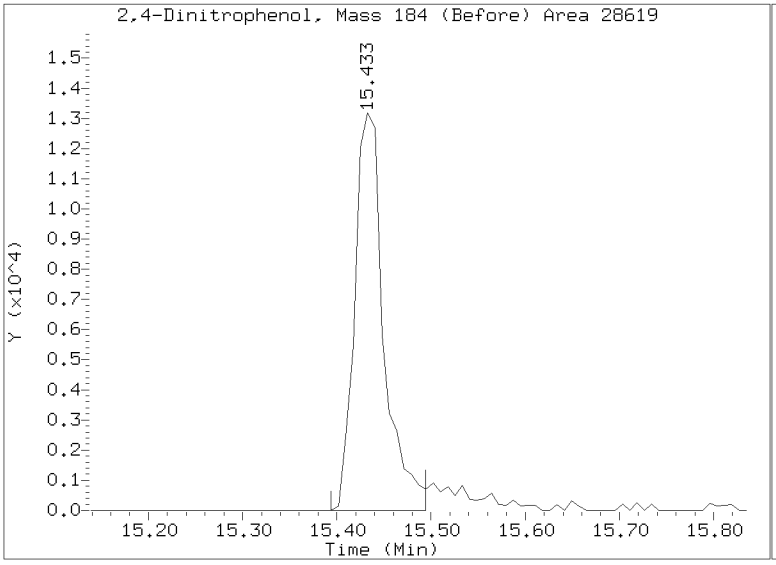
* Only compounds listed in the work order have been verified by the analyst *

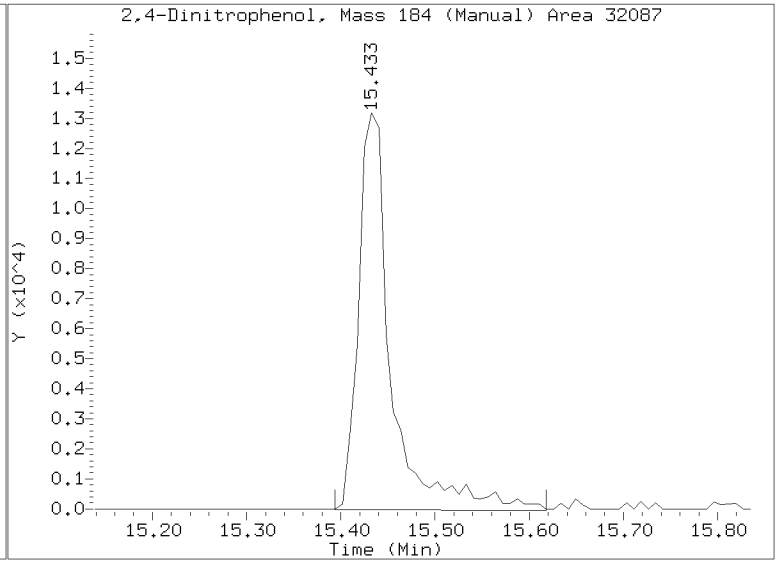
Quant Ion Manual Peak Adjustment Report

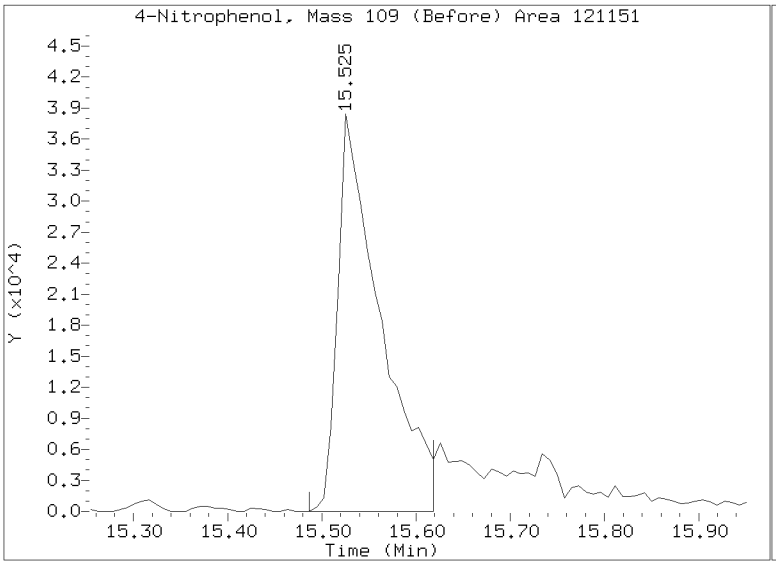
Datafile: //target/share/chem3/nt10.i/20230301.b/NT1003012305.D
Injection Date: 01-MAR-2023 17:59
Lab ID:SLC0084-CAL4 Client ID:
Report Date: 03/07/2023 12:47

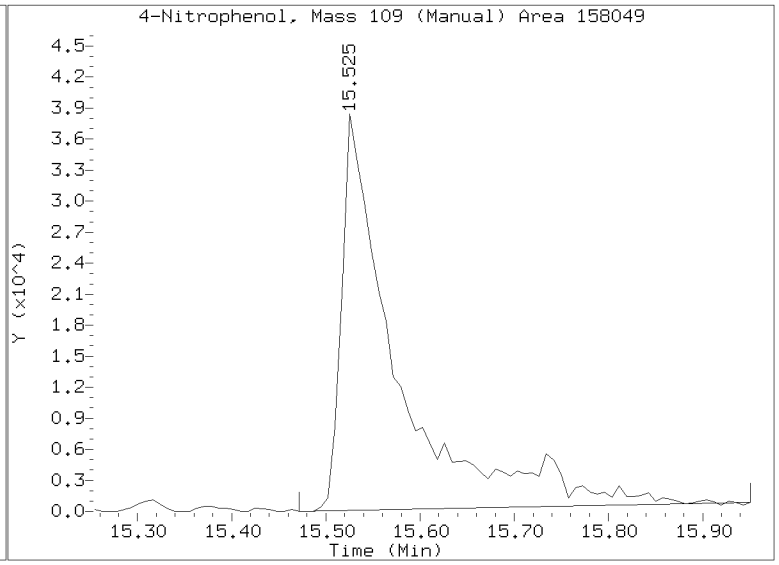












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012306.D

Page 1

Date : 01-MAR-2023 18:37

Client ID:

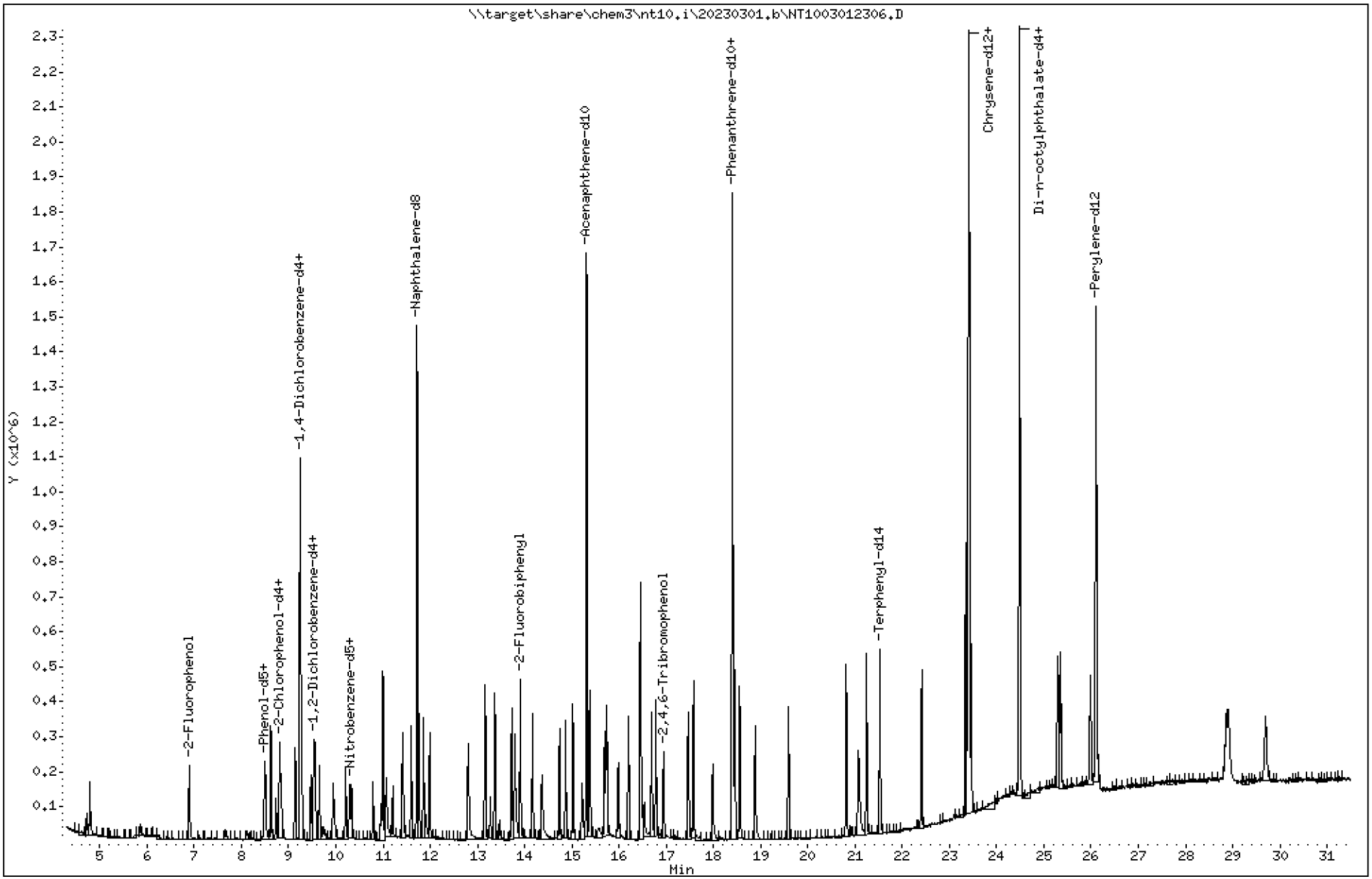
Instrument: nt10.i

Sample Info: SEQ-CAL3

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230301.b\NT1003012306.D
Lab Smp Id: SLC0084-CAL3
Inj Date : 01-MAR-2023 18:37
Operator : VTS Inst ID: nt10.i
Smp Info : SEQ-CAL3
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Meth Date : 07-Mar-2023 12:44 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.897	6.898	(0.746)	143112	1.50000	1.509
$	2 Phenol-d5	99	8.489	8.489	(0.918)	156849	1.50000	1.425
	3 Phenol	94	8.512	8.512	(0.921)	115230	1.00000	0.9845
$	5 2-Chlorophenol-d4	132	8.813	8.813	(0.953)	136267	1.50000	1.451
	4 Bis(2-Chloroethyl)ether	93	8.728	8.728	(0.944)	90185	1.00000	1.008
	6 2-Chlorophenol	128	8.844	8.844	(0.956)	92147	1.00000	0.9444
	7 1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	103697	1.00000	0.9639
*	8 1,4-Dichlorobenzene-d4	152	9.247	9.247	(1.000)	301377	4.00000	
	9 1,4-Dichlorobenzene	146	9.278	9.278	(1.003)	104762	1.00000	0.9804
$	10 1,2-Dichlorobenzene-d4	152	9.534	9.534	(1.031)	68422	1.00000	0.9751
	12 1,2-Dichlorobenzene	146	9.557	9.565	(1.034)	100695	1.00000	0.9736
	11 Benzyl alcohol	108	9.472	9.472	(1.024)	52608	1.00000	0.8733
	14 2,2'-oxybis(1-Chloropropane)	121	9.728	9.728	(1.052)	30655	1.00000	1.028(M)
	13 2-Methylphenol	108	9.650	9.650	(1.044)	80800	1.00000	0.8881
	17 Hexachloroethane	117	10.209	10.209	(1.104)	39041	1.00000	0.8901
	16 N-Nitroso-di-n-propylamine	70	9.976	9.976	(1.079)	69424	1.00000	0.9829
	15 4-Methylphenol	108	9.945	9.938	(1.076)	82667	1.00000	0.7280
$	18 Nitrobenzene-d5	82	10.287	10.295	(0.878)	121995	1.00000	0.9947
	19 Nitrobenzene	77	10.326	10.326	(0.881)	117165	1.00000	1.018
	20 Isophorone	82	10.783	10.784	(0.920)	140691	1.00000	0.9580
	21 2-Nitrophenol	139	10.950	10.951	(0.934)	37363	1.00000	0.5873
	22 2,4-Dimethylphenol	107	10.992	10.993	(0.938)	192320	2.00000	1.741
	23 Bis(2-Chloroethoxy)methane	93	11.205	11.205	(0.956)	92006	1.00000	1.014
	24 Benzoic acid	105	11.069	11.052	(0.945)	137115	4.00000	2.095(M)
	25 2,4-Dichlorophenol	162	11.417	11.417	(0.974)	118390	2.00000	1.361
	26 1,2,4-Trichlorobenzene	180	11.595	11.595	(0.989)	83754	1.00000	0.9700
*	27 Naphthalene-d8	136	11.719	11.719	(1.000)	1117281	4.00000	
	28 Naphthalene	128	11.765	11.765	(1.004)	273806	1.00000	0.9548
	29 4-Chloroaniline	127	11.858	11.858	(1.012)	192473	2.00000	1.527
	30 Hexachlorobutadiene	225	11.989	11.997	(1.023)	59415	1.00000	0.9451
	31 4-Chloro-3-methylphenol	107	12.809	12.809	(1.093)	134686	2.00000	1.469
	32 2-Methylnaphthalene	142	13.165	13.165	(1.123)	193061	1.00000	0.9530
	33 Hexachlorocyclopentadiene	237	13.467	13.475	(0.880)	11351	2.00000	0.5617

		QUANT SIG					AMOUNTS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34 2,4,6-Trichlorophenol	196	13.722	13.730	(0.896)	83812	2.00000	1.441
	35 2,4,5-Trichlorophenol	196	13.792	13.808	(0.901)	92328	2.00000	1.487
$	36 2-Fluorobiphenyl	172	13.908	13.908	(0.909)	208130	1.00000	0.9542
	37 2-Chloronaphthalene	162	14.164	14.164	(0.925)	161256	1.00000	0.9418
	38 2-Nitroaniline	65	14.365	14.365	(0.938)	68264	2.00000	1.452
	39 Dimethylphthalate	163	14.736	14.736	(0.963)	191502	1.00000	0.9697
	40 Acenaphthylene	152	15.023	15.023	(0.981)	272708	1.00000	0.9238
	41 2,6-Dinitrotoluene	165	14.868	14.868	(0.971)	70653	2.00000	1.623
*	42 Acenaphthene-d10	164	15.309	15.309	(1.000)	611509	4.00000	
	43 3-Nitroaniline	138	15.216	15.224	(0.994)	92170	2.00000	1.851(M)
	44 Acenaphthene	153	15.378	15.378	(1.005)	166539	1.00000	0.9355
	45 2,4-Dinitrophenol	184	15.448	15.487	(1.009)	2997	4.00000	0.2630(M)
	46 Dibenzofuran	168	15.734	15.734	(1.028)	245633	1.00000	0.9296
	47 4-Nitrophenol	109	15.572	15.603	(1.017)	48368	2.00000	1.395(M)
	48 2,4-Dinitrotoluene	165	15.695	15.703	(1.025)	97931	2.00000	1.551
	50 Diethylphthalate	149	16.198	16.198	(1.058)	205933	1.00000	0.9843
	49 Fluorene	166	16.453	16.453	(1.075)	202317	1.00000	0.9203
	51 4-Chlorophenyl-phenylether	204	16.446	16.453	(1.074)	88403	1.00000	0.9168
	52 4-Nitroaniline	138	16.476	16.484	(1.076)	88689	2.00000	1.657
	53 4,6-Dinitro-2-methylphenol	198	16.531	16.538	(0.898)	22278	4.00000	0.7999
	54 N-Nitrosodiphenylamine	169	16.685	16.693	(0.907)	173165	1.00000	0.9809
$	55 2,4,6-Tribromophenol	330	16.947	16.947	(1.107)	43327	1.50000	1.146
	56 4-Bromophenyl-phenylether	248	17.472	17.472	(0.950)	68318	1.00000	0.9551
	57 Hexachlorobenzene	284	17.573	17.573	(0.955)	75215	1.00000	0.9338
	58 Pentachlorophenol	266	17.983	17.983	(0.977)	40379	2.00000	1.083
*	59 Phenanthrene-d10	188	18.401	18.401	(1.000)	1193129	4.00000	
	60 Phenanthrene	178	18.448	18.448	(1.003)	290575	1.00000	0.9516
	61 Anthracene	178	18.556	18.556	(1.008)	272370	1.00000	0.9199
	62 Carbazole	167	18.889	18.889	(1.026)	262239	1.00000	0.9668
	63 Di-n-butylphthalate	149	19.585	19.585	(1.064)	327914	1.00000	0.8863
	64 Fluoranthene	202	20.815	20.815	(0.889)	311956	1.00000	0.9661
	65 Pyrene	202	21.241	21.248	(0.907)	319834	1.00000	0.9727
$	66 Terphenyl-d14	244	21.519	21.527	(0.919)	252475	1.00000	0.9490
	67 Butylbenzylphthalate	149	22.410	22.410	(0.957)	146878	1.00000	0.8319
	68 Benzo(a)anthracene	228	23.393	23.401	(0.999)	305914	1.00000	0.9243
*	69 Chrysene-d12	240	23.416	23.416	(1.000)	938680	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.347	23.347	(0.997)	304058	3.00000	2.058
	71 Chrysene	228	23.463	23.463	(1.002)	259860	1.00000	0.9661
	72 bis(2-Ethylhexyl)phthalate	149	23.401	23.409	(0.956)	222177	1.00000	0.9040
*	134 Di-n-octylphthalate-d4	153	24.485	24.485	(1.000)	1744984	4.00000	
	73 Di-n-octylphthalate	149	24.492	24.492	(1.000)	386475	1.00000	0.9988
	74 Benzo(b)fluoranthene	252	25.290	25.298	(0.969)	281873	1.00000	0.8248
	75 Benzo(k)fluoranthene	252	25.352	25.352	(0.971)	306114	1.00000	0.9292
	76 Benzo(a)pyrene	252	25.979	25.987	(0.995)	275940	1.00000	0.9026
*	77 Perylene-d12	264	26.103	26.103	(1.000)	995239	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.863	28.863	(1.106)	302077	1.00000	0.8455
	79 Dibenzo(a,h)anthracene	278	28.909	28.925	(1.108)	239256	1.00000	0.8821
	80 Benzo(g,h,i)perylene	276	29.694	29.709	(1.138)	248971	1.00000	0.8754
	90 N-Nitrosodimethylamine	74	4.719	4.719	(0.510)	107907	2.00000	1.763
	91 Aniline	93	8.620	8.628	(0.932)	269442	2.00000	1.985
	93 Benzidine	184	21.070	21.094	(0.900)	272028	2.00000	1.898
	103 Pyridine	79	4.781	4.789	(0.517)	216655	2.00000	1.996
	105 1-methylnaphthalene	142	13.366	13.366	(1.141)	175421	1.00000	0.9567
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.778	16.778	(1.096)	302604	1.00000	0.9686

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
187 Total Benzofluoranthenes	252	25.352	25.352	(0.971)	580106	2.00000	1.766
120 2,3,4,6-Tetrachlorophenol	232	15.981	15.982	(1.044)	44857	1.00000	0.7777

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012306.D
Lab Smp Id: SLC0084-CAL3
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 17:21
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	337641	168821	675282	301377	-10.74
27 Naphthalene-d8	1265187	632594	2530374	1117281	-11.69
42 Acenaphthene-d10	692385	346193	1384770	611509	-11.68
59 Phenanthrene-d10	1376777	688389	2753554	1193129	-13.34
69 Chrysene-d12	1019524	509762	2039048	938680	-7.93
134 Di-n-octylphthala	2027111	1013556	4054222	1744984	-13.92
77 Perylene-d12	1027409	513705	2054818	995239	-3.13

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
134 Di-n-octylphthala	24.48	23.98	24.98	24.49	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012306.D

Lab ID: SLC0084-CAL3
nt10.i, 20230301.b\ABN.m,   01-MAR-2023 18:37

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

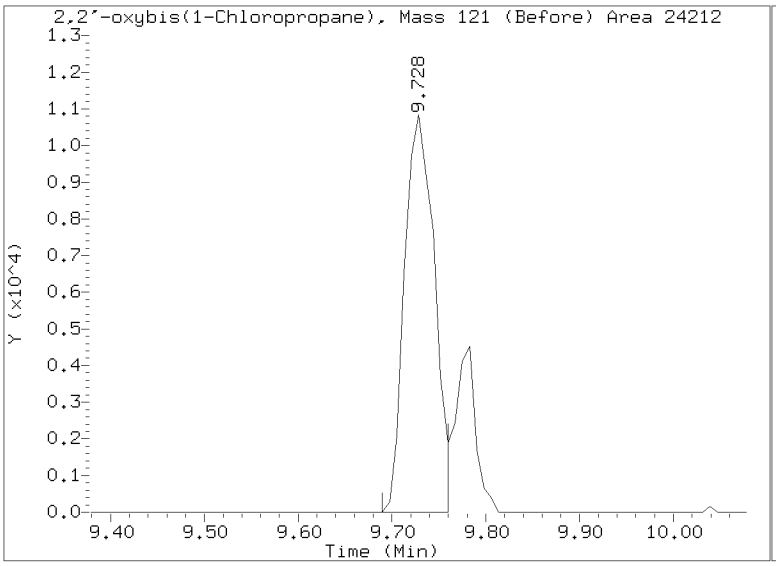
RRT check based on Ccal File: NT1003012307.D

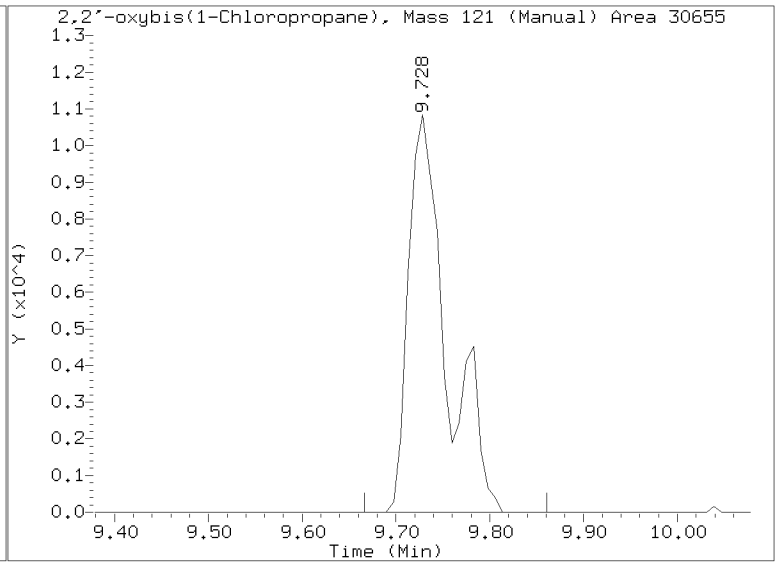
On Column LOD for nt10.i, 20230301.b\ABN.m, ICAL.sub = 0.0000

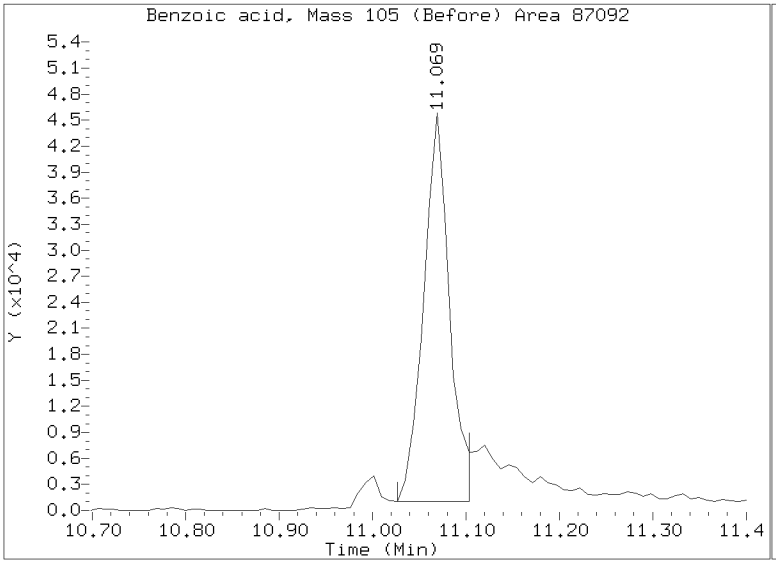
* Only compounds listed in the work order have been verified by the analyst *

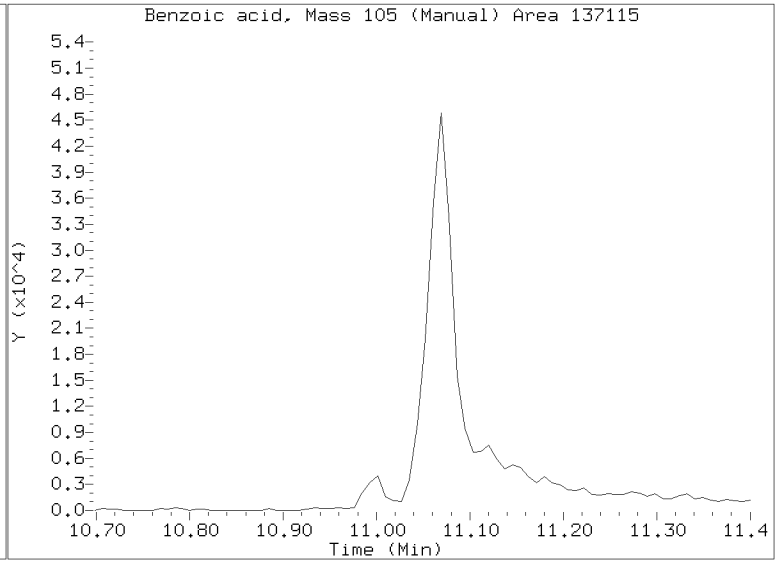
Quant Ion Manual Peak Adjustment Report

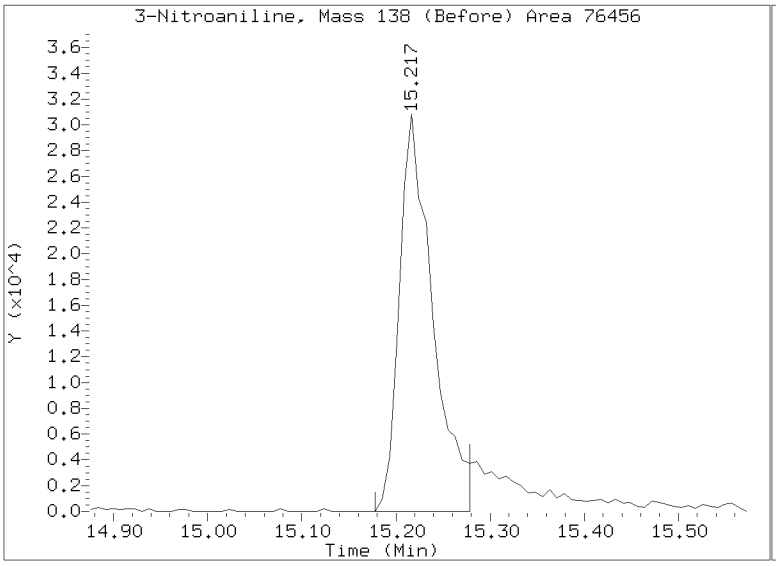
Datafile: //target/share/chem3/nt10.i/20230301.b/NT1003012306.D
Injection Date: 01-MAR-2023 18:37
Lab ID:SLC0084-CAL3 Client ID:
Report Date: 03/07/2023 12:47

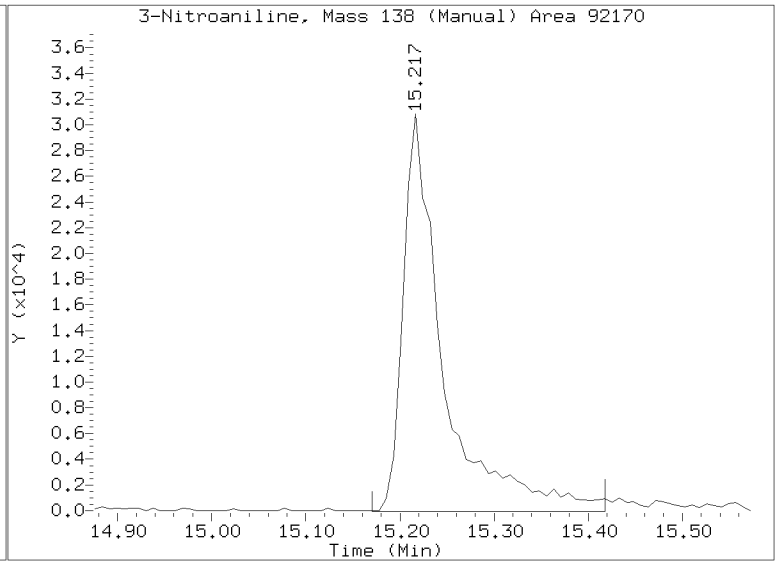












Quant Ion Manual Peak Adjustment Report

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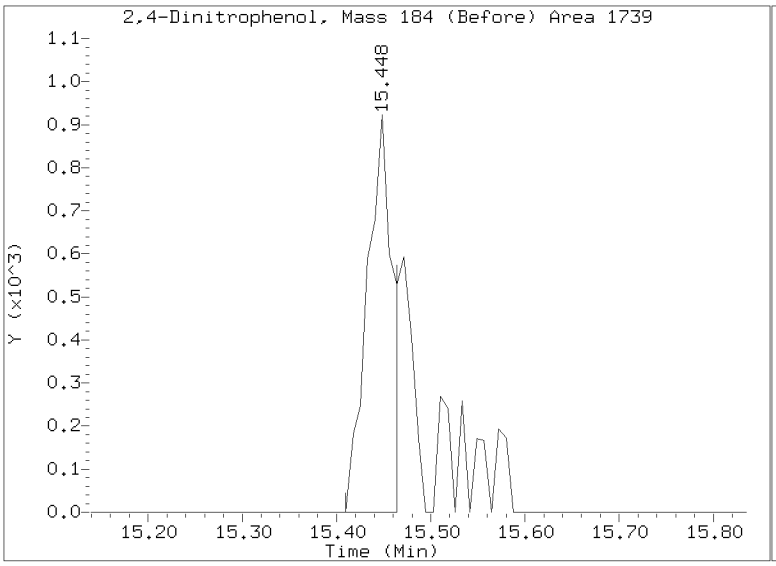
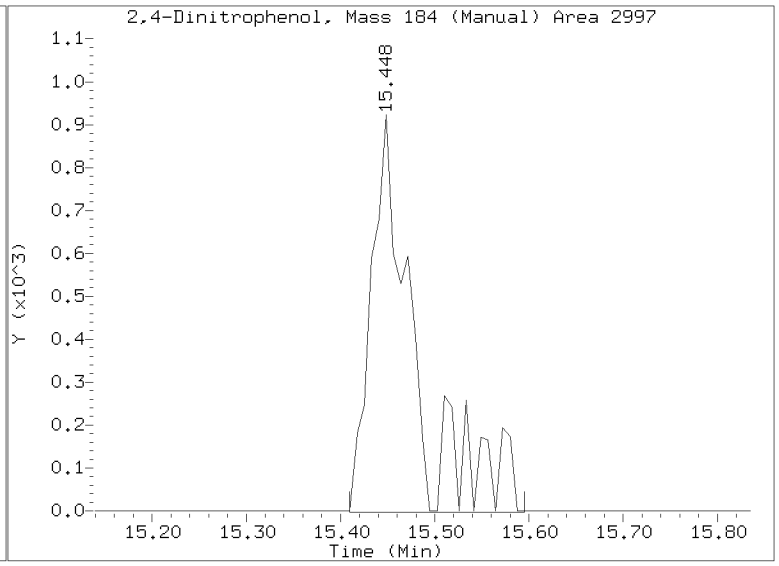
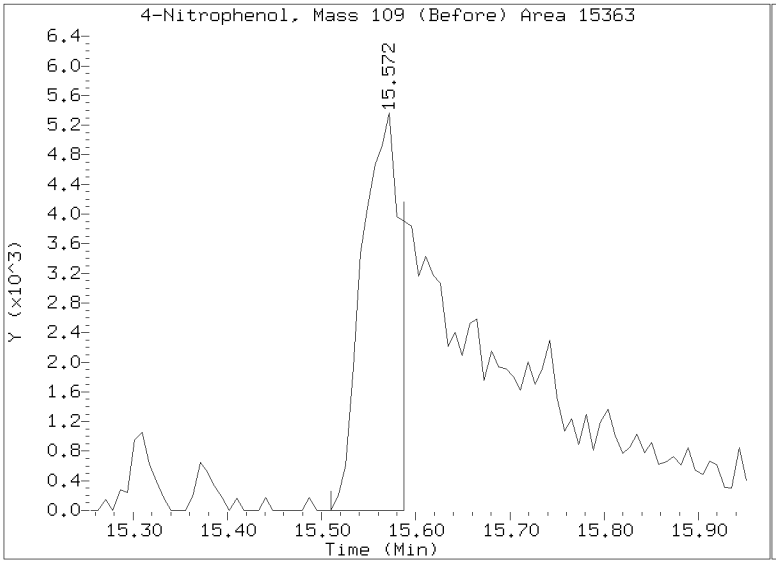
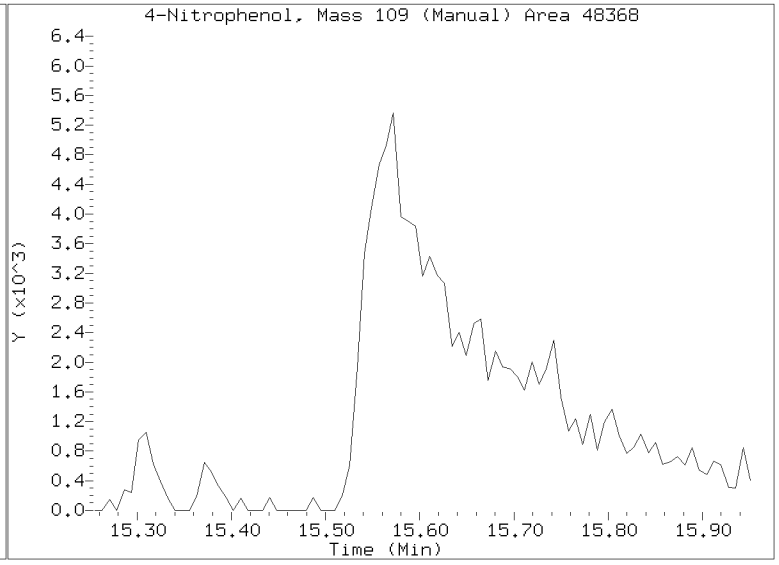
Injection Date: 01-MAR-2023 18:37
Lab ID:SLC0084-CAL3 Client ID:
Report Date: 03/07/2023 12:47









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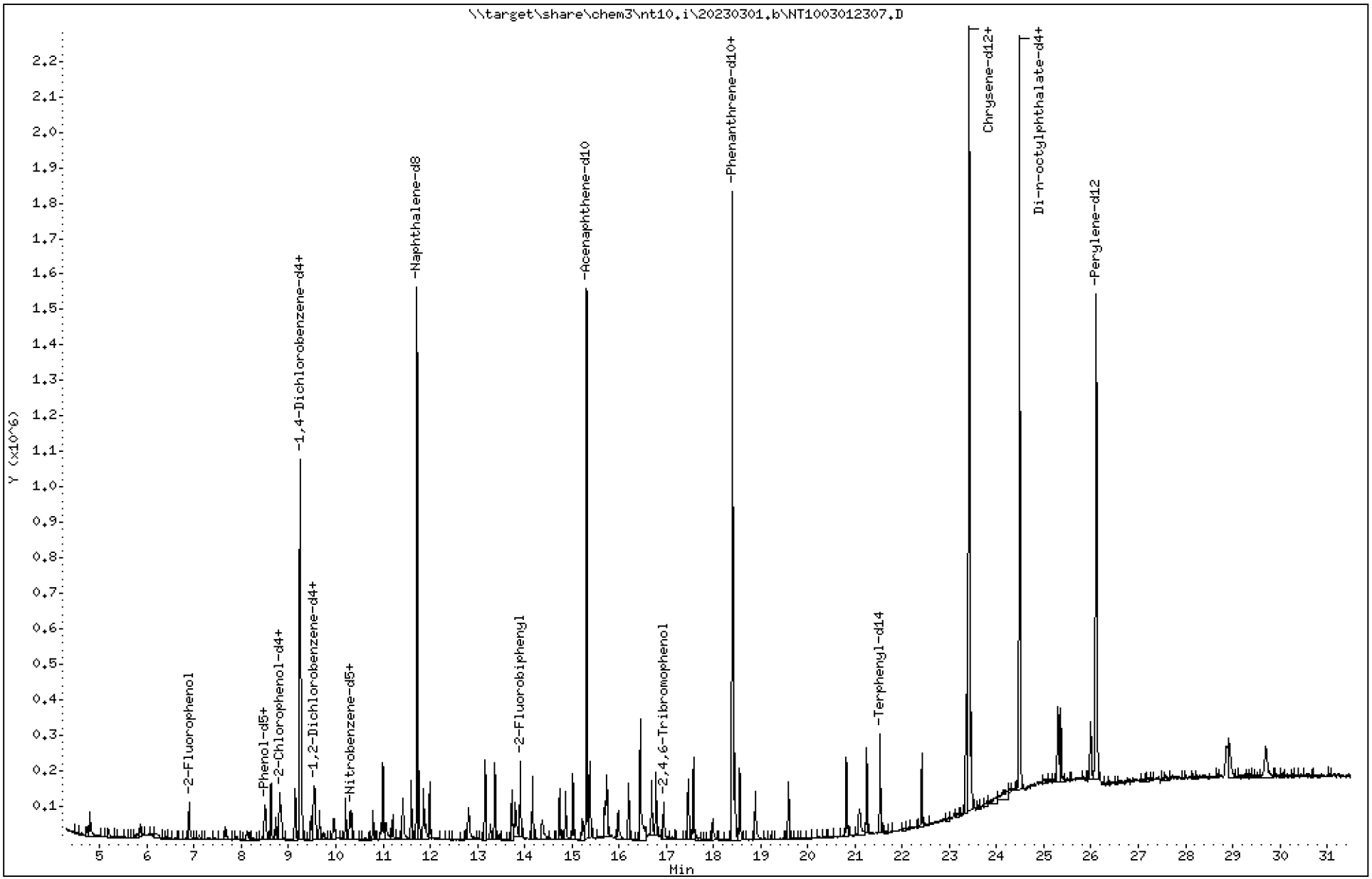
Date : 01-MAR-2023 19:15
Client ID:
Sample Info: SEQ-CAL2

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

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Inj Date : 01-MAR-2023 19:15
Operator : VTS Inst ID: nt10.i
Smp Info : SEQ-CAL2
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Meth Date : 07-Mar-2023 12:44 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: ORGDATA102

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.897	6.898	(0.746)	73083	0.75000	0.7515
$	2	Phenol-d5	99	8.489	8.489	(0.918)	71998	0.75000	0.6377
	3	Phenol	94	8.512	8.512	(0.921)	54993	0.50000	0.4581
$	5	2-Chlorophenol-d4	132	8.813	8.813	(0.953)	65326	0.75000	0.6782
	4	Bis(2-Chloroethyl)ether	93	8.728	8.728	(0.944)	46454	0.50000	0.5064
	6	2-Chlorophenol	128	8.844	8.844	(0.956)	49332	0.50000	0.4930
	7	1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	56555	0.50000	0.5126
*	8	1,4-Dichlorobenzene-d4	152	9.247	9.247	(1.000)	309085	4.00000	
	9	1,4-Dichlorobenzene	146	9.278	9.278	(1.003)	56202	0.50000	0.5128
$	10	1,2-Dichlorobenzene-d4	152	9.534	9.534	(1.031)	38492	0.50000	0.5349
	12	1,2-Dichlorobenzene	146	9.565	9.565	(1.034)	55997	0.50000	0.5279
	11	Benzyl alcohol	108	9.472	9.472	(1.024)	22563	0.50000	0.3662
	14	2,2'-oxybis(1-Chloropropane)	121	9.728	9.728	(1.052)	15951	0.50000	0.5216(M)
	13	2-Methylphenol	108	9.650	9.650	(1.044)	35097	0.50000	0.3770
	17	Hexachloroethane	117	10.209	10.209	(1.104)	21596	0.50000	0.4801
	16	N-Nitroso-di-n-propylamine	70	9.976	9.976	(1.079)	33379	0.50000	0.4608
	15	4-Methylphenol	108	9.938	9.938	(1.075)	34216	0.50000	0.2935
$	18	Nitrobenzene-d5	82	10.295	10.295	(0.878)	60423	0.50000	0.4823
	19	Nitrobenzene	77	10.326	10.326	(0.881)	58860	0.50000	0.5008
	20	Isophorone	82	10.784	10.784	(0.920)	67932	0.50000	0.4528
	21	2-Nitrophenol	139	10.950	10.951	(0.934)	17402	0.50000	0.2672
	22	2,4-Dimethylphenol	107	10.993	10.993	(0.938)	89913	1.00000	0.7989
	23	Bis(2-Chloroethoxy)methane	93	11.205	11.205	(0.956)	44105	0.50000	0.4757
	24	Benzoic acid	105	11.052	11.052	(0.943)	49931	2.00000	0.7491(M)
	25	2,4-Dichlorophenol	162	11.417	11.417	(0.974)	51563	1.00000	0.5816
	26	1,2,4-Trichlorobenzene	180	11.595	11.595	(0.989)	45843	0.50000	0.5198
*	27	Naphthalene-d8	136	11.719	11.719	(1.000)	1141293	4.00000	
	28	Naphthalene	128	11.765	11.765	(1.004)	146854	0.50000	0.5013
	29	4-Chloroaniline	127	11.858	11.858	(1.012)	87089	1.00000	0.6783
	30	Hexachlorobutadiene	225	11.997	11.997	(1.024)	33578	0.50000	0.5229
	31	4-Chloro-3-methylphenol	107	12.809	12.809	(1.093)	73535	1.00000	0.7874(M)
	32	2-Methylnaphthalene	142	13.165	13.165	(1.123)	101087	0.50000	0.4885
	33	Hexachlorocyclopentadiene	237	13.475	13.475	(0.880)	4424	1.00000	0.2199

		QUANT SIG					AMOUNTS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34 2,4,6-Trichlorophenol	196	13.730	13.730	(0.897)	37873	1.00000	0.6553
	35 2,4,5-Trichlorophenol	196	13.808	13.808	(0.902)	46262	1.00000	0.7495(M)
$	36 2-Fluorobiphenyl	172	13.908	13.908	(0.909)	103793	0.50000	0.4770
	37 2-Chloronaphthalene	162	14.164	14.164	(0.925)	81746	0.50000	0.4786
	38 2-Nitroaniline	65	14.365	14.365	(0.938)	27339	1.00000	0.5847
	39 Dimethylphthalate	163	14.736	14.736	(0.963)	98784	0.50000	0.5014
	40 Acenaphthylene	152	15.023	15.023	(0.981)	131073	0.50000	0.4451
	41 2,6-Dinitrotoluene	165	14.868	14.868	(0.971)	31365	1.00000	0.7243
*	42 Acenaphthene-d10	164	15.309	15.309	(1.000)	610034	4.00000	
	43 3-Nitroaniline	138	15.224	15.224	(0.994)	43311	1.00000	0.8718(M)
	44 Acenaphthene	153	15.378	15.378	(1.005)	85733	0.50000	0.4827
	45 2,4-Dinitrophenol	184	15.487	15.487	(1.012)	110	2.00000	0.009684(M)
	46 Dibenzofuran	168	15.734	15.734	(1.028)	121057	0.50000	0.4593
	47 4-Nitrophenol	109	15.603	15.603	(1.019)	13803	1.00000	0.4011(M)
	48 2,4-Dinitrotoluene	165	15.703	15.703	(1.026)	37337	1.00000	0.5948
	50 Diethylphthalate	149	16.198	16.198	(1.058)	100457	0.50000	0.4813
	49 Fluorene	166	16.453	16.453	(1.075)	98414	0.50000	0.4488
	51 4-Chlorophenyl-phenylether	204	16.453	16.453	(1.075)	43341	0.50000	0.4527
	52 4-Nitroaniline	138	16.484	16.484	(1.077)	47270	1.00000	0.8851(M)
	53 4,6-Dinitro-2-methylphenol	198	16.538	16.538	(0.899)	4630	2.00000	0.1693
	54 N-Nitrosodiphenylamine	169	16.693	16.693	(0.907)	74962	0.50000	0.4317
$	55 2,4,6-Tribromophenol	330	16.947	16.947	(1.107)	18967	0.75000	0.5052
	56 4-Bromophenyl-phenylether	248	17.472	17.472	(0.950)	34249	0.50000	0.4868
	57 Hexachlorobenzene	284	17.573	17.573	(0.955)	40888	0.50000	0.5161
	58 Pentachlorophenol	266	17.983	17.983	(0.977)	14168	1.00000	0.3878
*	59 Phenanthrene-d10	188	18.401	18.401	(1.000)	1173527	4.00000	
	60 Phenanthrene	178	18.448	18.448	(1.003)	143016	0.50000	0.4762
	61 Anthracene	178	18.556	18.556	(1.008)	133884	0.50000	0.4597
	62 Carbazole	167	18.889	18.889	(1.026)	122901	0.50000	0.4607
	63 Di-n-butylphthalate	149	19.585	19.585	(1.064)	146445	0.50000	0.4038
	64 Fluoranthene	202	20.815	20.815	(0.889)	155822	0.50000	0.4522
	65 Pyrene	202	21.248	21.248	(0.907)	164566	0.50000	0.4690
$	66 Terphenyl-d14	244	21.527	21.527	(0.919)	131168	0.50000	0.4620
	67 Butylbenzylphthalate	149	22.410	22.410	(0.957)	70195	0.50000	0.3719
	68 Benzo(a)anthracene	228	23.401	23.401	(0.999)	158176	0.50000	0.4479
*	69 Chrysene-d12	240	23.416	23.416	(1.000)	1001661	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.347	23.347	(0.997)	142024	1.50000	0.9022
	71 Chrysene	228	23.463	23.463	(1.002)	140361	0.50000	0.4890
	72 bis(2-Ethylhexyl)phthalate	149	23.409	23.409	(0.956)	105513	0.50000	0.4214
*	134 Di-n-octylphthalate-d4	153	24.485	24.485	(1.000)	1783007	4.00000	
	73 Di-n-octylphthalate	149	24.492	24.492	(1.000)	204916	0.50000	0.5183
	74 Benzo(b)fluoranthene	252	25.298	25.298	(0.969)	156722	0.50000	0.4299
	75 Benzo(k)fluoranthene	252	25.352	25.352	(0.971)	155908	0.50000	0.4441
	76 Benzo(a)pyrene	252	25.987	25.987	(0.996)	144884	0.50000	0.4445
*	77 Perylene-d12	264	26.103	26.103	(1.000)	1066145	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.863	28.863	(1.106)	151642	0.50000	0.3981
	79 Dibenzo(a,h)anthracene	278	28.925	28.925	(1.108)	126593	0.50000	0.4379
	80 Benzo(g,h,i)perylene	276	29.709	29.709	(1.138)	127815	0.50000	0.4212
	90 N-Nitrosodimethylamine	74	4.719	4.719	(0.510)	69861	1.00000	1.113(M)
	91 Aniline	93	8.628	8.628	(0.933)	135586	1.00000	0.9742
	93 Benzidine	184	21.094	21.094	(0.901)	121576	1.00000	0.7948(M)
	103 Pyridine	79	4.789	4.789	(0.518)	112215	1.00000	1.008
	105 1-methylnaphthalene	142	13.366	13.366	(1.141)	91063	0.50000	0.4862
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.778	16.778	(1.096)	142734	0.50000	0.4580

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
187 Total Benzofluoranthenes	252	25.352	25.352	(0.971)	310053	1.00000	0.8852
120 2,3,4,6-Tetrachlorophenol	232	15.981	15.982	(1.044)	20543	0.50000	0.3587

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012307.D
Lab Smp Id: SLC0084-CAL2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 17:21
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	337641	168821	675282	309085	-8.46
27 Naphthalene-d8	1265187	632594	2530374	1141293	-9.79
42 Acenaphthene-d10	692385	346193	1384770	610034	-11.89
59 Phenanthrene-d10	1376777	688389	2753554	1173527	-14.76
69 Chrysene-d12	1019524	509762	2039048	1001661	-1.75
134 Di-n-octylphthala	2027111	1013556	4054222	1783007	-12.04
77 Perylene-d12	1027409	513705	2054818	1066145	3.77

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.01
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
134 Di-n-octylphthala	24.48	23.98	24.98	24.49	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012307.D

Lab ID: SLC0084-CAL2
nt10.i, 20230301.b\ABN.m,   01-MAR-2023 19:15

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

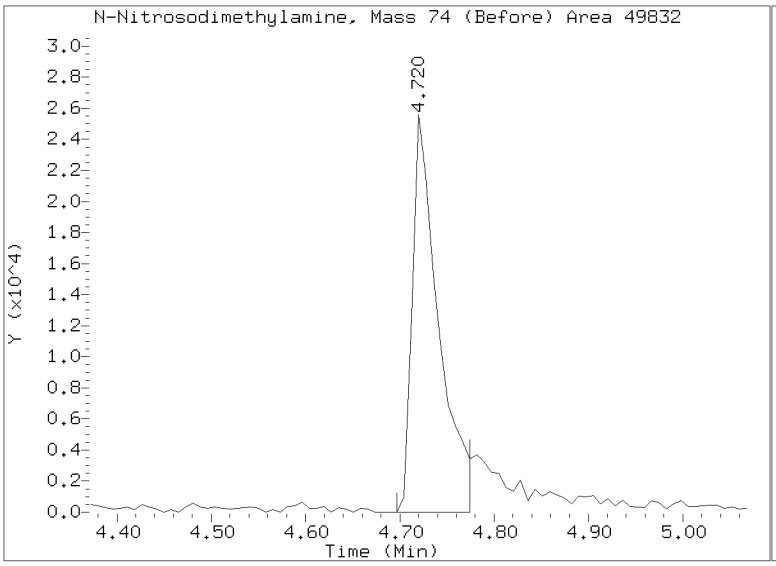
RRT check based on Ccal File: NT1003012307.D

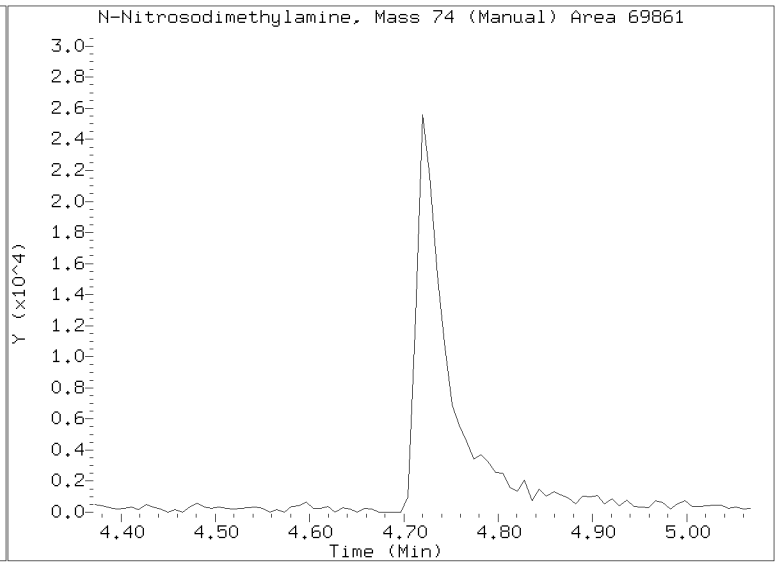
On Column LOD for nt10.i, 20230301.b\ABN.m, ICAL.sub = 0.0000

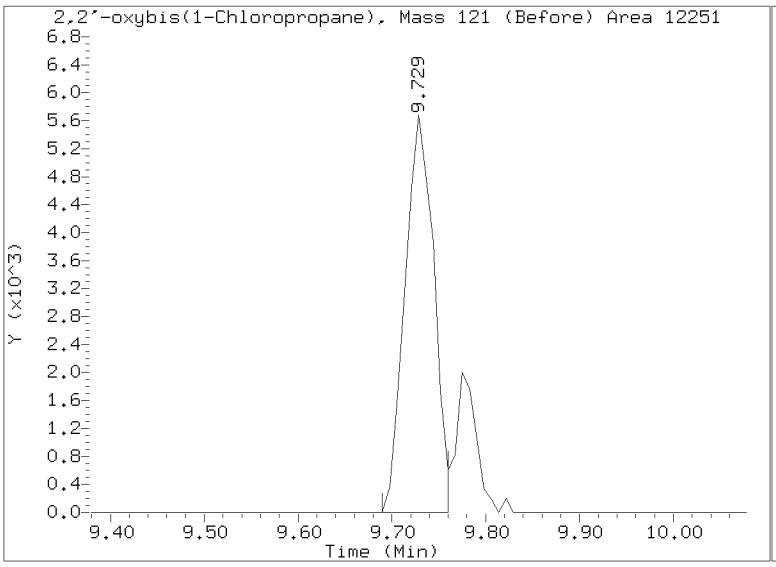
* Only compounds listed in the work order have been verified by the analyst *

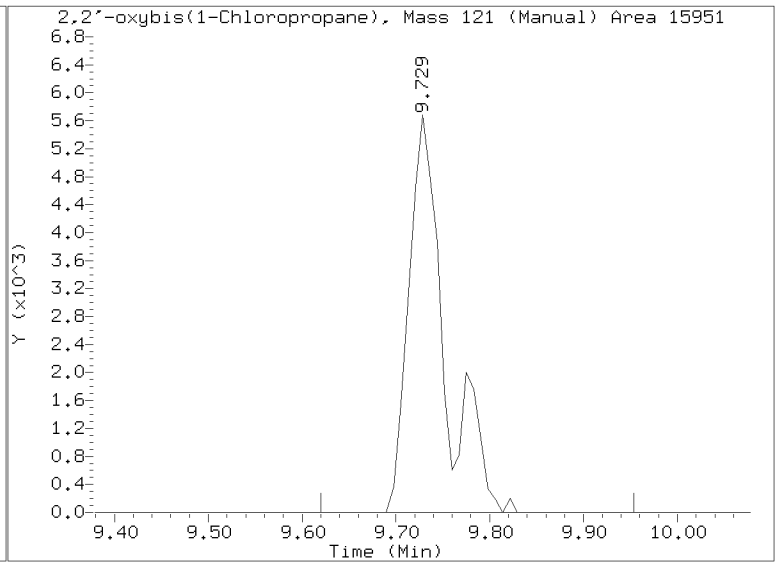
Quant Ion Manual Peak Adjustment Report

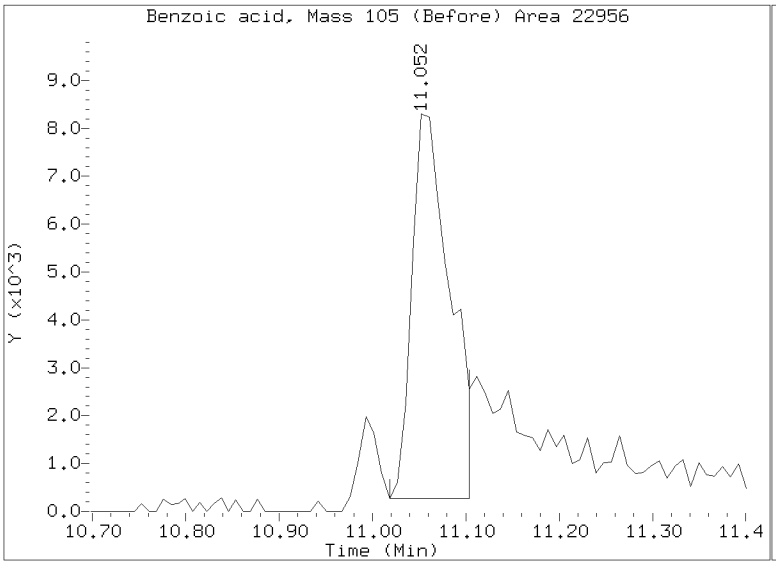
Datafile: //target/share/chem3/nt10.i/20230301.b/NT1003012307.D
Injection Date: 01-MAR-2023 19:15
Lab ID:SLC0084-CAL2 Client ID:
Report Date: 03/07/2023 12:48

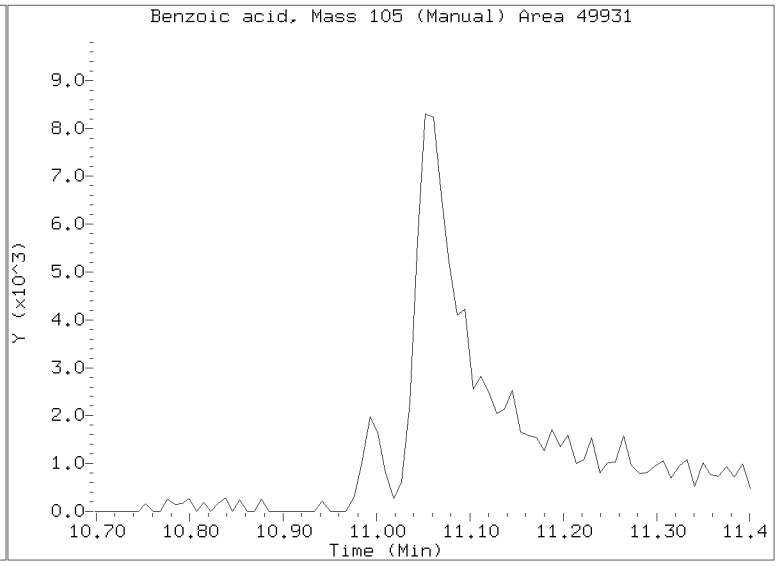






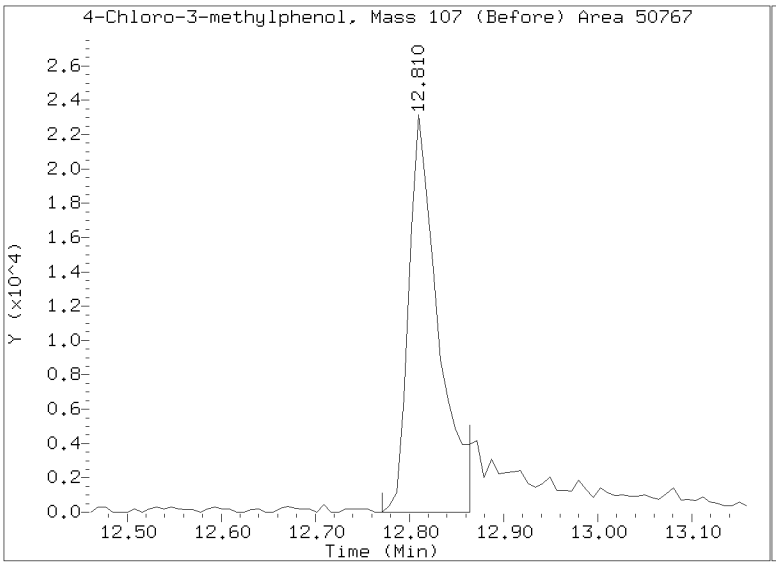


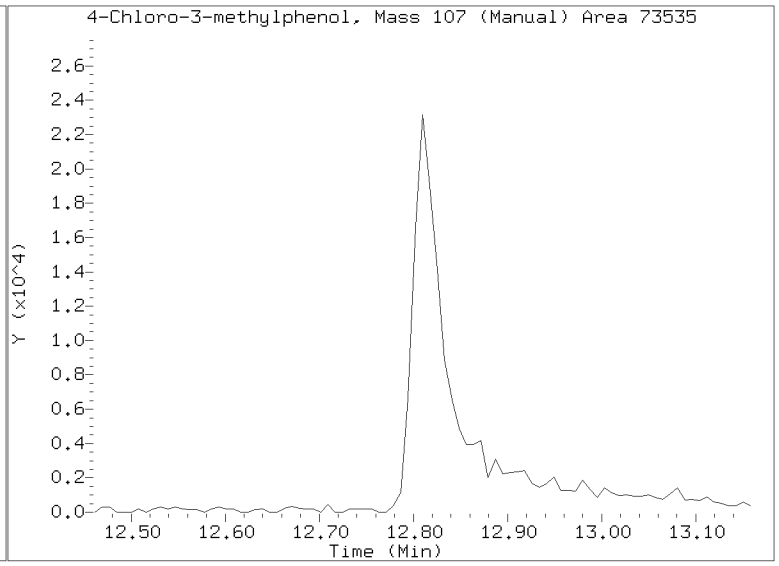


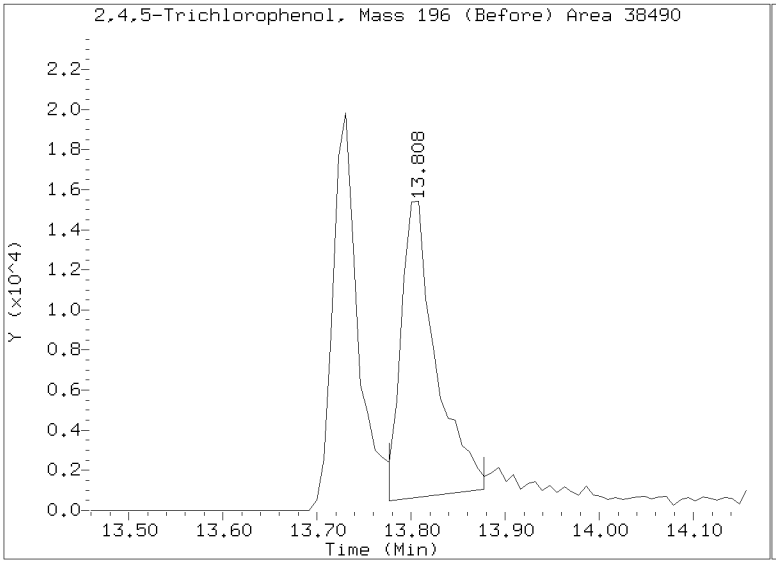


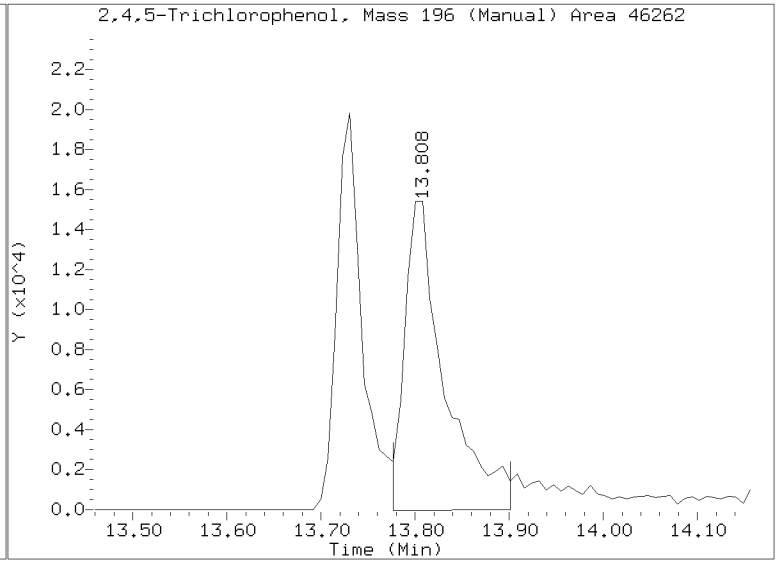
Quant Ion Manual Peak Adjustment Report

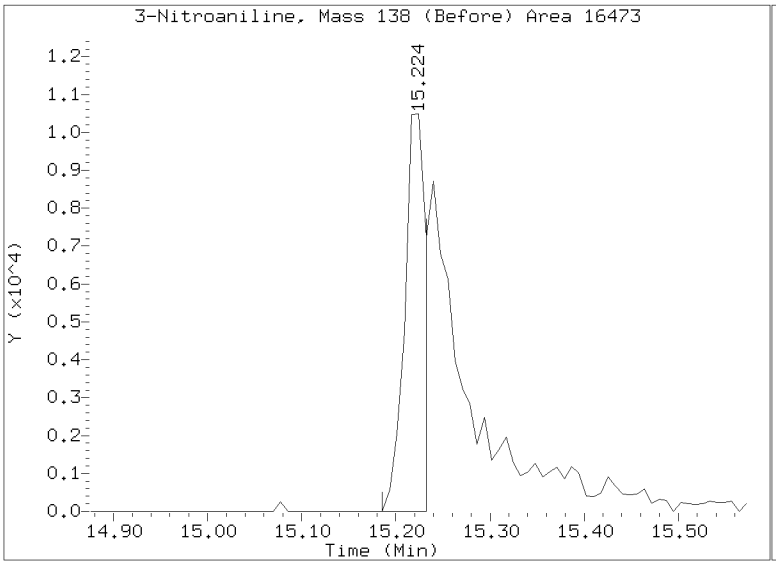
Datafile: //target/share/chem3/nt10.i/20230301.b/NT1003012307.D
Injection Date: 01-MAR-2023 19:15
Lab ID:SLC0084-CAL2 Client ID:
Report Date: 03/07/2023 12:48

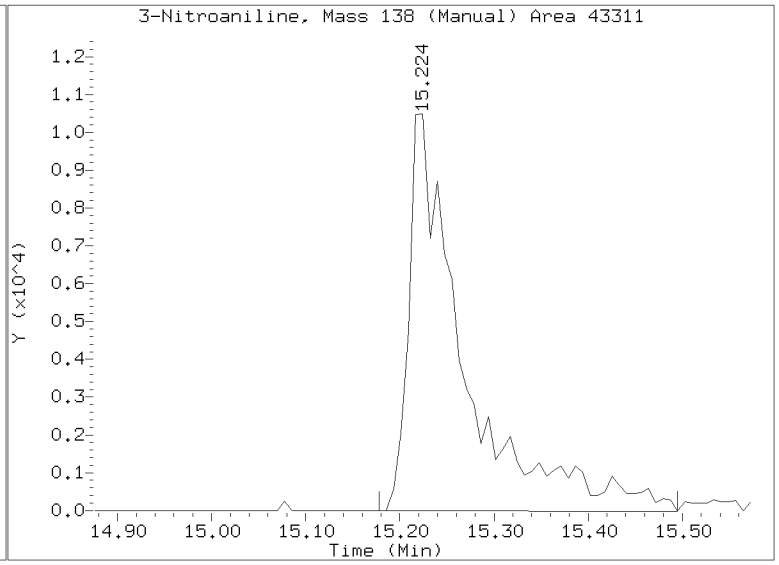






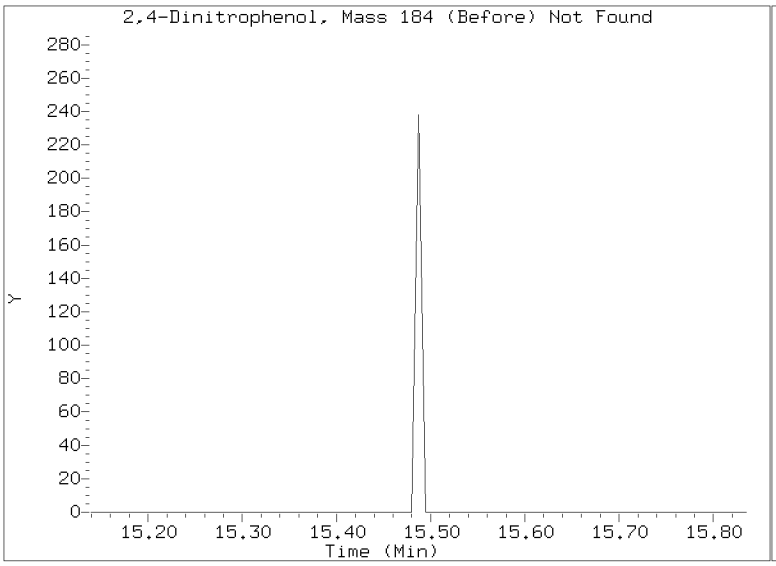


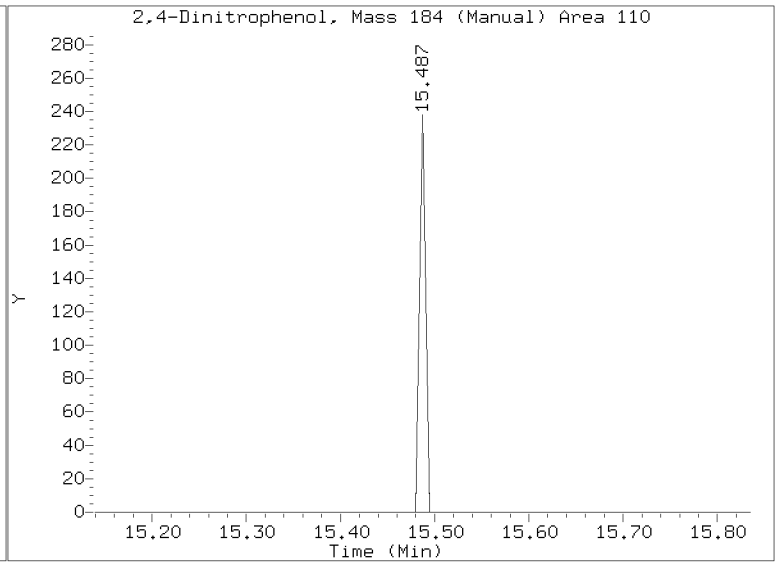


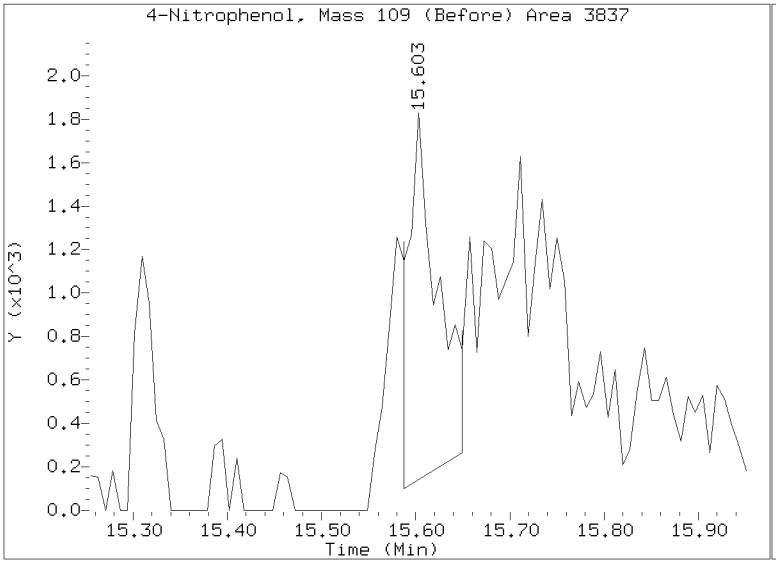


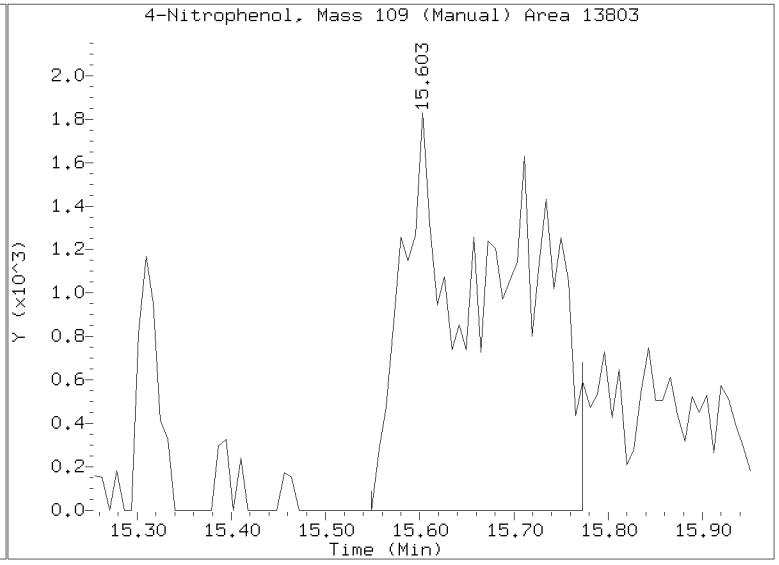
Quant Ion Manual Peak Adjustment Report

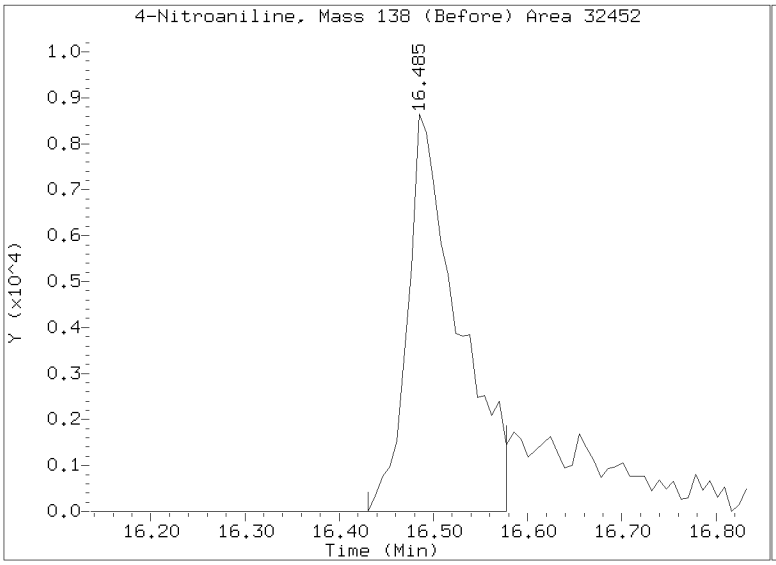
Datafile: //target/share/chem3/nt10.i/20230301.b/NT1003012307.D
Injection Date: 01-MAR-2023 19:15
Lab ID:SLC0084-CAL2 Client ID:
Report Date: 03/07/2023 12:48

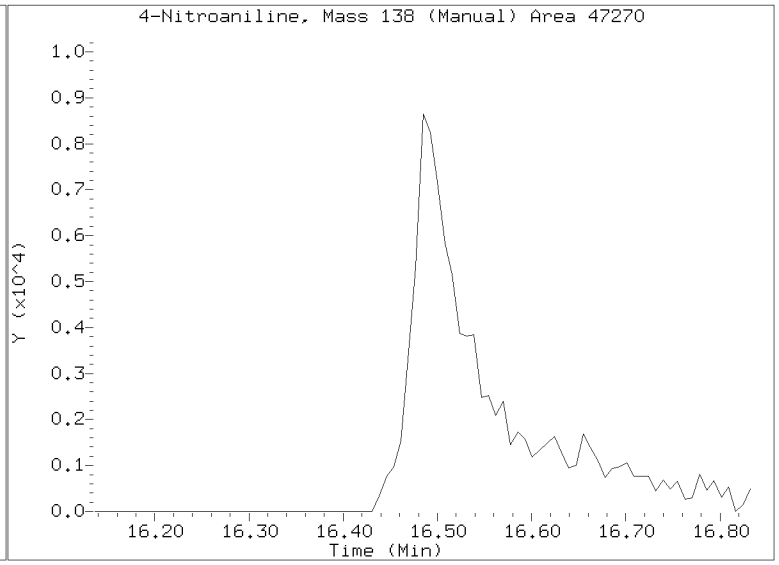












Quant Ion Manual Peak Adjustment Report

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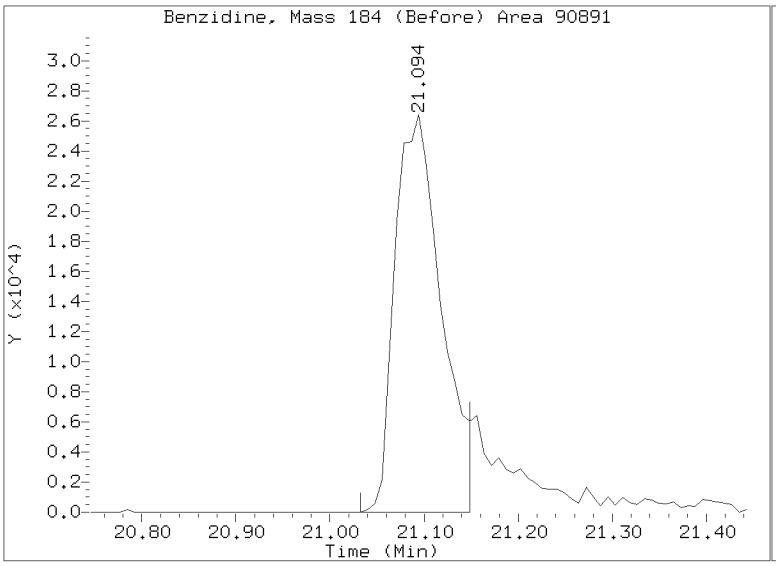
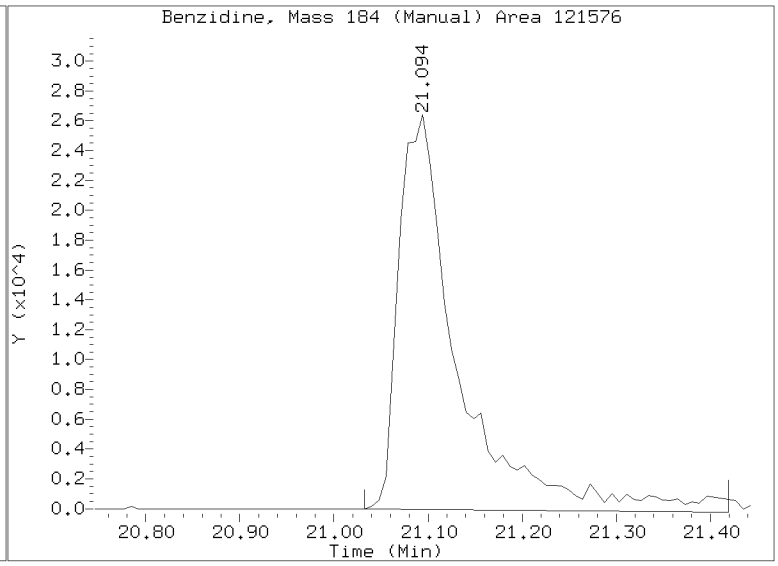
Injection Date: 01-MAR-2023 19:15
Lab ID:SLC0084-CAL2 Client ID:
Report Date: 03/07/2023 12:48





Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012308.D

Page 1

Date : 01-MAR-2023 19:53

Client ID:

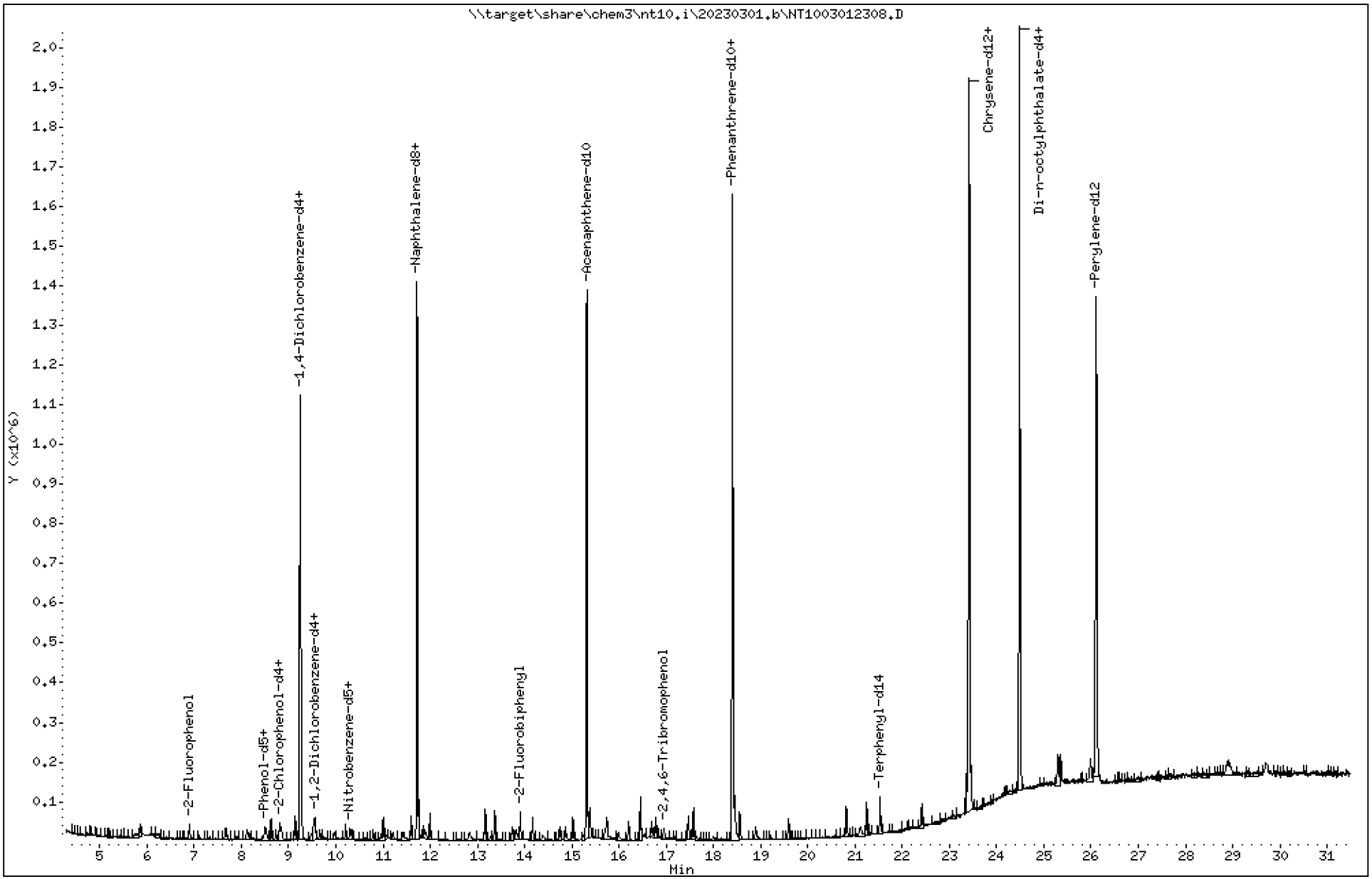
Instrument: nt10.i

Sample Info: SEQ-CAL1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230301.b\NT1003012308.D
Lab Smp Id: SLC0084-CAL1
Inj Date : 01-MAR-2023 19:53
Operator : VTS Inst ID: nt10.i
Smp Info : SEQ-CAL1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Meth Date : 07-Mar-2023 12:44 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: ORGDATA102

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.897	6.898	(0.746)	25602	0.30000	0.2755
$	2	Phenol-d5	99	8.488	8.489	(0.918)	26717	0.30000	0.2477(M)
	3	Phenol	94	8.519	8.512	(0.921)	18277	0.20000	0.1594
$	5	2-Chlorophenol-d4	132	8.813	8.813	(0.953)	21173	0.30000	0.2301
	4	Bis(2-Chloroethyl)ether	93	8.728	8.728	(0.944)	17577	0.20000	0.2006
	6	2-Chlorophenol	128	8.844	8.844	(0.956)	15855	0.20000	0.1658
	7	1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	21720	0.20000	0.2060
*	8	1,4-Dichlorobenzene-d4	152	9.246	9.247	(1.000)	295317	4.00000	
	9	1,4-Dichlorobenzene	146	9.277	9.278	(1.003)	20713	0.20000	0.1978
$	10	1,2-Dichlorobenzene-d4	152	9.533	9.534	(1.031)	13448	0.20000	0.1956(M)
	12	1,2-Dichlorobenzene	146	9.565	9.565	(1.034)	20309	0.20000	0.2004
	11	Benzyl alcohol	108	9.479	9.472	(1.025)	5646	0.20000	0.09603
	14	2,2'-oxybis(1-Chloropropane)	121	9.735	9.728	(1.053)	5507	0.20000	0.1885(M)
	13	2-Methylphenol	108	9.658	9.650	(1.044)	9715	0.20000	0.1094
	17	Hexachloroethane	117	10.209	10.209	(1.104)	8788	0.20000	0.2045
	16	N-Nitroso-di-n-propylamine	70	9.976	9.976	(1.079)	12076	0.20000	0.1745(M)
	15	4-Methylphenol	108	9.953	9.938	(1.076)	11667	0.20000	0.1047(M)
$	18	Nitrobenzene-d5	82	10.294	10.295	(0.878)	19356	0.20000	0.1640
	19	Nitrobenzene	77	10.333	10.326	(0.882)	19314	0.20000	0.1745
	20	Isophorone	82	10.783	10.784	(0.920)	27546	0.20000	0.1949(M)
	21	2-Nitrophenol	139	10.950	10.951	(0.934)	4962	0.20000	0.08077
	22	2,4-Dimethylphenol	107	11.001	10.993	(0.939)	27927	0.40000	0.2638
	23	Bis(2-Chloroethoxy)methane	93	11.213	11.205	(0.957)	14385	0.20000	0.1647
	24	Benzoic acid	105	11.085	11.052	(0.946)	14999	0.80000	0.2391(M)
	25	2,4-Dichlorophenol	162	11.416	11.417	(0.974)	17852	0.40000	0.2140(M)
	26	1,2,4-Trichlorobenzene	180	11.595	11.595	(0.989)	15571	0.20000	0.1874
*	27	Naphthalene-d8	136	11.718	11.719	(1.000)	1075084	4.00000	
	28	Naphthalene	128	11.764	11.765	(1.004)	54135	0.20000	0.1962
	29	4-Chloroaniline	127	11.865	11.858	(1.013)	30944	0.40000	0.2562(M)
	30	Hexachlorobutadiene	225	11.996	11.997	(1.024)	10228	0.20000	0.1691
	31	4-Chloro-3-methylphenol	107	12.817	12.809	(1.094)	26030	0.40000	0.2965(M)
	32	2-Methylnaphthalene	142	13.165	13.165	(1.123)	33913	0.20000	0.1740
	33	Hexachlorocyclopentadiene	237	13.467	13.475	(0.879)	1171	0.40000	0.06762

		QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
34	2,4,6-Trichlorophenol	196	13.730	13.730	(0.896)	9351	0.40000	0.1882
35	2,4,5-Trichlorophenol	196	13.815	13.808	(0.902)	15928	0.40000	0.3001(M)
$ 36	2-Fluorobiphenyl	172	13.908	13.908	(0.908)	32684	0.20000	0.1743
37	2-Chloronaphthalene	162	14.163	14.164	(0.925)	25881	0.20000	0.1758
38	2-Nitroaniline	65	14.372	14.365	(0.938)	15452	0.40000	0.3838(M)
39	Dimethylphthalate	163	14.744	14.736	(0.963)	29256	0.20000	0.1723
40	Acenaphthylene	152	15.022	15.023	(0.981)	48690	0.20000	0.1919
41	2,6-Dinitrotoluene	165	14.867	14.868	(0.971)	7739	0.40000	0.2078
* 42	Acenaphthene-d10	164	15.316	15.309	(1.000)	525641	4.00000	
43	3-Nitroaniline	138	15.231	15.224	(0.994)	11148	0.40000	0.2604(M)
44	Acenaphthene	153	15.378	15.378	(1.004)	28519	0.20000	0.1864
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	15.741	15.734	(1.028)	40195	0.20000	0.1770
47	4-Nitrophenol	109	Compound Not Detected.					
48	2,4-Dinitrotoluene	165	15.703	15.703	(1.025)	12046	0.40000	0.2230
50	Diethylphthalate	149	16.197	16.198	(1.058)	31220	0.20000	0.1736
49	Fluorene	166	16.453	16.453	(1.074)	31088	0.20000	0.1645
51	4-Chlorophenyl-phenylether	204	16.453	16.453	(1.074)	13684	0.20000	0.1663
52	4-Nitroaniline	138	16.515	16.484	(1.078)	14319	0.40000	0.3112(M)
53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
54	N-Nitrosodiphenylamine	169	16.692	16.693	(0.907)	25288	0.20000	0.1606
$ 55	2,4,6-Tribromophenol	330	16.947	16.947	(1.106)	5717	0.30000	0.1771
56	4-Bromophenyl-phenylether	248	17.472	17.472	(0.950)	9489	0.20000	0.1487
57	Hexachlorobenzene	284	17.580	17.573	(0.955)	14082	0.20000	0.1960
58	Pentachlorophenol	266	17.998	17.983	(0.978)	2963	0.40000	0.08958(M)
* 59	Phenanthrene-d10	188	18.401	18.401	(1.000)	1064230	4.00000	
60	Phenanthrene	178	18.447	18.448	(1.003)	48914	0.20000	0.1796
61	Anthracene	178	18.556	18.556	(1.008)	43808	0.20000	0.1659
62	Carbazole	167	18.896	18.889	(1.027)	40590	0.20000	0.1678(M)
63	Di-n-butylphthalate	149	19.592	19.585	(1.065)	47781	0.20000	0.1456
64	Fluoranthene	202	20.815	20.815	(0.889)	49202	0.20000	0.1574
65	Pyrene	202	21.248	21.248	(0.907)	54871	0.20000	0.1724
$ 66	Terphenyl-d14	244	21.527	21.527	(0.919)	45467	0.20000	0.1766
67	Butylbenzylphthalate	149	22.409	22.410	(0.957)	20677	0.20000	0.1206
68	Benzo(a)anthracene	228	23.400	23.401	(0.999)	55541	0.20000	0.1734
* 69	Chrysene-d12	240	23.416	23.416	(1.000)	908515	4.00000	
70	3,3'-Dichlorobenzidine	252	23.362	23.347	(0.998)	43228	0.60000	0.3030
71	Chrysene	228	23.462	23.463	(1.002)	52710	0.20000	0.2025(M)
72	bis(2-Ethylhexyl)phthalate	149	23.408	23.409	(0.956)	33184	0.20000	0.1426
* 134	Di-n-octylphthalate-d4	153	24.484	24.485	(1.000)	1659419	4.00000	
73	Di-n-octylphthalate	149	24.492	24.492	(1.000)	76336	0.20000	0.2074
74	Benzo(b)fluoranthene	252	25.297	25.298	(0.969)	50227	0.20000	0.1519
75	Benzo(k)fluoranthene	252	25.359	25.352	(0.972)	51821	0.20000	0.1628
76	Benzo(a)pyrene	252	25.986	25.987	(0.996)	45223	0.20000	0.1530
* 77	Perylene-d12	264	26.102	26.103	(1.000)	969731	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.870	28.863	(1.106)	50510	0.20000	0.1461(M)
79	Dibenzo(a,h)anthracene	278	28.924	28.925	(1.108)	40681	0.20000	0.1552(M)
80	Benzo(g,h,i)perylene	276	29.717	29.709	(1.138)	44573	0.20000	0.1618(M)
90	N-Nitrosodimethylamine	74	4.742	4.719	(0.513)	25771	0.40000	0.4296(M)
91	Aniline	93	8.627	8.628	(0.933)	47923	0.40000	0.3604
93	Benzidine	184	21.093	21.094	(0.901)	29448	0.40000	0.2122(M)
103	Pyridine	79	4.796	4.789	(0.519)	43491	0.40000	0.4088(M)
105	1-methylnaphthalene	142	13.366	13.366	(1.141)	31583	0.20000	0.1790
111	Azobenzene (1,2-DP-Hydrazine)	77	16.777	16.778	(1.095)	41927	0.20000	0.1561

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
187 Total Benzofluoranthenes	252	25.297	25.352	(0.969)	105381	0.40000	0.3317
120 2,3,4,6-Tetrachlorophenol	232	15.981	15.982	(1.043)	5199	0.20000	0.1056

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012308.D
Lab Smp Id: SLC0084-CAL1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 17:21
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	337641	168821	675282	295317	-12.54
27 Naphthalene-d8	1265187	632594	2530374	1075084	-15.03
42 Acenaphthene-d10	692385	346193	1384770	525641	-24.08
59 Phenanthrene-d10	1376777	688389	2753554	1064230	-22.70
69 Chrysene-d12	1019524	509762	2039048	908515	-10.89
134 Di-n-octylphthala	2027111	1013556	4054222	1659419	-18.14
77 Perylene-d12	1027409	513705	2054818	969731	-5.61

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.32	0.05
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
134 Di-n-octylphthala	24.48	23.98	24.98	24.48	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012308.D

Lab ID: SLC0084-CAL1
nt10.i, 20230301.b\ABN.m,   01-MAR-2023 19:53

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

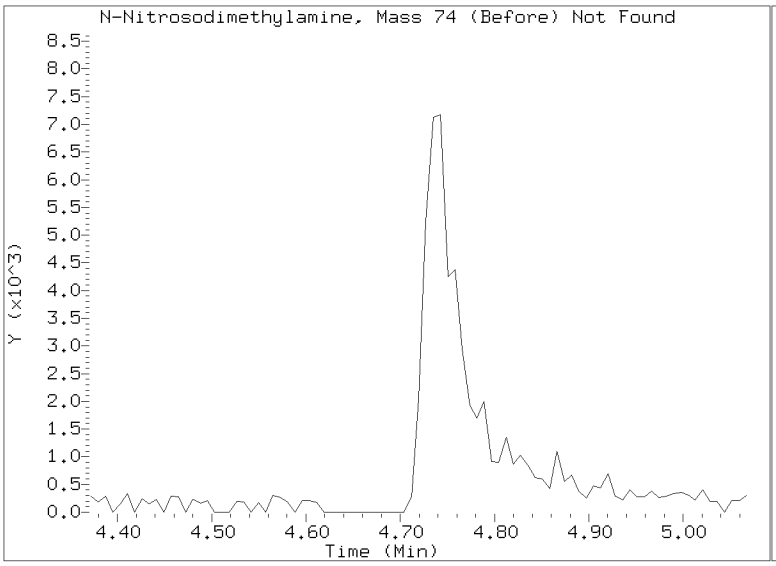
RRT check based on Ccal File: NT1003012307.D

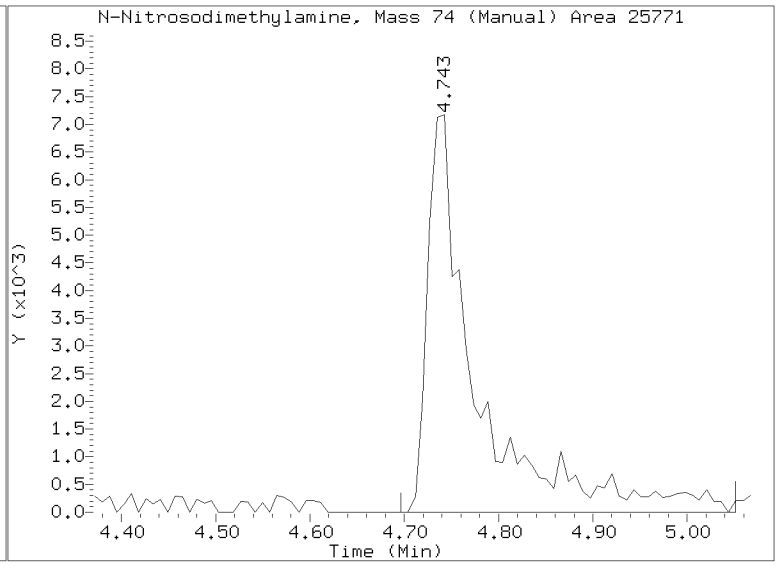
On Column LOD for nt10.i, 20230301.b\ABN.m, ICAL.sub = 0.0000

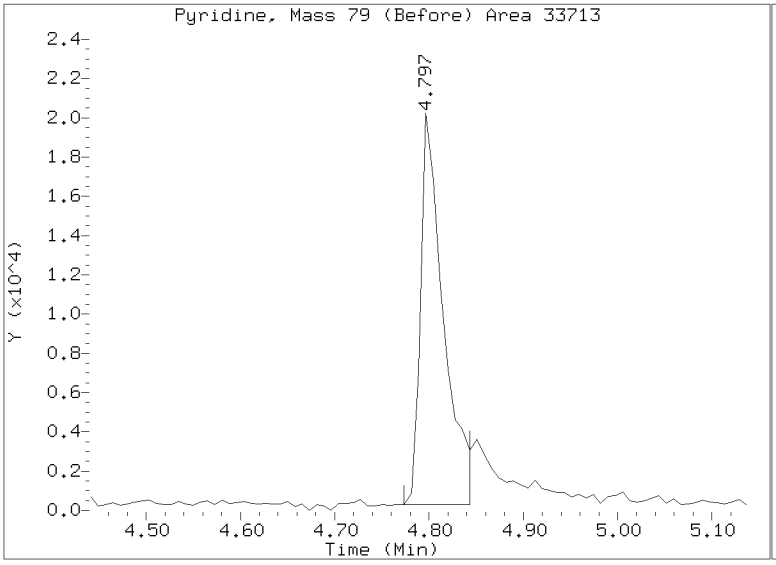
* Only compounds listed in the work order have been verified by the analyst *

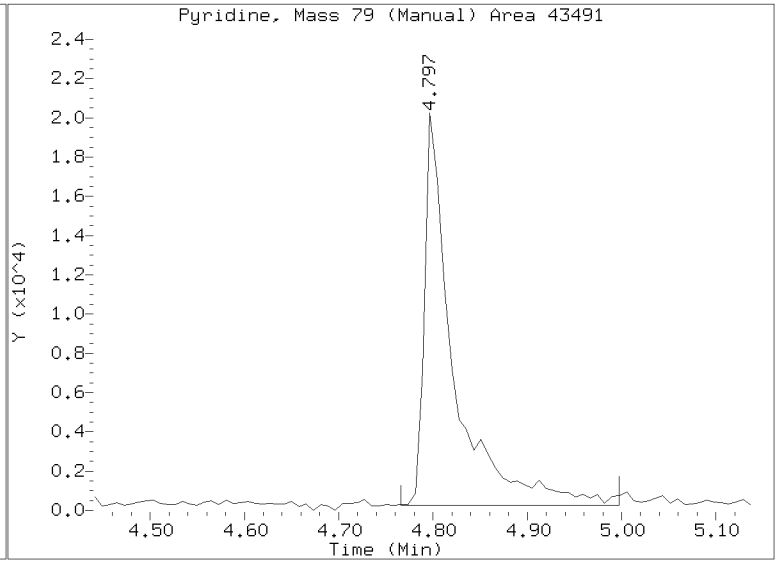
Quant Ion Manual Peak Adjustment Report

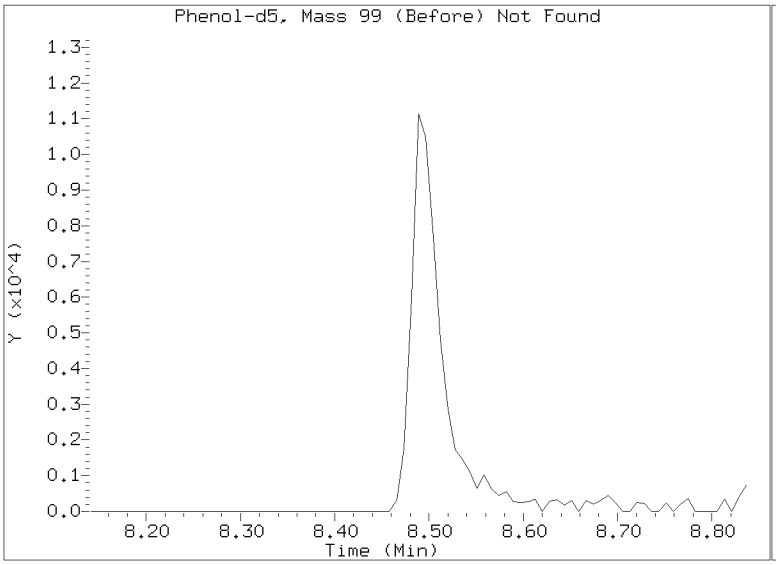
Datafile: //target/share/chem3/nt10.i/20230301.b/NT1003012308.D
Injection Date: 01-MAR-2023 19:53
Lab ID:SLC0084-CAL1 Client ID:
Report Date: 03/07/2023 12:48

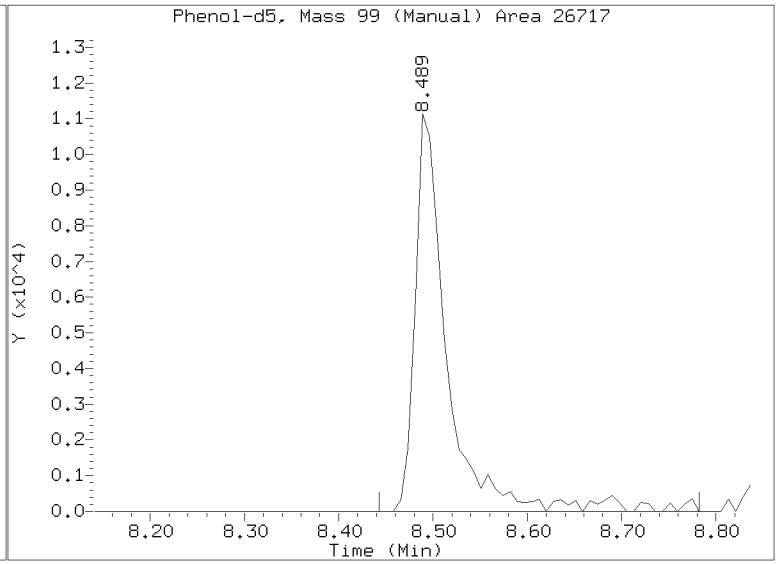












Quant Ion Manual Peak Adjustment Report

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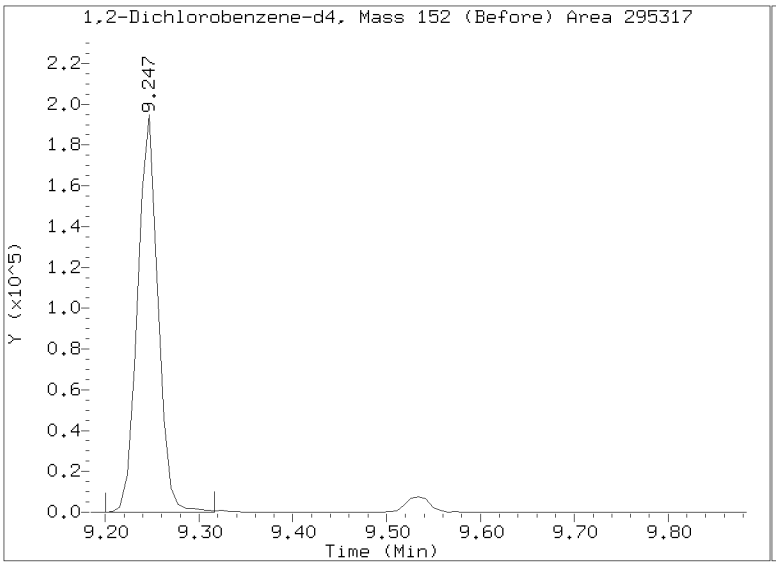
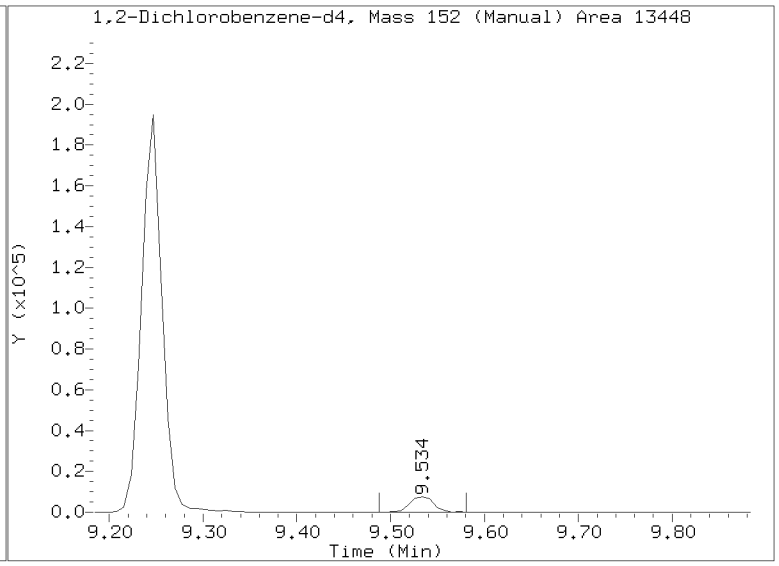
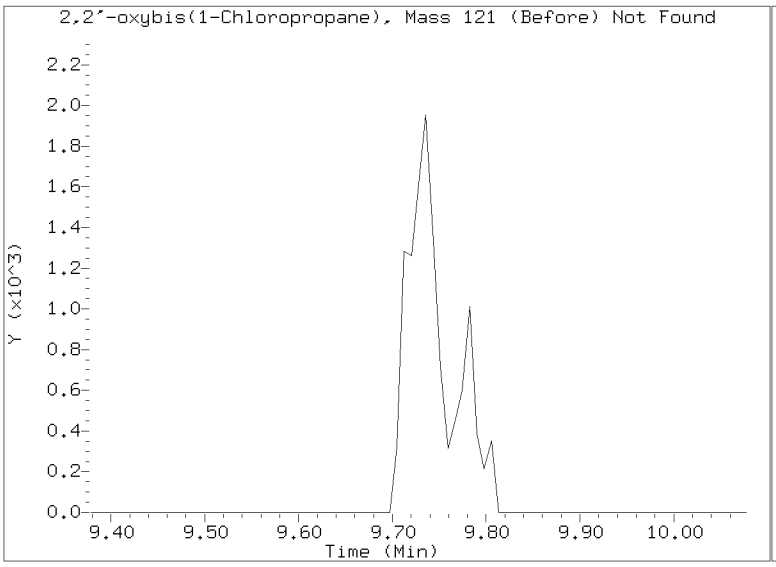
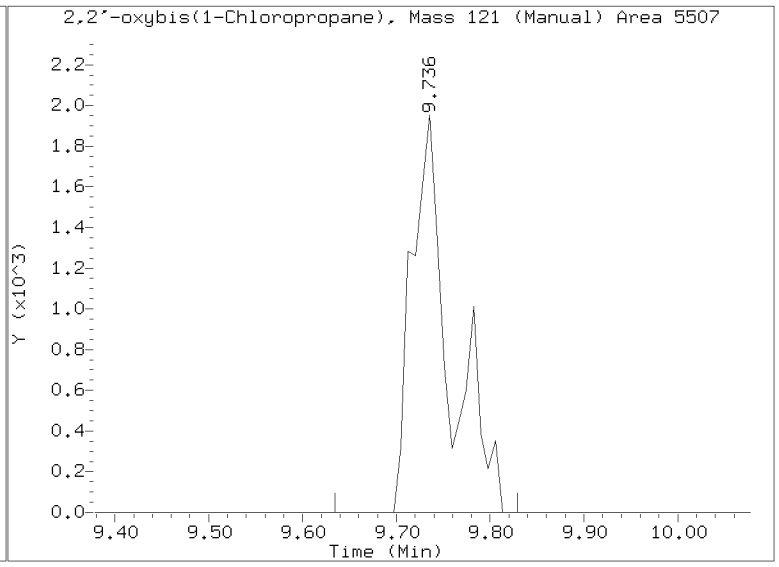
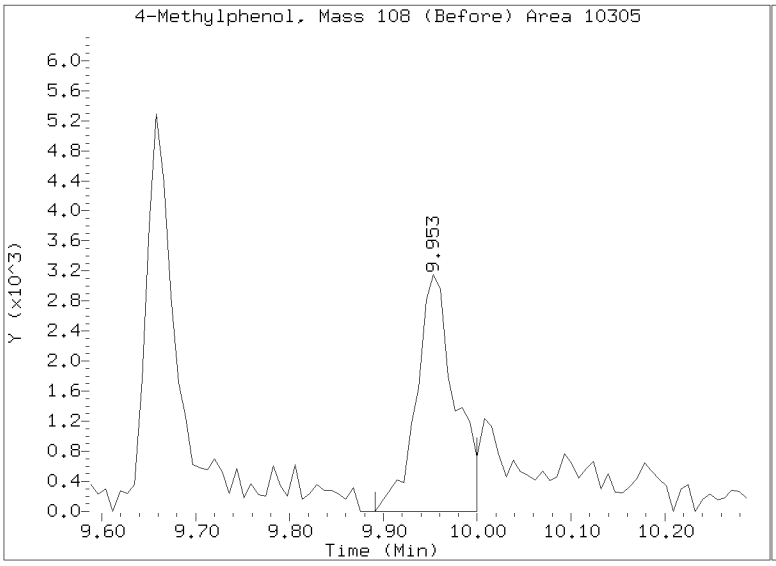
Lab ID:SLC0084-CAL1 Client ID:
Report Date: 03/07/2023 12:48

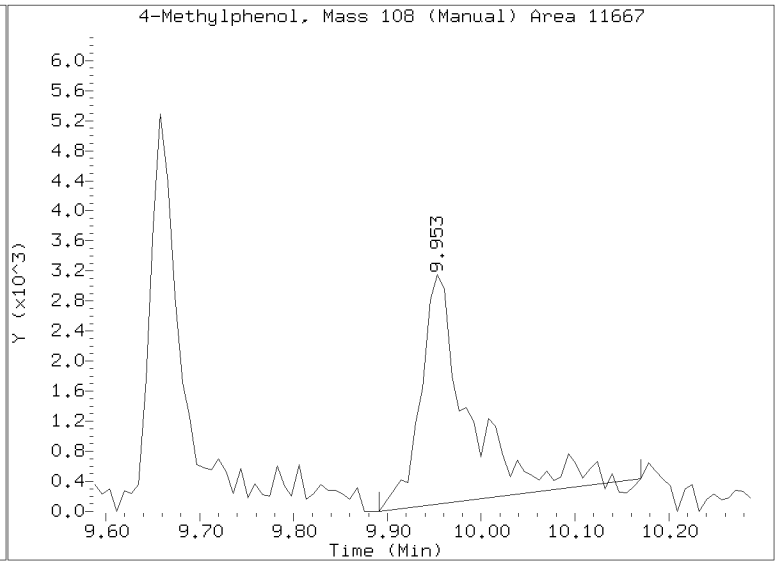












Quant Ion Manual Peak Adjustment Report

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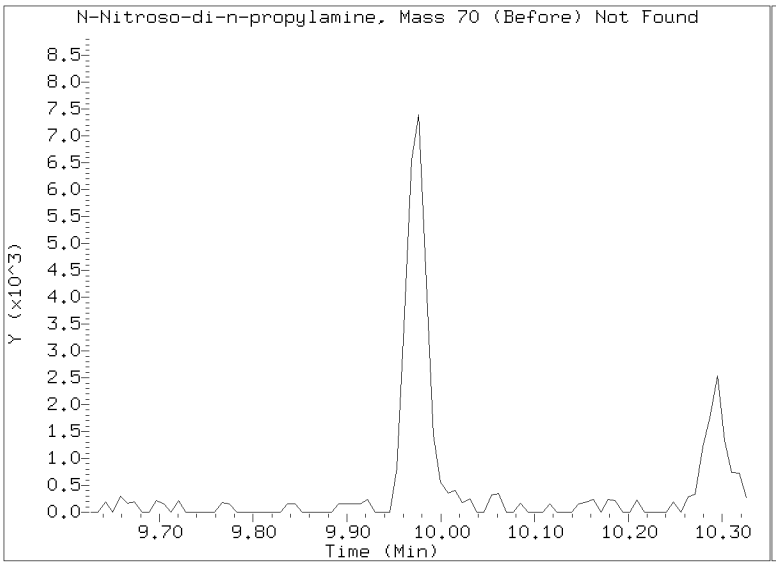

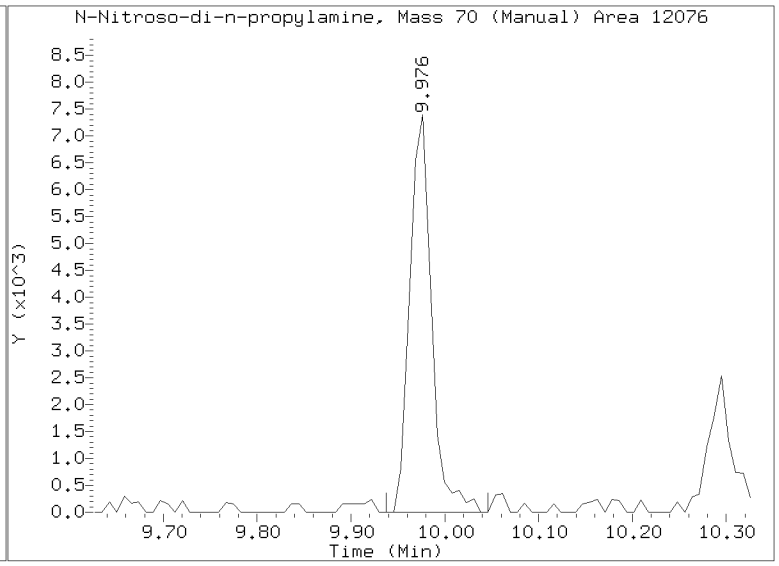

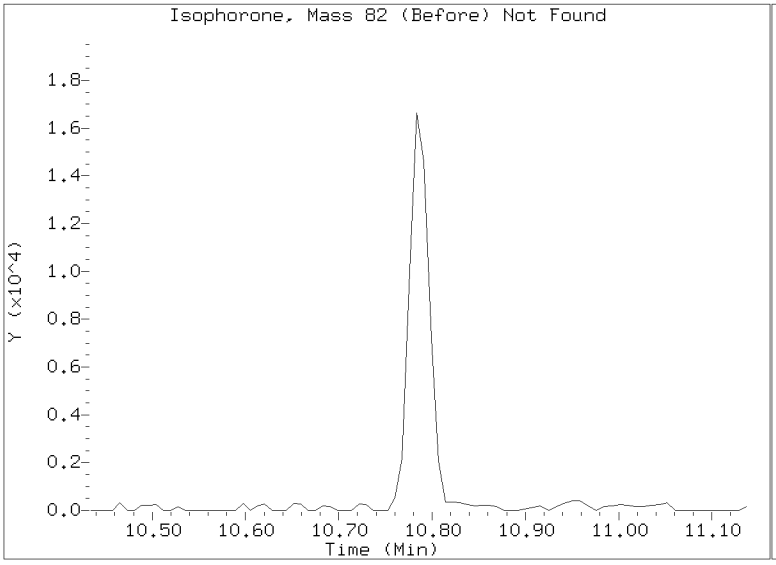

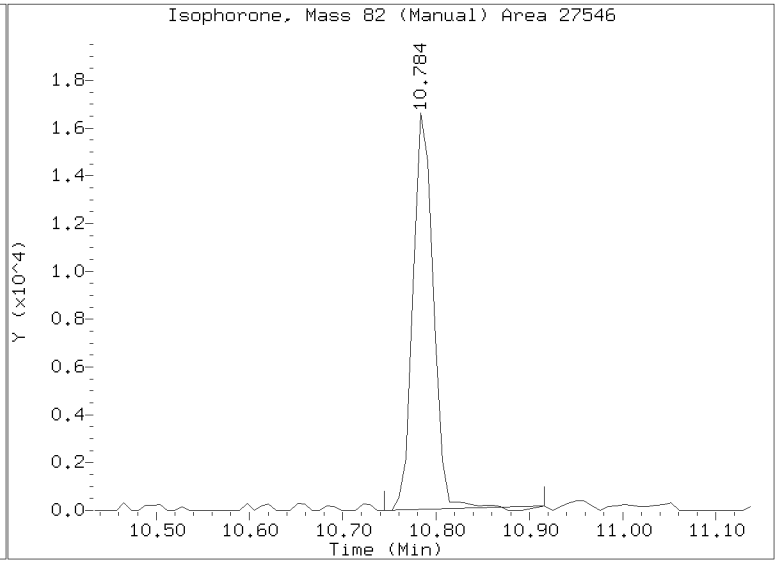

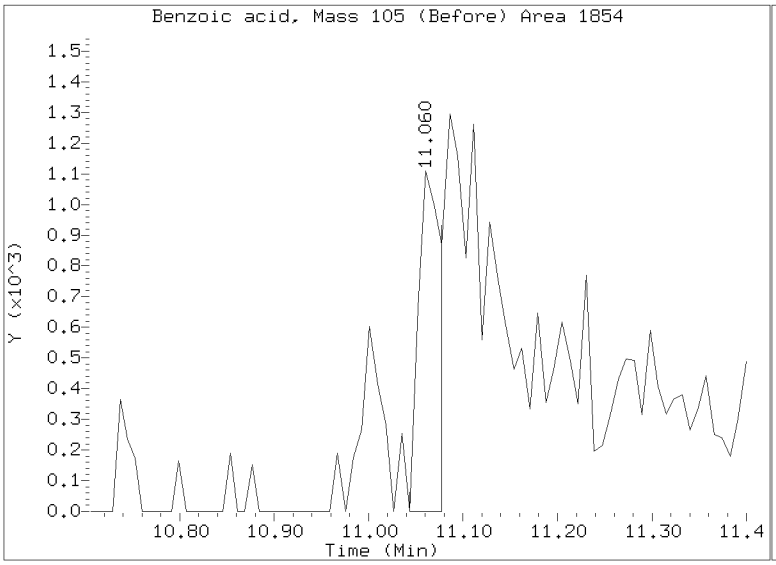

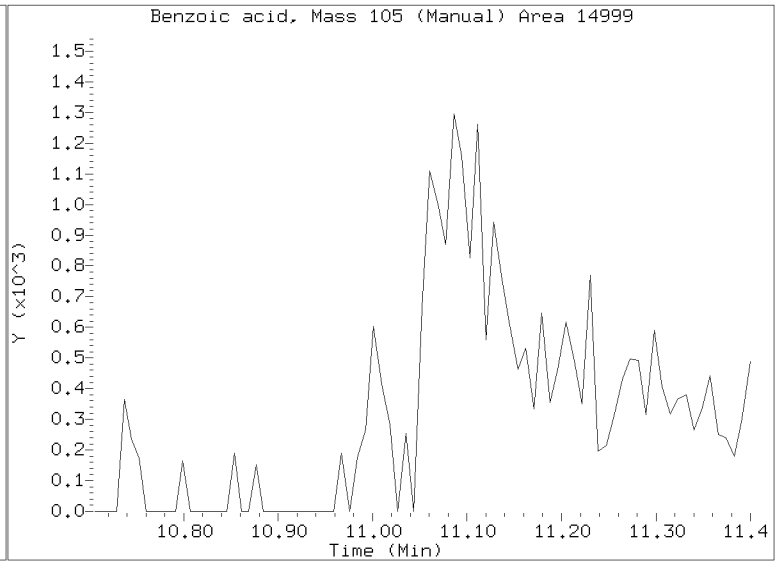

Quant Ion Manual Peak Adjustment Report

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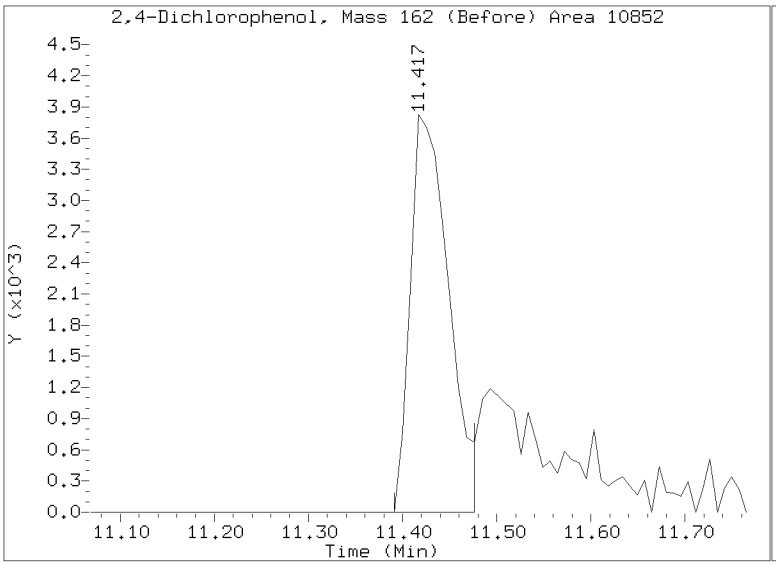

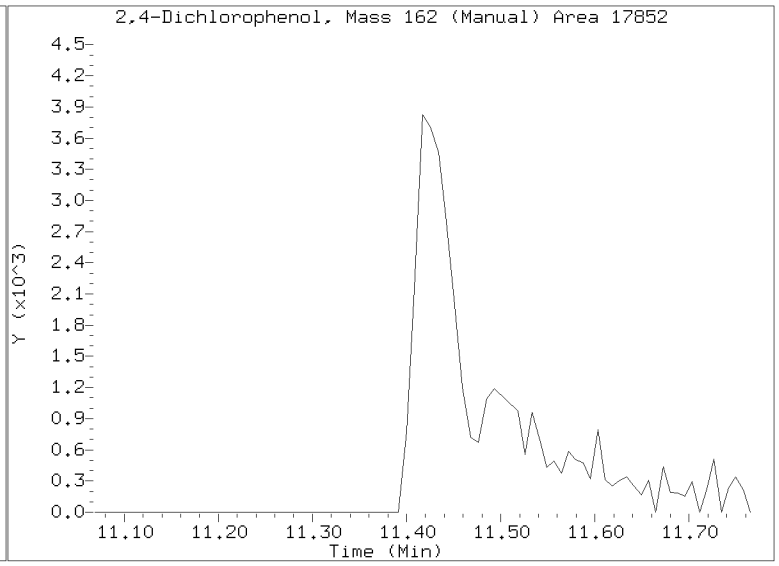

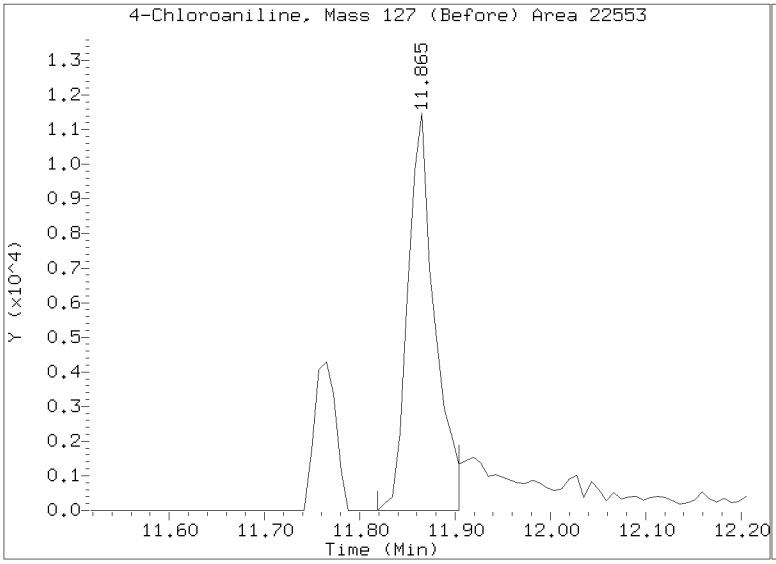

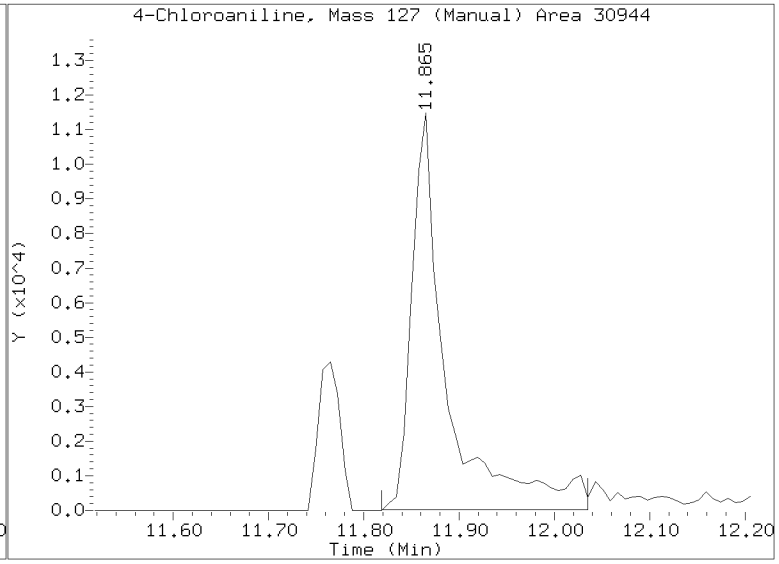

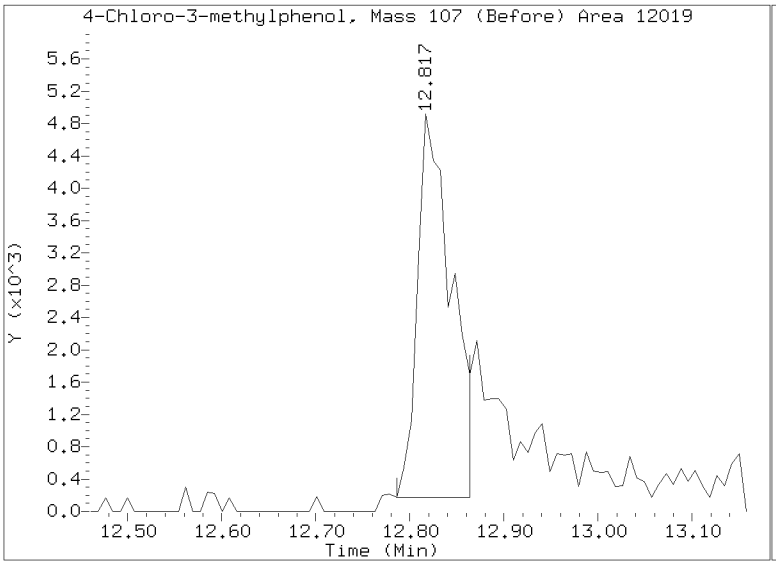

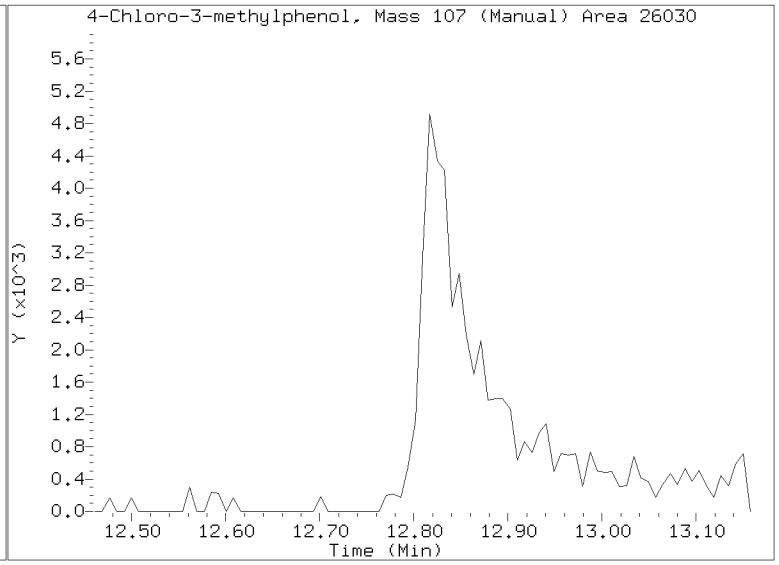

Quant Ion Manual Peak Adjustment Report

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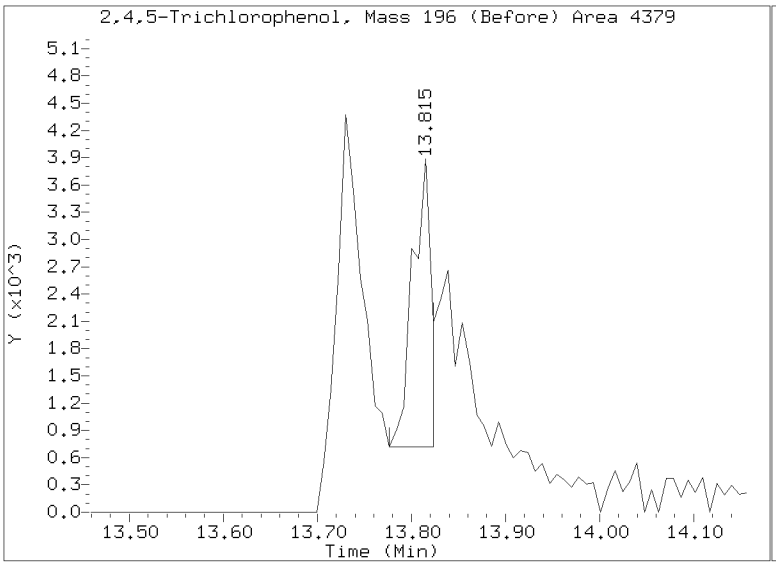

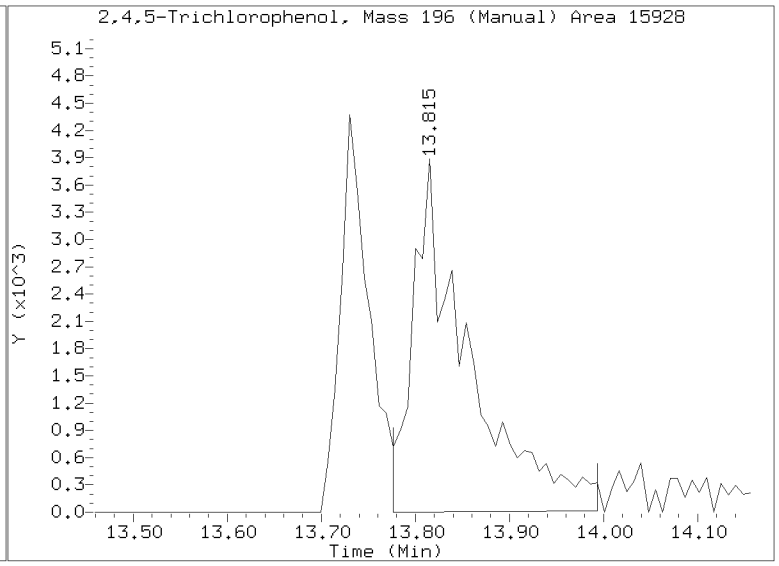

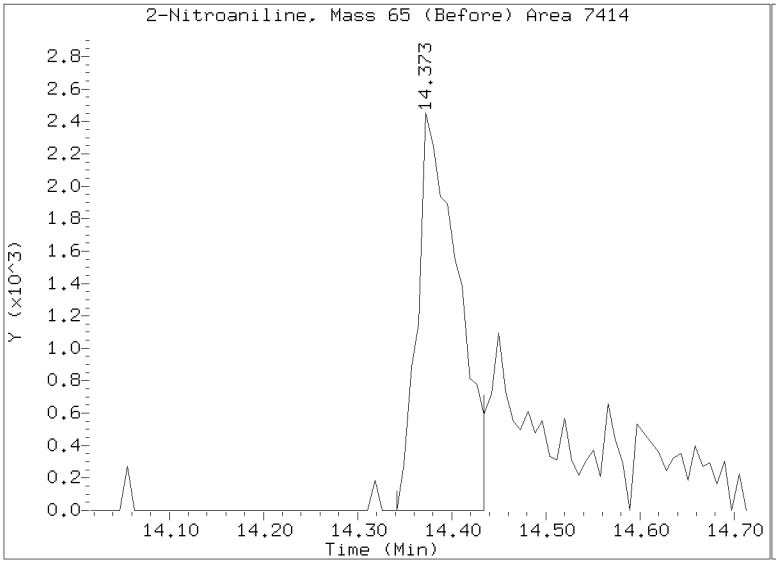

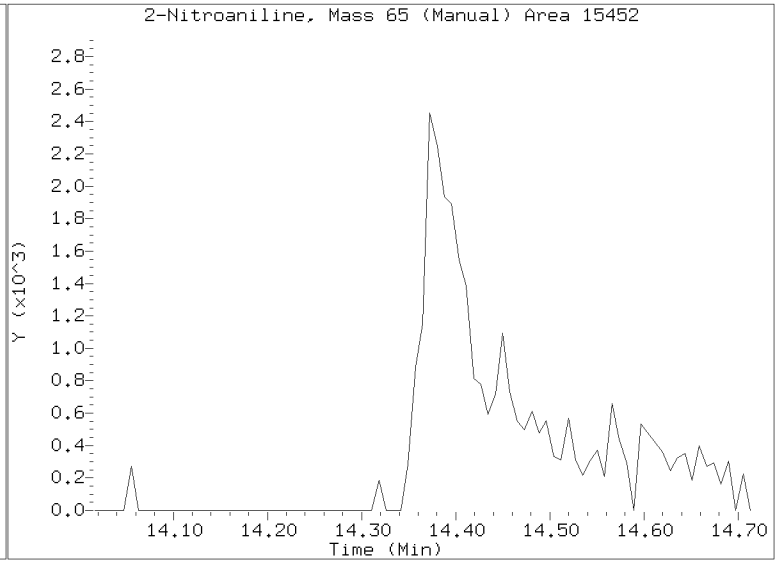

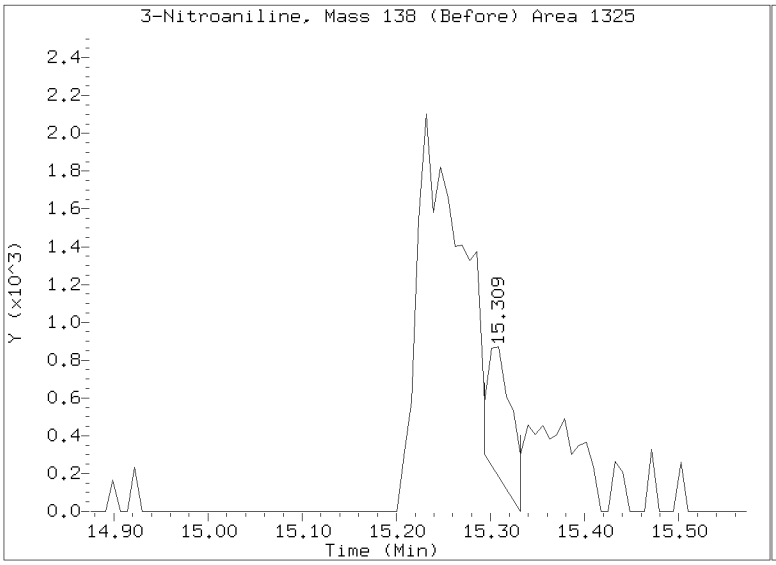

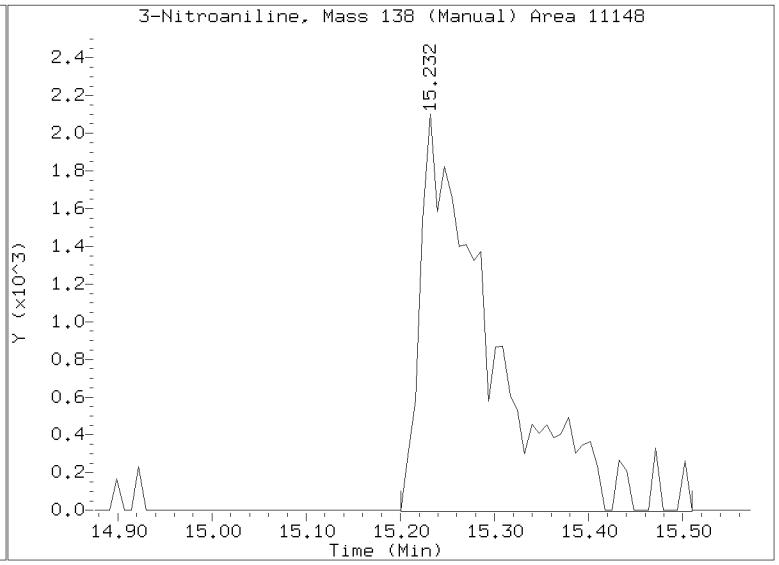

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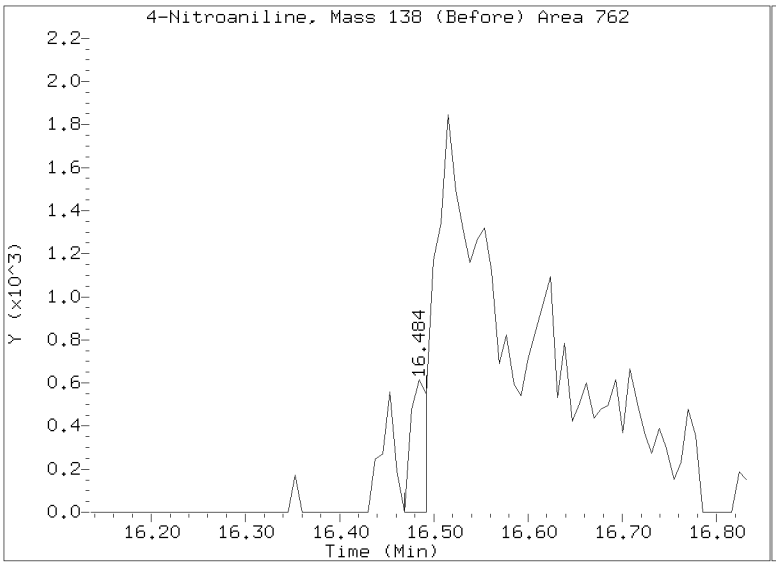

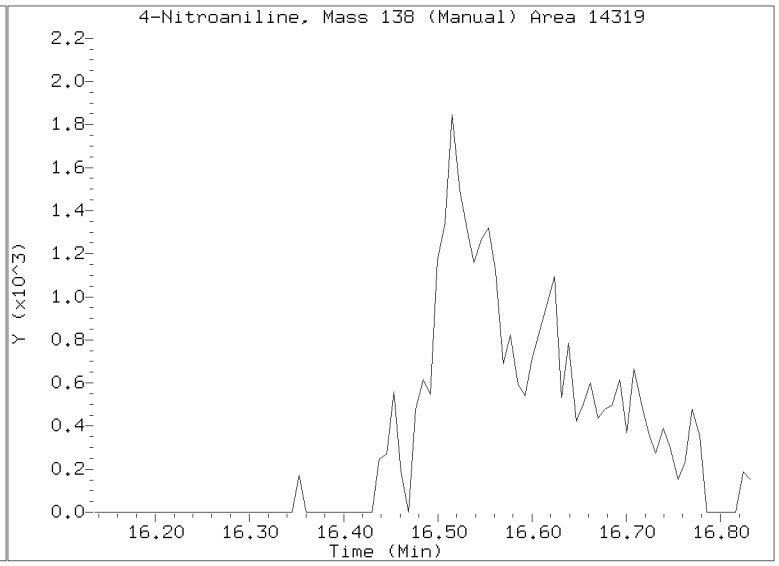

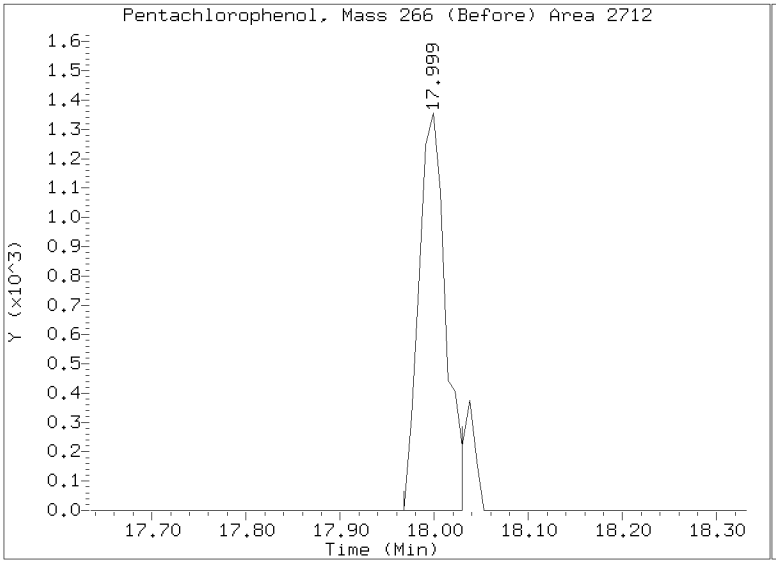

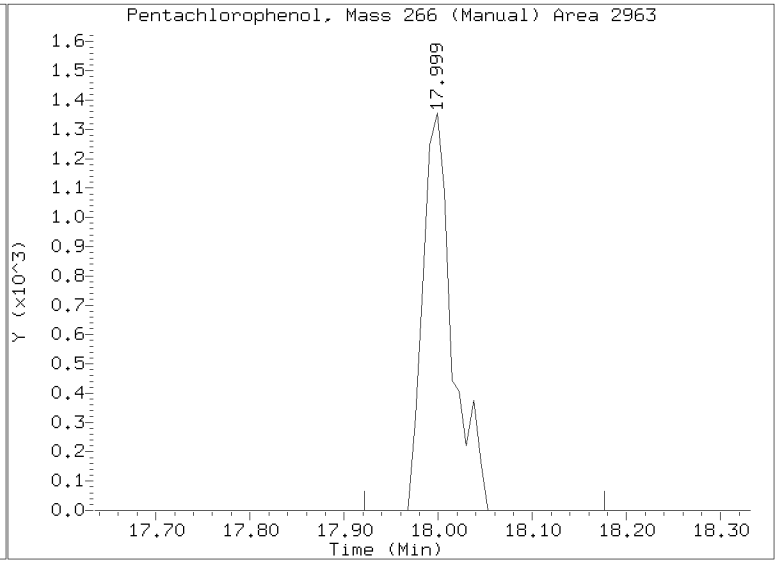

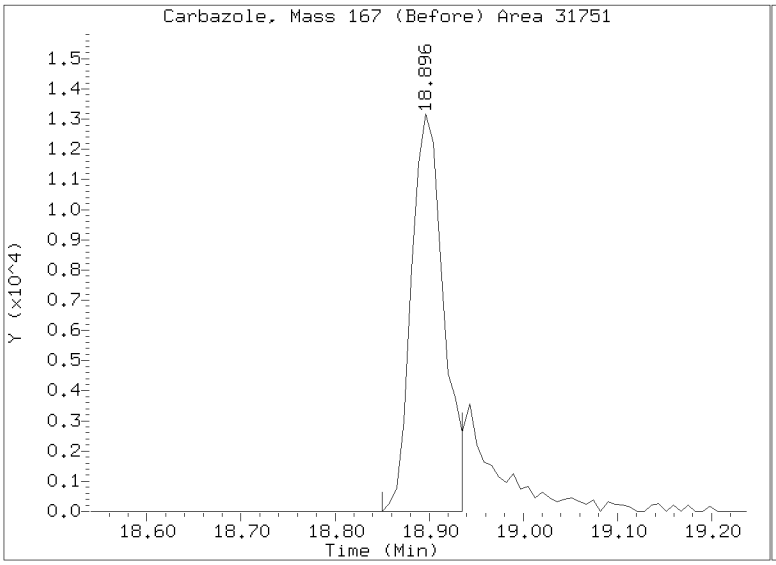

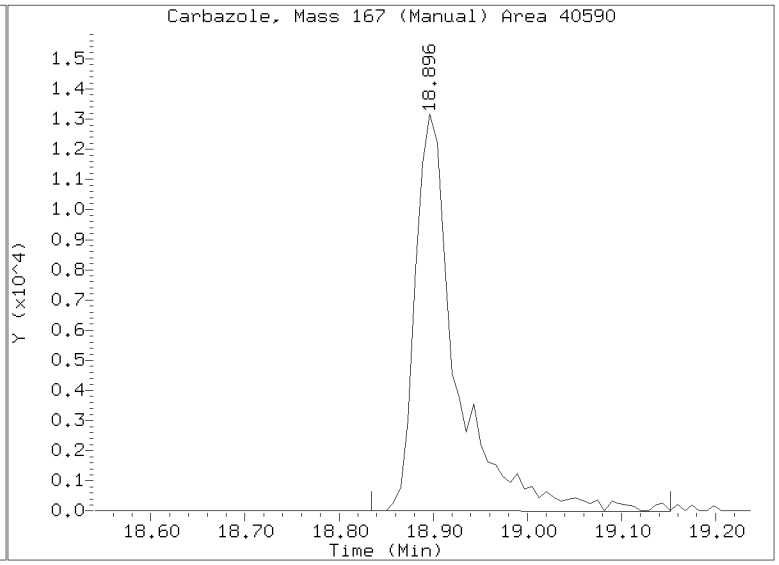

Quant Ion Manual Peak Adjustment Report

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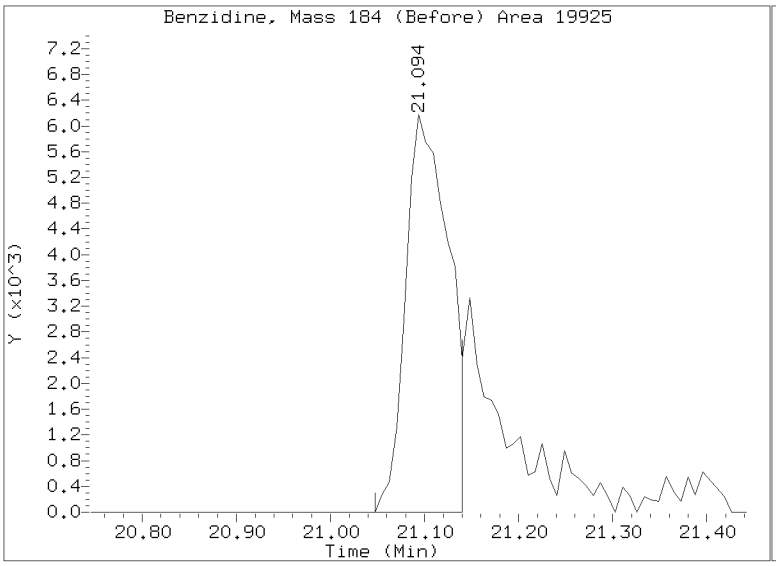

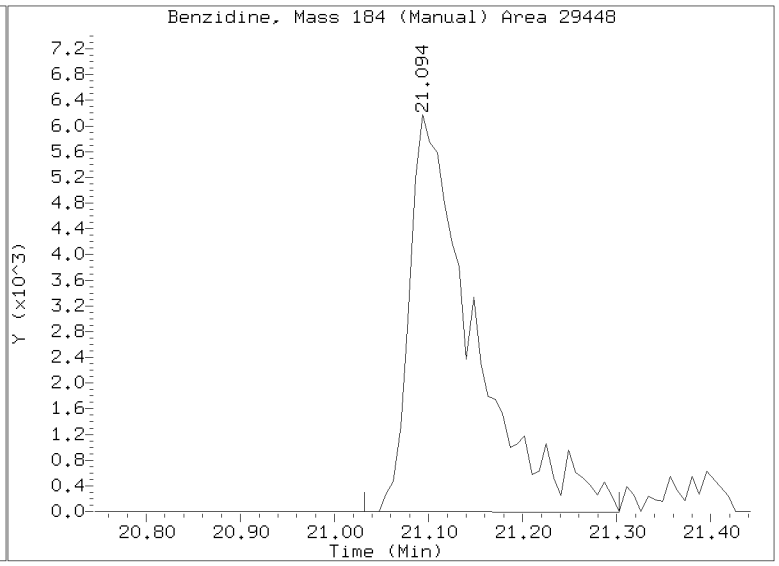

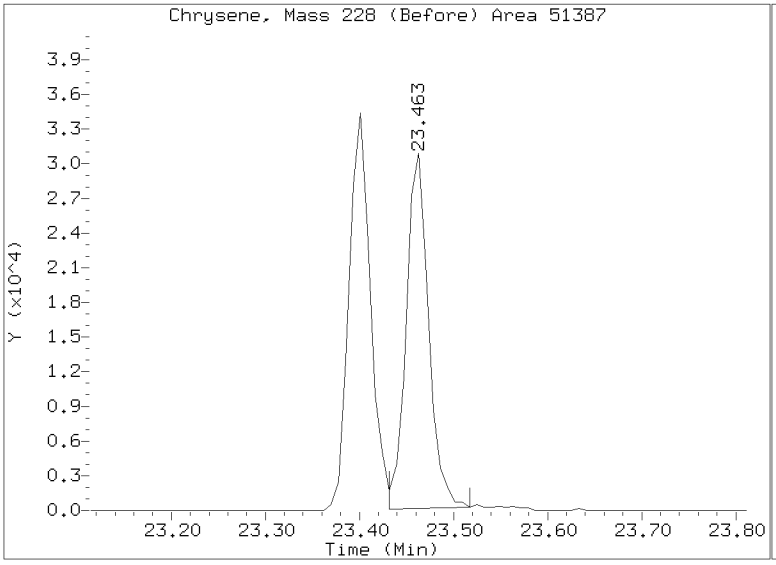

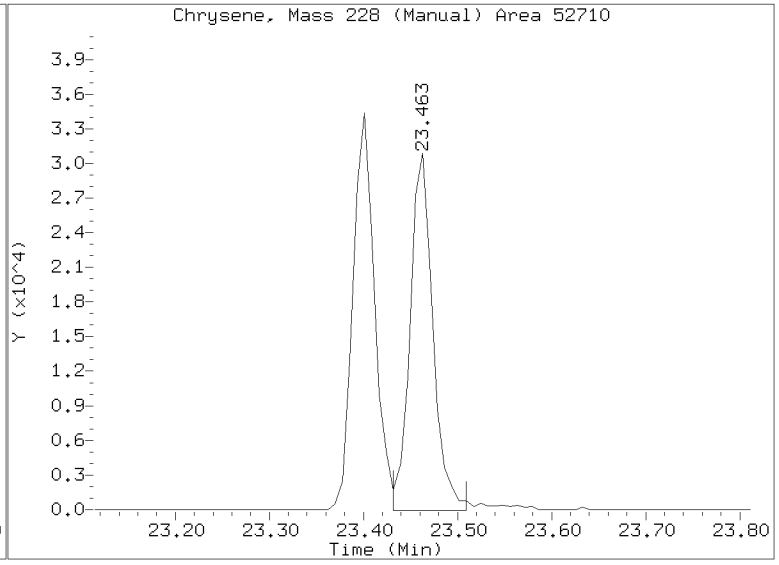

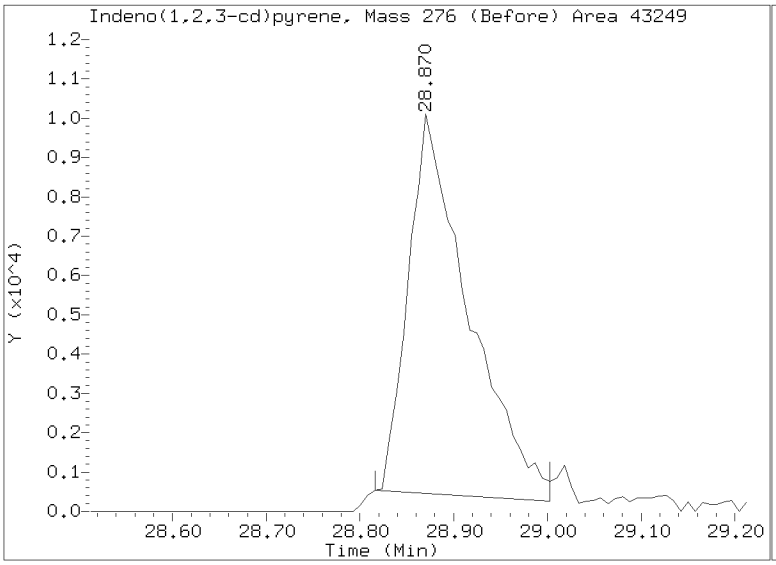

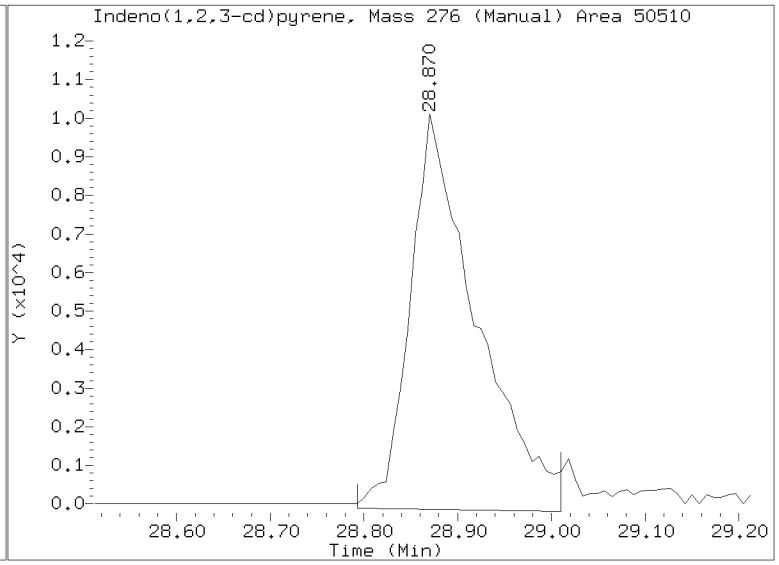

Quant Ion Manual Peak Adjustment Report

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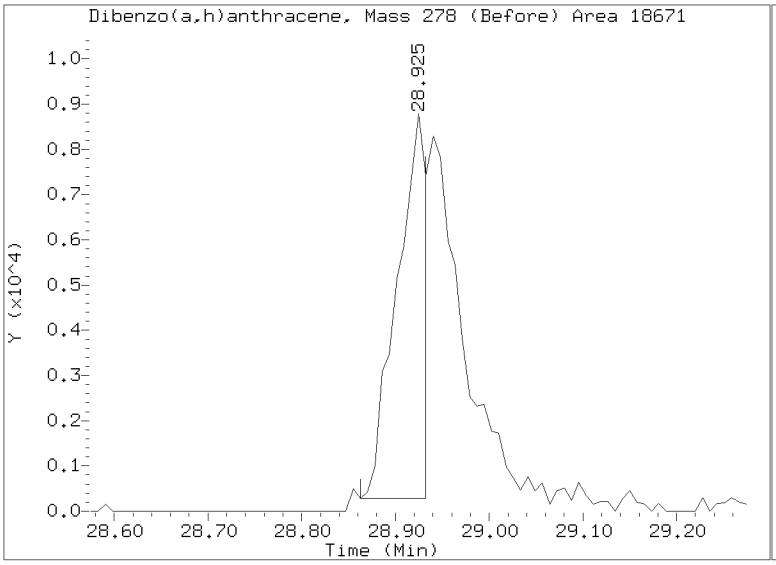

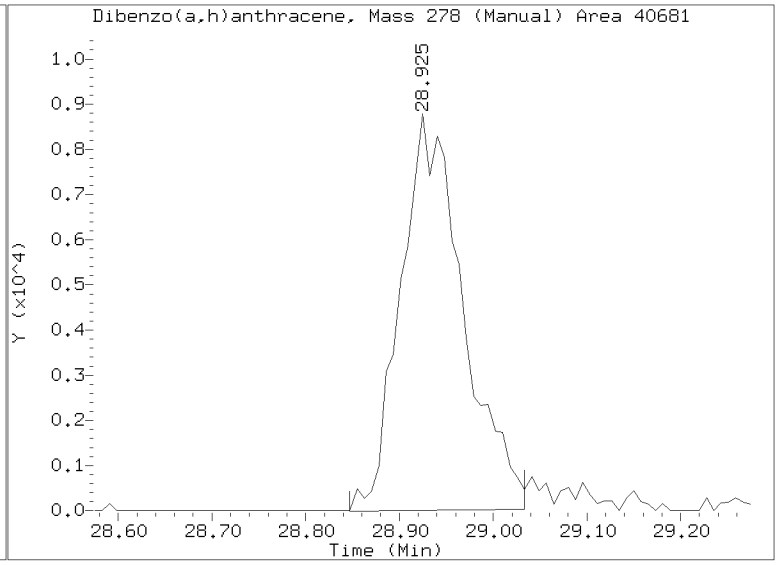

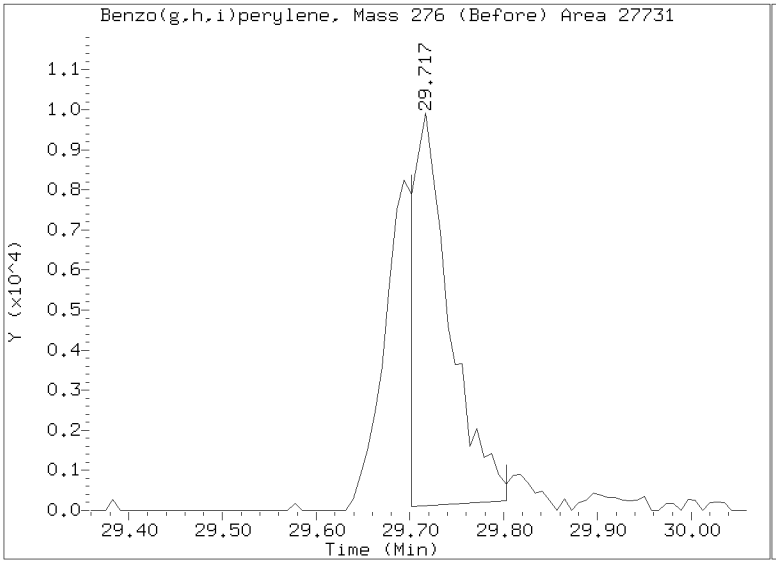

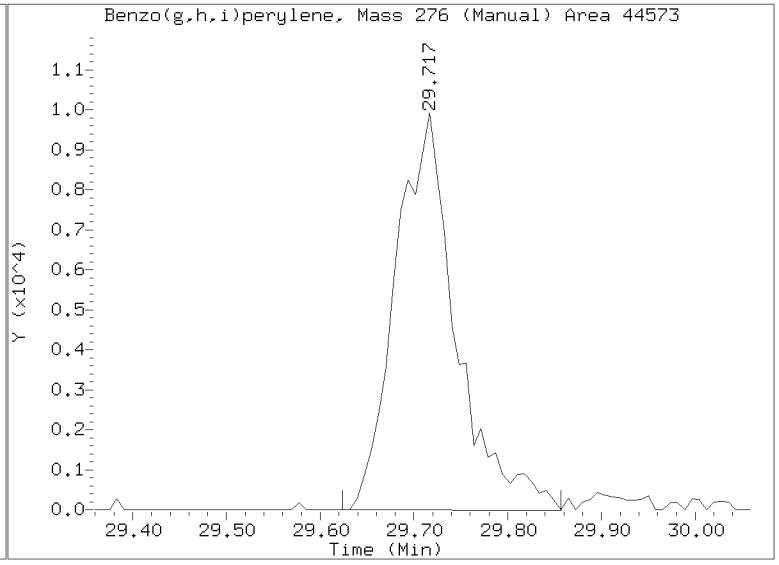

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Date : 01-MAR-2023 21:46

Client ID:

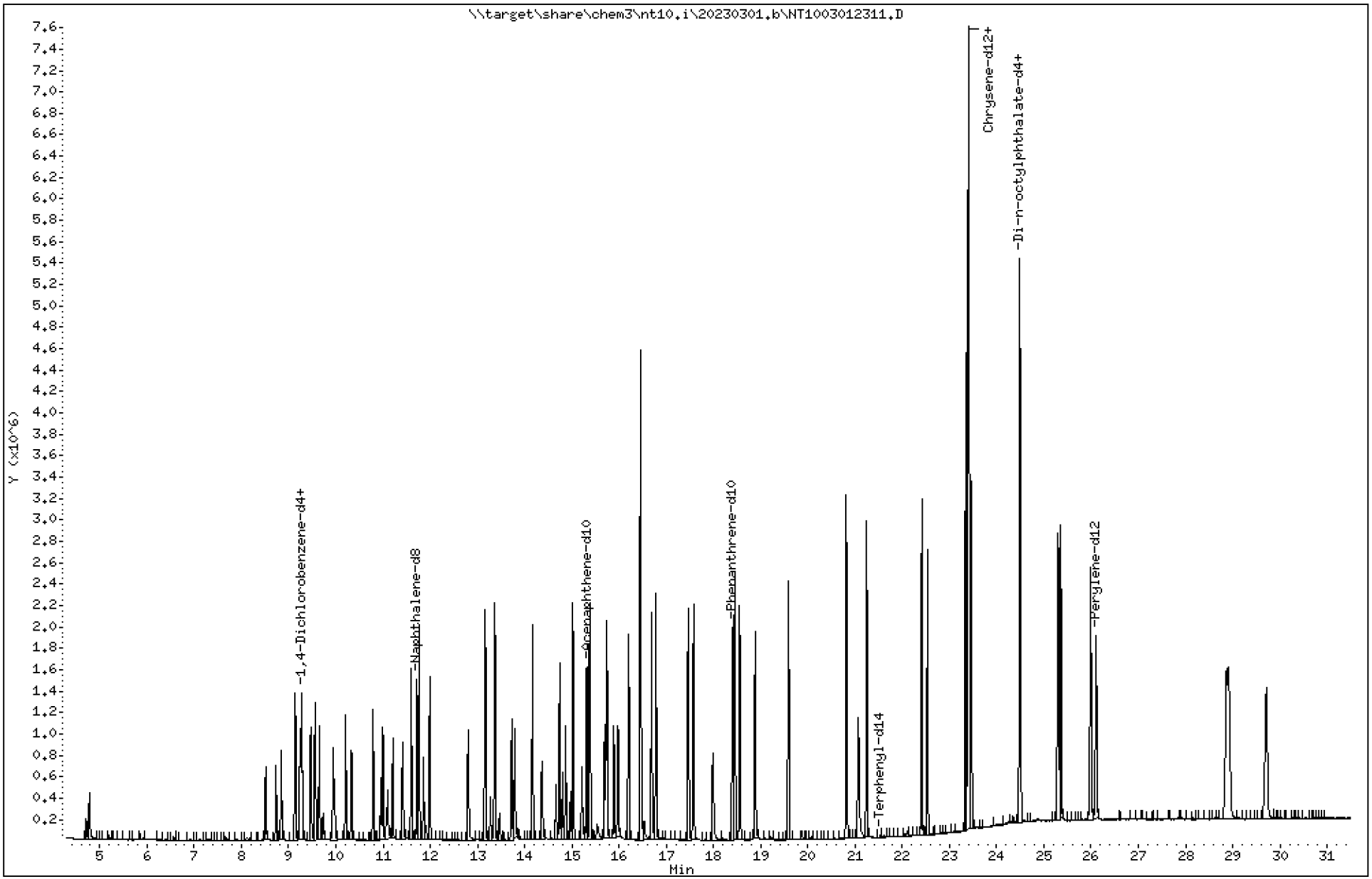
Instrument: nt10.i

Sample Info: SEQ-SCV1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

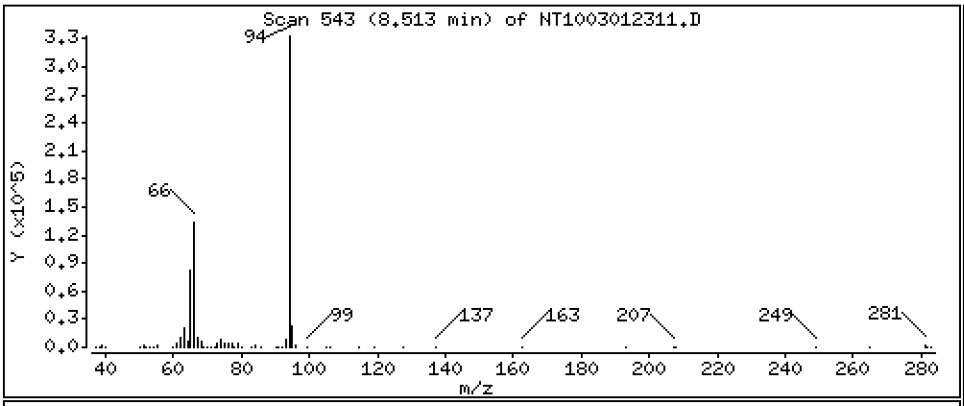
Operator: VTS

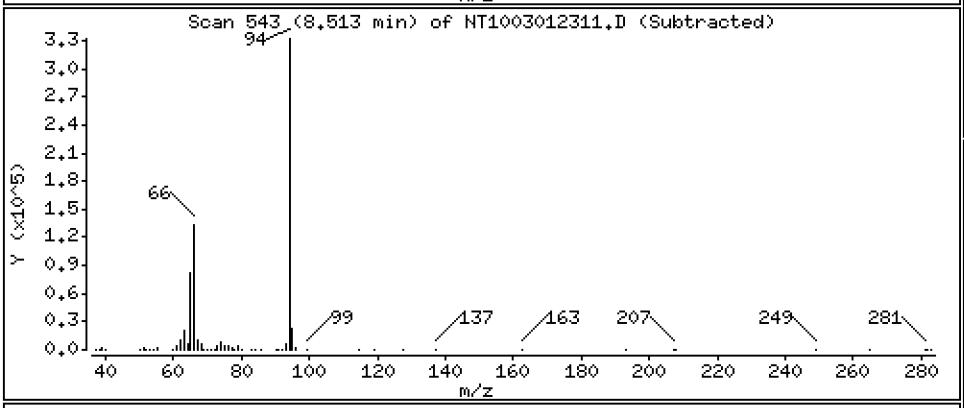
Column phase: ZB-5msi

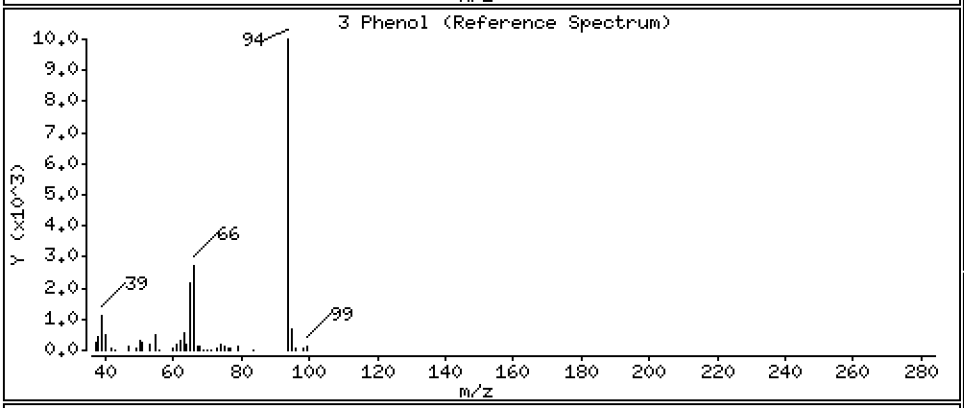
Column diameter: 0.25

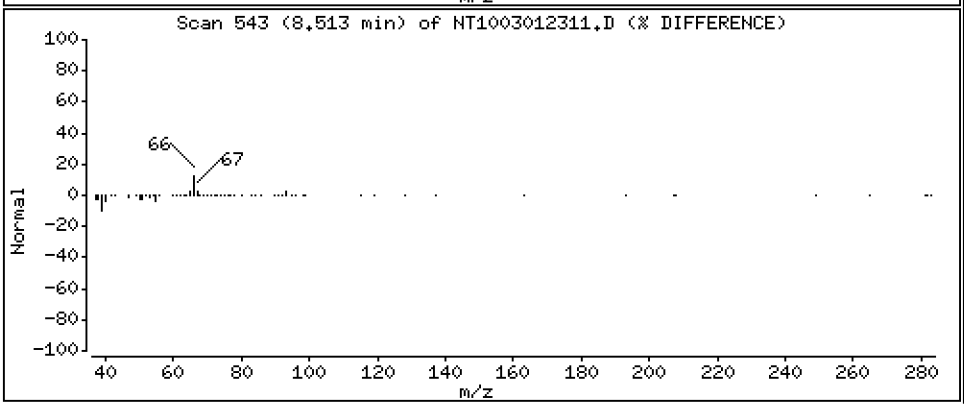
3 Phenol

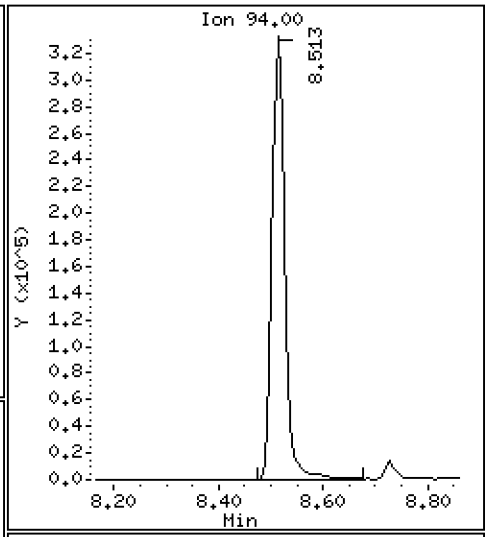
Concentration: 4.852 ug/mL

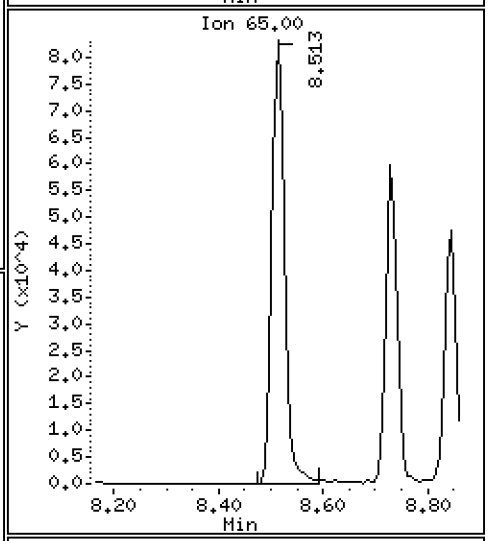


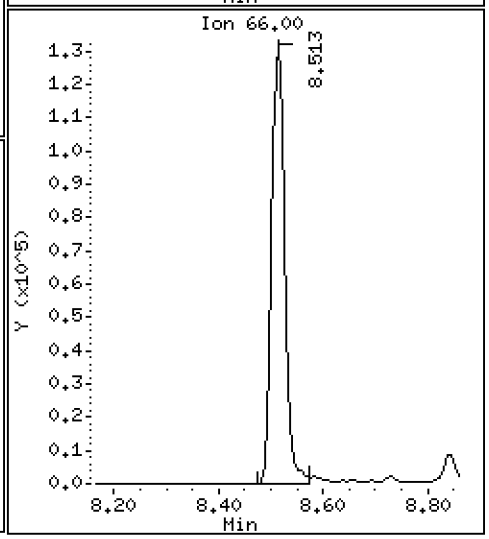












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

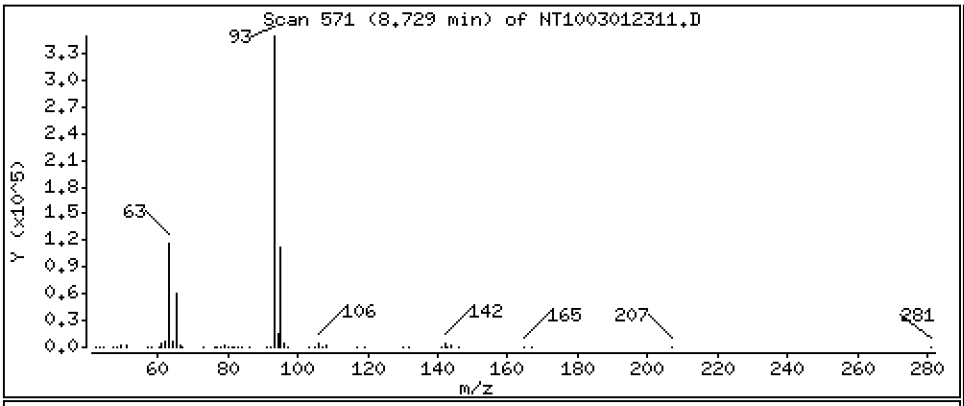
Operator: VTS

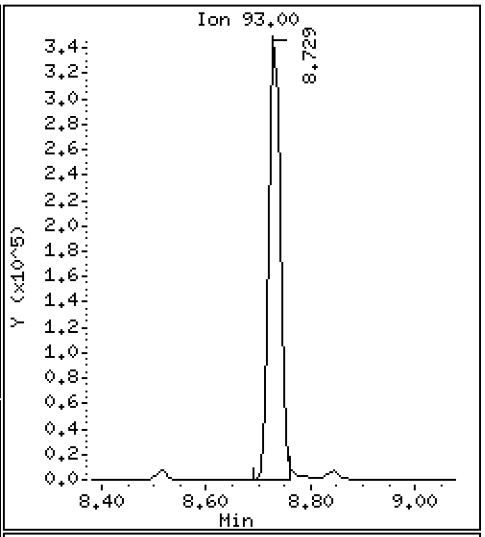
Column phase: ZB-5msi

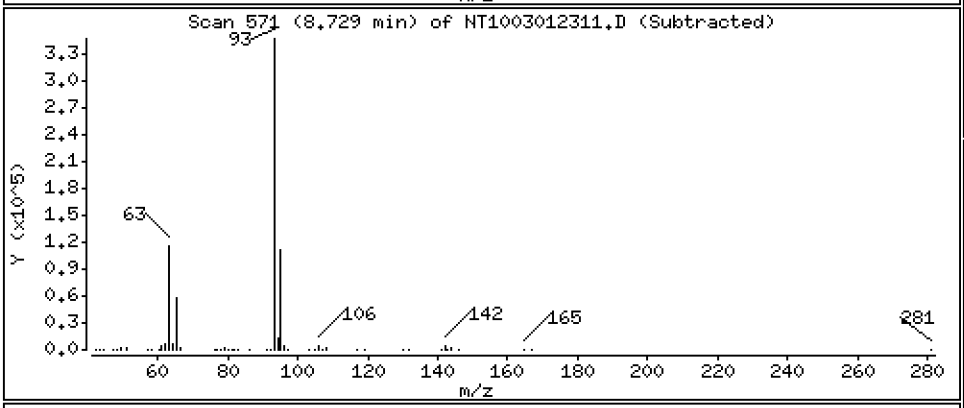
Column diameter: 0.25

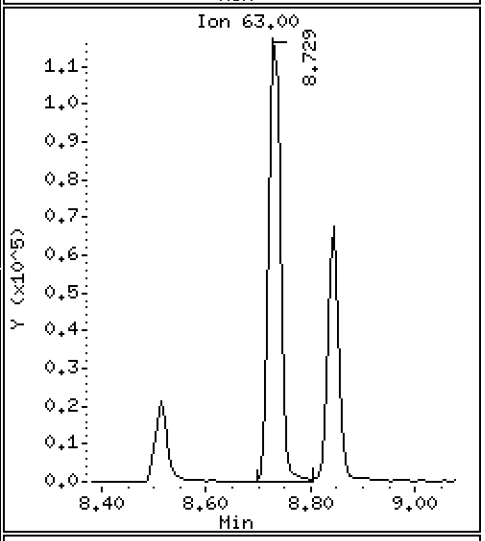
4 Bis(2-Chloroethyl)ether

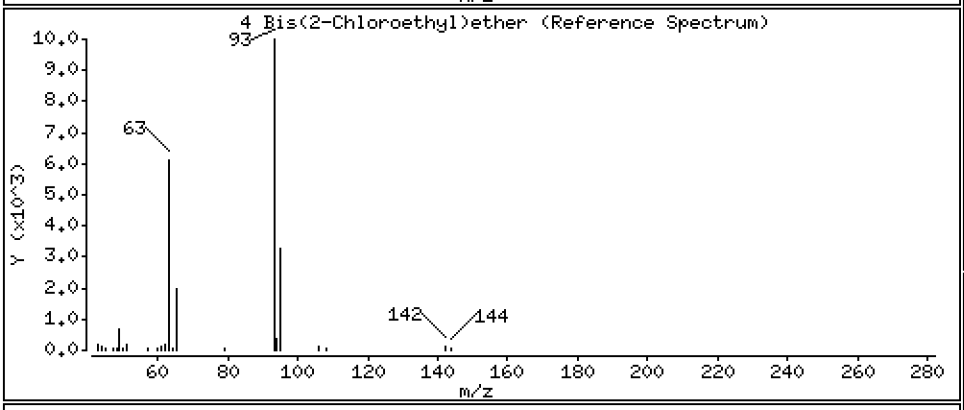
Concentration: 5.928 ug/mL

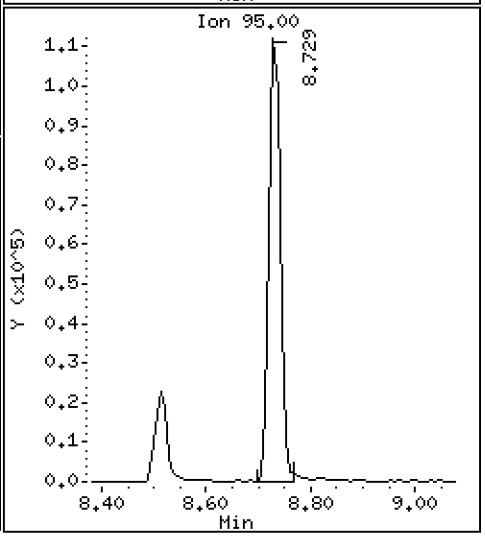


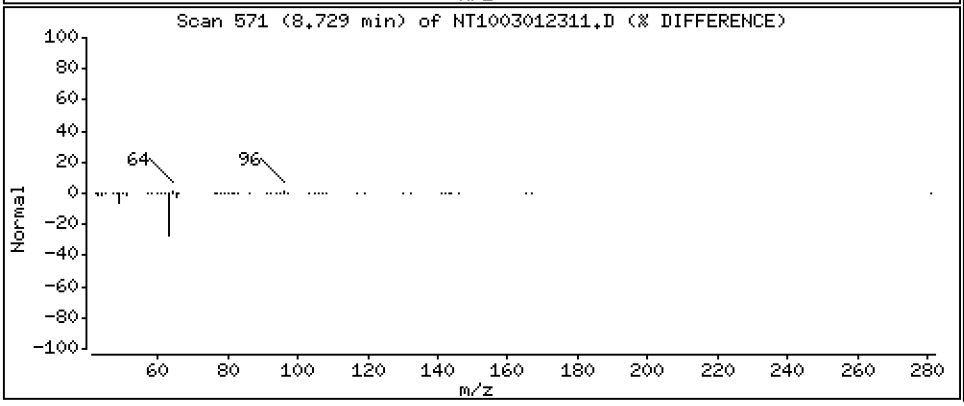












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

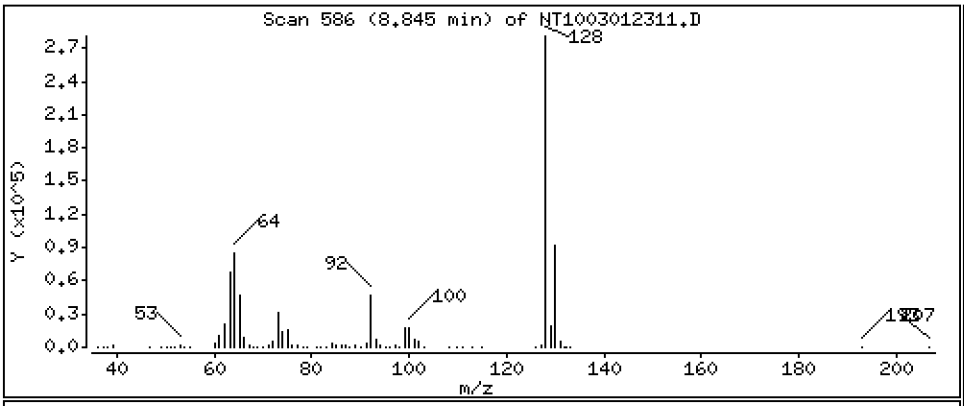
Operator: VTS

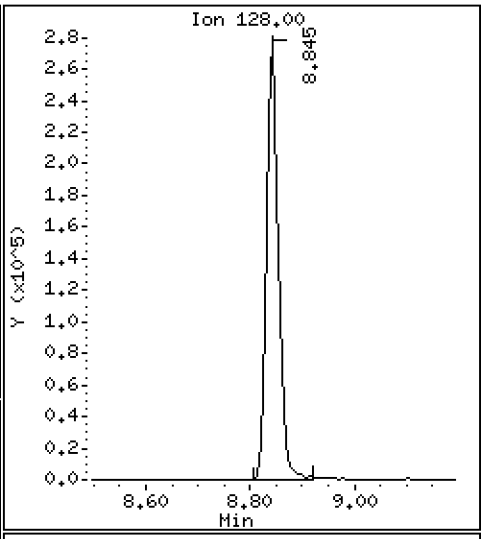
Column phase: ZB-5msi

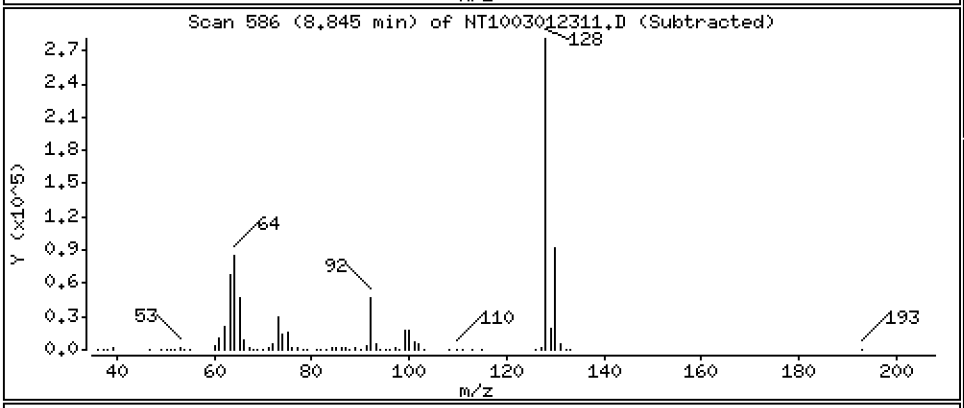
Column diameter: 0.25

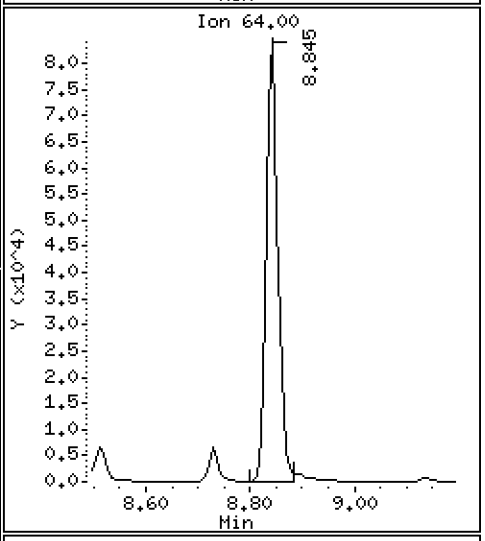
6 2-Chlorophenol

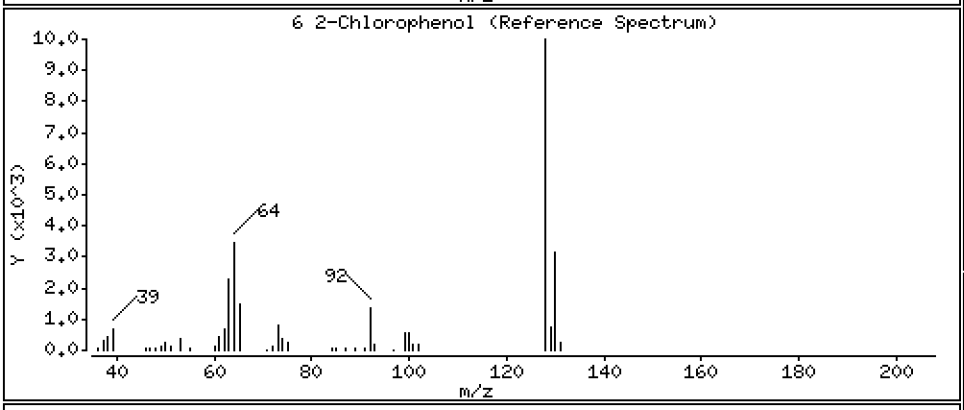
Concentration: 4.692 ug/mL

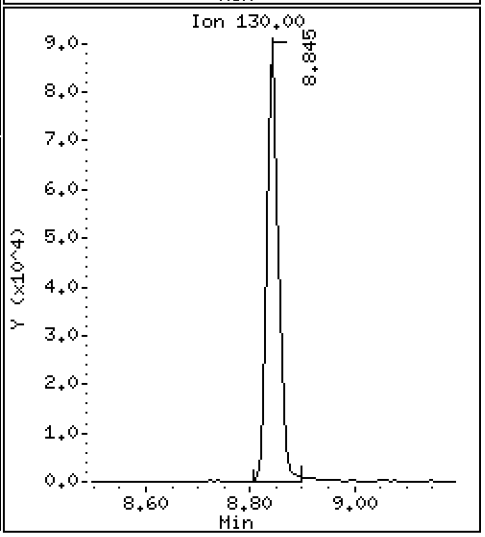


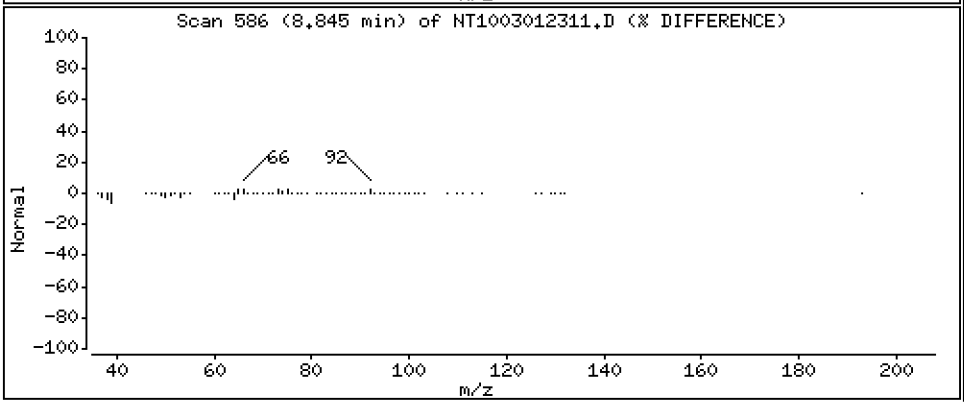












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

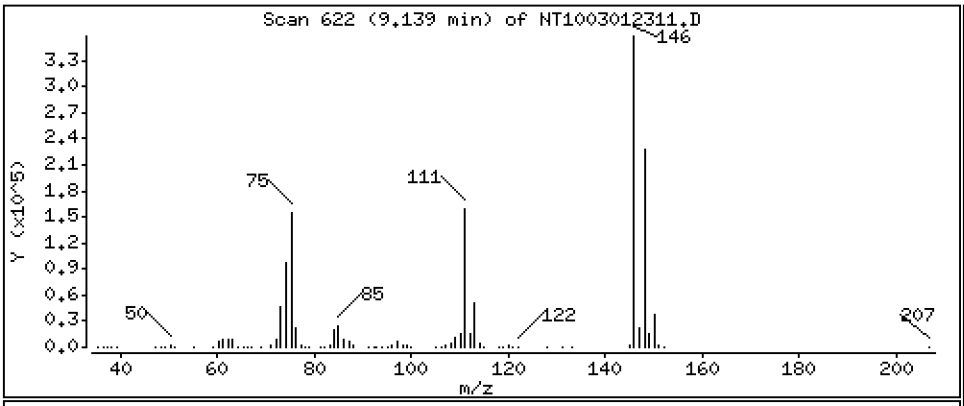
Operator: VTS

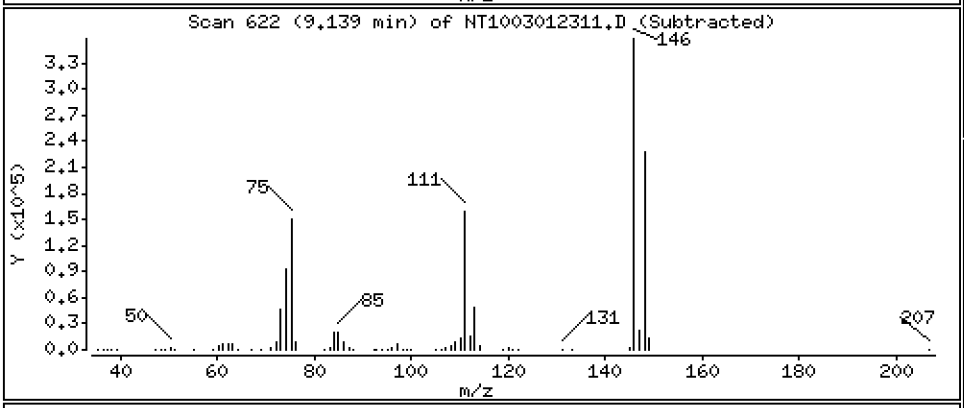
Column phase: ZB-5msi

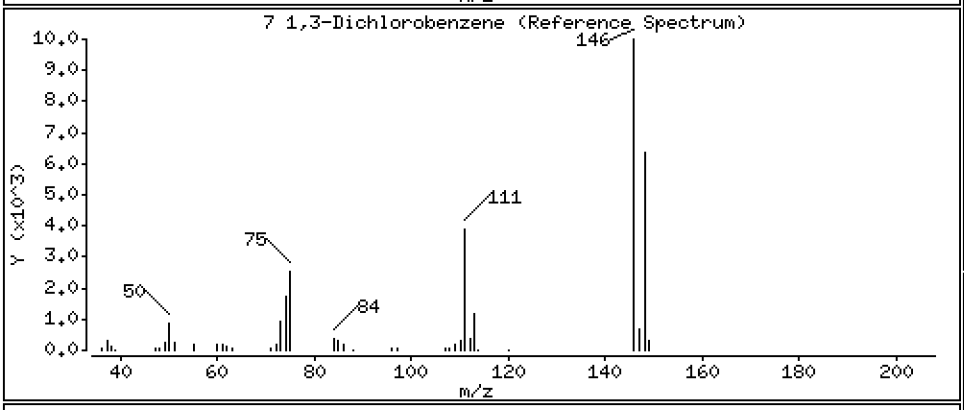
Column diameter: 0.25

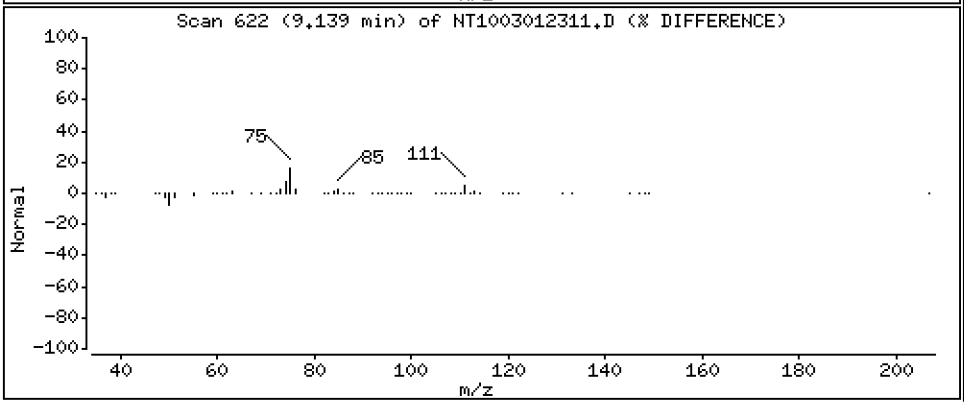
7 1,3-Dichlorobenzene

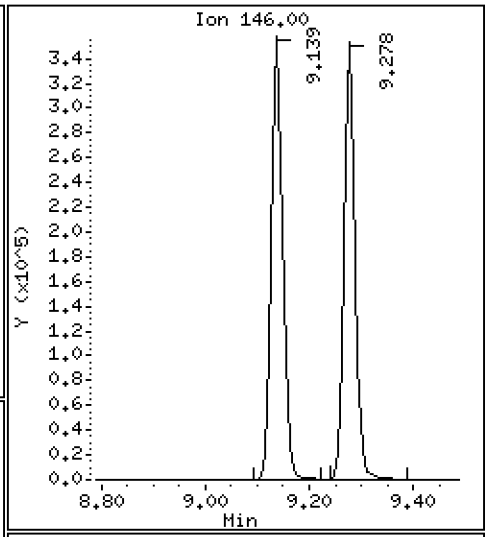
Concentration: 5.266 ug/mL

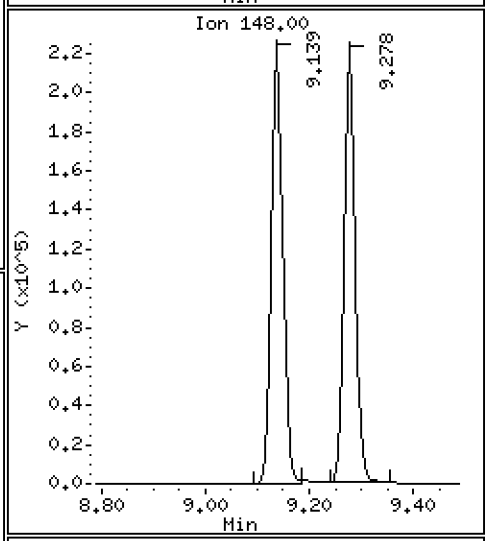


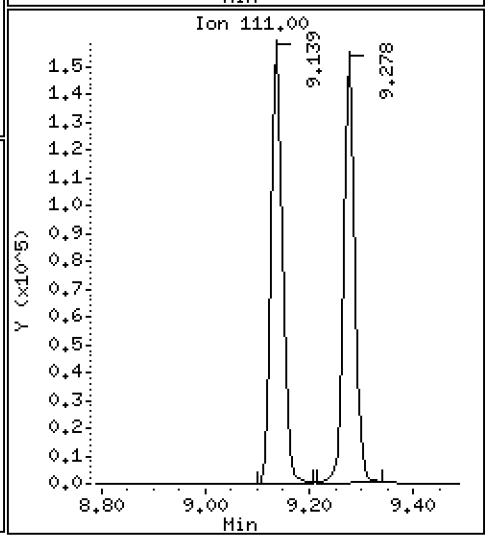












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

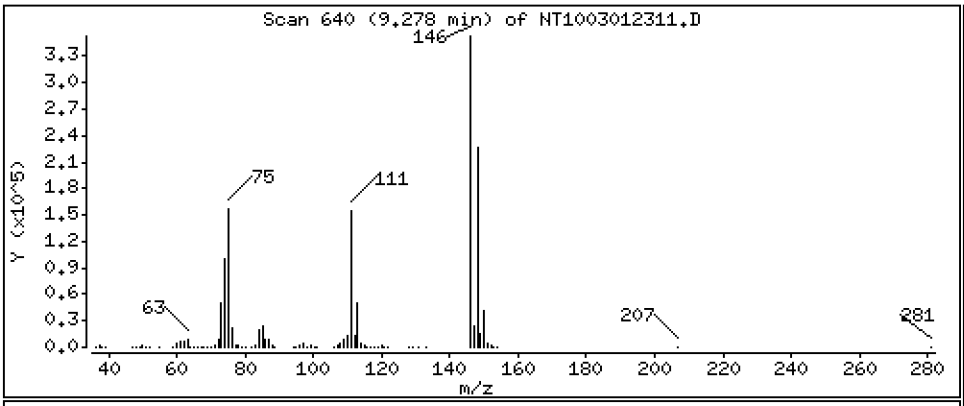
Operator: VTS

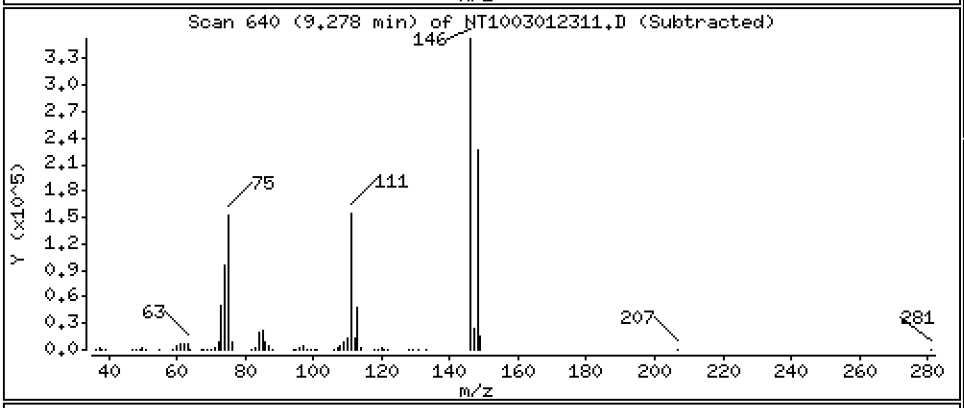
Column phase: ZB-5msi

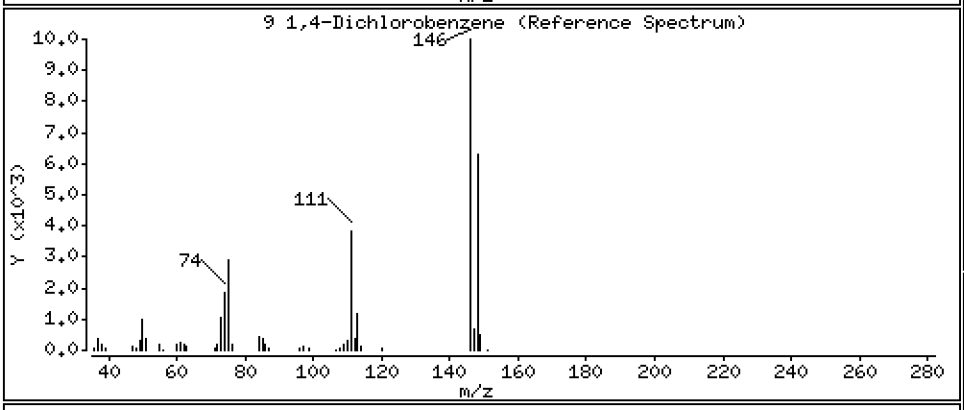
Column diameter: 0.25

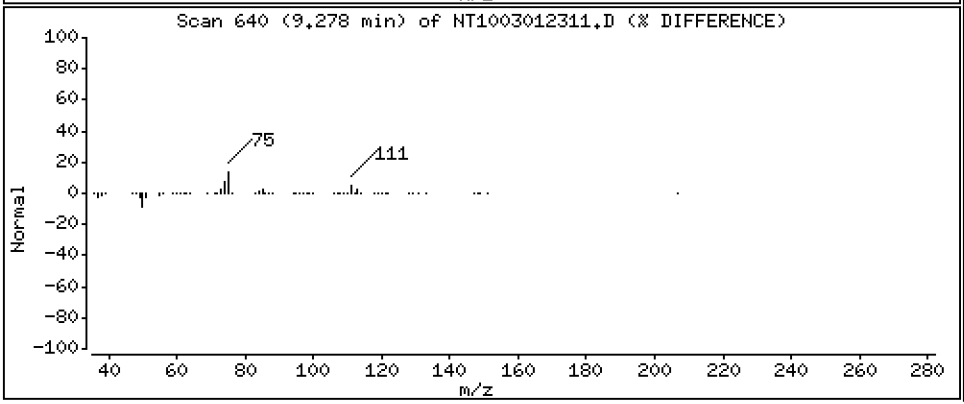
9 1,4-Dichlorobenzene

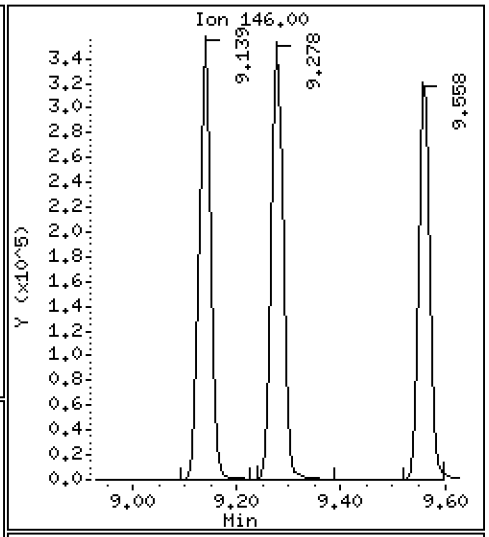
Concentration: 5.216 ug/mL

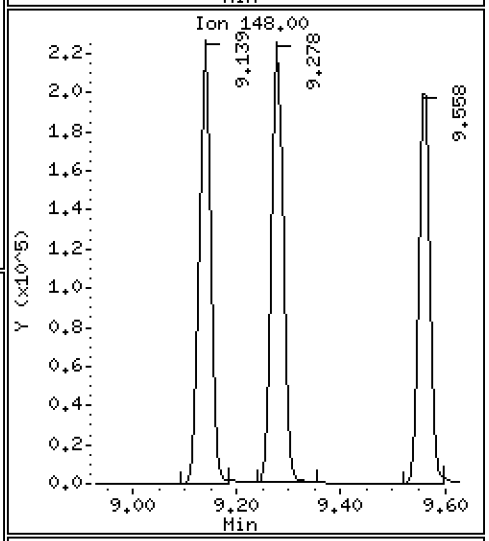


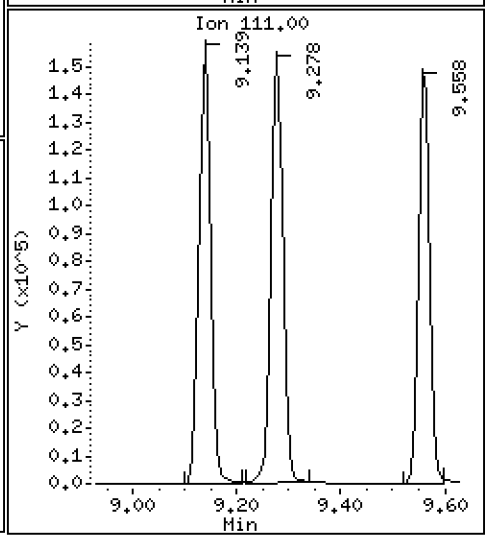












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

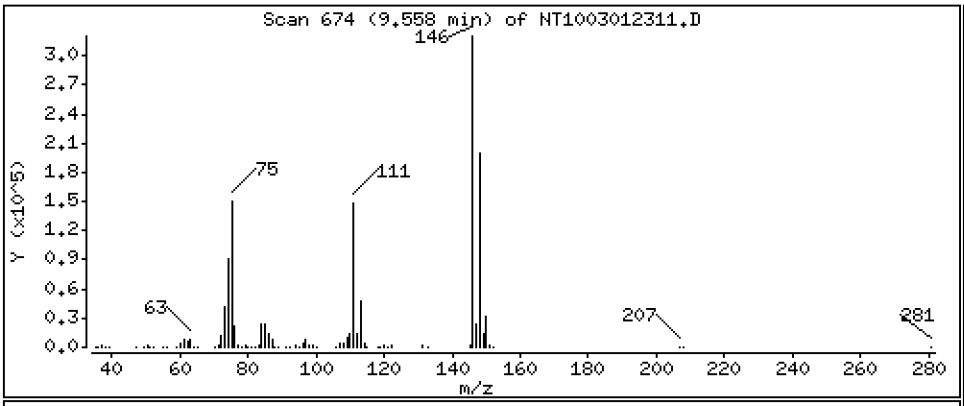
Operator: VTS

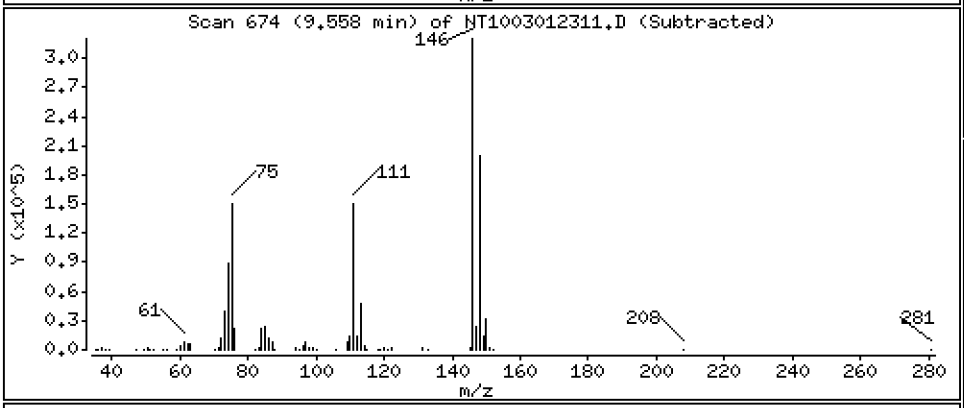
Column phase: ZB-5msi

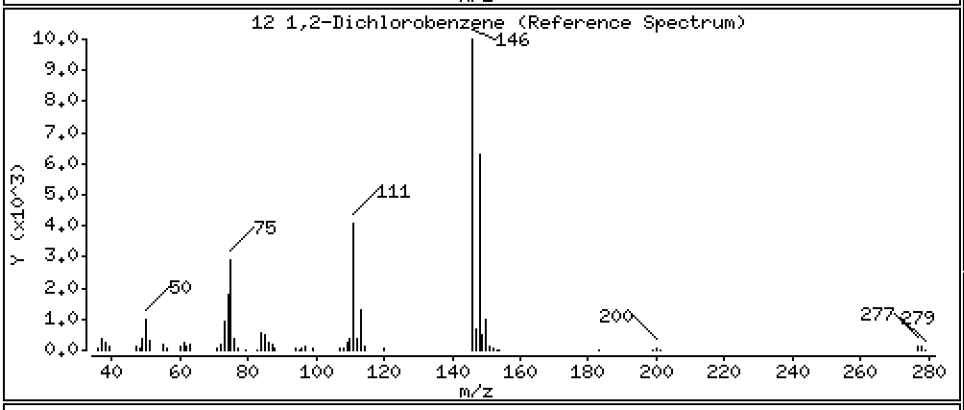
Column diameter: 0.25

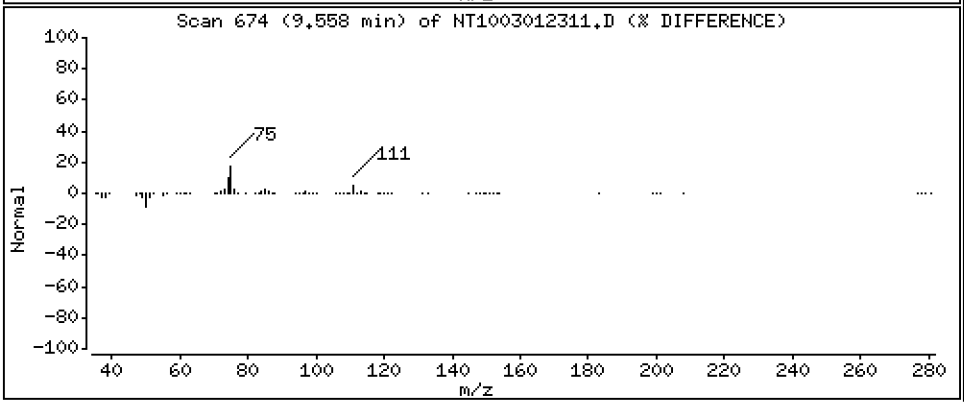
12 1,2-Dichlorobenzene

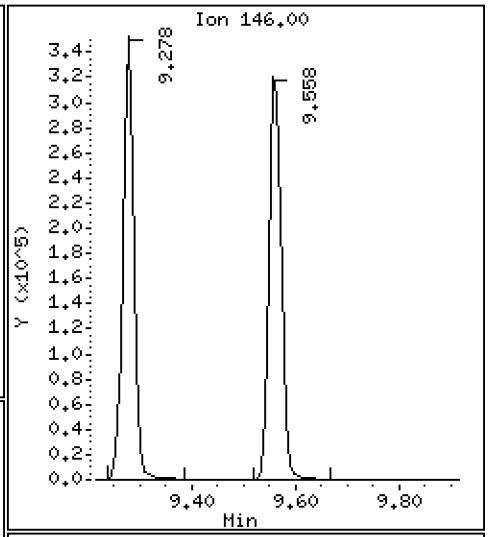
Concentration: 5.194 ug/mL

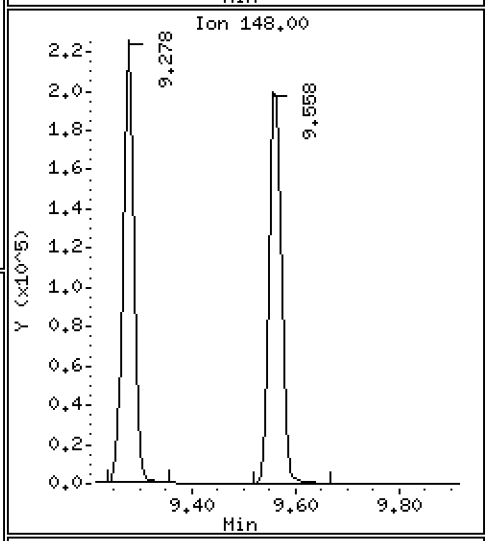


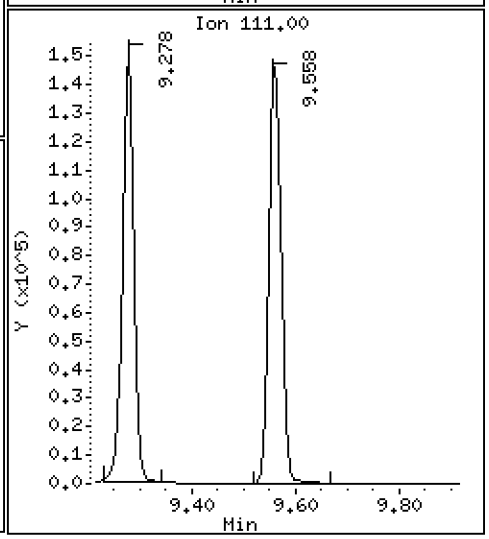












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

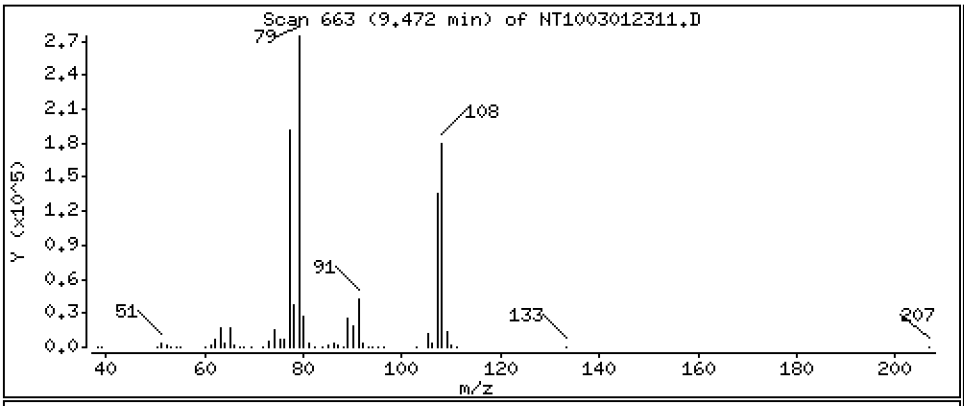
Operator: VTS

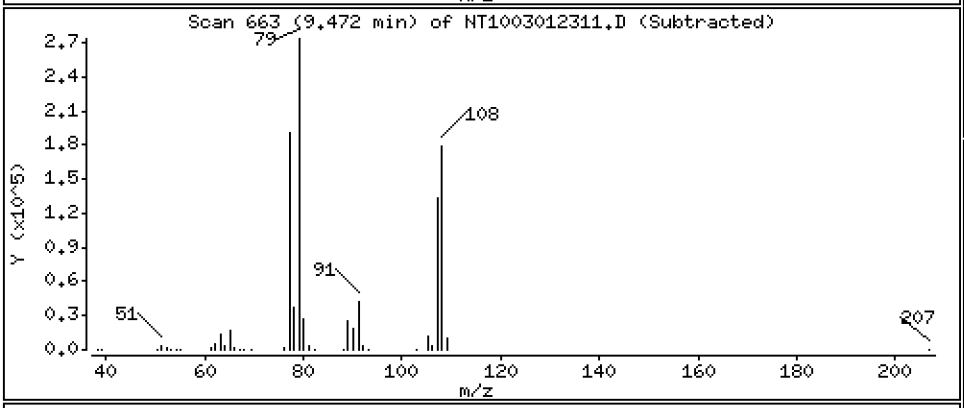
Column phase: ZB-5msi

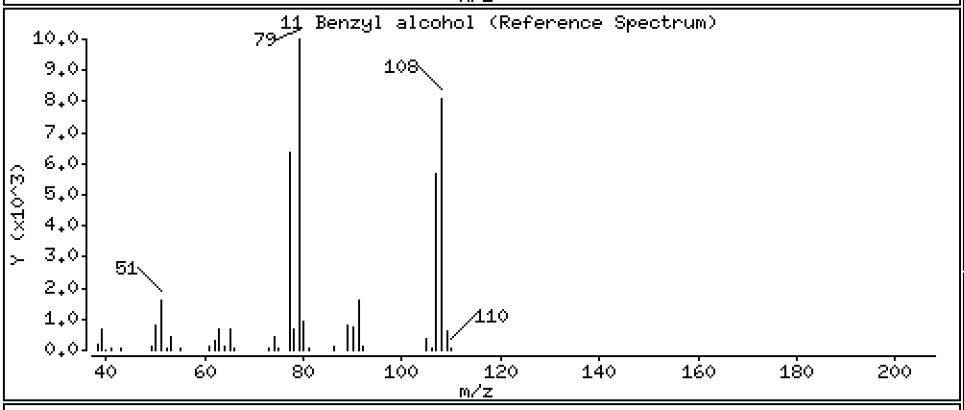
Column diameter: 0.25

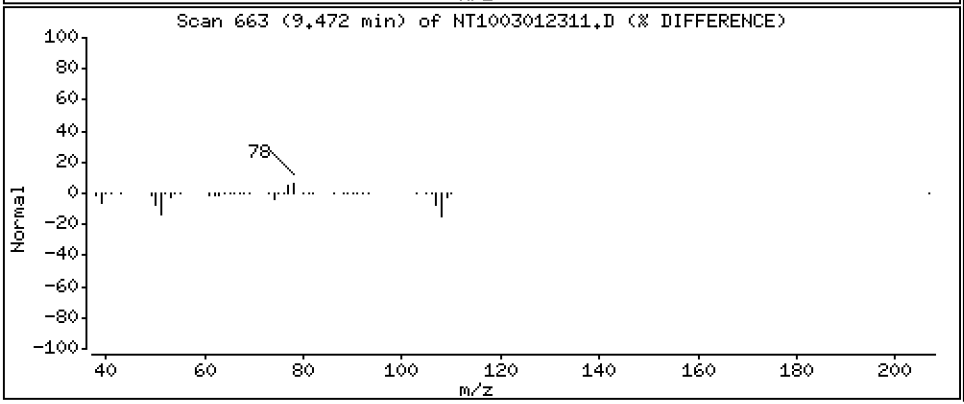
11 Benzyl alcohol

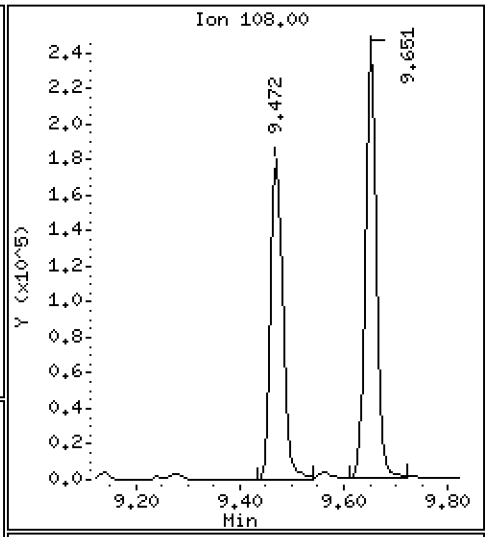
Concentration: 4.898 ug/mL

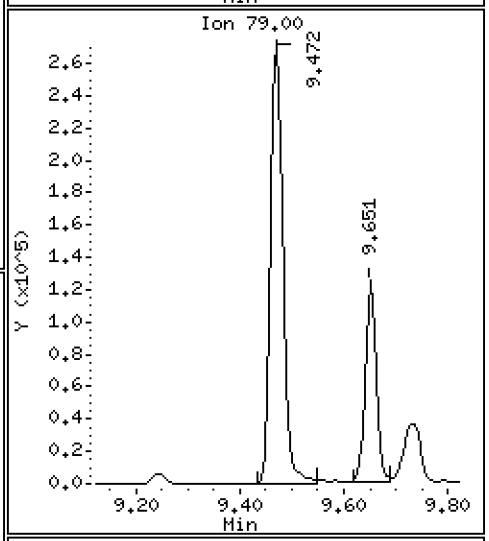


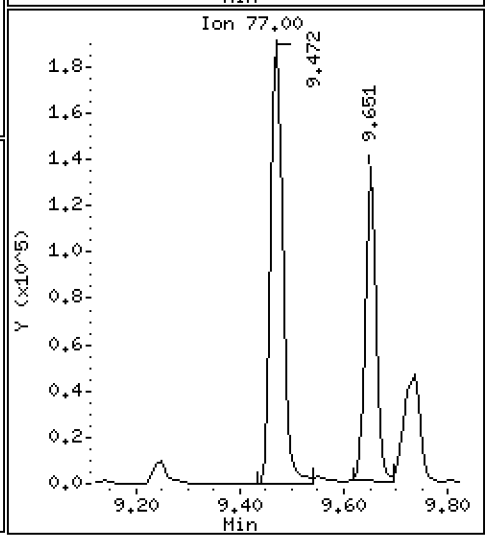












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

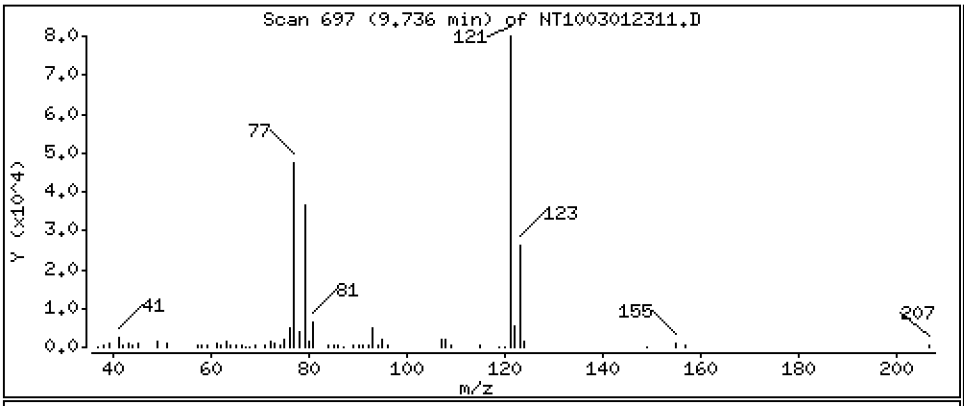
Operator: VTS

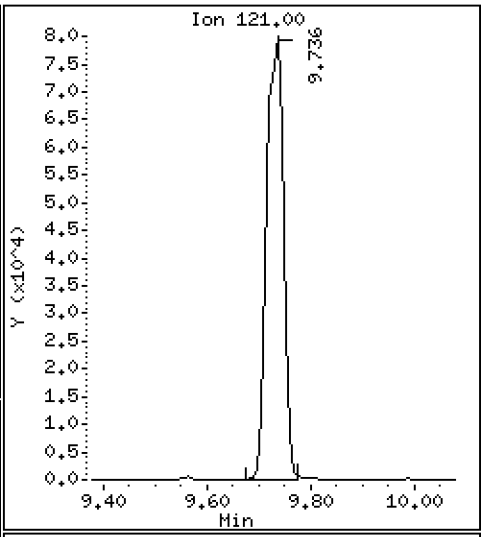
Column phase: ZB-5msi

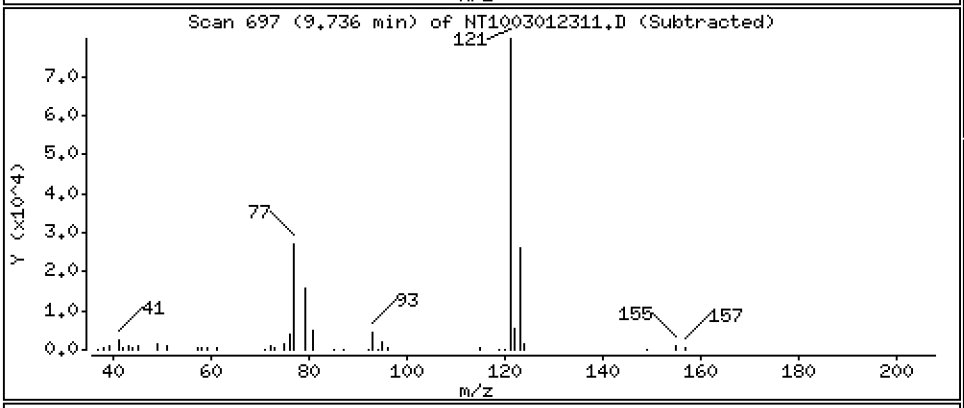
Column diameter: 0.25

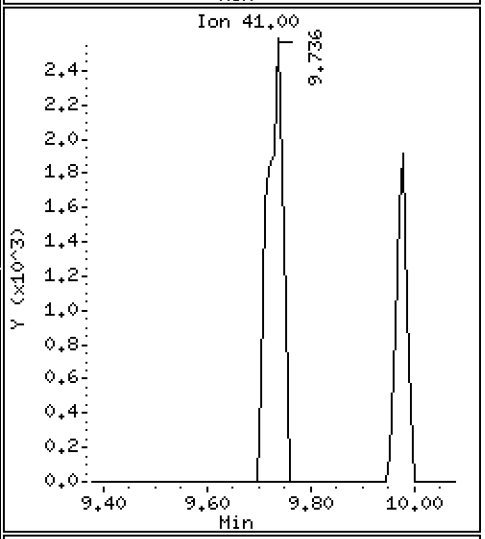
14 2,2'-oxybis(1-Chloropropane)

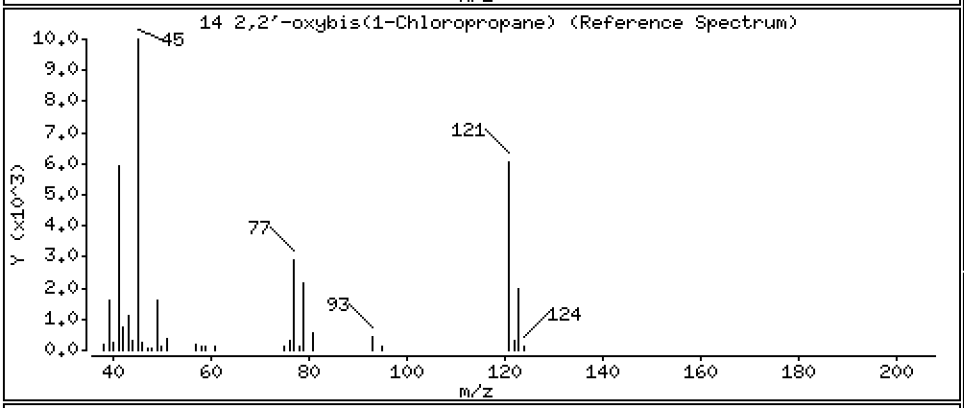
Concentration: 6.232 ug/mL

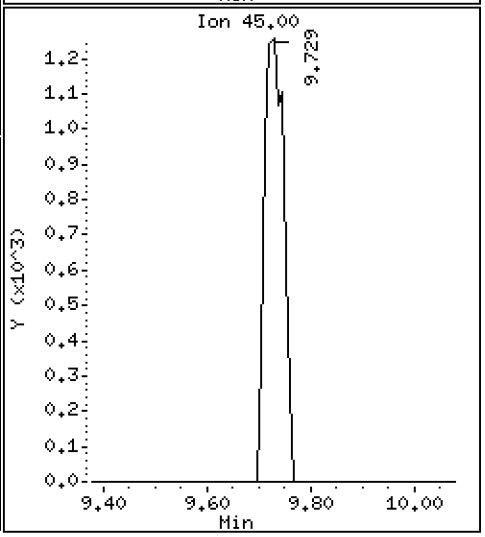


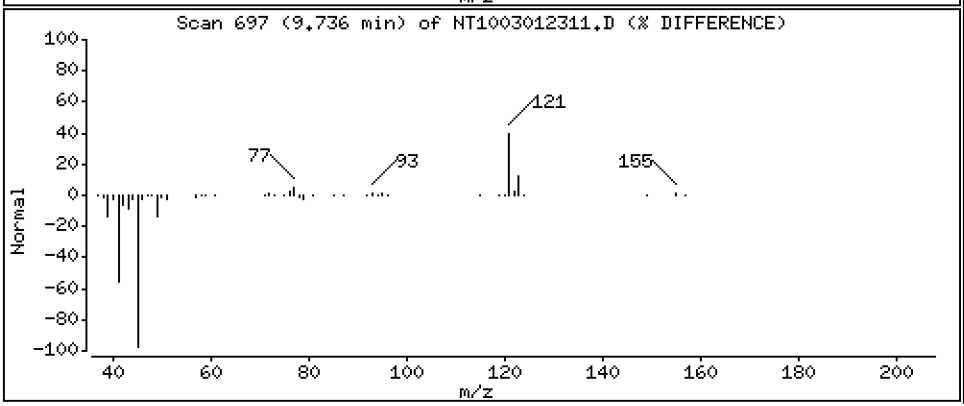












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

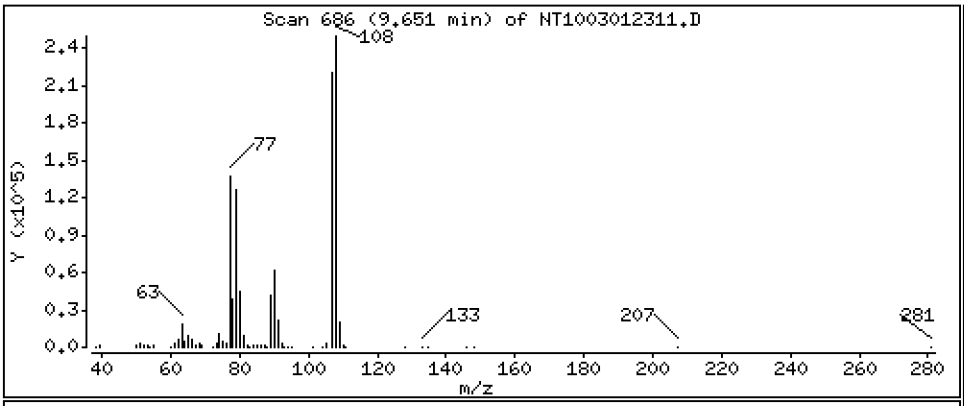
Operator: VTS

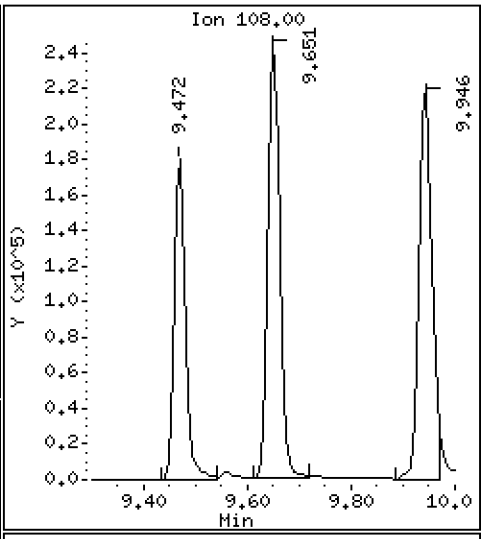
Column phase: ZB-5msi

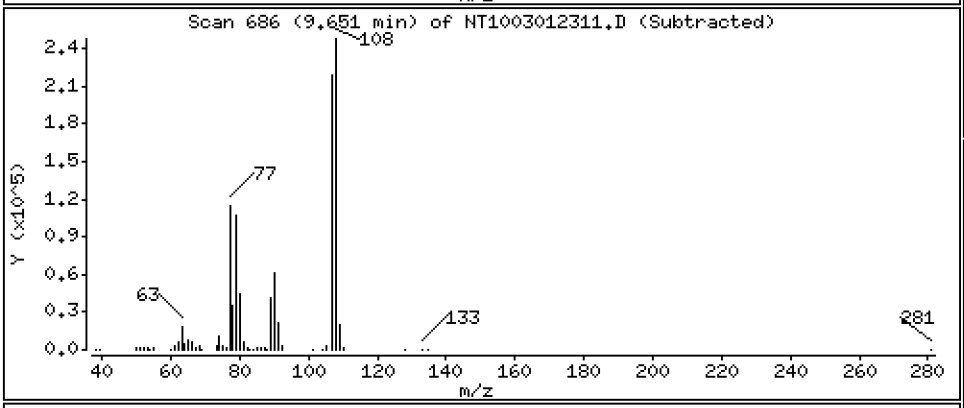
Column diameter: 0.25

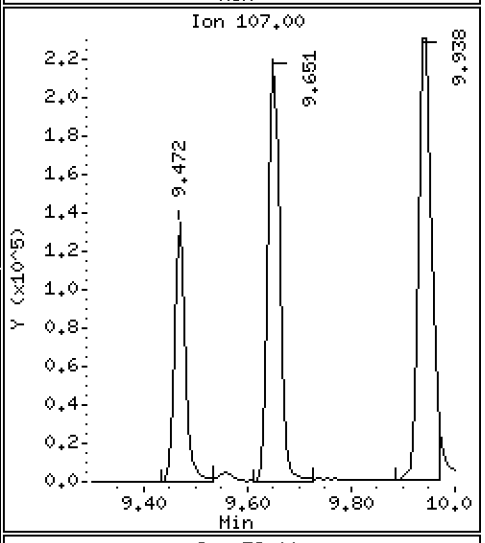
13 2-Methylphenol

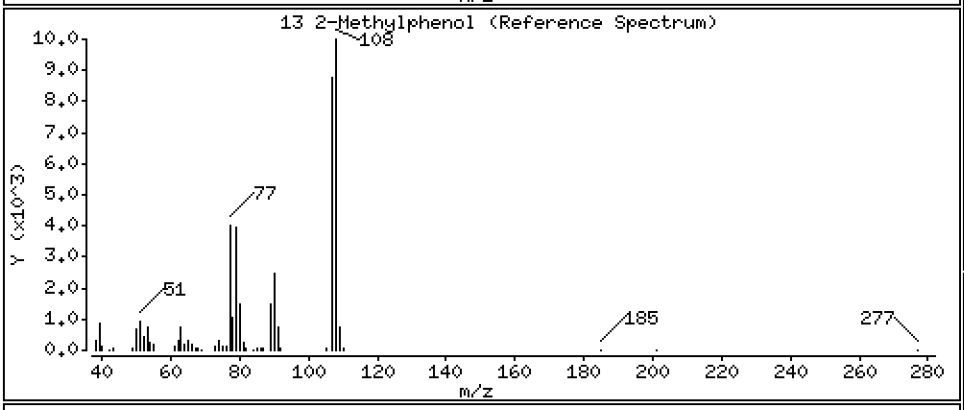
Concentration: 4.192 ug/mL

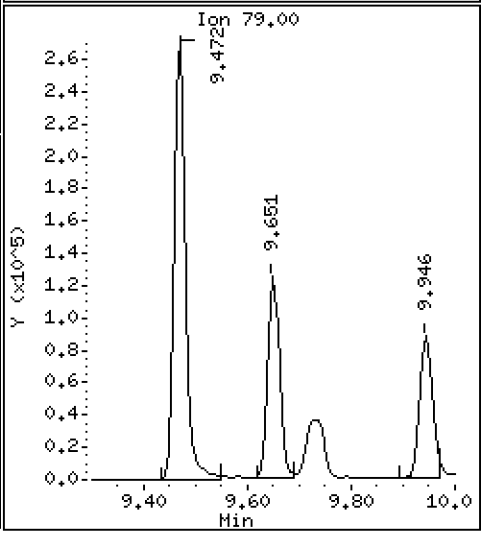


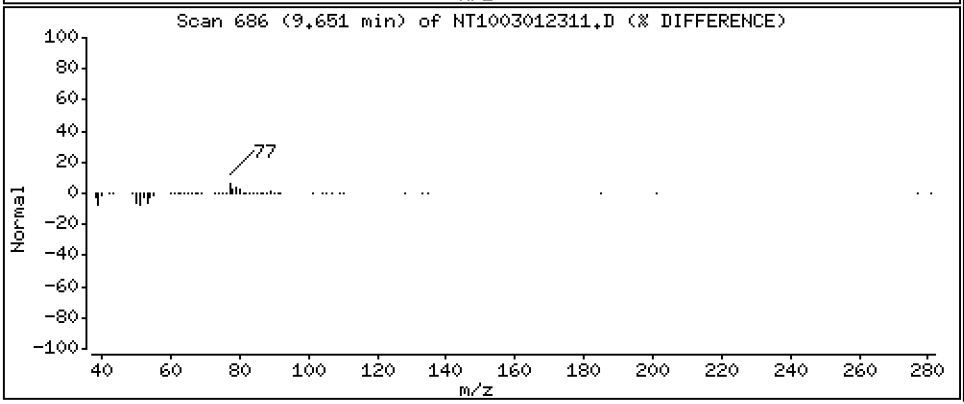












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

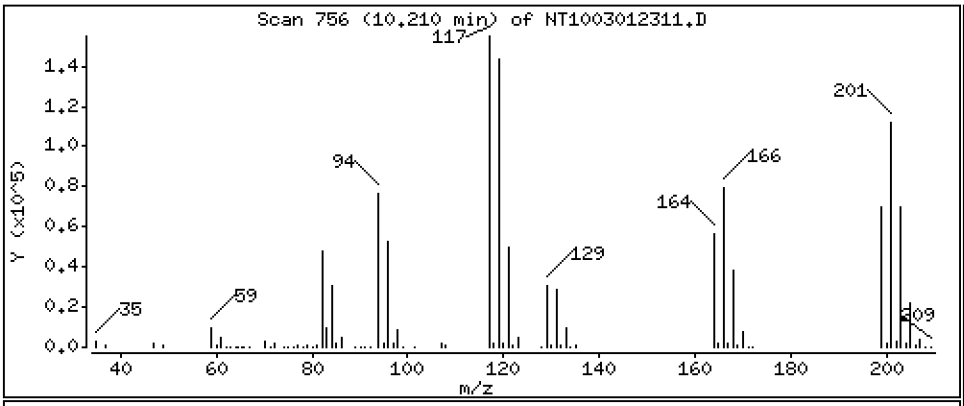
Operator: VTS

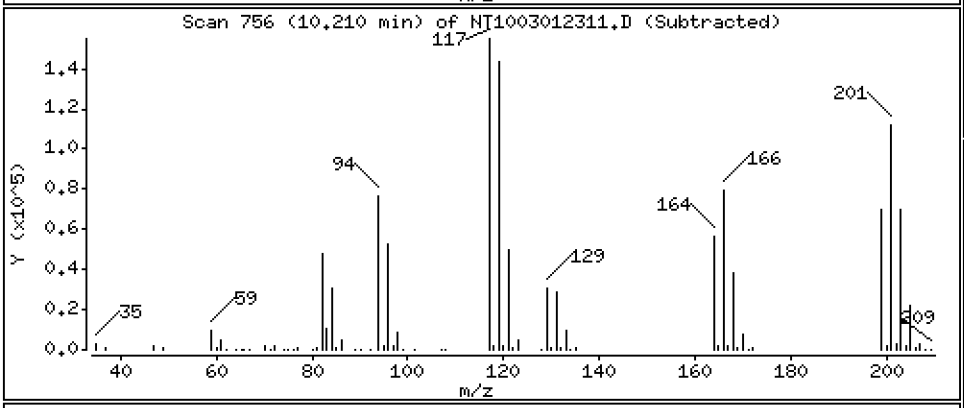
Column phase: ZB-5msi

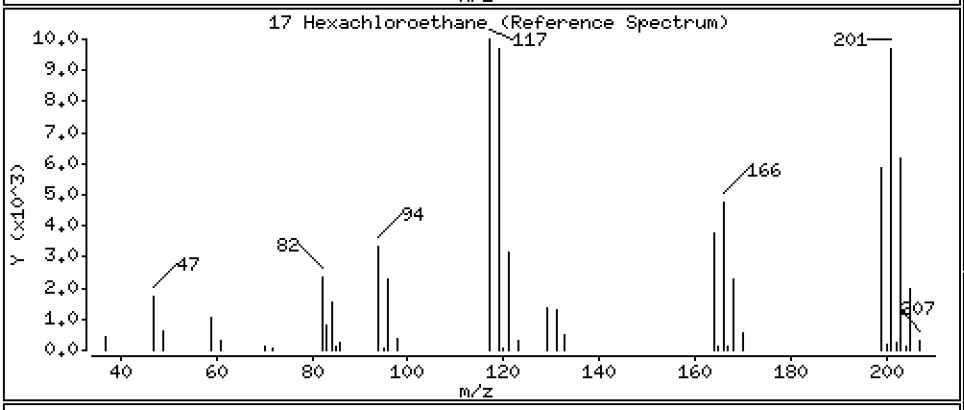
Column diameter: 0.25

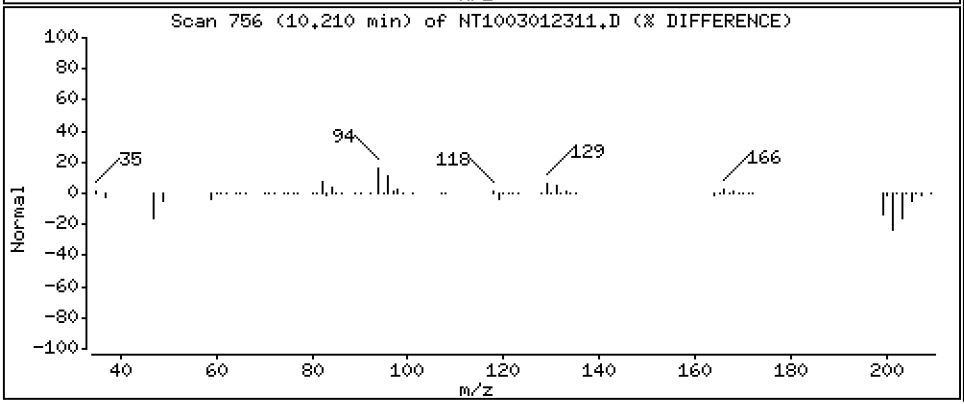
17 Hexachloroethane

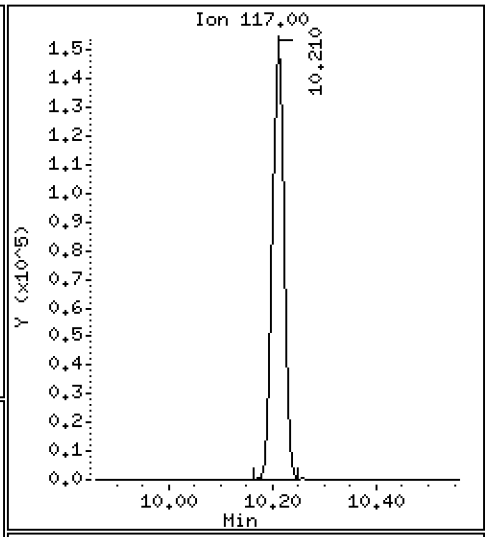
Concentration: 5.443 ug/mL

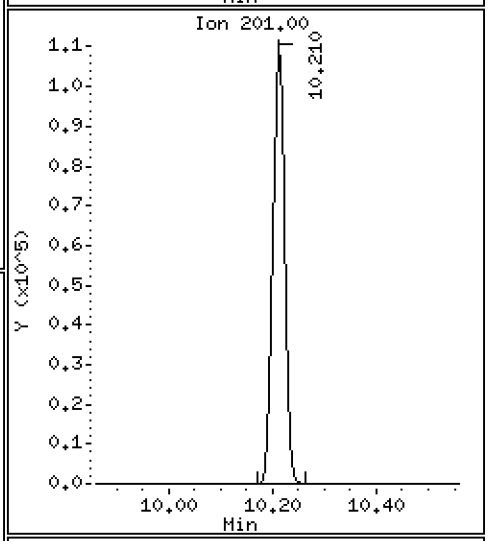


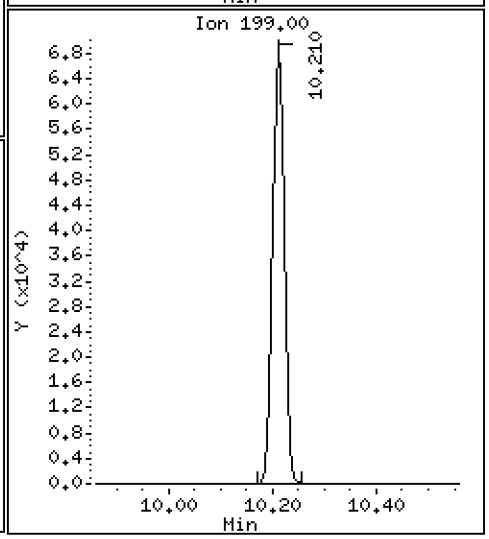












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

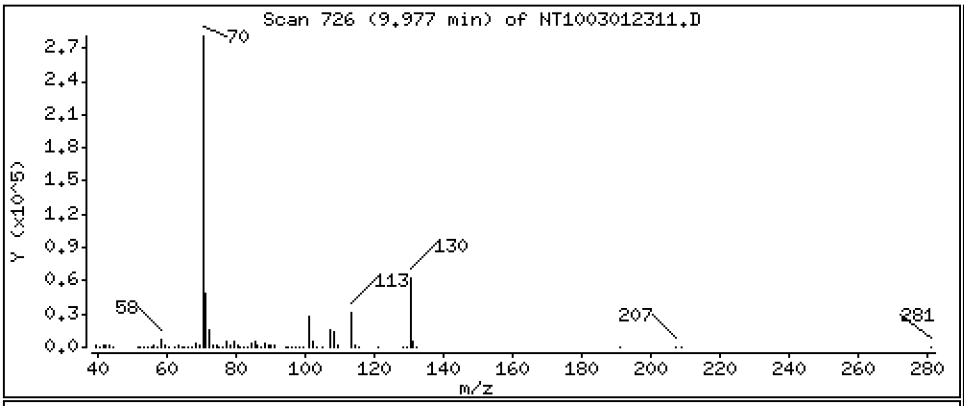
Operator: VTS

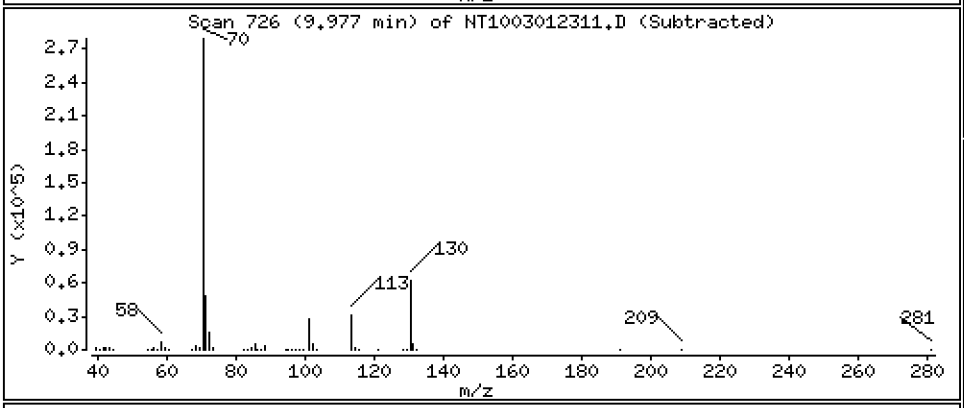
Column phase: ZB-5msi

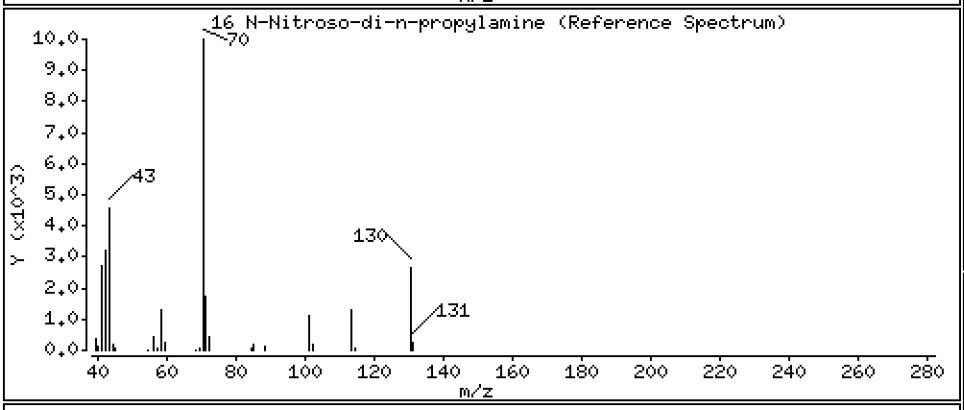
Column diameter: 0.25

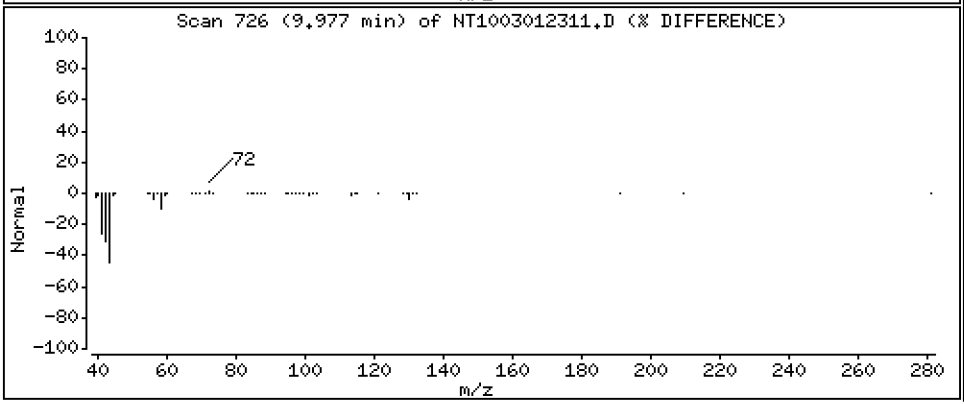
16 N-Nitroso-di-n-propylamine

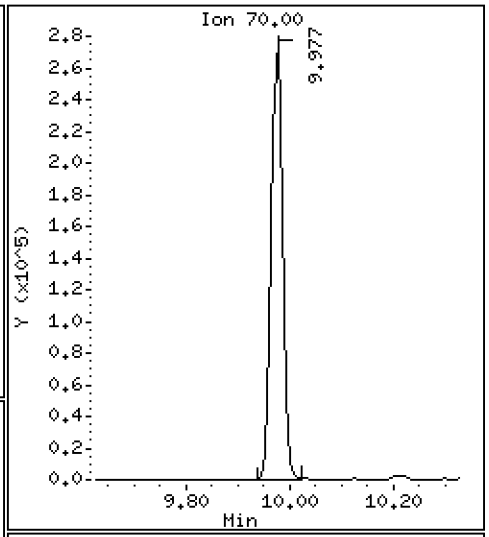
Concentration: 5.905 ug/mL

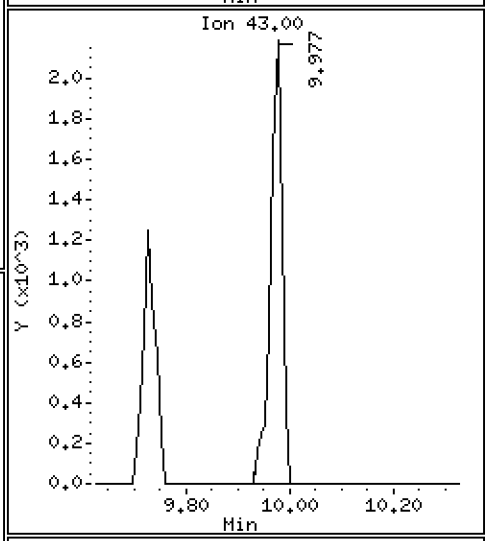


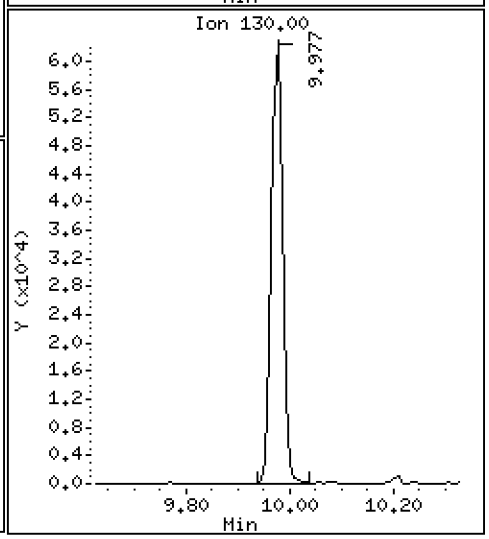












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

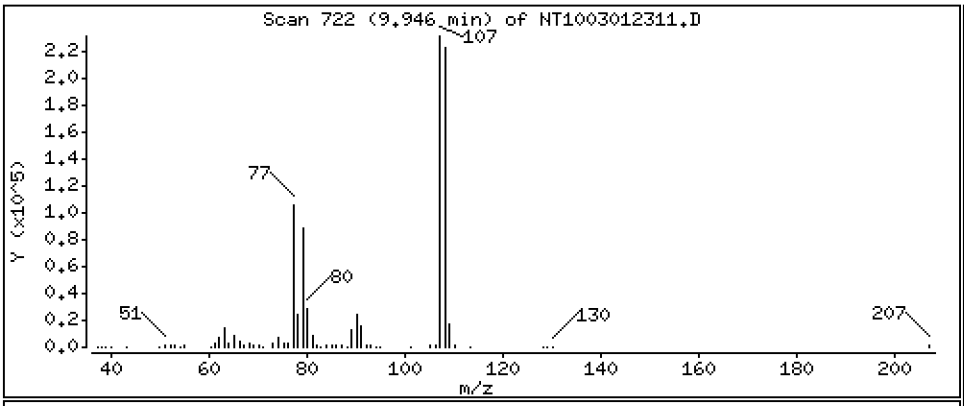
Operator: VTS

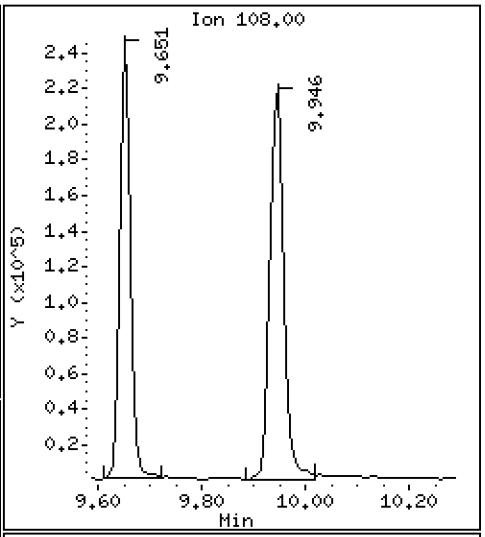
Column phase: ZB-5msi

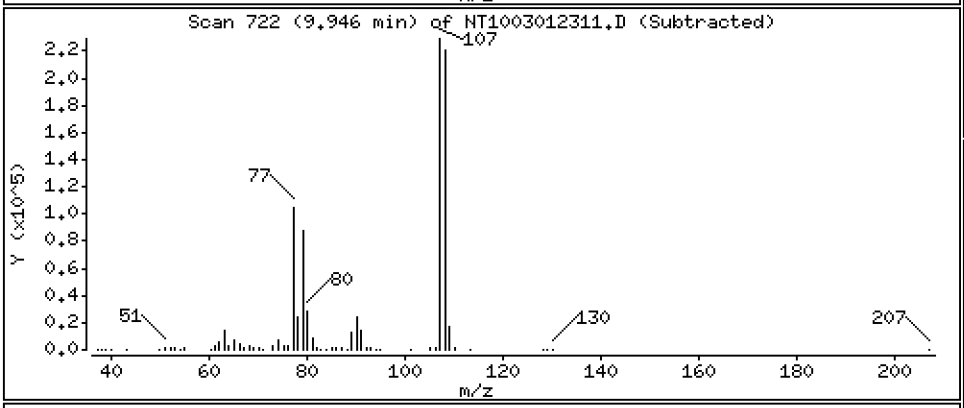
Column diameter: 0.25

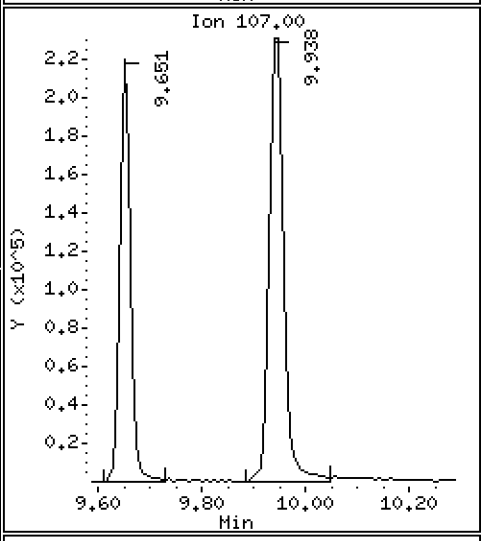
15 4-Methylphenol

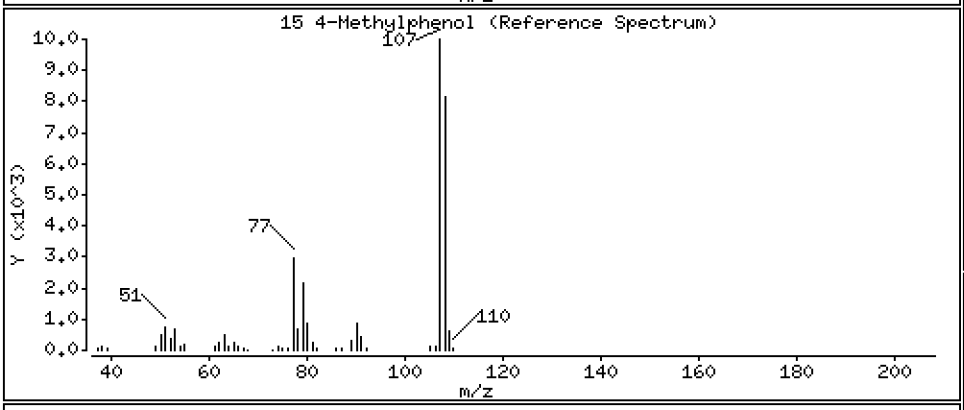
Concentration: 4.239 ug/mL

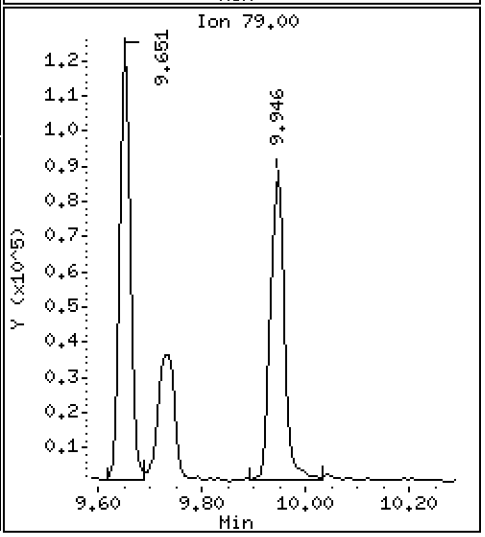


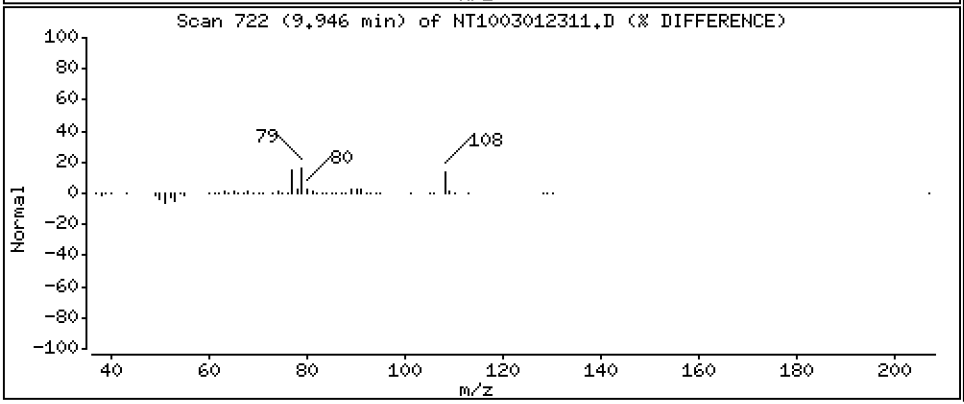












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

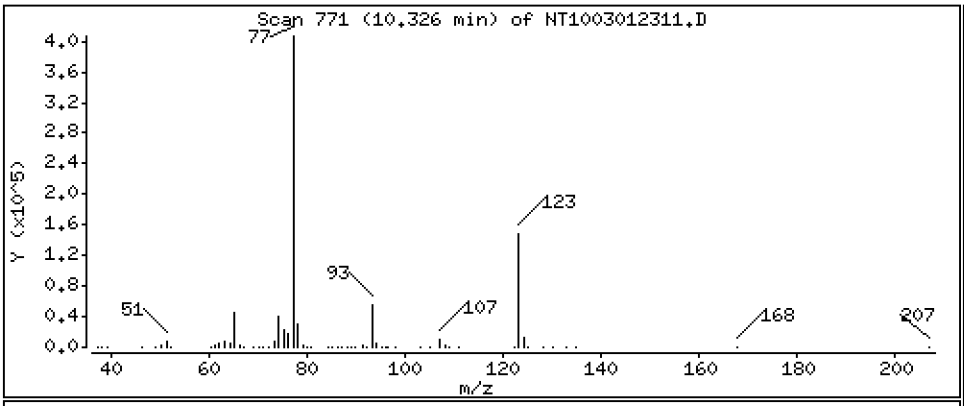
Operator: VTS

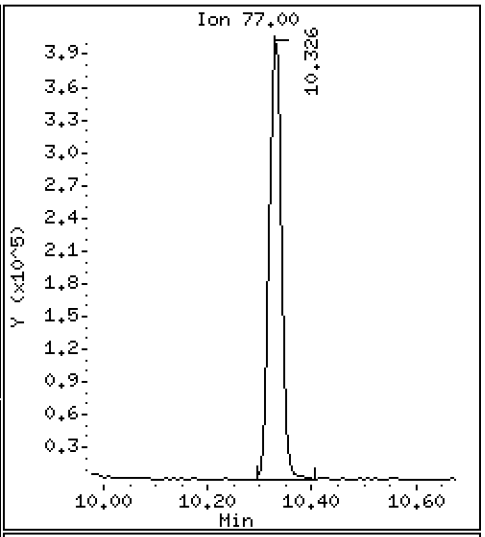
Column phase: ZB-5msi

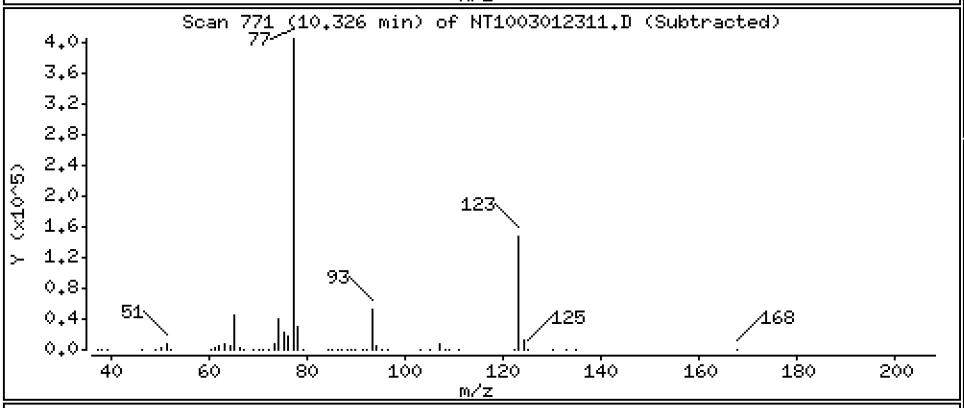
Column diameter: 0.25

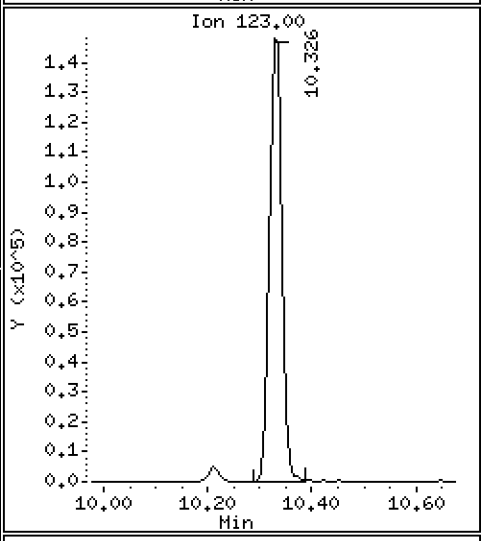
19 Nitrobenzene

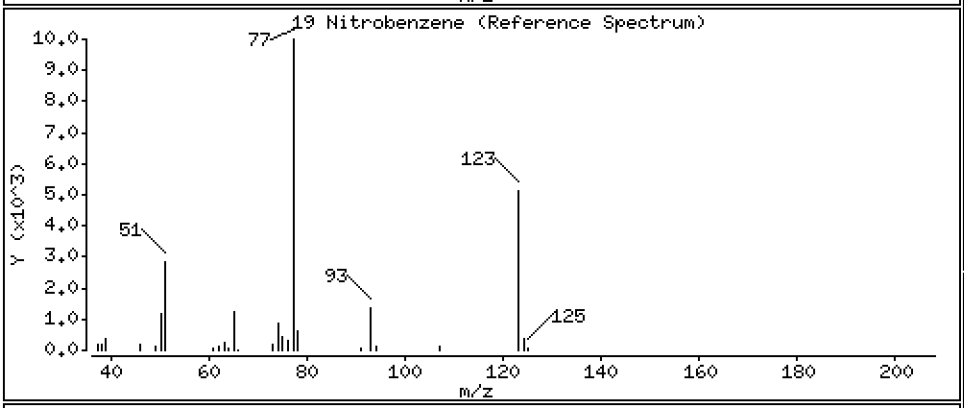
Concentration: 5.569 ug/mL

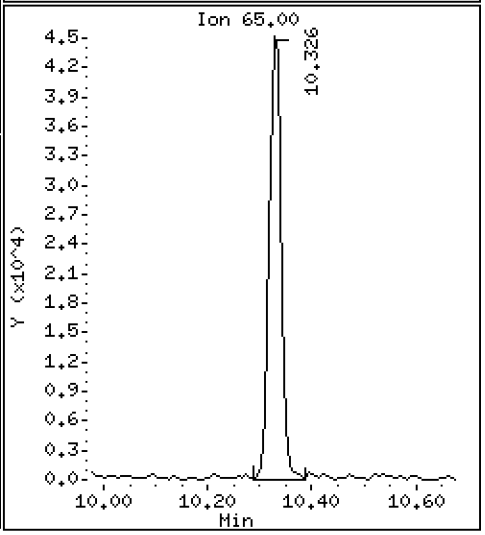


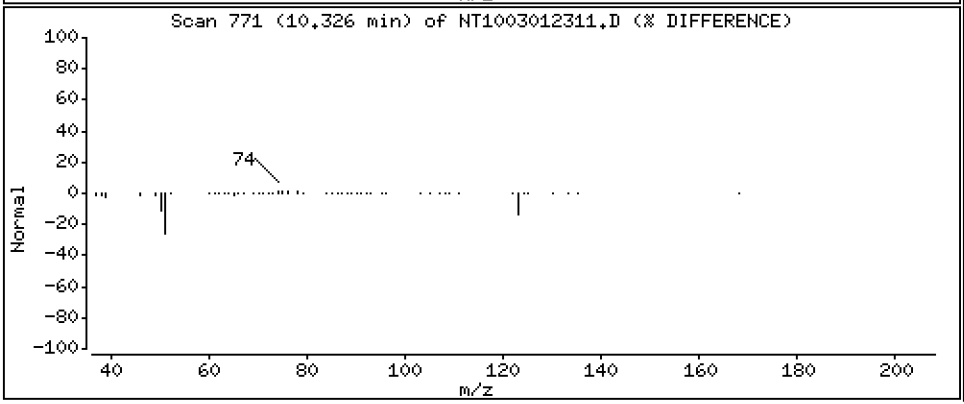












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

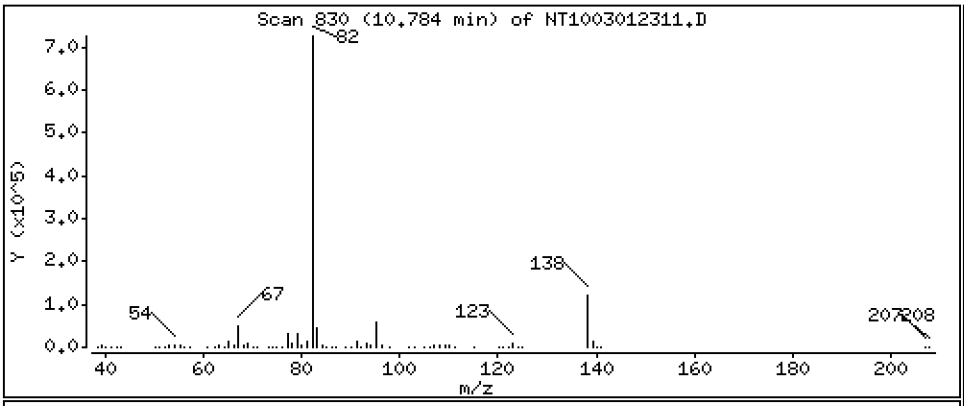
Operator: VTS

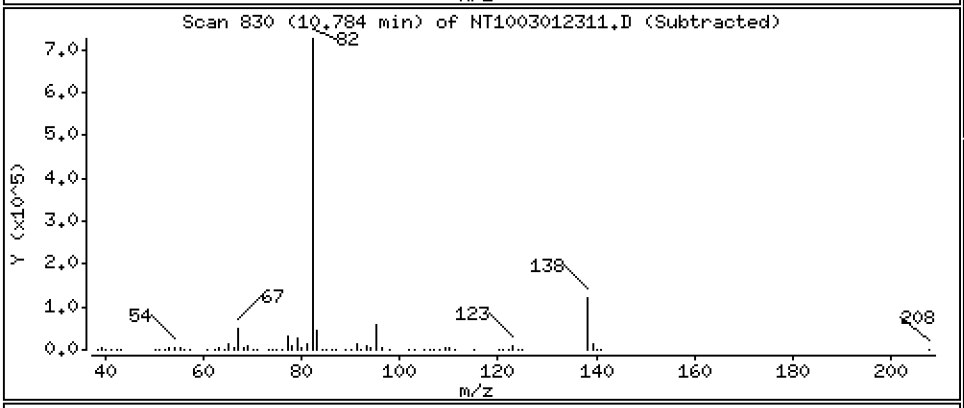
Column phase: ZB-5msi

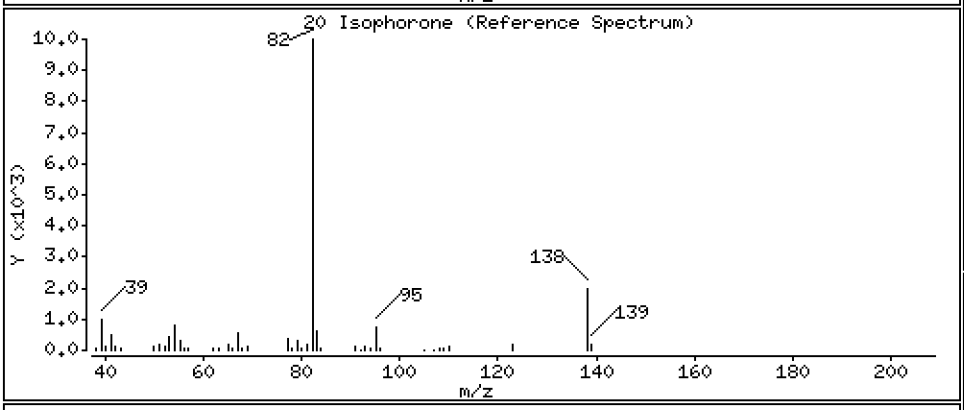
Column diameter: 0.25

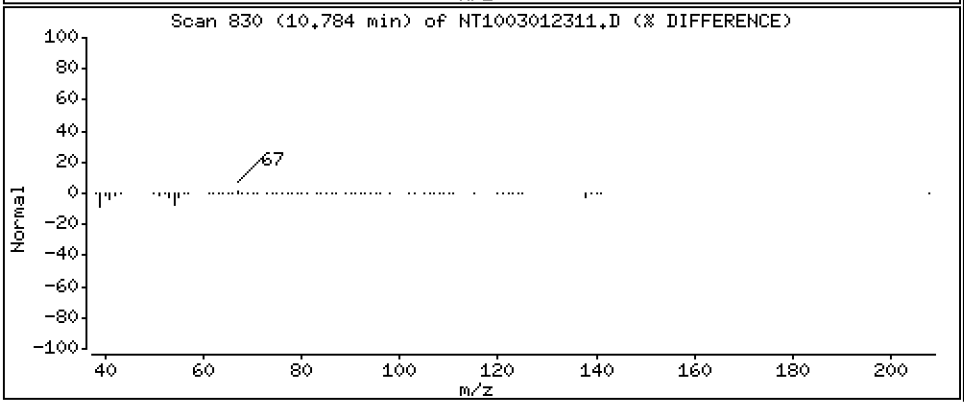
20 Isophorone

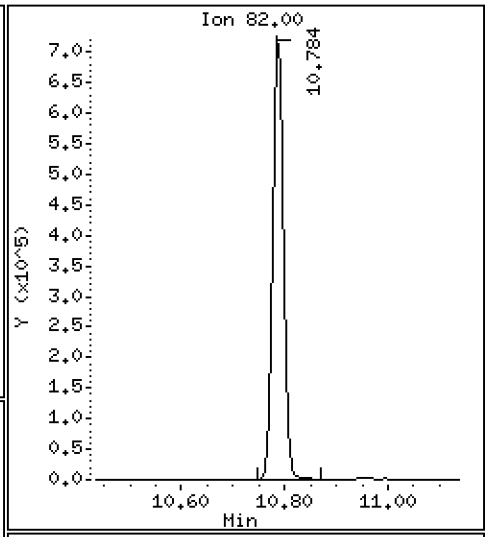
Concentration: 7.672 ug/mL

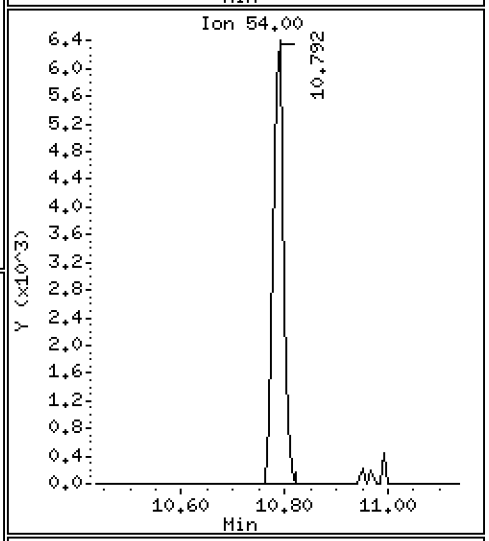


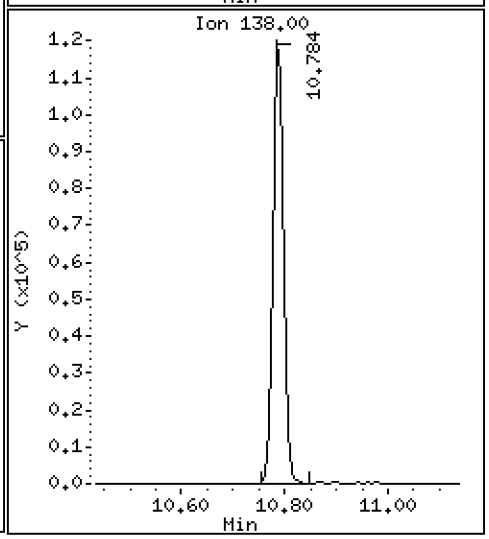












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

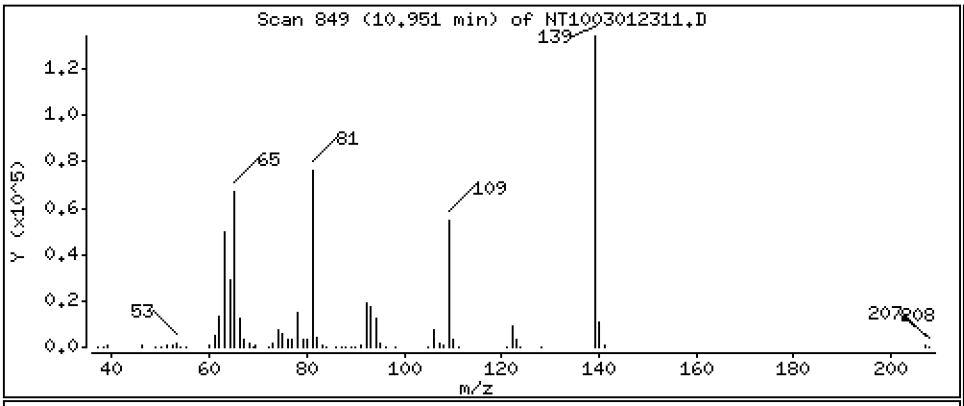
Operator: VTS

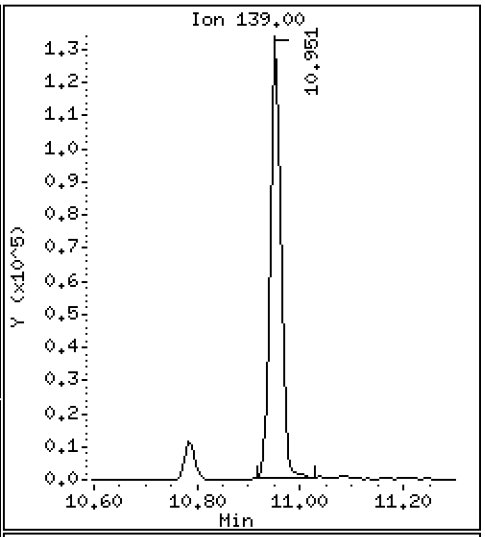
Column phase: ZB-5msi

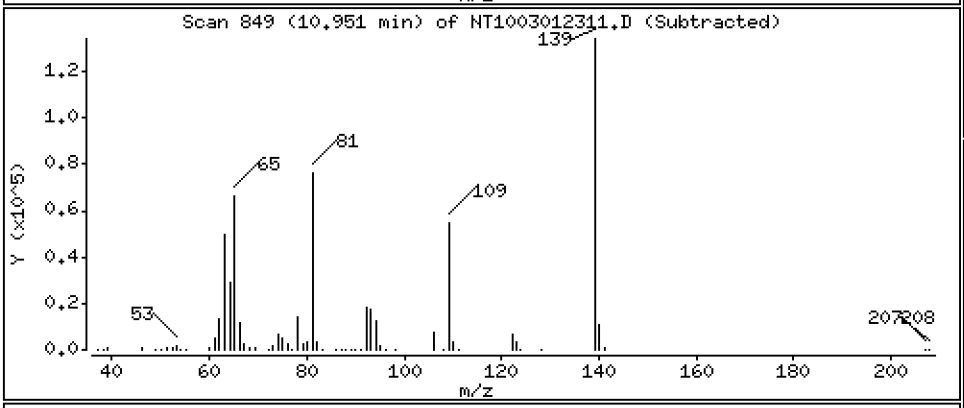
Column diameter: 0.25

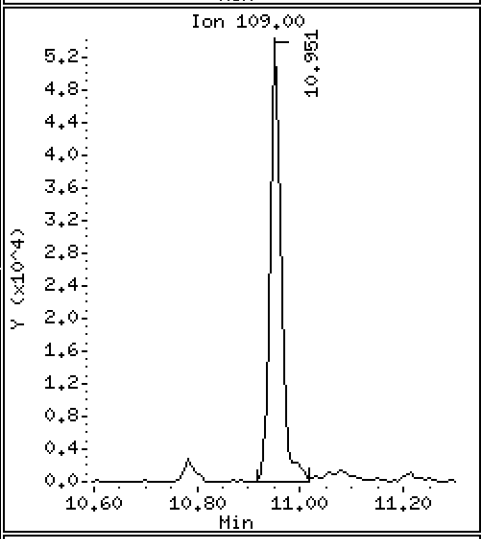
21 2-Nitrophenol

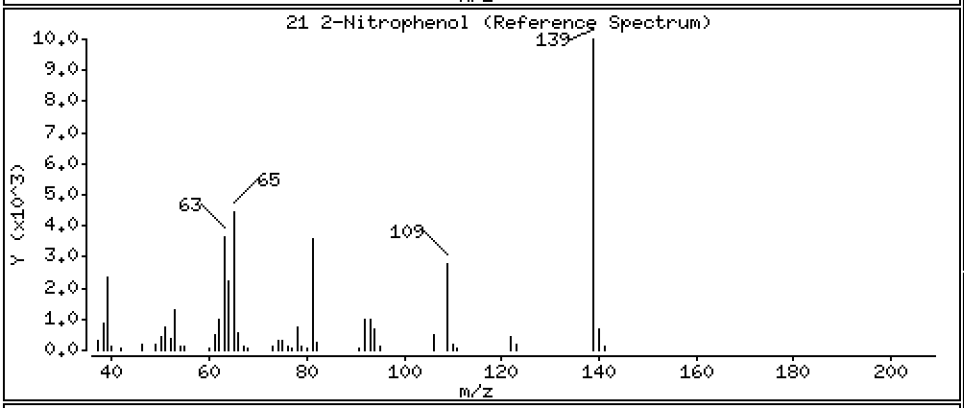
Concentration: 3.244 ug/mL

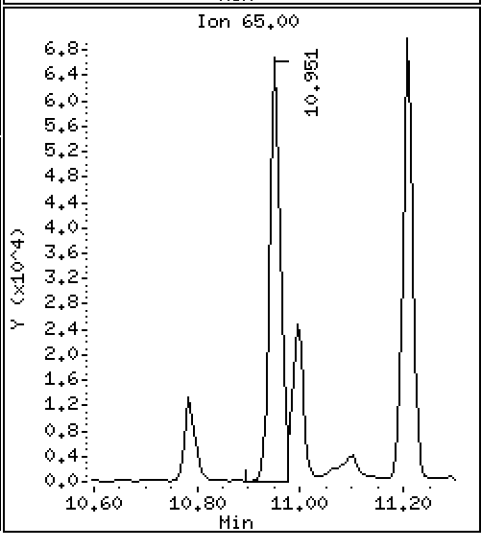


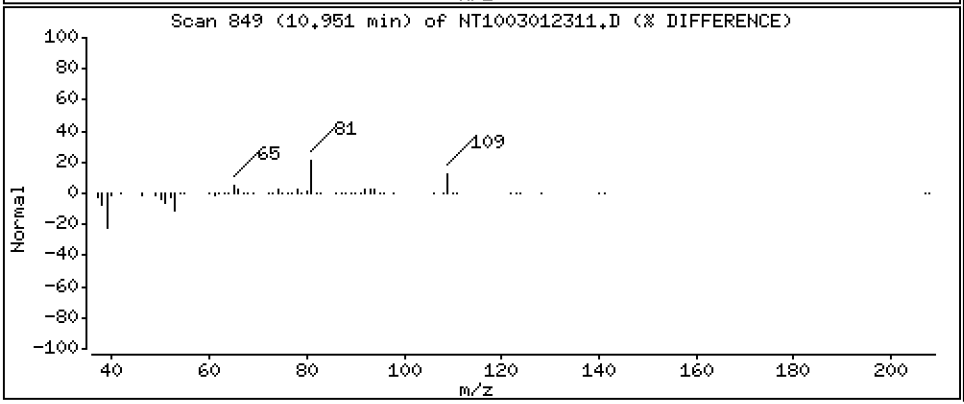












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

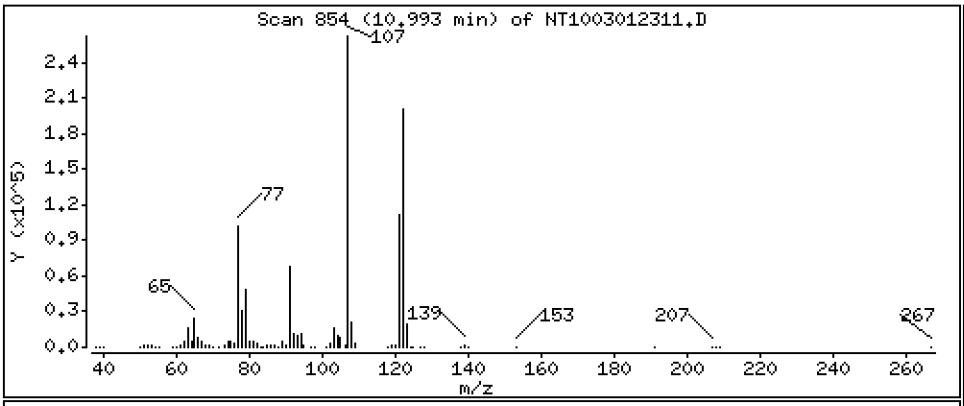
Operator: VTS

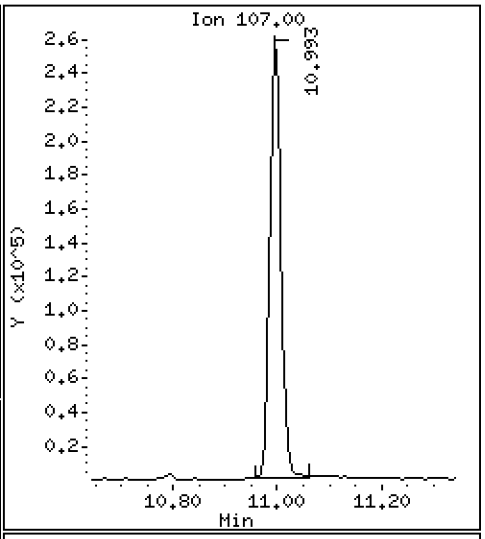
Column phase: ZB-5msi

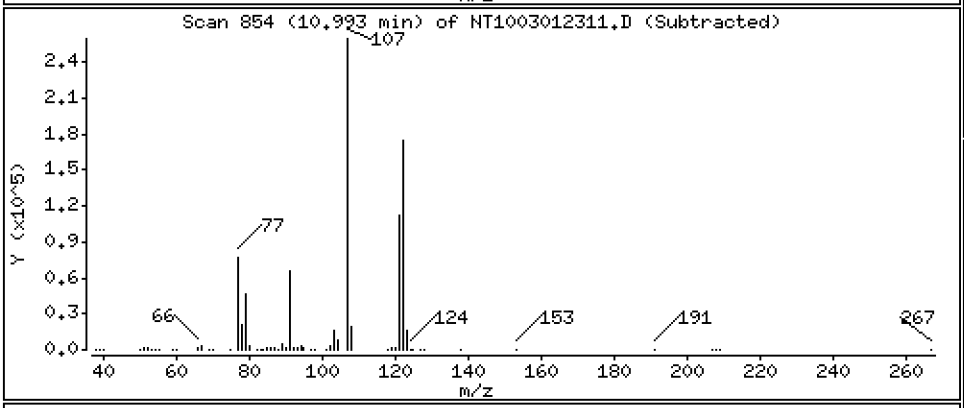
Column diameter: 0.25

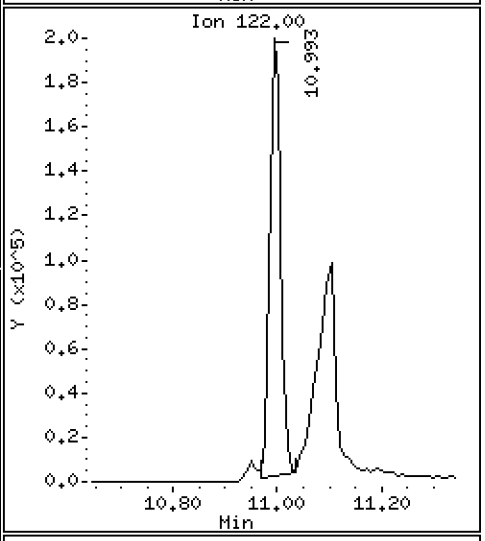
22 2,4-Dimethylphenol

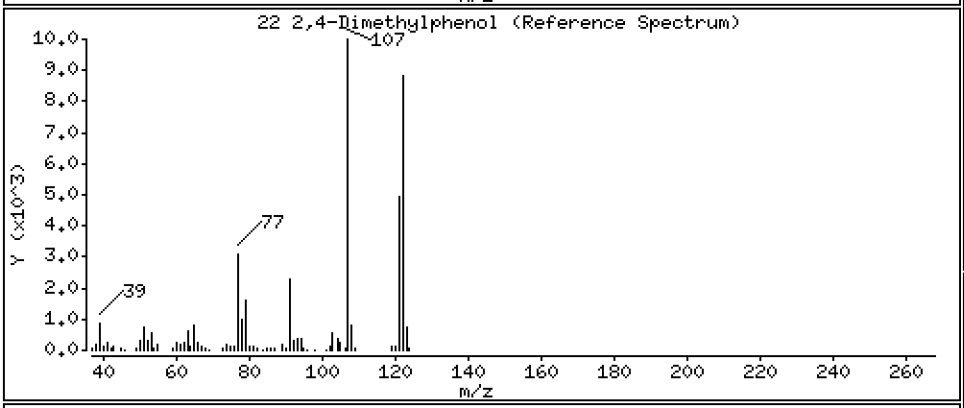
Concentration: 3.507 ug/mL

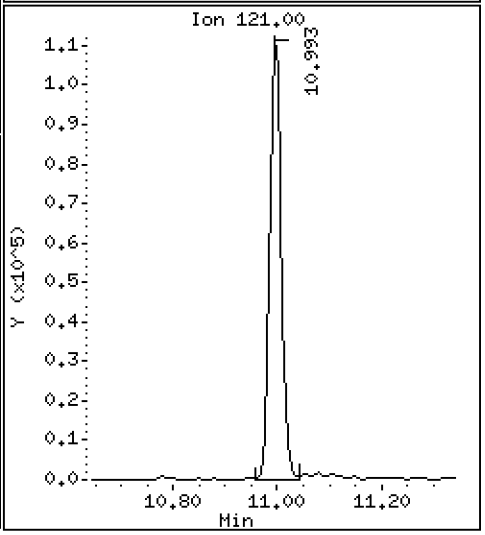


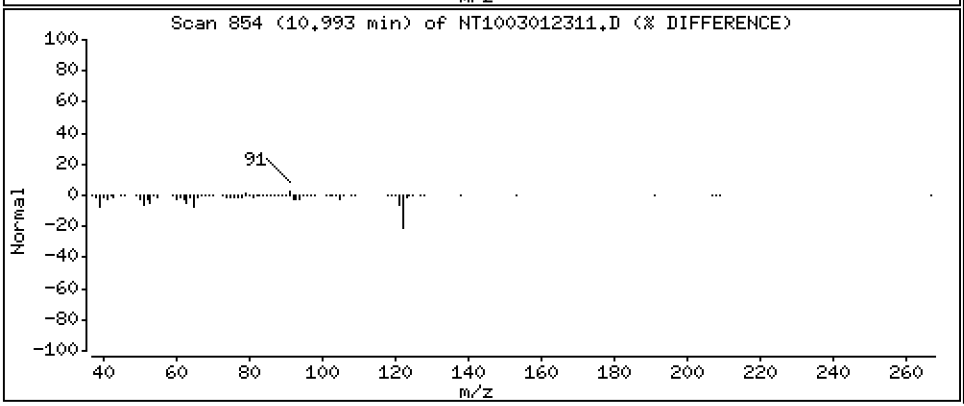












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

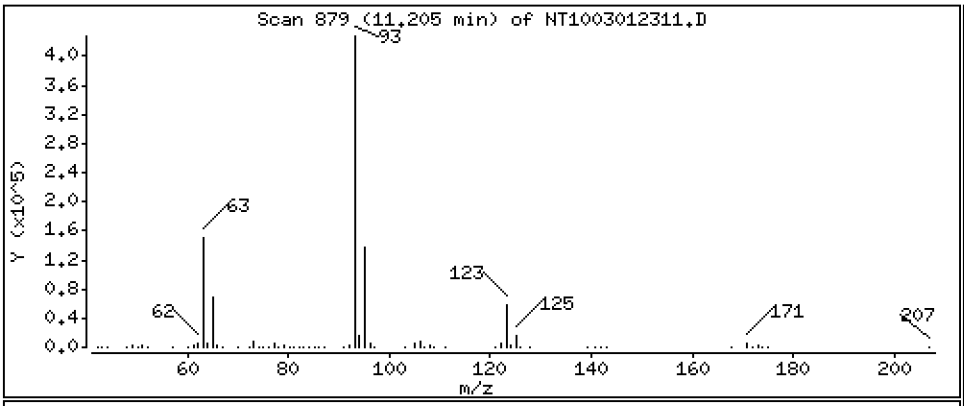
Operator: VTS

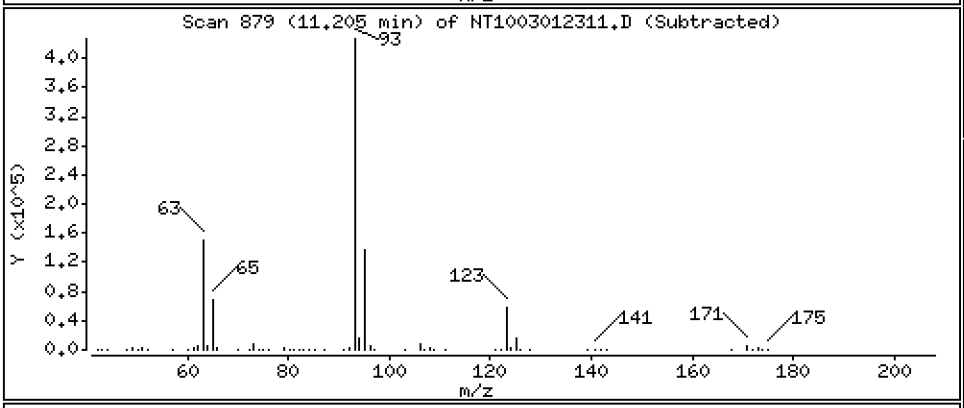
Column phase: ZB-5msi

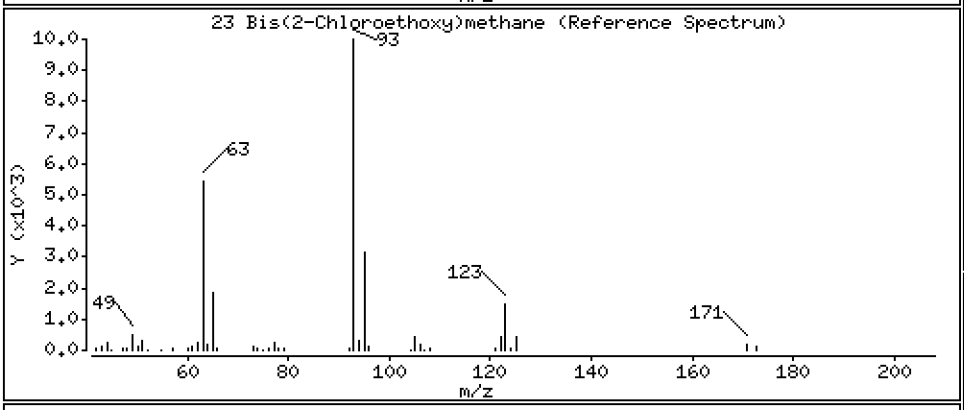
Column diameter: 0.25

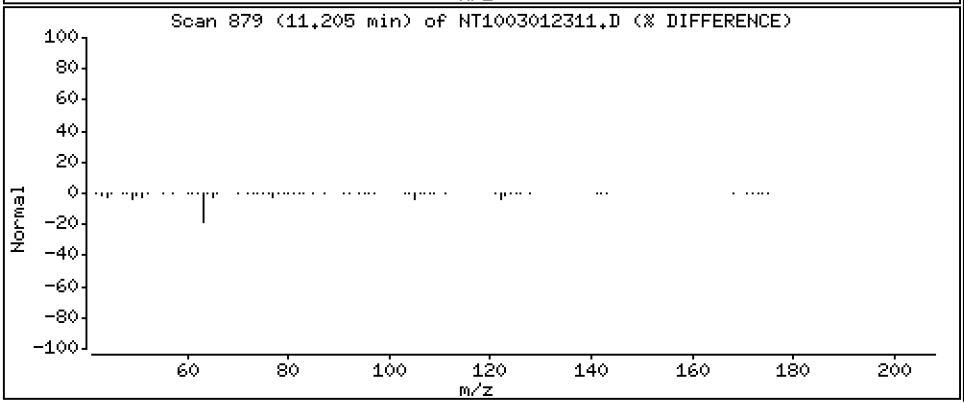
23 Bis(2-Chloroethoxy)methane

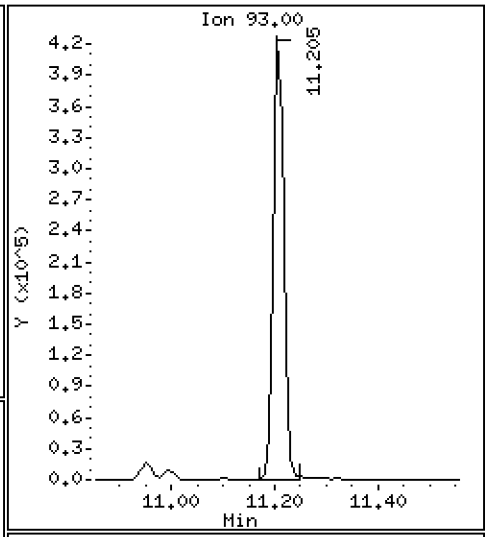
Concentration: 6.727 ug/mL

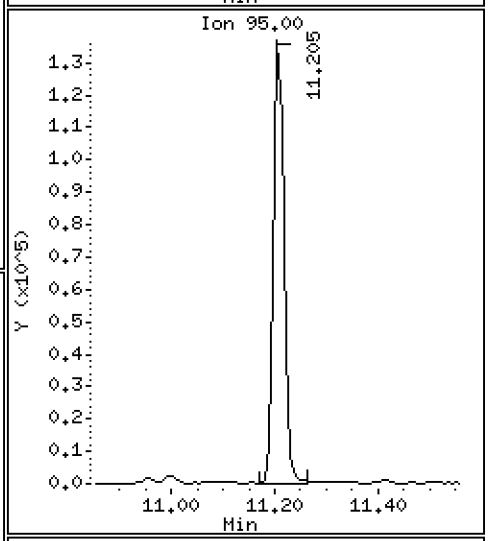


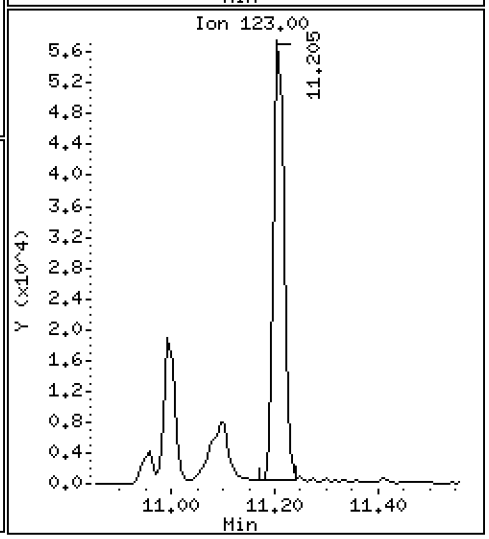












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

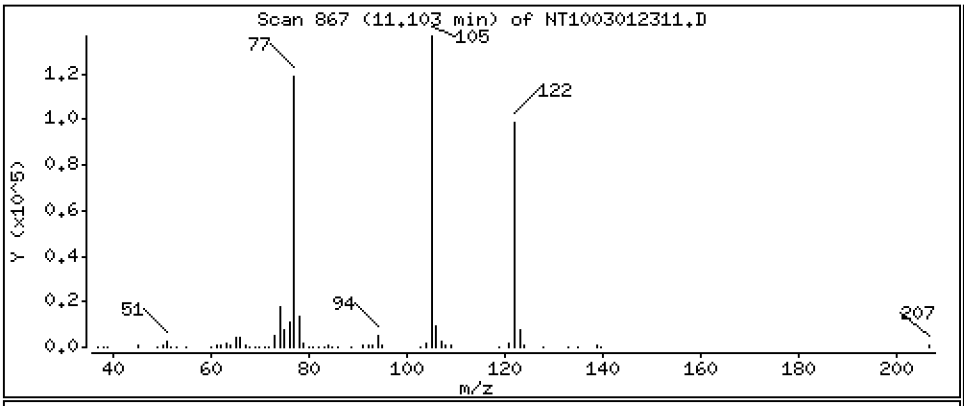
Operator: VTS

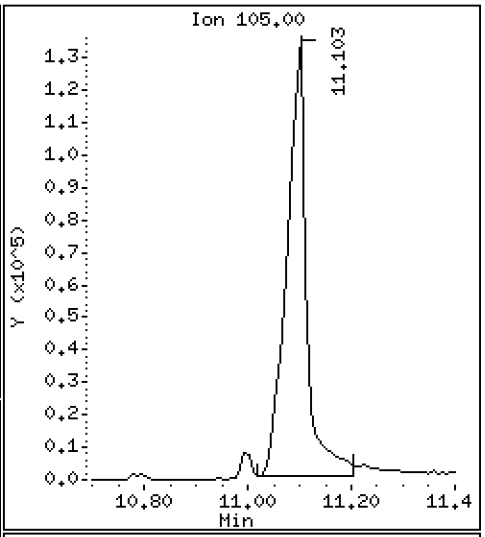
Column phase: ZB-5msi

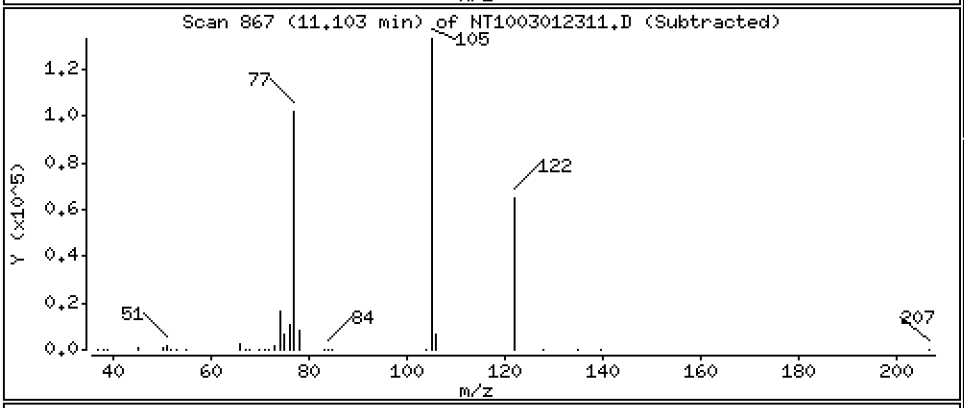
Column diameter: 0.25

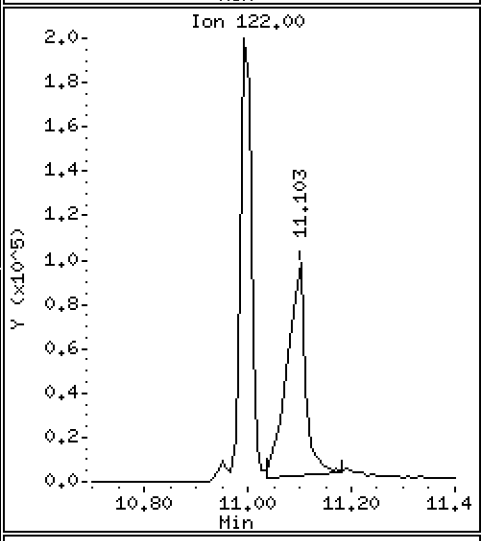
24 Benzoic acid

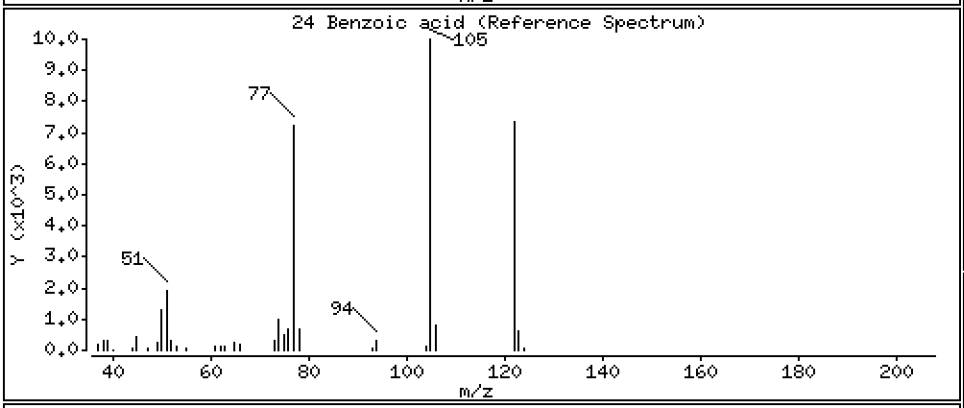
Concentration: 5.635 ug/mL

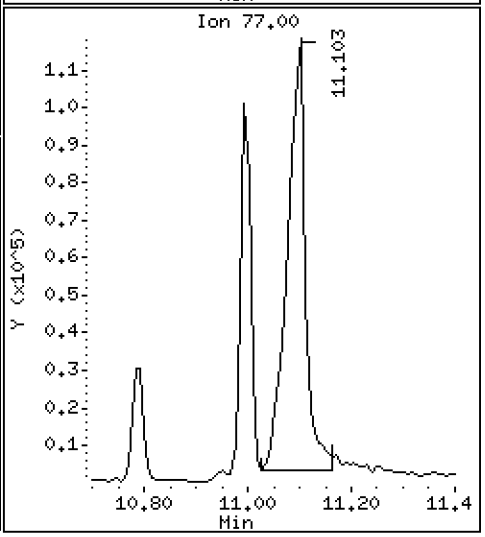


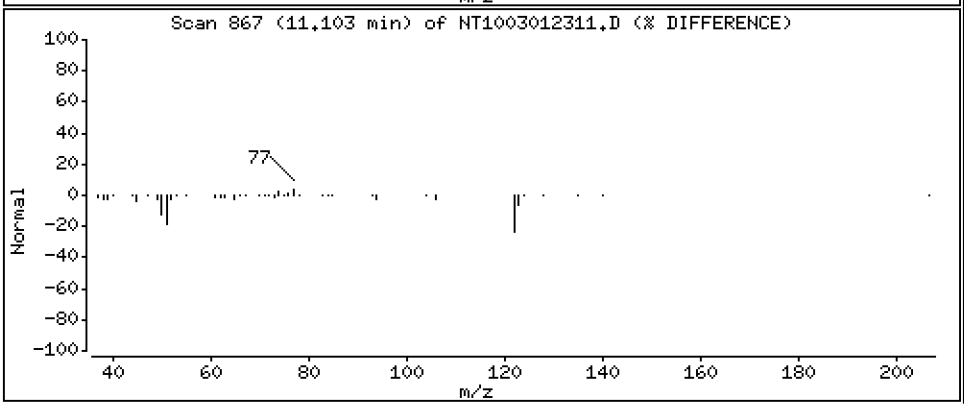












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

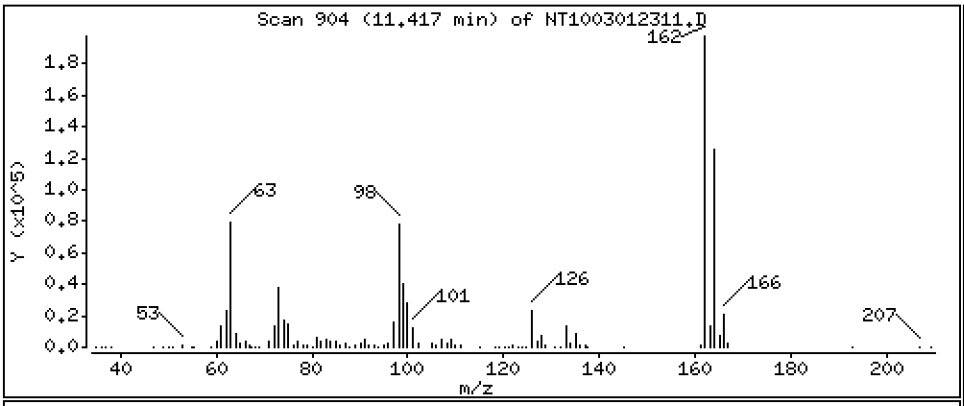
Operator: VTS

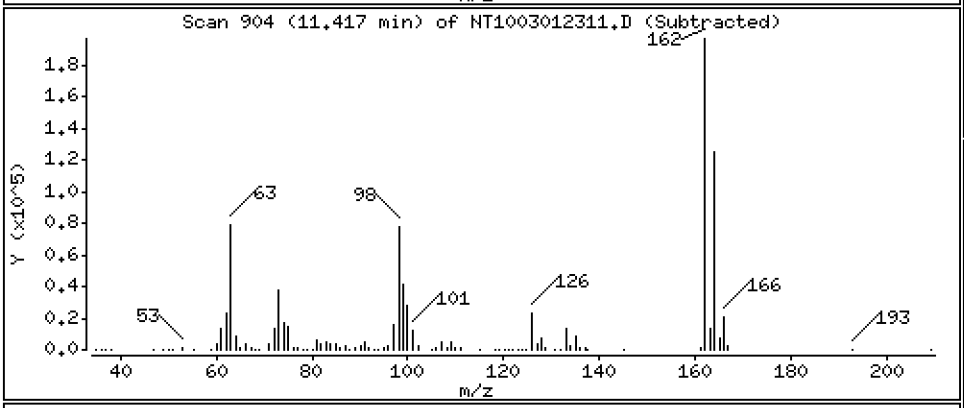
Column phase: ZB-5msi

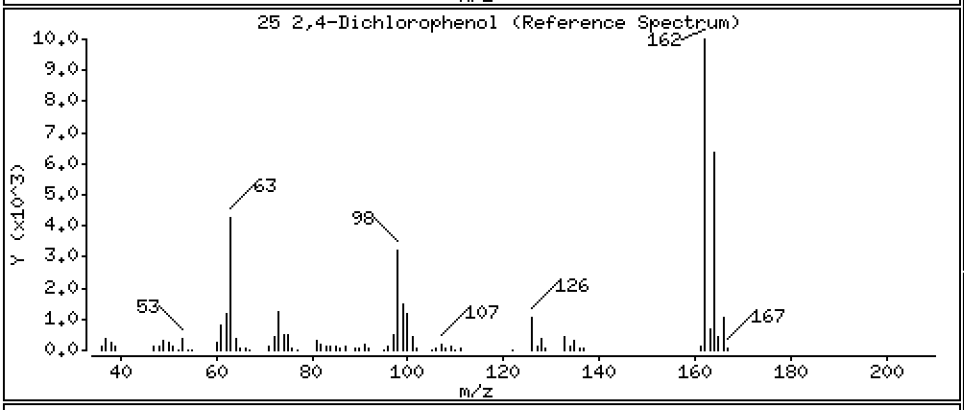
Column diameter: 0.25

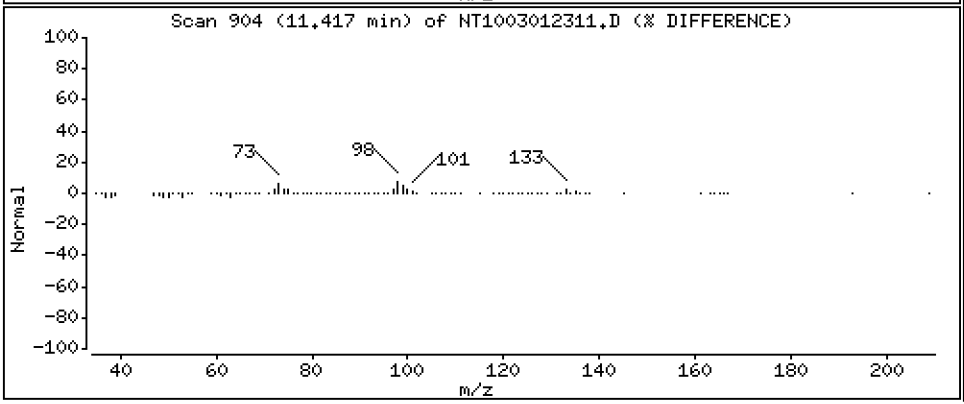
25 2,4-Dichlorophenol

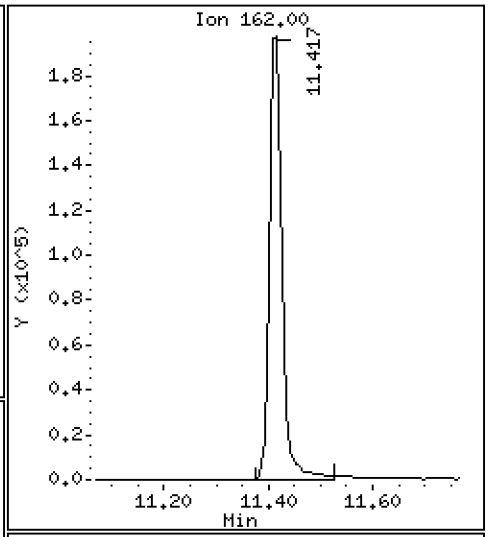
Concentration: 4.437 ug/mL

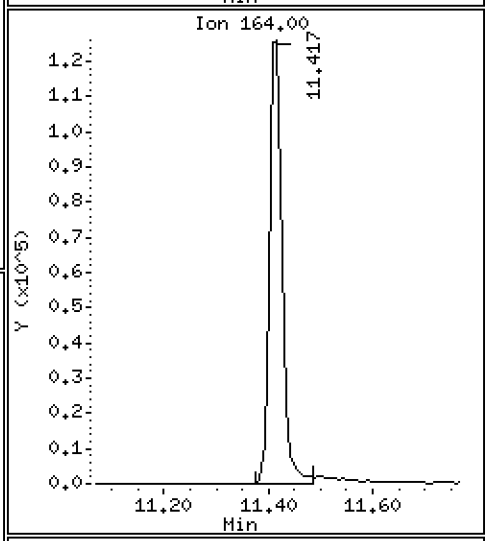


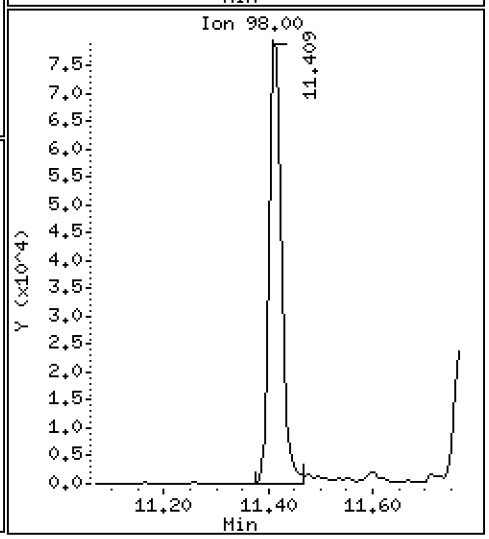












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

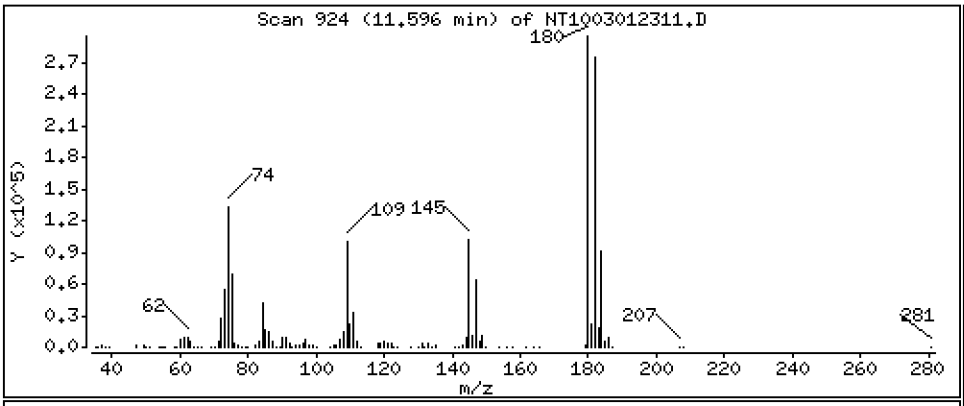
Operator: VTS

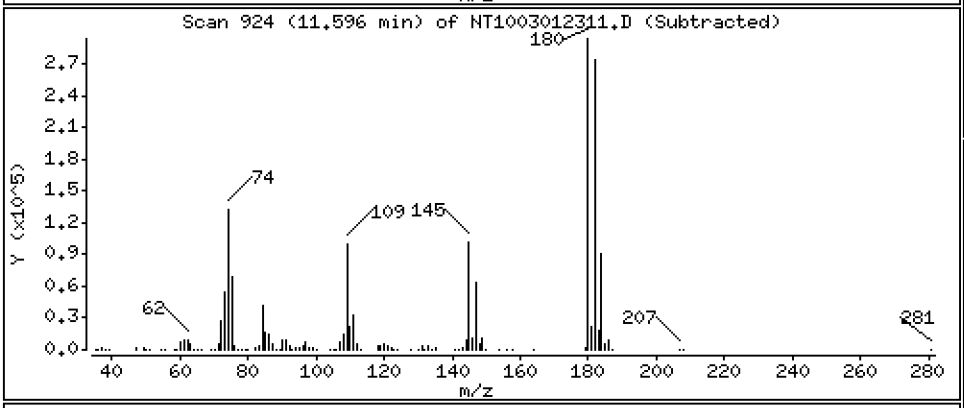
Column phase: ZB-5msi

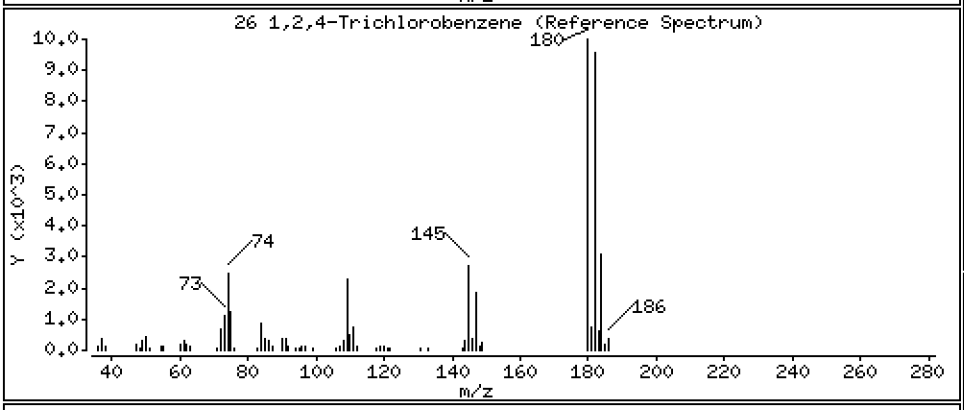
Column diameter: 0.25

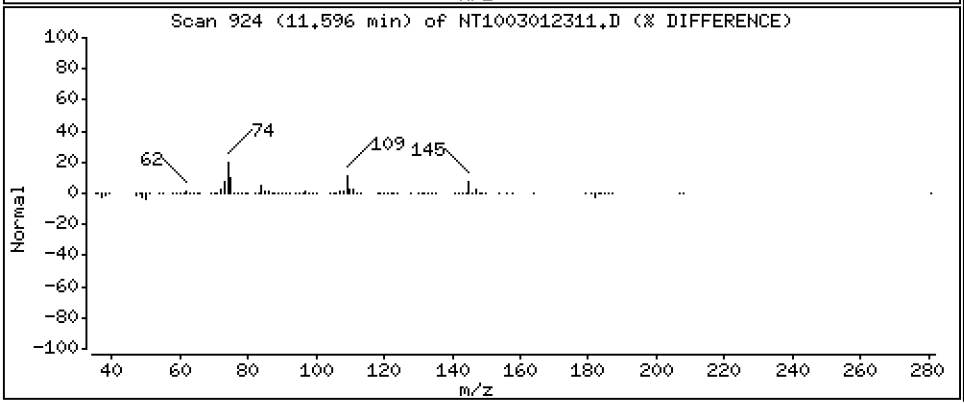
26 1,2,4-Trichlorobenzene

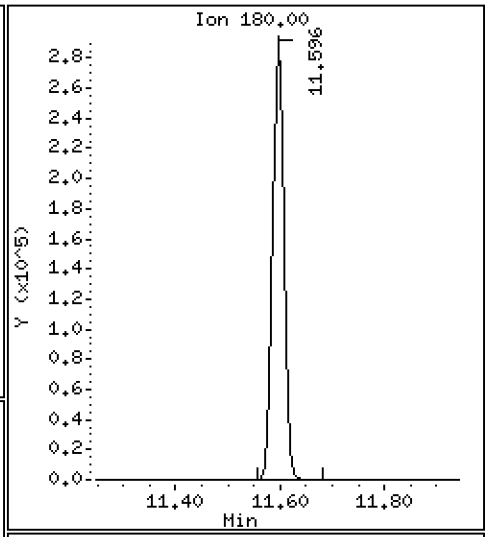
Concentration: 4.908 ug/mL

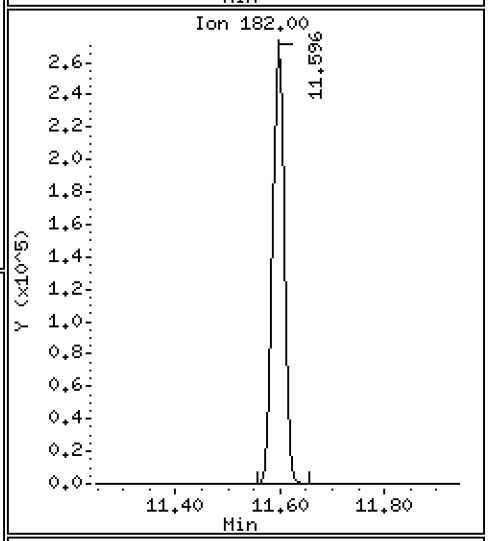


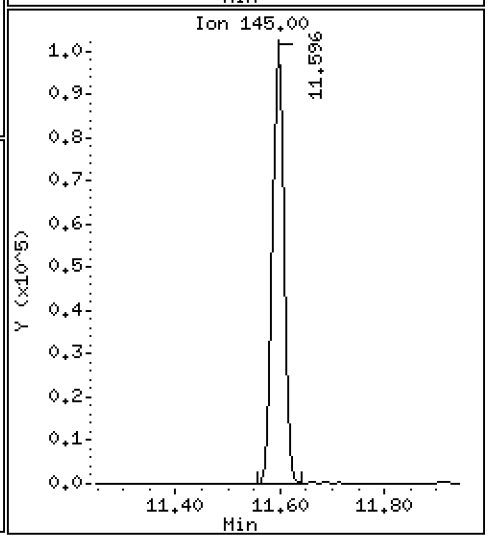












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

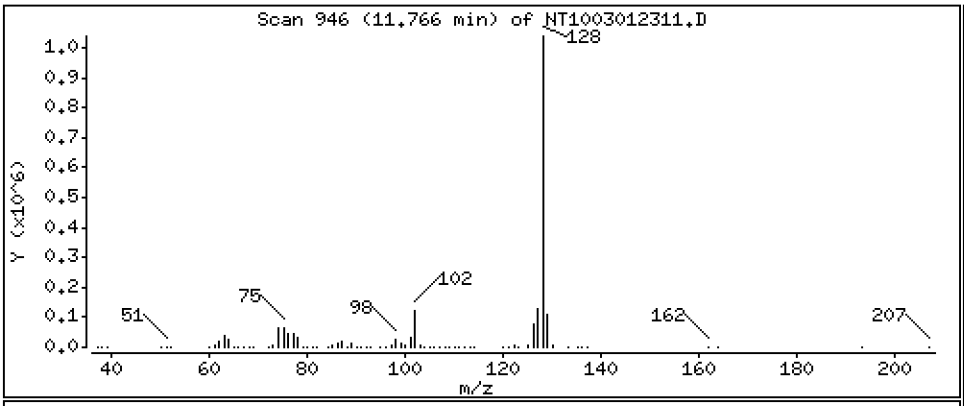
Operator: VTS

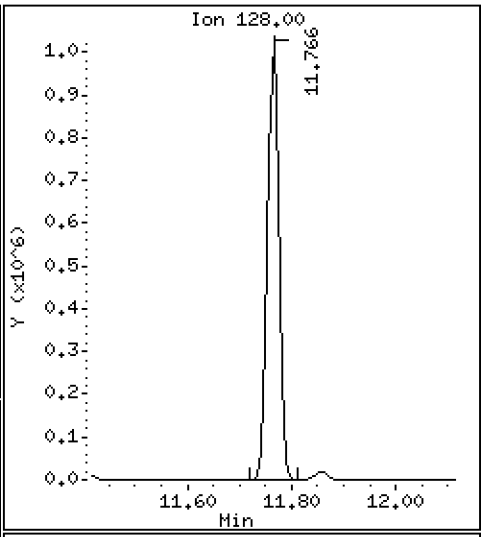
Column phase: ZB-5msi

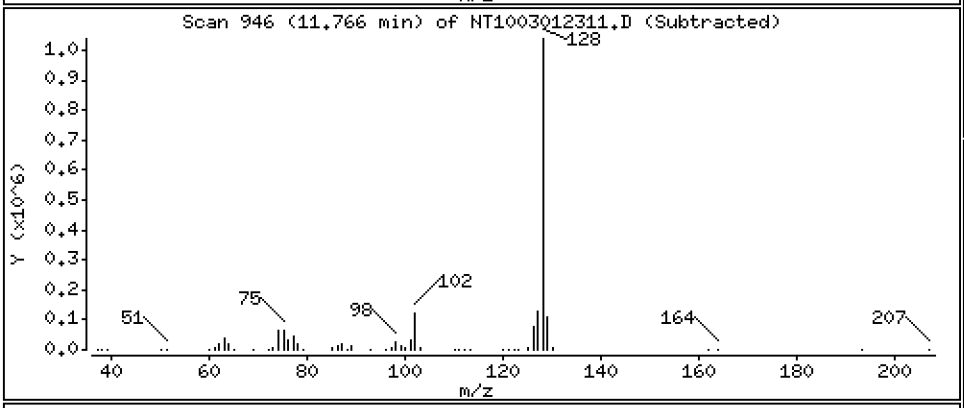
Column diameter: 0.25

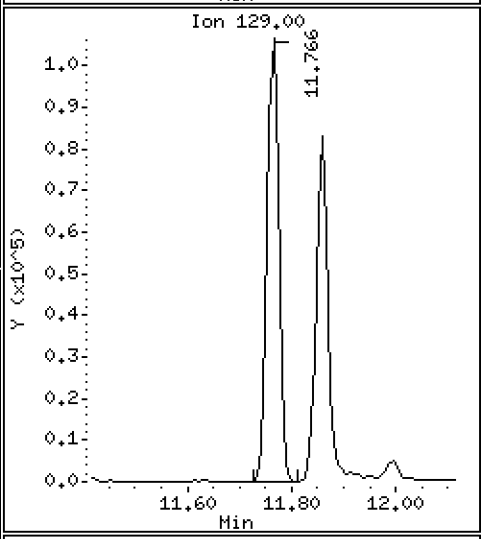
28 Naphthalene

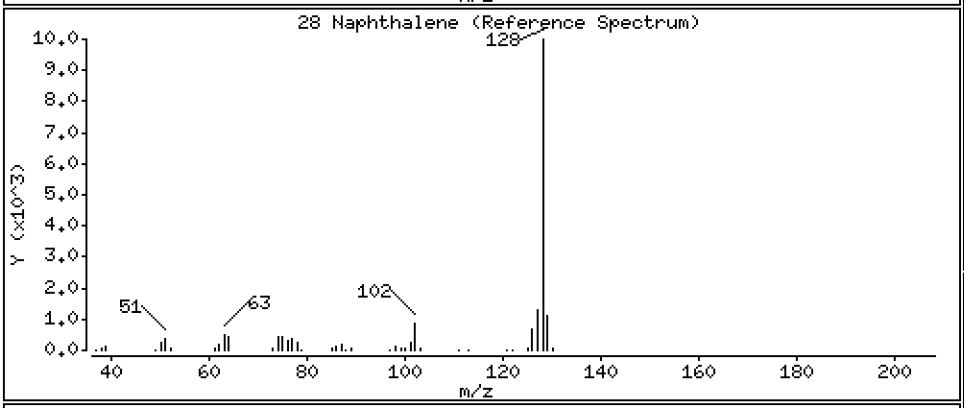
Concentration: 5.255 ug/mL

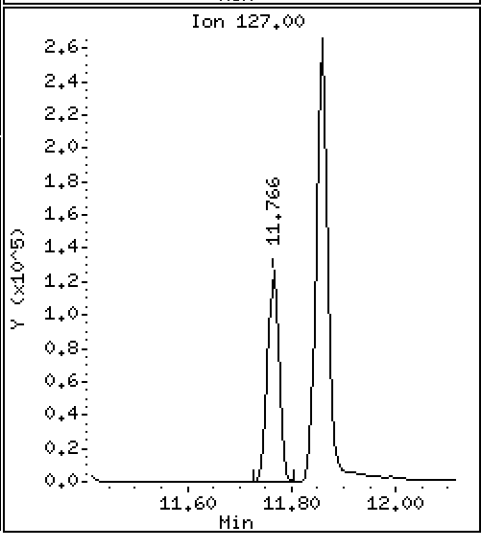


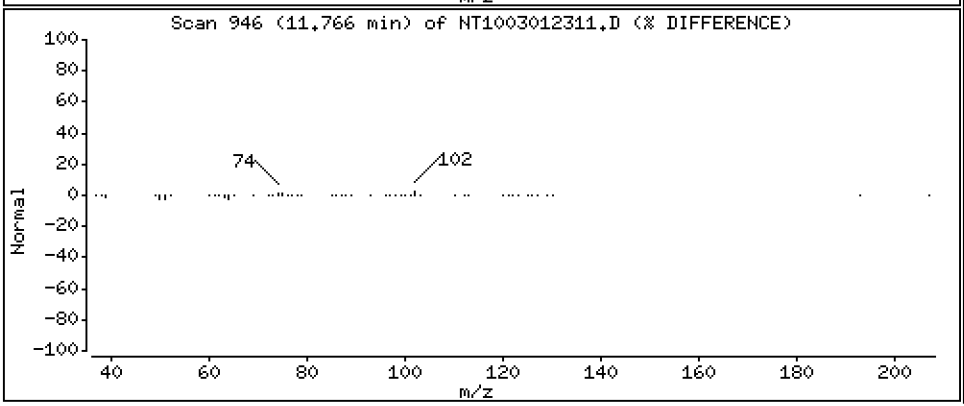












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

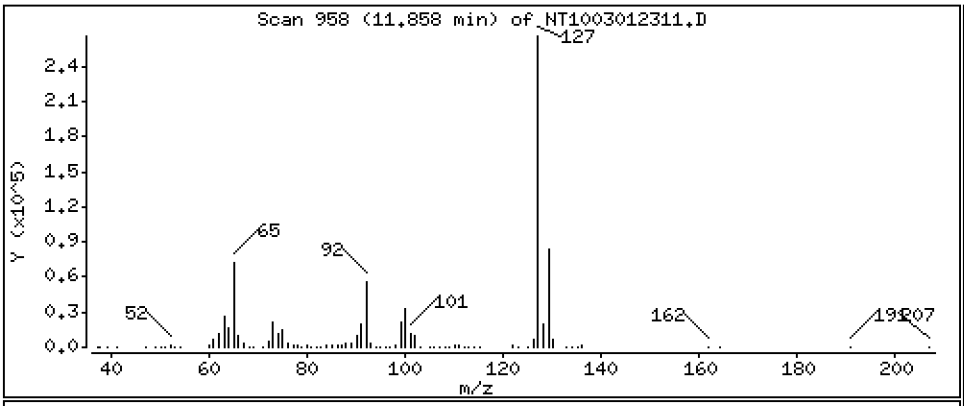
Operator: VTS

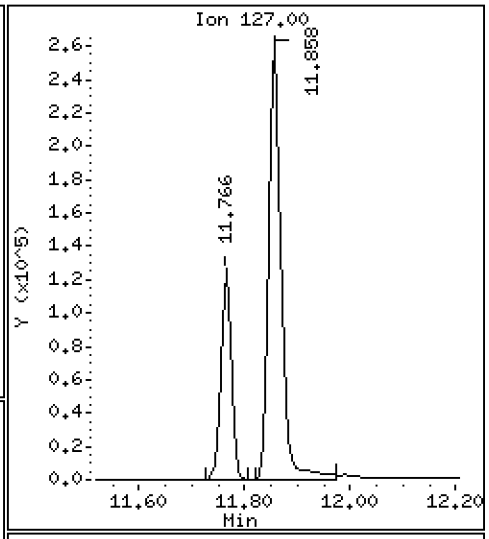
Column phase: ZB-5msi

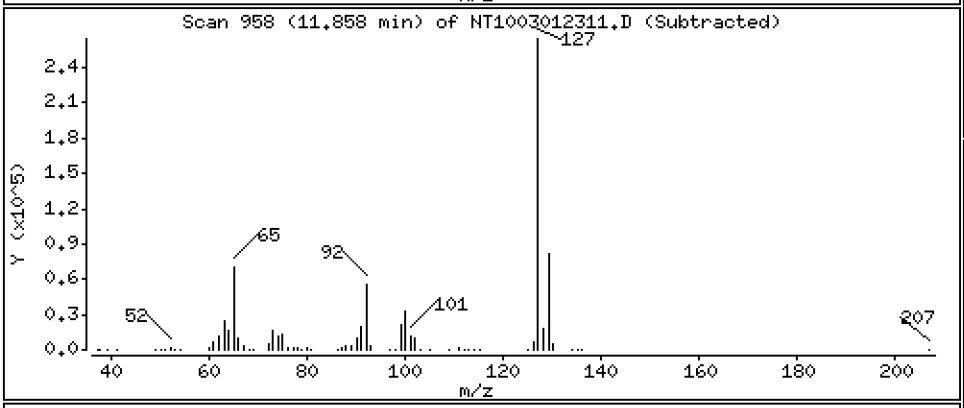
Column diameter: 0.25

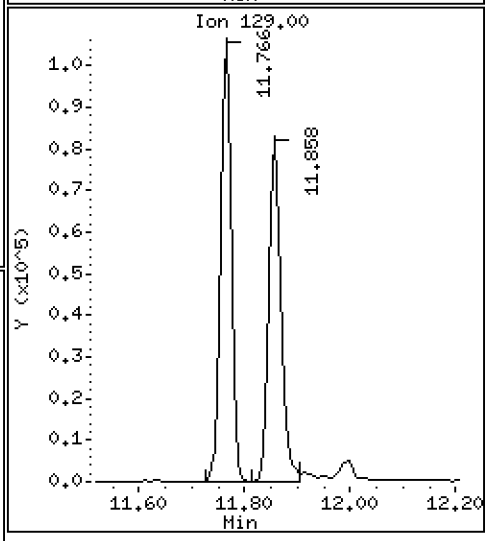
29 4-Chloroaniline

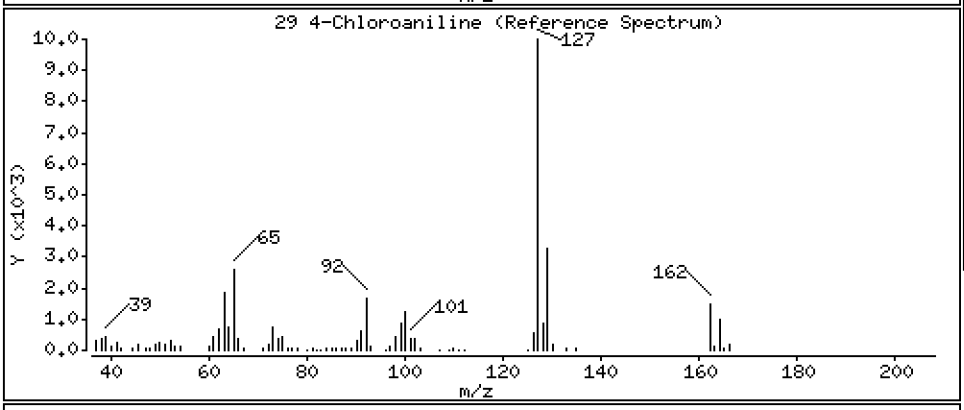
Concentration: 3.791 ug/mL

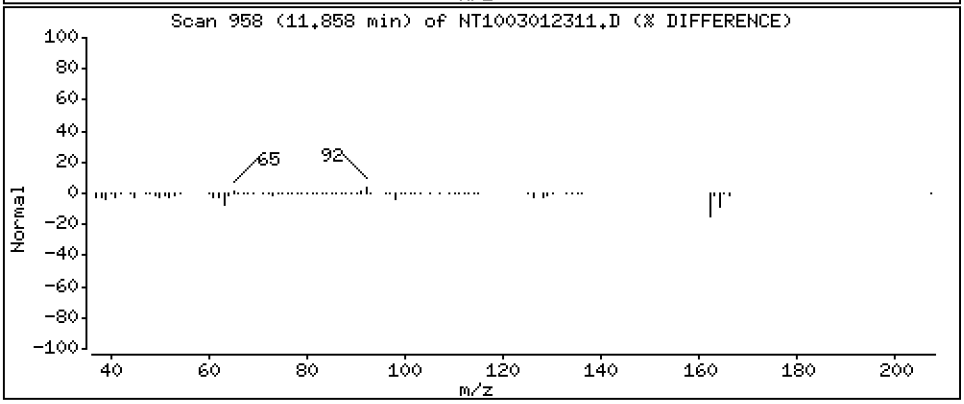












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

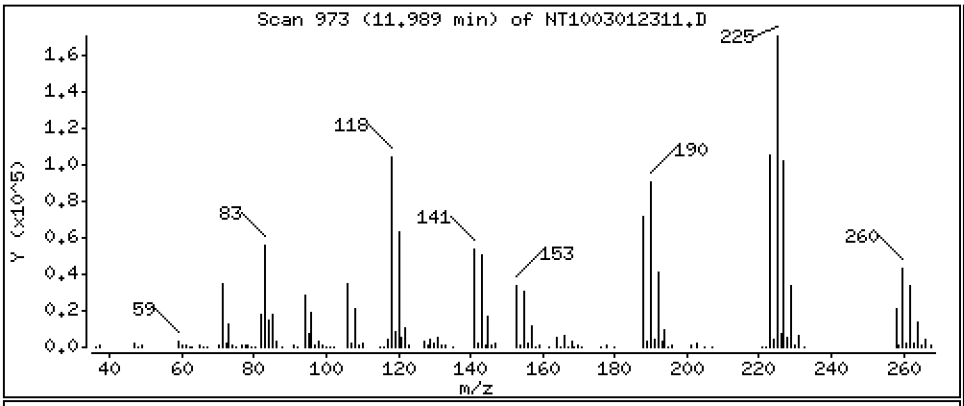
Operator: VTS

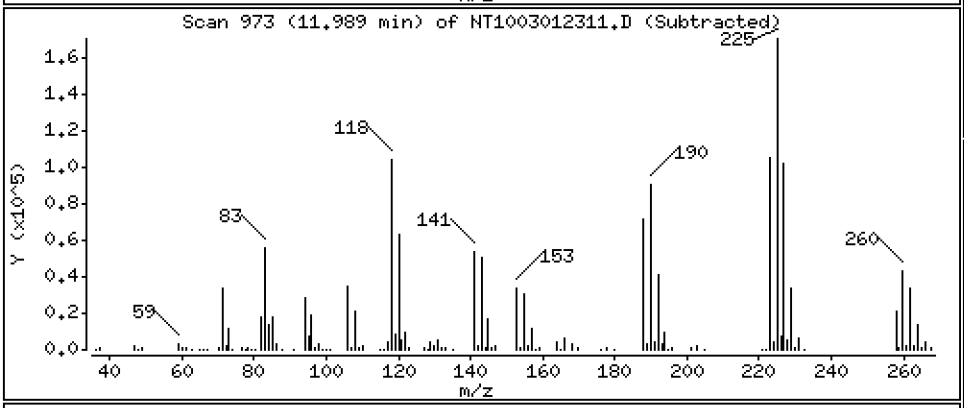
Column phase: ZB-5msi

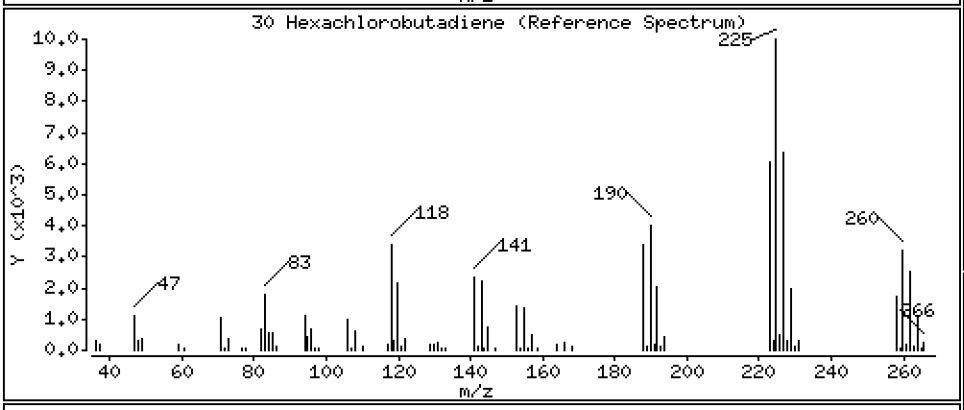
Column diameter: 0.25

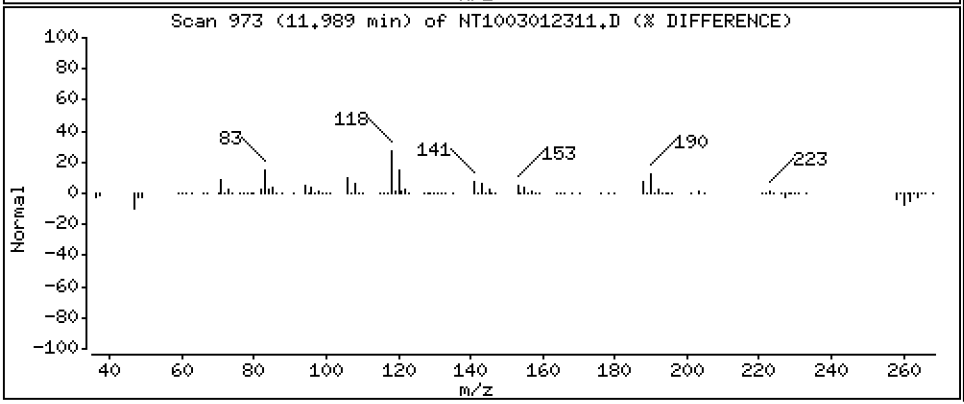
30 Hexachlorobutadiene

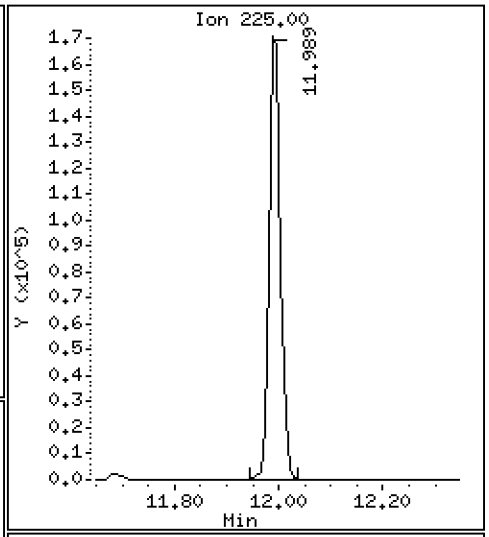
Concentration: 5.014 ug/mL

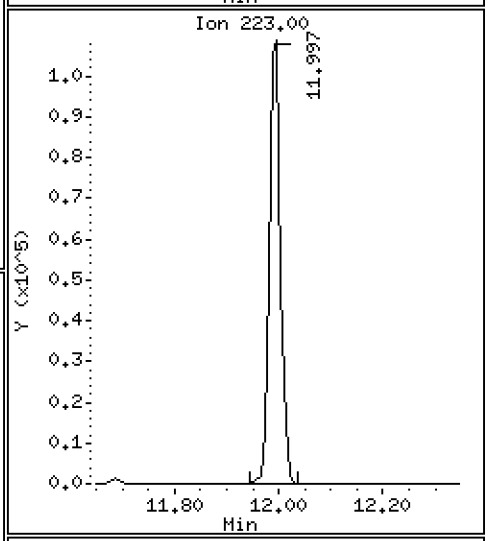


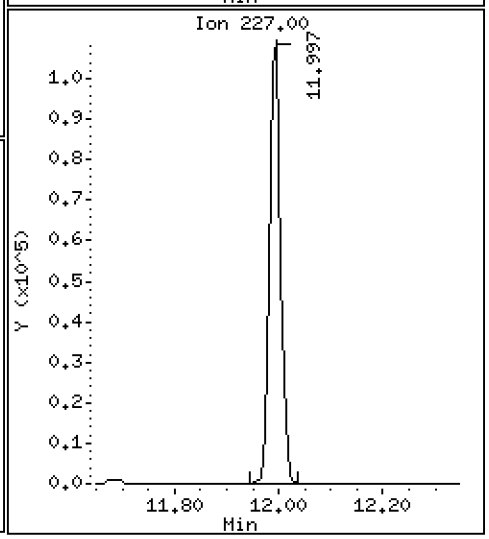












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

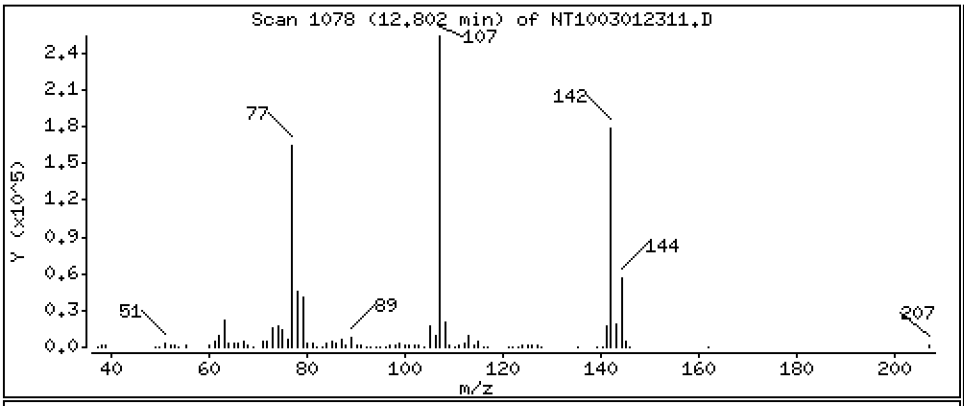
Operator: VTS

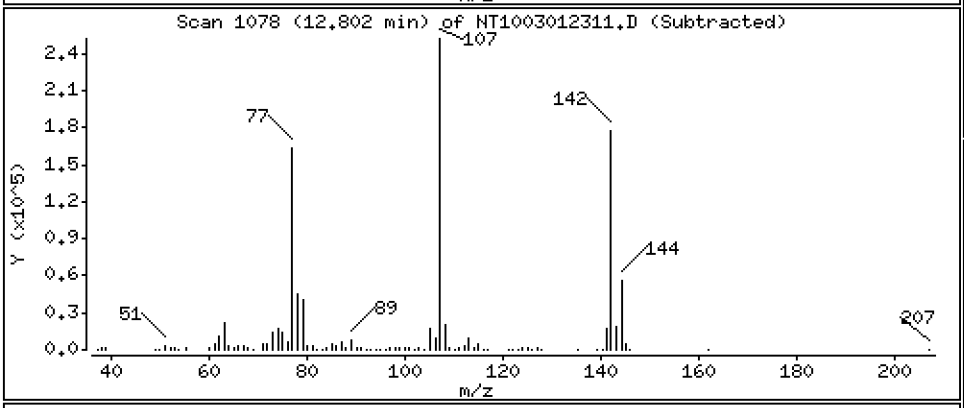
Column phase: ZB-5msi

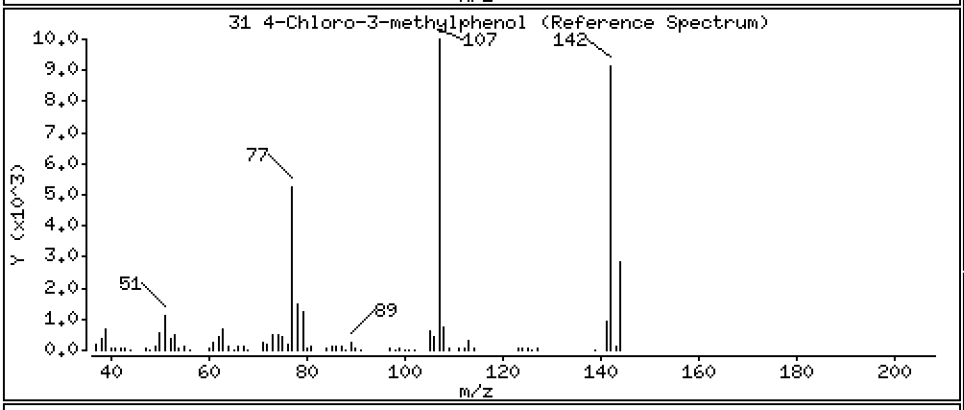
Column diameter: 0.25

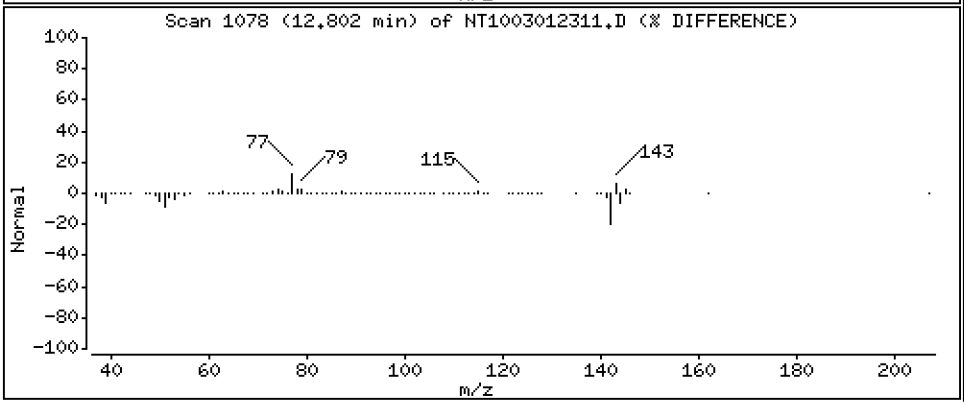
31 4-Chloro-3-methylphenol

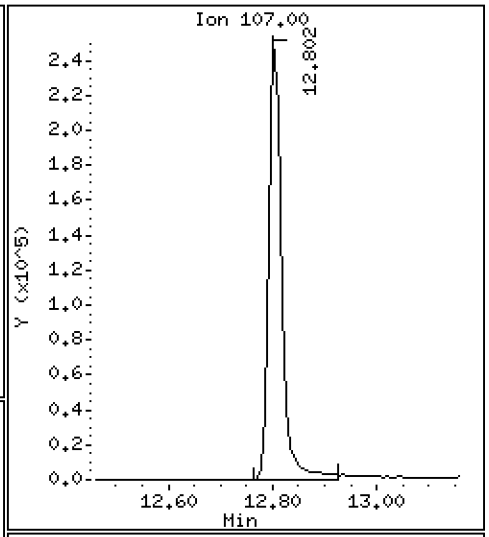
Concentration: 4.452 ug/mL

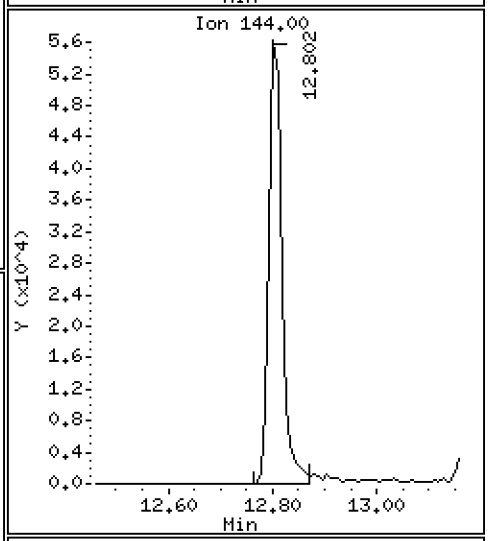


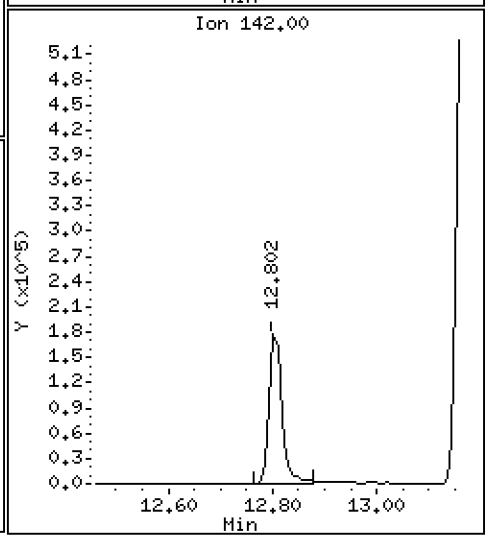












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

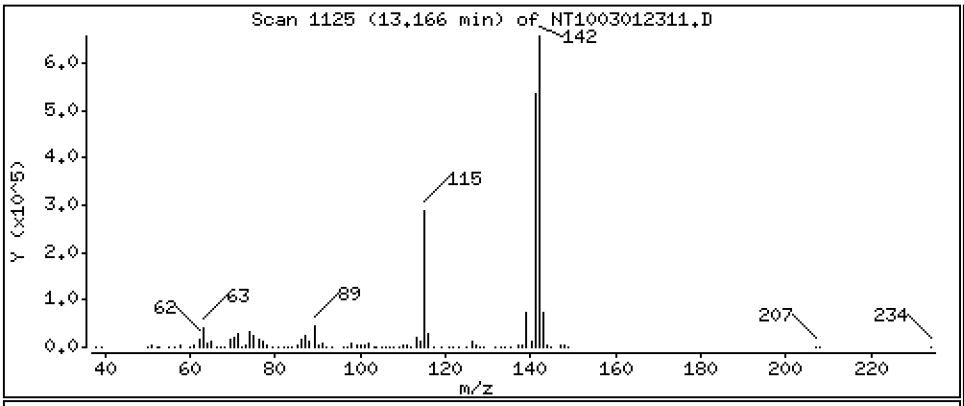
Operator: VTS

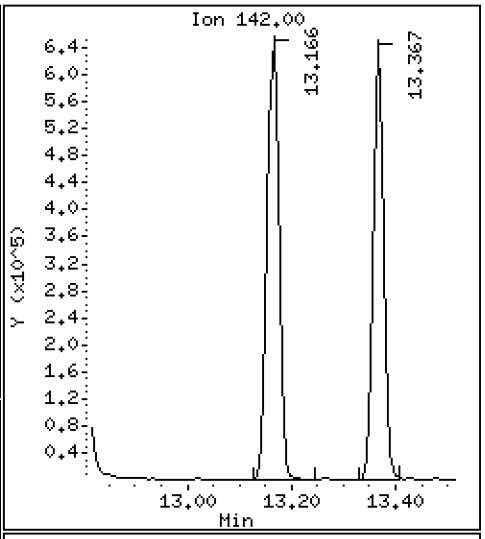
Column phase: ZB-5msi

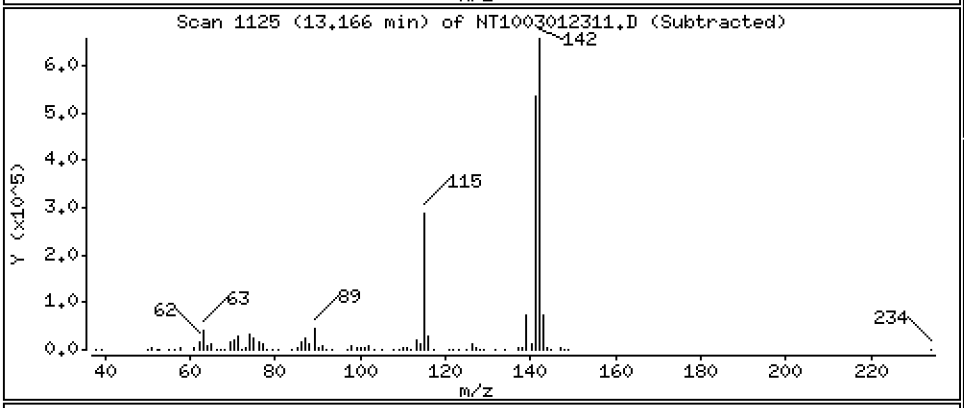
Column diameter: 0.25

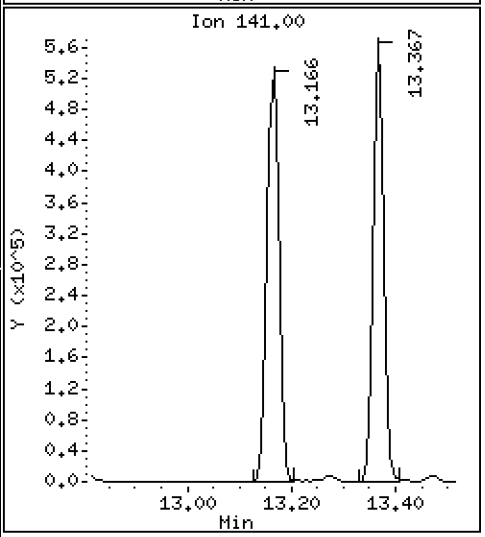
32 2-Methylnaphthalene

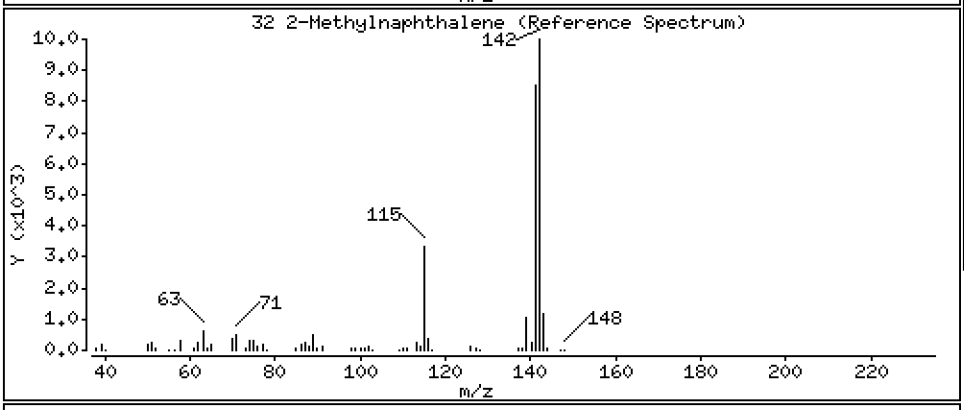
Concentration: 4.951 ug/mL

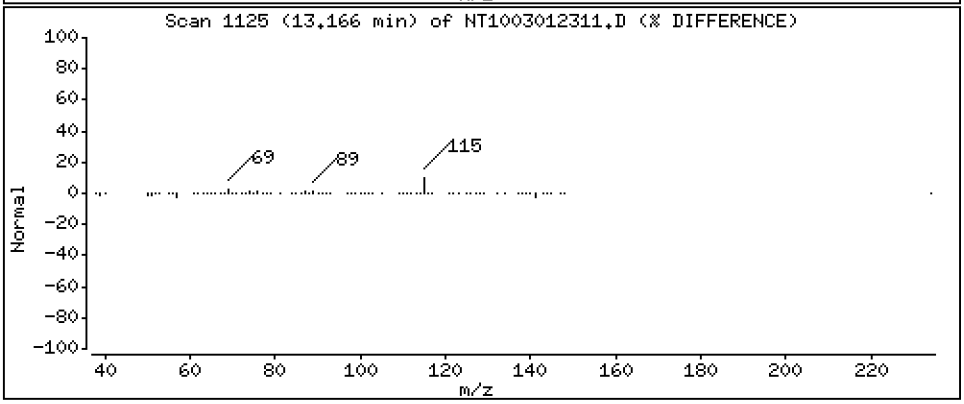












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

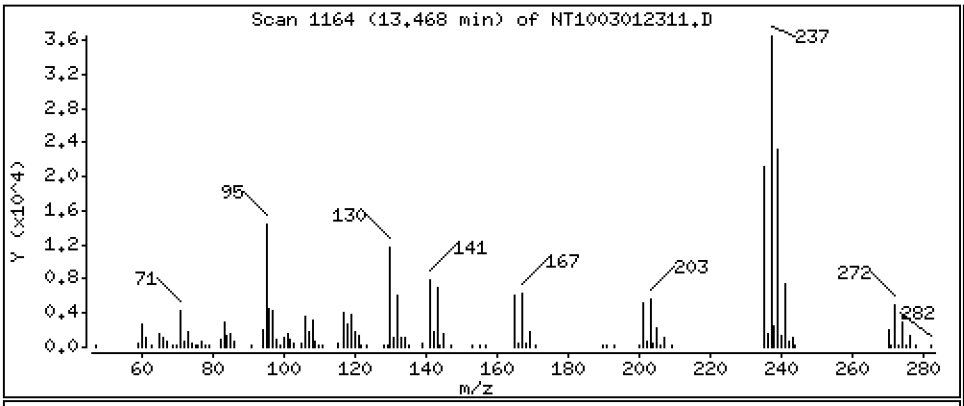
Operator: VTS

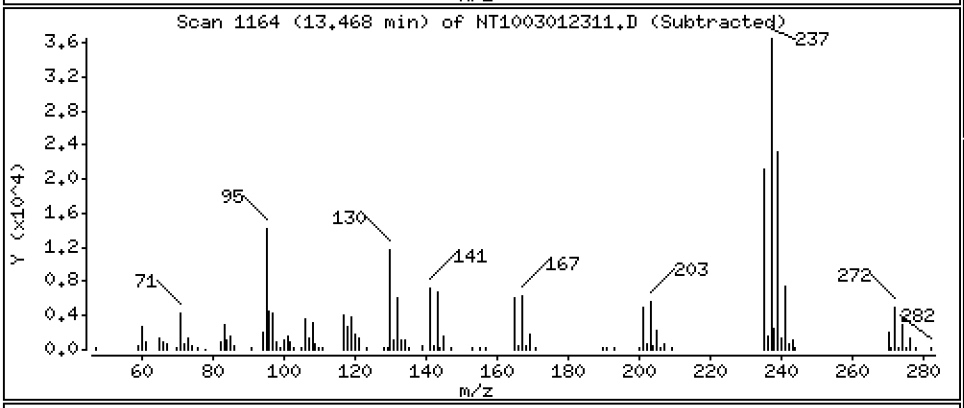
Column phase: ZB-5msi

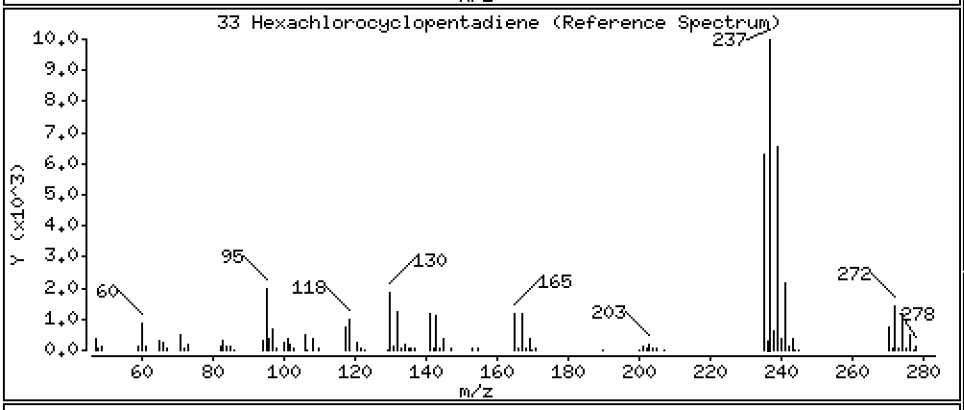
Column diameter: 0.25

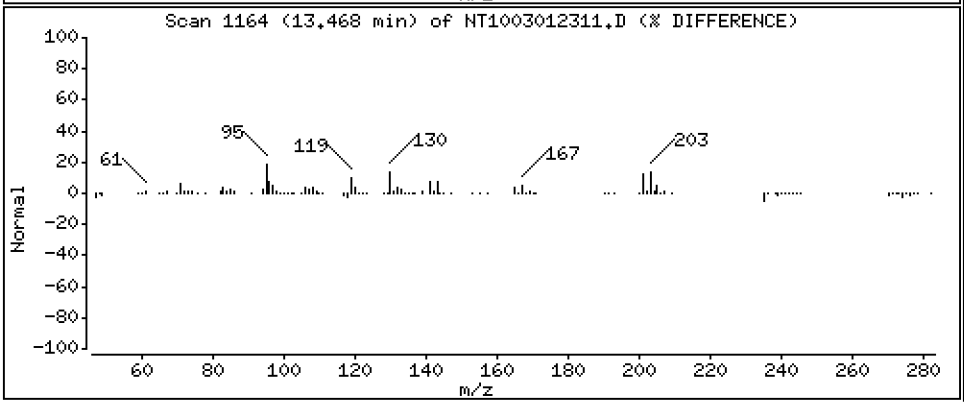
33 Hexachlorocyclopentadiene

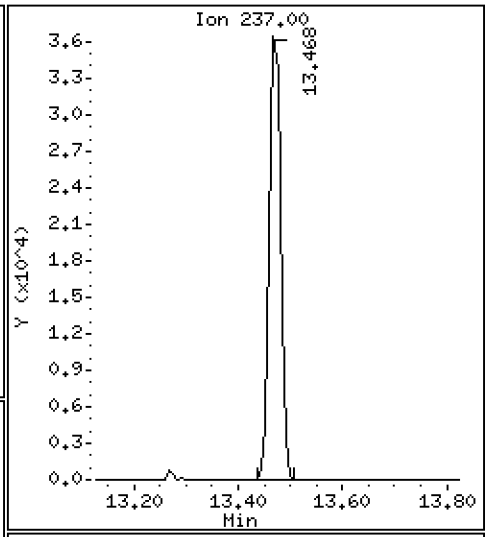
Concentration: 2.562 ug/mL

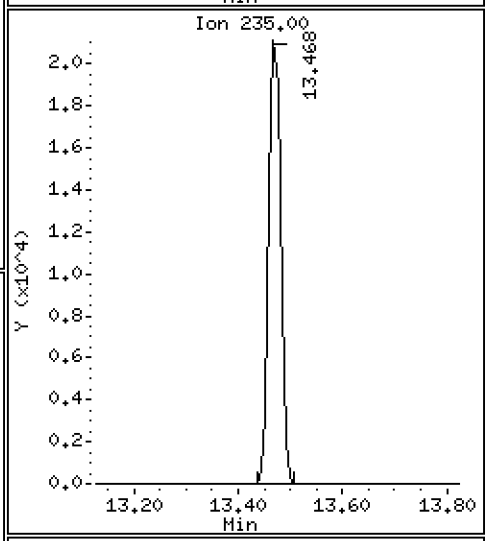


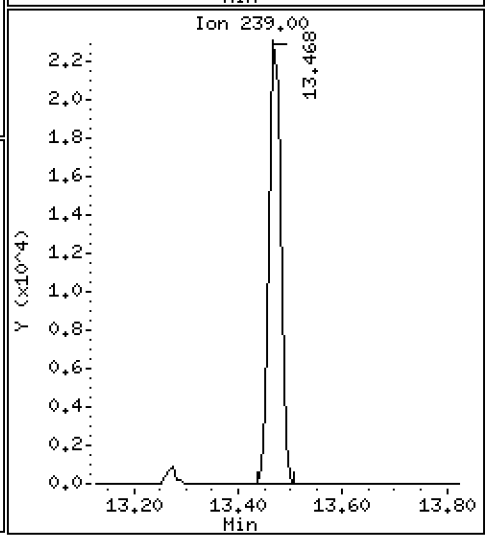












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

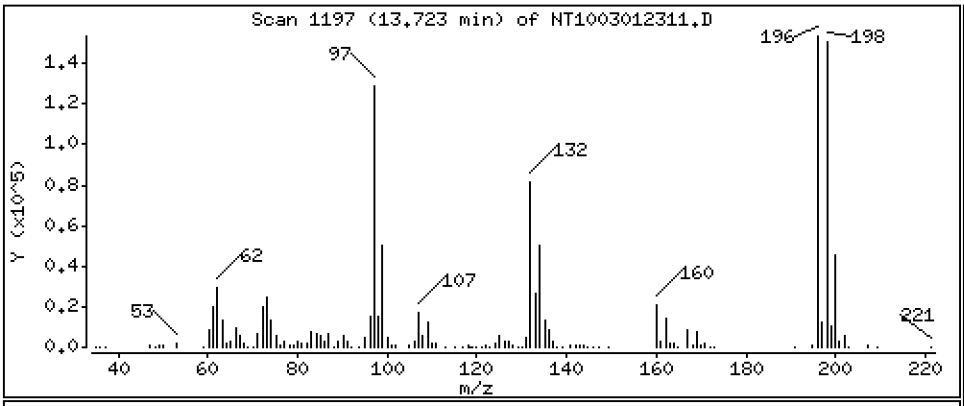
Operator: VTS

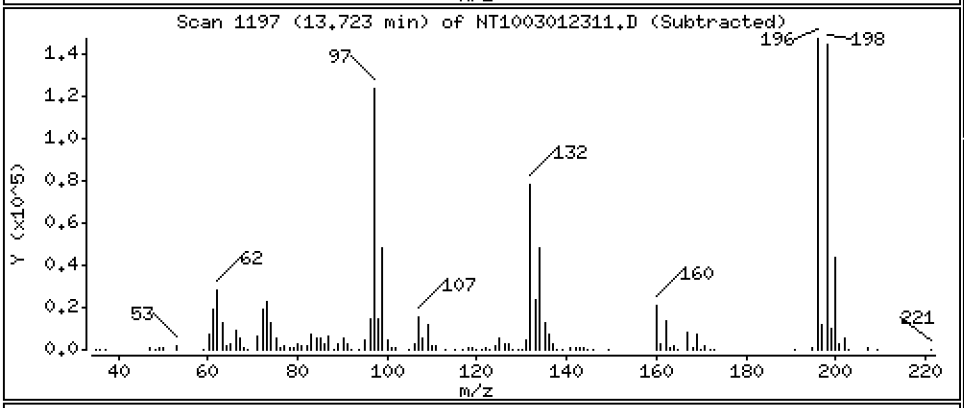
Column phase: ZB-5msi

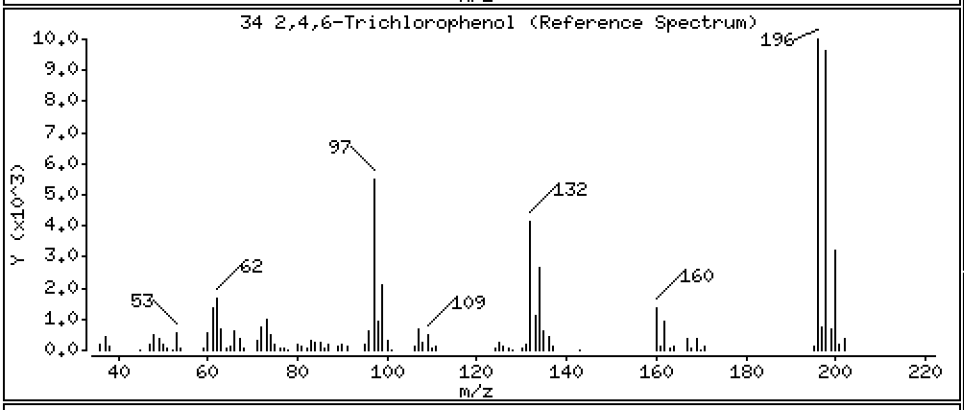
Column diameter: 0.25

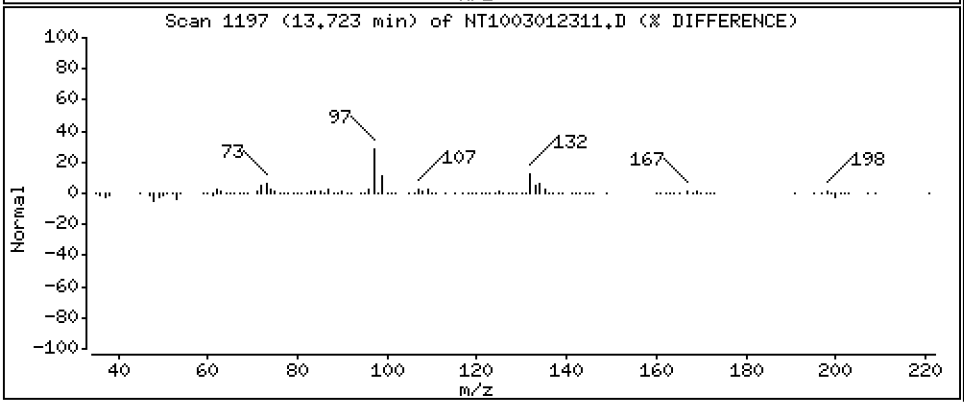
34 2,4,6-Trichlorophenol

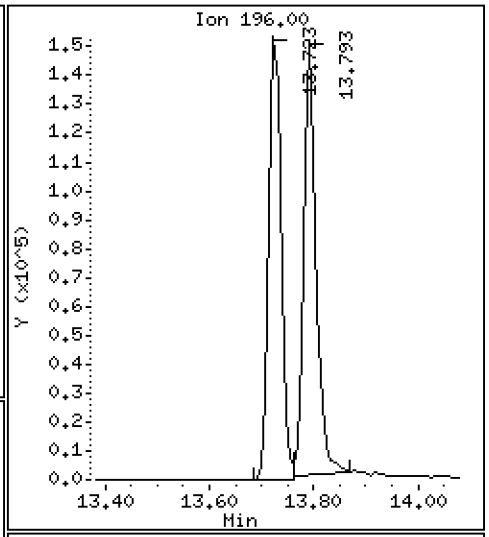
Concentration: 4.120 ug/mL

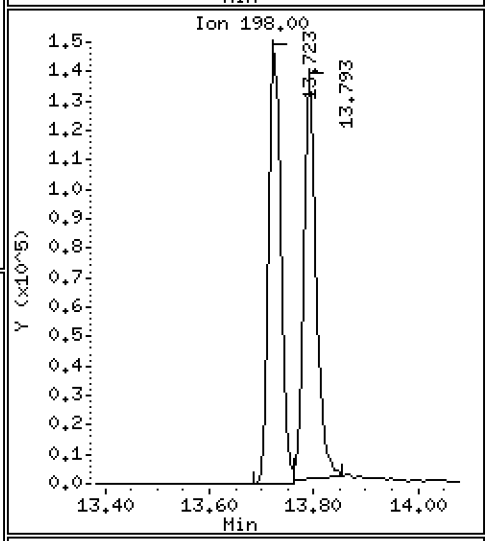


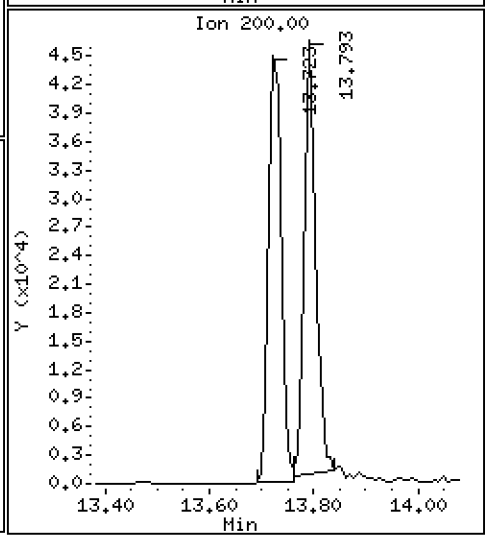












Date : 01-MAR-2023 21:46

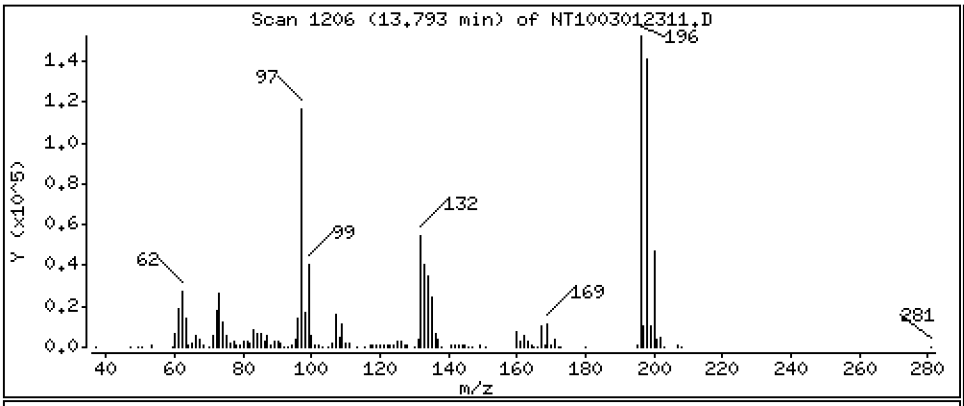
Client ID: Instrument: nt10.i

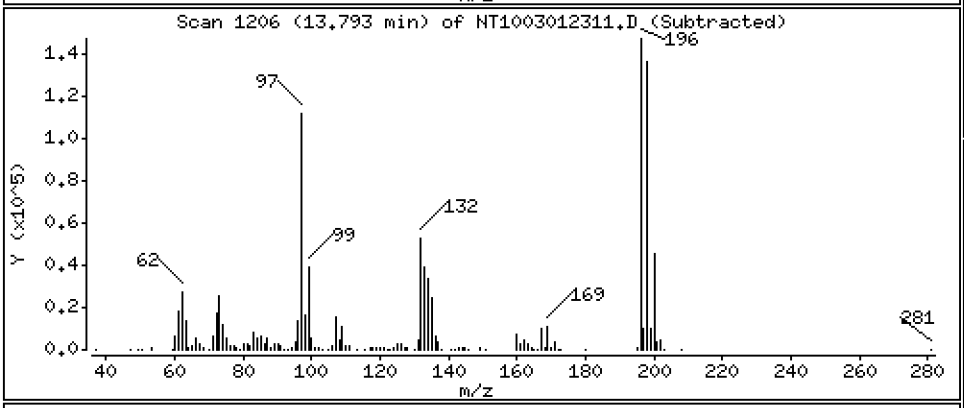
Sample Info: SEQ-SCV1

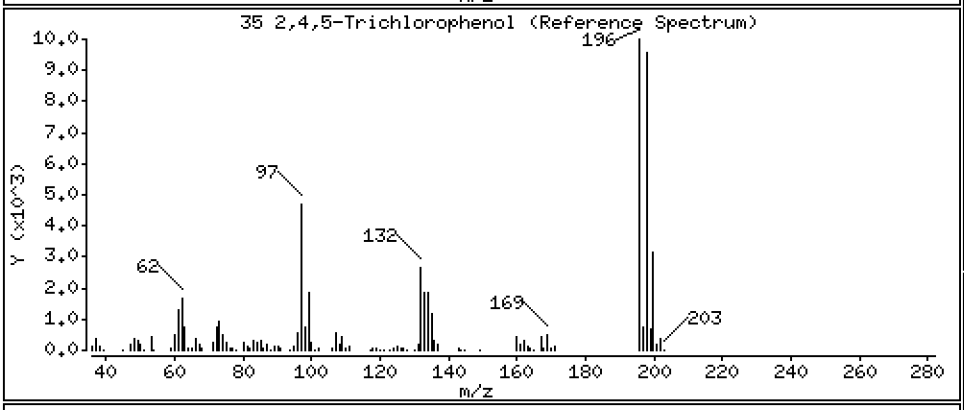
Operator: VTS

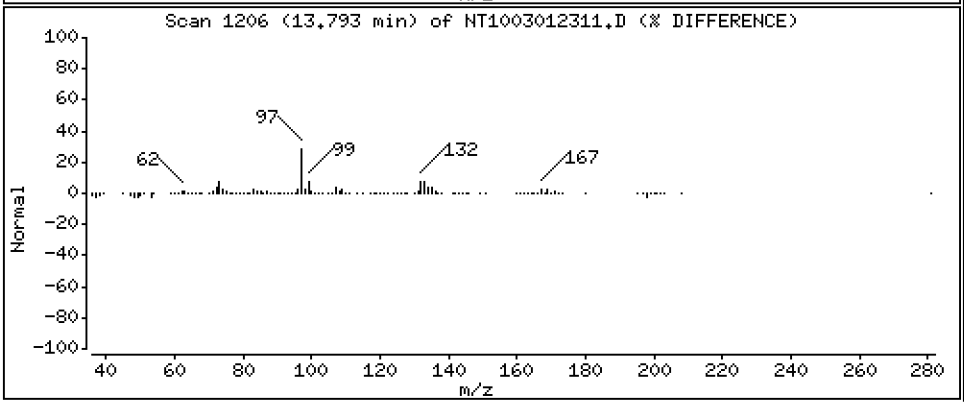
Column phase: ZB-5msi Column diameter: 0.25

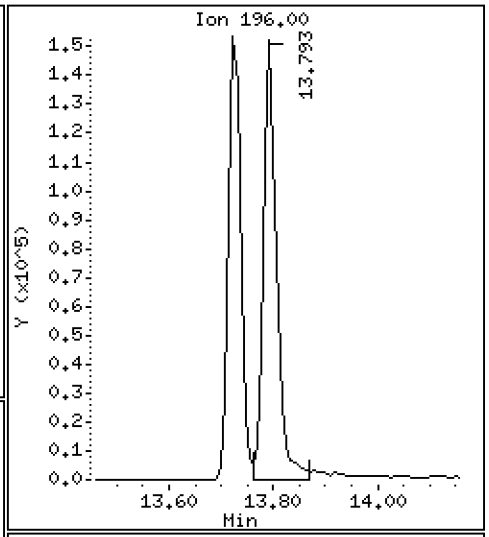
35 2,4,5-Trichlorophenol Concentration: 4.149 ug/mL

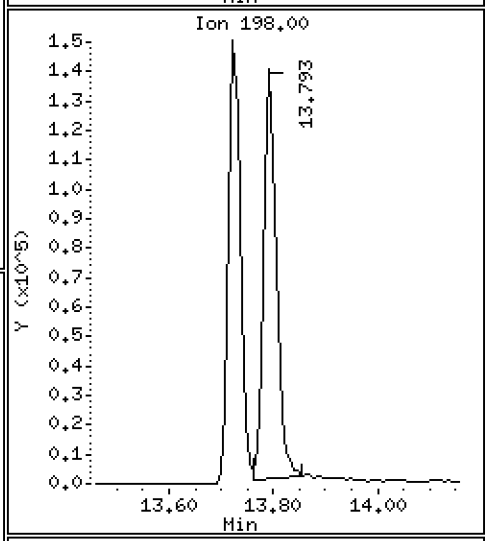


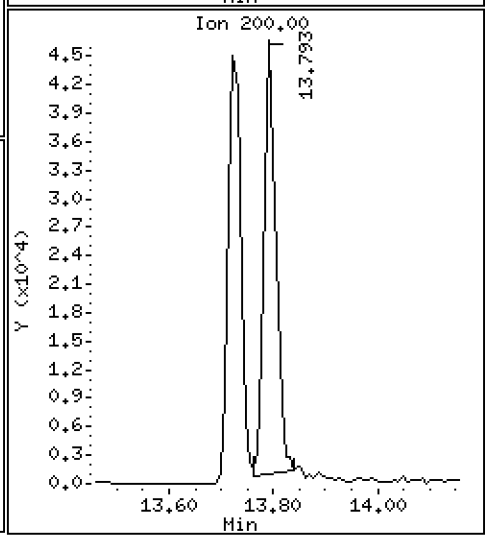












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

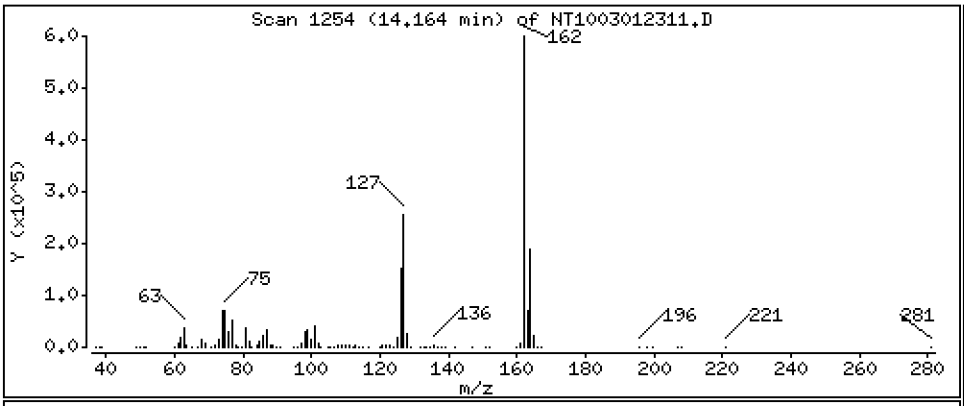
Operator: VTS

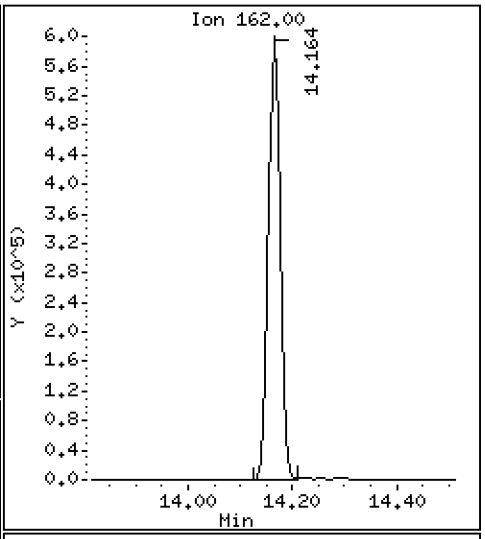
Column phase: ZB-5msi

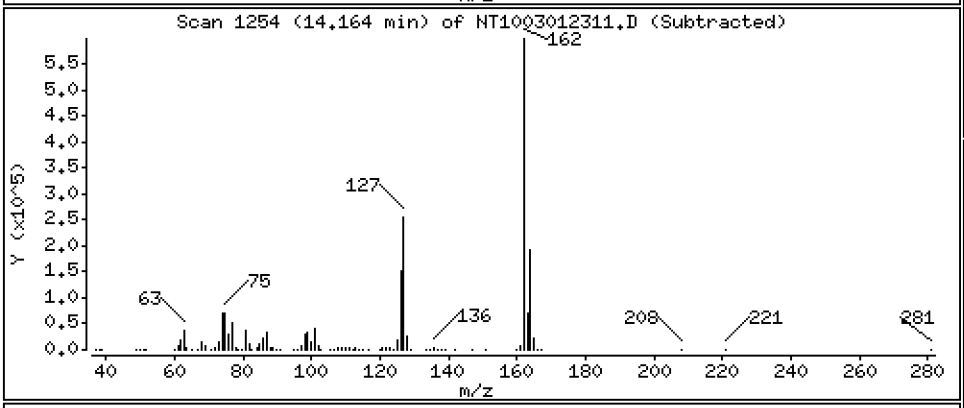
Column diameter: 0.25

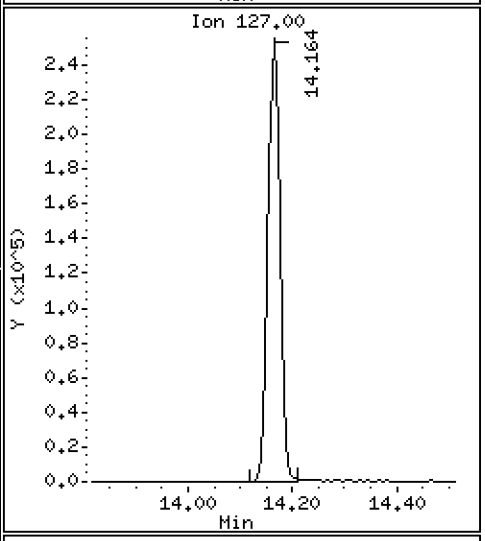
37 2-Chloronaphthalene

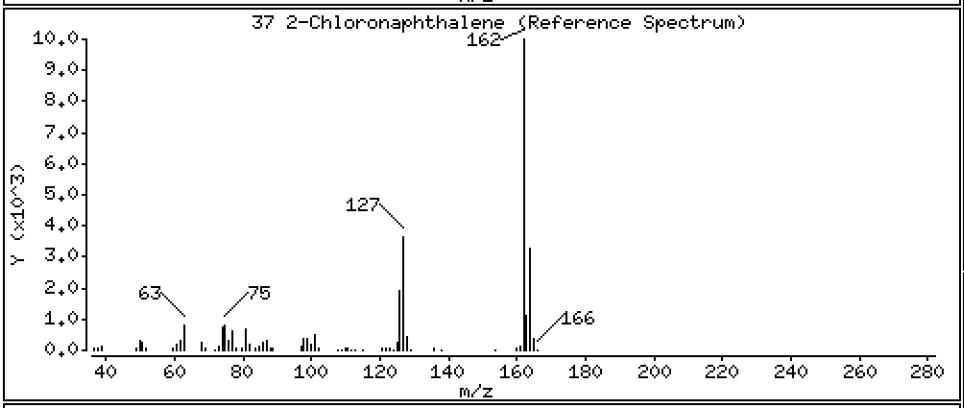
Concentration: 5.264 ug/mL

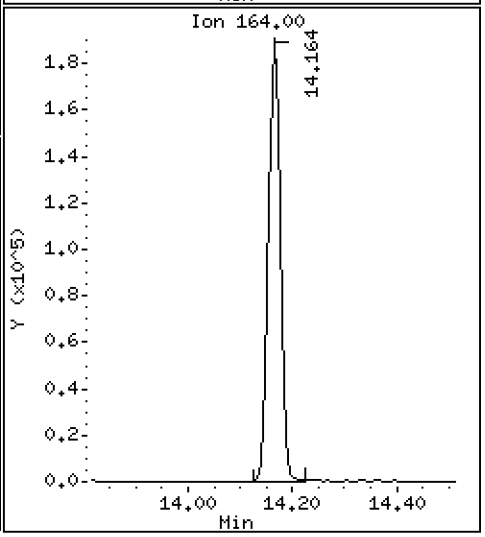


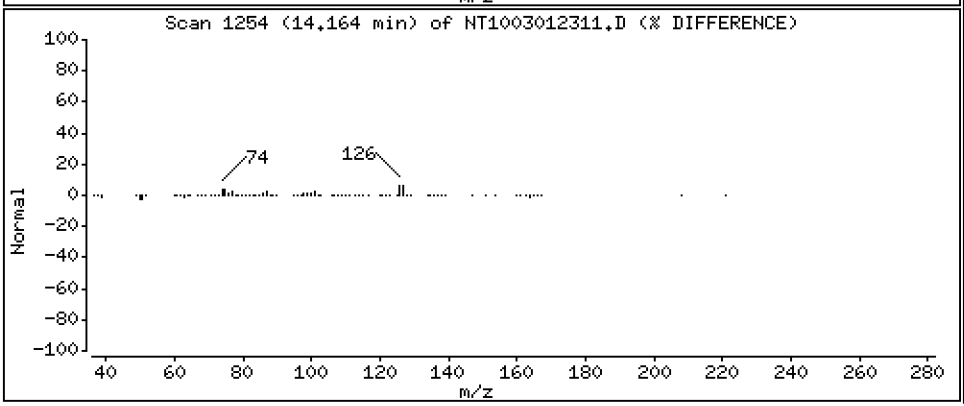












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

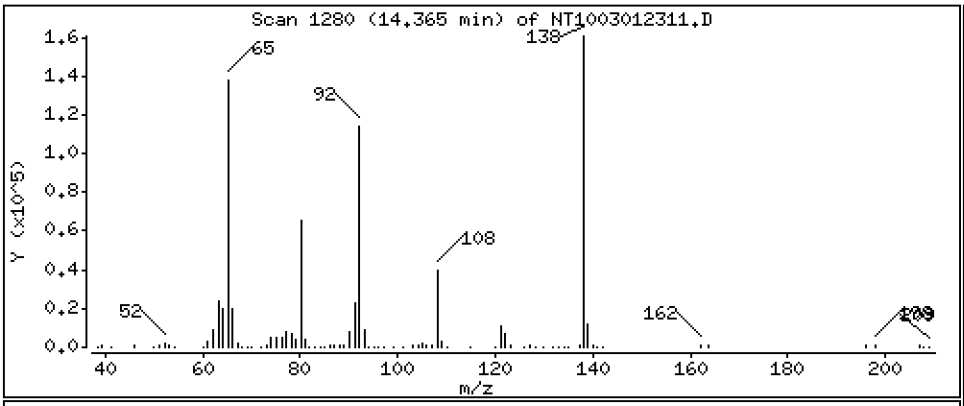
Operator: VTS

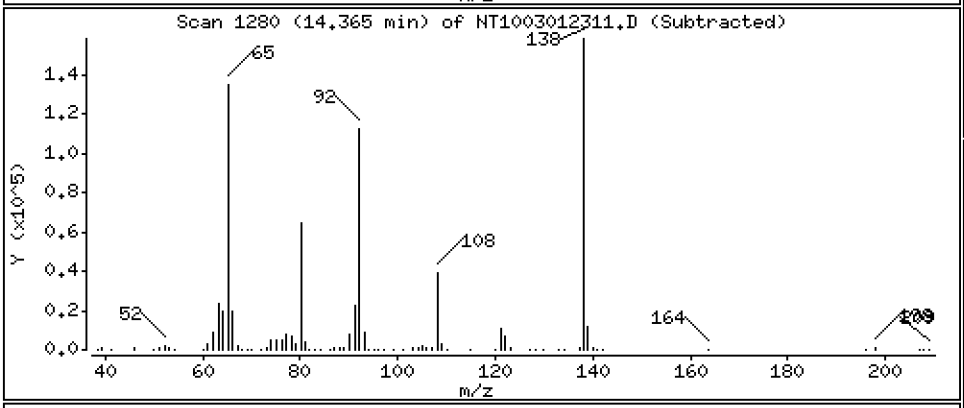
Column phase: ZB-5msi

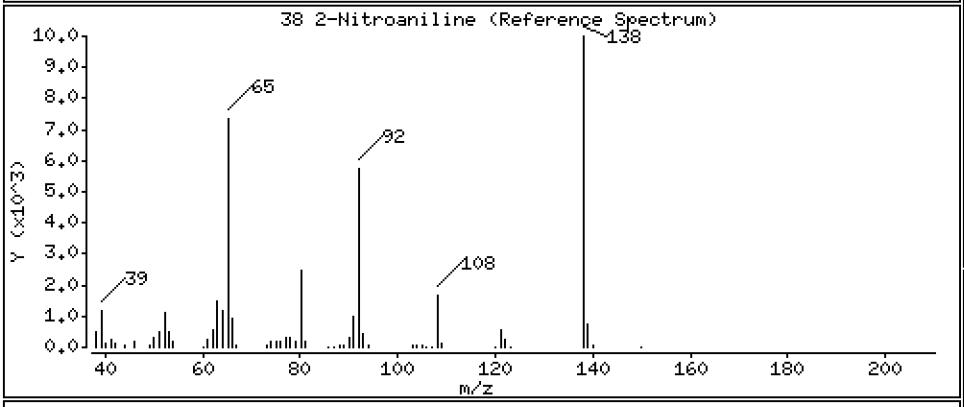
Column diameter: 0.25

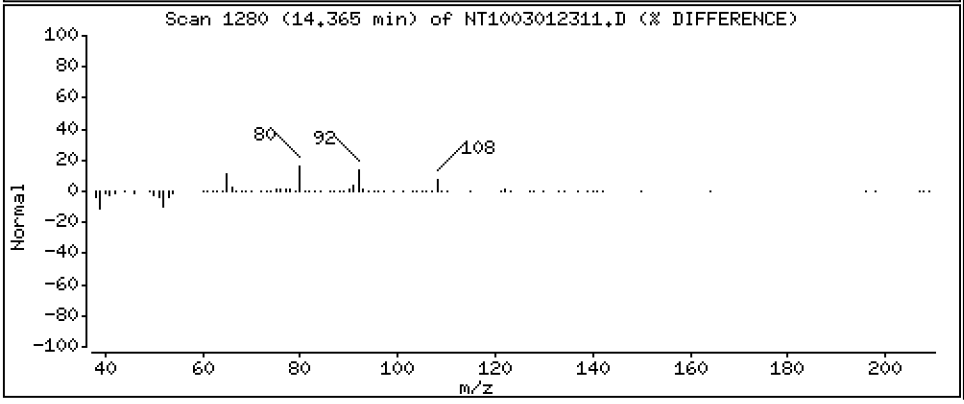
38 2-Nitroaniline

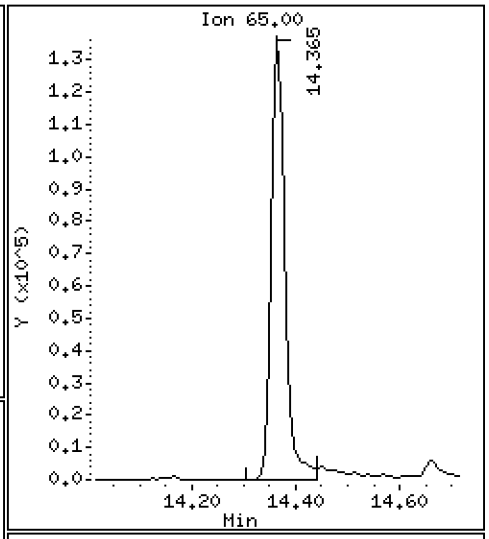
Concentration: 5.027 ug/mL

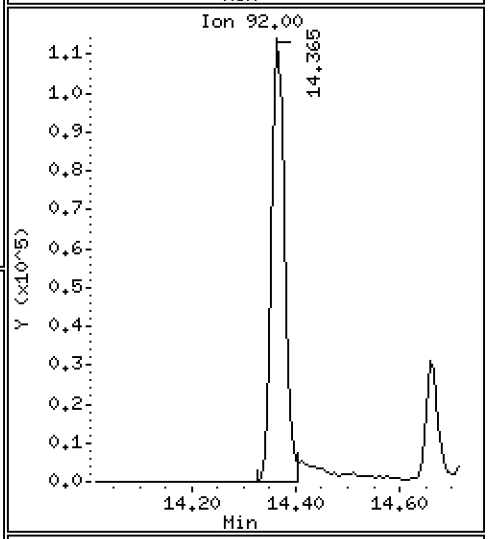


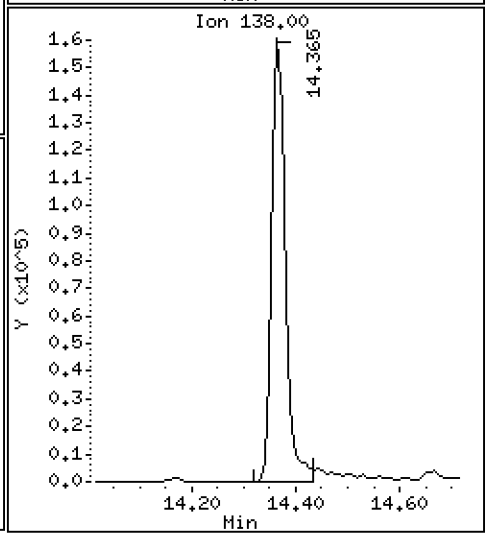












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

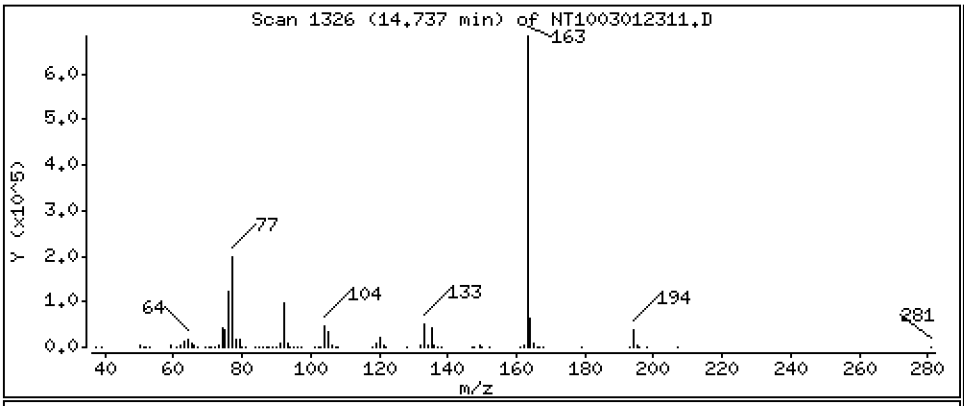
Operator: VTS

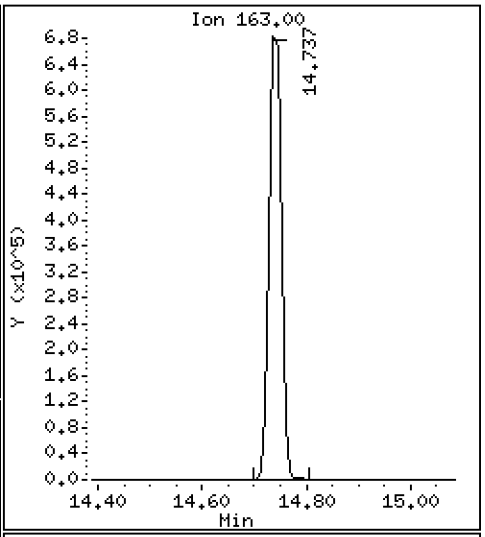
Column phase: ZB-5msi

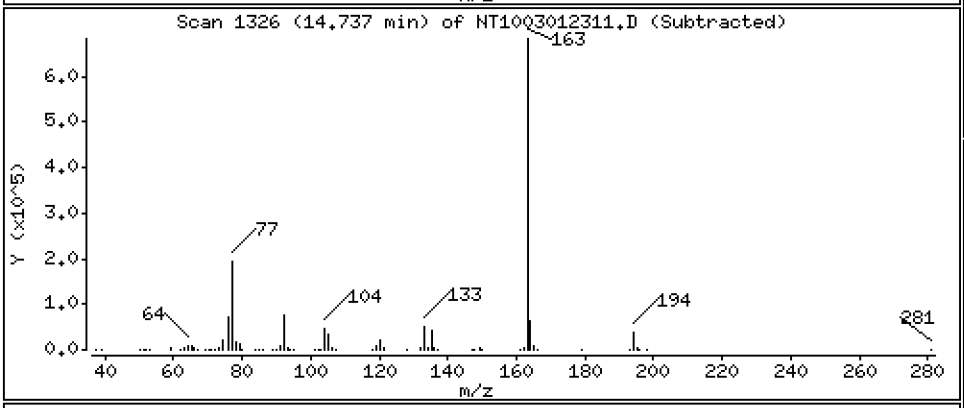
Column diameter: 0.25

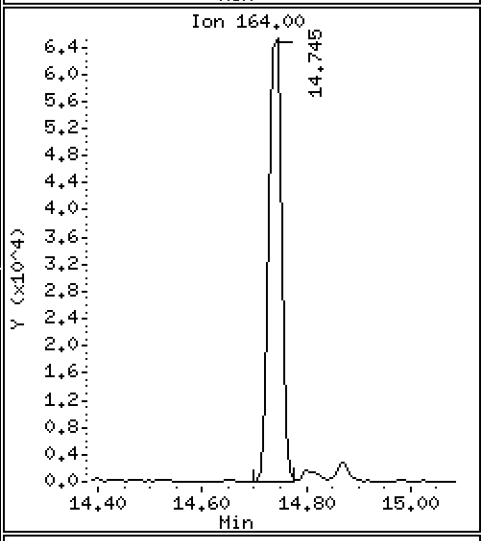
39 Dimethylphthalate

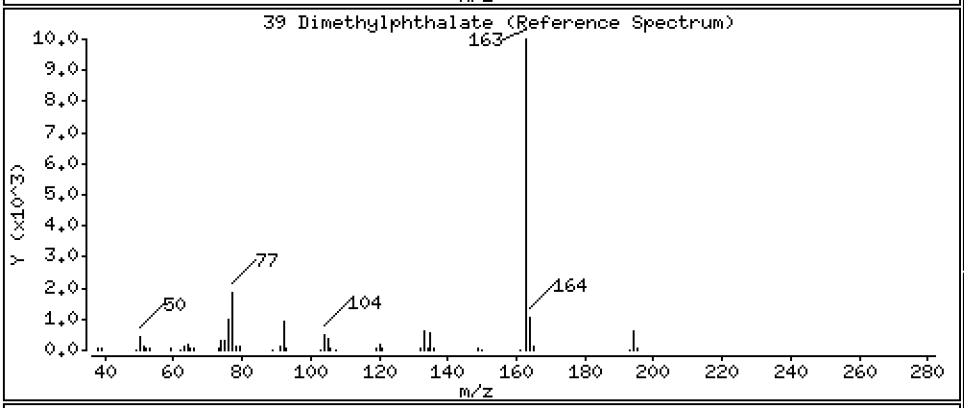
Concentration: 5.384 ug/mL

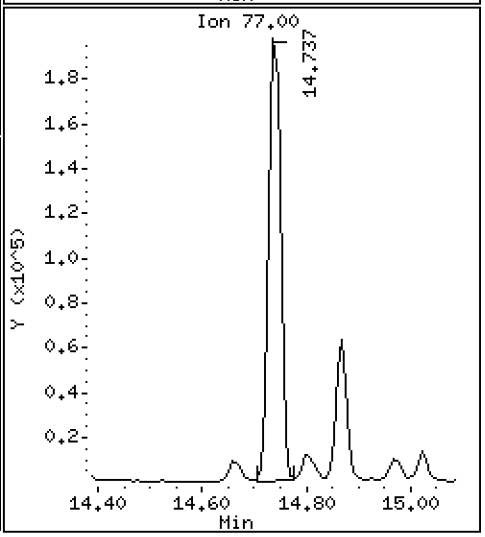


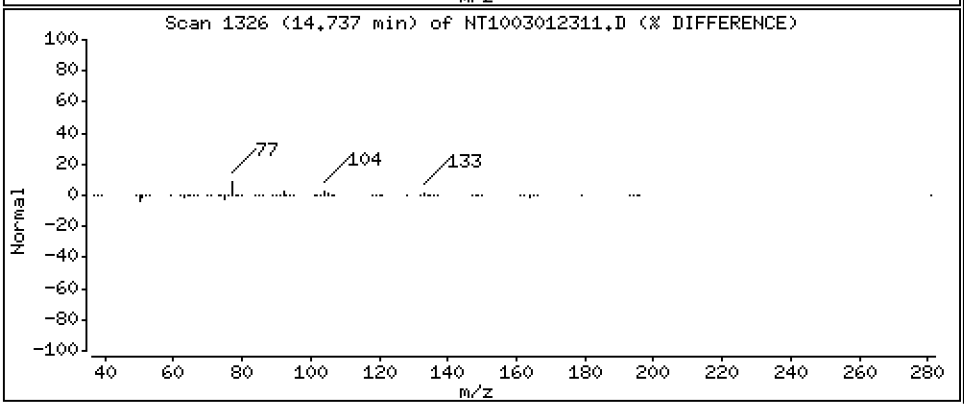












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

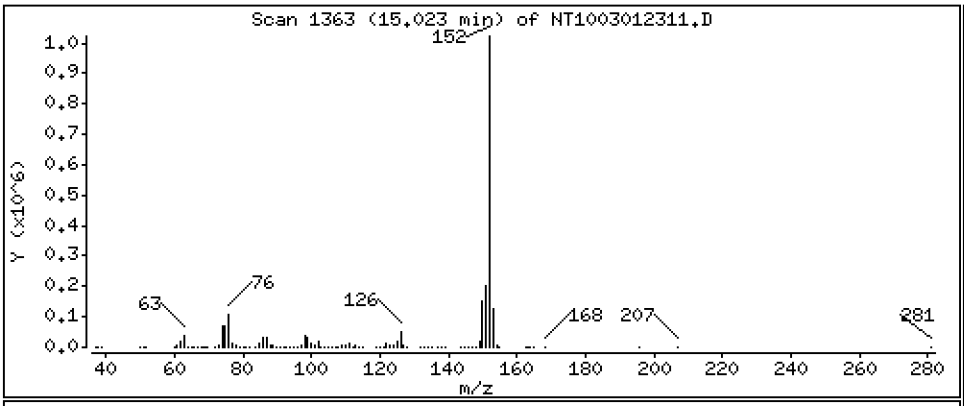
Operator: VTS

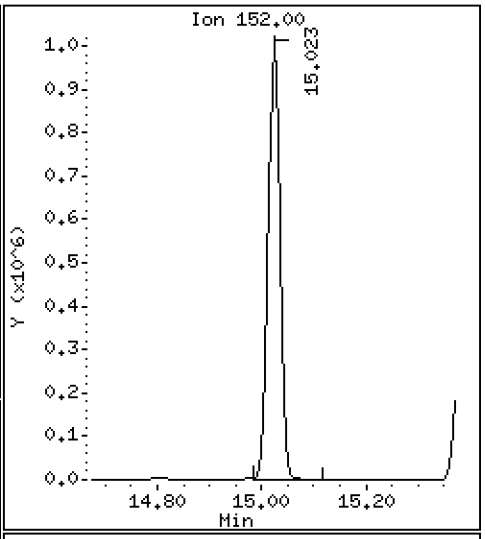
Column phase: ZB-5msi

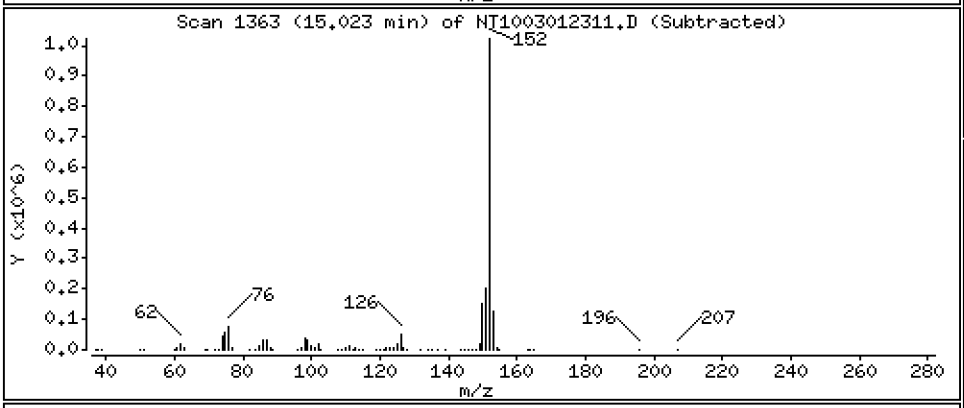
Column diameter: 0.25

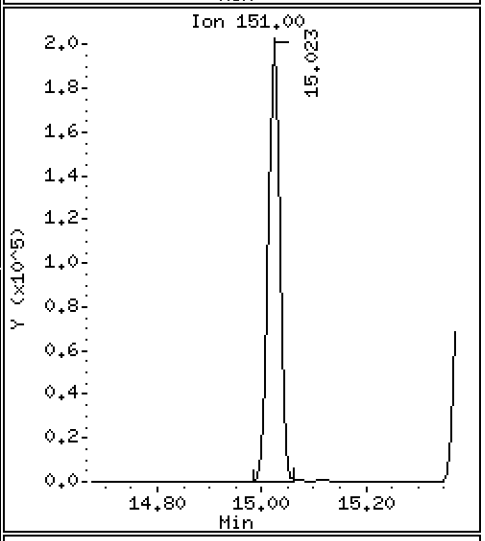
40 Acenaphthylene

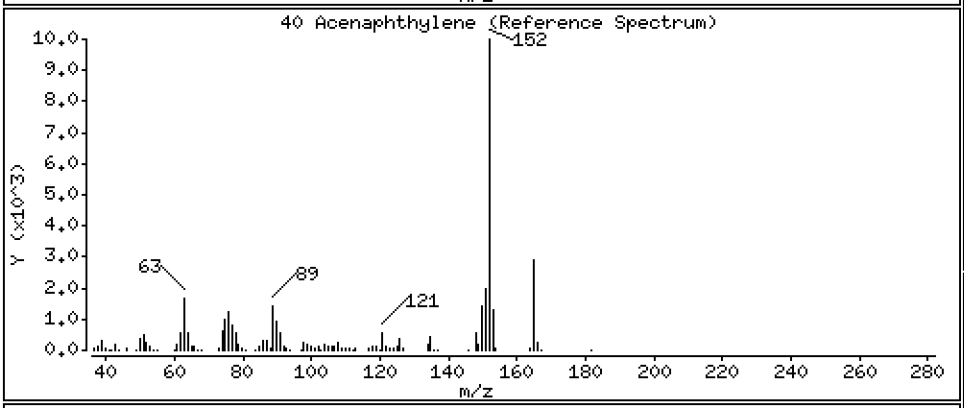
Concentration: 5.806 ug/mL

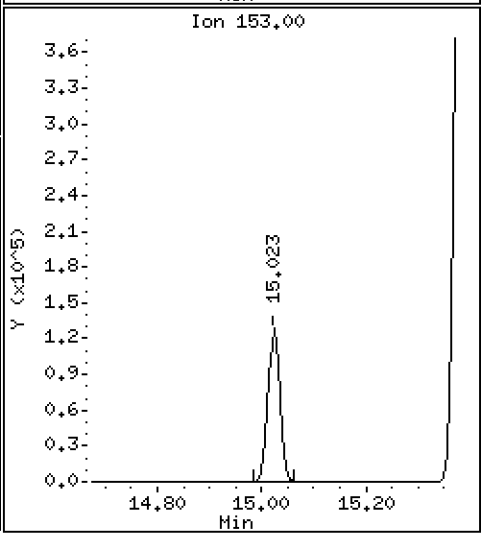


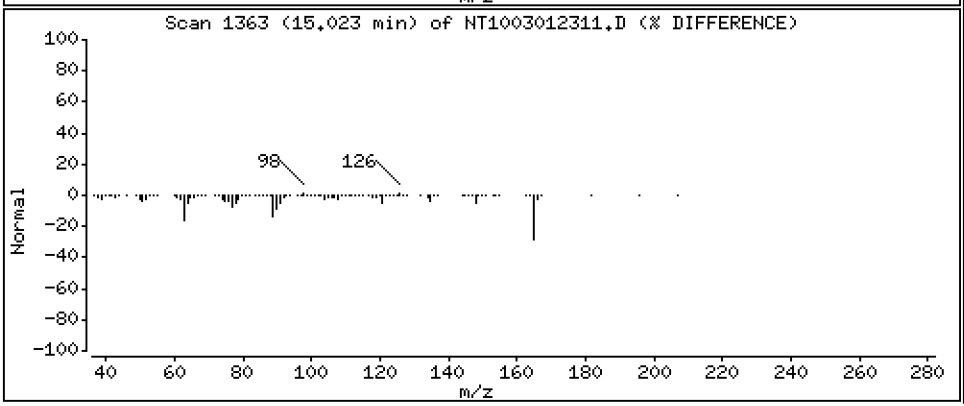












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

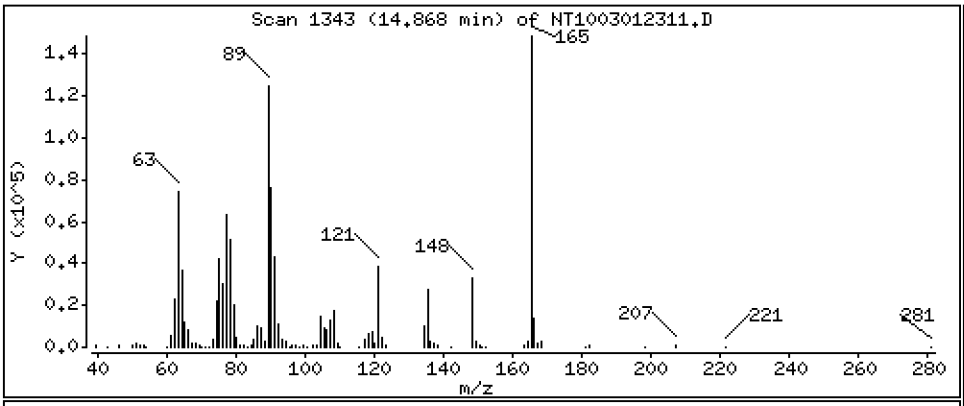
Operator: VTS

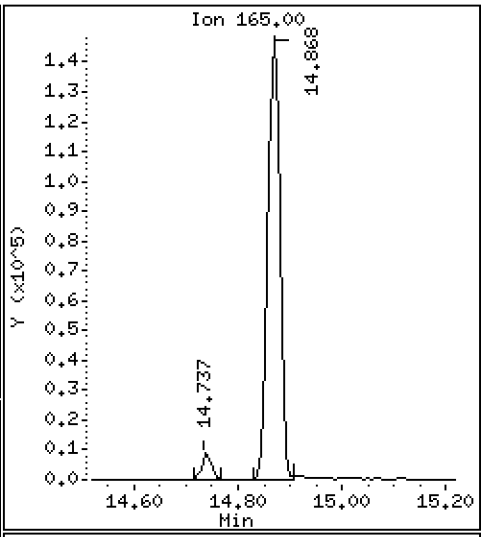
Column phase: ZB-5msi

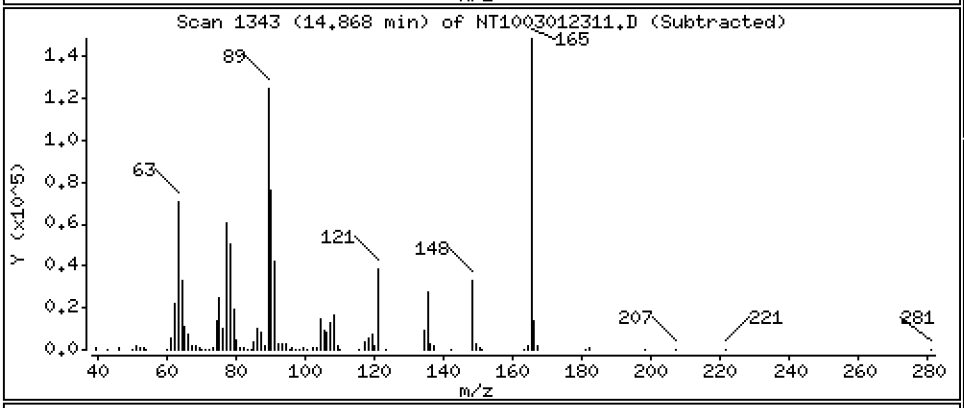
Column diameter: 0.25

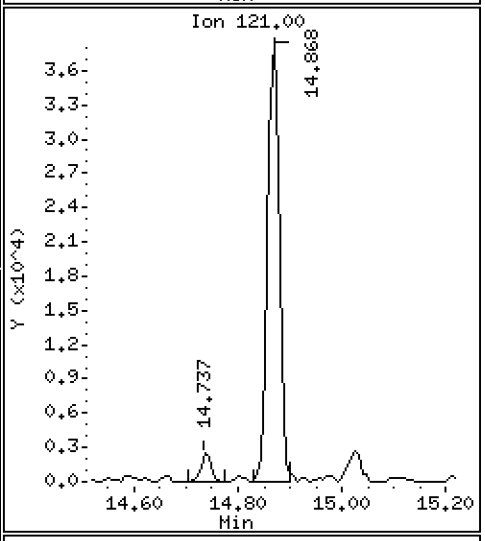
41 2,6-Dinitrotoluene

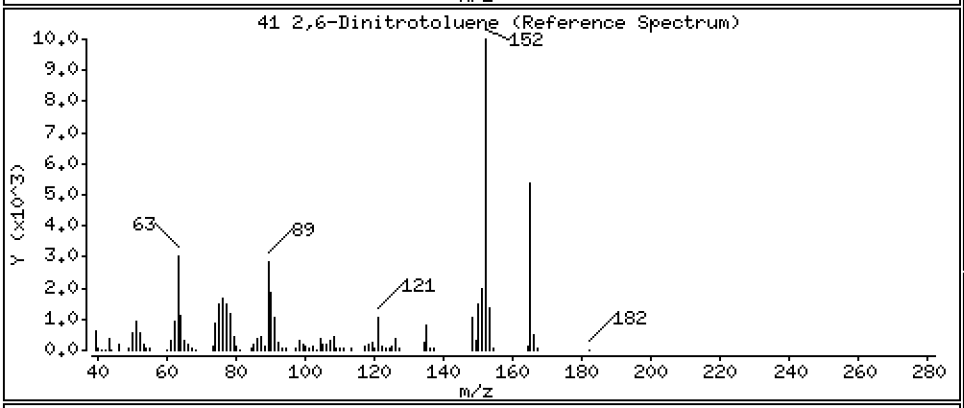
Concentration: 5.187 ug/mL

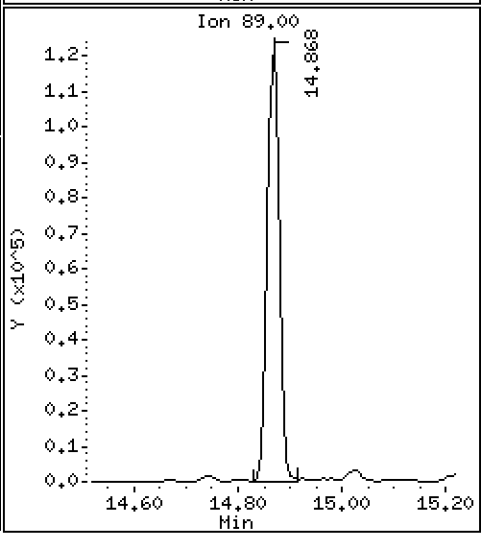


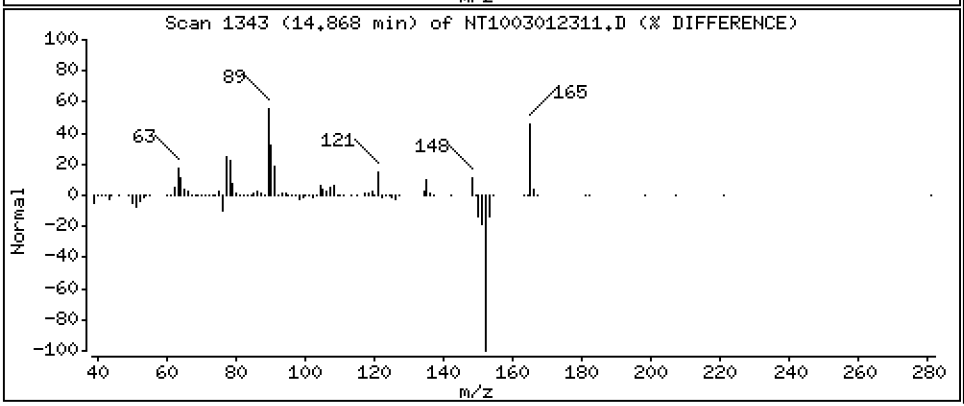












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

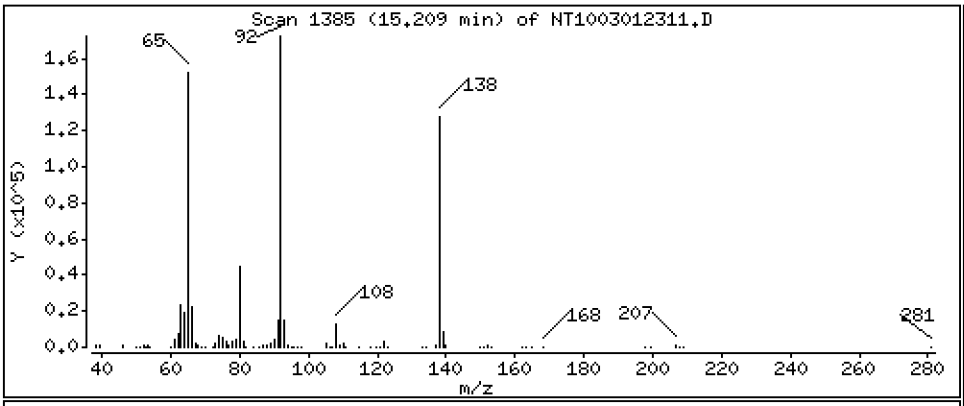
Operator: VTS

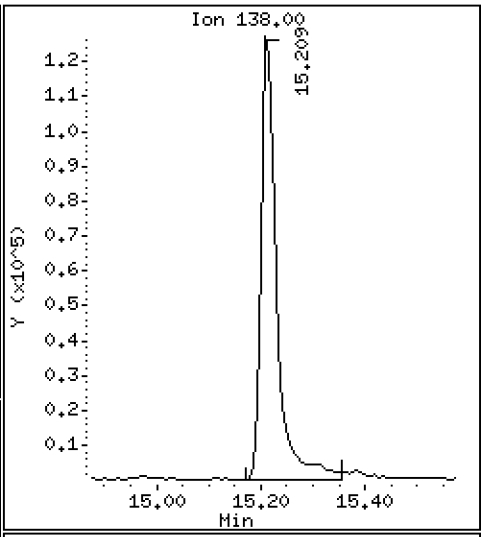
Column phase: ZB-5msi

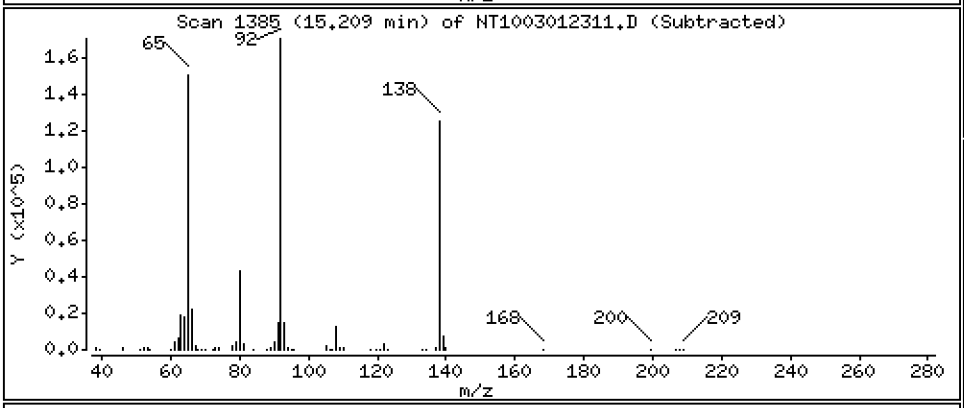
Column diameter: 0.25

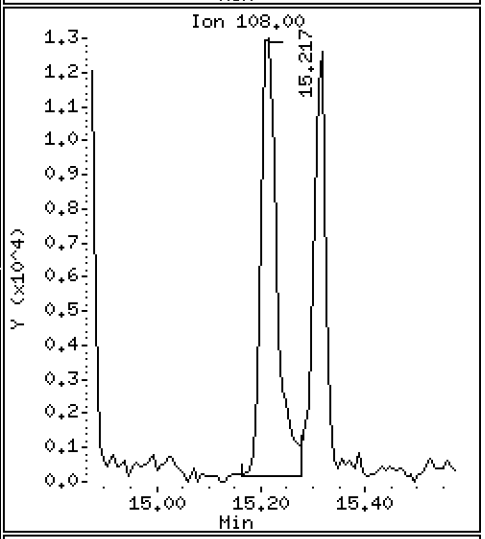
43 3-Nitroaniline

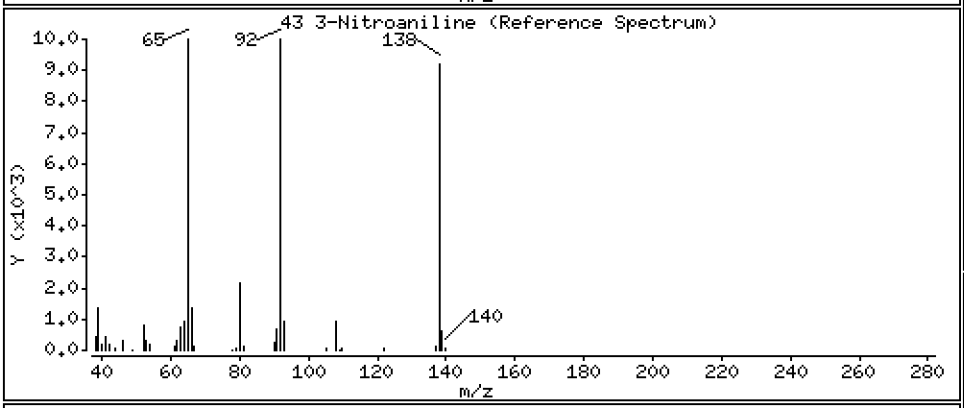
Concentration: 5.172 ug/mL

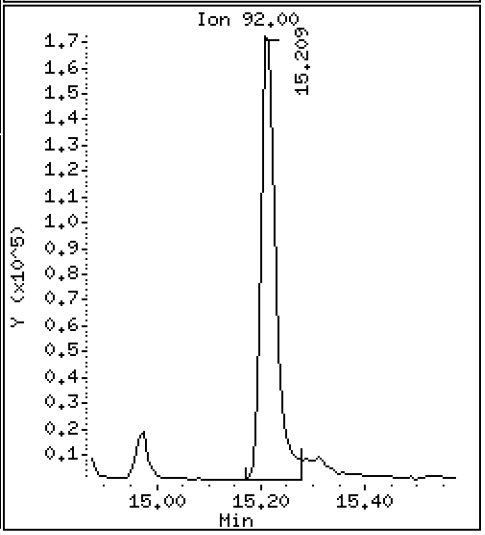


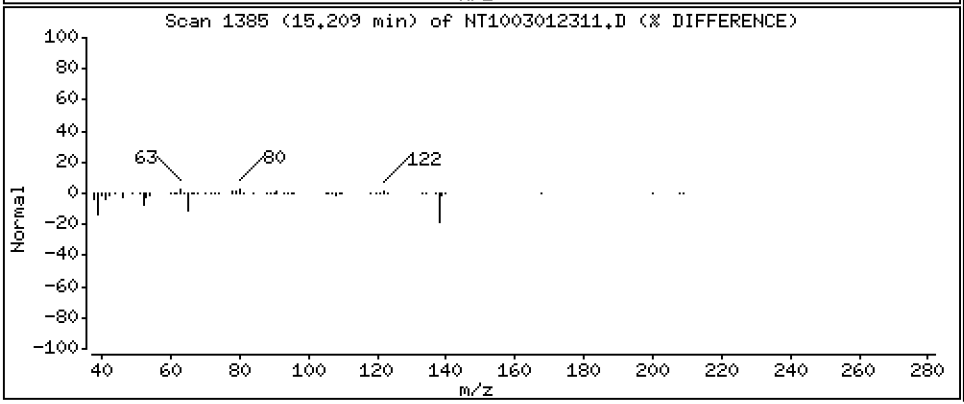












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

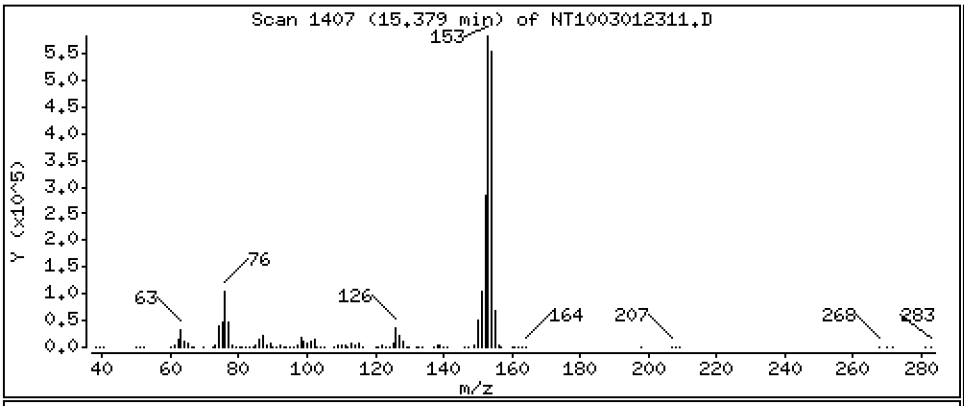
Operator: VTS

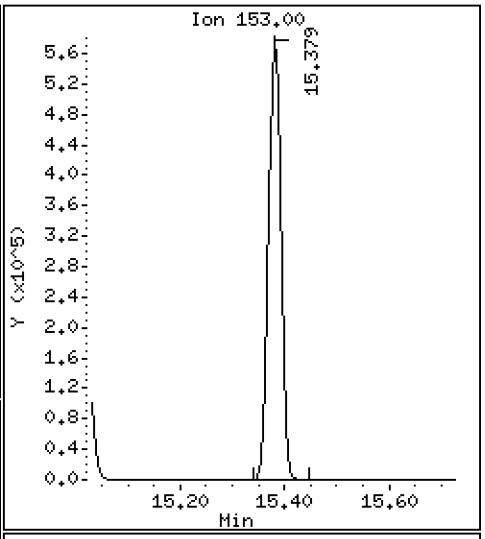
Column phase: ZB-5msi

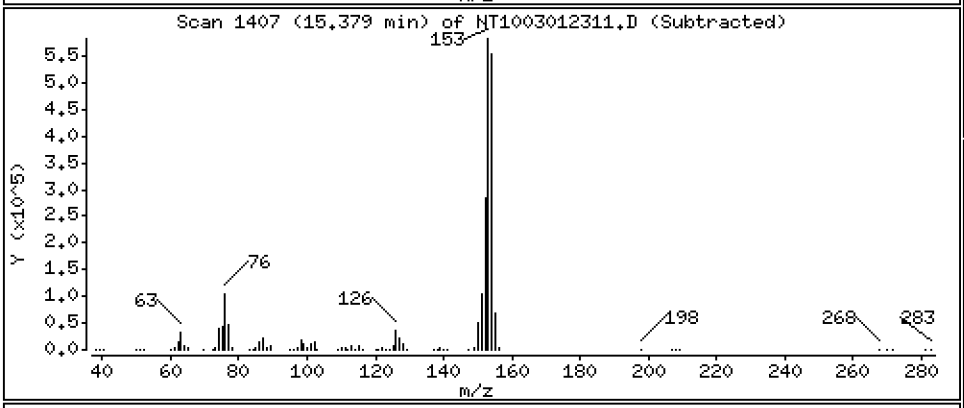
Column diameter: 0.25

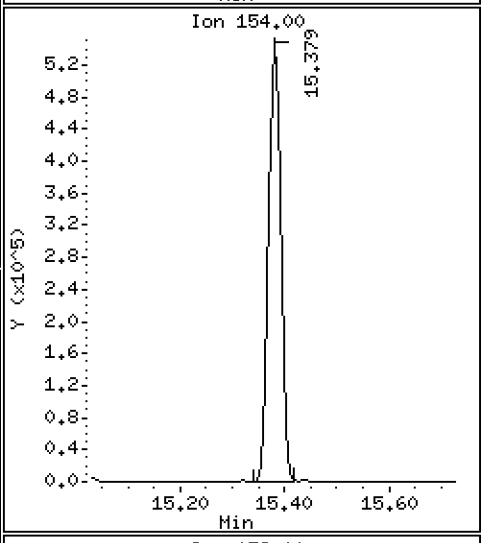
44 Acenaphthene

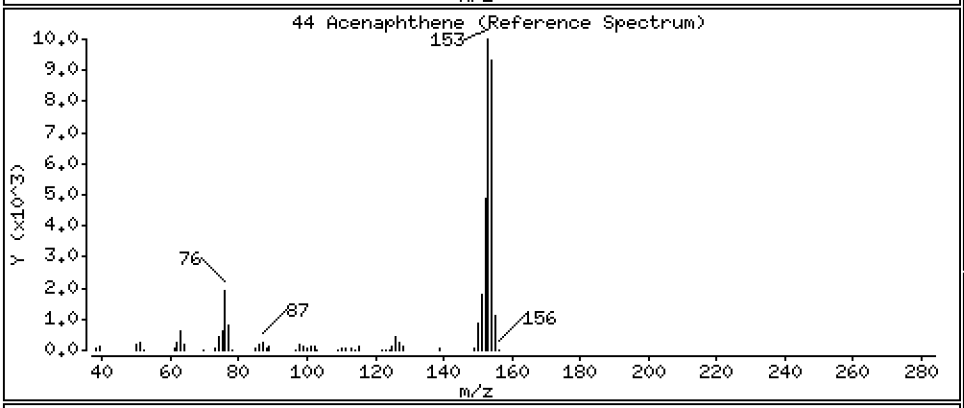
Concentration: 5.154 ug/mL

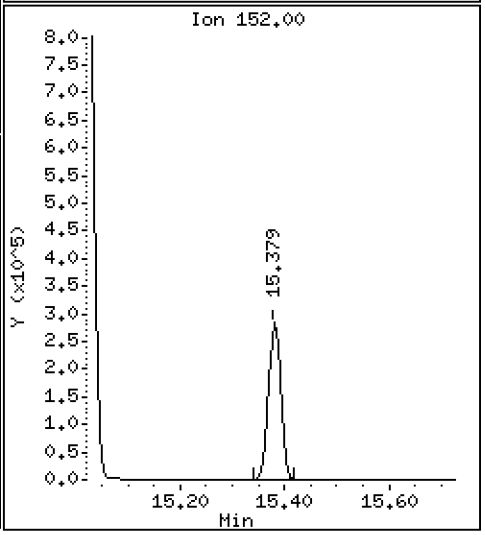


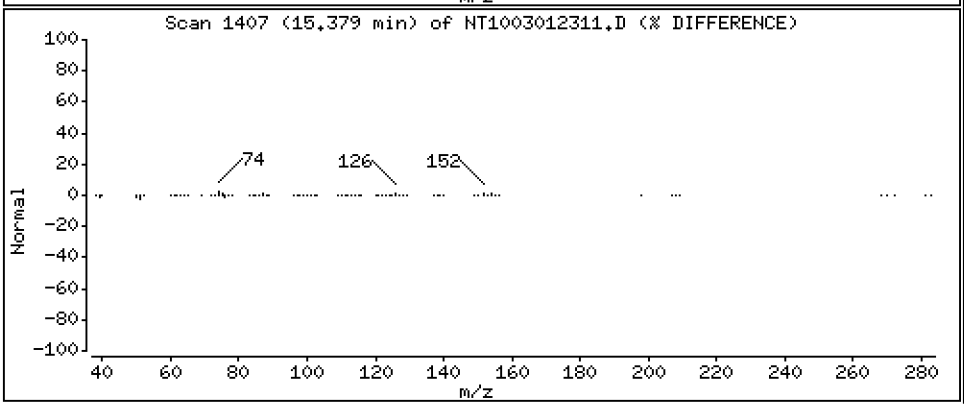












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

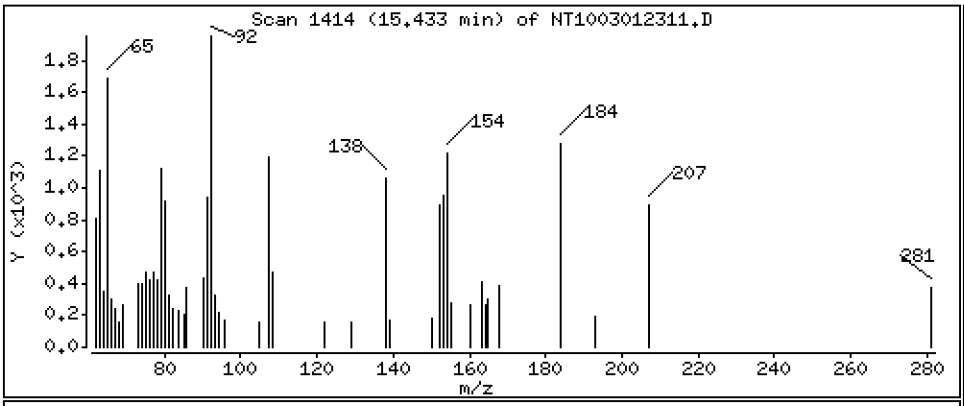
Operator: VTS

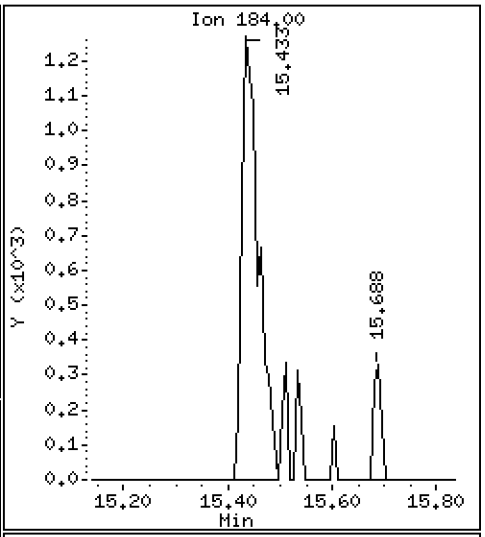
Column phase: ZB-5msi

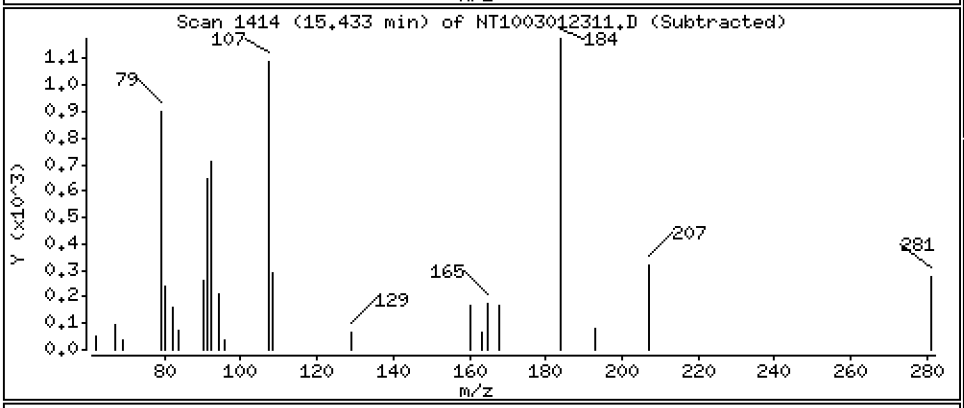
Column diameter: 0.25

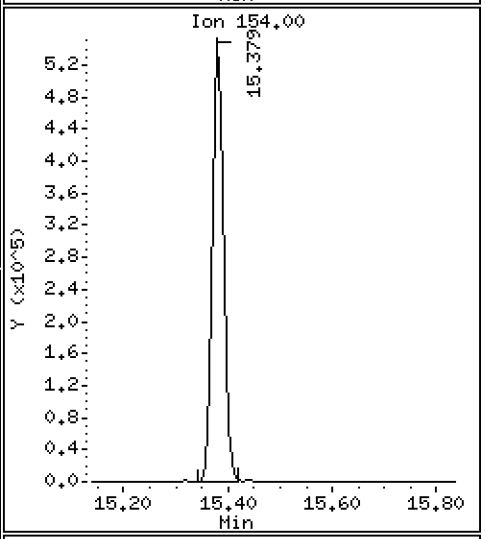
45 2,4-Dinitrophenol

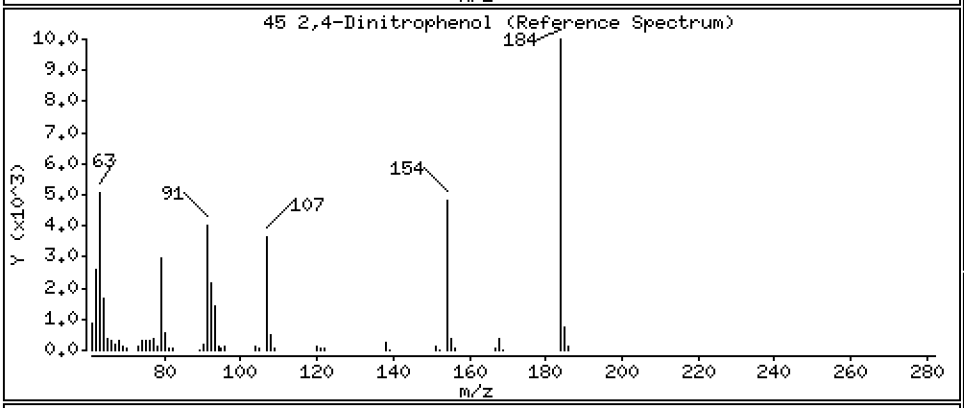
Concentration: 0.2667 ug/mL

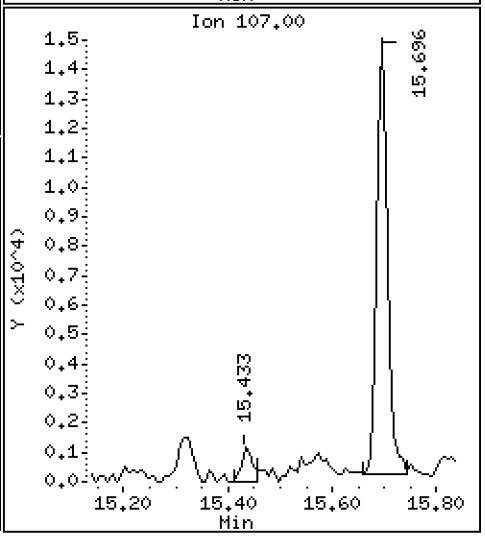


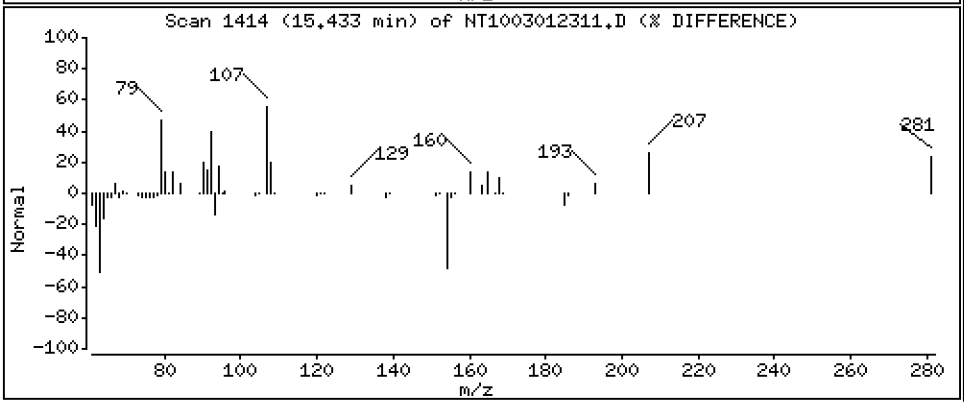












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

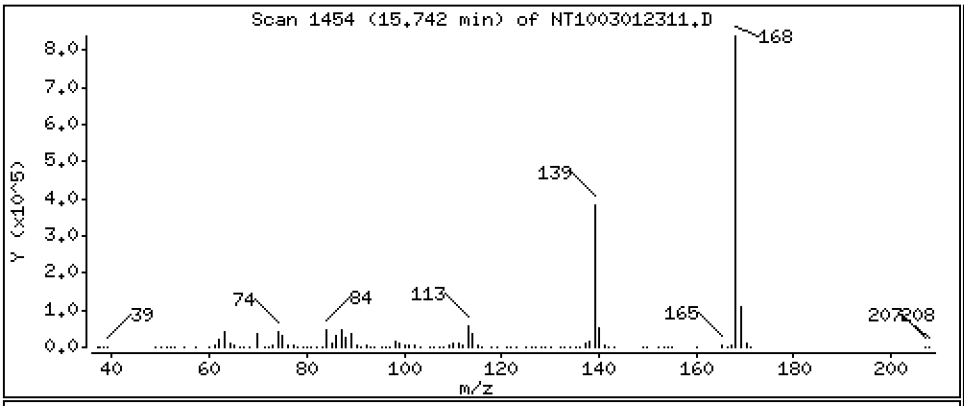
Operator: VTS

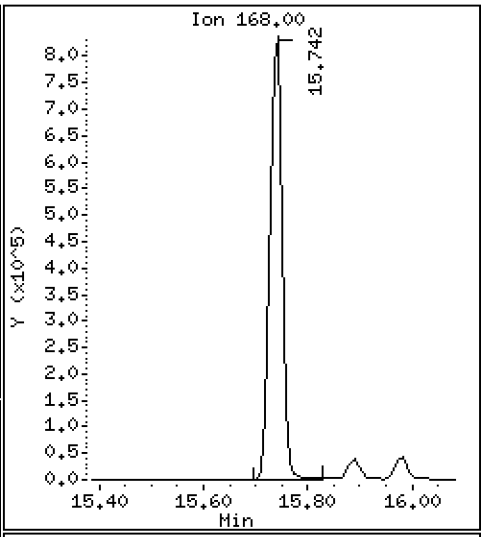
Column phase: ZB-5msi

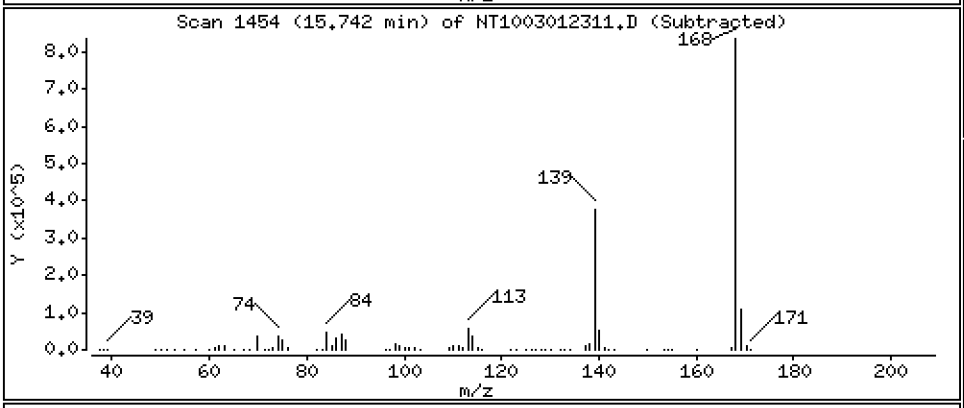
Column diameter: 0.25

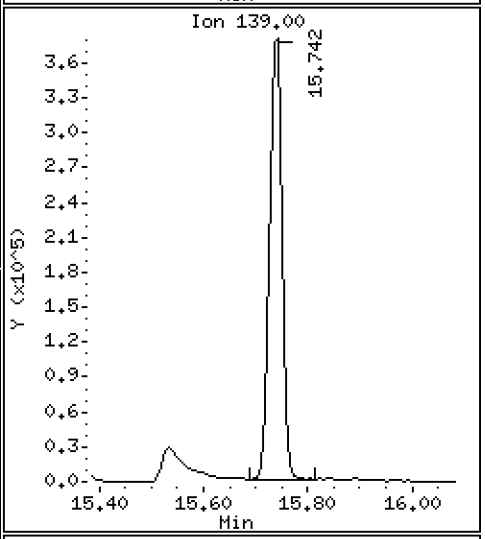
46 Dibenzofuran

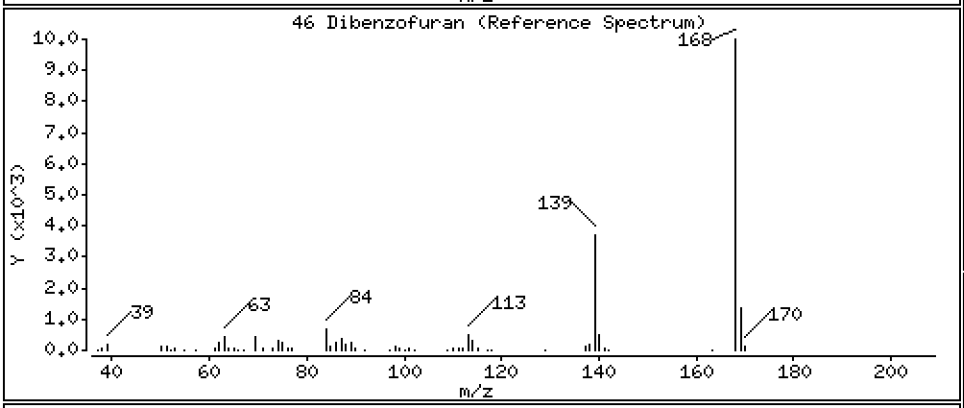
Concentration: 4.994 ug/mL

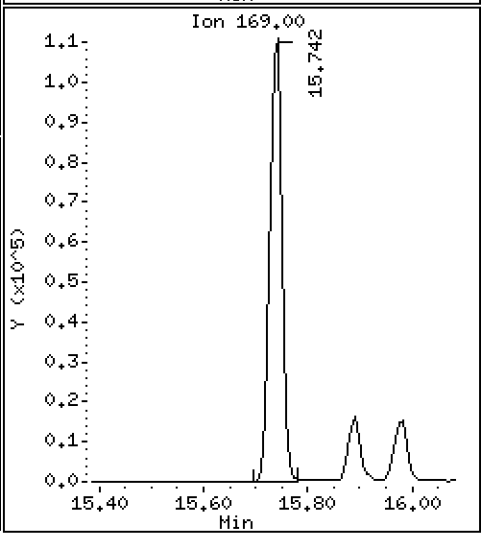


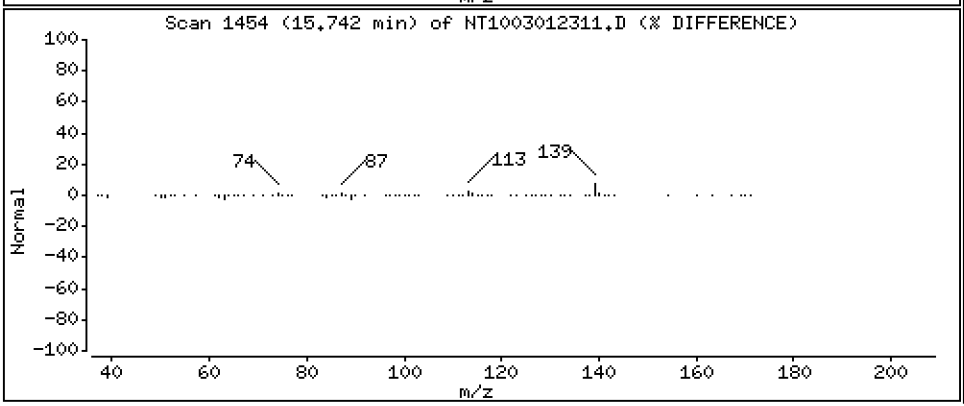












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

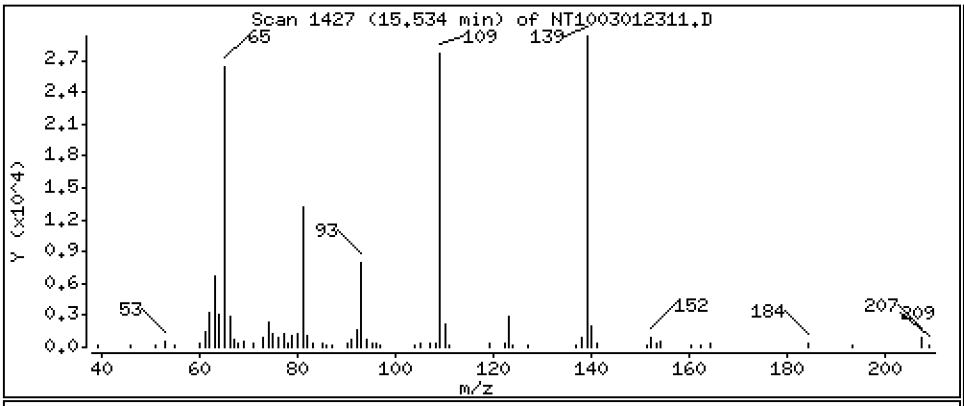
Operator: VTS

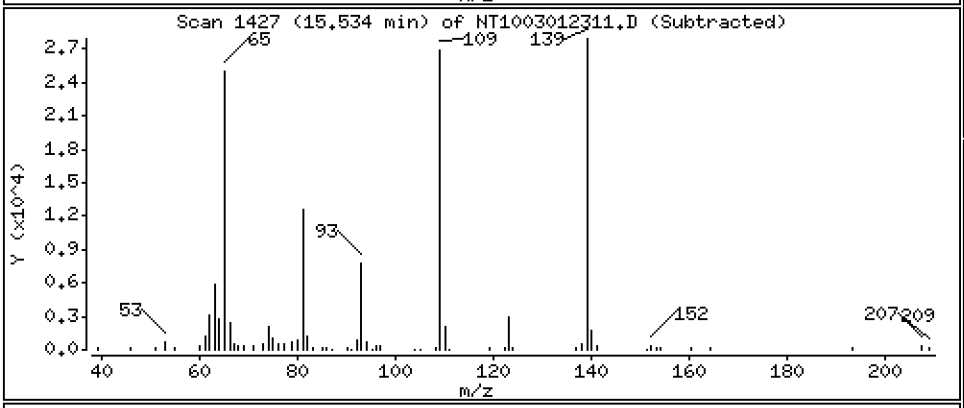
Column phase: ZB-5msi

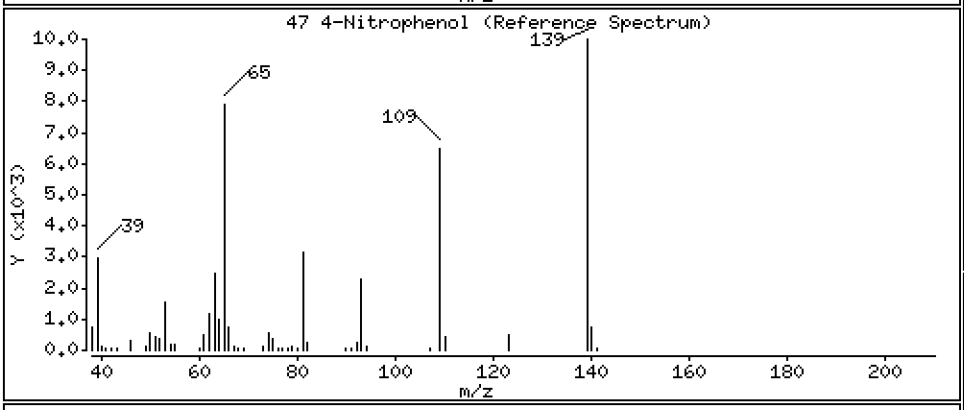
Column diameter: 0.25

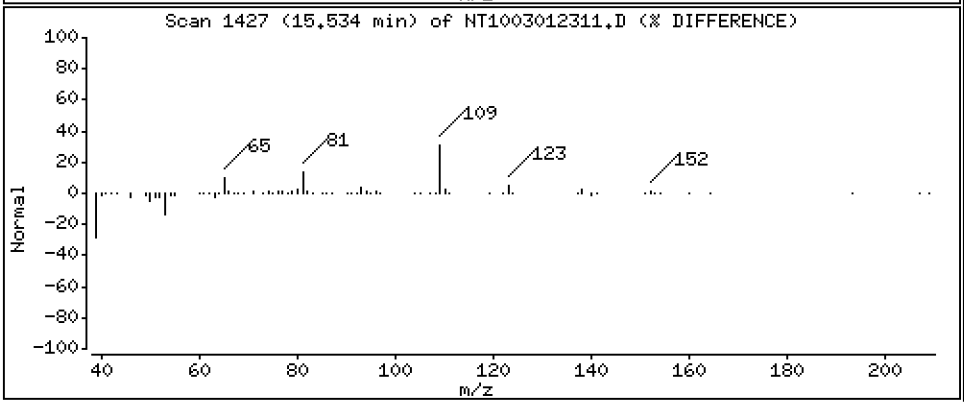
47 4-Nitrophenol

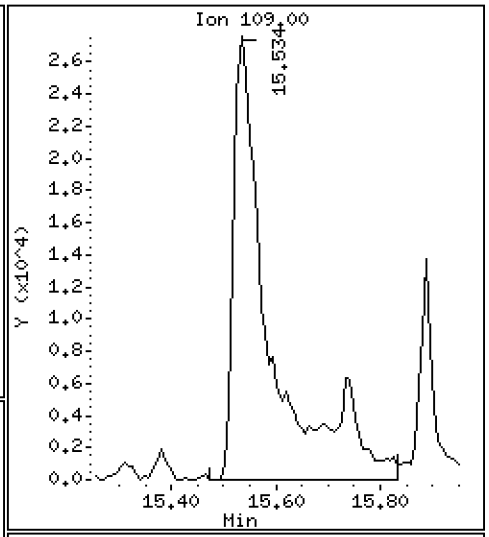
Concentration: 3.822 ug/mL

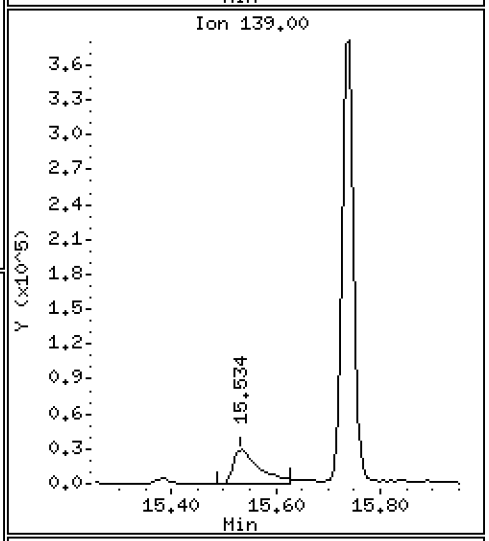


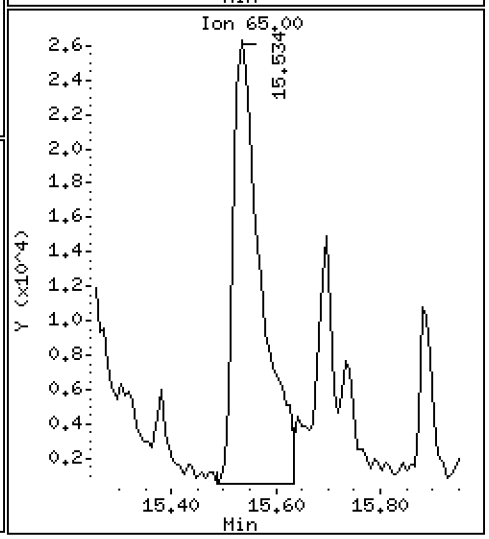












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

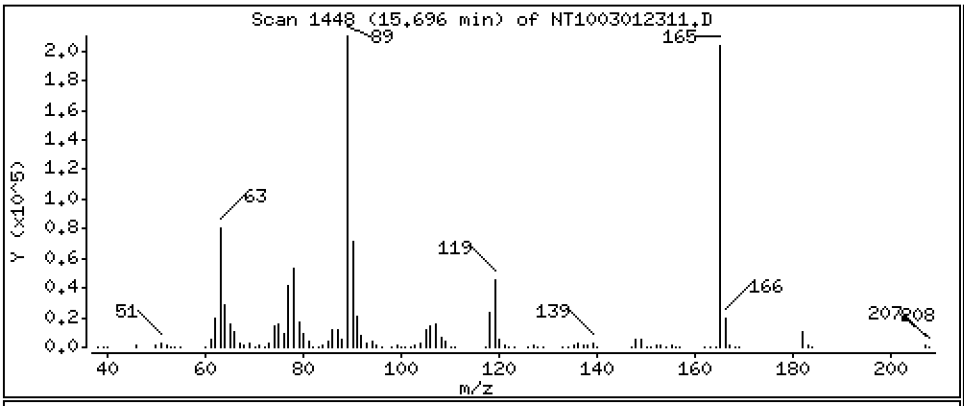
Operator: VTS

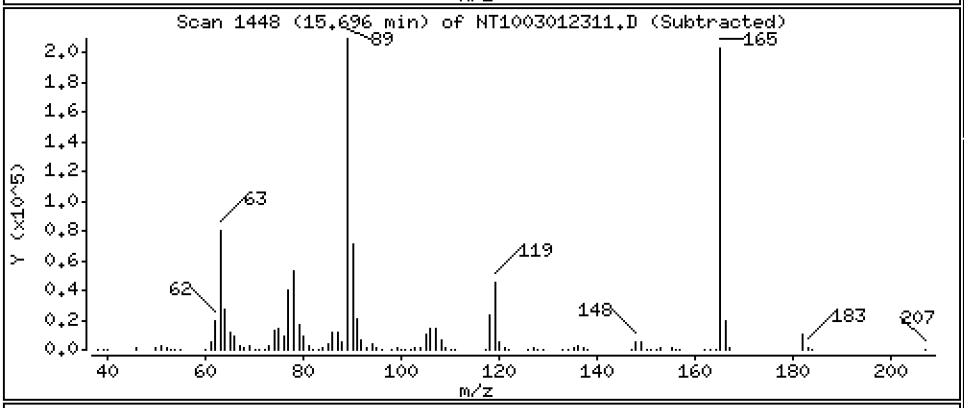
Column phase: ZB-5msi

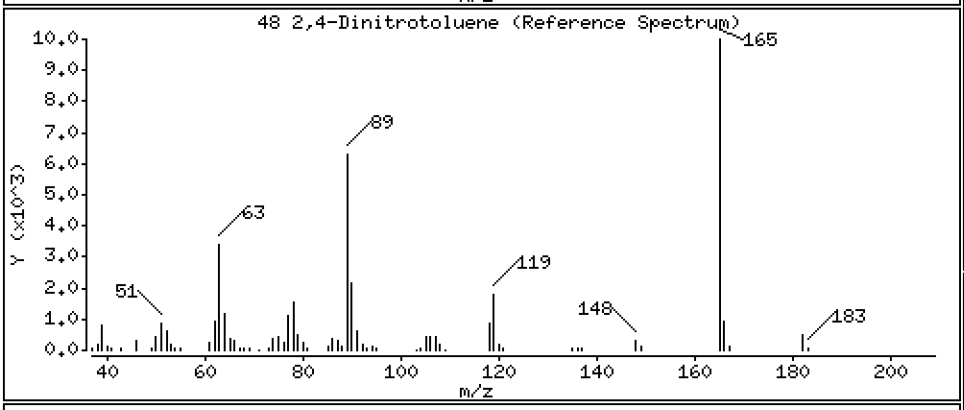
Column diameter: 0.25

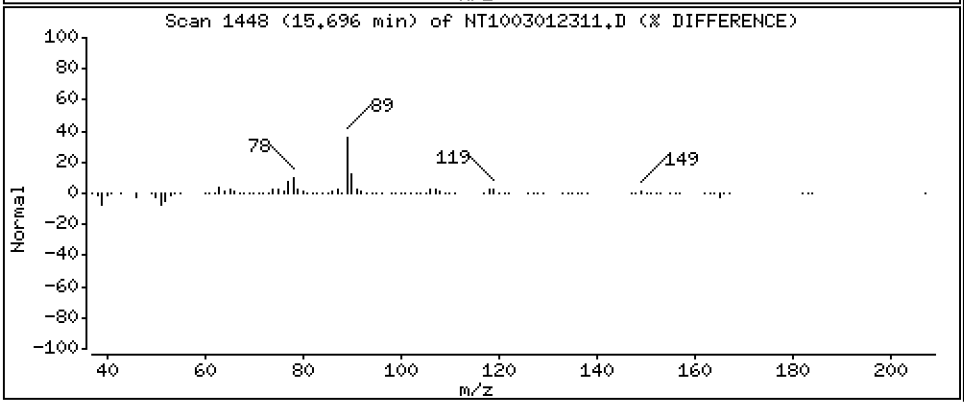
48 2,4-Dinitrotoluene

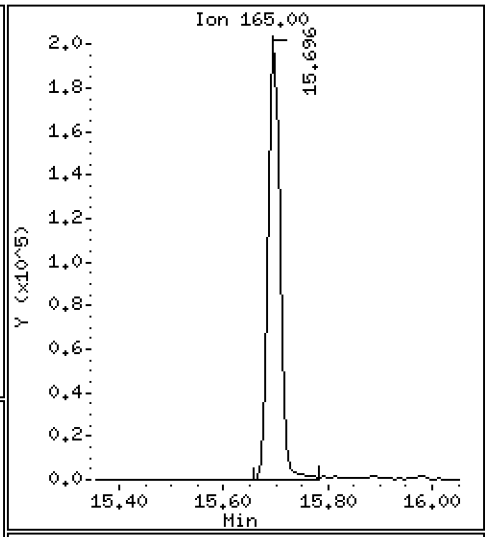
Concentration: 4.729 ug/mL

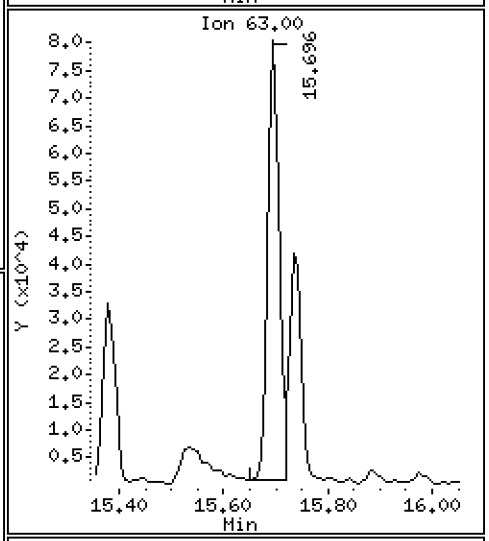


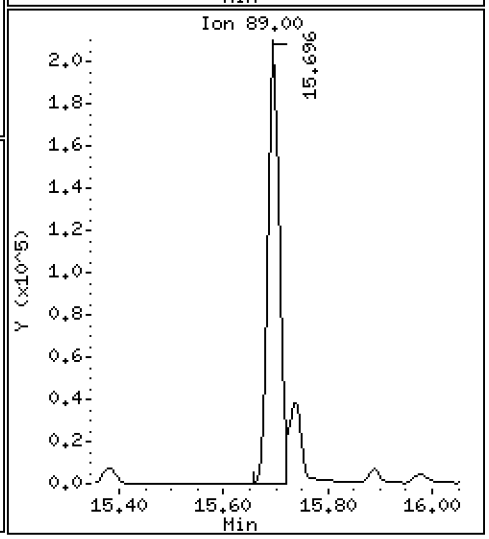












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

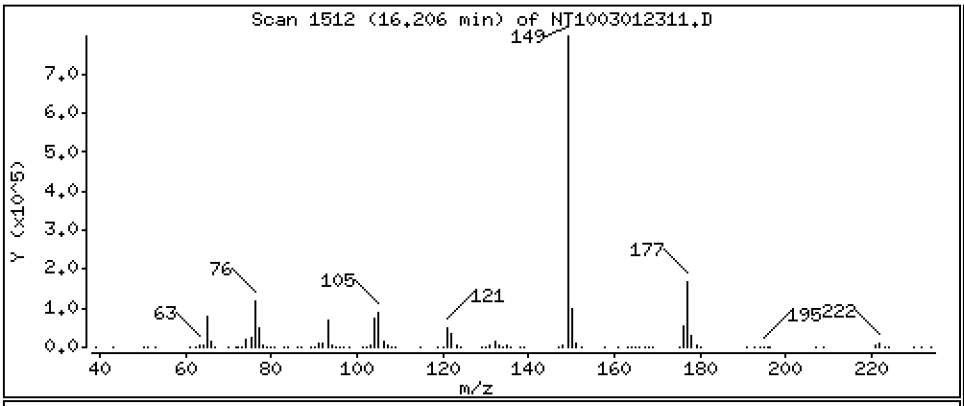
Operator: VTS

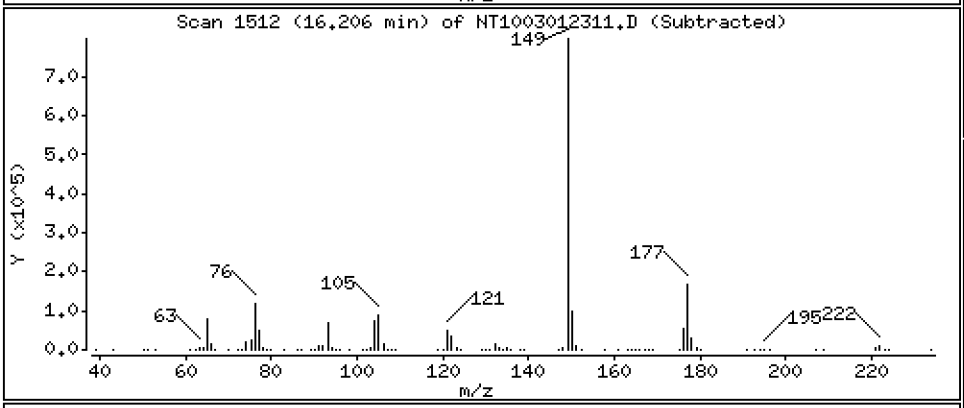
Column phase: ZB-5msi

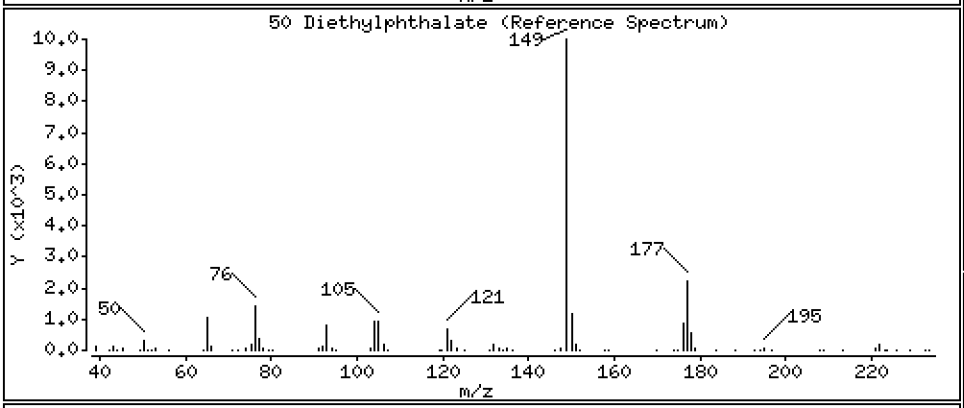
Column diameter: 0.25

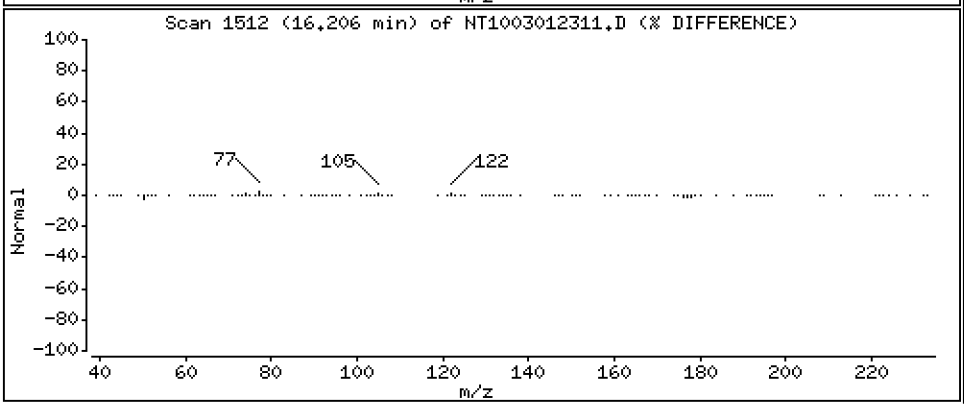
50 Diethylphthalate

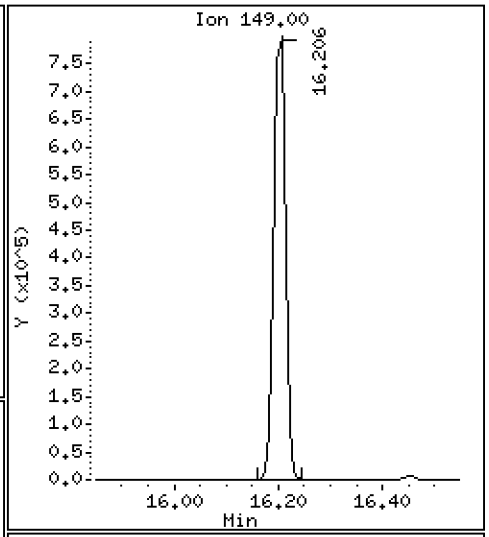
Concentration: 5.639 ug/mL

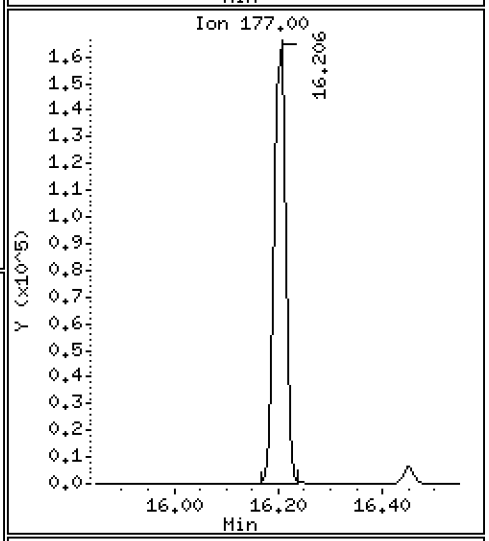


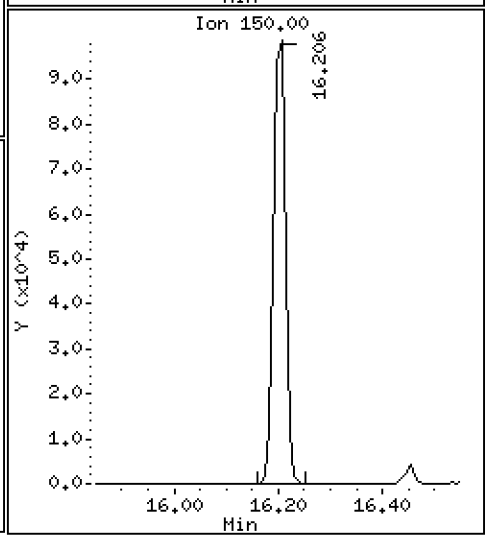












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

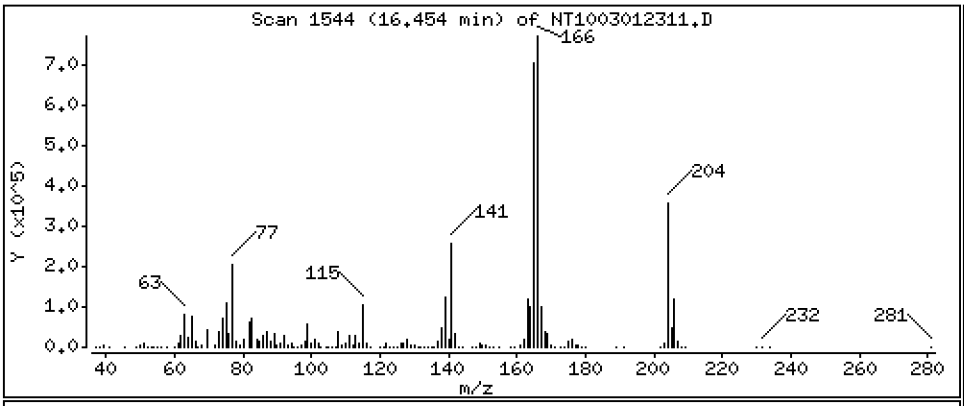
Operator: VTS

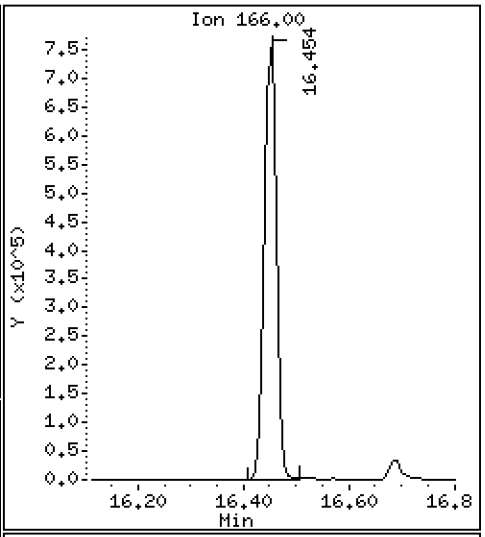
Column phase: ZB-5msi

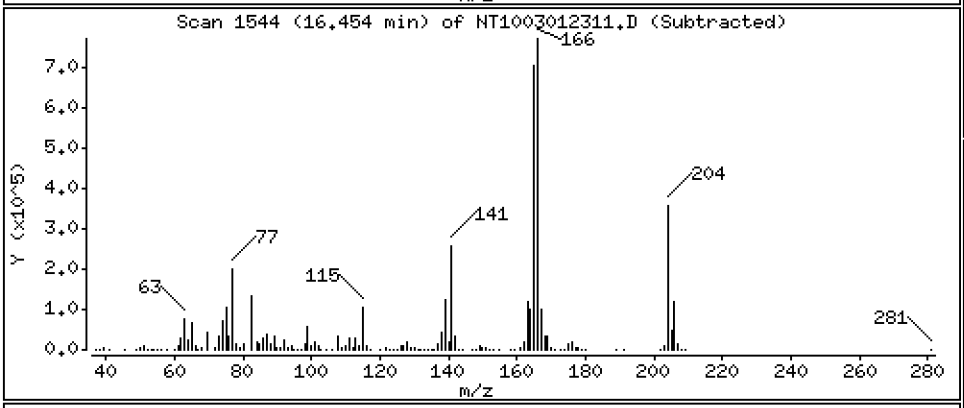
Column diameter: 0.25

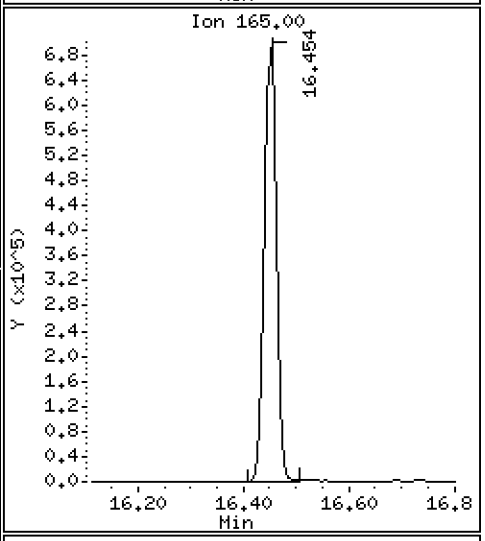
49 Fluorene

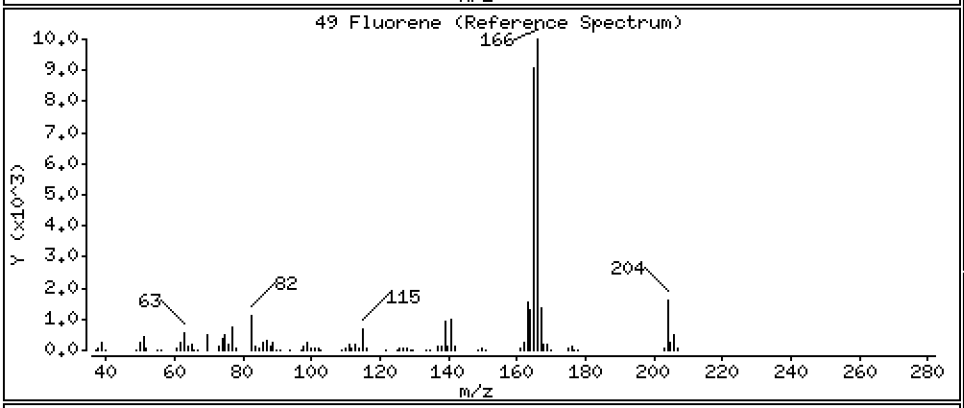
Concentration: 5.305 ug/mL

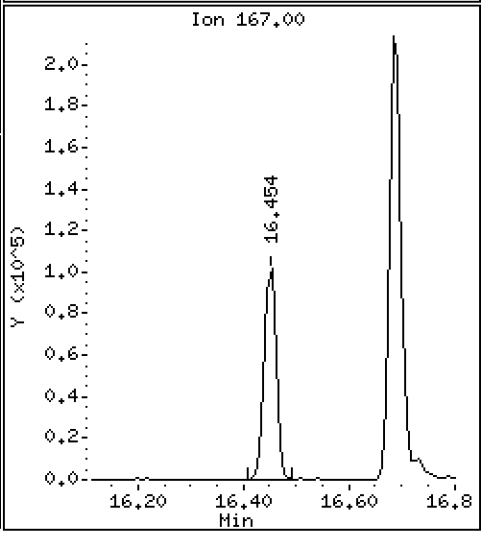


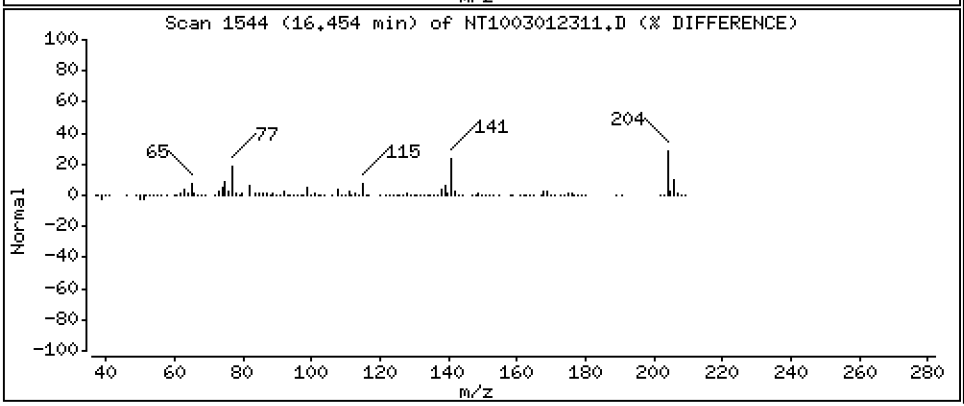












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

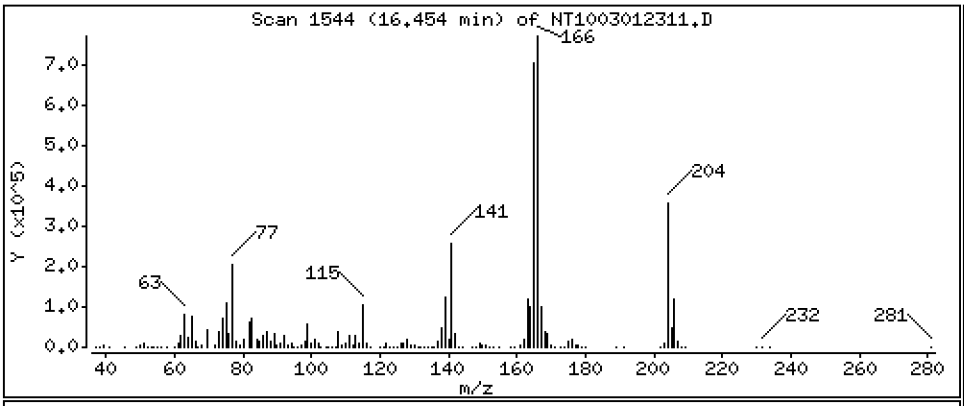
Operator: VTS

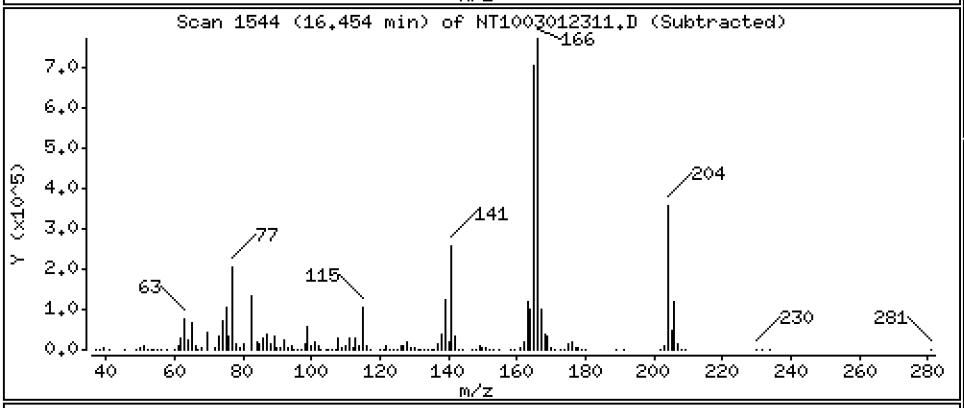
Column phase: ZB-5msi

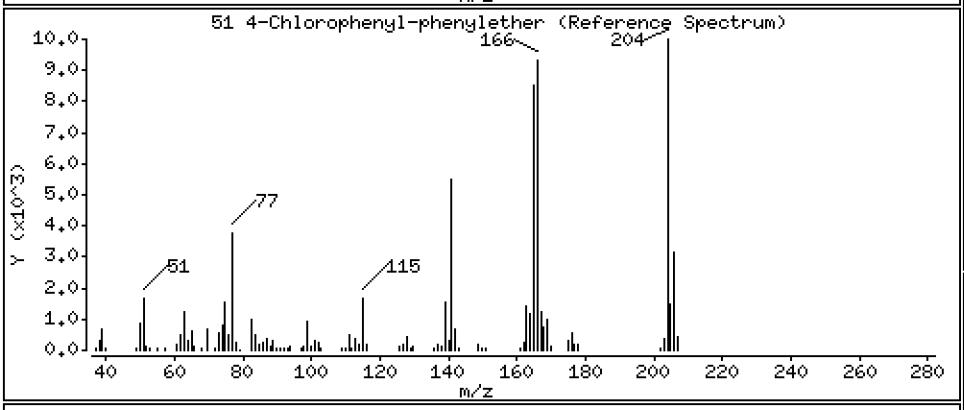
Column diameter: 0.25

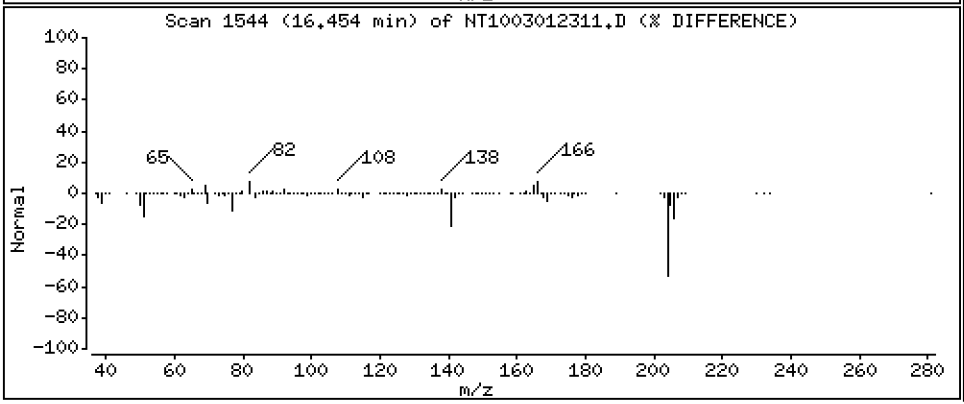
51 4-Chlorophenyl-phenylether

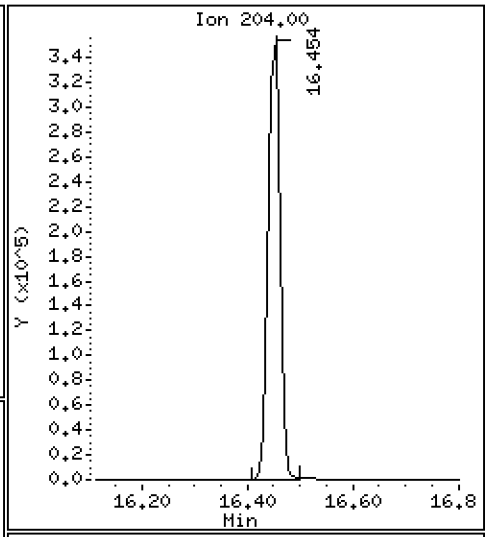
Concentration: 5.253 ug/mL

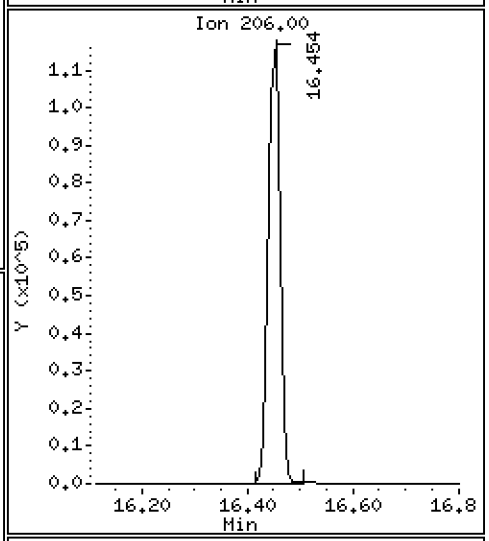


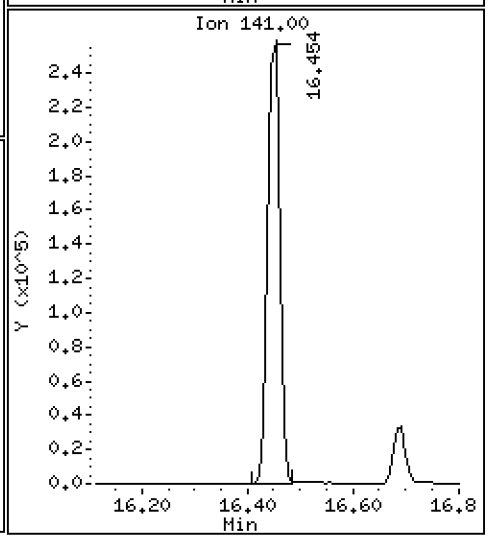












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

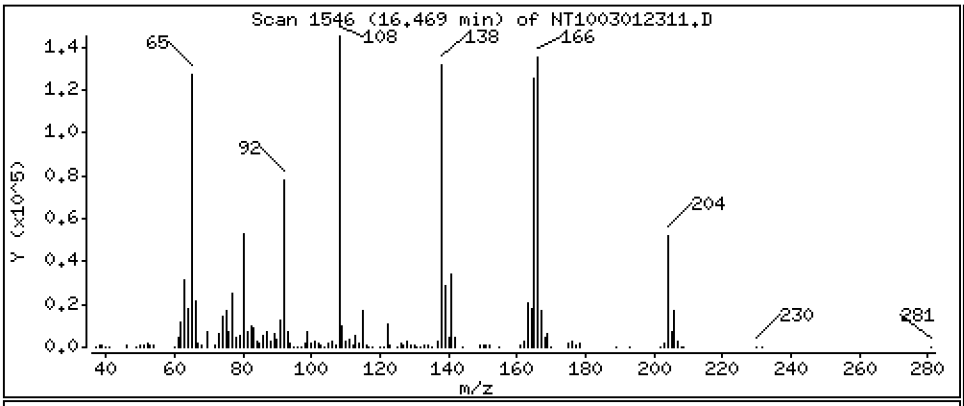
Operator: VTS

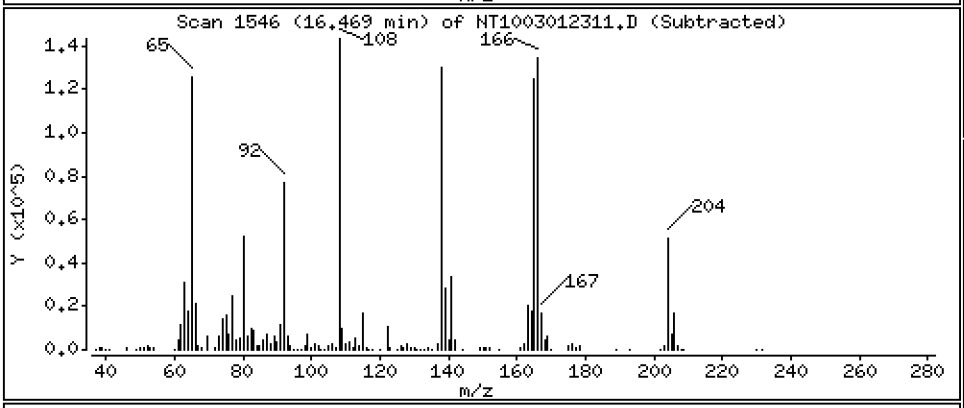
Column phase: ZB-5msi

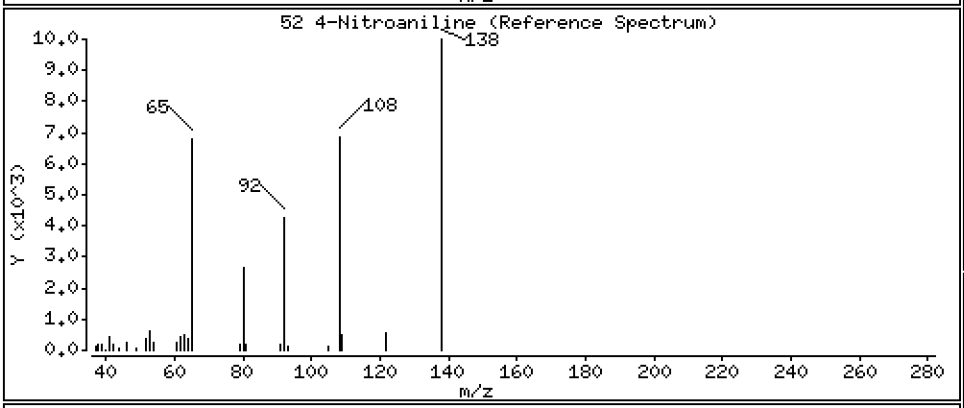
Column diameter: 0.25

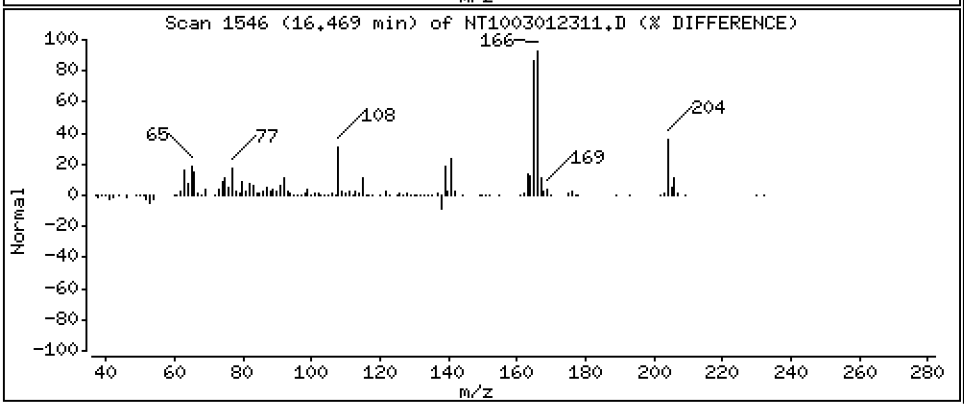
52 4-Nitroaniline

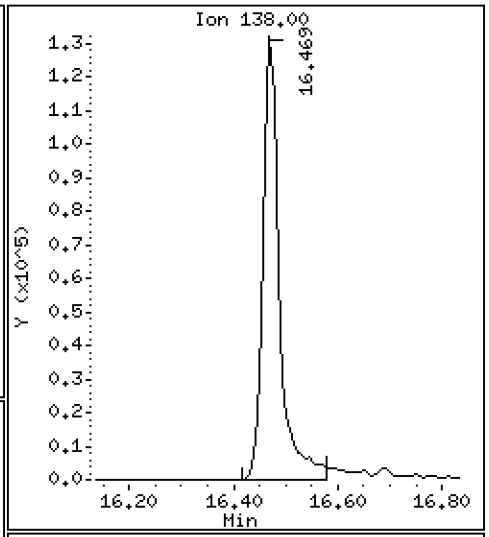
Concentration: 5.232 ug/mL

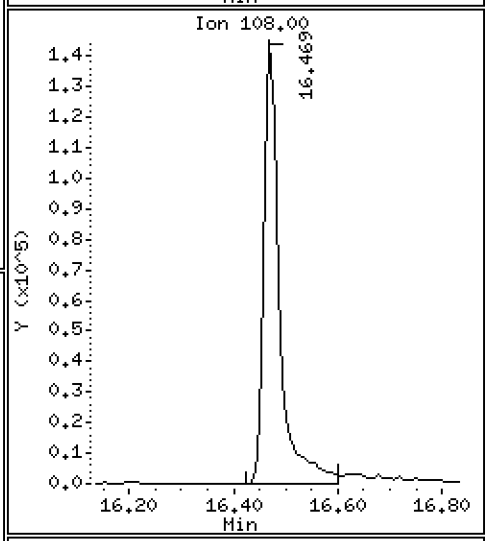


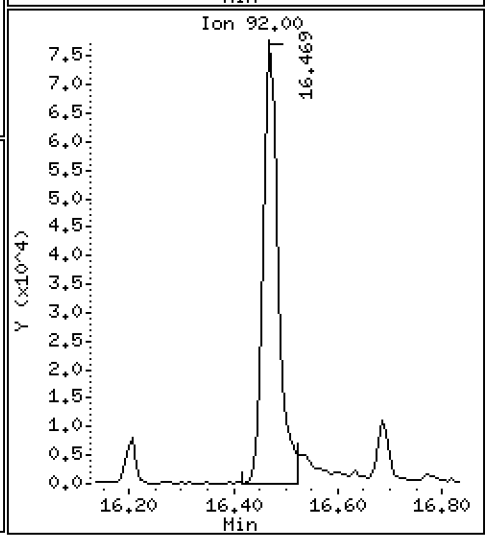












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

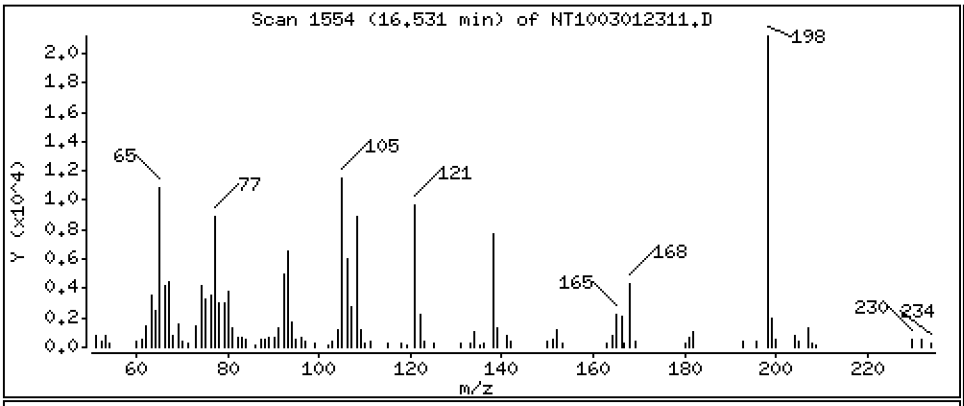
Operator: VTS

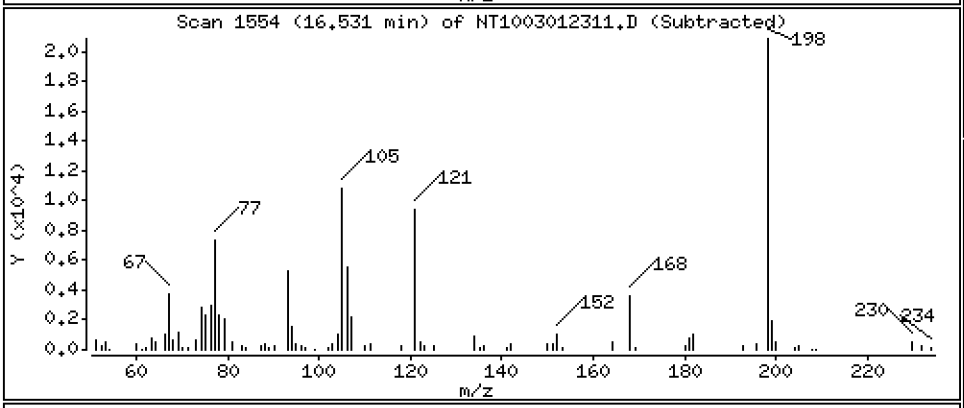
Column phase: ZB-5msi

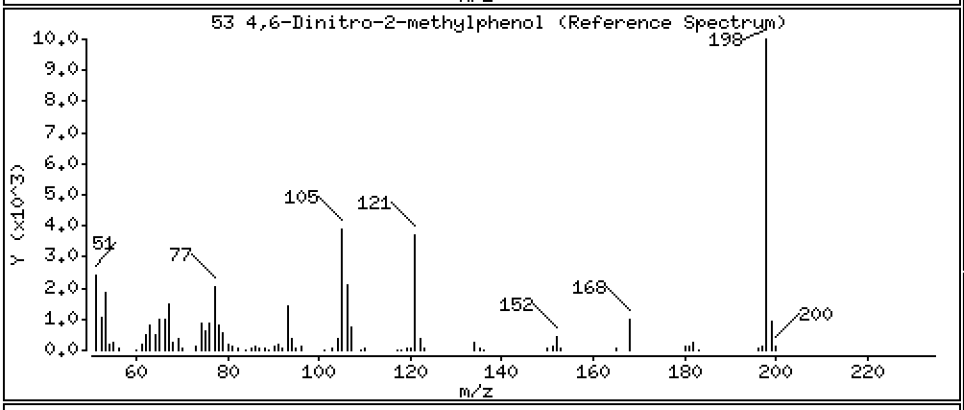
Column diameter: 0.25

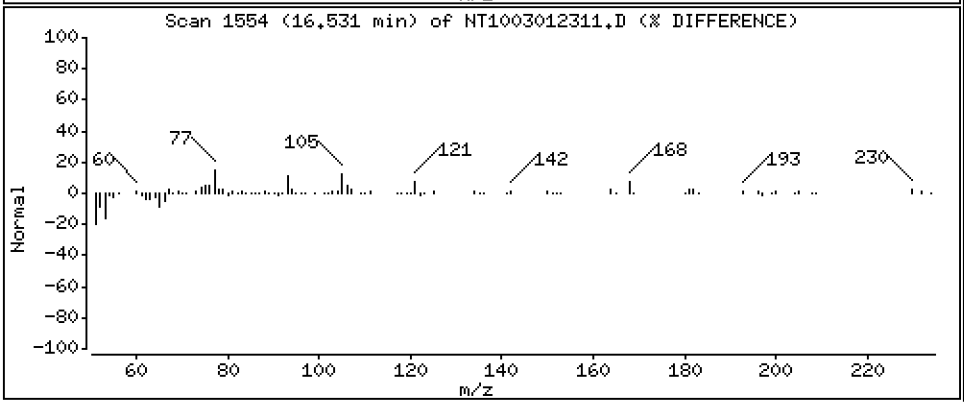
53 4,6-Dinitro-2-methylphenol

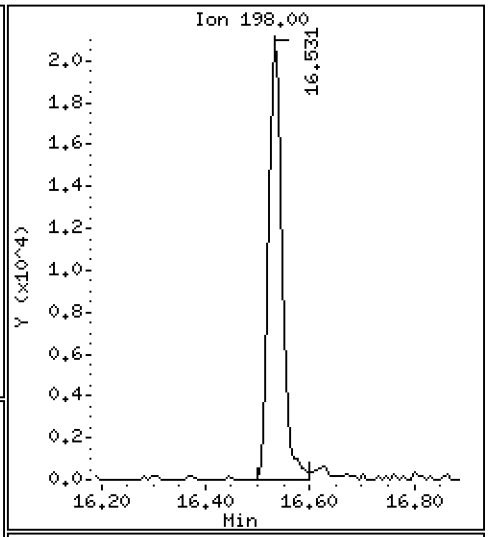
Concentration: 1.292 ug/mL

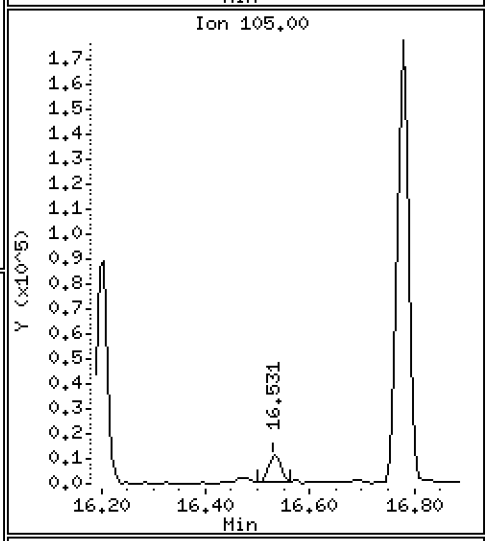


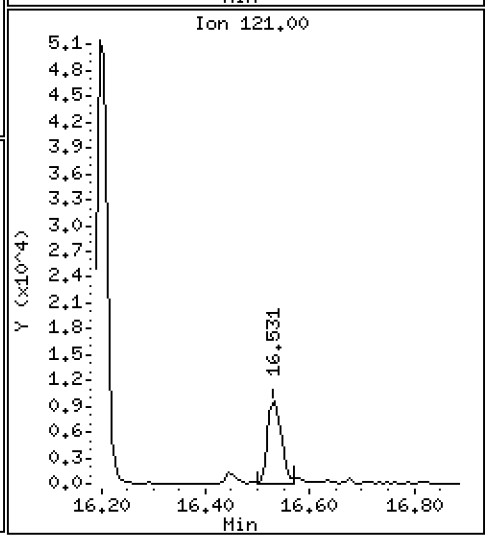












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

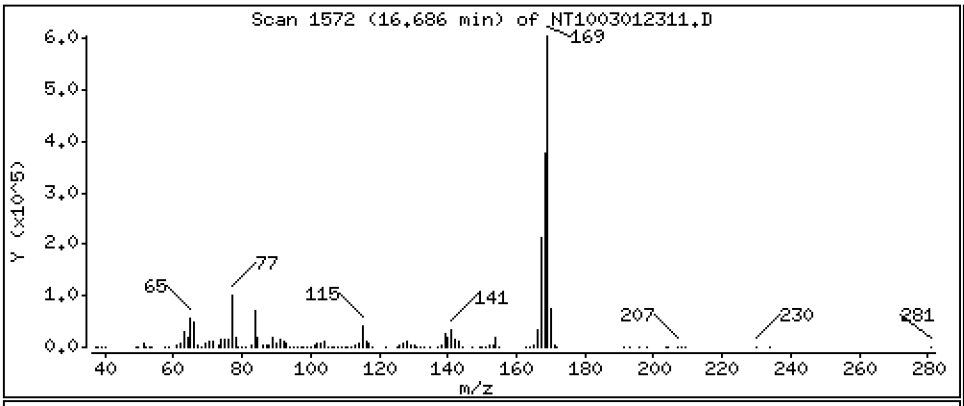
Operator: VTS

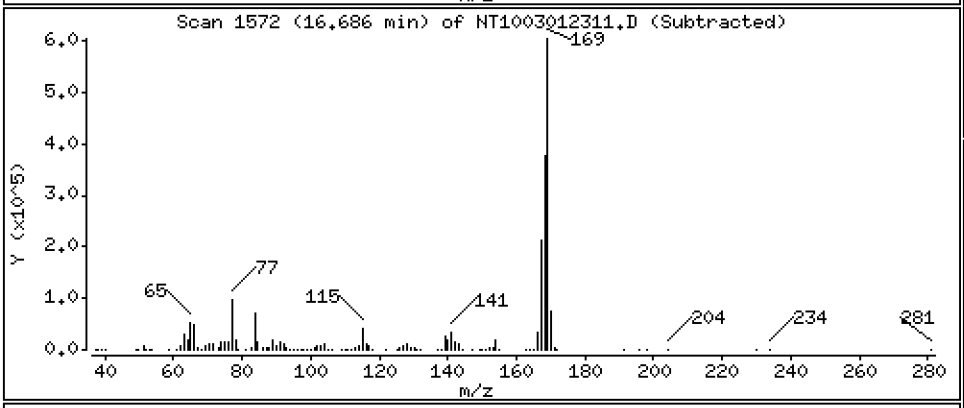
Column phase: ZB-5msi

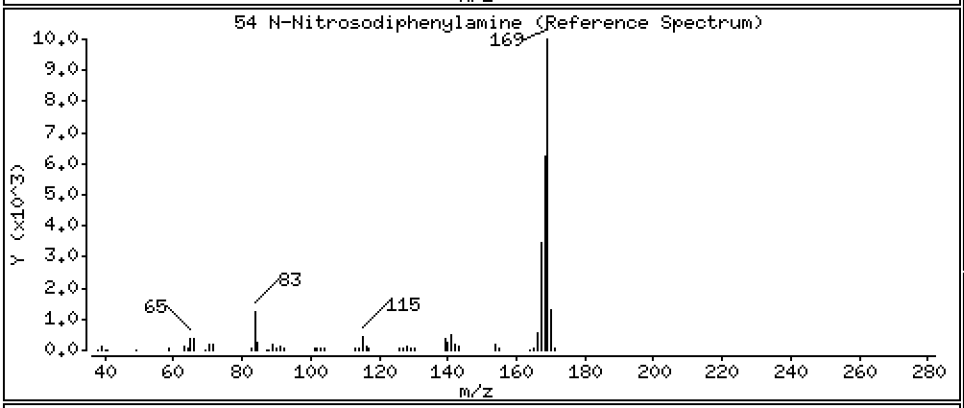
Column diameter: 0.25

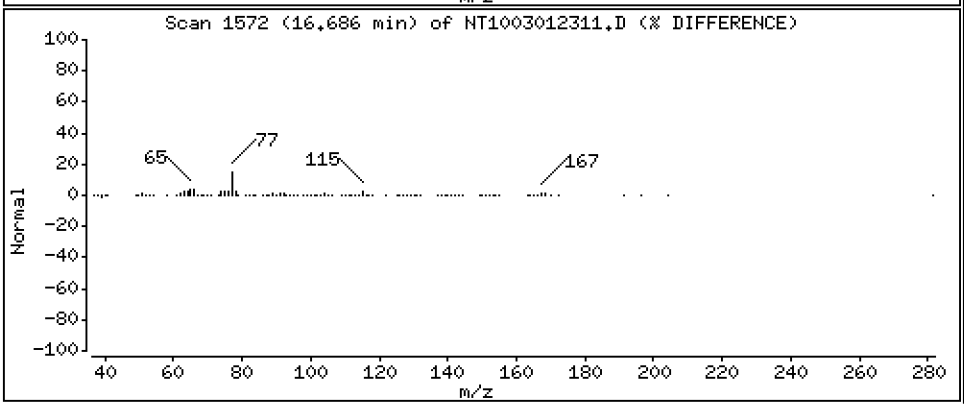
54 N-Nitrosodiphenylamine

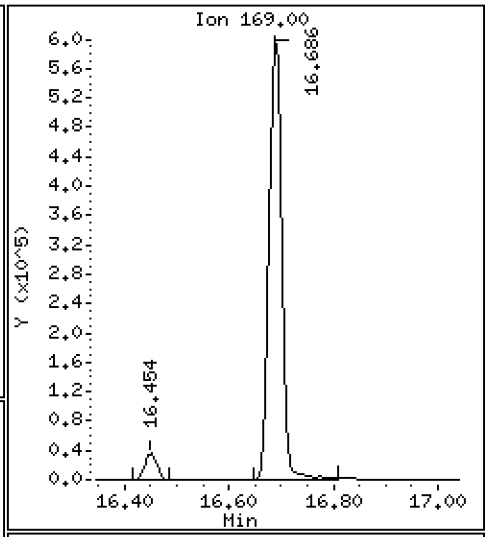
Concentration: 5.416 ug/mL

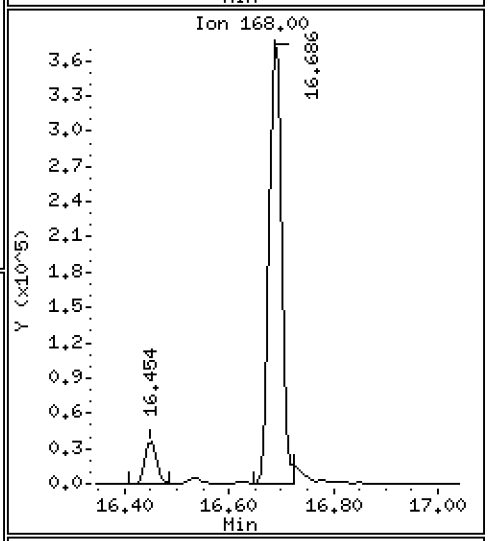


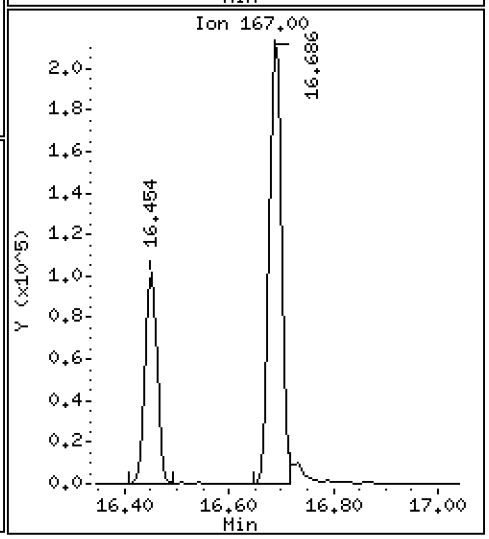












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

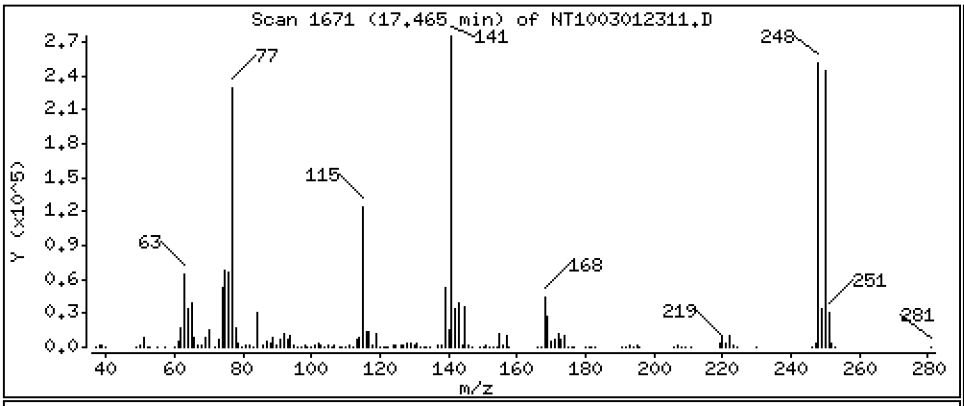
Operator: VTS

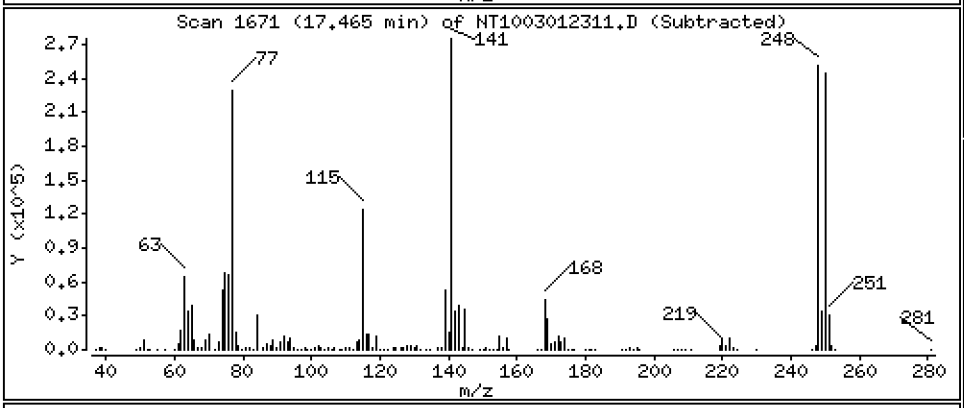
Column phase: ZB-5msi

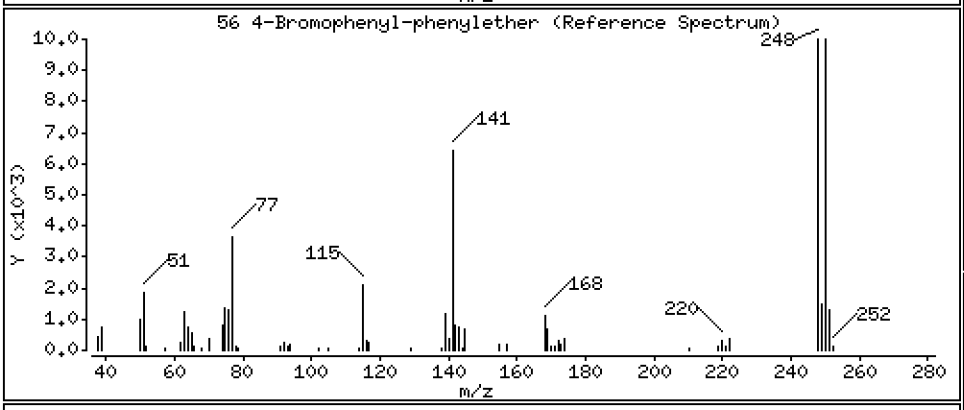
Column diameter: 0.25

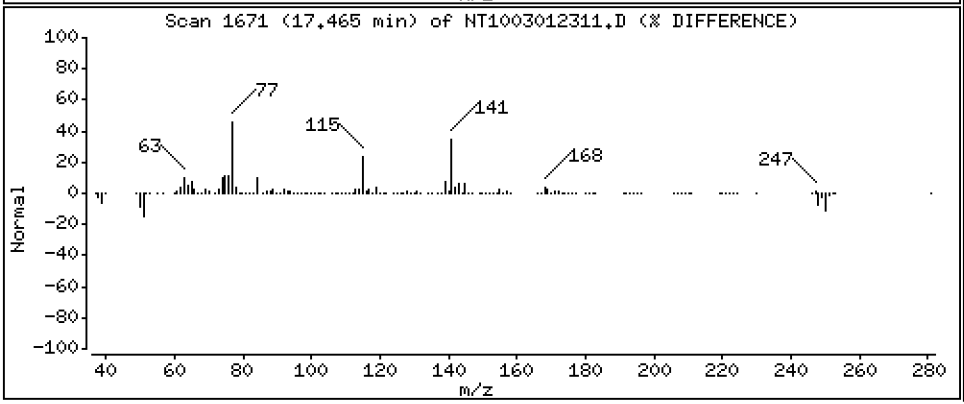
56 4-Bromophenyl-phenylether

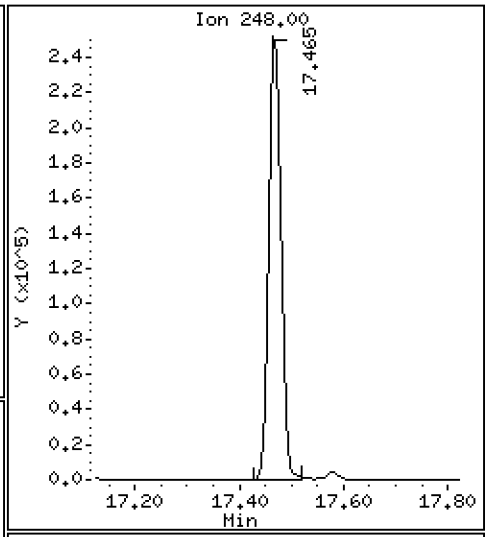
Concentration: 5.460 ug/mL

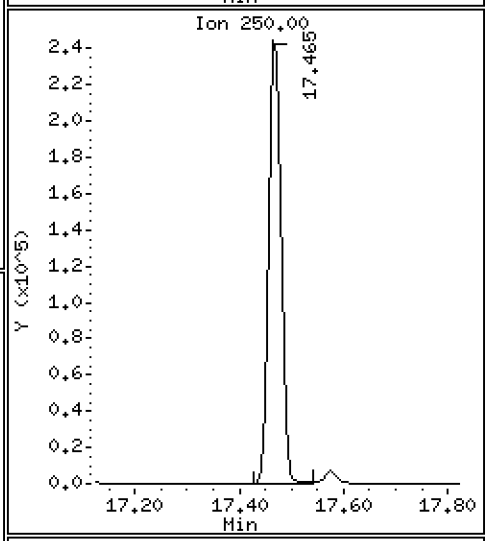


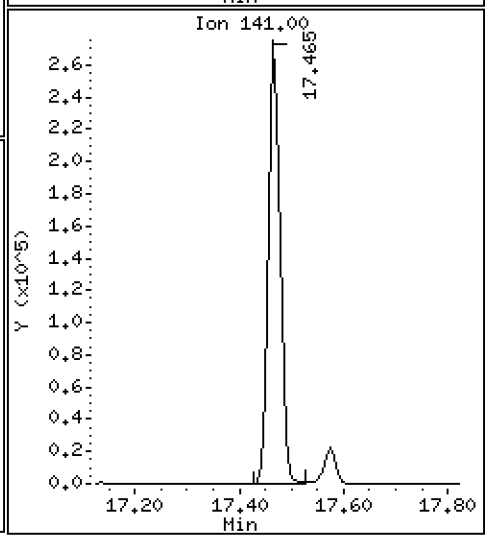












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

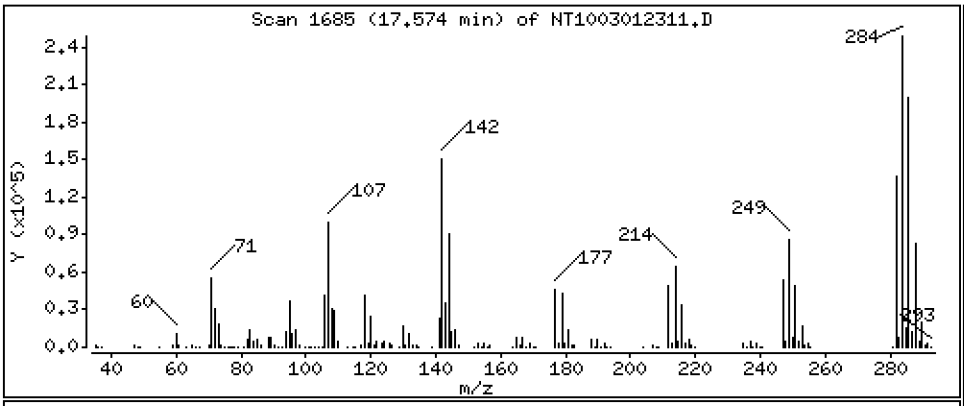
Operator: VTS

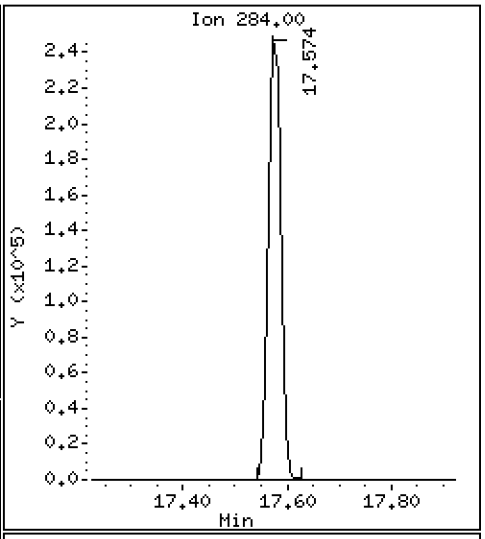
Column phase: ZB-5msi

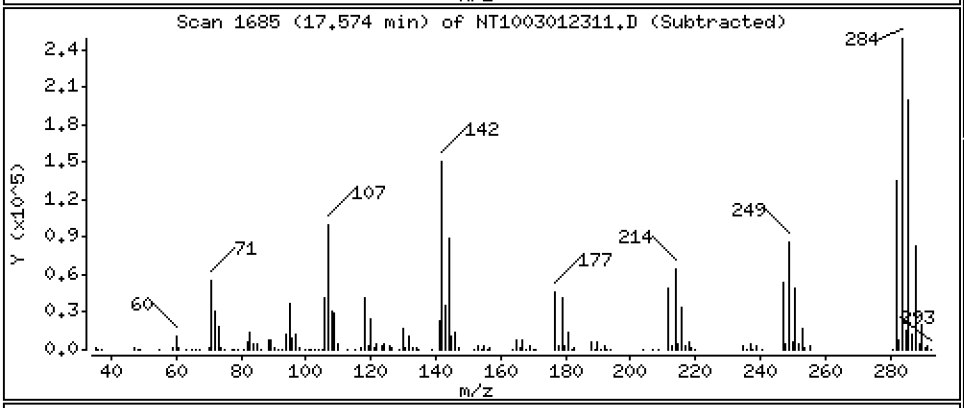
Column diameter: 0.25

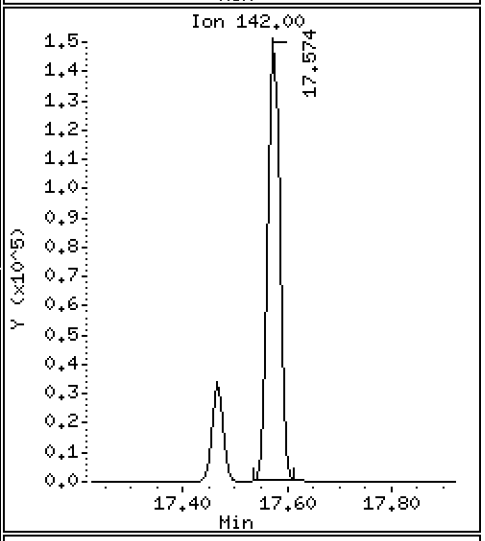
57 Hexachlorobenzene

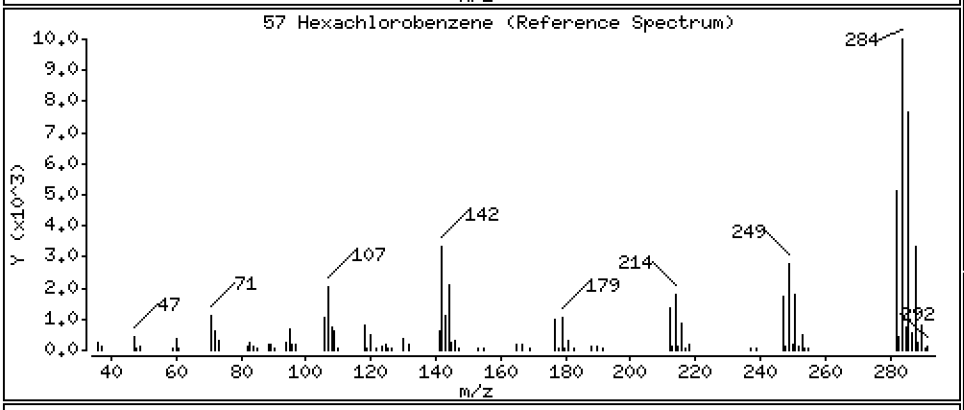
Concentration: 4.805 ug/mL

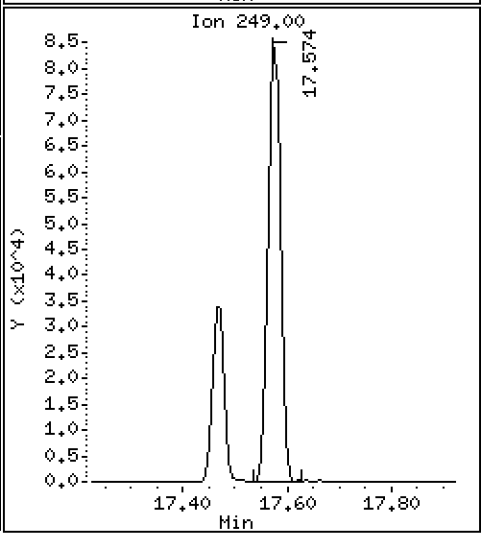


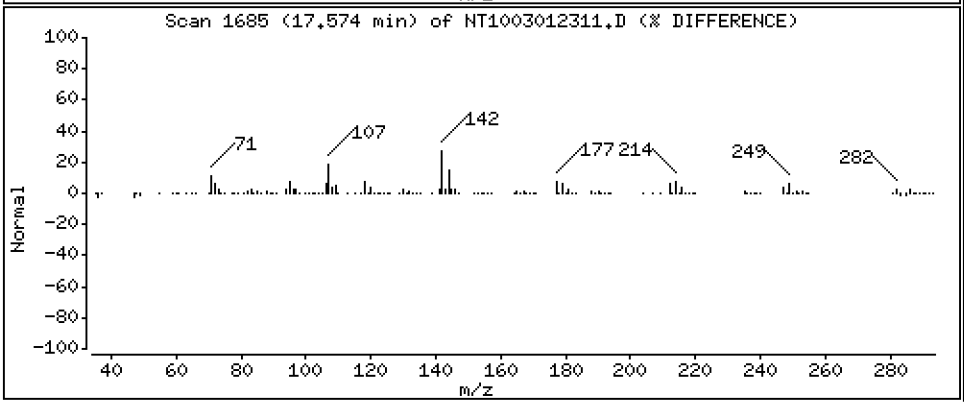












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

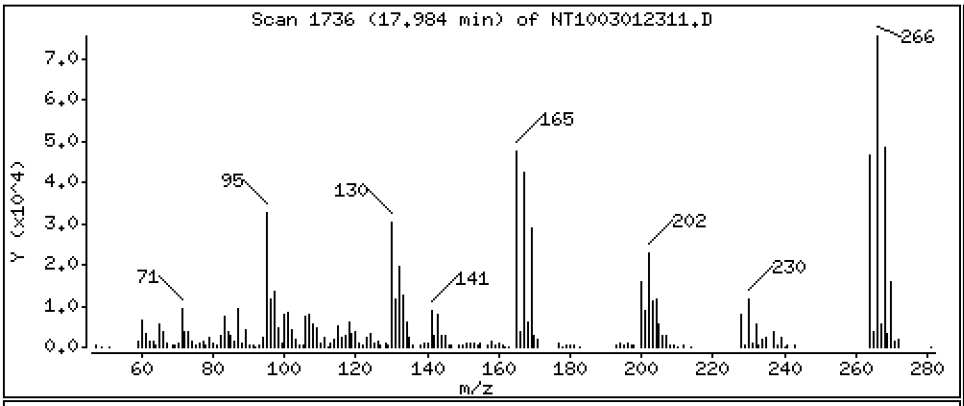
Operator: VTS

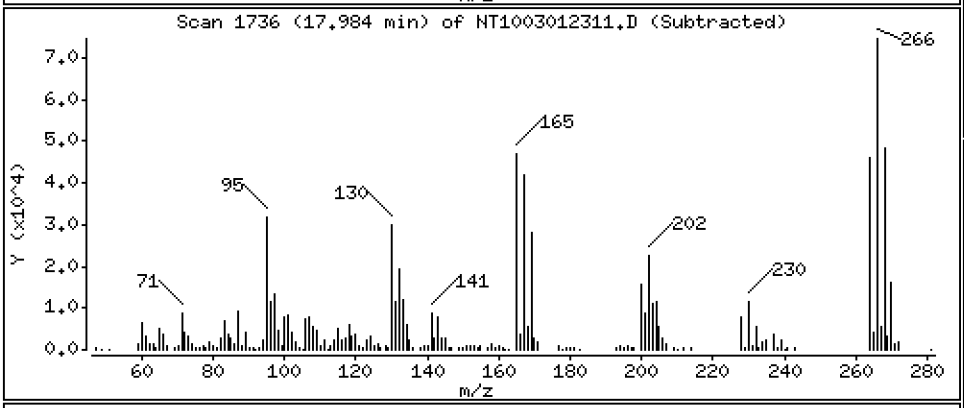
Column phase: ZB-5msi

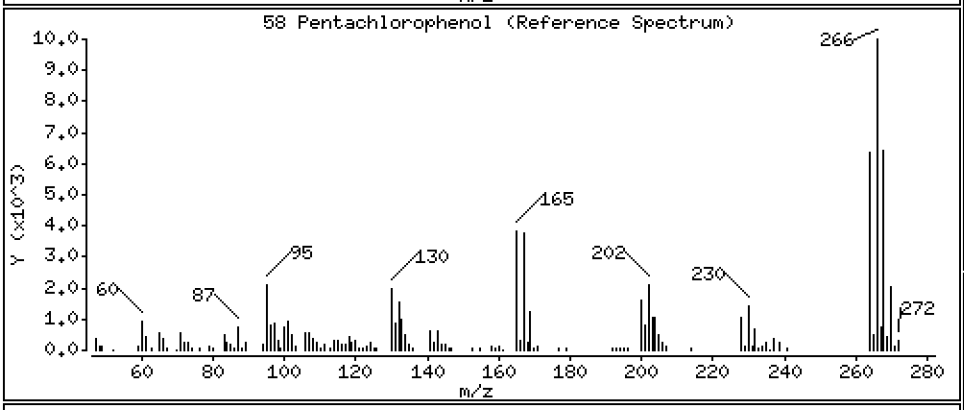
Column diameter: 0.25

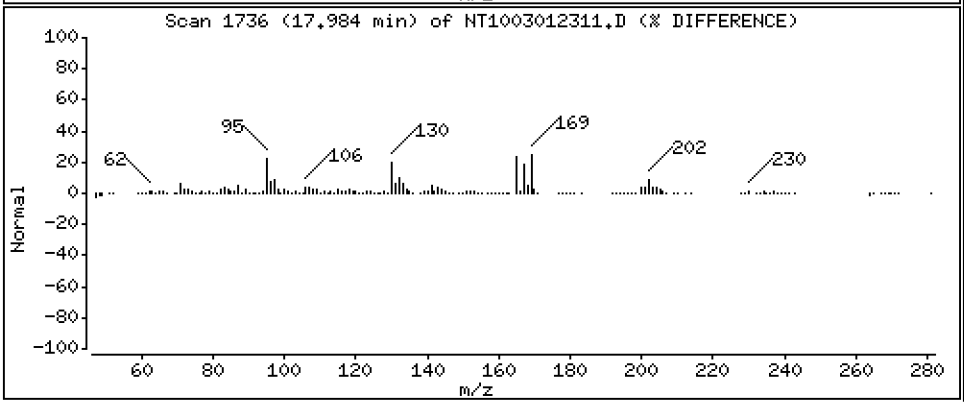
58 Pentachlorophenol

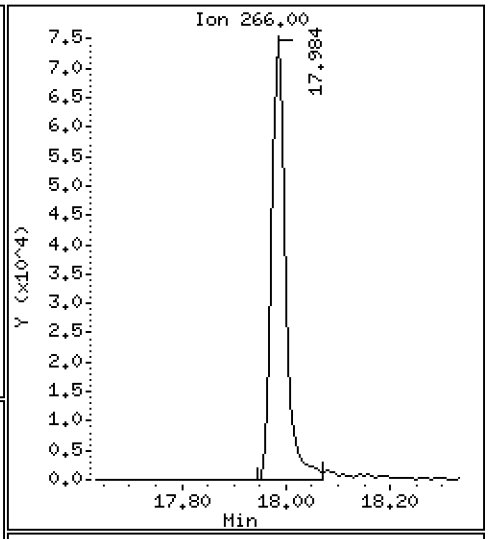
Concentration: 3.492 ug/mL

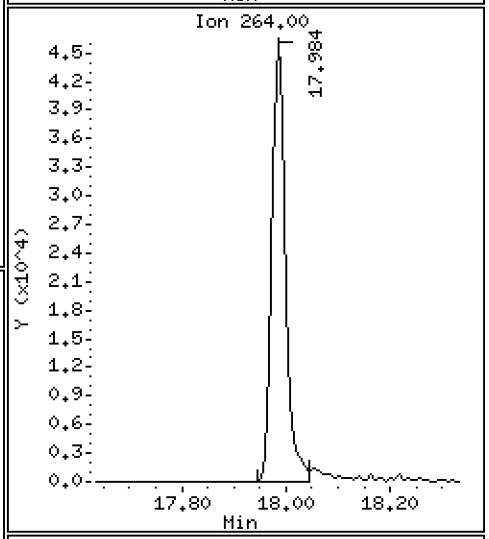


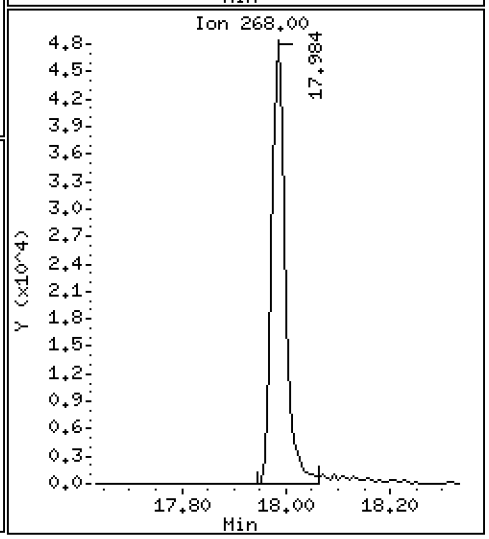












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

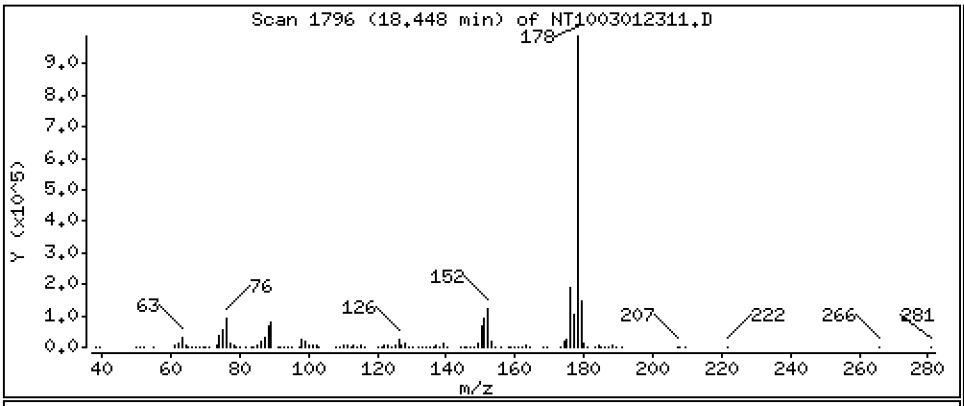
Operator: VTS

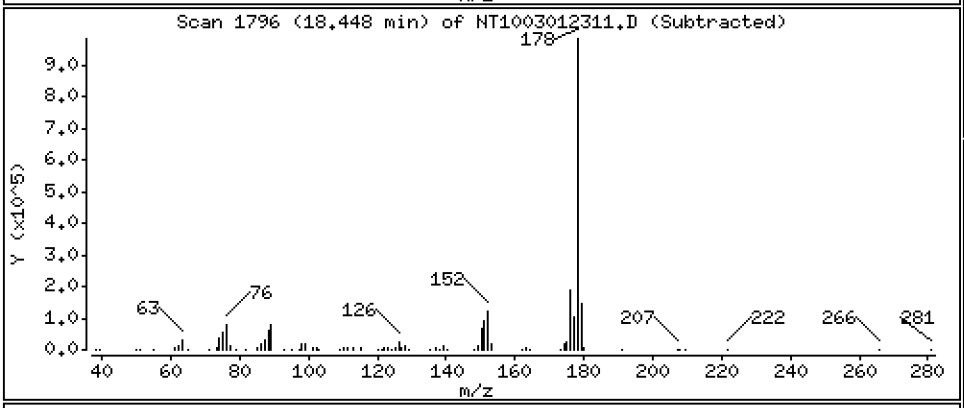
Column phase: ZB-5msi

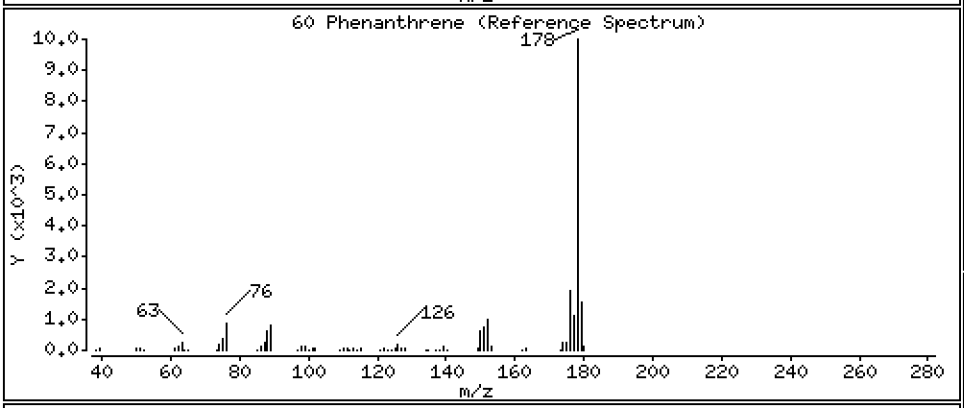
Column diameter: 0.25

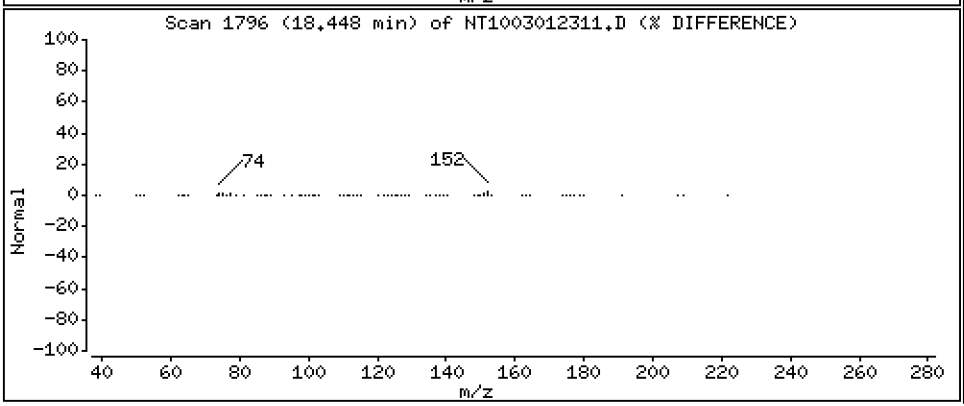
60 Phenanthrene

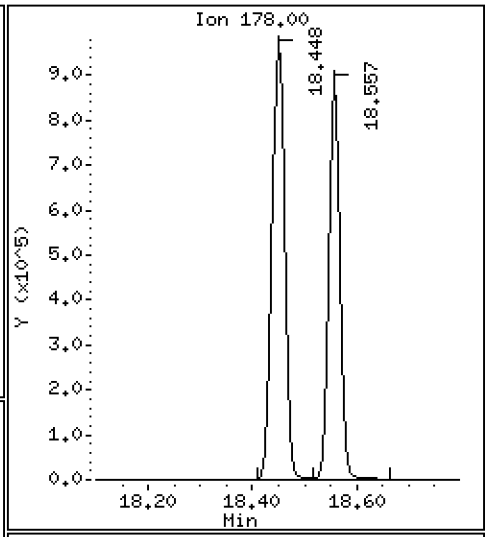
Concentration: 5.085 ug/mL

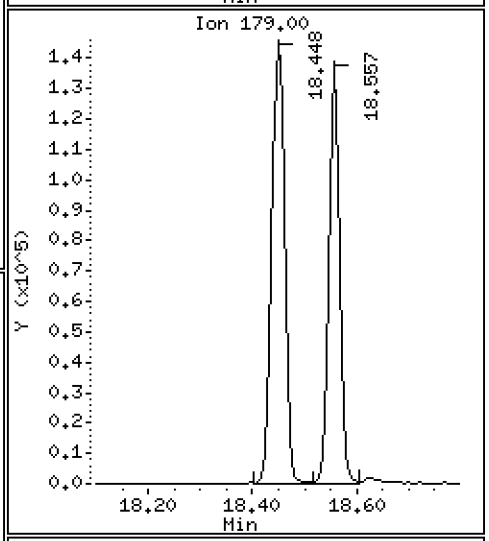


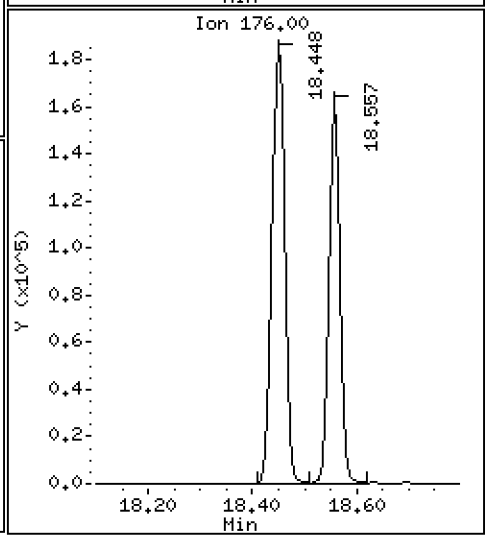












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

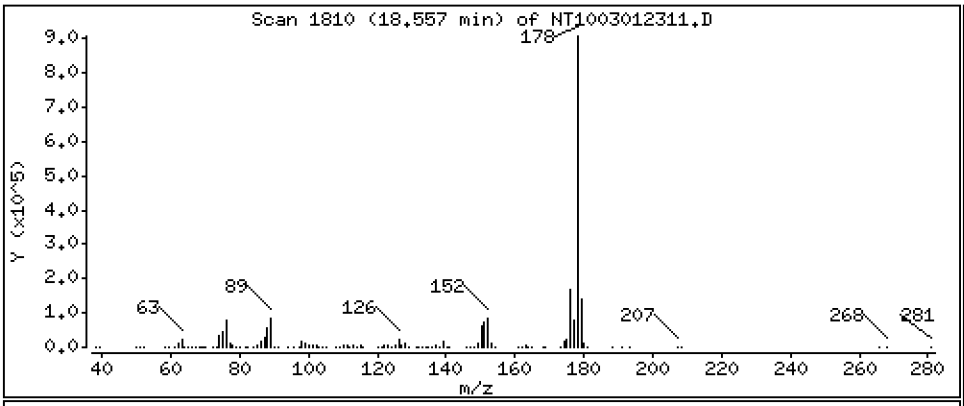
Operator: VTS

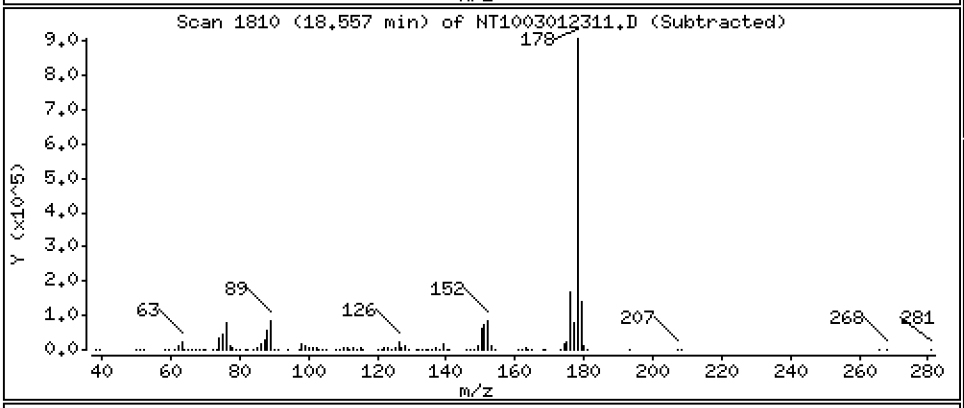
Column phase: ZB-5msi

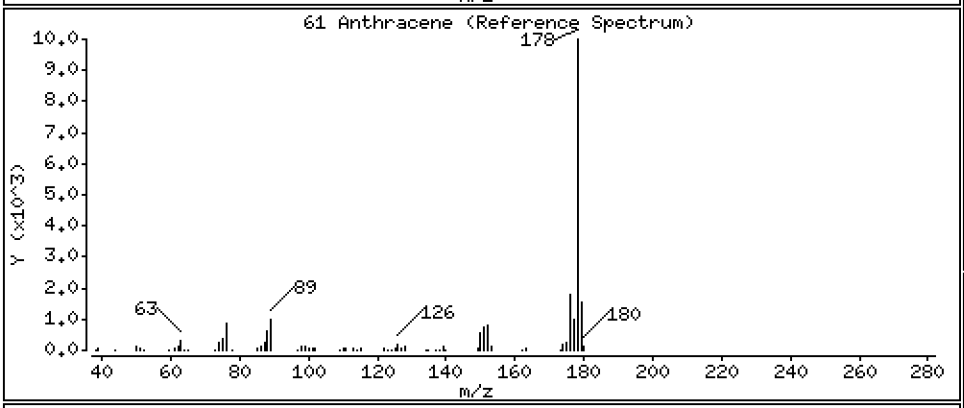
Column diameter: 0.25

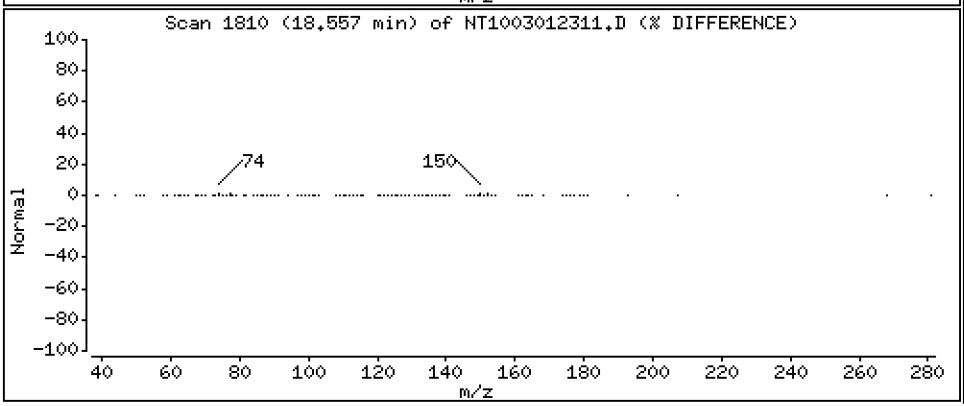
61 Anthracene

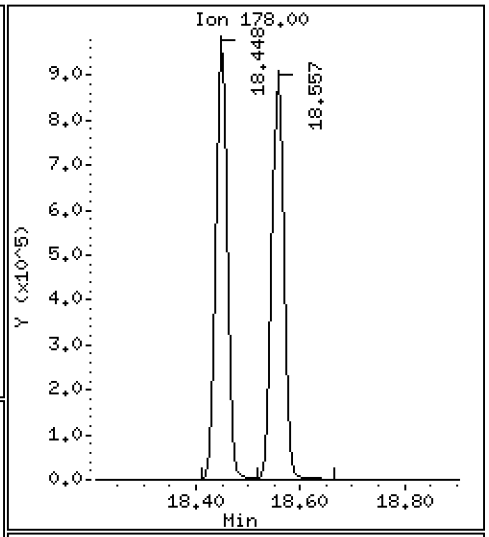
Concentration: 4.585 ug/mL

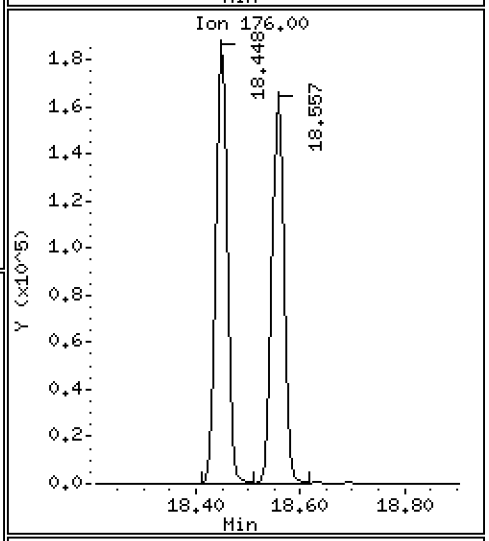


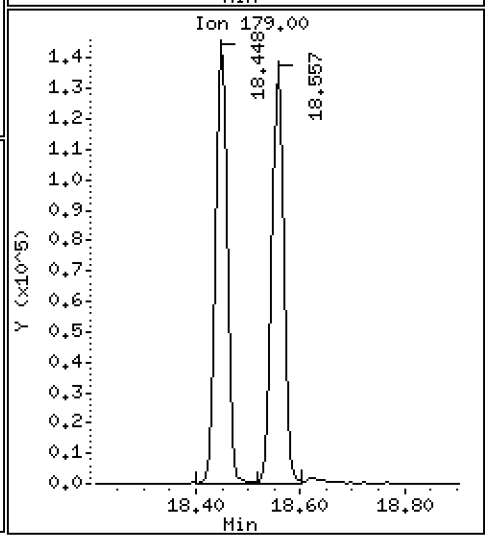












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

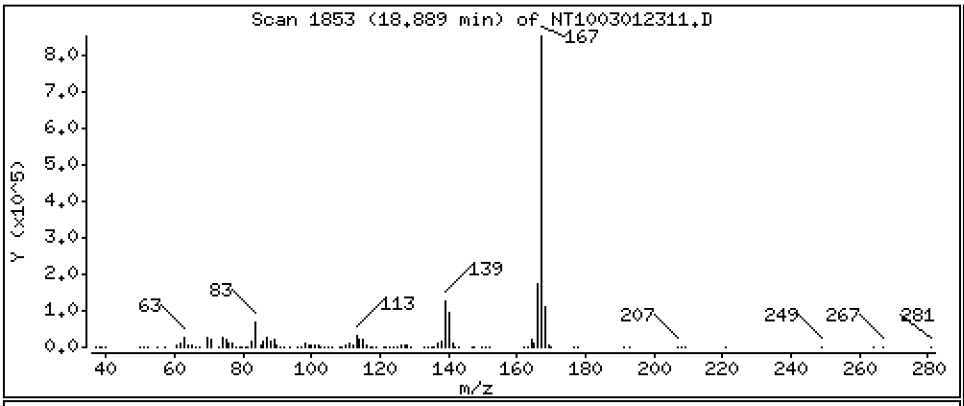
Operator: VTS

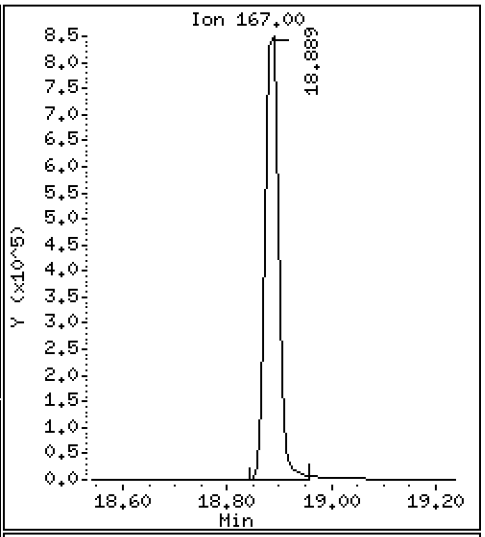
Column phase: ZB-5msi

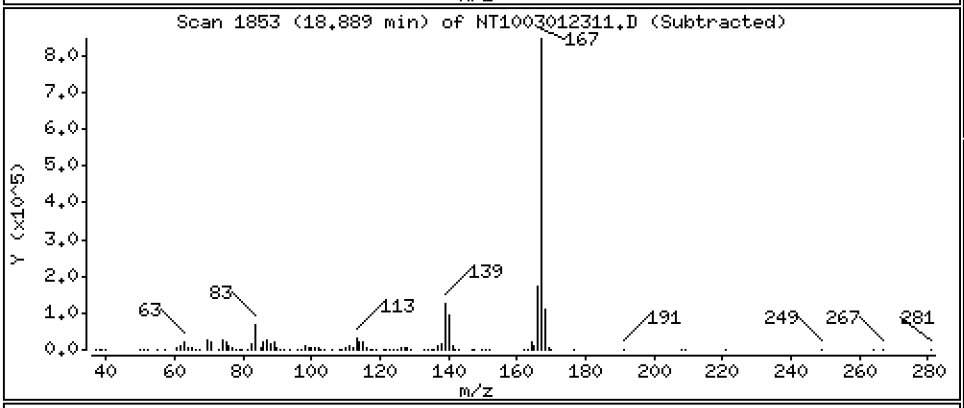
Column diameter: 0.25

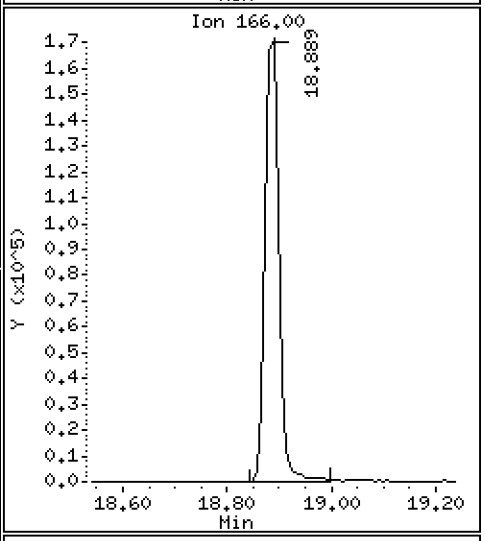
62 Carbazole

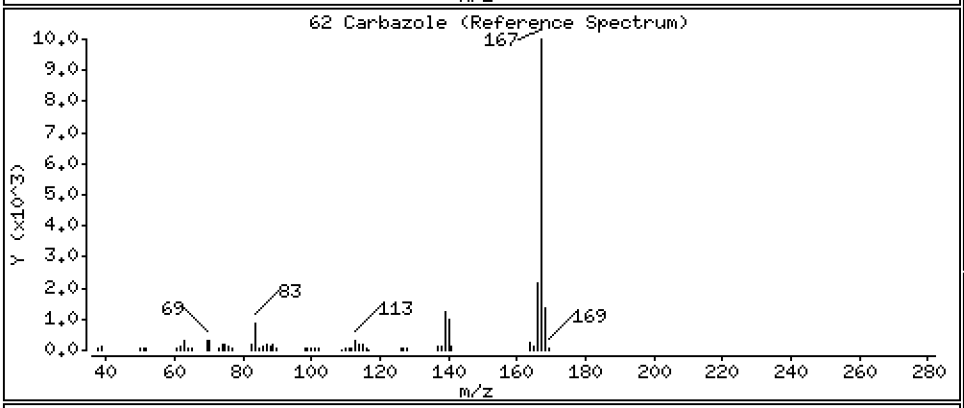
Concentration: 5.335 ug/mL

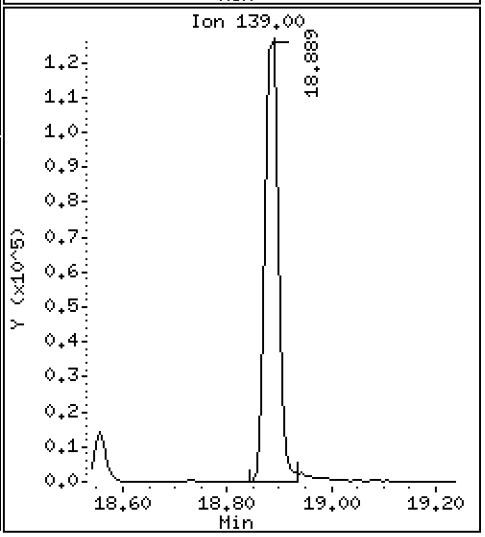


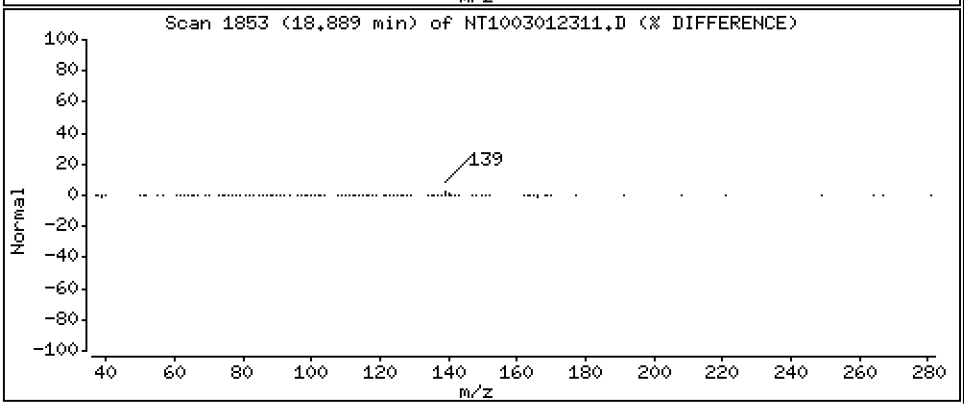












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

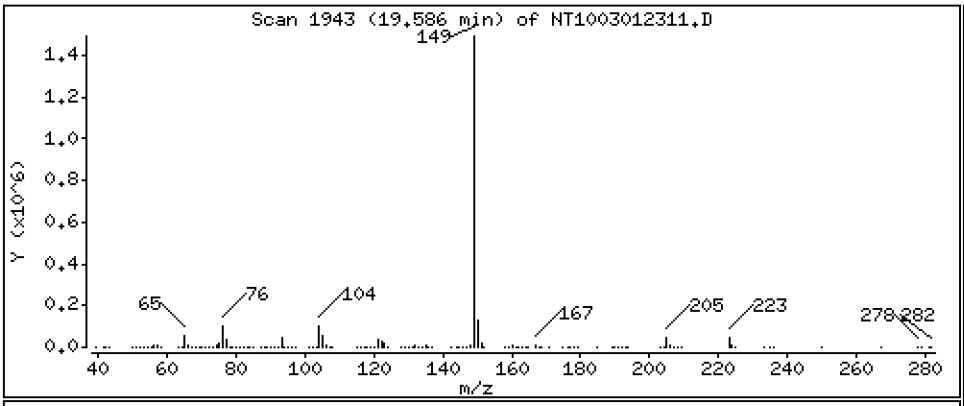
Operator: VTS

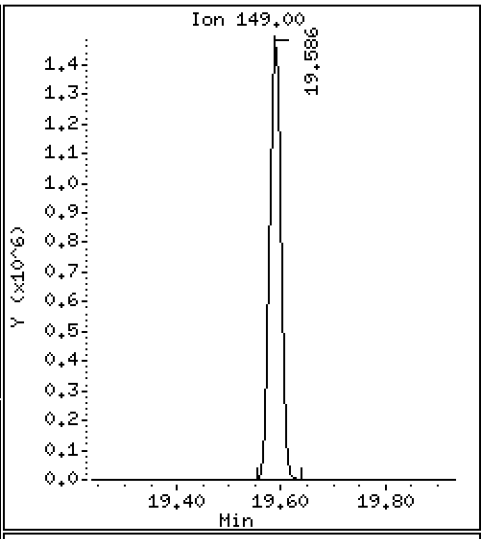
Column phase: ZB-5msi

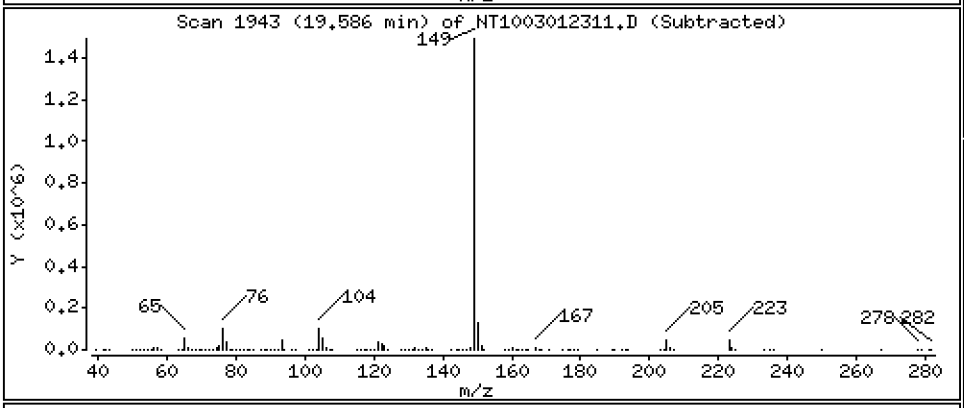
Column diameter: 0.25

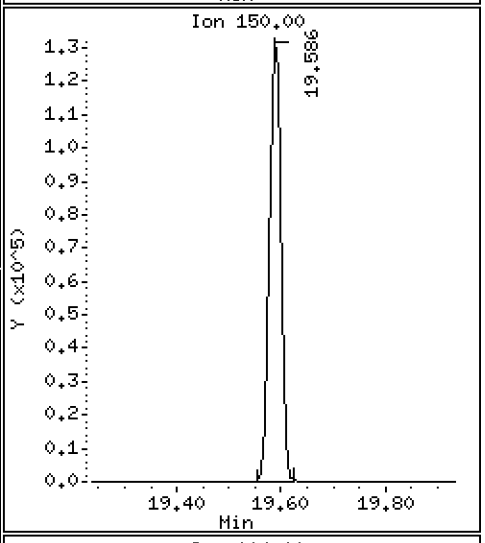
63 Di-n-butylphthalate

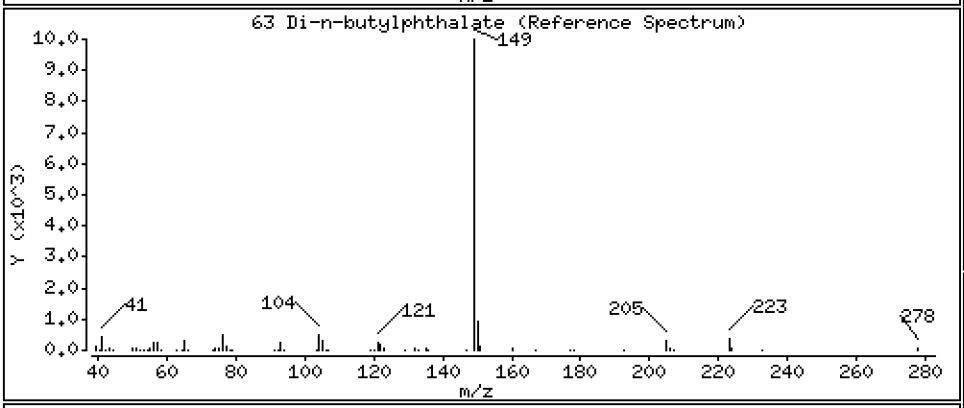
Concentration: 5.463 ug/mL

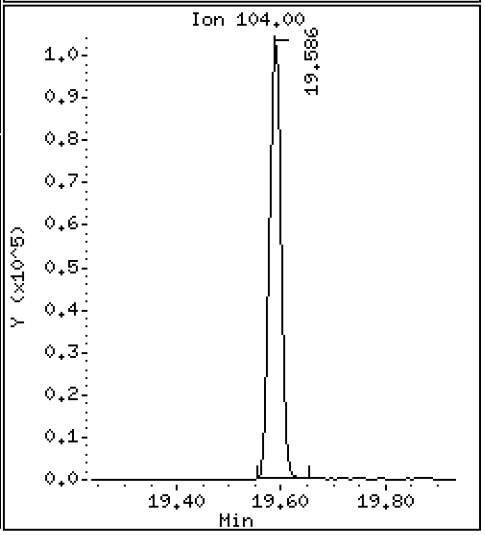


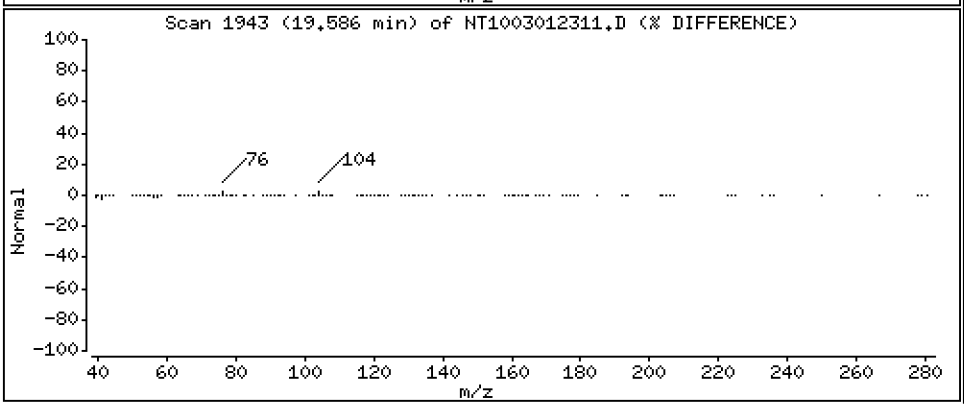












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

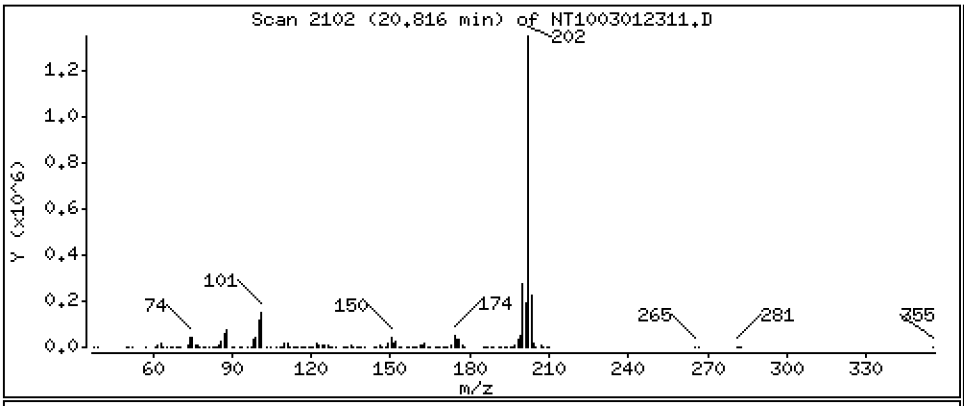
Operator: VTS

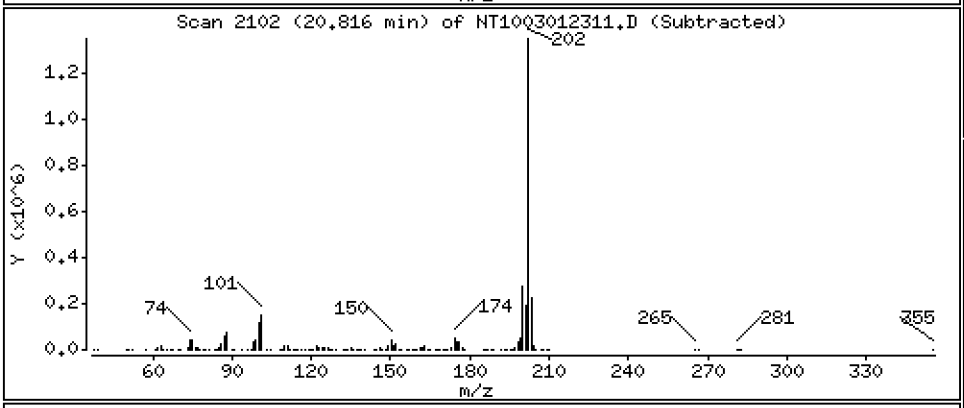
Column phase: ZB-5msi

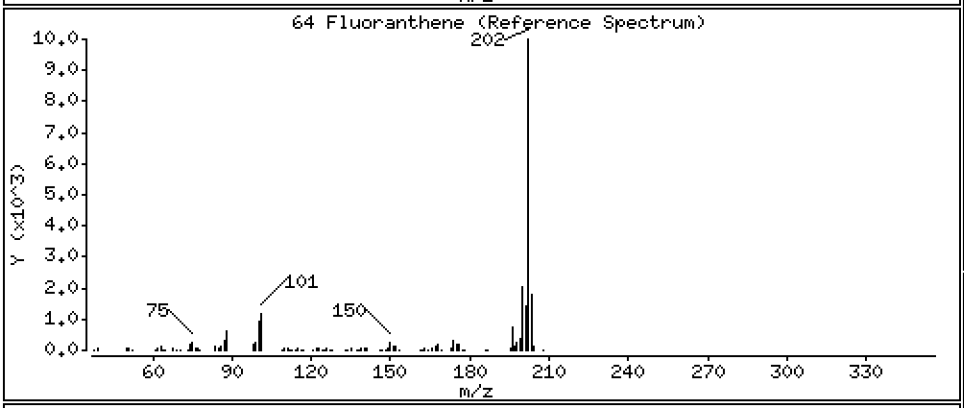
Column diameter: 0.25

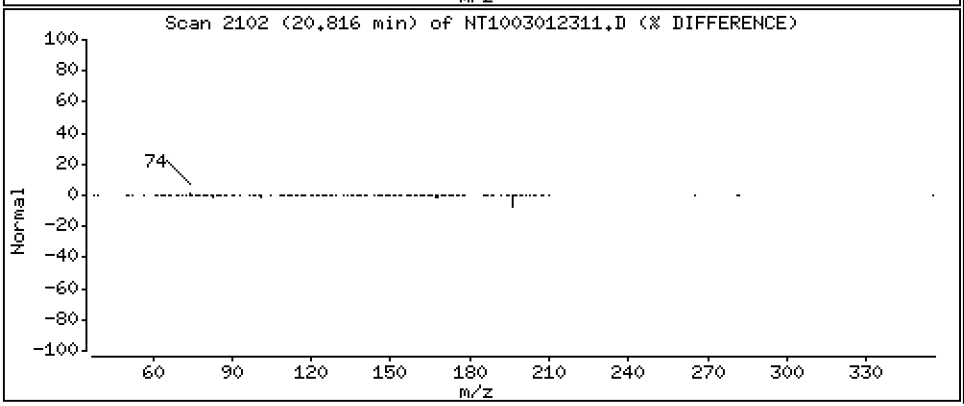
64 Fluoranthene

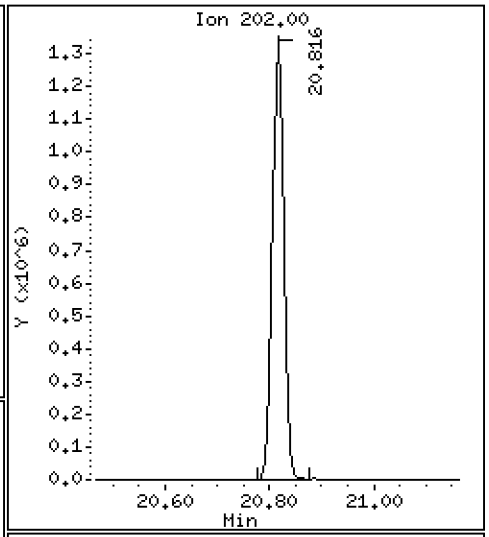
Concentration: 4.542 ug/mL

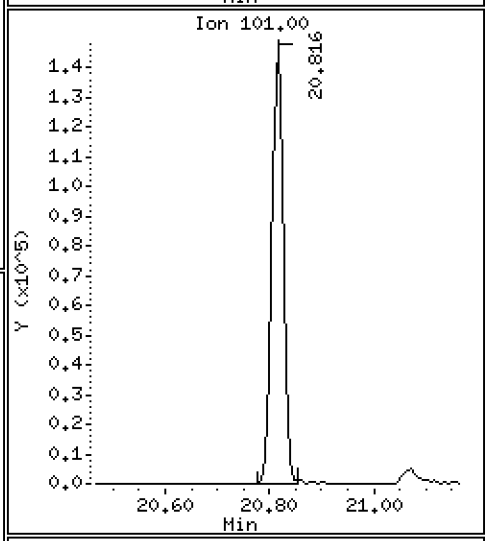


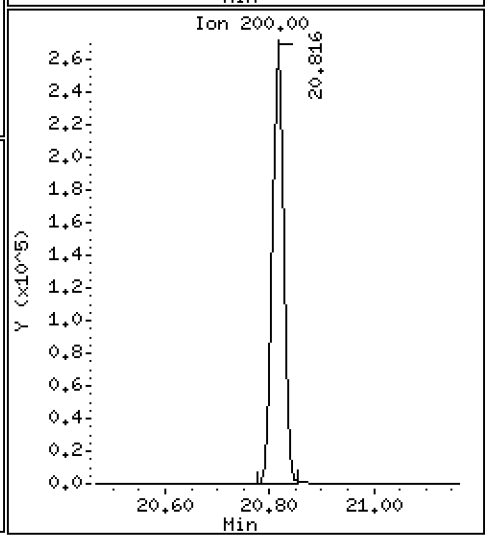












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

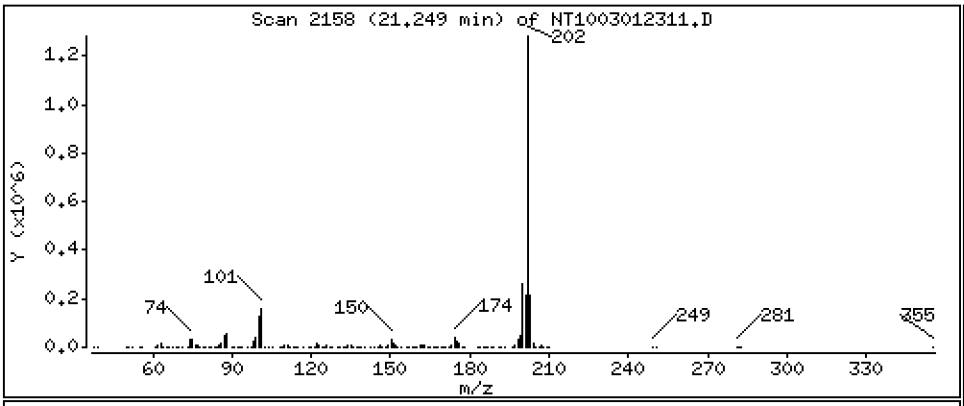
Operator: VTS

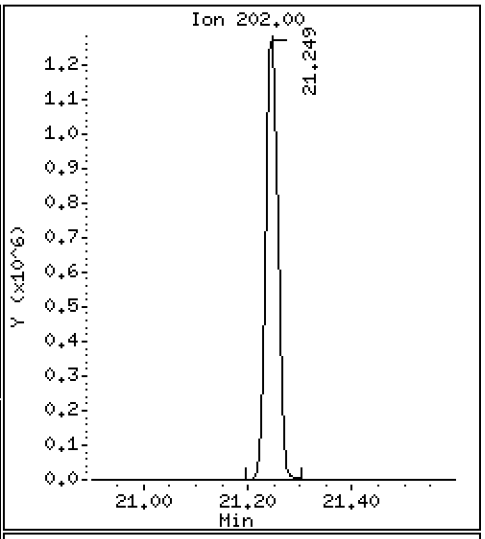
Column phase: ZB-5msi

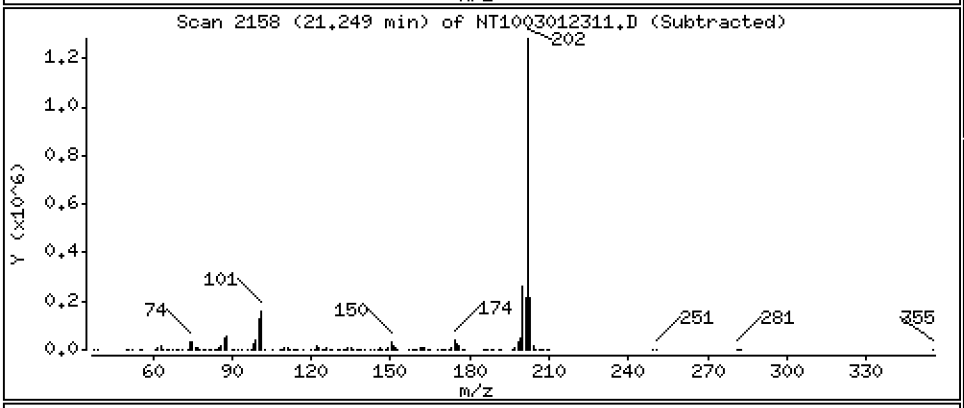
Column diameter: 0.25

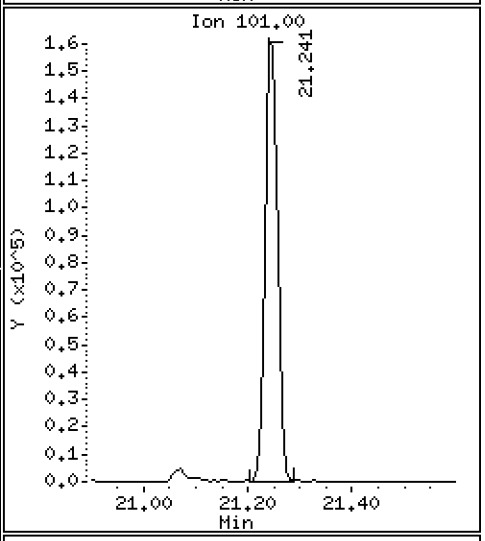
65 Pyrene

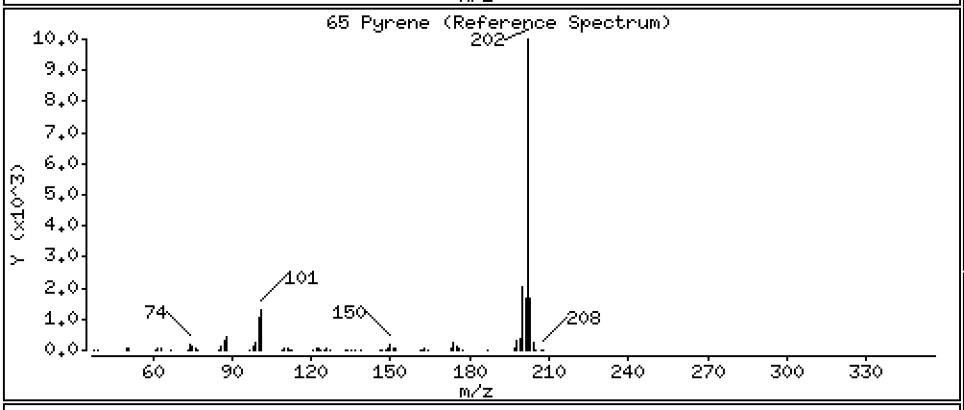
Concentration: 4.626 ug/mL

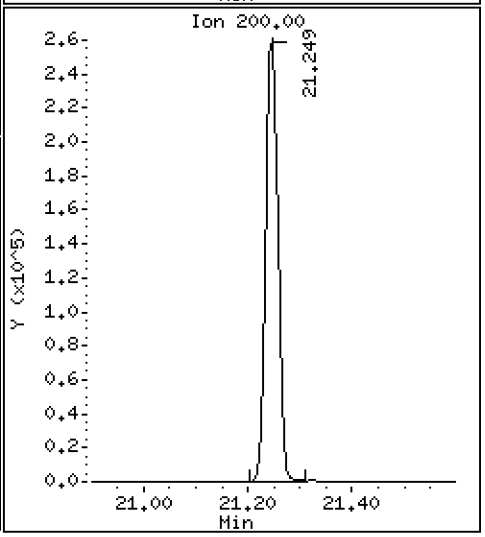


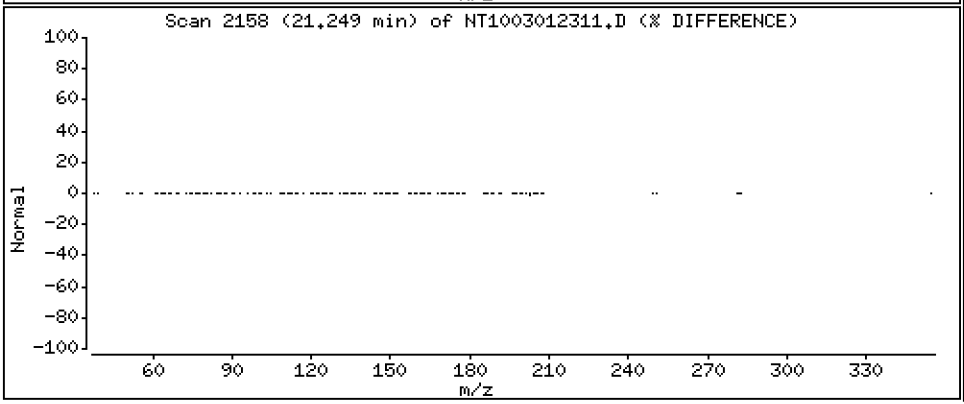












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

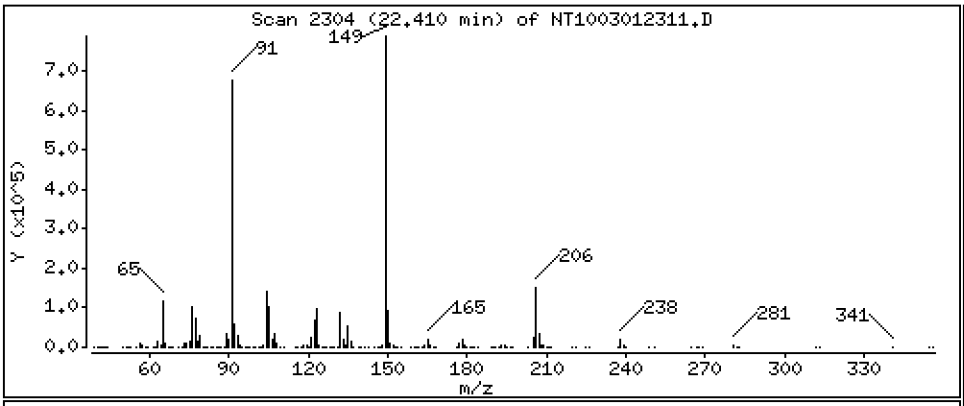
Operator: VTS

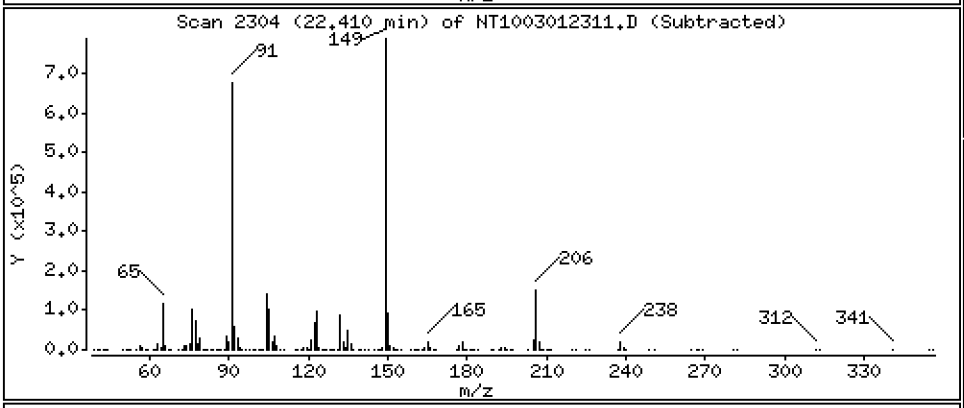
Column phase: ZB-5msi

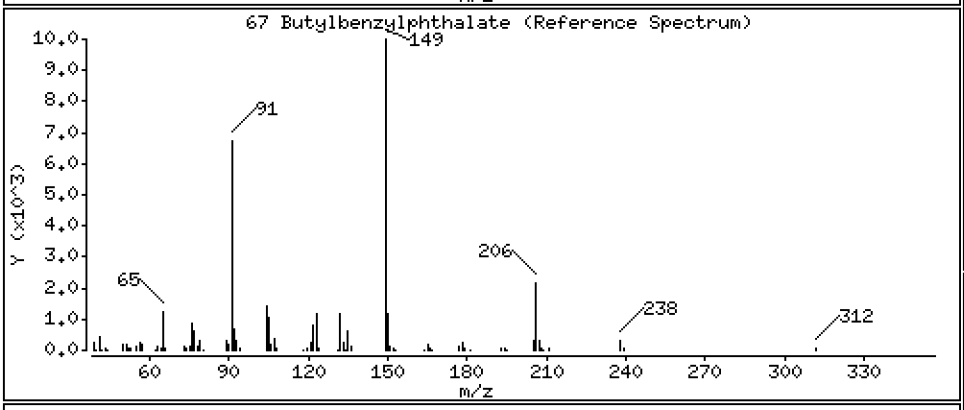
Column diameter: 0.25

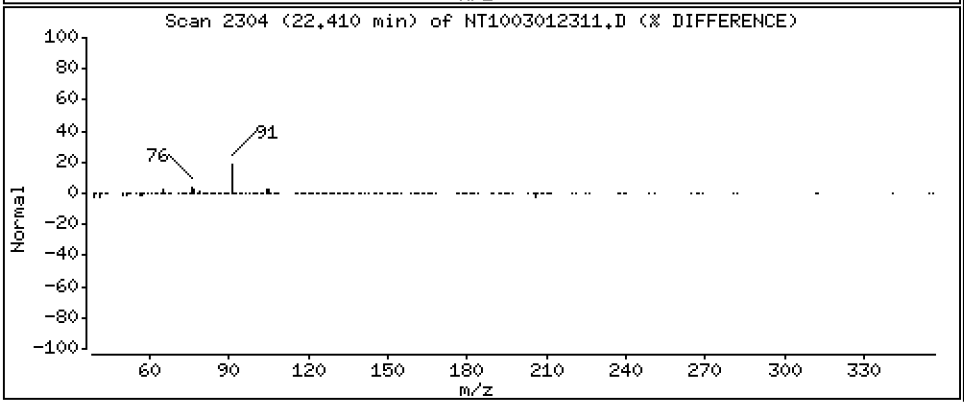
67 Butylbenzylphthalate

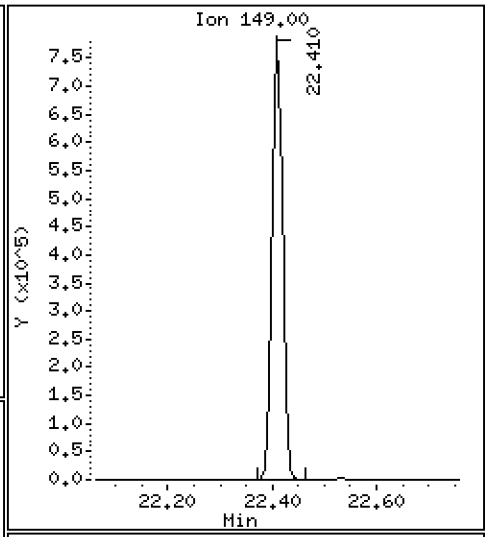
Concentration: 4.525 ug/mL

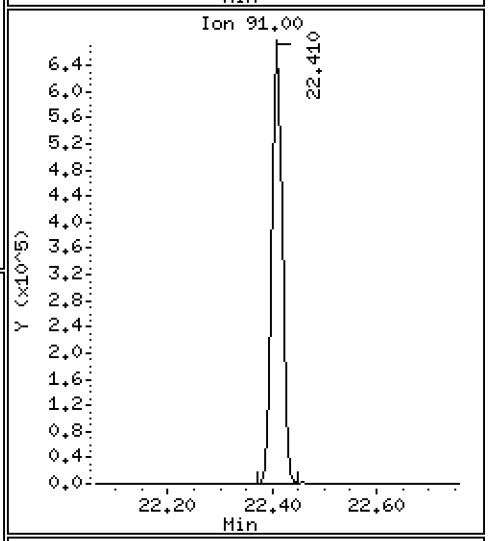


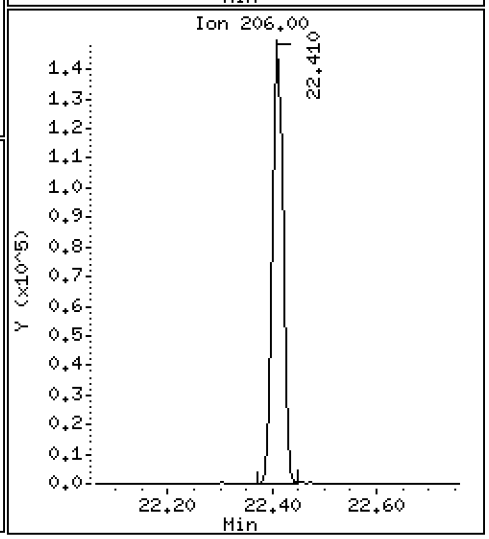












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

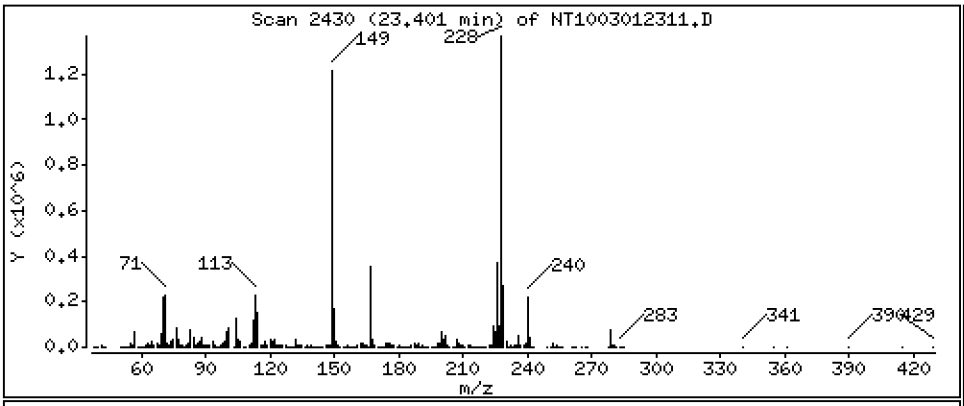
Operator: VTS

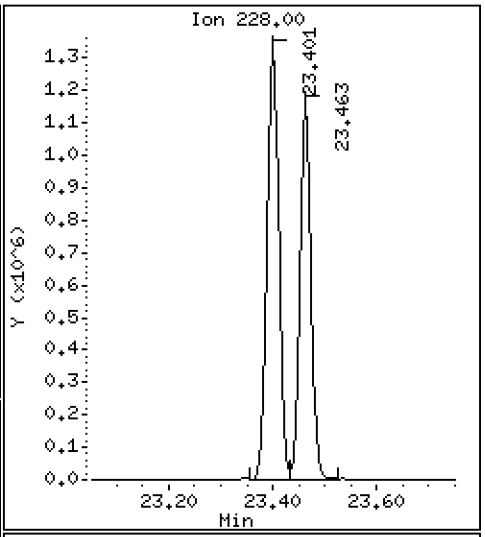
Column phase: ZB-5msi

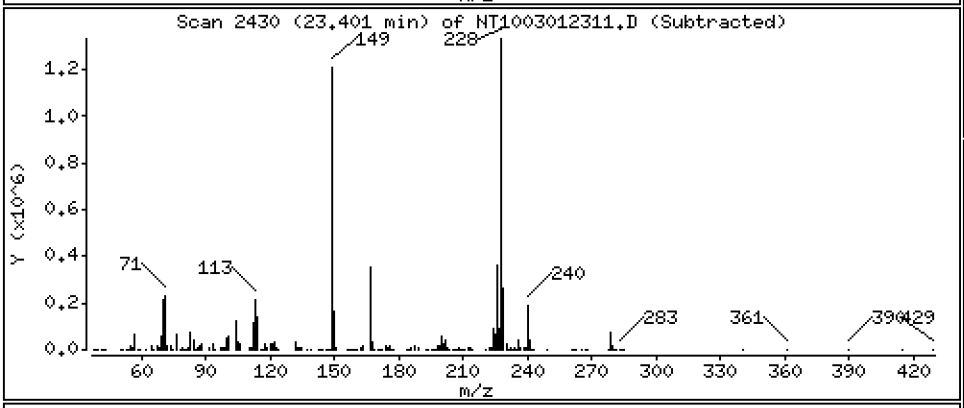
Column diameter: 0.25

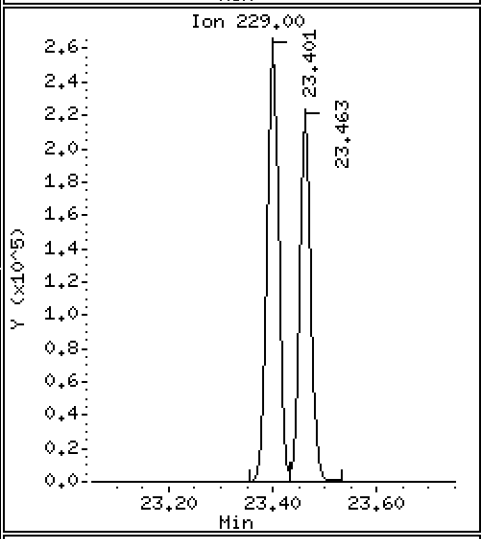
68 Benzo(a)anthracene

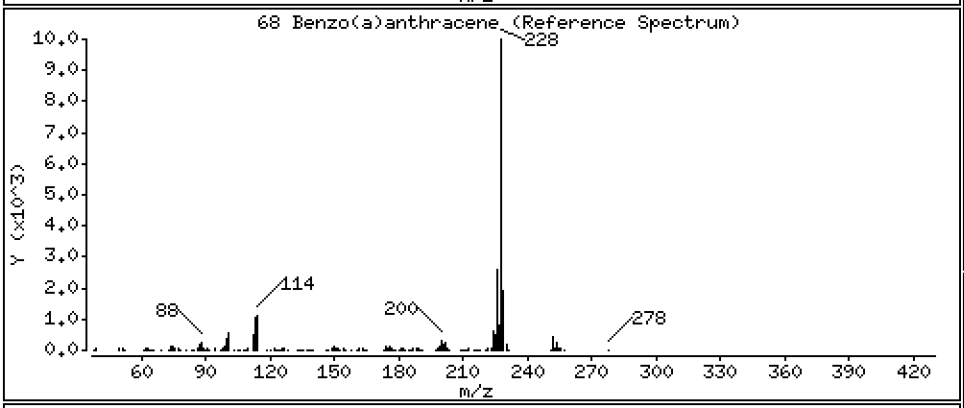
Concentration: 4.578 ug/mL

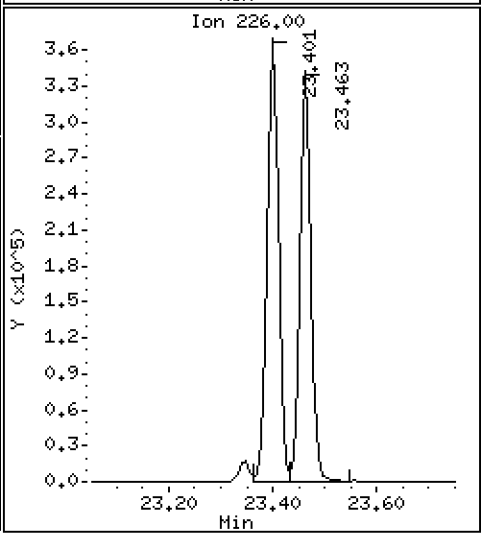


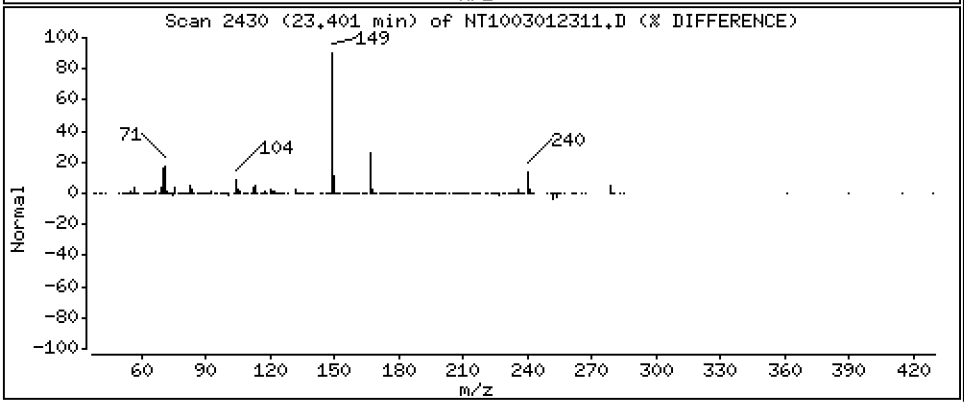












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

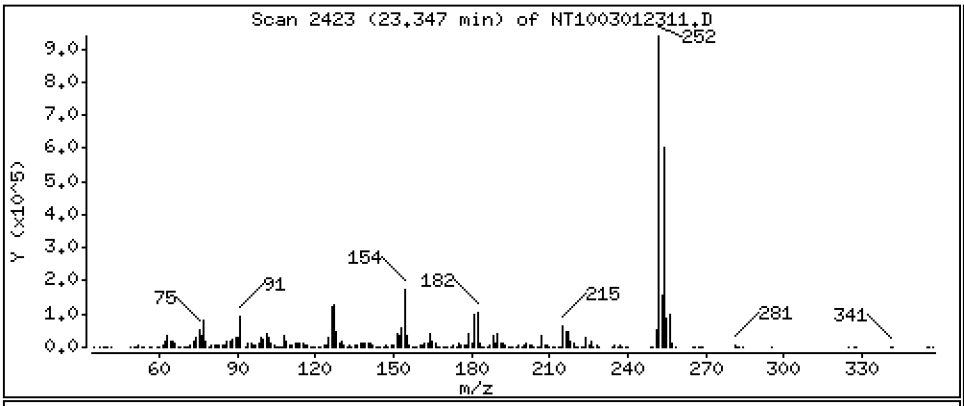
Operator: VTS

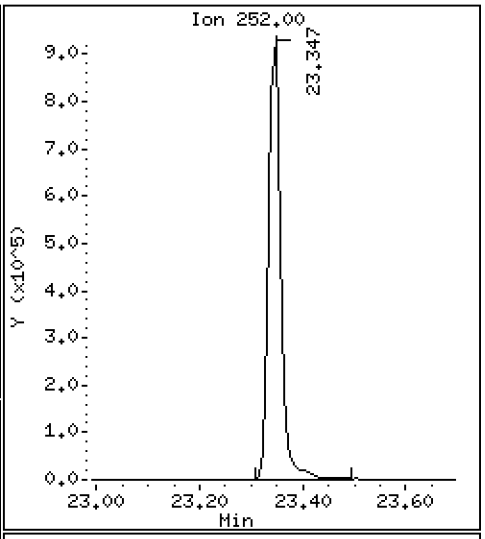
Column phase: ZB-5msi

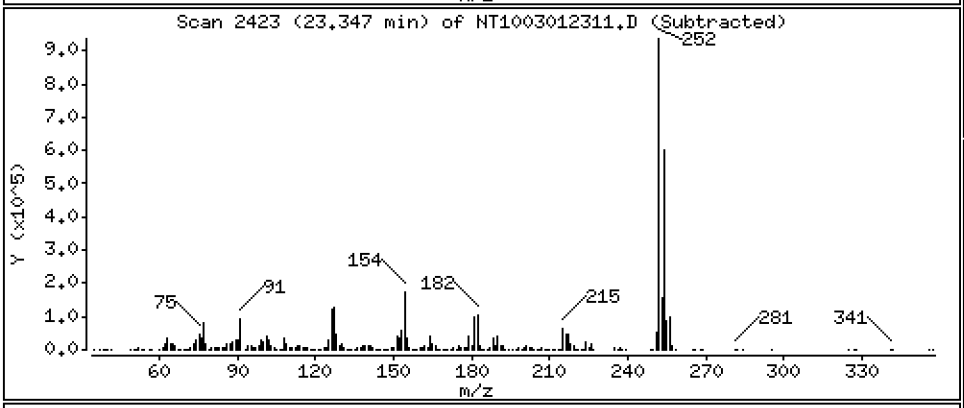
Column diameter: 0.25

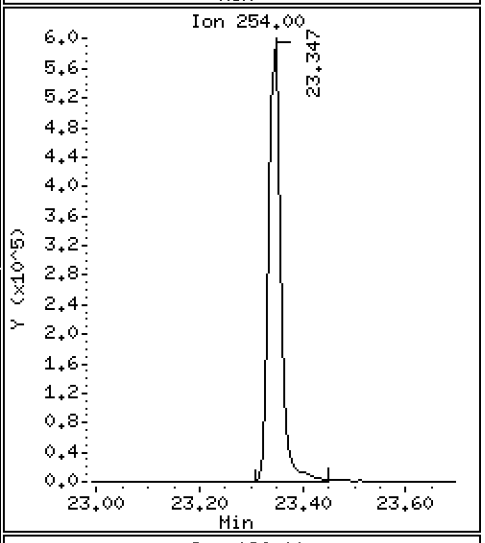
70 3,3'-Dichlorobenzidine

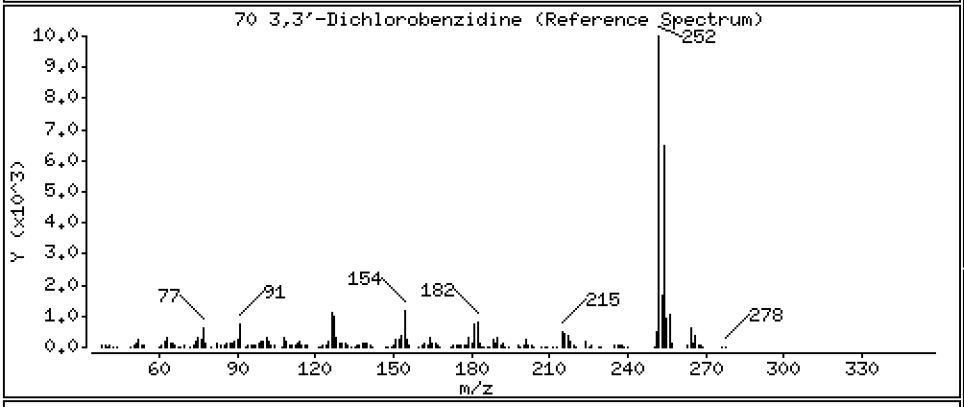
Concentration: 7.383 ug/mL

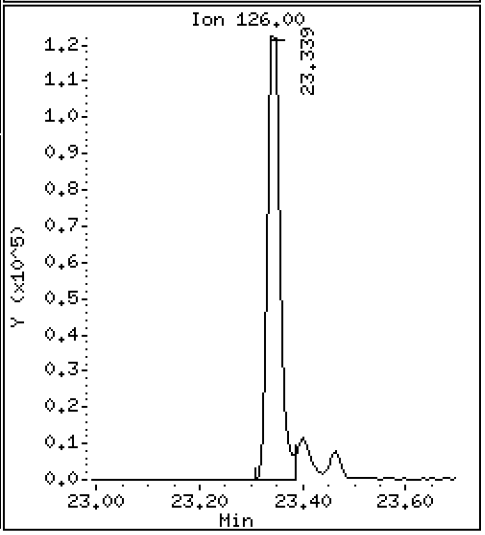


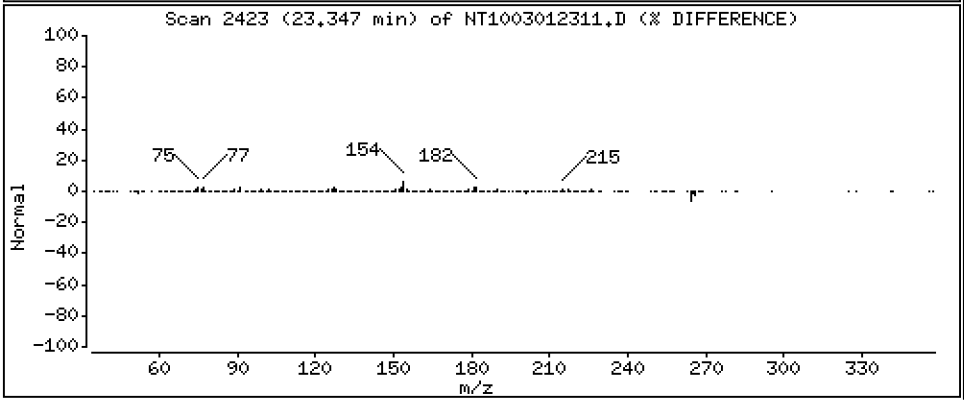












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

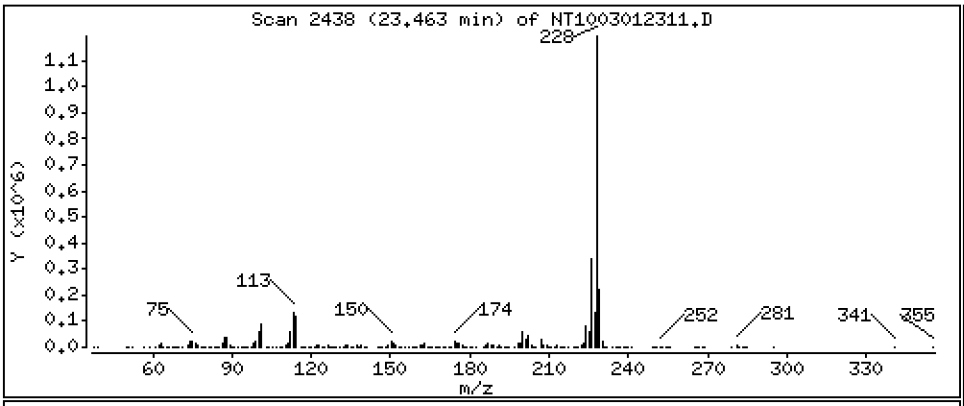
Operator: VTS

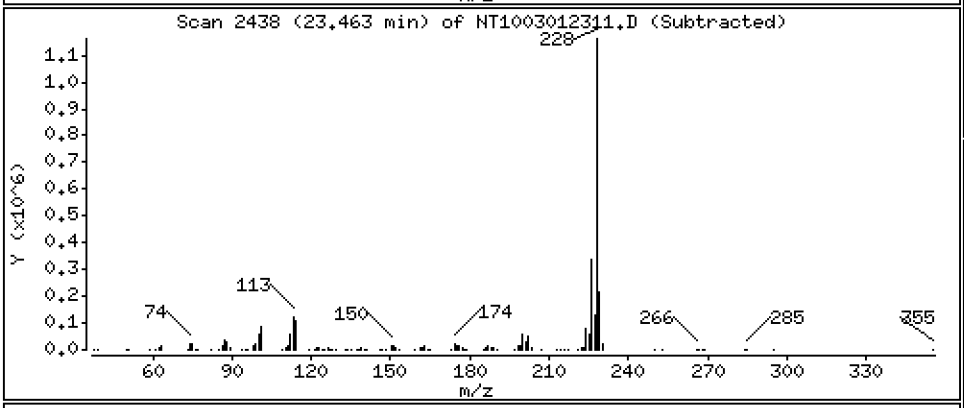
Column phase: ZB-5msi

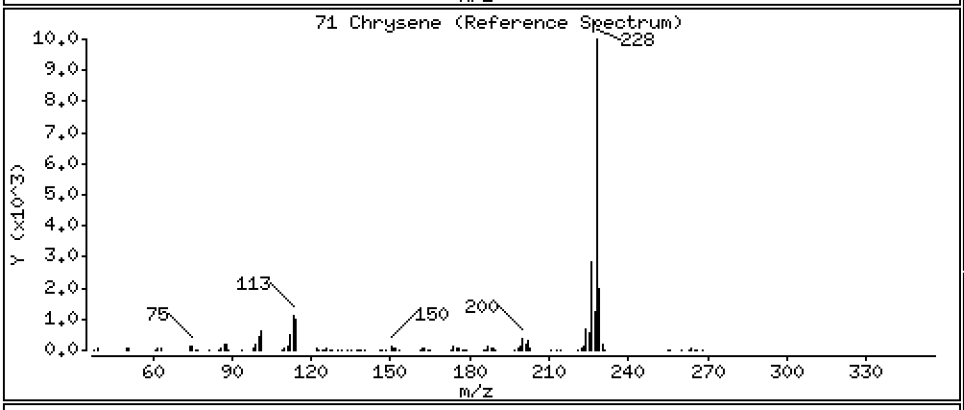
Column diameter: 0.25

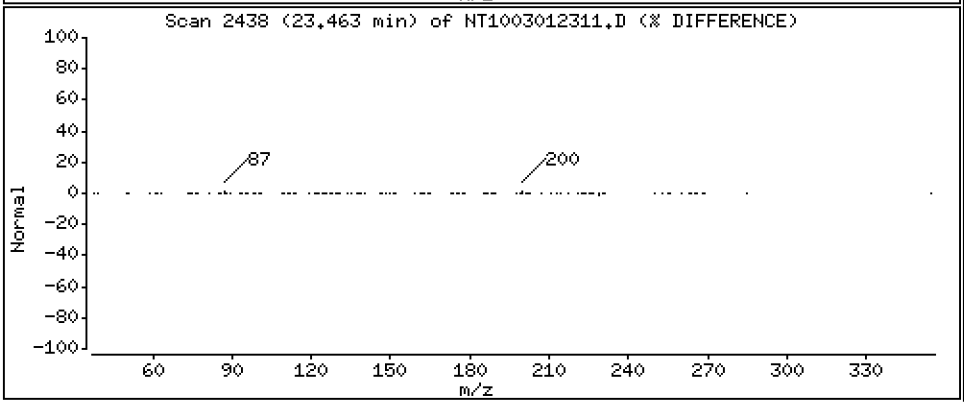
71 Chrysene

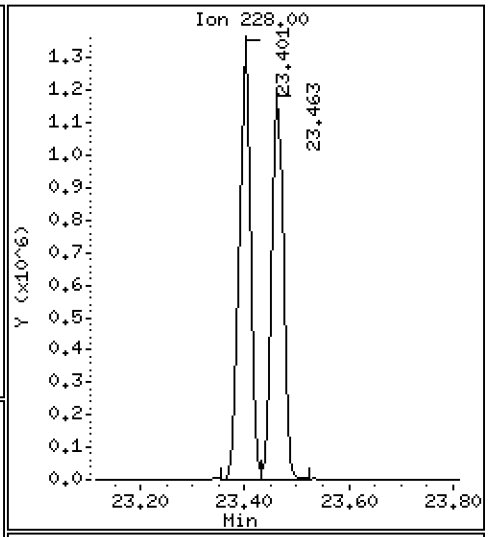
Concentration: 4.967 ug/mL

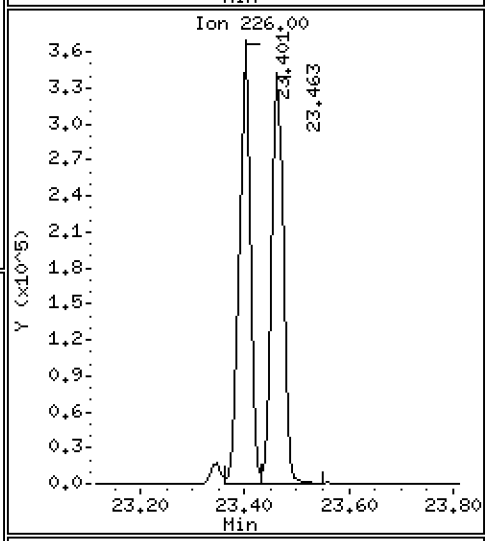


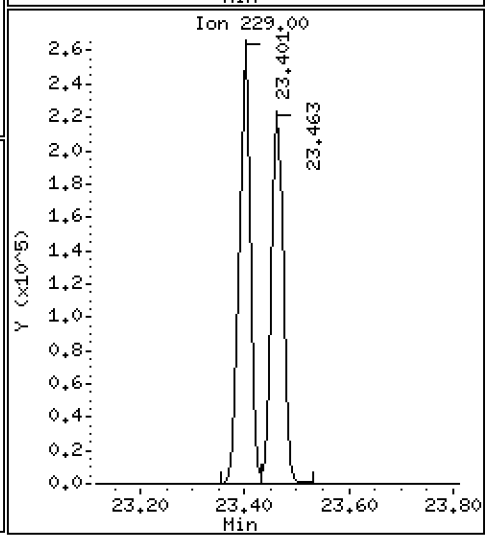












Date : 01-MAR-2023 21:46

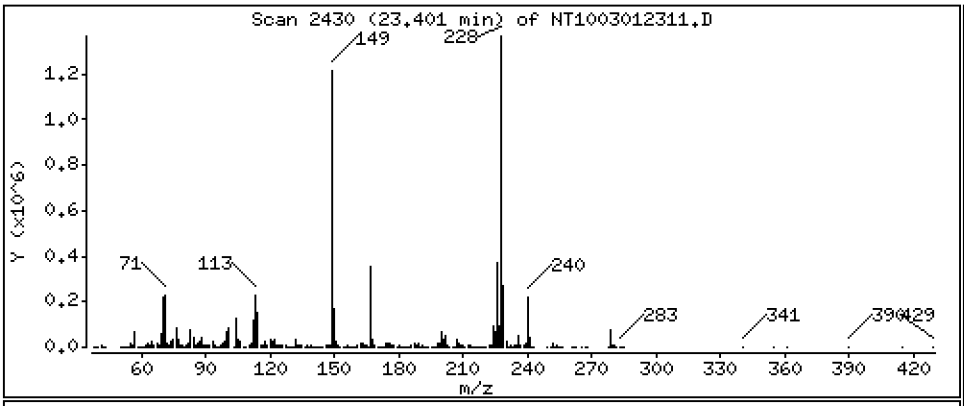
Client ID: Instrument: nt10.i

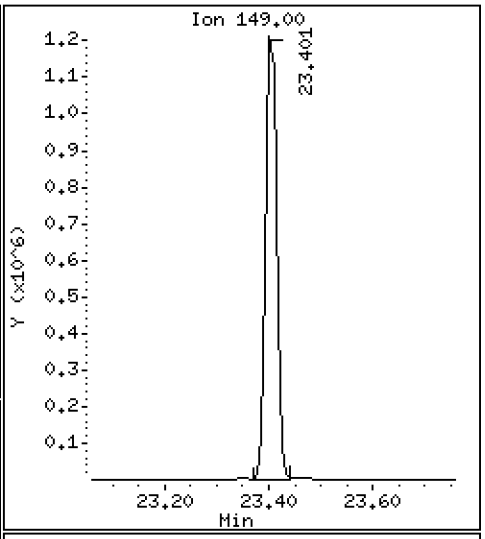
Sample Info: SEQ-SCV1

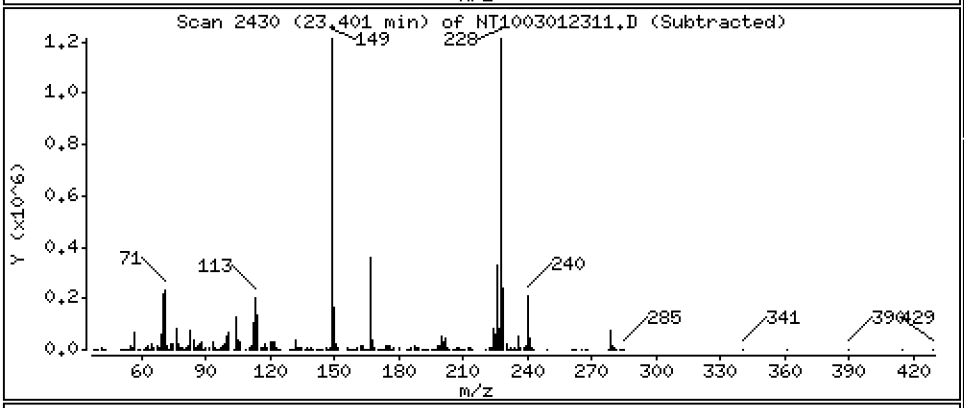
Operator: VTS

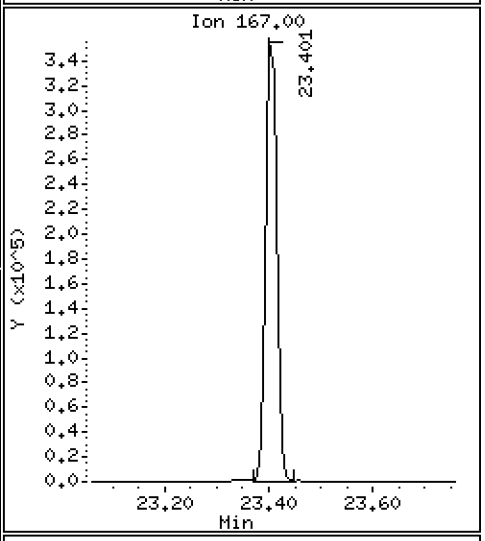
Column phase: ZB-5msi Column diameter: 0.25

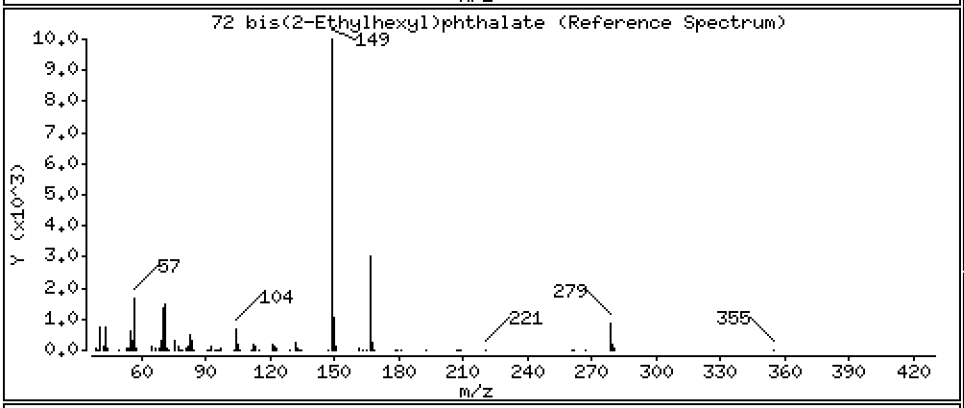
72 bis(2-Ethylhexyl)phthalate Concentration: 4.956 ug/mL

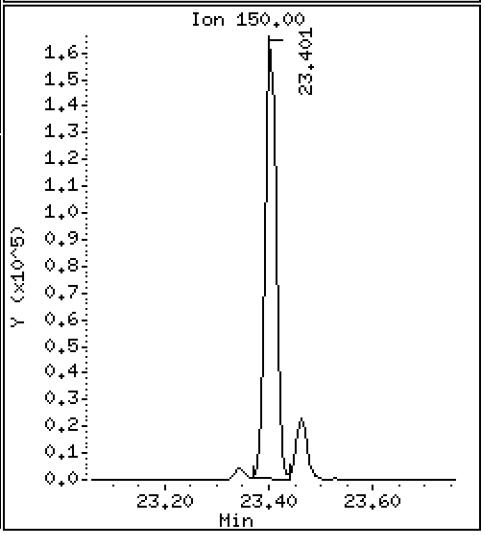


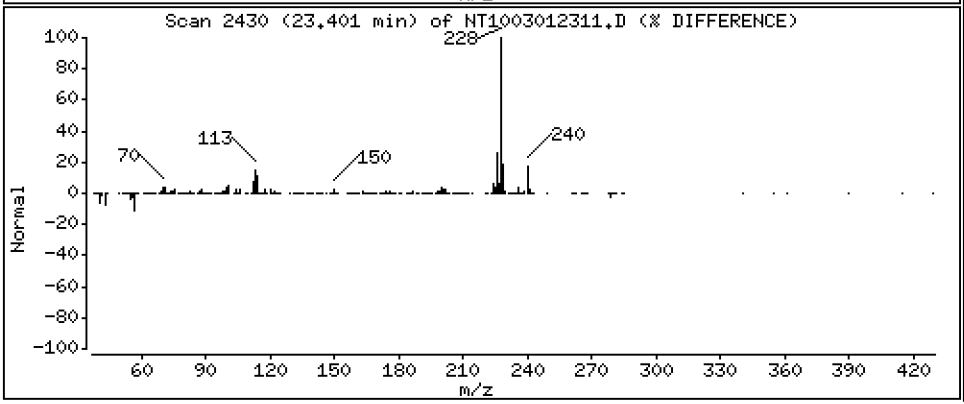












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

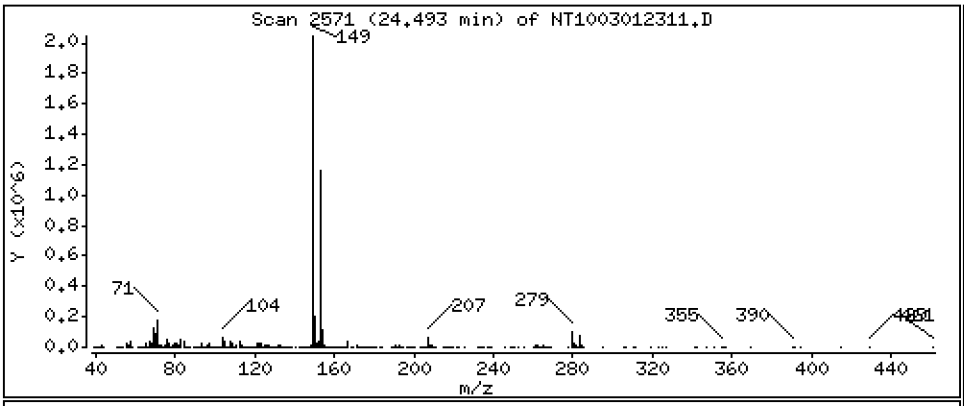
Operator: VTS

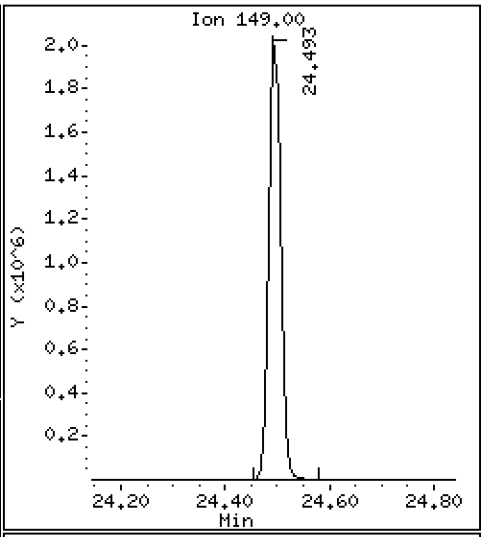
Column phase: ZB-5msi

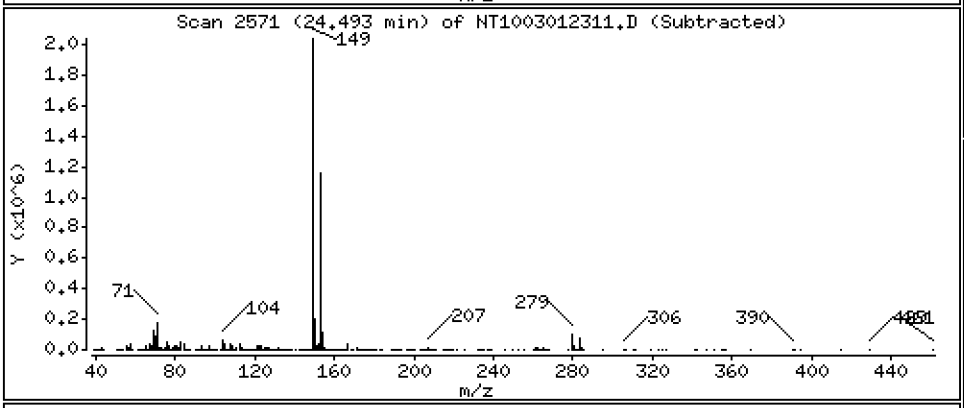
Column diameter: 0.25

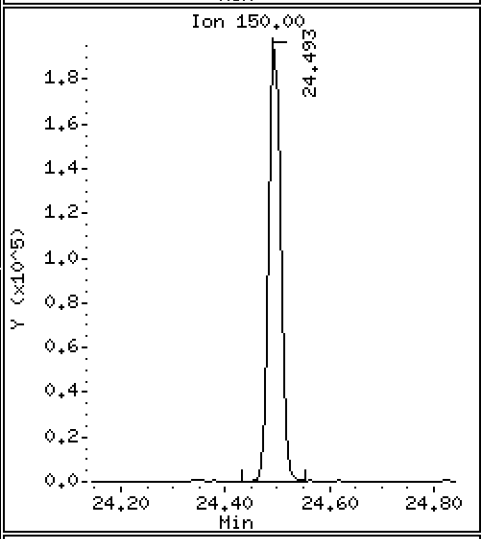
73 Di-n-octylphthalate

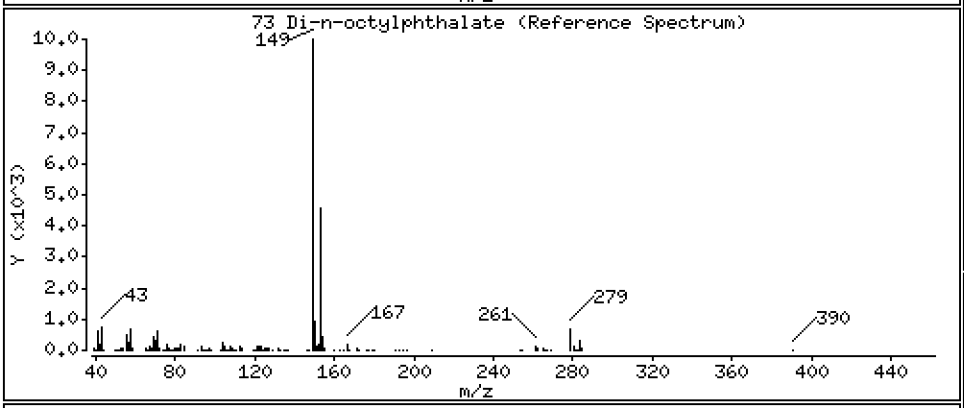
Concentration: 5.844 ug/mL

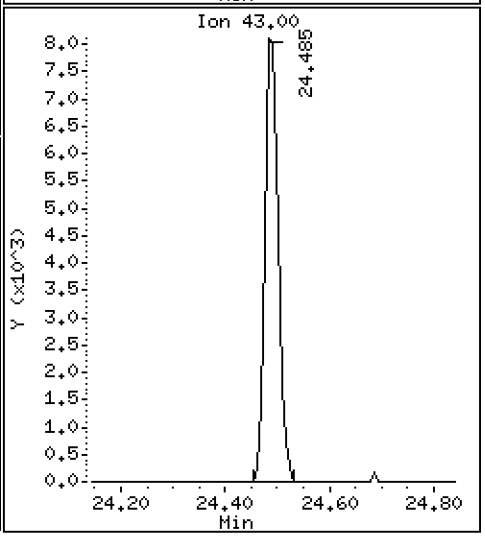


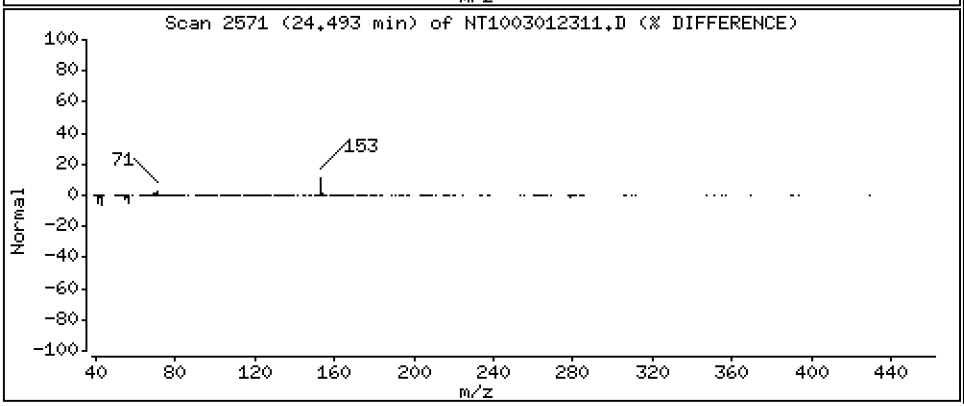












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

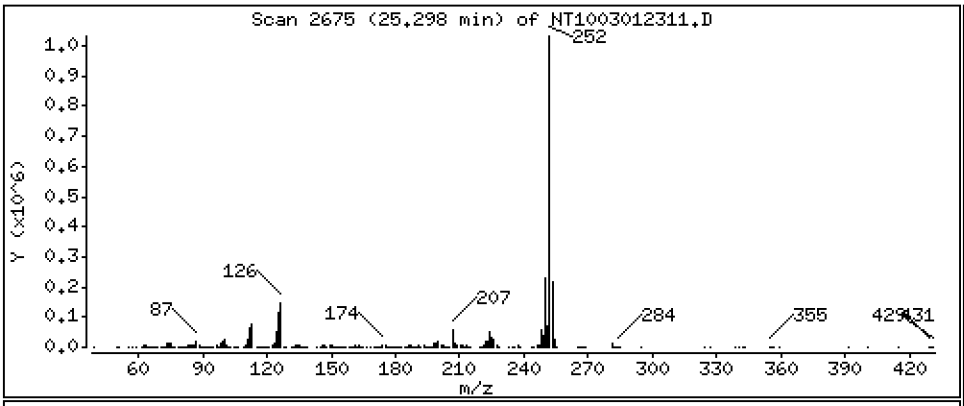
Operator: VTS

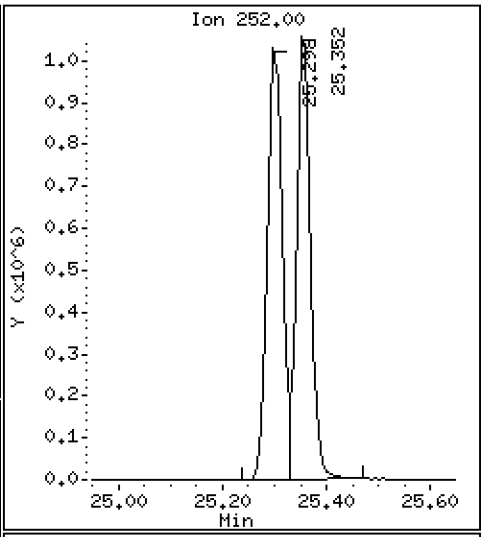
Column phase: ZB-5msi

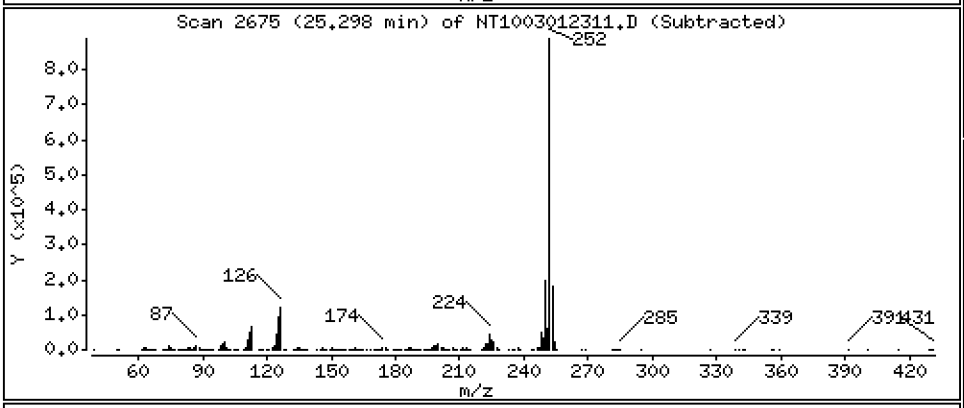
Column diameter: 0.25

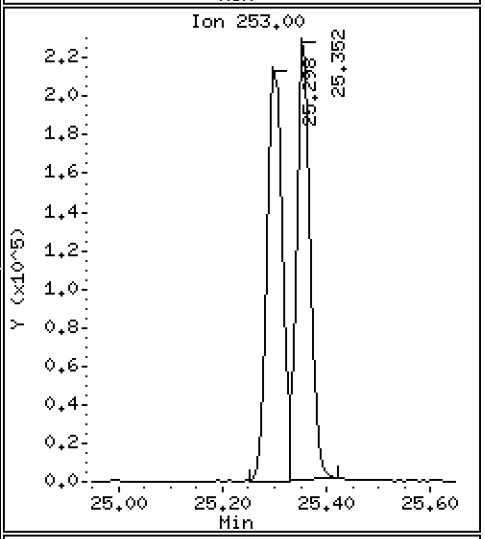
74 Benzo(b)fluoranthene

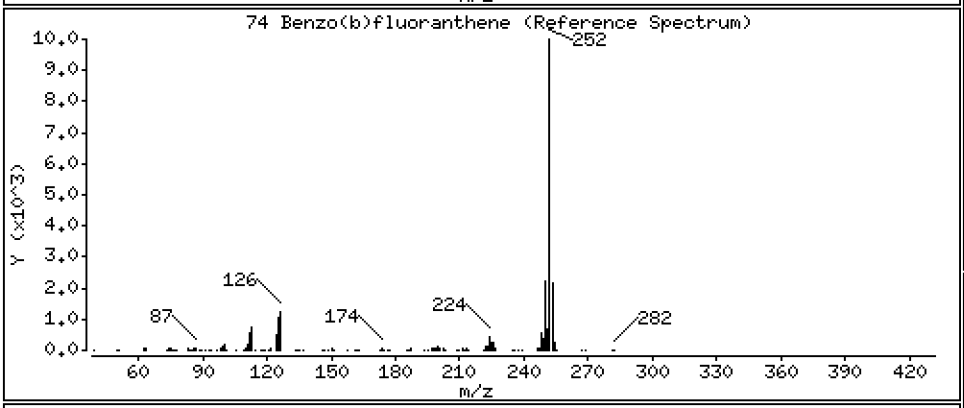
Concentration: 4.319 ug/mL

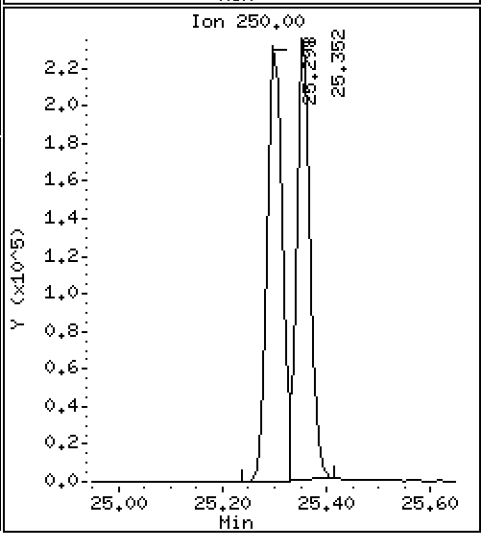


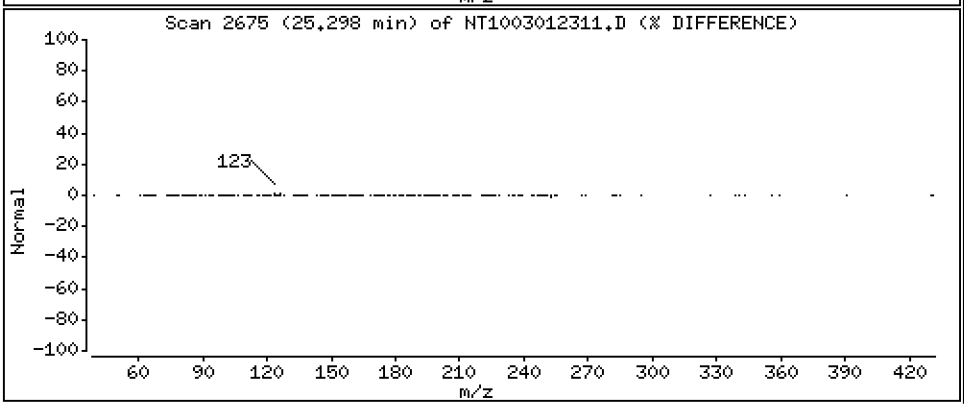












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

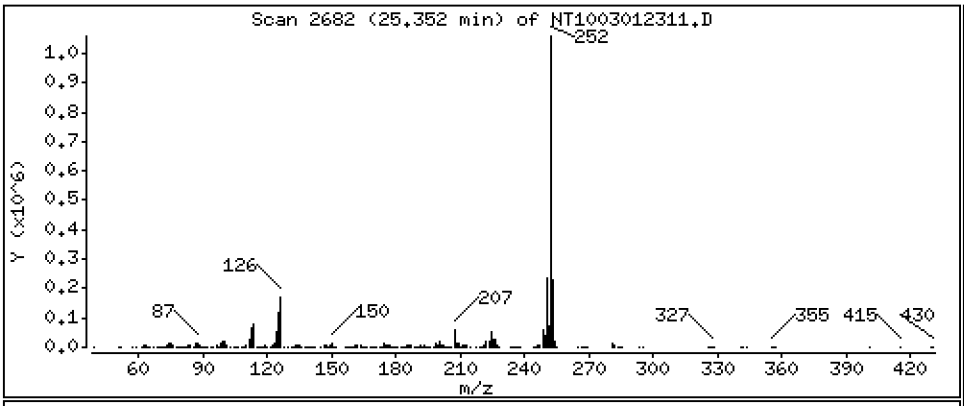
Operator: VTS

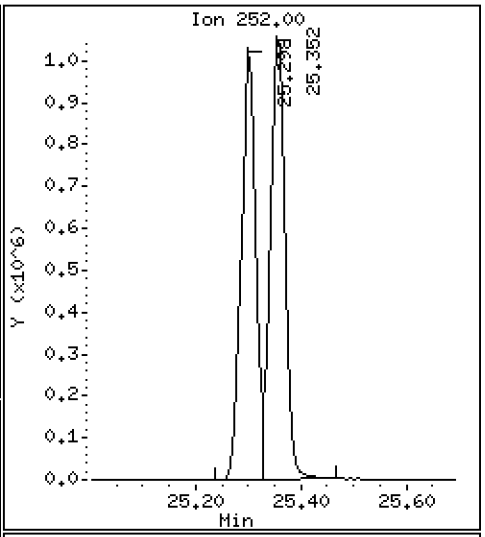
Column phase: ZB-5msi

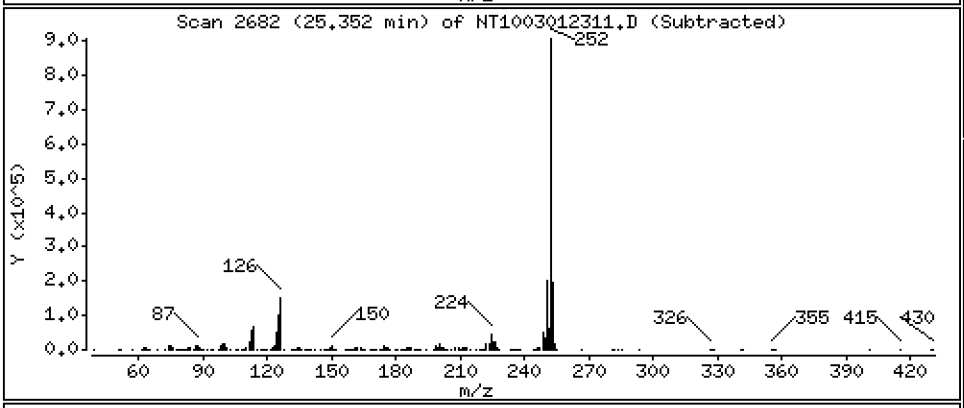
Column diameter: 0.25

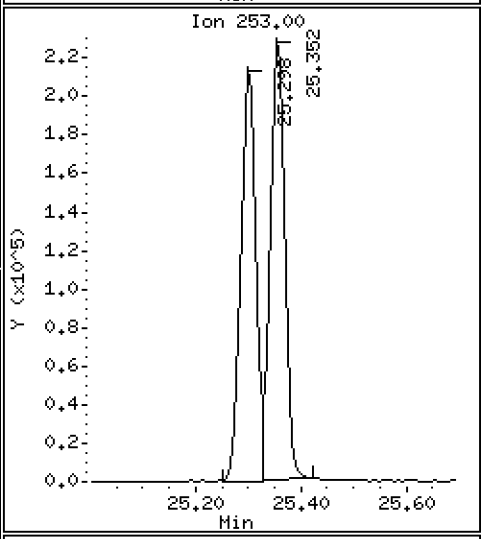
75 Benzo(k)fluoranthene

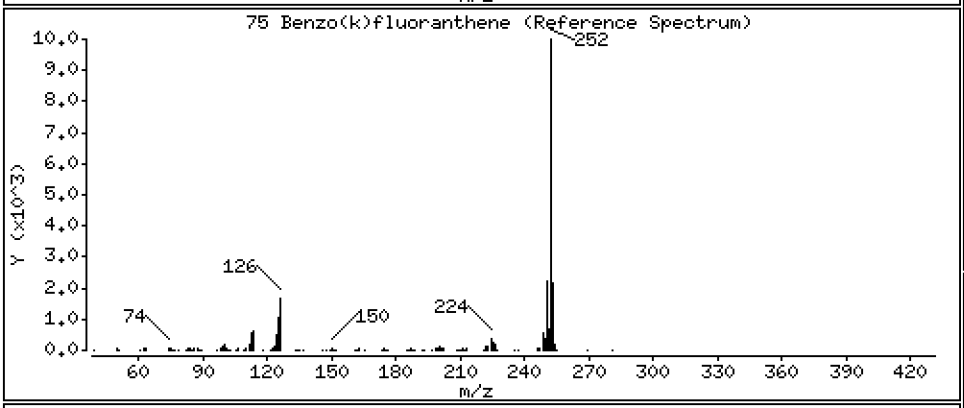
Concentration: 4.563 ug/mL

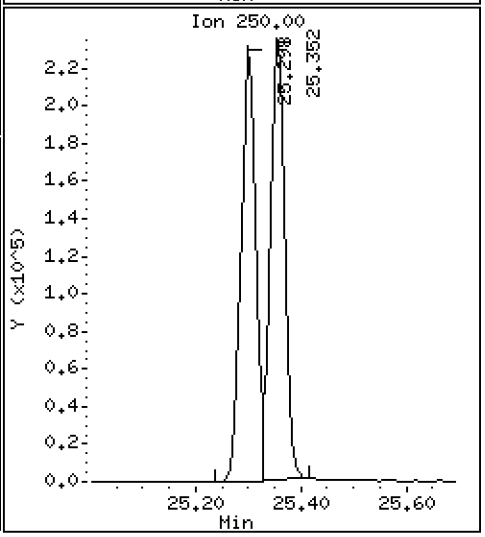


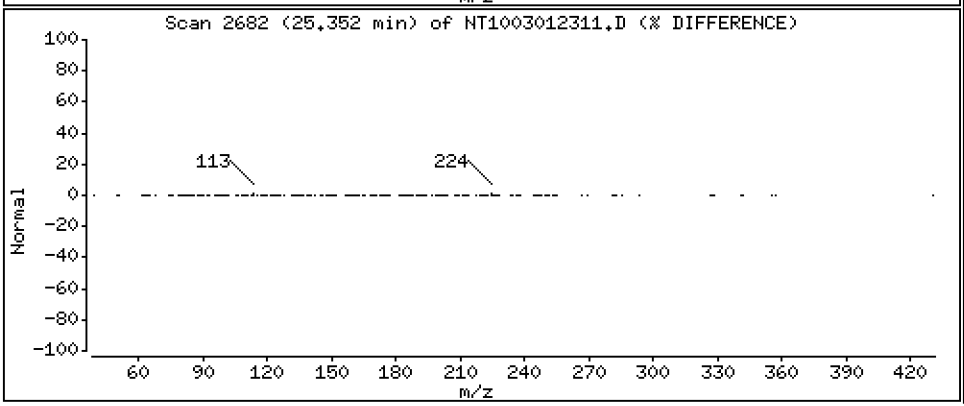












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

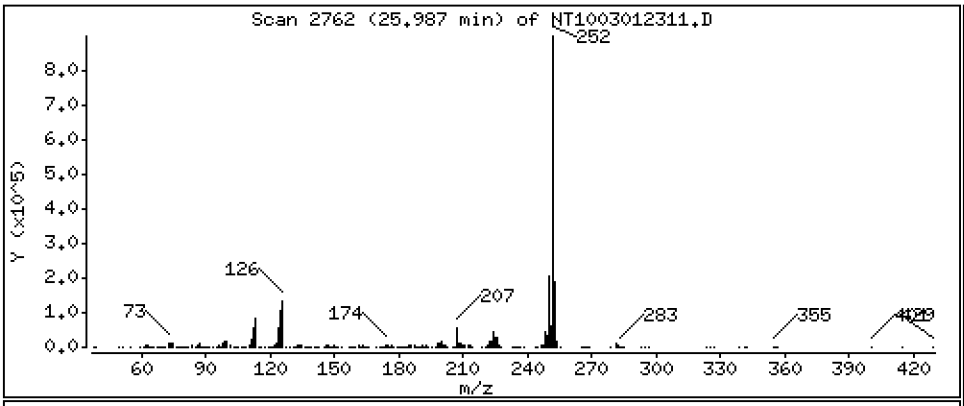
Operator: VTS

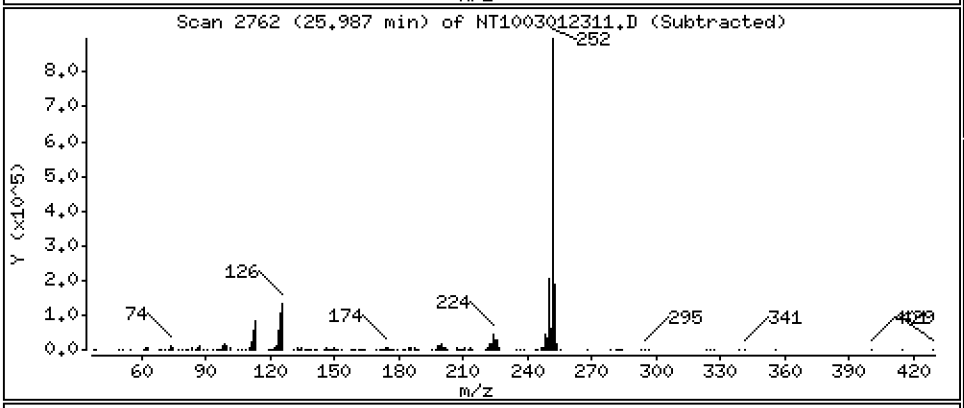
Column phase: ZB-5msi

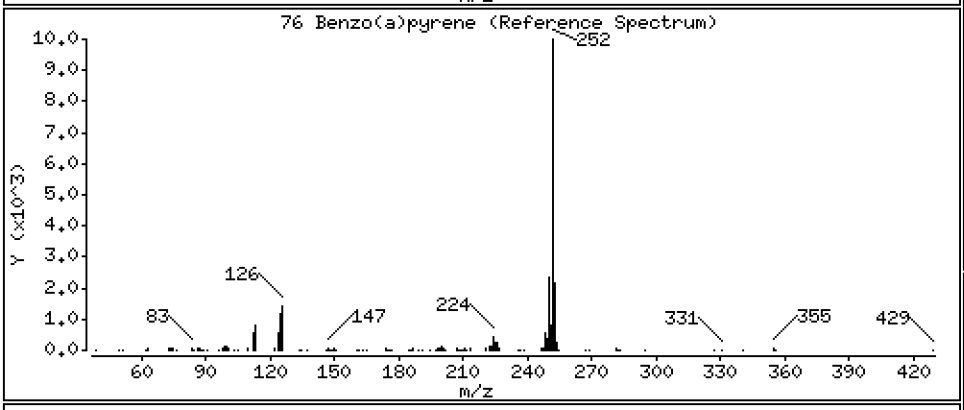
Column diameter: 0.25

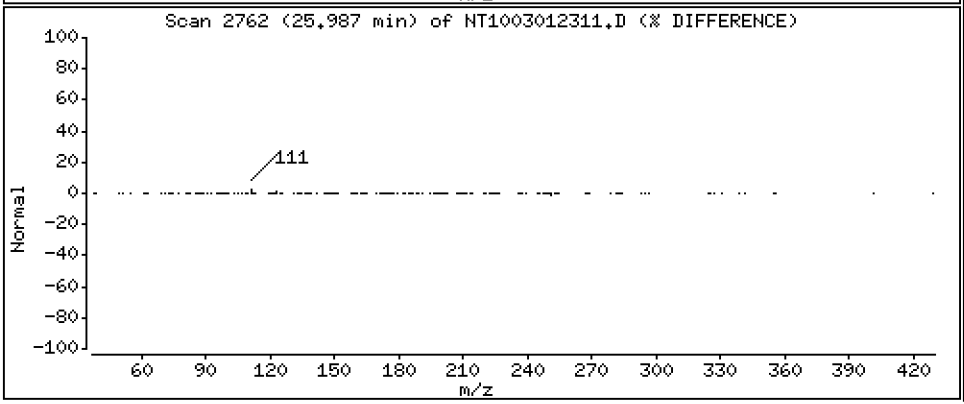
76 Benzo(a)pyrene

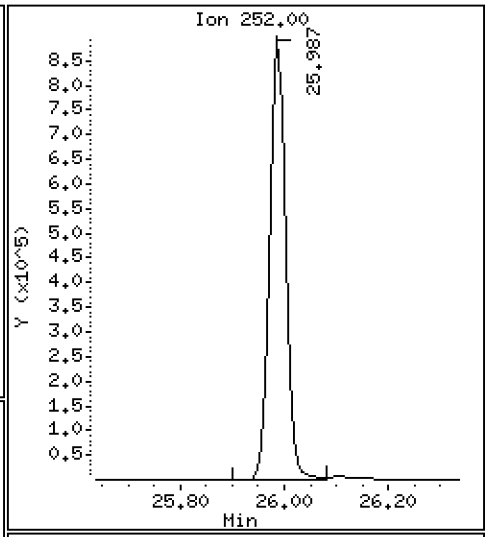
Concentration: 4.445 ug/mL

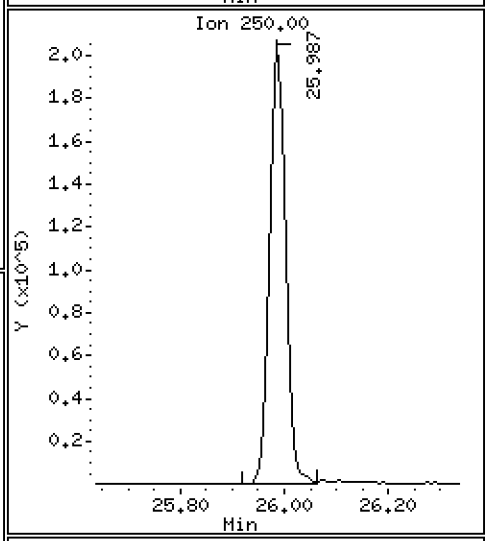


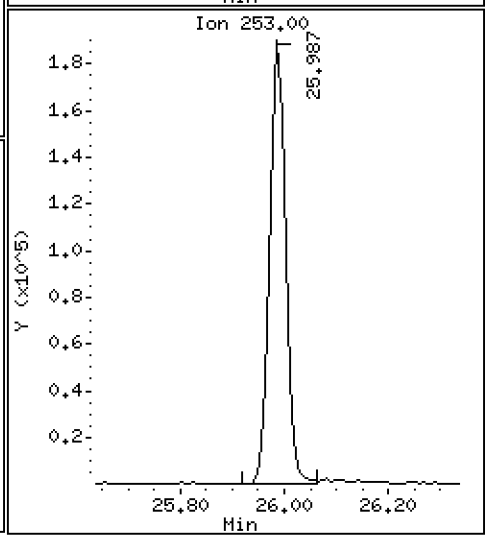












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

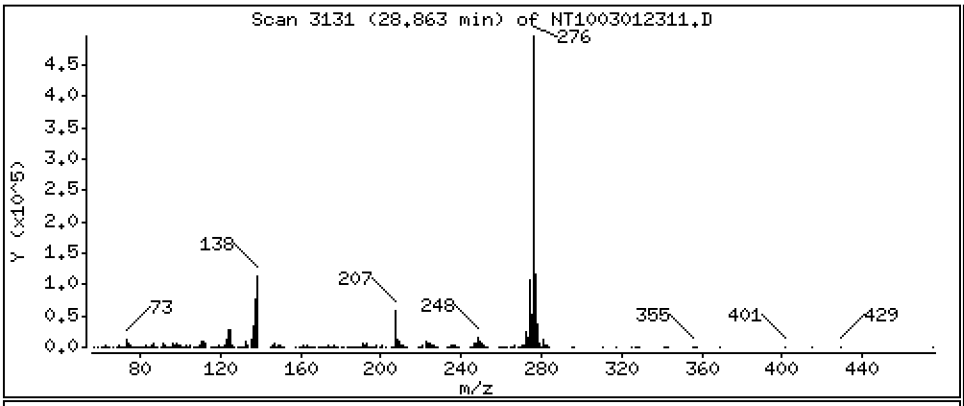
Operator: VTS

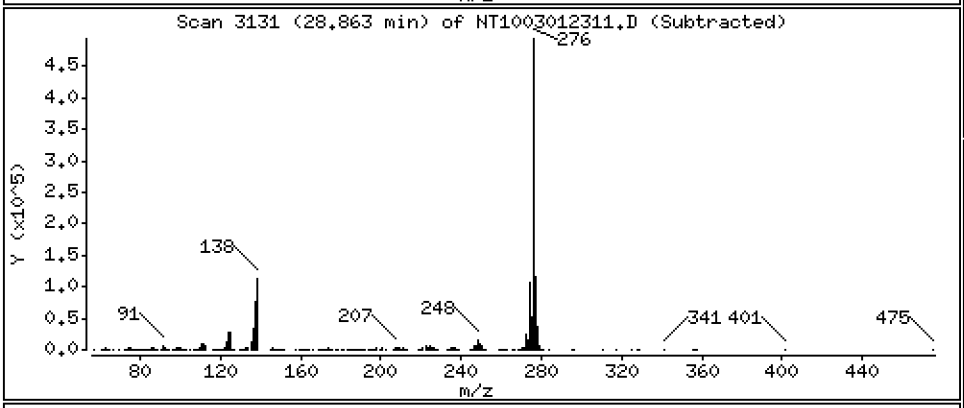
Column phase: ZB-5msi

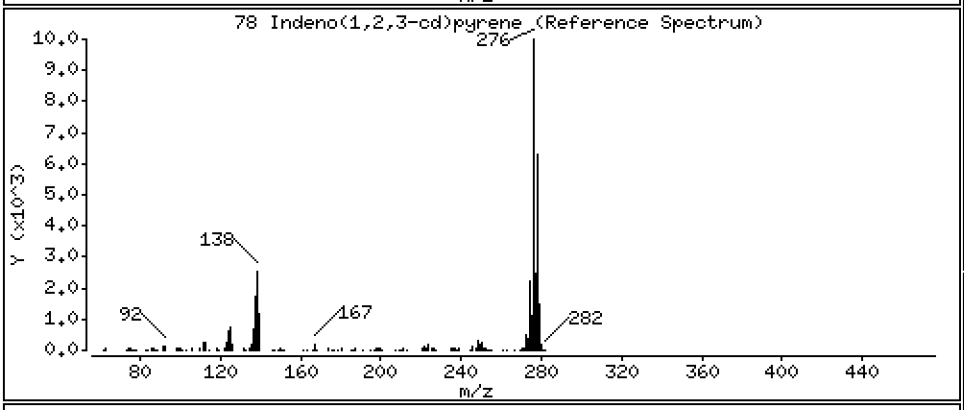
Column diameter: 0.25

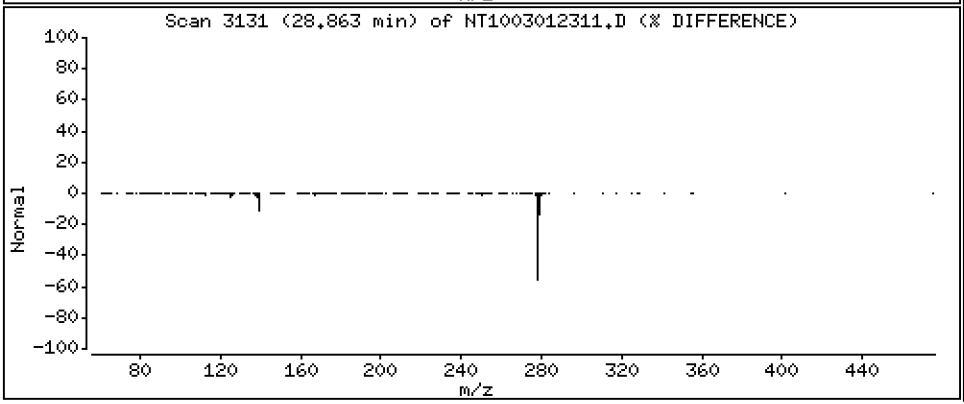
78 Indeno(1,2,3-cd)pyrene

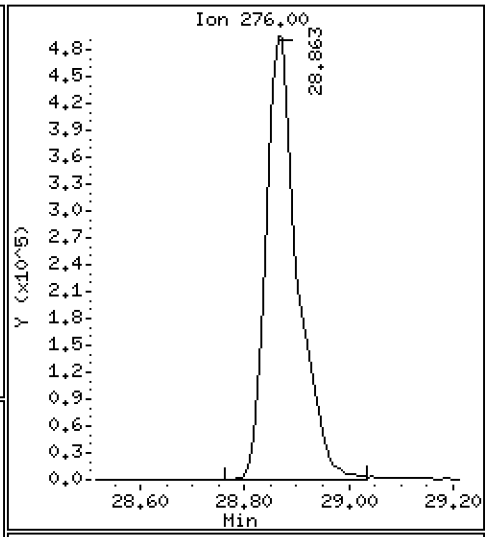
Concentration: 4.345 ug/mL

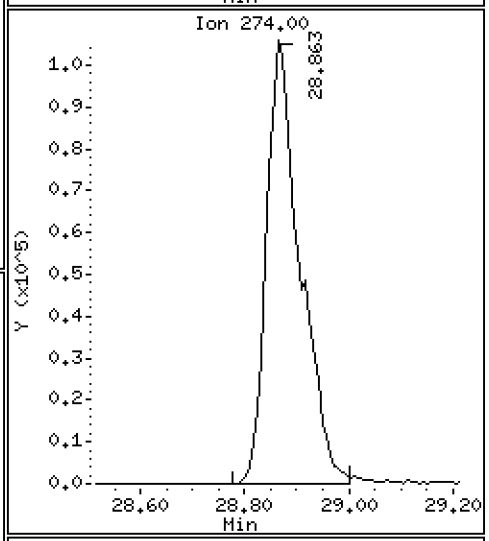


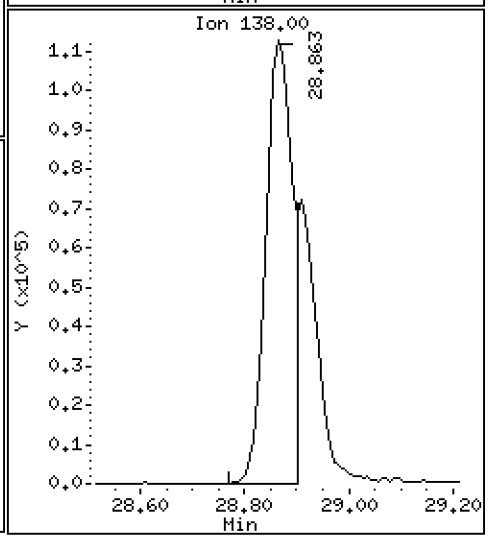












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

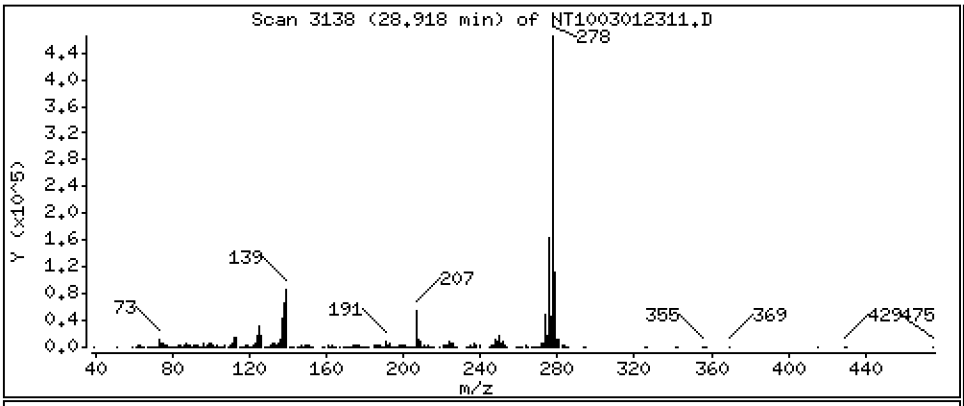
Operator: VTS

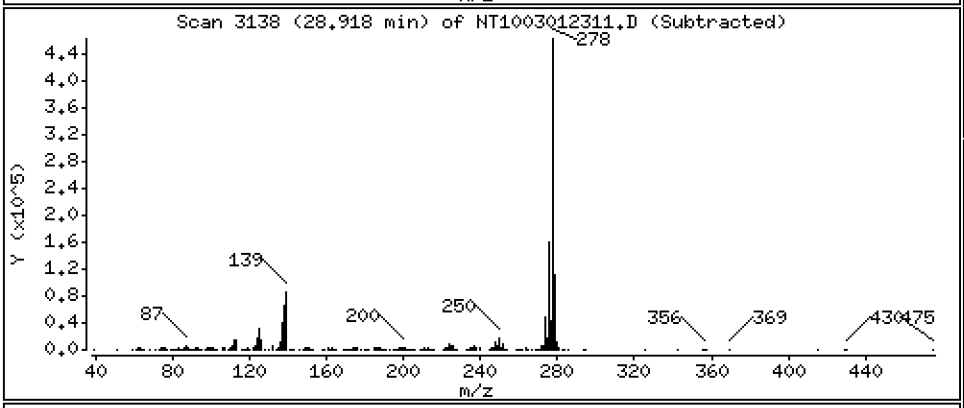
Column phase: ZB-5msi

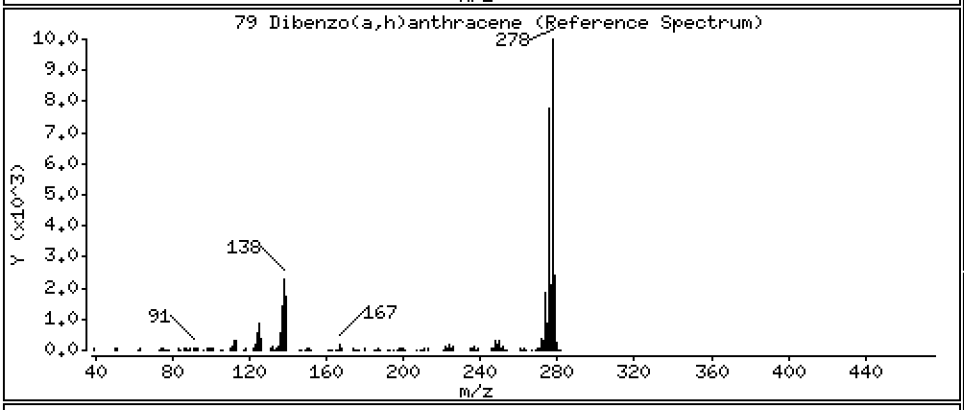
Column diameter: 0.25

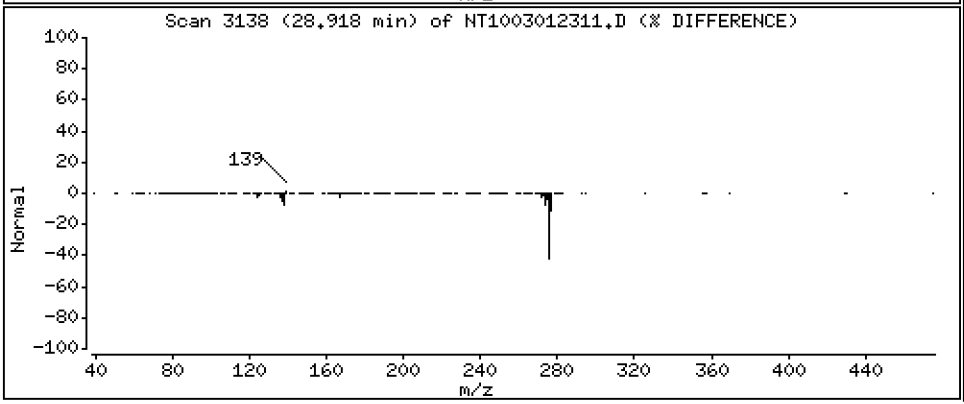
79 Dibenzo(a,h)anthracene

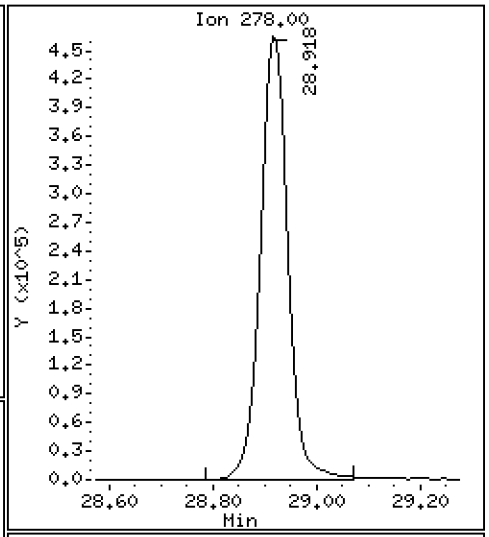
Concentration: 4.608 ug/mL

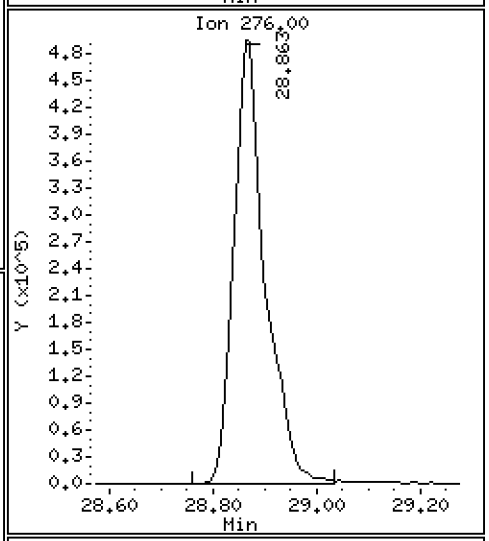


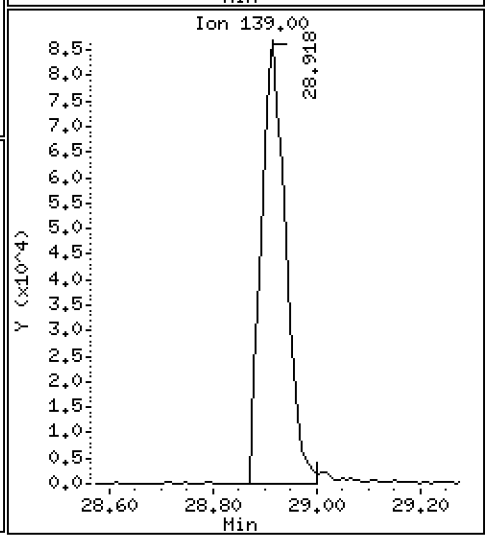












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

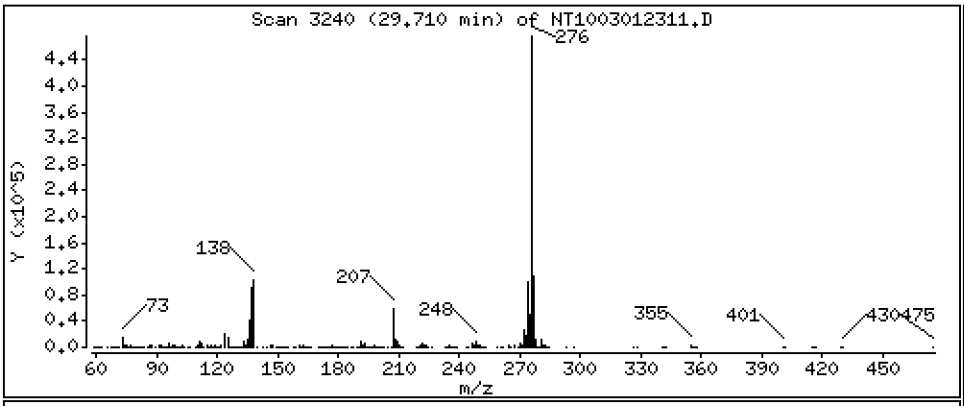
Operator: VTS

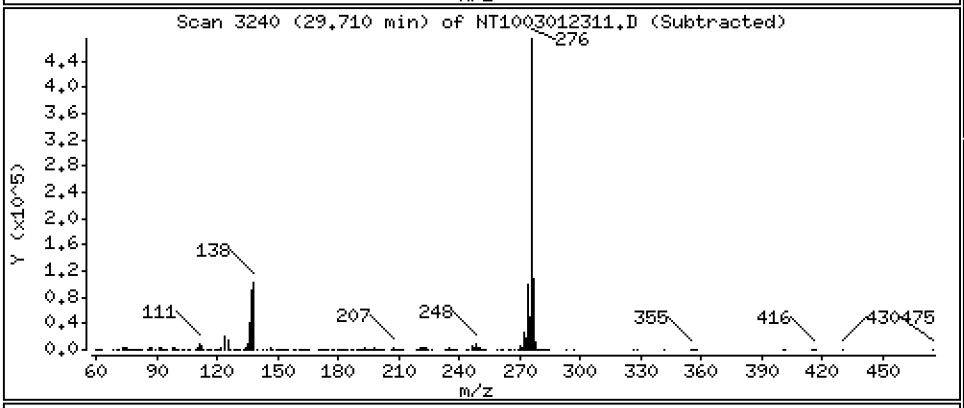
Column phase: ZB-5msi

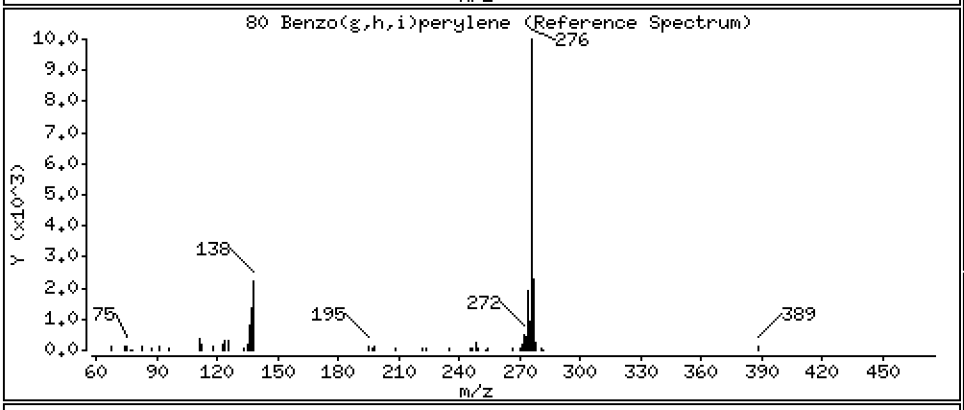
Column diameter: 0.25

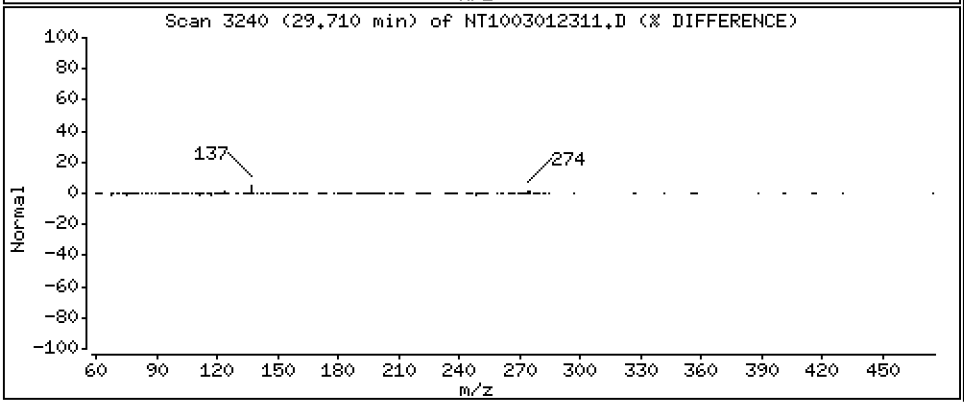
80 Benzo(g,h,i)perylene

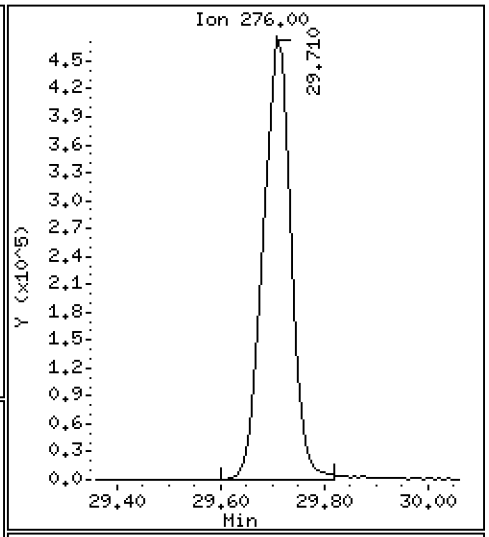
Concentration: 4.602 ug/mL

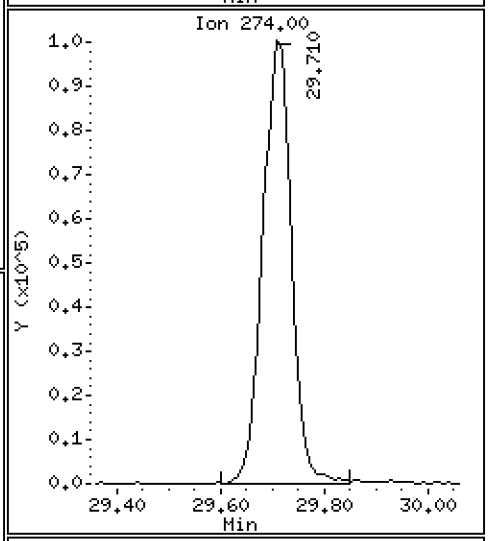


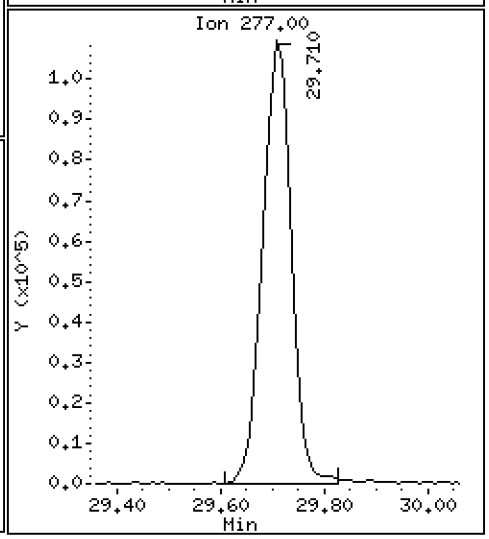












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

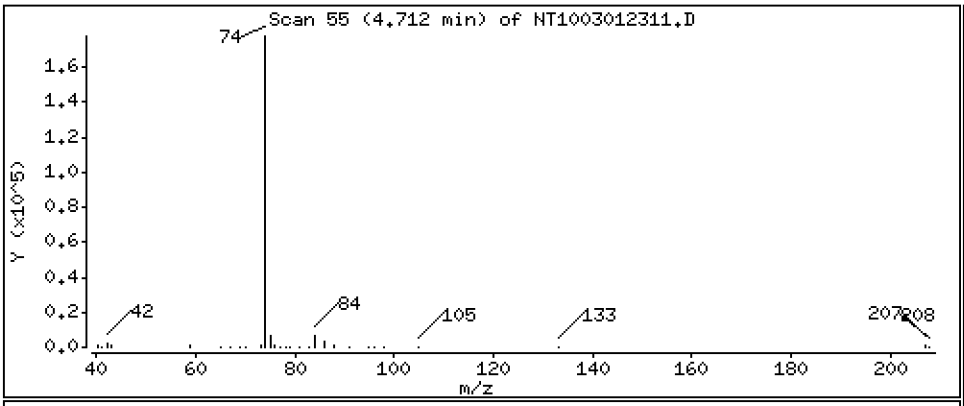
Operator: VTS

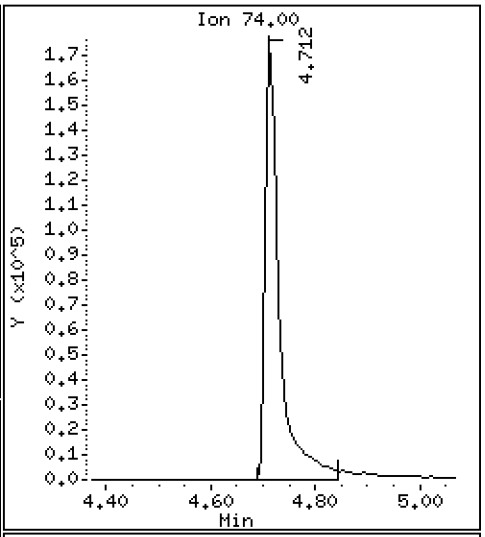
Column phase: ZB-5msi

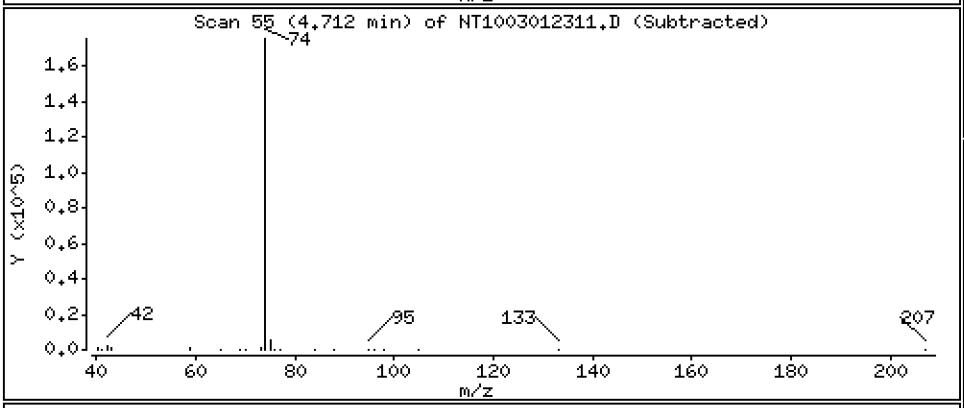
Column diameter: 0.25

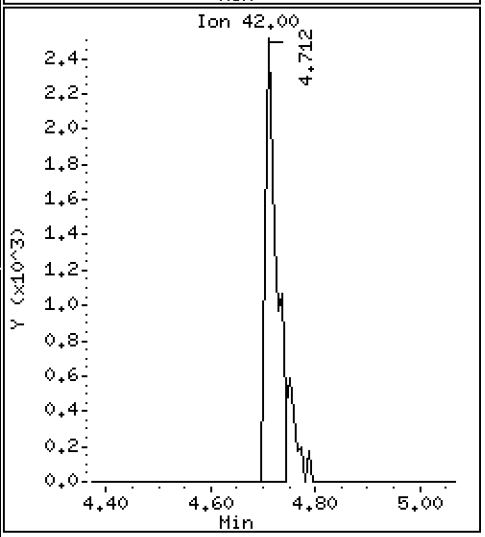
90 N-Nitrosodimethylamine

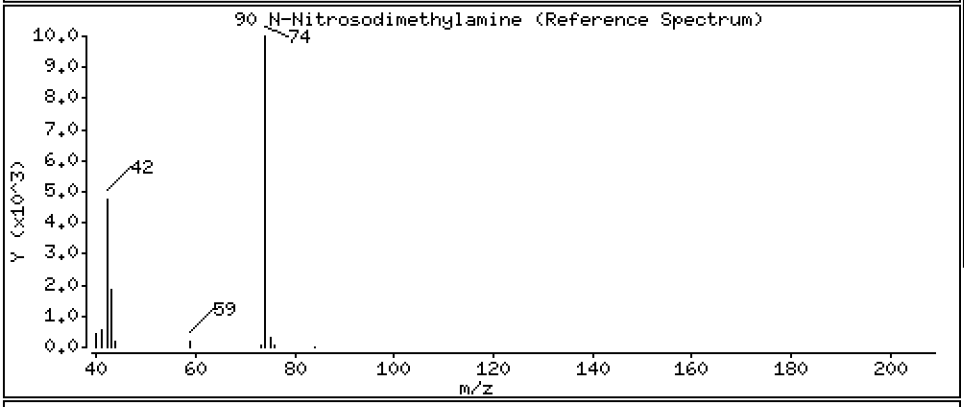
Concentration: 5.491 ug/mL

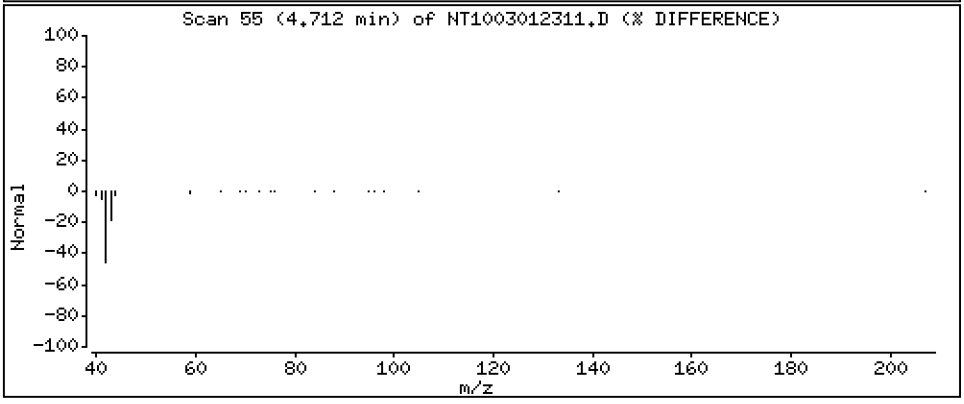












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

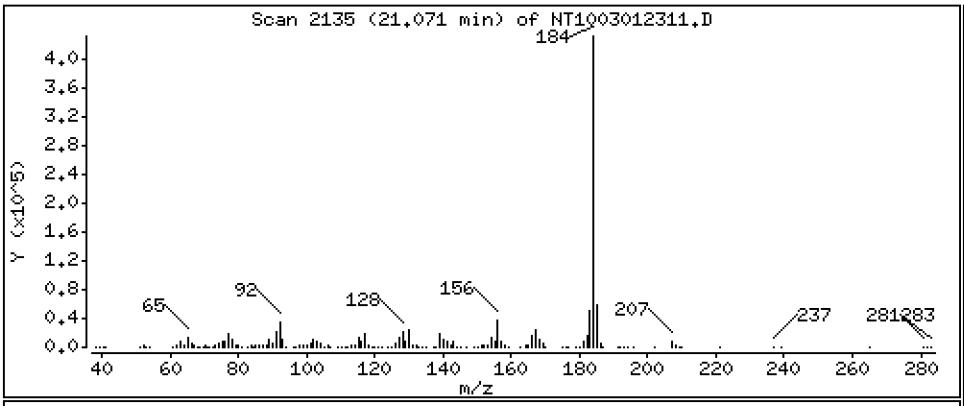
Operator: VTS

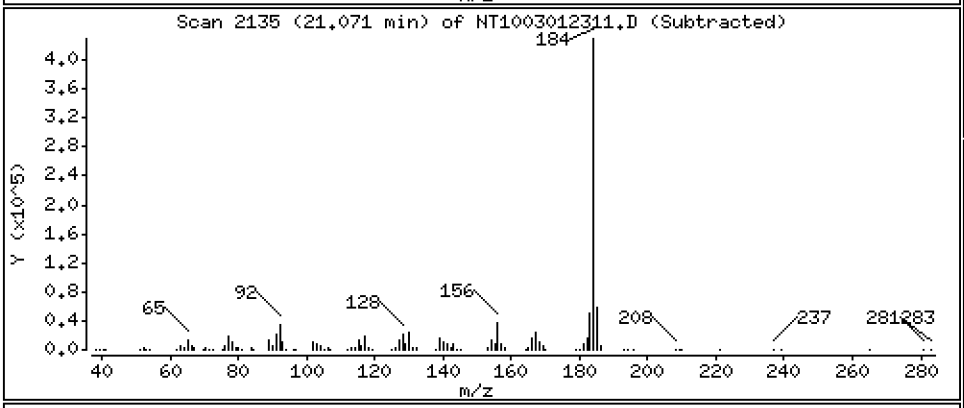
Column phase: ZB-5msi

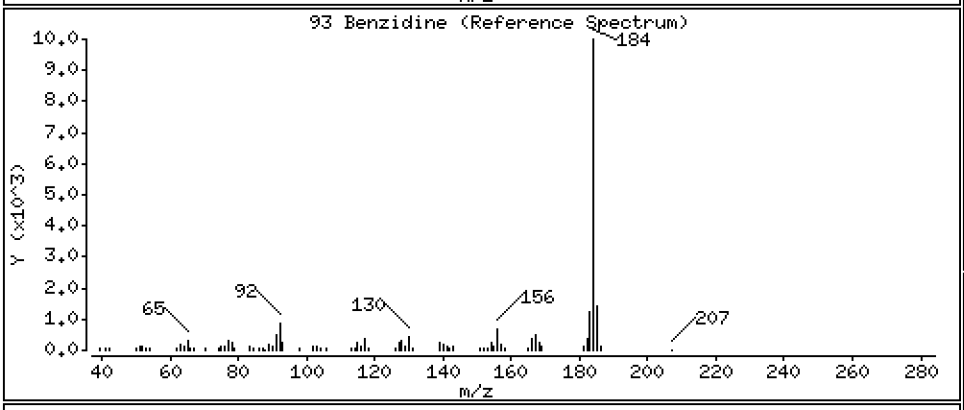
Column diameter: 0.25

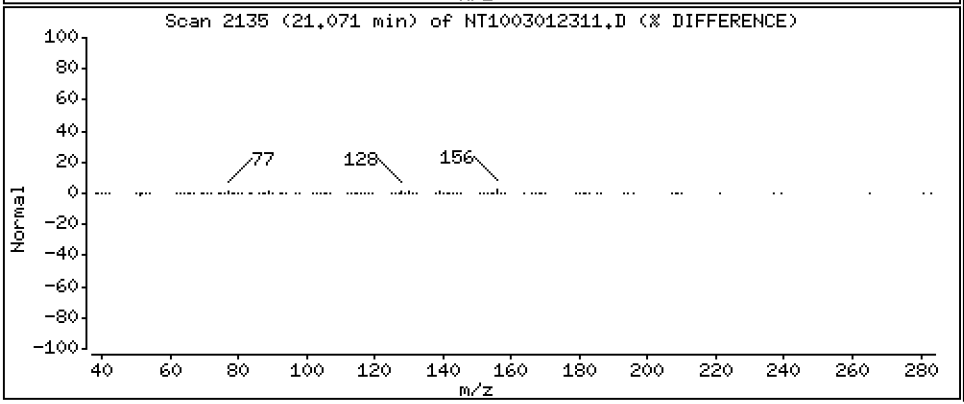
93 Benzidine

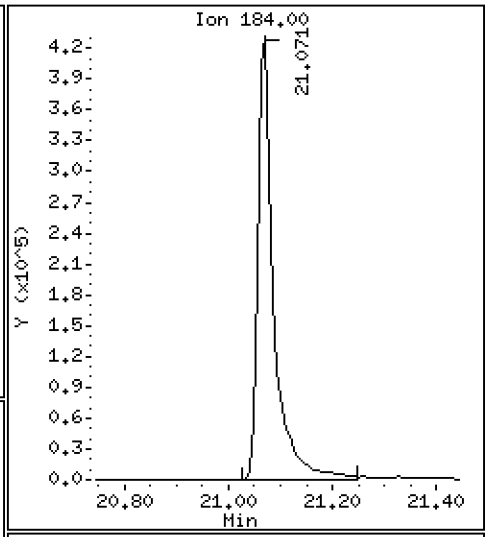
Concentration: 5.007 ug/mL

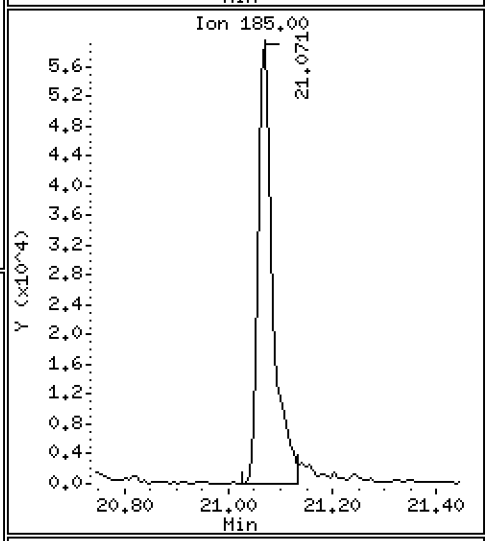


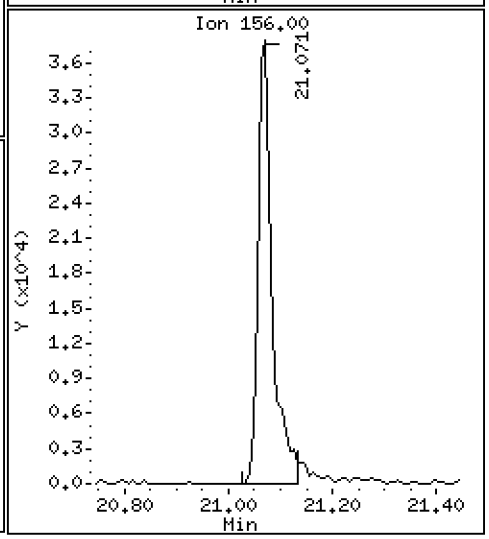












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

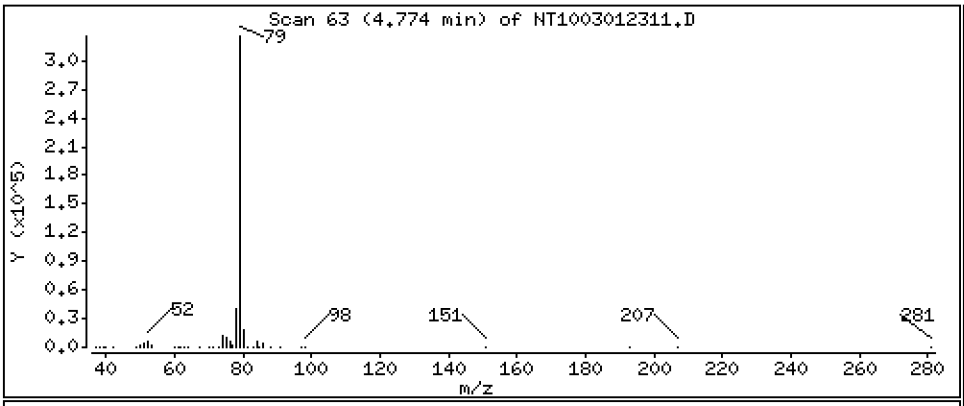
Operator: VTS

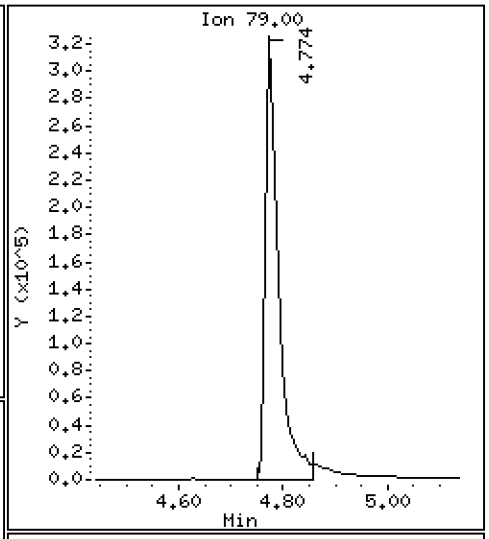
Column phase: ZB-5msi

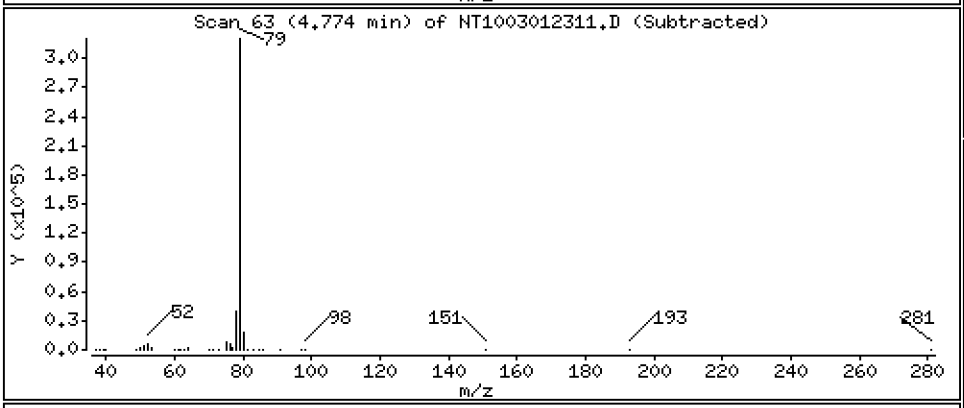
Column diameter: 0.25

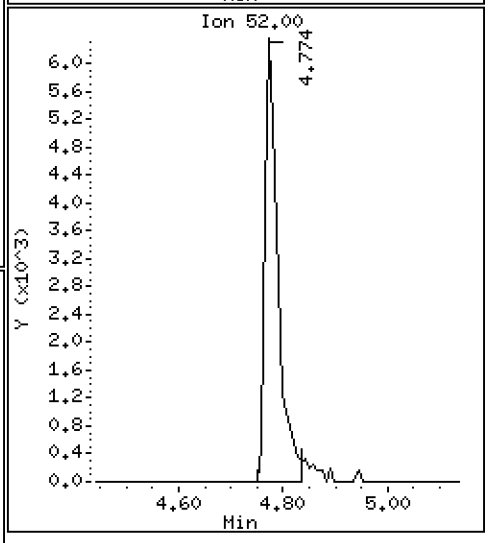
103 Pyridine

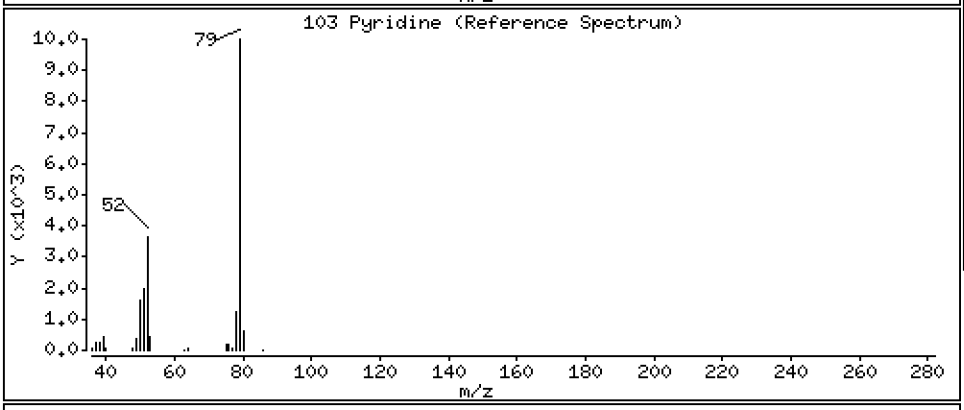
Concentration: 5.430 ug/mL

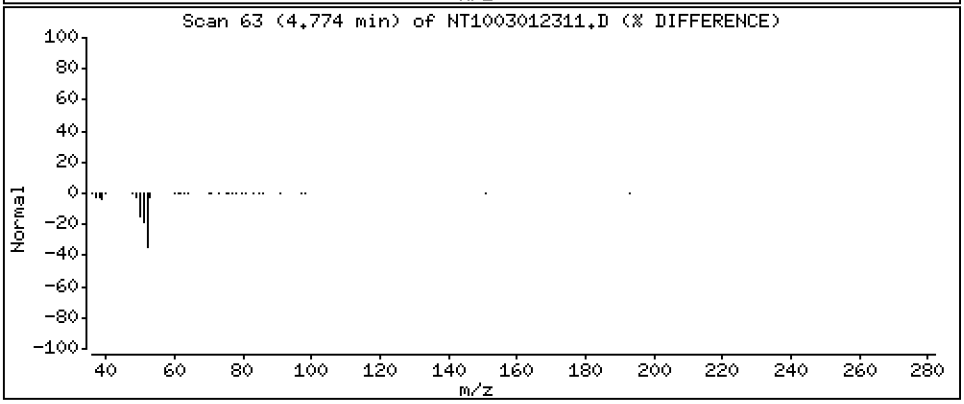












Date : 01-MAR-2023 21:46

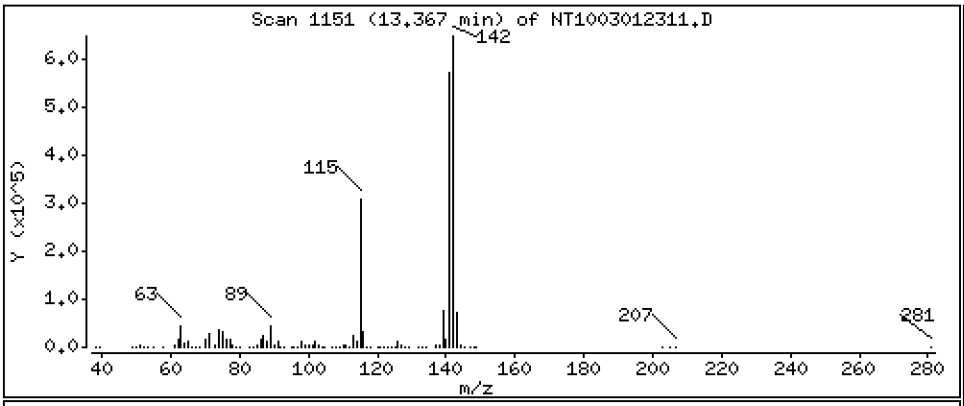
Client ID: Instrument: nt10.i

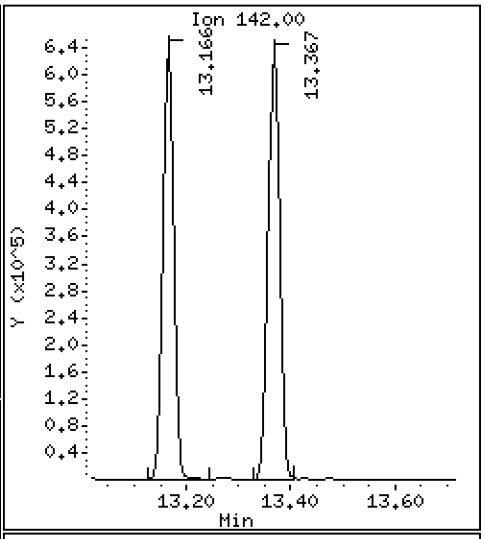
Sample Info: SEQ-SCV1

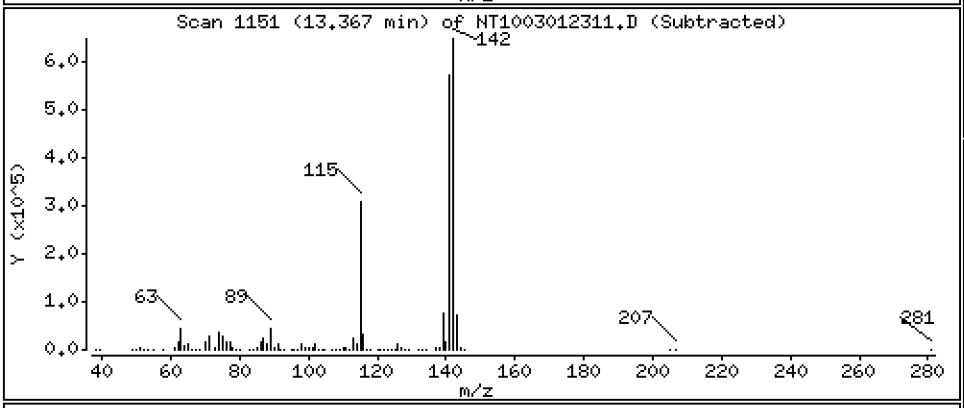
Operator: VTS

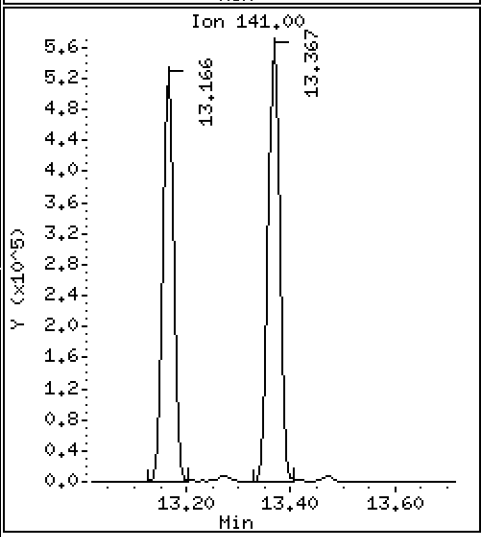
Column phase: ZB-5msi Column diameter: 0.25

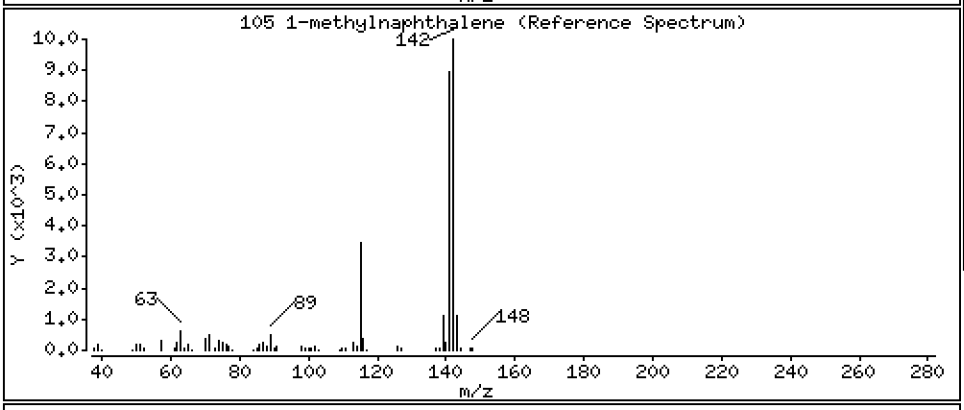
105 1-methylnaphthalene Concentration: 5.219 ug/mL

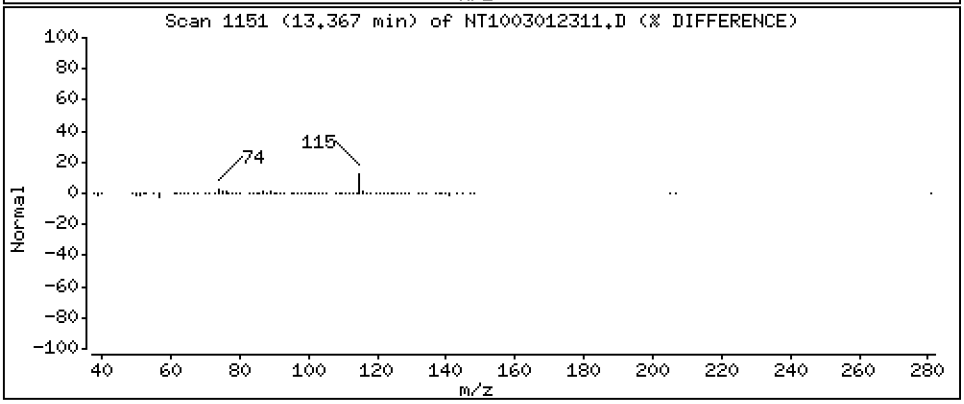












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

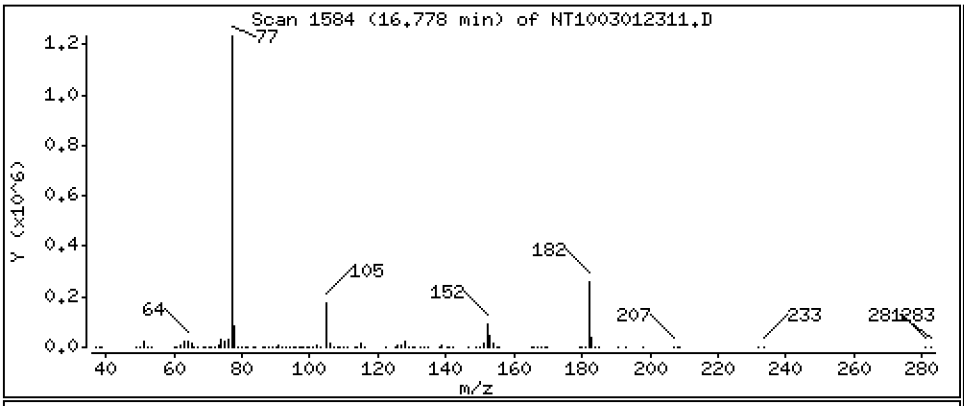
Operator: VTS

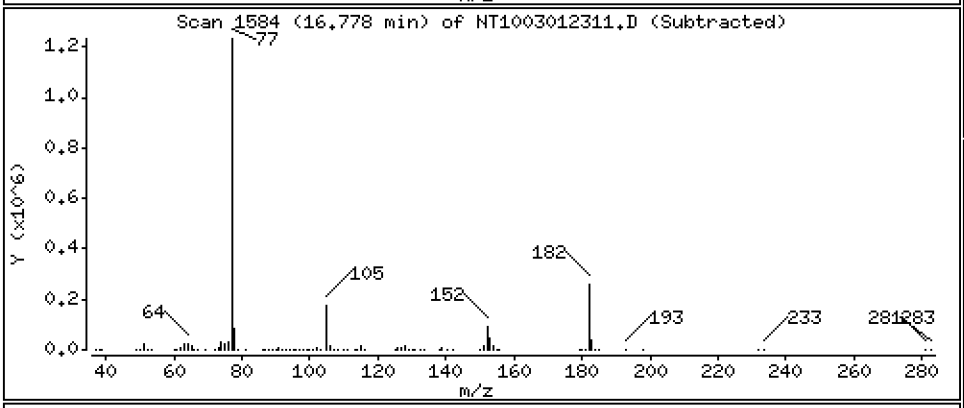
Column phase: ZB-5msi

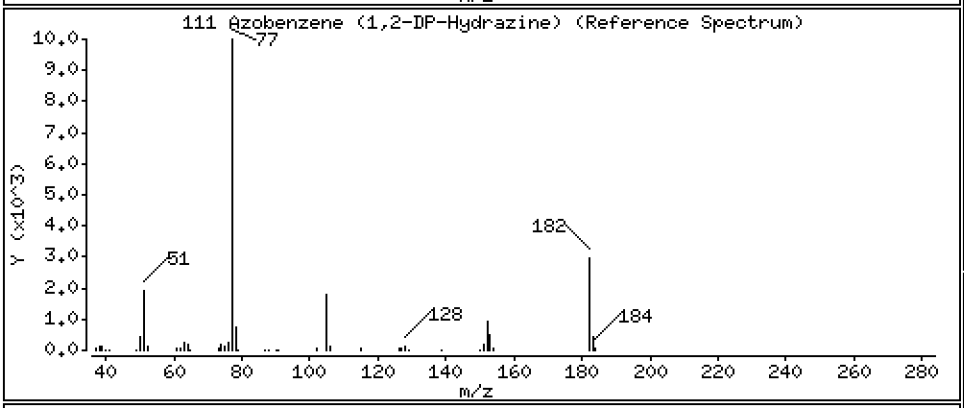
Column diameter: 0.25

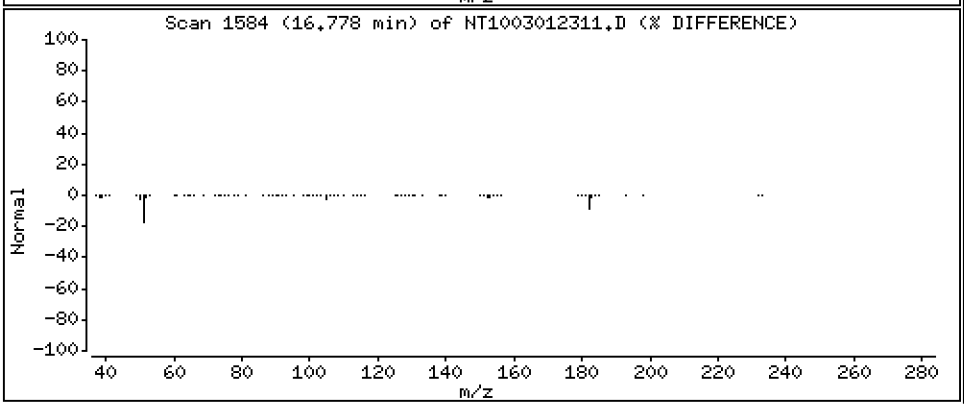
111 Azobenzene (1,2-DP-Hydrazine)

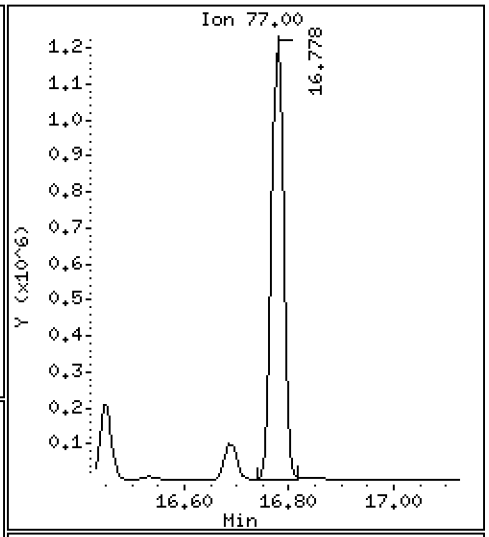
Concentration: 5.953 ug/mL

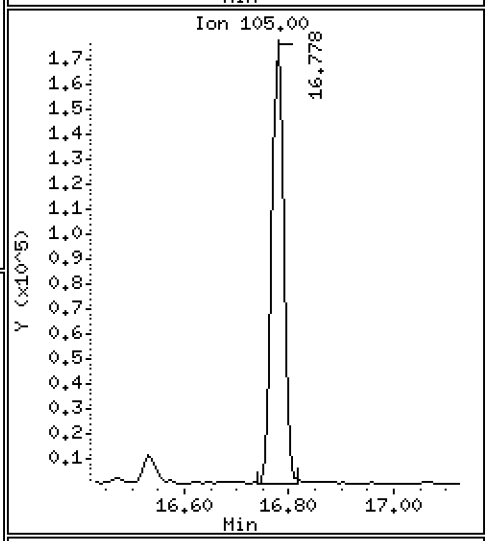


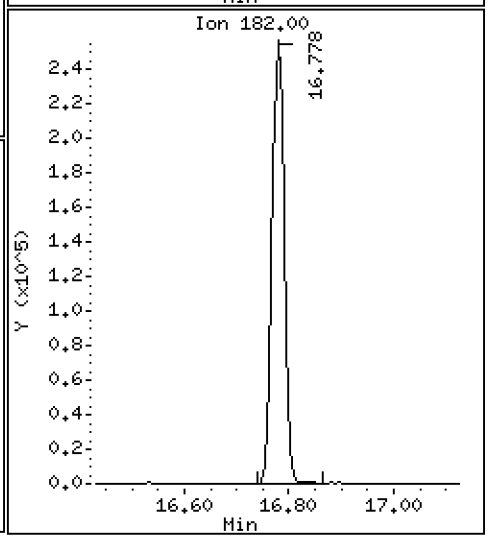












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

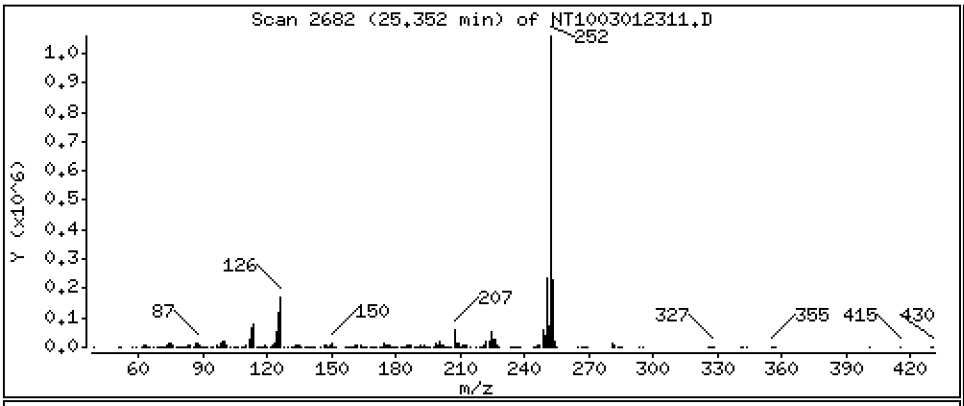
Operator: VTS

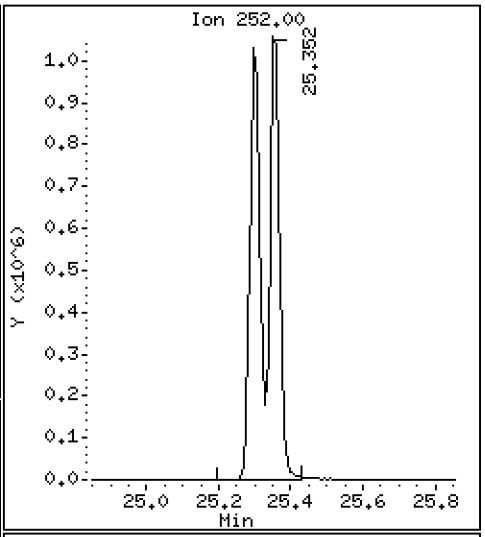
Column phase: ZB-5msi

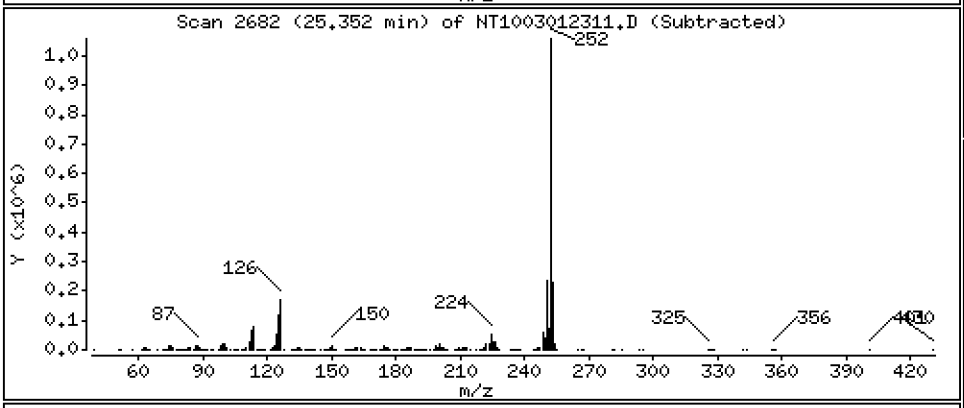
Column diameter: 0.25

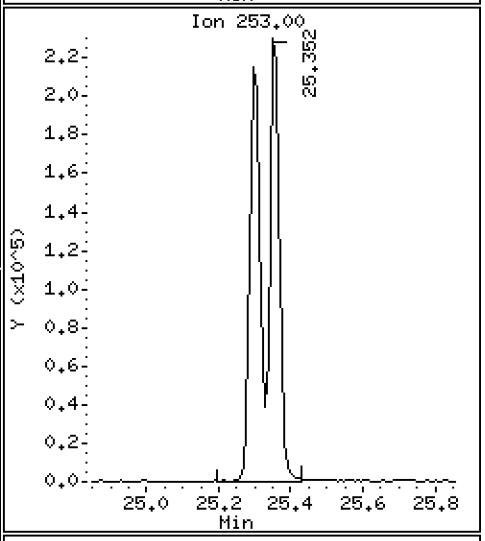
187 Total Benzofluoranthenes

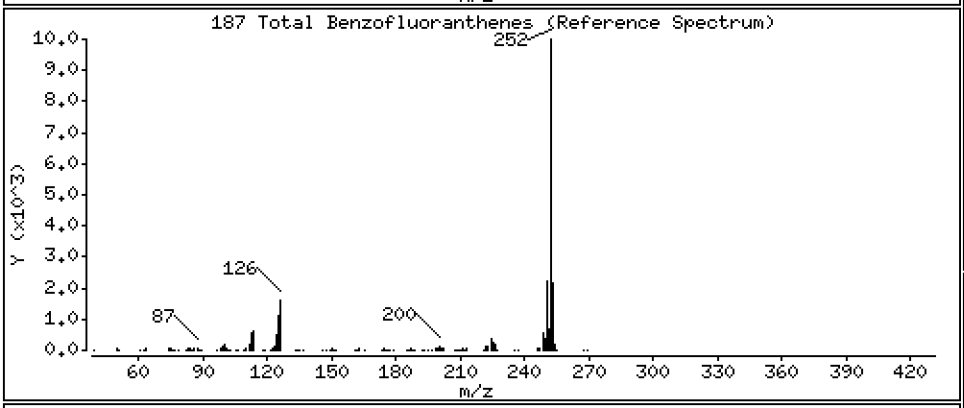
Concentration: 8.905 ug/mL

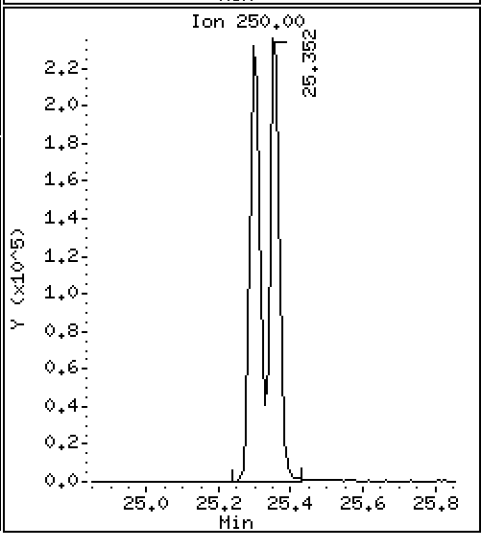


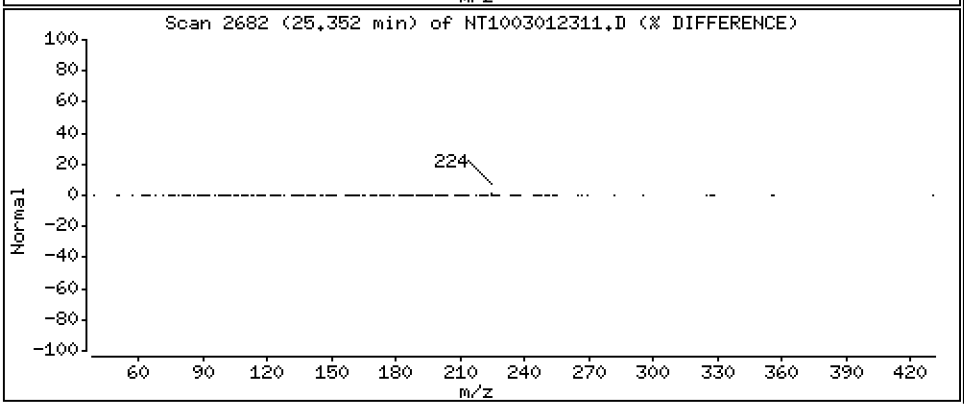












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

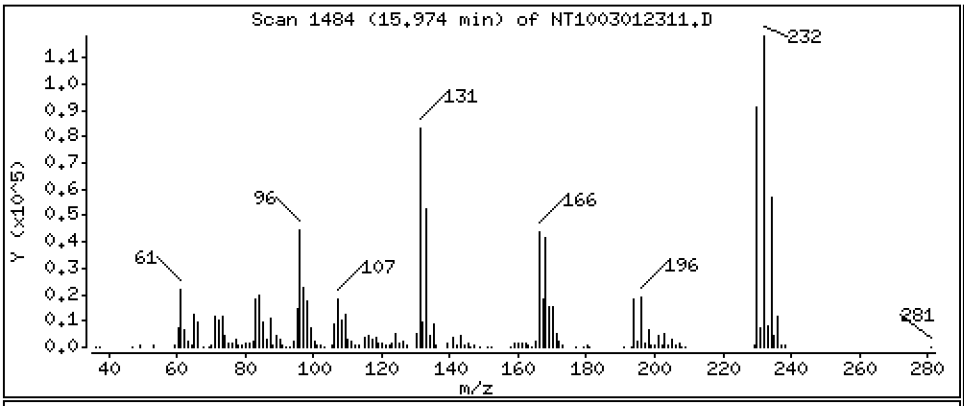
Operator: VTS

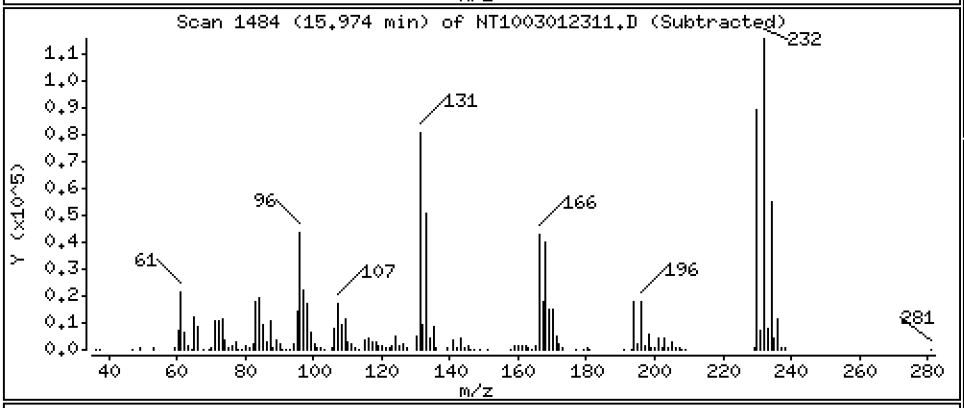
Column phase: ZB-5msi

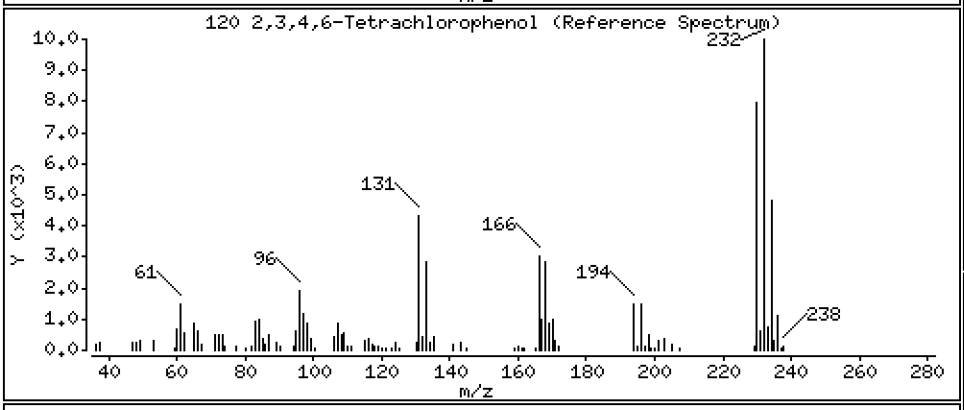
Column diameter: 0.25

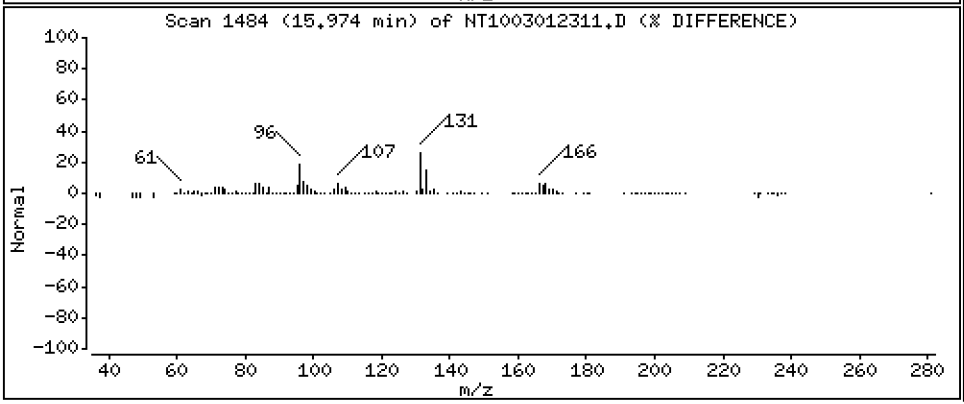
120 2,3,4,6-Tetrachlorophenol

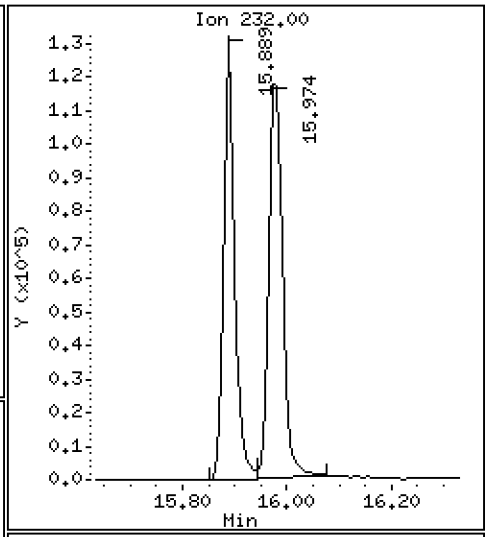
Concentration: 3.534 ug/mL

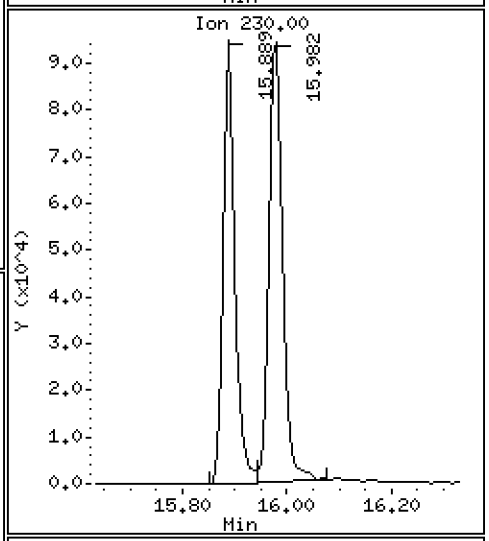


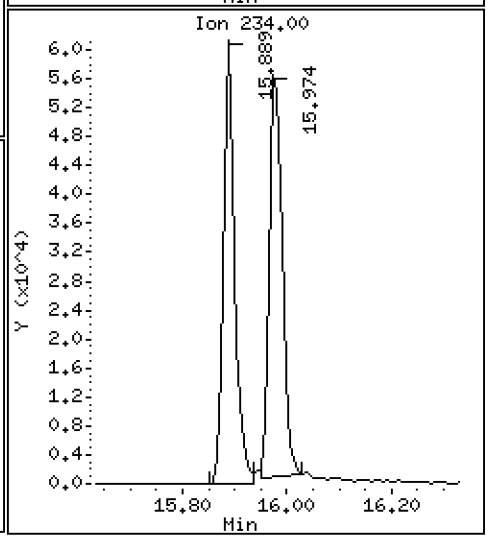












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D
Lab Smp Id: SLC0084-SCV1
Inj Date : 01-MAR-2023 21:46
Operator : VTS Inst ID: nt10.i
Smp Info : SEQ-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Meth Date : 07-Mar-2023 12:44 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	Compound Not Detected.					
$ 2	Phenol-d5	99	Compound Not Detected.					
3	Phenol	94	8.512	8.512	(0.921)	534295	4.85212	4.852
$ 5	2-Chlorophenol-d4	132	Compound Not Detected.					
4	Bis(2-Chloroethyl)ether	93	8.728	8.728	(0.944)	498825	5.92811	5.928(M)
6	2-Chlorophenol	128	8.844	8.844	(0.956)	430747	4.69234	4.692
7	1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	533006	5.26632	5.266
* 8	1,4-Dichlorobenzene-d4	152	9.247	9.247	(1.000)	283537	4.00000	
9	1,4-Dichlorobenzene	146	9.278	9.278	(1.003)	524367	5.21589	5.216
$ 10	1,2-Dichlorobenzene-d4	152	9.247	9.534	(1.000)	283537	4.29482	4.295
12	1,2-Dichlorobenzene	146	9.557	9.565	(1.034)	505415	5.19402	5.194
11	Benzyl alcohol	108	9.472	9.472	(1.024)	283618	4.89779	4.898
14	2,2'-oxybis(1-Chloropropane)	121	9.736	9.728	(1.053)	174821	6.23165	6.232
13	2-Methylphenol	108	9.650	9.650	(1.044)	364596	4.19238	4.192
17	Hexachloroethane	117	10.209	10.209	(1.104)	224586	5.44260	5.443
16	N-Nitroso-di-n-propylamine	70	9.977	9.976	(1.079)	392376	5.90505	5.905
15	4-Methylphenol	108	9.945	9.938	(1.076)	448938	4.23938	4.239
$ 18	Nitrobenzene-d5	82	Compound Not Detected.					
19	Nitrobenzene	77	10.326	10.326	(0.881)	624582	5.56925	5.569
20	Isophorone	82	10.784	10.784	(0.920)	1098236	7.67155	7.672
21	2-Nitrophenol	139	10.950	10.951	(0.934)	197578	3.24407	3.244
22	2,4-Dimethylphenol	107	10.993	10.993	(0.938)	379240	3.50675	3.507
23	Bis(2-Chloroethoxy)methane	93	11.205	11.205	(0.956)	595145	6.72720	6.727
24	Benzoic acid	105	11.103	11.052	(0.947)	362406	5.63546	5.635
25	2,4-Dichlorophenol	162	11.417	11.417	(0.974)	379310	4.43743	4.437
26	1,2,4-Trichlorobenzene	180	11.595	11.595	(0.989)	413079	4.90787	4.908
* 27	Naphthalene-d8	136	11.719	11.719	(1.000)	1089120	4.00000	
28	Naphthalene	128	11.765	11.765	(1.004)	1468990	5.25508	5.255
29	4-Chloroaniline	127	11.858	11.858	(1.012)	469377	3.79133	3.791
30	Hexachlorobutadiene	225	11.989	11.997	(1.023)	307313	5.01449	5.014
31	4-Chloro-3-methylphenol	107	12.802	12.809	(1.092)	402740	4.45246	4.452
32	2-Methylnaphthalene	142	13.165	13.165	(1.123)	977687	4.95082	4.951
33	Hexachlorocyclopentadiene	237	13.467	13.475	(0.879)	52130	2.56222	2.562

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	13.722	13.730	(0.896)	241174	4.12027	4.120
	35	2,4,5-Trichlorophenol	196	13.792	13.808	(0.900)	259485	4.14893	4.149(M)
$	36	2-Fluorobiphenyl	172	Compound Not Detected.					
	37	2-Chloronaphthalene	162	14.164	14.164	(0.925)	895889	5.26440	5.264
	38	2-Nitroaniline	65	14.365	14.365	(0.938)	237773	5.02711	5.027
	39	Dimethylphthalate	163	14.736	14.736	(0.962)	1056857	5.38446	5.384
	40	Acenaphthylene	152	15.023	15.023	(0.981)	1703355	5.80574	5.806
	41	2,6-Dinitrotoluene	165	14.868	14.868	(0.971)	227062	5.18679	5.187
*	42	Acenaphthene-d10	164	15.317	15.309	(1.000)	607772	4.00000	
	43	3-Nitroaniline	138	15.208	15.224	(0.993)	256002	5.17200	5.172
	44	Acenaphthene	153	15.379	15.378	(1.004)	911910	5.15374	5.154
	45	2,4-Dinitrophenol	184	15.433	15.487	(1.008)	3021	0.26673	0.2667
	46	Dibenzofuran	168	15.742	15.734	(1.028)	1311367	4.99365	4.994
	47	4-Nitrophenol	109	15.533	15.603	(1.014)	133260	3.82233	3.822(M)
	48	2,4-Dinitrotoluene	165	15.695	15.703	(1.025)	300469	4.72923	4.729
	50	Diethylphthalate	149	16.206	16.198	(1.058)	1172442	5.63859	5.639
	49	Fluorene	166	16.453	16.453	(1.074)	1159050	5.30478	5.305
	51	4-Chlorophenyl-phenylether	204	16.453	16.453	(1.074)	527532	5.25262	5.253
	52	4-Nitroaniline	138	16.469	16.484	(1.075)	278392	5.23237	5.232
	53	4,6-Dinitro-2-methylphenol	198	16.531	16.538	(0.898)	36409	1.29161	1.292
	54	N-Nitrosodiphenylamine	169	16.685	16.693	(0.907)	966268	5.41587	5.416
$	55	2,4,6-Tribromophenol	330	Compound Not Detected.					
	56	4-Bromophenyl-phenylether	248	17.465	17.472	(0.949)	394706	5.45981	5.460
	57	Hexachlorobenzene	284	17.573	17.573	(0.955)	391196	4.80535	4.805
	58	Pentachlorophenol	266	17.984	17.983	(0.977)	133557	3.49178	3.492
*	59	Phenanthrene-d10	188	18.401	18.401	(1.000)	1205858	4.00000	
	60	Phenanthrene	178	18.448	18.448	(1.003)	1569094	5.08454	5.085
	61	Anthracene	178	18.556	18.556	(1.008)	1371933	4.58472	4.585
	62	Carbazole	167	18.889	18.889	(1.026)	1462441	5.33467	5.335
	63	Di-n-butylphthalate	149	19.585	19.585	(1.064)	2114080	5.46304	5.463
	64	Fluoranthene	202	20.815	20.815	(0.889)	1905220	4.54169	4.542
	65	Pyrene	202	21.248	21.248	(0.907)	1975953	4.62585	4.626
$	66	Terphenyl-d14	244	21.519	21.527	(0.919)	6779	0.01961	0.01961
	67	Butylbenzylphthalate	149	22.410	22.410	(0.957)	1022950	4.52520	4.525
	68	Benzo(a)anthracene	228	23.401	23.401	(0.999)	1968545	4.57826	4.578
*	69	Chrysene-d12	240	23.416	23.416	(1.000)	1219436	4.00000	
	70	3,3'-Dichlorobenzidine	252	23.347	23.347	(0.997)	1426681	7.38255	7.383
	71	Chrysene	228	23.463	23.463	(1.002)	1735599	4.96674	4.967
	72	bis(2-Ethylhexyl)phthalate	149	23.401	23.409	(0.956)	1660477	4.95568	4.956
*	134	Di-n-octylphthalate-d4	153	24.485	24.485	(1.000)	2317357	4.00000	
	73	Di-n-octylphthalate	149	24.492	24.492	(1.000)	3003083	5.84397	5.844
	74	Benzo(b)fluoranthene	252	25.298	25.298	(0.969)	1988643	4.31882	4.319
	75	Benzo(k)fluoranthene	252	25.352	25.352	(0.971)	2031546	4.56297	4.563
	76	Benzo(a)pyrene	252	25.987	25.987	(0.996)	1831856	4.44514	4.445
*	77	Perylene-d12	264	26.103	26.103	(1.000)	1289108	4.00000	
	78	Indeno(1,2,3-cd)pyrene	276	28.863	28.863	(1.106)	2089660	4.34488	4.345
	79	Dibenzo(a,h)anthracene	278	28.917	28.925	(1.108)	1695484	4.60754	4.608
	80	Benzo(g,h,i)perylene	276	29.709	29.709	(1.138)	1753537	4.60249	4.602
	90	N-Nitrosodimethylamine	74	4.712	4.719	(0.510)	316213	5.49082	5.491
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	21.071	21.094	(0.900)	932502	5.00739	5.007
	103	Pyridine	79	4.774	4.789	(0.516)	554573	5.42989	5.430
	105	1-methylnaphthalene	142	13.366	13.366	(1.141)	932752	5.21855	5.219
	111	Azobenzene (1,2-DP-Hydrazine)	77	16.778	16.778	(1.095)	1848373	5.95279	5.953

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.352	25.352	(0.971)	3948555	8.90452	8.905
120 2,3,4,6-Tetrachlorophenol	232	15.974	15.982	(1.043)	209122	3.53394	3.534

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012311.D
Lab Smp Id: SLC0084-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 17:21
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	337641	168821	675282	283537	-16.02
27 Naphthalene-d8	1265187	632594	2530374	1089120	-13.92
42 Acenaphthene-d10	692385	346193	1384770	607772	-12.22
59 Phenanthrene-d10	1376777	688389	2753554	1205858	-12.41
69 Chrysene-d12	1019524	509762	2039048	1219436	19.61
134 Di-n-octylphthala	2027111	1013556	4054222	2317357	14.32
77 Perylene-d12	1027409	513705	2054818	1289108	25.47

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.01
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.32	0.05
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
134 Di-n-octylphthala	24.48	23.98	24.98	24.49	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012311.D

Lab ID: SLC0084-SCV1
nt10.i, 20230301.b\ABN.m,   01-MAR-2023 21:46

RT	CO-ELUTION COMPOUNDS
23.401	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.014	1.019	-0.0051	4-Nitrophenol
1.000	1.031	-0.0310	1,2-Dichlorobenzene-d4

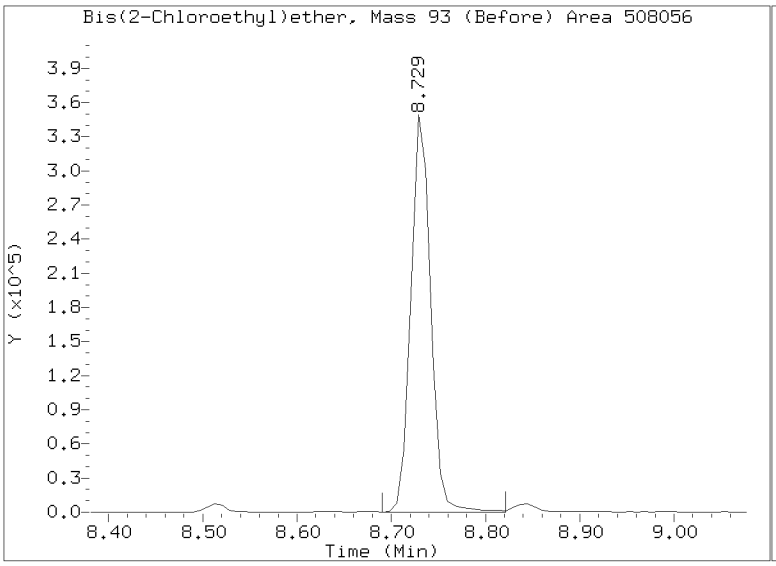
RRT check based on Ccal File: NT1003012307.D

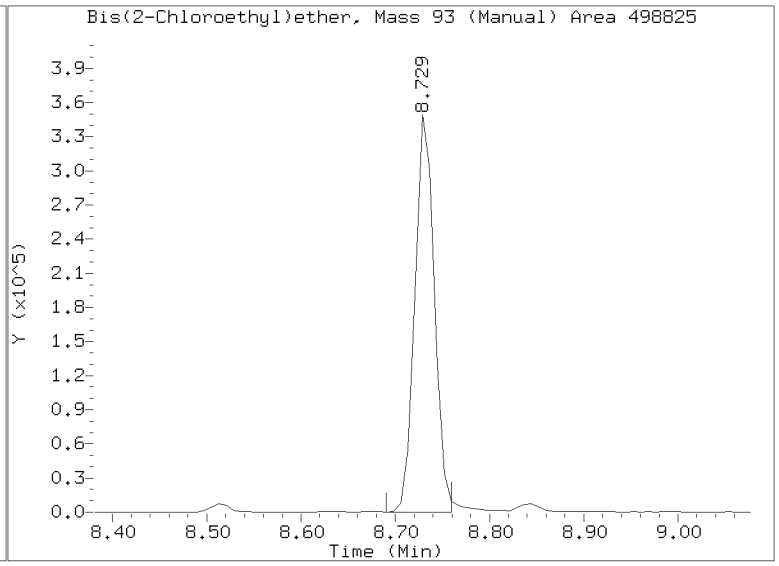
On Column LOD for nt10.i, 20230301.b\ABN.m, ICAL.sub = 0.0000

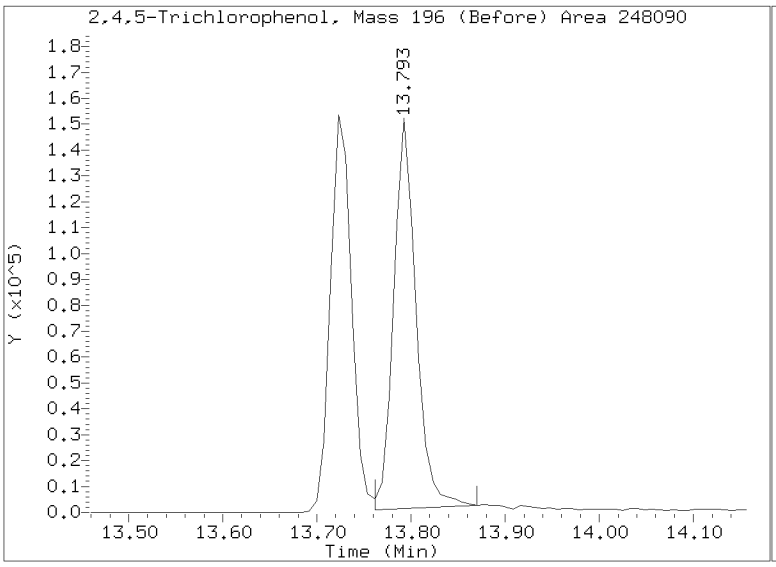
* Only compounds listed in the work order have been verified by the analyst *

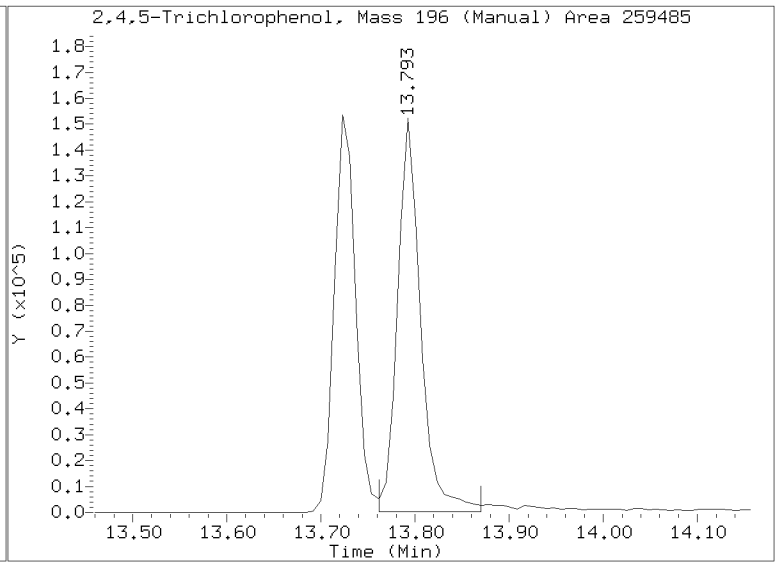
Quant Ion Manual Peak Adjustment Report

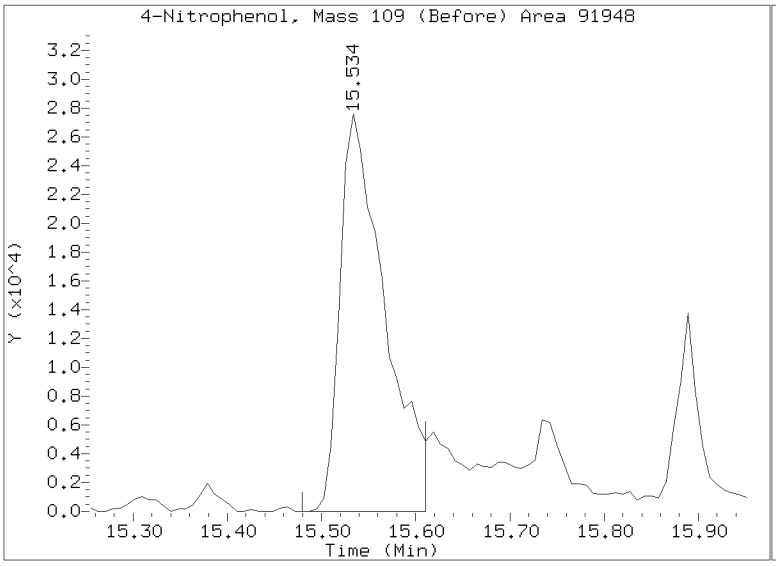
Datafile: //target/share/chem3/nt10.i/20230301.b/NT1003012311.D
Injection Date: 01-MAR-2023 21:46
Lab ID:SLC0084-SCV1 Client ID:
Report Date: 03/07/2023 12:48

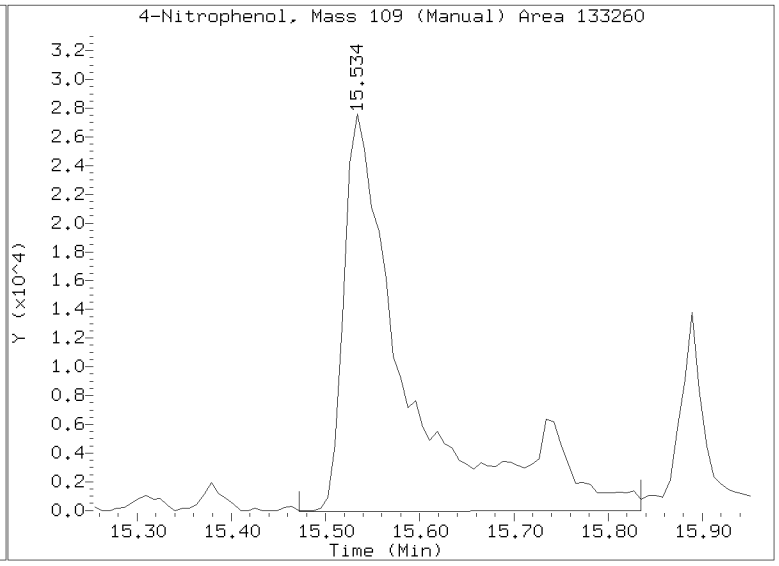






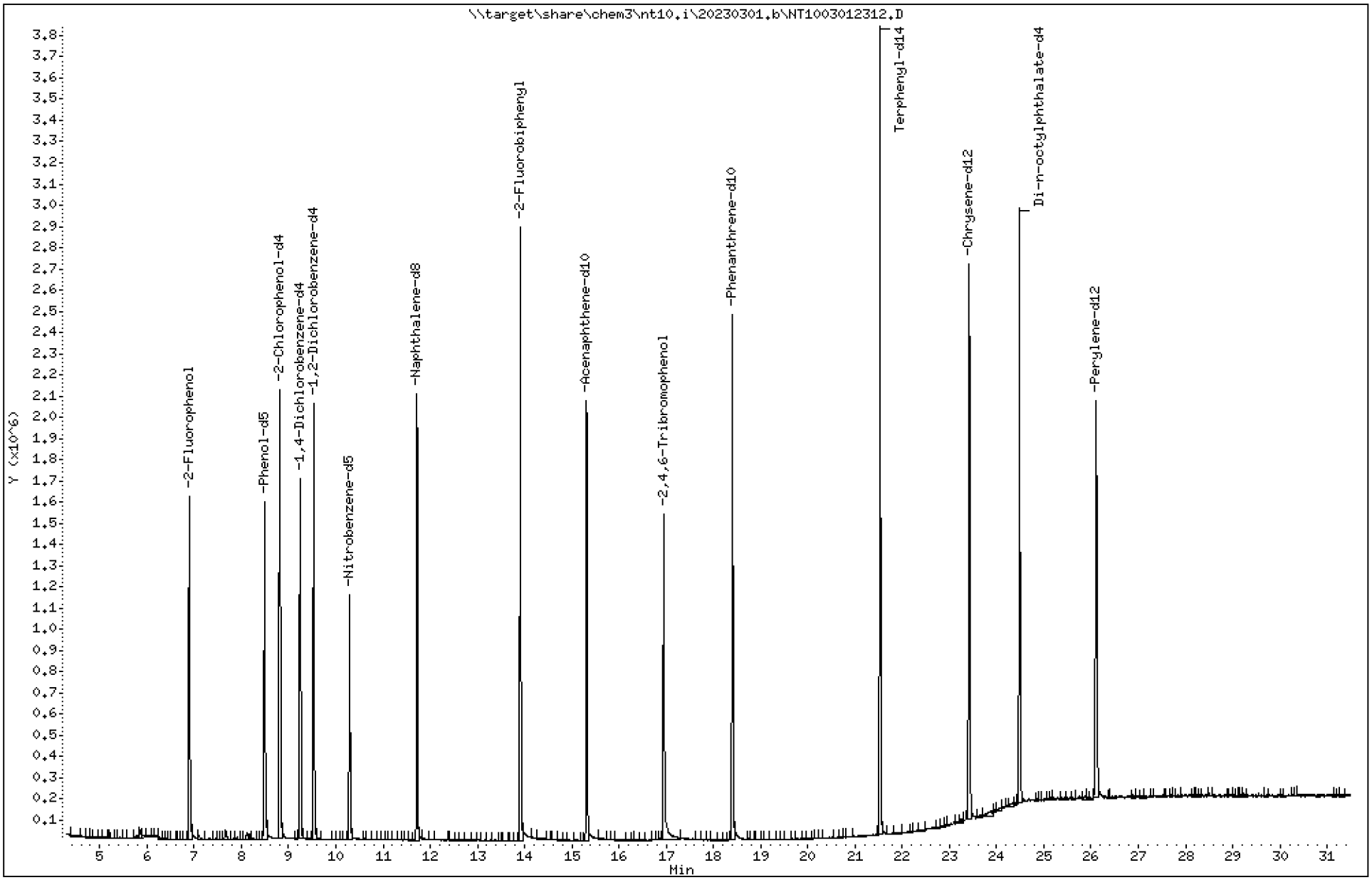






Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012312.D
Date : 01-MAR-2023 22:24
Client ID:
Sample Info: SEQ-IBL1

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230301.b\NT1003012312.D
Lab Smp Id: SLC0084-ICB1
Inj Date : 01-MAR-2023 22:24
Operator : VTS Inst ID: nt10.i
Smp Info : SEQ-IBL1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Meth Date : 07-Mar-2023 12:44 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.897	6.898	(0.746)	1136457	7.51324	7.513
$ 2	Phenol-d5	99	8.489	8.489	(0.918)	1260755	7.17920	7.179
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.813	8.813	(0.953)	1111618	7.41931	7.419
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	9.246	9.247	(1.000)	480761	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	9.534	9.534	(1.031)	531349	4.74674	4.747
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	10.294	10.295	(0.878)	924001	5.00520	5.005
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	11.718	11.719	(1.000)	1681746	4.00000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	142	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	13.908	13.908	(0.909)	1465702	4.91041	4.910
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	15.308	15.309	(1.000)	836849	4.00000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	16.947	16.947	(1.107)	300263	5.61962	5.620
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	18.401	18.401	(1.000)	1648281	4.00000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	21.527	21.527	(0.919)	1900377	4.81850	4.819
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	23.416	23.416	(1.000)	1391477	4.00000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	24.484	24.485	(1.000)	2481481	4.00000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	26.102	26.103	(1.000)	1542419	4.00000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	142	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					
120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012312.D
Lab Smp Id: SLC0084-ICB1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 17:21
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	337641	168821	675282	480761	42.39
27 Naphthalene-d8	1265187	632594	2530374	1681746	32.92
42 Acenaphthene-d10	692385	346193	1384770	836849	20.86
59 Phenanthrene-d10	1376777	688389	2753554	1648281	19.72
69 Chrysene-d12	1019524	509762	2039048	1391477	36.48
134 Di-n-octylphthala	2027111	1013556	4054222	2481481	22.41
77 Perylene-d12	1027409	513705	2054818	1542419	50.13

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
134 Di-n-octylphthala	24.48	23.98	24.98	24.48	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012312.D

Lab ID: SLC0084-ICB1
nt10.i, 20230301.b\ABN.m,   01-MAR-2023 22:24

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: NT1003012307.D

On Column LOD for nt10.i, 20230301.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00019
Laboratory ID: SLC0084-SCV1
Sequence: SLC0084
Sequence Name: SCV 5.0
Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	5.0000	4.9	-3.0	20.00
bis(2-chloroethyl) ether	5.0000	5.9	18.6	20.00
2-Chlorophenol	5.0000	4.7	-6.2	20.00
1,3-Dichlorobenzene	5.0000	5.3	5.3	20.00
1,4-Dichlorobenzene	5.0000	5.2	4.3	20.00
1,2-Dichlorobenzene	5.0000	5.2	3.9	20.00
Benzyl Alcohol	5.0000	4.9	-2.0	20.00
2,2'-Oxybis(1-chloropropane)	5.0000	6.2	24.6 *	20.00
2-Methylphenol	5.0000	4.2	-16.2	20.00
Hexachloroethane	5.0000	5.4	8.9	20.00
N-Nitroso-di-n-Propylamine	5.0000	5.9	18.1	20.00
4-Methylphenol	5.0000	4.2	-15.2	20.00
Nitrobenzene	5.0000	5.6	11.4	20.00
Isophorone	5.0000	7.7	53.4 *	20.00
2-Nitrophenol	5.0000	3.2	-35.1 *	20.00
2,4-Dimethylphenol	5.0000	3.5	-29.9 *	20.00
Bis(2-Chloroethoxy)methane	5.0000	6.7	34.5 *	20.00
2,4-Dichlorophenol	5.0000	4.4	-11.3	20.00
1,2,4-Trichlorobenzene	5.0000	4.9	-1.8	20.00
Naphthalene	5.0000	5.3	5.1	20.00
Benzoic acid	10.000	5.6	-43.6 *	20.00
4-Chloroaniline	5.0000	3.8	-24.2 *	20.00
Hexachlorobutadiene	5.0000	5.0	0.3	20.00
4-Chloro-3-Methylphenol	5.0000	4.5	-11.0	20.00
2-Methylnaphthalene	5.0000	5.0	-1.0	20.00
Hexachlorocyclopentadiene	5.0000	2.6	-48.8 *	20.00
2,4,6-Trichlorophenol	5.0000	4.1	-17.6	20.00
2,4,5-Trichlorophenol	5.0000	4.1	-17.0	20.00
2-Chloronaphthalene	5.0000	5.3	5.3	20.00
2-Nitroaniline	5.0000	5.0	0.5	20.00
Acenaphthylene	5.0000	5.8	16.1	20.00
Dimethylphthalate	5.0000	5.4	7.7	20.00
2,6-Dinitrotoluene	5.0000	5.2	3.7	20.00
Acenaphthene	5.0000	5.2	3.1	20.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00019
Laboratory ID: SLC0084-SCV1
Sequence: SLC0084
Sequence Name: SCV 5.0
Standard ID: K010066

3-Nitroaniline	5.0000	5.2	3.4	20.00
2,4-Dinitrophenol	5.0000	0.3	-94.7 *	20.00
Dibenzofuran	5.0000	5.0	-0.1	20.00
4-Nitrophenol	5.0000	3.8	-23.6 *	20.00
2,4-Dinitrotoluene	5.0000	4.7	-5.4	20.00
Fluorene	5.0000	5.3	6.1	20.00
4-Chlorophenylphenyl ether	5.0000	5.3	5.1	20.00
Diethyl phthalate	5.0000	5.6	12.8	20.00
4-Nitroaniline	5.0000	5.2	4.6	20.00
4,6-Dinitro-2-methylphenol	5.0000	1.3	-74.2 *	20.00
N-Nitrosodiphenylamine	5.0000	5.4	8.3	20.00
4-Bromophenyl phenyl ether	5.0000	5.5	9.2	20.00
Hexachlorobenzene	5.0000	4.8	-3.9	20.00
Pentachlorophenol	5.0000	3.5	-30.2 *	20.00
Phenanthrene	5.0000	5.1	1.7	20.00
Anthracene	5.0000	4.6	-8.3	20.00
Carbazole	5.0000	5.3	6.7	20.00
Di-n-Butylphthalate	5.0000	5.5	9.3	20.00
Fluoranthene	5.0000	4.5	-9.2	20.00
Pyrene	5.0000	4.6	-7.5	20.00
Butylbenzylphthalate	5.0000	4.5	-9.5	20.00
Benzo(a)anthracene	5.0000	4.6	-8.4	20.00
3,3'-Dichlorobenzidine	10.000	7.4	-26.2 *	20.00
Chrysene	5.0000	5.0	-0.7	20.00
bis(2-Ethylhexyl)phthalate	5.0000	5.0	-0.9	20.00
Di-n-Octylphthalate	5.0000	5.8	16.9	20.00
Benzofluoranthenes, Total	10.000	8.9	-11.0	20.00
Benzo(a)pyrene	5.0000	4.4	-11.1	20.00
Indeno(1,2,3-cd)pyrene	5.0000	4.3	-13.1	20.00
Dibenzo(a,h)anthracene	5.0000	4.6	-7.8	20.00
Benzo(g,h,i)perylene	5.0000	4.6	-8.0	20.00
1-Methylnaphthalene	5.0000	5.2	4.4	20.00
2-Fluorophenol	7.5000	0.00	*	20.00
Phenol-d5	7.5000	0.00	*	20.00
2-Chlorophenol-d4	7.5000	0.00	*	20.00
1,2-Dichlorobenzene-d4	5.0000	4.29	-14.1	20.00
Nitrobenzene-d5	5.0000	0.00	*	20.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00019
Laboratory ID: SLC0084-SCV1
Sequence: SLC0084
Sequence Name: SCV 5.0
Standard ID: K010066

2-Fluorobiphenyl	5.0000	0.00		*	20.00
2,4,6-Tribromophenol	7.5000	0.00		*	20.00
p-Terphenyl-d14	5.0000	0.0196	-99.6	*	20.00

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

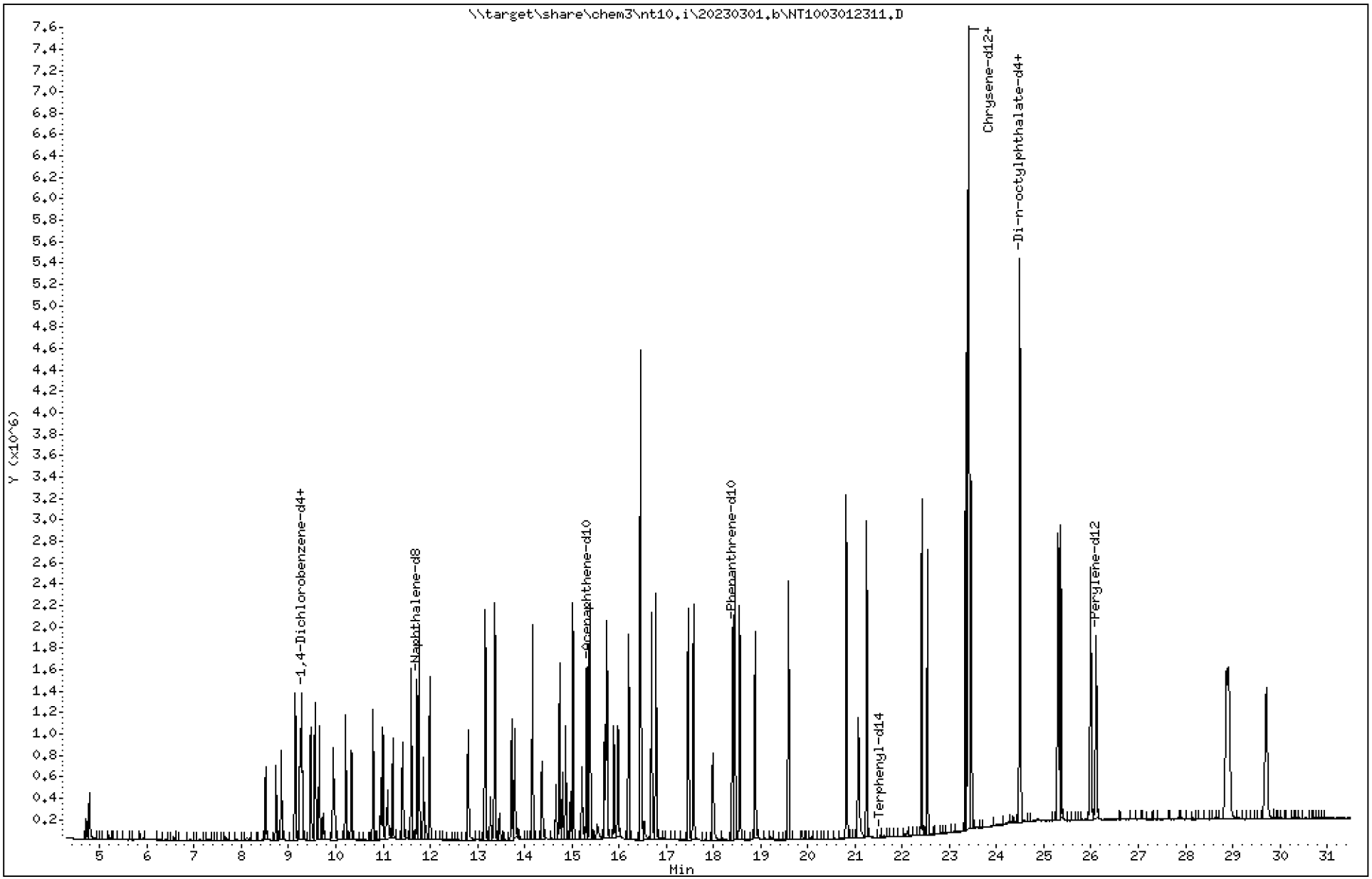
Instrument: nt10.i

Sample Info: SEQ-SCV1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

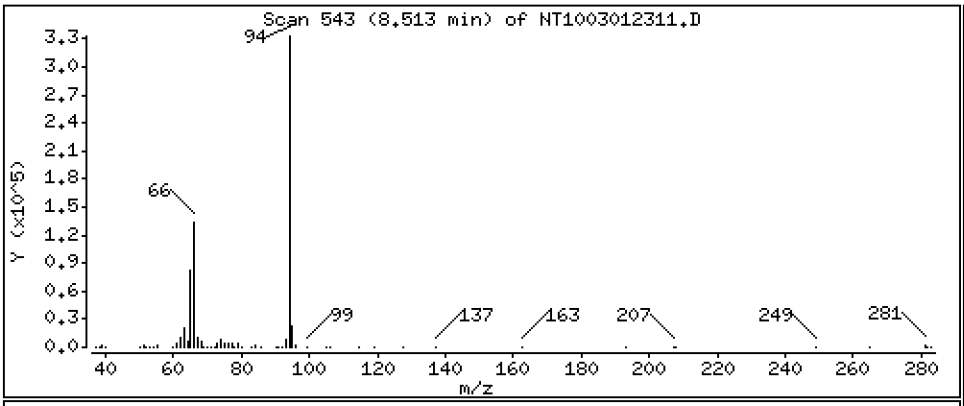
Operator: VTS

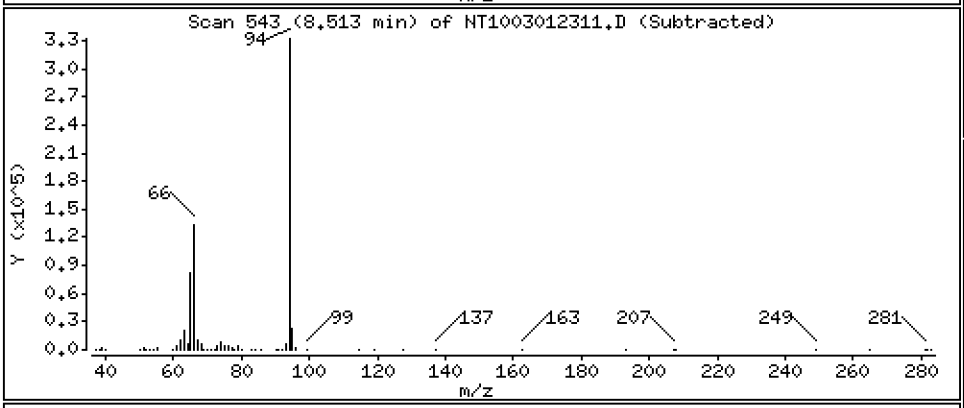
Column phase: ZB-5msi

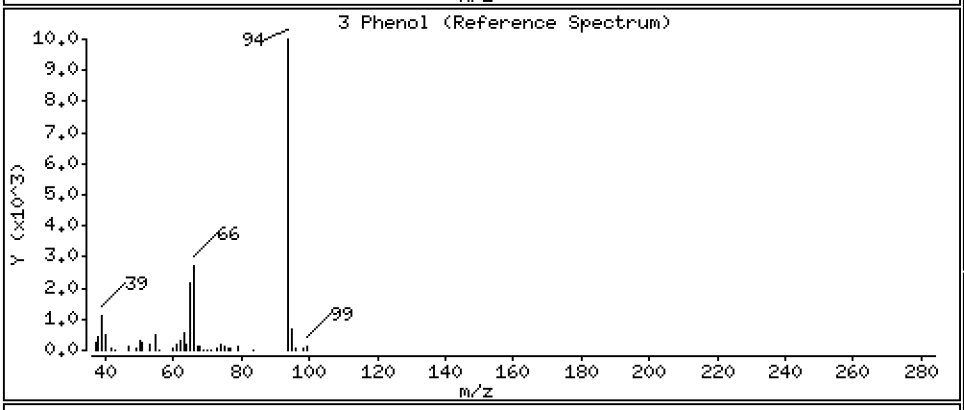
Column diameter: 0.25

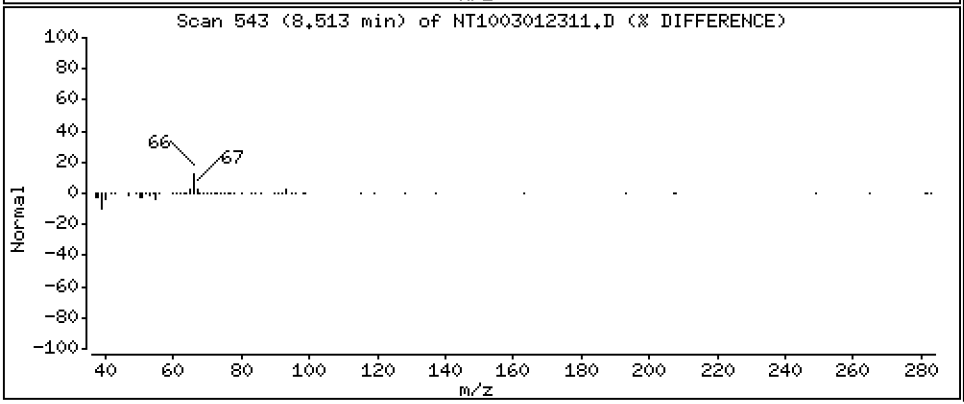
3 Phenol

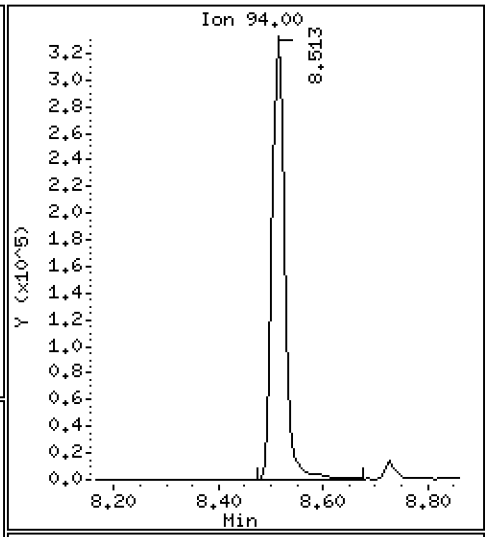
Concentration: 4.852 ug/mL

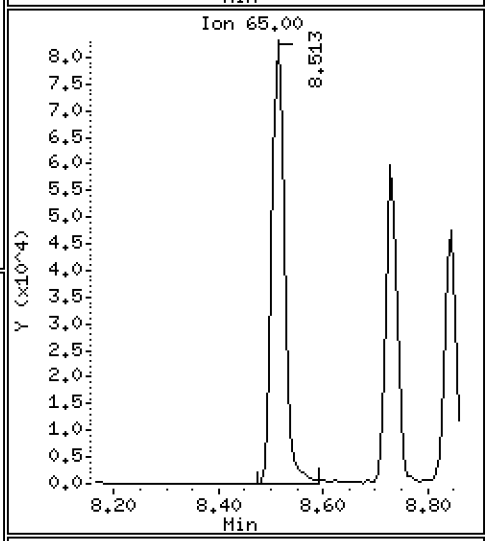


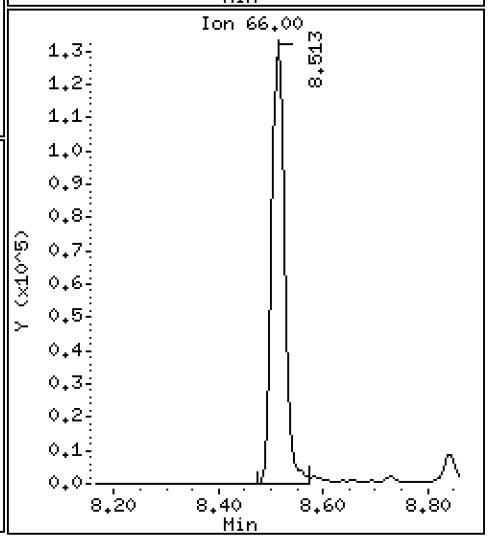












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

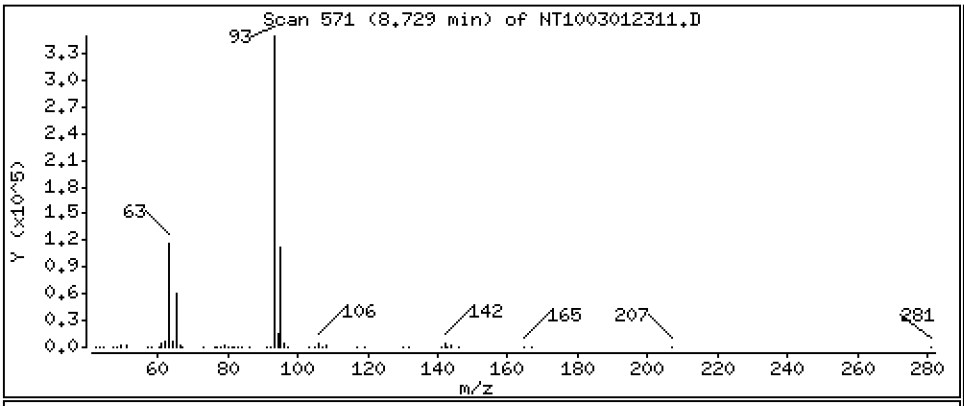
Operator: VTS

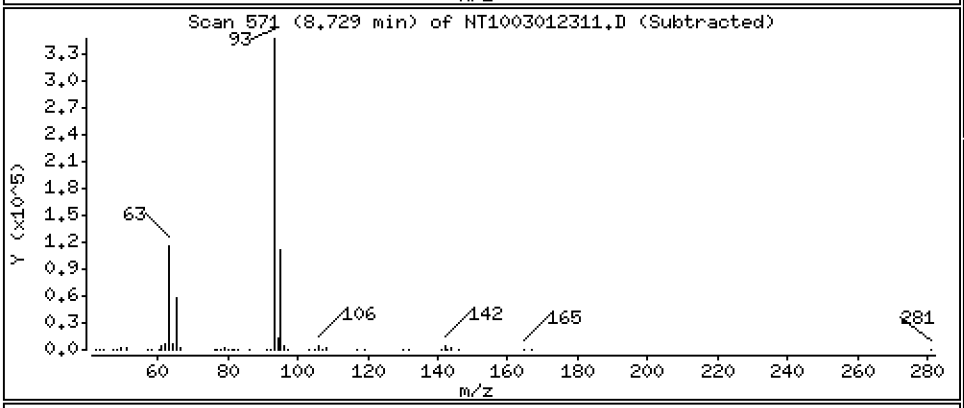
Column phase: ZB-5msi

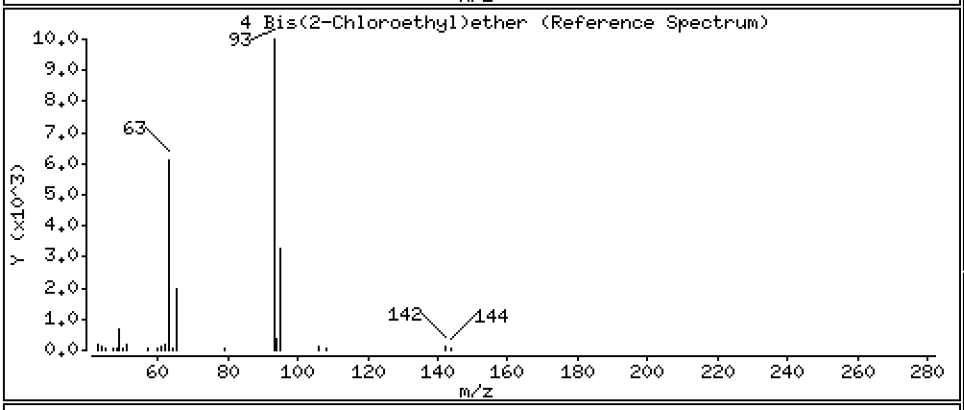
Column diameter: 0.25

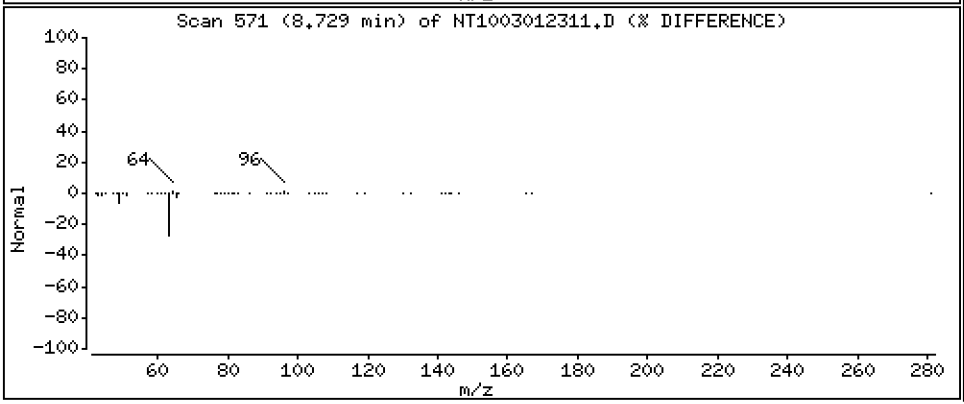
4 Bis(2-Chloroethyl)ether

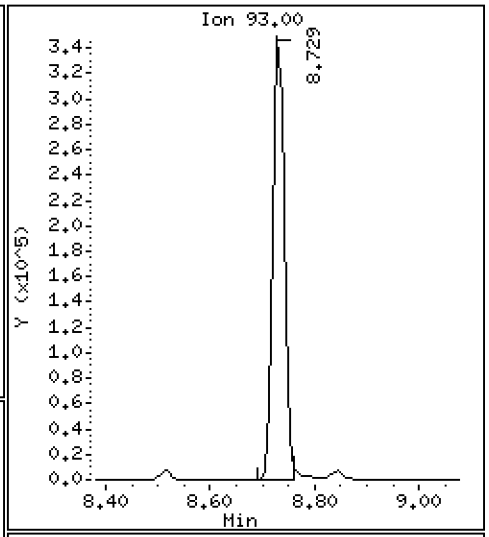
Concentration: 5.928 ug/mL

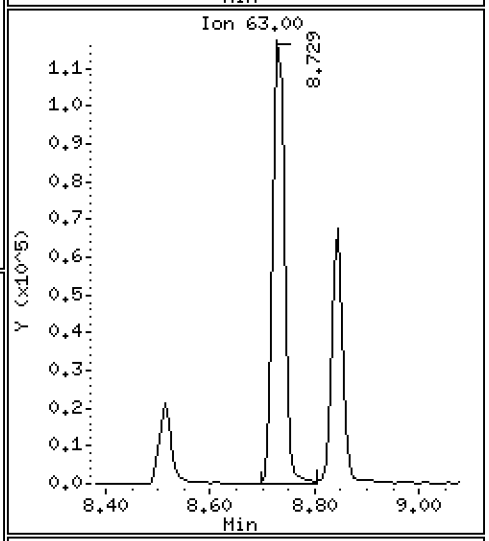


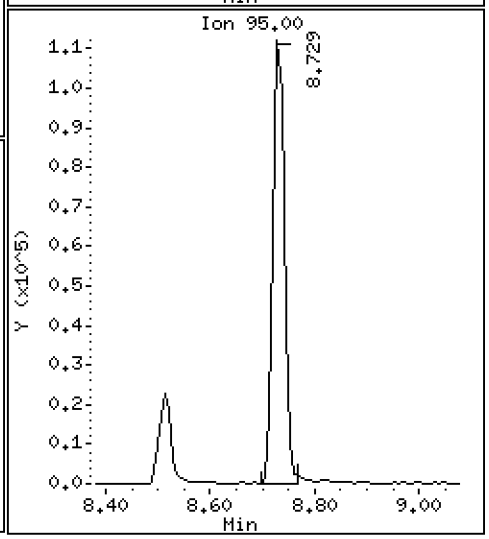












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

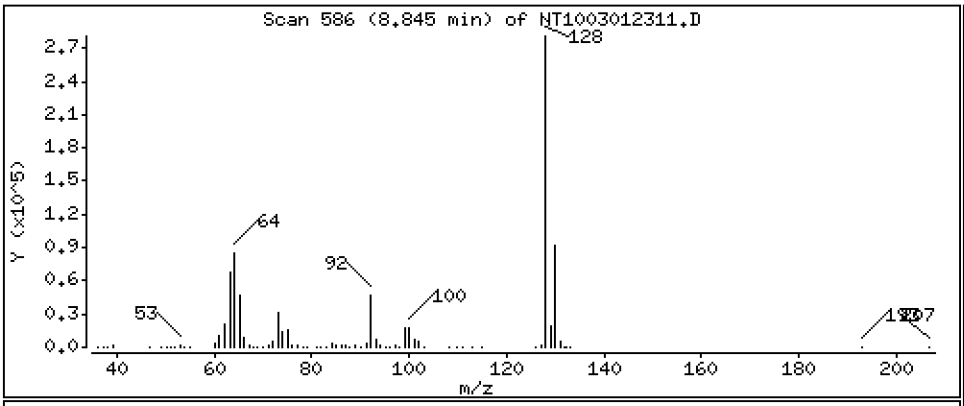
Operator: VTS

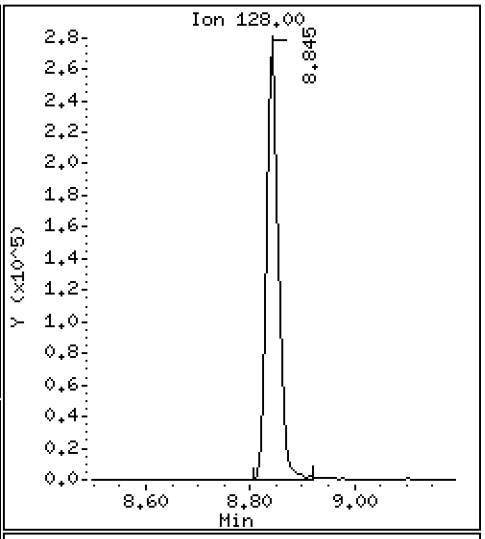
Column phase: ZB-5msi

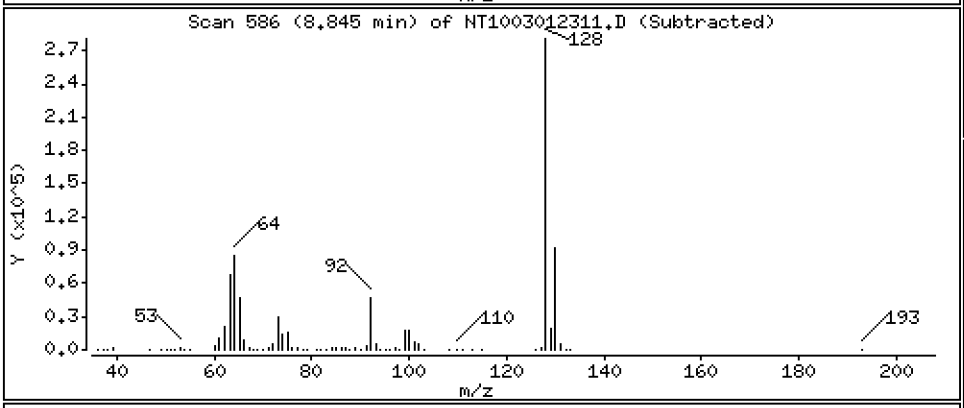
Column diameter: 0.25

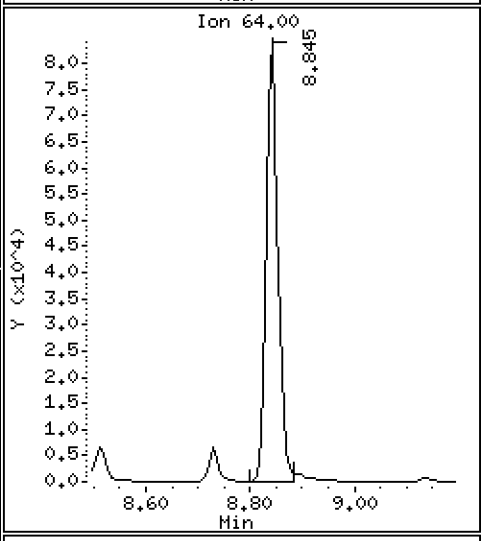
6 2-Chlorophenol

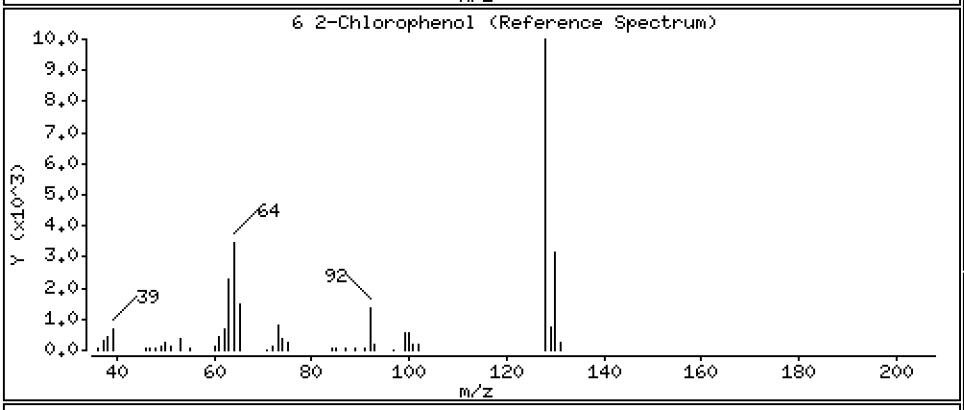
Concentration: 4.692 ug/mL

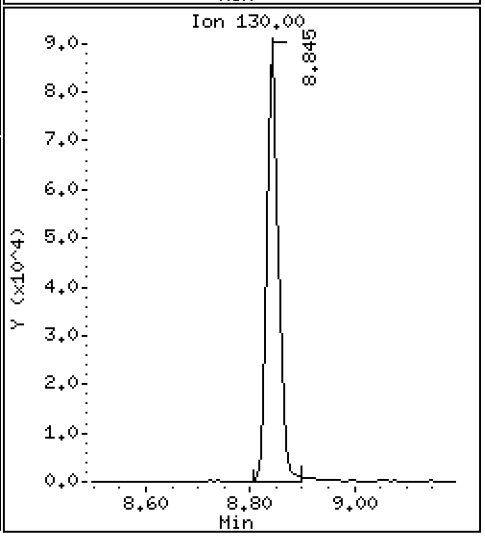


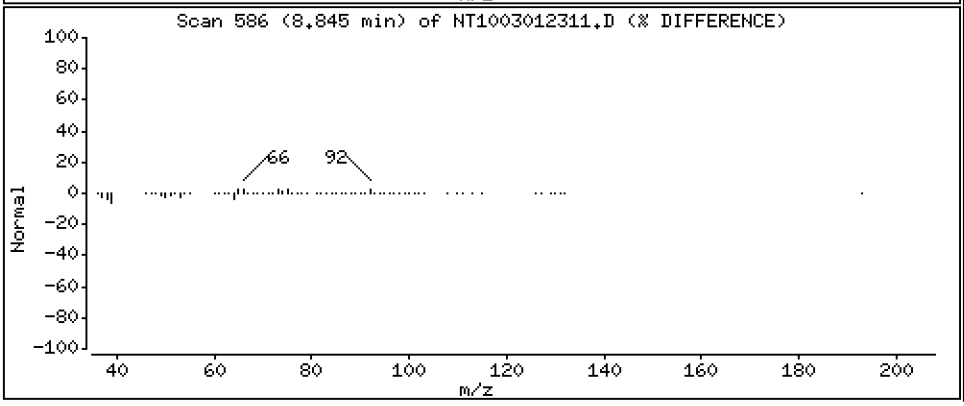












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

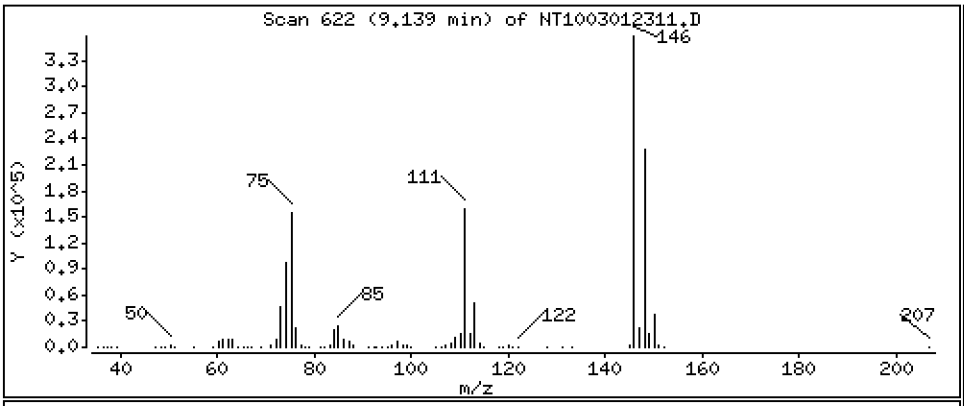
Operator: VTS

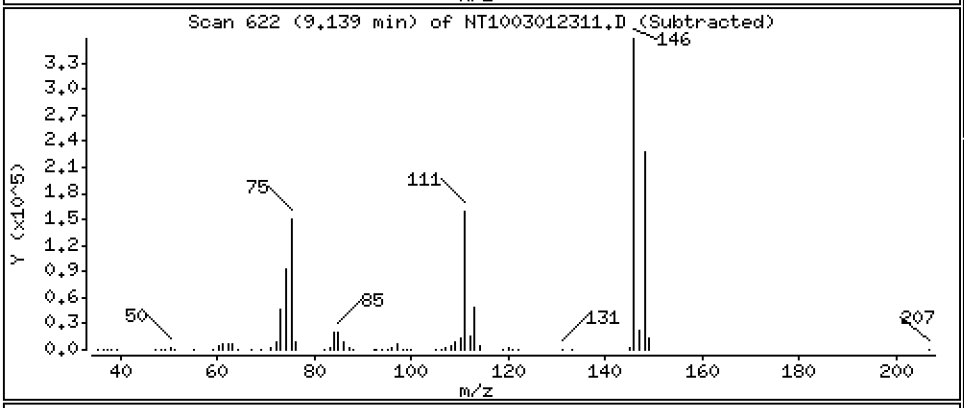
Column phase: ZB-5msi

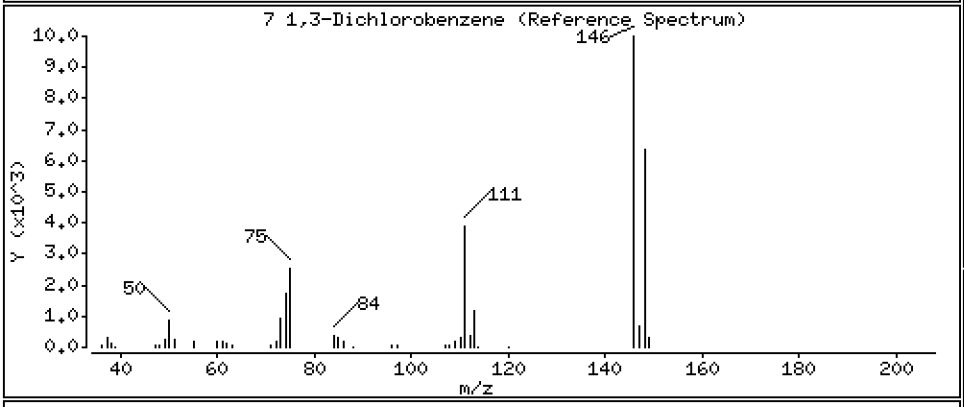
Column diameter: 0.25

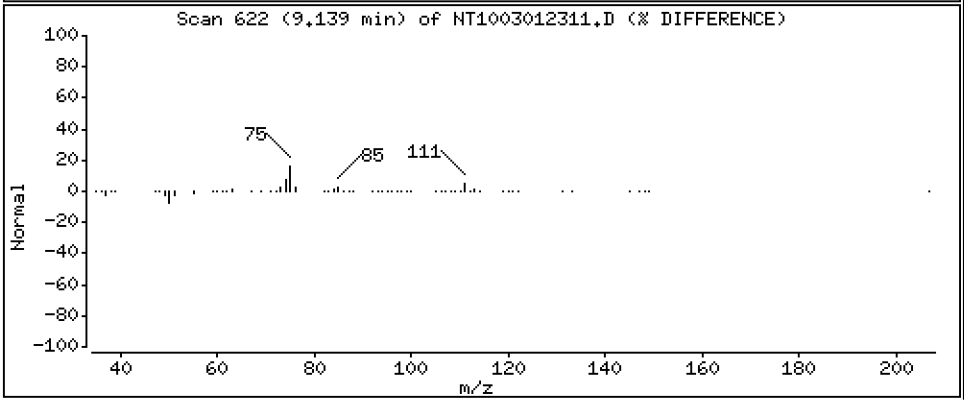
7 1,3-Dichlorobenzene

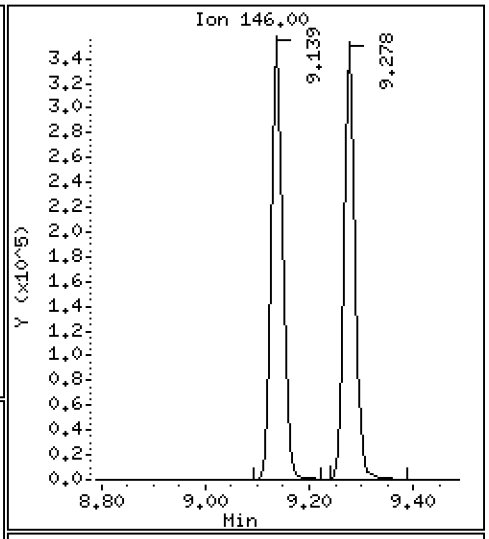
Concentration: 5.266 ug/mL

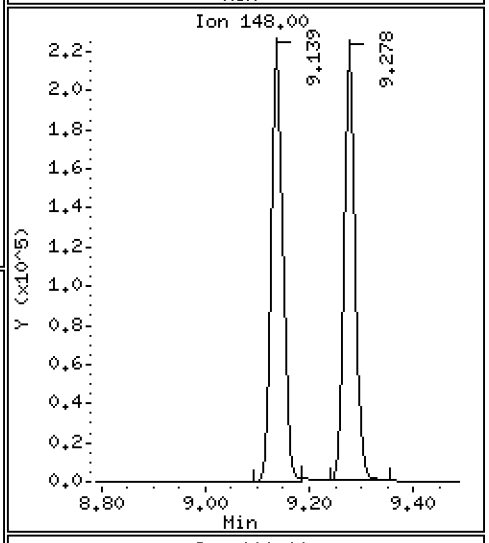


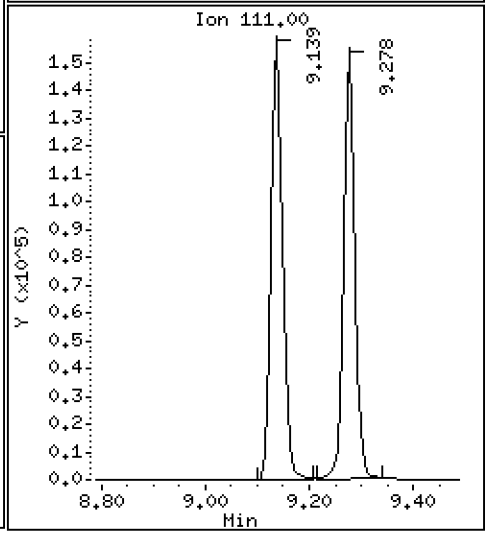












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

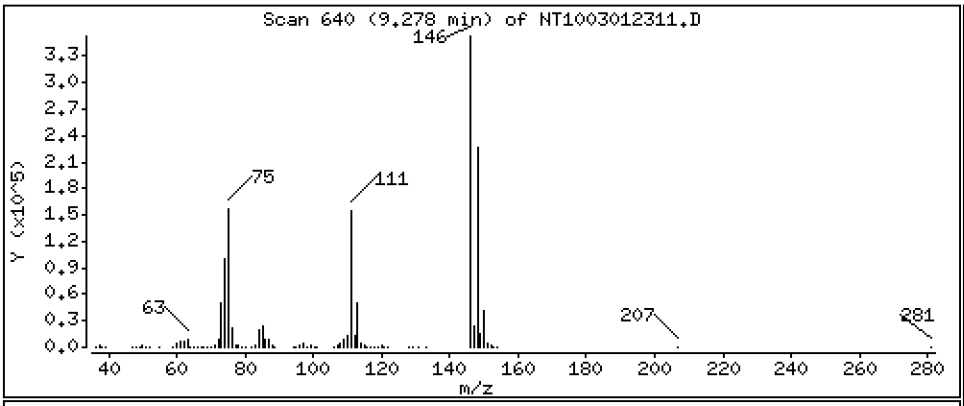
Operator: VTS

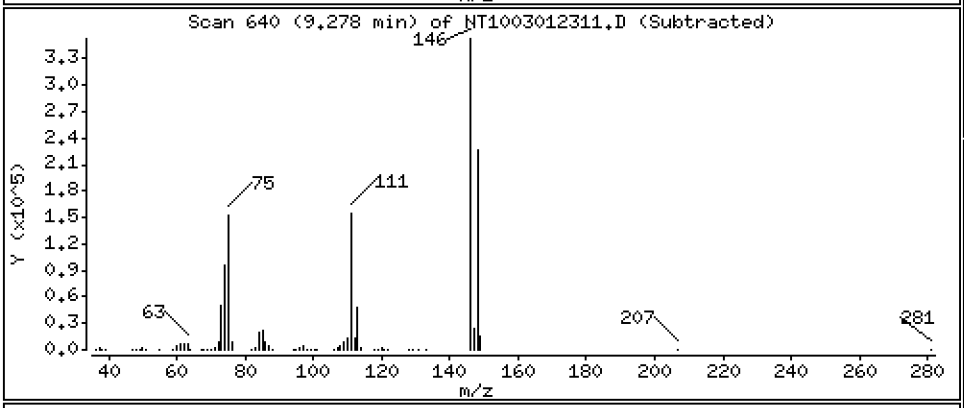
Column phase: ZB-5msi

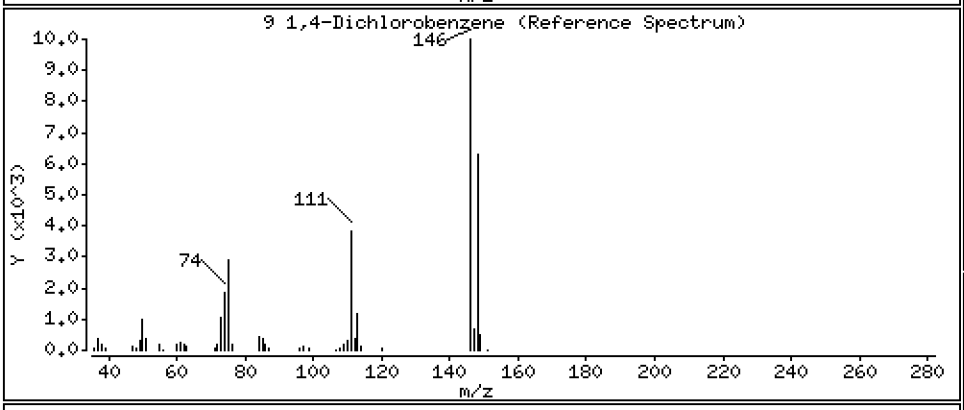
Column diameter: 0.25

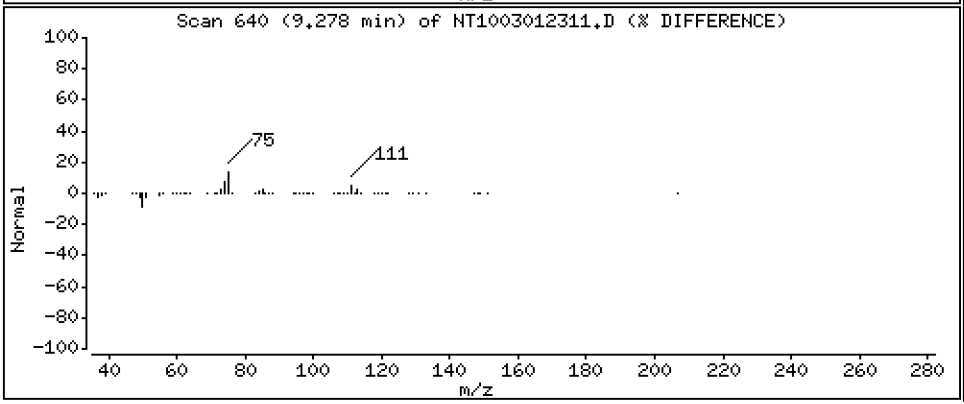
9 1,4-Dichlorobenzene

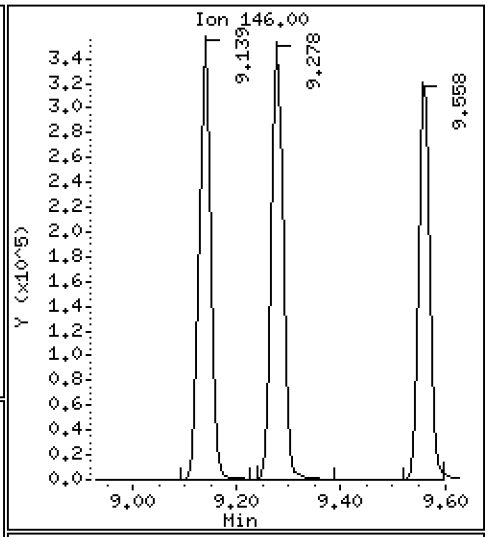
Concentration: 5.216 ug/mL

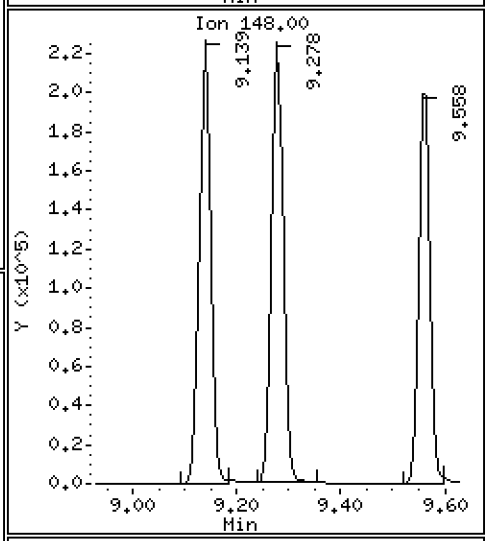


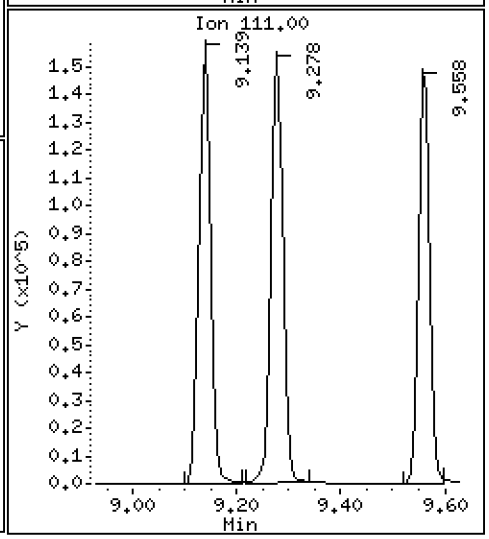












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

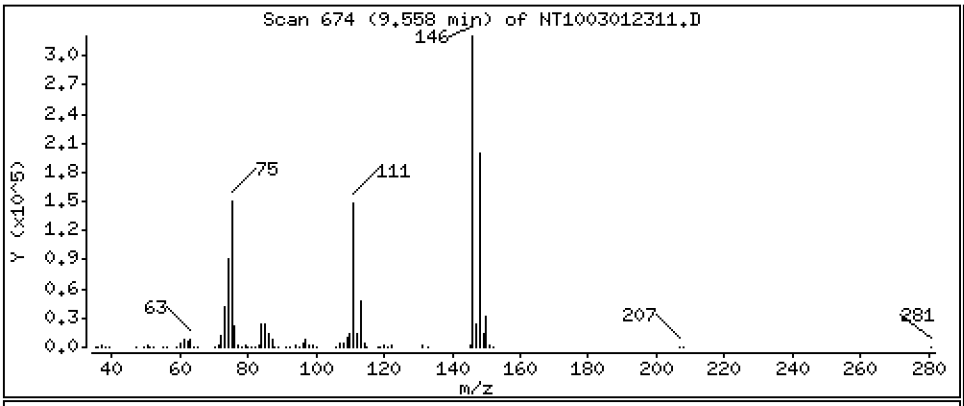
Operator: VTS

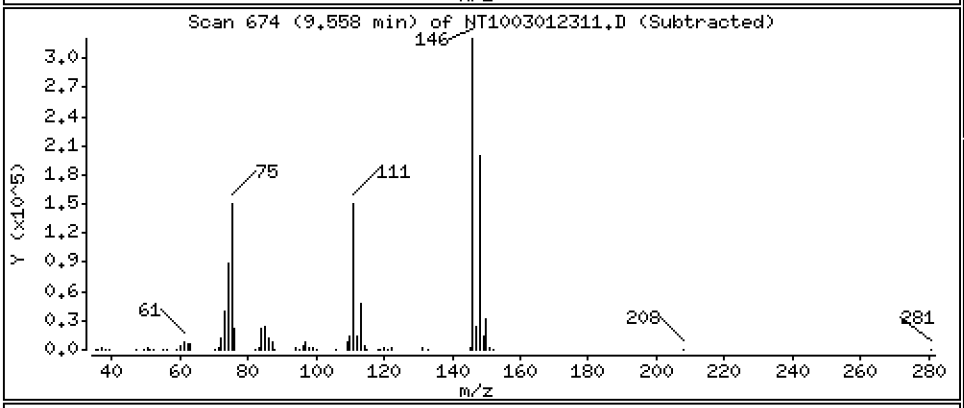
Column phase: ZB-5msi

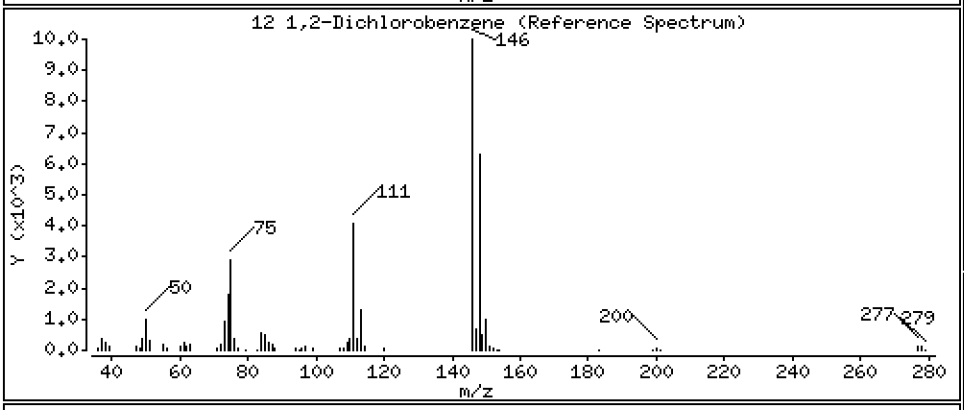
Column diameter: 0.25

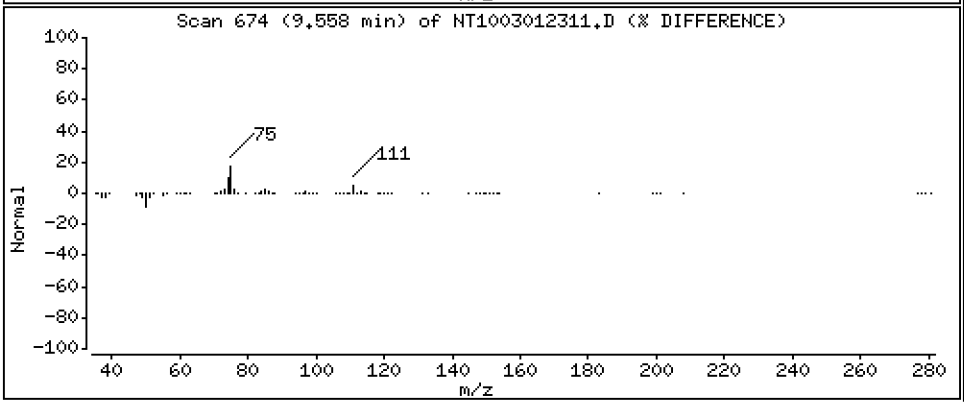
12 1,2-Dichlorobenzene

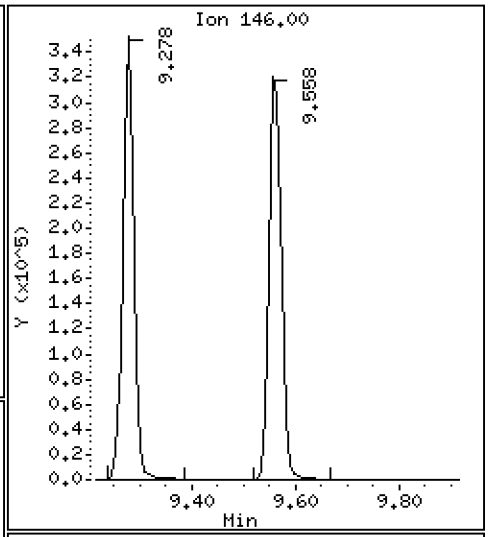
Concentration: 5.194 ug/mL

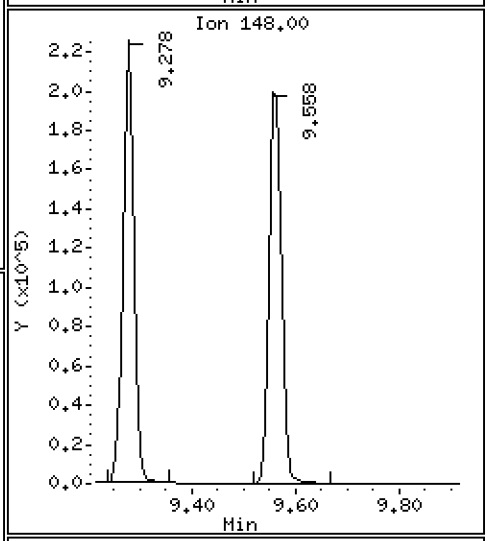


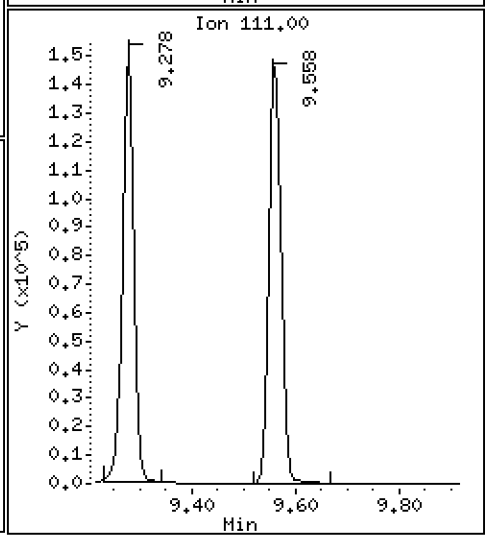












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

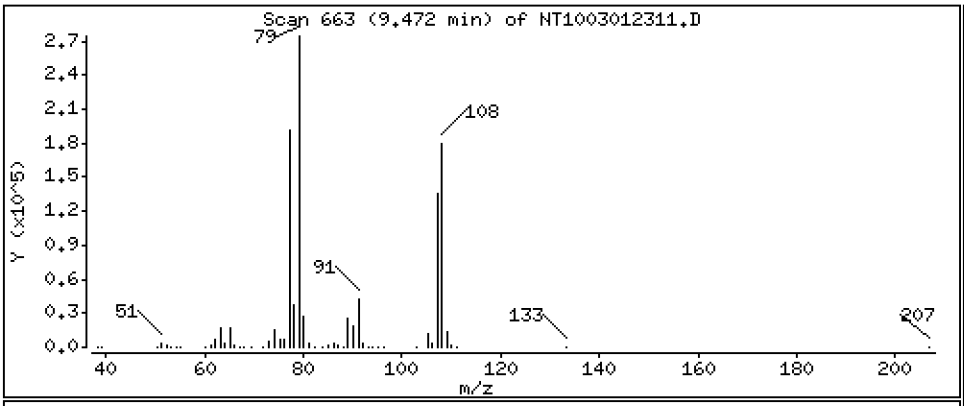
Operator: VTS

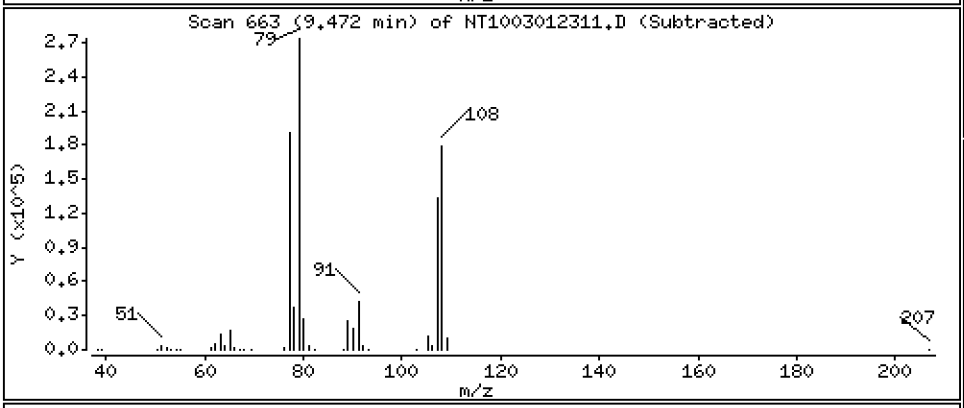
Column phase: ZB-5msi

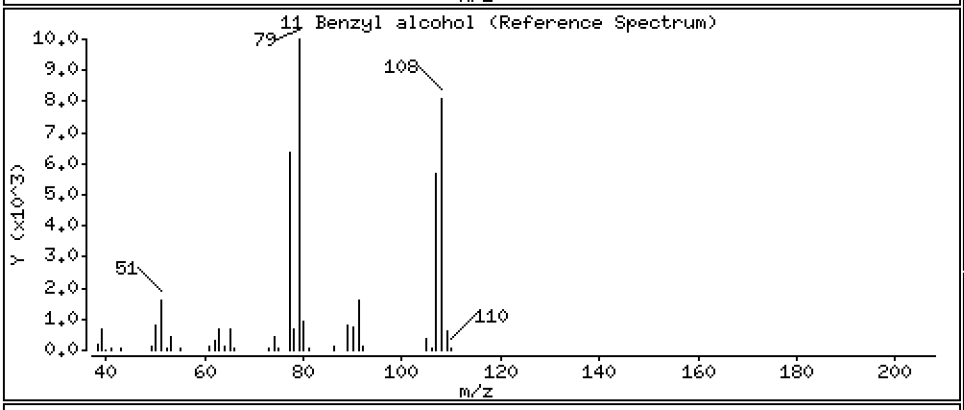
Column diameter: 0.25

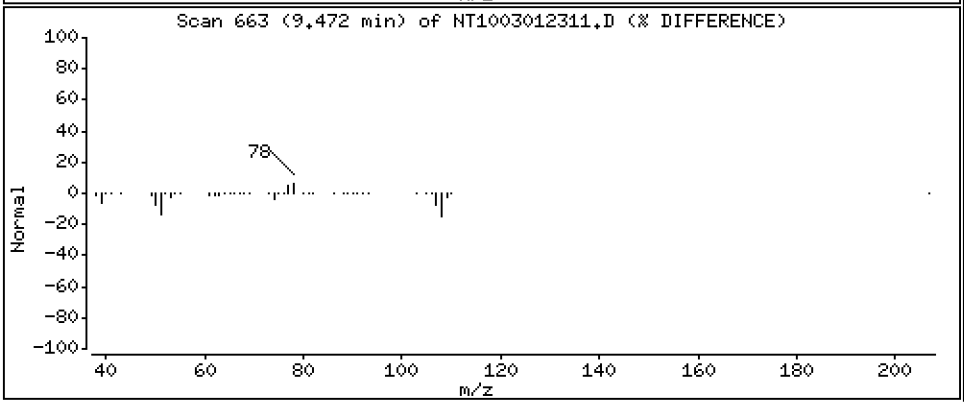
11 Benzyl alcohol

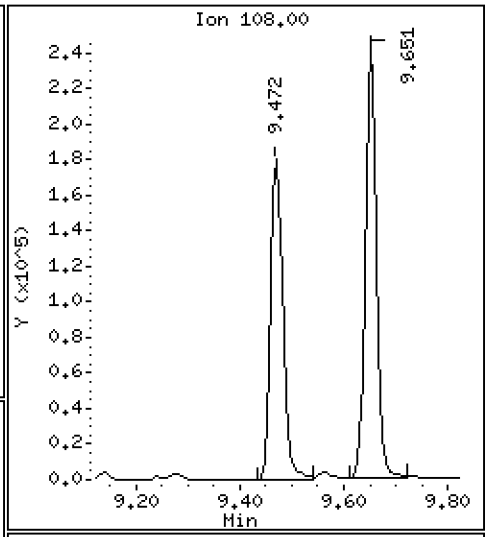
Concentration: 4.898 ug/mL

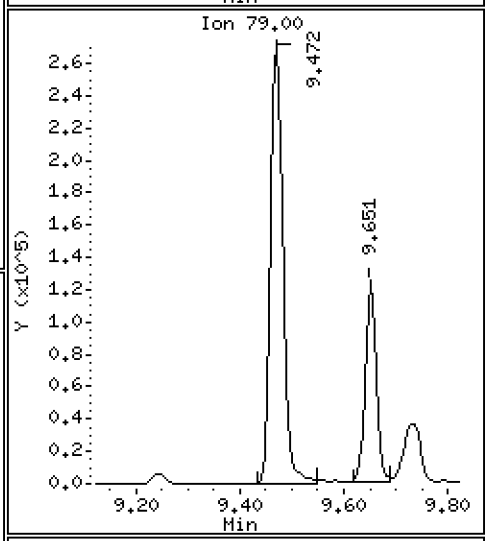


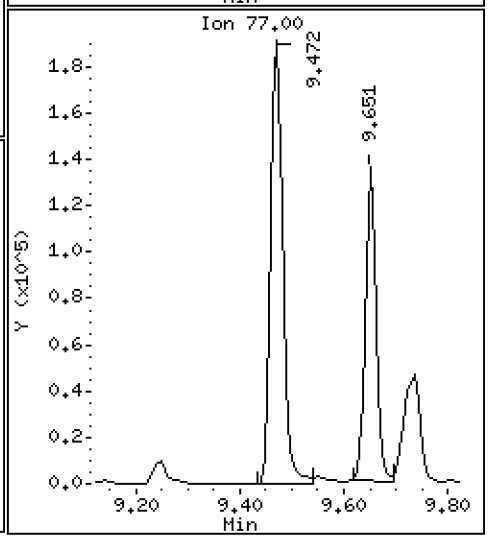












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

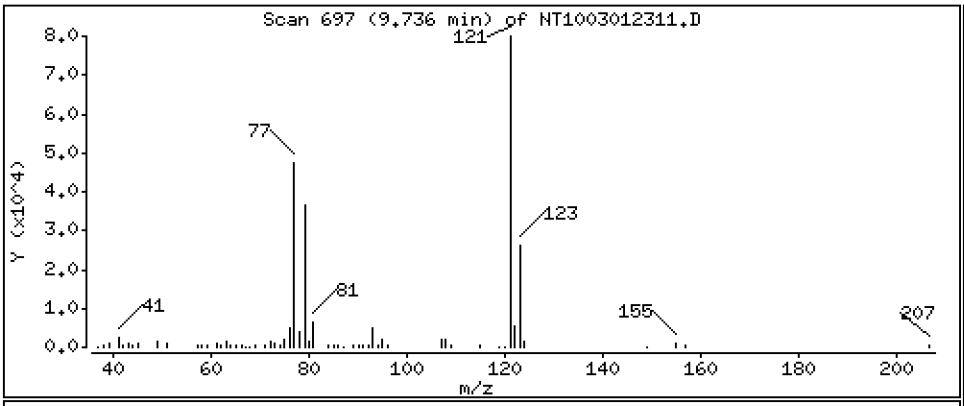
Operator: VTS

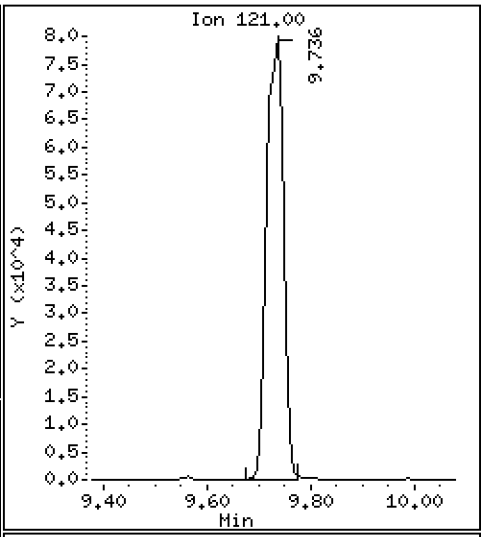
Column phase: ZB-5msi

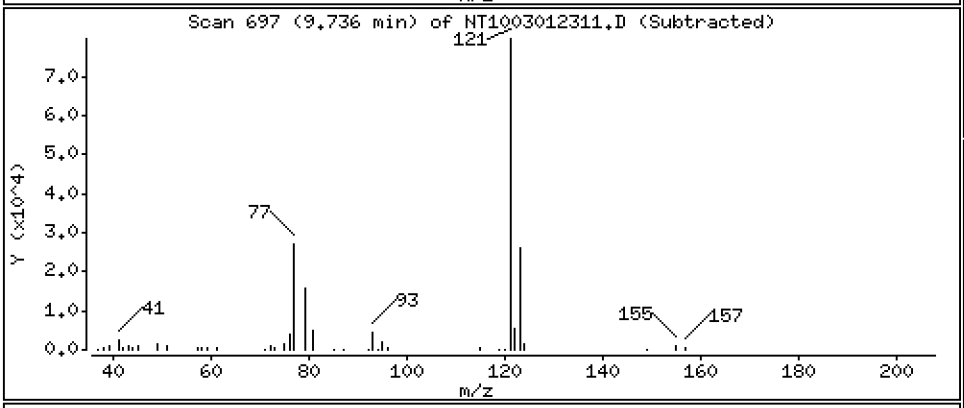
Column diameter: 0.25

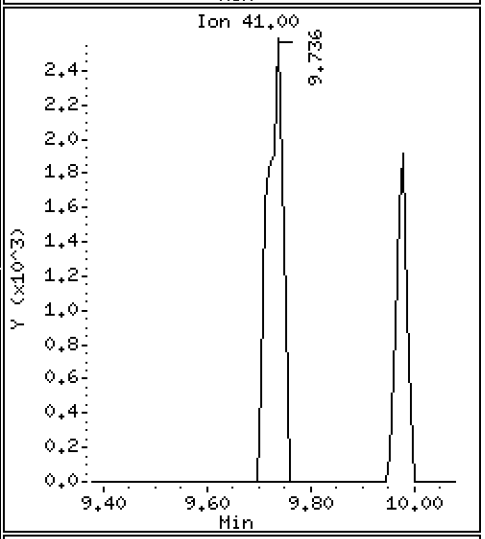
14 2,2'-oxybis(1-Chloropropane)

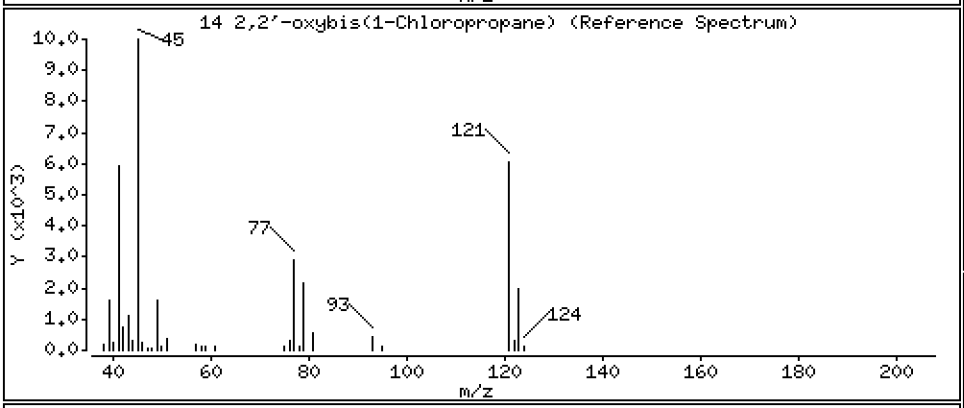
Concentration: 6.232 ug/mL

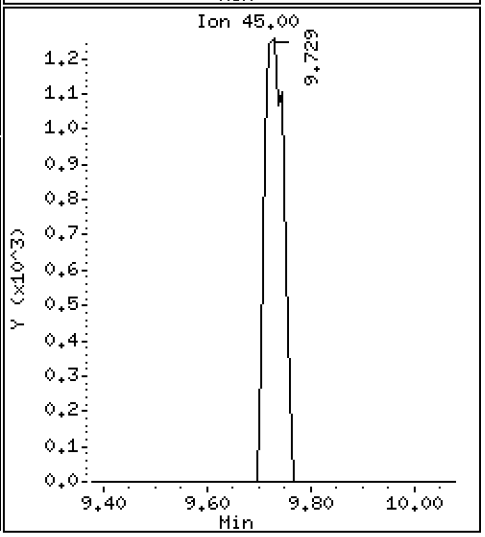


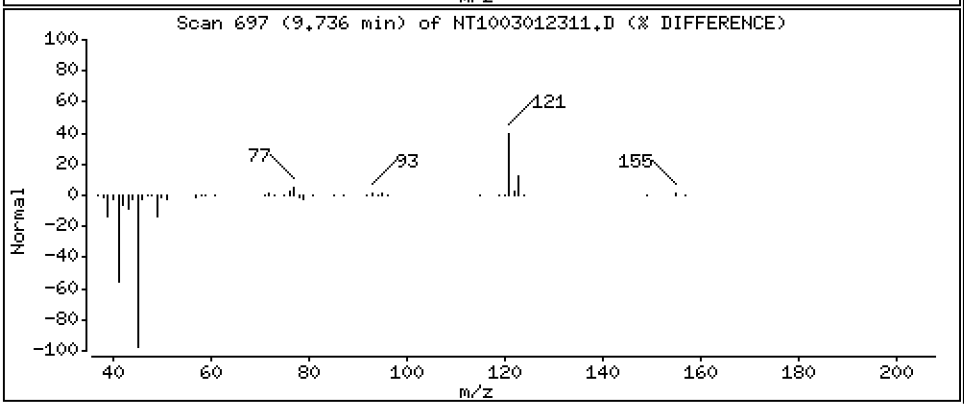












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

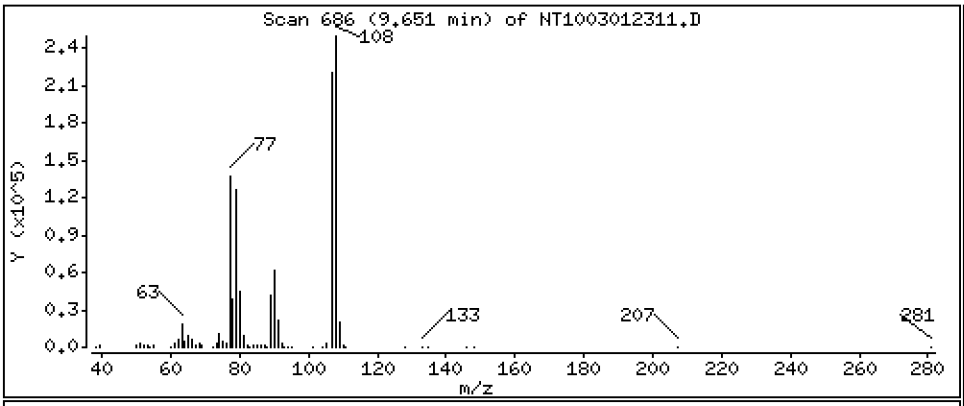
Operator: VTS

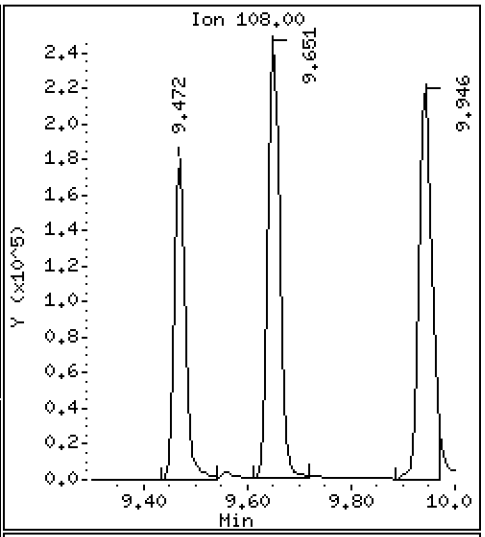
Column phase: ZB-5msi

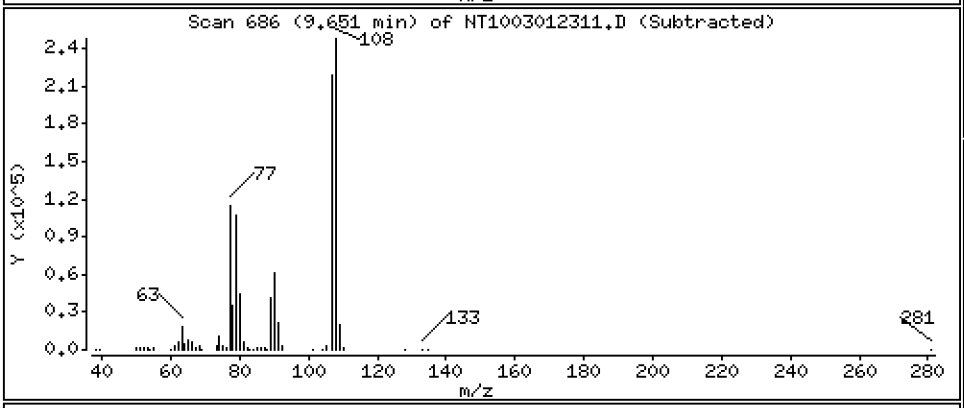
Column diameter: 0.25

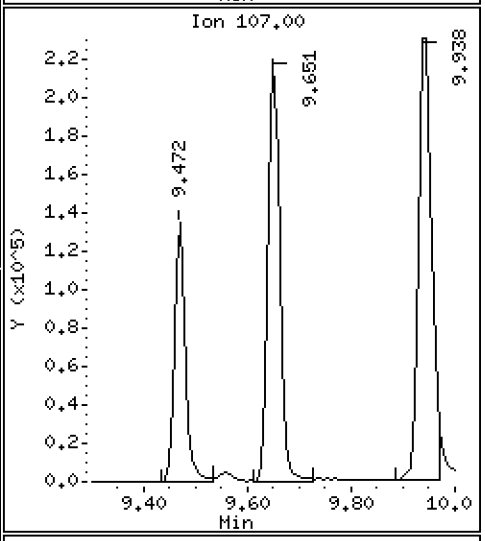
13 2-Methylphenol

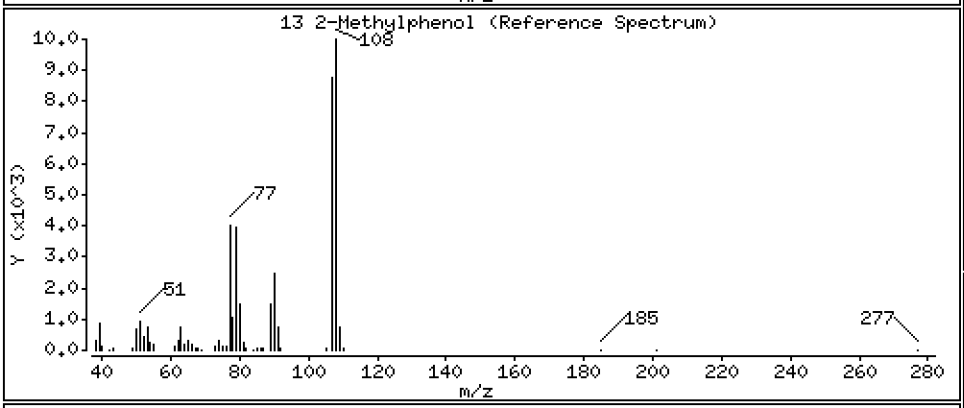
Concentration: 4.192 ug/mL

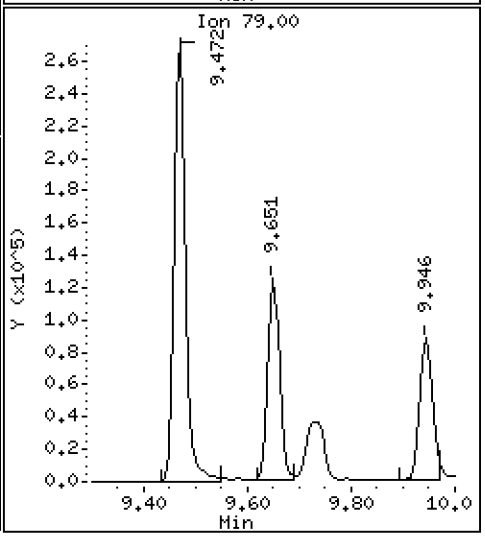


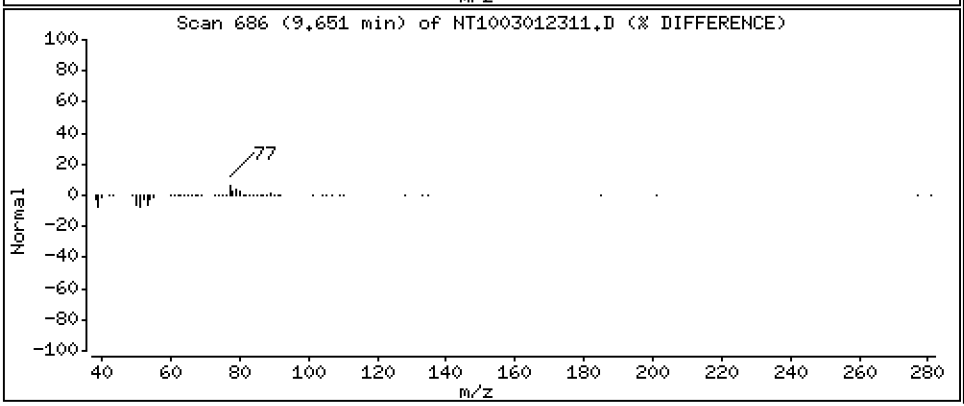












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

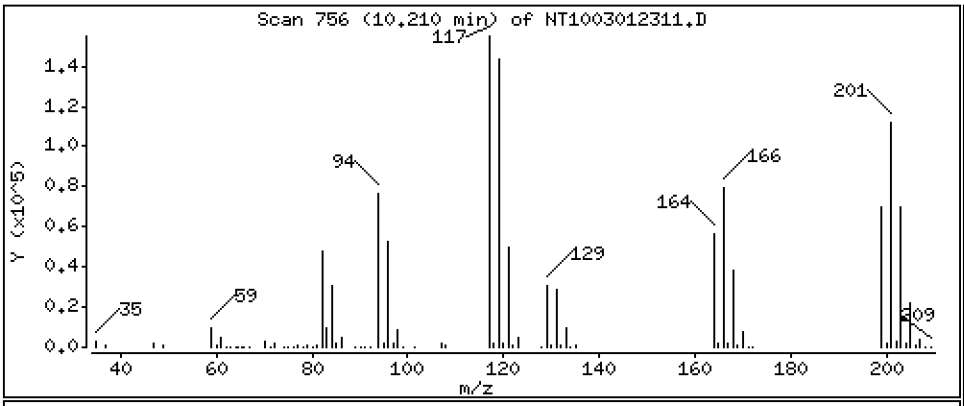
Operator: VTS

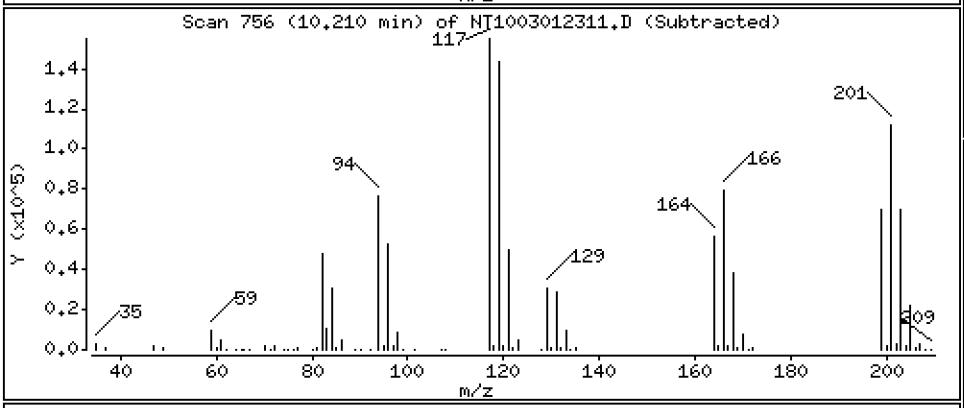
Column phase: ZB-5msi

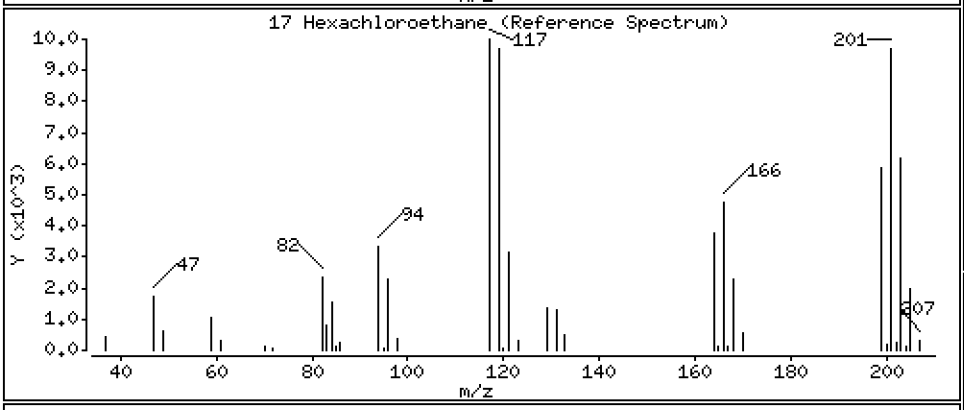
Column diameter: 0.25

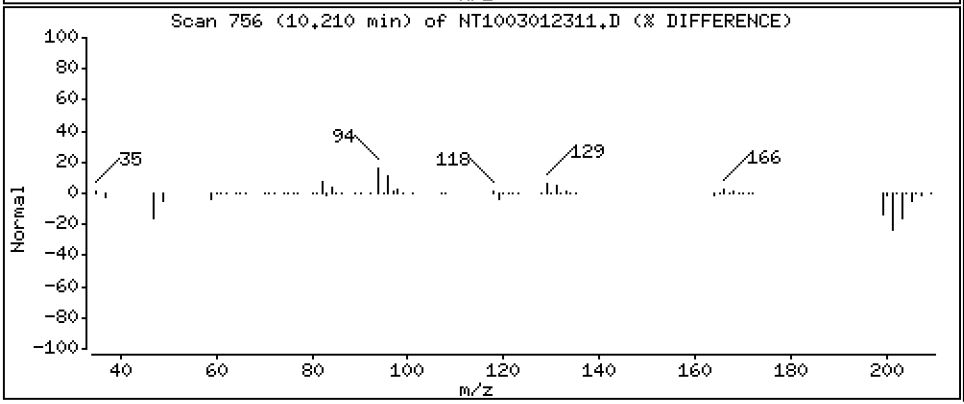
17 Hexachloroethane

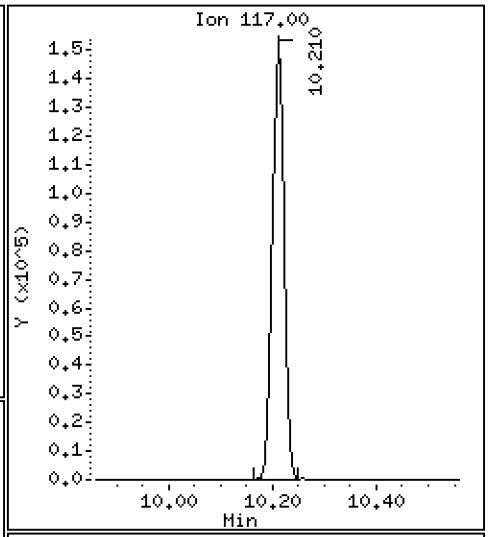
Concentration: 5.443 ug/mL

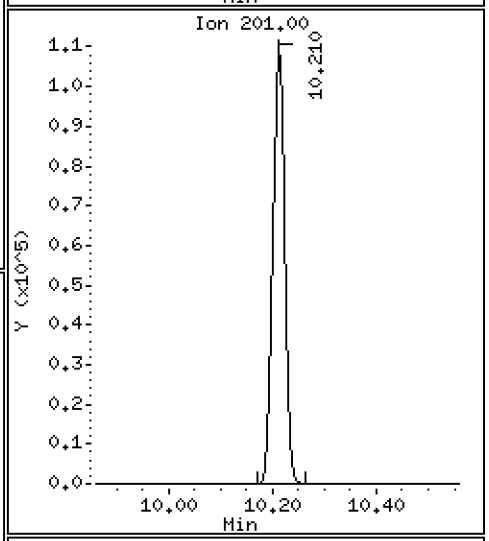


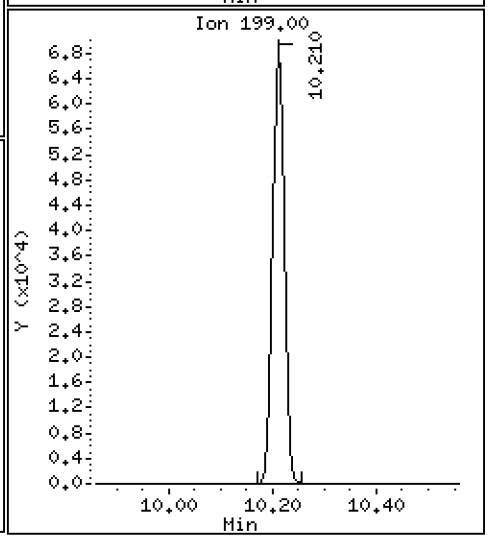












Date : 01-MAR-2023 21:46

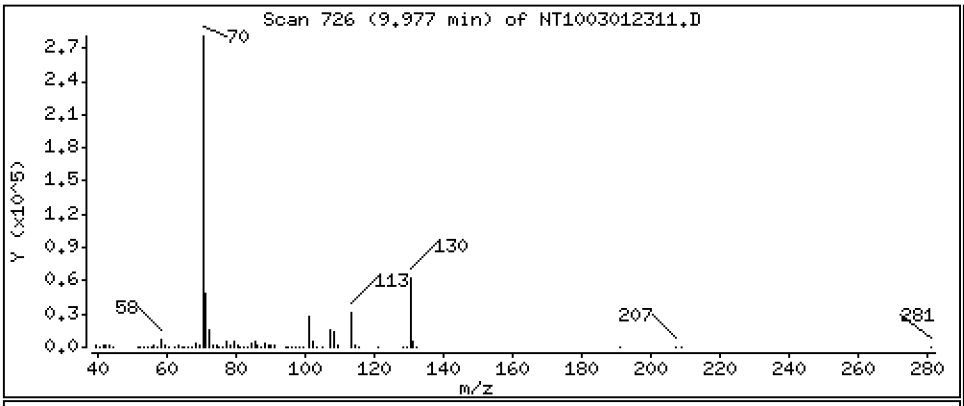
Client ID: Instrument: nt10.i

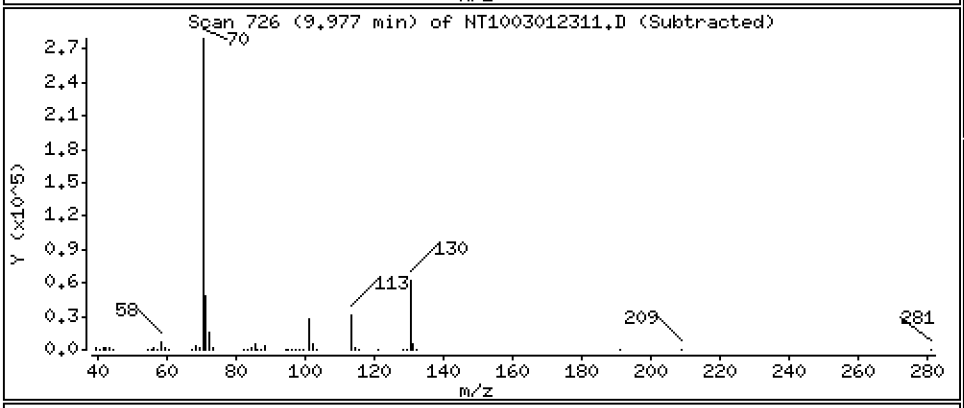
Sample Info: SEQ-SCV1

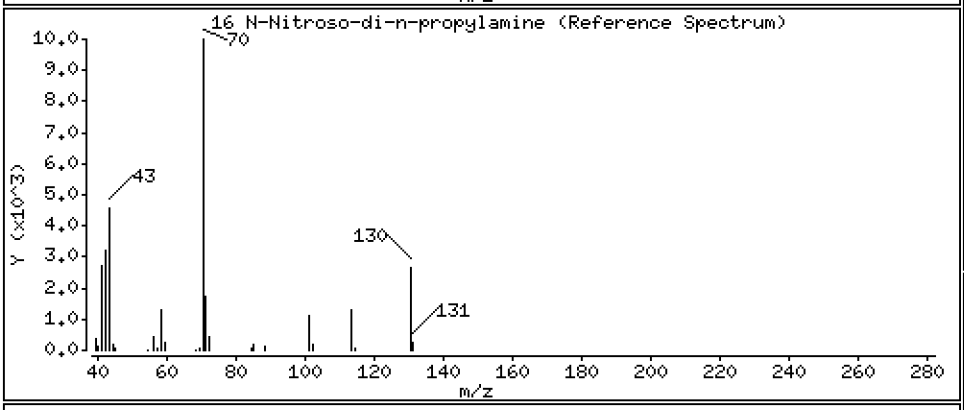
Operator: VTS

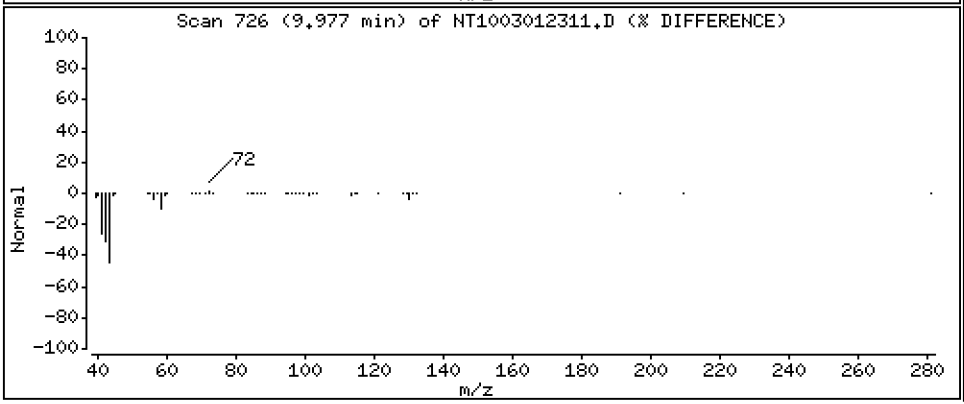
Column phase: ZB-5msi Column diameter: 0.25

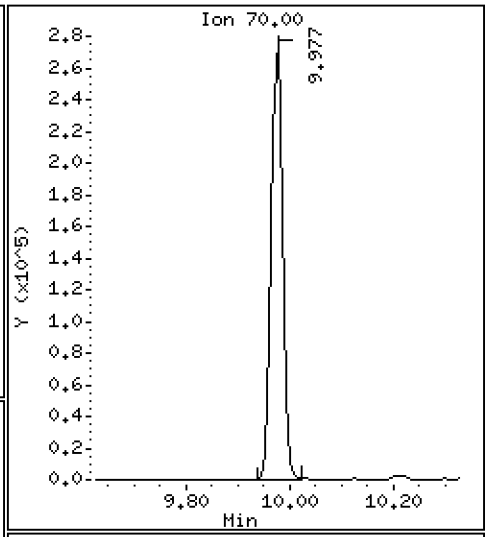
16 N-Nitroso-di-n-propylamine Concentration: 5.905 ug/mL

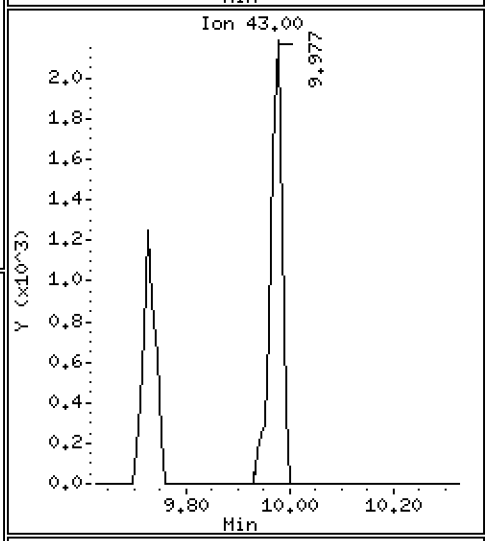


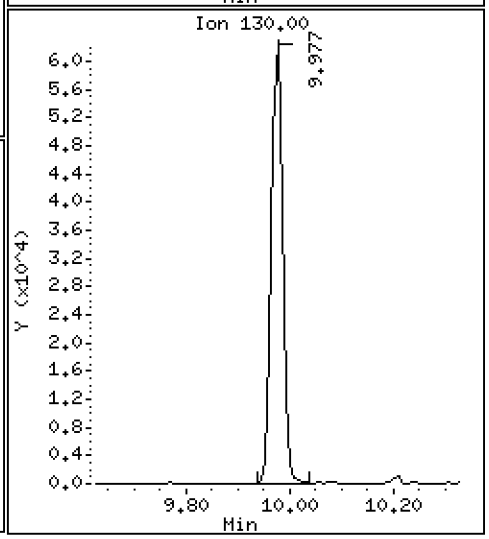












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

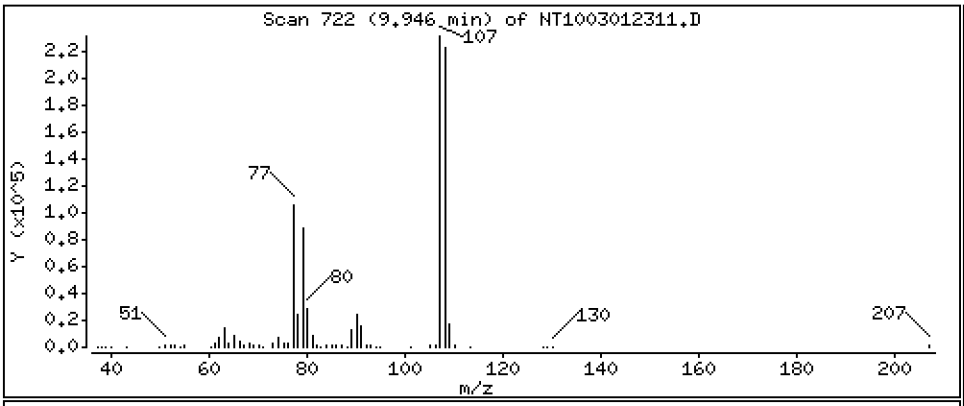
Operator: VTS

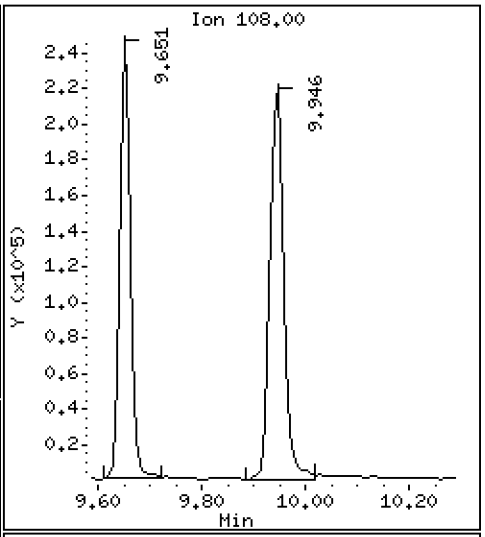
Column phase: ZB-5msi

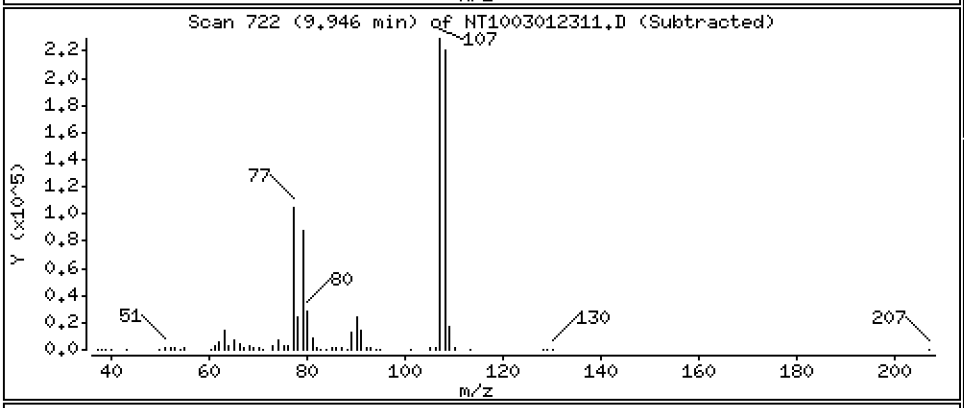
Column diameter: 0.25

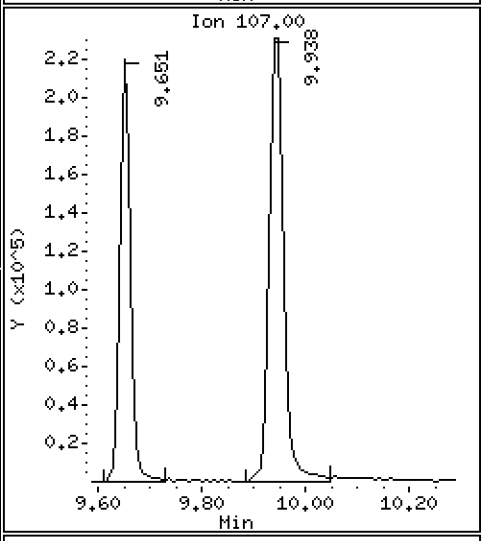
15 4-Methylphenol

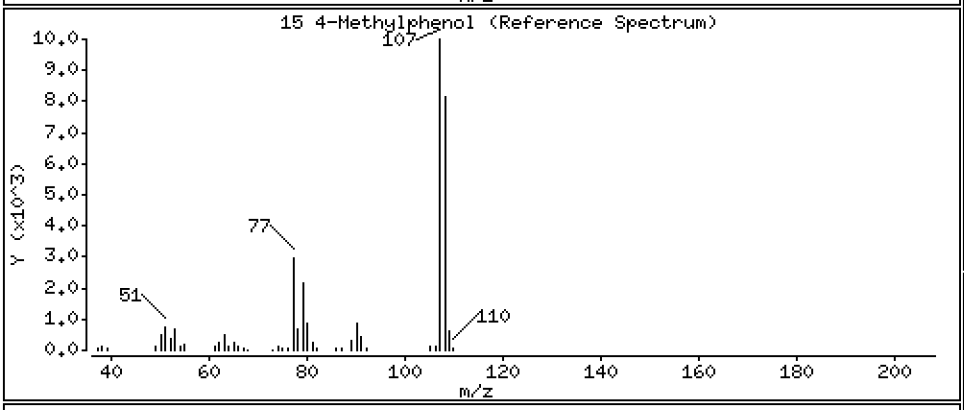
Concentration: 4.239 ug/mL

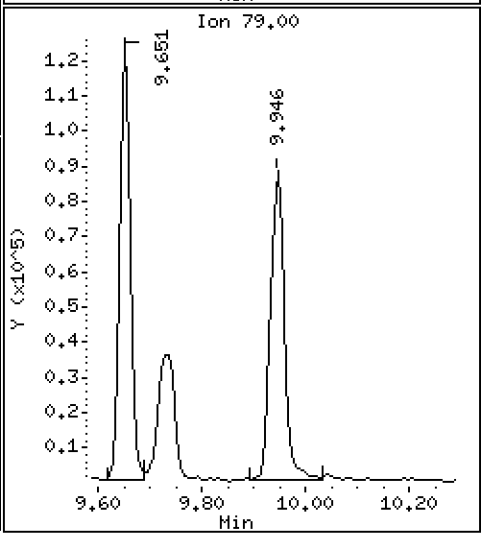


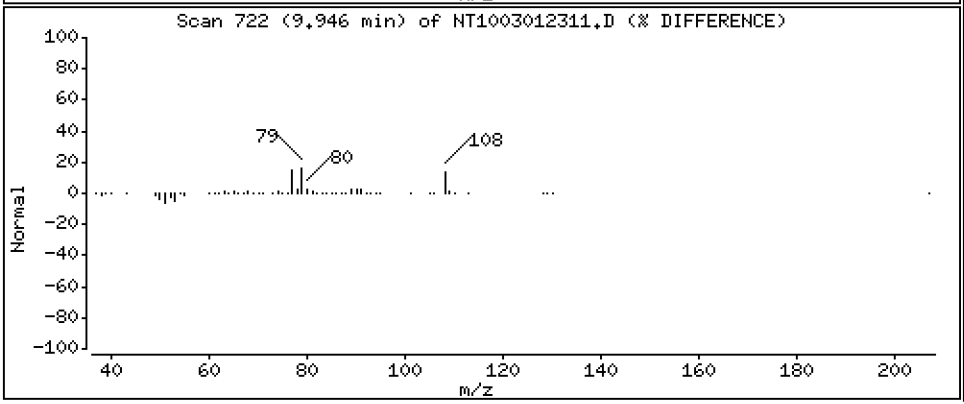












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

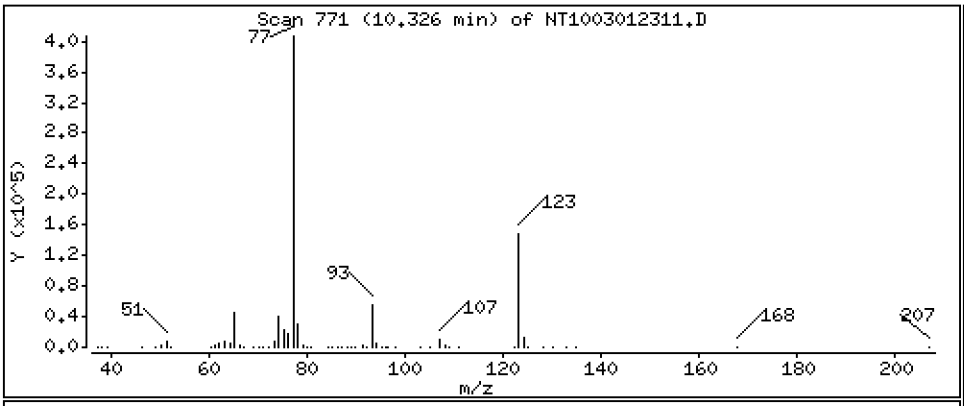
Operator: VTS

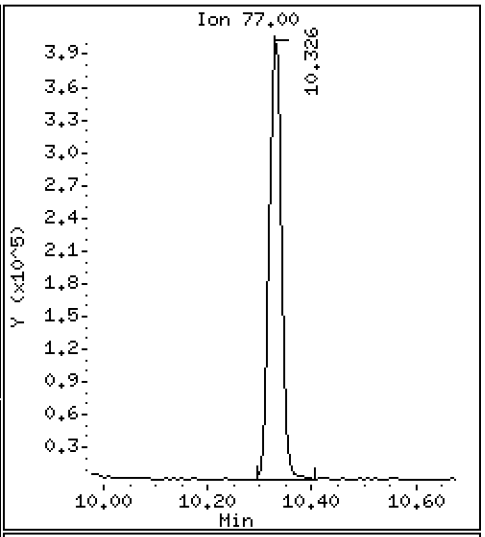
Column phase: ZB-5msi

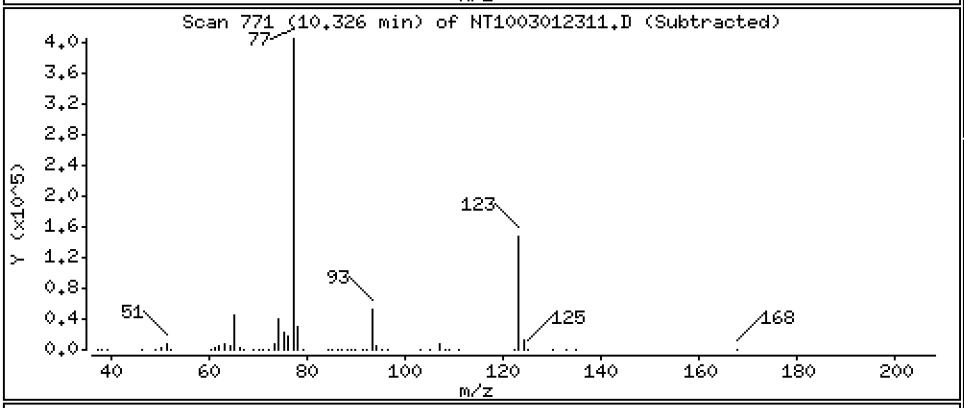
Column diameter: 0.25

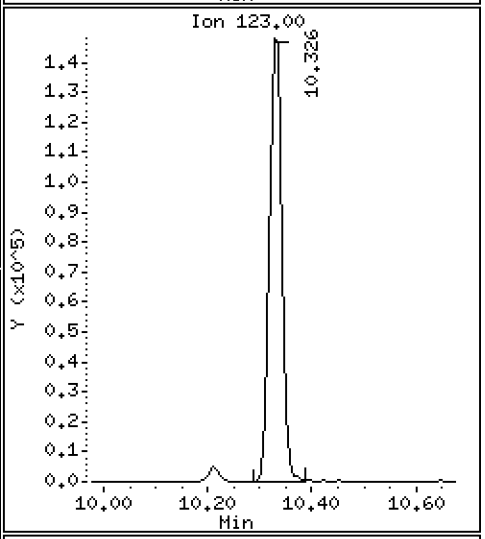
19 Nitrobenzene

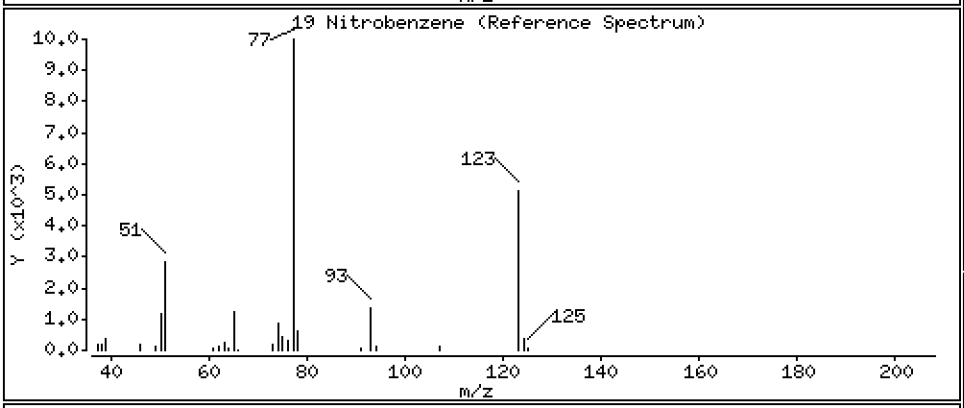
Concentration: 5.569 ug/mL

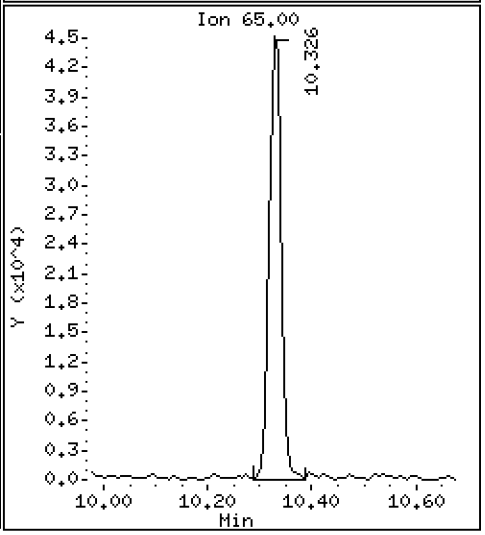


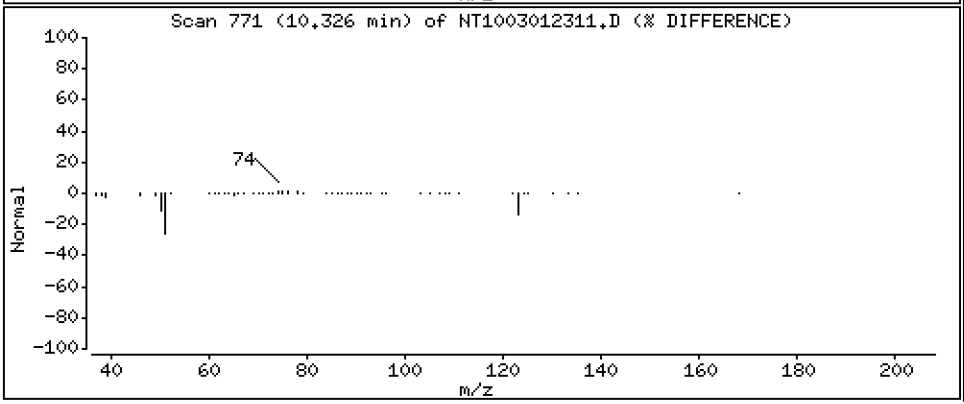












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

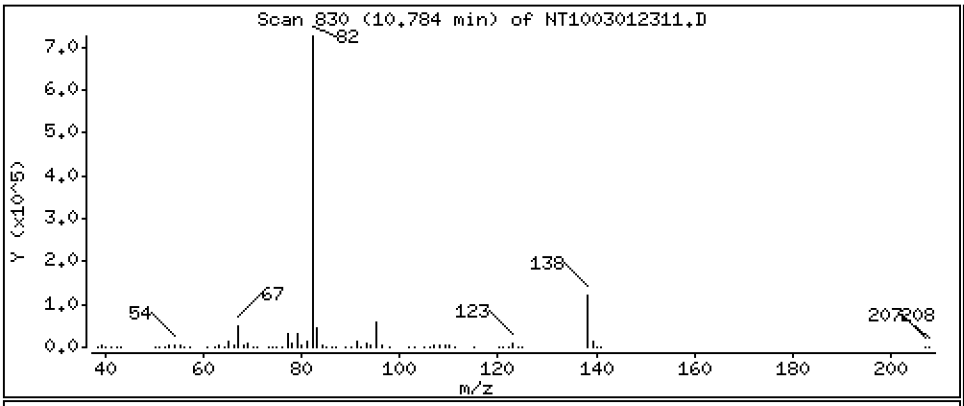
Operator: VTS

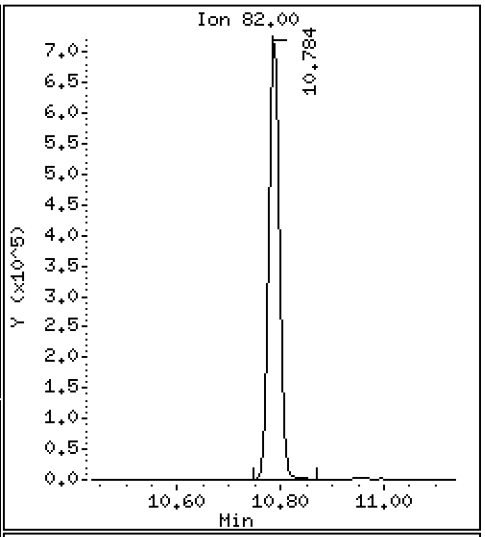
Column phase: ZB-5msi

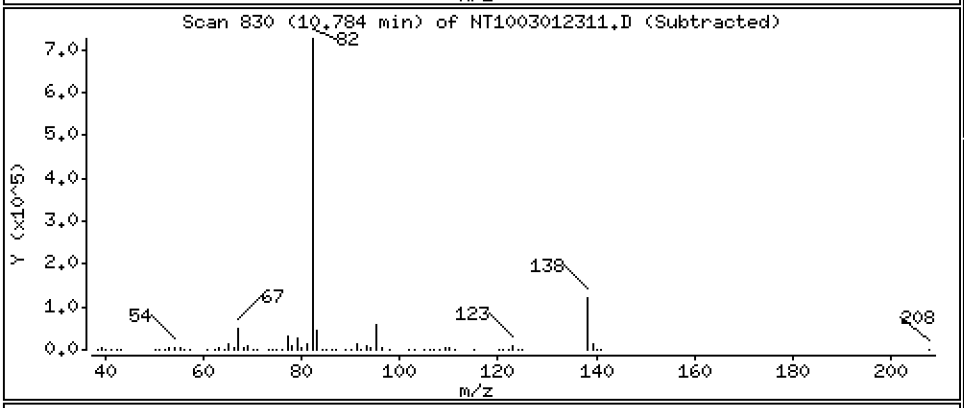
Column diameter: 0.25

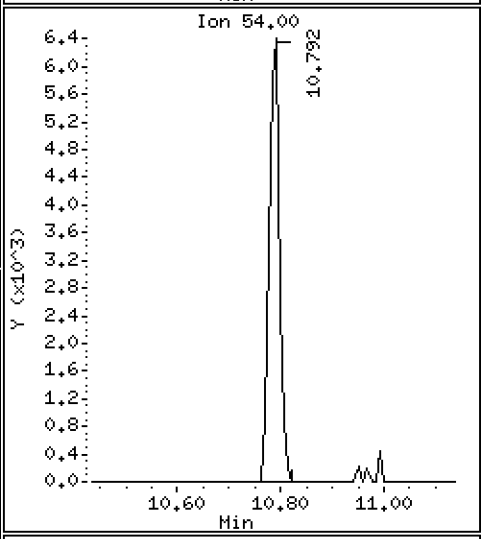
20 Isophorone

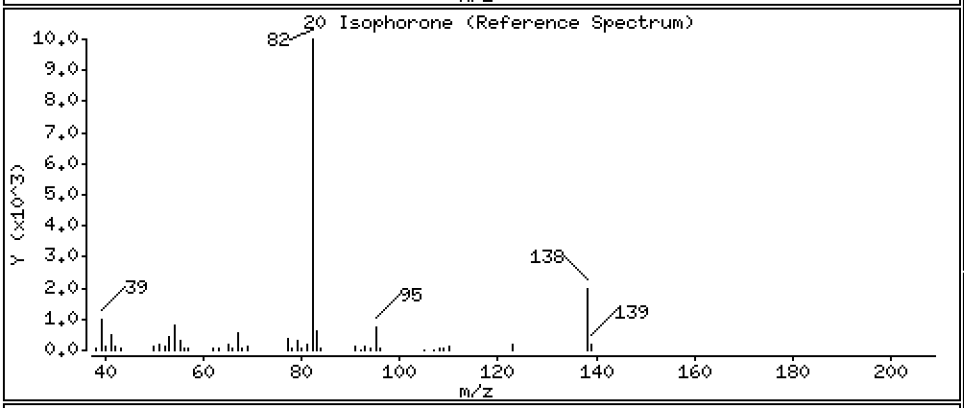
Concentration: 7.672 ug/mL

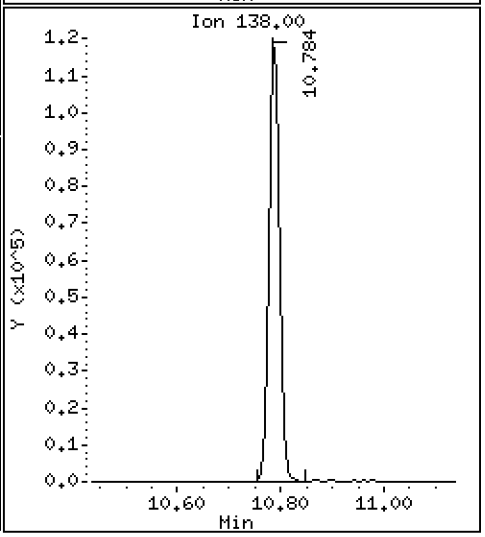


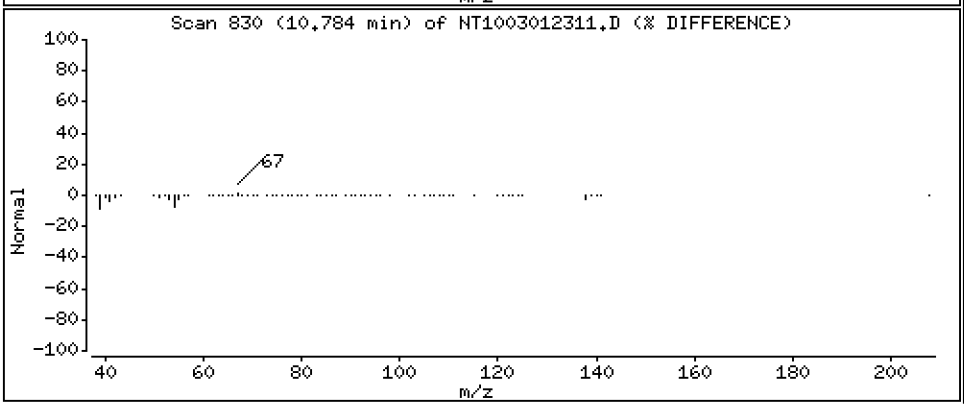












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

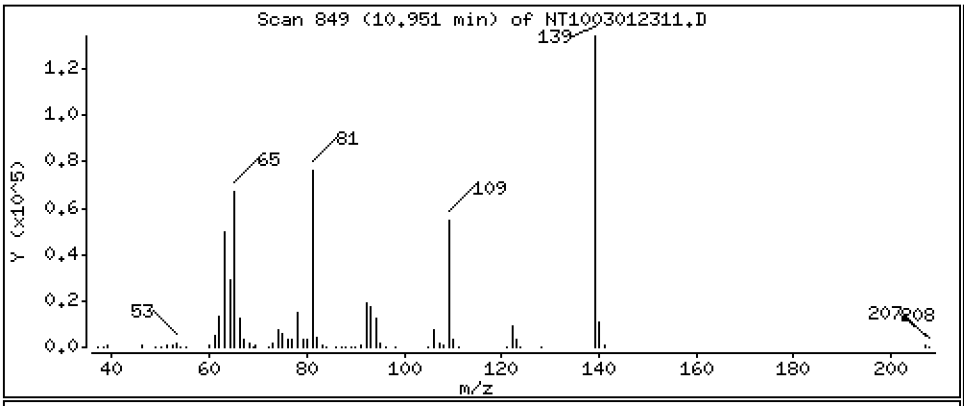
Operator: VTS

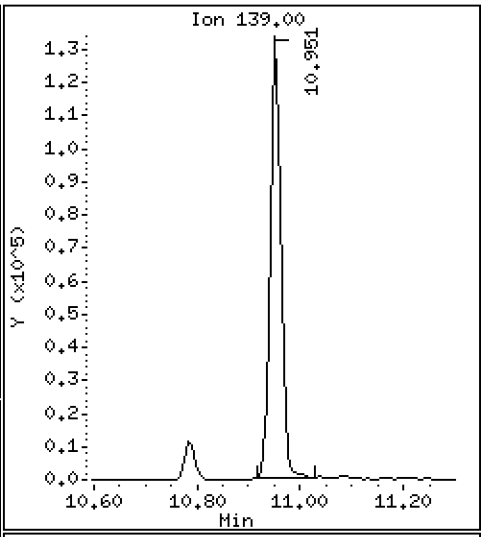
Column phase: ZB-5msi

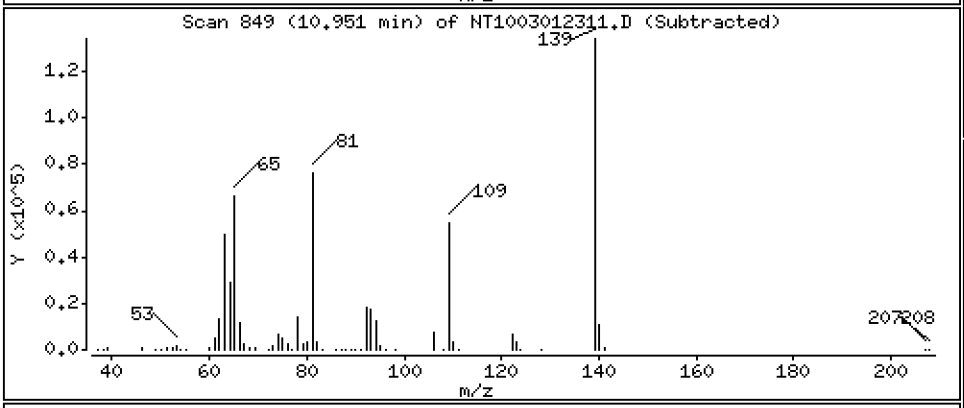
Column diameter: 0.25

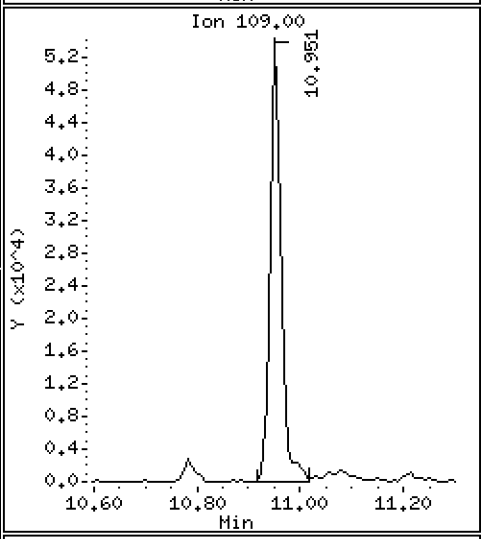
21 2-Nitrophenol

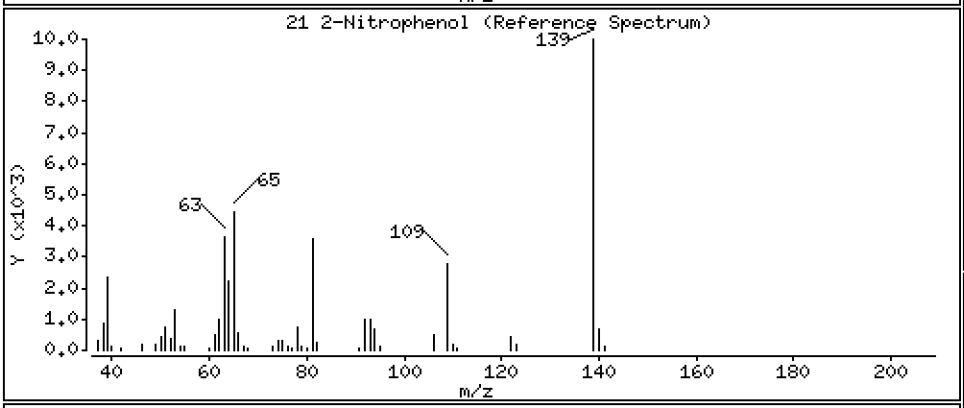
Concentration: 3.244 ug/mL

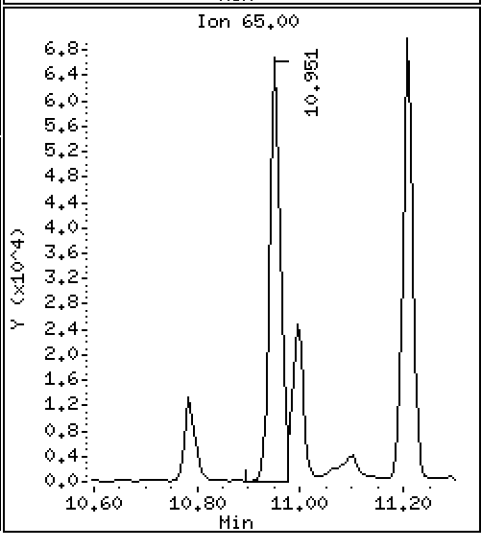


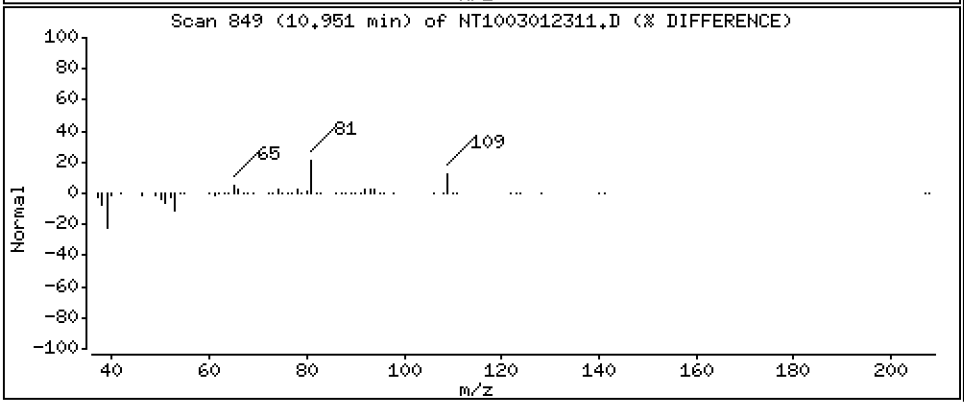












Date : 01-MAR-2023 21:46

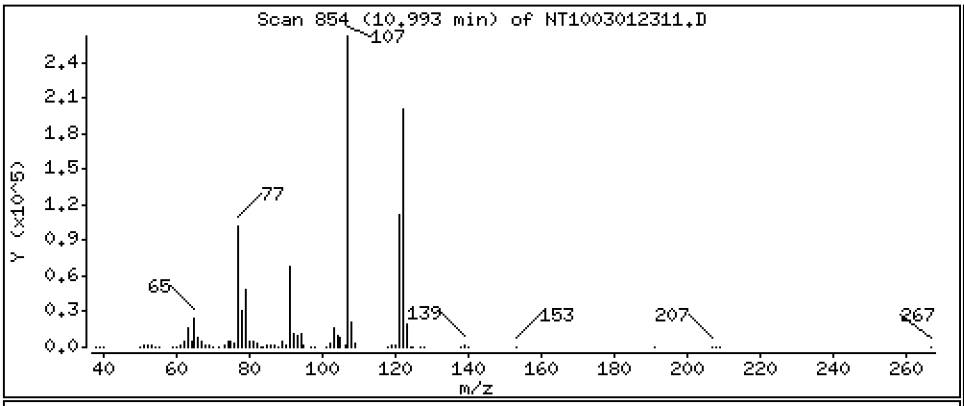
Client ID: Instrument: nt10.i

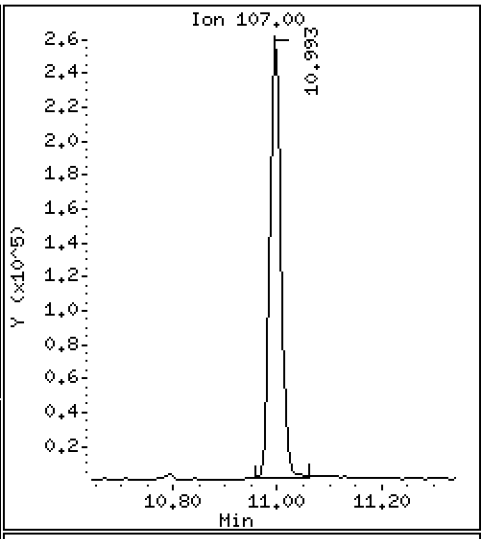
Sample Info: SEQ-SCV1

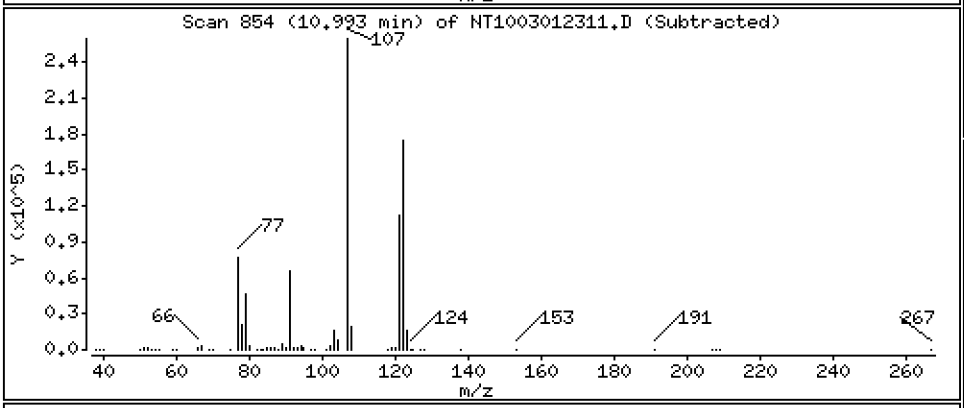
Operator: VTS

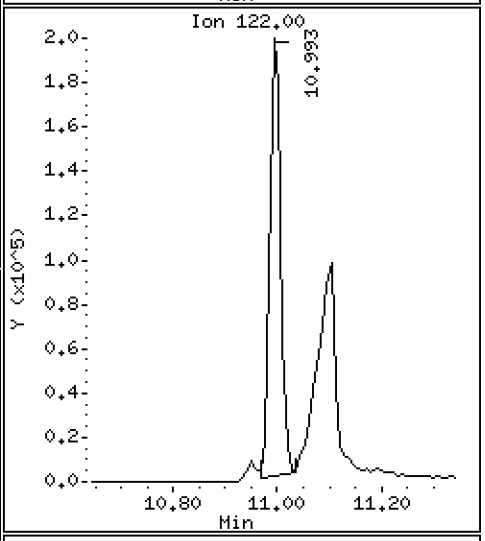
Column phase: ZB-5msi Column diameter: 0.25

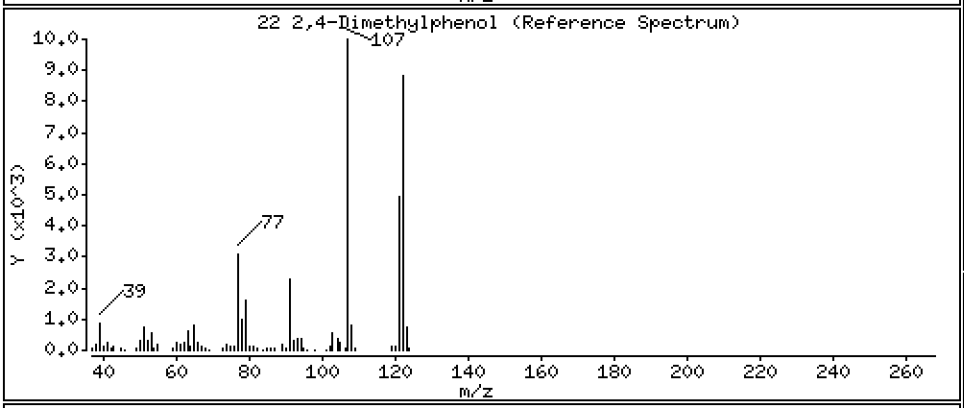
22 2,4-Dimethylphenol Concentration: 3.507 ug/mL

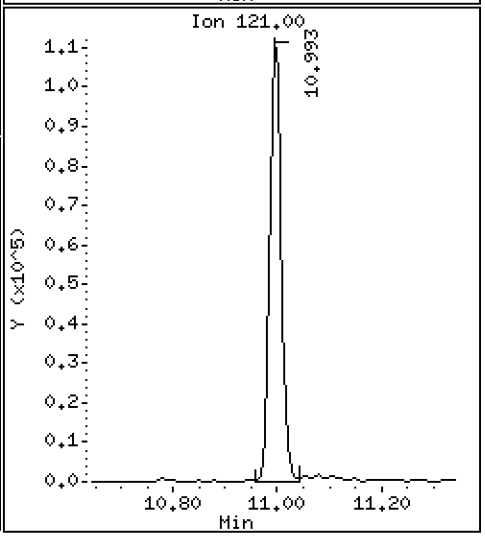


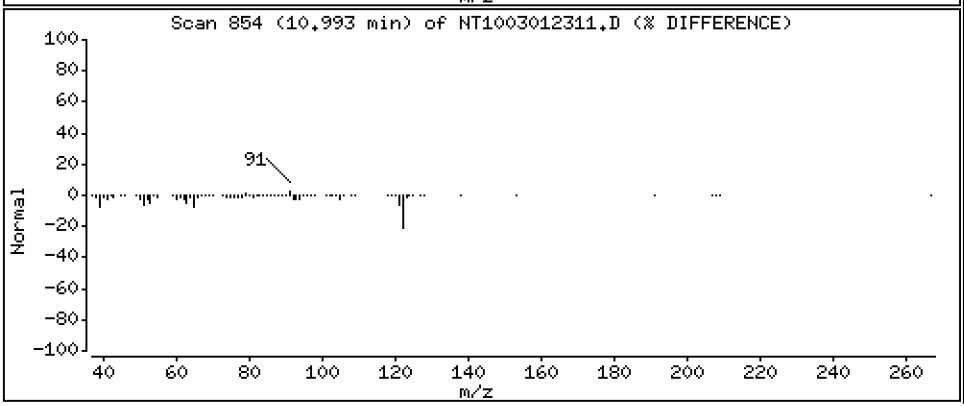












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

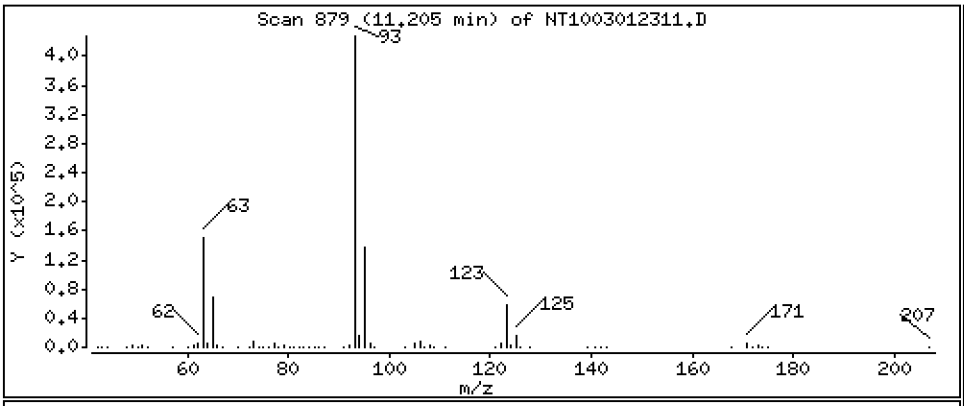
Operator: VTS

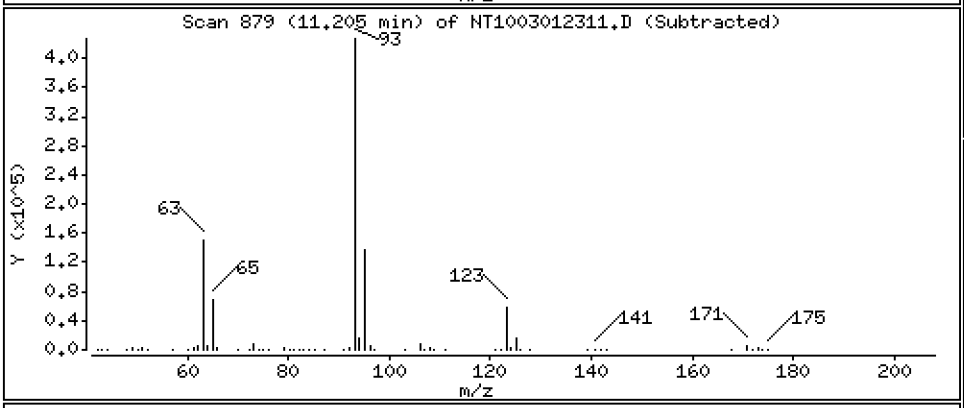
Column phase: ZB-5msi

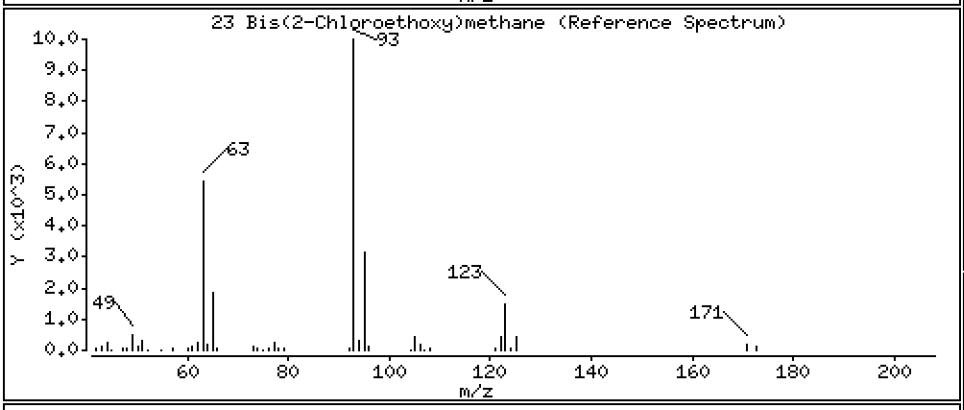
Column diameter: 0.25

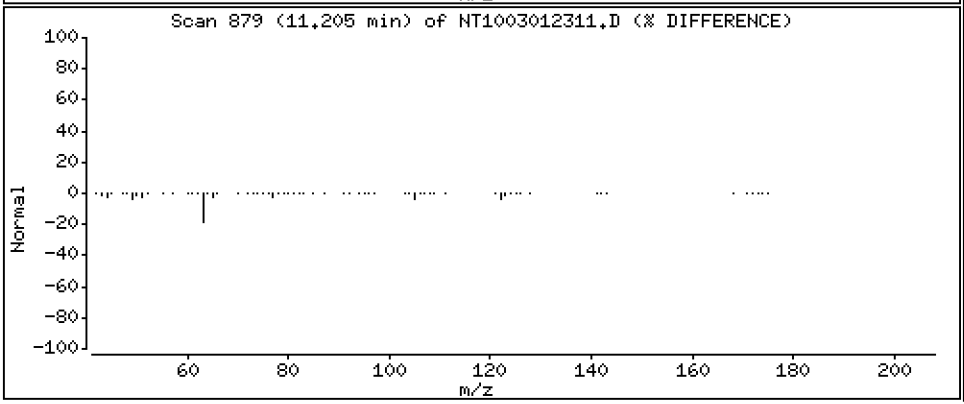
23 Bis(2-Chloroethoxy)methane

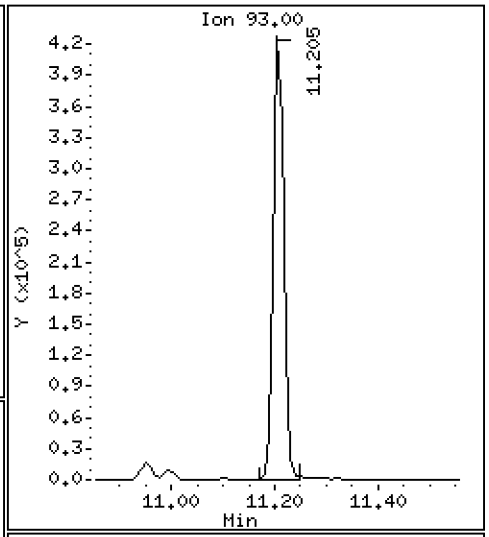
Concentration: 6.727 ug/mL

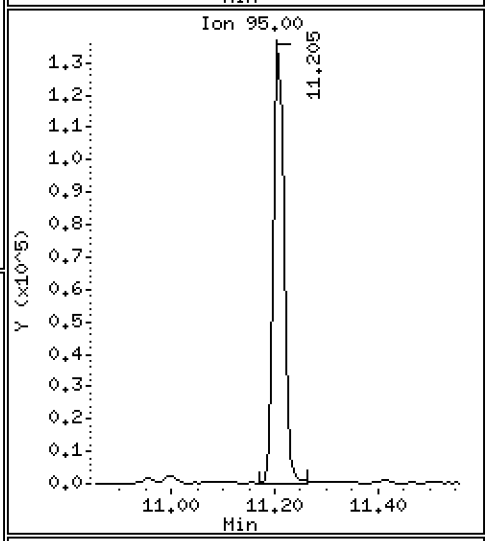


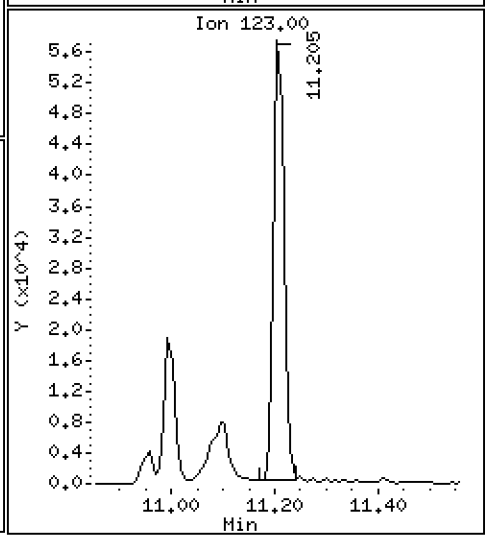












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

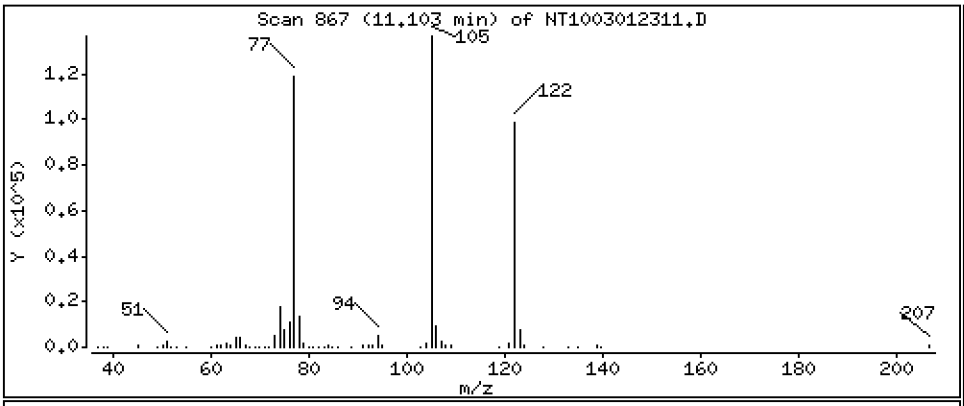
Operator: VTS

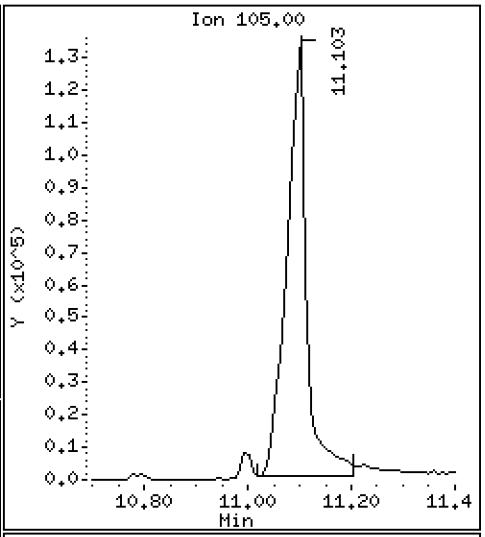
Column phase: ZB-5msi

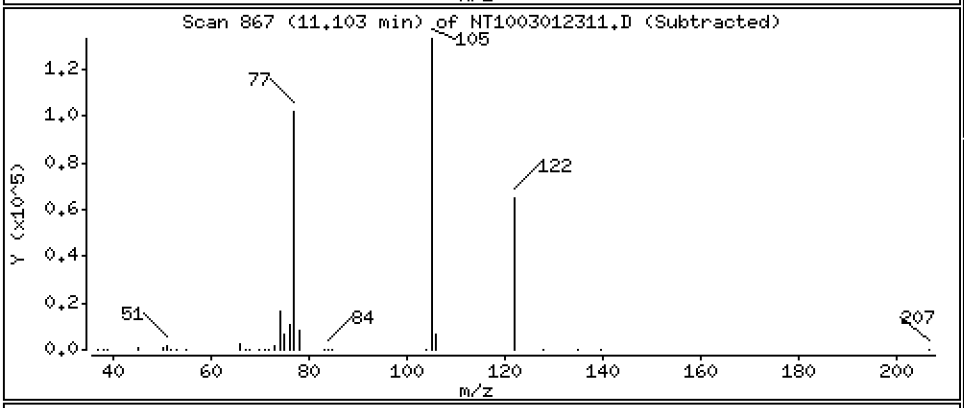
Column diameter: 0.25

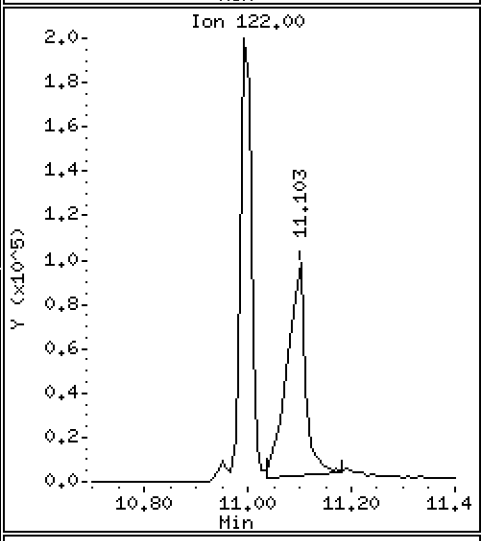
24 Benzoic acid

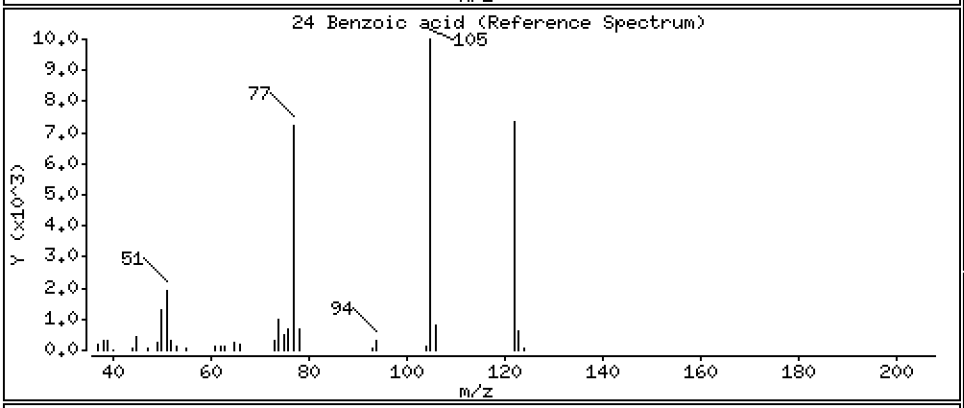
Concentration: 5.635 ug/mL

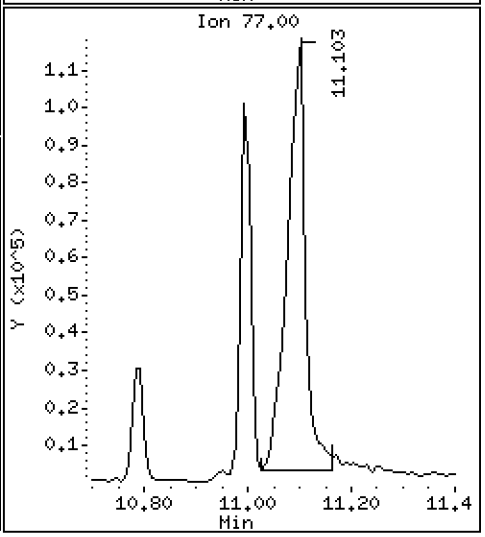


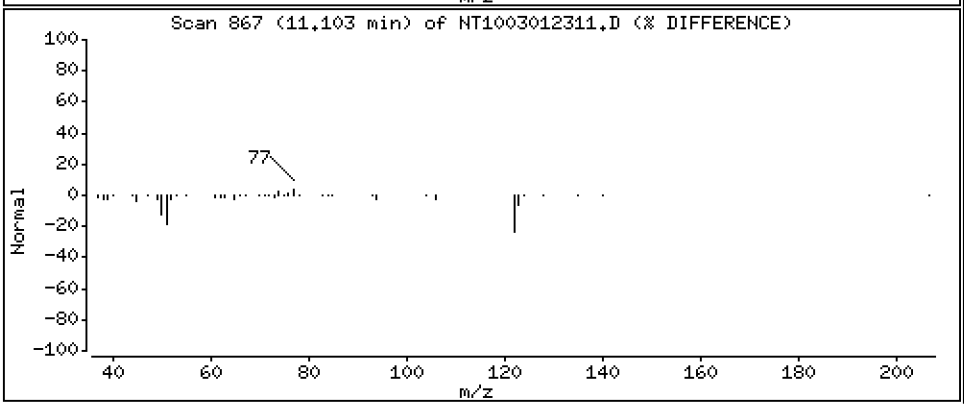












Date : 01-MAR-2023 21:46

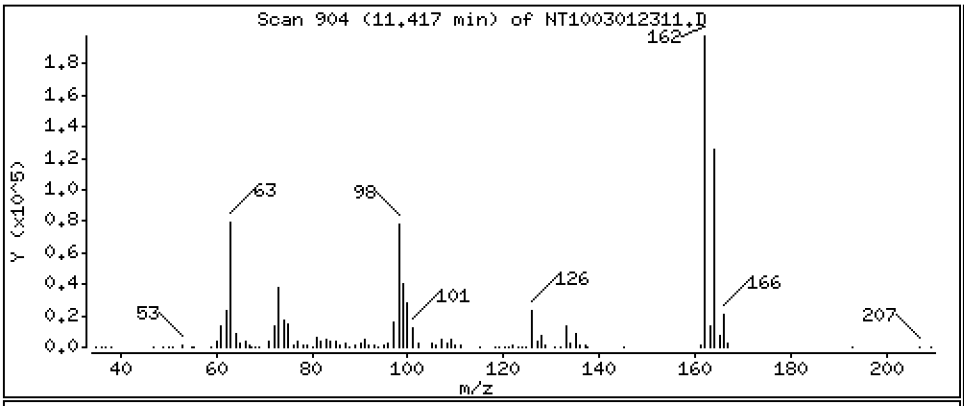
Client ID: Instrument: nt10.i

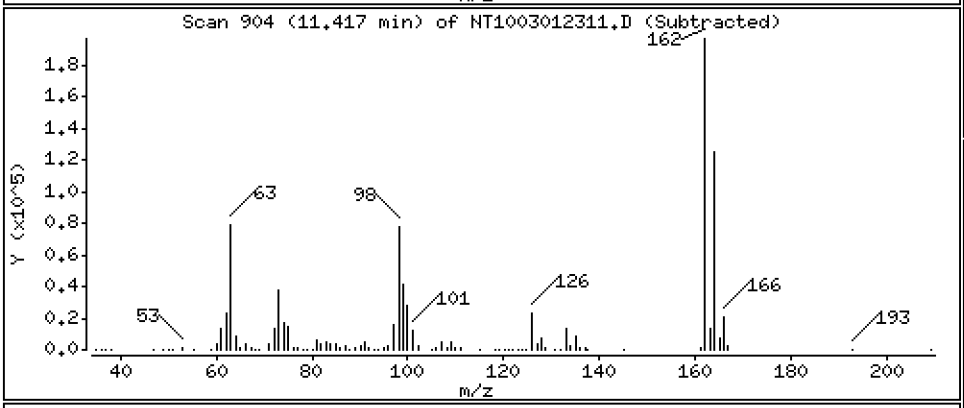
Sample Info: SEQ-SCV1

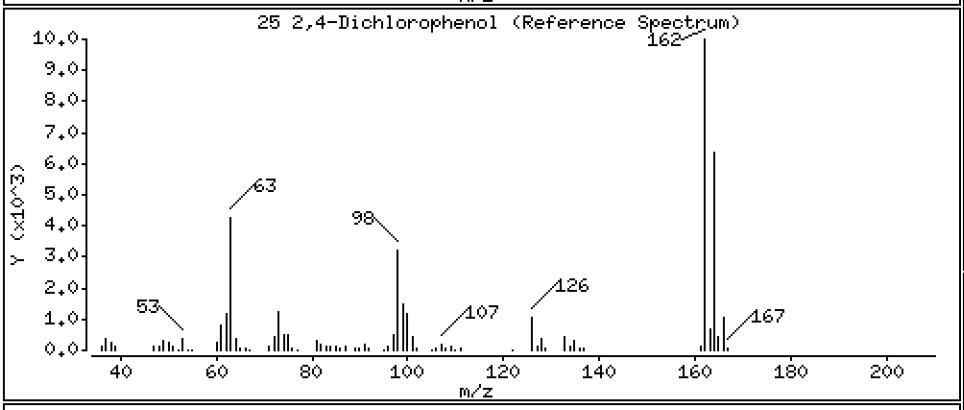
Operator: VTS

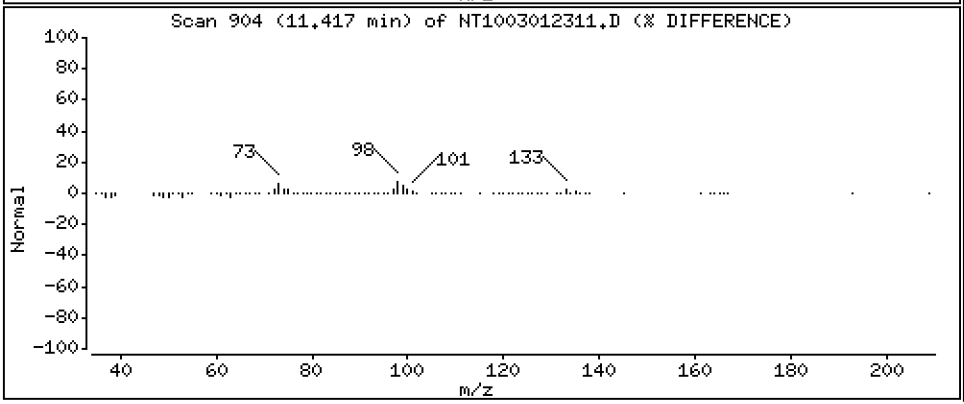
Column phase: ZB-5msi Column diameter: 0.25

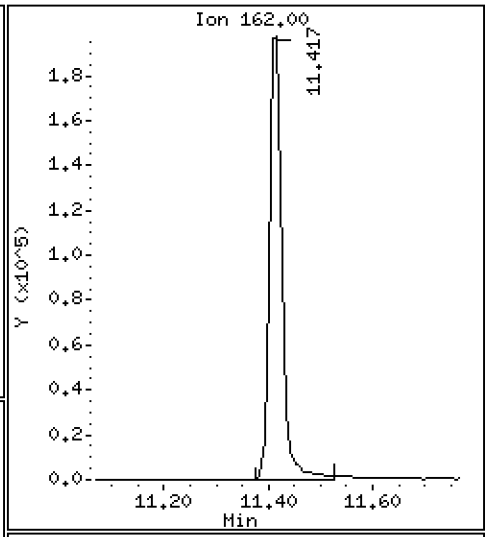
25 2,4-Dichlorophenol Concentration: 4.437 ug/mL

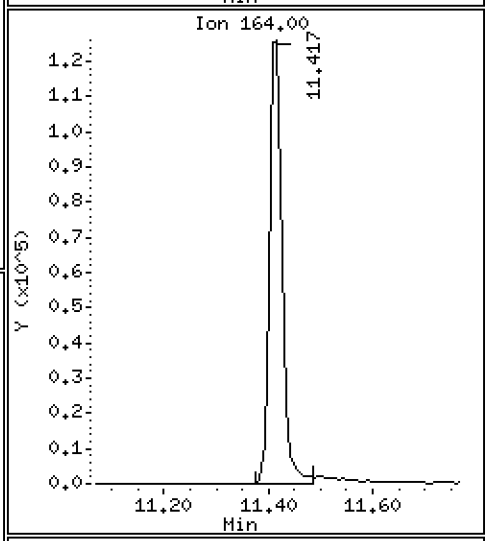


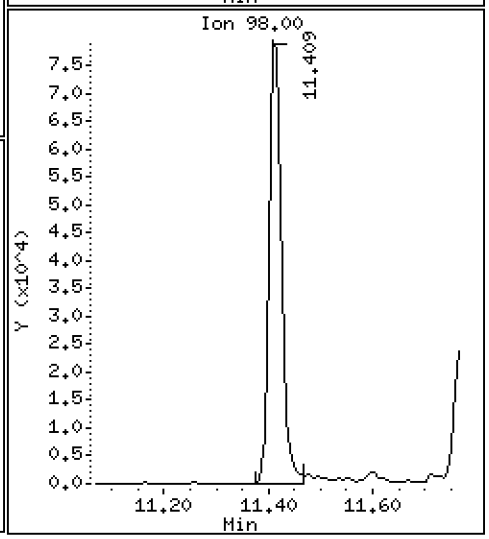












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

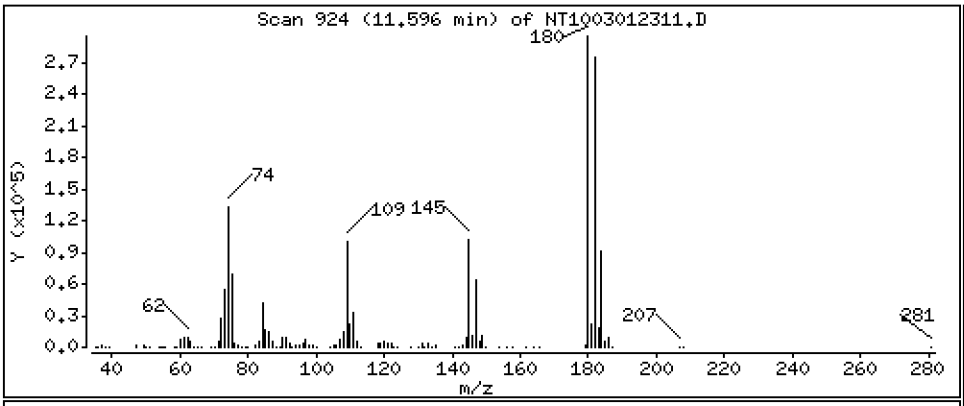
Operator: VTS

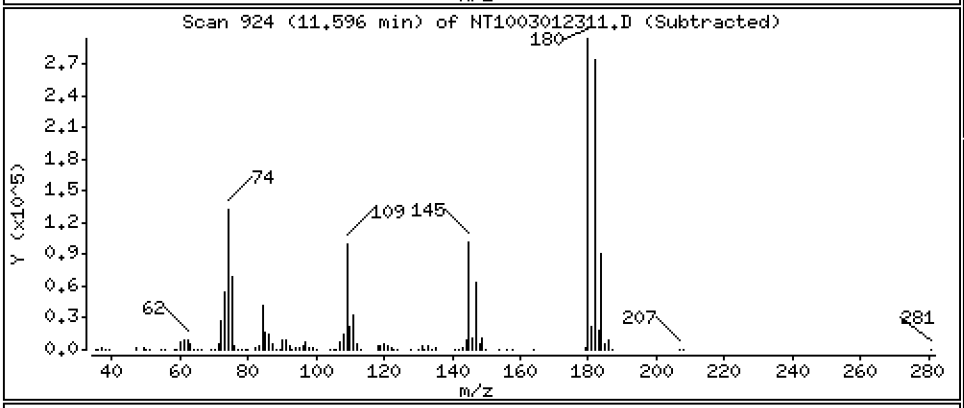
Column phase: ZB-5msi

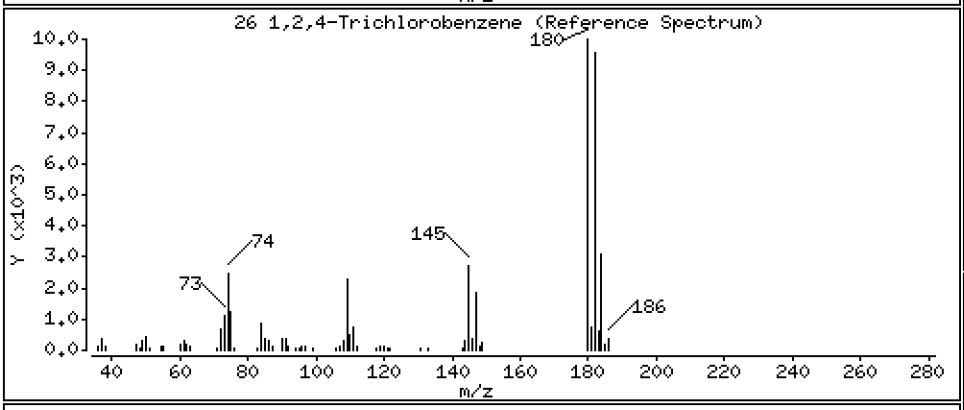
Column diameter: 0.25

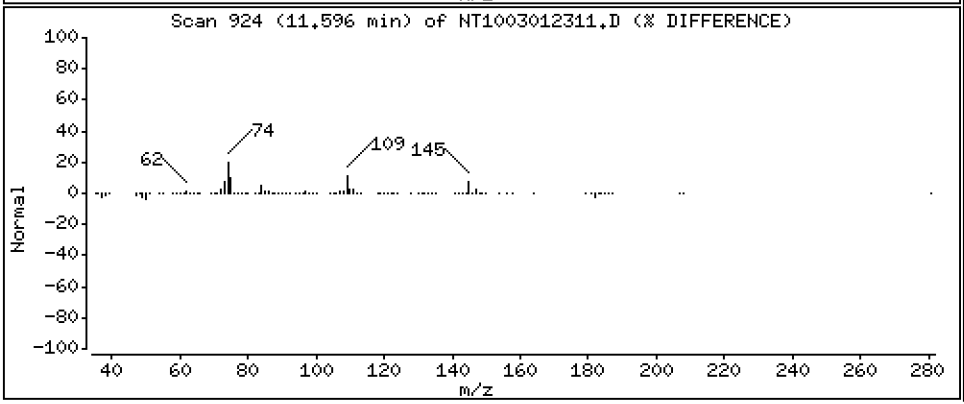
26 1,2,4-Trichlorobenzene

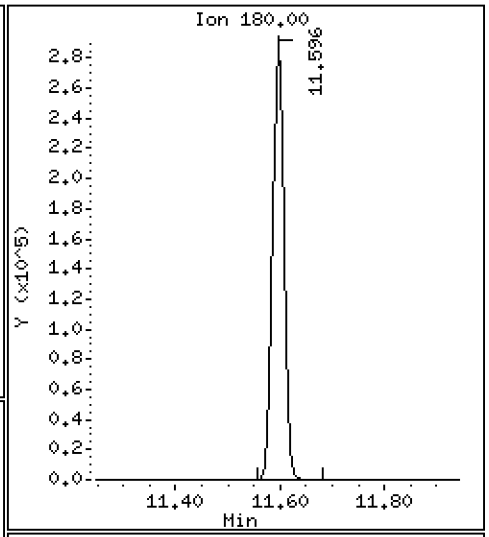
Concentration: 4.908 ug/mL

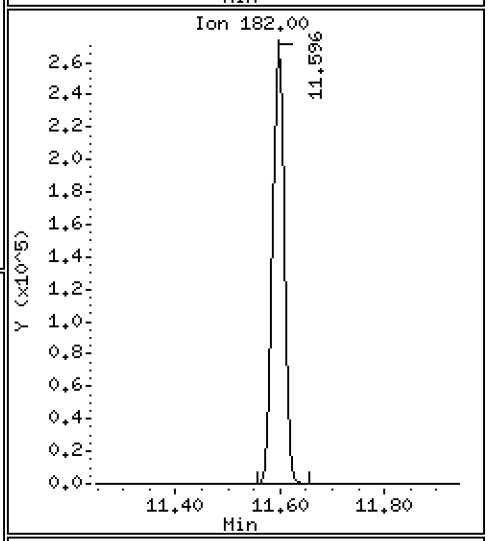


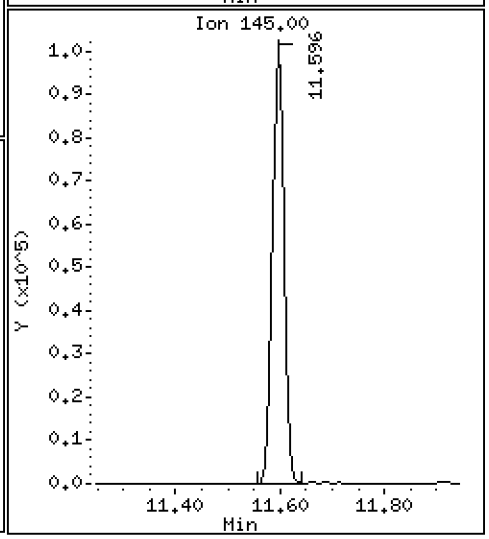












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

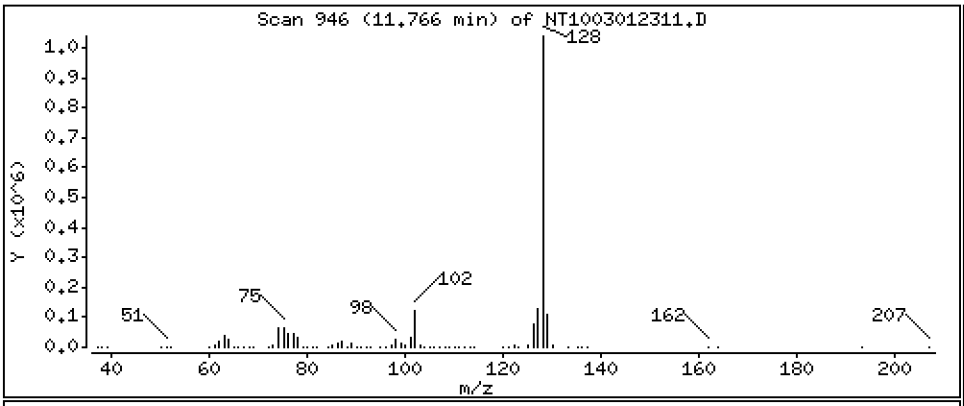
Operator: VTS

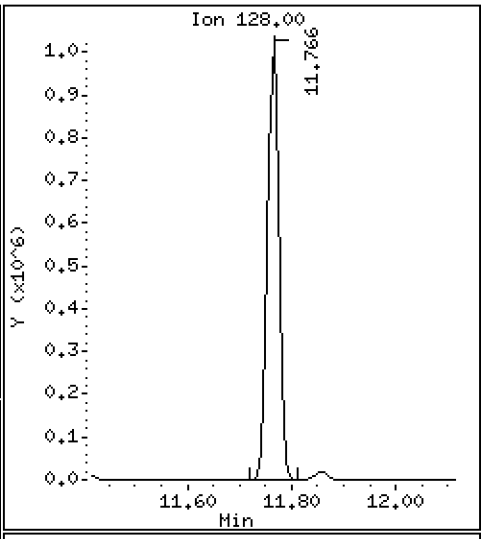
Column phase: ZB-5msi

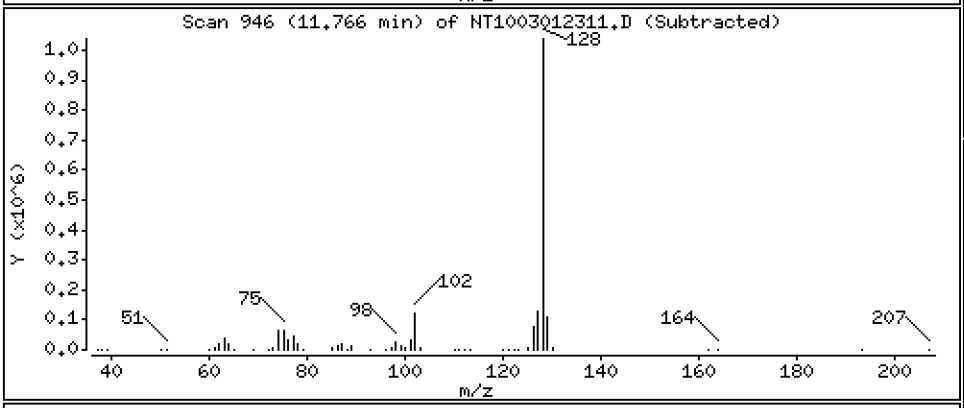
Column diameter: 0.25

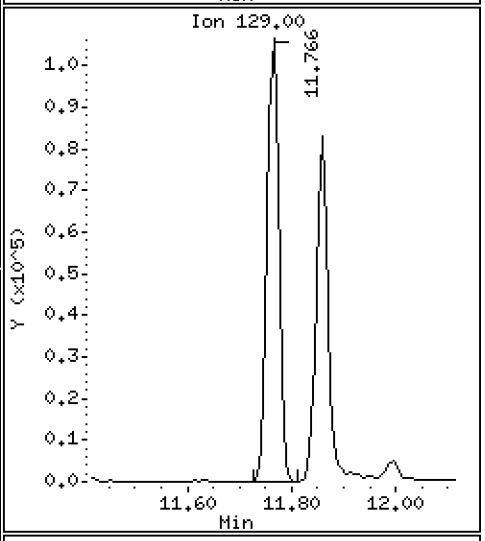
28 Naphthalene

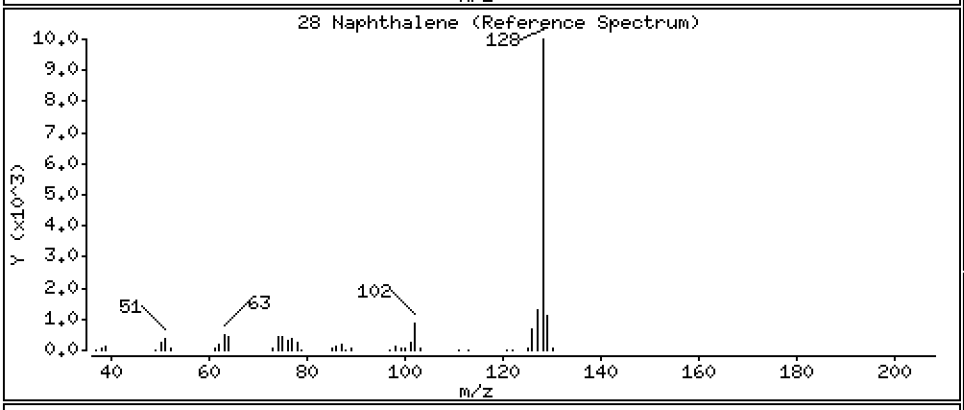
Concentration: 5.255 ug/mL

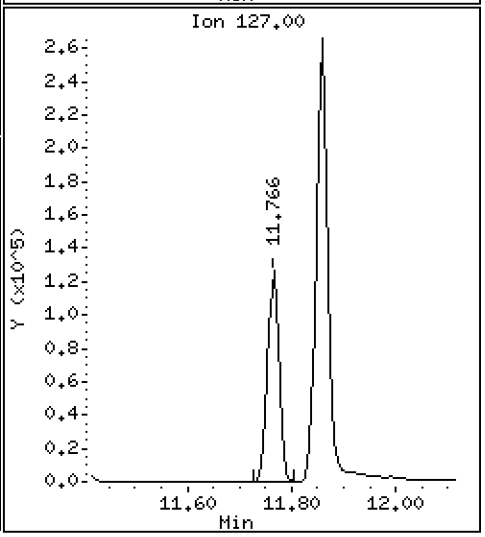


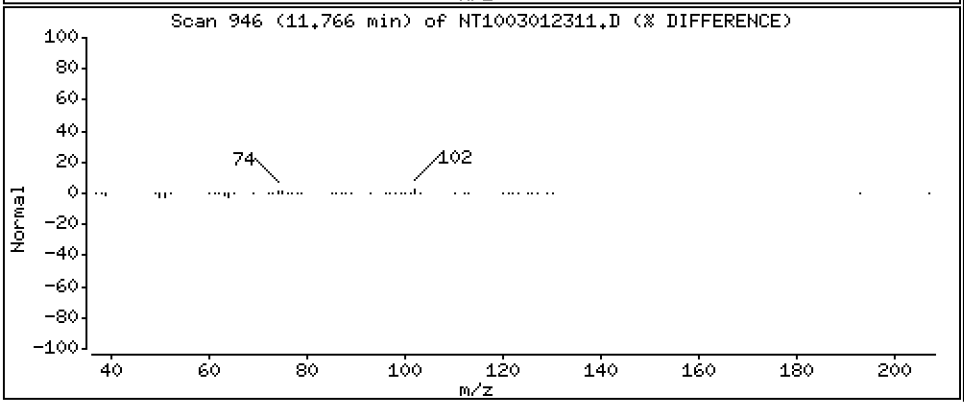












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

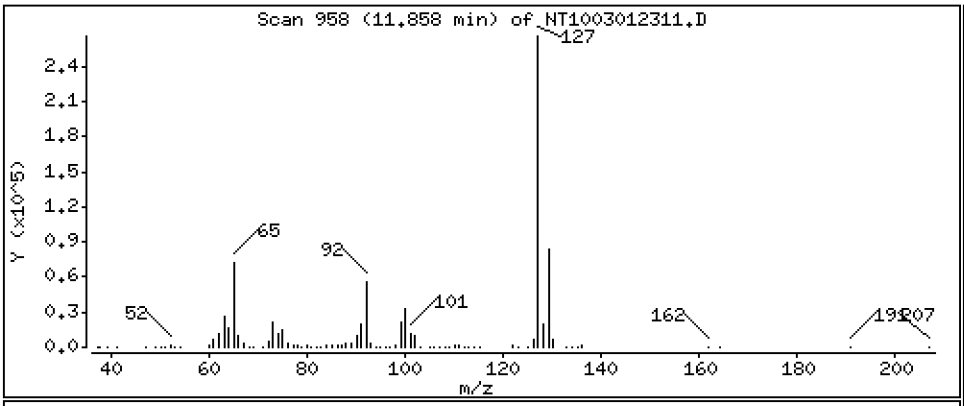
Operator: VTS

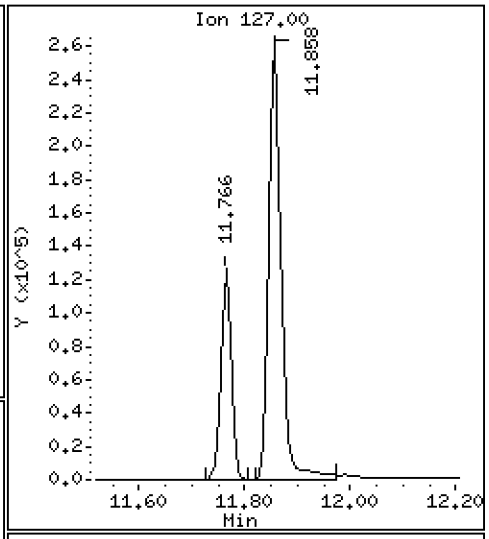
Column phase: ZB-5msi

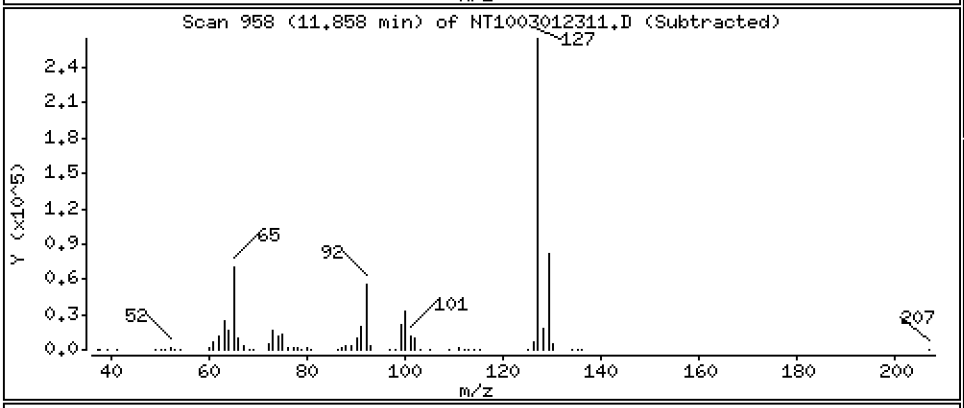
Column diameter: 0.25

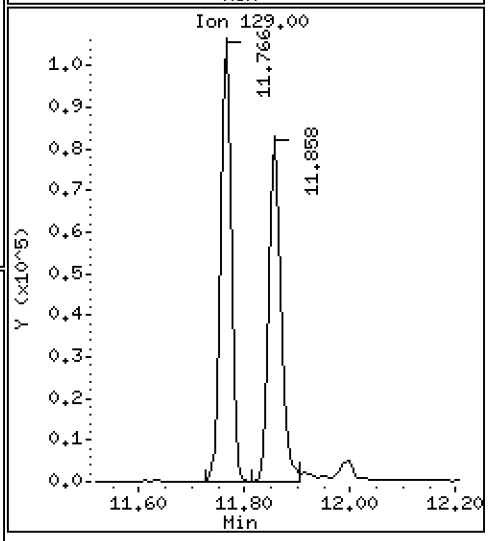
29 4-Chloroaniline

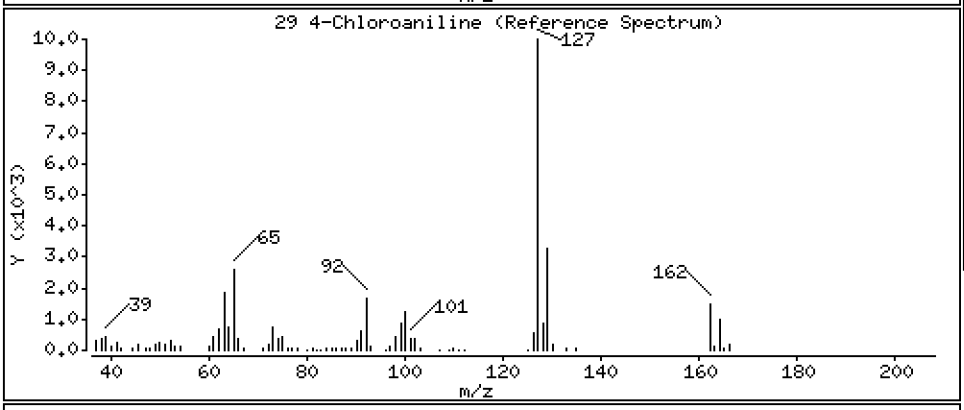
Concentration: 3.791 ug/mL

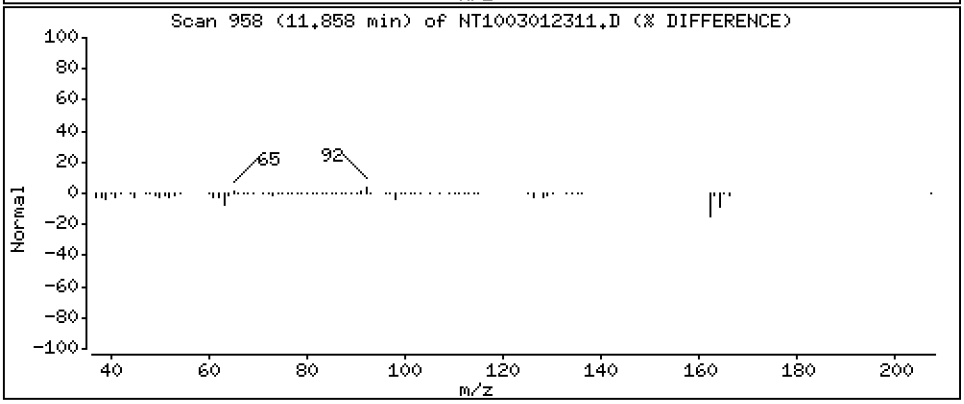












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

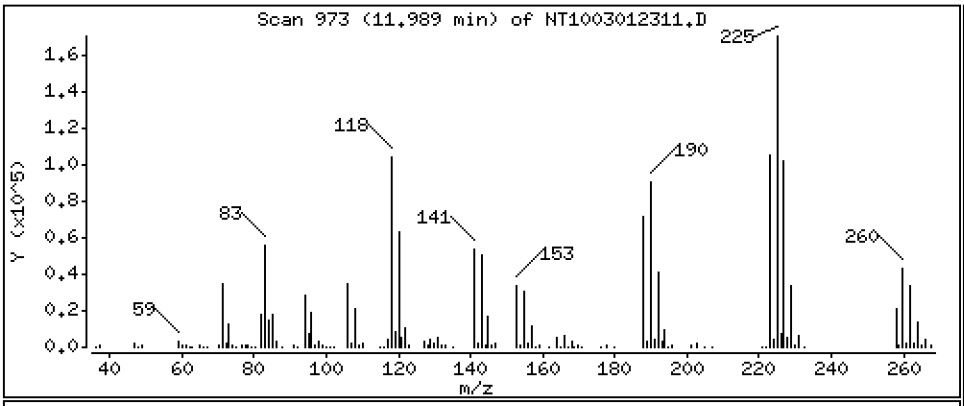
Operator: VTS

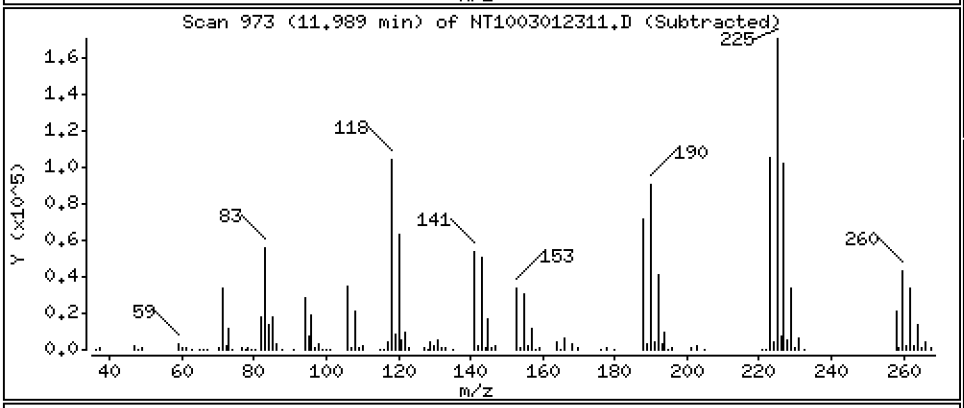
Column phase: ZB-5msi

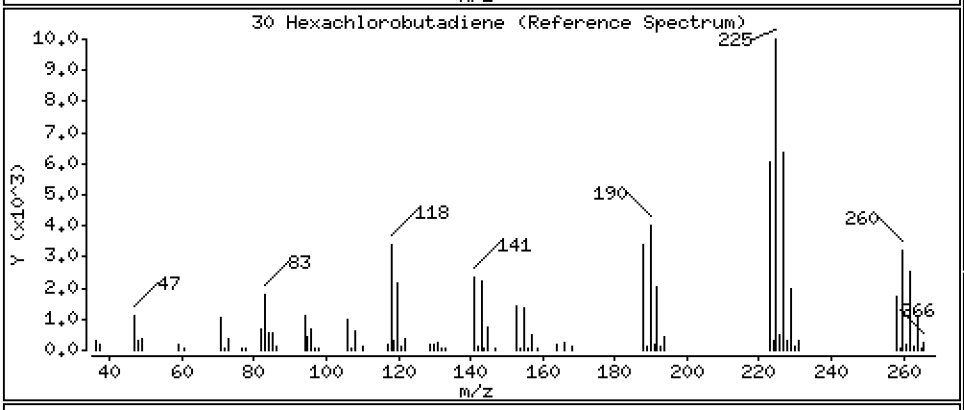
Column diameter: 0.25

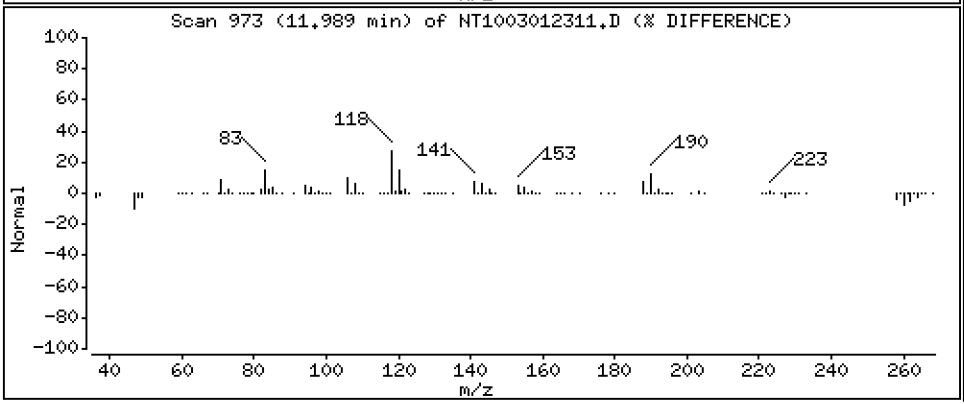
30 Hexachlorobutadiene

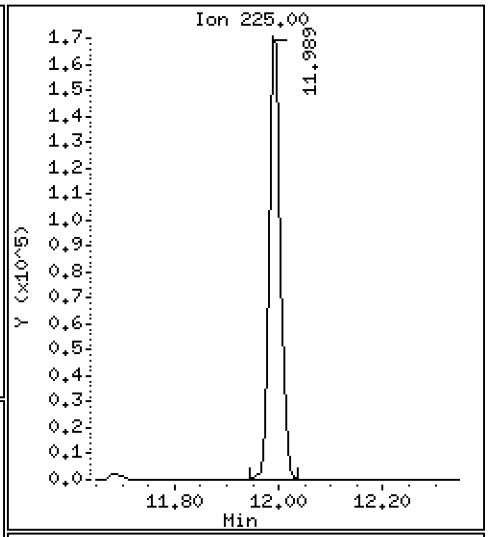
Concentration: 5.014 ug/mL

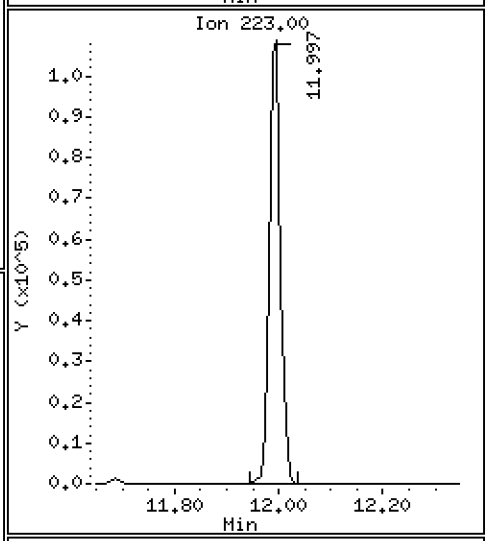


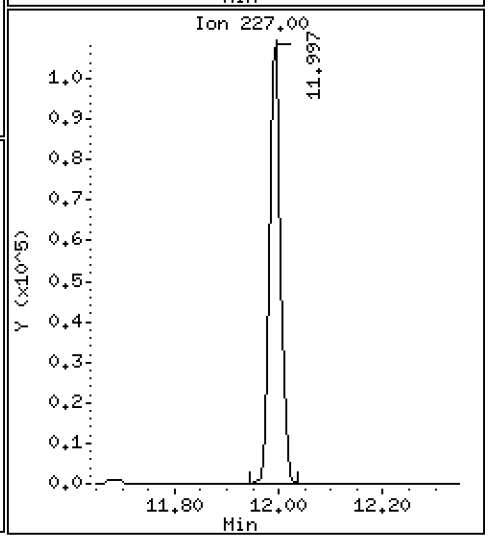












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

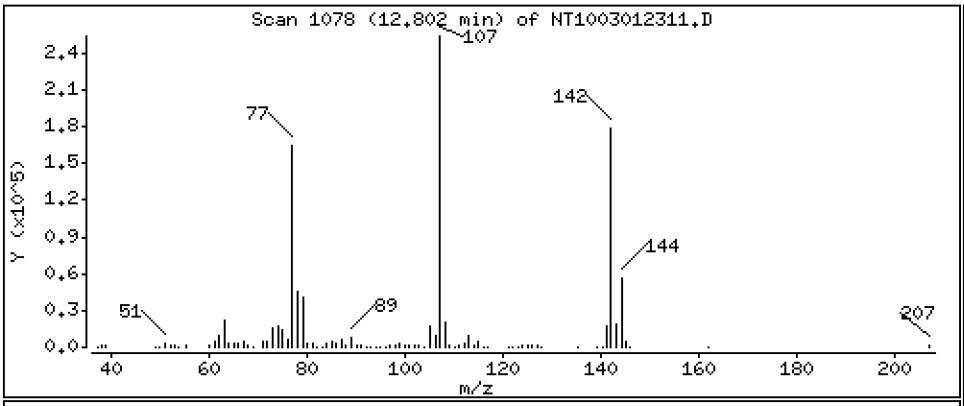
Operator: VTS

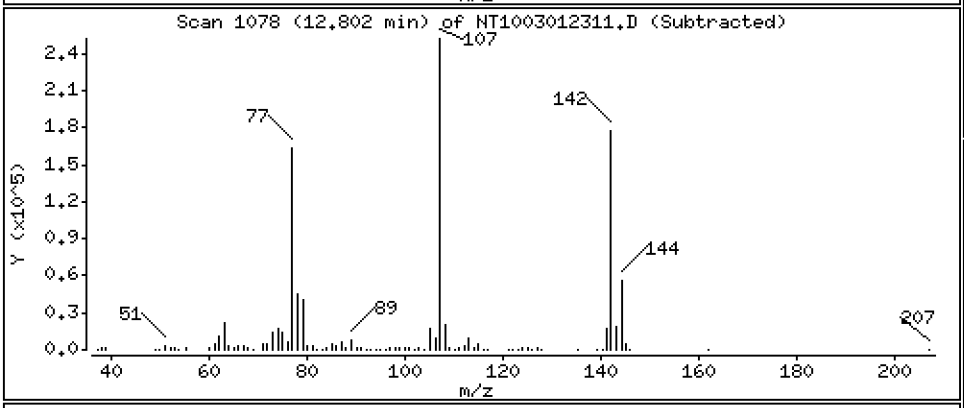
Column phase: ZB-5msi

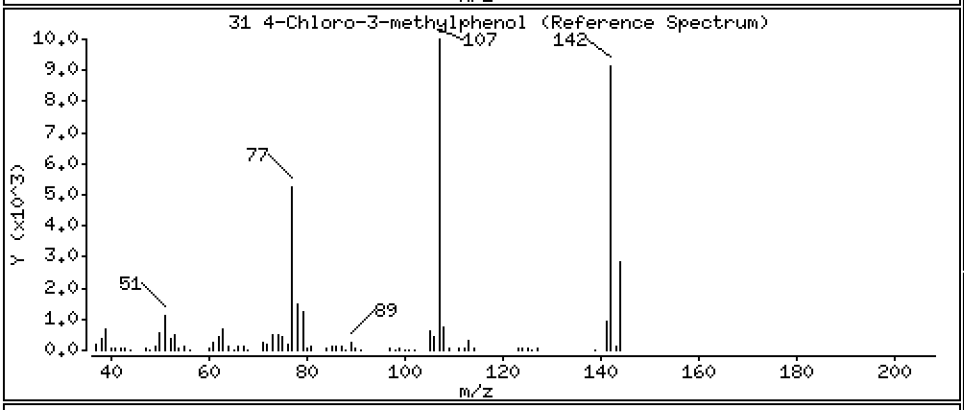
Column diameter: 0.25

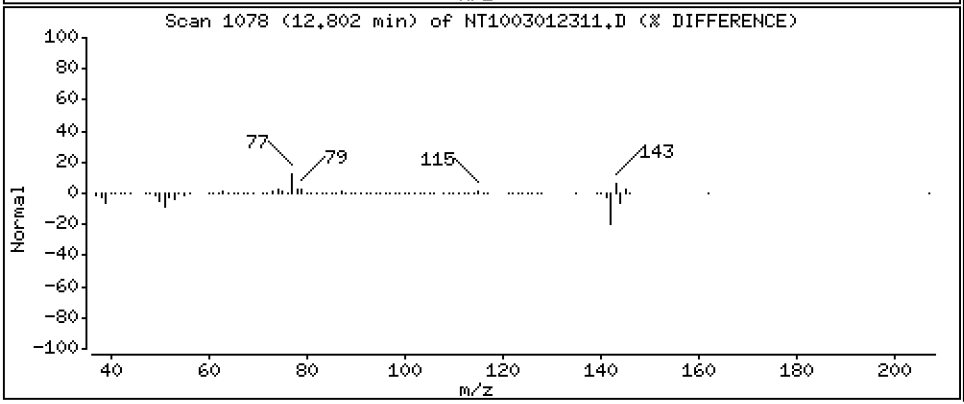
31 4-Chloro-3-methylphenol

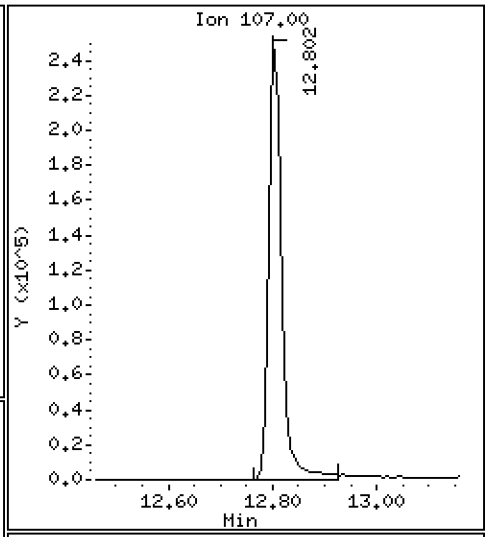
Concentration: 4.452 ug/mL

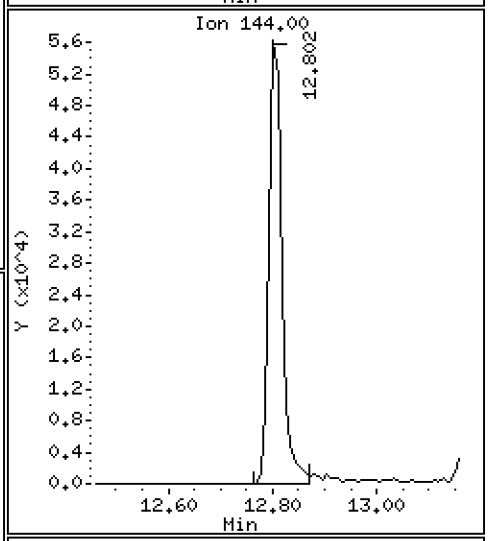


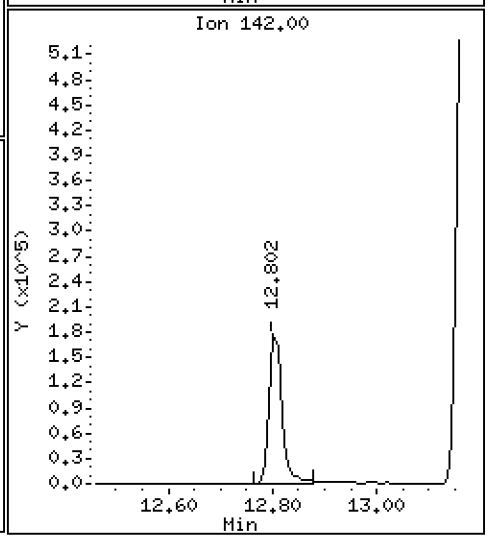












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

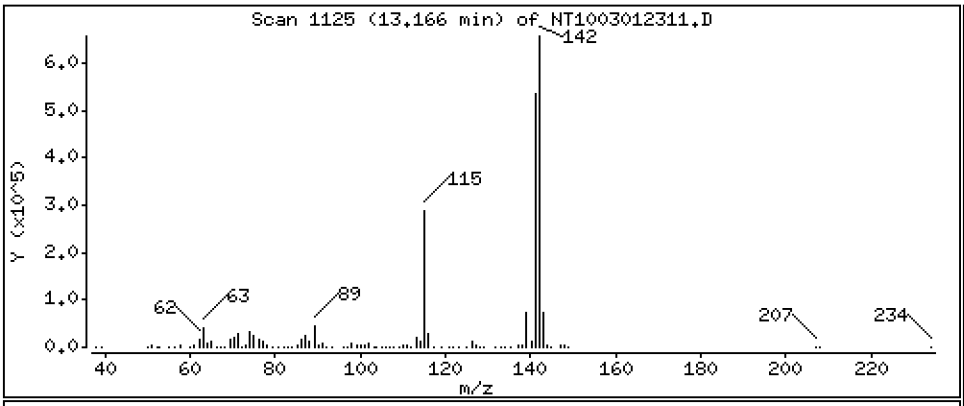
Operator: VTS

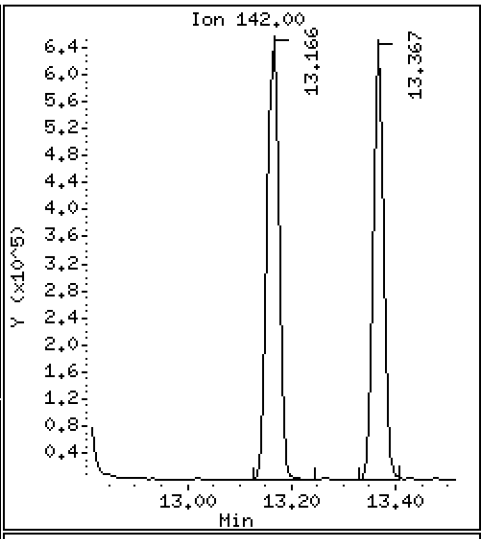
Column phase: ZB-5msi

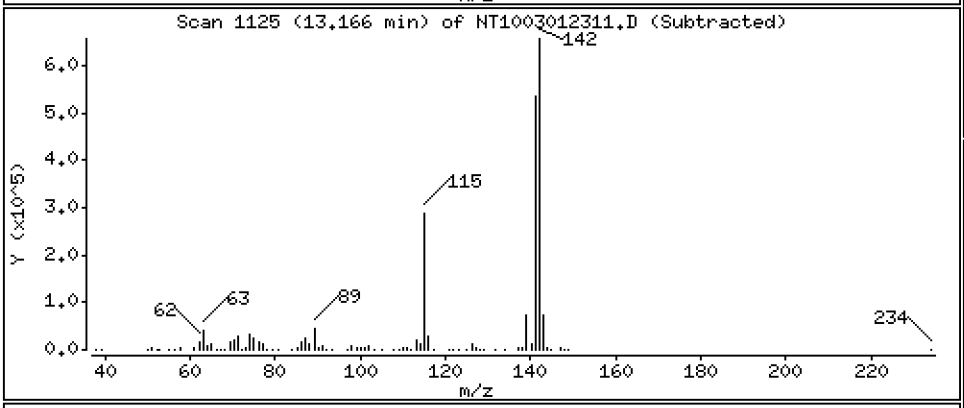
Column diameter: 0.25

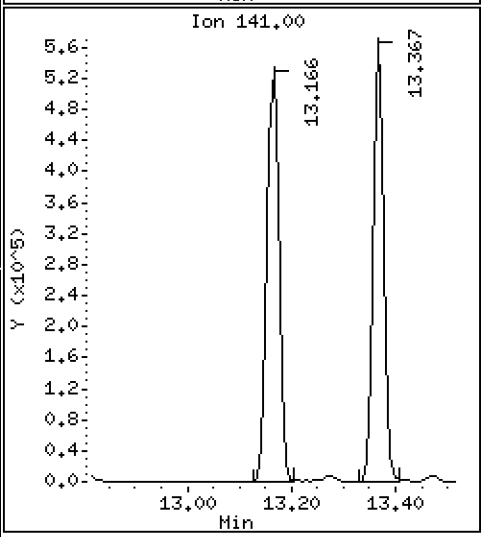
32 2-Methylnaphthalene

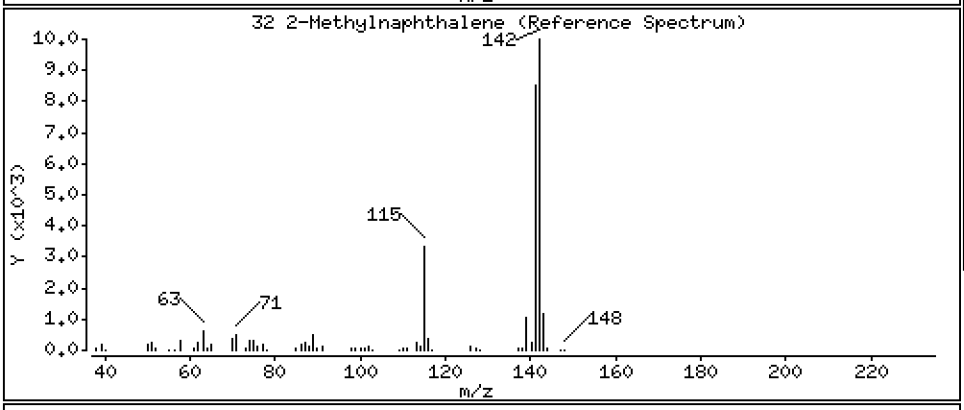
Concentration: 4.951 ug/mL

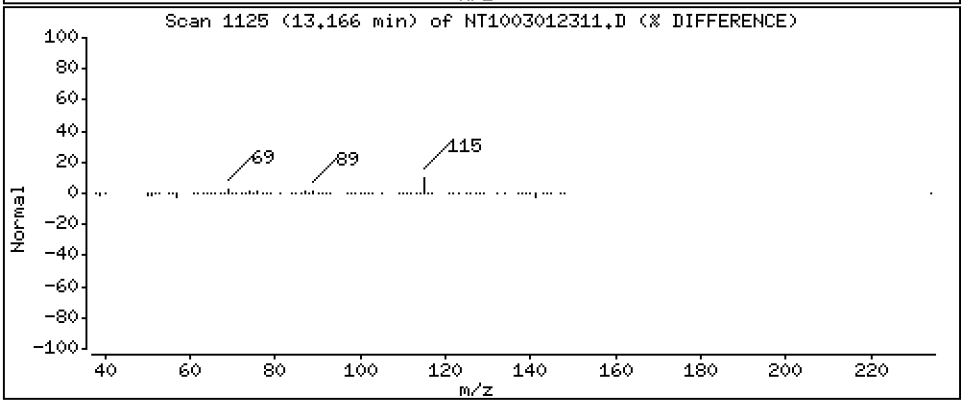












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

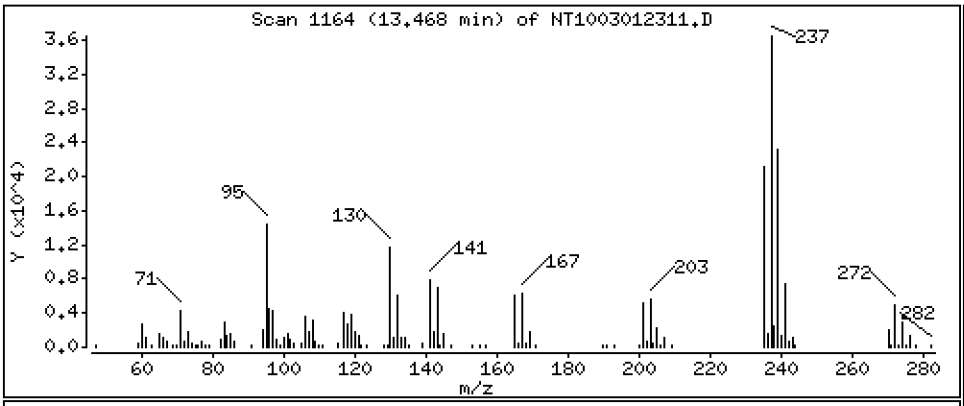
Operator: VTS

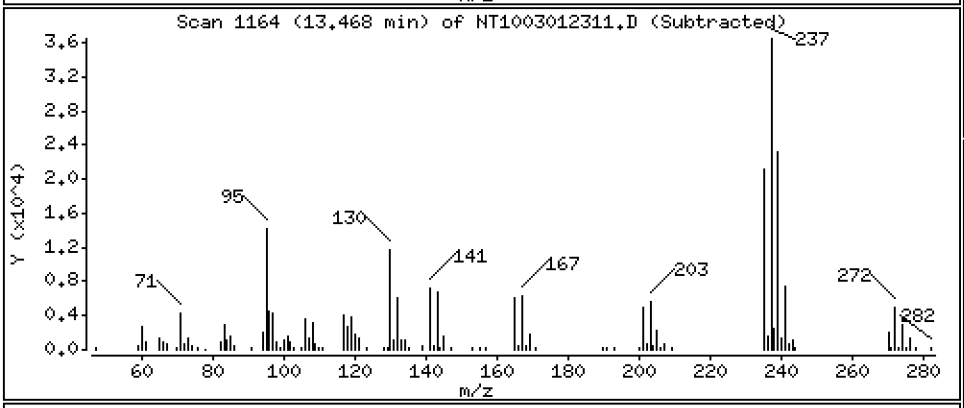
Column phase: ZB-5msi

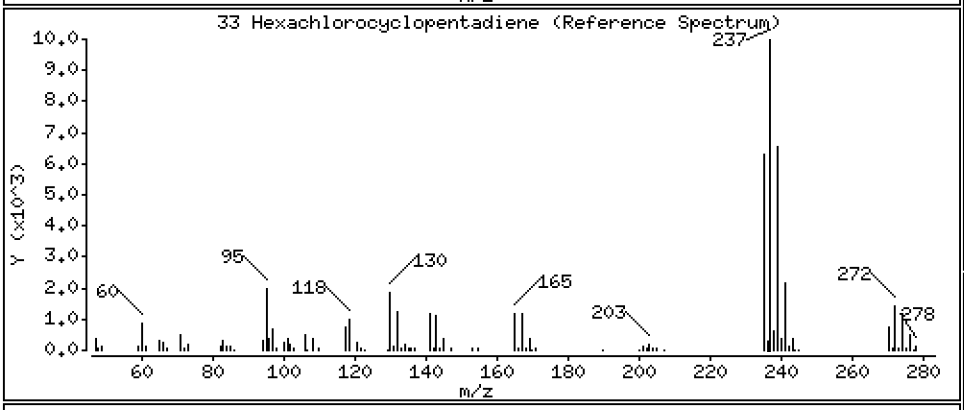
Column diameter: 0.25

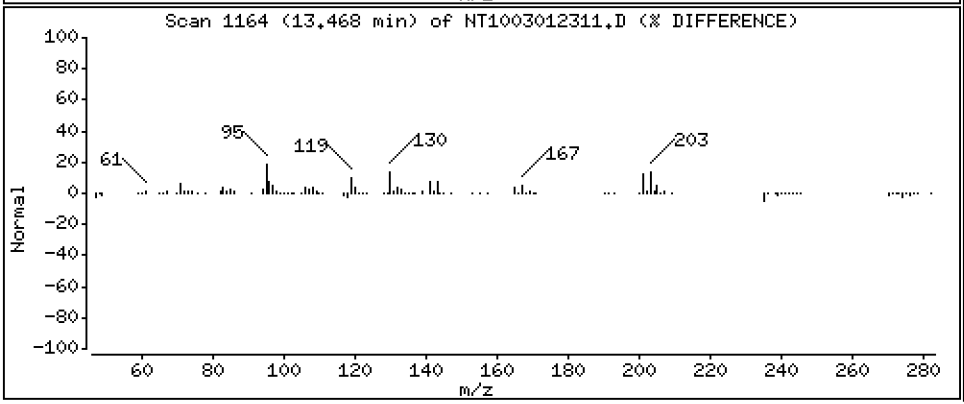
33 Hexachlorocyclopentadiene

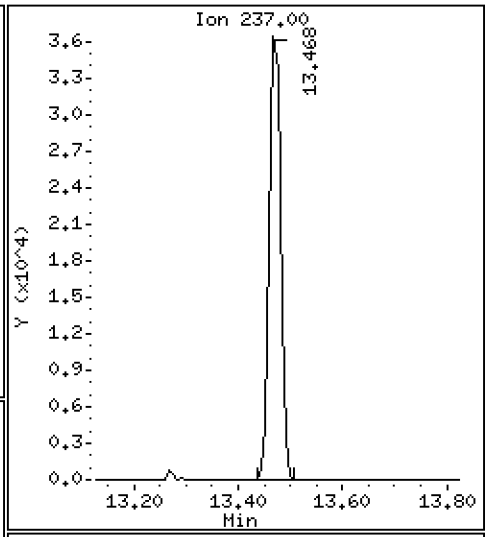
Concentration: 2.562 ug/mL

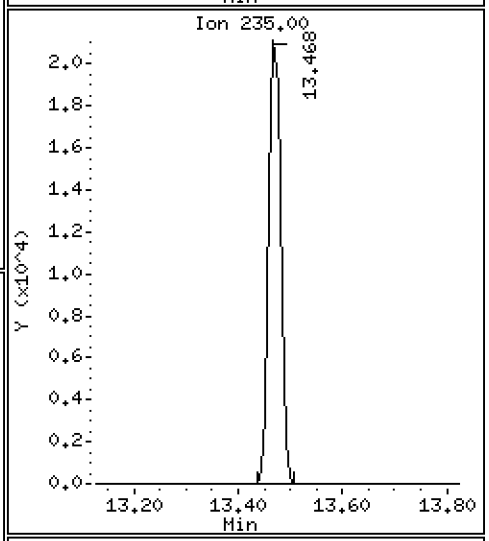


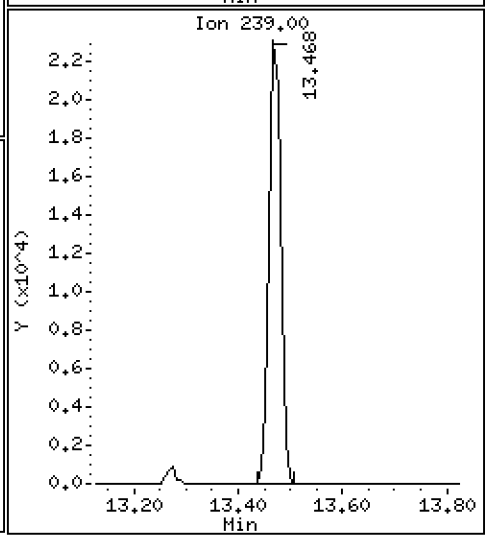












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

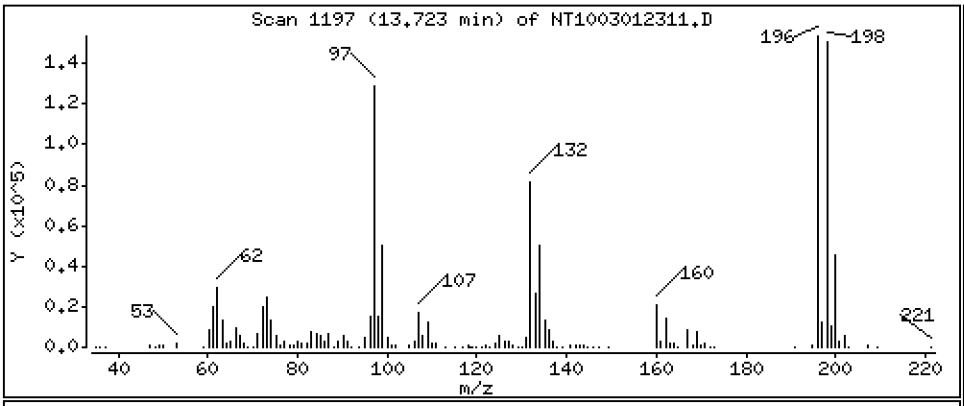
Operator: VTS

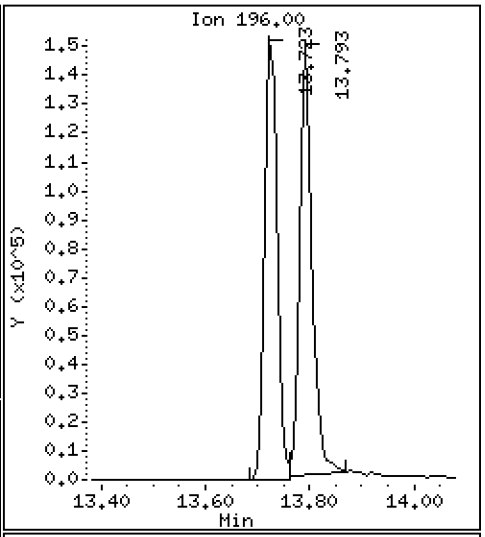
Column phase: ZB-5msi

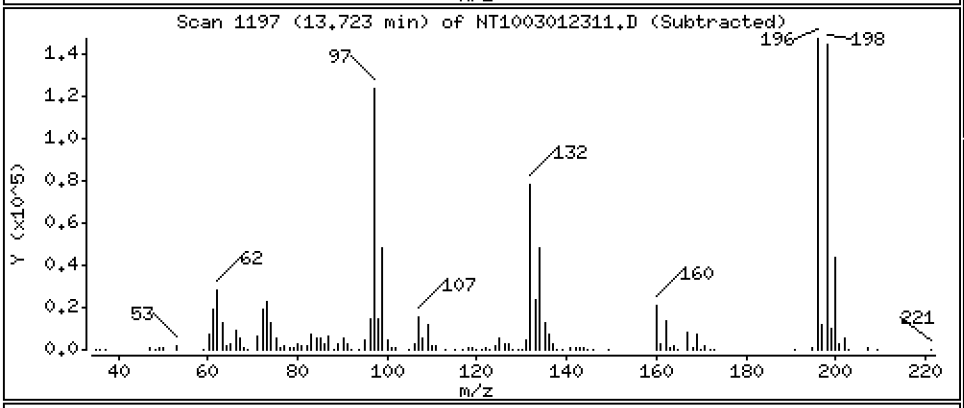
Column diameter: 0.25

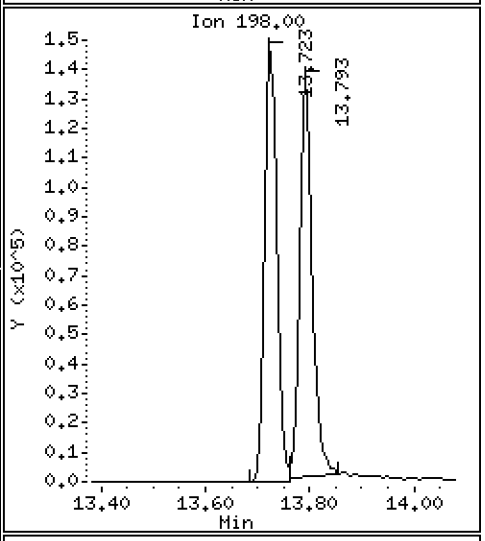
34 2,4,6-Trichlorophenol

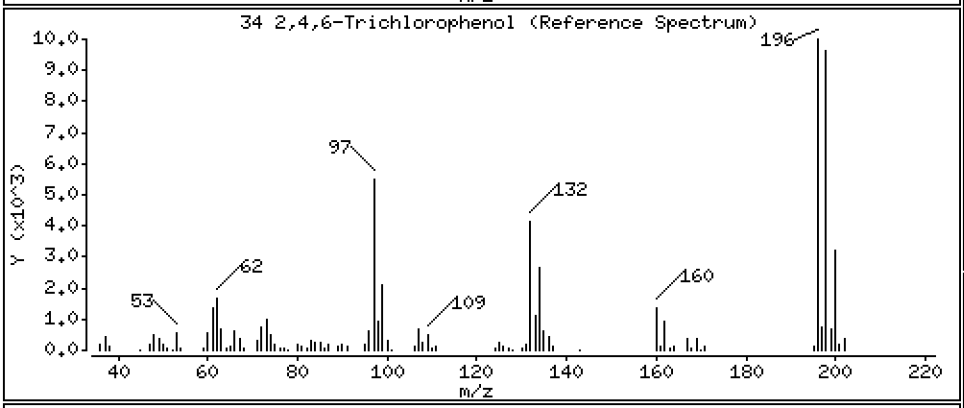
Concentration: 4.120 ug/mL

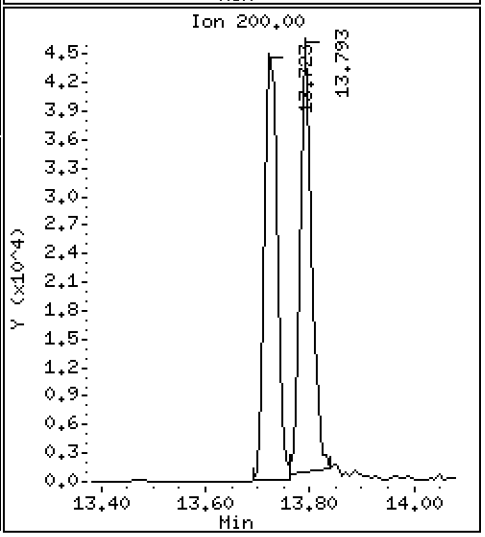


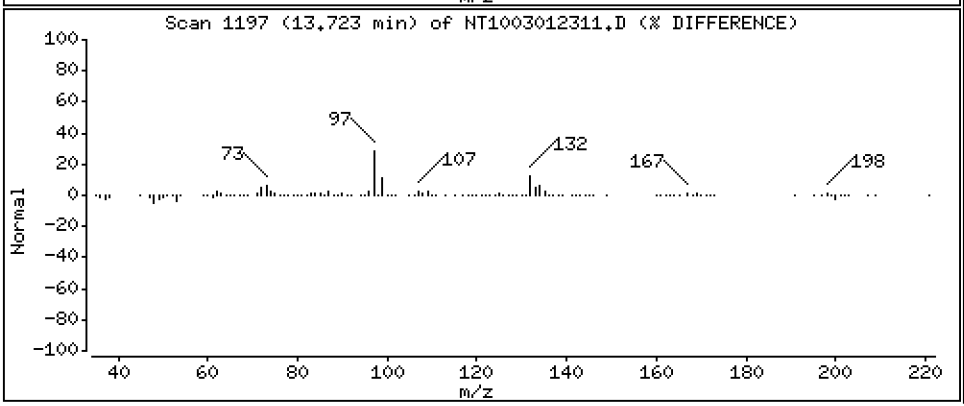












Date : 01-MAR-2023 21:46

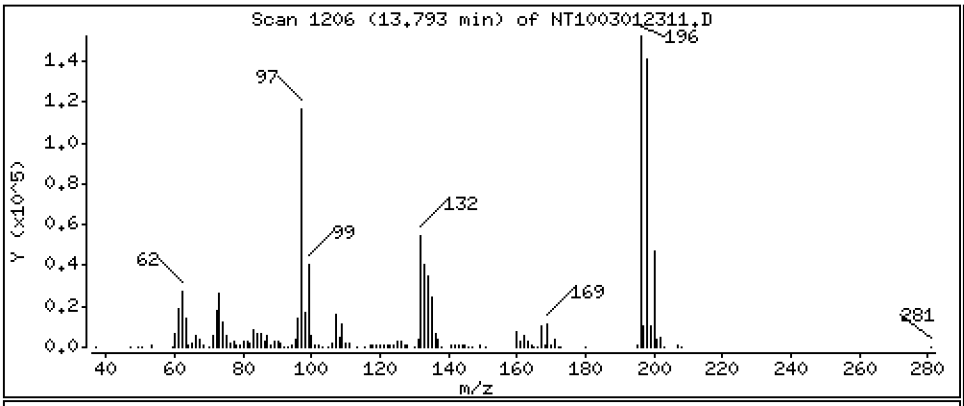
Client ID: Instrument: nt10.i

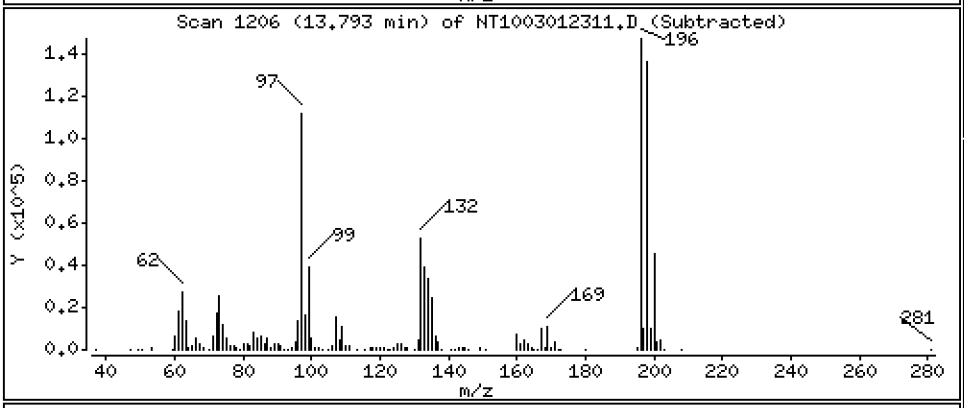
Sample Info: SEQ-SCV1

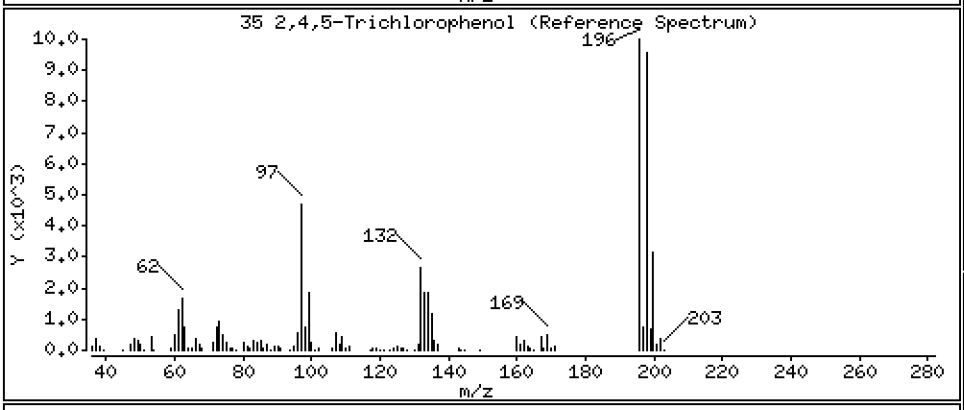
Operator: VTS

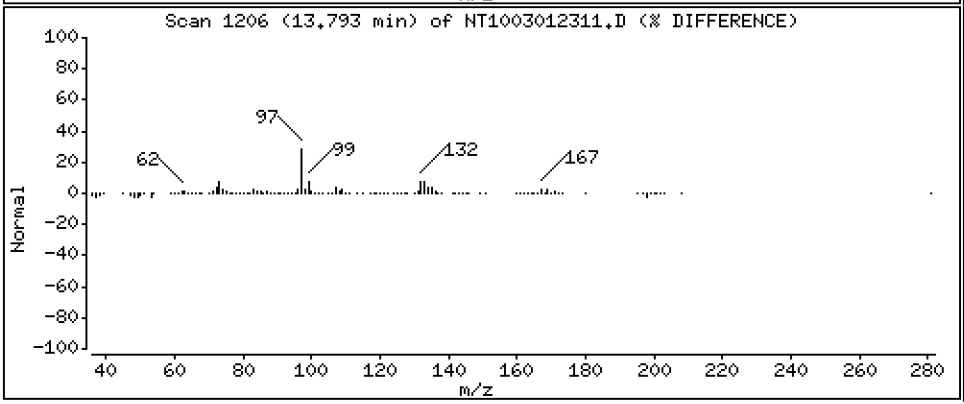
Column phase: ZB-5msi Column diameter: 0.25

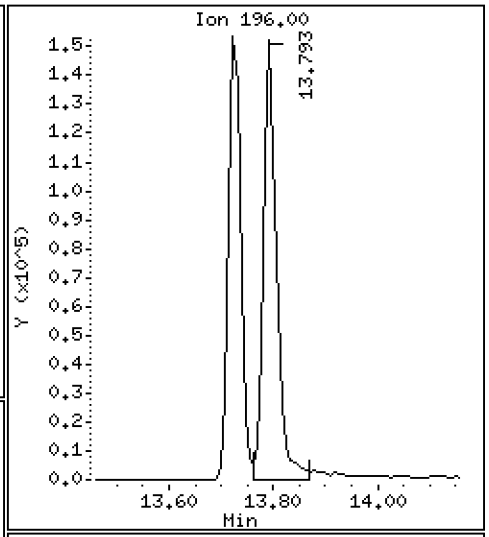
35 2,4,5-Trichlorophenol Concentration: 4.149 ug/mL

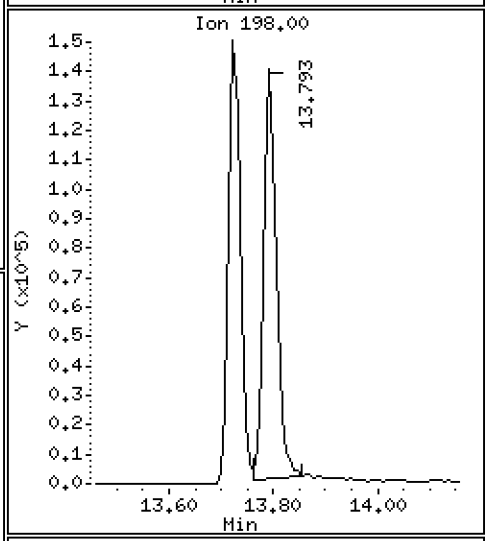


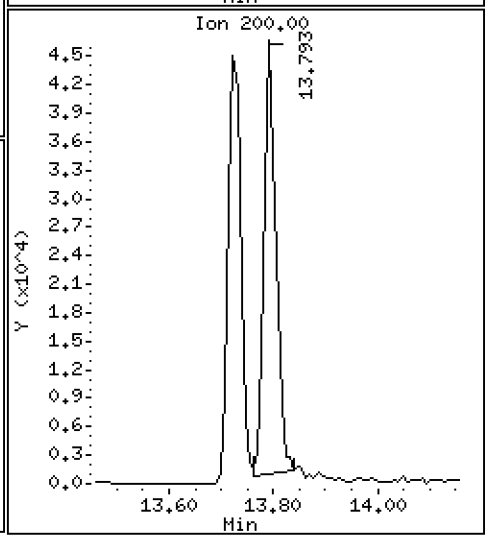












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

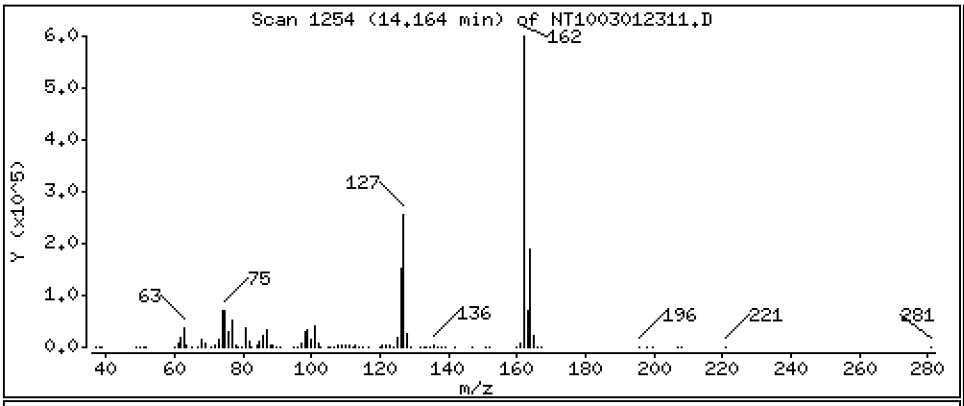
Operator: VTS

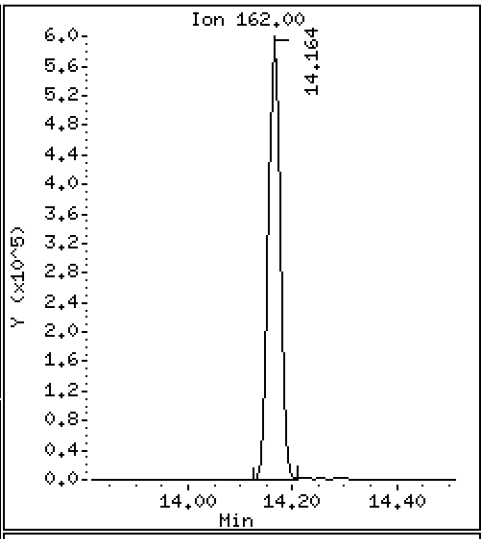
Column phase: ZB-5msi

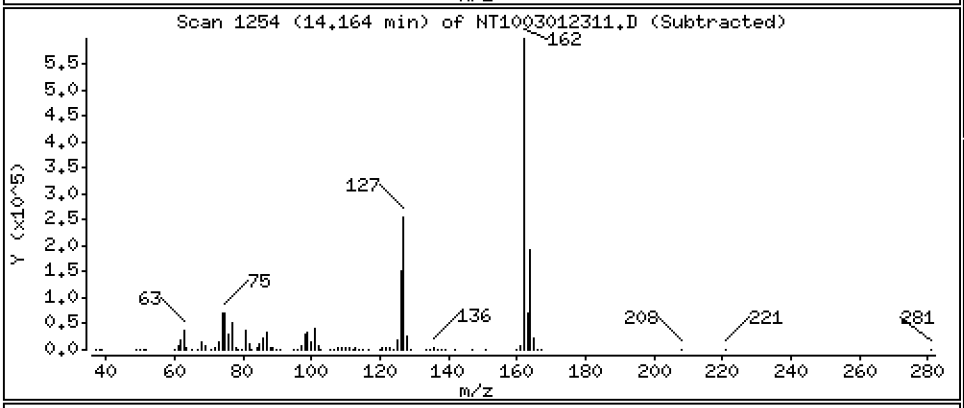
Column diameter: 0.25

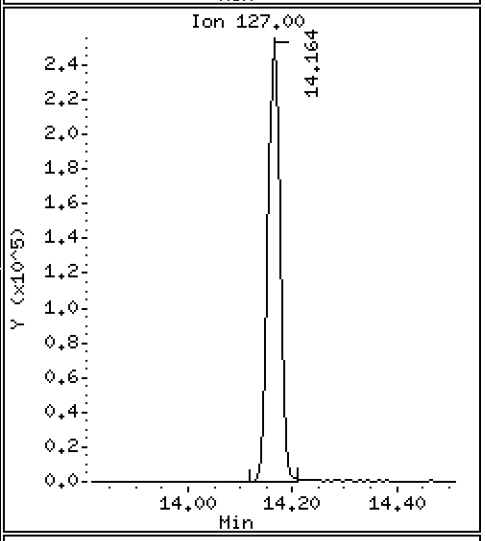
37 2-Chloronaphthalene

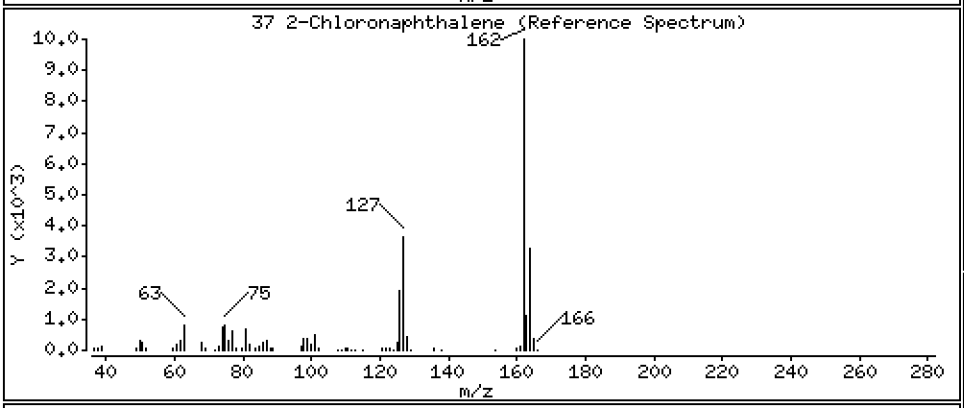
Concentration: 5.264 ug/mL

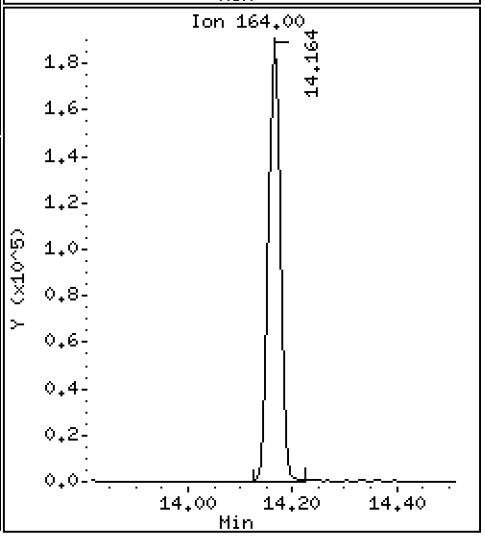


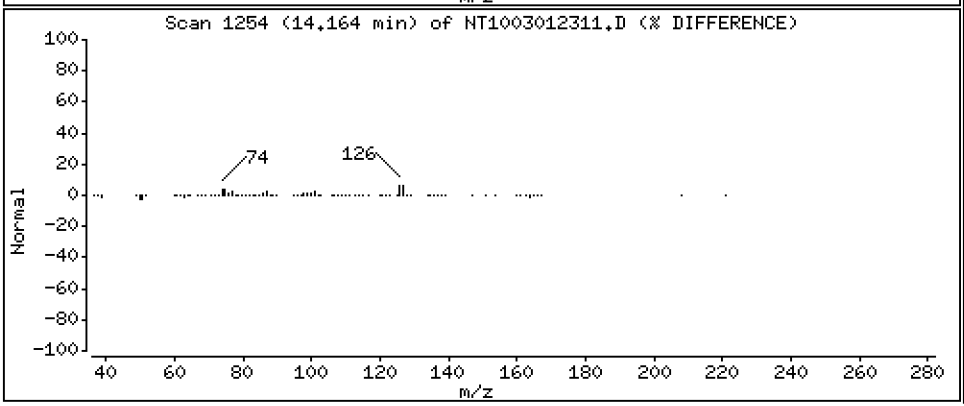












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

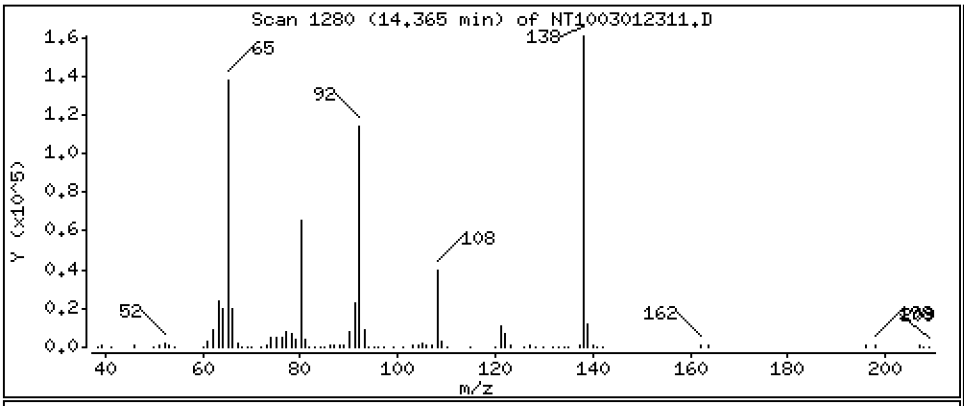
Operator: VTS

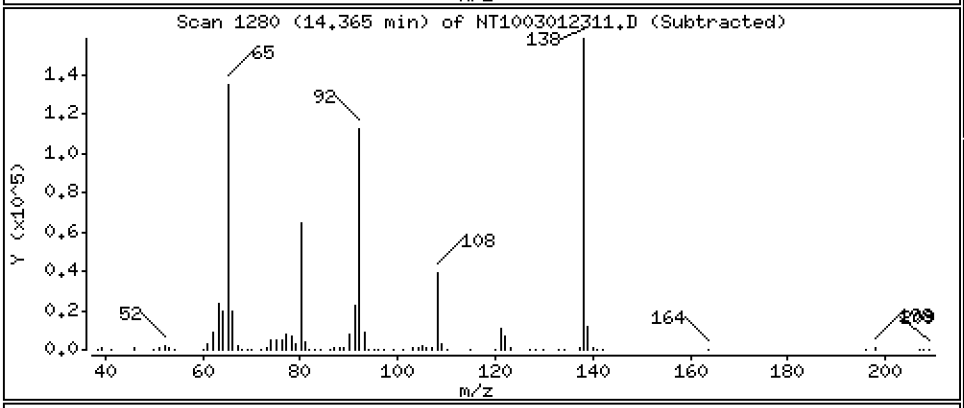
Column phase: ZB-5msi

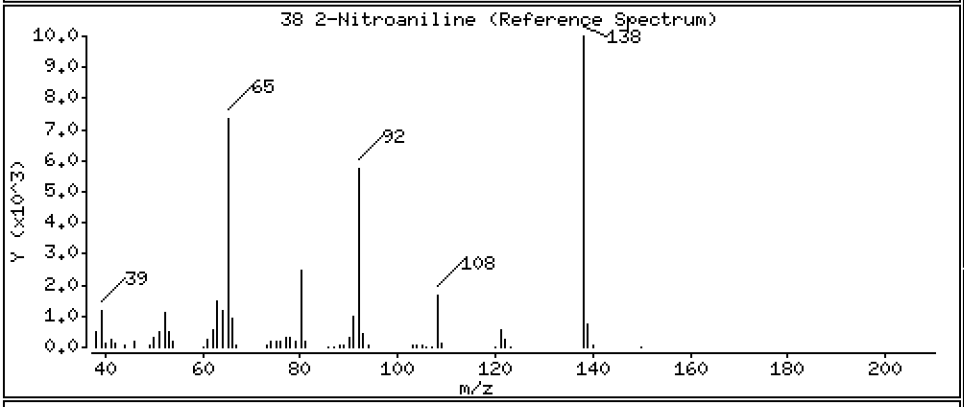
Column diameter: 0.25

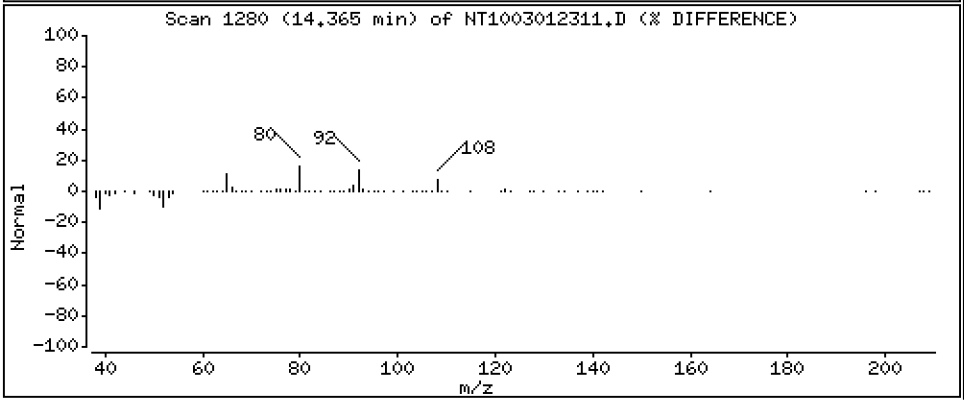
38 2-Nitroaniline

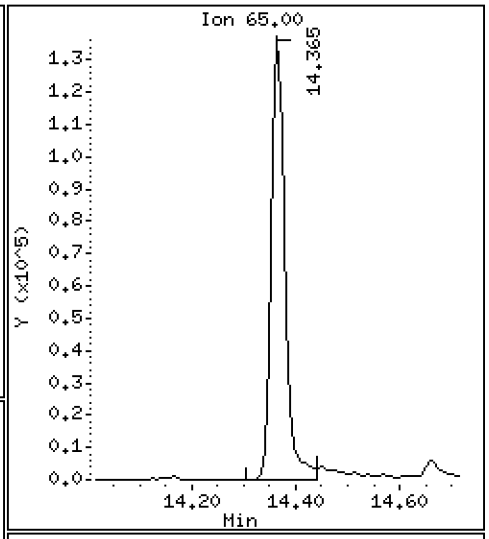
Concentration: 5.027 ug/mL

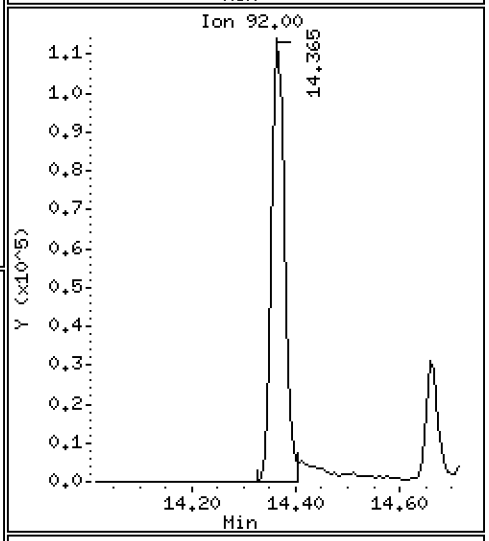


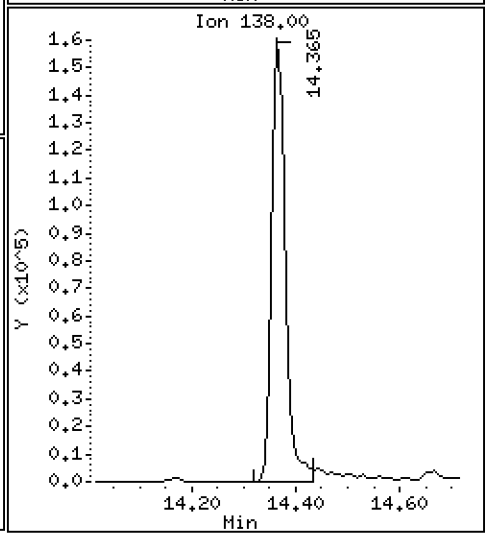












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

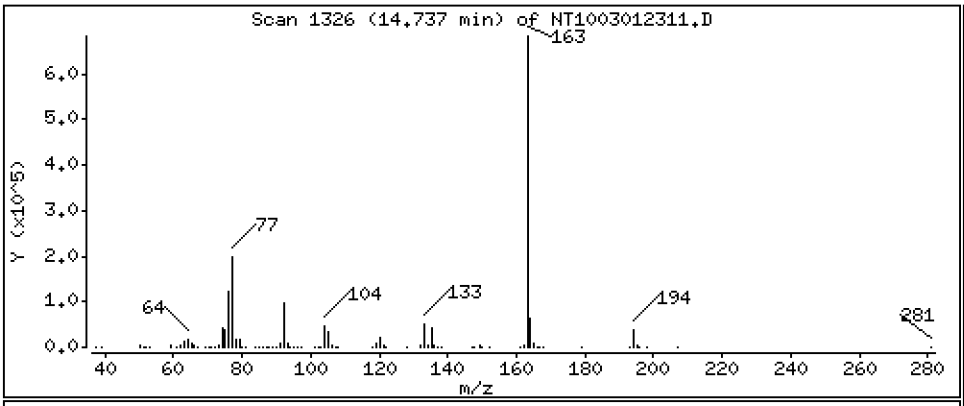
Operator: VTS

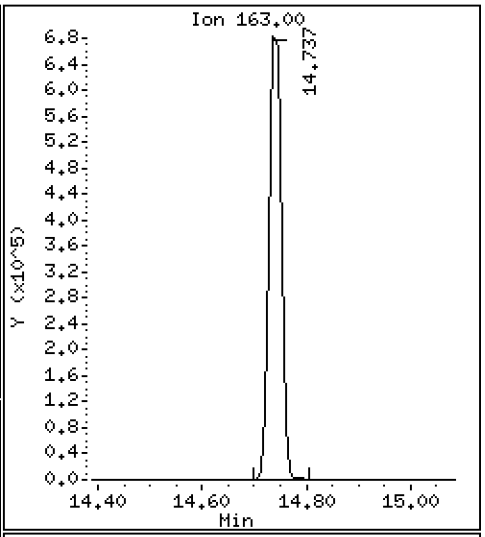
Column phase: ZB-5msi

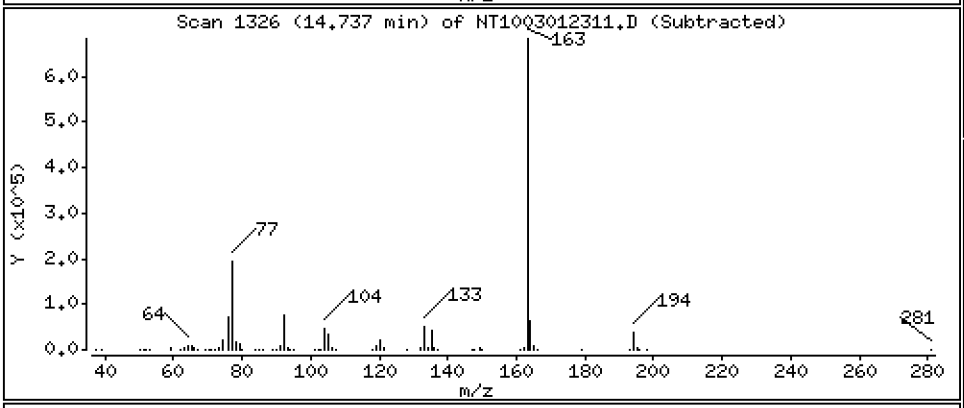
Column diameter: 0.25

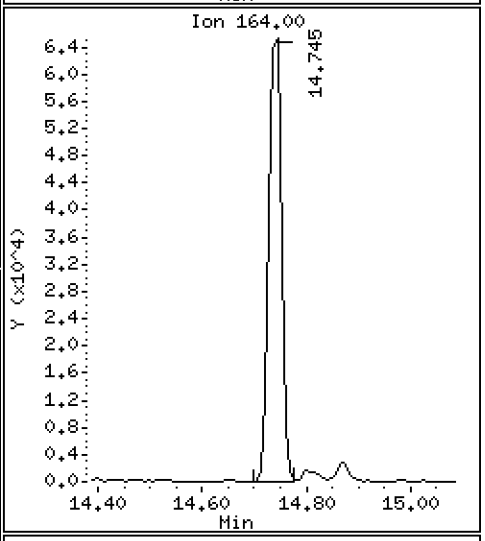
39 Dimethylphthalate

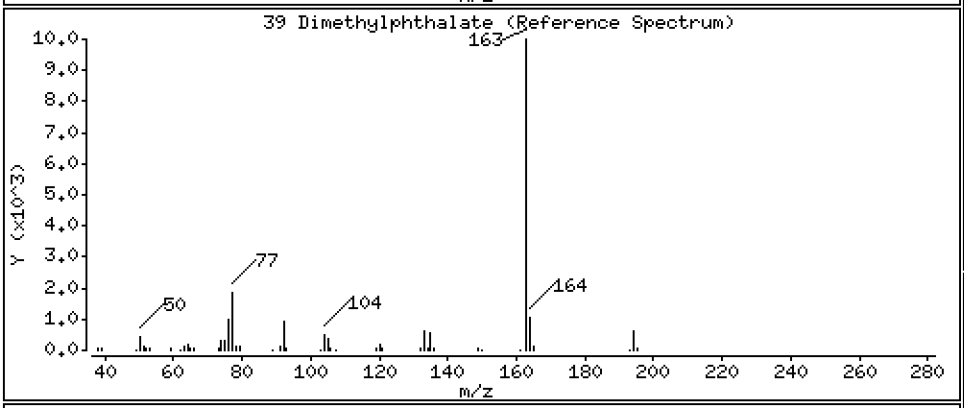
Concentration: 5.384 ug/mL

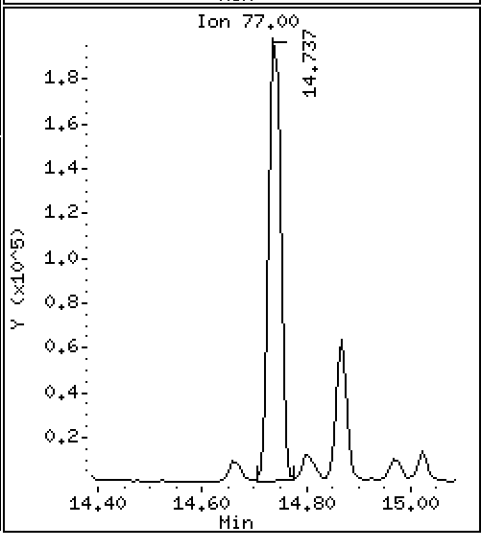


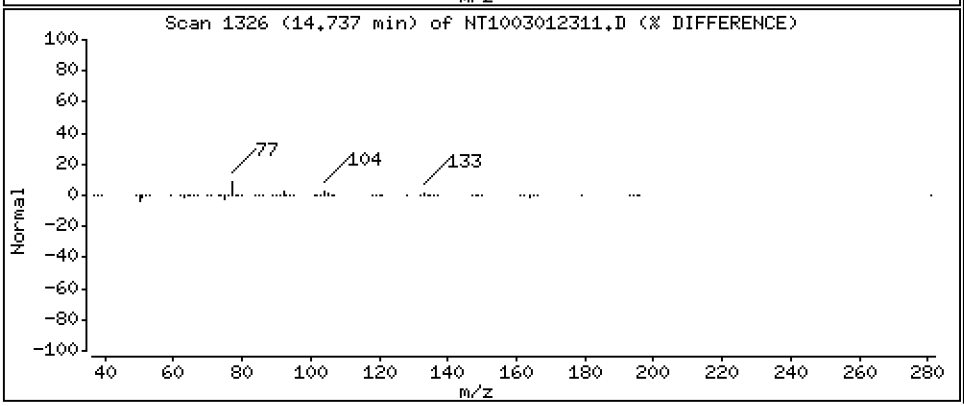












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

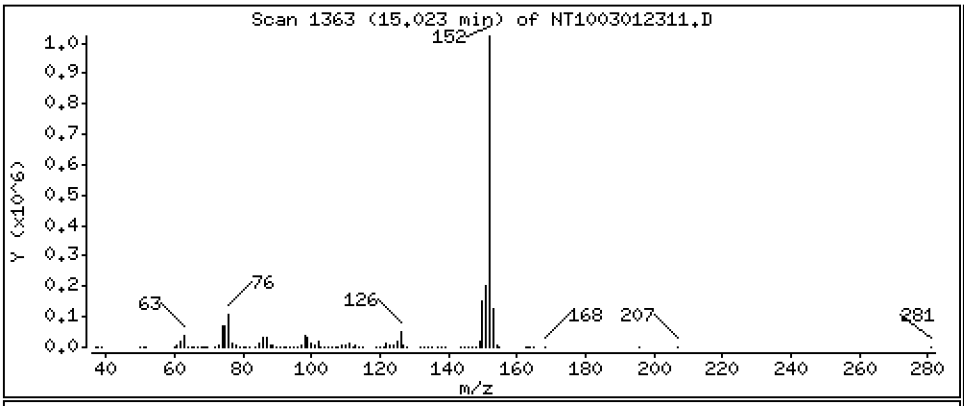
Operator: VTS

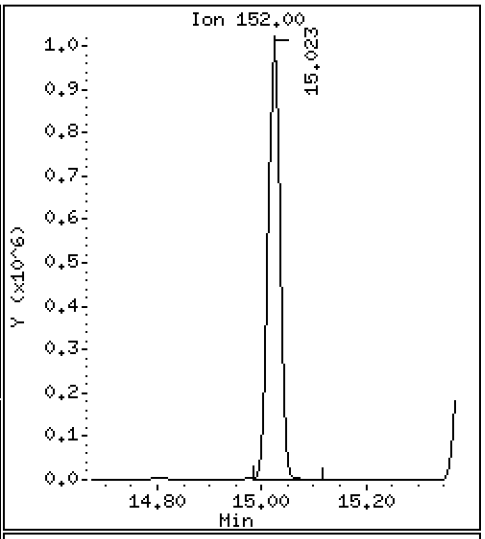
Column phase: ZB-5msi

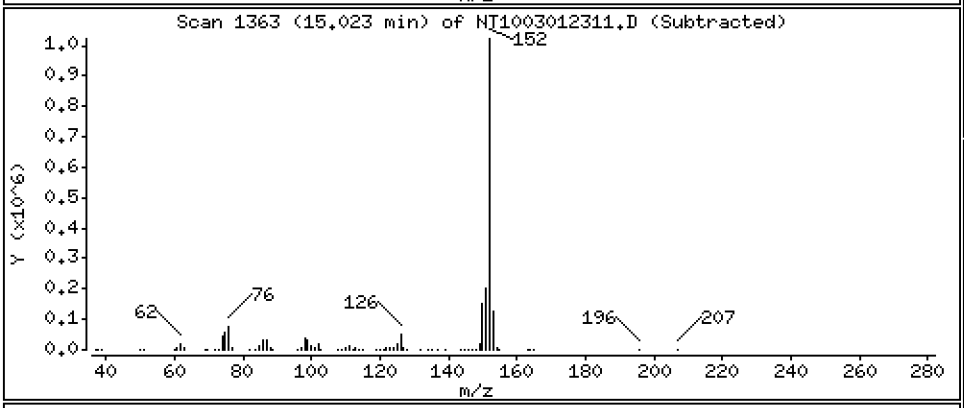
Column diameter: 0.25

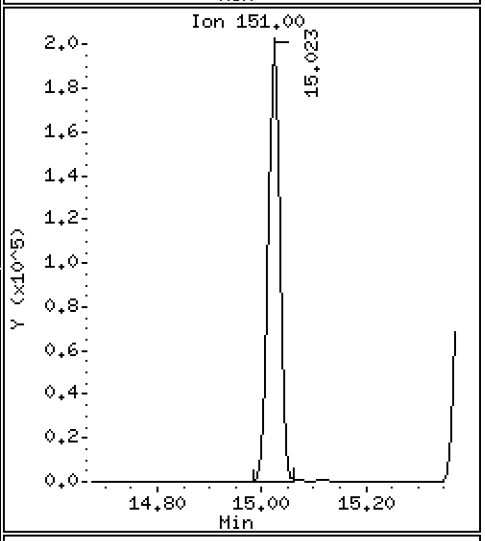
40 Acenaphthylene

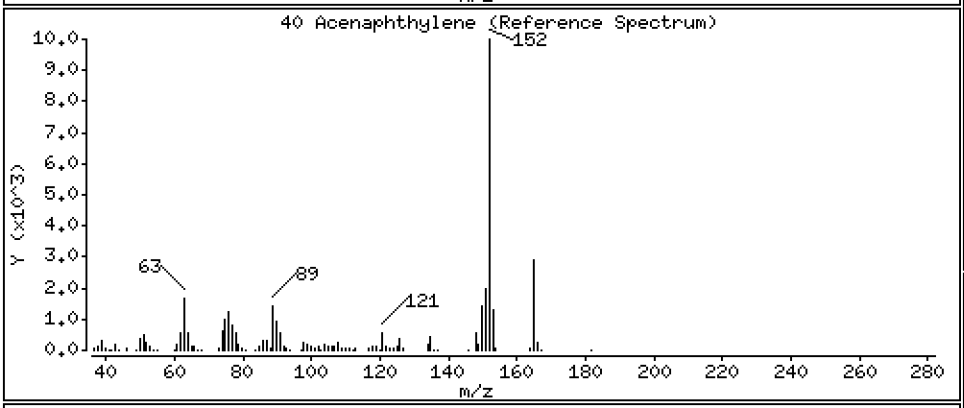
Concentration: 5.806 ug/mL

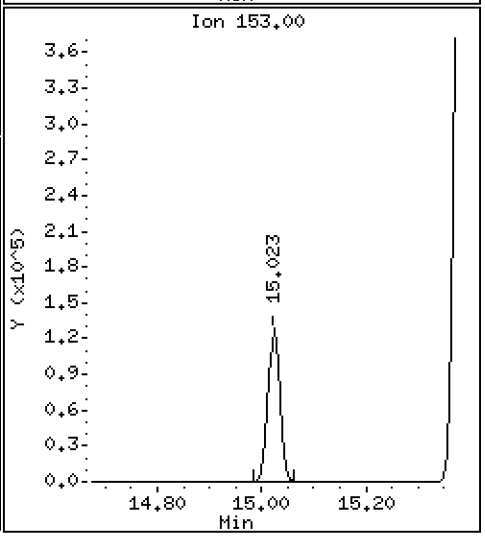


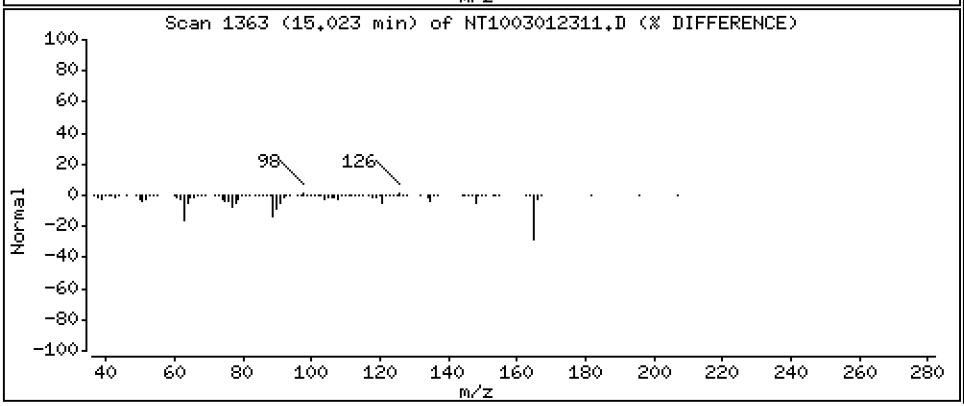












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

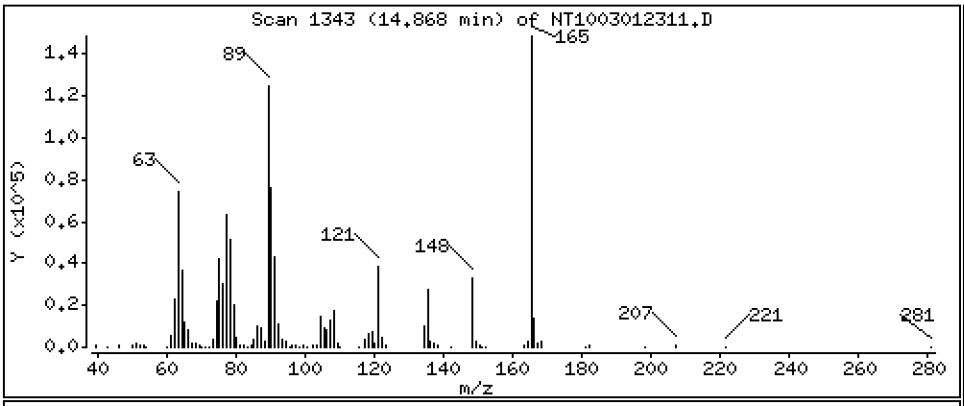
Operator: VTS

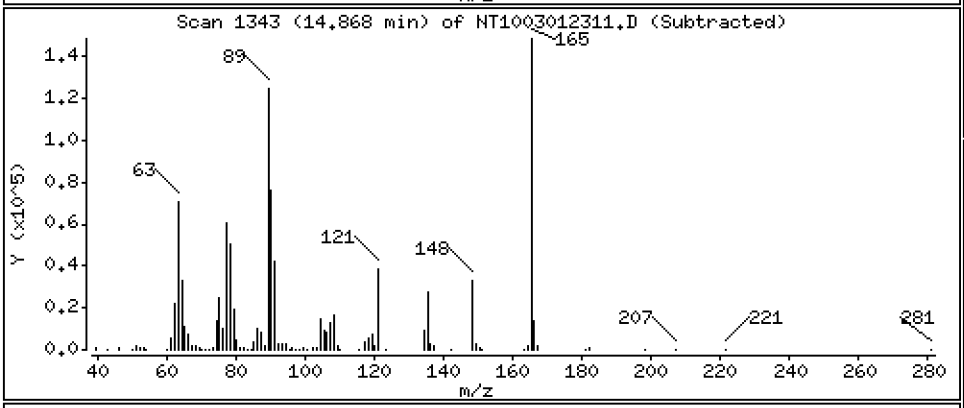
Column phase: ZB-5msi

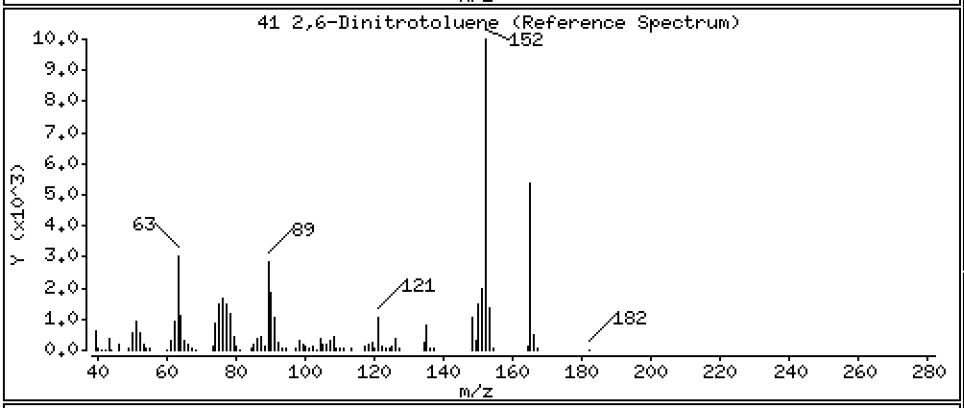
Column diameter: 0.25

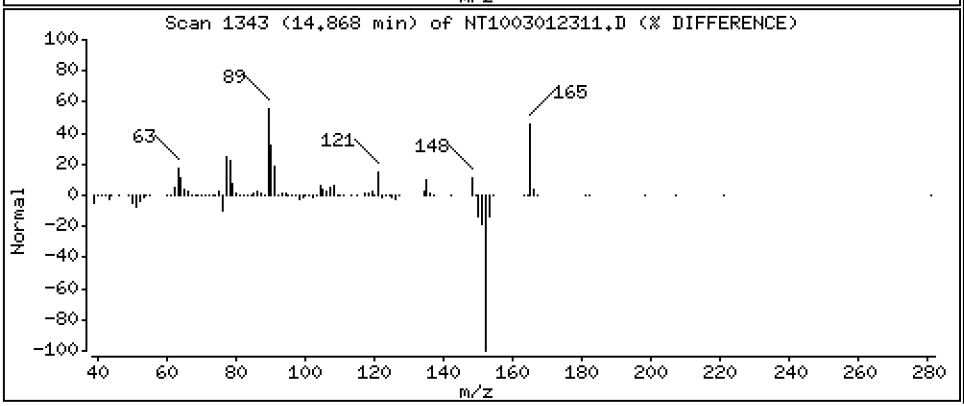
41 2,6-Dinitrotoluene

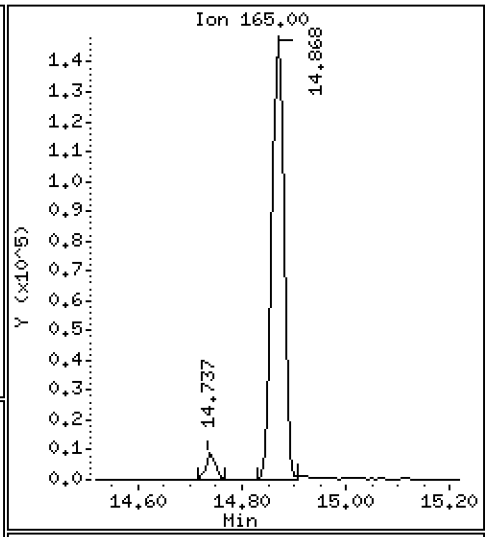
Concentration: 5.187 ug/mL

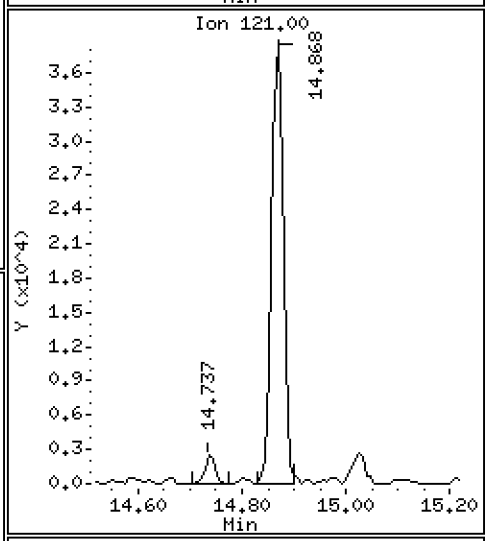


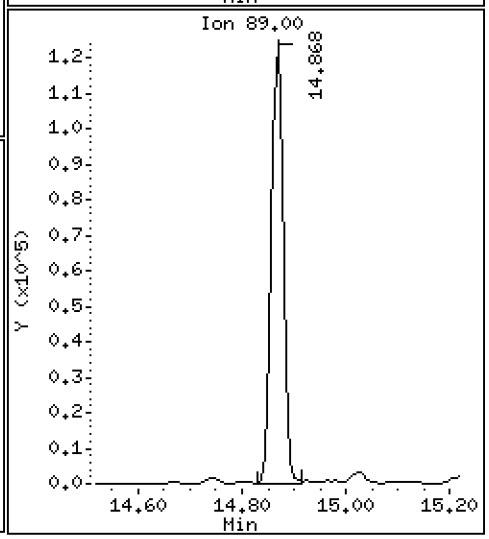












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

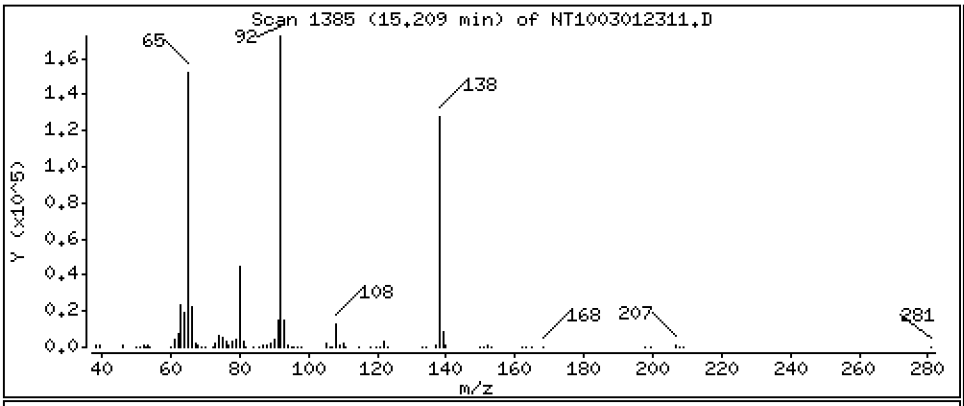
Operator: VTS

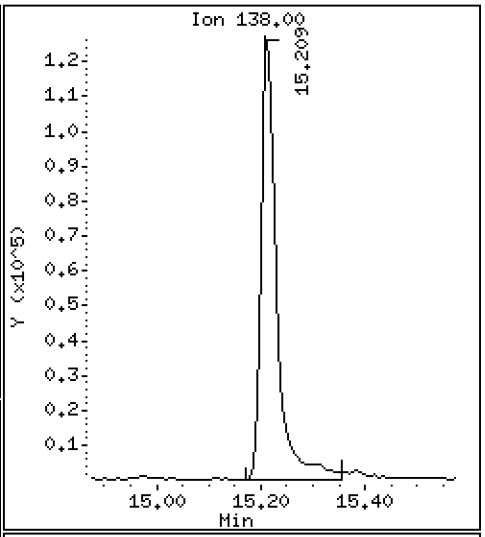
Column phase: ZB-5msi

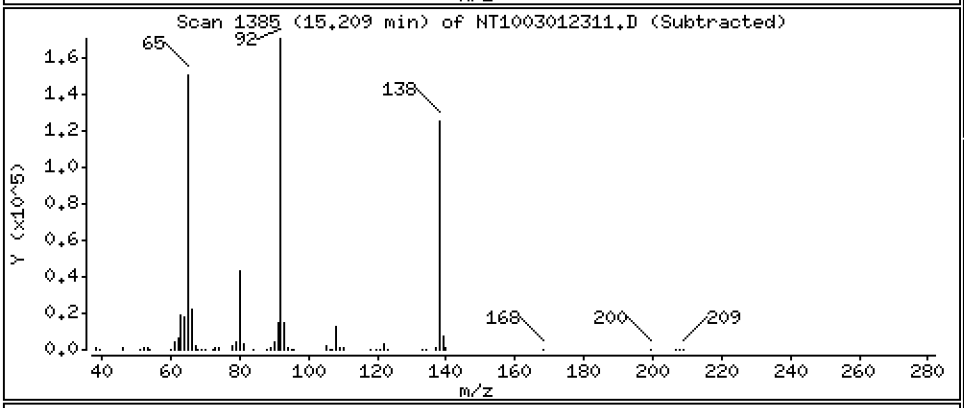
Column diameter: 0.25

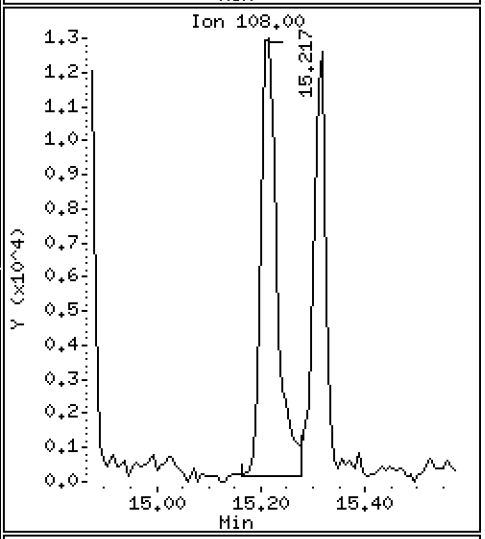
43 3-Nitroaniline

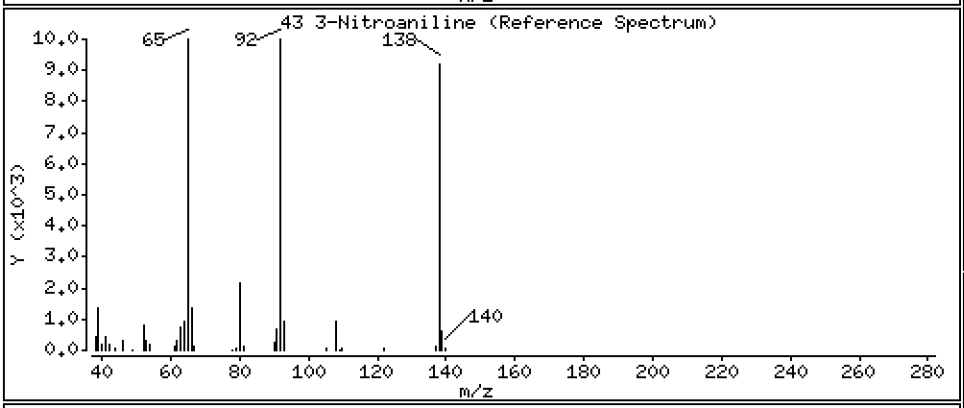
Concentration: 5.172 ug/mL

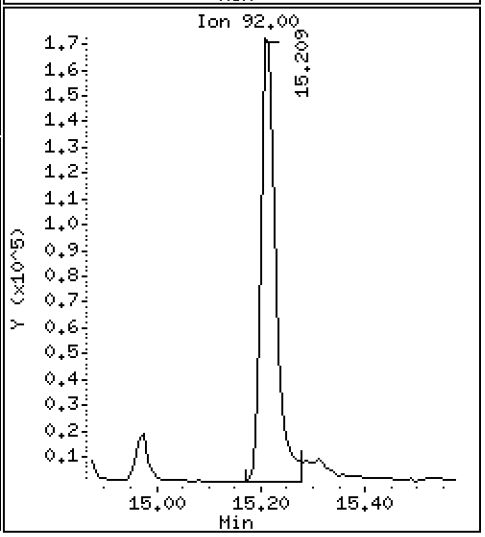


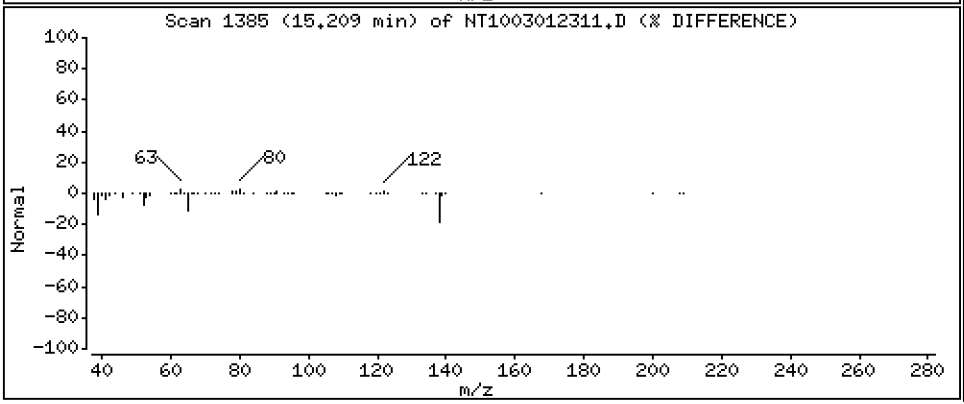












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

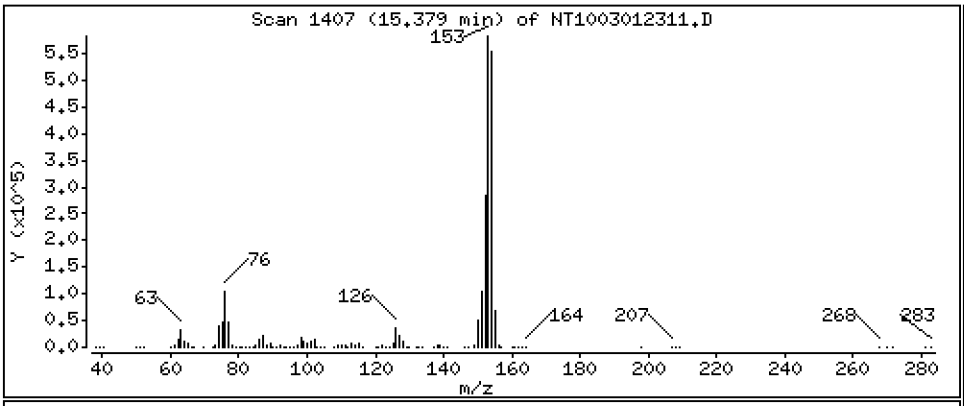
Operator: VTS

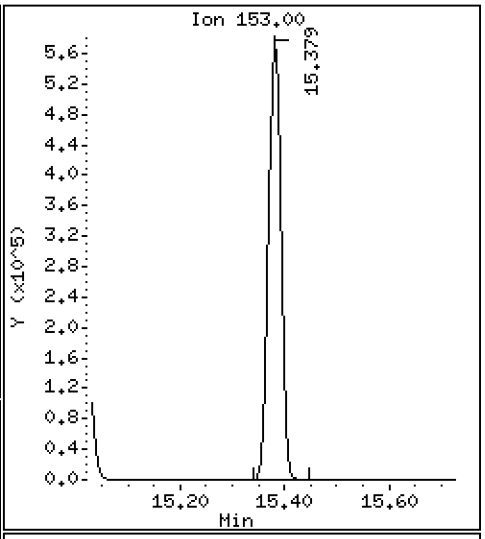
Column phase: ZB-5msi

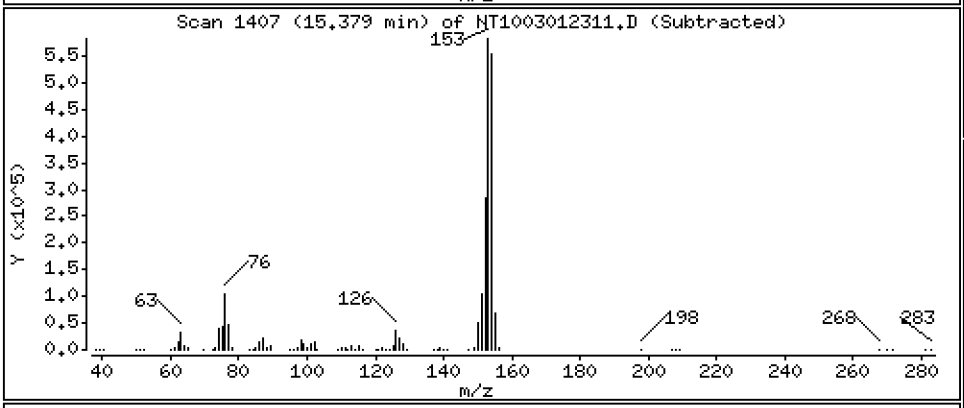
Column diameter: 0.25

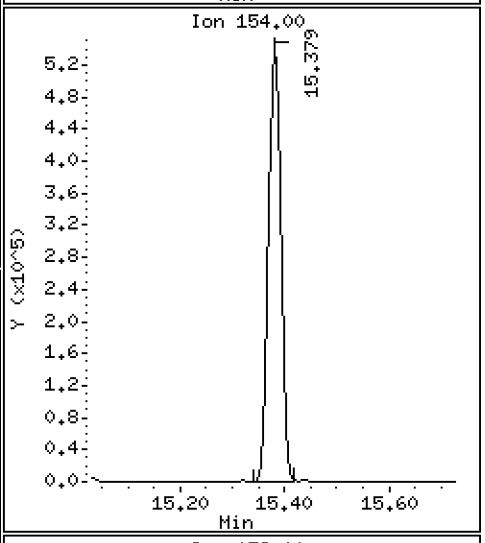
44 Acenaphthene

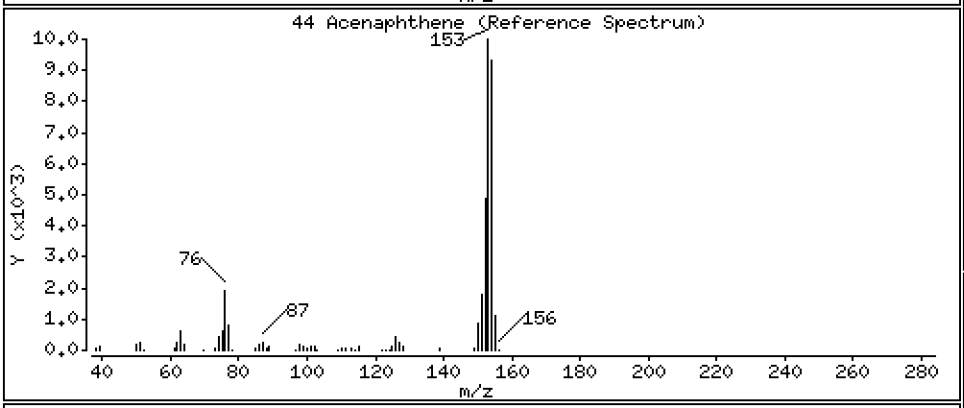
Concentration: 5.154 ug/mL

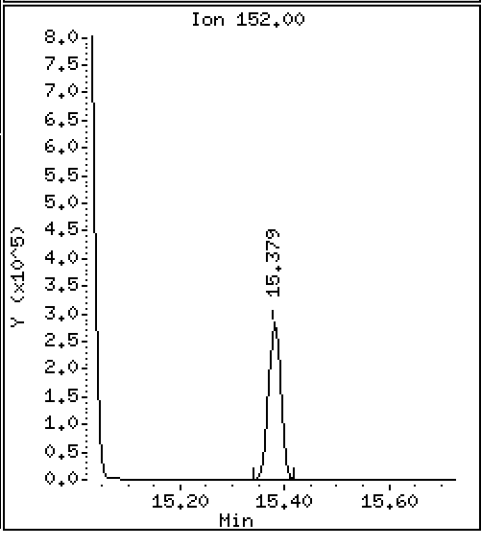


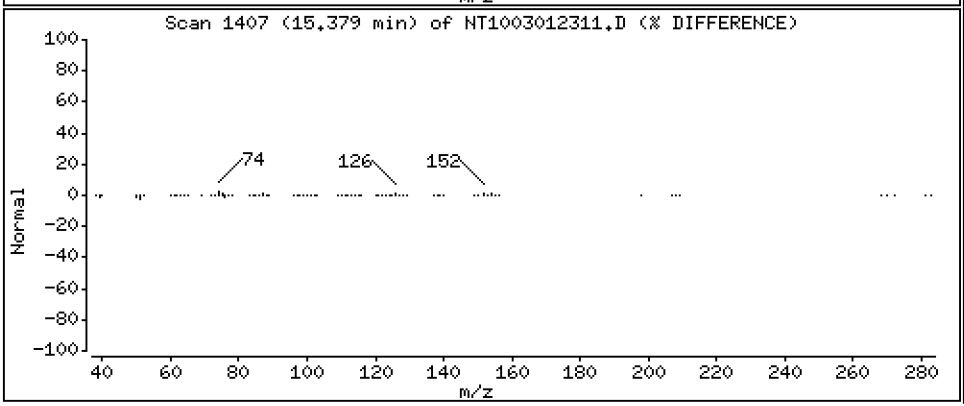












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

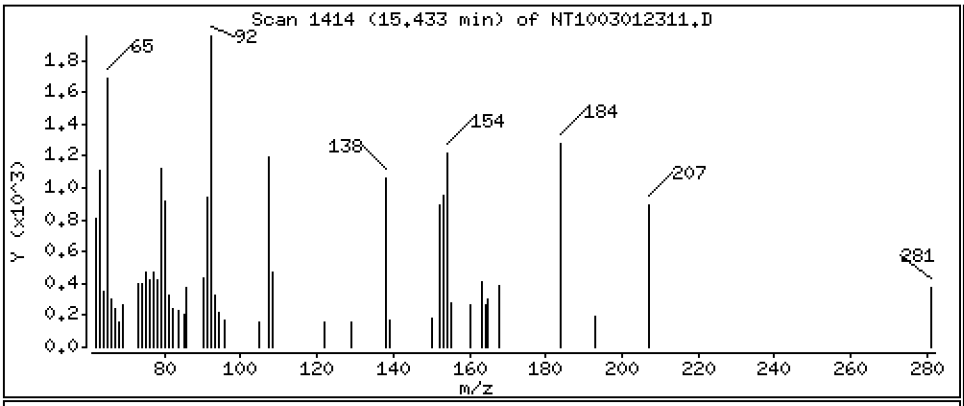
Operator: VTS

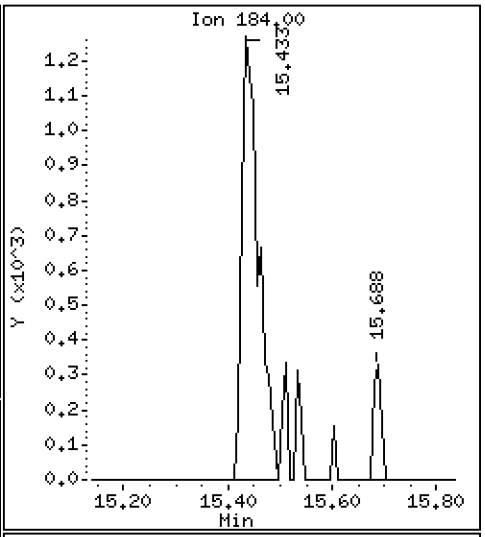
Column phase: ZB-5msi

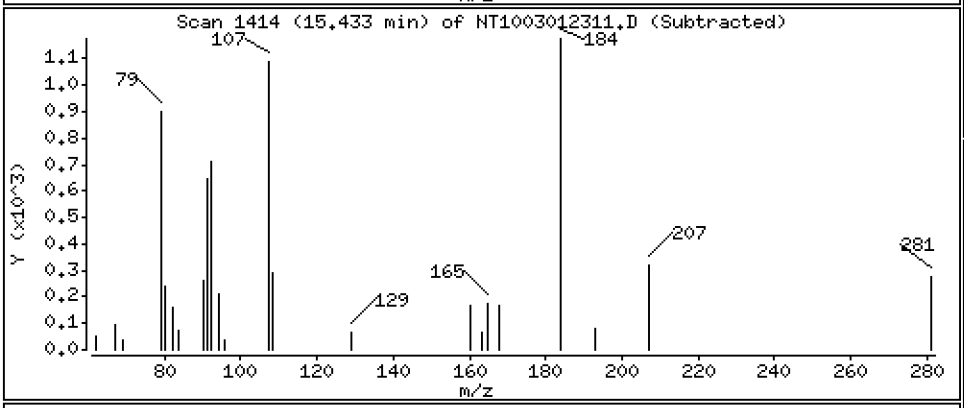
Column diameter: 0.25

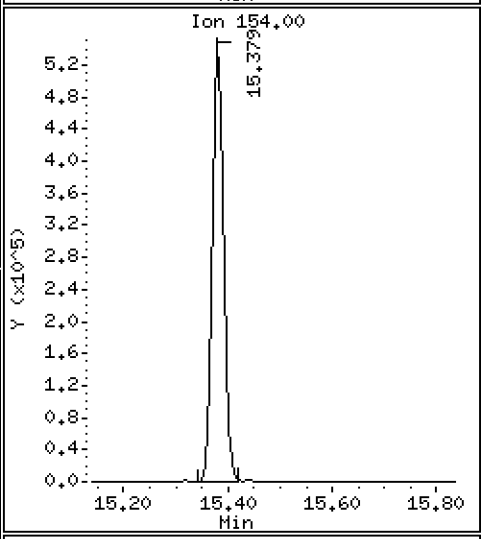
45 2,4-Dinitrophenol

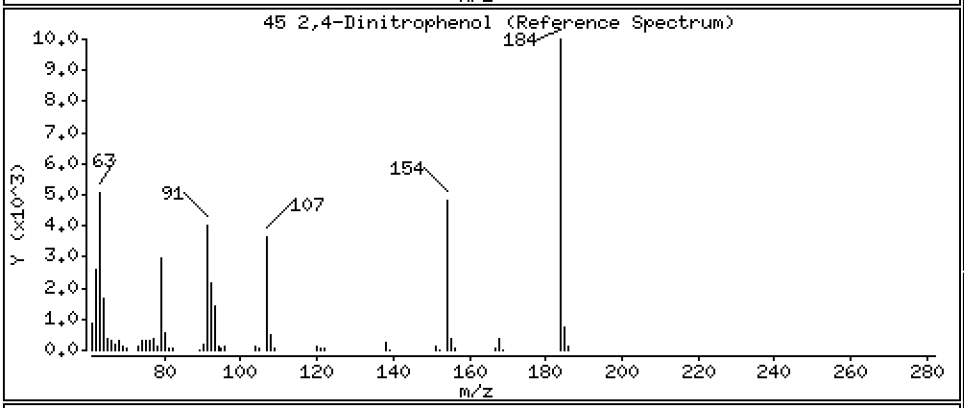
Concentration: 0.2667 ug/mL

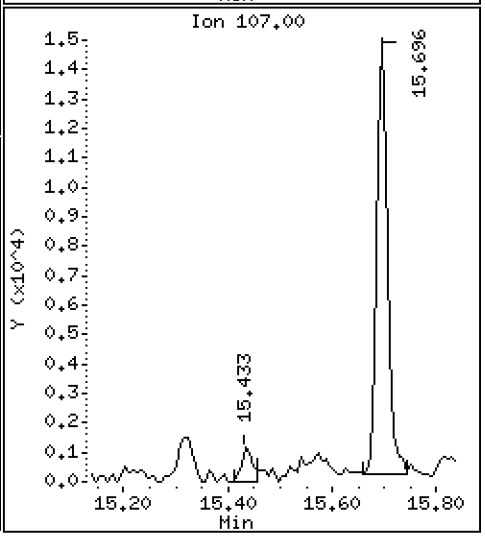


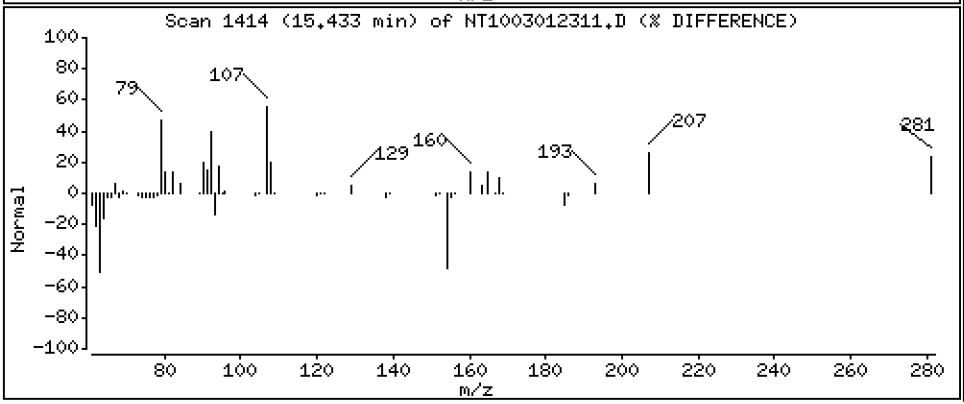












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

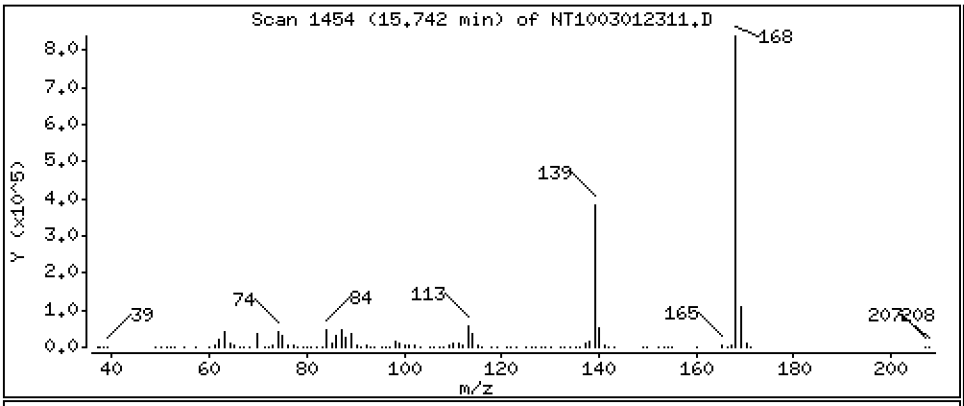
Operator: VTS

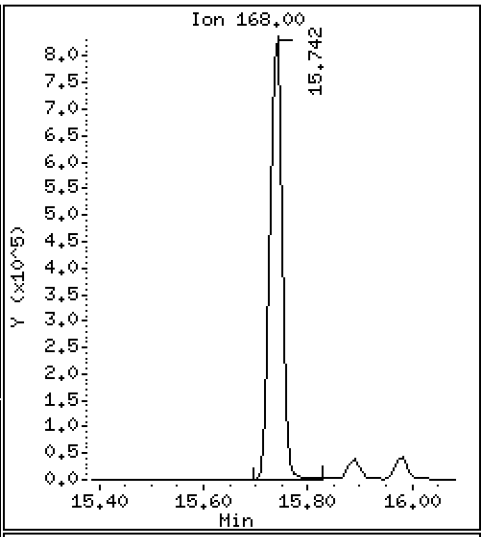
Column phase: ZB-5msi

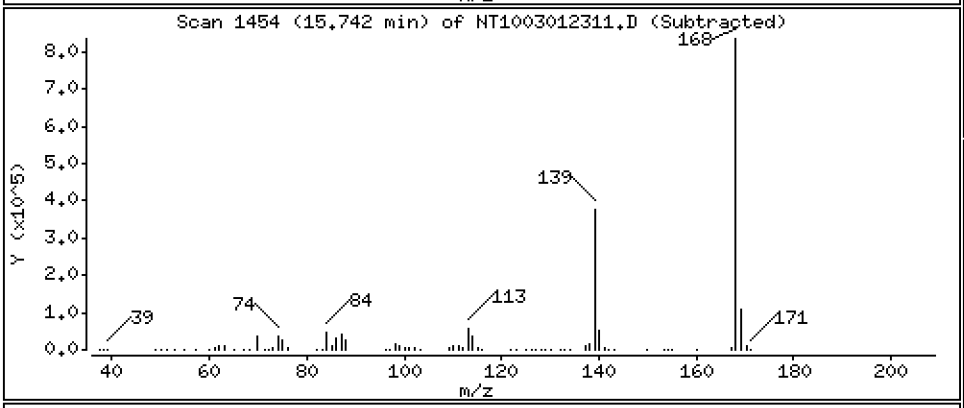
Column diameter: 0.25

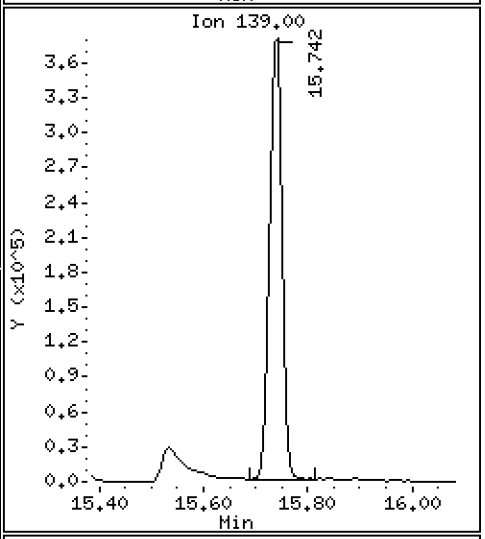
46 Dibenzofuran

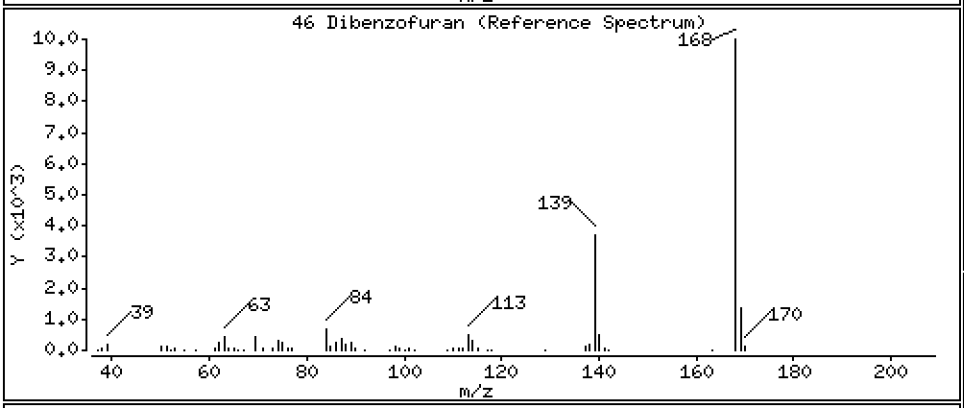
Concentration: 4.994 ug/mL

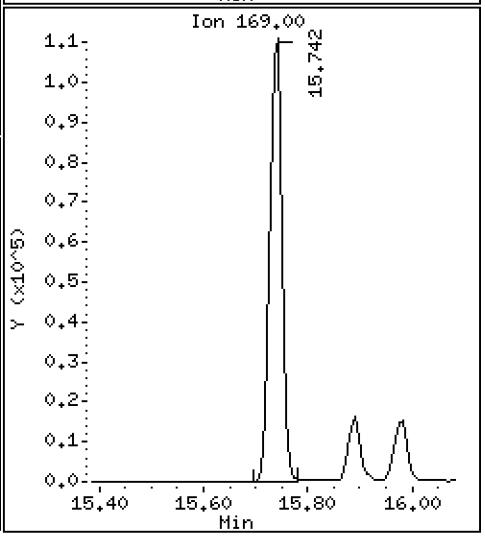


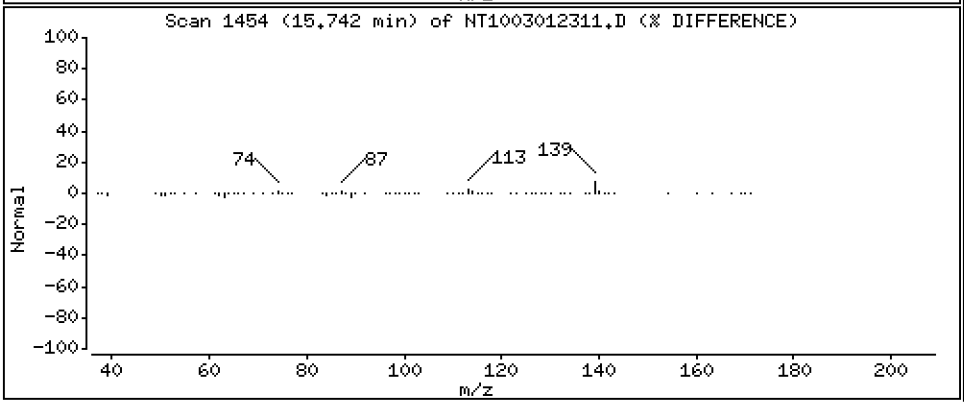












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

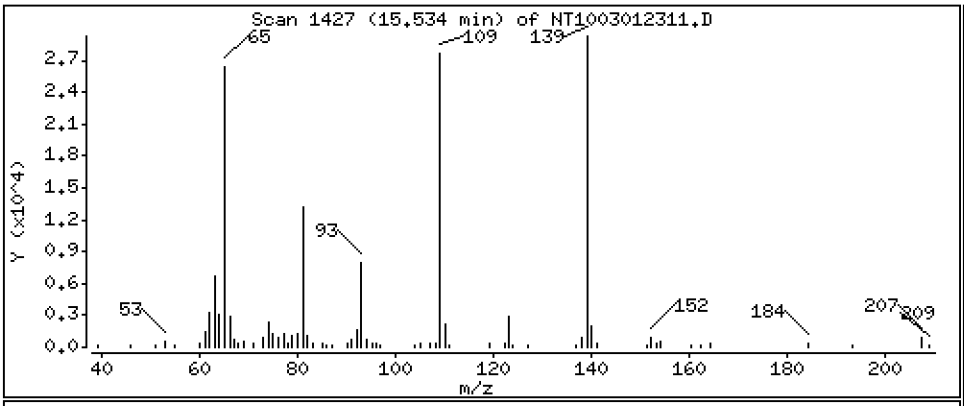
Operator: VTS

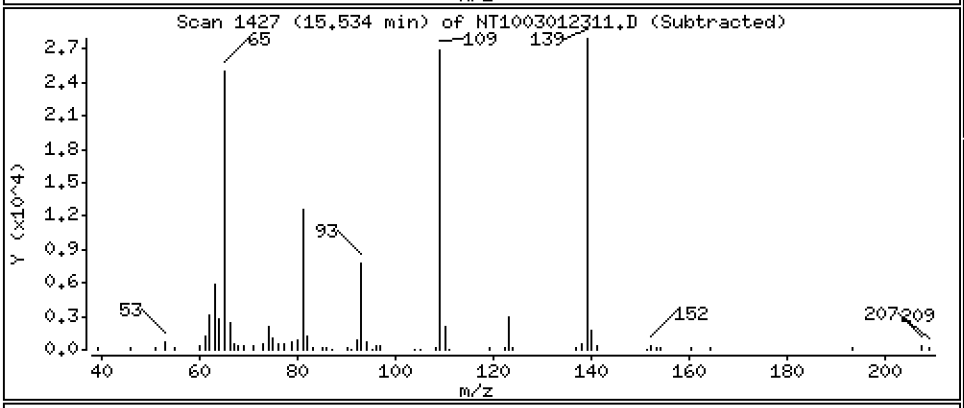
Column phase: ZB-5msi

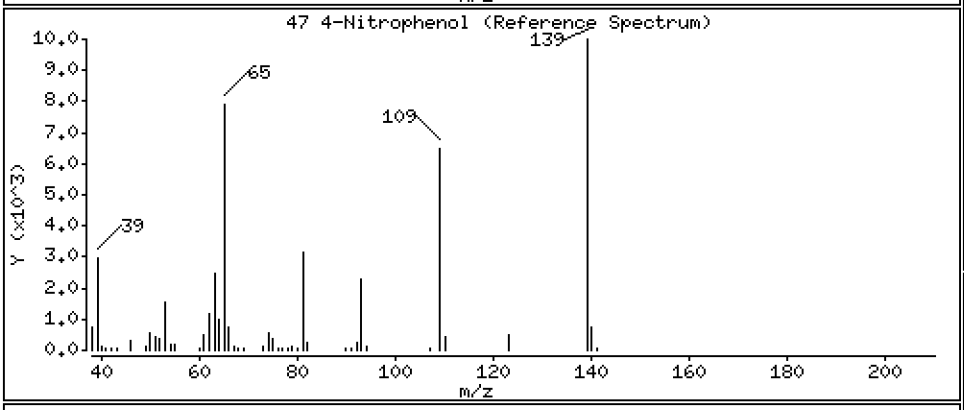
Column diameter: 0.25

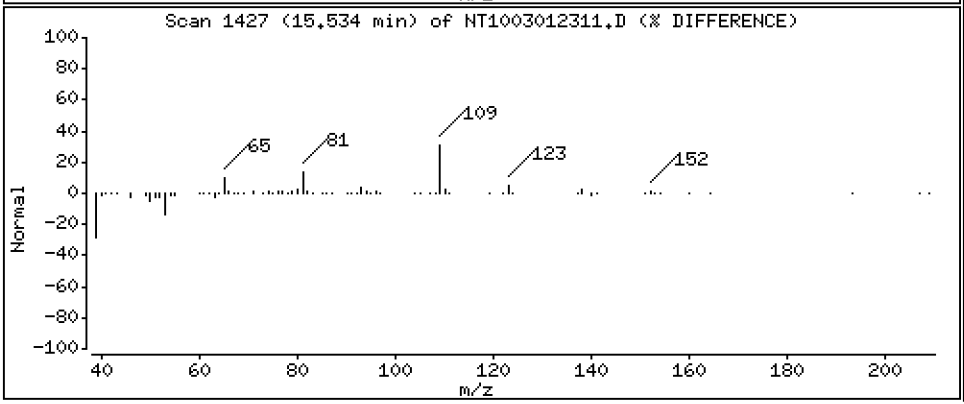
47 4-Nitrophenol

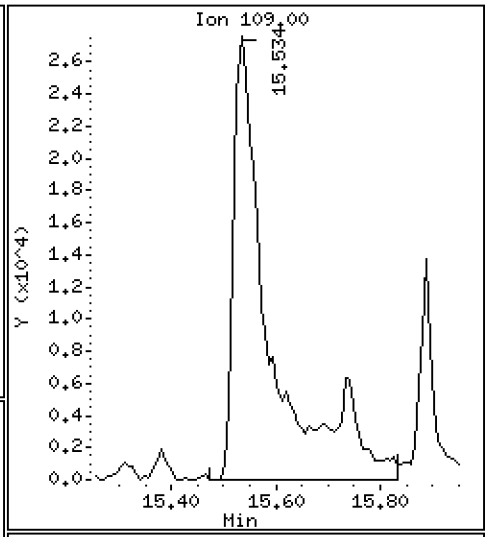
Concentration: 3.822 ug/mL

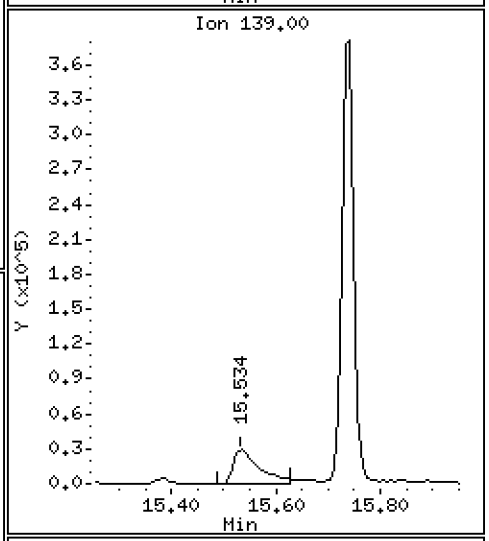


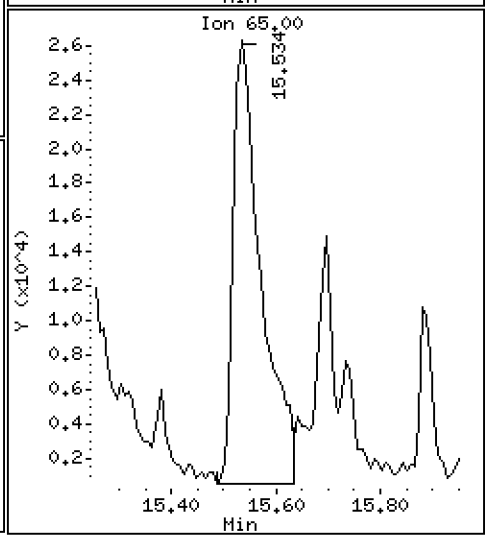












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

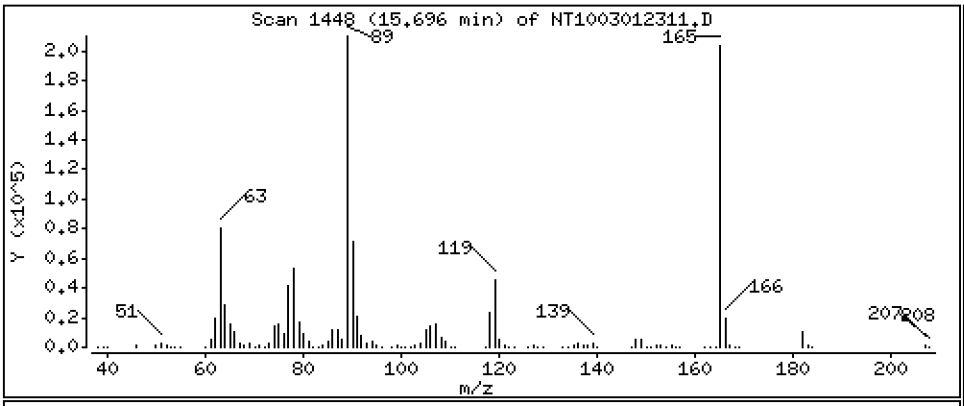
Operator: VTS

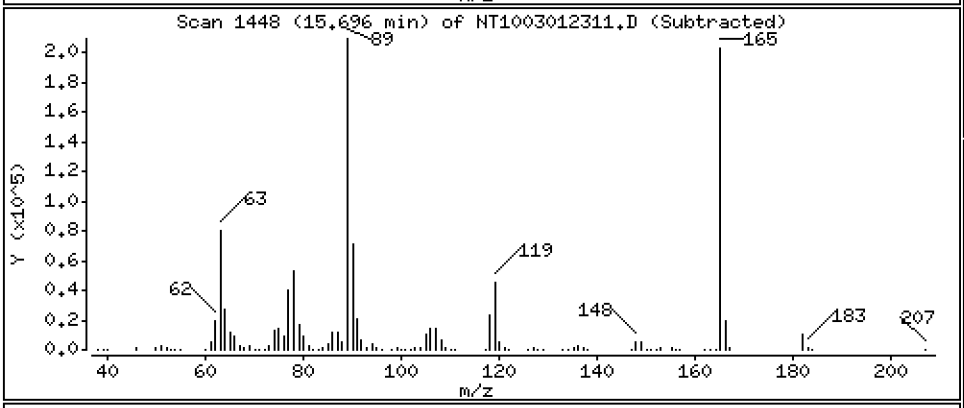
Column phase: ZB-5msi

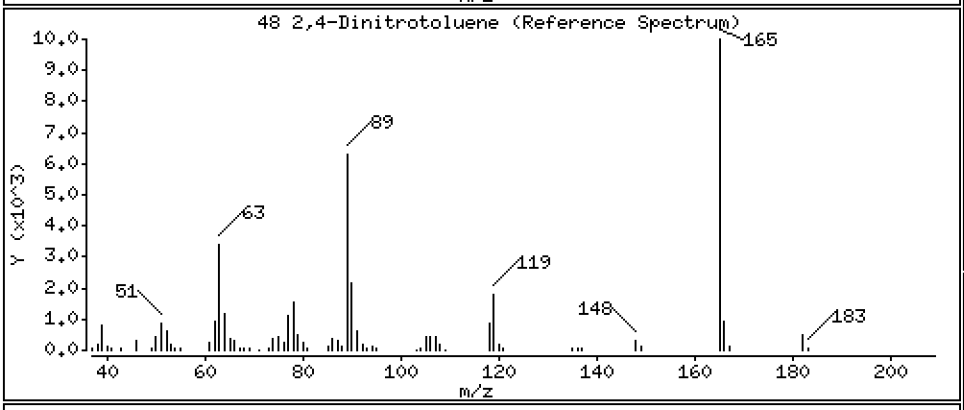
Column diameter: 0.25

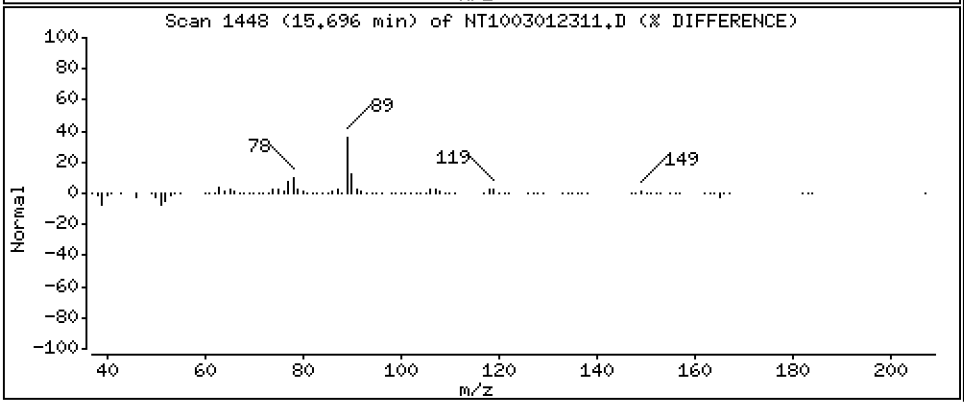
48 2,4-Dinitrotoluene

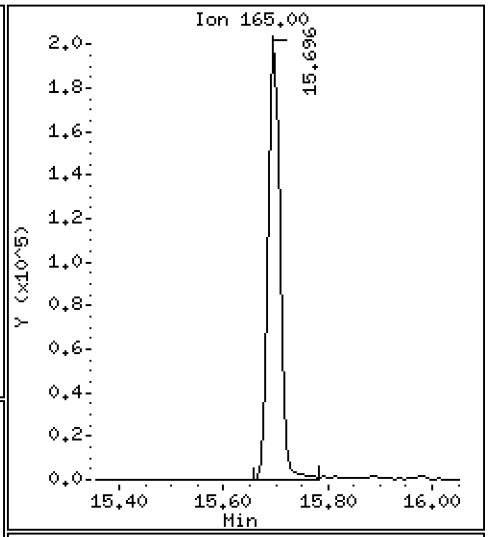
Concentration: 4.729 ug/mL

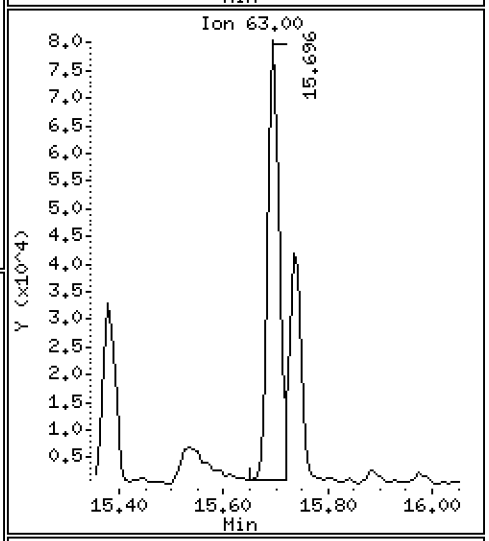


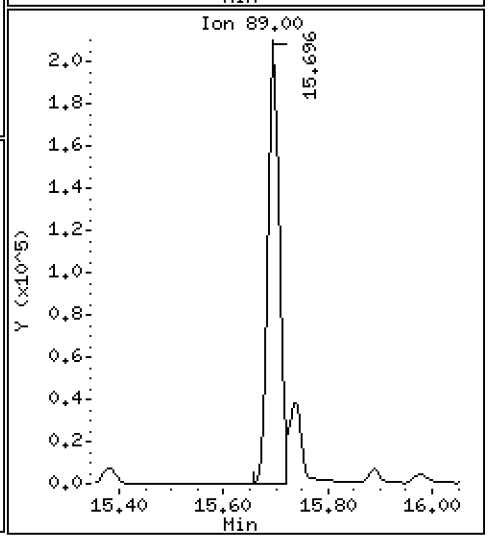












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

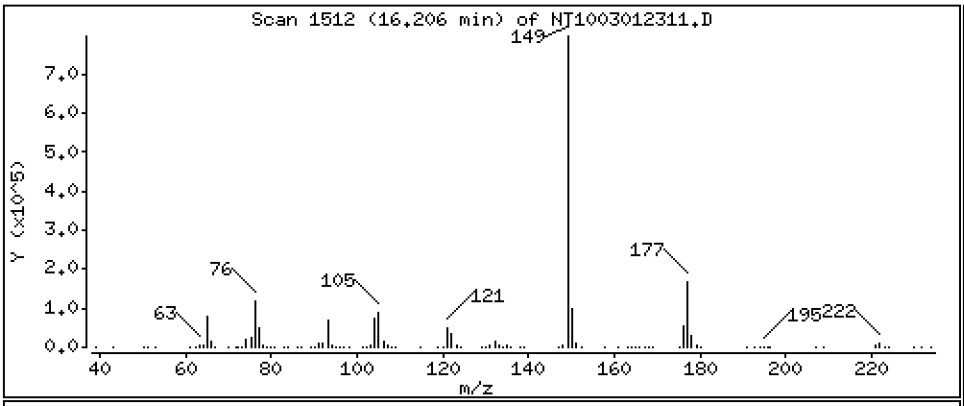
Operator: VTS

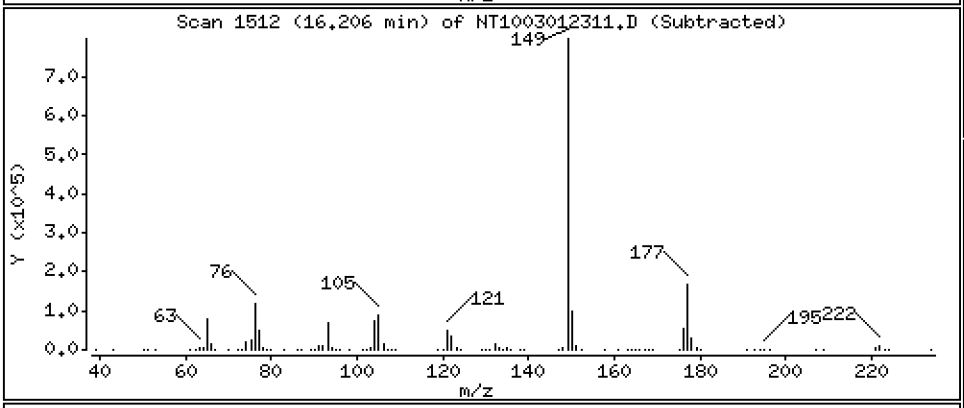
Column phase: ZB-5msi

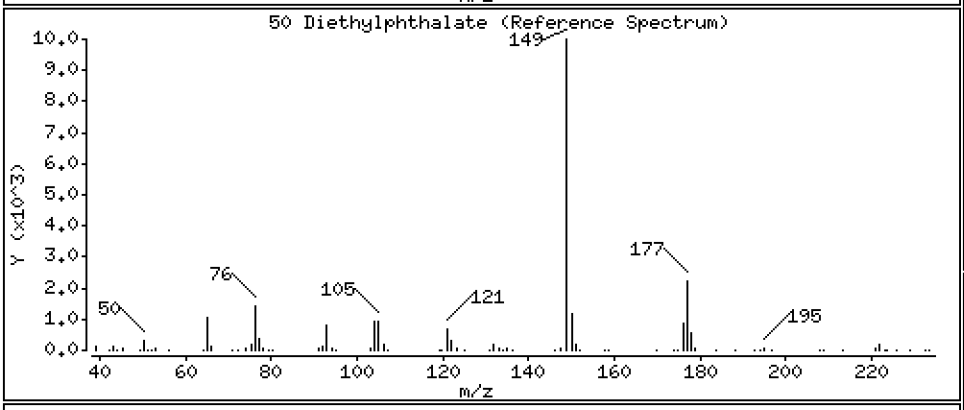
Column diameter: 0.25

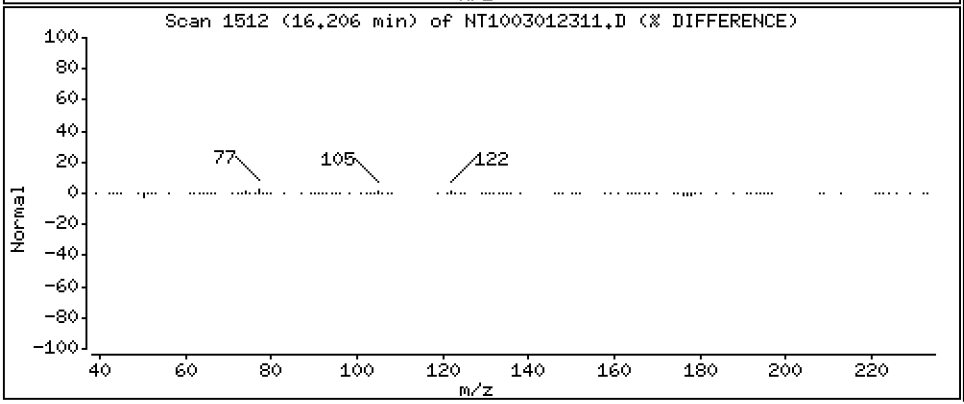
50 Diethylphthalate

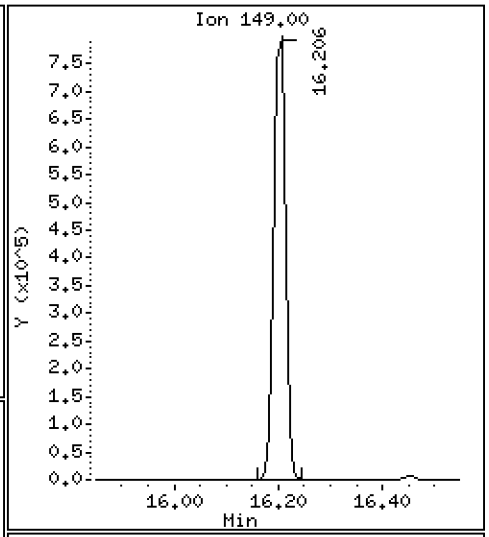
Concentration: 5.639 ug/mL

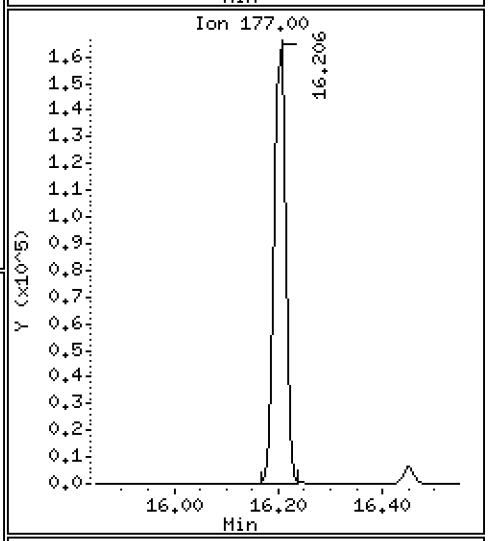


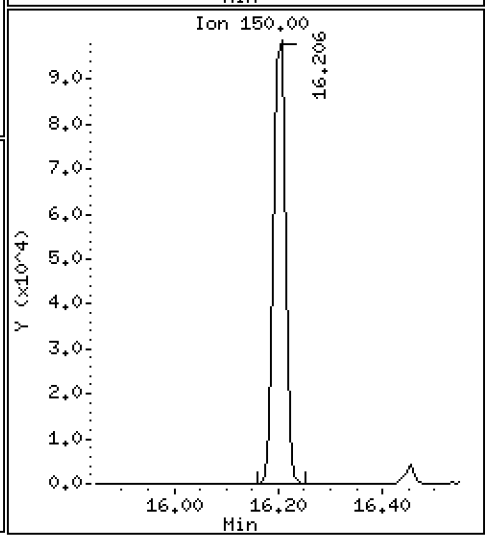












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

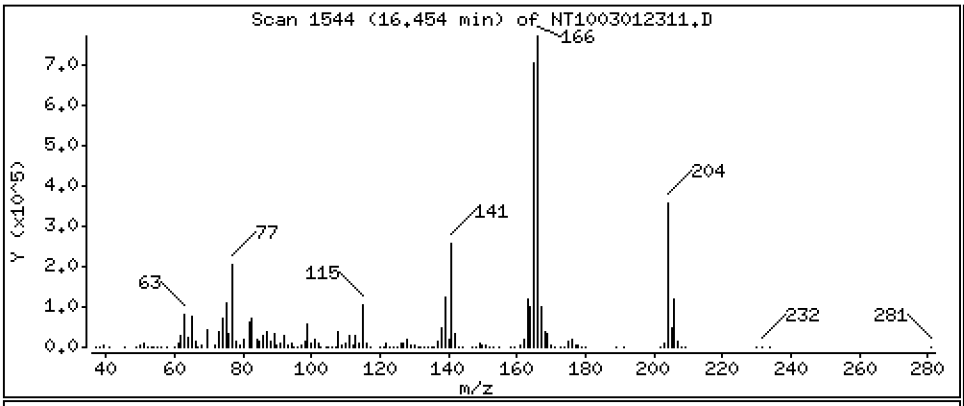
Operator: VTS

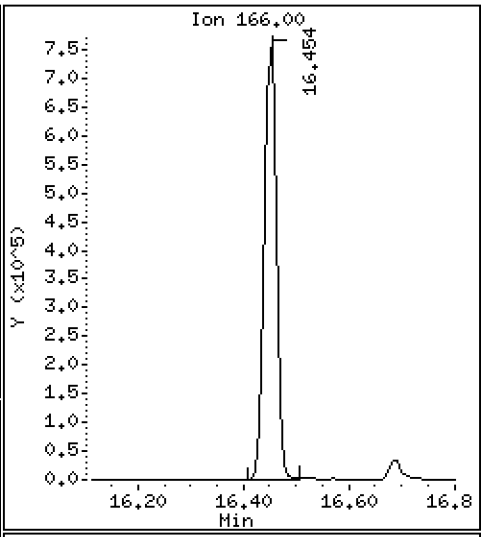
Column phase: ZB-5msi

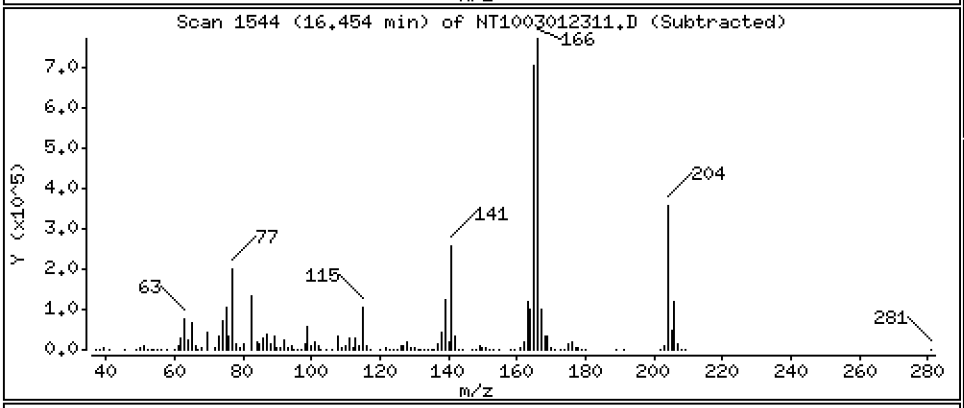
Column diameter: 0.25

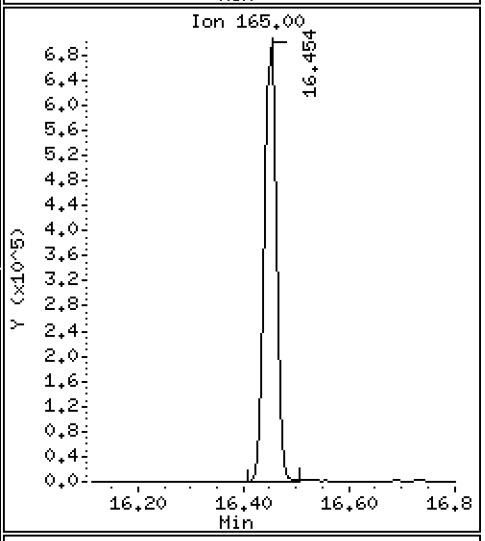
49 Fluorene

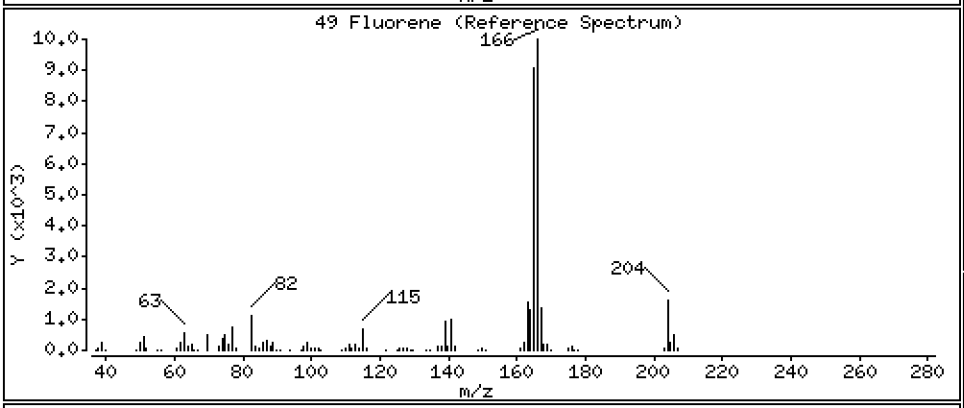
Concentration: 5.305 ug/mL

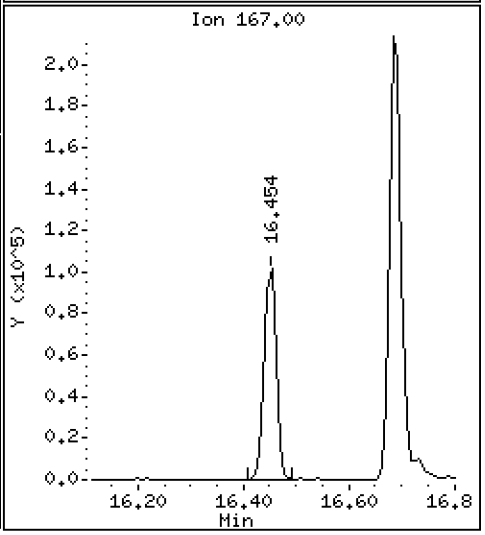


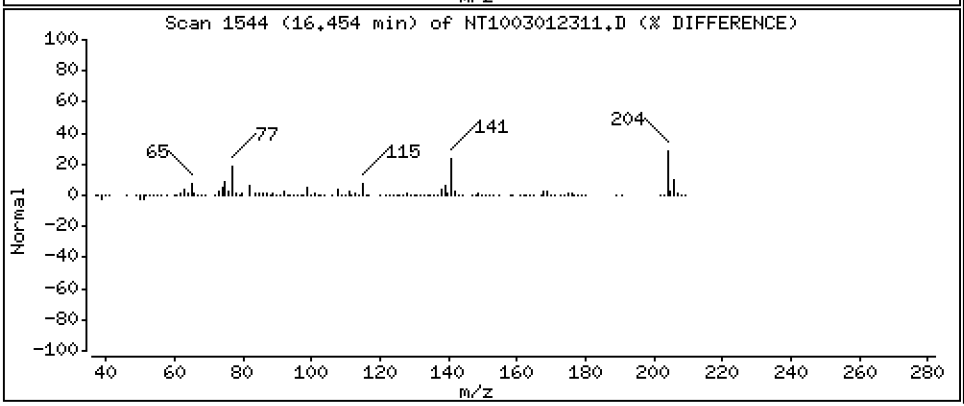












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

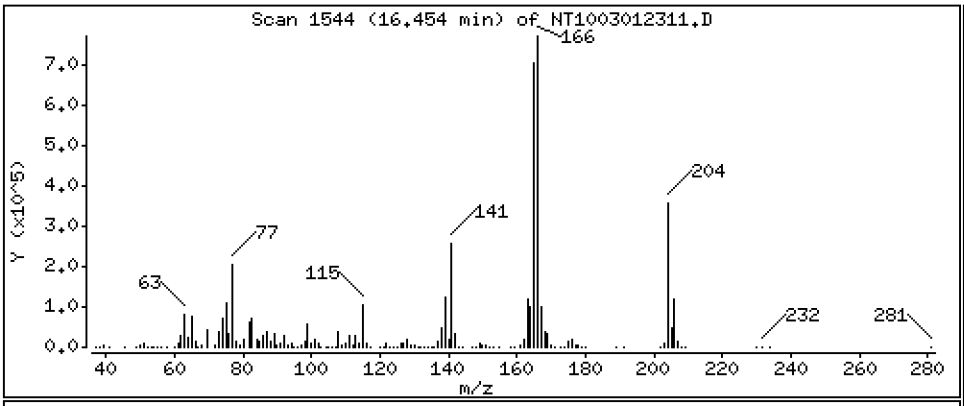
Operator: VTS

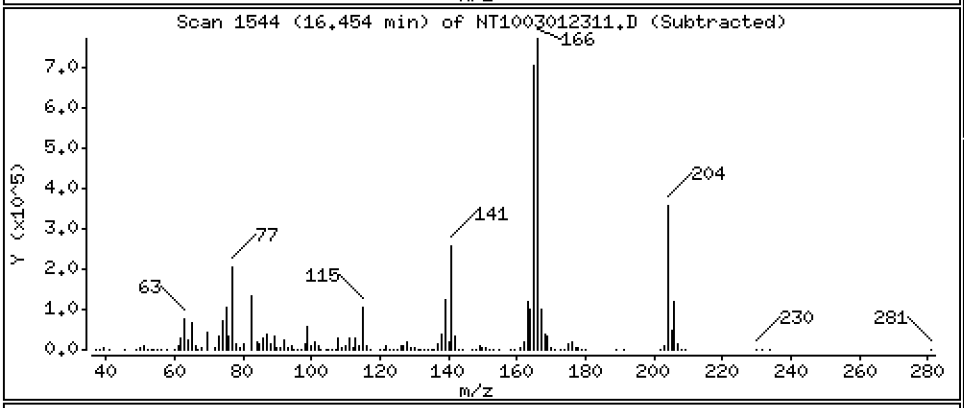
Column phase: ZB-5msi

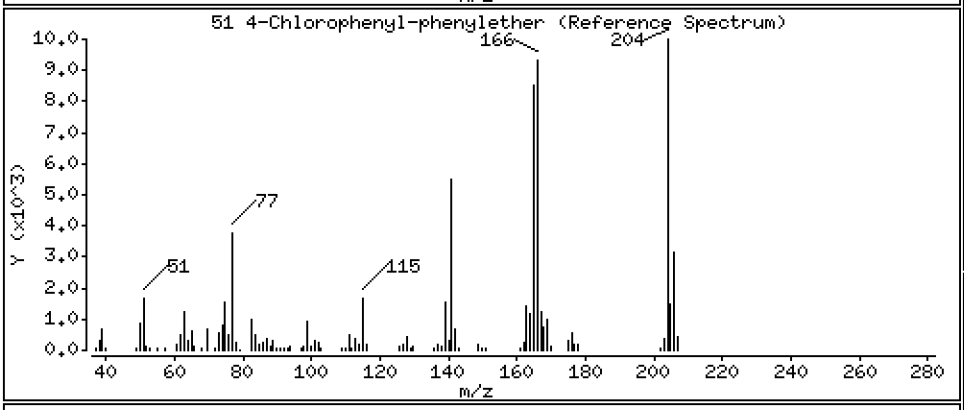
Column diameter: 0.25

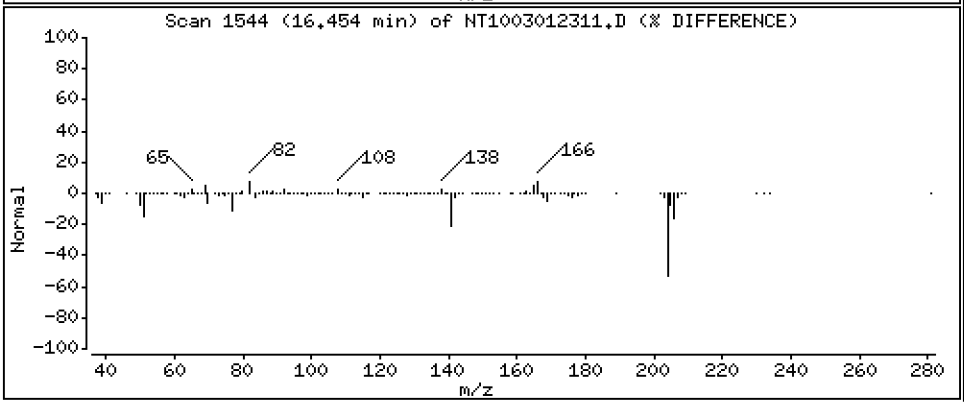
51 4-Chlorophenyl-phenylether

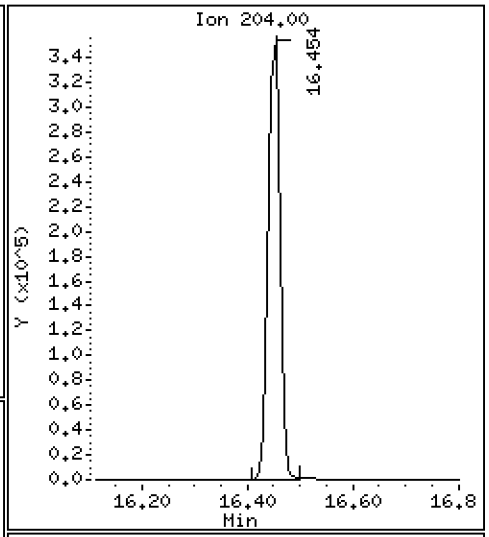
Concentration: 5.253 ug/mL

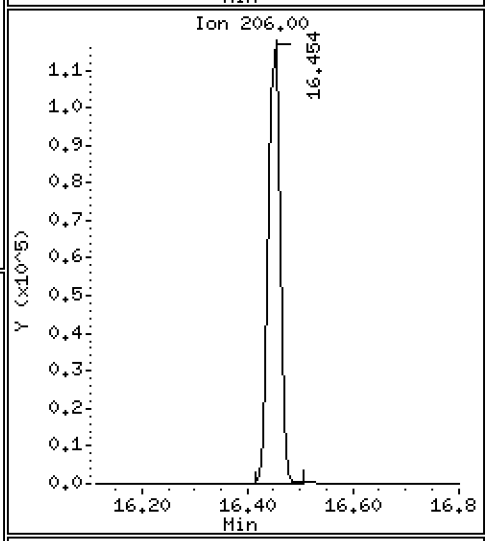


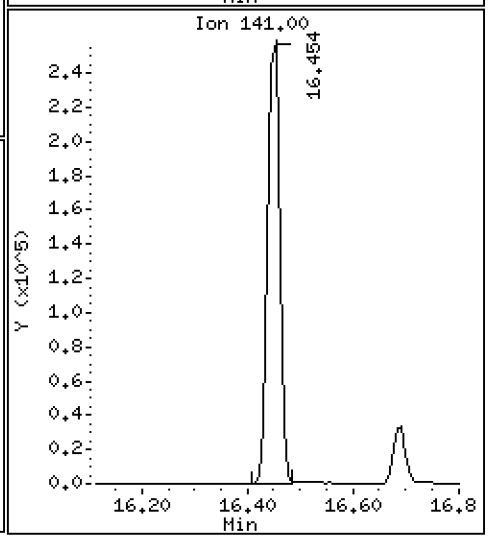












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

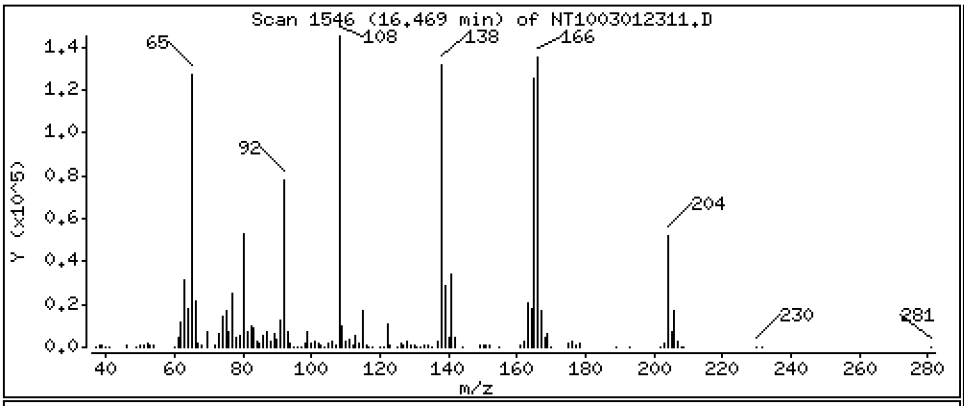
Operator: VTS

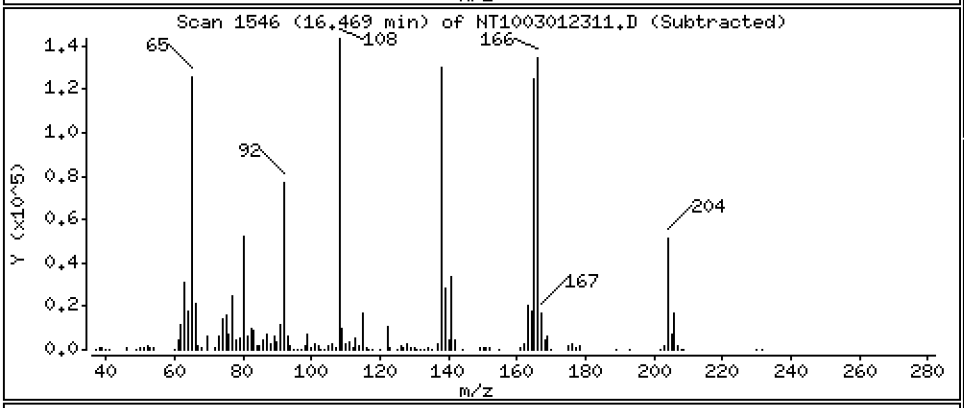
Column phase: ZB-5msi

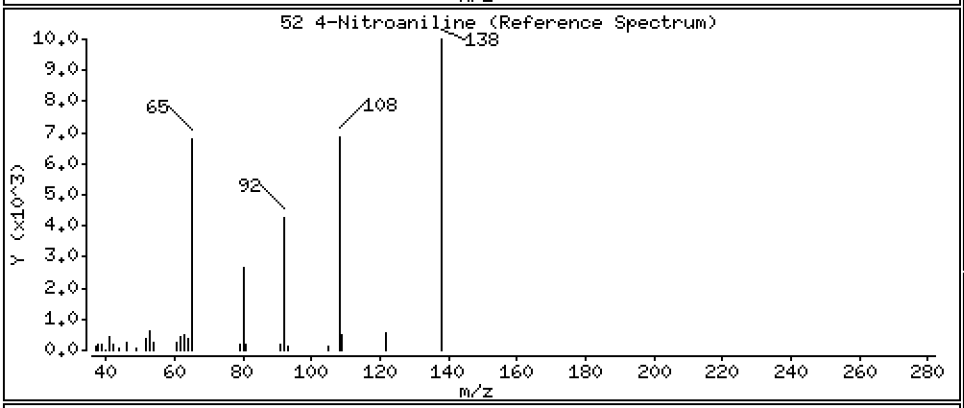
Column diameter: 0.25

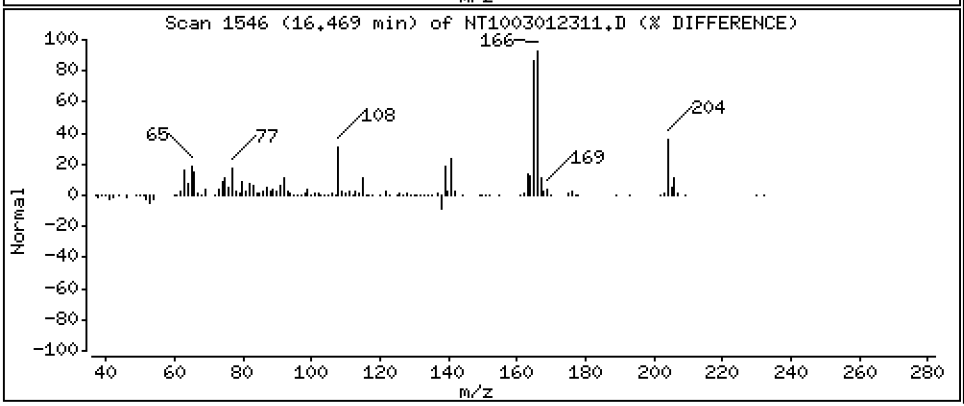
52 4-Nitroaniline

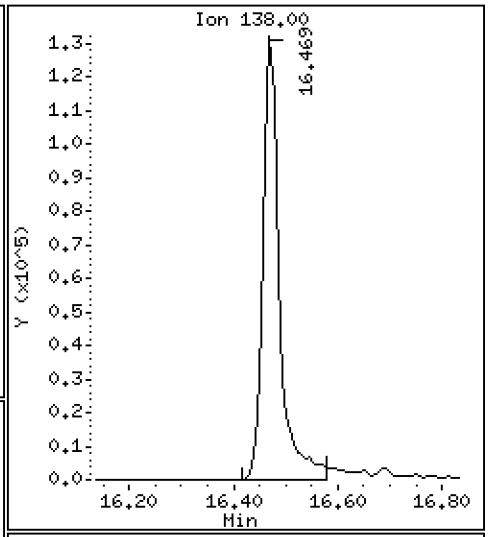
Concentration: 5.232 ug/mL

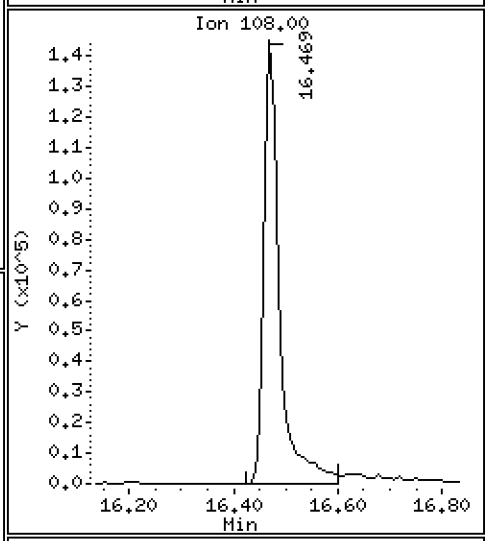


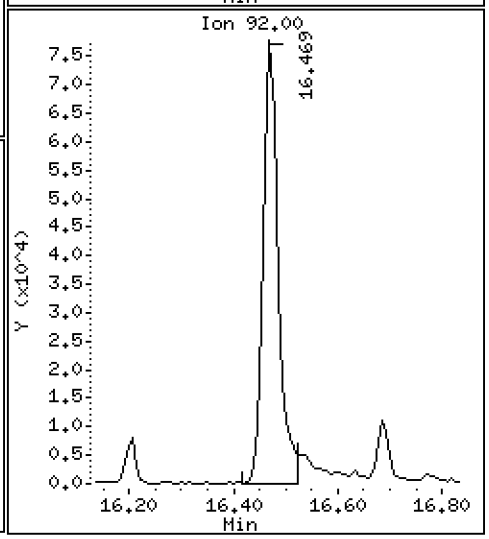












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

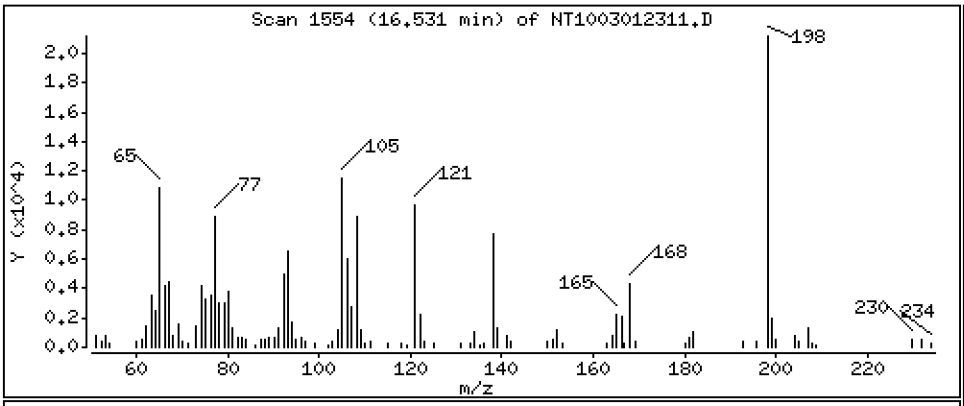
Operator: VTS

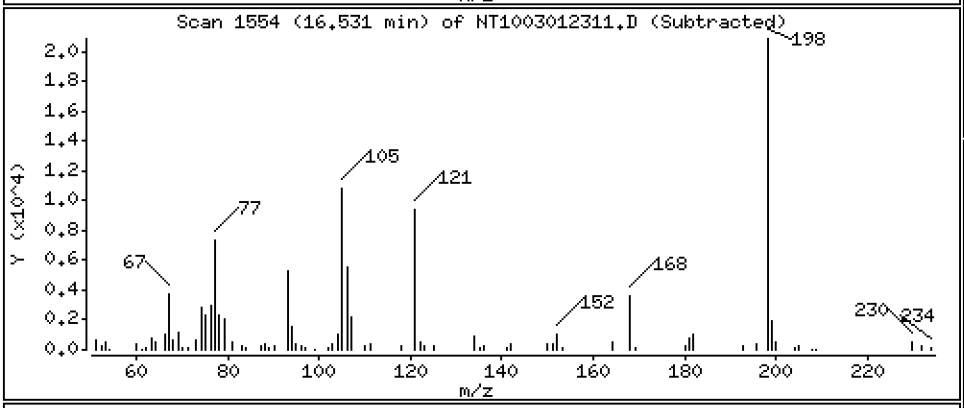
Column phase: ZB-5msi

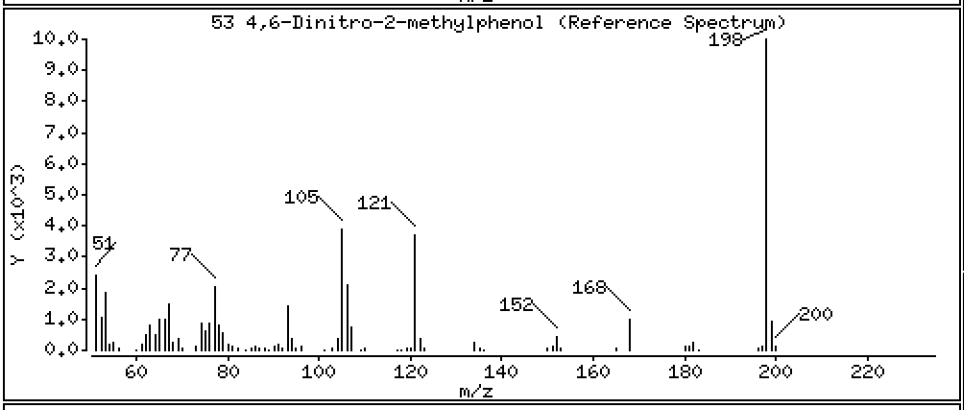
Column diameter: 0.25

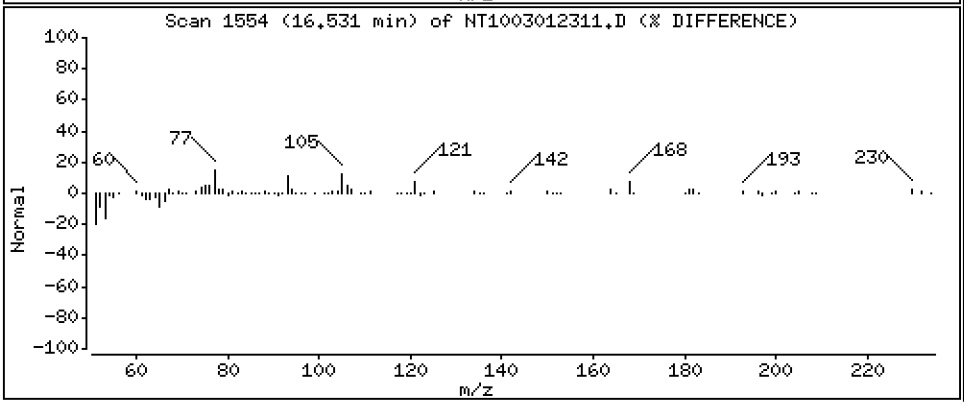
53 4,6-Dinitro-2-methylphenol

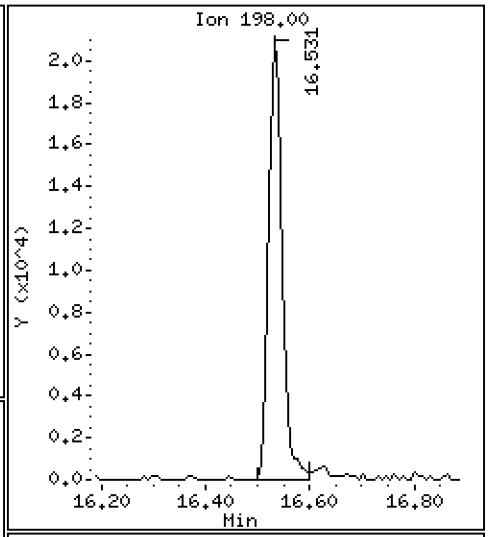
Concentration: 1.292 ug/mL

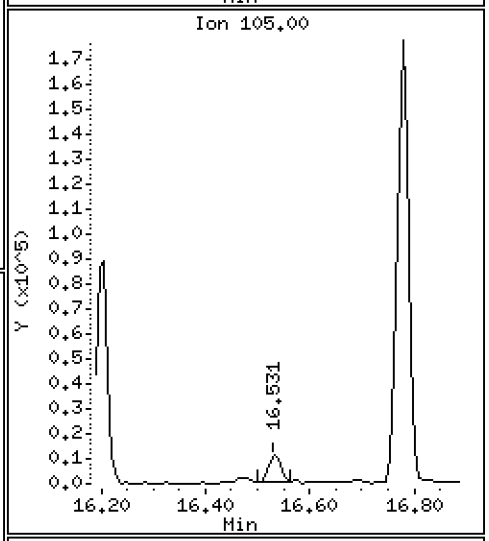


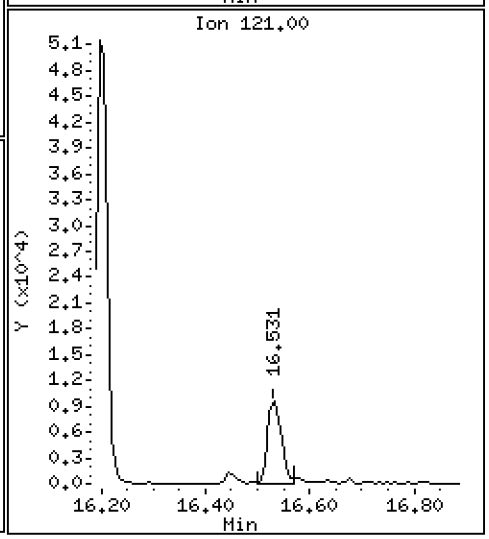












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

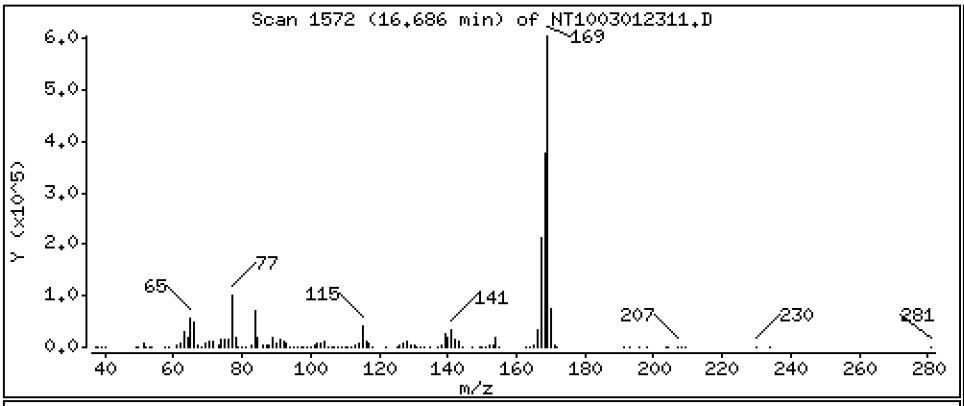
Operator: VTS

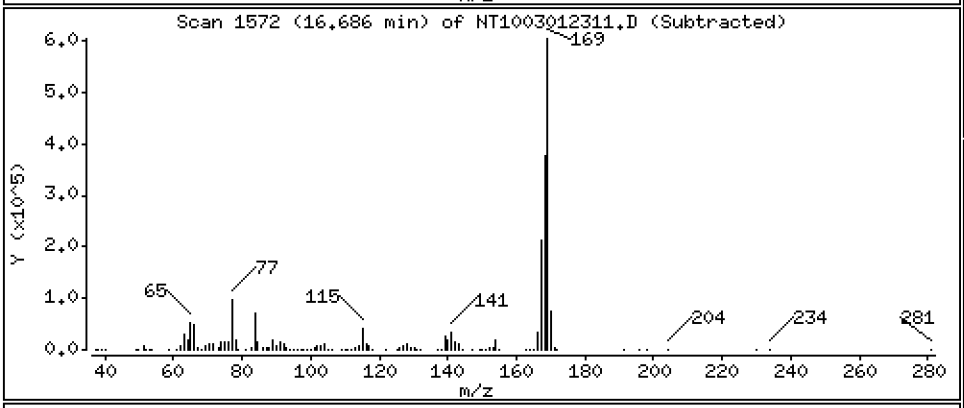
Column phase: ZB-5msi

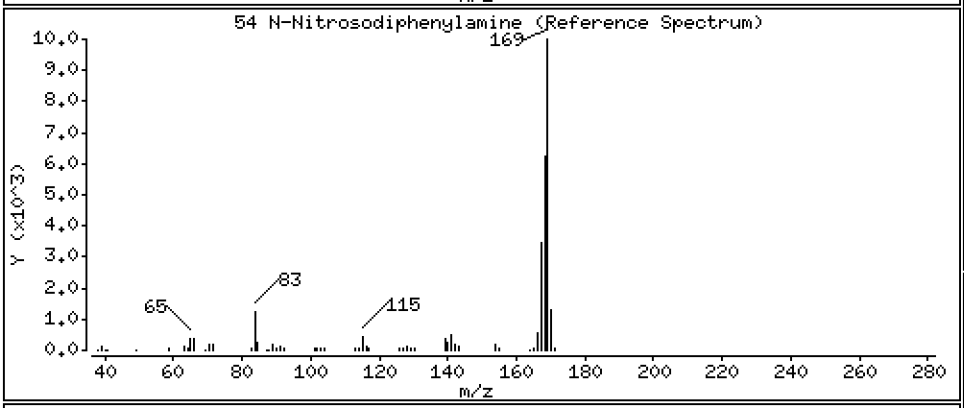
Column diameter: 0.25

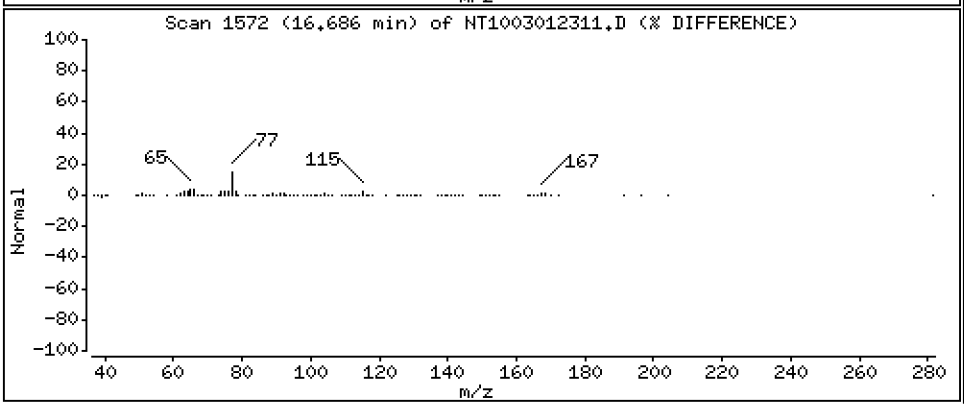
54 N-Nitrosodiphenylamine

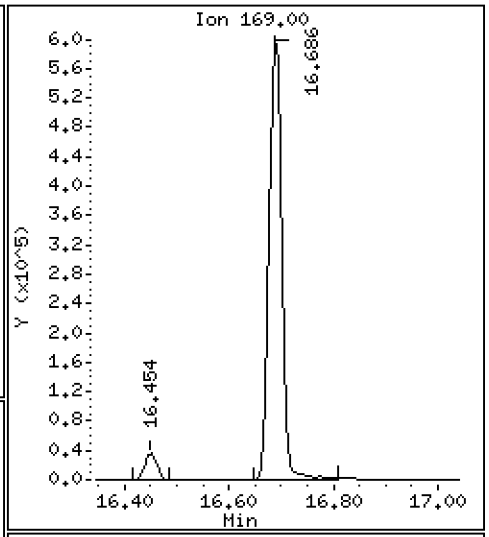
Concentration: 5.416 ug/mL

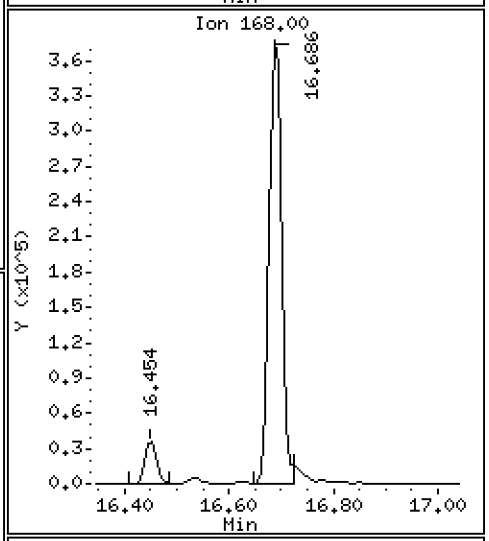


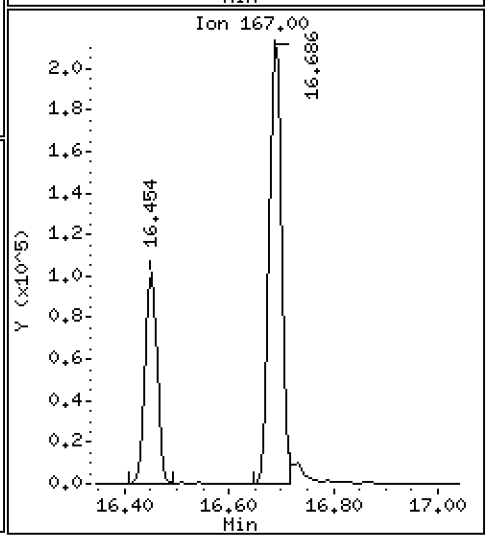












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

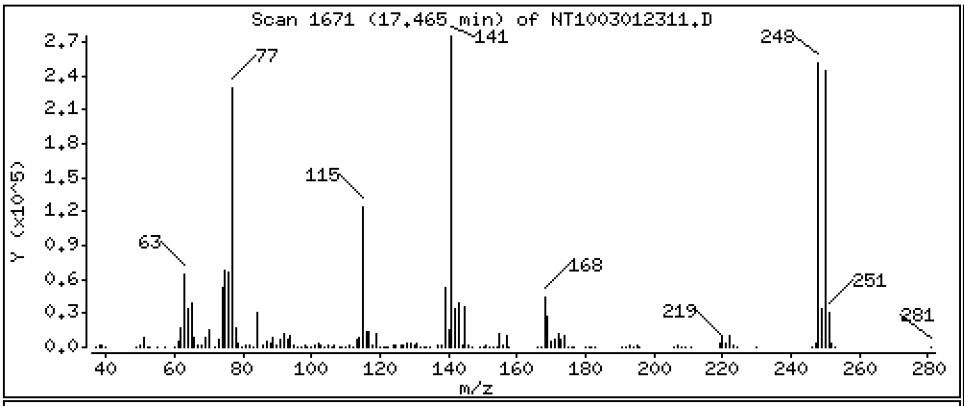
Operator: VTS

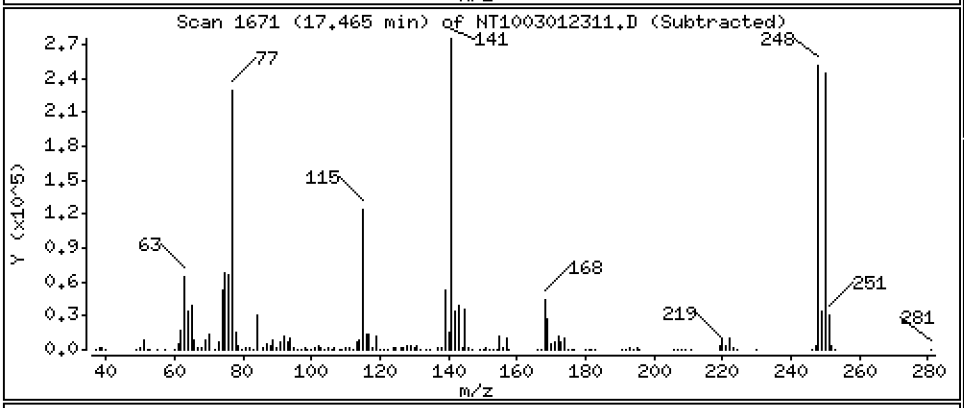
Column phase: ZB-5msi

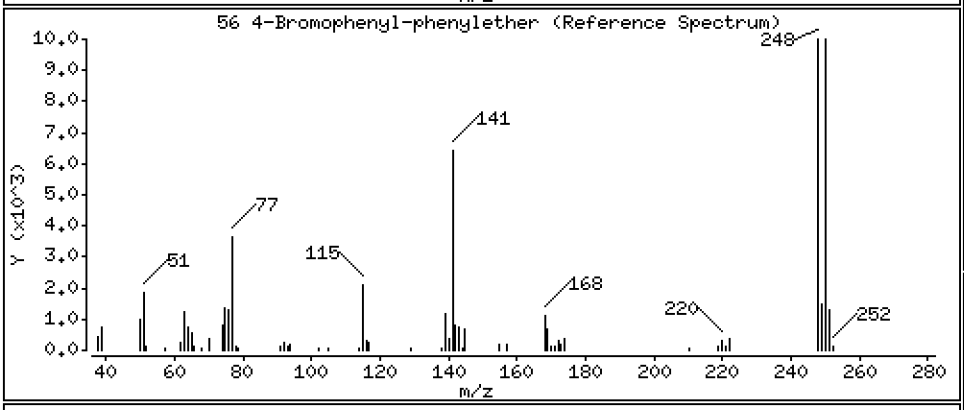
Column diameter: 0.25

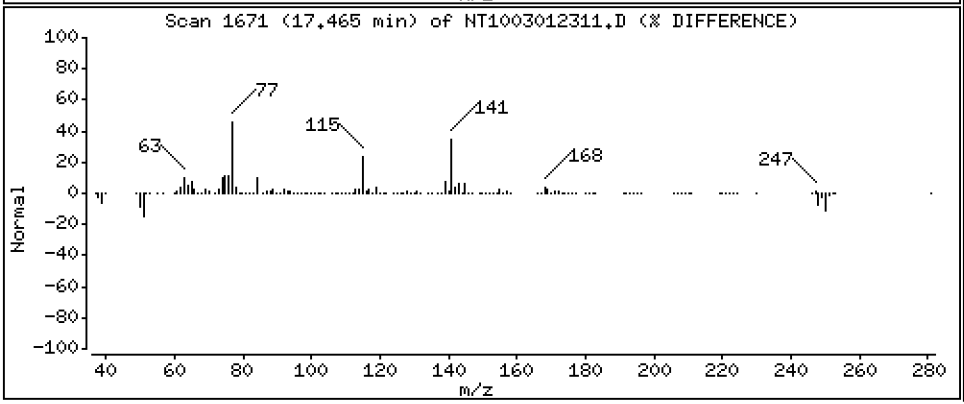
56 4-Bromophenyl-phenylether

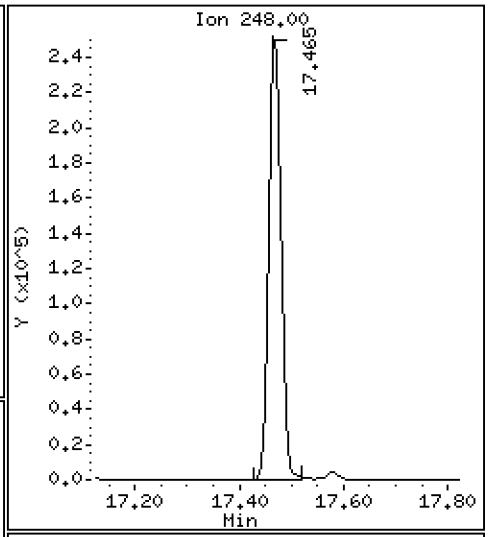
Concentration: 5.460 ug/mL

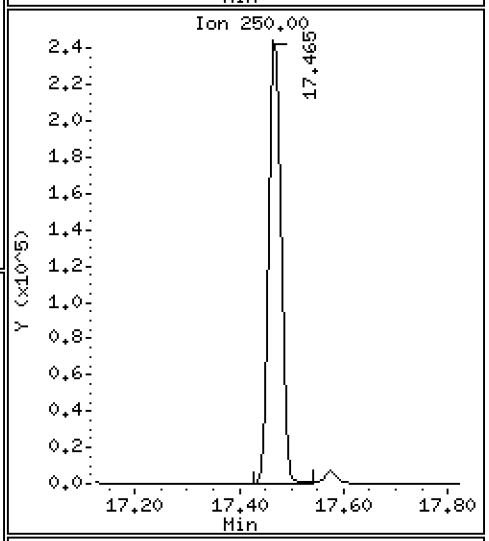


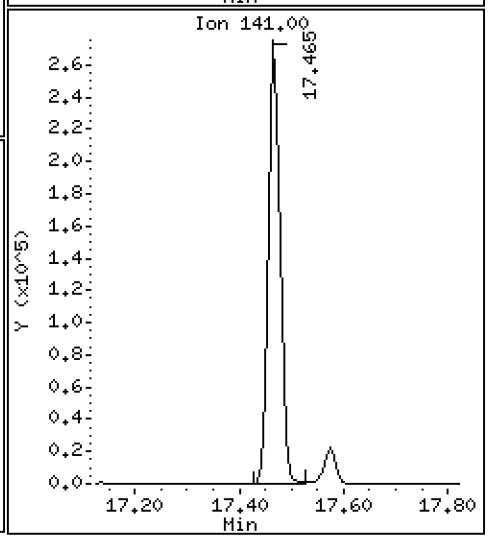












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

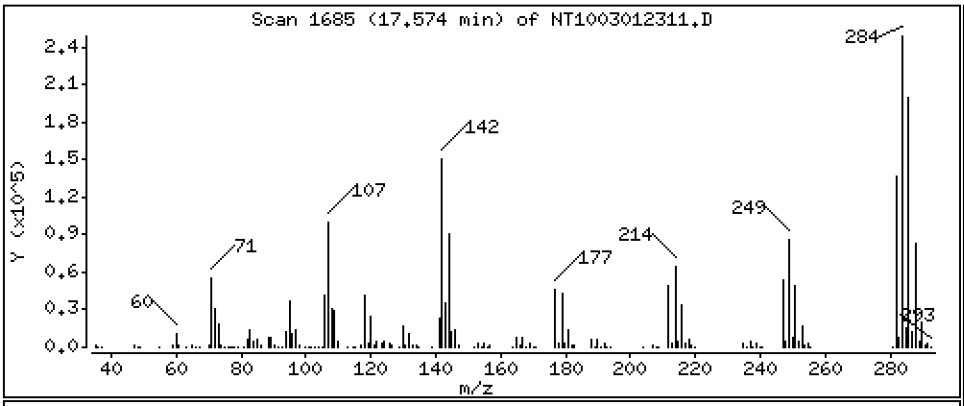
Operator: VTS

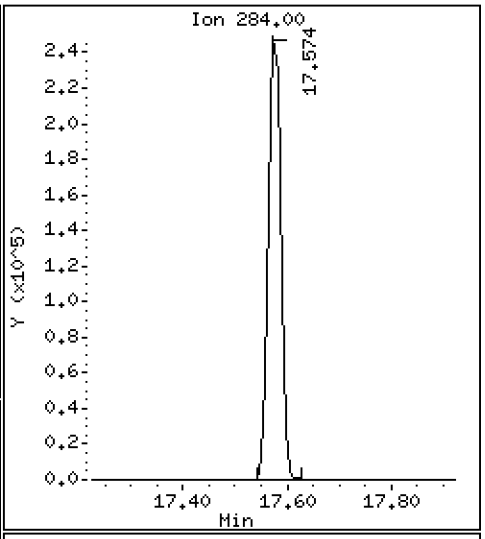
Column phase: ZB-5msi

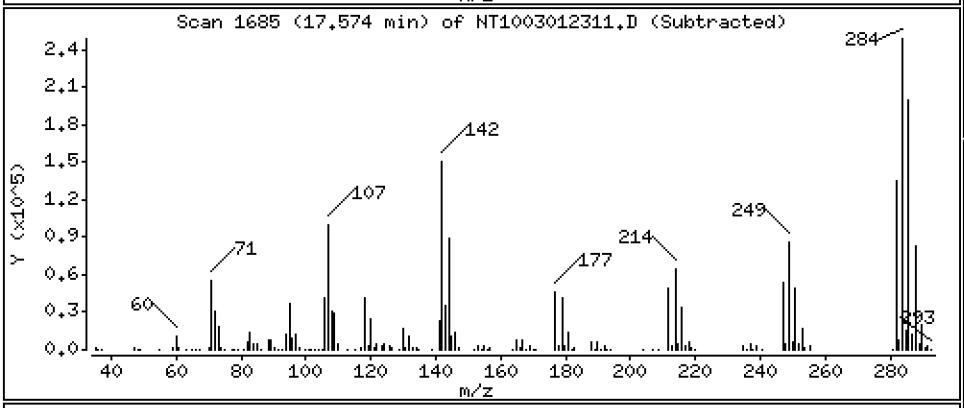
Column diameter: 0.25

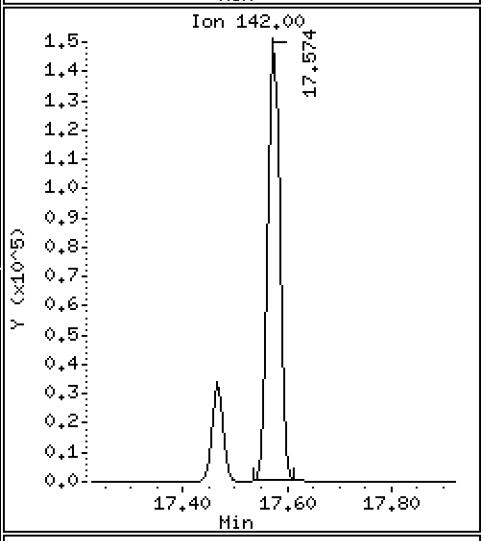
57 Hexachlorobenzene

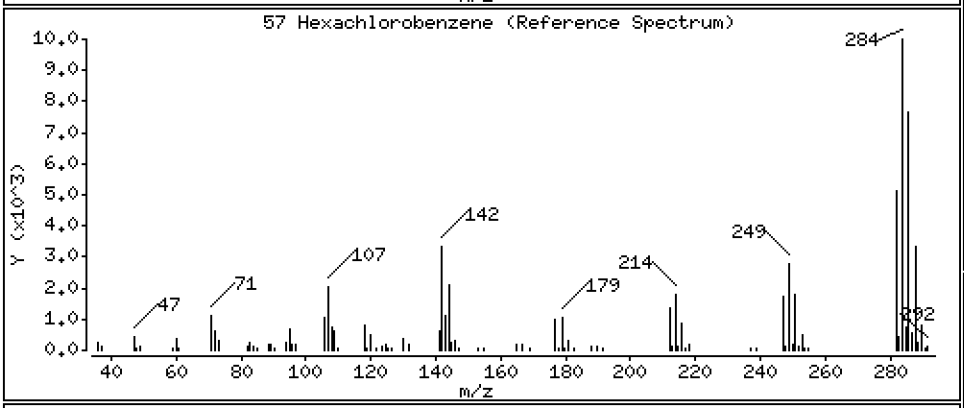
Concentration: 4.805 ug/mL

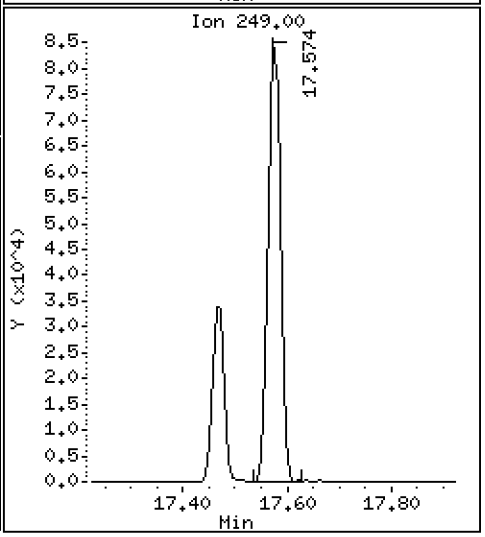


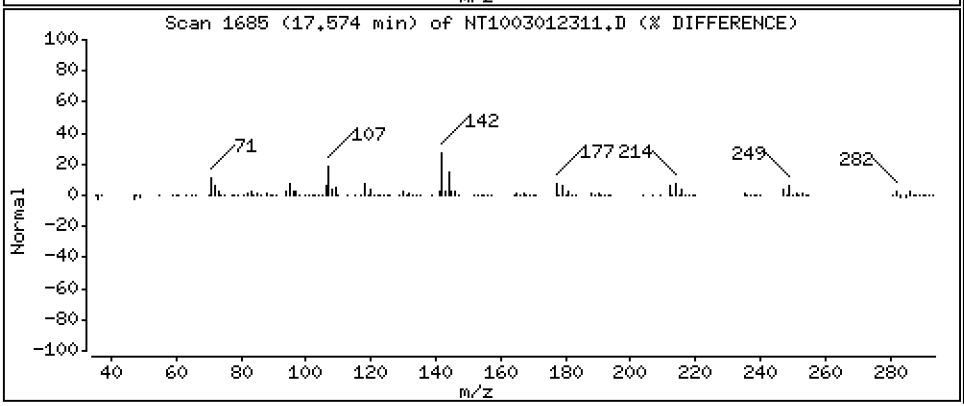












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

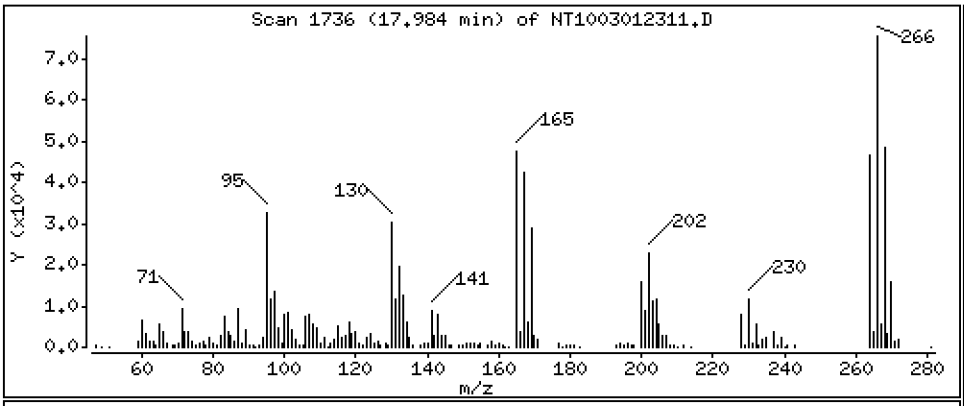
Operator: VTS

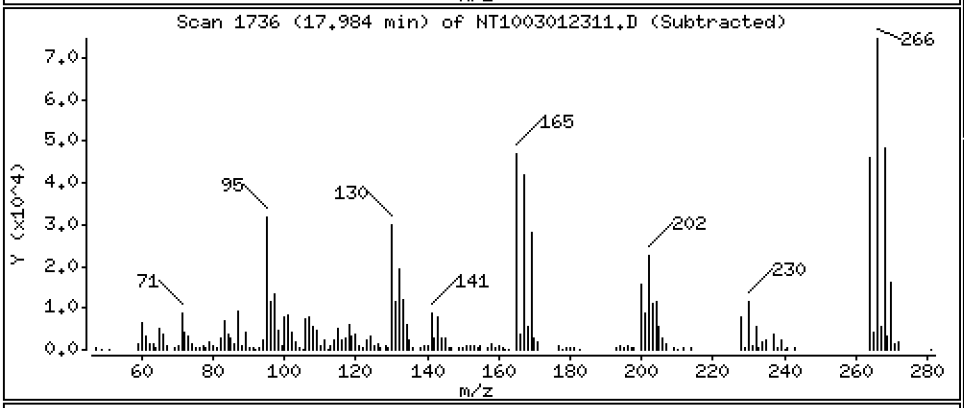
Column phase: ZB-5msi

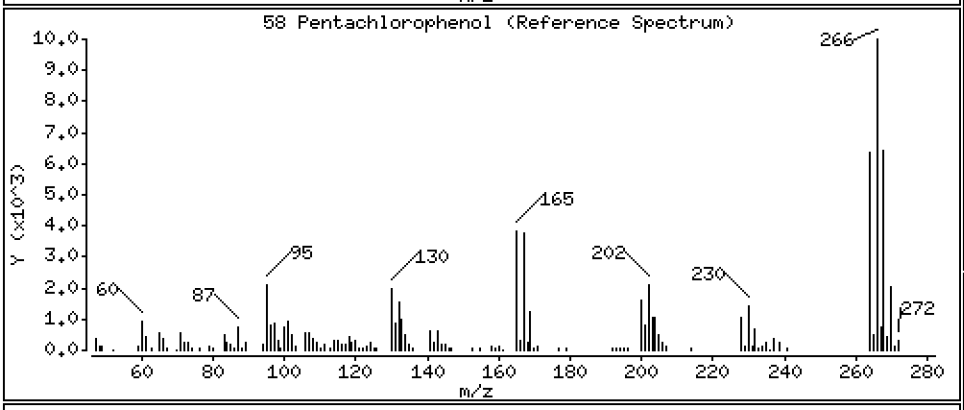
Column diameter: 0.25

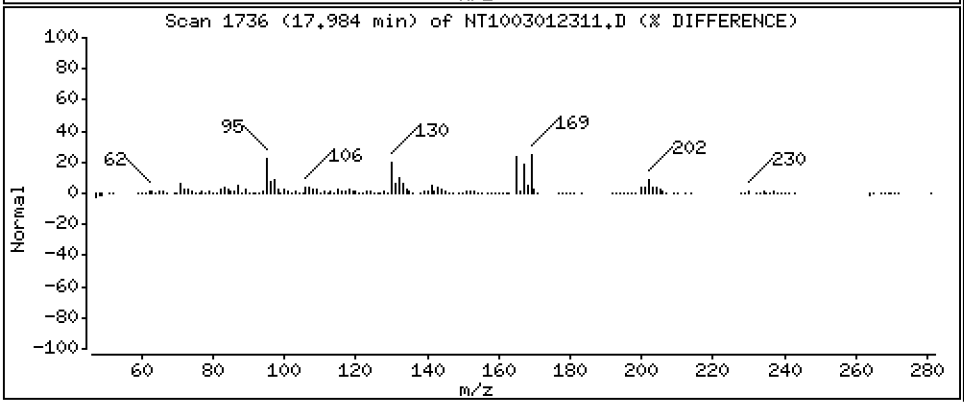
58 Pentachlorophenol

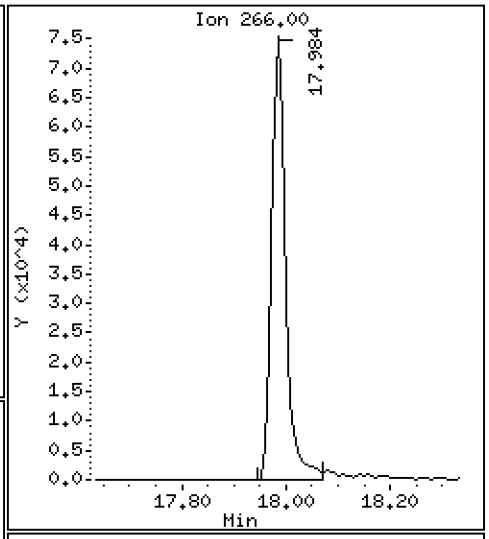
Concentration: 3.492 ug/mL

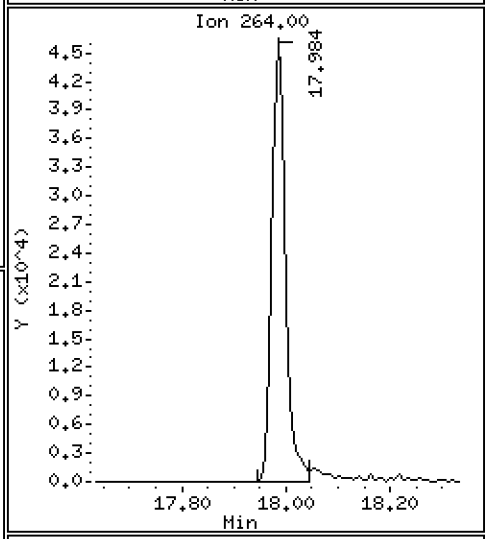


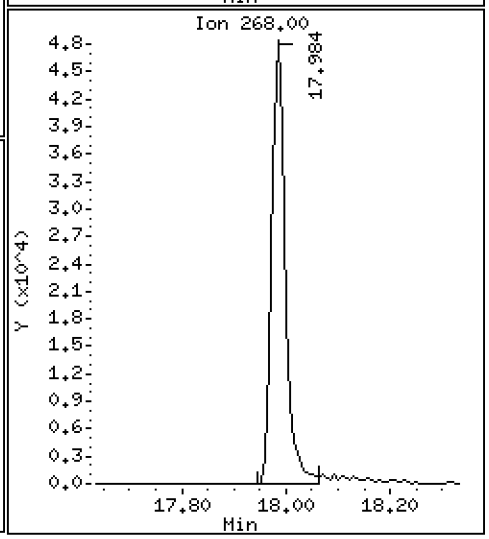












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

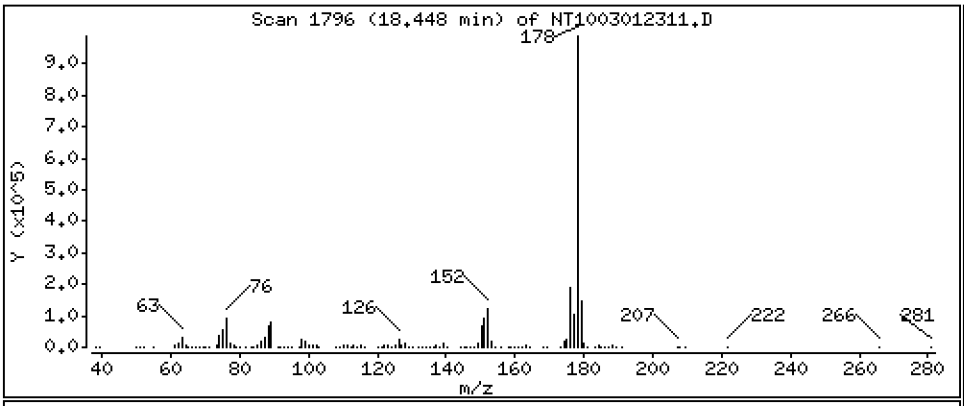
Operator: VTS

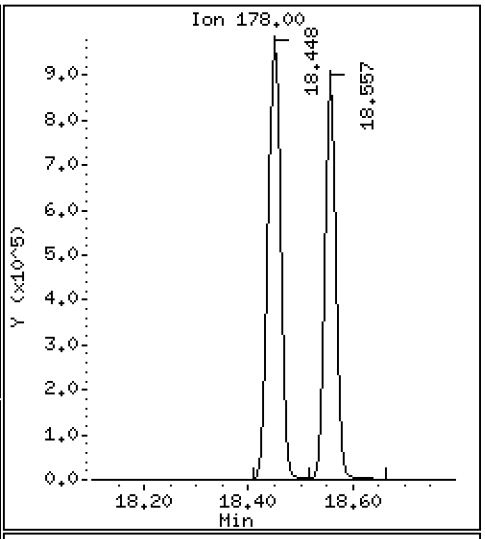
Column phase: ZB-5msi

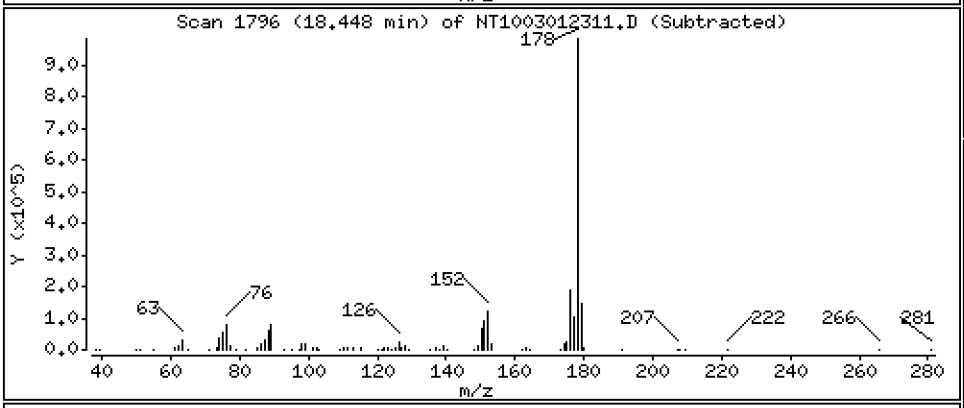
Column diameter: 0.25

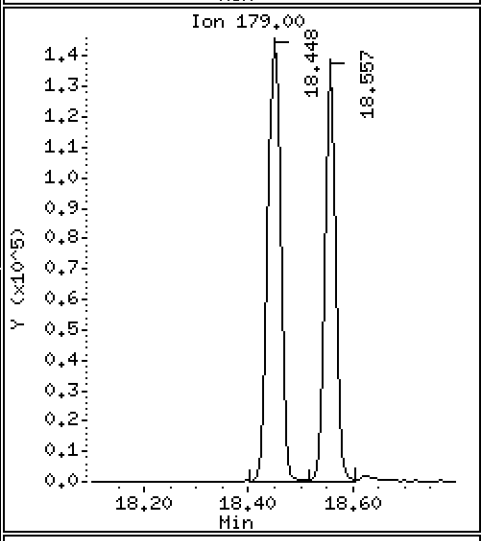
60 Phenanthrene

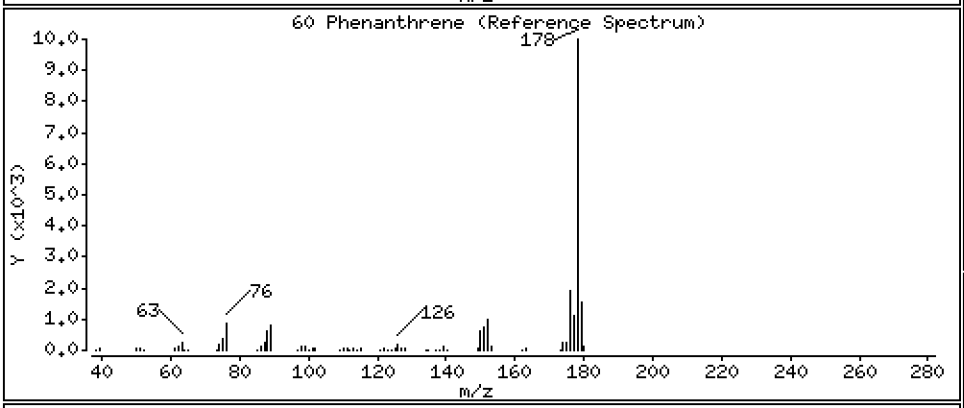
Concentration: 5.085 ug/mL

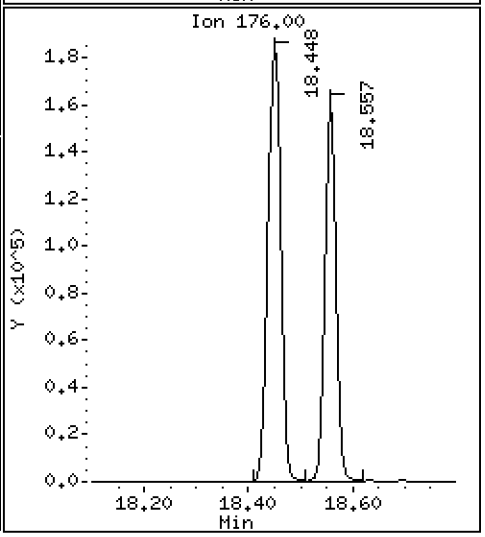


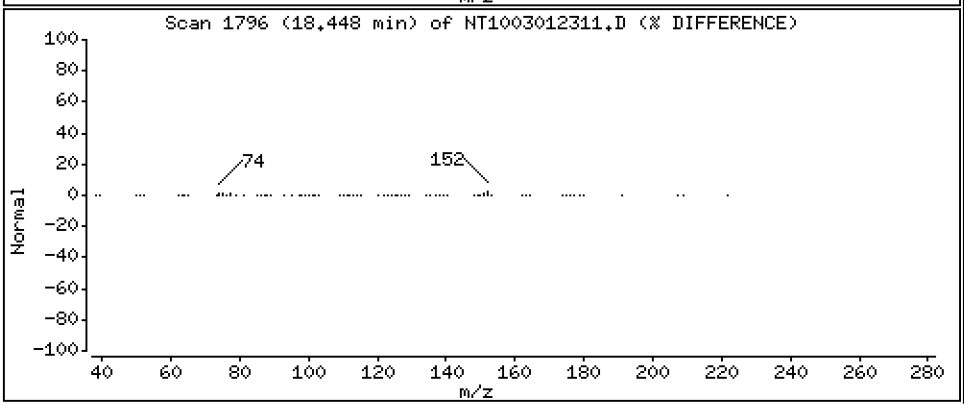












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

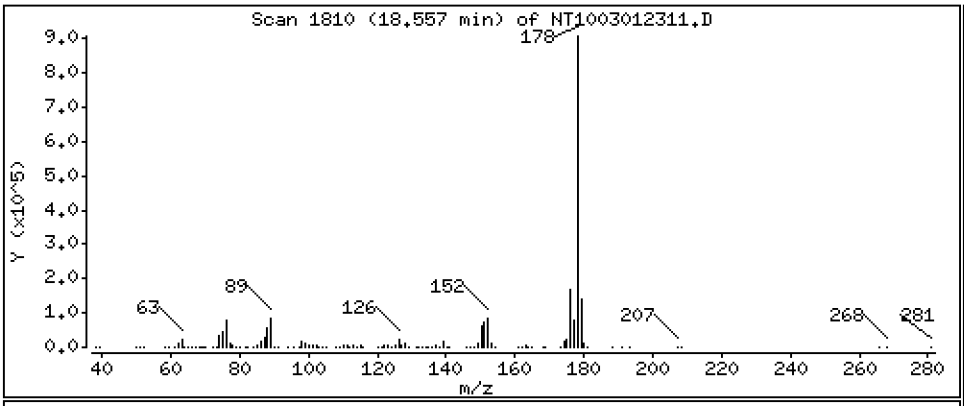
Operator: VTS

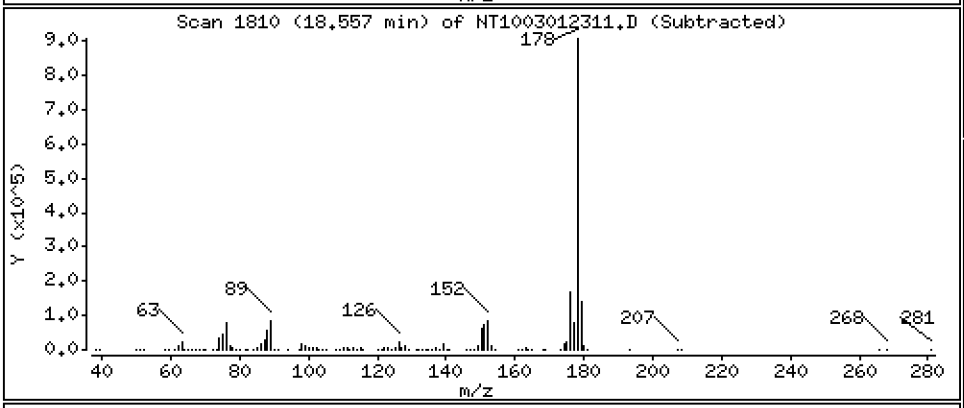
Column phase: ZB-5msi

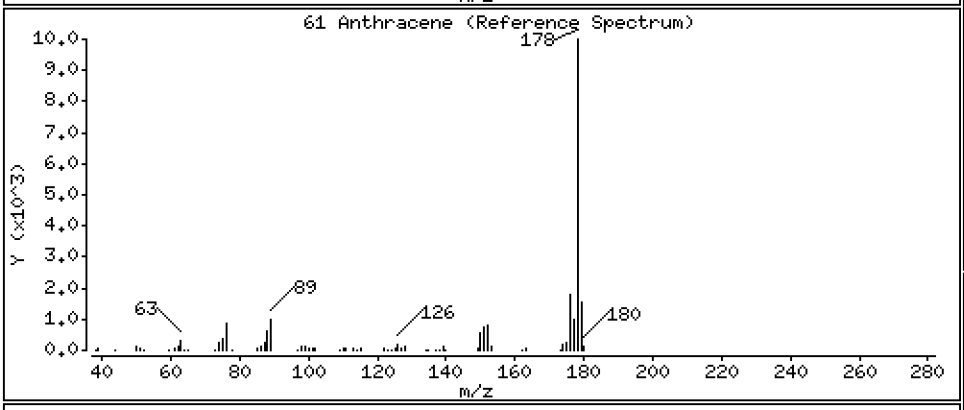
Column diameter: 0.25

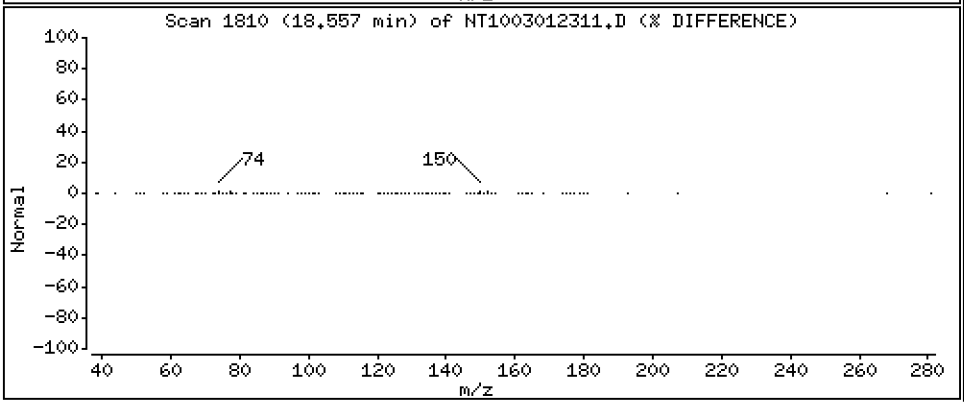
61 Anthracene

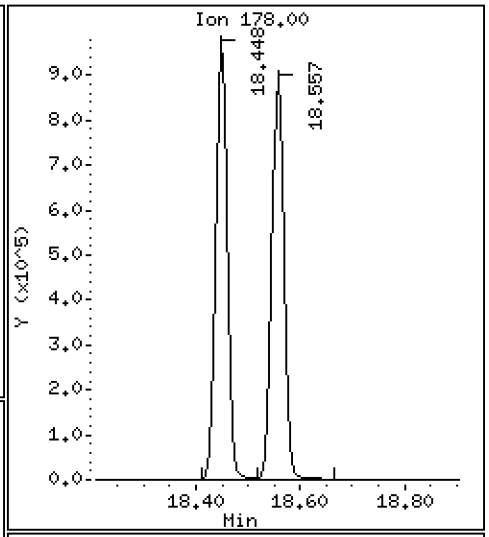
Concentration: 4.585 ug/mL

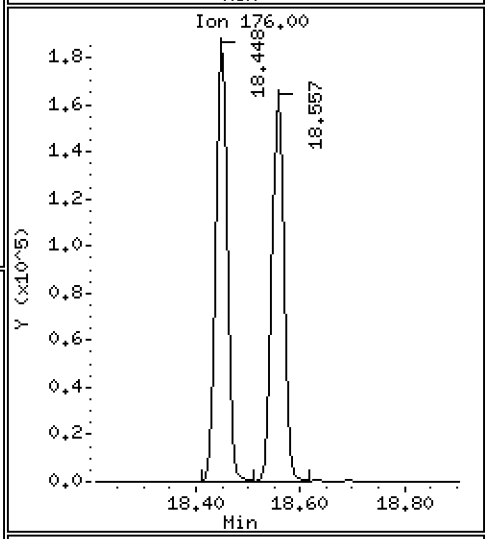


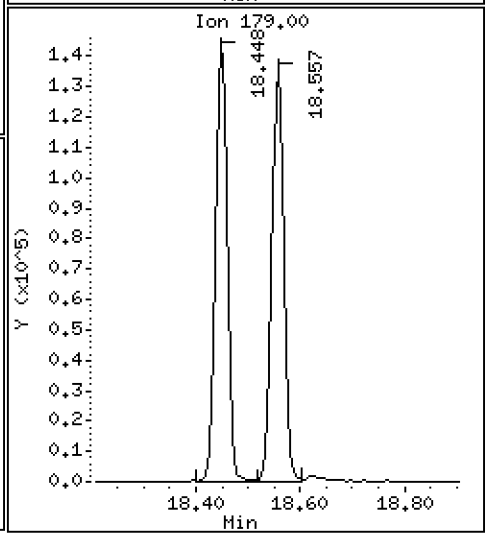












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

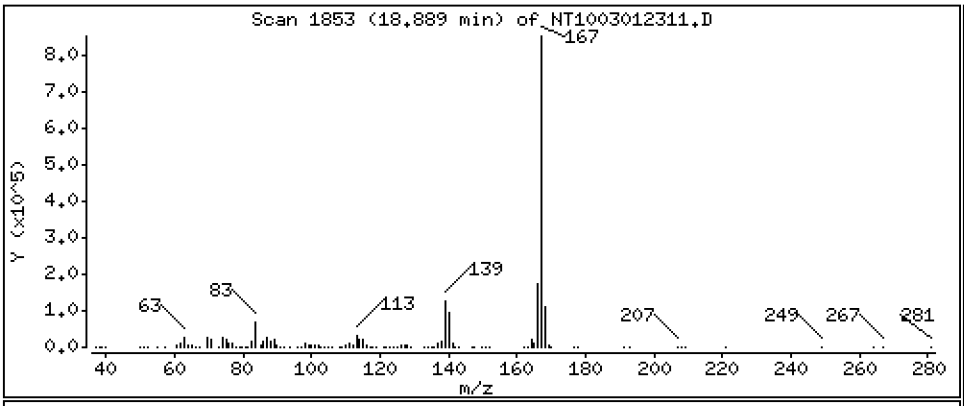
Operator: VTS

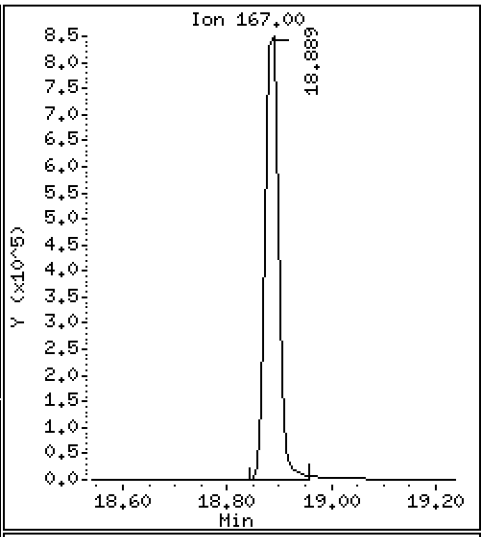
Column phase: ZB-5msi

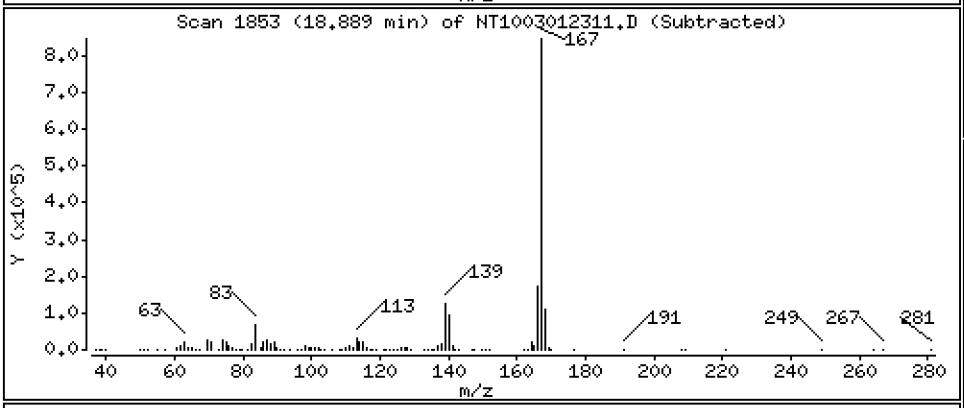
Column diameter: 0.25

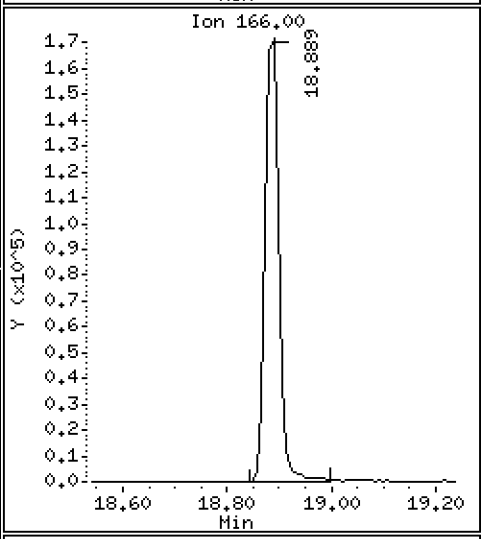
62 Carbazole

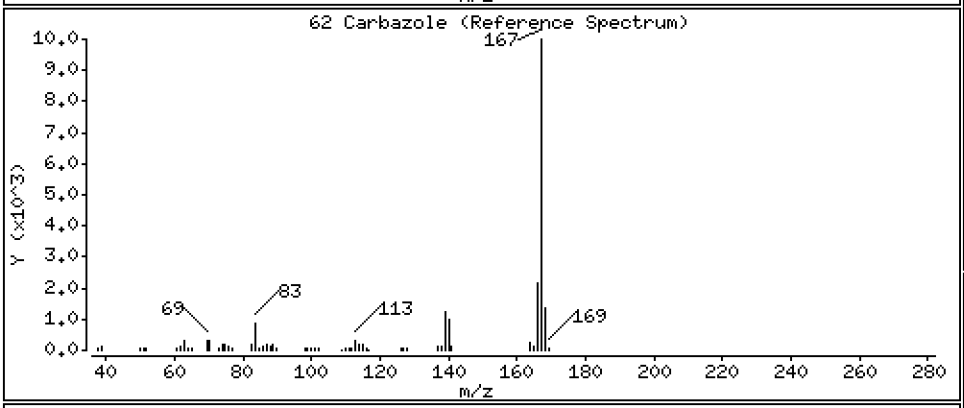
Concentration: 5.335 ug/mL

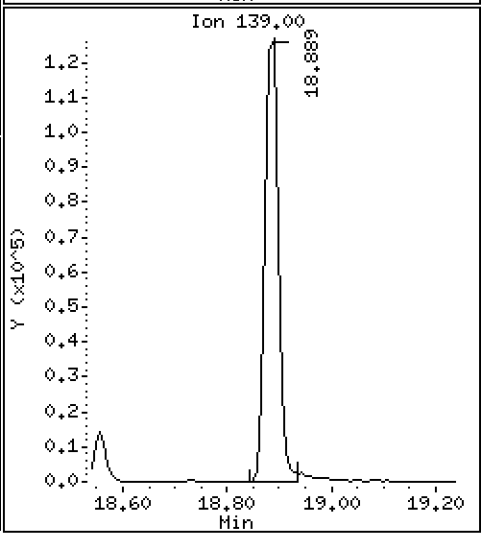


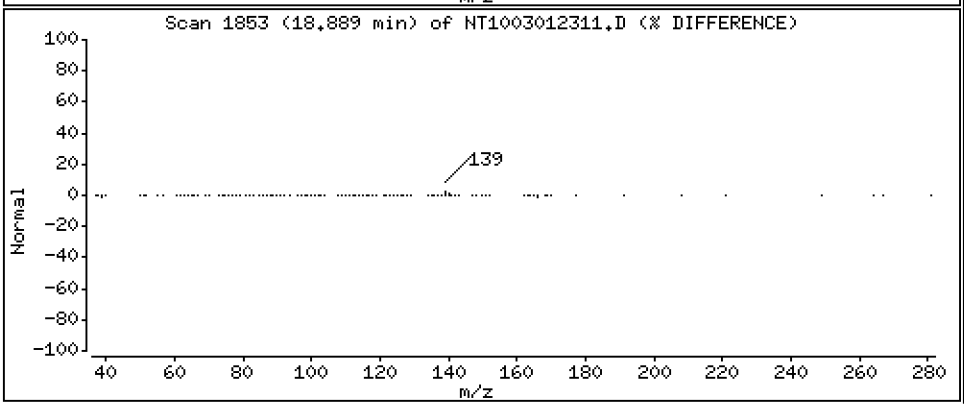












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

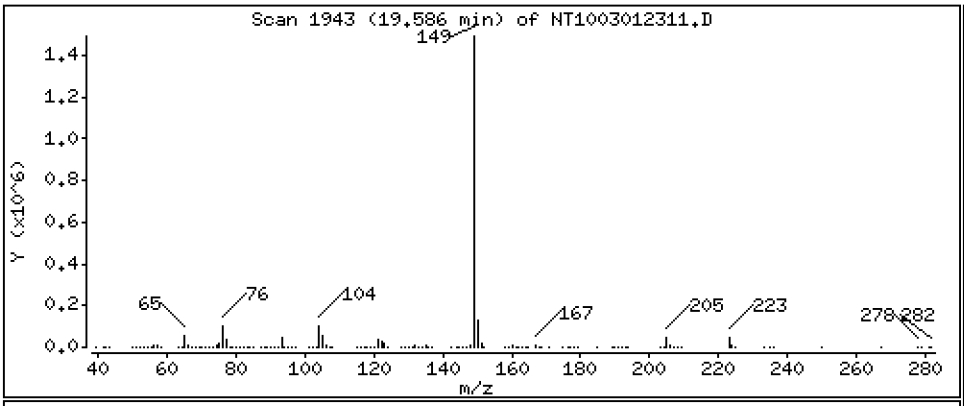
Operator: VTS

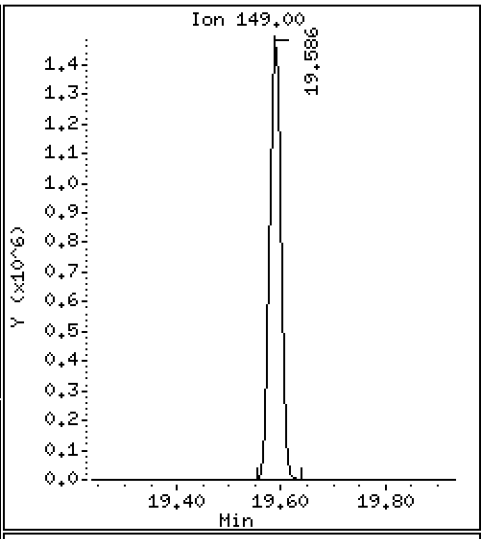
Column phase: ZB-5msi

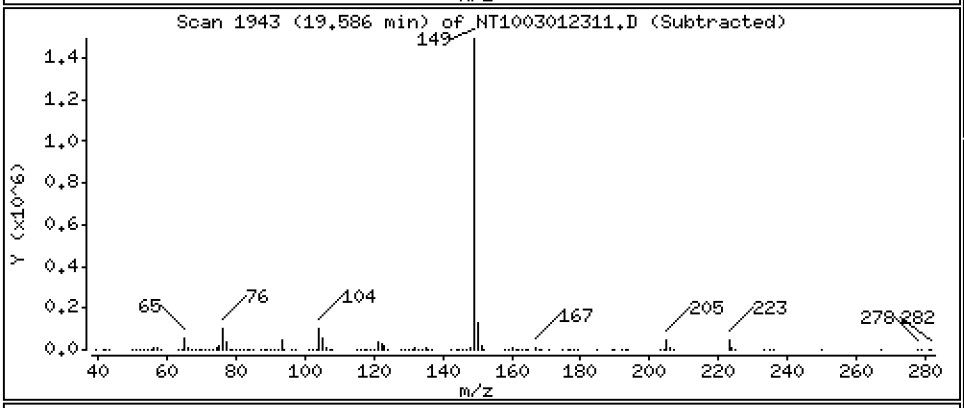
Column diameter: 0.25

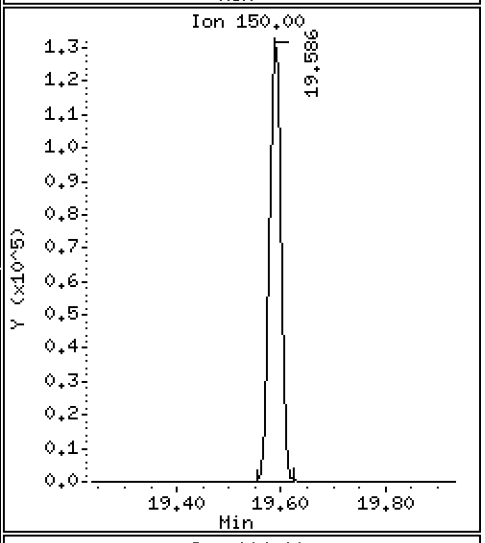
63 Di-n-butylphthalate

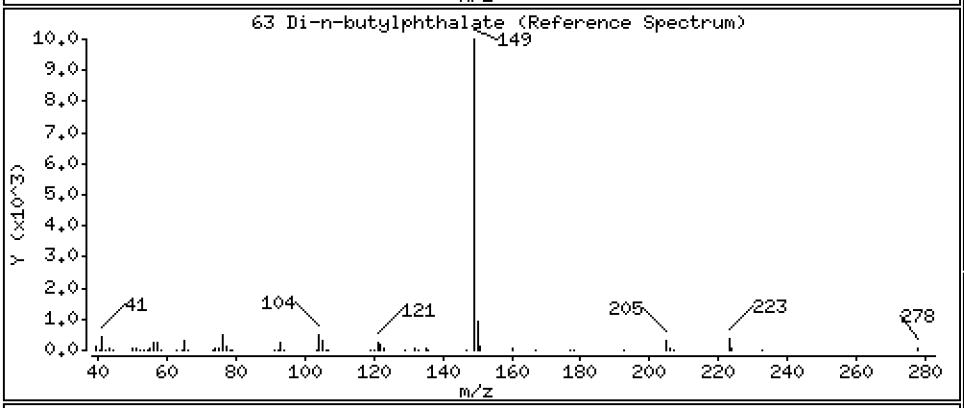
Concentration: 5.463 ug/mL

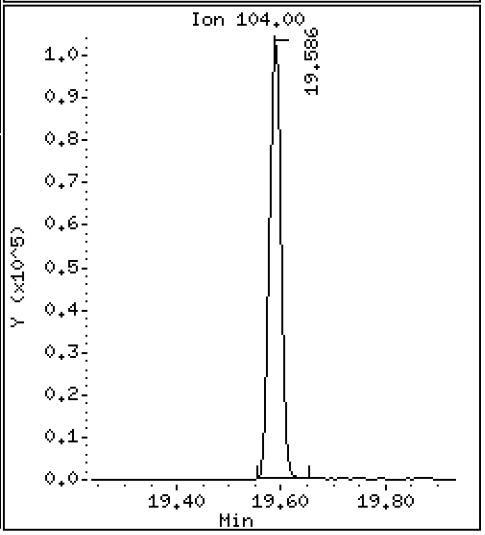


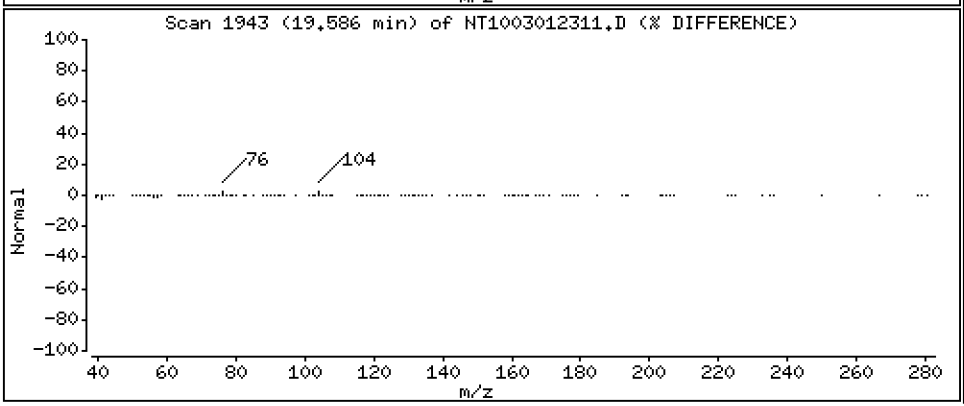












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

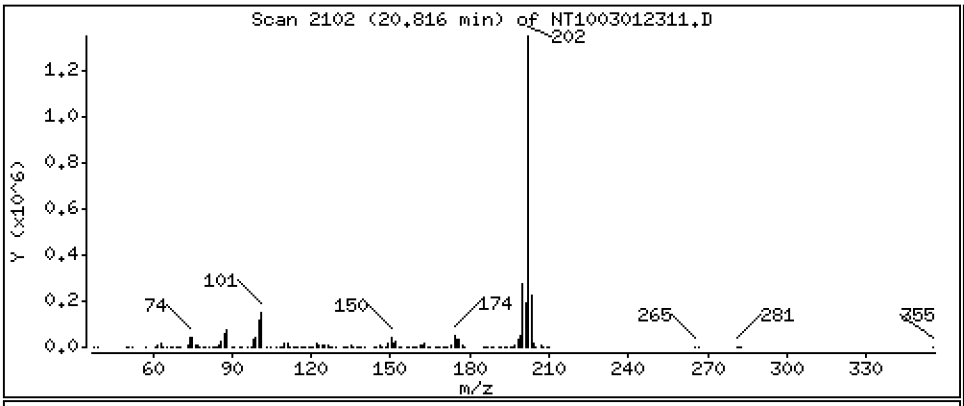
Operator: VTS

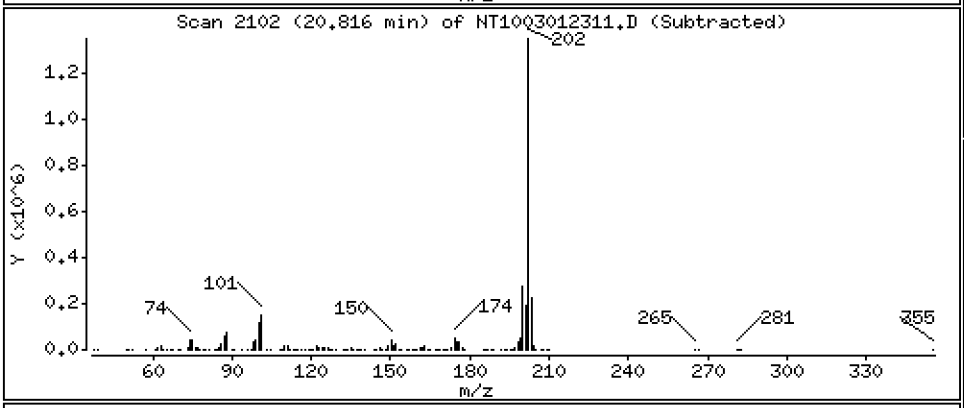
Column phase: ZB-5msi

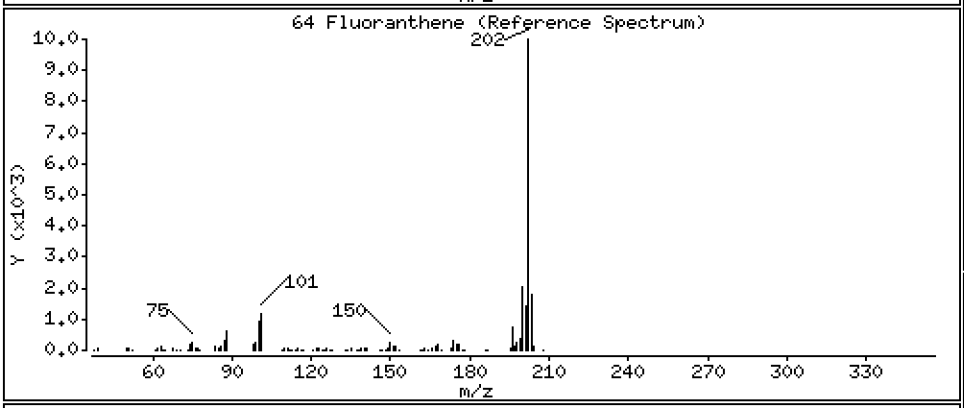
Column diameter: 0.25

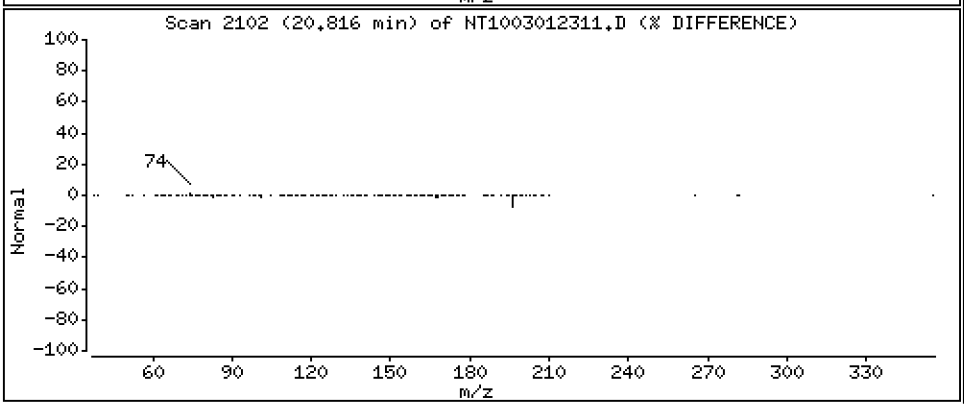
64 Fluoranthene

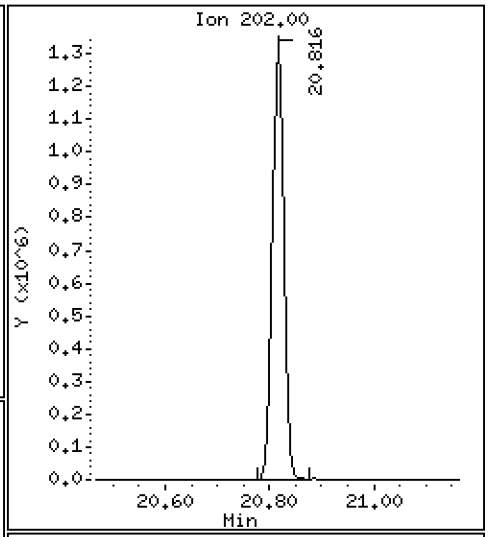
Concentration: 4.542 ug/mL

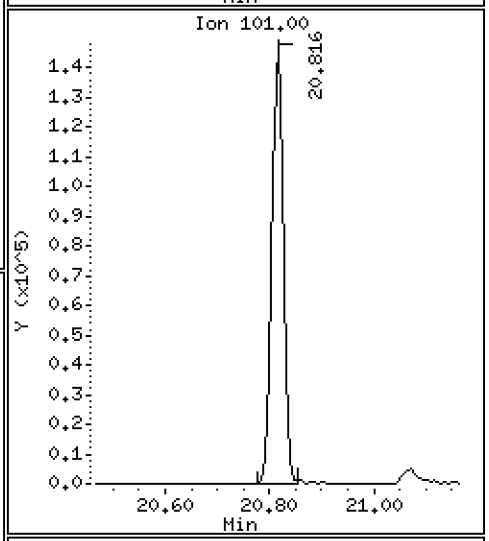


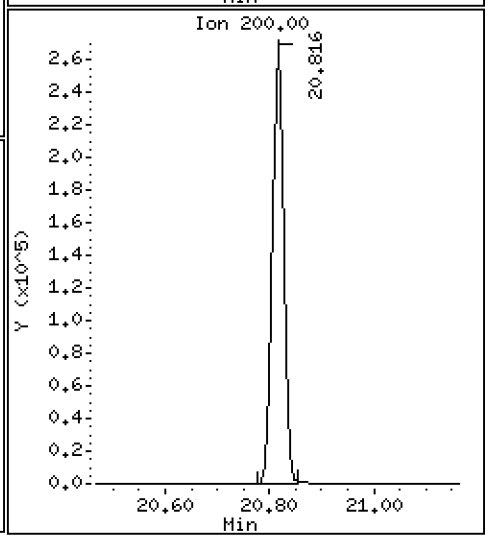












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

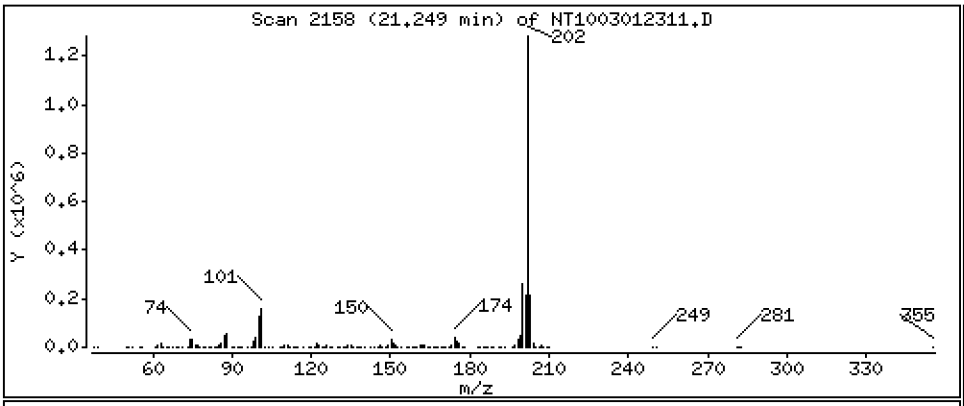
Operator: VTS

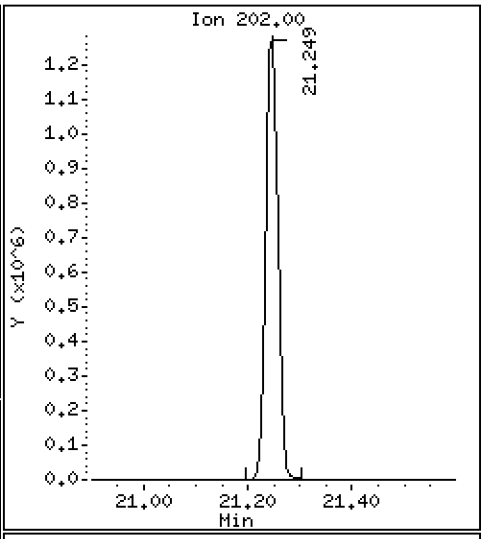
Column phase: ZB-5msi

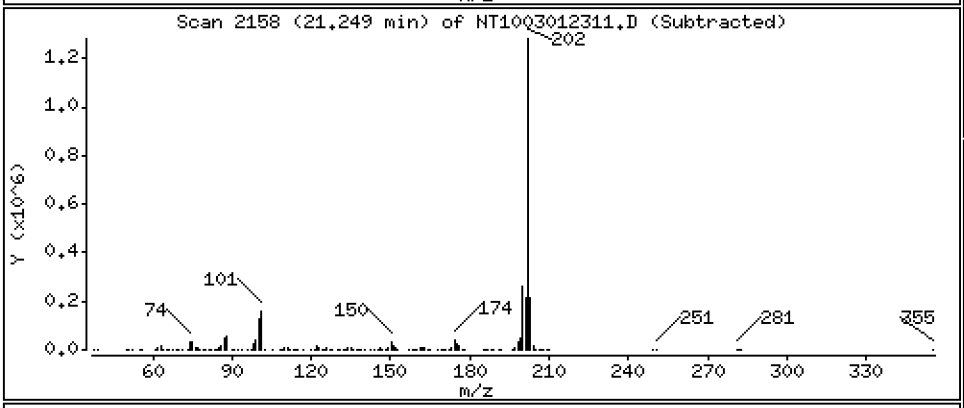
Column diameter: 0.25

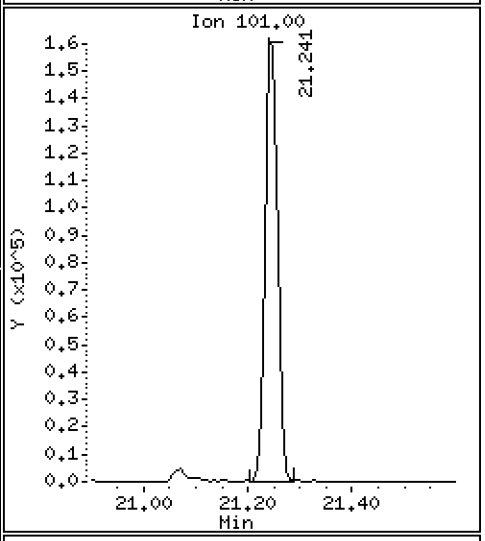
65 Pyrene

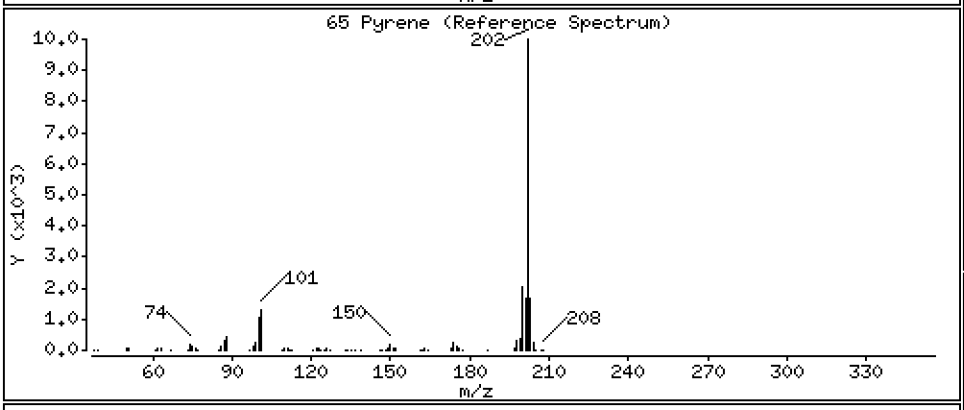
Concentration: 4.626 ug/mL

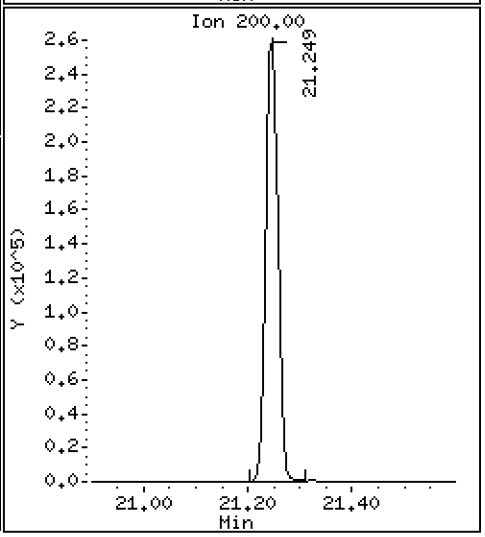


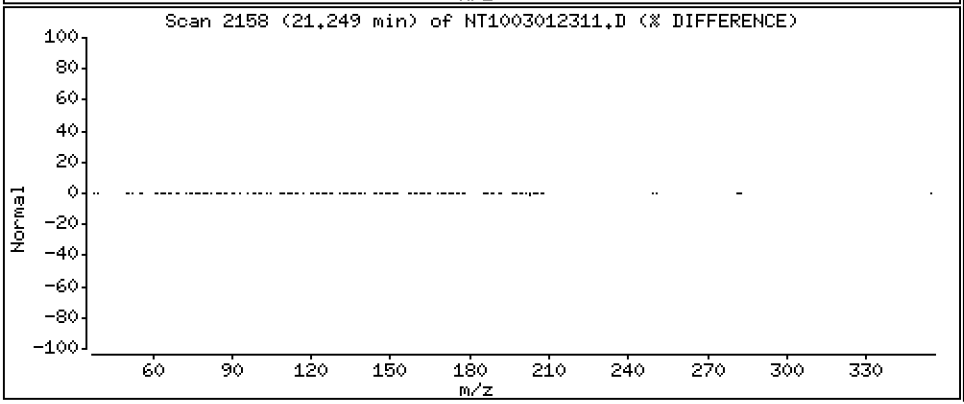












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

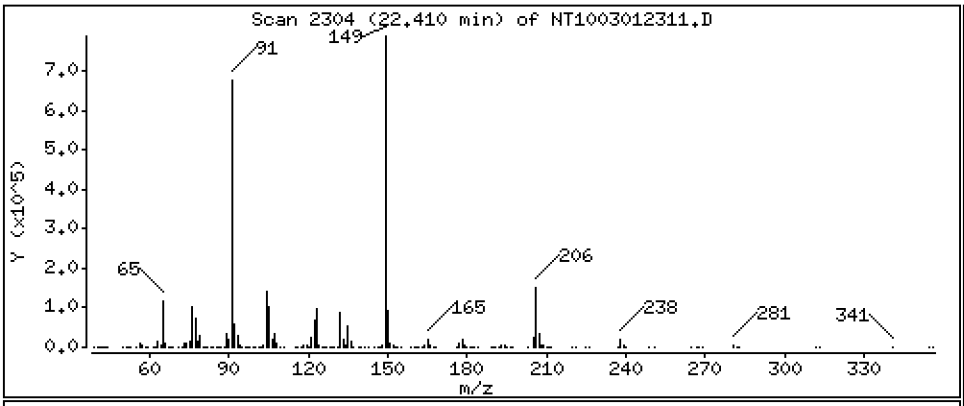
Operator: VTS

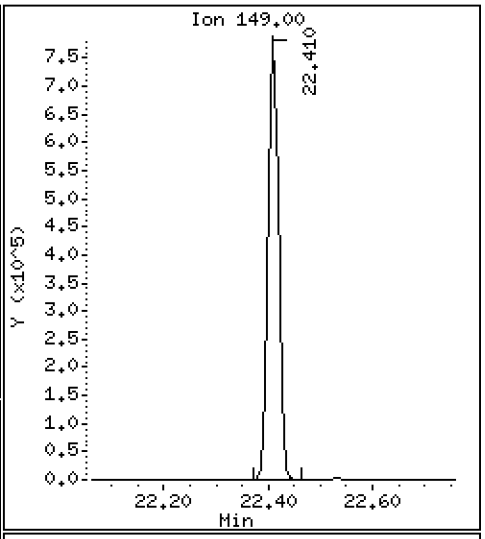
Column phase: ZB-5msi

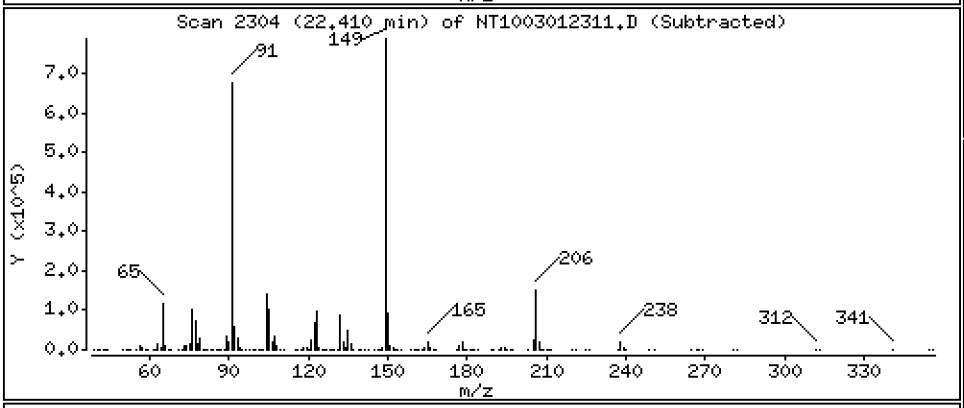
Column diameter: 0.25

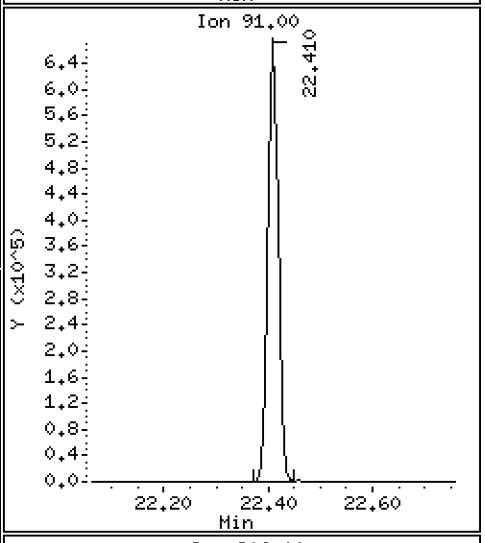
67 Butylbenzylphthalate

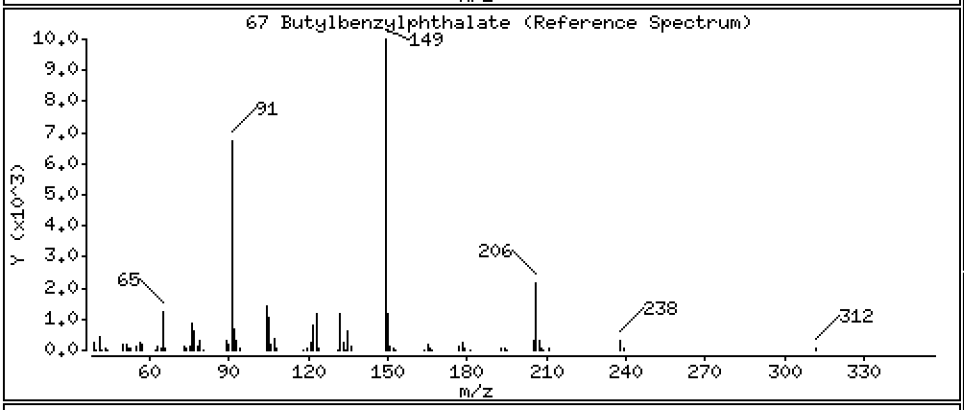
Concentration: 4.525 ug/mL

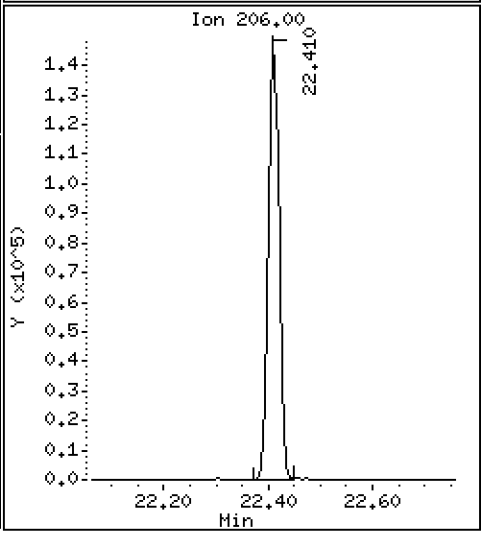


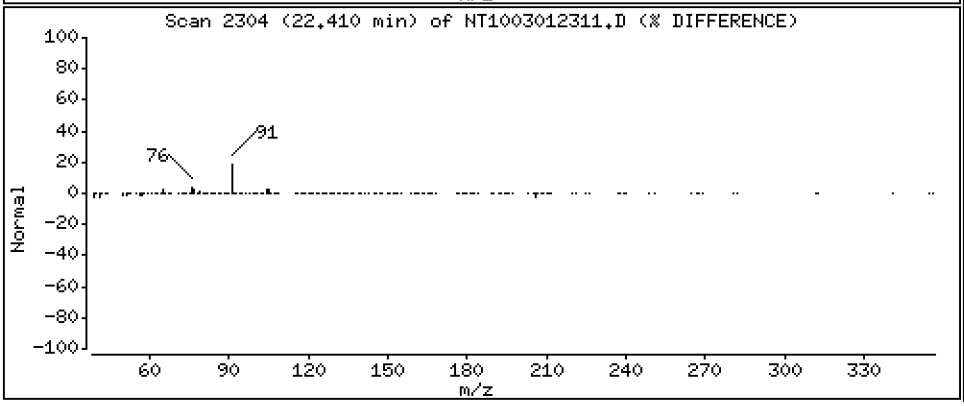












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

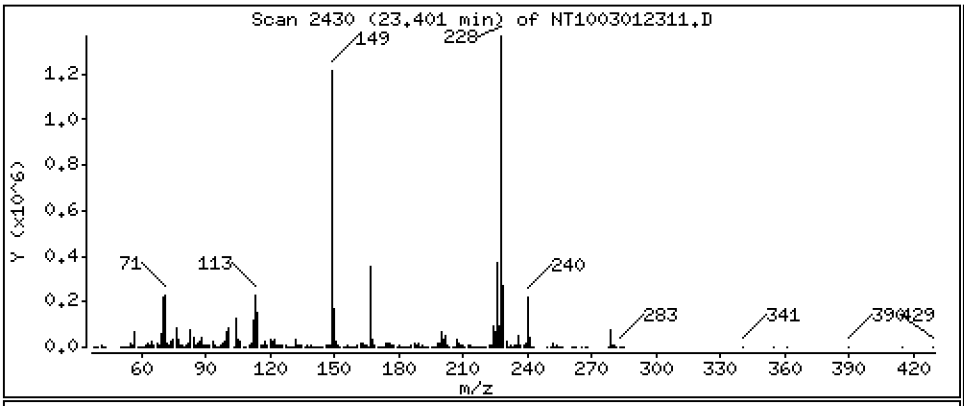
Operator: VTS

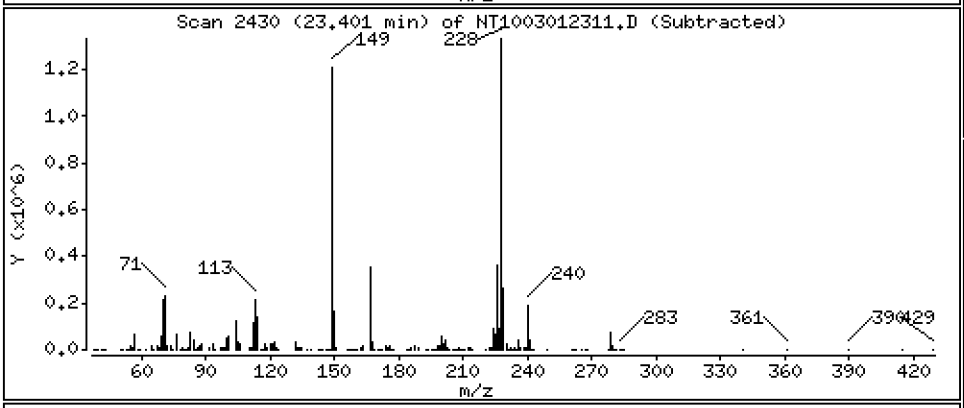
Column phase: ZB-5msi

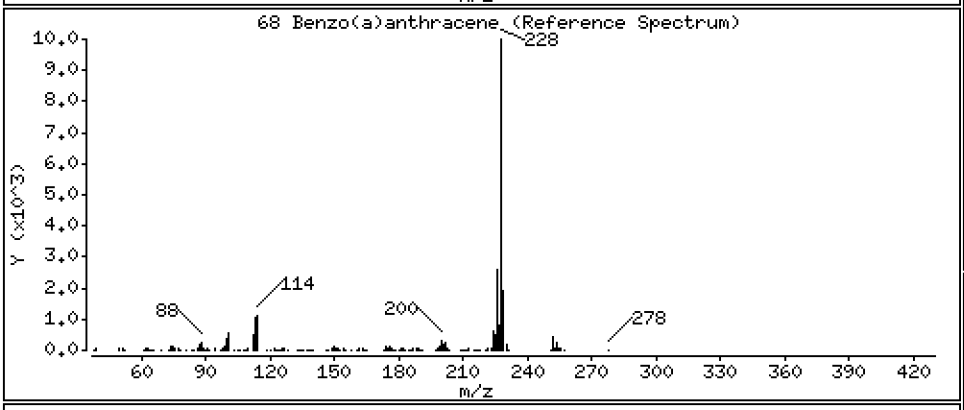
Column diameter: 0.25

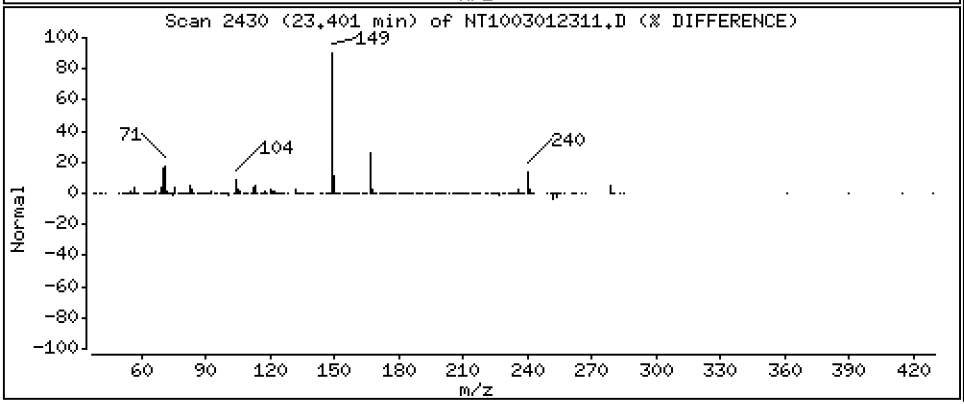
68 Benzo(a)anthracene

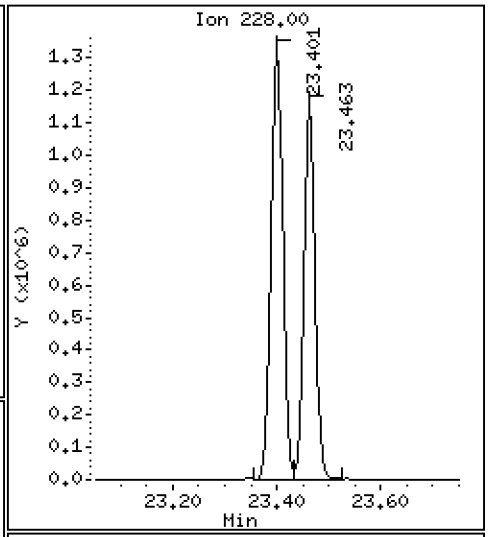
Concentration: 4.578 ug/mL

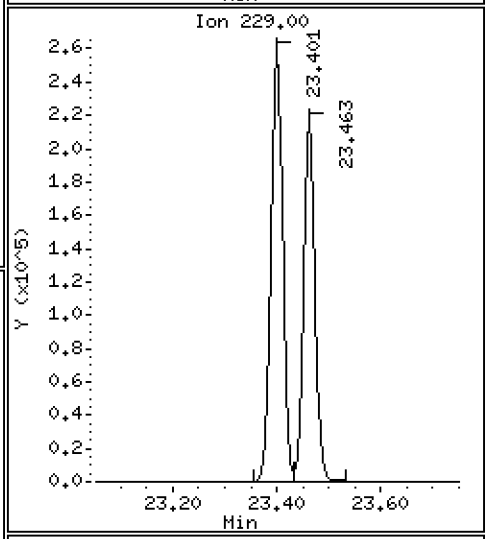


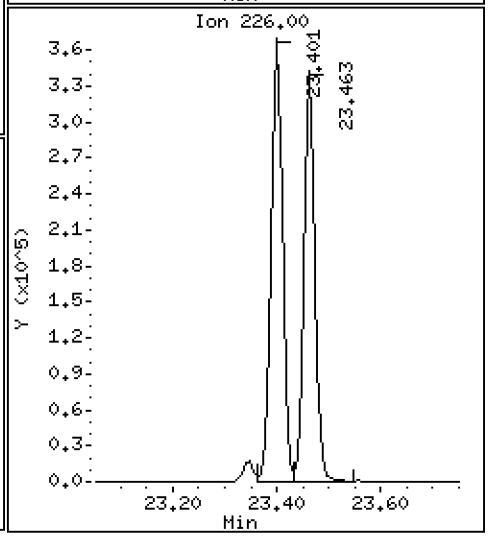












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

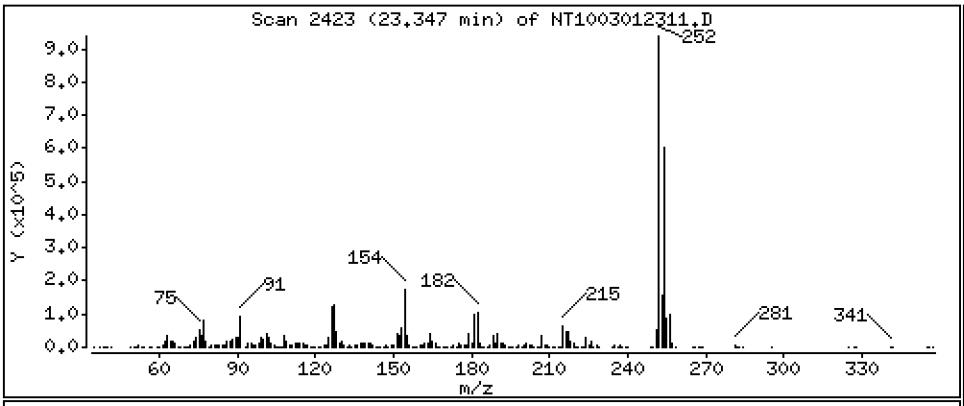
Operator: VTS

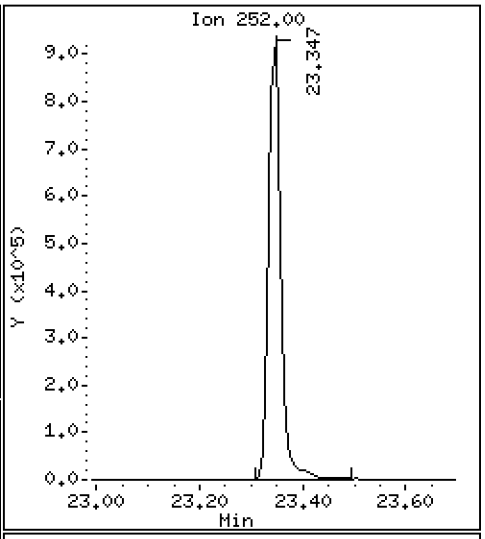
Column phase: ZB-5msi

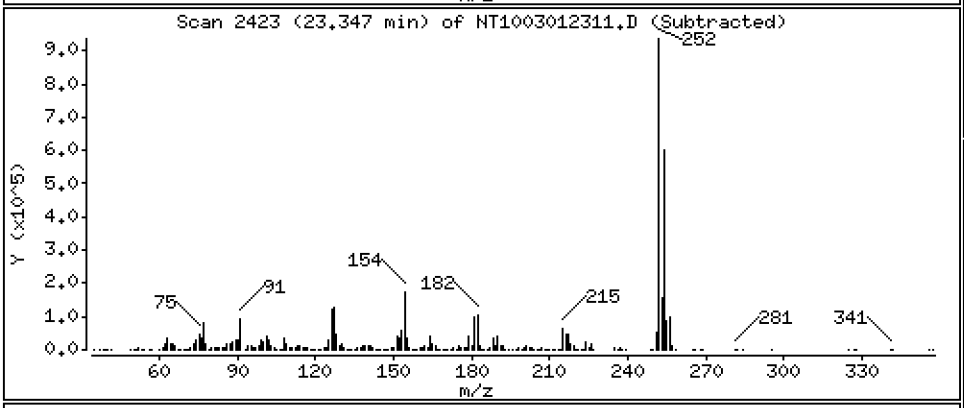
Column diameter: 0.25

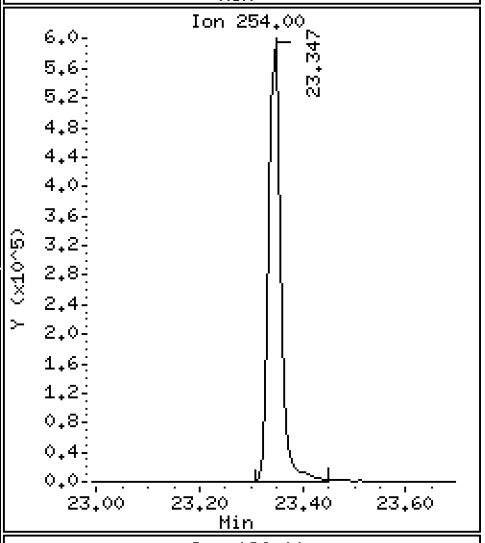
70 3,3'-Dichlorobenzidine

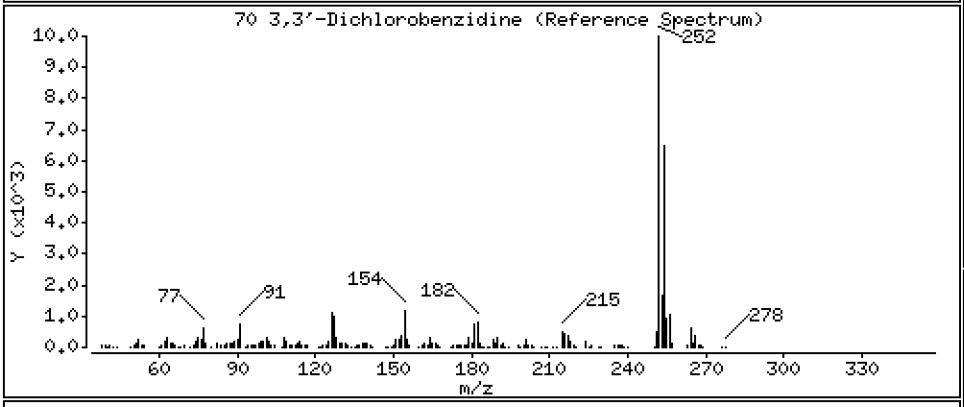
Concentration: 7.383 ug/mL

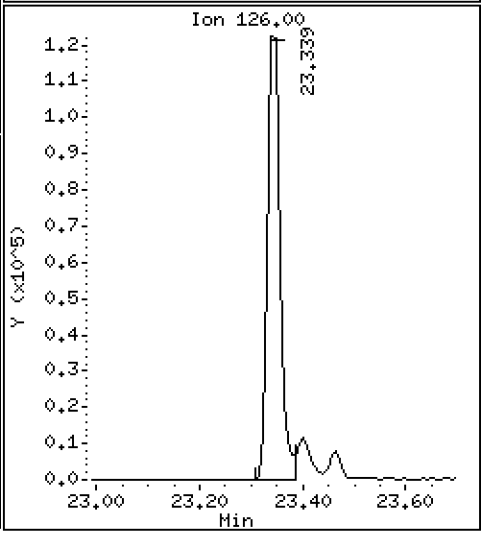


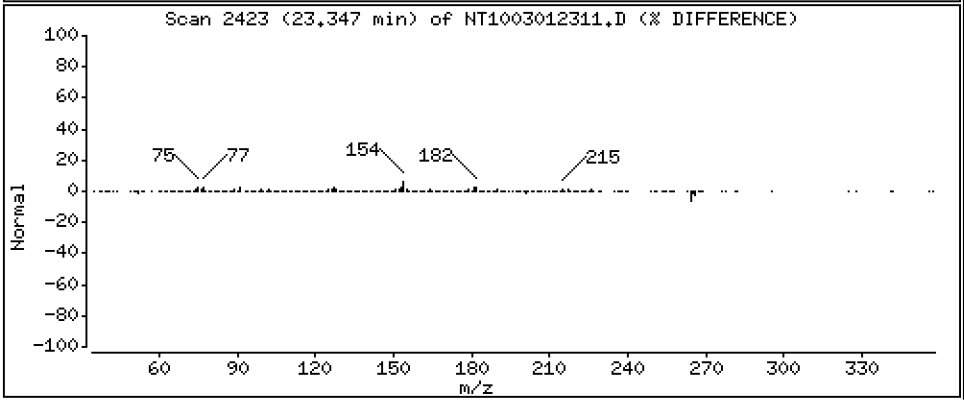












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

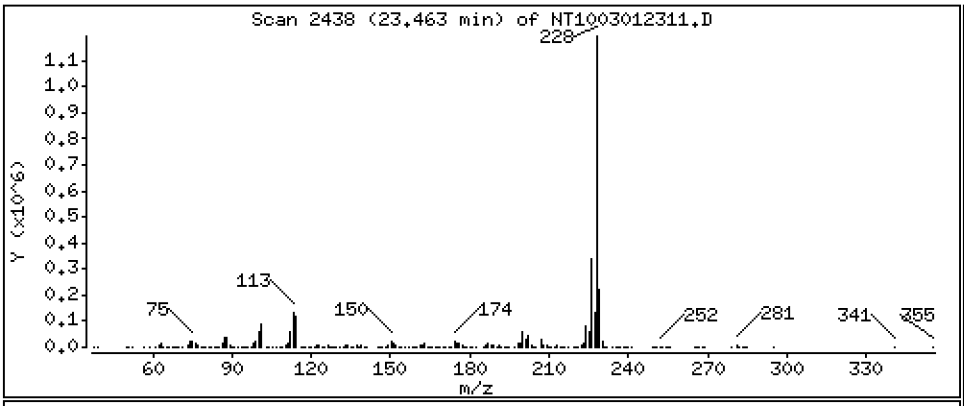
Operator: VTS

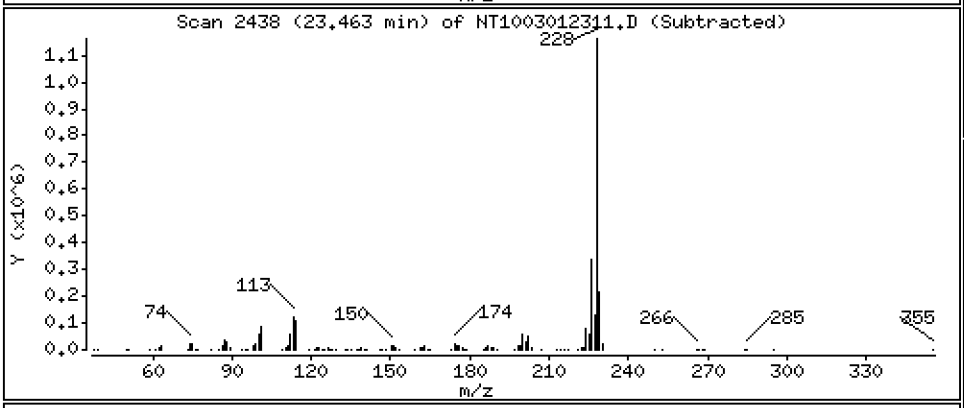
Column phase: ZB-5msi

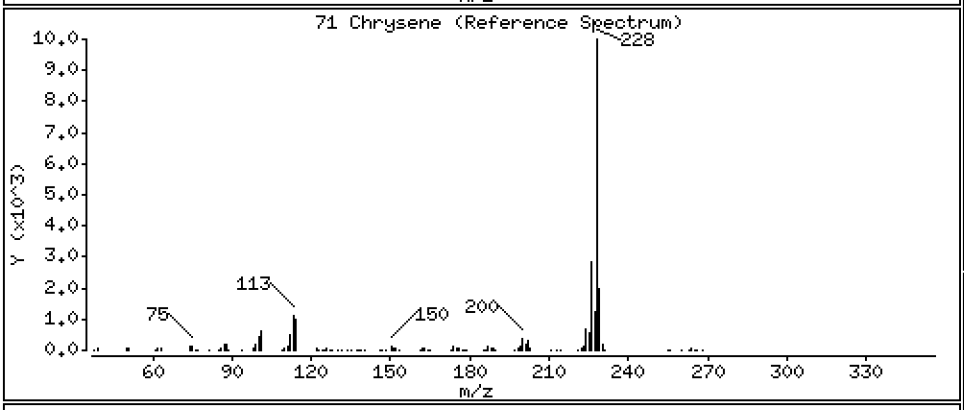
Column diameter: 0.25

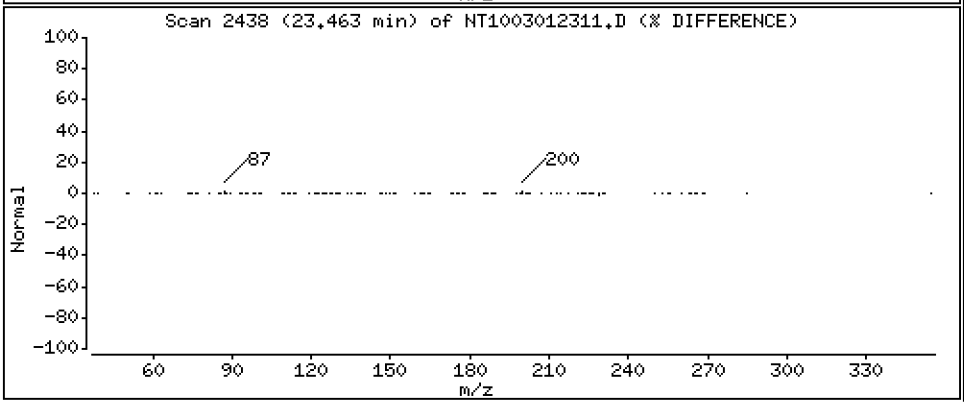
71 Chrysene

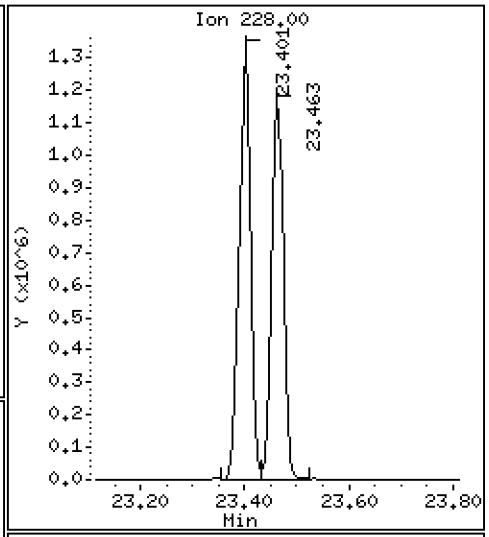
Concentration: 4.967 ug/mL

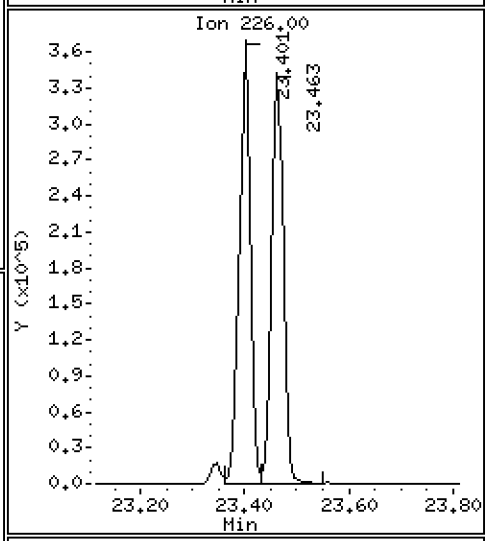


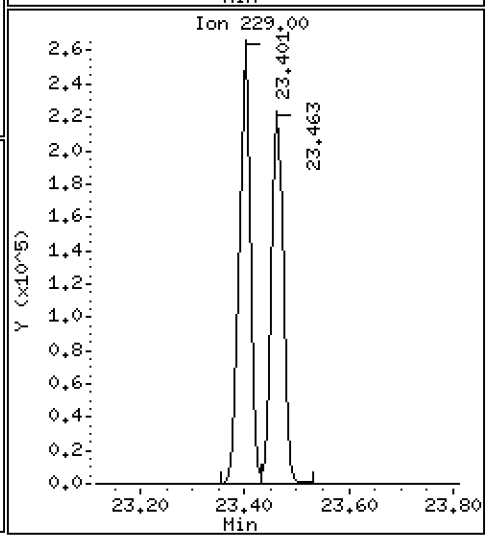












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

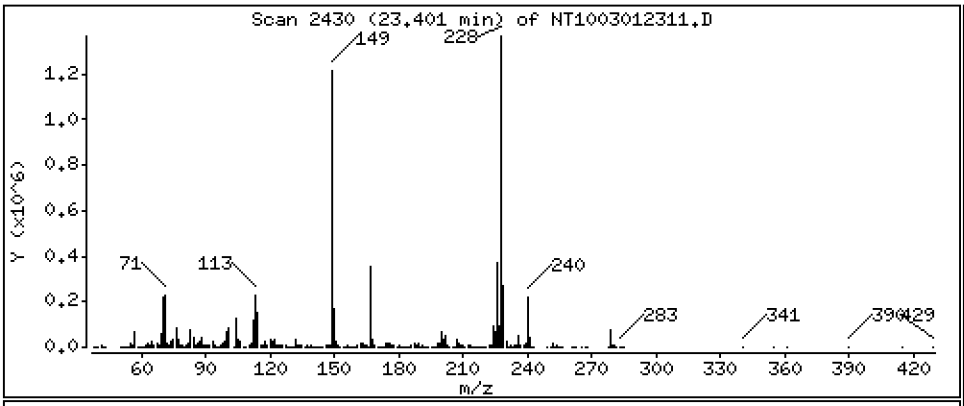
Operator: VTS

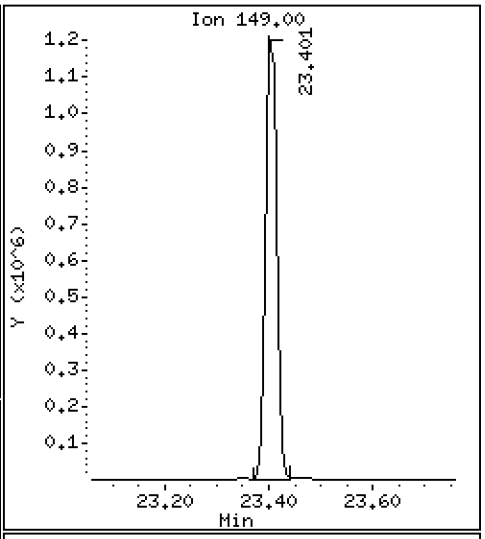
Column phase: ZB-5msi

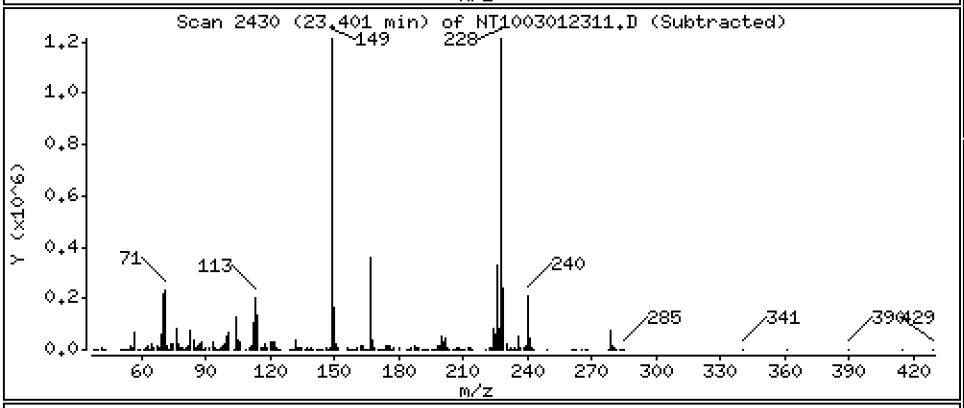
Column diameter: 0.25

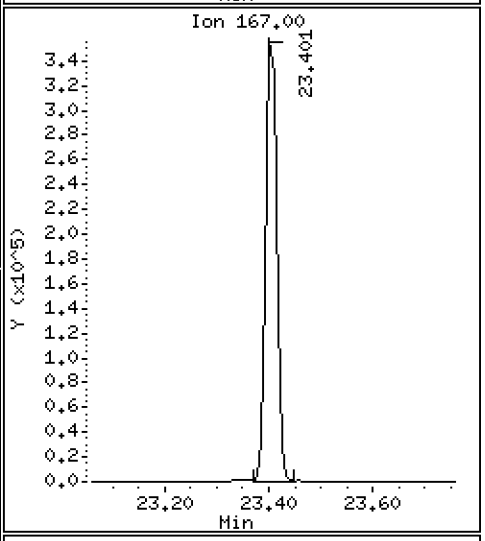
72 bis(2-Ethylhexyl)phthalate

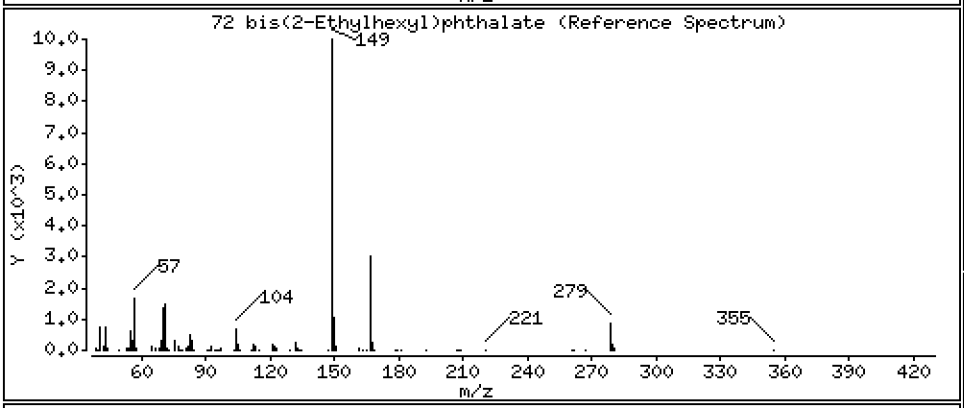
Concentration: 4.956 ug/mL

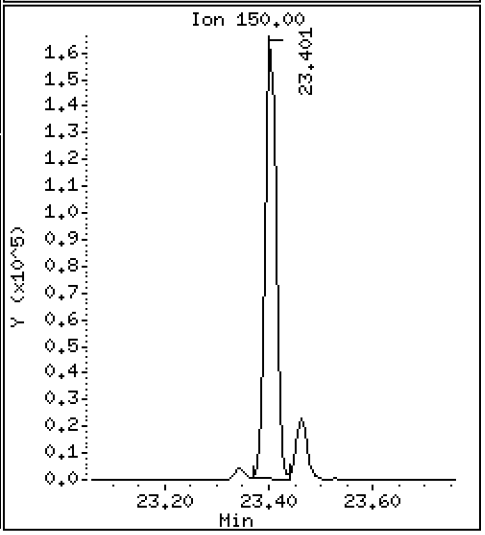


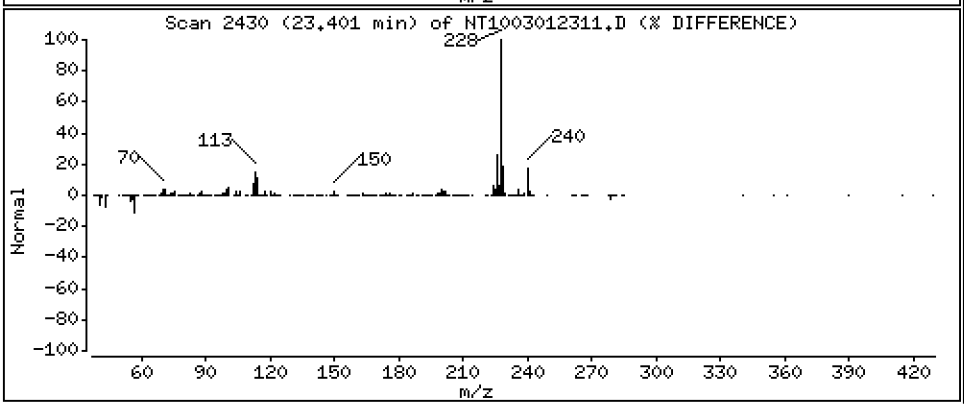












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

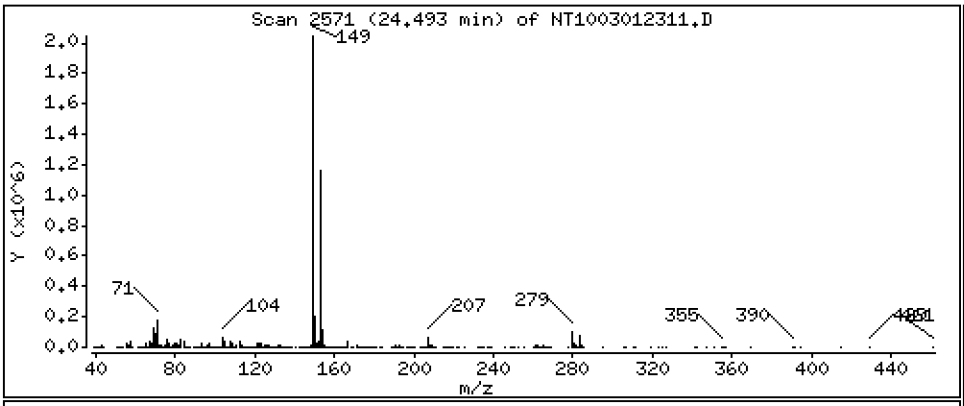
Operator: VTS

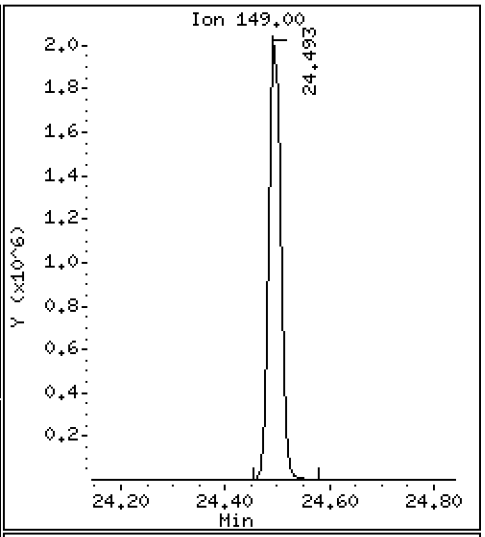
Column phase: ZB-5msi

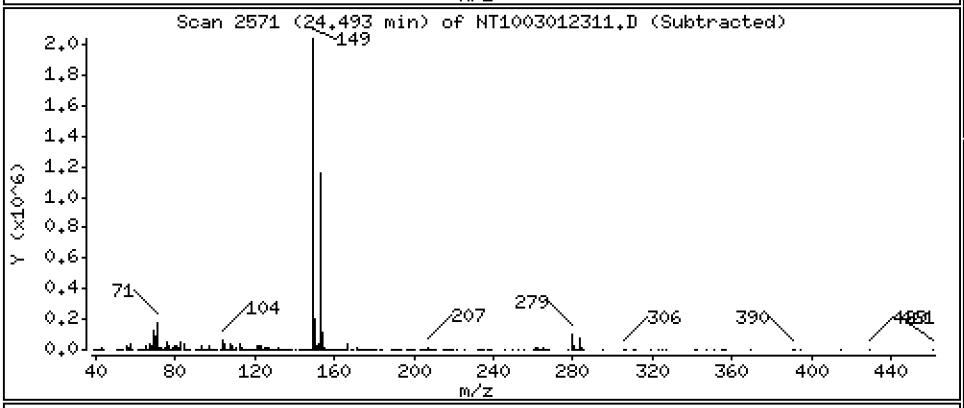
Column diameter: 0.25

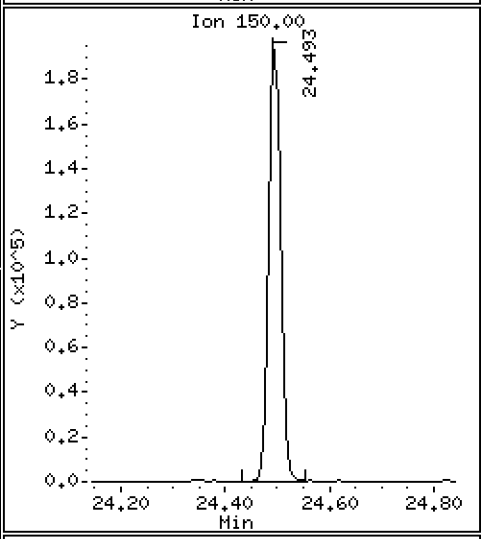
73 Di-n-octylphthalate

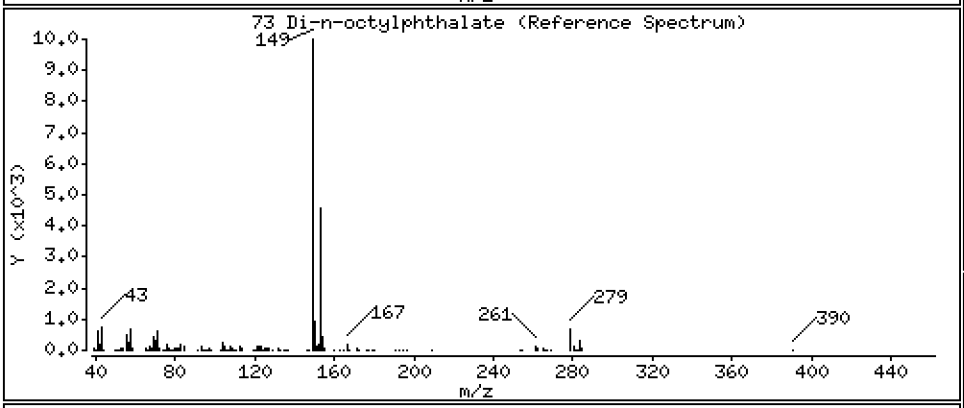
Concentration: 5.844 ug/mL

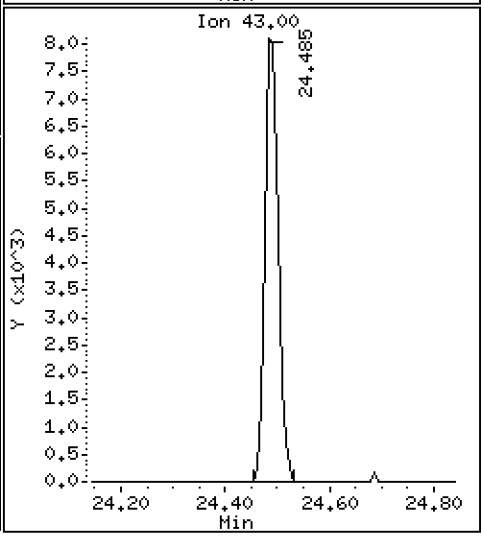


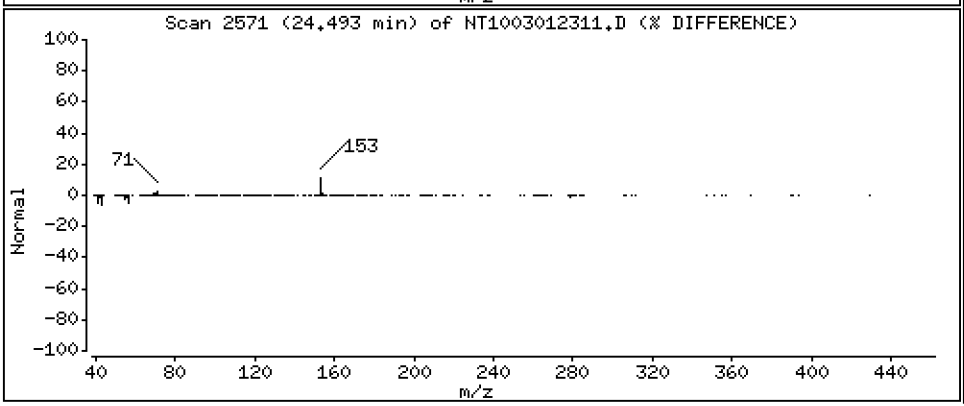












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

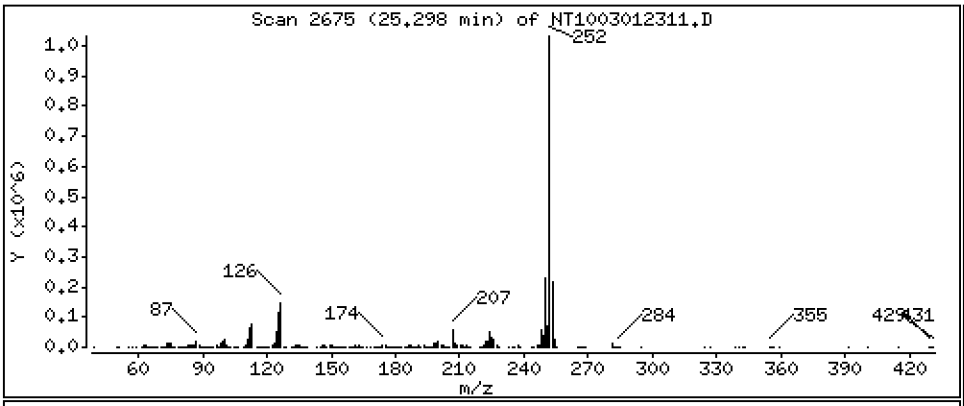
Operator: VTS

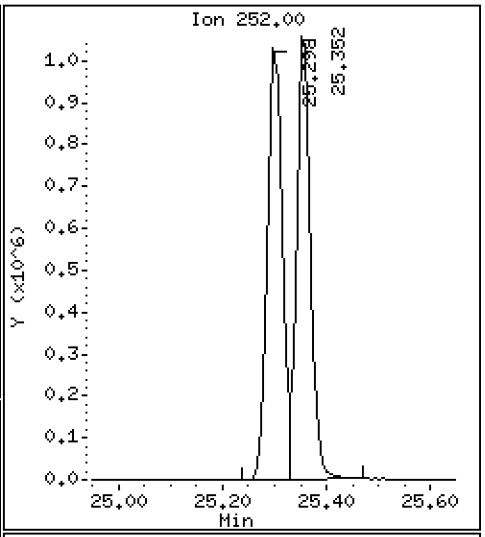
Column phase: ZB-5msi

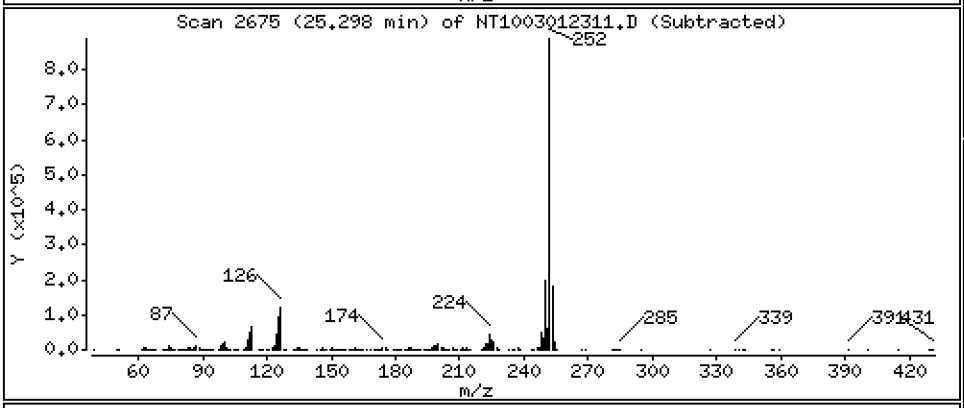
Column diameter: 0.25

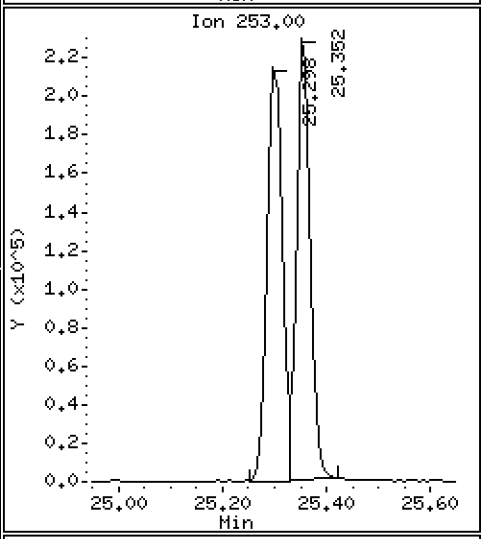
74 Benzo(b)fluoranthene

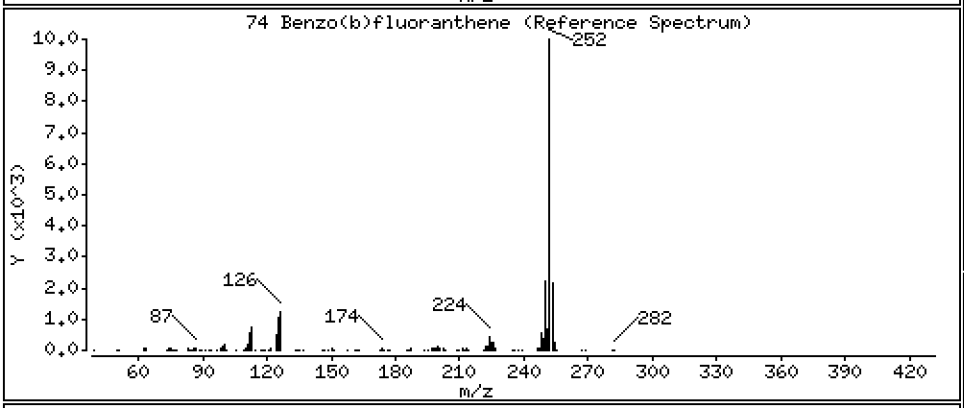
Concentration: 4.319 ug/mL

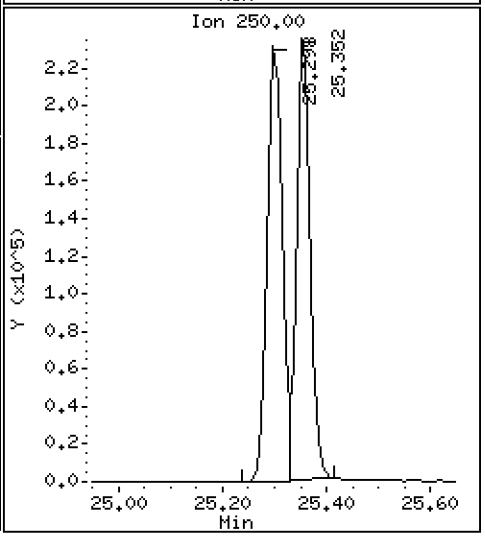


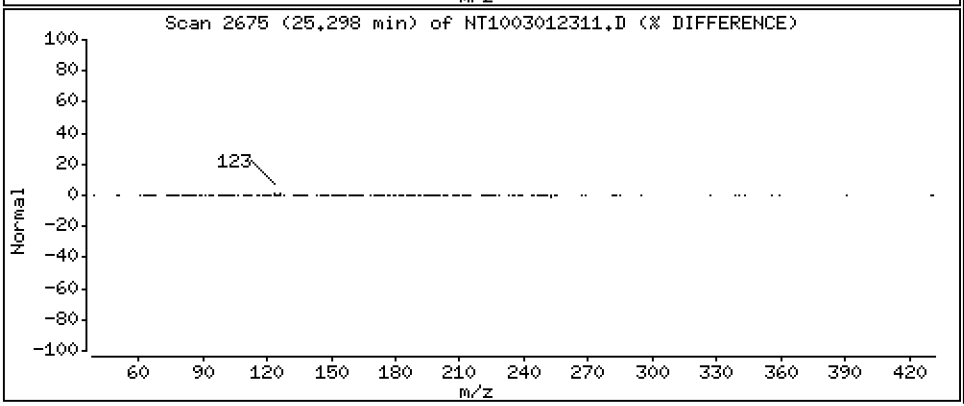












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

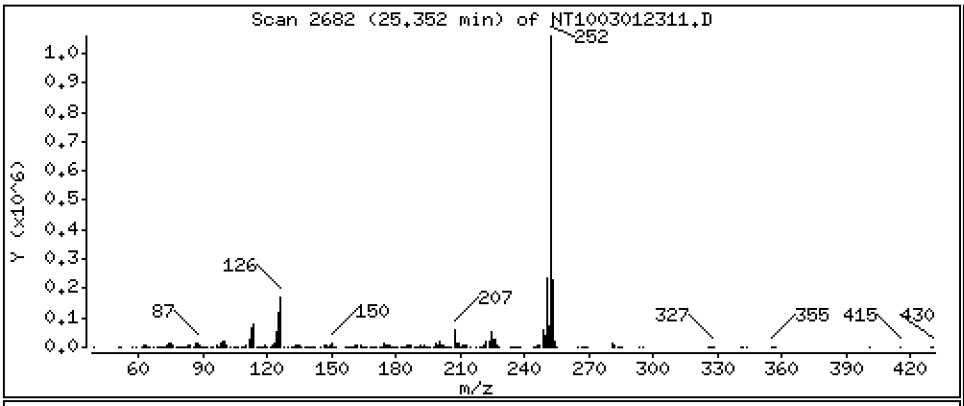
Operator: VTS

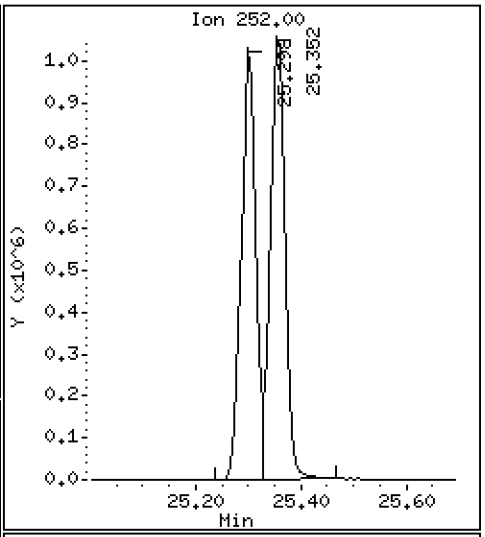
Column phase: ZB-5msi

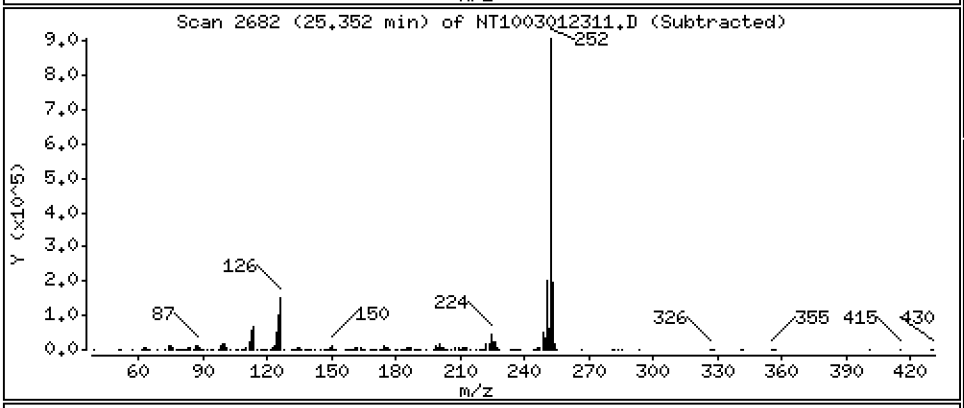
Column diameter: 0.25

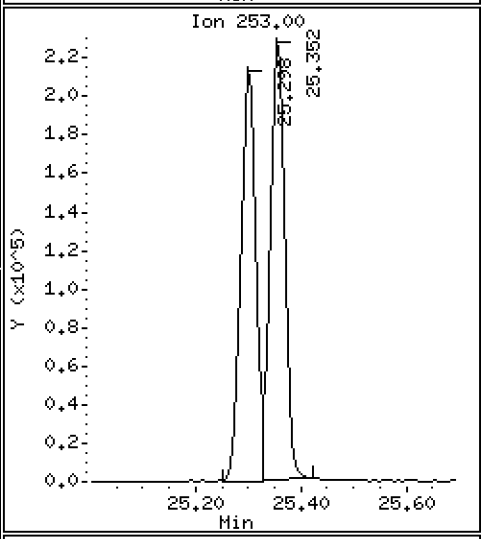
75 Benzo(k)fluoranthene

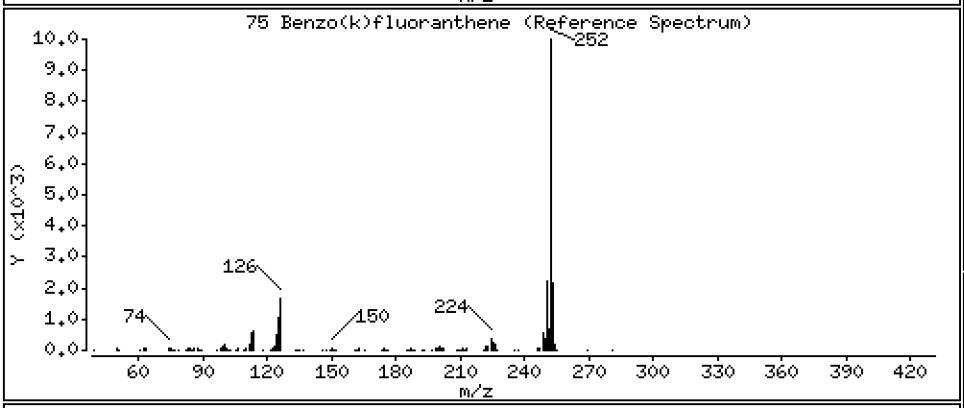
Concentration: 4.563 ug/mL

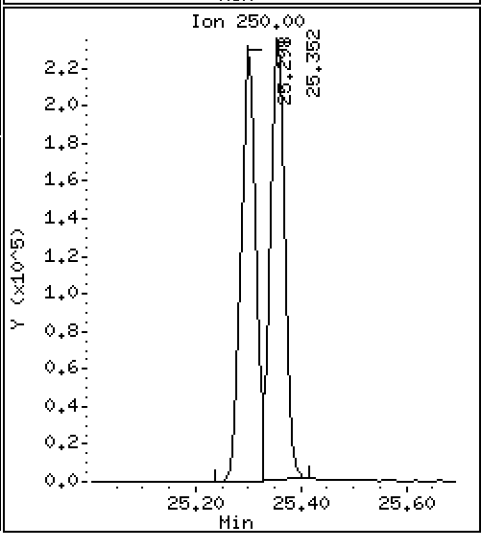


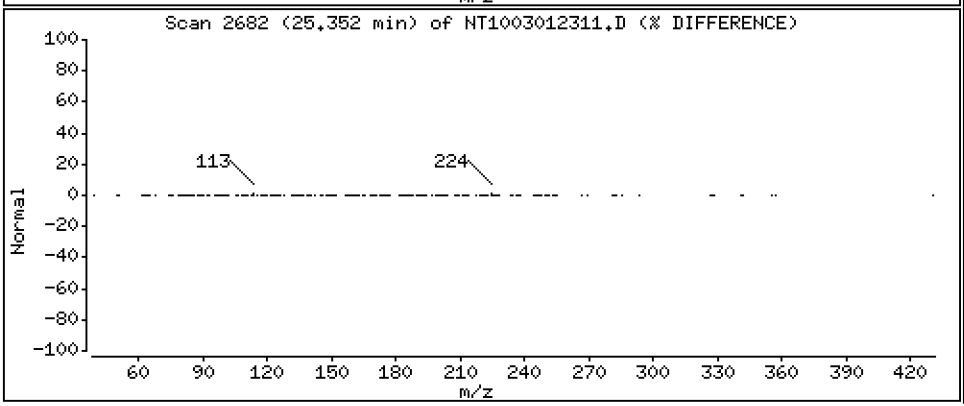












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

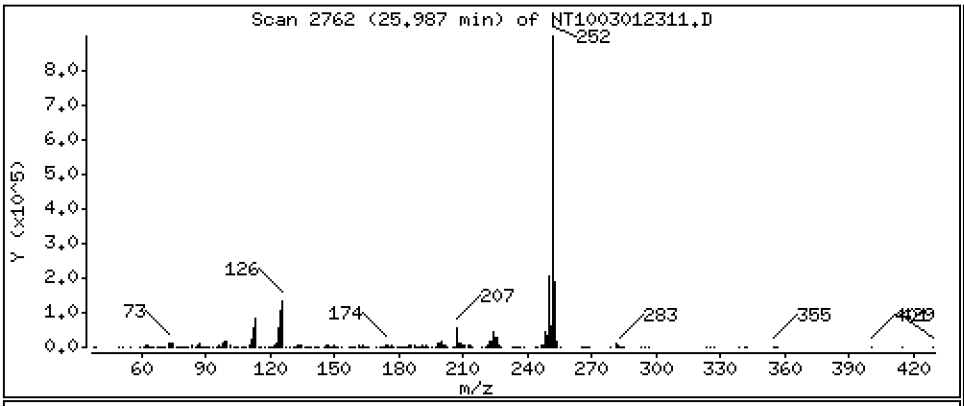
Operator: VTS

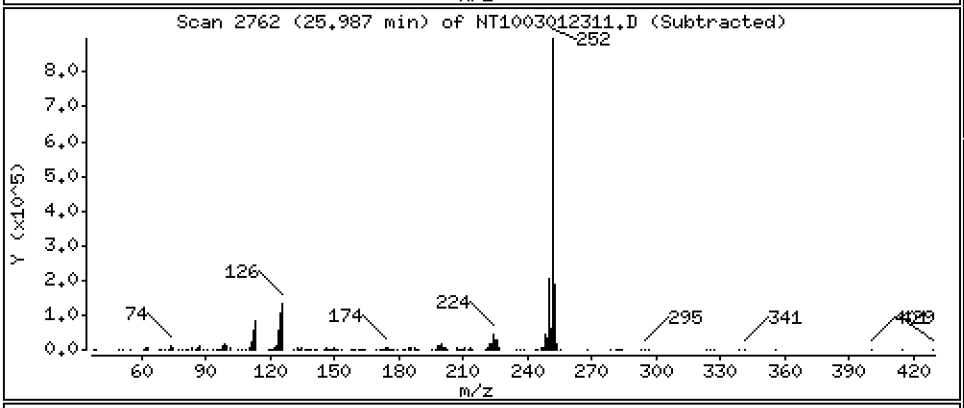
Column phase: ZB-5msi

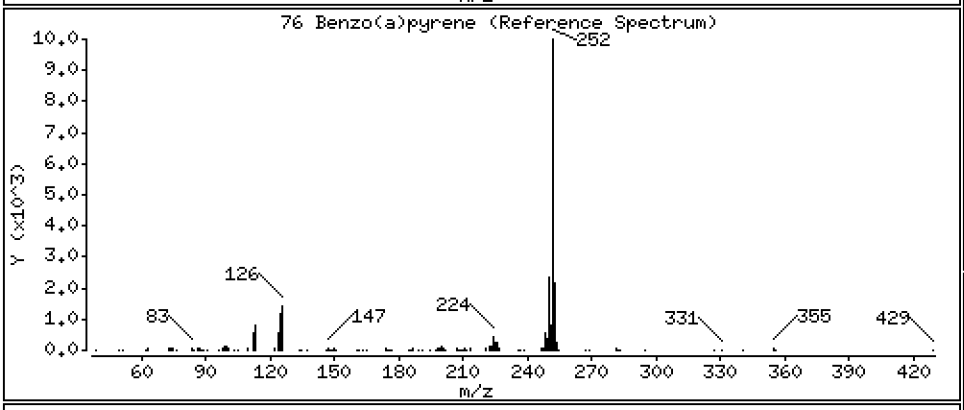
Column diameter: 0.25

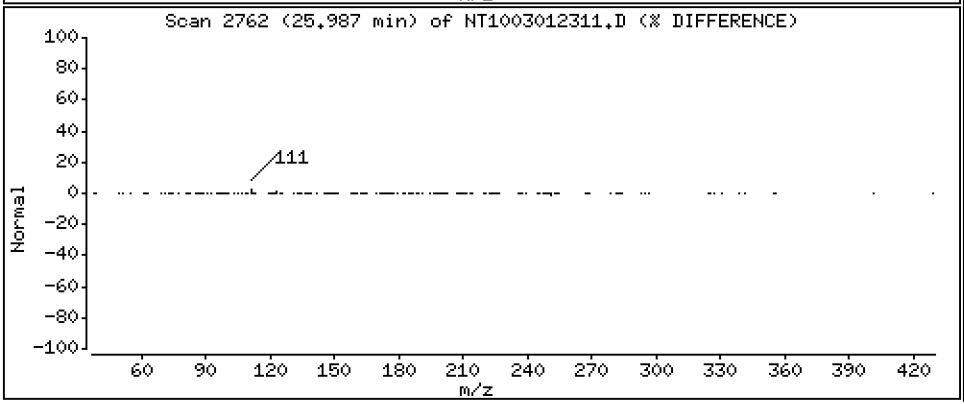
76 Benzo(a)pyrene

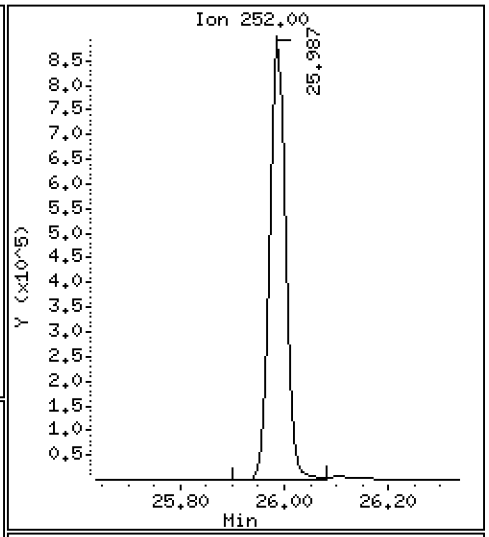
Concentration: 4.445 ug/mL

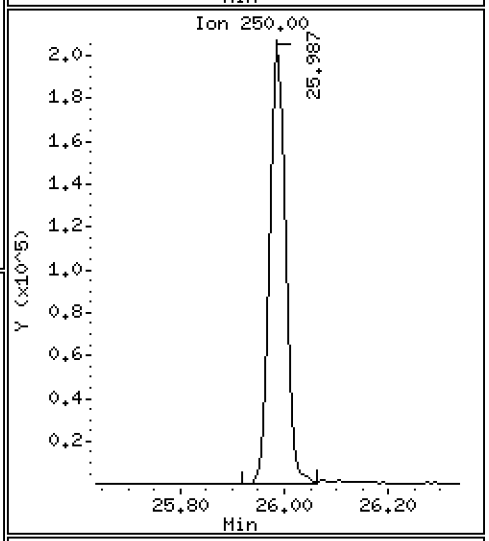


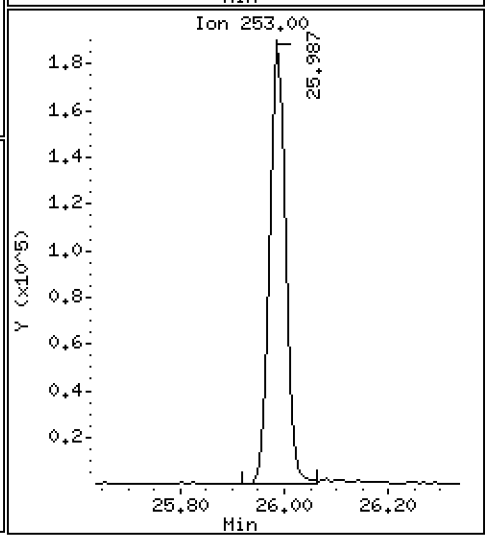












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

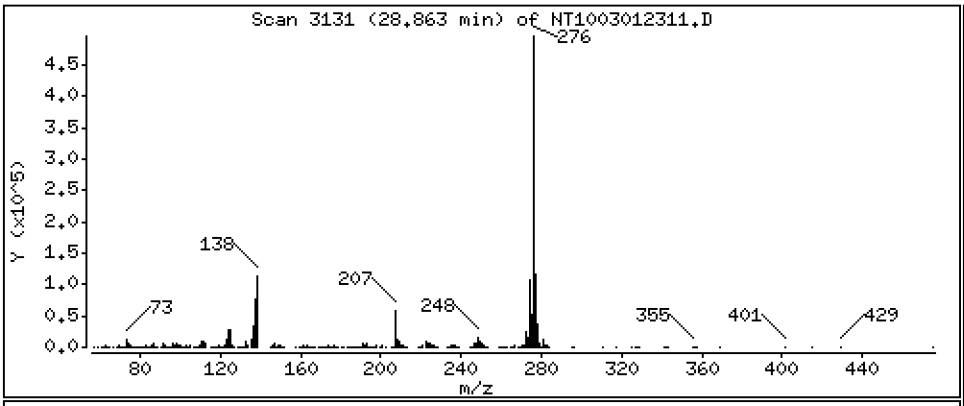
Operator: VTS

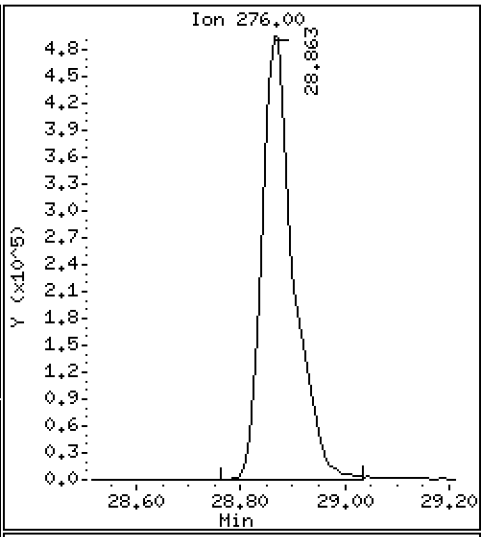
Column phase: ZB-5msi

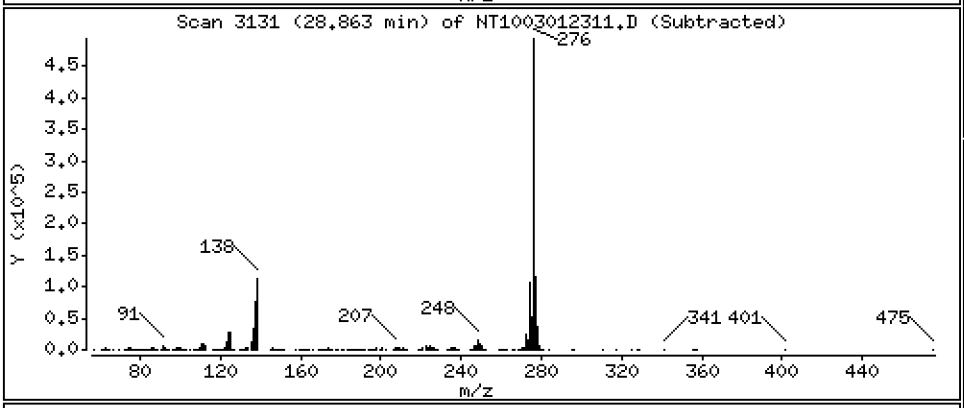
Column diameter: 0.25

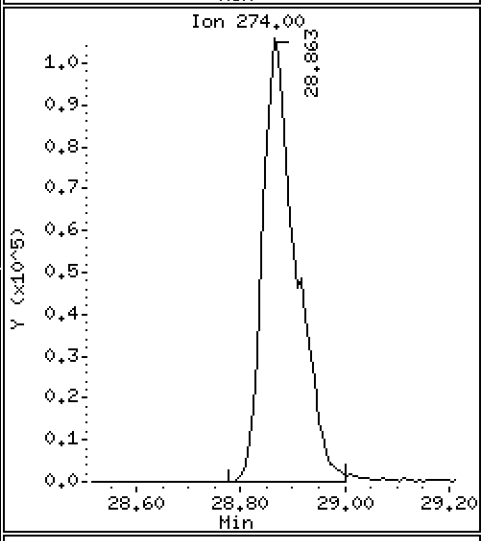
78 Indeno(1,2,3-cd)pyrene

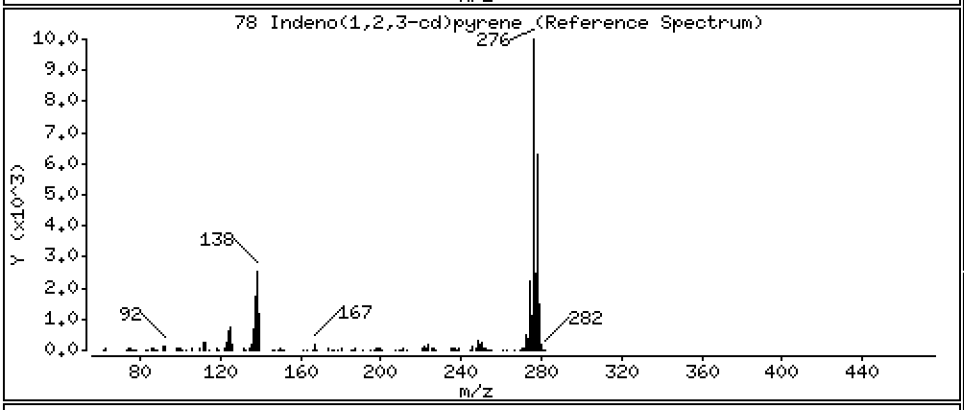
Concentration: 4.345 ug/mL

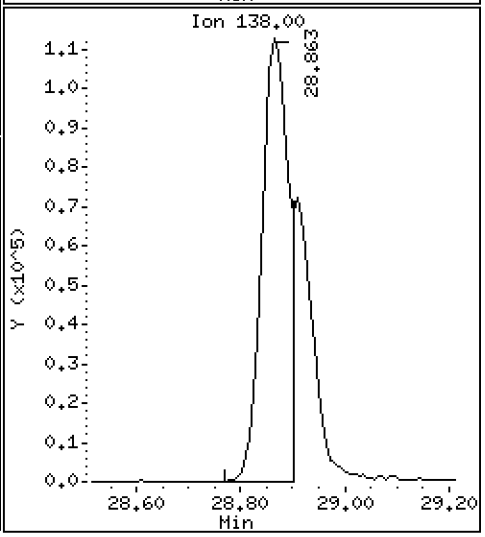


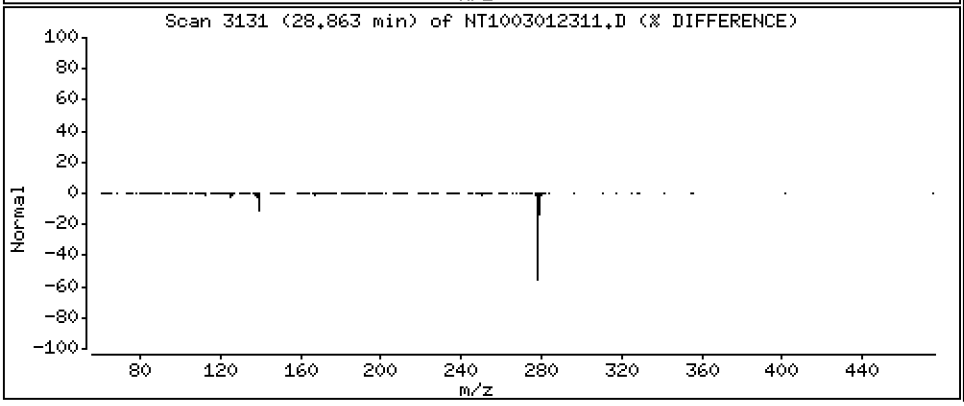












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

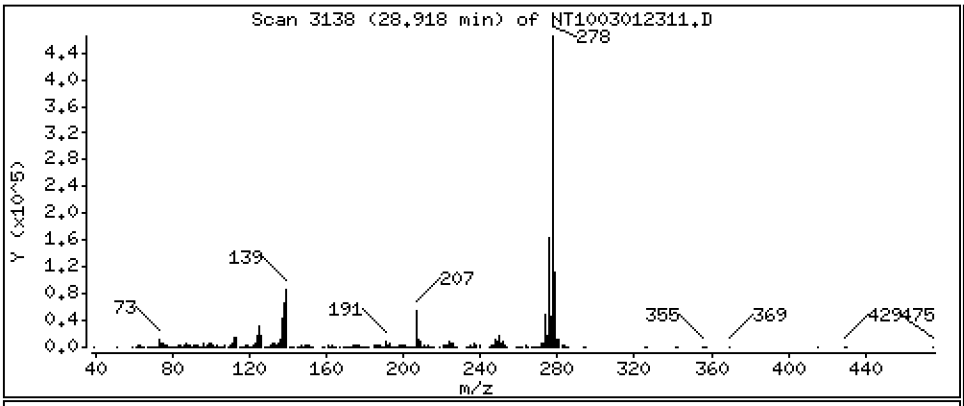
Operator: VTS

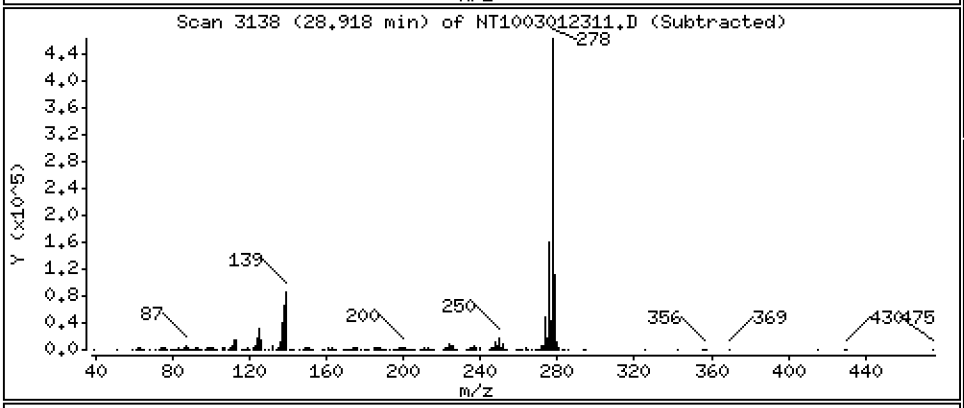
Column phase: ZB-5msi

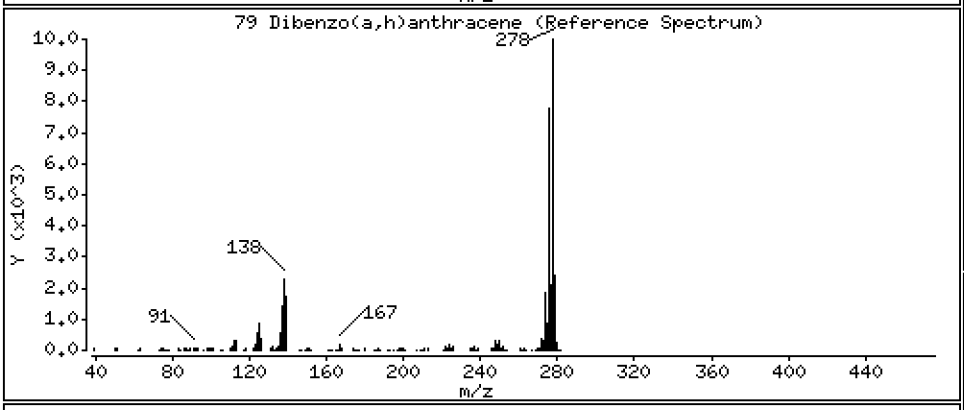
Column diameter: 0.25

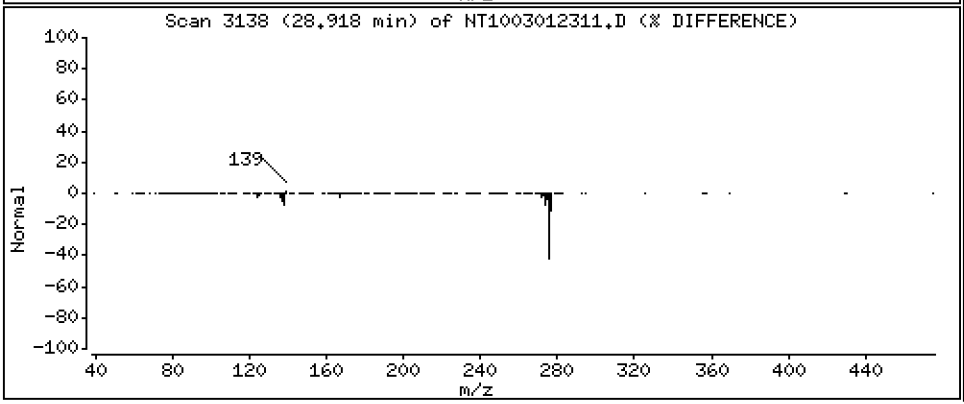
79 Dibenzo(a,h)anthracene

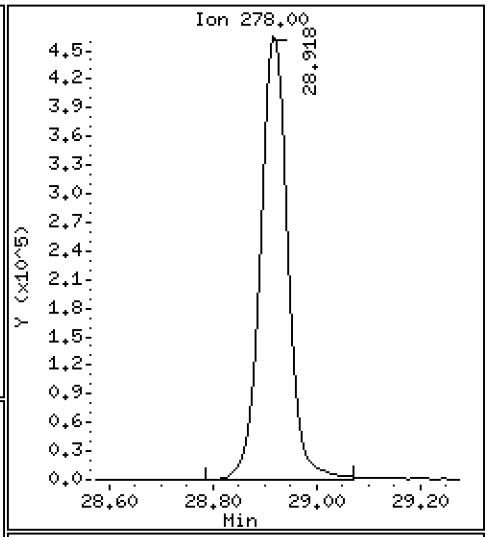
Concentration: 4.608 ug/mL

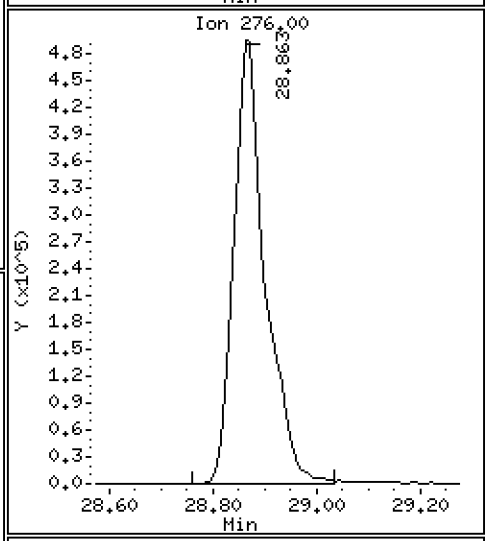


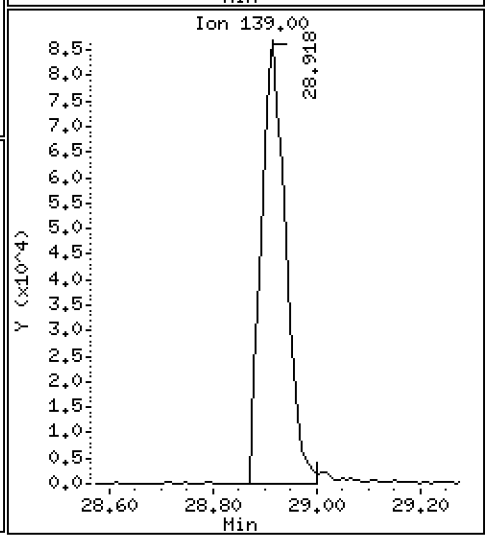












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

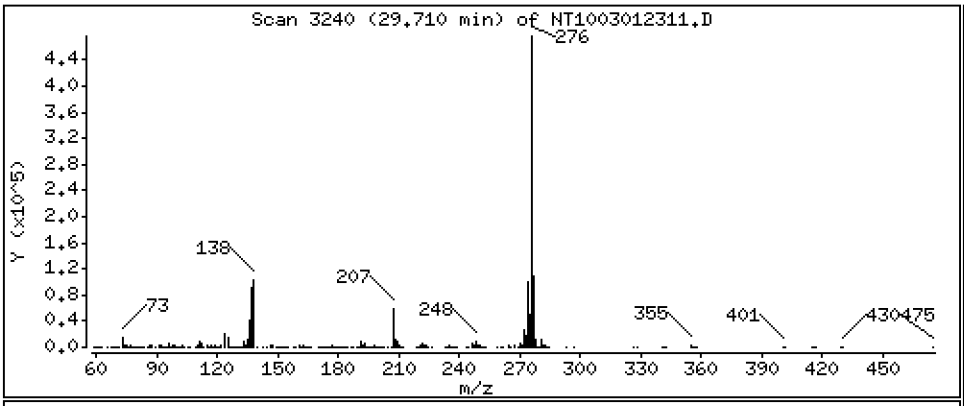
Operator: VTS

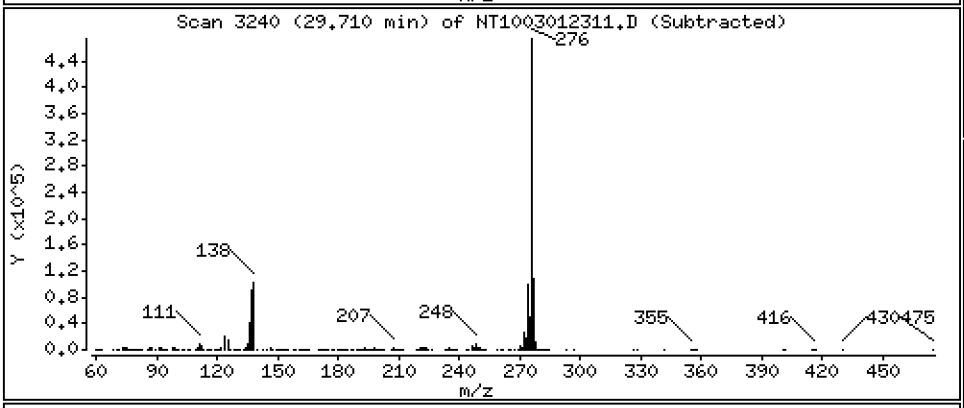
Column phase: ZB-5msi

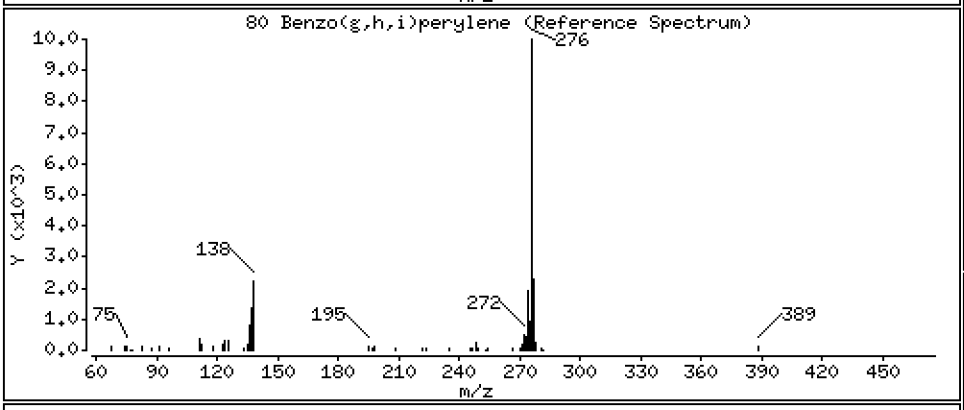
Column diameter: 0.25

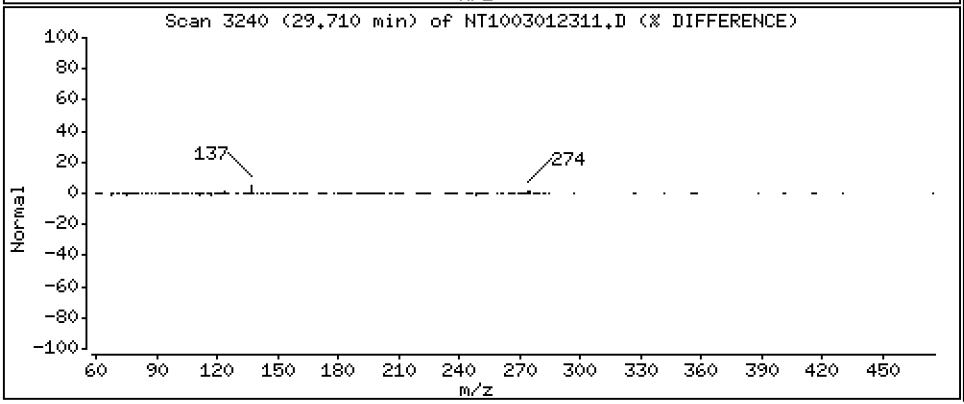
80 Benzo(g,h,i)perylene

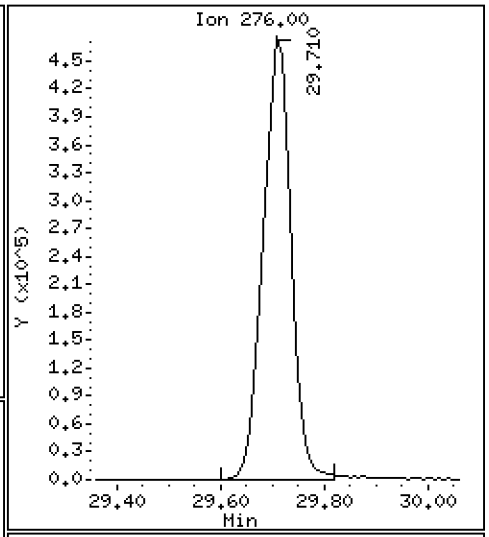
Concentration: 4.602 ug/mL

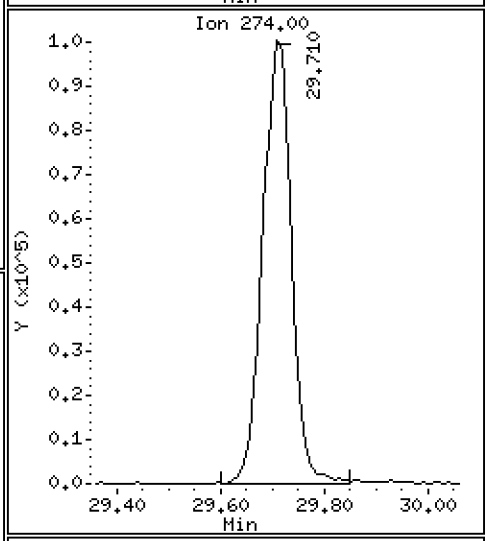


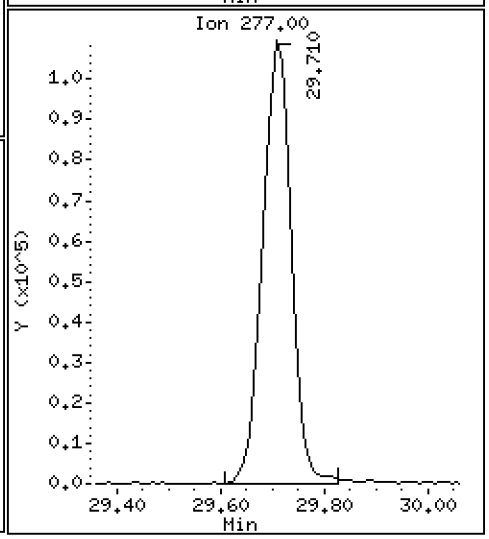












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

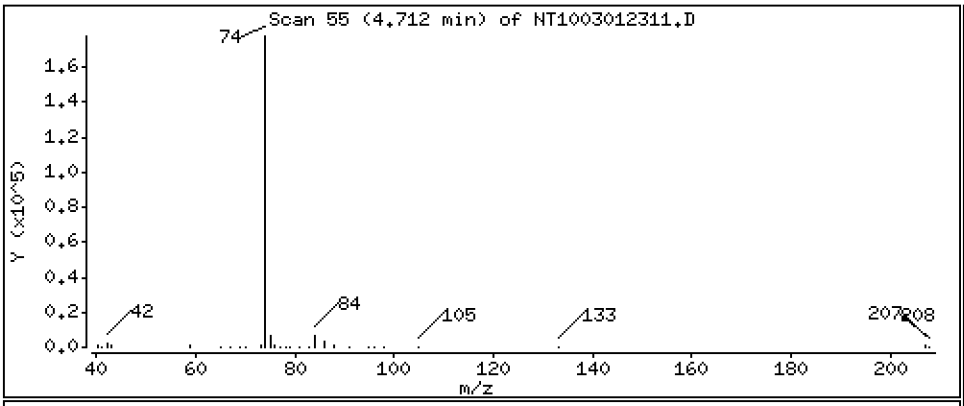
Operator: VTS

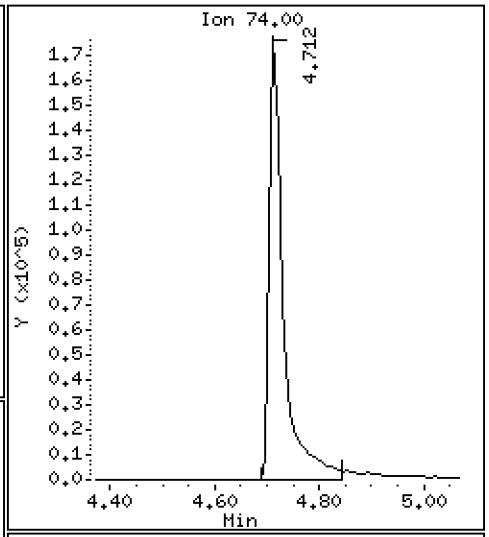
Column phase: ZB-5msi

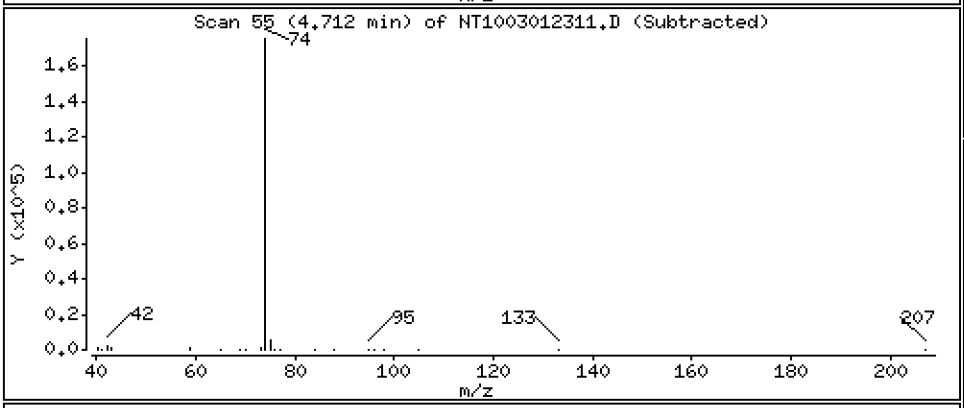
Column diameter: 0.25

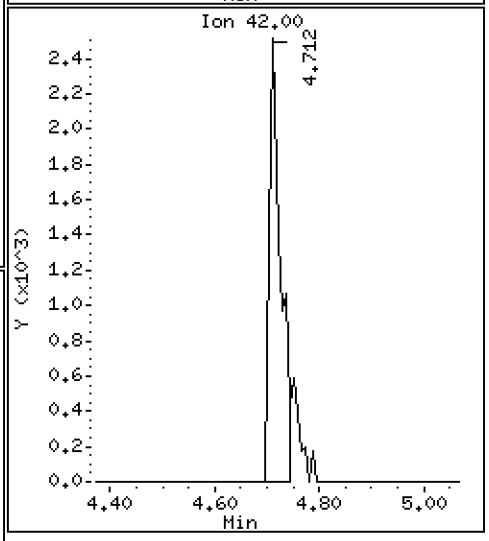
90 N-Nitrosodimethylamine

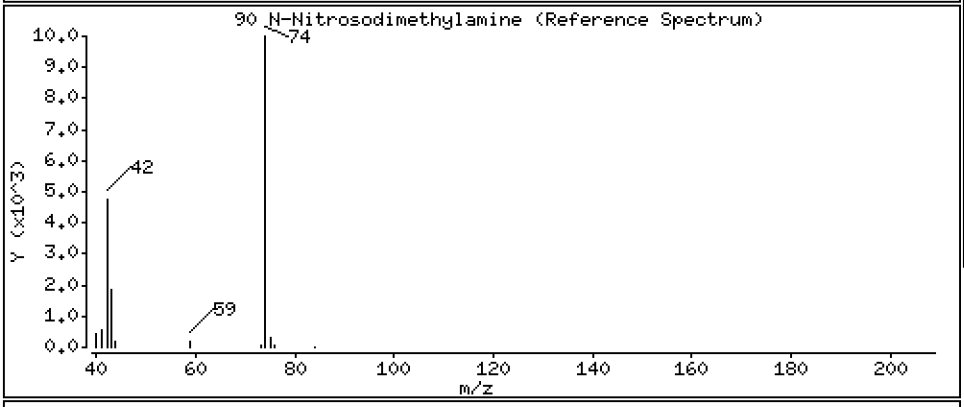
Concentration: 5.491 ug/mL

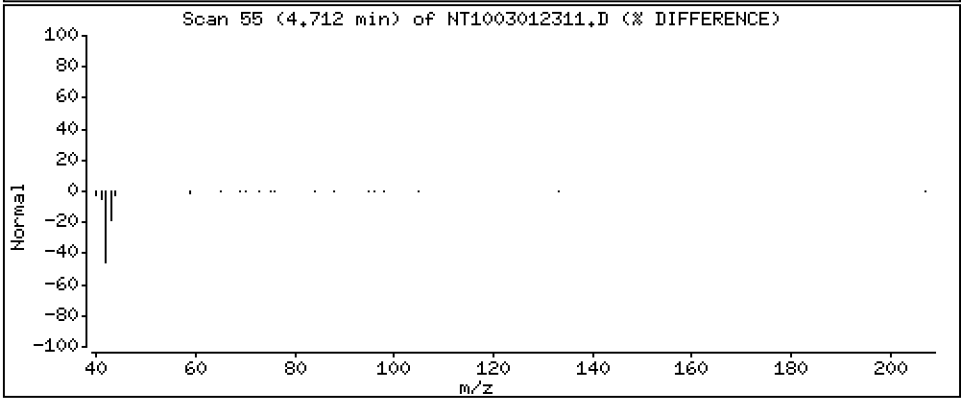












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

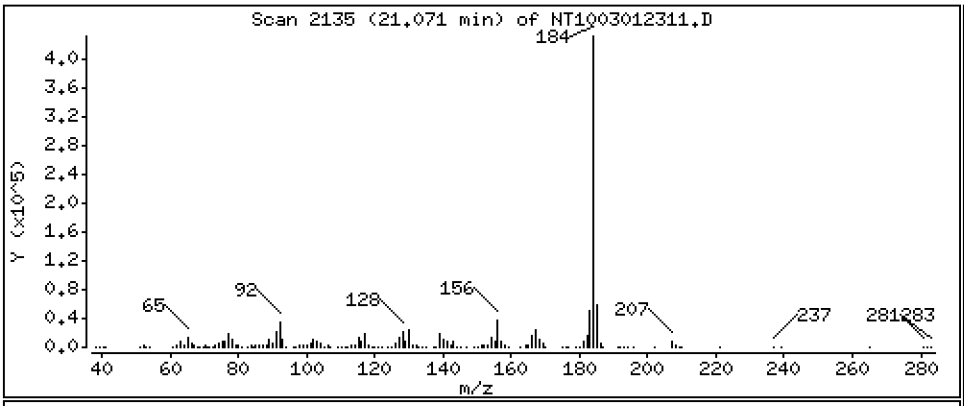
Operator: VTS

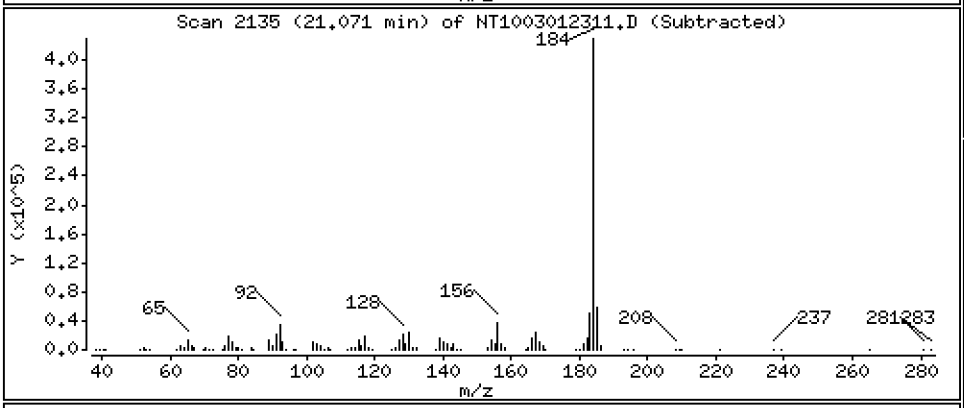
Column phase: ZB-5msi

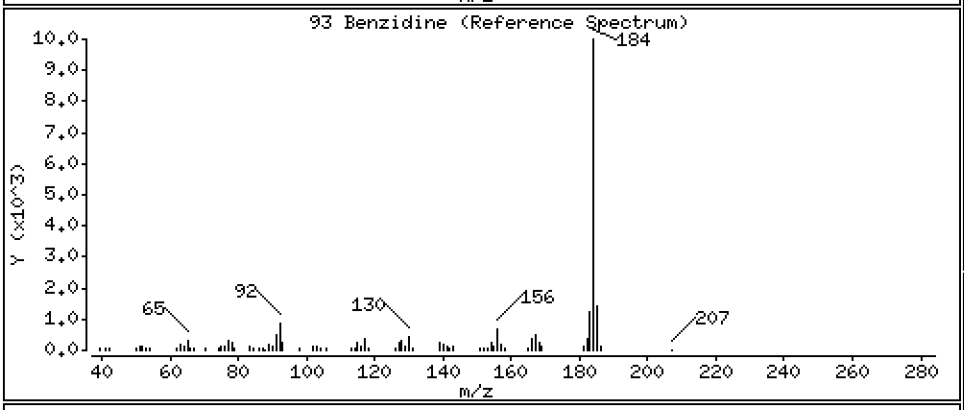
Column diameter: 0.25

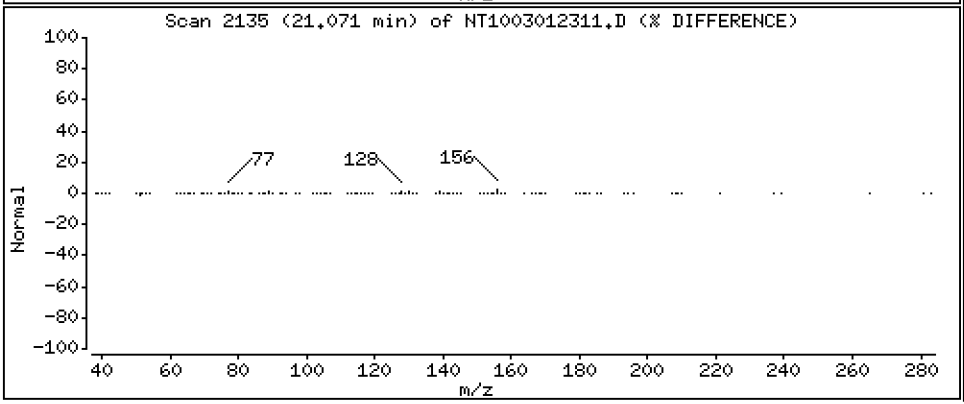
93 Benzidine

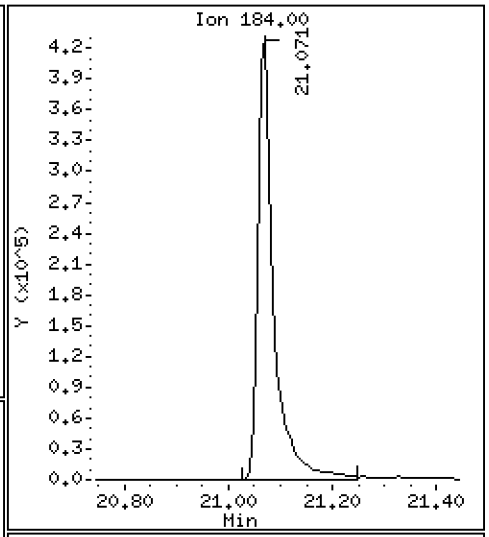
Concentration: 5.007 ug/mL

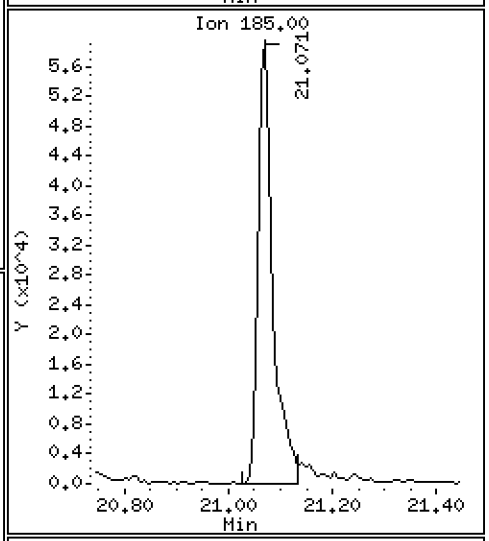


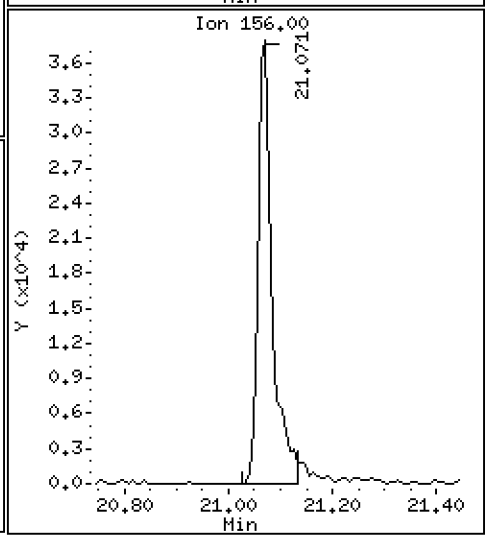












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

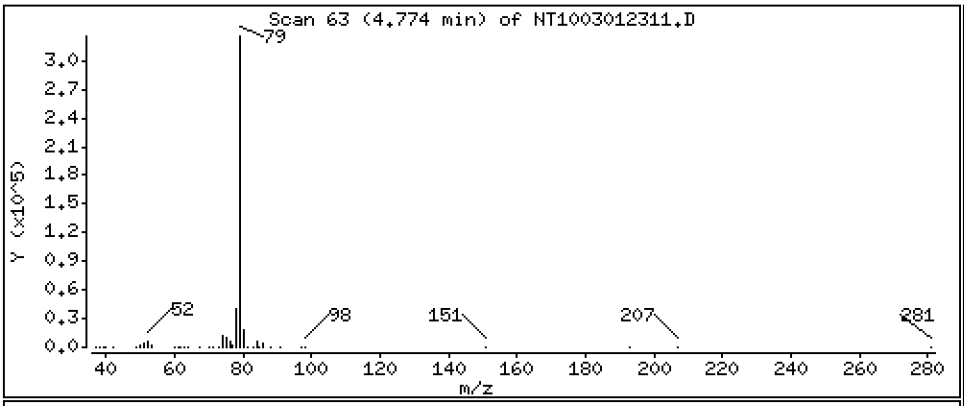
Operator: VTS

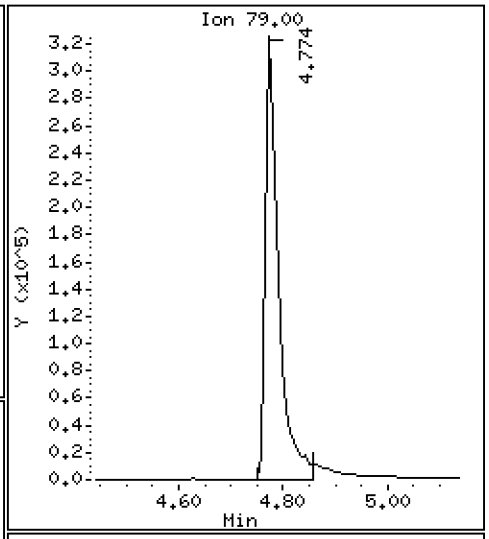
Column phase: ZB-5msi

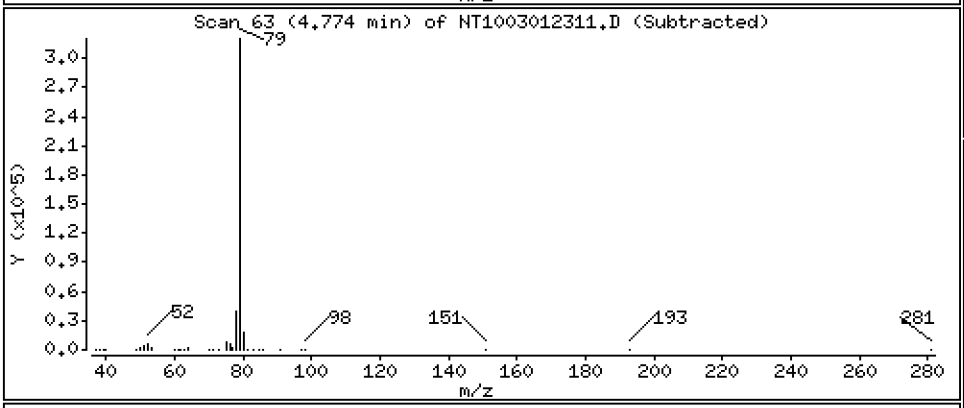
Column diameter: 0.25

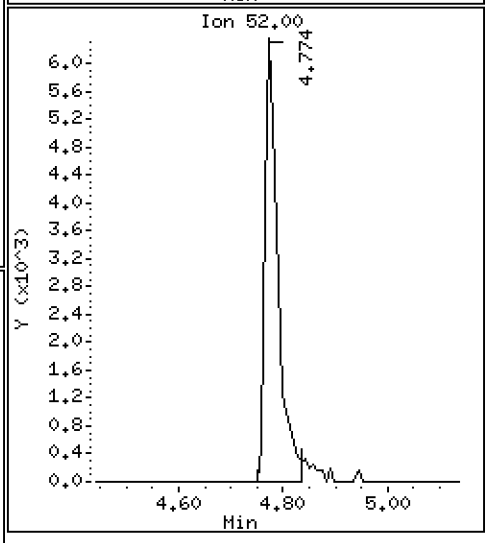
103 Pyridine

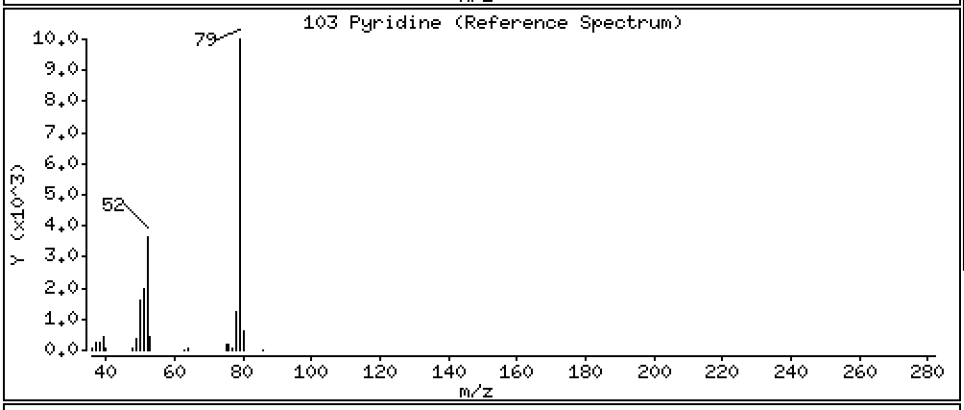
Concentration: 5.430 ug/mL

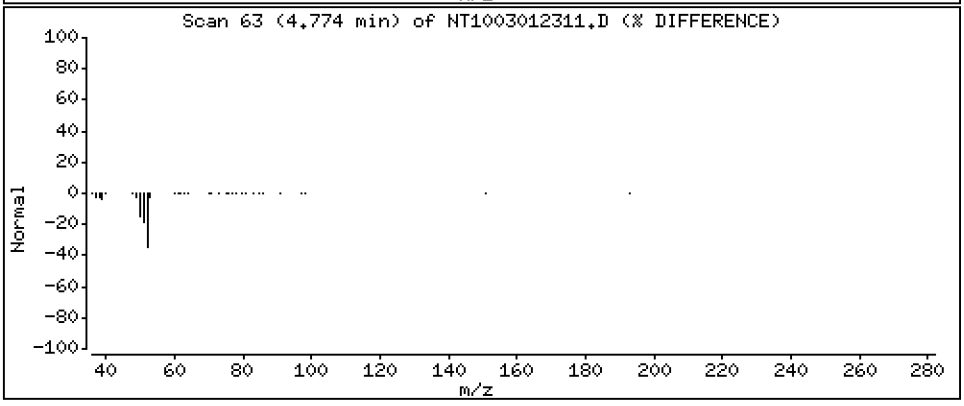












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

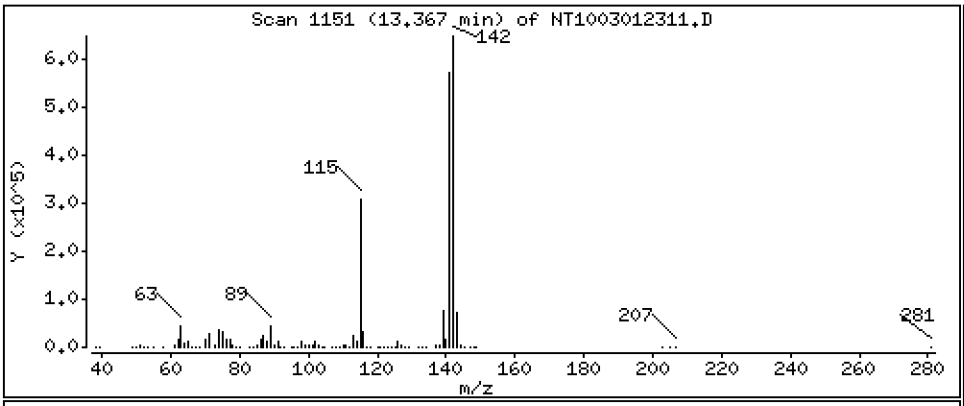
Operator: VTS

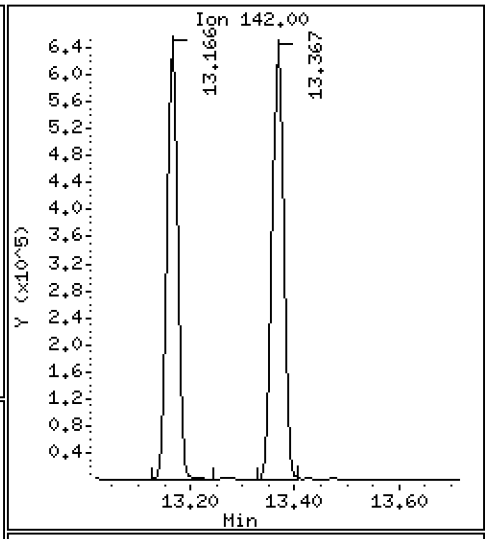
Column phase: ZB-5msi

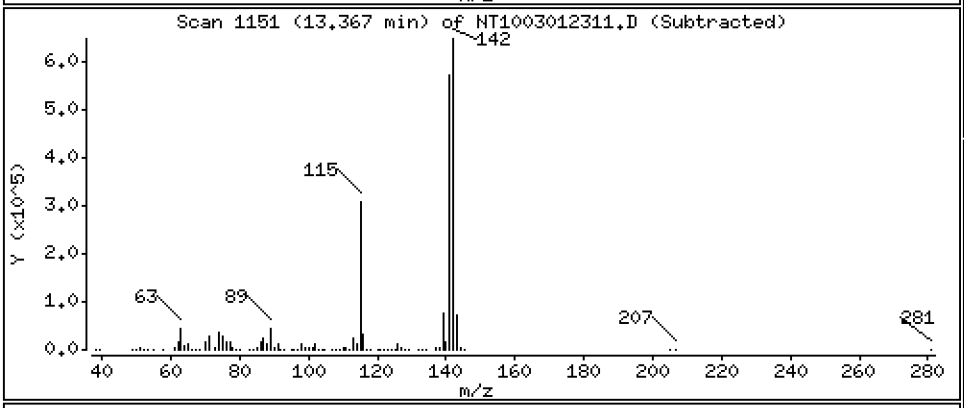
Column diameter: 0.25

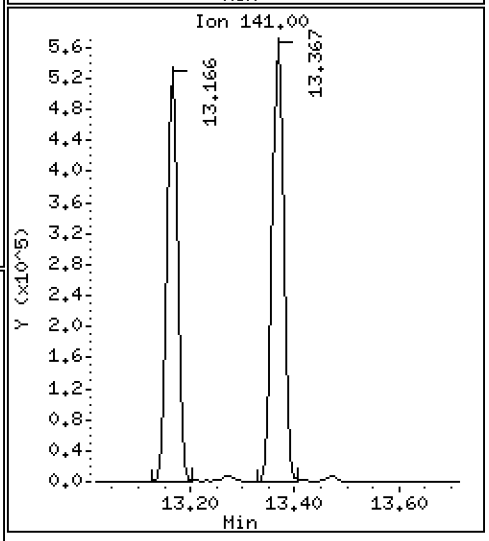
105 1-methylnaphthalene

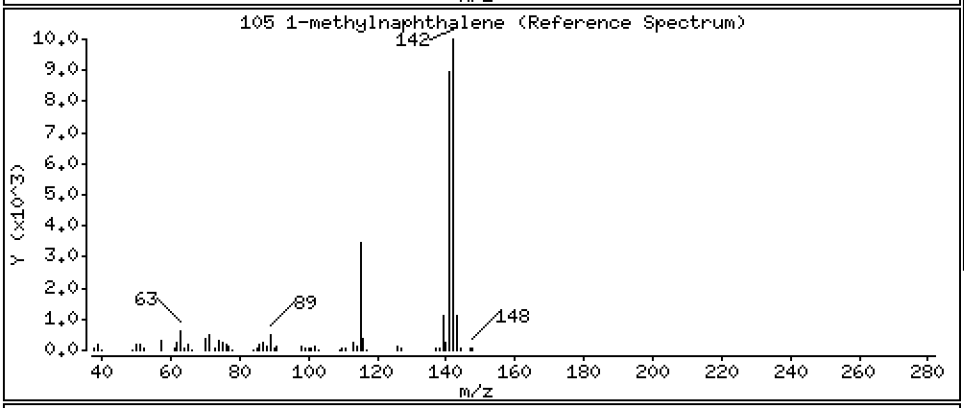
Concentration: 5.219 ug/mL

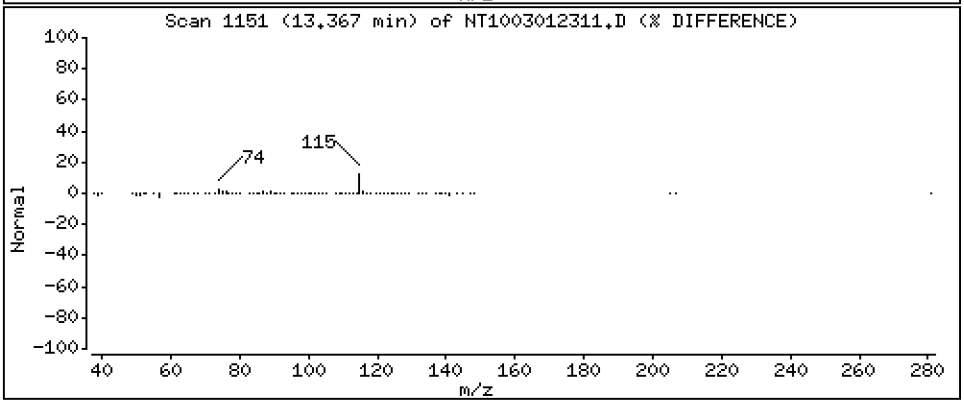












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

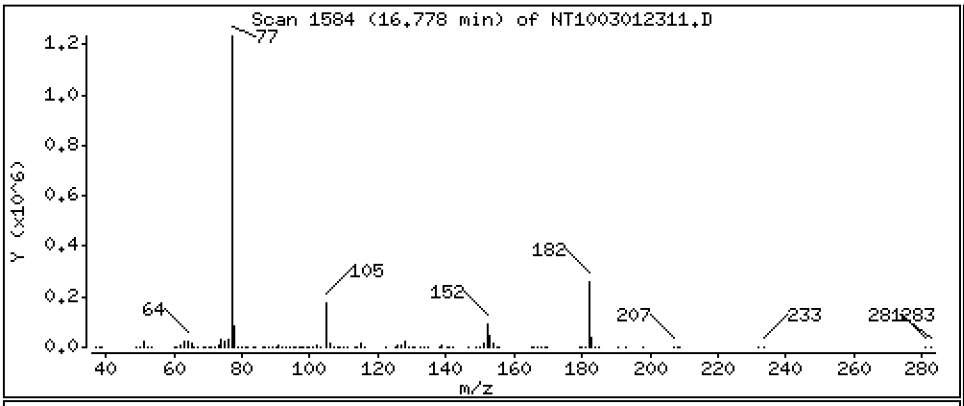
Operator: VTS

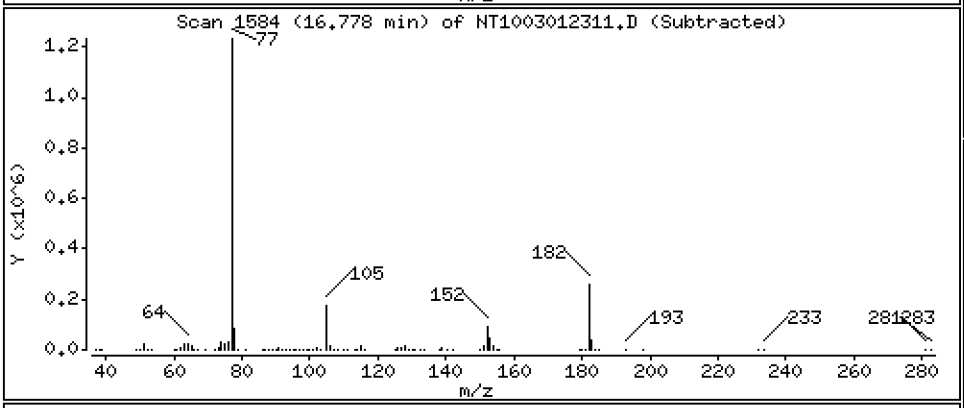
Column phase: ZB-5msi

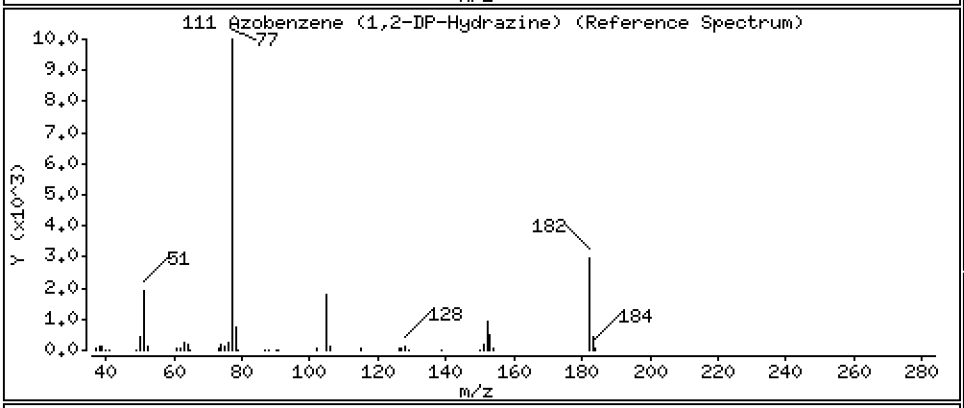
Column diameter: 0.25

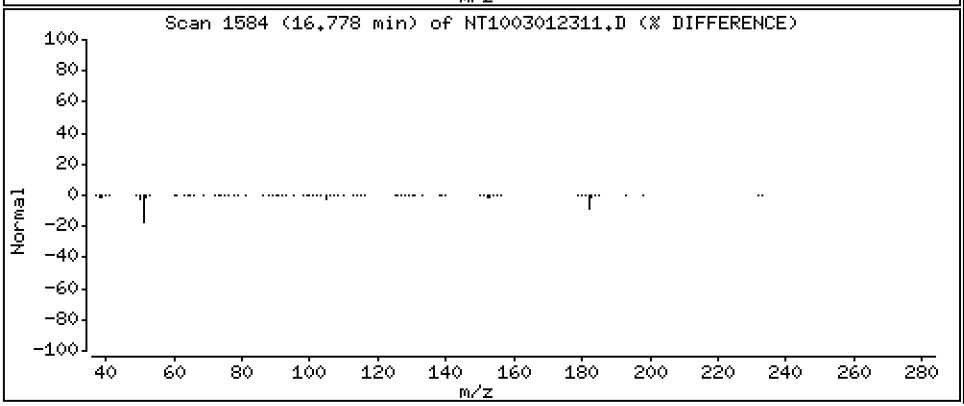
111 Azobenzene (1,2-DP-Hydrazine)

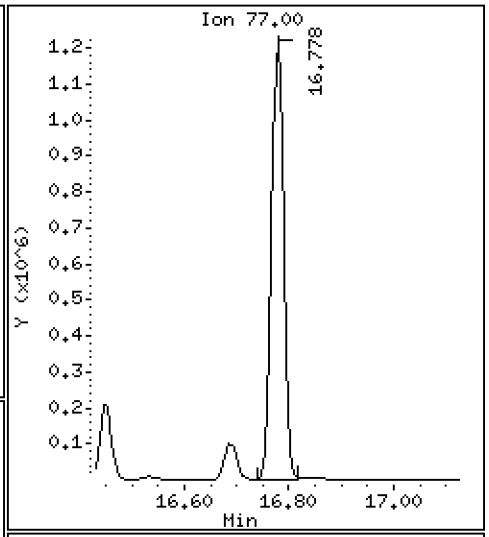
Concentration: 5.953 ug/mL

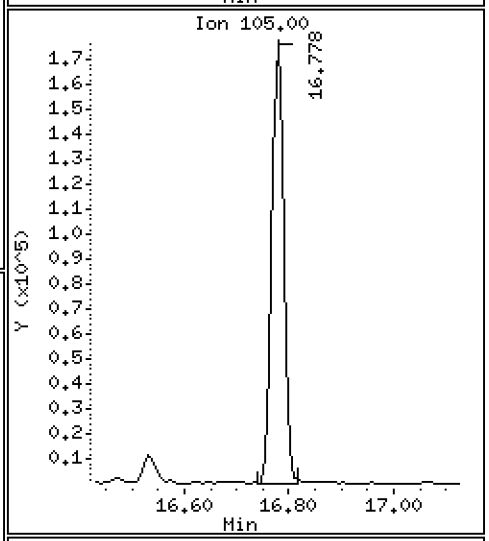


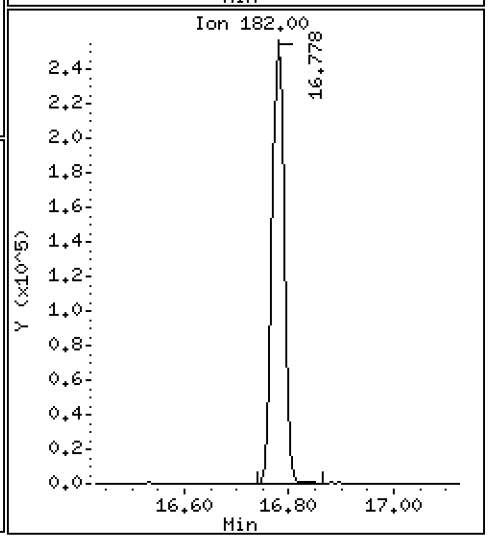












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

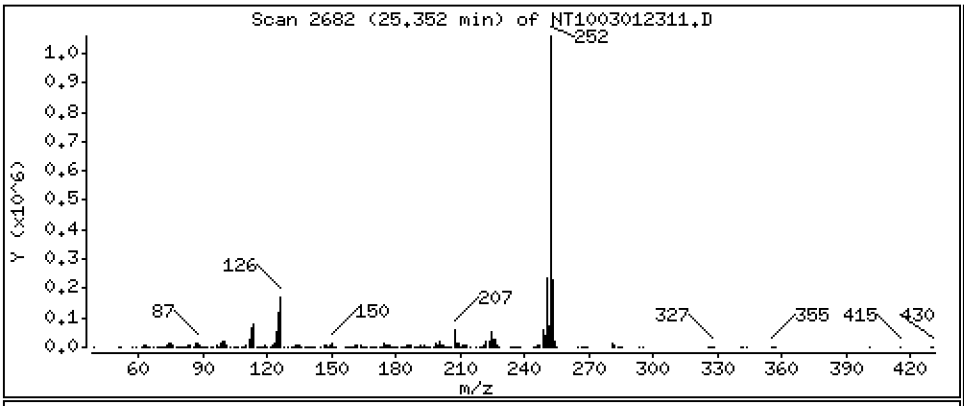
Operator: VTS

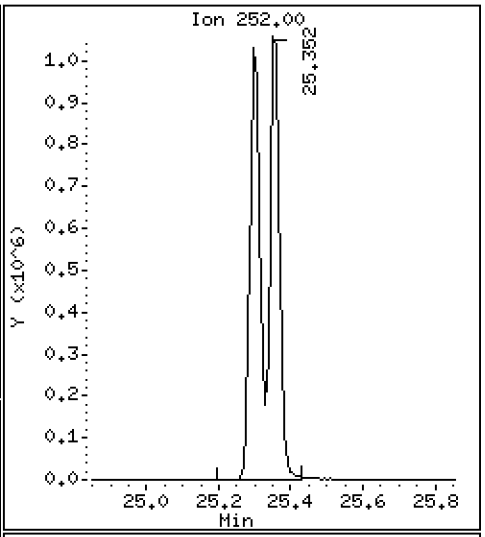
Column phase: ZB-5msi

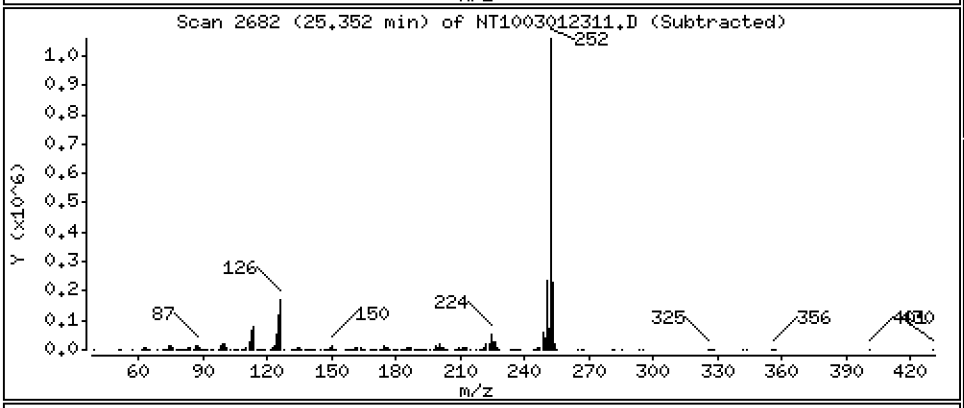
Column diameter: 0.25

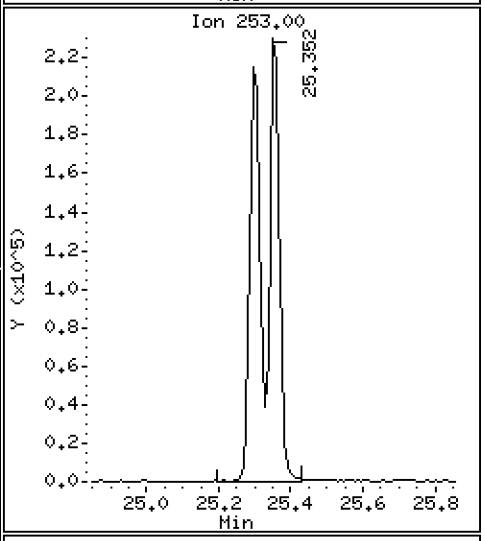
187 Total Benzofluoranthenes

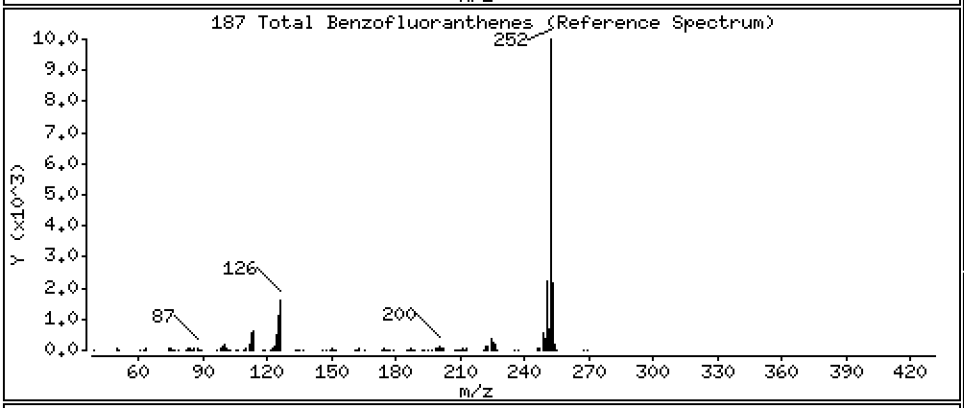
Concentration: 8.905 ug/mL

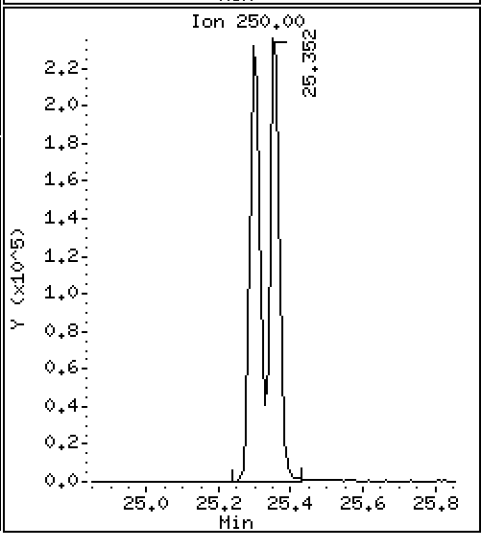


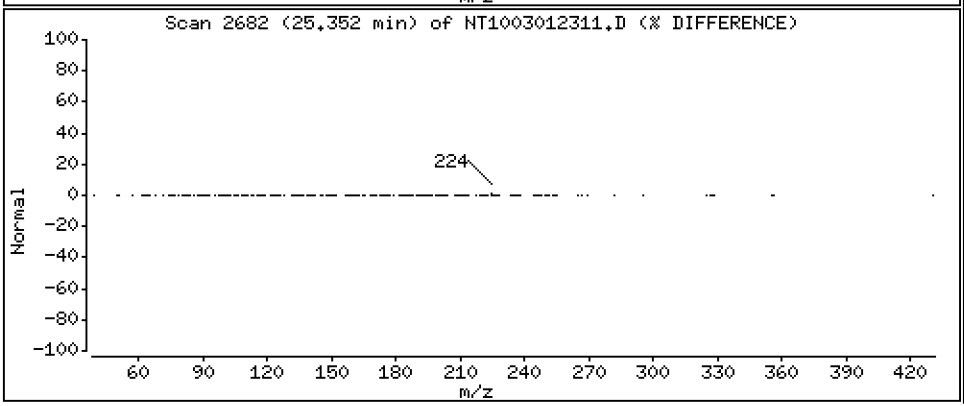












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

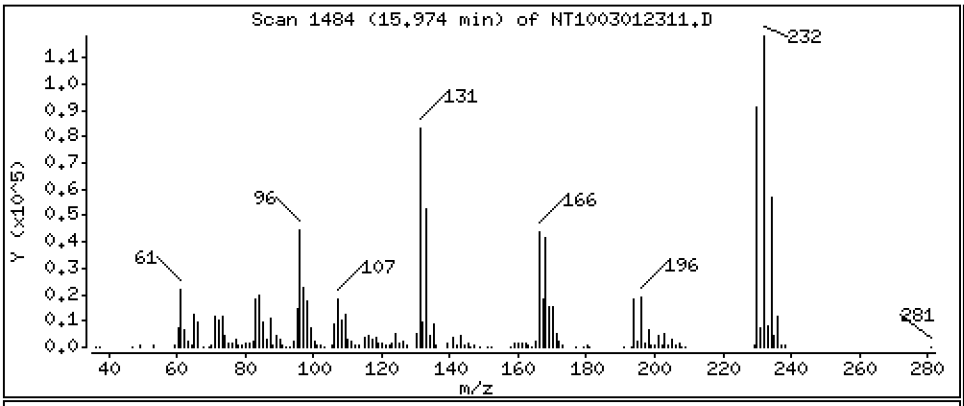
Operator: VTS

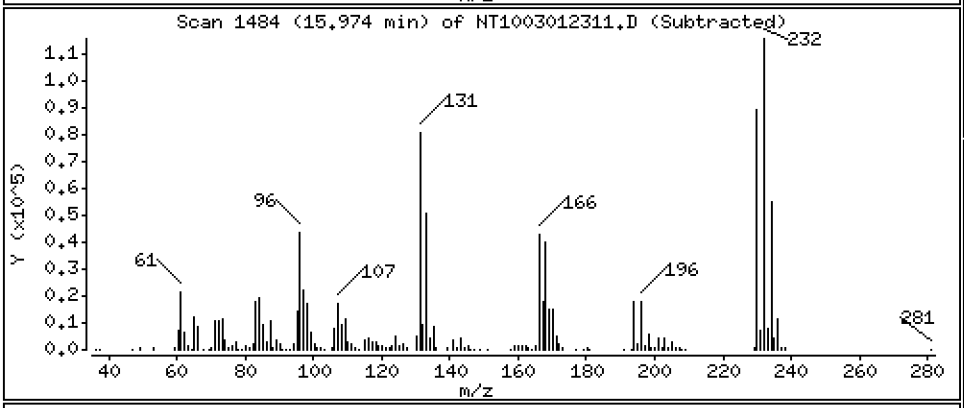
Column phase: ZB-5msi

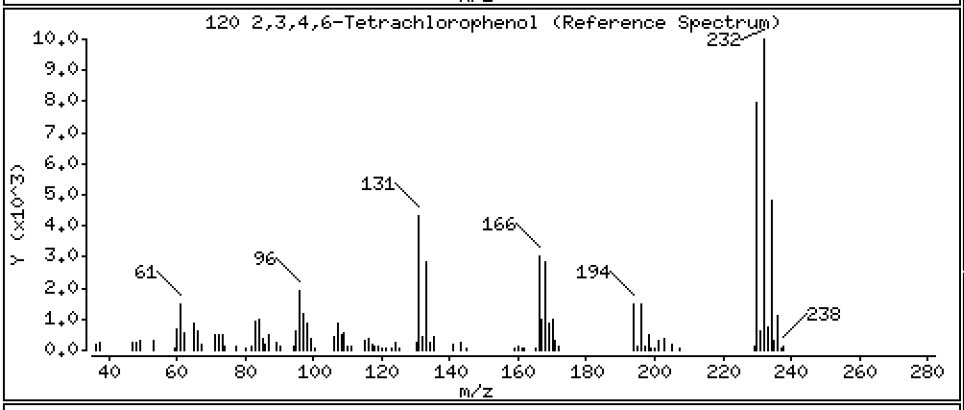
Column diameter: 0.25

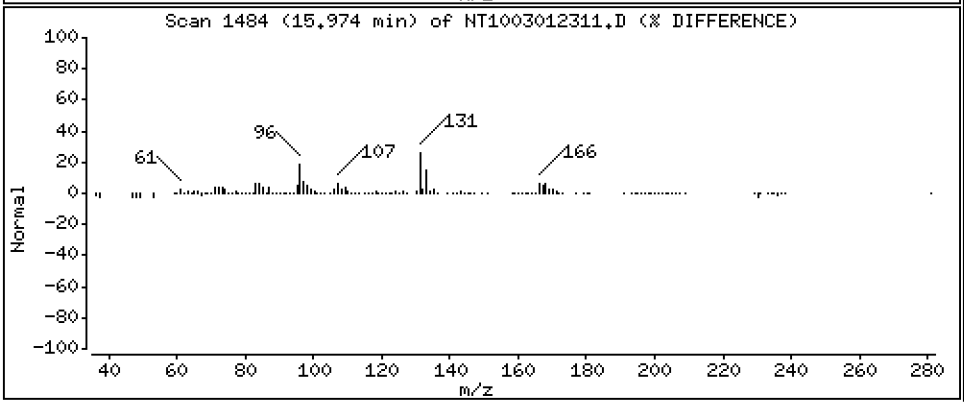
120 2,3,4,6-Tetrachlorophenol

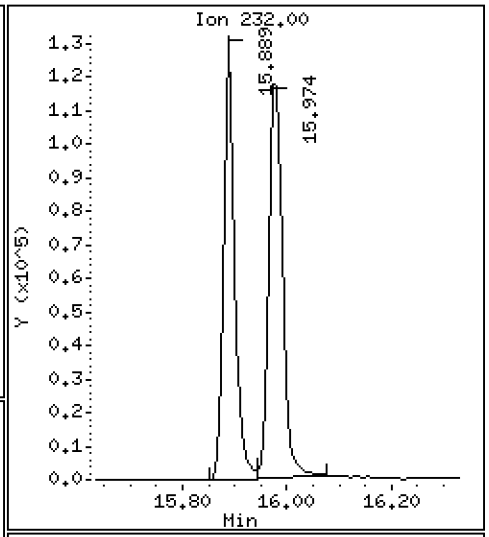
Concentration: 3.534 ug/mL

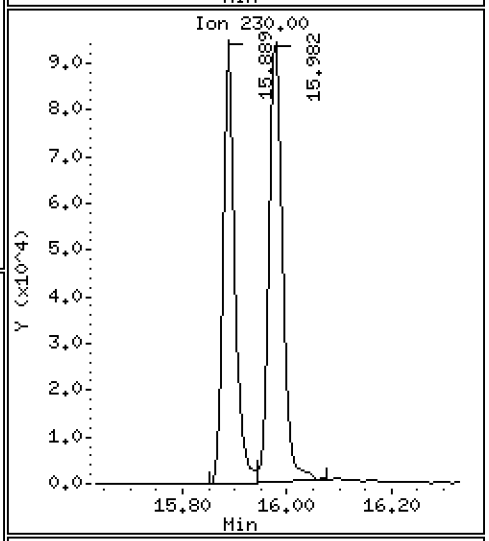


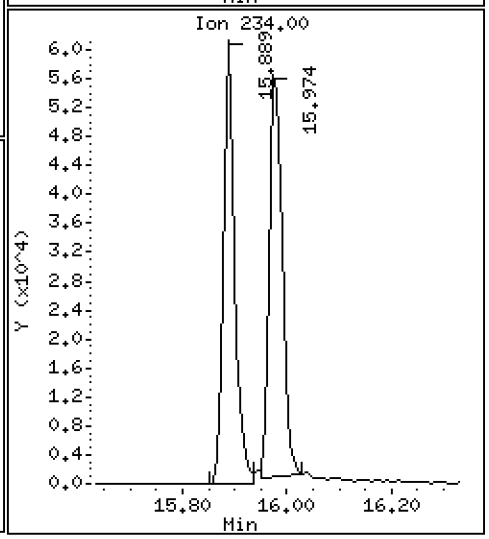












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D
Lab Smp Id: SLC0084-SCV1
Inj Date : 01-MAR-2023 21:46
Operator : VTS Inst ID: nt10.i
Smp Info : SEQ-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Meth Date : 07-Mar-2023 12:44 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: ORGDATA102

								CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	Compound Not Detected.						
$	2 Phenol-d5	99	Compound Not Detected.						
	3 Phenol	94	8.512	8.512	(0.921)	534295		4.85212	4.852
$	5 2-Chlorophenol-d4	132	Compound Not Detected.						
	4 Bis(2-Chloroethyl)ether	93	8.728	8.728	(0.944)	498825		5.92811	5.928(M)
	6 2-Chlorophenol	128	8.844	8.844	(0.956)	430747		4.69234	4.692
	7 1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	533006		5.26632	5.266
*	8 1,4-Dichlorobenzene-d4	152	9.247	9.247	(1.000)	283537		4.00000	
	9 1,4-Dichlorobenzene	146	9.278	9.278	(1.003)	524367		5.21589	5.216
$	10 1,2-Dichlorobenzene-d4	152	9.247	9.534	(1.000)	283537		4.29482	4.295
	12 1,2-Dichlorobenzene	146	9.557	9.565	(1.034)	505415		5.19402	5.194
	11 Benzyl alcohol	108	9.472	9.472	(1.024)	283618		4.89779	4.898
	14 2,2'-oxybis(1-Chloropropane)	121	9.736	9.728	(1.053)	174821		6.23165	6.232
	13 2-Methylphenol	108	9.650	9.650	(1.044)	364596		4.19238	4.192
	17 Hexachloroethane	117	10.209	10.209	(1.104)	224586		5.44260	5.443
	16 N-Nitroso-di-n-propylamine	70	9.977	9.976	(1.079)	392376		5.90505	5.905
	15 4-Methylphenol	108	9.945	9.938	(1.076)	448938		4.23938	4.239
$	18 Nitrobenzene-d5	82	Compound Not Detected.						
	19 Nitrobenzene	77	10.326	10.326	(0.881)	624582		5.56925	5.569
	20 Isophorone	82	10.784	10.784	(0.920)	1098236		7.67155	7.672
	21 2-Nitrophenol	139	10.950	10.951	(0.934)	197578		3.24407	3.244
	22 2,4-Dimethylphenol	107	10.993	10.993	(0.938)	379240		3.50675	3.507
	23 Bis(2-Chloroethoxy)methane	93	11.205	11.205	(0.956)	595145		6.72720	6.727
	24 Benzoic acid	105	11.103	11.052	(0.947)	362406		5.63546	5.635
	25 2,4-Dichlorophenol	162	11.417	11.417	(0.974)	379310		4.43743	4.437
	26 1,2,4-Trichlorobenzene	180	11.595	11.595	(0.989)	413079		4.90787	4.908
*	27 Naphthalene-d8	136	11.719	11.719	(1.000)	1089120		4.00000	
	28 Naphthalene	128	11.765	11.765	(1.004)	1468990		5.25508	5.255
	29 4-Chloroaniline	127	11.858	11.858	(1.012)	469377		3.79133	3.791
	30 Hexachlorobutadiene	225	11.989	11.997	(1.023)	307313		5.01449	5.014
	31 4-Chloro-3-methylphenol	107	12.802	12.809	(1.092)	402740		4.45246	4.452
	32 2-Methylnaphthalene	142	13.165	13.165	(1.123)	977687		4.95082	4.951
	33 Hexachlorocyclopentadiene	237	13.467	13.475	(0.879)	52130		2.56222	2.562

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	13.722	13.730	(0.896)	241174	4.12027	4.120
	35	2,4,5-Trichlorophenol	196	13.792	13.808	(0.900)	259485	4.14893	4.149(M)
$	36	2-Fluorobiphenyl	172	Compound Not Detected.					
	37	2-Chloronaphthalene	162	14.164	14.164	(0.925)	895889	5.26440	5.264
	38	2-Nitroaniline	65	14.365	14.365	(0.938)	237773	5.02711	5.027
	39	Dimethylphthalate	163	14.736	14.736	(0.962)	1056857	5.38446	5.384
	40	Acenaphthylene	152	15.023	15.023	(0.981)	1703355	5.80574	5.806
	41	2,6-Dinitrotoluene	165	14.868	14.868	(0.971)	227062	5.18679	5.187
*	42	Acenaphthene-d10	164	15.317	15.309	(1.000)	607772	4.00000	
	43	3-Nitroaniline	138	15.208	15.224	(0.993)	256002	5.17200	5.172
	44	Acenaphthene	153	15.379	15.378	(1.004)	911910	5.15374	5.154
	45	2,4-Dinitrophenol	184	15.433	15.487	(1.008)	3021	0.26673	0.2667
	46	Dibenzofuran	168	15.742	15.734	(1.028)	1311367	4.99365	4.994
	47	4-Nitrophenol	109	15.533	15.603	(1.014)	133260	3.82233	3.822(M)
	48	2,4-Dinitrotoluene	165	15.695	15.703	(1.025)	300469	4.72923	4.729
	50	Diethylphthalate	149	16.206	16.198	(1.058)	1172442	5.63859	5.639
	49	Fluorene	166	16.453	16.453	(1.074)	1159050	5.30478	5.305
	51	4-Chlorophenyl-phenylether	204	16.453	16.453	(1.074)	527532	5.25262	5.253
	52	4-Nitroaniline	138	16.469	16.484	(1.075)	278392	5.23237	5.232
	53	4,6-Dinitro-2-methylphenol	198	16.531	16.538	(0.898)	36409	1.29161	1.292
	54	N-Nitrosodiphenylamine	169	16.685	16.693	(0.907)	966268	5.41587	5.416
$	55	2,4,6-Tribromophenol	330	Compound Not Detected.					
	56	4-Bromophenyl-phenylether	248	17.465	17.472	(0.949)	394706	5.45981	5.460
	57	Hexachlorobenzene	284	17.573	17.573	(0.955)	391196	4.80535	4.805
	58	Pentachlorophenol	266	17.984	17.983	(0.977)	133557	3.49178	3.492
*	59	Phenanthrene-d10	188	18.401	18.401	(1.000)	1205858	4.00000	
	60	Phenanthrene	178	18.448	18.448	(1.003)	1569094	5.08454	5.085
	61	Anthracene	178	18.556	18.556	(1.008)	1371933	4.58472	4.585
	62	Carbazole	167	18.889	18.889	(1.026)	1462441	5.33467	5.335
	63	Di-n-butylphthalate	149	19.585	19.585	(1.064)	2114080	5.46304	5.463
	64	Fluoranthene	202	20.815	20.815	(0.889)	1905220	4.54169	4.542
	65	Pyrene	202	21.248	21.248	(0.907)	1975953	4.62585	4.626
$	66	Terphenyl-d14	244	21.519	21.527	(0.919)	6779	0.01961	0.01961
	67	Butylbenzylphthalate	149	22.410	22.410	(0.957)	1022950	4.52520	4.525
	68	Benzo(a)anthracene	228	23.401	23.401	(0.999)	1968545	4.57826	4.578
*	69	Chrysene-d12	240	23.416	23.416	(1.000)	1219436	4.00000	
	70	3,3'-Dichlorobenzidine	252	23.347	23.347	(0.997)	1426681	7.38255	7.383
	71	Chrysene	228	23.463	23.463	(1.002)	1735599	4.96674	4.967
	72	bis(2-Ethylhexyl)phthalate	149	23.401	23.409	(0.956)	1660477	4.95568	4.956
*	134	Di-n-octylphthalate-d4	153	24.485	24.485	(1.000)	2317357	4.00000	
	73	Di-n-octylphthalate	149	24.492	24.492	(1.000)	3003083	5.84397	5.844
	74	Benzo(b)fluoranthene	252	25.298	25.298	(0.969)	1988643	4.31882	4.319
	75	Benzo(k)fluoranthene	252	25.352	25.352	(0.971)	2031546	4.56297	4.563
	76	Benzo(a)pyrene	252	25.987	25.987	(0.996)	1831856	4.44514	4.445
*	77	Perylene-d12	264	26.103	26.103	(1.000)	1289108	4.00000	
	78	Indeno(1,2,3-cd)pyrene	276	28.863	28.863	(1.106)	2089660	4.34488	4.345
	79	Dibenzo(a,h)anthracene	278	28.917	28.925	(1.108)	1695484	4.60754	4.608
	80	Benzo(g,h,i)perylene	276	29.709	29.709	(1.138)	1753537	4.60249	4.602
	90	N-Nitrosodimethylamine	74	4.712	4.719	(0.510)	316213	5.49082	5.491
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	21.071	21.094	(0.900)	932502	5.00739	5.007
	103	Pyridine	79	4.774	4.789	(0.516)	554573	5.42989	5.430
	105	1-methylnaphthalene	142	13.366	13.366	(1.141)	932752	5.21855	5.219
	111	Azobenzene (1,2-DP-Hydrazine)	77	16.778	16.778	(1.095)	1848373	5.95279	5.953

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.352	25.352	(0.971)	3948555	8.90452	8.905
120 2,3,4,6-Tetrachlorophenol	232	15.974	15.982	(1.043)	209122	3.53394	3.534

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012311.D
Lab Smp Id: SLC0084-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 17:21
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	337641	168821	675282	283537	-16.02
27 Naphthalene-d8	1265187	632594	2530374	1089120	-13.92
42 Acenaphthene-d10	692385	346193	1384770	607772	-12.22
59 Phenanthrene-d10	1376777	688389	2753554	1205858	-12.41
69 Chrysene-d12	1019524	509762	2039048	1219436	19.61
134 Di-n-octylphthala	2027111	1013556	4054222	2317357	14.32
77 Perylene-d12	1027409	513705	2054818	1289108	25.47

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.01
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.32	0.05
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
134 Di-n-octylphthala	24.48	23.98	24.98	24.49	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012311.D

Lab ID: SLC0084-SCV1
nt10.i, 20230301.b\ABN.m,   01-MAR-2023 21:46

RT	CO-ELUTION COMPOUNDS
23.401	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.014	1.019	-0.0051	4-Nitrophenol
1.000	1.031	-0.0310	1,2-Dichlorobenzene-d4

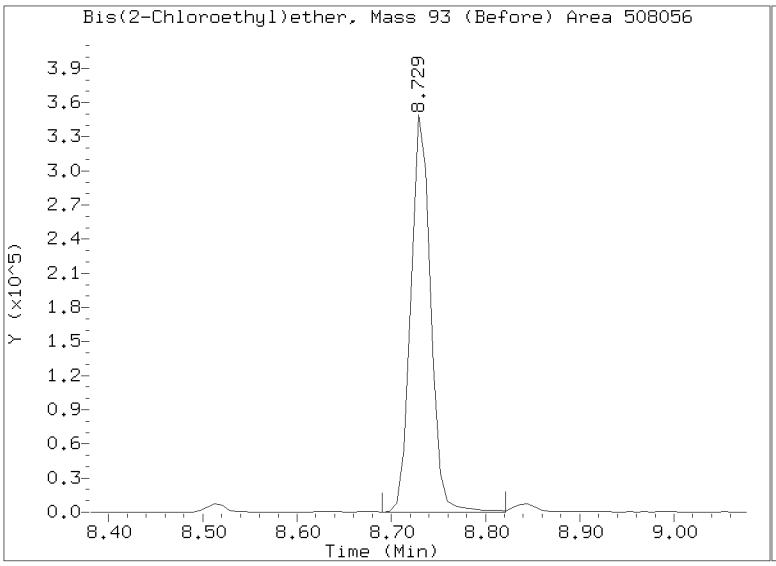
RRT check based on Ccal File: NT1003012307.D

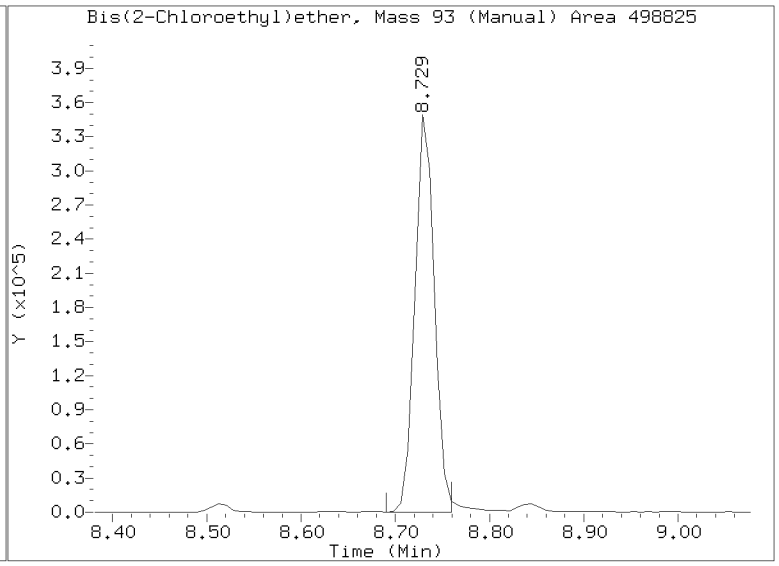
On Column LOD for nt10.i, 20230301.b\ABN.m, ICAL.sub = 0.0000

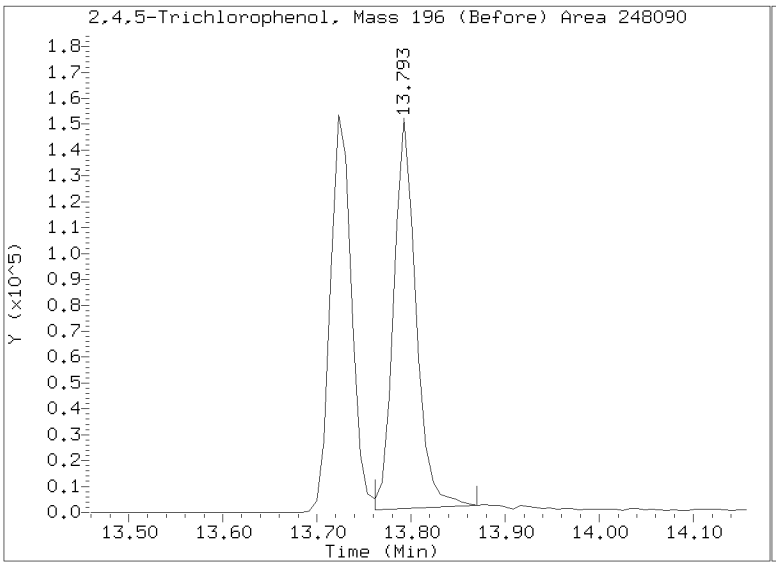
* Only compounds listed in the work order have been verified by the analyst *

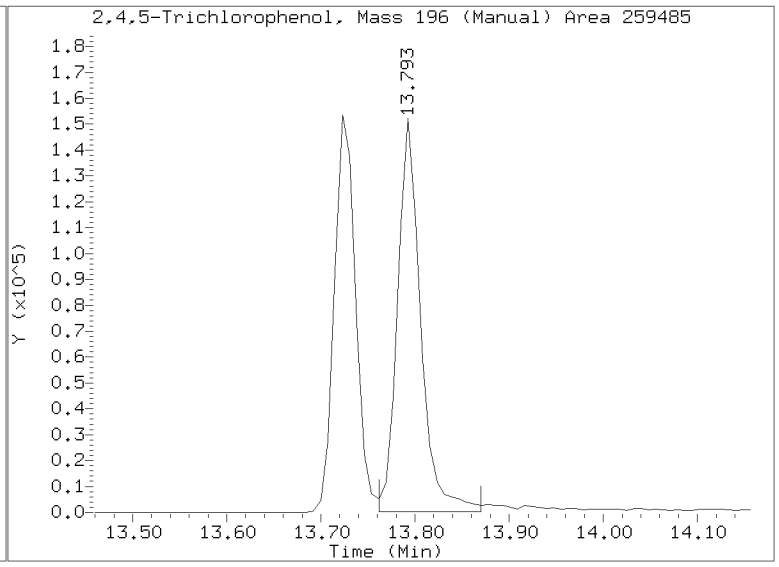
Quant Ion Manual Peak Adjustment Report

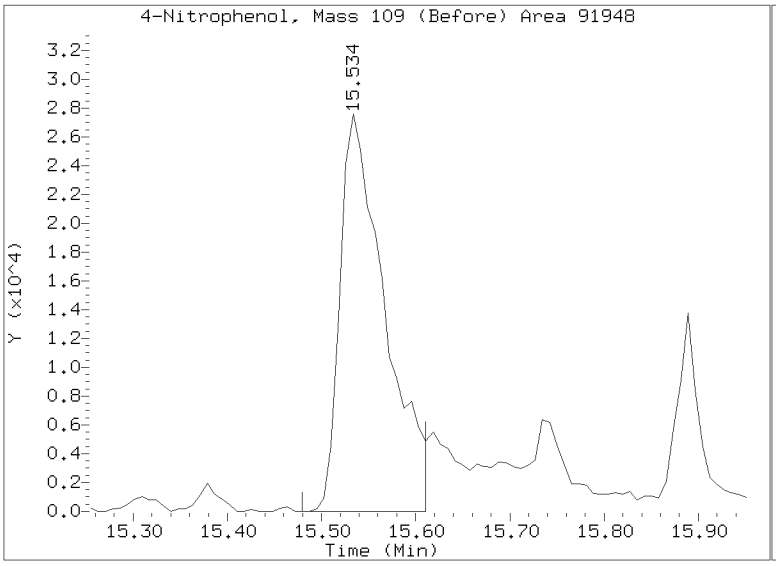
Datafile: //target/share/chem3/nt10.i/20230301.b/NT1003012311.D
Injection Date: 01-MAR-2023 21:46
Lab ID:SLC0084-SCV1 Client ID:
Report Date: 03/07/2023 12:48

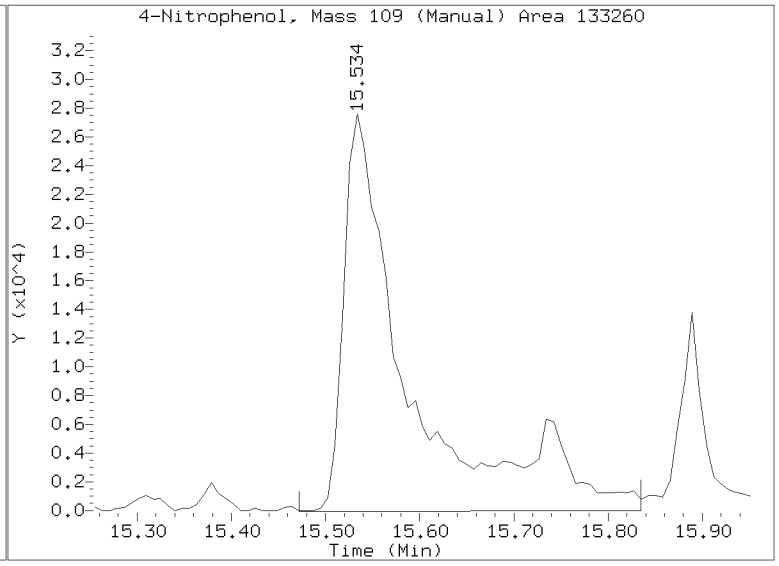












SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00019
Laboratory ID: SLC0084-SCV1
Sequence: SLC0084
Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	5.0000	4.9	-3.0	20.00
bis(2-chloroethyl) ether	5.0000	5.9	18.6	20.00
2-Chlorophenol	5.0000	4.7	-6.2	20.00
1,3-Dichlorobenzene	5.0000	5.3	5.3	20.00
1,4-Dichlorobenzene	5.0000	5.2	4.3	20.00
1,2-Dichlorobenzene	5.0000	5.2	3.9	20.00
Benzyl Alcohol	5.0000	4.9	-2.0	20.00
2,2'-Oxybis(1-chloropropane)	5.0000	6.2	24.6 *	20.00
2-Methylphenol	5.0000	4.2	-16.2	20.00
Hexachloroethane	5.0000	5.4	8.9	20.00
N-Nitroso-di-n-Propylamine	5.0000	5.9	18.1	20.00
4-Methylphenol	5.0000	4.2	-15.2	20.00
Nitrobenzene	5.0000	5.6	11.4	20.00
Isophorone	5.0000	7.7	53.4 *	20.00
2-Nitrophenol	5.0000	3.2	-35.1 *	20.00
2,4-Dimethylphenol	5.0000	3.5	-29.9 *	20.00
Bis(2-Chloroethoxy)methane	5.0000	6.7	34.5 *	20.00
2,4-Dichlorophenol	5.0000	4.4	-11.3	20.00
1,2,4-Trichlorobenzene	5.0000	4.9	-1.8	20.00
Naphthalene	5.0000	5.3	5.1	20.00
Benzoic acid	10.000	5.6	-43.6 *	20.00
4-Chloroaniline	5.0000	3.8	-24.2 *	20.00
Hexachlorobutadiene	5.0000	5.0	0.3	20.00
4-Chloro-3-Methylphenol	5.0000	4.5	-11.0	20.00
2-Methylnaphthalene	5.0000	5.0	-1.0	20.00
Hexachlorocyclopentadiene	5.0000	2.6	-48.8 *	20.00
2,4,6-Trichlorophenol	5.0000	4.1	-17.6	20.00
2,4,5-Trichlorophenol	5.0000	4.1	-17.0	20.00
2-Chloronaphthalene	5.0000	5.3	5.3	20.00
2-Nitroaniline	5.0000	5.0	0.5	20.00
Acenaphthylene	5.0000	5.8	16.1	20.00
Dimethylphthalate	5.0000	5.4	7.7	20.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00019
Laboratory ID: SLC0084-SCV1
Sequence: SLC0084
Standard ID: K010066

2,6-Dinitrotoluene	5.0000	5.2	3.7	20.00
Acenaphthene	5.0000	5.2	3.1	20.00
3-Nitroaniline	5.0000	5.2	3.4	20.00
2,4-Dinitrophenol	5.0000	0.3	-94.7 *	20.00
Dibenzofuran	5.0000	5.0	-0.1	20.00
4-Nitrophenol	5.0000	3.8	-23.6 *	20.00
2,4-Dinitrotoluene	5.0000	4.7	-5.4	20.00
Fluorene	5.0000	5.3	6.1	20.00
4-Chlorophenylphenyl ether	5.0000	5.3	5.1	20.00
Diethyl phthalate	5.0000	5.6	12.8	20.00
4-Nitroaniline	5.0000	5.2	4.6	20.00
4,6-Dinitro-2-methylphenol	5.0000	1.3	-74.2 *	20.00
N-Nitrosodiphenylamine	5.0000	5.4	8.3	20.00
4-Bromophenyl phenyl ether	5.0000	5.5	9.2	20.00
Hexachlorobenzene	5.0000	4.8	-3.9	20.00
Pentachlorophenol	5.0000	3.5	-30.2 *	20.00
Phenanthrene	5.0000	5.1	1.7	20.00
Anthracene	5.0000	4.6	-8.3	20.00
Carbazole	5.0000	5.3	6.7	20.00
Di-n-Butylphthalate	5.0000	5.5	9.3	20.00
Fluoranthene	5.0000	4.5	-9.2	20.00
Pyrene	5.0000	4.6	-7.5	20.00
Butylbenzylphthalate	5.0000	4.5	-9.5	20.00
Benzo(a)anthracene	5.0000	4.6	-8.4	20.00
3,3'-Dichlorobenzidine	10.000	7.4	-26.2 *	20.00
Chrysene	5.0000	5.0	-0.7	20.00
bis(2-Ethylhexyl)phthalate	5.0000	5.0	-0.9	20.00
Di-n-Octylphthalate	5.0000	5.8	16.9	20.00
Benzofluoranthenes, Total	10.000	8.9	-11.0	20.00
Benzo(a)pyrene	5.0000	4.4	-11.1	20.00
Indeno(1,2,3-cd)pyrene	5.0000	4.3	-13.1	20.00
Dibenzo(a,h)anthracene	5.0000	4.6	-7.8	20.00
Benzo(g,h,i)perylene	5.0000	4.6	-8.0	20.00
1-Methylnaphthalene	5.0000	5.2	4.4	20.00
2-Fluorophenol	7.5000	0.00	*	20.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00019
Laboratory ID: SLC0084-SCV1
Sequence: SLC0084
Standard ID: K010066

Phenol-d5	7.5000	0.00	*	20.00
2-Chlorophenol-d4	7.5000	0.00	*	20.00
1,2-Dichlorobenzene-d4	5.0000	4.29	-14.1	20.00
Nitrobenzene-d5	5.0000	0.00	*	20.00
2-Fluorobiphenyl	5.0000	0.00	*	20.00
2,4,6-Tribromophenol	7.5000	0.00	*	20.00
p-Terphenyl-d14	5.0000	0.0196	-99.6 *	20.00

* Values outside of QC limits

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Date : 01-MAR-2023 21:46

Client ID:

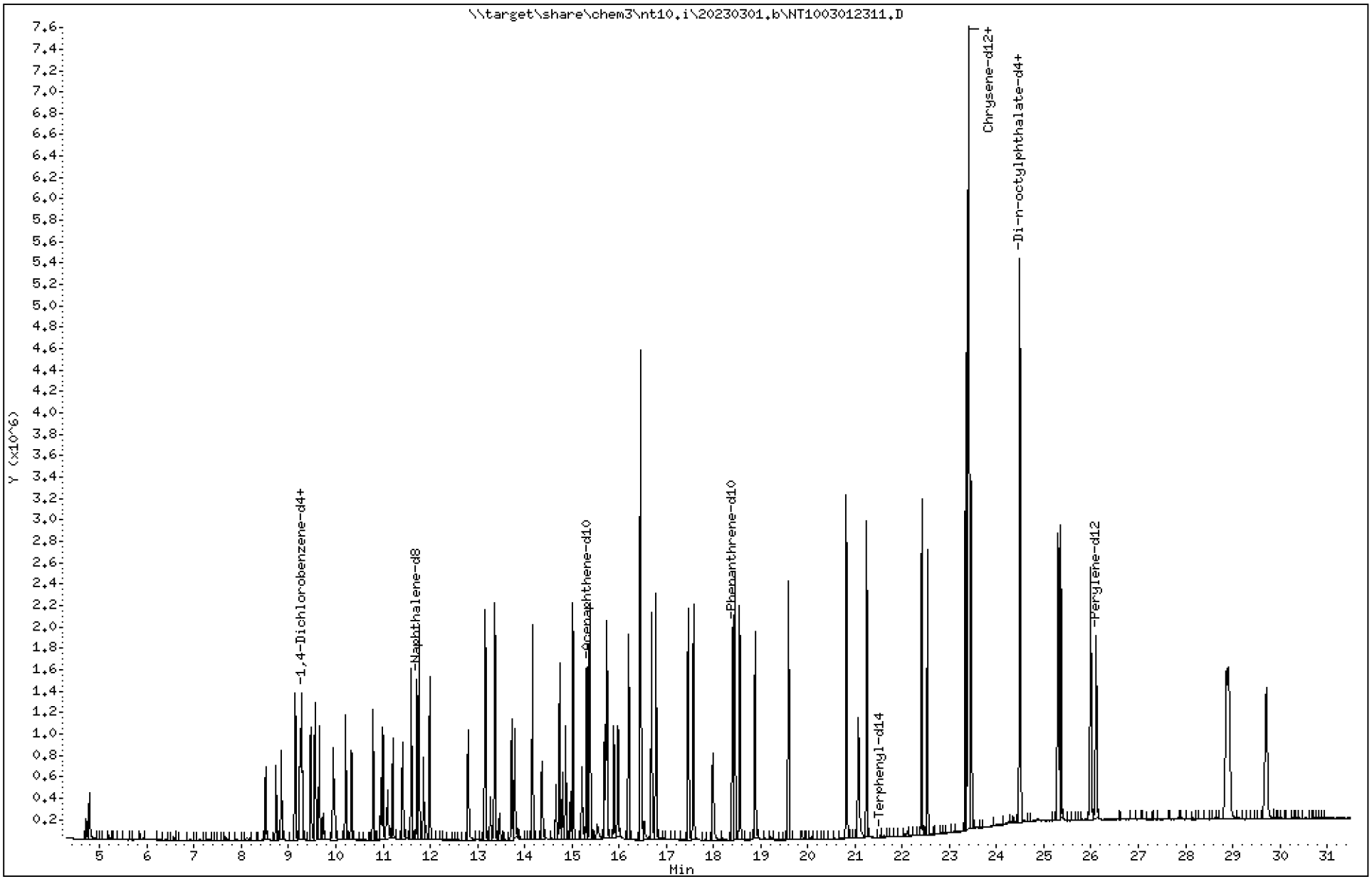
Instrument: nt10.i

Sample Info: SEQ-SCV1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

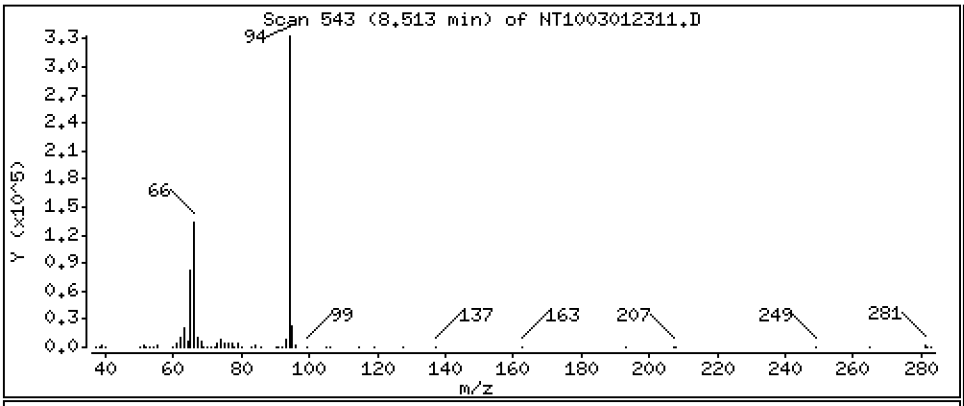
Operator: VTS

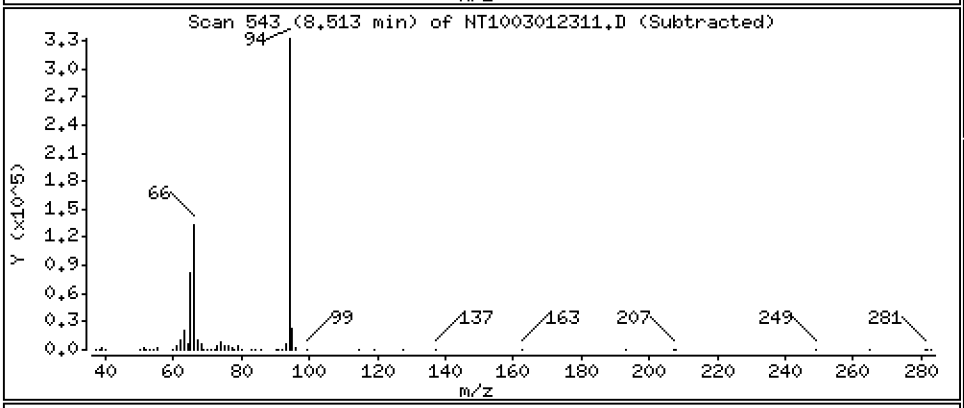
Column phase: ZB-5msi

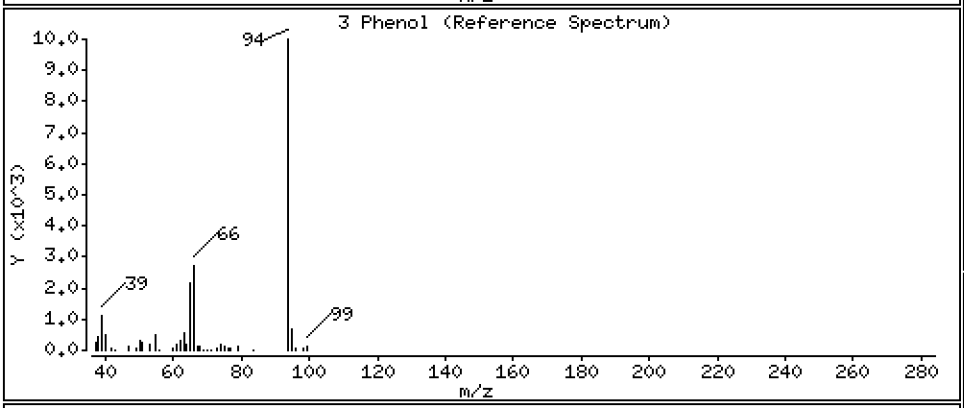
Column diameter: 0.25

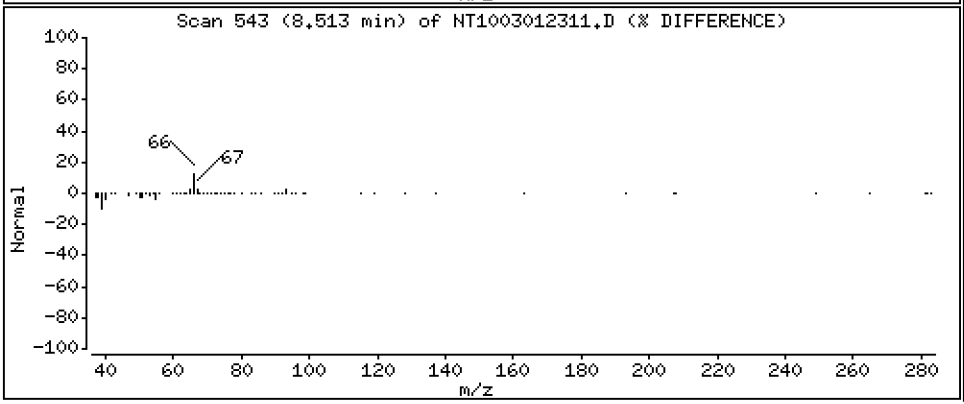
3 Phenol

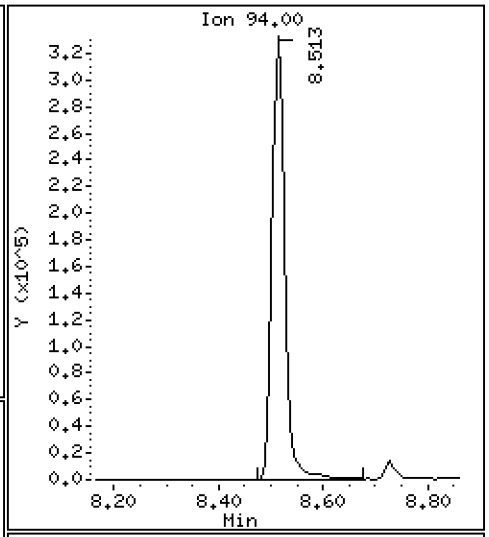
Concentration: 4.852 ug/mL

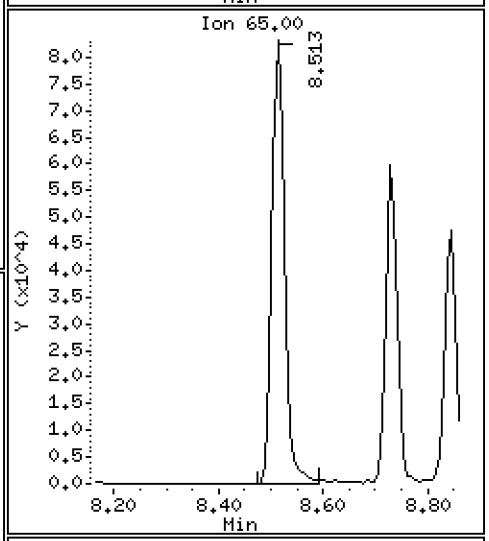


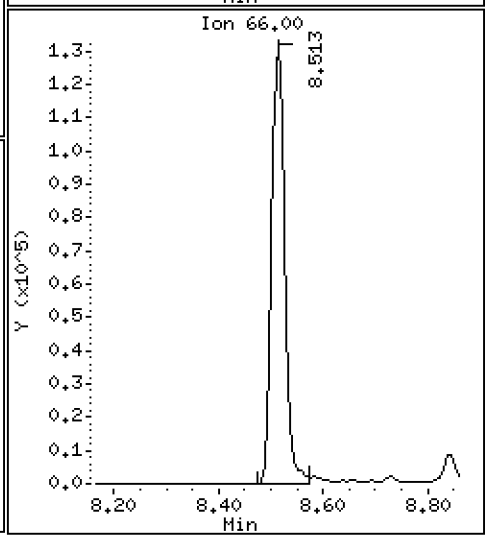












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

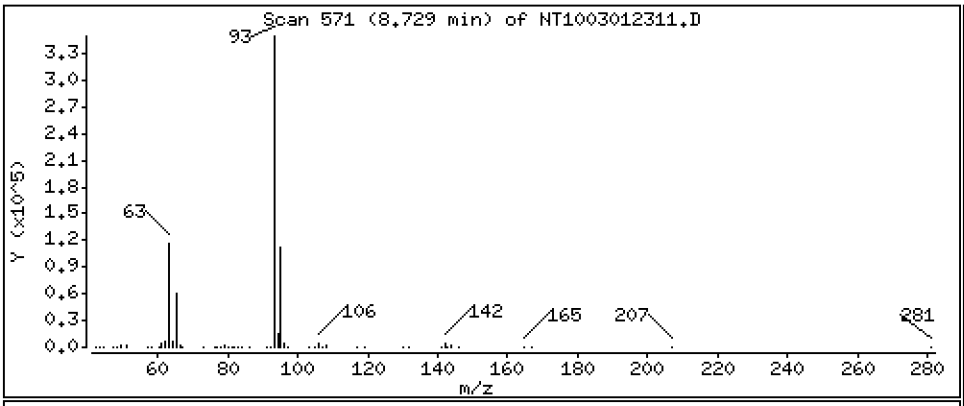
Operator: VTS

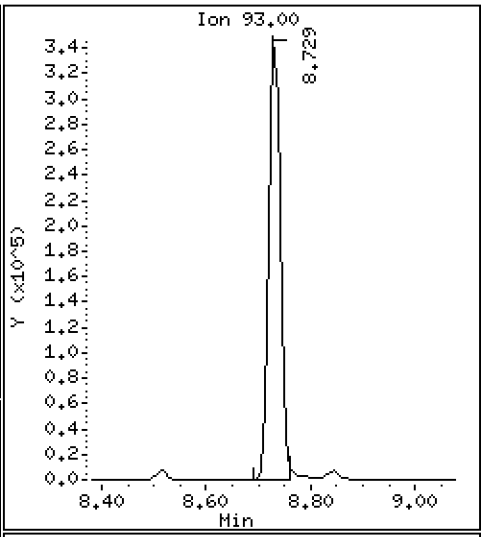
Column phase: ZB-5msi

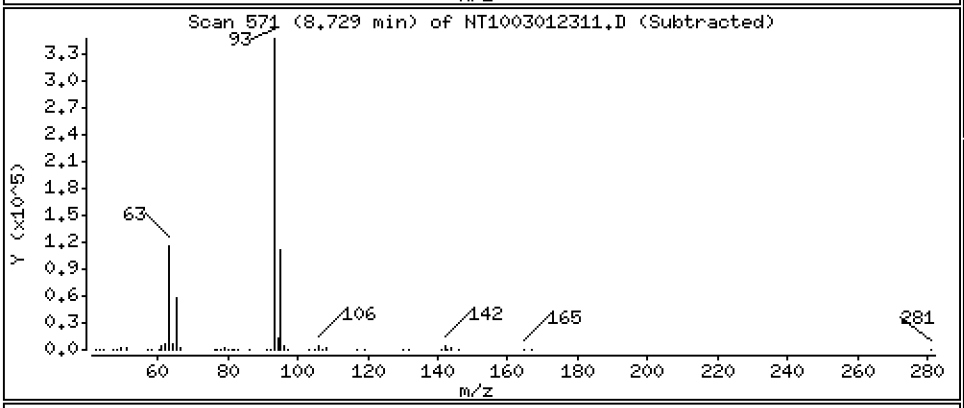
Column diameter: 0.25

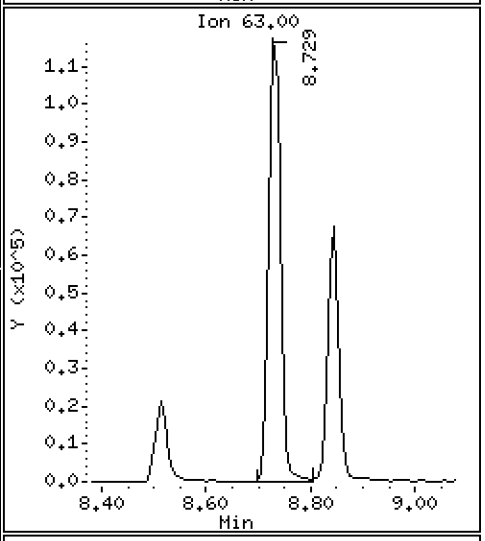
4 Bis(2-Chloroethyl)ether

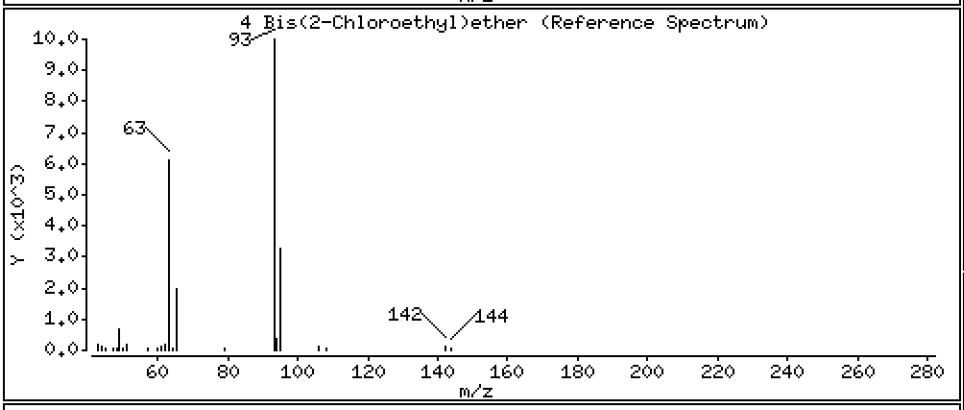
Concentration: 5.928 ug/mL

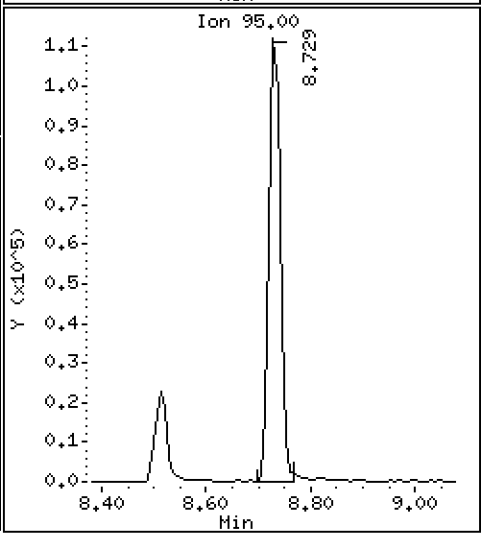


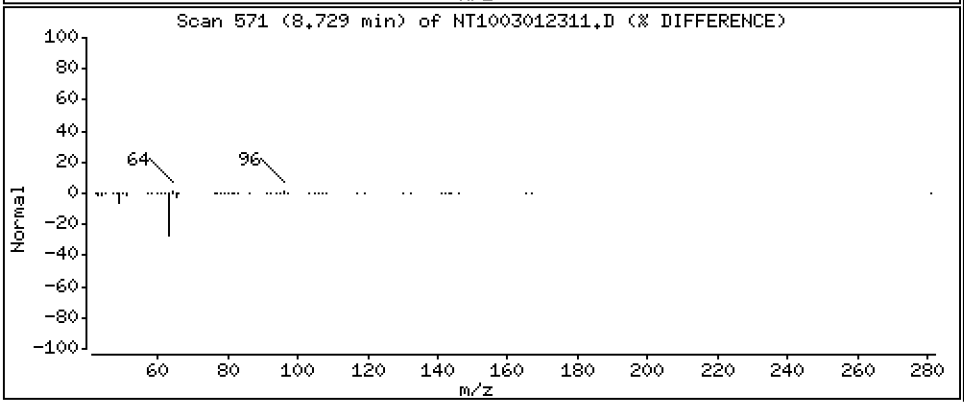












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

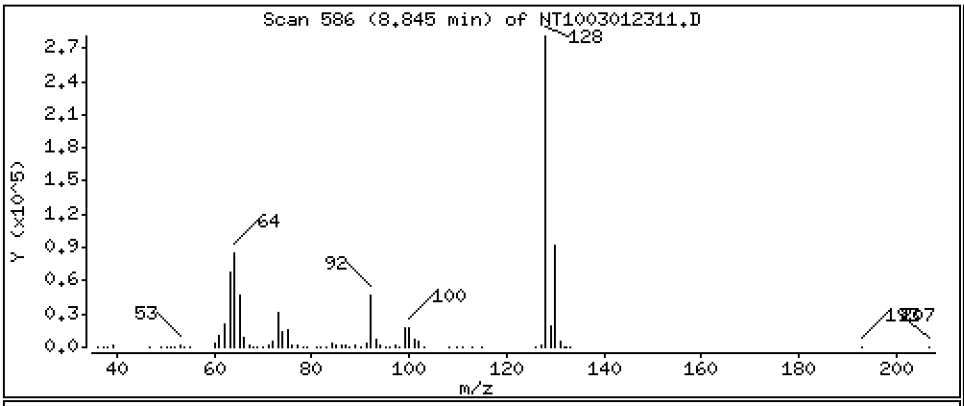
Operator: VTS

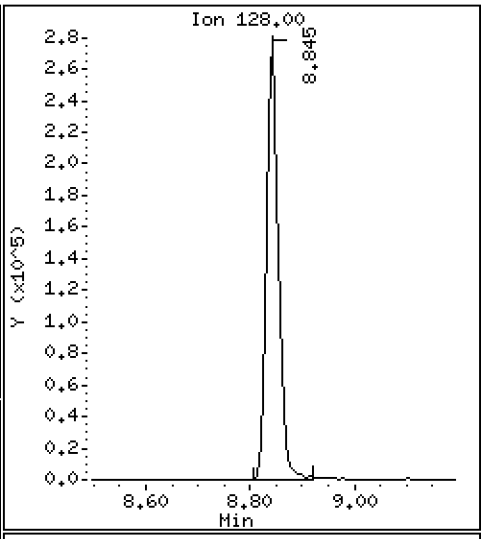
Column phase: ZB-5msi

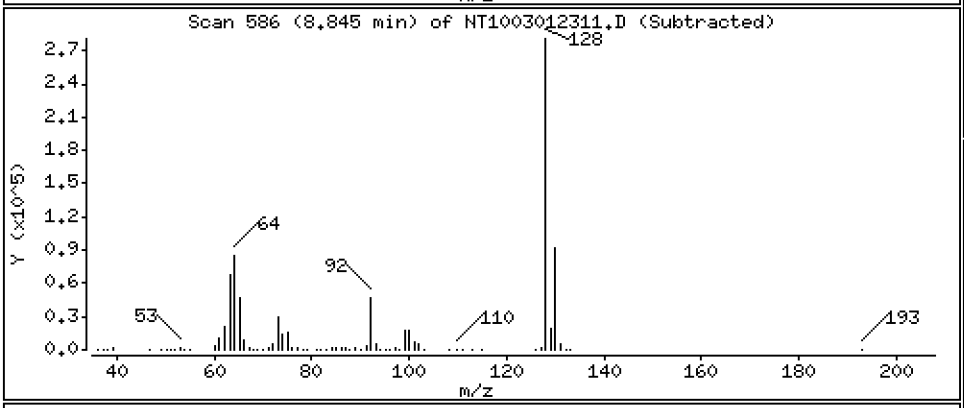
Column diameter: 0.25

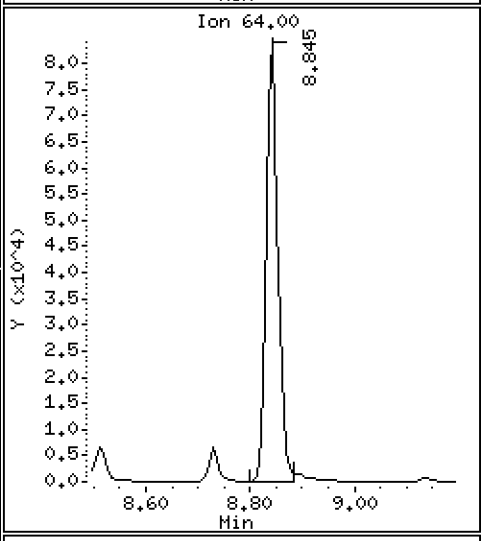
6 2-Chlorophenol

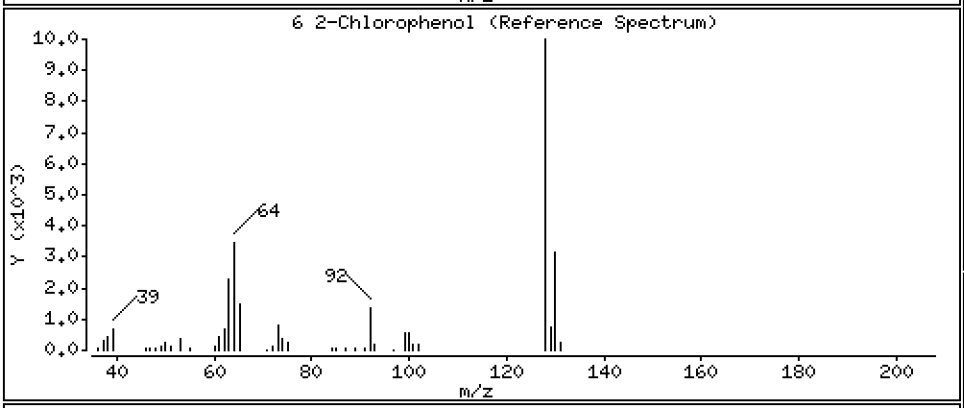
Concentration: 4.692 ug/mL

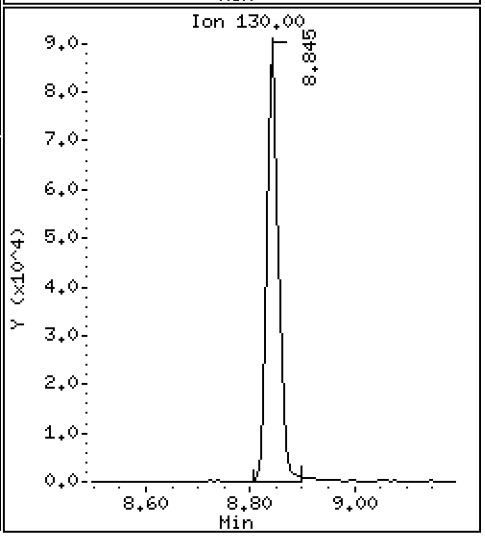


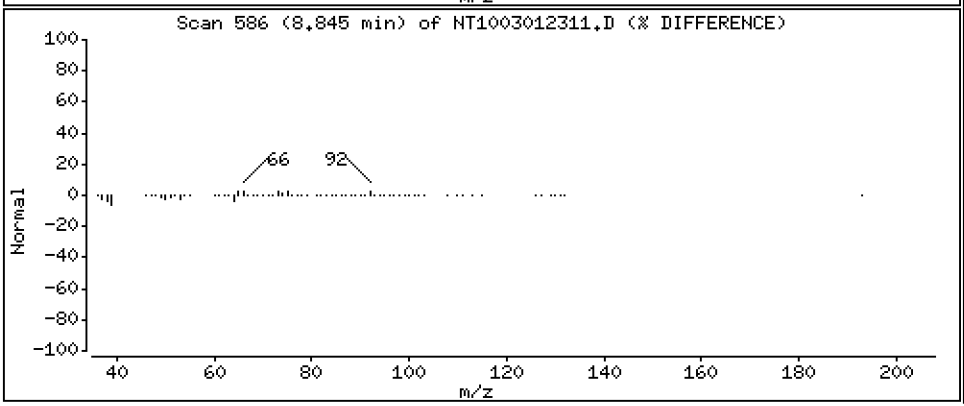












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

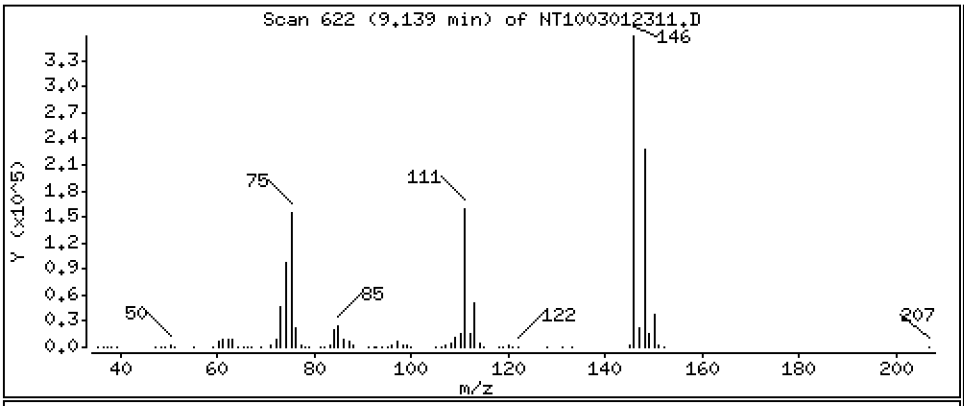
Operator: VTS

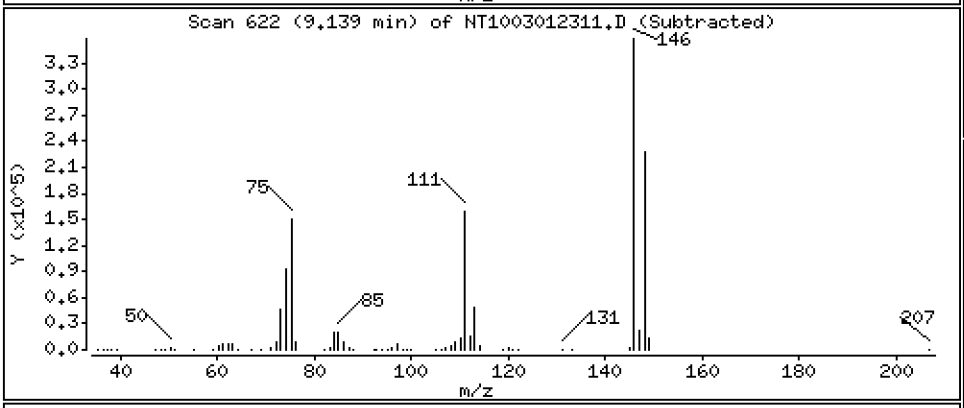
Column phase: ZB-5msi

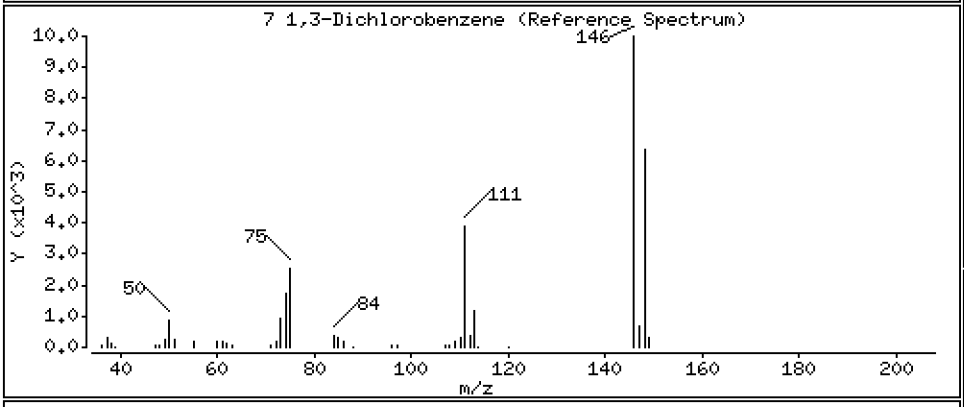
Column diameter: 0.25

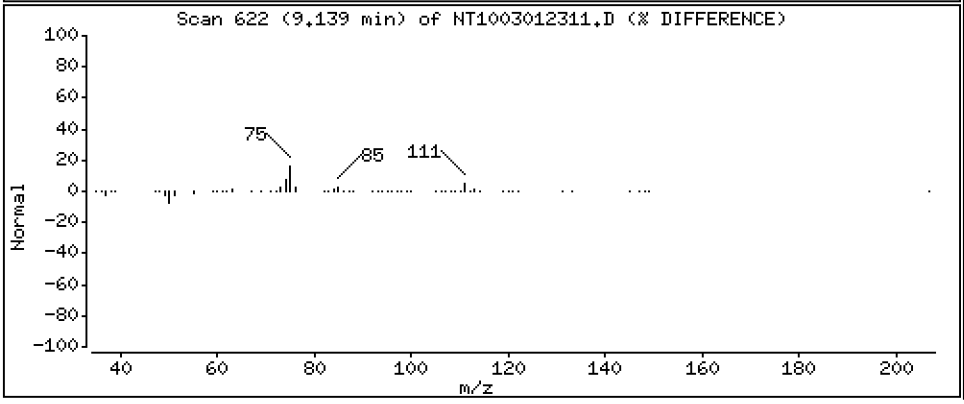
7 1,3-Dichlorobenzene

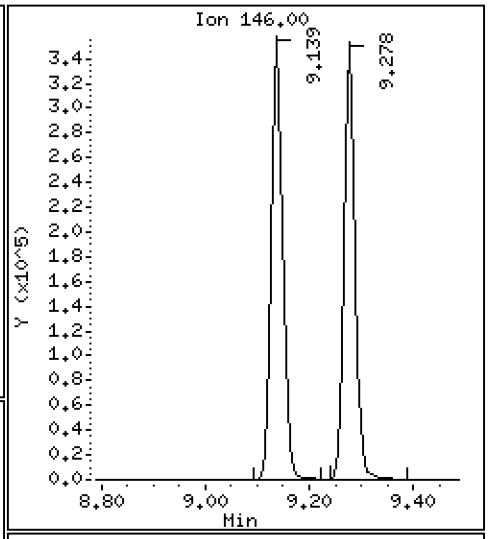
Concentration: 5.266 ug/mL

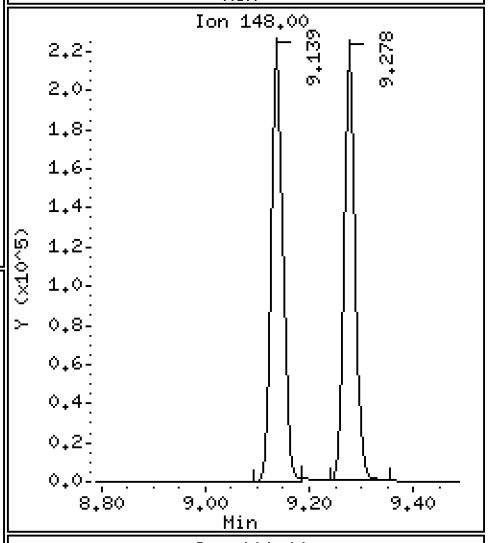


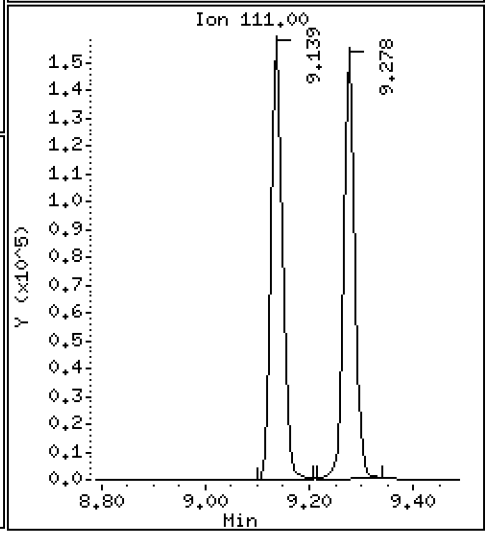












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

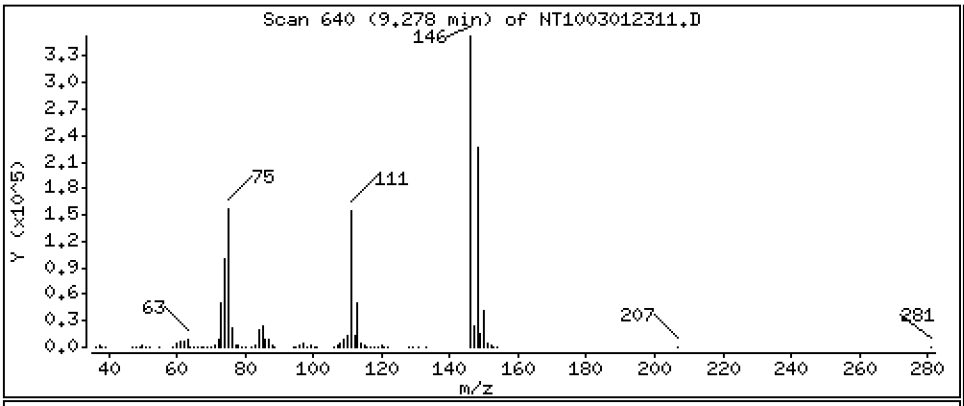
Operator: VTS

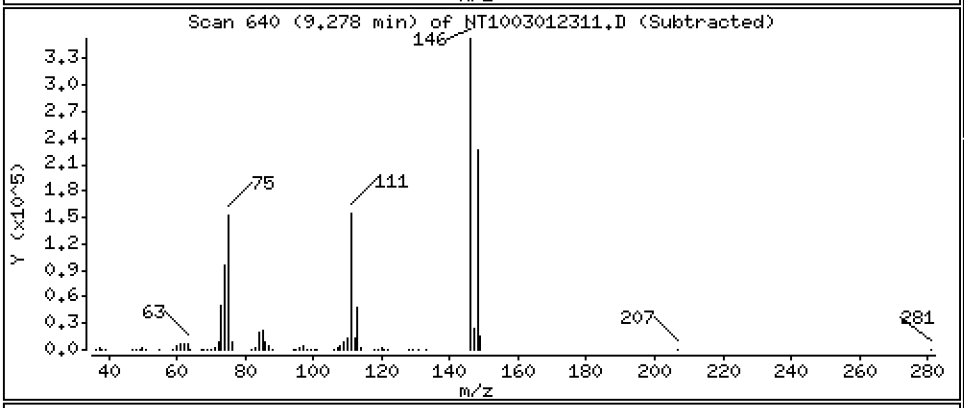
Column phase: ZB-5msi

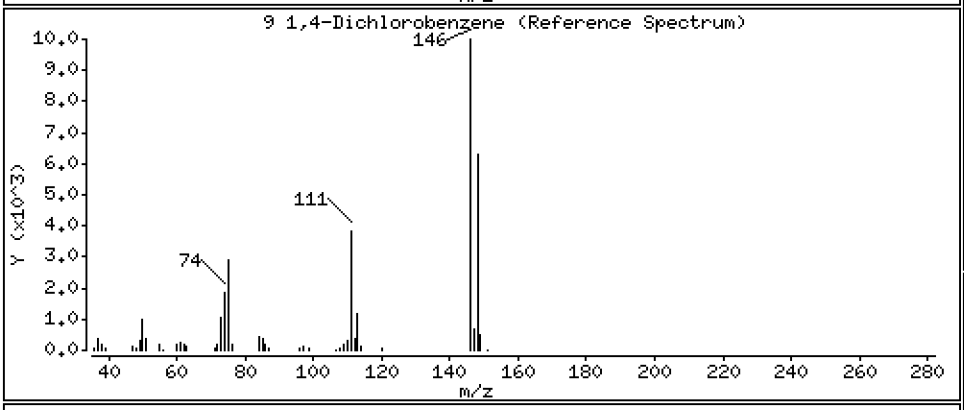
Column diameter: 0.25

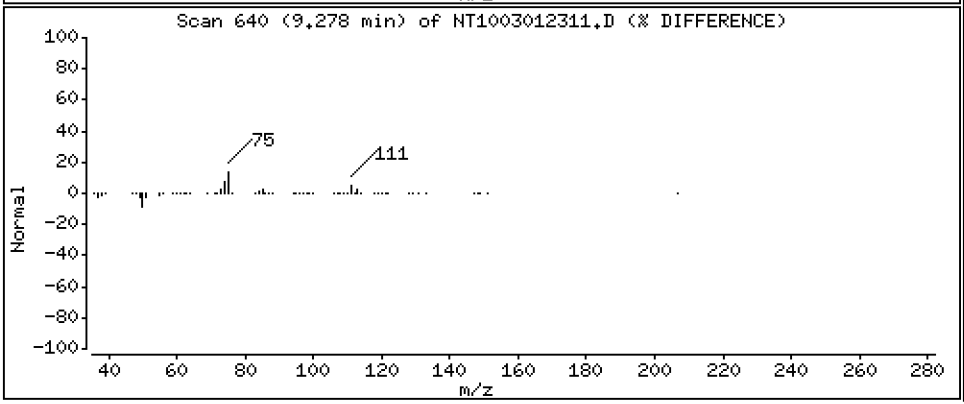
9 1,4-Dichlorobenzene

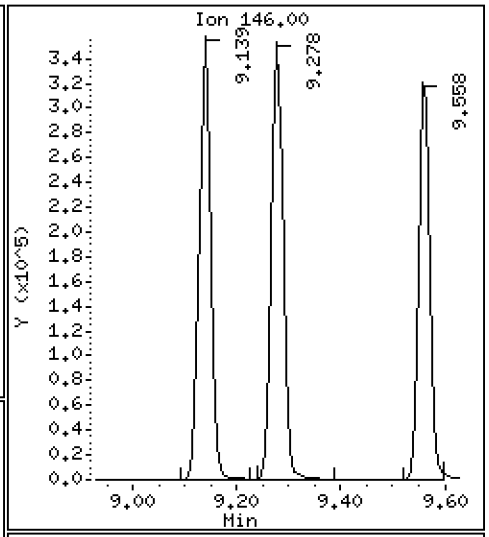
Concentration: 5.216 ug/mL

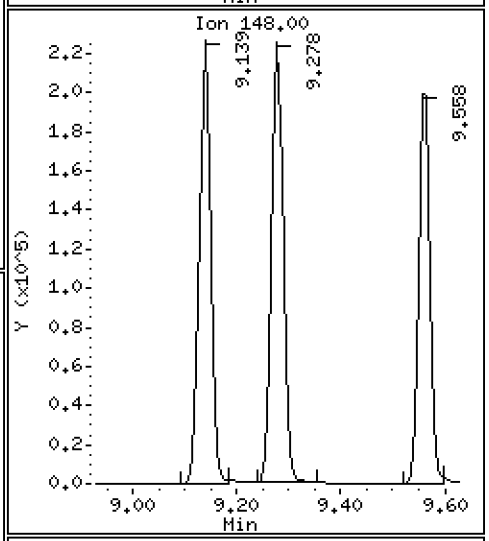


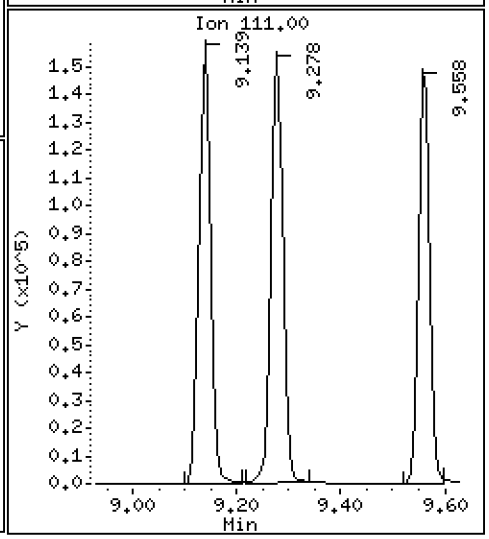












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

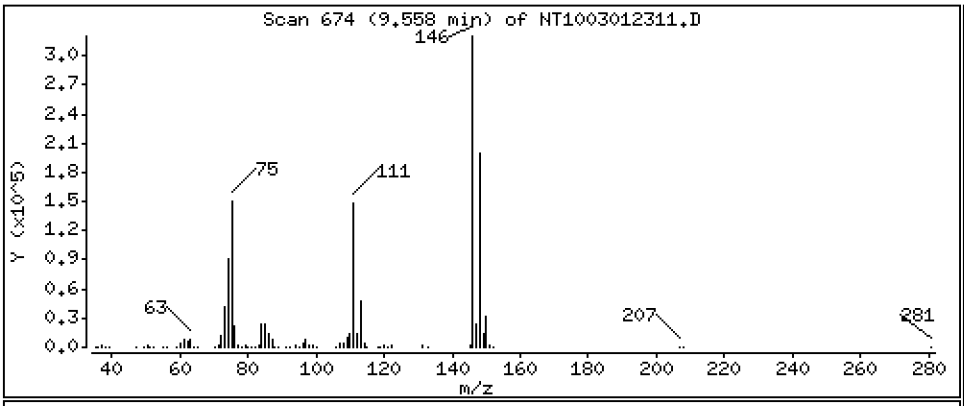
Operator: VTS

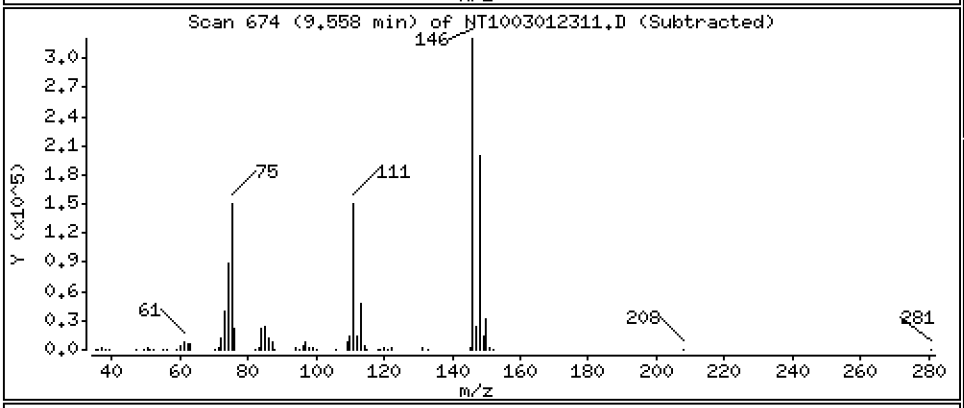
Column phase: ZB-5msi

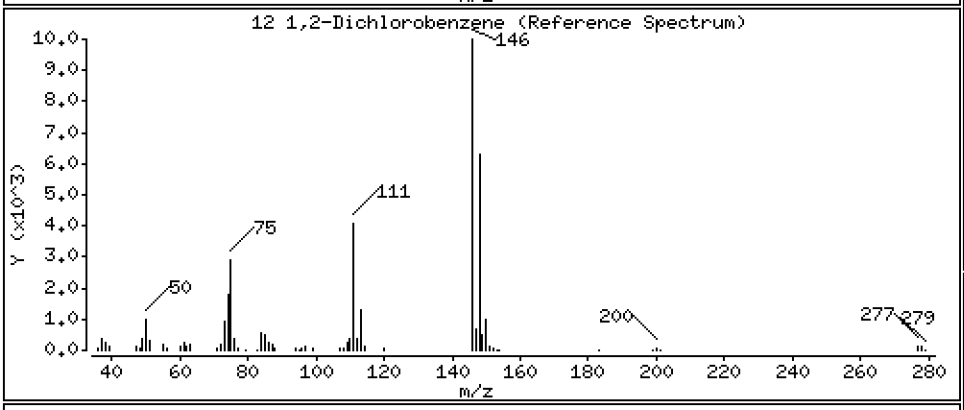
Column diameter: 0.25

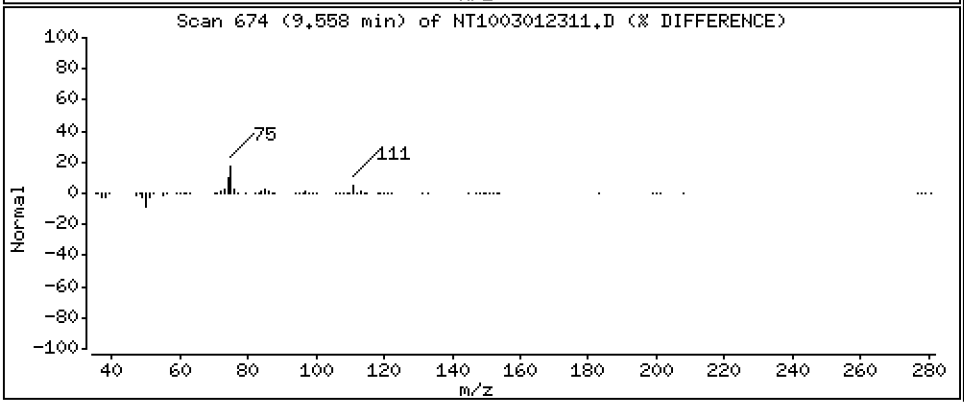
12 1,2-Dichlorobenzene

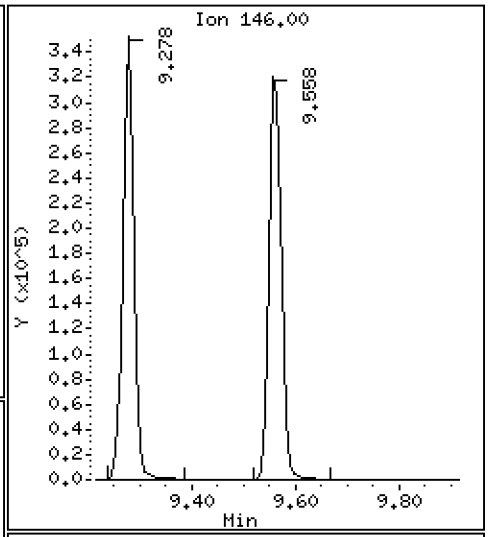
Concentration: 5.194 ug/mL

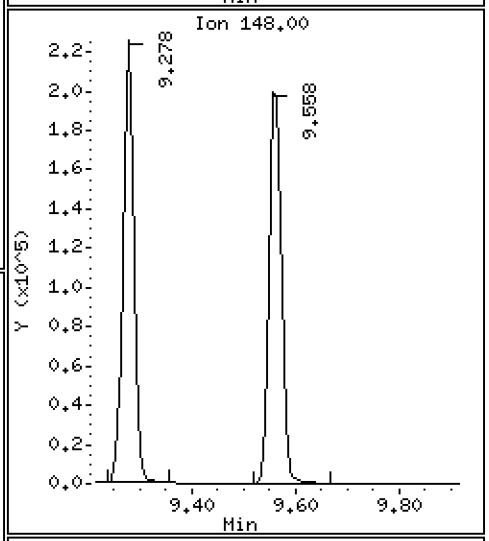


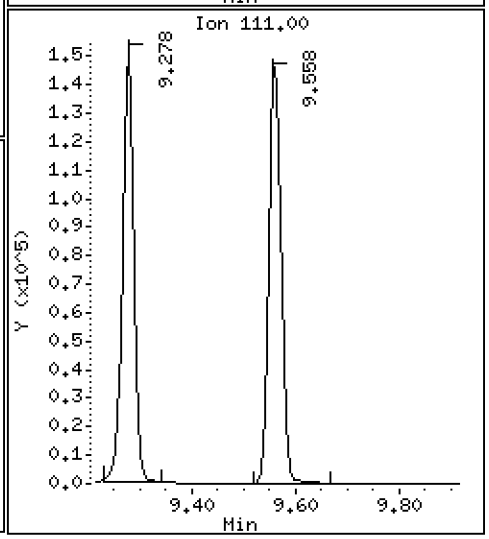












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

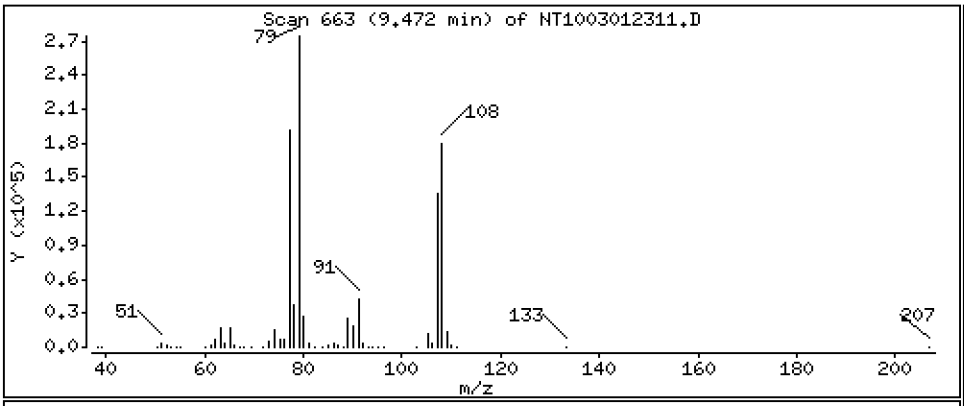
Operator: VTS

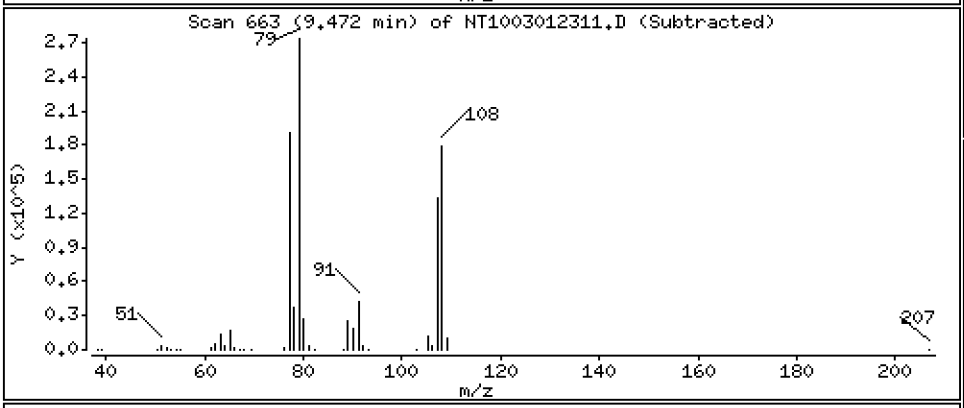
Column phase: ZB-5msi

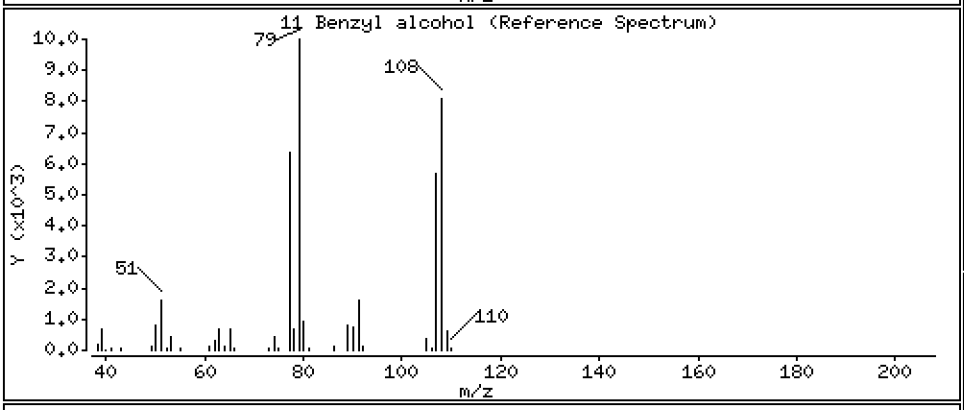
Column diameter: 0.25

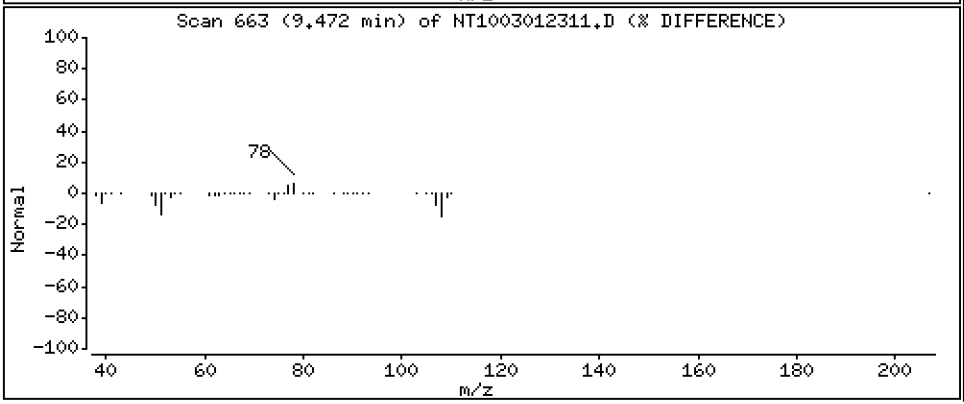
11 Benzyl alcohol

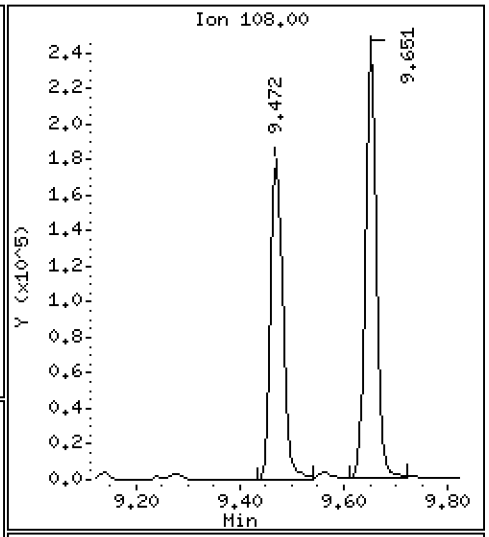
Concentration: 4.898 ug/mL

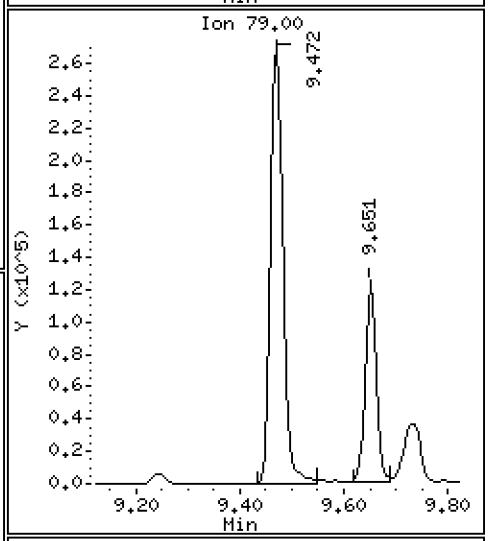


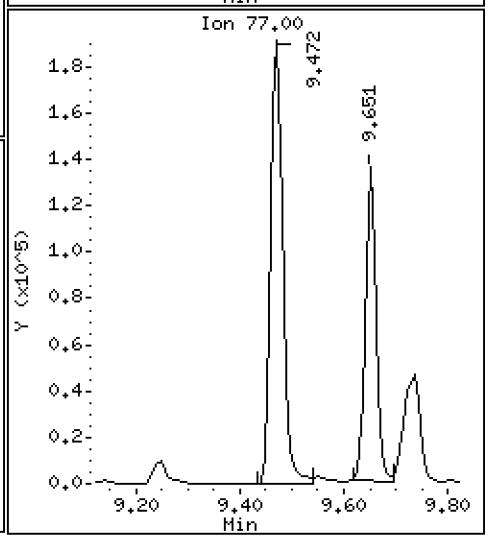












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

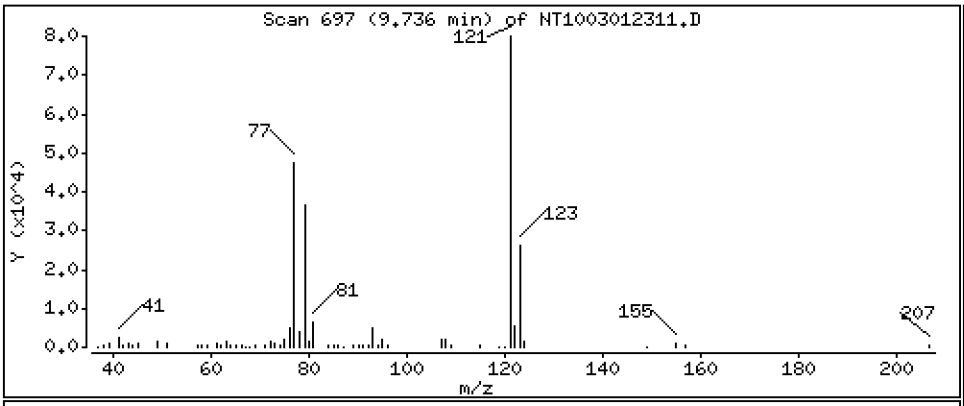
Operator: VTS

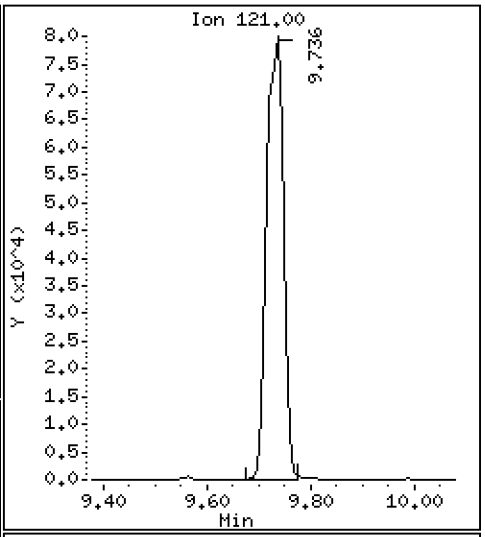
Column phase: ZB-5msi

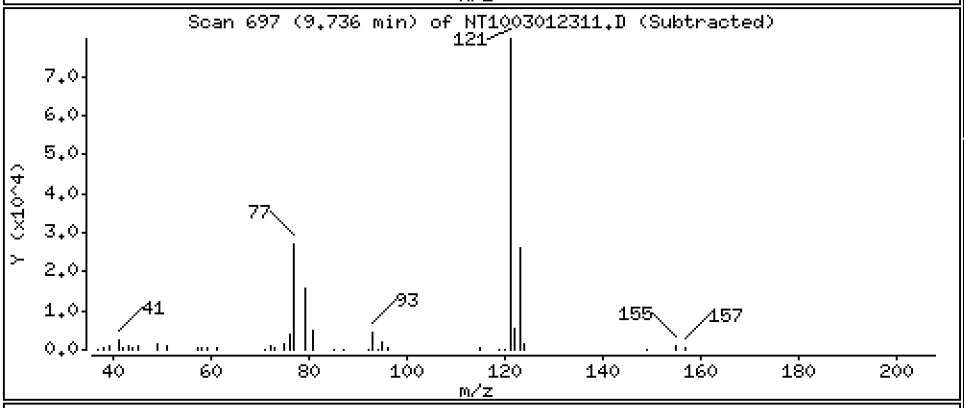
Column diameter: 0.25

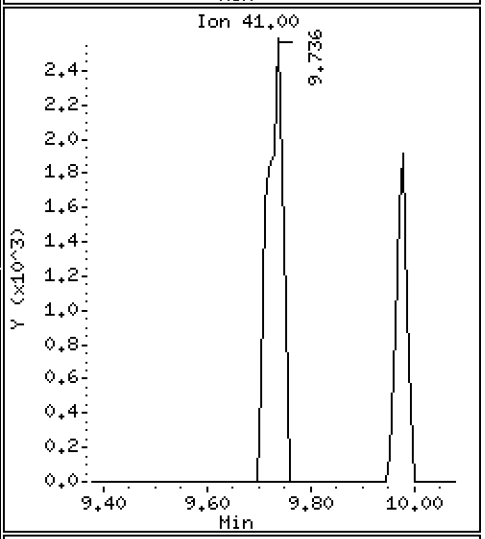
14 2,2'-oxybis(1-Chloropropane)

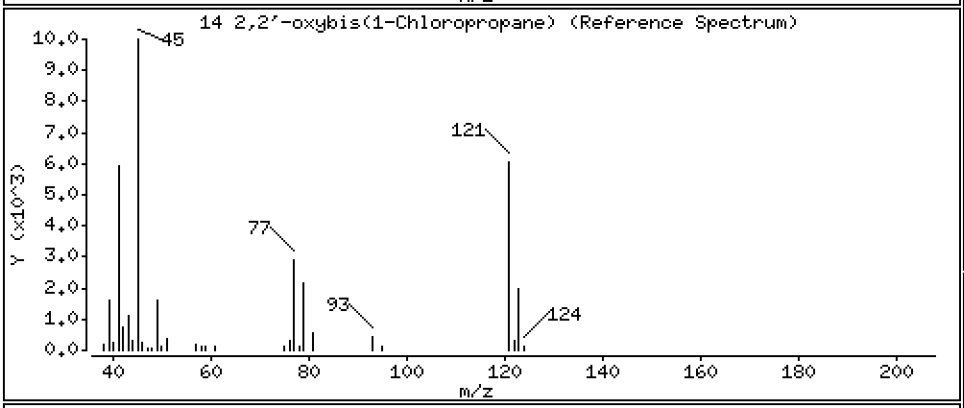
Concentration: 6.232 ug/mL

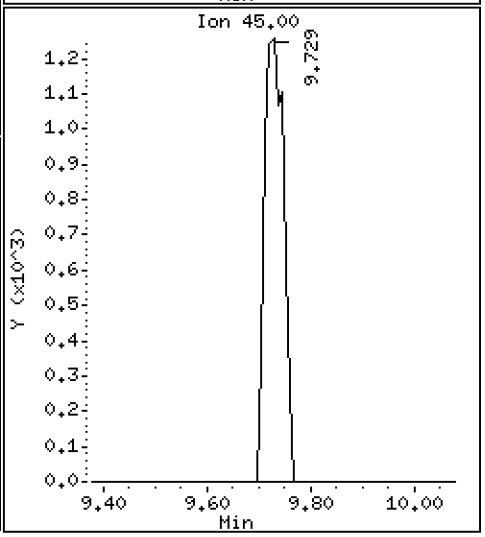


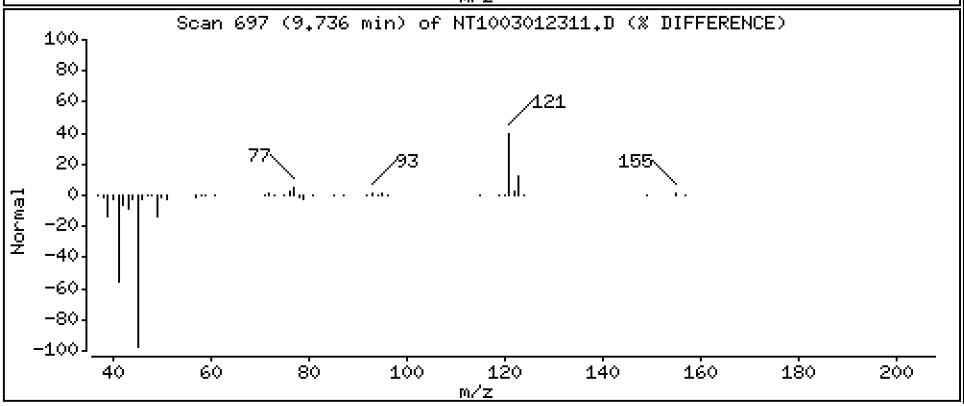












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

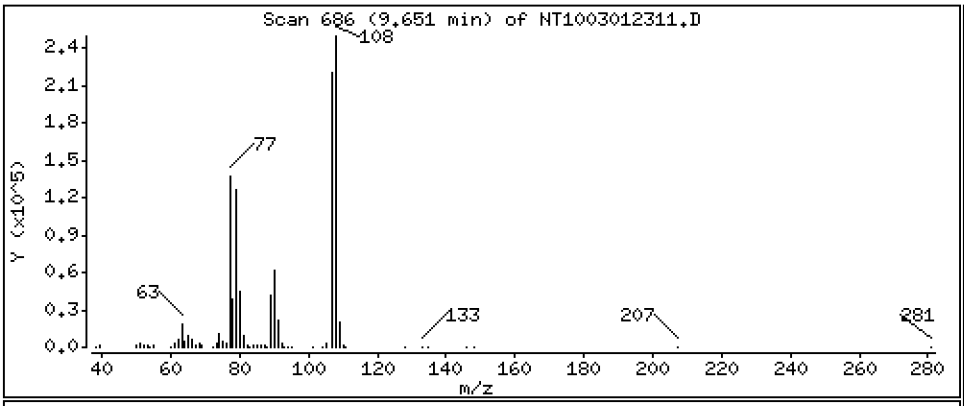
Operator: VTS

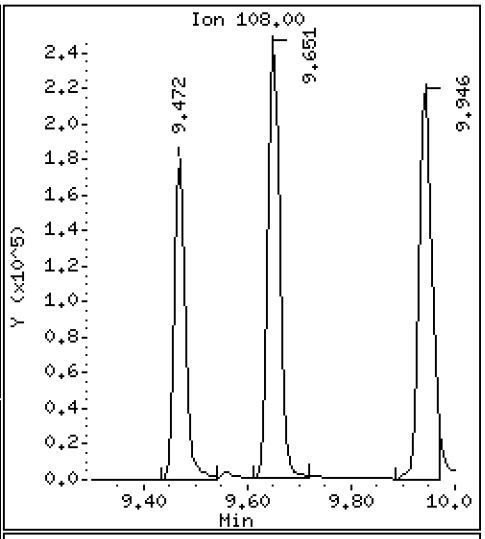
Column phase: ZB-5msi

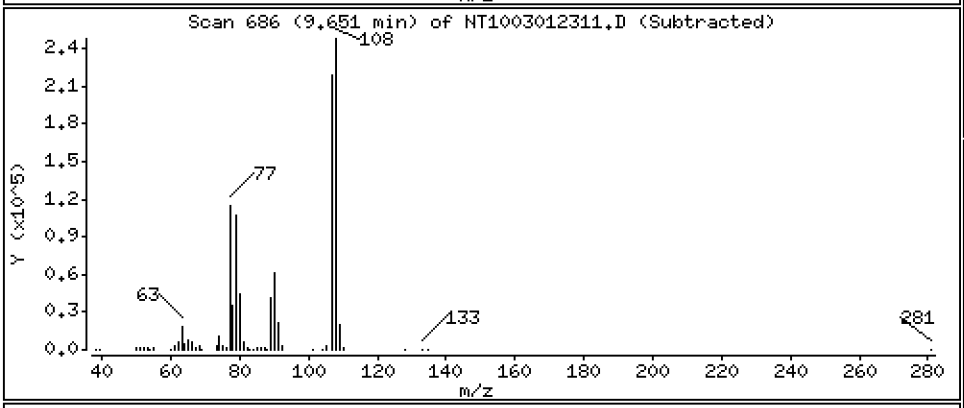
Column diameter: 0.25

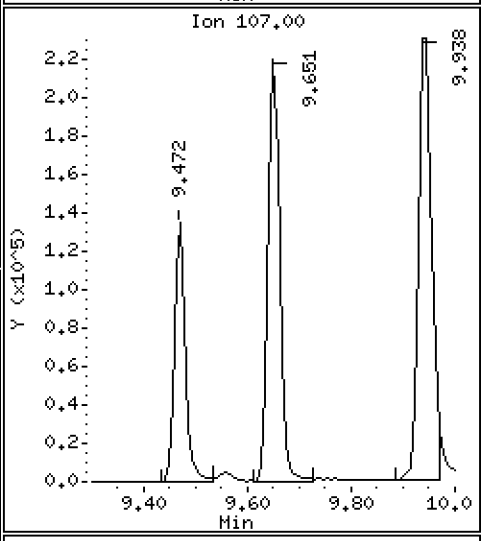
13 2-Methylphenol

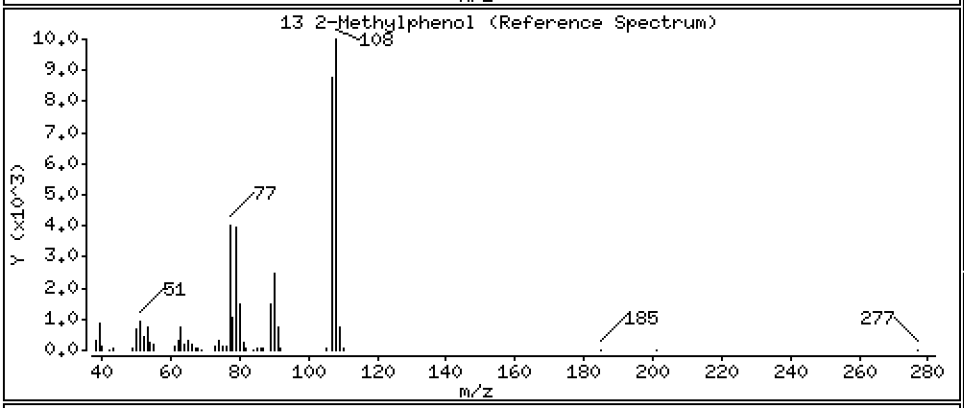
Concentration: 4.192 ug/mL

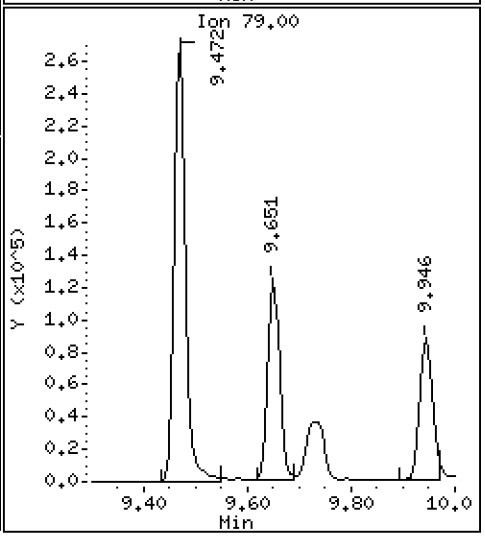


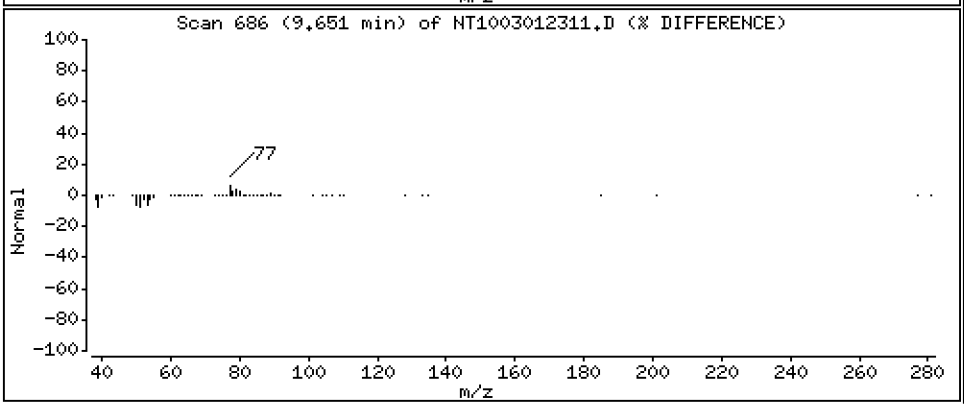












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

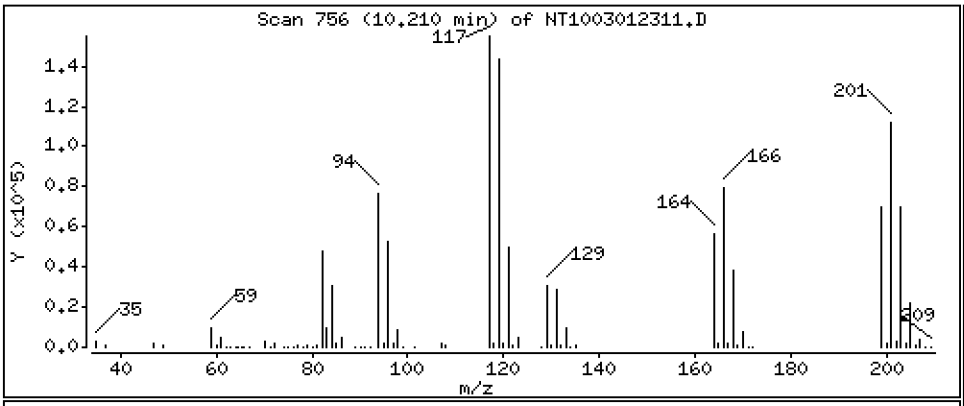
Operator: VTS

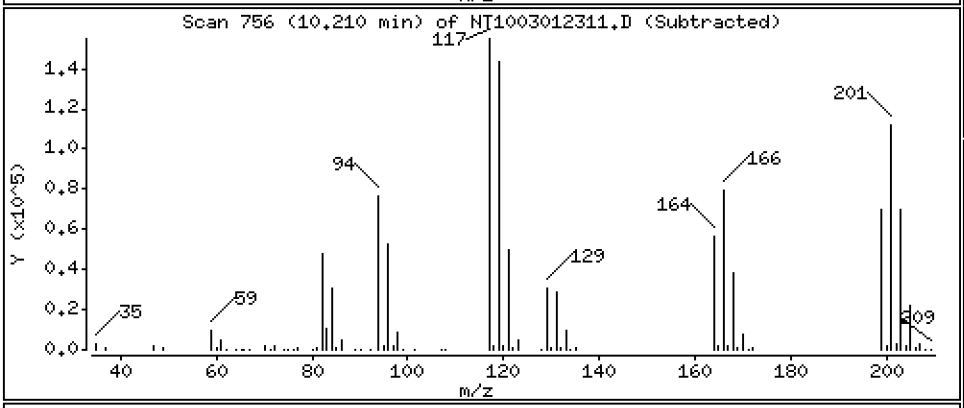
Column phase: ZB-5msi

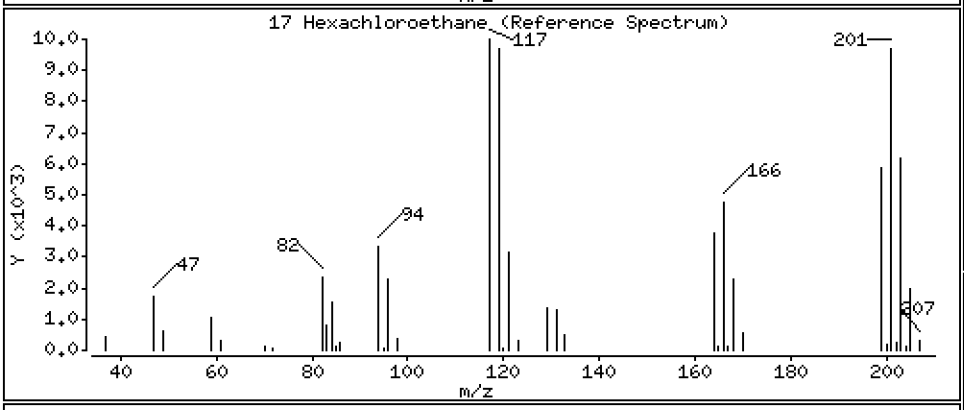
Column diameter: 0.25

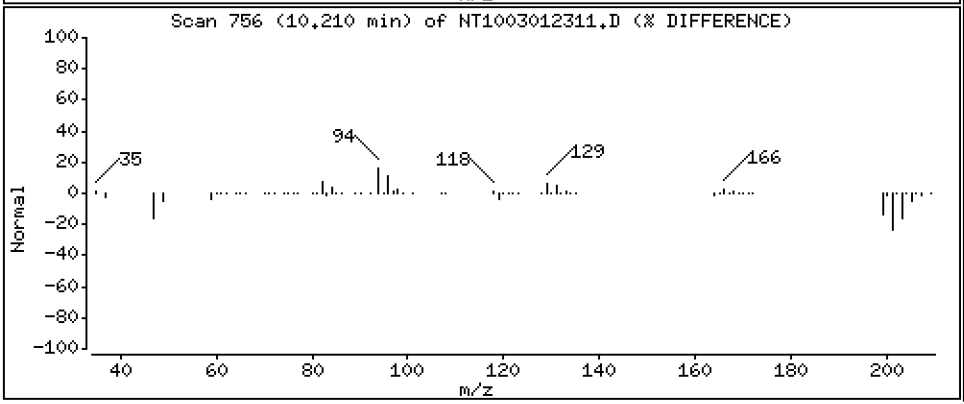
17 Hexachloroethane

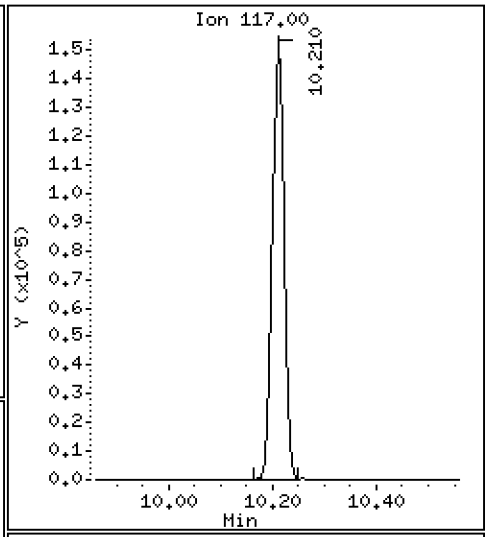
Concentration: 5.443 ug/mL

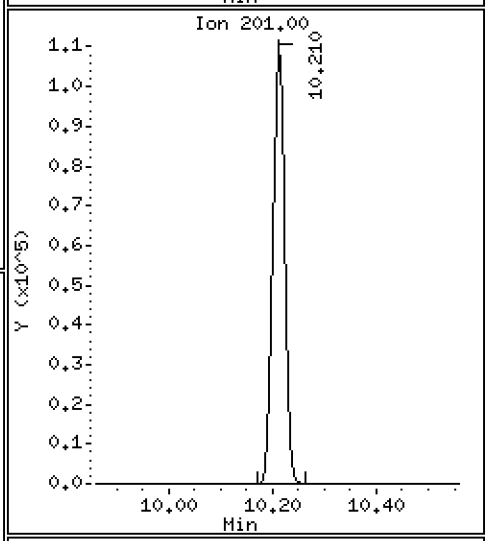


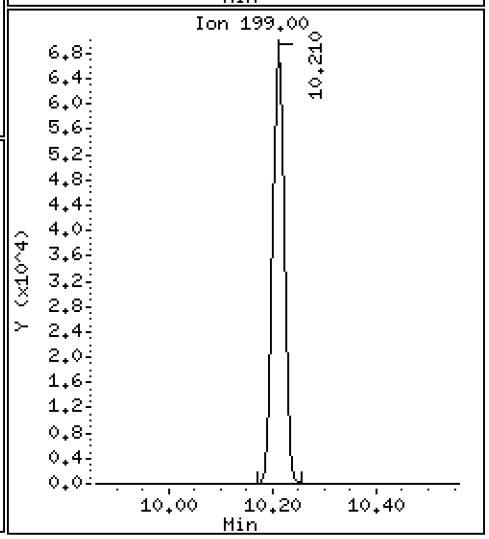












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

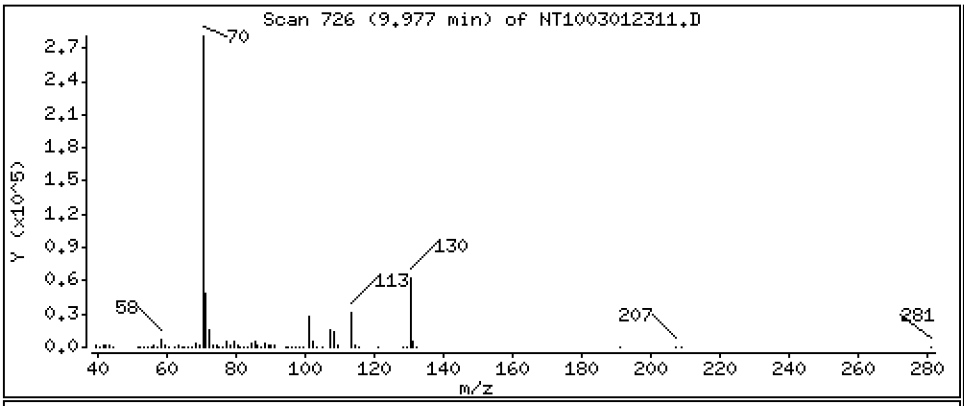
Operator: VTS

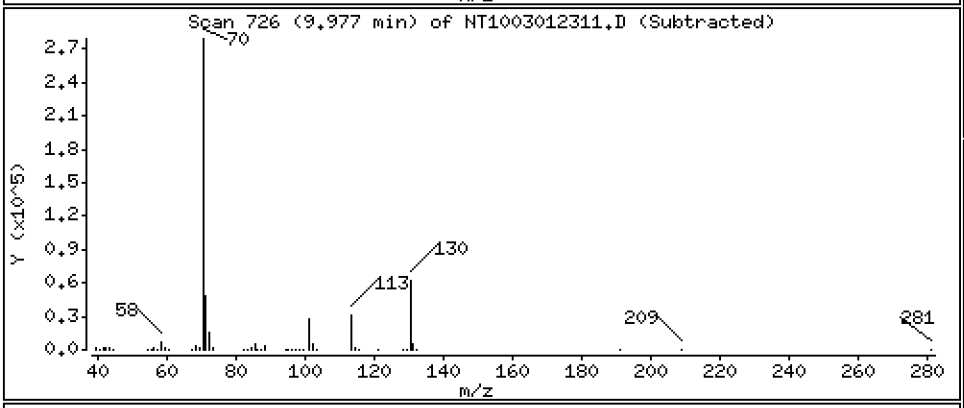
Column phase: ZB-5msi

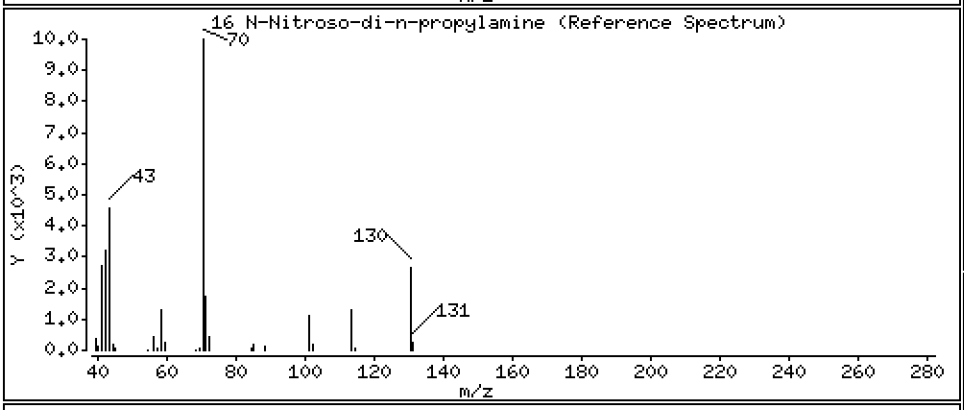
Column diameter: 0.25

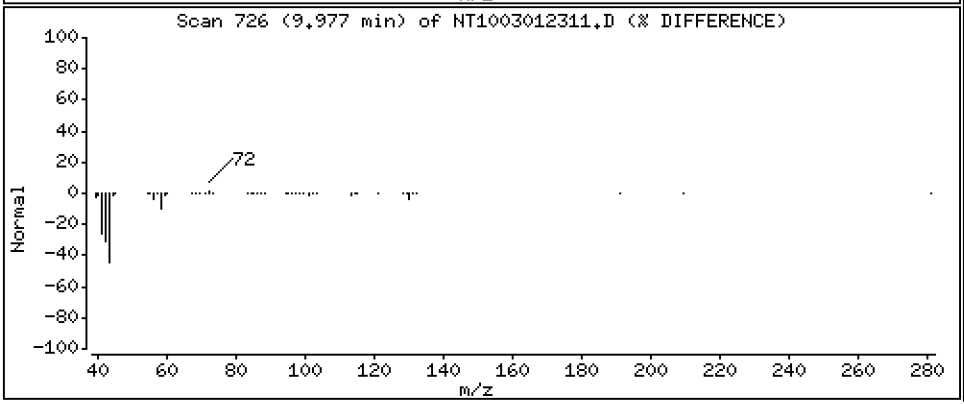
16 N-Nitroso-di-n-propylamine

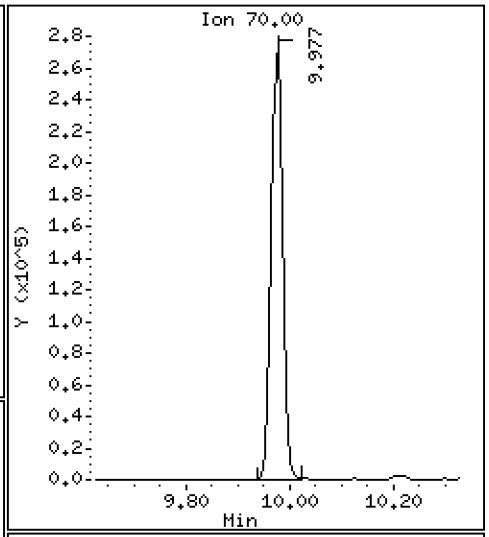
Concentration: 5.905 ug/mL

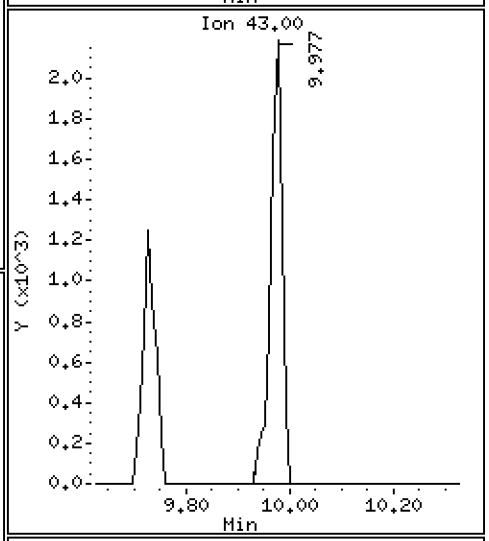


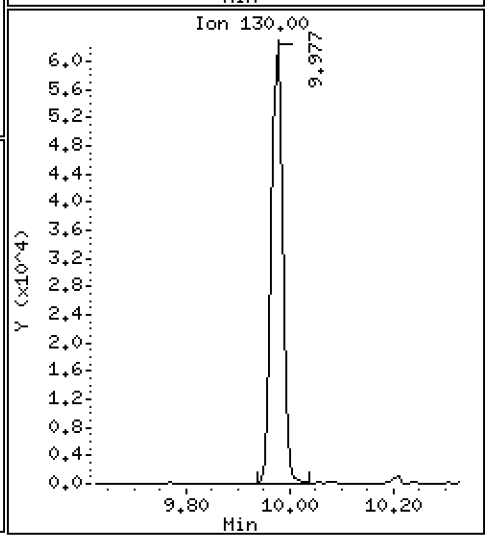












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

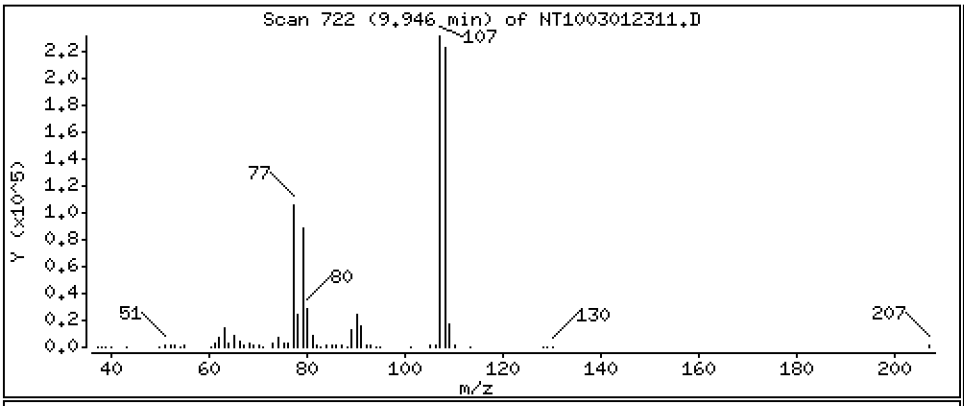
Operator: VTS

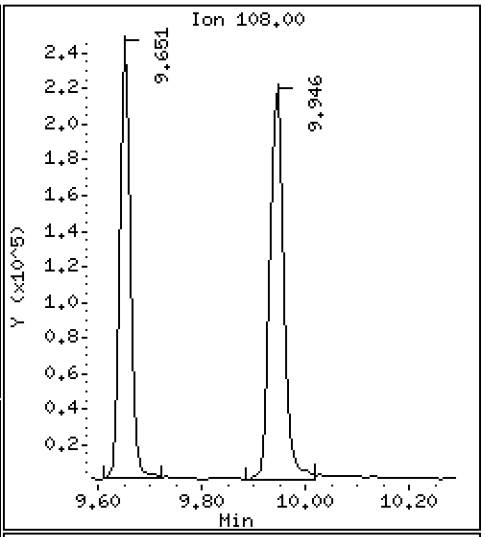
Column phase: ZB-5msi

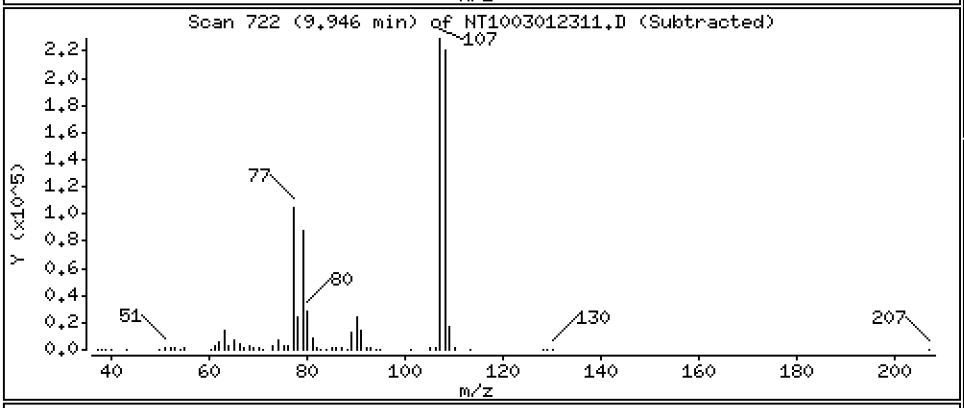
Column diameter: 0.25

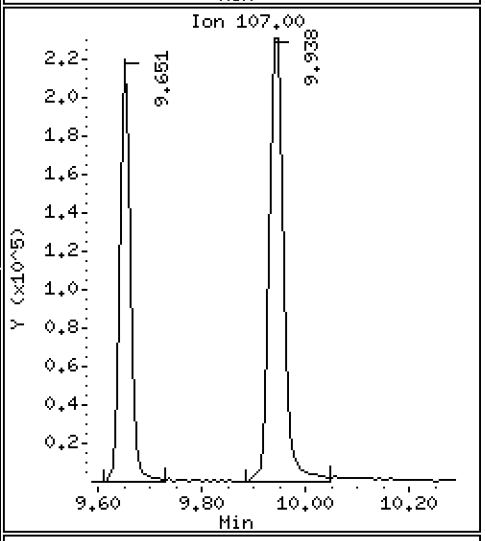
15 4-Methylphenol

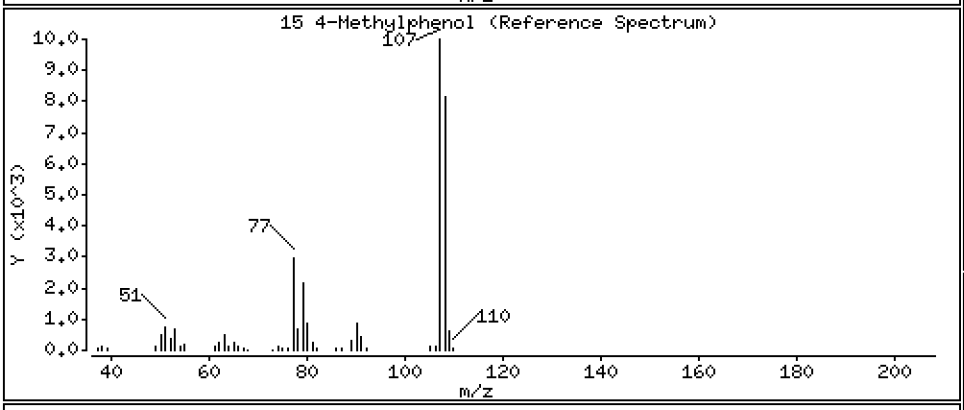
Concentration: 4.239 ug/mL

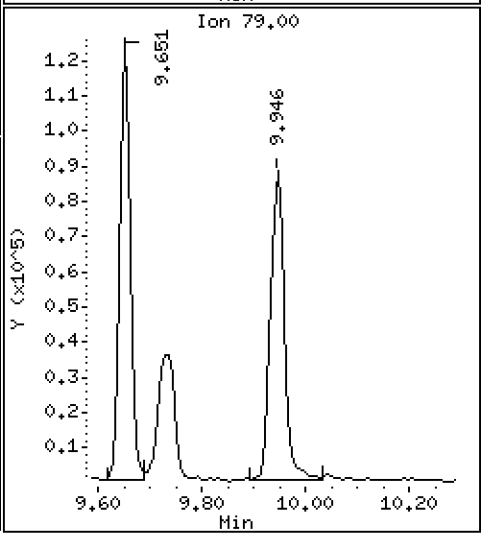


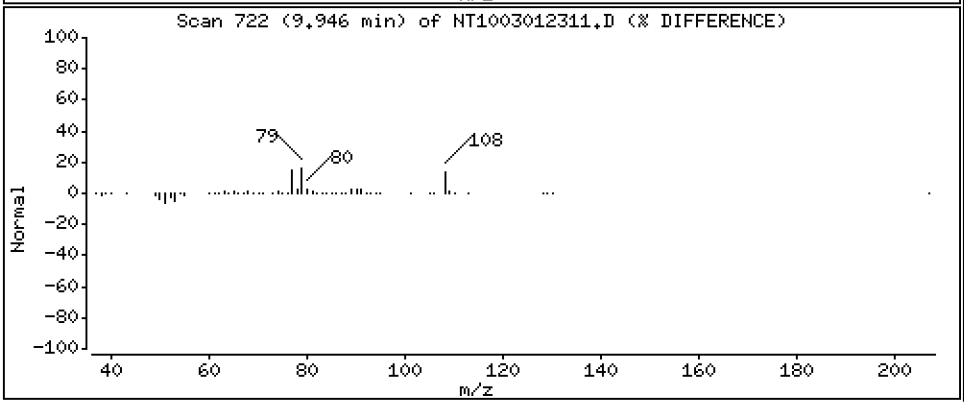












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

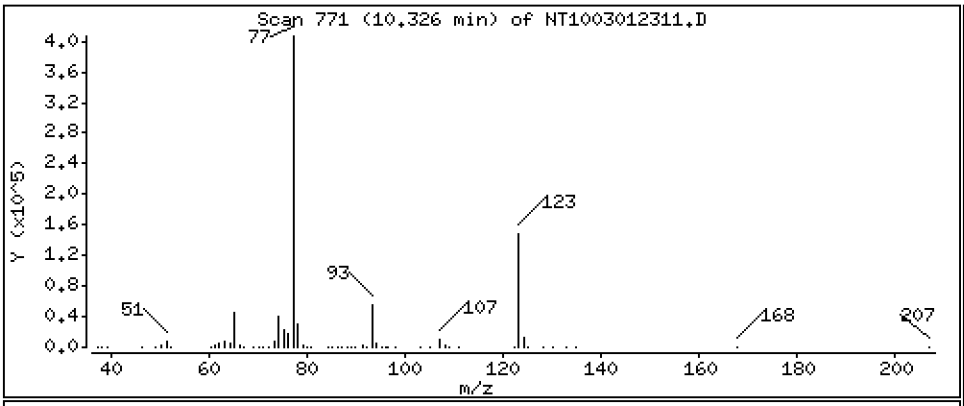
Operator: VTS

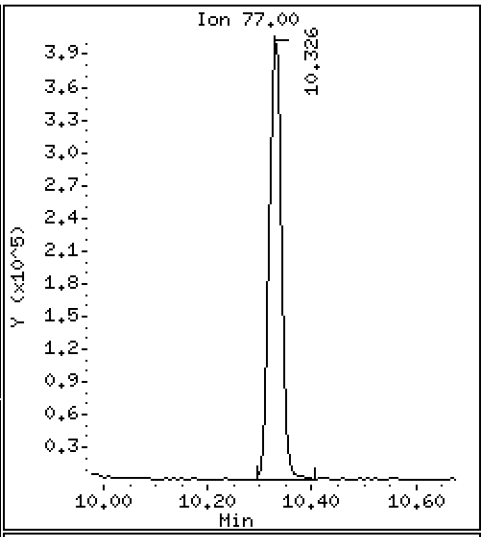
Column phase: ZB-5msi

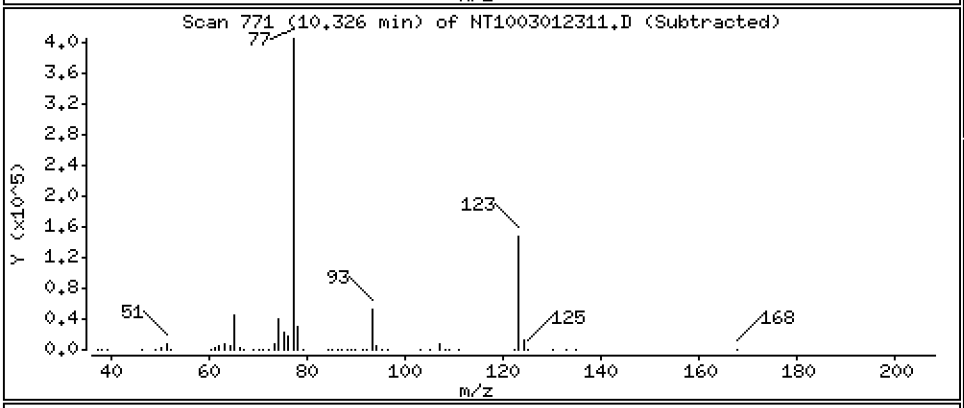
Column diameter: 0.25

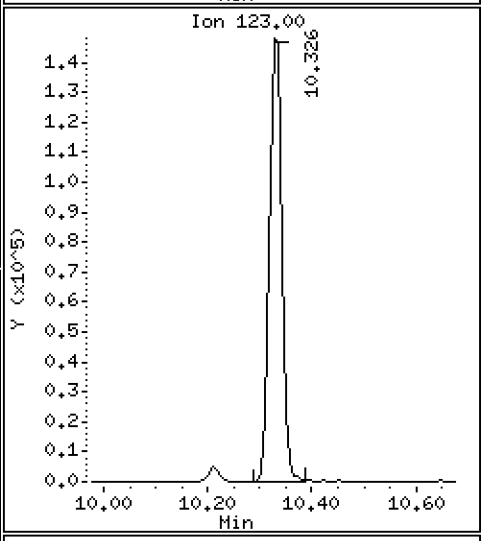
19 Nitrobenzene

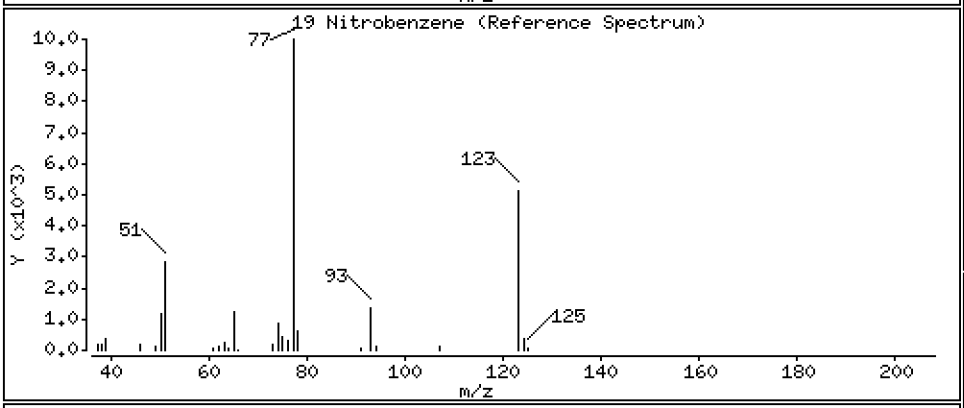
Concentration: 5.569 ug/mL

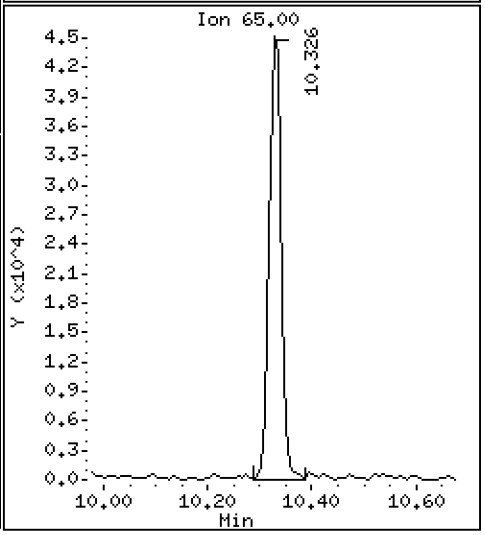


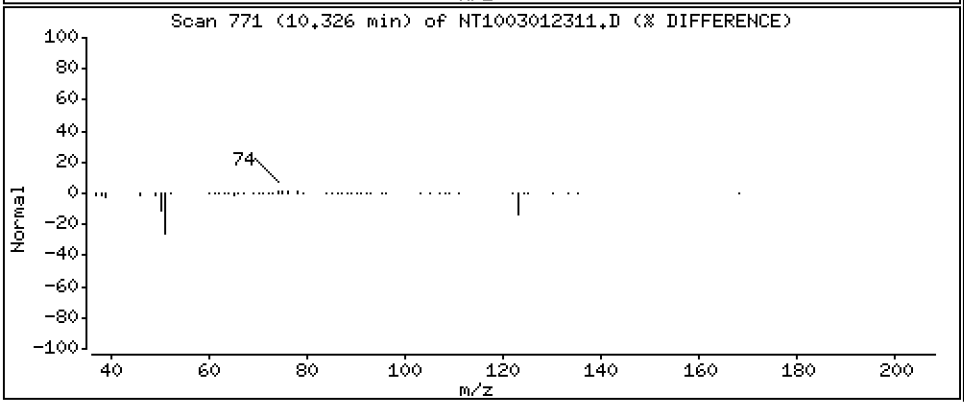












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

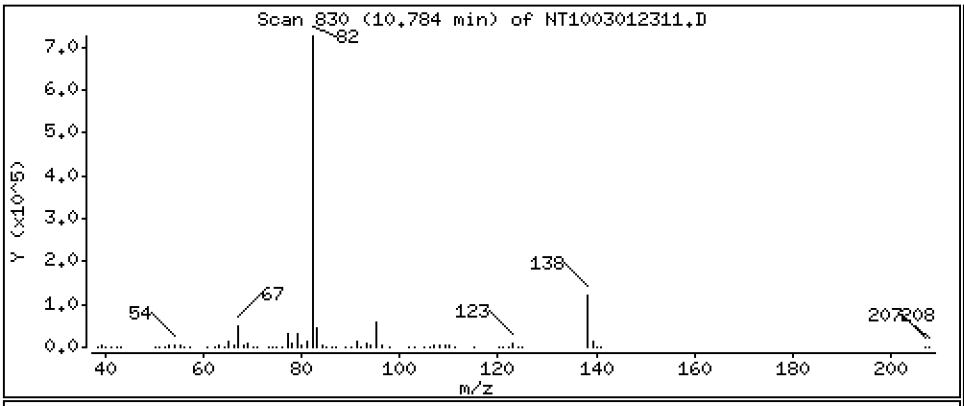
Operator: VTS

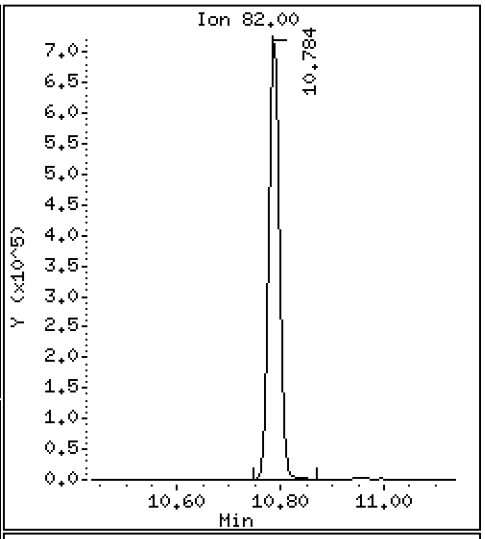
Column phase: ZB-5msi

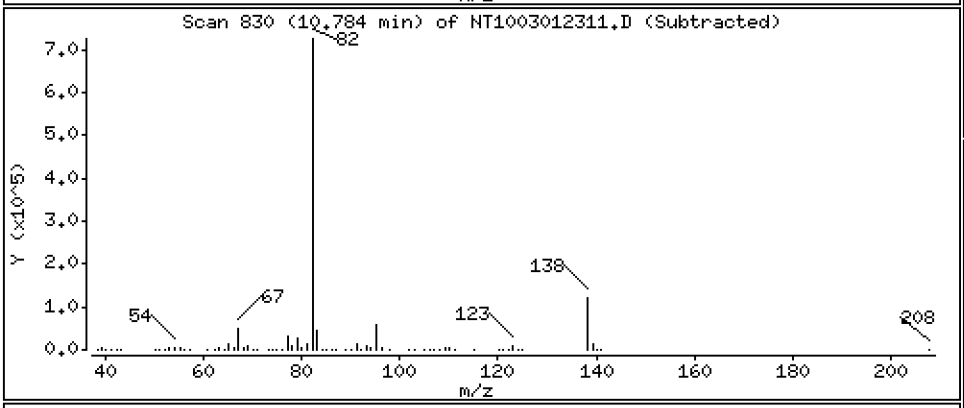
Column diameter: 0.25

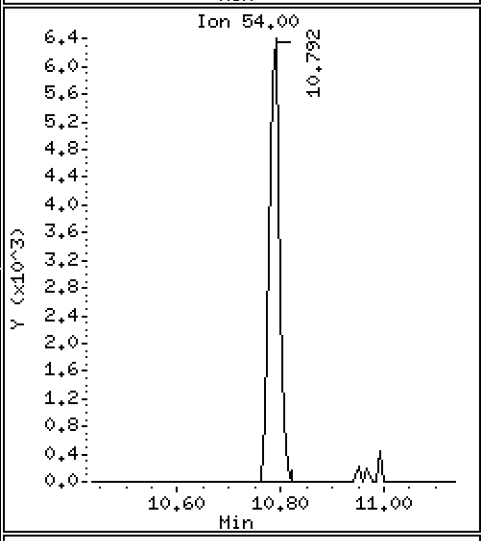
20 Isophorone

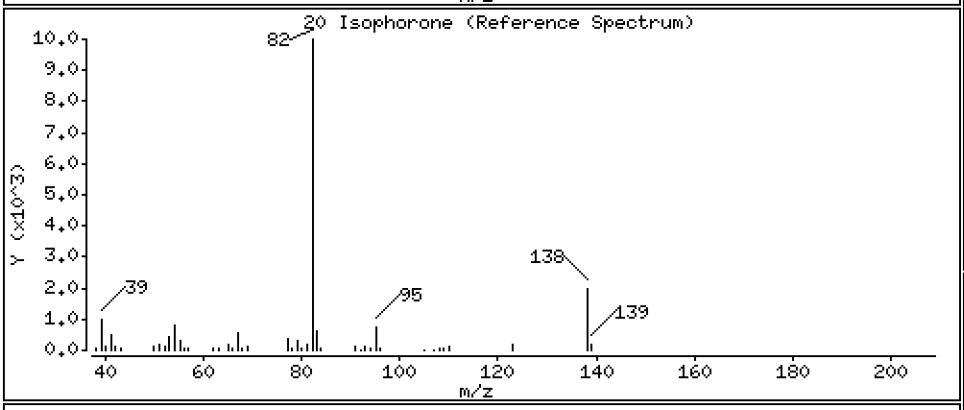
Concentration: 7.672 ug/mL

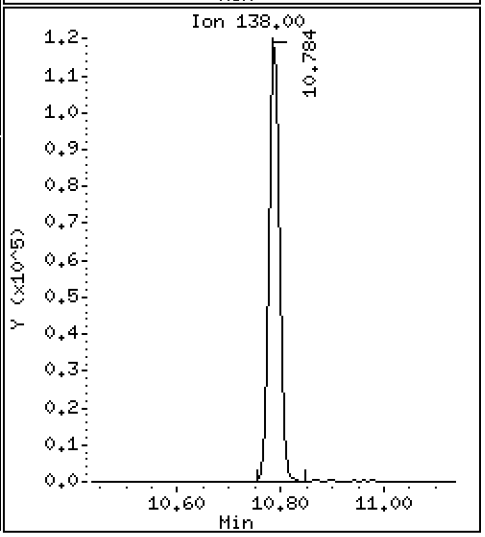


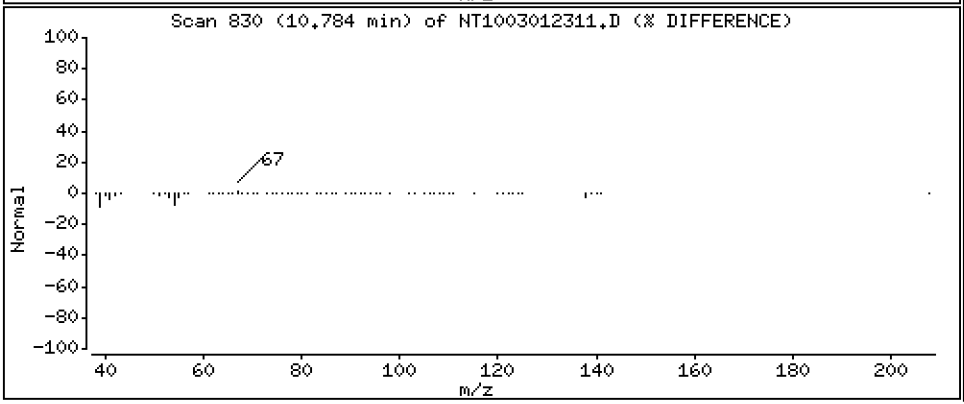












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

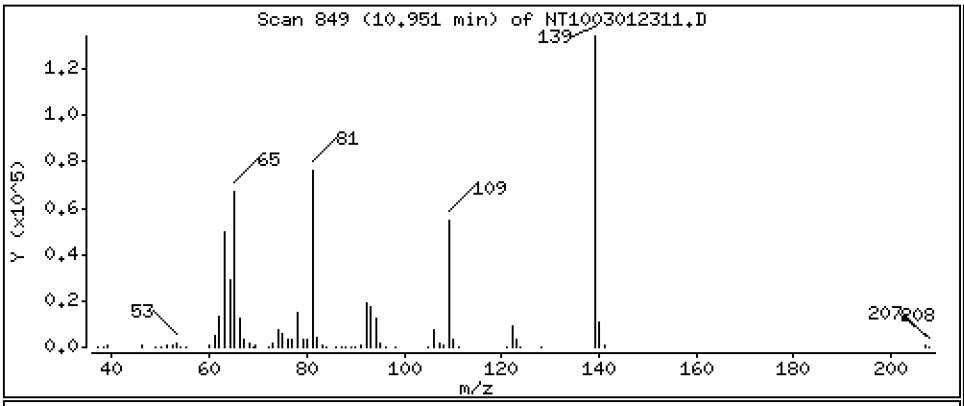
Operator: VTS

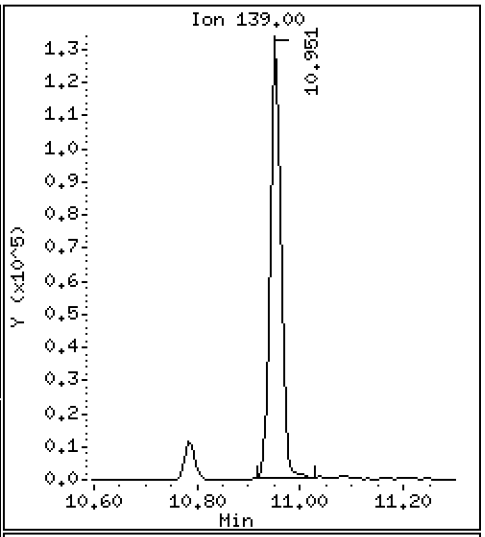
Column phase: ZB-5msi

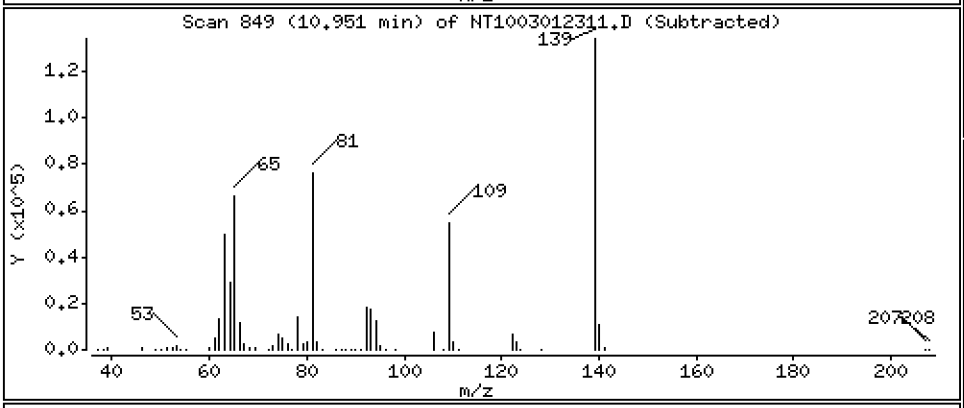
Column diameter: 0.25

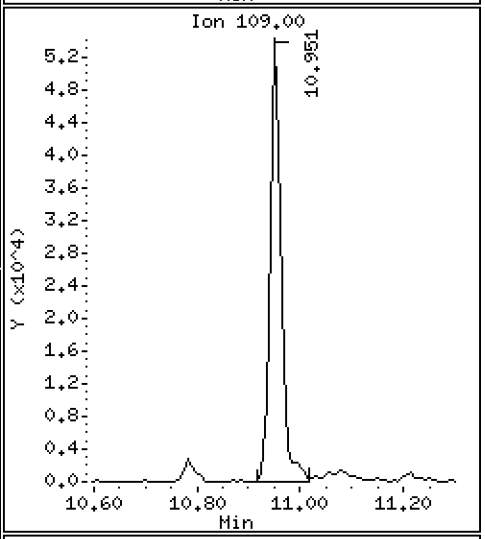
21 2-Nitrophenol

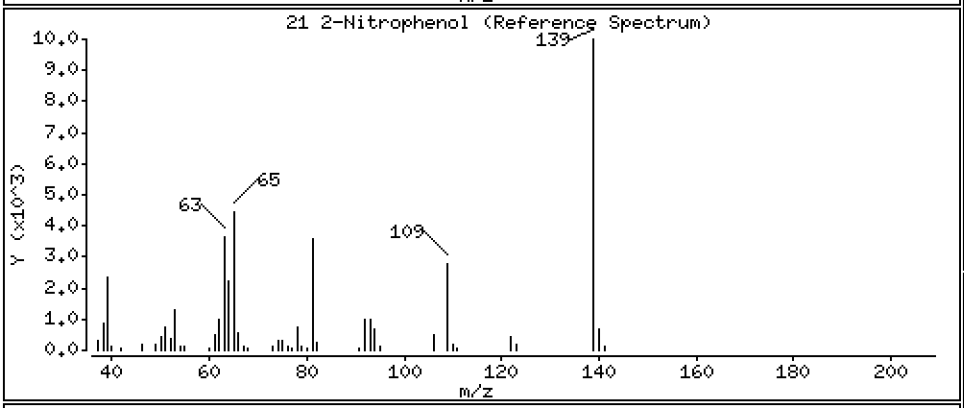
Concentration: 3.244 ug/mL

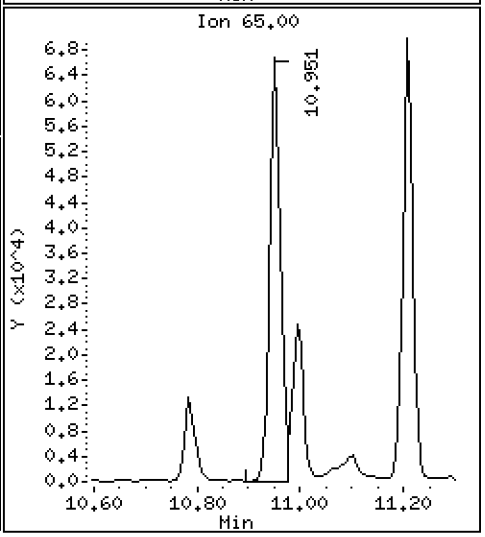


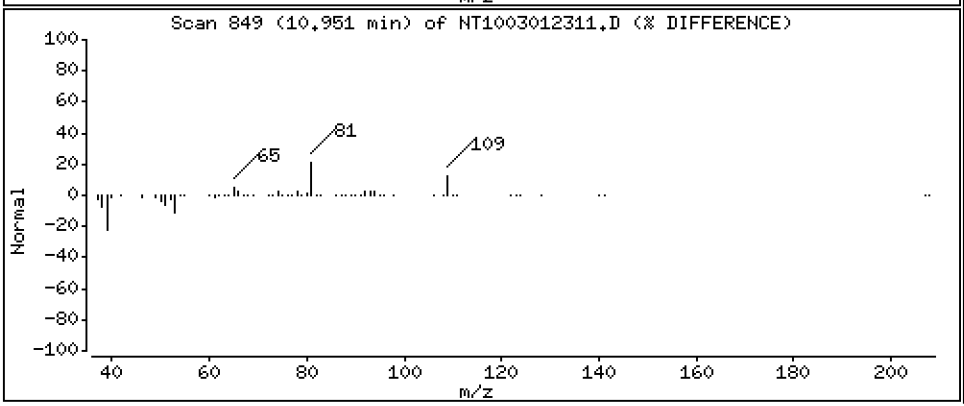












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

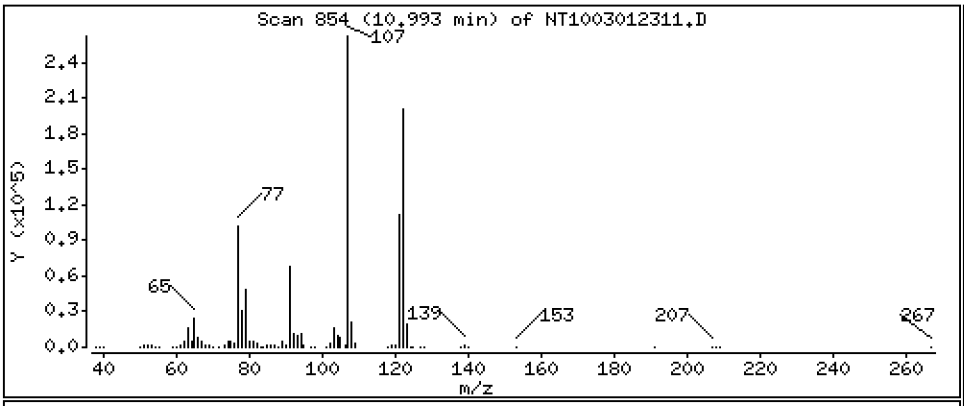
Operator: VTS

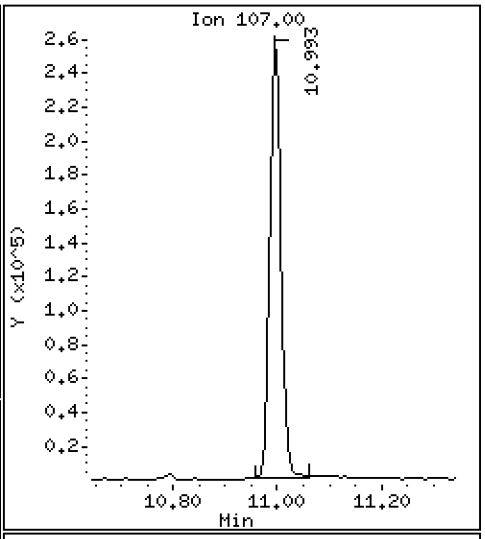
Column phase: ZB-5msi

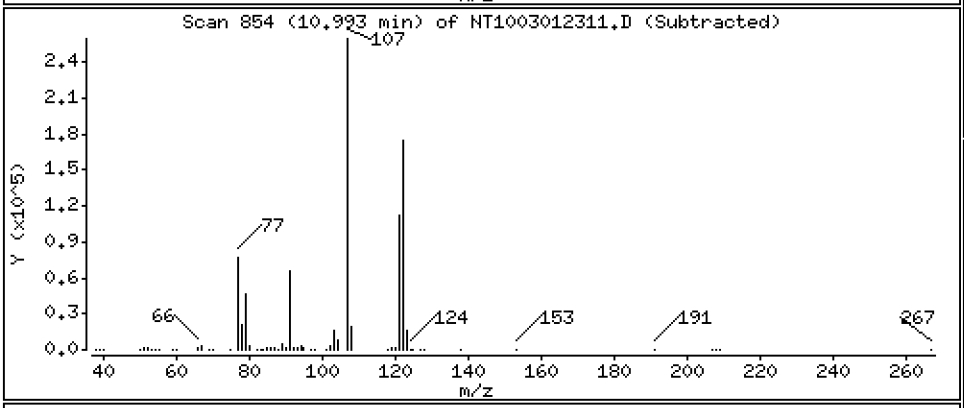
Column diameter: 0.25

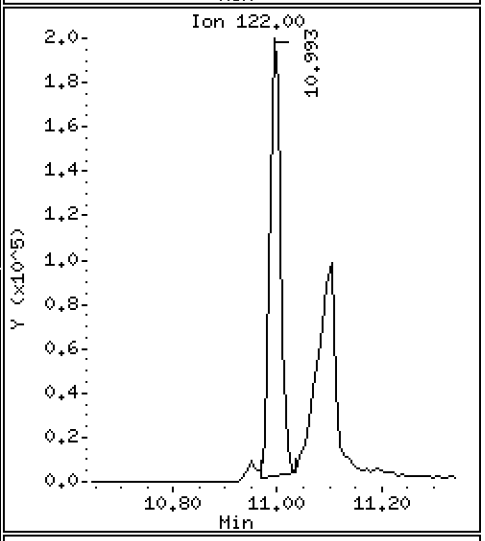
22 2,4-Dimethylphenol

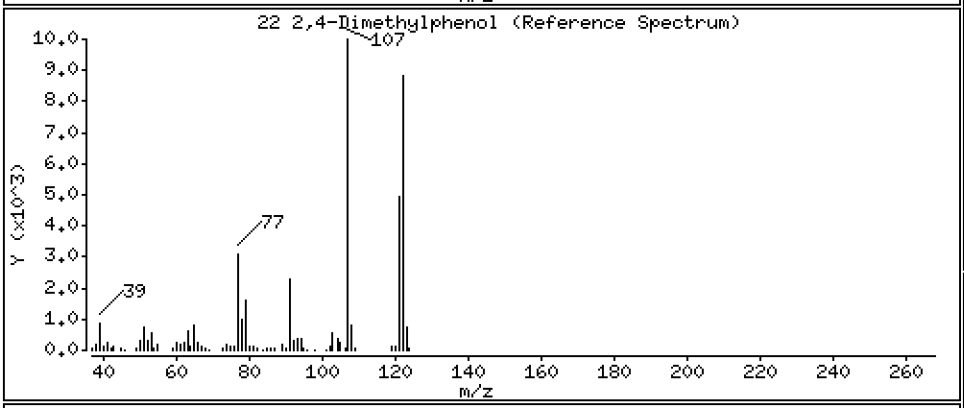
Concentration: 3.507 ug/mL

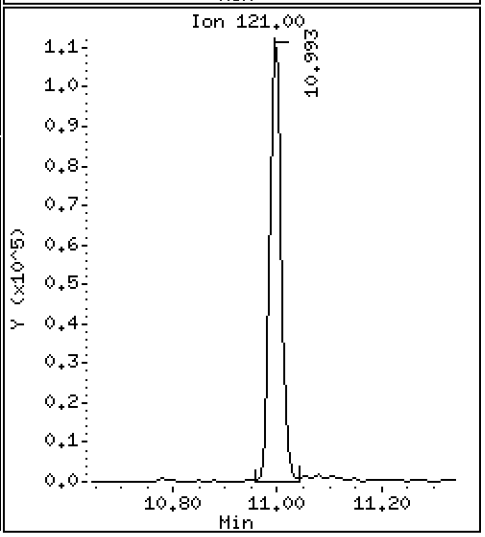


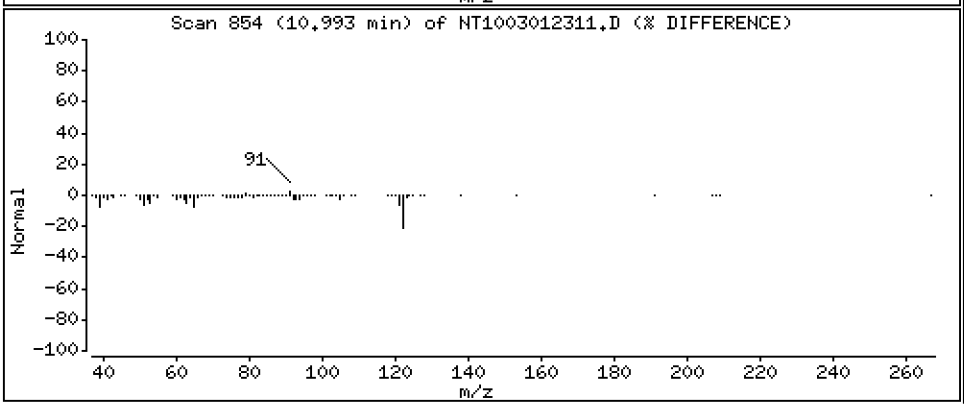












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

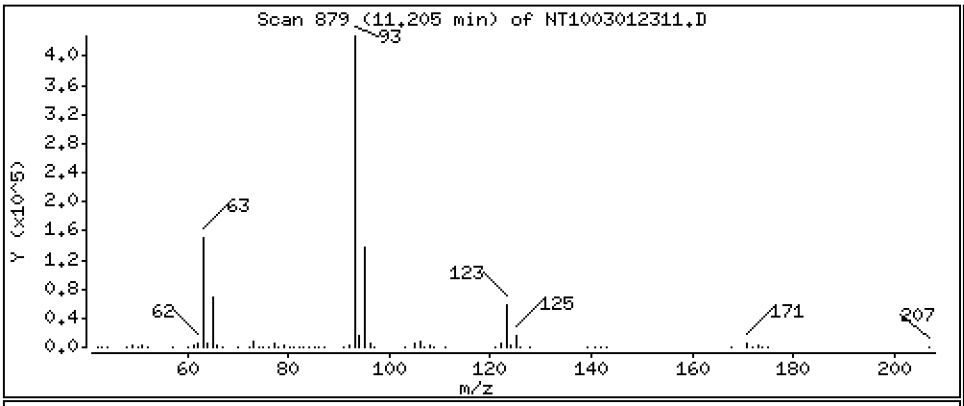
Operator: VTS

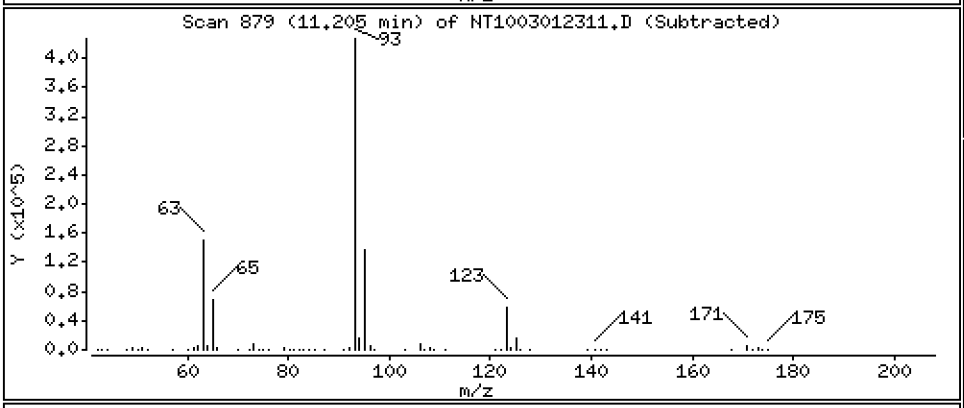
Column phase: ZB-5msi

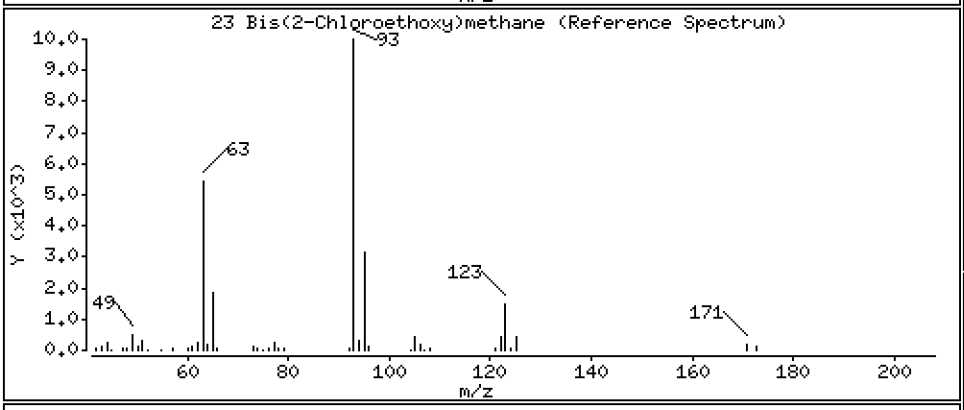
Column diameter: 0.25

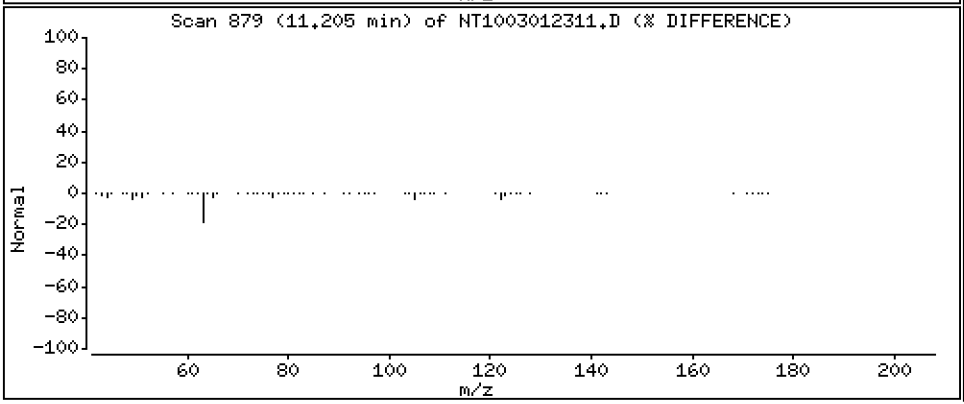
23 Bis(2-Chloroethoxy)methane

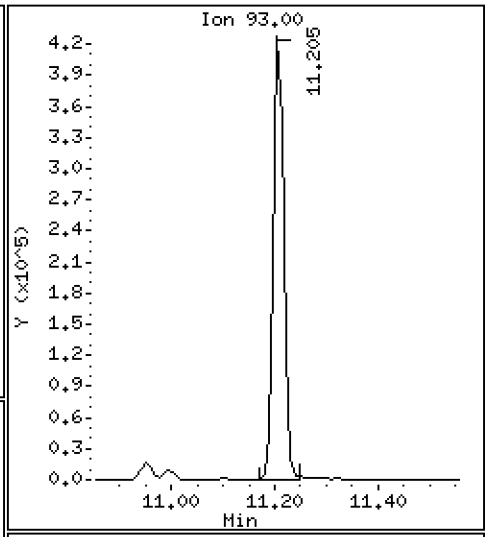
Concentration: 6.727 ug/mL

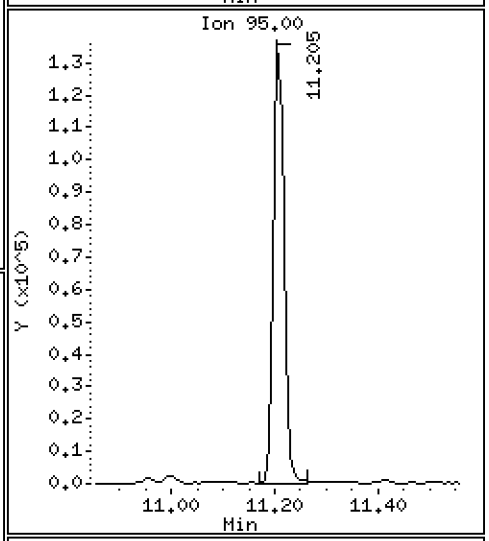


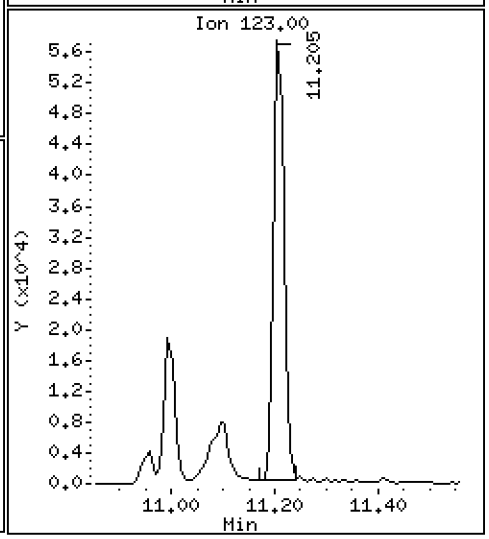












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

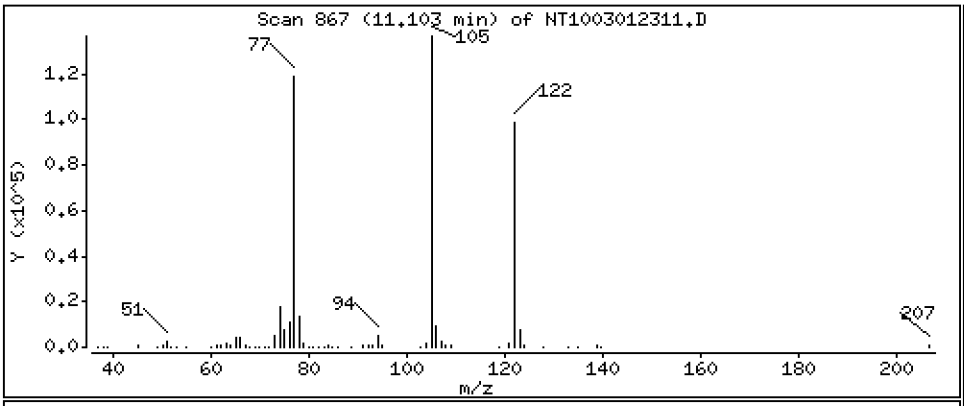
Operator: VTS

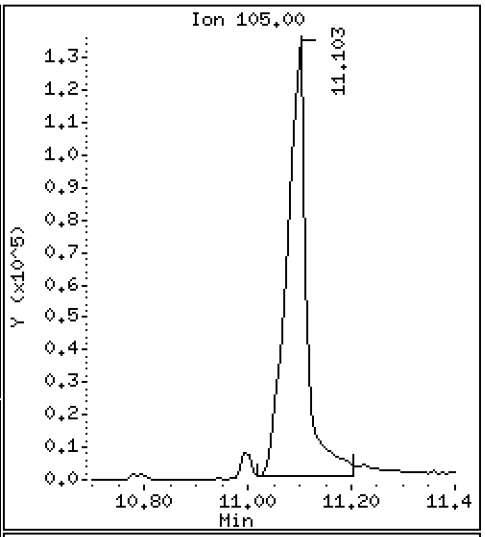
Column phase: ZB-5msi

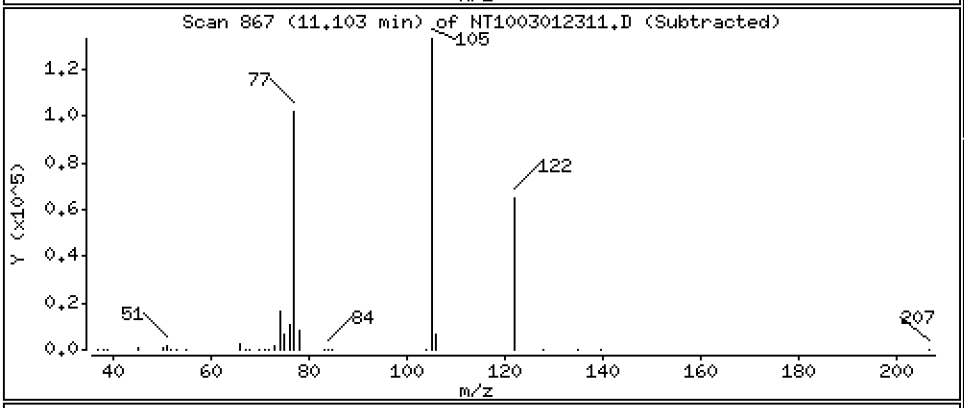
Column diameter: 0.25

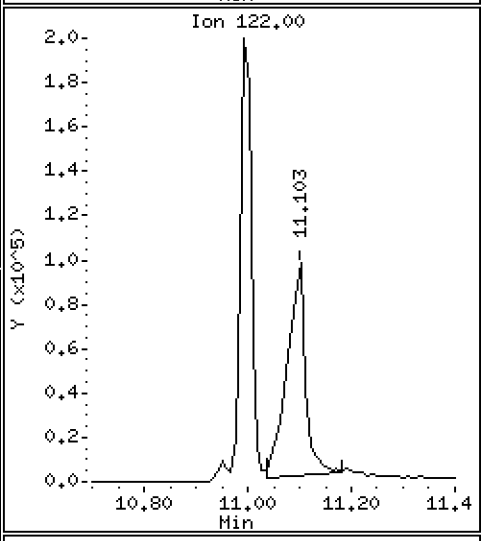
24 Benzoic acid

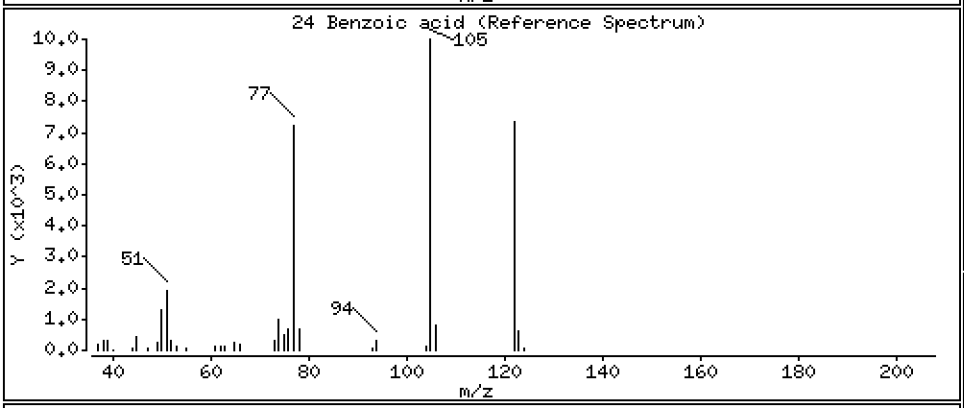
Concentration: 5.635 ug/mL

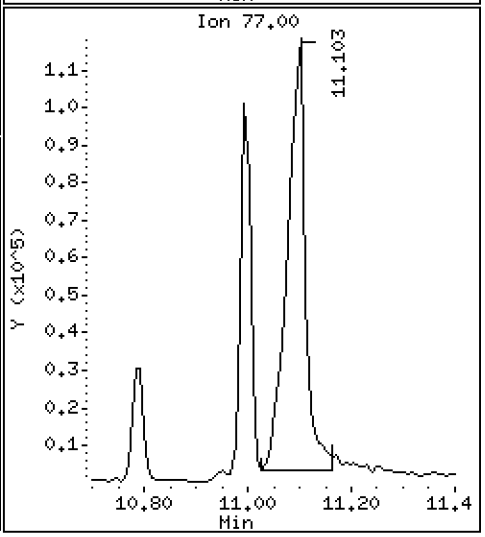


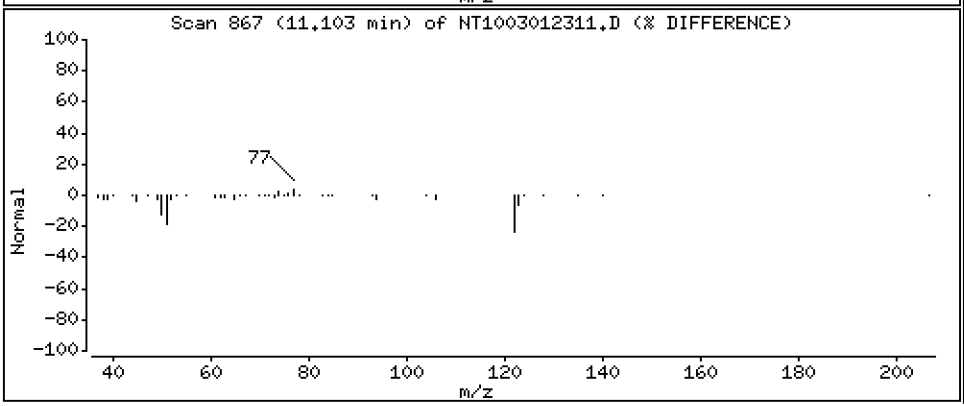












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

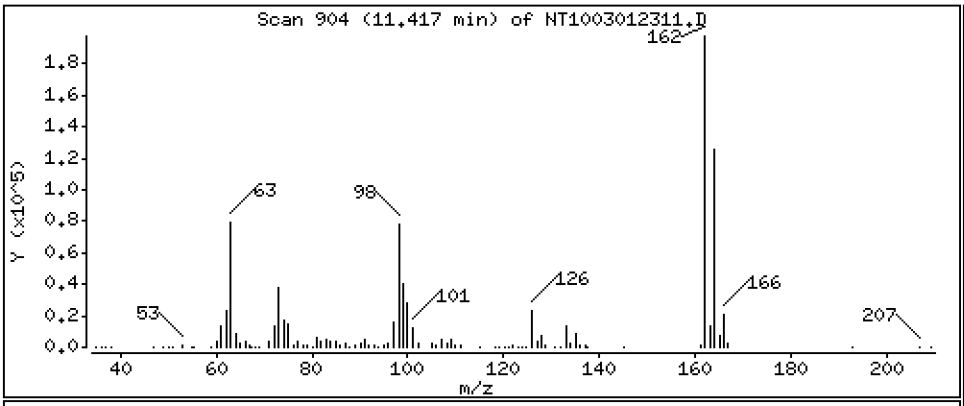
Operator: VTS

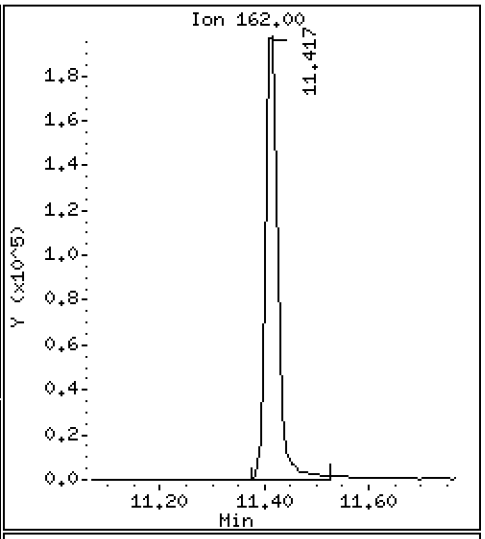
Column phase: ZB-5msi

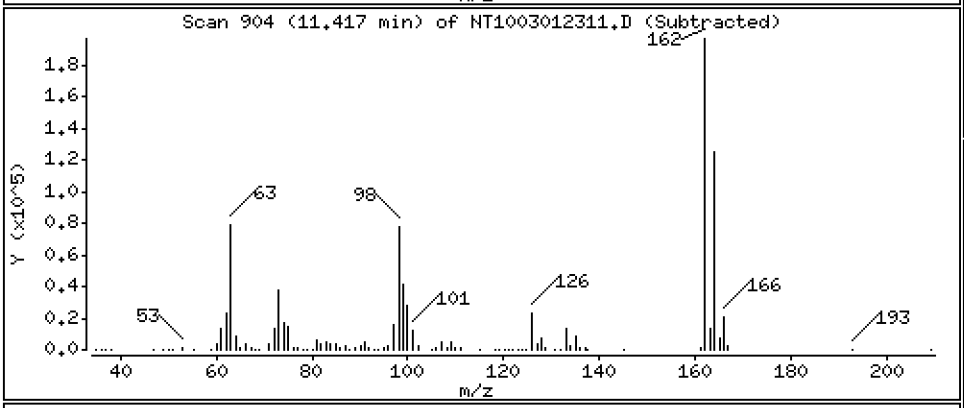
Column diameter: 0.25

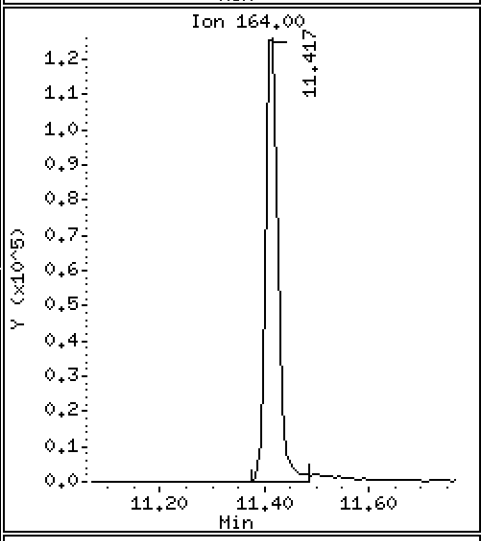
25 2,4-Dichlorophenol

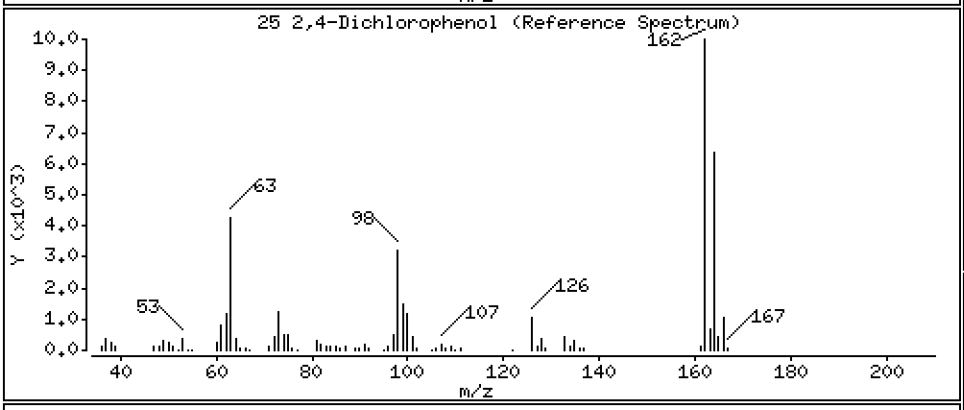
Concentration: 4.437 ug/mL

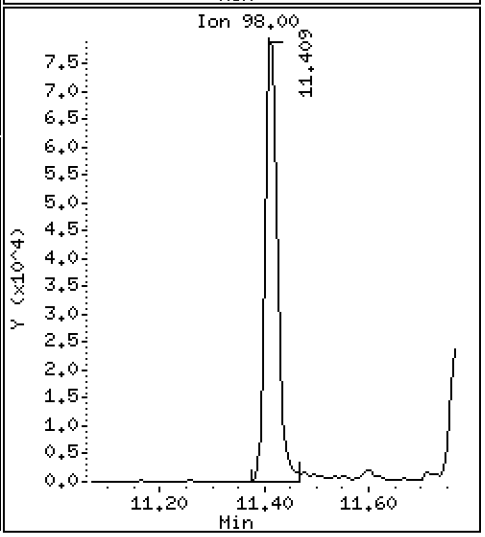


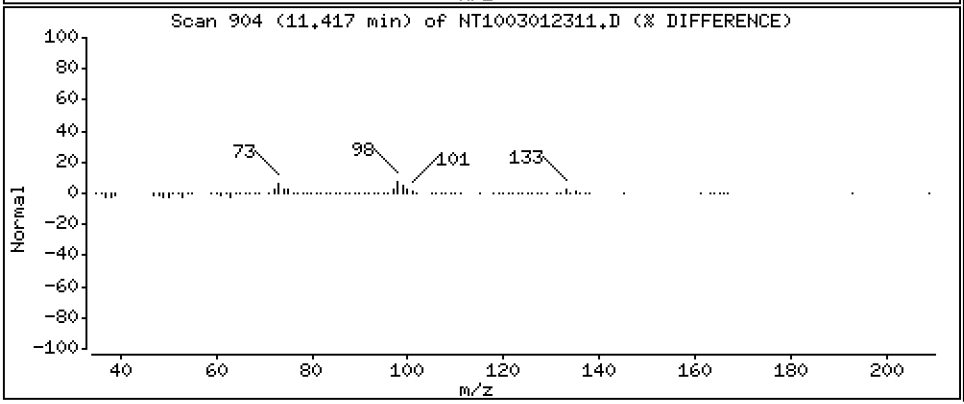












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

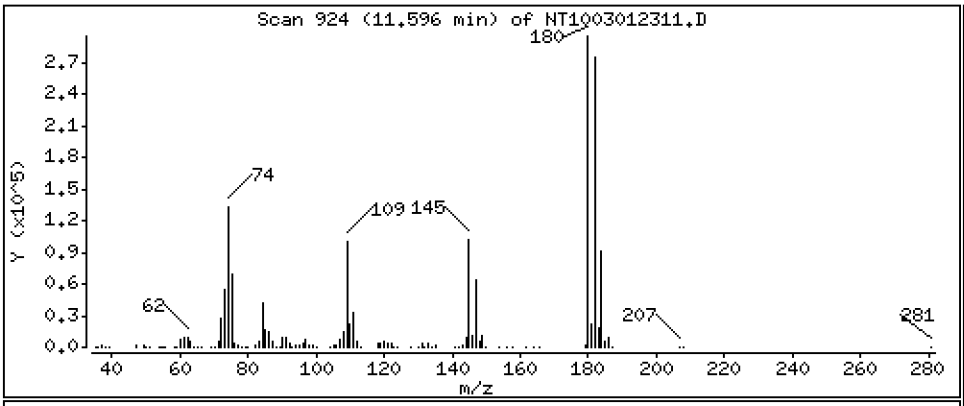
Operator: VTS

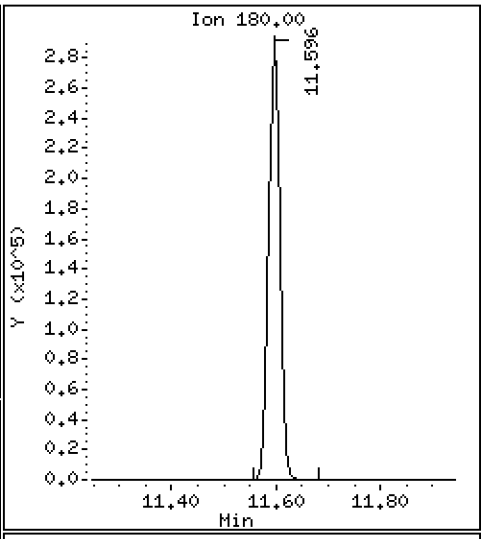
Column phase: ZB-5msi

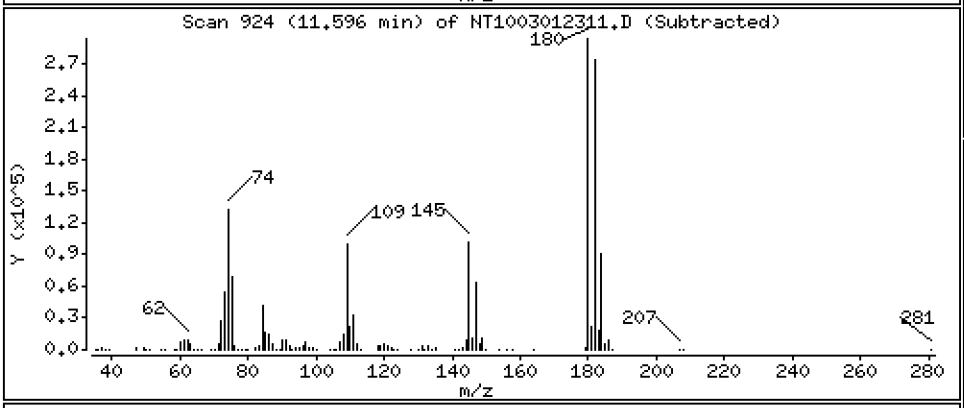
Column diameter: 0.25

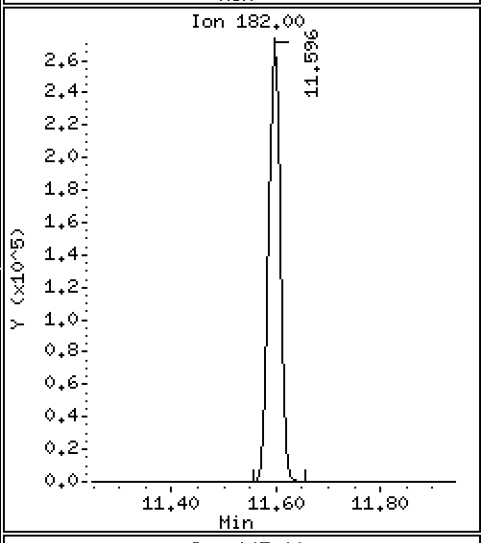
26 1,2,4-Trichlorobenzene

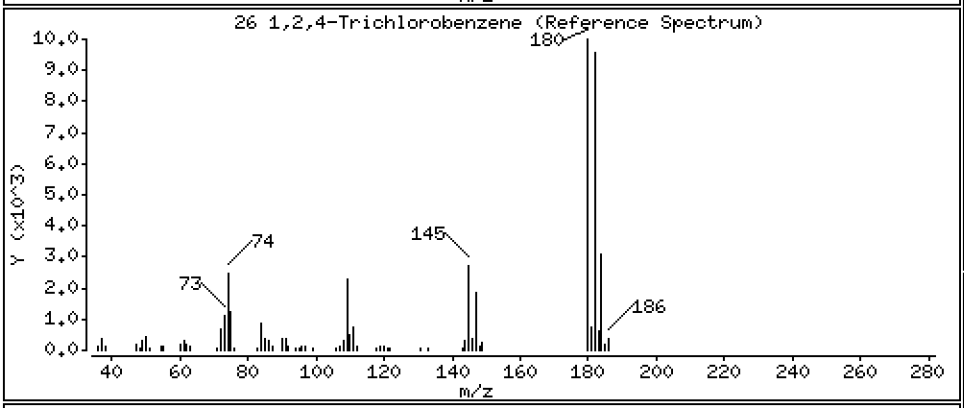
Concentration: 4.908 ug/mL

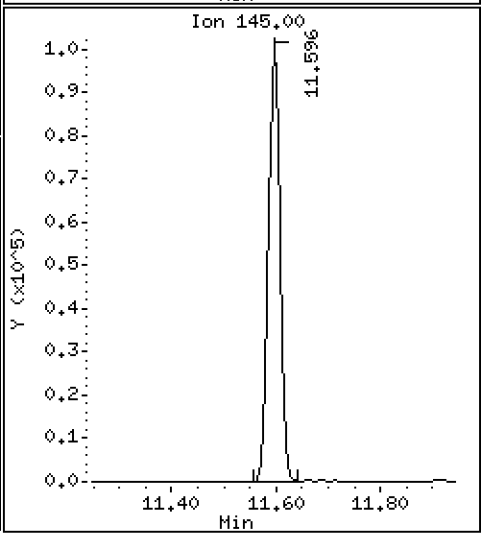


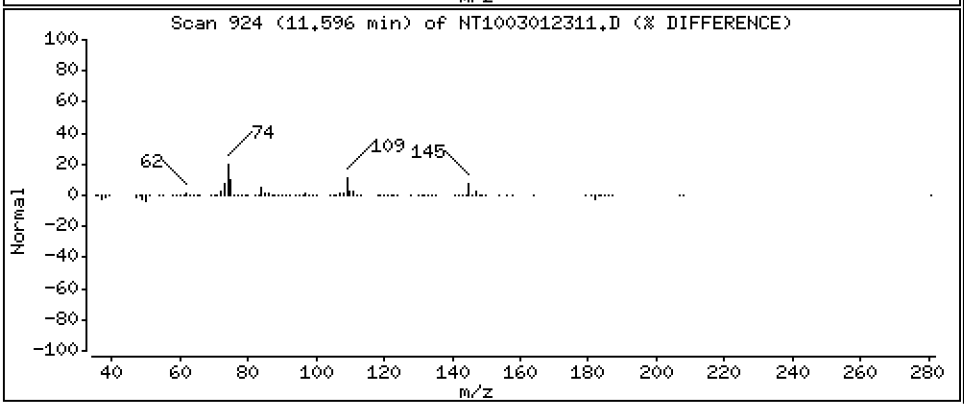












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

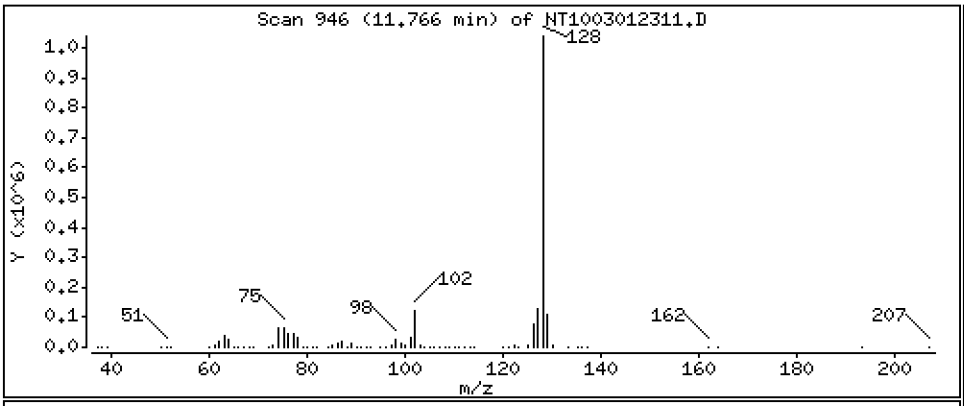
Operator: VTS

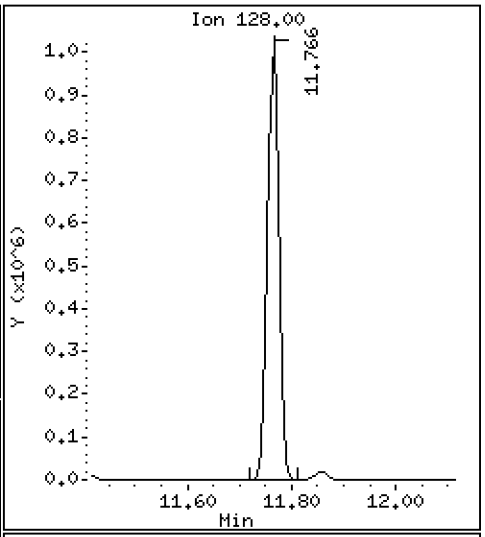
Column phase: ZB-5msi

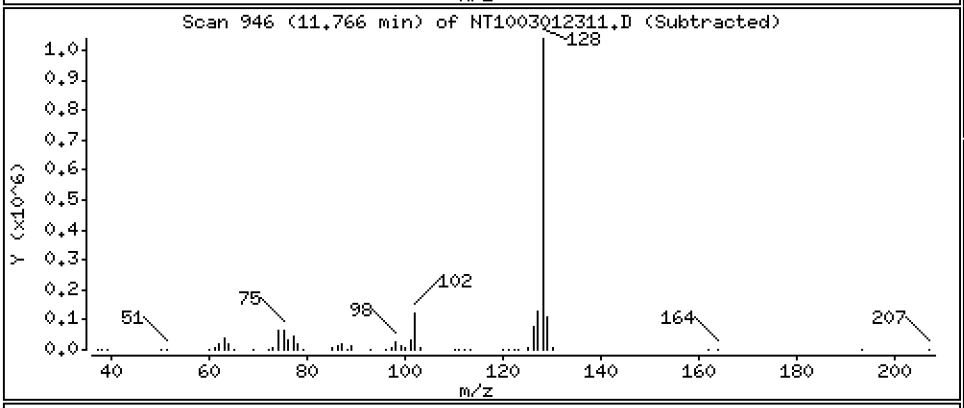
Column diameter: 0.25

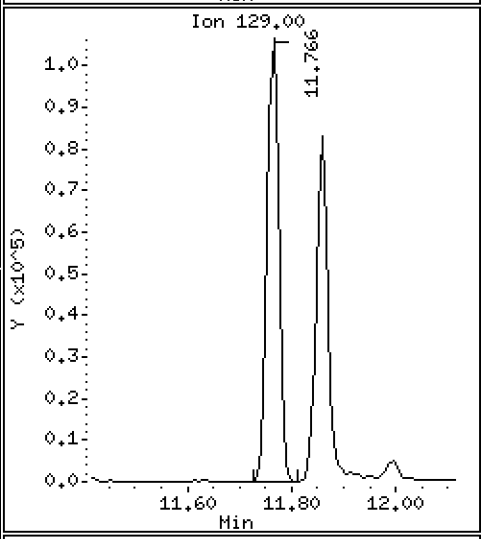
28 Naphthalene

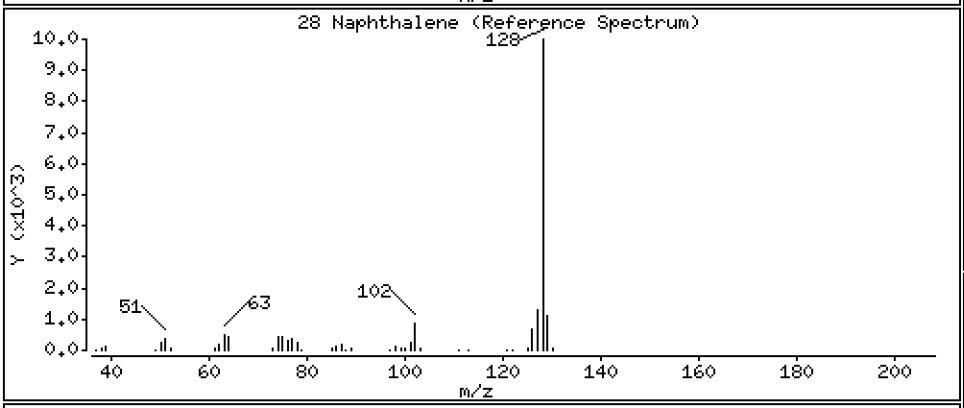
Concentration: 5.255 ug/mL

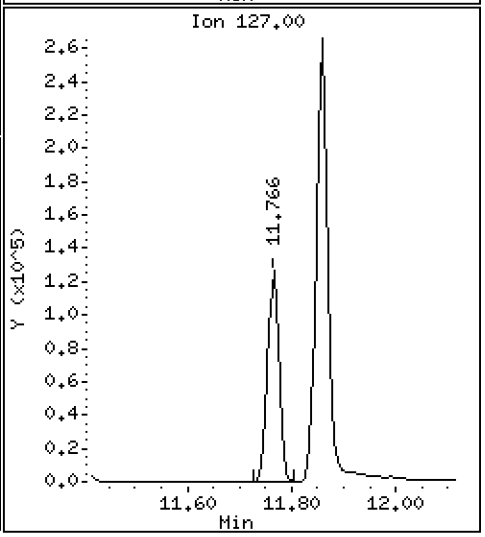


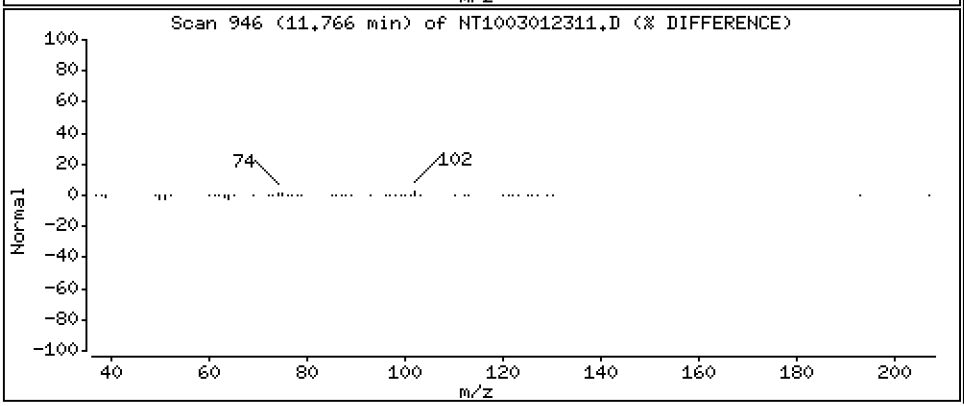












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

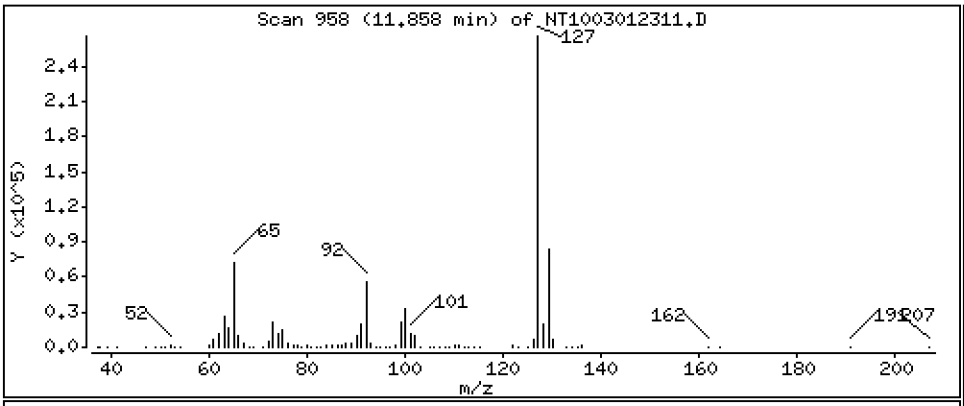
Operator: VTS

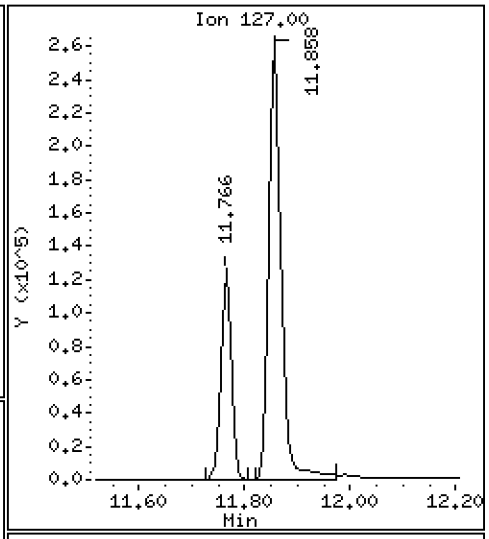
Column phase: ZB-5msi

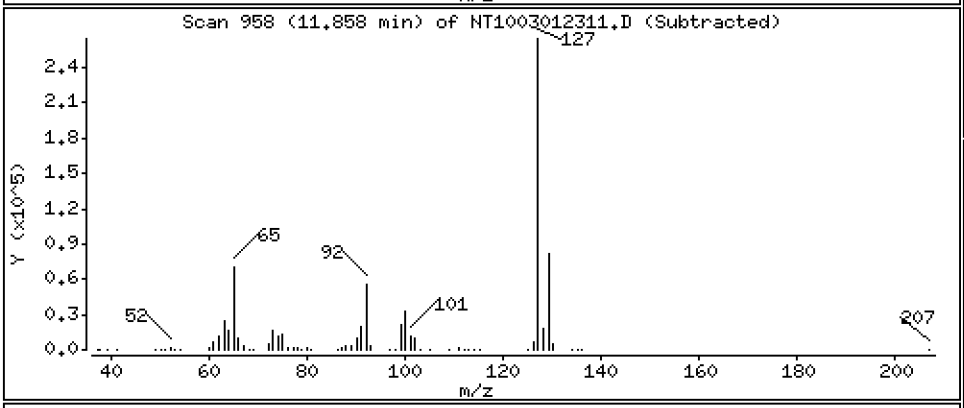
Column diameter: 0.25

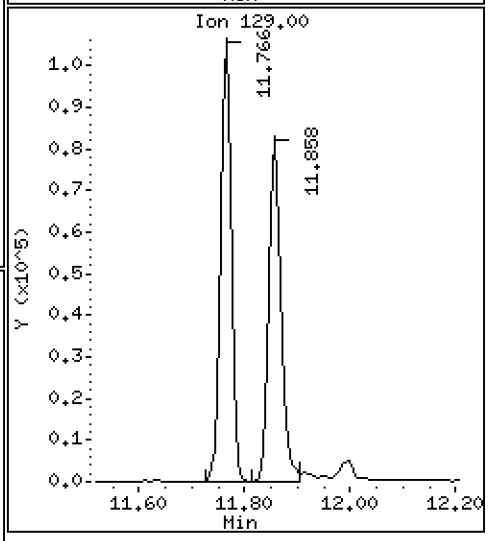
29 4-Chloroaniline

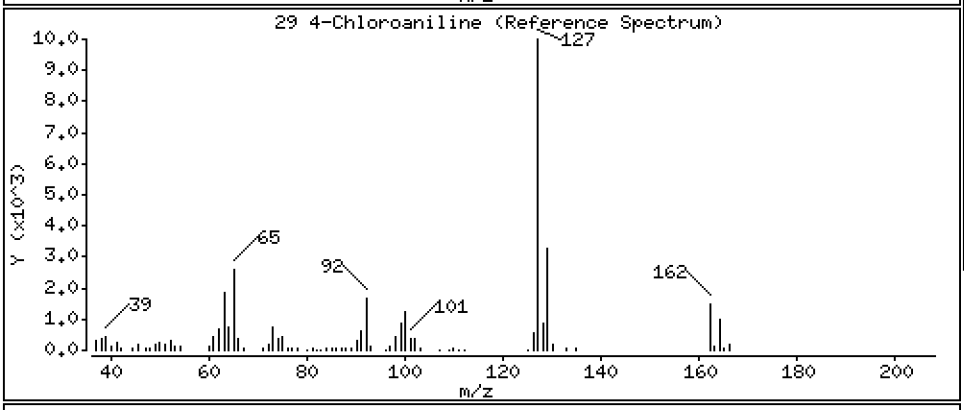
Concentration: 3.791 ug/mL

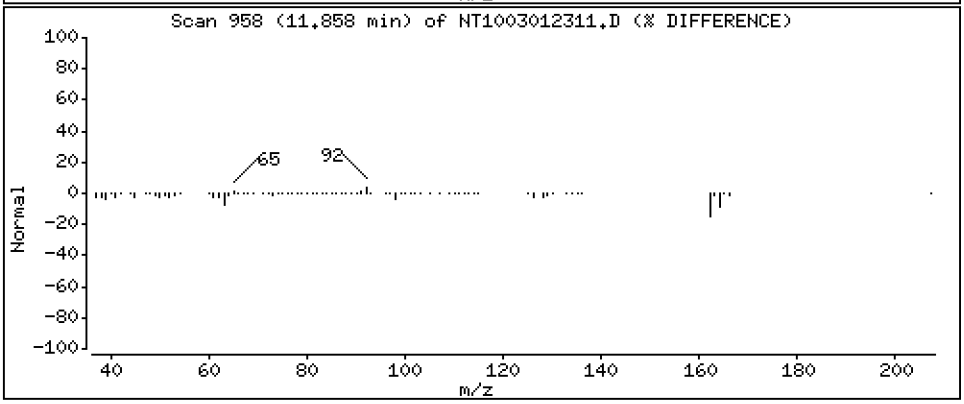












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

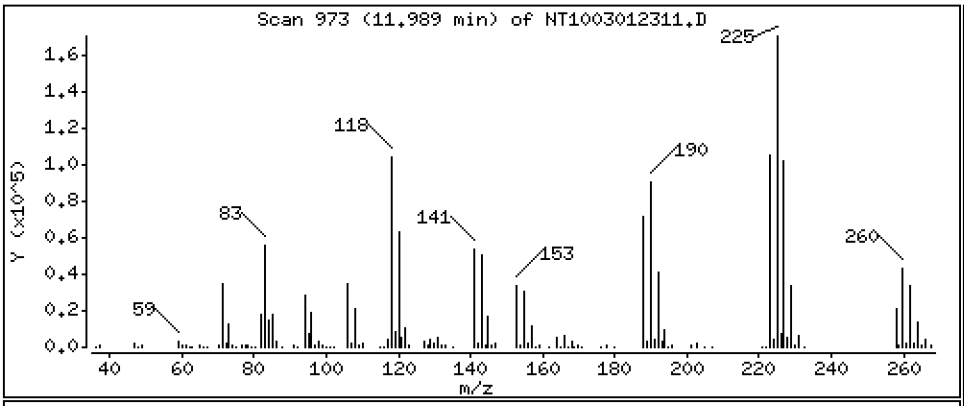
Operator: VTS

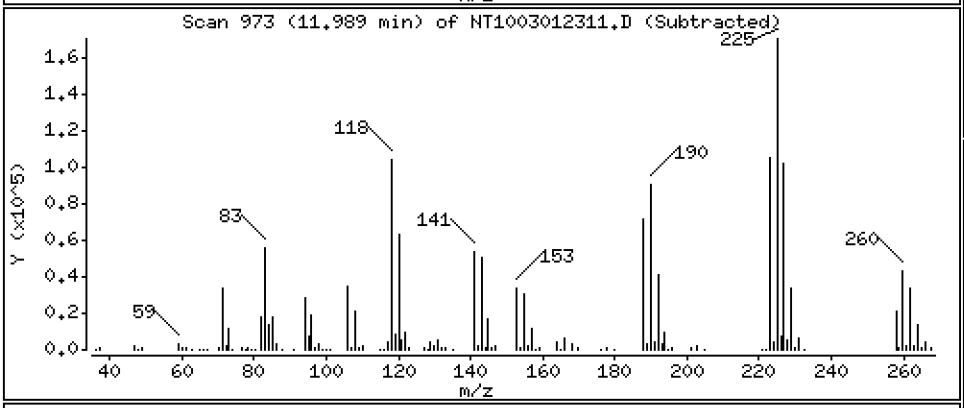
Column phase: ZB-5msi

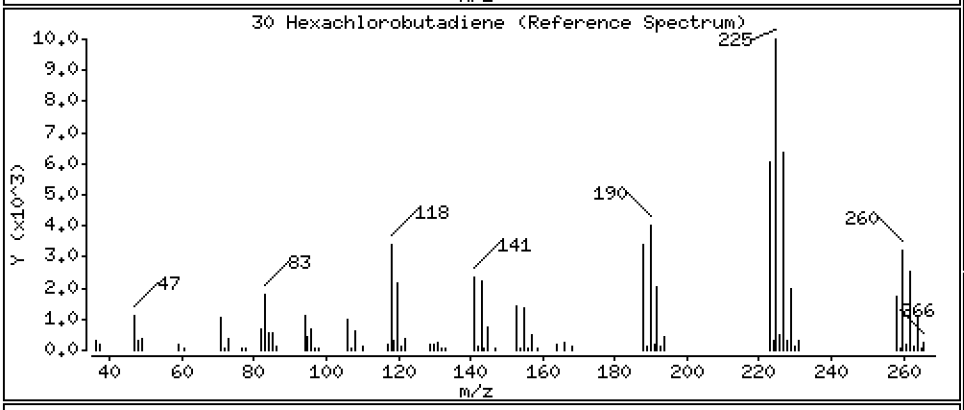
Column diameter: 0.25

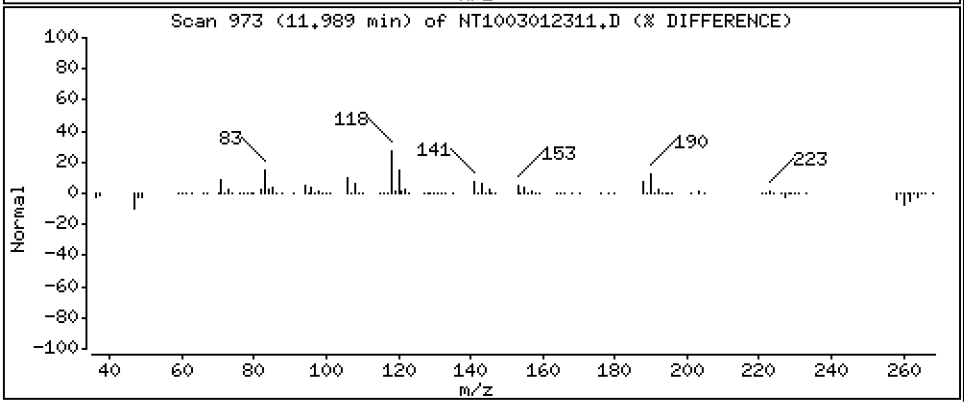
30 Hexachlorobutadiene

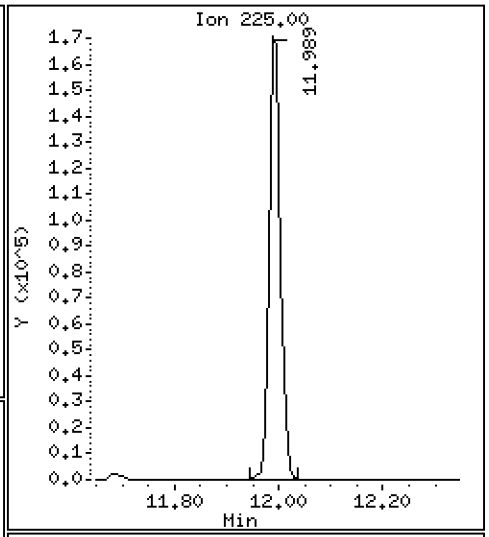
Concentration: 5.014 ug/mL

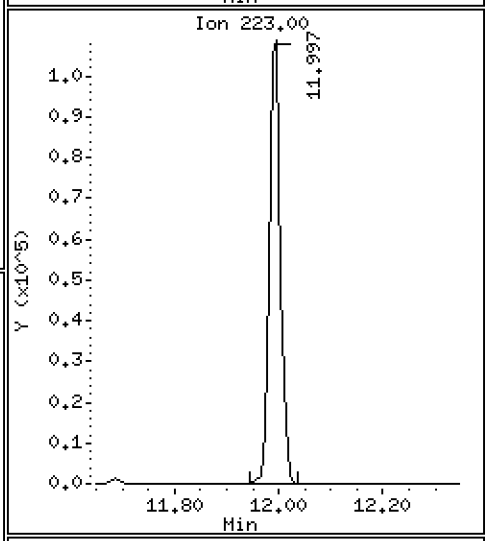


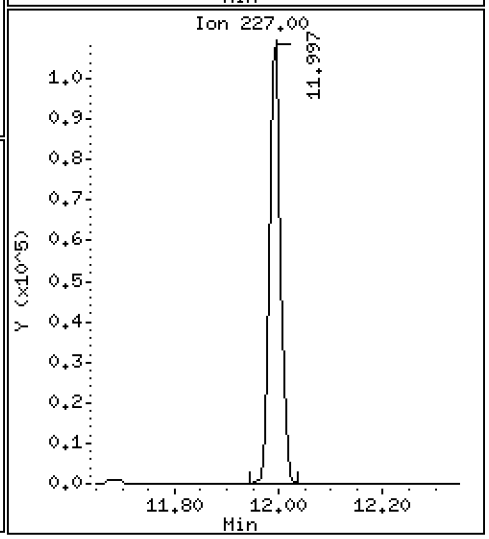












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

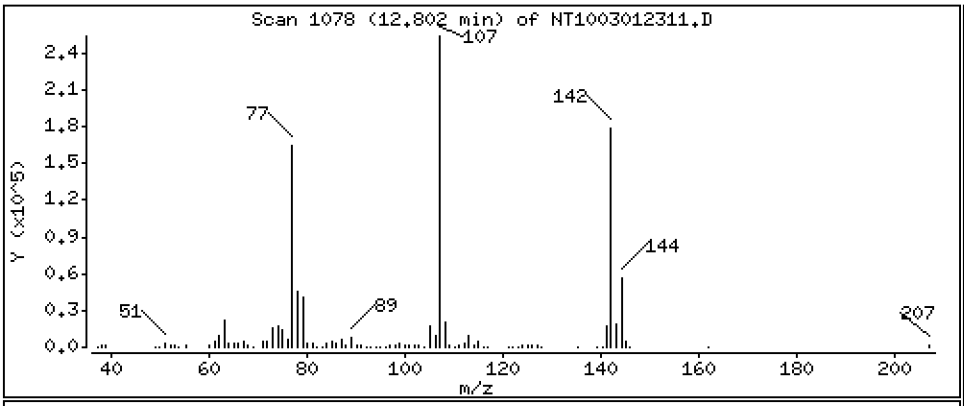
Operator: VTS

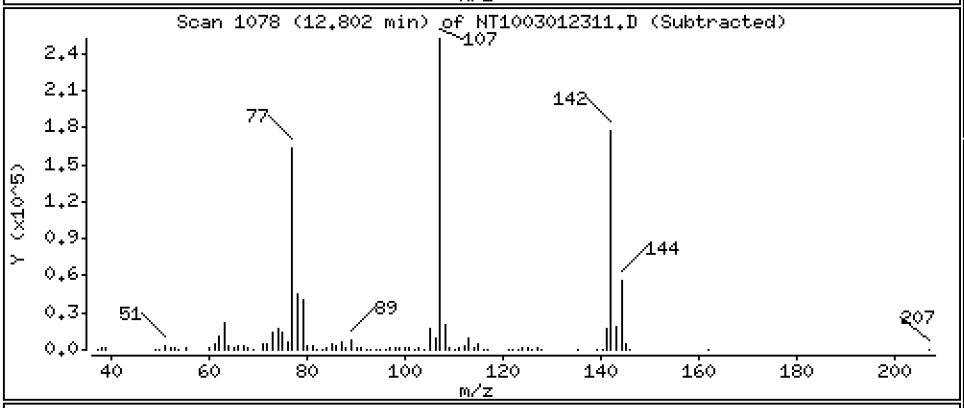
Column phase: ZB-5msi

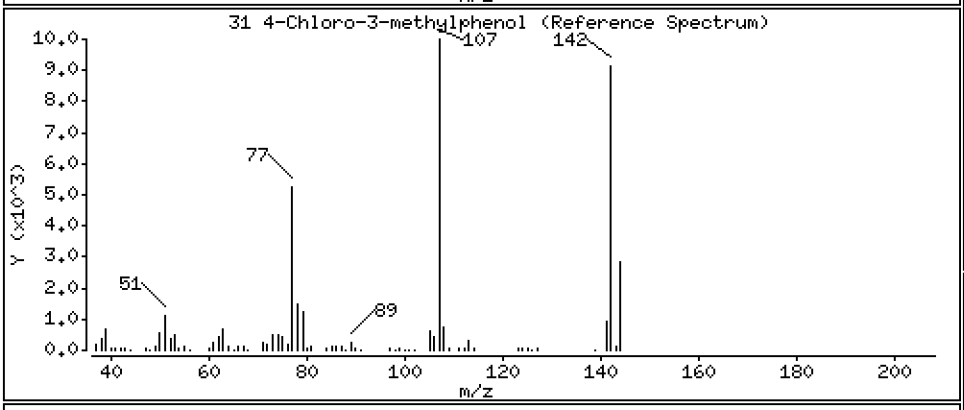
Column diameter: 0.25

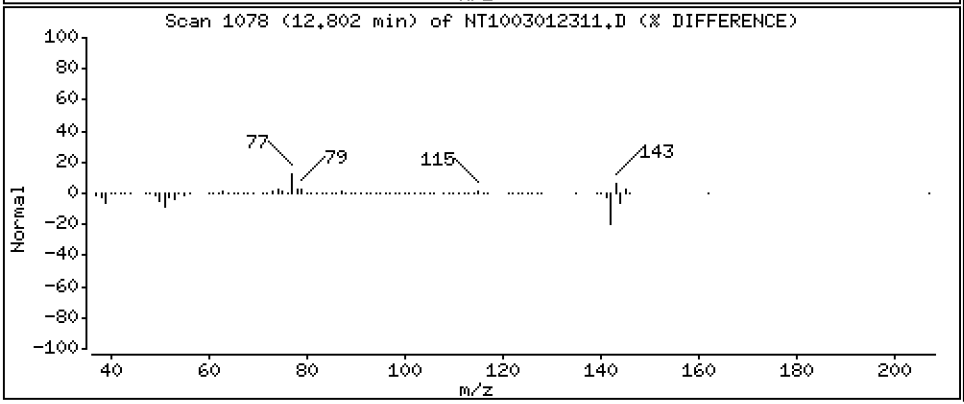
31 4-Chloro-3-methylphenol

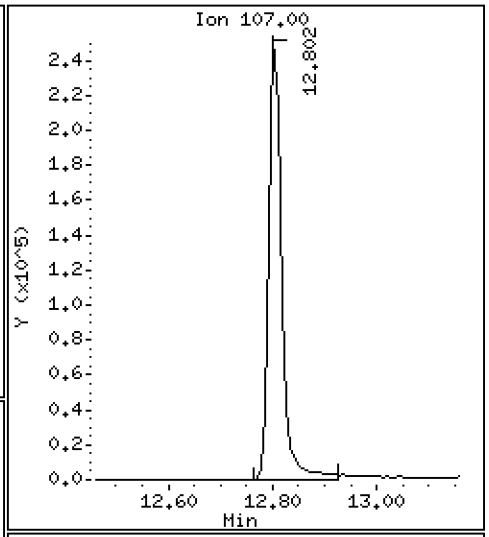
Concentration: 4.452 ug/mL

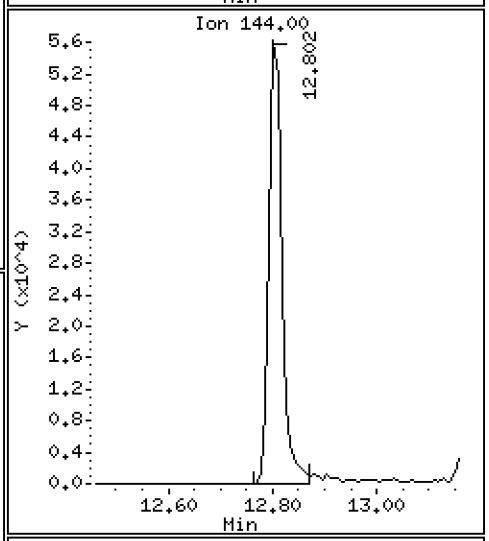


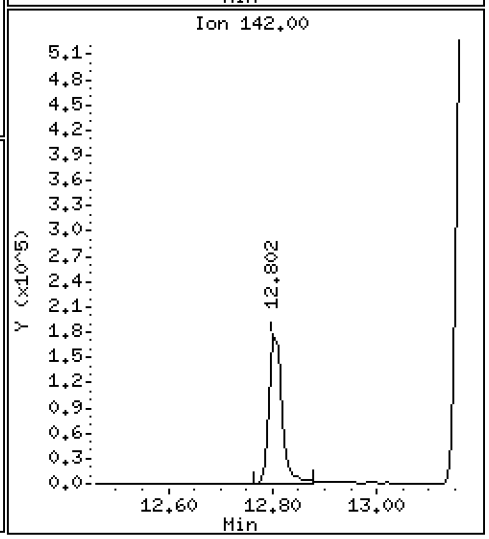












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

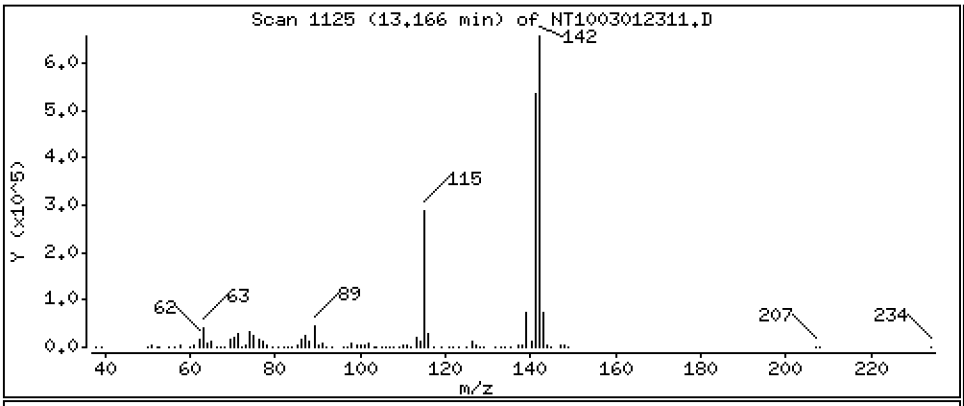
Operator: VTS

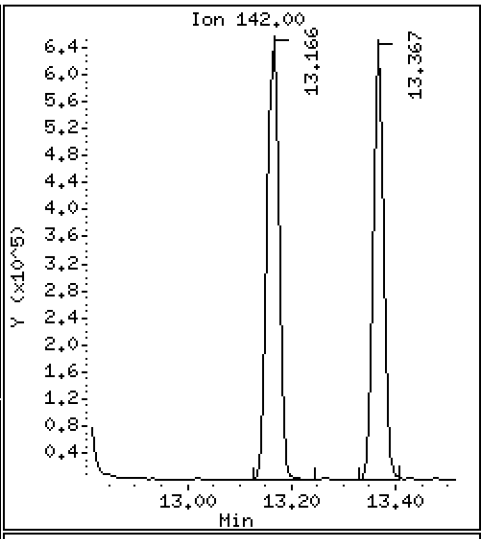
Column phase: ZB-5msi

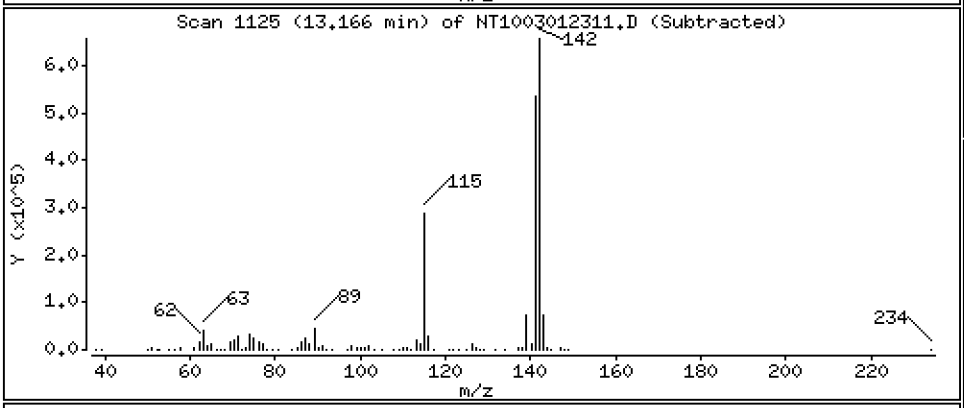
Column diameter: 0.25

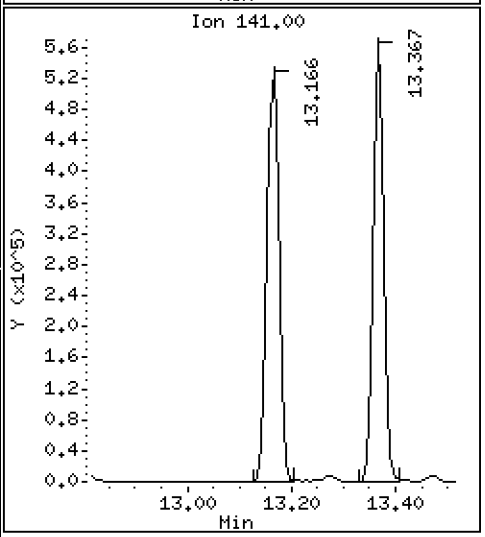
32 2-Methylnaphthalene

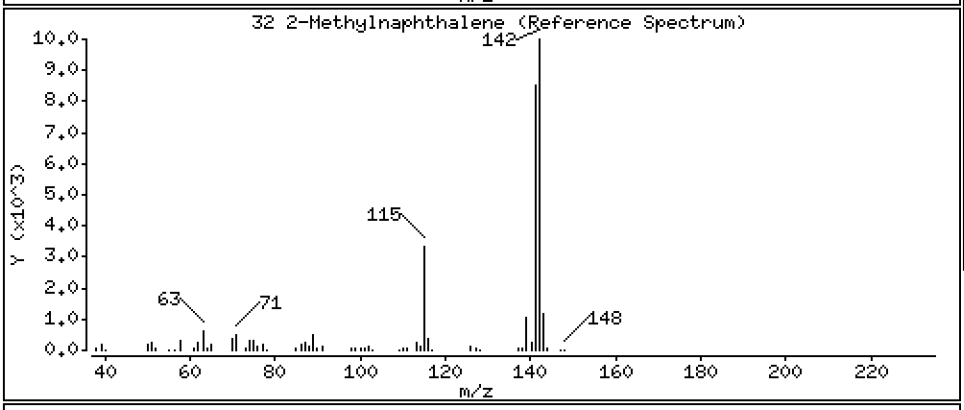
Concentration: 4.951 ug/mL

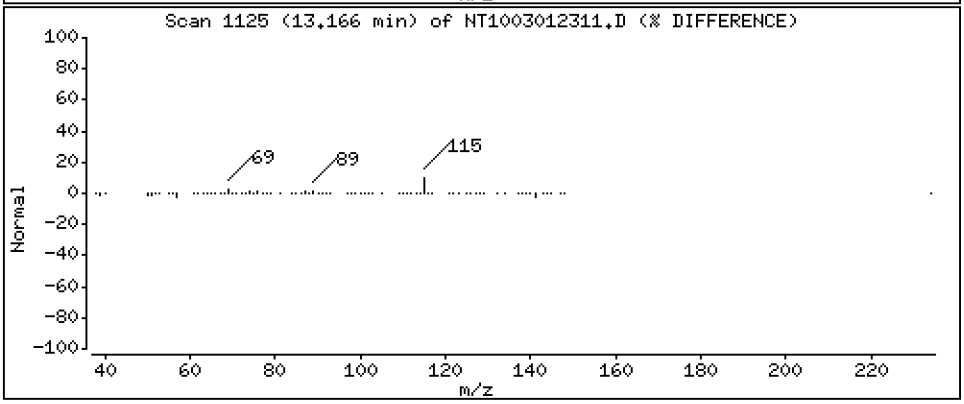












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

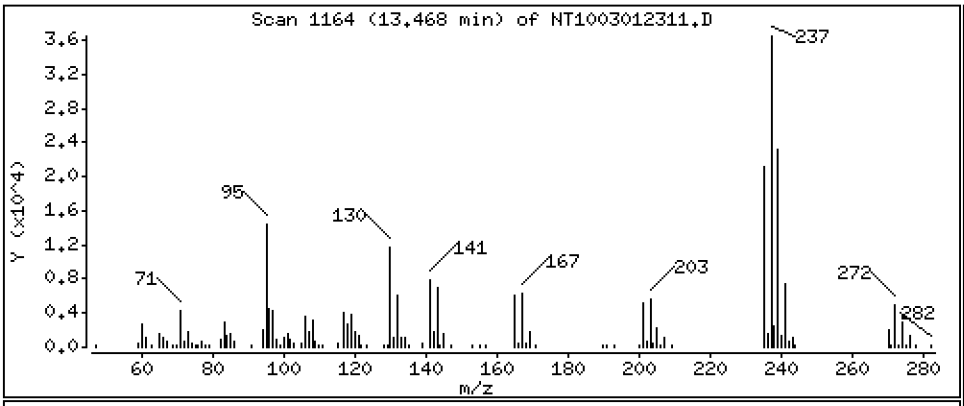
Operator: VTS

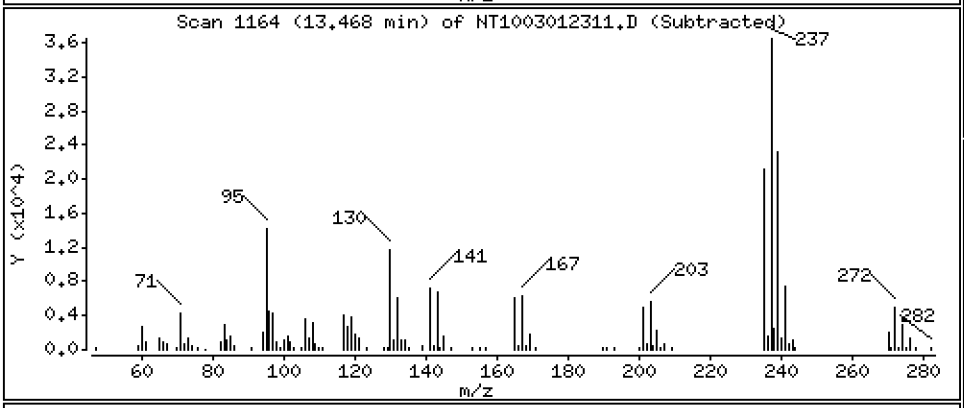
Column phase: ZB-5msi

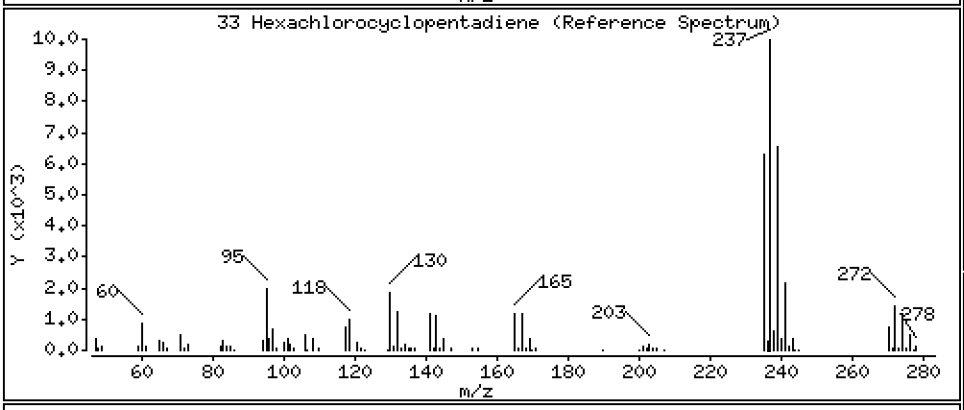
Column diameter: 0.25

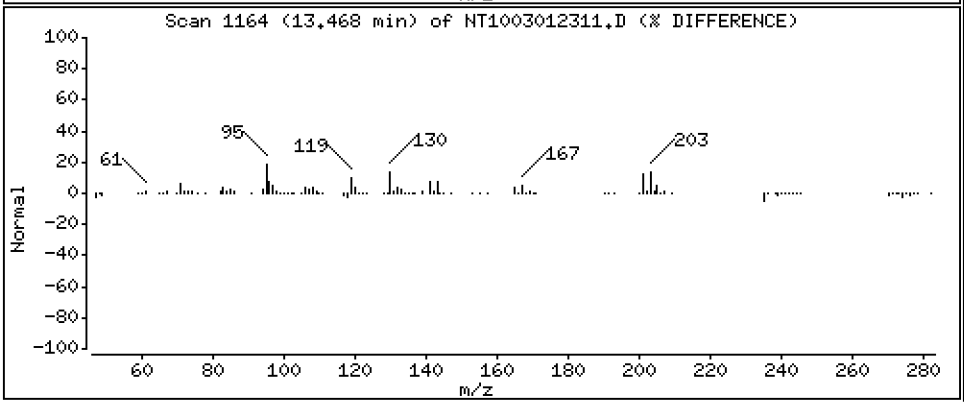
33 Hexachlorocyclopentadiene

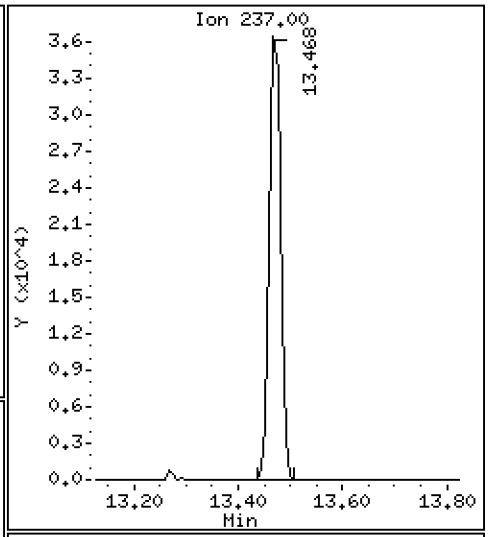
Concentration: 2.562 ug/mL

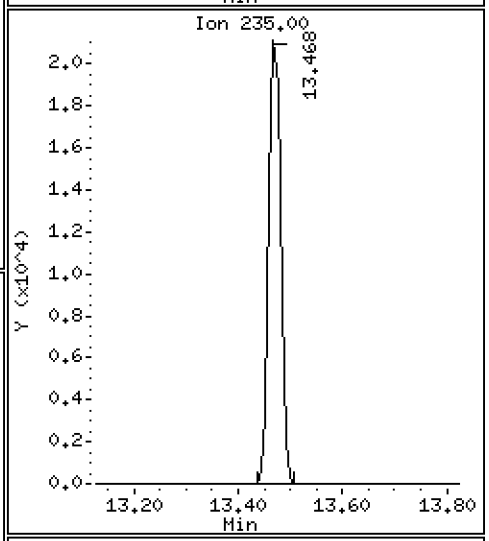


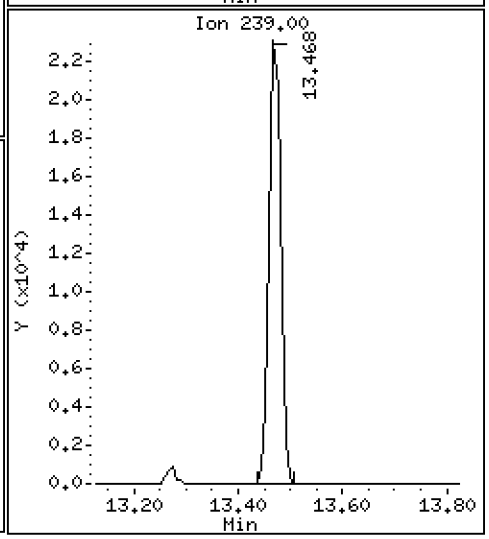












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

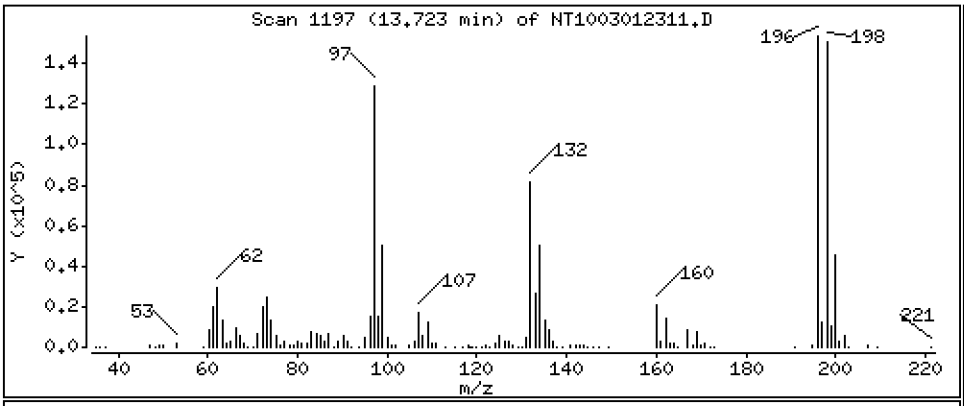
Operator: VTS

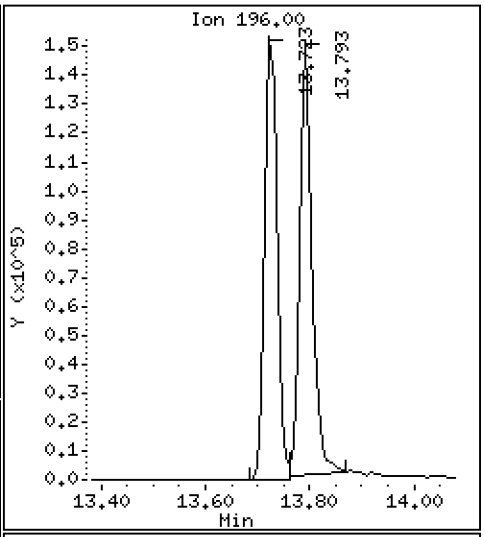
Column phase: ZB-5msi

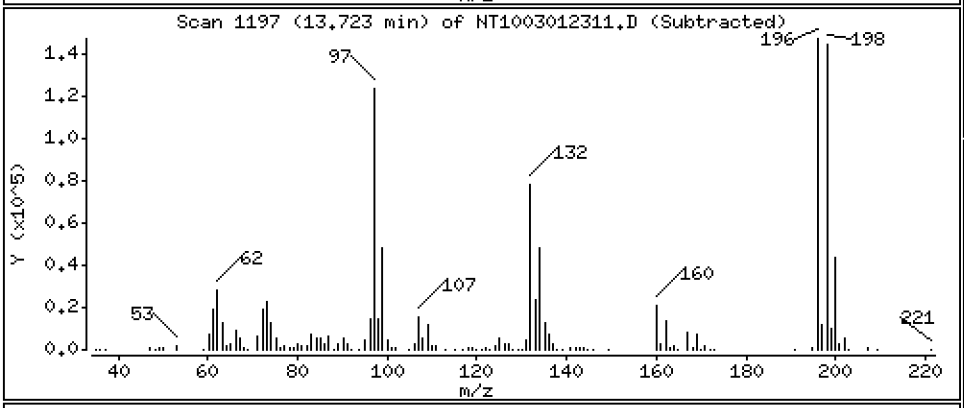
Column diameter: 0.25

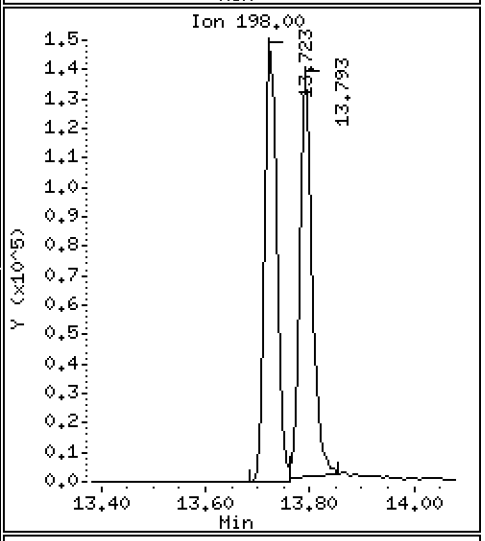
34 2,4,6-Trichlorophenol

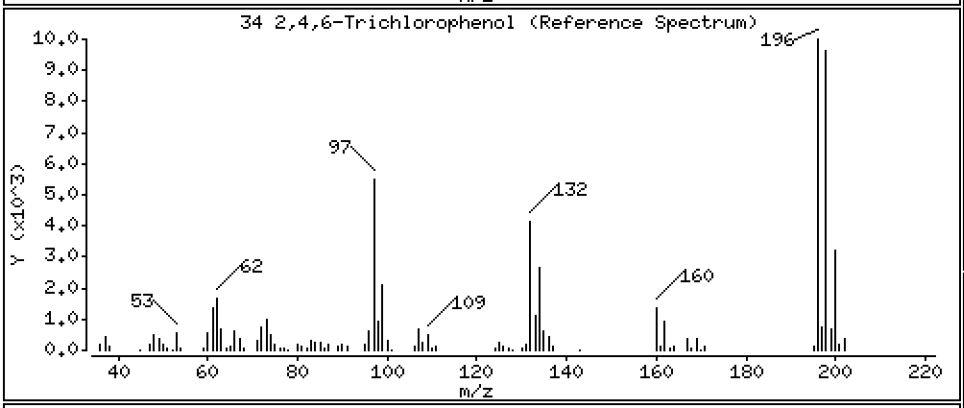
Concentration: 4.120 ug/mL

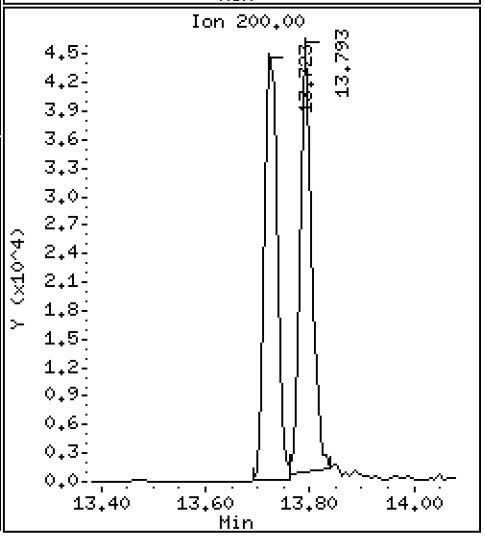


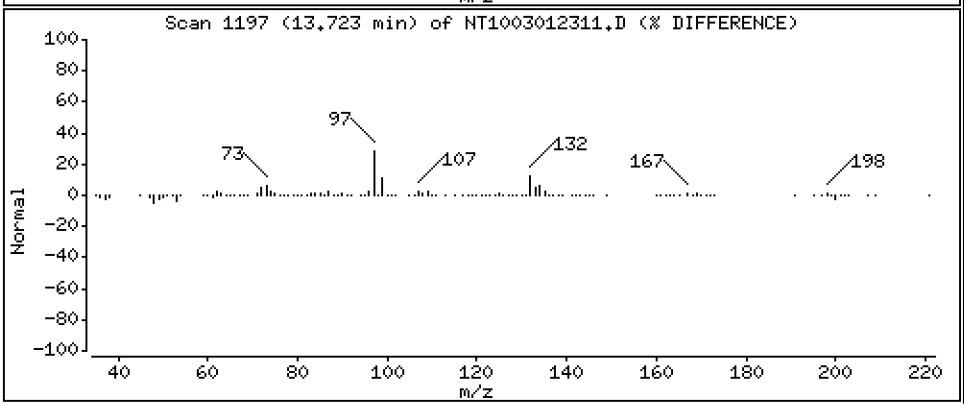












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

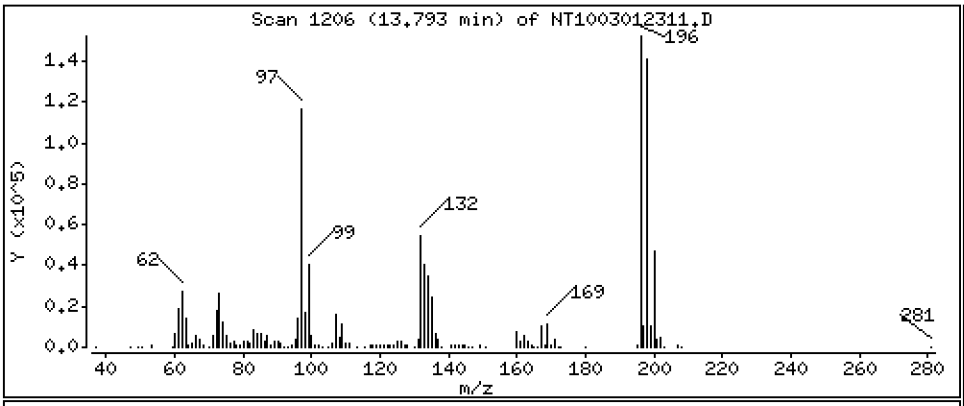
Operator: VTS

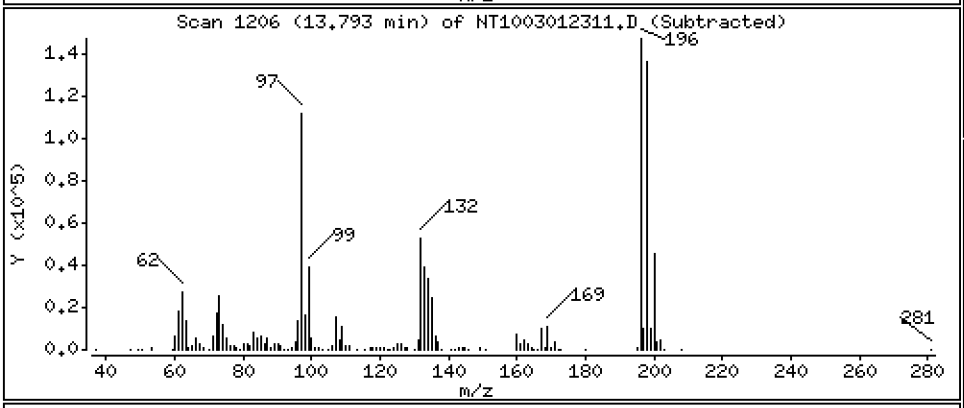
Column phase: ZB-5msi

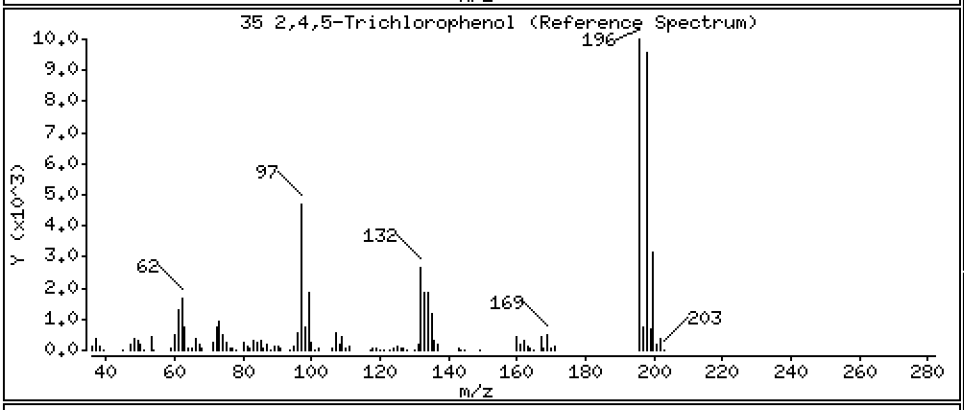
Column diameter: 0.25

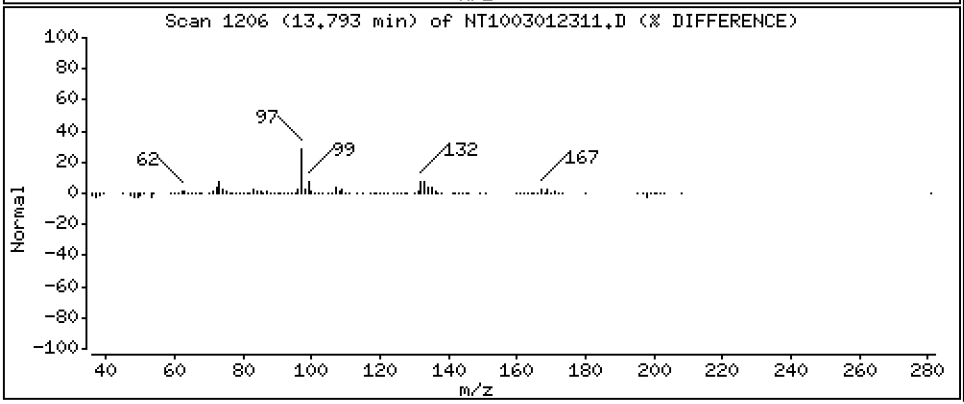
35 2,4,5-Trichlorophenol

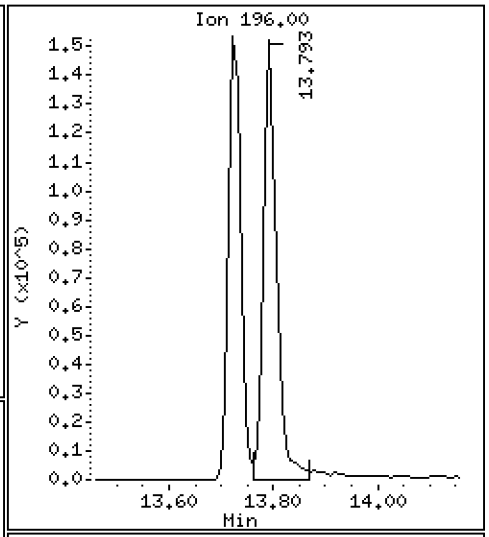
Concentration: 4.149 ug/mL

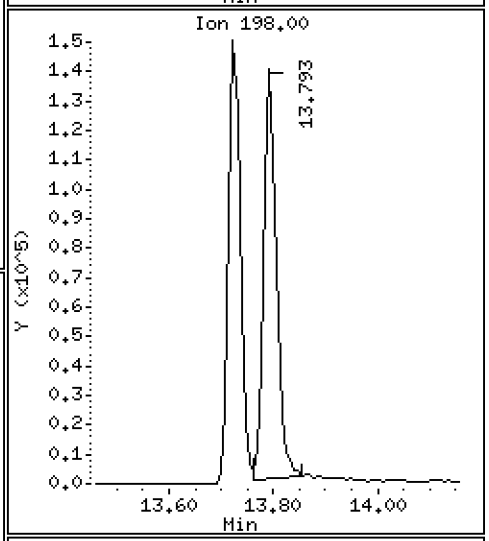


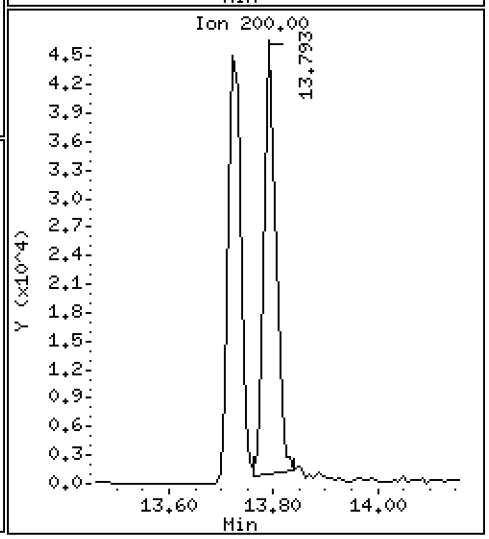












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

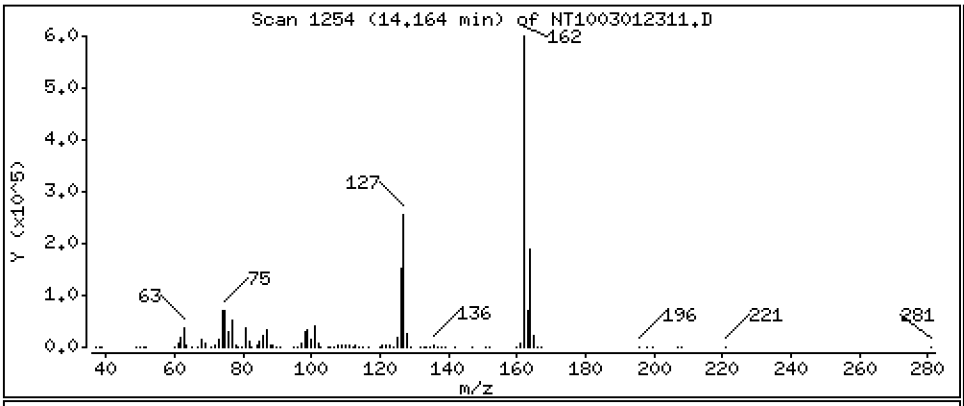
Operator: VTS

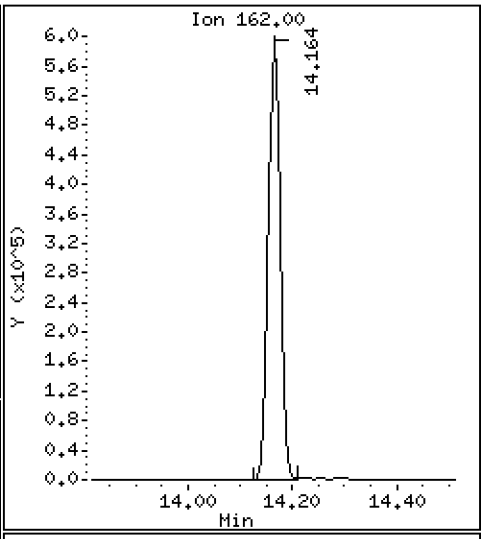
Column phase: ZB-5msi

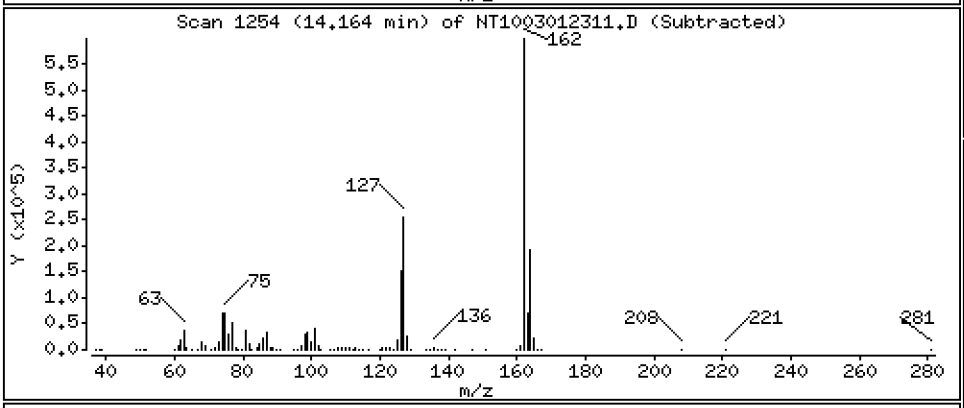
Column diameter: 0.25

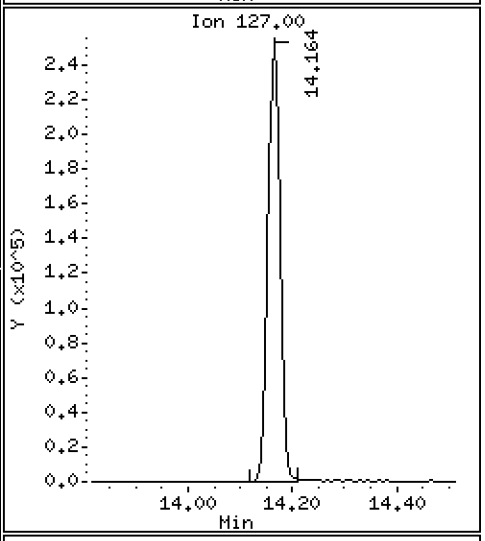
37 2-Chloronaphthalene

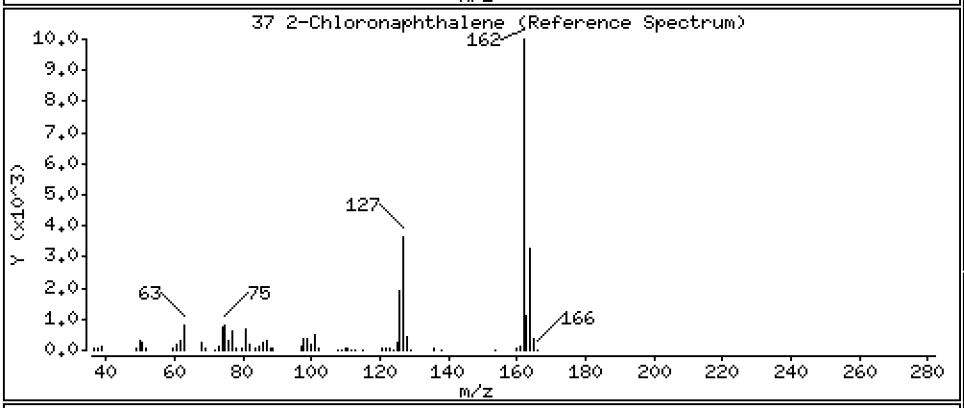
Concentration: 5.264 ug/mL

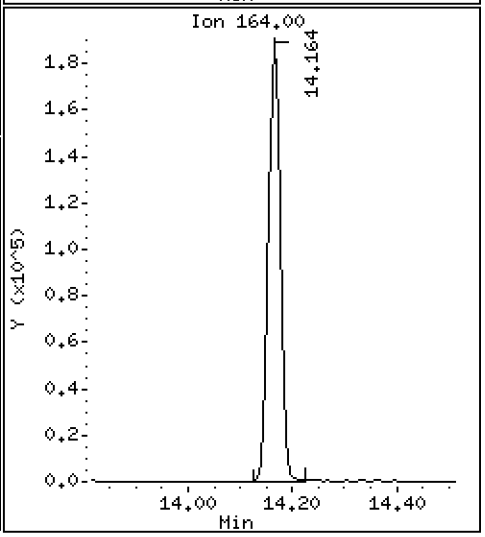


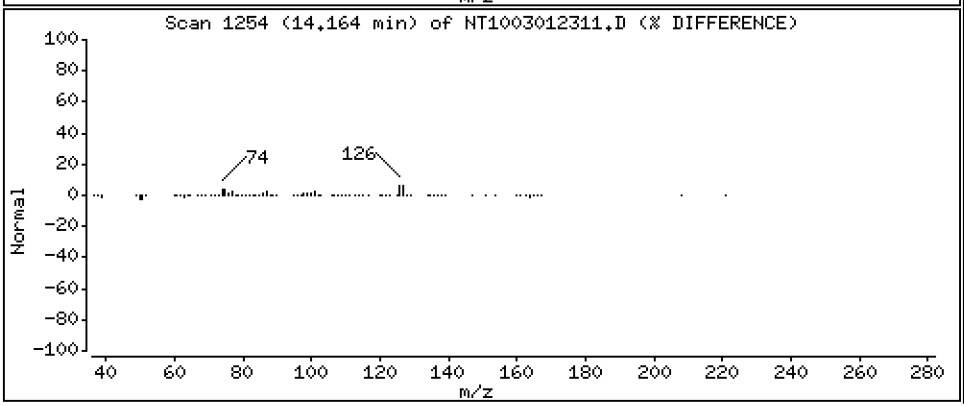












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

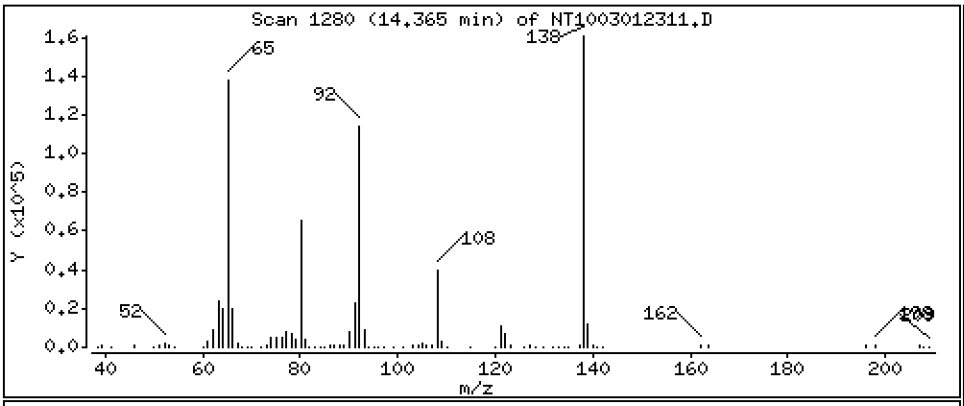
Operator: VTS

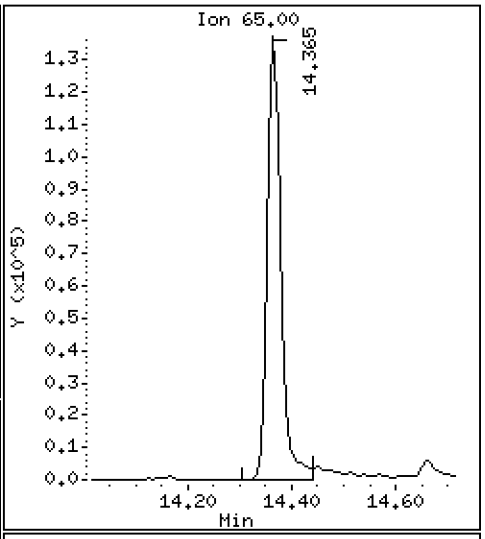
Column phase: ZB-5msi

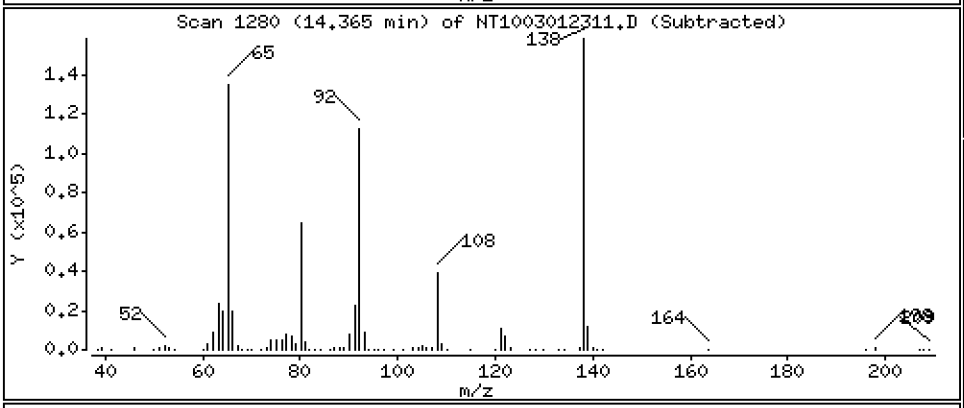
Column diameter: 0.25

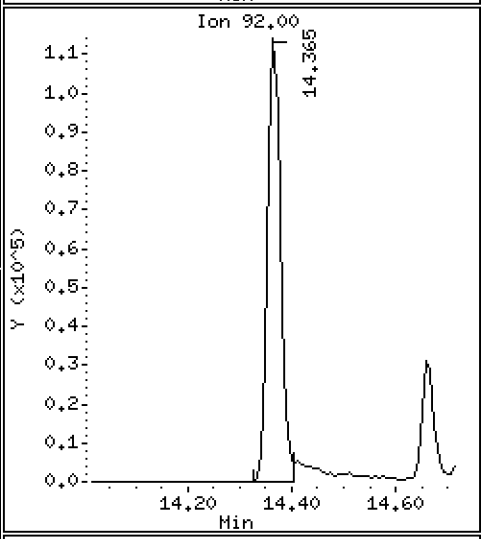
38 2-Nitroaniline

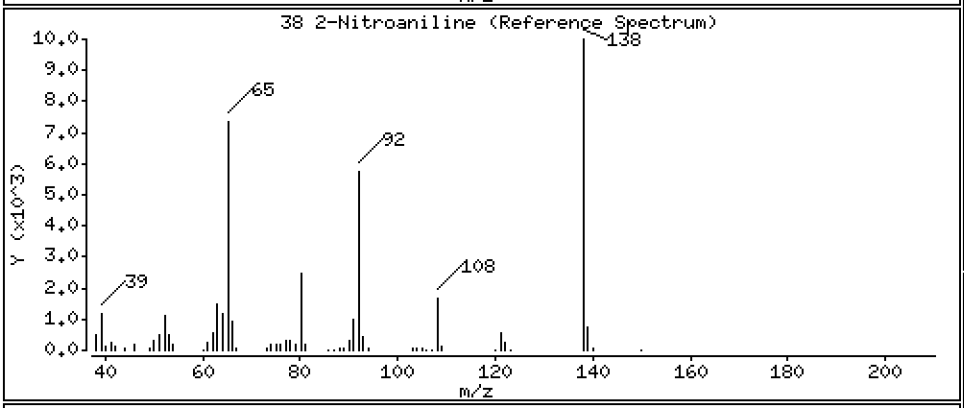
Concentration: 5.027 ug/mL

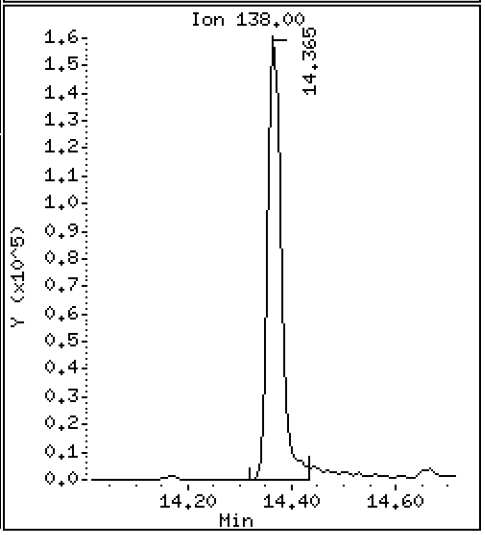


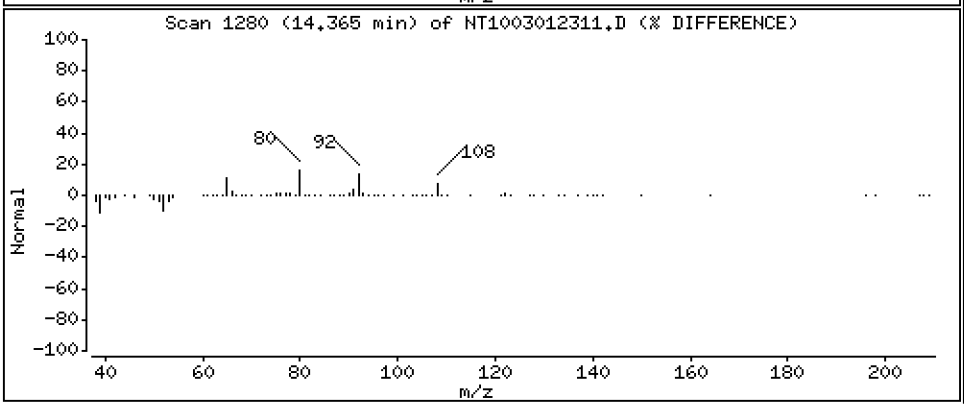












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

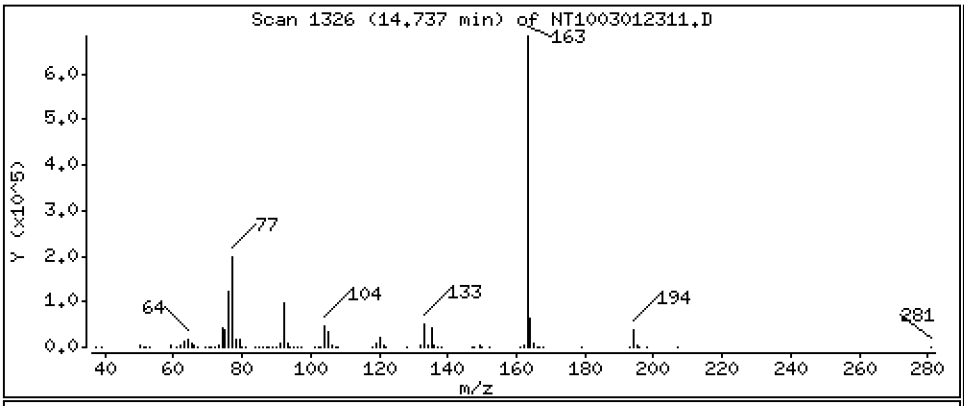
Operator: VTS

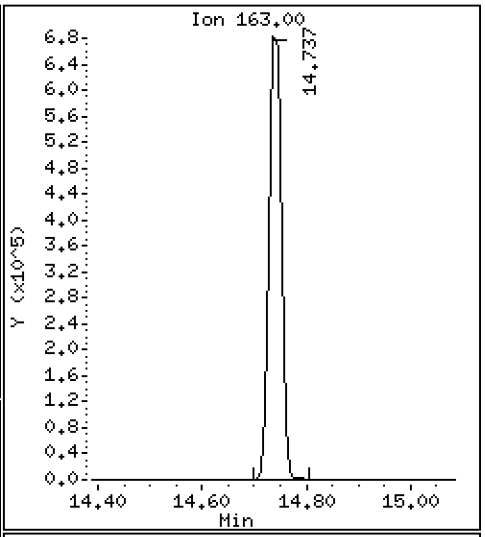
Column phase: ZB-5msi

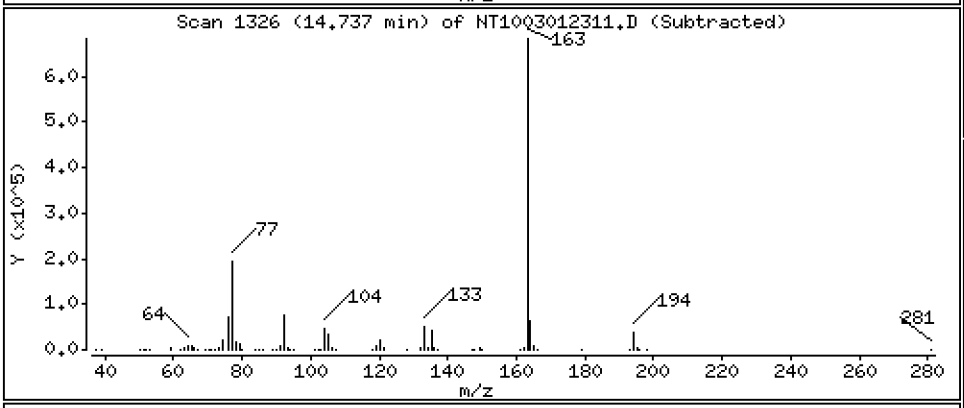
Column diameter: 0.25

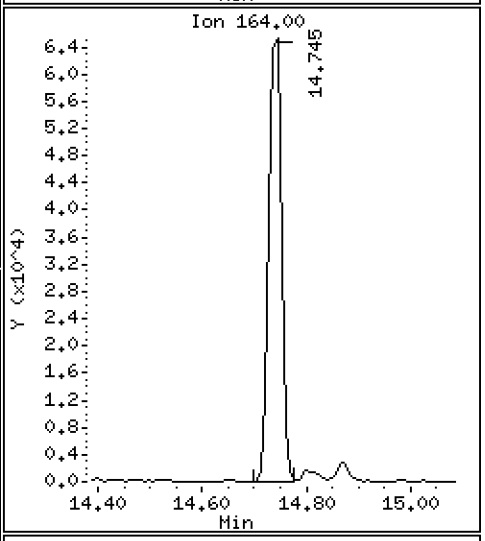
39 Dimethylphthalate

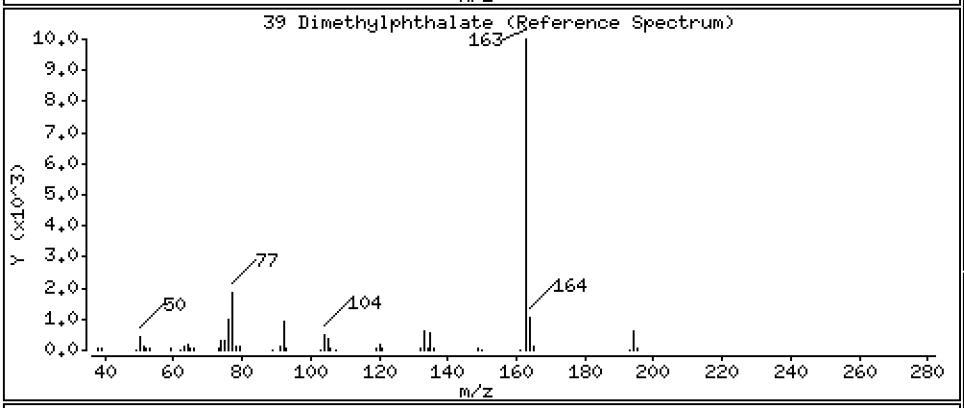
Concentration: 5.384 ug/mL

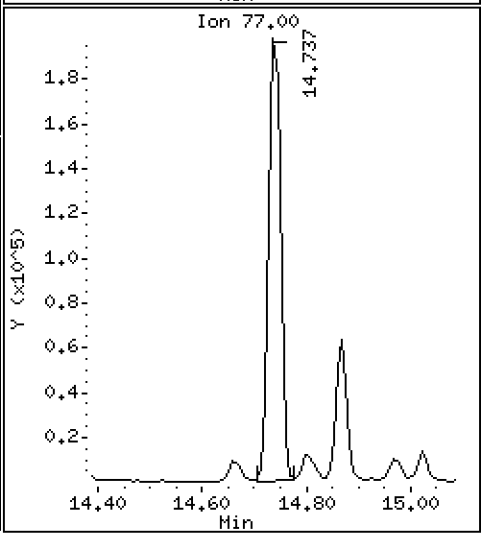


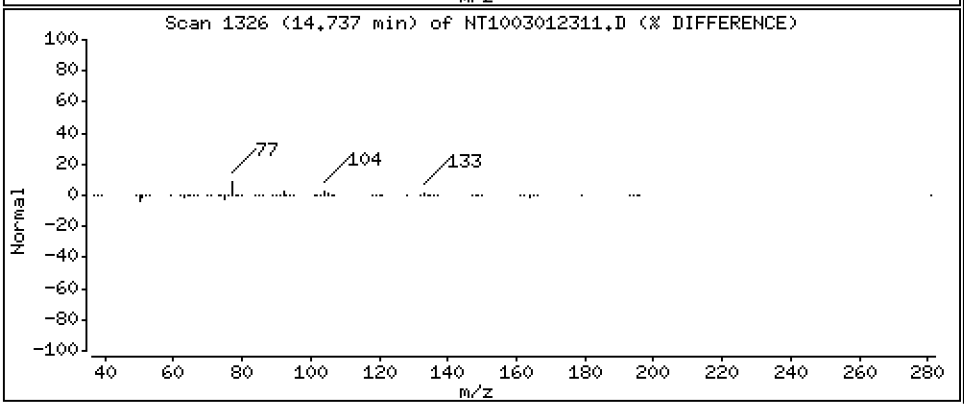












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

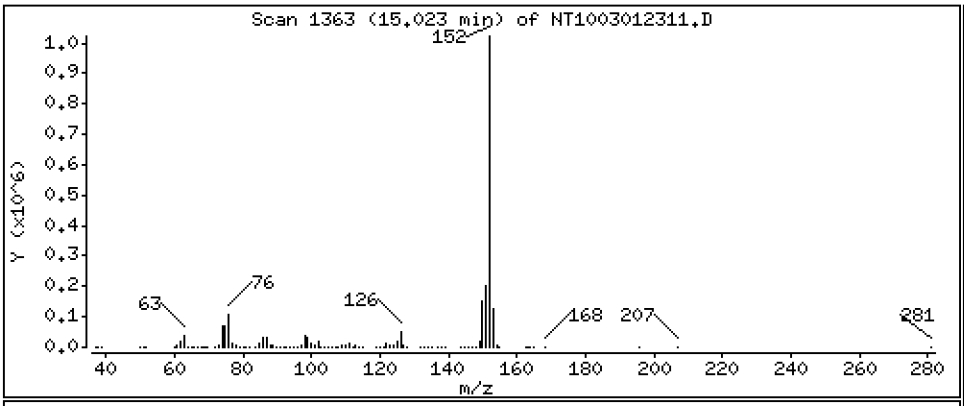
Operator: VTS

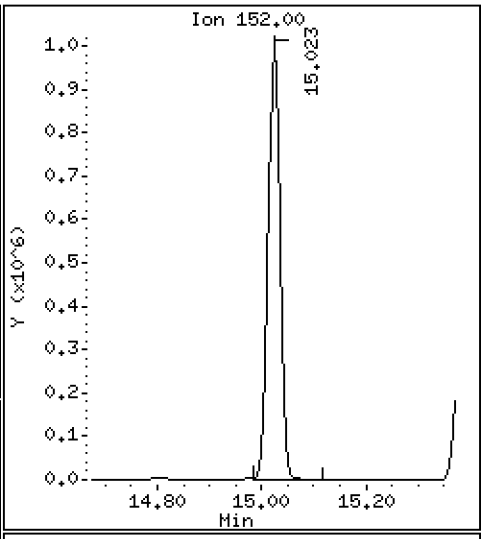
Column phase: ZB-5msi

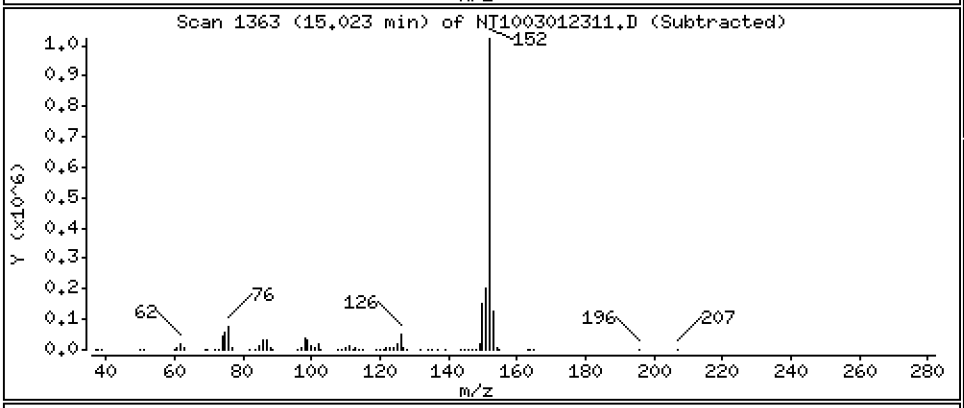
Column diameter: 0.25

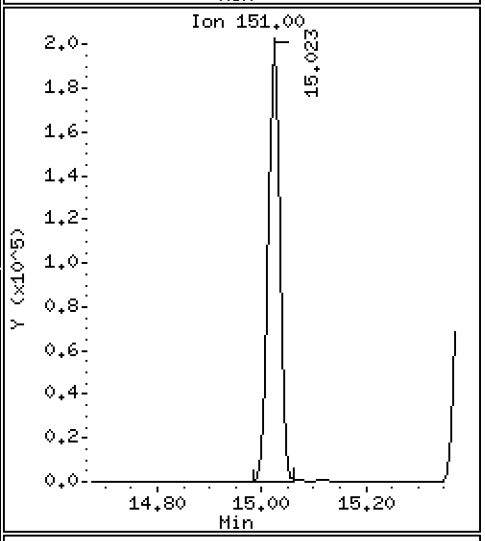
40 Acenaphthylene

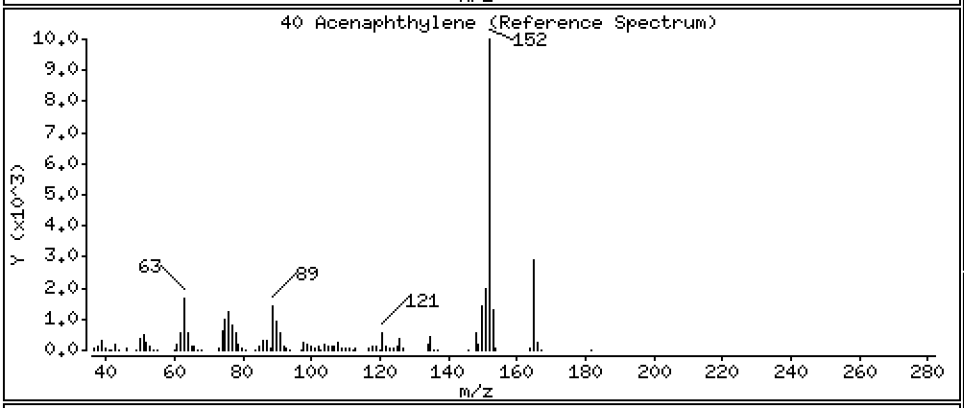
Concentration: 5.806 ug/mL

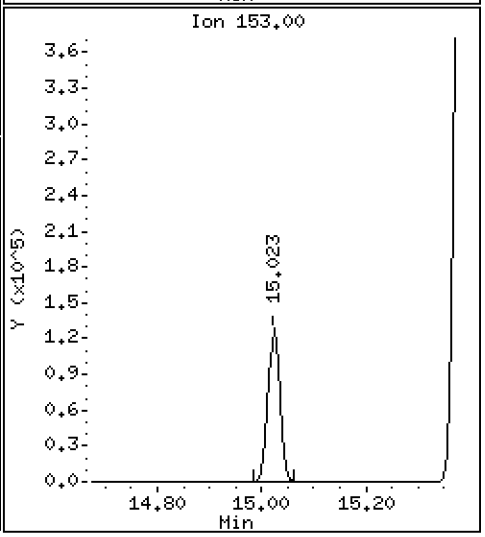


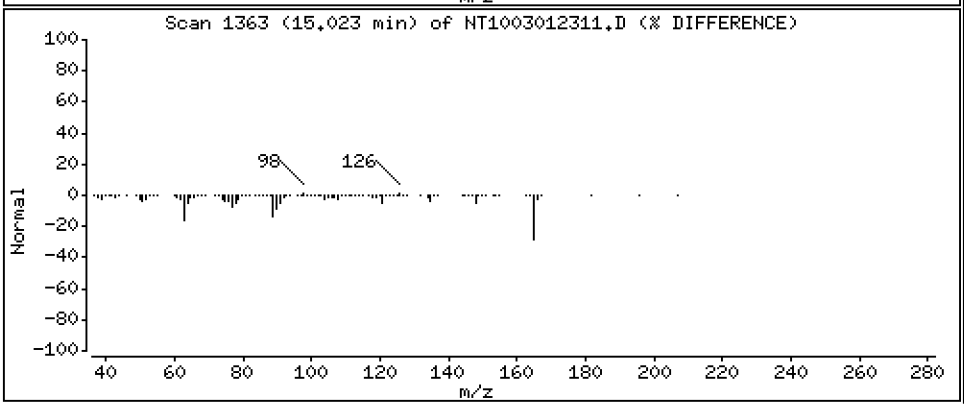












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

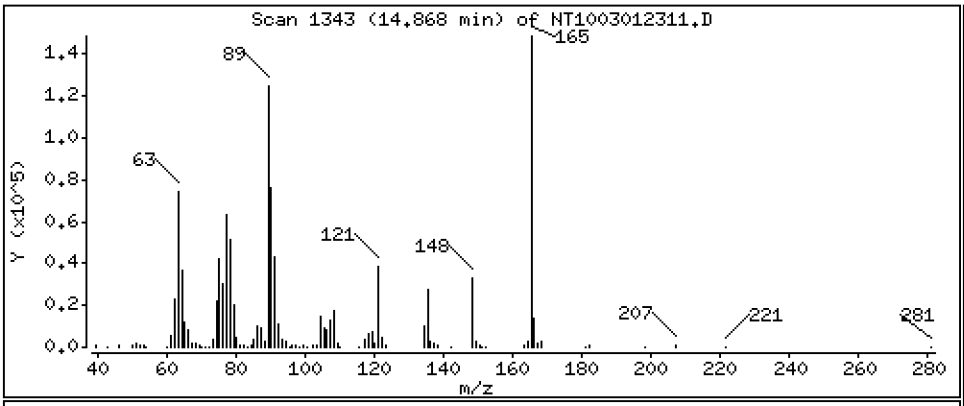
Operator: VTS

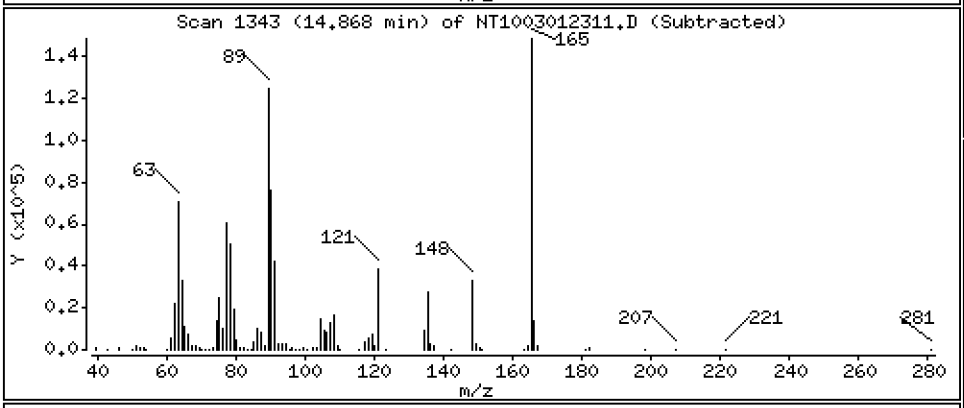
Column phase: ZB-5msi

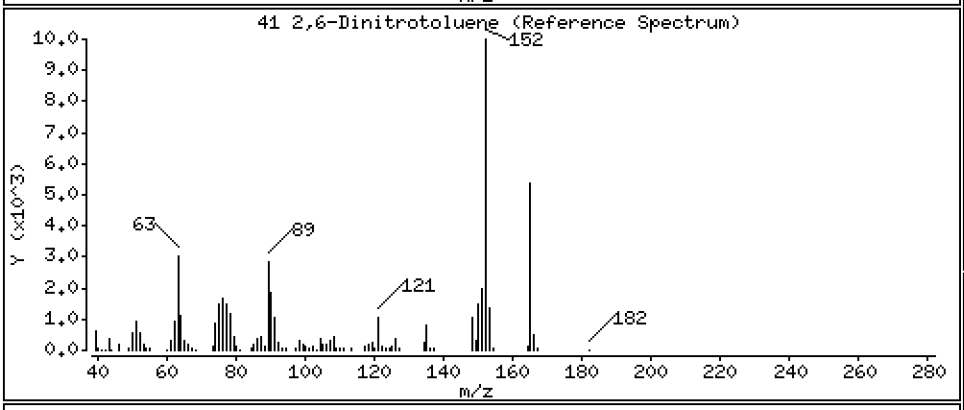
Column diameter: 0.25

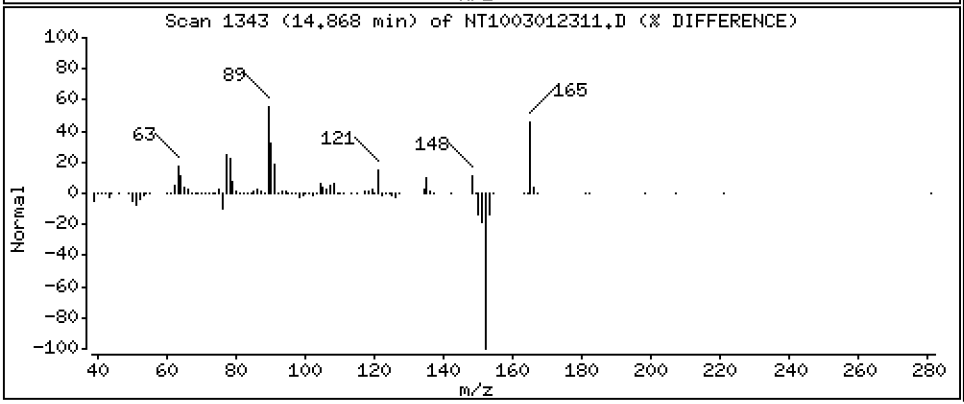
41 2,6-Dinitrotoluene

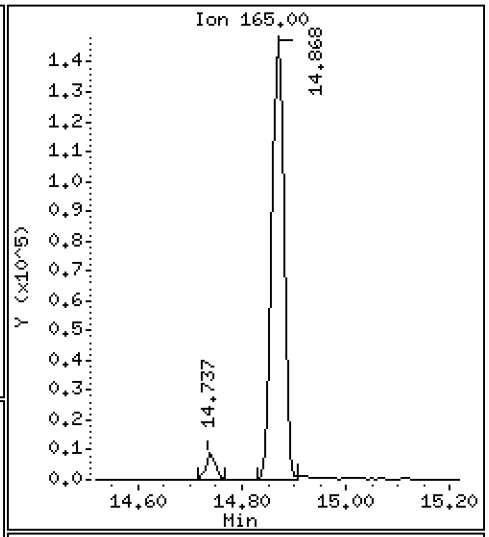
Concentration: 5.187 ug/mL

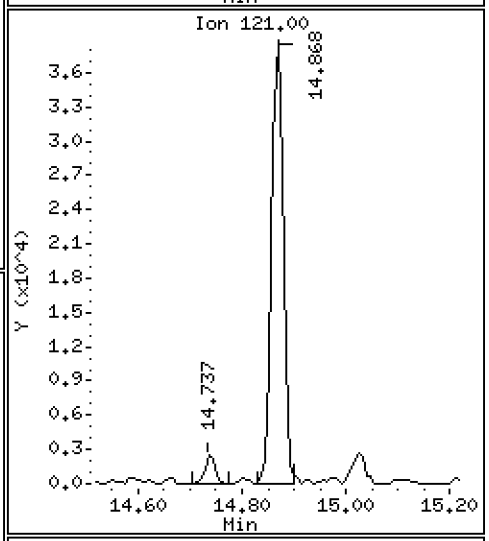


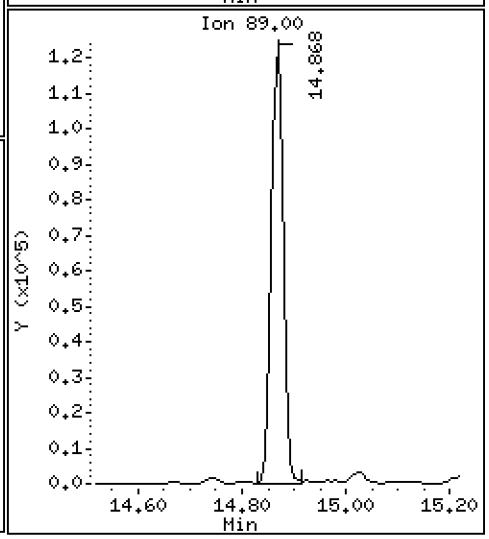












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

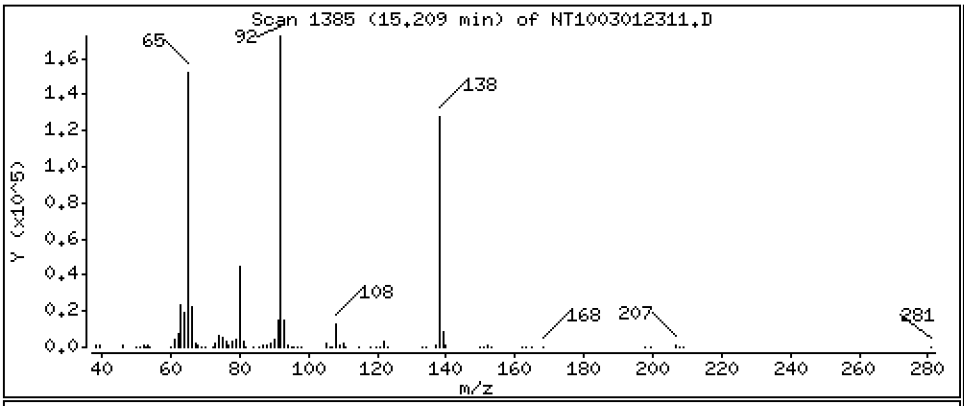
Operator: VTS

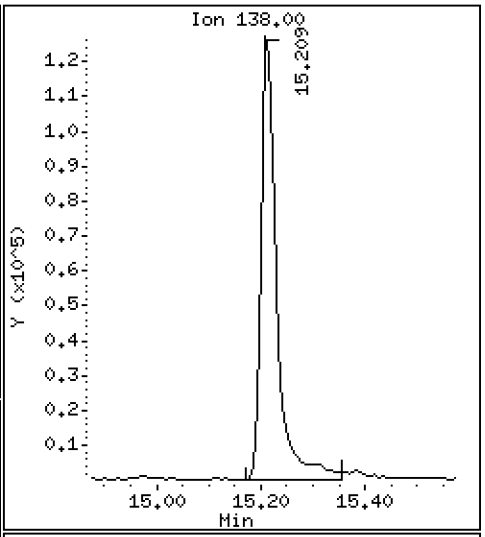
Column phase: ZB-5msi

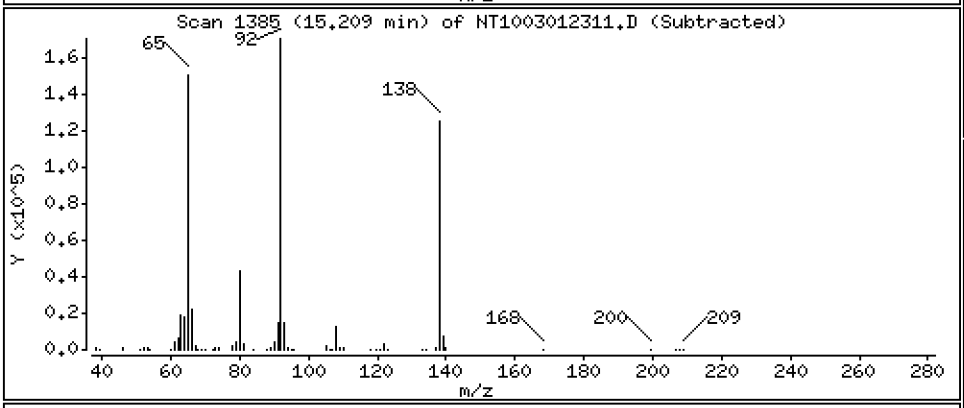
Column diameter: 0.25

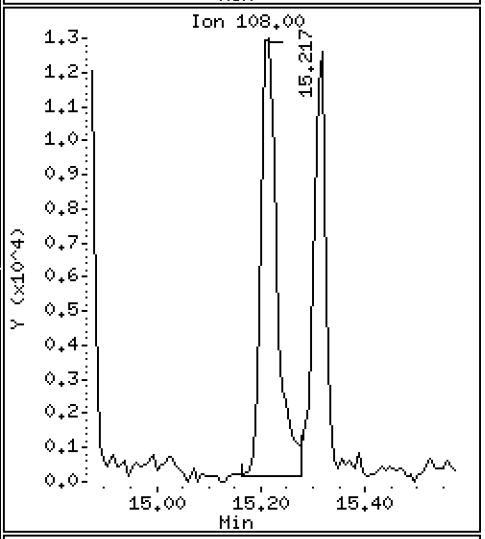
43 3-Nitroaniline

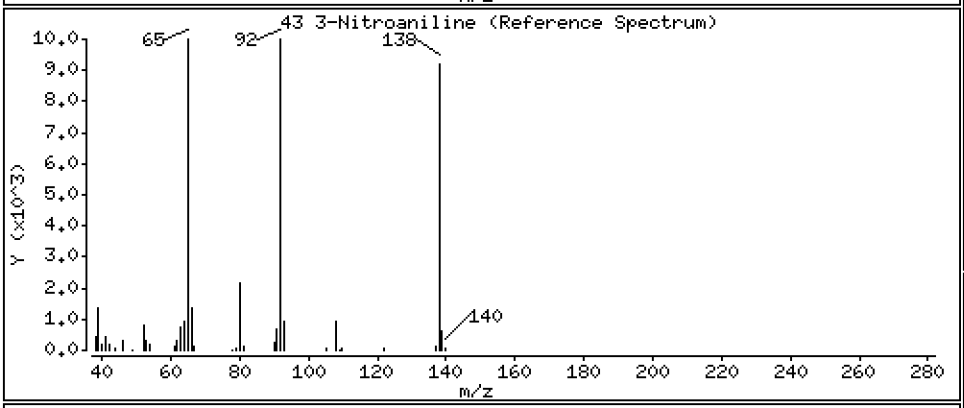
Concentration: 5.172 ug/mL

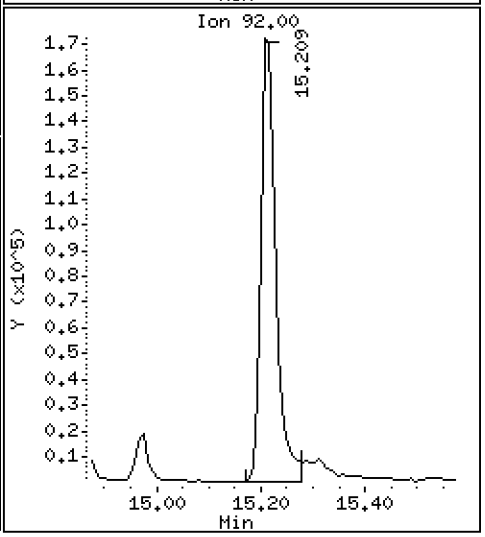


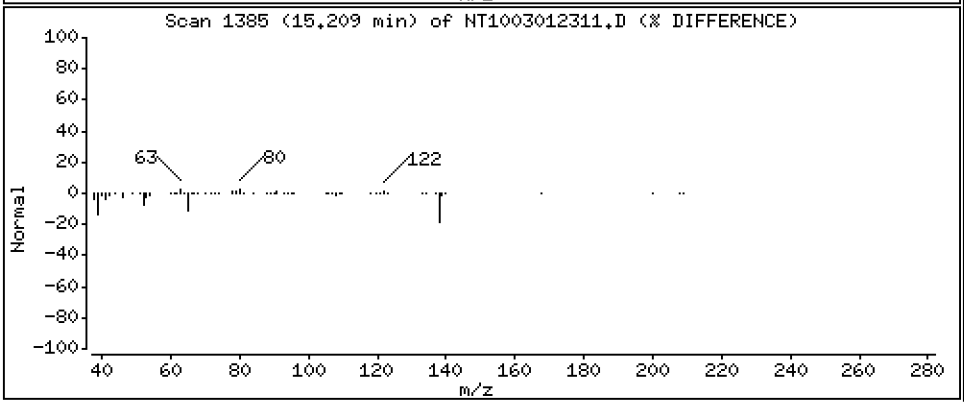












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

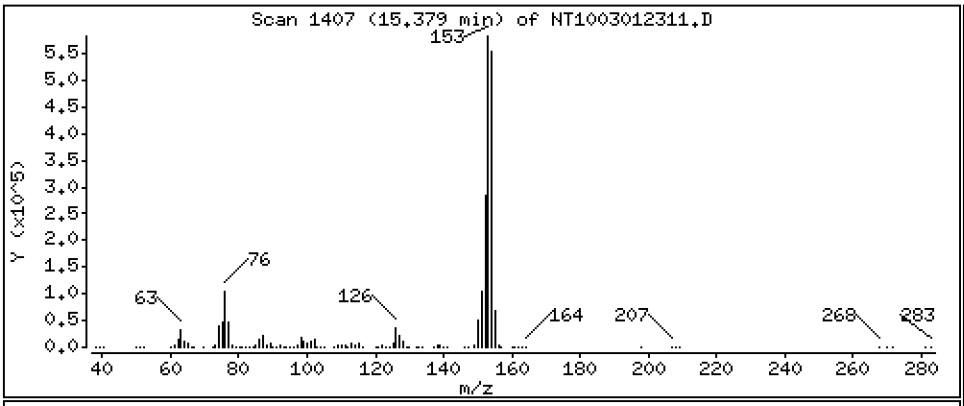
Operator: VTS

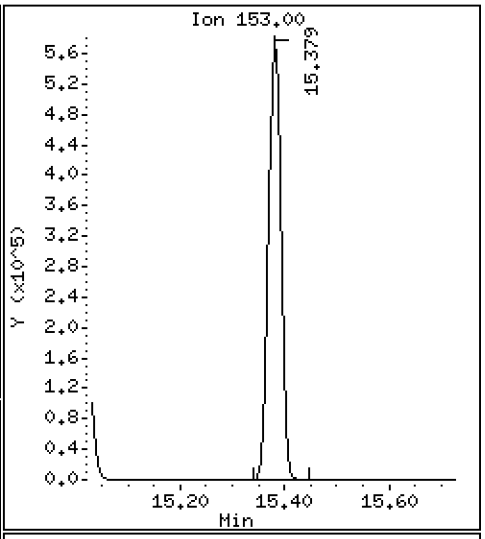
Column phase: ZB-5msi

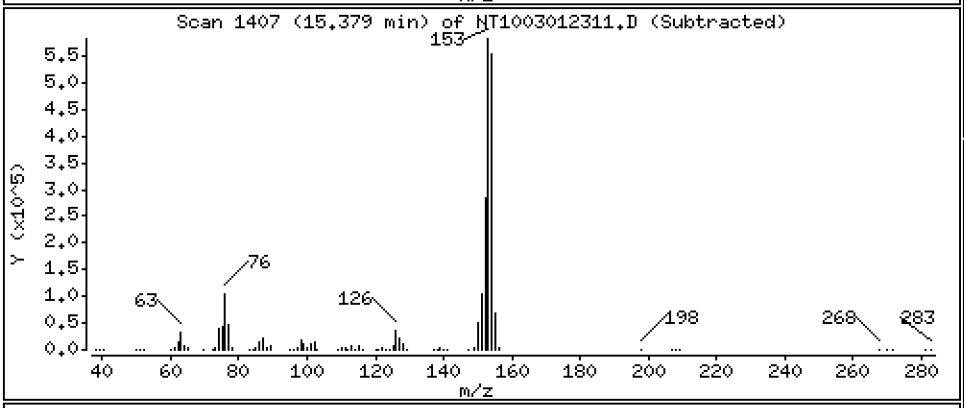
Column diameter: 0.25

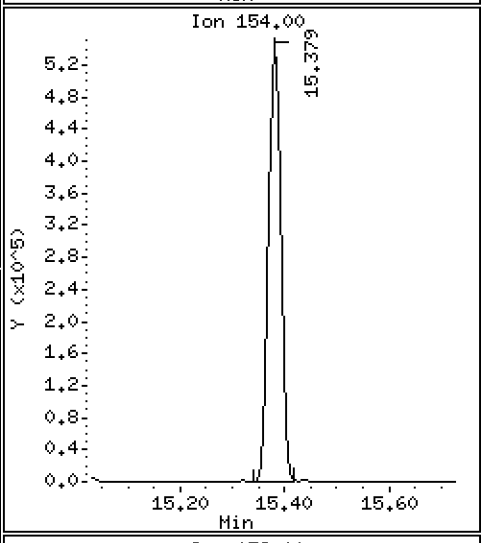
44 Acenaphthene

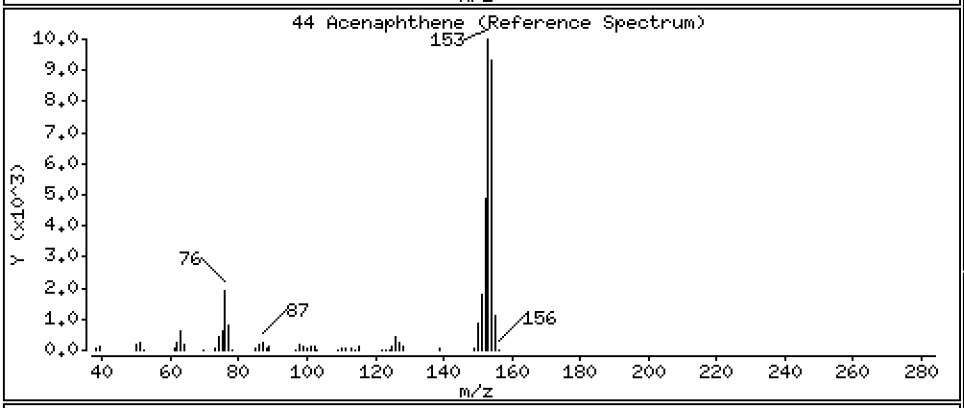
Concentration: 5.154 ug/mL

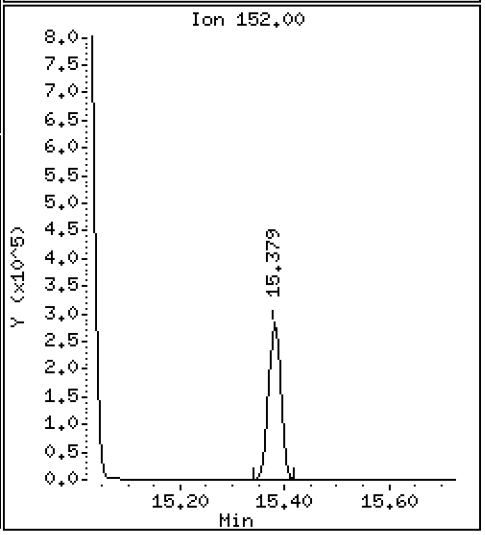


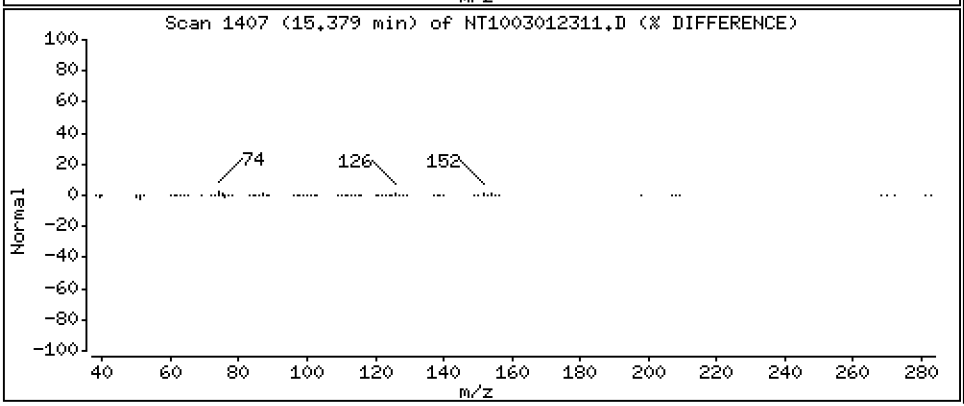












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

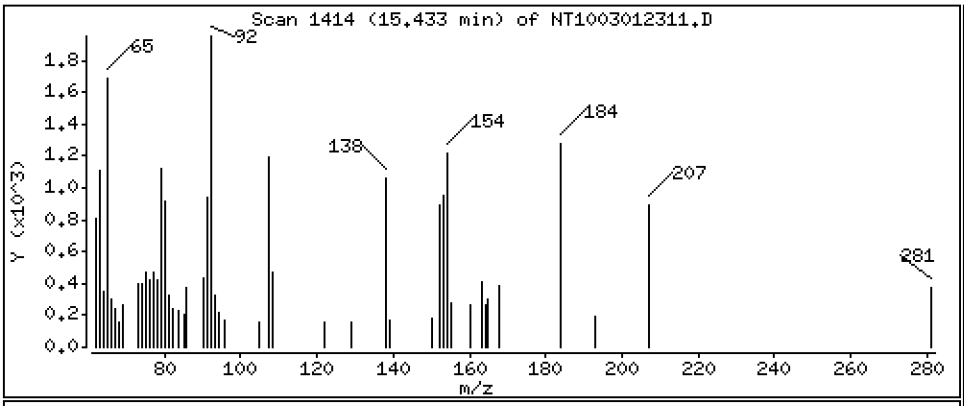
Operator: VTS

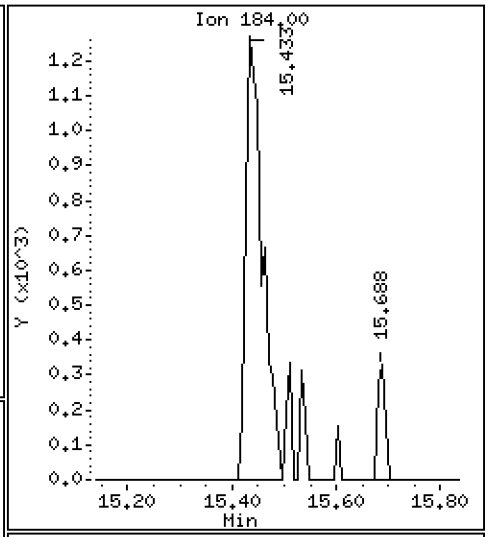
Column phase: ZB-5msi

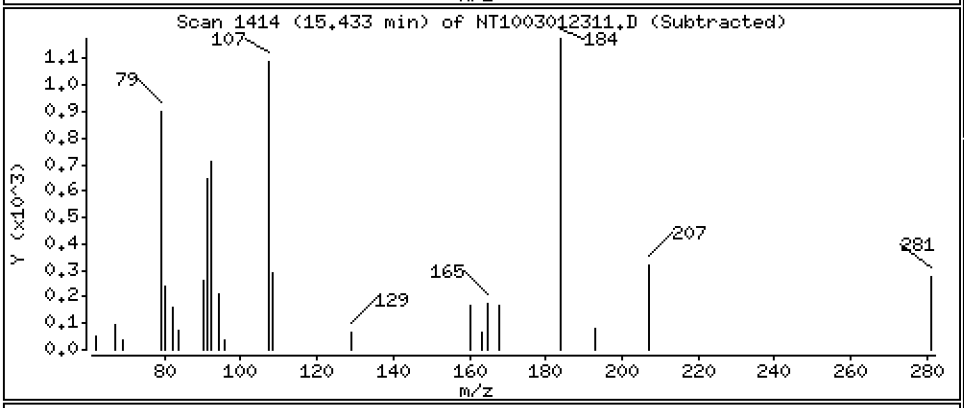
Column diameter: 0.25

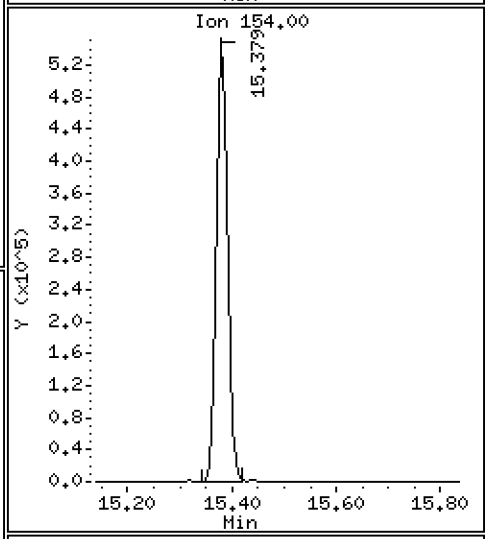
45 2,4-Dinitrophenol

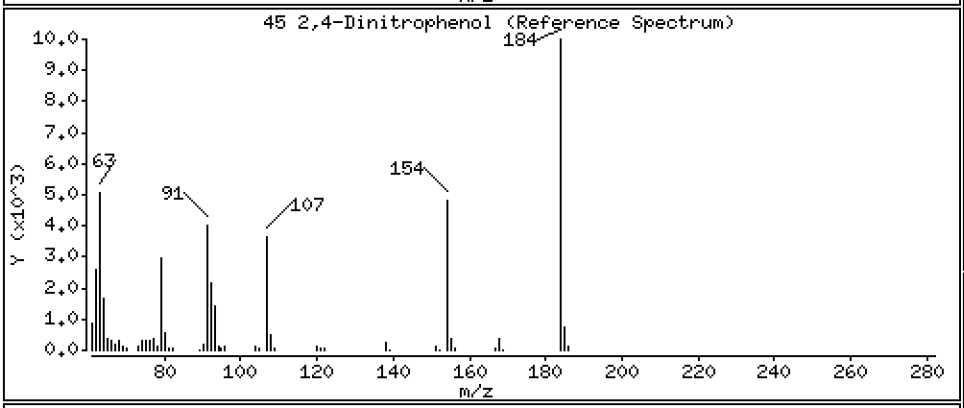
Concentration: 0.2667 ug/mL

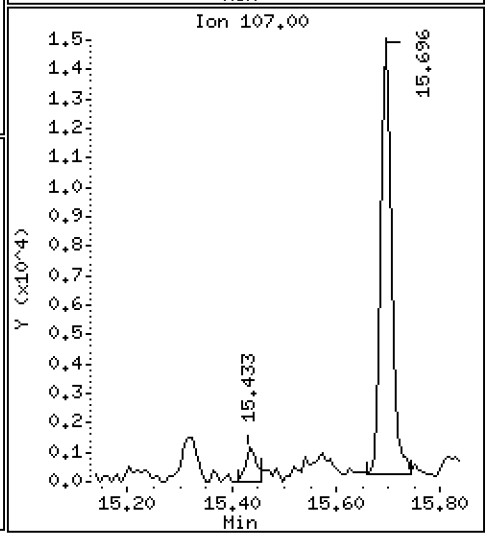


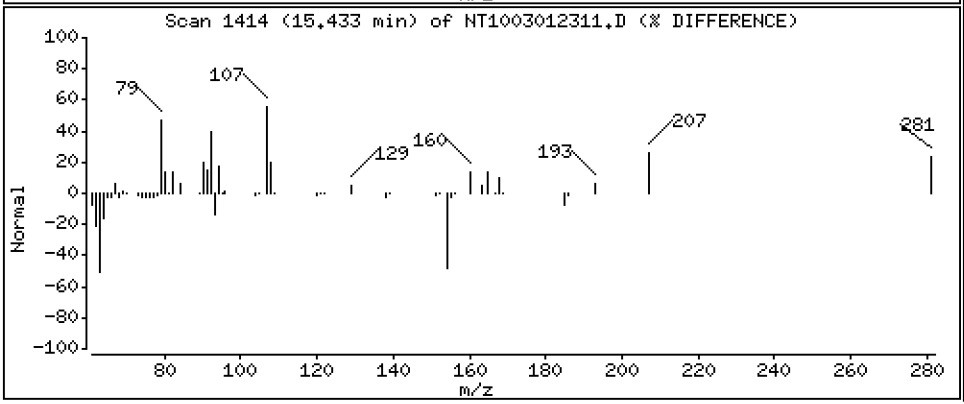












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

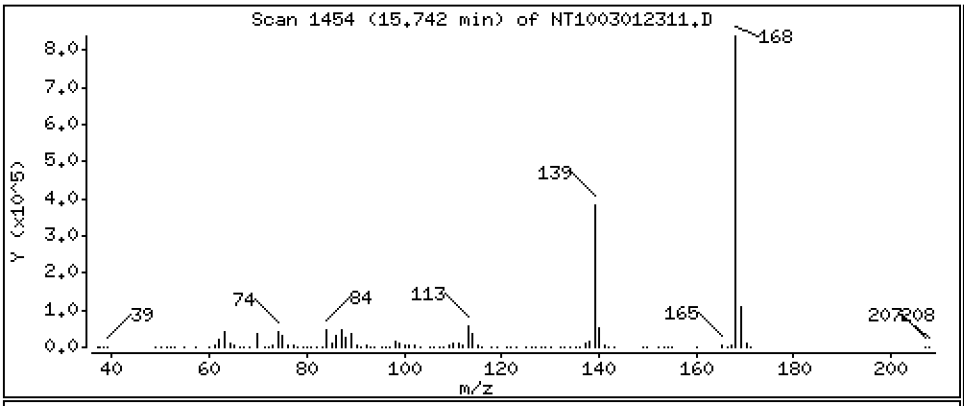
Operator: VTS

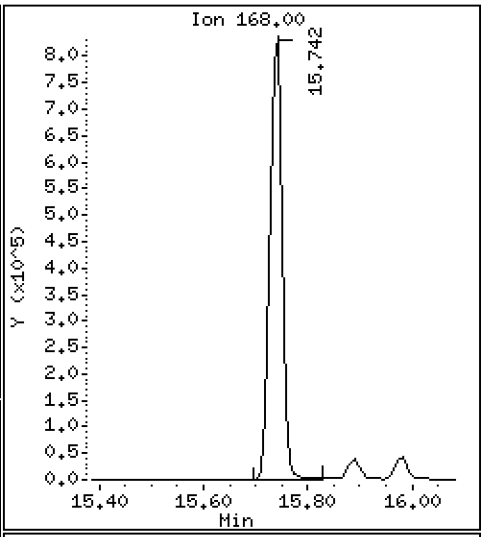
Column phase: ZB-5msi

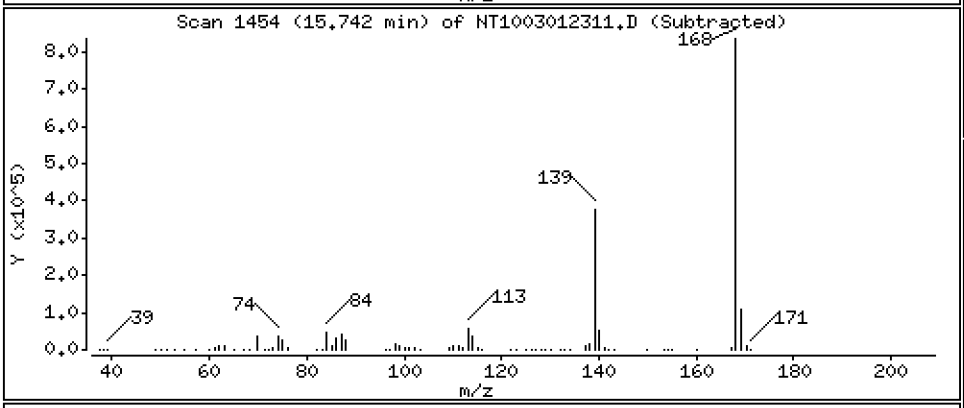
Column diameter: 0.25

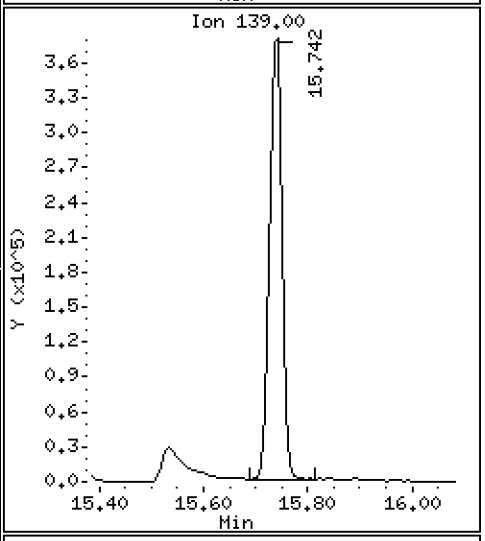
46 Dibenzofuran

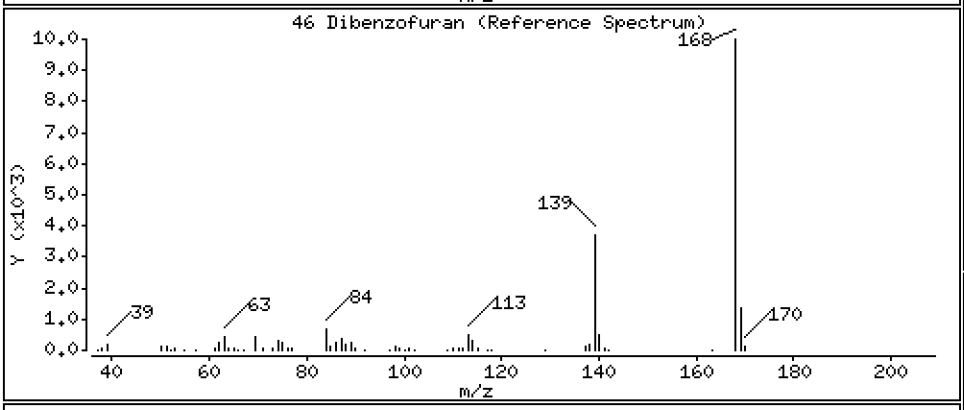
Concentration: 4.994 ug/mL

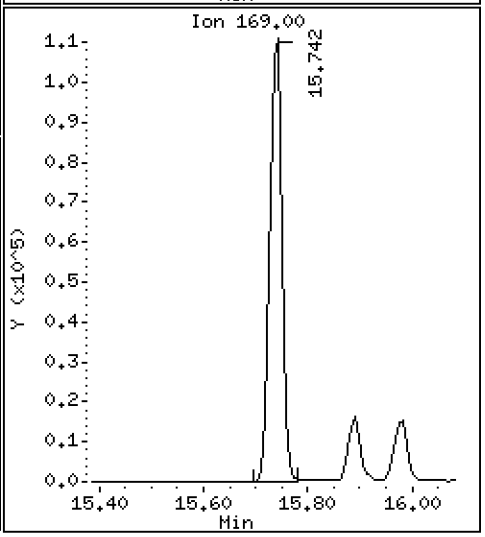


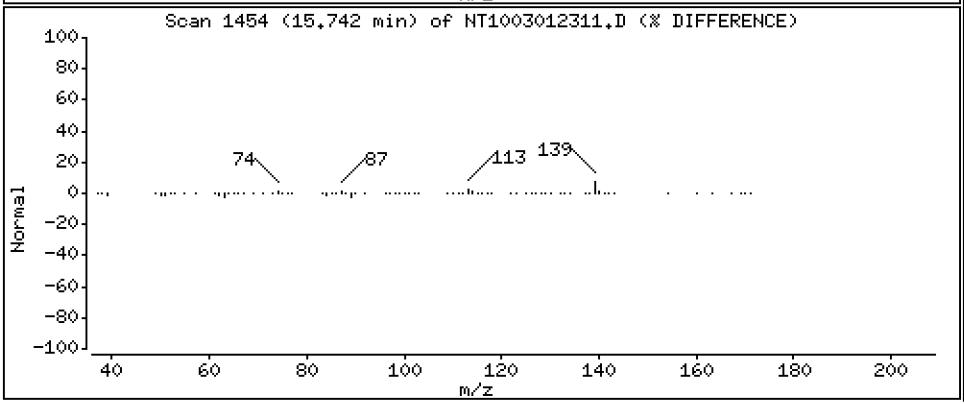












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

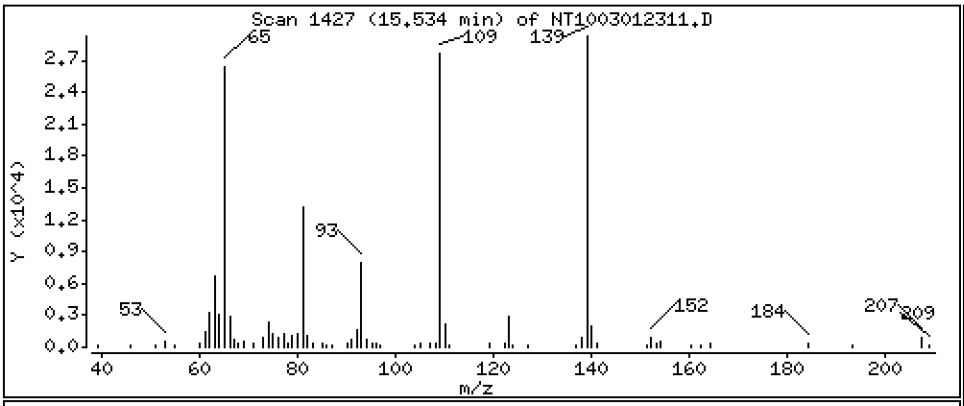
Operator: VTS

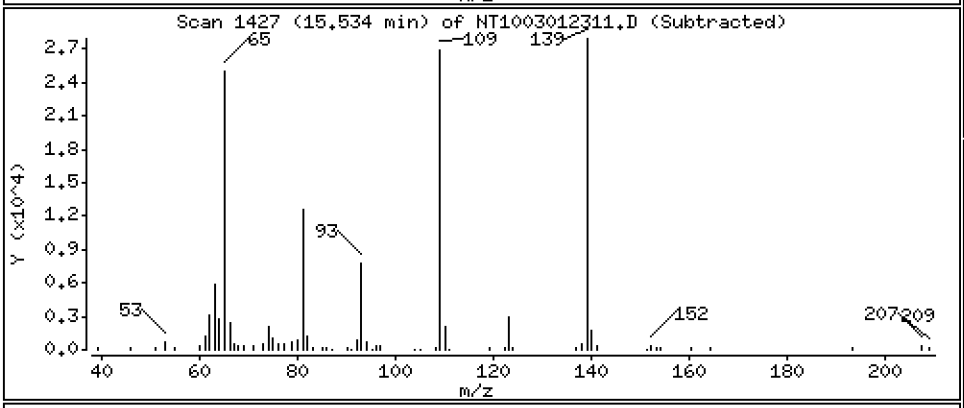
Column phase: ZB-5msi

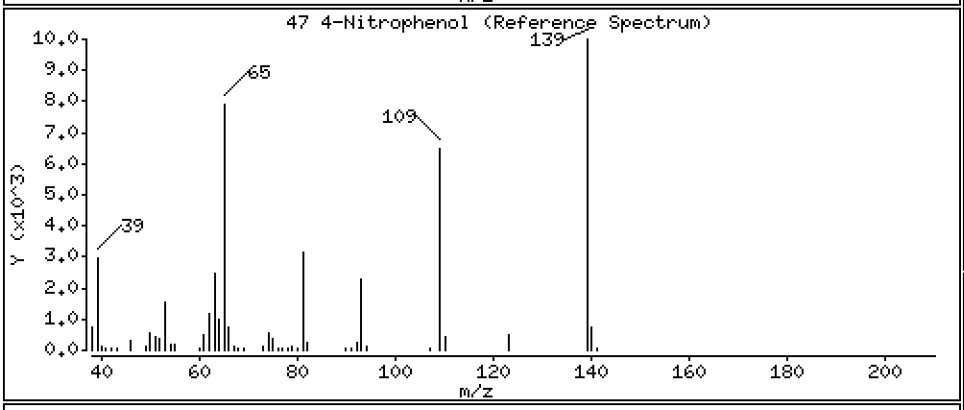
Column diameter: 0.25

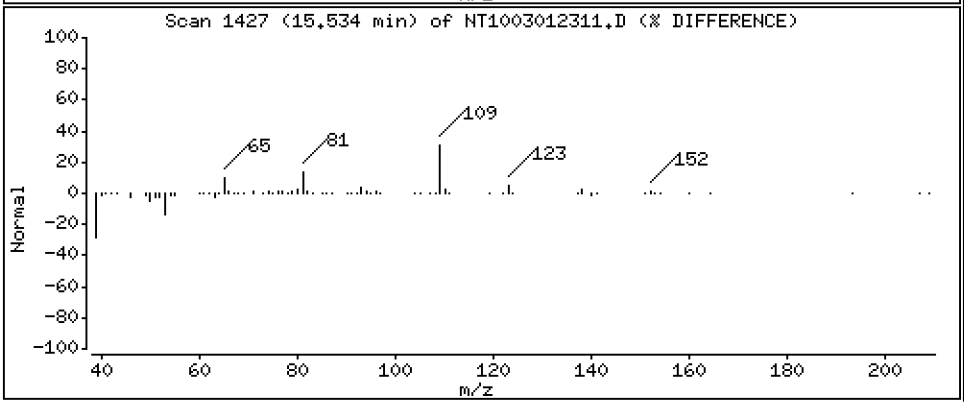
47 4-Nitrophenol

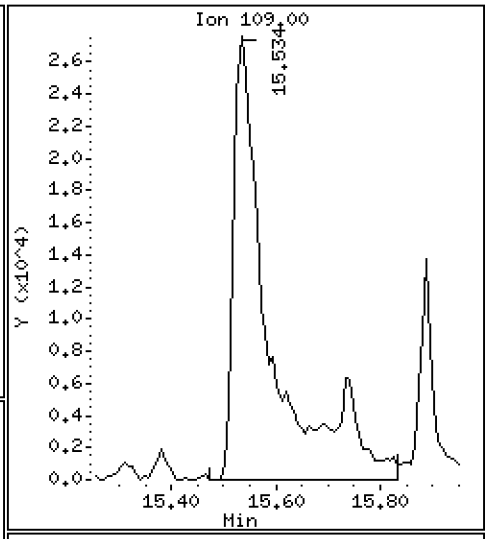
Concentration: 3.822 ug/mL

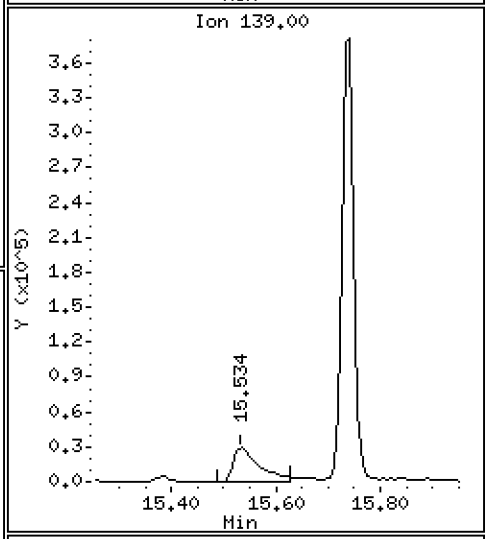


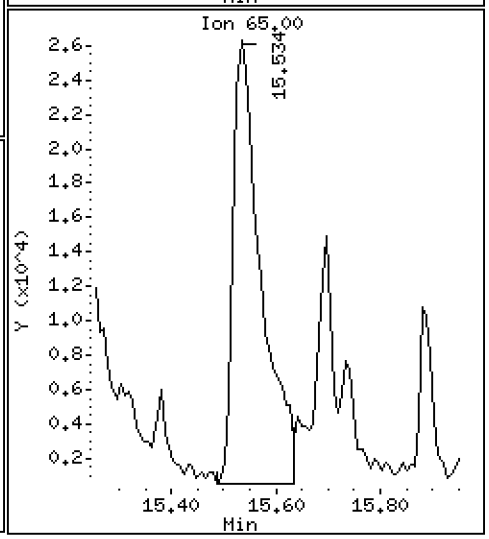












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

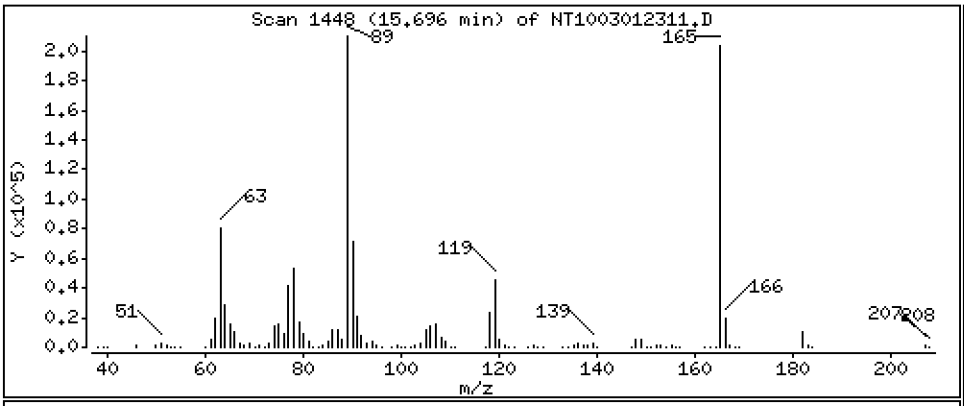
Operator: VTS

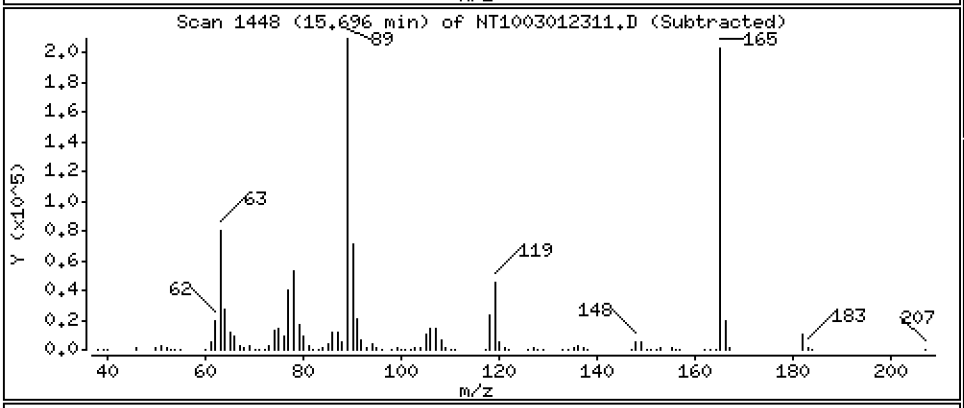
Column phase: ZB-5msi

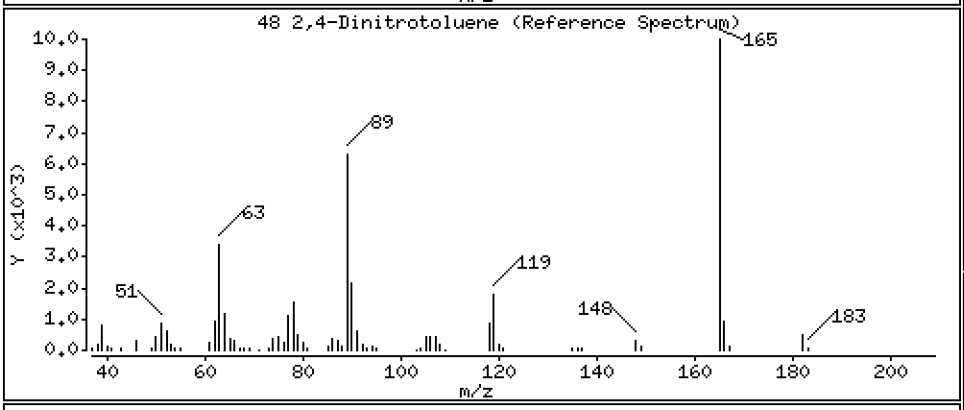
Column diameter: 0.25

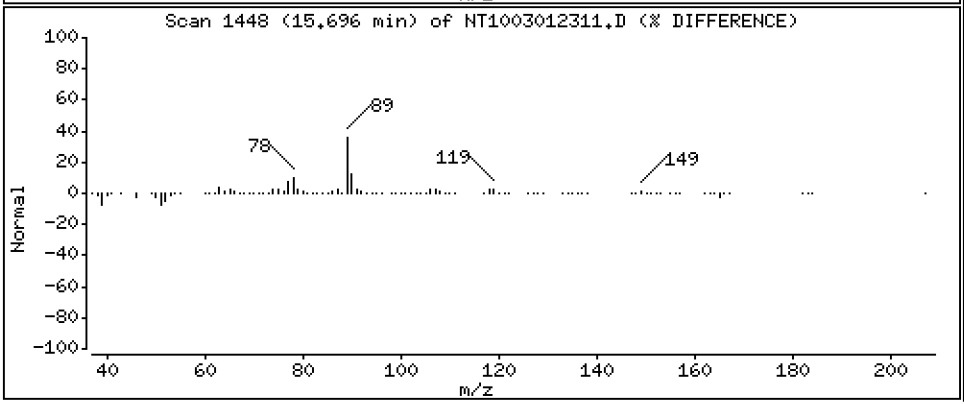
48 2,4-Dinitrotoluene

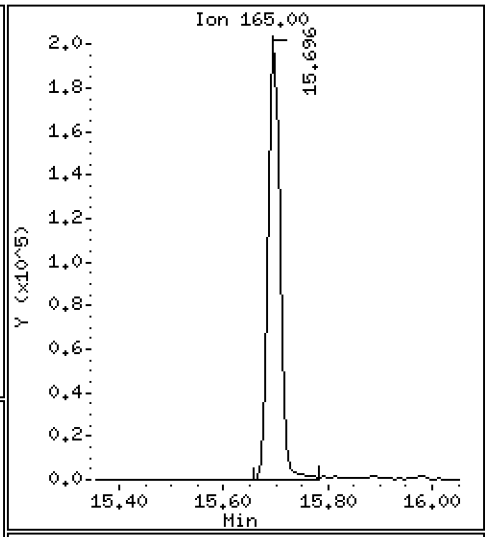
Concentration: 4.729 ug/mL

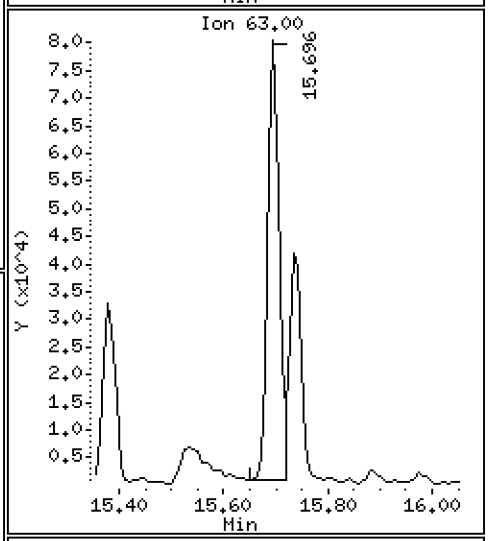


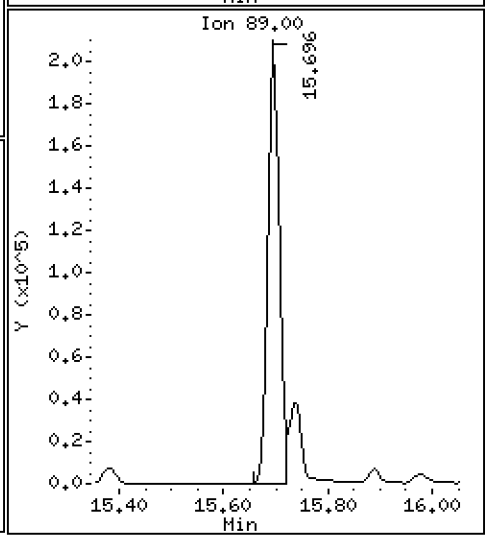












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

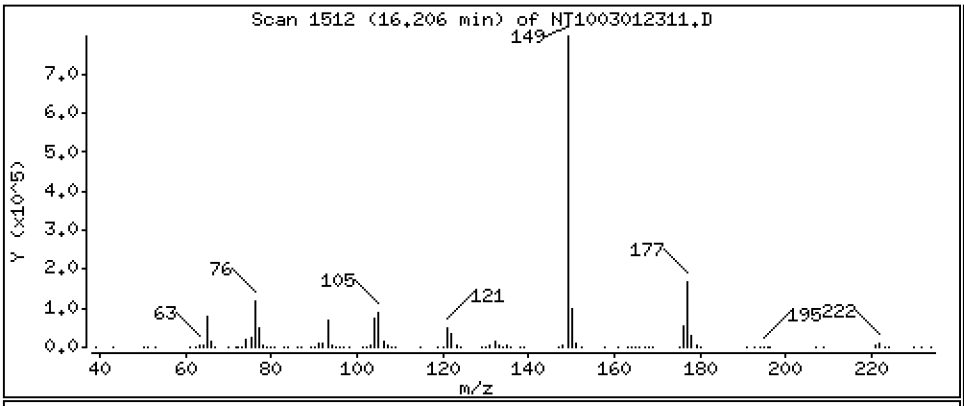
Operator: VTS

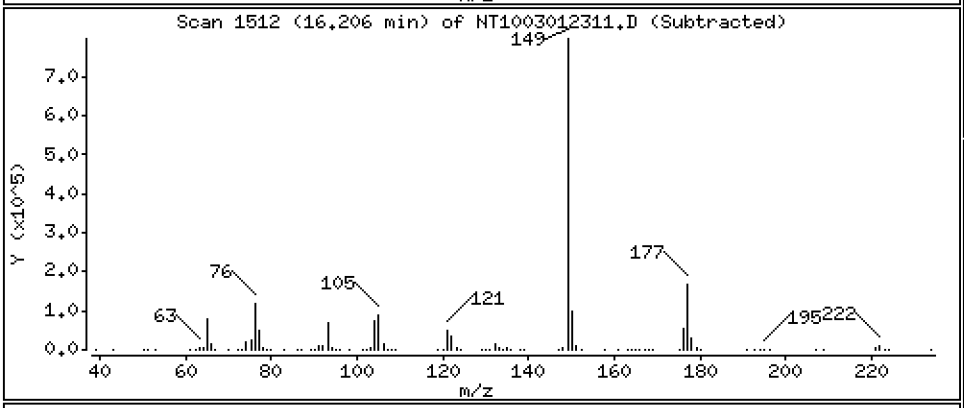
Column phase: ZB-5msi

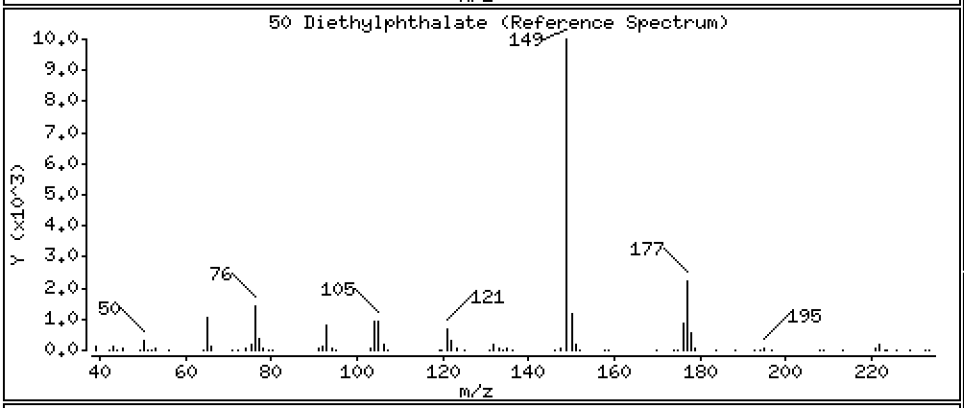
Column diameter: 0.25

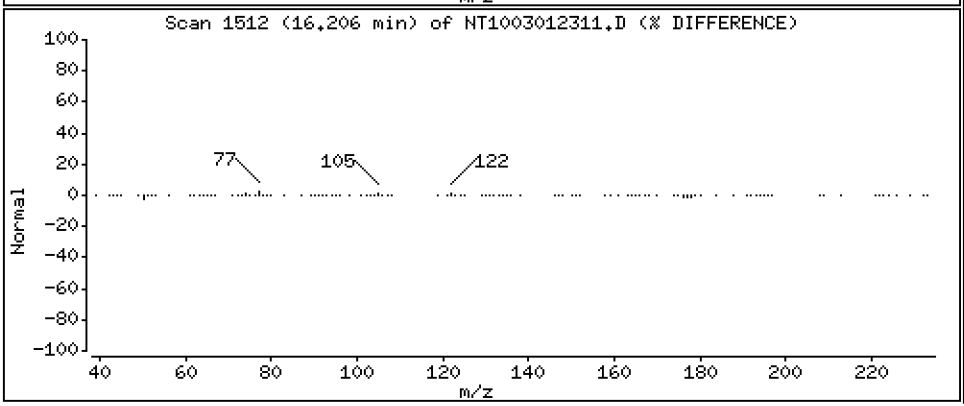
50 Diethylphthalate

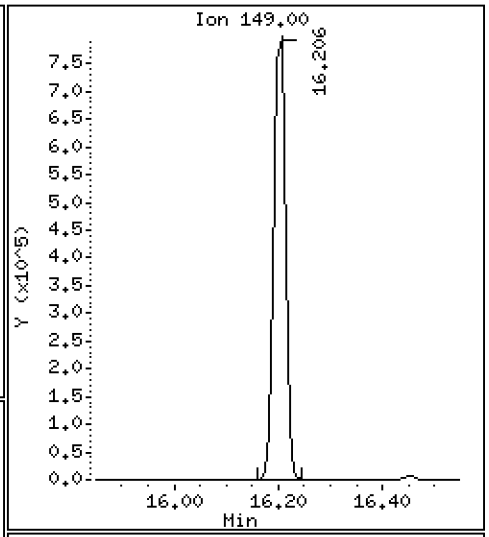
Concentration: 5.639 ug/mL

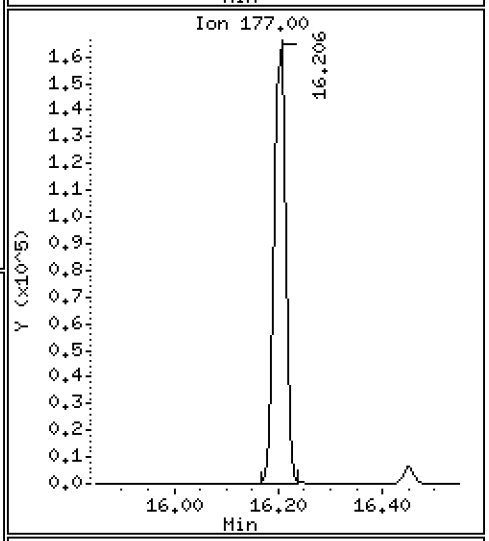


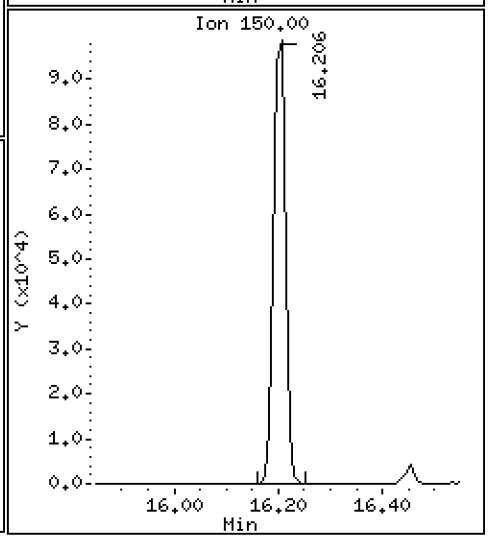












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

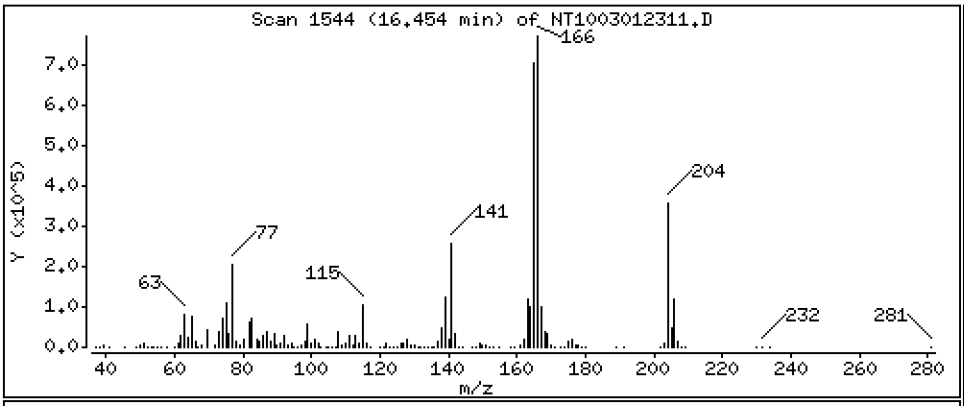
Operator: VTS

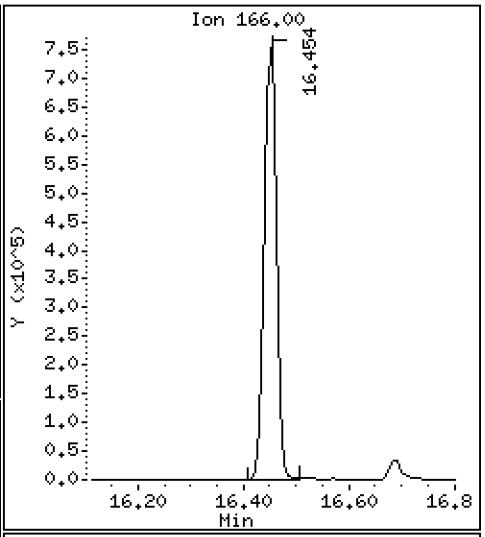
Column phase: ZB-5msi

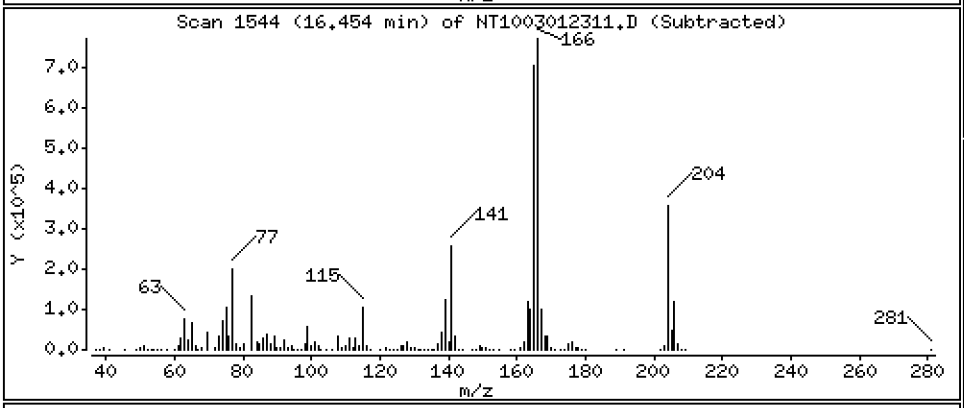
Column diameter: 0.25

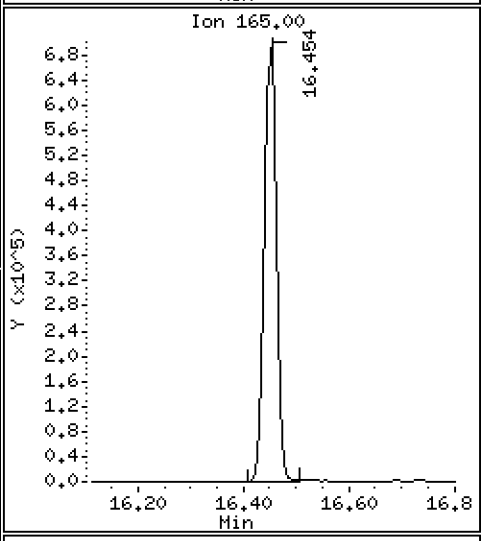
49 Fluorene

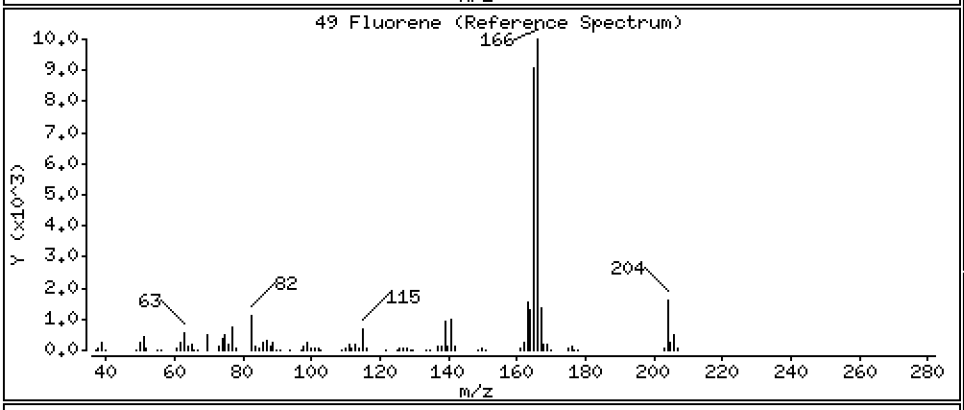
Concentration: 5.305 ug/mL

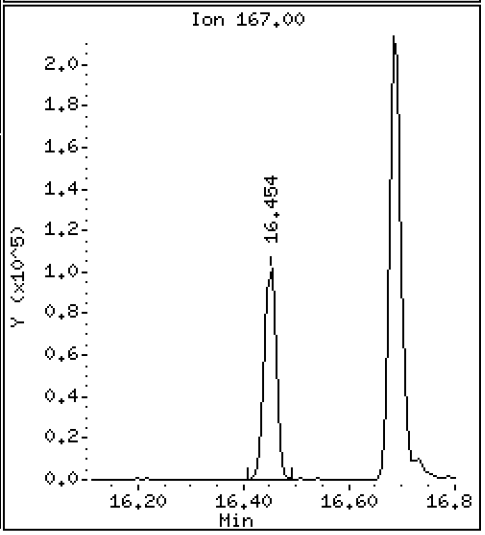


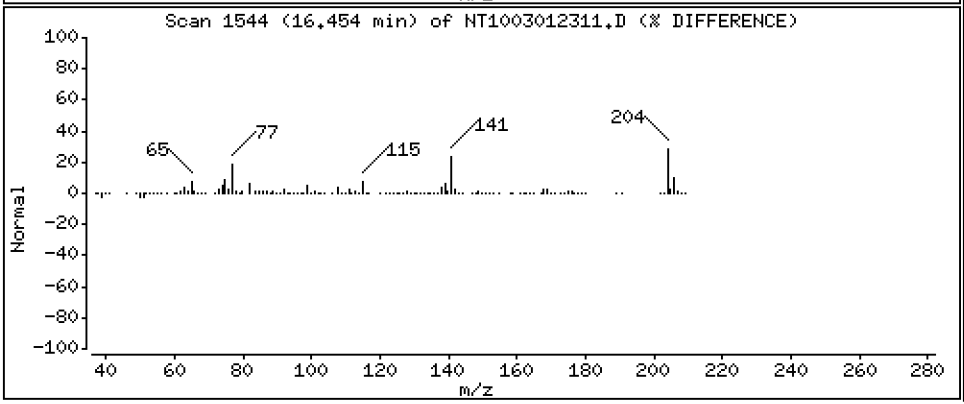












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

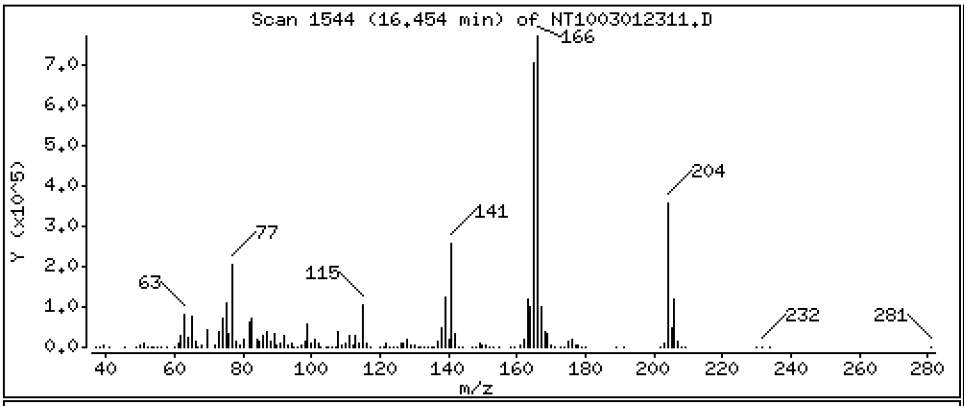
Operator: VTS

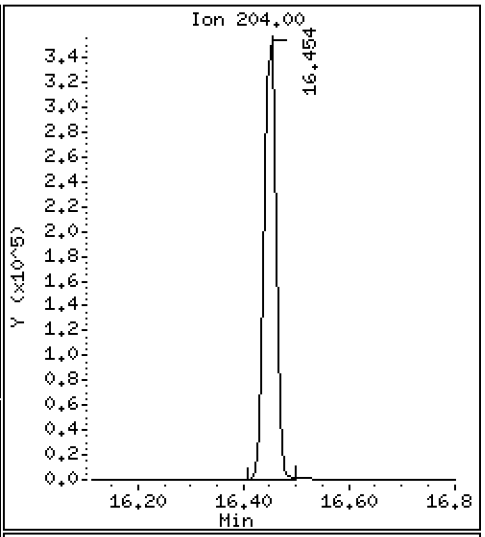
Column phase: ZB-5msi

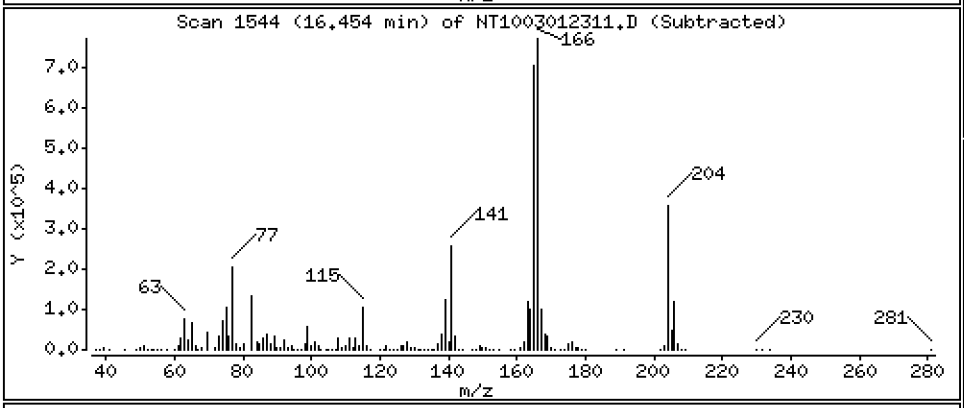
Column diameter: 0.25

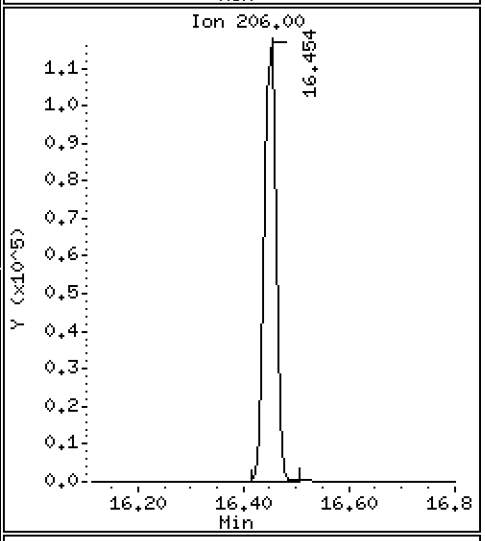
51 4-Chlorophenyl-phenylether

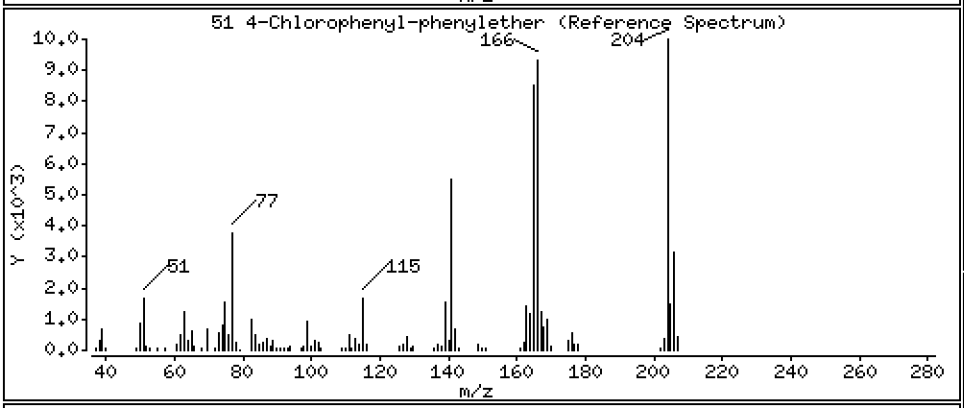
Concentration: 5.253 ug/mL

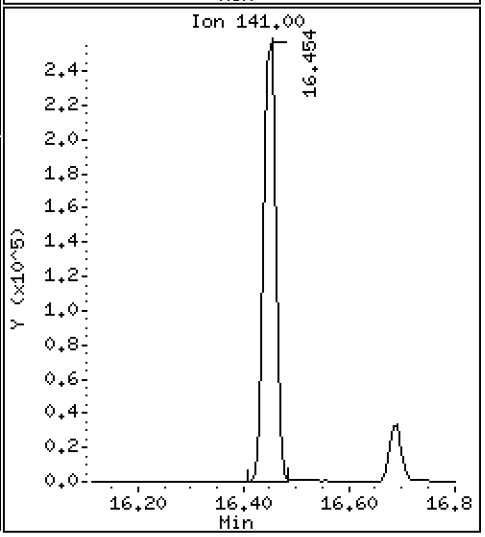


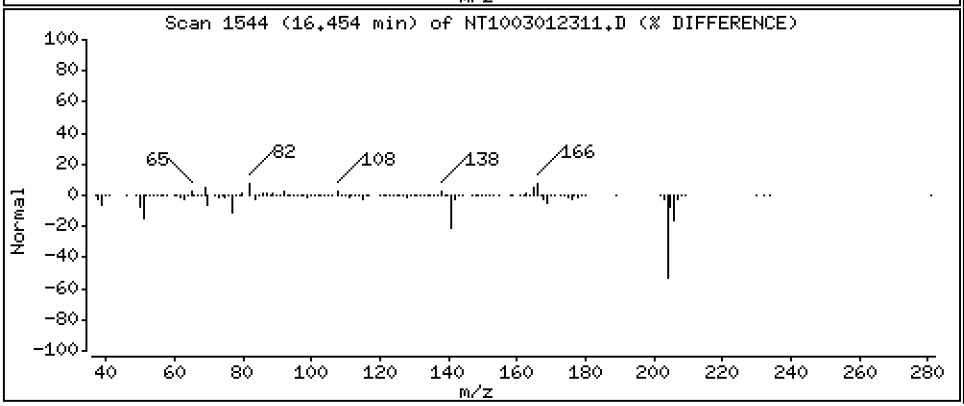












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

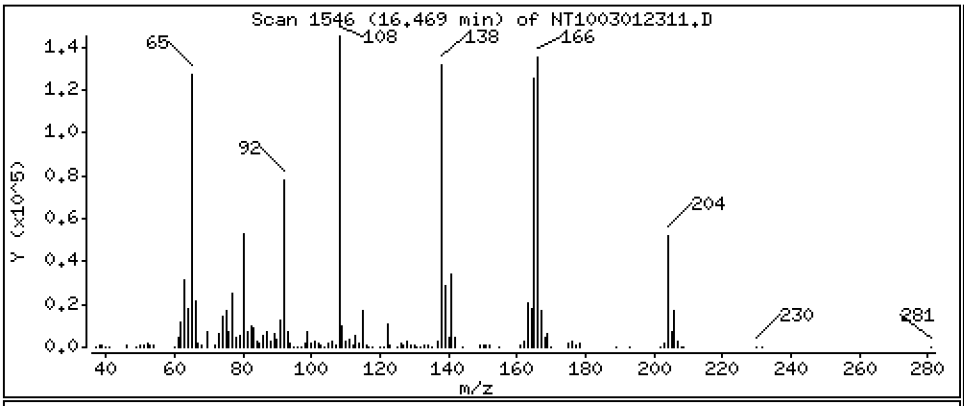
Operator: VTS

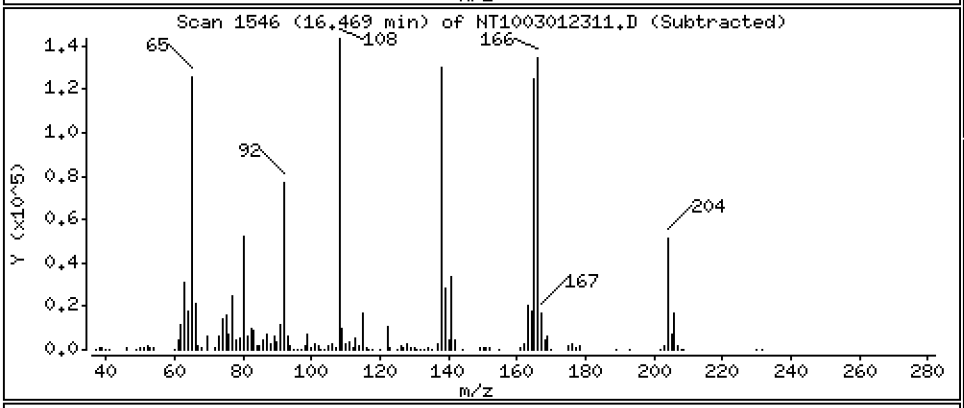
Column phase: ZB-5msi

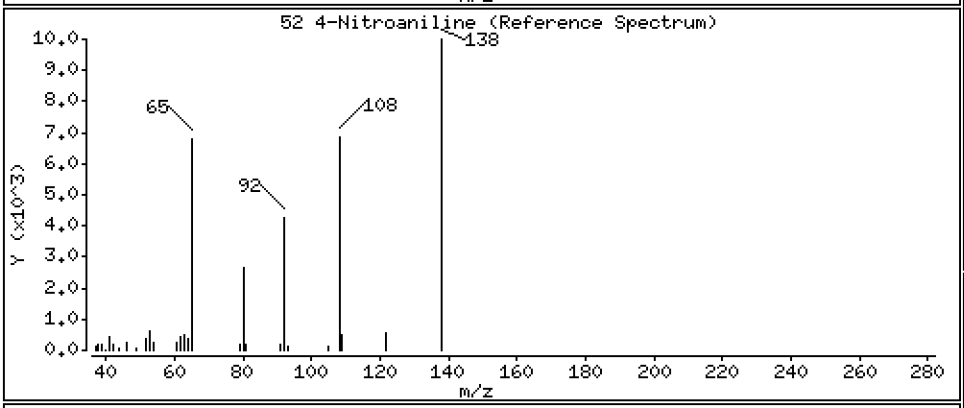
Column diameter: 0.25

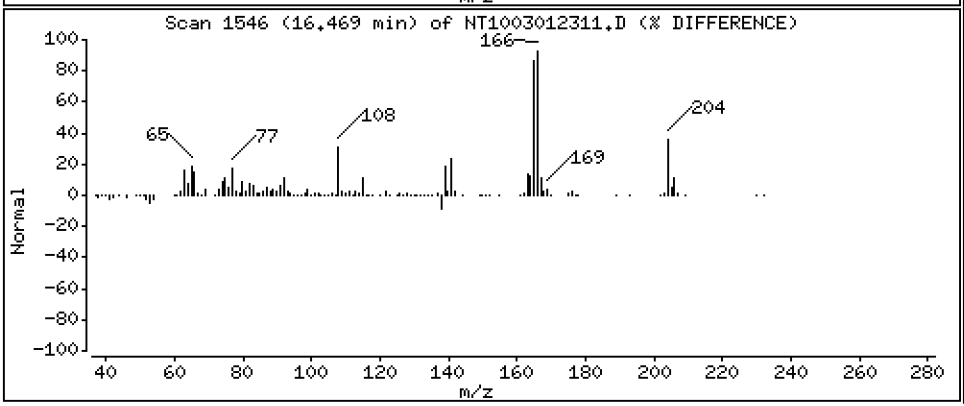
52 4-Nitroaniline

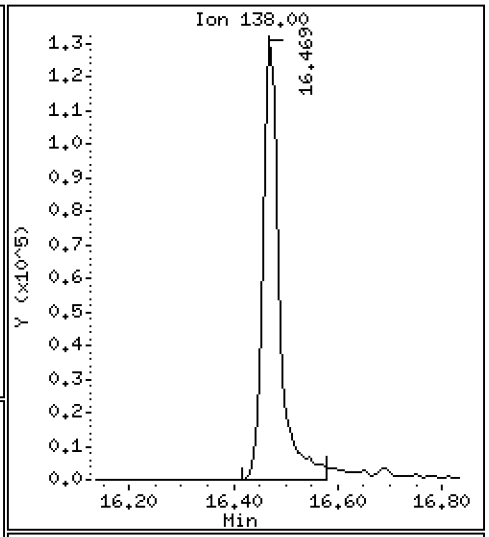
Concentration: 5.232 ug/mL

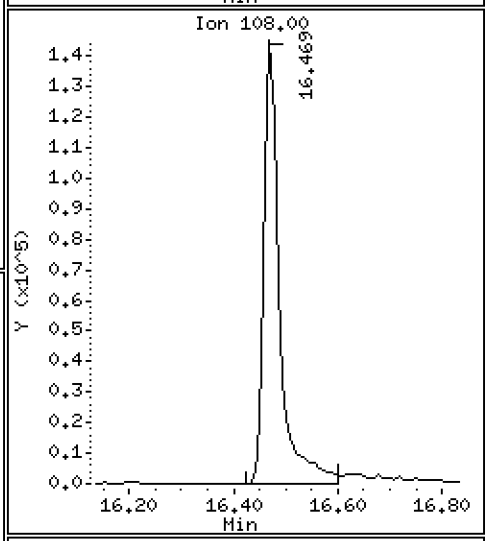


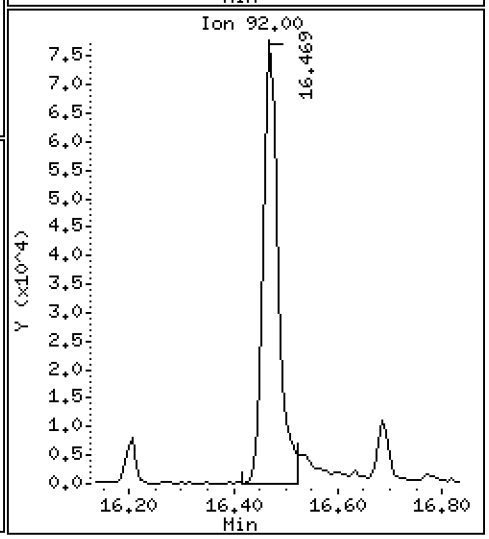












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

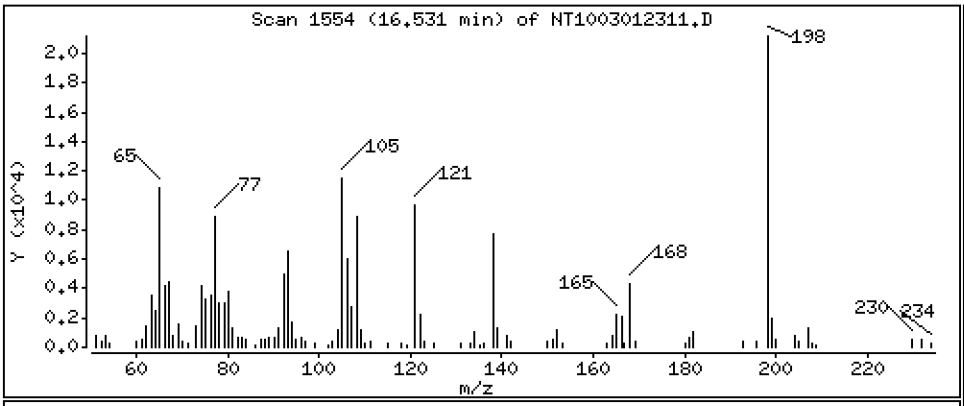
Operator: VTS

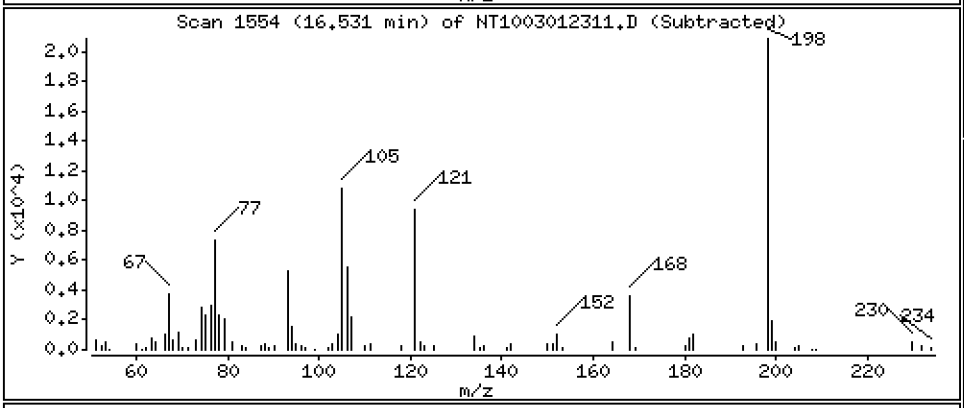
Column phase: ZB-5msi

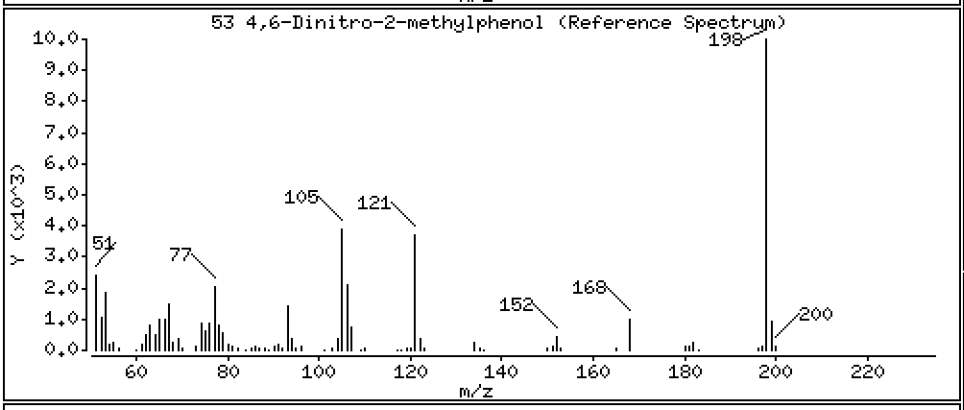
Column diameter: 0.25

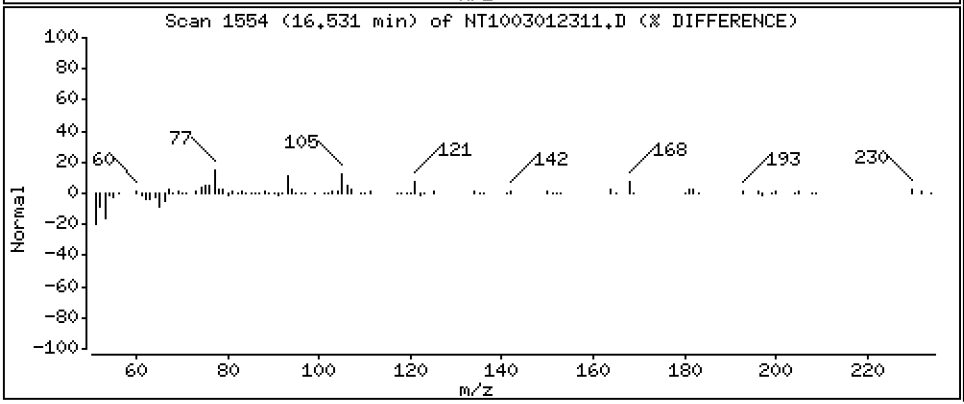
53 4,6-Dinitro-2-methylphenol

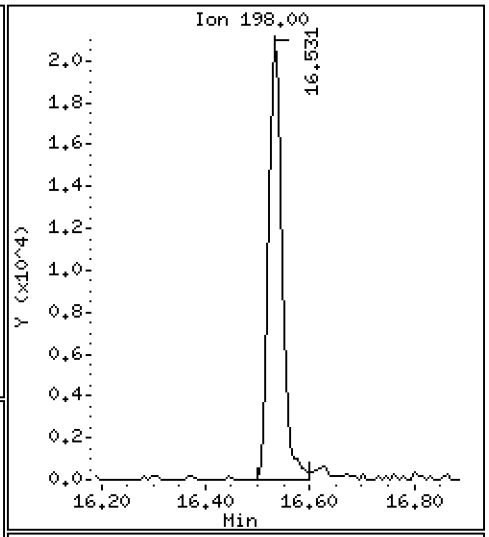
Concentration: 1.292 ug/mL

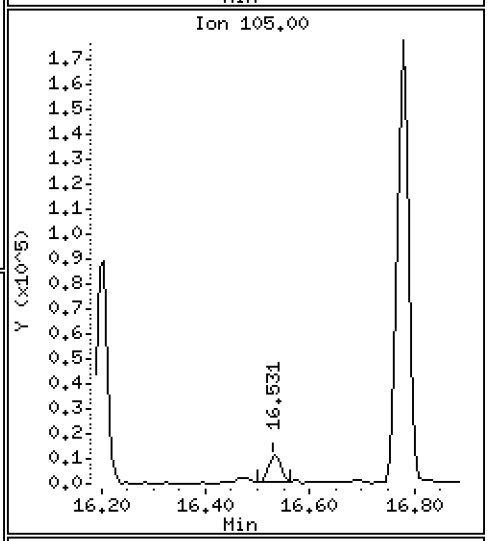


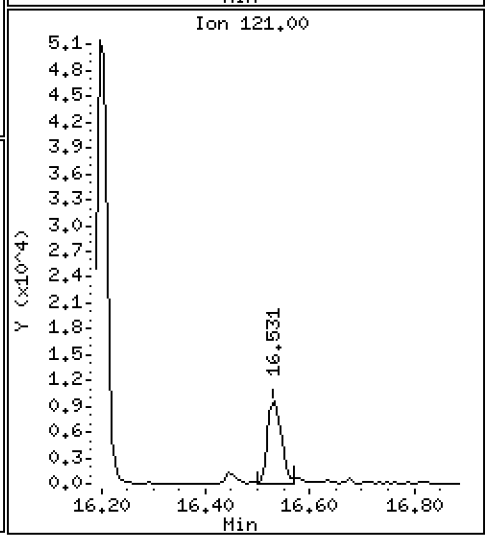












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

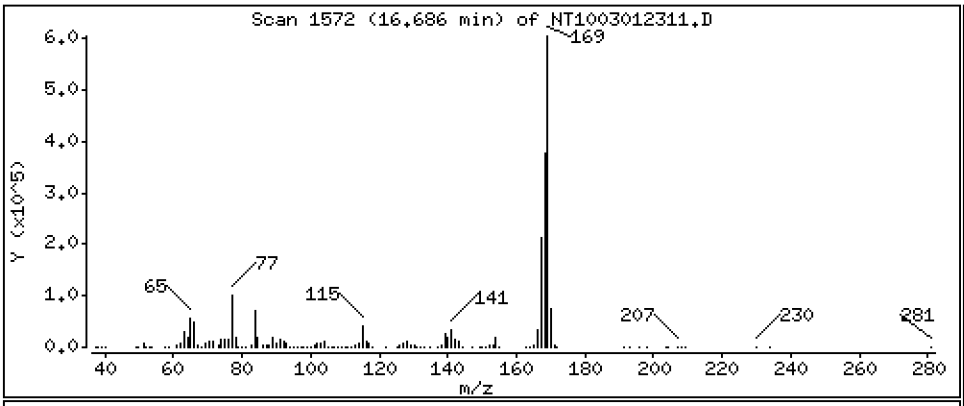
Operator: VTS

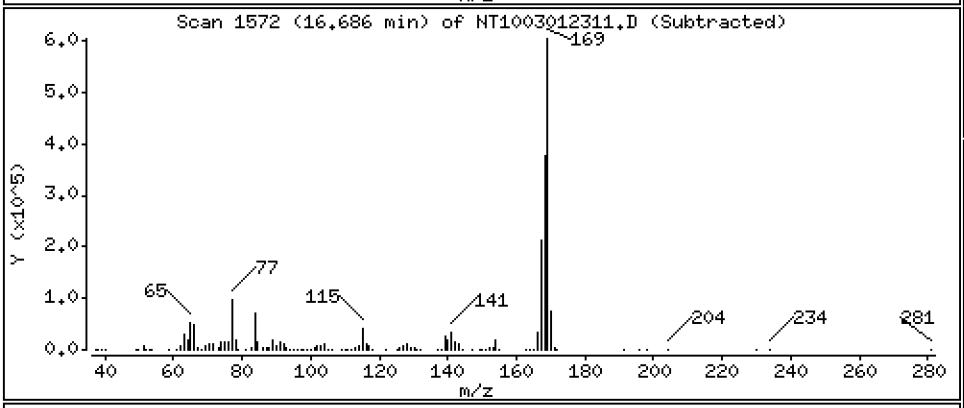
Column phase: ZB-5msi

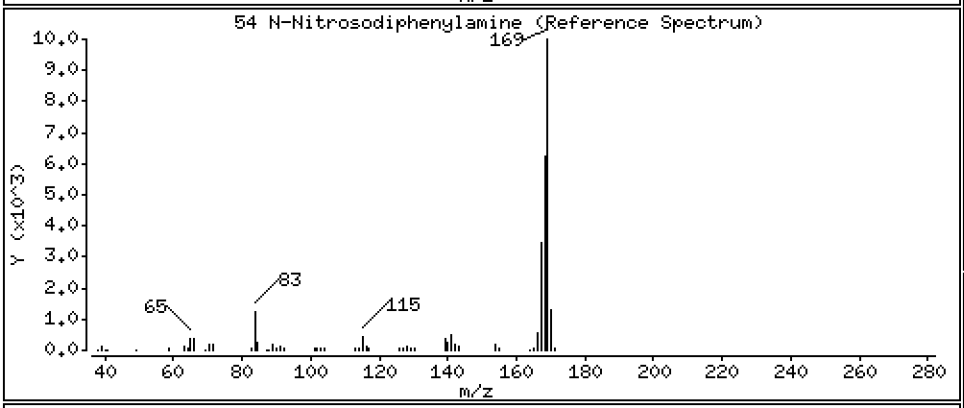
Column diameter: 0.25

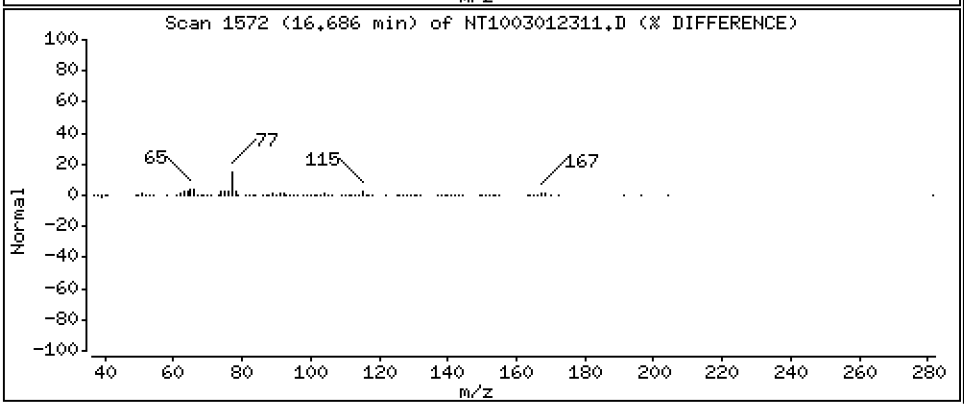
54 N-Nitrosodiphenylamine

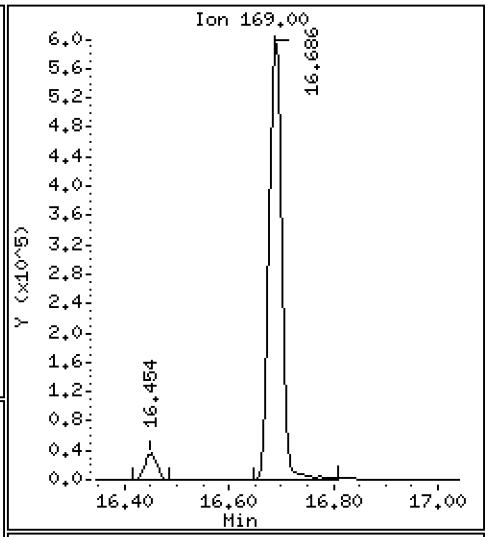
Concentration: 5.416 ug/mL

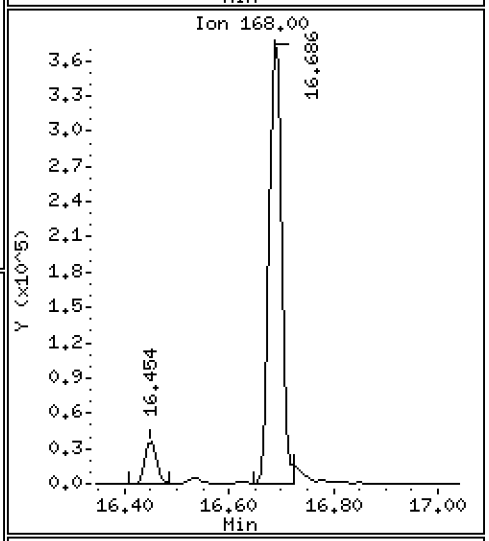


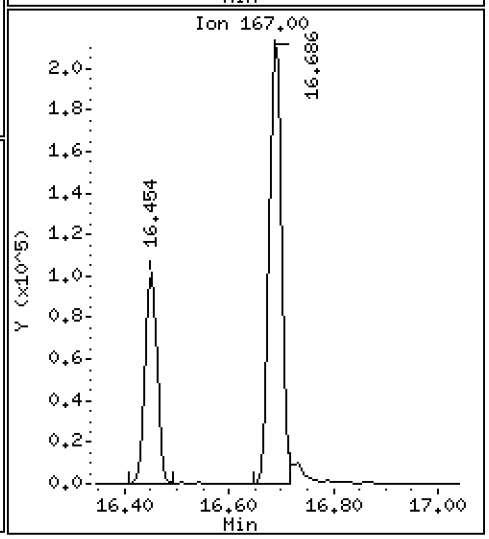












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

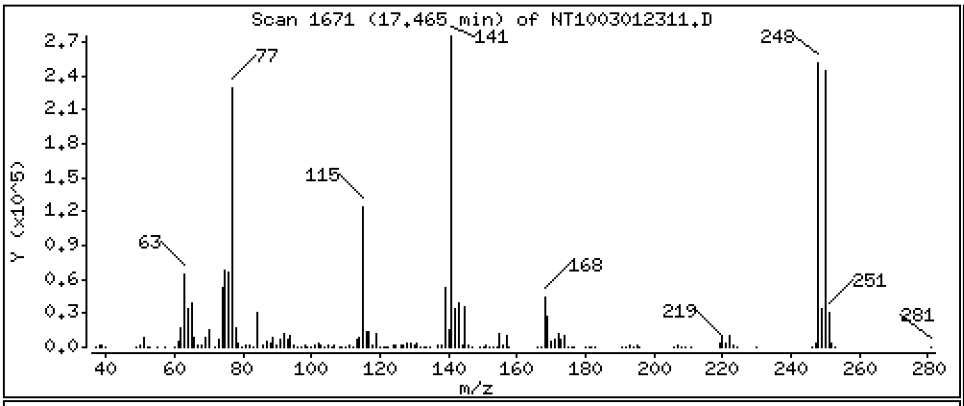
Operator: VTS

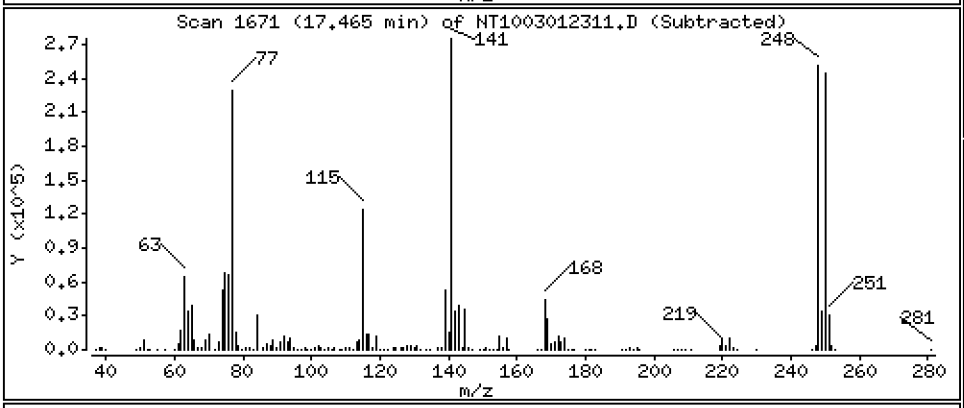
Column phase: ZB-5msi

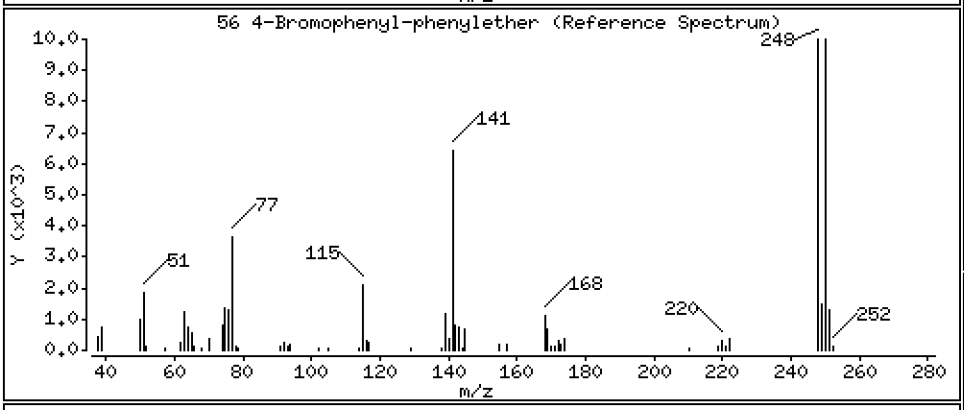
Column diameter: 0.25

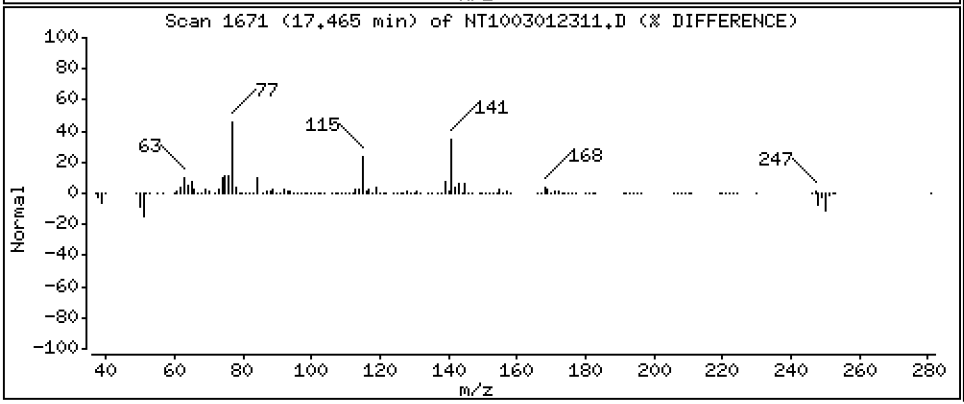
56 4-Bromophenyl-phenylether

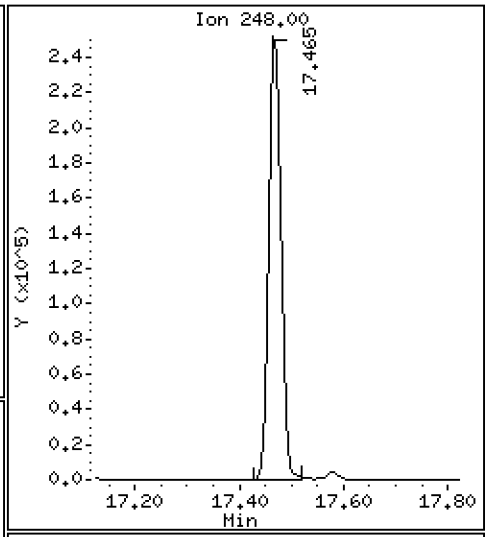
Concentration: 5.460 ug/mL

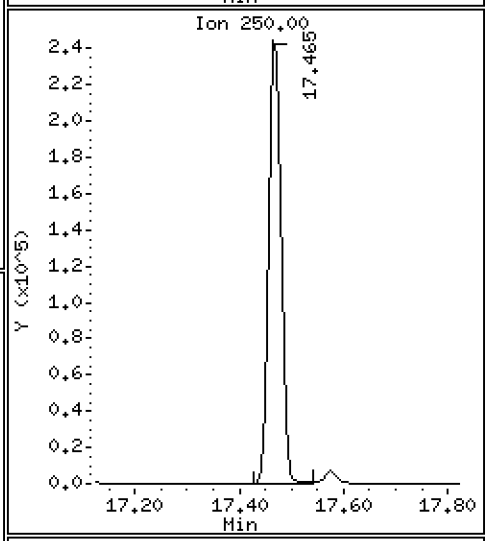


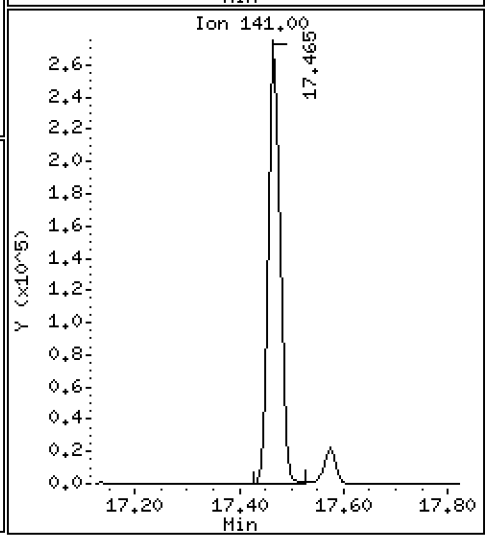












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

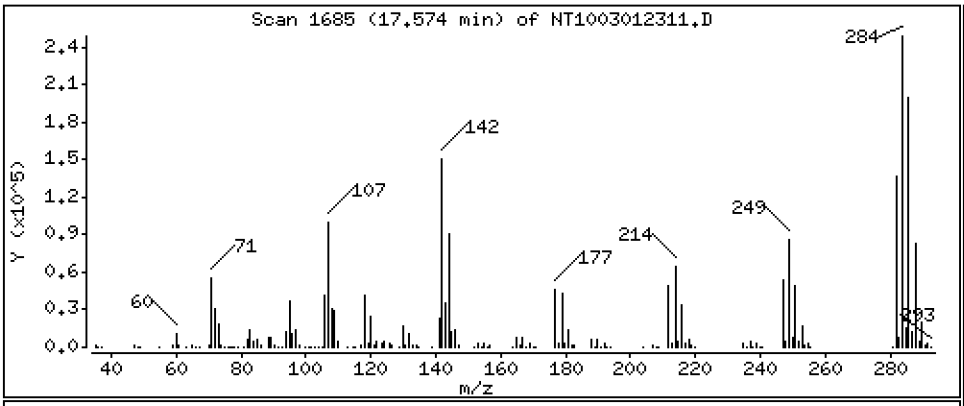
Operator: VTS

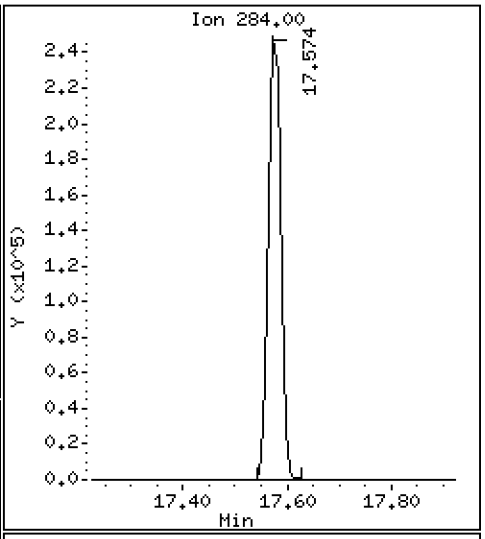
Column phase: ZB-5msi

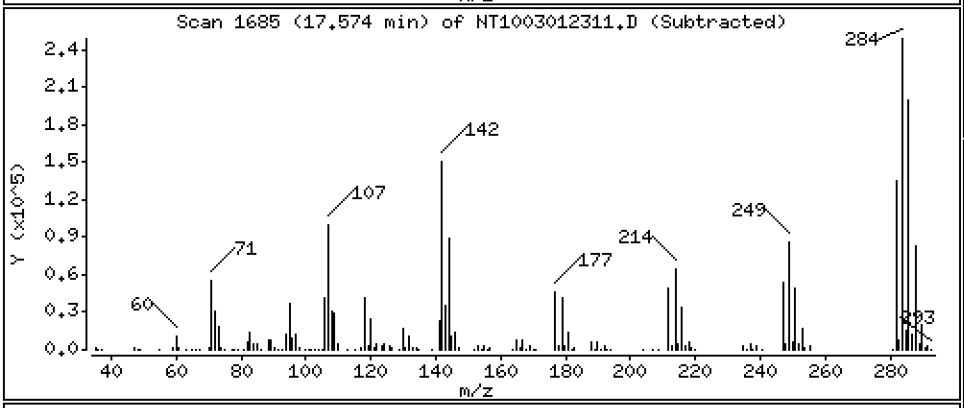
Column diameter: 0.25

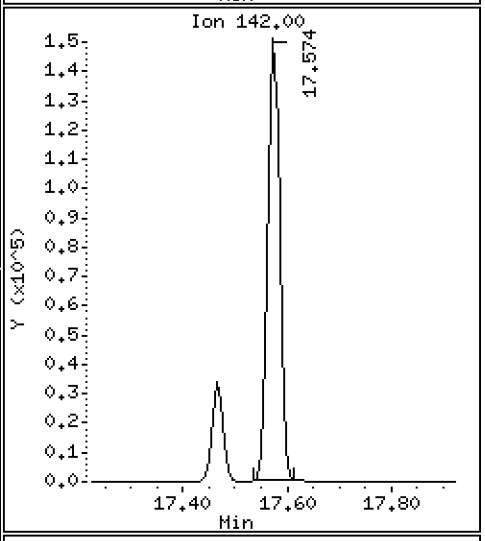
57 Hexachlorobenzene

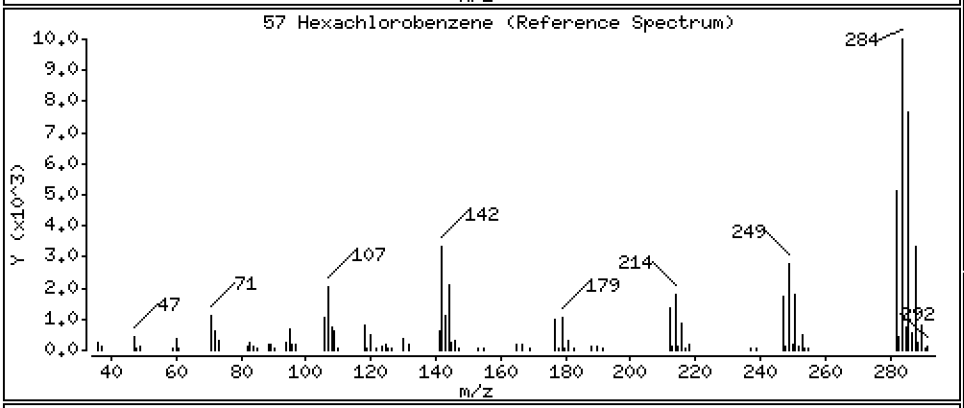
Concentration: 4.805 ug/mL

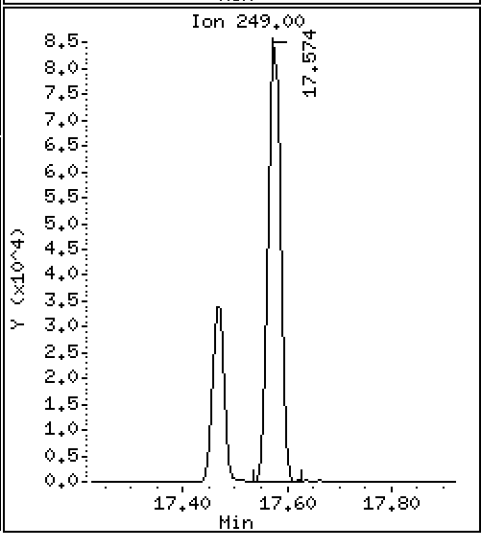


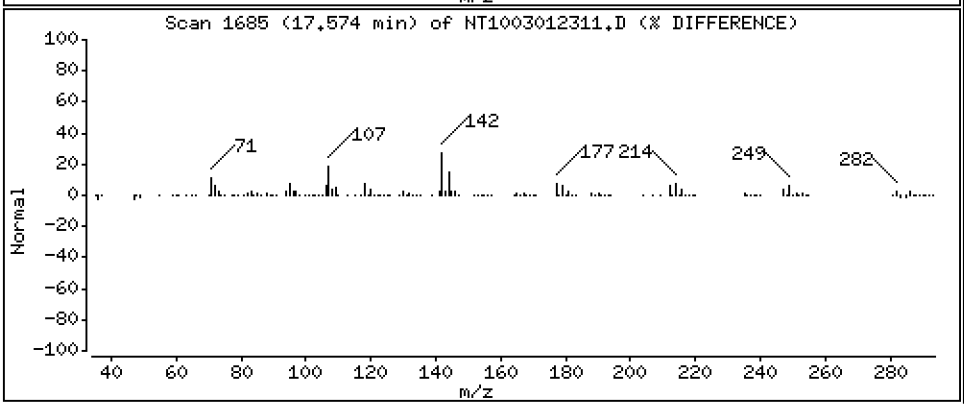












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

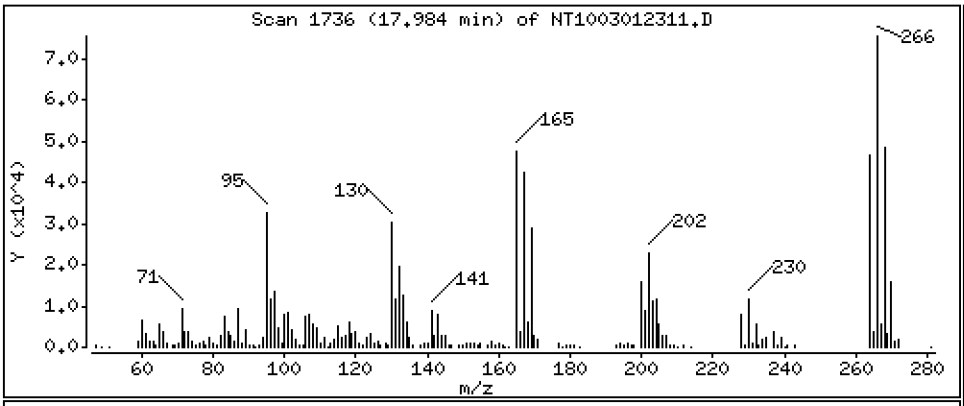
Operator: VTS

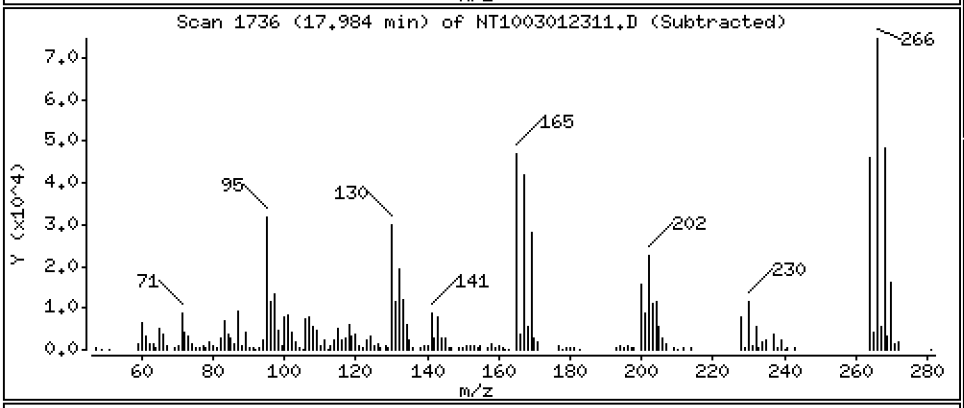
Column phase: ZB-5msi

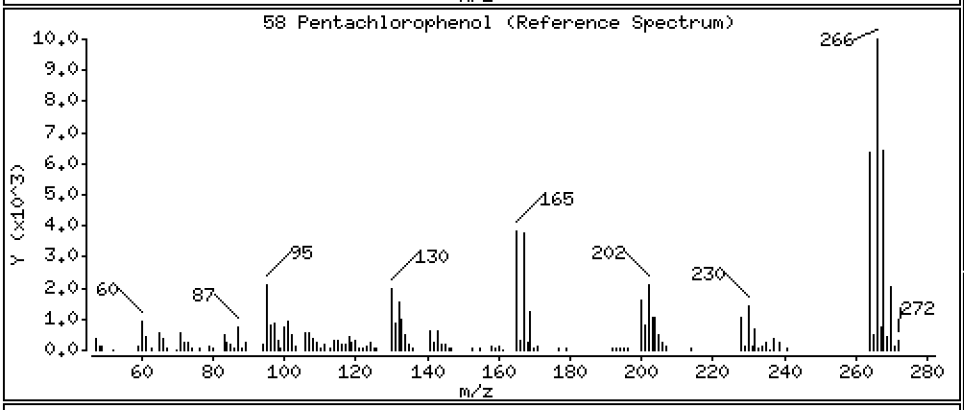
Column diameter: 0.25

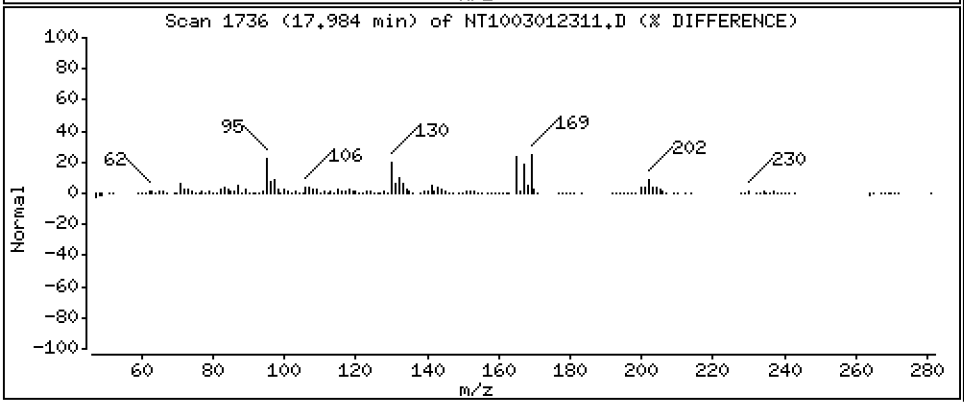
58 Pentachlorophenol

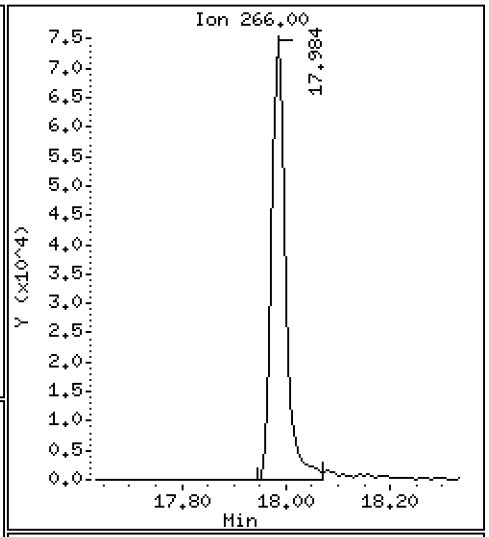
Concentration: 3.492 ug/mL

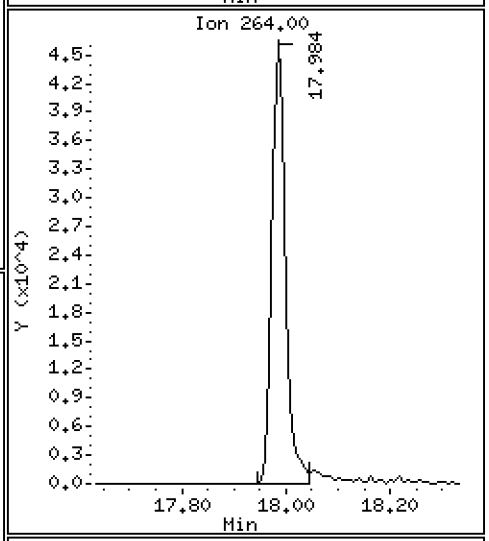


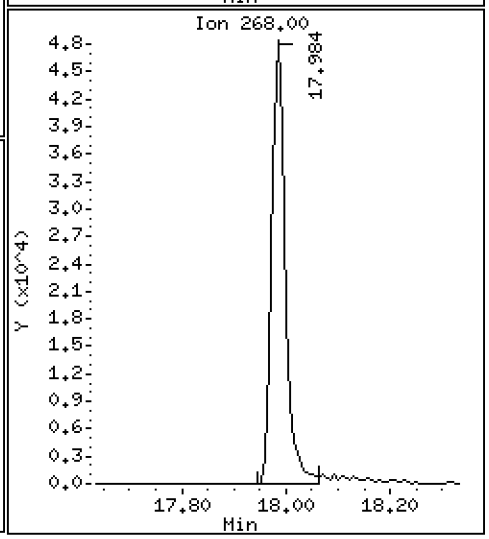












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

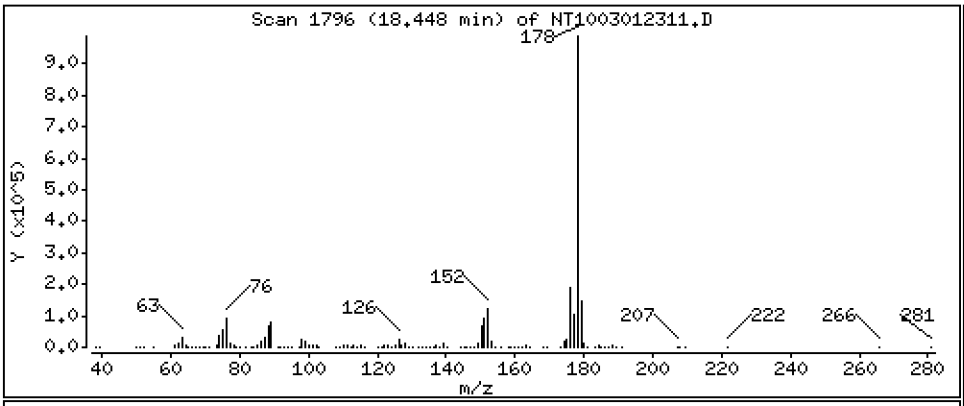
Operator: VTS

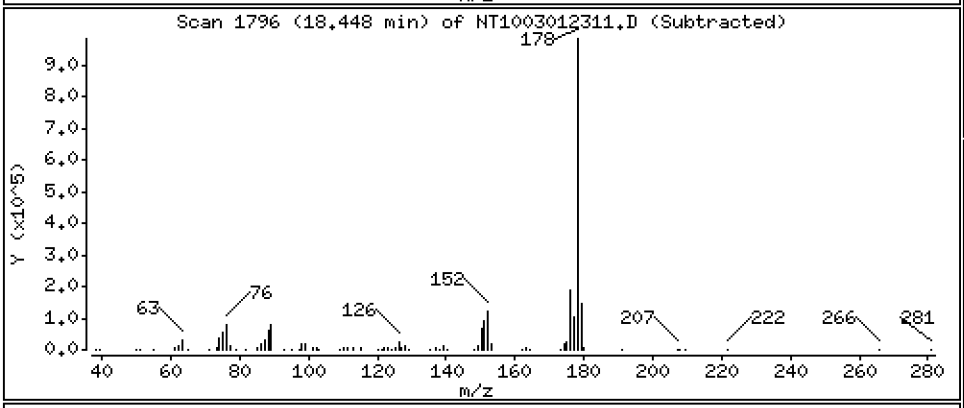
Column phase: ZB-5msi

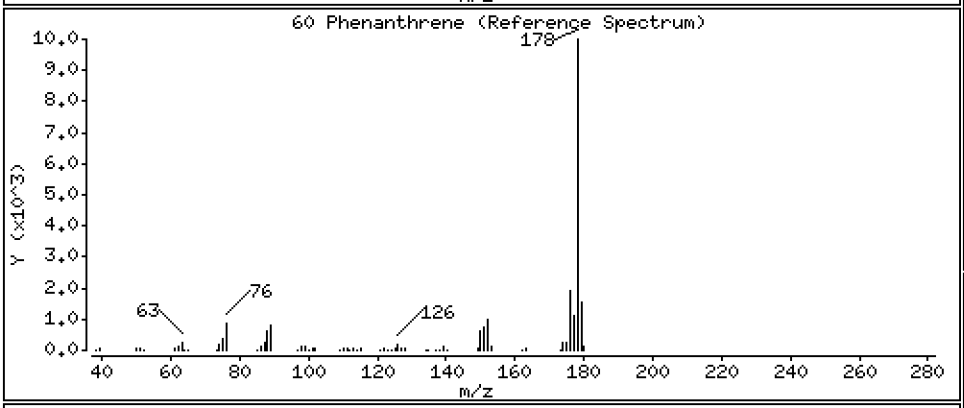
Column diameter: 0.25

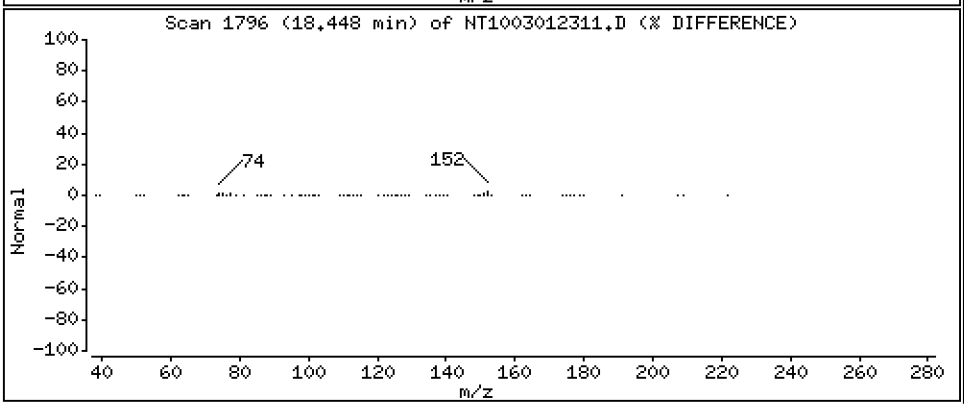
60 Phenanthrene

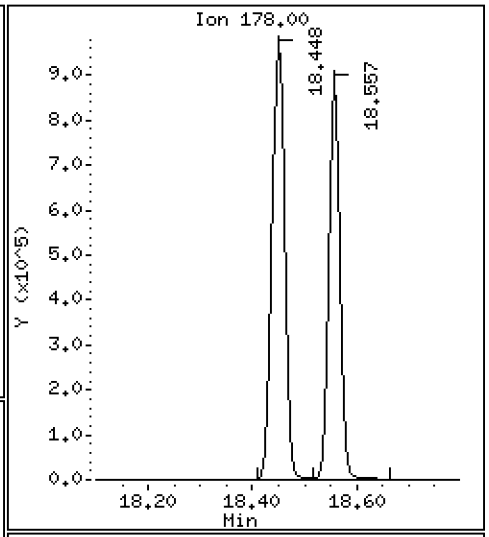
Concentration: 5.085 ug/mL

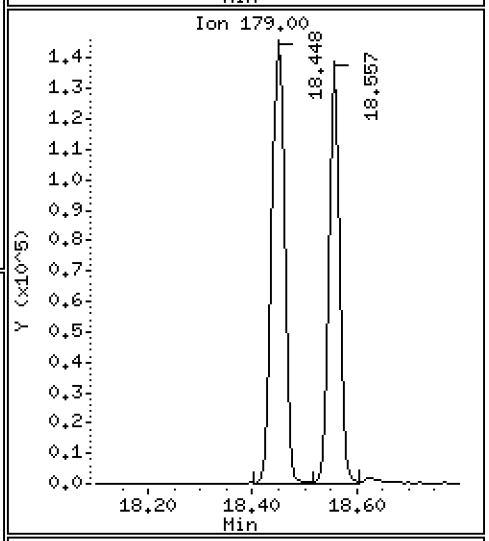


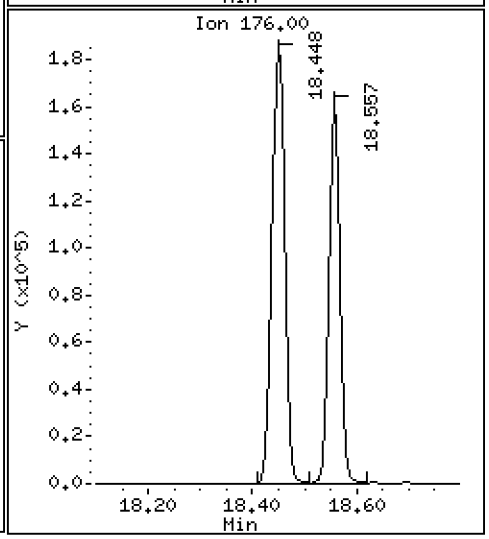












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

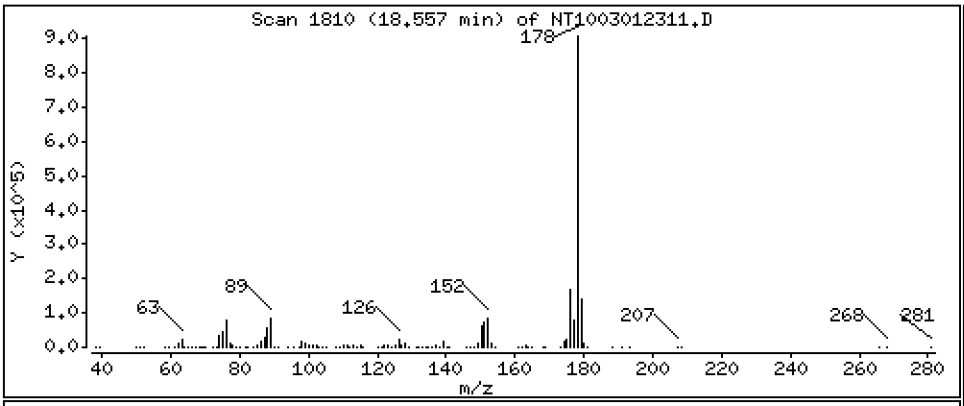
Operator: VTS

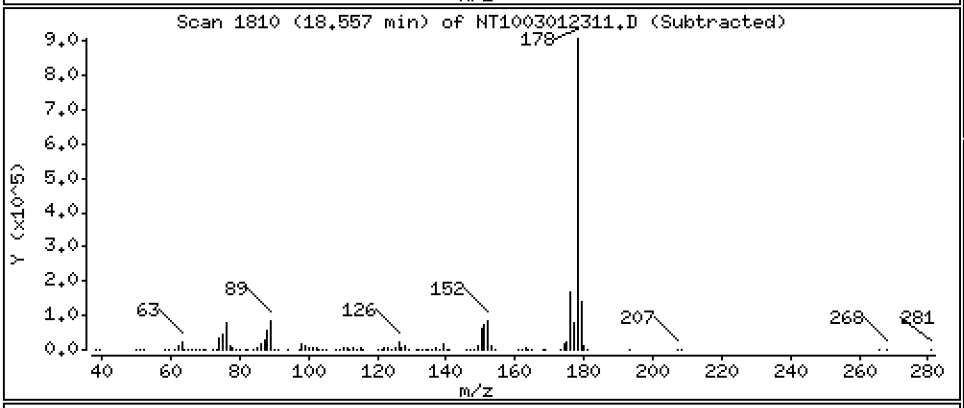
Column phase: ZB-5msi

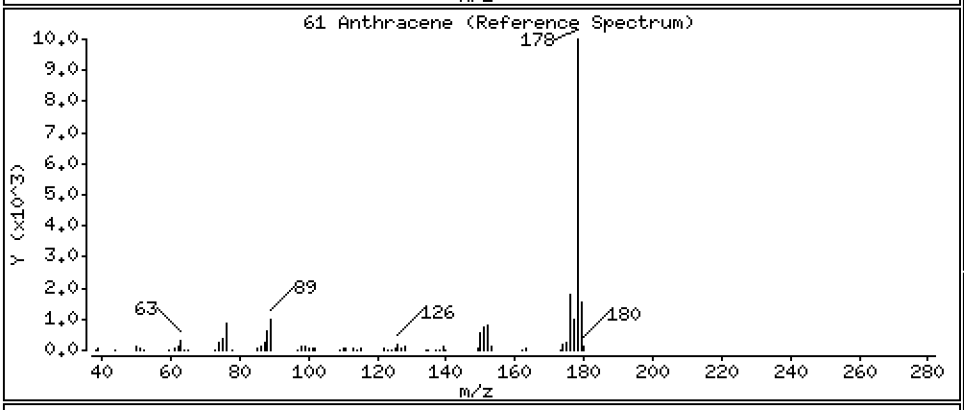
Column diameter: 0.25

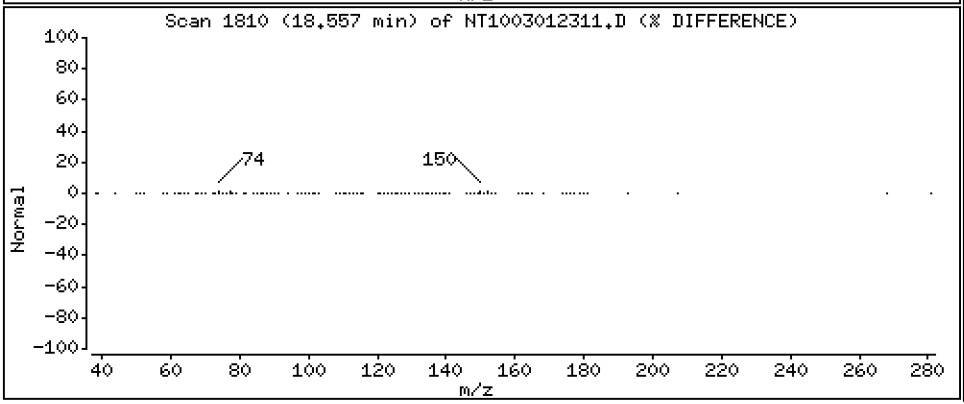
61 Anthracene

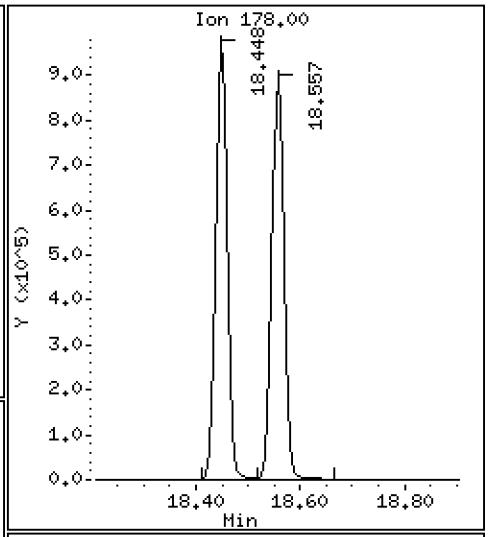
Concentration: 4.585 ug/mL

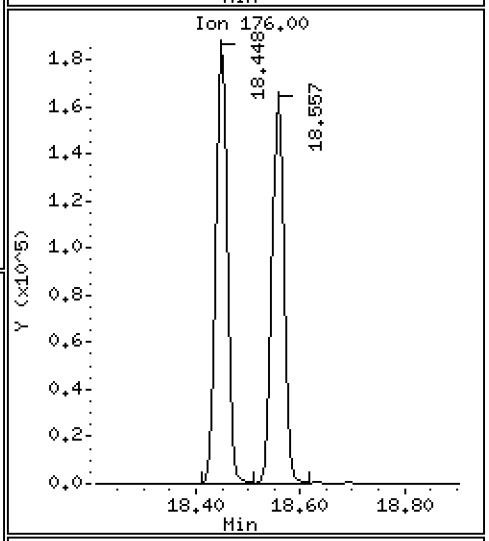


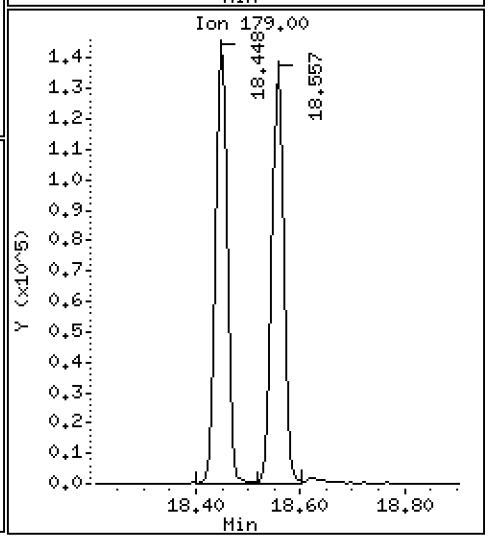












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

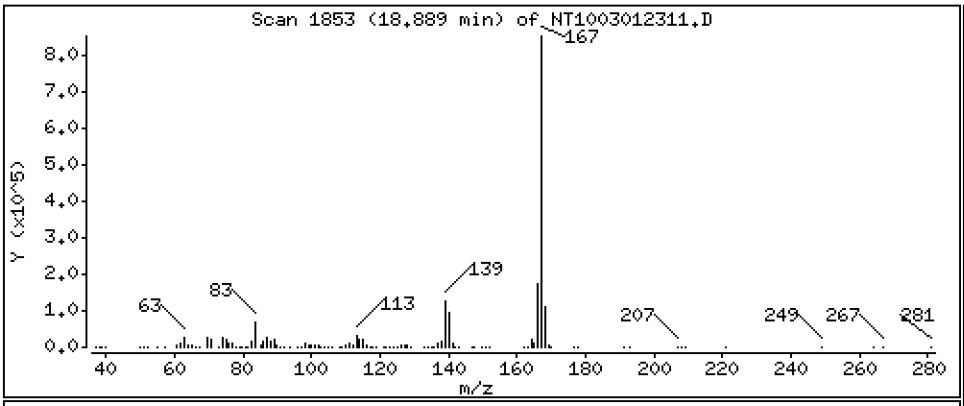
Operator: VTS

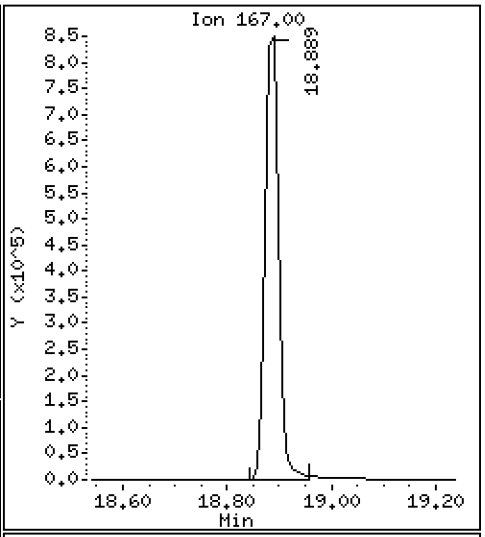
Column phase: ZB-5msi

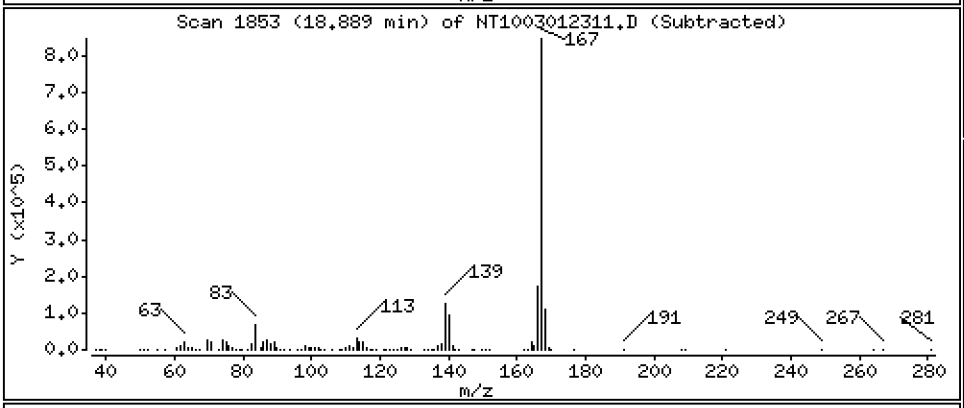
Column diameter: 0.25

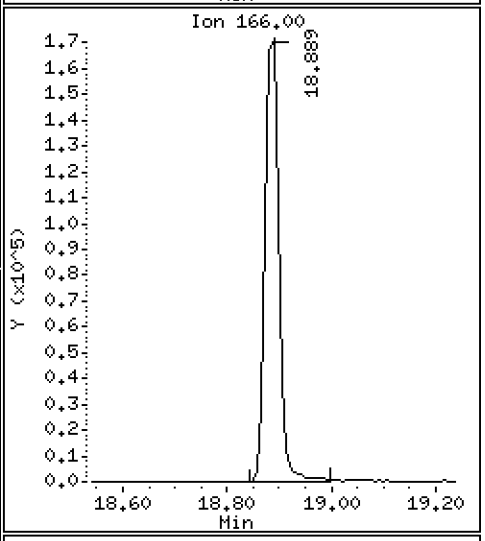
62 Carbazole

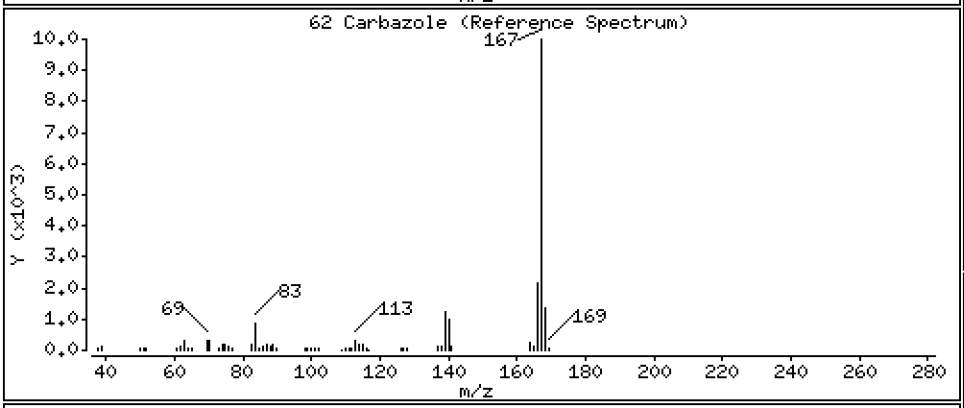
Concentration: 5.335 ug/mL

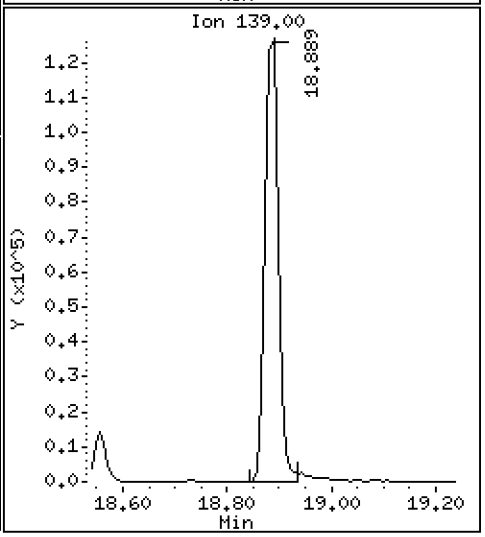


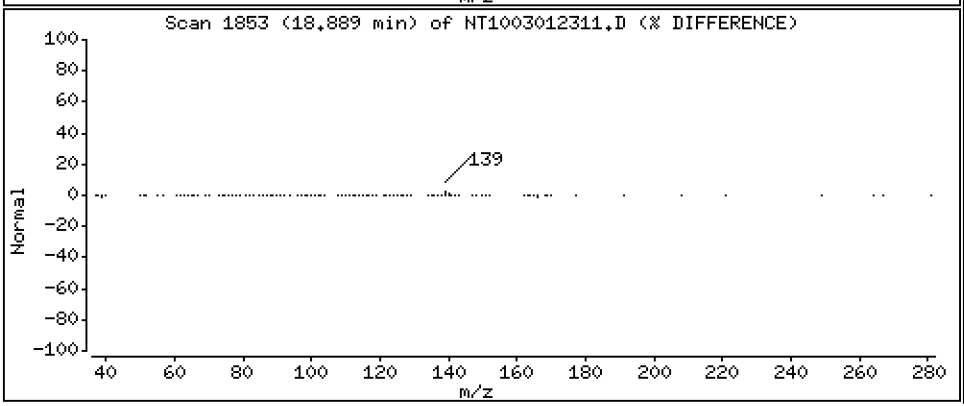












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

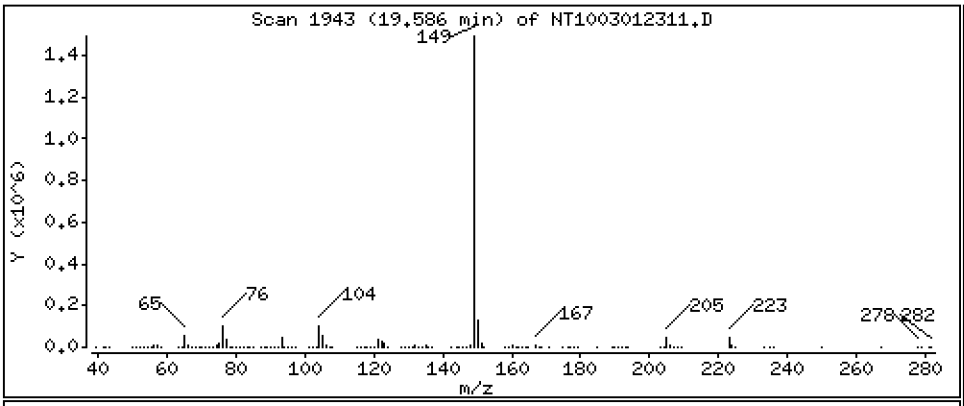
Operator: VTS

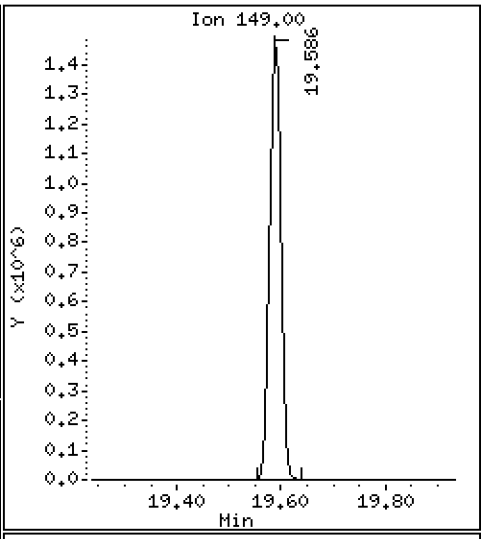
Column phase: ZB-5msi

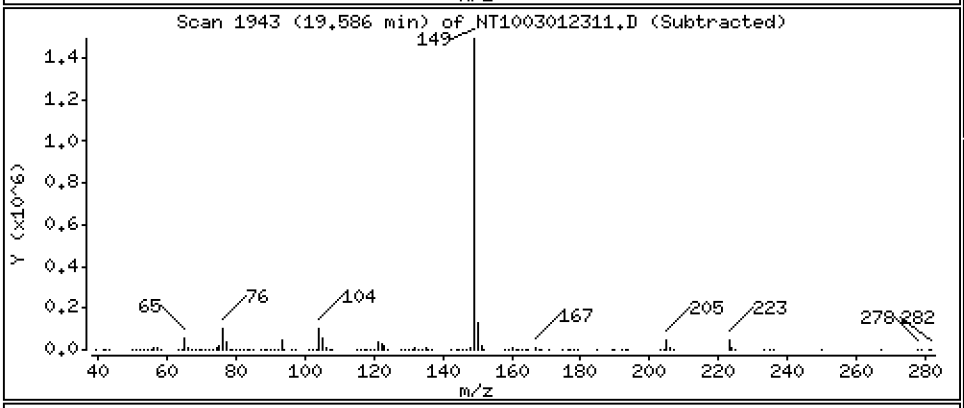
Column diameter: 0.25

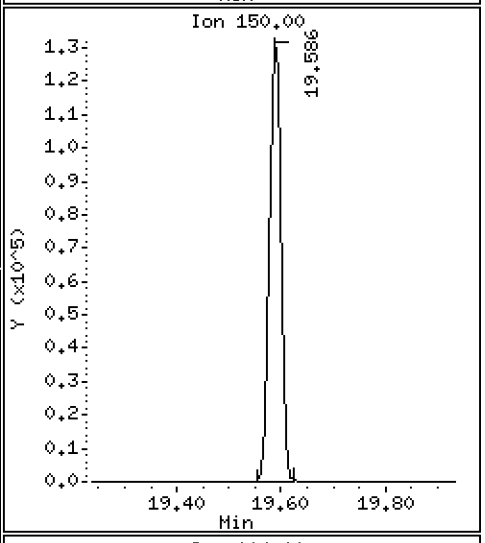
63 Di-n-butylphthalate

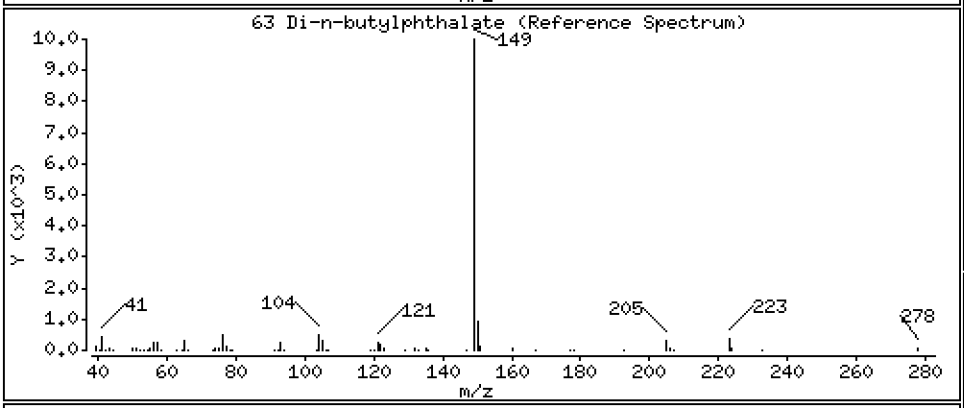
Concentration: 5.463 ug/mL

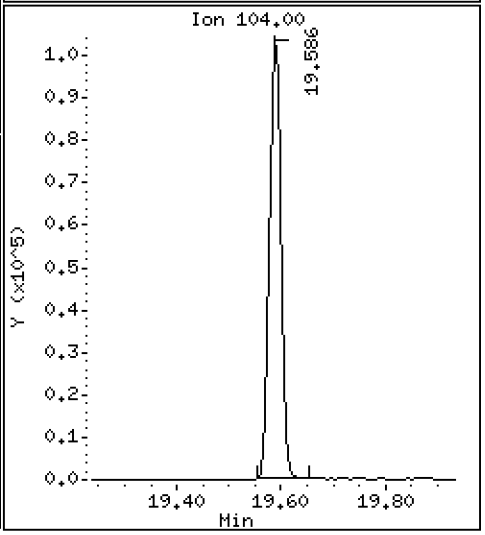


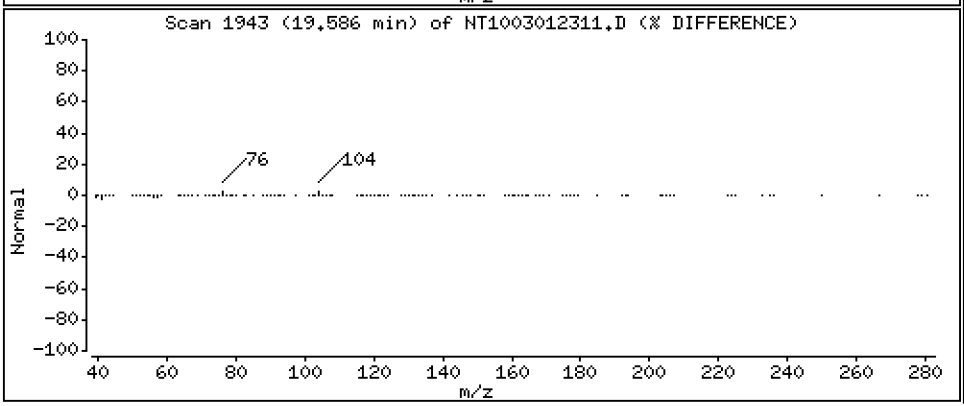












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

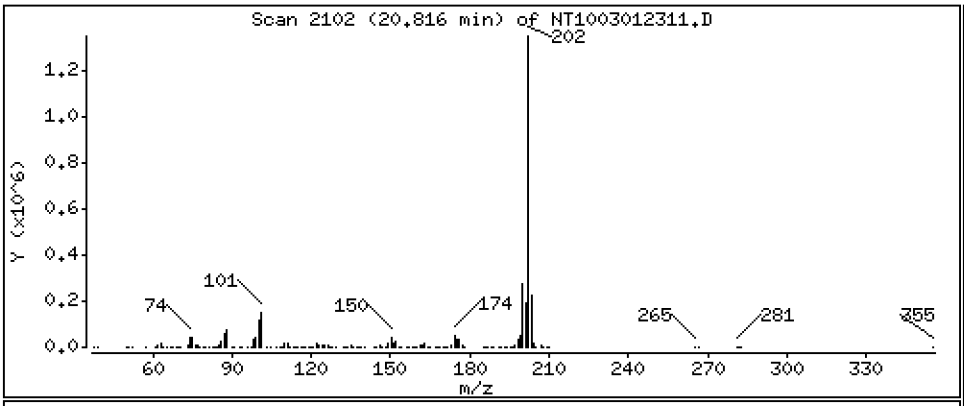
Operator: VTS

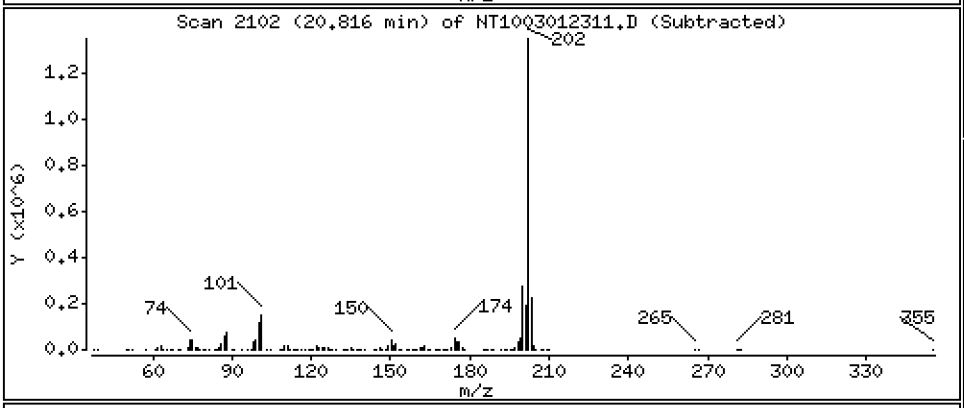
Column phase: ZB-5msi

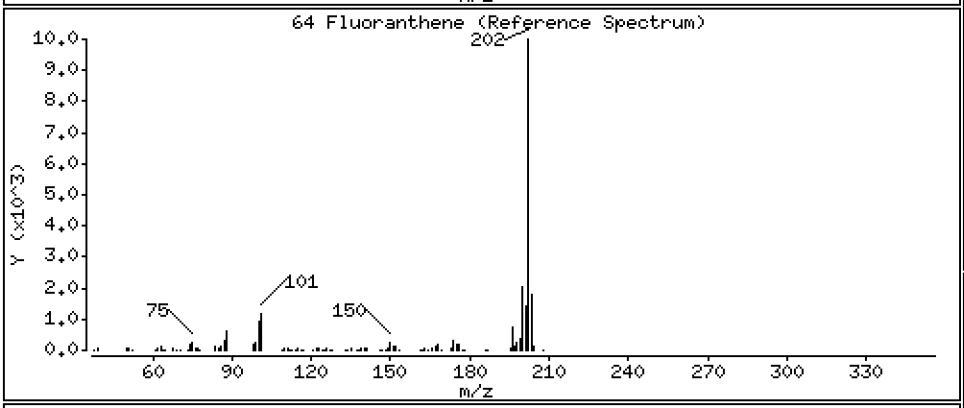
Column diameter: 0.25

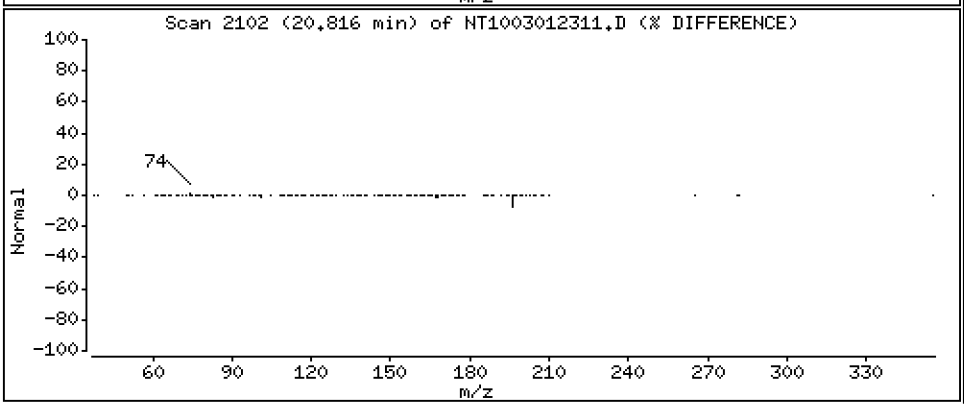
64 Fluoranthene

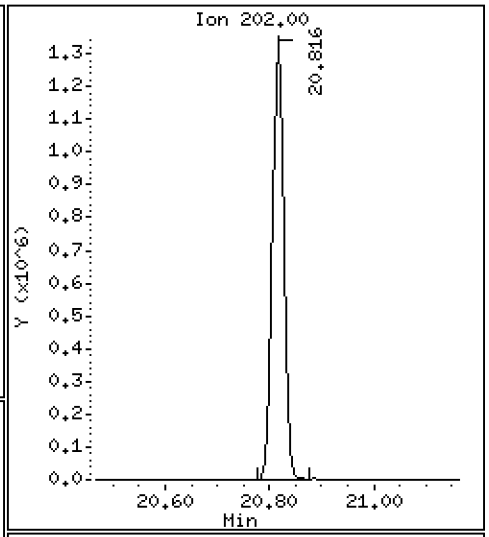
Concentration: 4.542 ug/mL

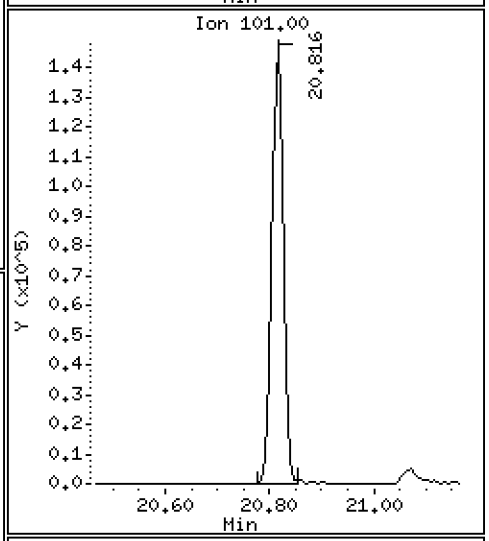


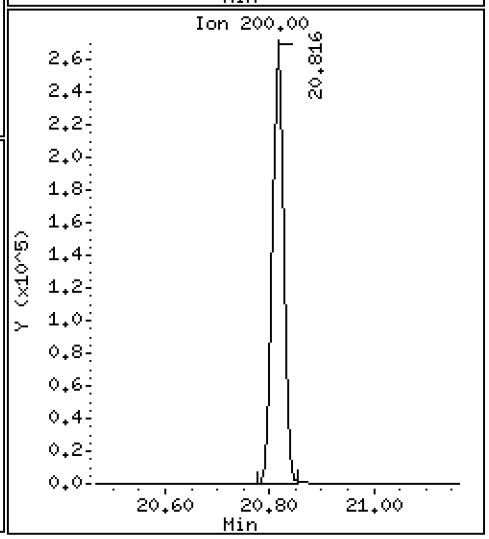












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

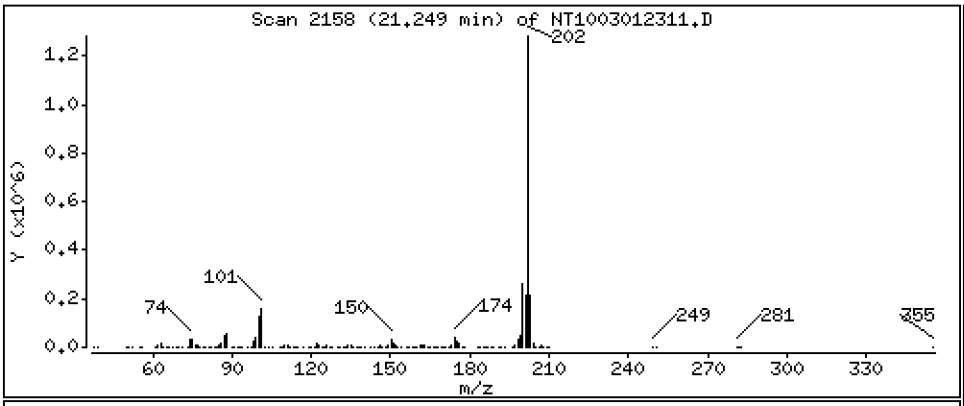
Operator: VTS

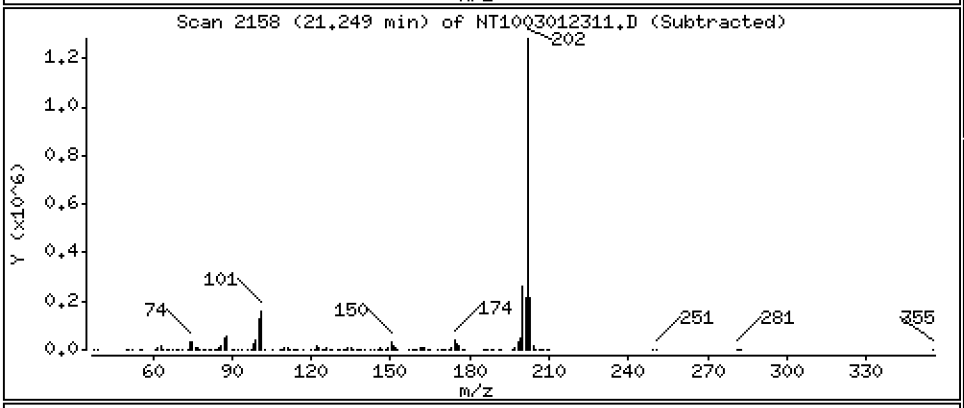
Column phase: ZB-5msi

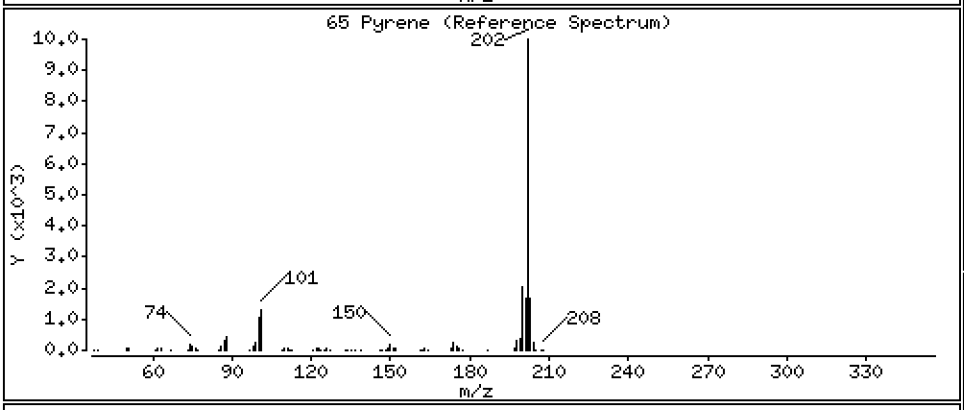
Column diameter: 0.25

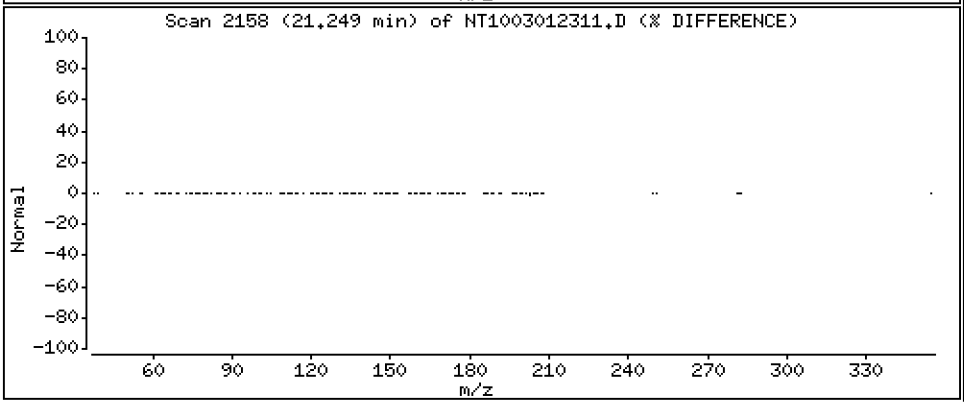
65 Pyrene

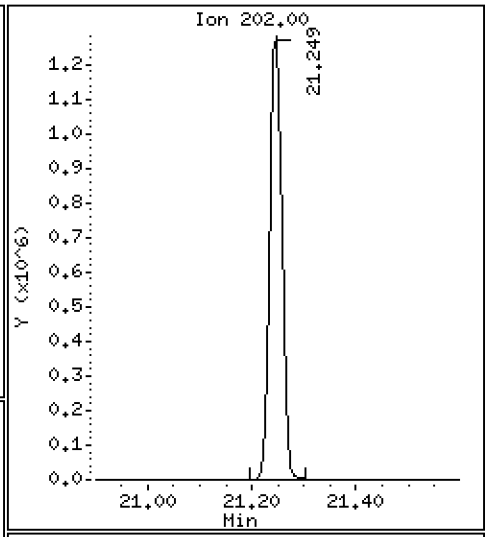
Concentration: 4.626 ug/mL

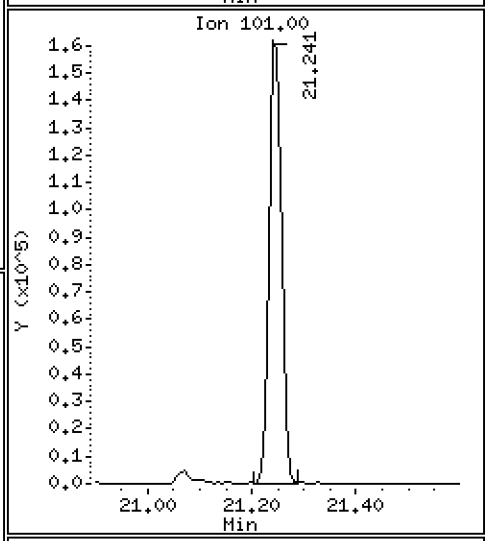


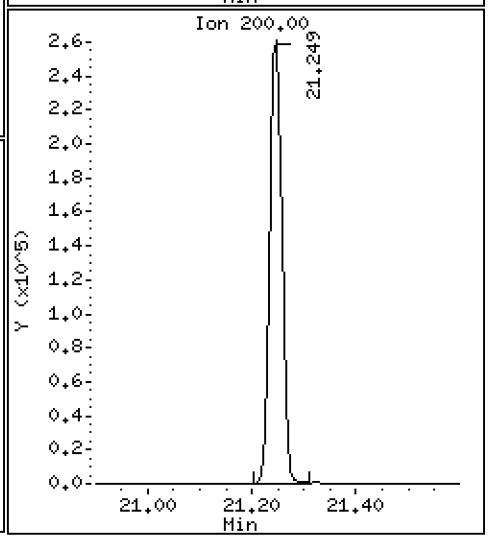












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

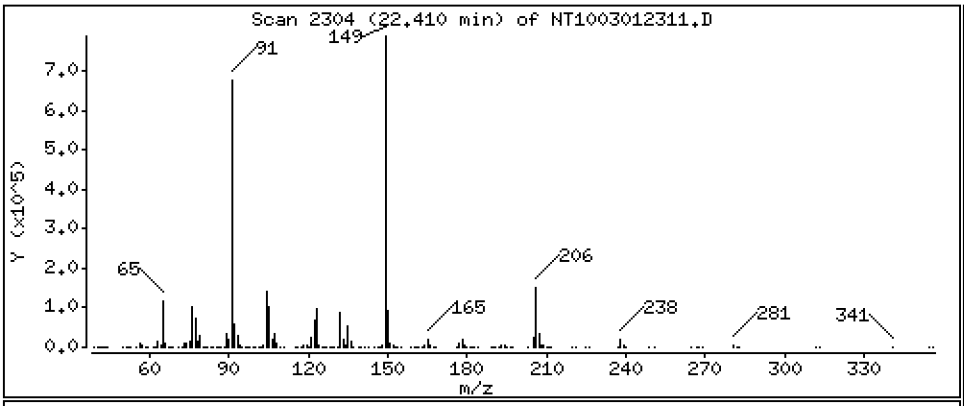
Operator: VTS

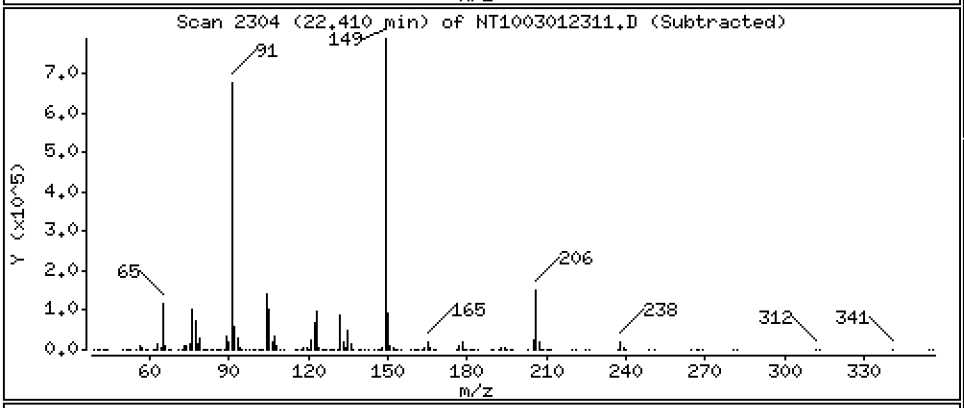
Column phase: ZB-5msi

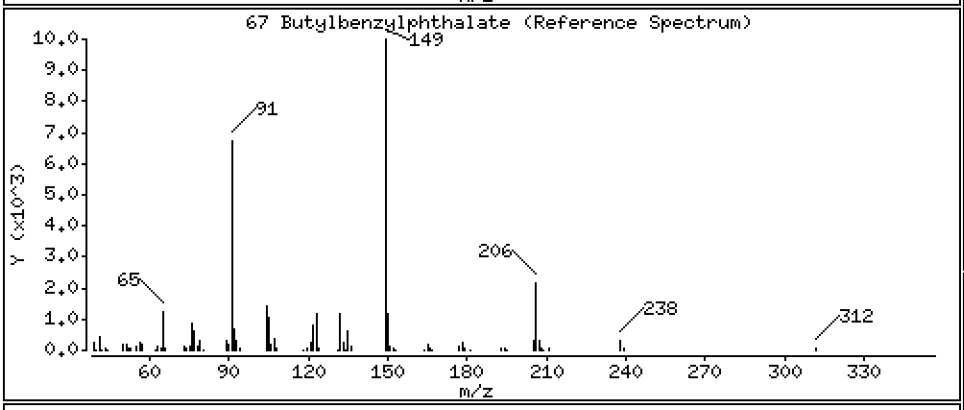
Column diameter: 0.25

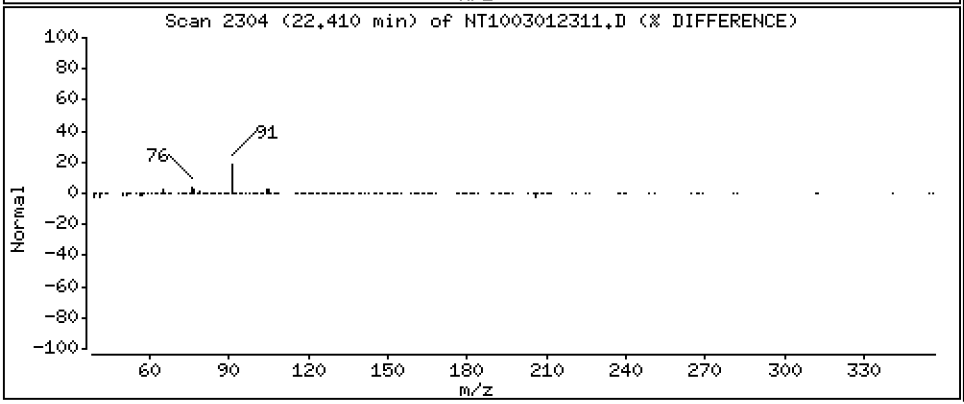
67 Butylbenzylphthalate

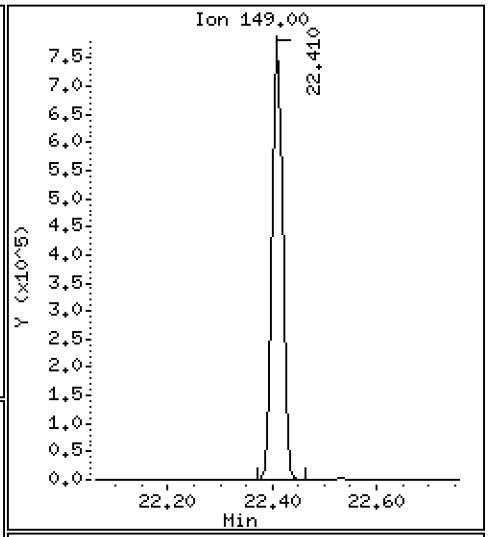
Concentration: 4.525 ug/mL

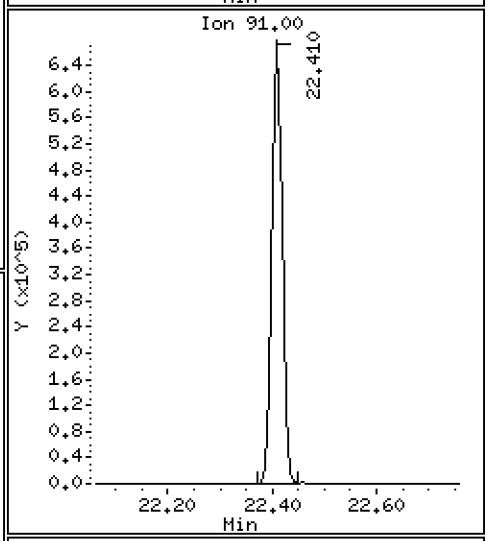


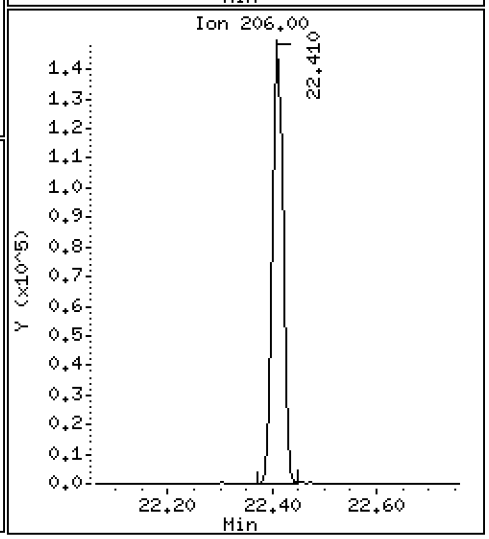












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

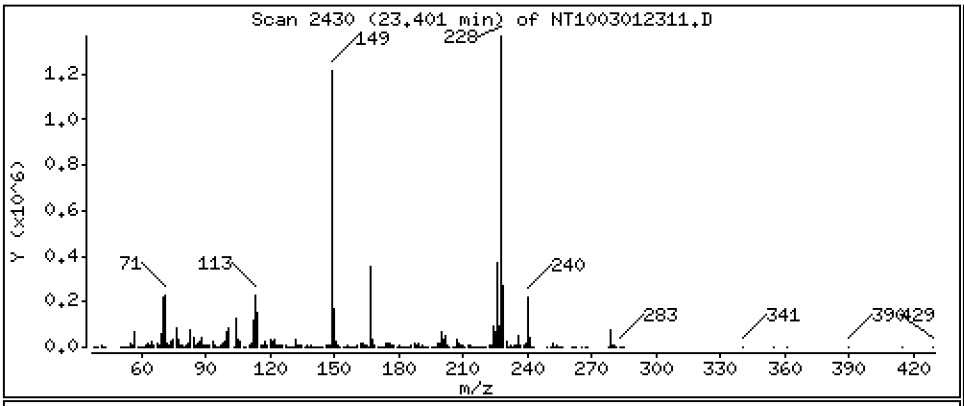
Operator: VTS

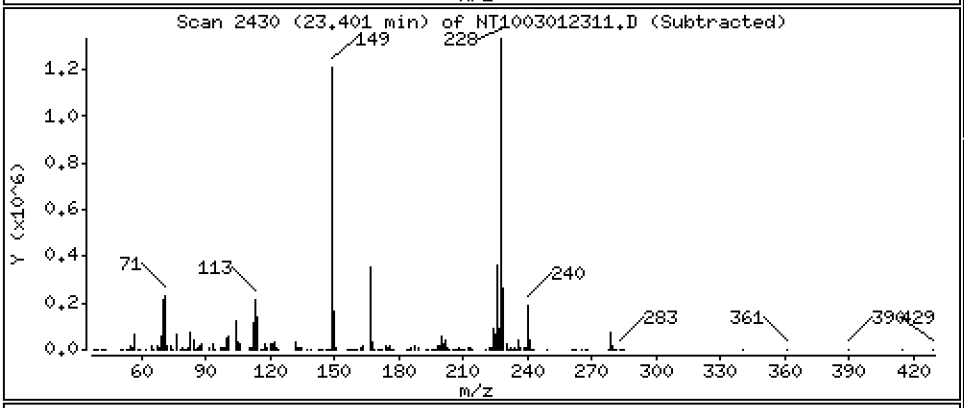
Column phase: ZB-5msi

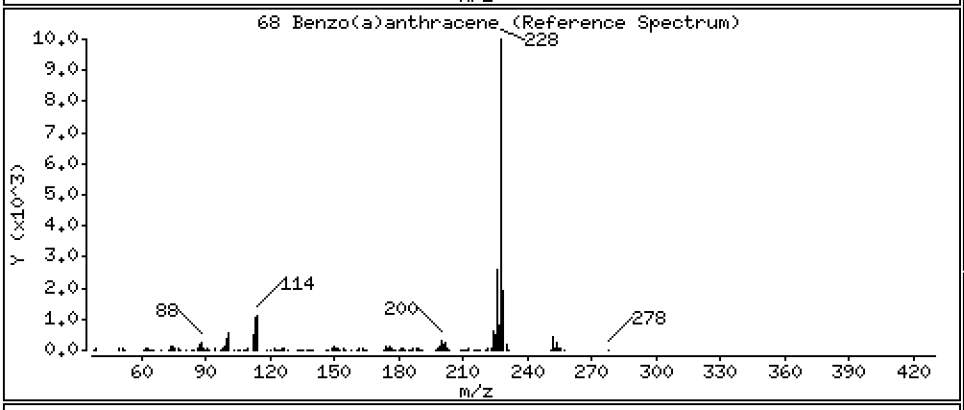
Column diameter: 0.25

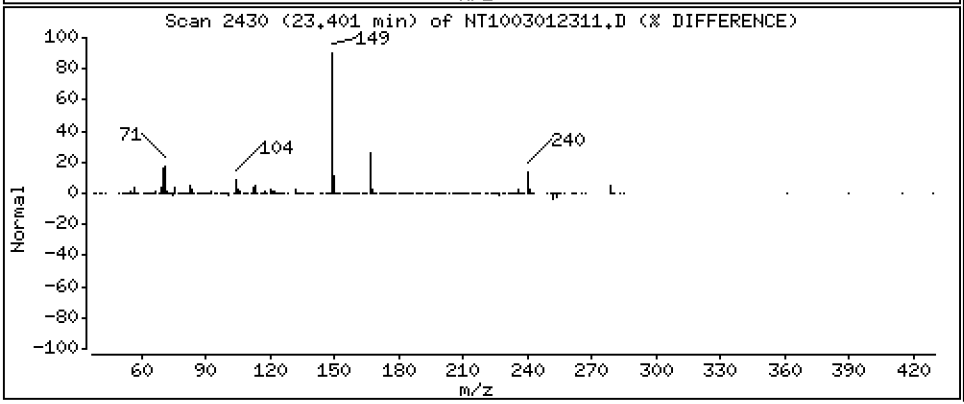
68 Benzo(a)anthracene

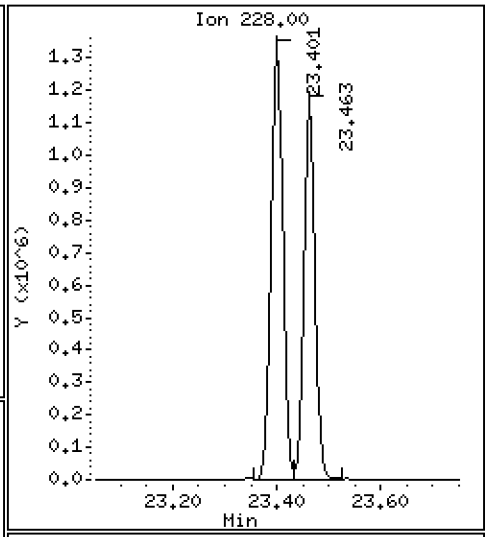
Concentration: 4.578 ug/mL

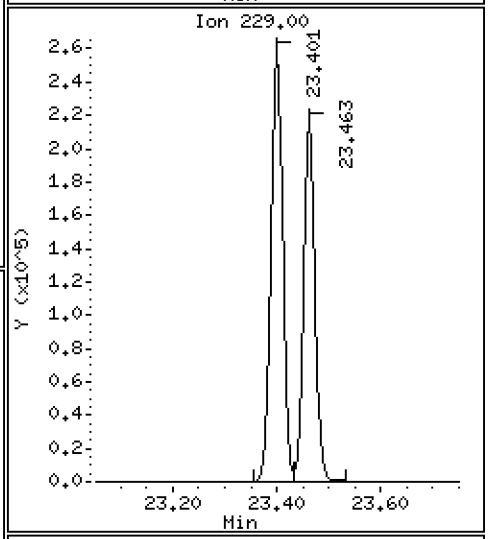


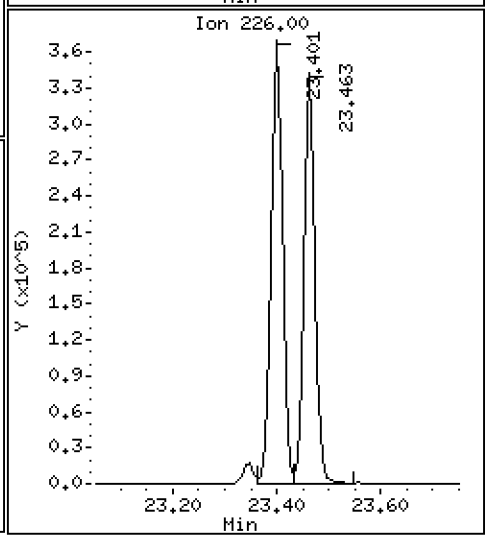












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

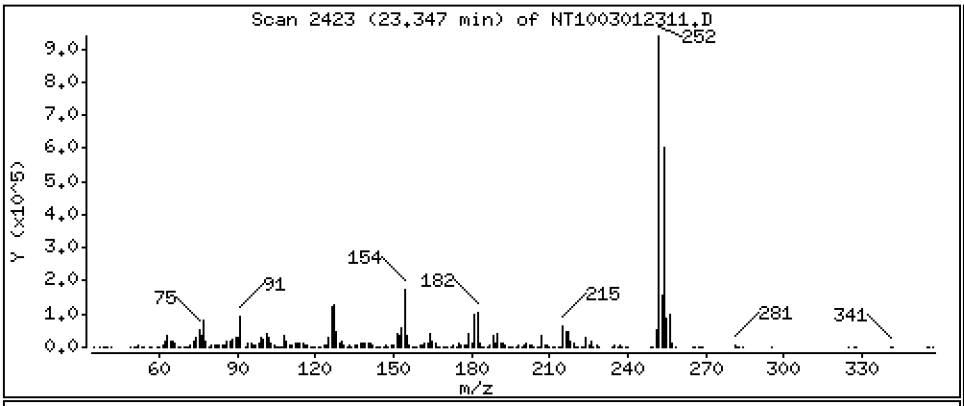
Operator: VTS

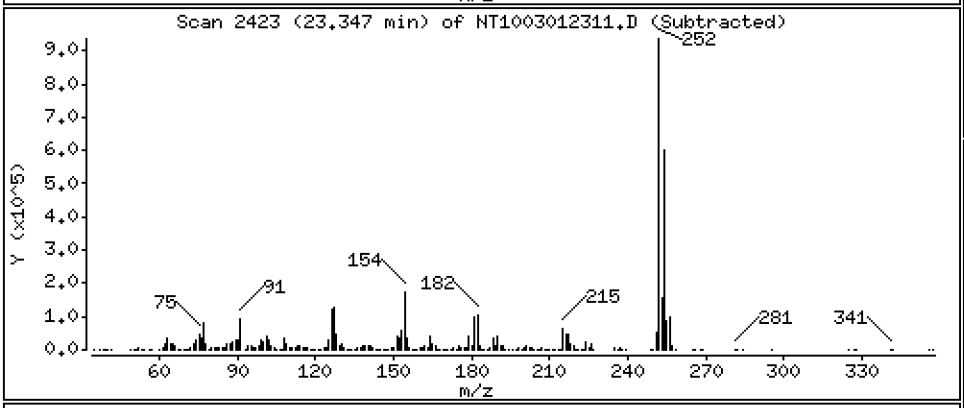
Column phase: ZB-5msi

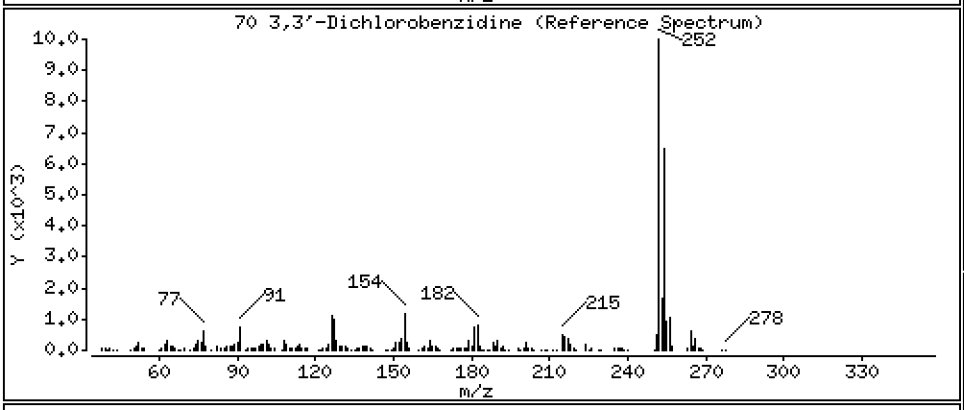
Column diameter: 0.25

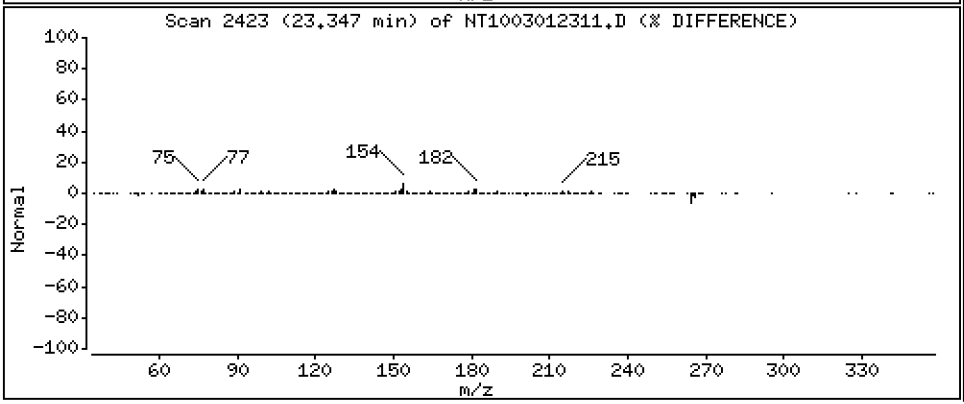
70 3,3'-Dichlorobenzidine

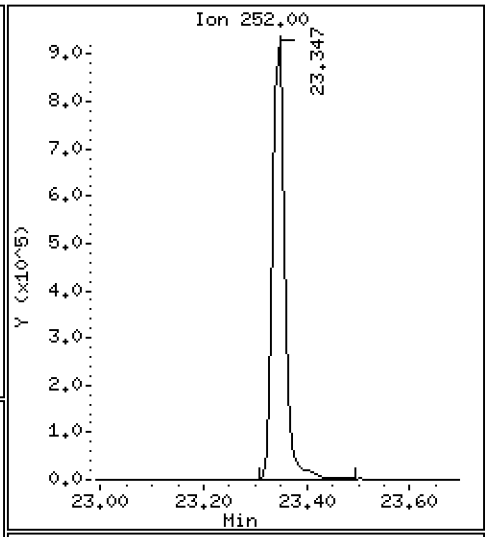
Concentration: 7.383 ug/mL

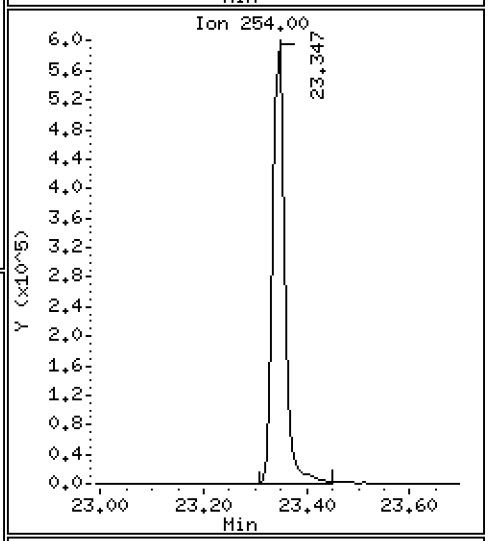


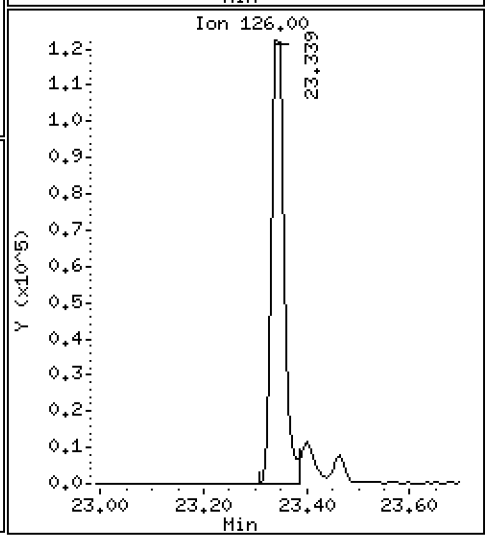












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

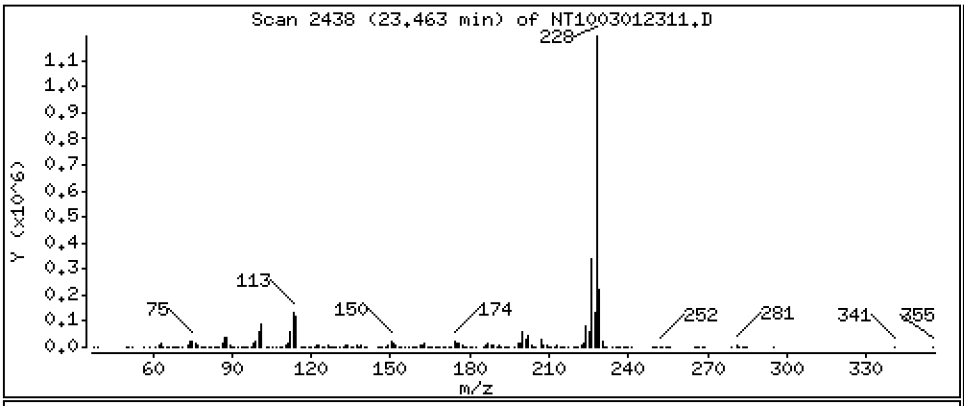
Operator: VTS

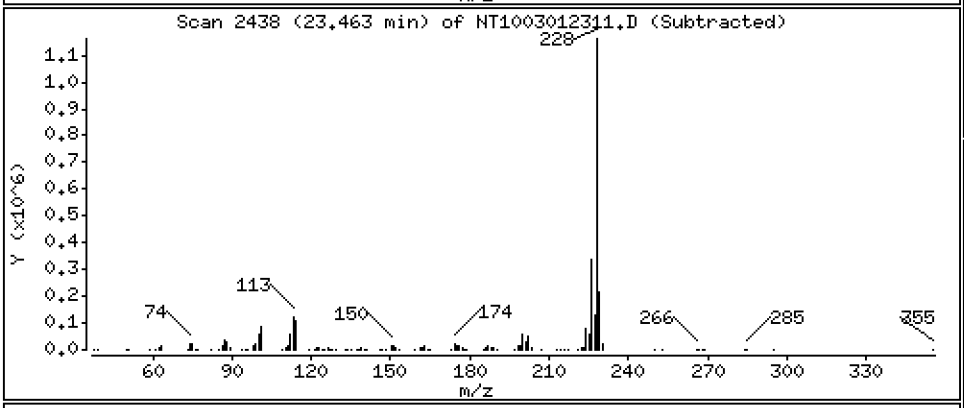
Column phase: ZB-5msi

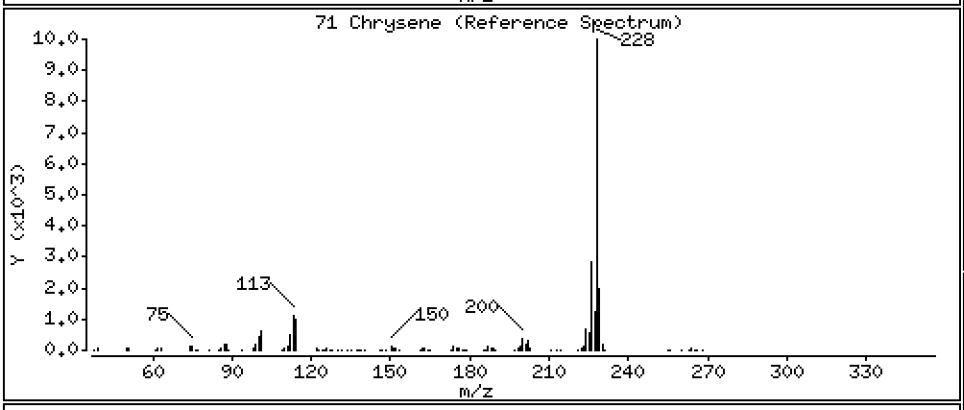
Column diameter: 0.25

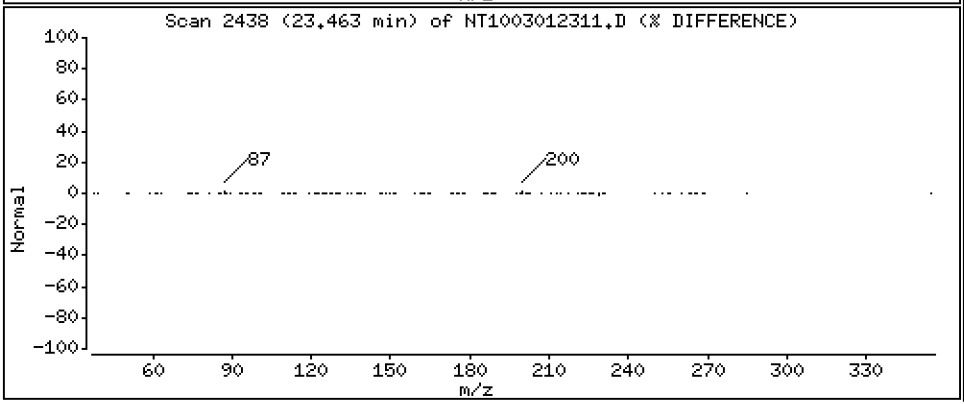
71 Chrysene

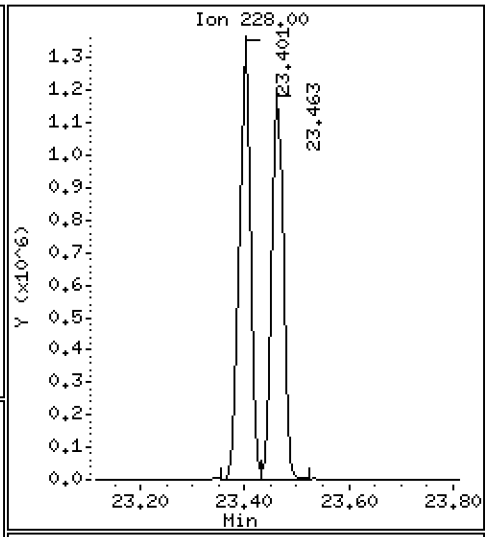
Concentration: 4.967 ug/mL

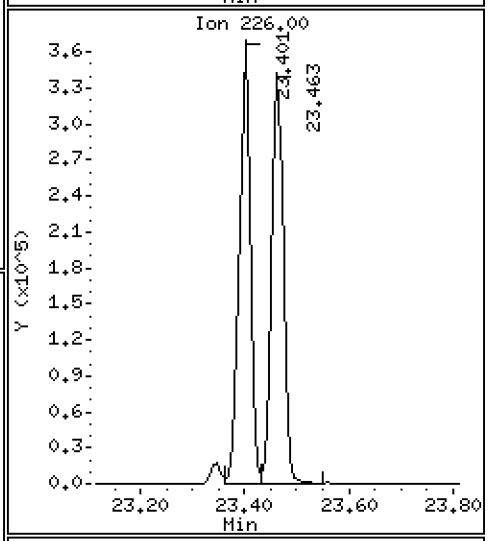


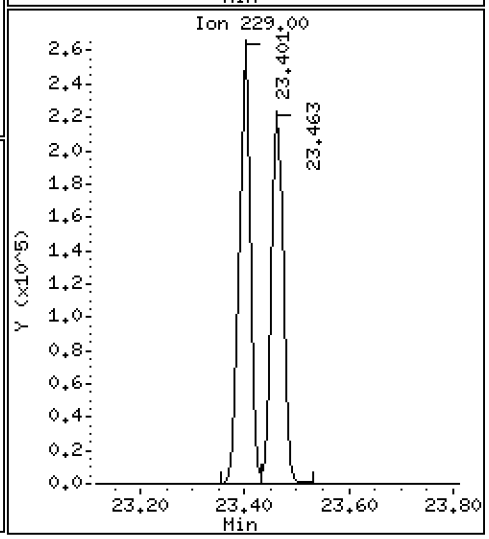












Date : 01-MAR-2023 21:46

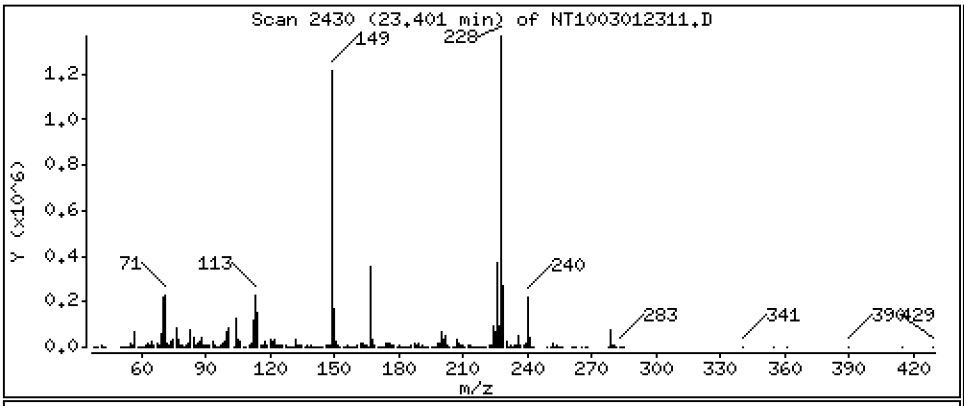
Client ID: Instrument: nt10.i

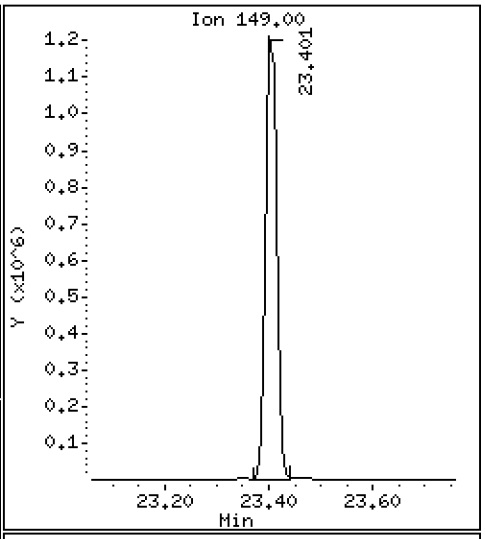
Sample Info: SEQ-SCV1

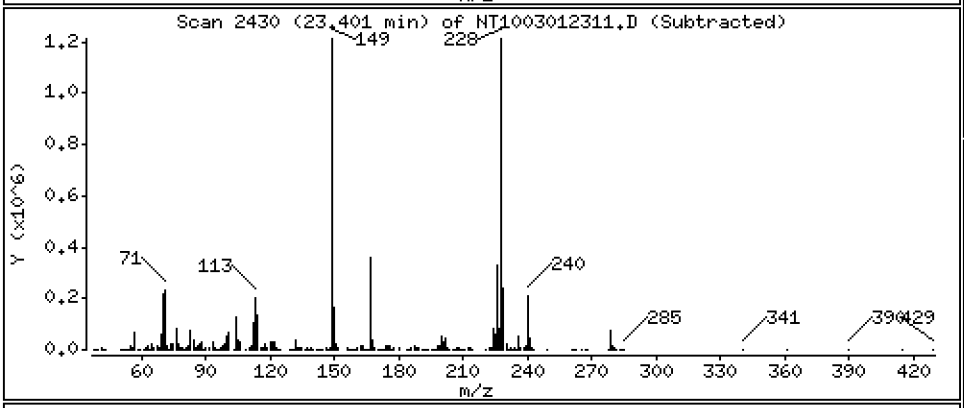
Operator: VTS

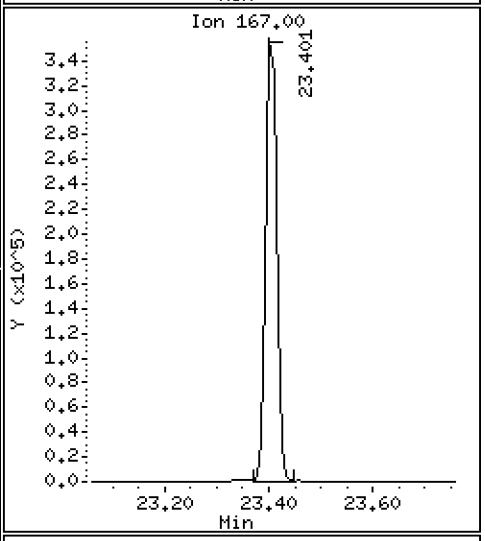
Column phase: ZB-5msi Column diameter: 0.25

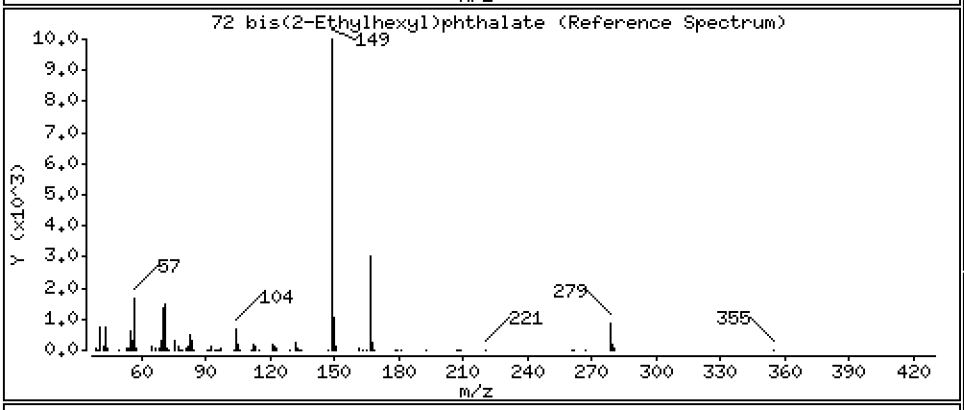
72 bis(2-Ethylhexyl)phthalate Concentration: 4.956 ug/mL

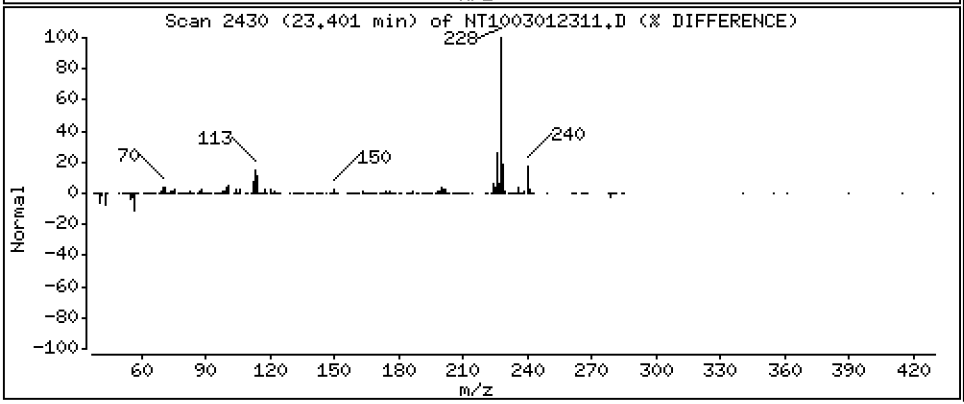


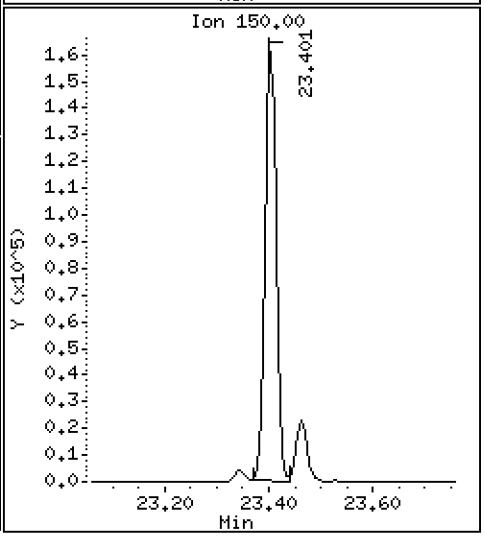












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

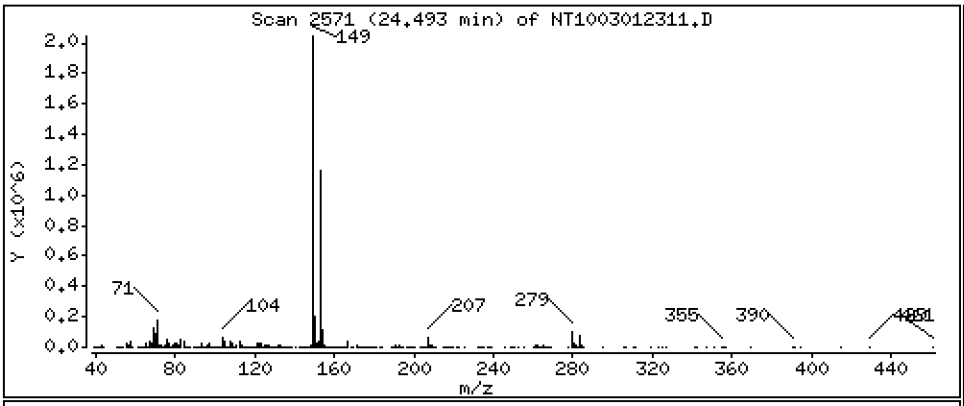
Operator: VTS

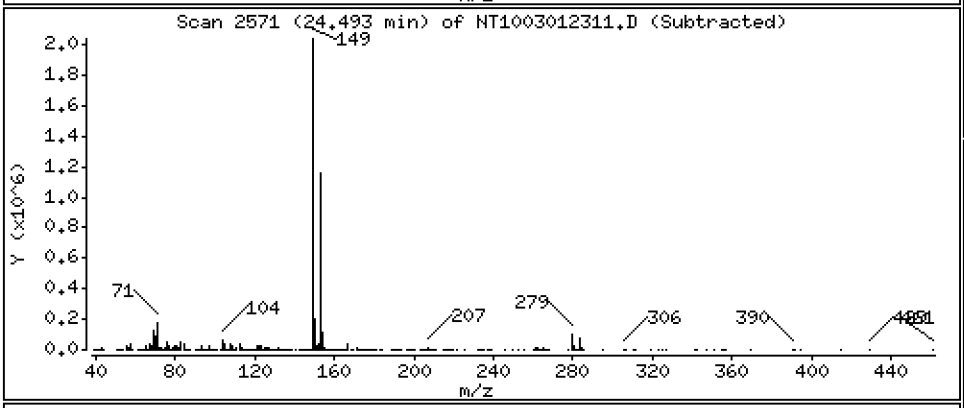
Column phase: ZB-5msi

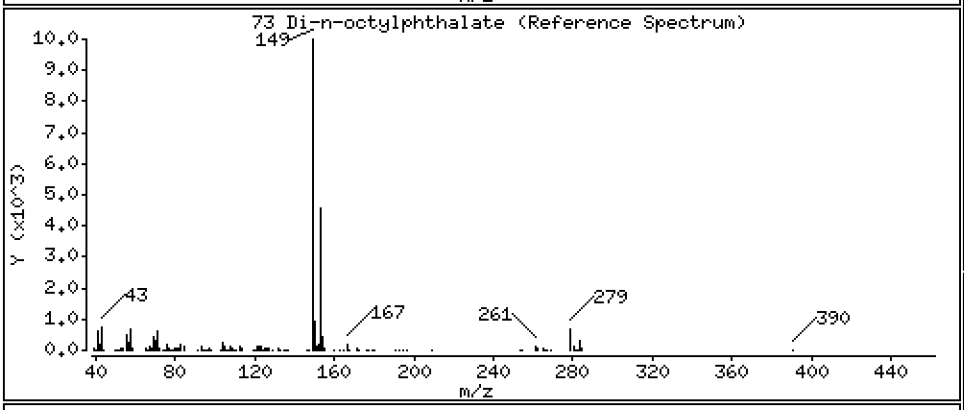
Column diameter: 0.25

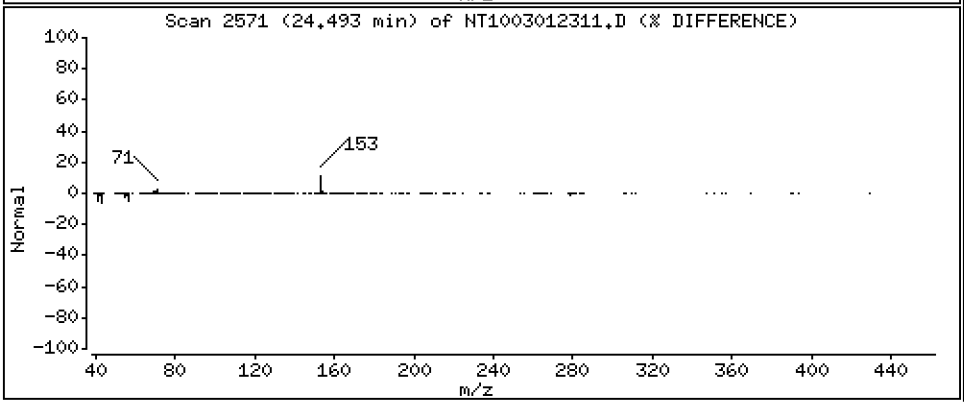
73 Di-n-octylphthalate

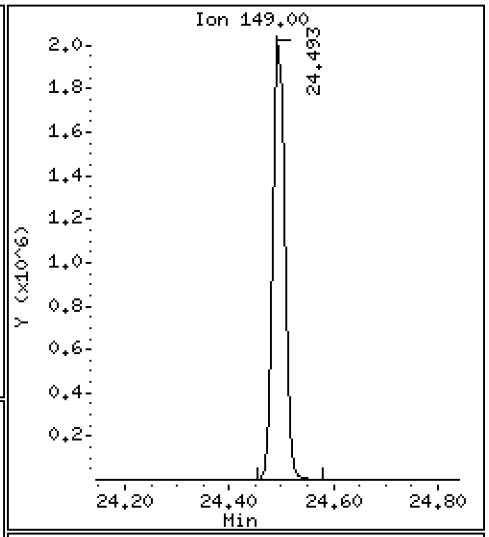
Concentration: 5.844 ug/mL

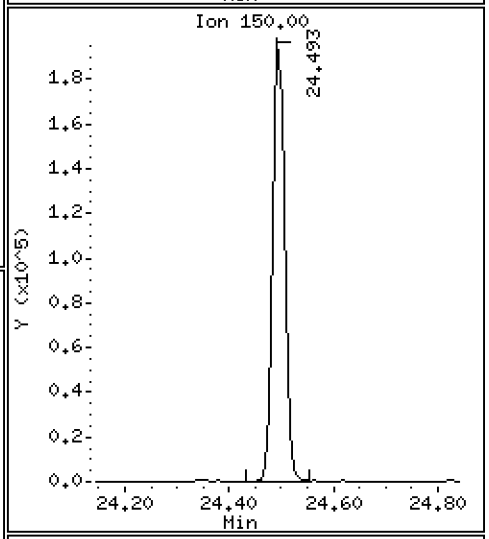


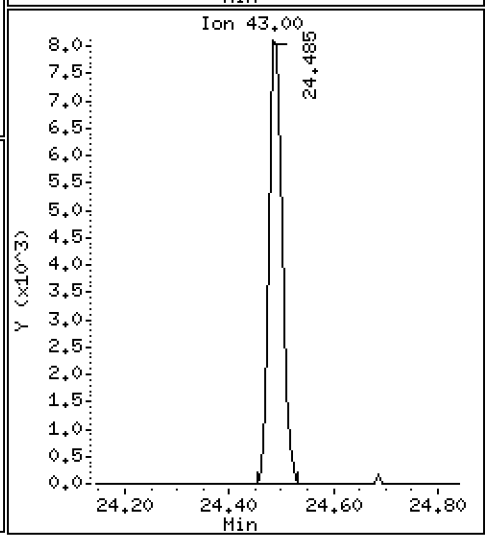












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

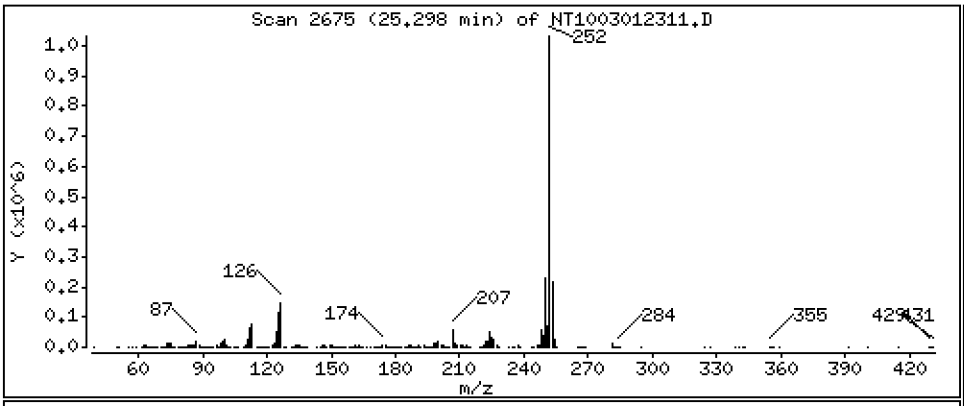
Operator: VTS

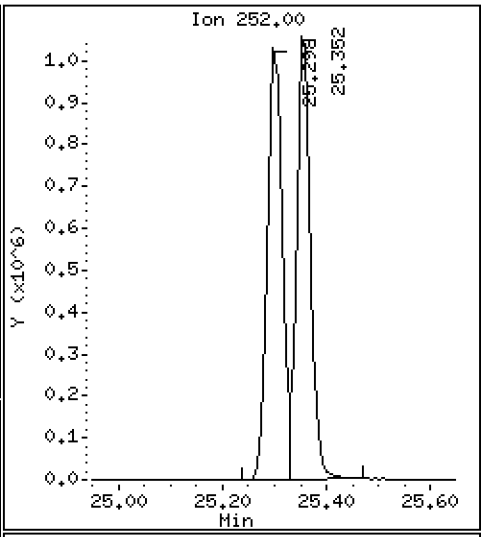
Column phase: ZB-5msi

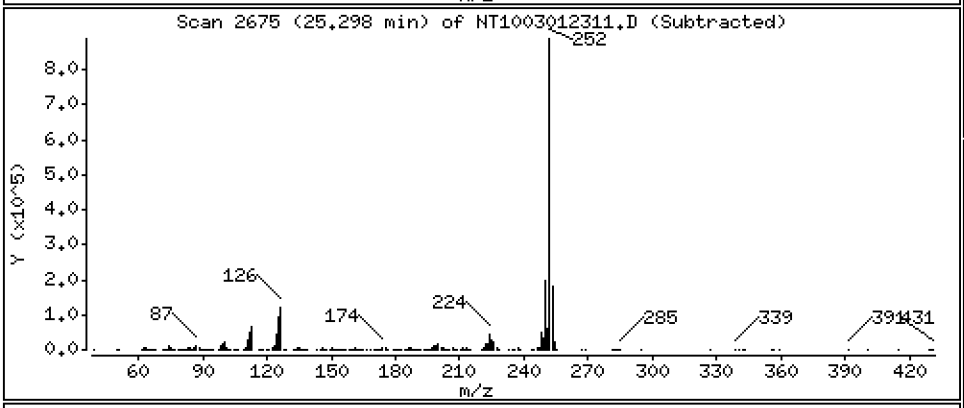
Column diameter: 0.25

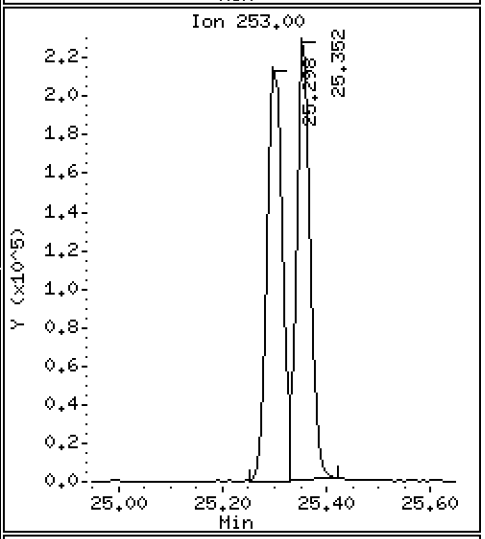
74 Benzo(b)fluoranthene

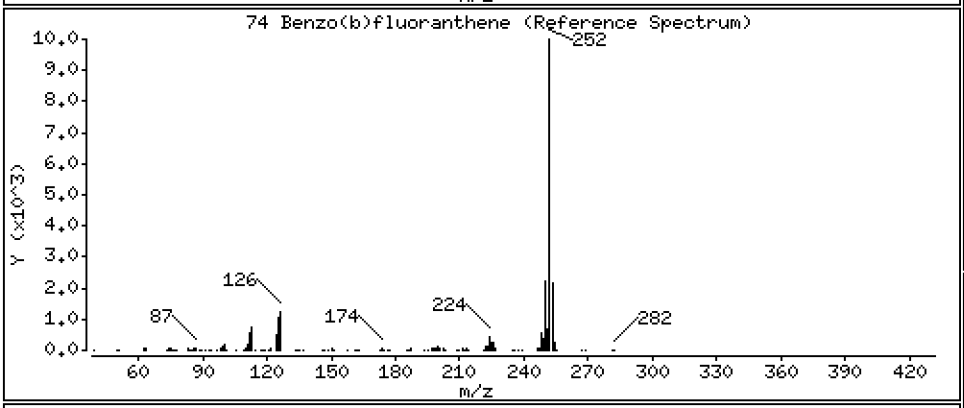
Concentration: 4.319 ug/mL

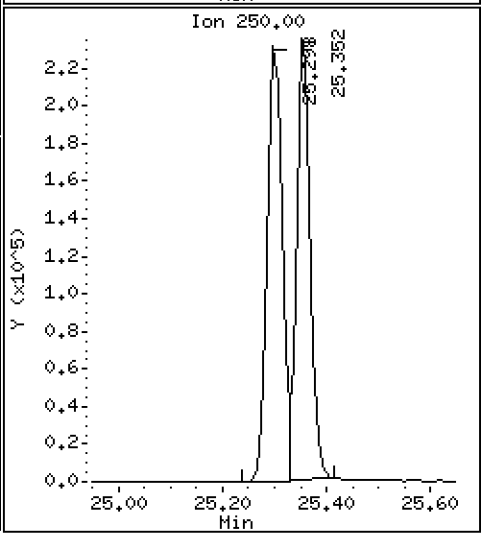


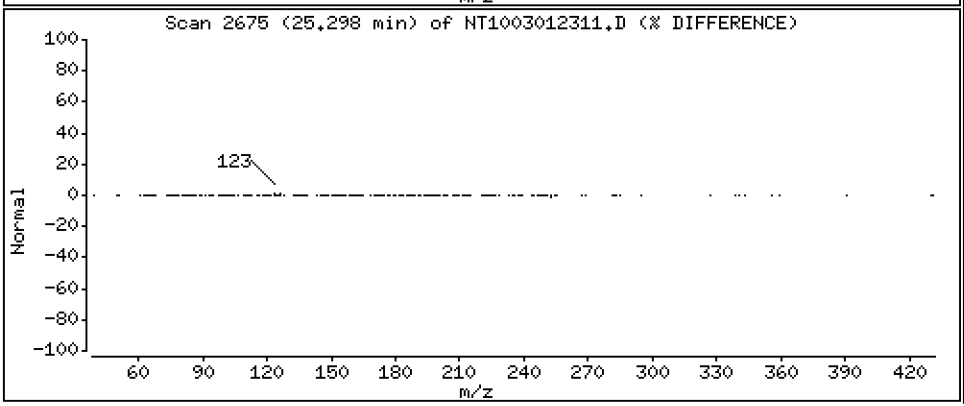












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

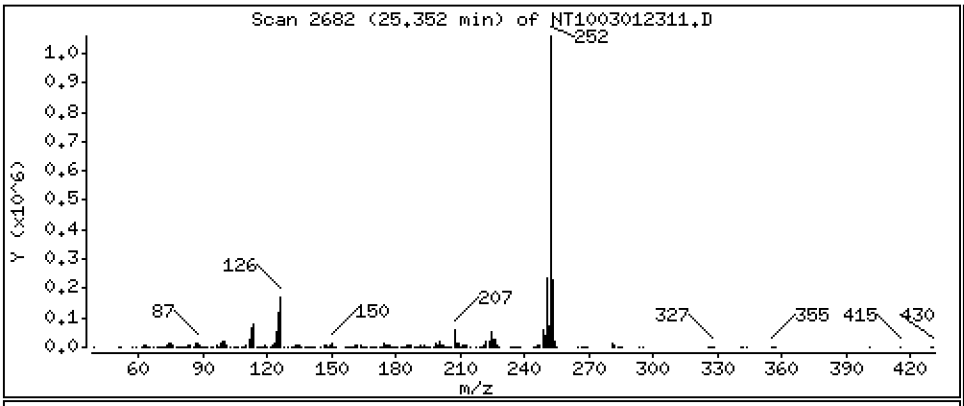
Operator: VTS

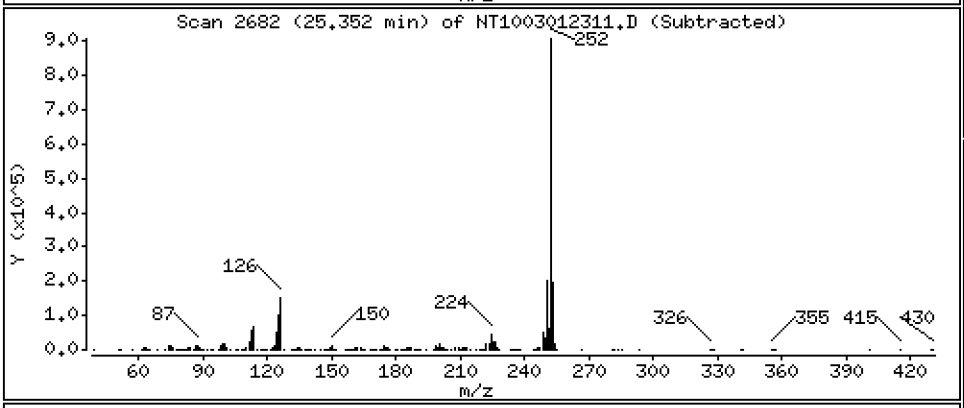
Column phase: ZB-5msi

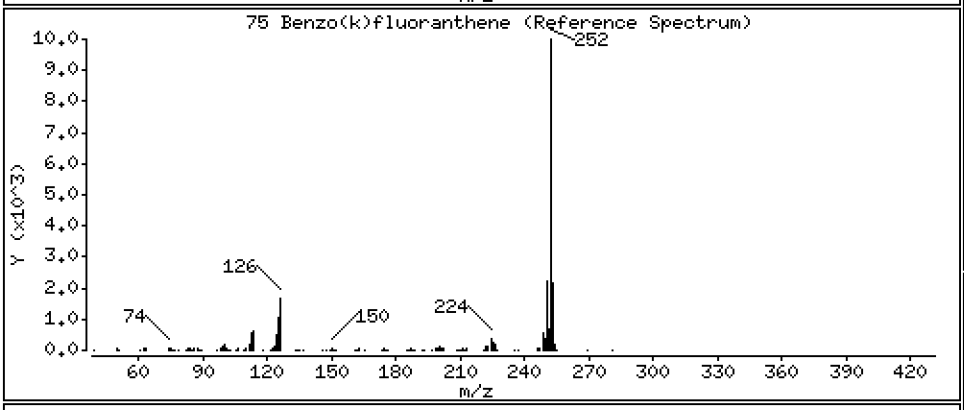
Column diameter: 0.25

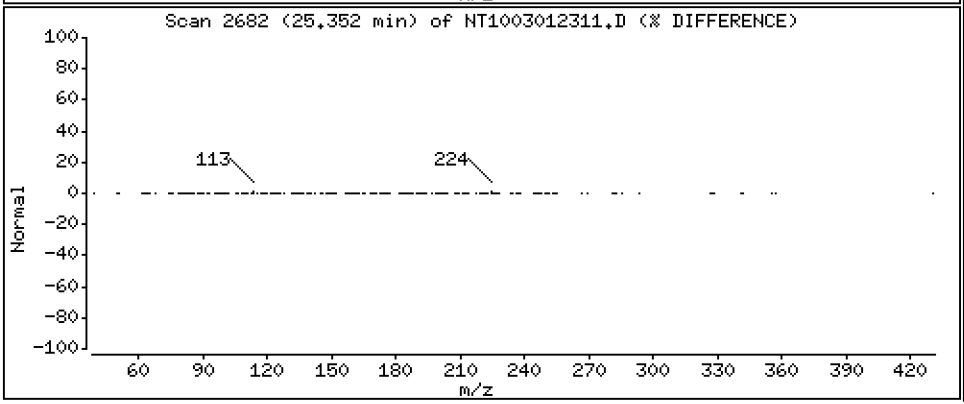
75 Benzo(k)fluoranthene

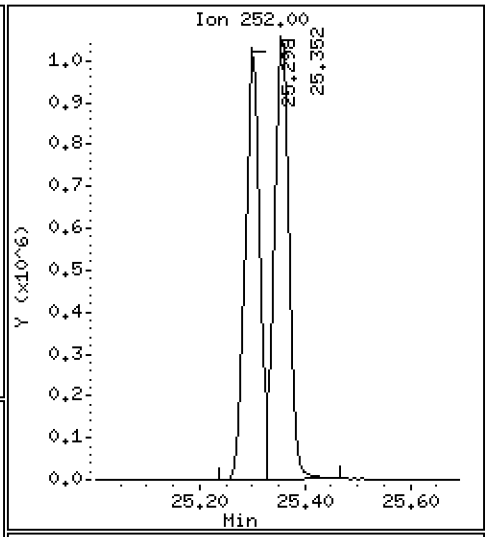
Concentration: 4.563 ug/mL

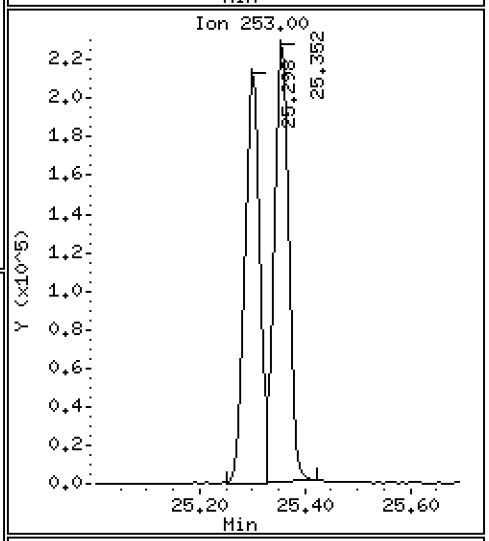


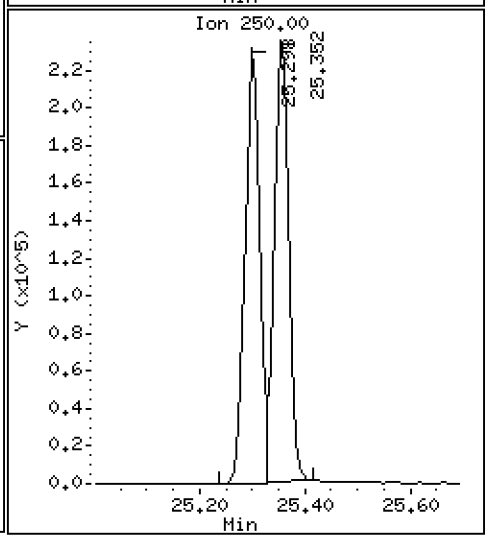












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

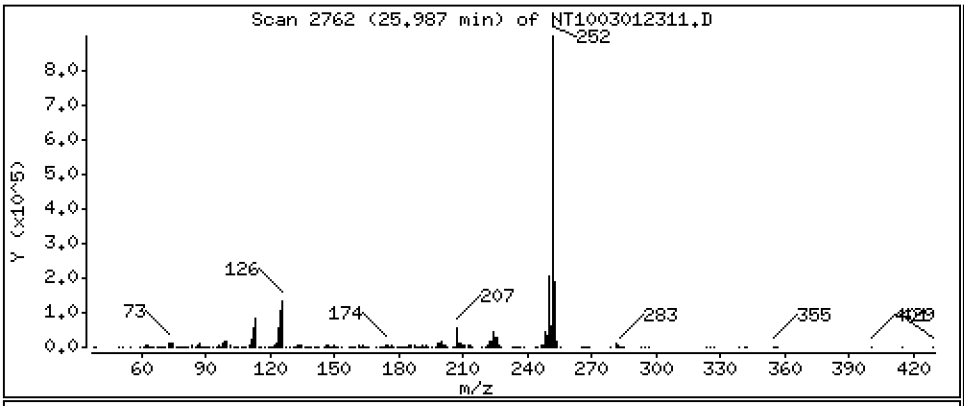
Operator: VTS

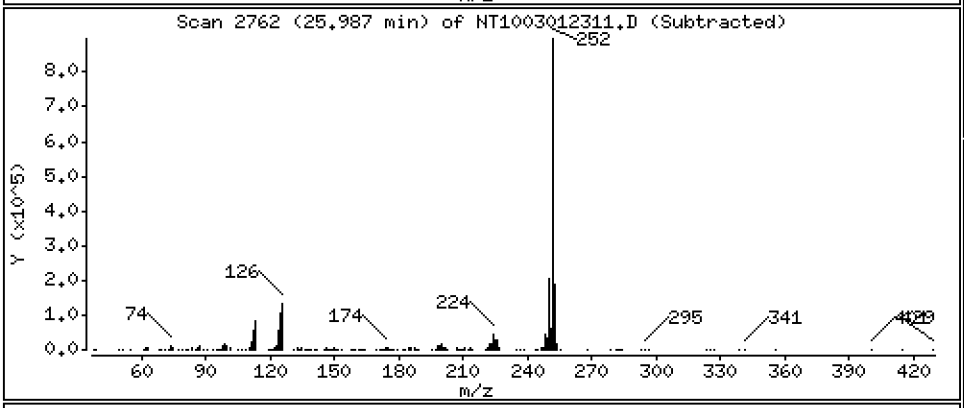
Column phase: ZB-5msi

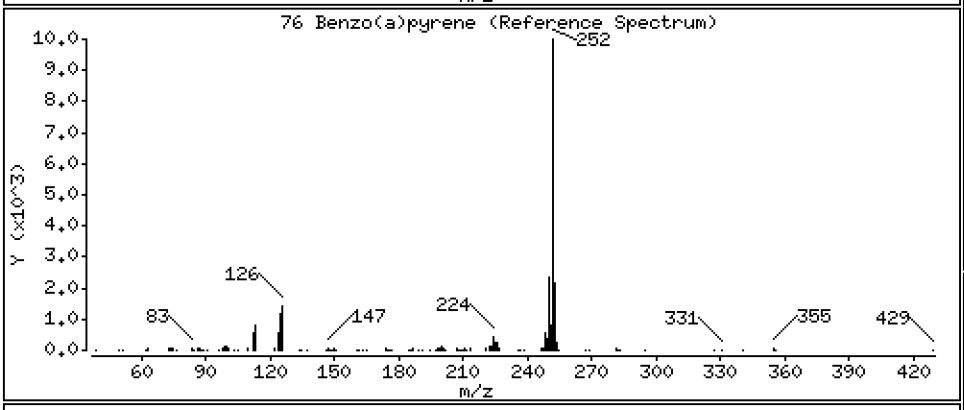
Column diameter: 0.25

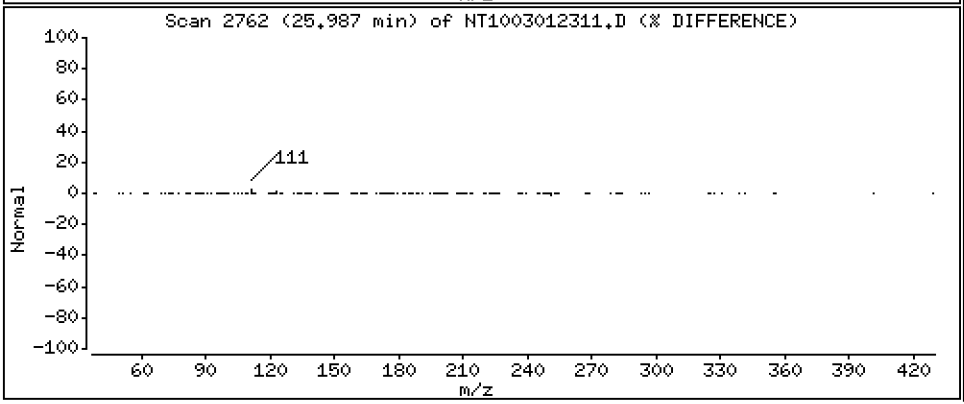
76 Benzo(a)pyrene

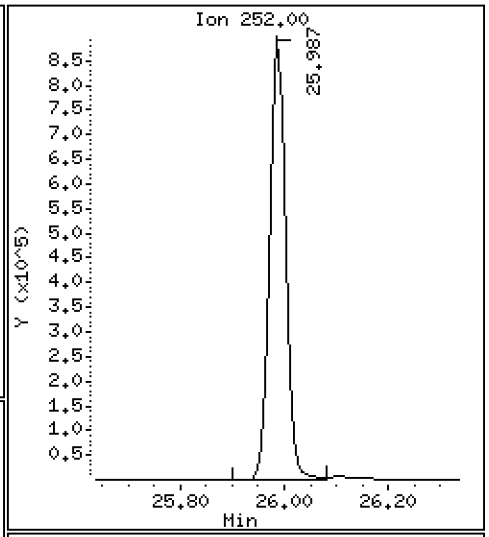
Concentration: 4.445 ug/mL

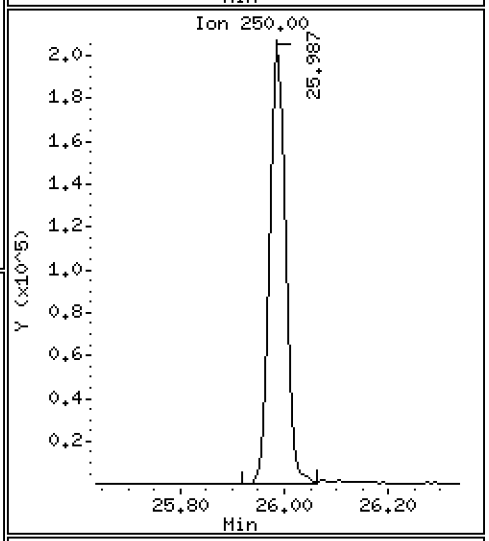


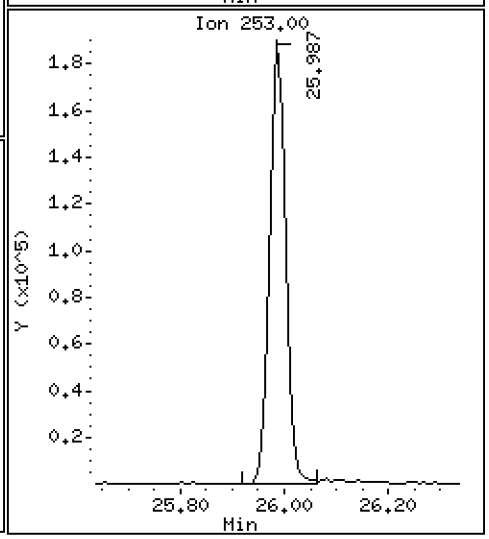












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

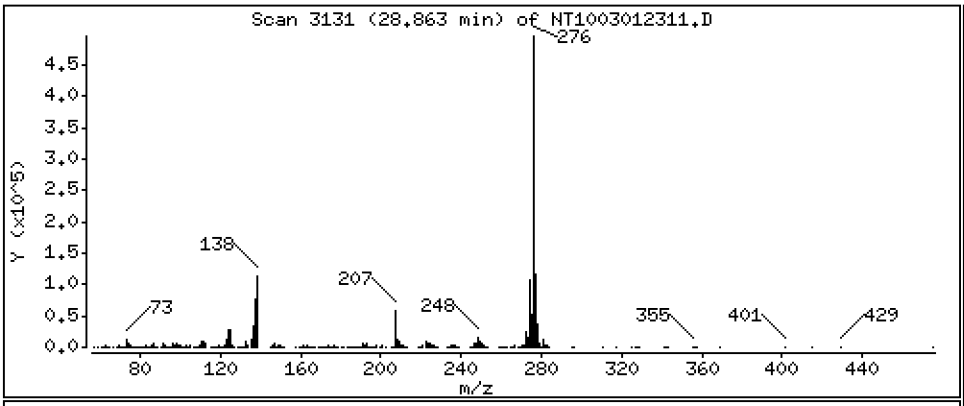
Operator: VTS

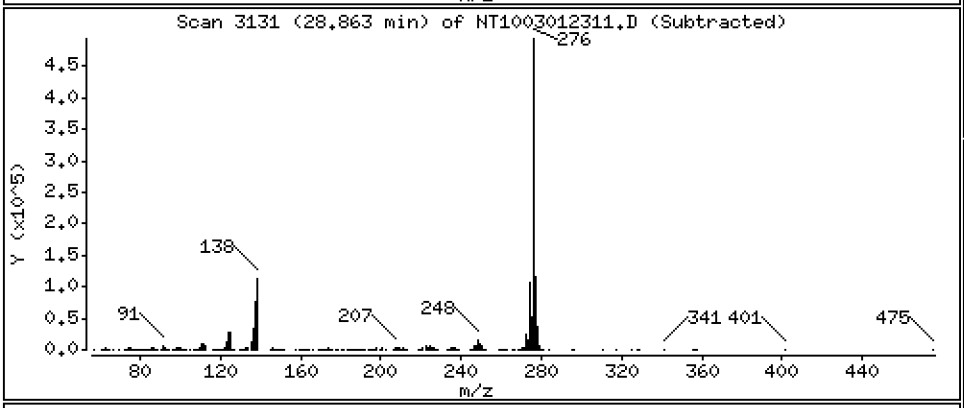
Column phase: ZB-5msi

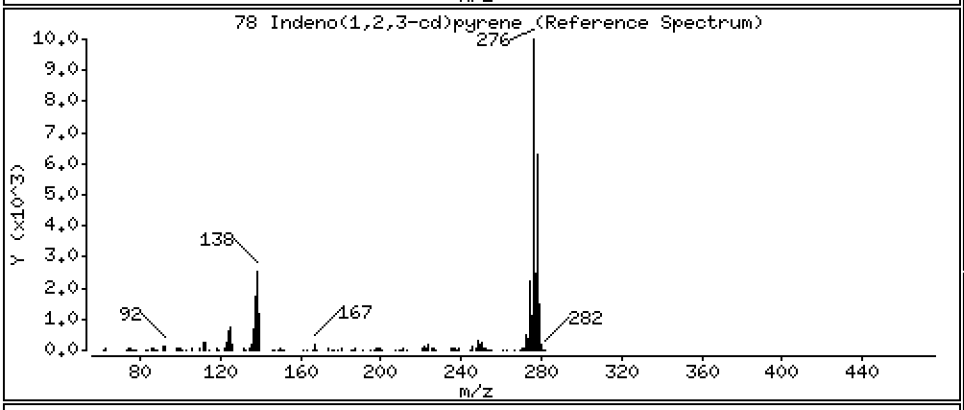
Column diameter: 0.25

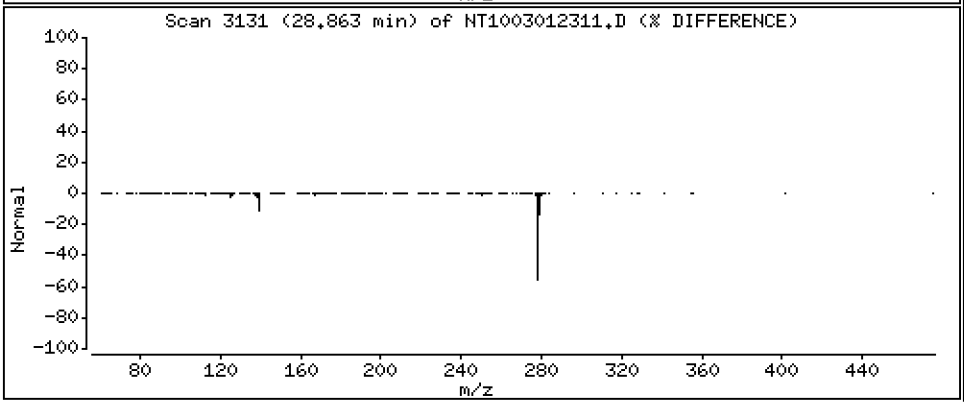
78 Indeno(1,2,3-cd)pyrene

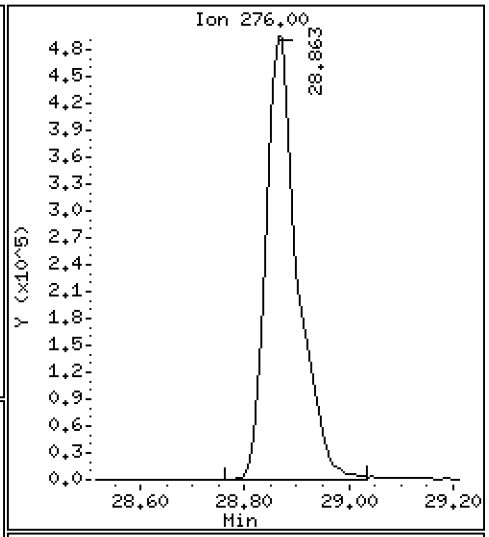
Concentration: 4.345 ug/mL

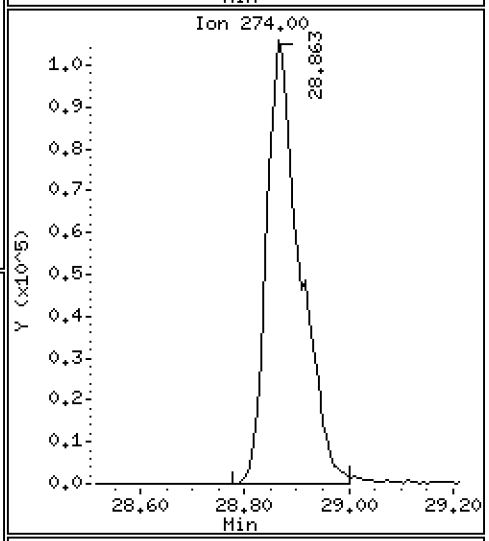


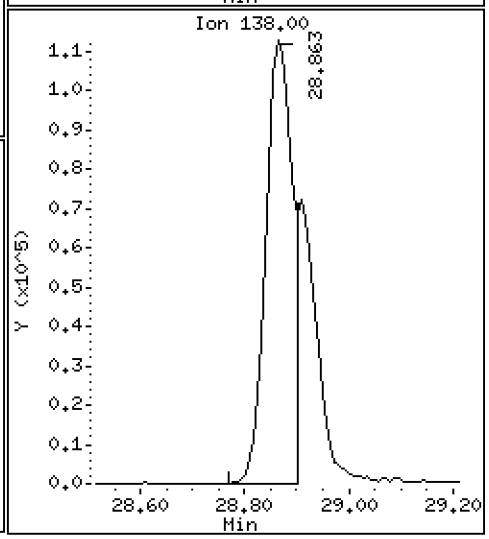












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

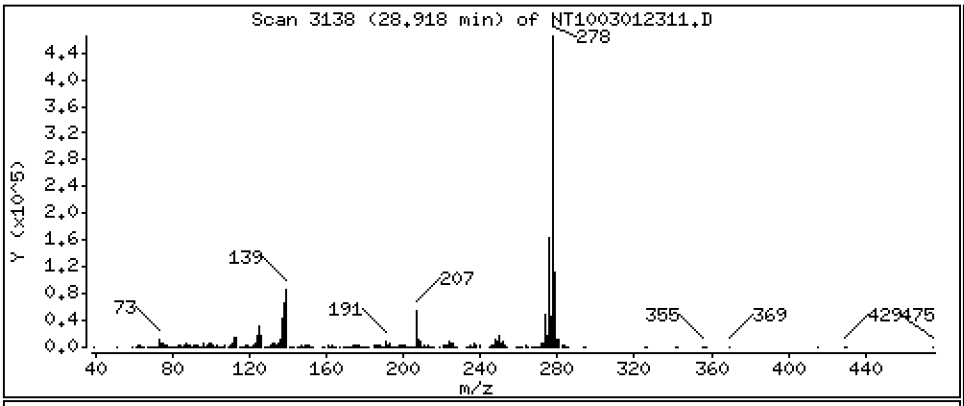
Operator: VTS

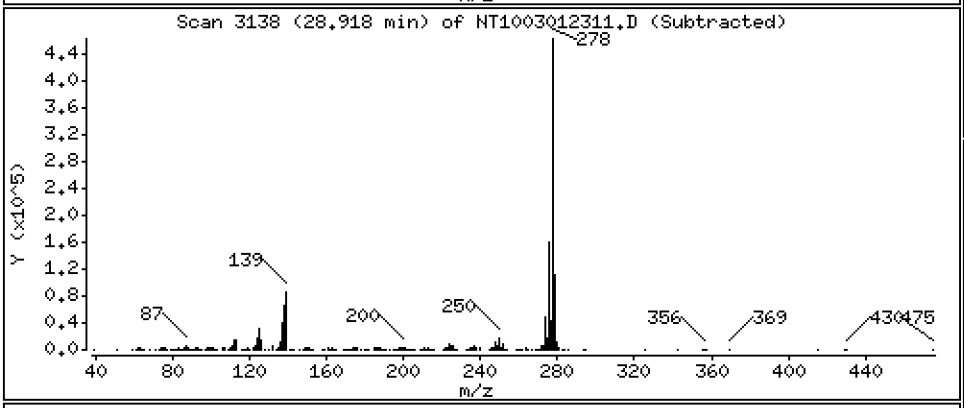
Column phase: ZB-5msi

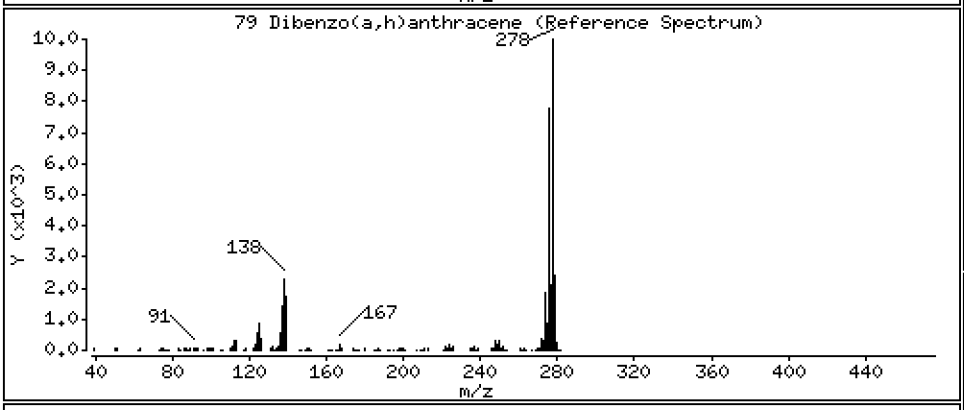
Column diameter: 0.25

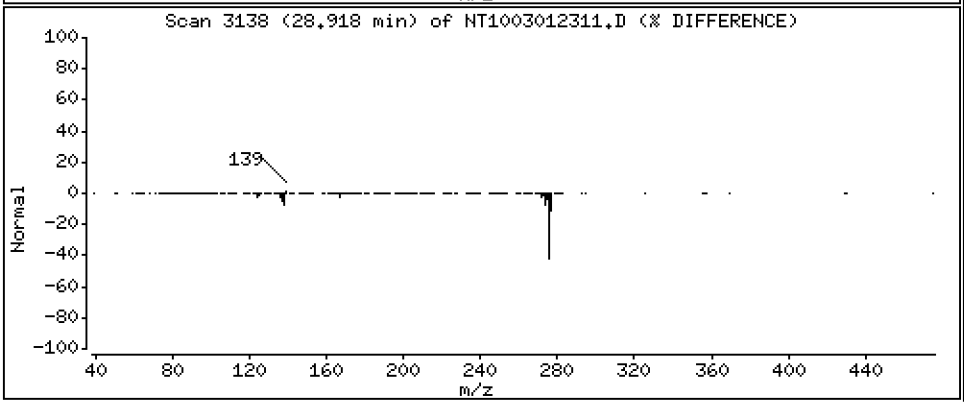
79 Dibenzo(a,h)anthracene

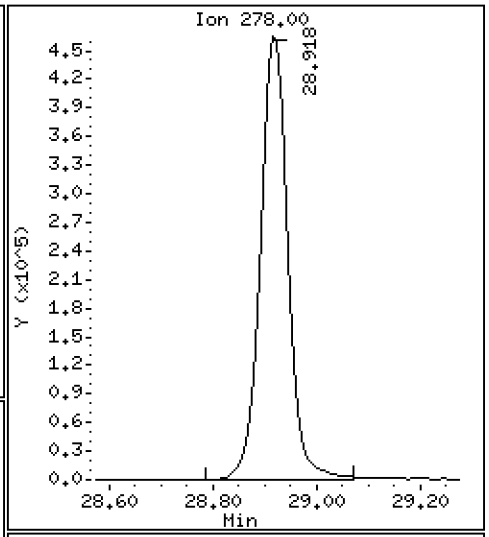
Concentration: 4.608 ug/mL

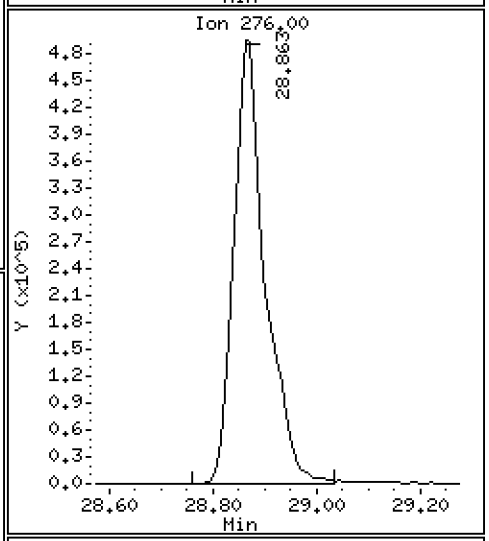


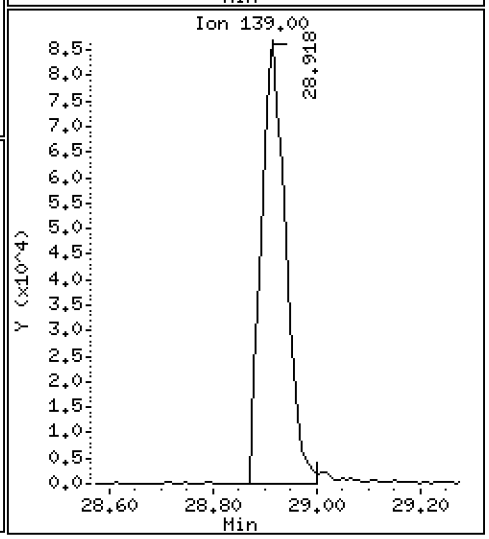












Date : 01-MAR-2023 21:46

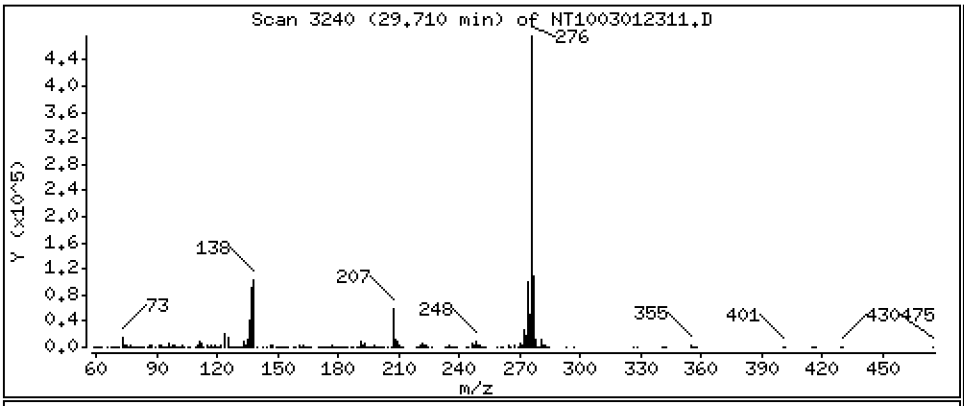
Client ID: Instrument: nt10.i

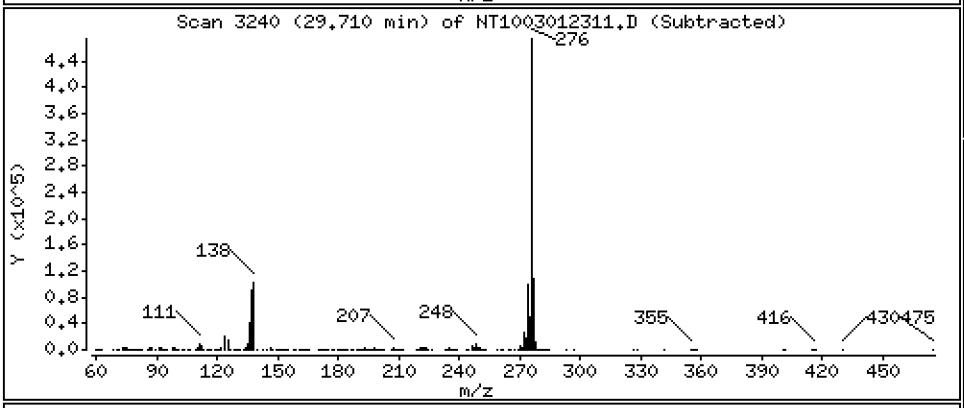
Sample Info: SEQ-SCV1

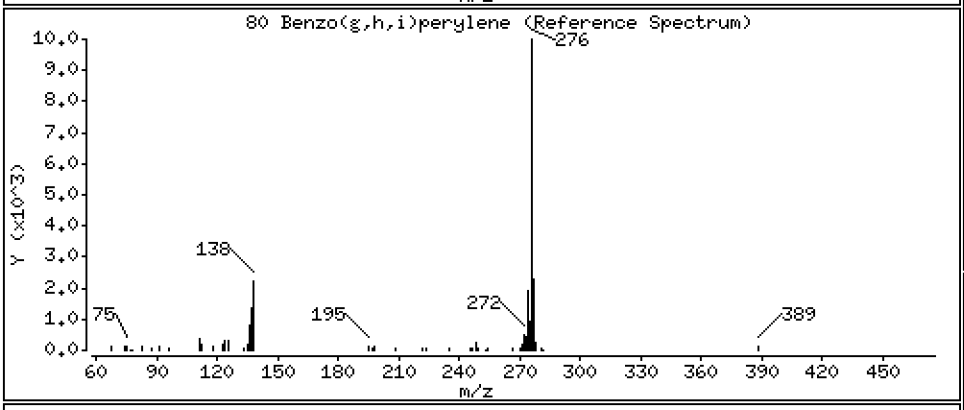
Operator: VTS

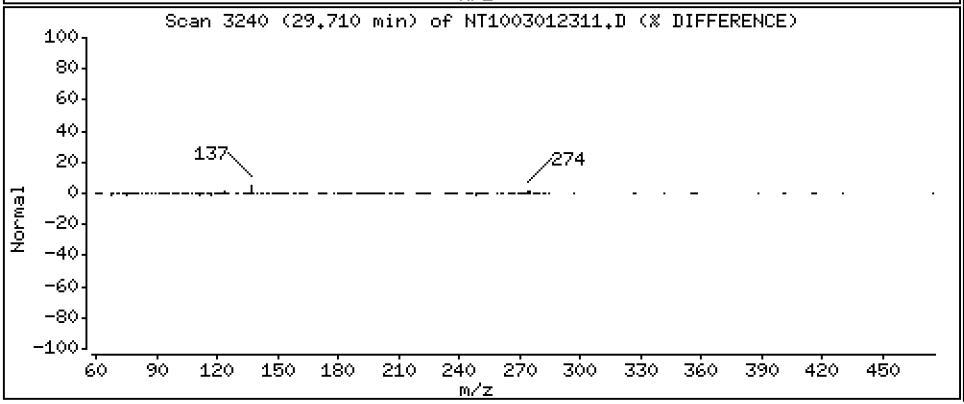
Column phase: ZB-5msi Column diameter: 0.25

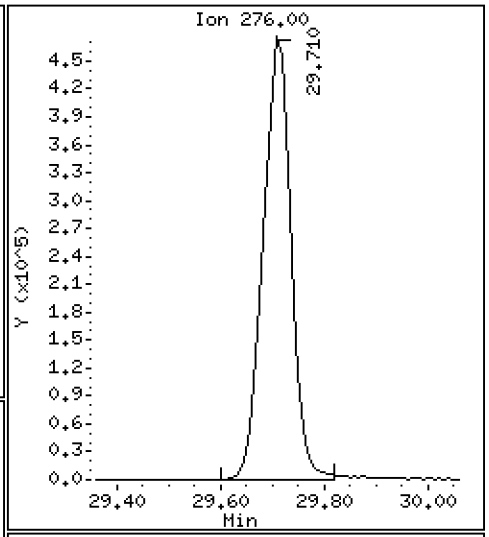
80 Benzo(g,h,i)perylene Concentration: 4.602 ug/mL

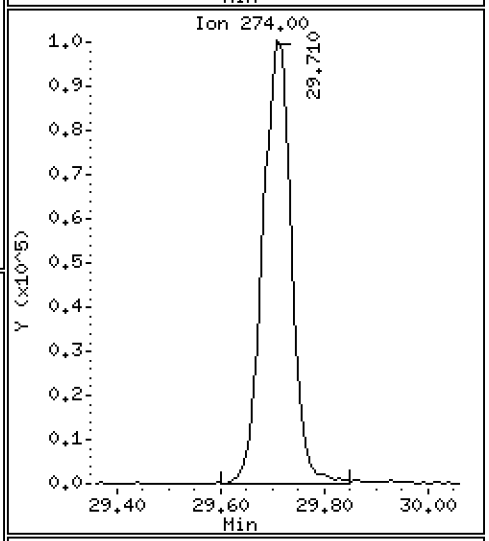


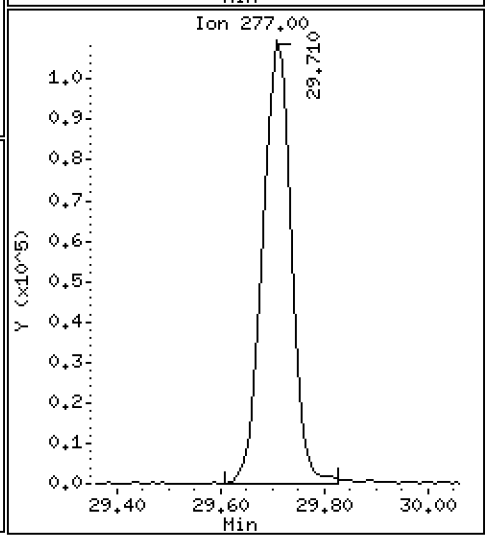












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

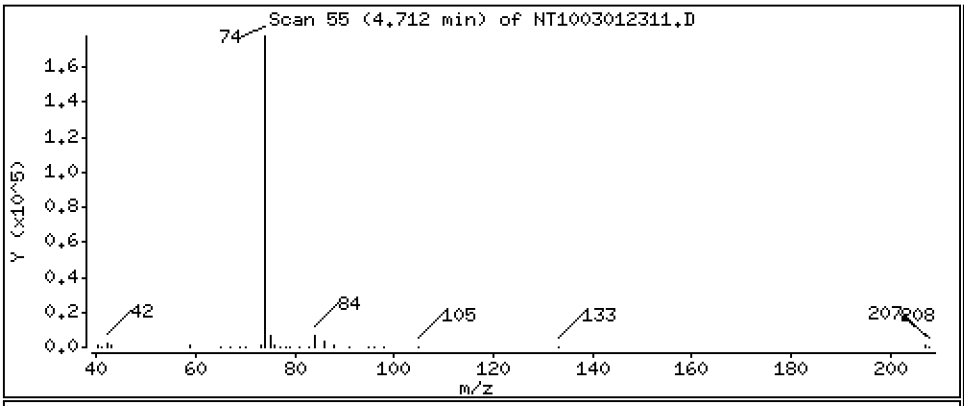
Operator: VTS

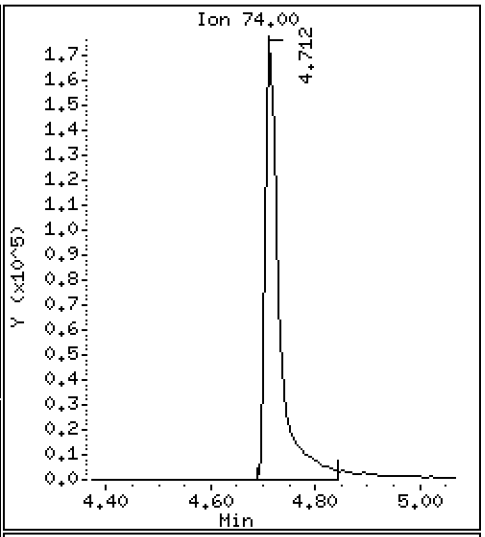
Column phase: ZB-5msi

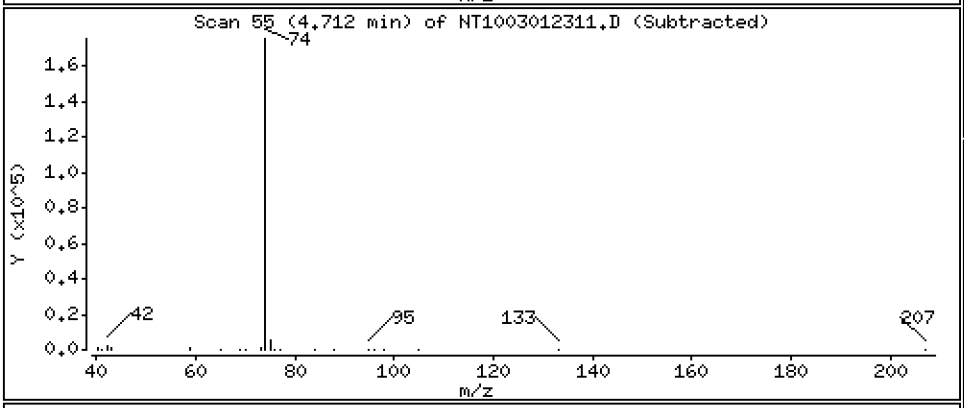
Column diameter: 0.25

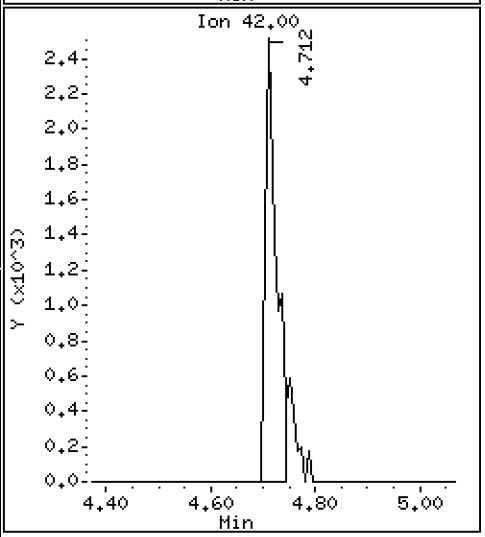
90 N-Nitrosodimethylamine

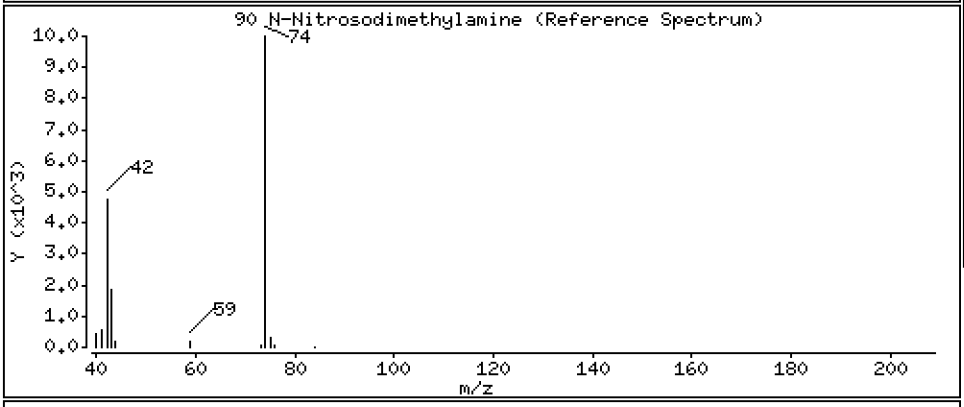
Concentration: 5.491 ug/mL

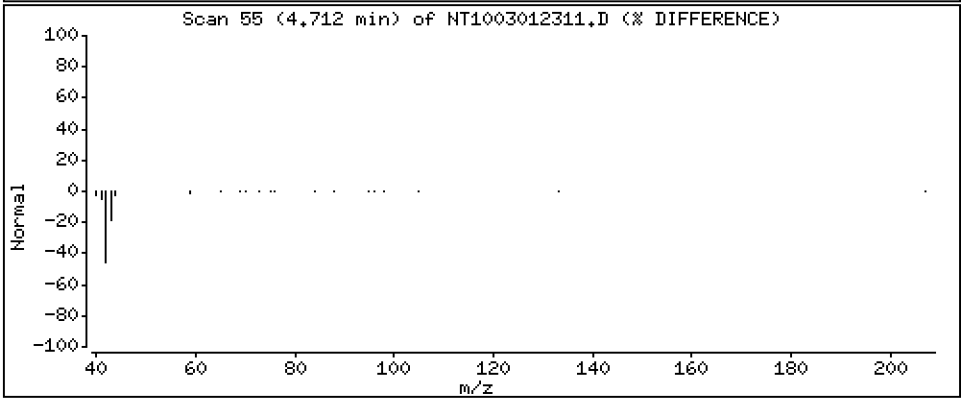












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

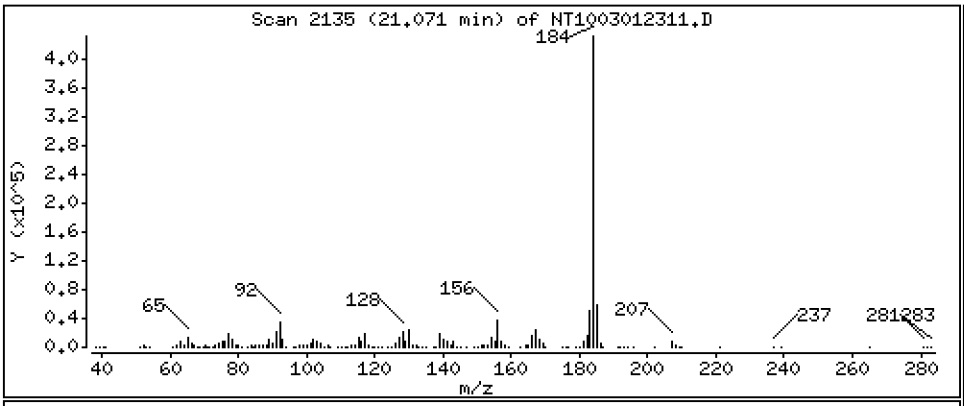
Operator: VTS

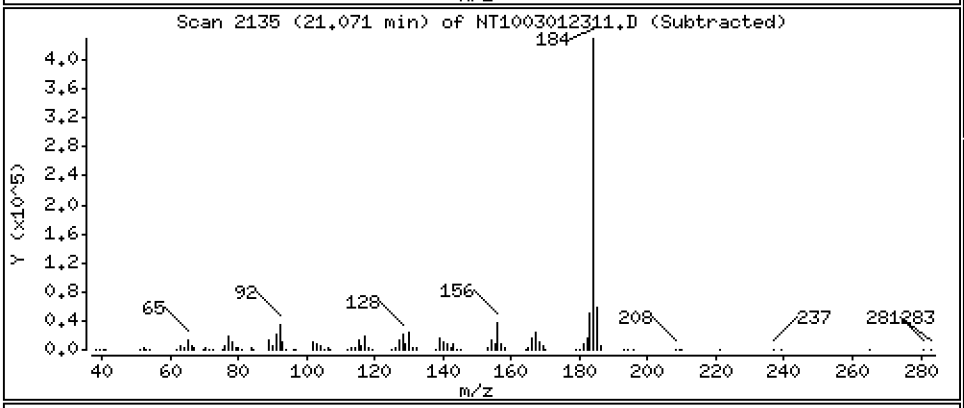
Column phase: ZB-5msi

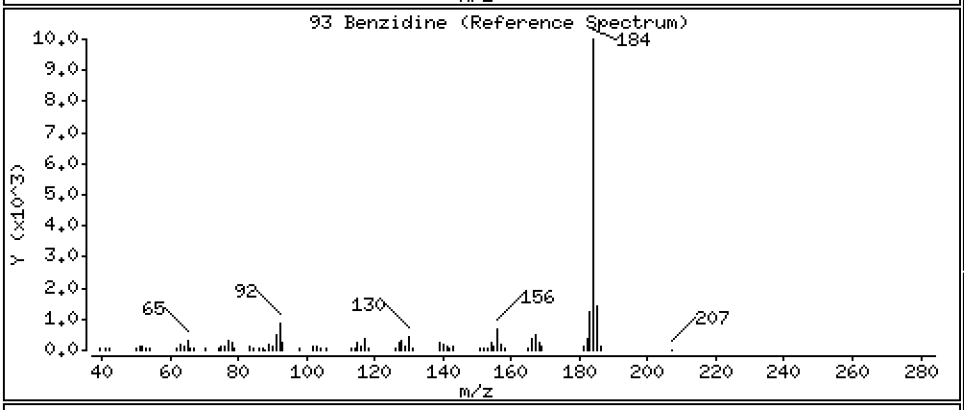
Column diameter: 0.25

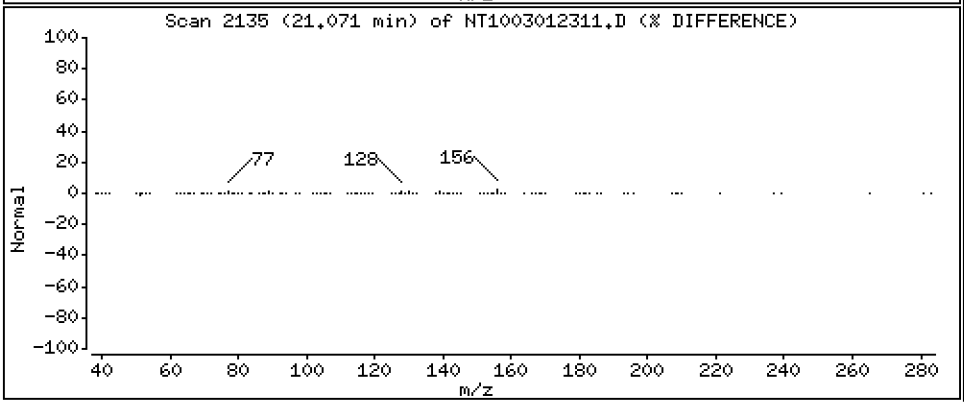
93 Benzidine

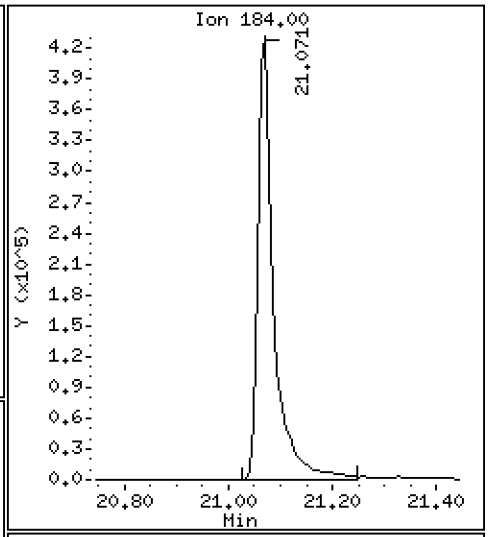
Concentration: 5.007 ug/mL

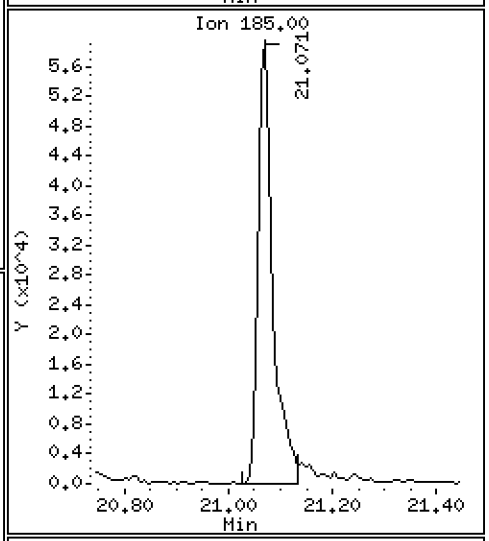


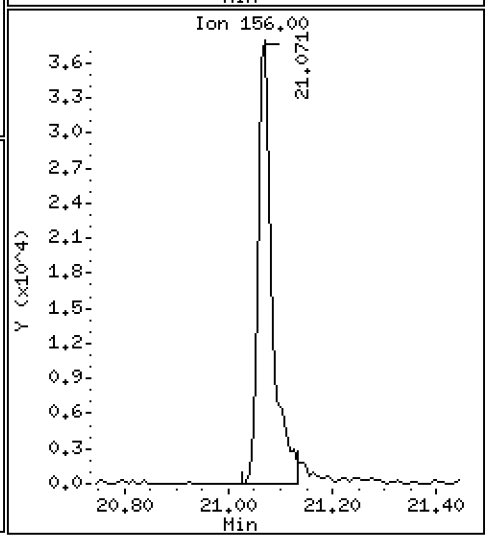












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

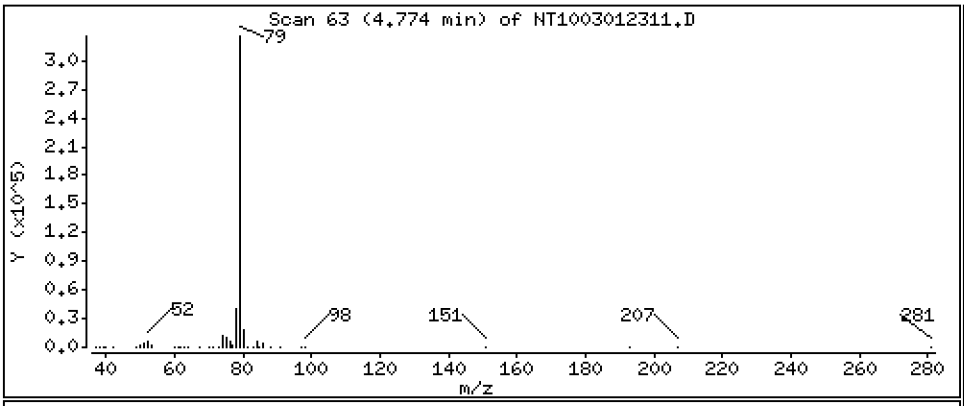
Operator: VTS

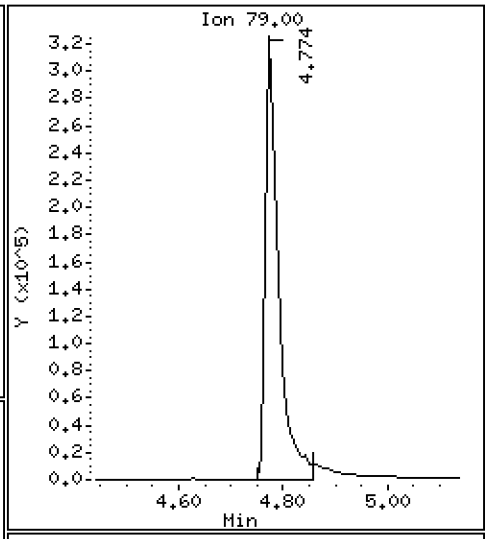
Column phase: ZB-5msi

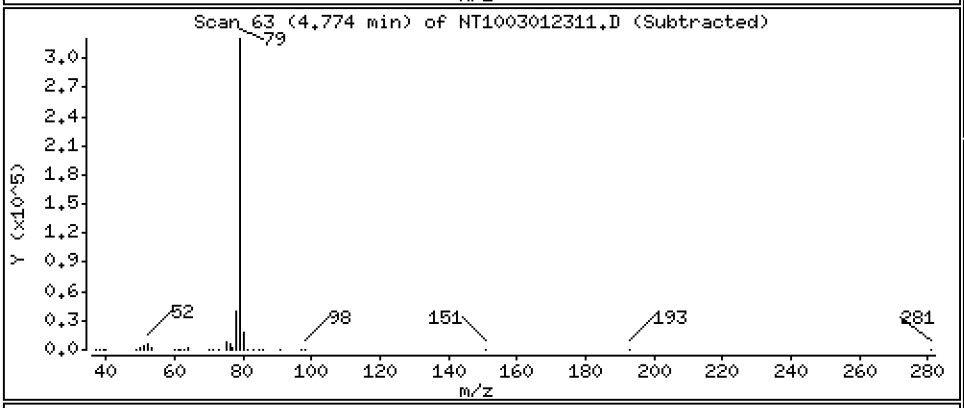
Column diameter: 0.25

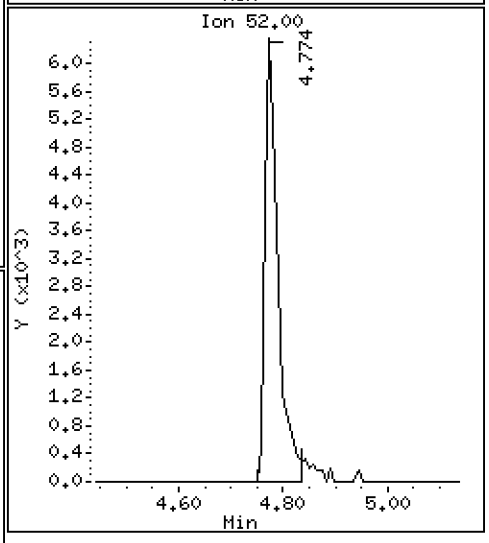
103 Pyridine

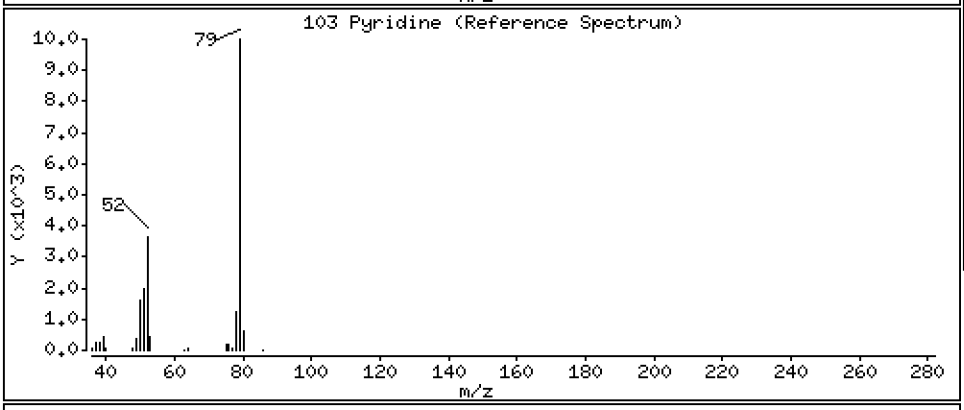
Concentration: 5.430 ug/mL

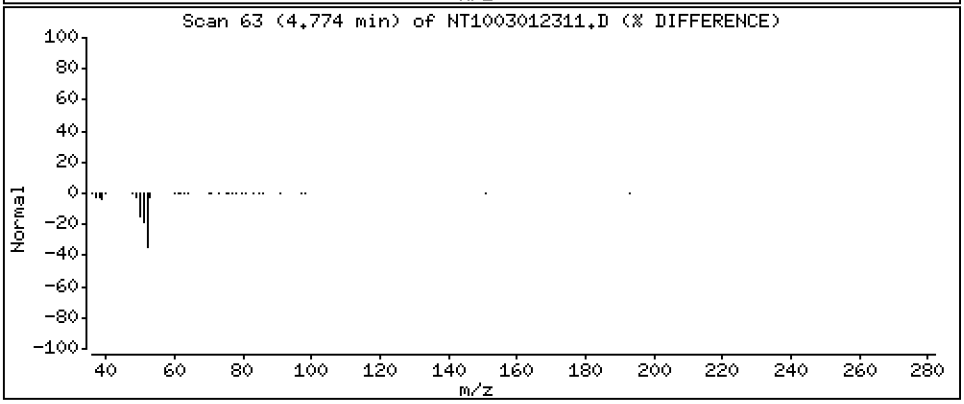












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

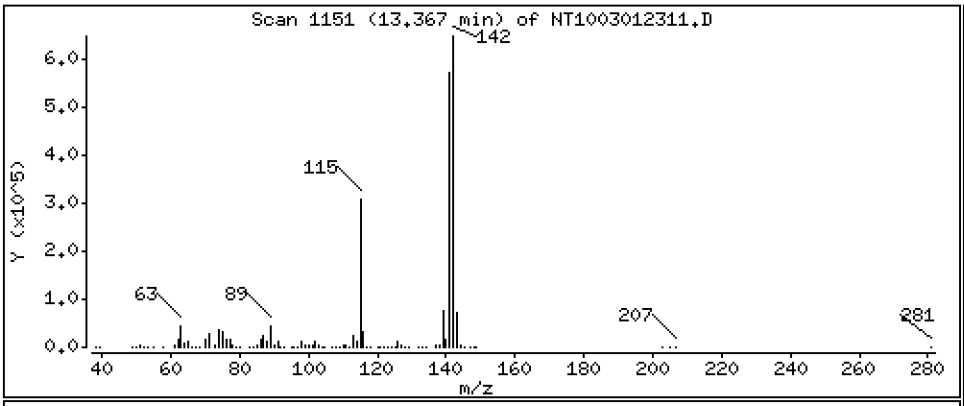
Operator: VTS

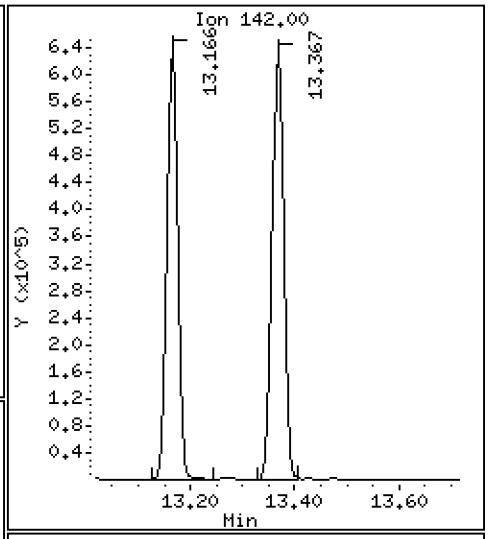
Column phase: ZB-5msi

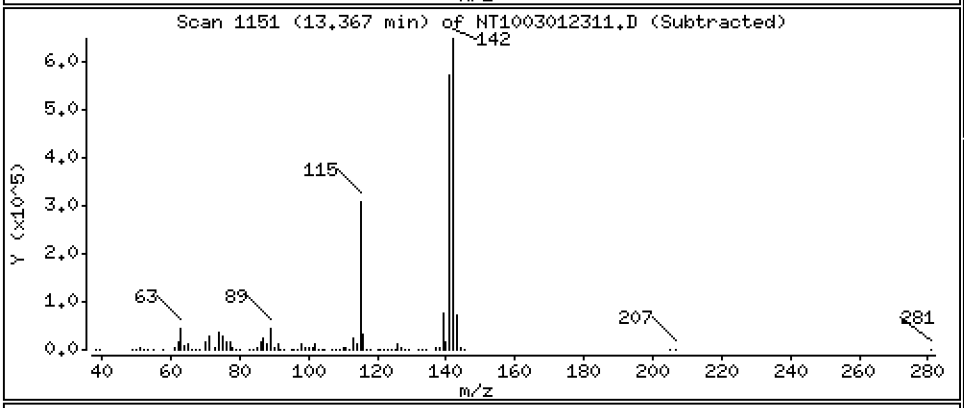
Column diameter: 0.25

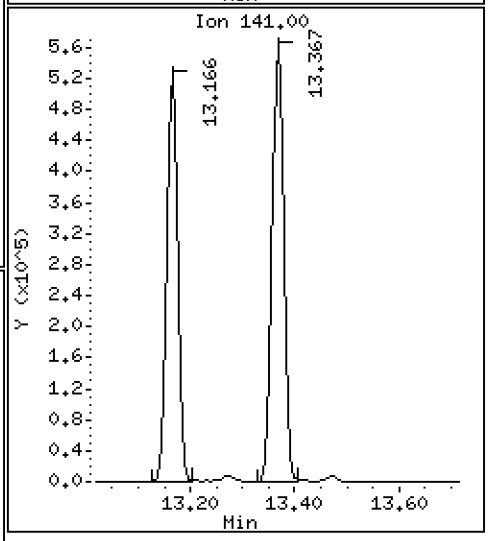
105 1-methylnaphthalene

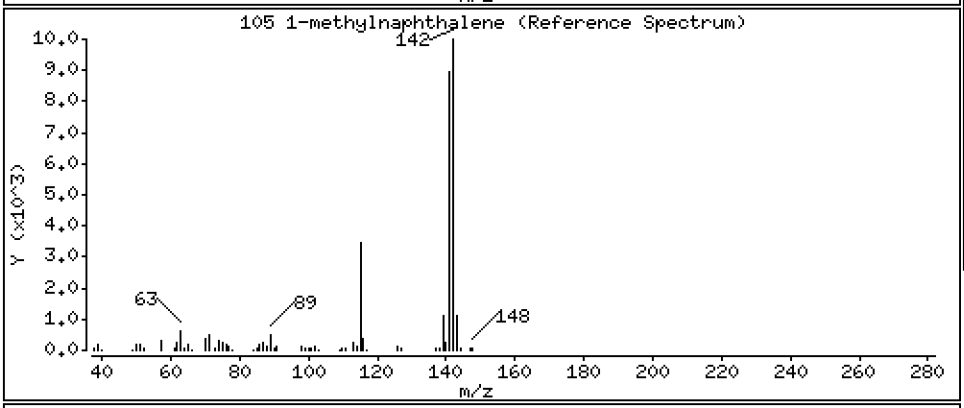
Concentration: 5.219 ug/mL

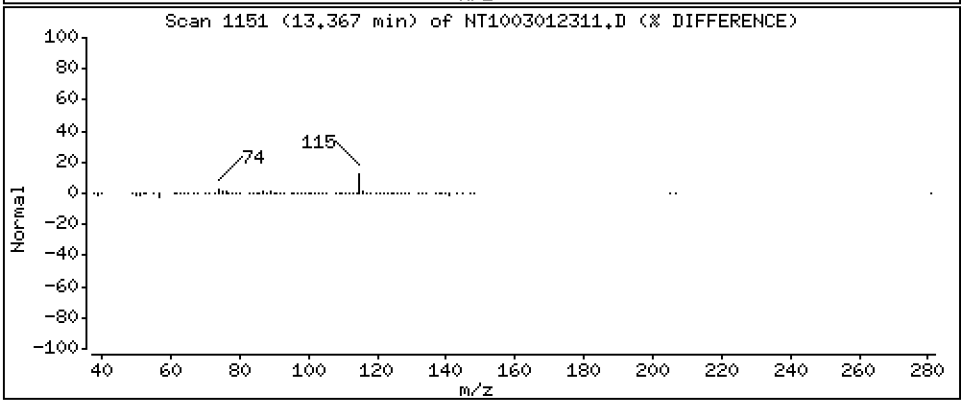












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

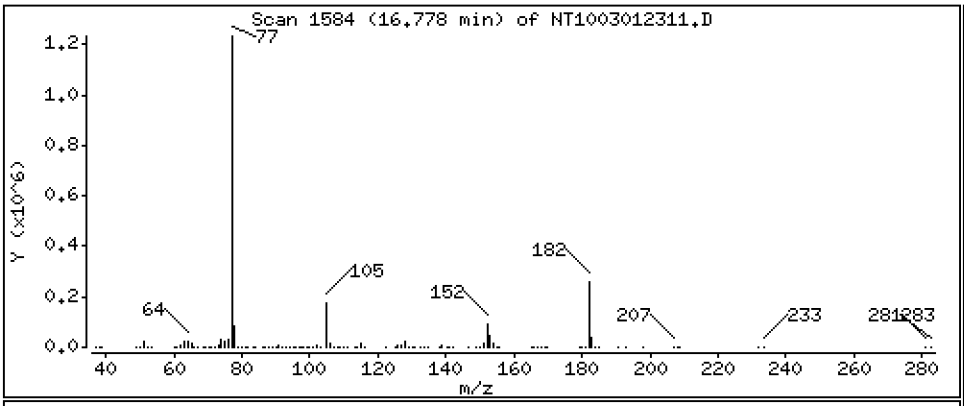
Operator: VTS

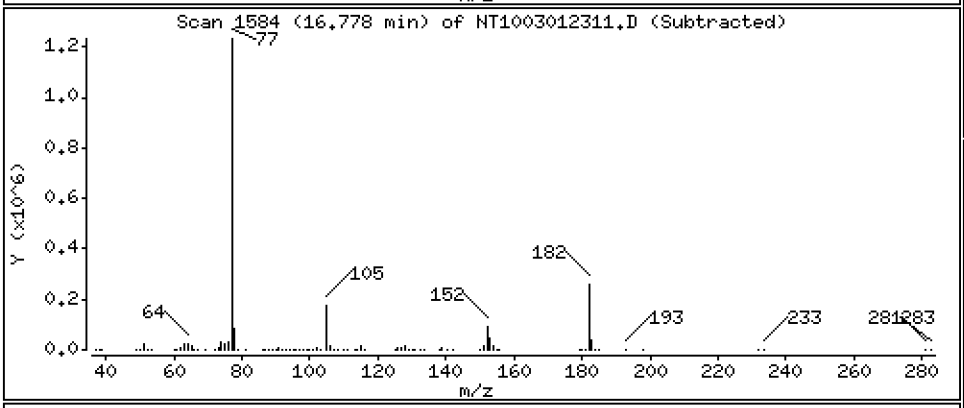
Column phase: ZB-5msi

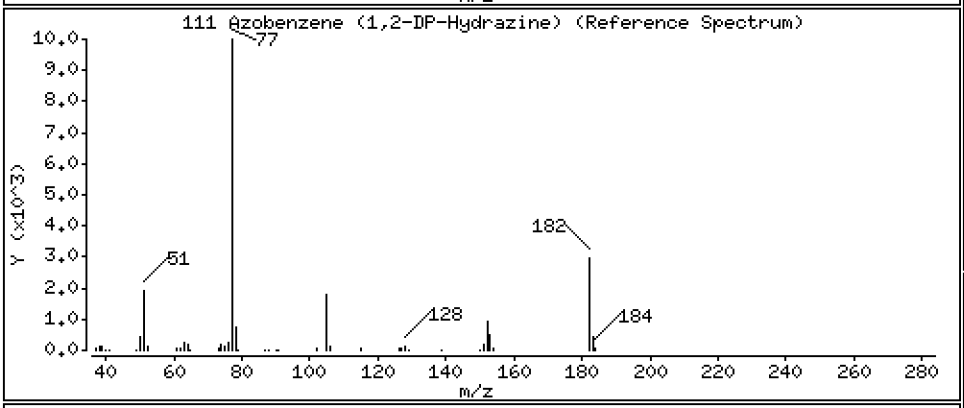
Column diameter: 0.25

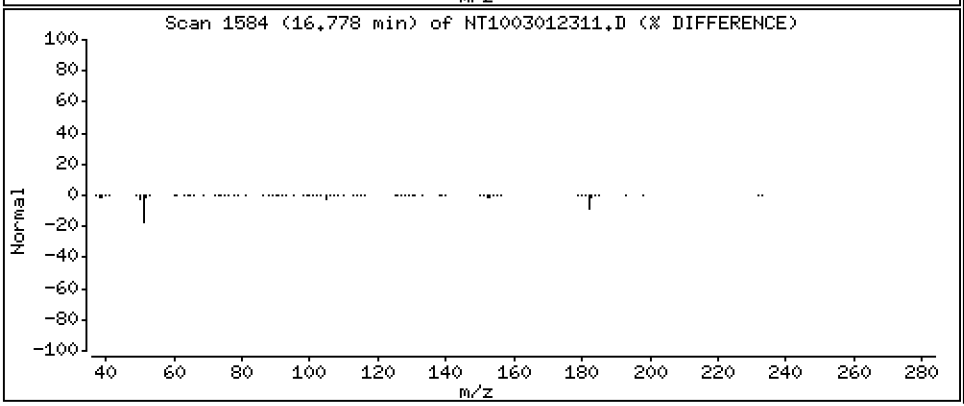
111 Azobenzene (1,2-DP-Hydrazine)

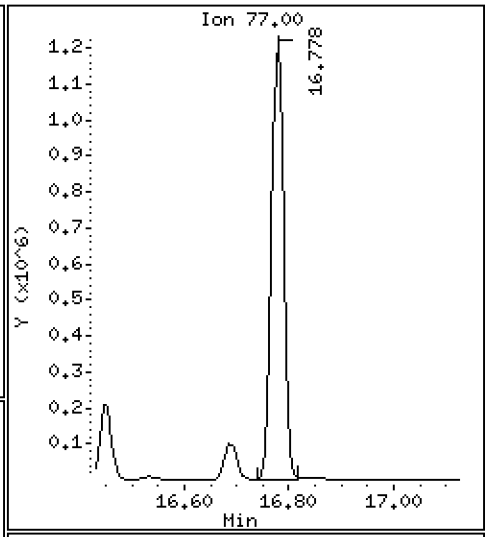
Concentration: 5.953 ug/mL

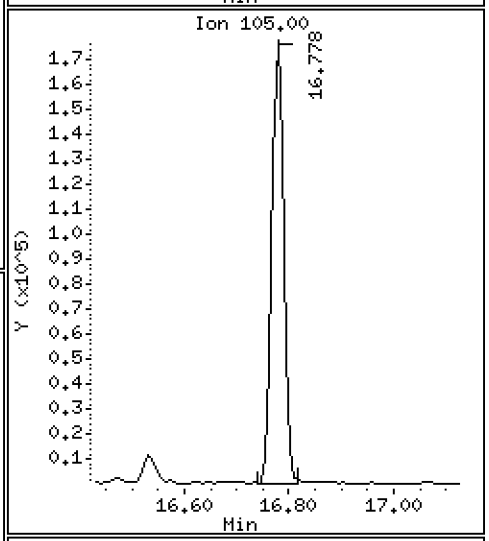


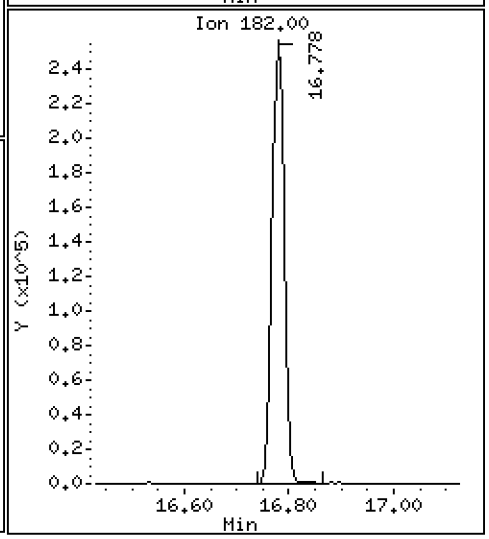












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

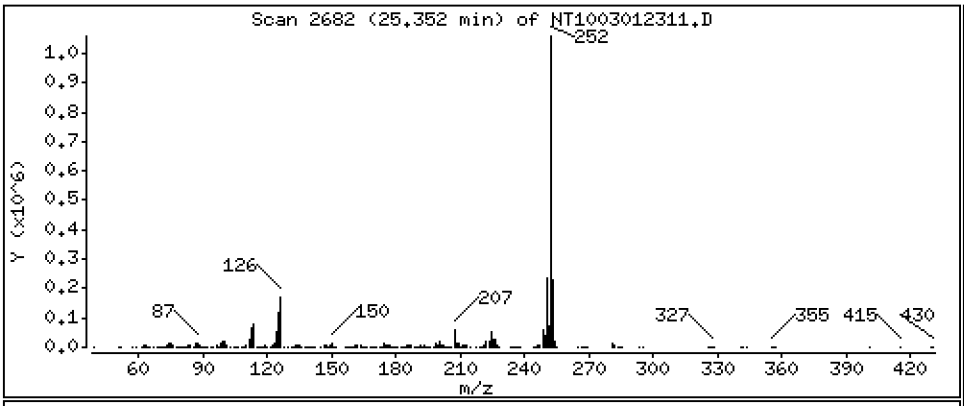
Operator: VTS

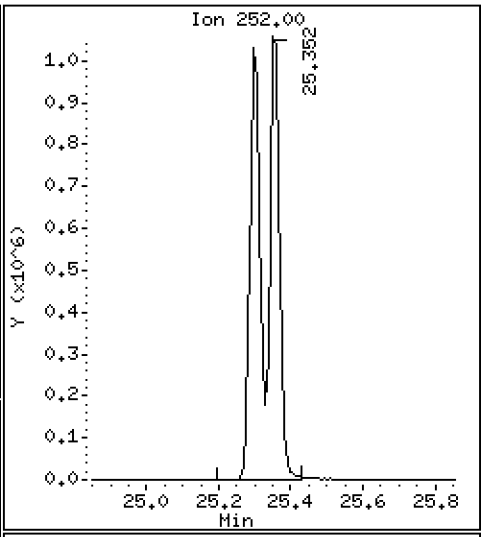
Column phase: ZB-5msi

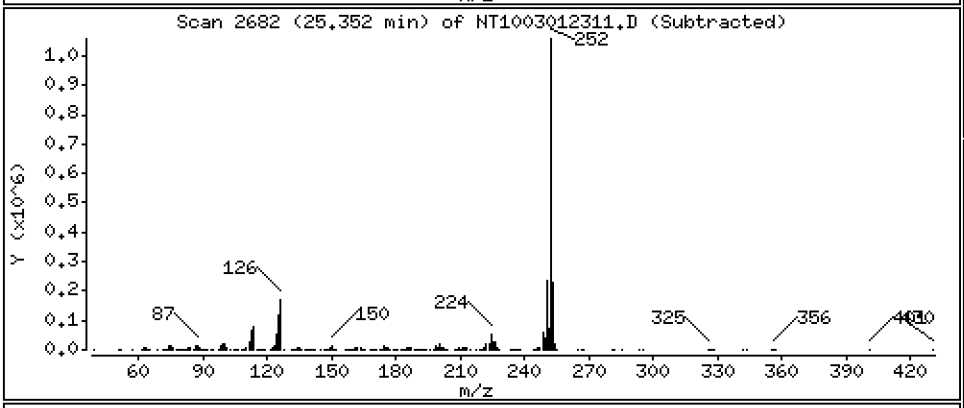
Column diameter: 0.25

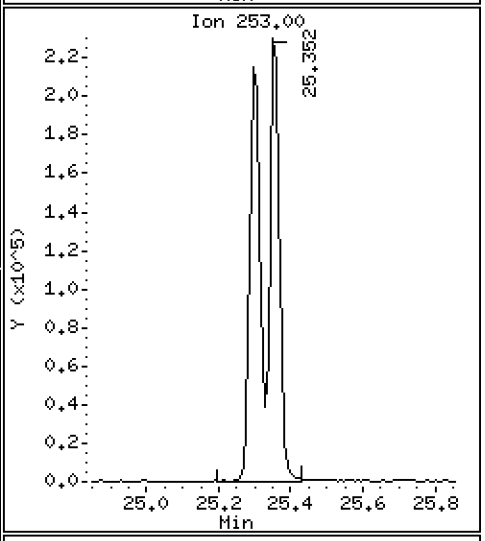
187 Total Benzofluoranthenes

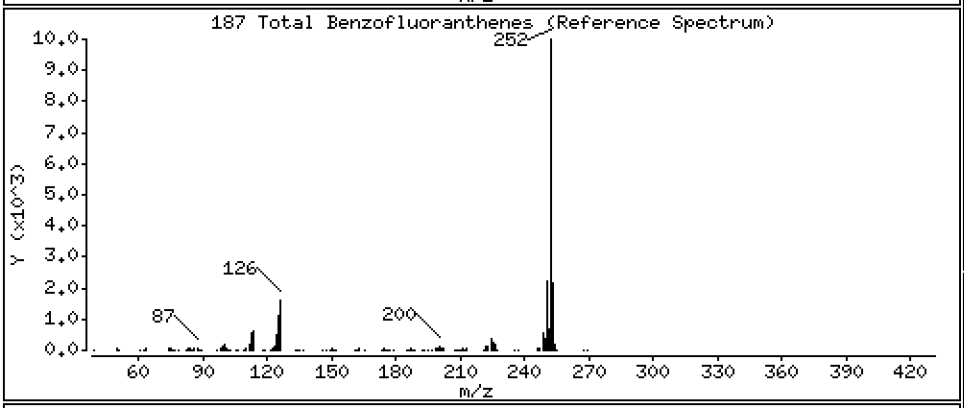
Concentration: 8.905 ug/mL

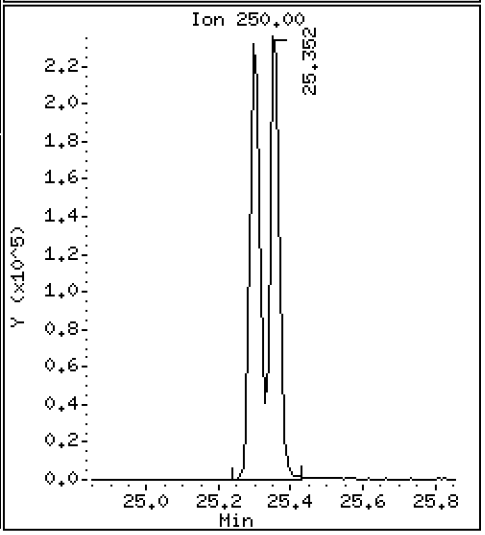


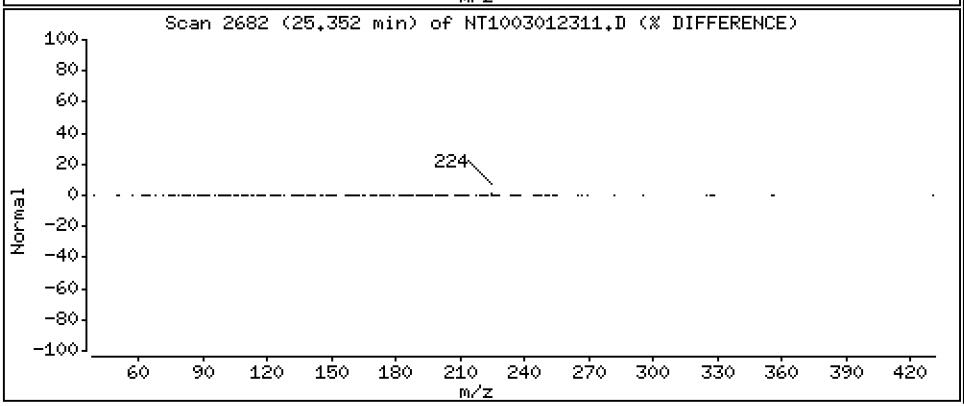












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

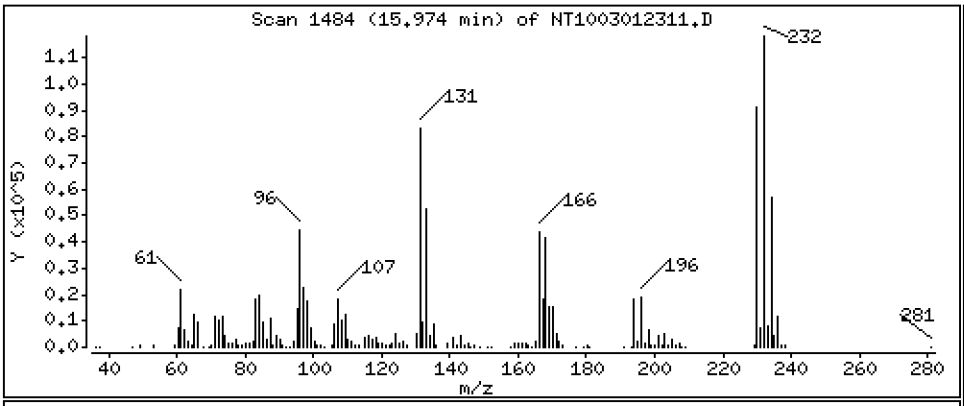
Operator: VTS

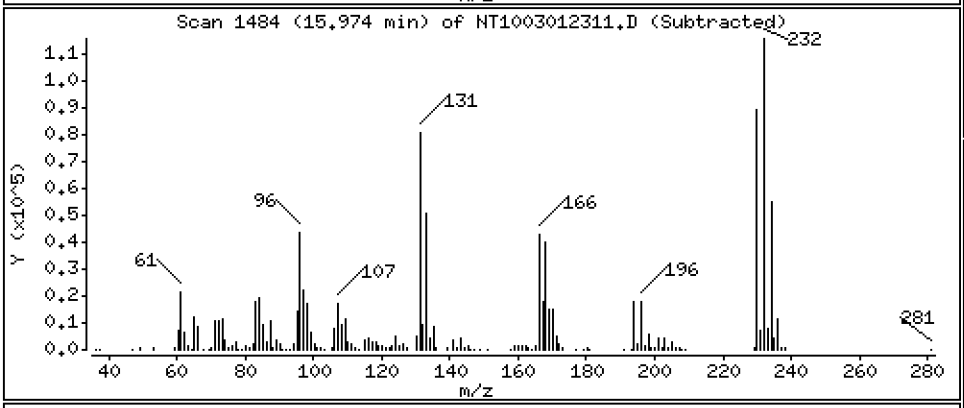
Column phase: ZB-5msi

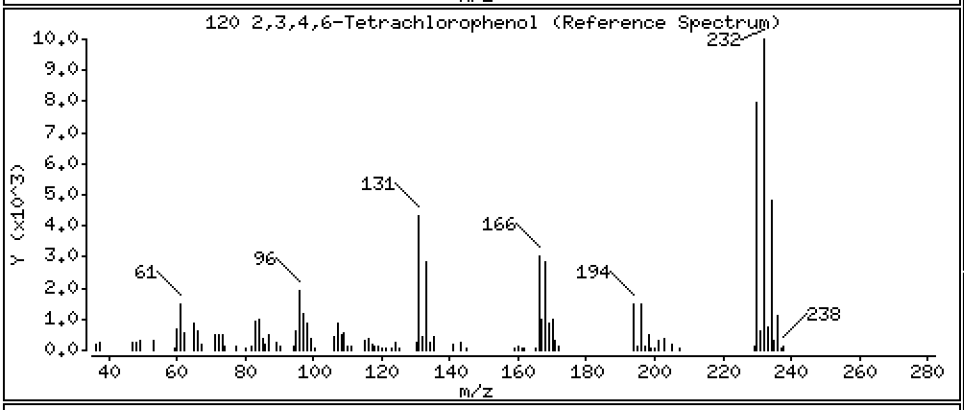
Column diameter: 0.25

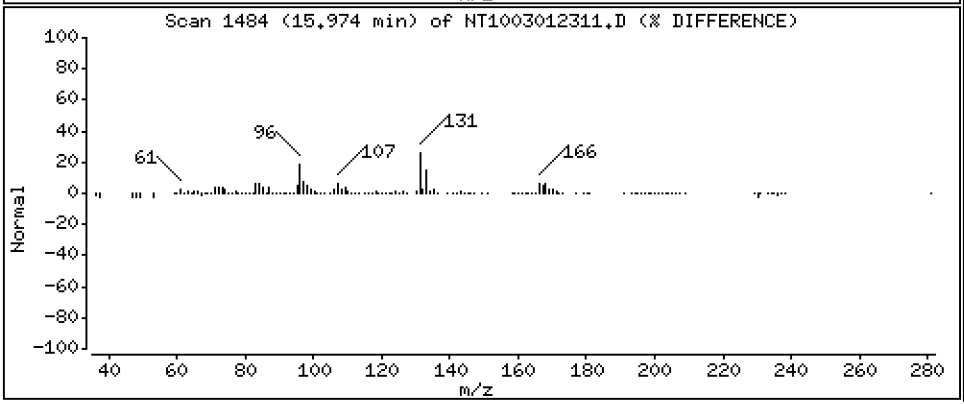
120 2,3,4,6-Tetrachlorophenol

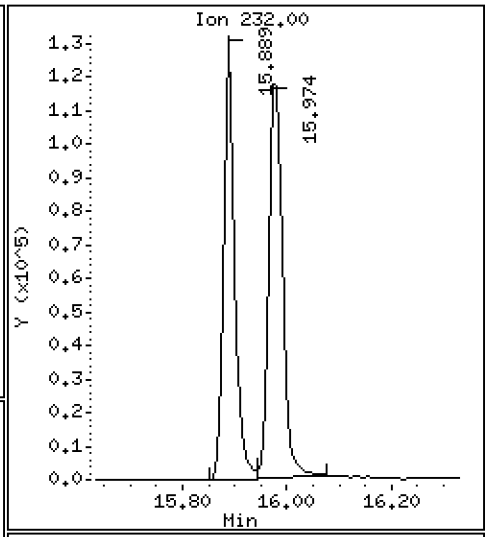
Concentration: 3.534 ug/mL

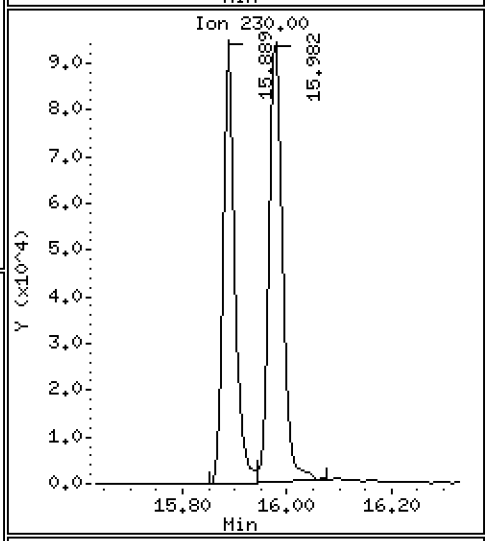


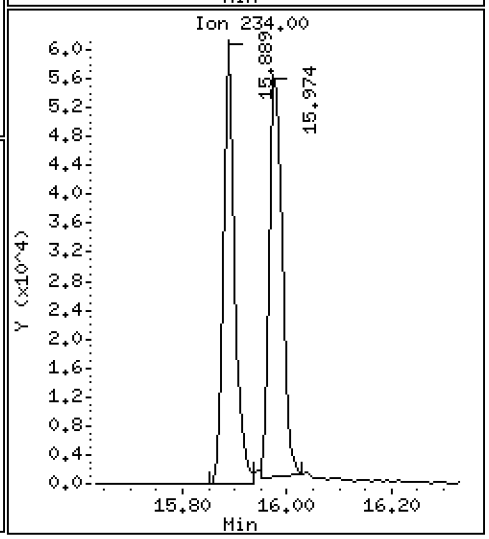












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D
Lab Smp Id: SLC0084-SCV1
Inj Date : 01-MAR-2023 21:46
Operator : VTS Inst ID: nt10.i
Smp Info : SEQ-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Meth Date : 07-Mar-2023 12:44 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: ORGDATA102

								CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	Compound Not Detected.						
$	2 Phenol-d5	99	Compound Not Detected.						
	3 Phenol	94	8.512	8.512	(0.921)	534295		4.85212	4.852
$	5 2-Chlorophenol-d4	132	Compound Not Detected.						
	4 Bis(2-Chloroethyl)ether	93	8.728	8.728	(0.944)	498825		5.92811	5.928(M)
	6 2-Chlorophenol	128	8.844	8.844	(0.956)	430747		4.69234	4.692
	7 1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	533006		5.26632	5.266
*	8 1,4-Dichlorobenzene-d4	152	9.247	9.247	(1.000)	283537		4.00000	
	9 1,4-Dichlorobenzene	146	9.278	9.278	(1.003)	524367		5.21589	5.216
$	10 1,2-Dichlorobenzene-d4	152	9.247	9.534	(1.000)	283537		4.29482	4.295
	12 1,2-Dichlorobenzene	146	9.557	9.565	(1.034)	505415		5.19402	5.194
	11 Benzyl alcohol	108	9.472	9.472	(1.024)	283618		4.89779	4.898
	14 2,2'-oxybis(1-Chloropropane)	121	9.736	9.728	(1.053)	174821		6.23165	6.232
	13 2-Methylphenol	108	9.650	9.650	(1.044)	364596		4.19238	4.192
	17 Hexachloroethane	117	10.209	10.209	(1.104)	224586		5.44260	5.443
	16 N-Nitroso-di-n-propylamine	70	9.977	9.976	(1.079)	392376		5.90505	5.905
	15 4-Methylphenol	108	9.945	9.938	(1.076)	448938		4.23938	4.239
$	18 Nitrobenzene-d5	82	Compound Not Detected.						
	19 Nitrobenzene	77	10.326	10.326	(0.881)	624582		5.56925	5.569
	20 Isophorone	82	10.784	10.784	(0.920)	1098236		7.67155	7.672
	21 2-Nitrophenol	139	10.950	10.951	(0.934)	197578		3.24407	3.244
	22 2,4-Dimethylphenol	107	10.993	10.993	(0.938)	379240		3.50675	3.507
	23 Bis(2-Chloroethoxy)methane	93	11.205	11.205	(0.956)	595145		6.72720	6.727
	24 Benzoic acid	105	11.103	11.052	(0.947)	362406		5.63546	5.635
	25 2,4-Dichlorophenol	162	11.417	11.417	(0.974)	379310		4.43743	4.437
	26 1,2,4-Trichlorobenzene	180	11.595	11.595	(0.989)	413079		4.90787	4.908
*	27 Naphthalene-d8	136	11.719	11.719	(1.000)	1089120		4.00000	
	28 Naphthalene	128	11.765	11.765	(1.004)	1468990		5.25508	5.255
	29 4-Chloroaniline	127	11.858	11.858	(1.012)	469377		3.79133	3.791
	30 Hexachlorobutadiene	225	11.989	11.997	(1.023)	307313		5.01449	5.014
	31 4-Chloro-3-methylphenol	107	12.802	12.809	(1.092)	402740		4.45246	4.452
	32 2-Methylnaphthalene	142	13.165	13.165	(1.123)	977687		4.95082	4.951
	33 Hexachlorocyclopentadiene	237	13.467	13.475	(0.879)	52130		2.56222	2.562

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	13.722	13.730	(0.896)	241174	4.12027	4.120
	35	2,4,5-Trichlorophenol	196	13.792	13.808	(0.900)	259485	4.14893	4.149(M)
$	36	2-Fluorobiphenyl	172	Compound Not Detected.					
	37	2-Chloronaphthalene	162	14.164	14.164	(0.925)	895889	5.26440	5.264
	38	2-Nitroaniline	65	14.365	14.365	(0.938)	237773	5.02711	5.027
	39	Dimethylphthalate	163	14.736	14.736	(0.962)	1056857	5.38446	5.384
	40	Acenaphthylene	152	15.023	15.023	(0.981)	1703355	5.80574	5.806
	41	2,6-Dinitrotoluene	165	14.868	14.868	(0.971)	227062	5.18679	5.187
*	42	Acenaphthene-d10	164	15.317	15.309	(1.000)	607772	4.00000	
	43	3-Nitroaniline	138	15.208	15.224	(0.993)	256002	5.17200	5.172
	44	Acenaphthene	153	15.379	15.378	(1.004)	911910	5.15374	5.154
	45	2,4-Dinitrophenol	184	15.433	15.487	(1.008)	3021	0.26673	0.2667
	46	Dibenzofuran	168	15.742	15.734	(1.028)	1311367	4.99365	4.994
	47	4-Nitrophenol	109	15.533	15.603	(1.014)	133260	3.82233	3.822(M)
	48	2,4-Dinitrotoluene	165	15.695	15.703	(1.025)	300469	4.72923	4.729
	50	Diethylphthalate	149	16.206	16.198	(1.058)	1172442	5.63859	5.639
	49	Fluorene	166	16.453	16.453	(1.074)	1159050	5.30478	5.305
	51	4-Chlorophenyl-phenylether	204	16.453	16.453	(1.074)	527532	5.25262	5.253
	52	4-Nitroaniline	138	16.469	16.484	(1.075)	278392	5.23237	5.232
	53	4,6-Dinitro-2-methylphenol	198	16.531	16.538	(0.898)	36409	1.29161	1.292
	54	N-Nitrosodiphenylamine	169	16.685	16.693	(0.907)	966268	5.41587	5.416
$	55	2,4,6-Tribromophenol	330	Compound Not Detected.					
	56	4-Bromophenyl-phenylether	248	17.465	17.472	(0.949)	394706	5.45981	5.460
	57	Hexachlorobenzene	284	17.573	17.573	(0.955)	391196	4.80535	4.805
	58	Pentachlorophenol	266	17.984	17.983	(0.977)	133557	3.49178	3.492
*	59	Phenanthrene-d10	188	18.401	18.401	(1.000)	1205858	4.00000	
	60	Phenanthrene	178	18.448	18.448	(1.003)	1569094	5.08454	5.085
	61	Anthracene	178	18.556	18.556	(1.008)	1371933	4.58472	4.585
	62	Carbazole	167	18.889	18.889	(1.026)	1462441	5.33467	5.335
	63	Di-n-butylphthalate	149	19.585	19.585	(1.064)	2114080	5.46304	5.463
	64	Fluoranthene	202	20.815	20.815	(0.889)	1905220	4.54169	4.542
	65	Pyrene	202	21.248	21.248	(0.907)	1975953	4.62585	4.626
$	66	Terphenyl-d14	244	21.519	21.527	(0.919)	6779	0.01961	0.01961
	67	Butylbenzylphthalate	149	22.410	22.410	(0.957)	1022950	4.52520	4.525
	68	Benzo(a)anthracene	228	23.401	23.401	(0.999)	1968545	4.57826	4.578
*	69	Chrysene-d12	240	23.416	23.416	(1.000)	1219436	4.00000	
	70	3,3'-Dichlorobenzidine	252	23.347	23.347	(0.997)	1426681	7.38255	7.383
	71	Chrysene	228	23.463	23.463	(1.002)	1735599	4.96674	4.967
	72	bis(2-Ethylhexyl)phthalate	149	23.401	23.409	(0.956)	1660477	4.95568	4.956
*	134	Di-n-octylphthalate-d4	153	24.485	24.485	(1.000)	2317357	4.00000	
	73	Di-n-octylphthalate	149	24.492	24.492	(1.000)	3003083	5.84397	5.844
	74	Benzo(b)fluoranthene	252	25.298	25.298	(0.969)	1988643	4.31882	4.319
	75	Benzo(k)fluoranthene	252	25.352	25.352	(0.971)	2031546	4.56297	4.563
	76	Benzo(a)pyrene	252	25.987	25.987	(0.996)	1831856	4.44514	4.445
*	77	Perylene-d12	264	26.103	26.103	(1.000)	1289108	4.00000	
	78	Indeno(1,2,3-cd)pyrene	276	28.863	28.863	(1.106)	2089660	4.34488	4.345
	79	Dibenzo(a,h)anthracene	278	28.917	28.925	(1.108)	1695484	4.60754	4.608
	80	Benzo(g,h,i)perylene	276	29.709	29.709	(1.138)	1753537	4.60249	4.602
	90	N-Nitrosodimethylamine	74	4.712	4.719	(0.510)	316213	5.49082	5.491
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	21.071	21.094	(0.900)	932502	5.00739	5.007
	103	Pyridine	79	4.774	4.789	(0.516)	554573	5.42989	5.430
	105	1-methylnaphthalene	142	13.366	13.366	(1.141)	932752	5.21855	5.219
	111	Azobenzene (1,2-DP-Hydrazine)	77	16.778	16.778	(1.095)	1848373	5.95279	5.953

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.352	25.352	(0.971)	3948555	8.90452	8.905
120 2,3,4,6-Tetrachlorophenol	232	15.974	15.982	(1.043)	209122	3.53394	3.534

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012311.D
Lab Smp Id: SLC0084-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 17:21
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	337641	168821	675282	283537	-16.02
27 Naphthalene-d8	1265187	632594	2530374	1089120	-13.92
42 Acenaphthene-d10	692385	346193	1384770	607772	-12.22
59 Phenanthrene-d10	1376777	688389	2753554	1205858	-12.41
69 Chrysene-d12	1019524	509762	2039048	1219436	19.61
134 Di-n-octylphthala	2027111	1013556	4054222	2317357	14.32
77 Perylene-d12	1027409	513705	2054818	1289108	25.47

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.01
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.32	0.05
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
134 Di-n-octylphthala	24.48	23.98	24.98	24.49	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012311.D

Lab ID: SLC0084-SCV1
nt10.i, 20230301.b\ABN.m,   01-MAR-2023 21:46

RT	CO-ELUTION COMPOUNDS
23.401	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.014	1.019	-0.0051	4-Nitrophenol
1.000	1.031	-0.0310	1,2-Dichlorobenzene-d4

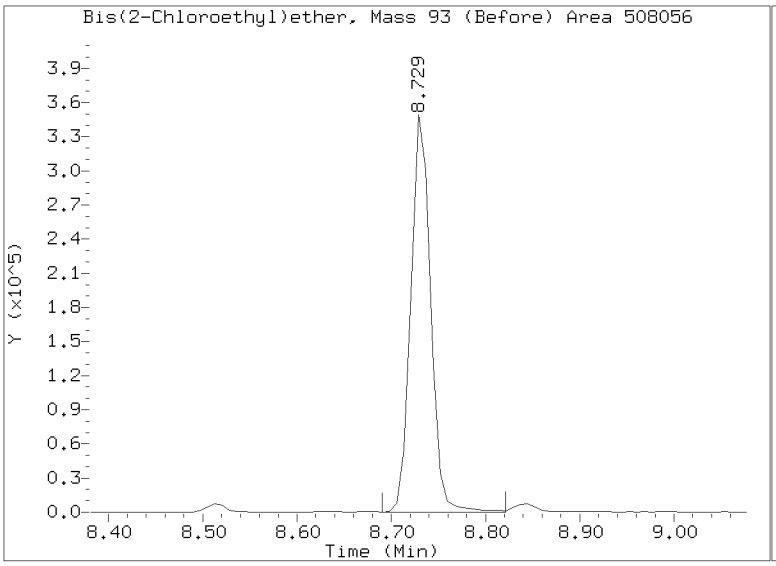
RRT check based on Ccal File: NT1003012307.D

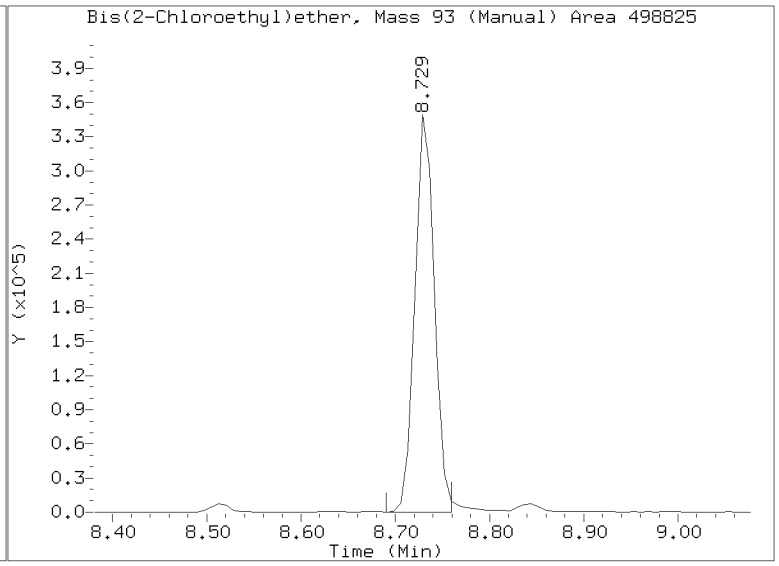
On Column LOD for nt10.i, 20230301.b\ABN.m, ICAL.sub = 0.0000

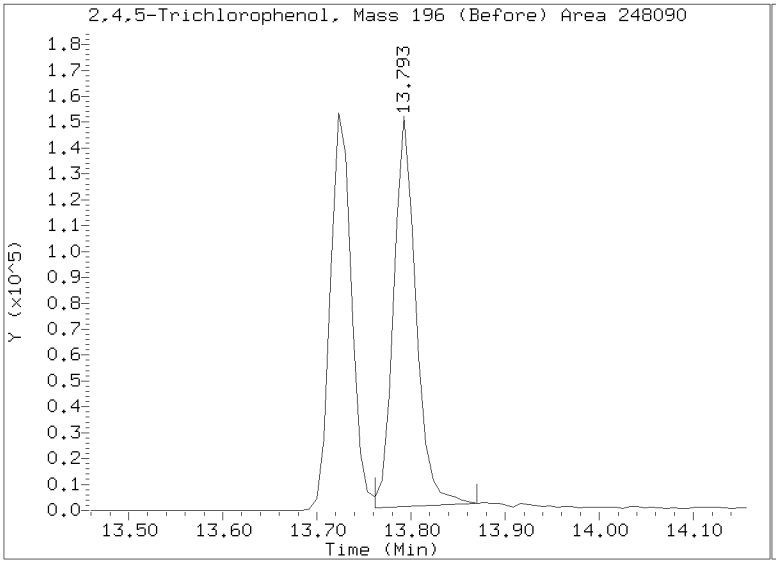
* Only compounds listed in the work order have been verified by the analyst *

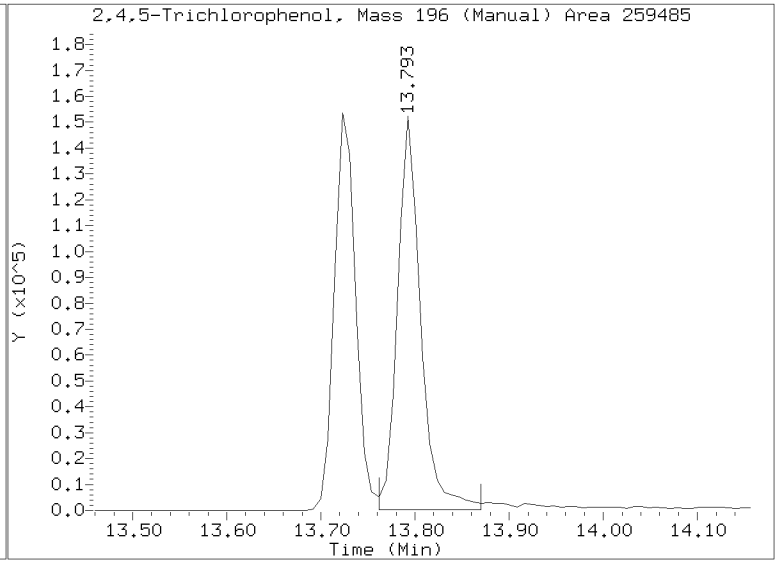
Quant Ion Manual Peak Adjustment Report

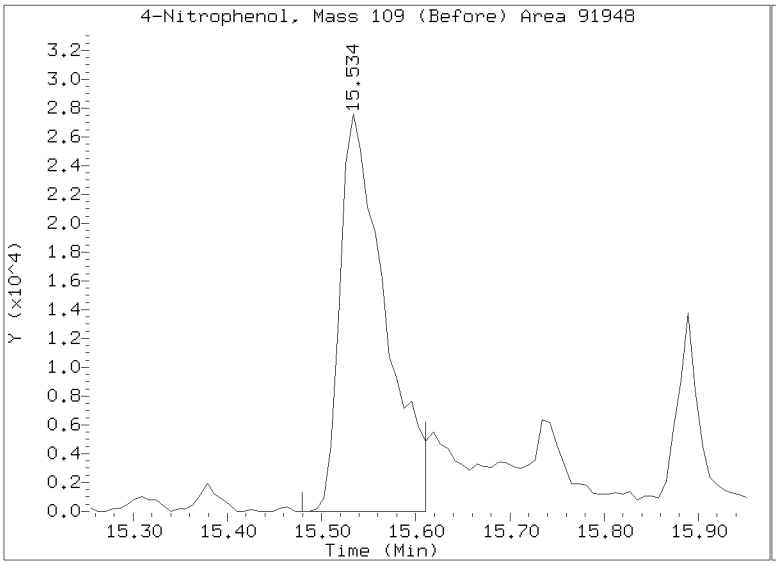
Datafile: //target/share/chem3/nt10.i/20230301.b/NT1003012311.D
Injection Date: 01-MAR-2023 21:46
Lab ID:SLC0084-SCV1 Client ID:
Report Date: 03/07/2023 12:48

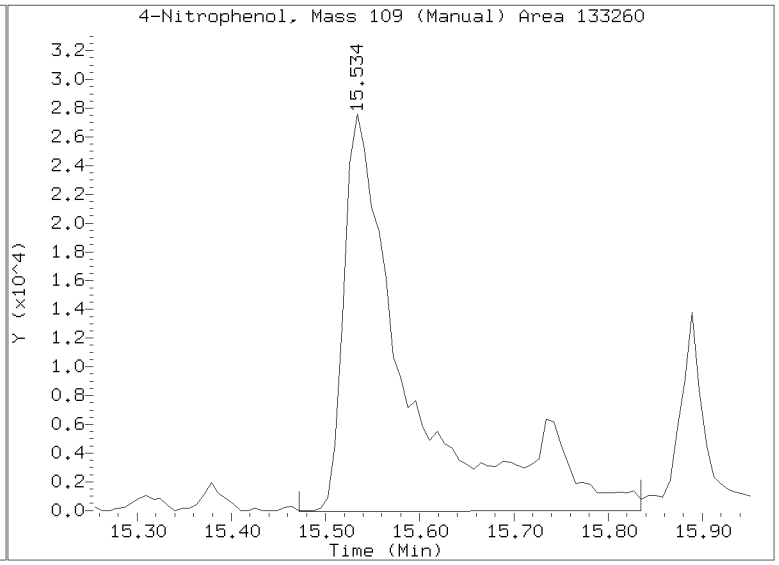












LOW-CONCENTRATION CALIBRATION VERIFICATION

EPA 8270E

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00019
Laboratory ID: SLC0401-LCV1
Sequence: SLC0401
Standard ID: K011105

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	0.20000	0.1	-28.9	50.00
4-Methylphenol	0.20000	0.1	-37.2	50.00
Naphthalene	0.20000	0.2	2.5	50.00
2-Methylnaphthalene	0.20000	0.2	-2.8	50.00
Acenaphthylene	0.20000	0.2	-6.0	50.00
Dimethylphthalate	0.20000	0.2	-16.8	50.00
Acenaphthene	0.20000	0.2	-1.7	50.00
Dibenzofuran	0.20000	0.2	2.6	50.00
Fluorene	0.20000	0.2	-1.2	50.00
Phenanthrene	0.20000	0.2	-4.2	50.00
Anthracene	0.20000	0.2	-13.2	50.00
Fluoranthene	0.20000	0.2	-11.0	50.00
Pyrene	0.20000	0.2	-10.2	50.00
Butylbenzylphthalate	0.20000	0.09	-54.7 *	50.00
Benzo(a)anthracene	0.20000	0.2	-6.4	50.00
Chrysene	0.20000	0.2	1.4	50.00
bis(2-Ethylhexyl)phthalate	0.20000	0.1	-27.3	50.00
Benzofluoranthenes, Total	0.40000	0.4	-8.0	50.00
Benzo(a)pyrene	0.20000	0.2	-12.7	50.00
Indeno(1,2,3-cd)pyrene	0.20000	0.2	-7.7	50.00
Dibenzo(a,h)anthracene	0.20000	0.2	3.7	50.00
Benzo(g,h,i)perylene	0.20000	0.2	6.0	50.00
2-Fluorophenol	0.30000	0.219	-27.1	50.00
Phenol-d5	0.30000	0.187	-37.8	50.00
2-Chlorophenol-d4	0.30000	0.241	-19.7	50.00
1,2-Dichlorobenzene-d4	0.20000	0.220	9.9	50.00
Nitrobenzene-d5	0.20000	0.156	-22.1	50.00
2-Fluorobiphenyl	0.20000	0.216	8.1	50.00
2,4,6-Tribromophenol	0.30000	0.0217	-92.8 *	50.00

LOW-CONCENTRATION CALIBRATION VERIFICATION
EPA 8270E

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00019
Laboratory ID: SLC0401-LCV1
Sequence: SLC0401
Standard ID: K011105

p-Terphenyl-d14	0.20000	0.191	-4.3	50.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

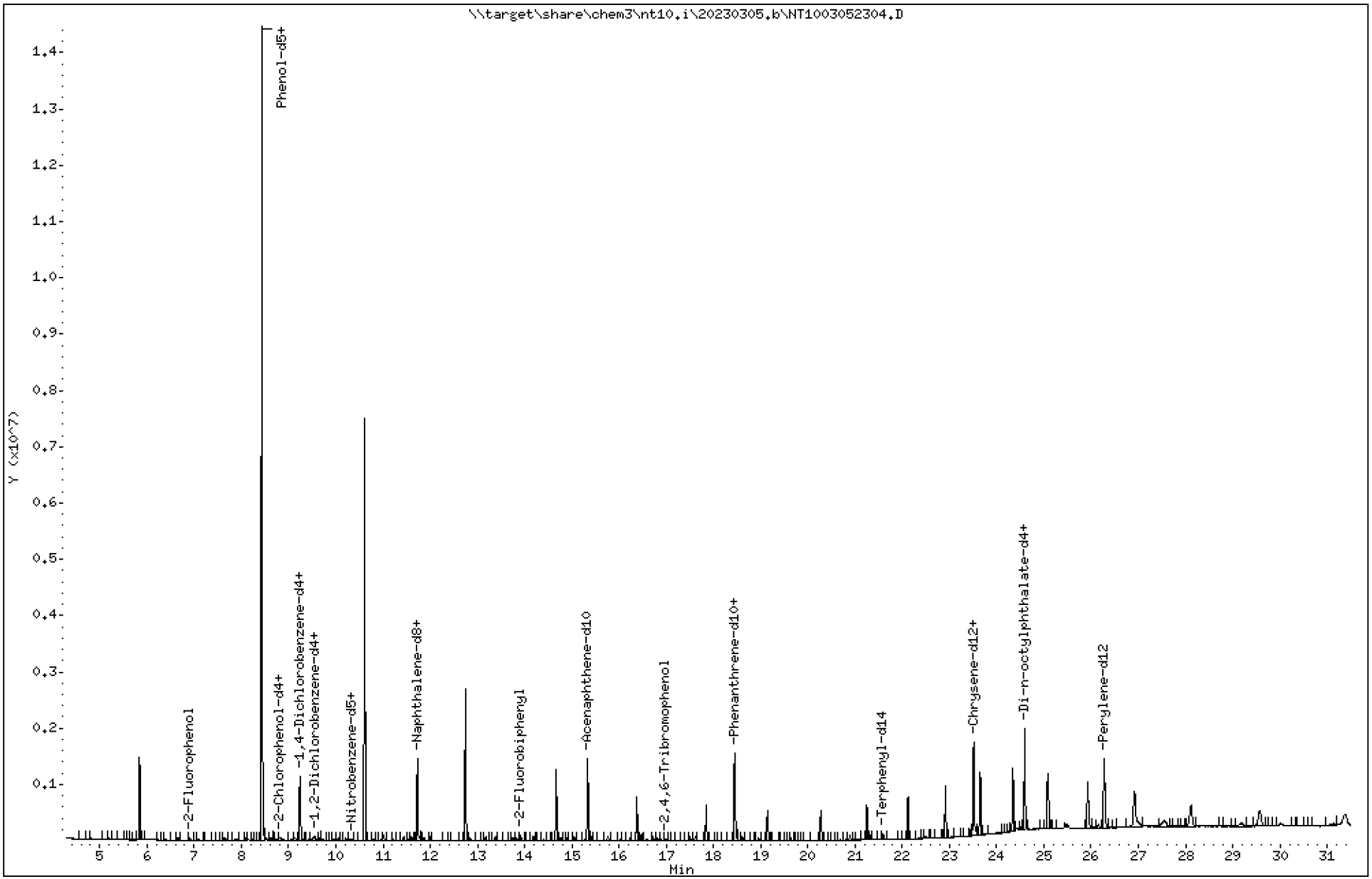
Instrument: nt10.i

Sample Info: SLC0401-LCV1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

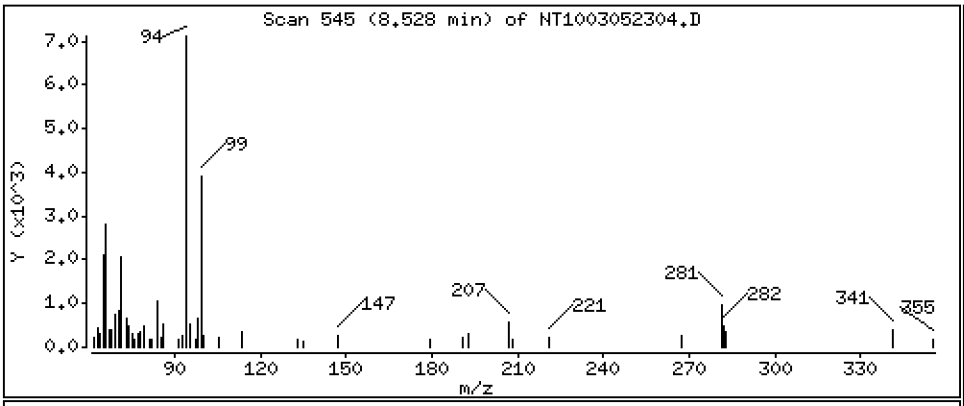
Operator: VTS

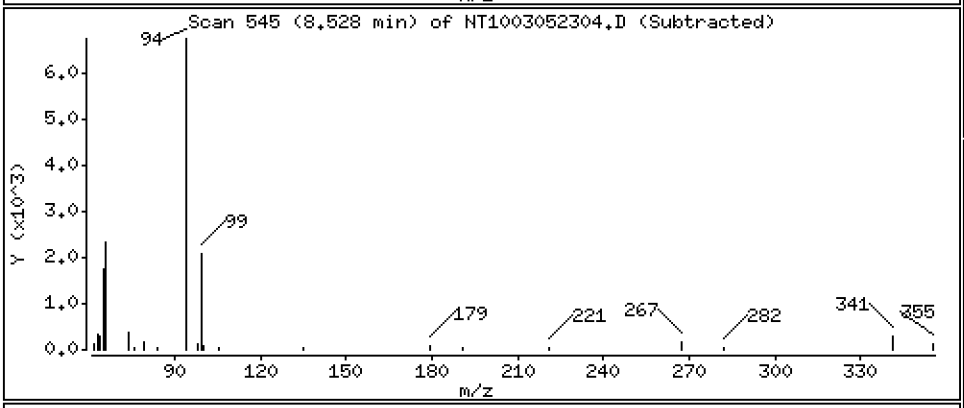
Column phase: ZB-5msi

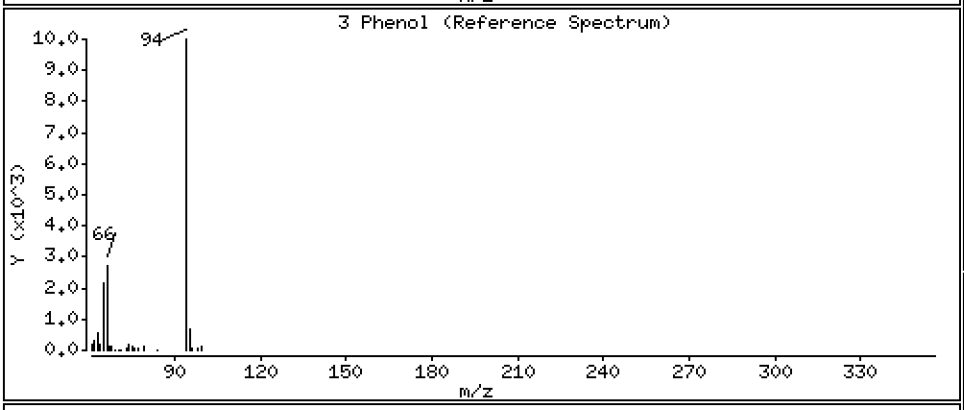
Column diameter: 0.25

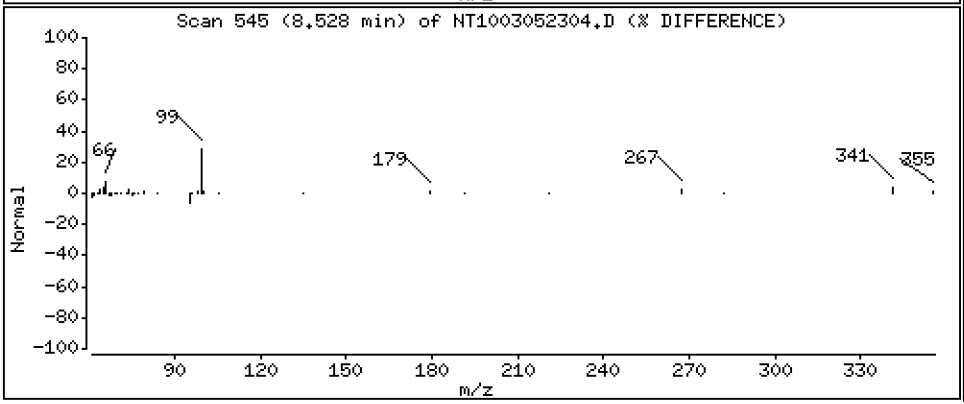
3 Phenol

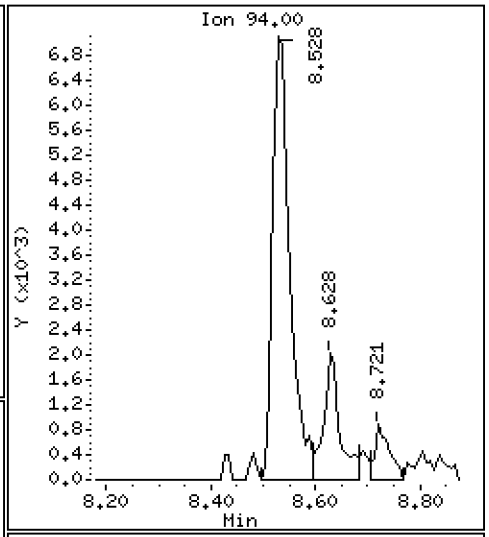
Concentration: 0.1422 ug/mL

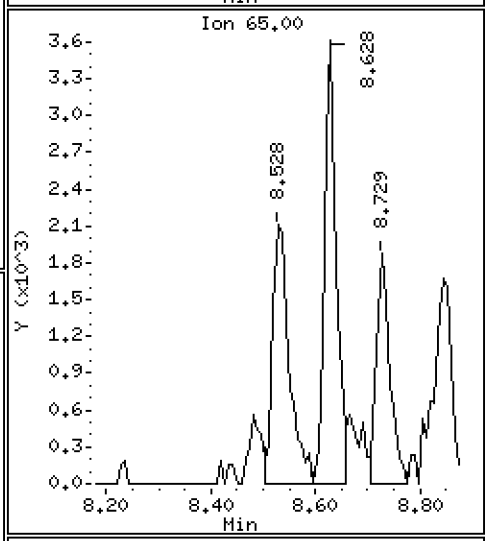


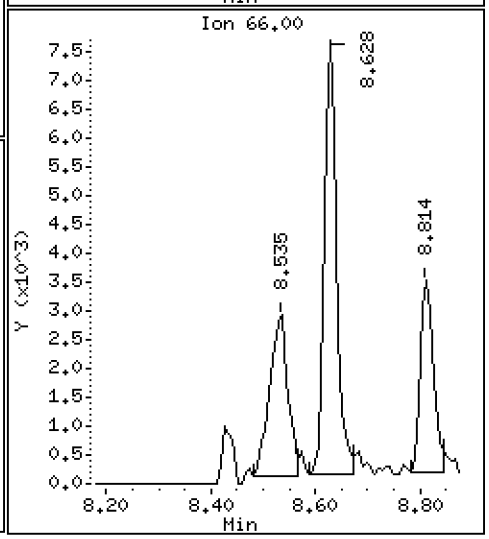












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

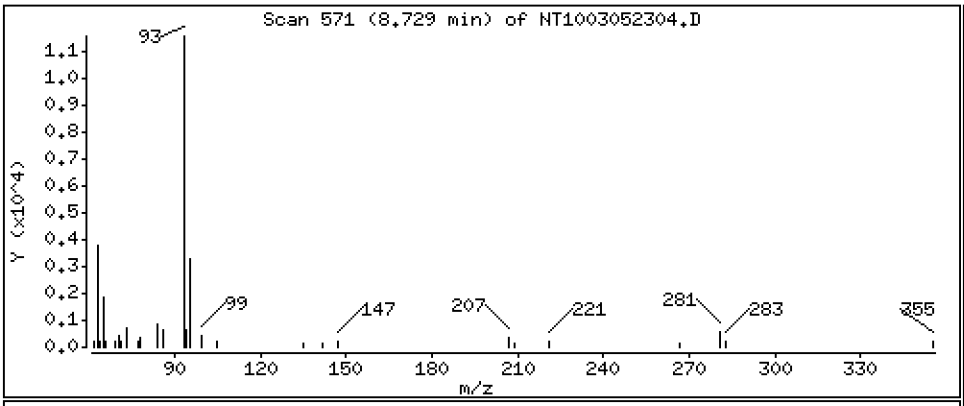
Operator: VTS

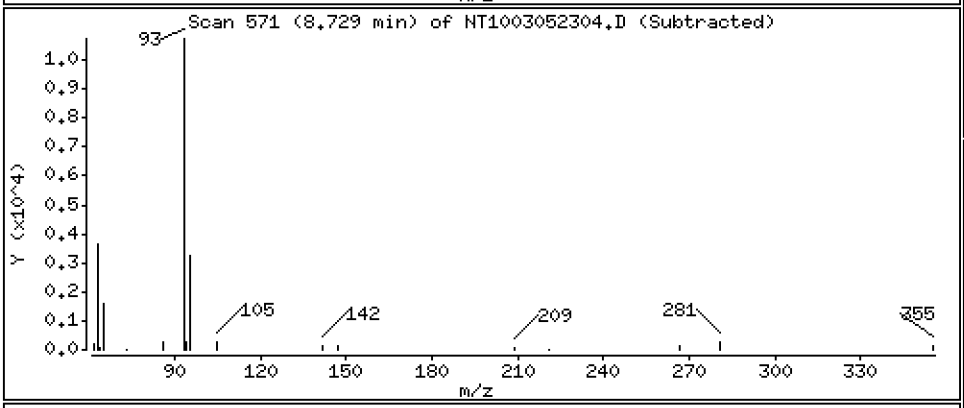
Column phase: ZB-5msi

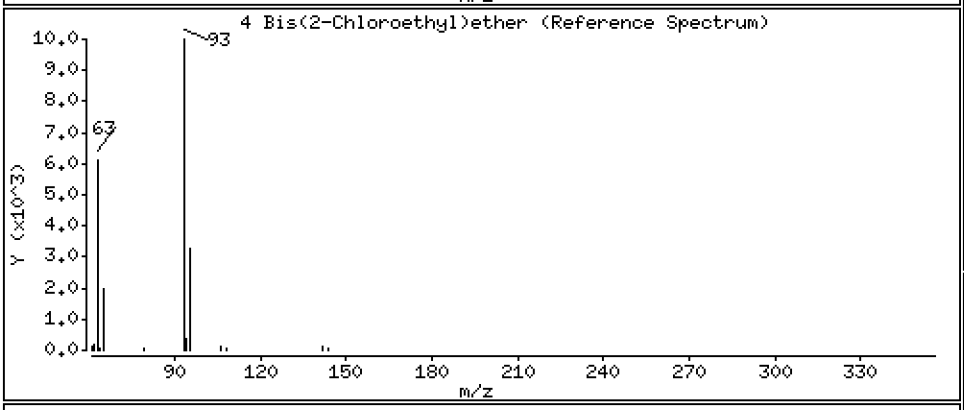
Column diameter: 0.25

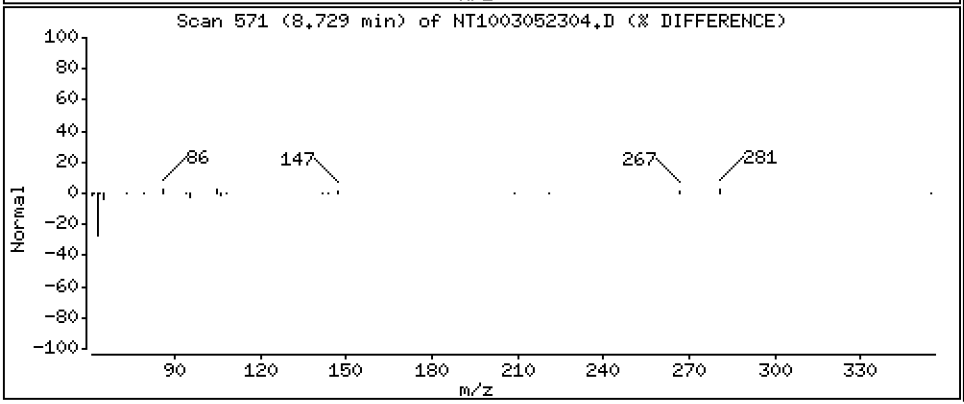
4 Bis(2-Chloroethyl)ether

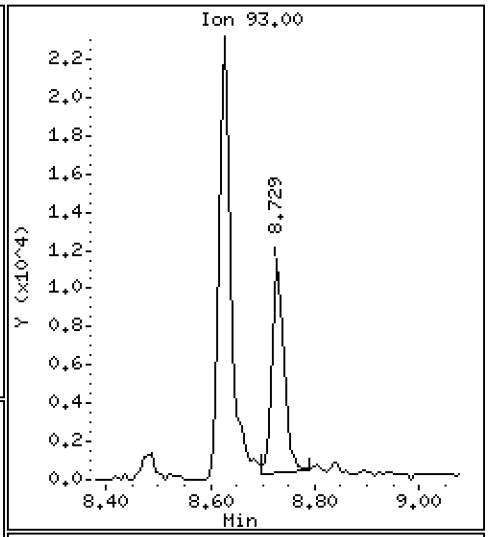
Concentration: 0.1911 ug/mL

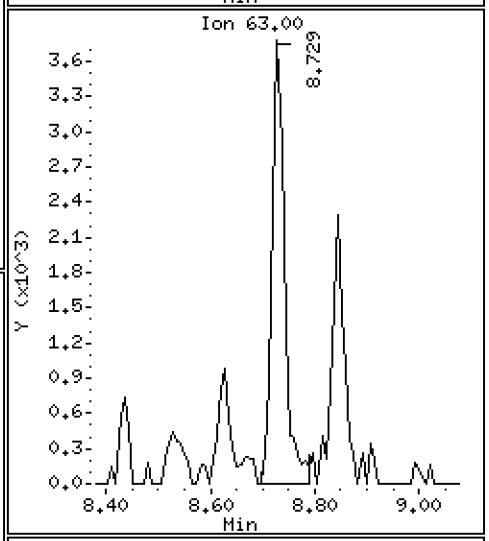


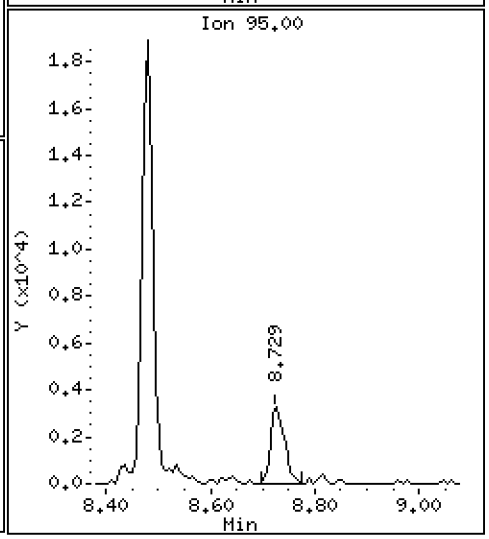












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

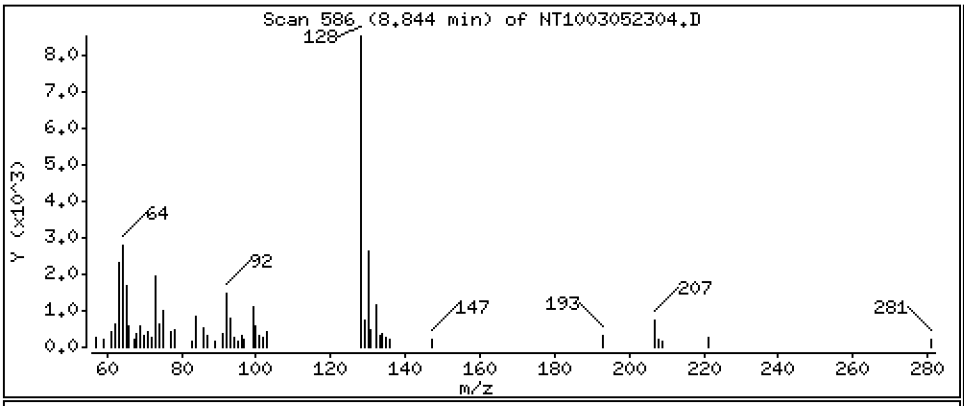
Operator: VTS

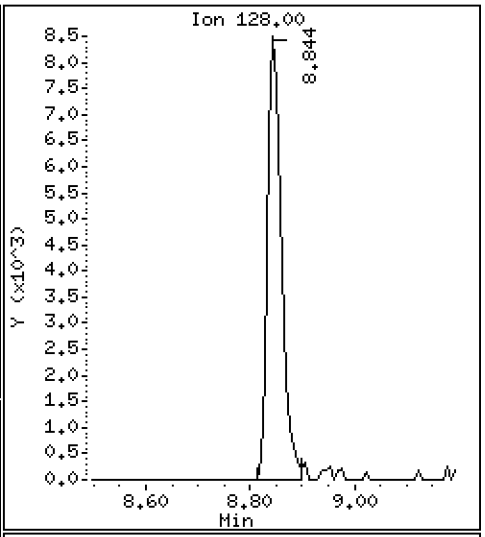
Column phase: ZB-5msi

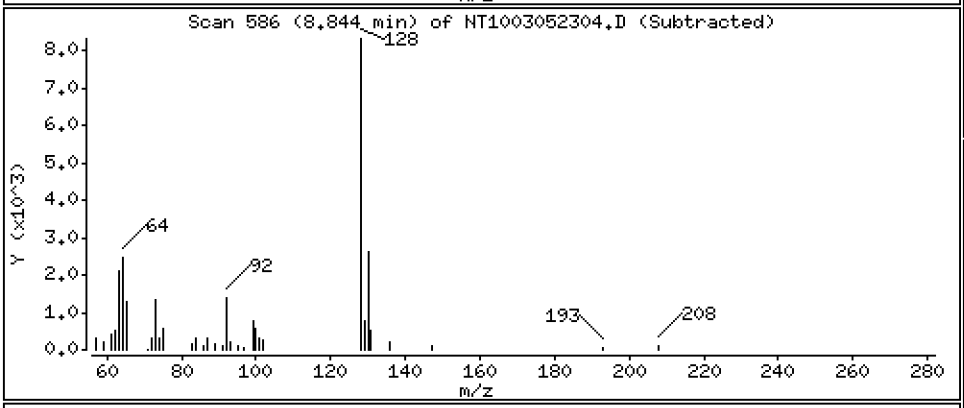
Column diameter: 0.25

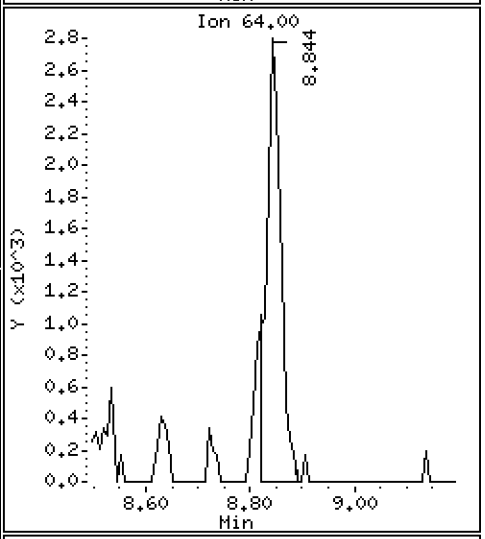
6 2-Chlorophenol

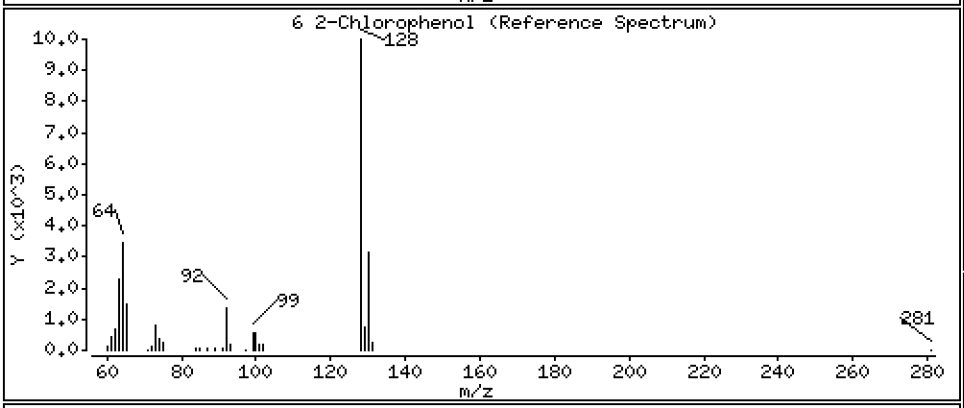
Concentration: 0.1636 ug/mL

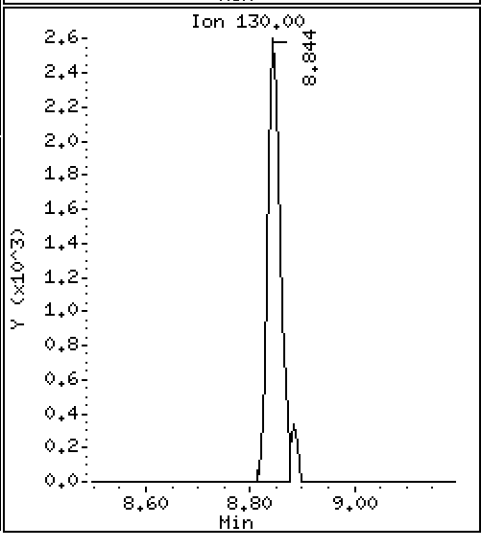


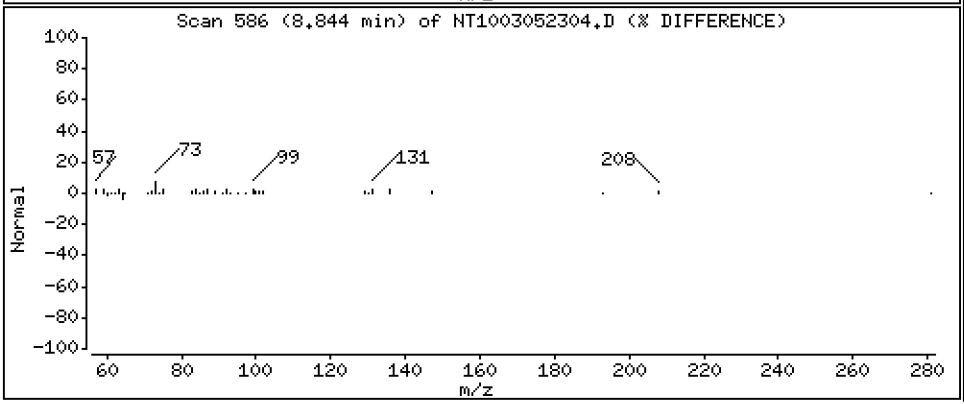












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

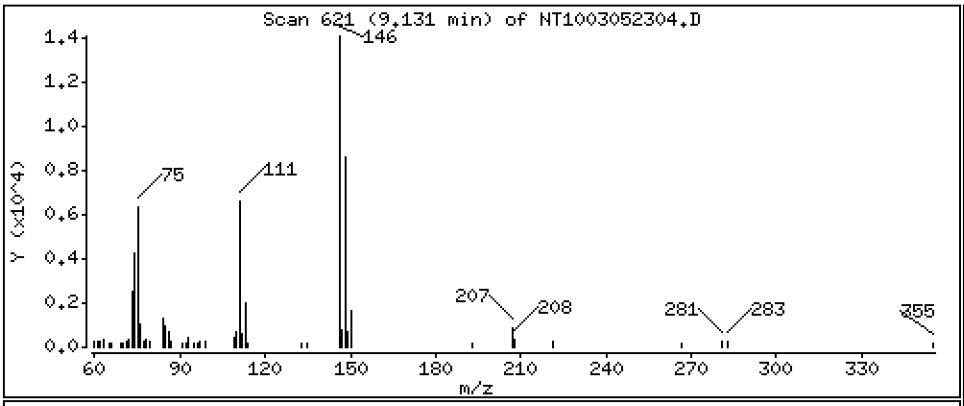
Operator: VTS

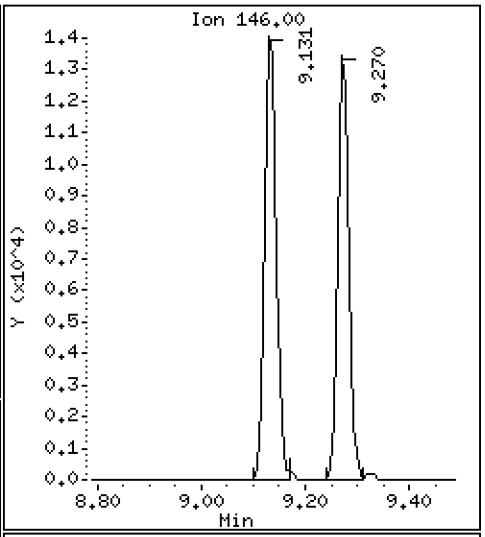
Column phase: ZB-5msi

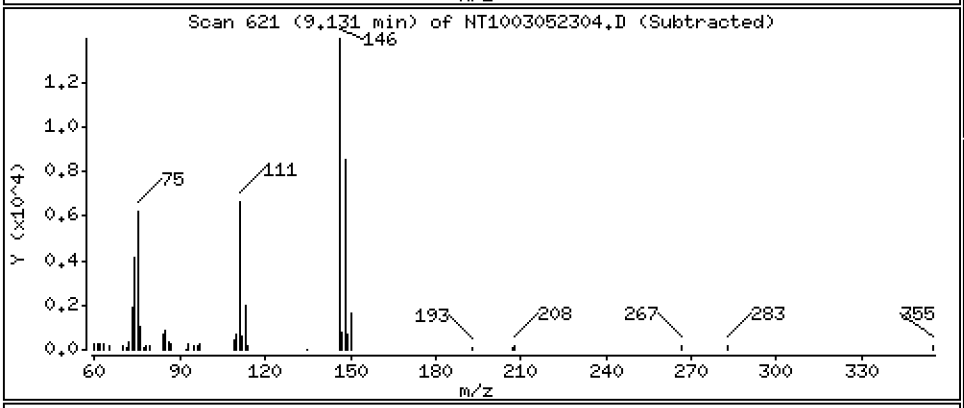
Column diameter: 0.25

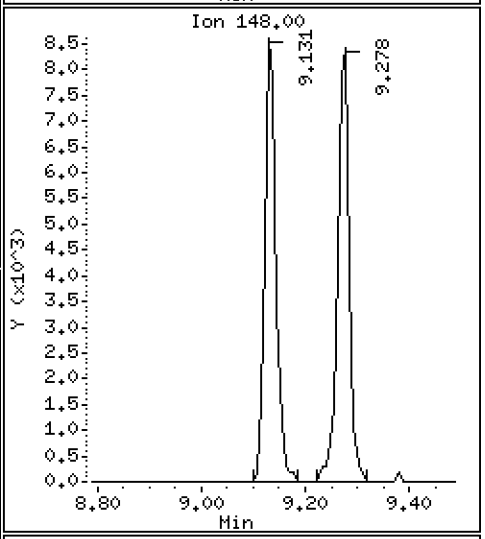
7 1,3-Dichlorobenzene

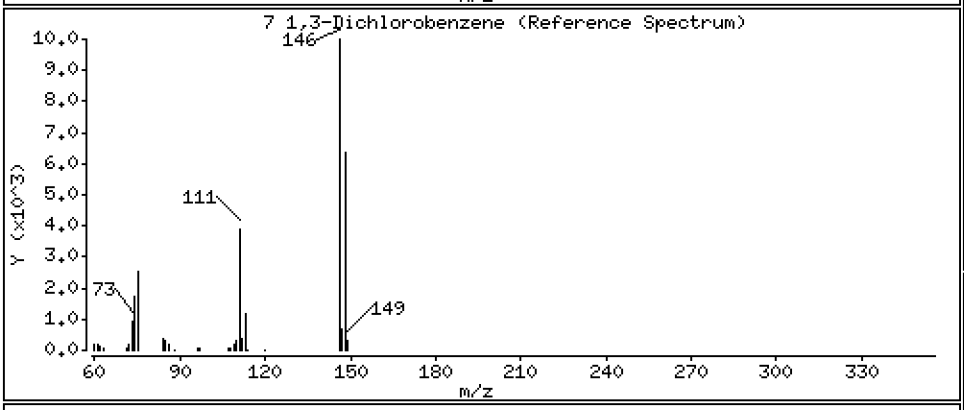
Concentration: 0.2131 ug/mL

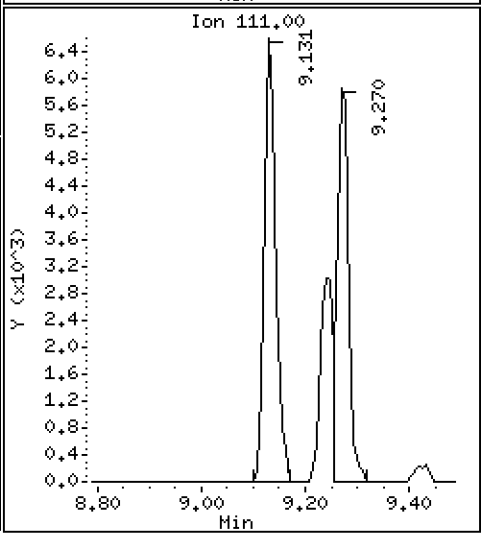


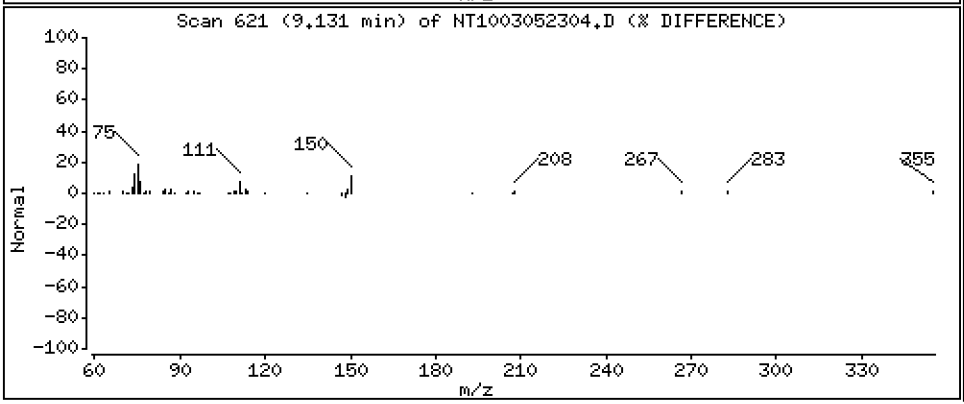












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

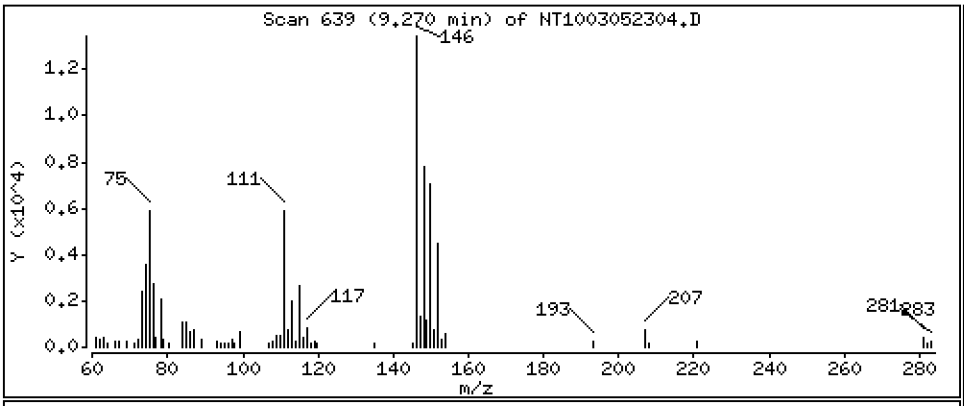
Operator: VTS

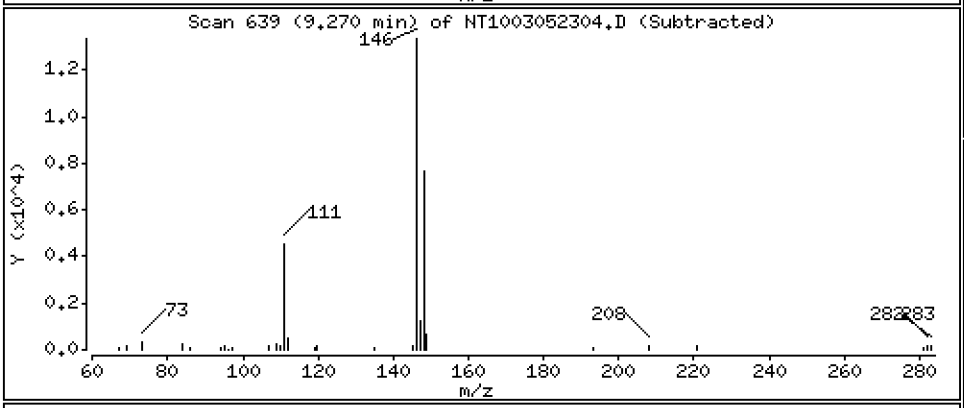
Column phase: ZB-5msi

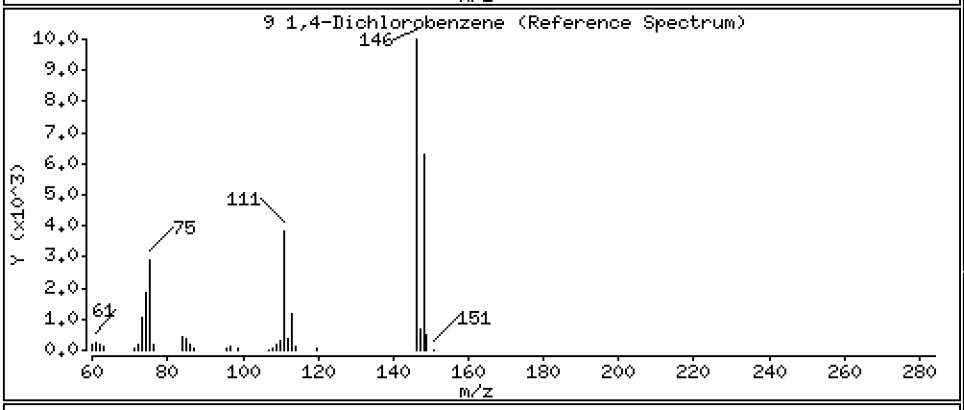
Column diameter: 0.25

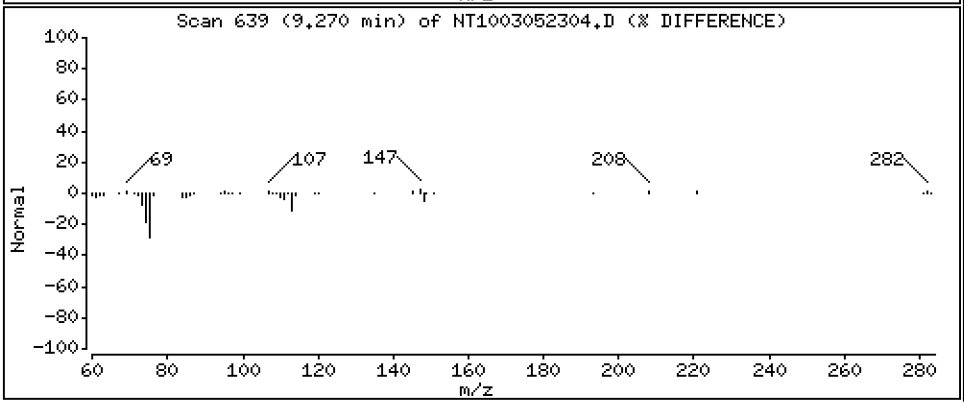
9 1,4-Dichlorobenzene

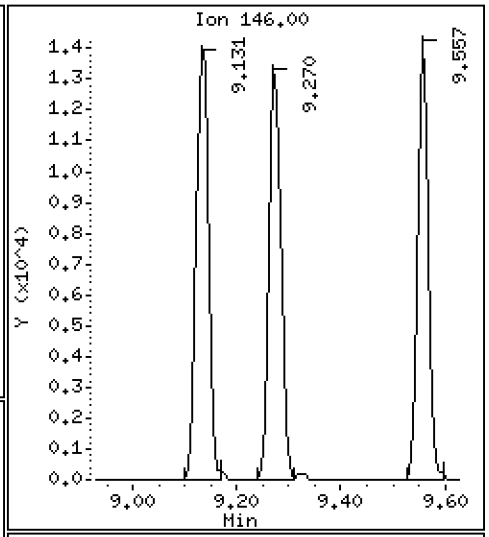
Concentration: 0.1992 ug/mL

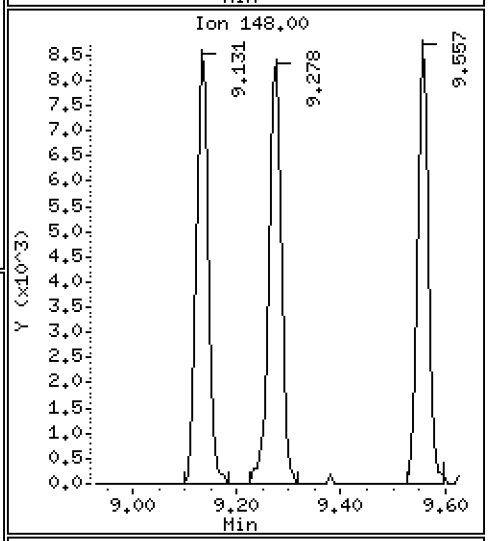


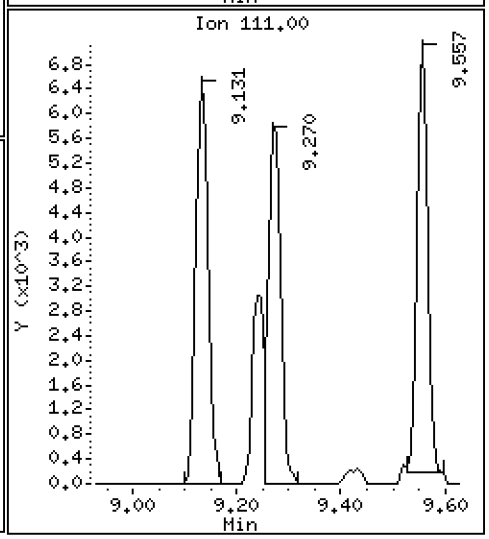












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

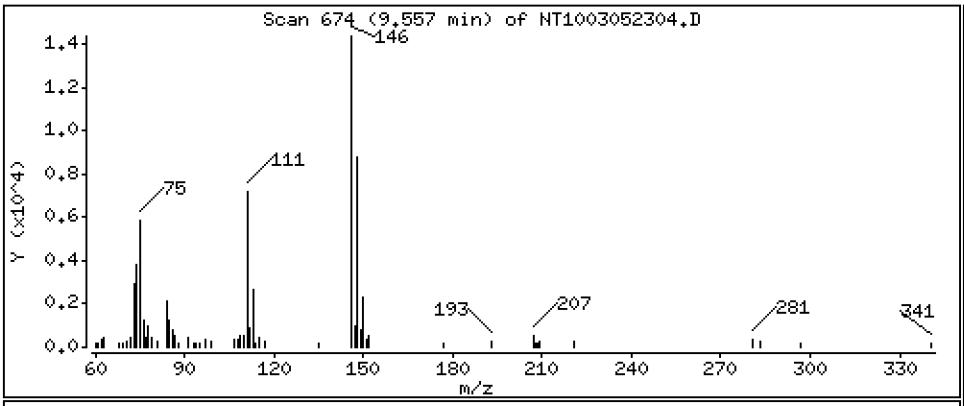
Operator: VTS

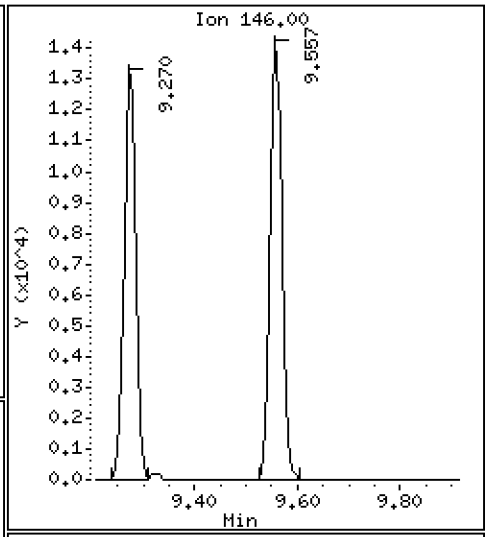
Column phase: ZB-5msi

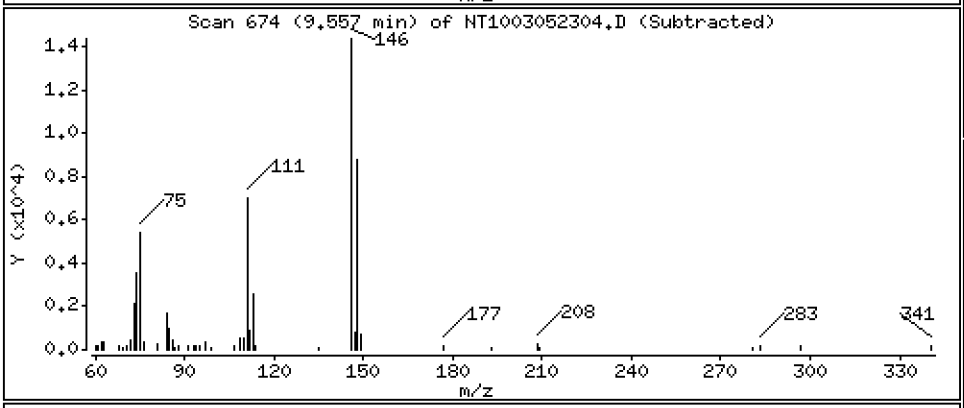
Column diameter: 0.25

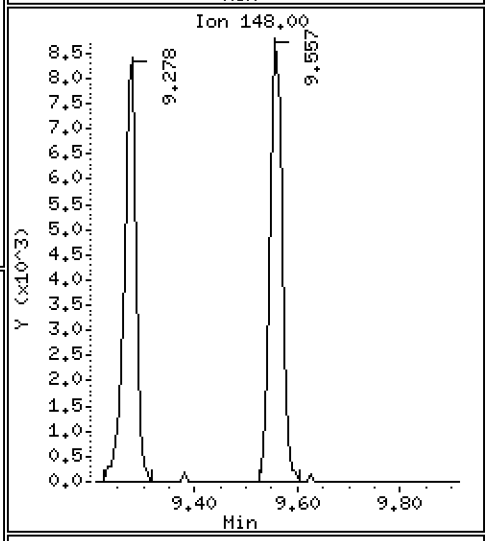
12 1,2-Dichlorobenzene

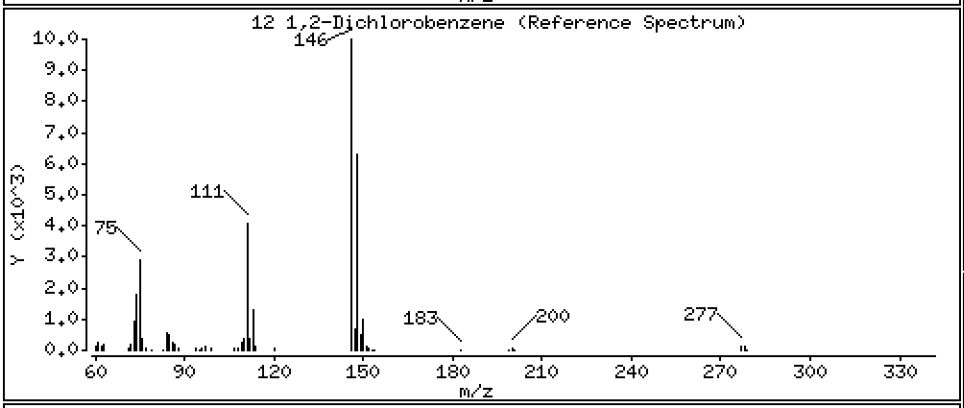
Concentration: 0.2113 ug/mL

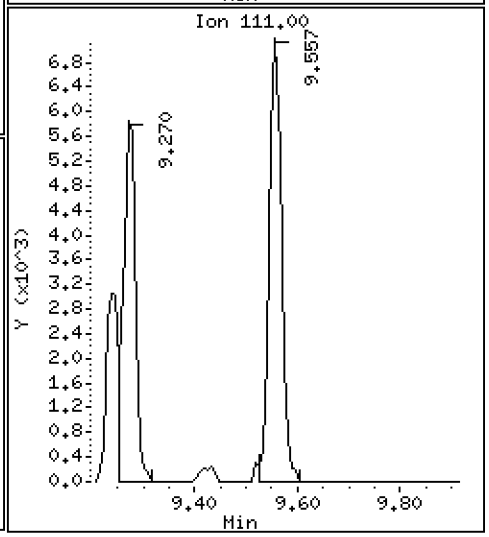


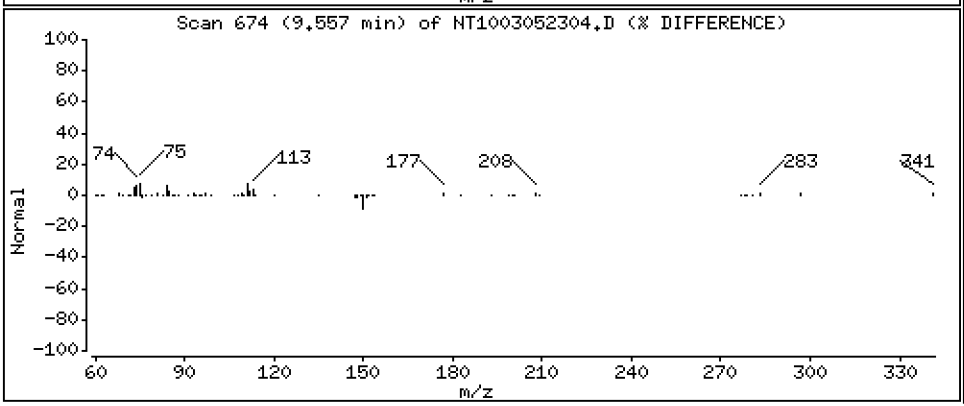












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

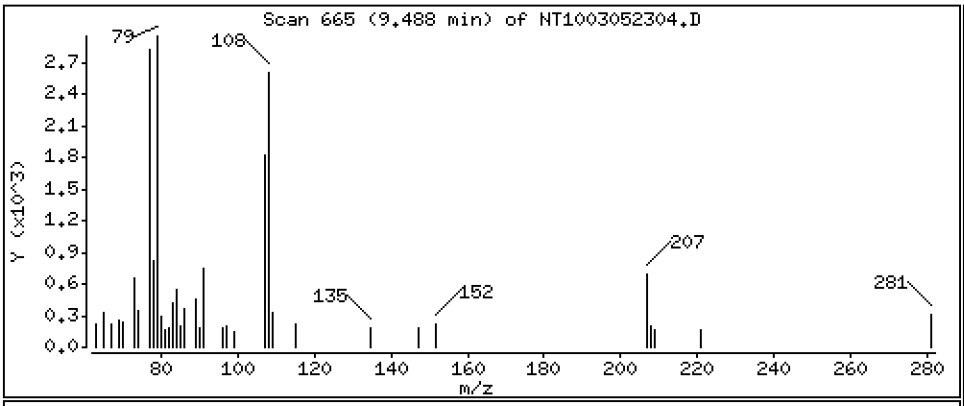
Operator: VTS

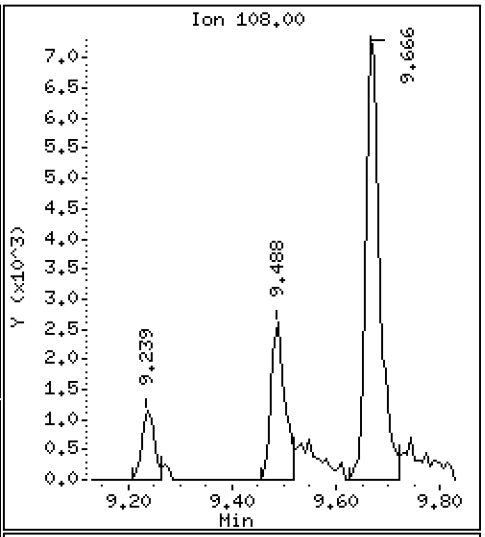
Column phase: ZB-5msi

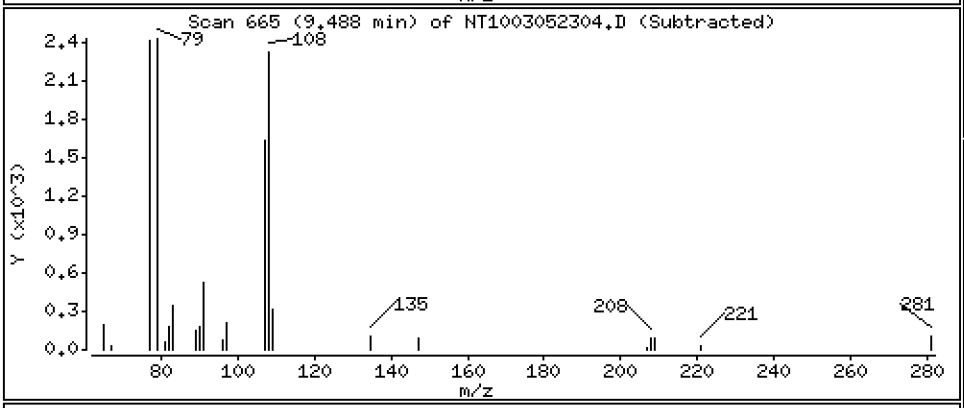
Column diameter: 0.25

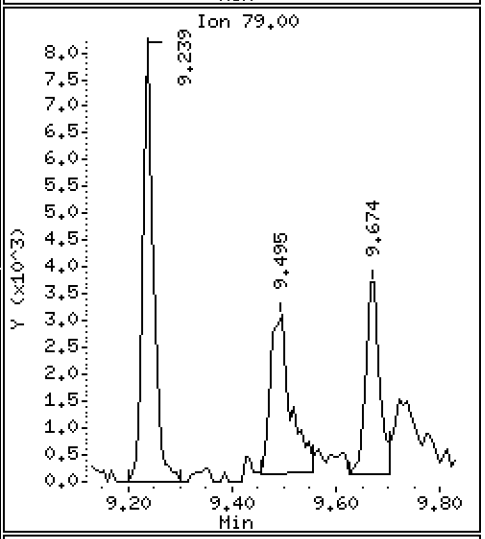
11 Benzyl alcohol

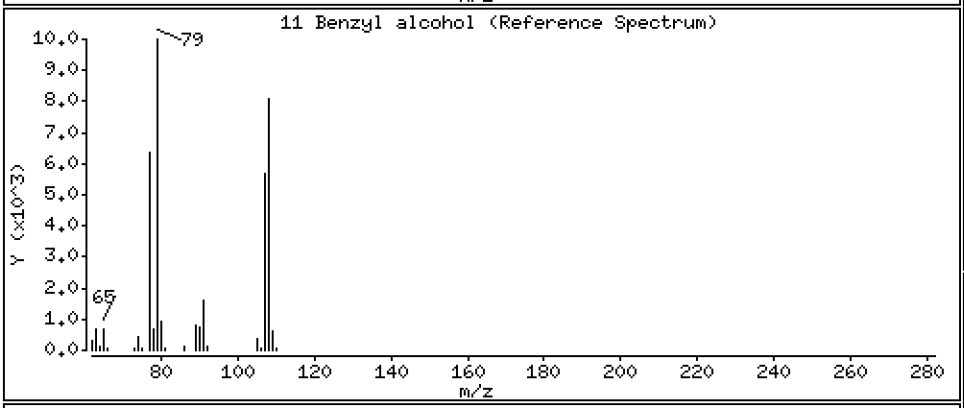
Concentration: 0.07919 ug/mL

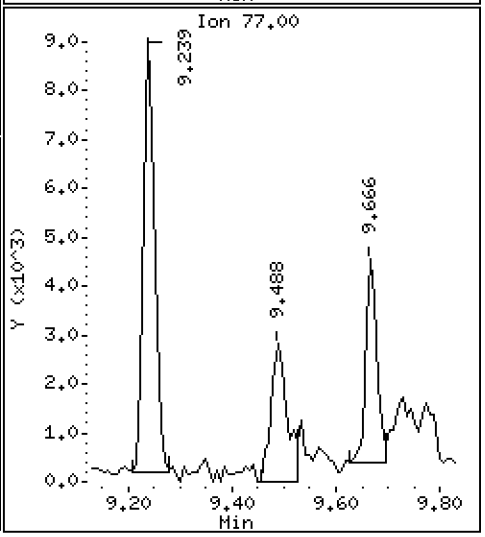


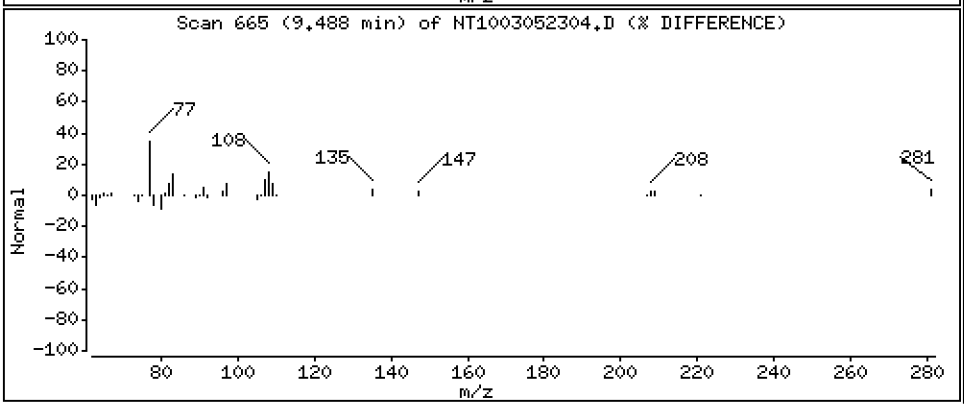












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

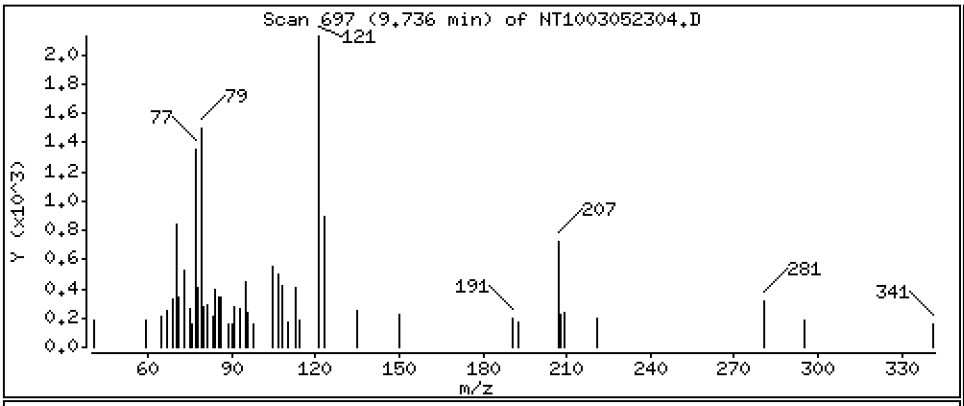
Operator: VTS

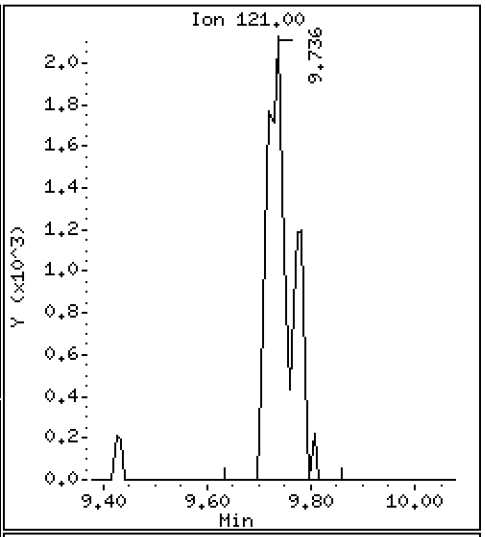
Column phase: ZB-5msi

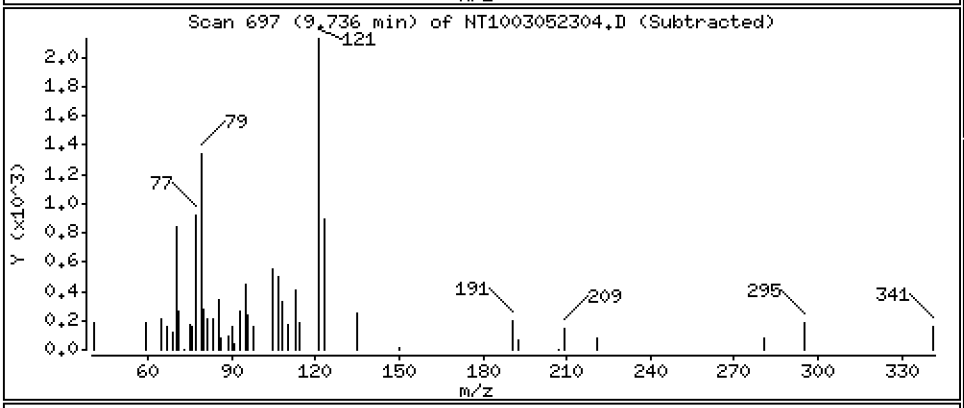
Column diameter: 0.25

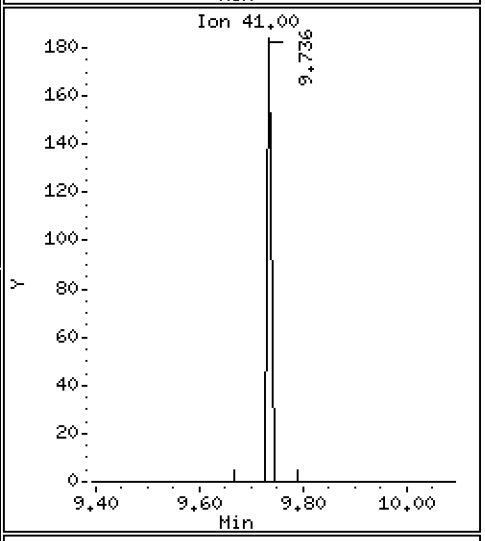
14 2,2'-oxybis(1-Chloropropane)

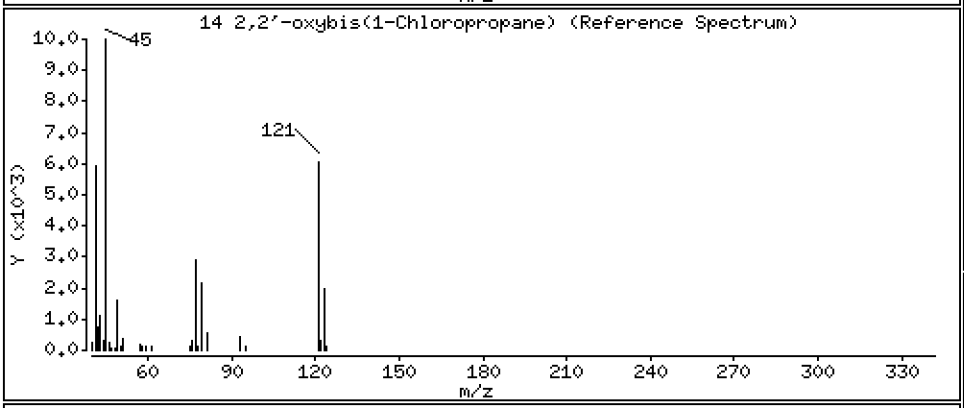
Concentration: 0.2239 ug/mL

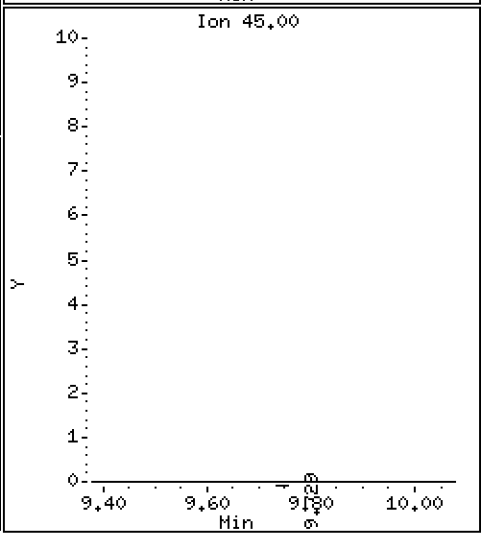


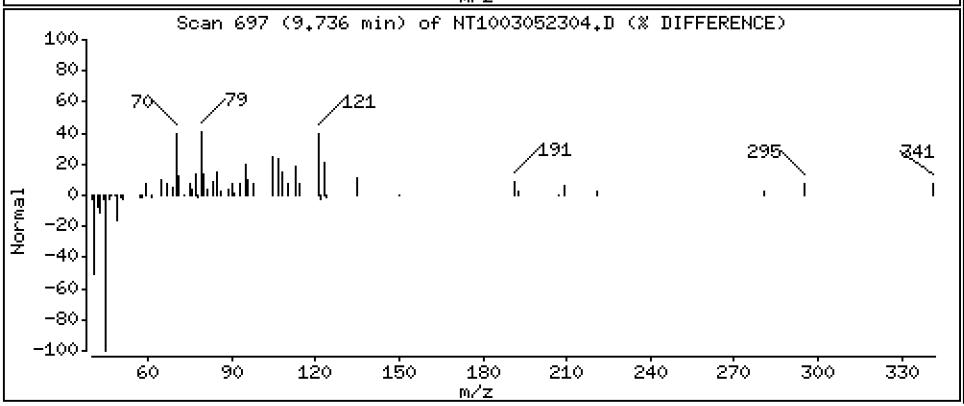












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

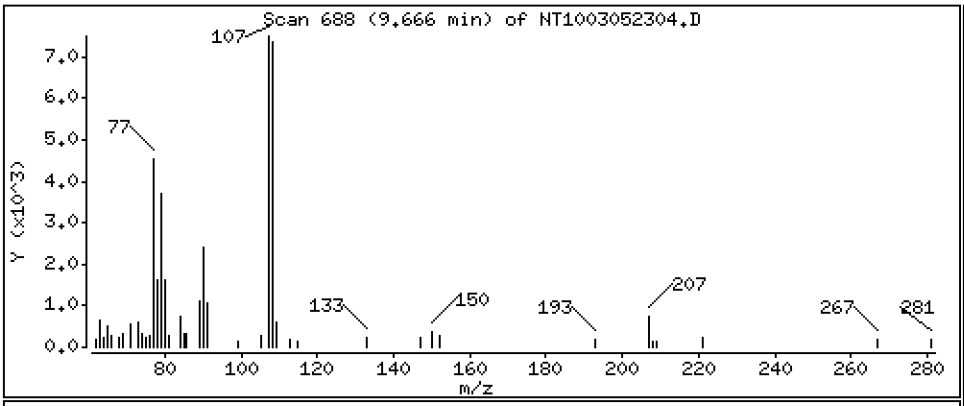
Operator: VTS

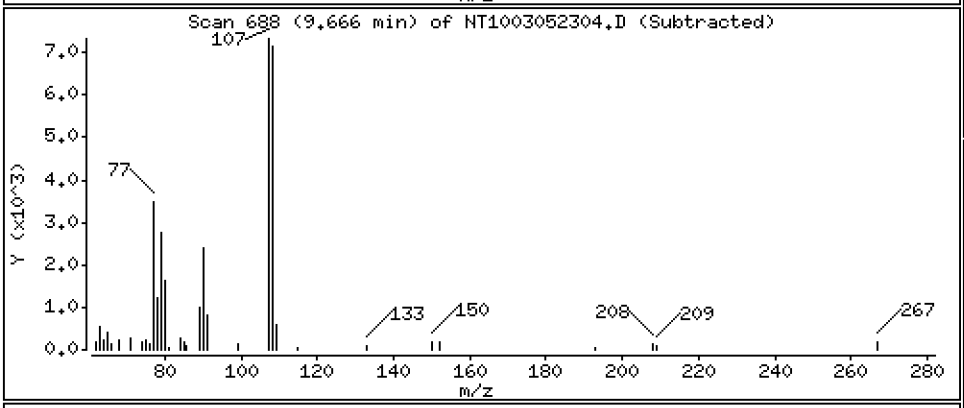
Column phase: ZB-5msi

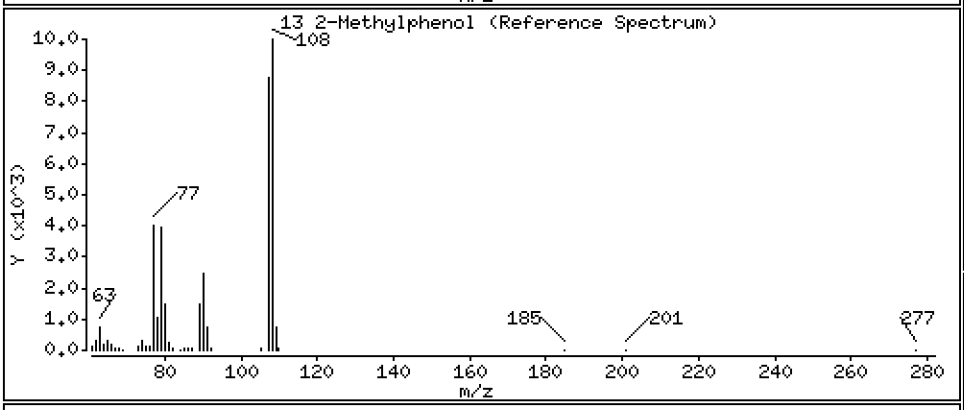
Column diameter: 0.25

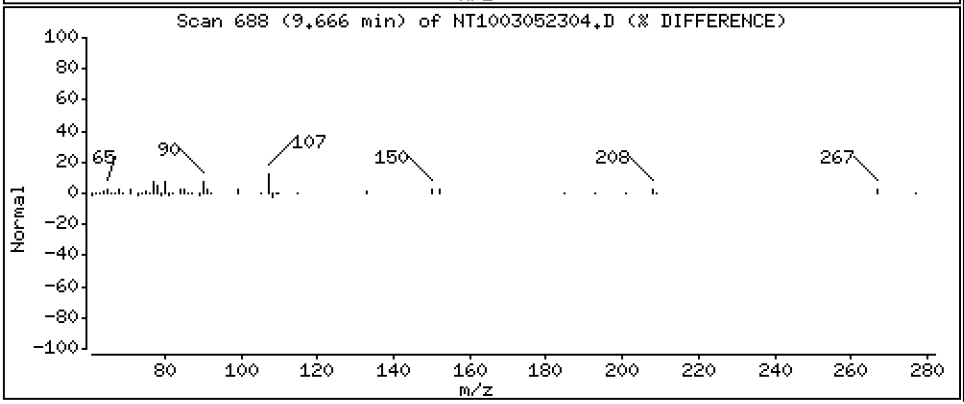
13 2-Methylphenol

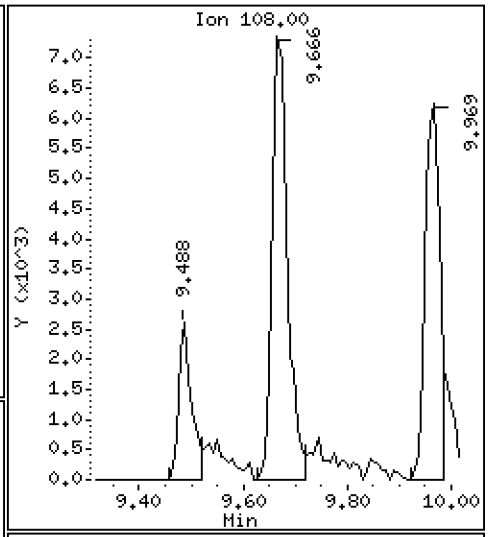
Concentration: 0.1660 ug/mL

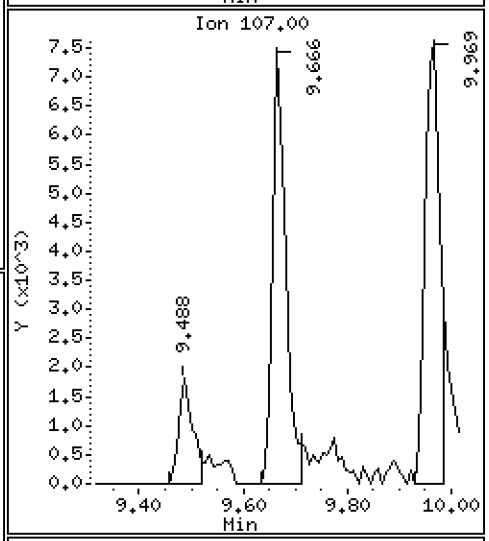


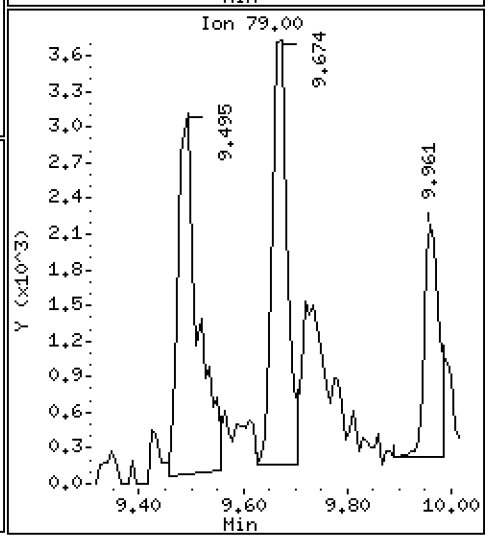












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

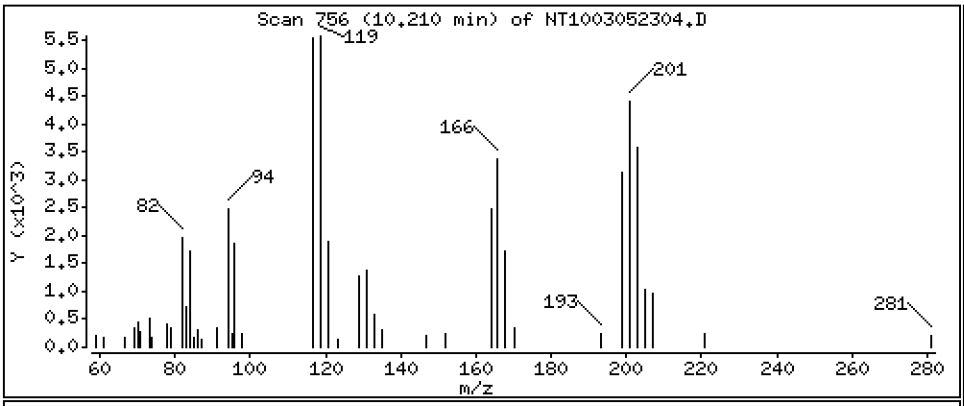
Operator: VTS

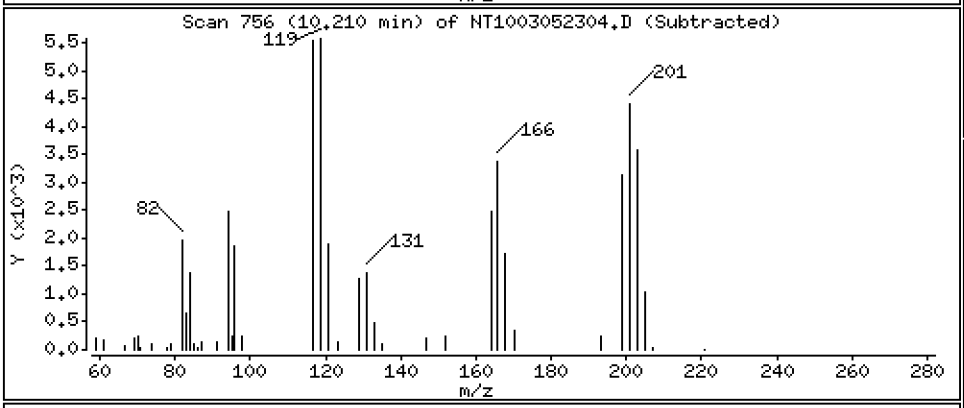
Column phase: ZB-5msi

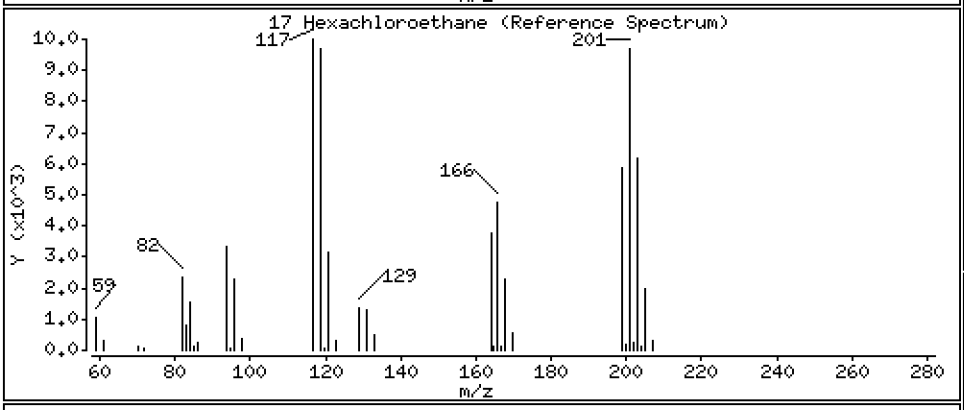
Column diameter: 0.25

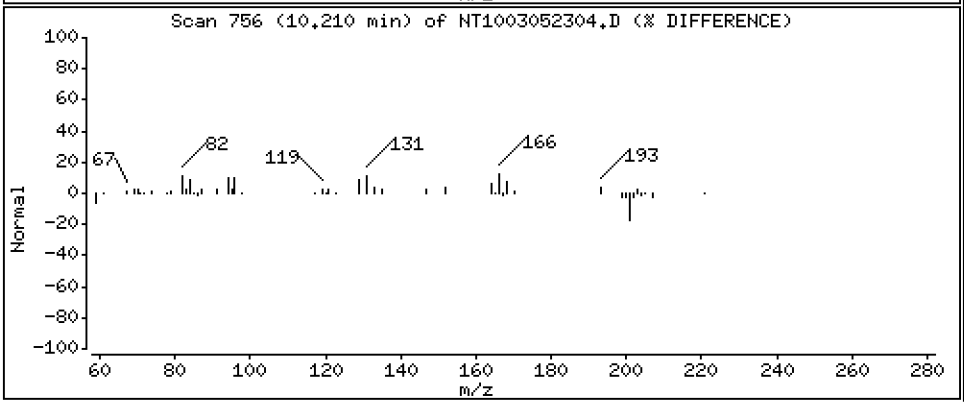
17 Hexachloroethane

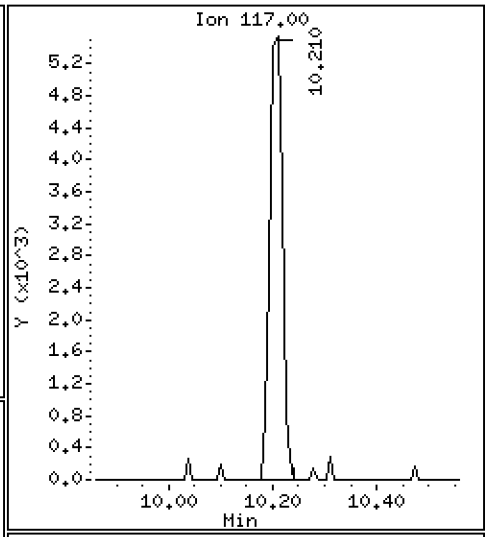
Concentration: 0.2085 ug/mL

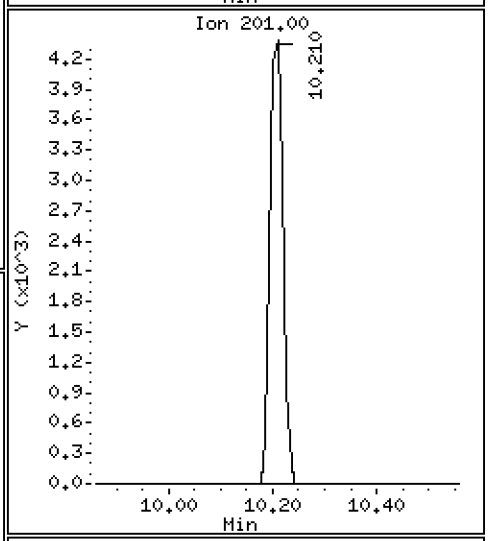


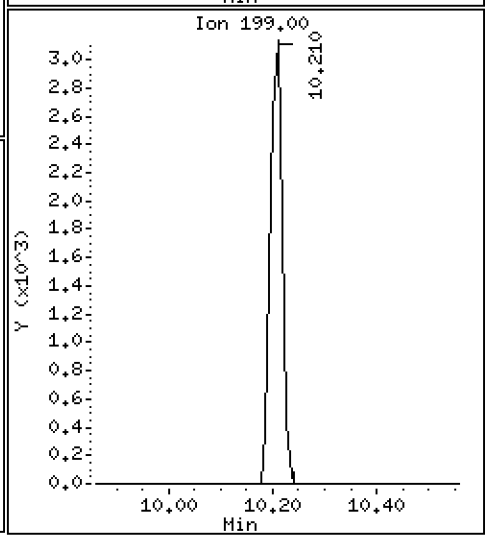












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

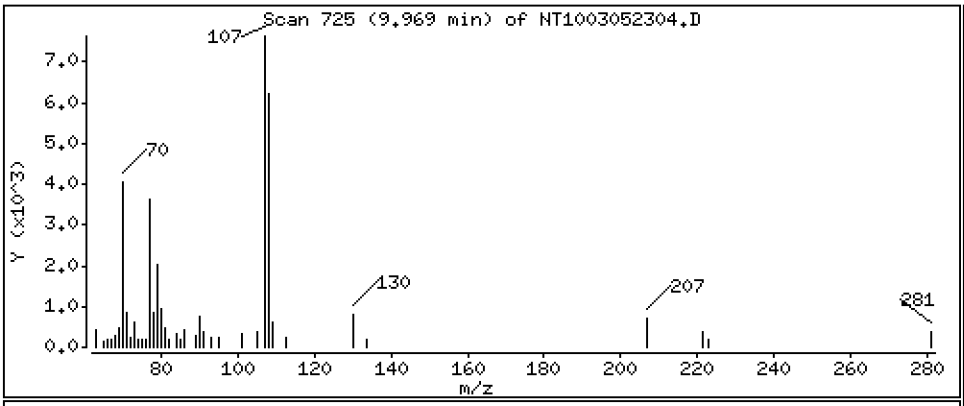
Operator: VTS

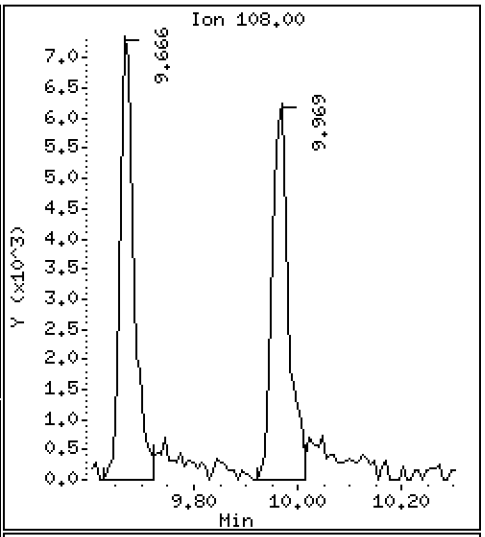
Column phase: ZB-5msi

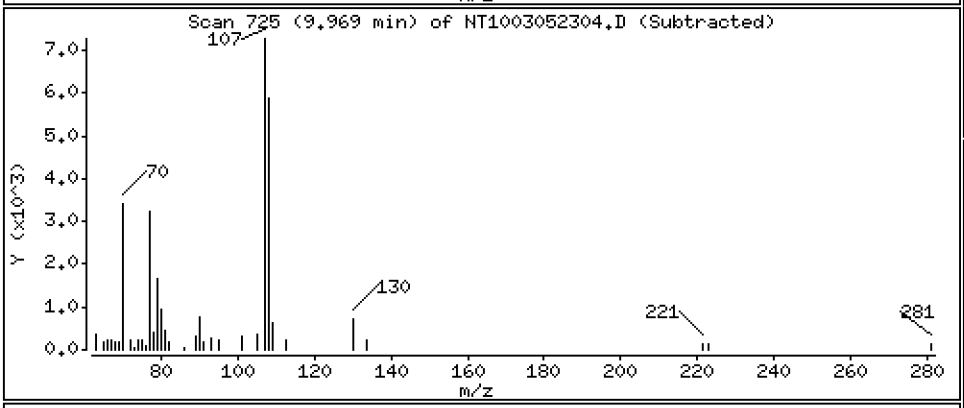
Column diameter: 0.25

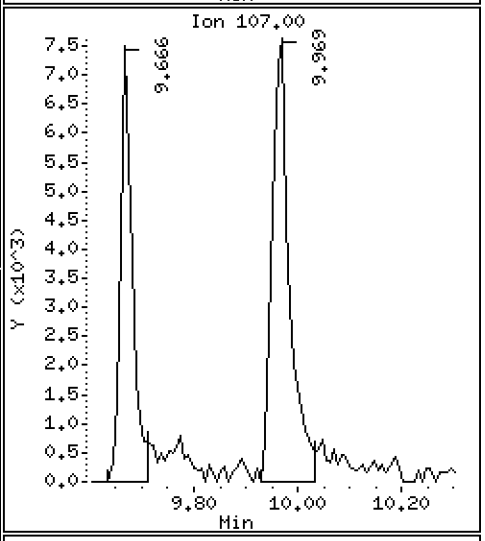
15 4-Methylphenol

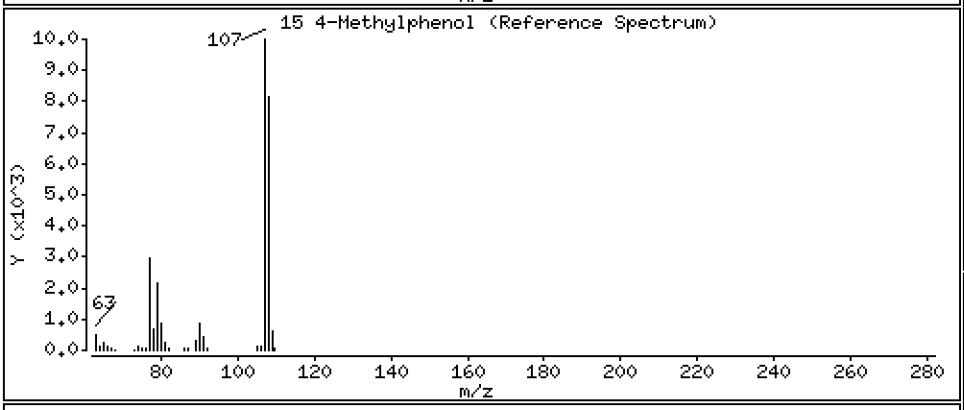
Concentration: 0.1256 ug/mL

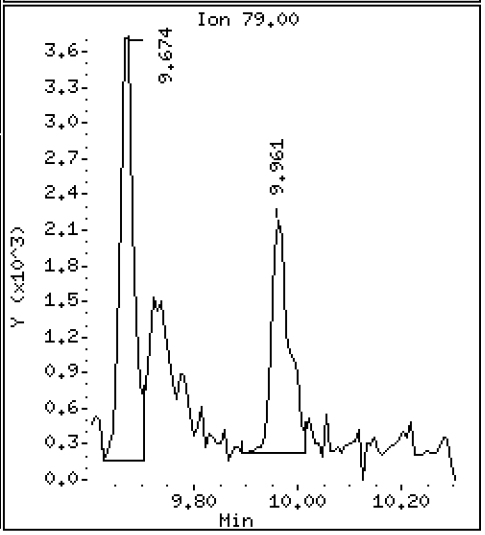


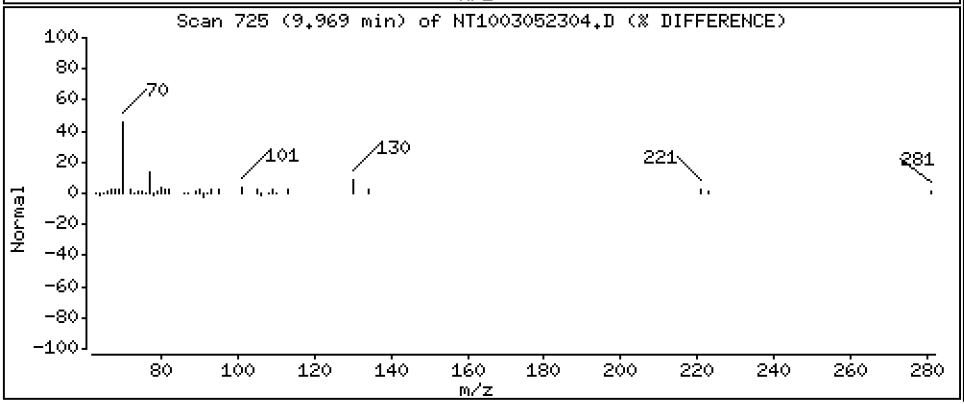












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

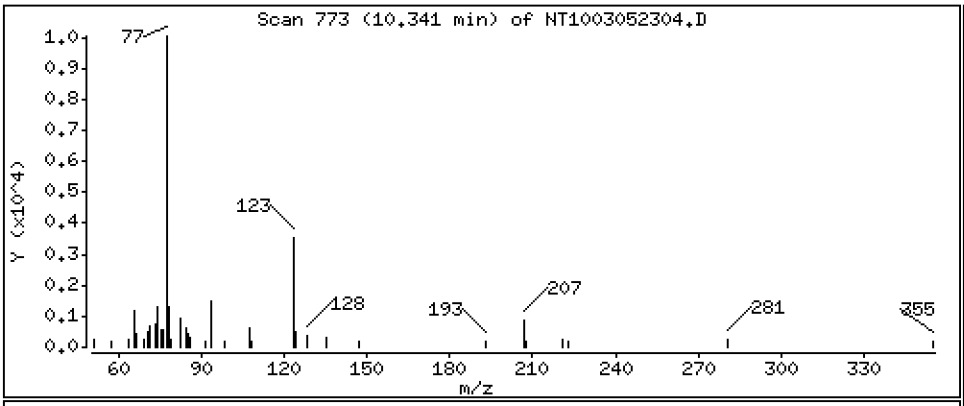
Operator: VTS

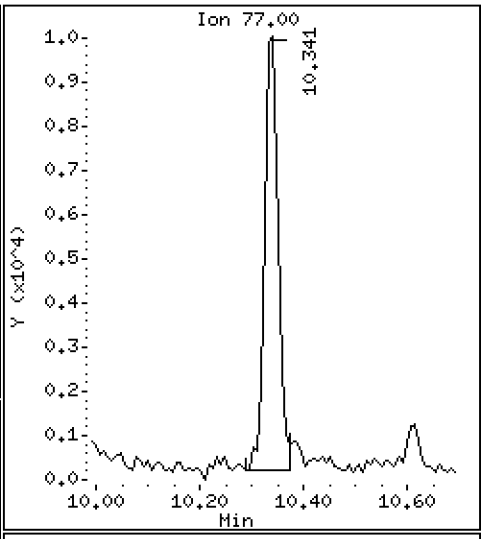
Column phase: ZB-5msi

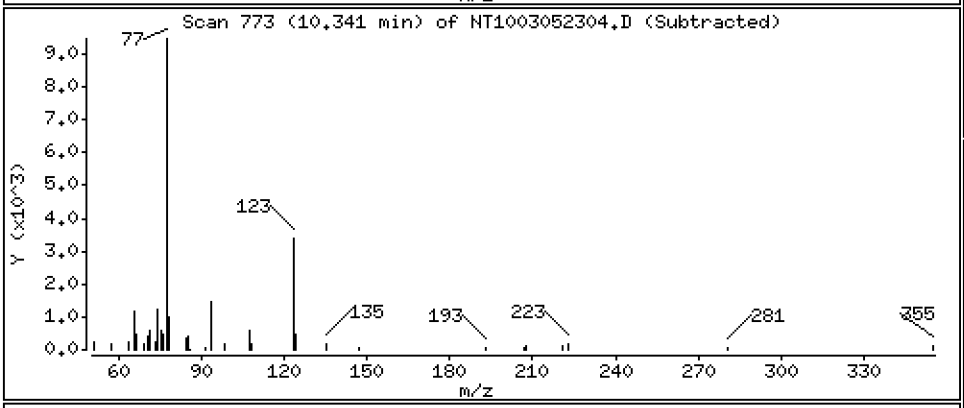
Column diameter: 0.25

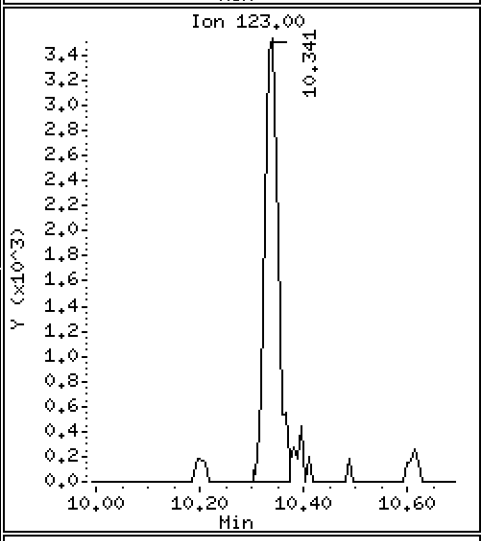
19 Nitrobenzene

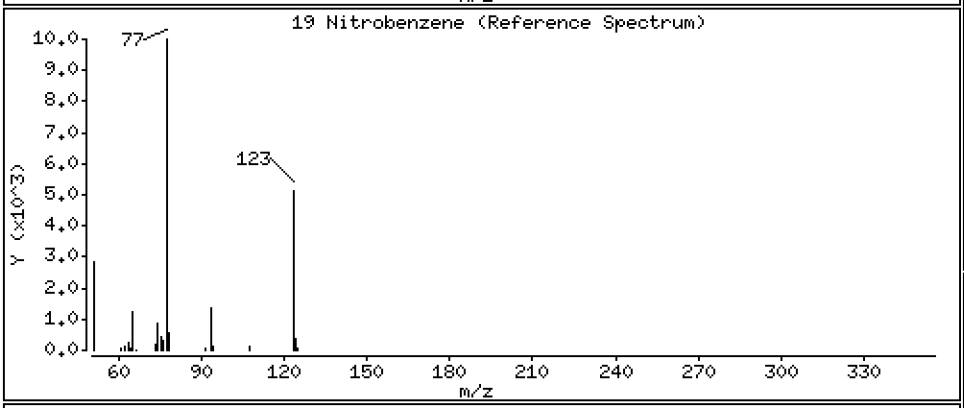
Concentration: 0.1566 ug/mL

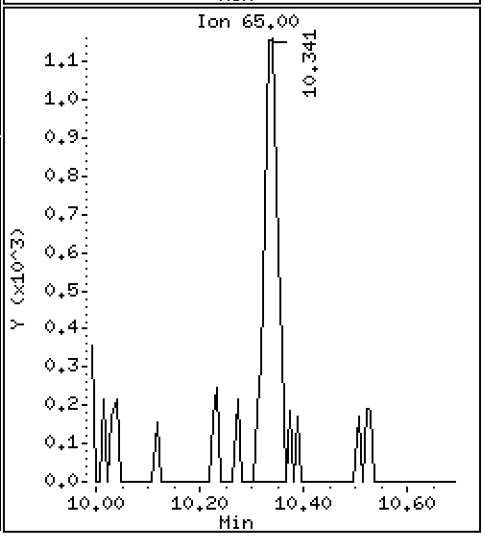


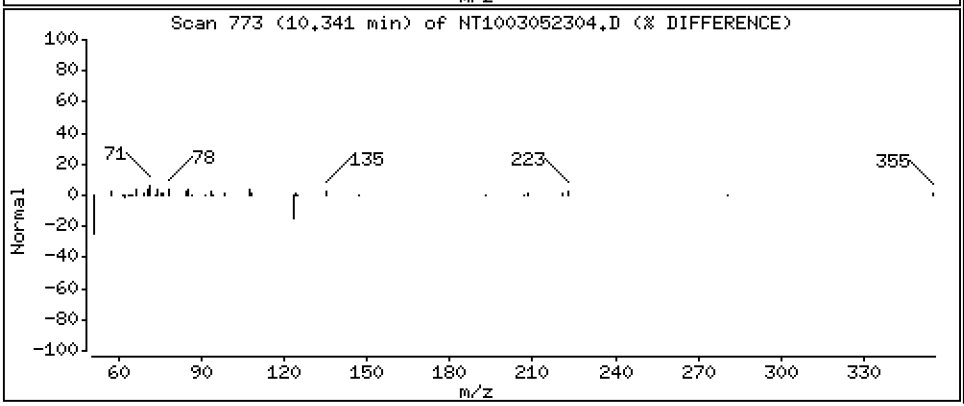












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

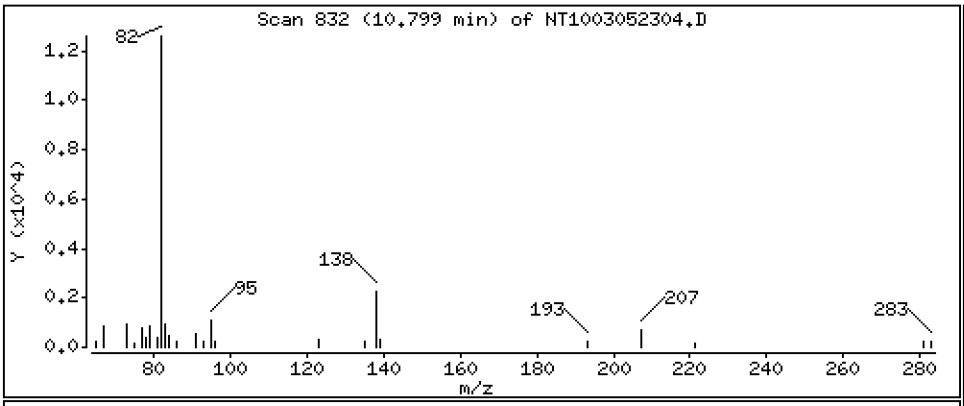
Operator: VTS

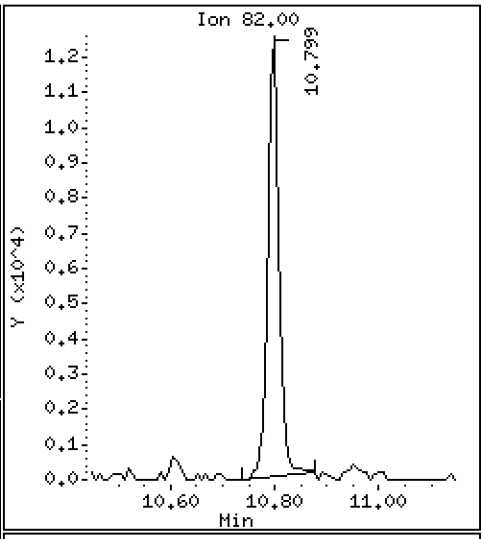
Column phase: ZB-5msi

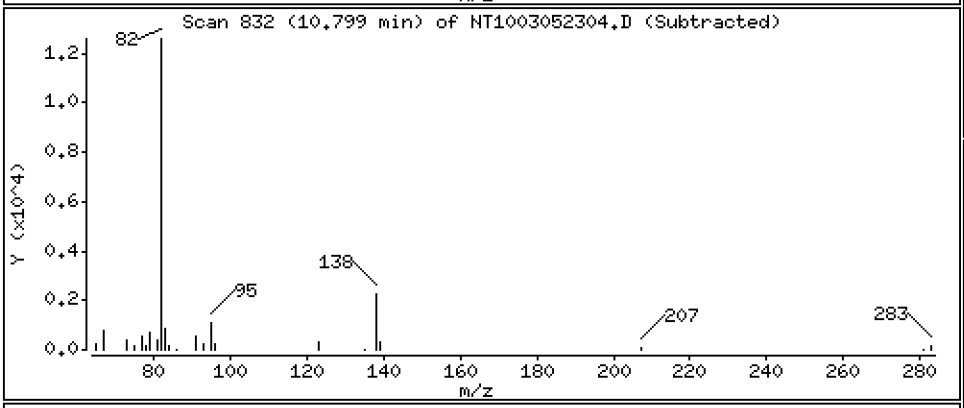
Column diameter: 0.25

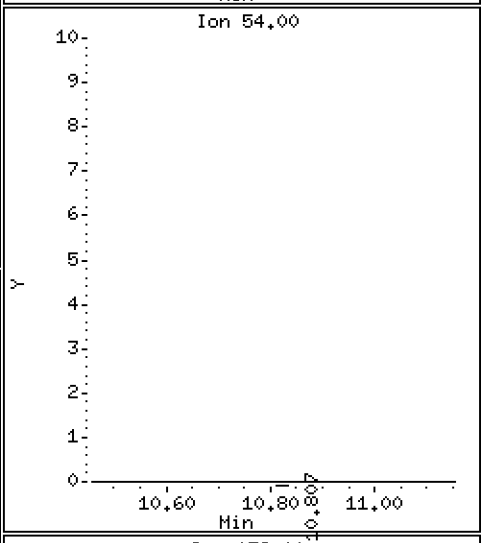
20 Isophorone

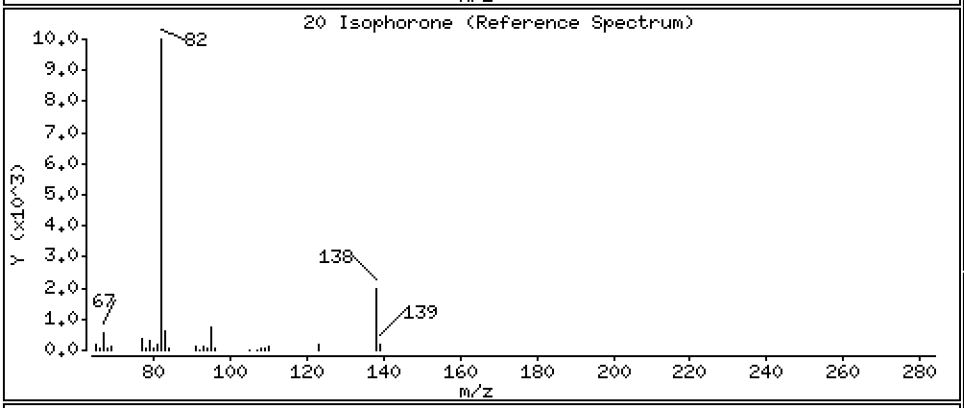
Concentration: 0.1386 ug/mL

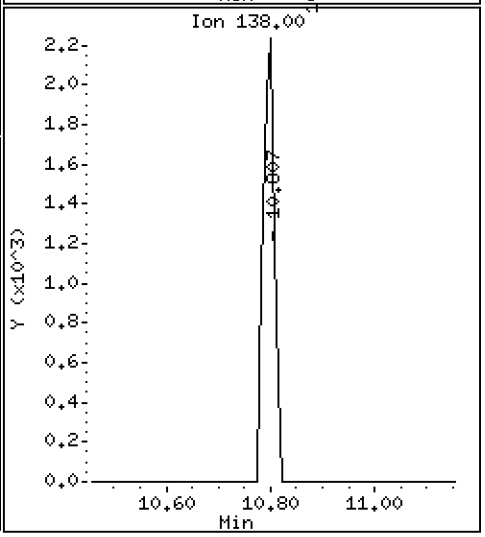


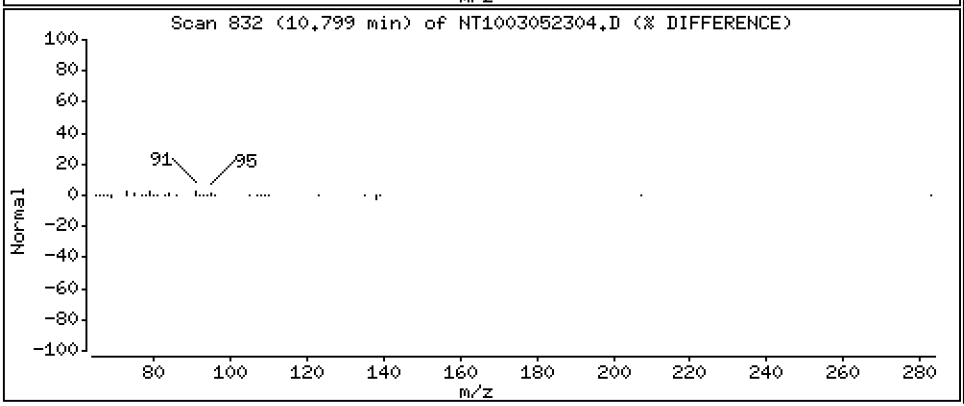












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

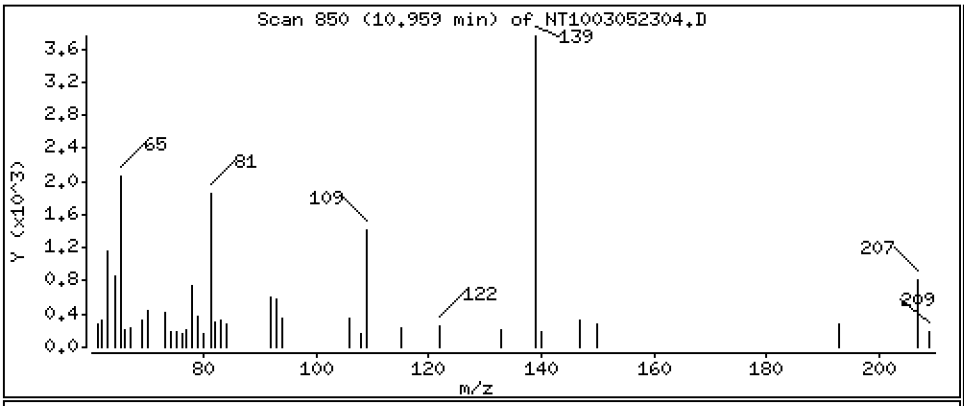
Operator: VTS

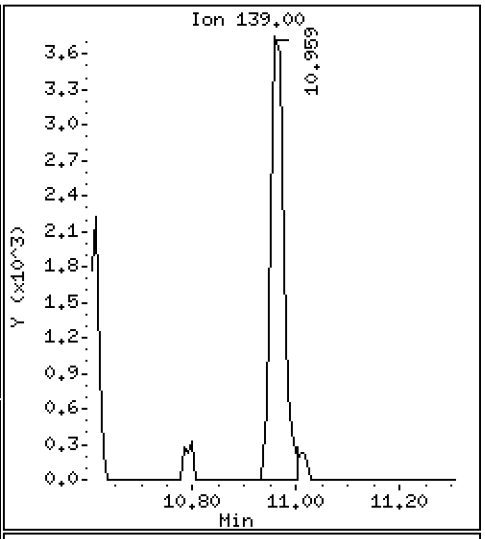
Column phase: ZB-5msi

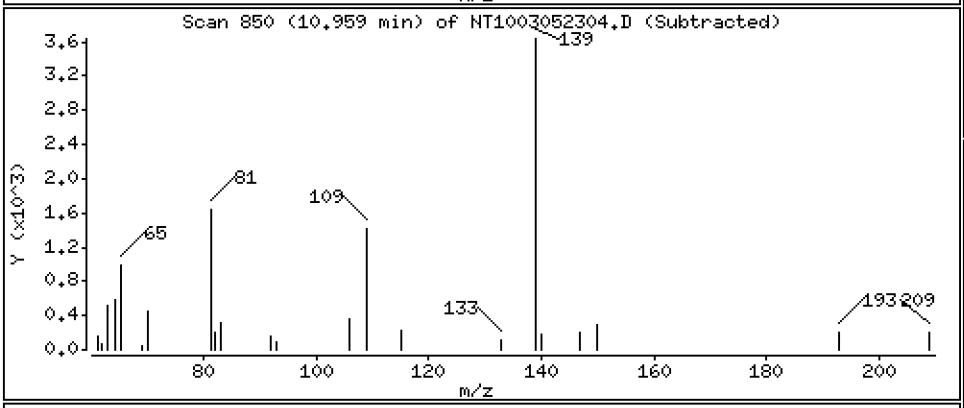
Column diameter: 0.25

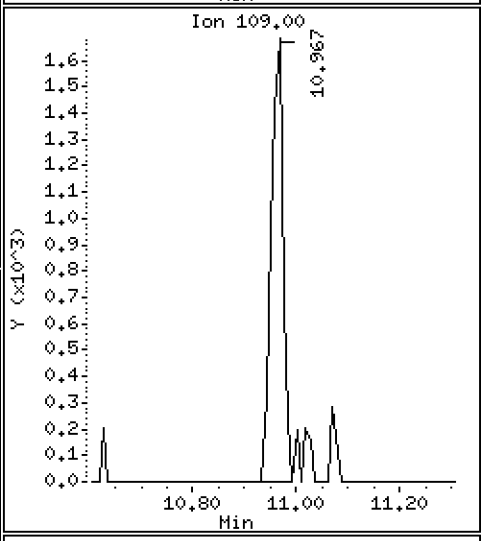
21 2-Nitrophenol

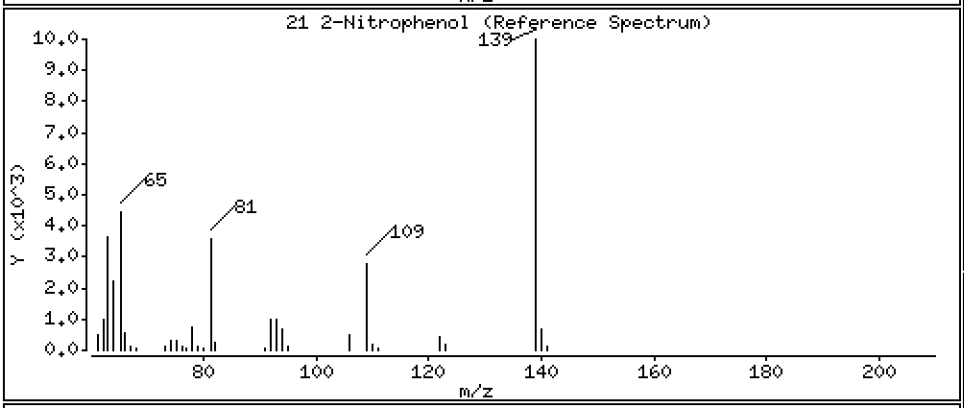
Concentration: 0.1110 ug/mL

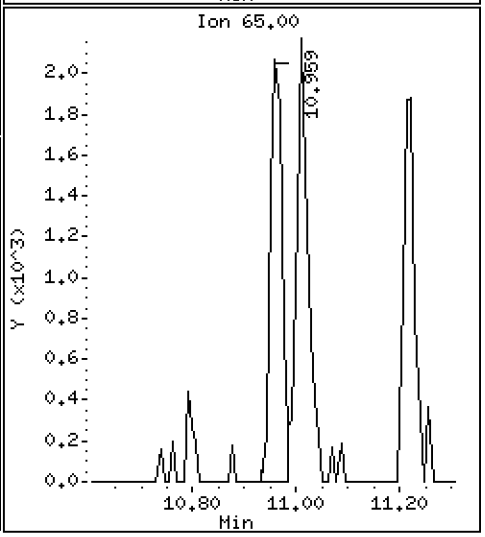


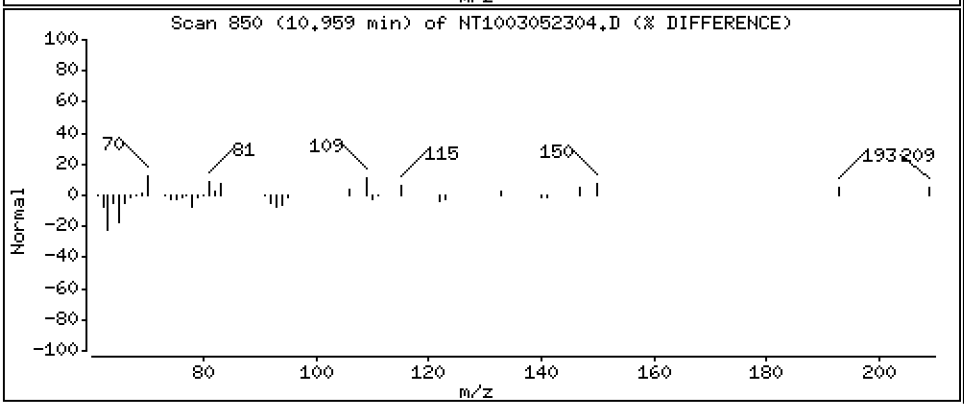












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

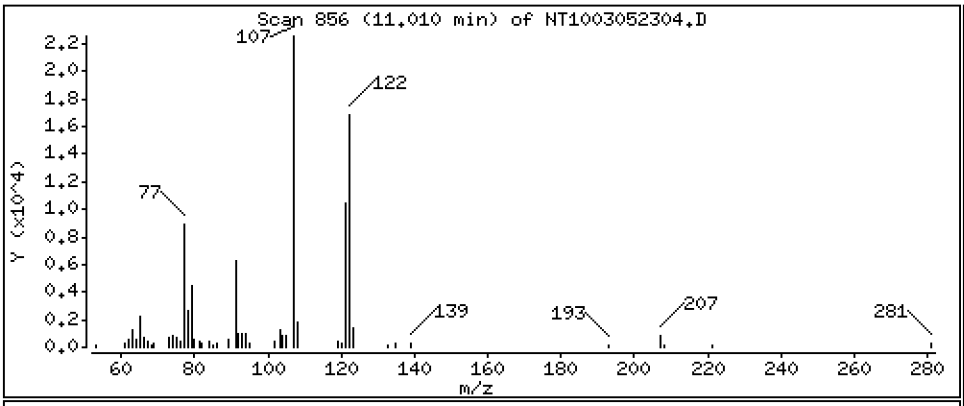
Operator: VTS

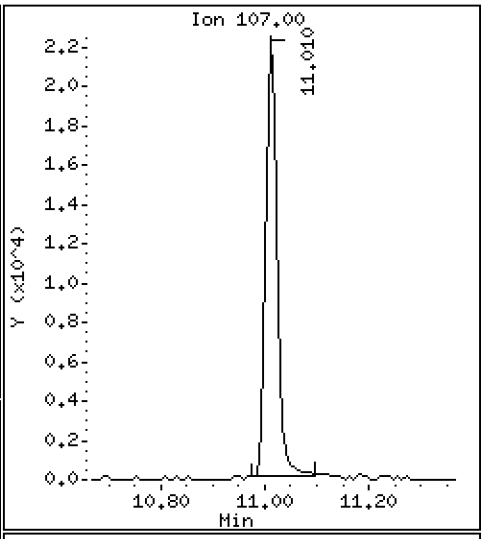
Column phase: ZB-5msi

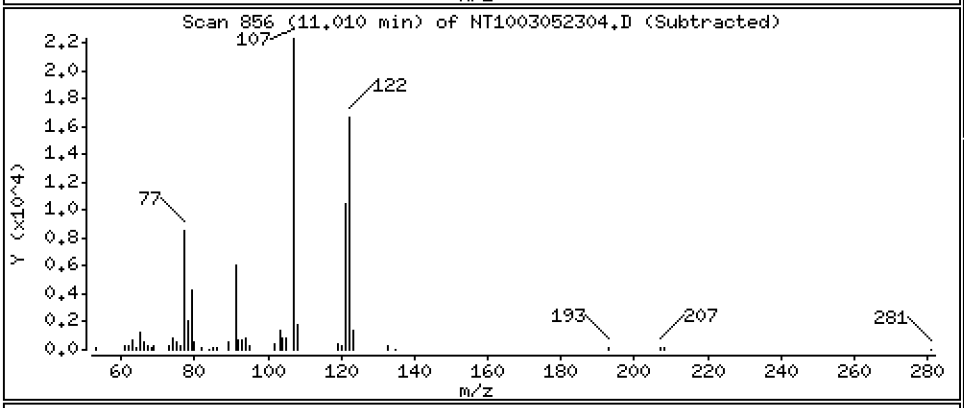
Column diameter: 0.25

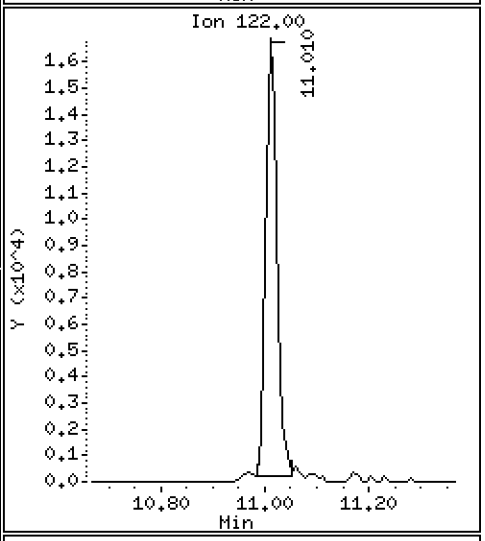
22 2,4-Dimethylphenol

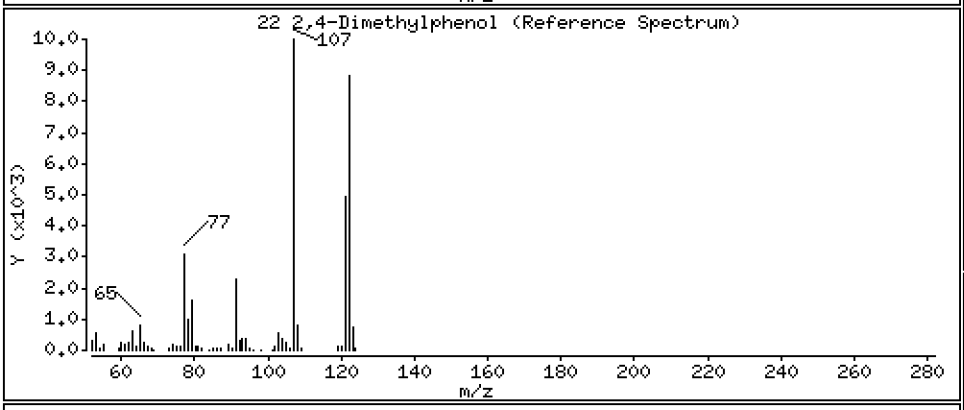
Concentration: 0.3287 ug/mL

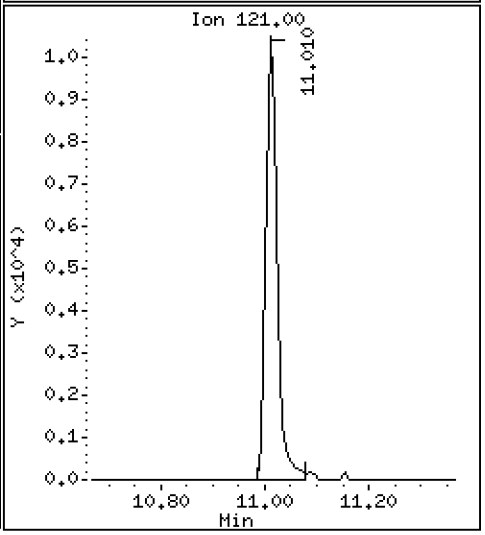


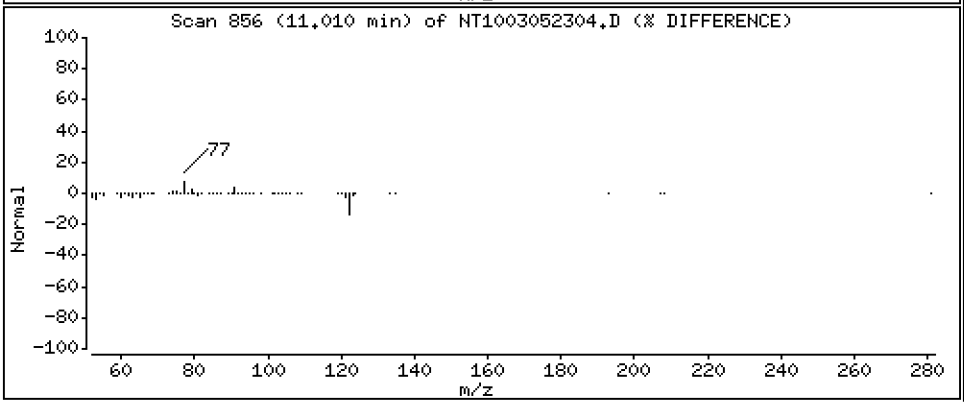












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

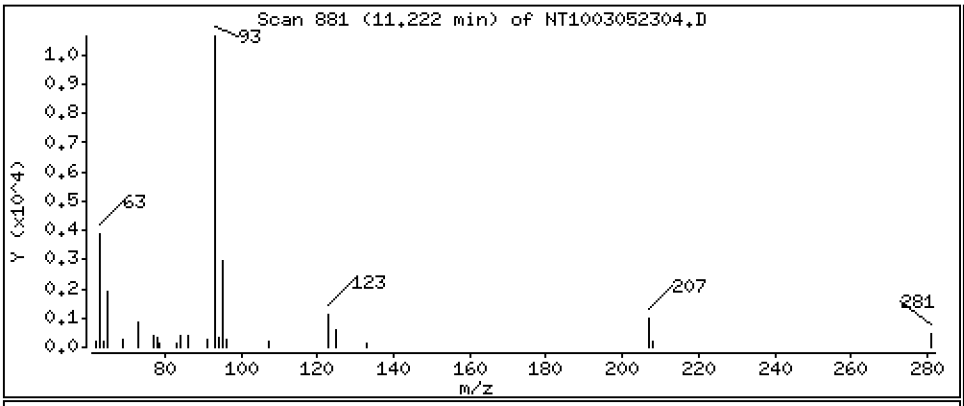
Operator: VTS

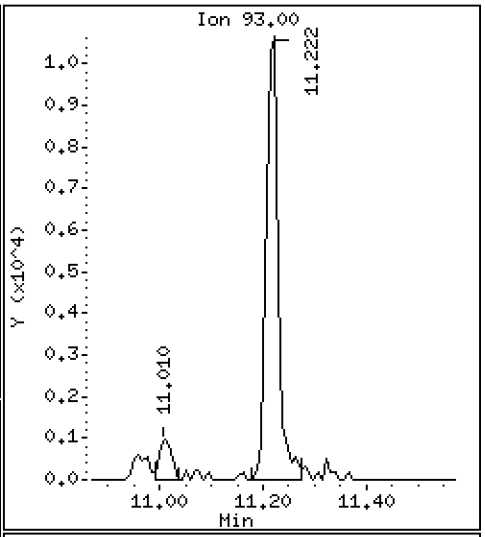
Column phase: ZB-5msi

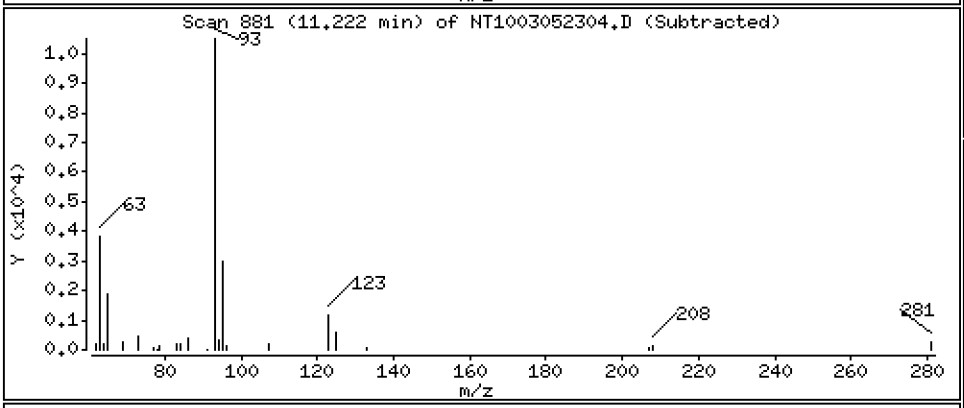
Column diameter: 0.25

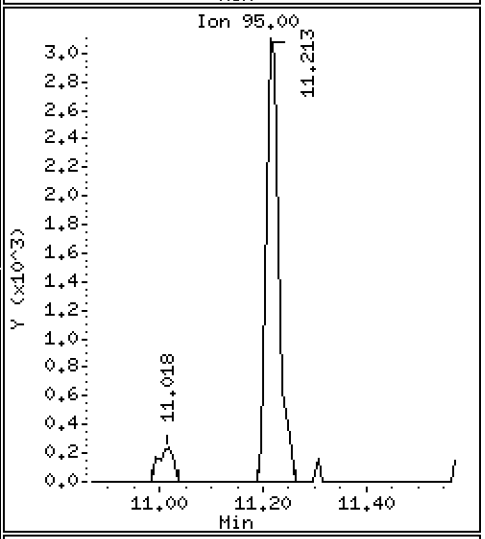
23 Bis(2-Chloroethoxy)methane

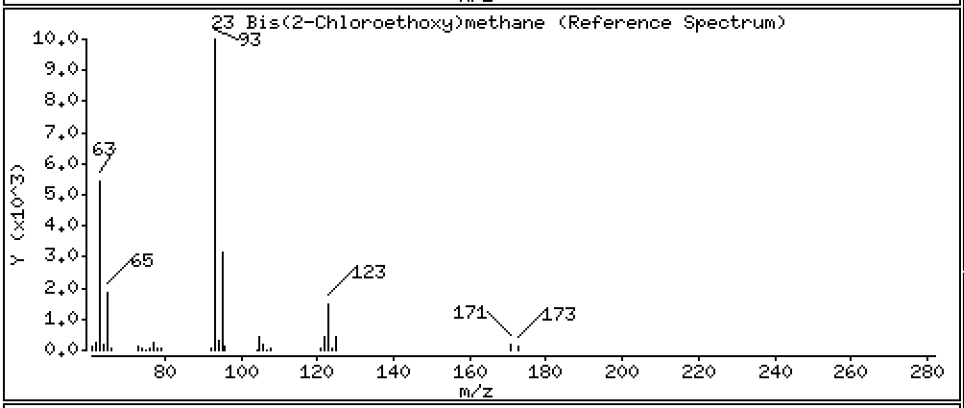
Concentration: 0.2050 ug/mL

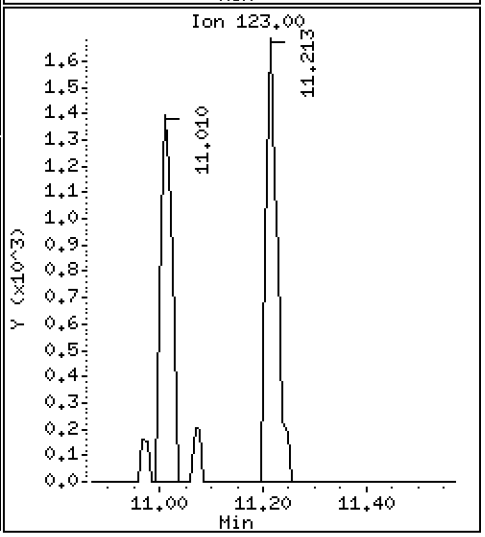


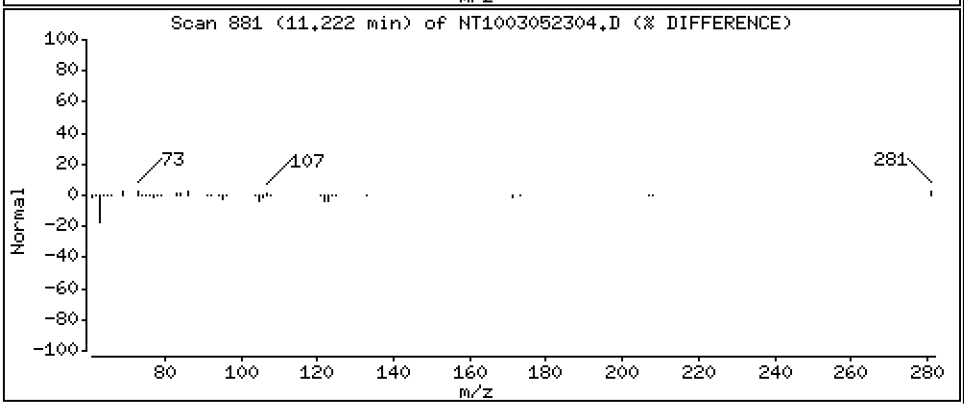












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

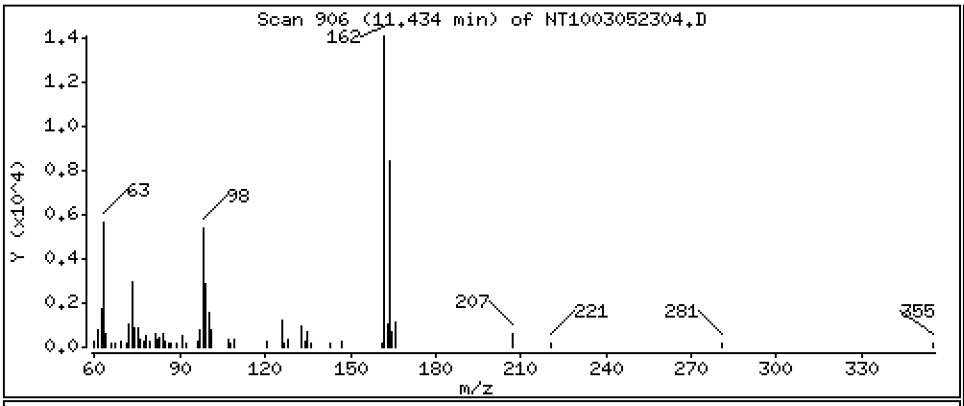
Operator: VTS

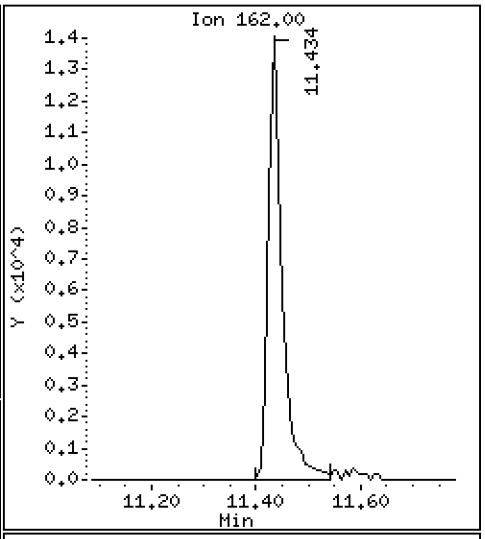
Column phase: ZB-5msi

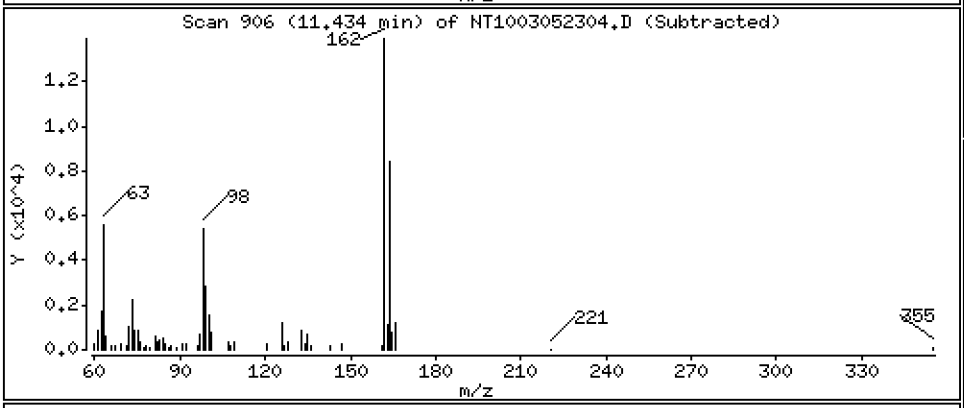
Column diameter: 0.25

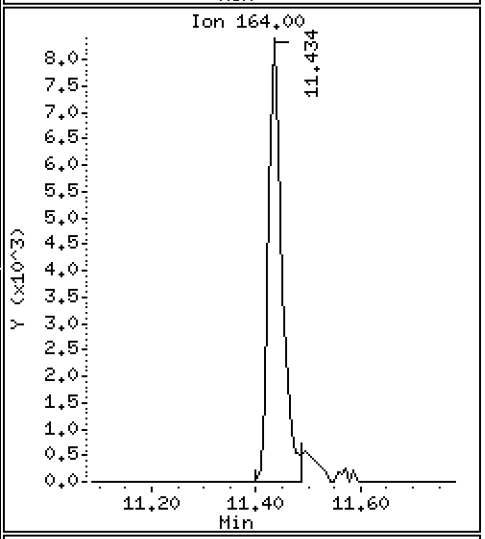
25 2,4-Dichlorophenol

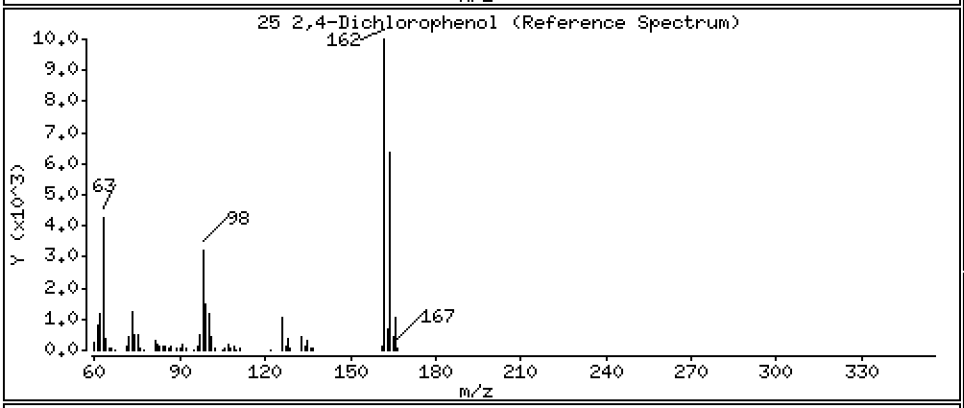
Concentration: 0.3393 ug/mL

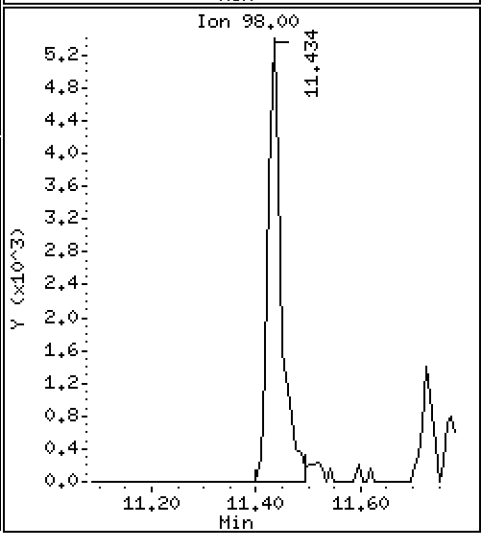


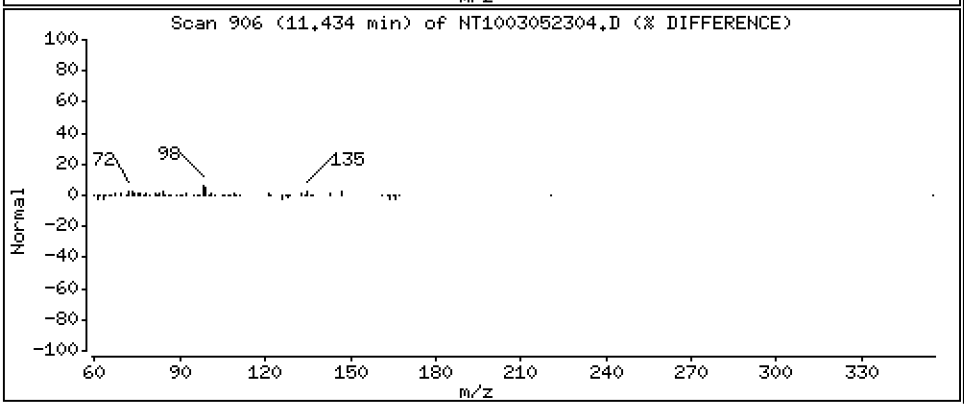












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

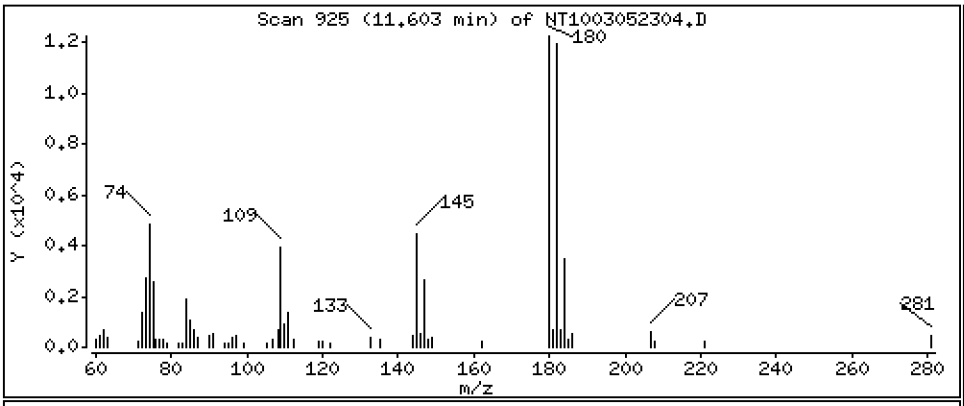
Operator: VTS

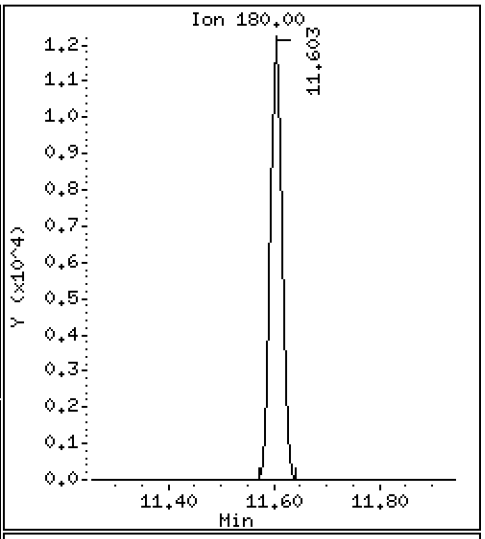
Column phase: ZB-5msi

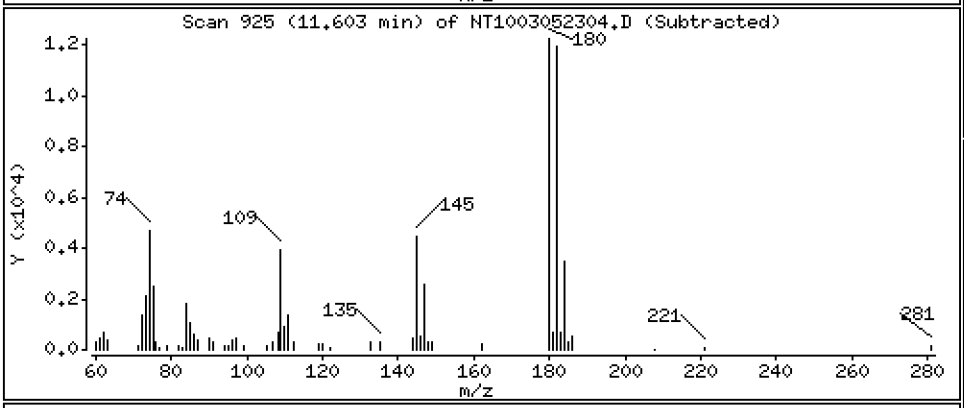
Column diameter: 0.25

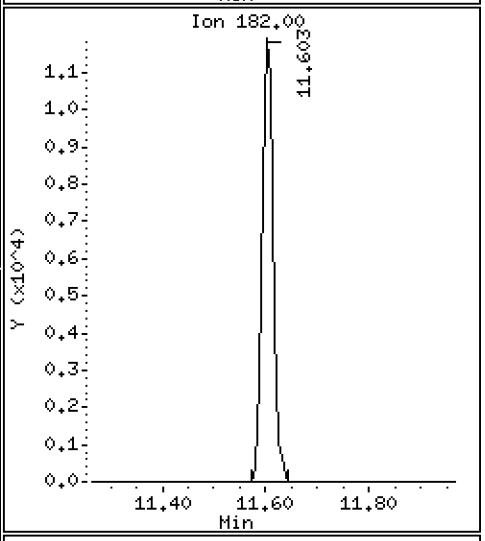
26 1,2,4-Trichlorobenzene

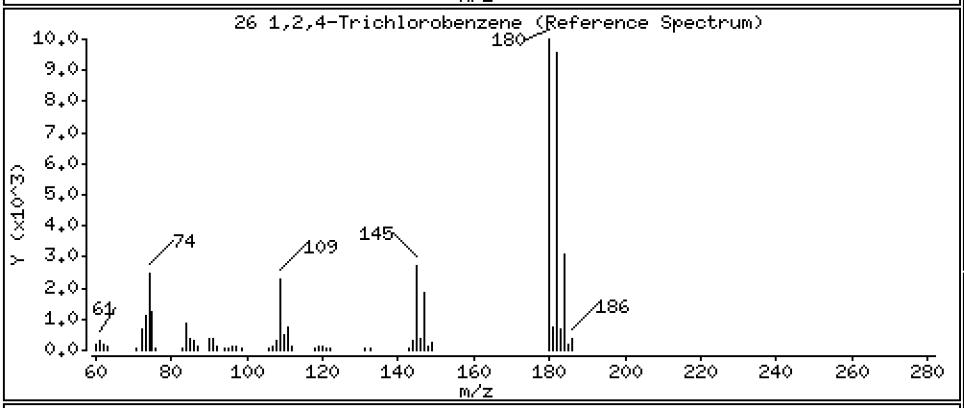
Concentration: 0.2133 ug/mL

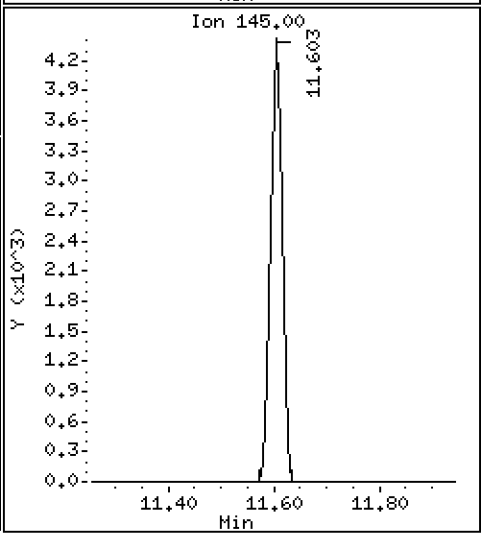


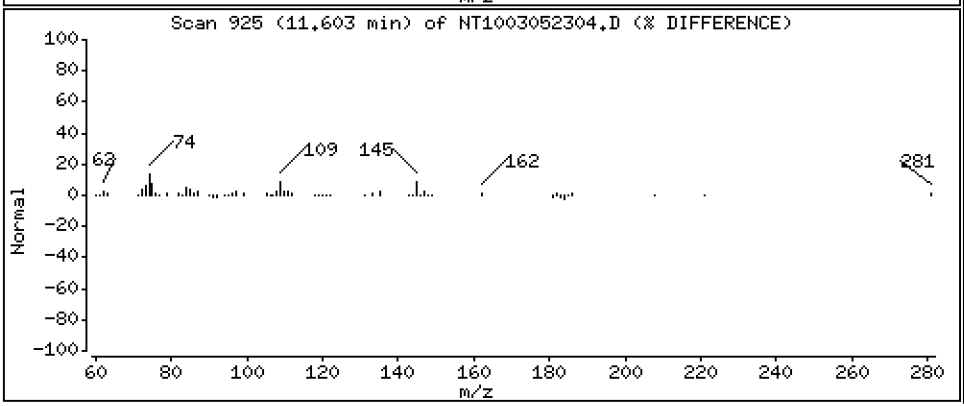












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

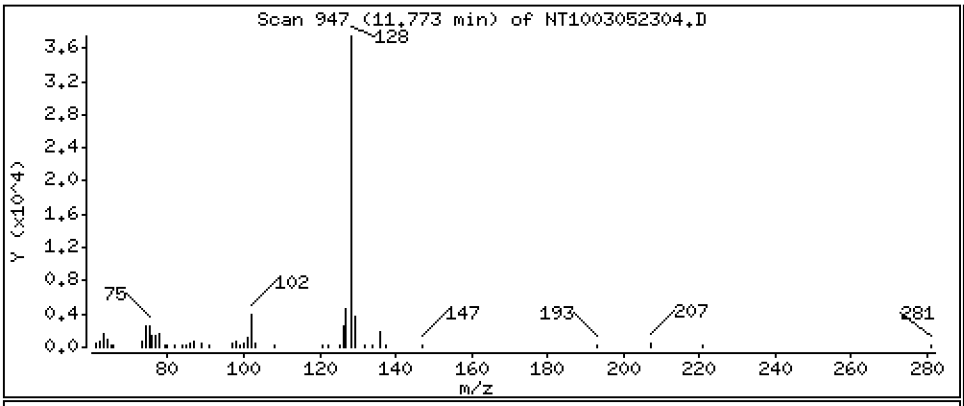
Operator: VTS

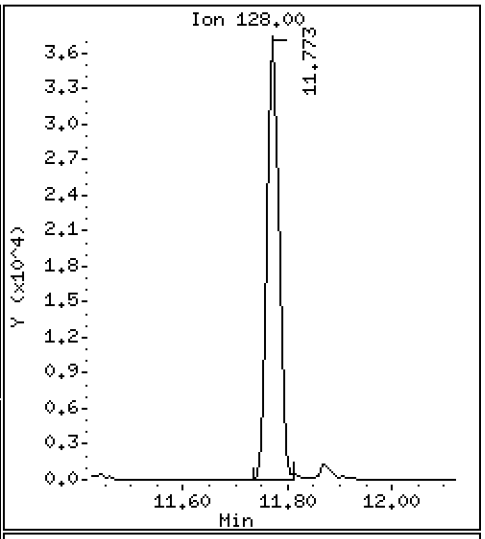
Column phase: ZB-5msi

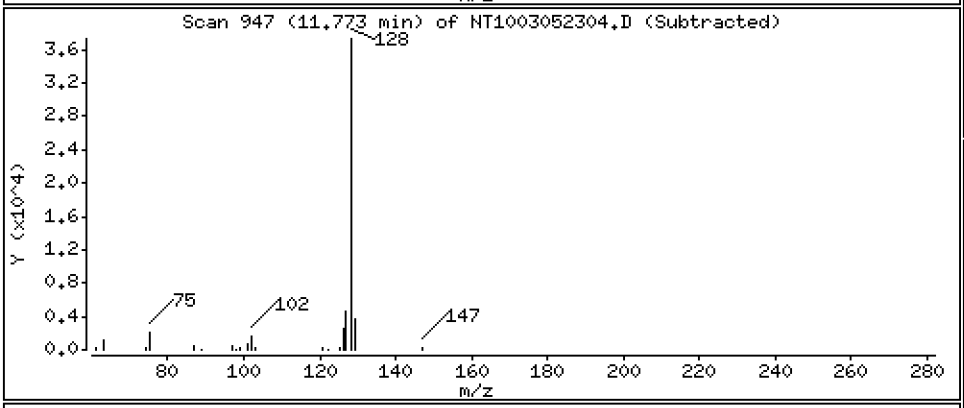
Column diameter: 0.25

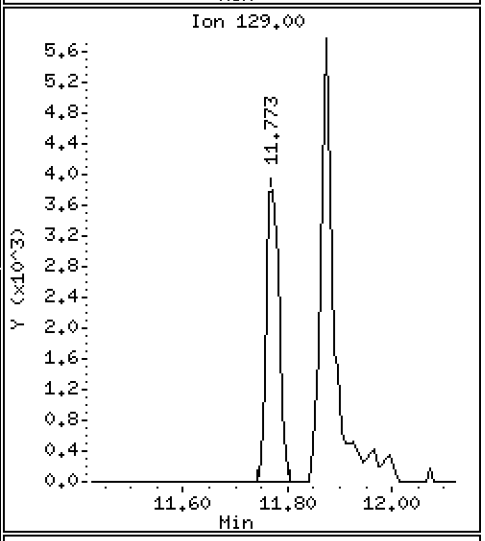
28 Naphthalene

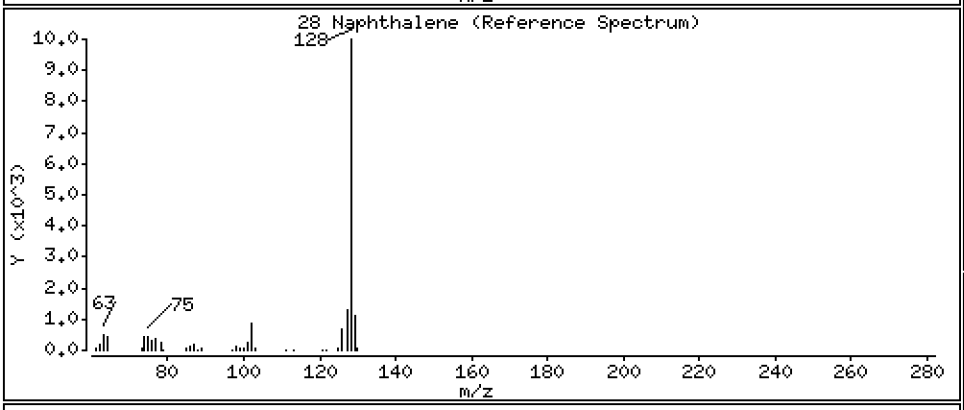
Concentration: 0.2050 ug/mL

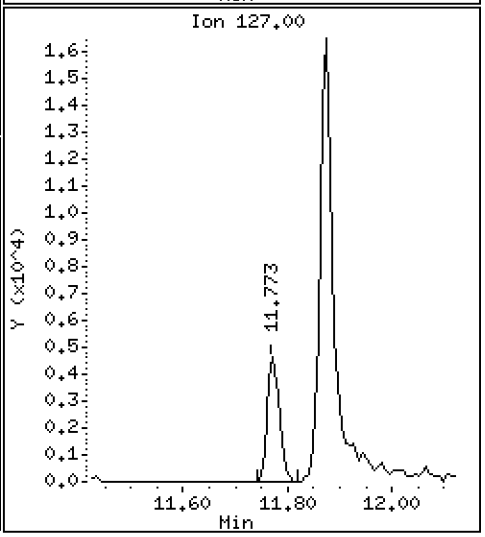


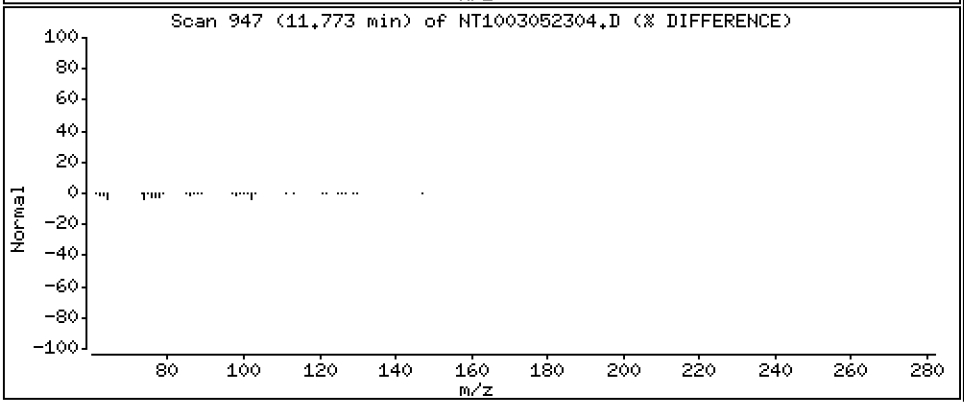












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

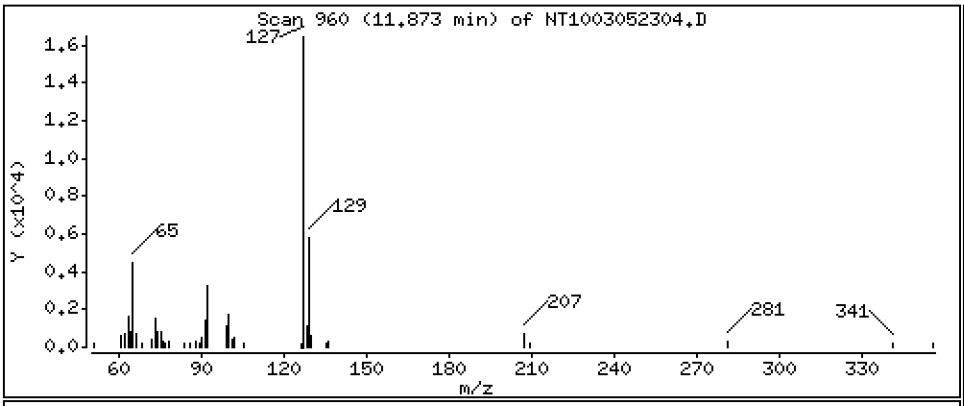
Operator: VTS

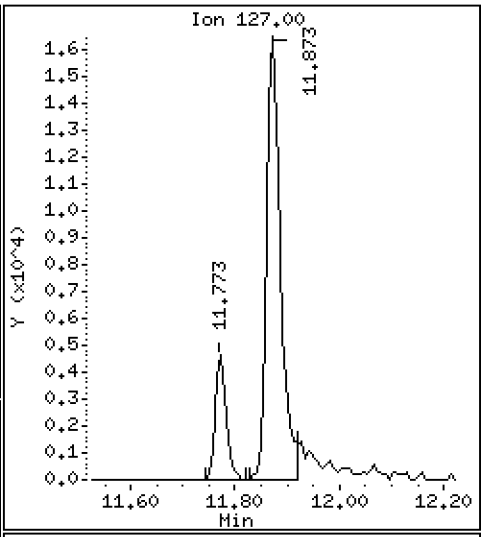
Column phase: ZB-5msi

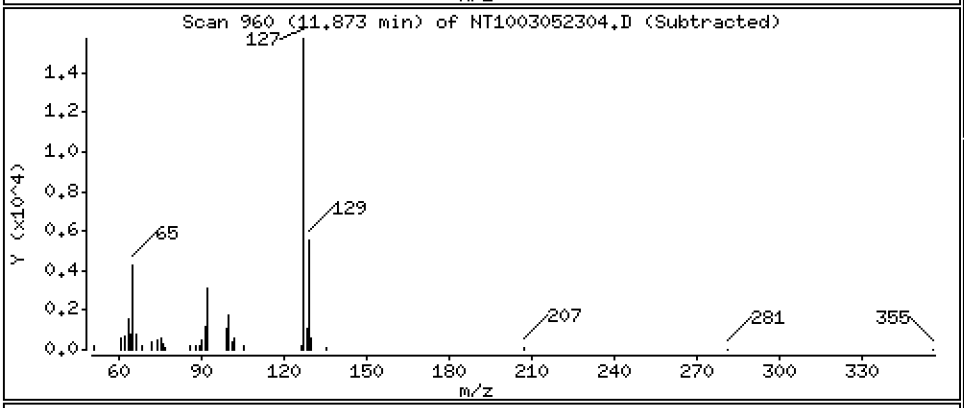
Column diameter: 0.25

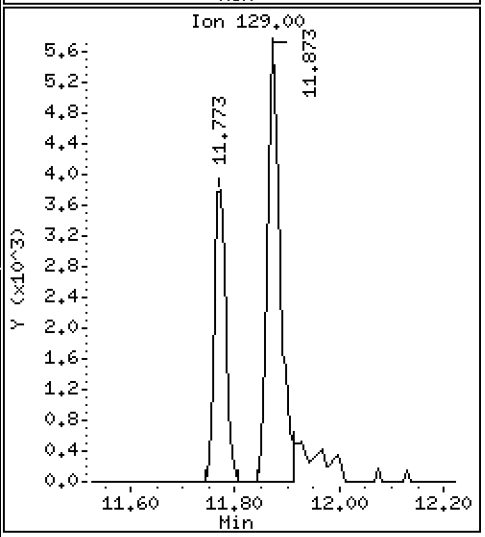
29 4-Chloroaniline

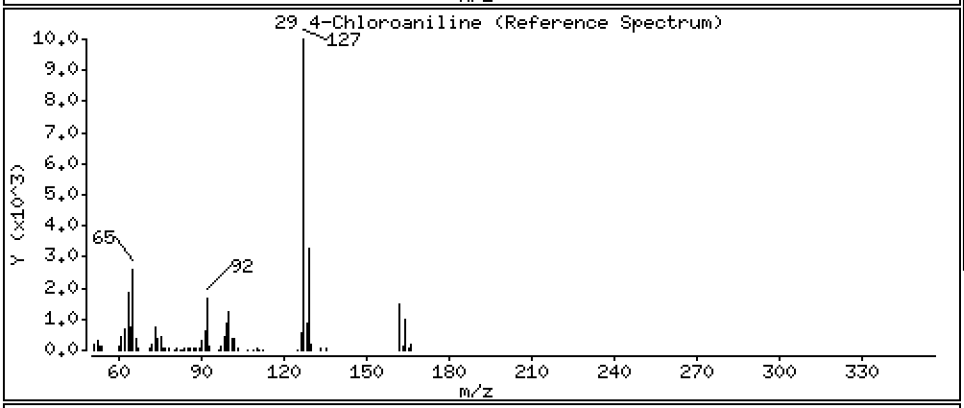
Concentration: 0.2422 ug/mL

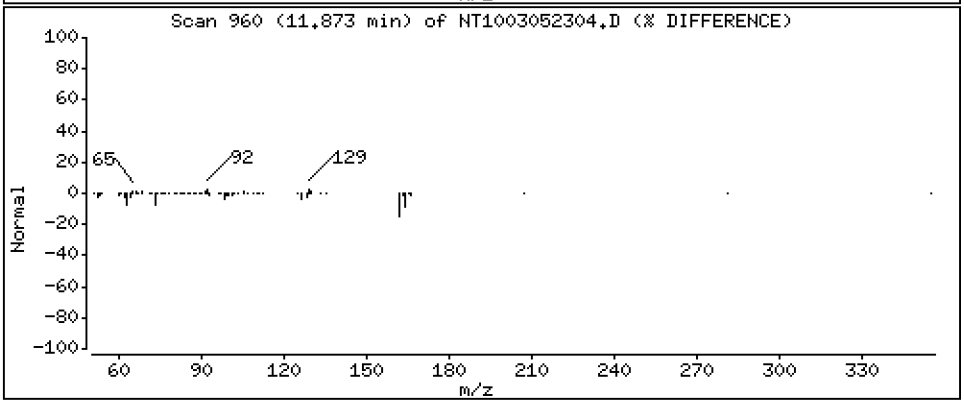












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

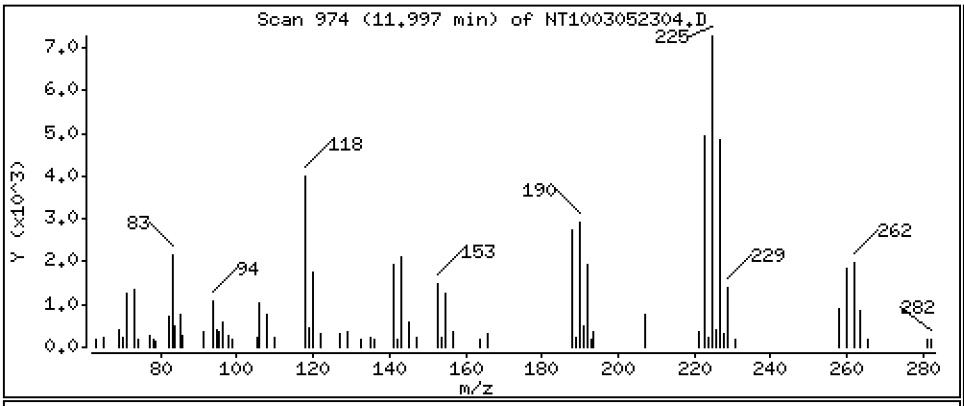
Operator: VTS

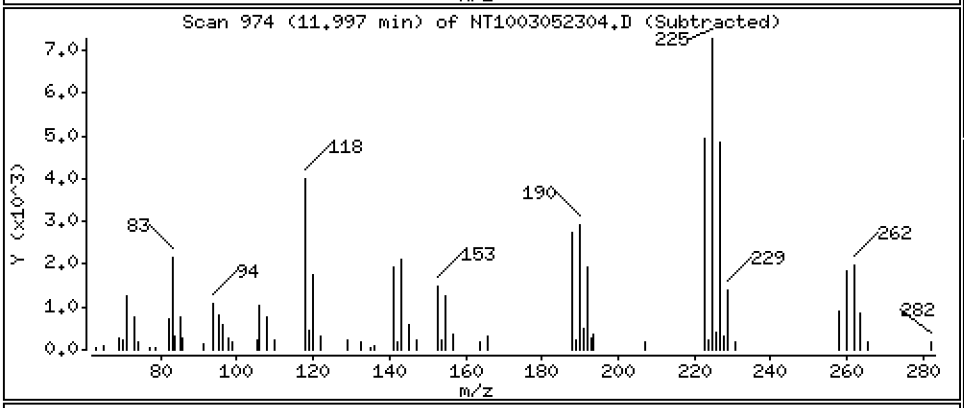
Column phase: ZB-5msi

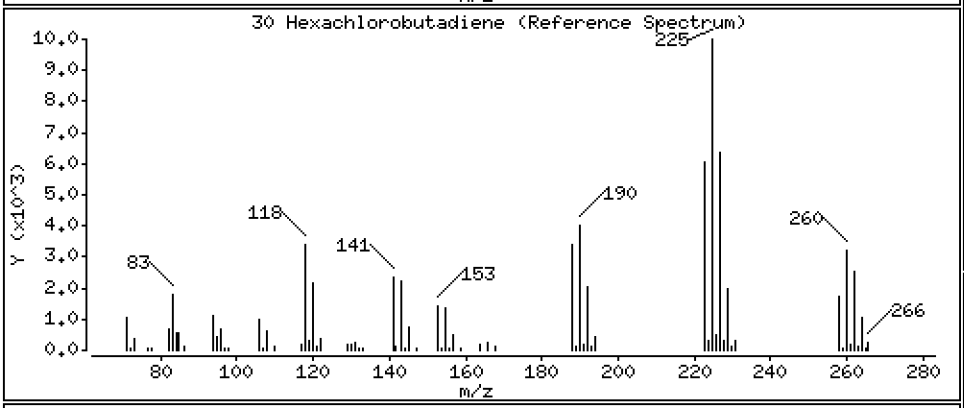
Column diameter: 0.25

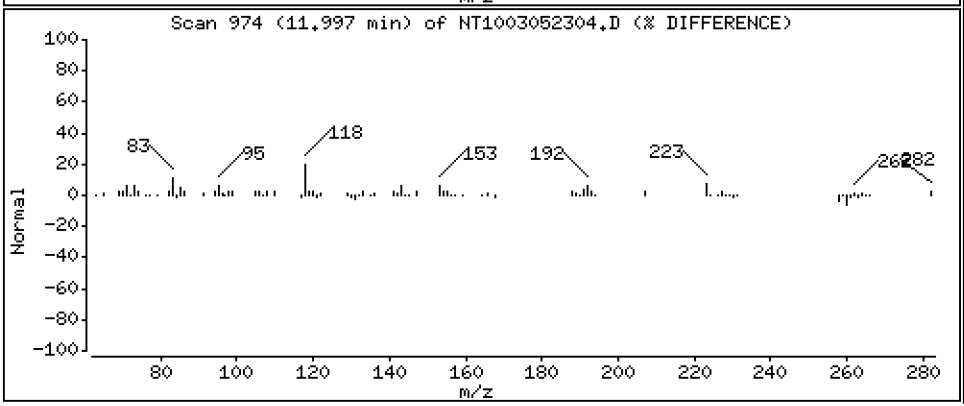
30 Hexachlorobutadiene

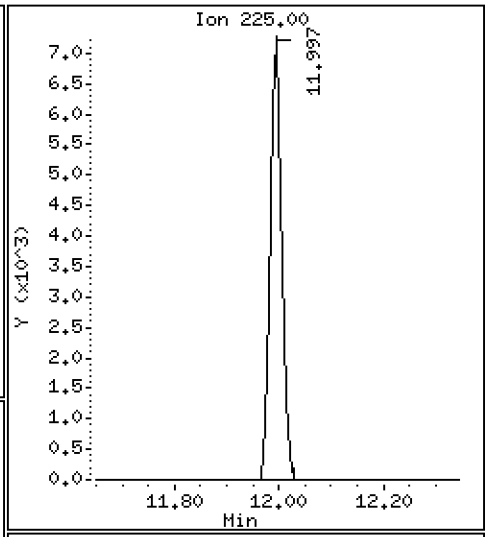
Concentration: 0.1815 ug/mL

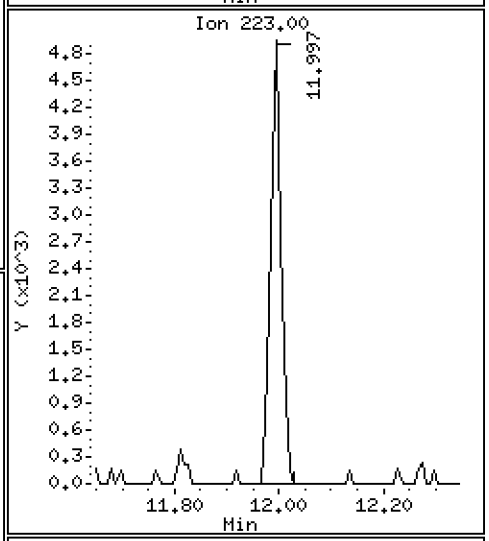


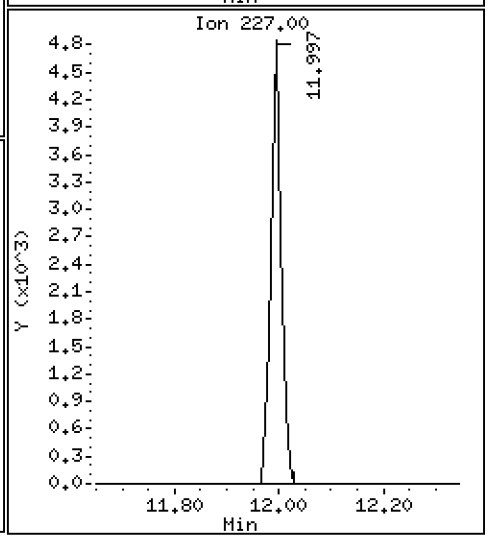












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

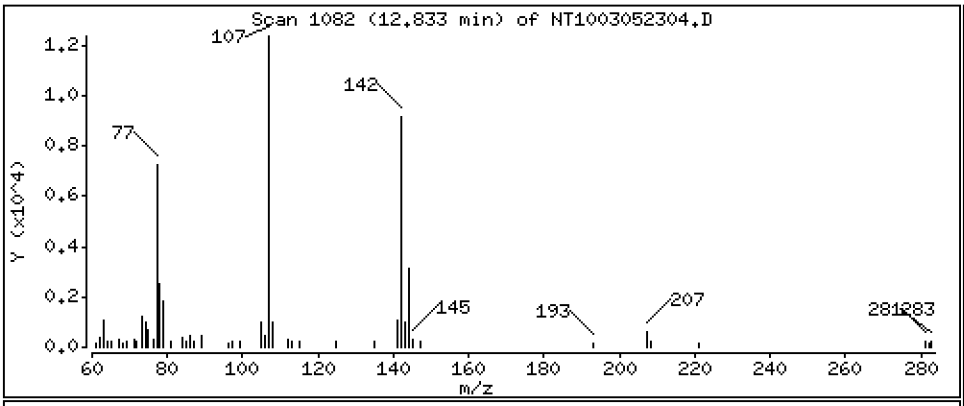
Operator: VTS

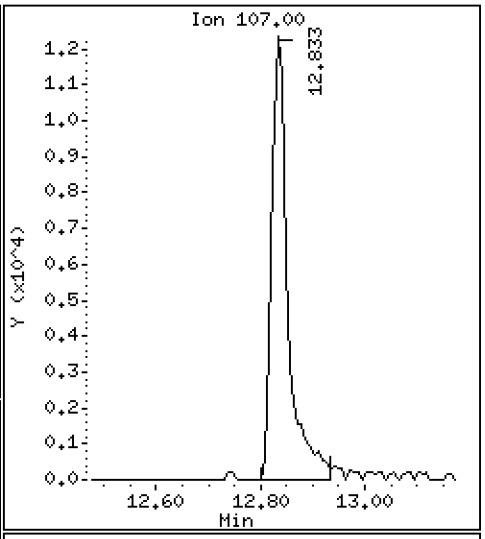
Column phase: ZB-5msi

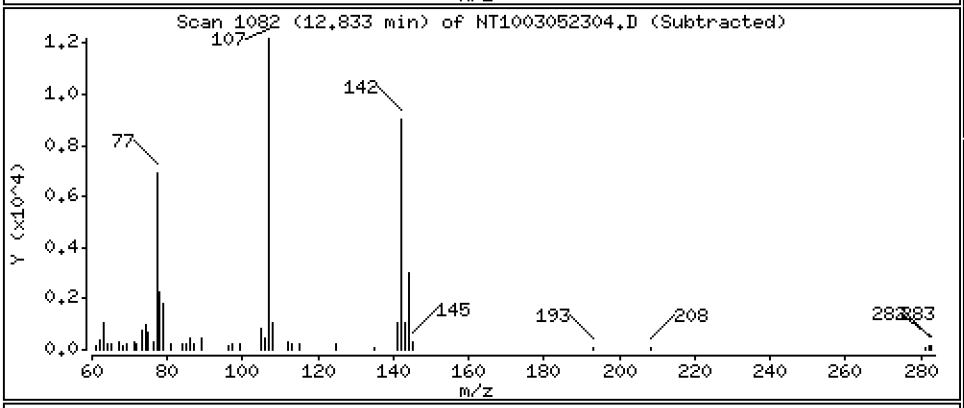
Column diameter: 0.25

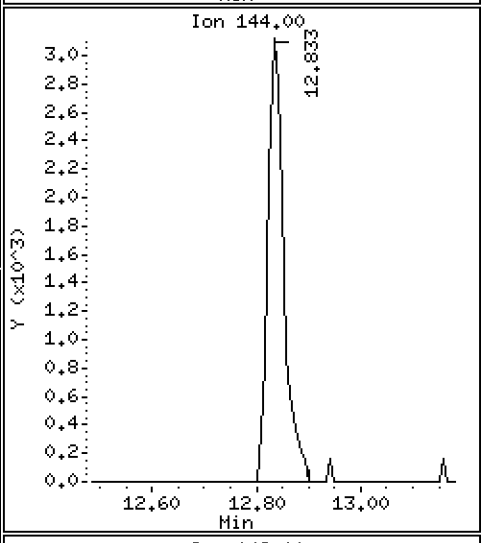
31 4-Chloro-3-methylphenol

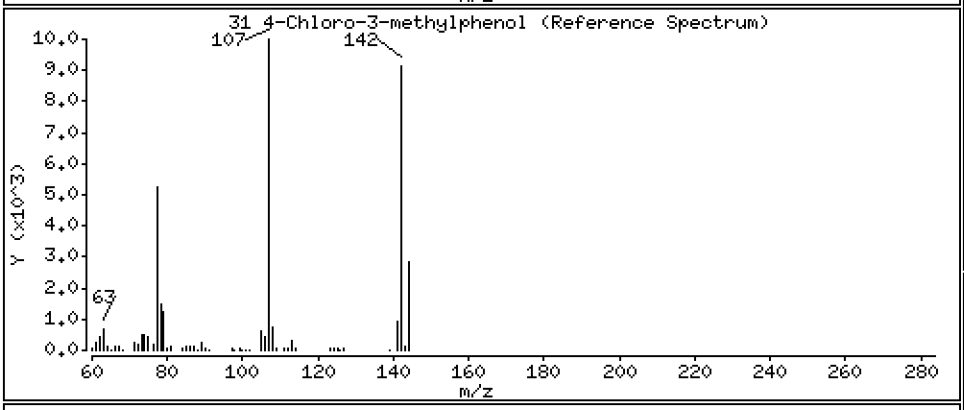
Concentration: 0.2973 ug/mL

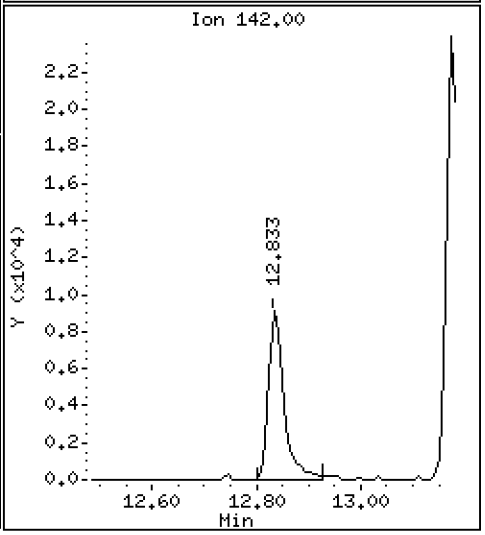


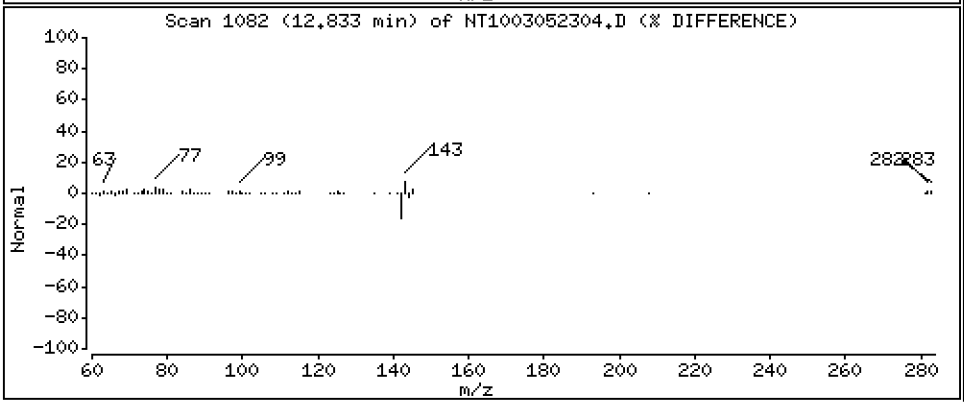












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

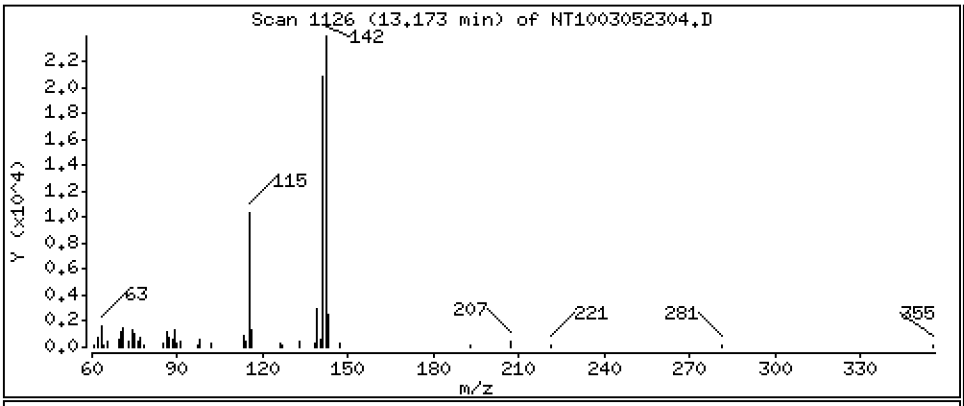
Operator: VTS

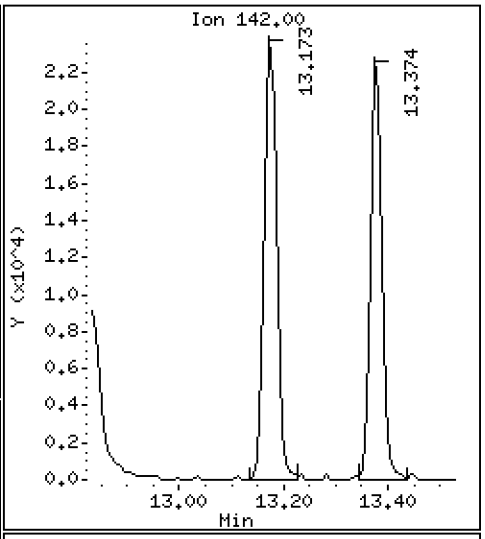
Column phase: ZB-5msi

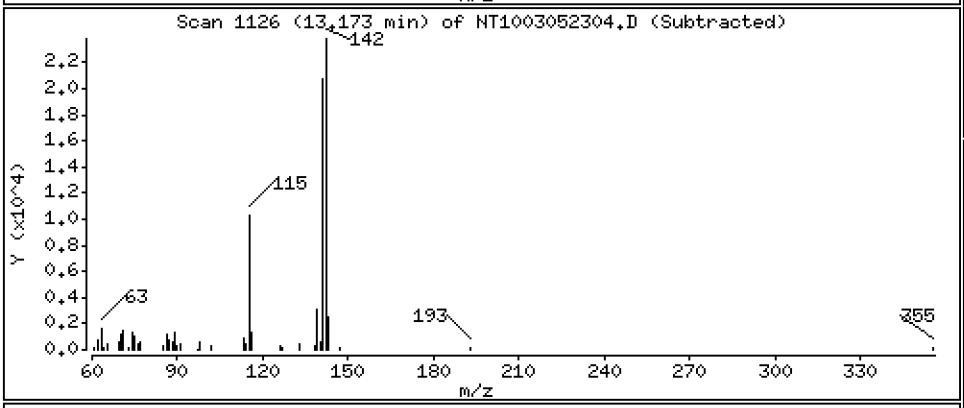
Column diameter: 0.25

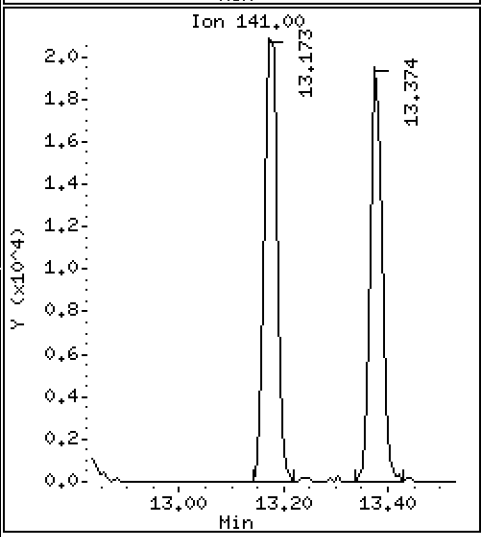
32 2-Methylnaphthalene

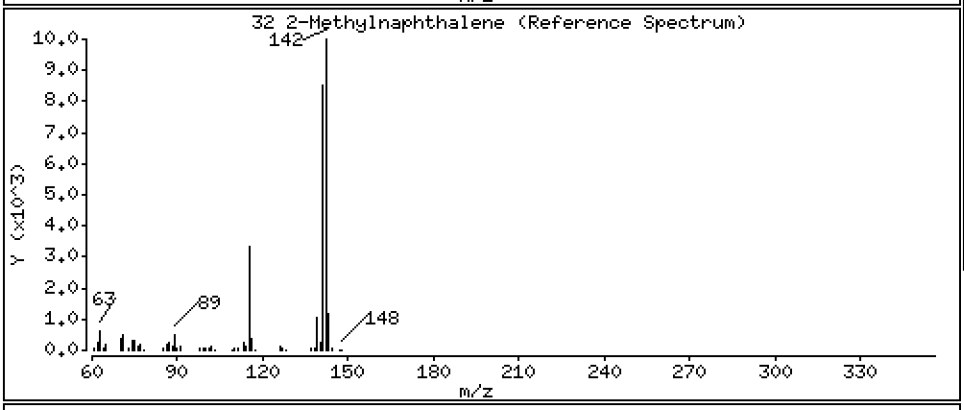
Concentration: 0.1944 ug/mL

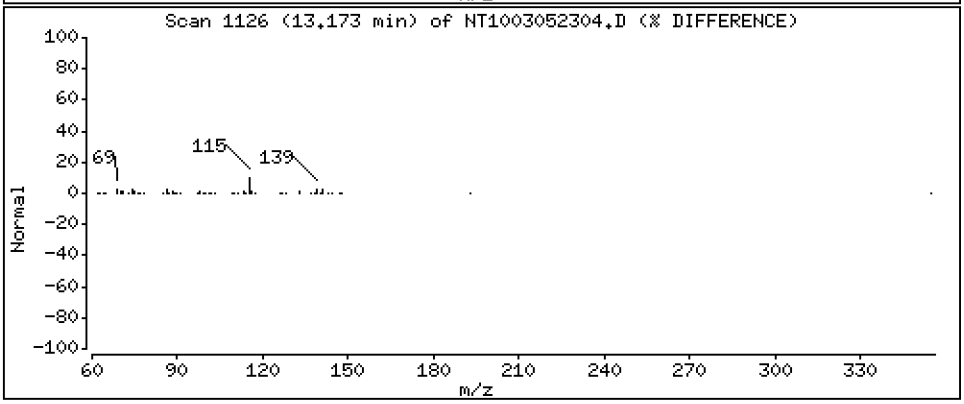












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

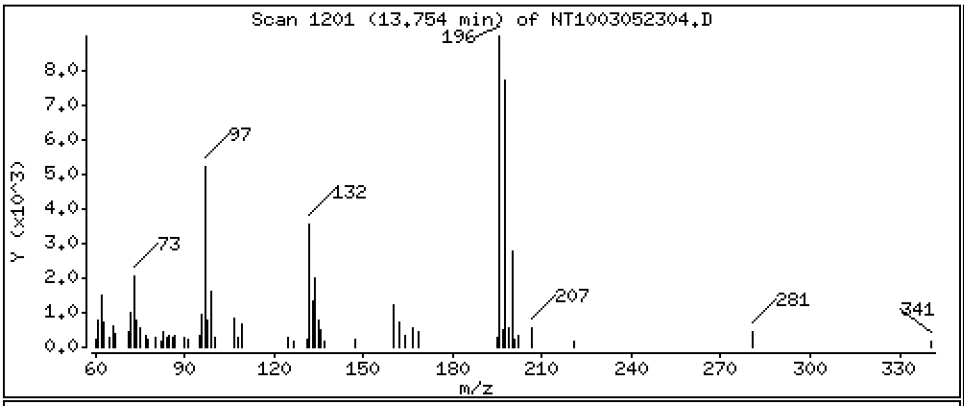
Operator: VTS

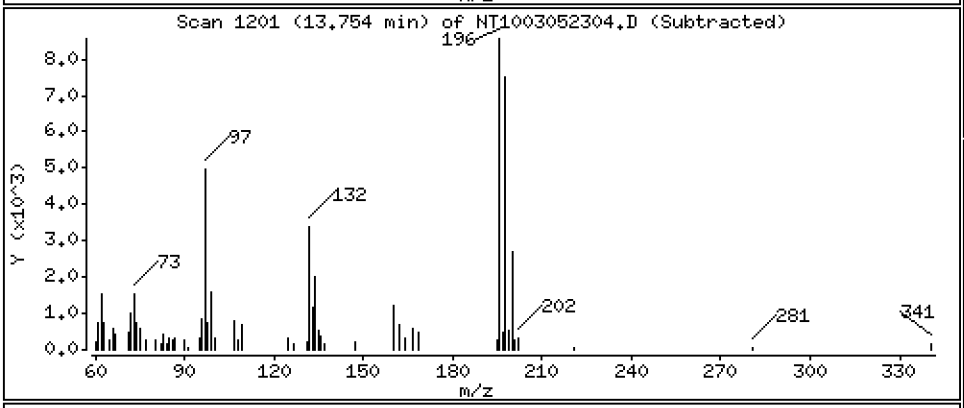
Column phase: ZB-5msi

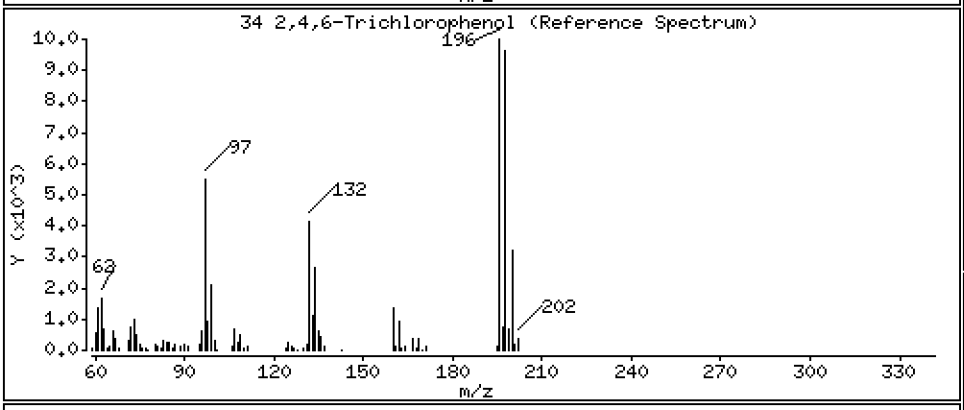
Column diameter: 0.25

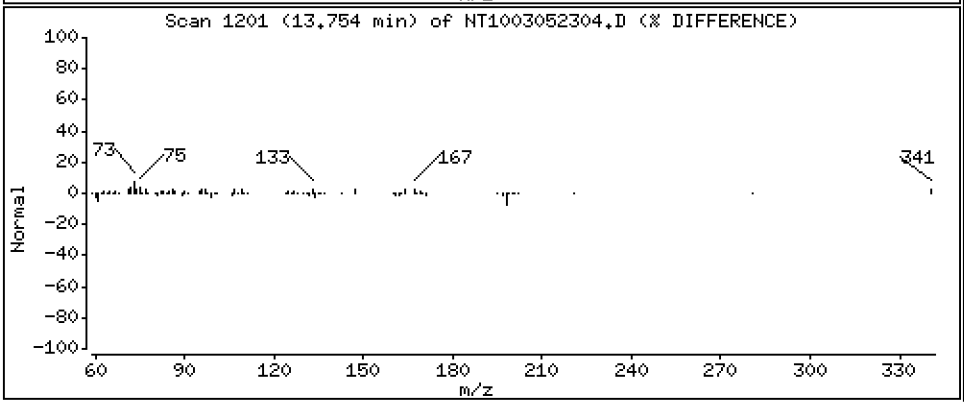
34 2,4,6-Trichlorophenol

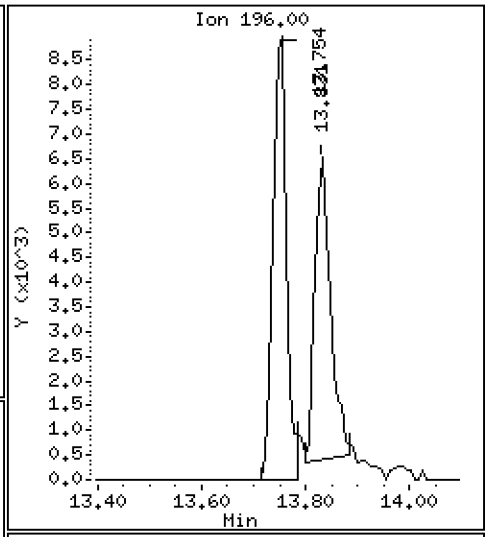
Concentration: 0.3094 ug/mL

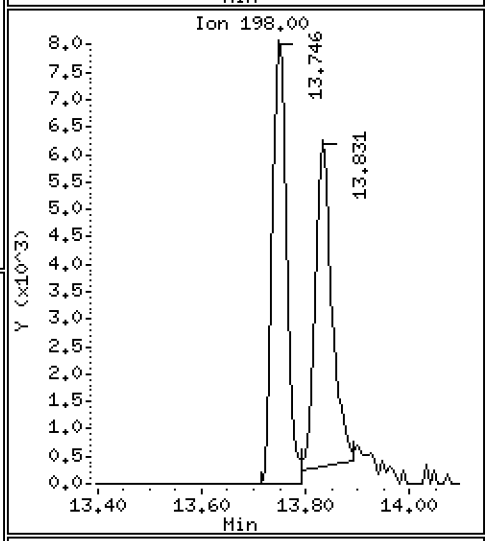


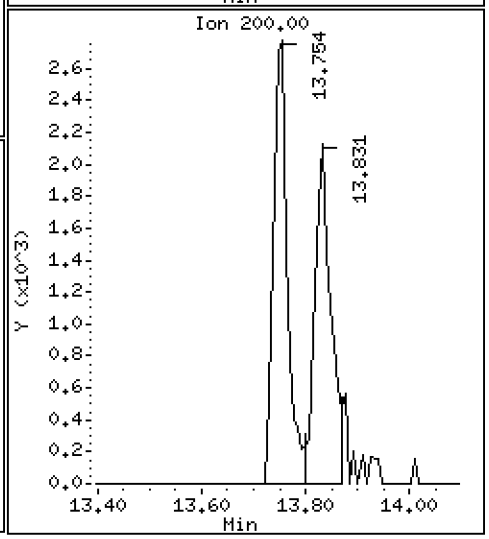












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

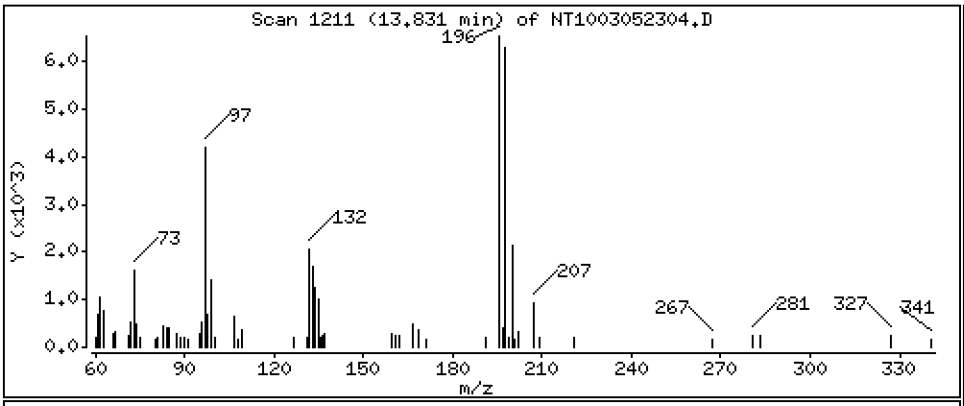
Operator: VTS

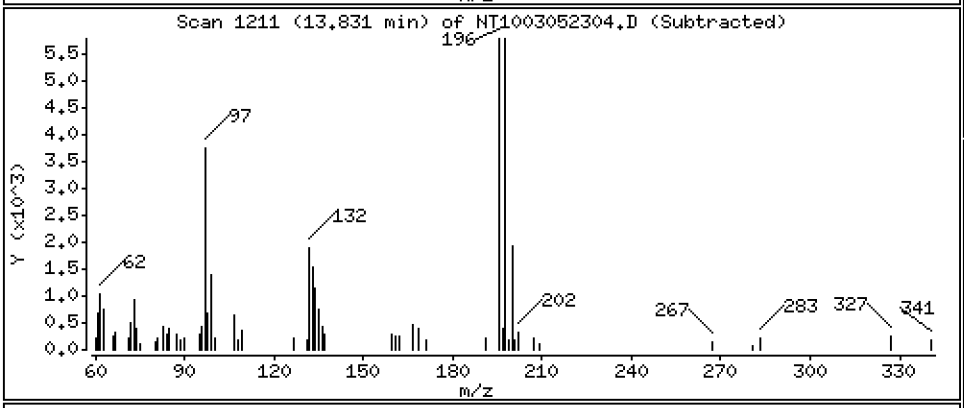
Column phase: ZB-5msi

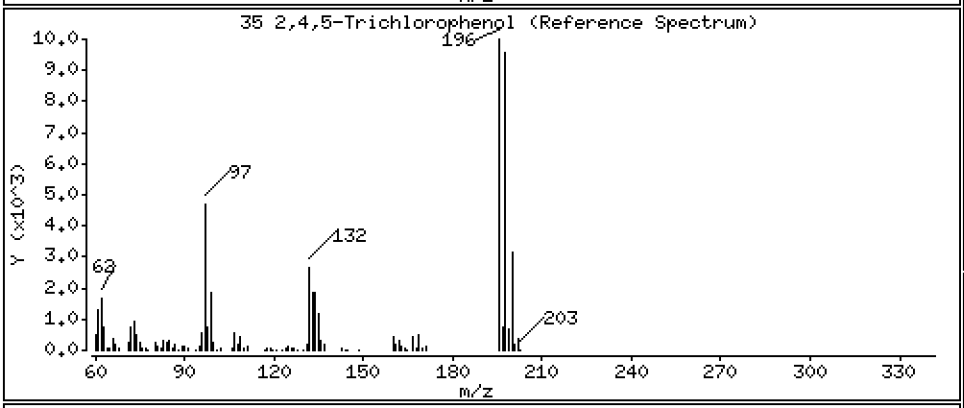
Column diameter: 0.25

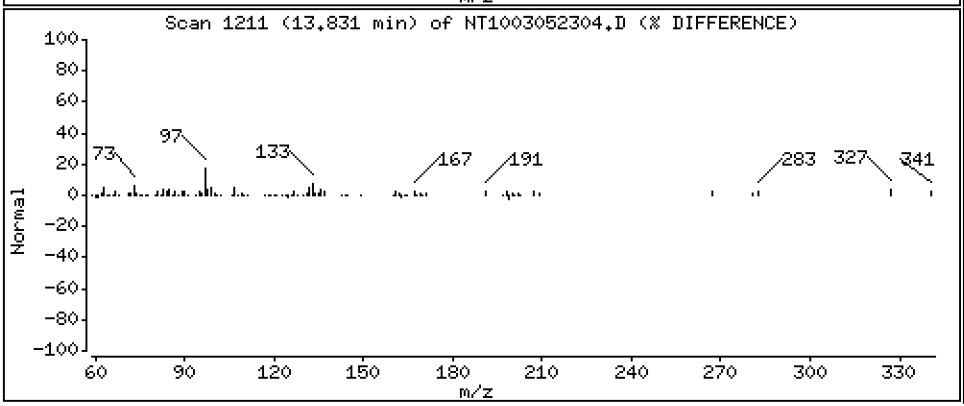
35 2,4,5-Trichlorophenol

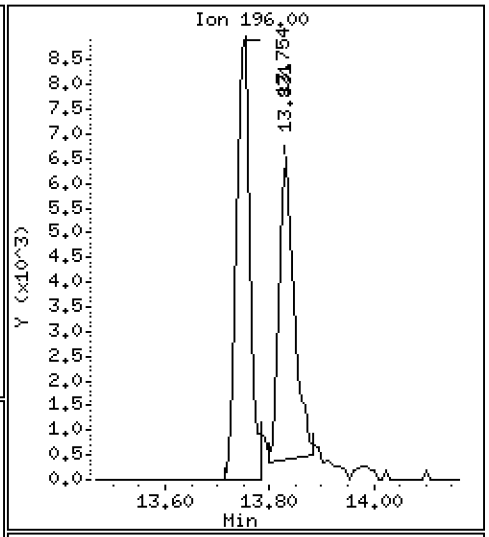
Concentration: 0.2335 ug/mL

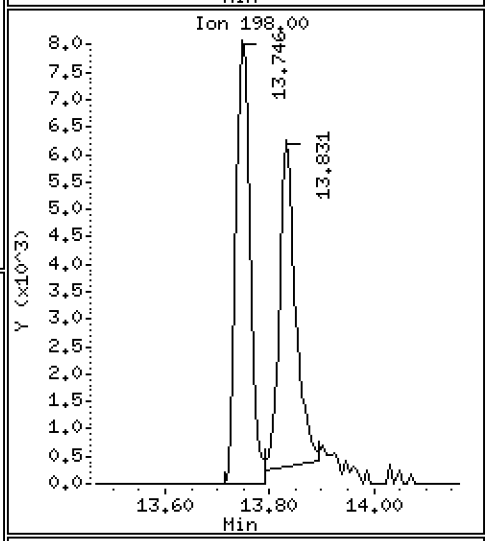


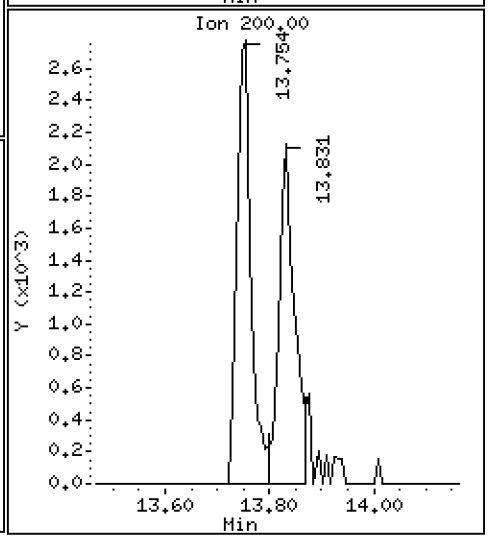












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

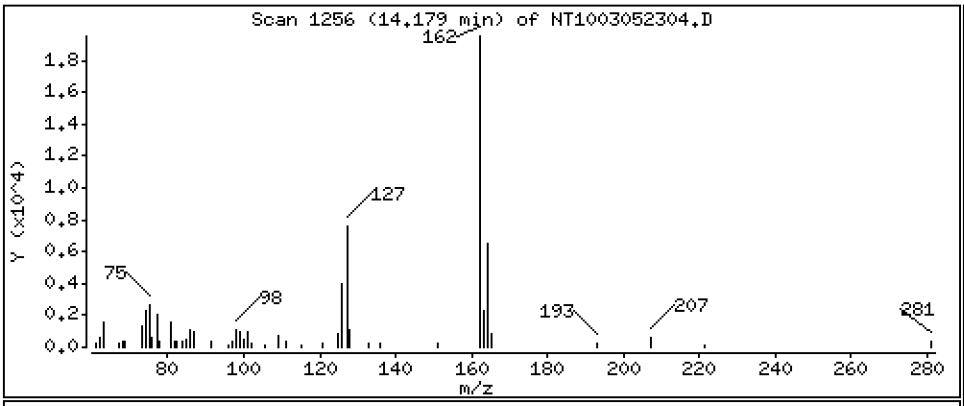
Operator: VTS

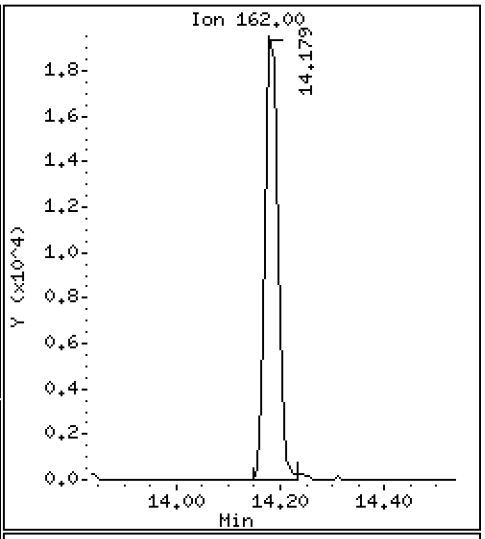
Column phase: ZB-5msi

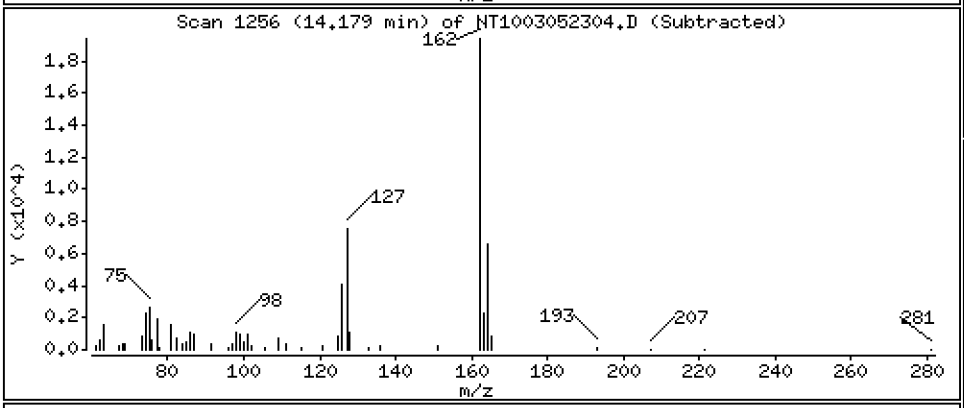
Column diameter: 0.25

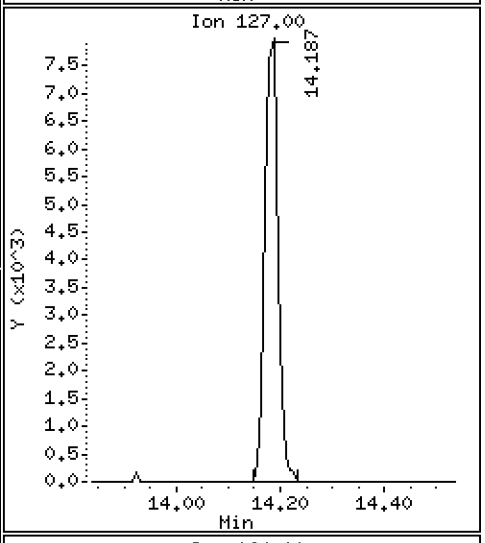
37 2-Chloronaphthalene

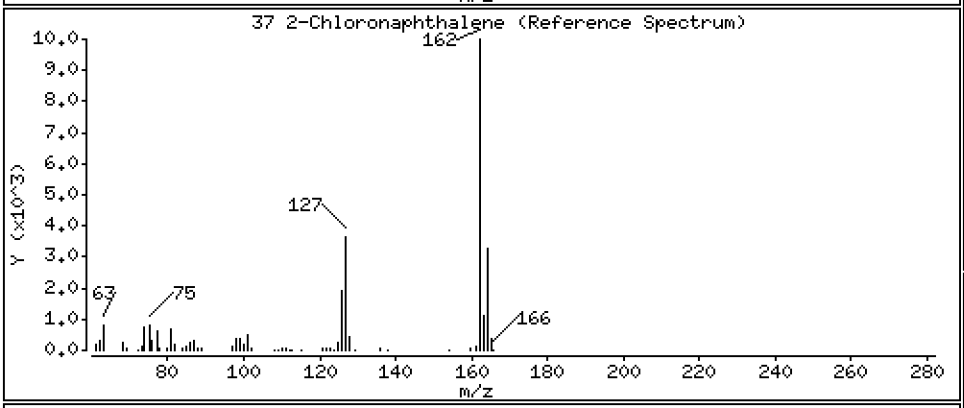
Concentration: 0.2133 ug/mL

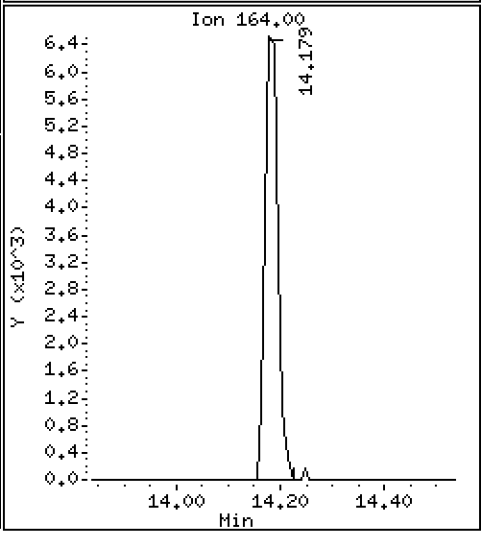


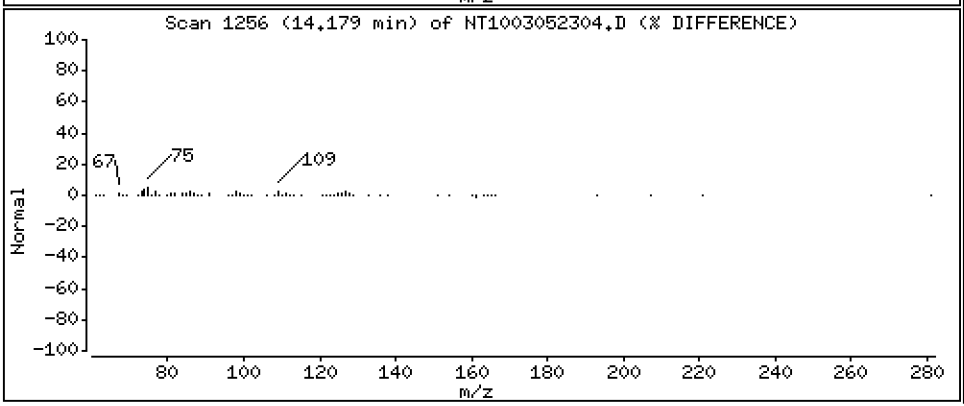












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

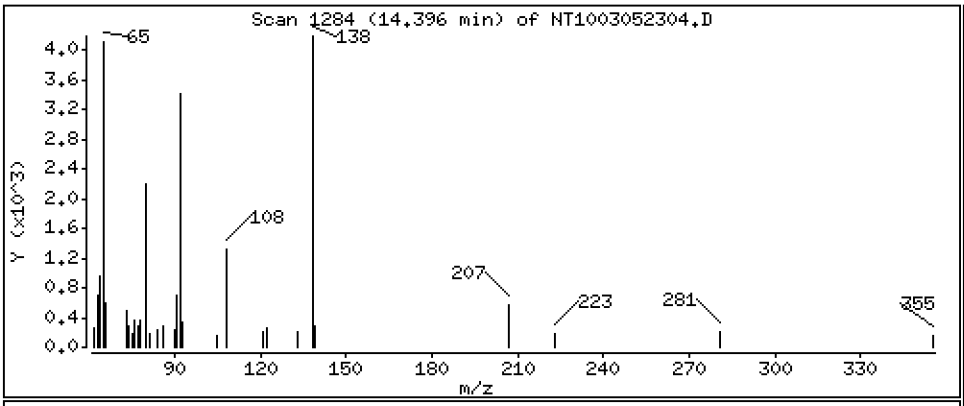
Operator: VTS

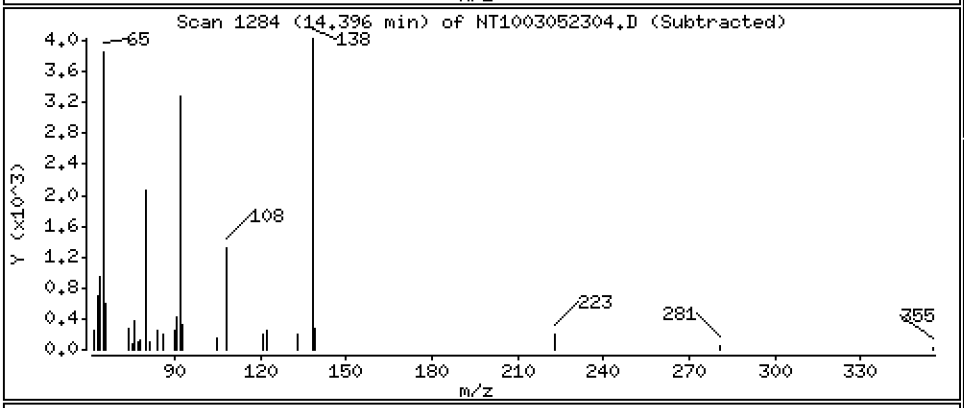
Column phase: ZB-5msi

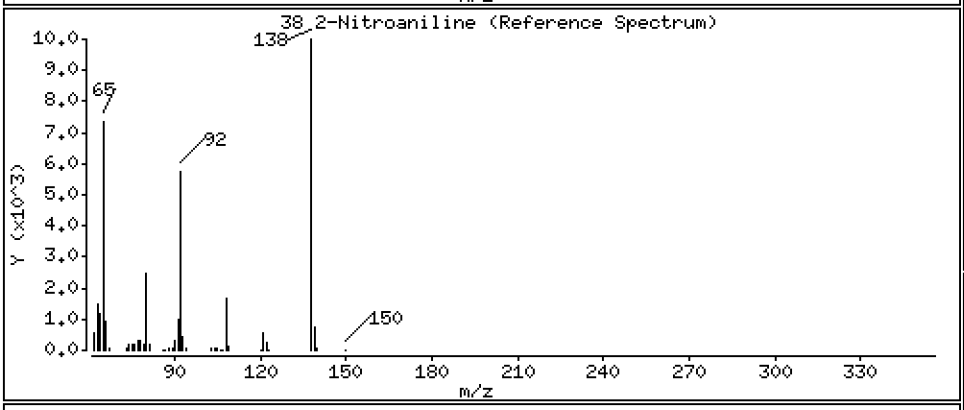
Column diameter: 0.25

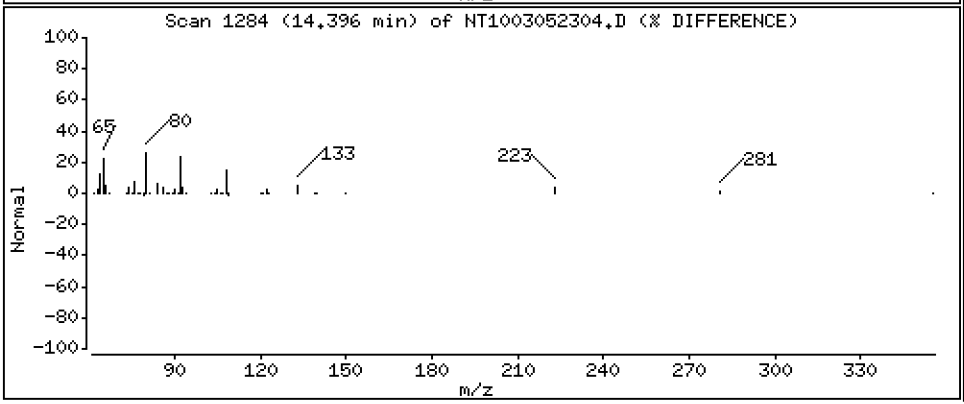
38 2-Nitroaniline

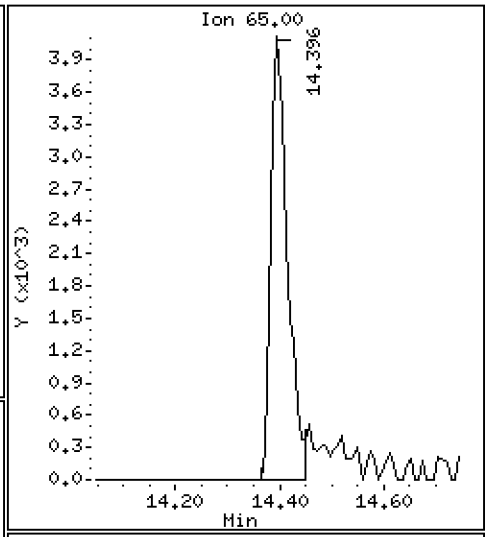
Concentration: 0.2160 ug/mL

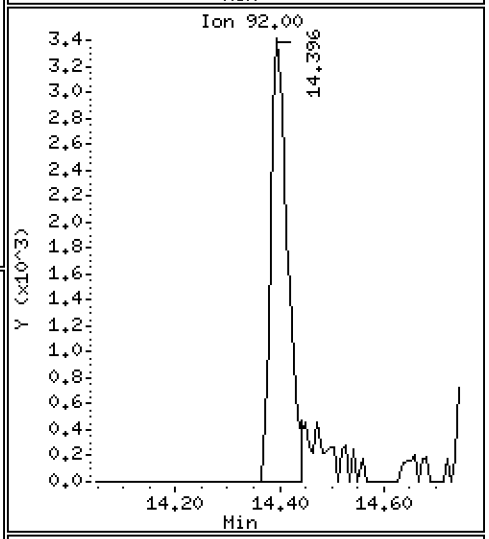


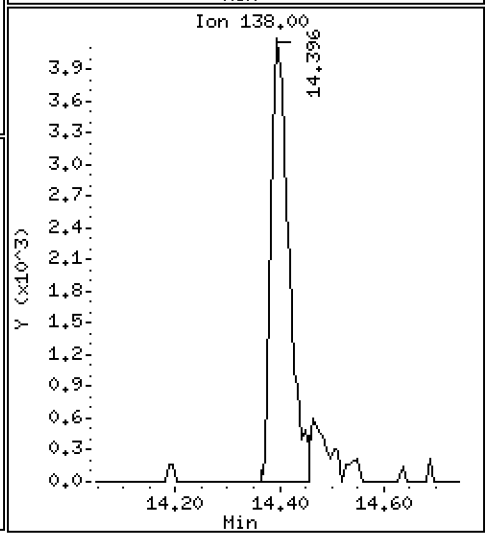












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

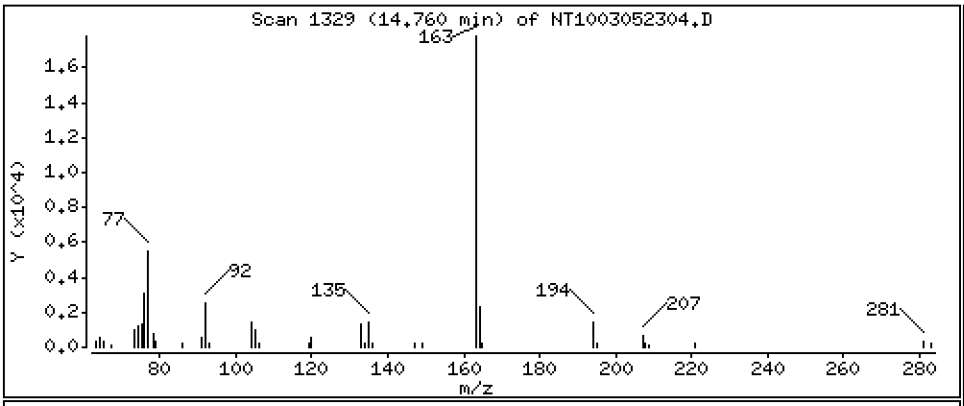
Operator: VTS

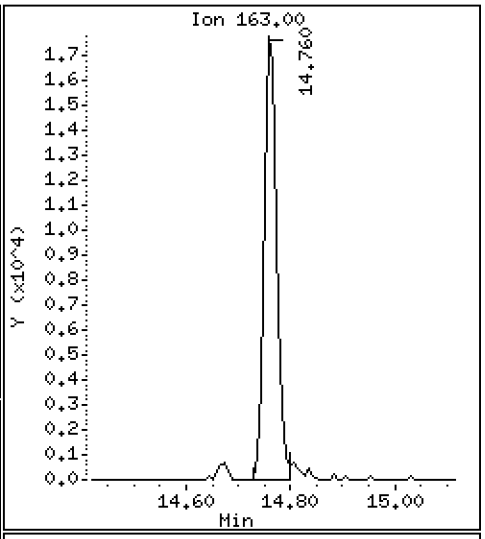
Column phase: ZB-5msi

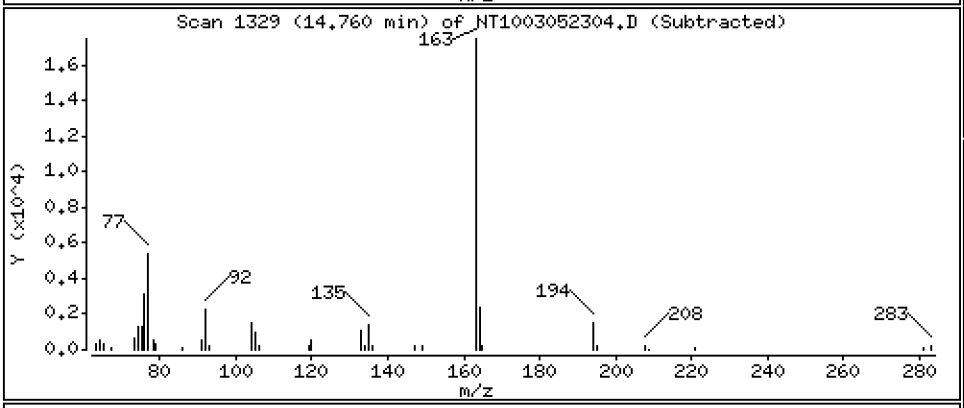
Column diameter: 0.25

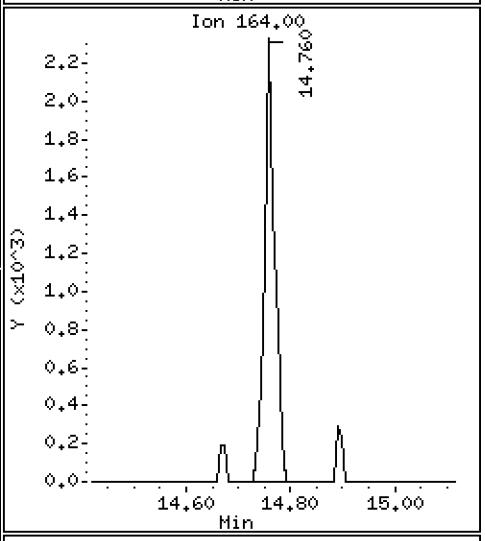
39 Dimethylphthalate

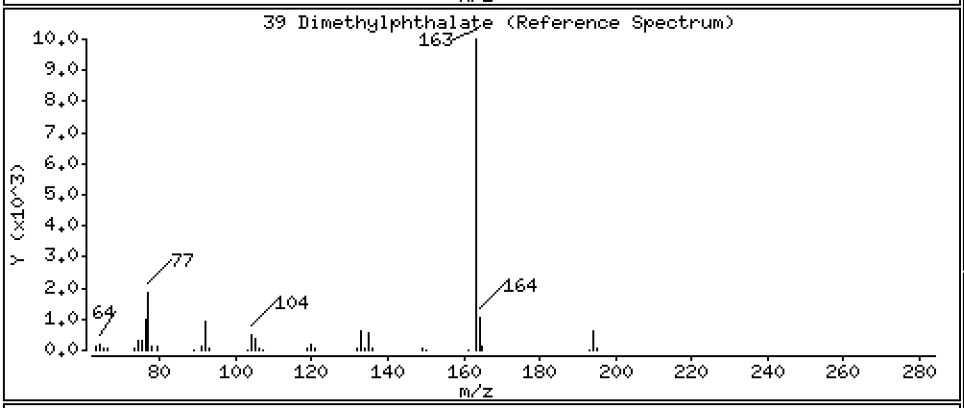
Concentration: 0.1663 ug/mL

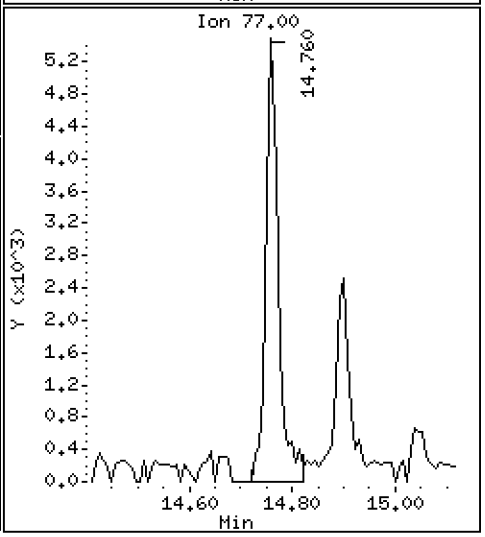


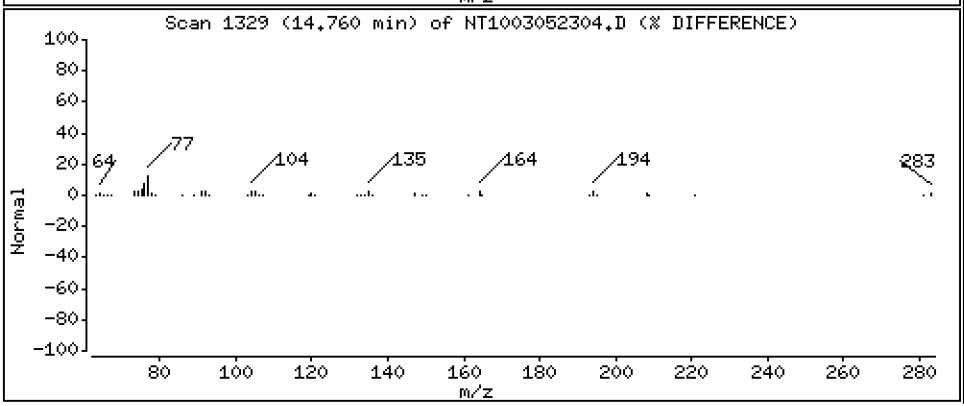












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

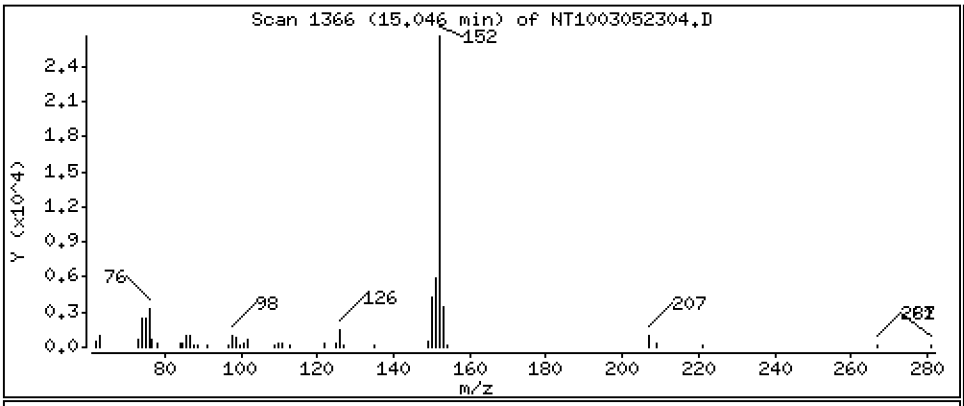
Operator: VTS

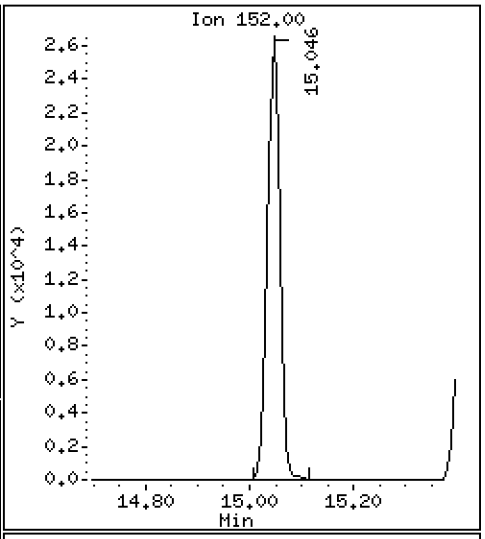
Column phase: ZB-5msi

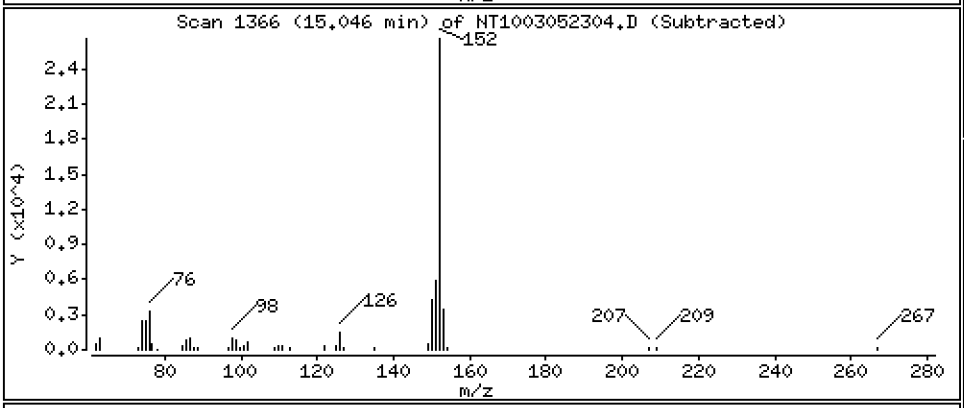
Column diameter: 0.25

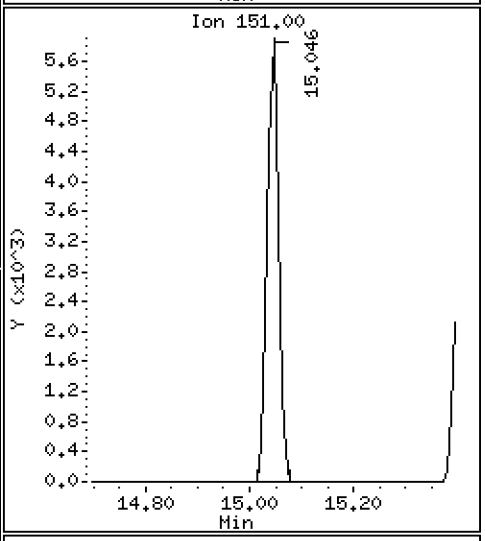
40 Acenaphthylene

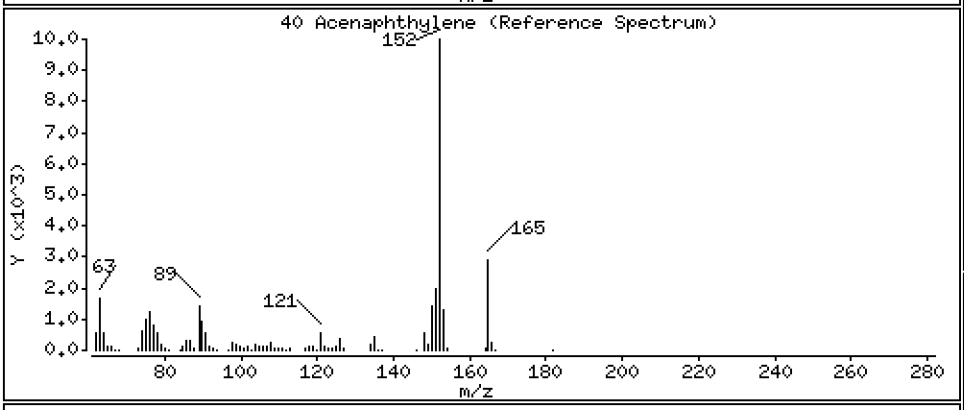
Concentration: 0.1880 ug/mL

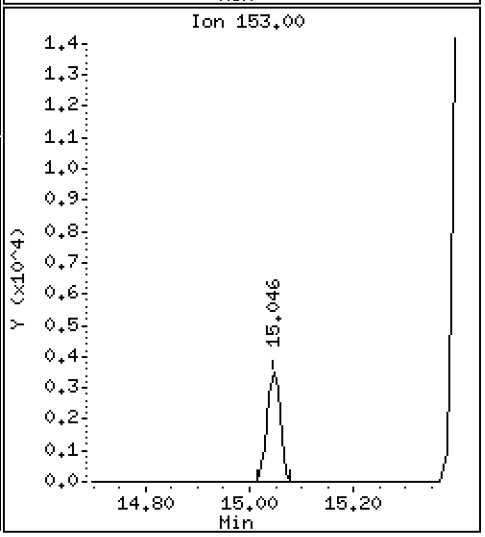


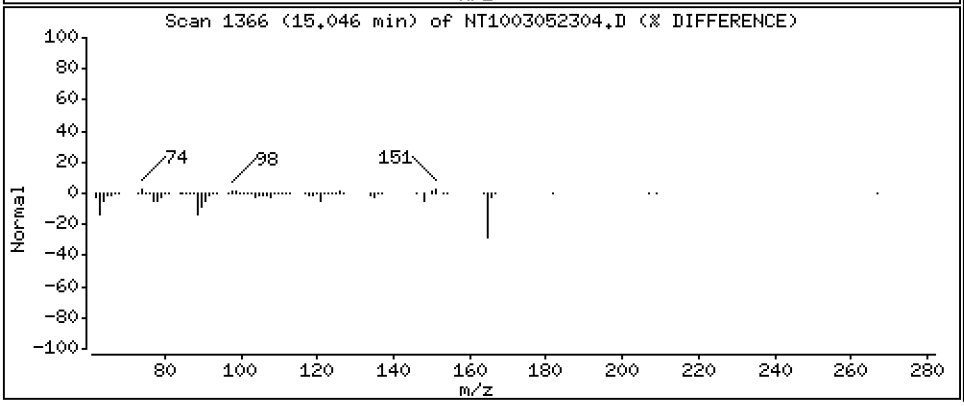












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

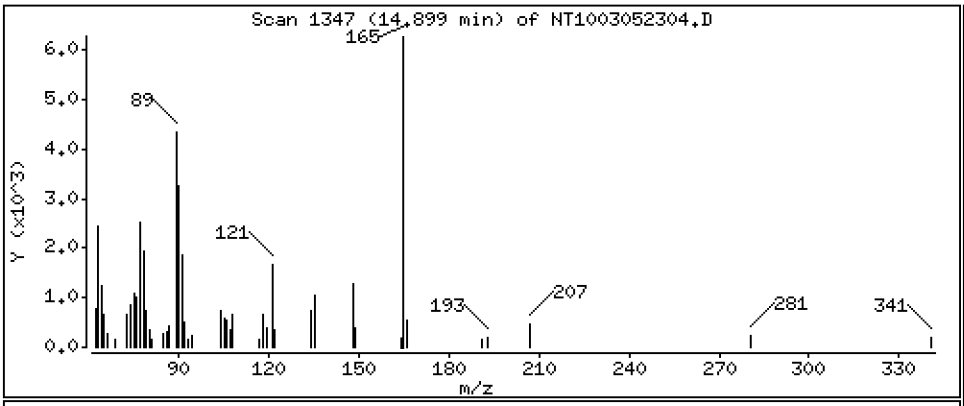
Operator: VTS

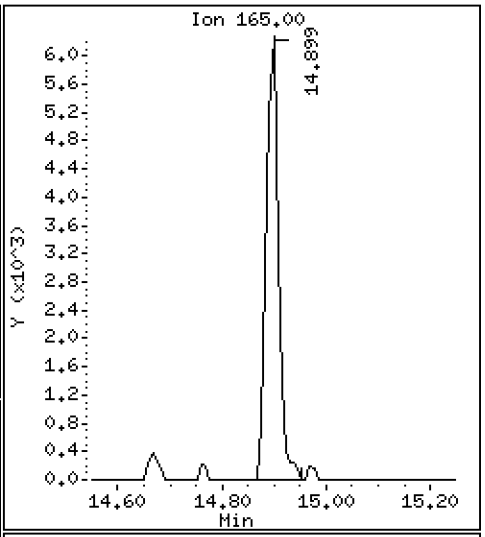
Column phase: ZB-5msi

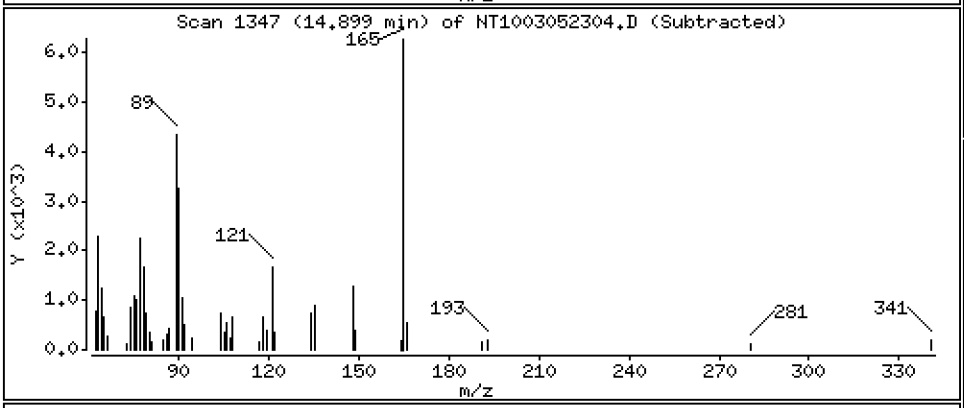
Column diameter: 0.25

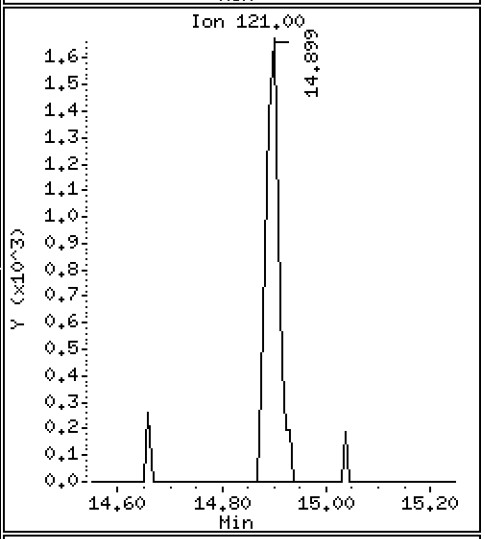
41 2,6-Dinitrotoluene

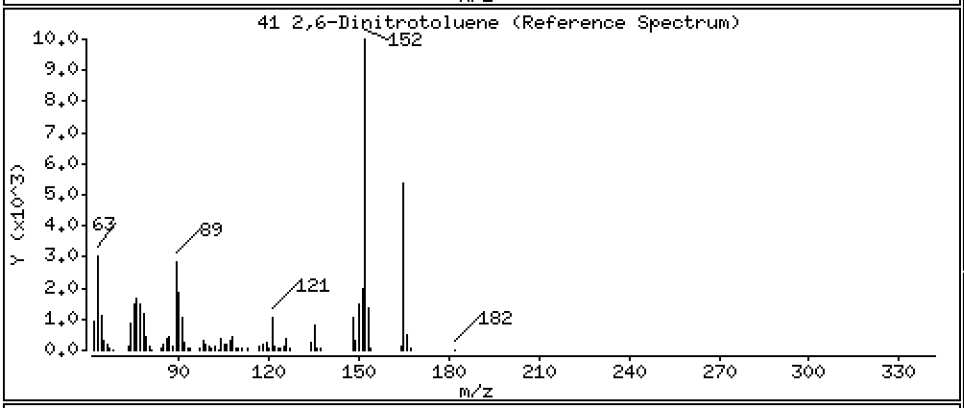
Concentration: 0.2545 ug/mL

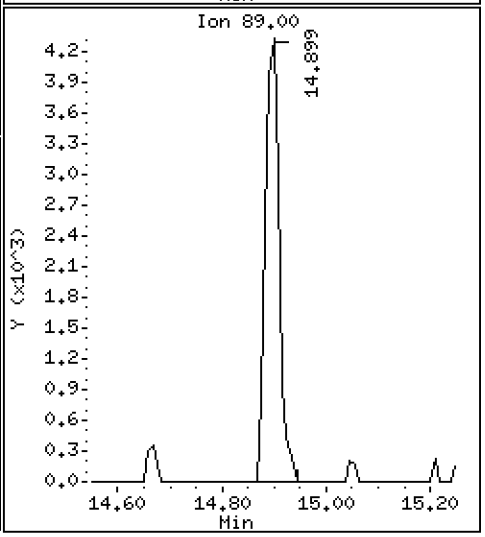


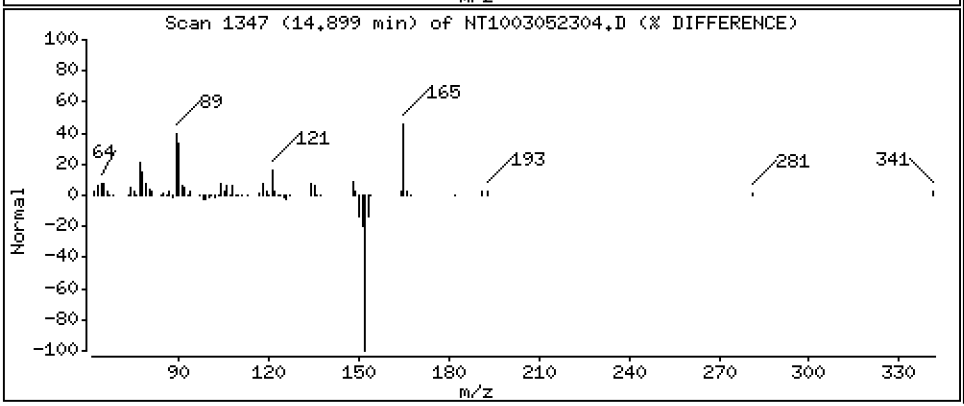












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

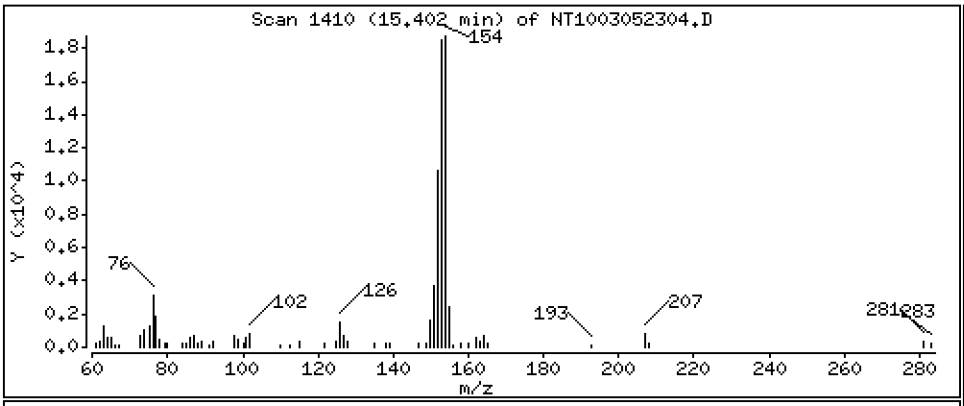
Operator: VTS

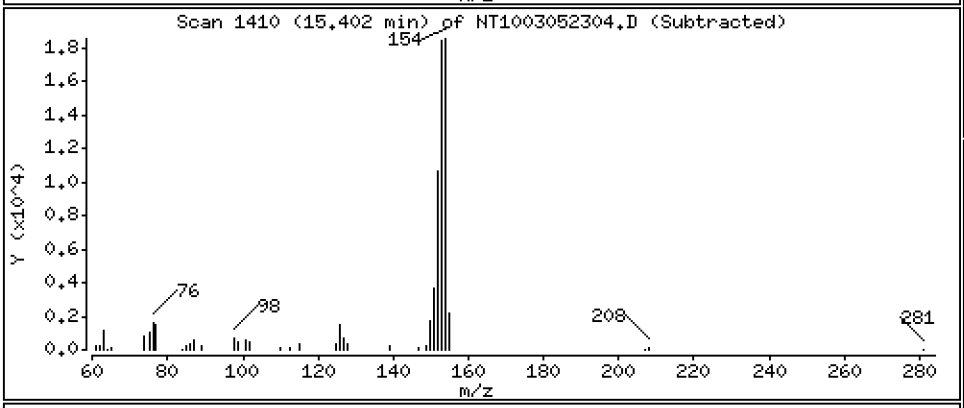
Column phase: ZB-5msi

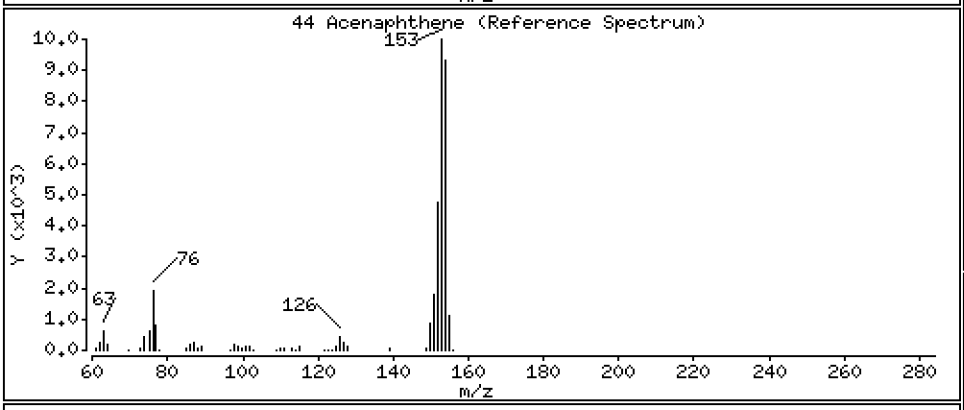
Column diameter: 0.25

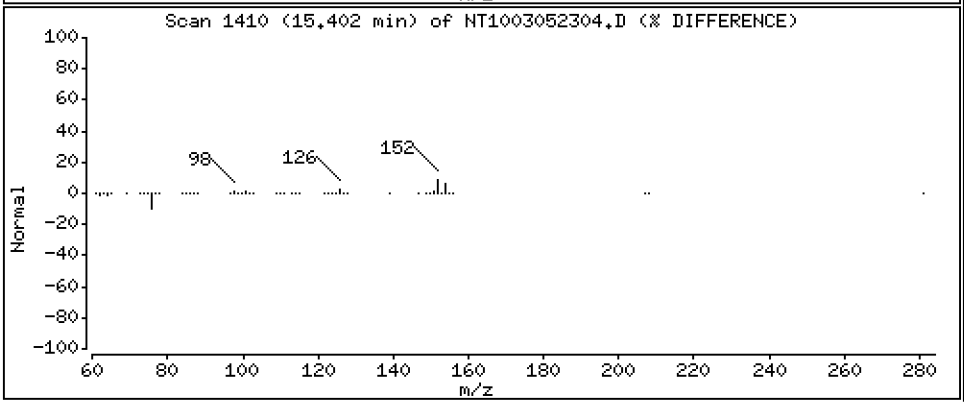
44 Acenaphthene

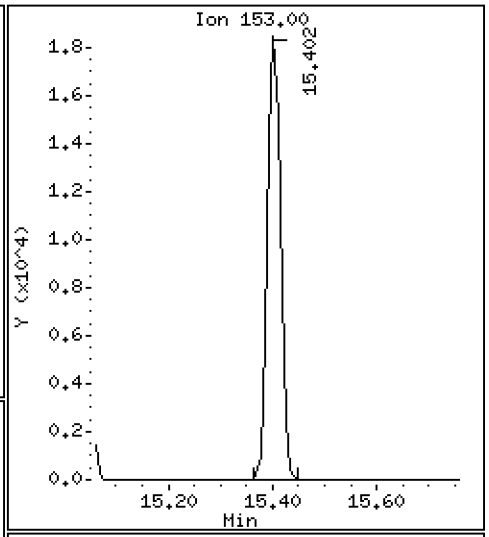
Concentration: 0.1966 ug/mL

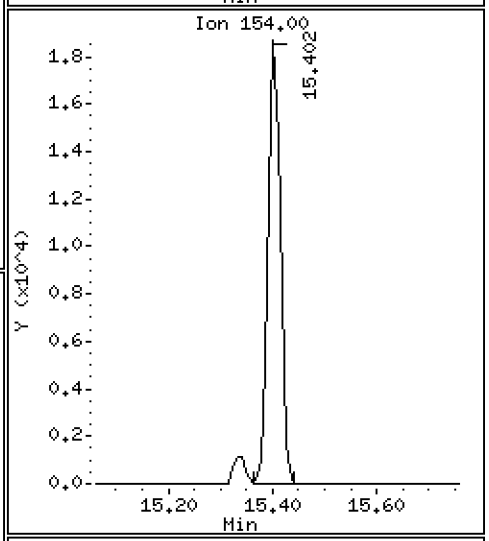


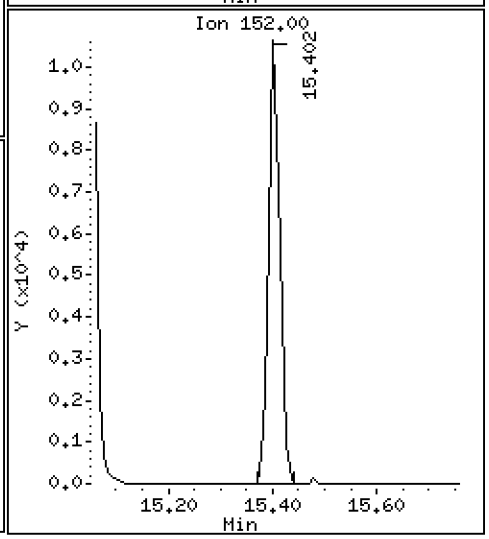












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

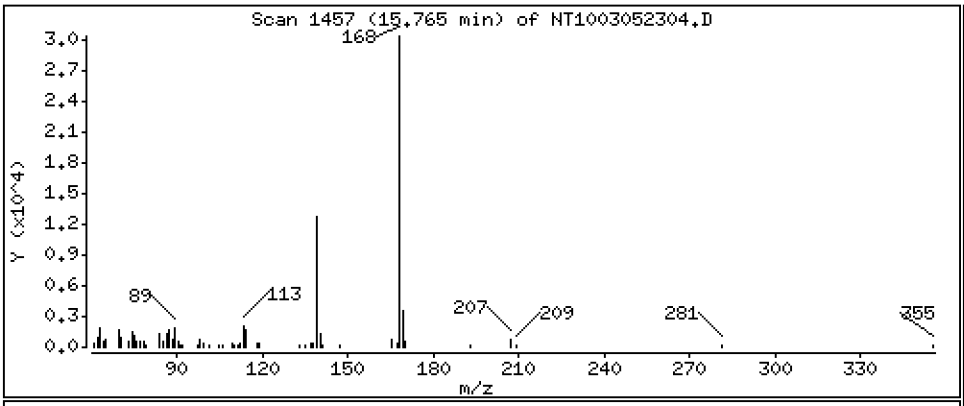
Operator: VTS

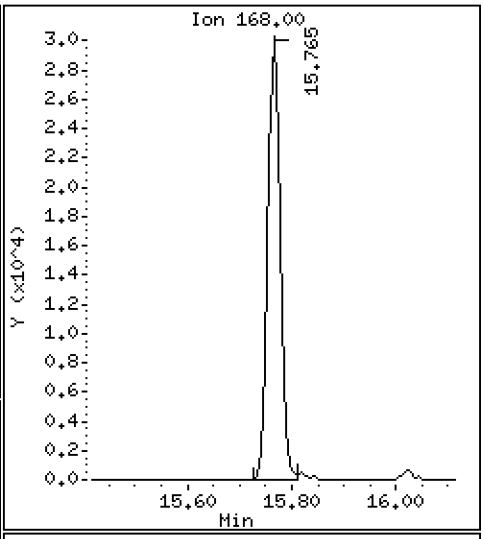
Column phase: ZB-5msi

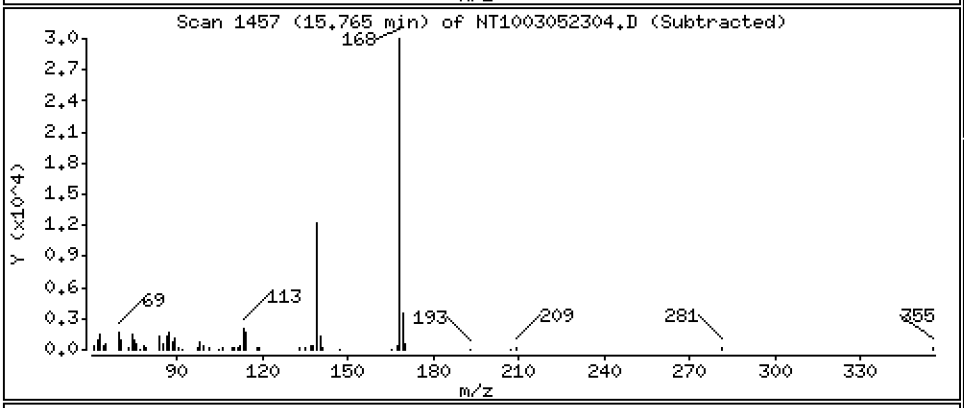
Column diameter: 0.25

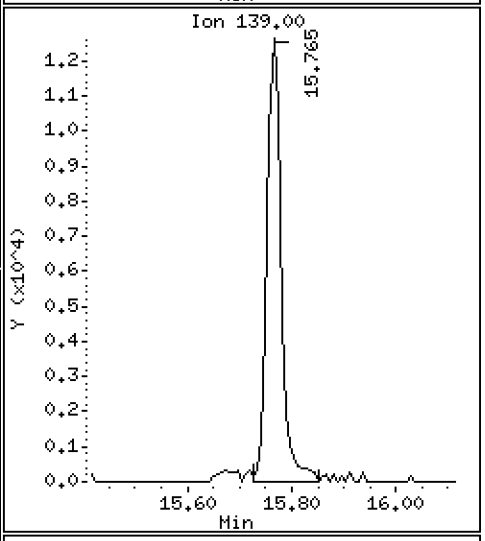
46 Dibenzofuran

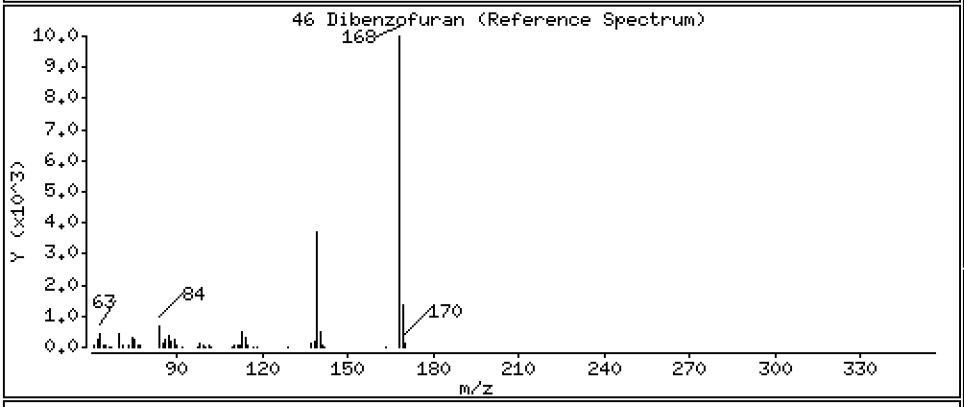
Concentration: 0.2052 ug/mL

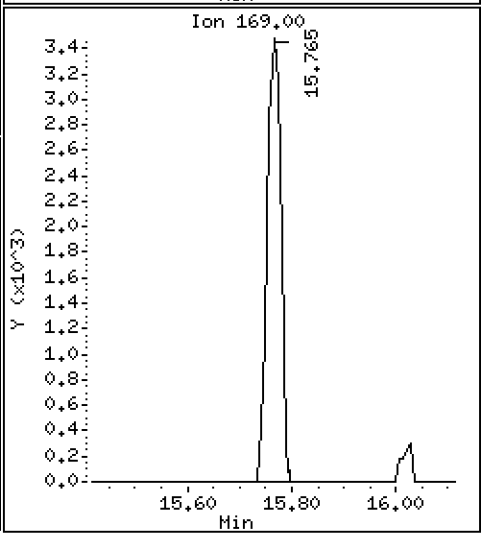


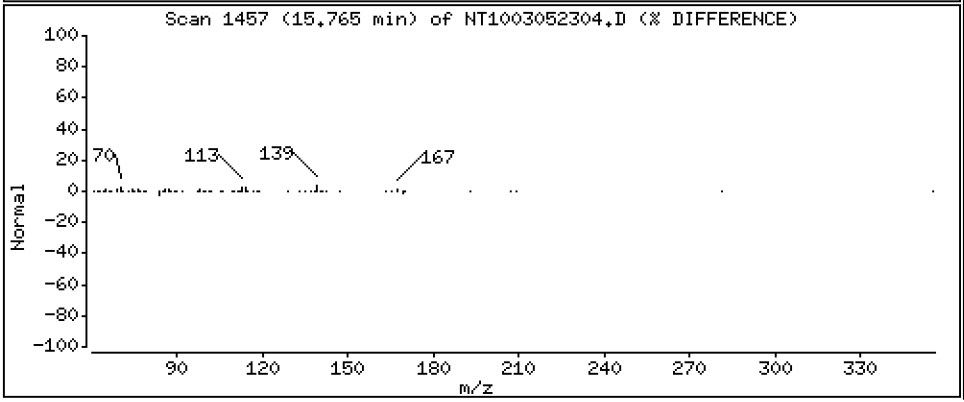












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

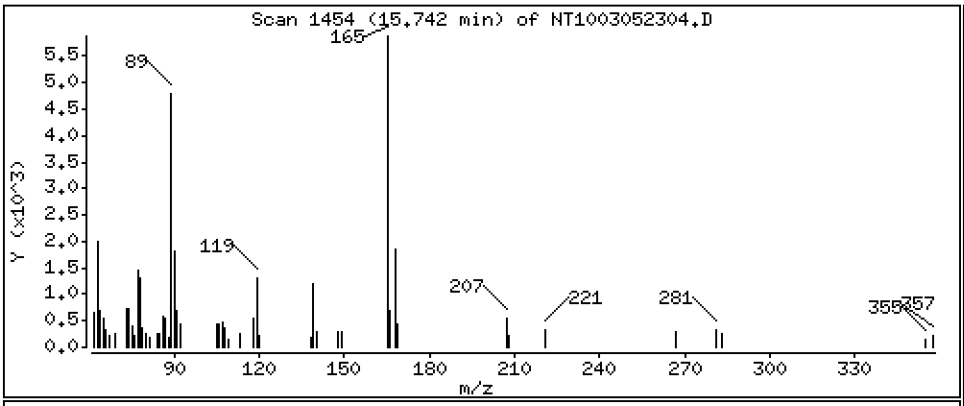
Operator: VTS

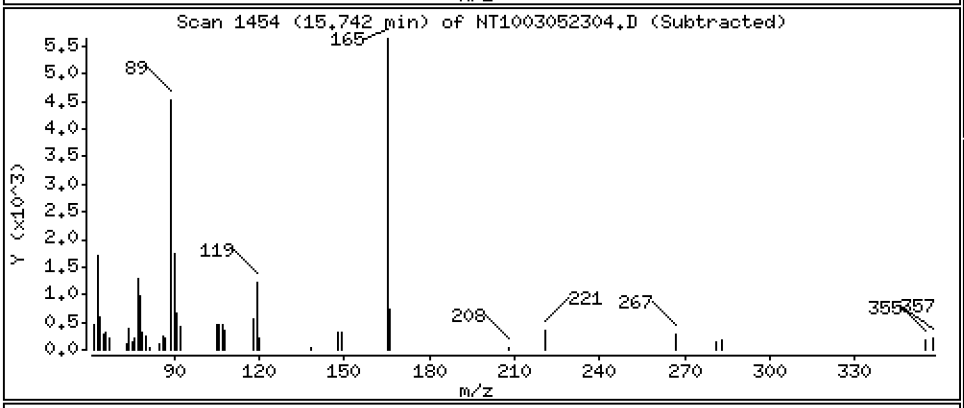
Column phase: ZB-5msi

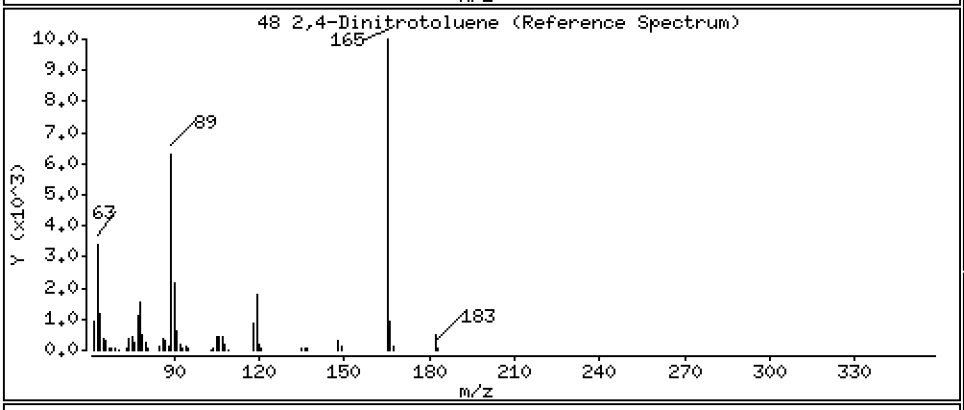
Column diameter: 0.25

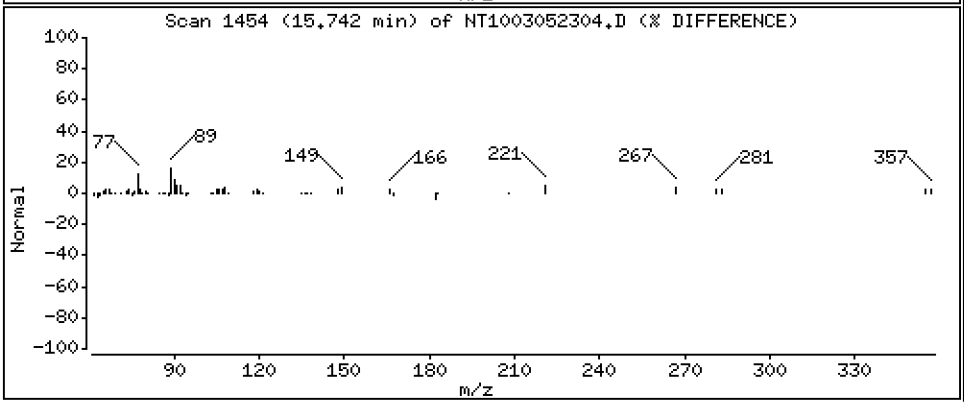
48 2,4-Dinitrotoluene

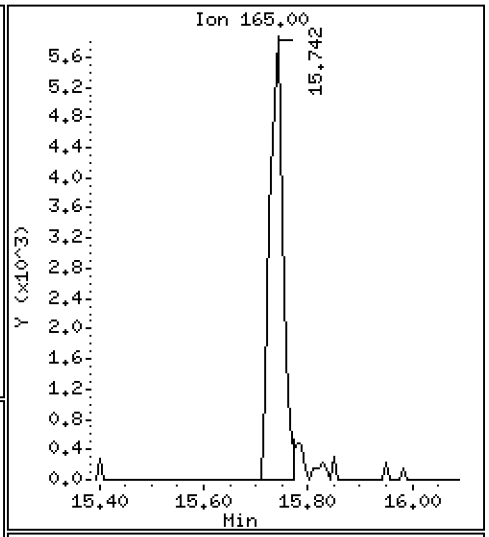
Concentration: 0.1793 ug/mL

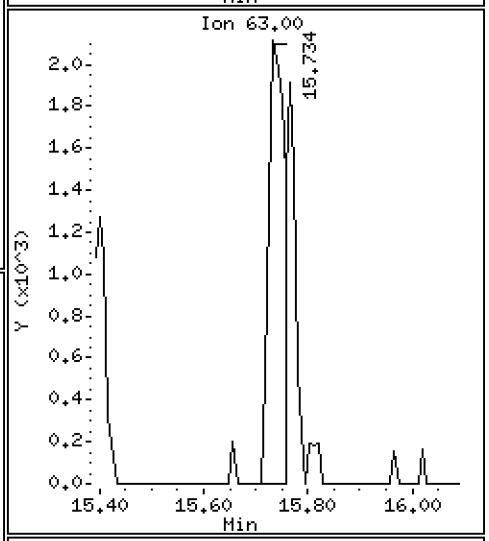


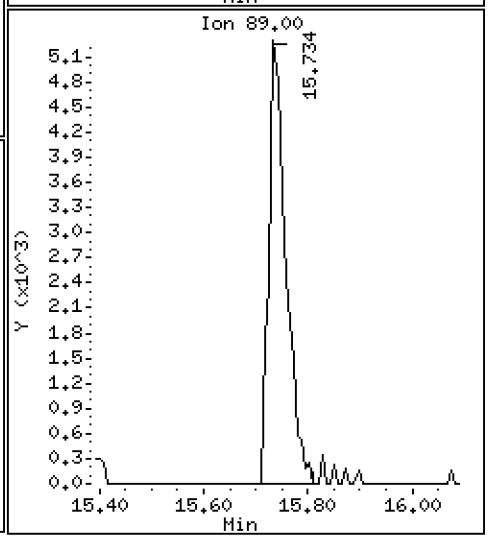












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

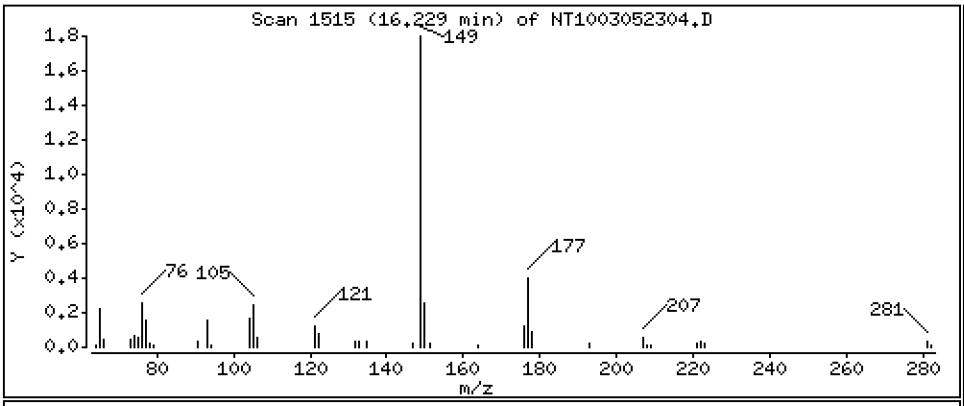
Operator: VTS

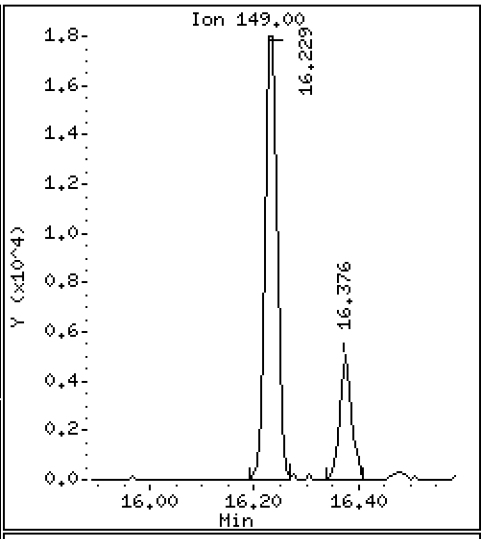
Column phase: ZB-5msi

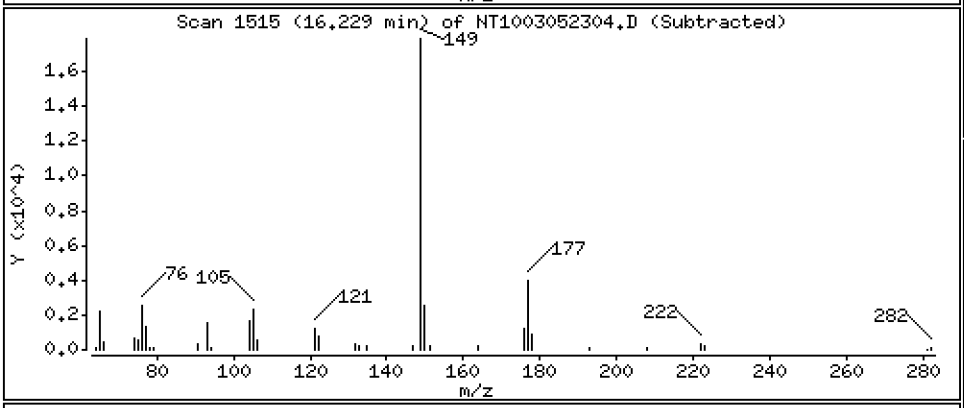
Column diameter: 0.25

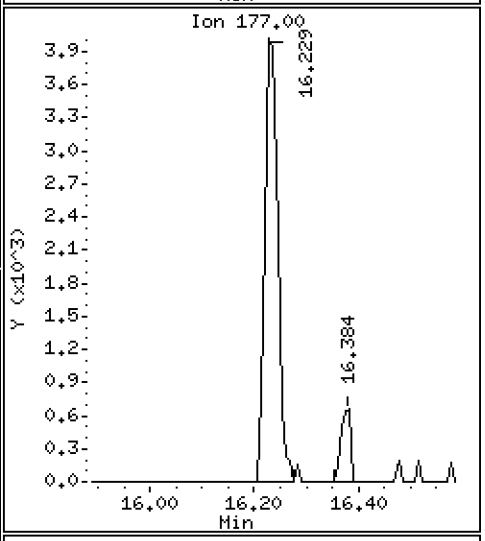
50 Diethylphthalate

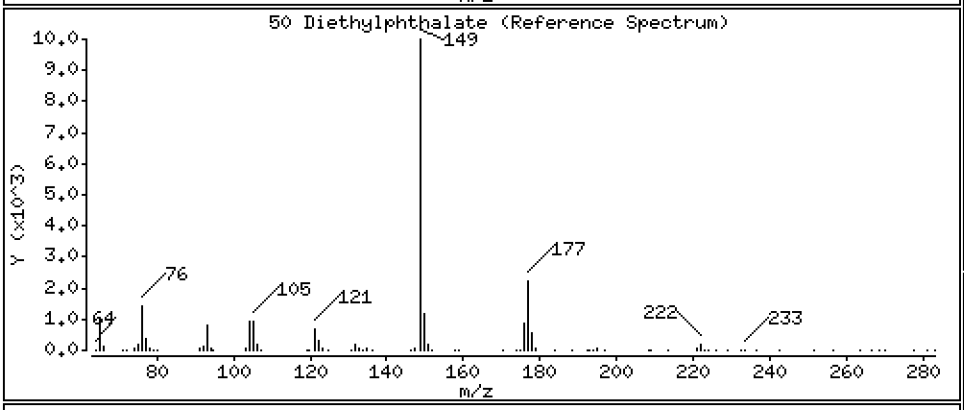
Concentration: 0.1525 ug/mL

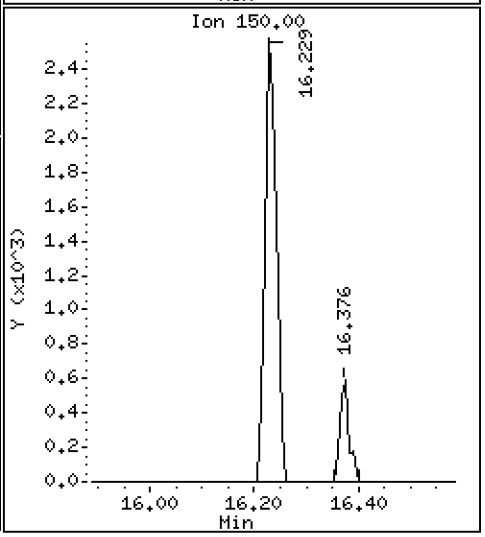


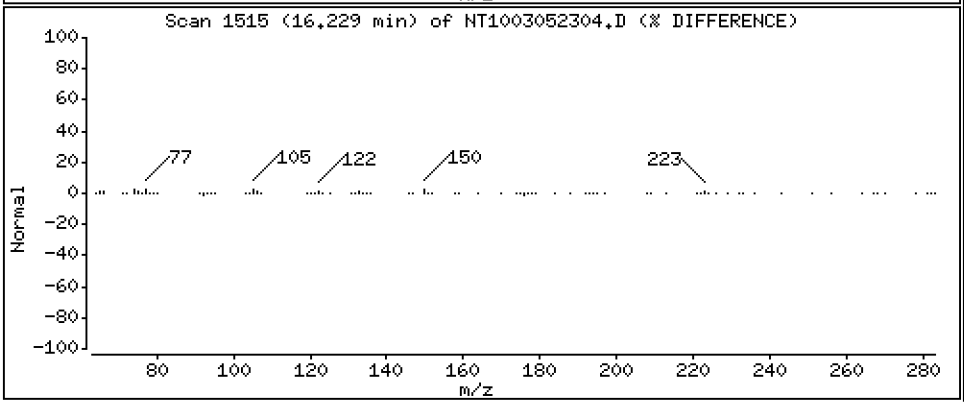












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

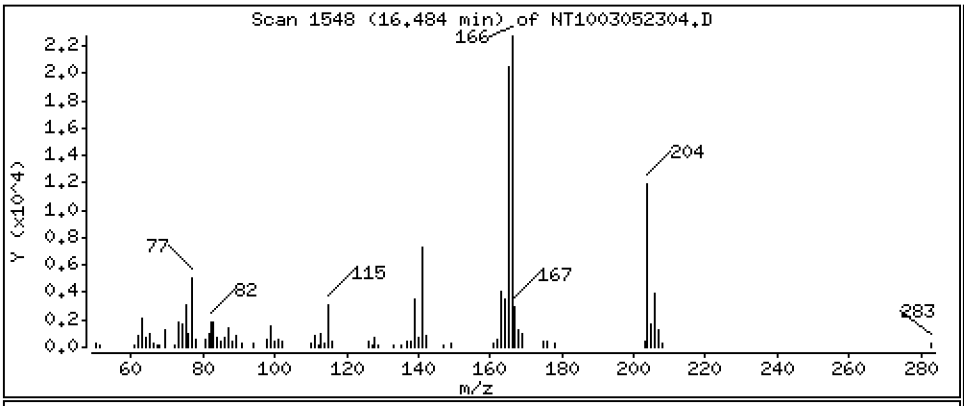
Operator: VTS

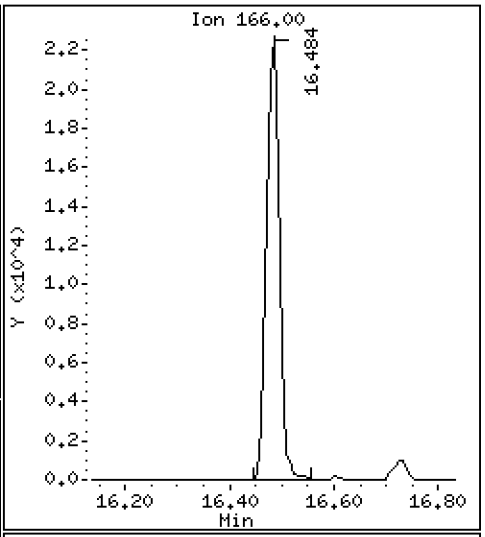
Column phase: ZB-5msi

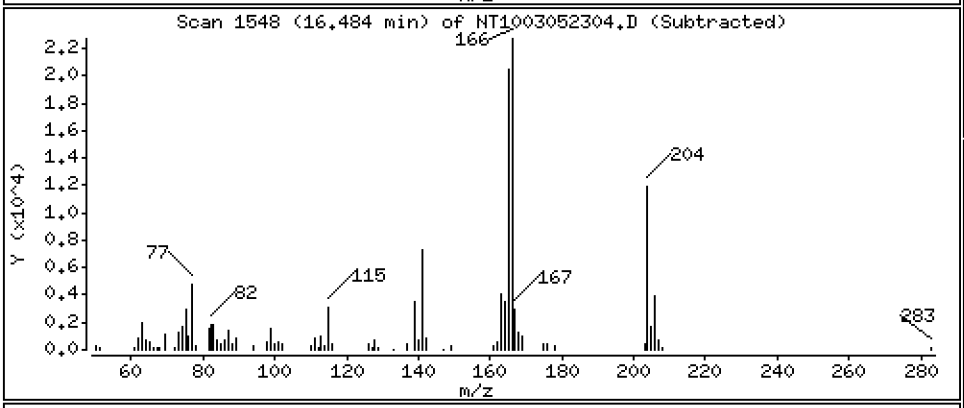
Column diameter: 0.25

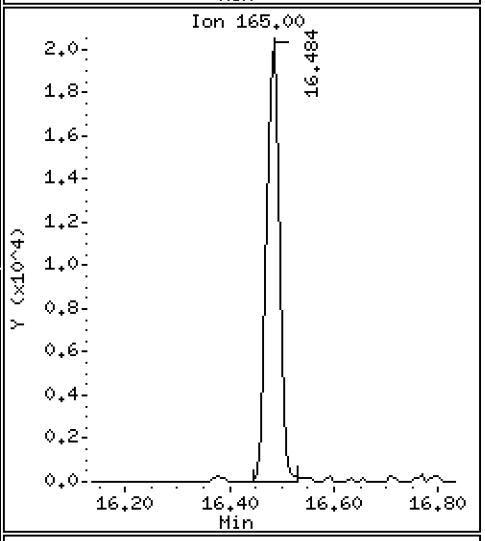
49 Fluorene

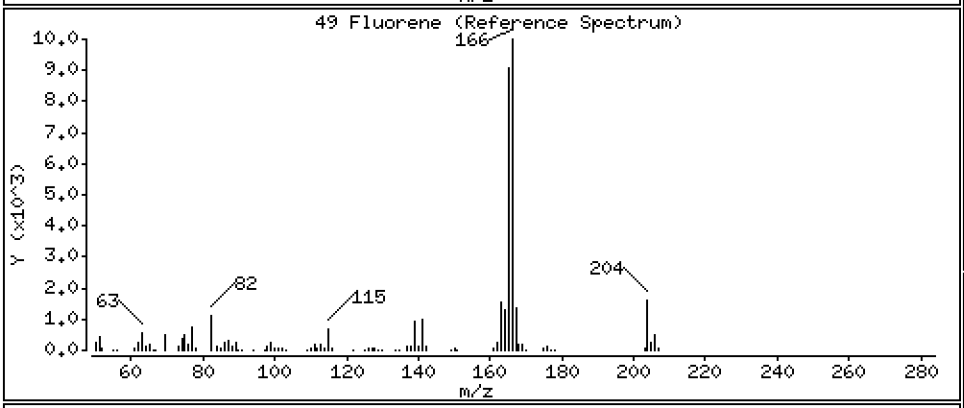
Concentration: 0.1976 ug/mL

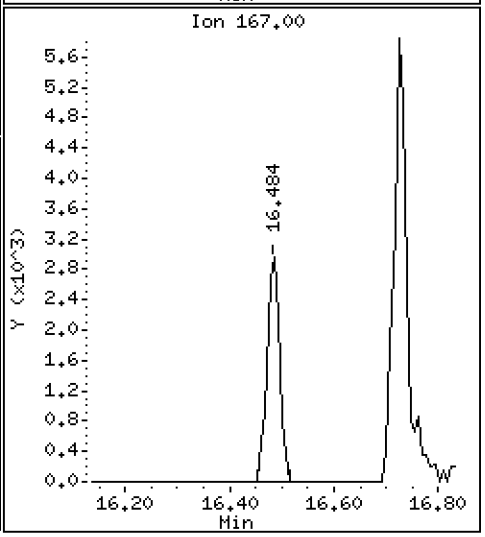


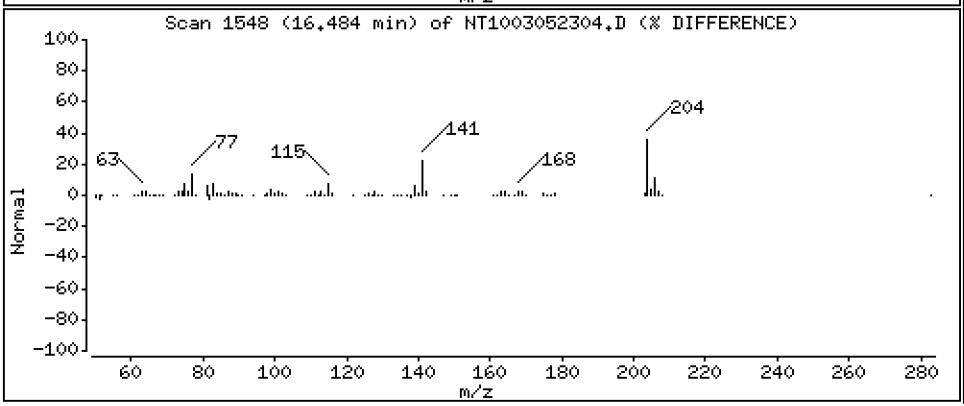












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

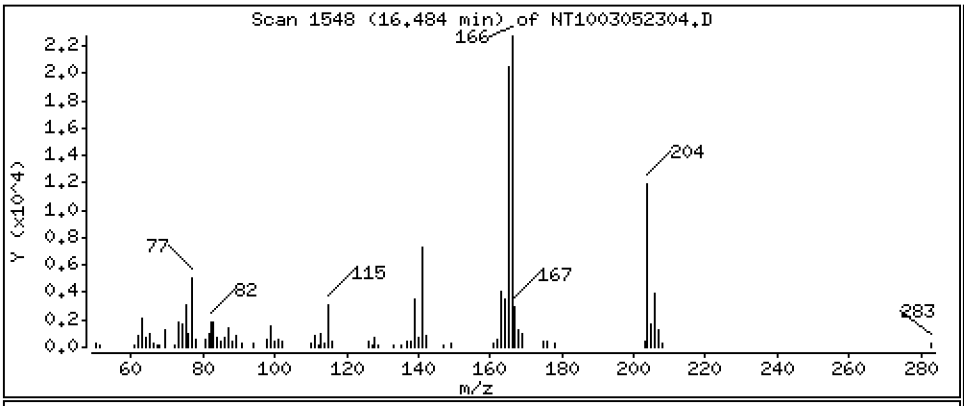
Operator: VTS

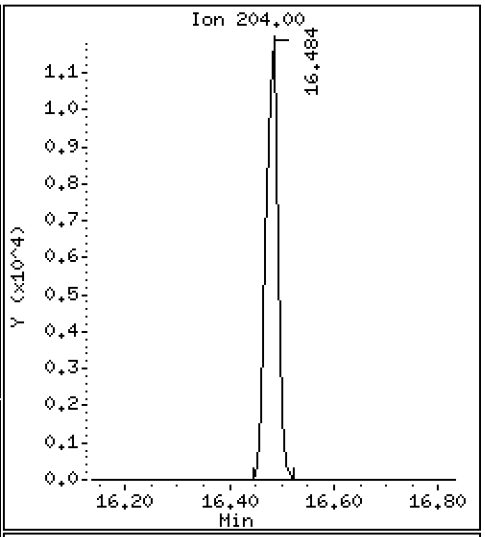
Column phase: ZB-5msi

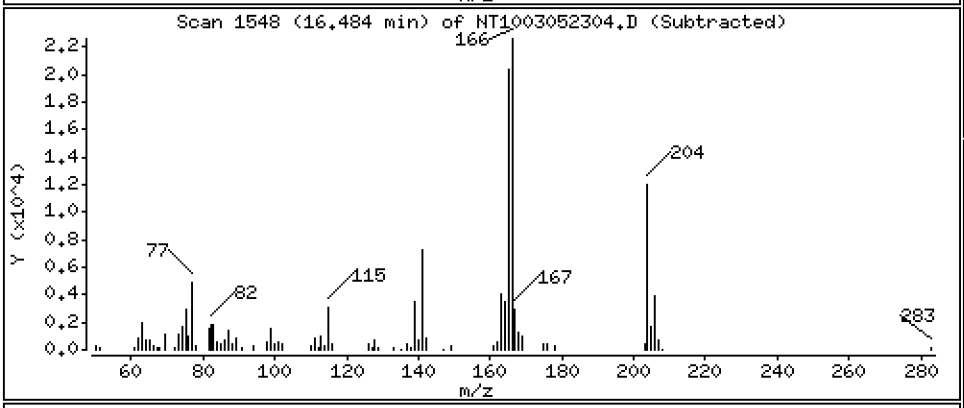
Column diameter: 0.25

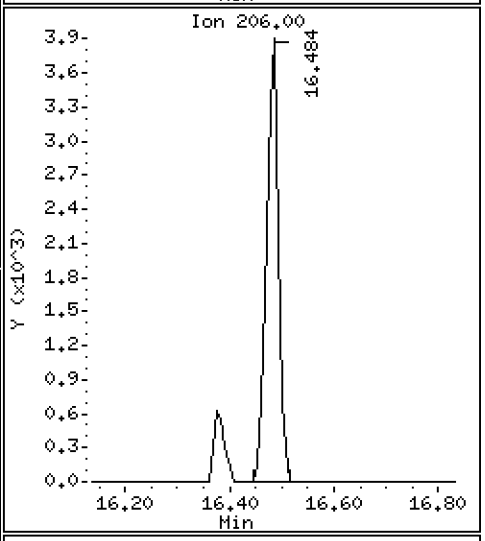
51 4-Chlorophenyl-phenylether

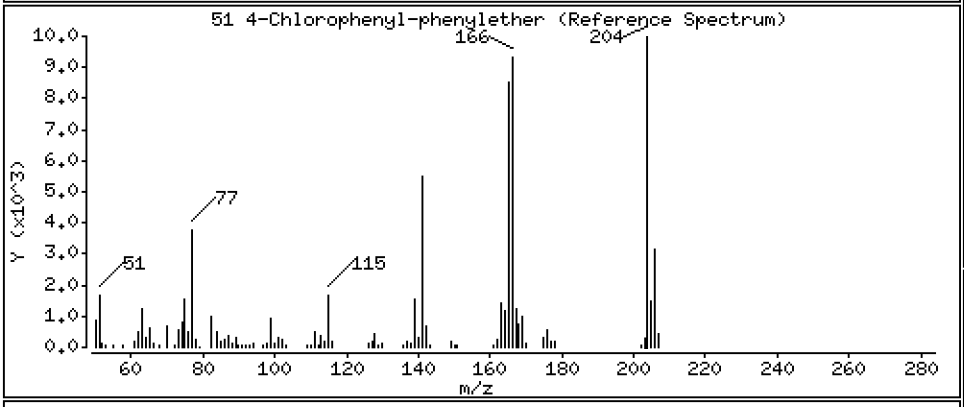
Concentration: 0.2177 ug/mL

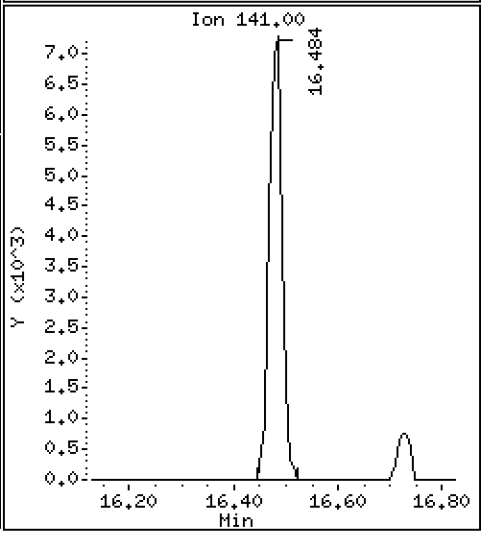


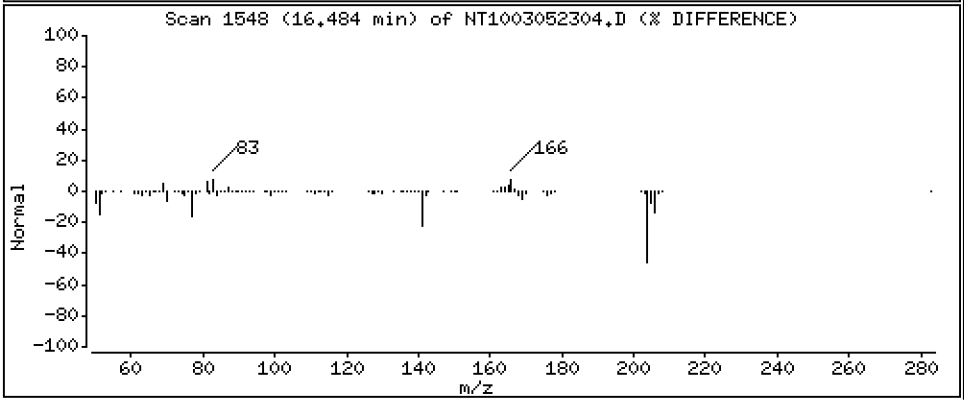












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

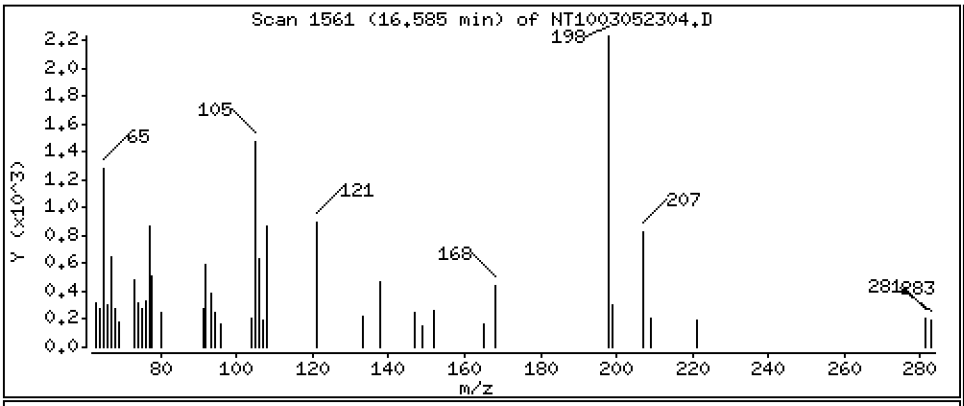
Operator: VTS

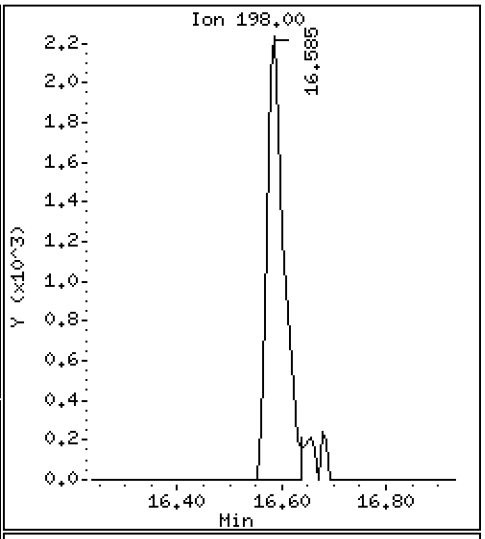
Column phase: ZB-5msi

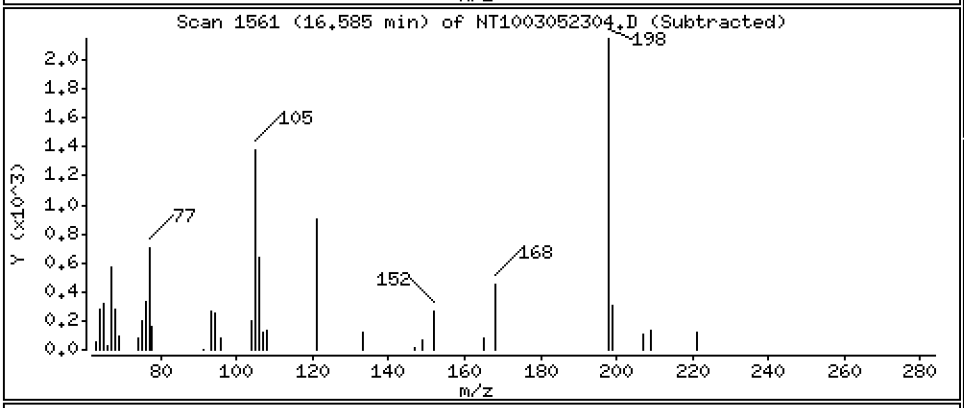
Column diameter: 0.25

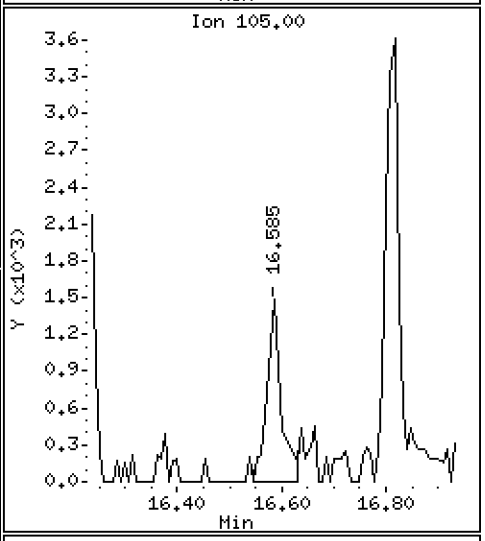
53 4,6-Dinitro-2-methylphenol

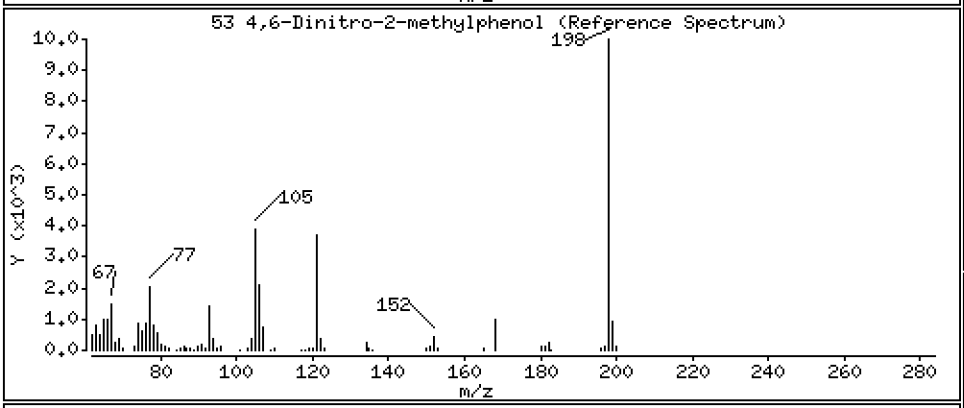
Concentration: 0.2329 ug/mL

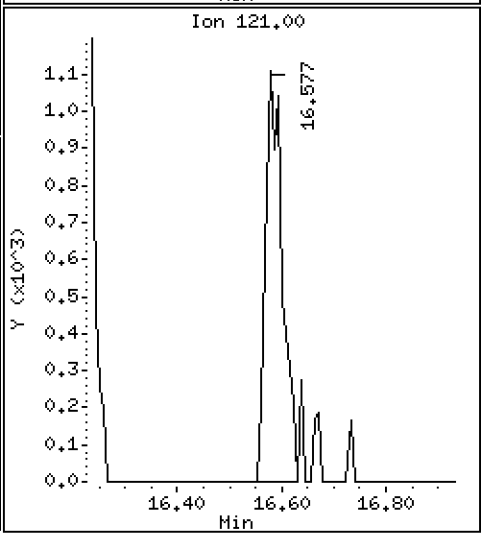


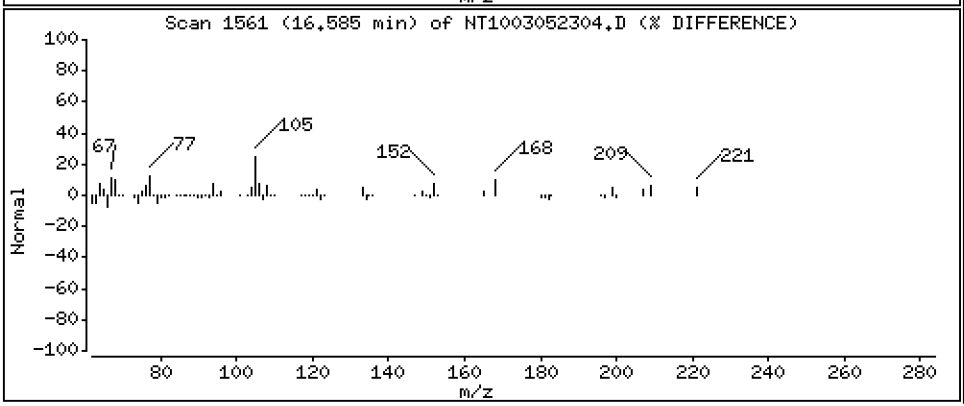












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

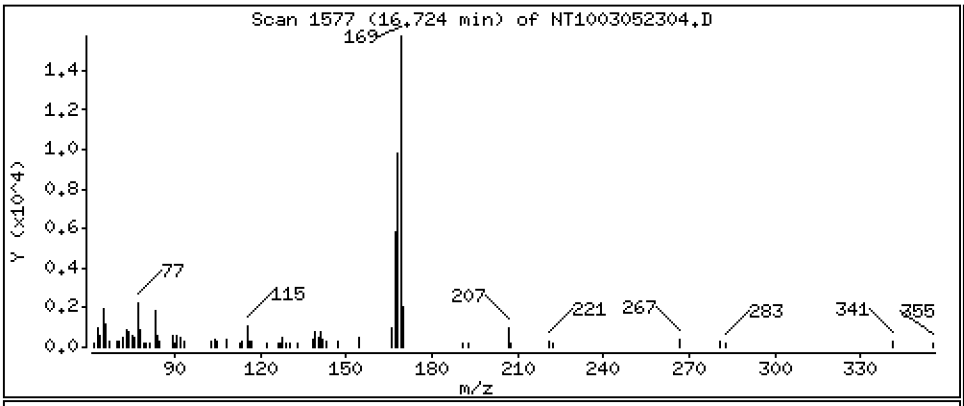
Operator: VTS

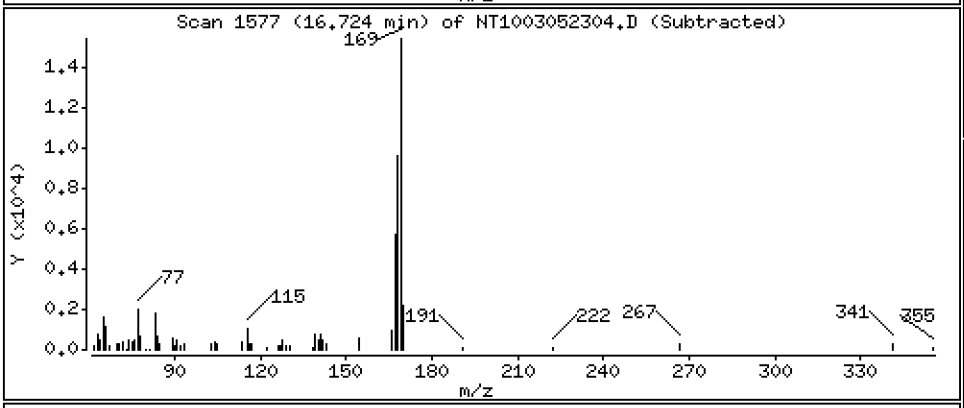
Column phase: ZB-5msi

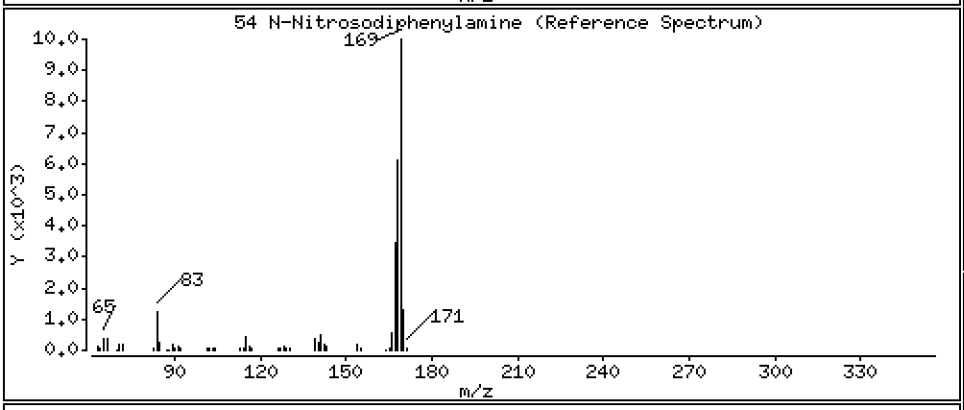
Column diameter: 0.25

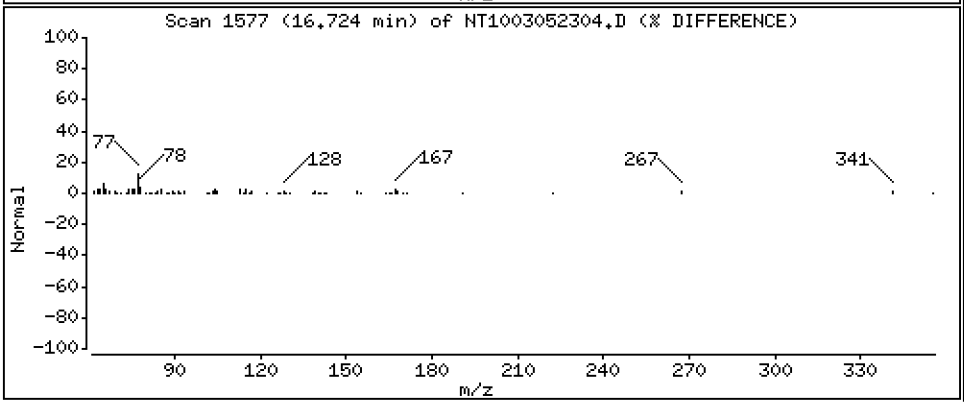
54 N-Nitrosodiphenylamine

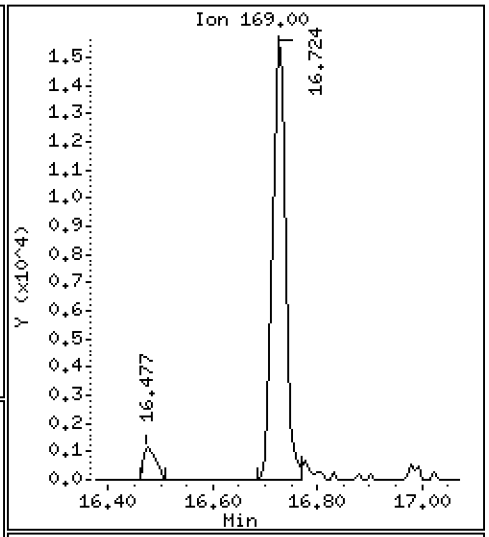
Concentration: 0.1900 ug/mL

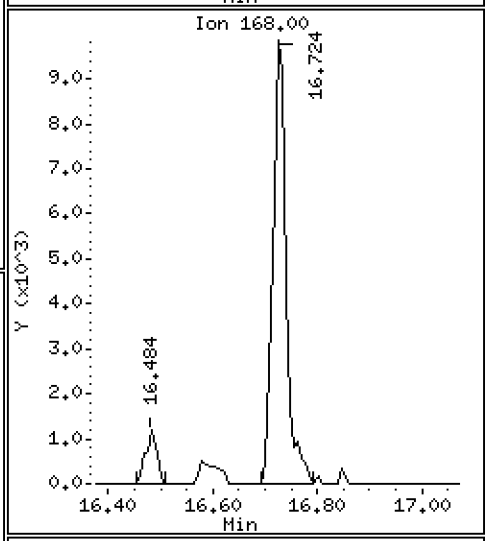


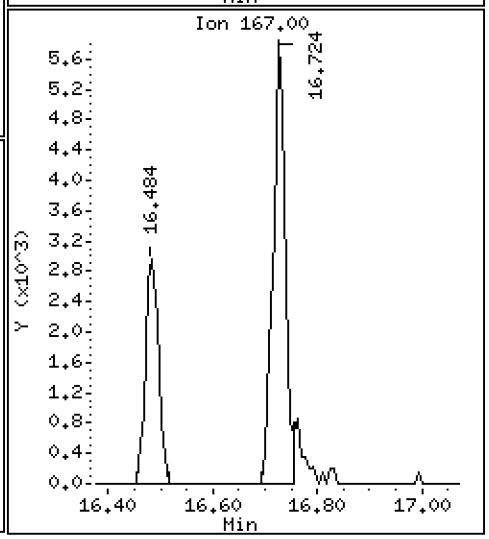












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

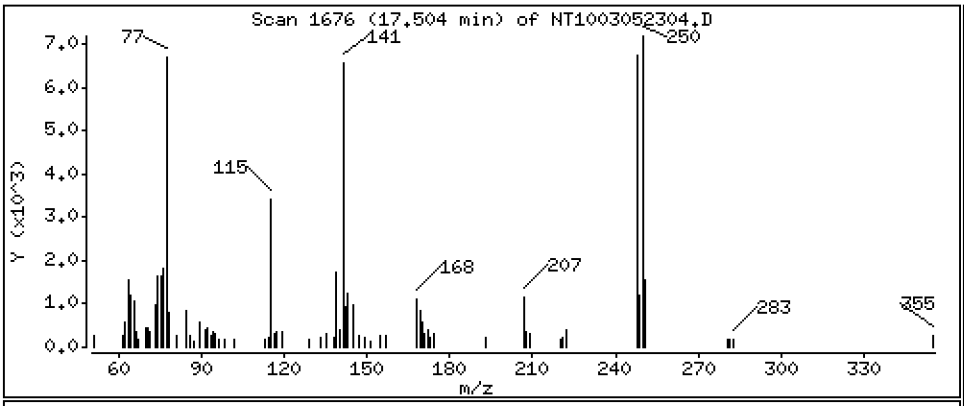
Operator: VTS

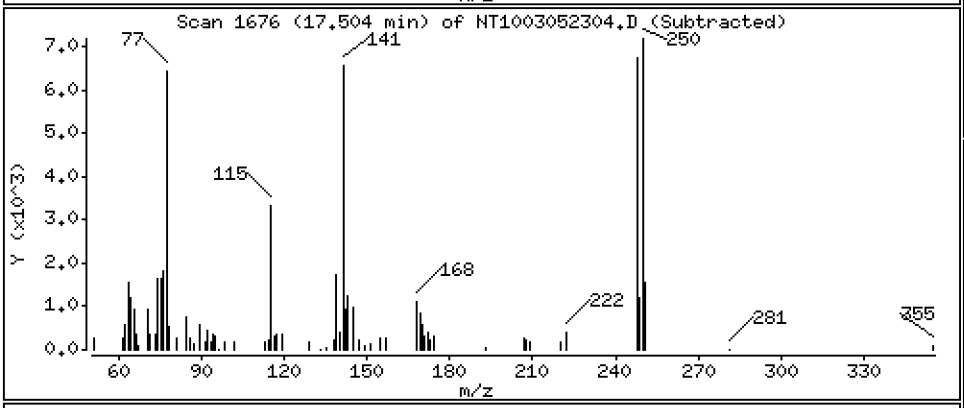
Column phase: ZB-5msi

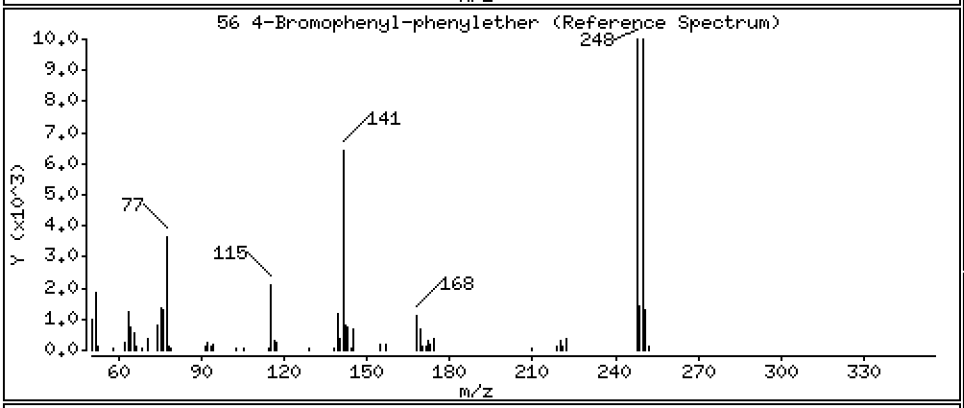
Column diameter: 0.25

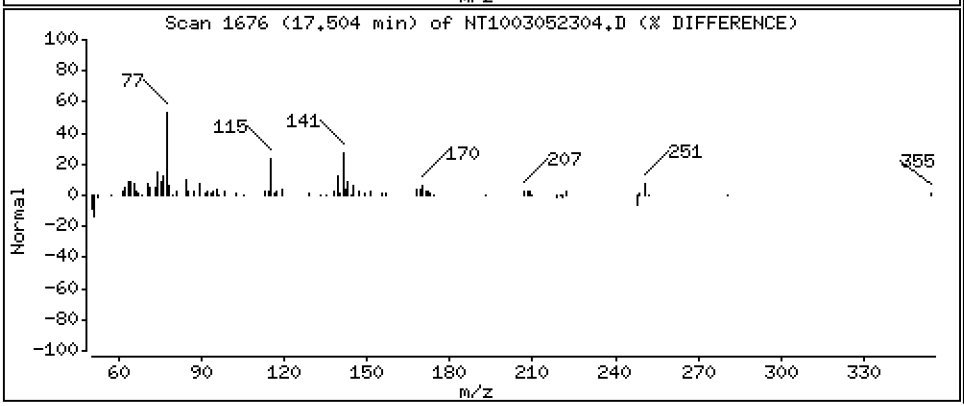
56 4-Bromophenyl-phenylether

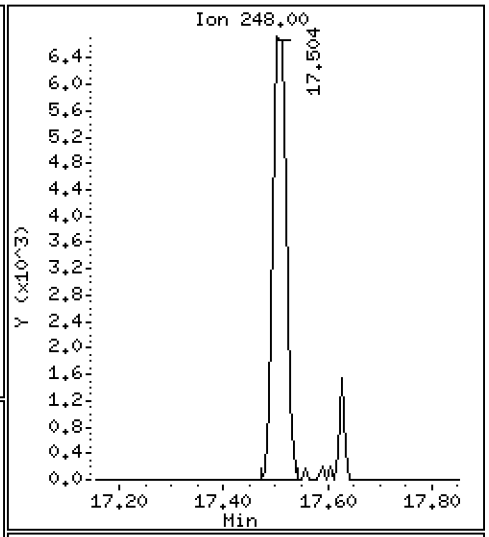
Concentration: 0.1965 ug/mL

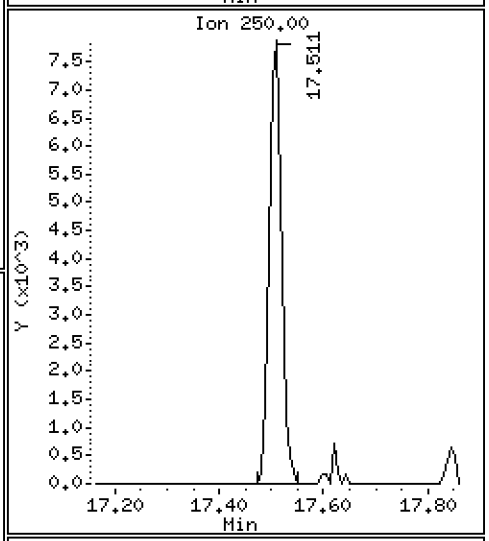


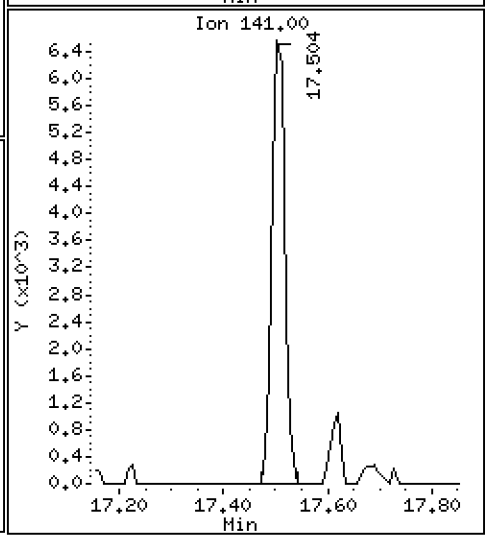












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

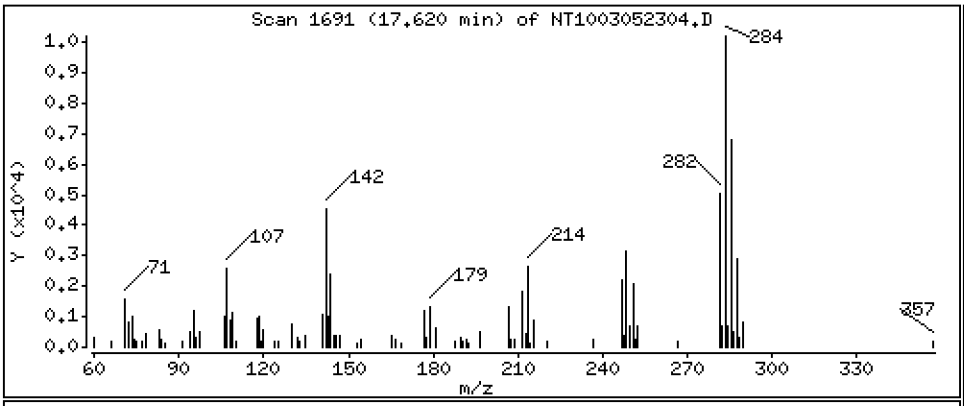
Operator: VTS

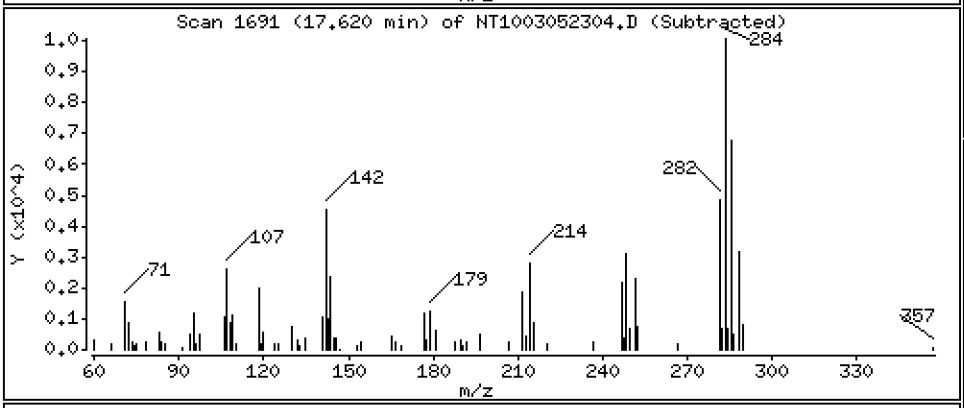
Column phase: ZB-5msi

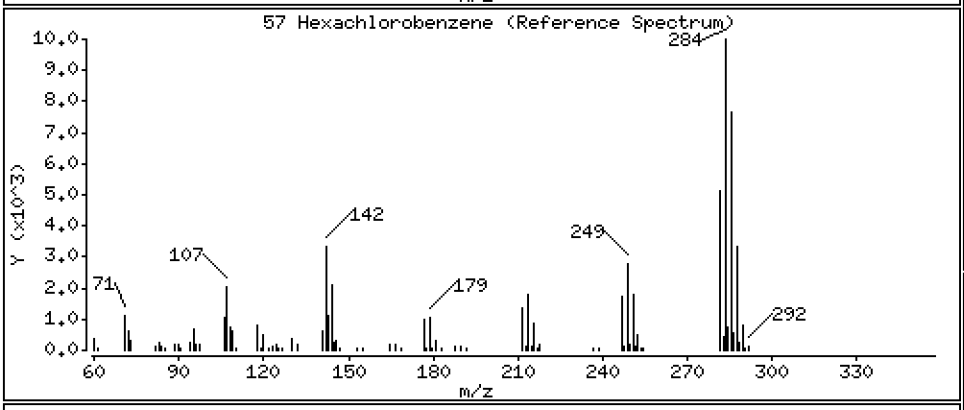
Column diameter: 0.25

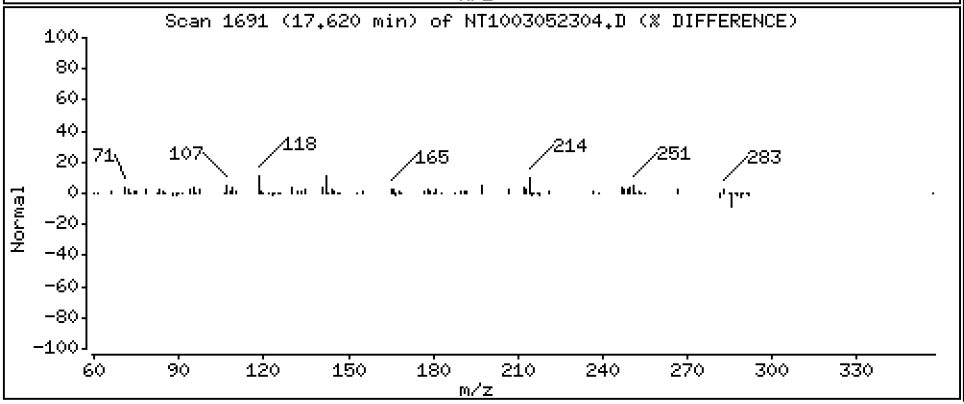
57 Hexachlorobenzene

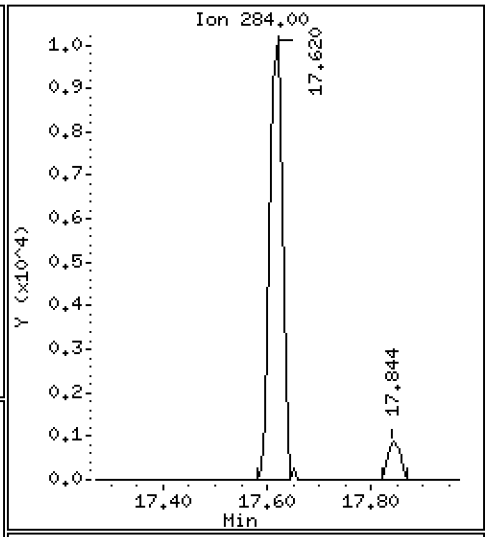
Concentration: 0.2515 ug/mL

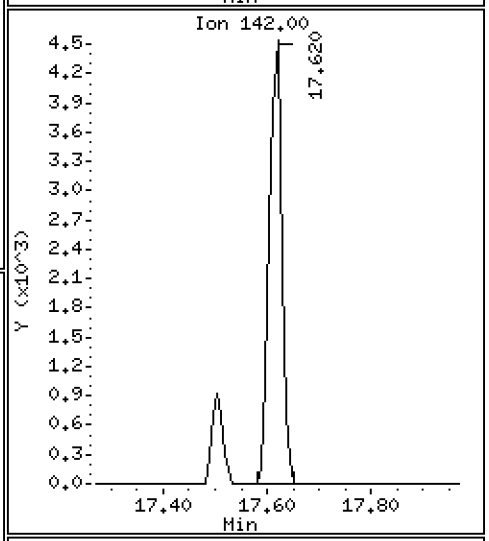


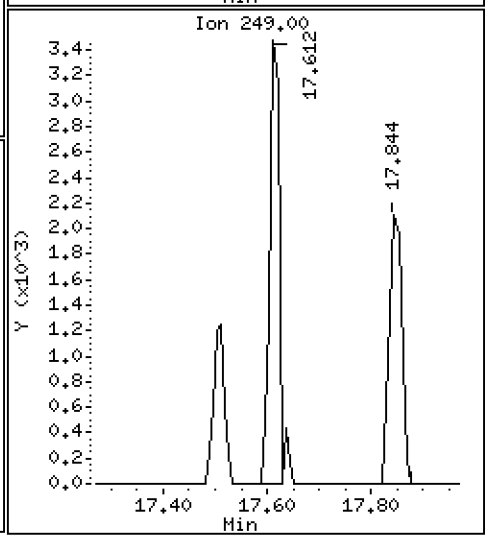












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

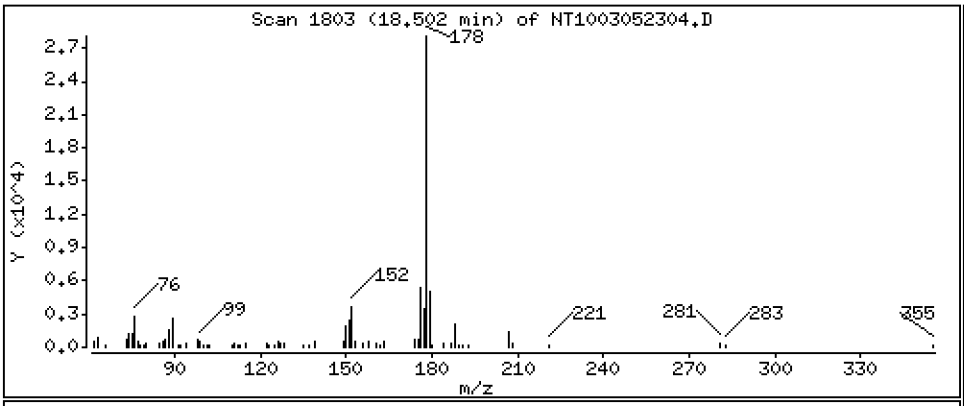
Operator: VTS

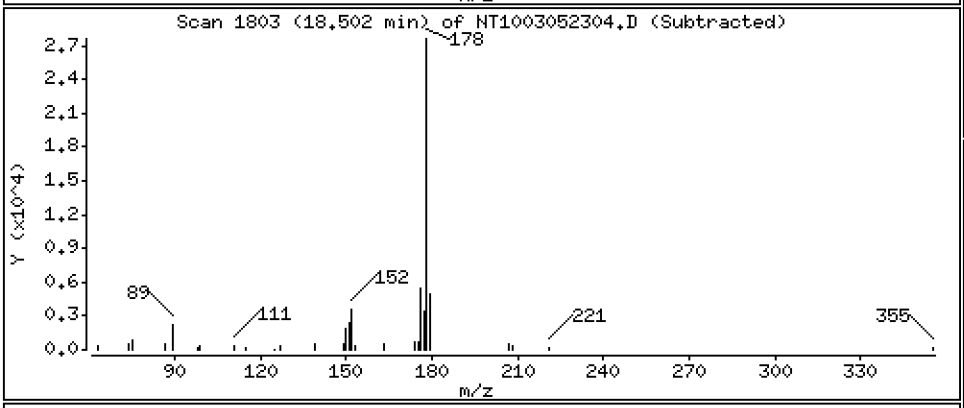
Column phase: ZB-5msi

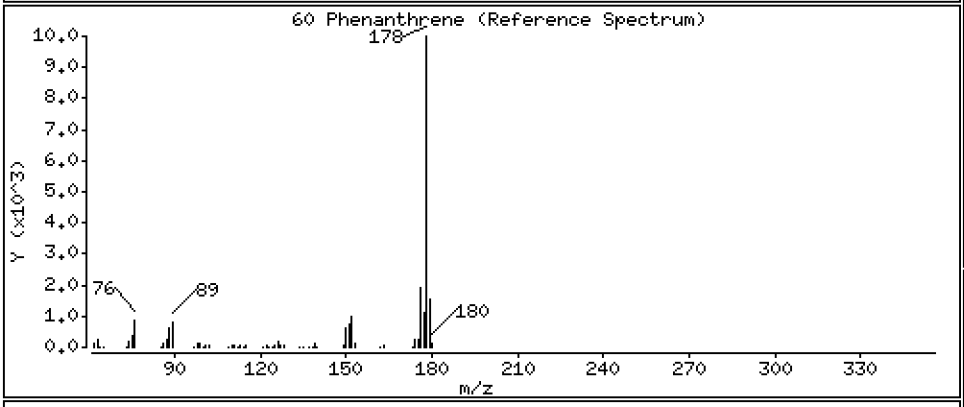
Column diameter: 0.25

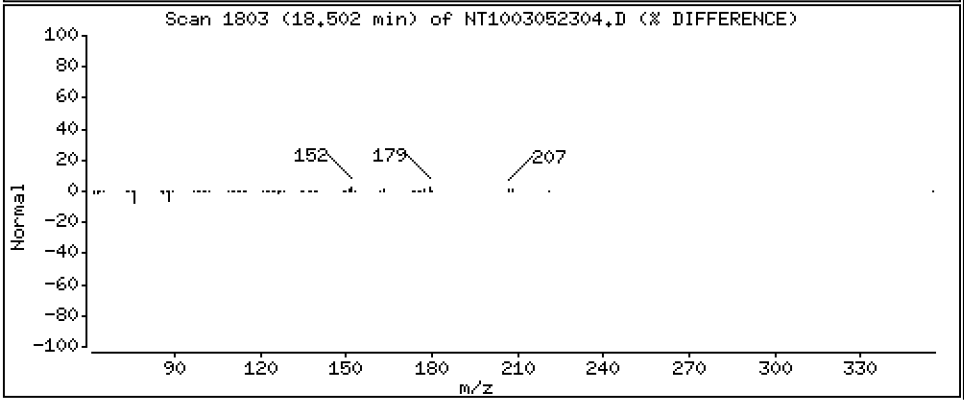
60 Phenanthrene

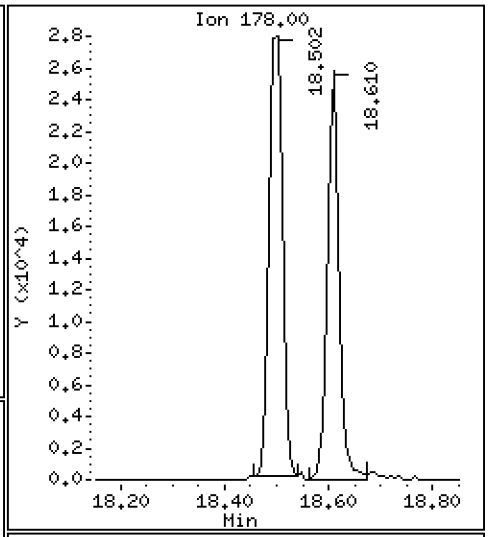
Concentration: 0.1917 ug/mL

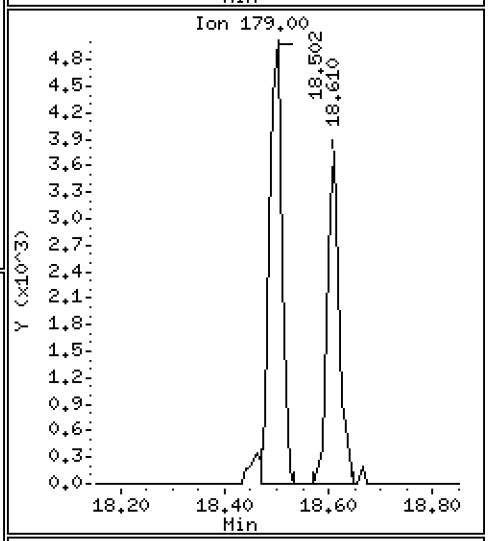


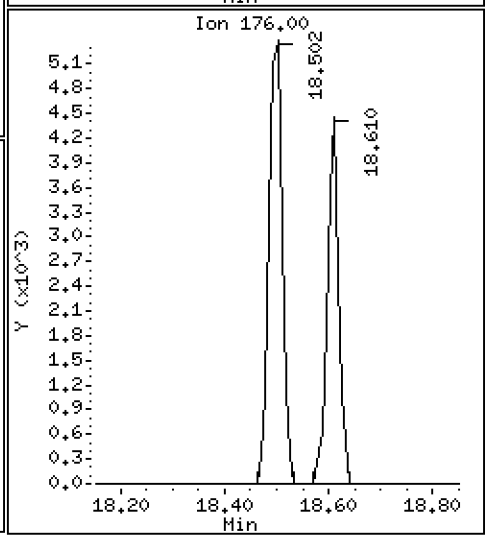












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

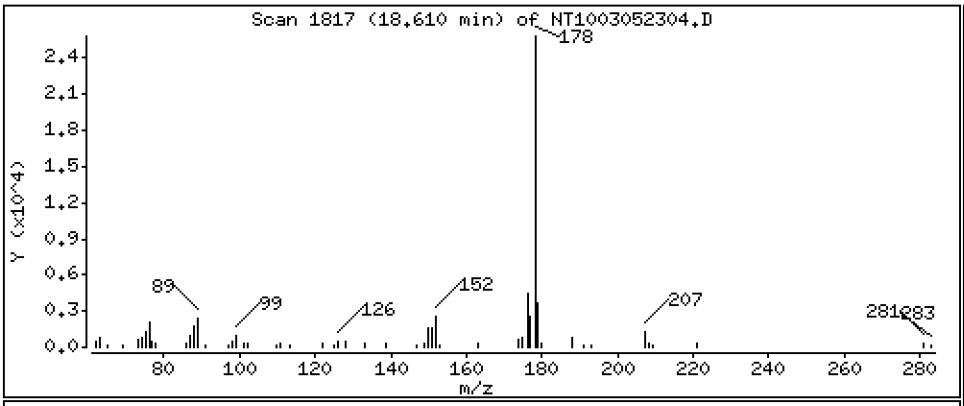
Operator: VTS

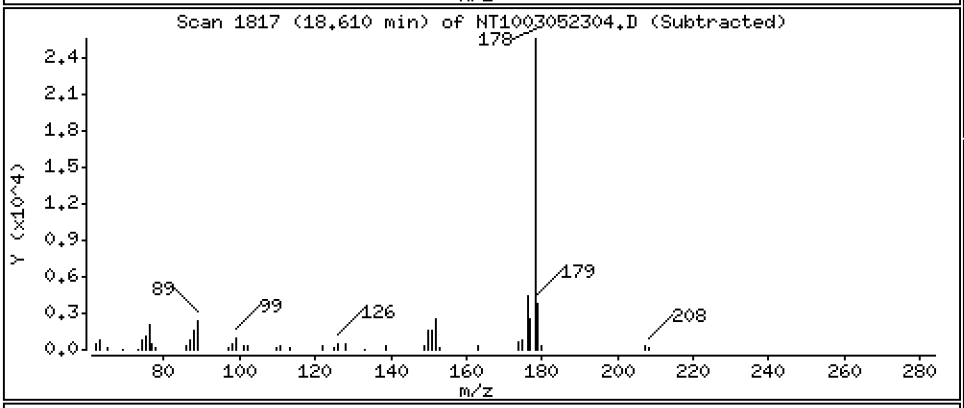
Column phase: ZB-5msi

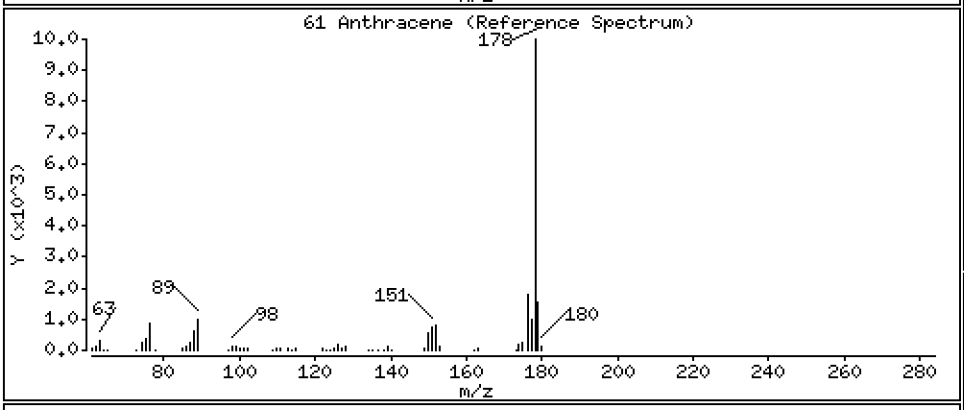
Column diameter: 0.25

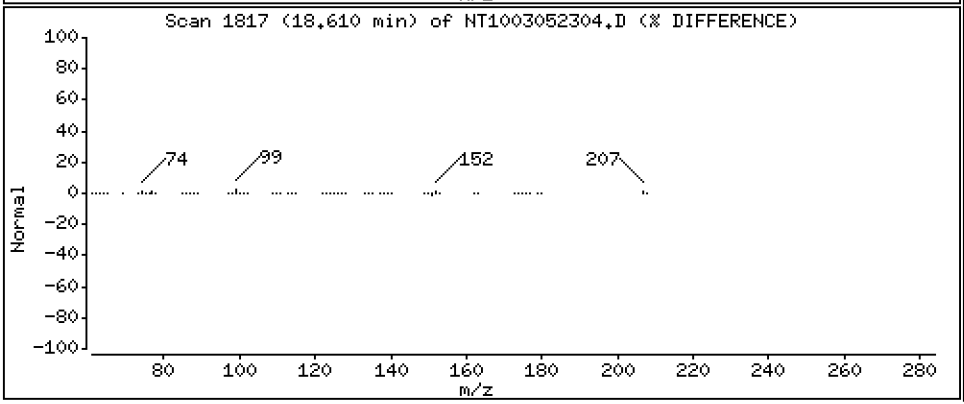
61 Anthracene

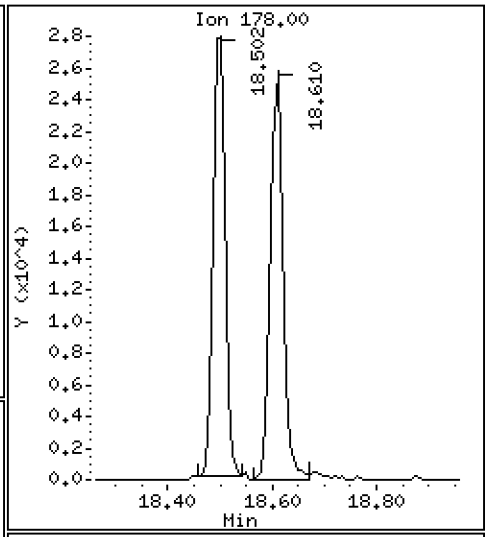
Concentration: 0.1737 ug/mL

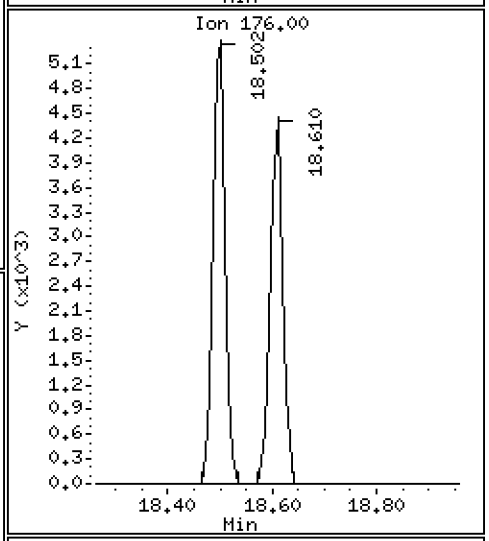


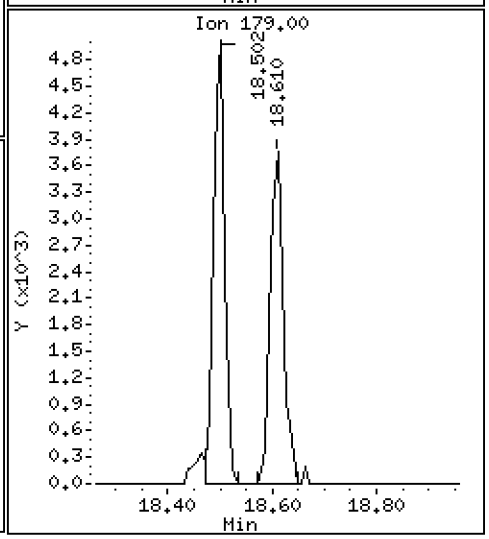












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

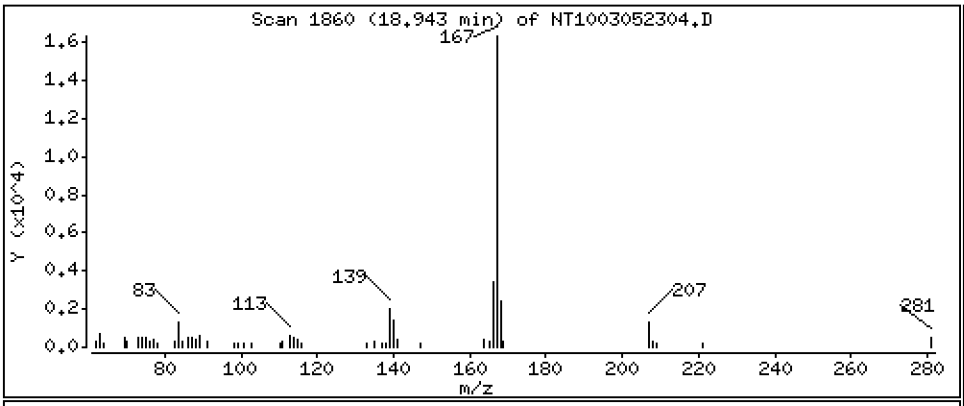
Operator: VTS

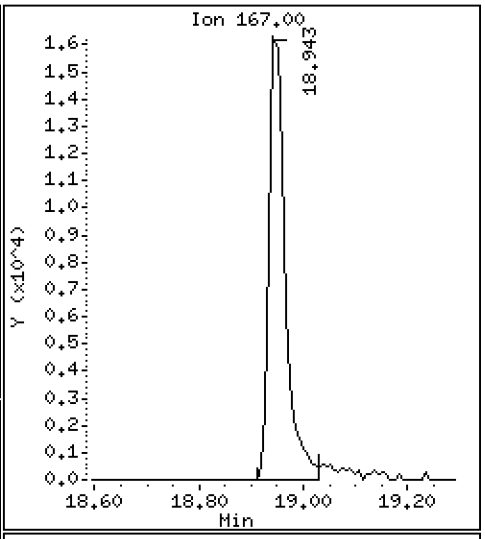
Column phase: ZB-5msi

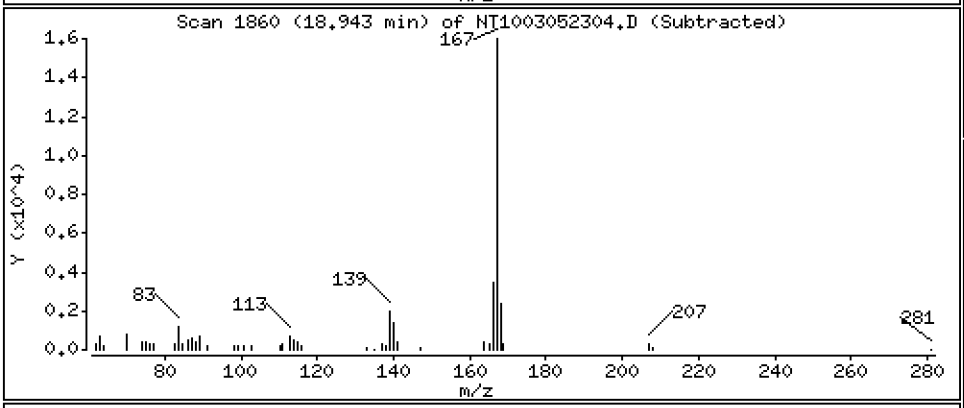
Column diameter: 0.25

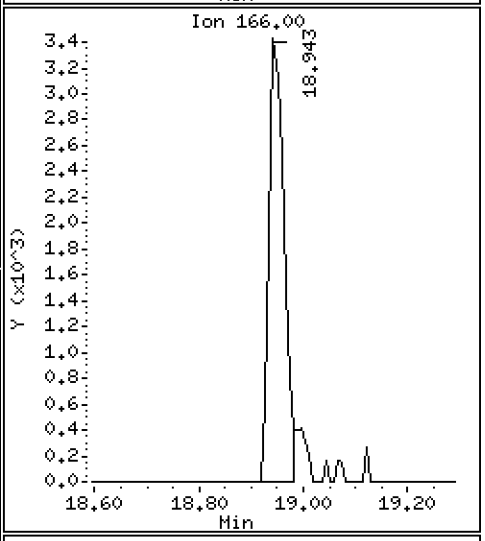
62 Carbazole

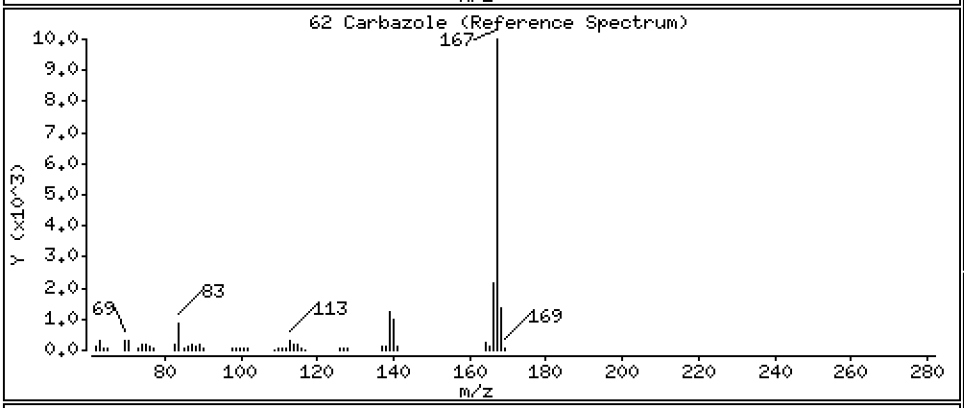
Concentration: 0.1563 ug/mL

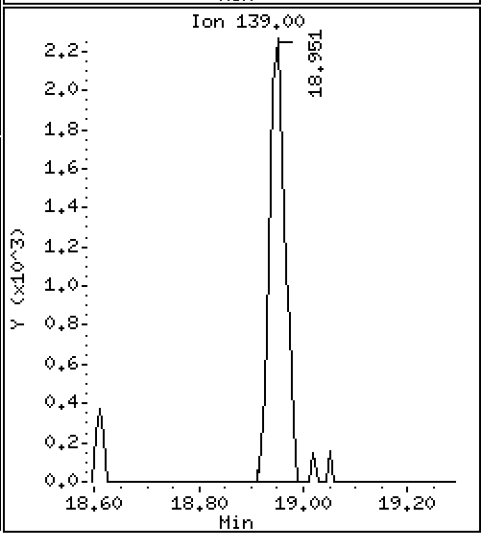


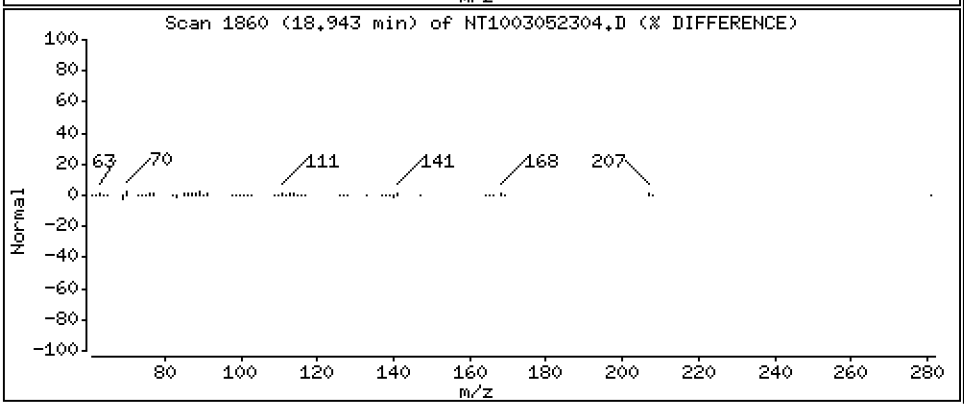












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

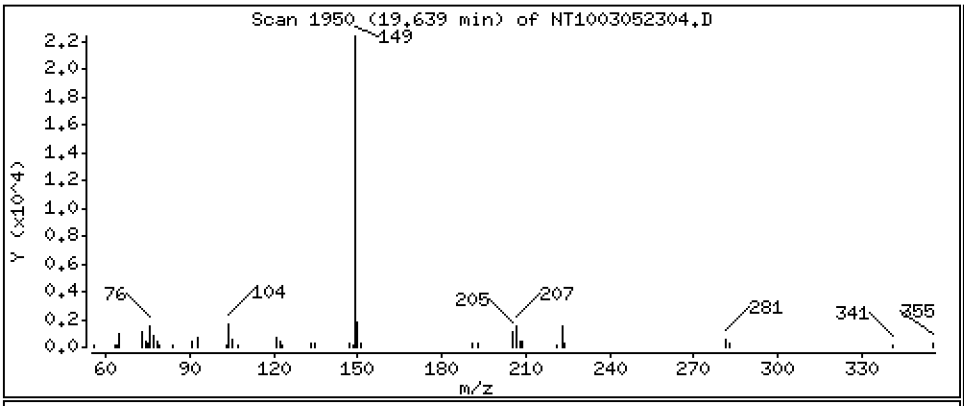
Operator: VTS

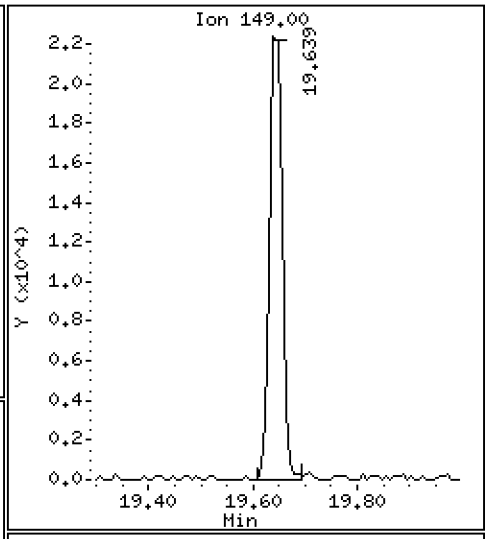
Column phase: ZB-5msi

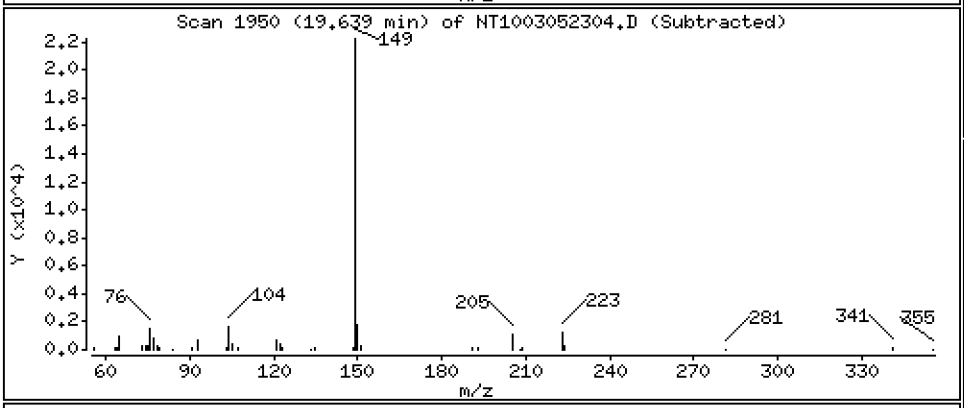
Column diameter: 0.25

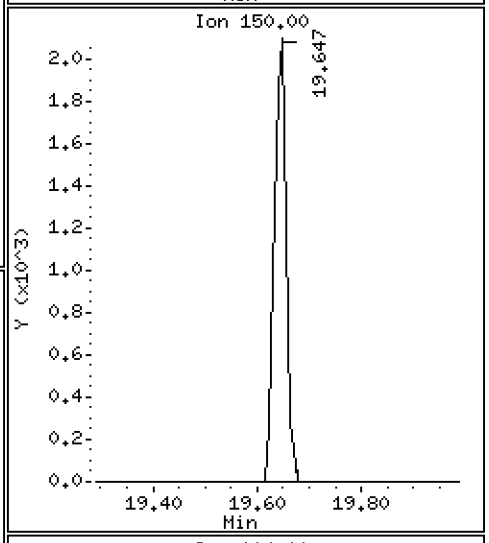
63 Di-n-butylphthalate

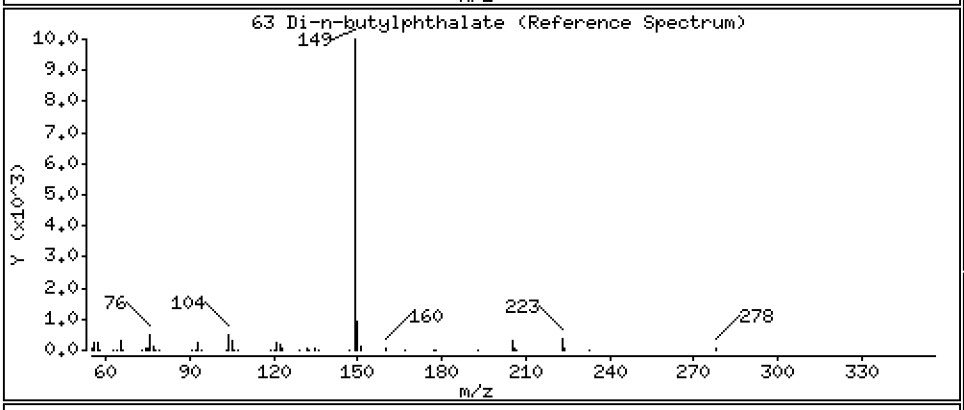
Concentration: 0.1206 ug/mL

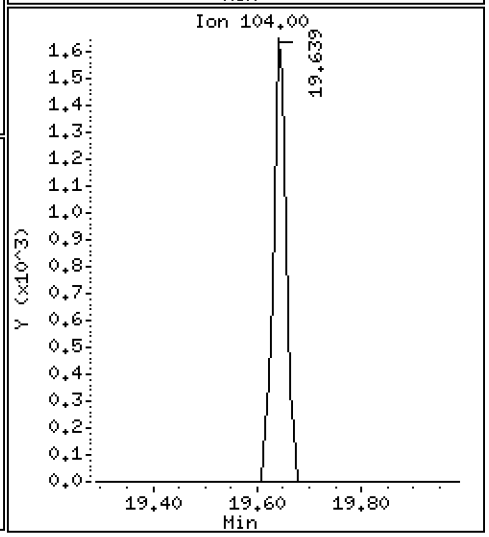


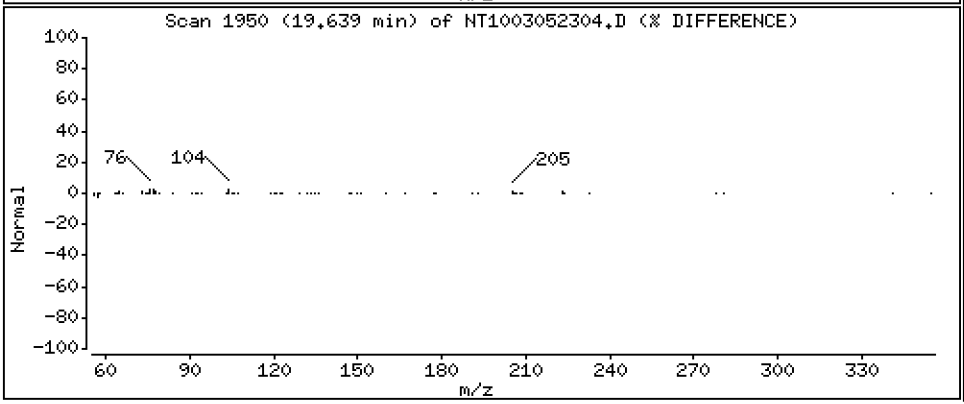












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

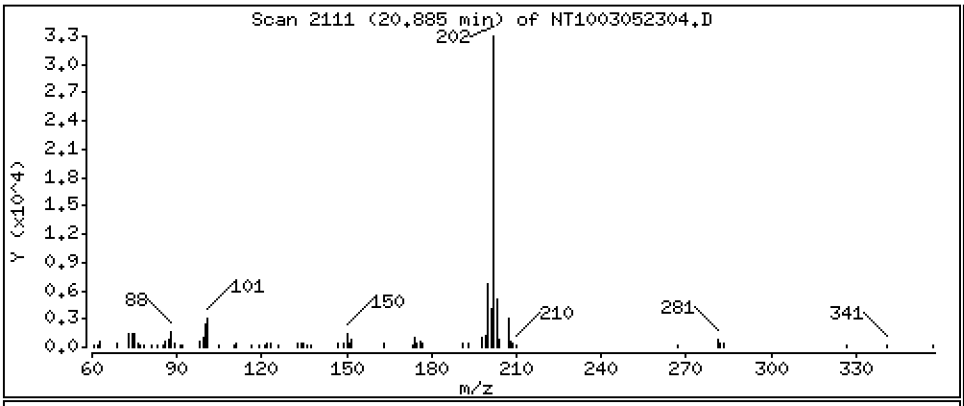
Operator: VTS

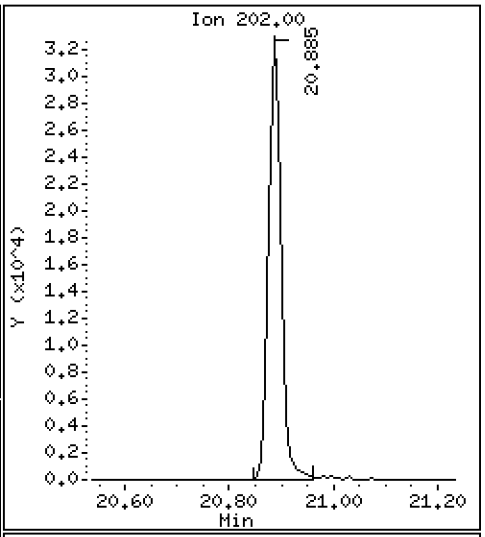
Column phase: ZB-5msi

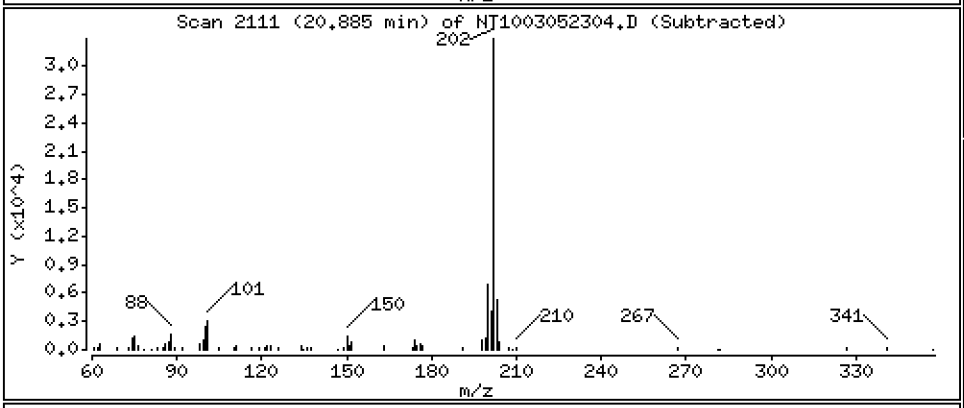
Column diameter: 0.25

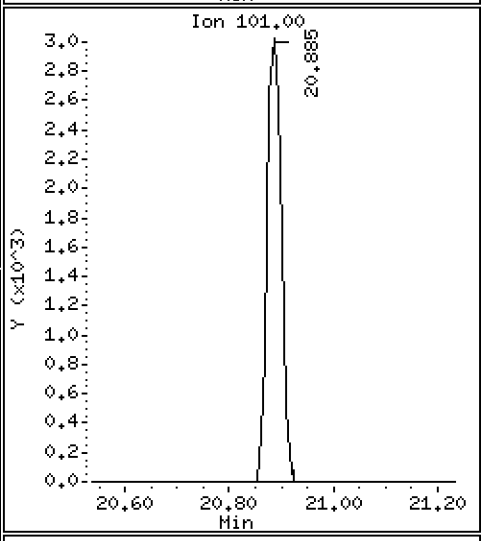
64 Fluoranthene

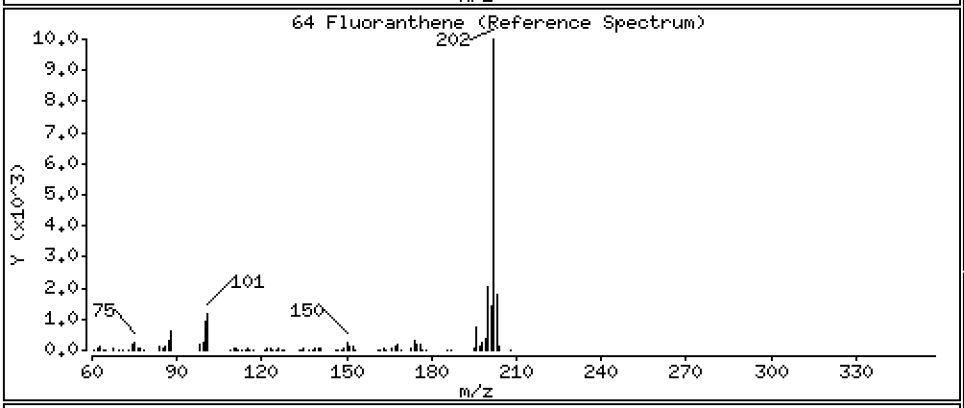
Concentration: 0.1781 ug/mL

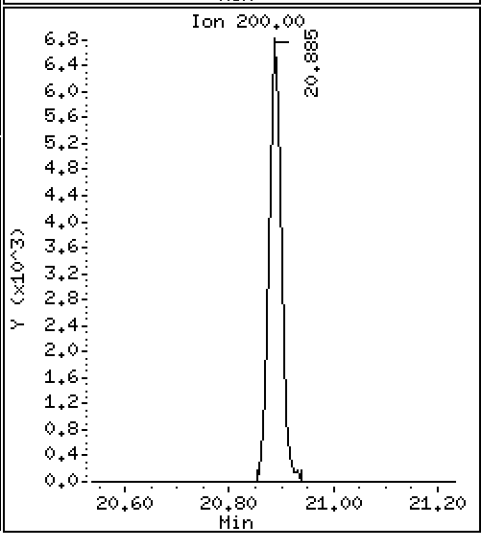


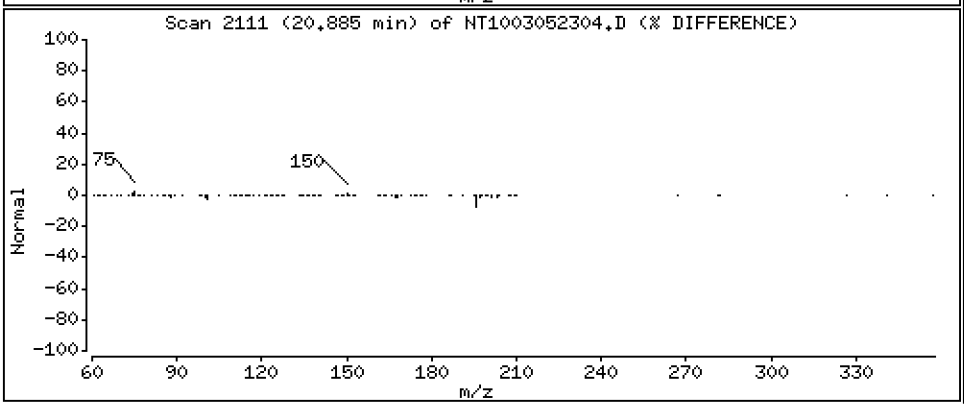












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

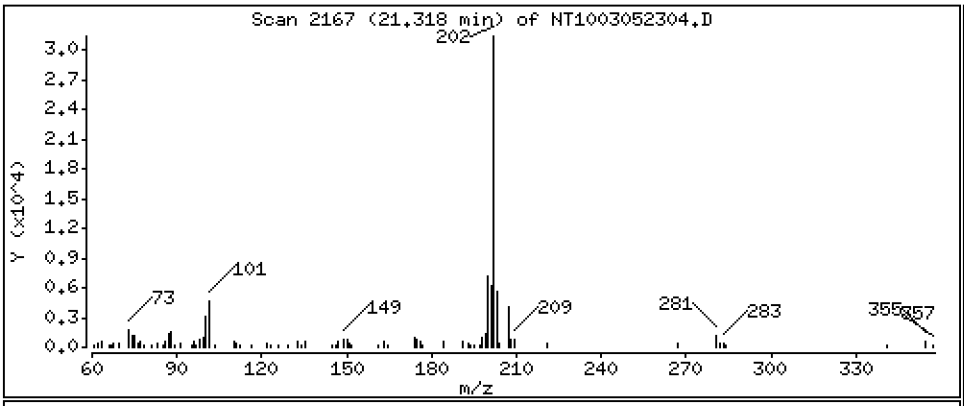
Operator: VTS

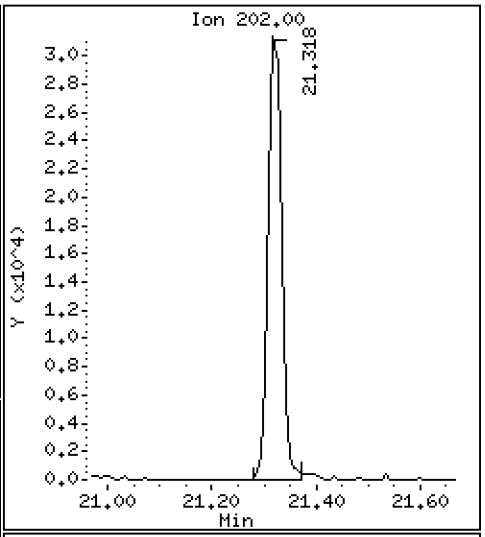
Column phase: ZB-5msi

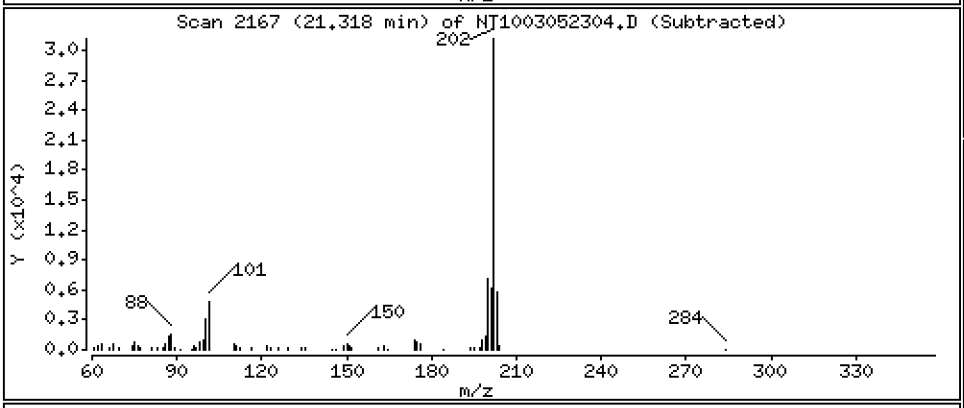
Column diameter: 0.25

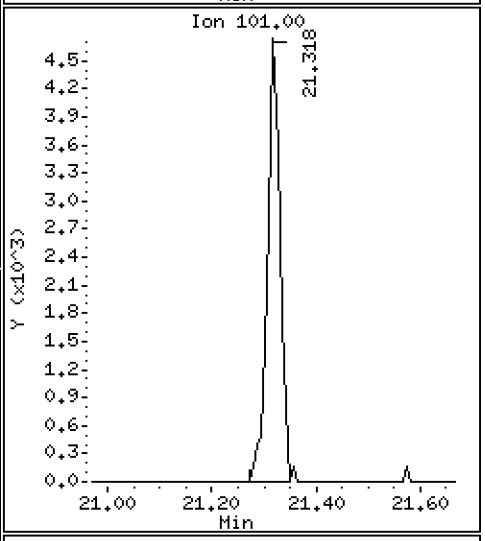
65 Pyrene

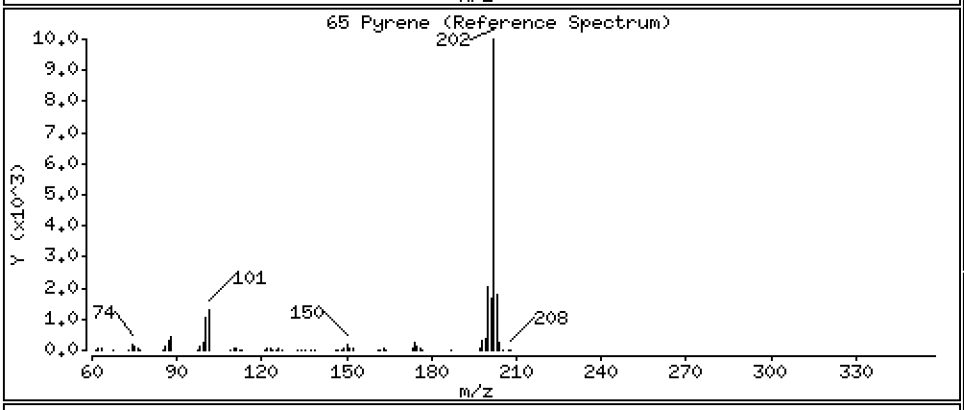
Concentration: 0.1795 ug/mL

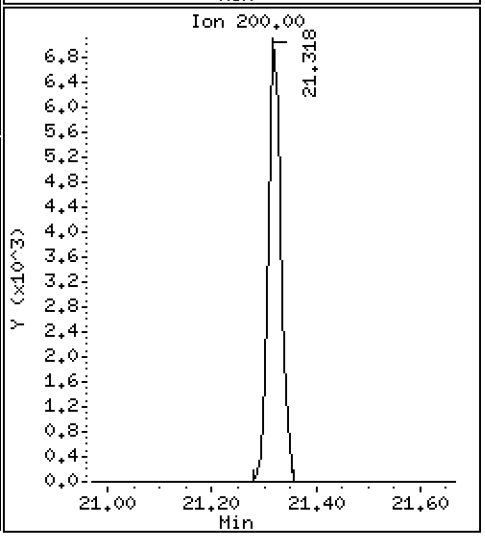


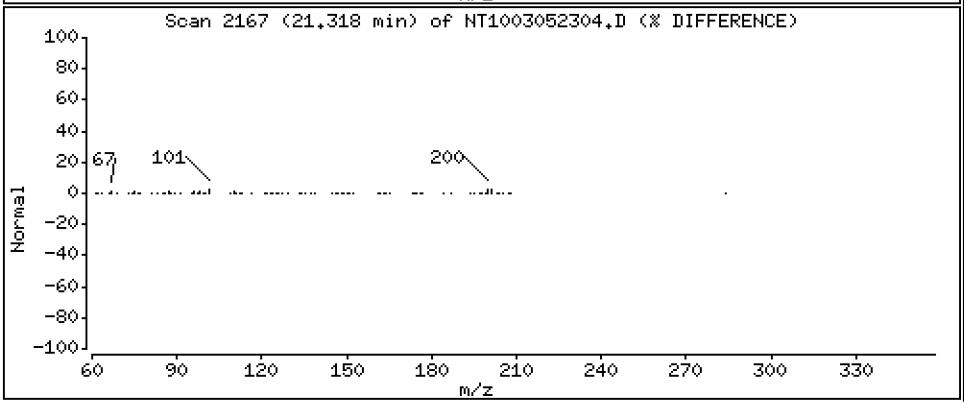












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

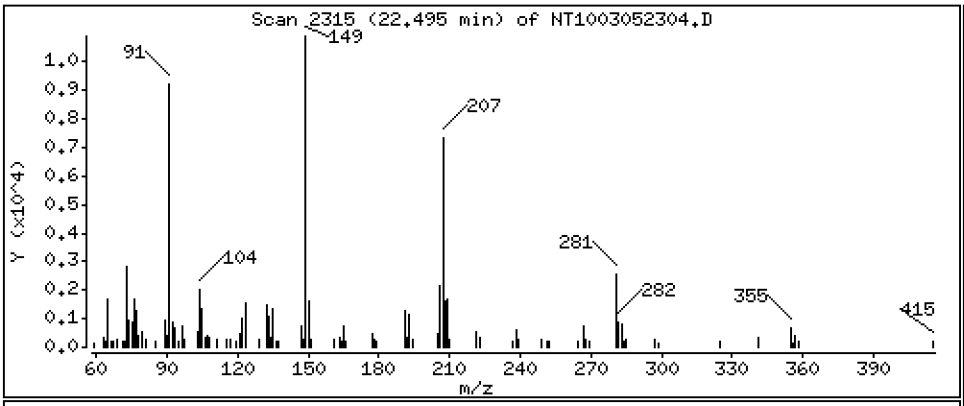
Operator: VTS

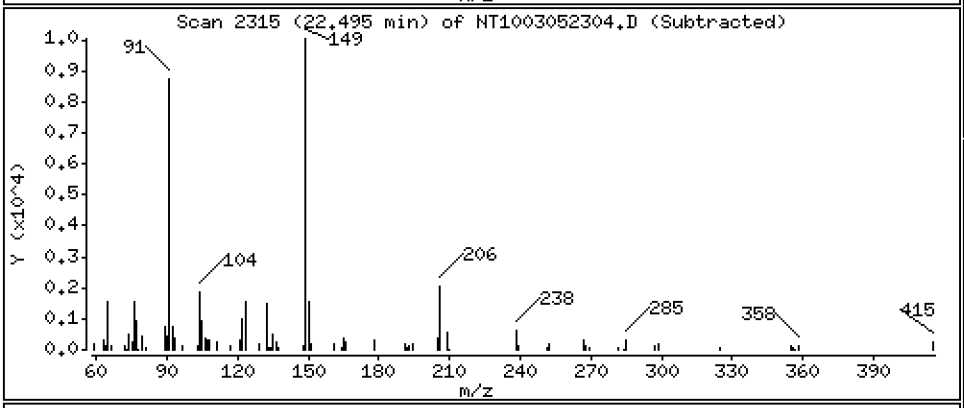
Column phase: ZB-5msi

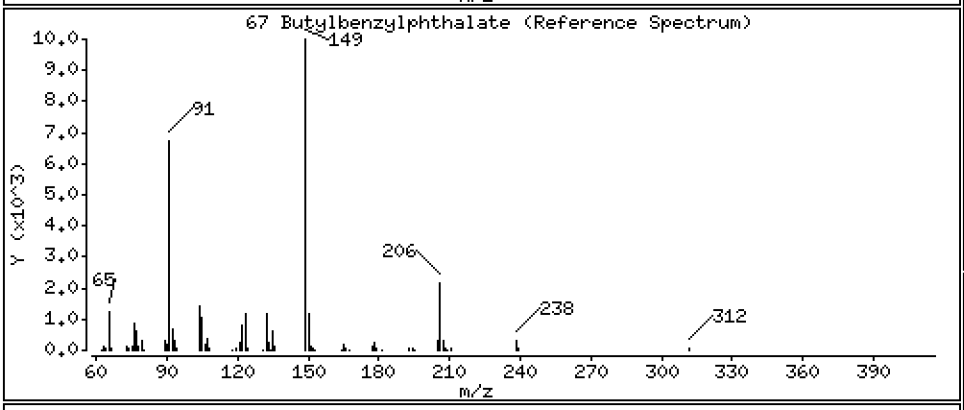
Column diameter: 0.25

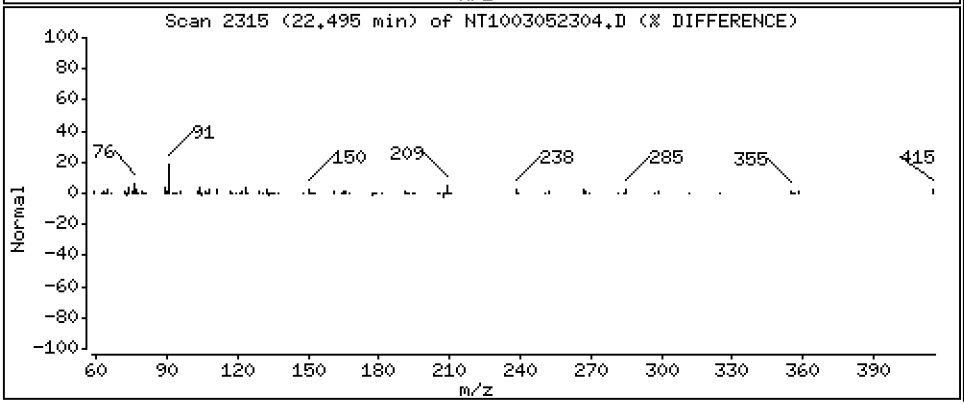
67 Butylbenzylphthalate

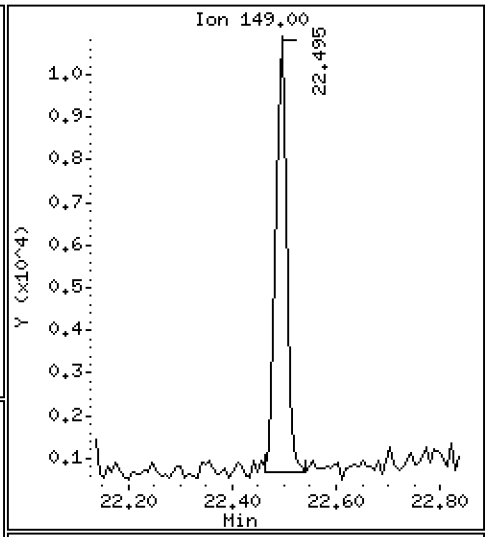
Concentration: 0.09053 ug/mL

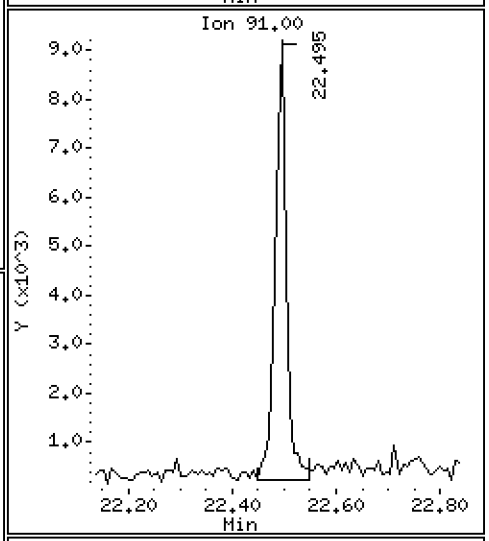


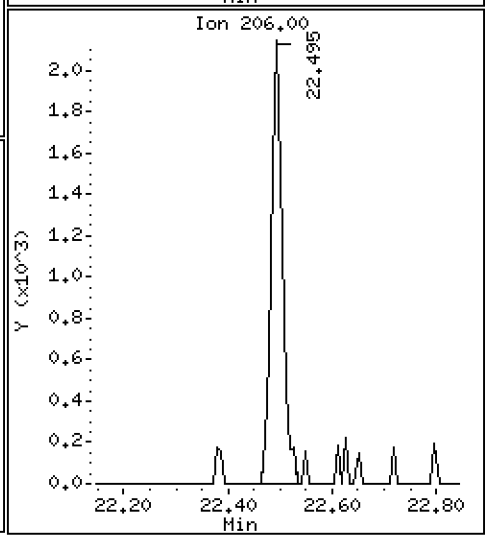












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

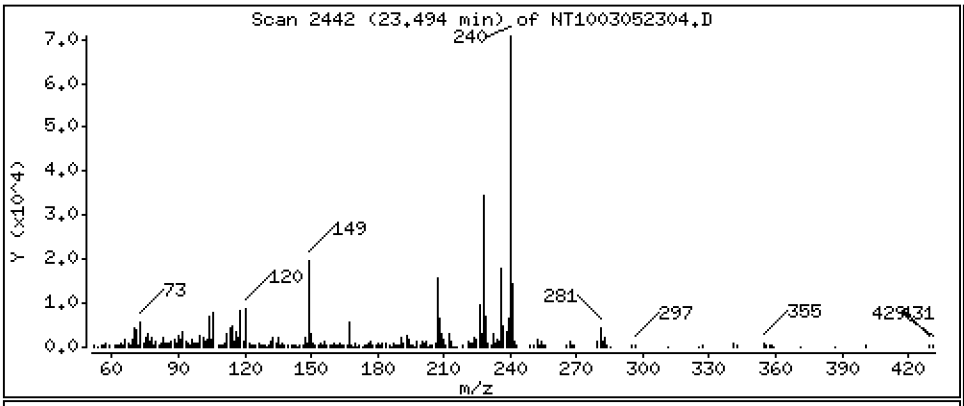
Operator: VTS

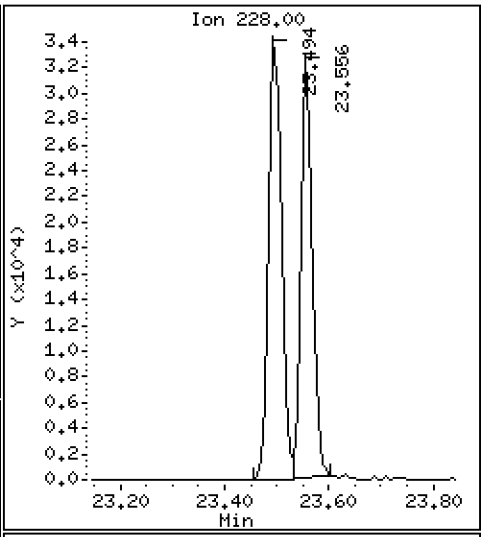
Column phase: ZB-5msi

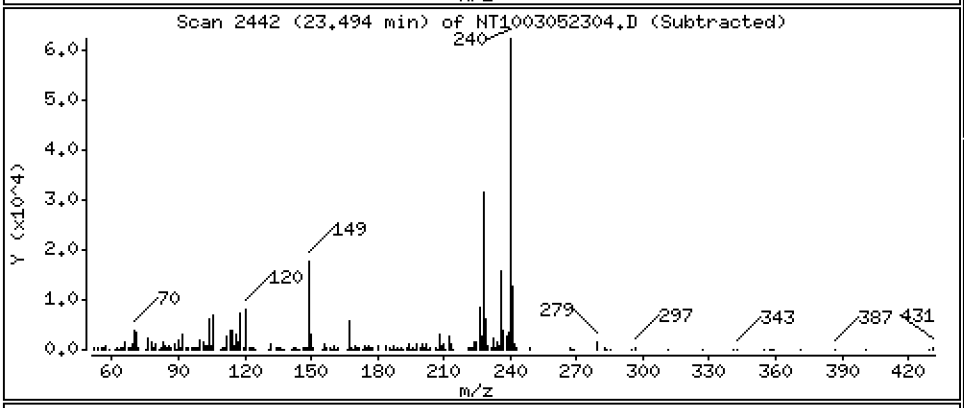
Column diameter: 0.25

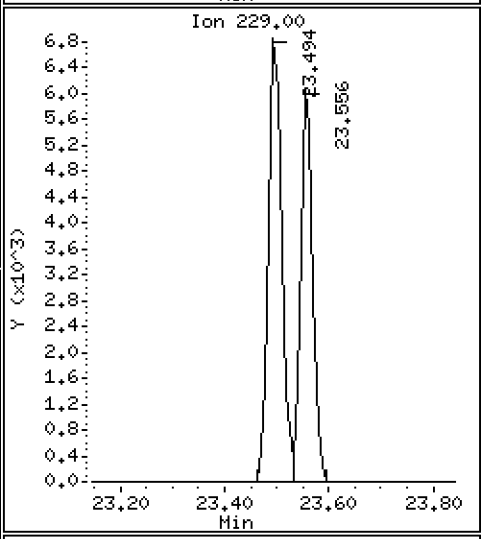
68 Benzo(a)anthracene

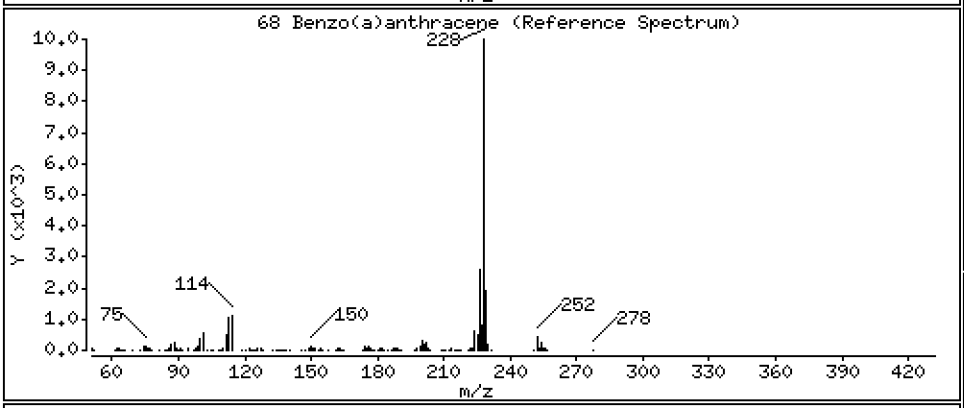
Concentration: 0.1871 ug/mL

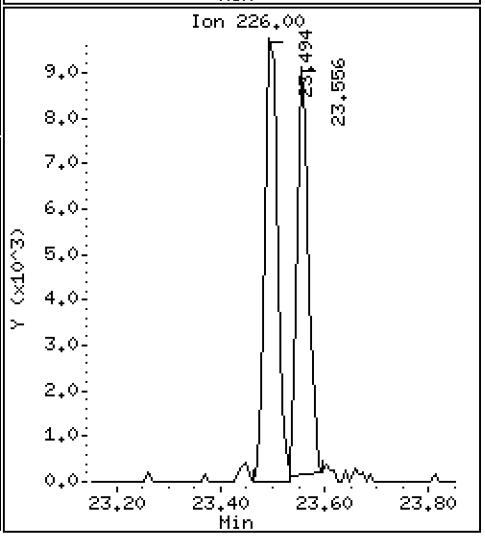


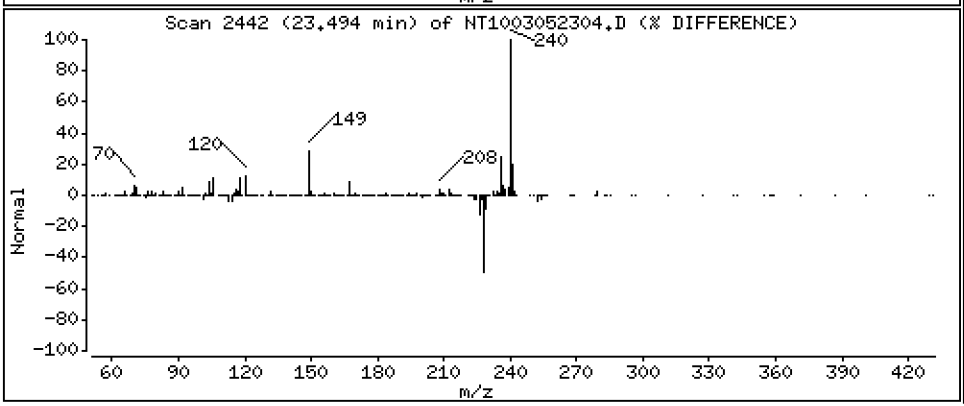












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

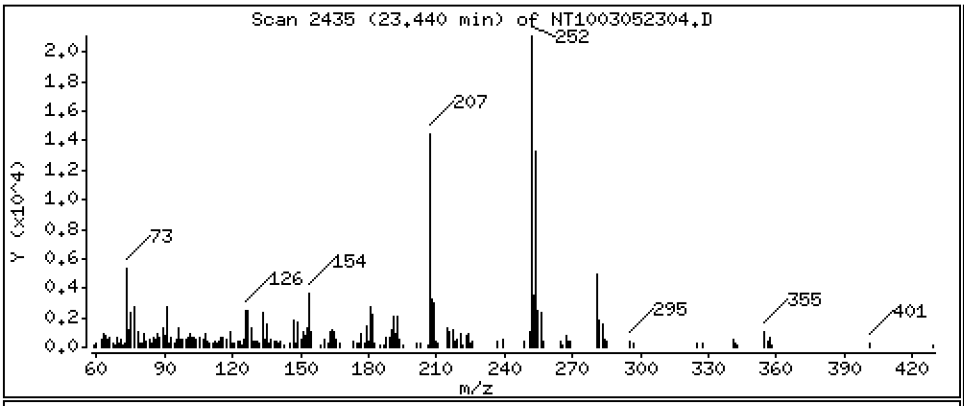
Operator: VTS

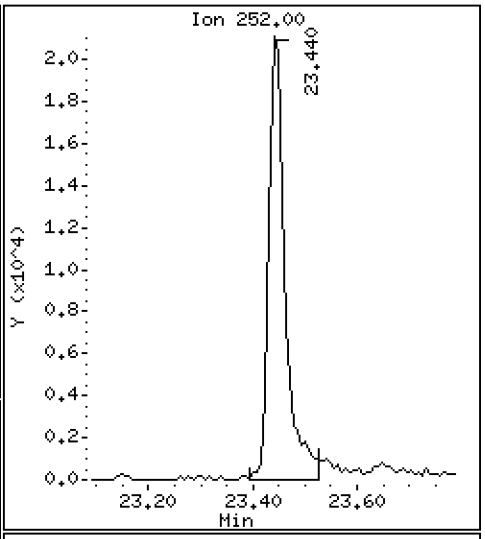
Column phase: ZB-5msi

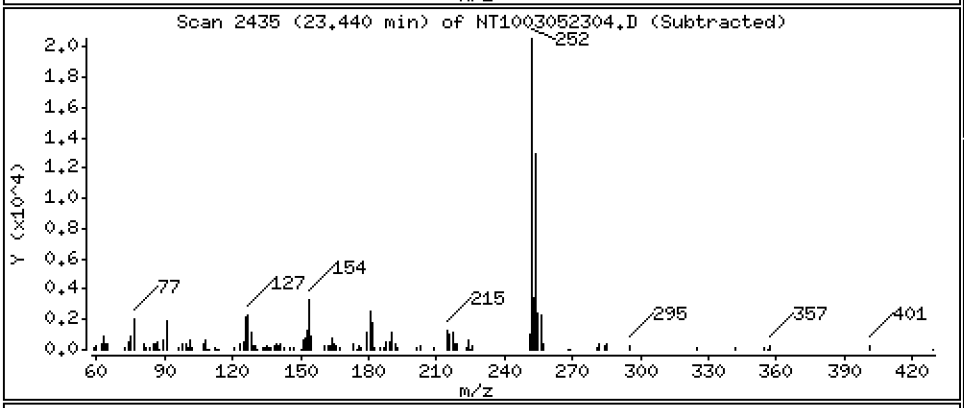
Column diameter: 0.25

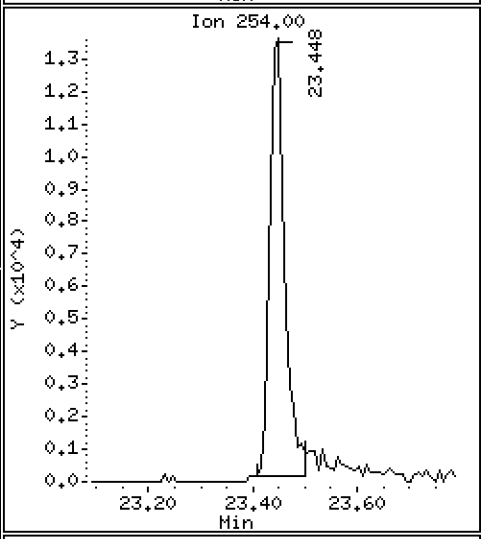
70 3,3'-Dichlorobenzidine

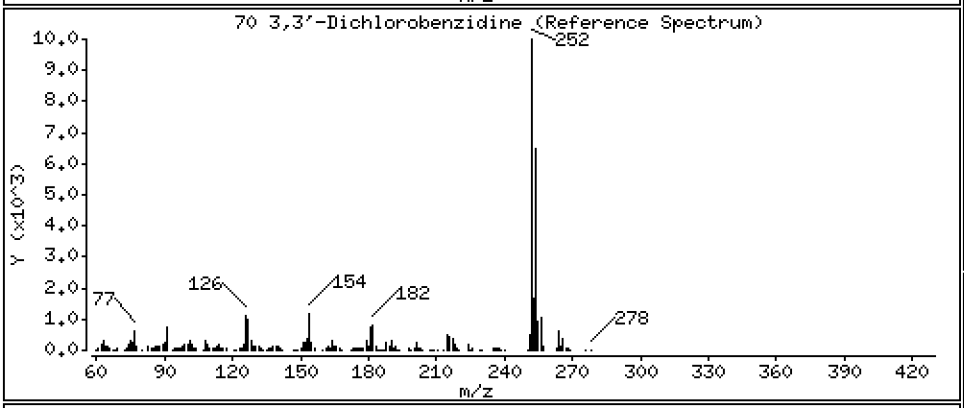
Concentration: 0.3333 ug/mL

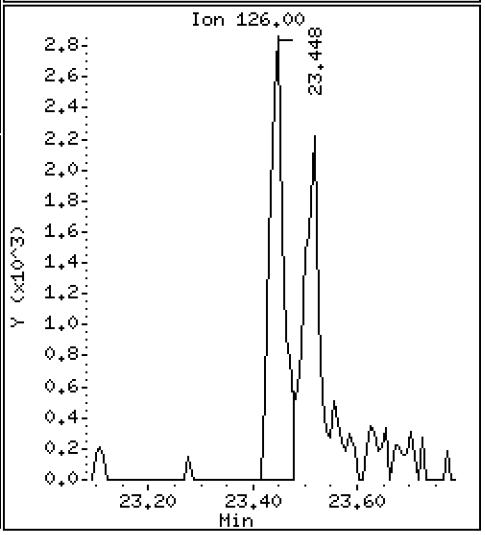


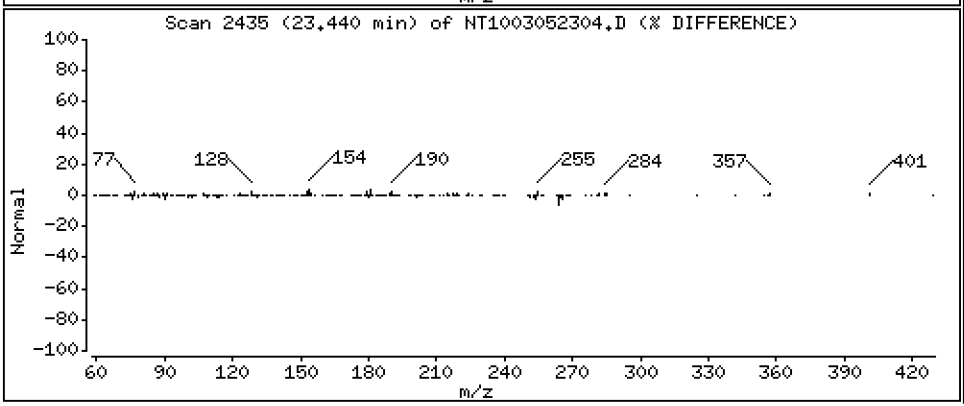












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

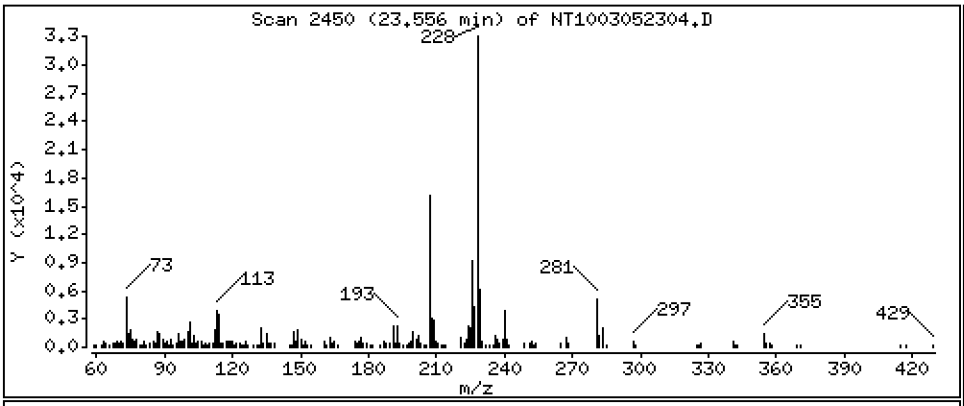
Operator: VTS

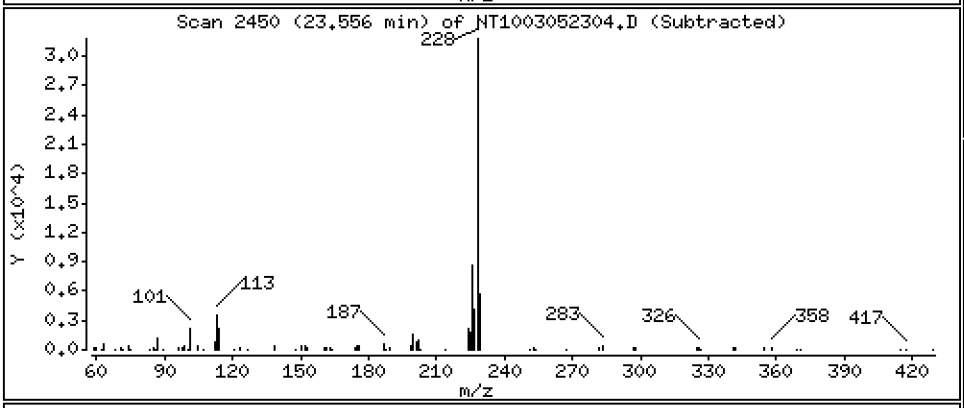
Column phase: ZB-5msi

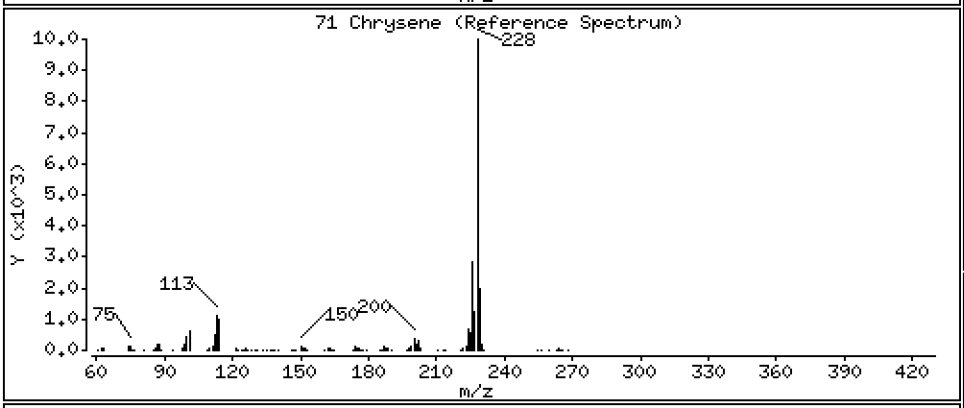
Column diameter: 0.25

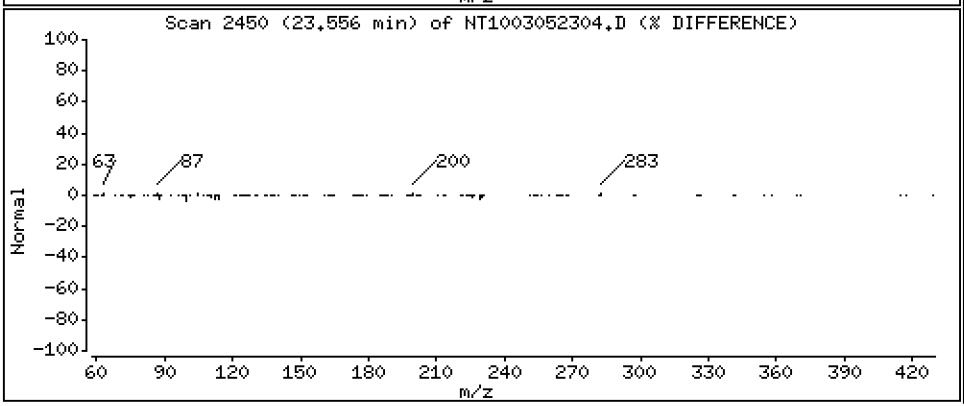
71 Chrysene

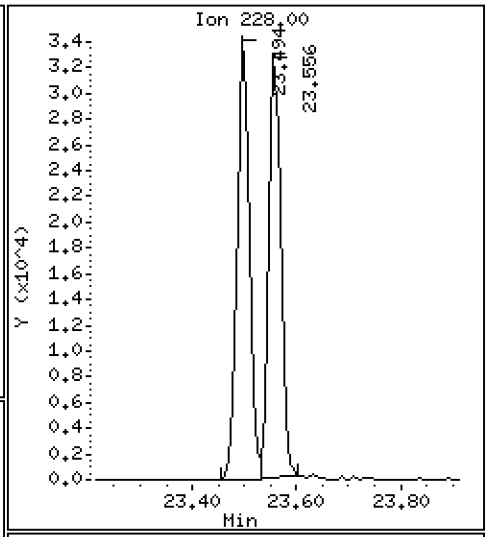
Concentration: 0.2028 ug/mL

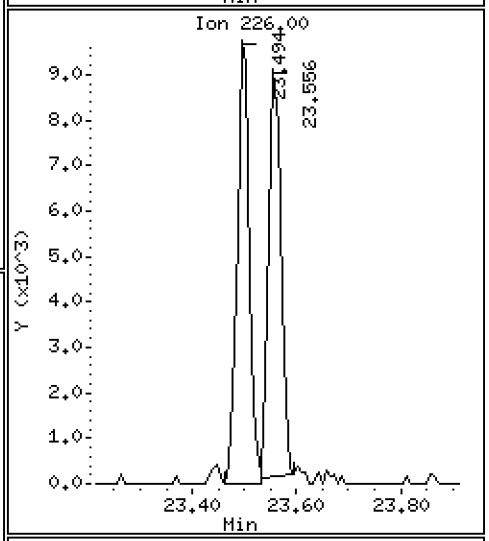


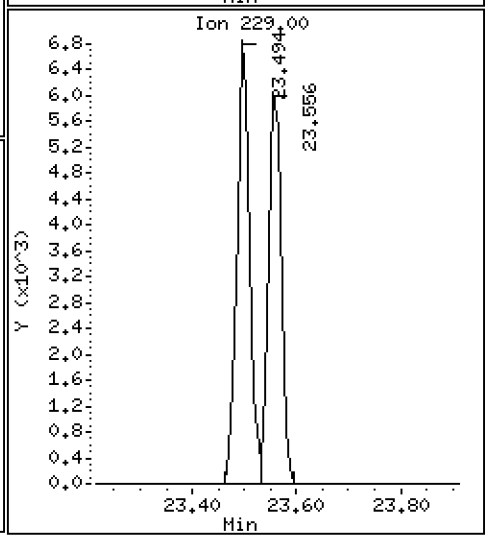












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

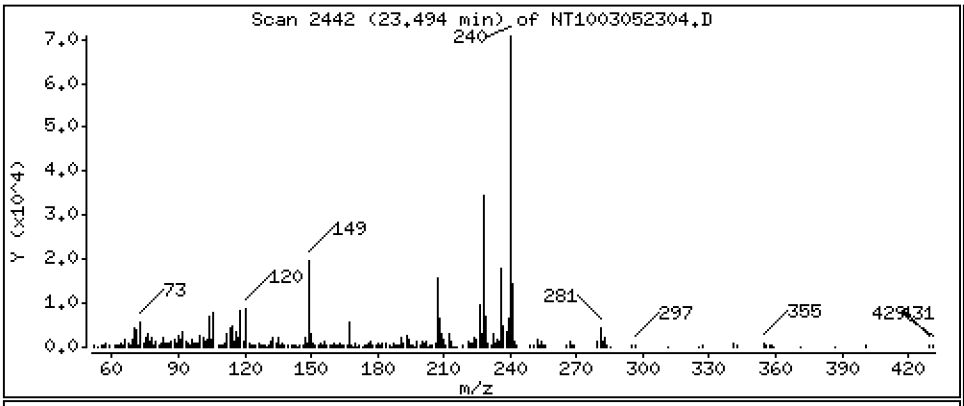
Operator: VTS

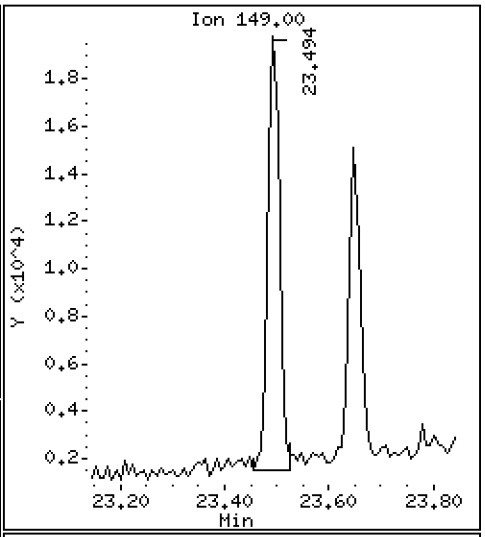
Column phase: ZB-5msi

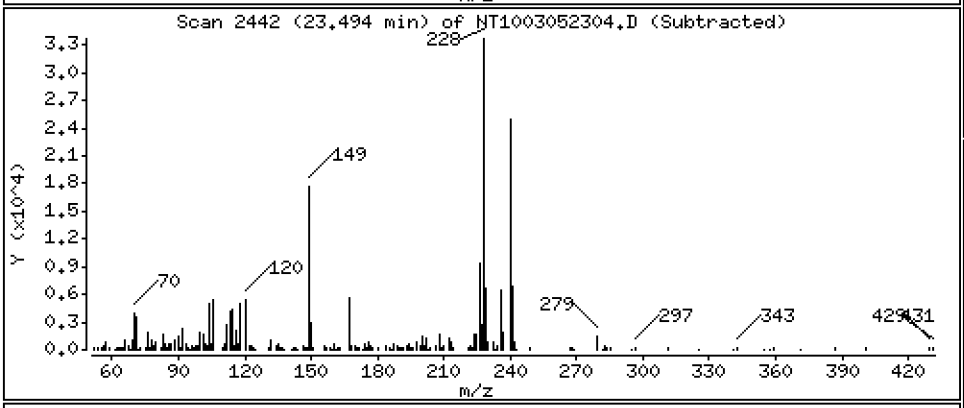
Column diameter: 0.25

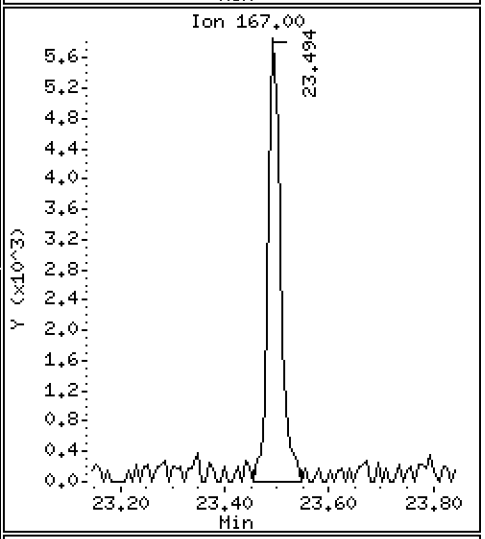
72 bis(2-Ethylhexyl)phthalate

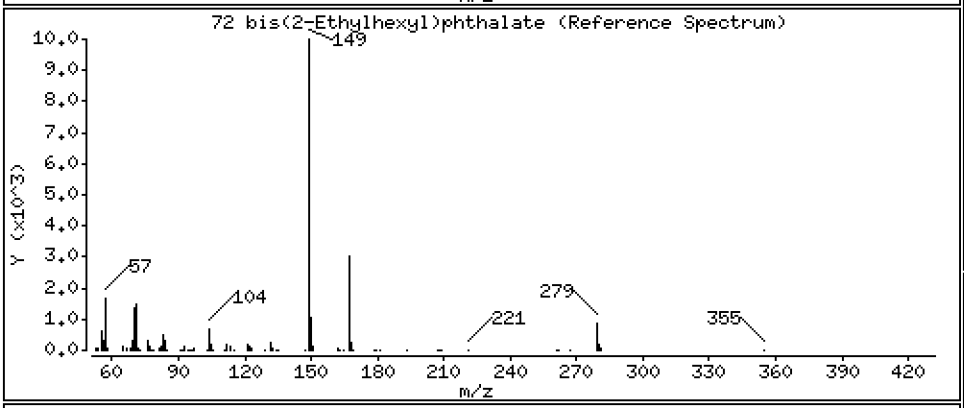
Concentration: 0.1454 ug/mL

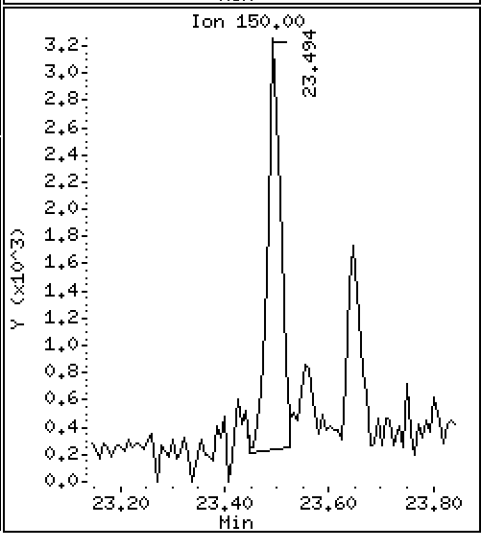


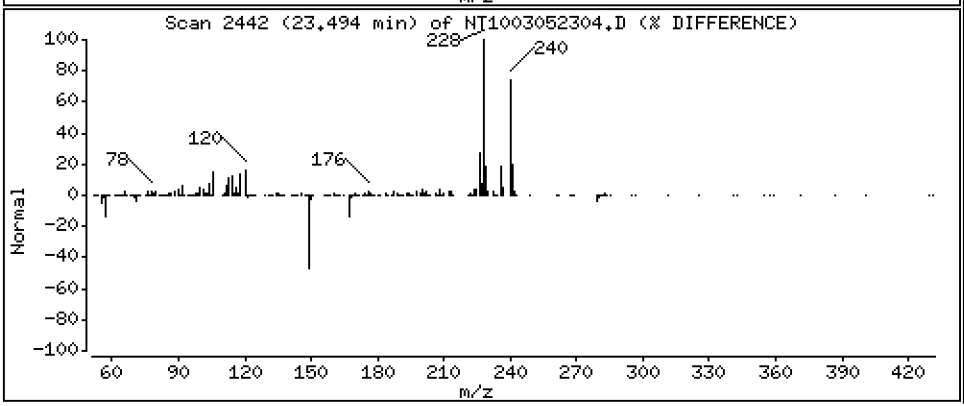












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

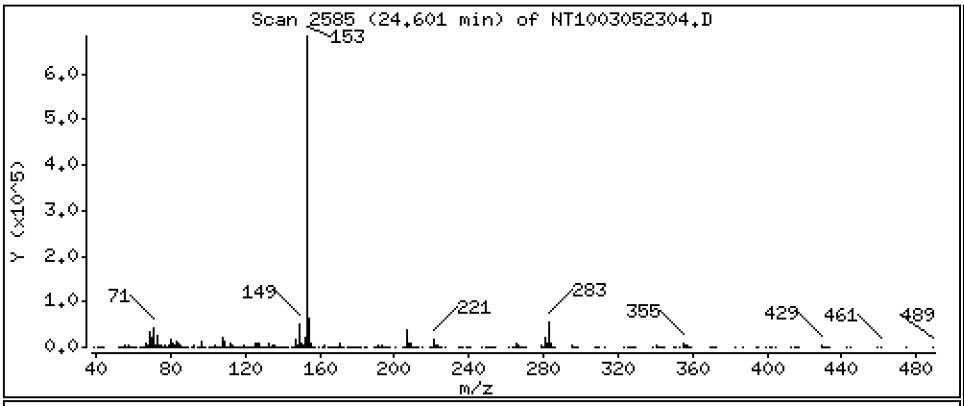
Operator: VTS

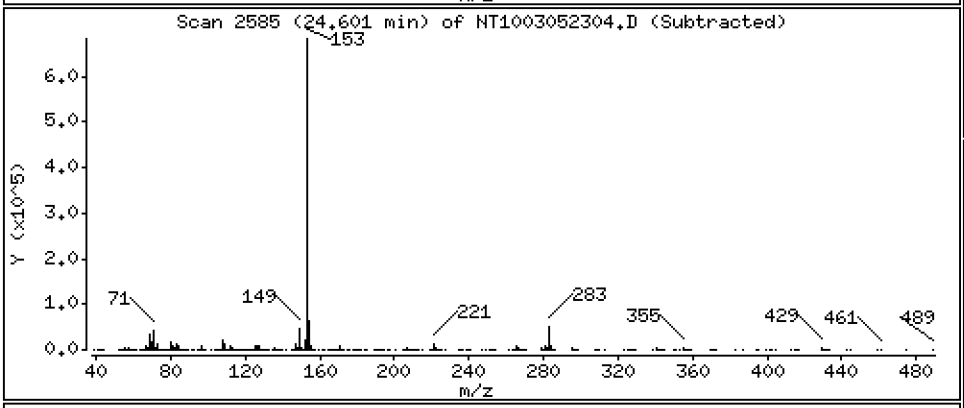
Column phase: ZB-5msi

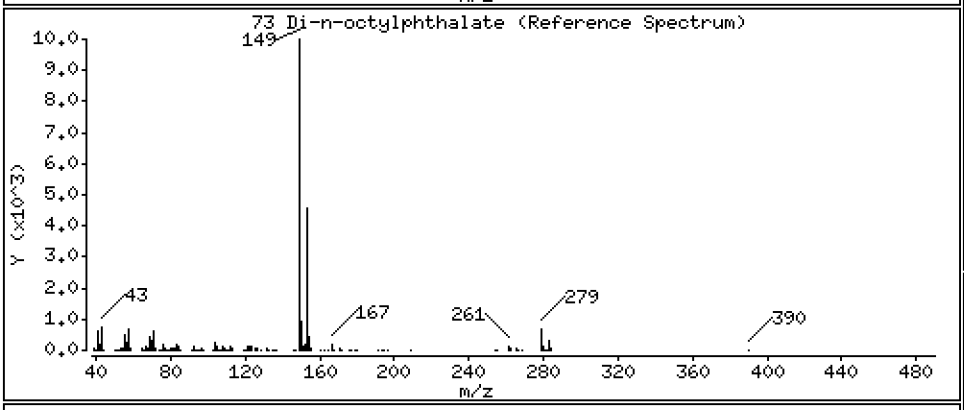
Column diameter: 0.25

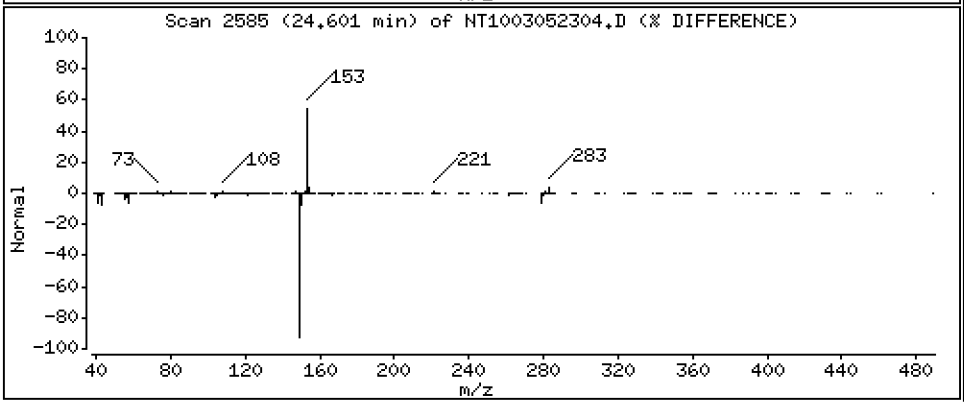
73 Di-n-octylphthalate

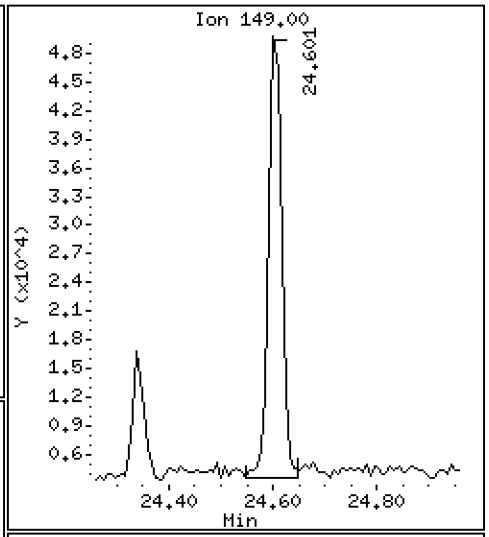
Concentration: 0.2618 ug/mL

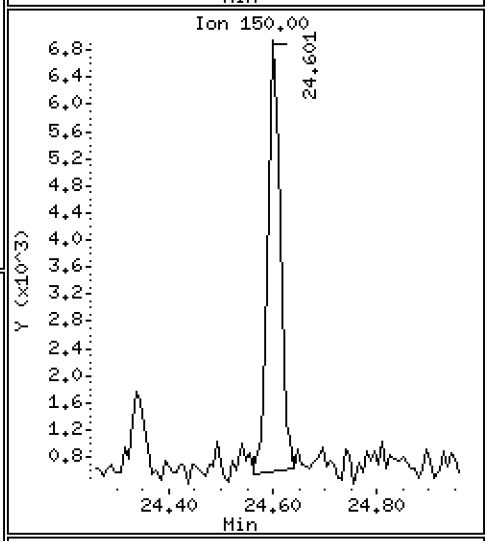


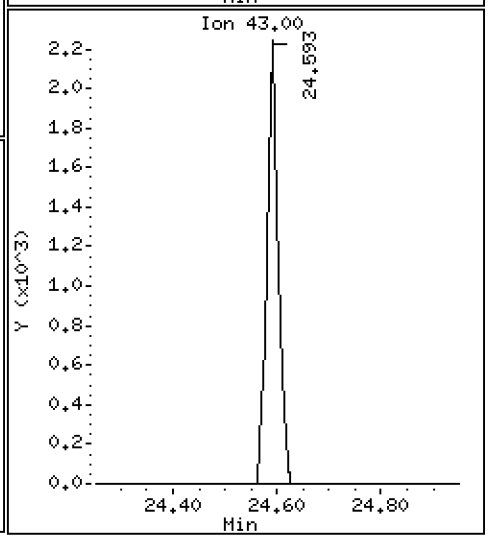












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

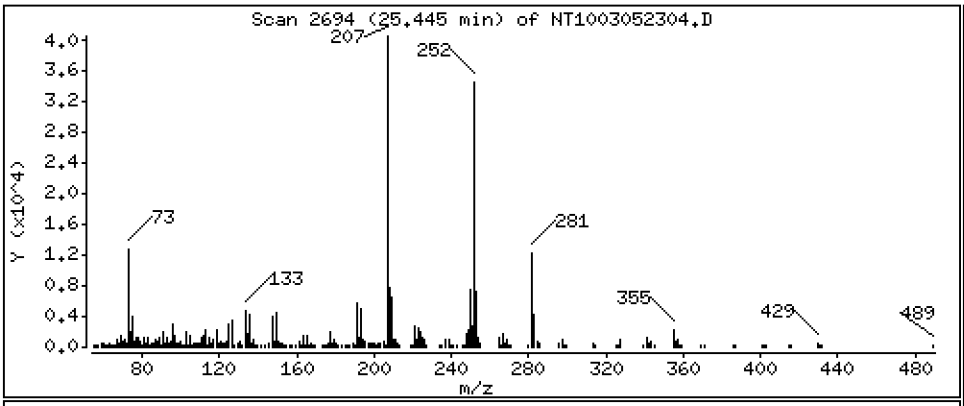
Operator: VTS

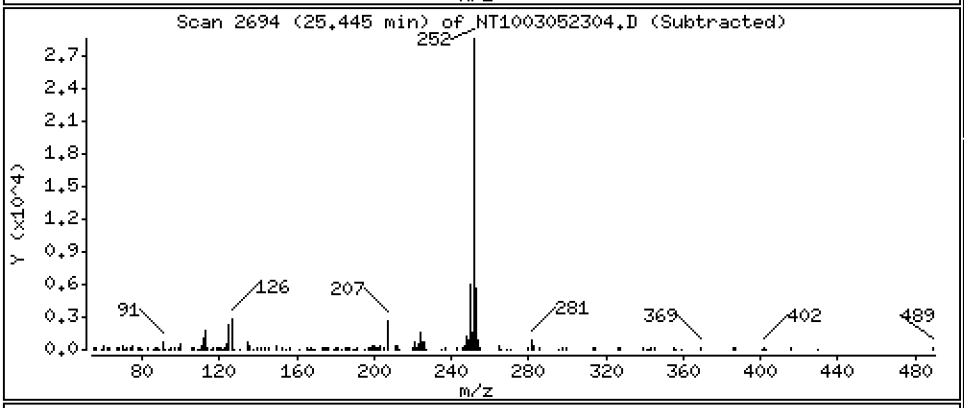
Column phase: ZB-5msi

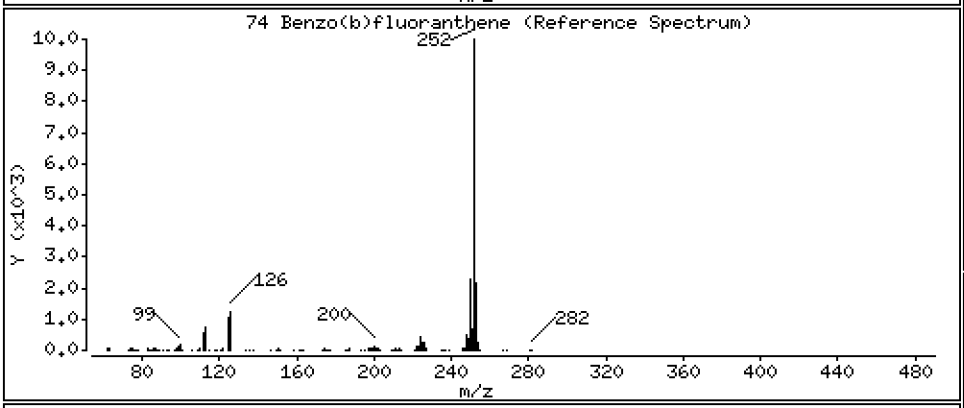
Column diameter: 0.25

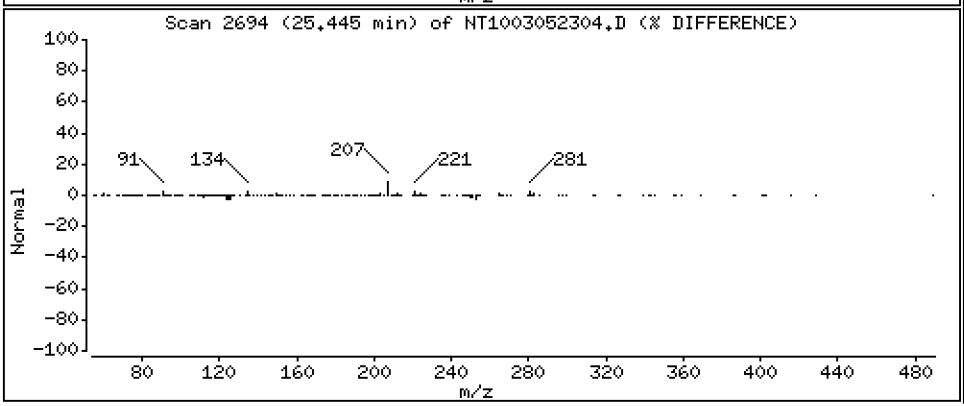
74 Benzo(b)fluoranthene

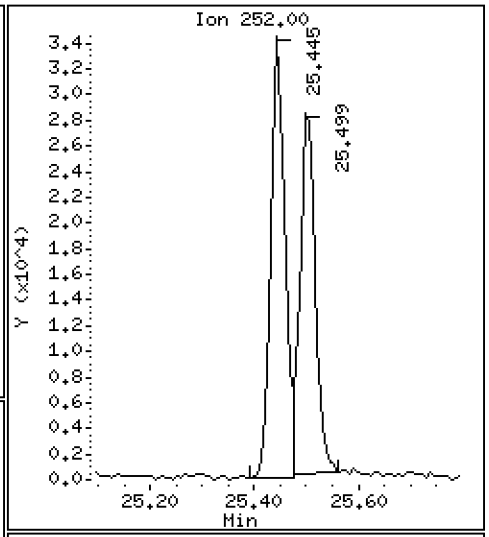
Concentration: 0.1779 ug/mL

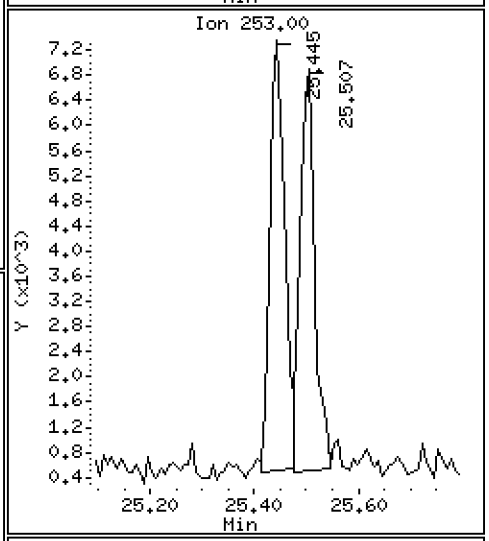


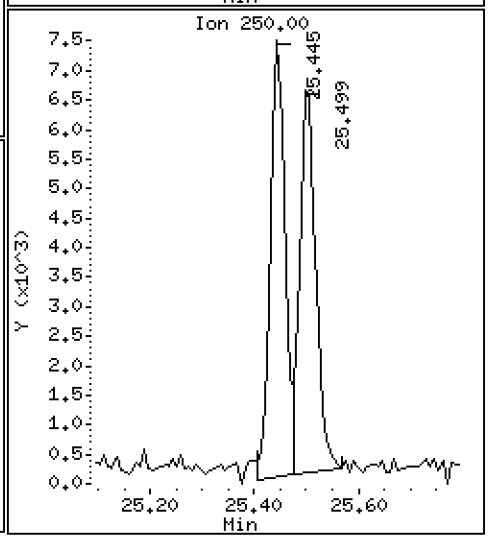












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

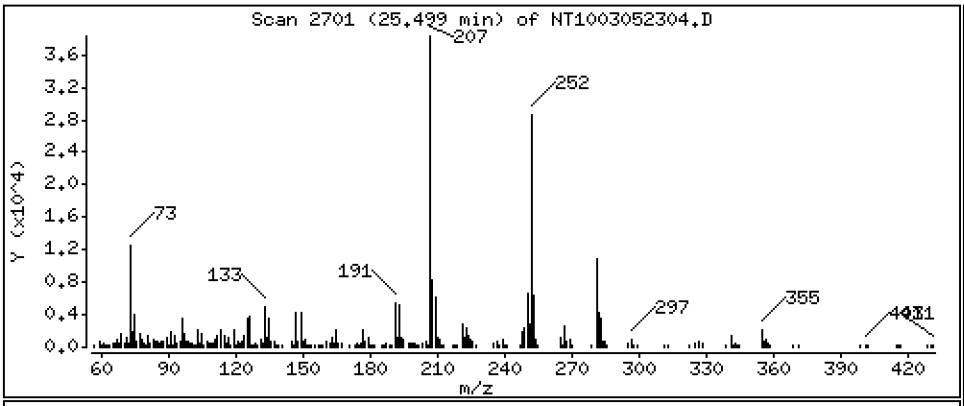
Operator: VTS

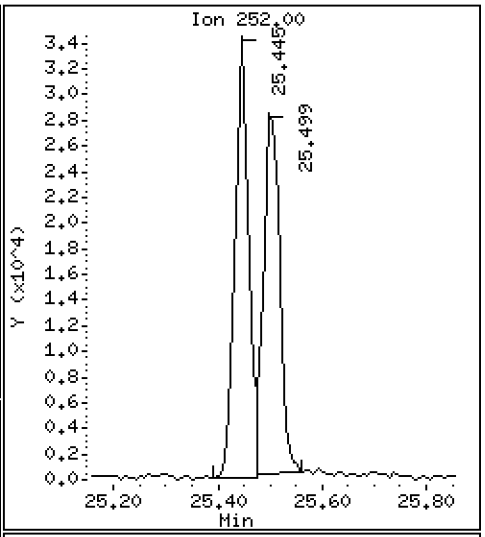
Column phase: ZB-5msi

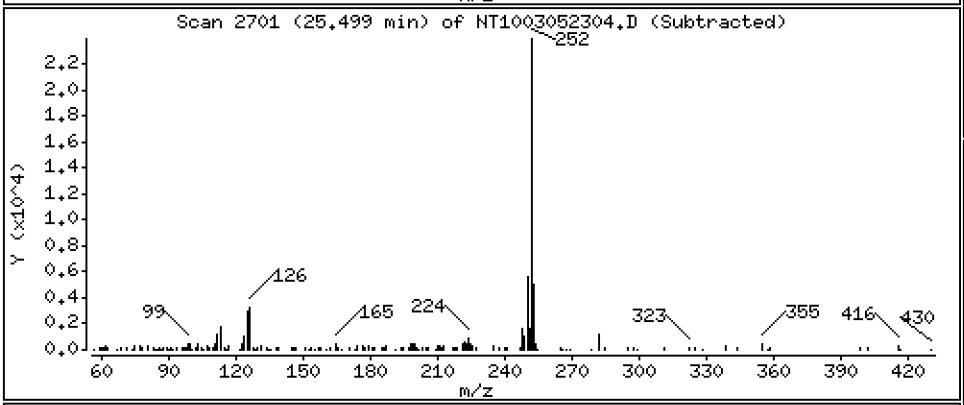
Column diameter: 0.25

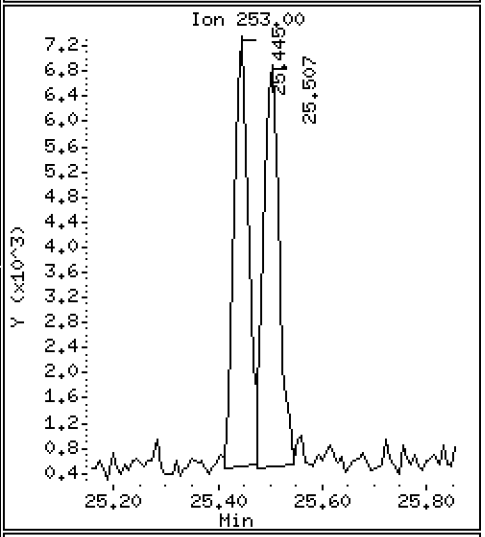
75 Benzo(k)fluoranthene

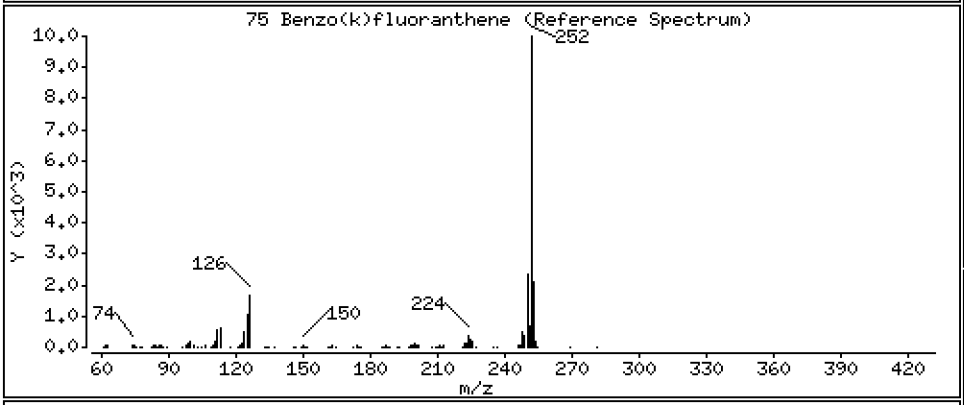
Concentration: 0.1763 ug/mL

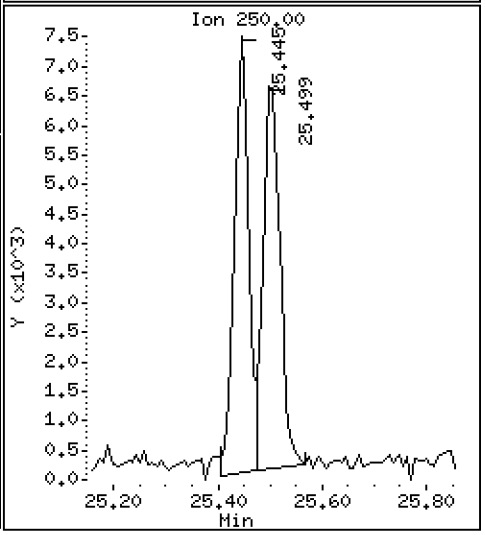


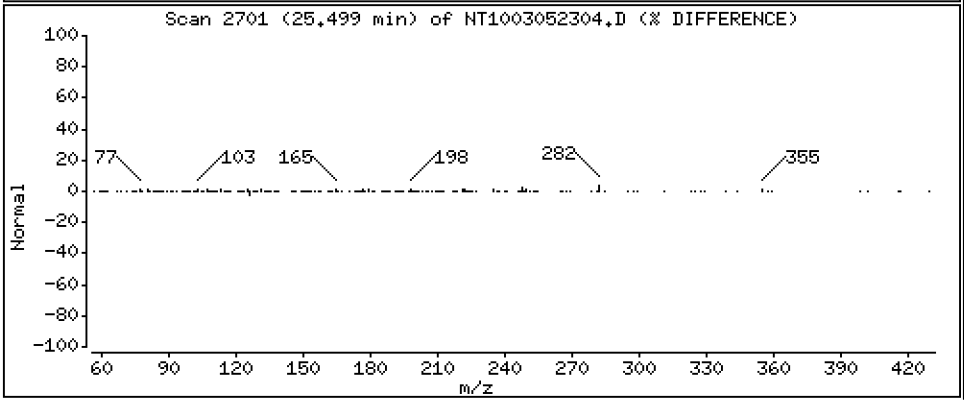












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

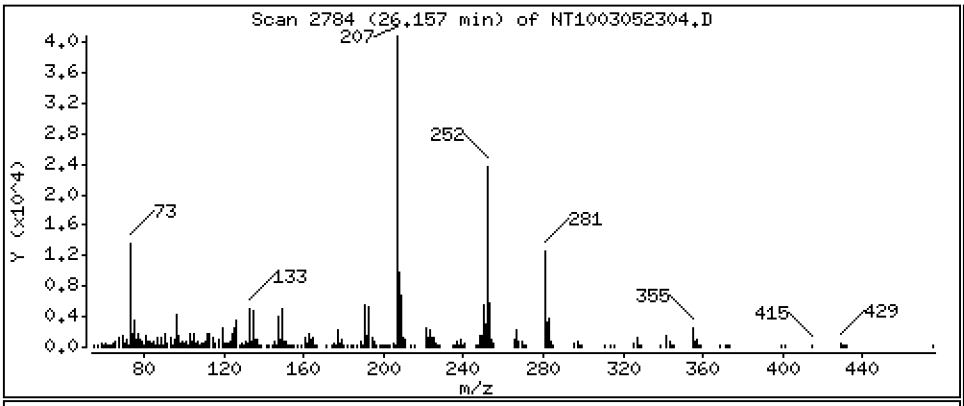
Operator: VTS

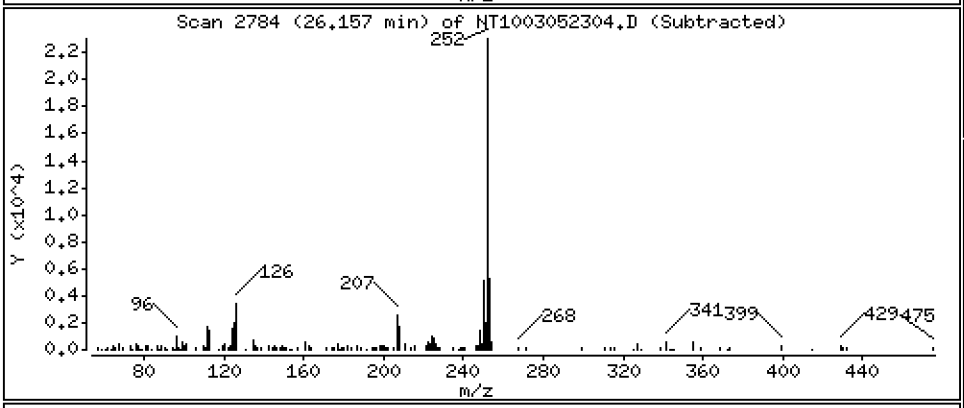
Column phase: ZB-5msi

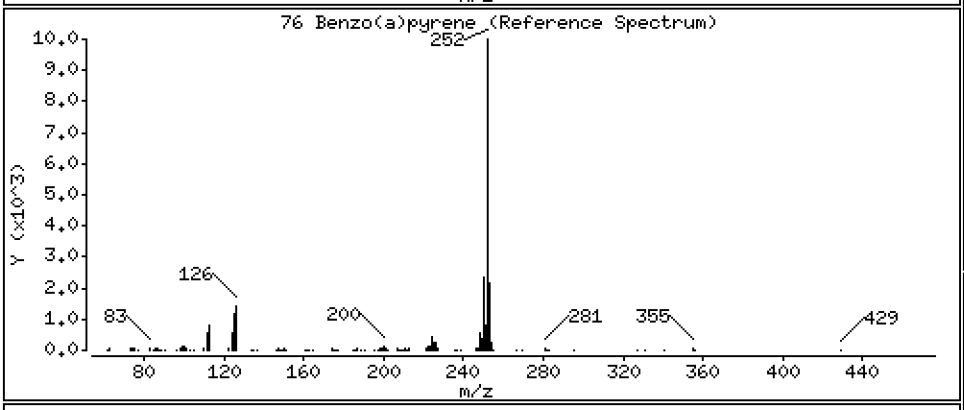
Column diameter: 0.25

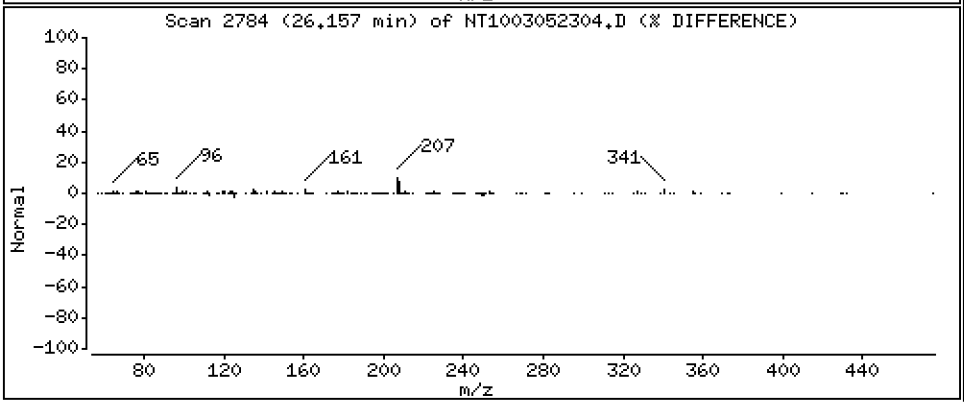
76 Benzo(a)pyrene

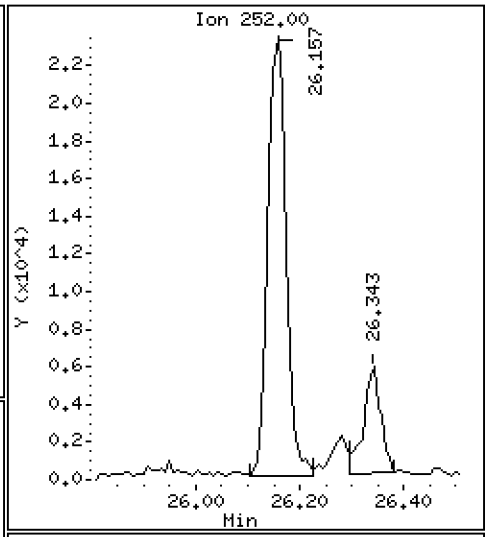
Concentration: 0.1746 ug/mL

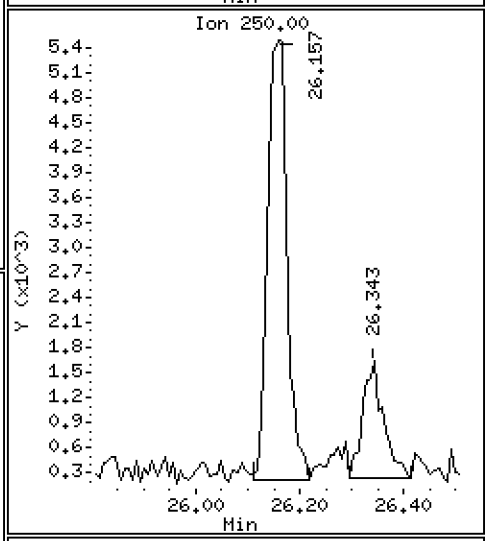


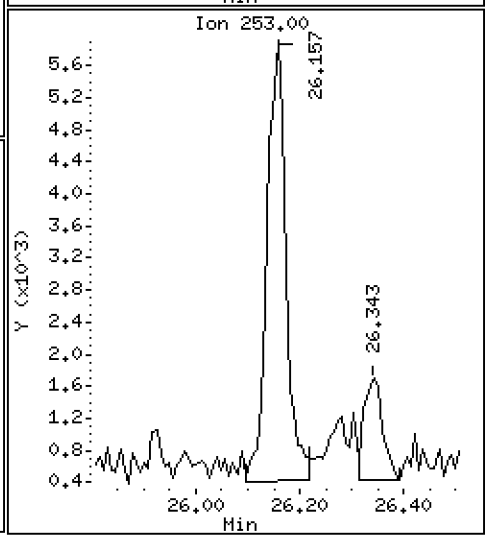












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

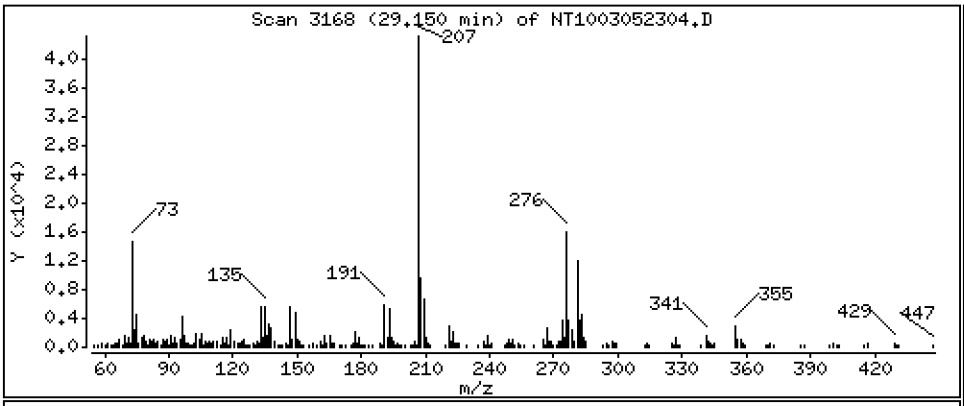
Operator: VTS

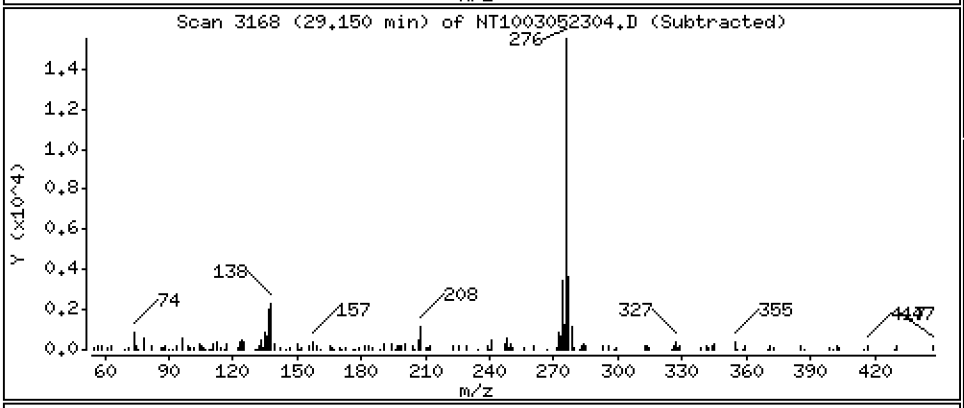
Column phase: ZB-5msi

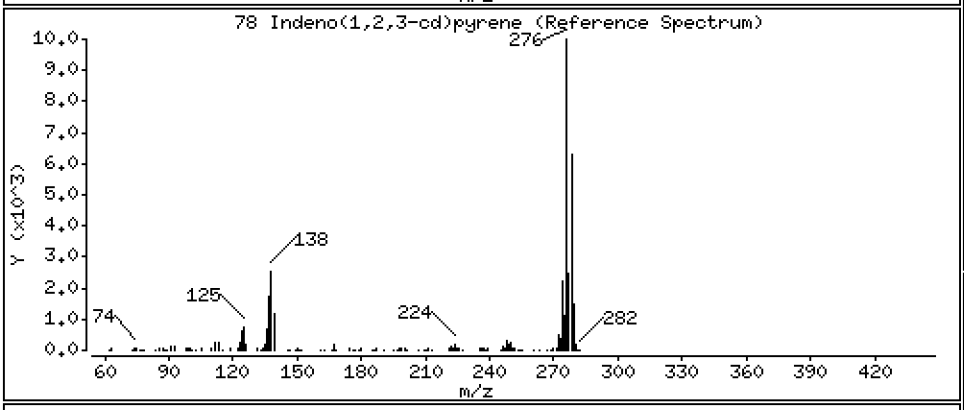
Column diameter: 0.25

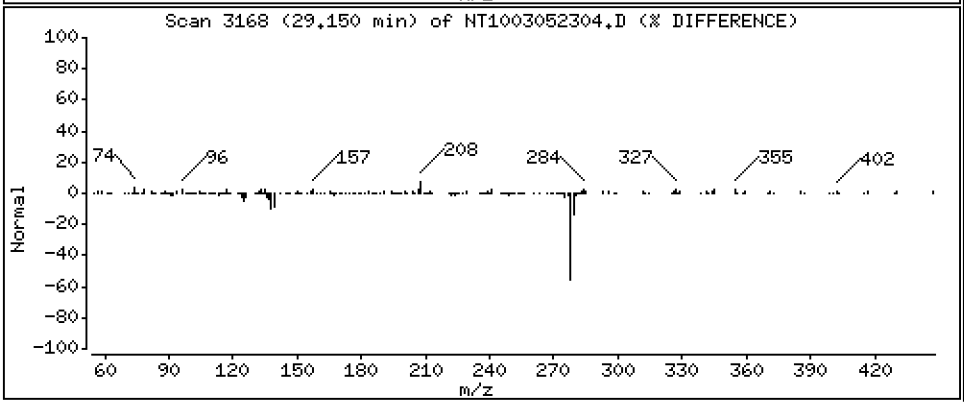
78 Indeno(1,2,3-cd)pyrene

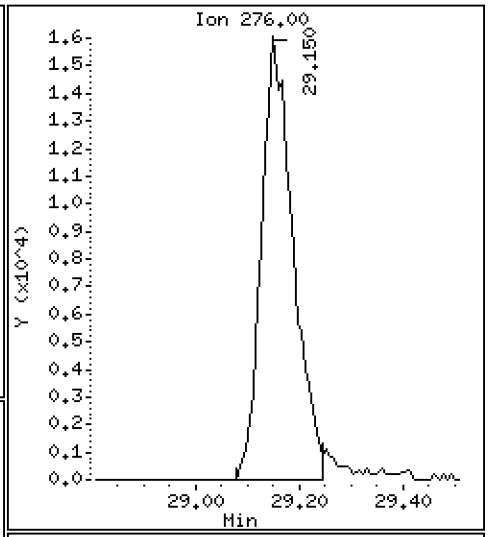
Concentration: 0.1845 ug/mL

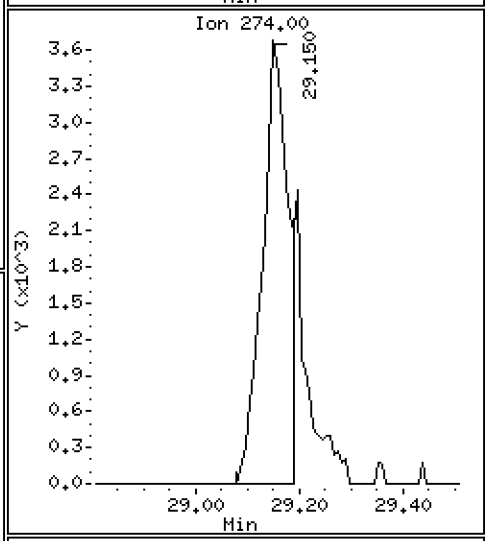


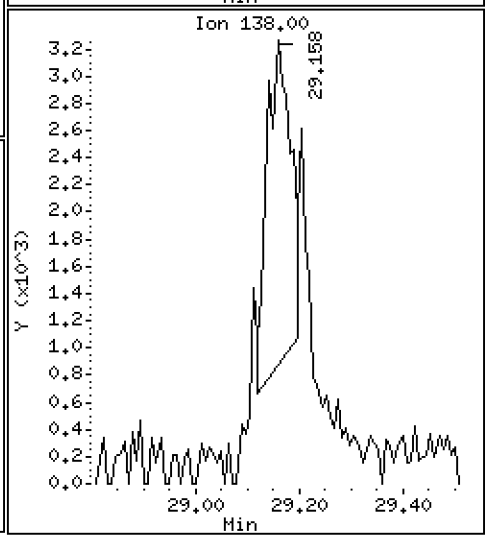












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

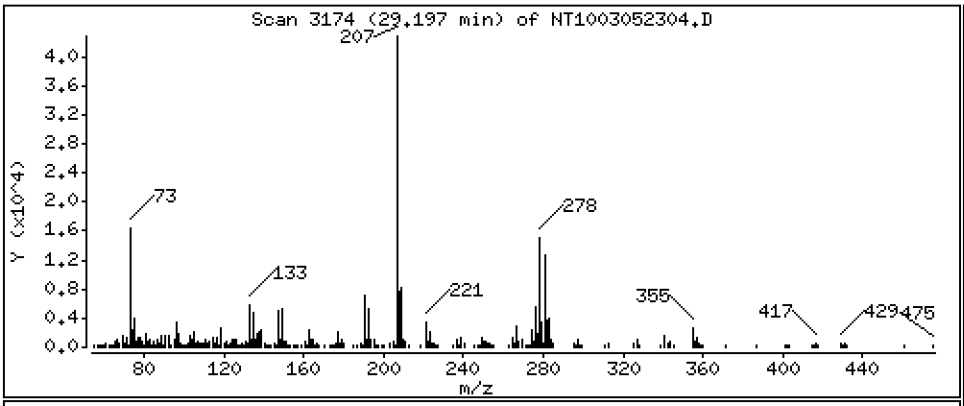
Operator: VTS

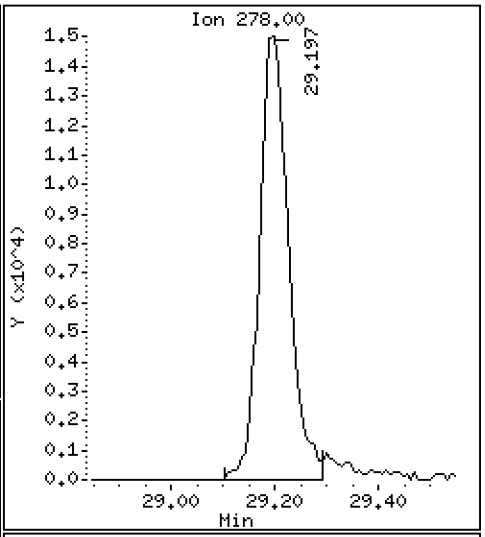
Column phase: ZB-5msi

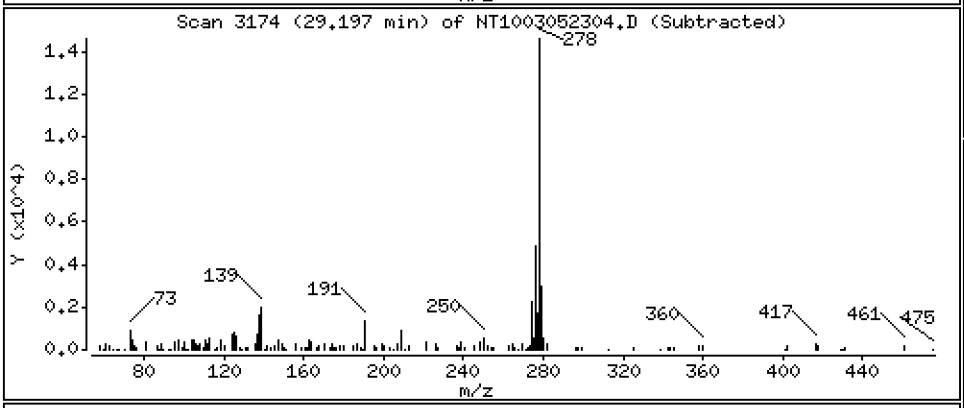
Column diameter: 0.25

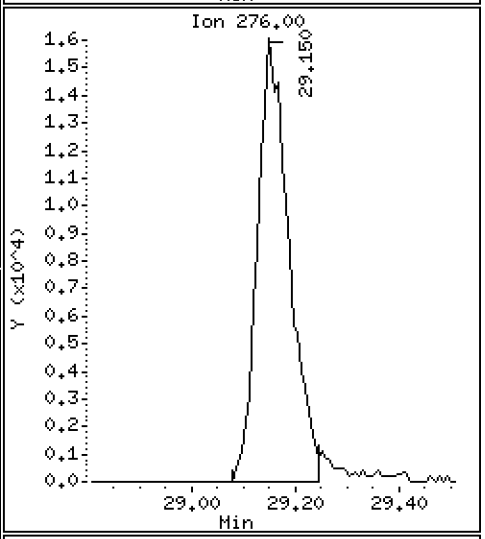
79 Dibenzo(a,h)anthracene

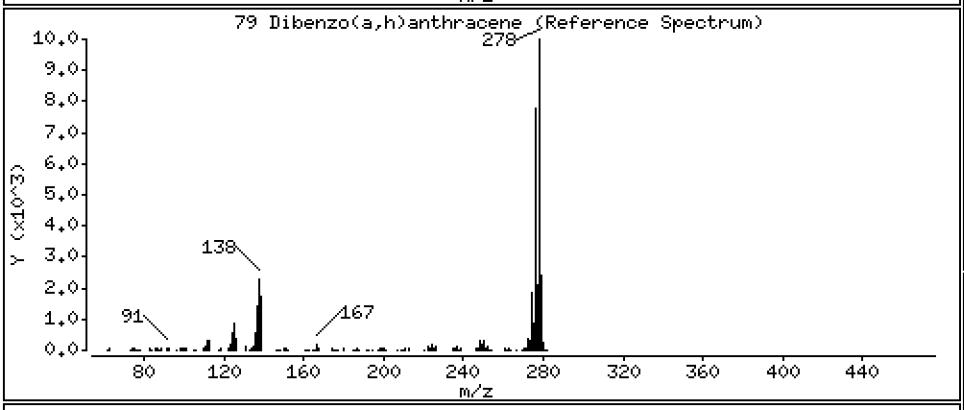
Concentration: 0.2073 ug/mL

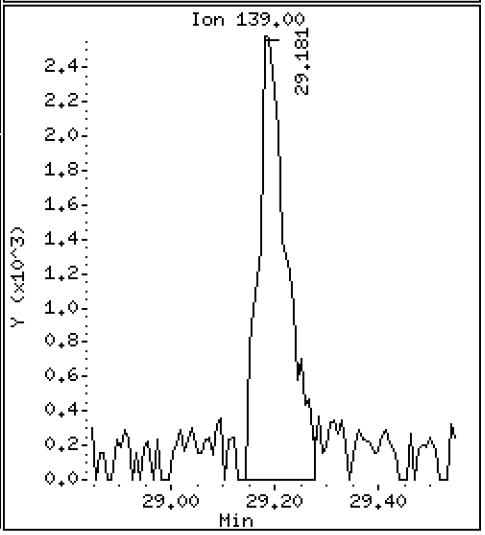


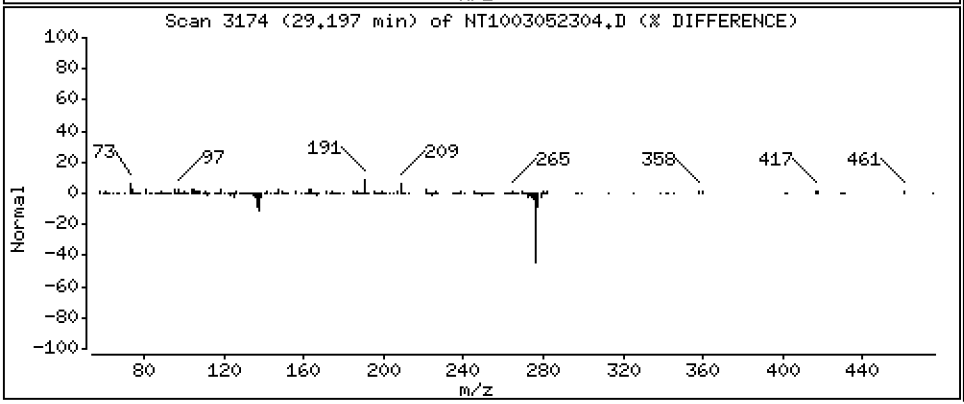












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

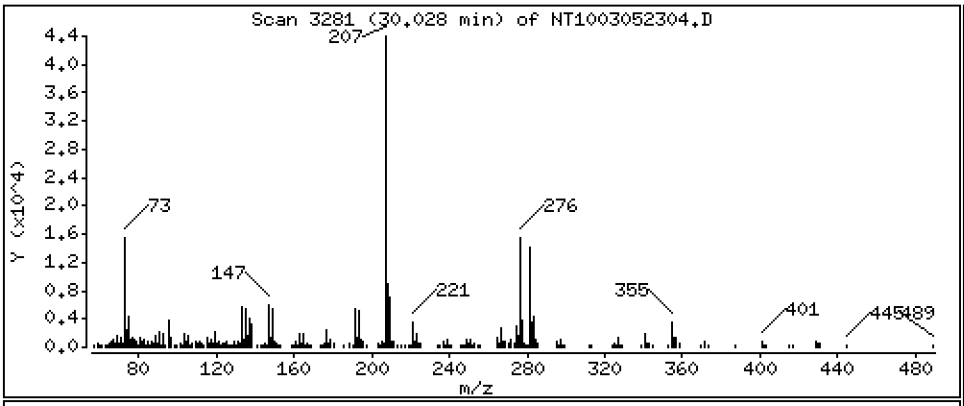
Operator: VTS

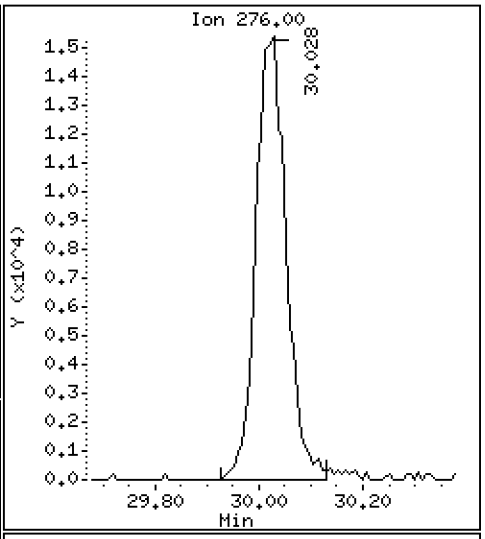
Column phase: ZB-5msi

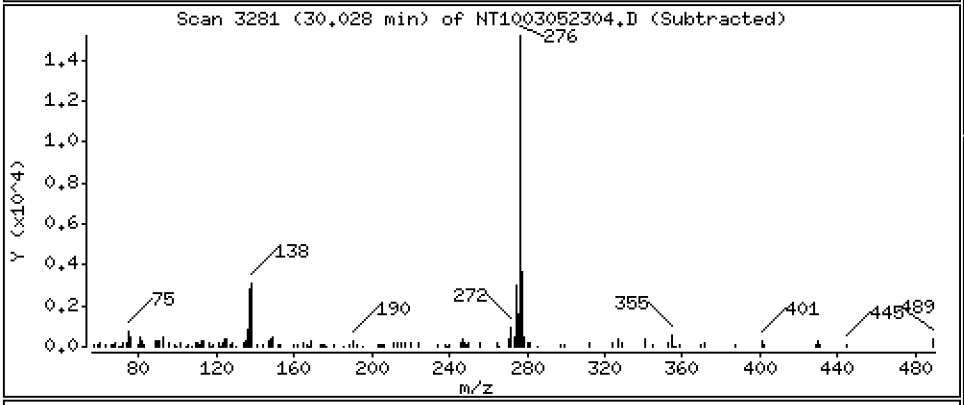
Column diameter: 0.25

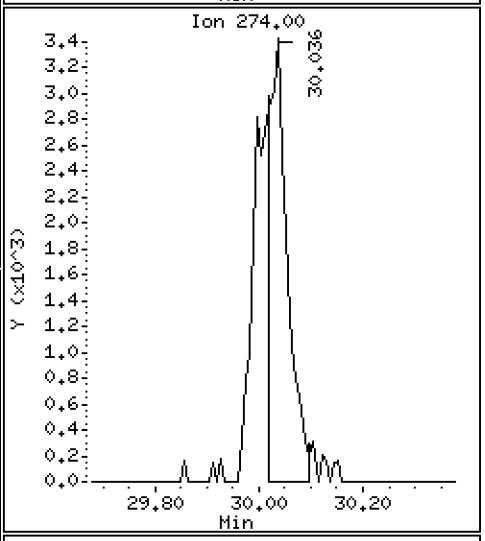
80 Benzo(g,h,i)perylene

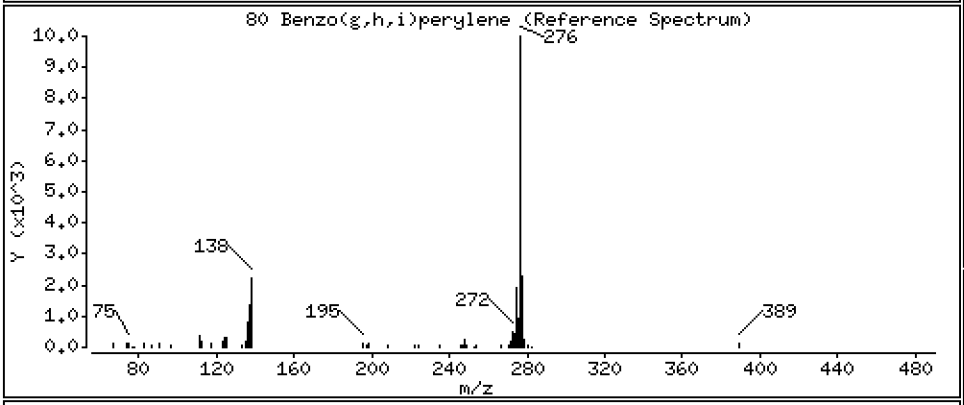
Concentration: 0.2119 ug/mL

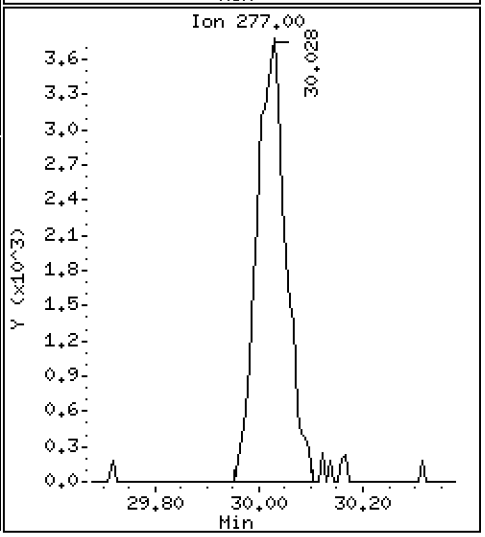


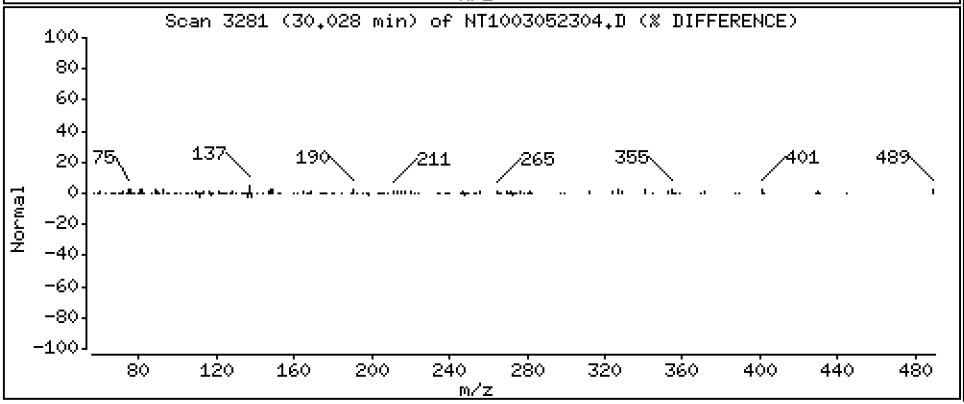












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

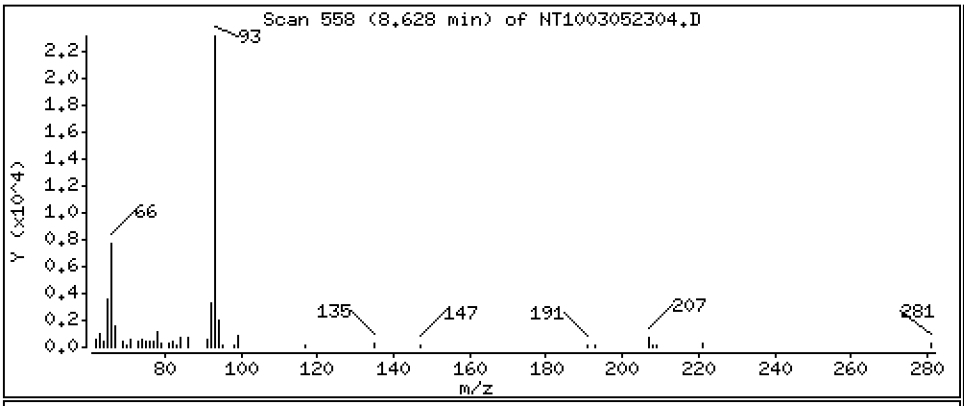
Operator: VTS

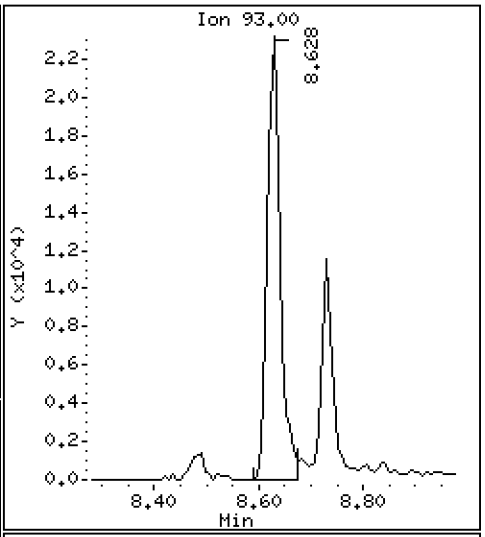
Column phase: ZB-5msi

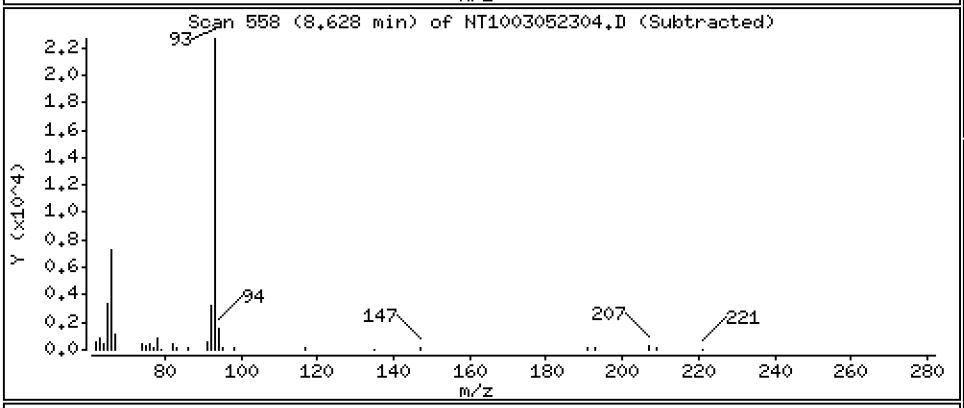
Column diameter: 0.25

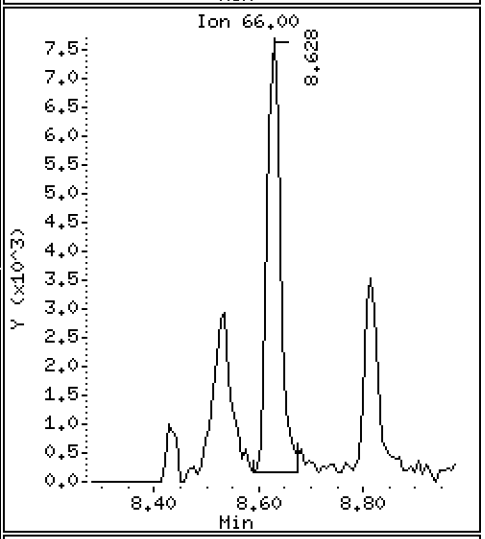
91 Aniline

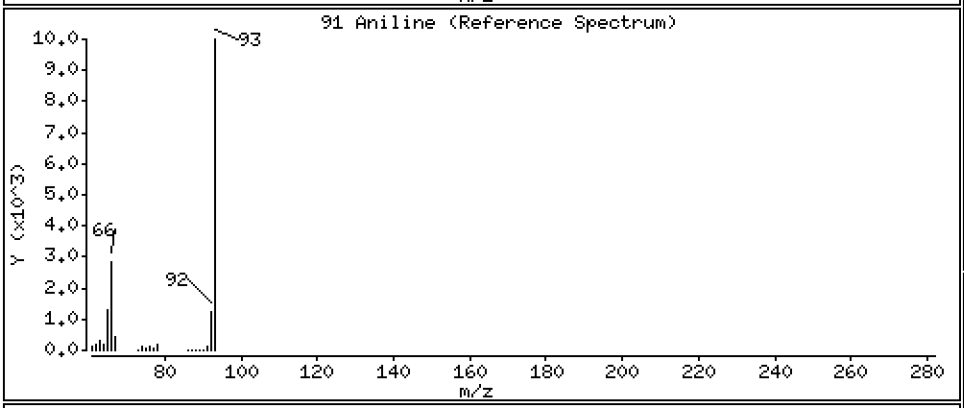
Concentration: 0.2915 ug/mL

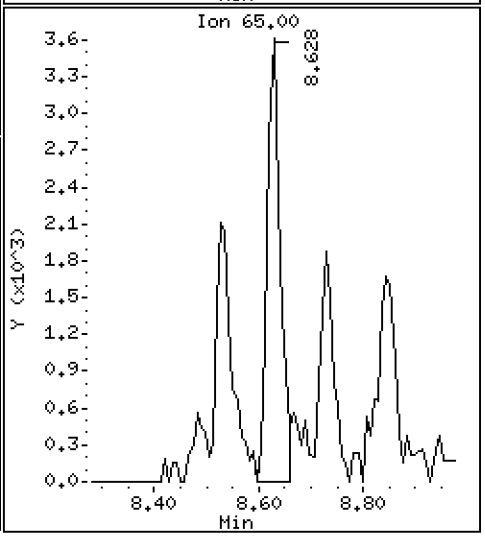


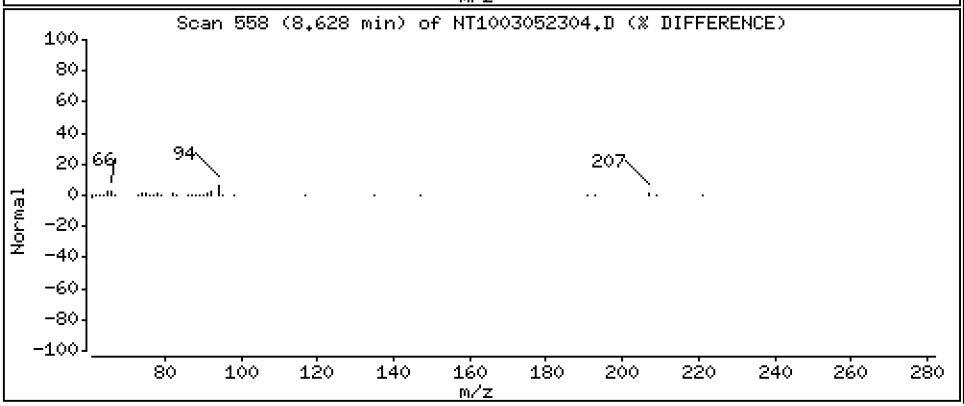












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

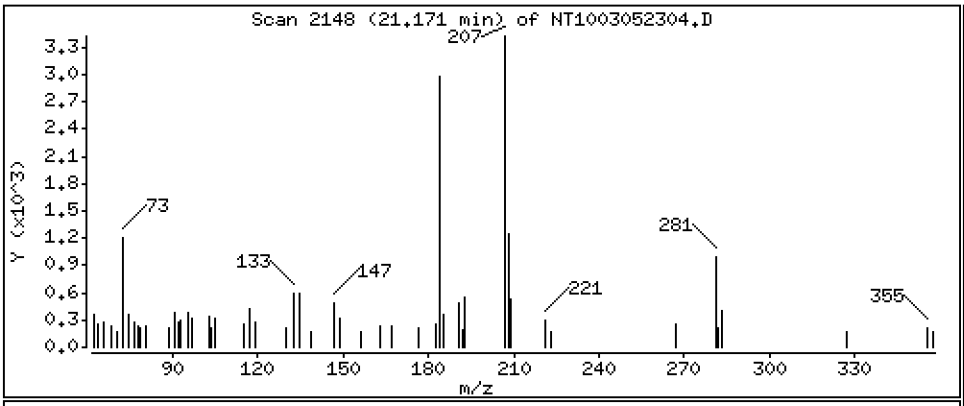
Operator: VTS

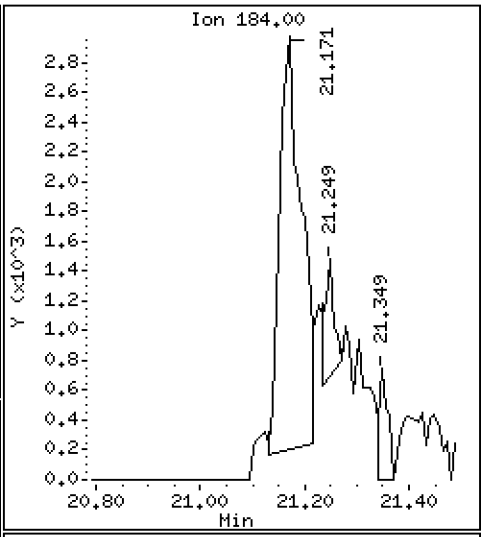
Column phase: ZB-5msi

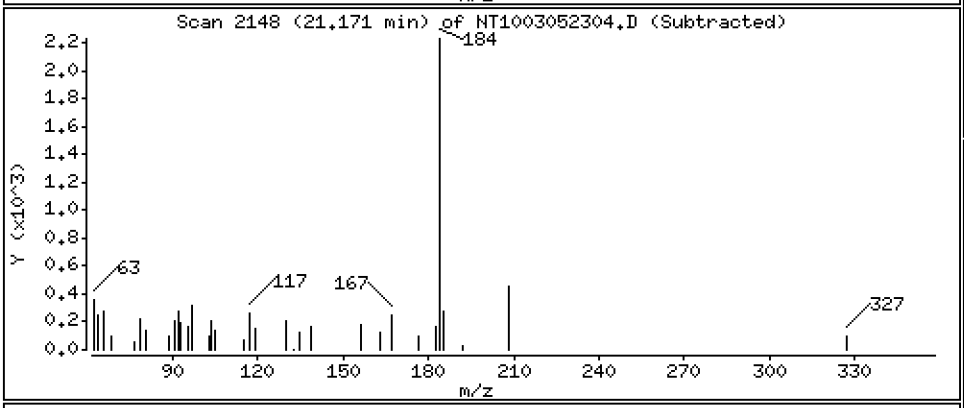
Column diameter: 0.25

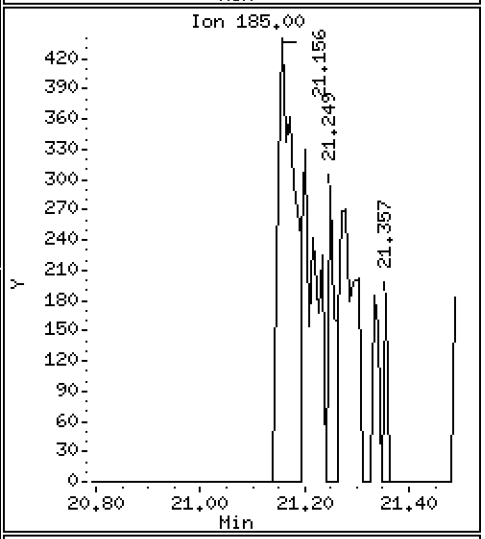
93 Benzidine

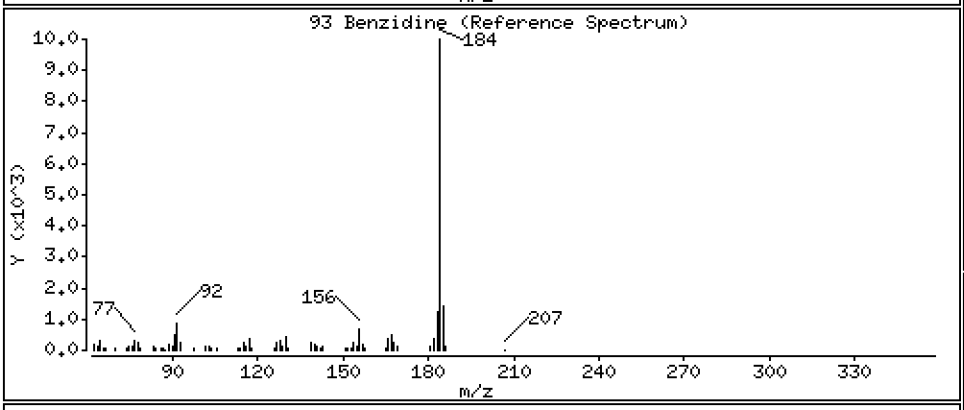
Concentration: 0.06408 ug/mL

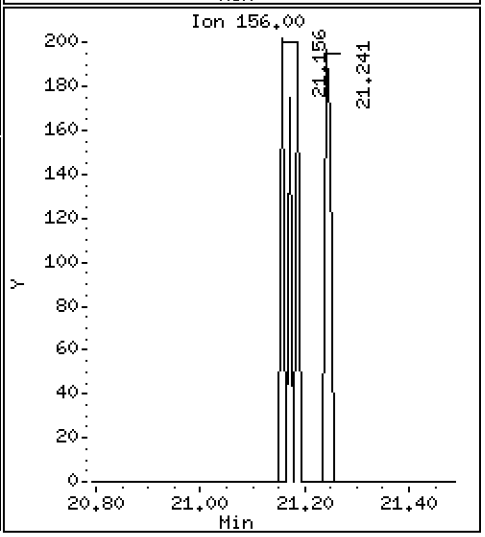


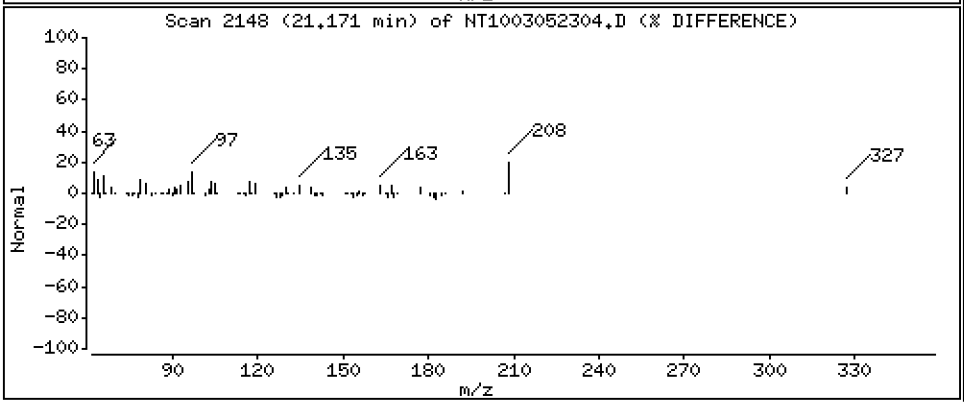












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

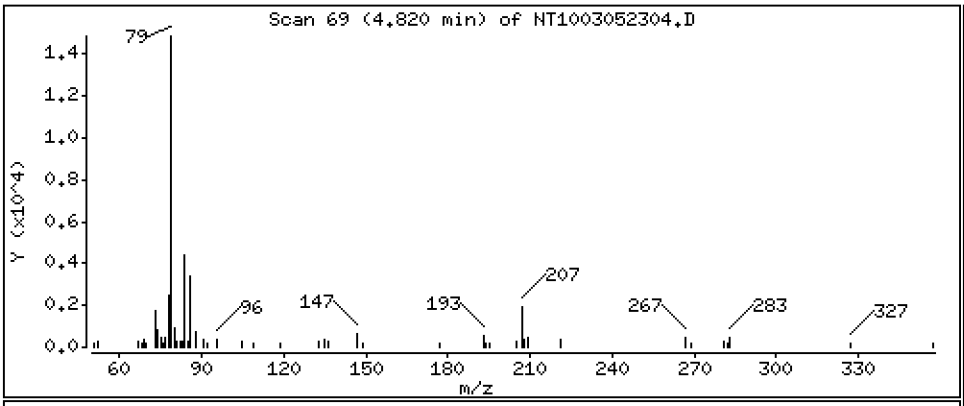
Operator: VTS

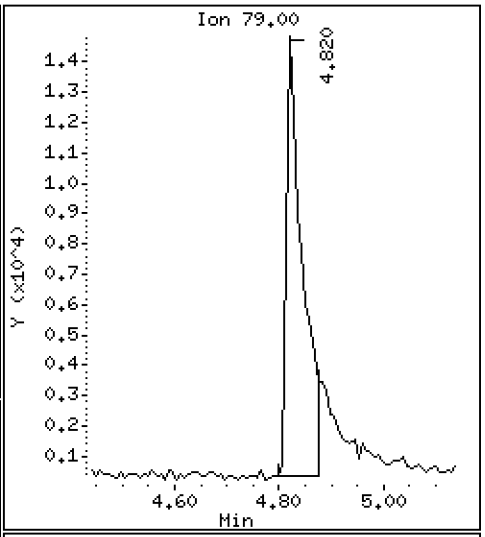
Column phase: ZB-5msi

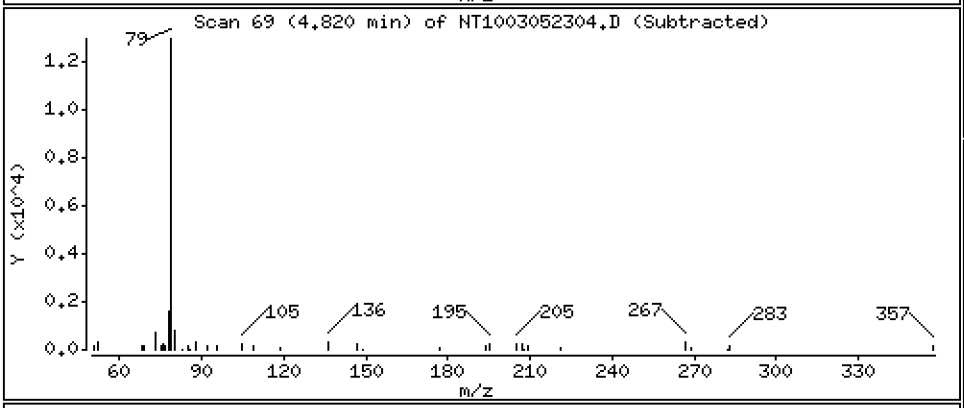
Column diameter: 0.25

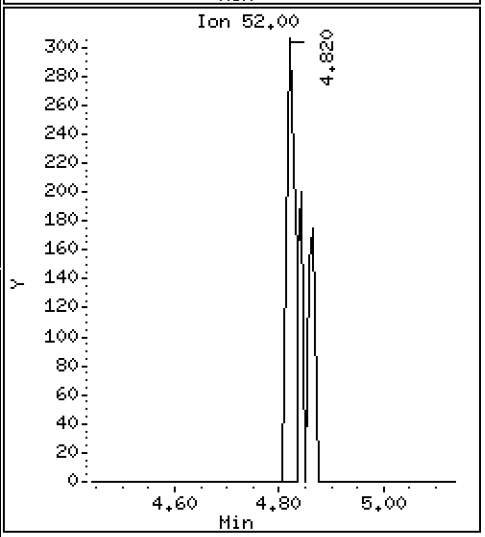
103 Pyridine

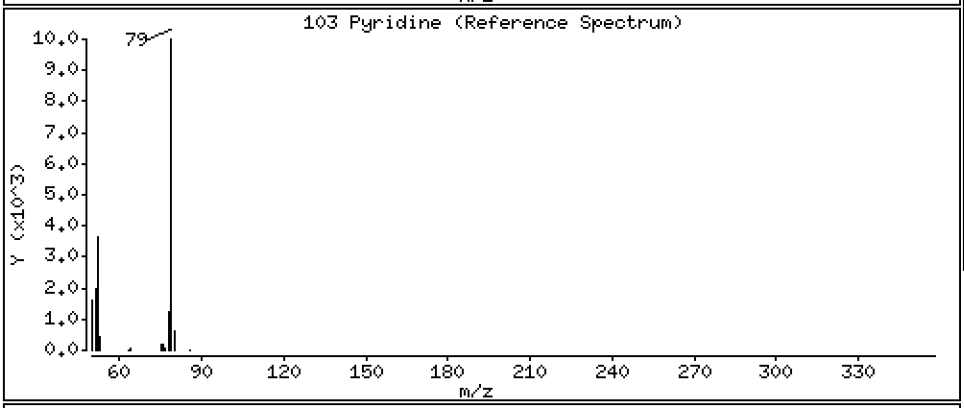
Concentration: 0.3047 ug/mL

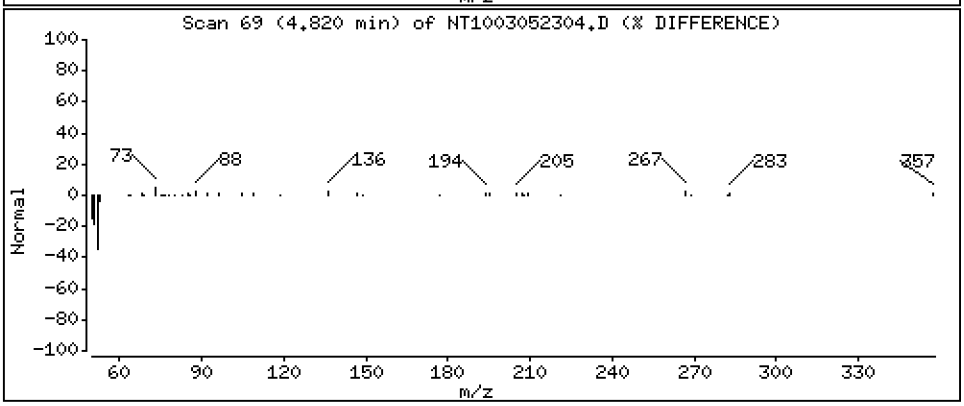












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

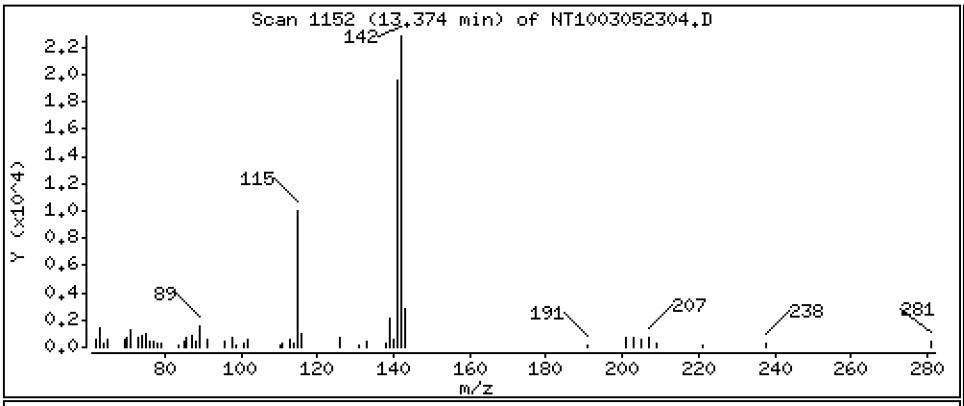
Operator: VTS

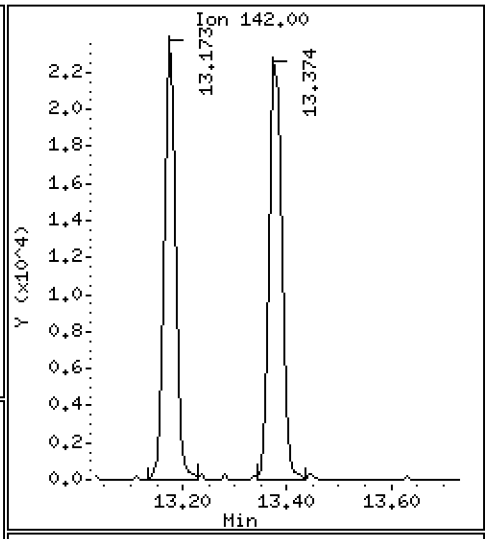
Column phase: ZB-5msi

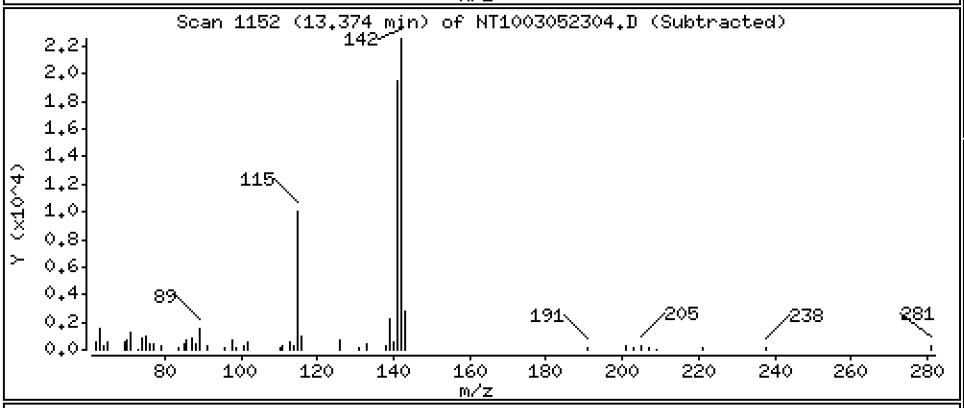
Column diameter: 0.25

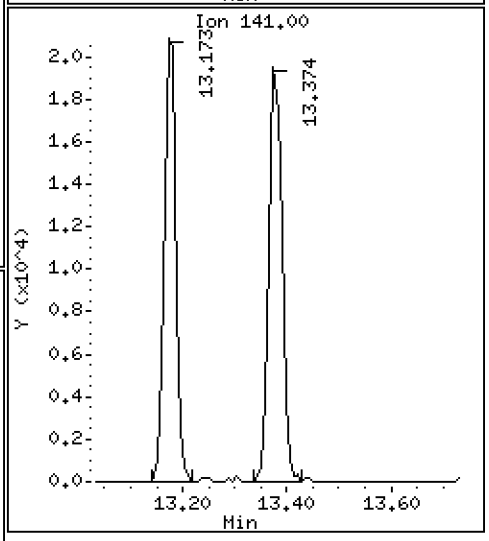
105 1-methylnaphthalene

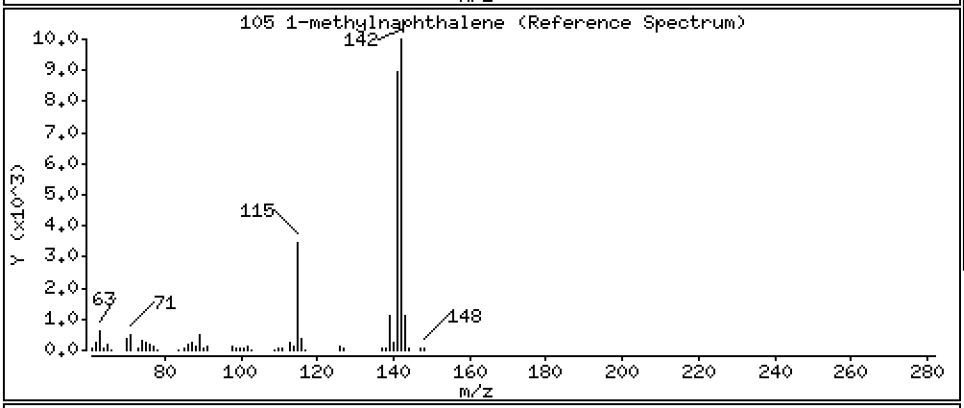
Concentration: 0.2064 ug/mL

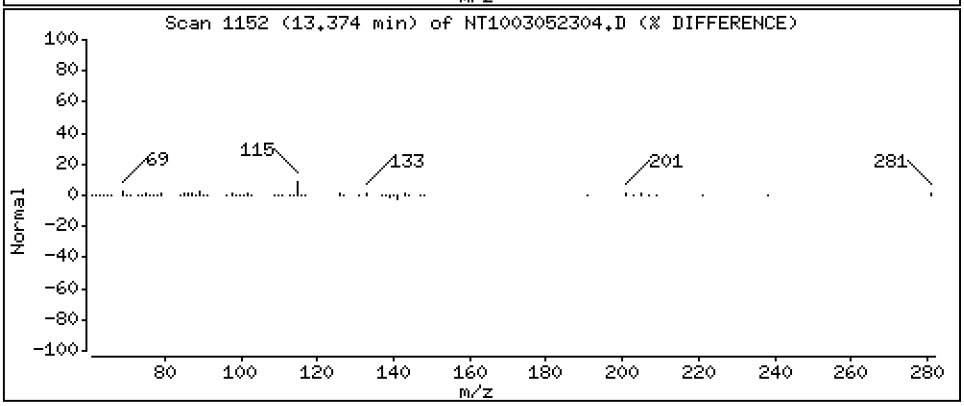












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

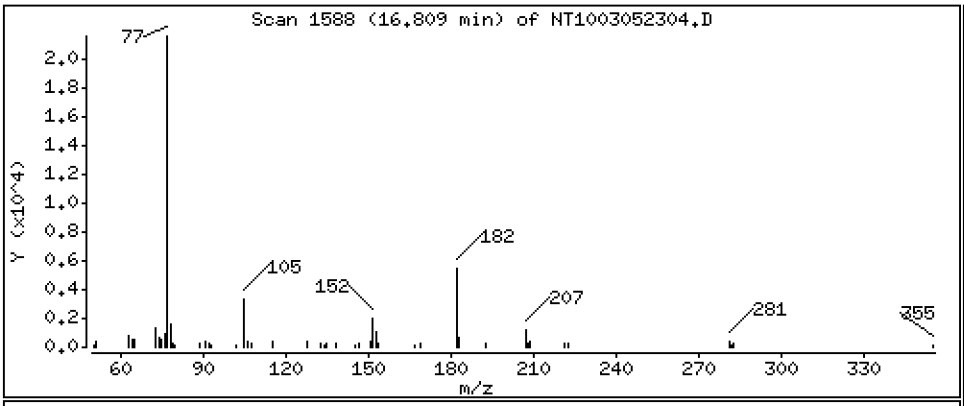
Operator: VTS

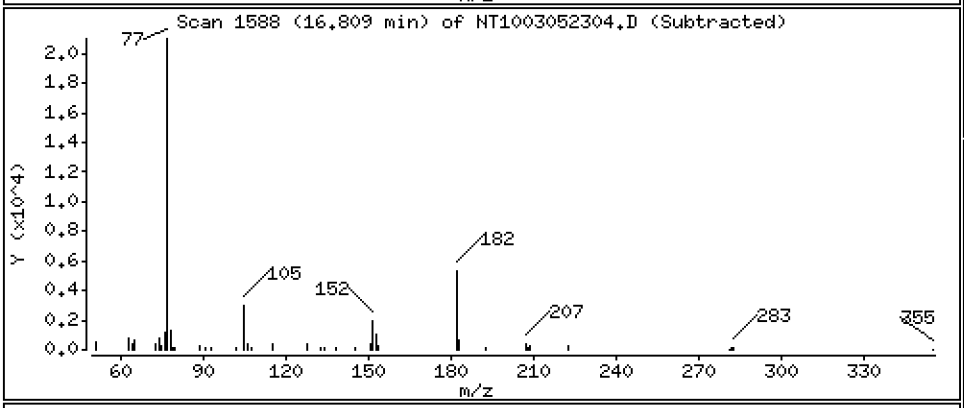
Column phase: ZB-5msi

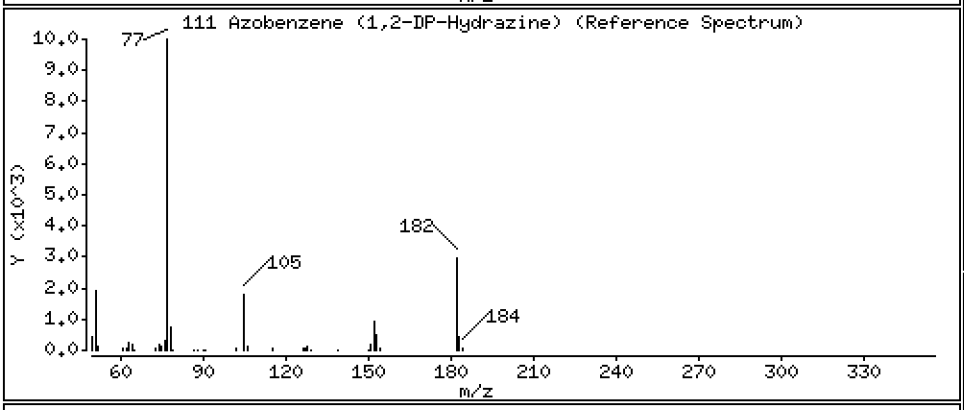
Column diameter: 0.25

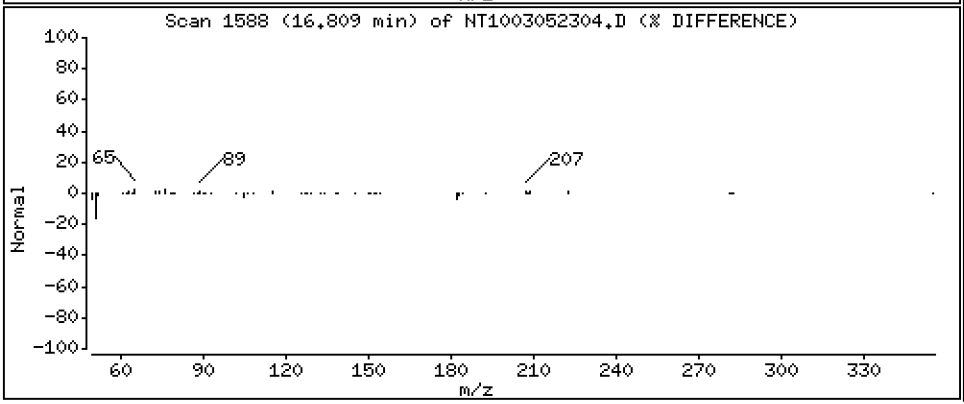
111 Azobenzene (1,2-DP-Hydrazine)

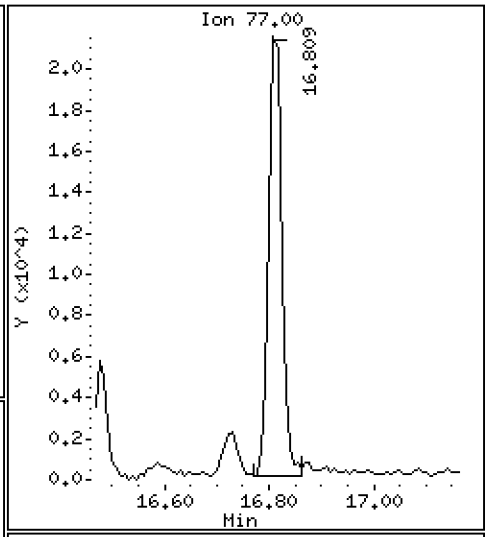
Concentration: 0.1298 ug/mL

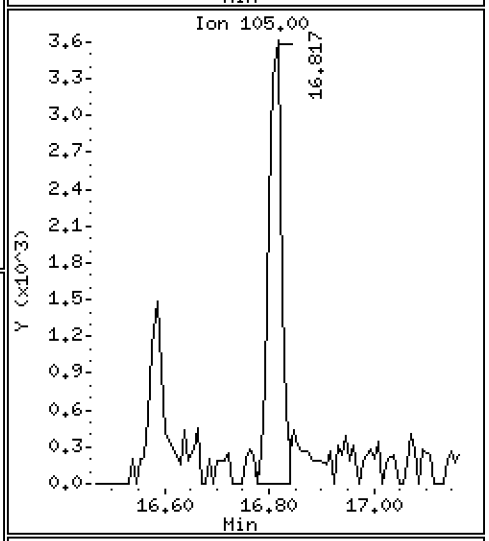


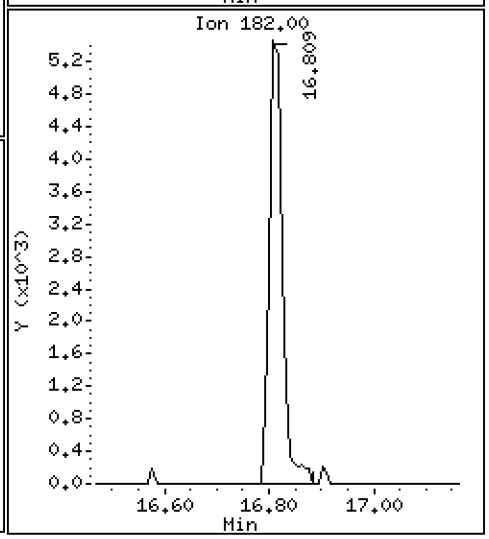












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

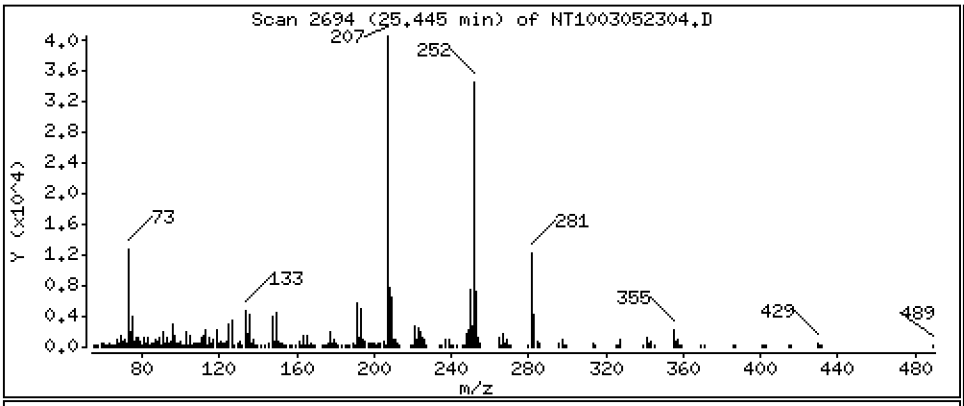
Operator: VTS

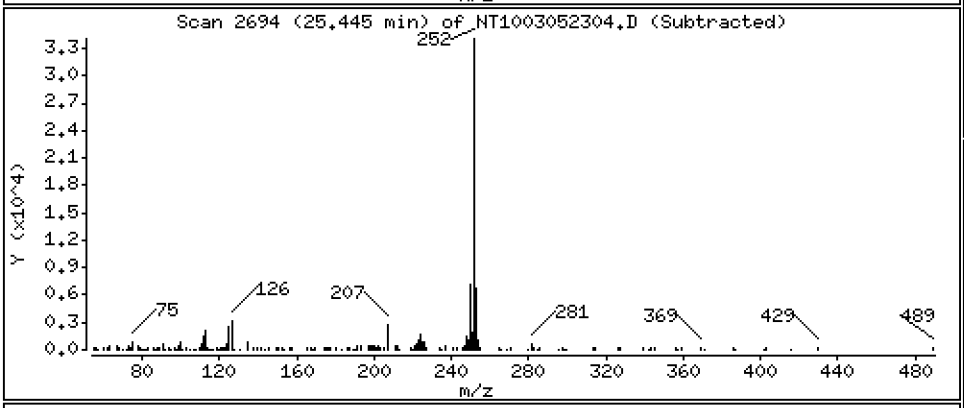
Column phase: ZB-5msi

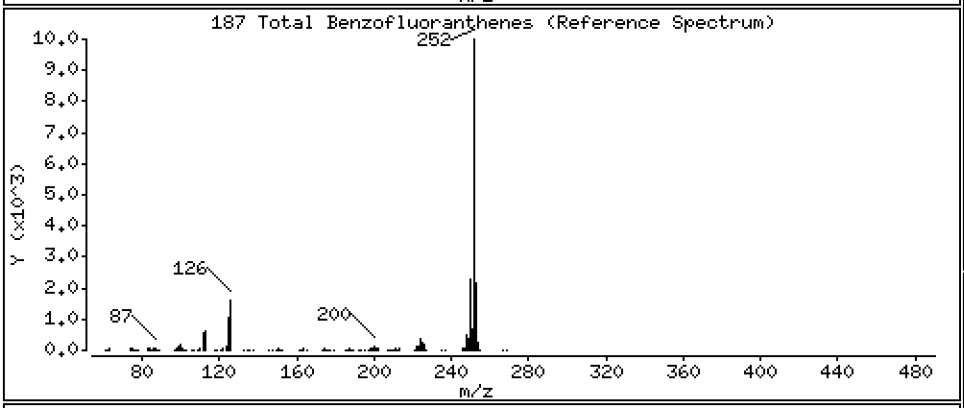
Column diameter: 0.25

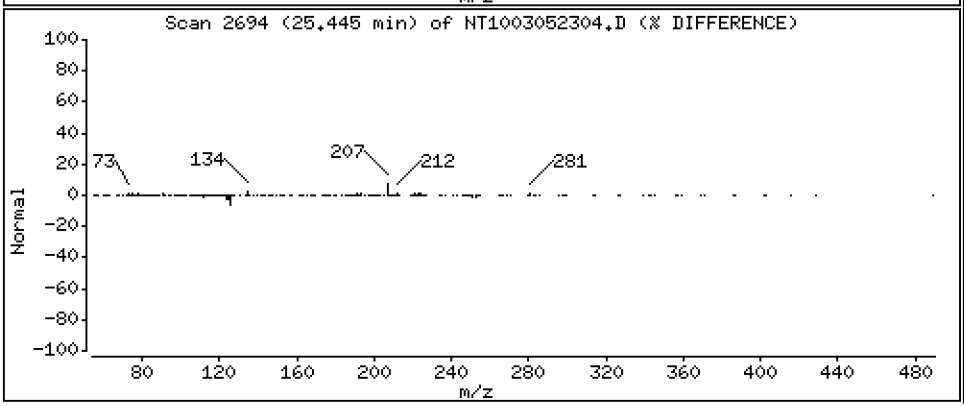
187 Total Benzofluoranthenes

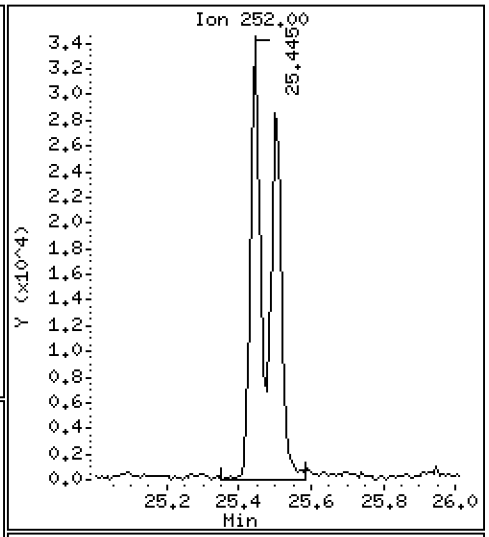
Concentration: 0.3679 ug/mL

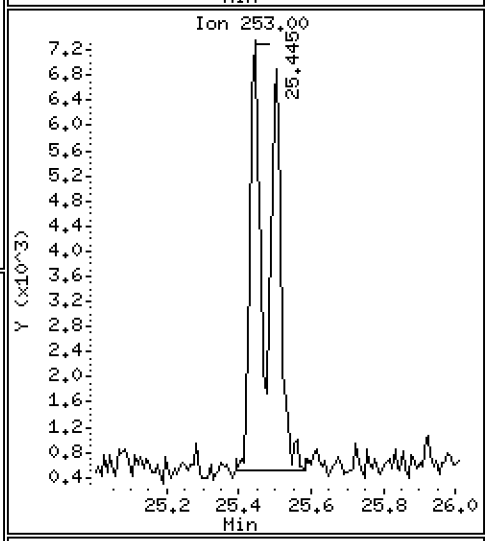


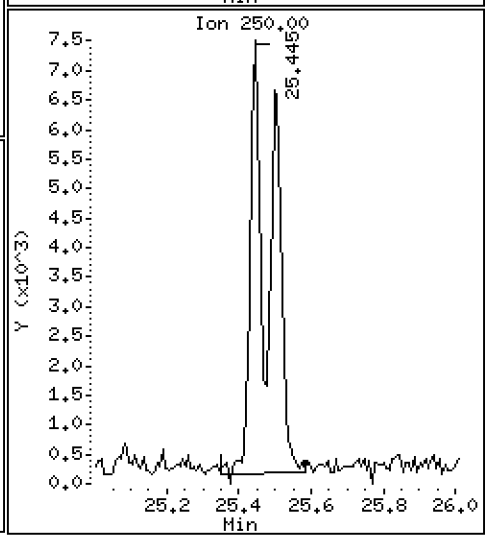












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

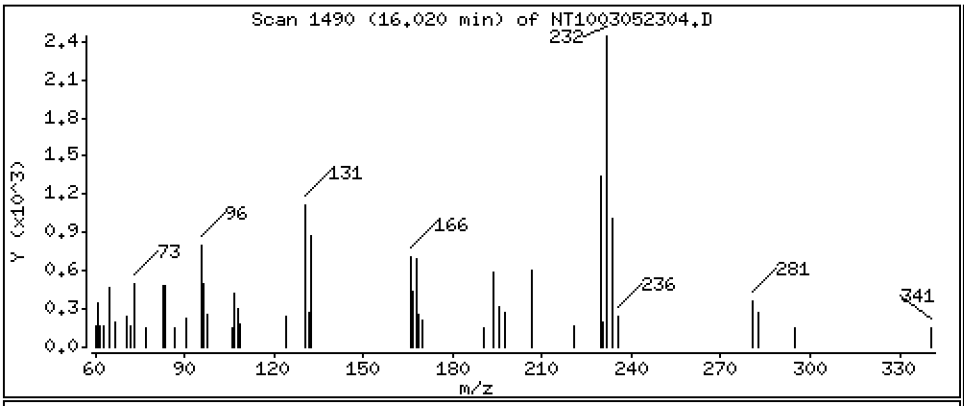
Operator: VTS

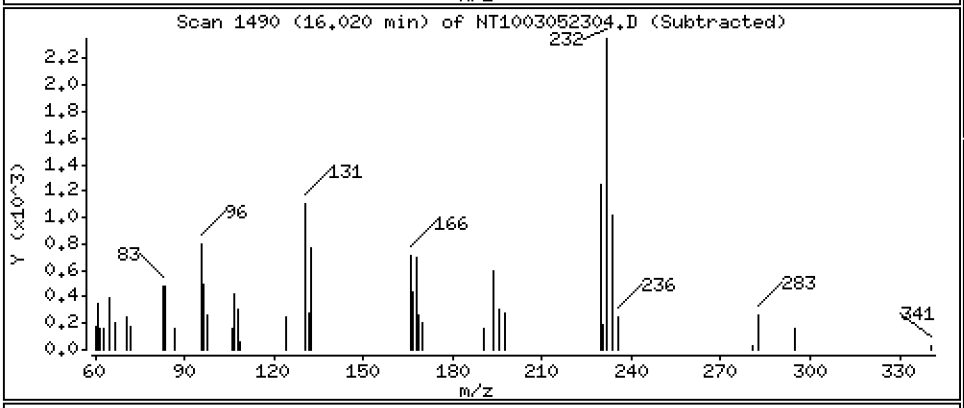
Column phase: ZB-5msi

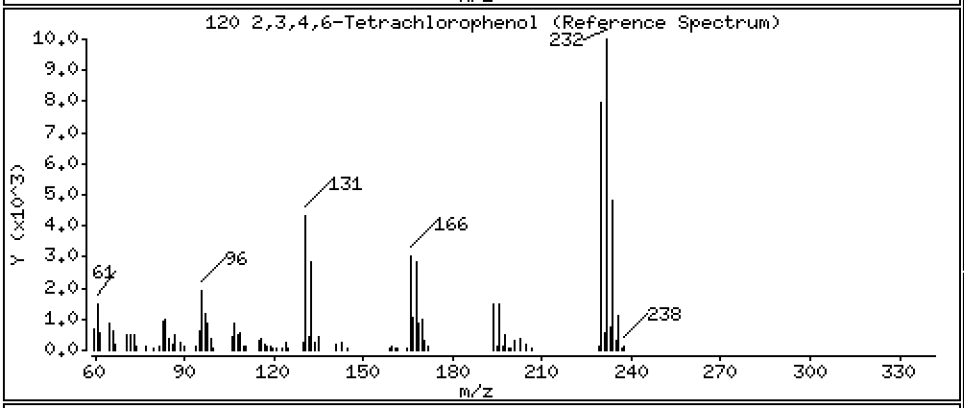
Column diameter: 0.25

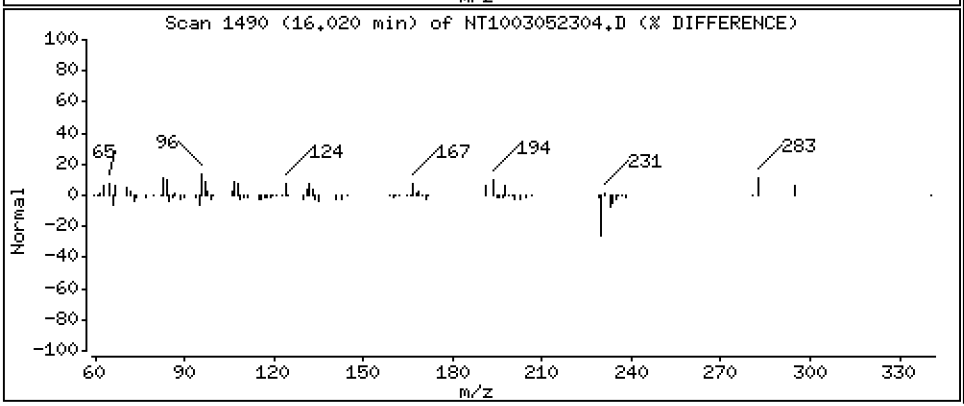
120 2,3,4,6-Tetrachlorophenol

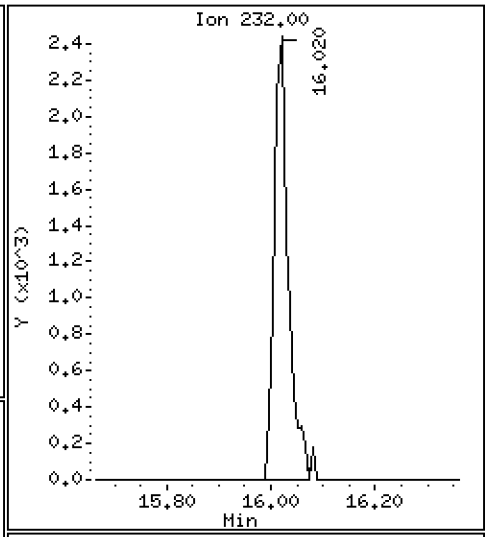
Concentration: 0.08686 ug/mL

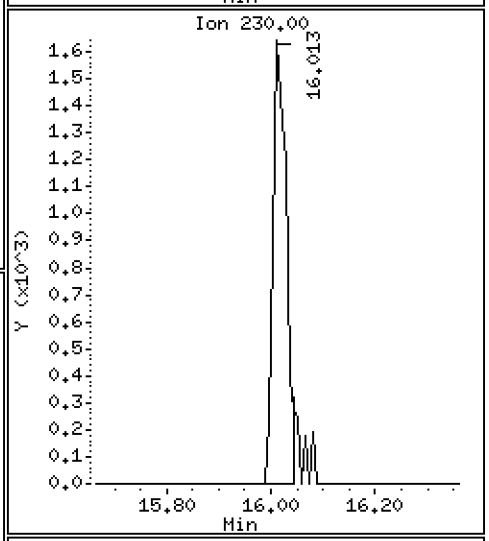


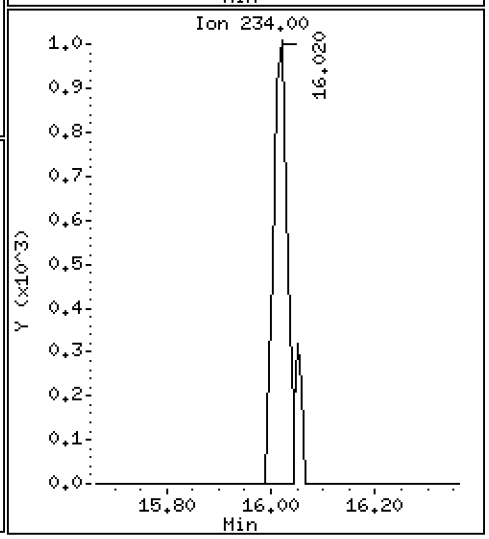












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D
Lab Smp Id: SLC0401-LCV1
Inj Date : 05-MAR-2023 15:18
Operator : VTS Inst ID: nt10.i
Smp Info : SLC0401-LCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305.b\ABN.m
Meth Date : 27-Mar-2023 11:22 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.905	6.897	(0.747)	20033	0.21877	0.2188
$	2 Phenol-d5	99	8.504	8.504	(0.920)	19854	0.18675	0.1867(M)
	3 Phenol	94	8.527	8.528	(0.923)	16076	0.14222	0.1422
$	5 2-Chlorophenol-d4	132	8.813	8.813	(0.954)	21847	0.24086	0.2409
	4 Bis(2-Chloroethyl)ether	93	8.728	8.728	(0.945)	16507	0.19111	0.1911
	6 2-Chlorophenol	128	8.844	8.844	(0.957)	15414	0.16358	0.1636
	7 1,3-Dichlorobenzene	146	9.130	9.138	(0.988)	22137	0.21308	0.2131
*	8 1,4-Dichlorobenzene-d4	152	9.239	9.239	(1.000)	291047	4.00000	
	9 1,4-Dichlorobenzene	146	9.270	9.278	(1.003)	20559	0.19922	0.1992
$	10 1,2-Dichlorobenzene-d4	152	9.526	9.534	(1.031)	14899	0.21986	0.2199
	12 1,2-Dichlorobenzene	146	9.557	9.557	(1.034)	21110	0.21134	0.2113
	11 Benzyl alcohol	108	9.487	9.480	(1.027)	4588	0.07919	0.07919
	14 2,2'-oxybis(1-Chloropropane)	121	9.736	9.728	(1.054)	6447	0.22388	0.2239(M)
	13 2-Methylphenol	108	9.666	9.666	(1.046)	14535	0.16599	0.1660
	17 Hexachloroethane	117	10.209	10.209	(1.105)	8831	0.20849	0.2085
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.968	9.953	(1.079)	13799	0.12564	0.1256
$	18 Nitrobenzene-d5	82	10.294	10.302	(0.878)	18312	0.15586	0.1559
	19 Nitrobenzene	77	10.341	10.341	(0.882)	17256	0.15657	0.1566
	20 Isophorone	82	10.799	10.799	(0.921)	19501	0.13862	0.1386(M)
	21 2-Nitrophenol	139	10.958	10.959	(0.935)	6786	0.11098	0.1110
	22 2,4-Dimethylphenol	107	11.009	11.018	(0.939)	34653	0.32871	0.3287
	23 Bis(2-Chloroethoxy)methane	93	11.221	11.222	(0.957)	17820	0.20497	0.2050
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	11.434	11.434	(0.975)	28189	0.33927	0.3393
	26 1,2,4-Trichlorobenzene	180	11.603	11.603	(0.989)	17643	0.21331	0.2133
*	27 Naphthalene-d8	136	11.726	11.726	(1.000)	1070295	4.00000	
	28 Naphthalene	128	11.772	11.773	(1.004)	56321	0.20502	0.2050
	29 4-Chloroaniline	127	11.873	11.873	(1.013)	29121	0.24222	0.2422
	30 Hexachlorobutadiene	225	11.996	11.997	(1.023)	10931	0.18150	0.1815
	31 4-Chloro-3-methylphenol	107	12.832	12.825	(1.094)	25987	0.29730	0.2973
	32 2-Methylnaphthalene	142	13.173	13.181	(1.123)	37728	0.19441	0.1944
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	Compounds							
34	2,4,6-Trichlorophenol	196	13.753	13.746	(0.897)	15665	0.30937	0.3094
35	2,4,5-Trichlorophenol	196	13.831	13.815	(0.902)	12614	0.23346	0.2335
$ 36	2-Fluorobiphenyl	172	13.923	13.924	(0.908)	41292	0.21625	0.2162
37	2-Chloronaphthalene	162	14.179	14.187	(0.925)	31977	0.21332	0.2133
38	2-Nitroaniline	65	14.395	14.396	(0.939)	8851	0.21596	0.2160
39	Dimethylphthalate	163	14.759	14.767	(0.963)	28755	0.16632	0.1663
40	Acenaphthylene	152	15.046	15.046	(0.981)	48589	0.18802	0.1880
41	2,6-Dinitrotoluene	165	14.899	14.899	(0.972)	9657	0.25450	0.2545
* 42	Acenaphthene-d10	164	15.332	15.340	(1.000)	535349	4.00000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	15.401	15.409	(1.005)	30643	0.19661	0.1966
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	15.765	15.765	(1.028)	47461	0.20518	0.2052
47	4-Nitrophenol	109	Compound Not Detected.					
48	2,4-Dinitrotoluene	165	15.742	15.742	(1.027)	9863	0.17933	0.1793
50	Diethylphthalate	149	16.229	16.237	(1.058)	27937	0.15253	0.1525
49	Fluorene	166	16.484	16.484	(1.075)	38035	0.19763	0.1976
51	4-Chlorophenyl-phenylether	204	16.484	16.484	(1.075)	18253	0.21774	0.2177
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	16.585	16.585	(0.899)	5226	0.23289	0.2329
54	N-Nitrosodiphenylamine	169	16.723	16.724	(0.907)	27067	0.18997	0.1900
$ 55	2,4,6-Tribromophenol	330	16.970	16.986	(1.107)	714	0.02174	0.02174
56	4-Bromophenyl-phenylether	248	17.503	17.504	(0.949)	11347	0.19654	0.1965
57	Hexachlorobenzene	284	17.619	17.620	(0.955)	16352	0.25152	0.2515
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	18.447	18.448	(1.000)	962985	4.00000	
60	Phenanthrene	178	18.502	18.502	(1.003)	47244	0.19170	0.1917
61	Anthracene	178	18.610	18.610	(1.009)	41502	0.17367	0.1737
62	Carbazole	167	18.943	18.943	(1.027)	34213	0.15628	0.1563
63	Di-n-butylphthalate	149	19.639	19.647	(1.065)	35815	0.12059	0.1206
64	Fluoranthene	202	20.885	20.885	(0.888)	52527	0.17809	0.1781
65	Pyrene	202	21.318	21.318	(0.906)	53917	0.17953	0.1795
$ 66	Terphenyl-d14	244	21.596	21.597	(0.918)	46499	0.19135	0.1913
67	Butylbenzylphthalate	149	22.495	22.487	(0.957)	14643	0.09053	0.09053
68	Benzo(a)anthracene	228	23.493	23.494	(0.999)	56576	0.18715	0.1871
* 69	Chrysene-d12	240	23.517	23.517	(1.000)	857365	4.00000	
70	3,3'-Dichlorobenzidine	252	23.439	23.440	(0.997)	44875	0.33327	0.3333
71	Chrysene	228	23.555	23.563	(1.002)	49822	0.20279	0.2028
72	bis(2-Ethylhexyl)phthalate	149	23.493	23.494	(0.955)	27381	0.14537	0.1454
* 134	Di-n-octylphthalate-d4	153	24.593	24.593	(1.000)	1343499	4.00000	
73	Di-n-octylphthalate	149	24.601	24.609	(1.000)	77989	0.26178	0.2618
74	Benzo(b)fluoranthene	252	25.444	25.445	(0.968)	62792	0.17794	0.1779(H)
75	Benzo(k)fluoranthene	252	25.499	25.507	(0.970)	59902	0.17633	0.1763
76	Benzo(a)pyrene	252	26.157	26.157	(0.995)	55083	0.17465	0.1746
* 77	Perylene-d12	264	26.281	26.281	(1.000)	1034621	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	29.150	29.158	(1.109)	68069	0.18452	0.1845
79	Dibenzo(a,h)anthracene	278	29.196	29.197	(1.111)	58001	0.20730	0.2073
80	Benzo(g,h,i)perylene	276	30.027	30.028	(1.143)	62302	0.21192	0.2119
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	8.628	8.628	(0.934)	38208	0.29153	0.2915
93	Benzidine	184	21.171	21.140	(0.900)	8390	0.06408	0.06408
103	Pyridine	79	4.820	4.789	(0.522)	31948	0.30474	0.3047
105	1-methylnaphthalene	142	13.374	13.382	(1.141)	36246	0.20636	0.2064
111	Azobenzene (1,2-DP-Hydrazine)	77	16.808	16.816	(1.096)	35500	0.12980	0.1298

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.444	25.507	(0.968)	124707	0.36788	0.3679
120 2,3,4,6-Tetrachlorophenol	232	16.020	16.012	(1.045)	4353	0.08686	0.08686

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052304.D
Lab Smp Id: SLC0401-LCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:03
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	297263	148632	594526	291047	-2.09
27 Naphthalene-d8	1085336	542668	2170672	1070295	-1.39
42 Acenaphthene-d10	563464	281732	1126928	535349	-4.99
59 Phenanthrene-d10	1038318	519159	2076636	962985	-7.26
69 Chrysene-d12	1012751	506376	2025502	857365	-15.34
134 Di-n-octylphthala	1628890	814445	3257780	1343499	-17.52
77 Perylene-d12	1152264	576132	2304528	1034621	-10.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.24	-0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.00
42 Acenaphthene-d10	15.34	14.84	15.84	15.33	-0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	-0.00
69 Chrysene-d12	23.52	23.02	24.02	23.52	-0.00
134 Di-n-octylphthala	24.59	24.09	25.09	24.59	-0.00
77 Perylene-d12	26.28	25.78	26.78	26.28	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052304.D

Lab ID: SLC0401-LCV1
nt10.i, 20230305.b\ABN.m,   05-MAR-2023 15:18

RT	CO-ELUTION COMPOUNDS
23.494	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

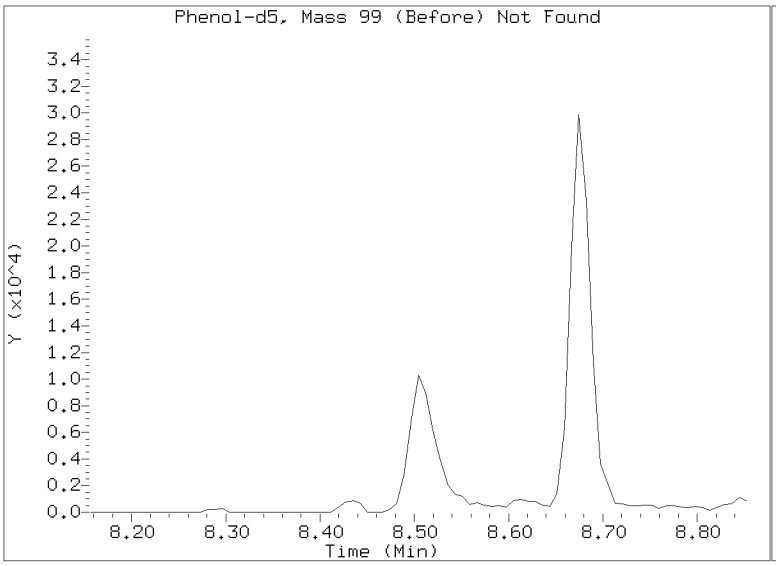
RRT check based on Ccal File: NT1003052302.D

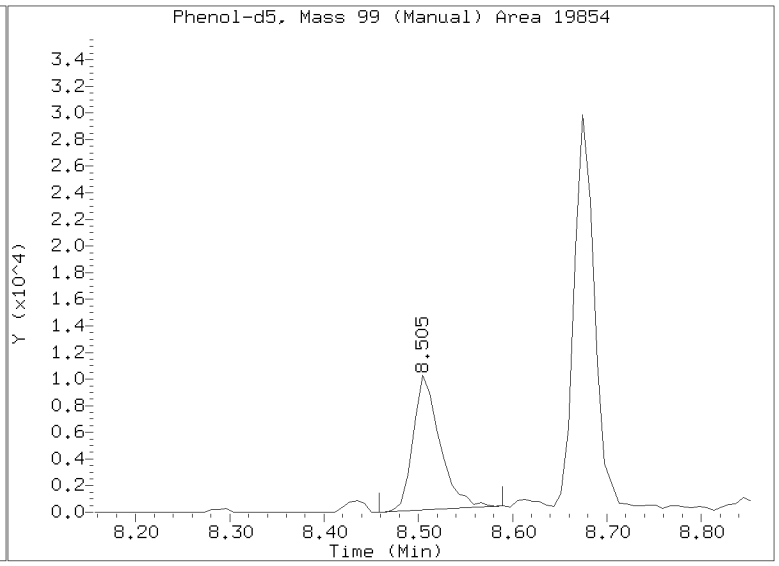
On Column LOD for nt10.i, 20230305.b\ABN.m, ICAL.sub = 0.0000

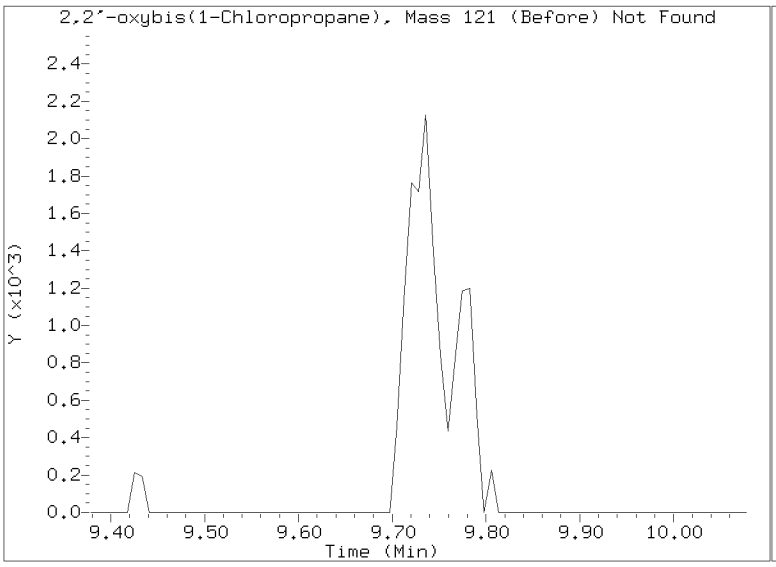
* Only compounds listed in the work order have been verified by the analyst *

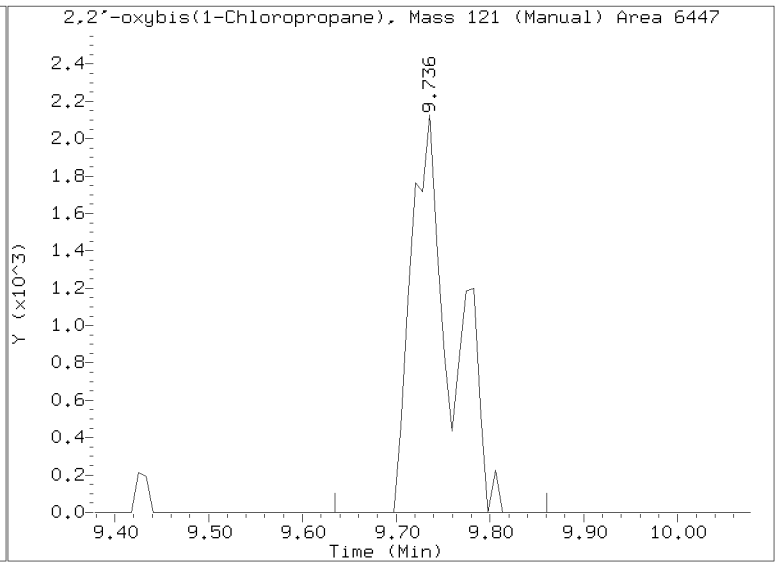
Quant Ion Manual Peak Adjustment Report

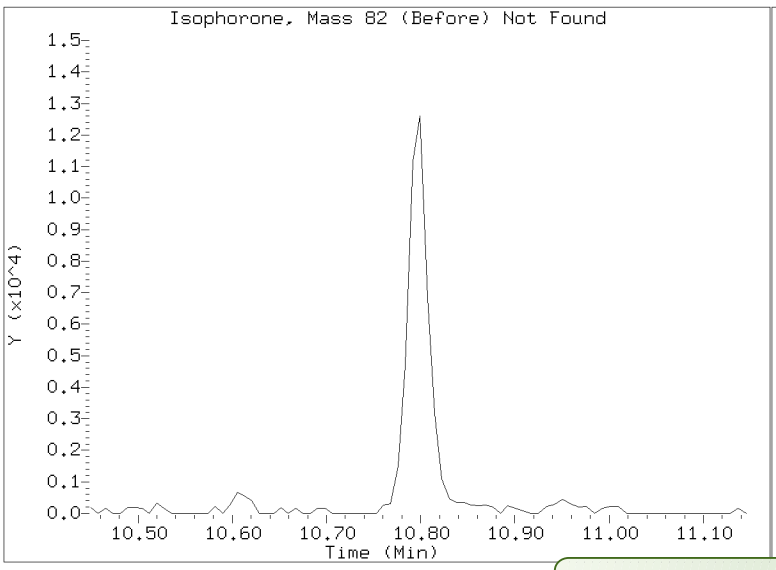
Datafile: //target/share/chem3/nt10.i/20230305.b/NT1003052304.D
Injection Date: 05-MAR-2023 15:18
Lab ID:SLC0401-LCV1 Client ID:
Report Date: 03/27/2023 11:22

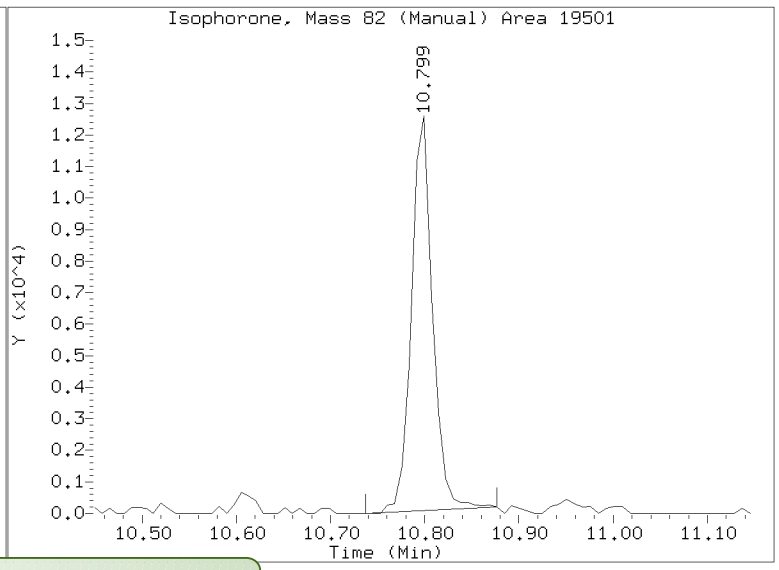












APPROVED
By Deenay Dunmore at 2:07 pm, Mar 27, 2023

LOW-CONCENTRATION CALIBRATION VERIFICATION

EPA 8270E

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00019
Laboratory ID: SLC0415-LCV1
Sequence: SLC0415
Standard ID: K011105

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	0.20000	0.2	-15.7	50.00
4-Methylphenol	0.20000	0.1	-25.8	50.00
Naphthalene	0.20000	0.2	1.3	50.00
2-Methylnaphthalene	0.20000	0.2	-1.7	50.00
Acenaphthylene	0.20000	0.2	-6.1	50.00
Dimethylphthalate	0.20000	0.2	-2.3	50.00
Acenaphthene	0.20000	0.2	-1.0	50.00
Dibenzofuran	0.20000	0.2	0.8	50.00
Fluorene	0.20000	0.2	-3.2	50.00
Phenanthrene	0.20000	0.2	-1.1	50.00
Anthracene	0.20000	0.2	-1.8	50.00
Fluoranthene	0.20000	0.2	-8.4	50.00
Pyrene	0.20000	0.2	-9.2	50.00
Butylbenzylphthalate	0.20000	0.1	-31.6	50.00
Benzo(a)anthracene	0.20000	0.2	-0.2	50.00
Chrysene	0.20000	0.2	9.4	50.00
bis(2-Ethylhexyl)phthalate	0.20000	0.2	-6.8	50.00
Benzofluoranthenes, Total	0.40000	0.4	-7.7	50.00
Benzo(a)pyrene	0.20000	0.2	-6.2	50.00
Indeno(1,2,3-cd)pyrene	0.20000	0.2	-0.6	50.00
Dibenzo(a,h)anthracene	0.20000	0.2	8.9	50.00
Benzo(g,h,i)perylene	0.20000	0.2	3.4	50.00
2-Fluorophenol	0.30000	0.257	-14.2	50.00
Phenol-d5	0.30000	0.241	-19.5	50.00
2-Chlorophenol-d4	0.30000	0.295	-1.6	50.00
1,2-Dichlorobenzene-d4	0.20000	0.186	-6.9	50.00
Nitrobenzene-d5	0.20000	0.194	-3.2	50.00
2-Fluorobiphenyl	0.20000	0.224	11.9	50.00
2,4,6-Tribromophenol	0.30000	0.136	-54.6 *	50.00

LOW-CONCENTRATION CALIBRATION VERIFICATION
EPA 8270E

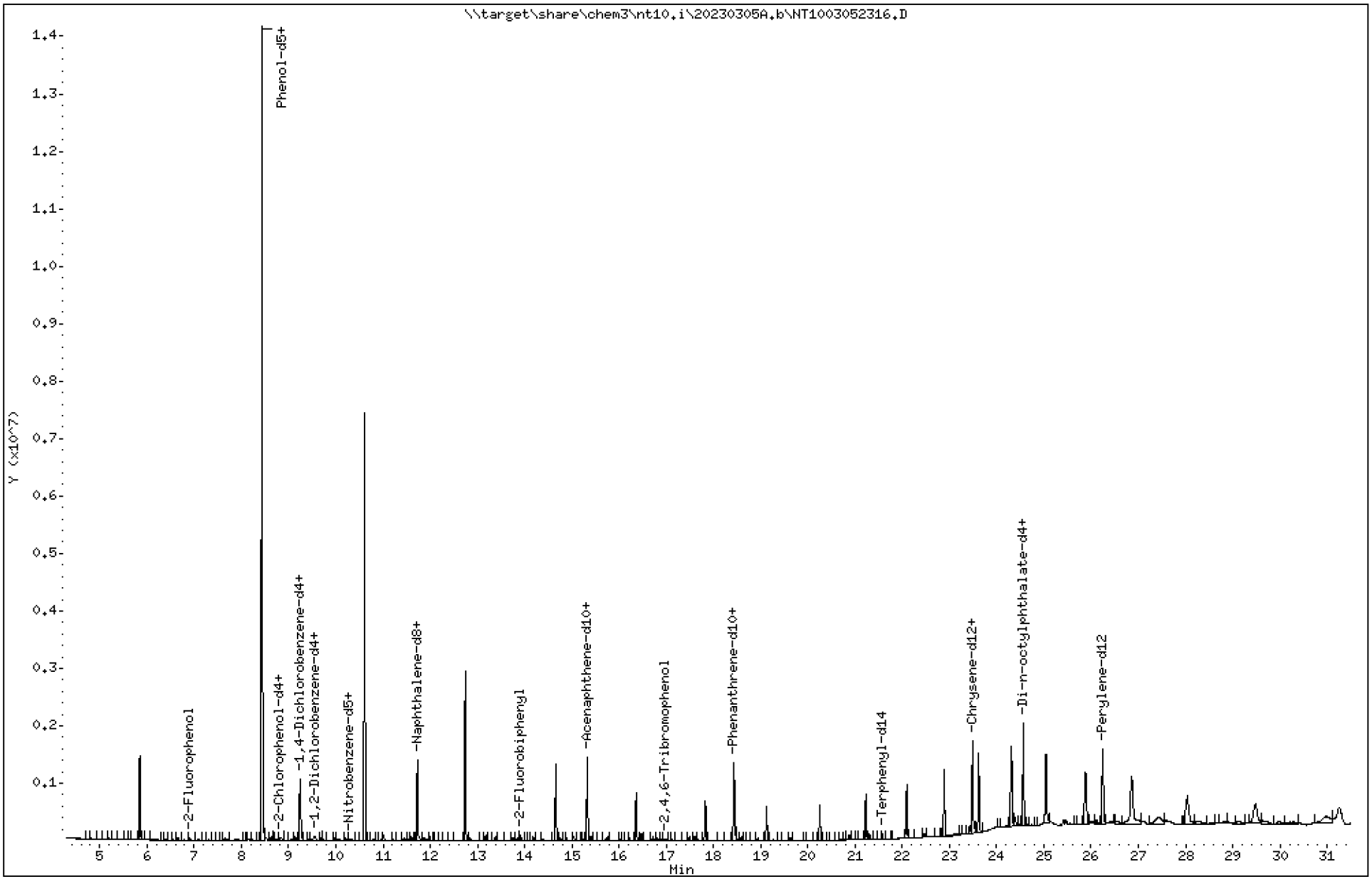
Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00019
Laboratory ID: SLC0415-LCV1
Sequence: SLC0415
Standard ID: K011105

p-Terphenyl-d14	0.20000	0.197	-1.3	50.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052316.D
Date : 05-MAR-2023 22:54
Client ID:
Sample Info: SLC0415-LCV1

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

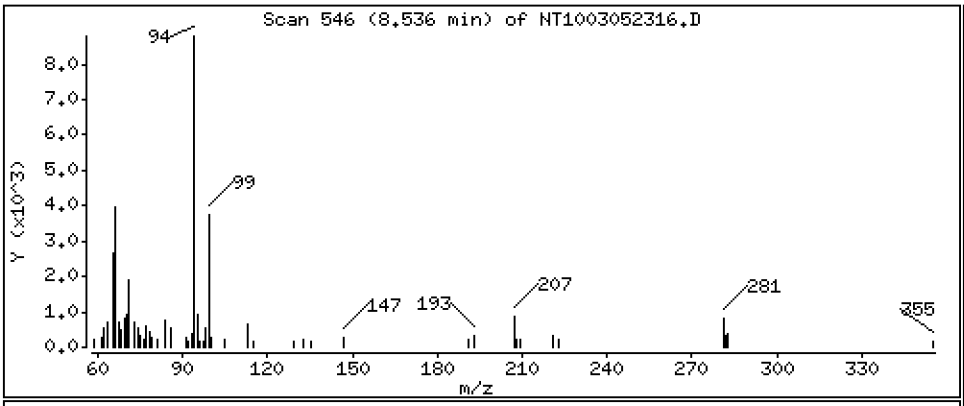
Operator: VTS

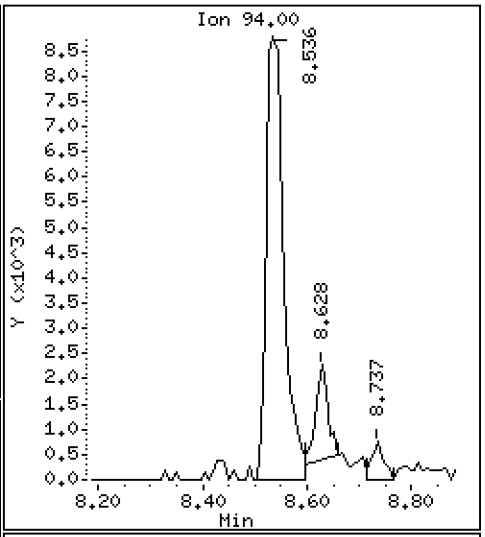
Column phase: ZB-5msi

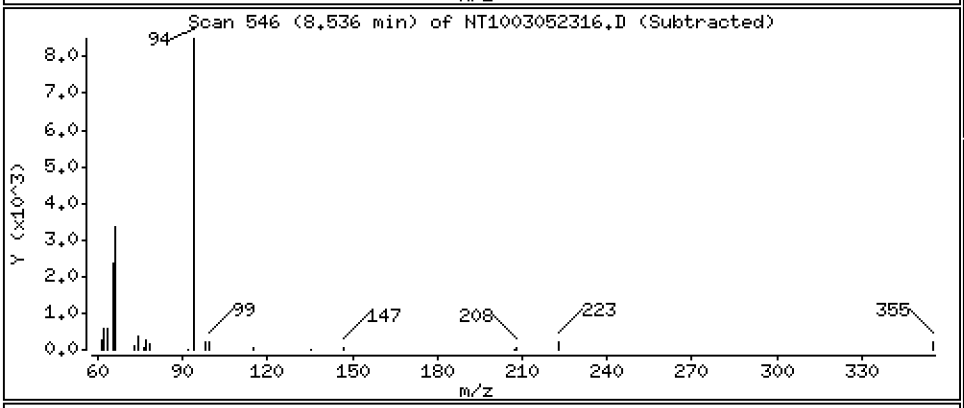
Column diameter: 0.25

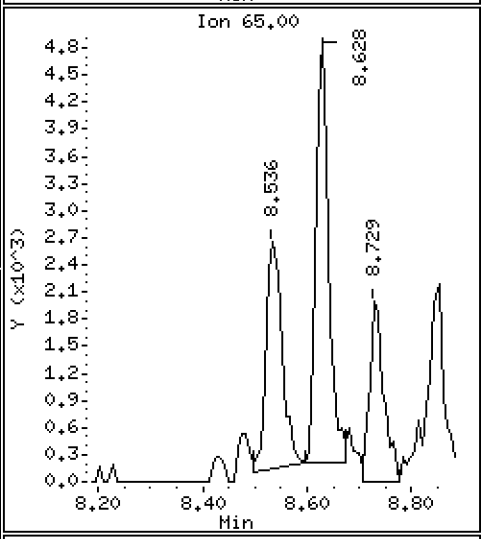
3 Phenol

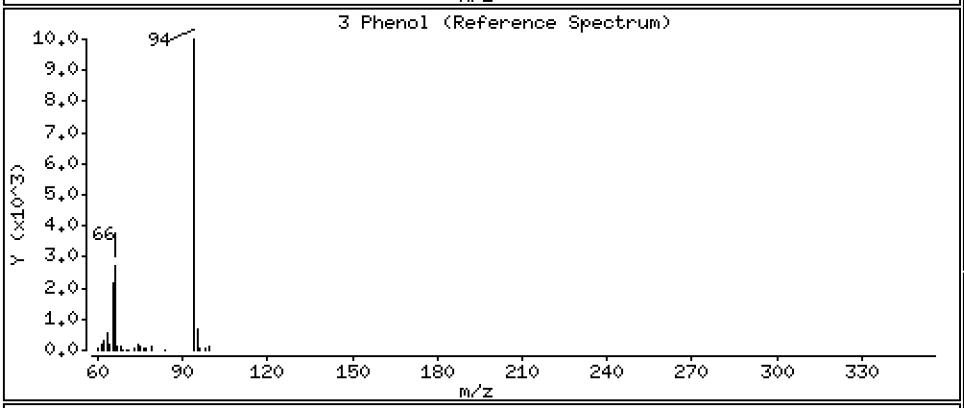
Concentration: 0.1687 ug/mL

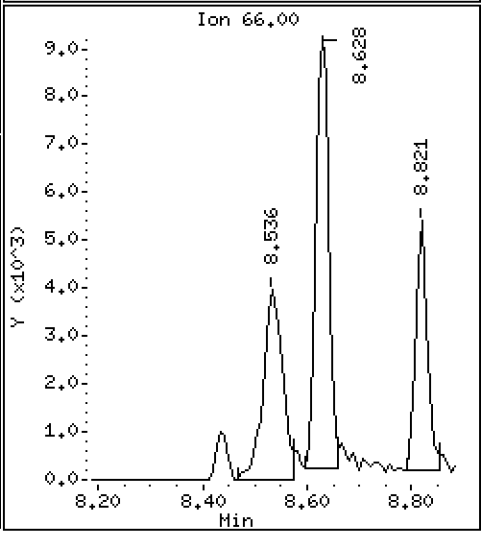


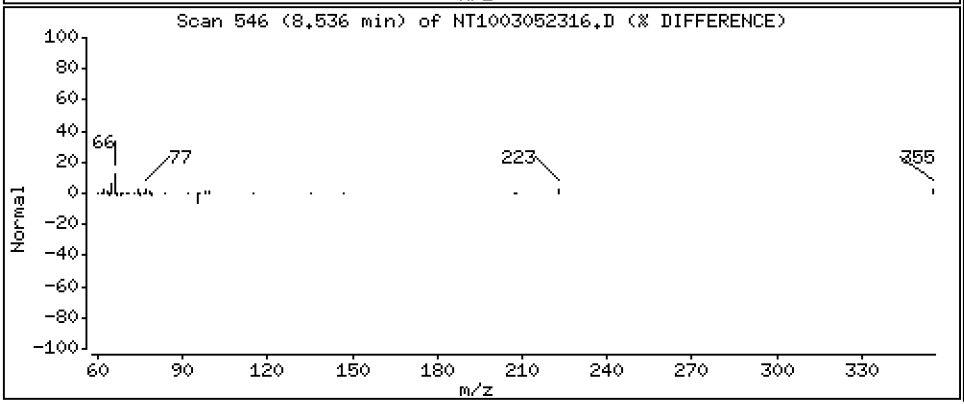












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

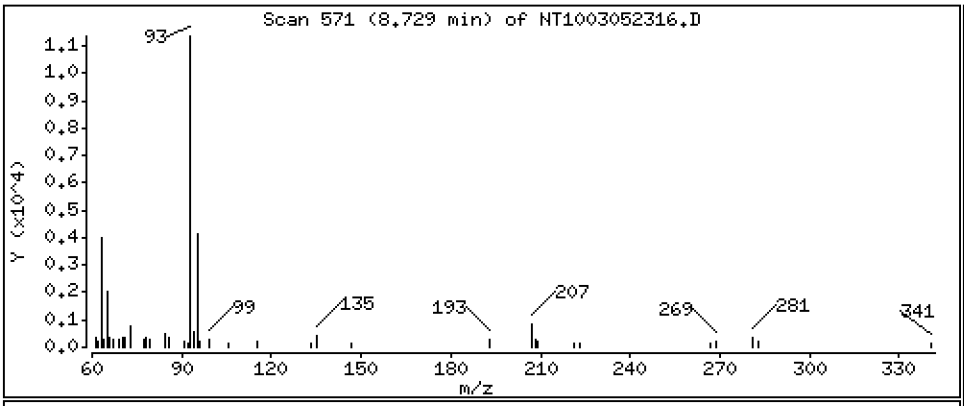
Operator: VTS

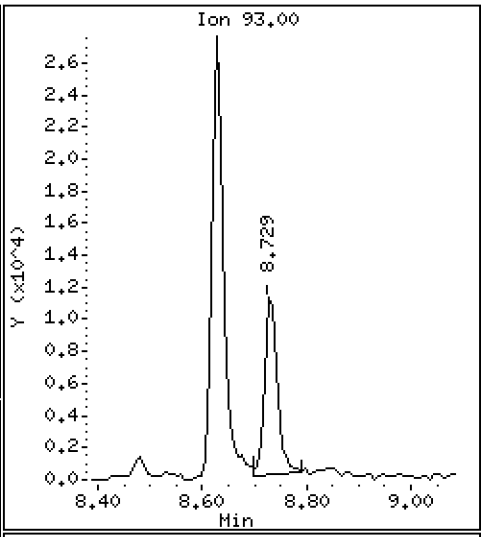
Column phase: ZB-5msi

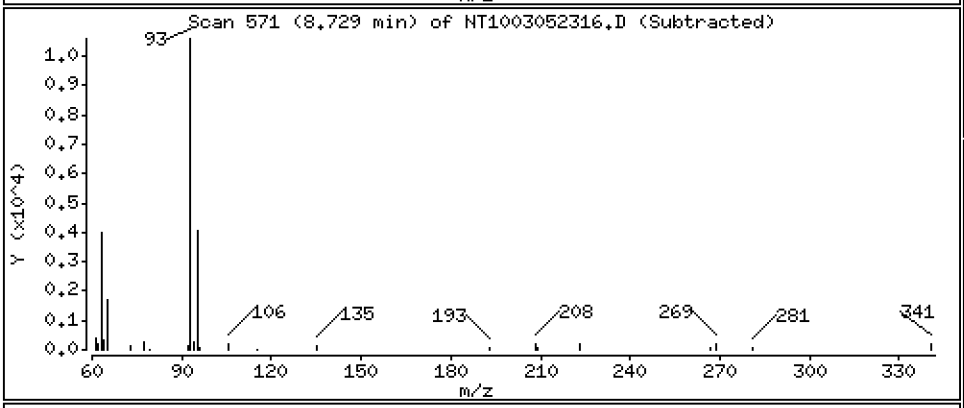
Column diameter: 0.25

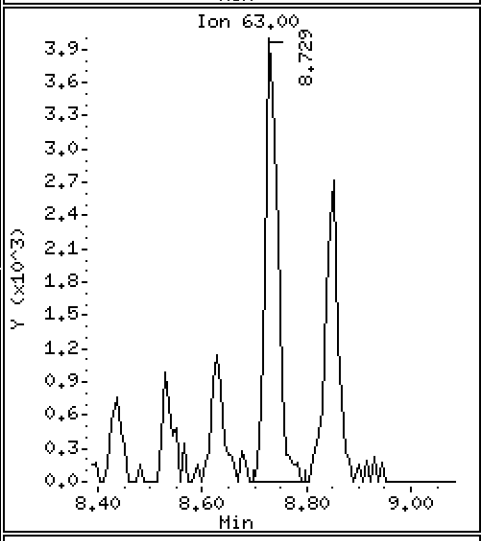
4 Bis(2-Chloroethyl)ether

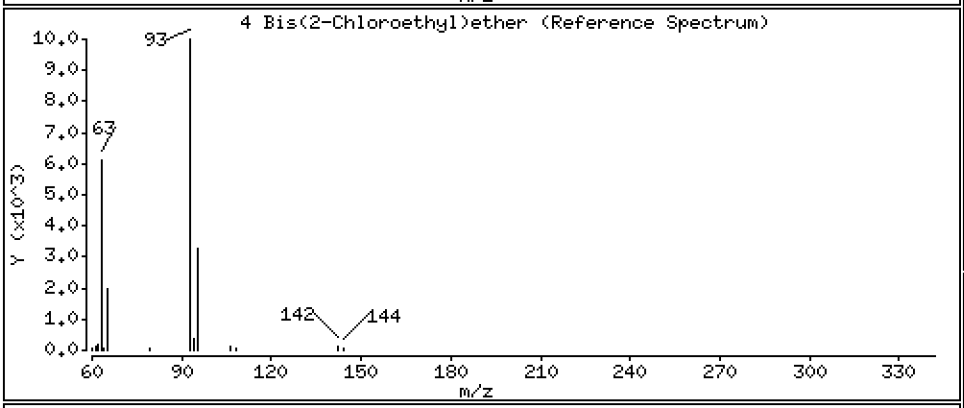
Concentration: 0.2005 ug/mL

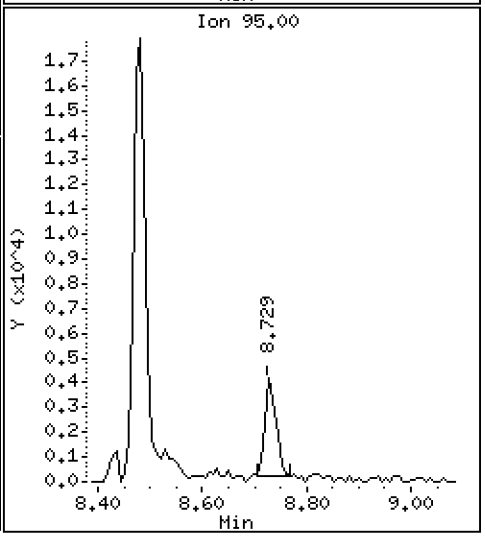


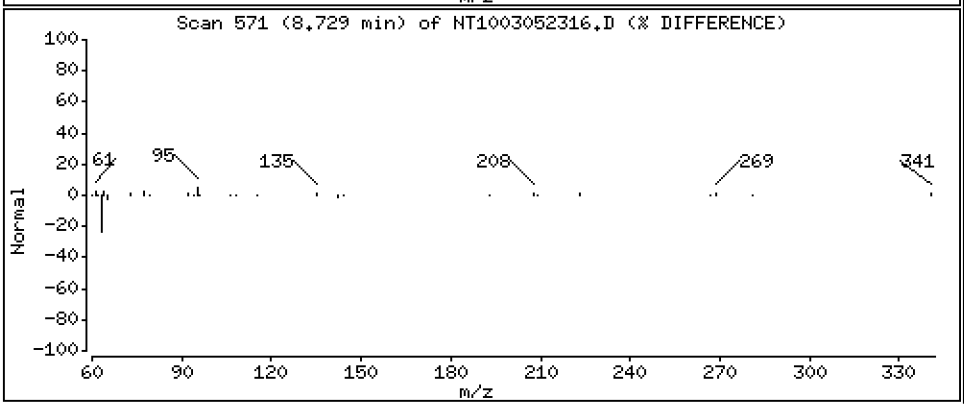












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

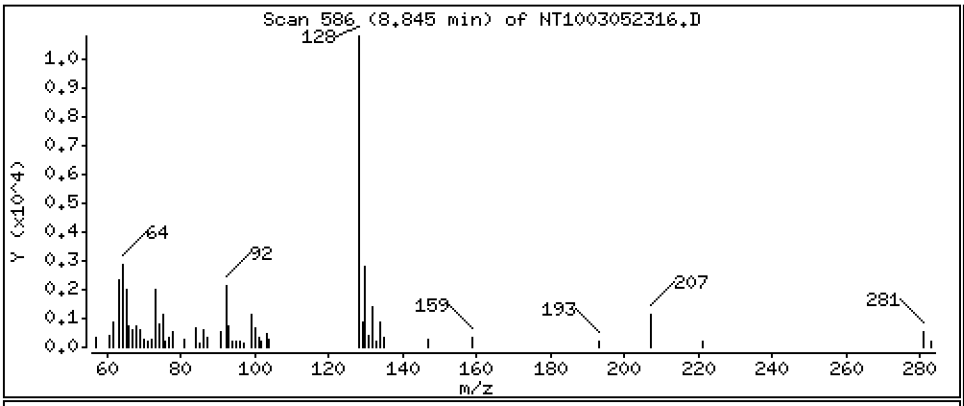
Operator: VTS

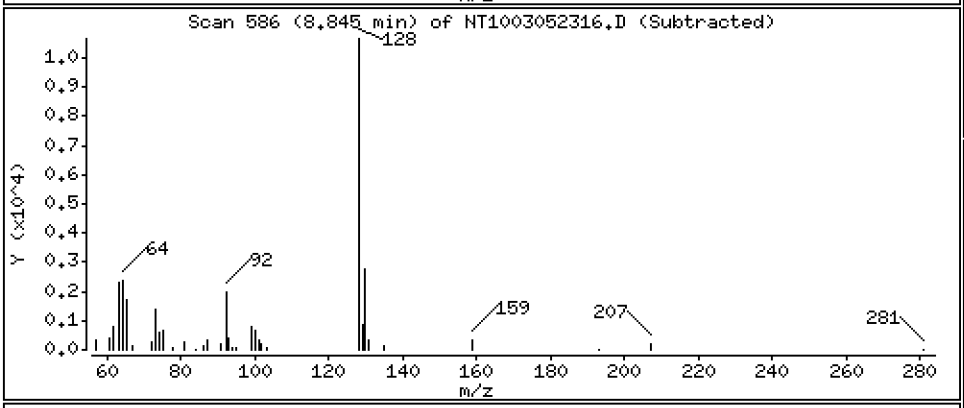
Column phase: ZB-5msi

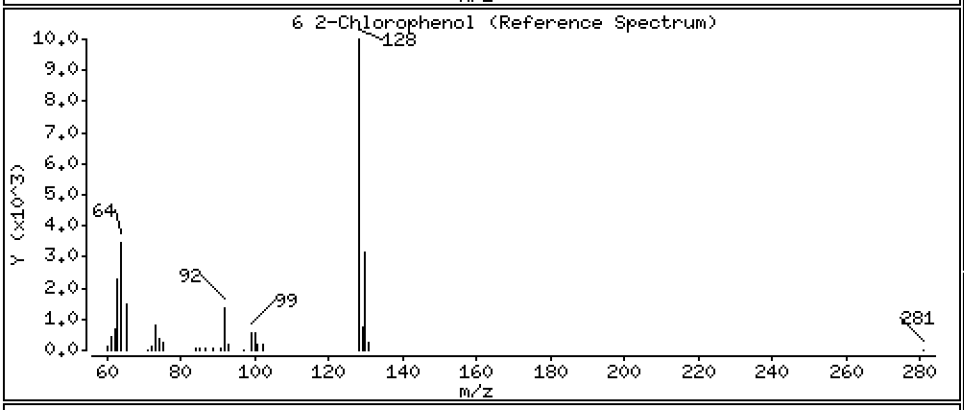
Column diameter: 0.25

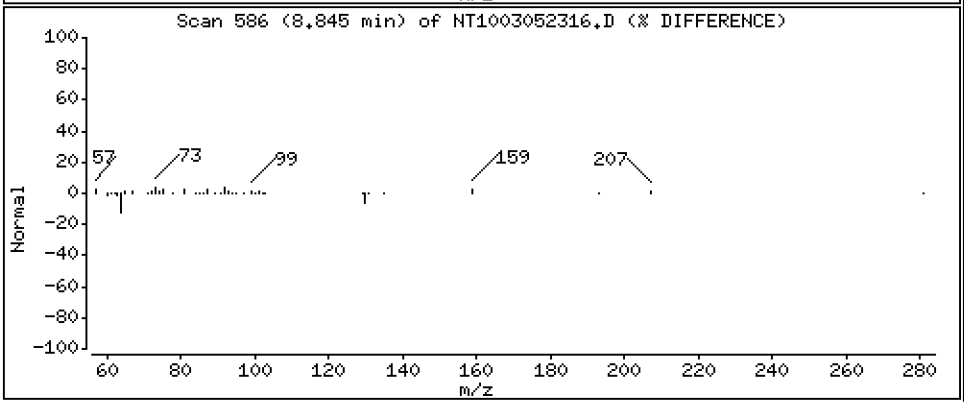
6 2-Chlorophenol

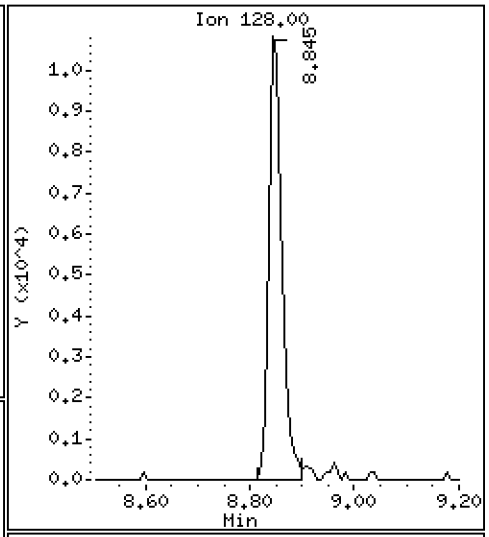
Concentration: 0.1918 ug/mL

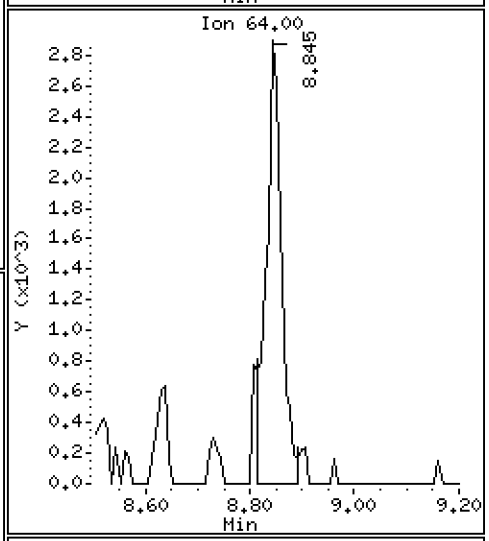


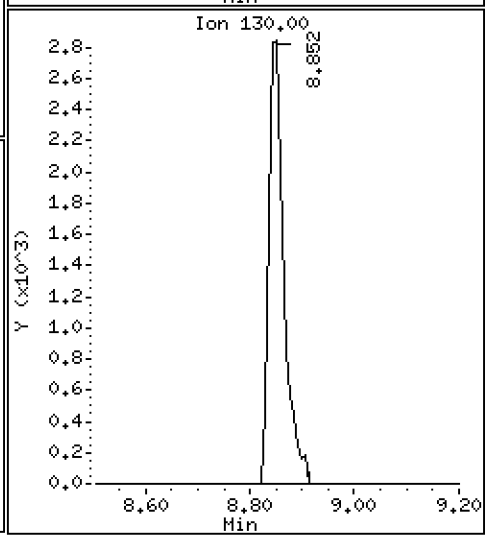












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

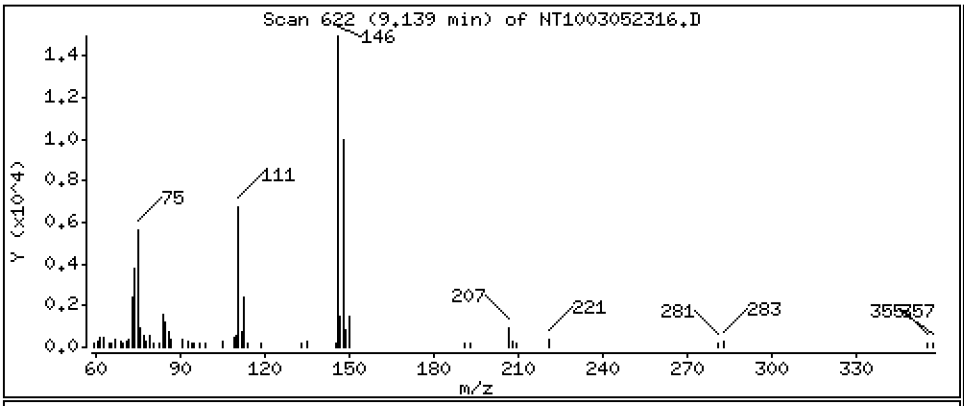
Operator: VTS

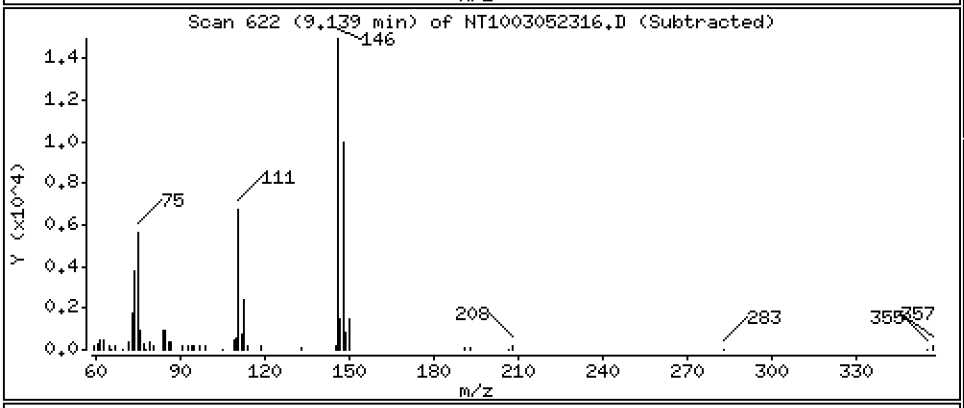
Column phase: ZB-5msi

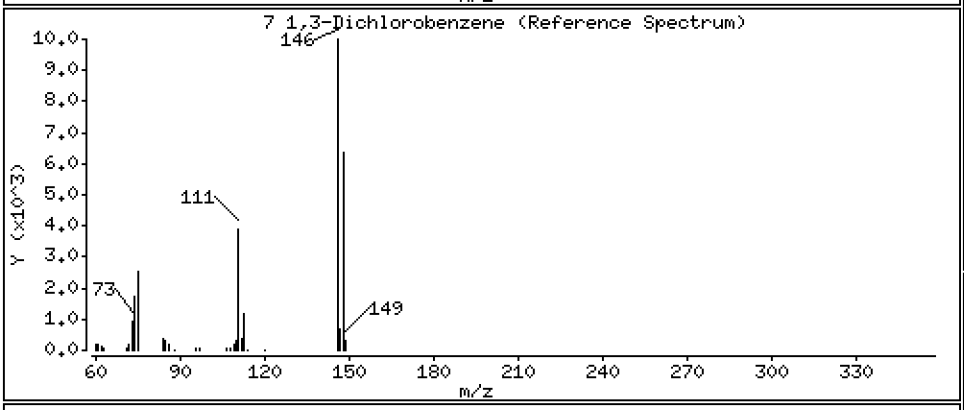
Column diameter: 0.25

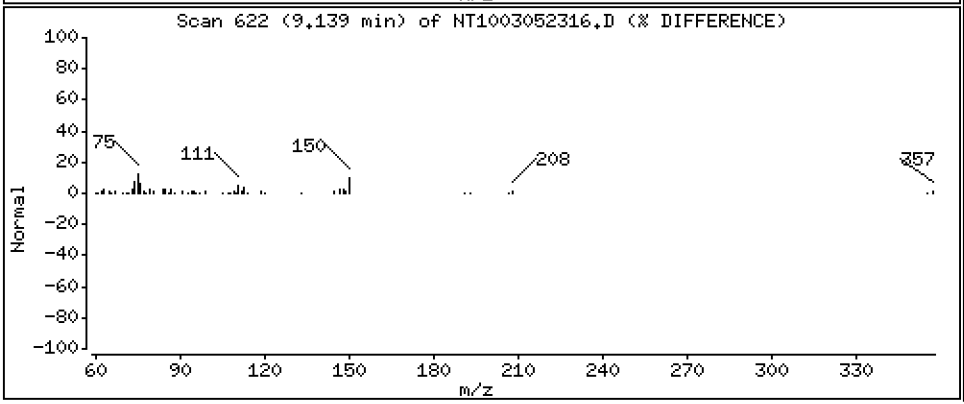
7 1,3-Dichlorobenzene

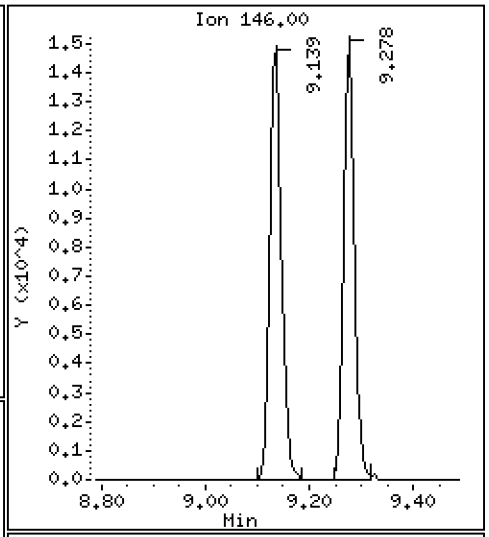
Concentration: 0.2139 ug/mL

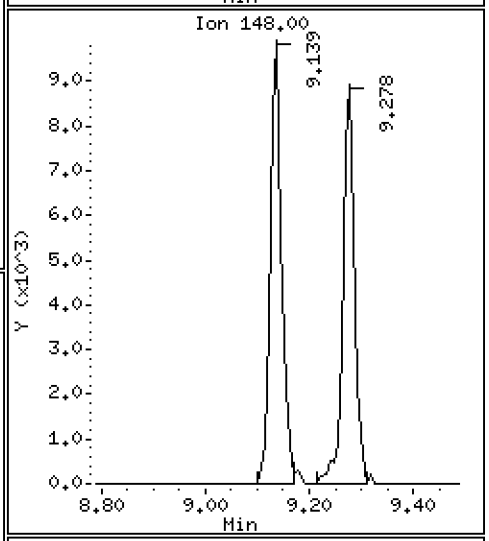


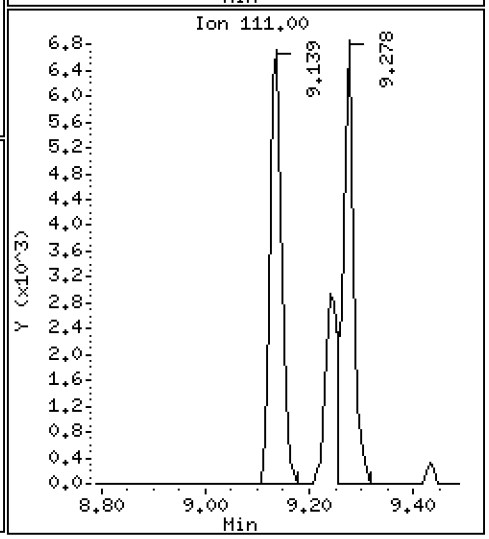












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

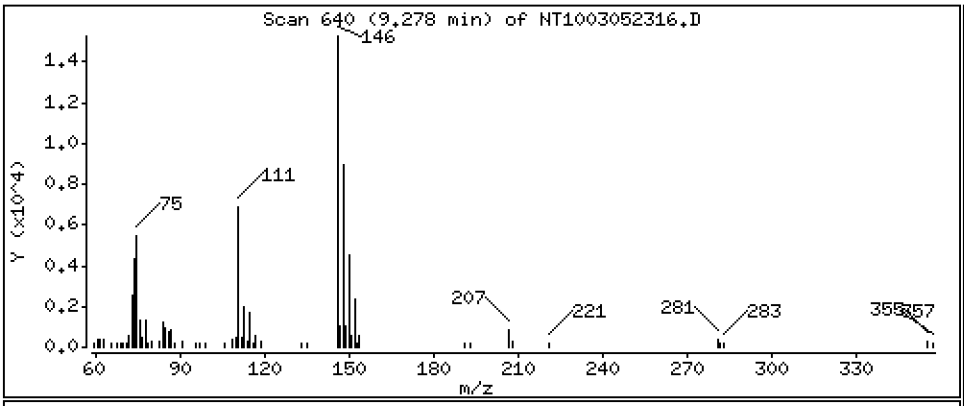
Operator: VTS

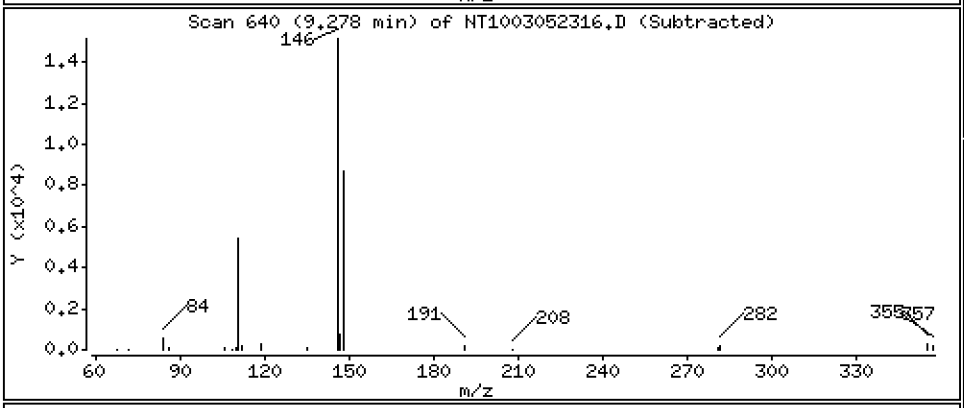
Column phase: ZB-5msi

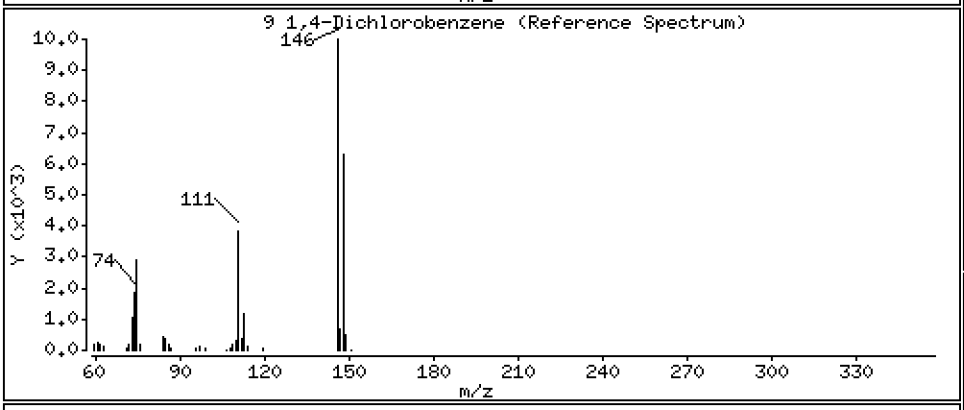
Column diameter: 0.25

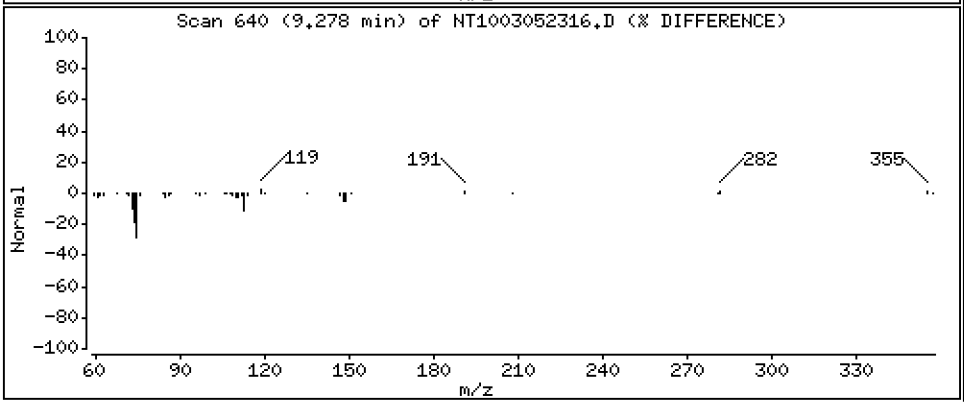
9 1,4-Dichlorobenzene

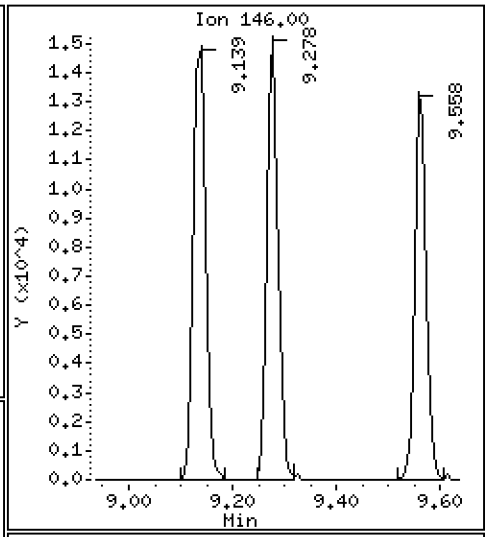
Concentration: 0.2076 ug/mL

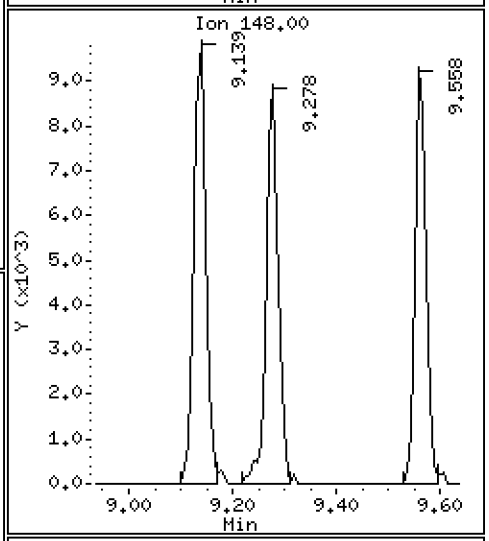


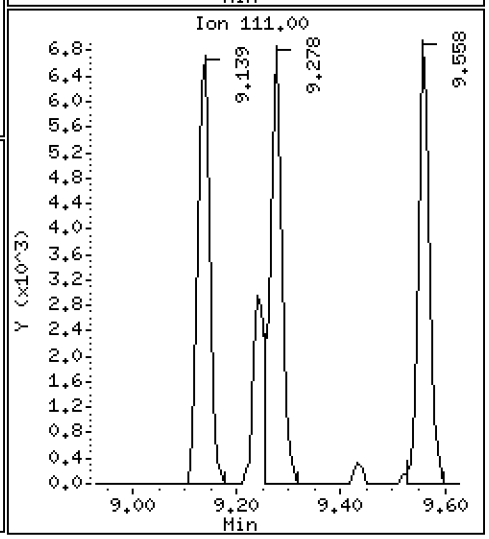












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

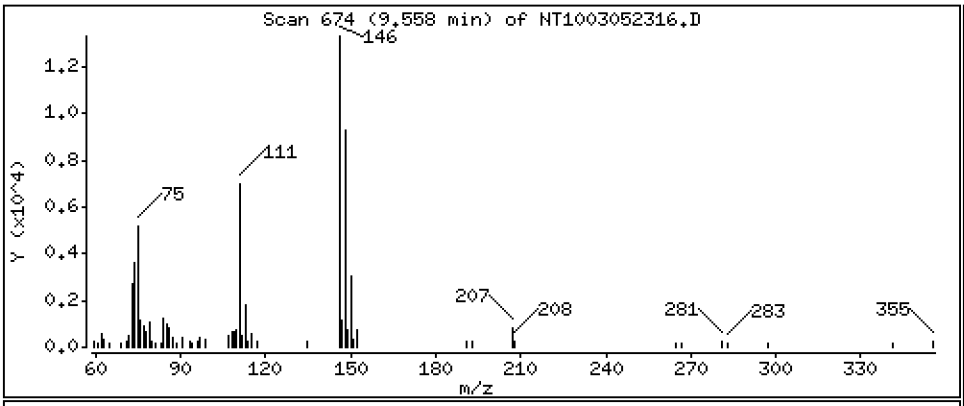
Operator: VTS

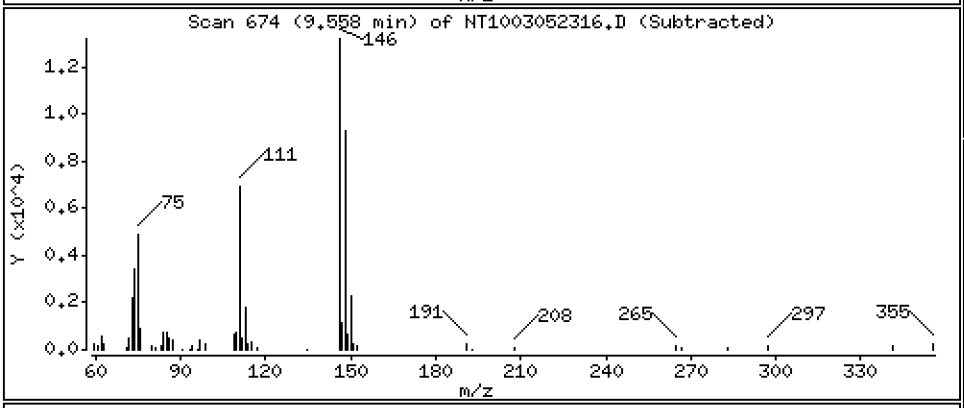
Column phase: ZB-5msi

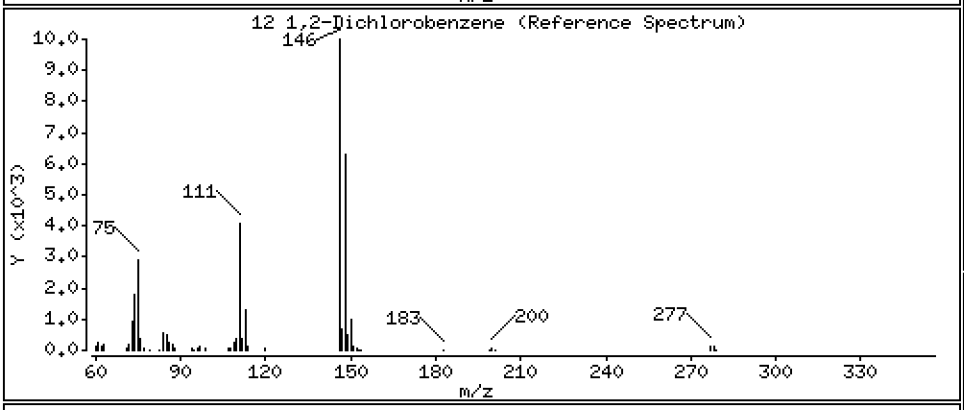
Column diameter: 0.25

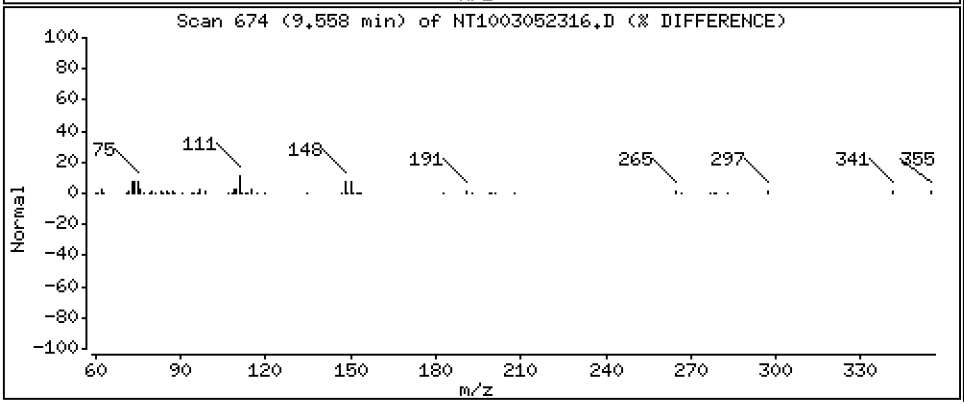
12 1,2-Dichlorobenzene

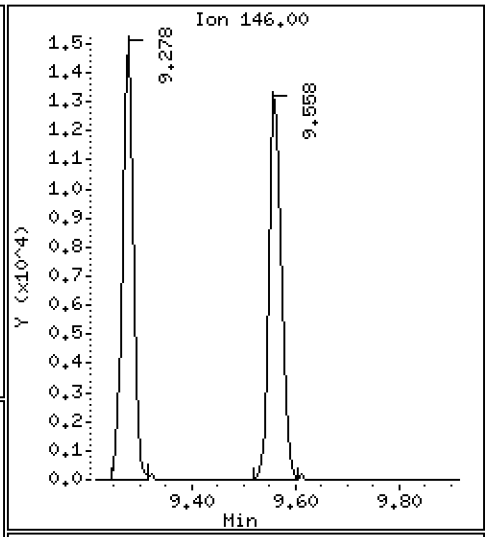
Concentration: 0.2019 ug/mL

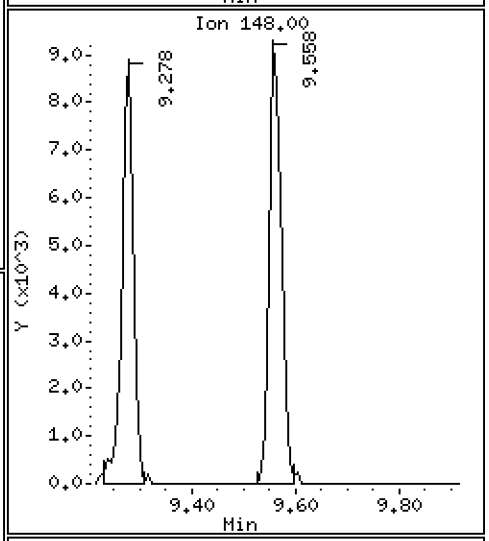


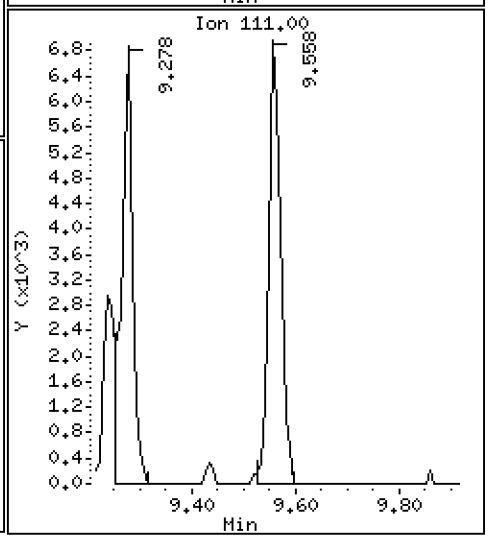












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

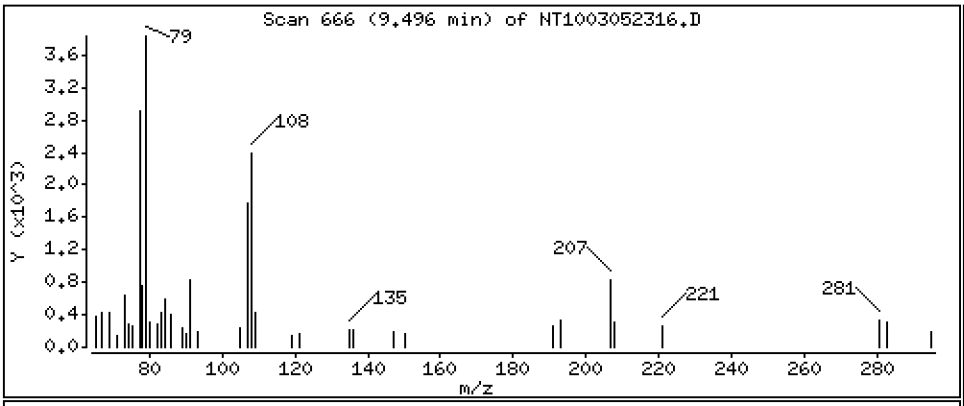
Operator: VTS

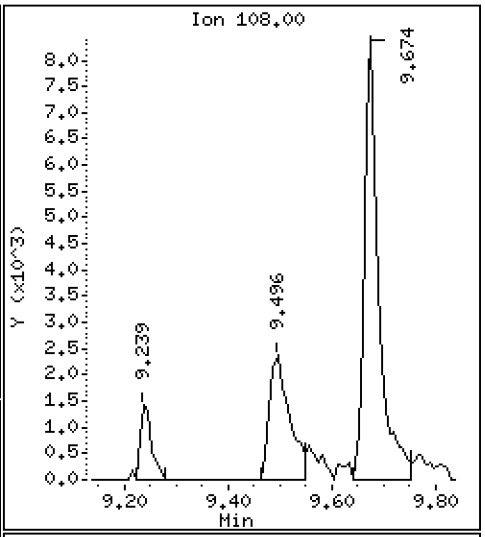
Column phase: ZB-5msi

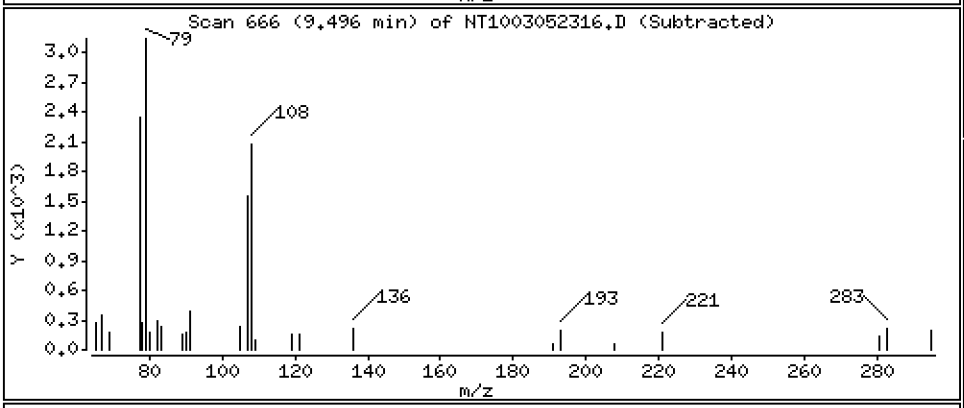
Column diameter: 0.25

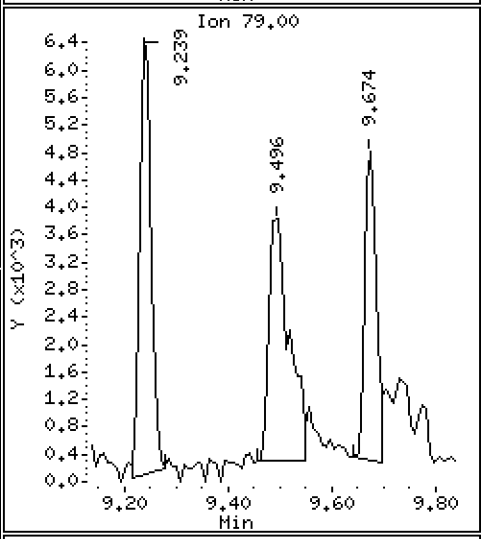
11 Benzyl alcohol

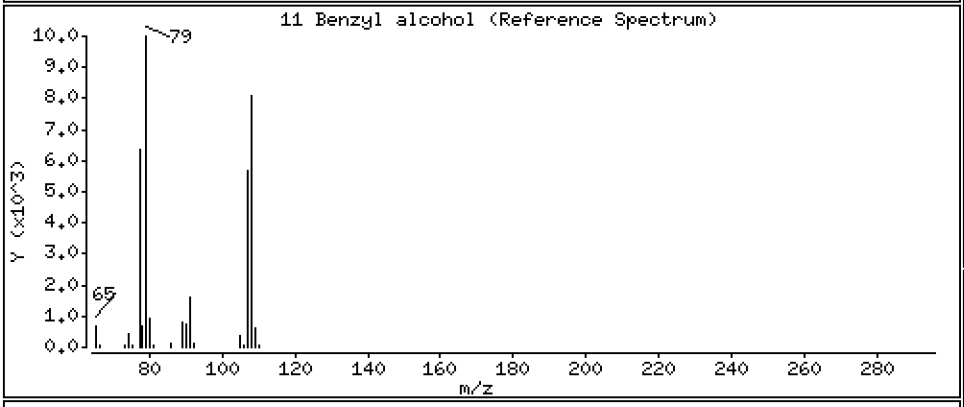
Concentration: 0.1045 ug/mL

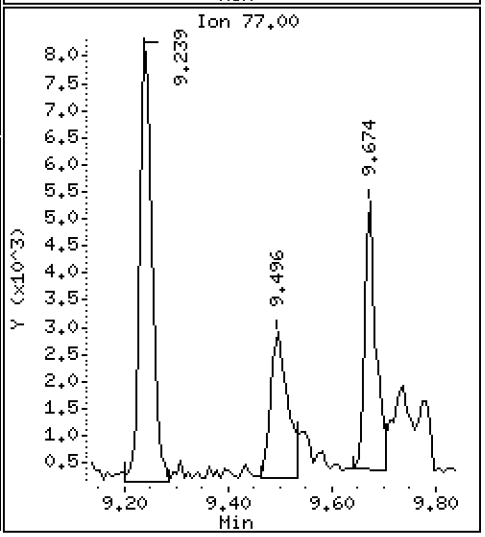


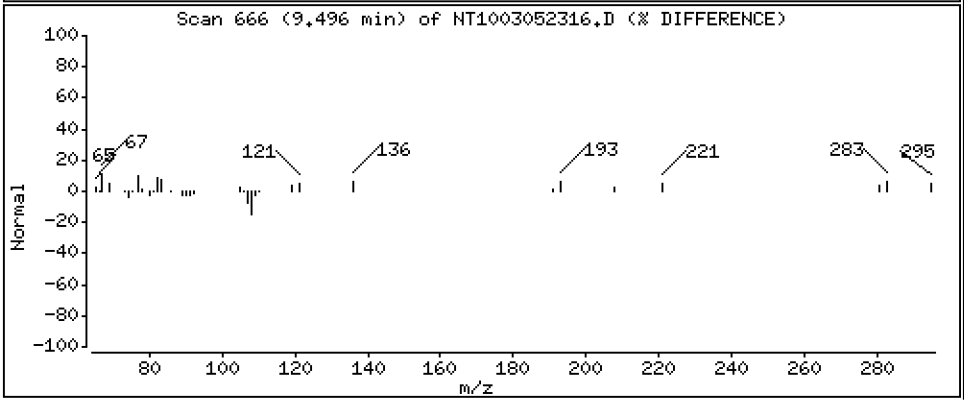












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

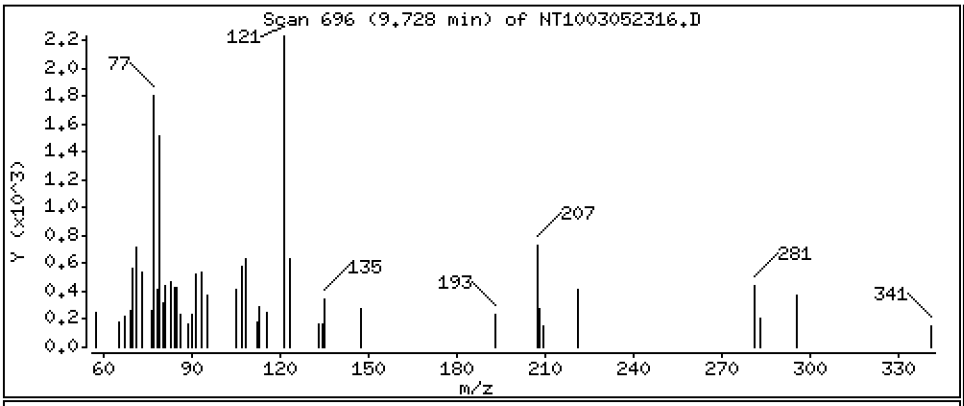
Operator: VTS

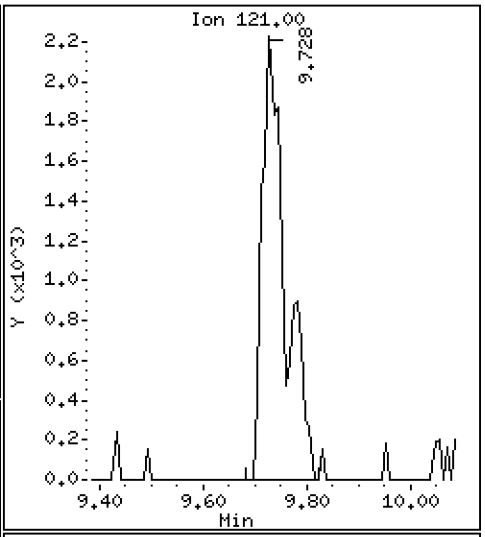
Column phase: ZB-5msi

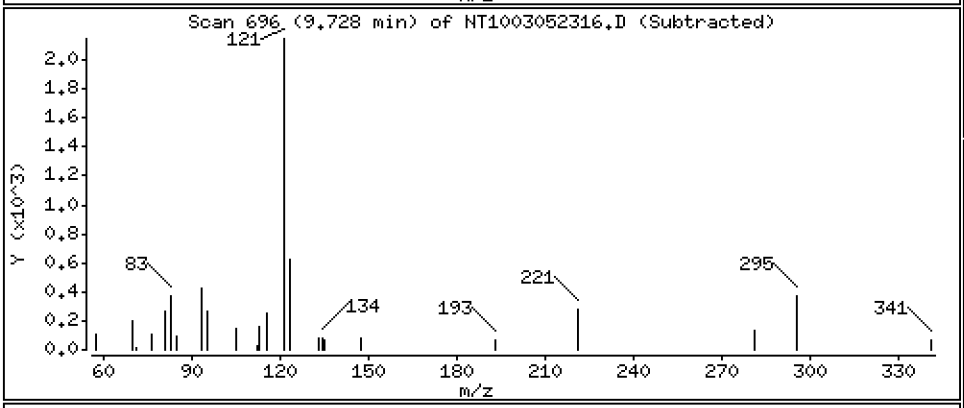
Column diameter: 0.25

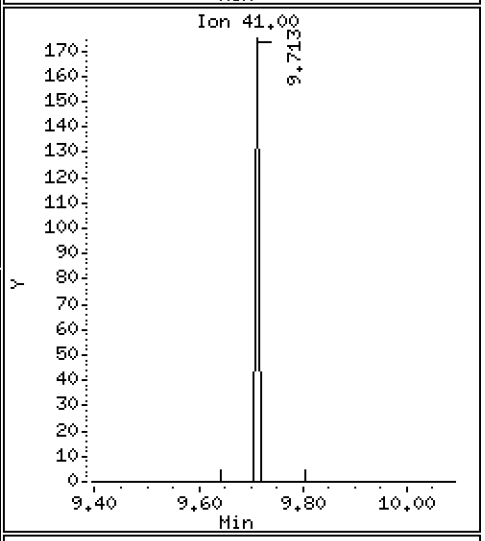
14 2,2'-oxybis(1-Chloropropane)

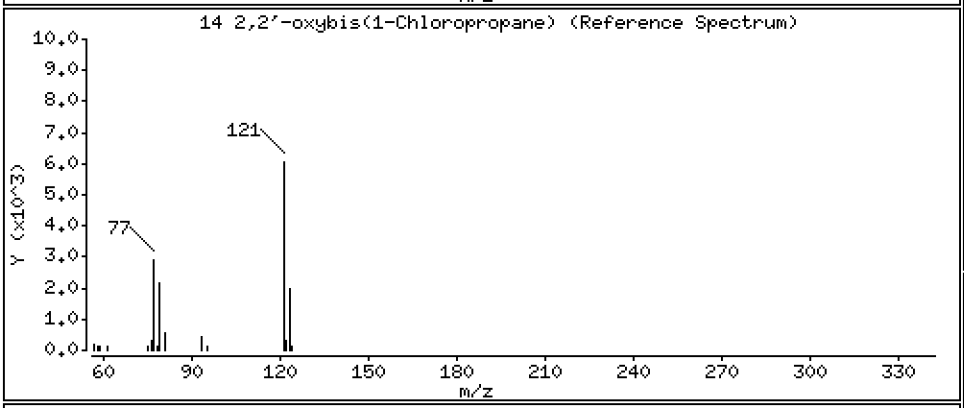
Concentration: 0.2259 ug/mL

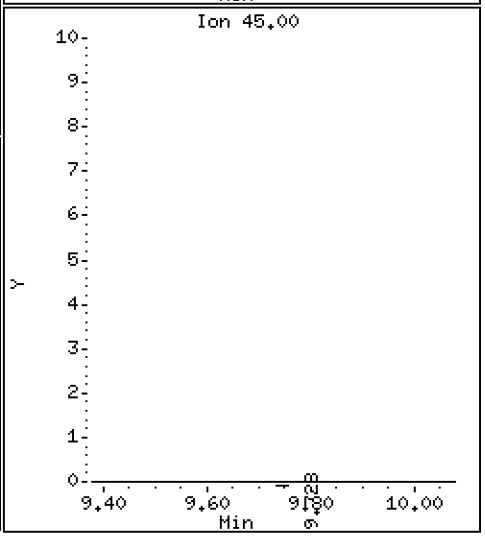


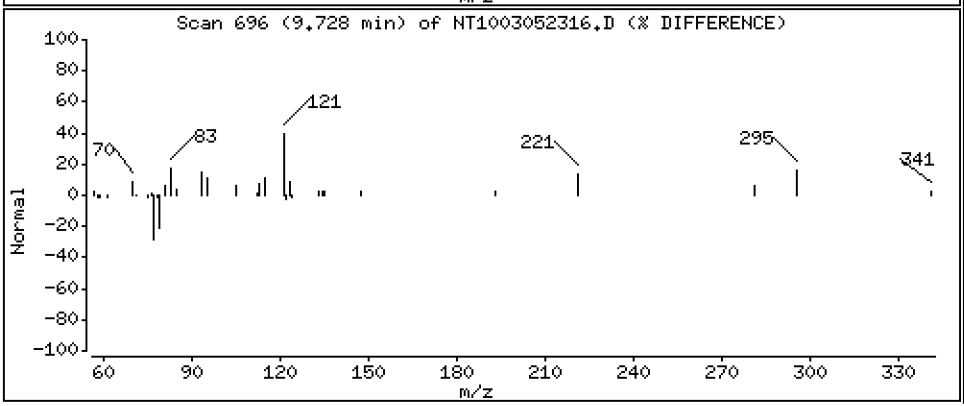












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

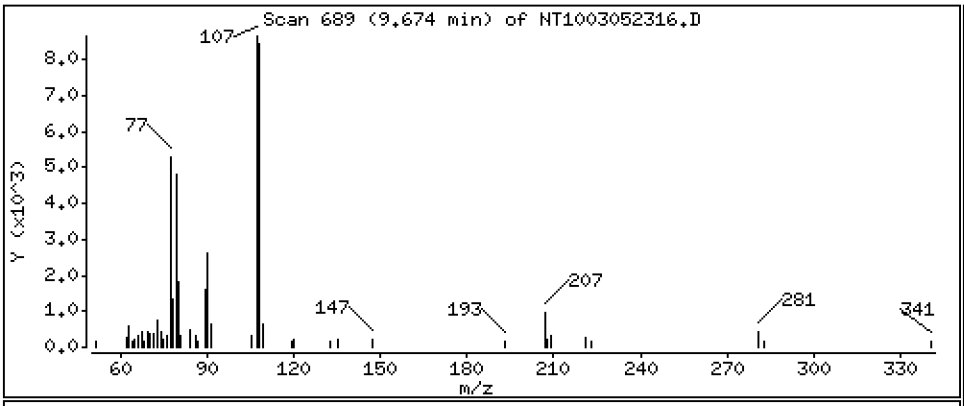
Operator: VTS

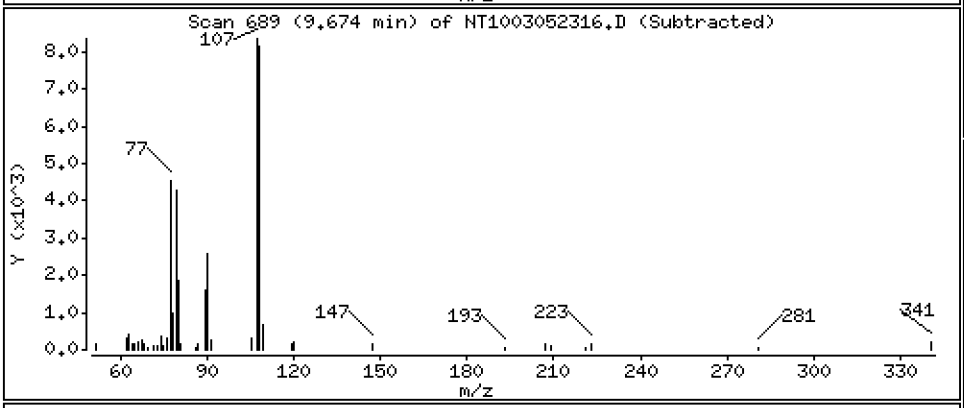
Column phase: ZB-5msi

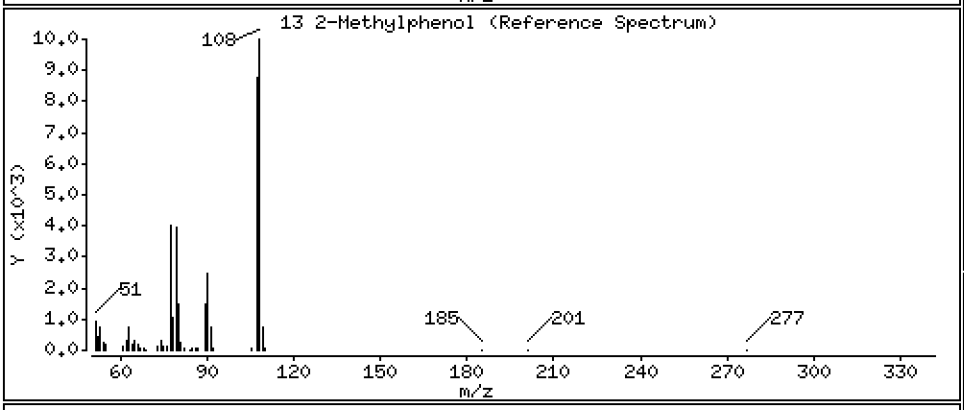
Column diameter: 0.25

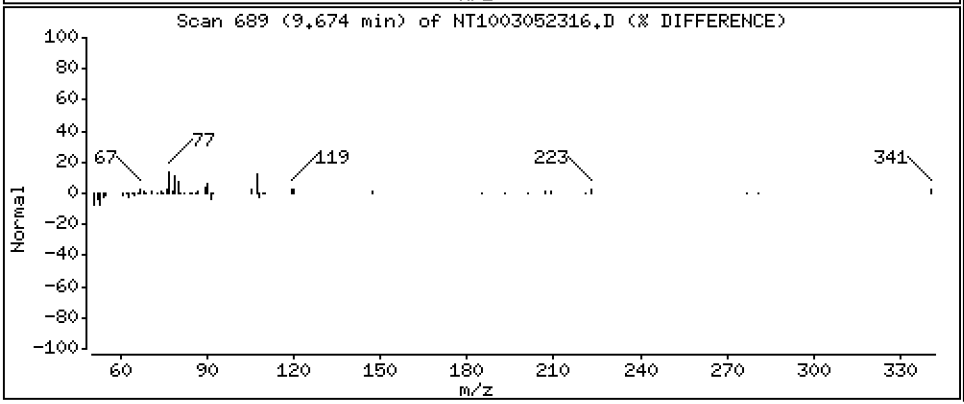
13 2-Methylphenol

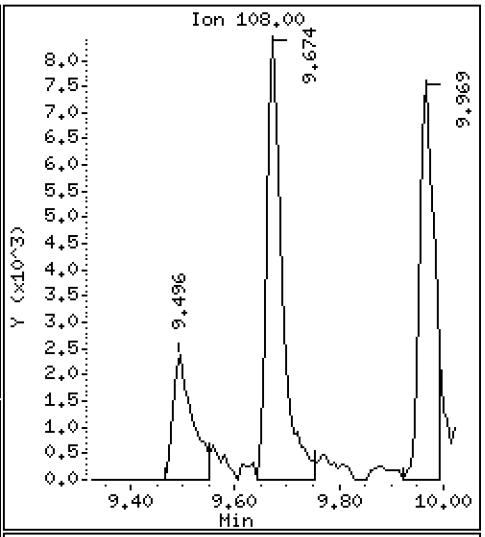
Concentration: 0.1827 ug/mL

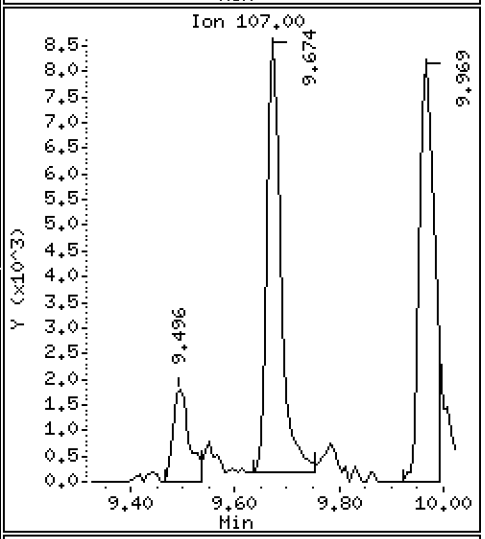


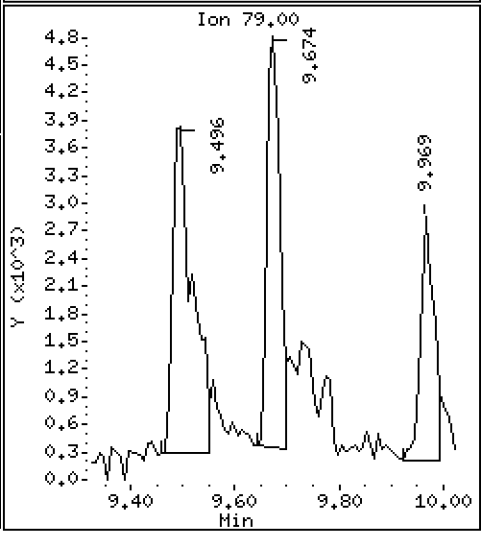












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

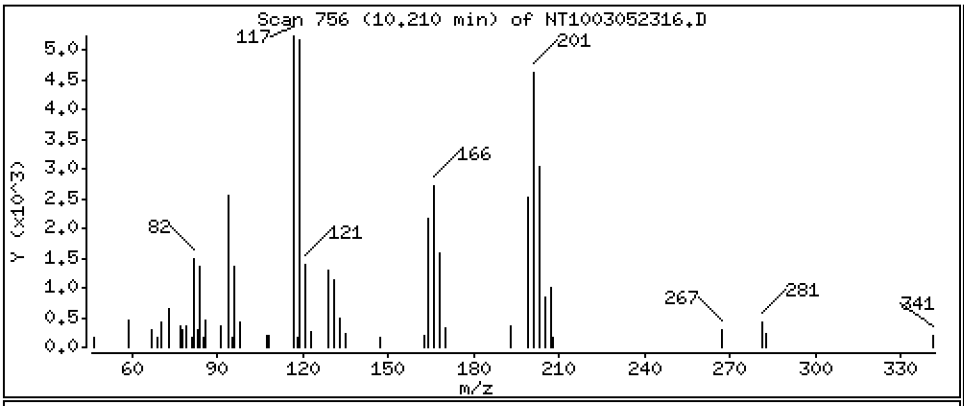
Operator: VTS

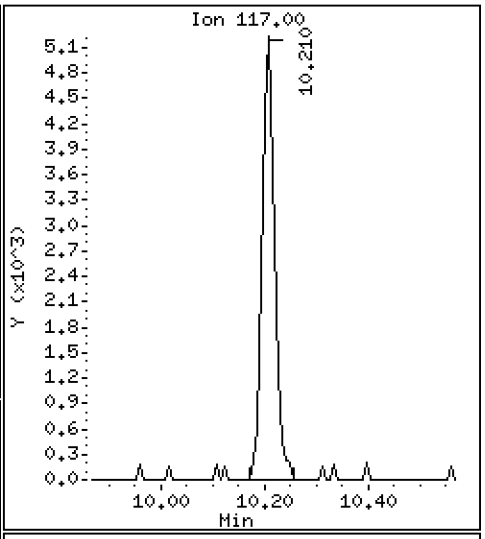
Column phase: ZB-5msi

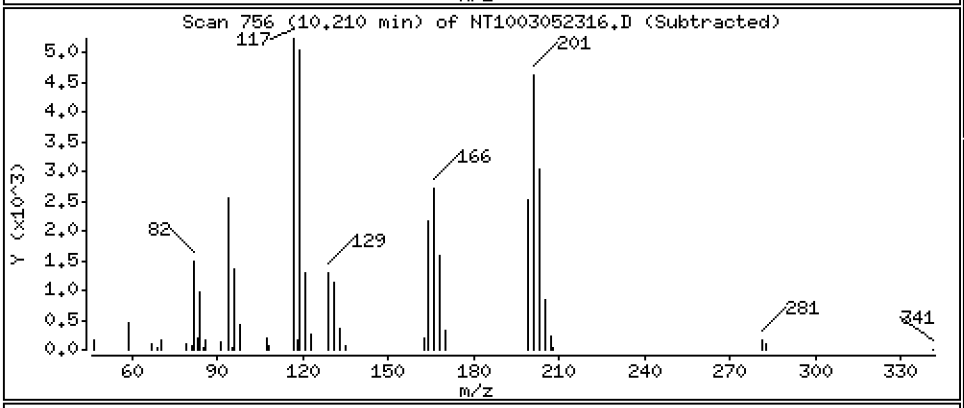
Column diameter: 0.25

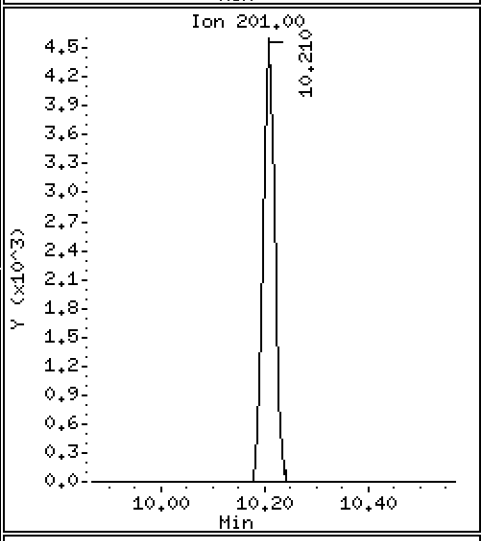
17 Hexachloroethane

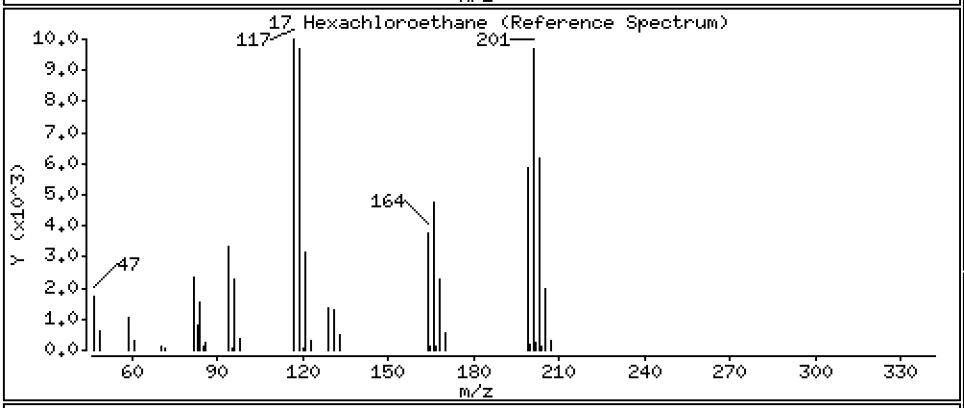
Concentration: 0.1872 ug/mL

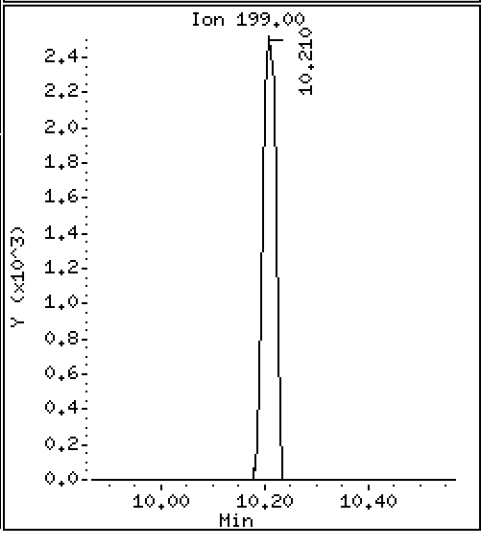


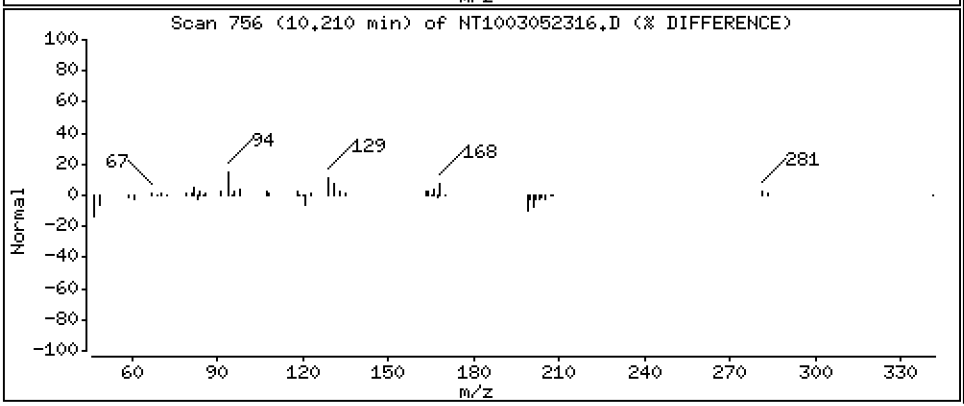












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

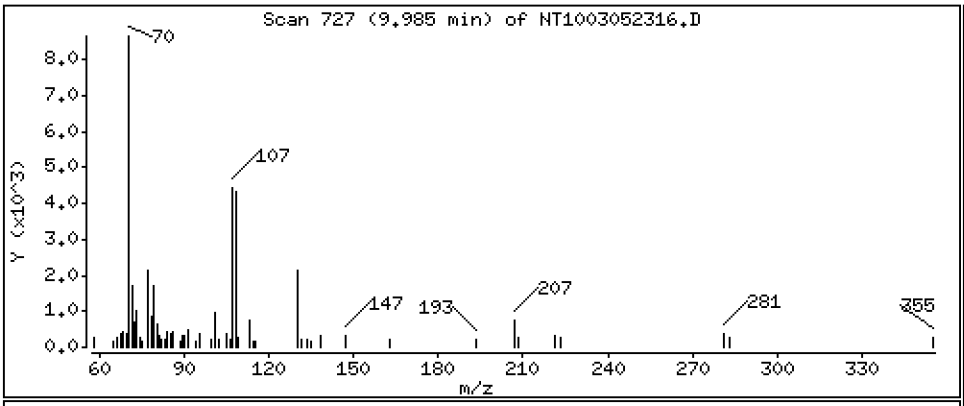
Operator: VTS

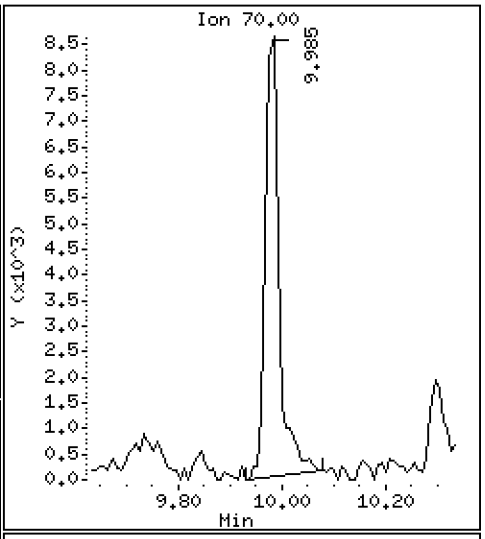
Column phase: ZB-5msi

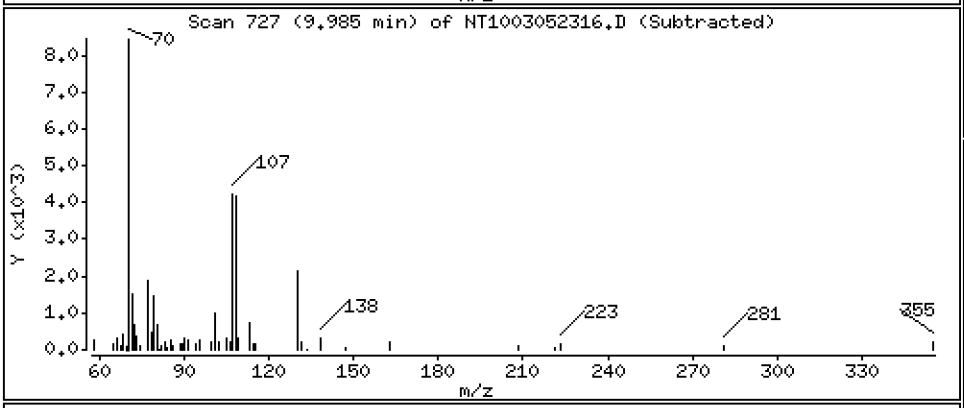
Column diameter: 0.25

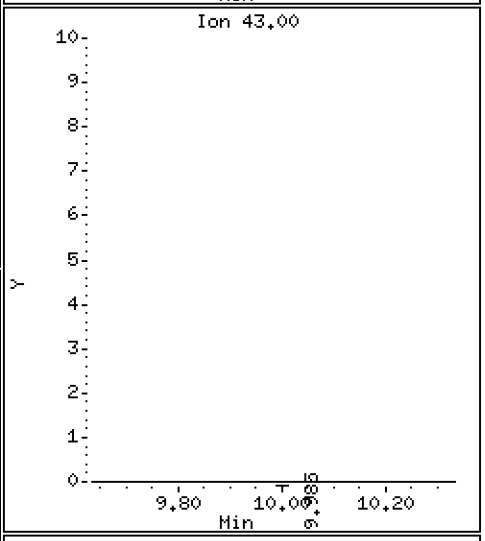
16 N-Nitroso-di-n-propylamine

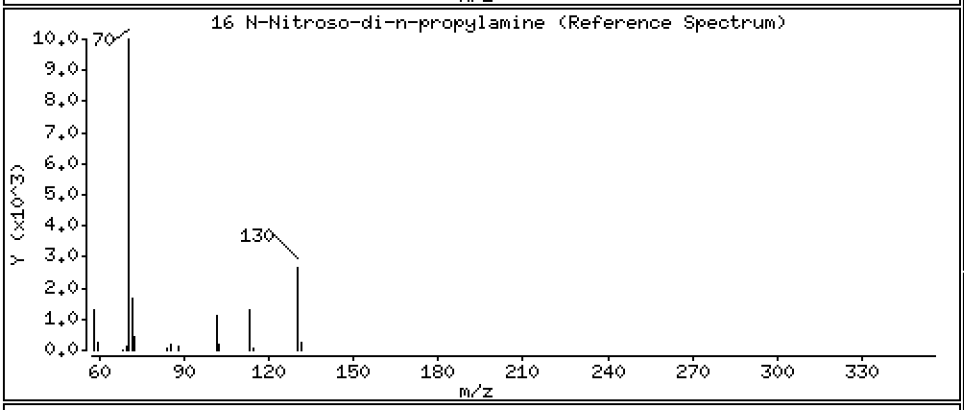
Concentration: 0.2130 ug/mL

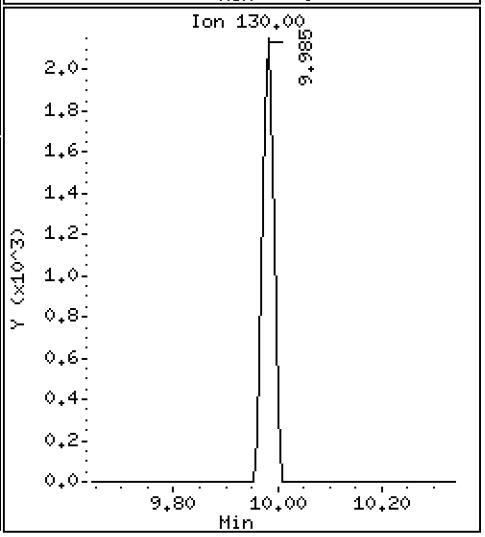


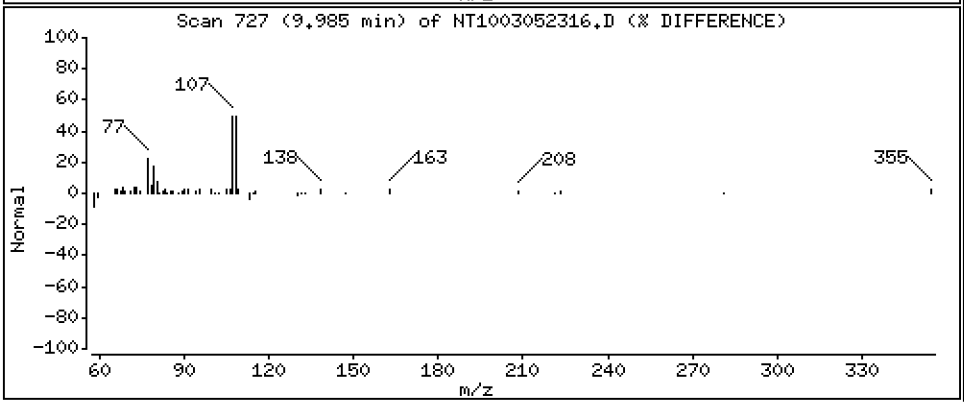












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

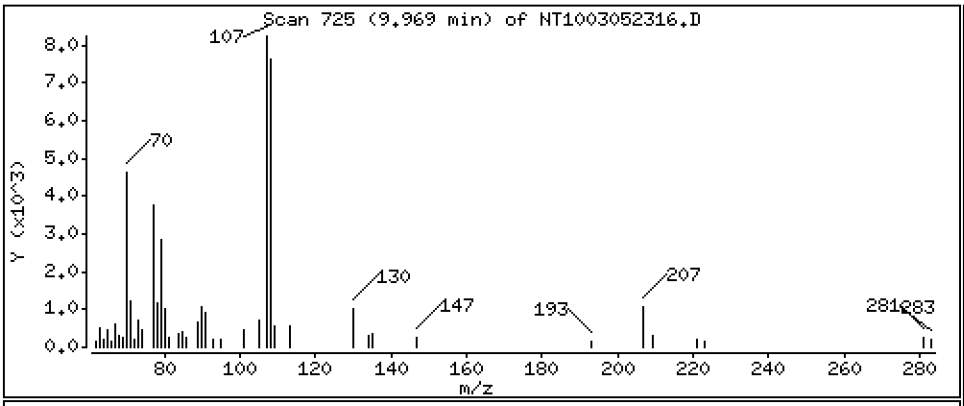
Operator: VTS

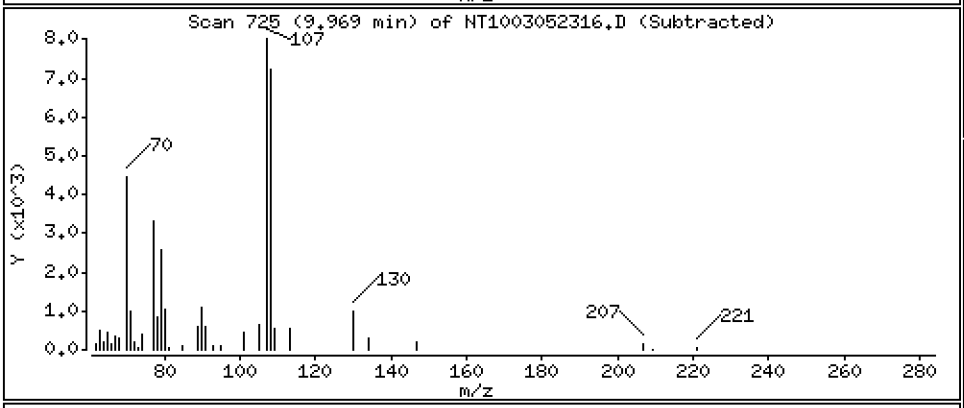
Column phase: ZB-5msi

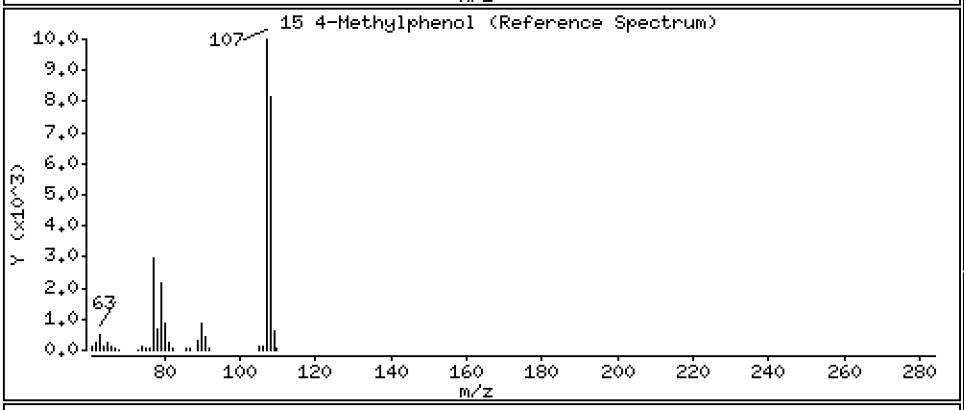
Column diameter: 0.25

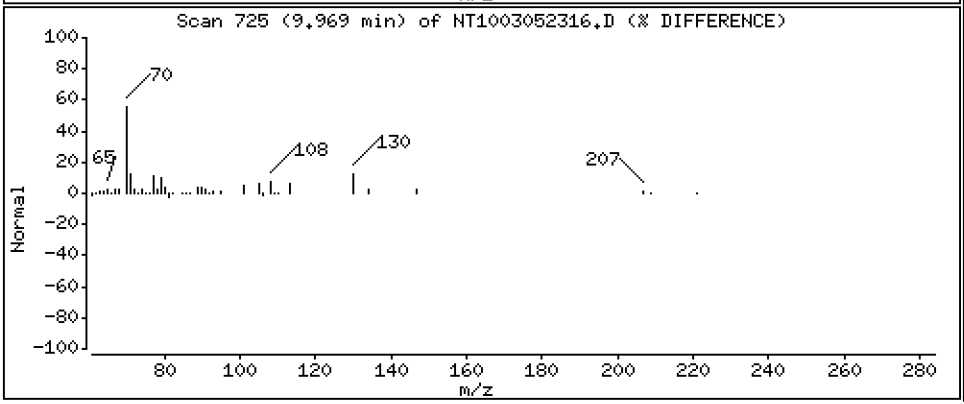
15 4-Methylphenol

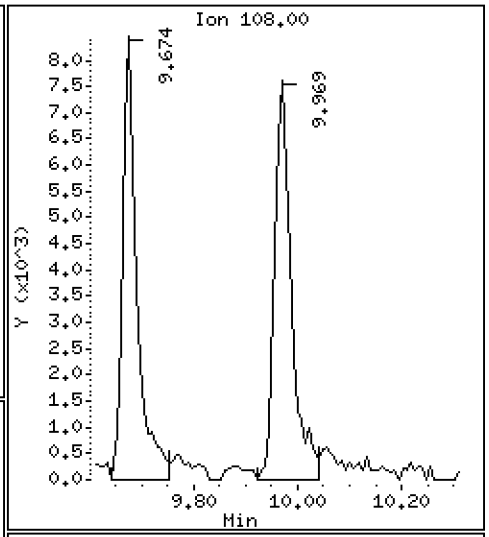
Concentration: 0.1483 ug/mL

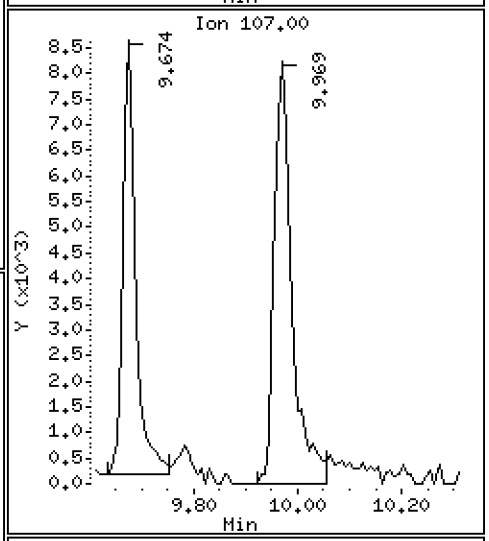


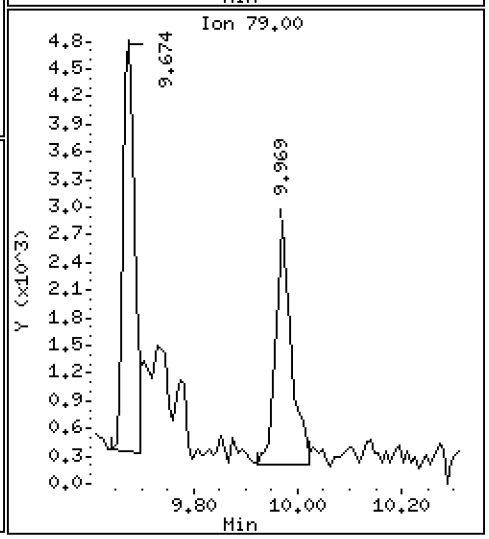












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

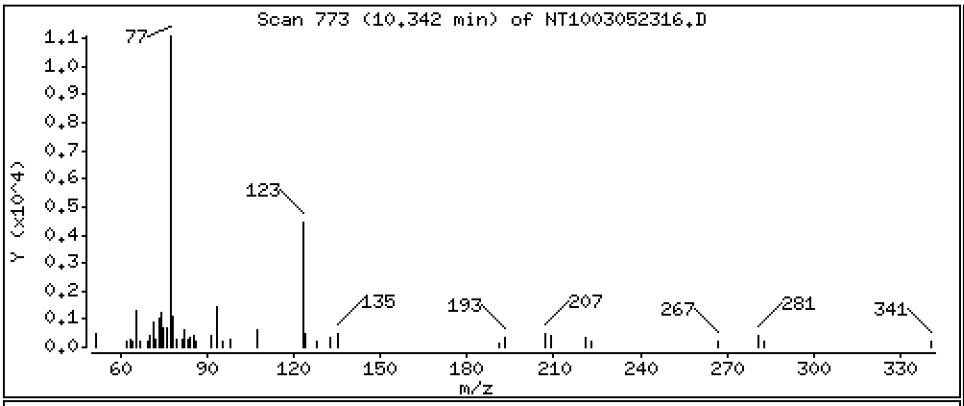
Operator: VTS

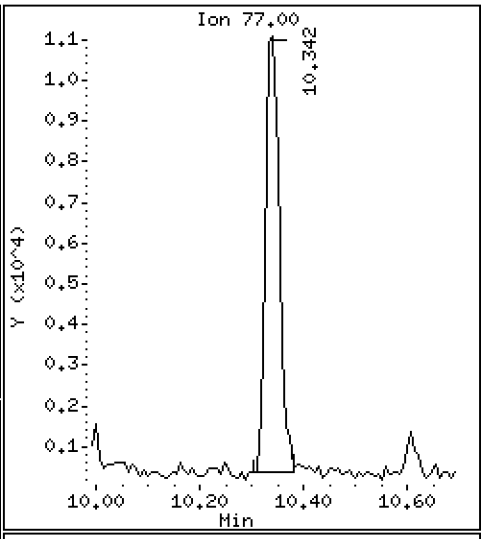
Column phase: ZB-5msi

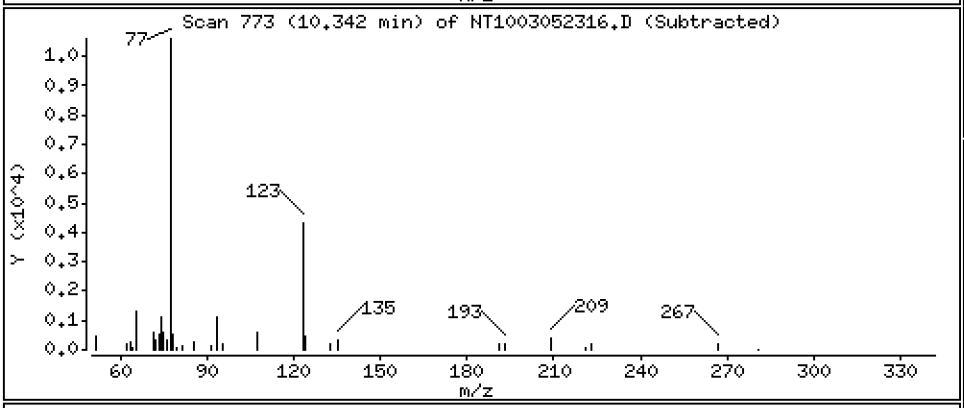
Column diameter: 0.25

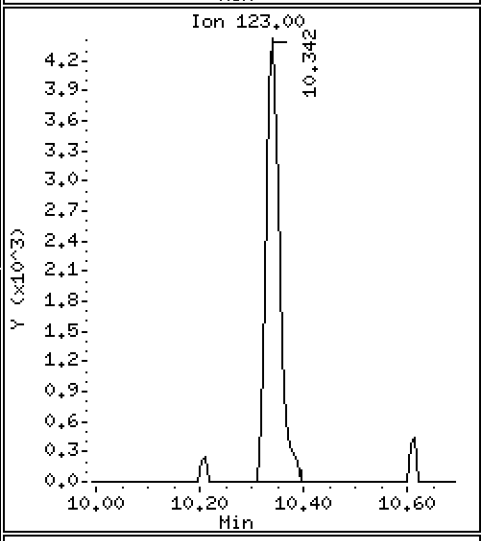
19 Nitrobenzene

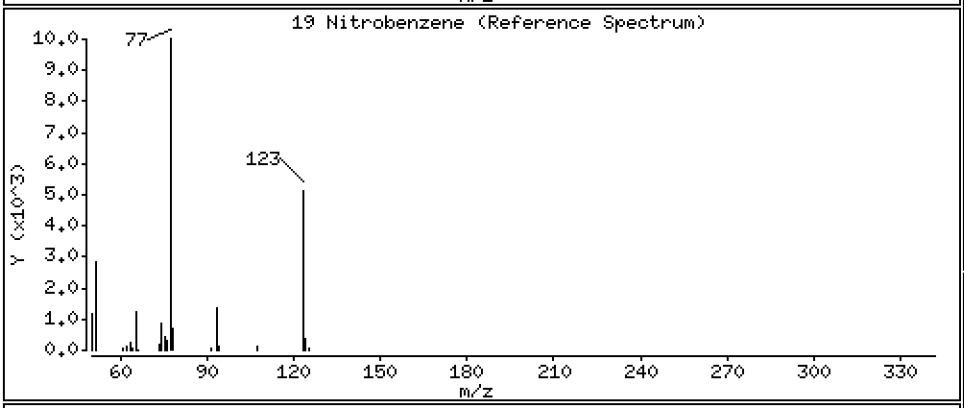
Concentration: 0.1752 ug/mL

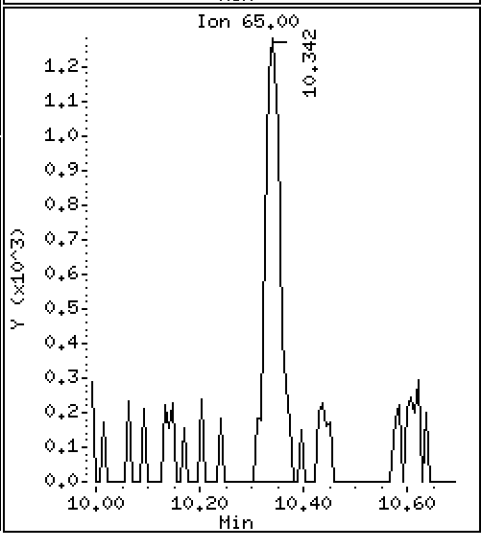


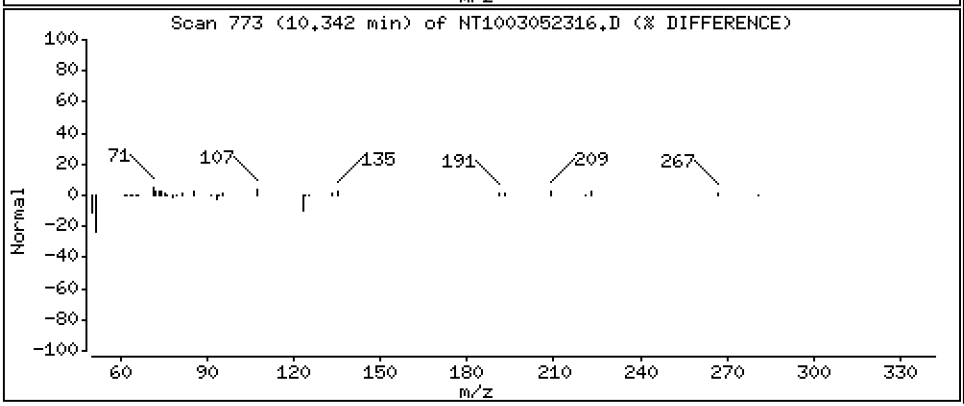












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

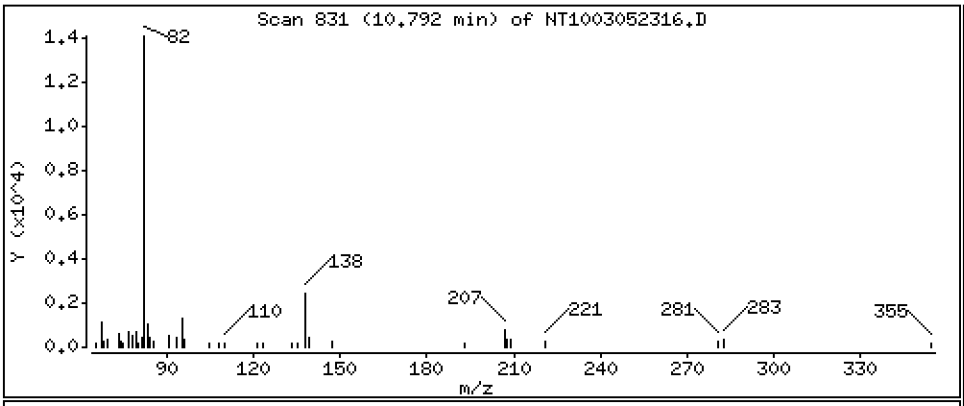
Operator: VTS

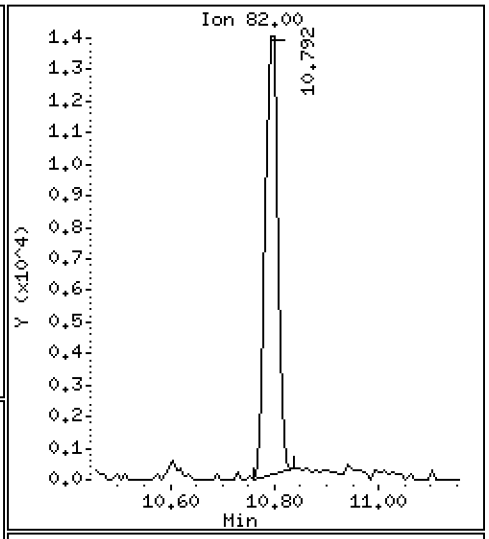
Column phase: ZB-5msi

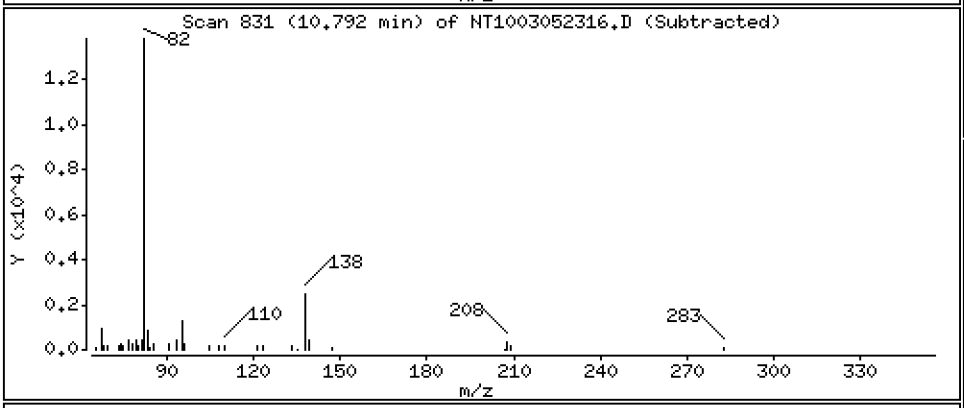
Column diameter: 0.25

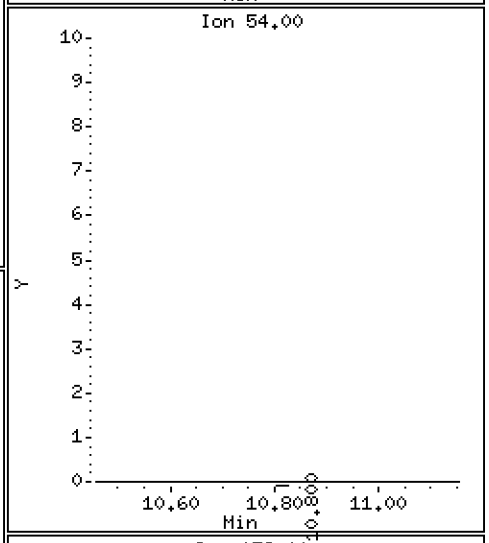
20 Isophorone

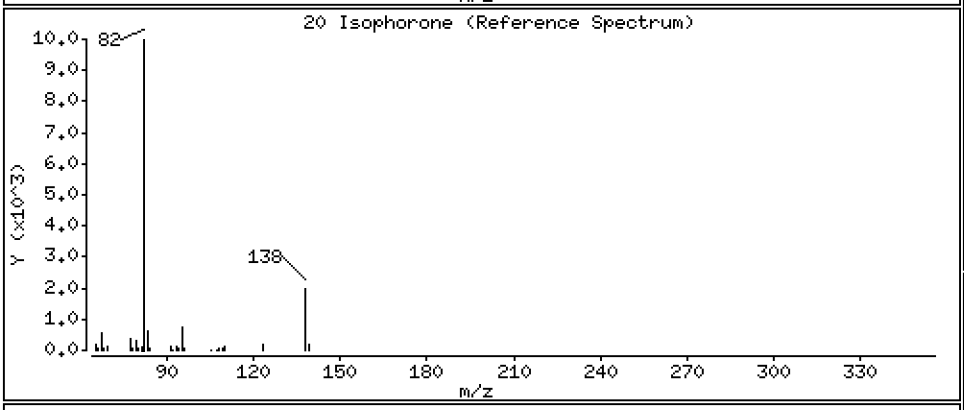
Concentration: 0.1613 ug/mL

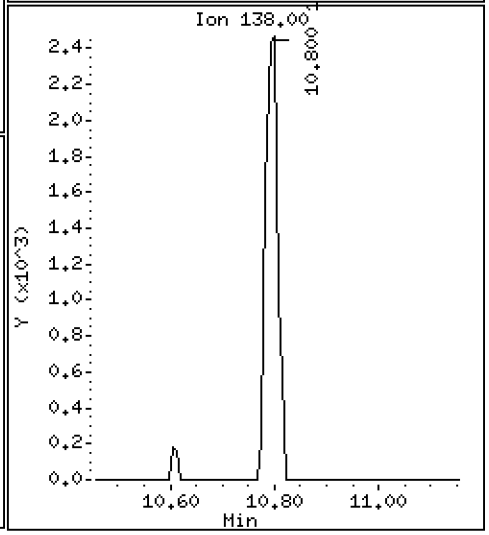


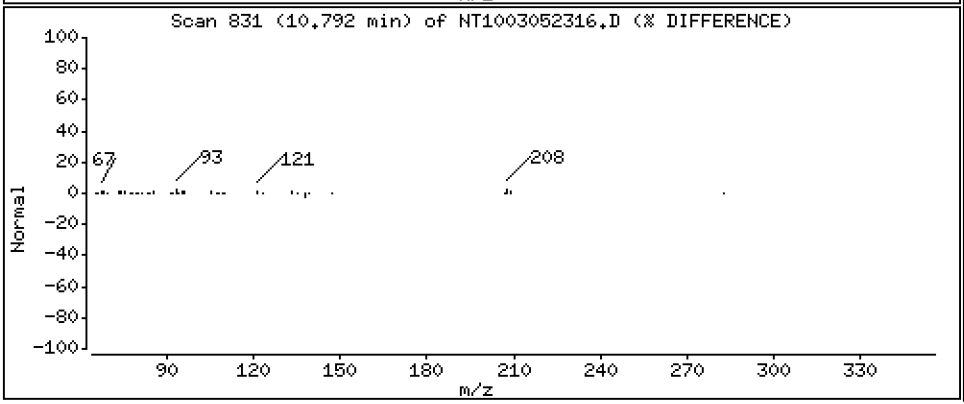












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

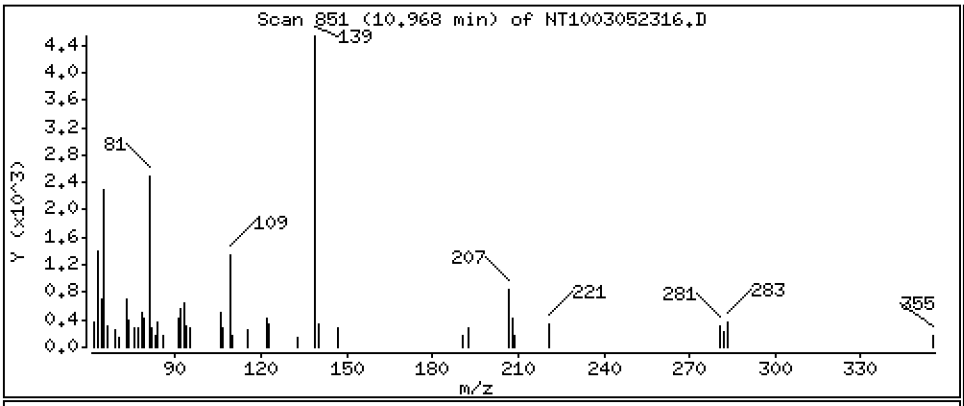
Operator: VTS

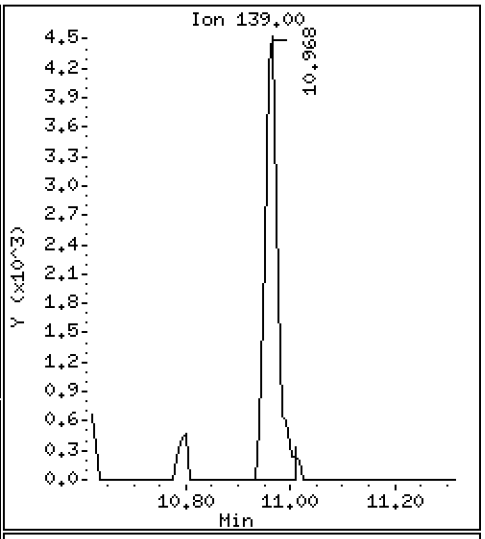
Column phase: ZB-5msi

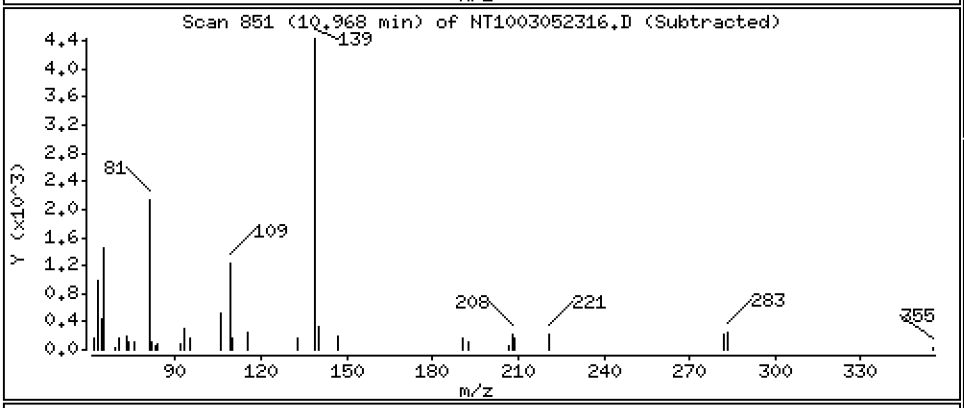
Column diameter: 0.25

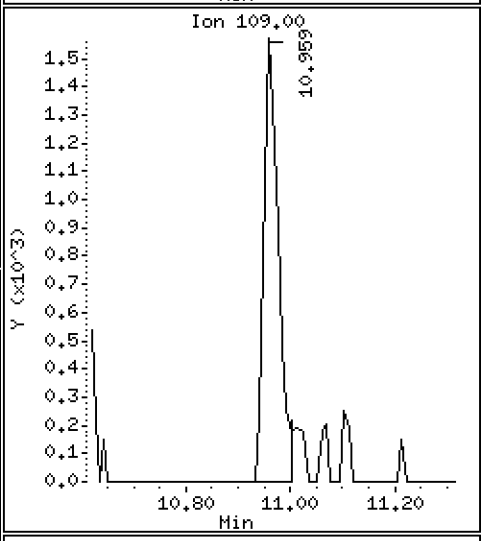
21 2-Nitrophenol

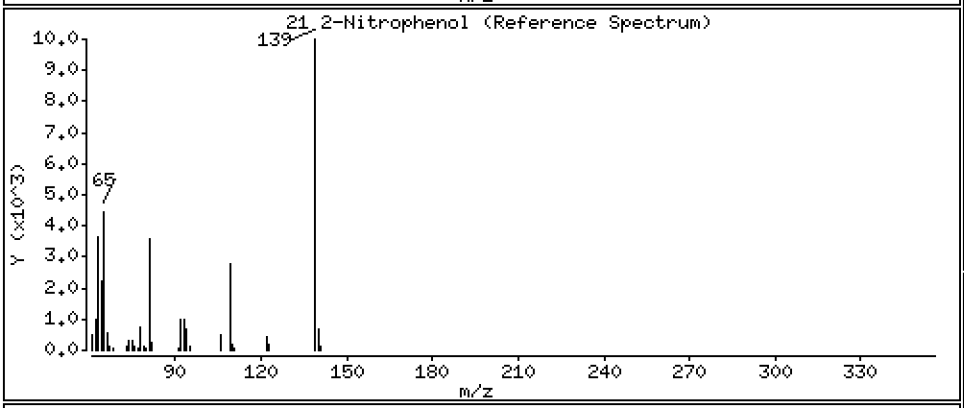
Concentration: 0.1286 ug/mL

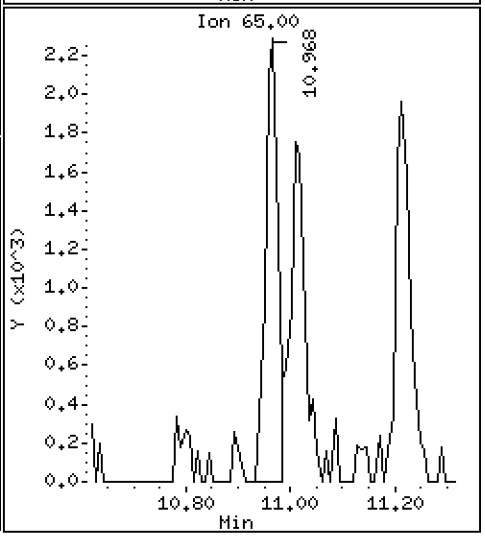


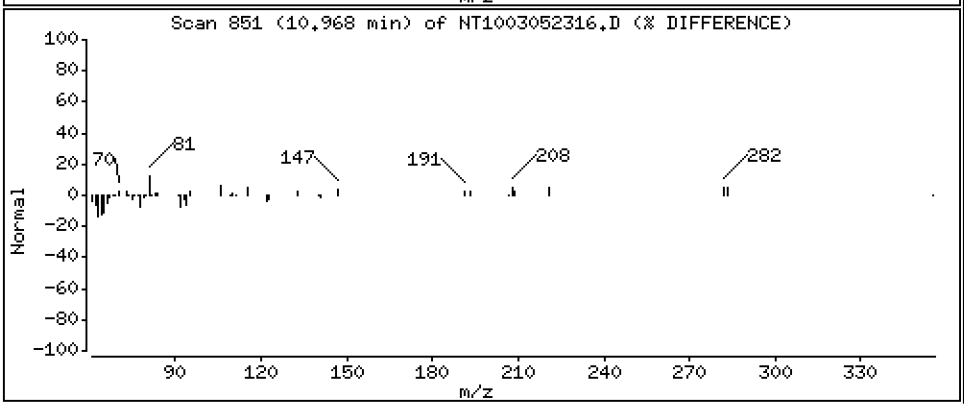












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

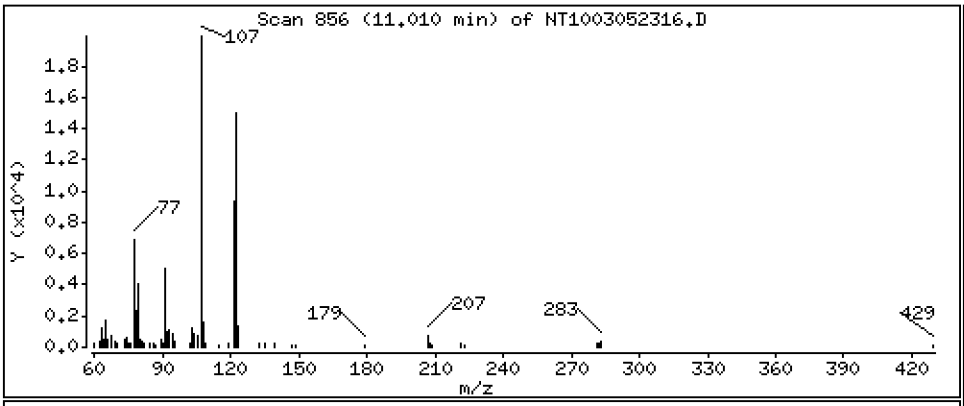
Operator: VTS

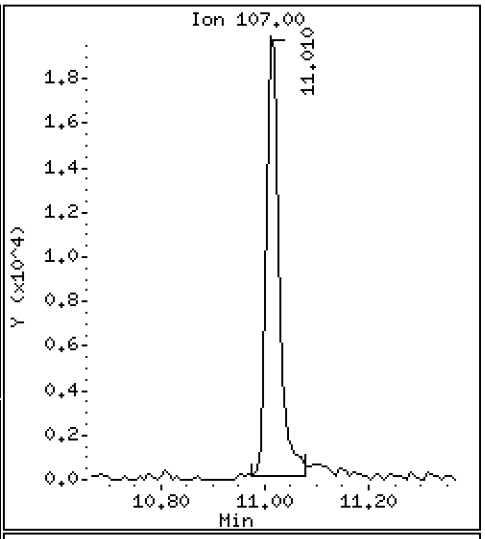
Column phase: ZB-5msi

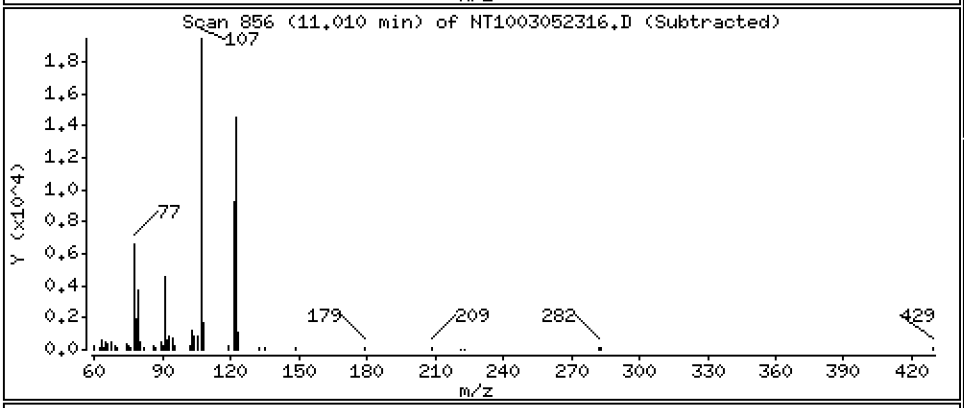
Column diameter: 0.25

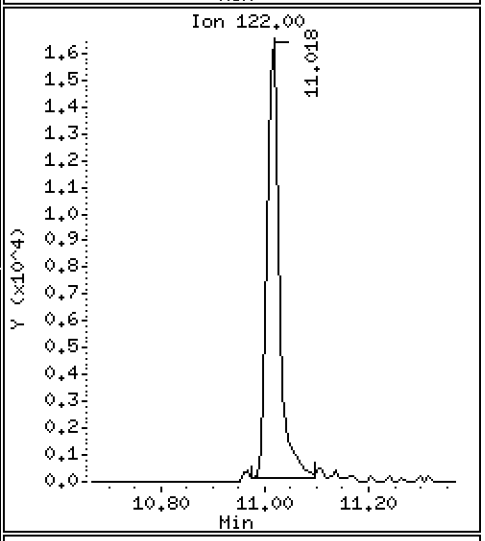
22 2,4-Dimethylphenol

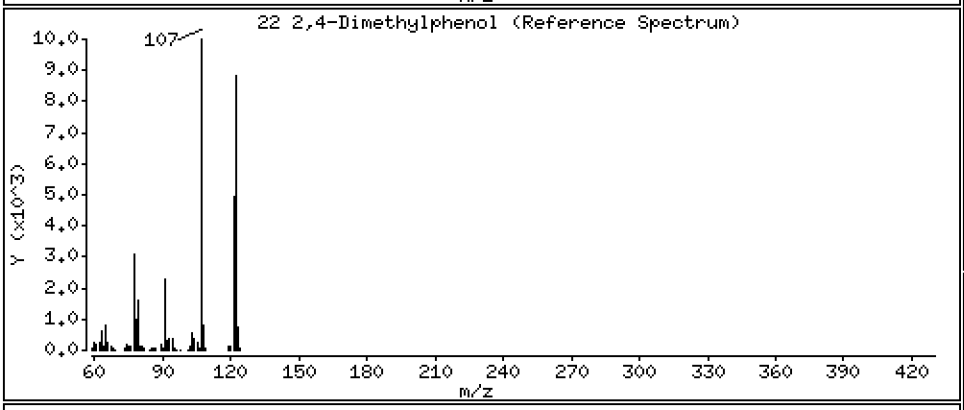
Concentration: 0.3387 ug/mL

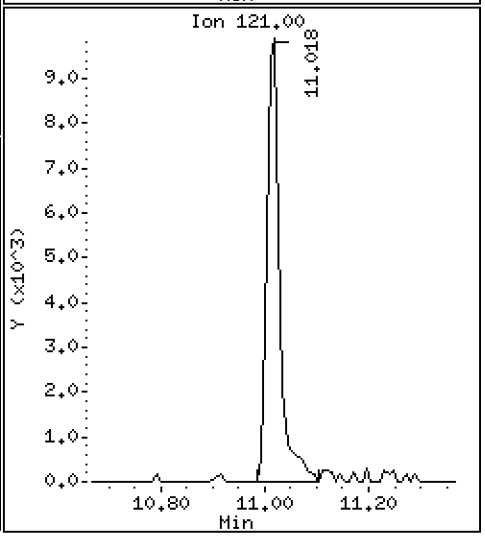


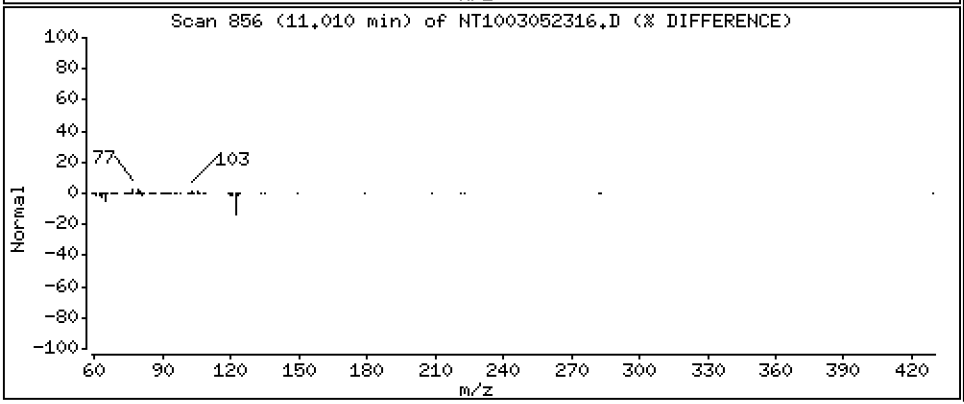












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052316.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

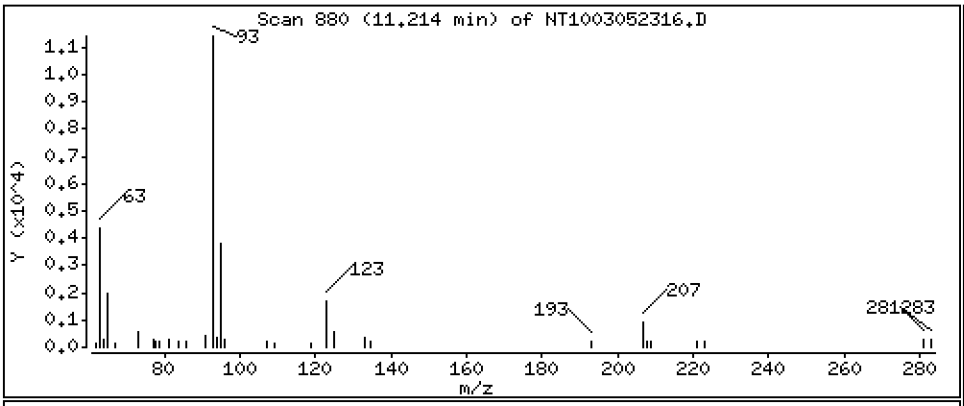
Operator: VTS

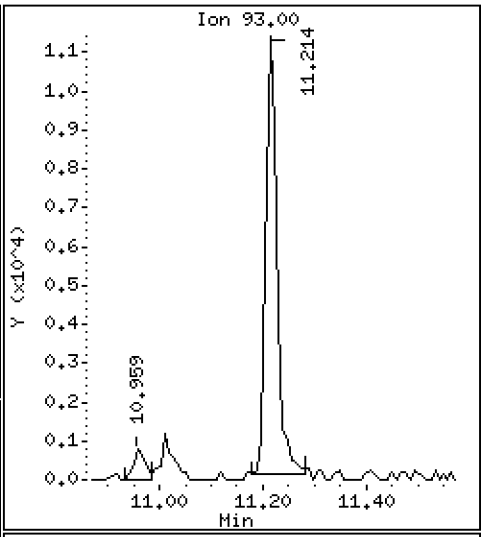
Column phase: ZB-5msi

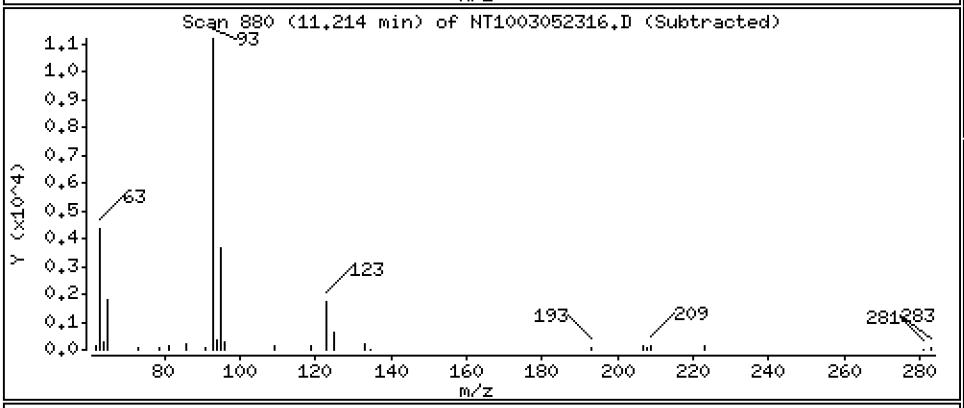
Column diameter: 0.25

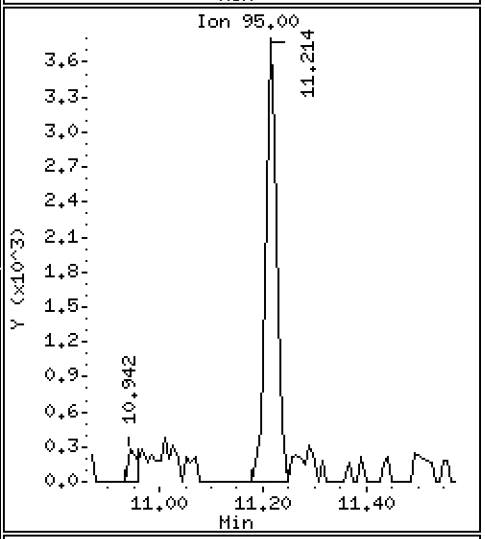
23 Bis(2-Chloroethoxy)methane

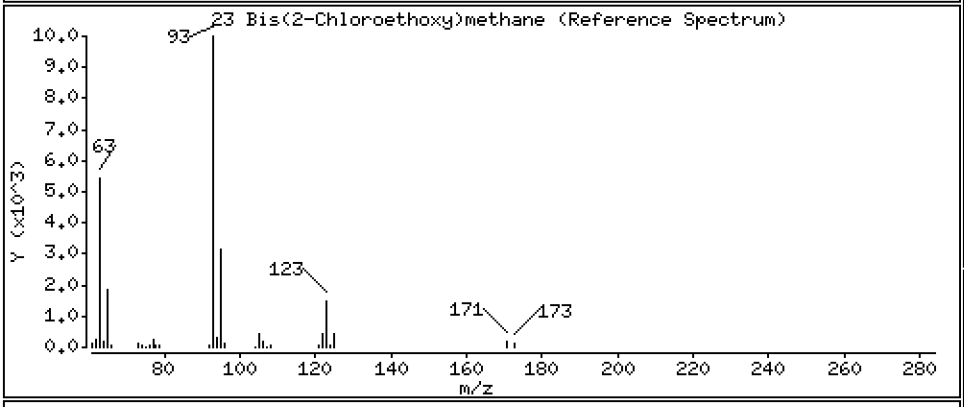
Concentration: 0.2003 ug/mL

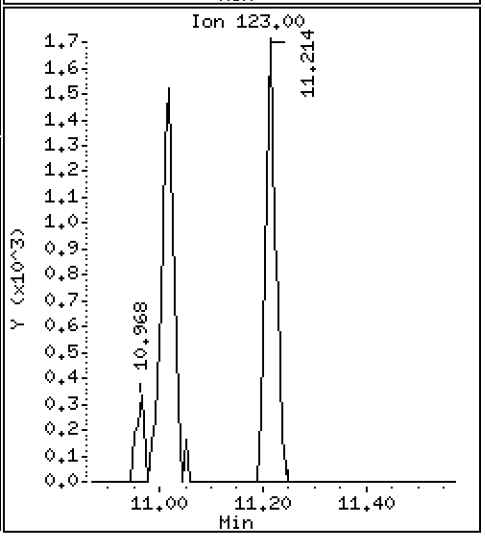


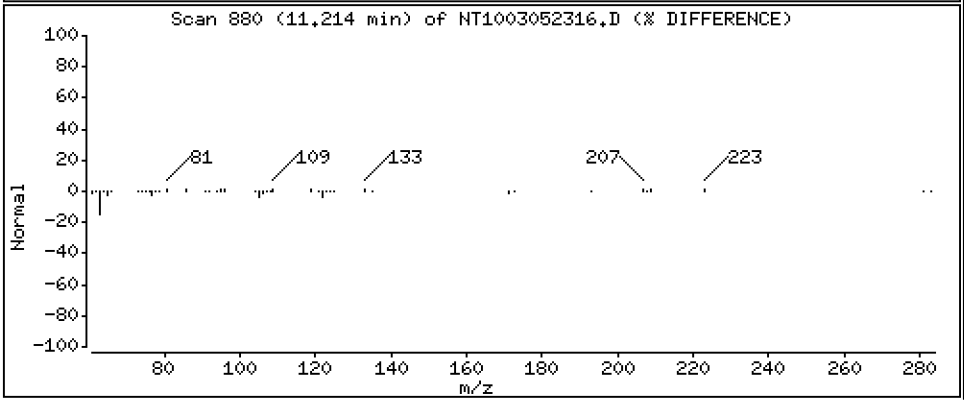












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

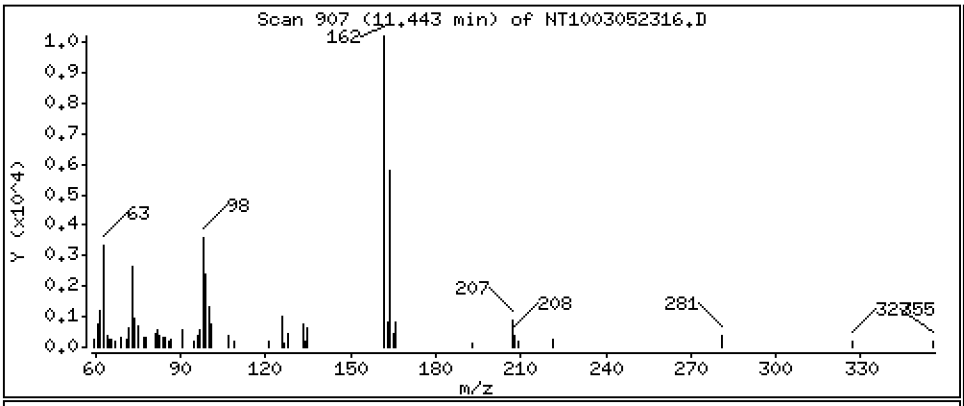
Operator: VTS

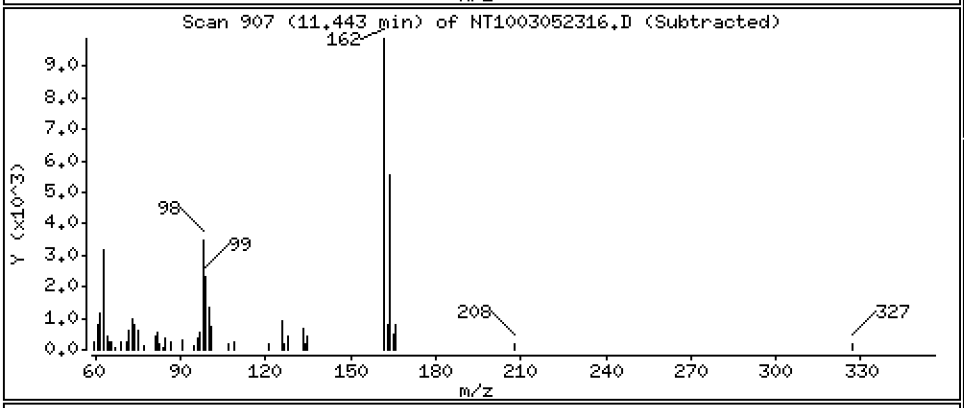
Column phase: ZB-5msi

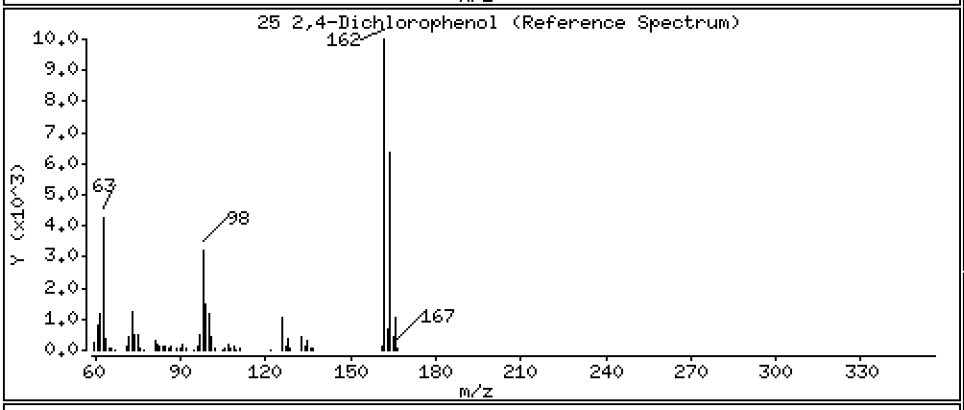
Column diameter: 0.25

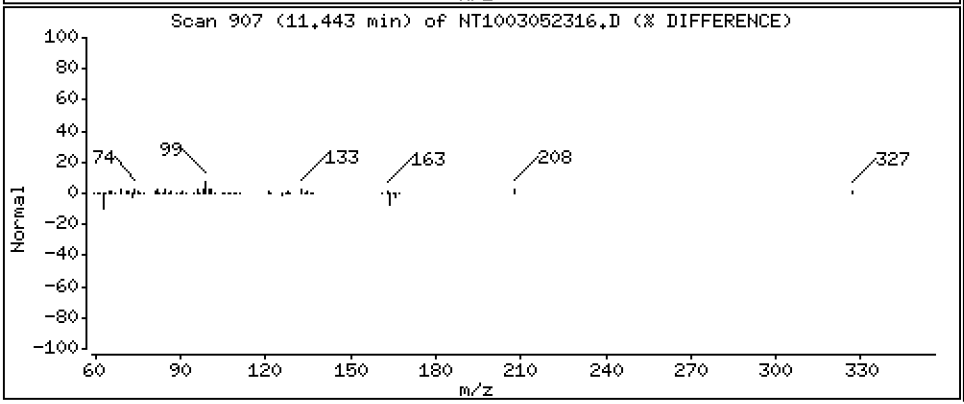
25 2,4-Dichlorophenol

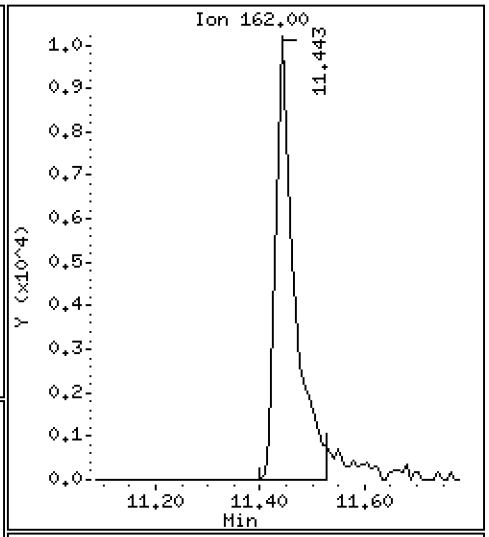
Concentration: 0.3387 ug/mL

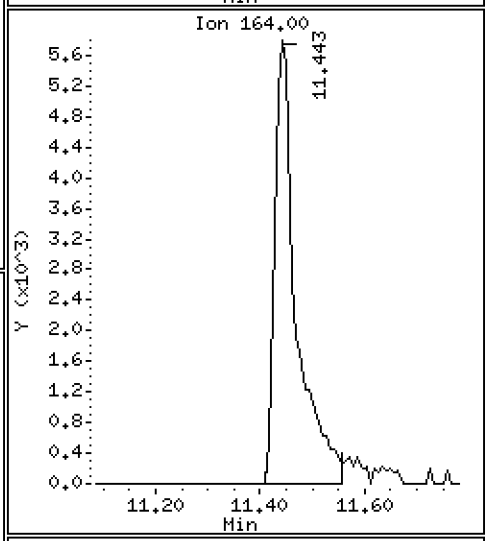


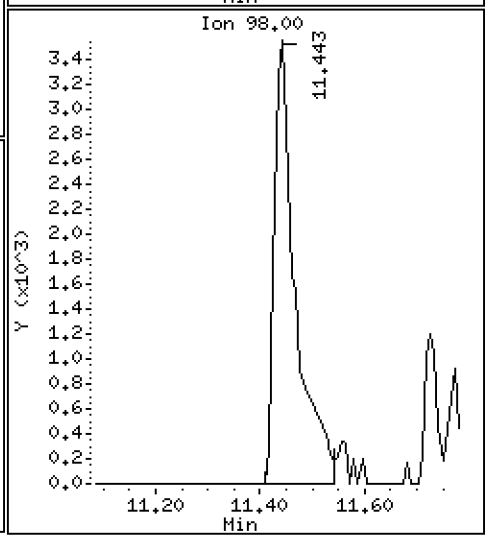












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

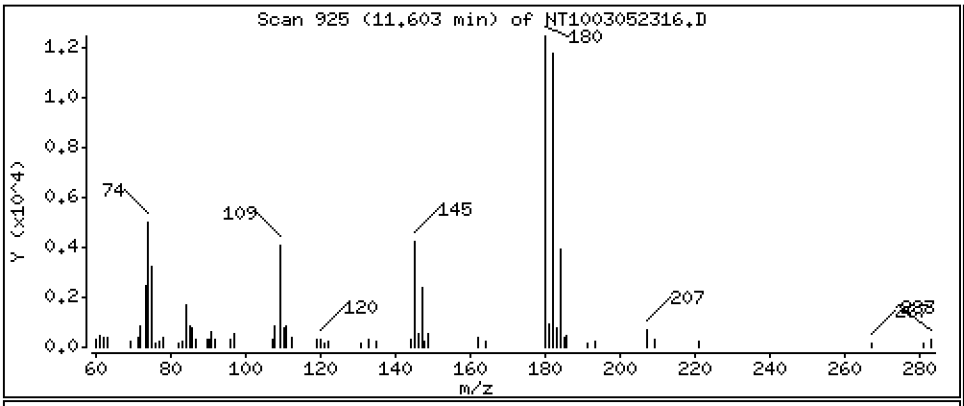
Operator: VTS

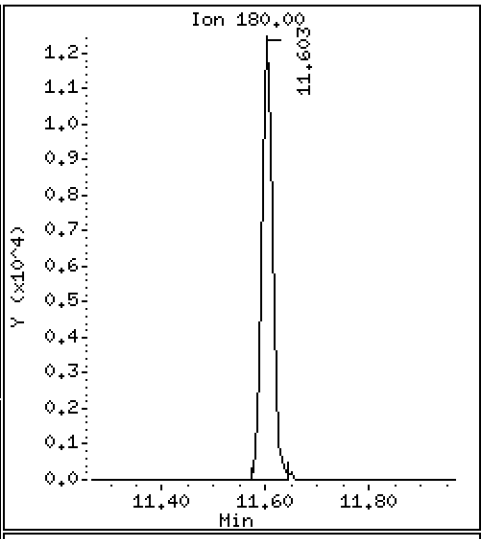
Column phase: ZB-5msi

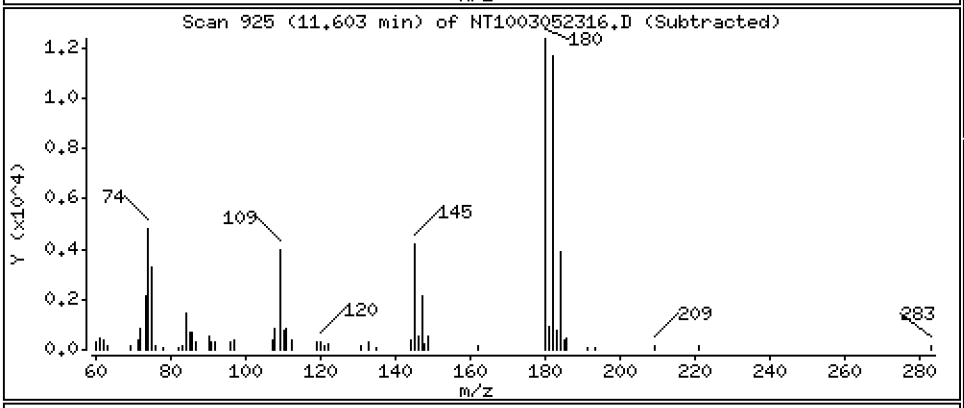
Column diameter: 0.25

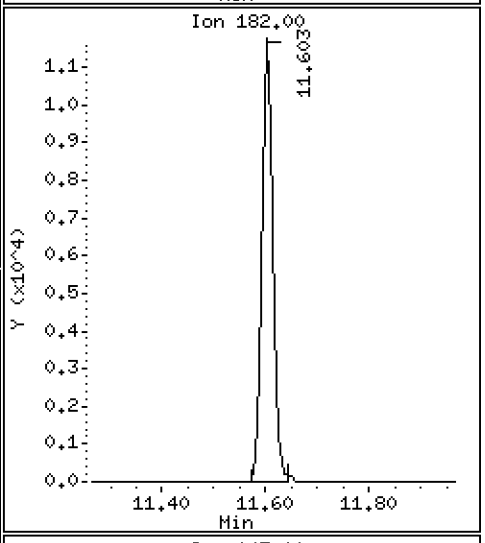
26 1,2,4-Trichlorobenzene

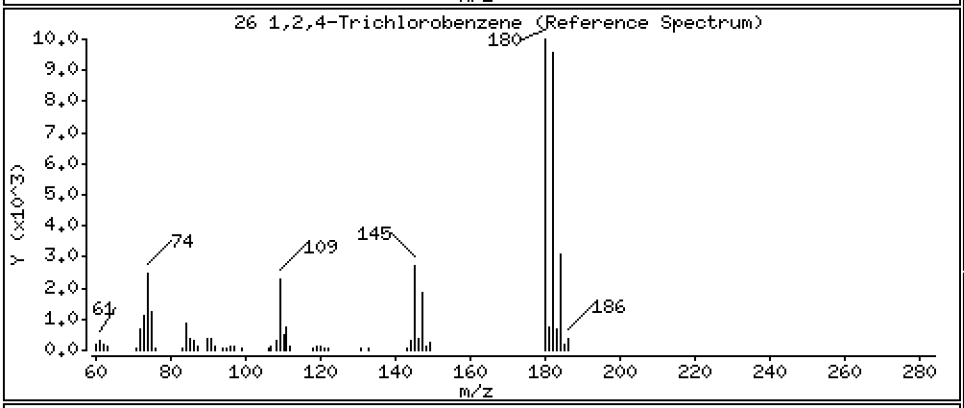
Concentration: 0.2309 ug/mL

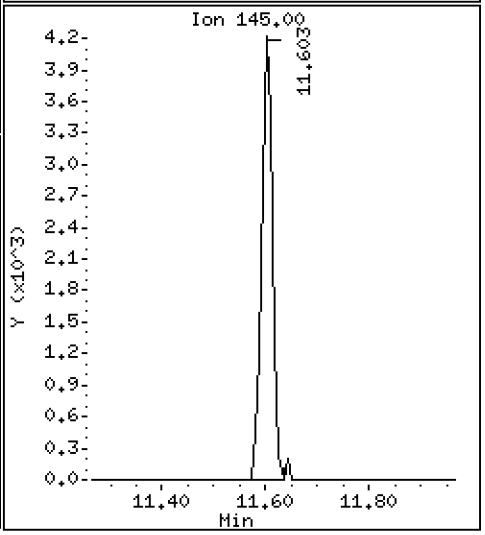


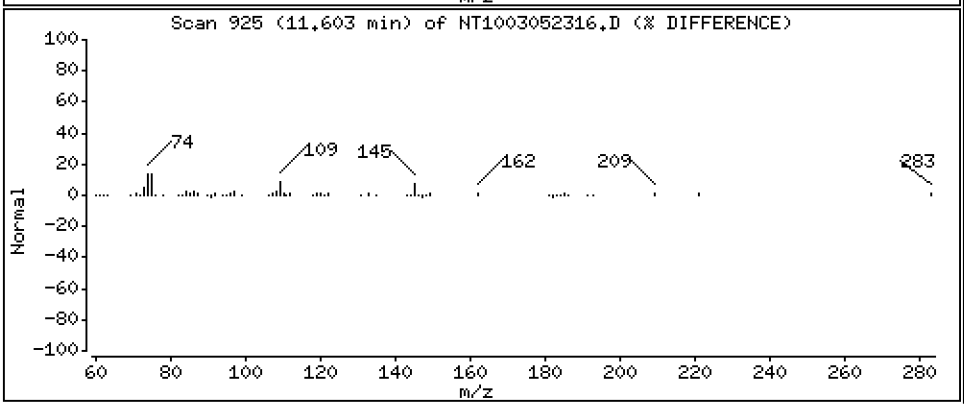












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

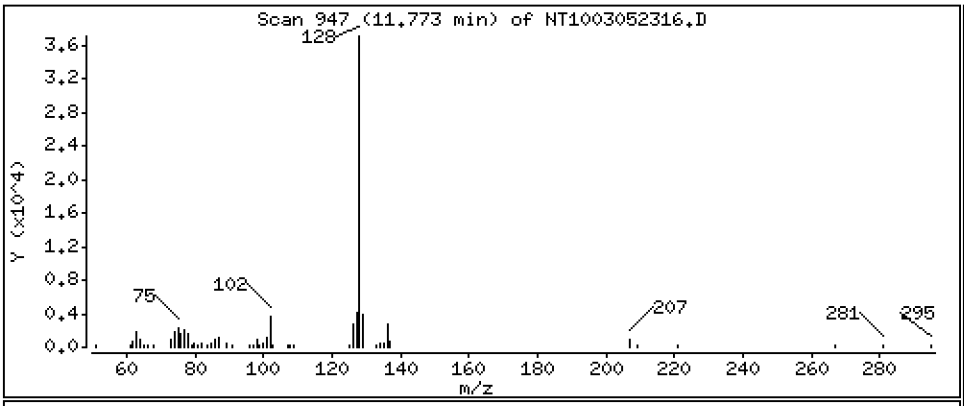
Operator: VTS

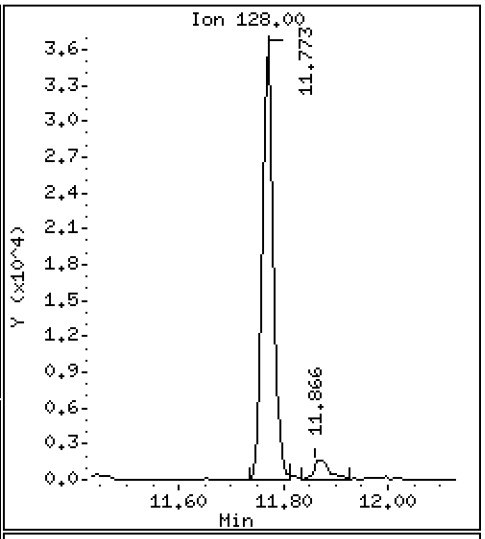
Column phase: ZB-5msi

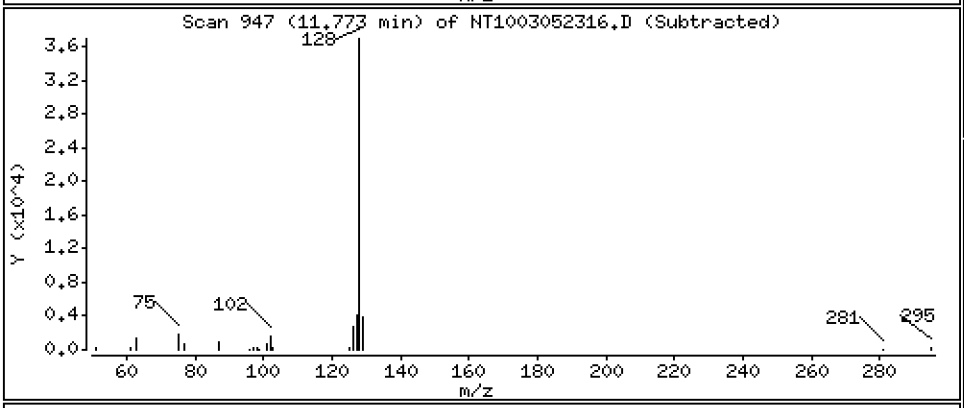
Column diameter: 0.25

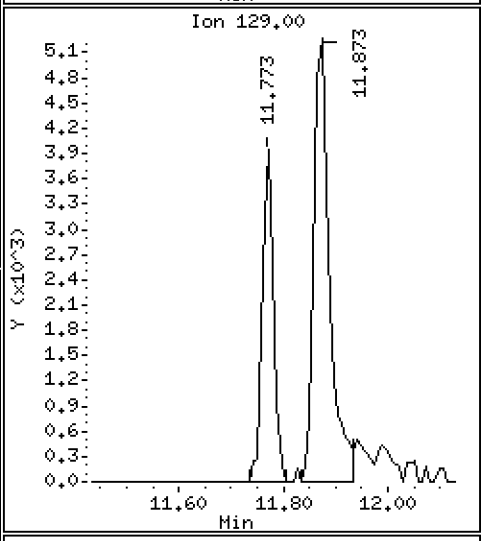
28 Naphthalene

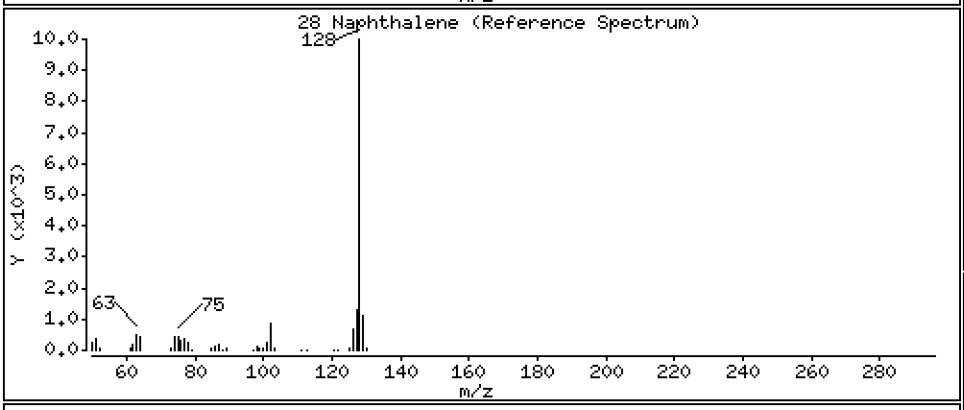
Concentration: 0.2025 ug/mL

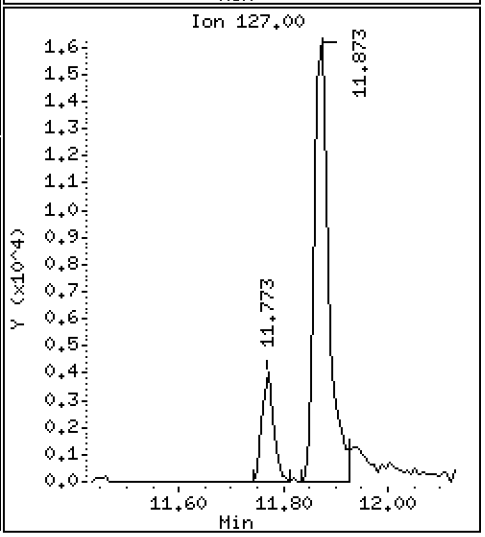


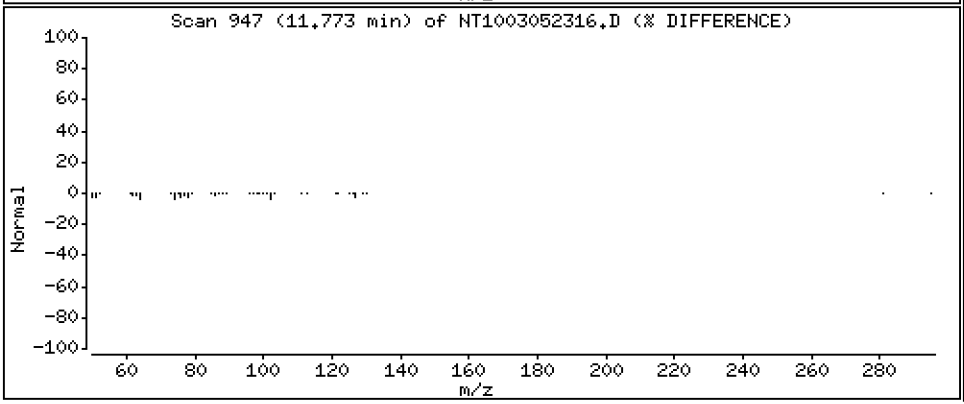












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

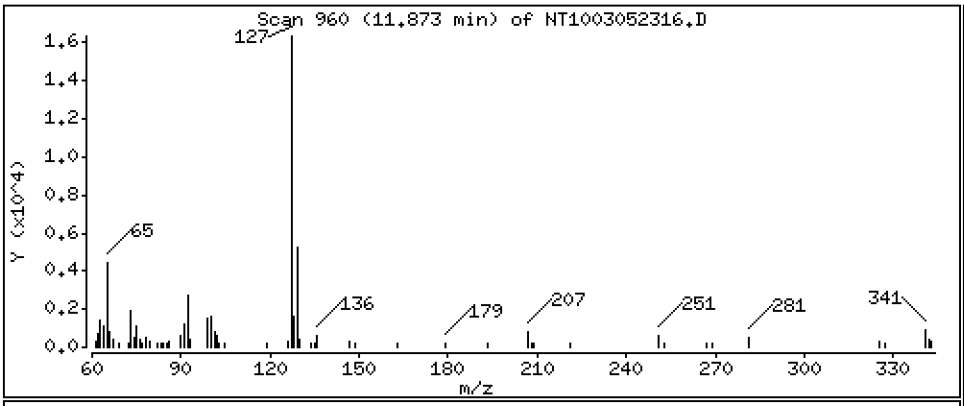
Operator: VTS

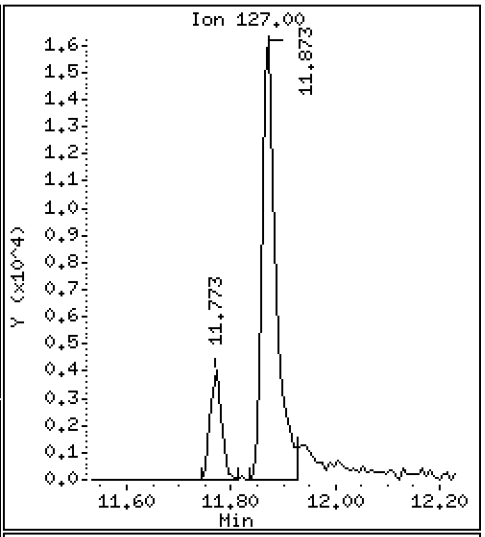
Column phase: ZB-5msi

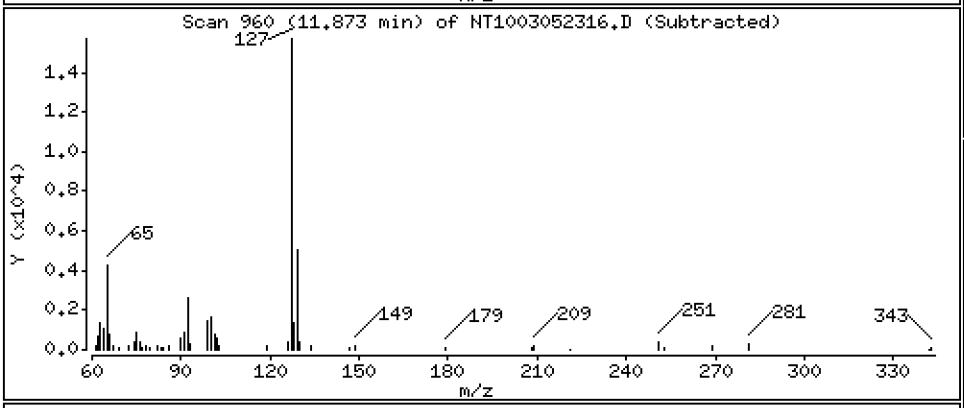
Column diameter: 0.25

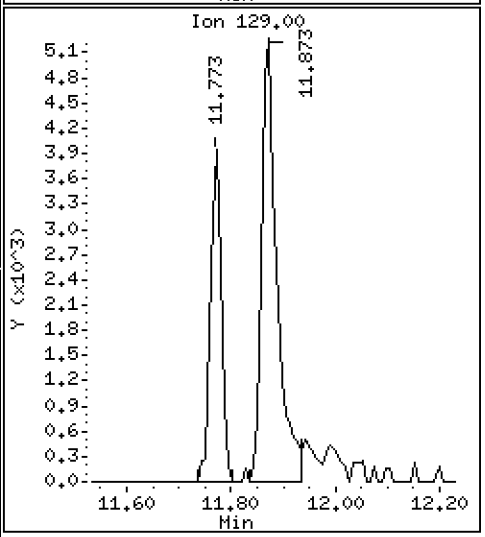
29 4-Chloroaniline

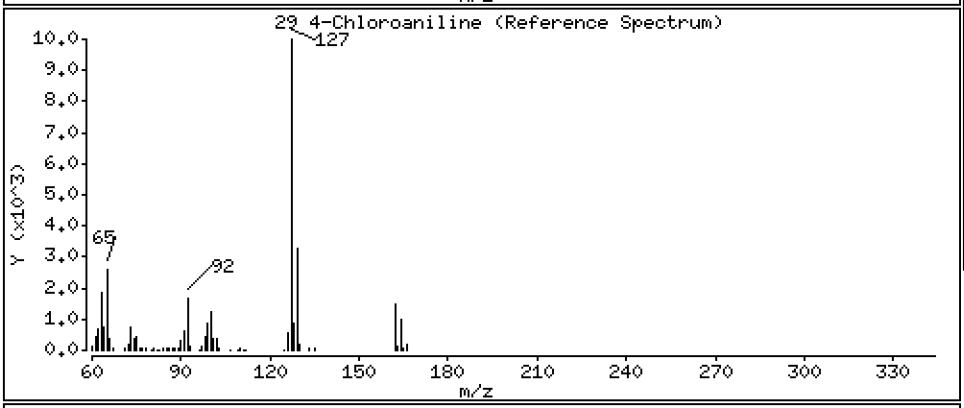
Concentration: 0.2560 ug/mL

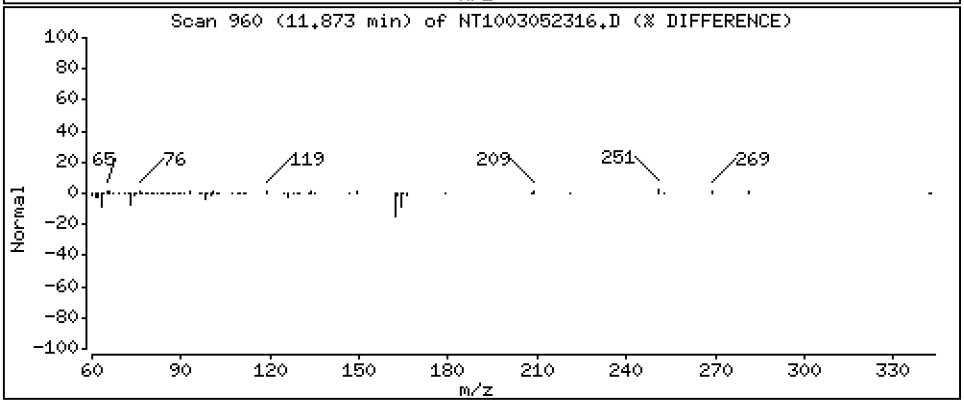












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

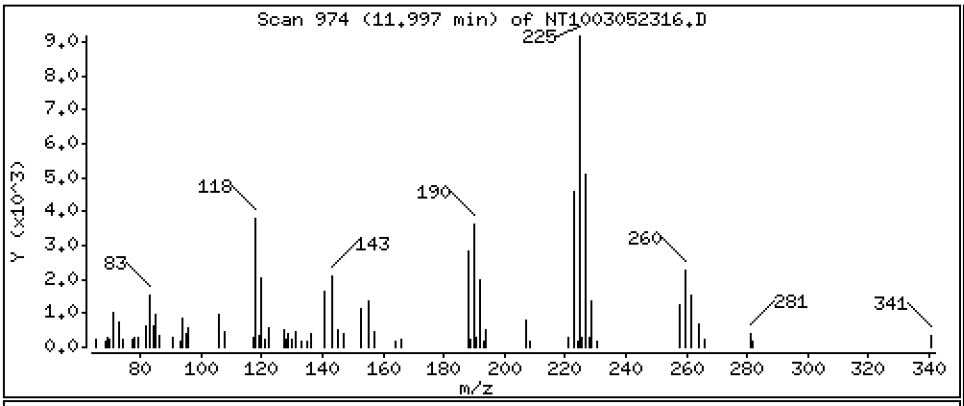
Operator: VTS

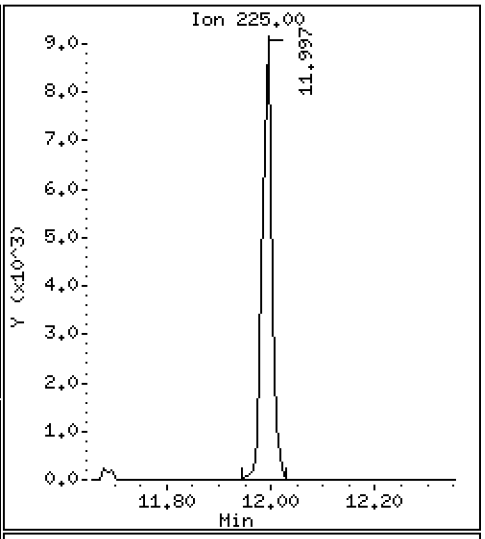
Column phase: ZB-5msi

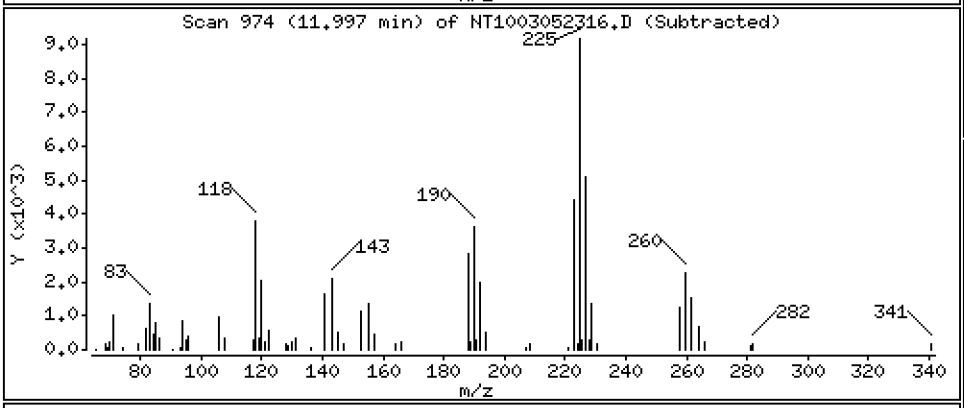
Column diameter: 0.25

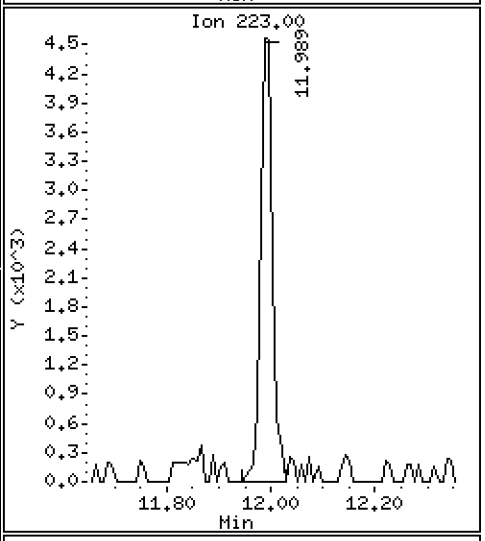
30 Hexachlorobutadiene

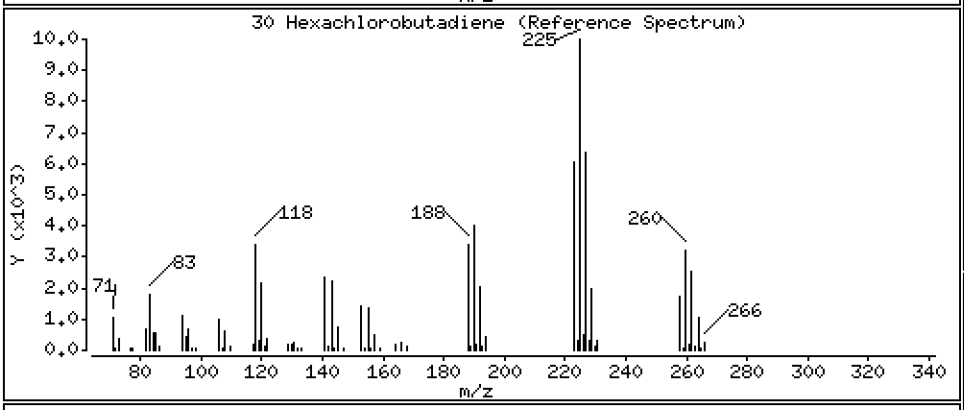
Concentration: 0.2510 ug/mL

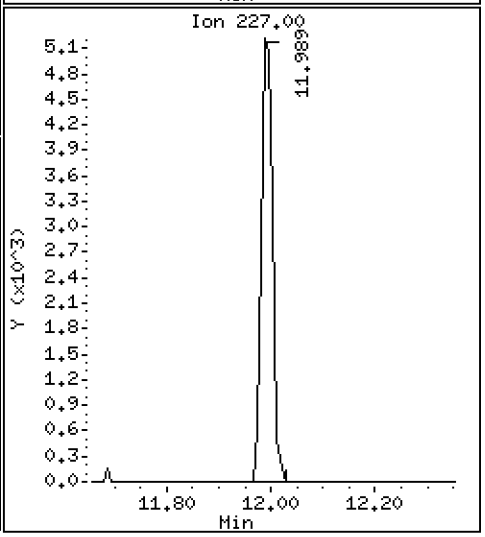


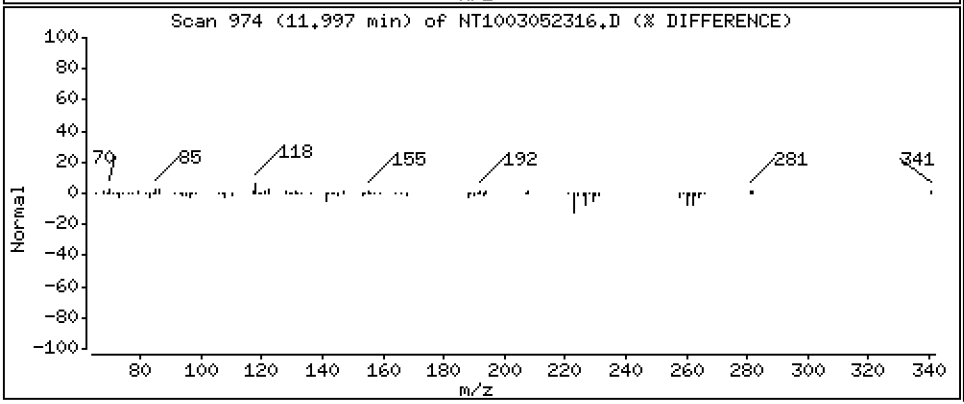












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

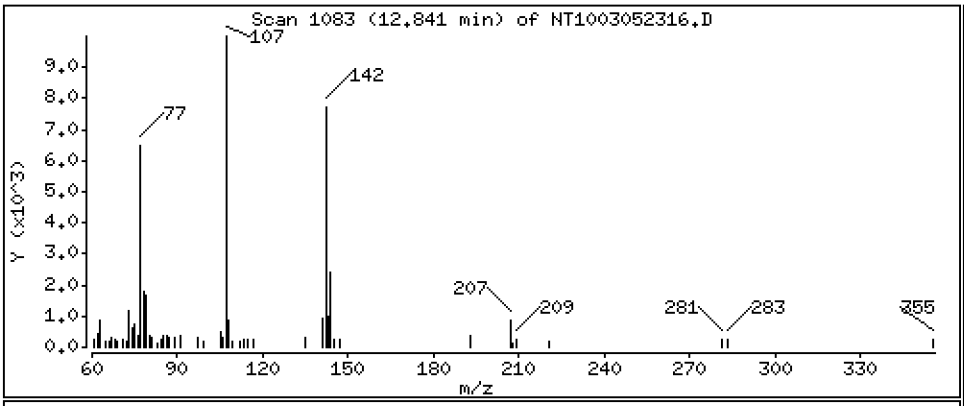
Operator: VTS

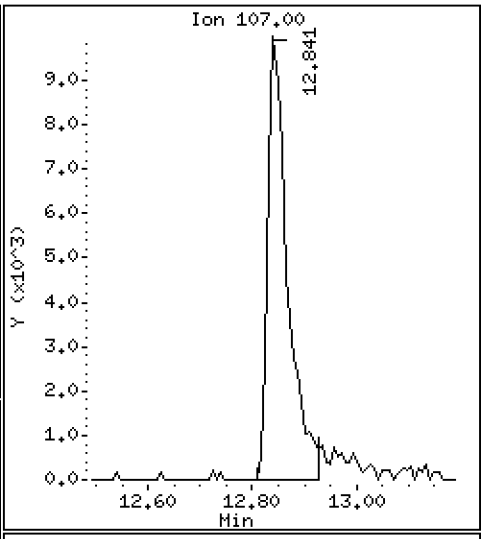
Column phase: ZB-5msi

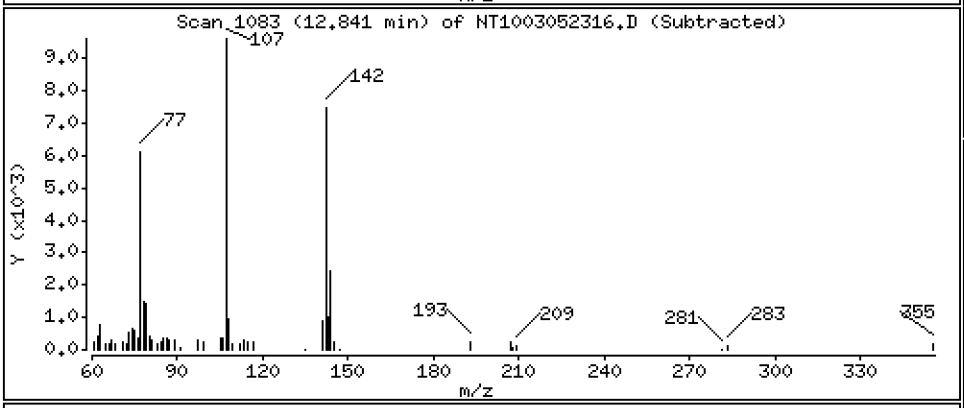
Column diameter: 0.25

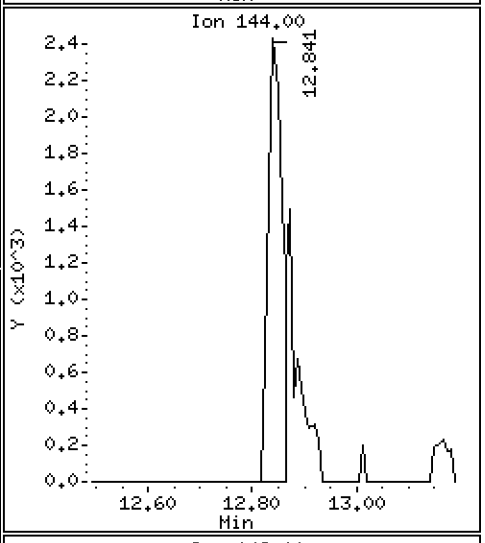
31 4-Chloro-3-methylphenol

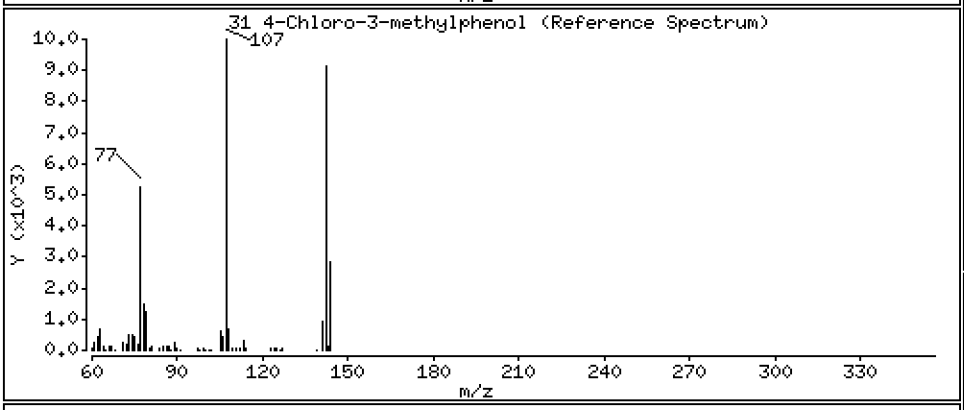
Concentration: 0.2986 ug/mL

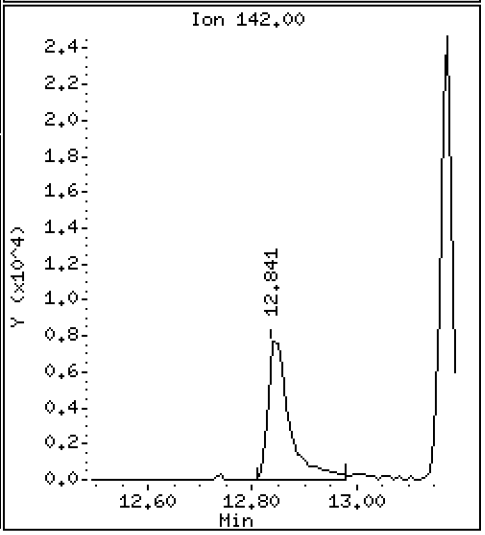


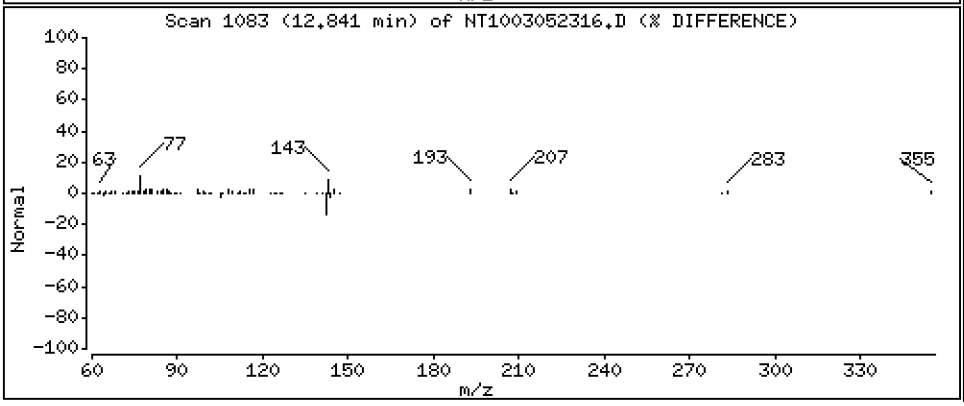












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

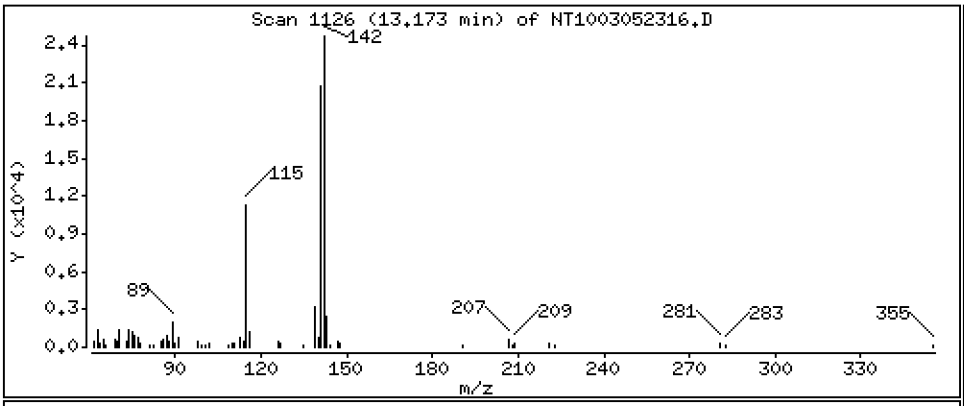
Operator: VTS

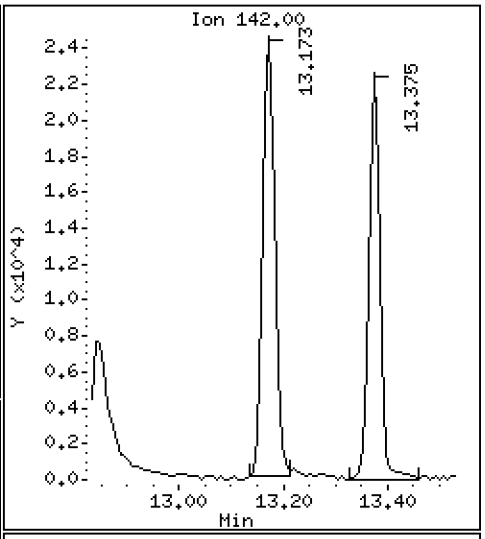
Column phase: ZB-5msi

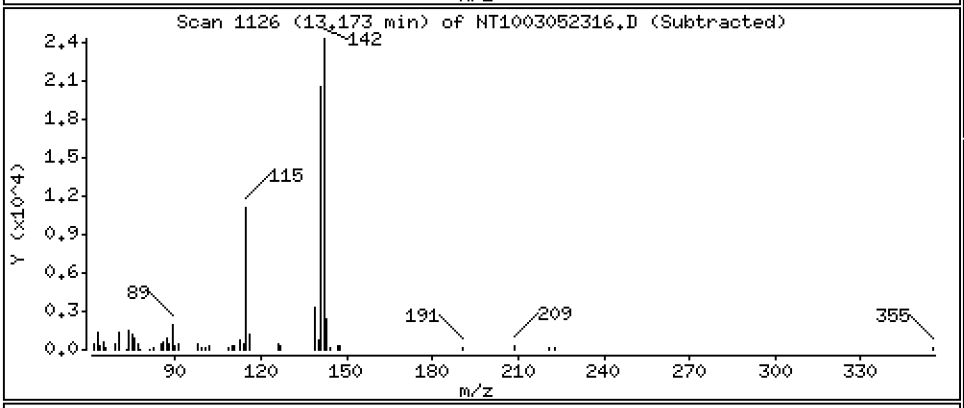
Column diameter: 0.25

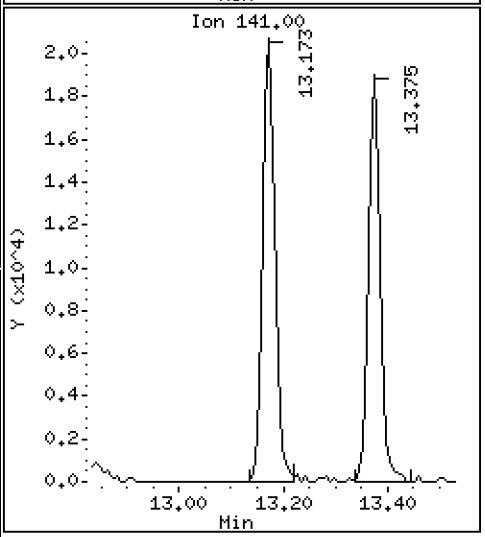
32 2-Methylnaphthalene

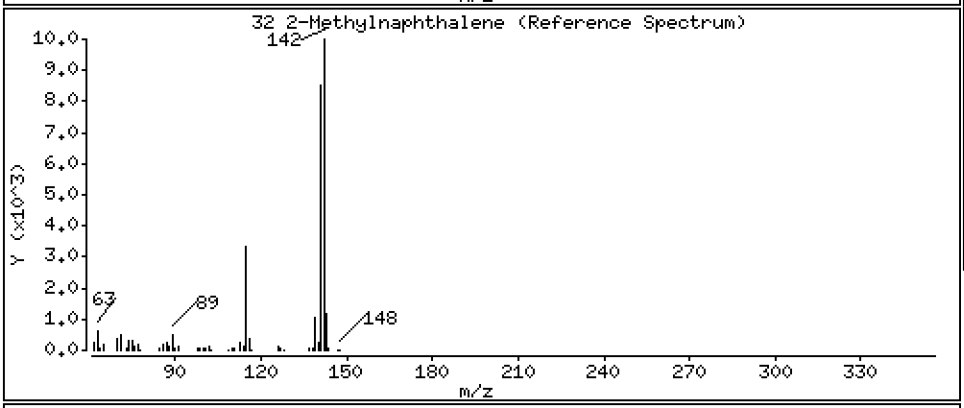
Concentration: 0.1967 ug/mL

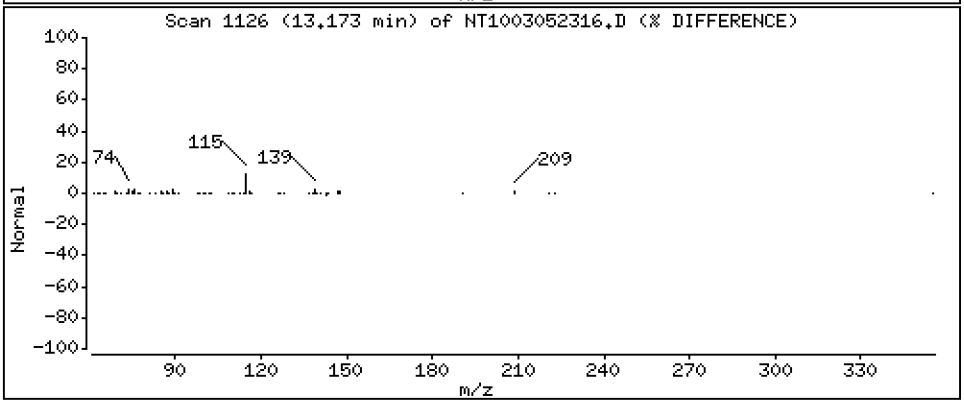












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

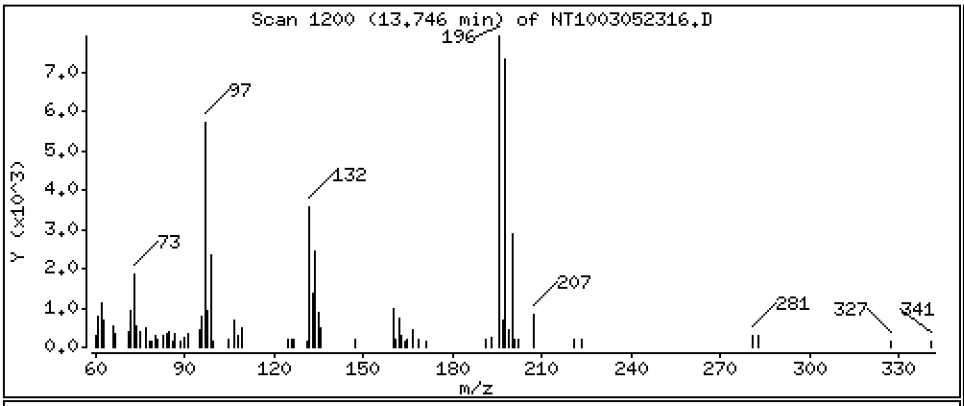
Operator: VTS

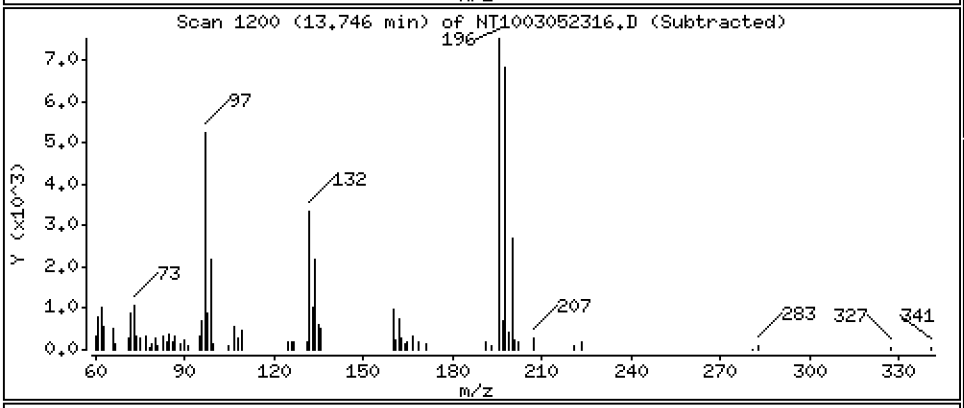
Column phase: ZB-5msi

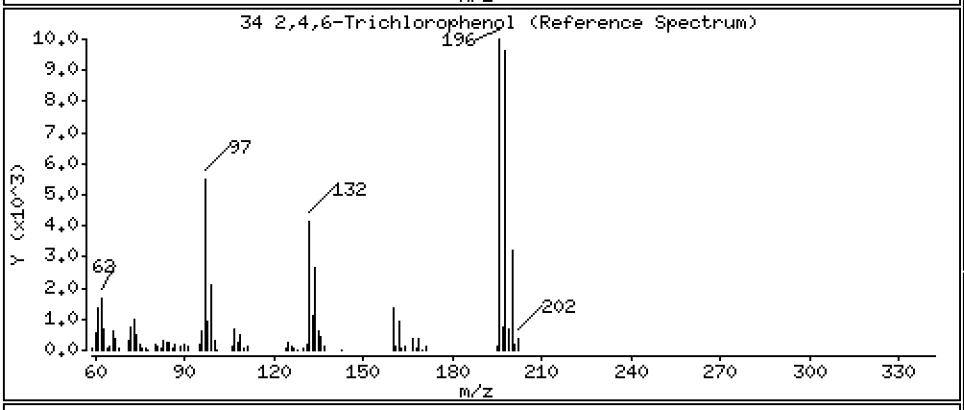
Column diameter: 0.25

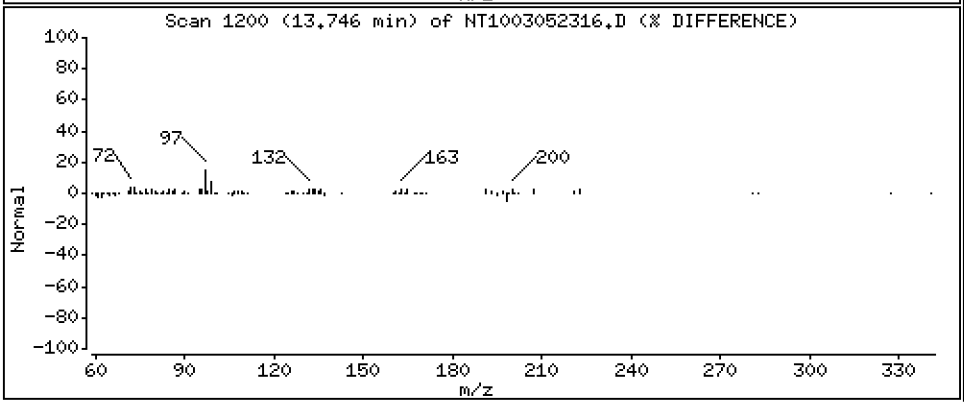
34 2,4,6-Trichlorophenol

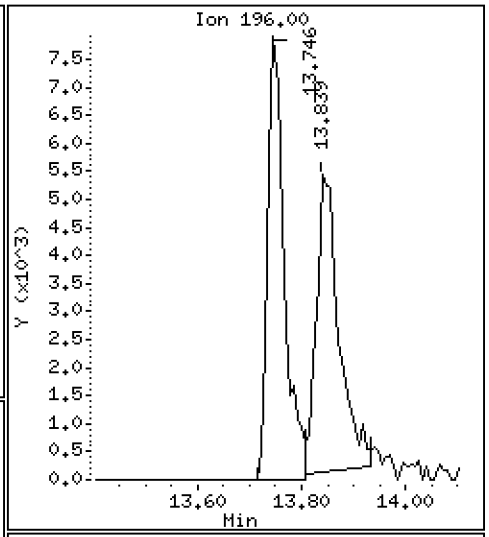
Concentration: 0.3294 ug/mL

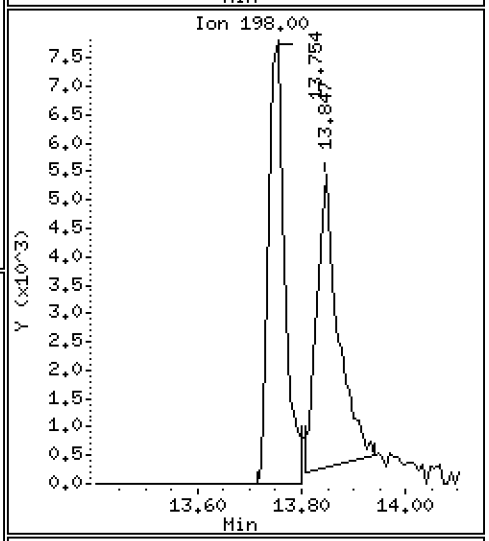


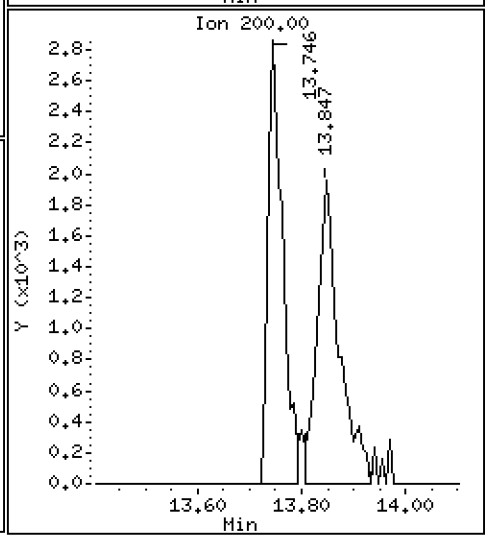












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

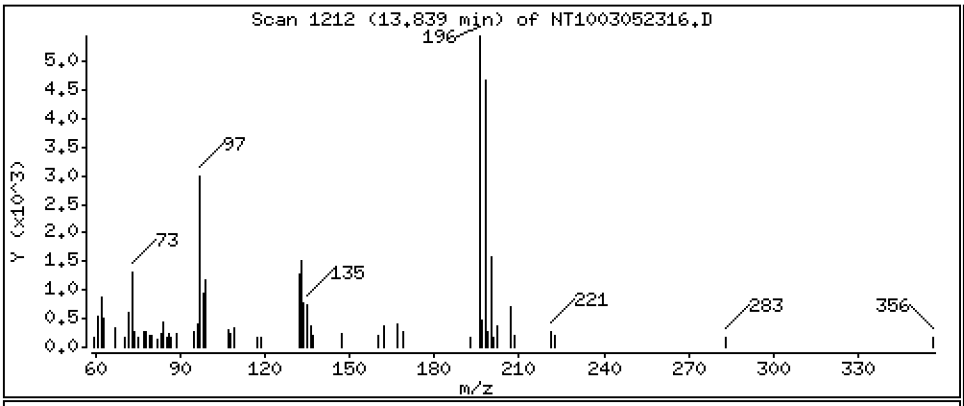
Operator: VTS

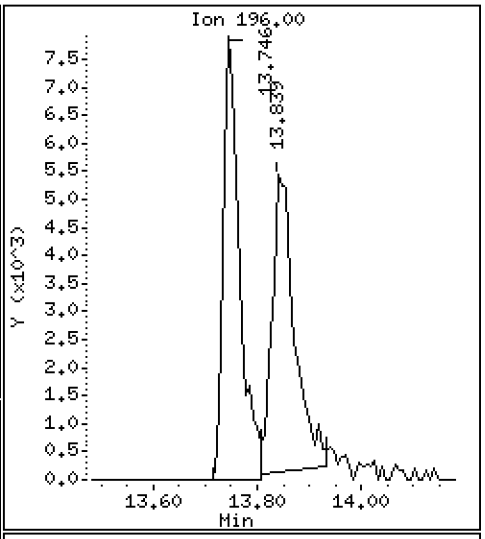
Column phase: ZB-5msi

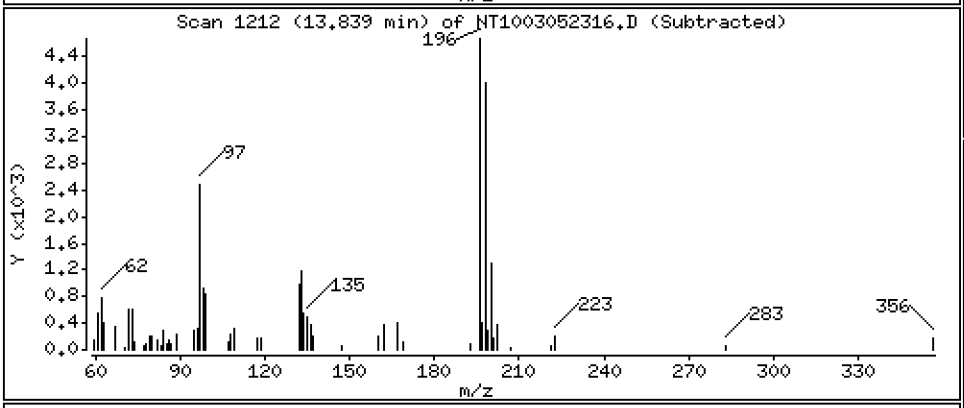
Column diameter: 0.25

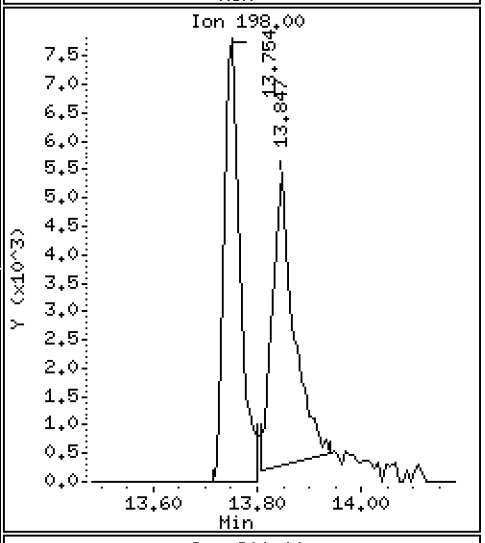
35 2,4,5-Trichlorophenol

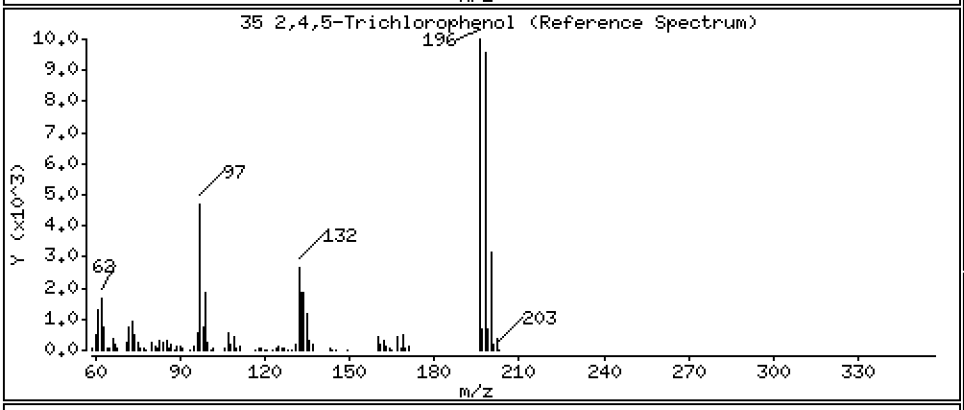
Concentration: 0.2931 ug/mL

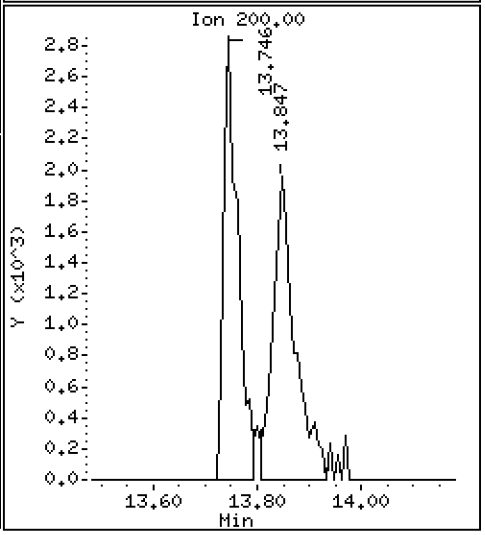


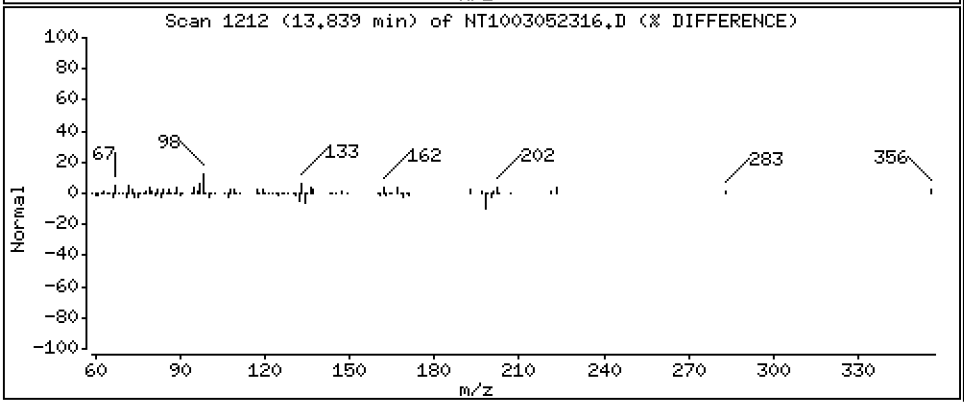












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

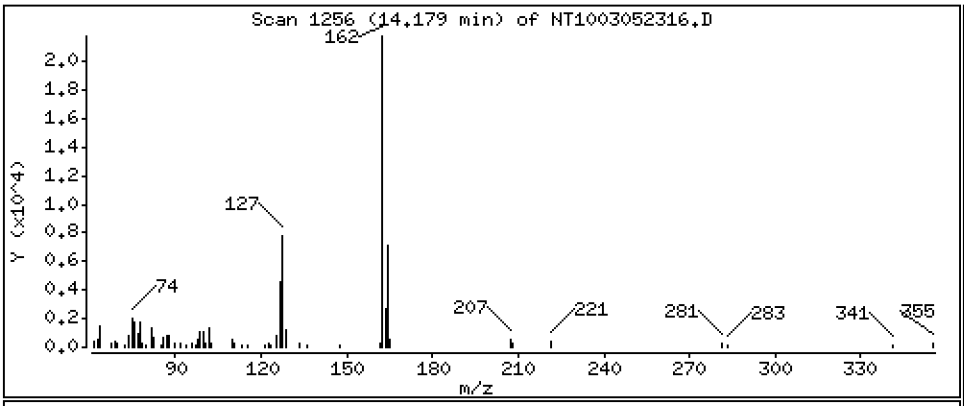
Operator: VTS

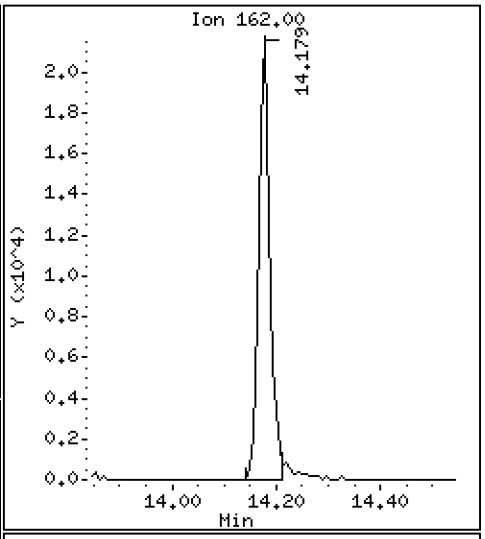
Column phase: ZB-5msi

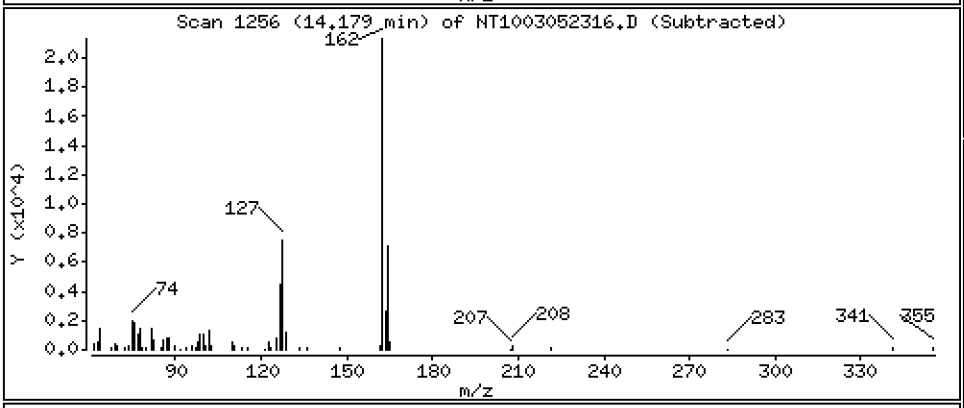
Column diameter: 0.25

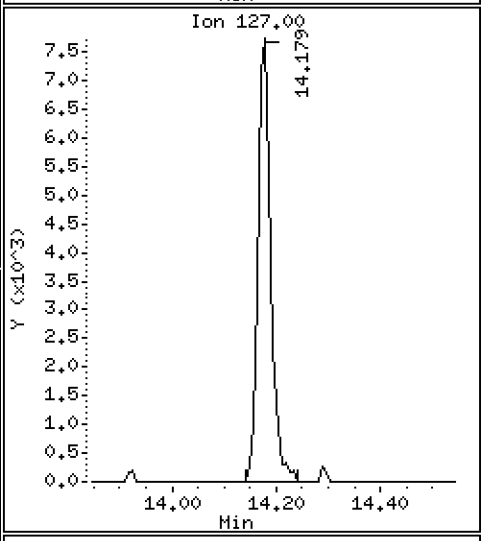
37 2-Chloronaphthalene

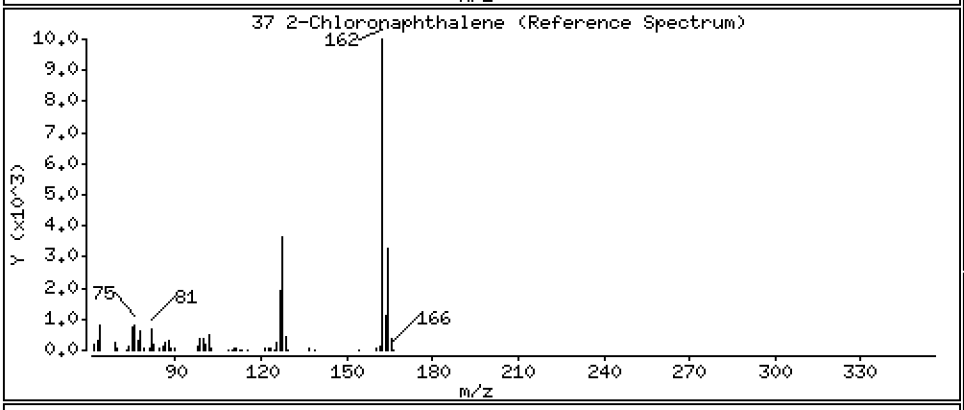
Concentration: 0.2152 ug/mL

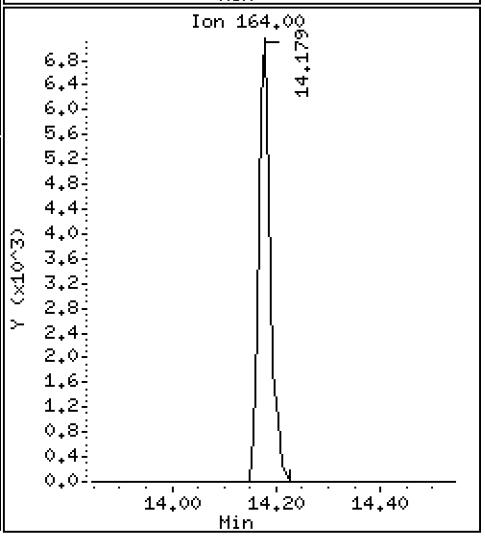


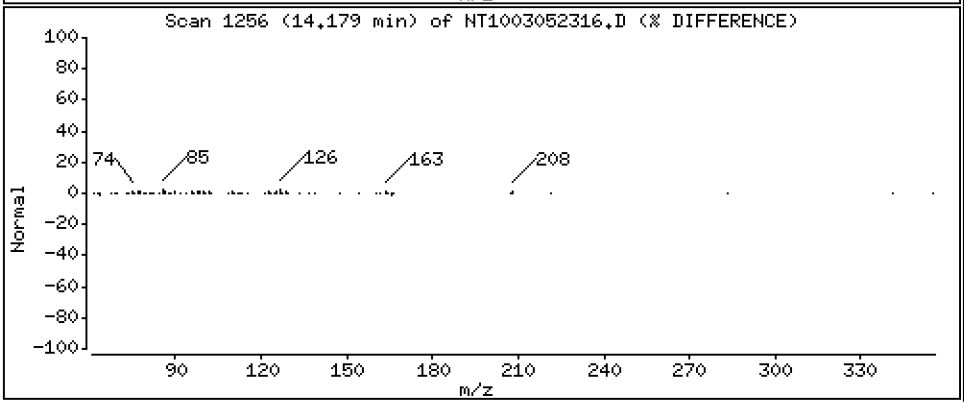












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

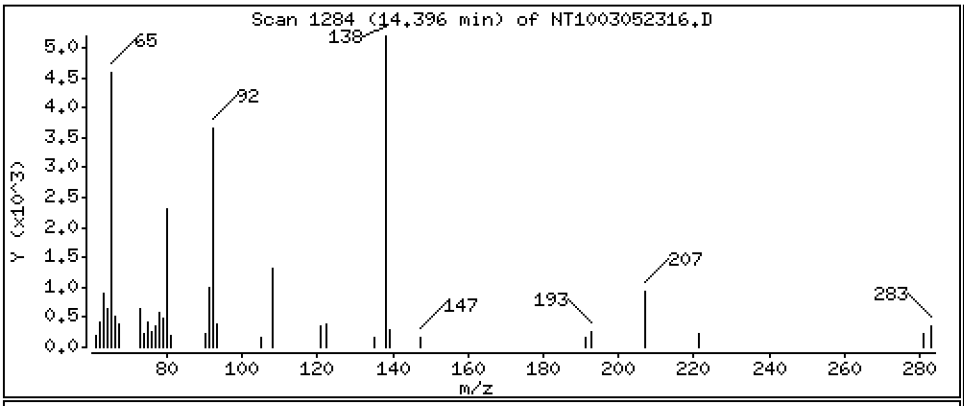
Operator: VTS

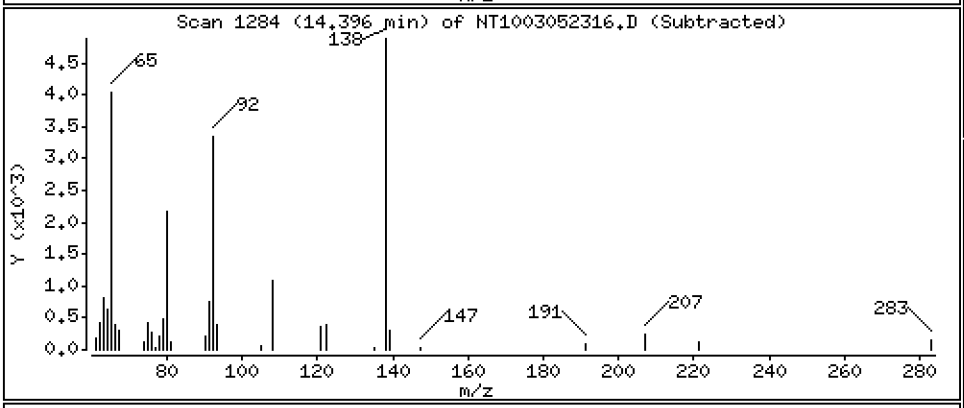
Column phase: ZB-5msi

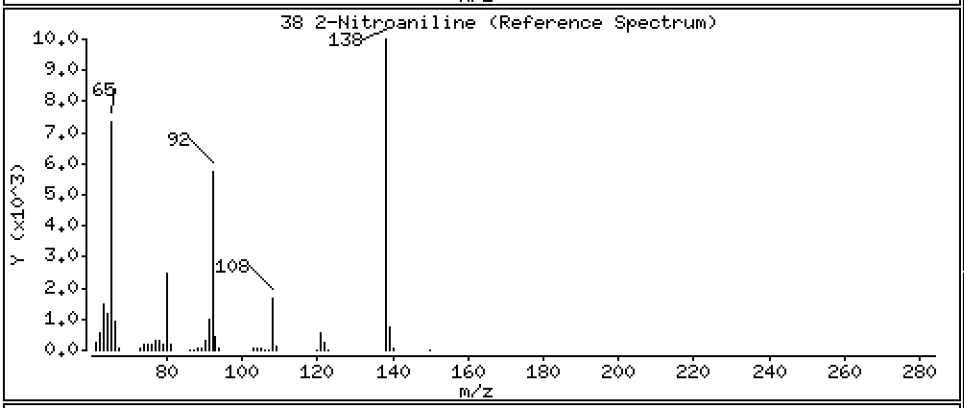
Column diameter: 0.25

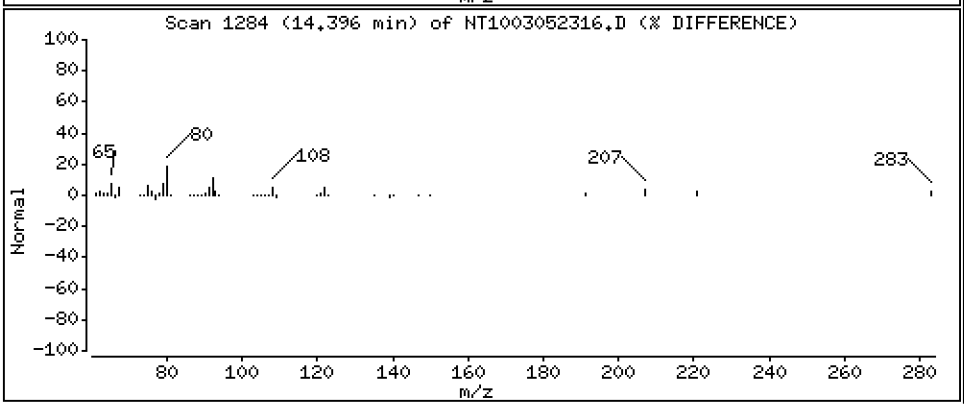
38 2-Nitroaniline

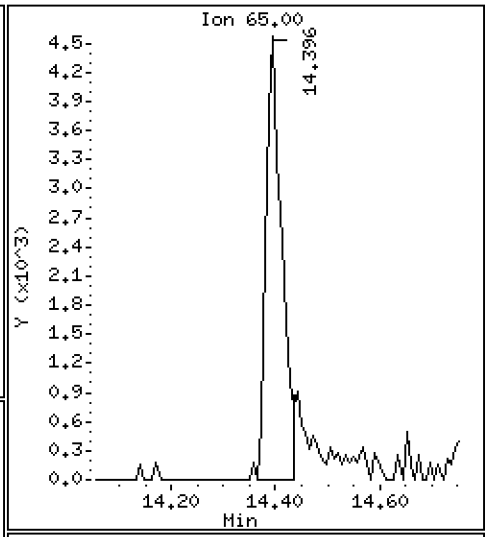
Concentration: 0.2264 ug/mL

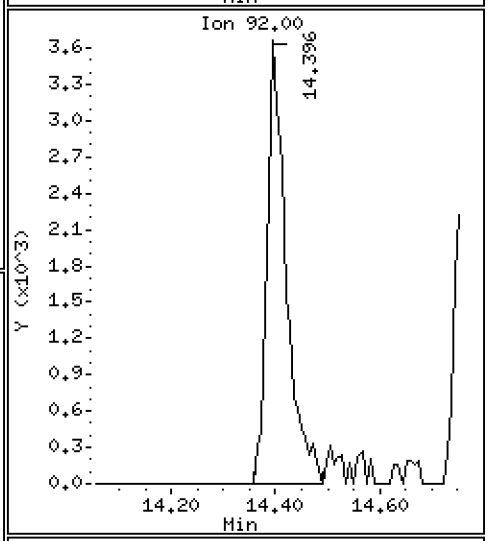


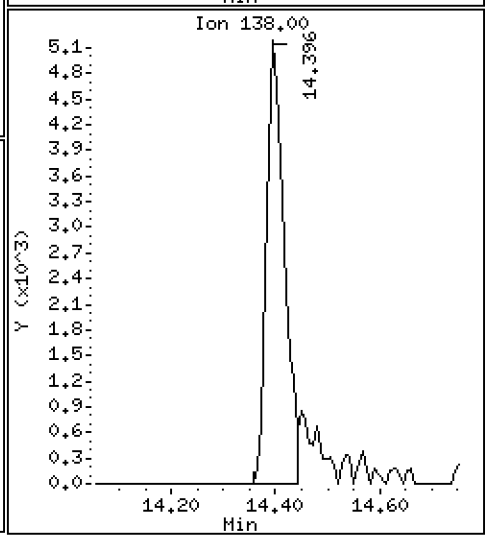












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

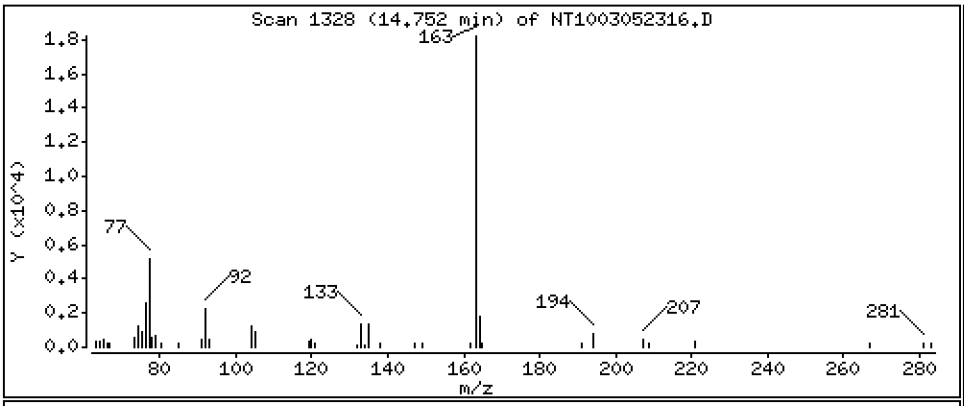
Operator: VTS

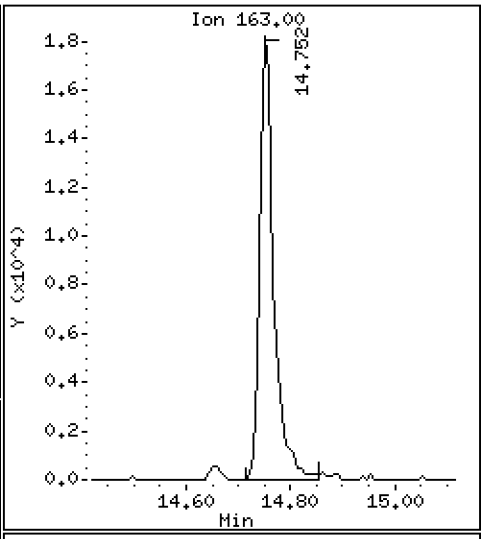
Column phase: ZB-5msi

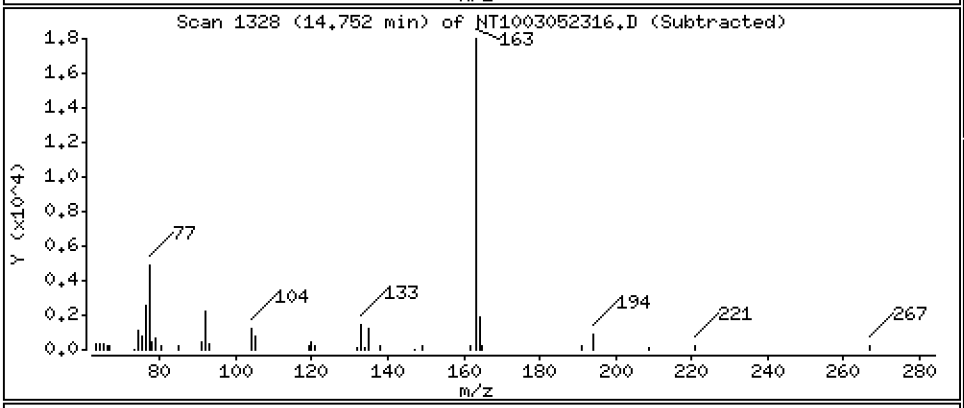
Column diameter: 0.25

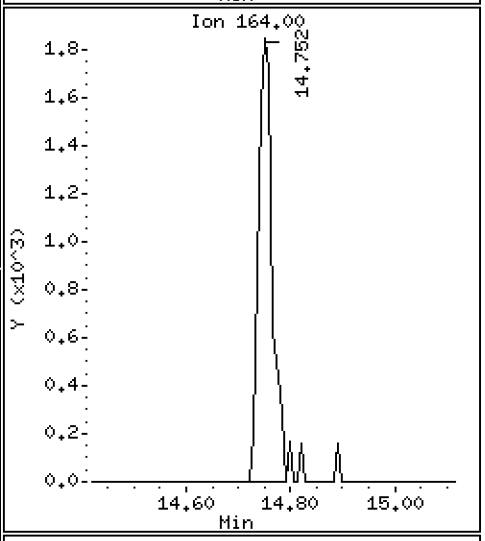
39 Dimethylphthalate

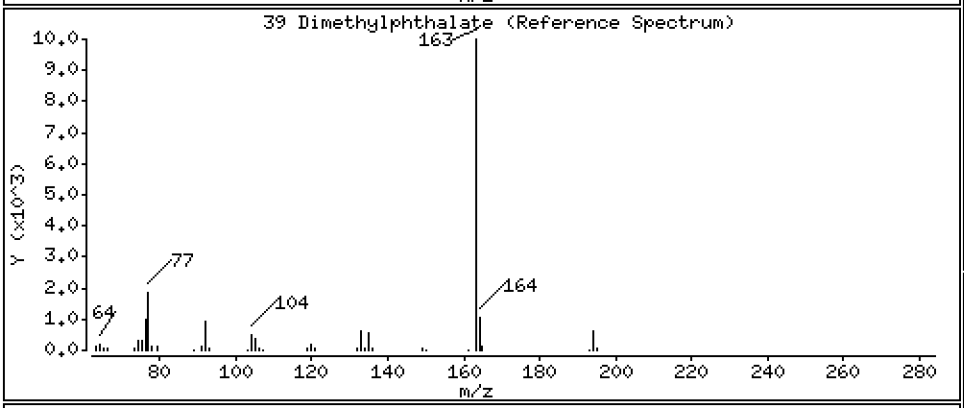
Concentration: 0.1954 ug/mL

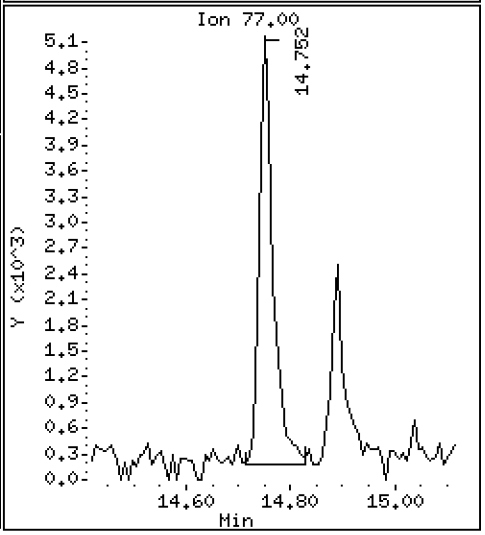


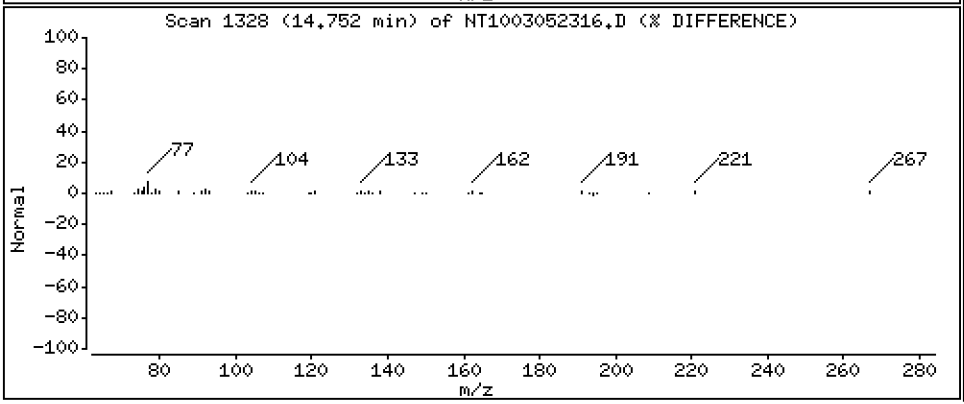












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

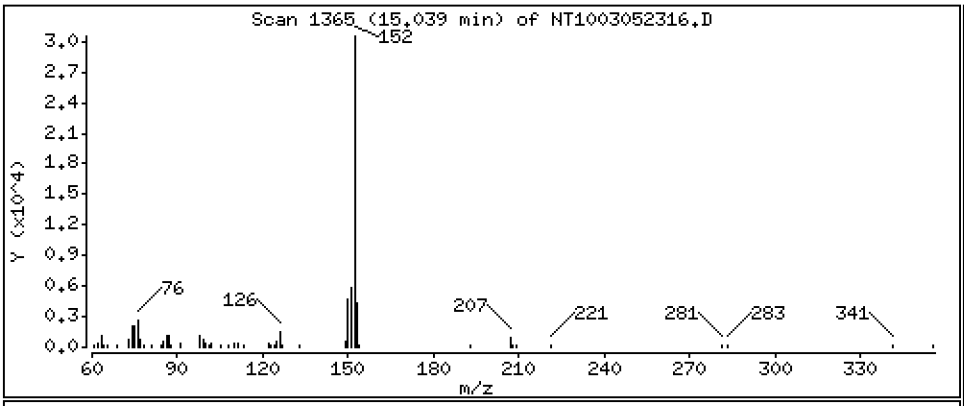
Operator: VTS

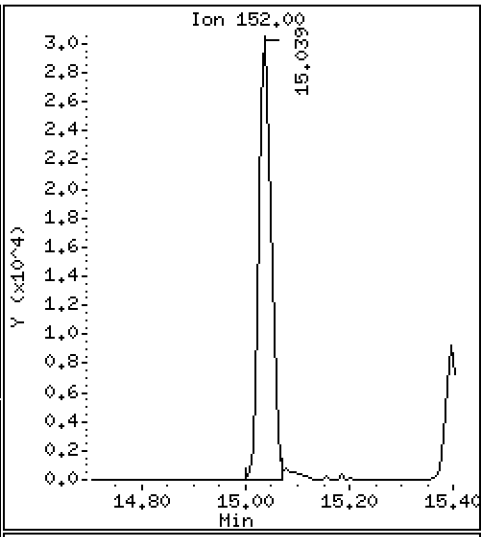
Column phase: ZB-5msi

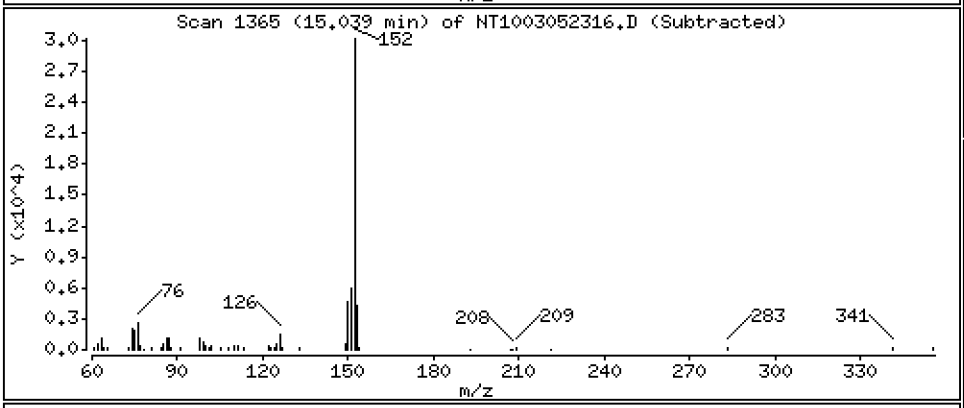
Column diameter: 0.25

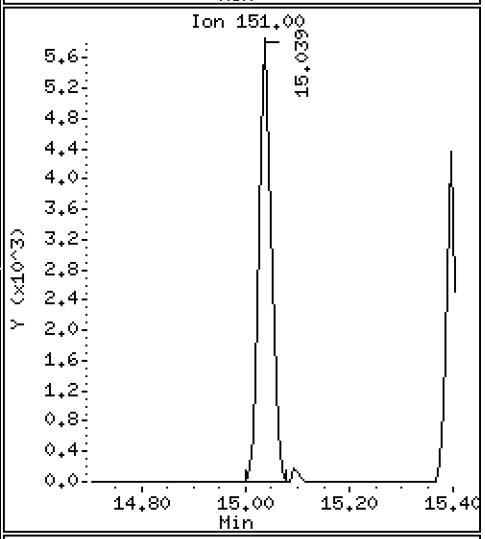
40 Acenaphthylene

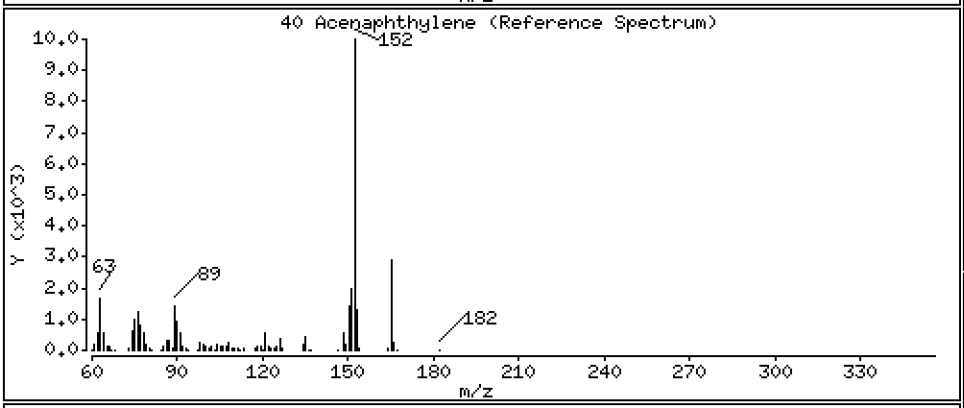
Concentration: 0.1877 ug/mL

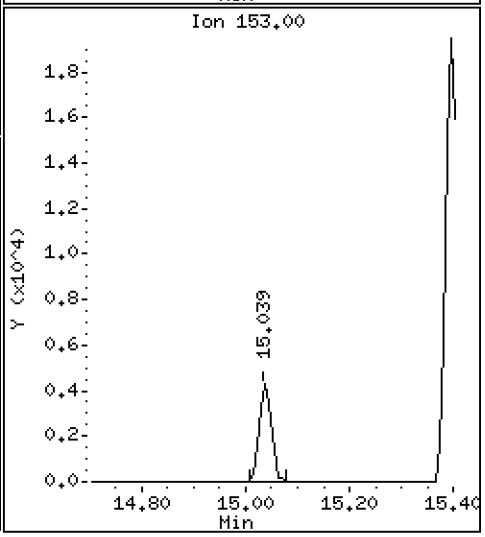


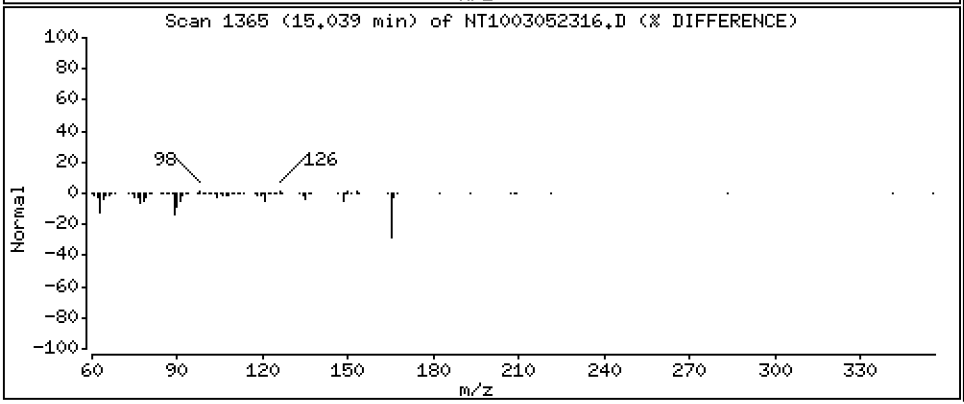












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

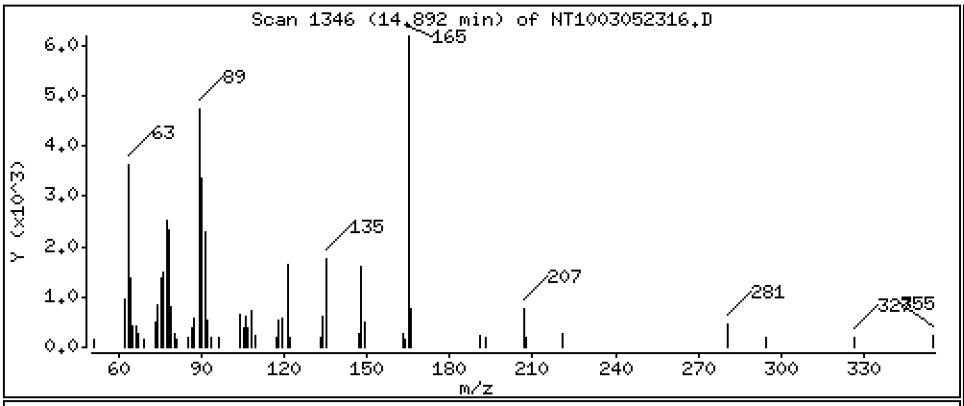
Operator: VTS

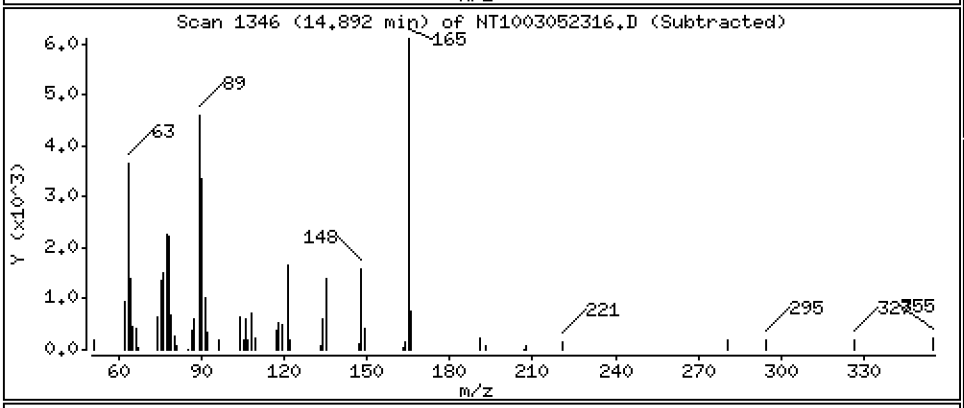
Column phase: ZB-5msi

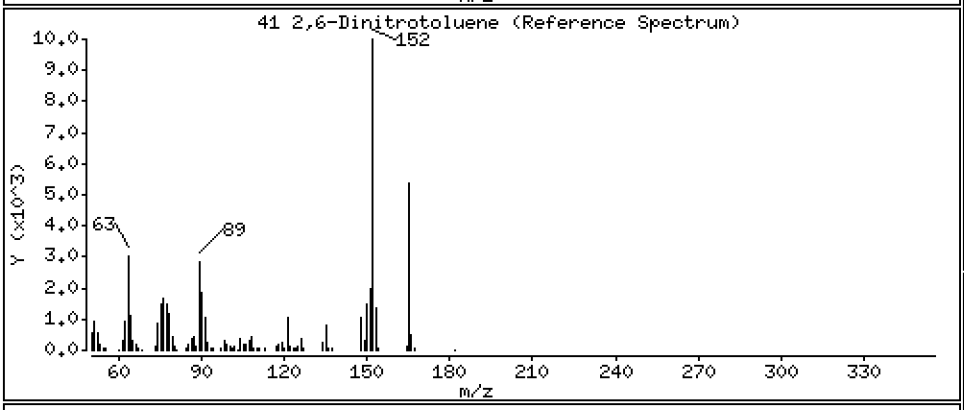
Column diameter: 0.25

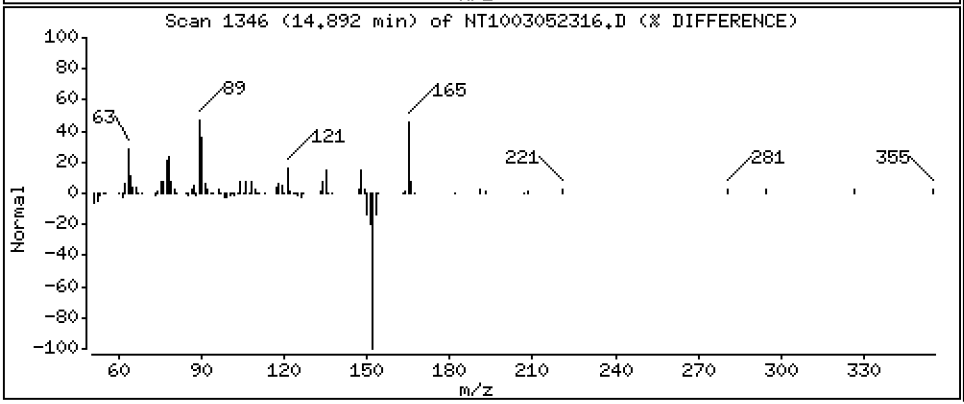
41 2,6-Dinitrotoluene

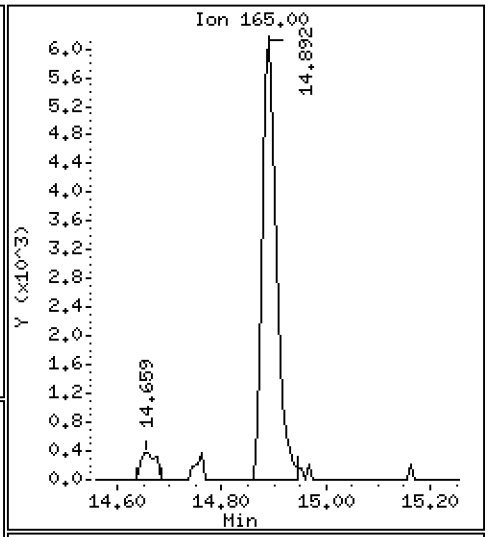
Concentration: 0.2957 ug/mL

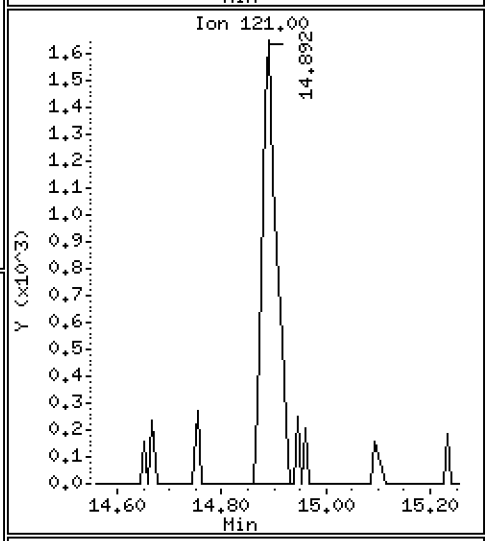


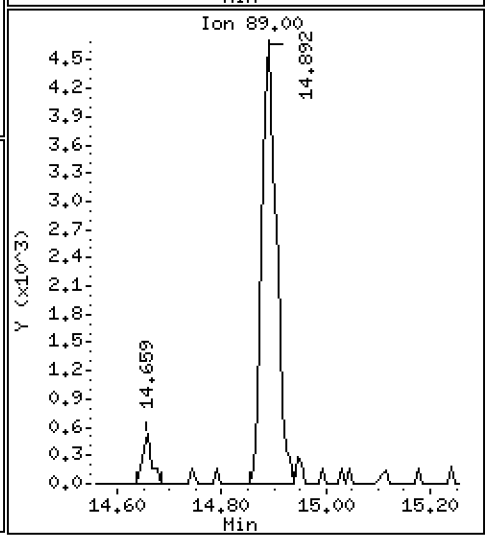












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

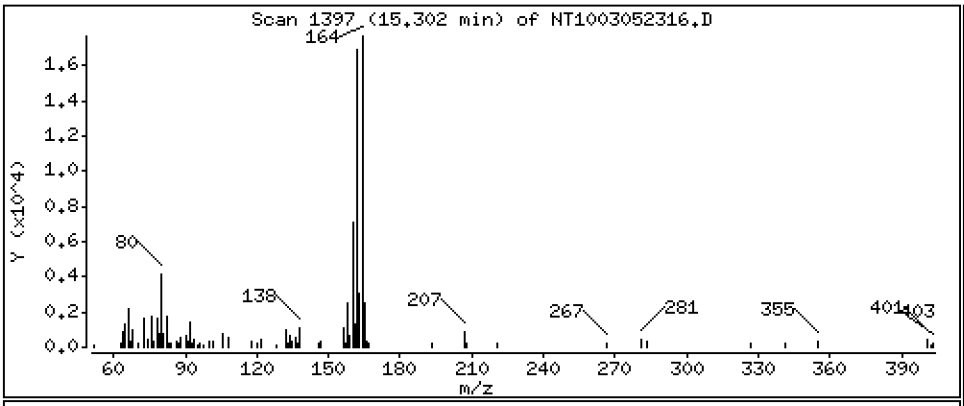
Operator: VTS

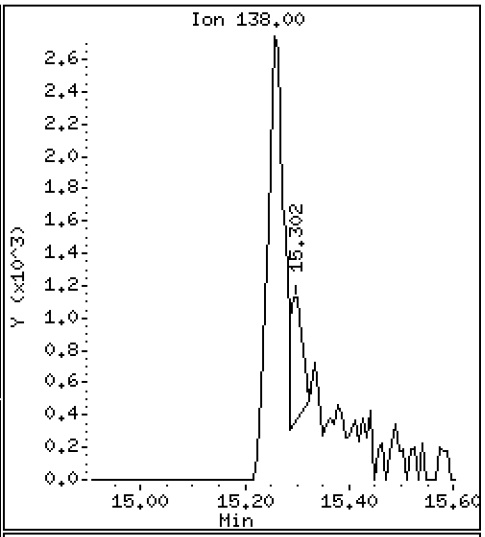
Column phase: ZB-5msi

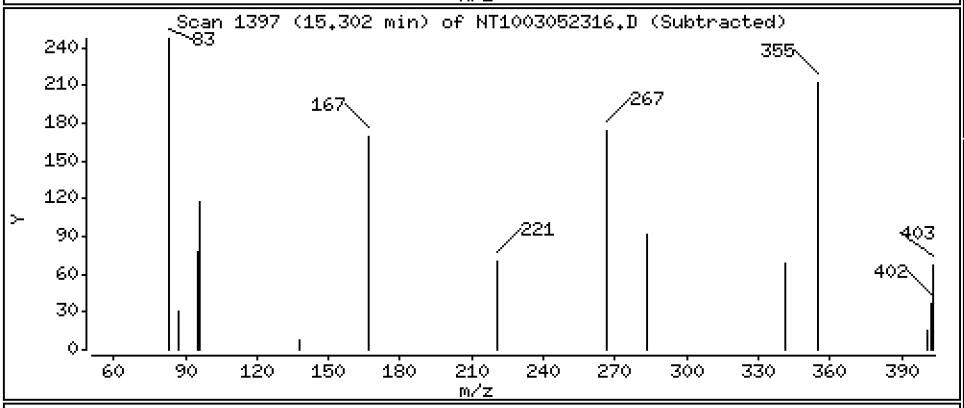
Column diameter: 0.25

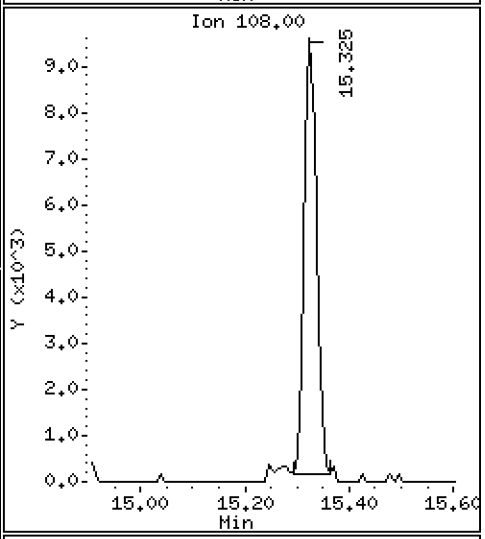
43 3-Nitroaniline

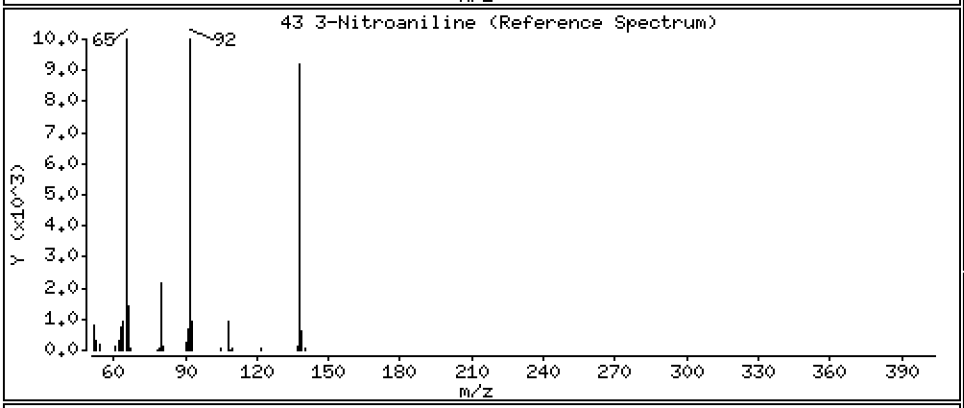
Concentration: 0.03059 ug/mL

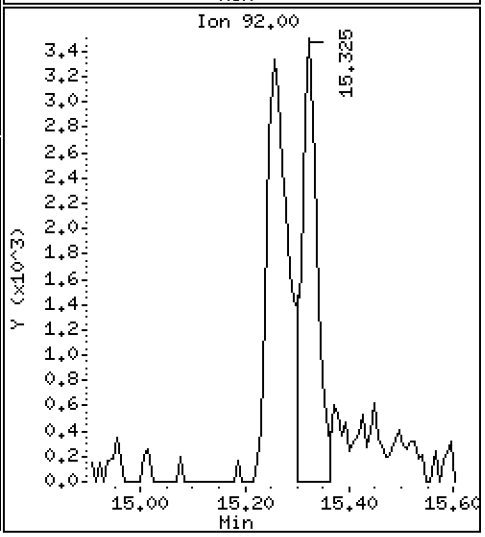


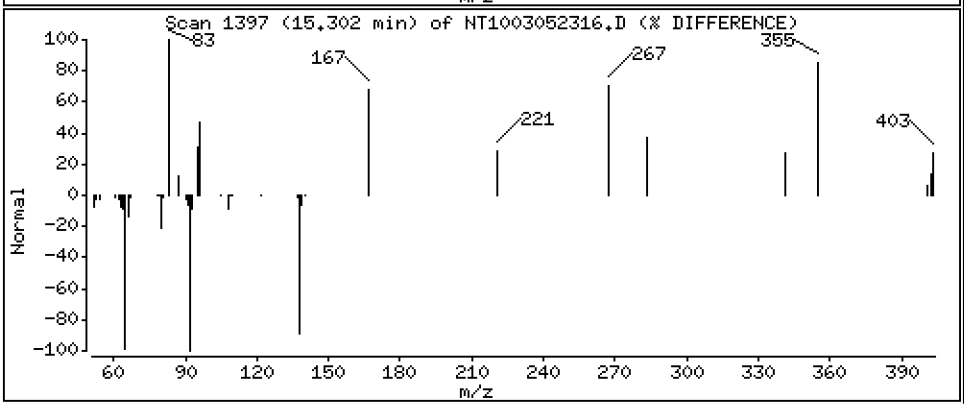












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

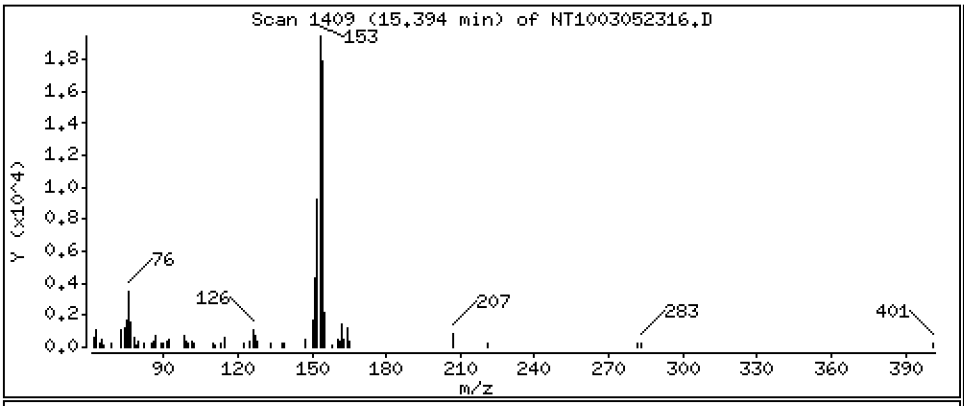
Operator: VTS

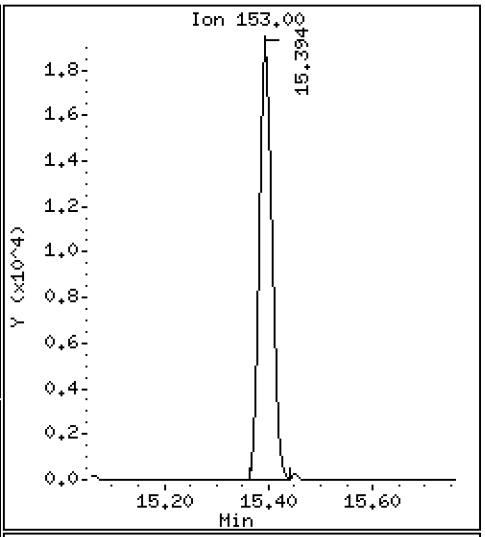
Column phase: ZB-5msi

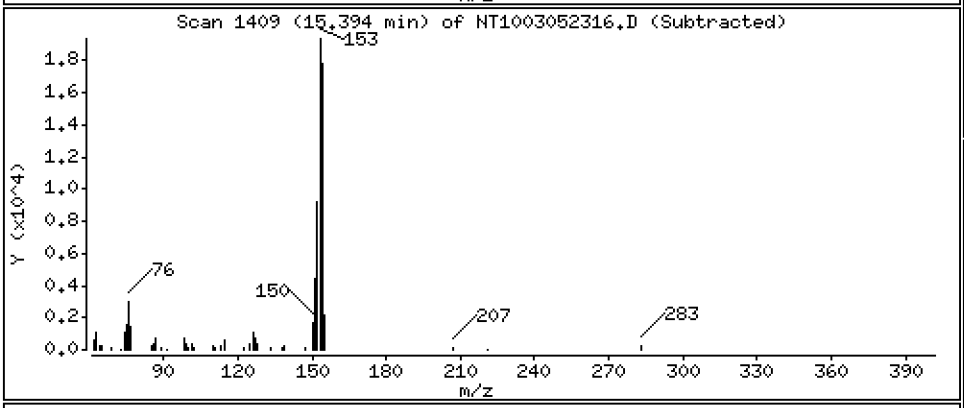
Column diameter: 0.25

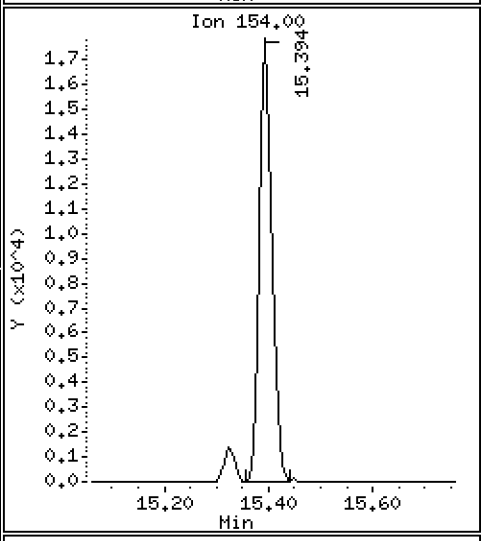
44 Acenaphthene

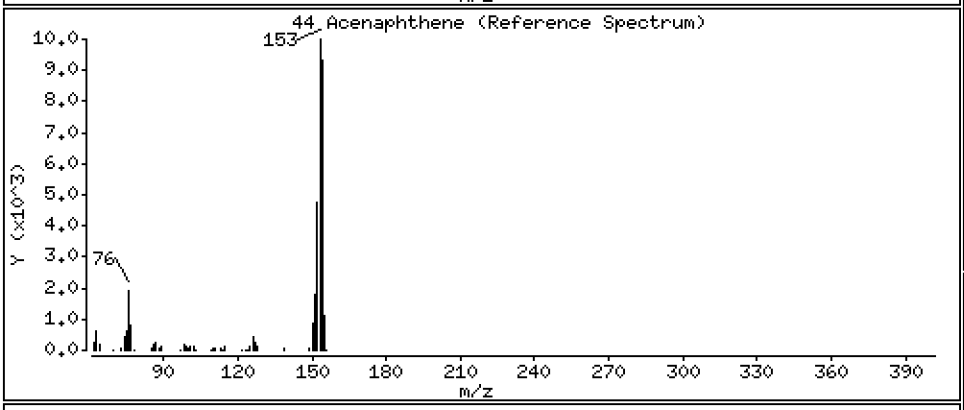
Concentration: 0.1981 ug/mL

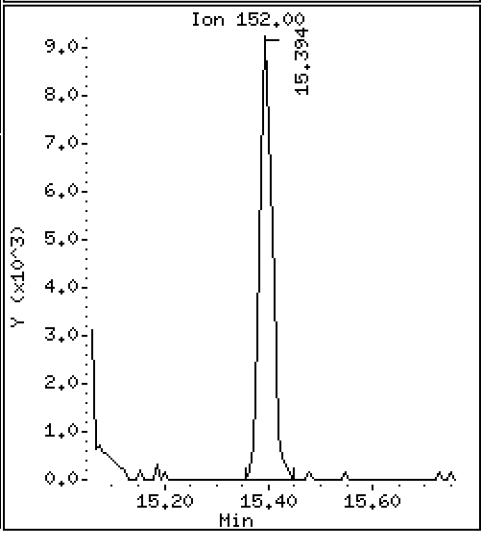


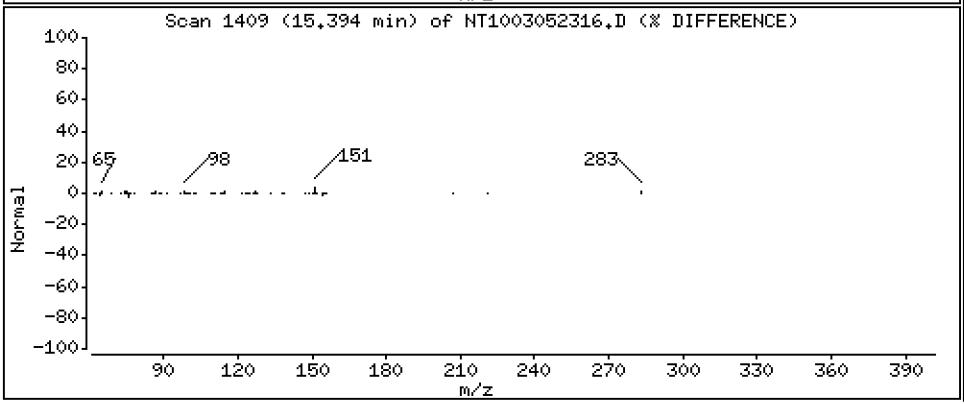












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

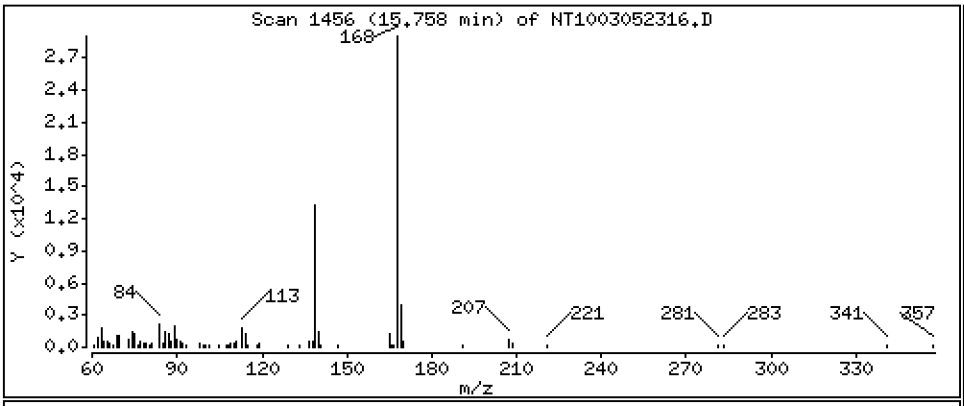
Operator: VTS

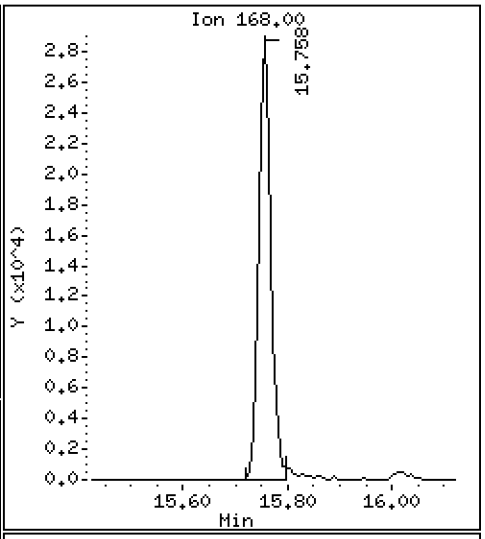
Column phase: ZB-5msi

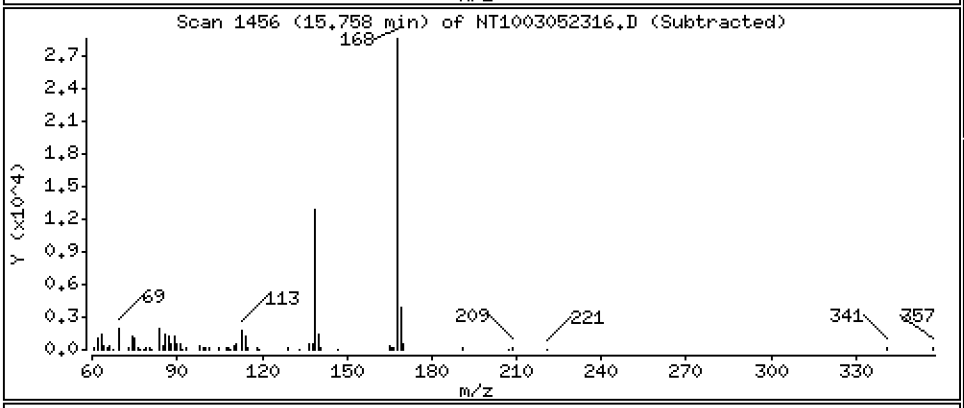
Column diameter: 0.25

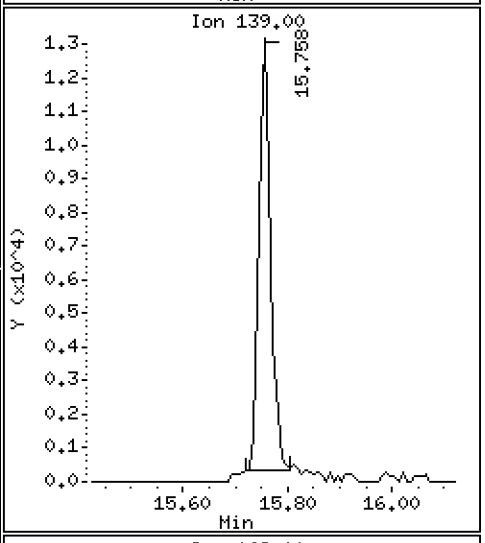
46 Dibenzofuran

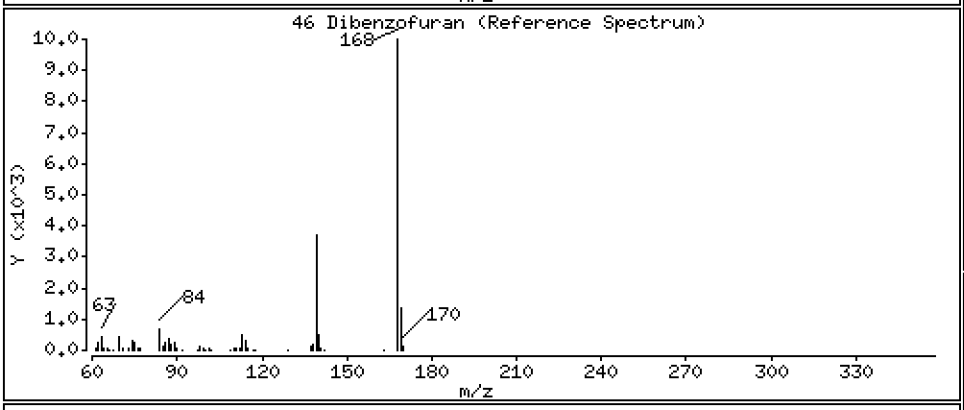
Concentration: 0.2016 ug/mL

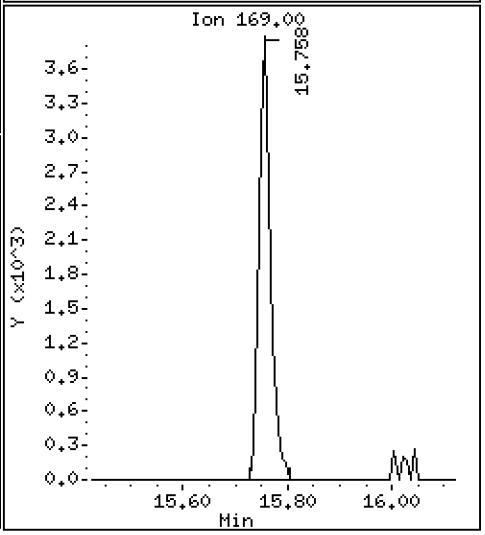


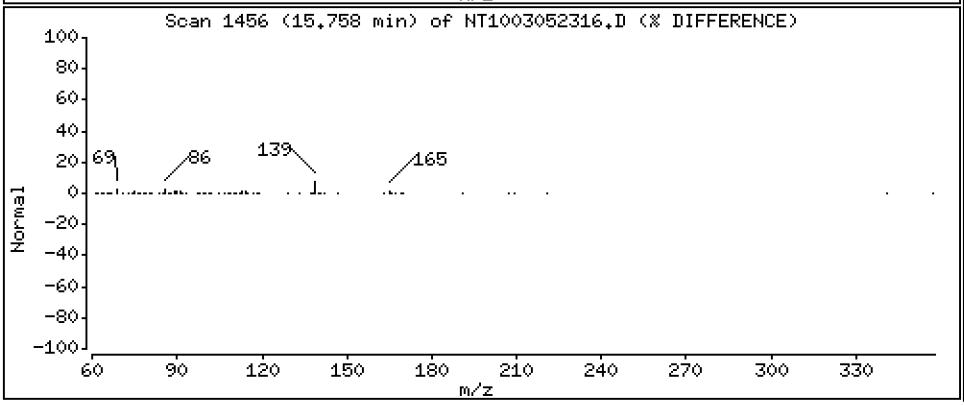












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

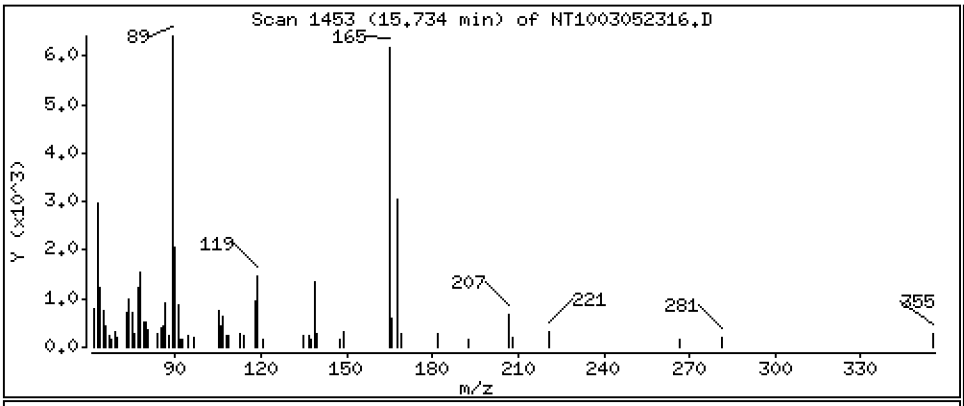
Operator: VTS

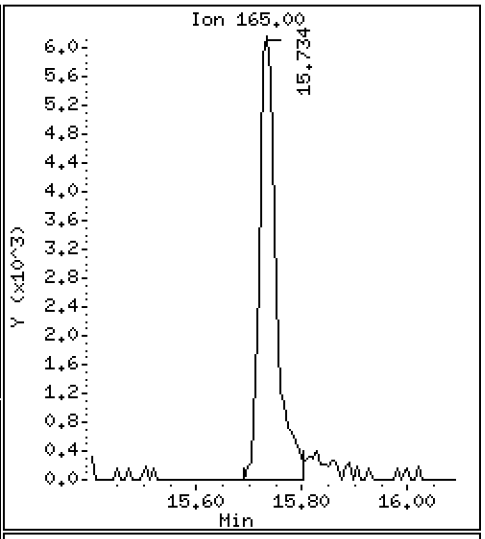
Column phase: ZB-5msi

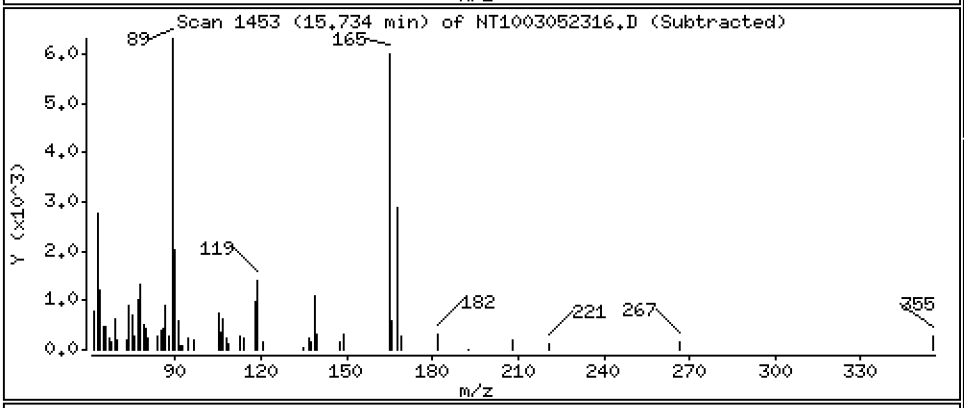
Column diameter: 0.25

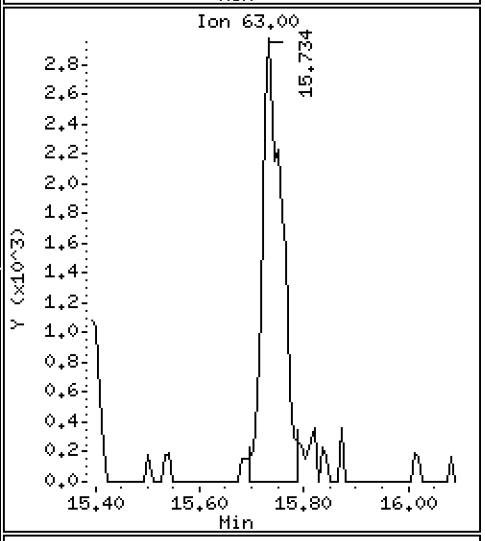
48 2,4-Dinitrotoluene

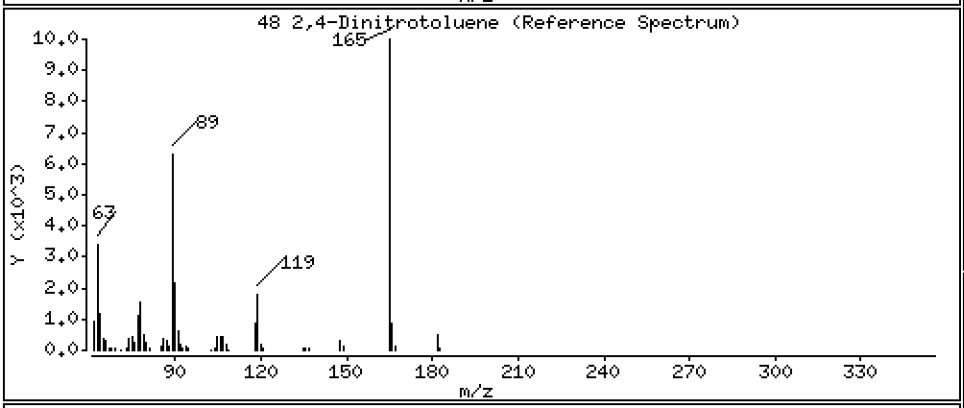
Concentration: 0.2445 ug/mL

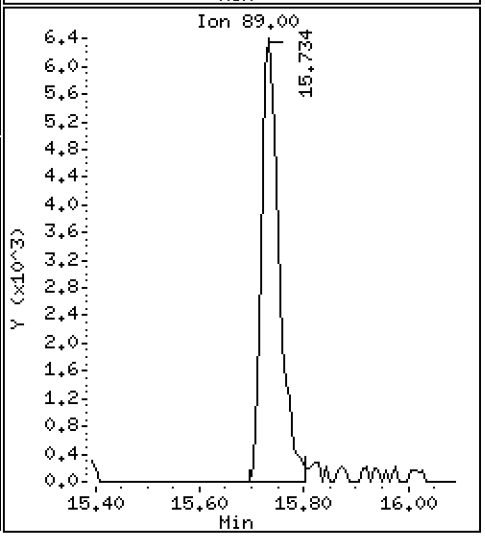


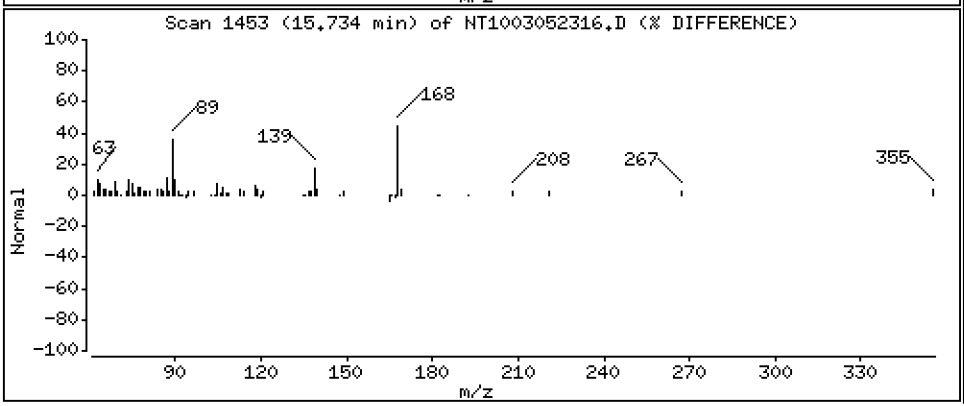












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

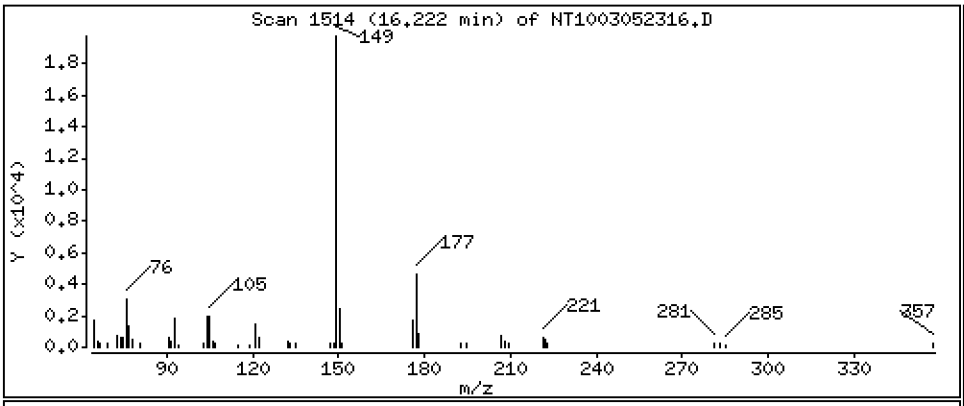
Operator: VTS

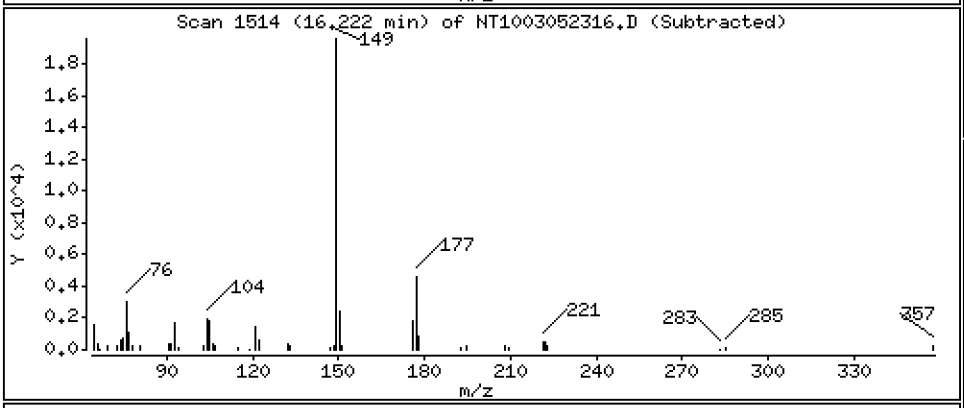
Column phase: ZB-5msi

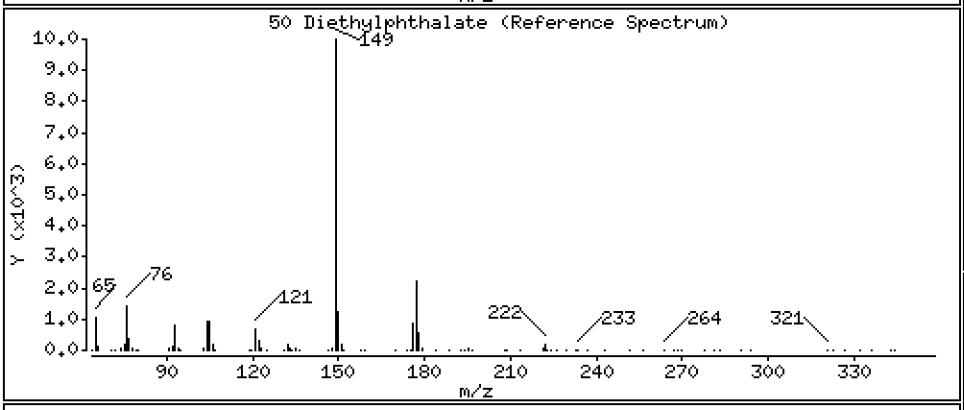
Column diameter: 0.25

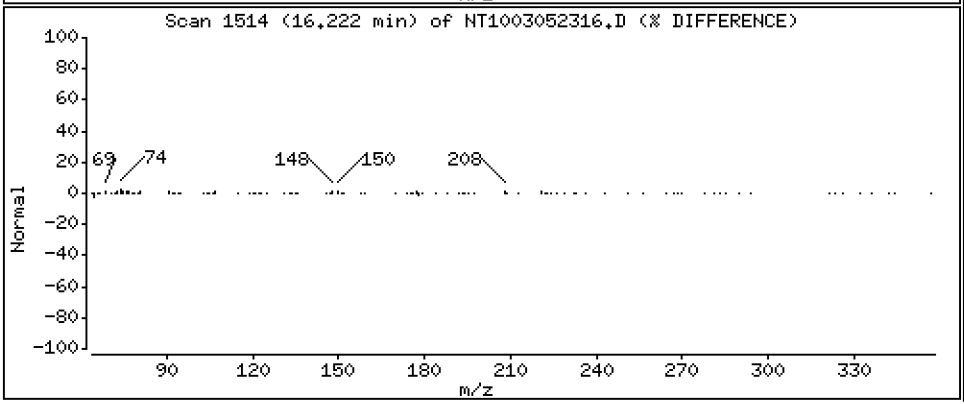
50 Diethylphthalate

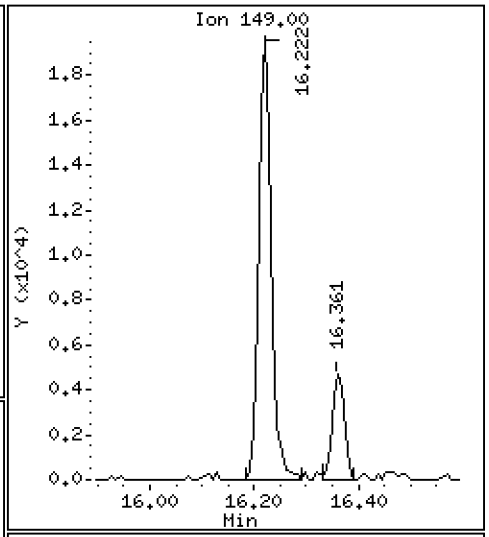
Concentration: 0.1810 ug/mL

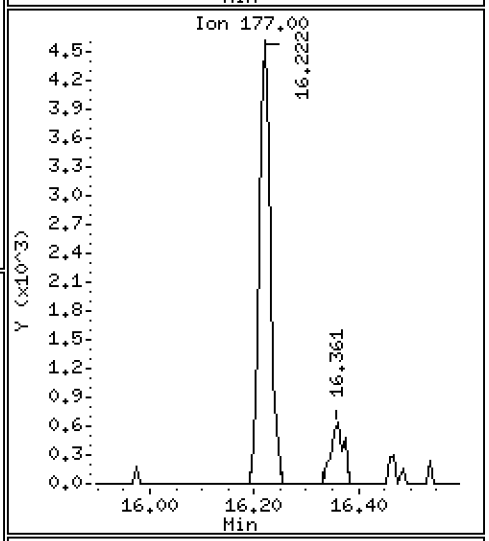


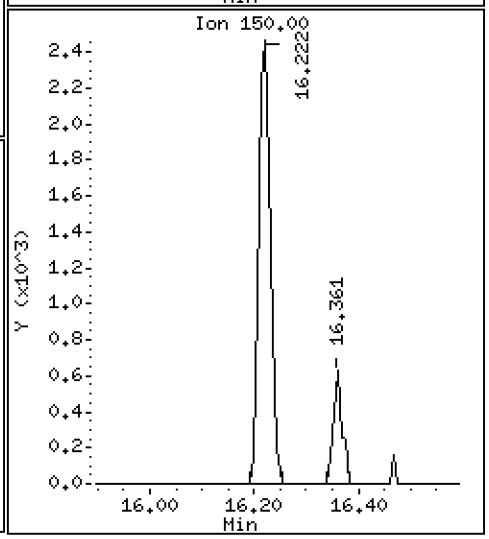












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

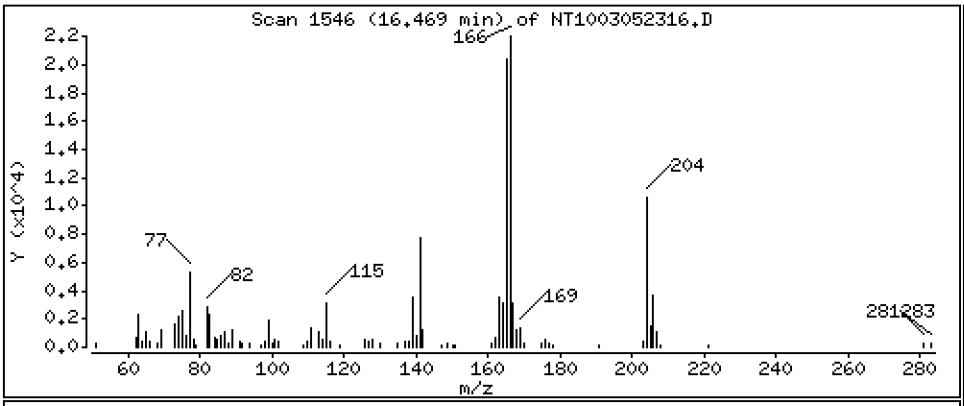
Operator: VTS

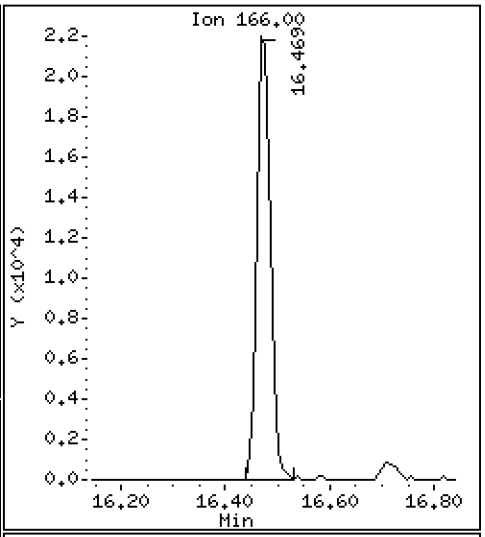
Column phase: ZB-5msi

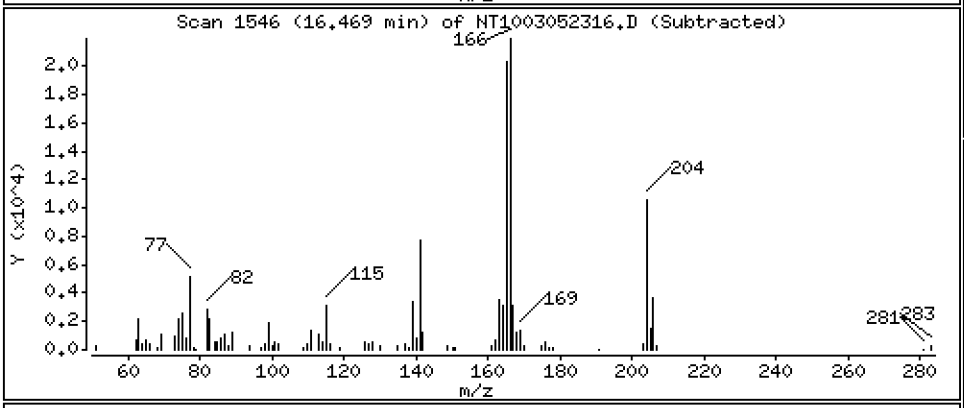
Column diameter: 0.25

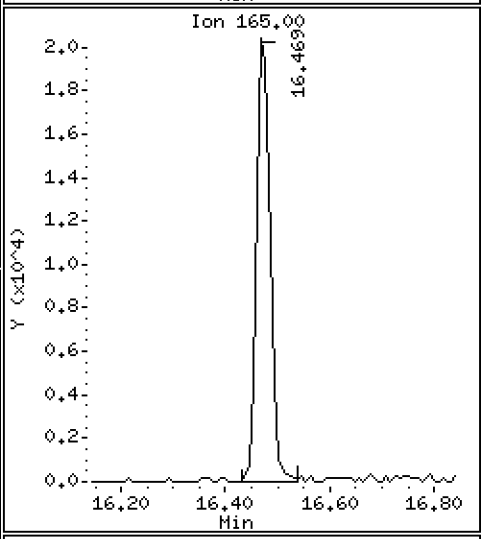
49 Fluorene

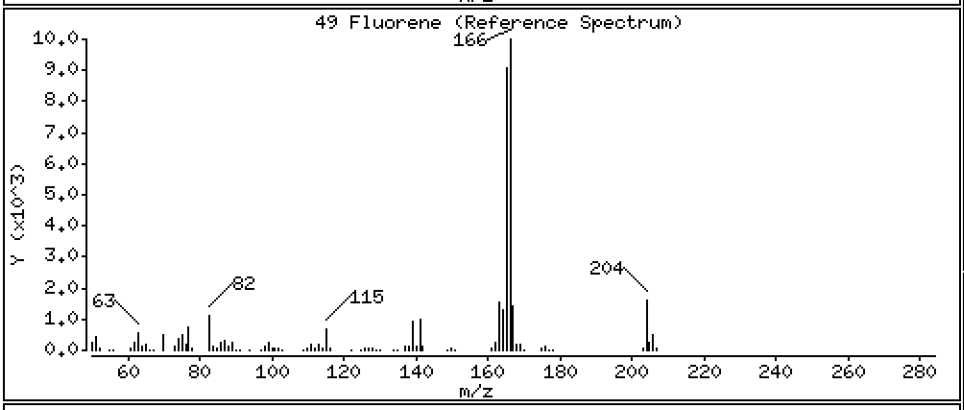
Concentration: 0.1937 ug/mL

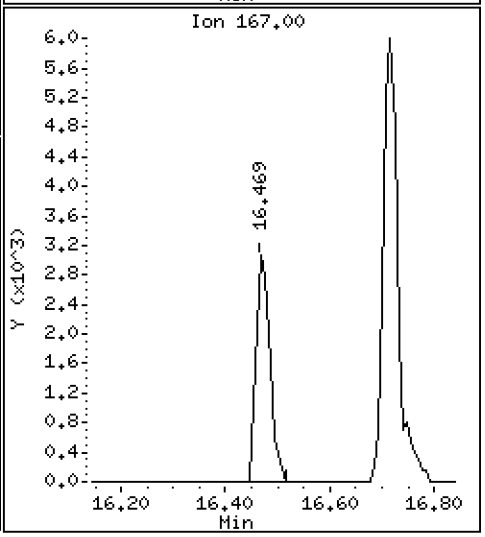


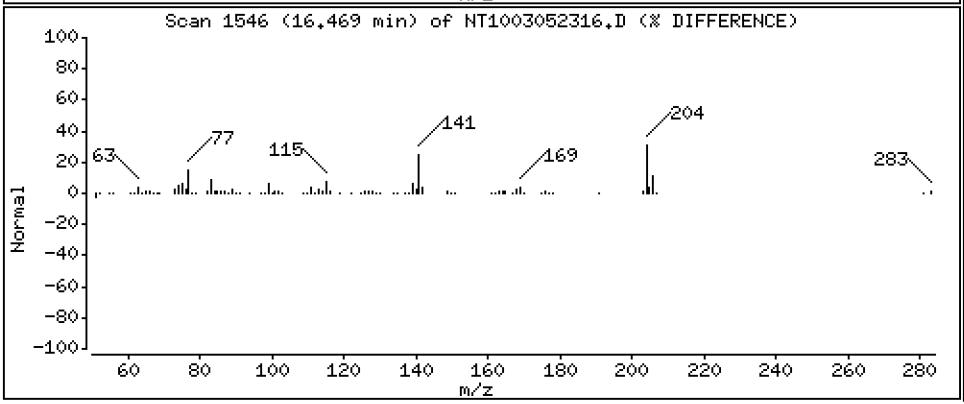












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

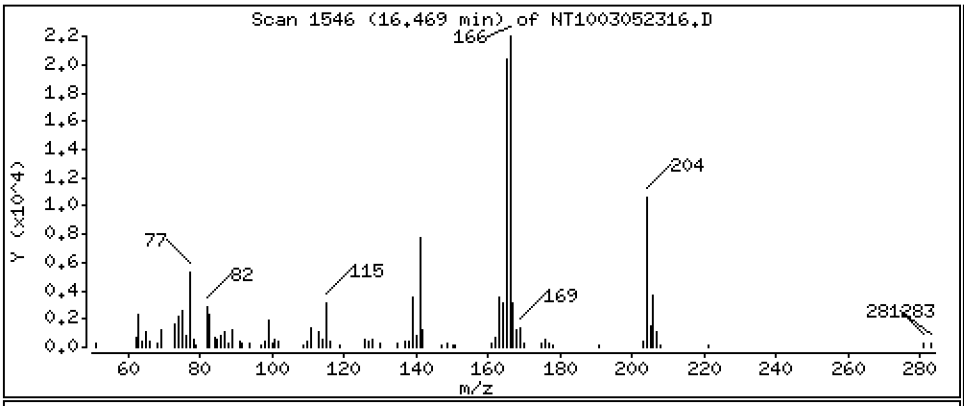
Operator: VTS

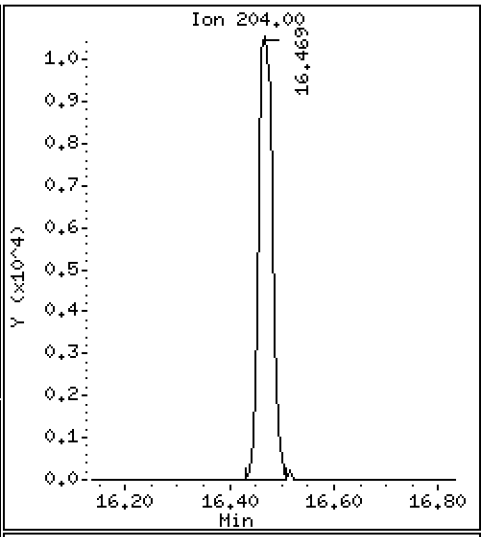
Column phase: ZB-5msi

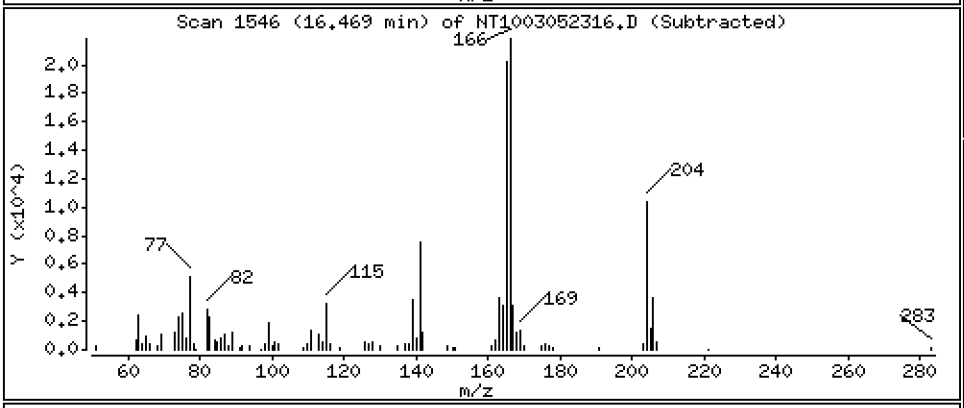
Column diameter: 0.25

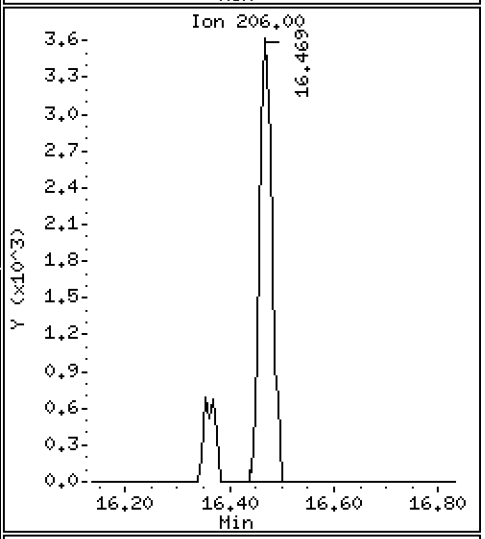
51 4-Chlorophenyl-phenylether

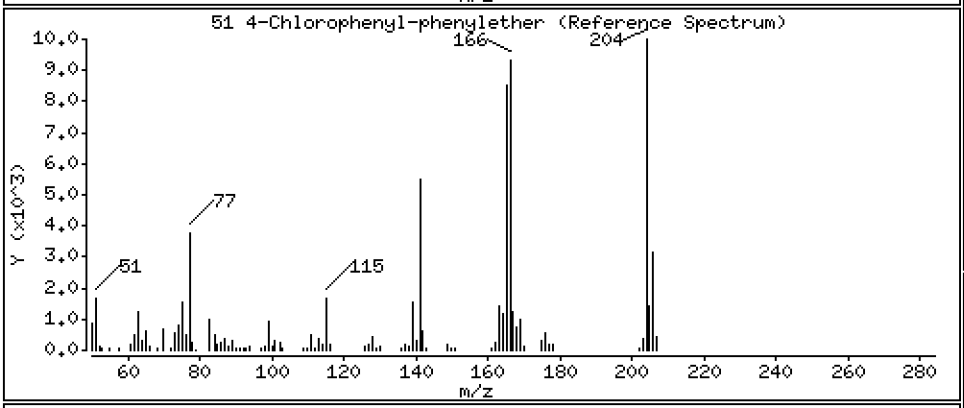
Concentration: 0.2170 ug/mL

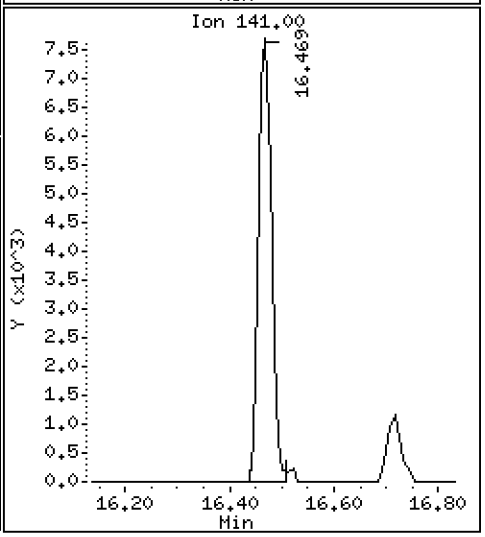


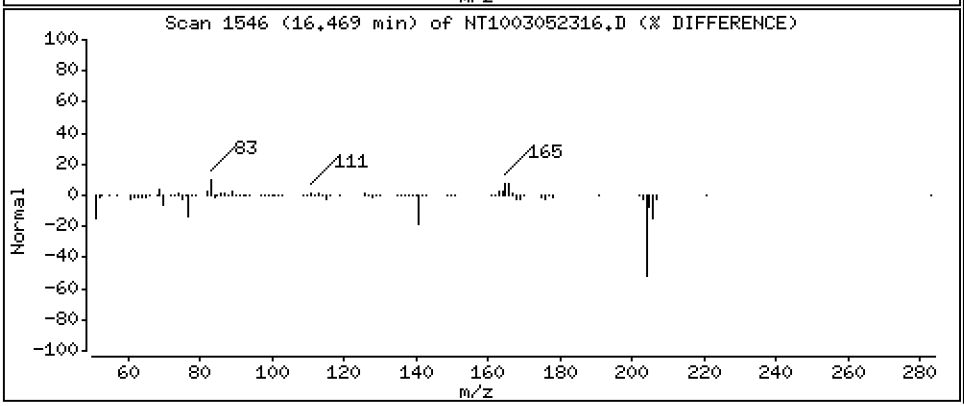












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

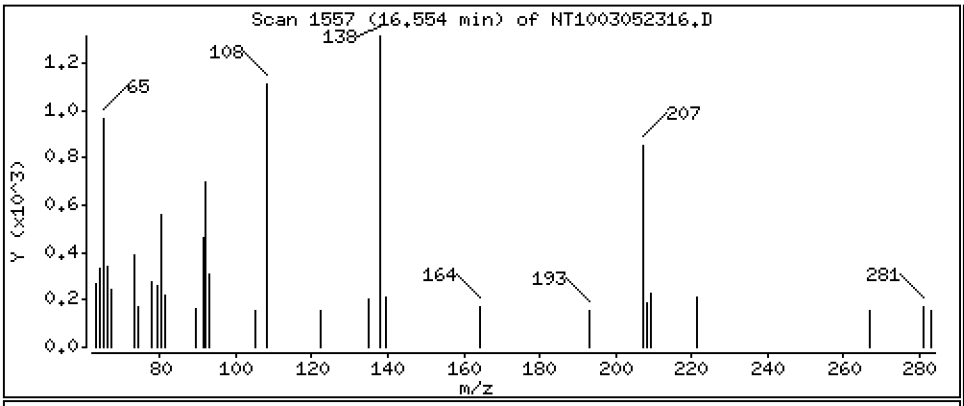
Operator: VTS

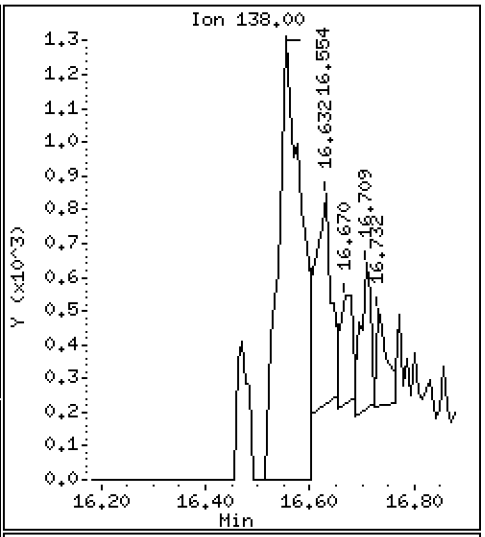
Column phase: ZB-5msi

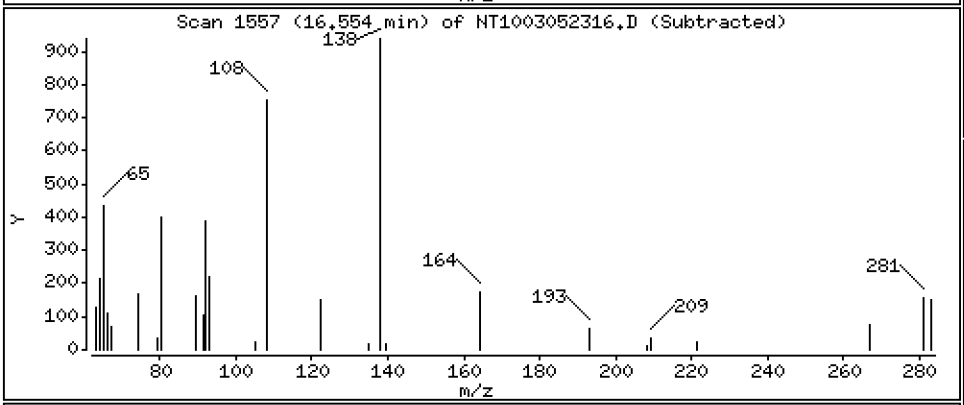
Column diameter: 0.25

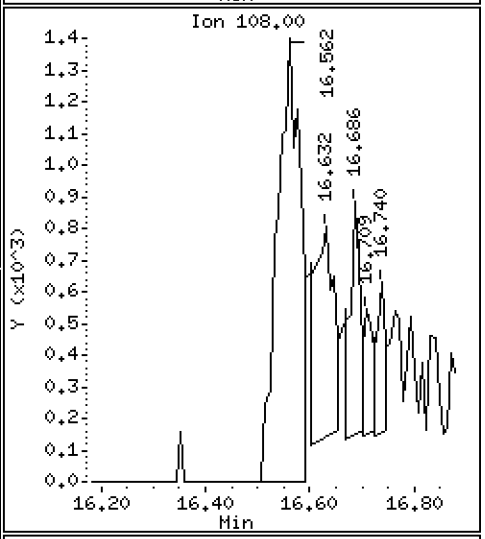
52 4-Nitroaniline

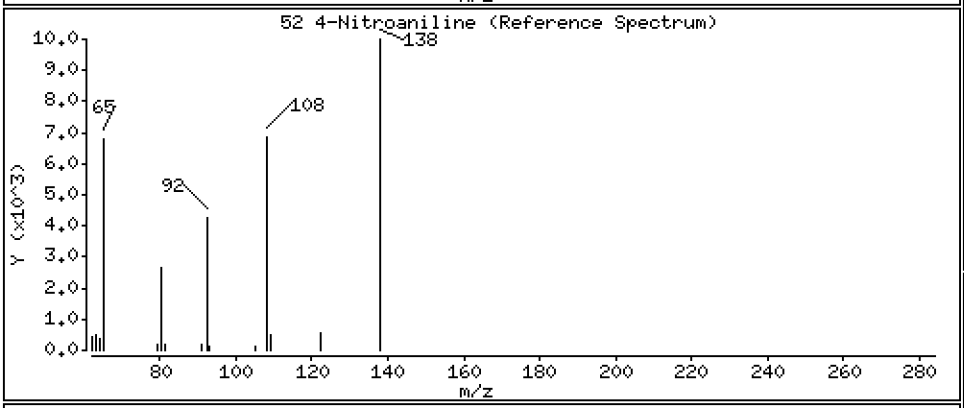
Concentration: 0.08725 ug/mL

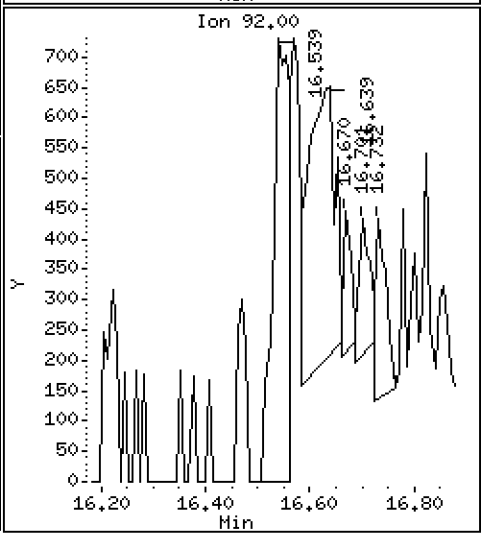


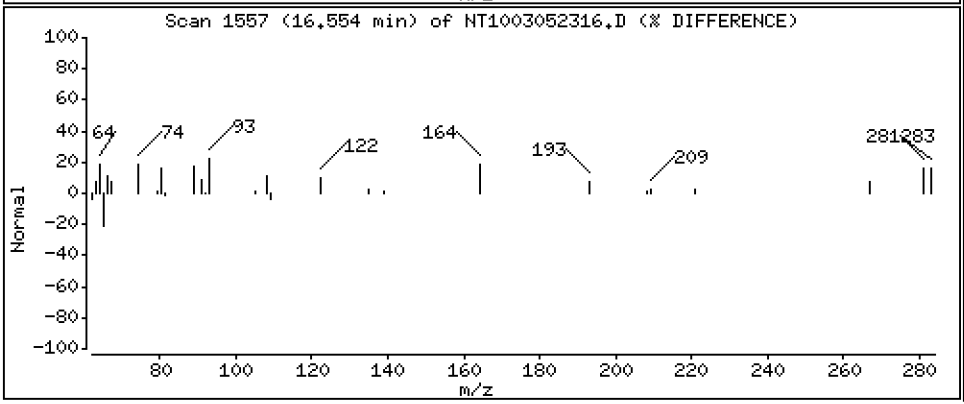












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

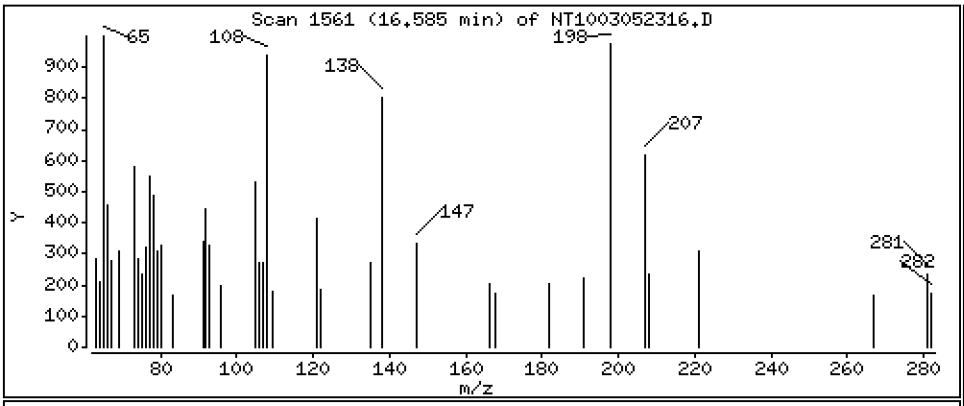
Operator: VTS

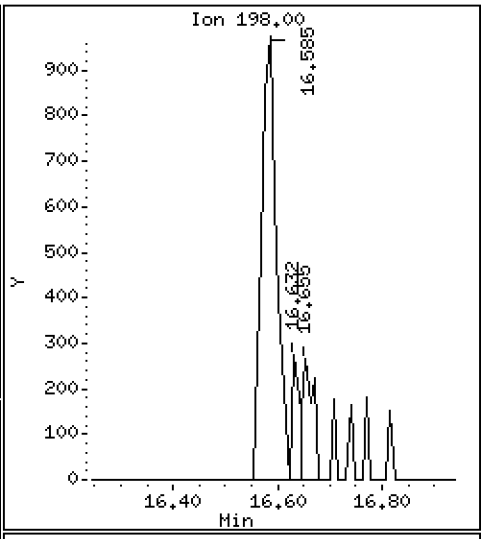
Column phase: ZB-5msi

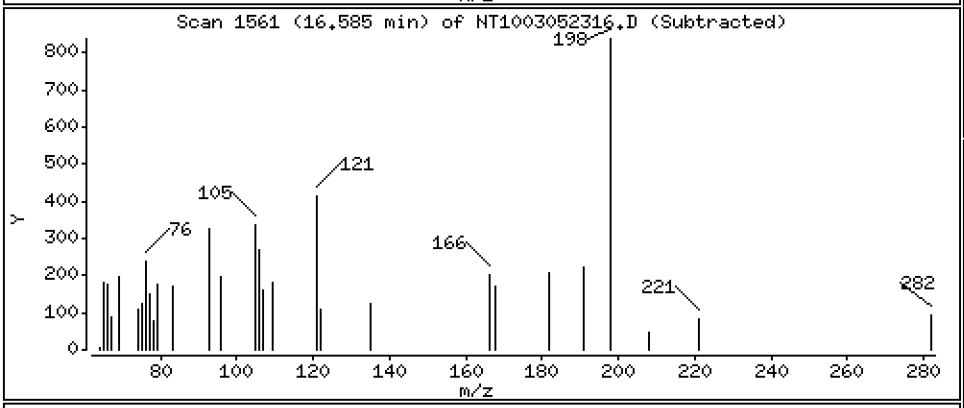
Column diameter: 0.25

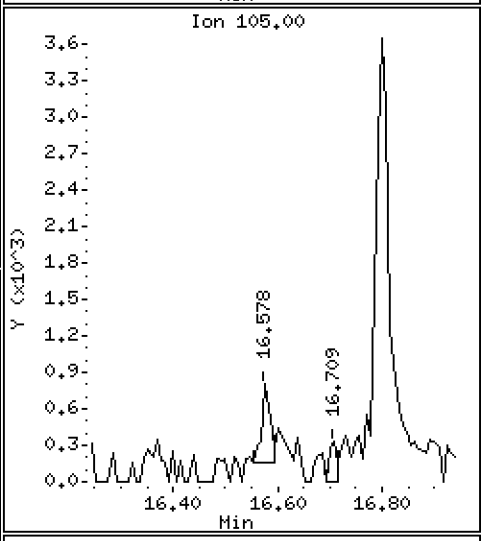
53 4,6-Dinitro-2-methylphenol

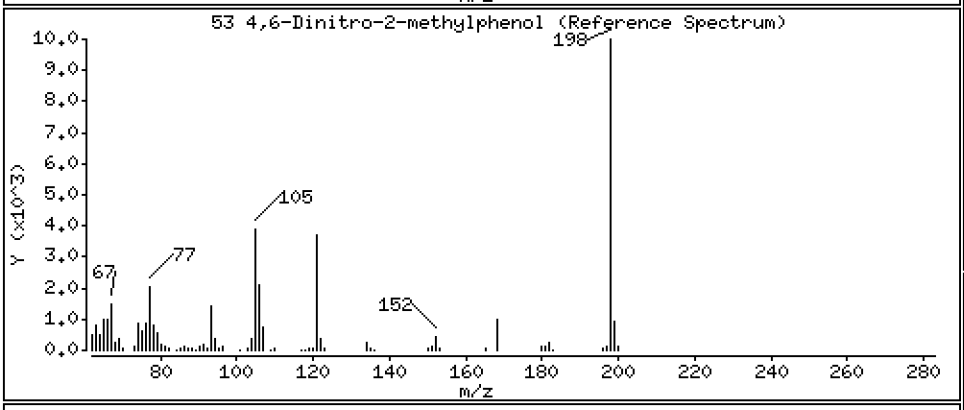
Concentration: 0.09412 ug/mL

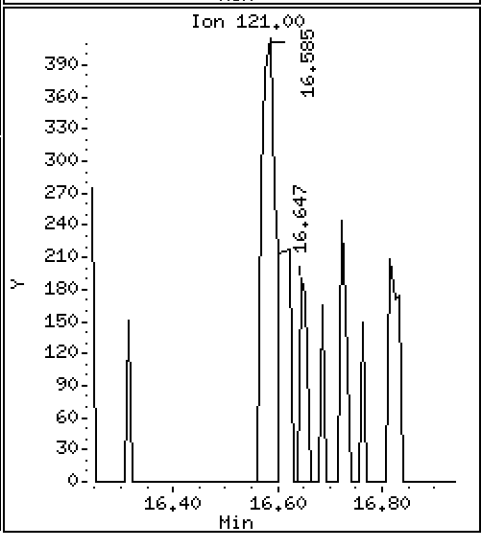


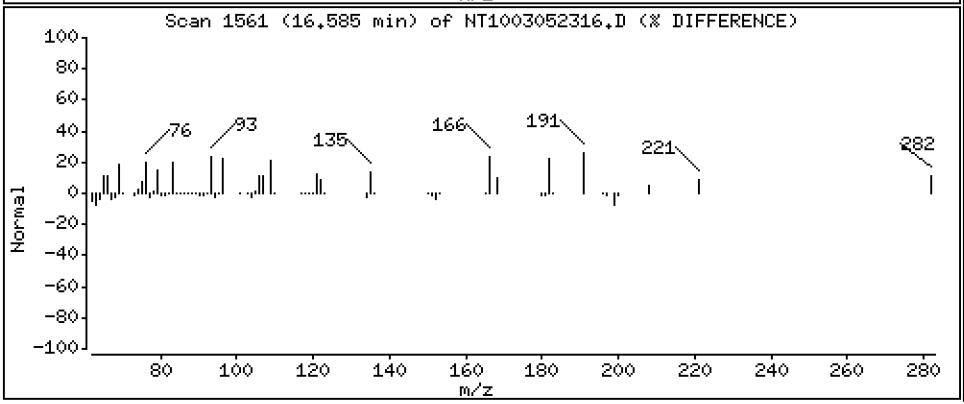












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

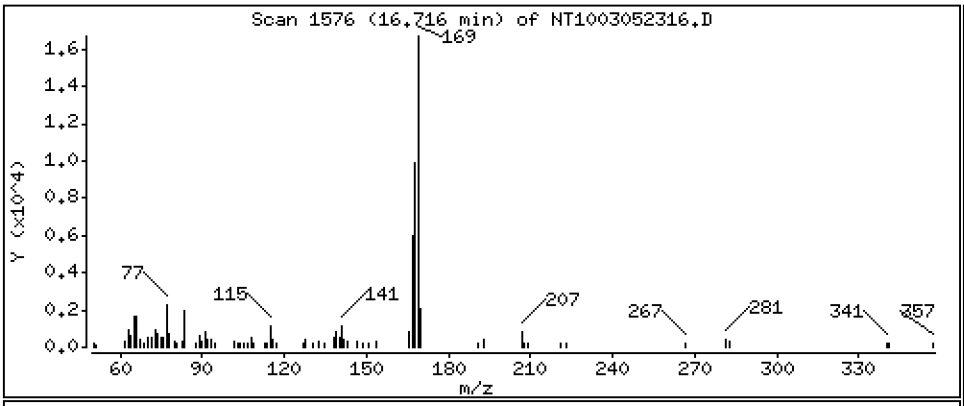
Operator: VTS

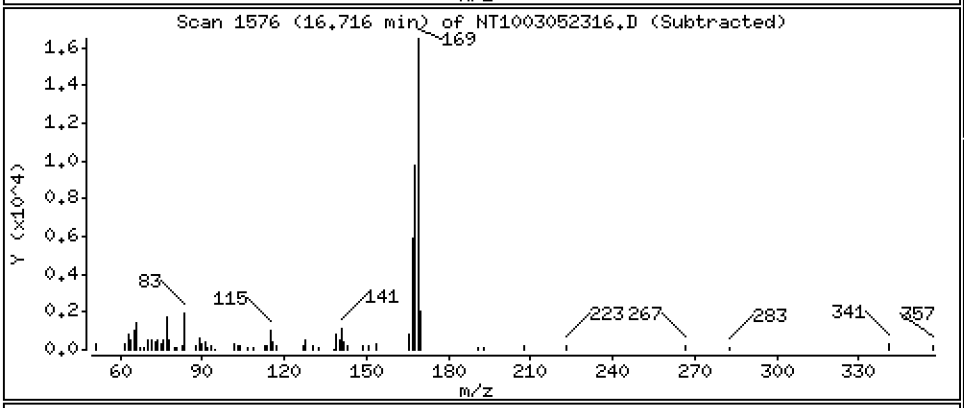
Column phase: ZB-5msi

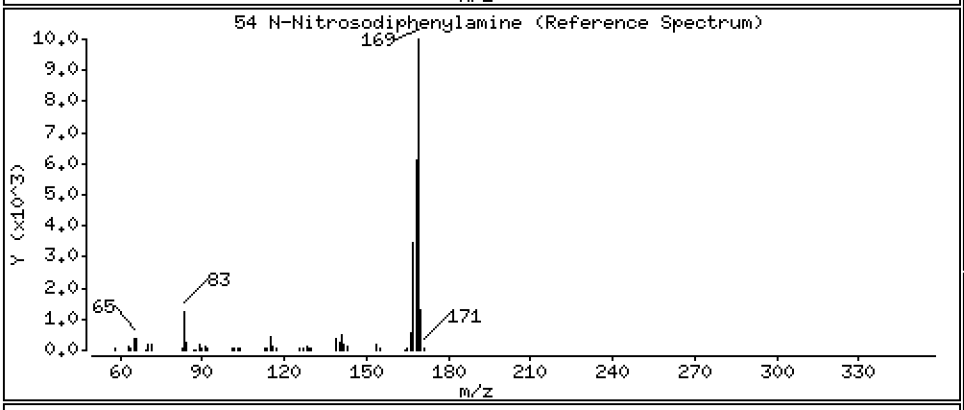
Column diameter: 0.25

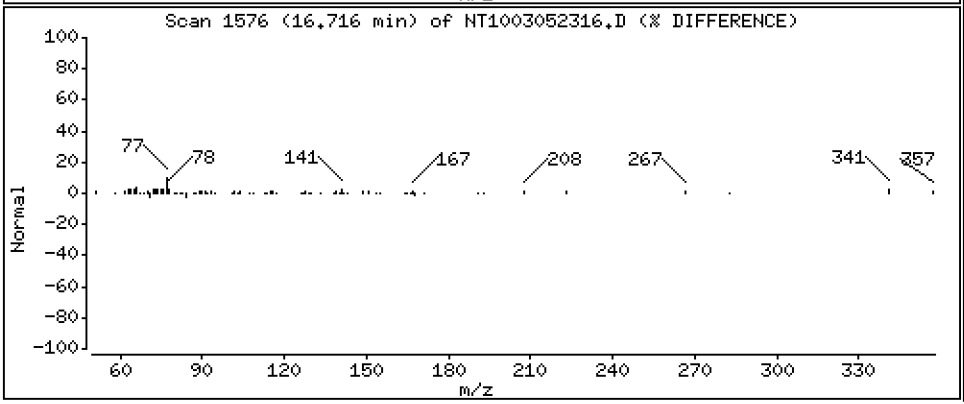
54 N-Nitrosodiphenylamine

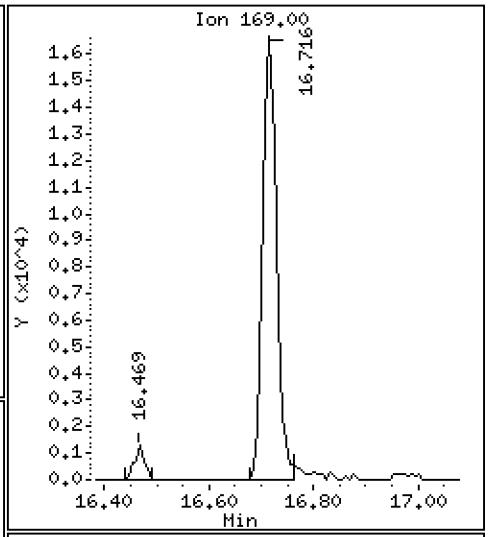
Concentration: 0.2028 ug/mL

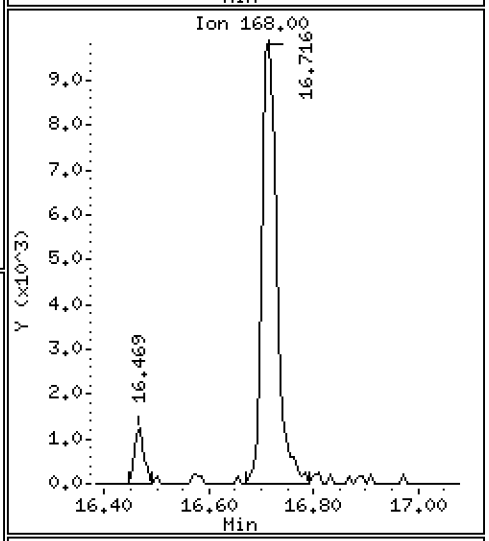


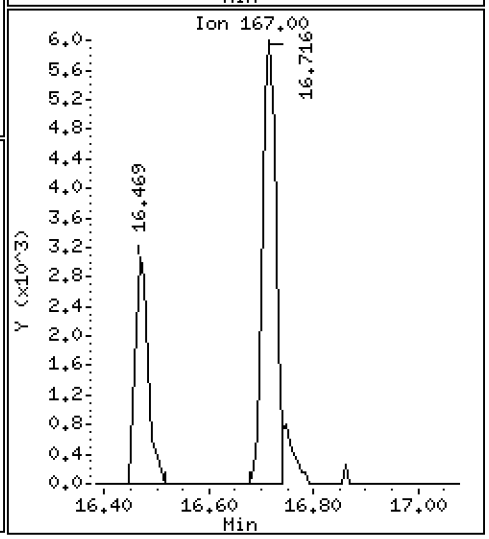












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

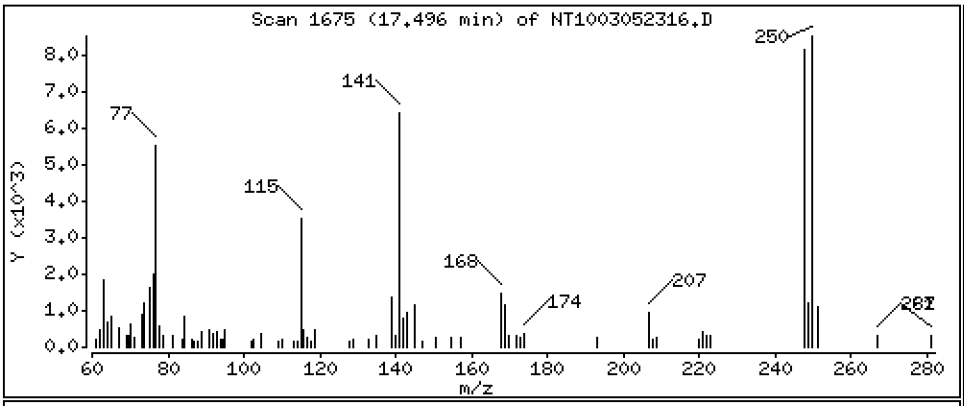
Operator: VTS

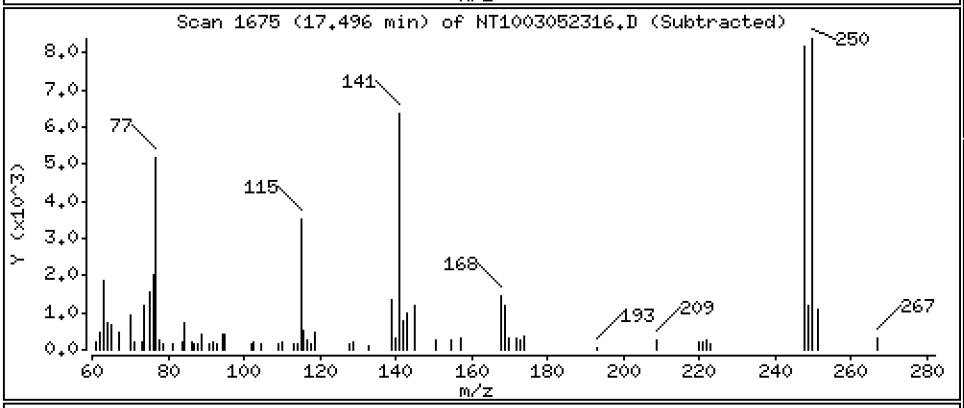
Column phase: ZB-5msi

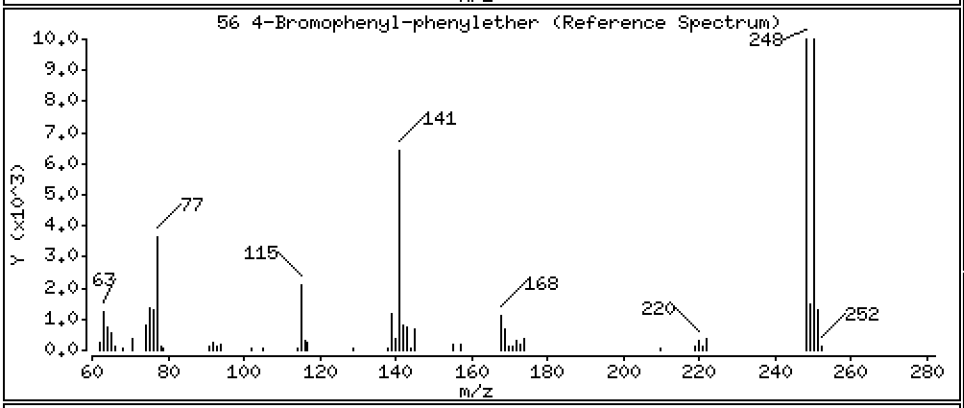
Column diameter: 0.25

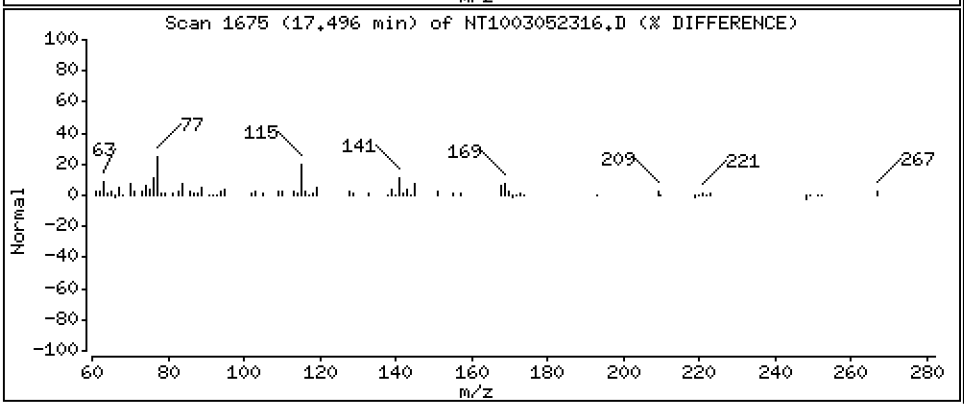
56 4-Bromophenyl-phenylether

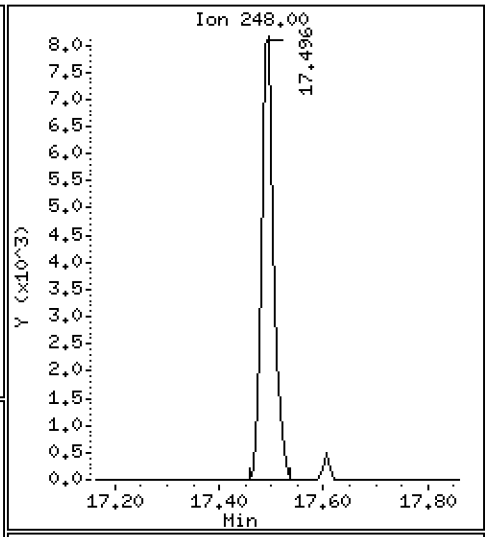
Concentration: 0.2320 ug/mL

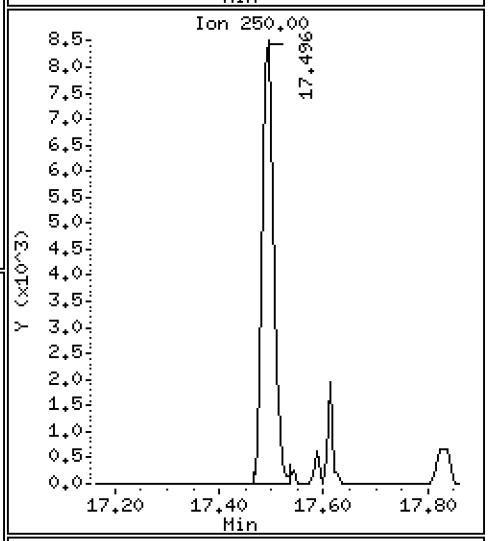


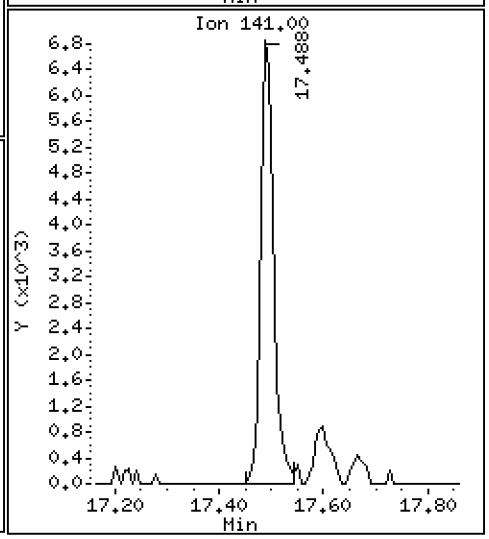












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

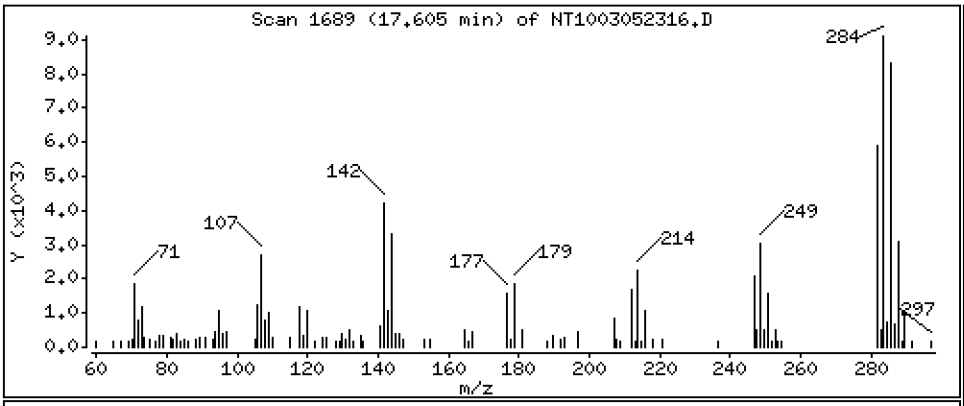
Operator: VTS

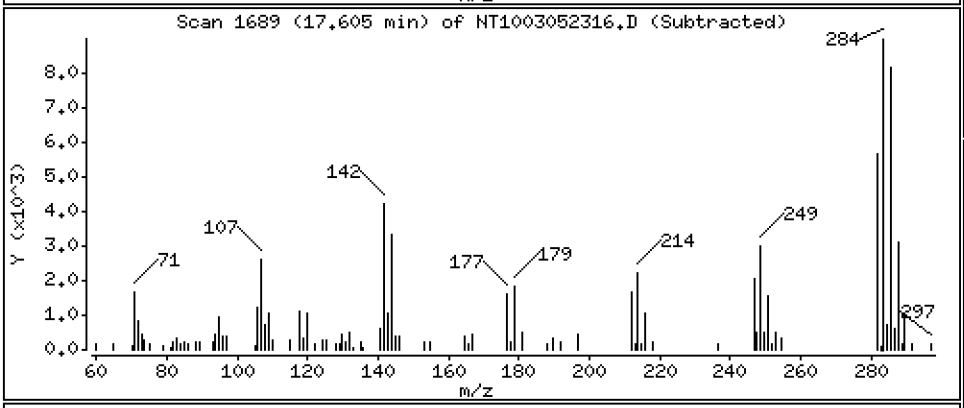
Column phase: ZB-5msi

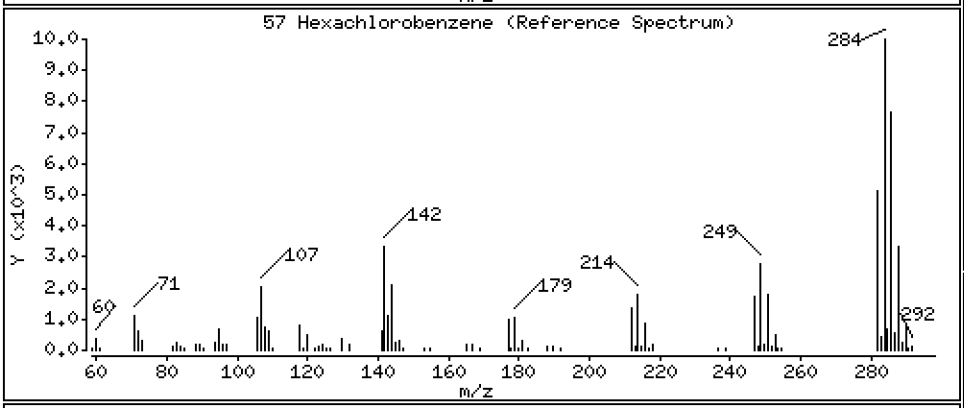
Column diameter: 0.25

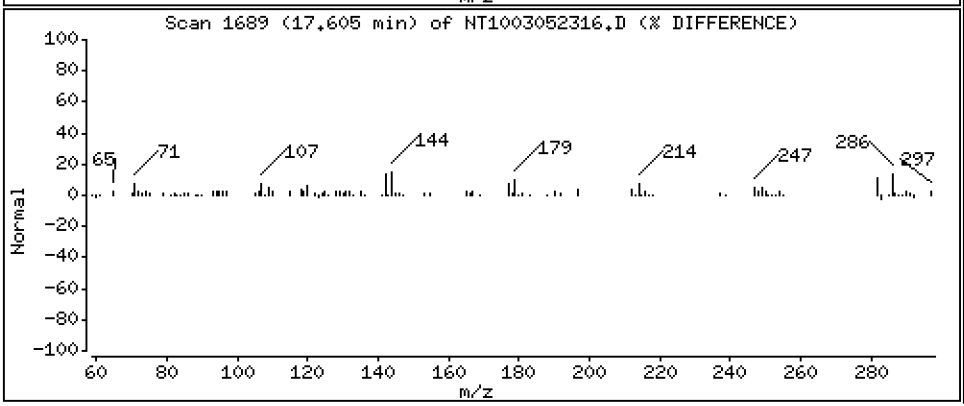
57 Hexachlorobenzene

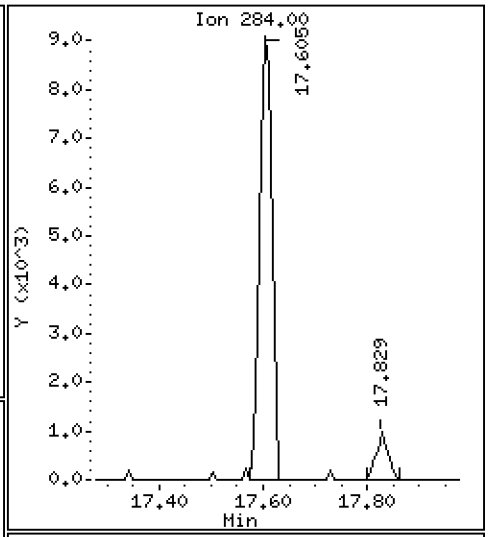
Concentration: 0.2329 ug/mL

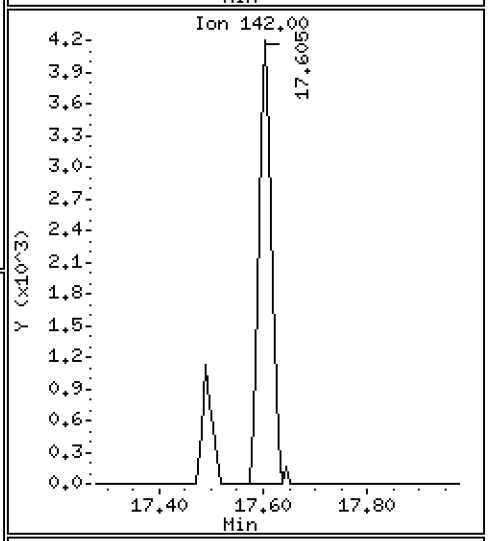


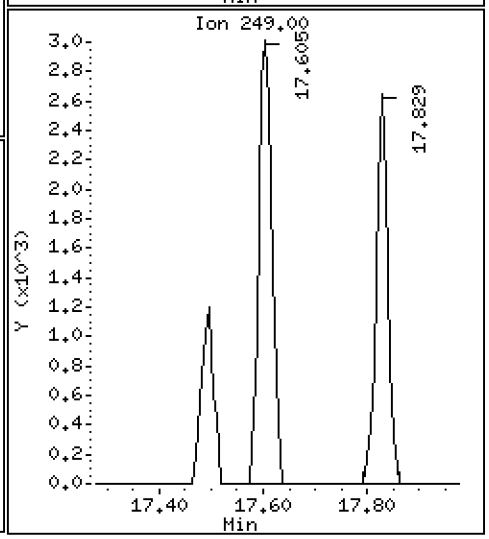












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

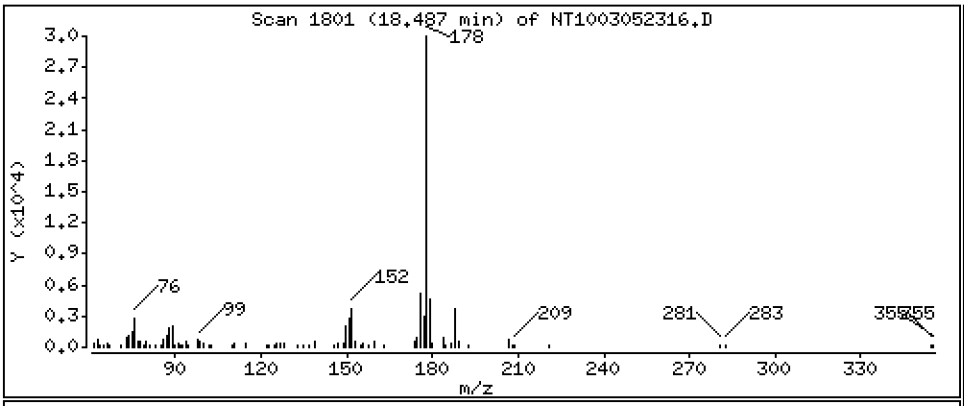
Operator: VTS

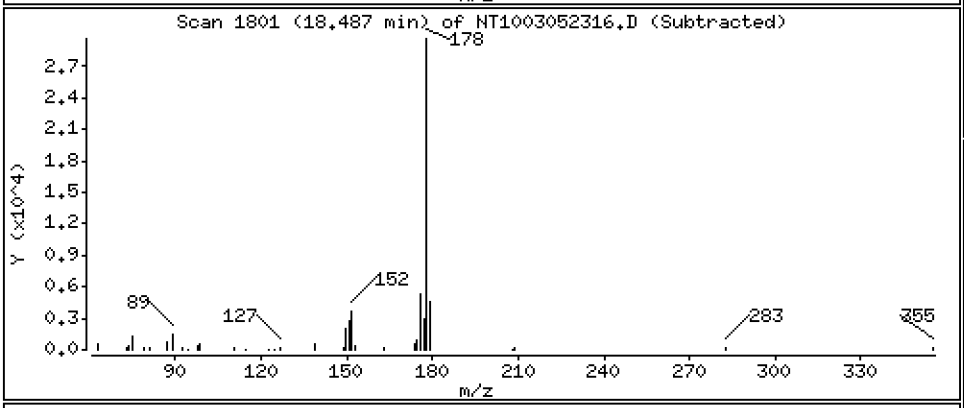
Column phase: ZB-5msi

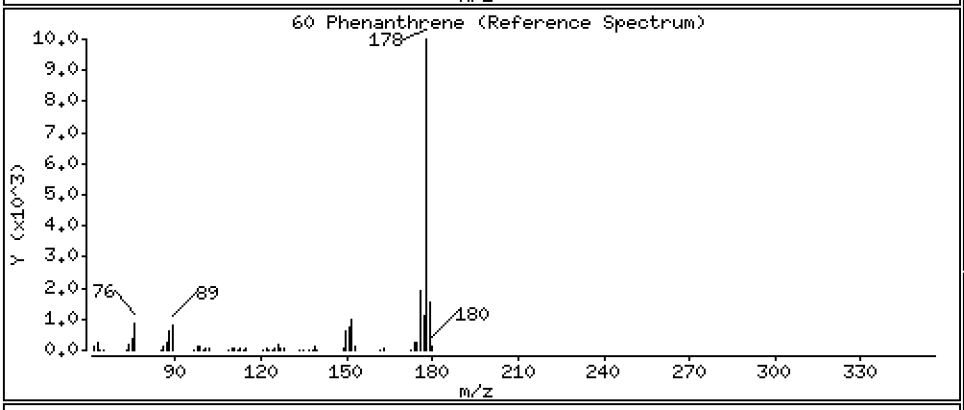
Column diameter: 0.25

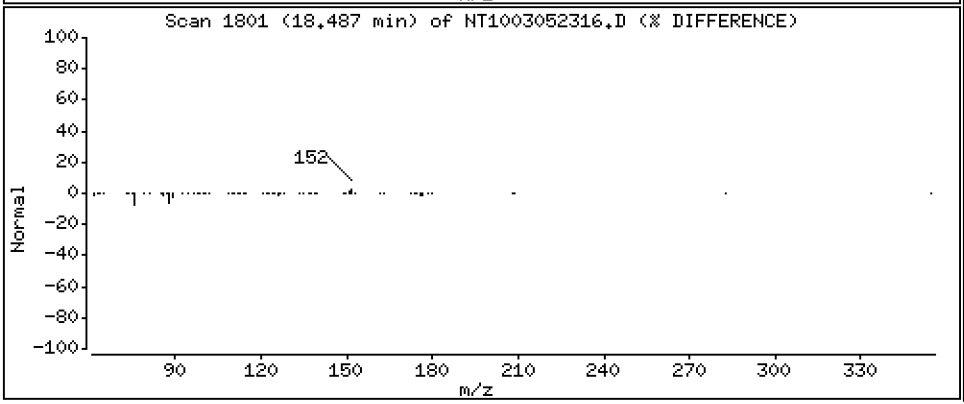
60 Phenanthrene

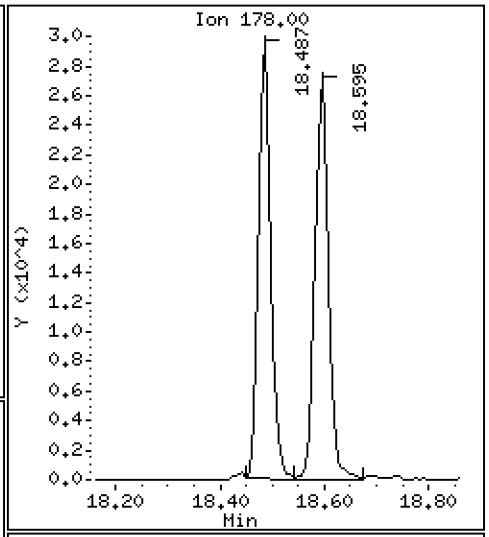
Concentration: 0.1978 ug/mL

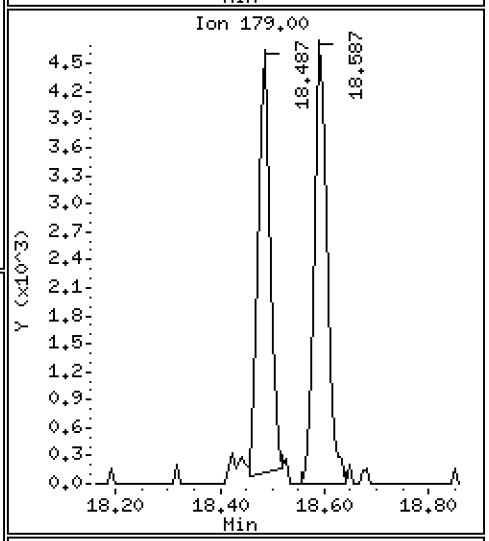


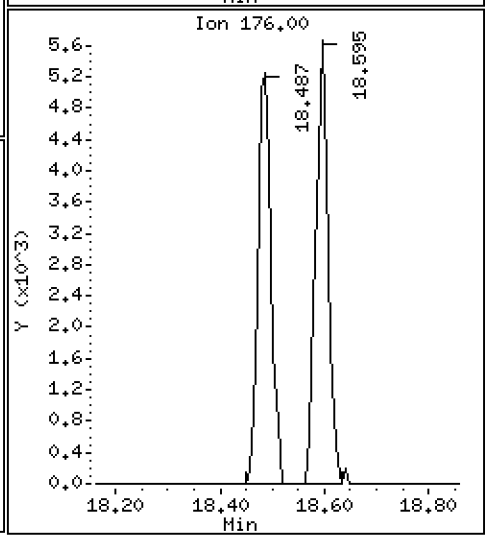












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052316.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

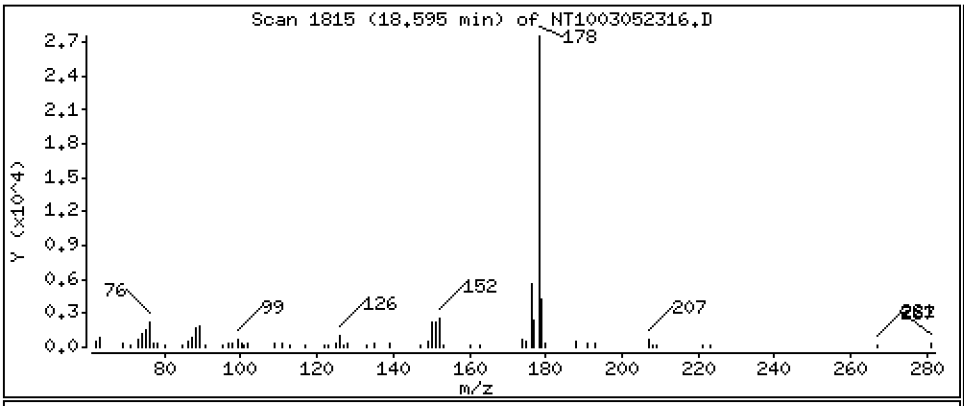
Operator: VTS

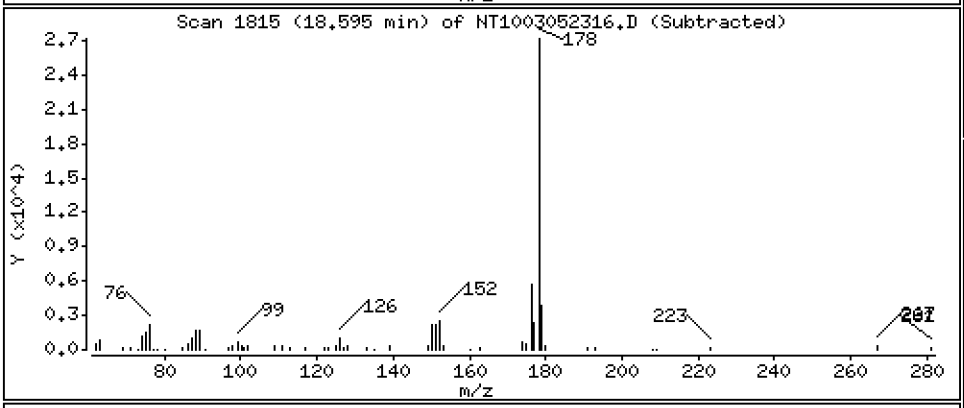
Column phase: ZB-5msi

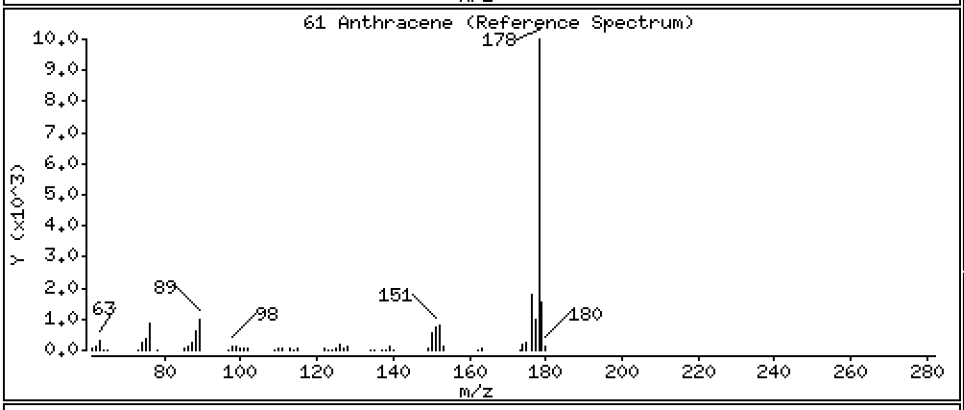
Column diameter: 0.25

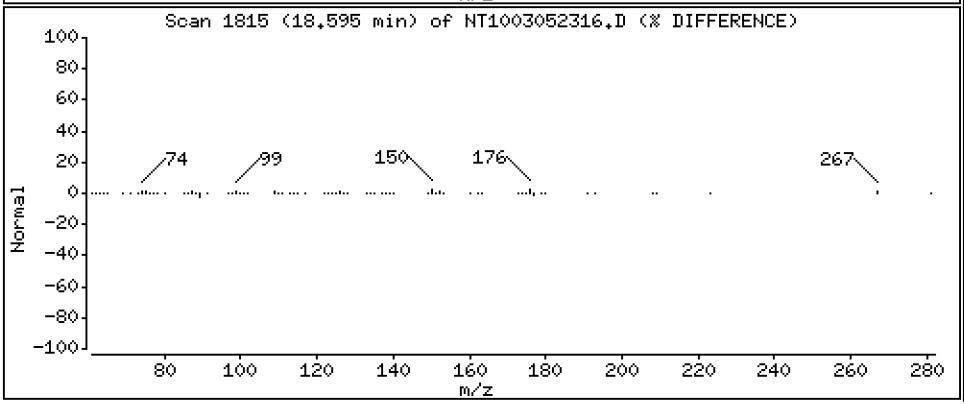
61 Anthracene

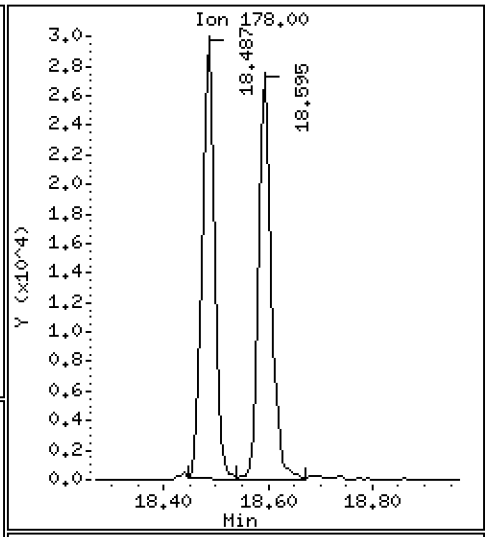
Concentration: 0.1963 ug/mL

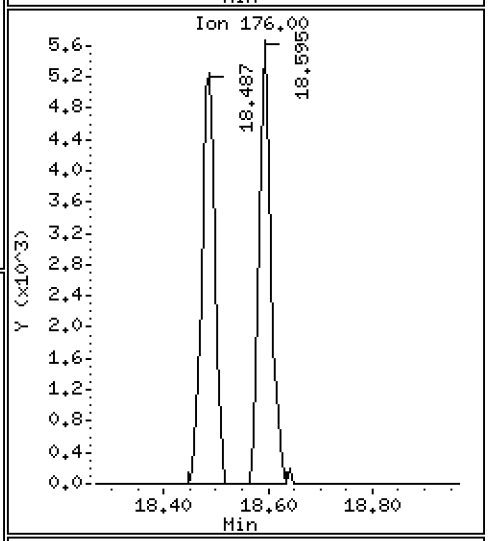


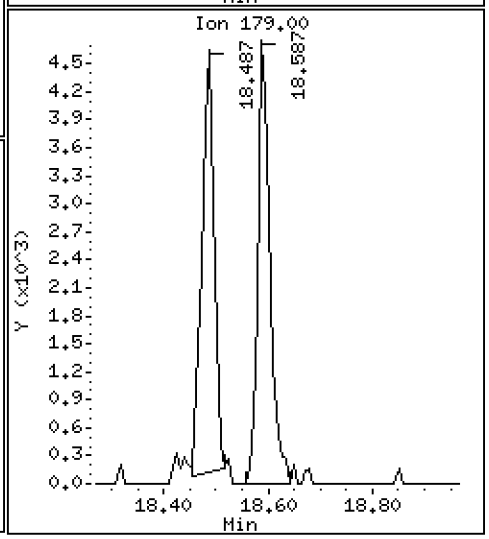












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

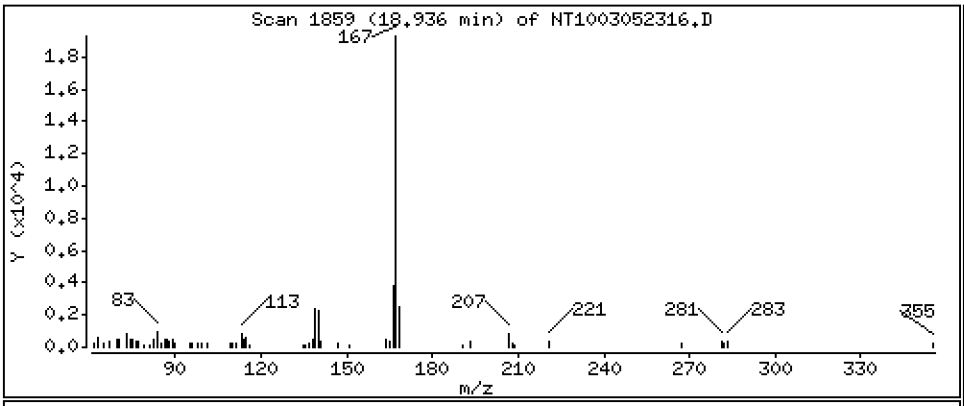
Operator: VTS

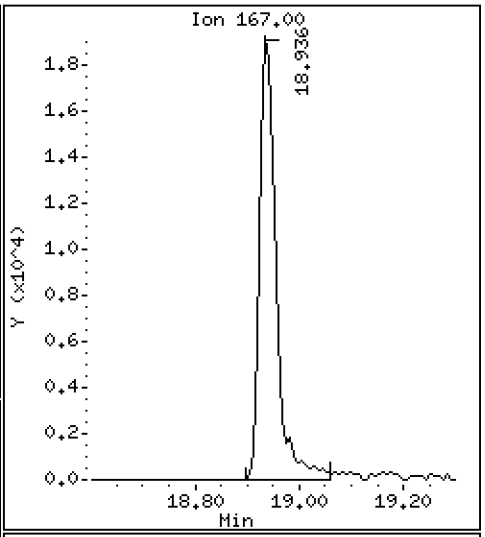
Column phase: ZB-5msi

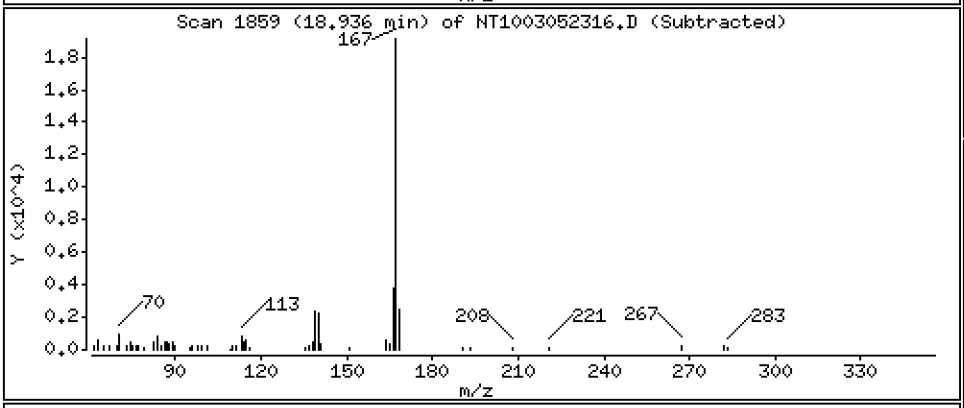
Column diameter: 0.25

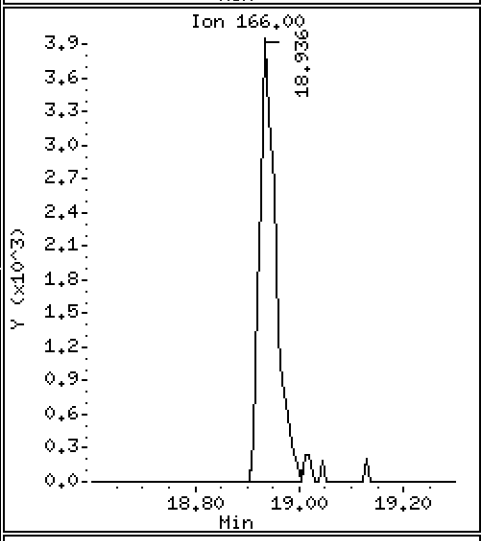
62 Carbazole

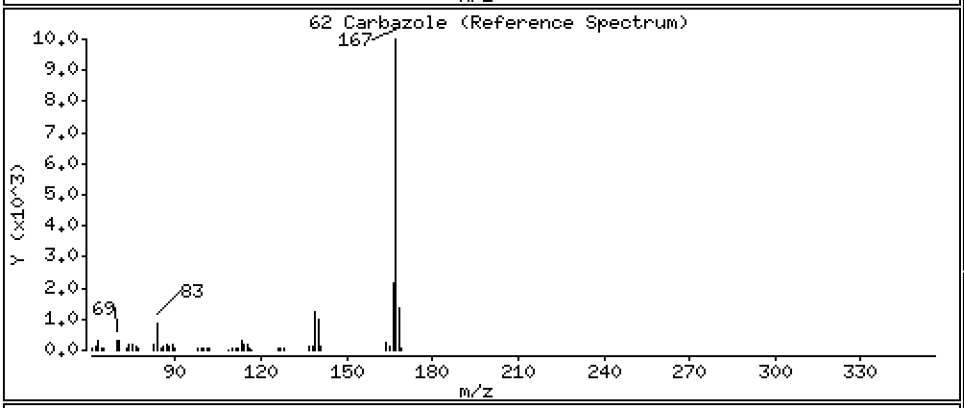
Concentration: 0.1858 ug/mL

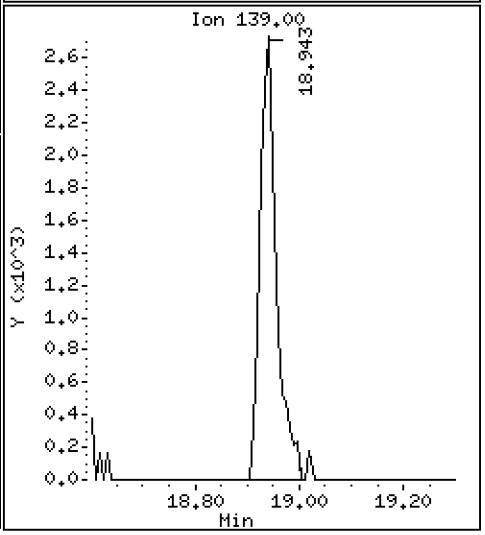


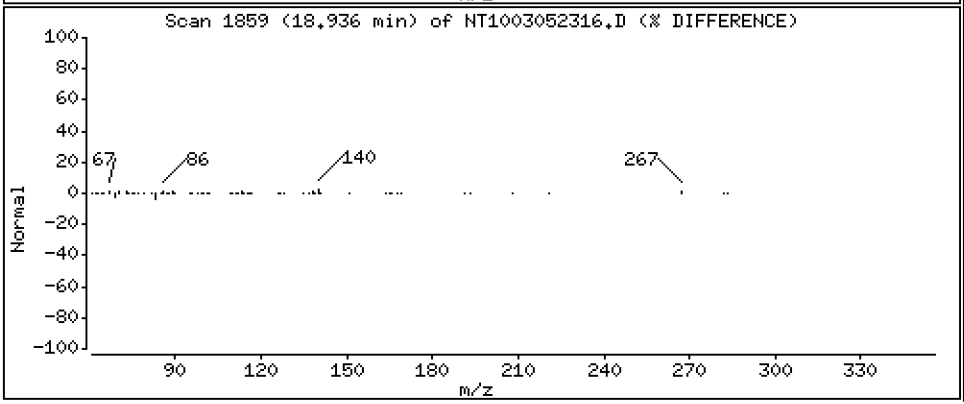












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

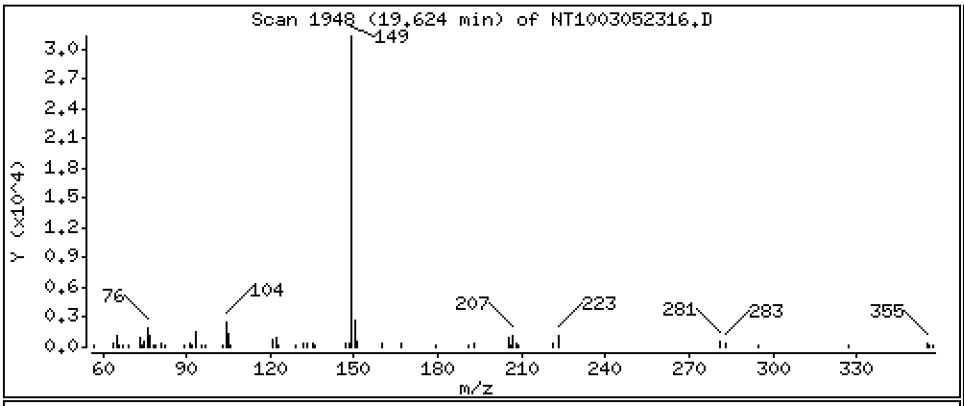
Operator: VTS

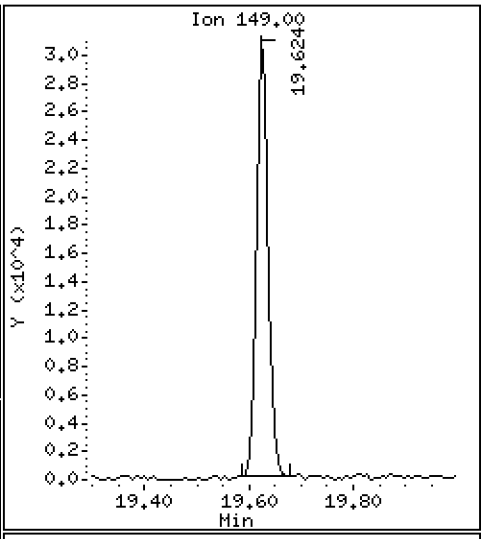
Column phase: ZB-5msi

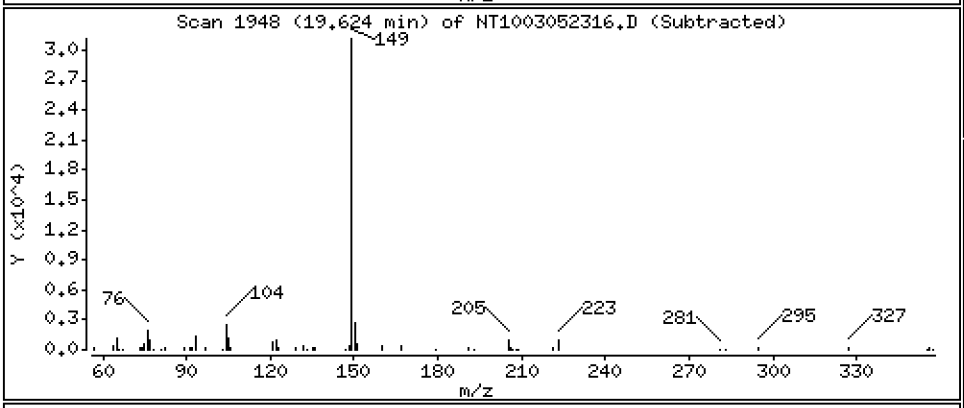
Column diameter: 0.25

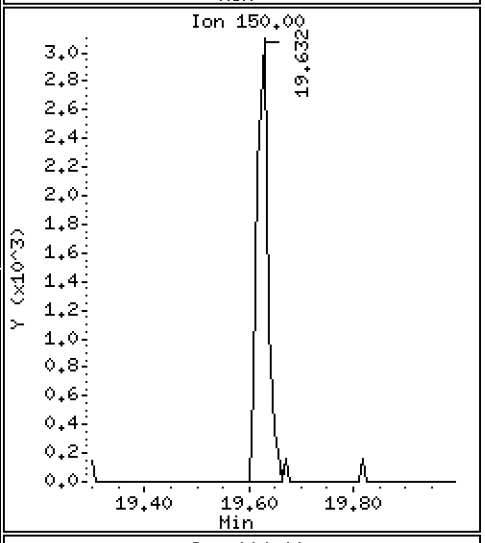
63 Di-n-butylphthalate

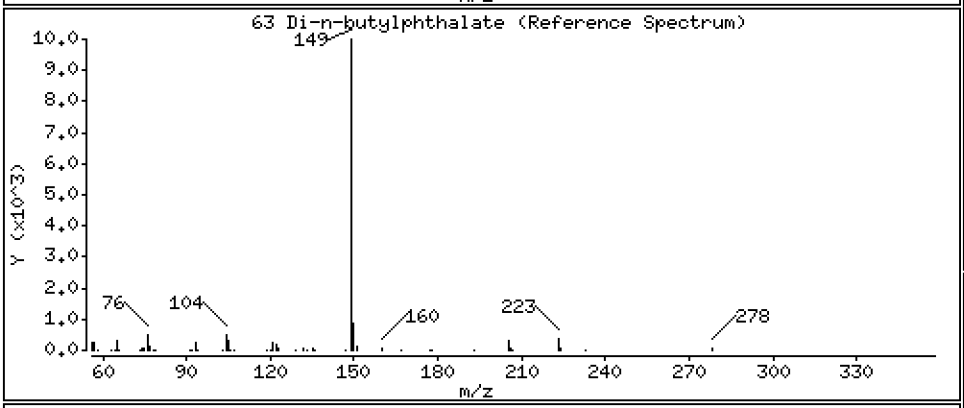
Concentration: 0.1588 ug/mL

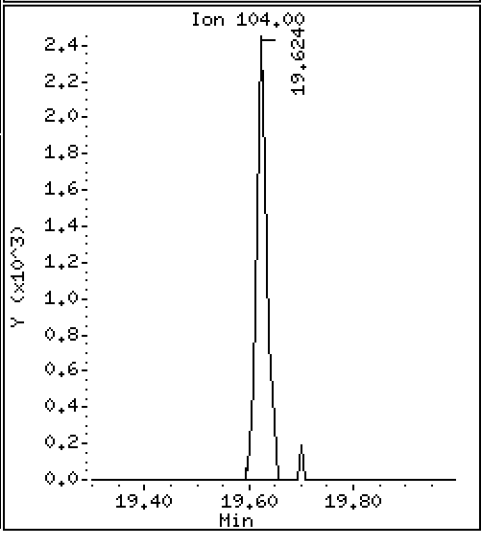


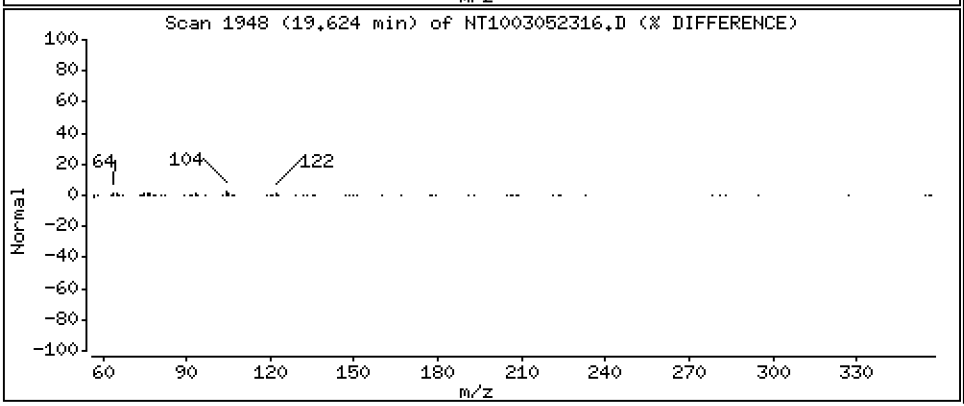












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

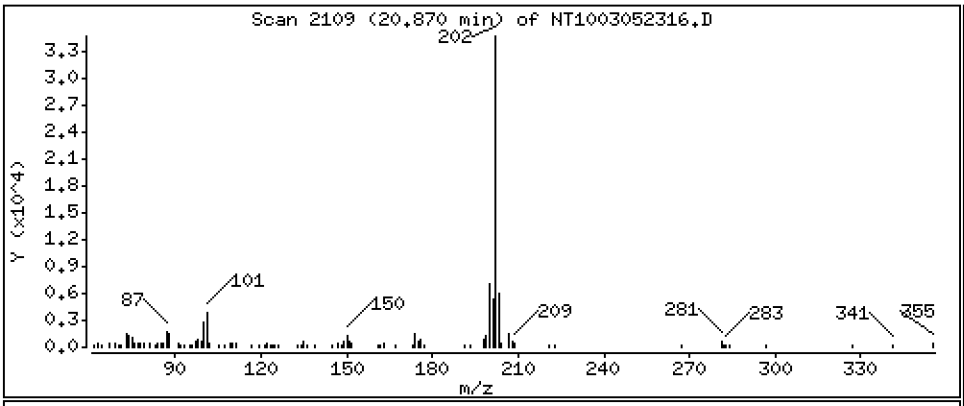
Operator: VTS

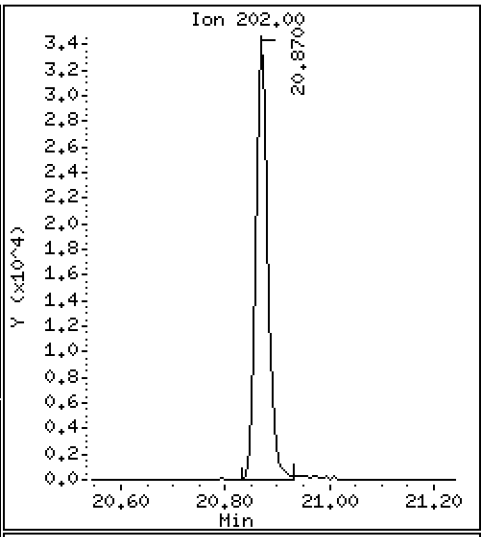
Column phase: ZB-5msi

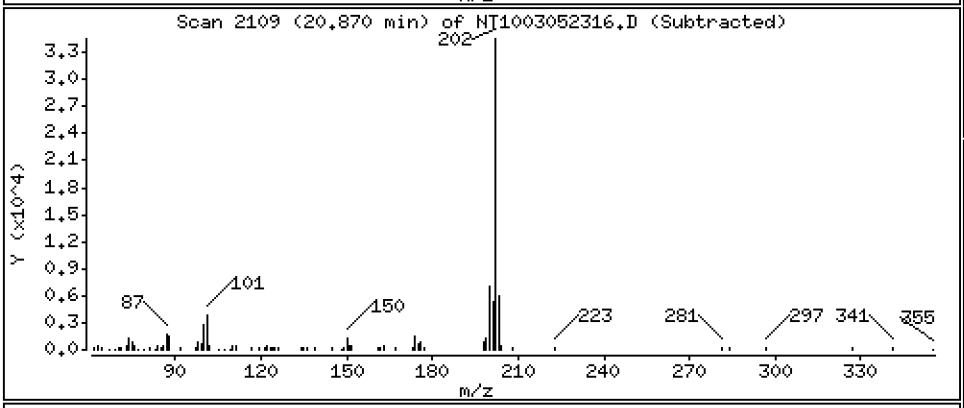
Column diameter: 0.25

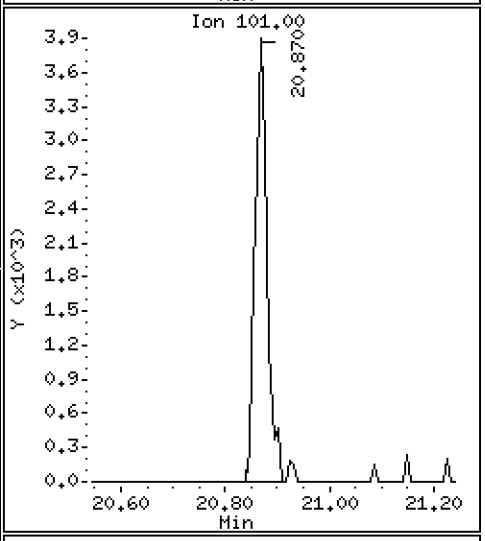
64 Fluoranthene

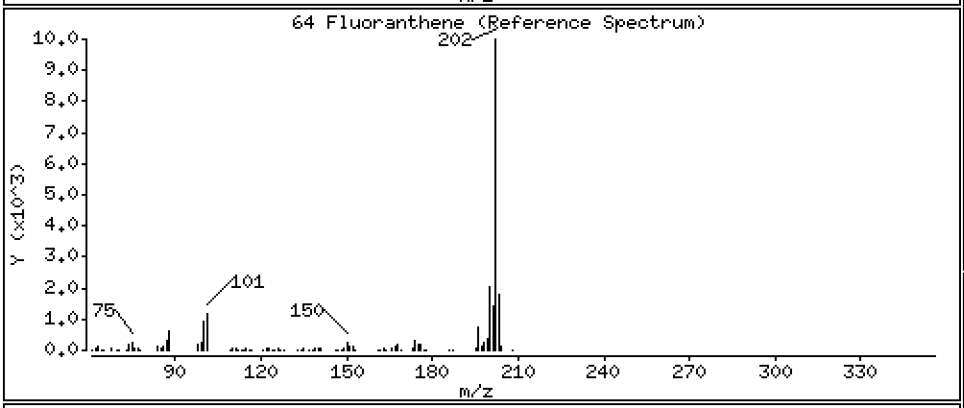
Concentration: 0.1832 ug/mL

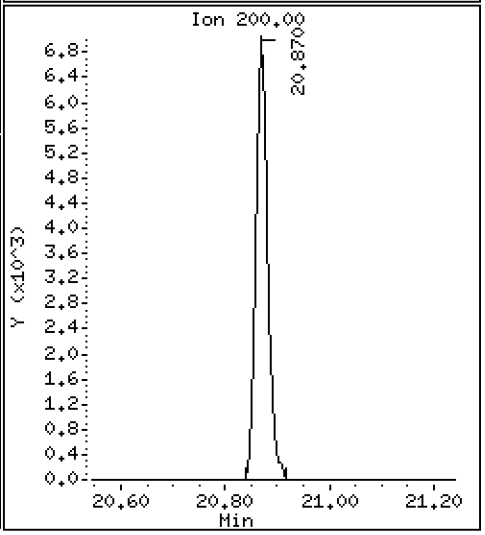


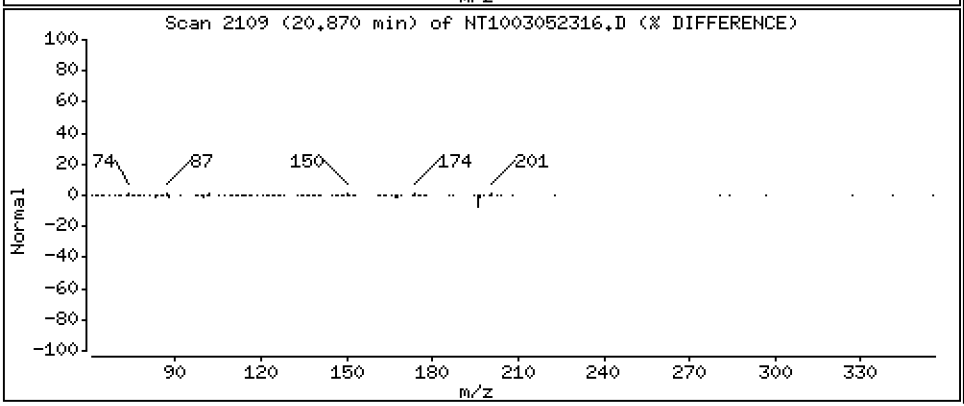












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

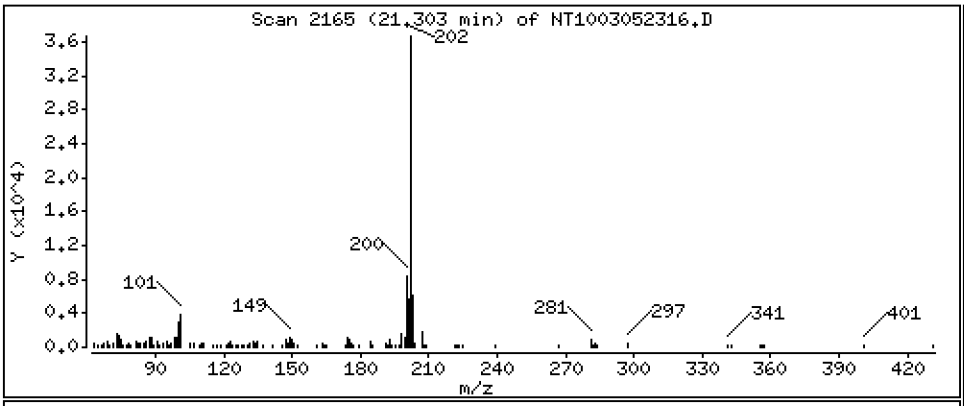
Operator: VTS

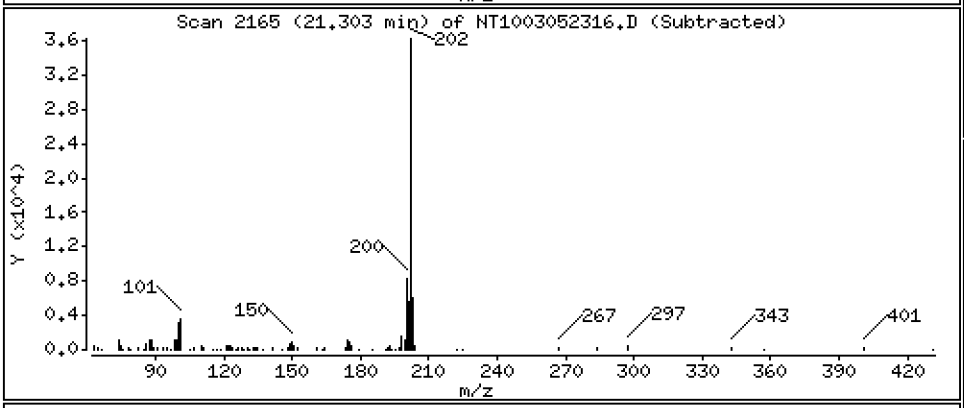
Column phase: ZB-5msi

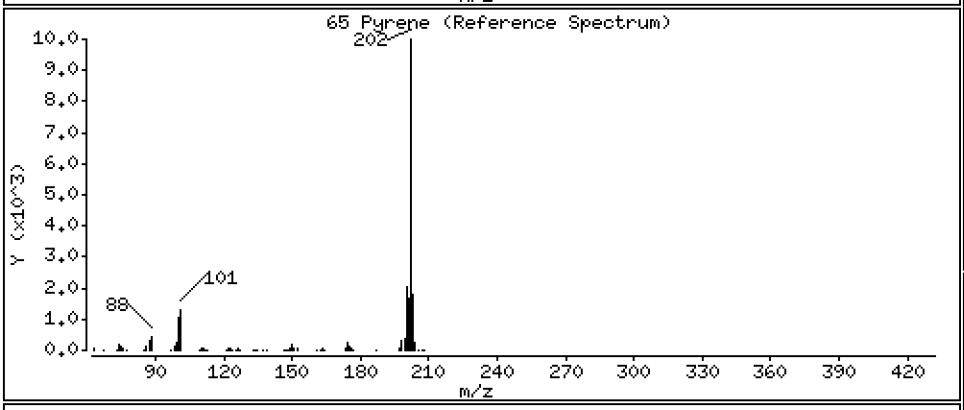
Column diameter: 0.25

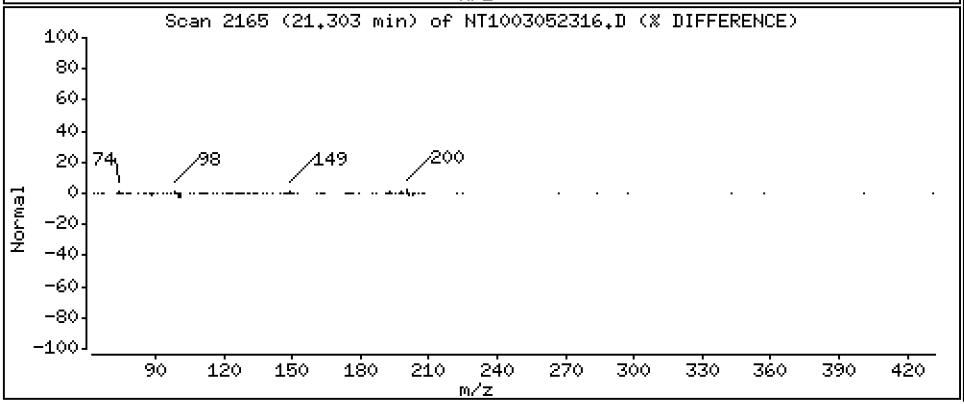
65 Pyrene

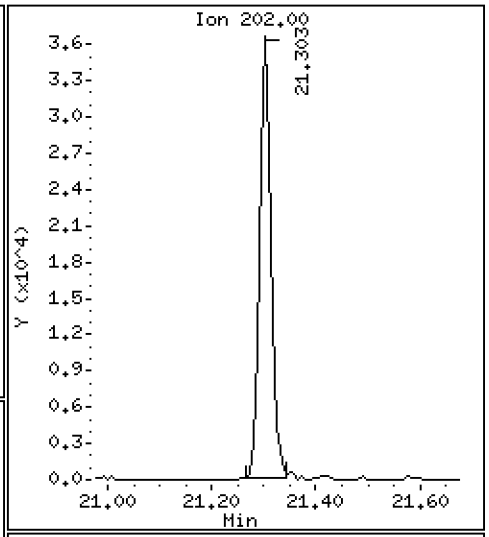
Concentration: 0.1817 ug/mL

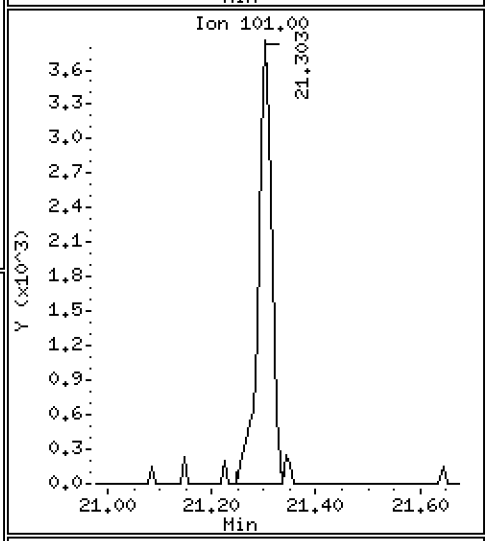


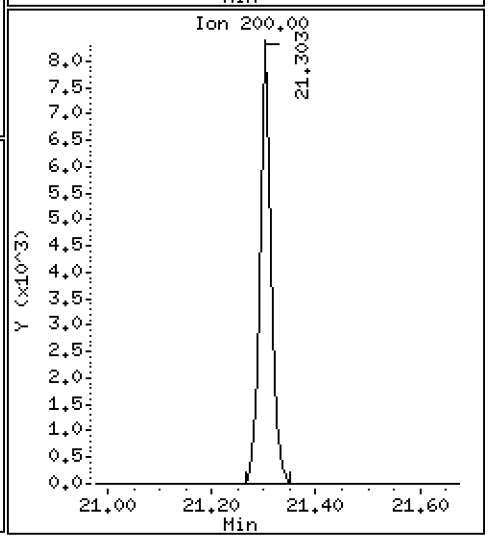












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

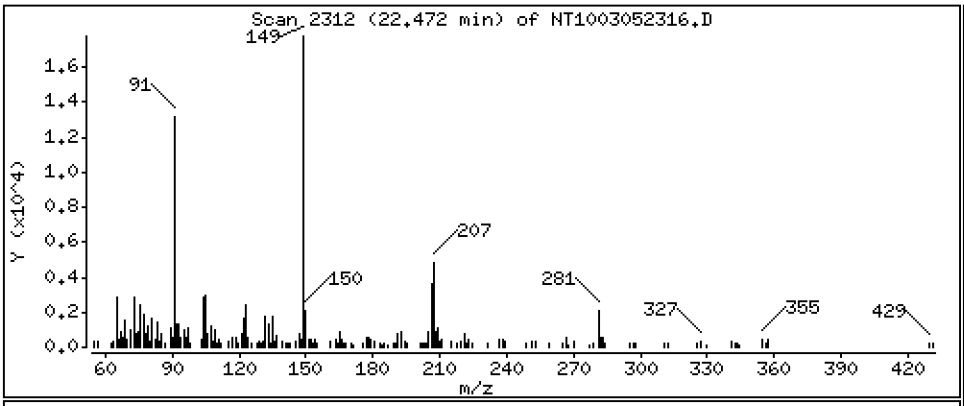
Operator: VTS

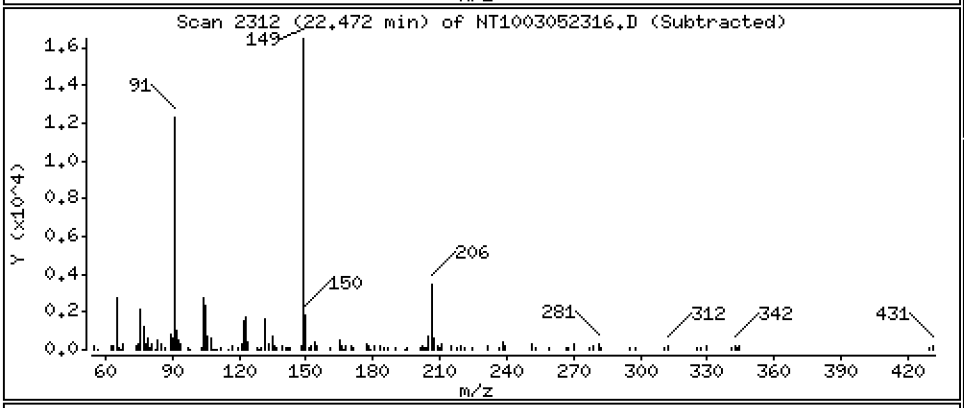
Column phase: ZB-5msi

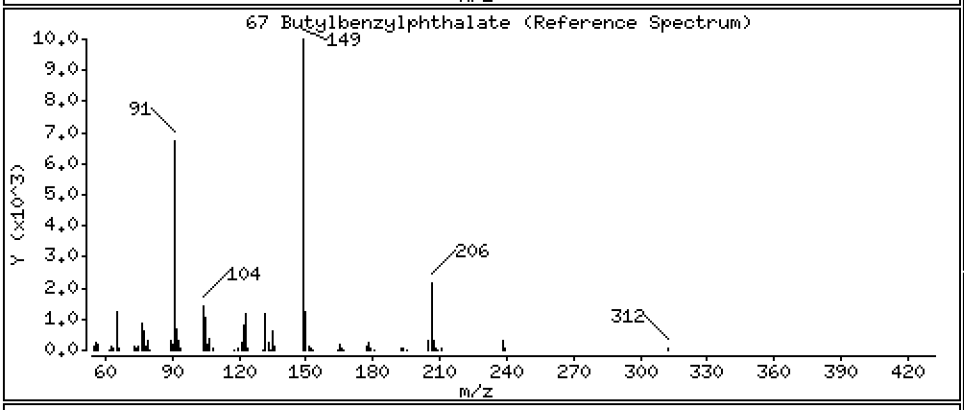
Column diameter: 0.25

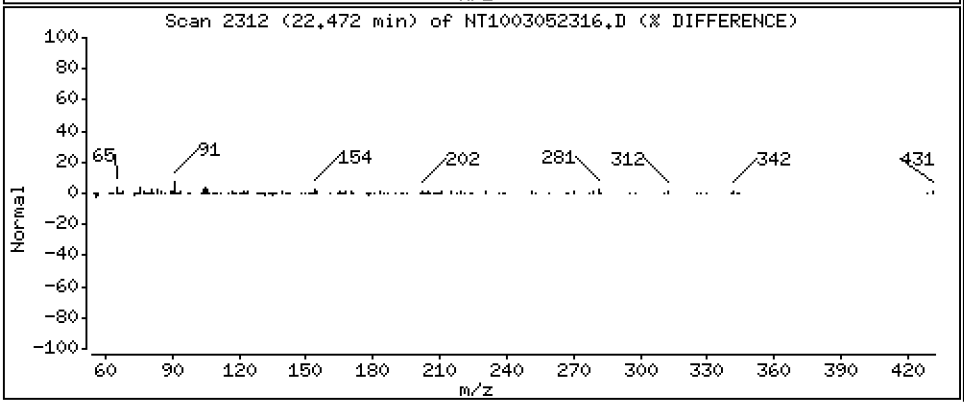
67 Butylbenzylphthalate

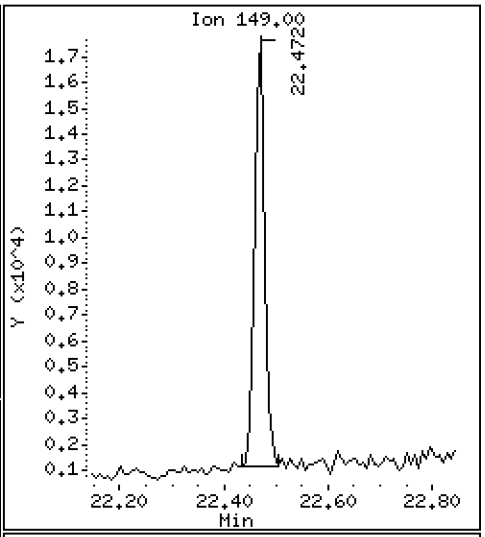
Concentration: 0.1369 ug/mL

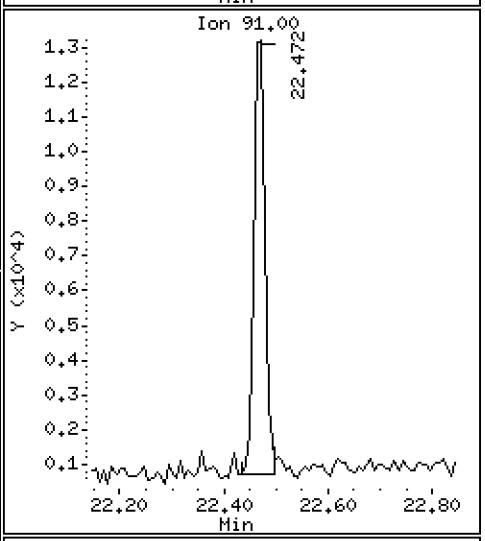


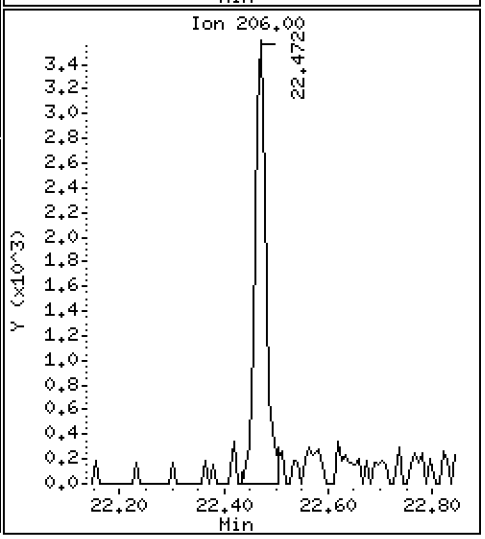












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

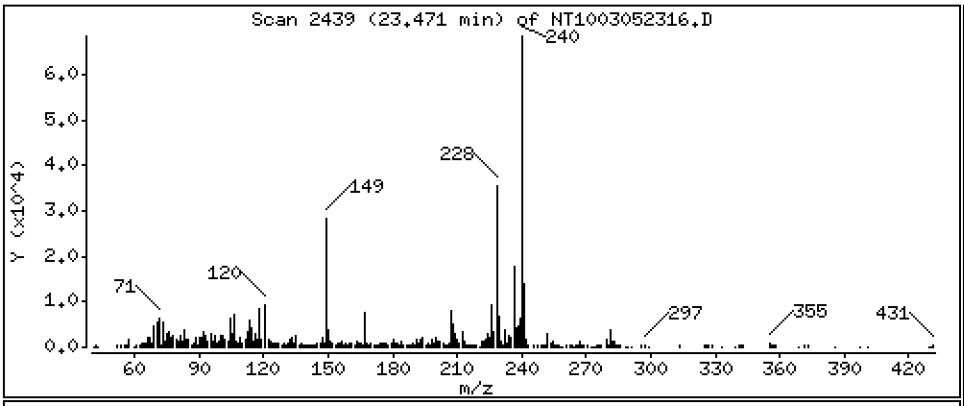
Operator: VTS

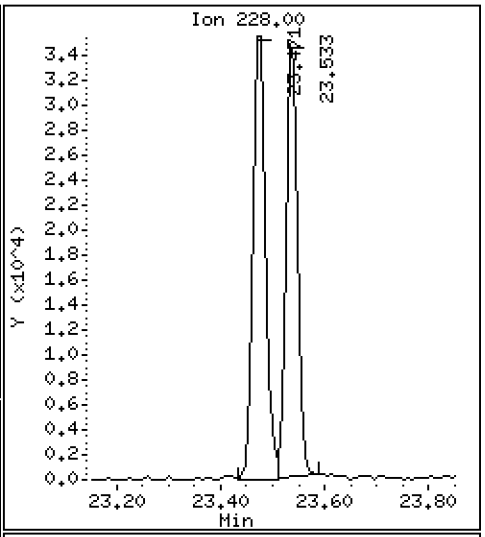
Column phase: ZB-5msi

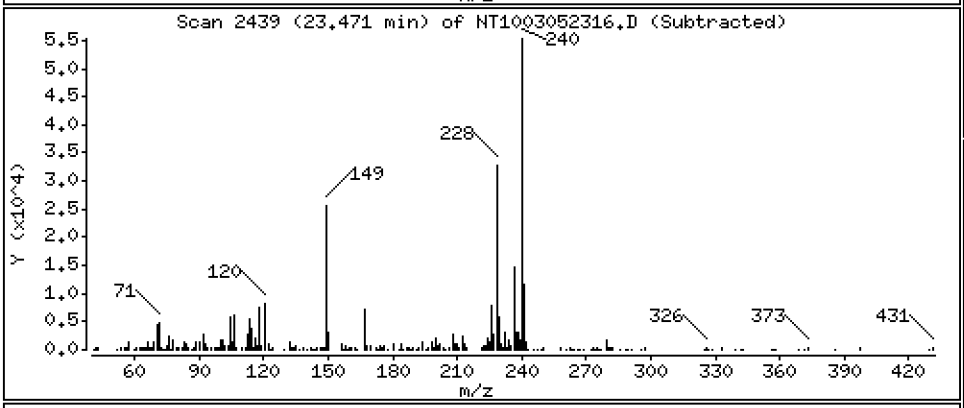
Column diameter: 0.25

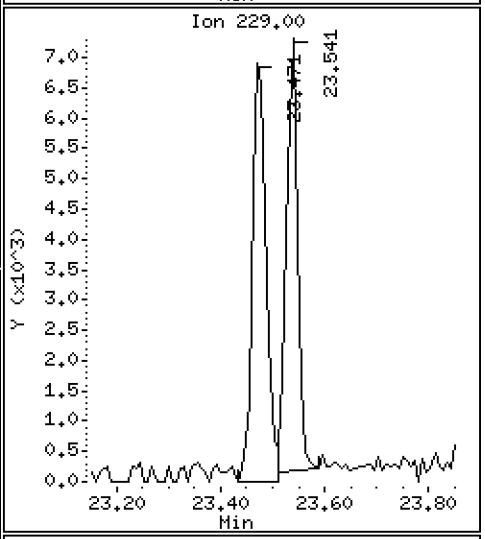
68 Benzo(a)anthracene

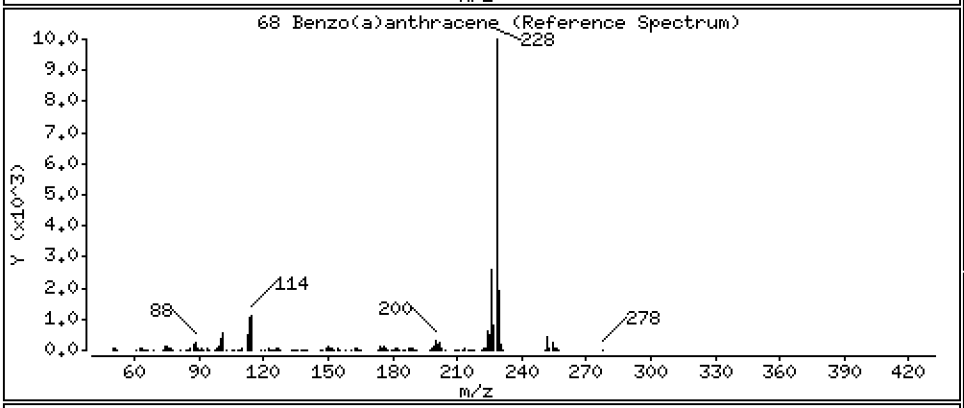
Concentration: 0.1995 ug/mL

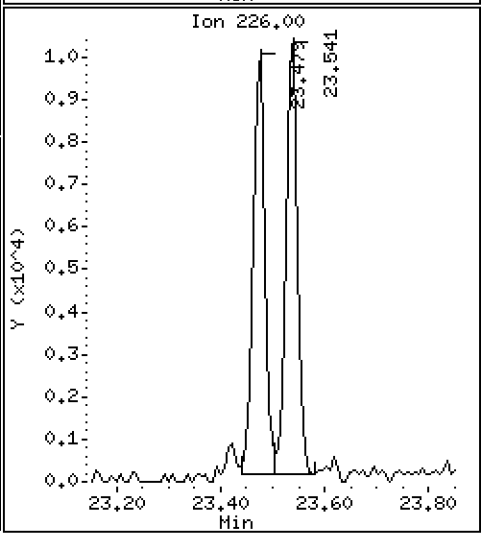


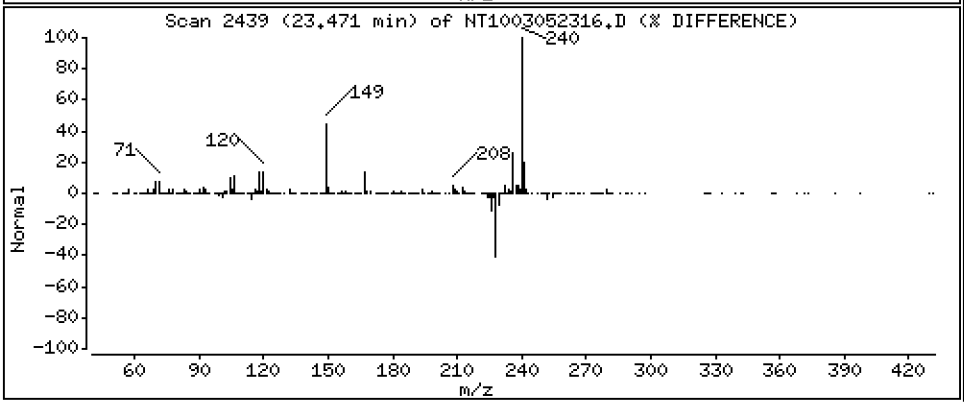












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

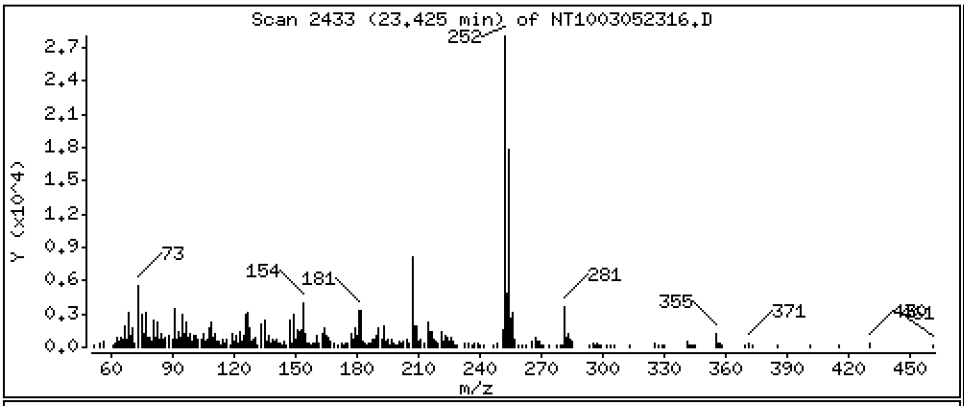
Operator: VTS

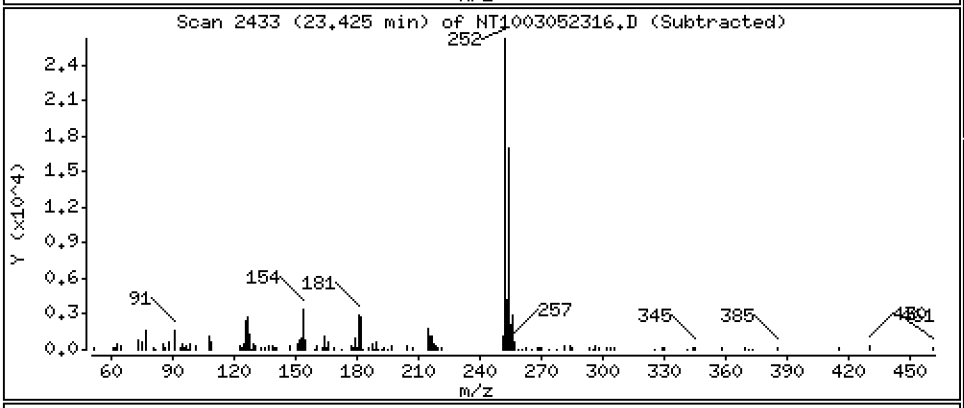
Column phase: ZB-5msi

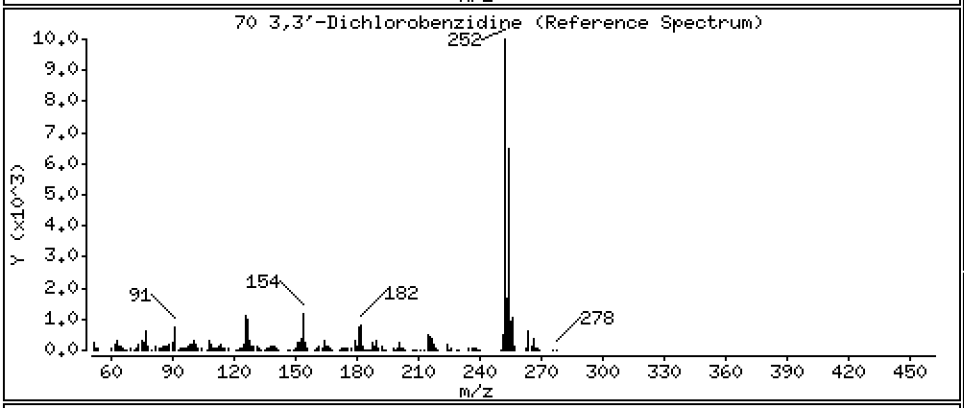
Column diameter: 0.25

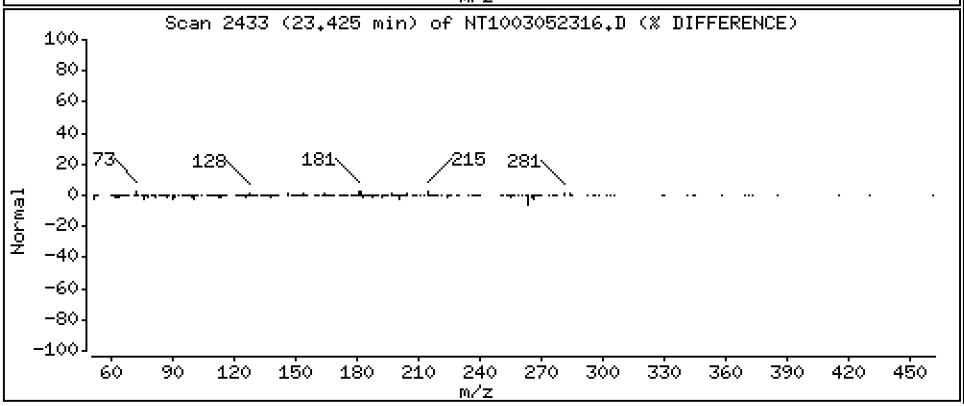
70 3,3'-Dichlorobenzidine

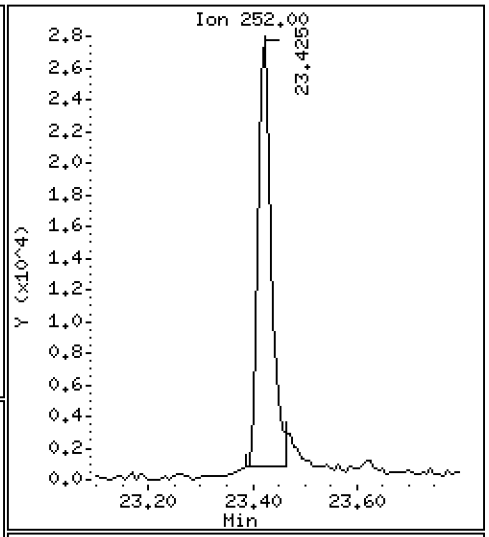
Concentration: 0.3521 ug/mL

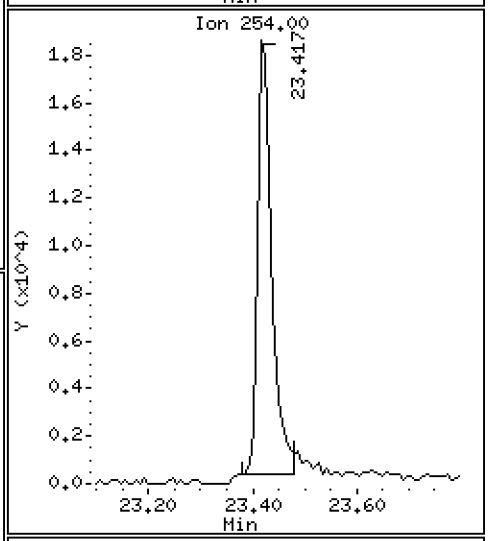


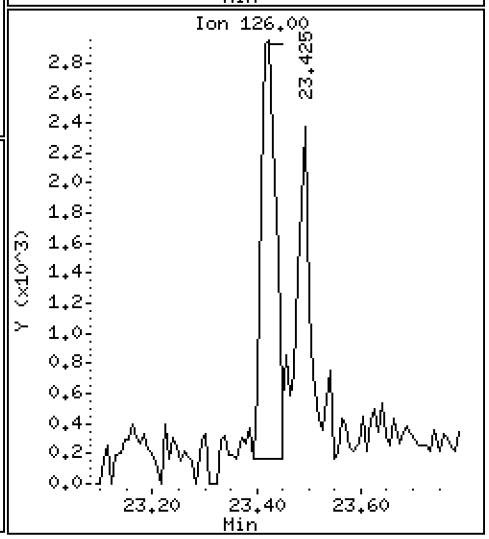












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

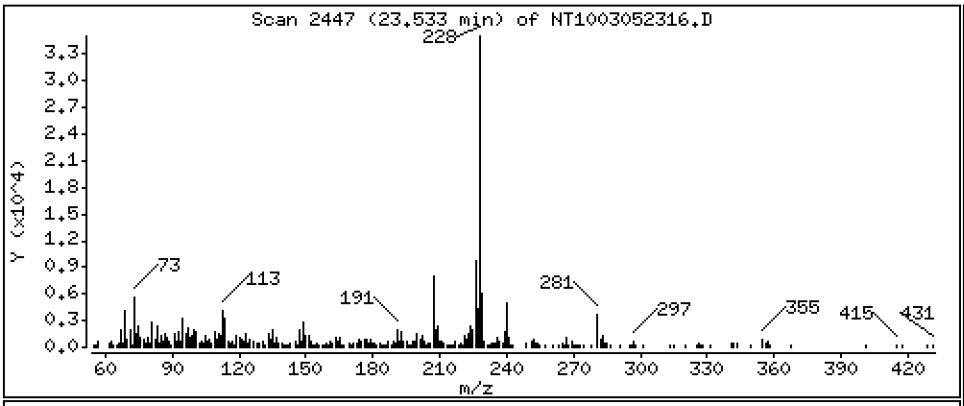
Operator: VTS

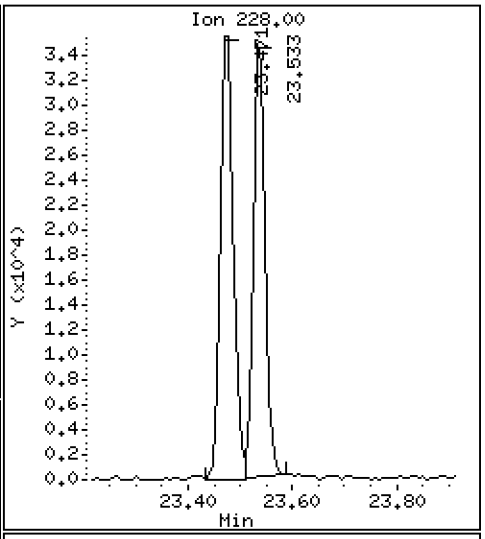
Column phase: ZB-5msi

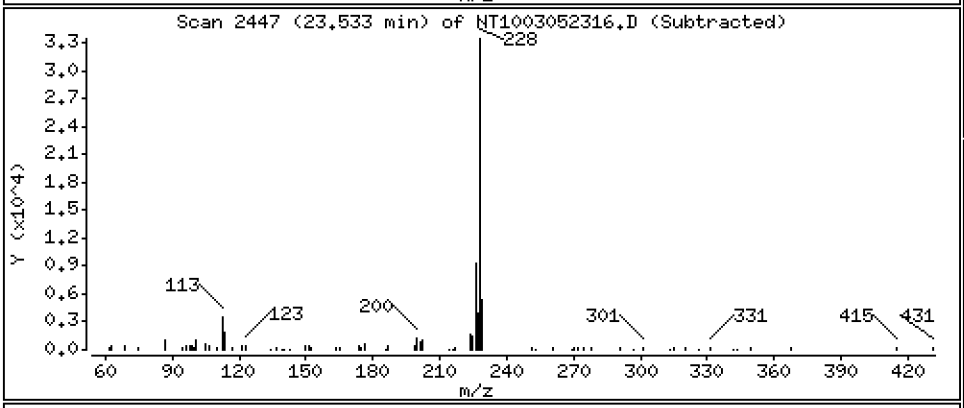
Column diameter: 0.25

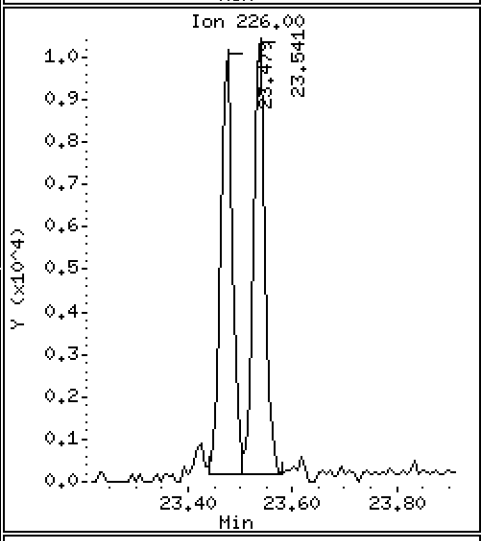
71 Chrysene

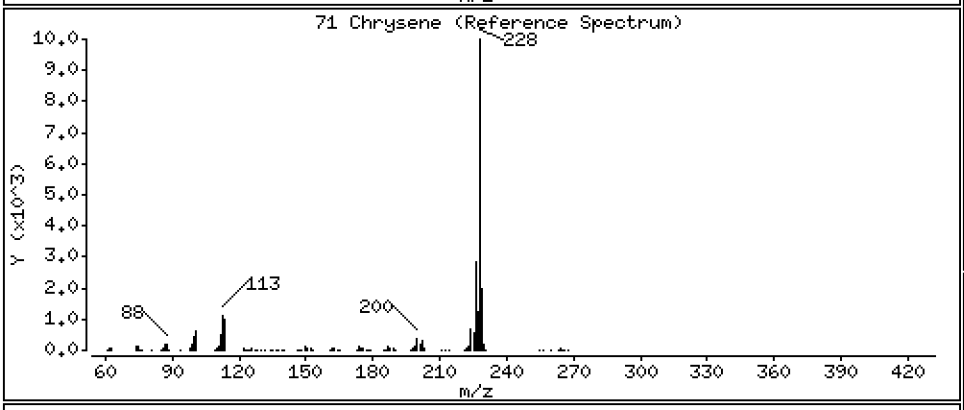
Concentration: 0.2187 ug/mL

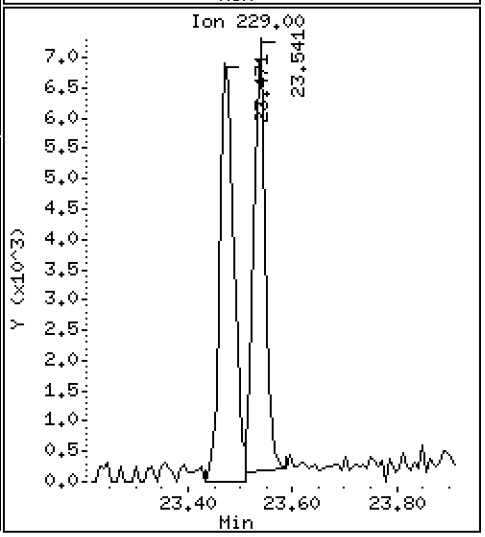


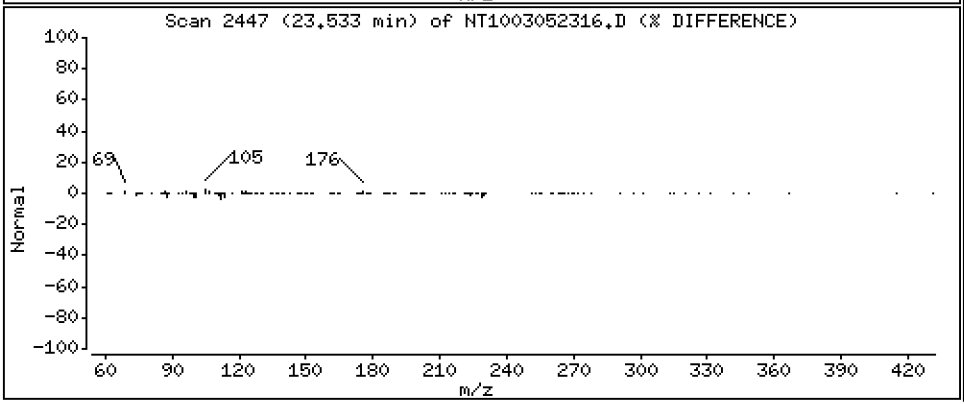












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

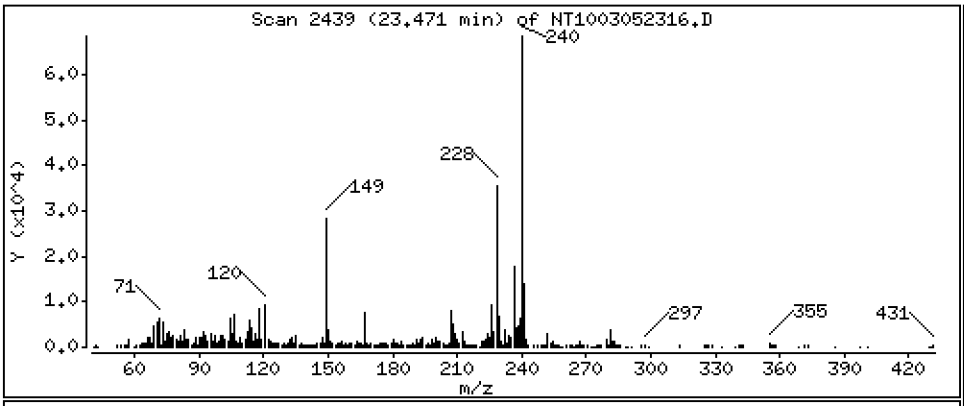
Operator: VTS

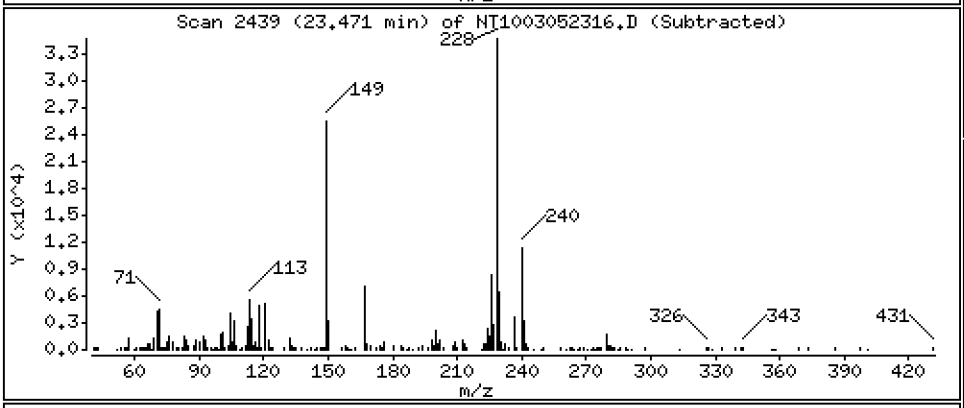
Column phase: ZB-5msi

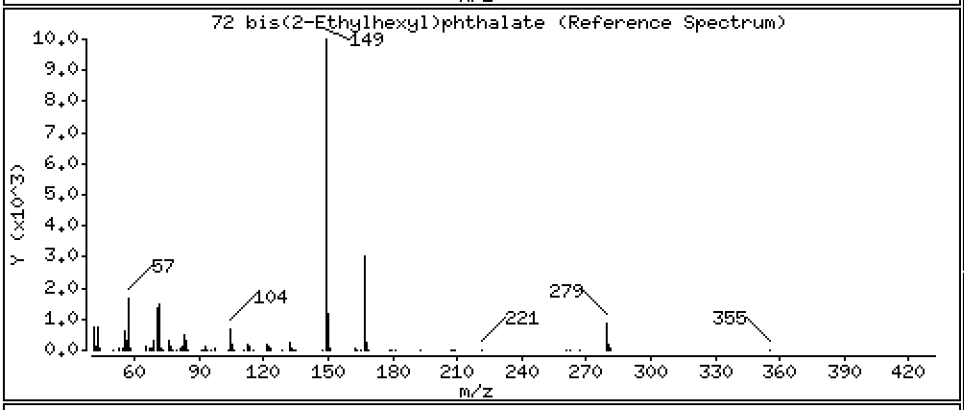
Column diameter: 0.25

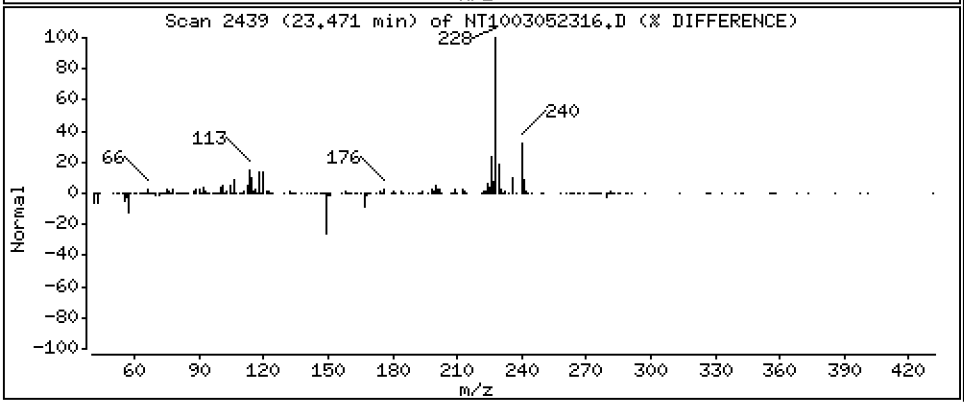
72 bis(2-Ethylhexyl)phthalate

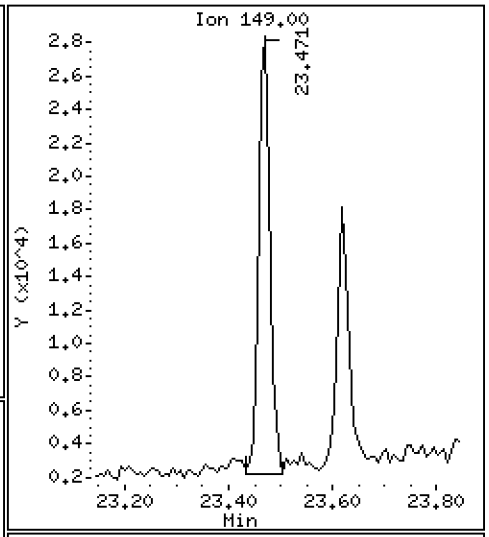
Concentration: 0.1865 ug/mL

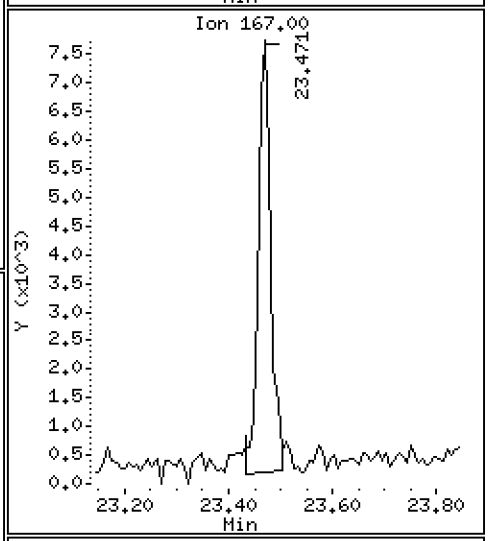


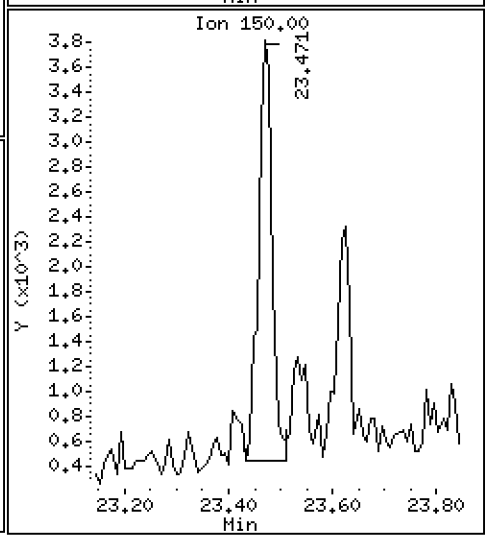












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

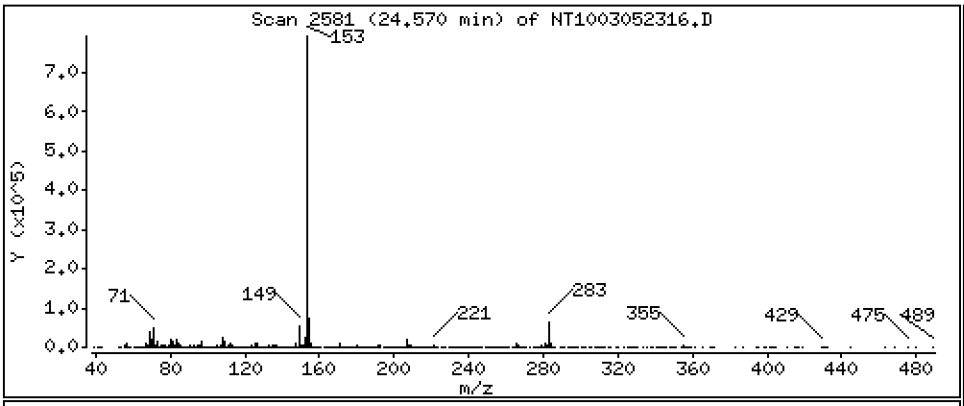
Operator: VTS

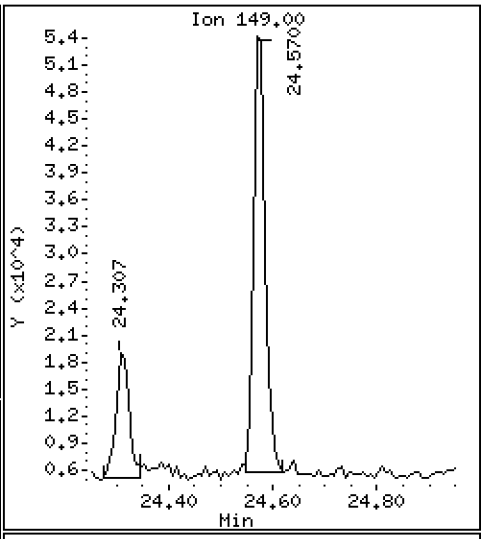
Column phase: ZB-5msi

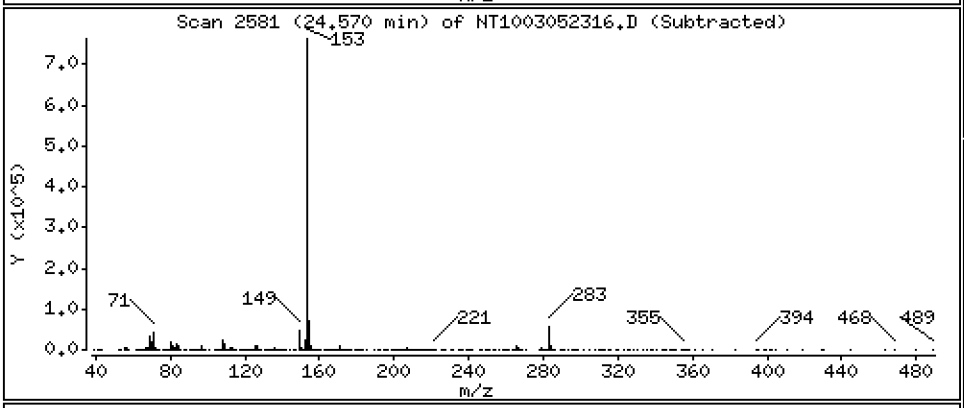
Column diameter: 0.25

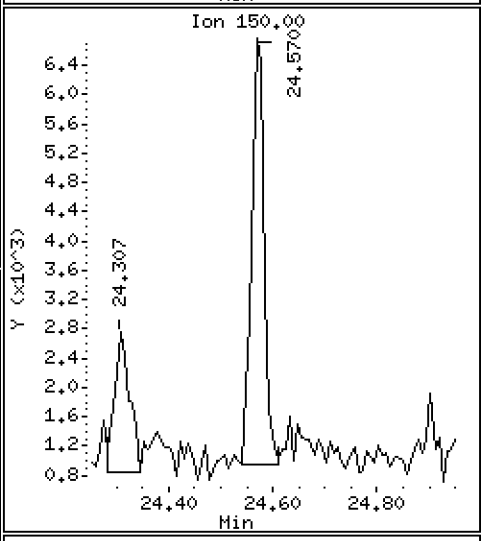
73 Di-n-octylphthalate

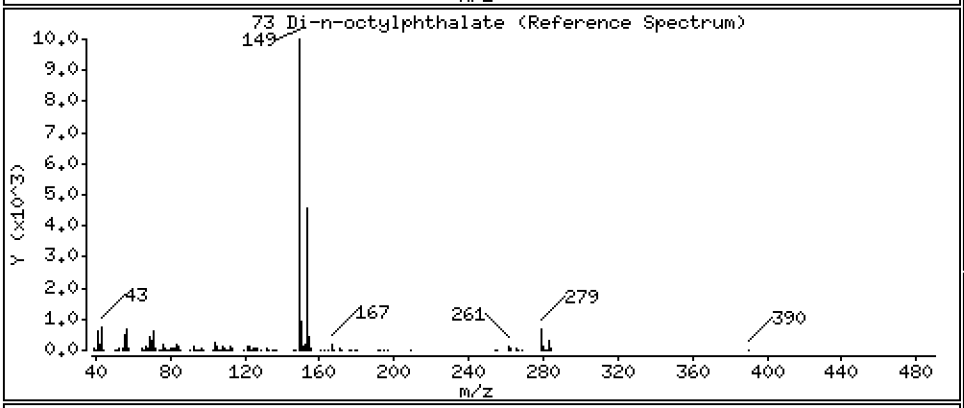
Concentration: 0.2258 ug/mL

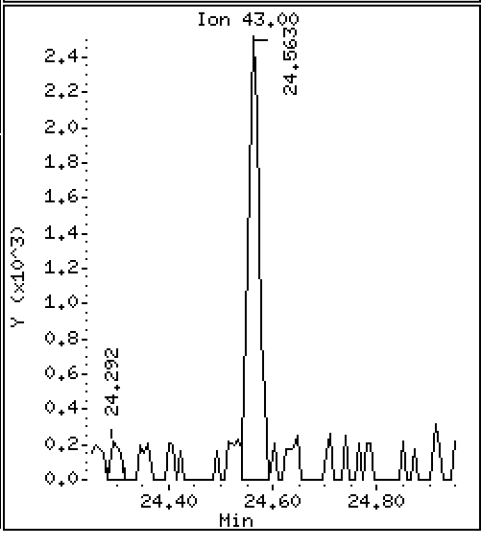


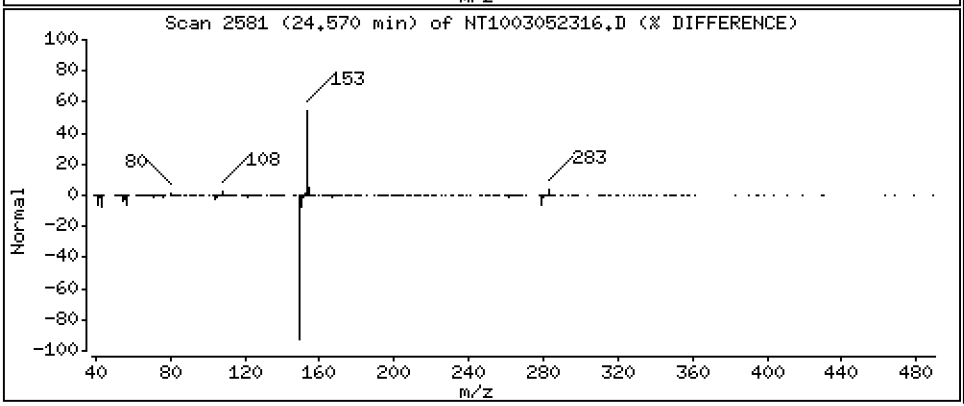












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

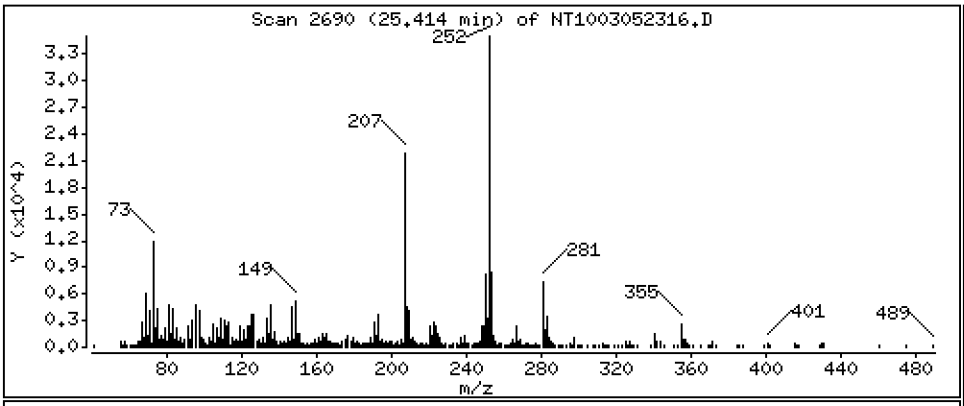
Operator: VTS

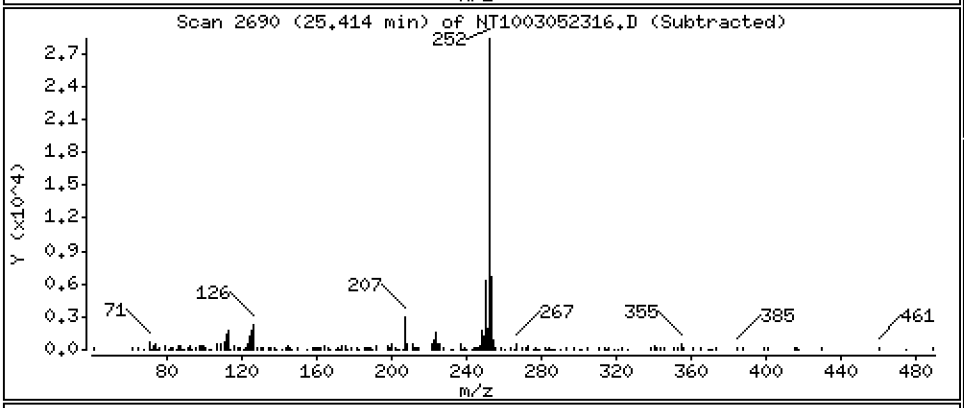
Column phase: ZB-5msi

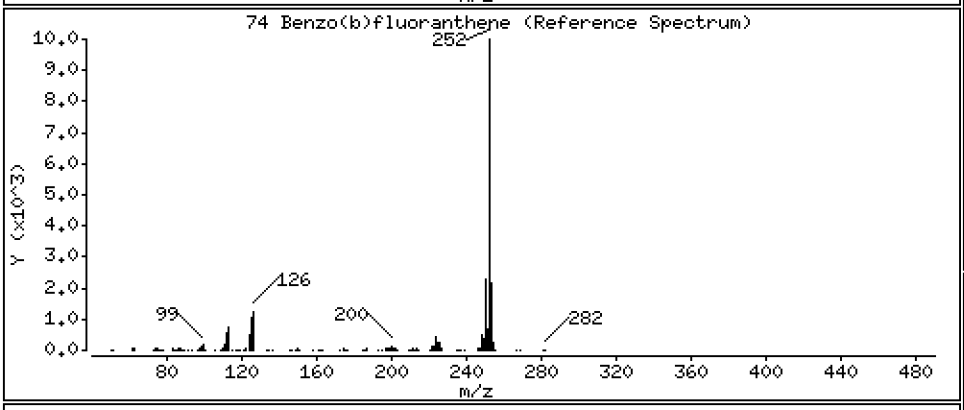
Column diameter: 0.25

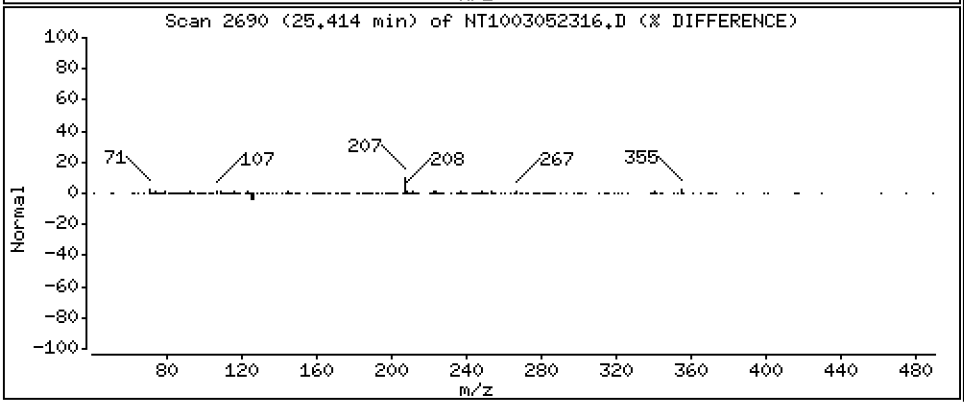
74 Benzo(b)fluoranthene

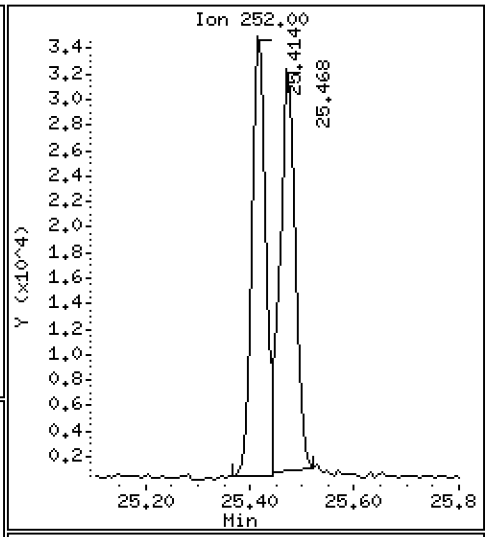
Concentration: 0.1802 ug/mL

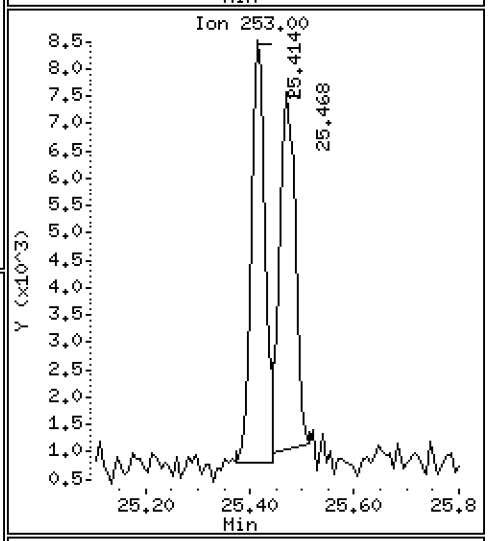


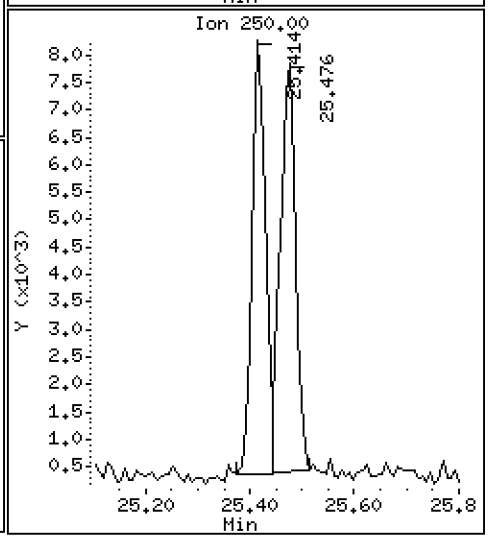












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

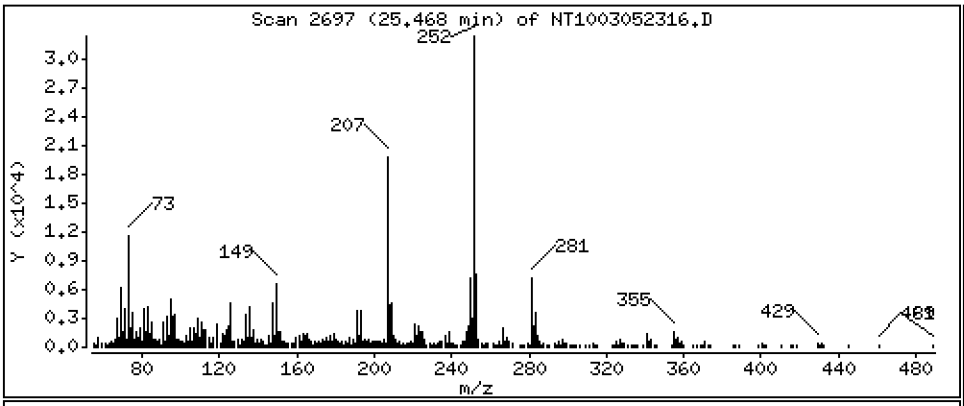
Operator: VTS

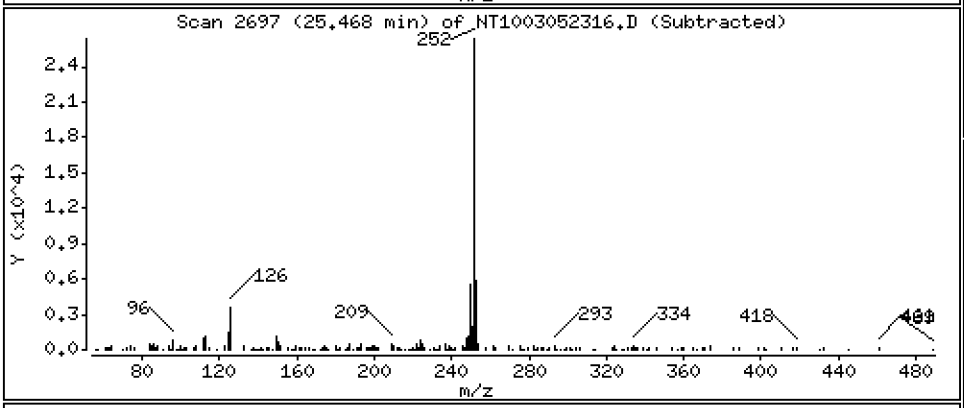
Column phase: ZB-5msi

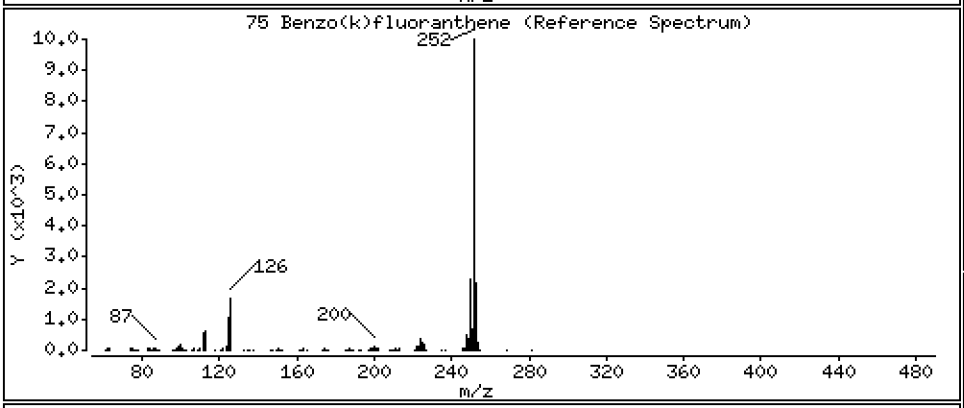
Column diameter: 0.25

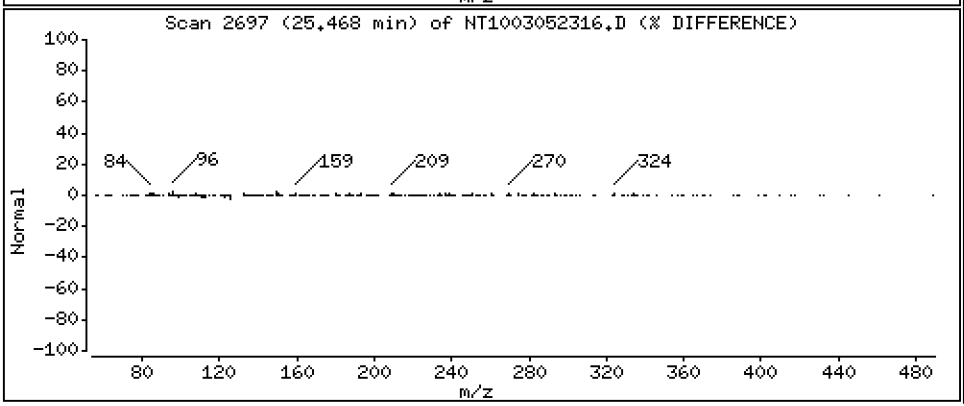
75 Benzo(k)fluoranthene

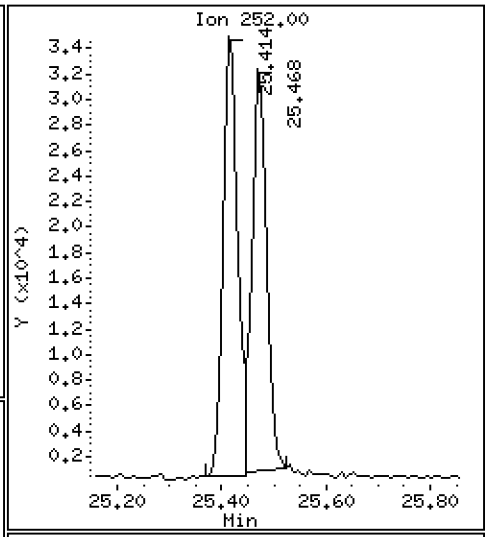
Concentration: 0.1792 ug/mL

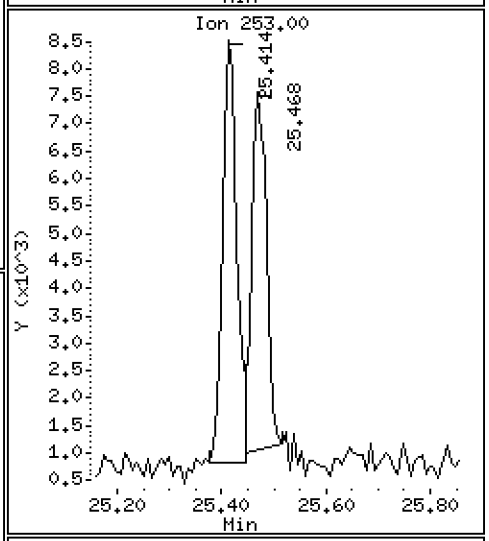


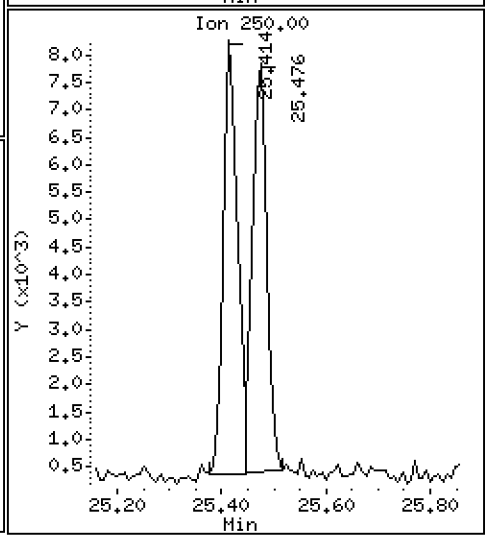












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

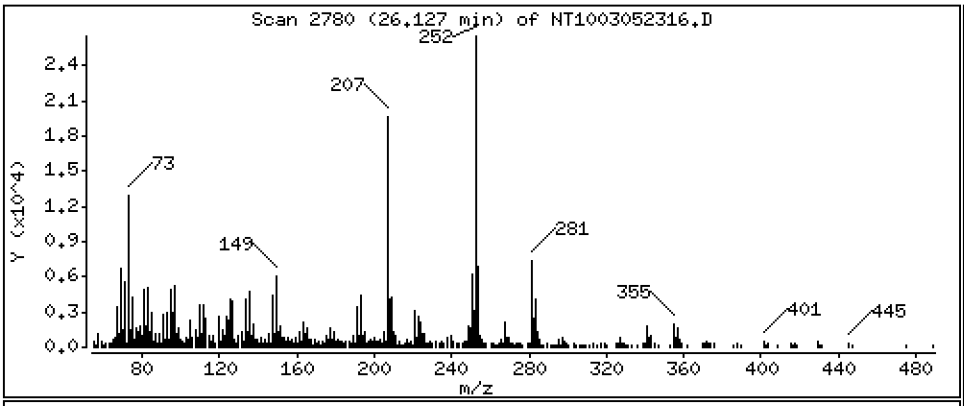
Operator: VTS

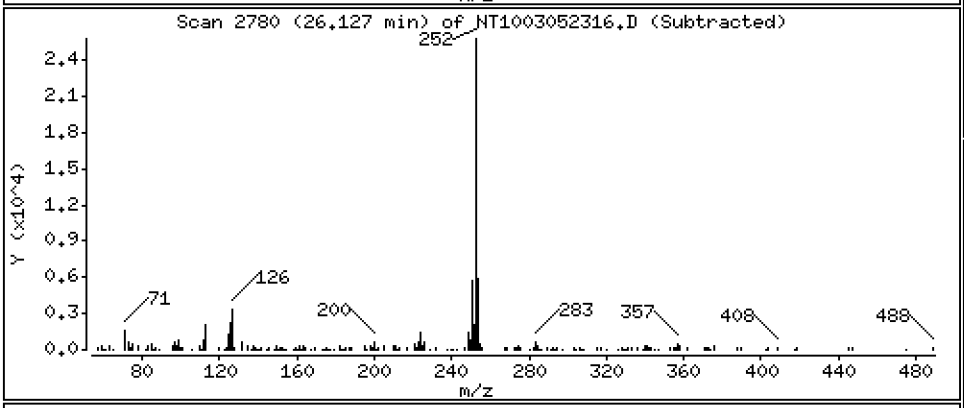
Column phase: ZB-5msi

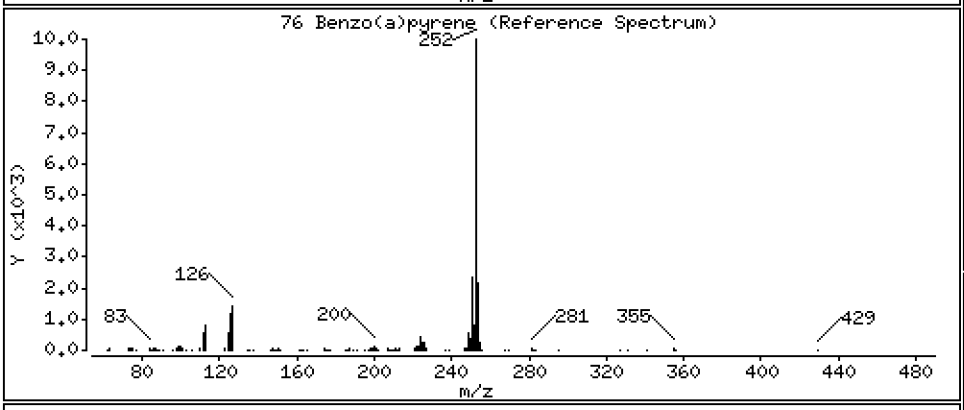
Column diameter: 0.25

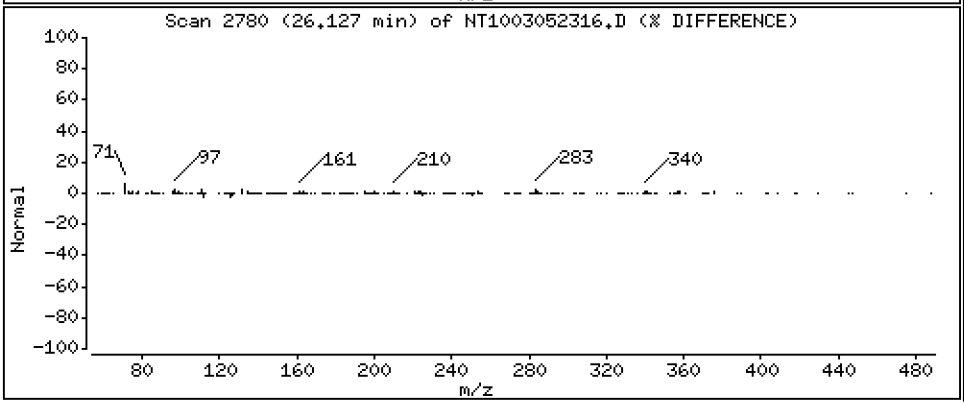
76 Benzo(a)pyrene

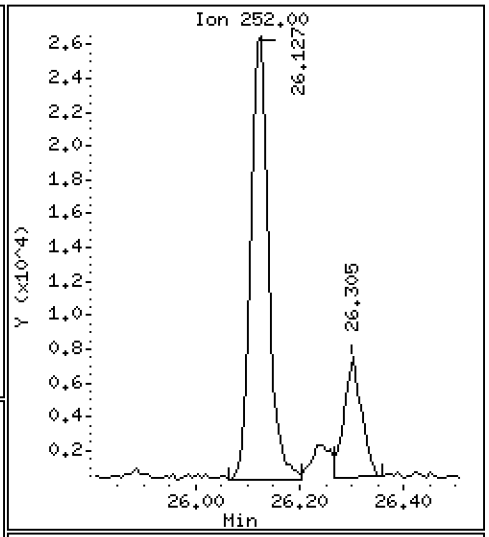
Concentration: 0.1876 ug/mL

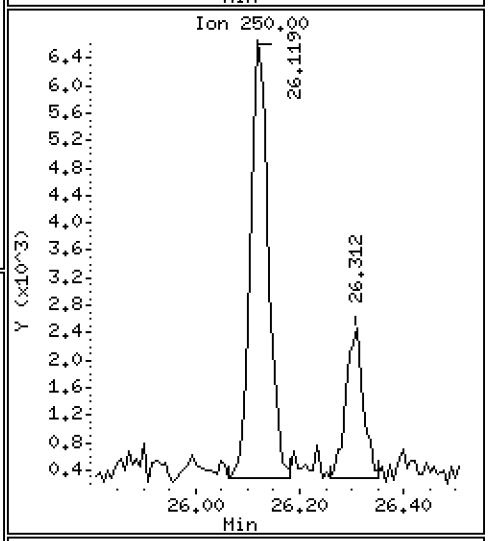


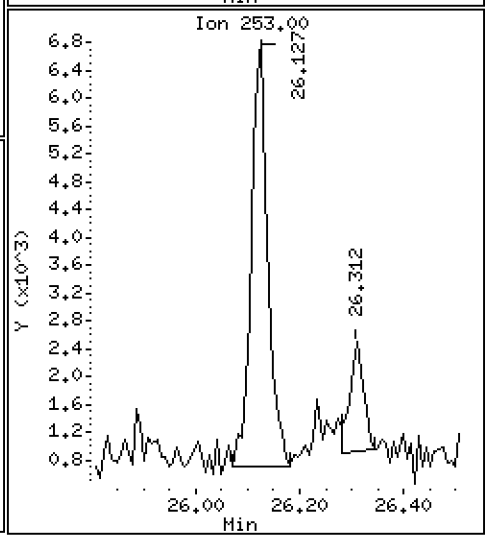












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052316.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

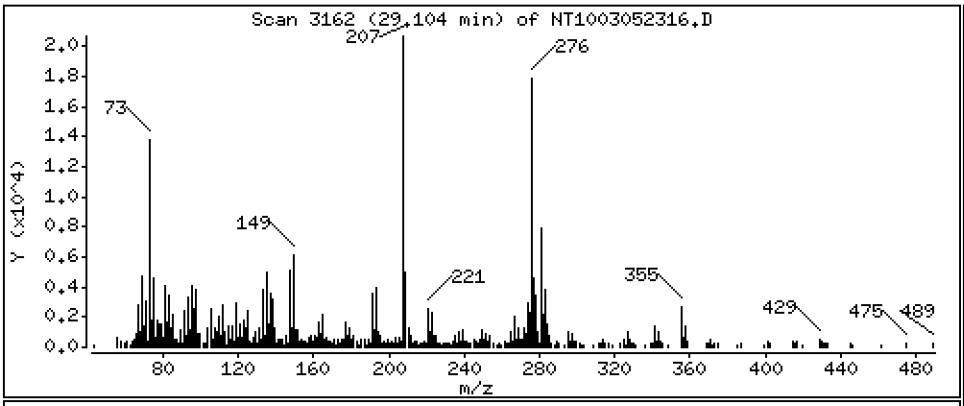
Operator: VTS

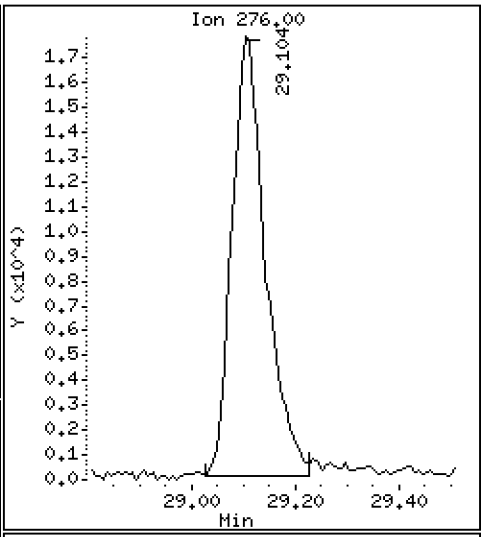
Column phase: ZB-5msi

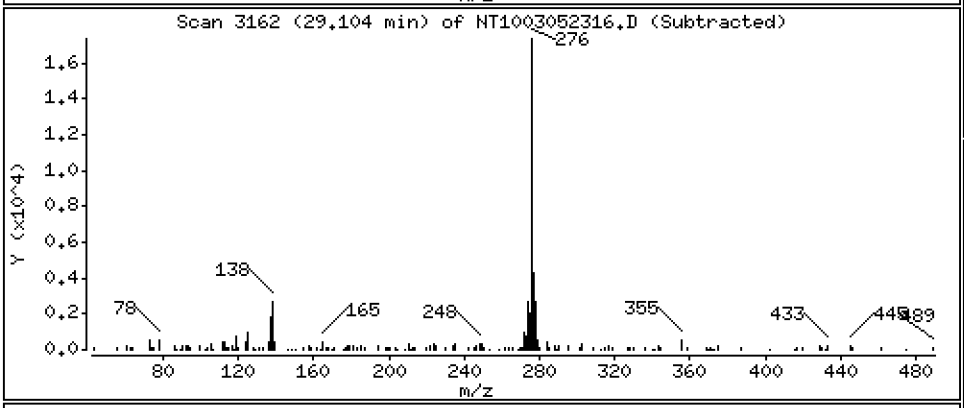
Column diameter: 0.25

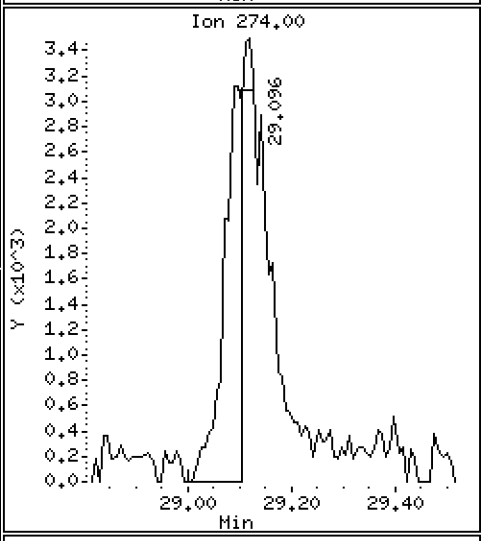
78 Indeno(1,2,3-cd)pyrene

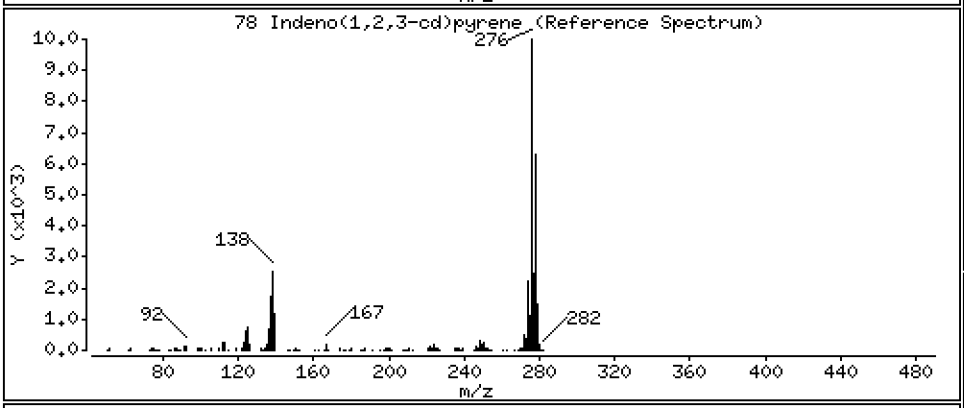
Concentration: 0.1988 ug/mL

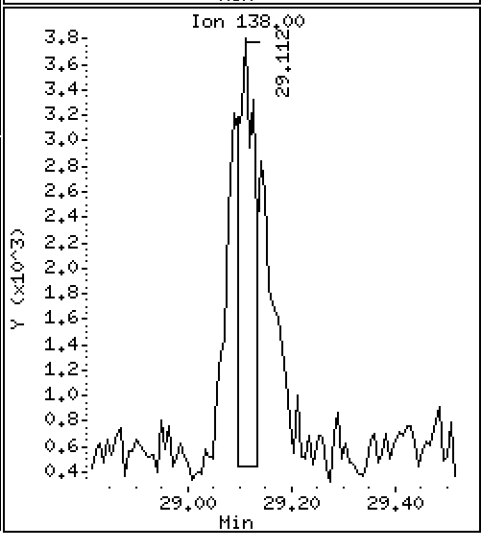


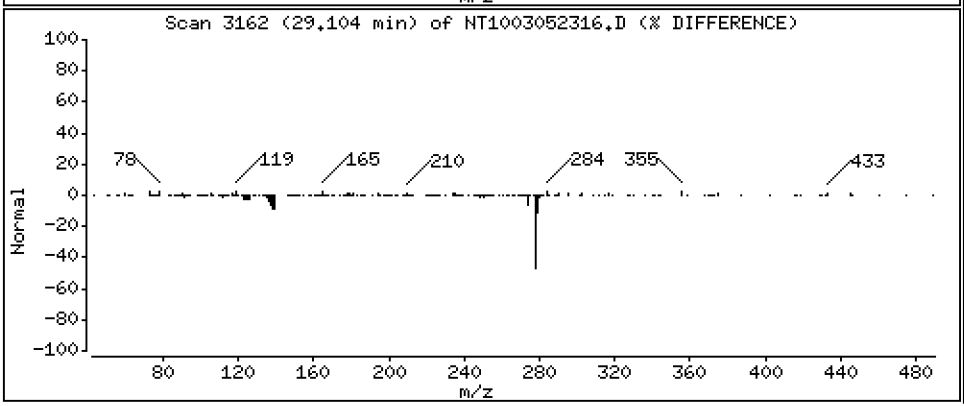












Date : 05-MAR-2023 22:54

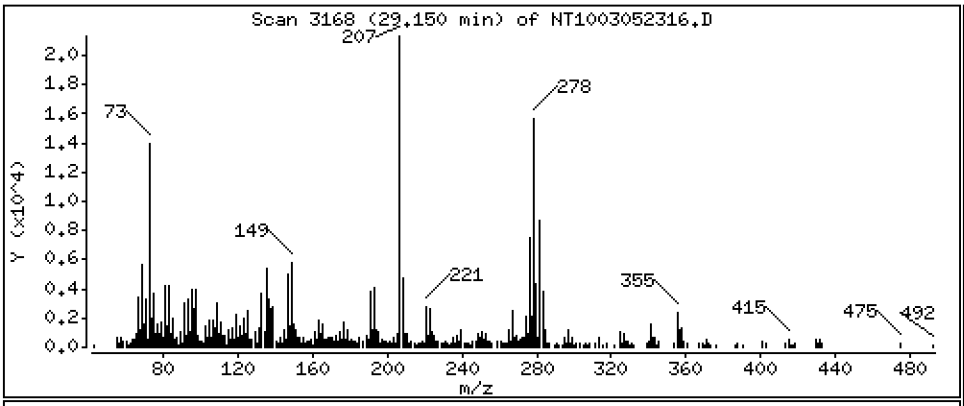
Client ID: Instrument: nt10.i

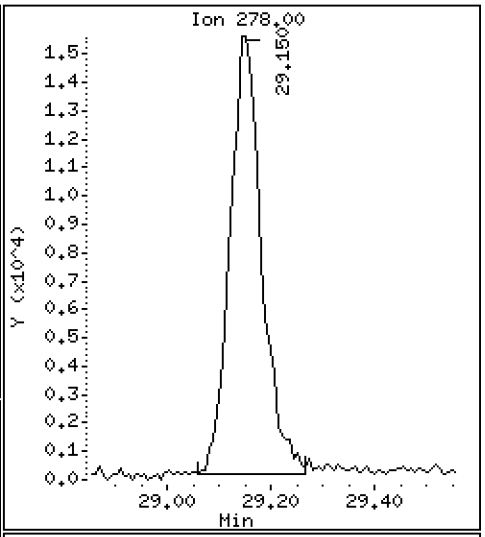
Sample Info: SLC0415-LCV1

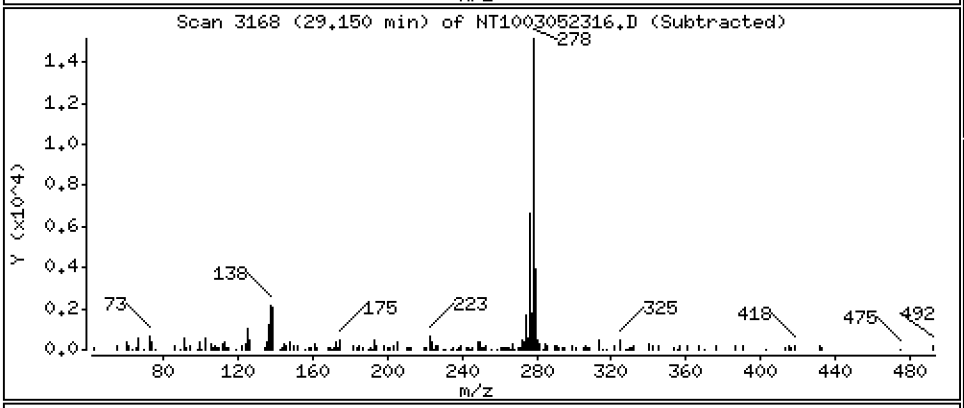
Operator: VTS

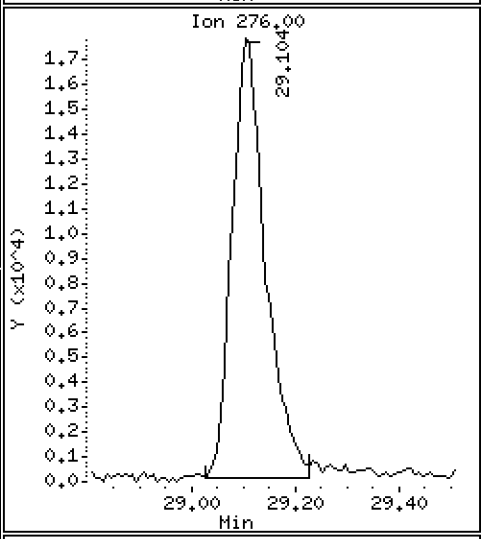
Column phase: ZB-5msi Column diameter: 0.25

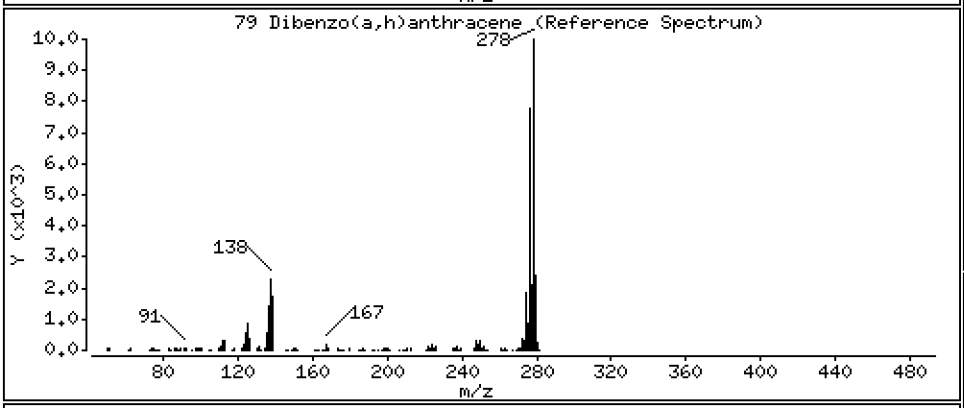
79 Dibenzo(a,h)anthracene Concentration: 0.2178 ug/mL

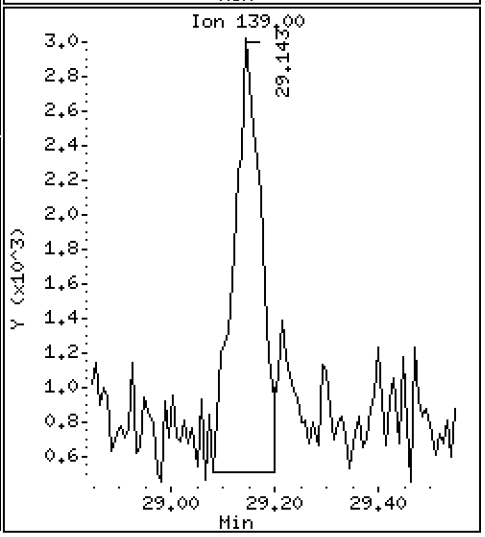


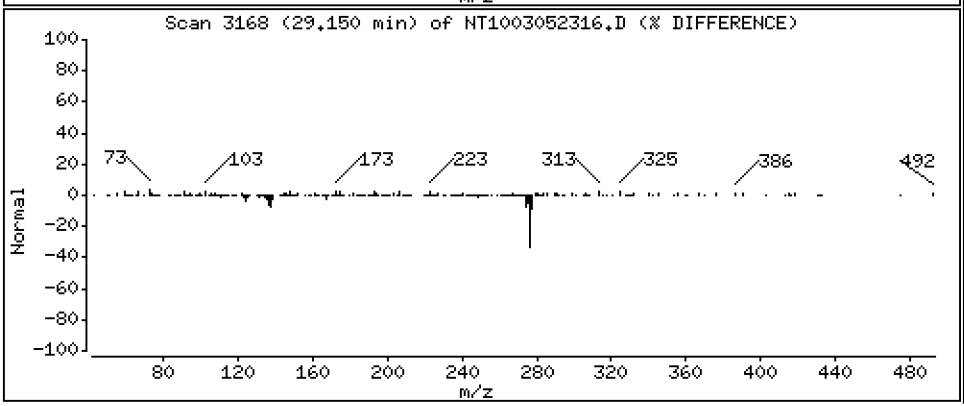












Date : 05-MAR-2023 22:54

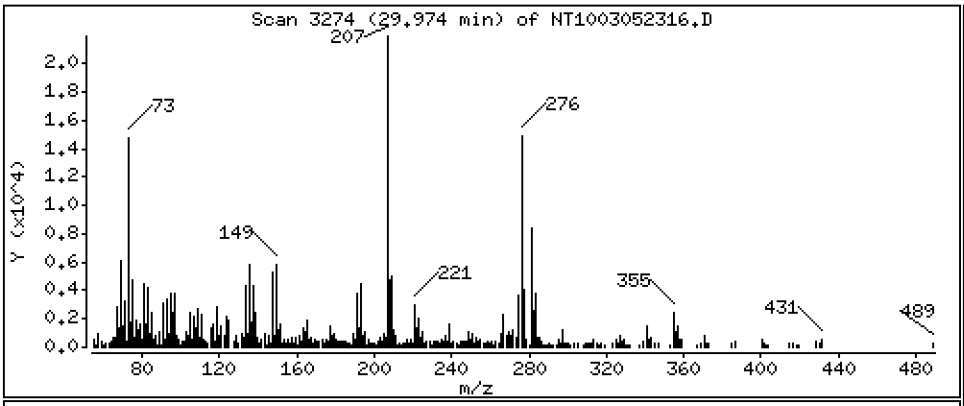
Client ID: Instrument: nt10.i

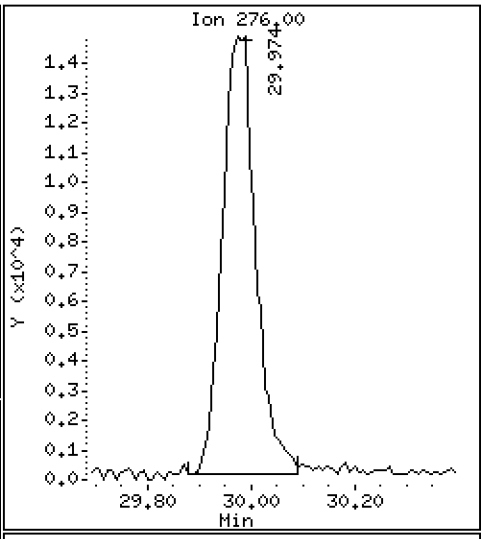
Sample Info: SLC0415-LCV1

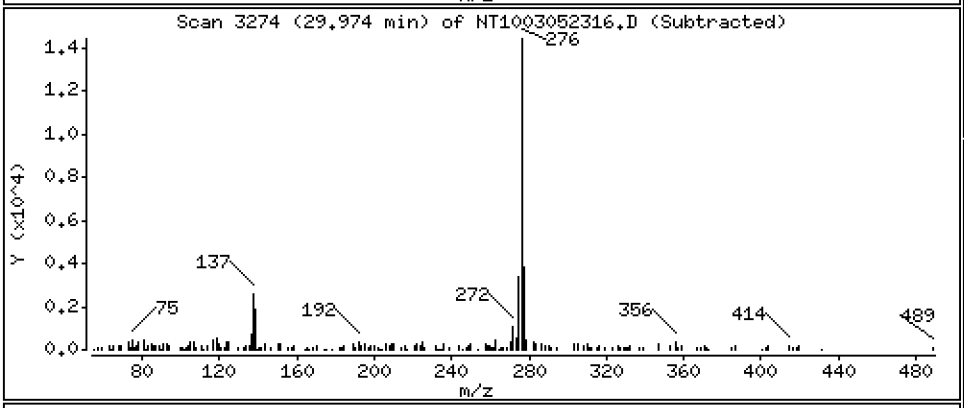
Operator: VTS

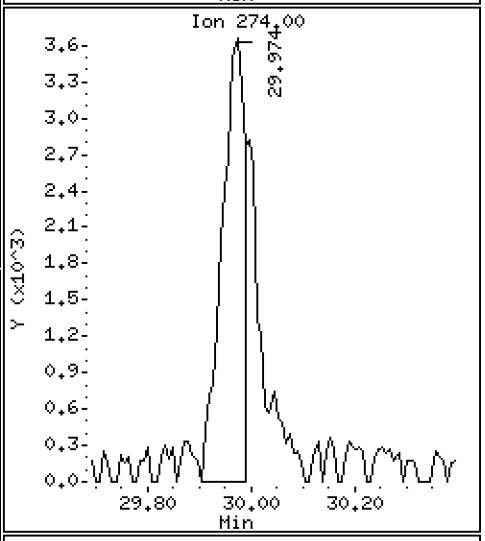
Column phase: ZB-5msi Column diameter: 0.25

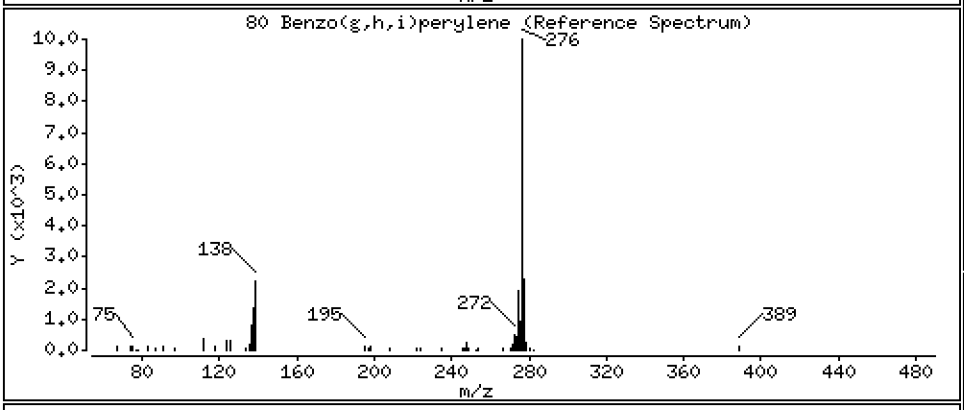
80 Benzo(g,h,i)perylene Concentration: 0.2069 ug/mL

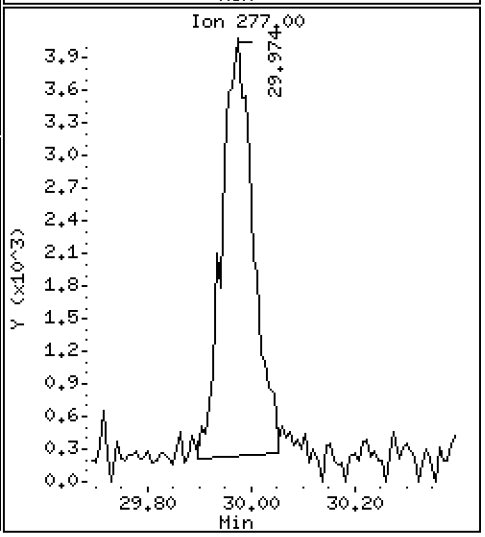


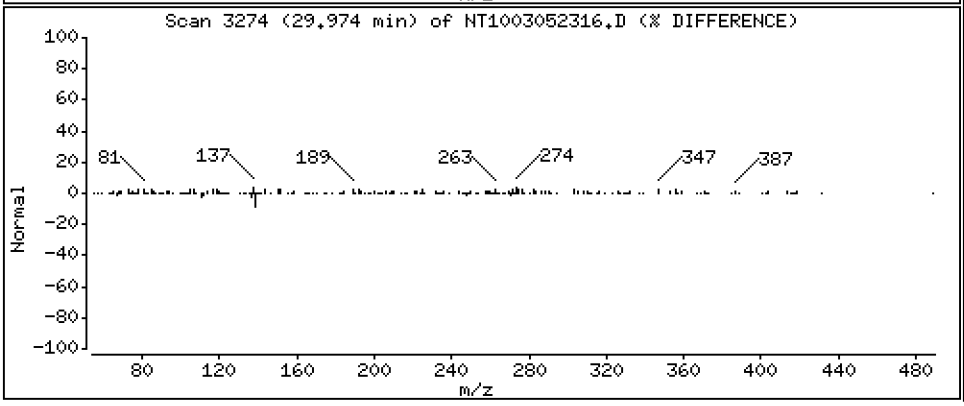












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

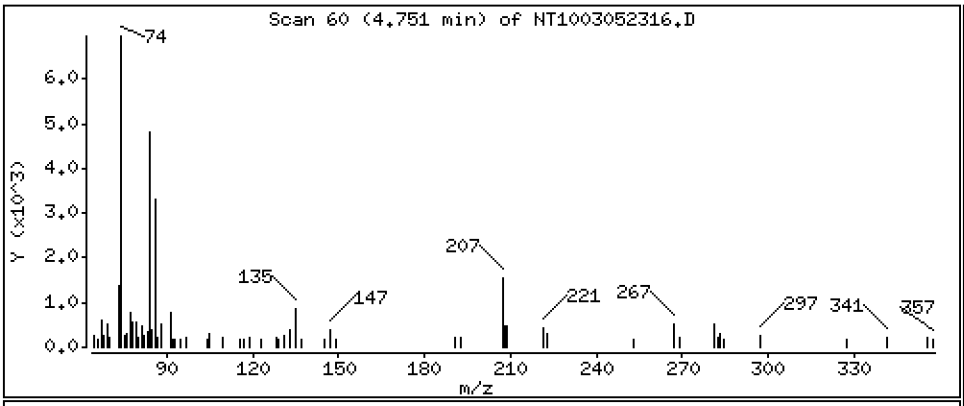
Operator: VTS

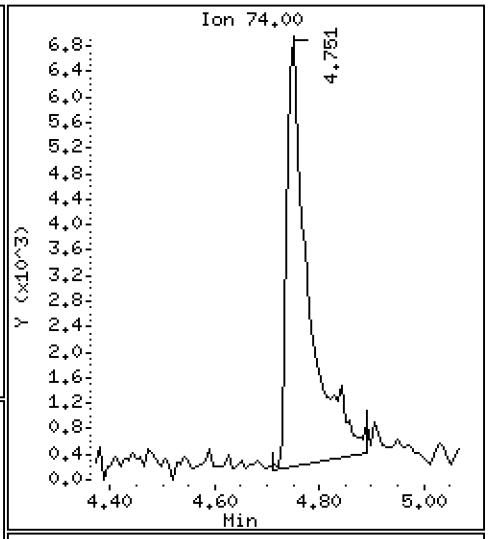
Column phase: ZB-5msi

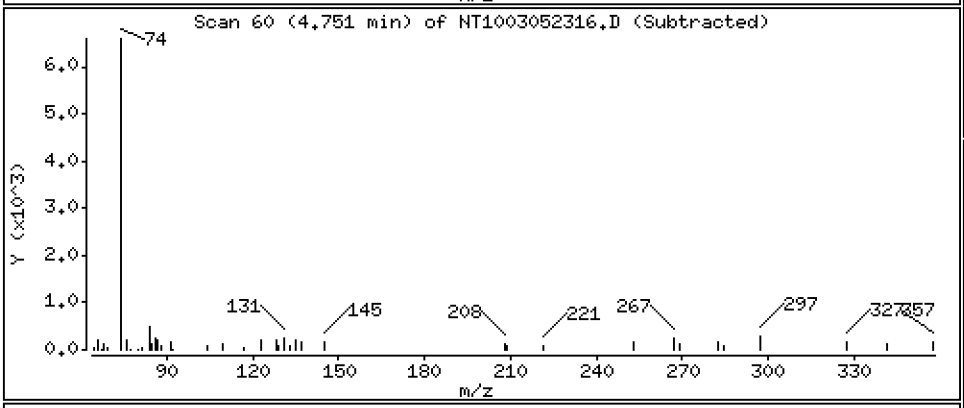
Column diameter: 0.25

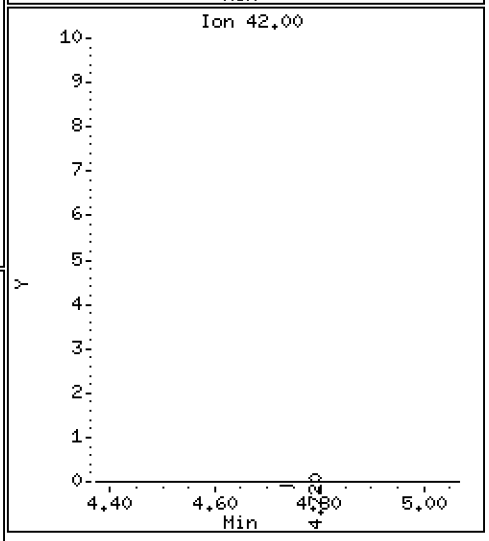
90 N-Nitrosodimethylamine

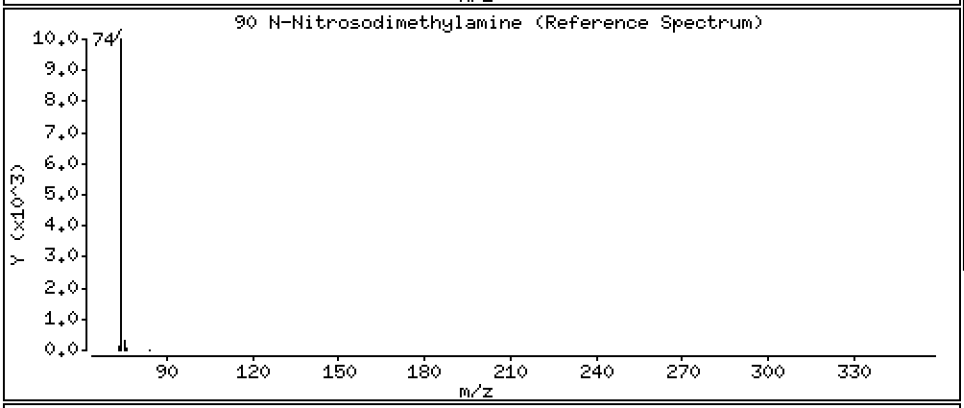
Concentration: 0.3262 ug/mL

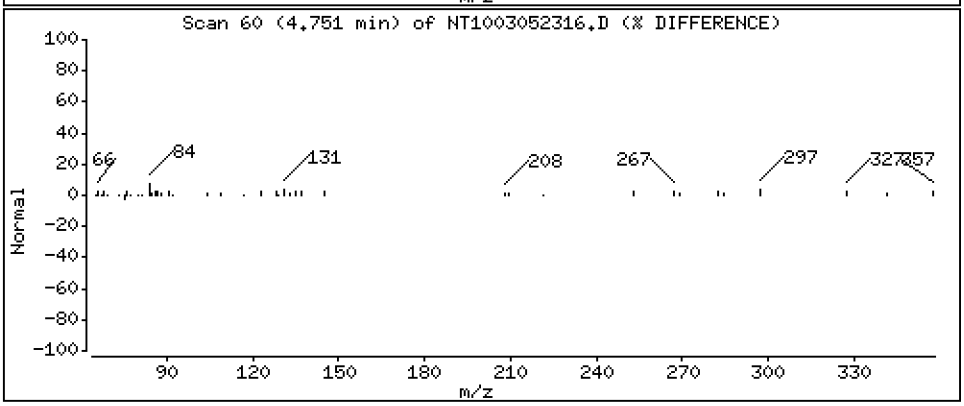












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

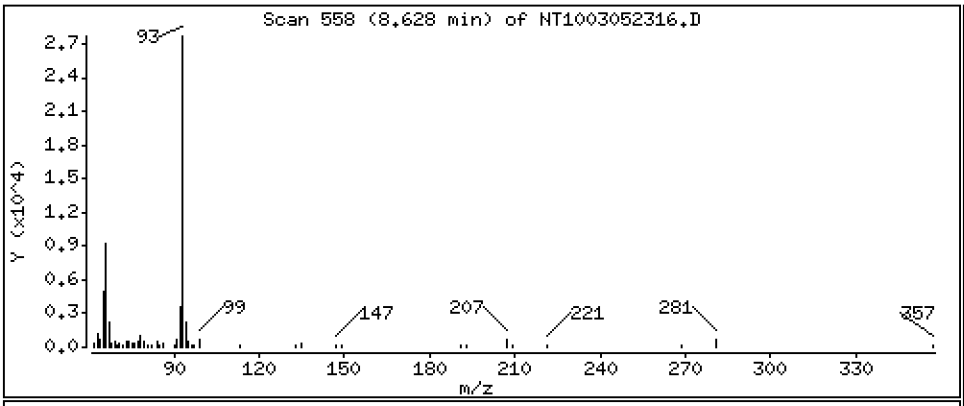
Operator: VTS

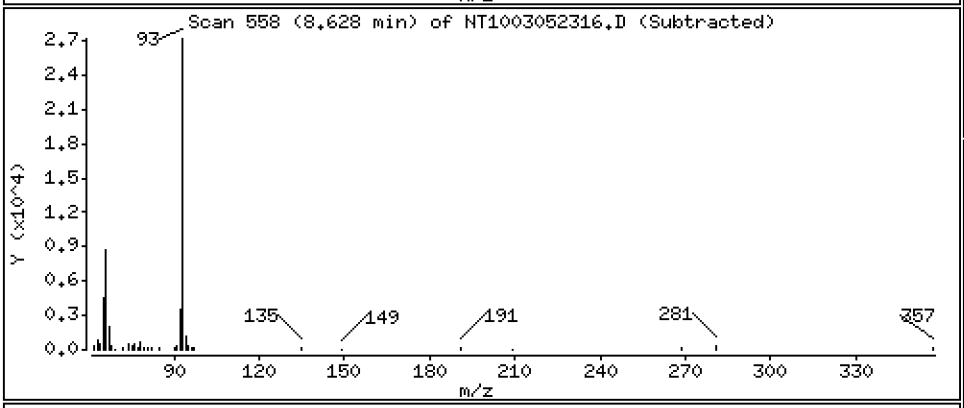
Column phase: ZB-5msi

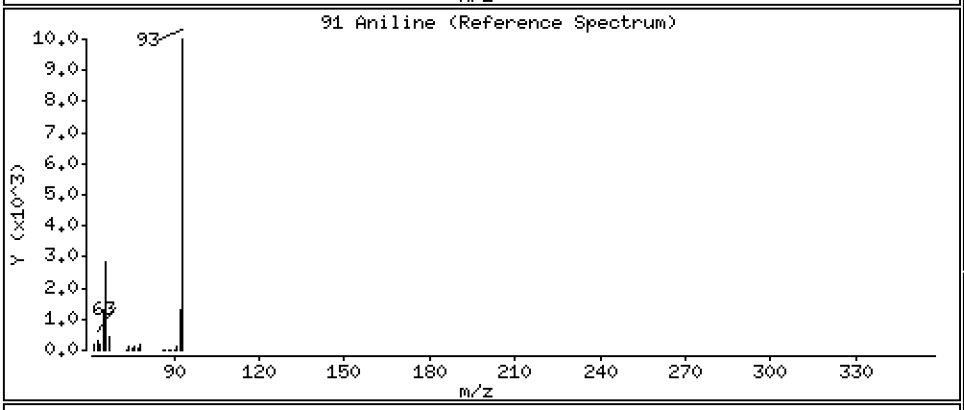
Column diameter: 0.25

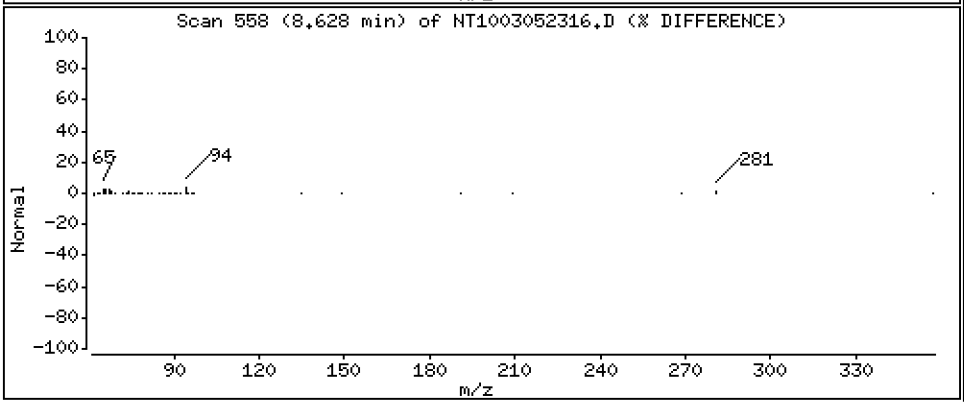
91 Aniline

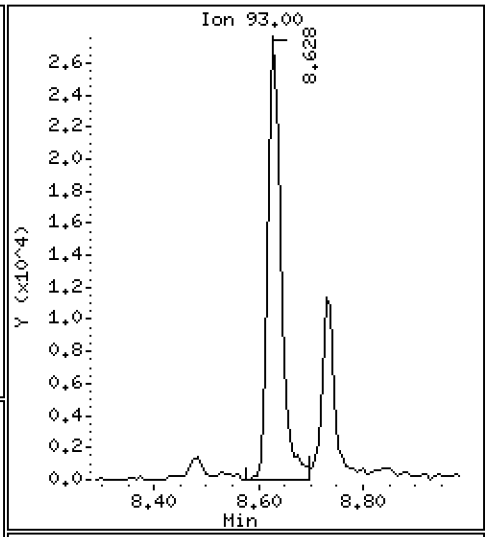
Concentration: 0.3386 ug/mL

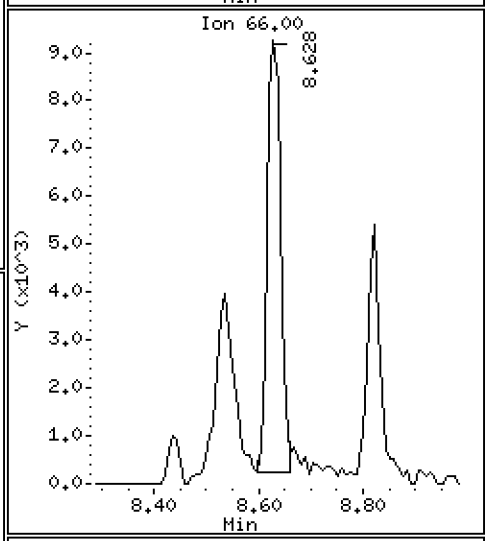


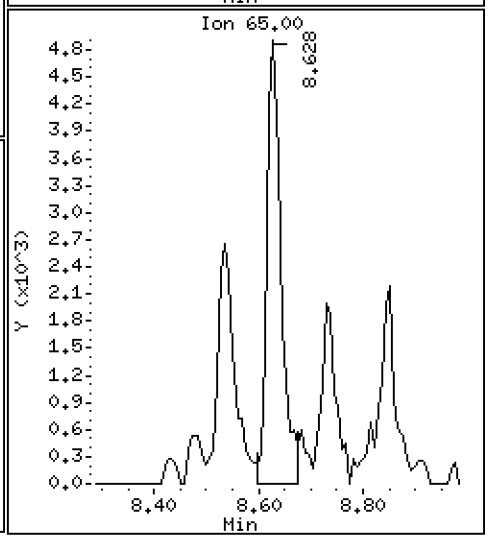












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

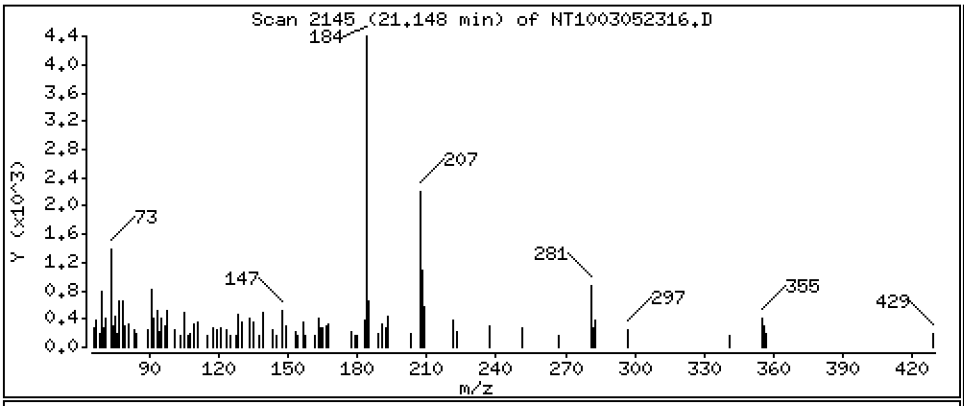
Operator: VTS

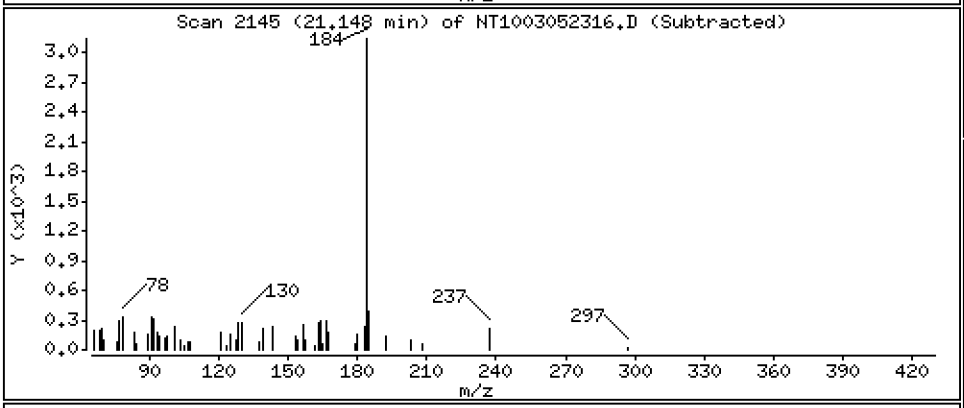
Column phase: ZB-5msi

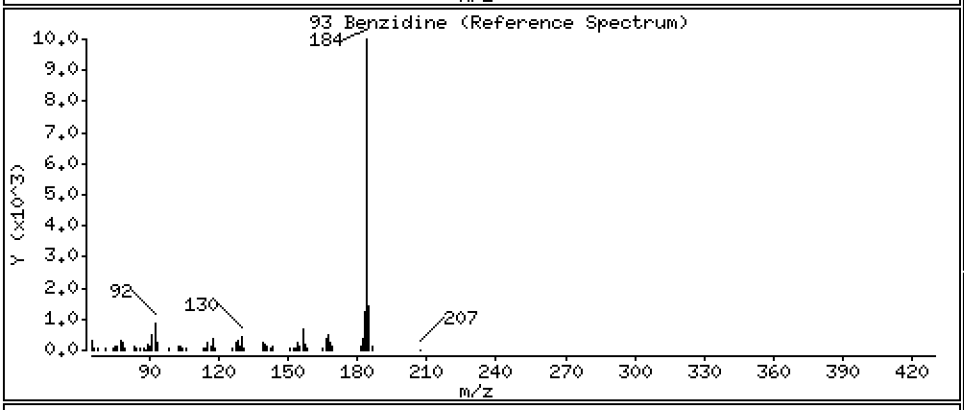
Column diameter: 0.25

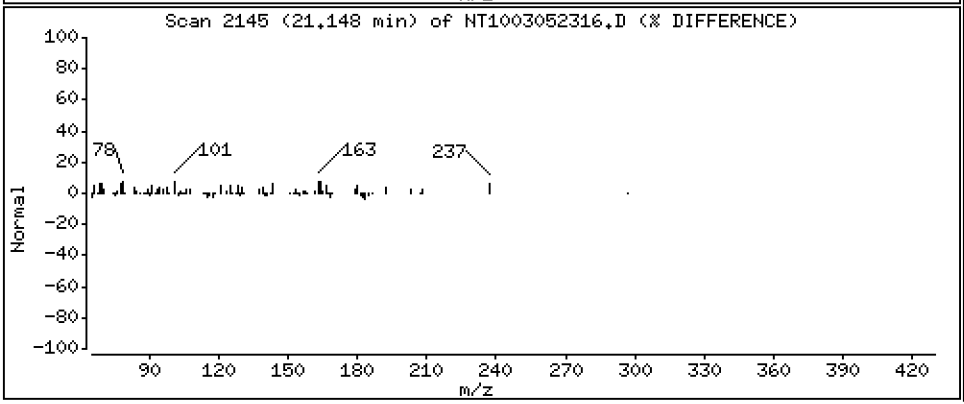
93 Benzidine

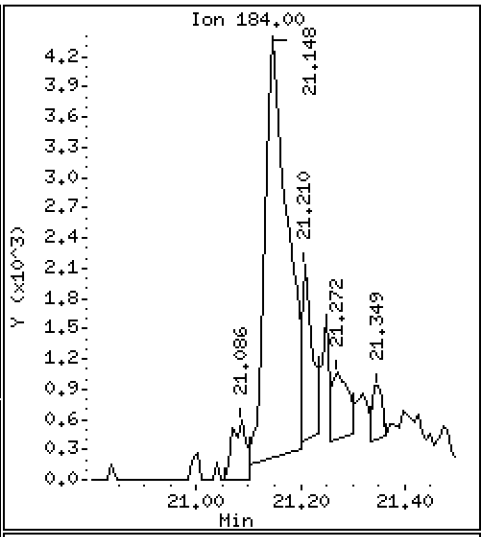
Concentration: 0.09219 ug/mL

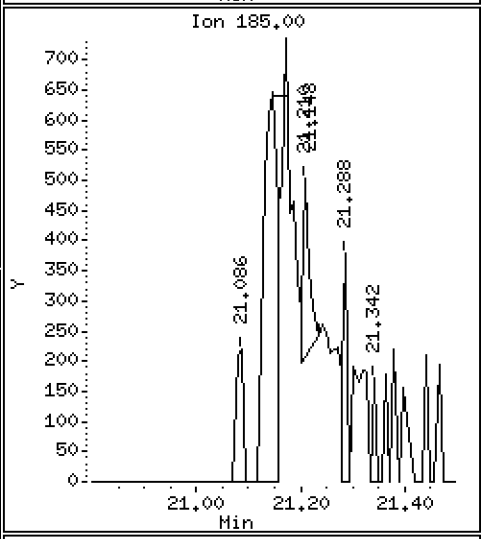


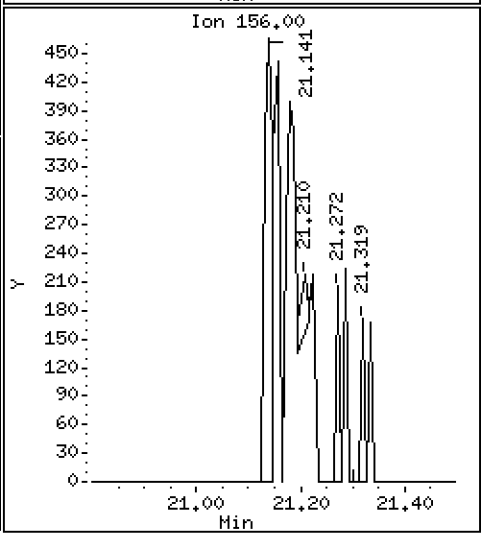












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052316.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

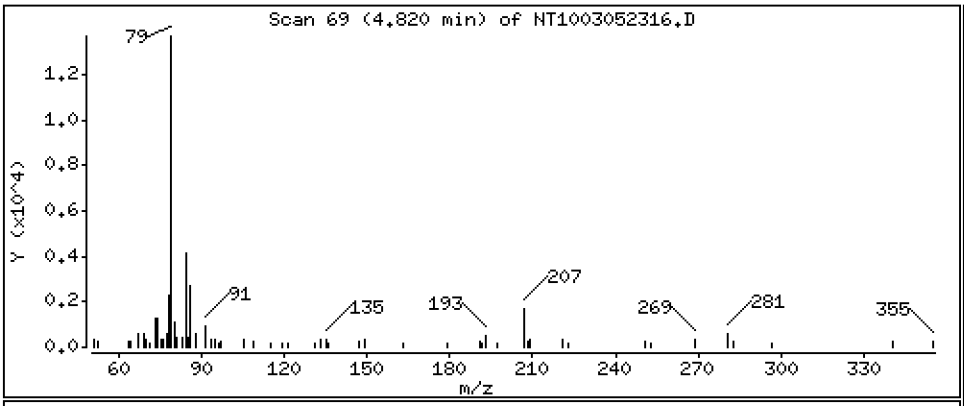
Operator: VTS

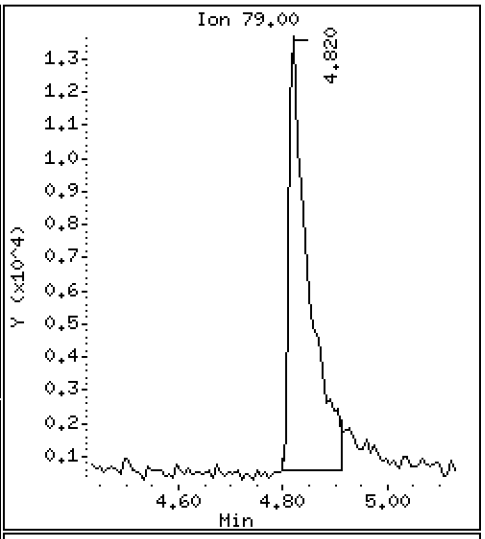
Column phase: ZB-5msi

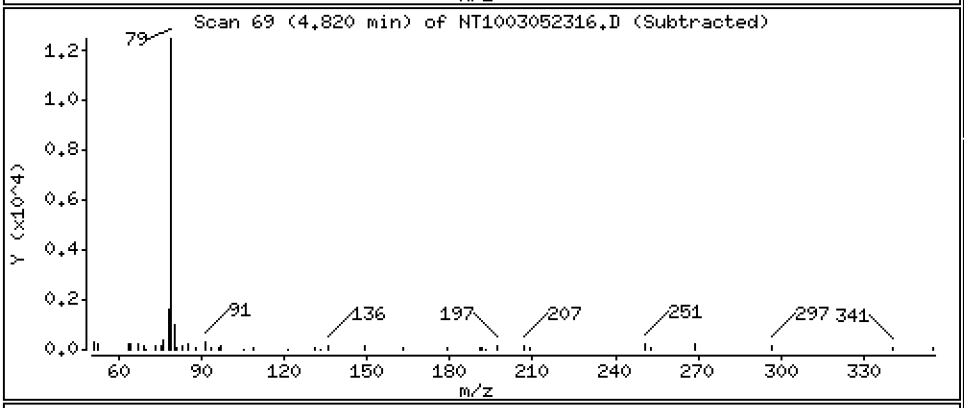
Column diameter: 0.25

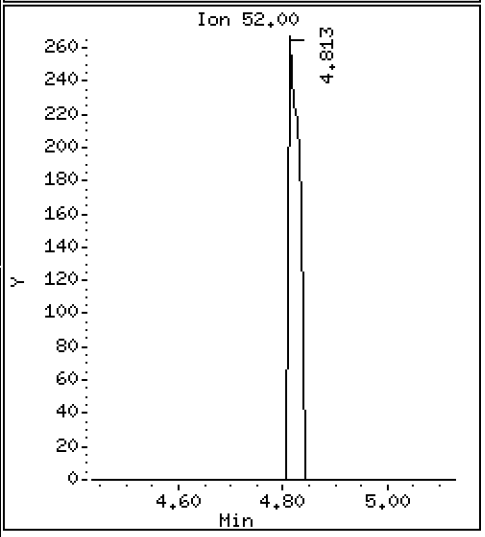
103 Pyridine

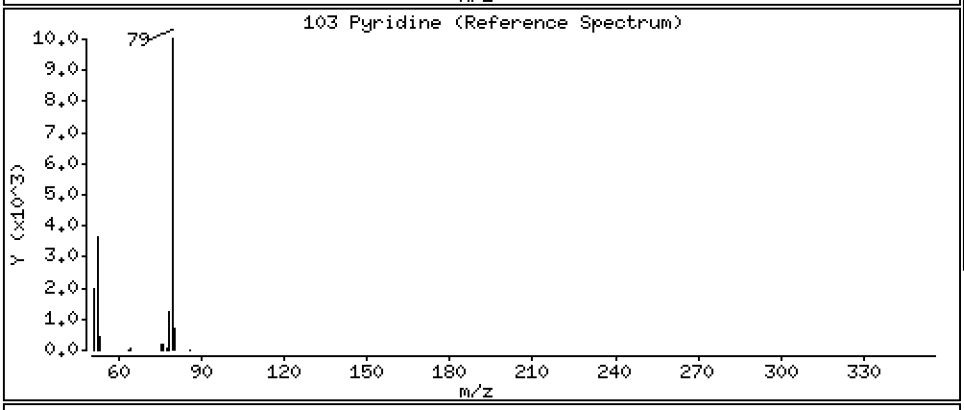
Concentration: 0.3228 ug/mL

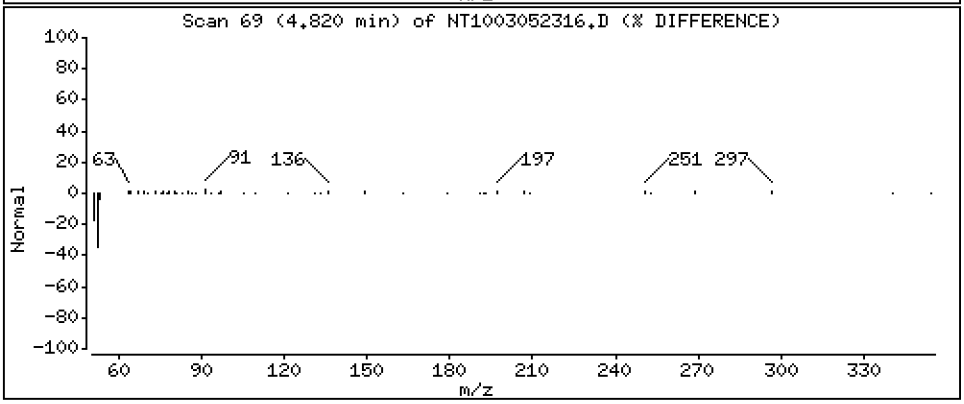












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

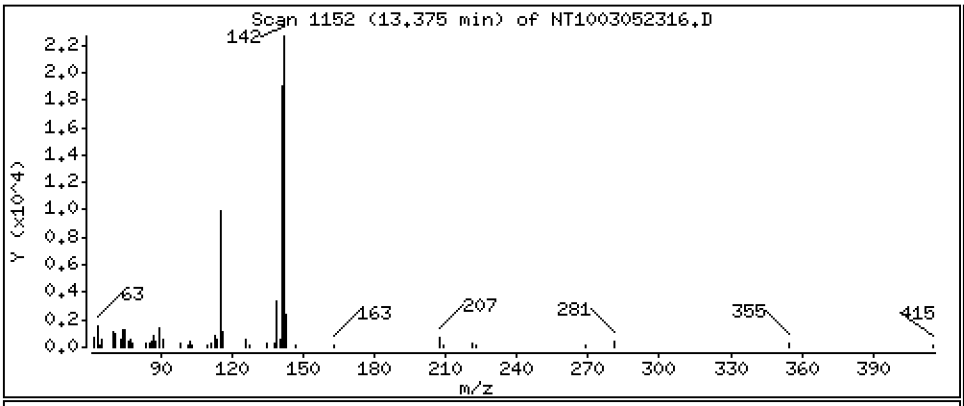
Operator: VTS

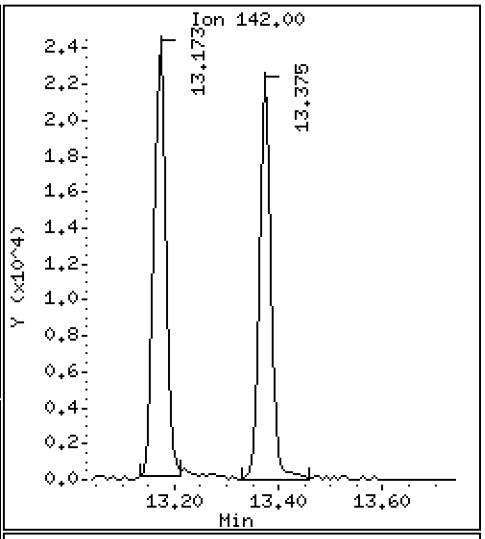
Column phase: ZB-5msi

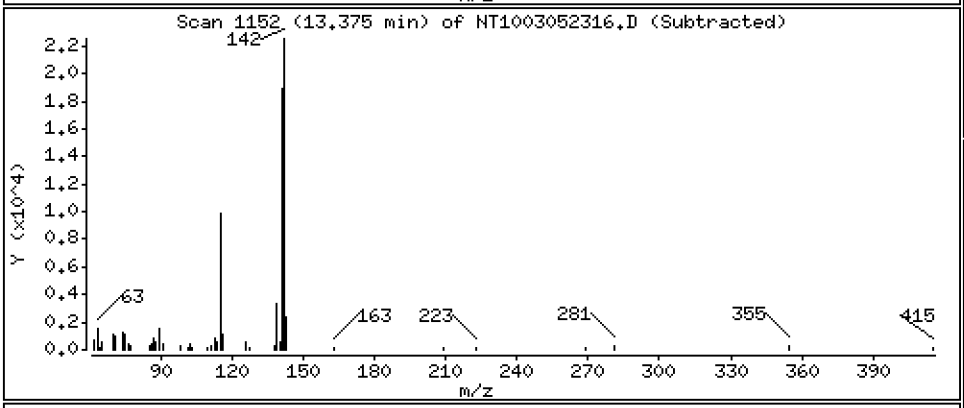
Column diameter: 0.25

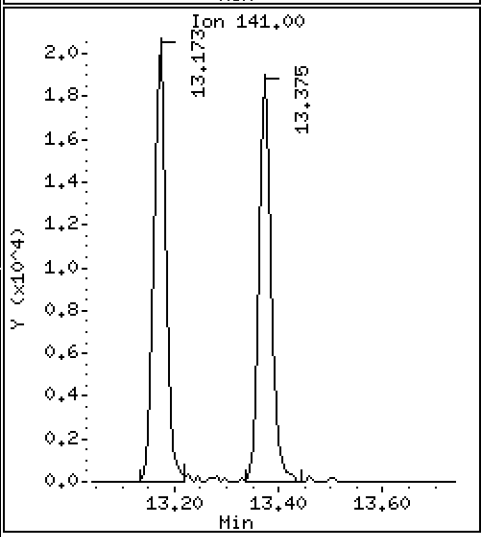
105 1-methylnaphthalene

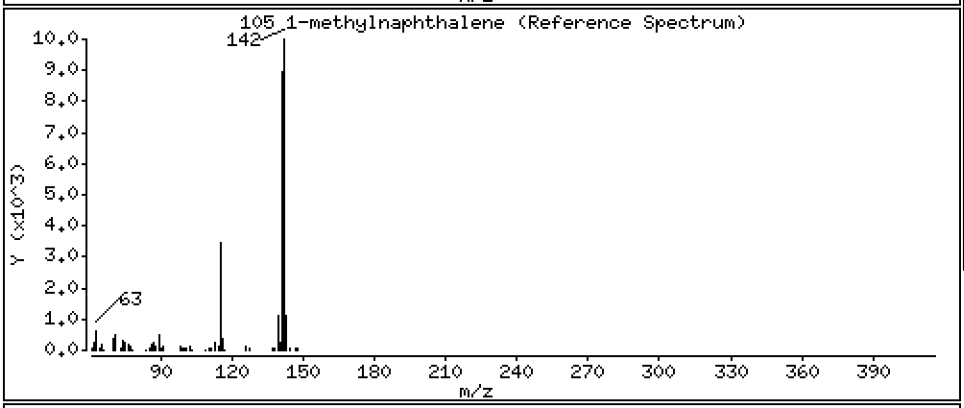
Concentration: 0.2037 ug/mL

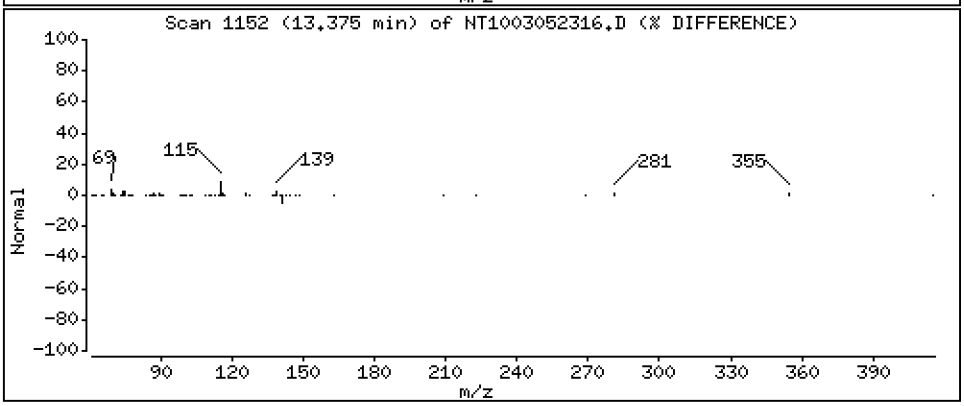












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

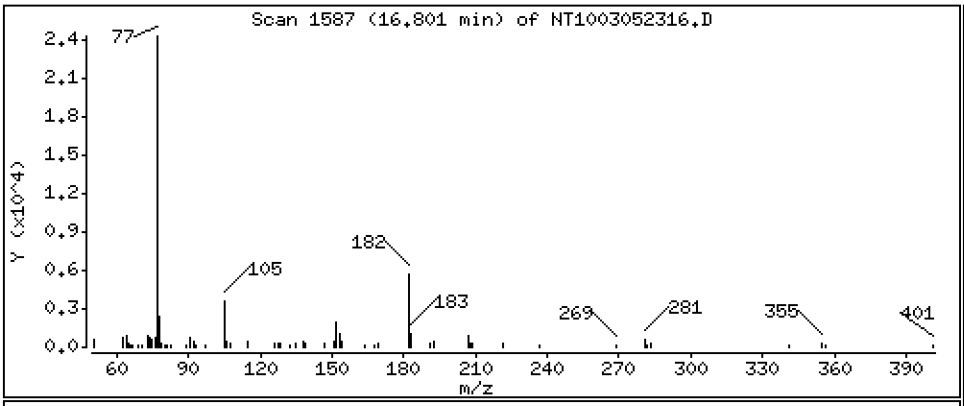
Operator: VTS

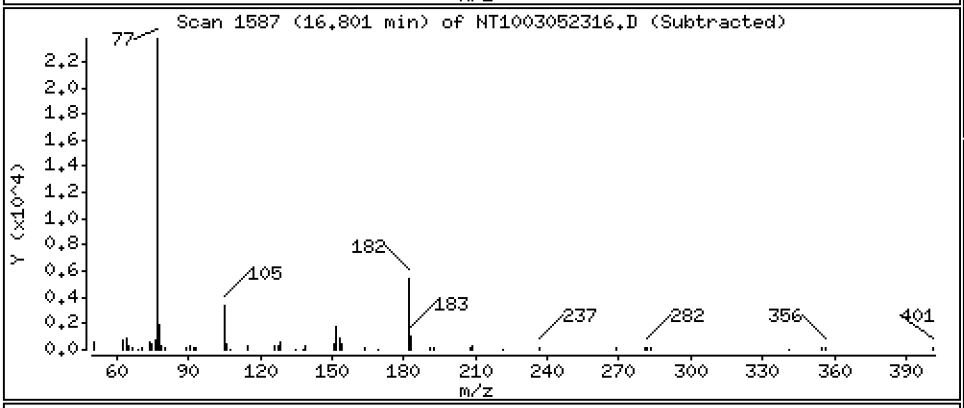
Column phase: ZB-5msi

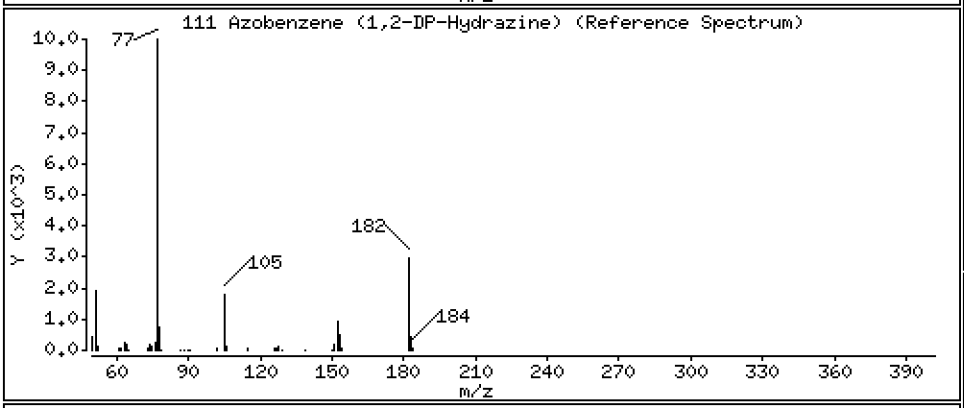
Column diameter: 0.25

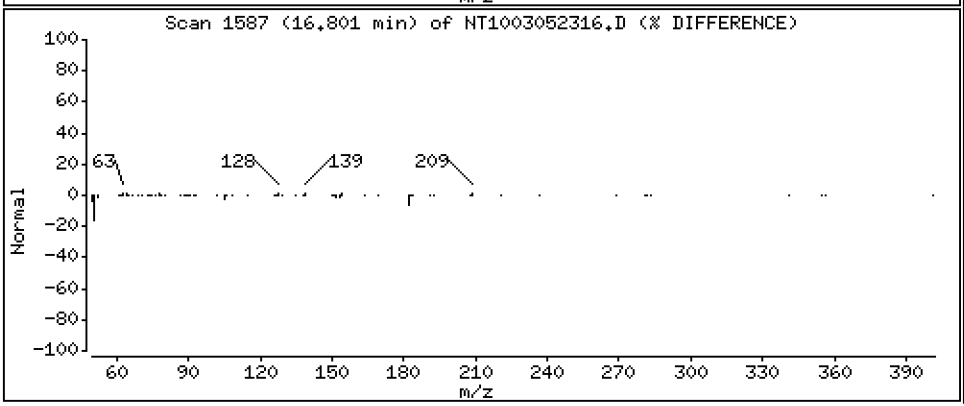
111 Azobenzene (1,2-DP-Hydrazine)

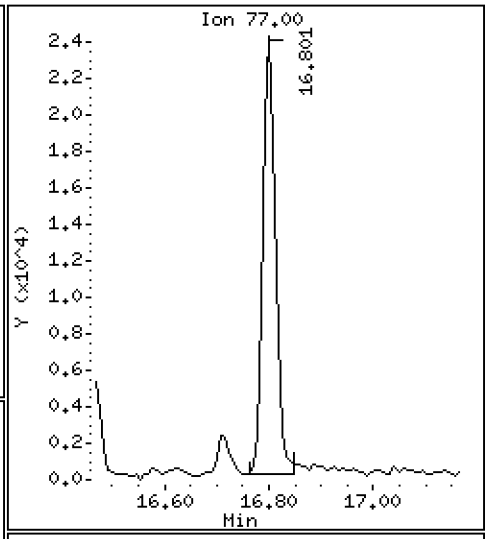
Concentration: 0.1426 ug/mL

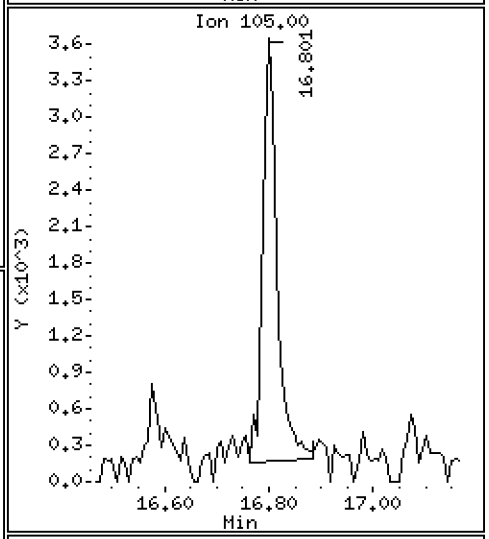


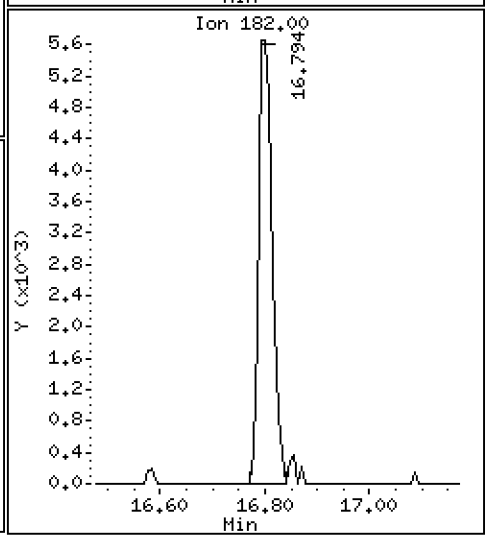












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

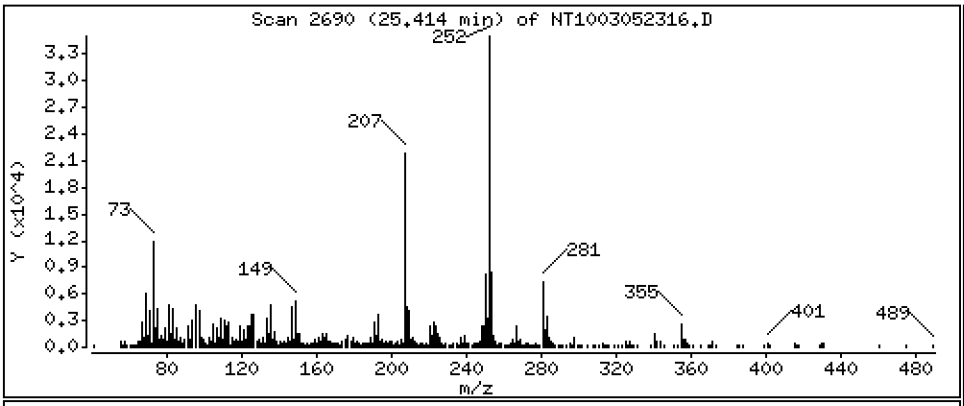
Operator: VTS

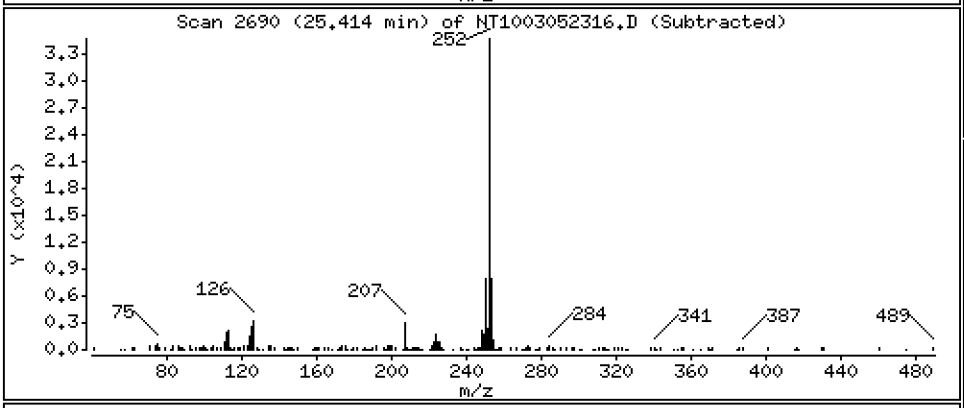
Column phase: ZB-5msi

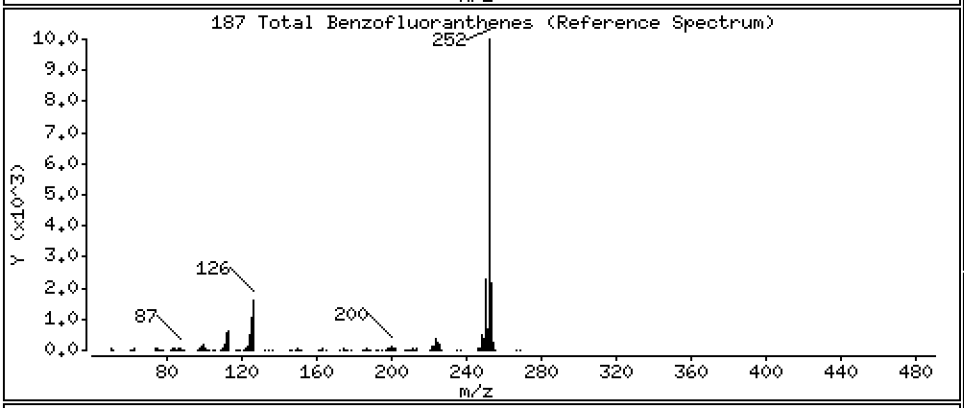
Column diameter: 0.25

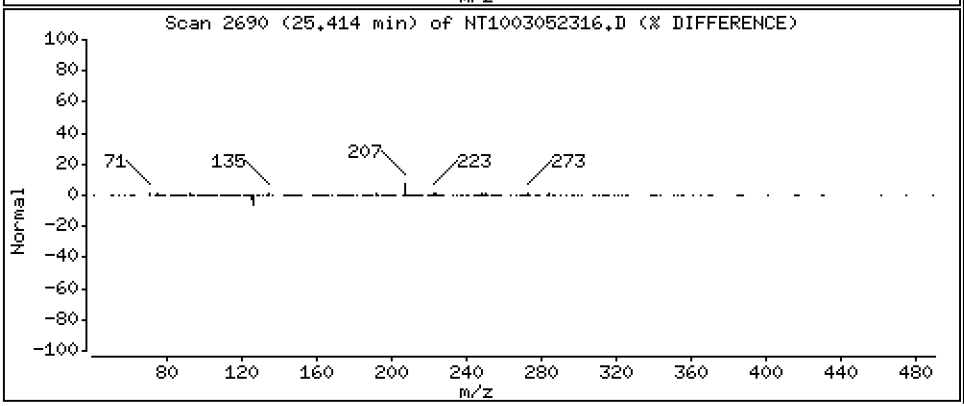
187 Total Benzofluoranthenes

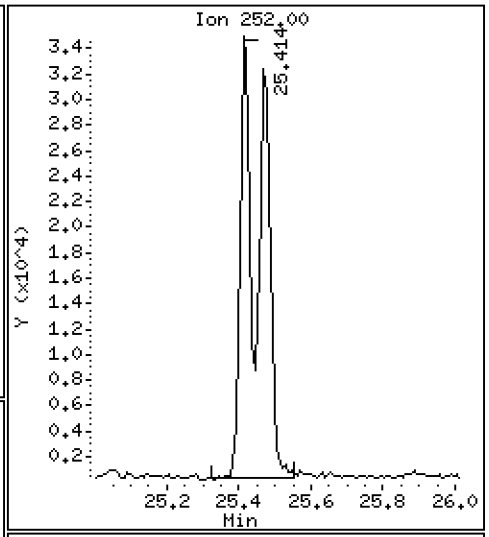
Concentration: 0.3690 ug/mL

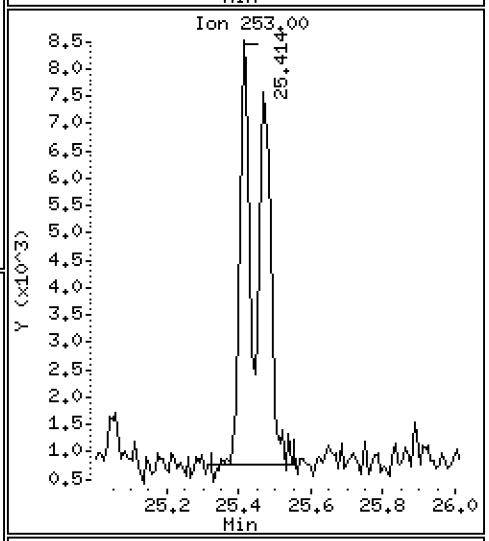


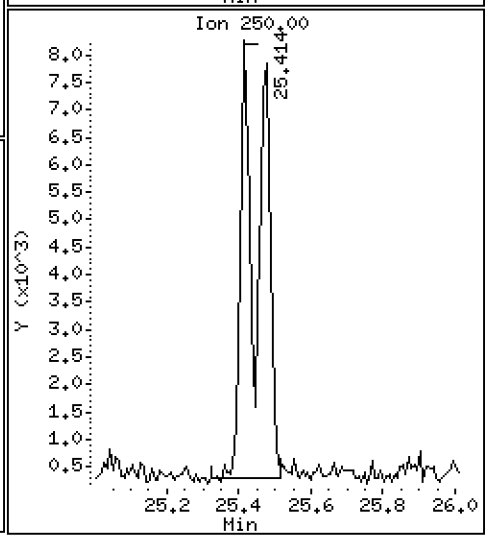












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

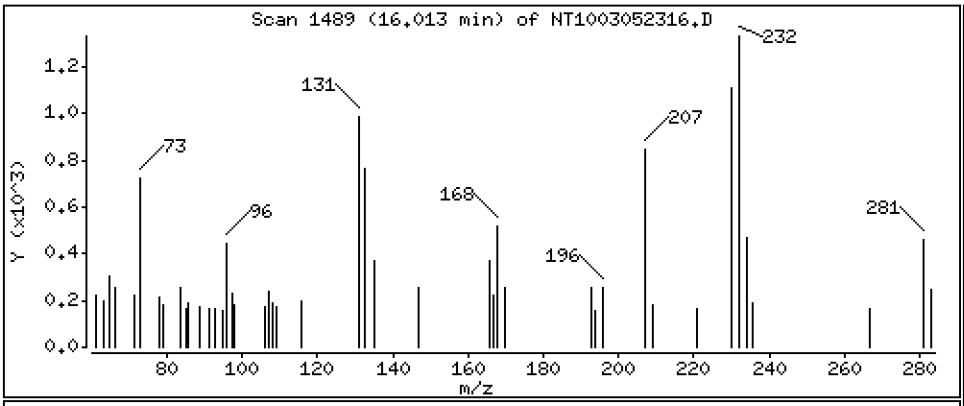
Operator: VTS

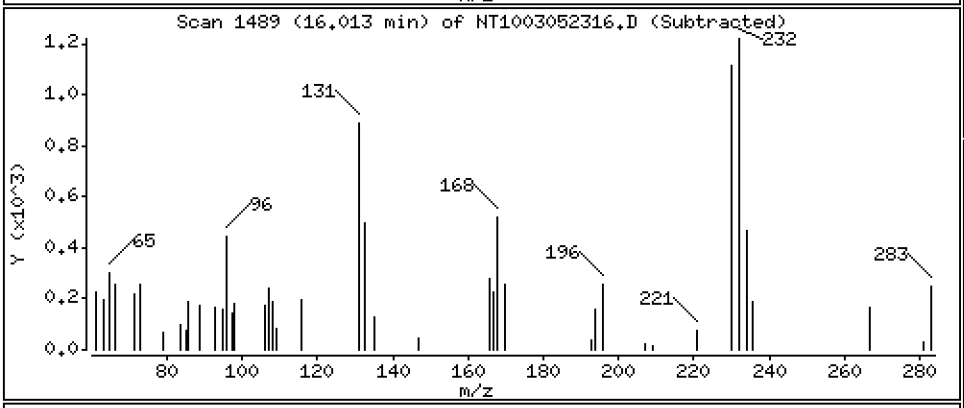
Column phase: ZB-5msi

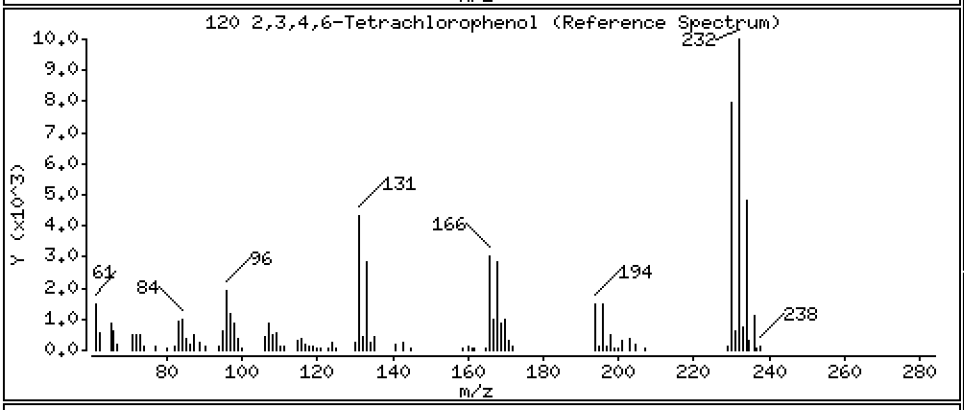
Column diameter: 0.25

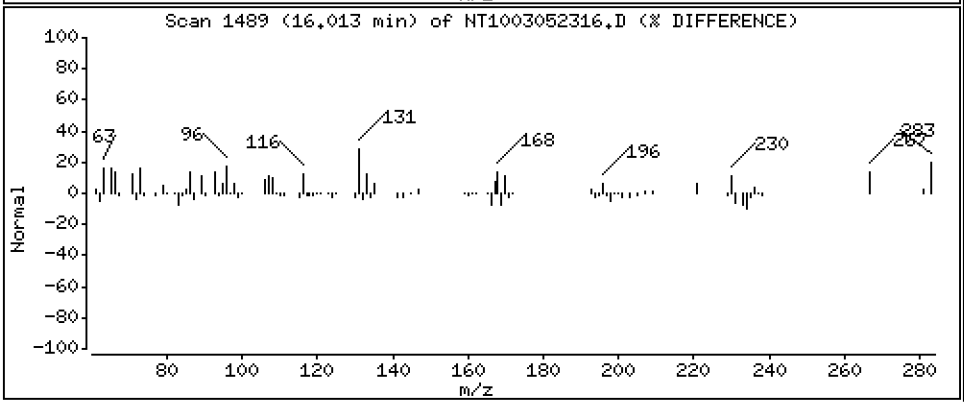
120 2,3,4,6-Tetrachlorophenol

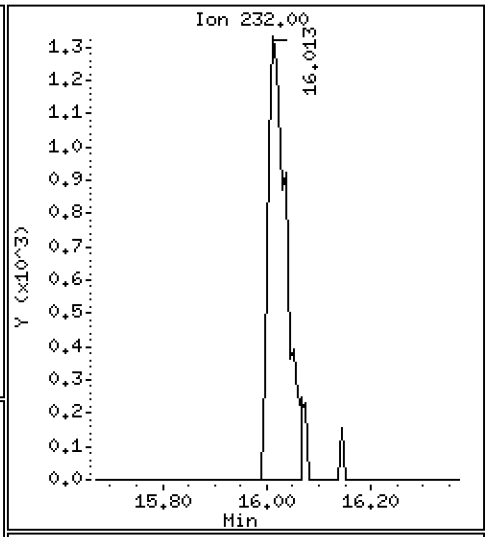
Concentration: 0.06265 ug/mL

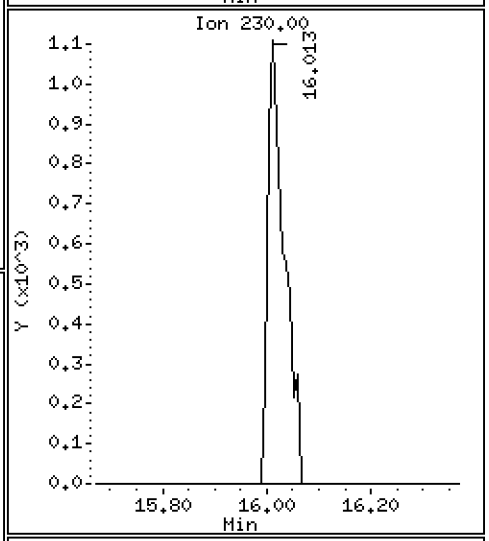


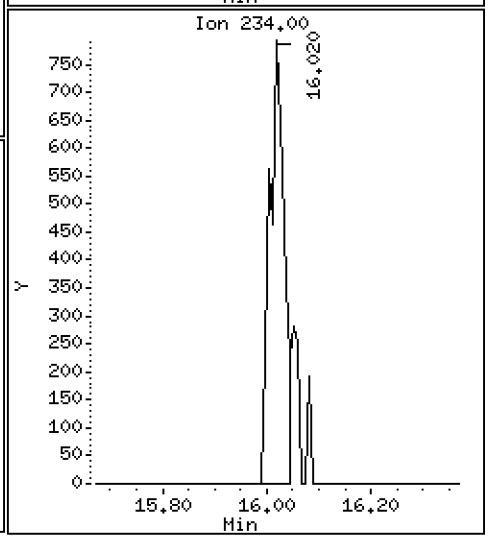












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305A.b\NT1003052316.D
Lab Smp Id: SLC0415-LCV1
Inj Date : 05-MAR-2023 22:54
Operator : VTS Inst ID: nt10.i
Smp Info : SLC0415-LCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Meth Date : 27-Mar-2023 13:49 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.905	6.905	(0.747)	24639	0.25732	0.2573
$	2 Phenol-d5	99	8.512	8.512	(0.921)	26840	0.24143	0.2414(M)
	3 Phenol	94	8.535	8.535	(0.923)	19934	0.16865	0.1687
$	5 2-Chlorophenol-d4	132	8.821	8.821	(0.954)	27998	0.29519	0.2952
	4 Bis(2-Chloroethyl)ether	93	8.728	8.736	(0.944)	18111	0.20052	0.2005
	6 2-Chlorophenol	128	8.844	8.852	(0.956)	18894	0.19175	0.1918
	7 1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	23235	0.21388	0.2139
*	8 1,4-Dichlorobenzene-d4	152	9.247	9.247	(1.000)	304339	4.00000	
	9 1,4-Dichlorobenzene	146	9.278	9.286	(1.003)	22403	0.20761	0.2076
$	10 1,2-Dichlorobenzene-d4	152	9.534	9.542	(1.031)	13197	0.18624	0.1862(MH)
	12 1,2-Dichlorobenzene	146	9.557	9.565	(1.034)	21085	0.20187	0.2019
	11 Benzyl alcohol	108	9.495	9.487	(1.027)	6331	0.10449	0.1045
	14 2,2'-oxybis(1-Chloropropane)	121	9.728	9.736	(1.052)	6802	0.22589	0.2259(M)
	13 2-Methylphenol	108	9.674	9.674	(1.046)	16731	0.18271	0.1827
	17 Hexachloroethane	117	10.209	10.217	(1.104)	8290	0.18717	0.1872
	16 N-Nitroso-di-n-propylamine	70	9.984	9.984	(1.080)	15192	0.21300	0.2130(M)
	15 4-Methylphenol	108	9.969	9.961	(1.078)	17035	0.14834	0.1483
$	18 Nitrobenzene-d5	82	10.302	10.302	(0.879)	22428	0.19364	0.1936
	19 Nitrobenzene	77	10.341	10.341	(0.882)	19034	0.17519	0.1752
	20 Isophorone	82	10.791	10.807	(0.920)	22364	0.16125	0.1613(M)
	21 2-Nitrophenol	139	10.967	10.967	(0.935)	7751	0.12860	0.1286
	22 2,4-Dimethylphenol	107	11.009	11.018	(0.939)	35197	0.33865	0.3387
	23 Bis(2-Chloroethoxy)methane	93	11.213	11.222	(0.956)	17168	0.20031	0.2003
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	11.442	11.434	(0.976)	27743	0.33870	0.3387
	26 1,2,4-Trichlorobenzene	180	11.603	11.610	(0.989)	18827	0.23089	0.2309
*	27 Naphthalene-d8	136	11.726	11.734	(1.000)	1055141	4.00000	
	28 Naphthalene	128	11.773	11.780	(1.004)	54840	0.20250	0.2025
	29 4-Chloroaniline	127	11.873	11.881	(1.013)	30346	0.25602	0.2560
	30 Hexachlorobutadiene	225	11.997	12.004	(1.023)	14901	0.25097	0.2510
	31 4-Chloro-3-methylphenol	107	12.840	12.840	(1.095)	25733	0.29862	0.2986
	32 2-Methylnaphthalene	142	13.173	13.181	(1.123)	37623	0.19665	0.1967
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

		QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
34	2,4,6-Trichlorophenol	196	13.746	13.753	(0.897)	17060	0.32942	0.3294
35	2,4,5-Trichlorophenol	196	13.838	13.831	(0.903)	16201	0.29311	0.2931
$ 36	2-Fluorobiphenyl	172	13.916	13.931	(0.908)	43720	0.22388	0.2239
37	2-Chloronaphthalene	162	14.179	14.194	(0.925)	32997	0.21524	0.2152
38	2-Nitroaniline	65	14.396	14.403	(0.939)	9490	0.22640	0.2264
39	Dimethylphthalate	163	14.752	14.767	(0.963)	34543	0.19536	0.1954
40	Acenaphthylene	152	15.038	15.054	(0.981)	49617	0.18773	0.1877
41	2,6-Dinitrotoluene	165	14.891	14.907	(0.972)	11477	0.29572	0.2957
* 42	Acenaphthene-d10	164	15.324	15.340	(1.000)	547496	4.00000	
43	3-Nitroaniline	138	15.301	15.255	(0.998)	1364	0.03059	0.03059
44	Acenaphthene	153	15.394	15.409	(1.005)	31569	0.19806	0.1981
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	15.757	15.773	(1.028)	47684	0.20157	0.2016
47	4-Nitrophenol	109	Compound Not Detected.					
48	2,4-Dinitrotoluene	165	15.734	15.749	(1.027)	13756	0.24450	0.2445
50	Diethylphthalate	149	16.221	16.244	(1.059)	33898	0.18097	0.1810
49	Fluorene	166	16.469	16.492	(1.075)	38122	0.19369	0.1937
51	4-Chlorophenyl-phenylether	204	16.469	16.484	(1.075)	18604	0.21700	0.2170
52	4-Nitroaniline	138	16.554	16.531	(1.080)	4182	0.08725	0.08725
53	4,6-Dinitro-2-methylphenol	198	16.585	16.593	(0.899)	2150	0.09412	0.09412
54	N-Nitrosodiphenylamine	169	16.716	16.731	(0.907)	29423	0.20276	0.2028
$ 55	2,4,6-Tribromophenol	330	16.978	16.994	(1.108)	4583	0.13635	0.1363
56	4-Bromophenyl-phenylether	248	17.496	17.511	(0.949)	13639	0.23196	0.2320
57	Hexachlorobenzene	284	17.604	17.627	(0.955)	15418	0.23286	0.2329
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	18.440	18.455	(1.000)	980771	4.00000	
60	Phenanthrene	178	18.486	18.509	(1.003)	49659	0.19785	0.1978
61	Anthracene	178	18.595	18.618	(1.008)	47785	0.19634	0.1963
62	Carbazole	167	18.935	18.950	(1.027)	41438	0.18585	0.1858
63	Di-n-butylphthalate	149	19.624	19.647	(1.064)	48037	0.15877	0.1588
64	Fluoranthene	202	20.869	20.892	(0.888)	56258	0.18315	0.1832
65	Pyrene	202	21.303	21.326	(0.907)	56818	0.18166	0.1817
$ 66	Terphenyl-d14	244	21.581	21.604	(0.919)	49942	0.19734	0.1973
67	Butylbenzylphthalate	149	22.472	22.495	(0.956)	23049	0.13685	0.1369
68	Benzo(a)anthracene	228	23.470	23.501	(0.999)	62818	0.19952	0.1995
* 69	Chrysene-d12	240	23.494	23.517	(1.000)	892900	4.00000	
70	3,3'-Dichlorobenzidine	252	23.424	23.447	(0.997)	49374	0.35208	0.3521
71	Chrysene	228	23.532	23.563	(1.002)	55959	0.21870	0.2187
72	bis(2-Ethylhexyl)phthalate	149	23.470	23.494	(0.956)	40516	0.18646	0.1865
* 134	Di-n-octylphthalate-d4	153	24.562	24.593	(1.000)	1549553	4.00000	
73	Di-n-octylphthalate	149	24.570	24.601	(1.000)	77579	0.22577	0.2258
74	Benzo(b)fluoranthene	252	25.414	25.452	(0.968)	69278	0.18022	0.1802
75	Benzo(k)fluoranthene	252	25.468	25.507	(0.970)	66325	0.17922	0.1792
76	Benzo(a)pyrene	252	26.126	26.157	(0.996)	64475	0.18763	0.1876
* 77	Perylene-d12	264	26.242	26.289	(1.000)	1127057	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	29.103	29.158	(1.109)	79884	0.19876	0.1988
79	Dibenzo(a,h)anthracene	278	29.150	29.204	(1.111)	66385	0.21777	0.2178
80	Benzo(g,h,i)perylene	276	29.973	30.043	(1.142)	66257	0.20689	0.2069
90	N-Nitrosodimethylamine	74	4.750	4.719	(0.514)	20166	0.32623	0.3262(M)
91	Aniline	93	8.628	8.636	(0.933)	46399	0.33857	0.3386
93	Benzidine	184	21.148	21.148	(0.900)	12571	0.09219	0.09219
103	Pyridine	79	4.820	4.781	(0.521)	35382	0.32275	0.3228
105	1-methylnaphthalene	142	13.374	13.390	(1.141)	35278	0.20373	0.2037
111	Azobenzene (1,2-DP-Hydrazine)	77	16.801	16.816	(1.096)	39886	0.14260	0.1426

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.414	25.507	(0.968)	136280	0.36905	0.3690
120 2,3,4,6-Tetrachlorophenol	232	16.012	16.020	(1.045)	3210	0.06265	0.06265

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052316.D
Lab Smp Id: SLC0415-LCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 21:38
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	264922	132461	529844	304339	14.88
27 Naphthalene-d8	947542	473771	1895084	1055141	11.36
42 Acenaphthene-d10	505666	252833	1011332	547496	8.27
59 Phenanthrene-d10	940283	470142	1880566	980771	4.31
69 Chrysene-d12	987952	493976	1975904	892900	-9.62
134 Di-n-octylphthala	1625017	812509	3250034	1549553	-4.64
77 Perylene-d12	1073798	536899	2147596	1127057	4.96

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.07
42 Acenaphthene-d10	15.34	14.84	15.84	15.32	-0.10
59 Phenanthrene-d10	18.46	17.96	18.96	18.44	-0.08
69 Chrysene-d12	23.52	23.02	24.02	23.49	-0.10
134 Di-n-octylphthala	24.59	24.09	25.09	24.56	-0.13
77 Perylene-d12	26.29	25.79	26.79	26.24	-0.18

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052316.D

Lab ID: SLC0415-LCV1
nt10.i, 20230305A.b\ABN.m,   05-MAR-2023 22:54

RT	CO-ELUTION COMPOUNDS
23.471	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

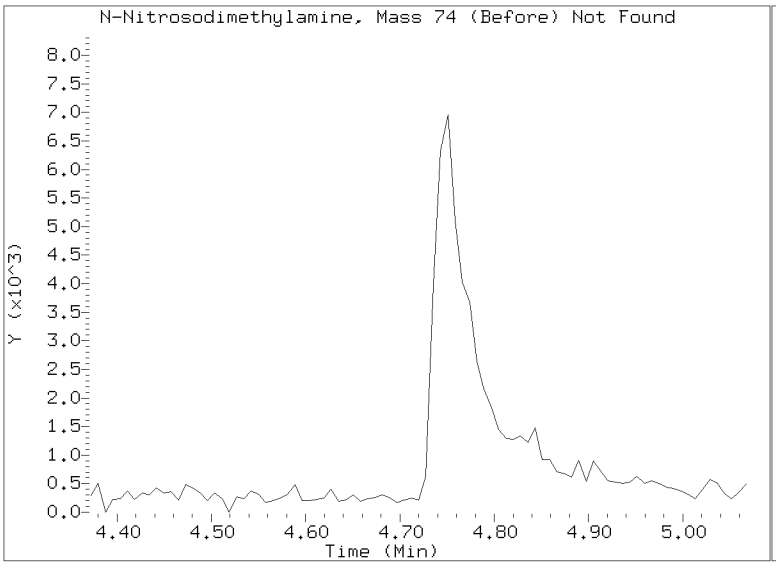
RRT check based on Ccal File: NT1003052314.D

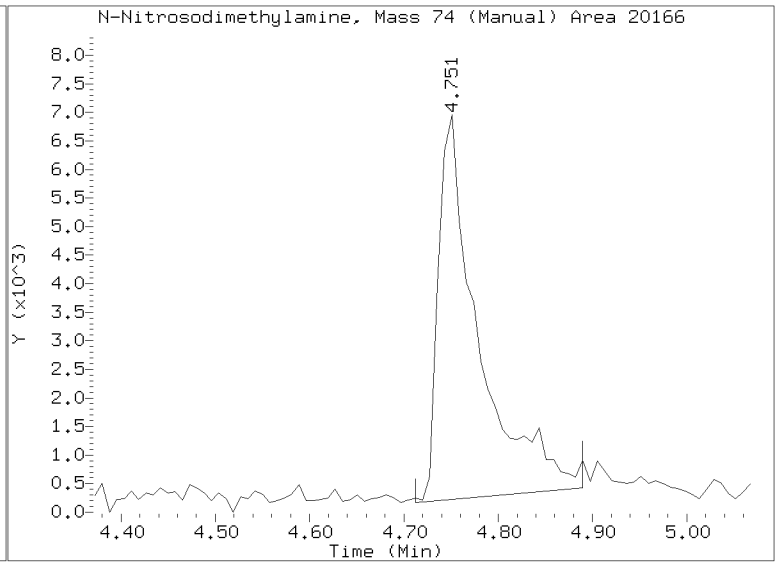
On Column LOD for nt10.i, 20230305A.b\ABN.m, ICAL.sub = 0.0000

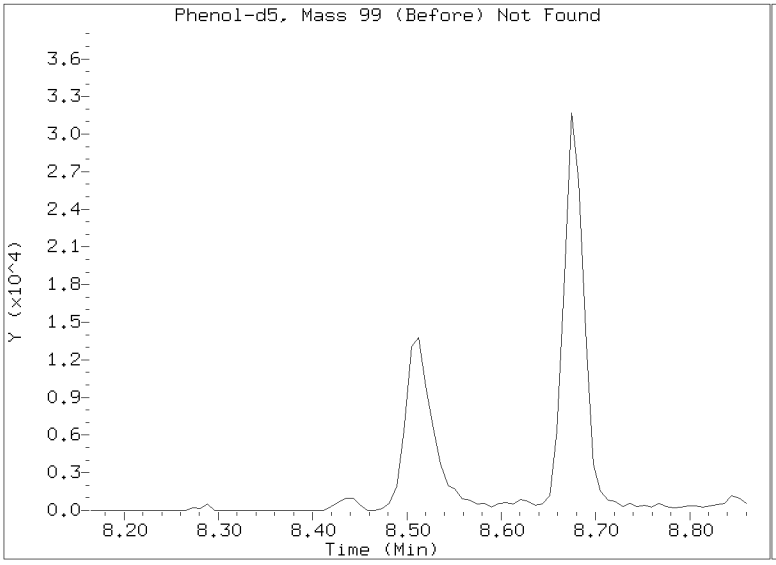
* Only compounds listed in the work order have been verified by the analyst *

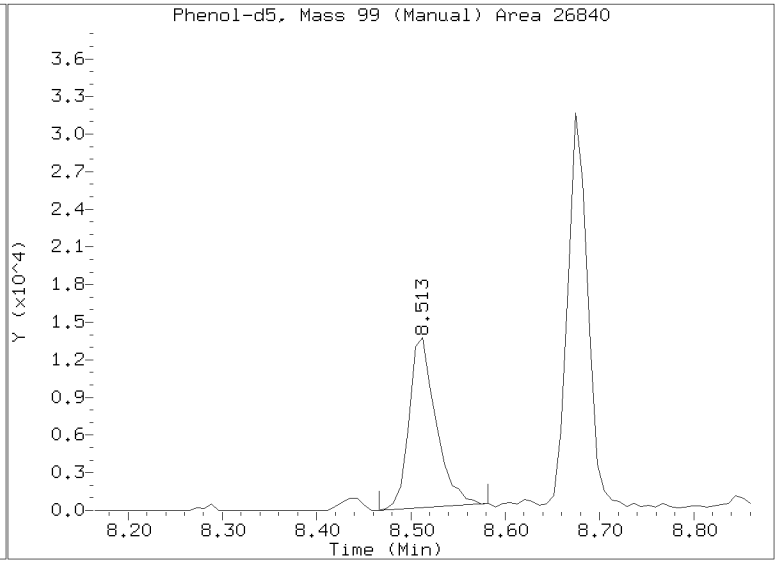
Quant Ion Manual Peak Adjustment Report

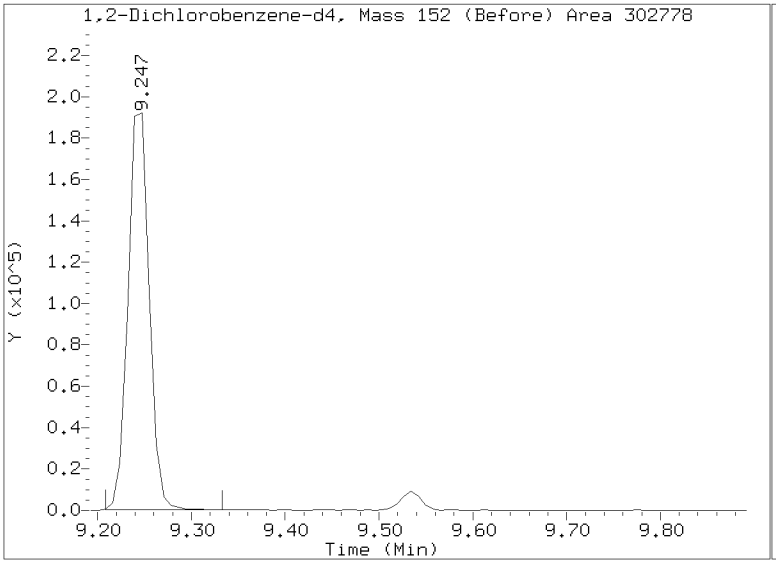
Datafile: //target/share/chem3/nt10.i/20230305A.b/NT1003052316.D
Injection Date: 05-MAR-2023 22:54
Lab ID:SLC0415-LCV1 Client ID:
Report Date: 03/27/2023 13:58

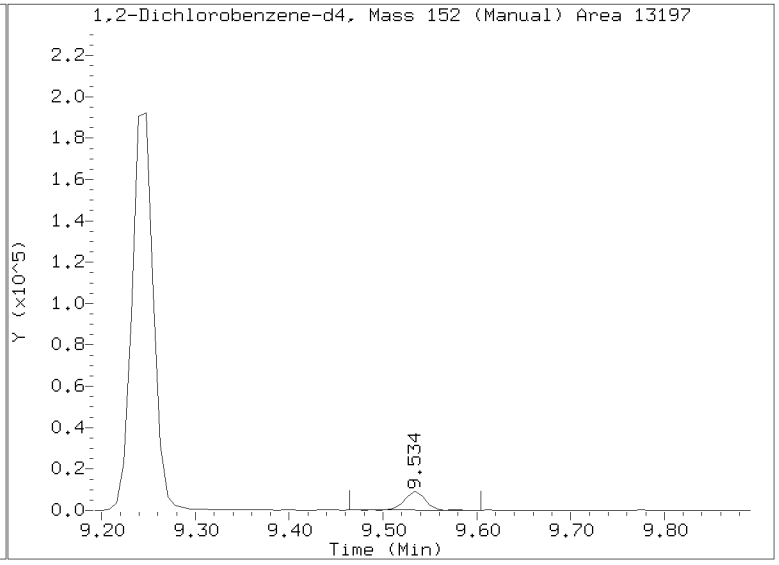






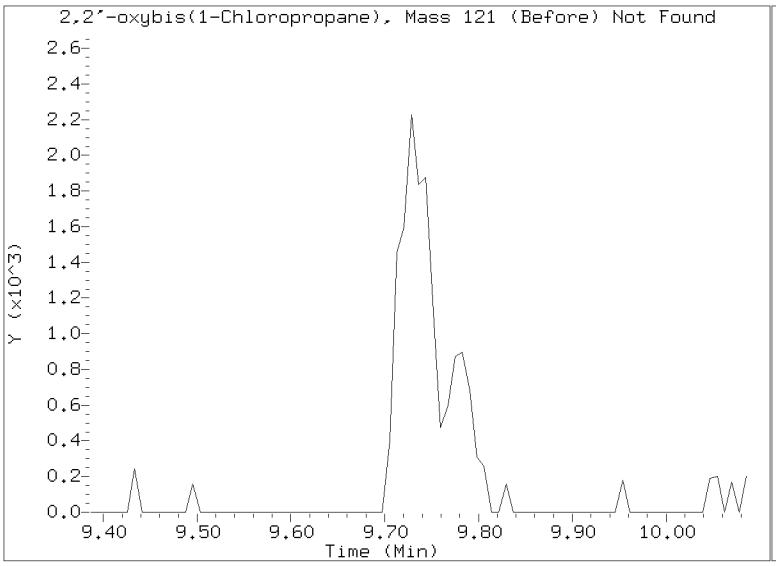


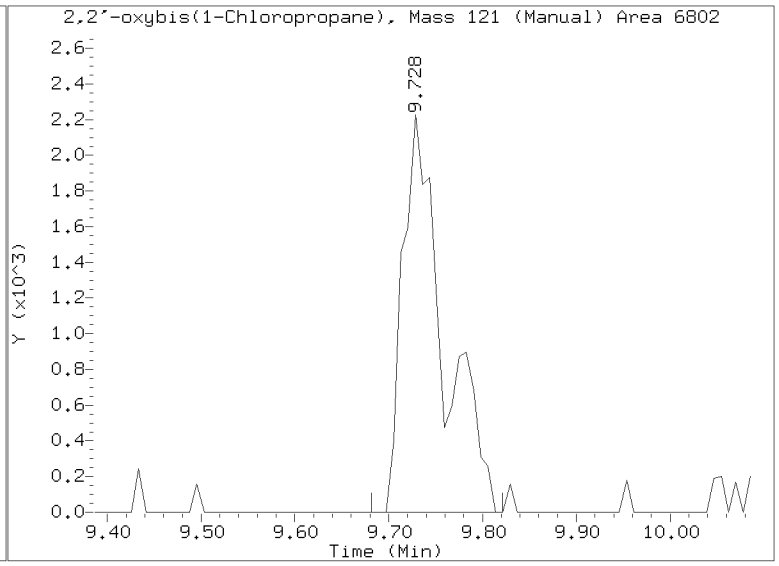


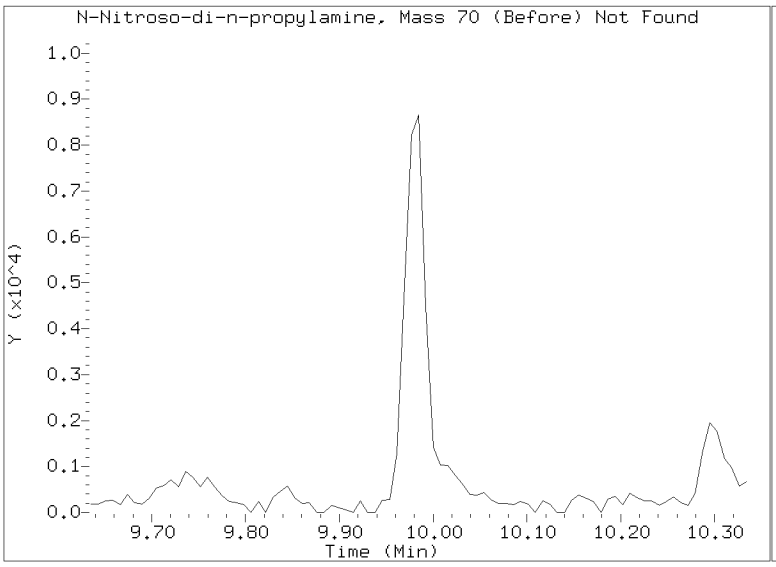


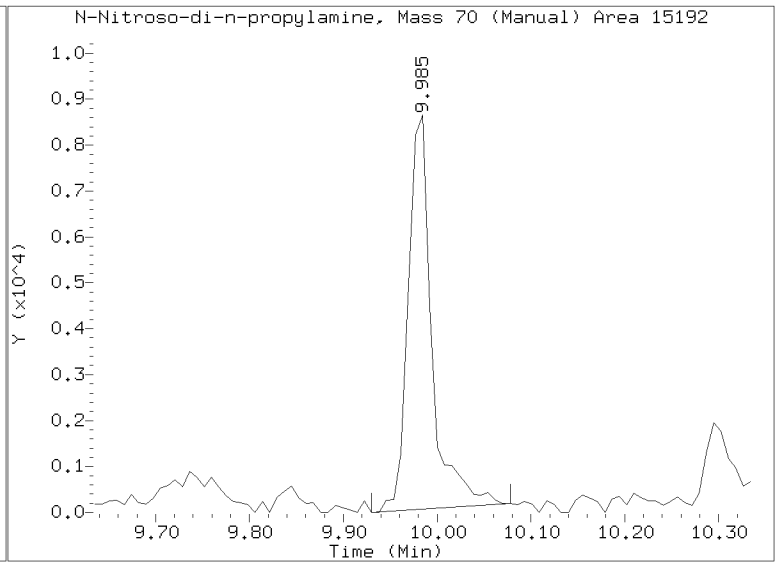
Quant Ion Manual Peak Adjustment Report

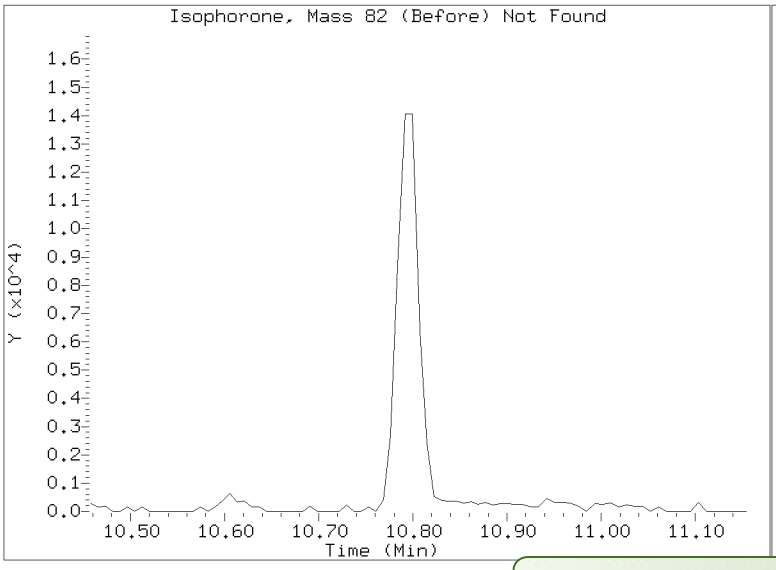
Datafile: //target/share/chem3/nt10.i/20230305A.b/NT1003052316.D
Injection Date: 05-MAR-2023 22:54
Lab ID:SLC0415-LCV1 Client ID:
Report Date: 03/27/2023 13:58

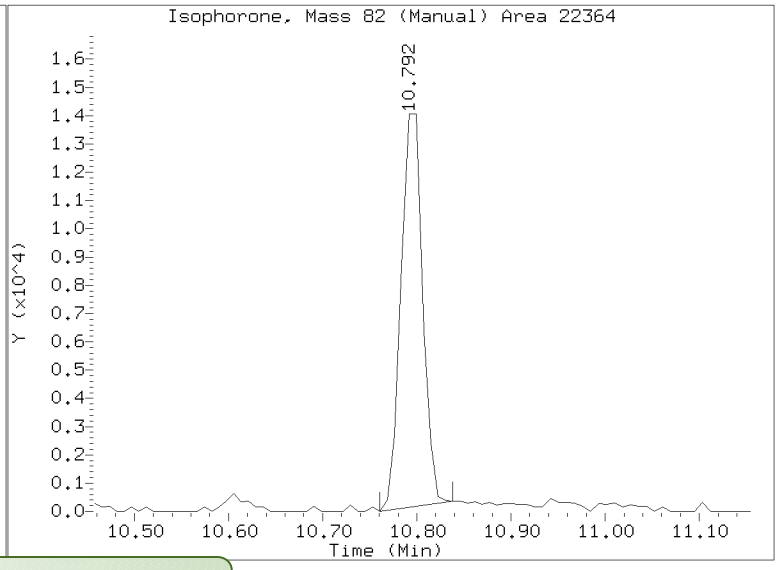












APPROVED
By Deenay Dunmore at 2:10 pm, Mar 27, 2023

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00019
Lab File ID:	NT1003052302.D	Calibration Date:	03/01/2023
Sequence:	SLC0401	Injection Date:	03/05/23
Lab Sample ID:	SLC0401-ICV1	Injection Time:	14:03
Sequence Name:	Initial Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT	
Phenol	A	5.0000	5.1	1.5534590	1.5816410		1.8	+/-20	
4-Methylphenol	A	5.0000	4.2	1.2087680	1.2638590		-15.4	+/-20	
Naphthalene	A	5.0000	4.8	1.0266520	0.9885234		-3.7	+/-20	
2-Methylnaphthalene	A	5.0000	5.0	0.7252818	0.7304930		0.7	+/-20	
Acenaphthylene	A	5.0000	5.5	1.9309320	2.1107320		9.3	+/-20	
Dimethylphthalate	A	5.0000	4.8	1.2917940	1.2337910		-4.5	+/-20	
Acenaphthene	A	5.0000	4.9	1.1645250	1.1300410		-3.0	+/-20	
Dibenzofuran	A	5.0000	5.1	1.7283260	1.7770960		2.8	+/-20	
Fluorene	A	5.0000	4.9	1.4379840	1.4219730		-1.1	+/-20	
Phenanthrene	A	5.0000	5.0	1.0236730	1.0257500		0.2	+/-20	
Anthracene	A	5.0000	5.1	0.9926226	1.0042030		1.2	+/-20	
Fluoranthene	A	5.0000	4.5	1.3760330	1.2388470		-10.0	+/-20	
Pyrene	A	5.0000	4.4	1.4011560	1.2377270		-11.7	+/-20	
Butylbenzylphthalate	A	5.0000	3.5	0.6475451	0.5167809		-30.6	+/-20	*
Benzo(a)anthracene	A	5.0000	4.7	1.4104100	1.3392660		-5.0	+/-20	
Chrysene	A	5.0000	5.3	1.1462500	1.2052660		5.1	+/-20	
bis(2-Ethylhexyl)phthalate	A	5.0000	4.6	0.5331838	0.5346001		-7.4	+/-20	
Benzofluoranthenes, Total	A	10.000	8.7	1.3383070	1.2007780		-12.6	+/-20	
Benzo(a)pyrene	A	5.0000	4.5	1.2312020	1.1465860		-10.4	+/-20	
Indeno(1,2,3-cd)pyrene	A	5.0000	4.7	1.4033590	1.4077180		-6.1	+/-20	
Dibenzo(a,h)anthracene	A	5.0000	5.1	1.1150690	1.1780240		2.5	+/-20	
Benzo(g,h,i)perylene	A	5.0000	5.0	1.1245240	1.1949940		0.7	+/-20	
2-Fluorophenol	A	7.5000	7.23	1.2585100	1.2123550		-3.7	+/-20	
Phenol-d5	A	7.5000	7.93	1.4611190	1.5454710		5.8	+/-20	
2-Chlorophenol-d4	A	7.5000	7.69	1.2465880	1.2784800		2.6	+/-20	
1,2-Dichlorobenzene-d4	A	5.0000	4.89	0.9313544	0.9100951		-2.3	+/-20	
Nitrobenzene-d5	A	5.0000	5.11	0.4390871	0.4488527		2.2	+/-20	
2-Fluorobiphenyl	A	5.0000	5.36	1.4267270	1.5285350		7.1	+/-20	
2,4,6-Tribromophenol	A	7.5000	7.98	0.2287830	0.2769393		6.5	+/-20	
p-Terphenyl-d14	A	5.0000	4.54	1.1337350	1.0291580		-9.2	+/-20	

* Values outside of QC limits

INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00019
Lab File ID:	NT1003052302.D	Calibration Date:	03/01/2023
Sequence:	SLC0401	Injection Date:	03/05/23
Lab Sample ID:	SLC0401-ICV1	Injection Time:	14:03
Sequence Name:	Initial Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene-d4	A	4.0000	4.0	84410.2500	1.0000			
Naphthalene-d8	A	4.0000	4.0	316296.8000	1.0000			
Acenaphthene-d10	A	4.0000	4.0	173096.3000	1.0000			
Phenanthrene-d10	A	4.0000	4.0	344194.3000	1.0000			
Chrysene-d12	A	4.0000	4.0	254881.0000	1.0000			
Di-n-Octylphthalate-d4	A	4.0000	4.0	506777.8000	1.0000			
Perylene-d12	A	4.0000	4.0	256852.3000	1.0000			

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052302.D

Date : 05-MAR-2023 14:03

Client ID:

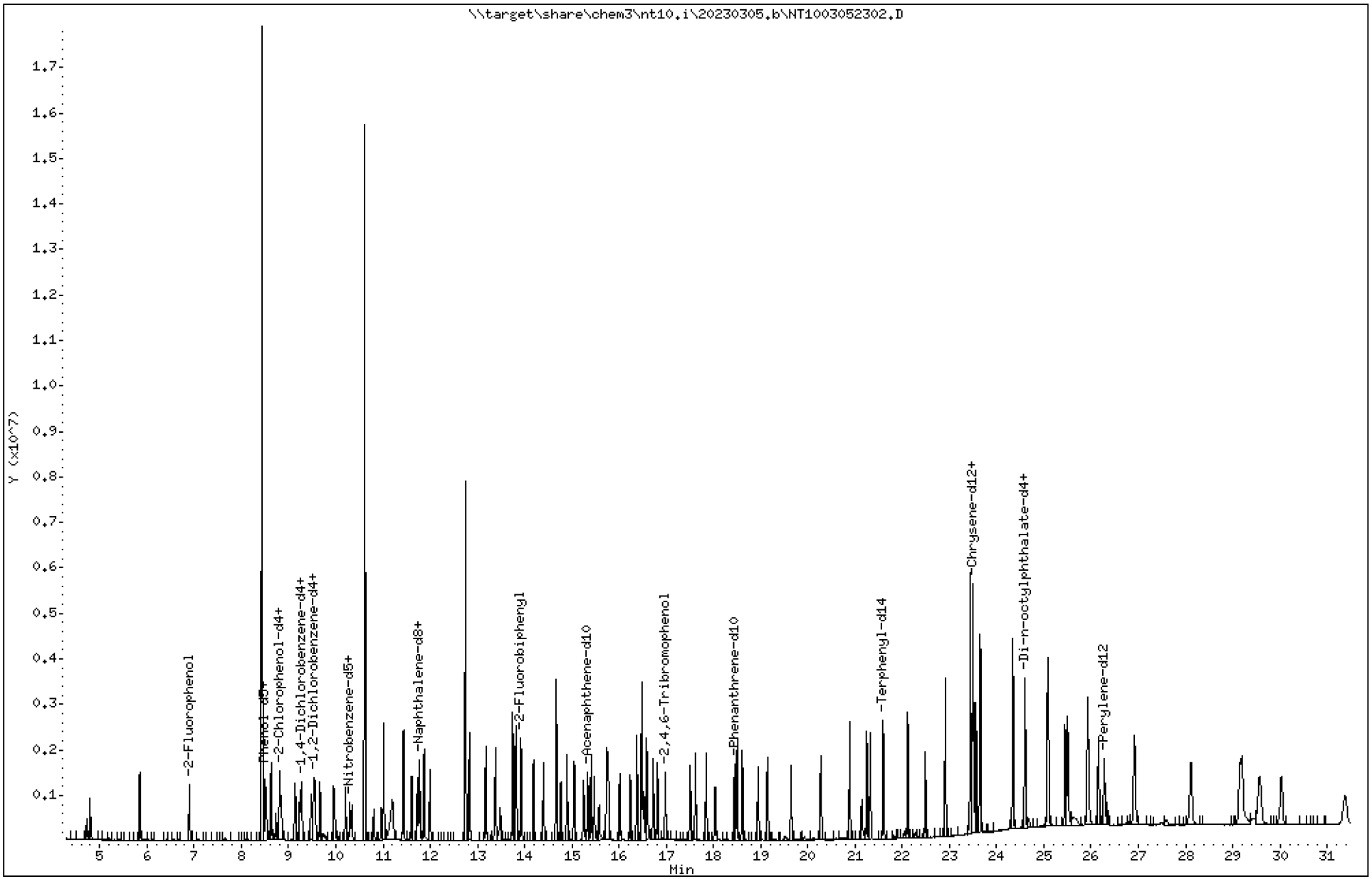
Instrument: nt10.i

Sample Info: SLC0401-ICV1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305.b\NT1003052302.D
Lab Smp Id: SLC0401-ICV1
Inj Date : 05-MAR-2023 14:03
Operator : VTS Inst ID: nt10.i
Smp Info : SLC0401-ICV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305.b\ABN.m
Meth Date : 27-Mar-2023 11:22 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

							AMOUNTS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.897	6.897	(0.747)	675728	7.50000	7.225
$	2 Phenol-d5	99	8.504	8.504	(0.920)	861396	7.50000	7.933
	3 Phenol	94	8.528	8.528	(0.923)	587704	5.00000	5.091
$	5 2-Chlorophenol-d4	132	8.813	8.813	(0.954)	712584	7.50000	7.692
	4 Bis(2-Chloroethyl)ether	93	8.728	8.728	(0.945)	434468	5.00000	4.925
	6 2-Chlorophenol	128	8.844	8.844	(0.957)	485333	5.00000	5.043
	7 1,3-Dichlorobenzene	146	9.138	9.138	(0.989)	508248	5.00000	4.790
*	8 1,4-Dichlorobenzene-d4	152	9.239	9.239	(1.000)	297263	4.00000	
	9 1,4-Dichlorobenzene	146	9.278	9.278	(1.004)	497907	5.00000	4.724
$	10 1,2-Dichlorobenzene-d4	152	9.534	9.534	(1.032)	338172	5.00000	4.886
	12 1,2-Dichlorobenzene	146	9.557	9.557	(1.034)	475789	5.00000	4.664
	11 Benzyl alcohol	108	9.480	9.480	(1.026)	264731	5.00000	4.373
	14 2,2'-oxybis(1-Chloropropane)	121	9.728	9.728	(1.053)	137994	5.00000	4.692(M)
	13 2-Methylphenol	108	9.666	9.666	(1.046)	444529	5.00000	4.859
	17 Hexachloroethane	117	10.209	10.209	(1.105)	222046	5.00000	5.133
	16 N-Nitroso-di-n-propylamine	70	9.984	9.984	(1.081)	355559	5.00000	5.104
	15 4-Methylphenol	108	9.953	9.953	(1.077)	469623	5.00000	4.230
$	18 Nitrobenzene-d5	82	10.302	10.302	(0.879)	608945	5.00000	5.111
	19 Nitrobenzene	77	10.341	10.341	(0.882)	567468	5.00000	5.078
	20 Isophorone	82	10.799	10.799	(0.921)	674846	5.00000	4.730
	21 2-Nitrophenol	139	10.959	10.959	(0.935)	264409	5.00000	4.389
	22 2,4-Dimethylphenol	107	11.018	11.018	(0.940)	977900	10.0000	8.945
	23 Bis(2-Chloroethoxy)methane	93	11.222	11.222	(0.957)	438956	5.00000	4.979
	24 Benzoic acid	105	11.196	11.196	(0.955)	1056308	20.0000	16.08
	25 2,4-Dichlorophenol	162	11.434	11.434	(0.975)	910813	10.0000	10.51
	26 1,2,4-Trichlorobenzene	180	11.603	11.603	(0.989)	426978	5.00000	5.091
*	27 Naphthalene-d8	136	11.726	11.726	(1.000)	1085336	4.00000	
	28 Naphthalene	128	11.773	11.773	(1.004)	1341100	5.00000	4.814
	29 4-Chloroaniline	127	11.873	11.873	(1.013)	1184797	10.0000	9.415
	30 Hexachlorobutadiene	225	11.997	11.997	(1.023)	324050	5.00000	5.306
	31 4-Chloro-3-methylphenol	107	12.825	12.825	(1.094)	885140	10.0000	9.605
	32 2-Methylnaphthalene	142	13.181	13.181	(1.124)	991038	5.00000	5.036
	33 Hexachlorocyclopentadiene	237	13.483	13.483	(0.879)	158554	10.0000	8.090

		QUANT SIG					AMOUNTS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34 2,4,6-Trichlorophenol	196	13.746	13.746	(0.896)	604132	10.0000	10.76
	35 2,4,5-Trichlorophenol	196	13.815	13.815	(0.901)	646789	10.0000	10.76
$	36 2-Fluorobiphenyl	172	13.924	13.924	(0.908)	1076593	5.00000	5.357
	37 2-Chloronaphthalene	162	14.187	14.187	(0.925)	855578	5.00000	5.423
	38 2-Nitroaniline	65	14.396	14.396	(0.938)	479866	10.0000	10.72
	39 Dimethylphthalate	163	14.767	14.767	(0.963)	868996	5.00000	4.775
	40 Acenaphthylene	152	15.046	15.046	(0.981)	1486652	5.00000	5.466
	41 2,6-Dinitrotoluene	165	14.899	14.899	(0.971)	415349	10.0000	10.06
*	42 Acenaphthene-d10	164	15.340	15.340	(1.000)	563464	4.00000	
	43 3-Nitroaniline	138	15.255	15.255	(0.994)	445211	10.0000	9.702
	44 Acenaphthene	153	15.409	15.409	(1.005)	795922	5.00000	4.852
	45 2,4-Dinitrophenol	184	15.479	15.479	(1.009)	372599	20.0000	31.60
	46 Dibenzofuran	168	15.765	15.765	(1.028)	1251662	5.00000	5.141
	47 4-Nitrophenol	109	15.579	15.579	(1.016)	284331	10.0000	8.582
	48 2,4-Dinitrotoluene	165	15.742	15.742	(1.026)	607732	10.0000	10.10
	50 Diethylphthalate	149	16.237	16.237	(1.058)	893588	5.00000	4.635
	49 Fluorene	166	16.484	16.484	(1.075)	1001538	5.00000	4.944
	51 4-Chlorophenyl-phenylether	204	16.484	16.484	(1.075)	458906	5.00000	4.946
	52 4-Nitroaniline	138	16.523	16.523	(1.077)	461249	10.0000	9.351
	53 4,6-Dinitro-2-methylphenol	198	16.585	16.585	(0.899)	726770	20.0000	27.35
	54 N-Nitrosodiphenylamine	169	16.724	16.724	(0.907)	781501	5.00000	5.087
$	55 2,4,6-Tribromophenol	330	16.986	16.986	(1.107)	292585	7.50000	7.984
	56 4-Bromophenyl-phenylether	248	17.504	17.504	(0.949)	355239	5.00000	5.707
	57 Hexachlorobenzene	284	17.620	17.620	(0.955)	386080	5.00000	5.508
	58 Pentachlorophenol	266	18.038	18.038	(0.978)	219591	10.0000	6.540
*	59 Phenanthrene-d10	188	18.448	18.448	(1.000)	1038318	4.00000	
	60 Phenanthrene	178	18.502	18.502	(1.003)	1331318	5.00000	5.010
	61 Anthracene	178	18.610	18.610	(1.009)	1303352	5.00000	5.058
	62 Carbazole	167	18.943	18.943	(1.027)	1186790	5.00000	5.028
	63 Di-n-butylphthalate	149	19.647	19.647	(1.065)	1521963	5.00000	4.599
	64 Fluoranthene	202	20.885	20.885	(0.888)	1568305	5.00000	4.502
	65 Pyrene	202	21.318	21.318	(0.906)	1566887	5.00000	4.417
$	66 Terphenyl-d14	244	21.597	21.597	(0.918)	1302851	5.00000	4.539
	67 Butylbenzylphthalate	149	22.487	22.487	(0.956)	654213	5.00000	3.470
	68 Benzo(a)anthracene	228	23.494	23.494	(0.999)	1695429	5.00000	4.748
*	69 Chrysene-d12	240	23.517	23.517	(1.000)	1012751	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.440	23.440	(0.997)	1927528	15.0000	11.94
	71 Chrysene	228	23.563	23.563	(1.002)	1525793	5.00000	5.257
	72 bis(2-Ethylhexyl)phthalate	149	23.494	23.494	(0.955)	1088506	5.00000	4.632
*	134 Di-n-octylphthalate-d4	153	24.593	24.593	(1.000)	1628890	4.00000	
	73 Di-n-octylphthalate	149	24.609	24.609	(1.001)	1904818	5.00000	5.273
	74 Benzo(b)fluoranthene	252	25.445	25.445	(0.968)	1732761	5.00000	4.215(H)
	75 Benzo(k)fluoranthene	252	25.507	25.507	(0.971)	1796990	5.00000	4.518
	76 Benzo(a)pyrene	252	26.157	26.157	(0.995)	1651462	5.00000	4.481
*	77 Perylene-d12	264	26.281	26.281	(1.000)	1152264	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	29.158	29.158	(1.109)	2027578	5.00000	4.697
	79 Dibenzo(a,h)anthracene	278	29.197	29.197	(1.111)	1696743	5.00000	5.123
	80 Benzo(g,h,i)perylene	276	30.028	30.028	(1.143)	1721186	5.00000	5.033
	90 N-Nitrosodimethylamine	74	4.719	4.719	(0.511)	586992	10.0000	9.722
	91 Aniline	93	8.628	8.628	(0.934)	1304290	10.0000	9.744
	93 Benzidine	184	21.140	21.140	(0.899)	673754	10.0000	4.356
	103 Pyridine	79	4.789	4.789	(0.518)	1049498	10.0000	9.801
	105 1-methylnaphthalene	142	13.382	13.382	(1.141)	891005	5.00000	5.002
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.816	16.816	(1.096)	1355943	5.00000	4.710

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
187 Total Benzofluoranthenes	252	25.507	25.507	(0.971)	3459034	10.0000	8.736
120 2,3,4,6-Tetrachlorophenol	232	16.012	16.012	(1.044)	312723	5.00000	5.557

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052302.D
Lab Smp Id: SLC0401-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305.b\ABN.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 17:21
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	337641	168821	675282	297263	-11.96
27 Naphthalene-d8	1265187	632594	2530374	1085336	-14.22
42 Acenaphthene-d10	692385	346193	1384770	563464	-18.62
59 Phenanthrene-d10	1376777	688389	2753554	1038318	-24.58
69 Chrysene-d12	1019524	509762	2039048	1012751	-0.66
134 Di-n-octylphthala	2027111	1013556	4054222	1628890	-19.64
77 Perylene-d12	1027409	513705	2054818	1152264	12.15

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.24	-0.08
27 Naphthalene-d8	11.72	11.22	12.22	11.73	0.07
42 Acenaphthene-d10	15.31	14.81	15.81	15.34	0.21
59 Phenanthrene-d10	18.40	17.90	18.90	18.45	0.26
69 Chrysene-d12	23.42	22.92	23.92	23.52	0.43
134 Di-n-octylphthala	24.48	23.98	24.98	24.59	0.44
77 Perylene-d12	26.10	25.60	26.60	26.28	0.68

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052302.D

Lab ID: SLC0401-ICV1
nt10.i, 20230305.b\ABN.m,   05-MAR-2023 14:03

RT	CO-ELUTION COMPOUNDS
23.494	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

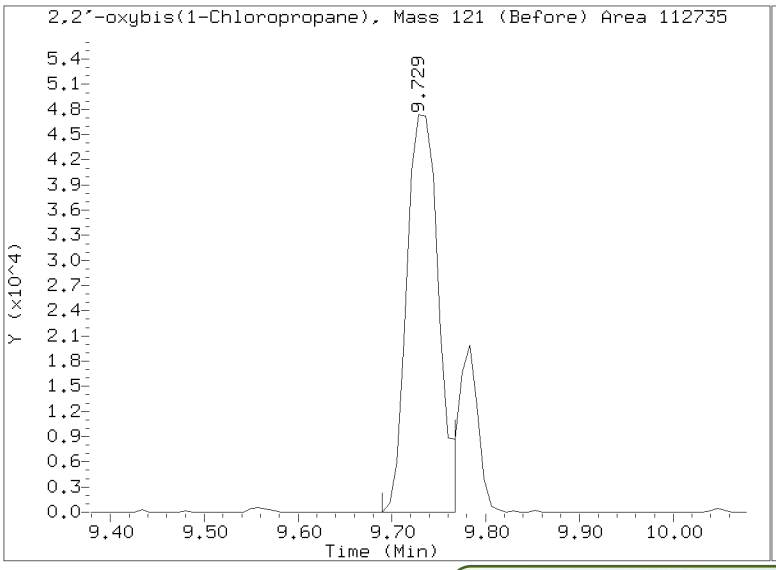
No RRT check. Ccal file.

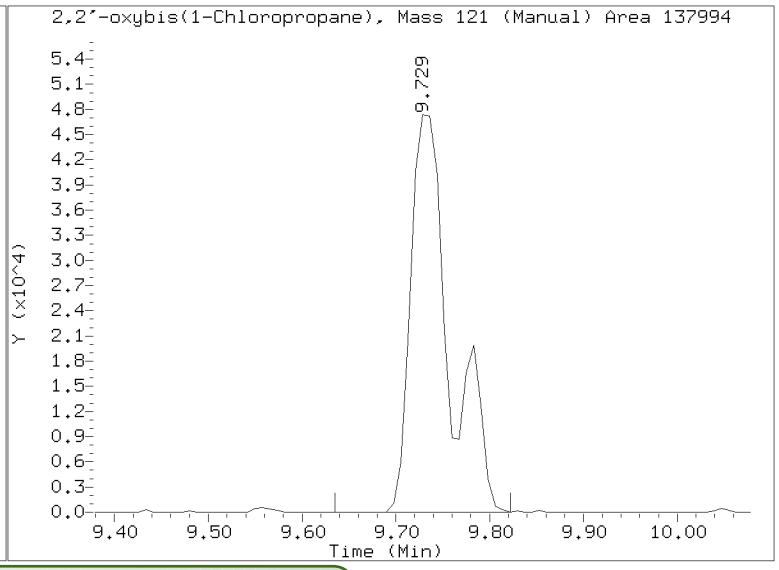
On Column LOD for nt10.i, 20230305.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305.b/NT1003052302.D
Injection Date: 05-MAR-2023 14:03
Lab ID:SLC0401-ICV1 Client ID:
Report Date: 03/27/2023 11:22





APPROVED

By Deenay Dunmore at 2:09 pm, Mar 27, 2023

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230305.b

Instrument: nt10.i Date: 05-MAR-2023 Method: 20230305.b\ABN.m

INITIAL CAL: 30-DEC-2022

Compound	%RSD or R^2
2,4-Dinitrophenol	0.989

ICV CAL: NT1003052302.D 05-MAR-2023 14:03

Compound	%D
2,4-Dinitrophenol	58.0
4,6-Dinitro-2-methylphenol	36.7
Pentachlorophenol	-34.6
Butylbenzylphthalate	-30.6
3,3'-Dichlorobenzidine	-20.4
Benzidine	-56.4

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00019
Lab File ID:	NT1003052314A.D	Calibration Date:	03/01/2023
Sequence:	SLC0415	Injection Date:	03/05/23
Lab Sample ID:	SLC0415-ICV1	Injection Time:	21:38
Sequence Name:	Initial Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT	
Phenol	A	5.0000	5.2	1.5534590	1.6188800		4.2	+/-20	
4-Methylphenol	A	5.0000	4.3	1.2087680	1.2744640		-14.7	+/-20	
Naphthalene	A	5.0000	4.7	1.0266520	0.9624076		-6.3	+/-20	
2-Methylnaphthalene	A	5.0000	5.0	0.7252818	0.7190208		-0.9	+/-20	
Acenaphthylene	A	5.0000	5.5	1.9309320	2.1082640		9.2	+/-20	
Dimethylphthalate	A	5.0000	4.8	1.2917940	1.2345270		-4.4	+/-20	
Acenaphthene	A	5.0000	4.9	1.1645250	1.1316320		-2.8	+/-20	
Dibenzofuran	A	5.0000	5.1	1.7283260	1.7707780		2.5	+/-20	
Fluorene	A	5.0000	4.8	1.4379840	1.3930440		-3.1	+/-20	
Phenanthrene	A	5.0000	4.8	1.0236730	0.9865838		-3.6	+/-20	
Anthracene	A	5.0000	5.2	0.9926226	1.0325820		4.0	+/-20	
Fluoranthene	A	5.0000	4.2	1.3760330	1.1451070		-16.8	+/-20	
Pyrene	A	5.0000	4.3	1.4011560	1.2004140		-14.3	+/-20	
Butylbenzylphthalate	A	5.0000	3.7	0.6475451	0.5563039		-25.2	+/-20	*
Benzo(a)anthracene	A	5.0000	4.7	1.4104100	1.3244670		-6.1	+/-20	
Chrysene	A	5.0000	5.1	1.1462500	1.1674650		1.9	+/-20	
bis(2-Ethylhexyl)phthalate	A	5.0000	4.7	0.5331838	0.5410252		-6.3	+/-20	
Benzofluoranthenes, Total	A	10.000	8.8	1.3383070	1.2096380		-12.0	+/-20	
Benzo(a)pyrene	A	5.0000	4.5	1.2312020	1.1412360		-10.8	+/-20	
Indeno(1,2,3-cd)pyrene	A	5.0000	4.6	1.4033590	1.3722900		-8.3	+/-20	
Dibenzo(a,h)anthracene	A	5.0000	4.9	1.1150690	1.1351340		-1.0	+/-20	
Benzo(g,h,i)perylene	A	5.0000	4.8	1.1245240	1.1408660		-3.7	+/-20	
2-Fluorophenol	A	7.5000	7.38	1.2585100	1.2383040		-1.6	+/-20	
Phenol-d5	A	7.5000	8.22	1.4611190	1.6015740		9.6	+/-20	
2-Chlorophenol-d4	A	7.5000	7.97	1.2465880	1.3246490		6.3	+/-20	
1,2-Dichlorobenzene-d4	A	5.0000	4.86	0.9313544	0.9044504		-2.9	+/-20	
Nitrobenzene-d5	A	5.0000	5.35	0.4390871	0.4698152		7.0	+/-20	
2-Fluorobiphenyl	A	5.0000	5.23	1.4267270	1.4928270		4.6	+/-20	
2,4,6-Tribromophenol	A	7.5000	7.63	0.2287830	0.2638791		1.7	+/-20	
p-Terphenyl-d14	A	5.0000	4.59	1.1337350	1.0405920		-8.2	+/-20	

* Values outside of QC limits

INITIAL CALIBRATION CHECK
EPA 8270E

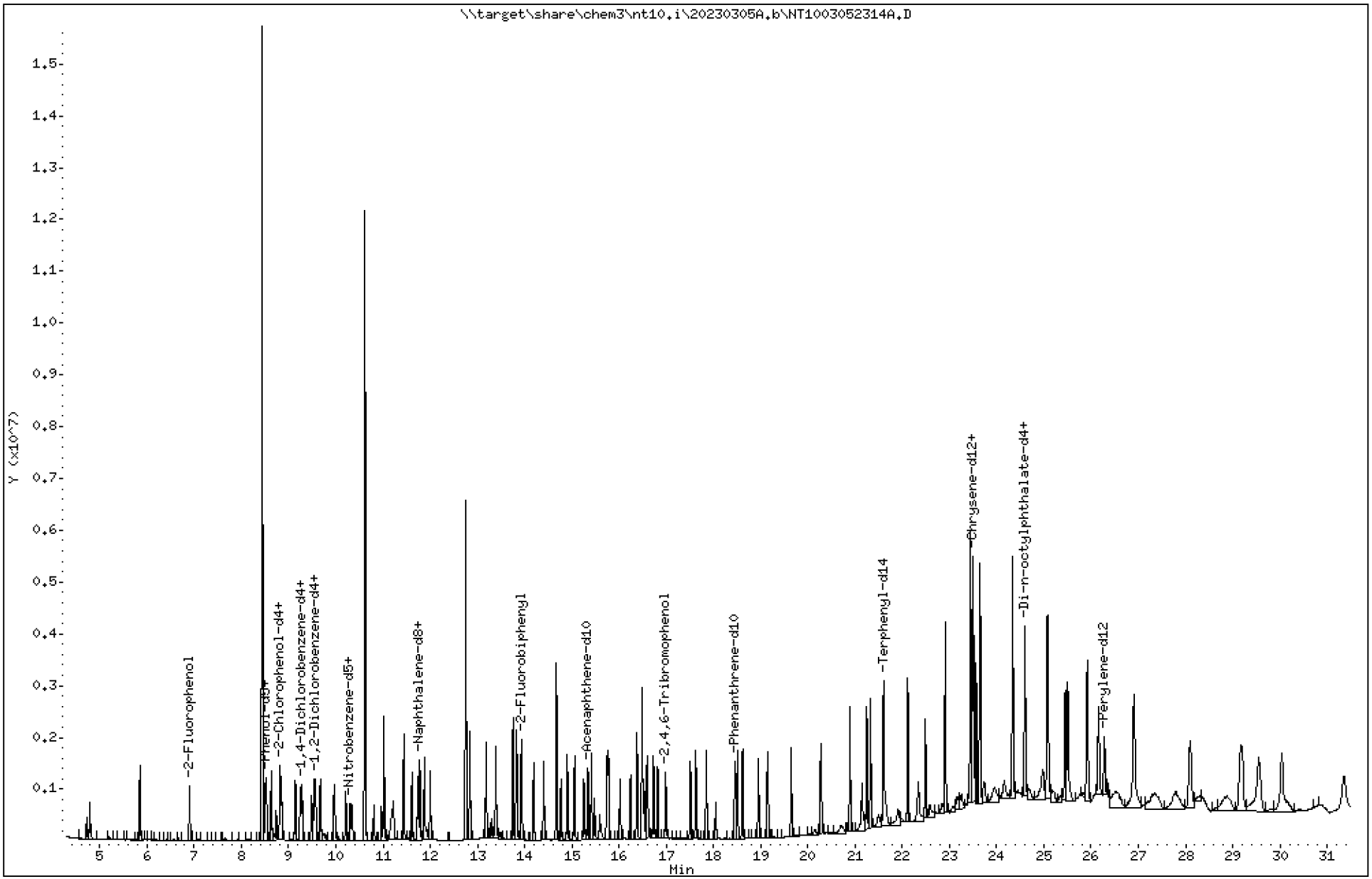
Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00019
Lab File ID:	NT1003052314A.D	Calibration Date:	03/01/2023
Sequence:	SLC0415	Injection Date:	03/05/23
Lab Sample ID:	SLC0415-ICV1	Injection Time:	21:38
Sequence Name:	Initial Cal Check		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene-d4	A	4.0000	4.0	84410.2500	1.0000			
Naphthalene-d8	A	4.0000	4.0	316296.8000	1.0000			
Acenaphthene-d10	A	4.0000	4.0	173096.3000	1.0000			
Phenanthrene-d10	A	4.0000	4.0	344194.3000	1.0000			
Chrysene-d12	A	4.0000	4.0	254881.0000	1.0000			
Di-n-Octylphthalate-d4	A	4.0000	4.0	506777.8000	1.0000			
Perylene-d12	A	4.0000	4.0	256852.3000	1.0000			

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052314A.D
Date : 05-MAR-2023 21:38
Client ID:
Sample Info: SLC0415-ICV1

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305A.b\NT1003052314A.D
Lab Smp Id: SLC0415-ICV1
Inj Date : 05-MAR-2023 21:38
Operator : VTS Inst ID: nt10.i
Smp Info : SLC0415-ICV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Meth Date : 27-Mar-2023 13:49 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.905	6.905	(0.747)	615101	7.50000	7.380
$	2 Phenol-d5	99	8.512	8.512	(0.921)	795548	7.50000	8.221
	3 Phenol	94	8.535	8.535	(0.923)	536096	5.00000	5.211
$	5 2-Chlorophenol-d4	132	8.821	8.821	(0.954)	657991	7.50000	7.970
	4 Bis(2-Chloroethyl)ether	93	8.736	8.736	(0.945)	393765	5.00000	5.008
	6 2-Chlorophenol	128	8.852	8.852	(0.957)	452124	5.00000	5.271
	7 1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	454091	5.00000	4.802
*	8 1,4-Dichlorobenzene-d4	152	9.247	9.247	(1.000)	264922	4.00000	
	9 1,4-Dichlorobenzene	146	9.286	9.286	(1.004)	440157	5.00000	4.686
$	10 1,2-Dichlorobenzene-d4	152	9.542	9.542	(1.032)	299511	5.00000	4.856
	12 1,2-Dichlorobenzene	146	9.565	9.565	(1.034)	428111	5.00000	4.709
	11 Benzyl alcohol	108	9.487	9.487	(1.026)	228904	5.00000	4.246
	14 2,2'-oxybis(1-Chloropropane)	121	9.736	9.736	(1.053)	120360	5.00000	4.592(M)
	13 2-Methylphenol	108	9.674	9.674	(1.046)	394803	5.00000	4.843
	17 Hexachloroethane	117	10.217	10.217	(1.105)	183133	5.00000	4.750
	16 N-Nitroso-di-n-propylamine	70	9.984	9.984	(1.080)	319576	5.00000	5.147
	15 4-Methylphenol	108	9.961	9.961	(1.077)	422042	5.00000	4.266
$	18 Nitrobenzene-d5	82	10.302	10.302	(0.878)	556462	5.00000	5.350
	19 Nitrobenzene	77	10.341	10.341	(0.881)	502881	5.00000	5.154
	20 Isophorone	82	10.807	10.807	(0.921)	607351	5.00000	4.876
	21 2-Nitrophenol	139	10.967	10.967	(0.935)	234271	5.00000	4.456
	22 2,4-Dimethylphenol	107	11.018	11.018	(0.939)	836721	10.0000	8.771
	23 Bis(2-Chloroethoxy)methane	93	11.222	11.222	(0.956)	387079	5.00000	5.029
	24 Benzoic acid	105	11.205	11.205	(0.955)	690083	20.0000	12.15
	25 2,4-Dichlorophenol	162	11.434	11.434	(0.974)	802248	10.0000	10.60
	26 1,2,4-Trichlorobenzene	180	11.610	11.610	(0.989)	380183	5.00000	5.192
*	27 Naphthalene-d8	136	11.734	11.734	(1.000)	947542	4.00000	
	28 Naphthalene	128	11.780	11.780	(1.004)	1139902	5.00000	4.687
	29 4-Chloroaniline	127	11.881	11.881	(1.012)	957026	10.0000	8.733
	30 Hexachlorobutadiene	225	12.004	12.004	(1.023)	287413	5.00000	5.391
	31 4-Chloro-3-methylphenol	107	12.840	12.840	(1.094)	770771	10.0000	9.582
	32 2-Methylnaphthalene	142	13.181	13.181	(1.123)	851628	5.00000	4.957
	33 Hexachlorocyclopentadiene	237	13.482	13.482	(0.879)	26882	10.0000	1.598

		QUANT SIG					AMOUNTS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34 2,4,6-Trichlorophenol	196	13.753	13.753	(0.897)	528333	10.0000	10.50
	35 2,4,5-Trichlorophenol	196	13.831	13.831	(0.902)	552007	10.0000	10.27
$	36 2-Fluorobiphenyl	172	13.931	13.931	(0.908)	943590	5.00000	5.232
	37 2-Chloronaphthalene	162	14.194	14.194	(0.925)	759613	5.00000	5.365
	38 2-Nitroaniline	65	14.403	14.403	(0.939)	431088	10.0000	10.73
	39 Dimethylphthalate	163	14.767	14.767	(0.963)	780323	5.00000	4.778
	40 Acenaphthylene	152	15.054	15.054	(0.981)	1332597	5.00000	5.459
	41 2,6-Dinitrotoluene	165	14.907	14.907	(0.972)	376924	10.0000	10.17
*	42 Acenaphthene-d10	164	15.340	15.340	(1.000)	505666	4.00000	
	43 3-Nitroaniline	138	15.255	15.255	(0.994)	390807	10.0000	9.490
	44 Acenaphthene	153	15.409	15.409	(1.005)	715285	5.00000	4.859
	45 2,4-Dinitrophenol	184	15.479	15.479	(1.009)	211324	20.0000	20.88
	46 Dibenzofuran	168	15.773	15.773	(1.028)	1119278	5.00000	5.123
	47 4-Nitrophenol	109	15.595	15.595	(1.017)	238701	10.0000	8.051
	48 2,4-Dinitrotoluene	165	15.749	15.749	(1.027)	543213	10.0000	10.06
	50 Diethylphthalate	149	16.244	16.244	(1.059)	808607	5.00000	4.674
	49 Fluorene	166	16.492	16.492	(1.075)	880519	5.00000	4.844
	51 4-Chlorophenyl-phenylether	204	16.484	16.484	(1.075)	404773	5.00000	4.866
	52 4-Nitroaniline	138	16.531	16.531	(1.078)	404772	10.0000	9.144
	53 4,6-Dinitro-2-methylphenol	198	16.593	16.593	(0.899)	487517	20.0000	20.78
	54 N-Nitrosodiphenylamine	169	16.731	16.731	(0.907)	707394	5.00000	5.085
$	55 2,4,6-Tribromophenol	330	16.994	16.994	(1.108)	250190	7.50000	7.629
	56 4-Bromophenyl-phenylether	248	17.511	17.511	(0.949)	317759	5.00000	5.637
	57 Hexachlorobenzene	284	17.627	17.627	(0.955)	346958	5.00000	5.466
	58 Pentachlorophenol	266	18.045	18.045	(0.978)	139344	10.0000	4.639
*	59 Phenanthrene-d10	188	18.455	18.455	(1.000)	940283	4.00000	
	60 Phenanthrene	178	18.509	18.509	(1.003)	1159585	5.00000	4.819
	61 Anthracene	178	18.618	18.618	(1.009)	1213649	5.00000	5.201
	62 Carbazole	167	18.950	18.950	(1.027)	1083313	5.00000	5.068
	63 Di-n-butylphthalate	149	19.647	19.647	(1.065)	1444373	5.00000	4.811
	64 Fluoranthene	202	20.892	20.892	(0.888)	1414139	5.00000	4.161
	65 Pyrene	202	21.326	21.326	(0.907)	1482439	5.00000	4.284
$	66 Terphenyl-d14	244	21.604	21.604	(0.919)	1285069	5.00000	4.589
	67 Butylbenzylphthalate	149	22.495	22.495	(0.957)	687002	5.00000	3.740
	68 Benzo(a)anthracene	228	23.501	23.501	(0.999)	1635637	5.00000	4.695
*	69 Chrysene-d12	240	23.517	23.517	(1.000)	987952	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.447	23.447	(0.997)	1843312	15.0000	11.71
	71 Chrysene	228	23.563	23.563	(1.002)	1441749	5.00000	5.093
	72 bis(2-Ethylhexyl)phthalate	149	23.494	23.494	(0.955)	1098969	5.00000	4.686
*	134 Di-n-octylphthalate-d4	153	24.593	24.593	(1.000)	1625017	4.00000	
	73 Di-n-octylphthalate	149	24.601	24.601	(1.000)	1872021	5.00000	5.195
	74 Benzo(b)fluoranthene	252	25.452	25.452	(0.968)	1612424	5.00000	4.209
	75 Benzo(k)fluoranthene	252	25.507	25.507	(0.970)	1704767	5.00000	4.595
	76 Benzo(a)pyrene	252	26.157	26.157	(0.995)	1531821	5.00000	4.462
*	77 Perylene-d12	264	26.289	26.289	(1.000)	1073798	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	29.158	29.158	(1.109)	1841953	5.00000	4.585
	79 Dibenzo(a,h)anthracene	278	29.204	29.204	(1.111)	1523631	5.00000	4.948
	80 Benzo(g,h,i)perylene	276	30.043	30.043	(1.143)	1531325	5.00000	4.815
	90 N-Nitrosodimethylamine	74	4.719	4.719	(0.510)	557365	10.0000	10.36
	91 Aniline	93	8.636	8.636	(0.934)	1135375	10.0000	9.517
	93 Benzidine	184	21.148	21.148	(0.899)	637697	10.0000	4.227
	103 Pyridine	79	4.781	4.781	(0.517)	946906	10.0000	9.923
	105 1-methylnaphthalene	142	13.390	13.390	(1.141)	773355	5.00000	4.973
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.816	16.816	(1.096)	1177852	5.00000	4.559

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
187 Total Benzofluoranthenes	252	25.507	25.507	(0.970)	3247268	10.0000	8.797
120 2,3,4,6-Tetrachlorophenol	232	16.020	16.020	(1.044)	257039	5.00000	5.119

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052314A.D
Lab Smp Id: SLC0415-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Misc Info:

Calibration Date: 30-DEC-2022
Calibration Time: 08:06
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	297263	148632	594526	264922	-10.88
27 Naphthalene-d8	1085336	542668	2170672	947542	-12.70
42 Acenaphthene-d10	563464	281732	1126928	505666	-10.26
59 Phenanthrene-d10	1038318	519159	2076636	940283	-9.44
69 Chrysene-d12	1012751	506376	2025502	987952	-2.45
134 Di-n-octylphthala	1628890	814445	3257780	1625017	-0.24
77 Perylene-d12	1152264	576132	2304528	1073798	-6.81

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.06
42 Acenaphthene-d10	15.34	14.84	15.84	15.34	-0.00
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.52	23.02	24.02	23.52	-0.00
134 Di-n-octylphthala	24.59	24.09	25.09	24.59	-0.00
77 Perylene-d12	26.28	25.78	26.78	26.29	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052314A.D

Lab ID: SLC0415-ICV1
nt10.i, 20230305A.b\ABN.m,   05-MAR-2023 21:38

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00019
Lab File ID:	NT1003012311.D	Calibration Date:	03/01/2023
Sequence:	SLC0084	Injection Date:	03/01/23
Lab Sample ID:	SLC0084-SCV1	Injection Time:	21:46
Sequence Name:	SCV 5.0		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
Phenol	A	5.0000	4.9	1.5534590	1.5075140		-3.0	+/-20	
bis(2-chloroethyl) ether	A	5.0000	5.9	1.1870870	1.4074350		18.6	+/-20	
2-Chlorophenol	A	5.0000	4.7	1.2950380	1.2153530		-6.2	+/-20	
1,3-Dichlorobenzene	A	5.0000	5.3	1.4278260	1.5038770		5.3	+/-20	
1,4-Dichlorobenzene	A	5.0000	5.2	1.4182650	1.4795020		4.3	+/-20	
1,2-Dichlorobenzene	A	5.0000	5.2	1.3727590	1.4260290		3.9	+/-20	
Benzyl Alcohol	A	5.0000	4.9	0.7104711	0.8002285		-2.0	+/-20	
2,2'-Oxybis(1-chloropropane)	A	5.0000	6.2	0.3957681	0.4932577		24.6	+/-20	*
2-Methylphenol	A	5.0000	4.2	1.0954470	1.0287080		-16.2	+/-20	
Hexachloroethane	A	5.0000	5.4	0.5821386	0.6336697		8.9	+/-20	
N-Nitroso-di-n-Propylamine	A	5.0000	5.9	0.9374094	1.1070890		18.1	+/-20	
4-Methylphenol	A	5.0000	4.2	1.2087680	1.2666790		-15.2	+/-20	
Nitrobenzene	A	5.0000	5.6	0.4118860	0.4587792		11.4	+/-20	
Isophorone	A	5.0000	7.7	0.5257709	0.8066960		53.4	+/-20	*
2-Nitrophenol	A	5.0000	3.2	0.1627036	0.1451285		-35.1	+/-20	*
2,4-Dimethylphenol	A	5.0000	3.5	0.3830403	0.2785662		-29.9	+/-20	*
Bis(2-Chloroethoxy)methane	A	5.0000	6.7	0.3249172	0.4371566		34.5	+/-20	*
2,4-Dichlorophenol	A	5.0000	4.4	0.2612827	0.2786176		-11.3	+/-20	
1,2,4-Trichlorobenzene	A	5.0000	4.9	0.3091179	0.3034222		-1.8	+/-20	
Naphthalene	A	5.0000	5.3	1.0266520	1.0790290		5.1	+/-20	
Benzoic acid	A	10.000	5.6	0.1970511	0.1331005		-43.6	+/-20	*
4-Chloroaniline	A	5.0000	3.8	0.4009859	0.3447752		-24.2	+/-20	*
Hexachlorobutadiene	A	5.0000	5.0	0.2250808	0.2257331		0.3	+/-20	
4-Chloro-3-Methylphenol	A	5.0000	4.5	0.3168628	0.2958278		-11.0	+/-20	
2-Methylnaphthalene	A	5.0000	5.0	0.7252818	0.7181482		-1.0	+/-20	
Hexachlorocyclopentadiene	A	5.0000	2.6	0.1096304	0.0686178		-48.8	+/-20	*
2,4,6-Trichlorophenol	A	5.0000	4.1	0.3635155	0.3174533		-17.6	+/-20	
2,4,5-Trichlorophenol	A	5.0000	4.1	0.3974340	0.3415557		-17.0	+/-20	
2-Chloronaphthalene	A	5.0000	5.3	1.1200160	1.1792440		5.3	+/-20	
2-Nitroaniline	A	5.0000	5.0	0.2857098	0.3129766		0.5	+/-20	
Acenaphthylene	A	5.0000	5.8	1.9309320	2.2420970		16.1	+/-20	
Dimethylphthalate	A	5.0000	5.4	1.2917940	1.3911230		7.7	+/-20	
2,6-Dinitrotoluene	A	5.0000	5.2	0.2723393	0.2988779		3.7	+/-20	

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00019
Lab File ID:	NT1003012311.D	Calibration Date:	03/01/2023
Sequence:	SLC0084	Injection Date:	03/01/23
Lab Sample ID:	SLC0084-SCV1	Injection Time:	21:46
Sequence Name:	SCV 5.0		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Acenaphthene	A	5.0000	5.2	1.1645250	1.2003320		3.1	+/-20
3-Nitroaniline	A	5.0000	5.2	0.3257650	0.3369711		3.4	+/-20
2,4-Dinitrophenol	A	5.0000	0.3	0.0558713	0.0039765		-94.7	+/-20 *
Dibenzofuran	A	5.0000	5.0	1.7283260	1.7261300		-0.1	+/-20
4-Nitrophenol	A	5.0000	3.8	0.2049826	0.1754079		-23.6	+/-20 *
2,4-Dinitrotoluene	A	5.0000	4.7	0.3852197	0.3955023		-5.4	+/-20
Fluorene	A	5.0000	5.3	1.4379840	1.5256380		6.1	+/-20
4-Chlorophenylphenyl ether	A	5.0000	5.3	0.6424026	0.6943814		5.1	+/-20
Diethyl phthalate	A	5.0000	5.6	1.3684860	1.5432660		12.8	+/-20
4-Nitroaniline	A	5.0000	5.2	0.3501692	0.3664427		4.6	+/-20
4,6-Dinitro-2-methylphenol	A	5.0000	1.3	0.0712506	0.0241548		-74.2	+/-20 *
N-Nitrosodiphenylamine	A	5.0000	5.4	0.5918253	0.6410493		8.3	+/-20
4-Bromophenyl phenyl ether	A	5.0000	5.5	0.2398060	0.2618590		9.2	+/-20
Hexachlorobenzene	A	5.0000	4.8	0.2700430	0.2595304		-3.9	+/-20
Pentachlorophenol	A	5.0000	3.5	0.1145550	0.0886055		-30.2	+/-20 *
Phenanthrene	A	5.0000	5.1	1.0236730	1.0409810		1.7	+/-20
Anthracene	A	5.0000	4.6	0.9926226	0.9101788		-8.3	+/-20
Carbazole	A	5.0000	5.3	0.9093581	0.9702244		6.7	+/-20
Di-n-Butylphthalate	A	5.0000	5.5	1.1818970	1.4025400		9.3	+/-20
Fluoranthene	A	5.0000	4.5	1.3760330	1.2499020		-9.2	+/-20
Pyrene	A	5.0000	4.6	1.4011560	1.2963060		-7.5	+/-20
Butylbenzylphthalate	A	5.0000	4.5	0.6475451	0.6710971		-9.5	+/-20
Benzo(a)anthracene	A	5.0000	4.6	1.4104100	1.2914460		-8.4	+/-20
3,3'-Dichlorobenzidine	A	10.000	7.4	0.5458244	0.4679806		-26.2	+/-20 *
Chrysene	A	5.0000	5.0	1.1462500	1.1386240		-0.7	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	5.0	0.5331838	0.5732313		-0.9	+/-20
Di-n-Octylphthalate	A	5.0000	5.8	0.8870063	1.0367270		16.9	+/-20
Benzofluoranthenes, Total	A	10.000	8.9	1.3383070	1.2252050		-11.0	+/-20
Benzo(a)pyrene	A	5.0000	4.4	1.2312020	1.1368210		-11.1	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	4.3	1.4033590	1.2968100		-13.1	+/-20
Dibenzo(a,h)anthracene	A	5.0000	4.6	1.1150690	1.0521910		-7.8	+/-20
Benzo(g,h,i)perylene	A	5.0000	4.6	1.1245240	1.0882170		-8.0	+/-20
1-Methylnaphthalene	A	5.0000	5.2	0.6564478	0.6851418		4.4	+/-20
2-Fluorophenol	A	7.5000	0.00	1.2585100				+/-20 *

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00019
Lab File ID:	NT1003012311.D	Calibration Date:	03/01/2023
Sequence:	SLC0084	Injection Date:	03/01/23
Lab Sample ID:	SLC0084-SCV1	Injection Time:	21:46
Sequence Name:	SCV 5.0		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol-d5	A	7.5000	0.00	1.4611190				+/-20 *
2-Chlorophenol-d4	A	7.5000	0.00	1.2465880				+/-20 *
1,2-Dichlorobenzene-d4	A	5.0000	4.29	0.9313544	0.8000000		-14.1	+/-20
Nitrobenzene-d5	A	5.0000	0.00	0.4390871				+/-20 *
2-Fluorobiphenyl	A	5.0000	0.00	1.4267270				+/-20 *
2,4,6-Tribromophenol	A	7.5000	0.00	0.2287830				+/-20 *
p-Terphenyl-d14	A	5.0000	0.0196	1.1337350	0.0044473		-99.6	+/-20 *

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

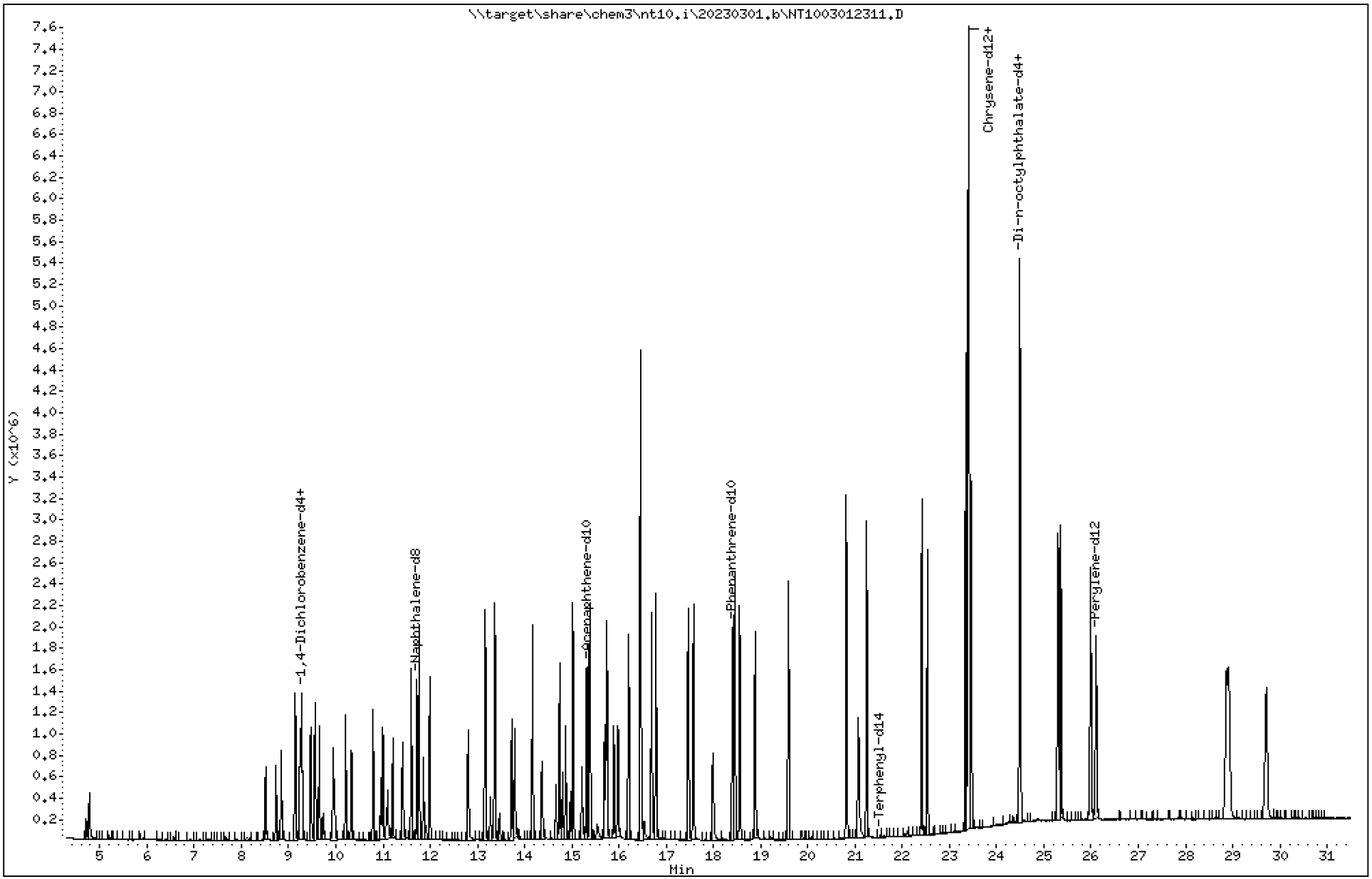
Instrument: nt10.i

Sample Info: SEQ-SCV1

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

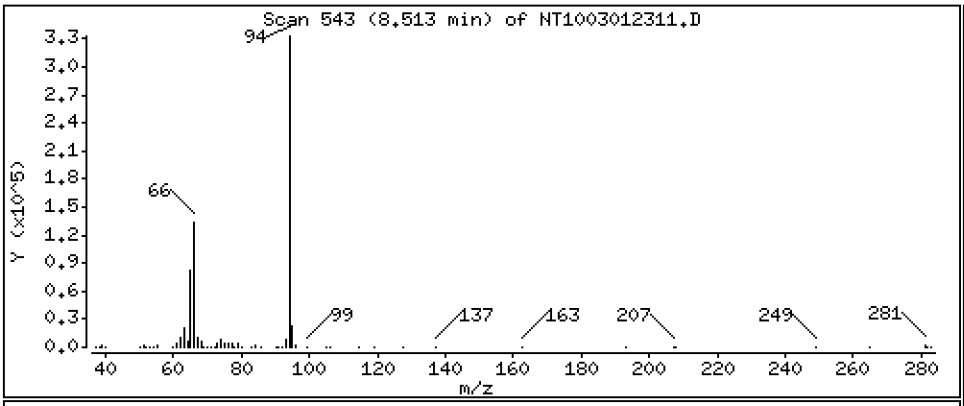
Operator: VTS

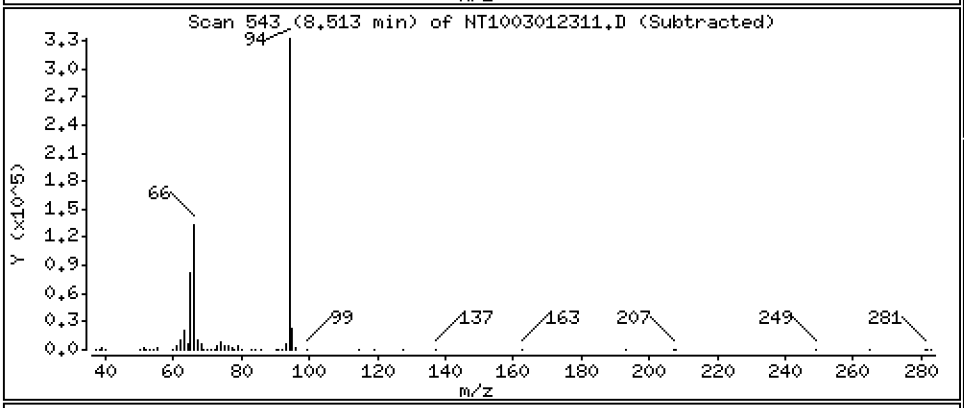
Column phase: ZB-5msi

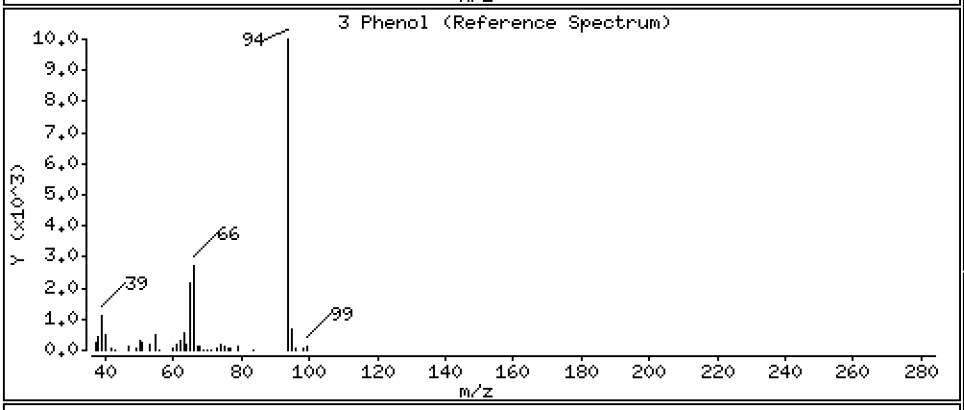
Column diameter: 0.25

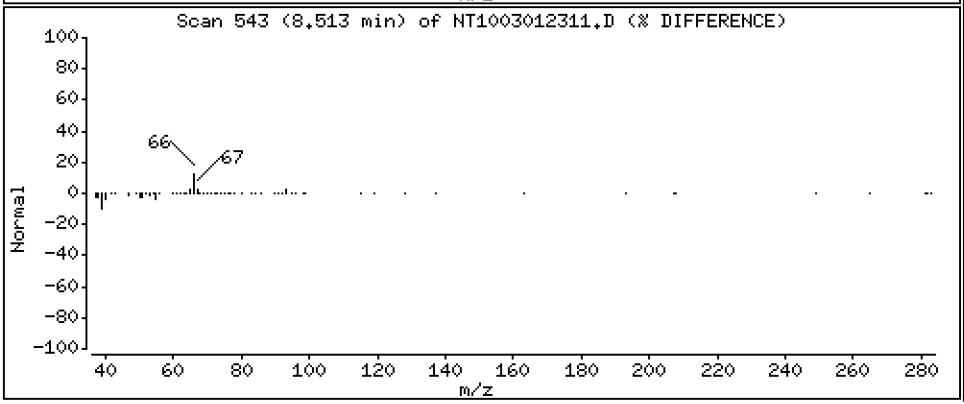
3 Phenol

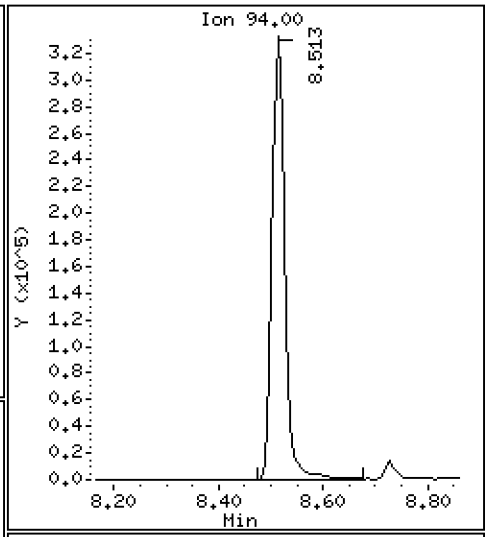
Concentration: 4.852 ug/mL

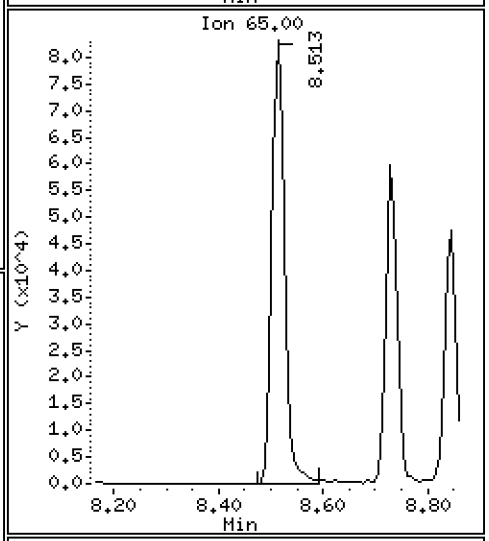


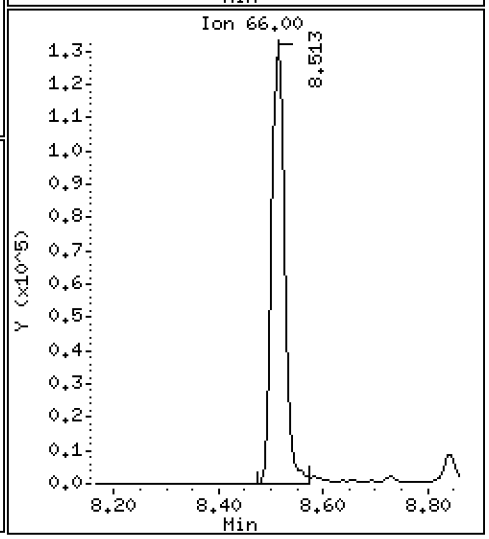












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

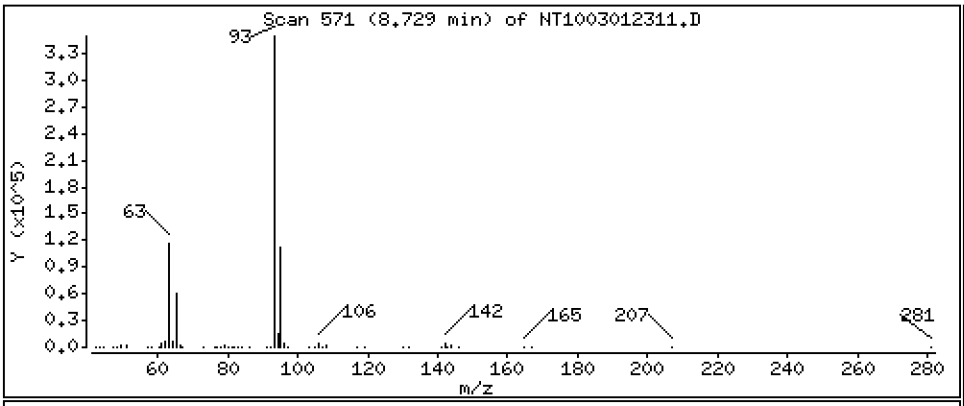
Operator: VTS

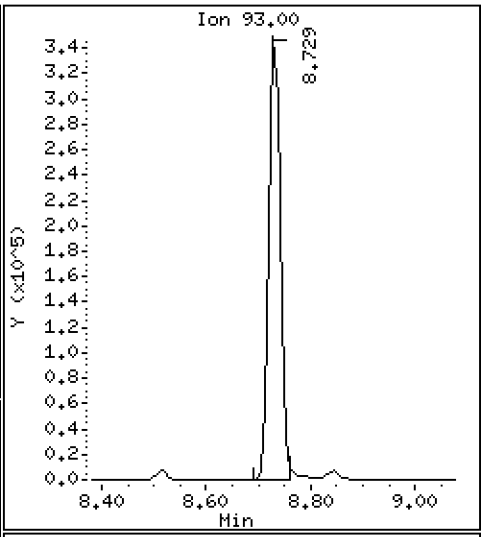
Column phase: ZB-5msi

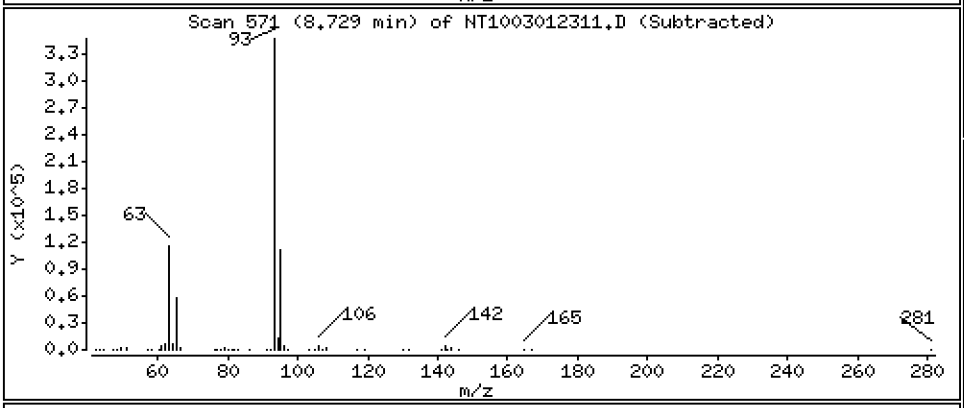
Column diameter: 0.25

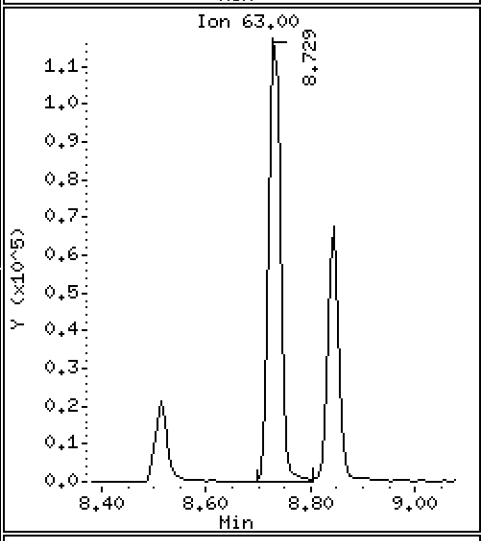
4 Bis(2-Chloroethyl)ether

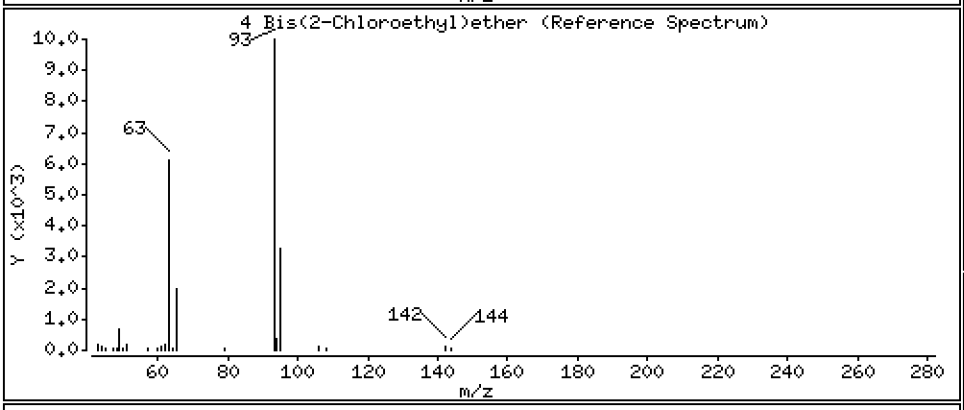
Concentration: 5.928 ug/mL

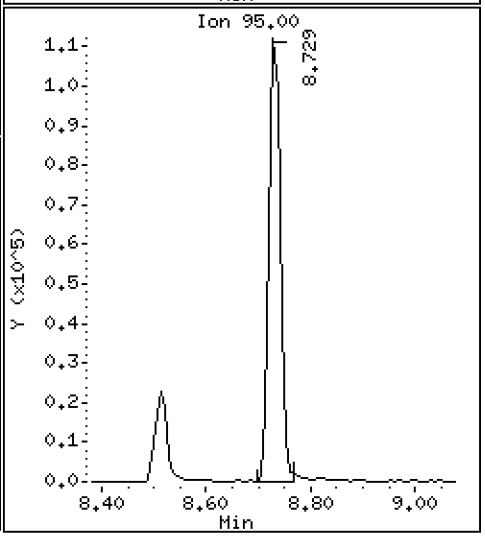


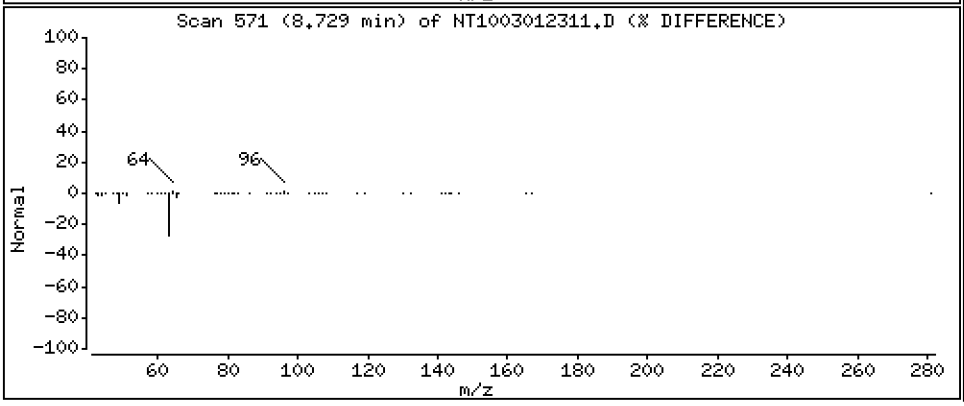












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

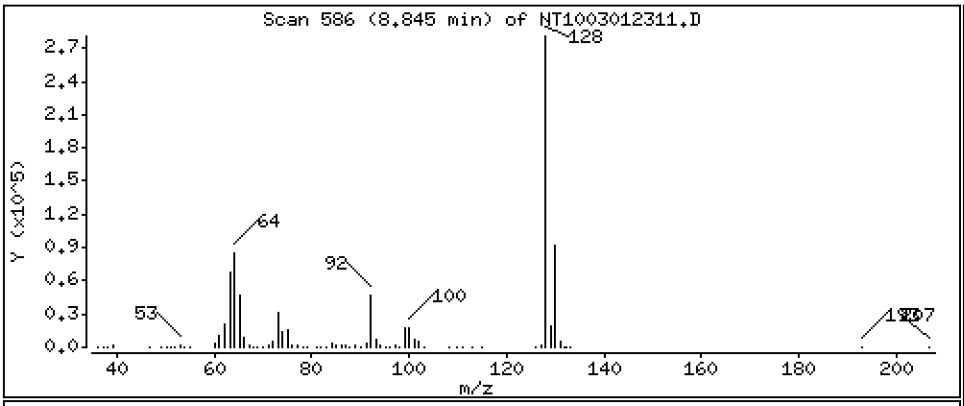
Operator: VTS

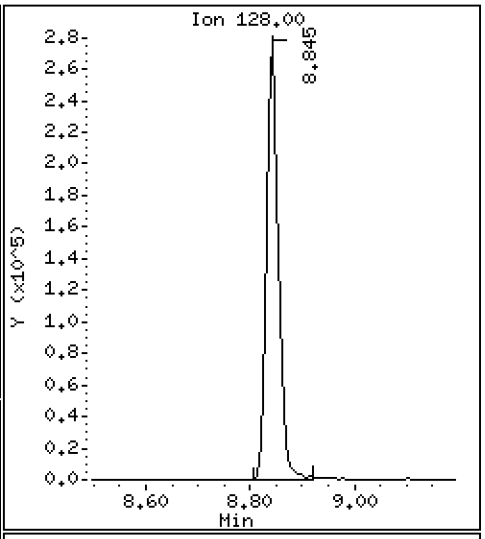
Column phase: ZB-5msi

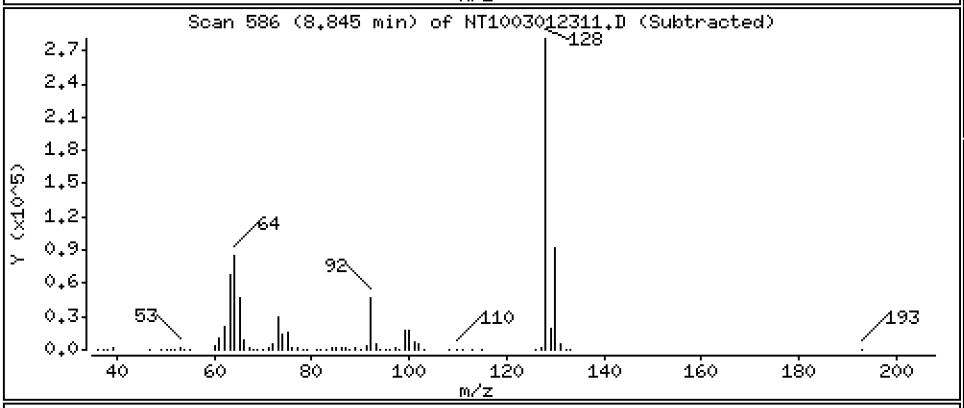
Column diameter: 0.25

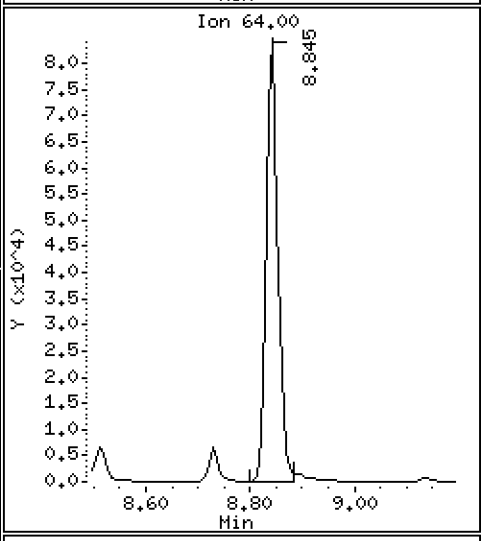
6 2-Chlorophenol

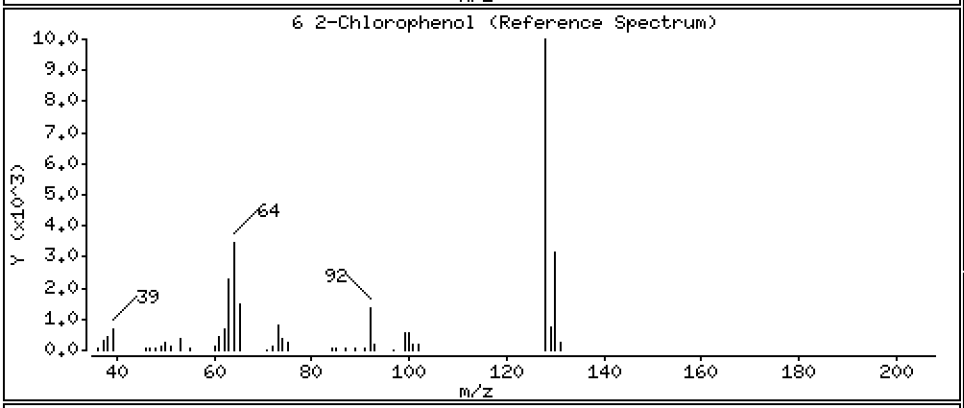
Concentration: 4.692 ug/mL

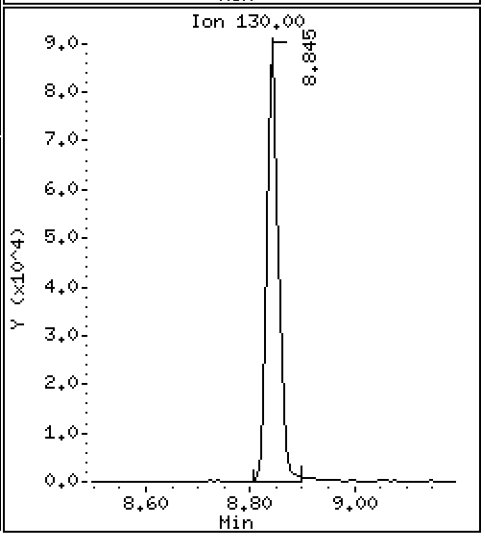


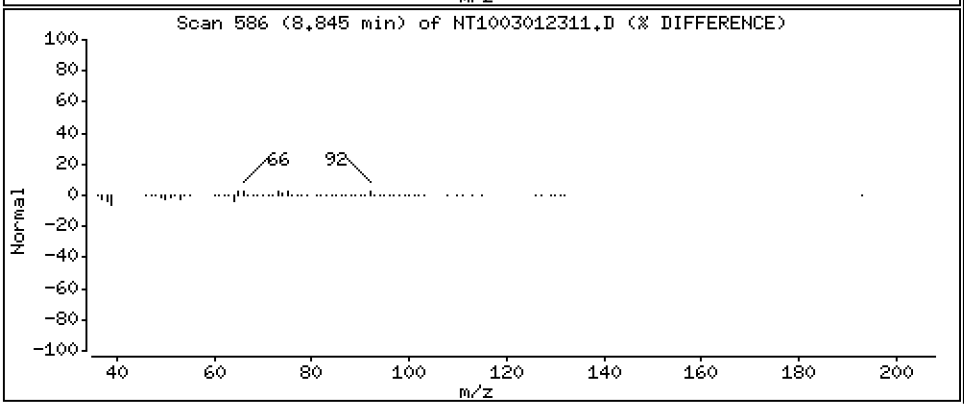












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

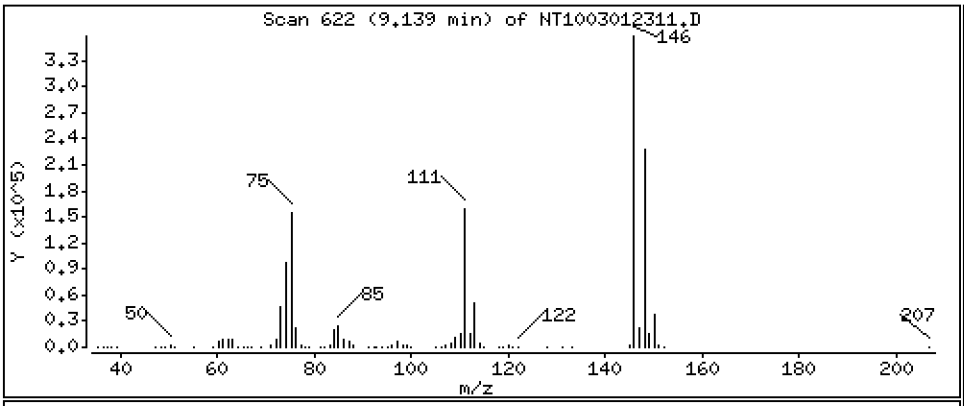
Operator: VTS

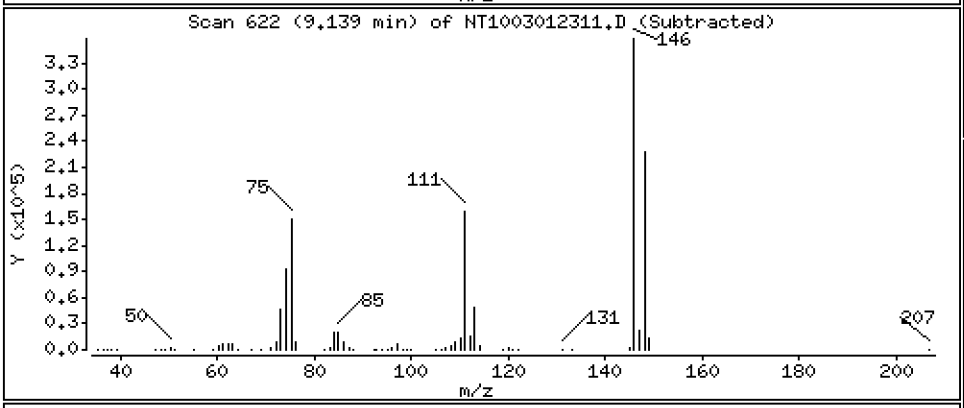
Column phase: ZB-5msi

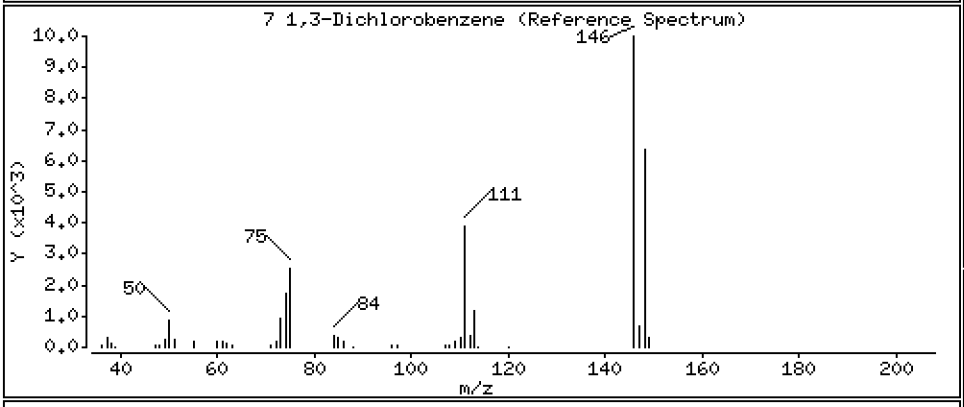
Column diameter: 0.25

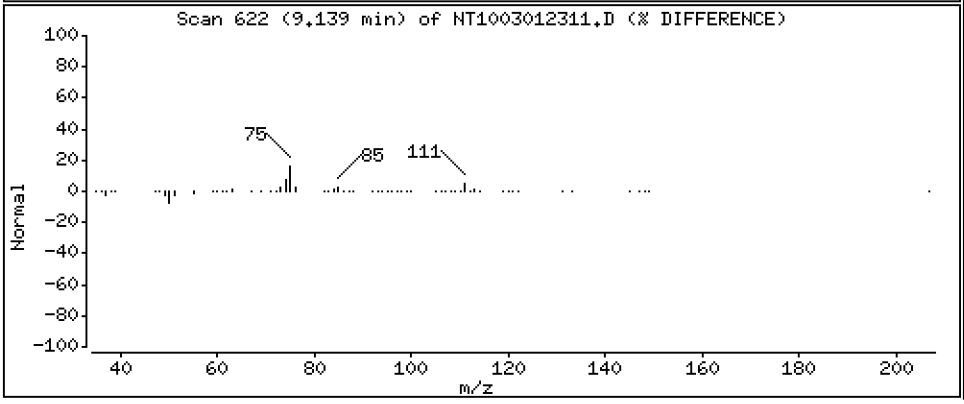
7 1,3-Dichlorobenzene

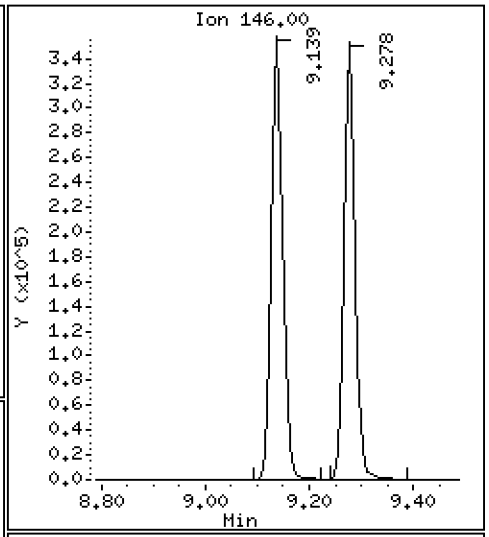
Concentration: 5.266 ug/mL

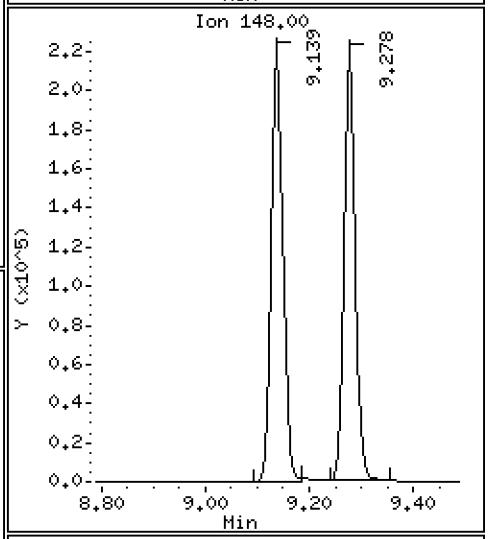


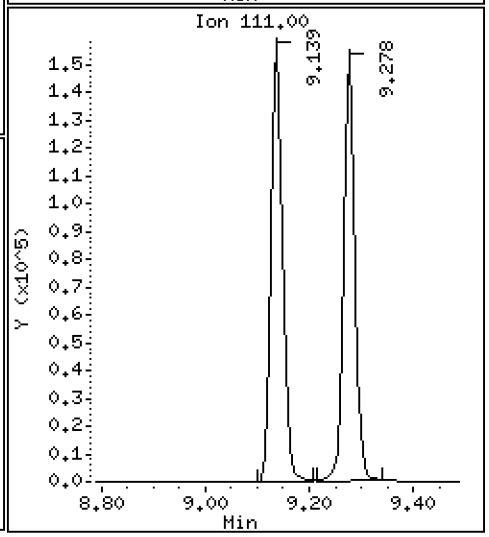












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

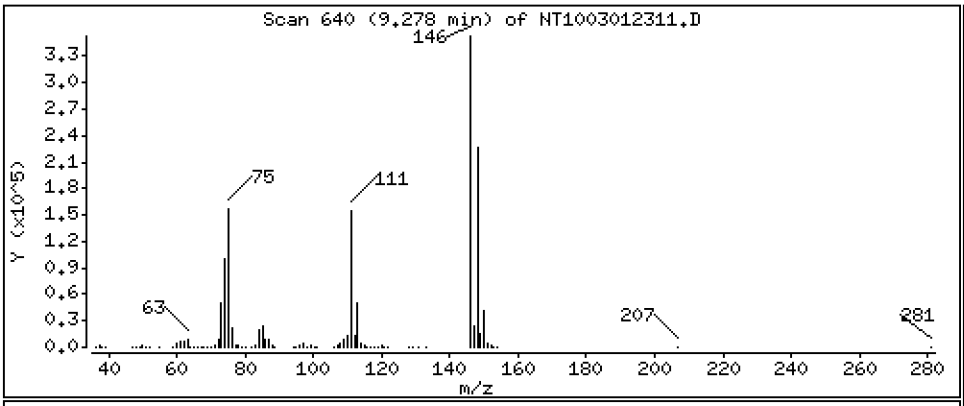
Operator: VTS

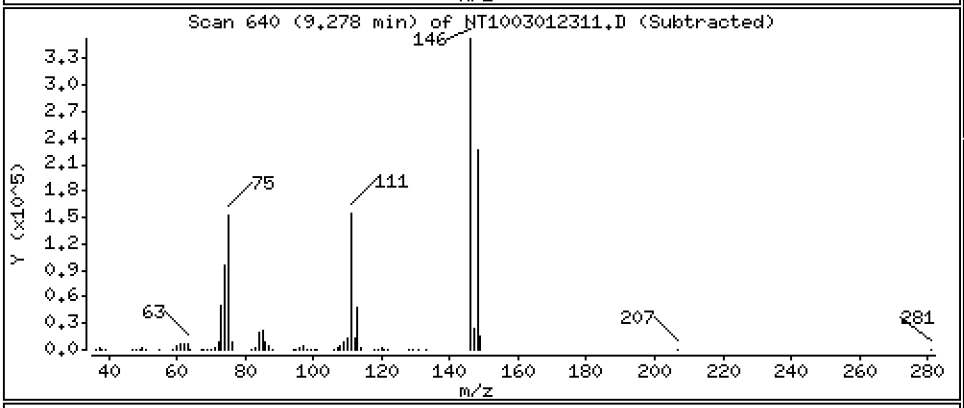
Column phase: ZB-5msi

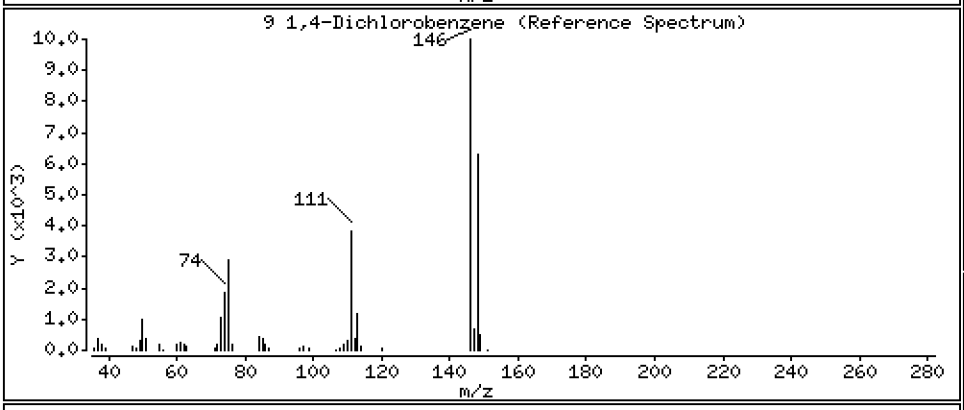
Column diameter: 0.25

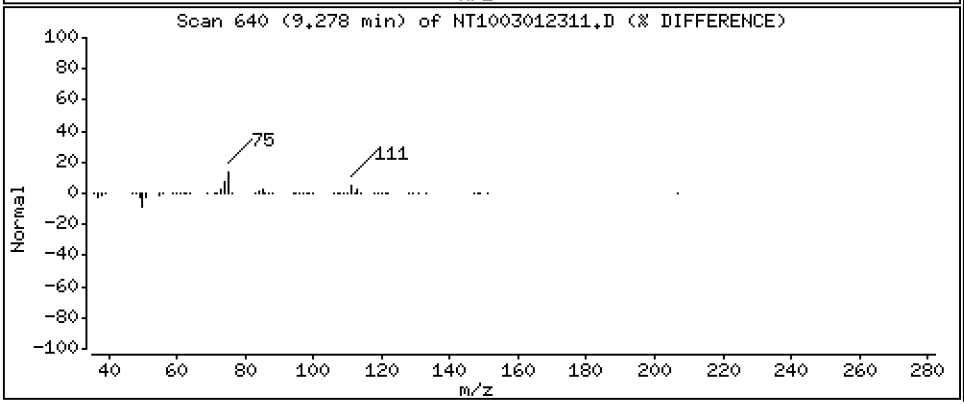
9 1,4-Dichlorobenzene

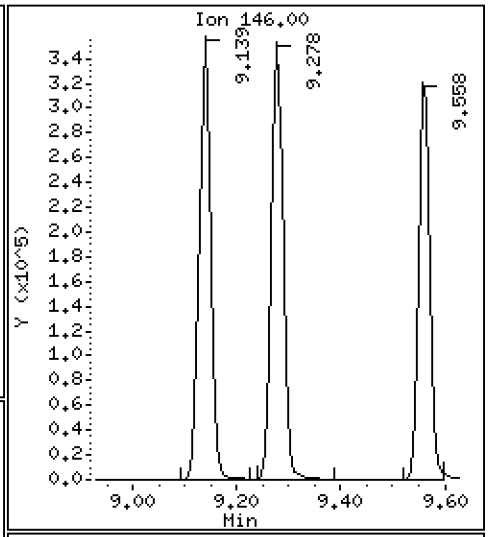
Concentration: 5.216 ug/mL

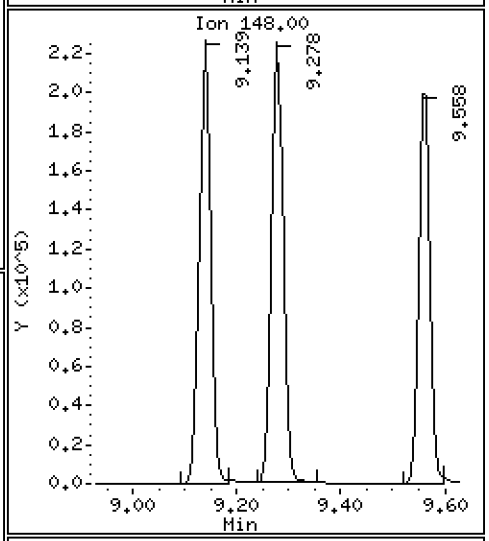


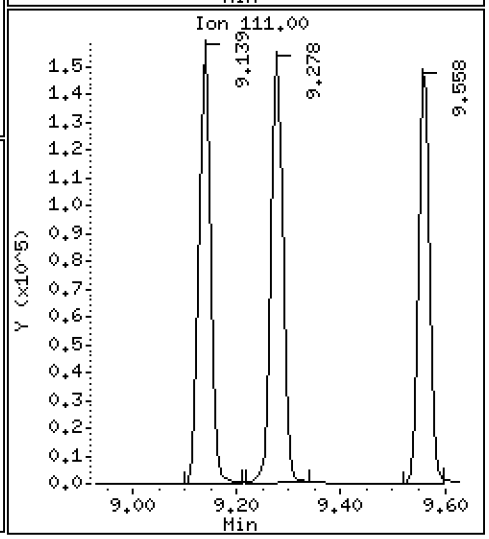












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

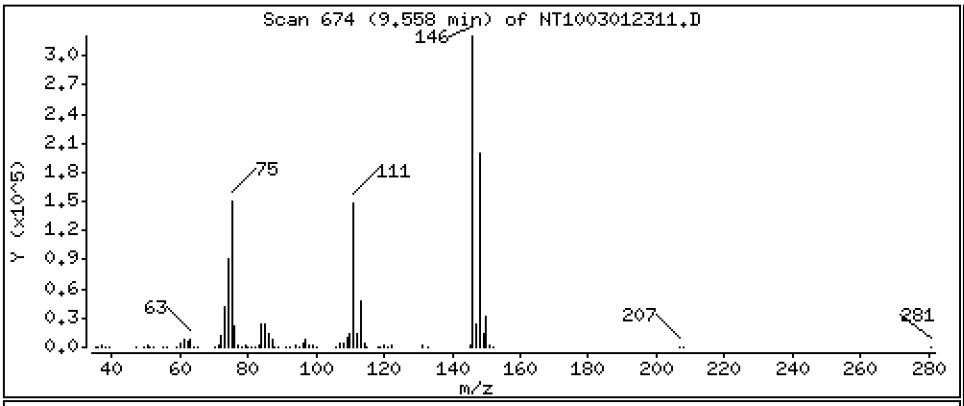
Operator: VTS

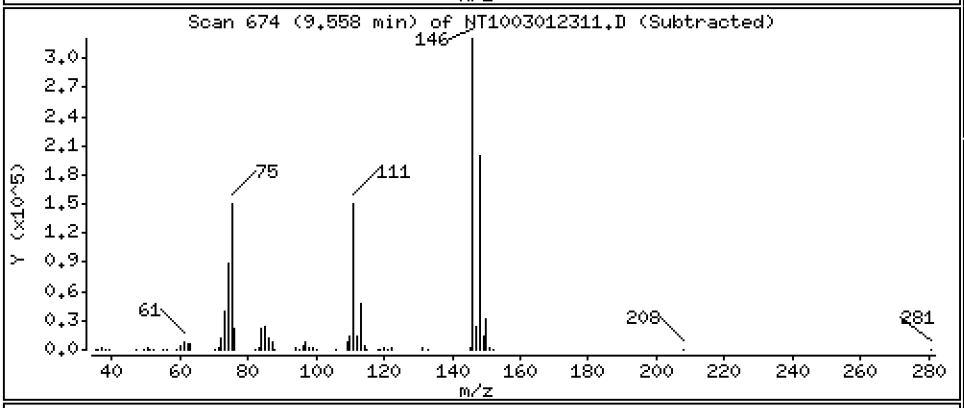
Column phase: ZB-5msi

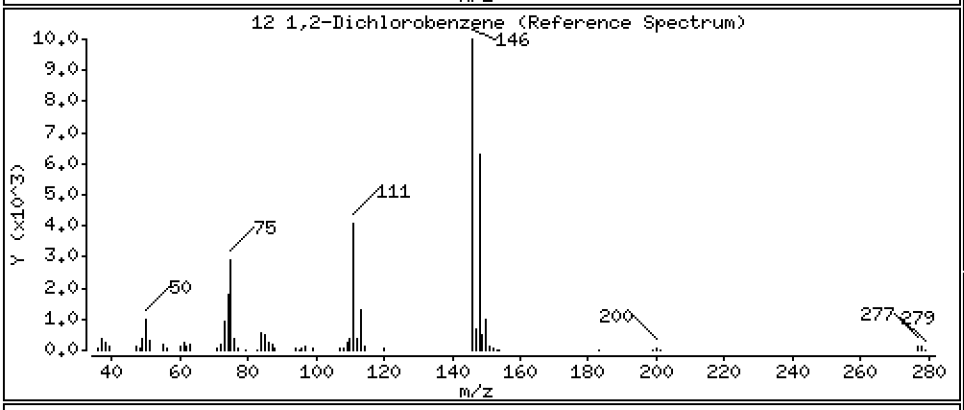
Column diameter: 0.25

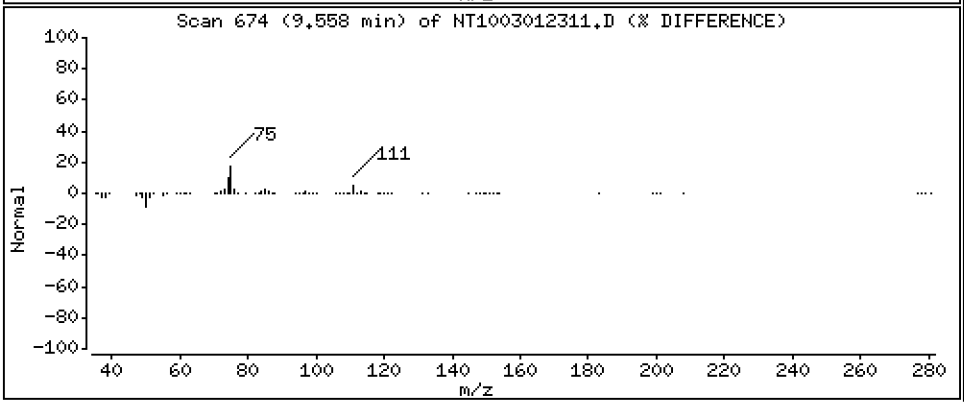
12 1,2-Dichlorobenzene

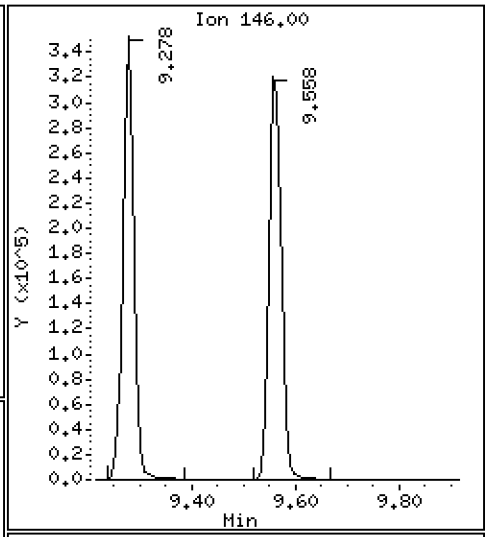
Concentration: 5.194 ug/mL

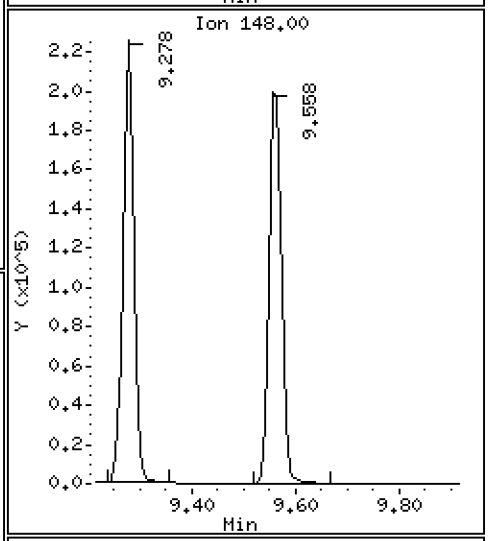


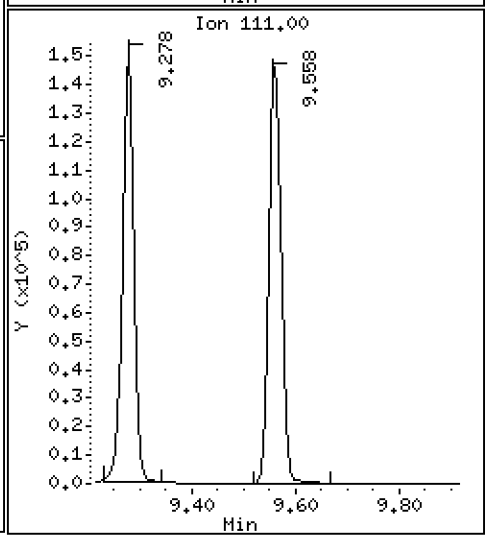












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

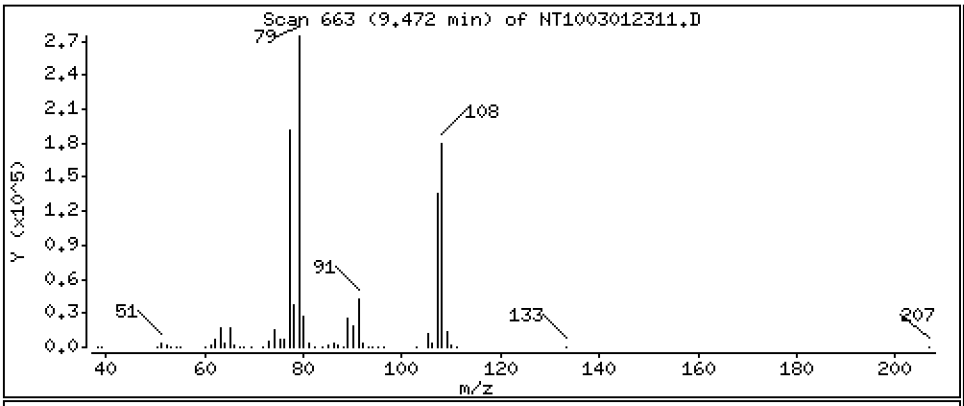
Operator: VTS

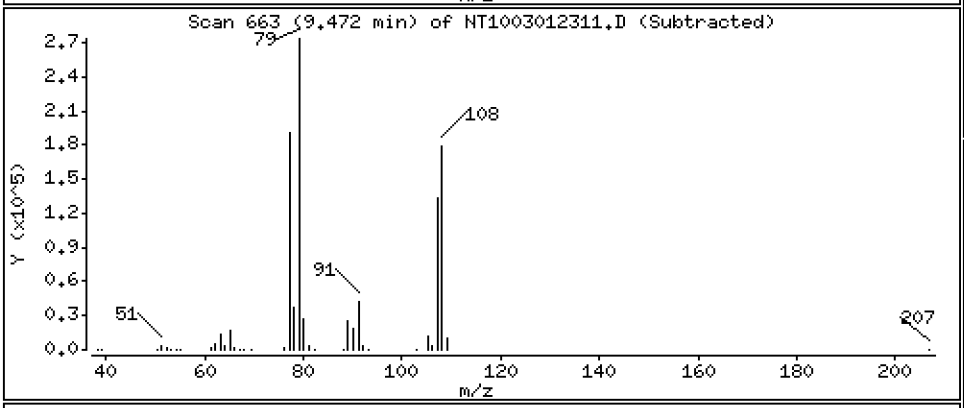
Column phase: ZB-5msi

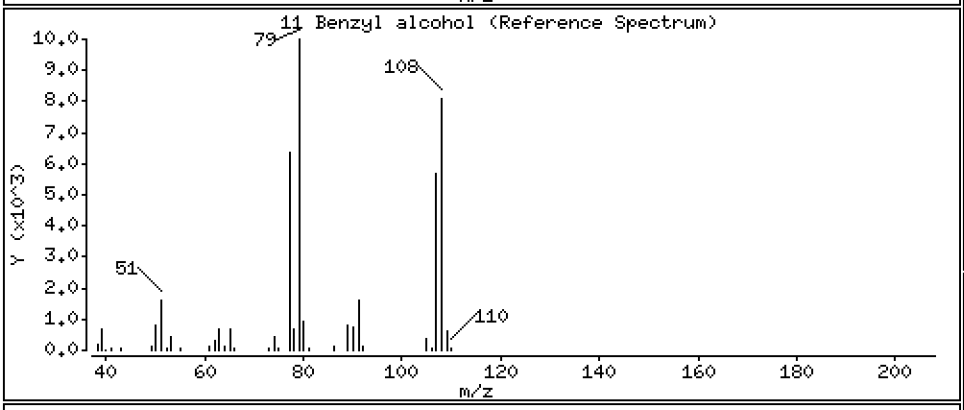
Column diameter: 0.25

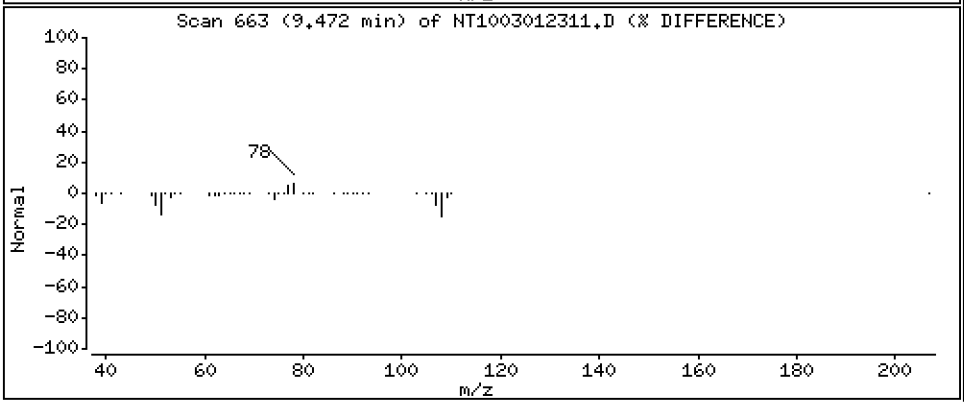
11 Benzyl alcohol

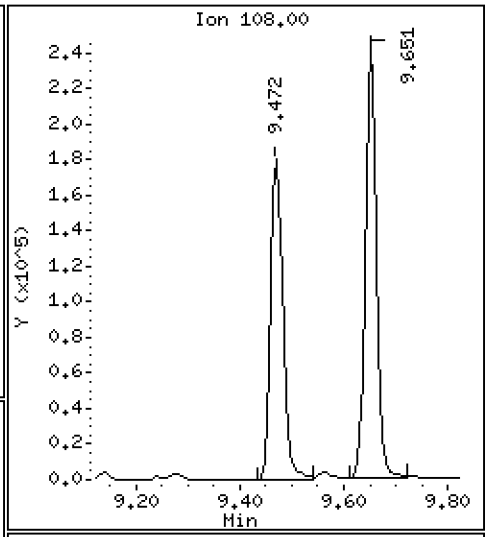
Concentration: 4.898 ug/mL

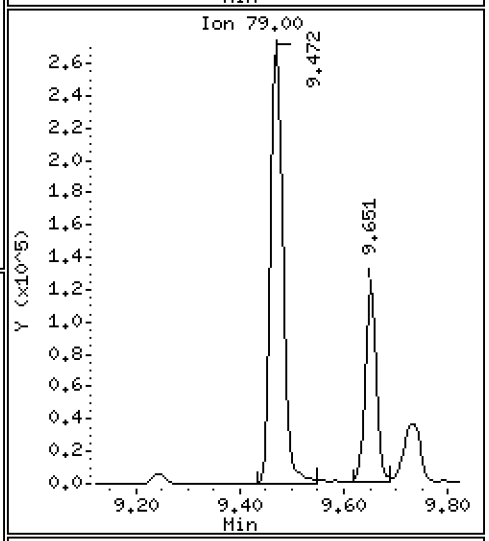


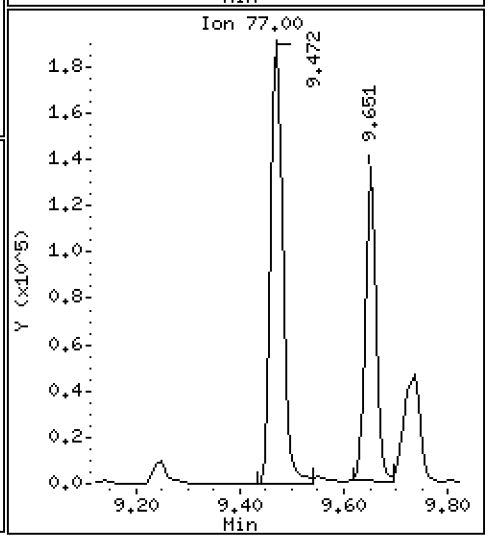












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

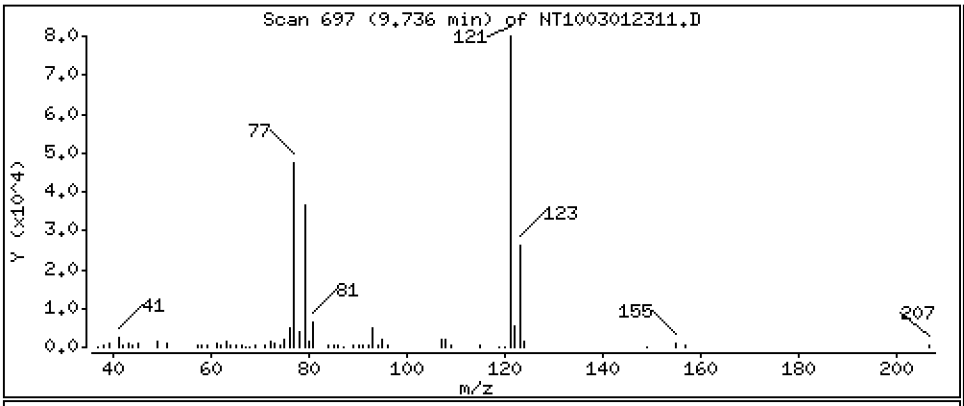
Operator: VTS

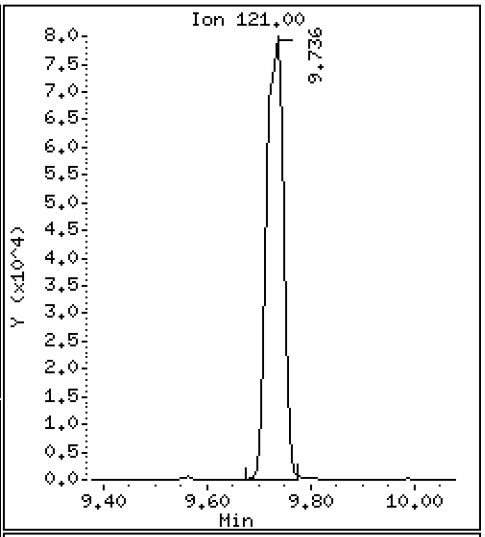
Column phase: ZB-5msi

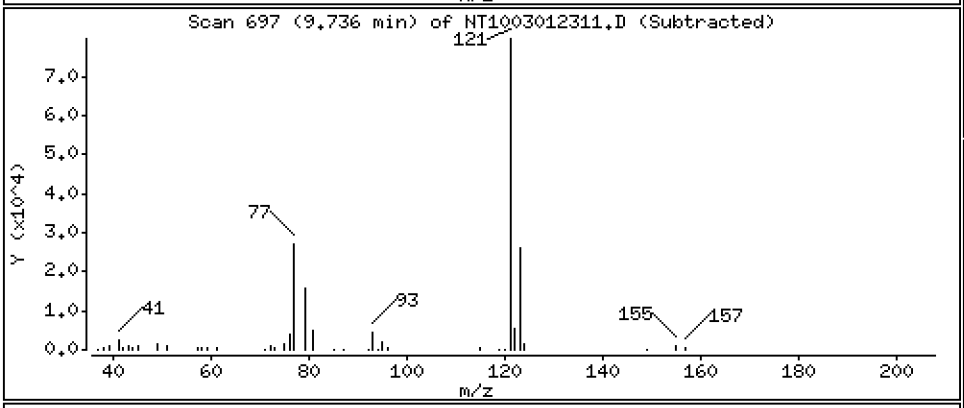
Column diameter: 0.25

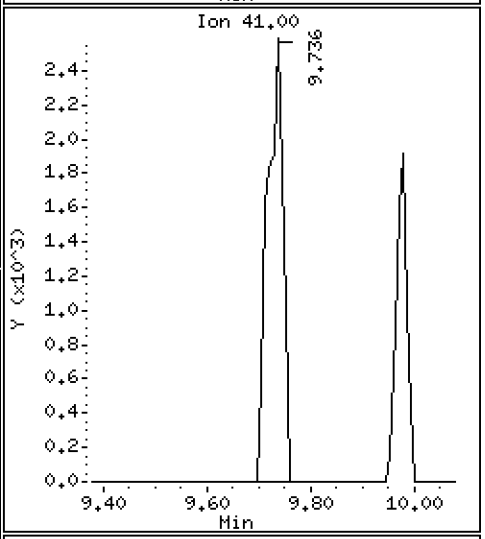
14 2,2'-oxybis(1-Chloropropane)

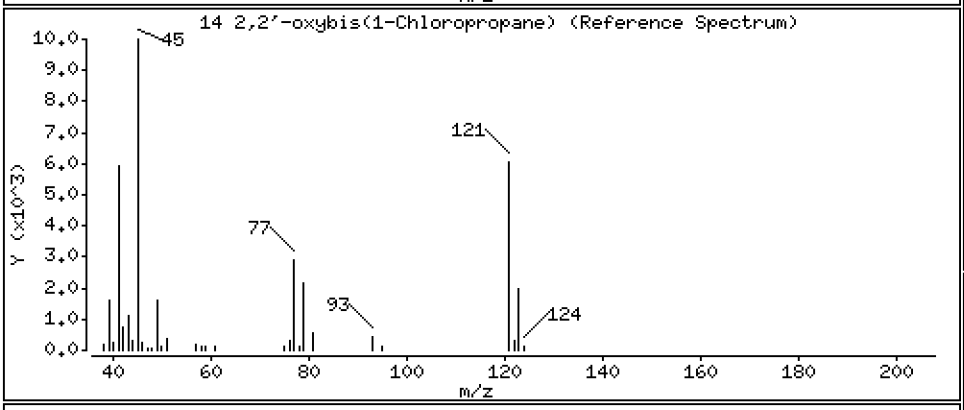
Concentration: 6.232 ug/mL

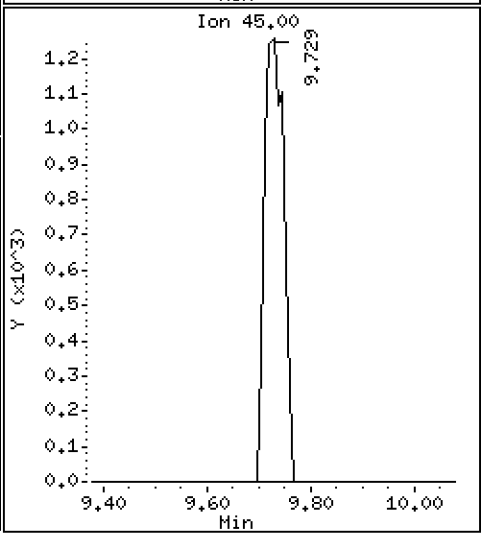


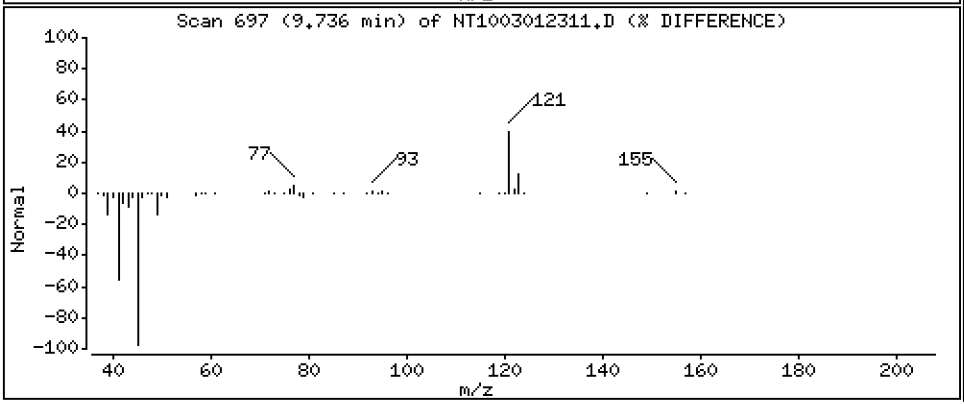












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

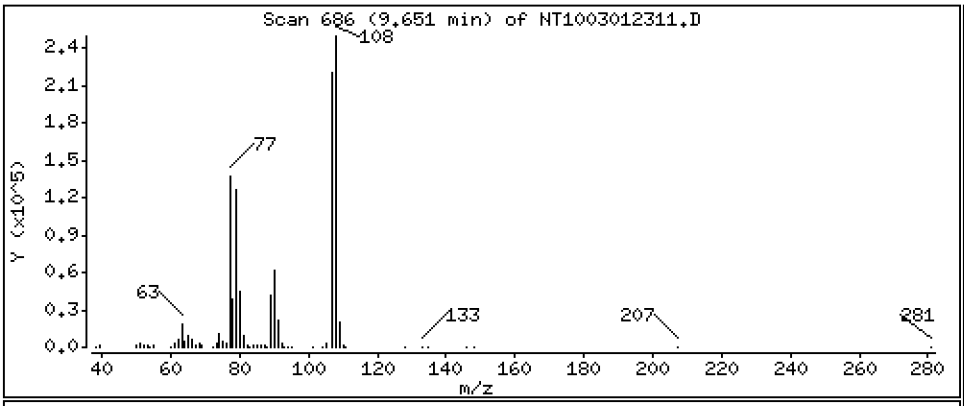
Operator: VTS

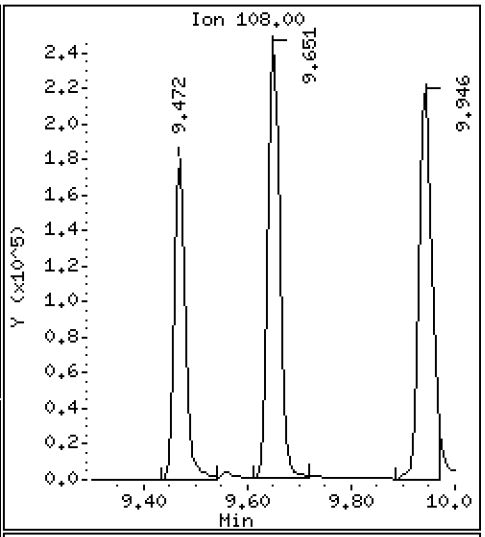
Column phase: ZB-5msi

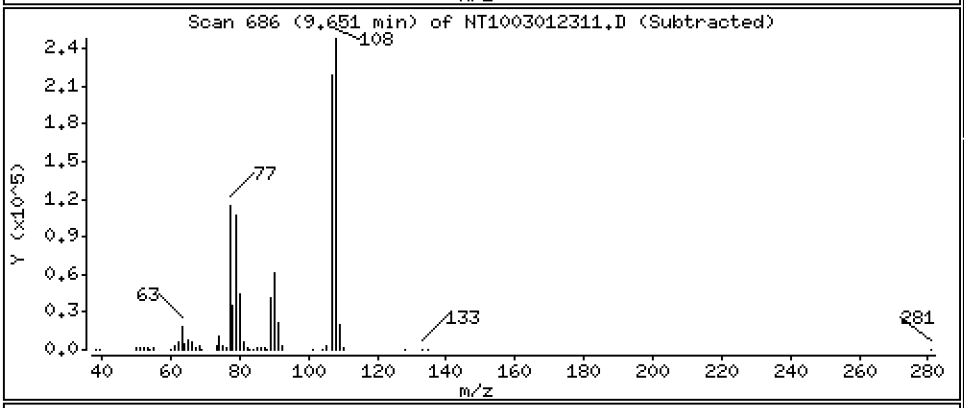
Column diameter: 0.25

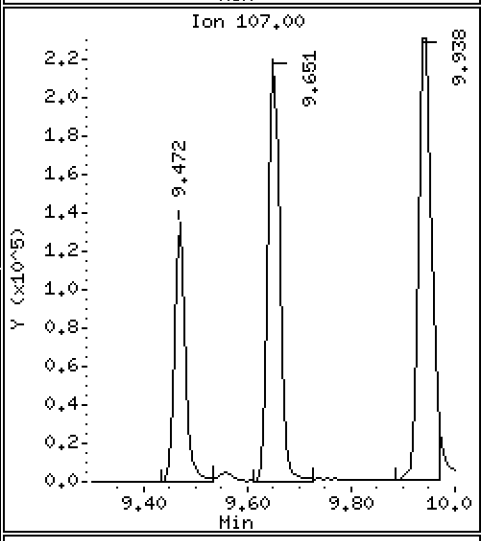
13 2-Methylphenol

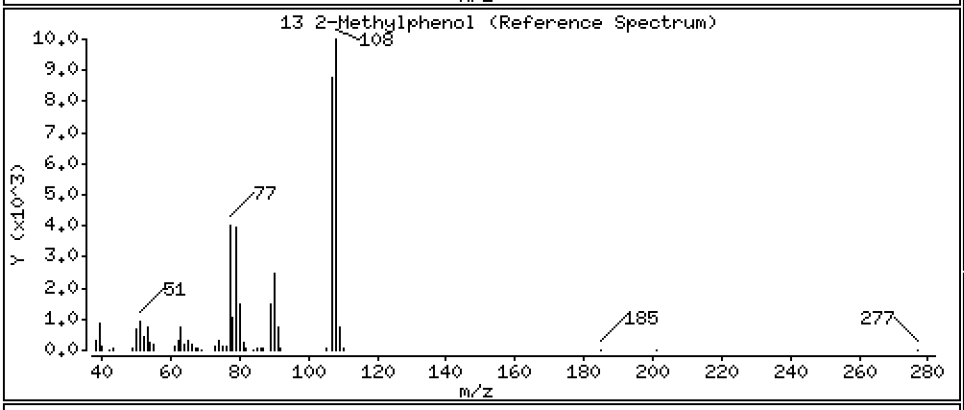
Concentration: 4.192 ug/mL

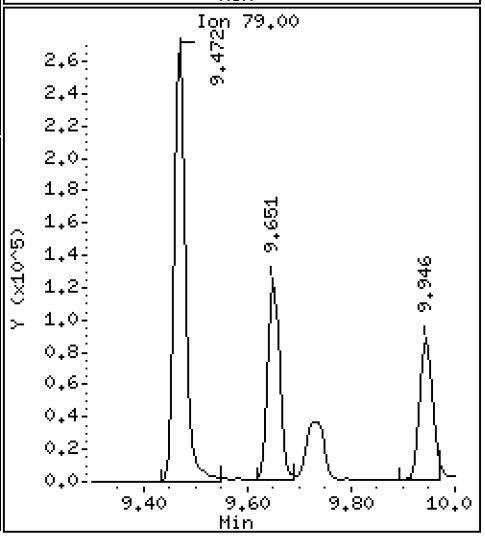


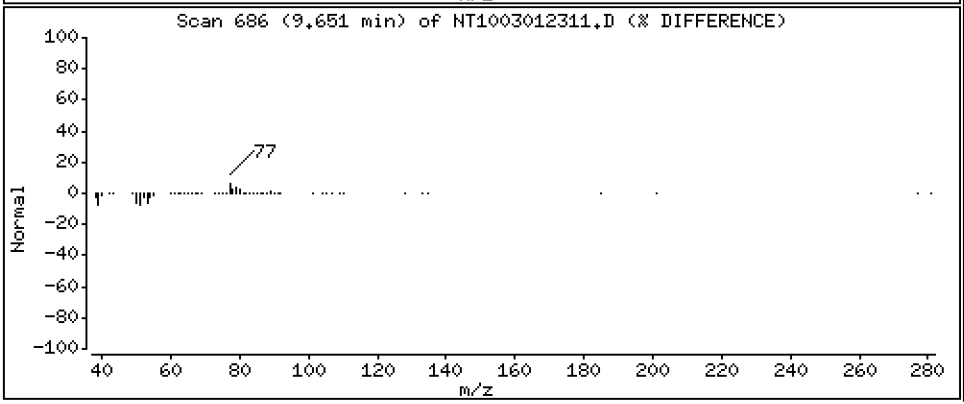












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

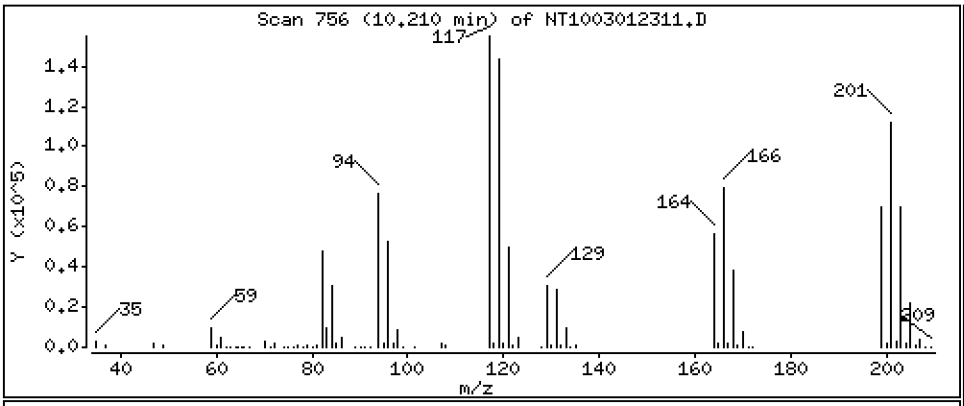
Operator: VTS

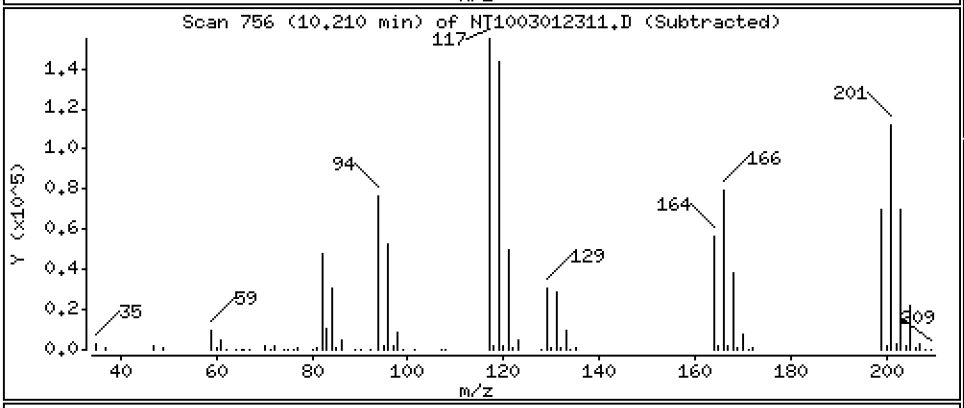
Column phase: ZB-5msi

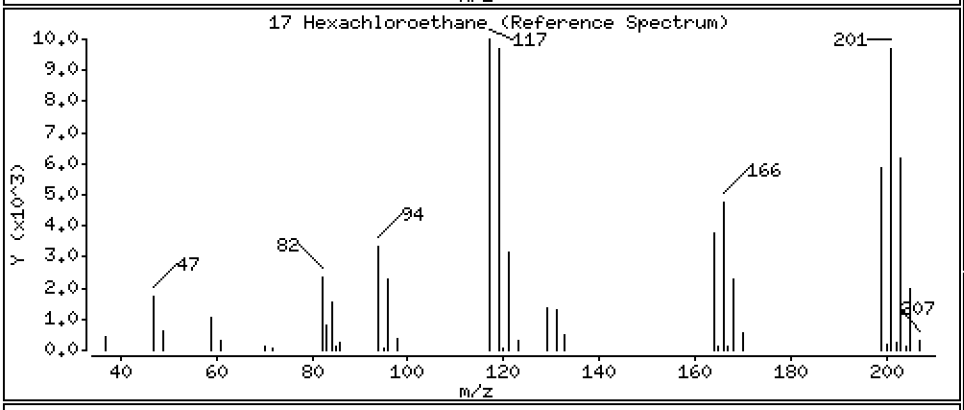
Column diameter: 0.25

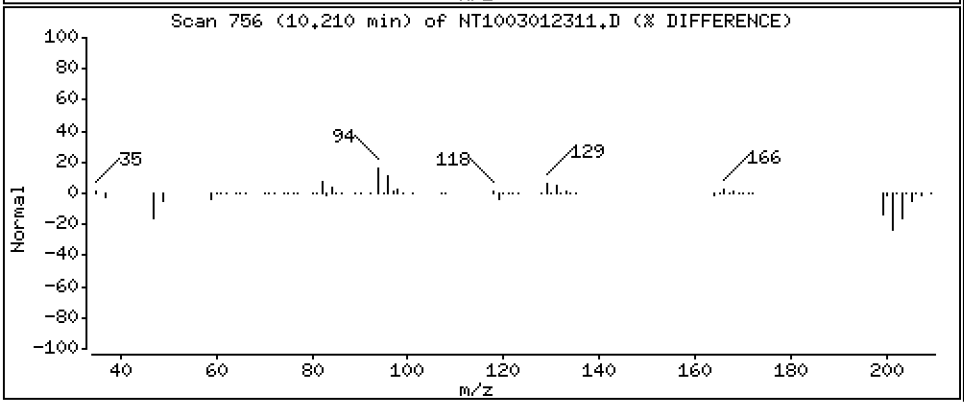
17 Hexachloroethane

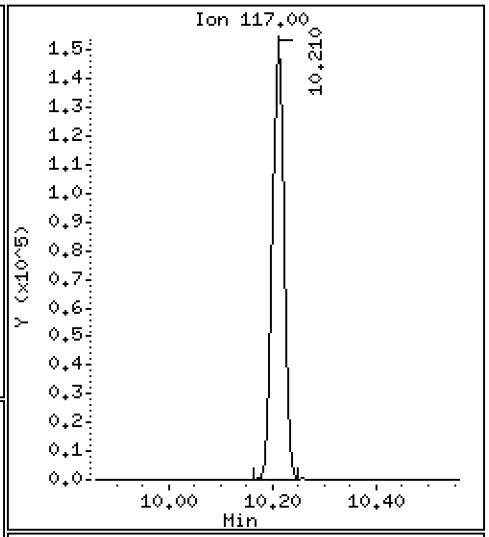
Concentration: 5.443 ug/mL

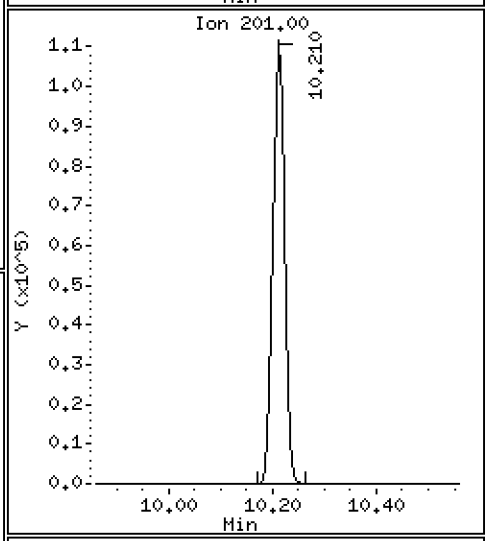


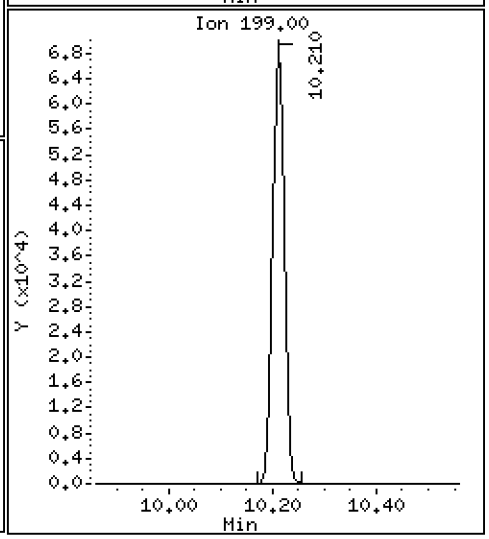












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

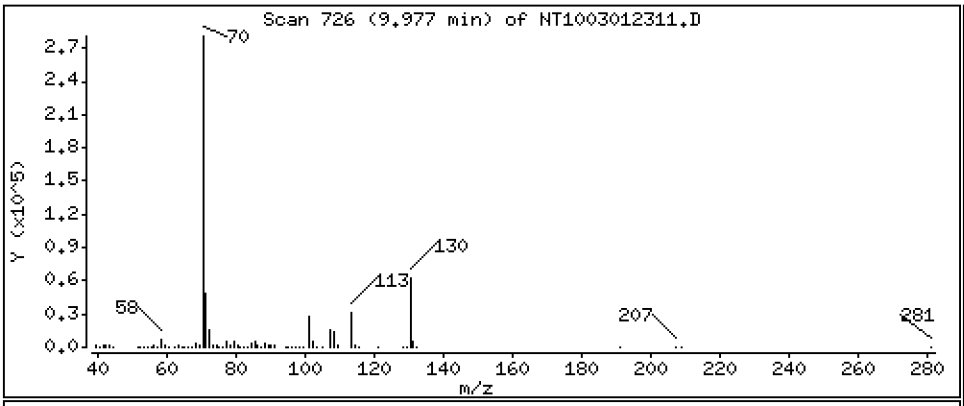
Operator: VTS

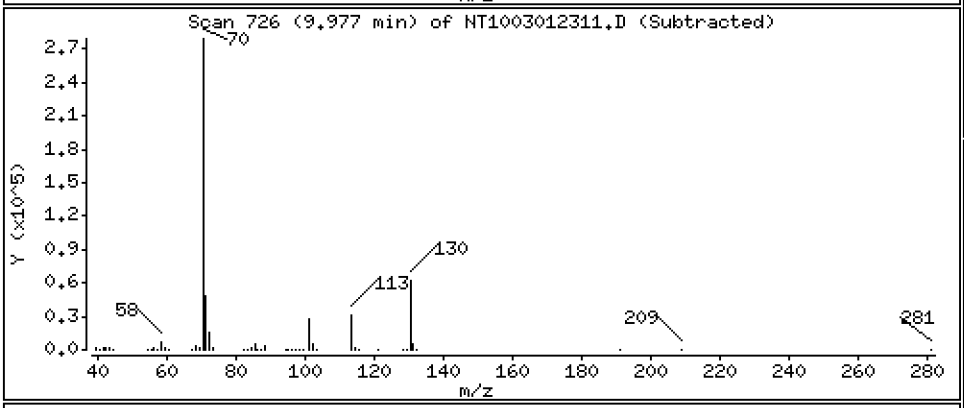
Column phase: ZB-5msi

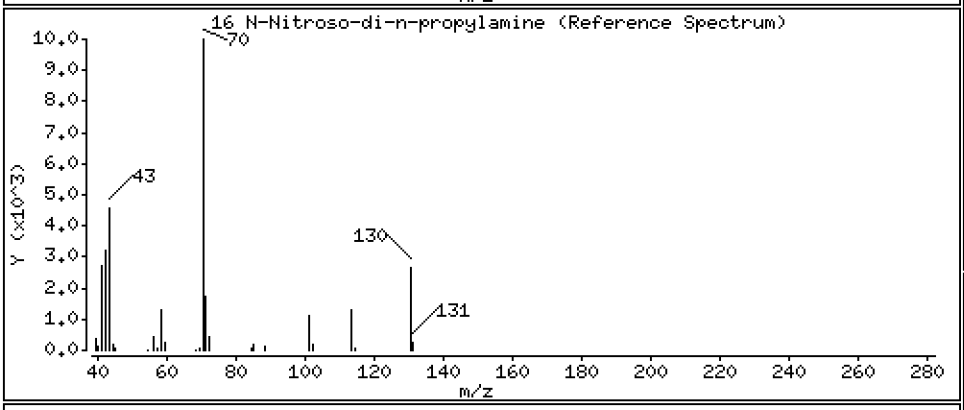
Column diameter: 0.25

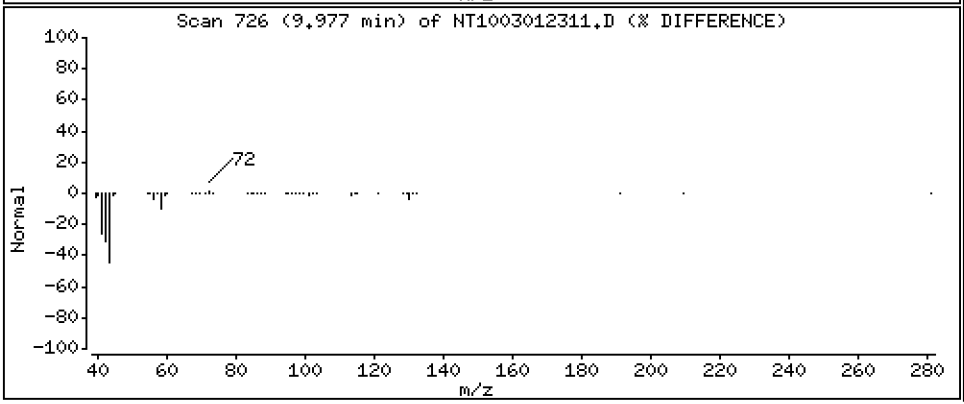
16 N-Nitroso-di-n-propylamine

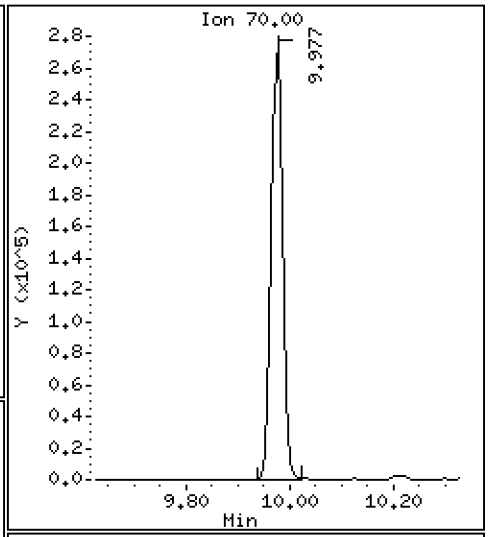
Concentration: 5.905 ug/mL

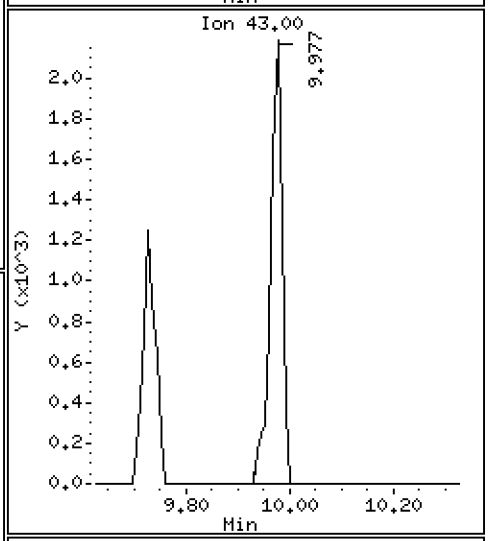


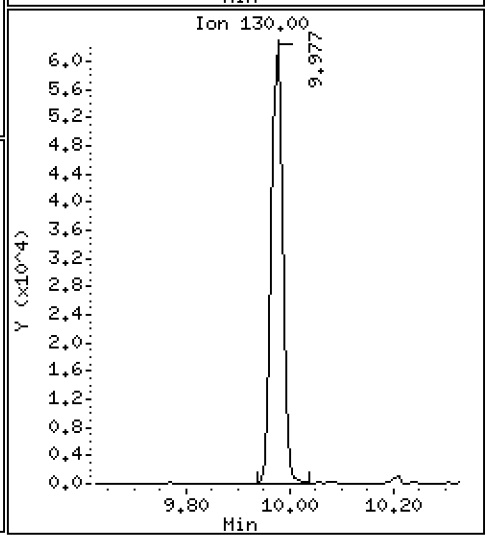












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

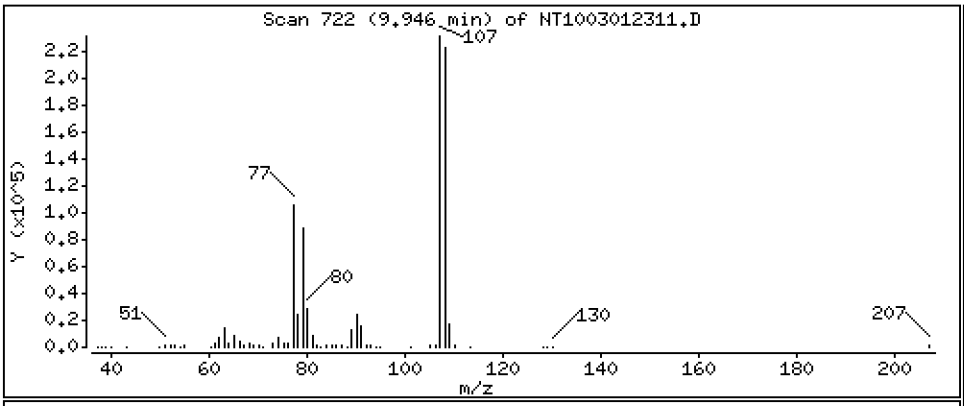
Operator: VTS

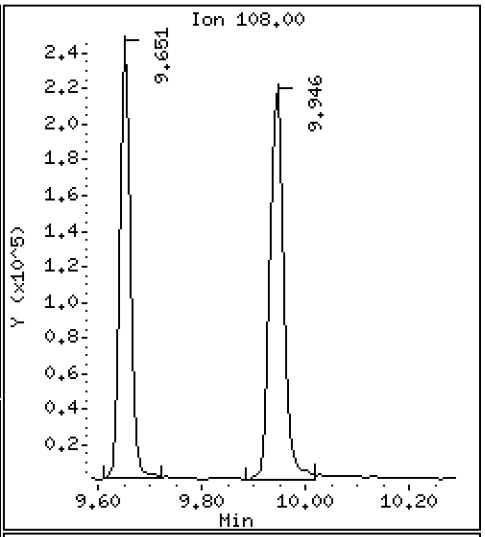
Column phase: ZB-5msi

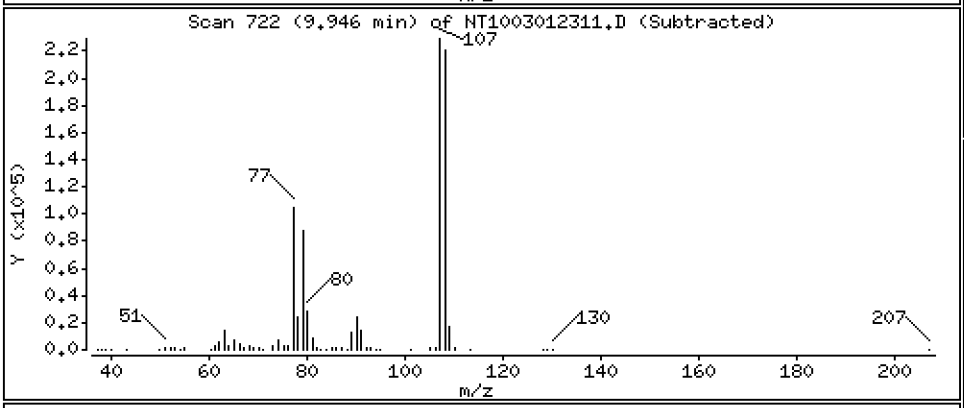
Column diameter: 0.25

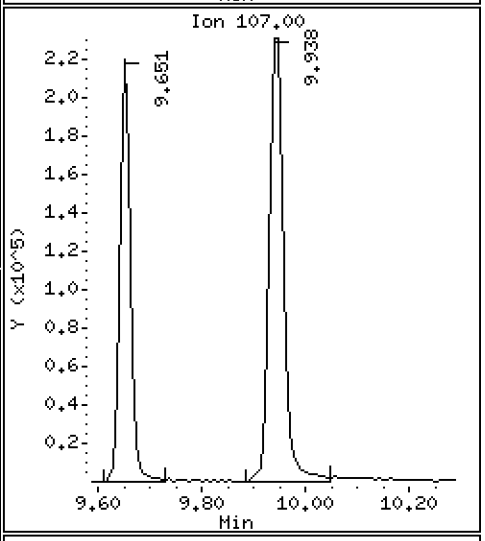
15 4-Methylphenol

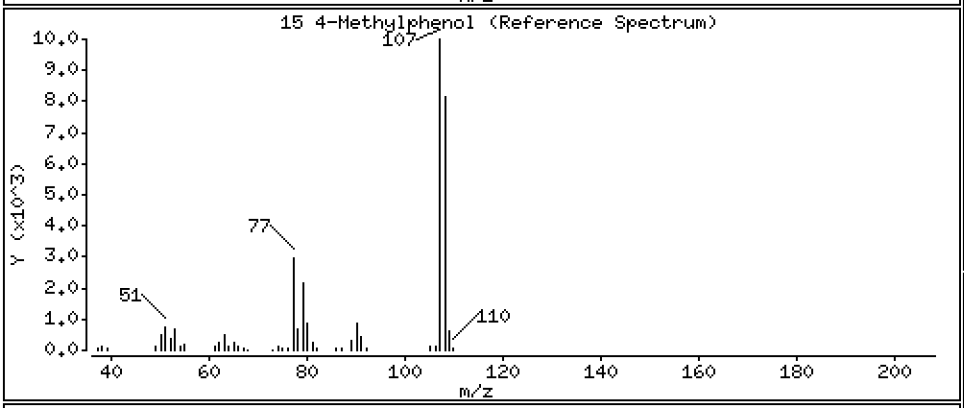
Concentration: 4.239 ug/mL

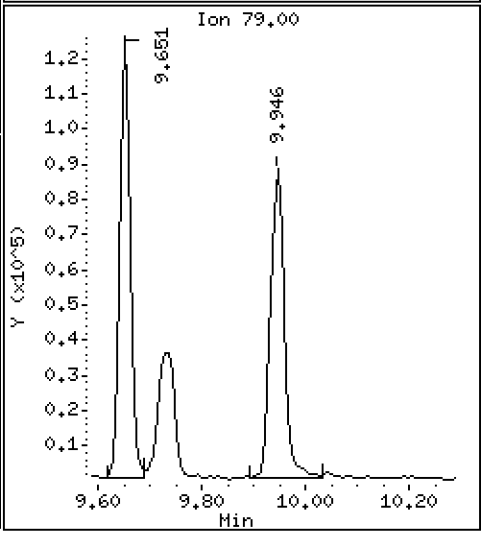


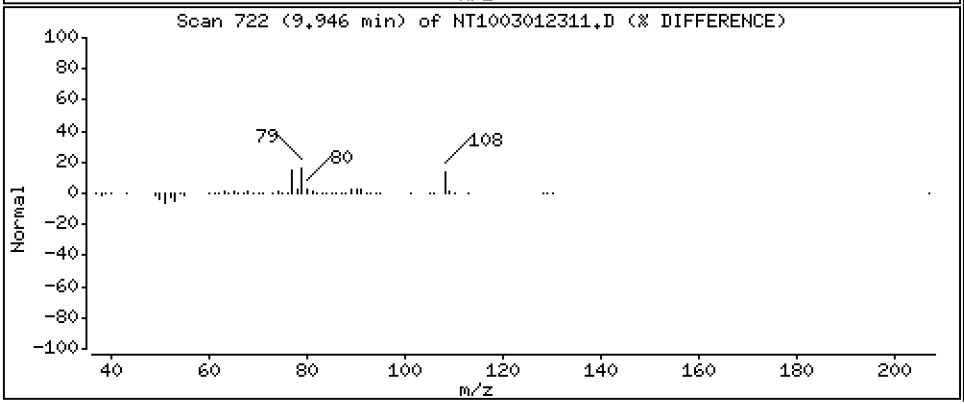












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

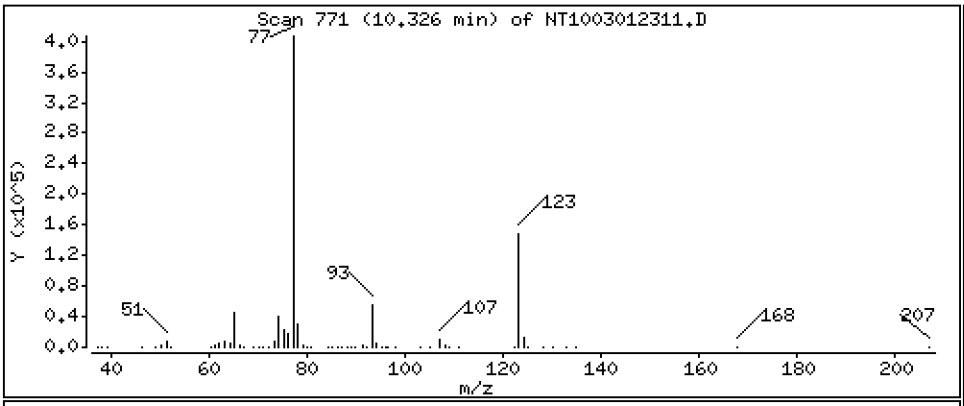
Operator: VTS

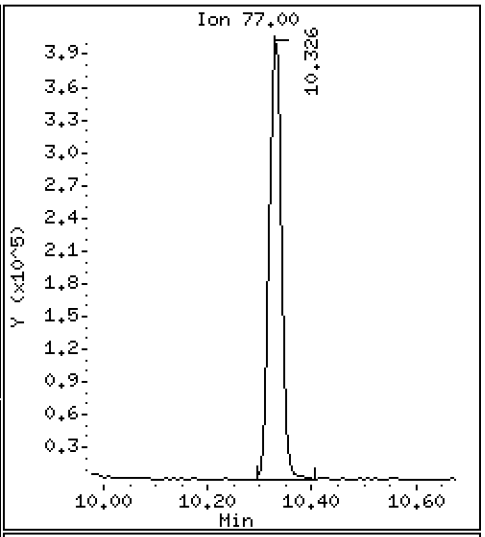
Column phase: ZB-5msi

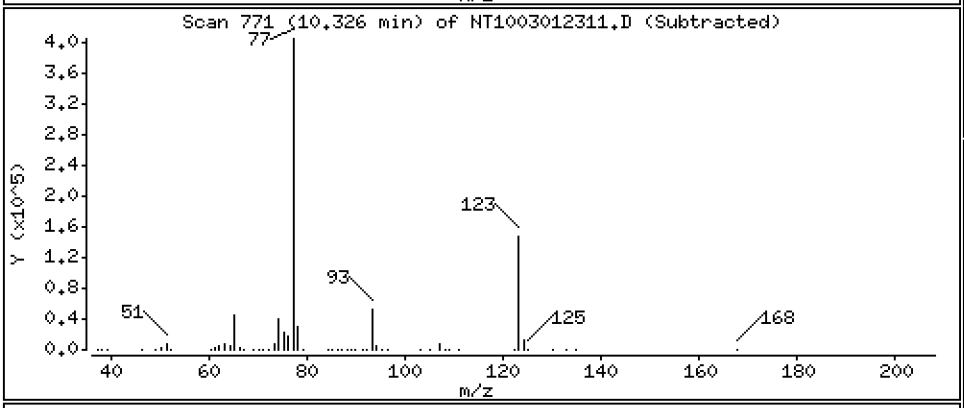
Column diameter: 0.25

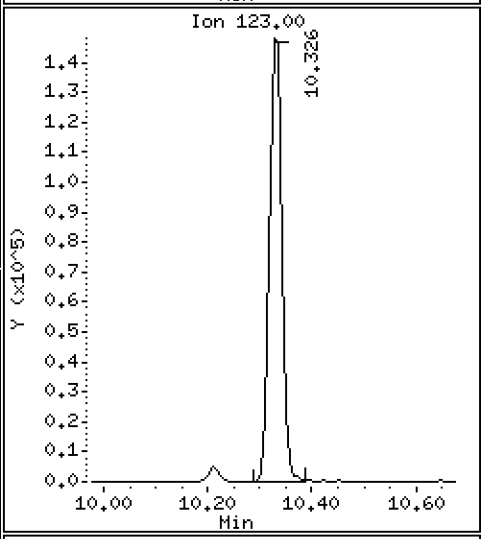
19 Nitrobenzene

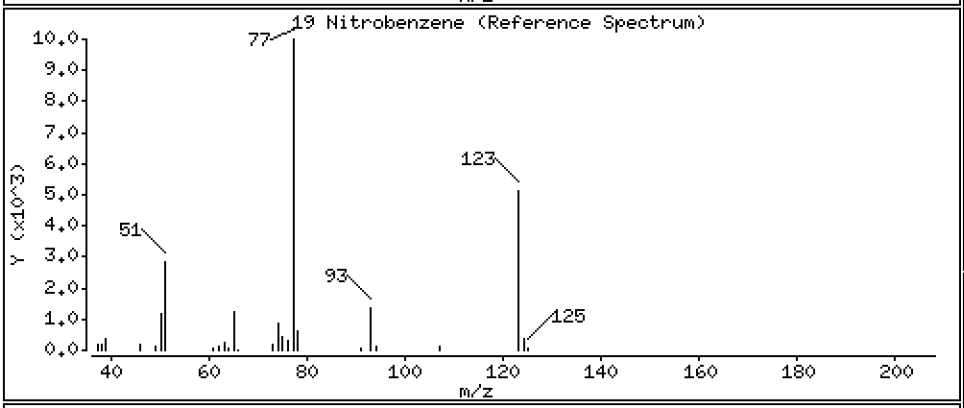
Concentration: 5.569 ug/mL

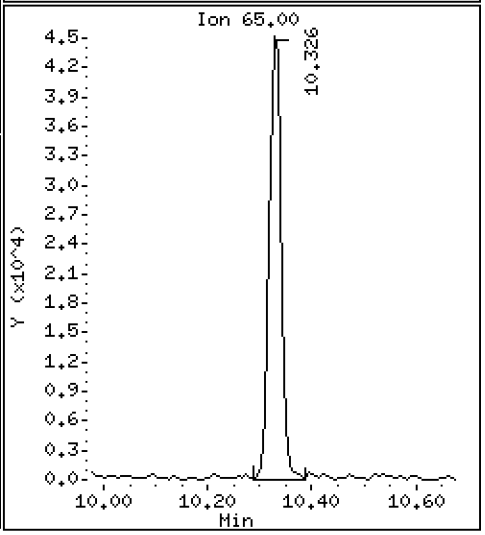


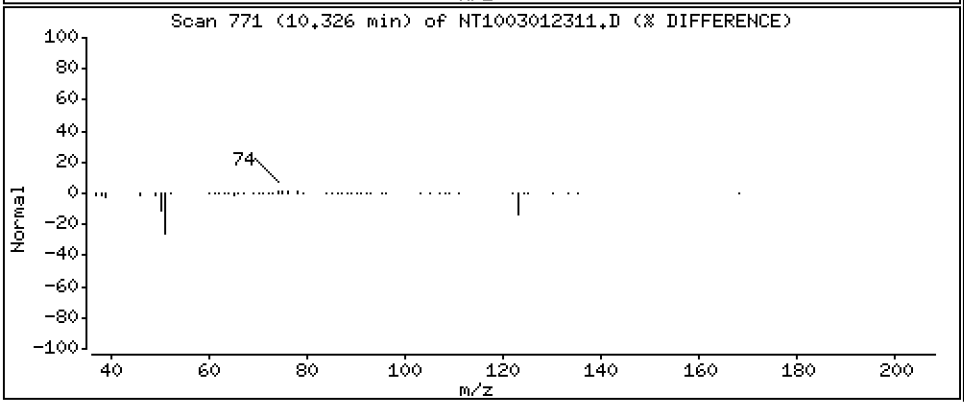












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

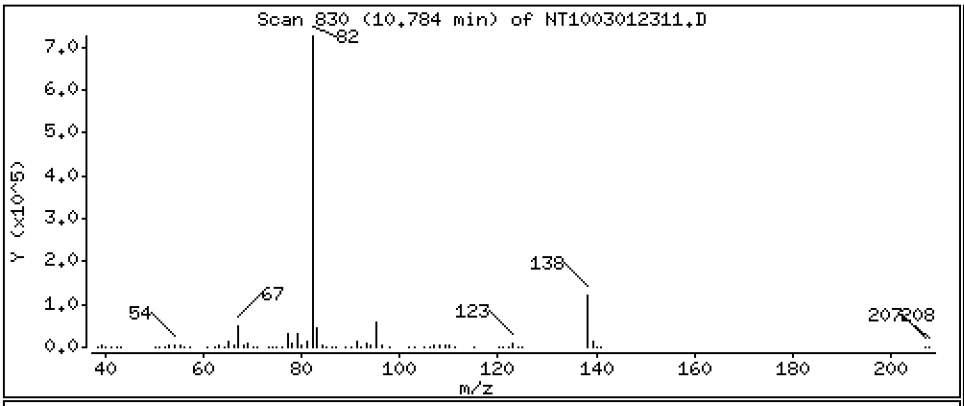
Operator: VTS

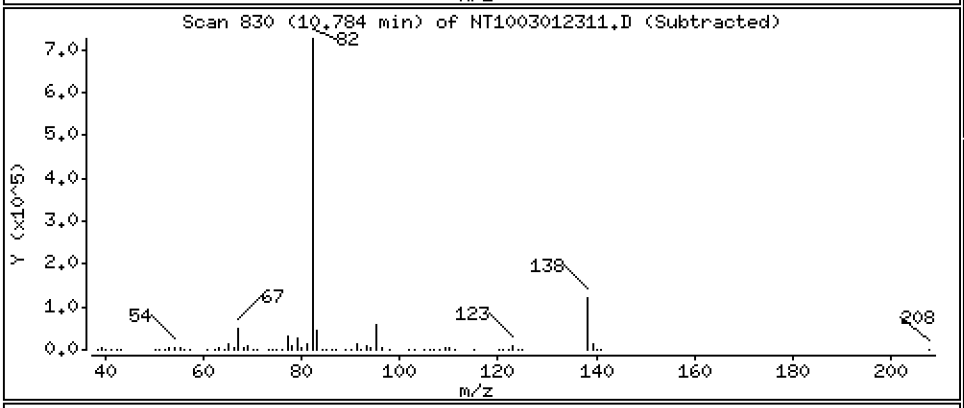
Column phase: ZB-5msi

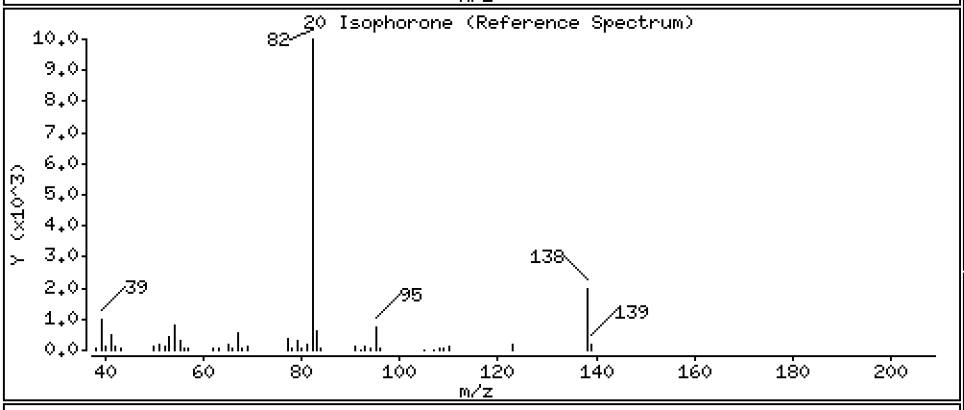
Column diameter: 0.25

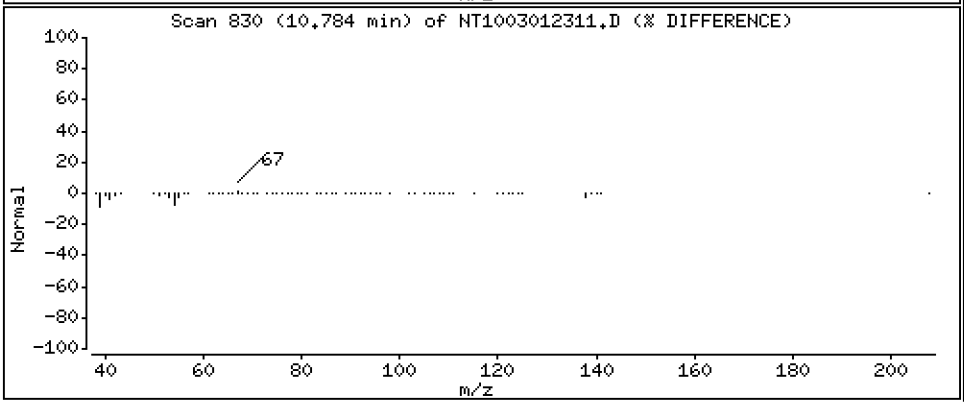
20 Isophorone

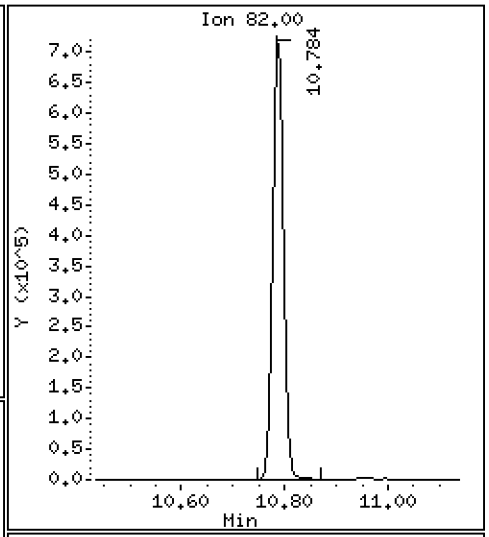
Concentration: 7.672 ug/mL

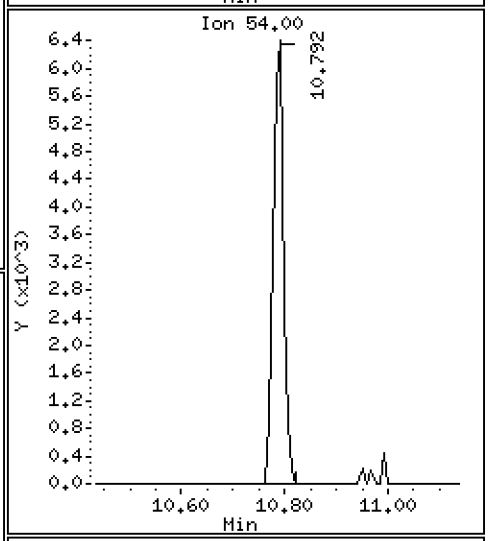


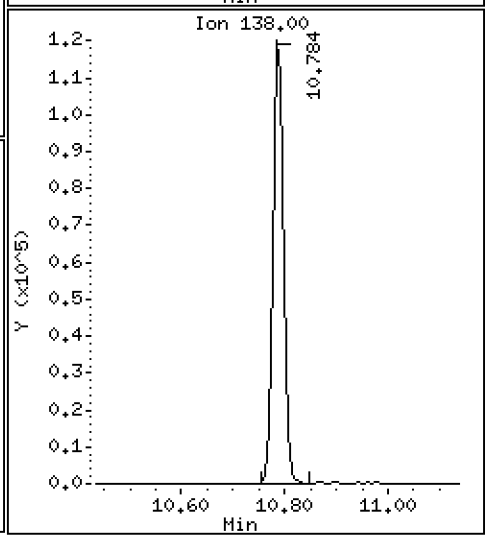












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

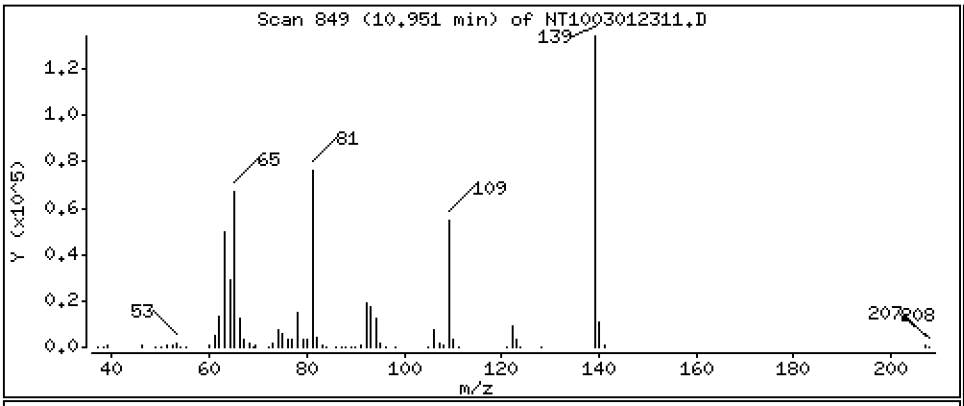
Operator: VTS

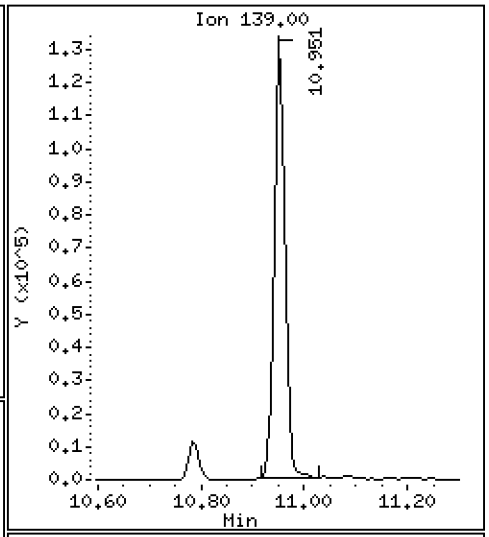
Column phase: ZB-5msi

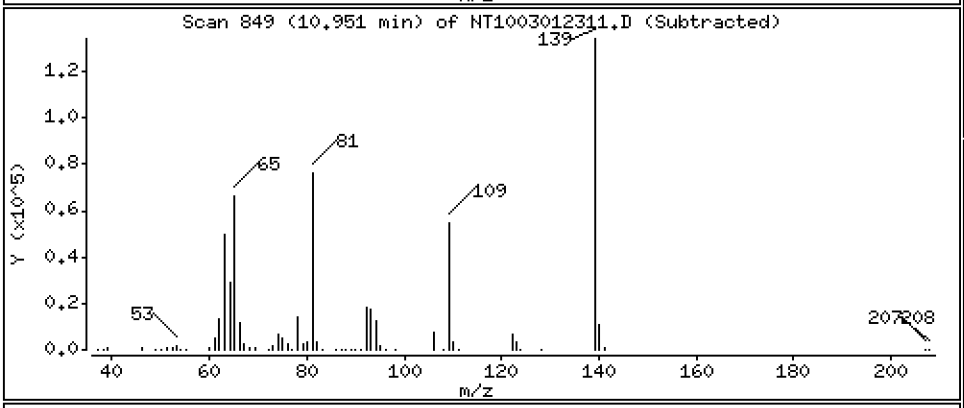
Column diameter: 0.25

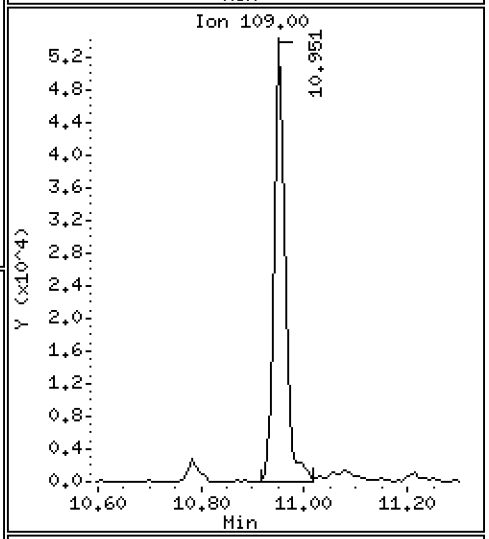
21 2-Nitrophenol

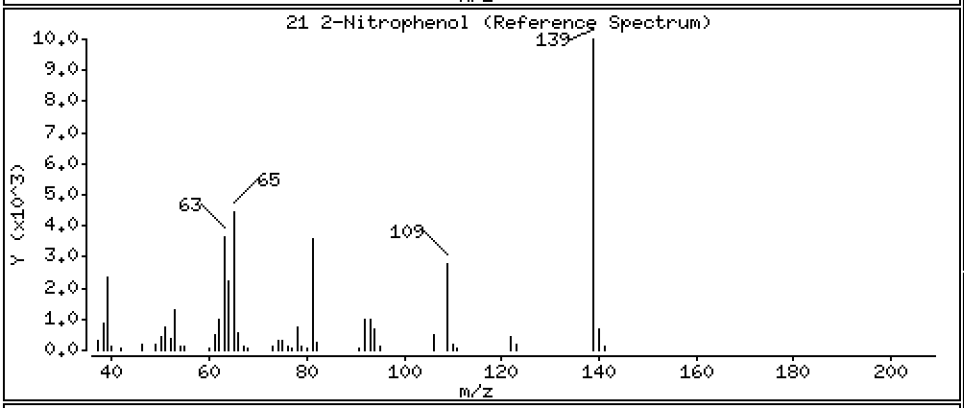
Concentration: 3.244 ug/mL

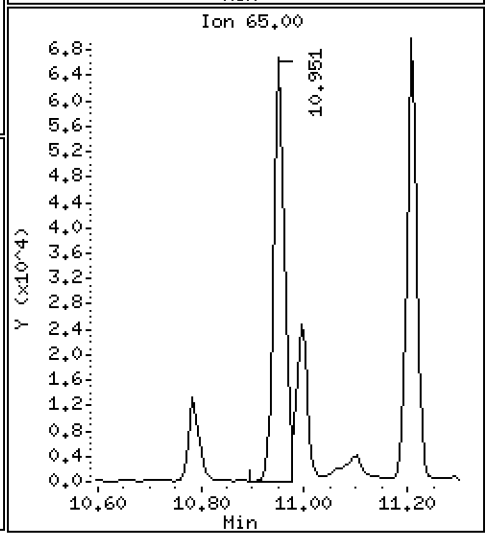


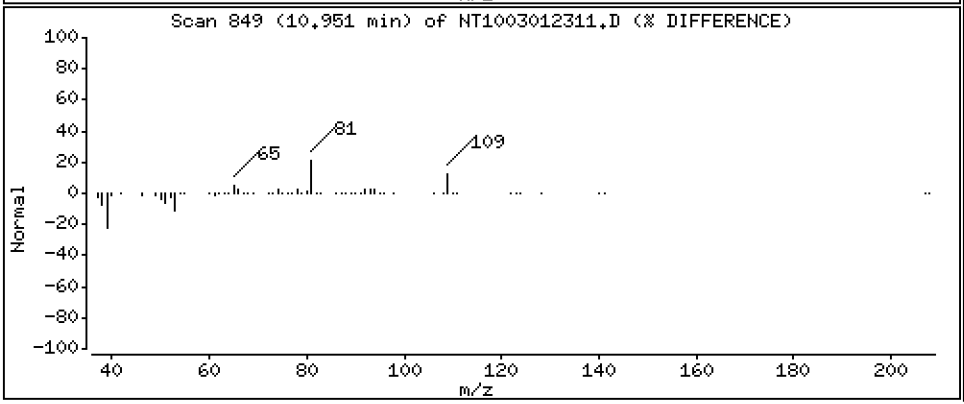












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

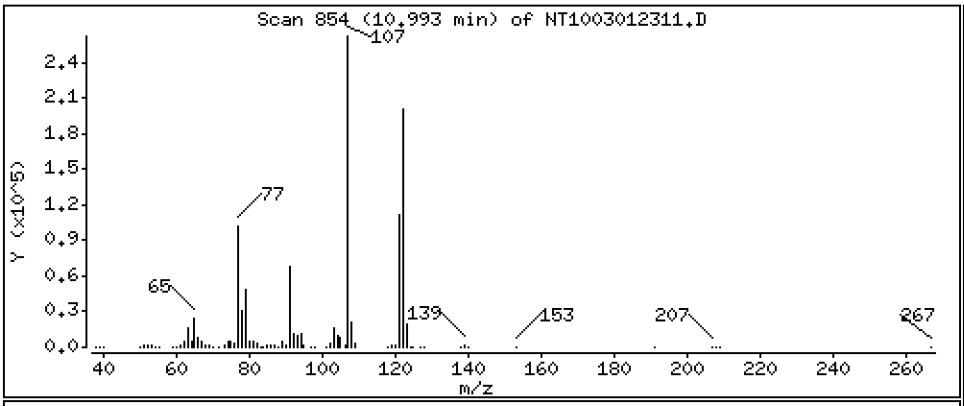
Operator: VTS

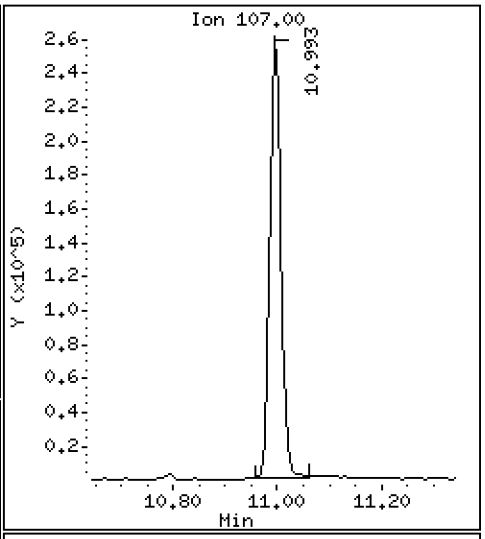
Column phase: ZB-5msi

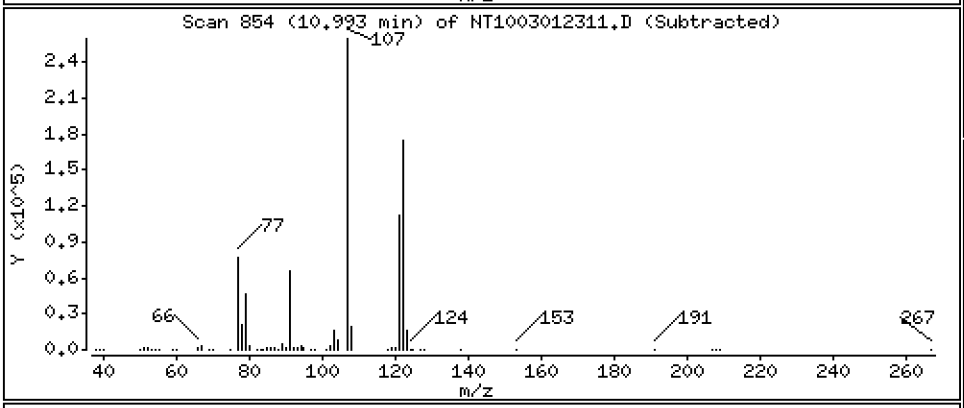
Column diameter: 0.25

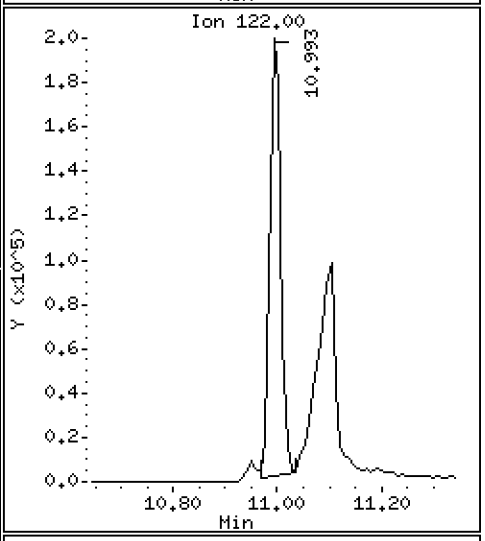
22 2,4-Dimethylphenol

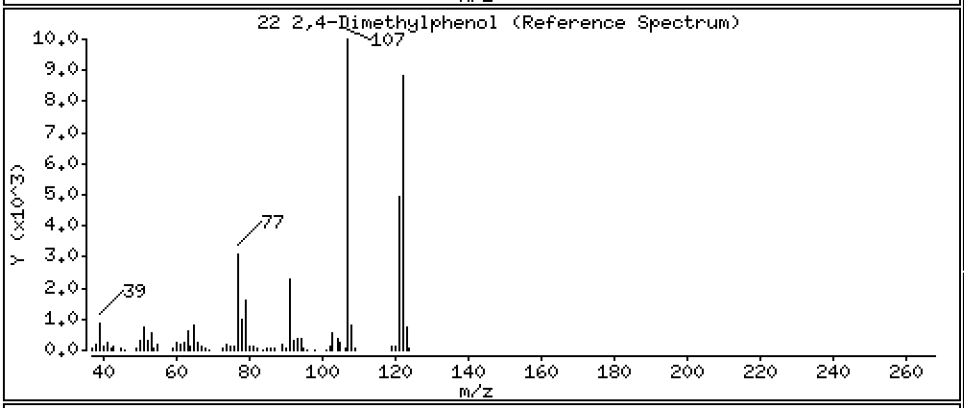
Concentration: 3.507 ug/mL

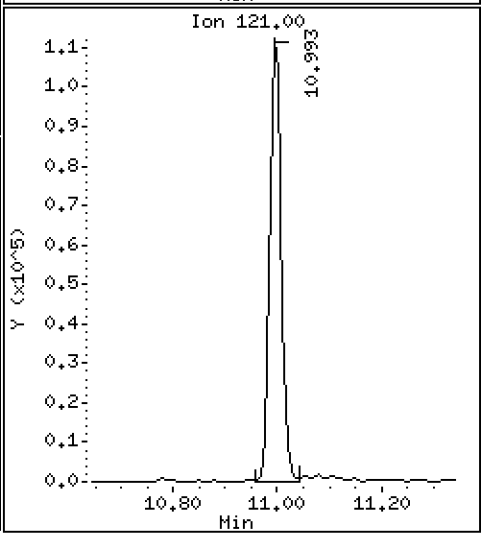


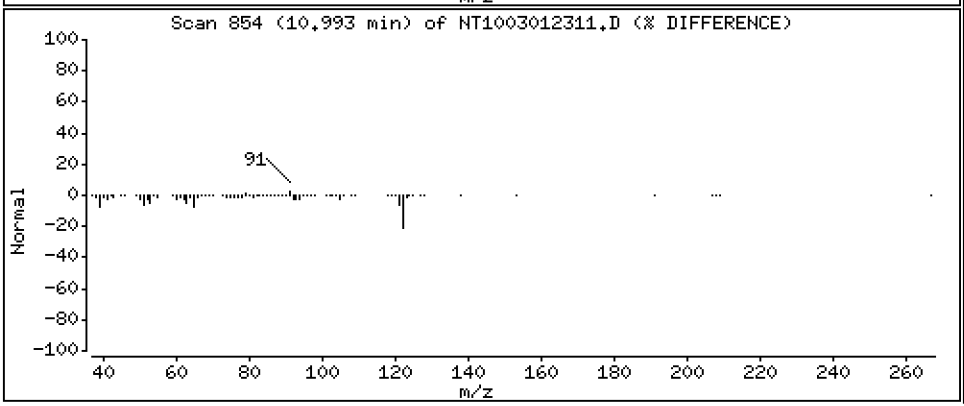












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

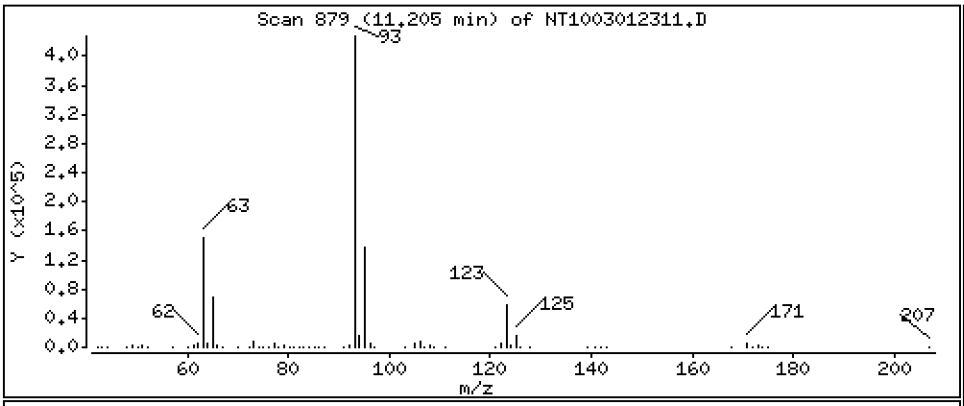
Operator: VTS

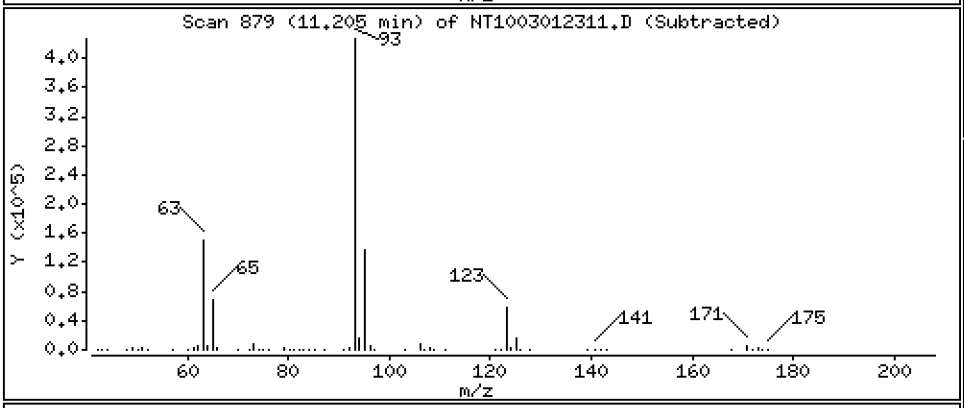
Column phase: ZB-5msi

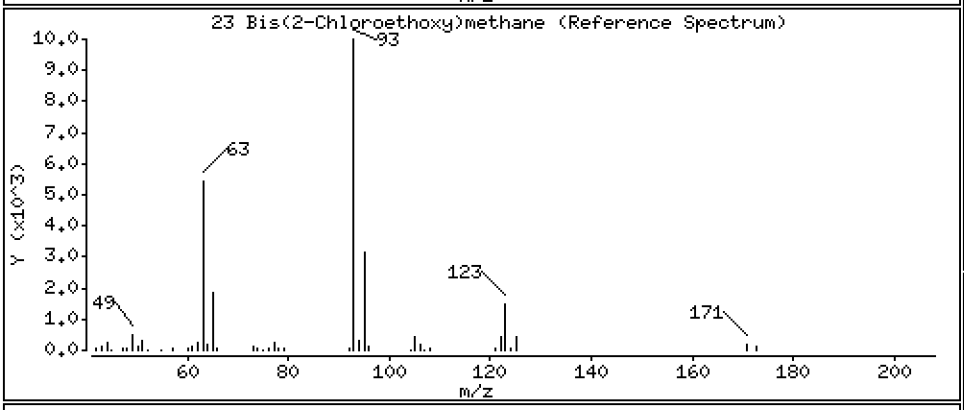
Column diameter: 0.25

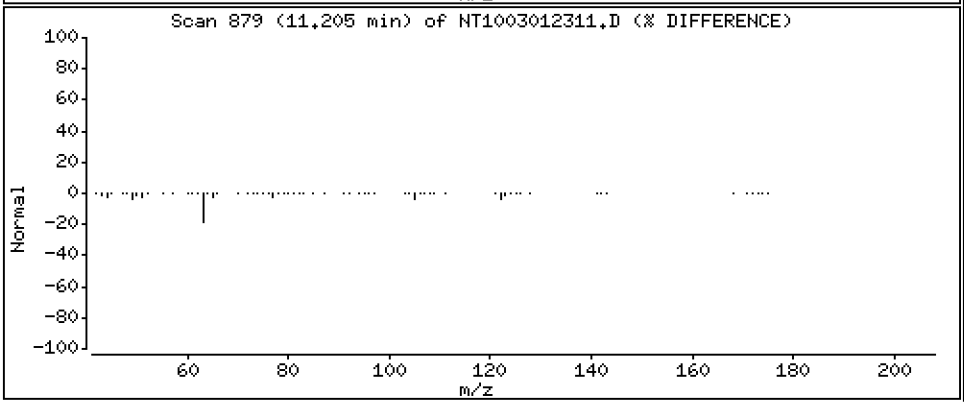
23 Bis(2-Chloroethoxy)methane

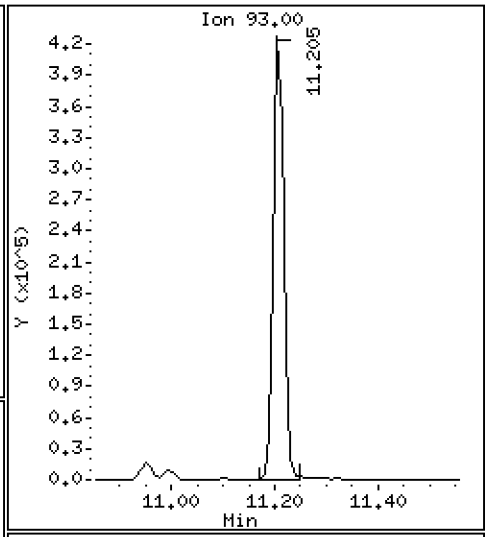
Concentration: 6.727 ug/mL

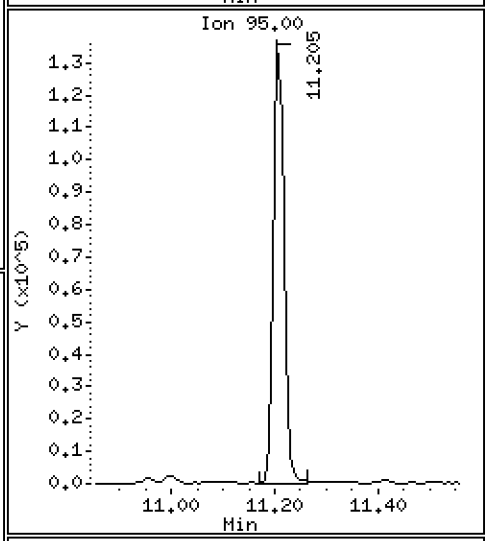


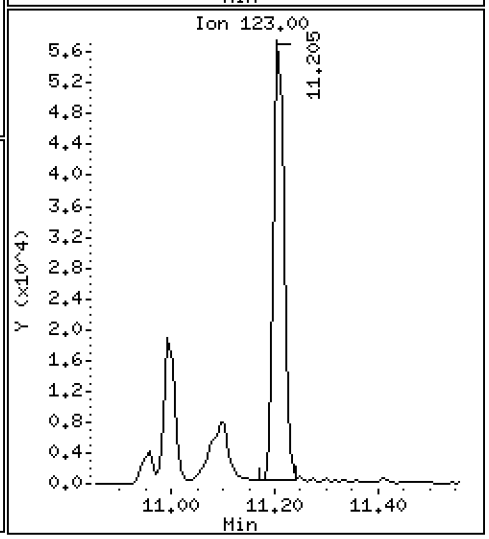












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

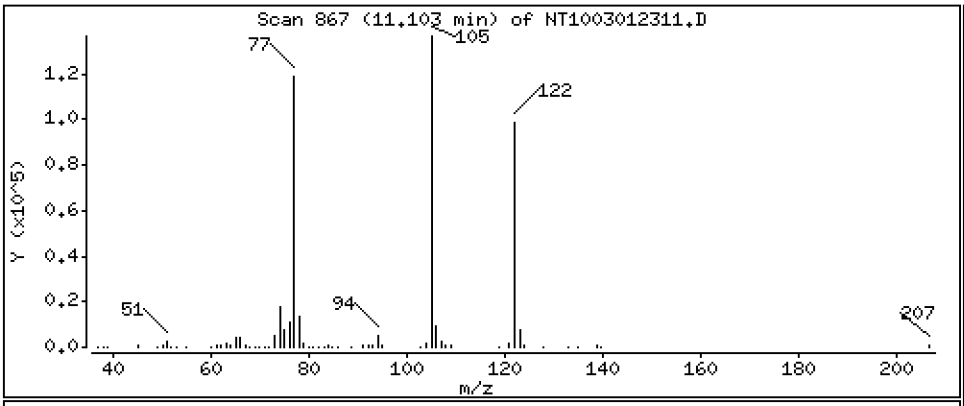
Operator: VTS

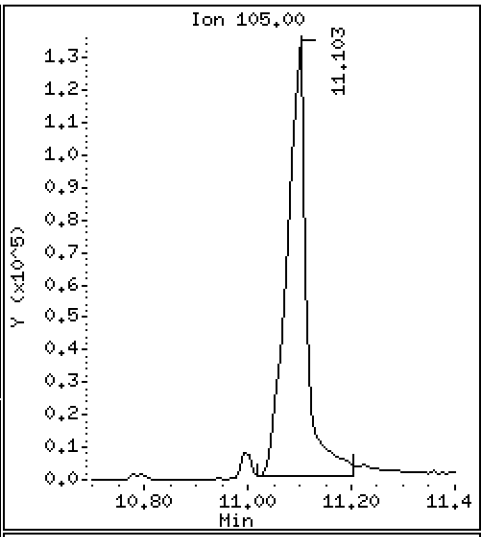
Column phase: ZB-5msi

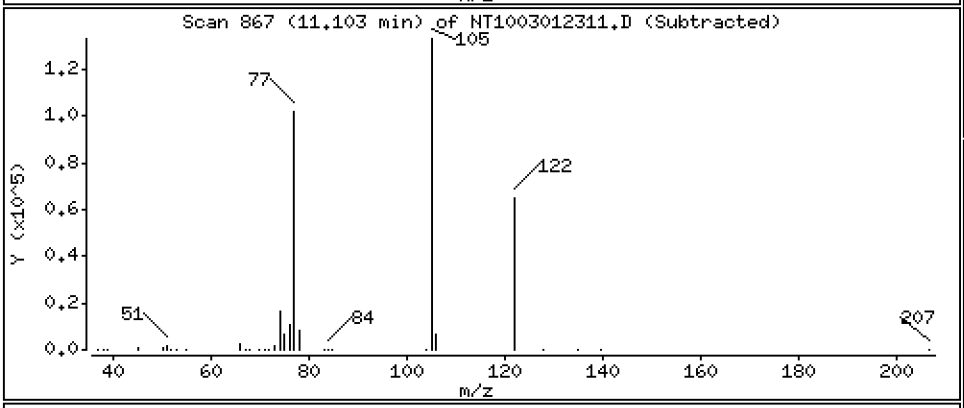
Column diameter: 0.25

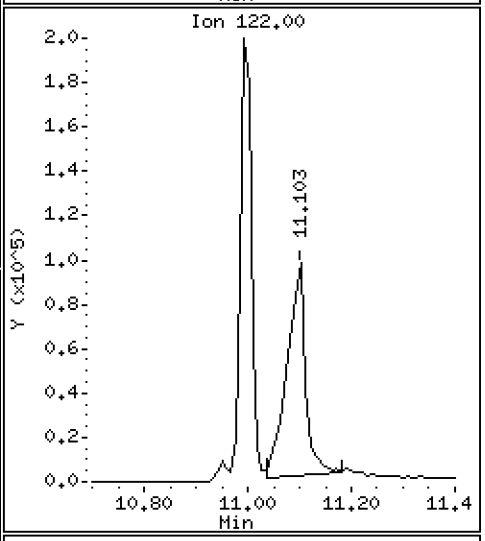
24 Benzoic acid

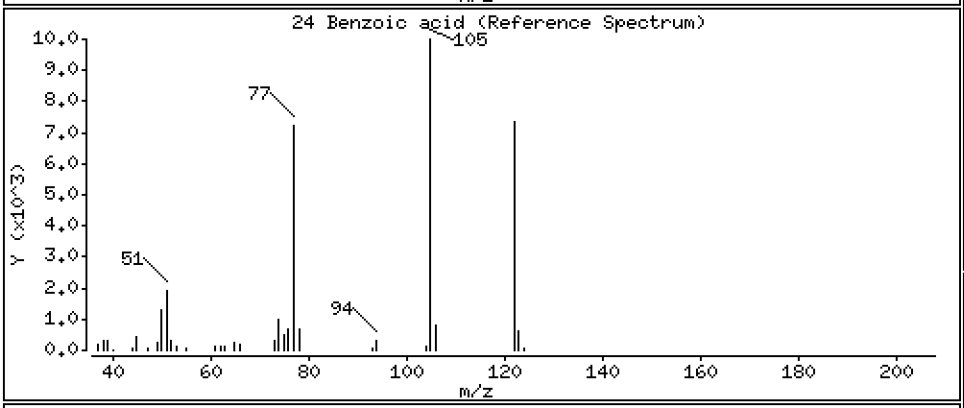
Concentration: 5.635 ug/mL

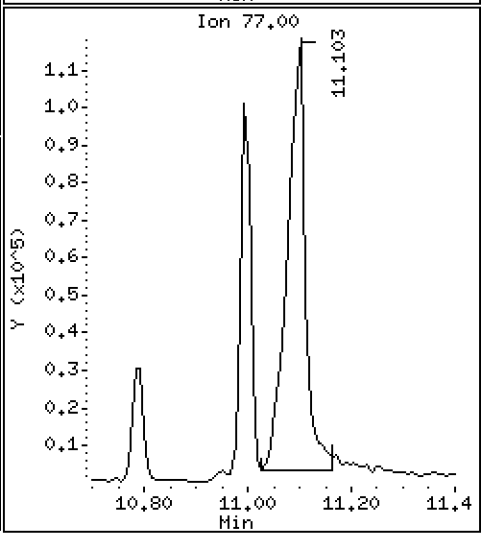


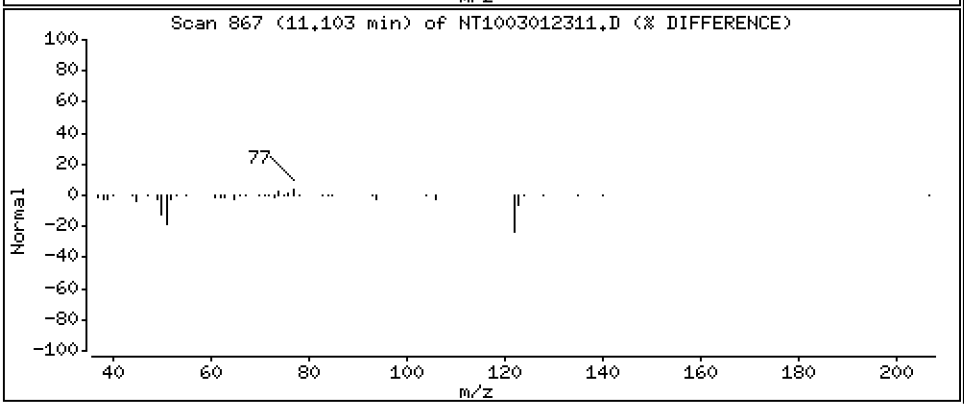












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

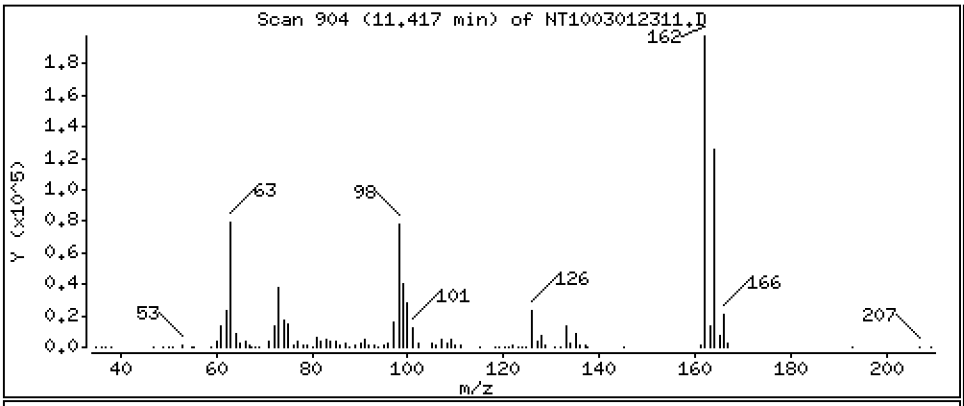
Operator: VTS

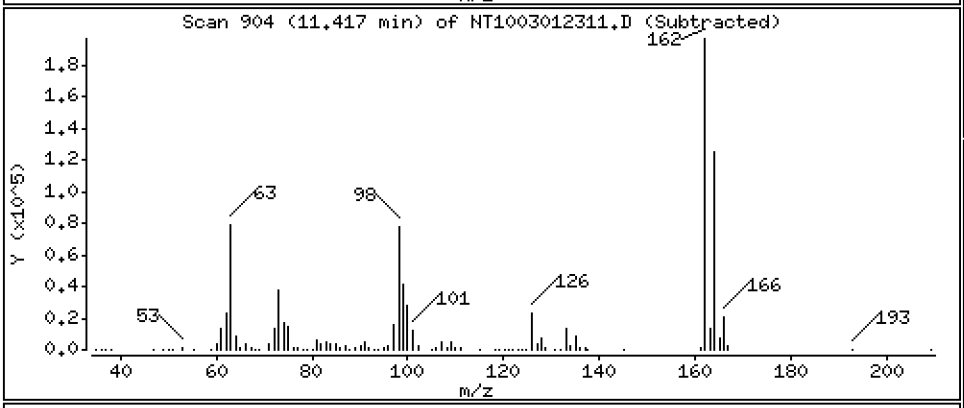
Column phase: ZB-5msi

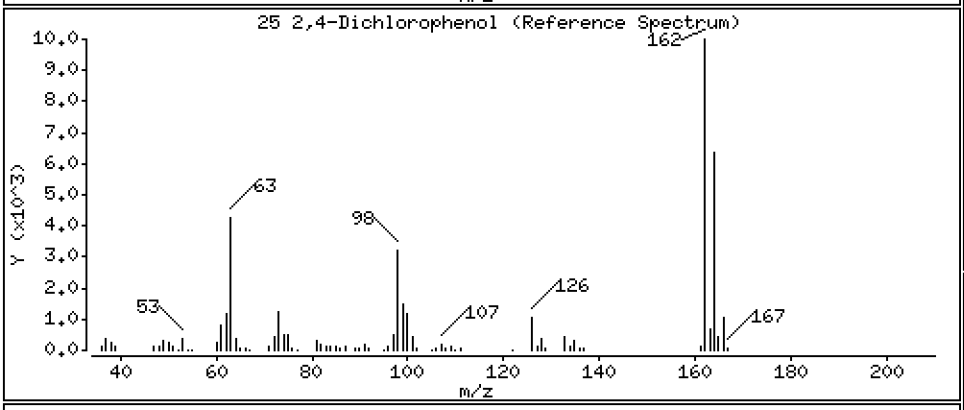
Column diameter: 0.25

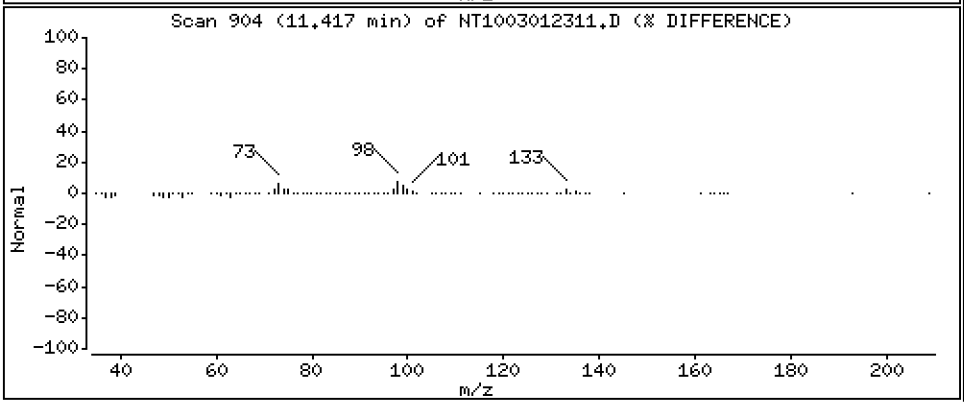
25 2,4-Dichlorophenol

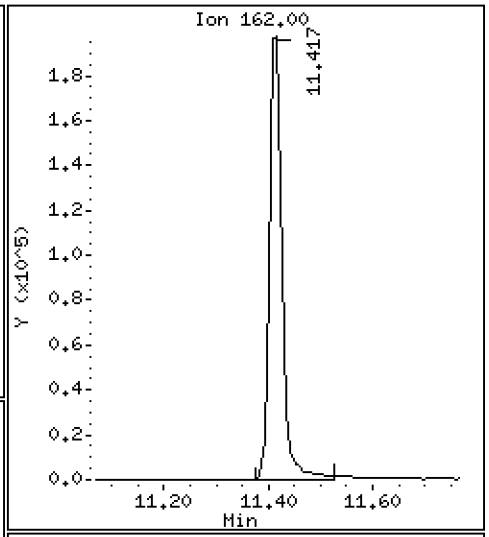
Concentration: 4.437 ug/mL

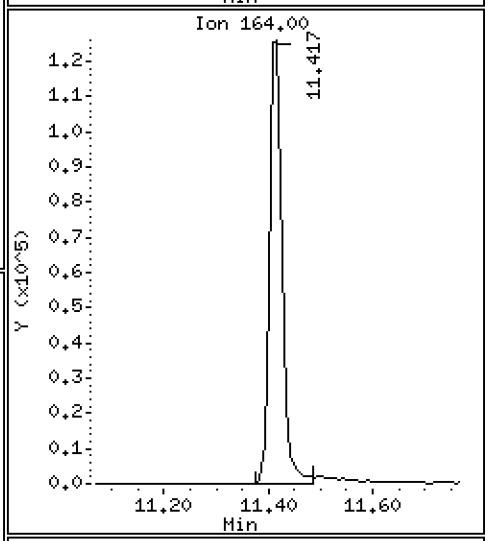


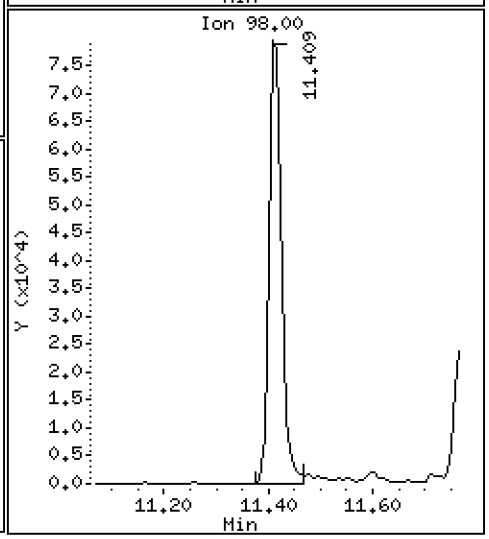












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

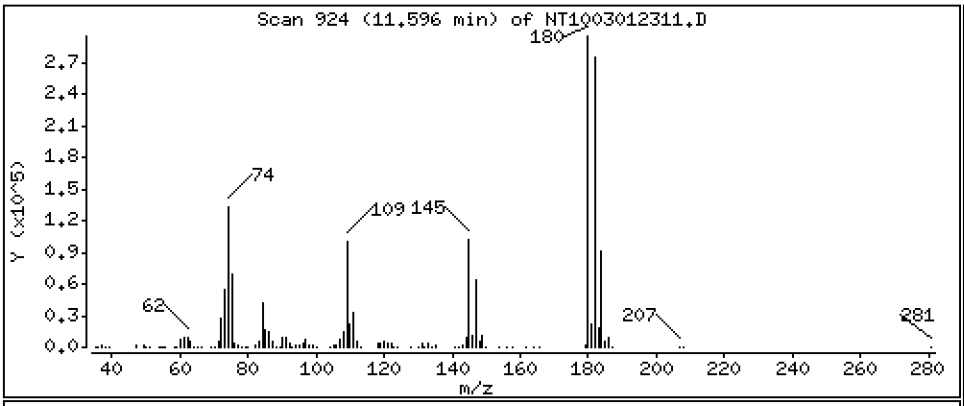
Operator: VTS

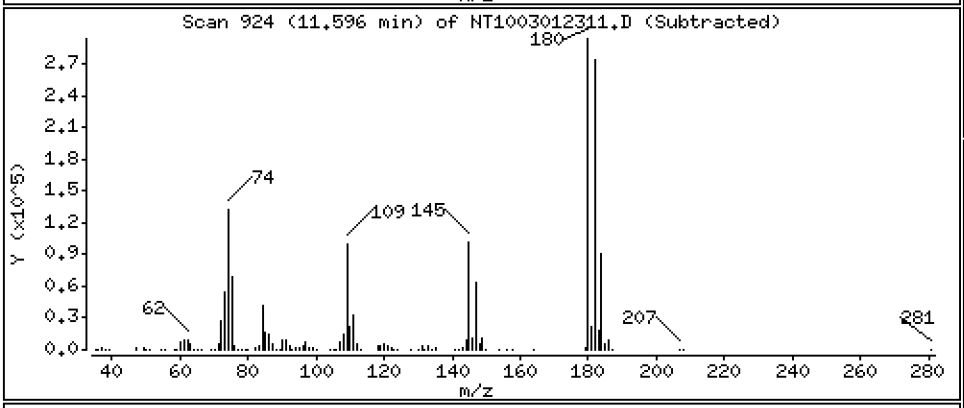
Column phase: ZB-5msi

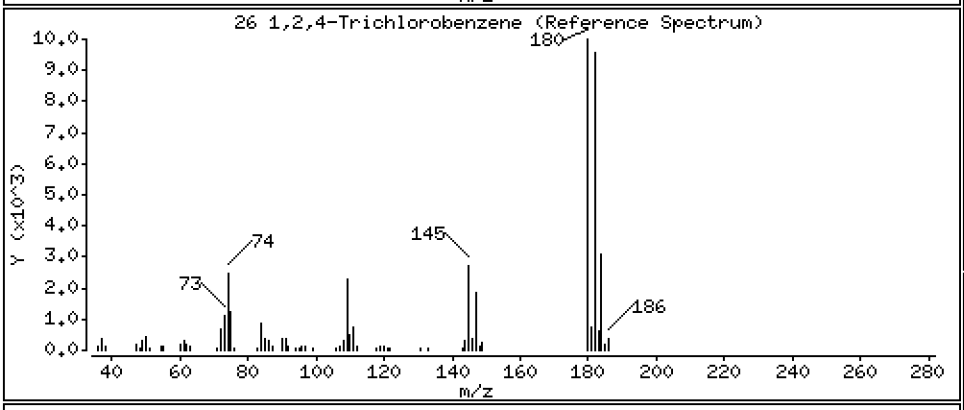
Column diameter: 0.25

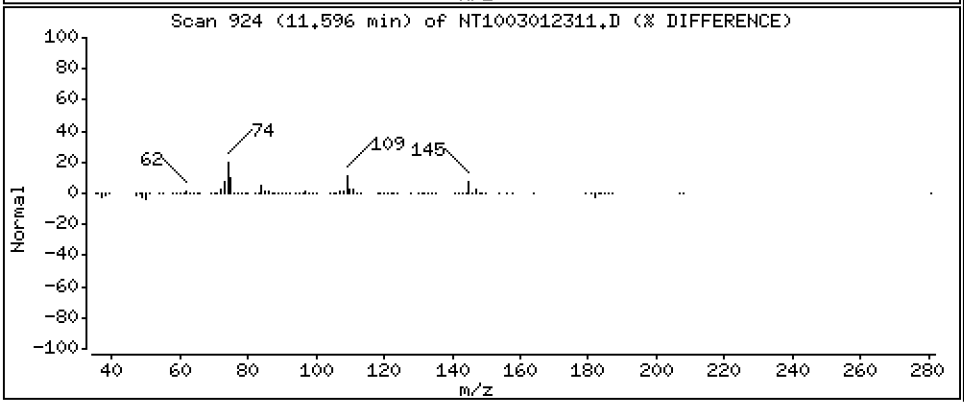
26 1,2,4-Trichlorobenzene

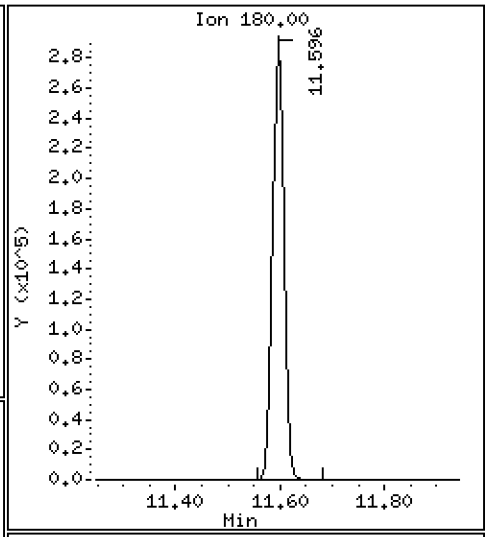
Concentration: 4.908 ug/mL

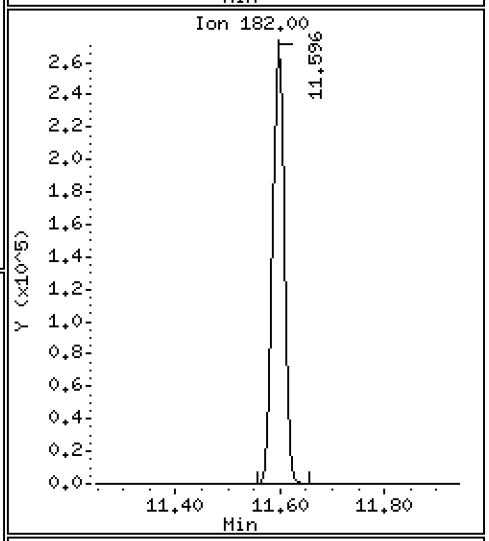


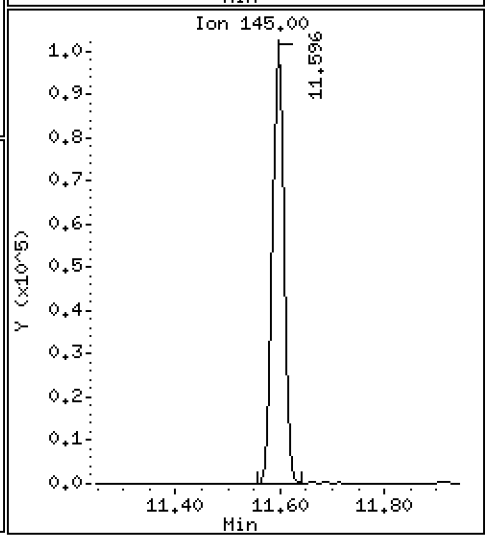












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

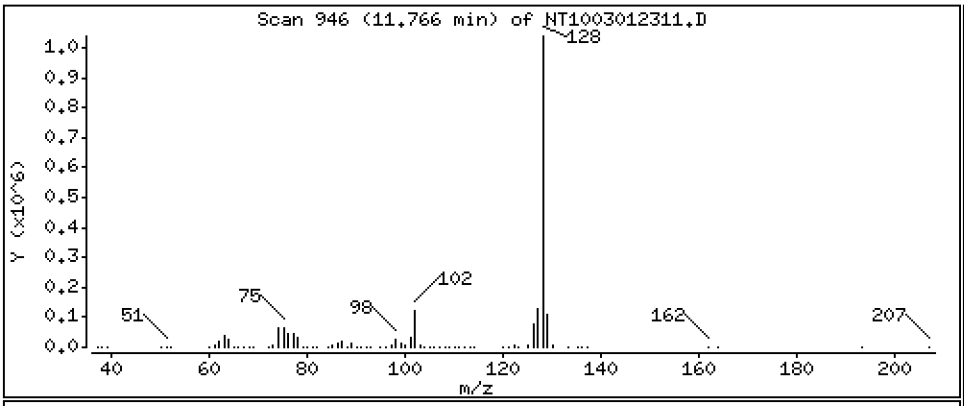
Operator: VTS

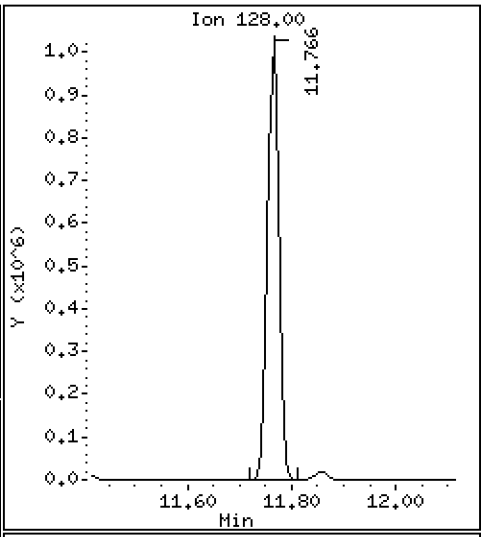
Column phase: ZB-5msi

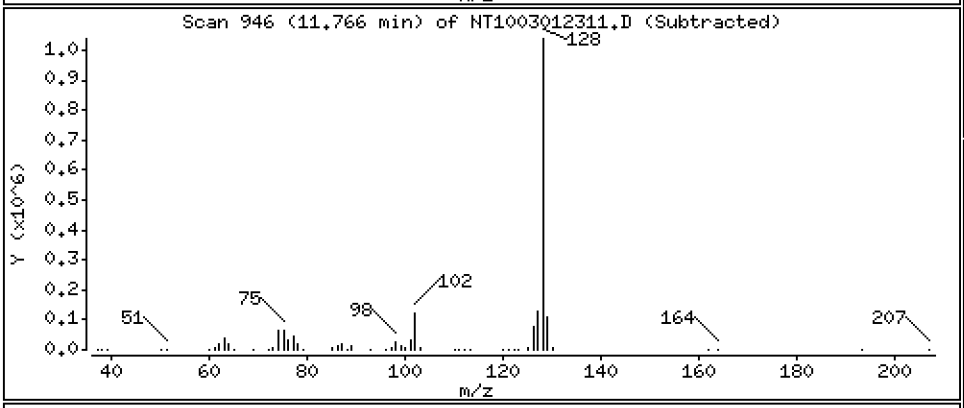
Column diameter: 0.25

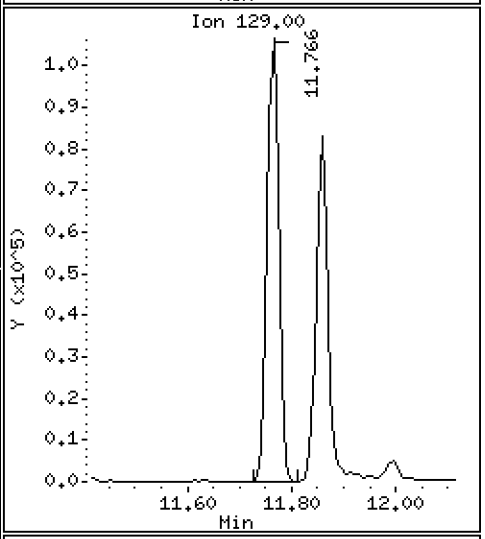
28 Naphthalene

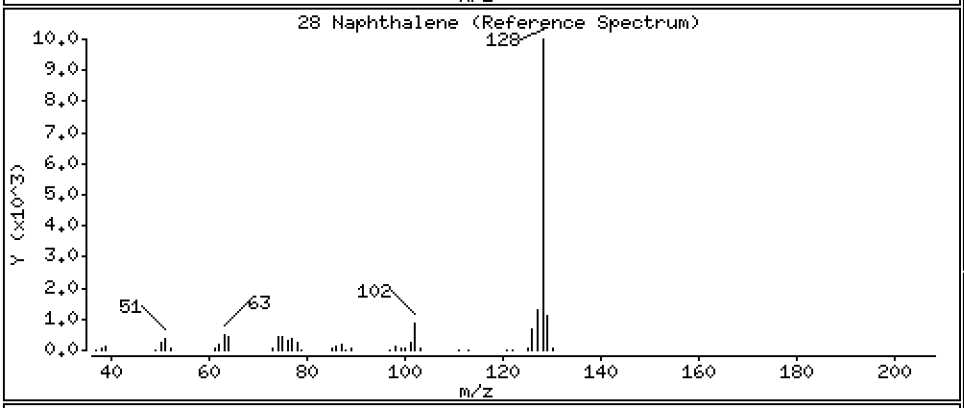
Concentration: 5.255 ug/mL

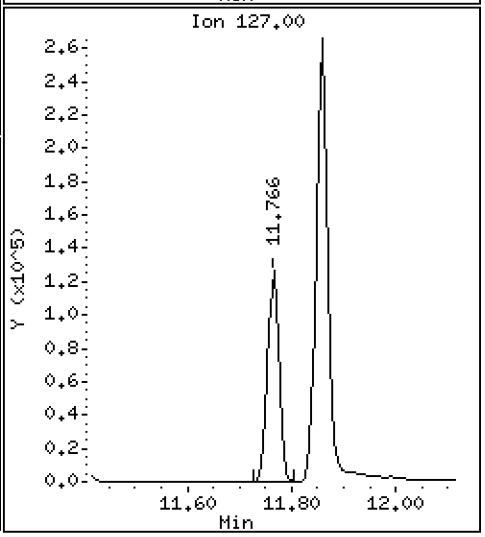


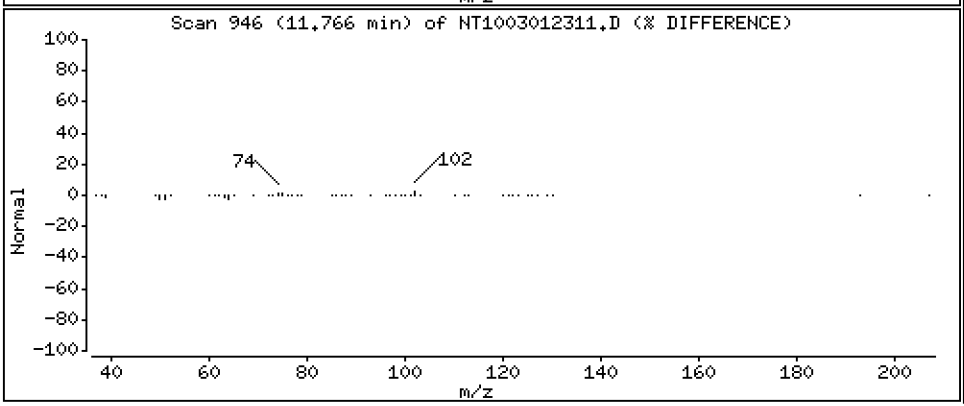












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

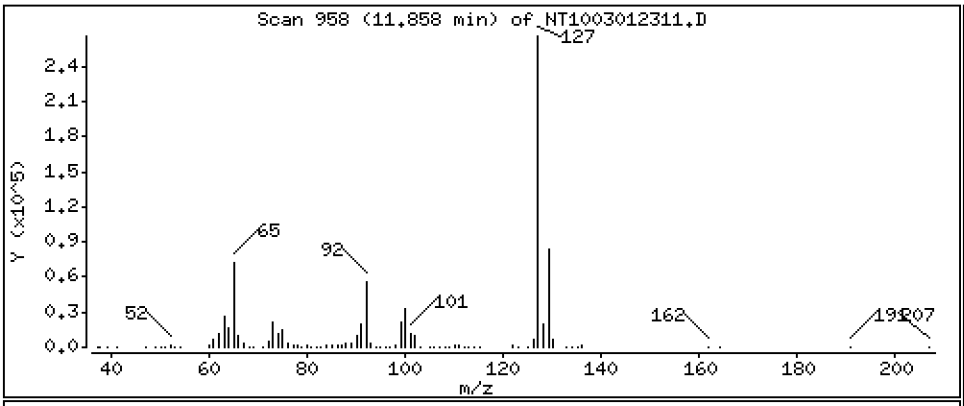
Operator: VTS

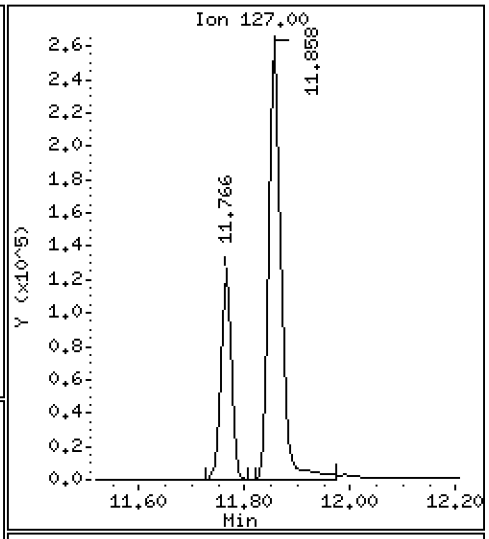
Column phase: ZB-5msi

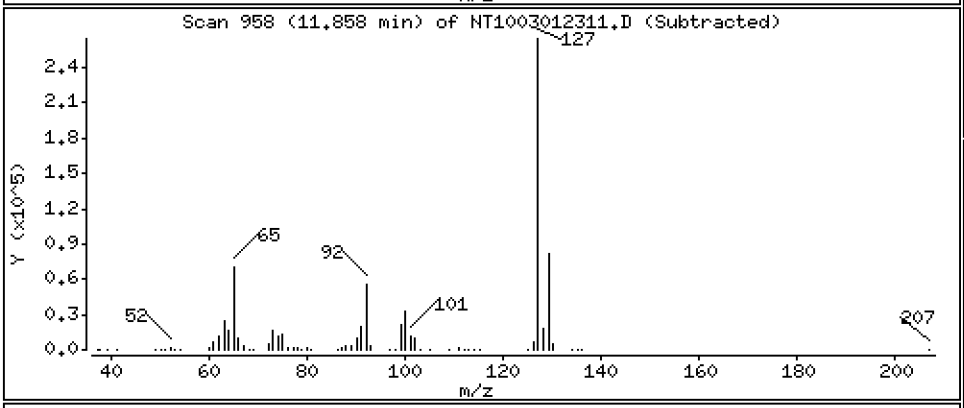
Column diameter: 0.25

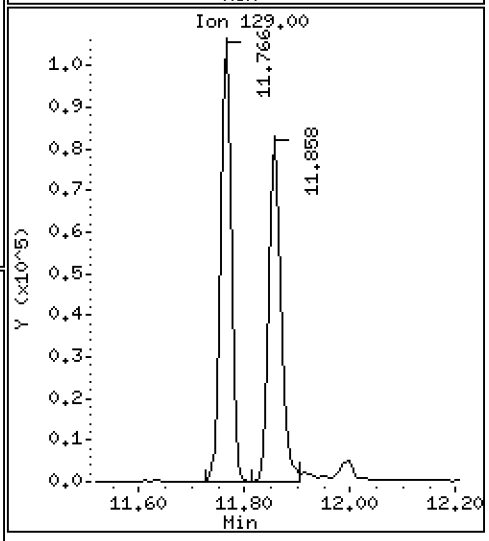
29 4-Chloroaniline

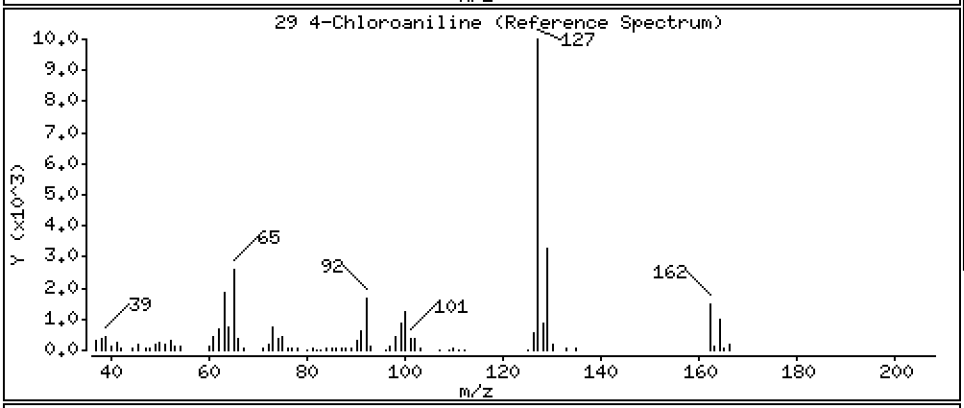
Concentration: 3.791 ug/mL

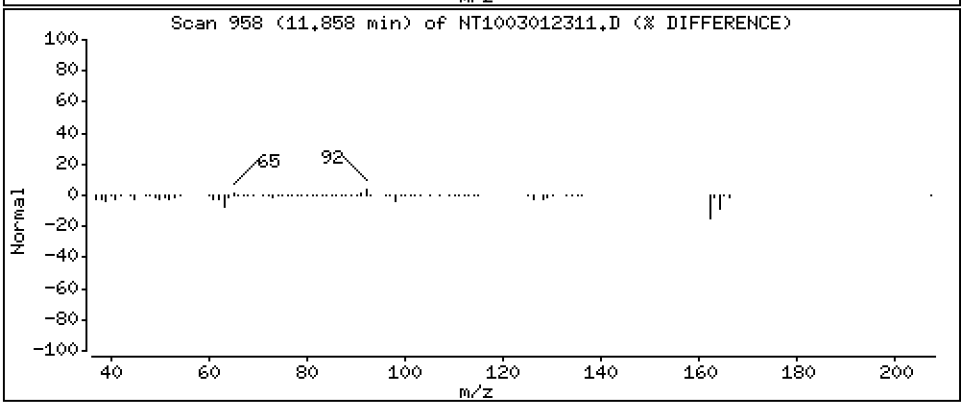












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

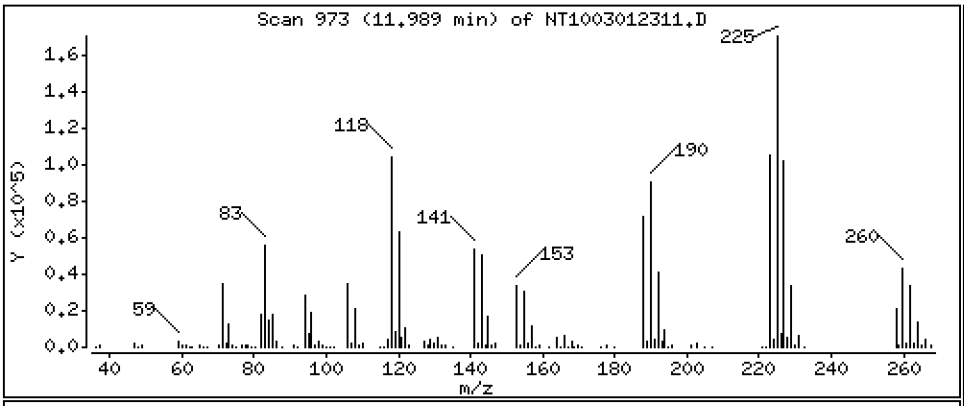
Operator: VTS

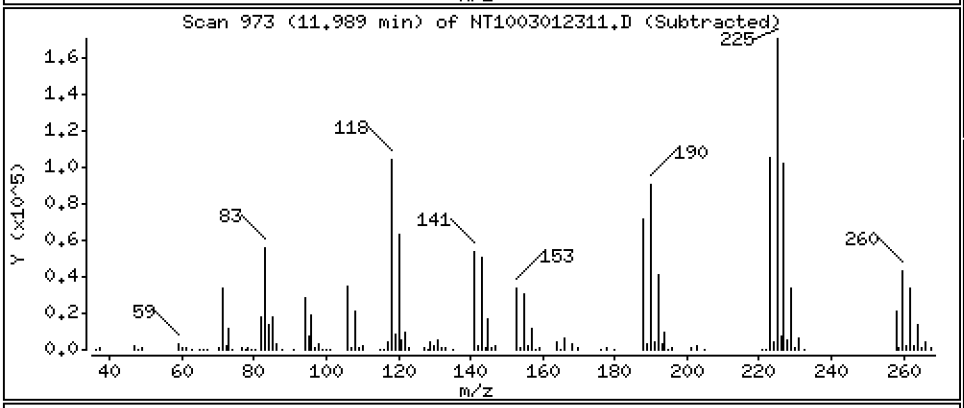
Column phase: ZB-5msi

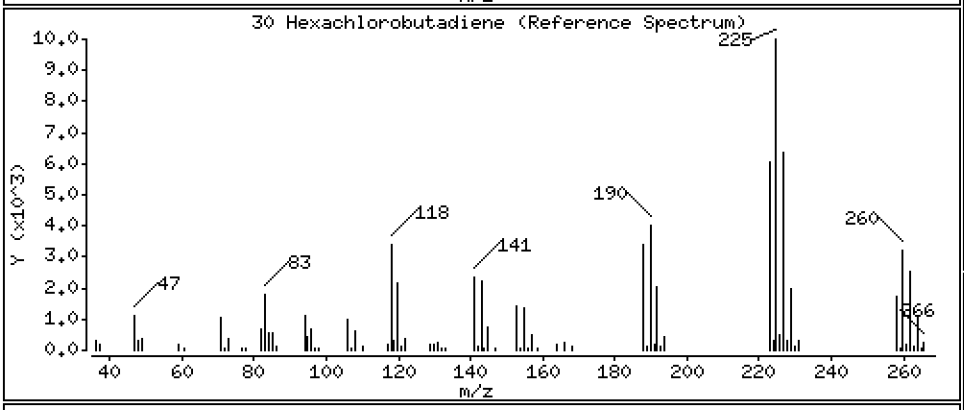
Column diameter: 0.25

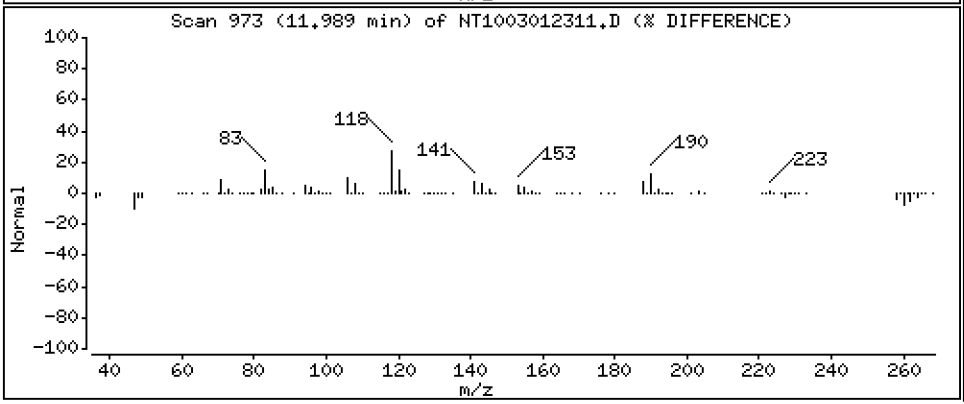
30 Hexachlorobutadiene

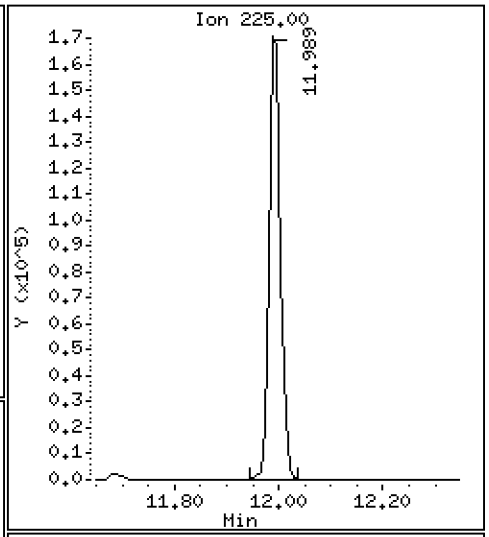
Concentration: 5.014 ug/mL

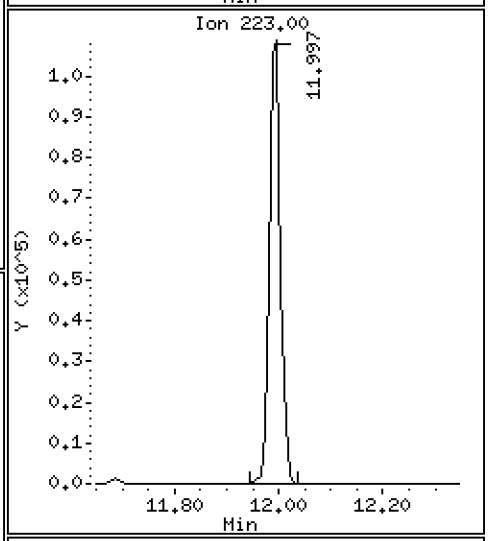


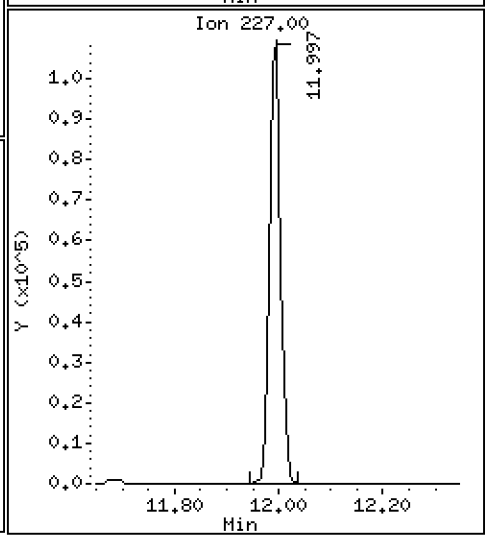












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

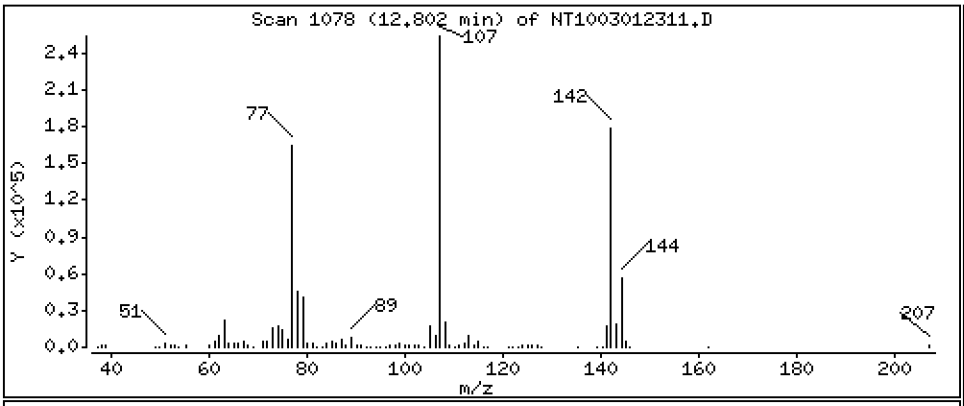
Operator: VTS

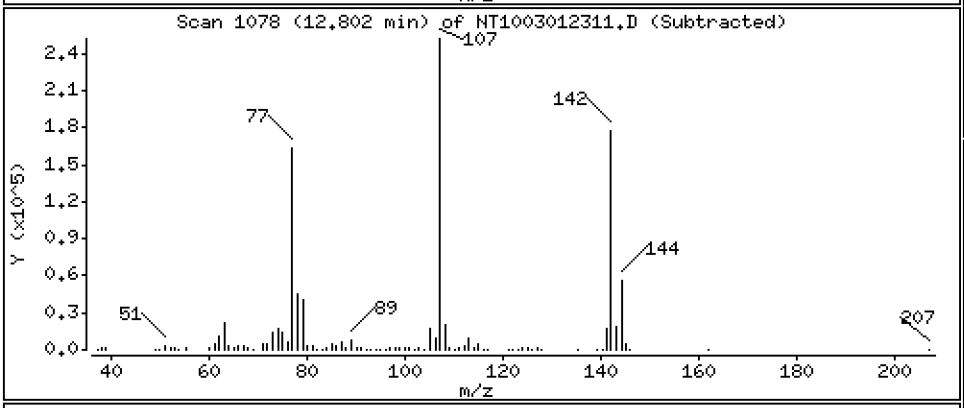
Column phase: ZB-5msi

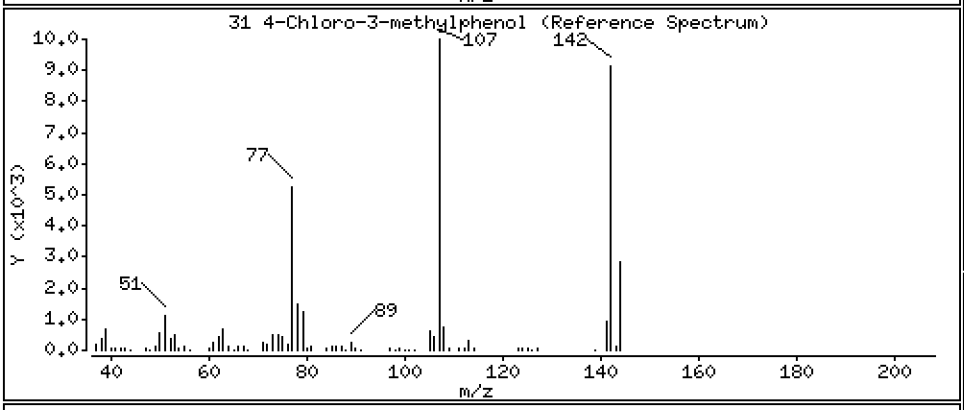
Column diameter: 0.25

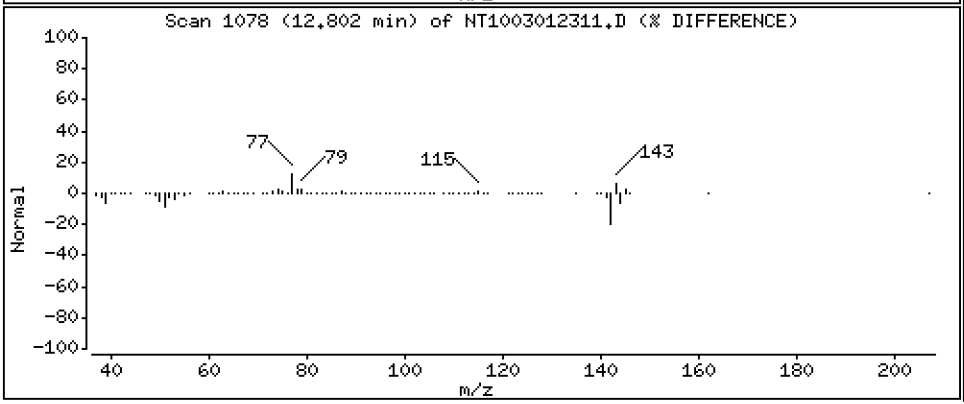
31 4-Chloro-3-methylphenol

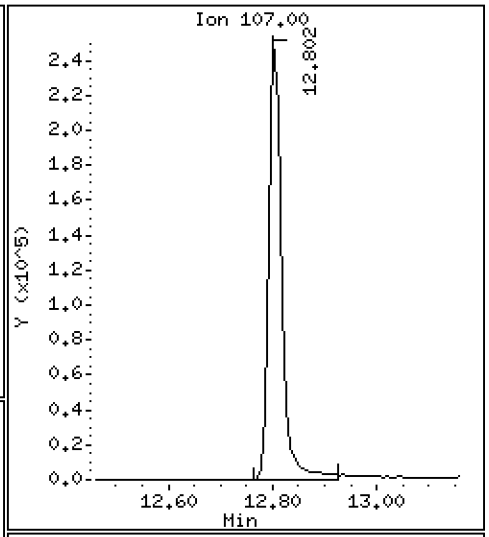
Concentration: 4.452 ug/mL

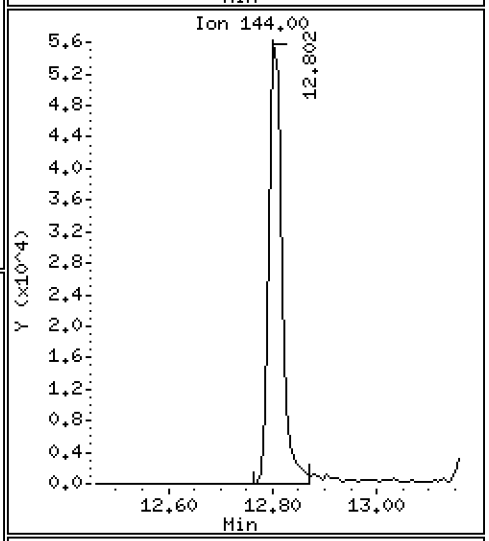


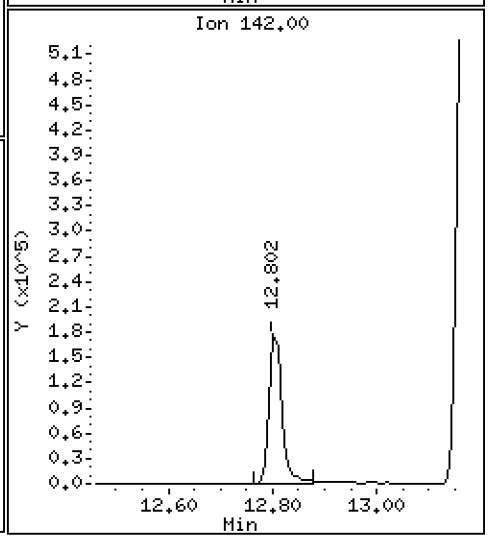












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

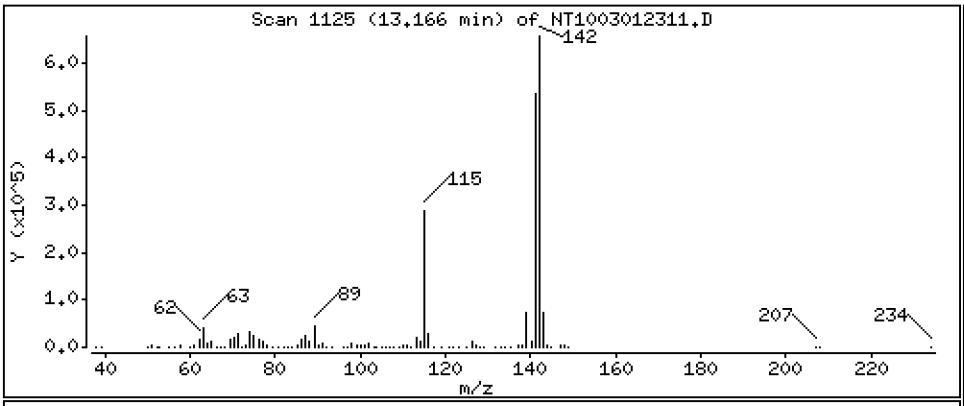
Operator: VTS

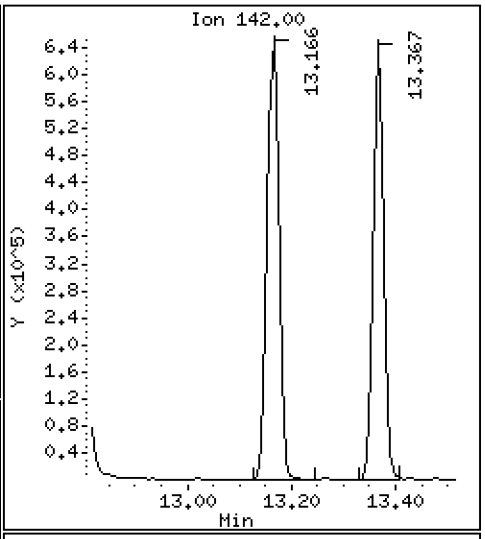
Column phase: ZB-5msi

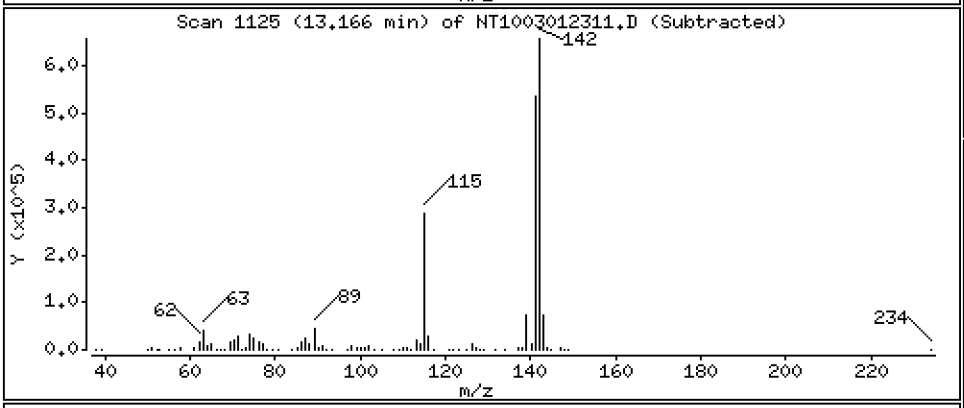
Column diameter: 0.25

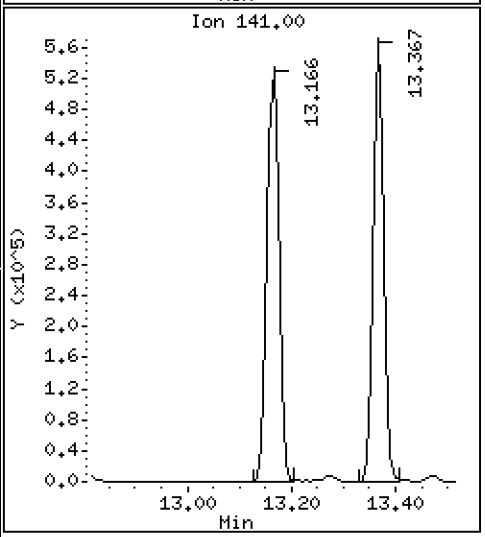
32 2-Methylnaphthalene

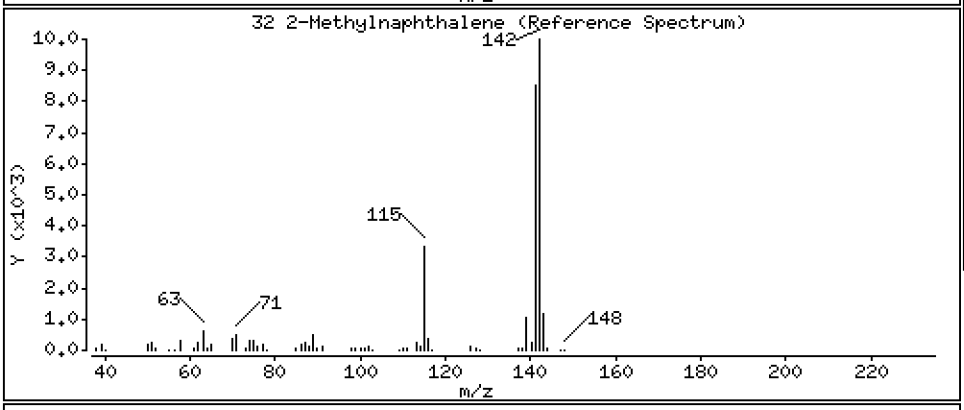
Concentration: 4.951 ug/mL

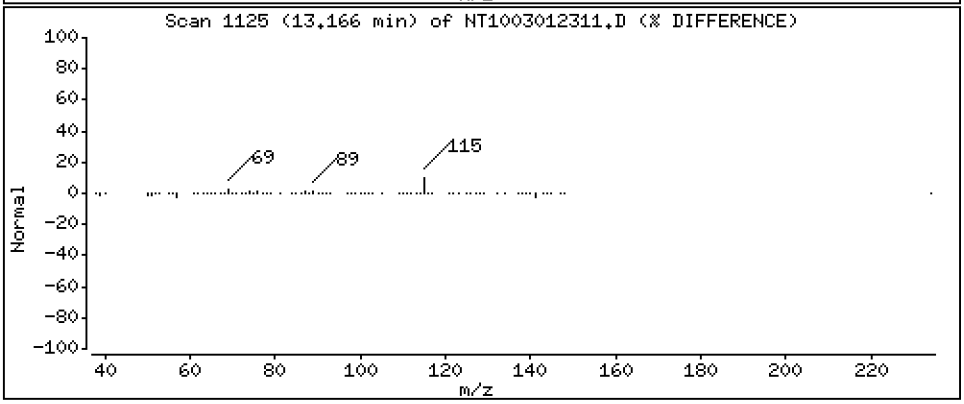












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

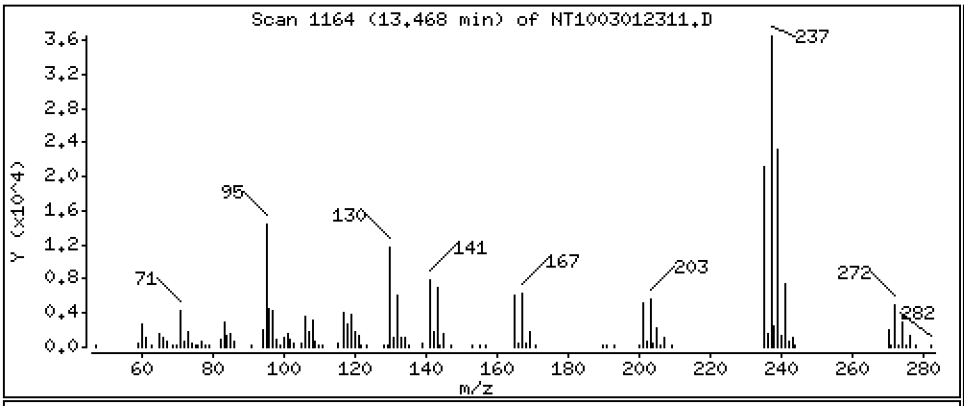
Operator: VTS

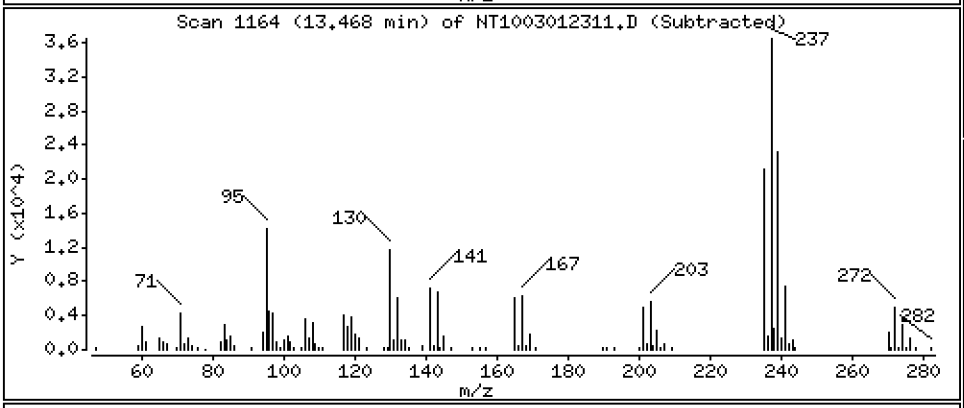
Column phase: ZB-5msi

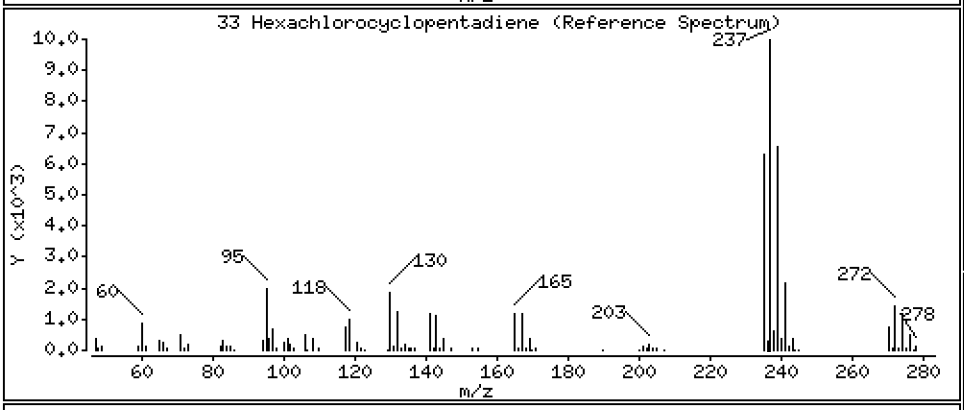
Column diameter: 0.25

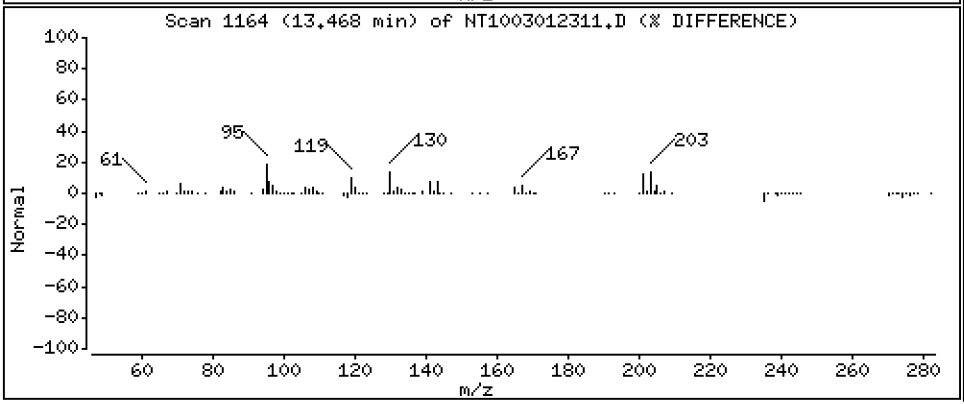
33 Hexachlorocyclopentadiene

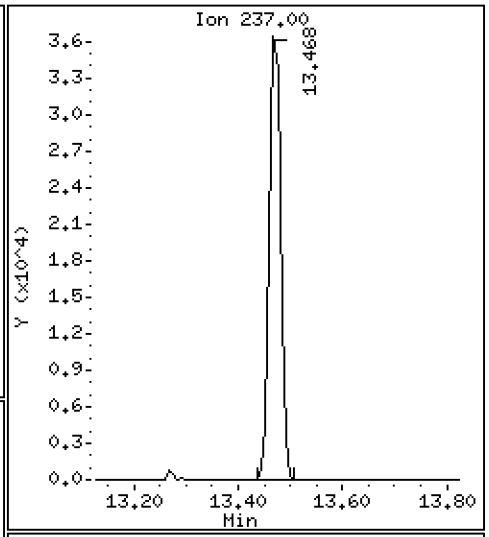
Concentration: 2.562 ug/mL

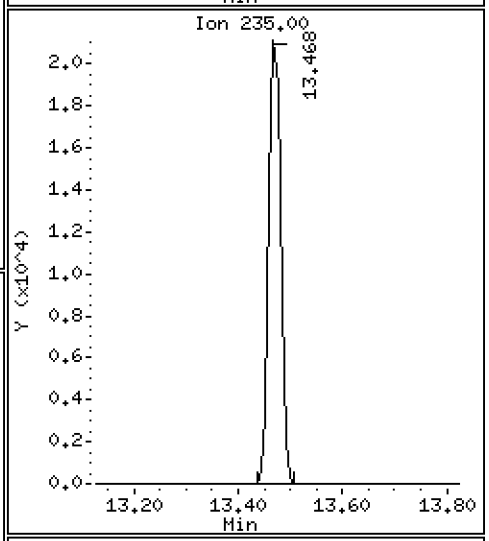


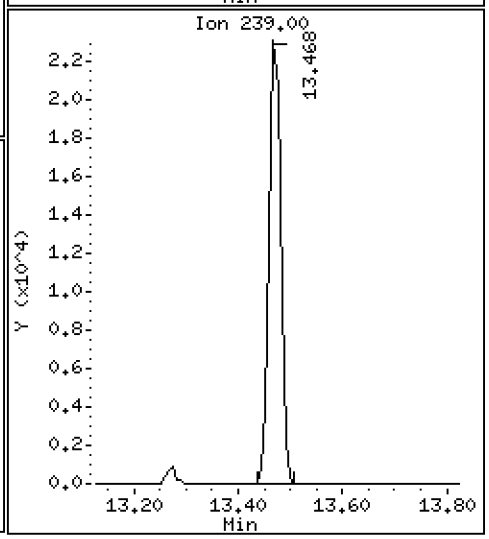












Date : 01-MAR-2023 21:46

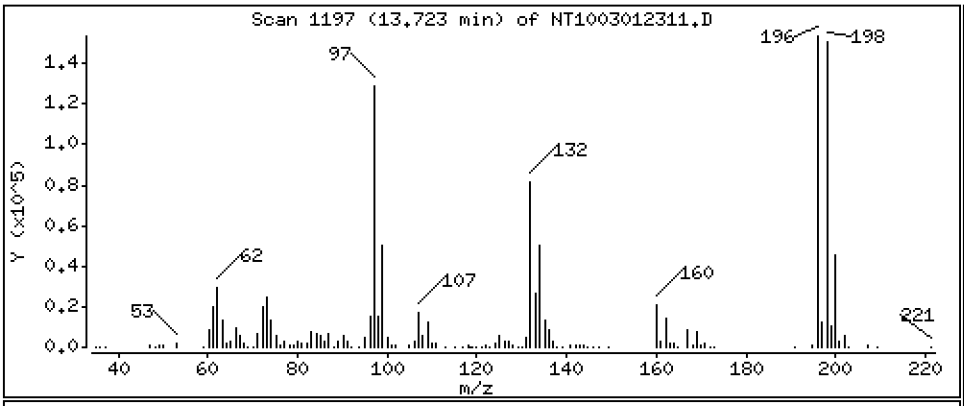
Client ID: Instrument: nt10.i

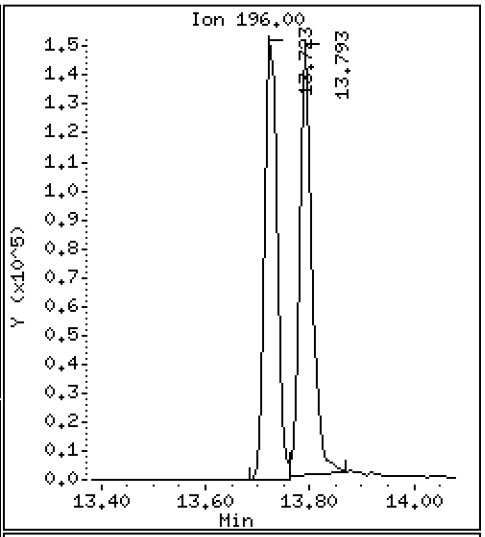
Sample Info: SEQ-SCV1

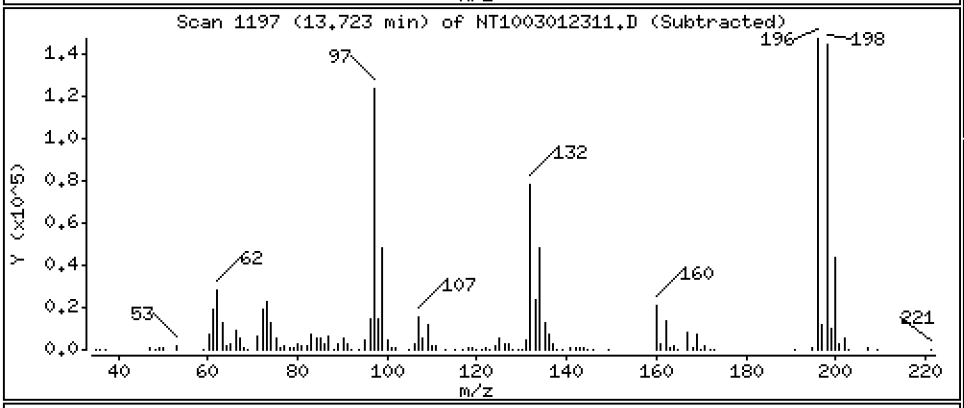
Operator: VTS

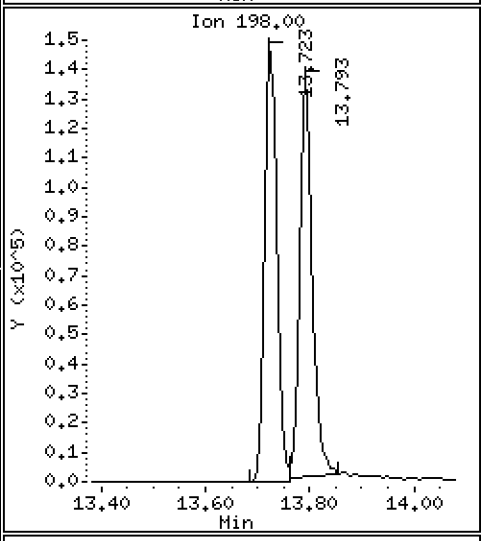
Column phase: ZB-5msi Column diameter: 0.25

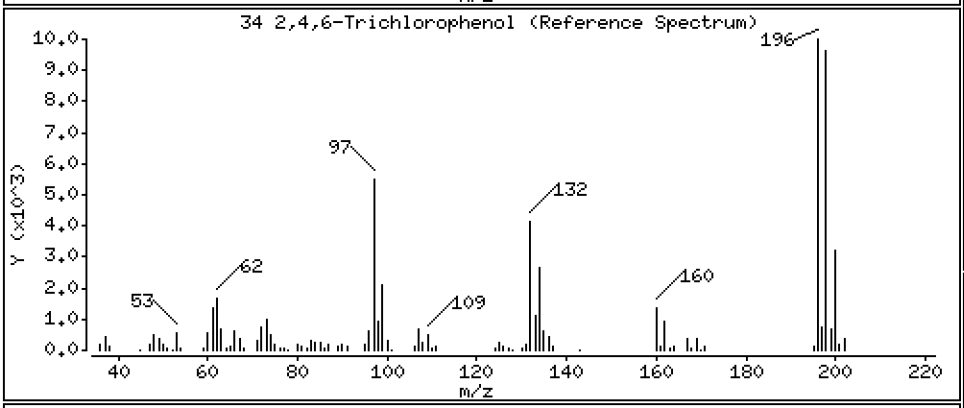
34 2,4,6-Trichlorophenol Concentration: 4.120 ug/mL

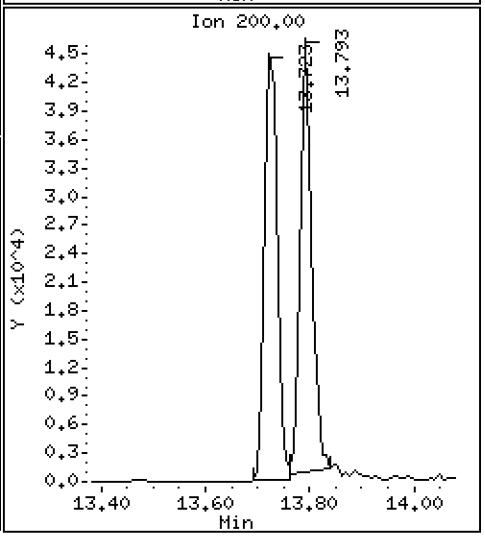


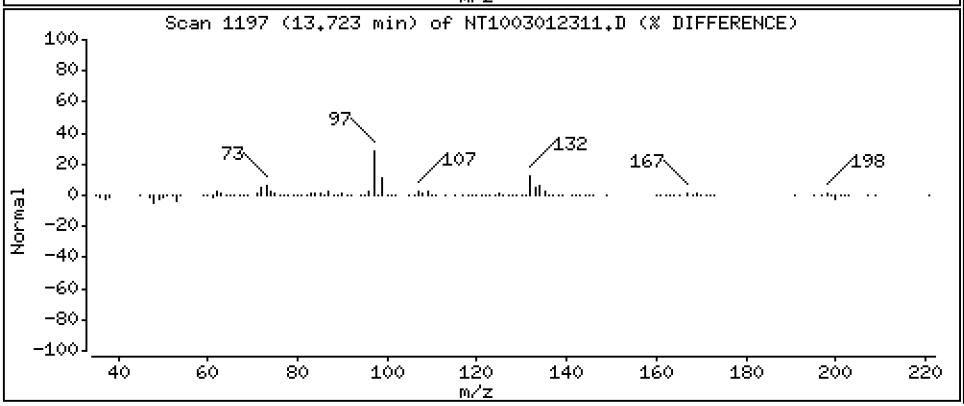












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

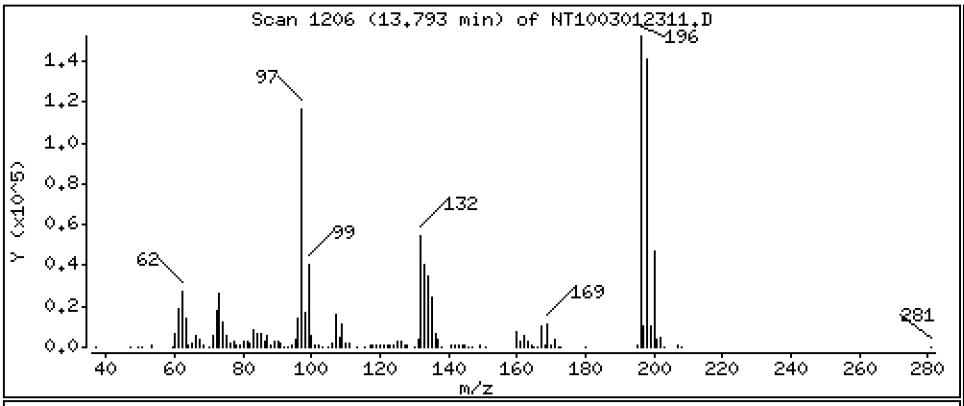
Operator: VTS

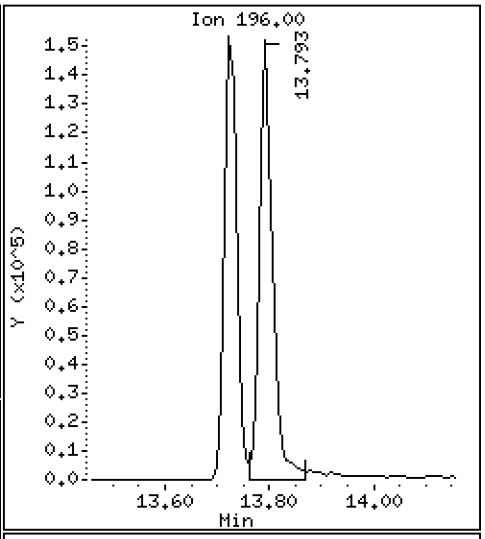
Column phase: ZB-5msi

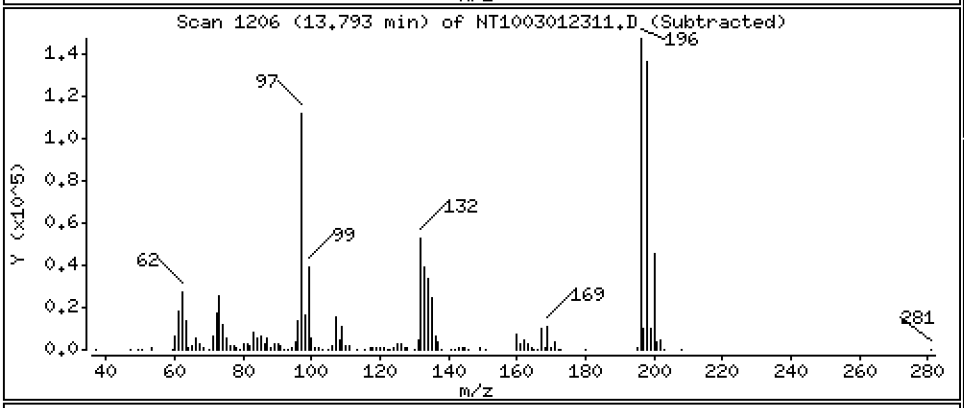
Column diameter: 0.25

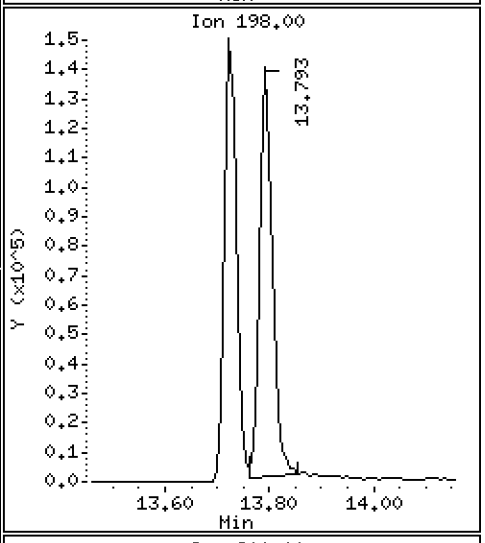
35 2,4,5-Trichlorophenol

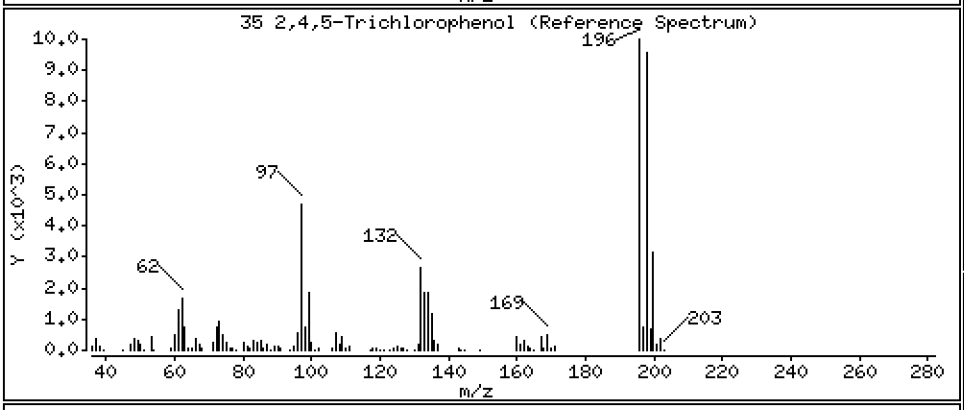
Concentration: 4.149 ug/mL

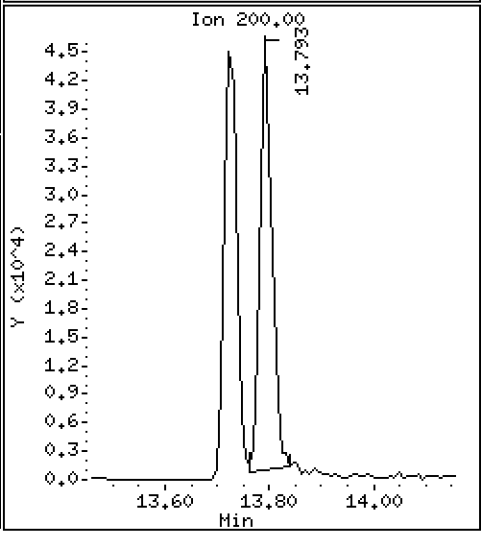


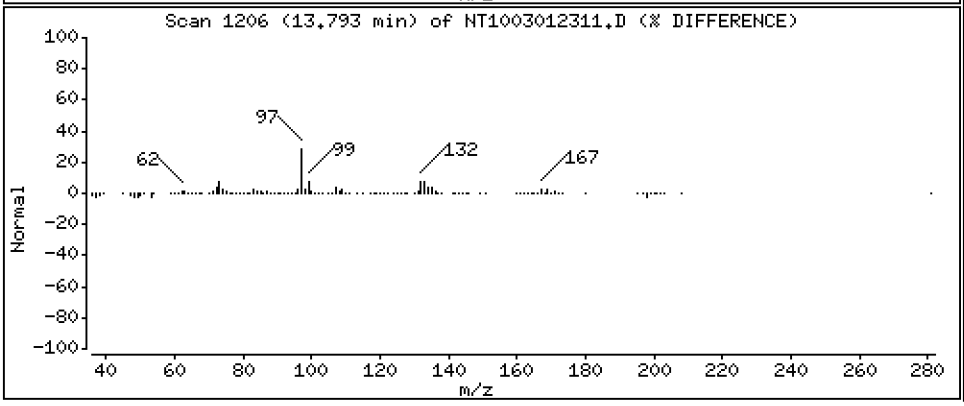












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

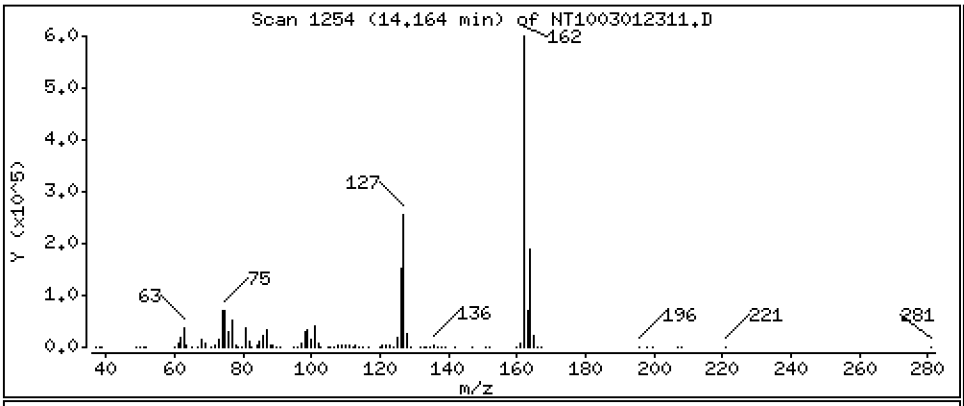
Operator: VTS

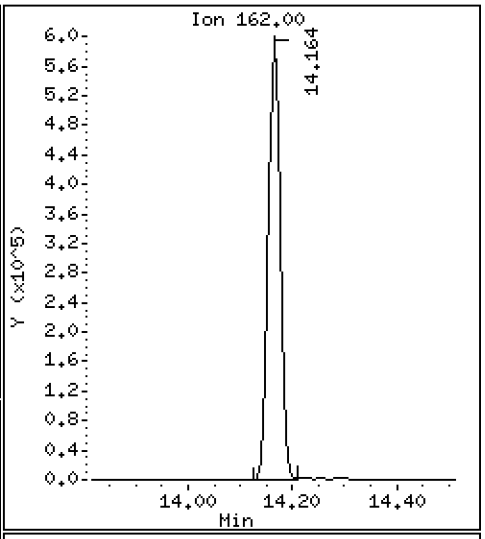
Column phase: ZB-5msi

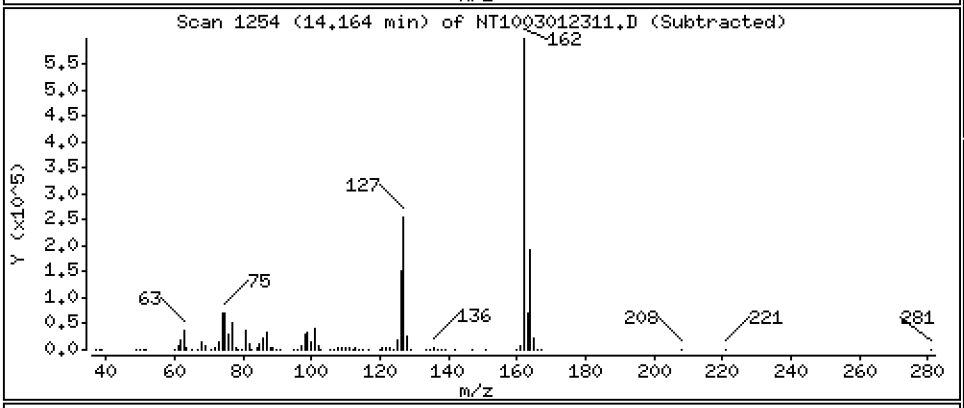
Column diameter: 0.25

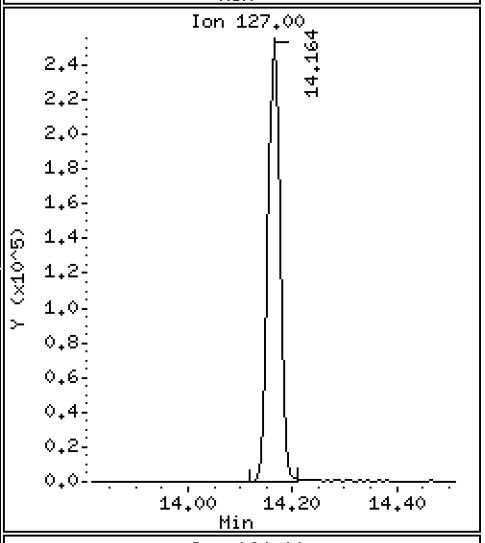
37 2-Chloronaphthalene

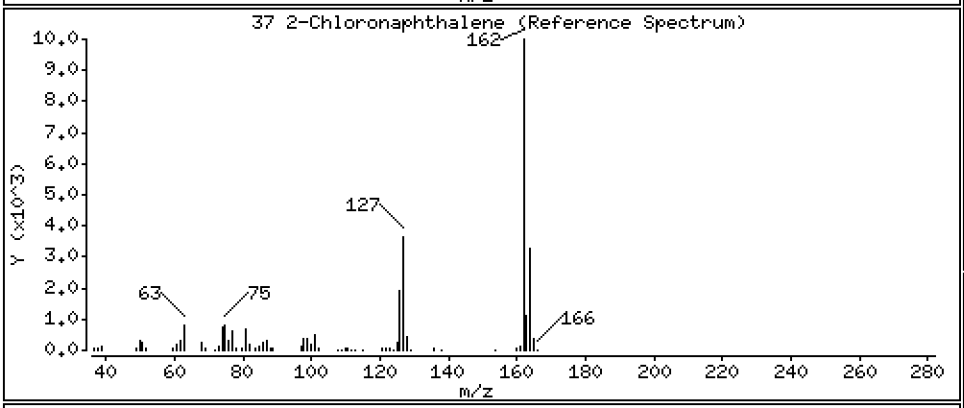
Concentration: 5.264 ug/mL

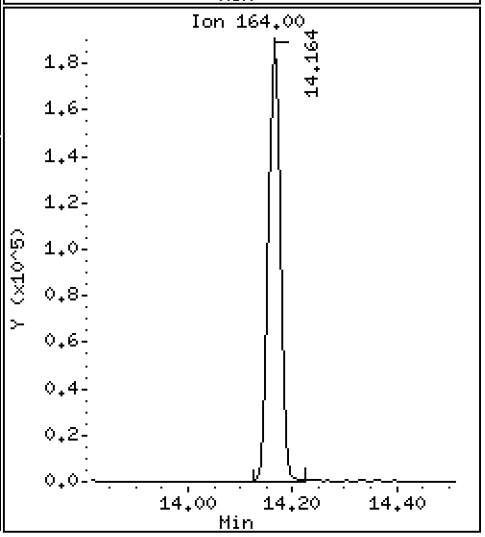


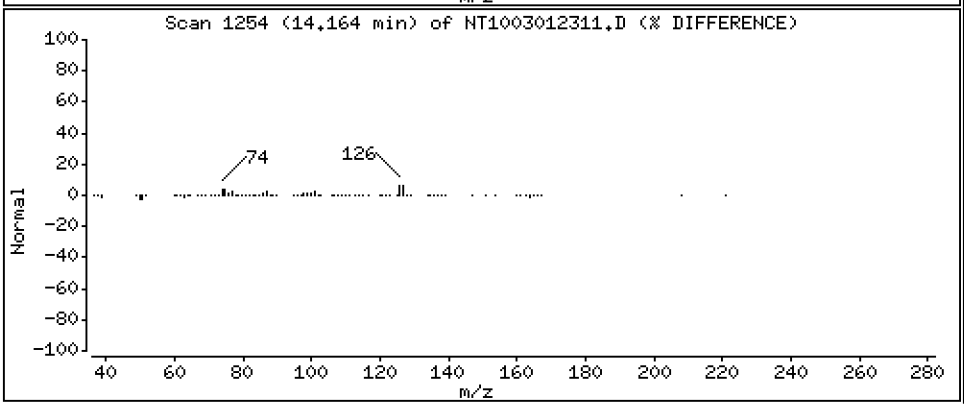












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

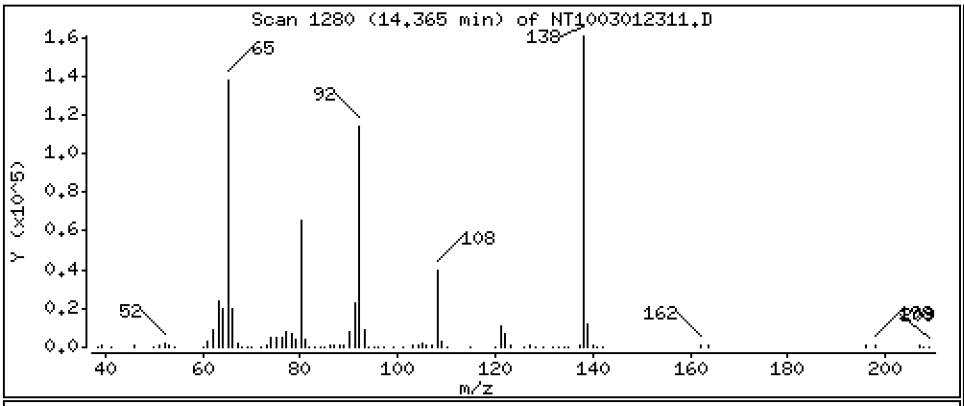
Operator: VTS

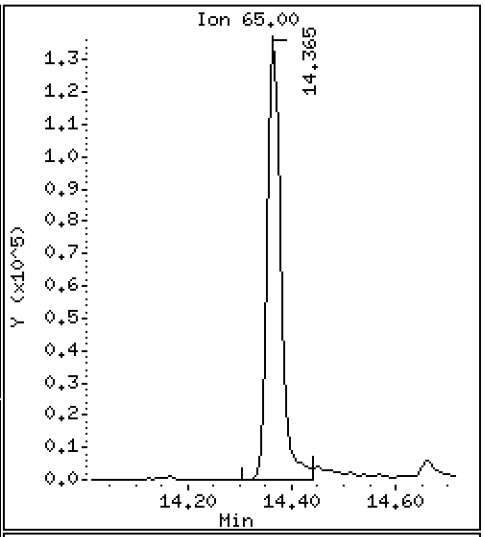
Column phase: ZB-5msi

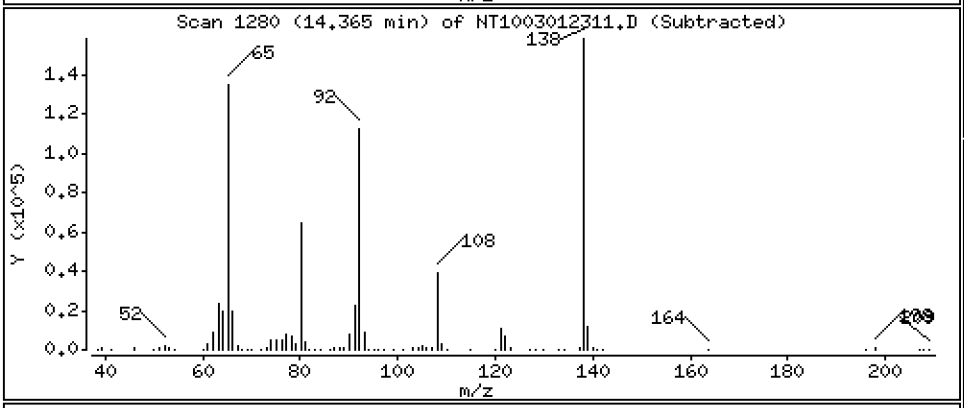
Column diameter: 0.25

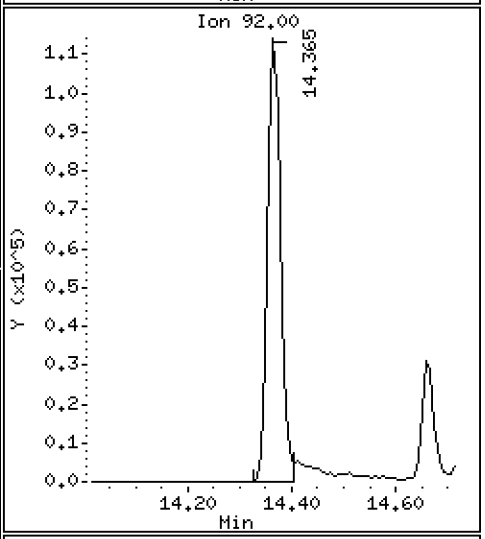
38 2-Nitroaniline

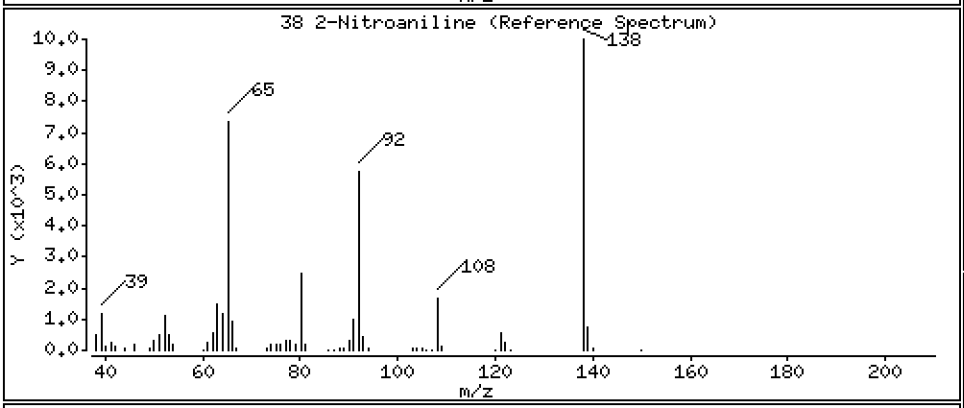
Concentration: 5.027 ug/mL

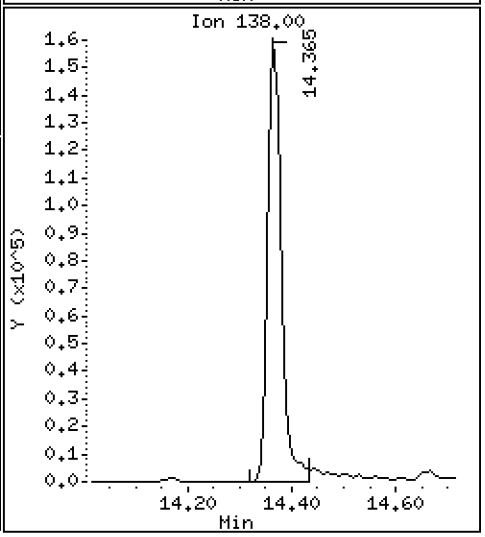


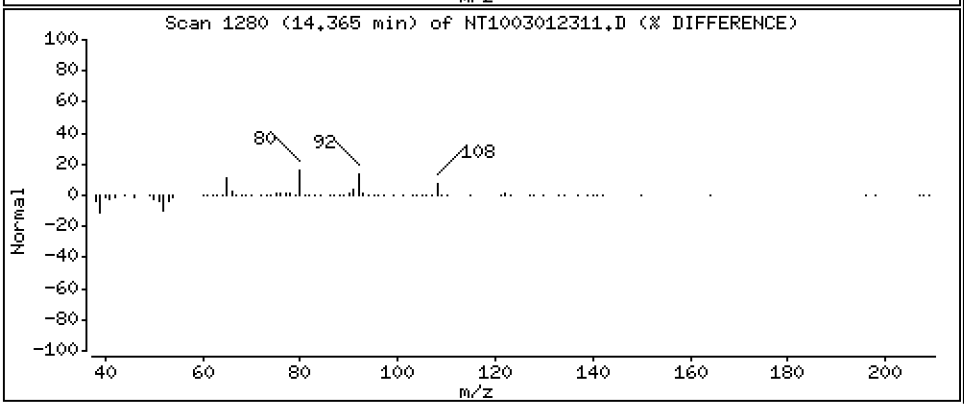












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

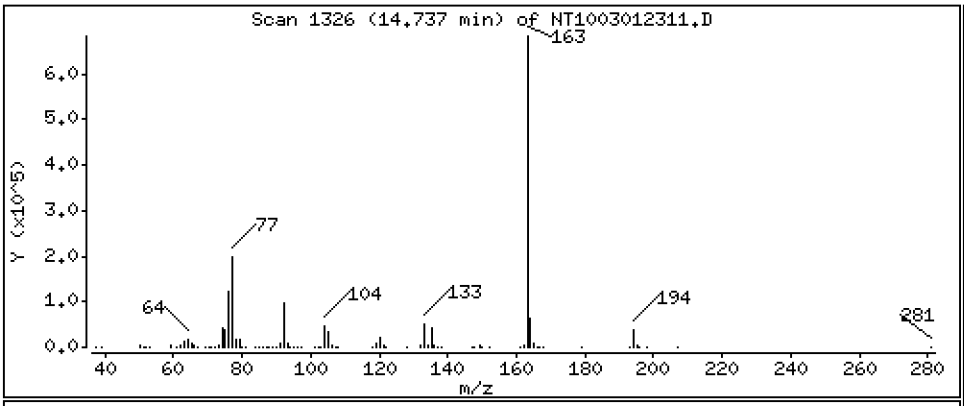
Operator: VTS

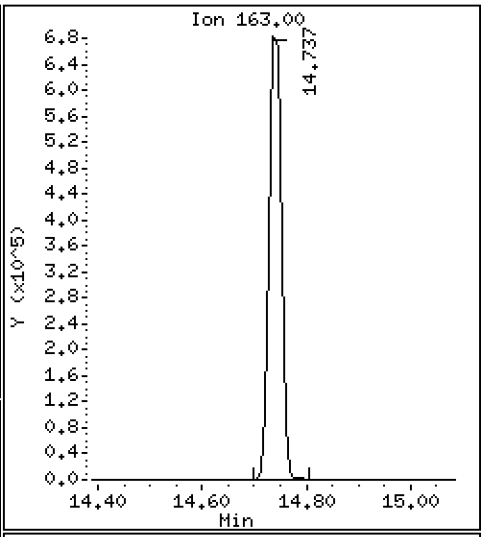
Column phase: ZB-5msi

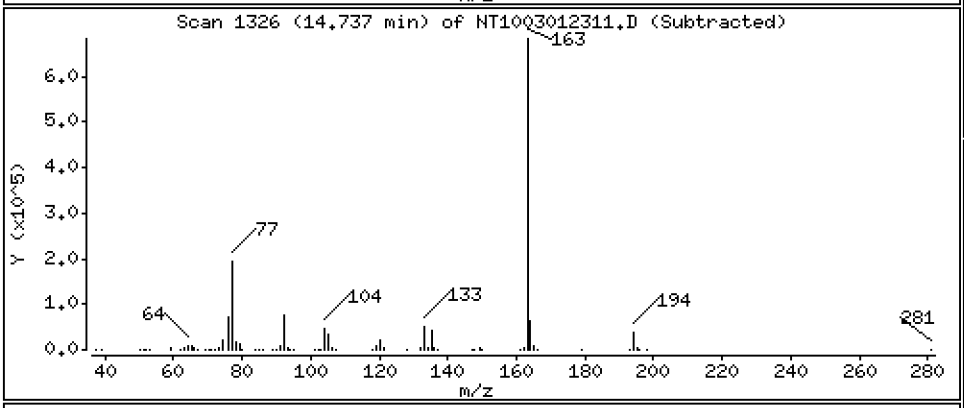
Column diameter: 0.25

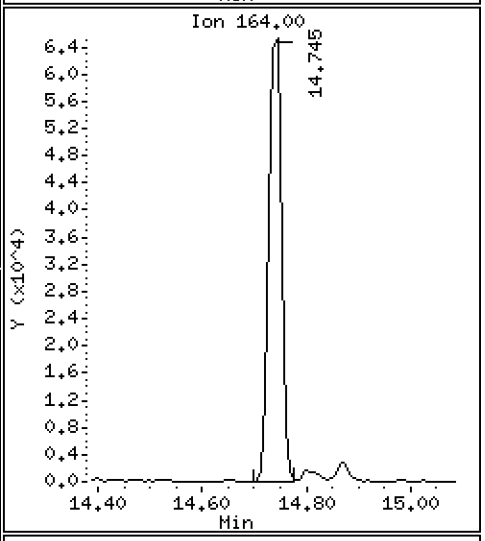
39 Dimethylphthalate

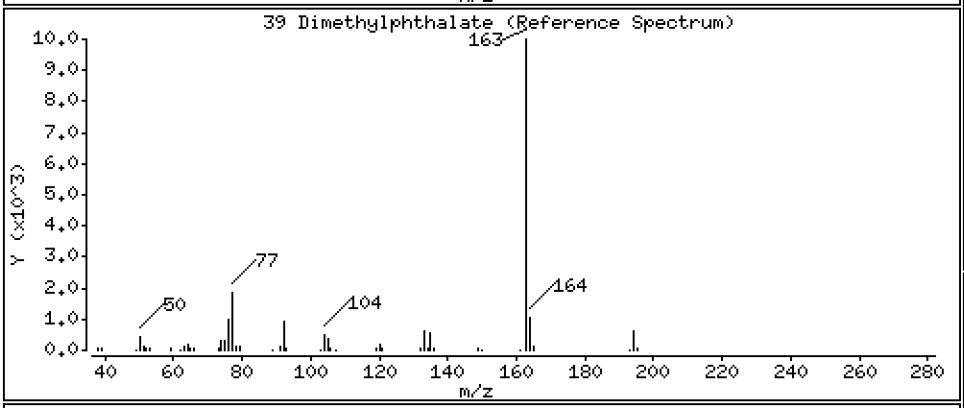
Concentration: 5.384 ug/mL

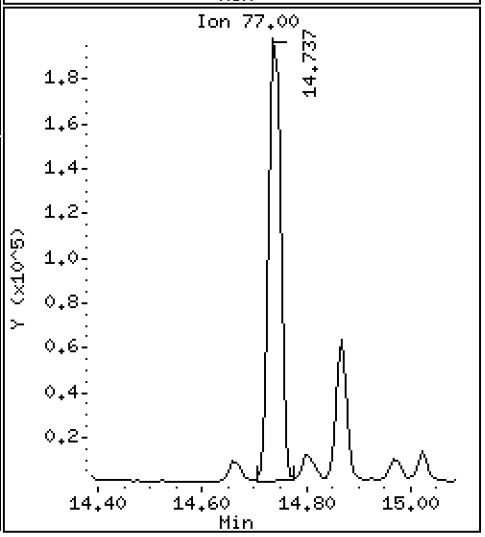


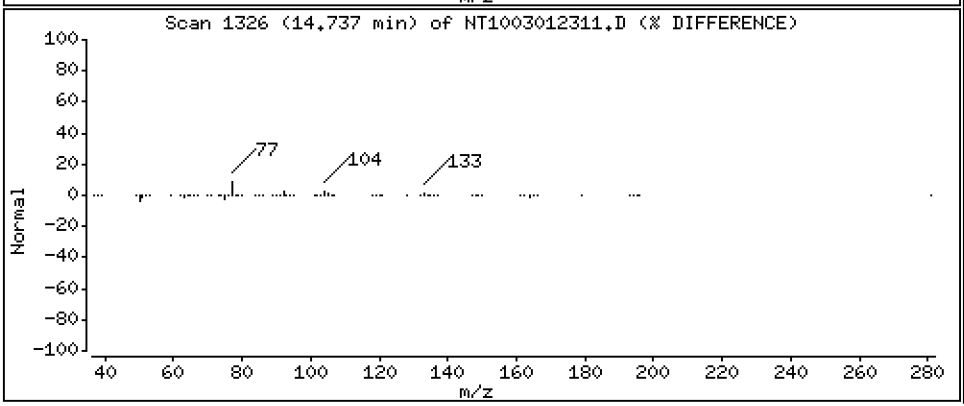












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

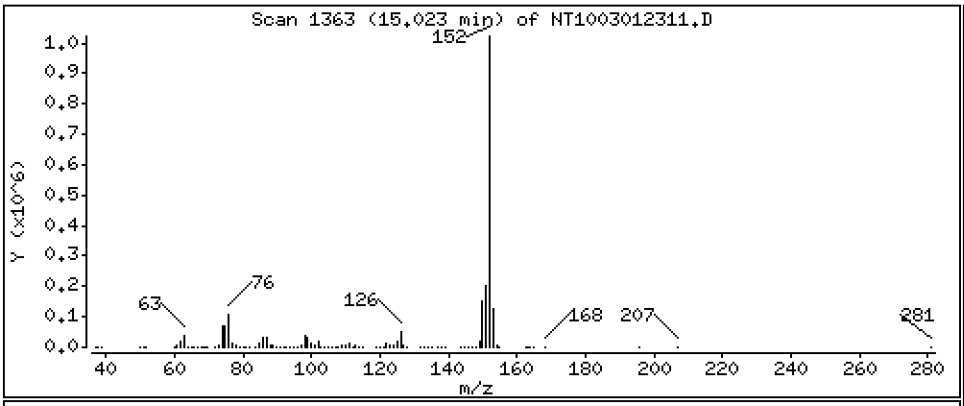
Operator: VTS

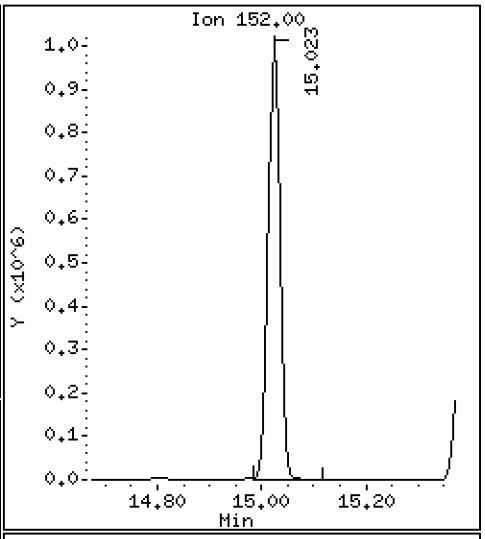
Column phase: ZB-5msi

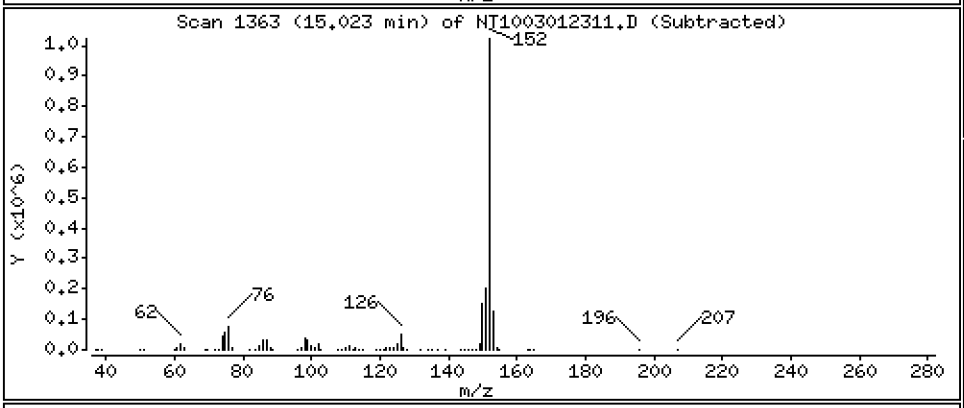
Column diameter: 0.25

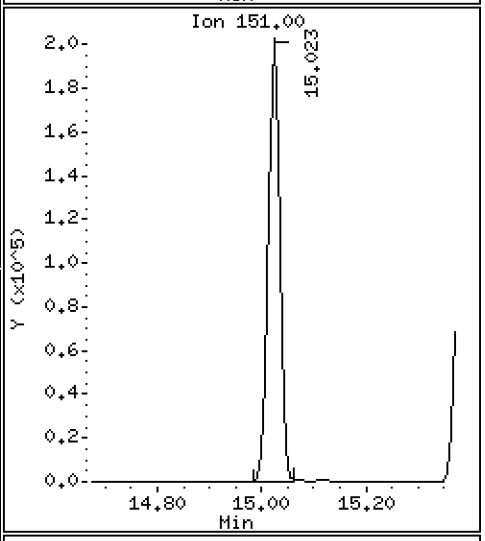
40 Acenaphthylene

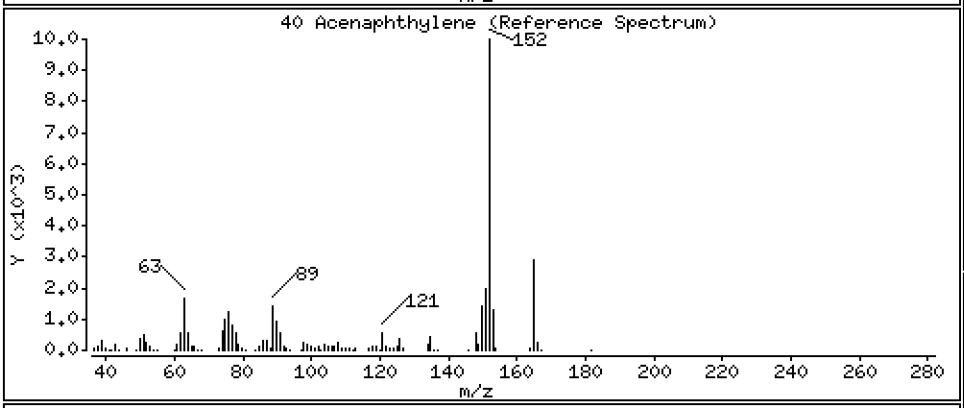
Concentration: 5.806 ug/mL

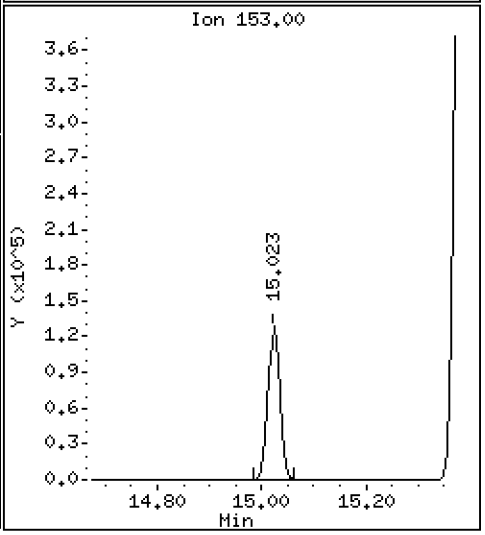


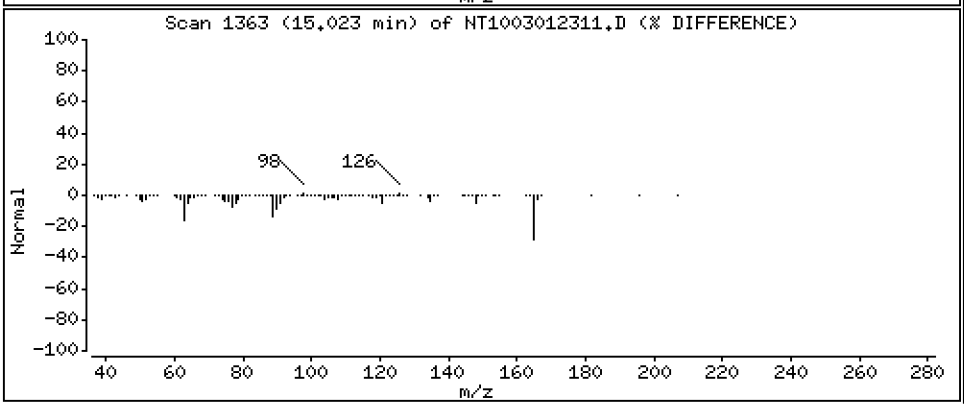












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

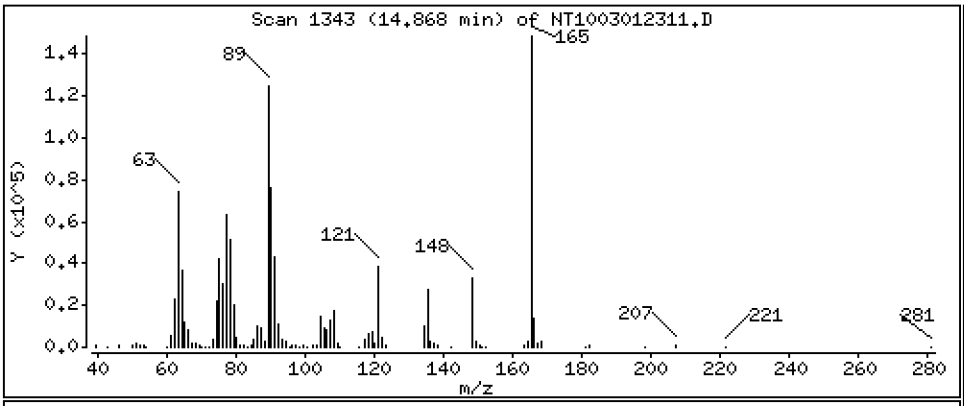
Operator: VTS

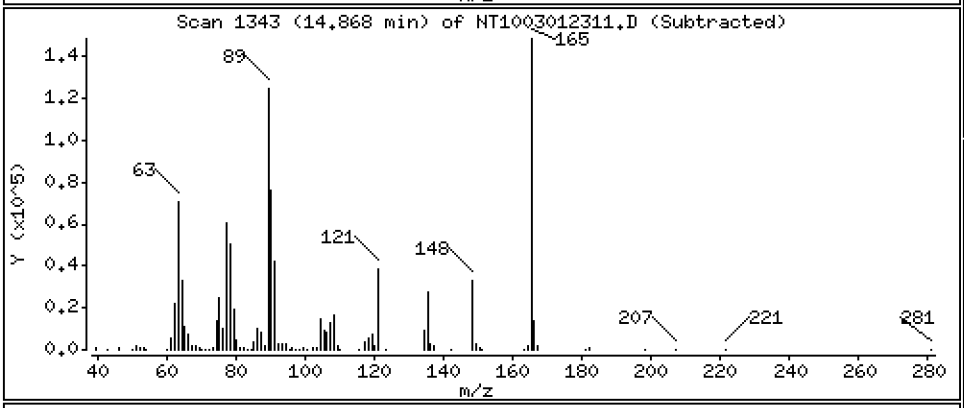
Column phase: ZB-5msi

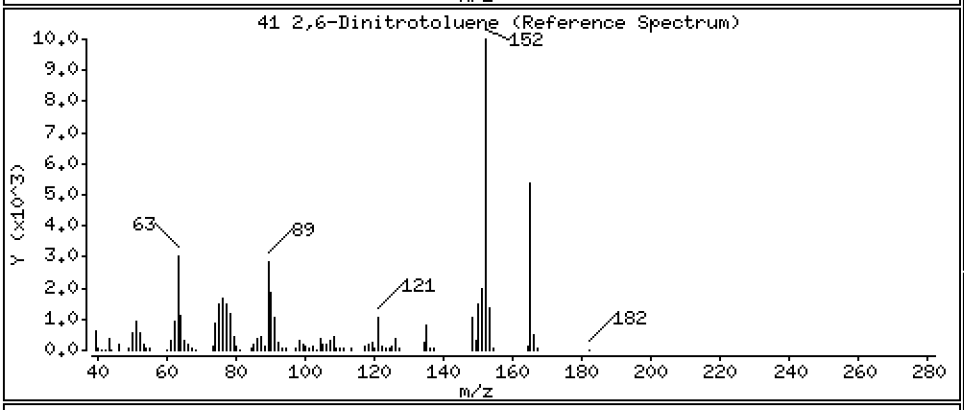
Column diameter: 0.25

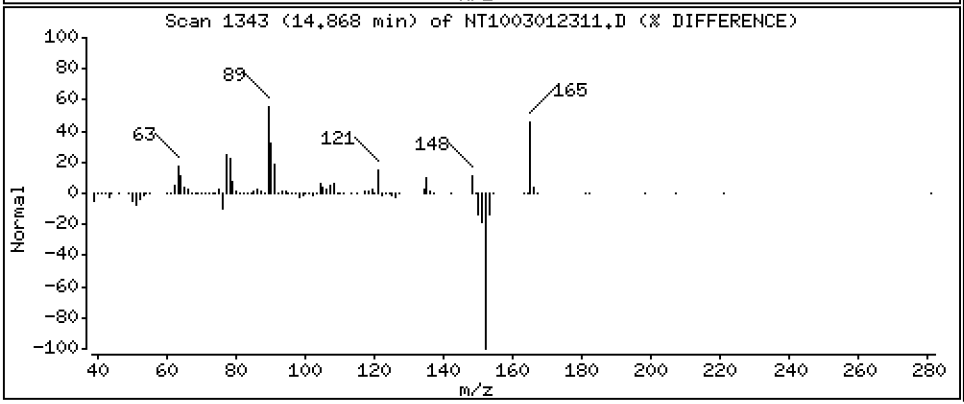
41 2,6-Dinitrotoluene

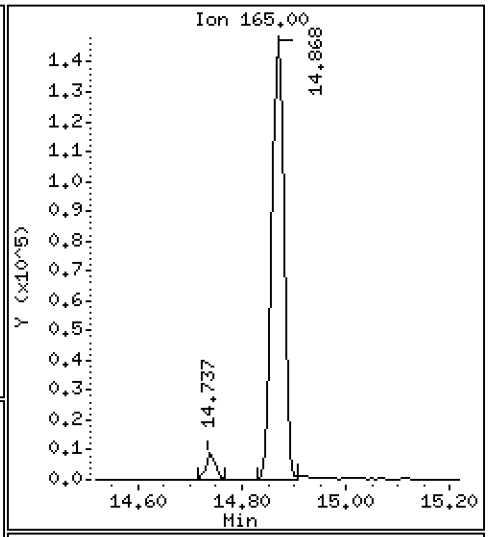
Concentration: 5.187 ug/mL

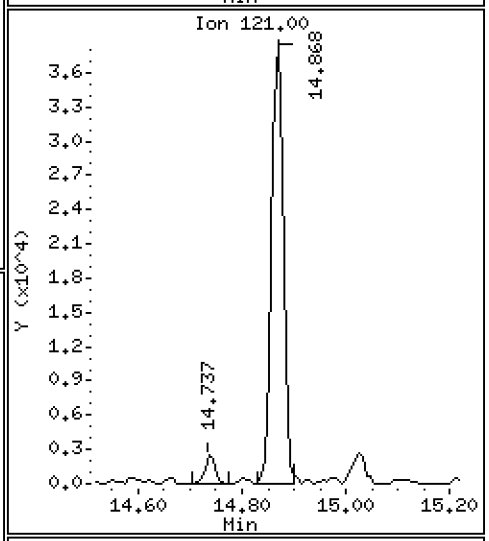


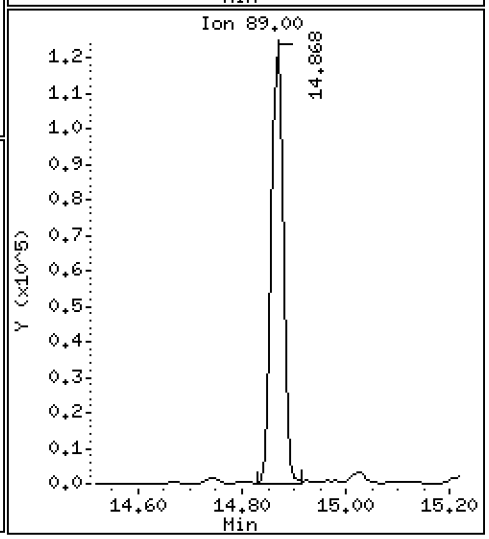












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

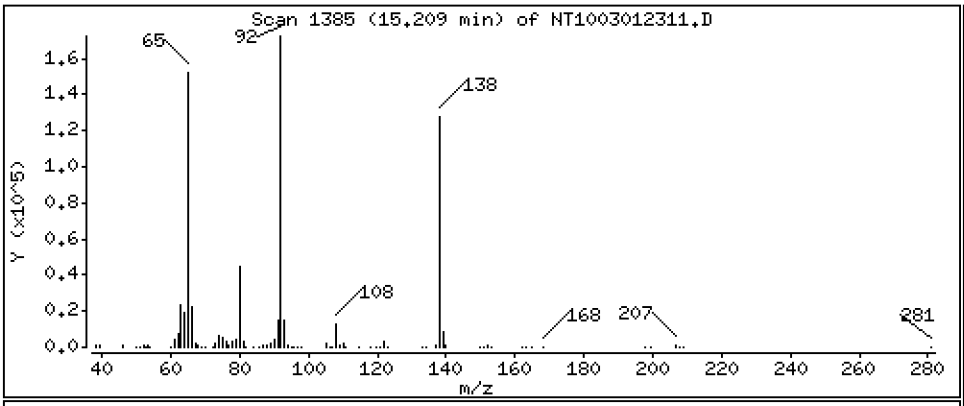
Operator: VTS

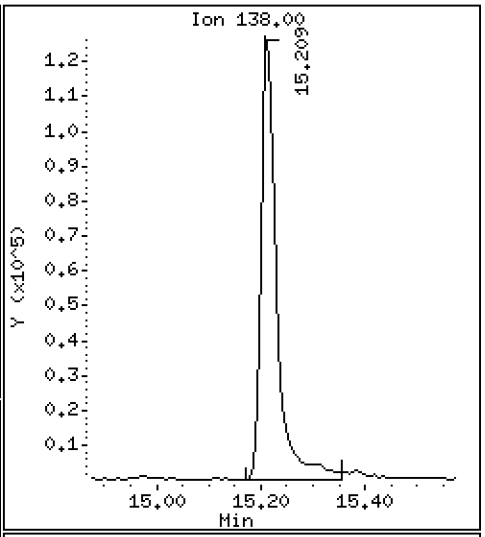
Column phase: ZB-5msi

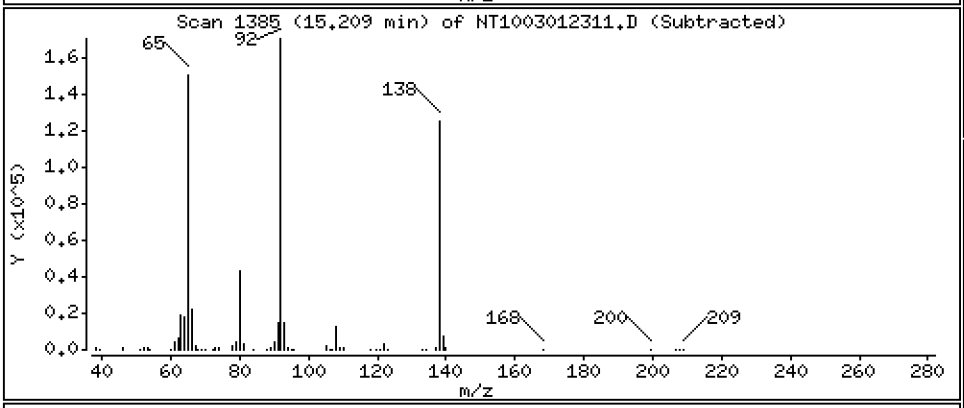
Column diameter: 0.25

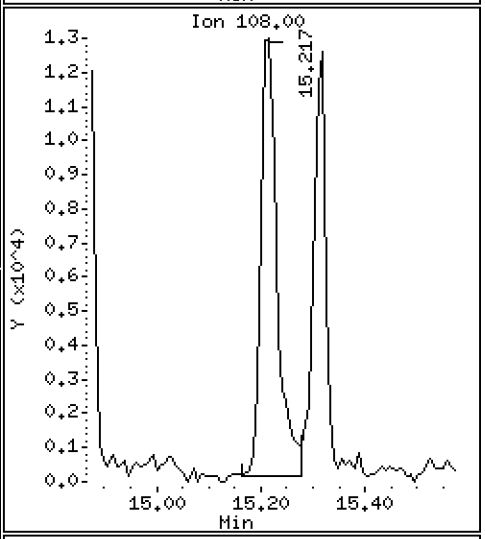
43 3-Nitroaniline

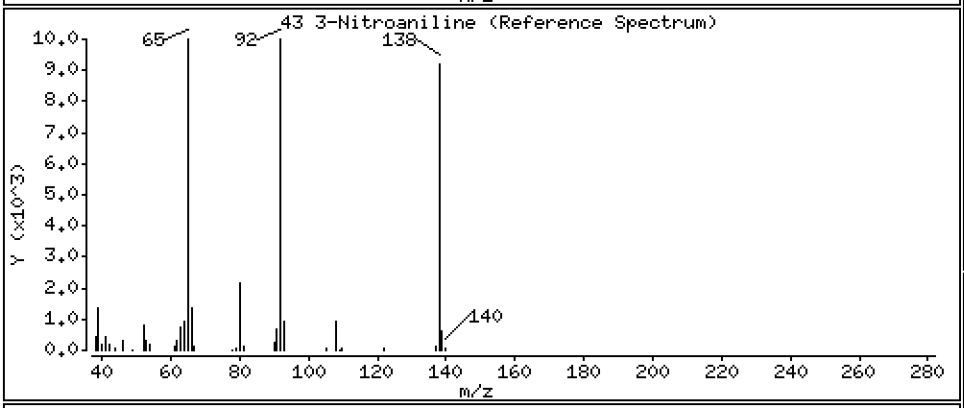
Concentration: 5.172 ug/mL

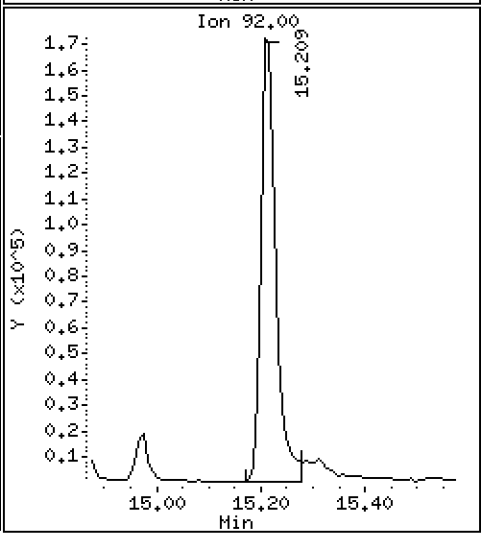


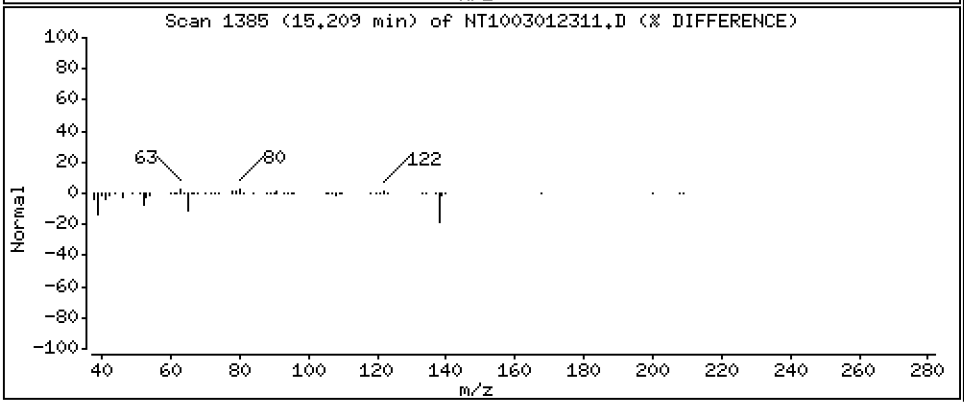












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

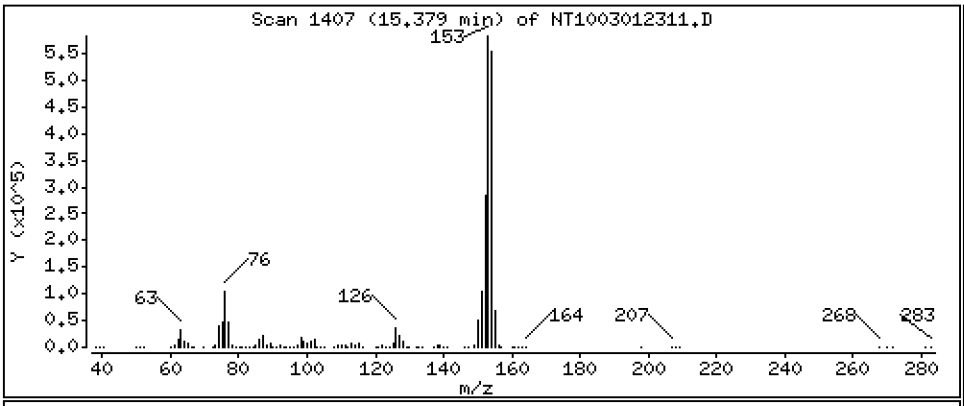
Operator: VTS

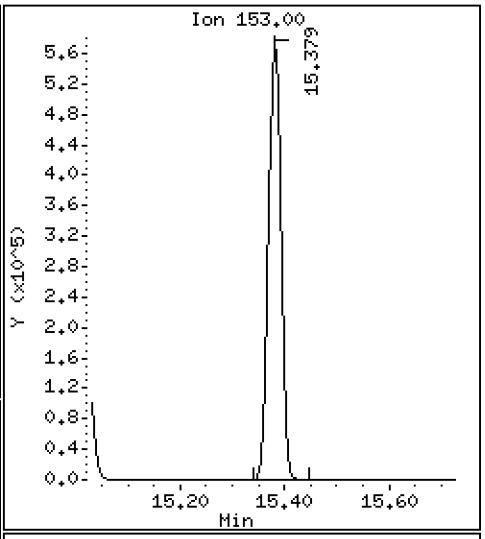
Column phase: ZB-5msi

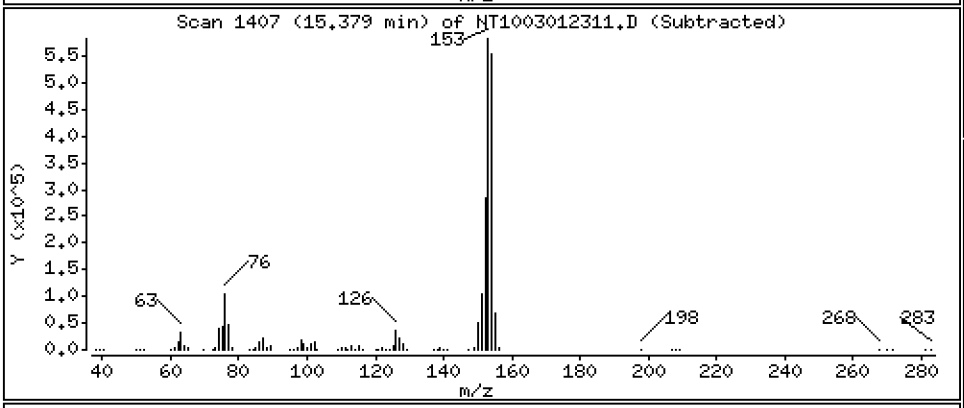
Column diameter: 0.25

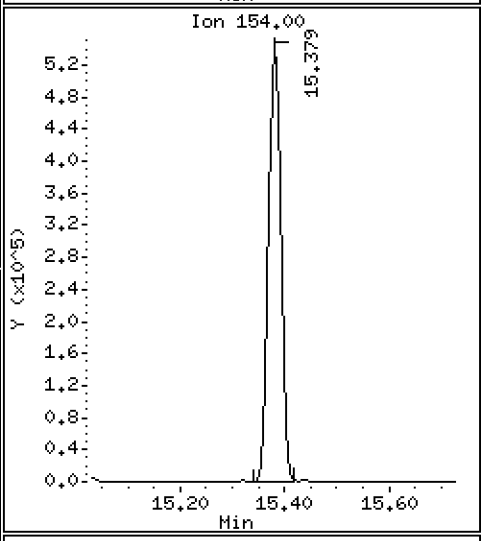
44 Acenaphthene

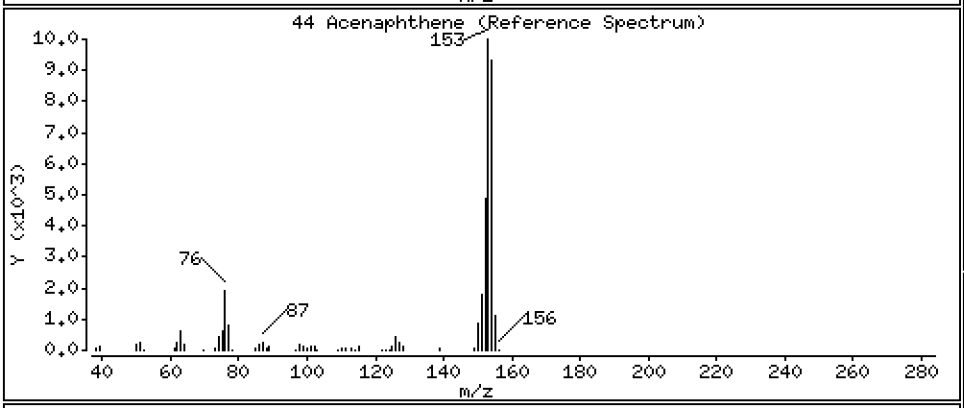
Concentration: 5.154 ug/mL

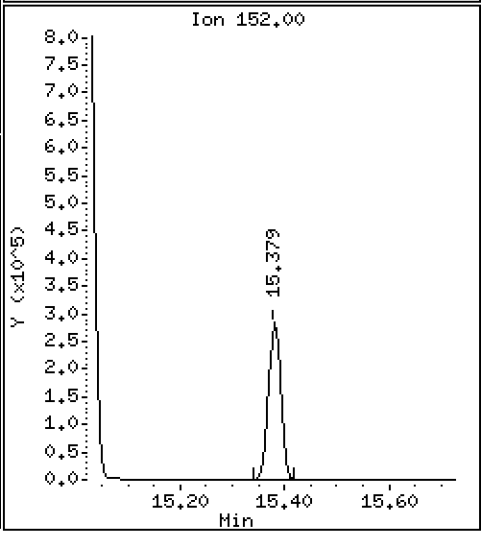


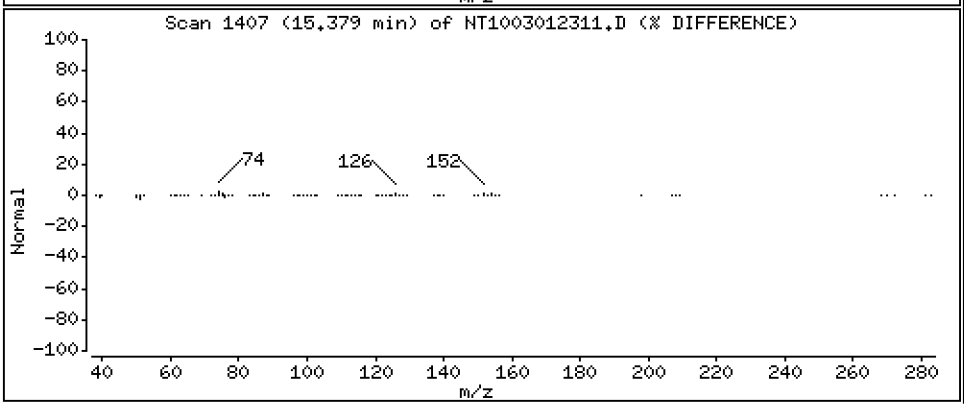












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

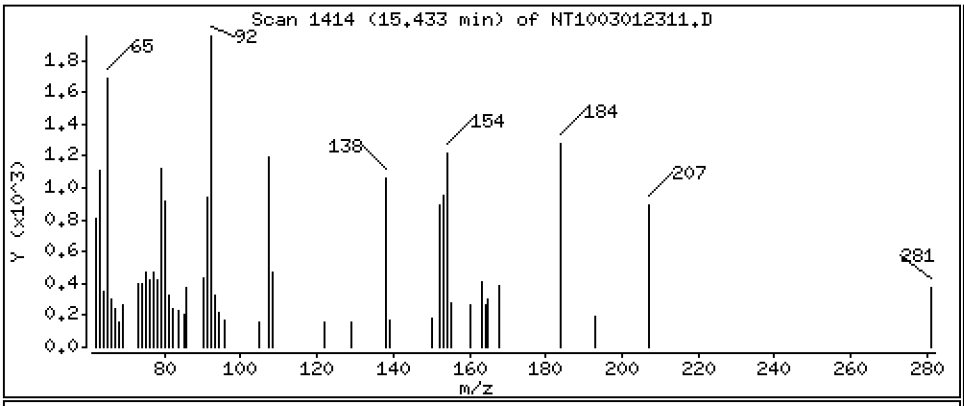
Operator: VTS

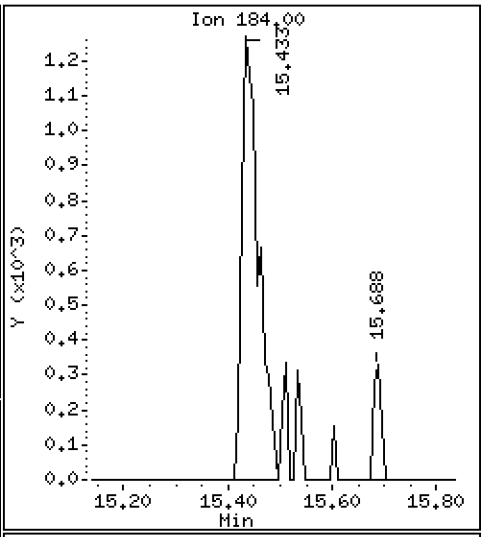
Column phase: ZB-5msi

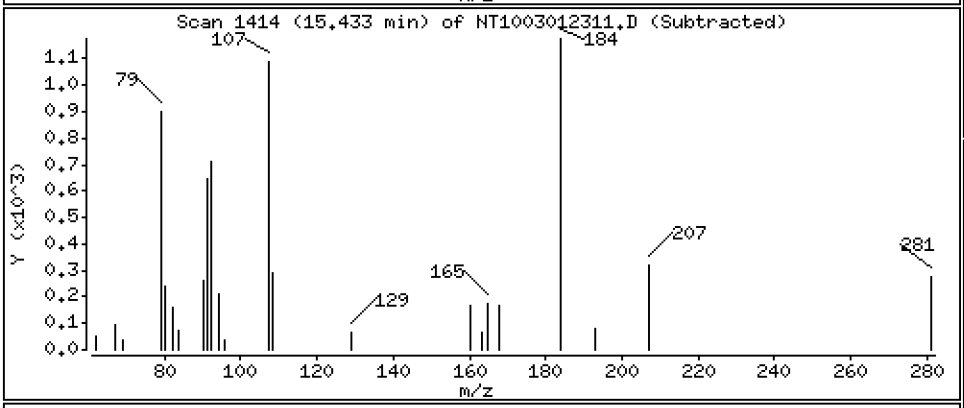
Column diameter: 0.25

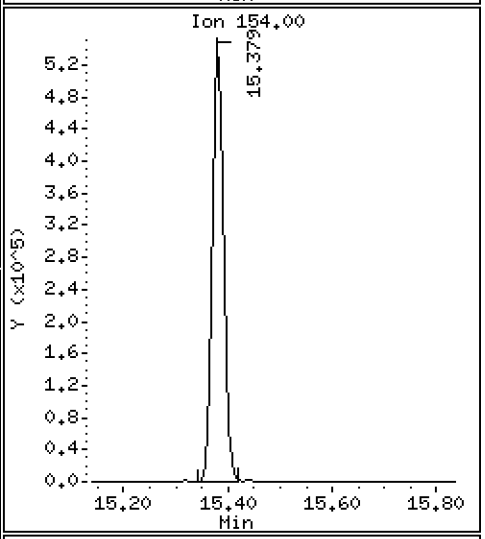
45 2,4-Dinitrophenol

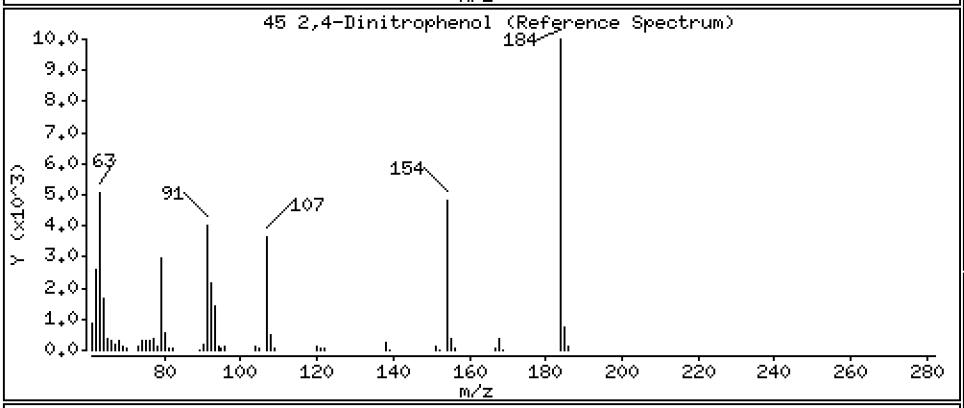
Concentration: 0.2667 ug/mL

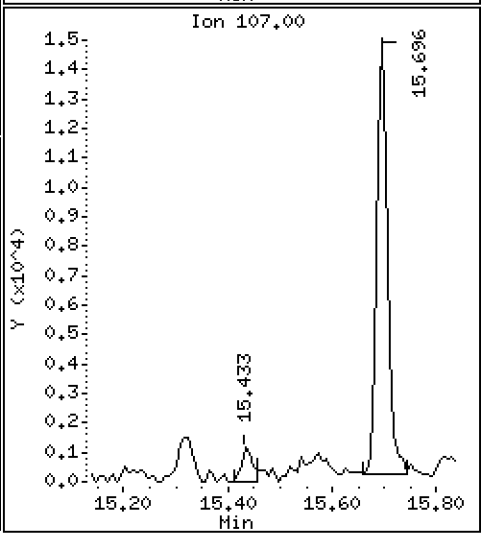


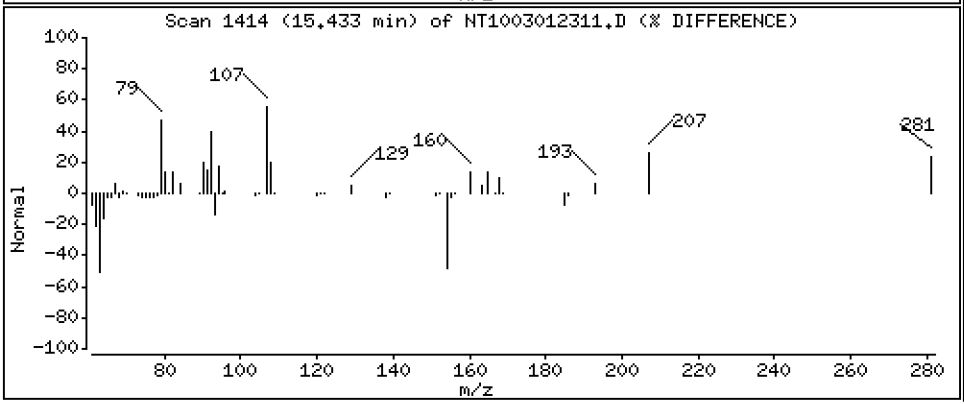












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

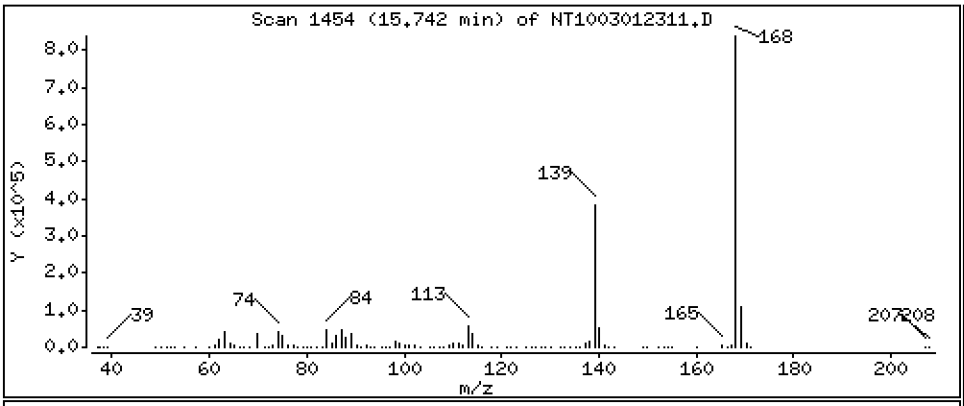
Operator: VTS

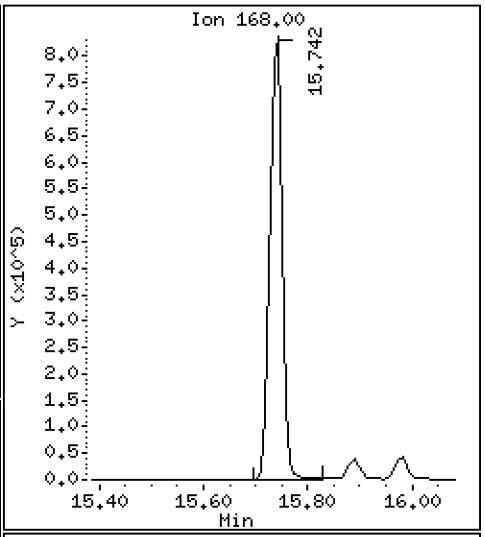
Column phase: ZB-5msi

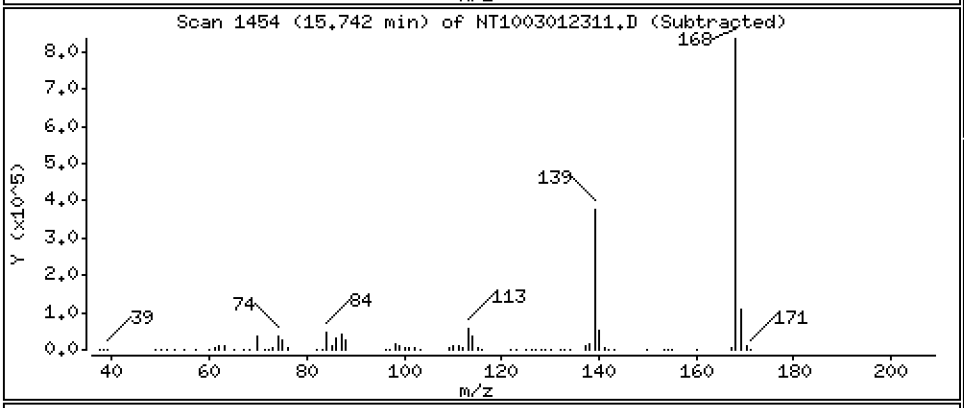
Column diameter: 0.25

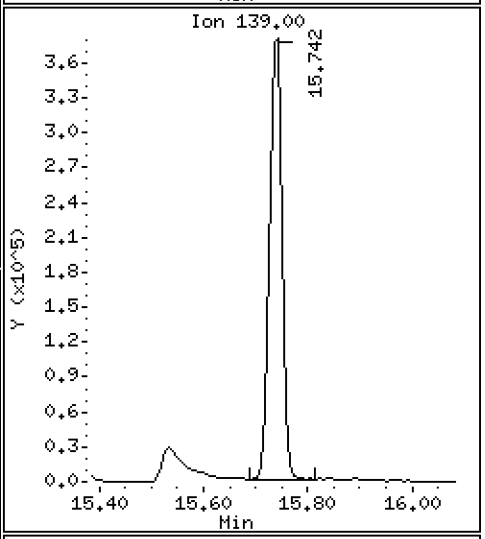
46 Dibenzofuran

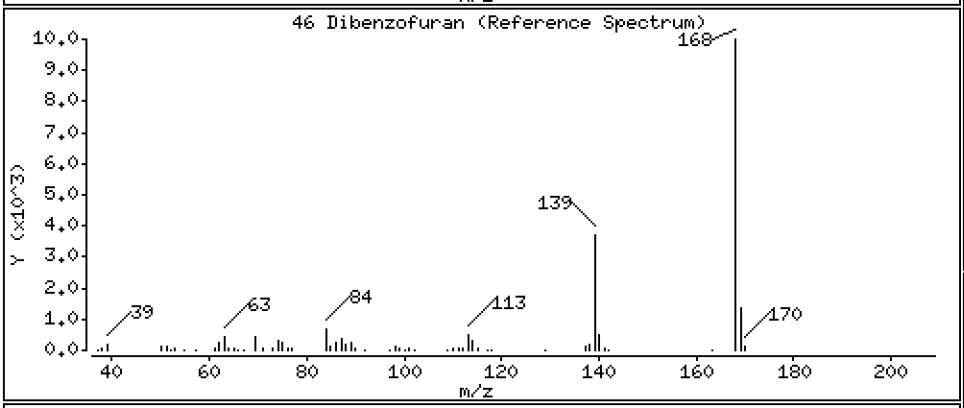
Concentration: 4.994 ug/mL

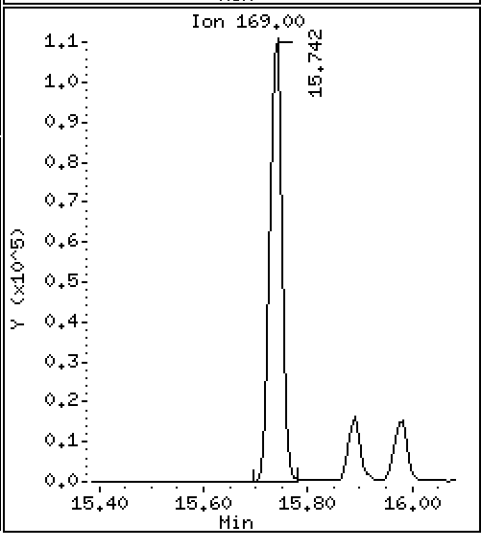


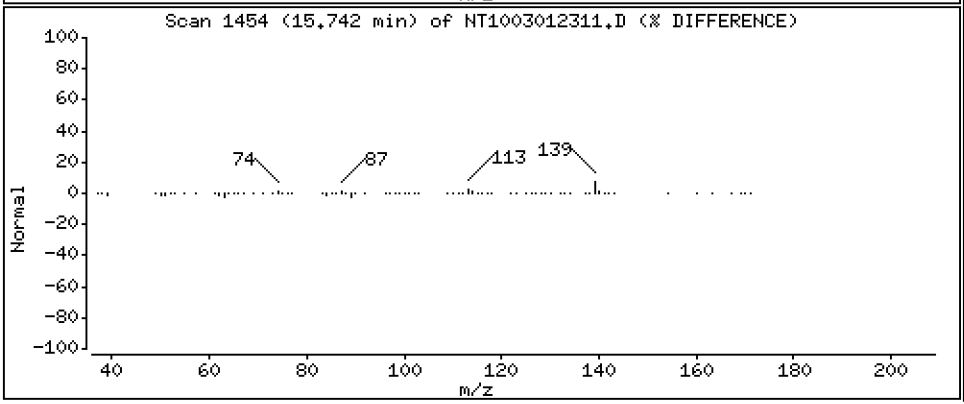












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

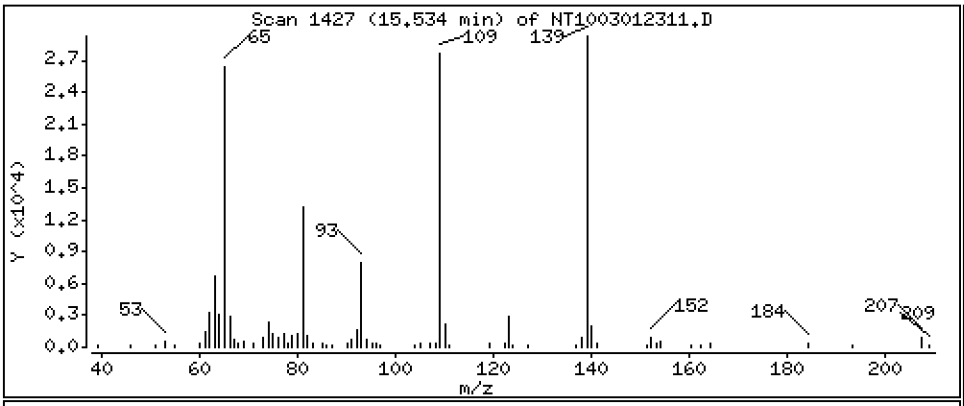
Operator: VTS

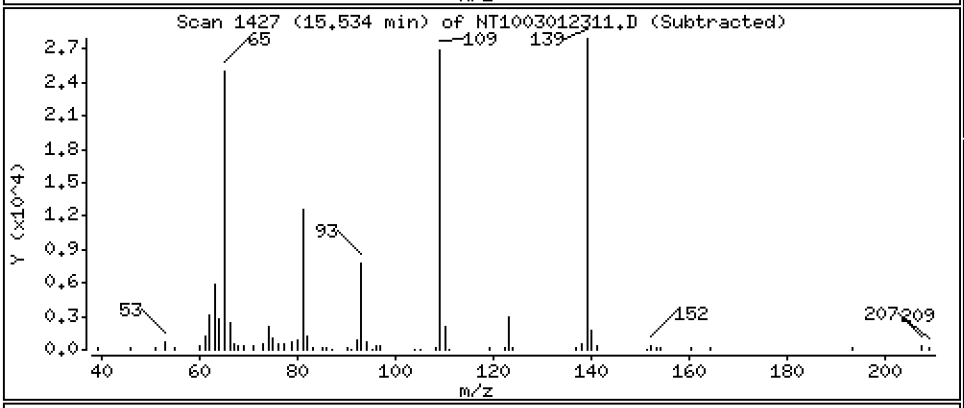
Column phase: ZB-5msi

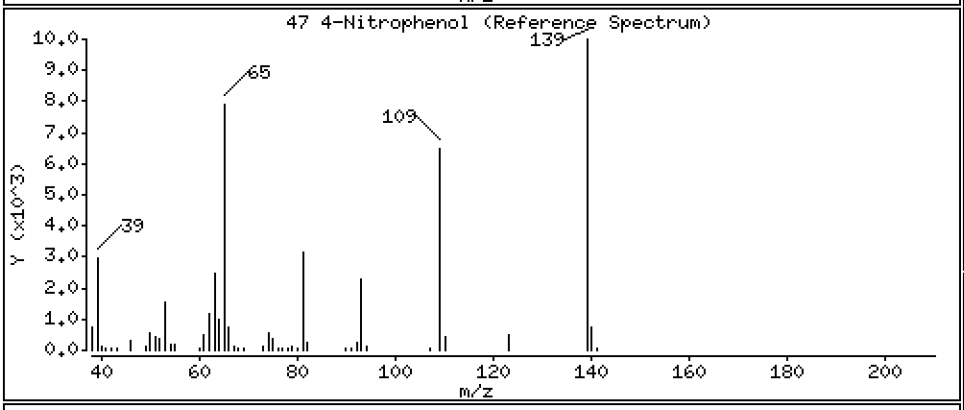
Column diameter: 0.25

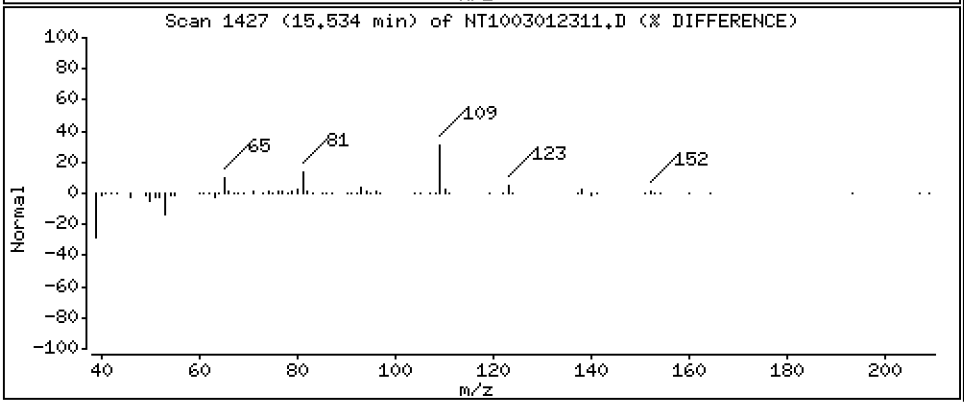
47 4-Nitrophenol

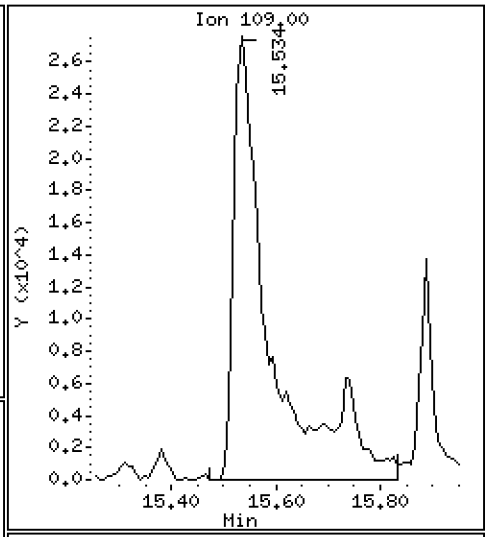
Concentration: 3.822 ug/mL

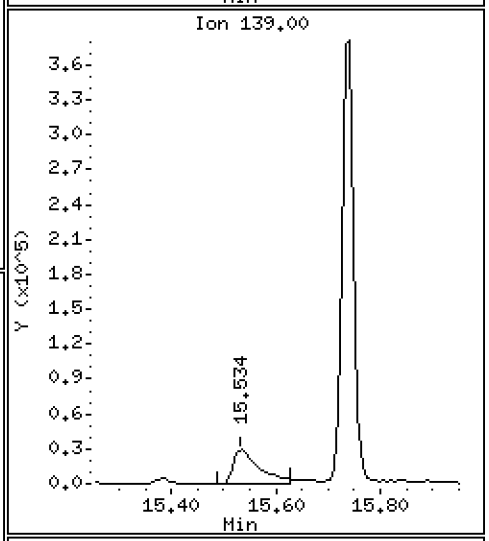


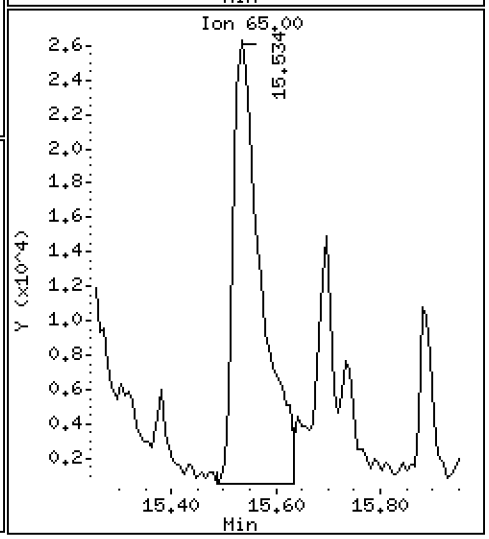












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

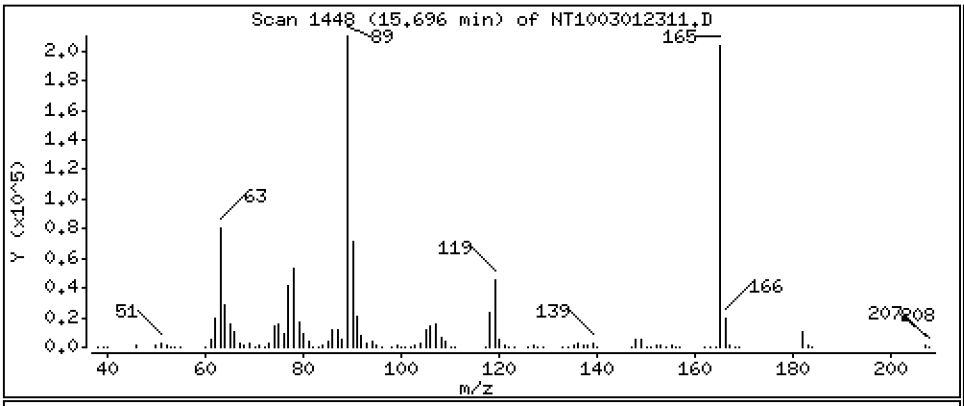
Operator: VTS

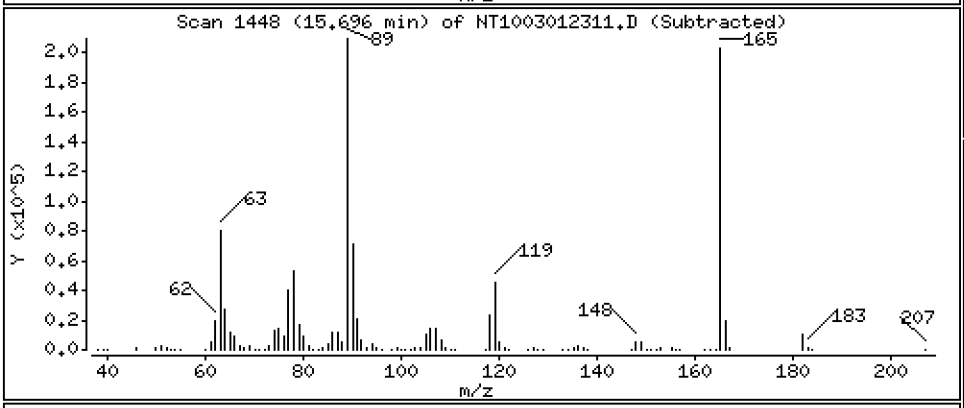
Column phase: ZB-5msi

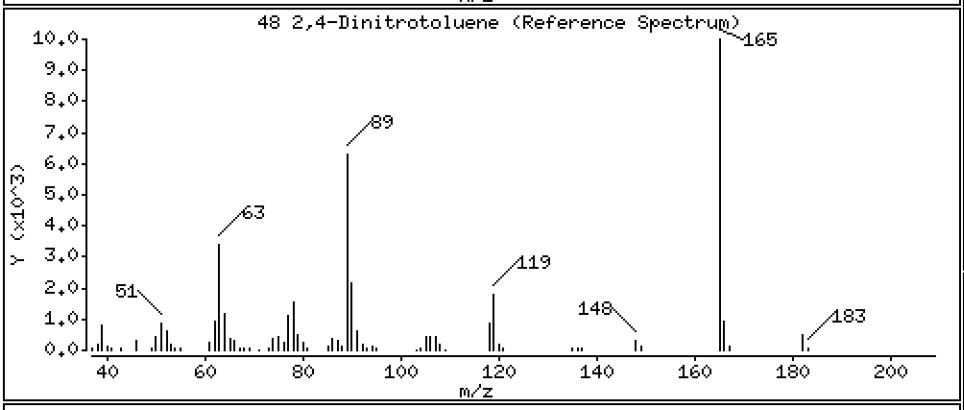
Column diameter: 0.25

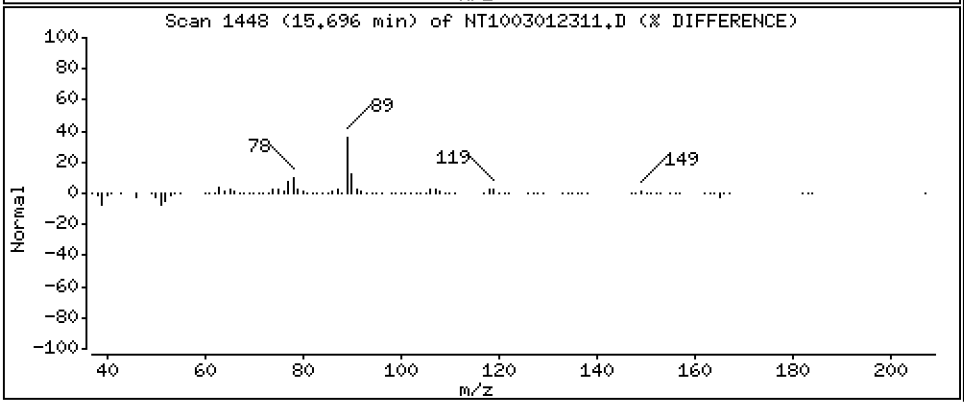
48 2,4-Dinitrotoluene

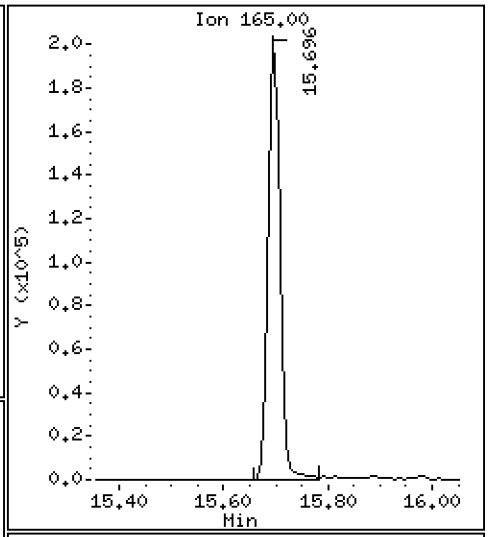
Concentration: 4.729 ug/mL

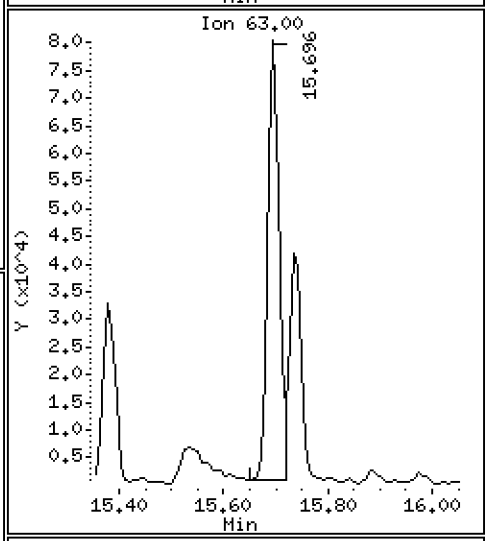


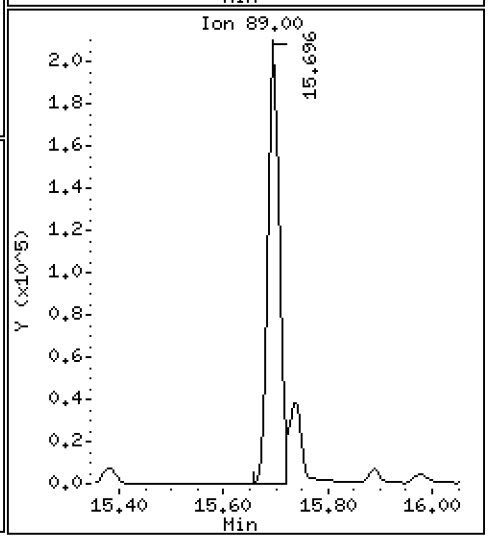












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

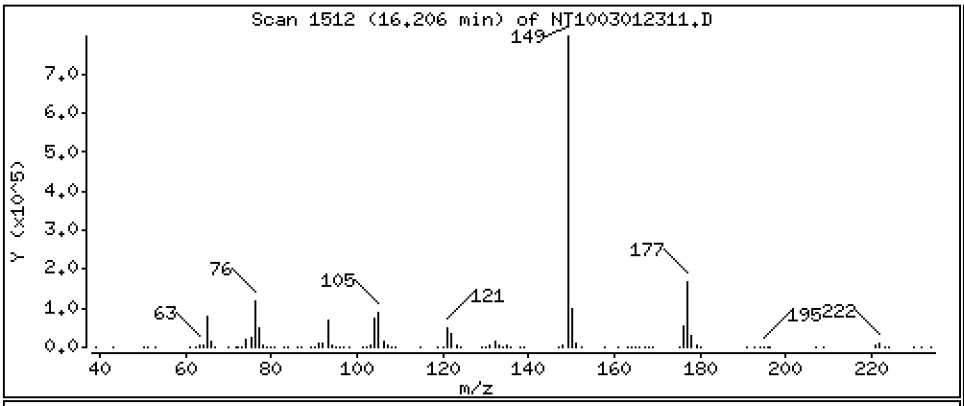
Operator: VTS

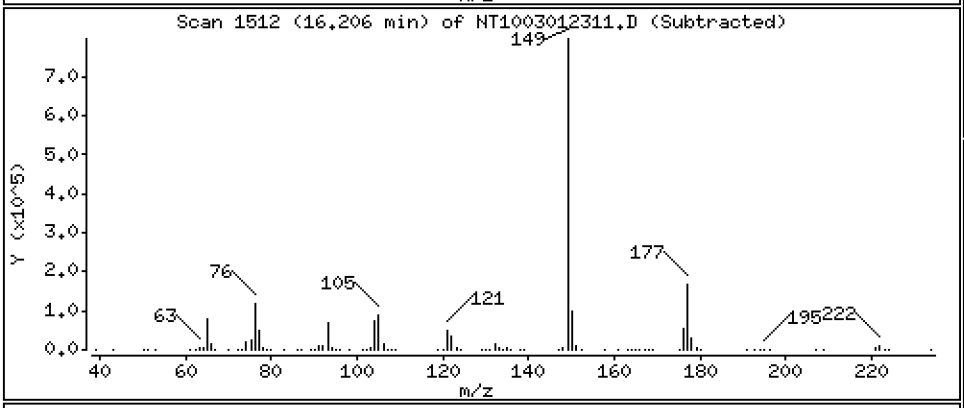
Column phase: ZB-5msi

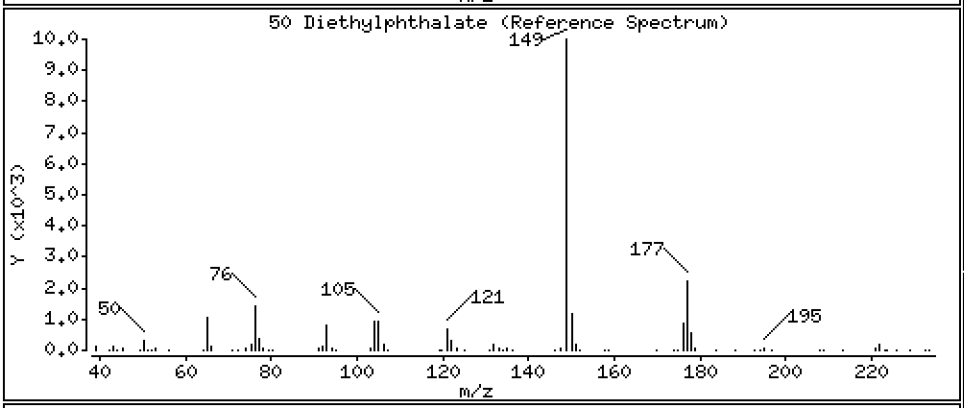
Column diameter: 0.25

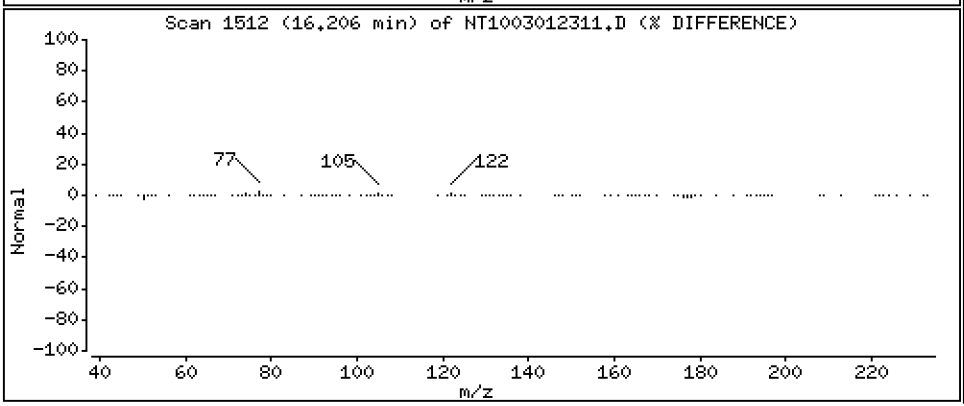
50 Diethylphthalate

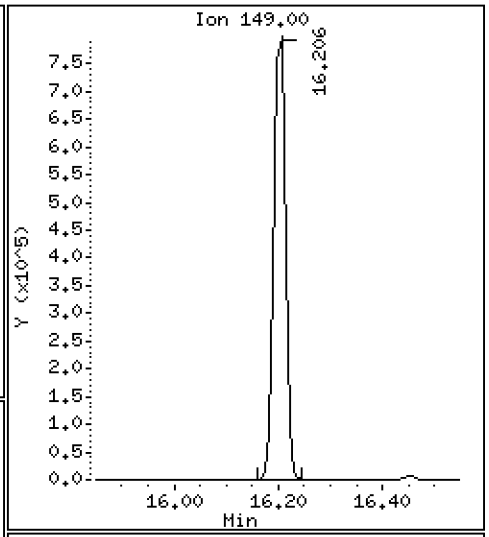
Concentration: 5.639 ug/mL

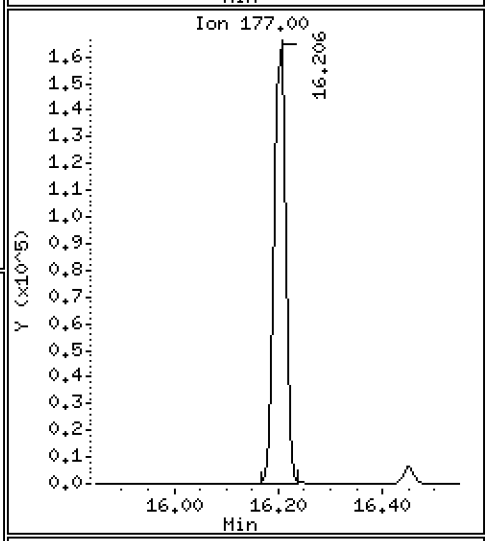


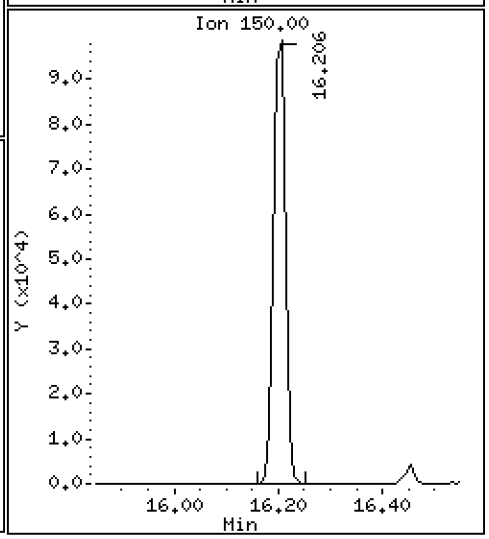












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

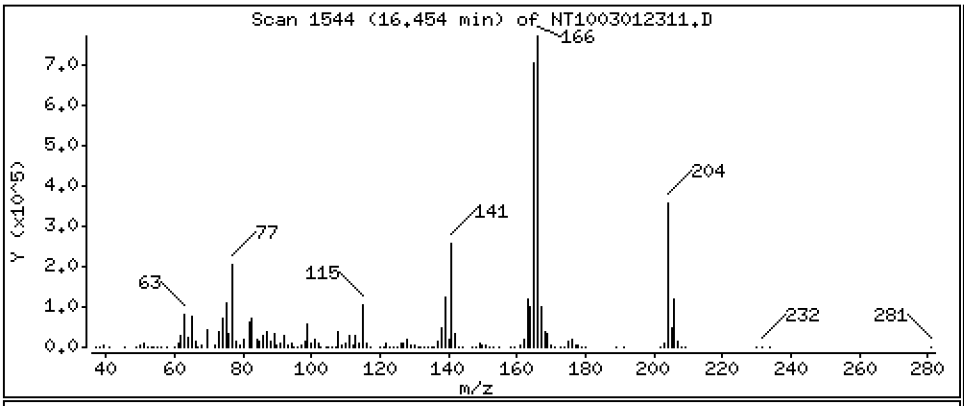
Operator: VTS

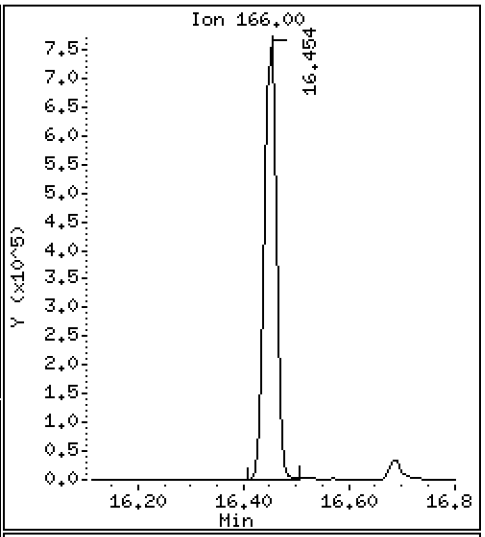
Column phase: ZB-5msi

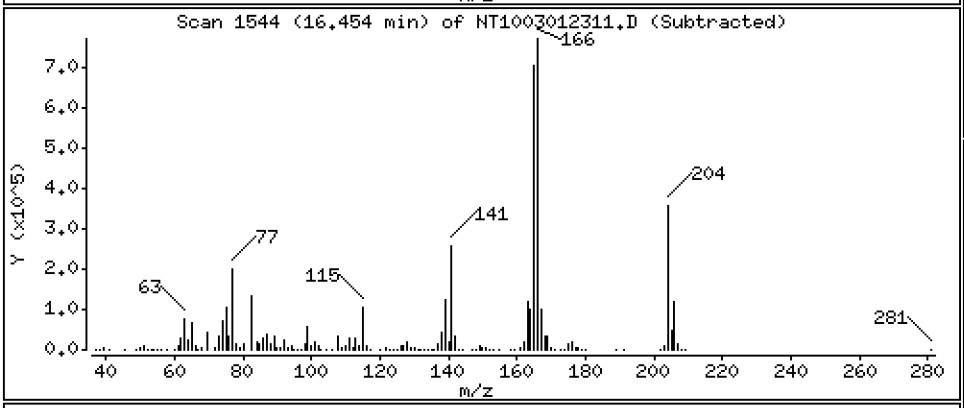
Column diameter: 0.25

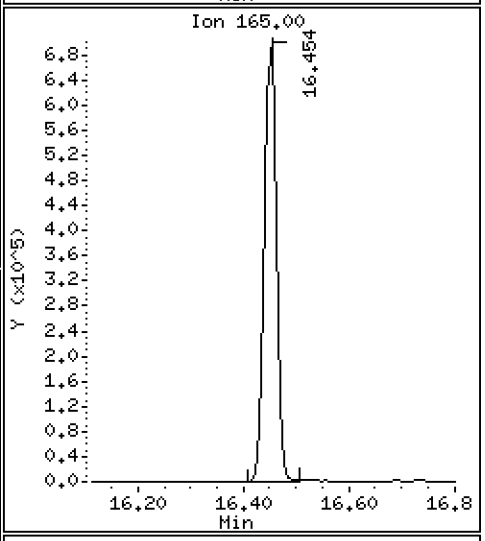
49 Fluorene

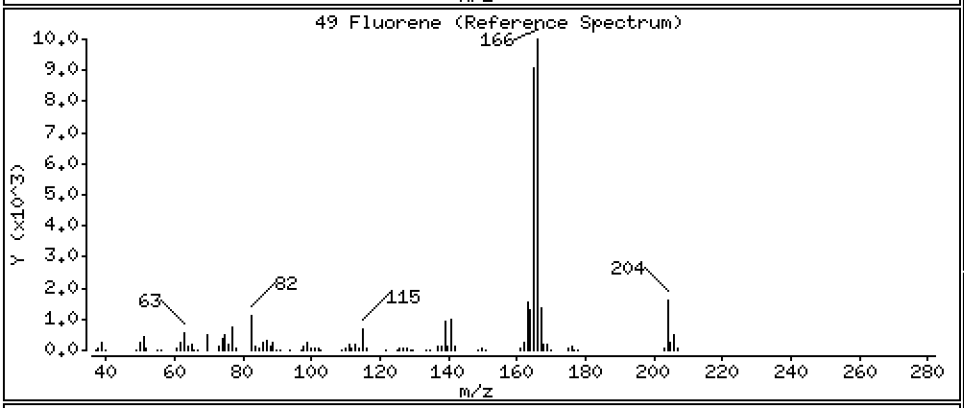
Concentration: 5.305 ug/mL

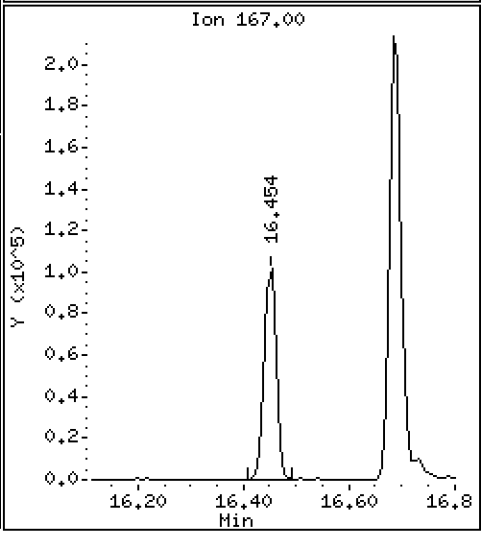


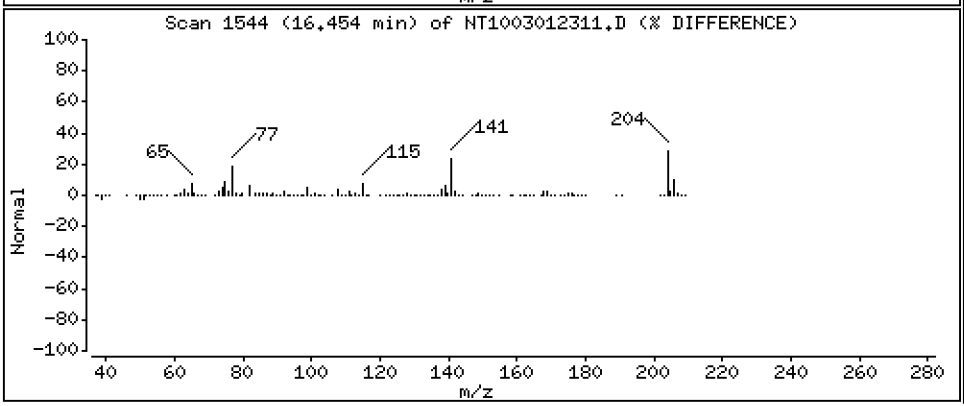












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

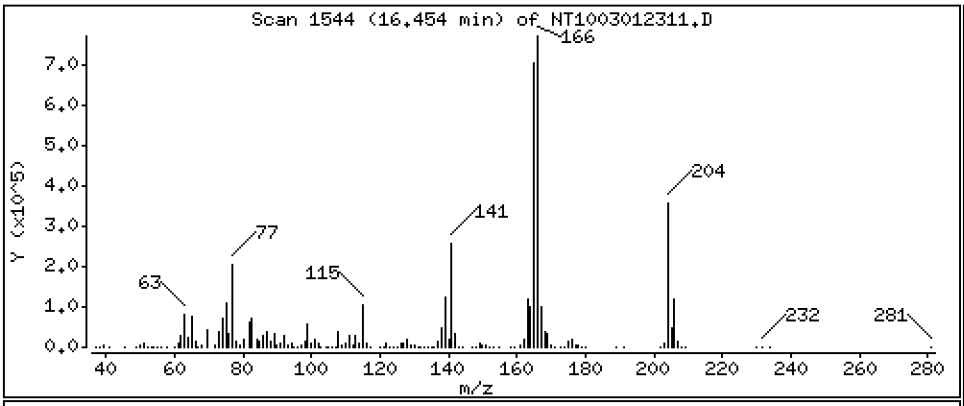
Operator: VTS

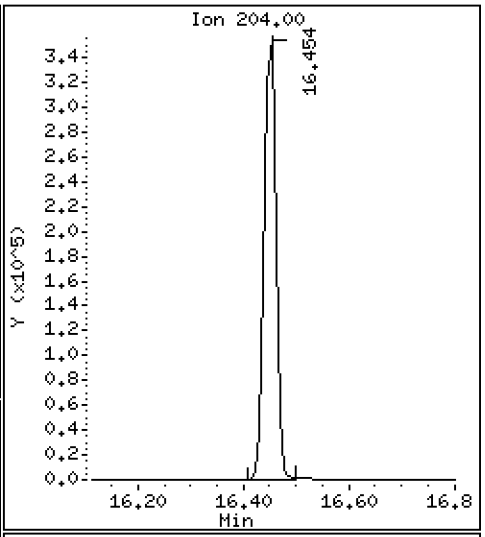
Column phase: ZB-5msi

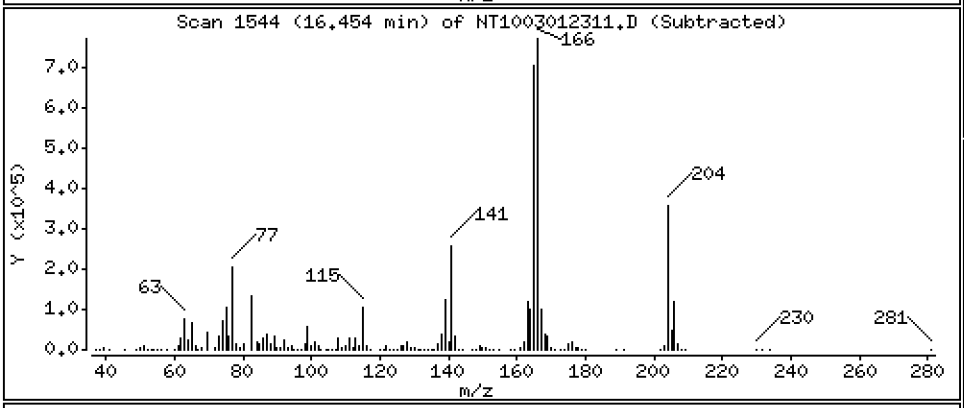
Column diameter: 0.25

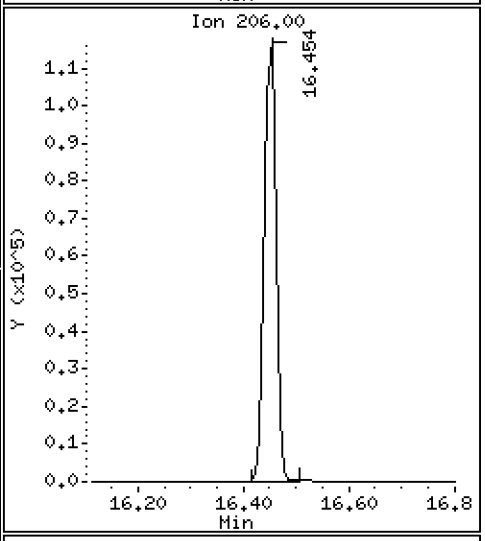
51 4-Chlorophenyl-phenylether

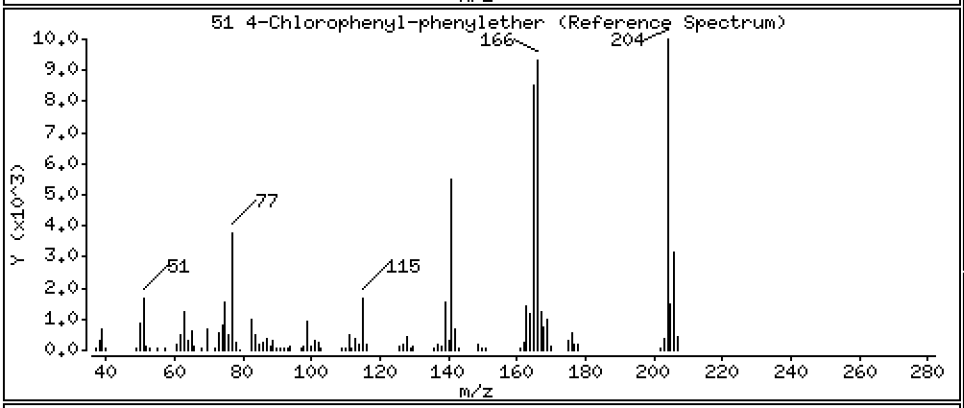
Concentration: 5.253 ug/mL

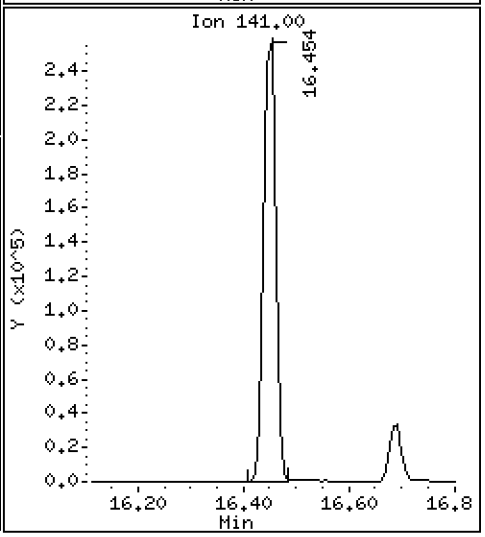


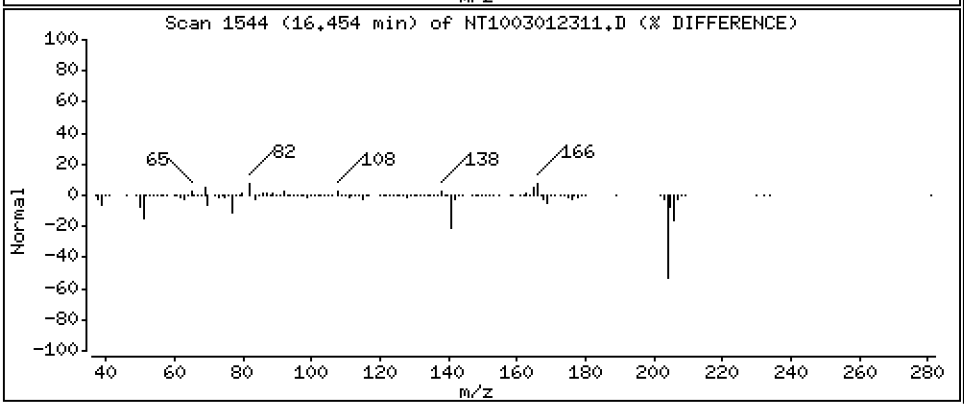












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

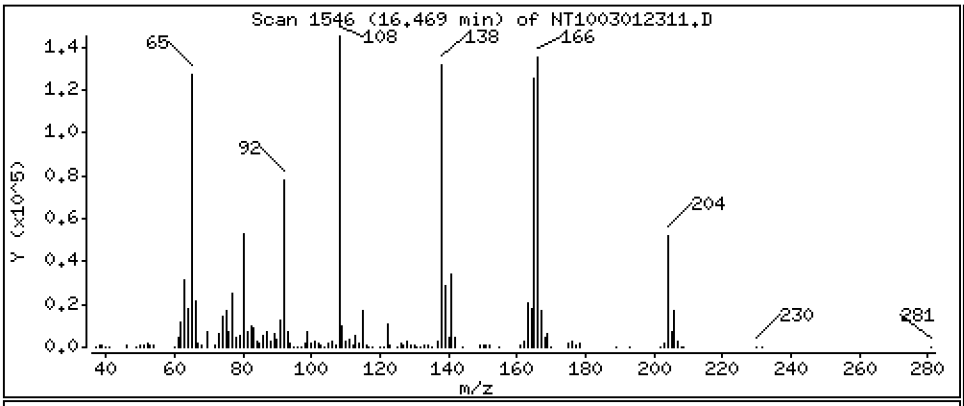
Operator: VTS

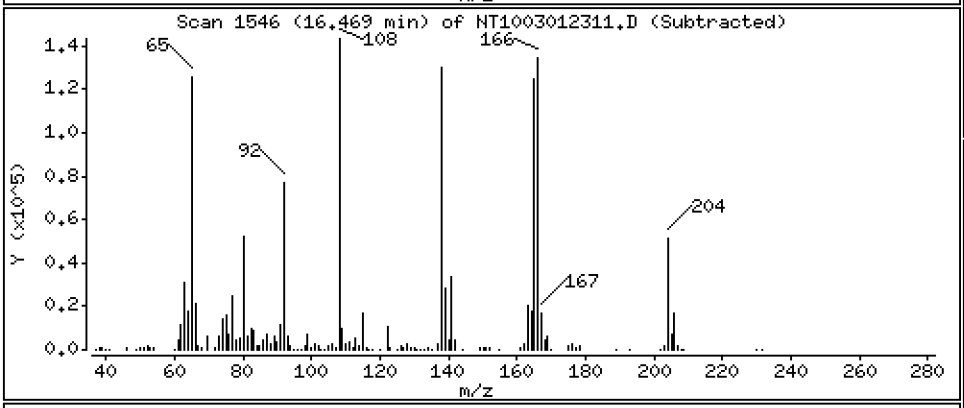
Column phase: ZB-5msi

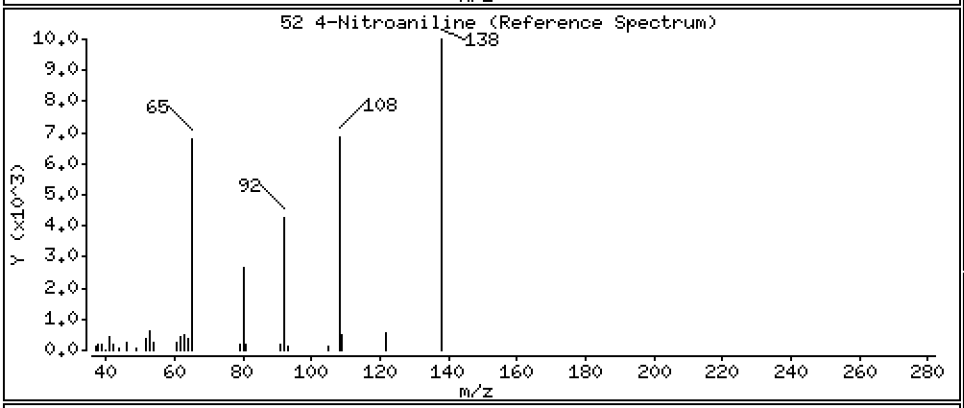
Column diameter: 0.25

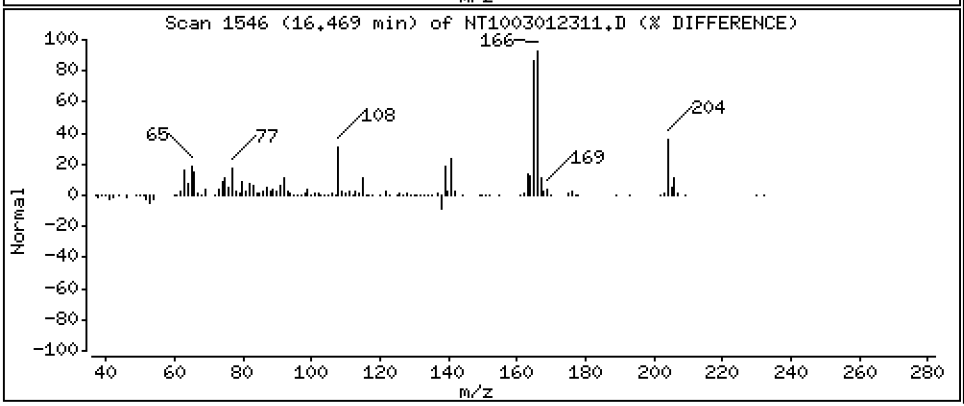
52 4-Nitroaniline

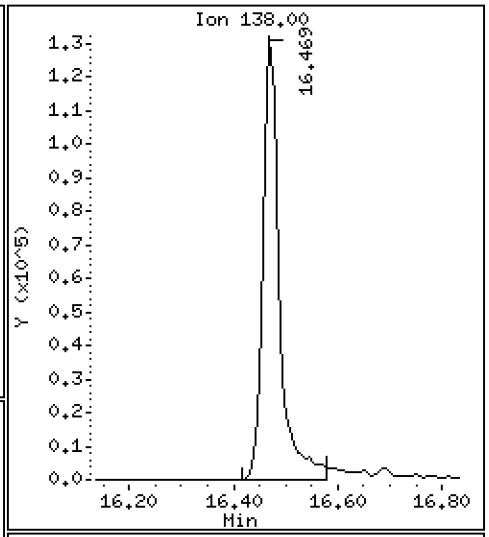
Concentration: 5.232 ug/mL

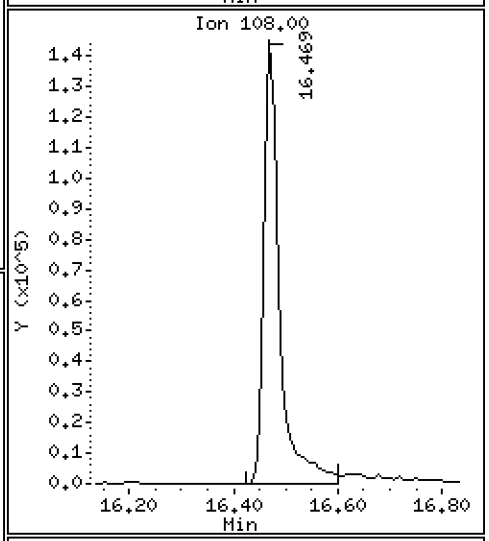


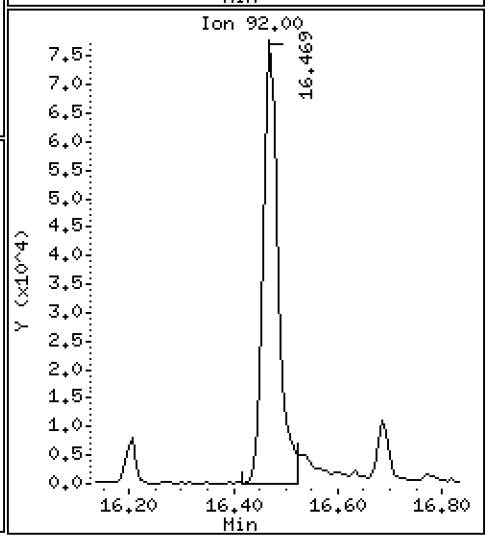












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

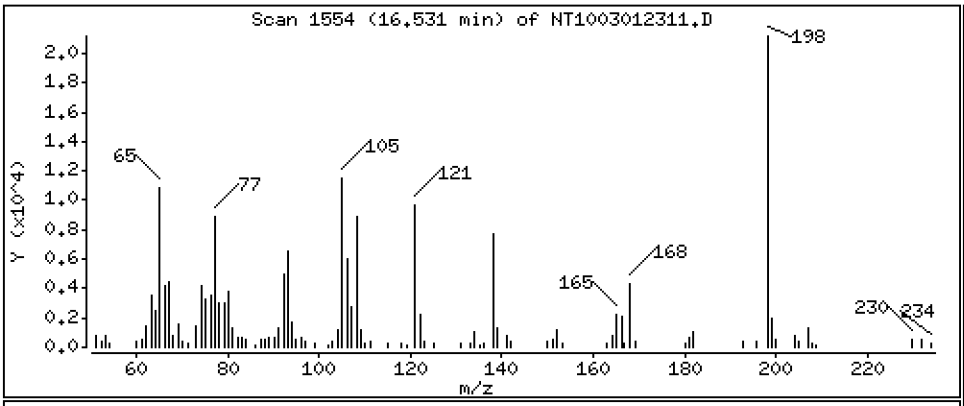
Operator: VTS

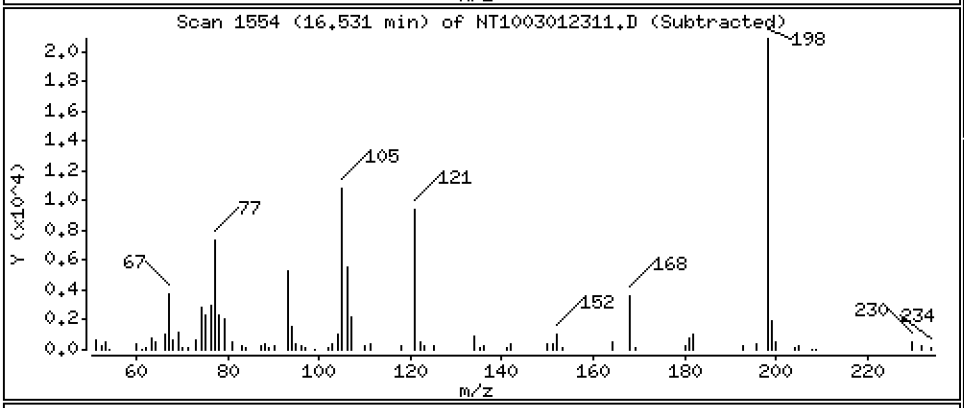
Column phase: ZB-5msi

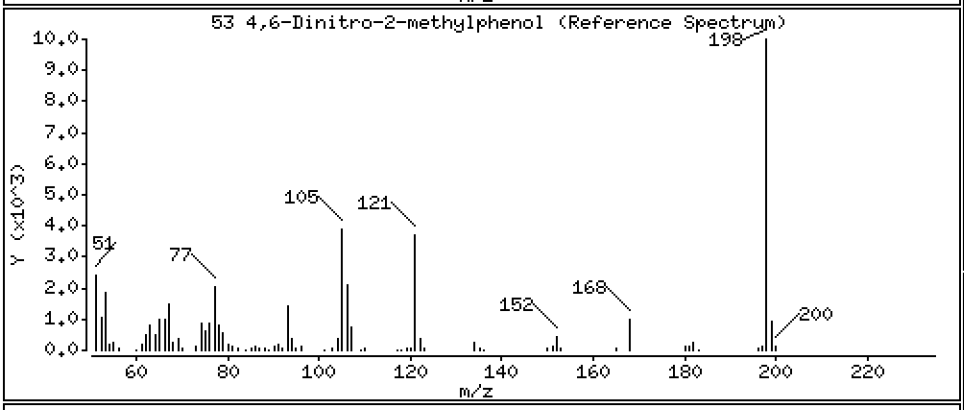
Column diameter: 0.25

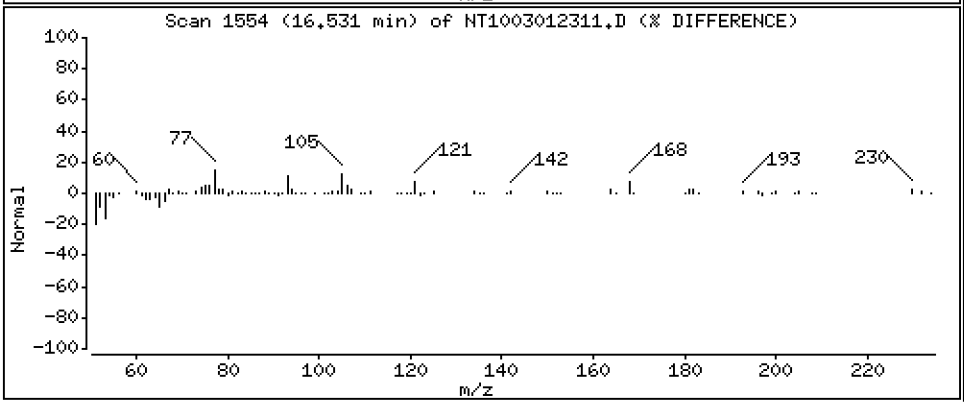
53 4,6-Dinitro-2-methylphenol

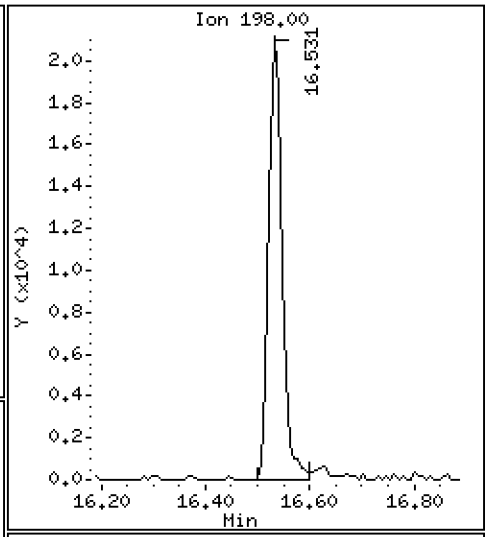
Concentration: 1.292 ug/mL

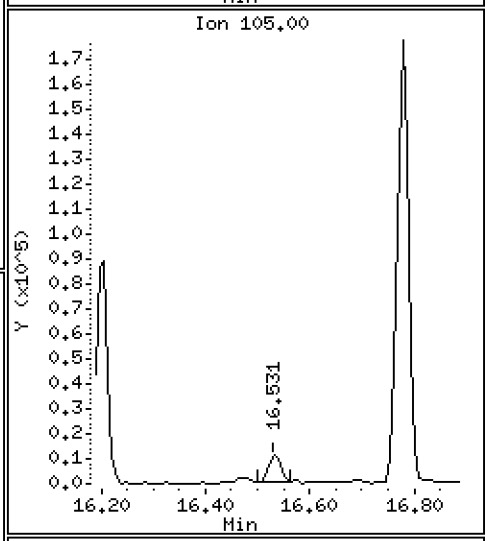


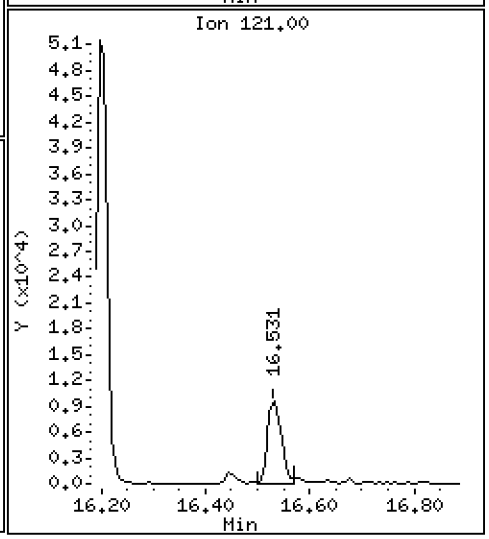












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

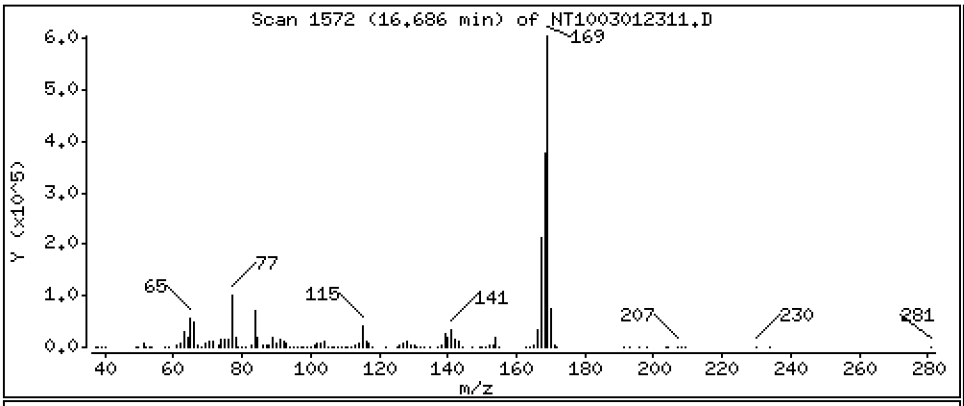
Operator: VTS

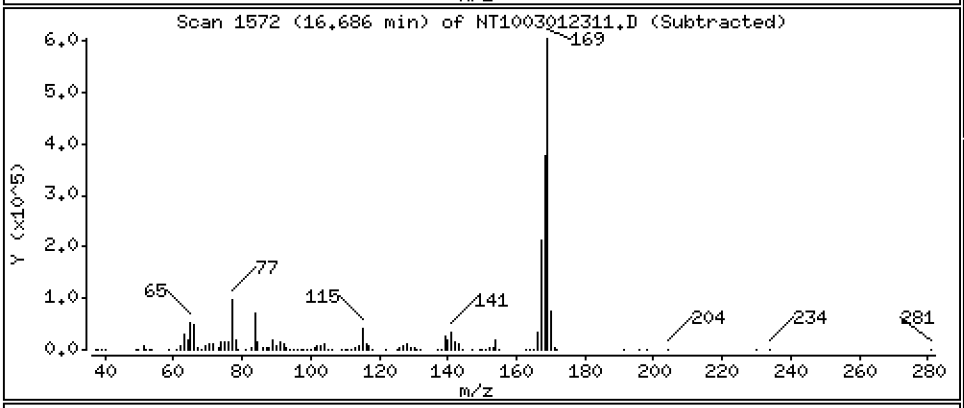
Column phase: ZB-5msi

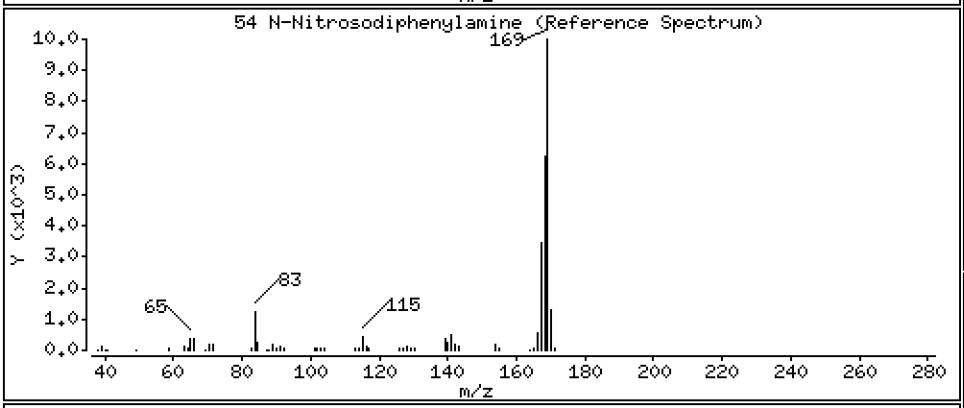
Column diameter: 0.25

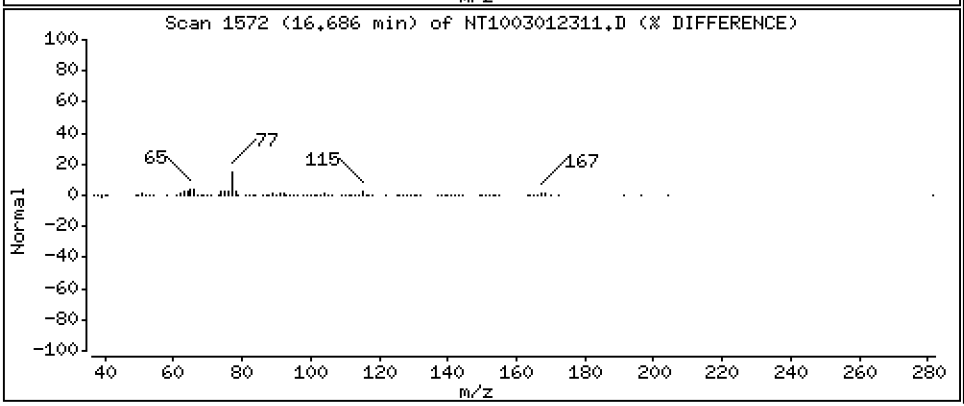
54 N-Nitrosodiphenylamine

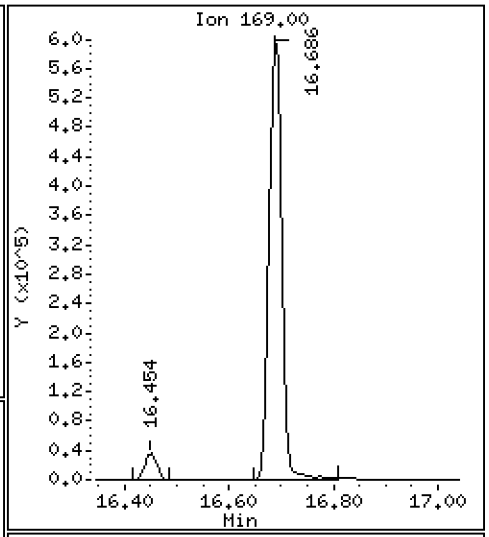
Concentration: 5.416 ug/mL

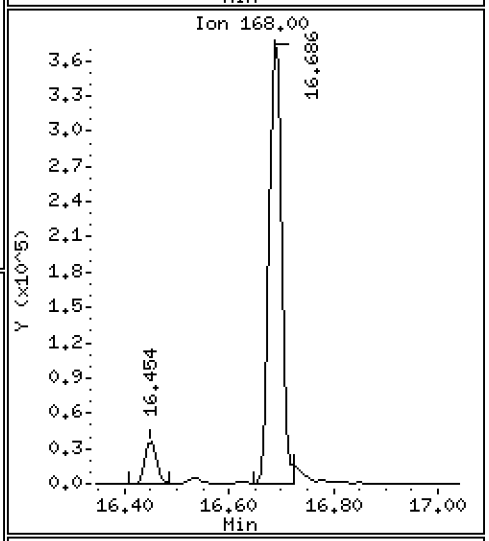


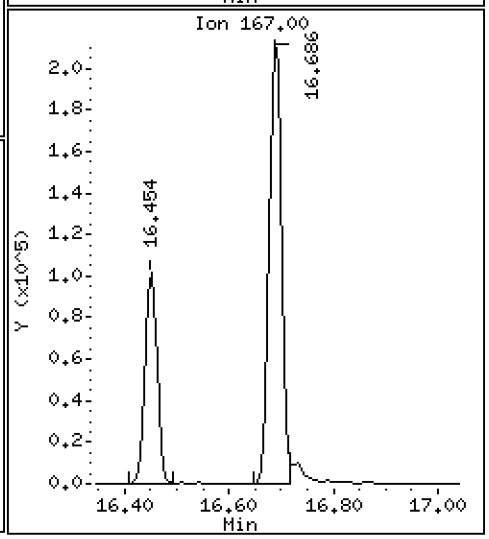












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

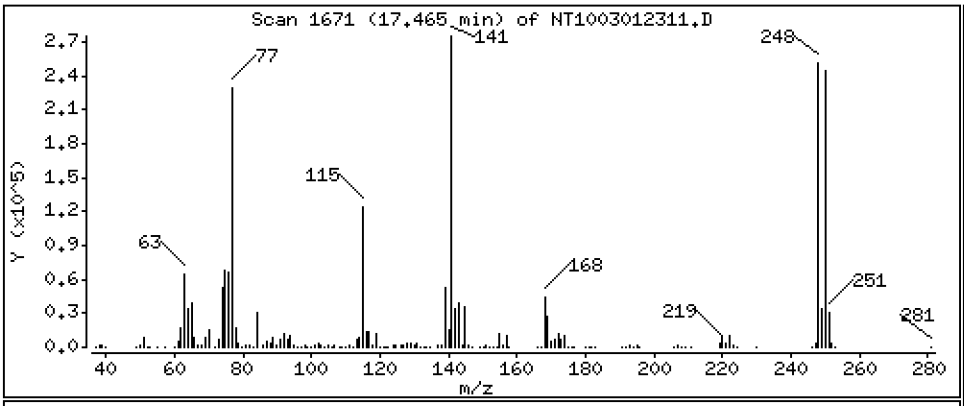
Operator: VTS

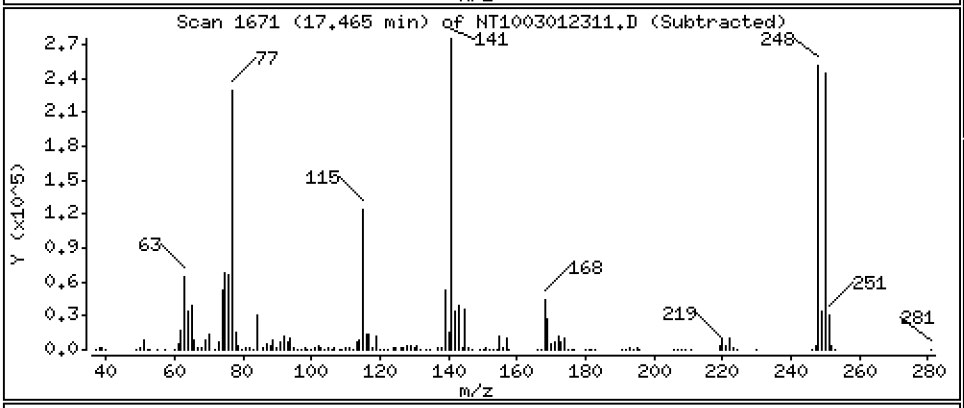
Column phase: ZB-5msi

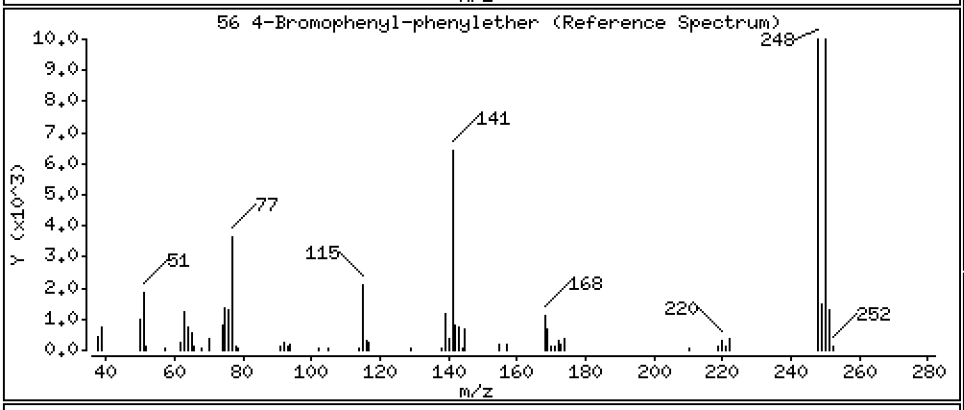
Column diameter: 0.25

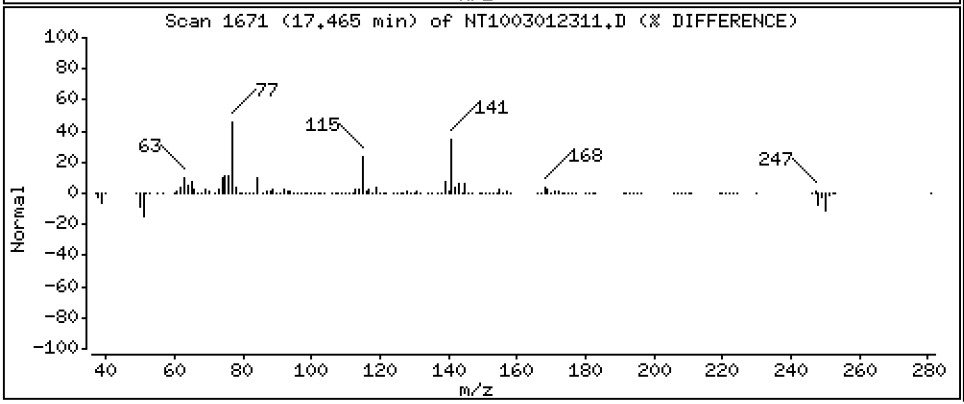
56 4-Bromophenyl-phenylether

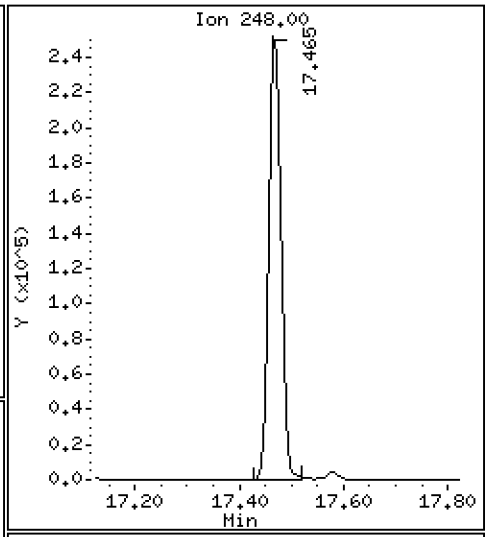
Concentration: 5.460 ug/mL

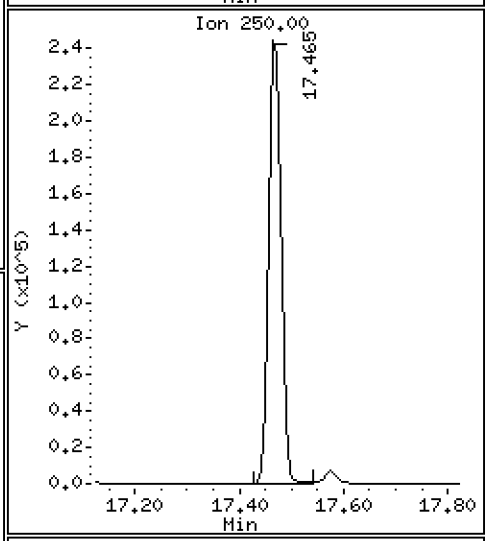


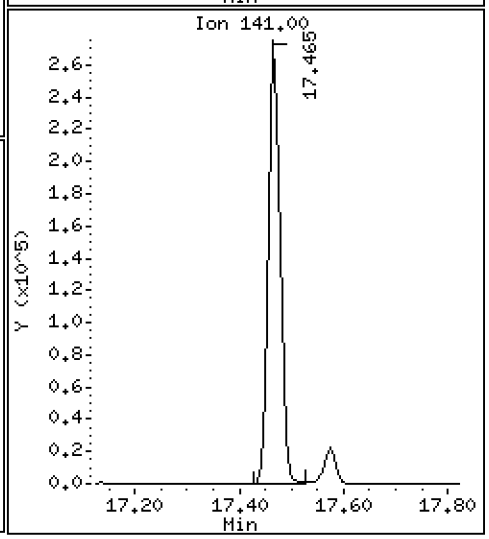












Date : 01-MAR-2023 21:46

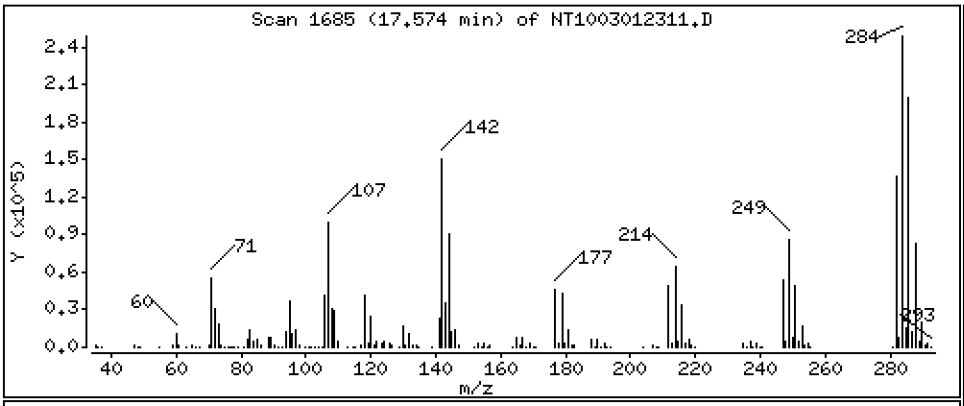
Client ID: Instrument: nt10.i

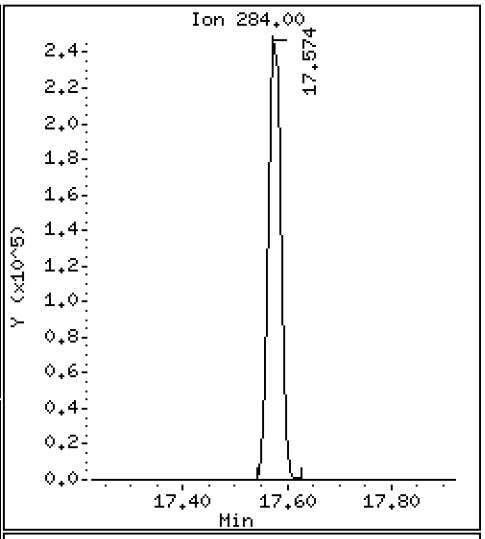
Sample Info: SEQ-SCV1

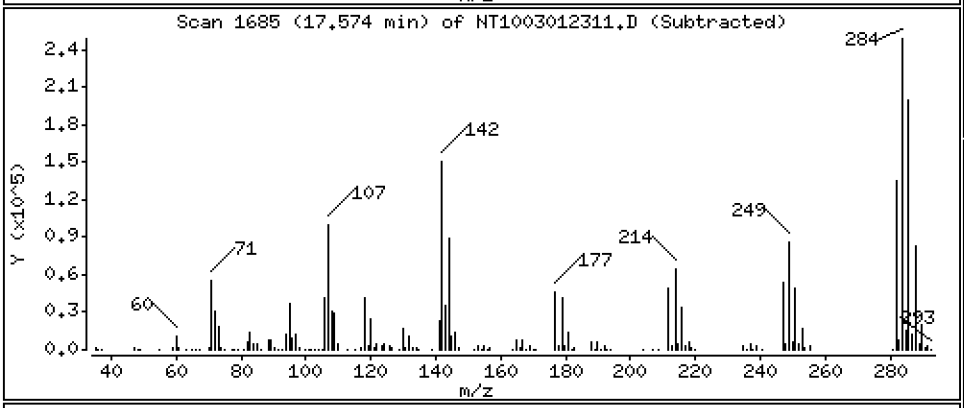
Operator: VTS

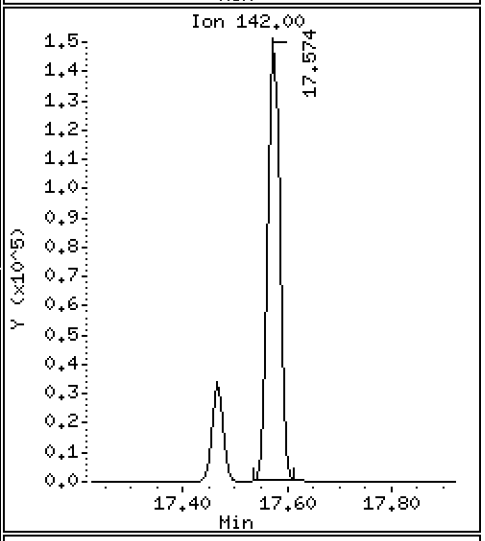
Column phase: ZB-5msi Column diameter: 0.25

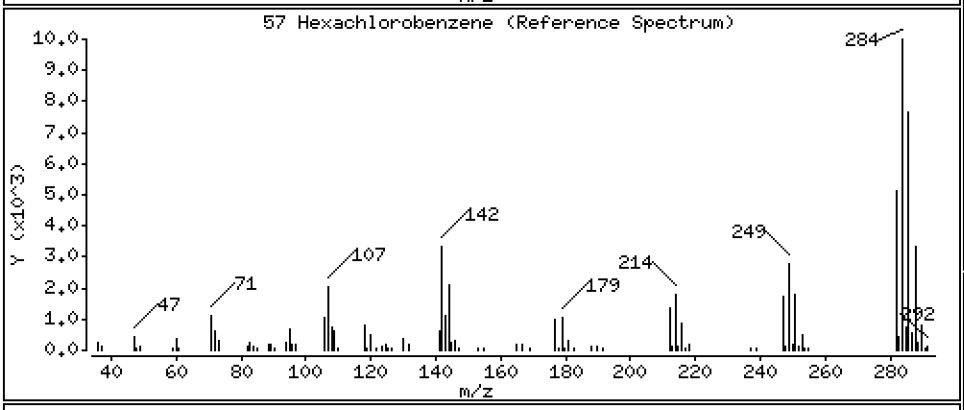
57 Hexachlorobenzene Concentration: 4.805 ug/mL

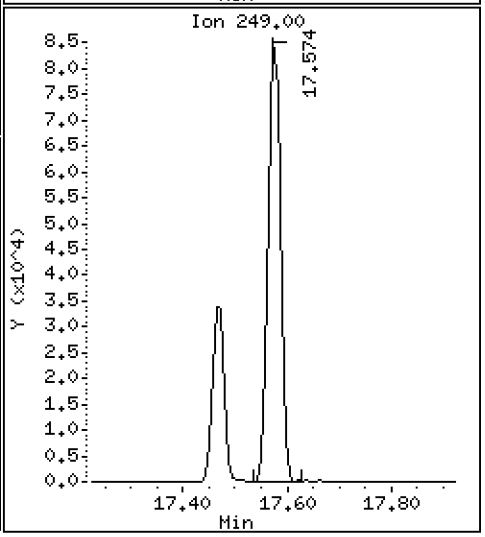


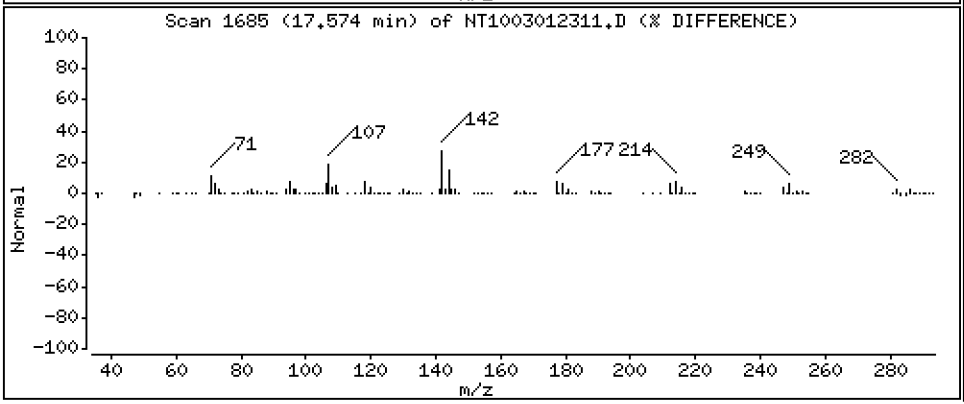












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

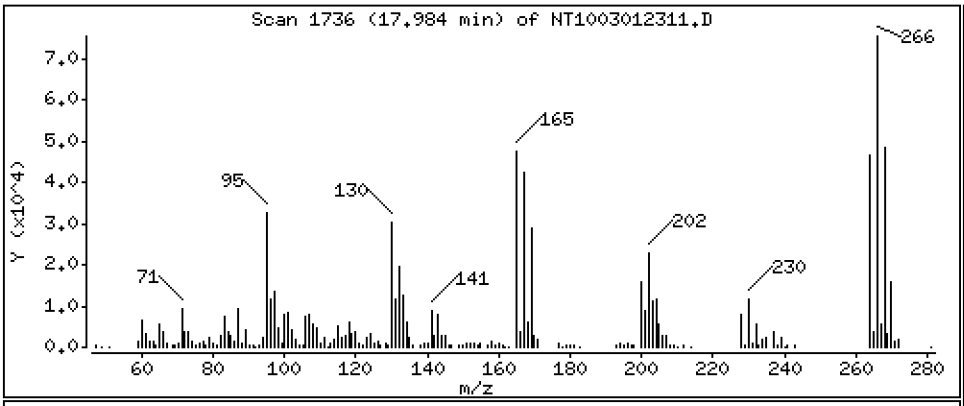
Operator: VTS

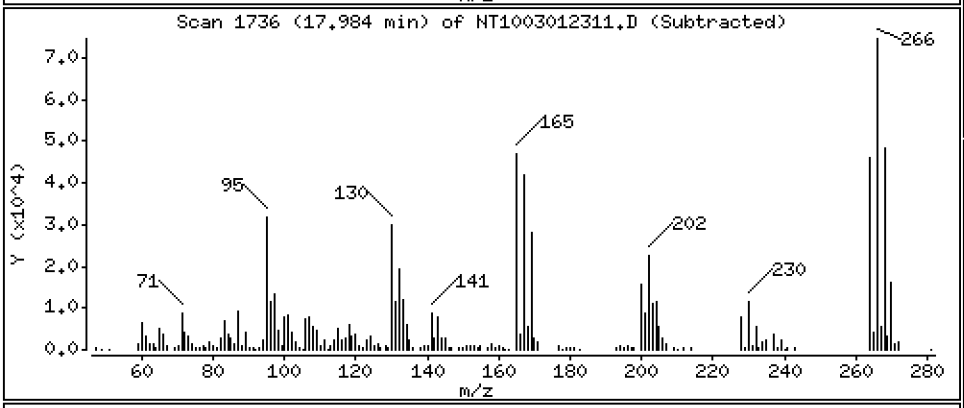
Column phase: ZB-5msi

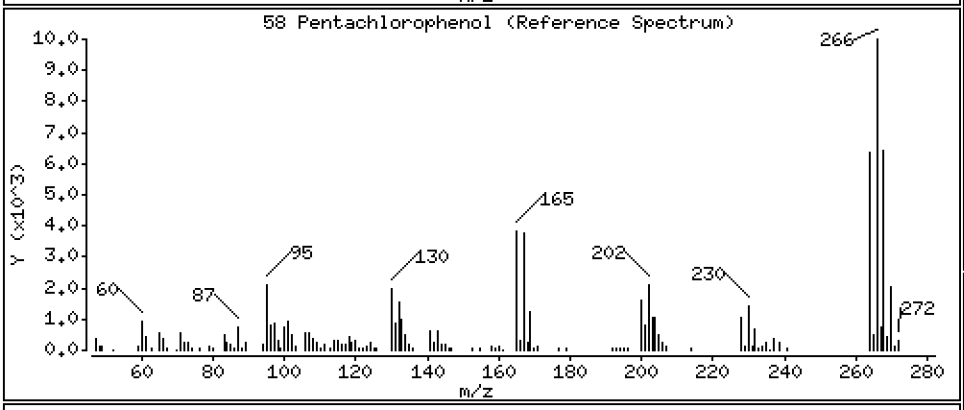
Column diameter: 0.25

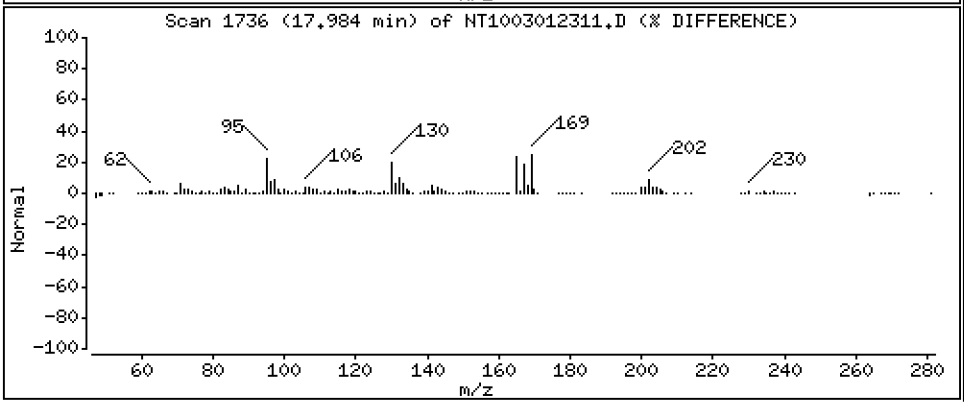
58 Pentachlorophenol

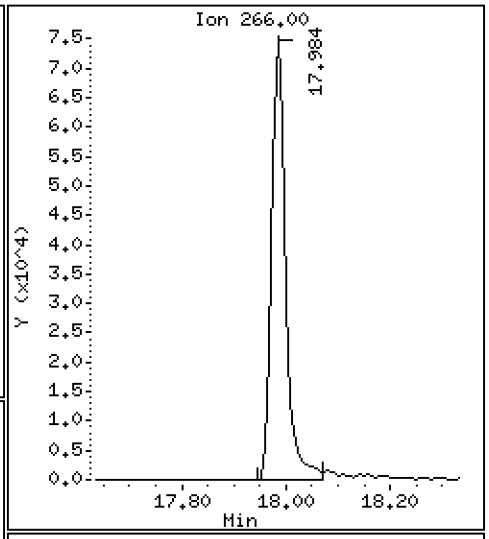
Concentration: 3.492 ug/mL

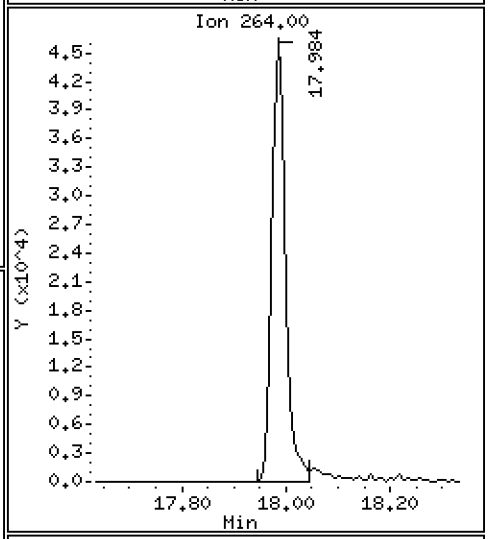


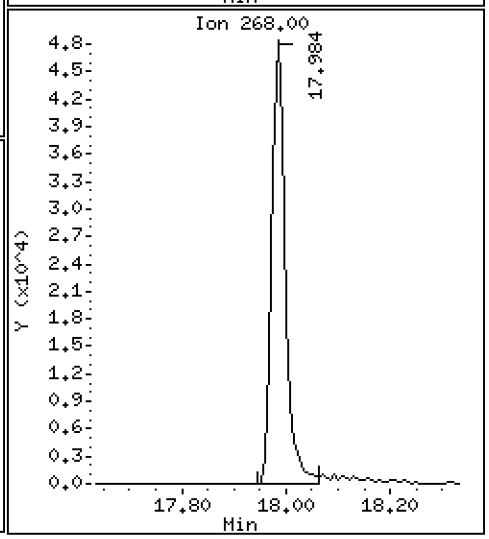












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

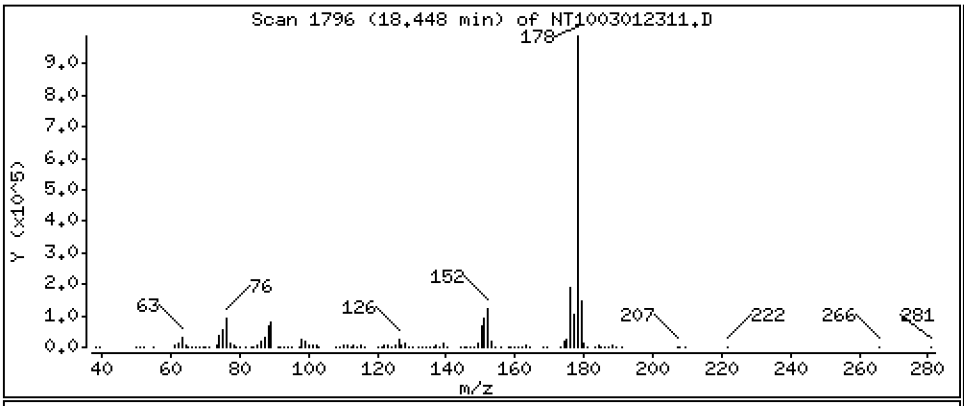
Operator: VTS

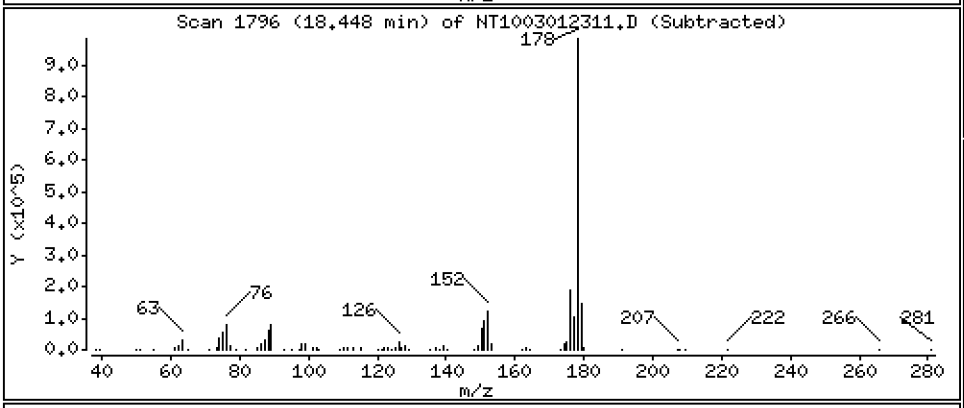
Column phase: ZB-5msi

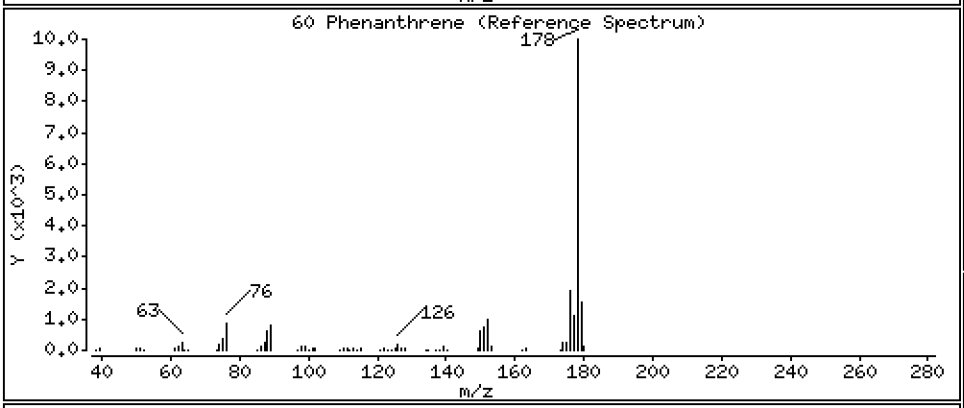
Column diameter: 0.25

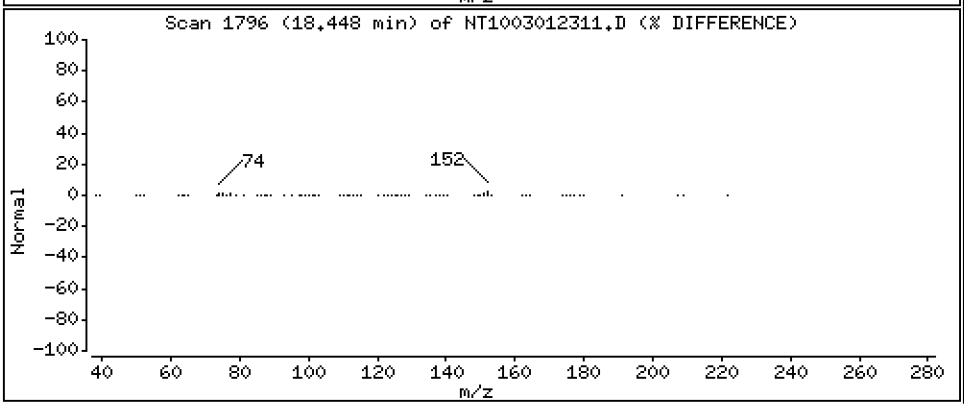
60 Phenanthrene

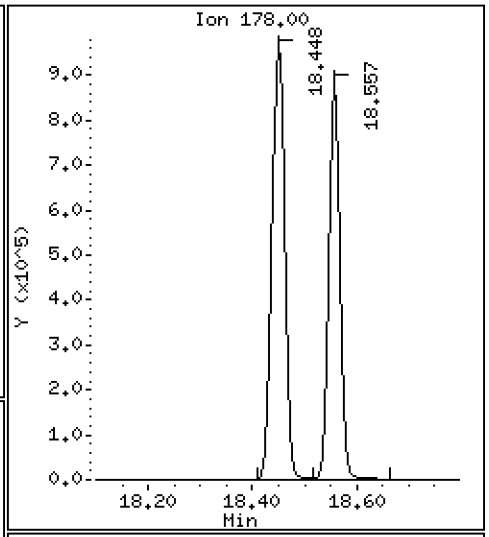
Concentration: 5.085 ug/mL

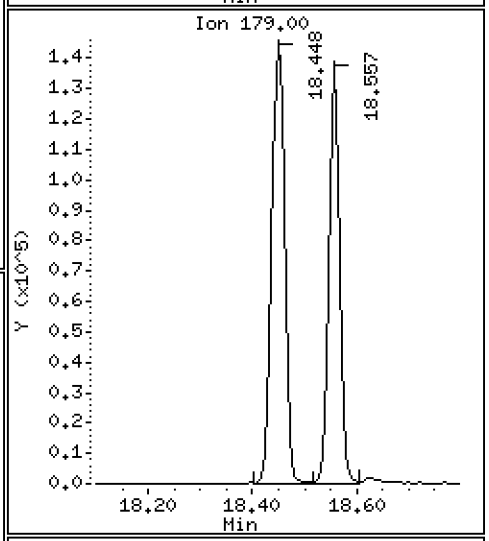


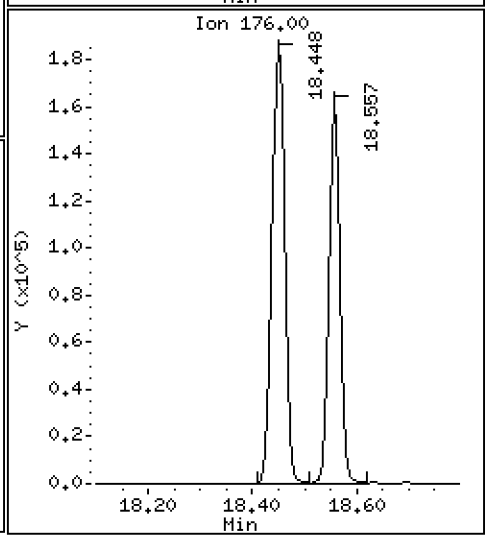












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

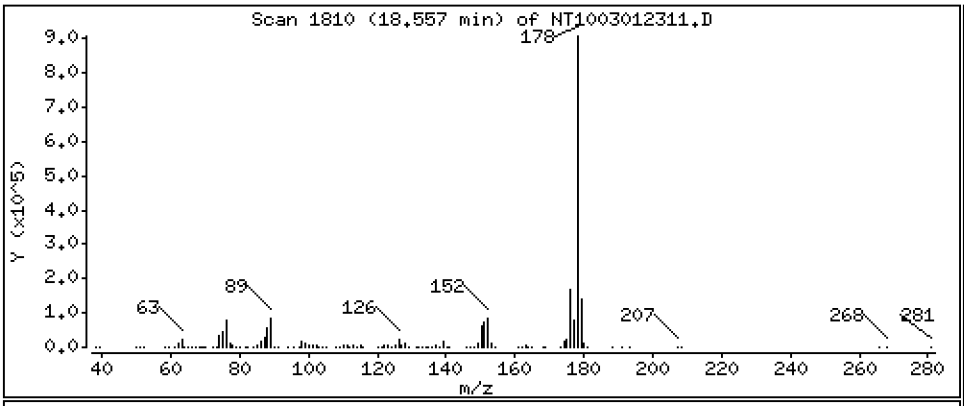
Operator: VTS

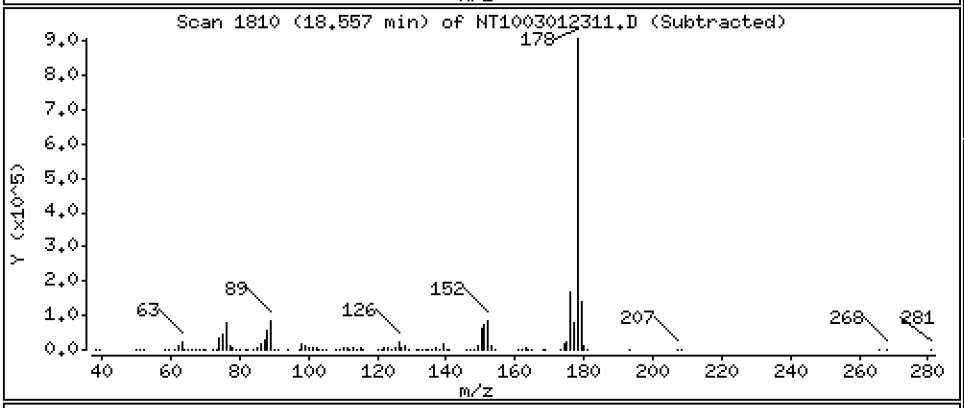
Column phase: ZB-5msi

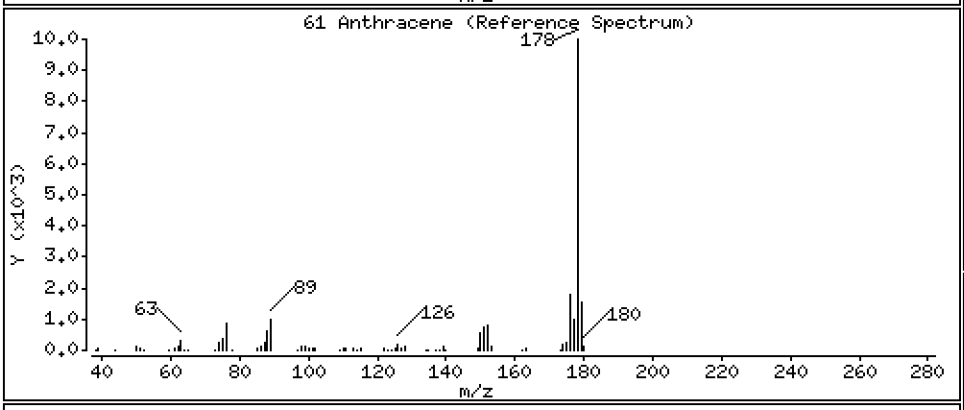
Column diameter: 0.25

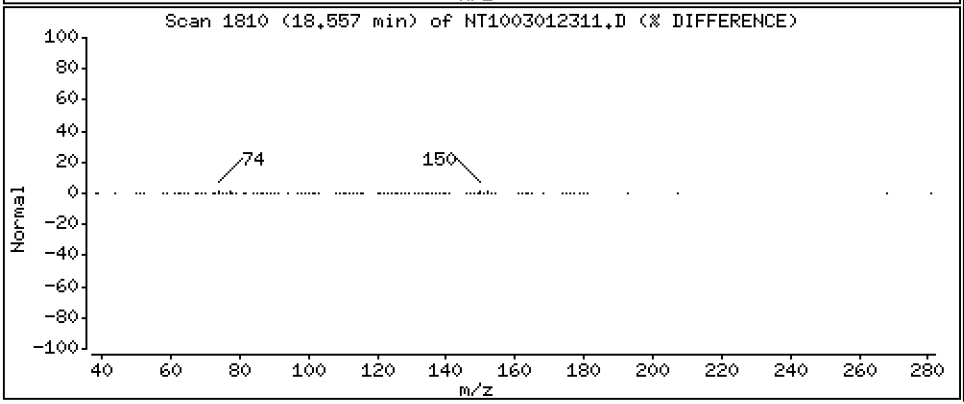
61 Anthracene

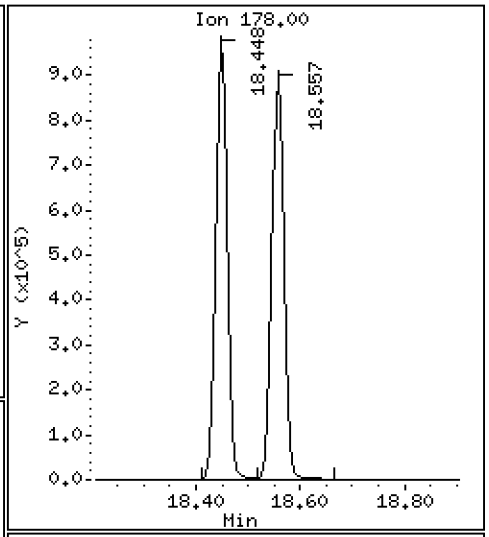
Concentration: 4.585 ug/mL

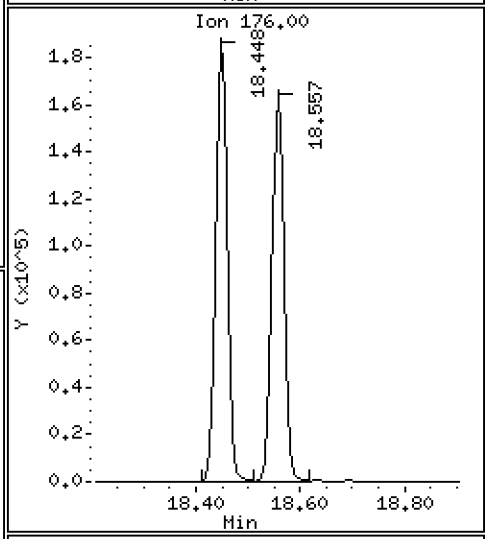


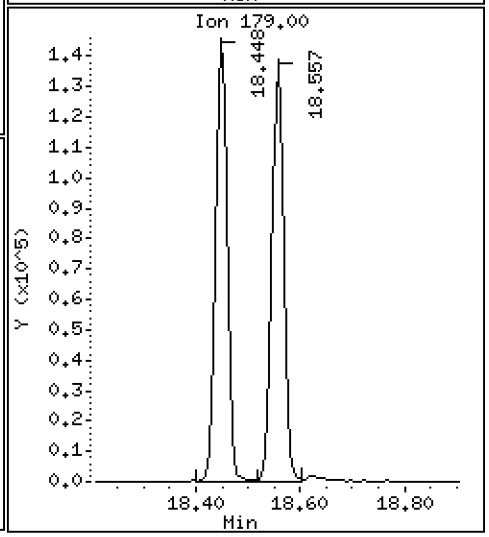












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

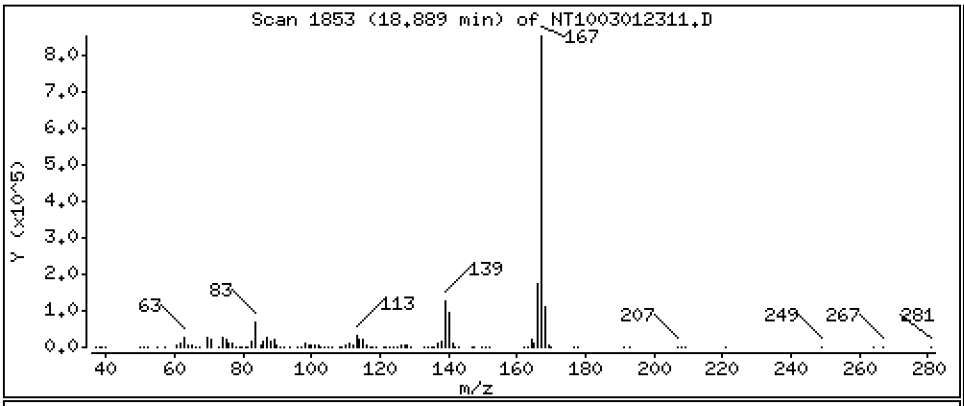
Operator: VTS

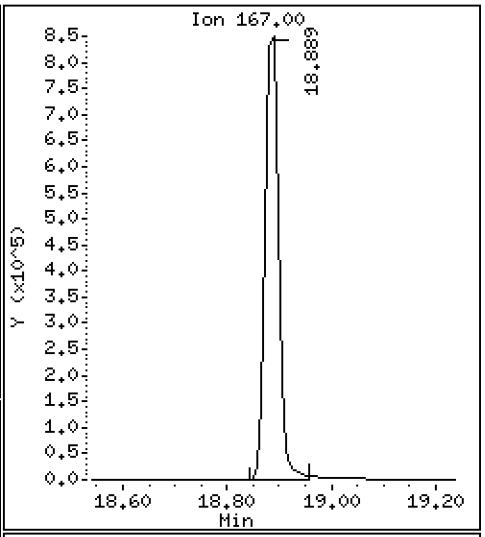
Column phase: ZB-5msi

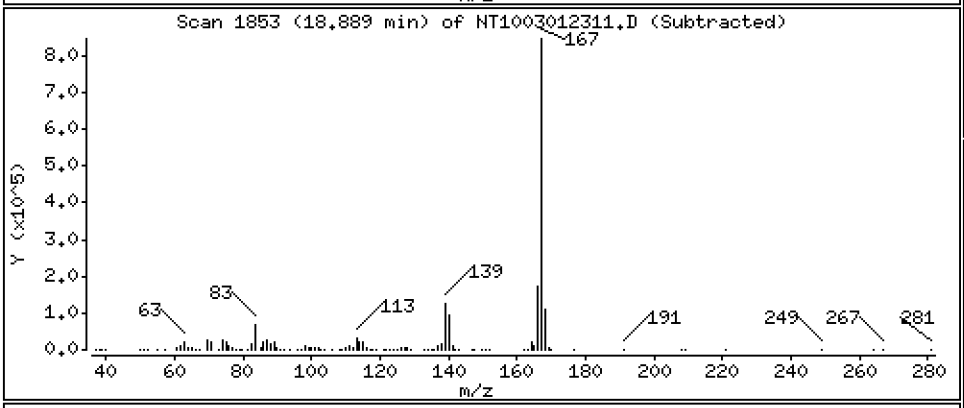
Column diameter: 0.25

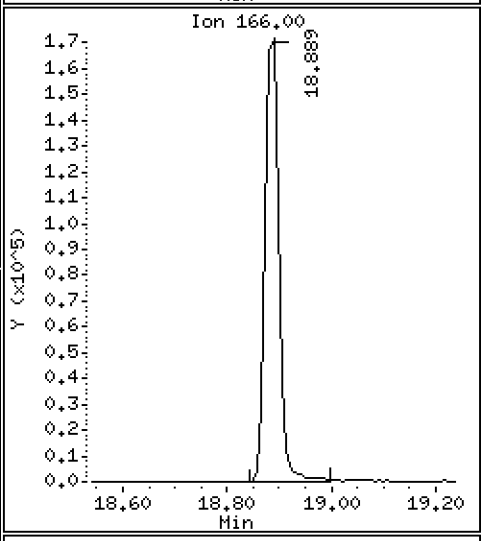
62 Carbazole

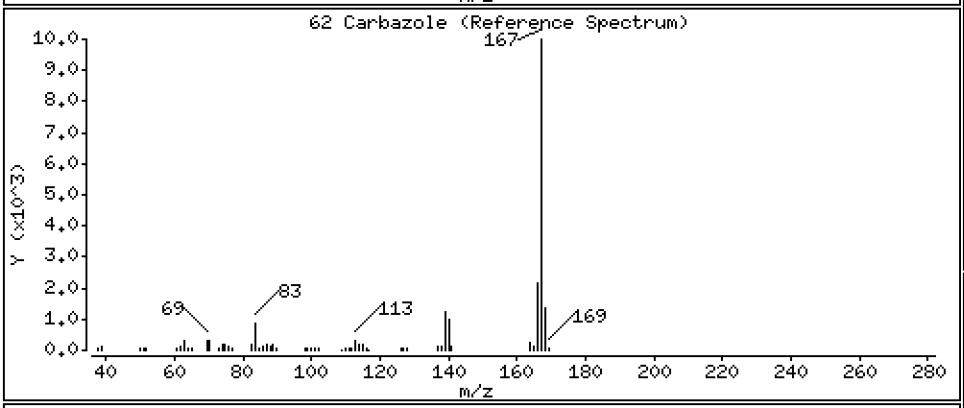
Concentration: 5.335 ug/mL

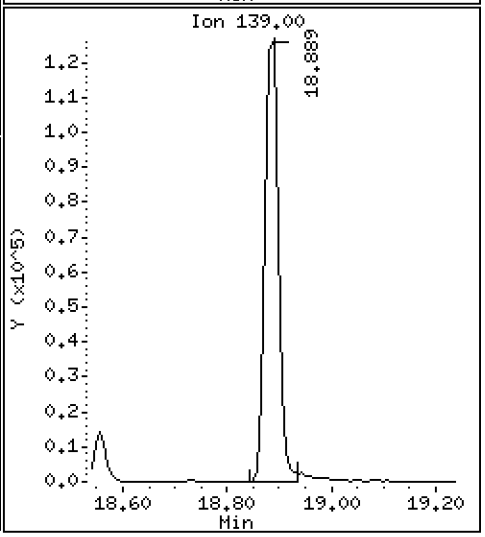


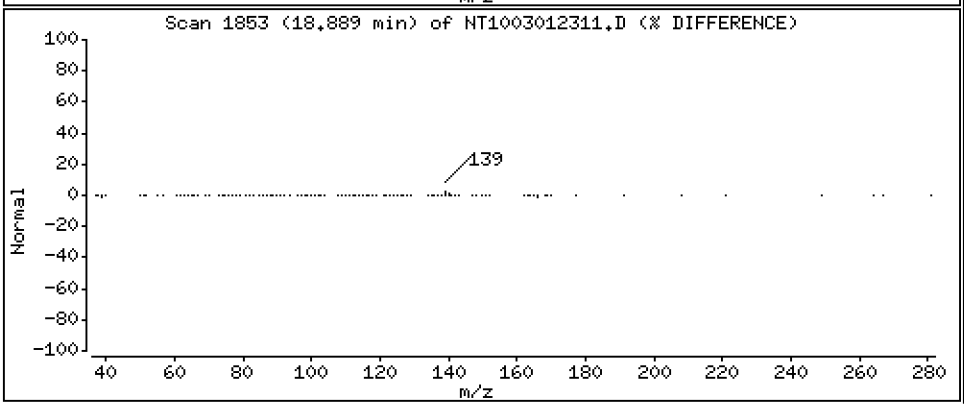












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

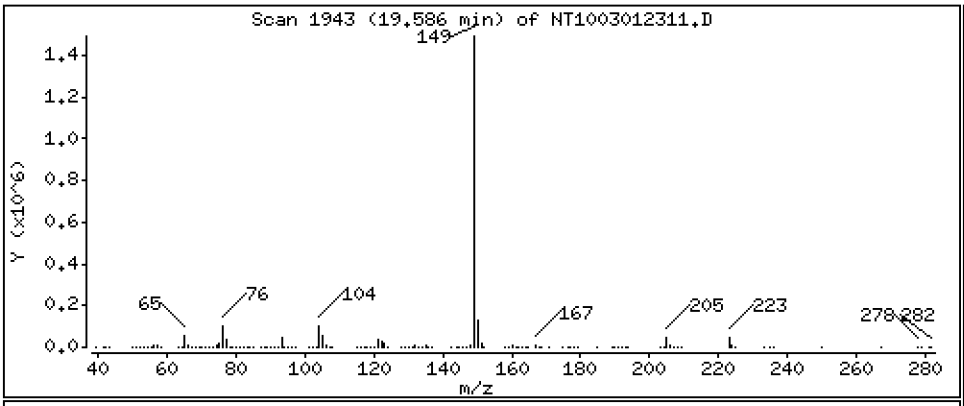
Operator: VTS

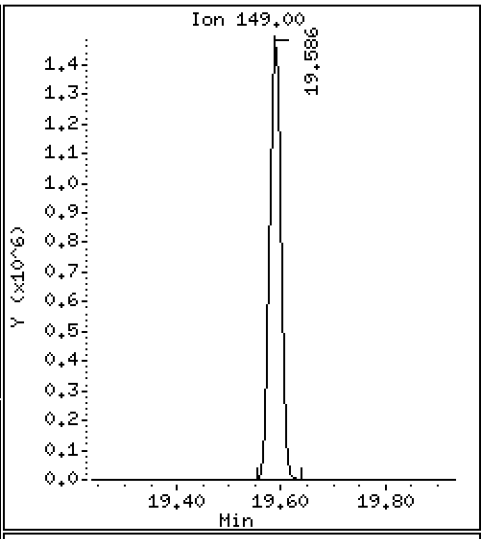
Column phase: ZB-5msi

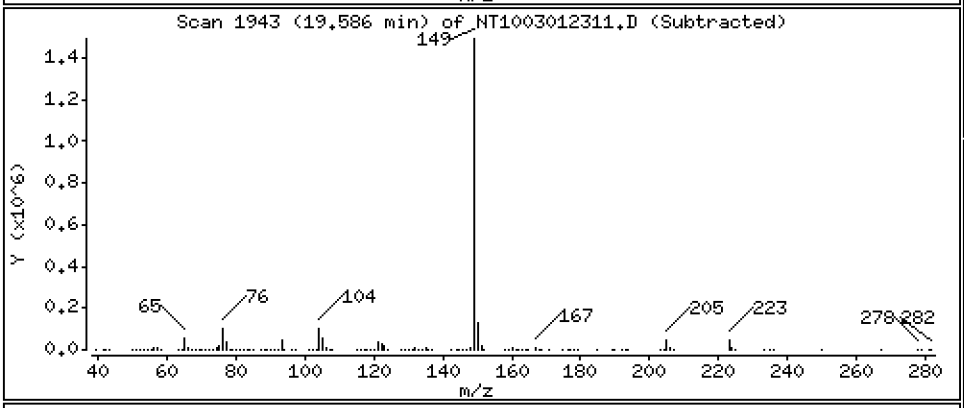
Column diameter: 0.25

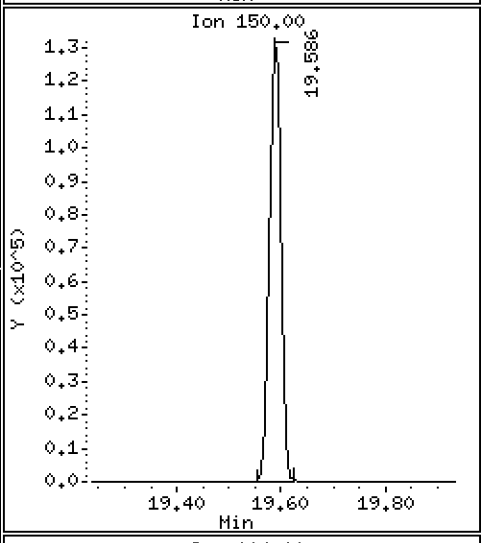
63 Di-n-butylphthalate

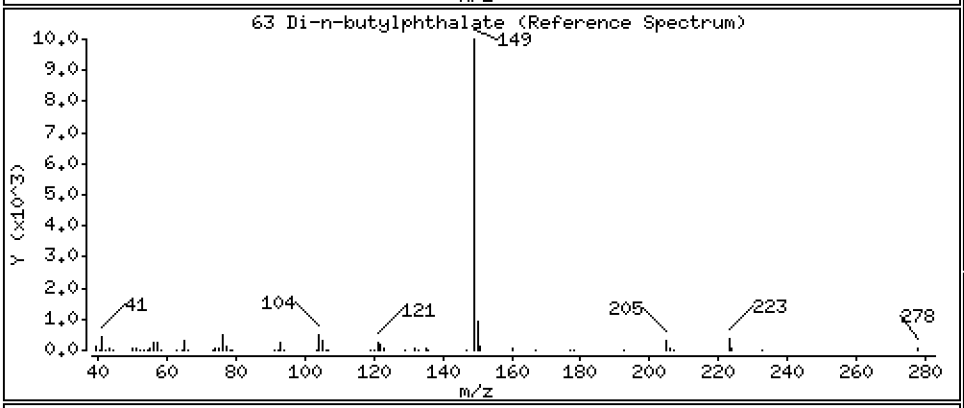
Concentration: 5.463 ug/mL

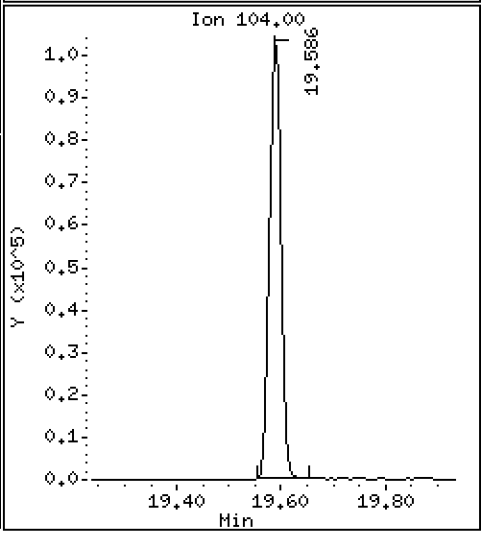


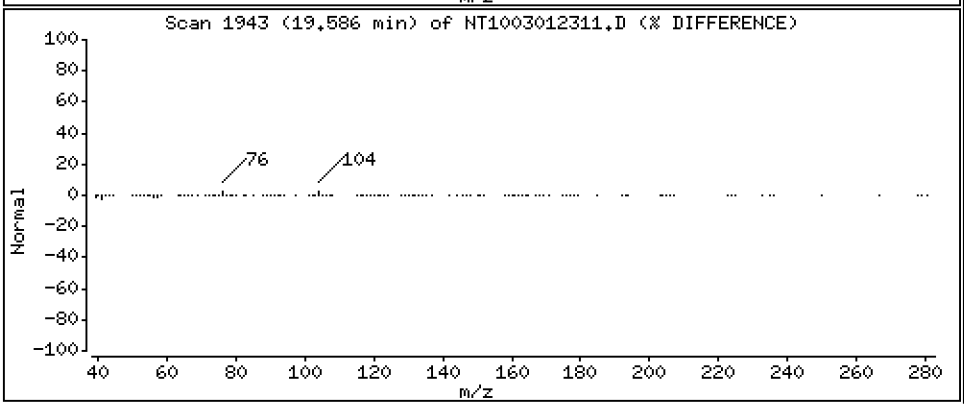












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

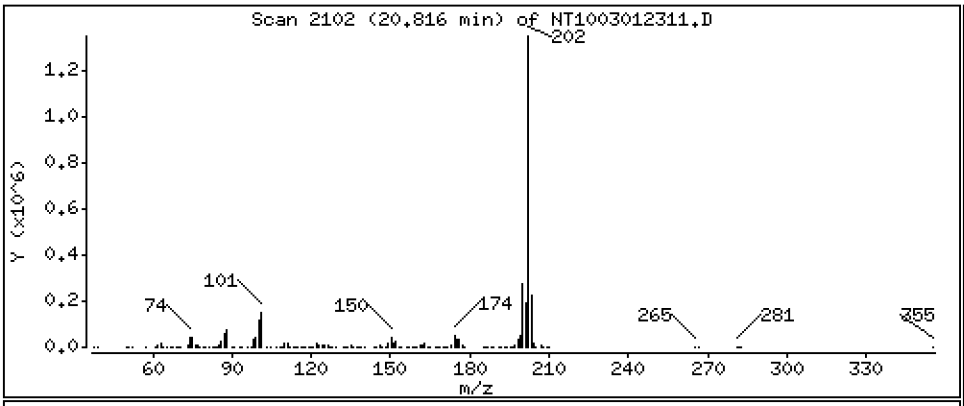
Operator: VTS

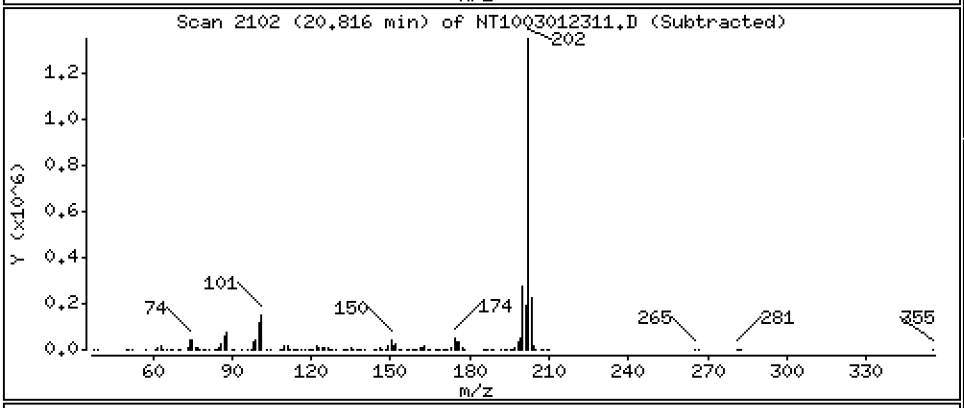
Column phase: ZB-5msi

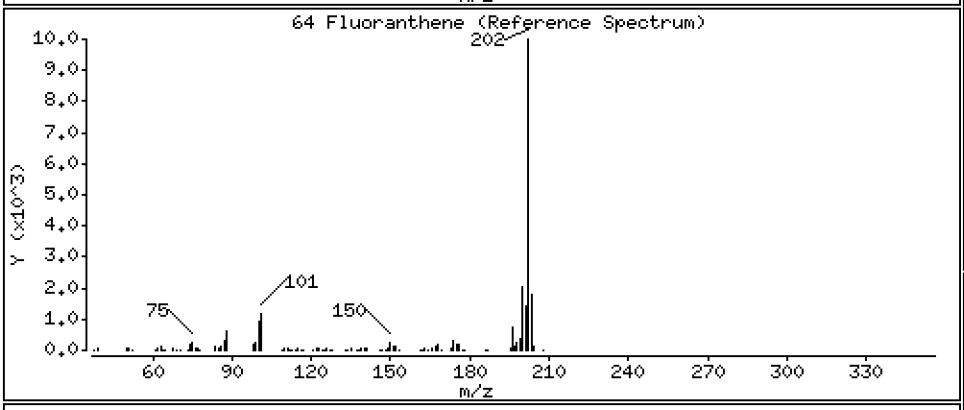
Column diameter: 0.25

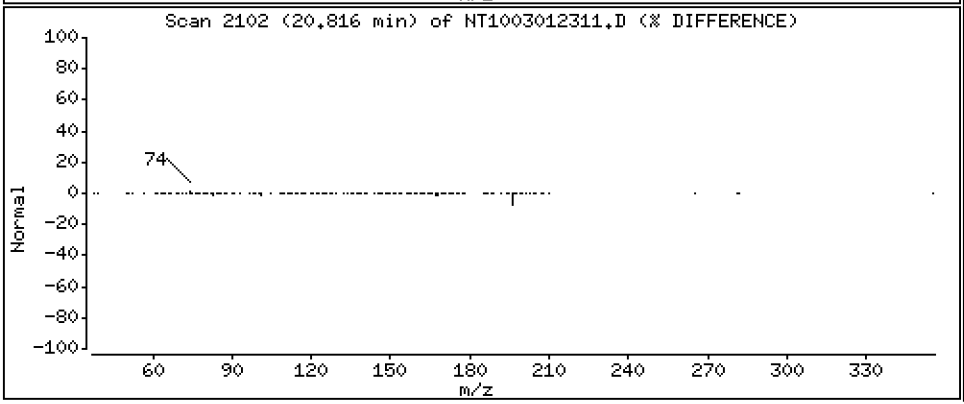
64 Fluoranthene

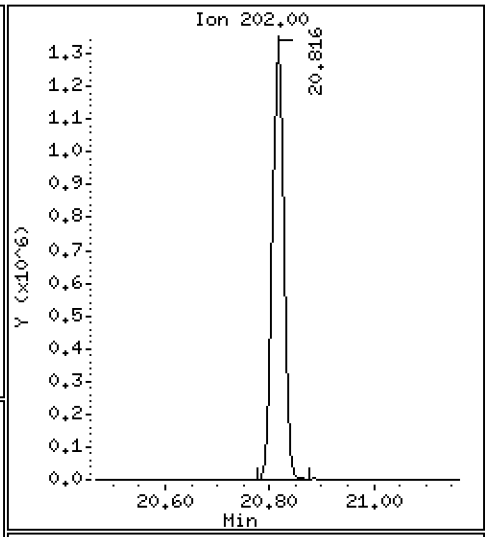
Concentration: 4.542 ug/mL

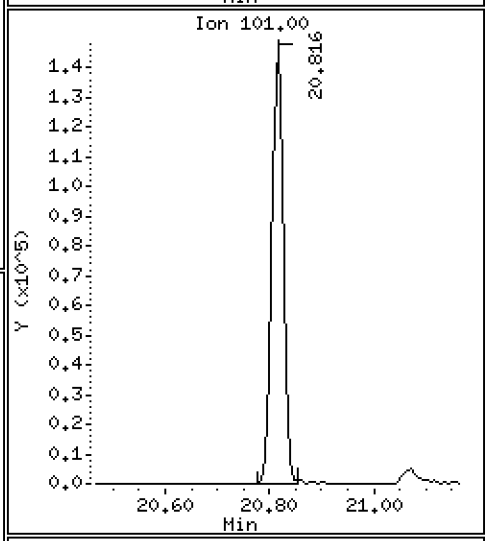


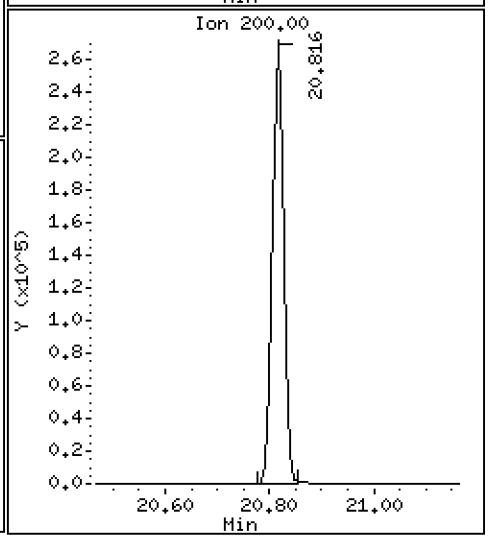












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

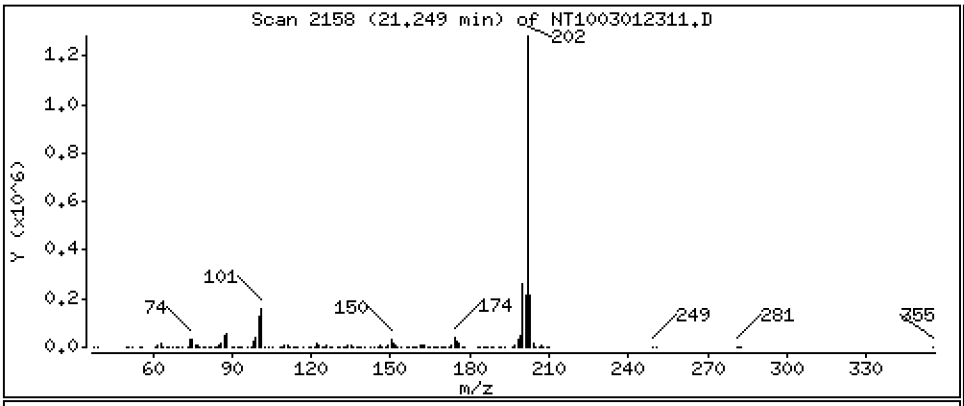
Operator: VTS

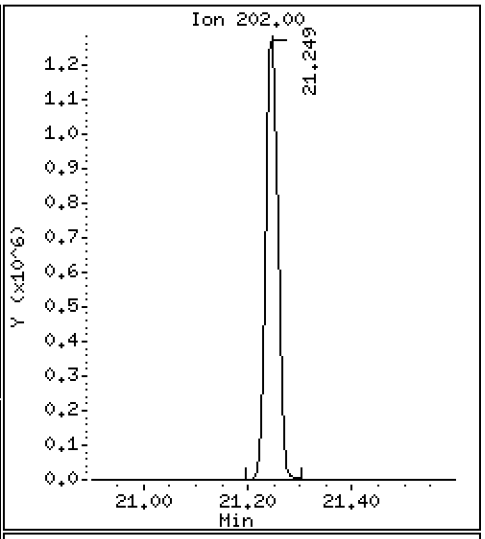
Column phase: ZB-5msi

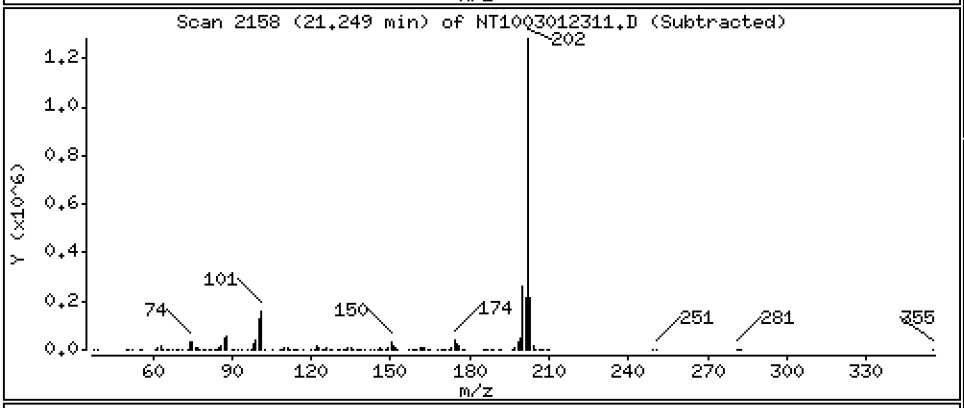
Column diameter: 0.25

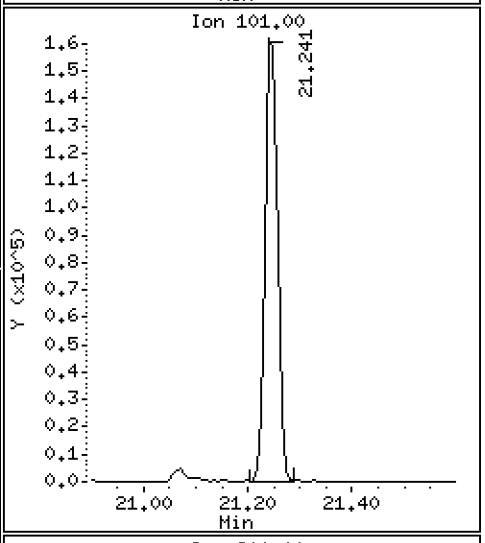
65 Pyrene

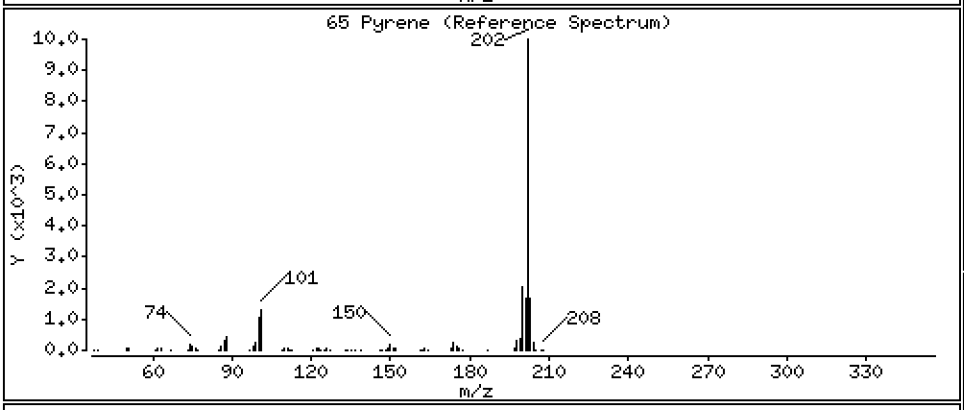
Concentration: 4.626 ug/mL

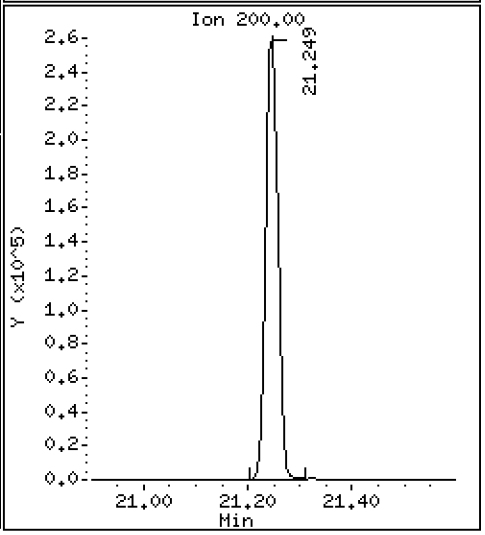


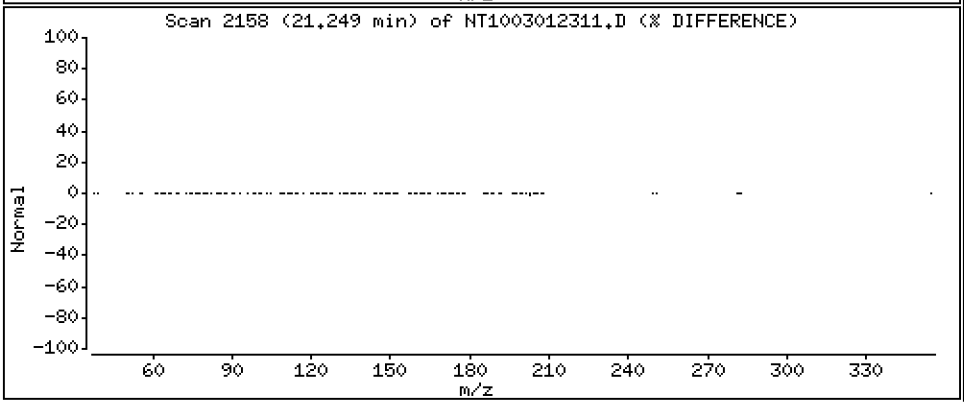












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

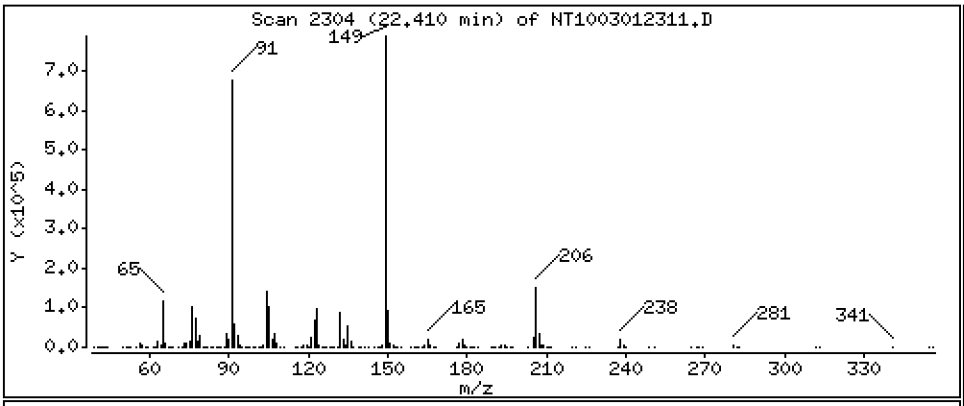
Operator: VTS

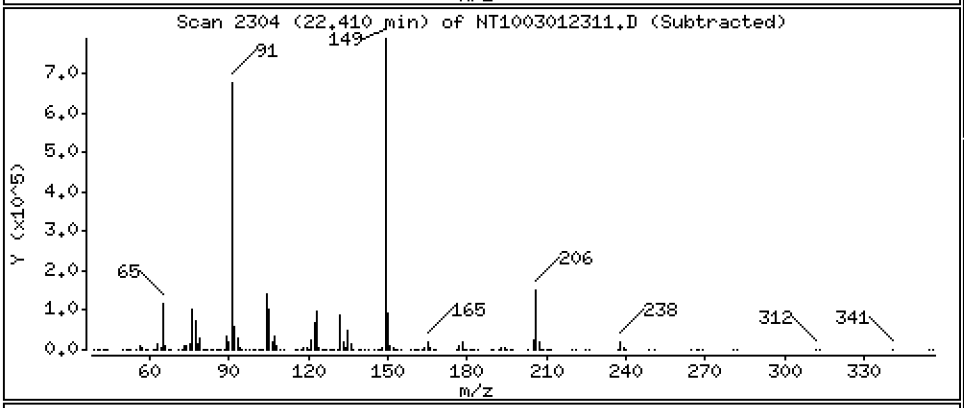
Column phase: ZB-5msi

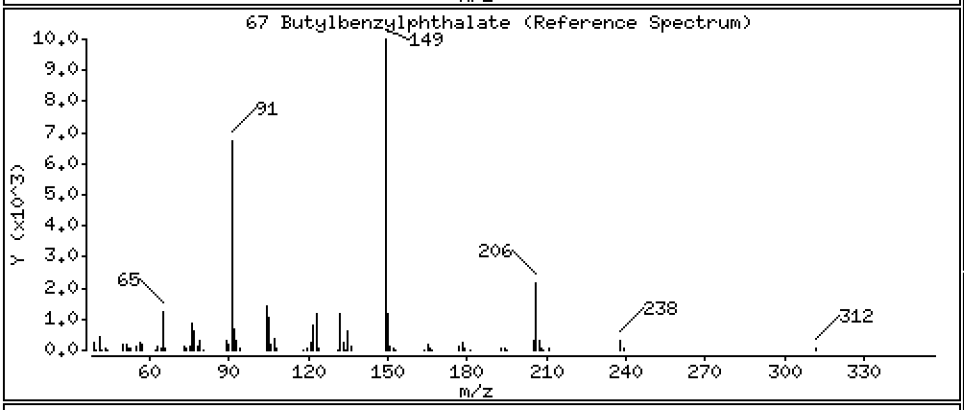
Column diameter: 0.25

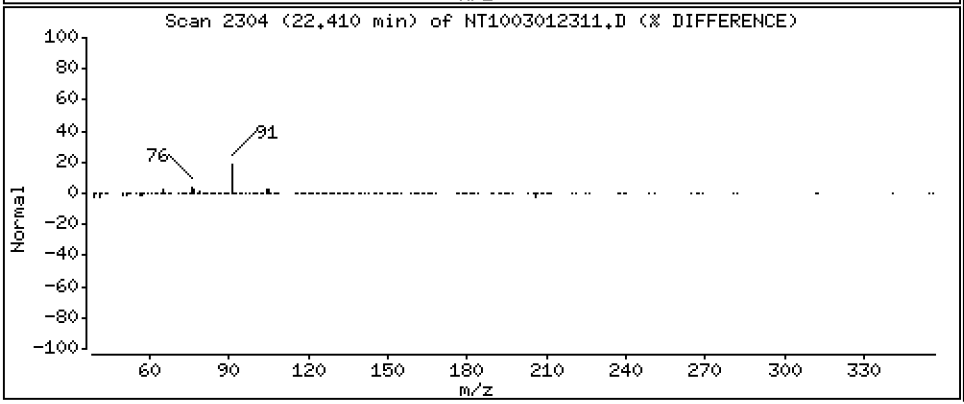
67 Butylbenzylphthalate

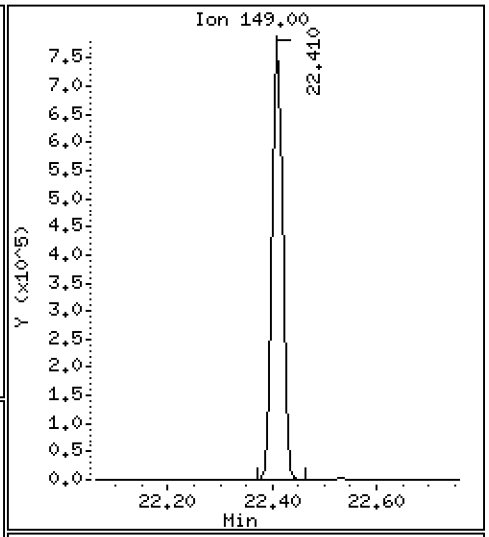
Concentration: 4.525 ug/mL

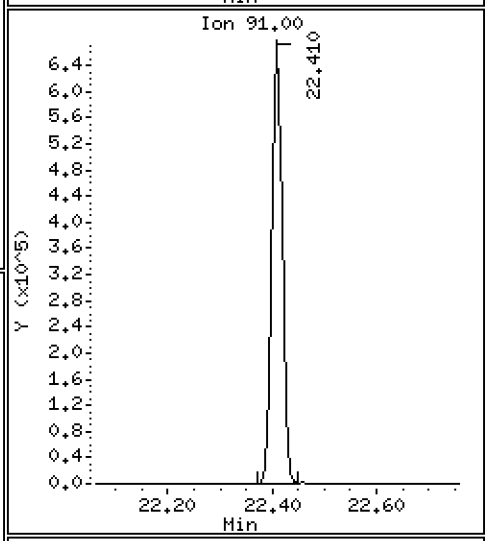


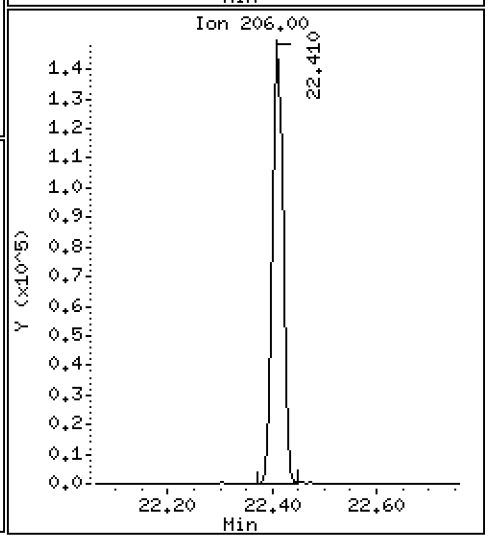












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

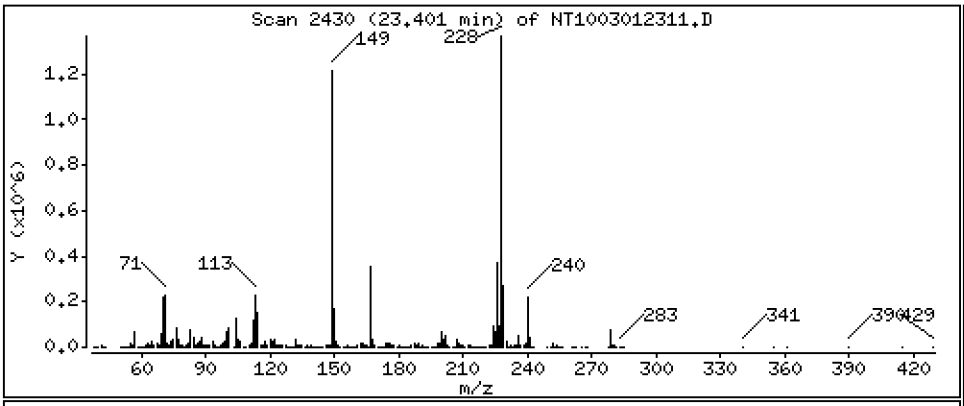
Operator: VTS

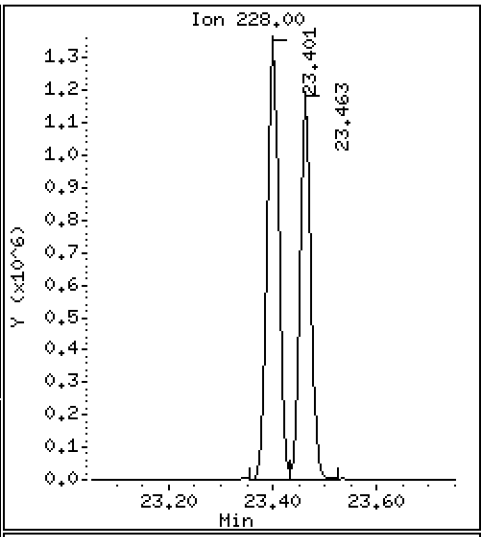
Column phase: ZB-5msi

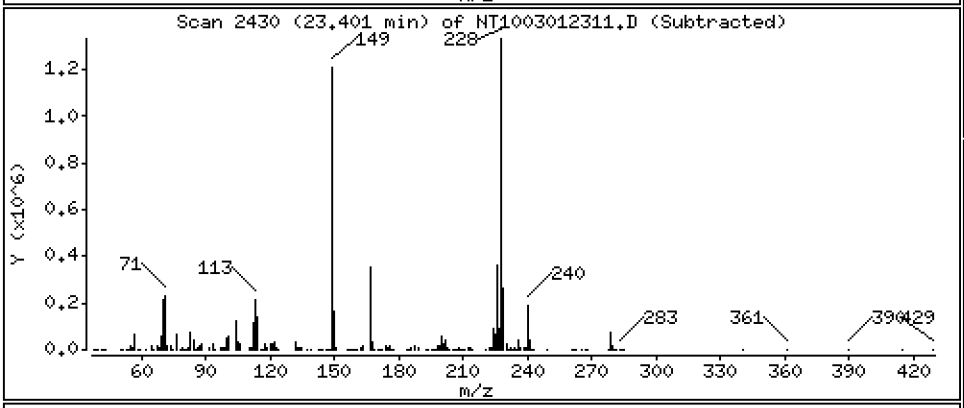
Column diameter: 0.25

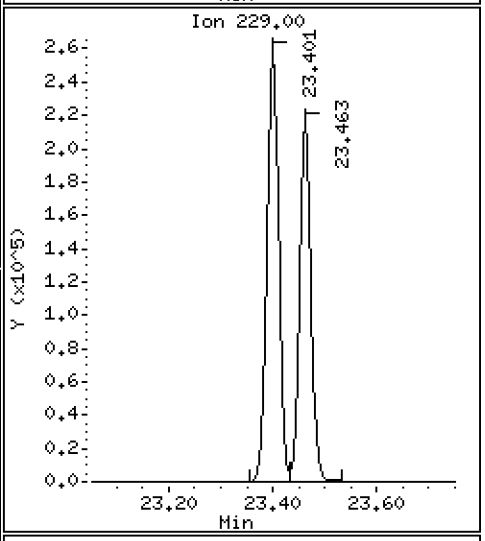
68 Benzo(a)anthracene

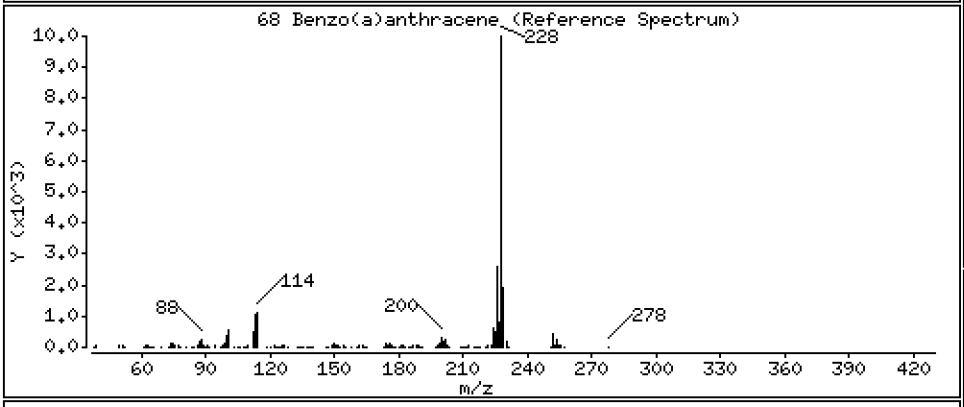
Concentration: 4.578 ug/mL

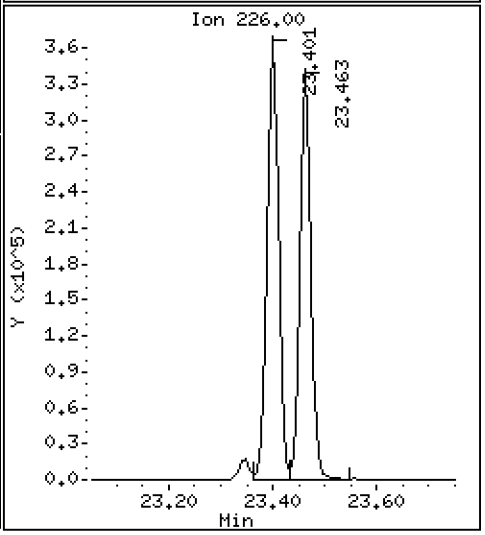


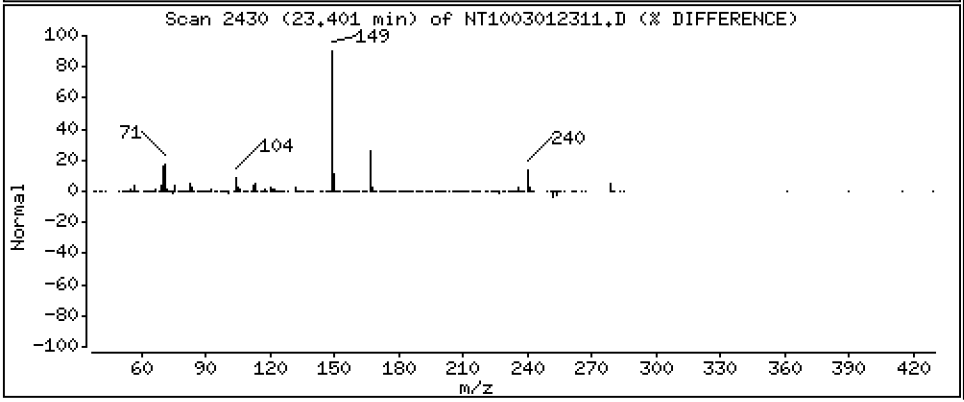












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

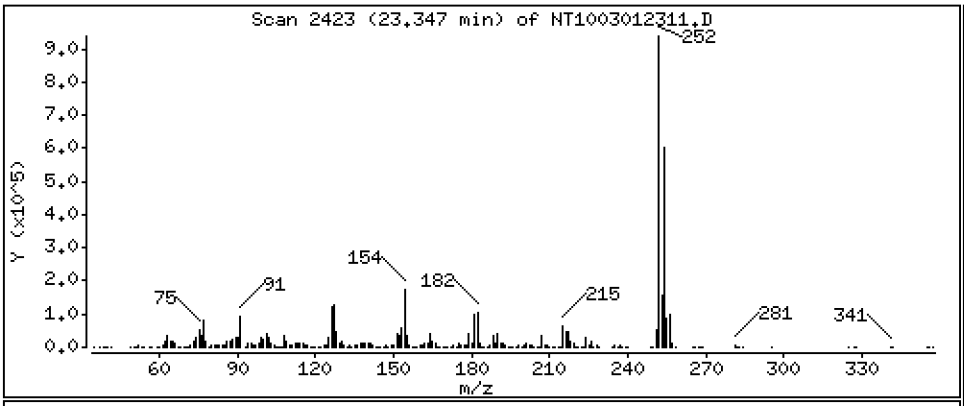
Operator: VTS

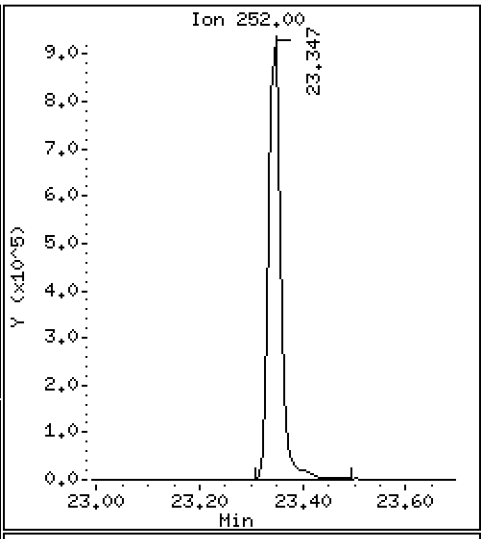
Column phase: ZB-5msi

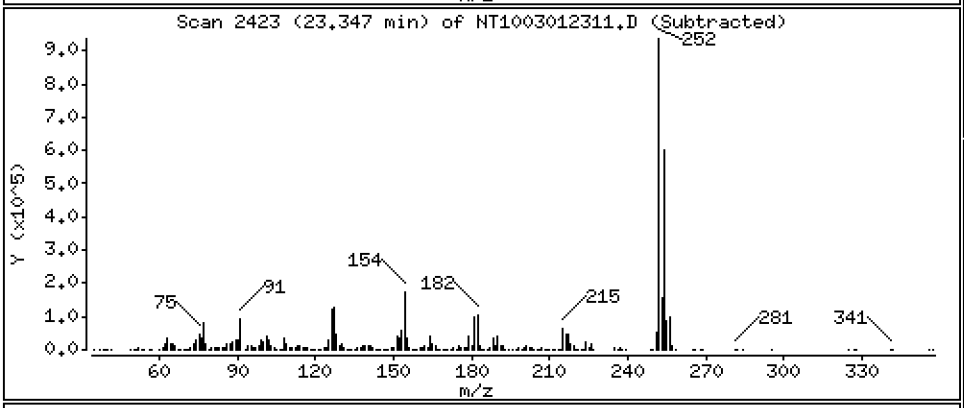
Column diameter: 0.25

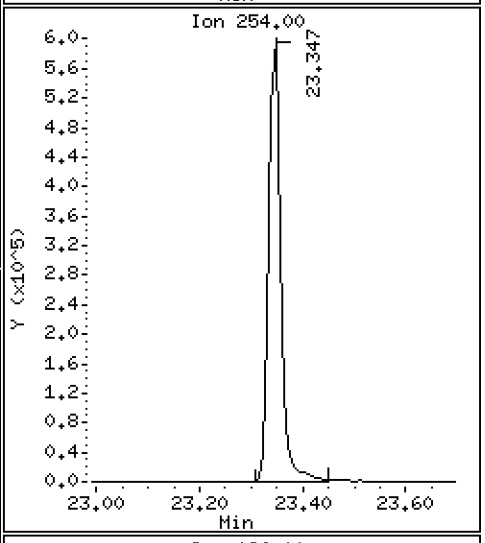
70 3,3'-Dichlorobenzidine

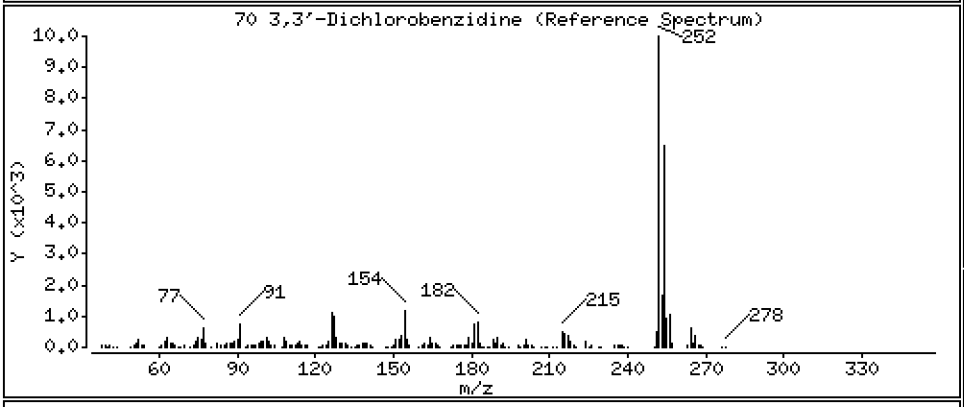
Concentration: 7.383 ug/mL

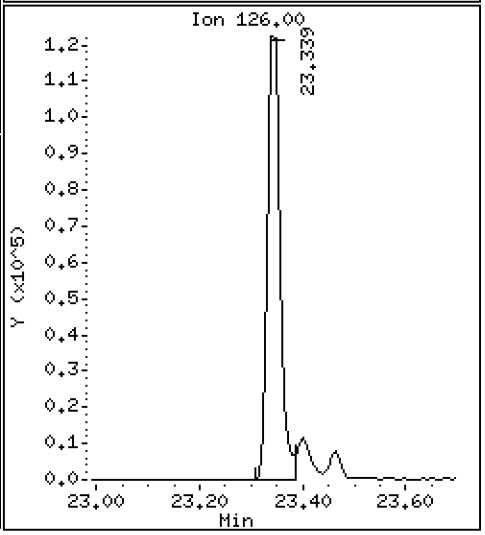


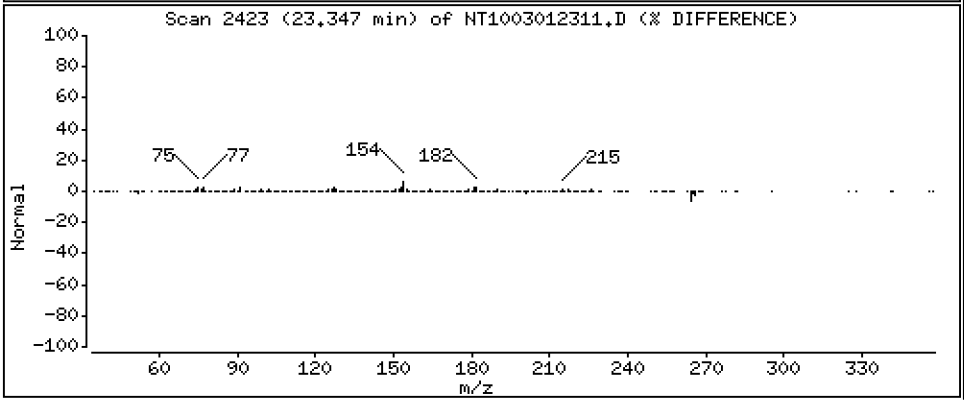












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

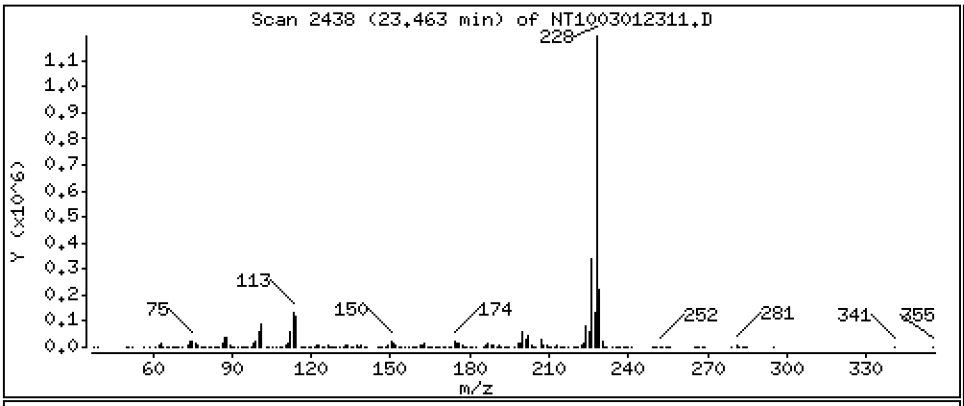
Operator: VTS

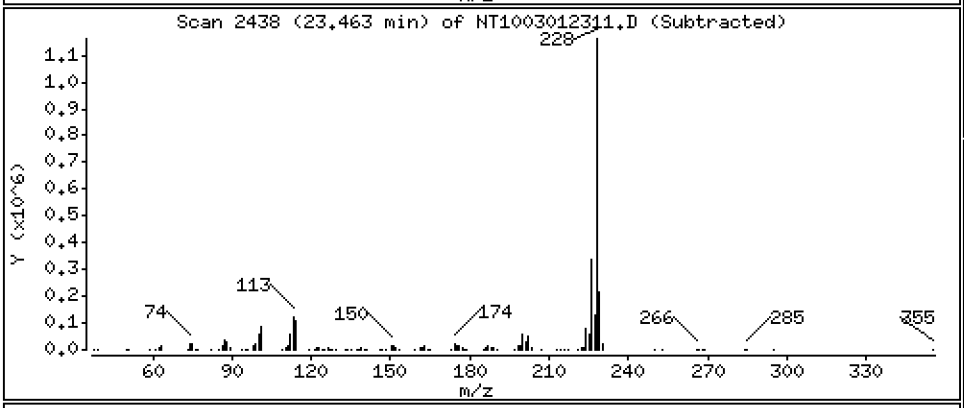
Column phase: ZB-5msi

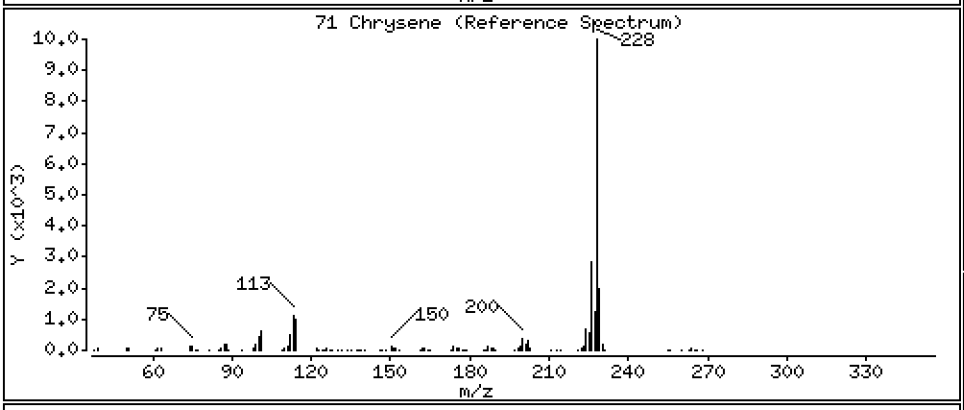
Column diameter: 0.25

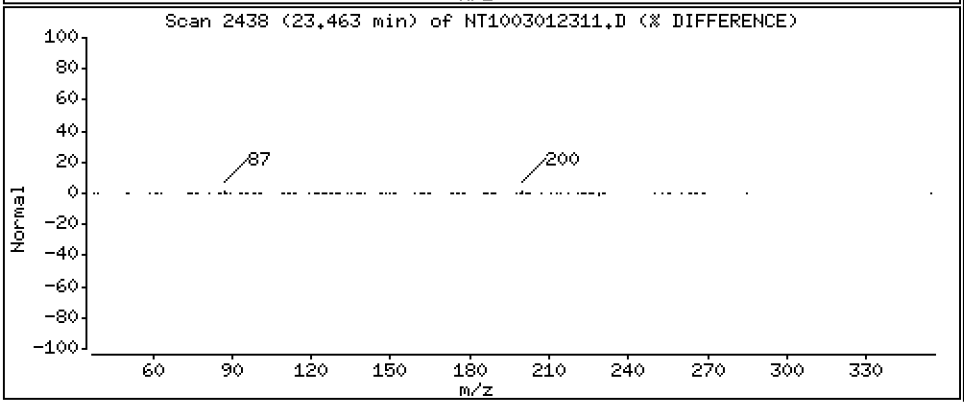
71 Chrysene

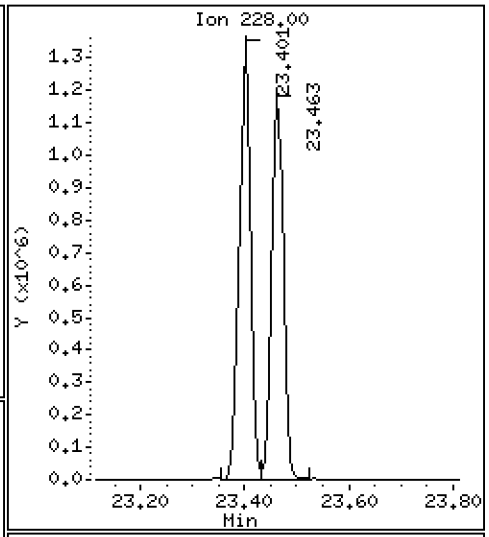
Concentration: 4.967 ug/mL

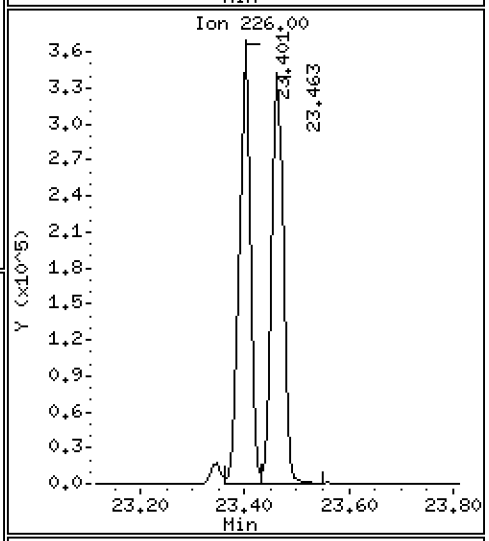


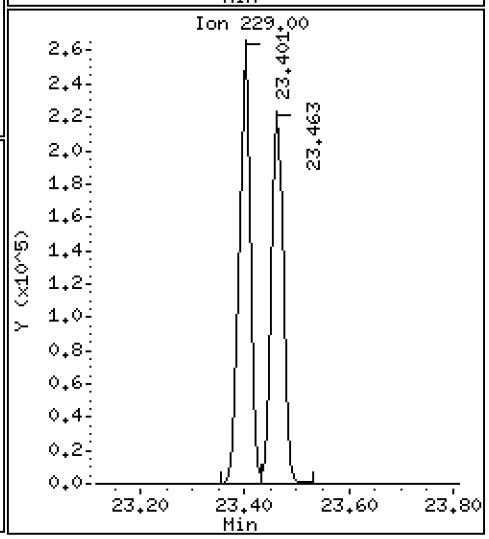












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

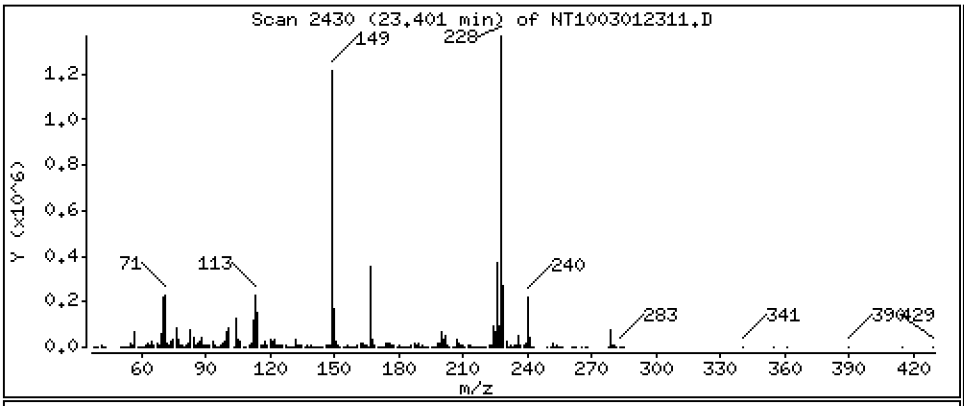
Operator: VTS

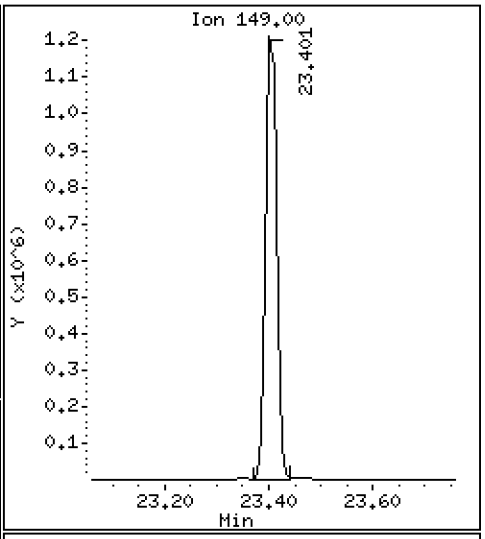
Column phase: ZB-5msi

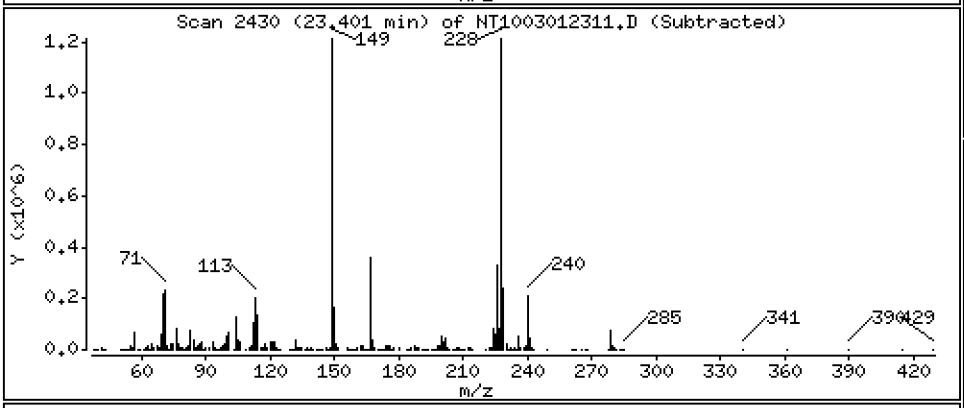
Column diameter: 0.25

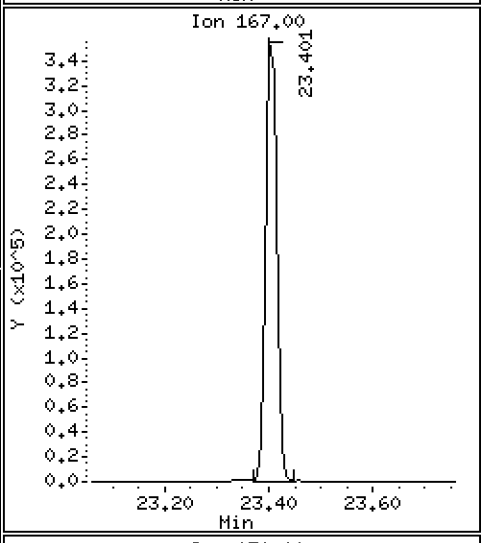
72 bis(2-Ethylhexyl)phthalate

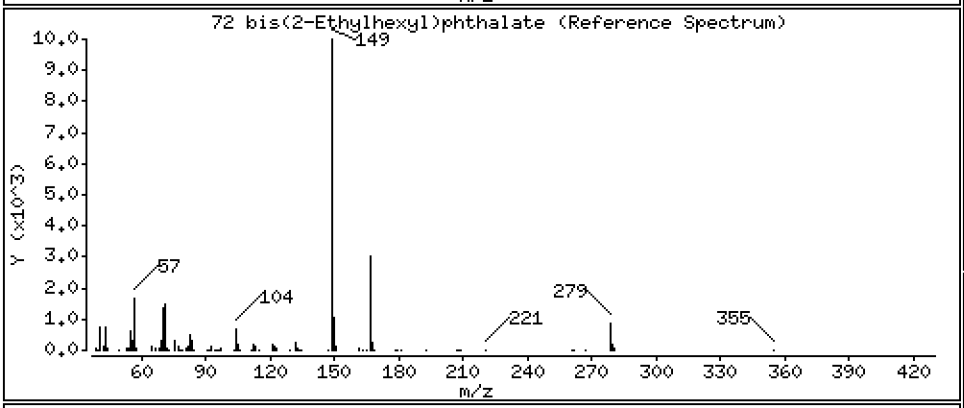
Concentration: 4.956 ug/mL

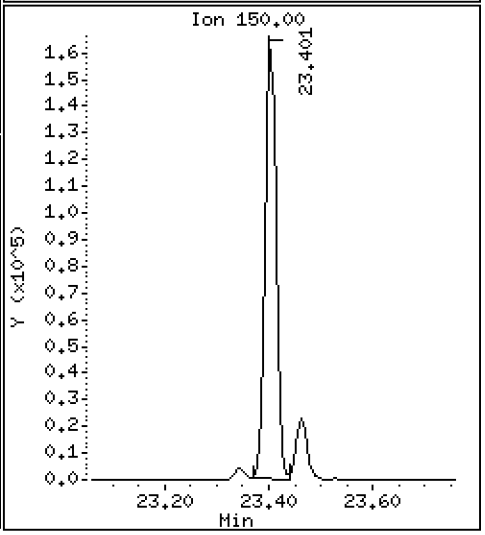


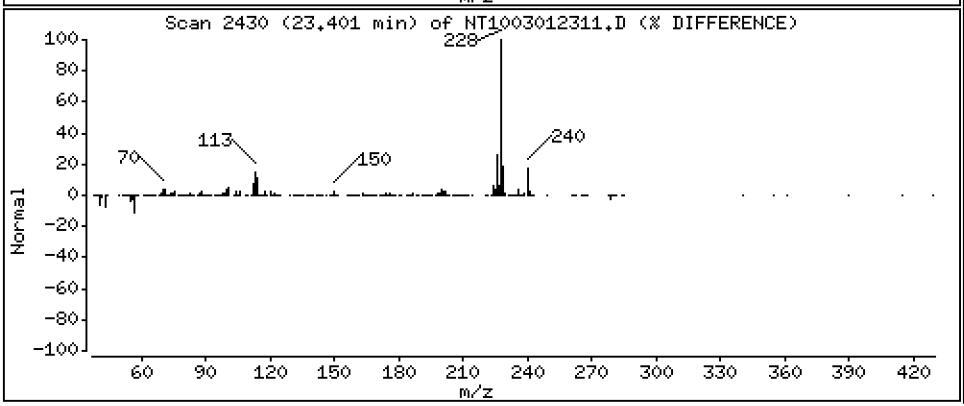












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

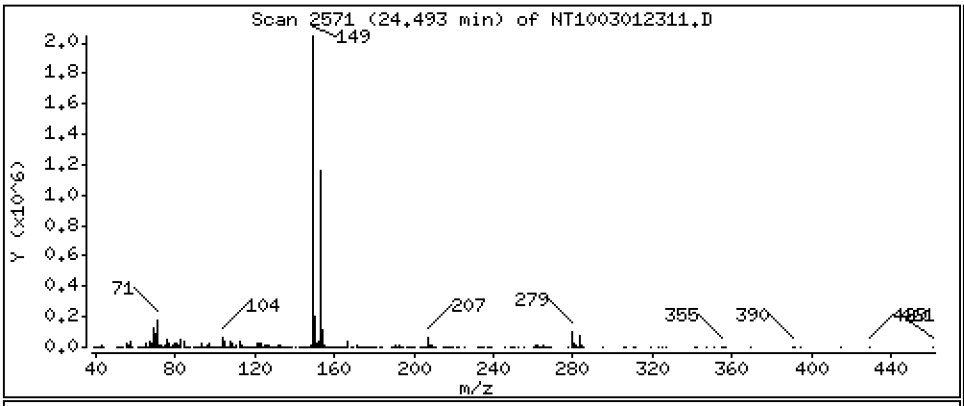
Operator: VTS

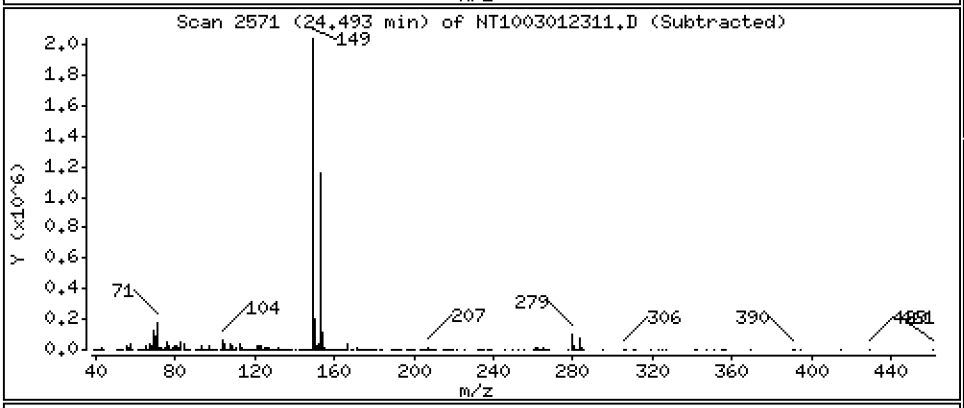
Column phase: ZB-5msi

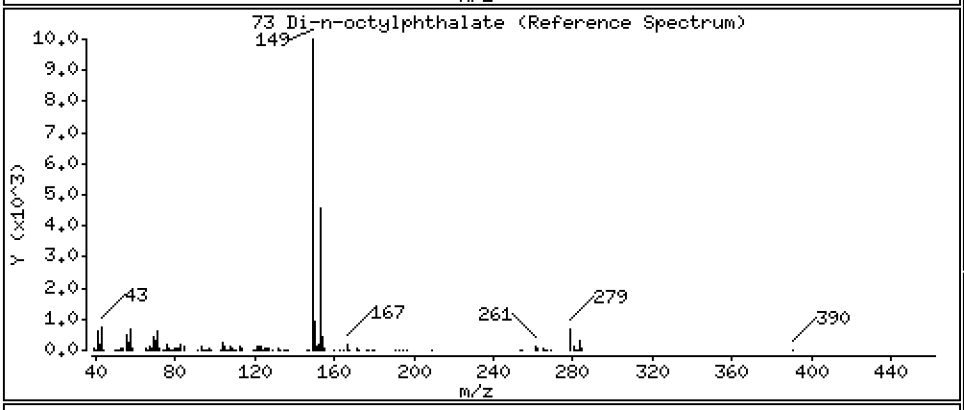
Column diameter: 0.25

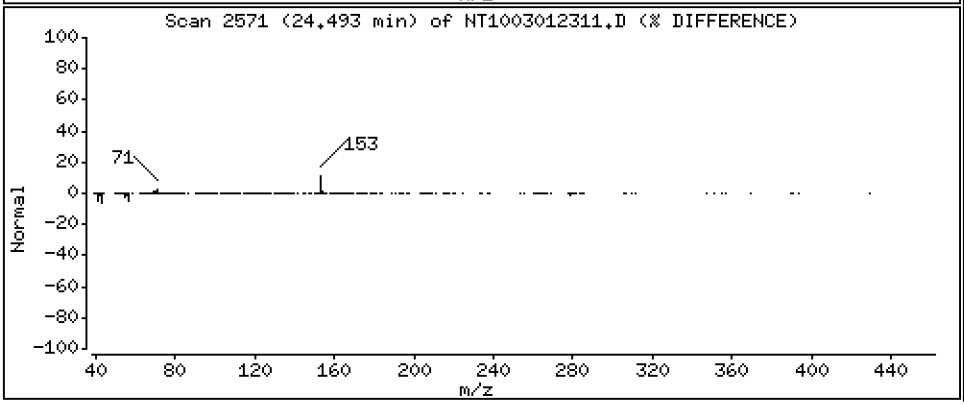
73 Di-n-octylphthalate

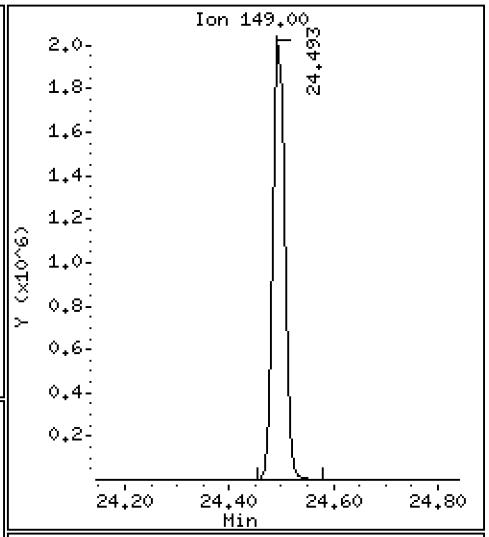
Concentration: 5.844 ug/mL

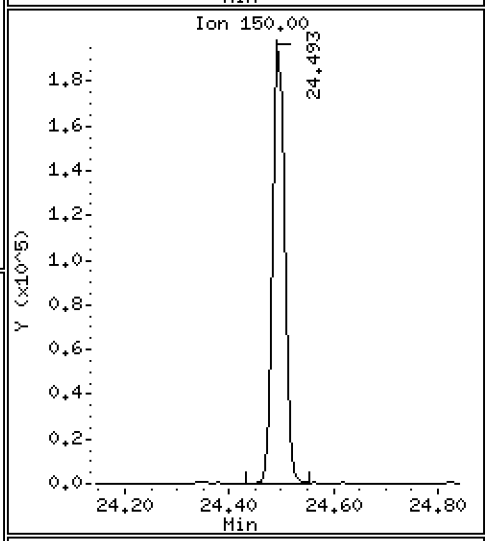


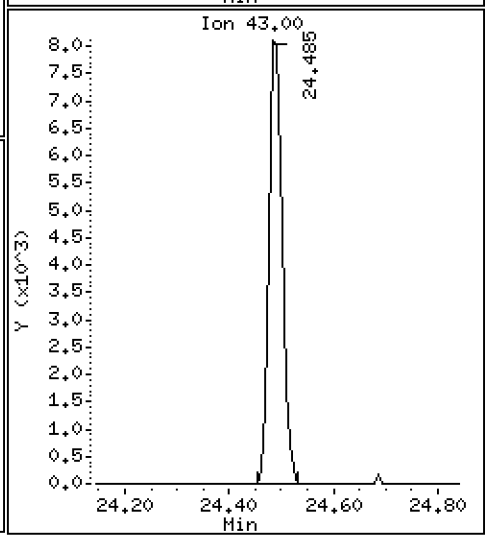












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

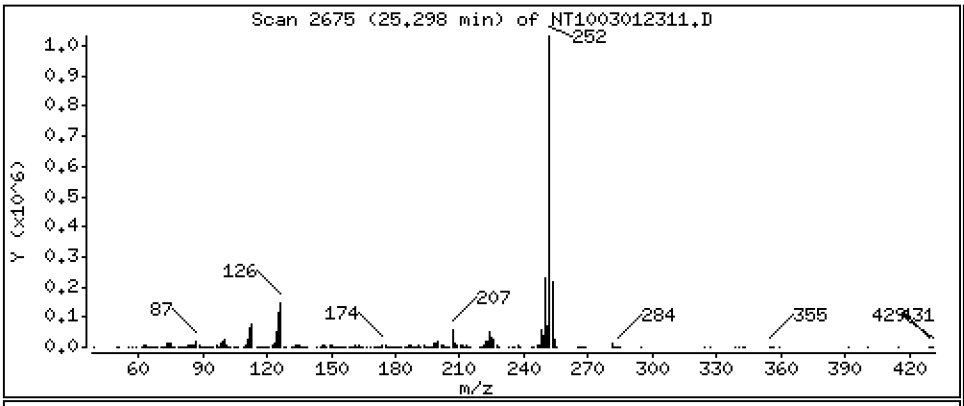
Operator: VTS

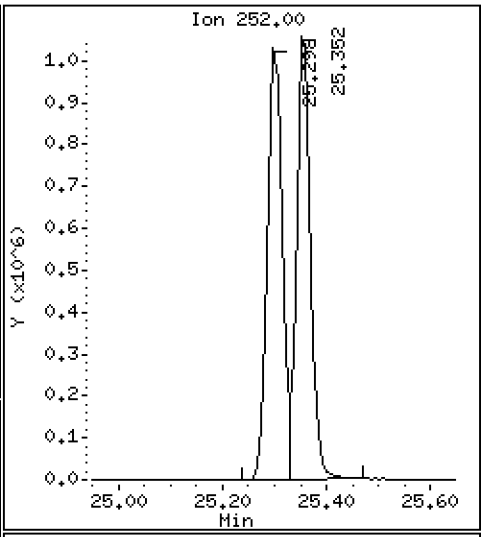
Column phase: ZB-5msi

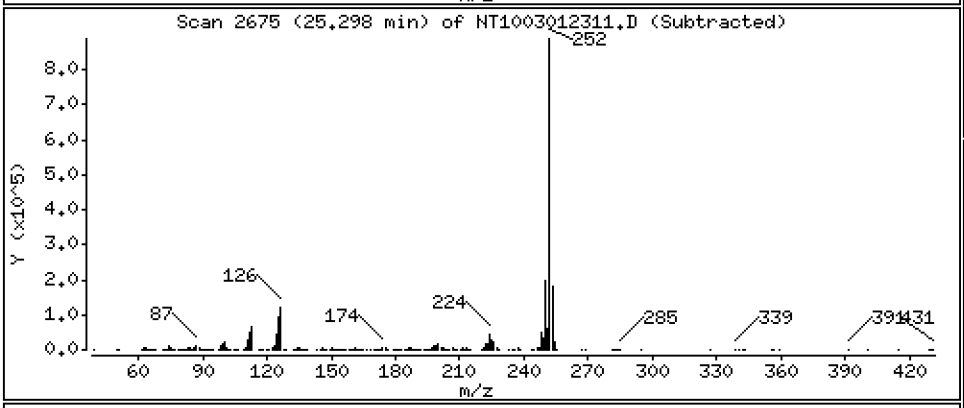
Column diameter: 0.25

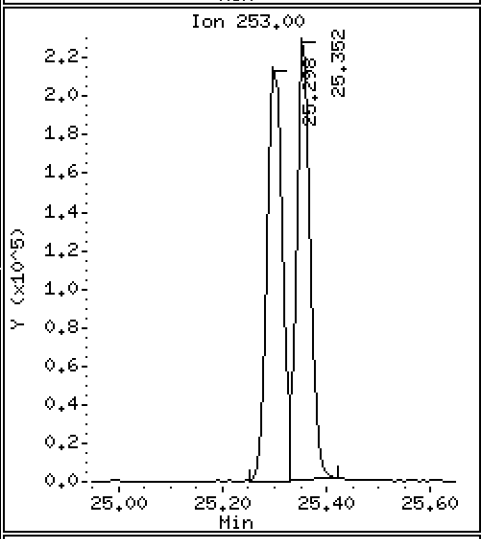
74 Benzo(b)fluoranthene

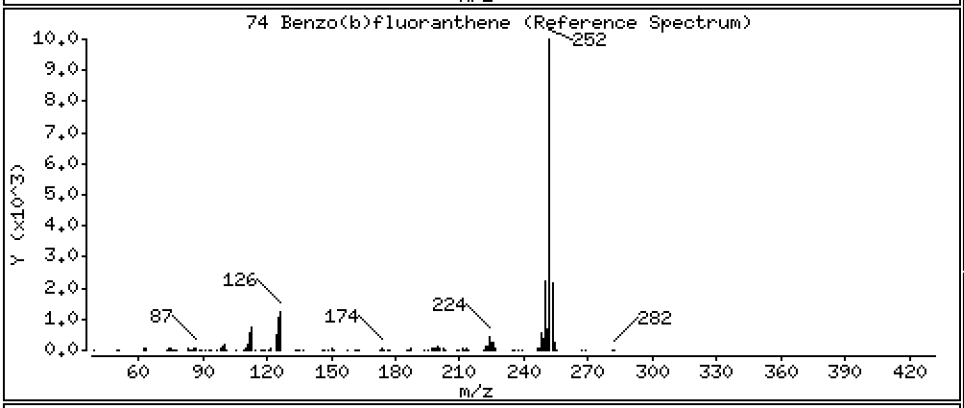
Concentration: 4.319 ug/mL

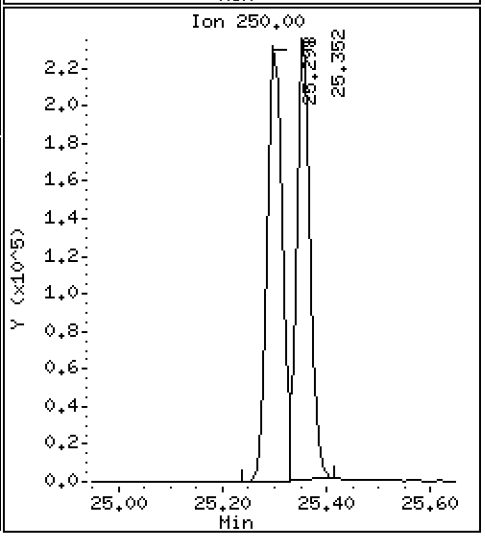


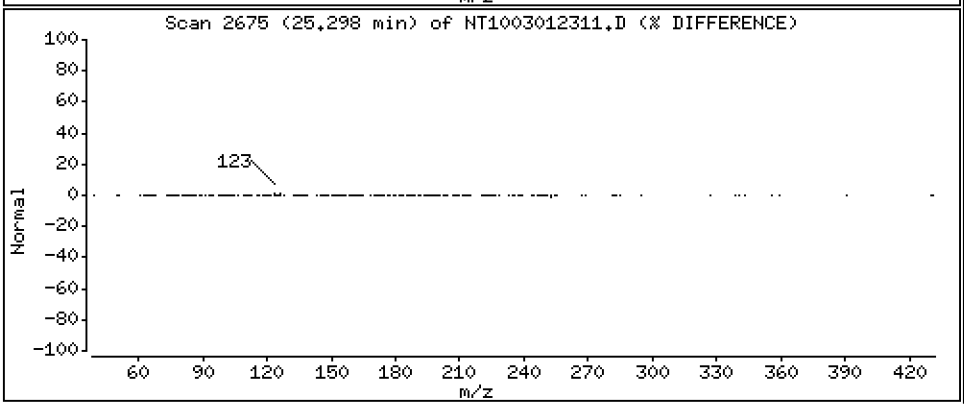












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

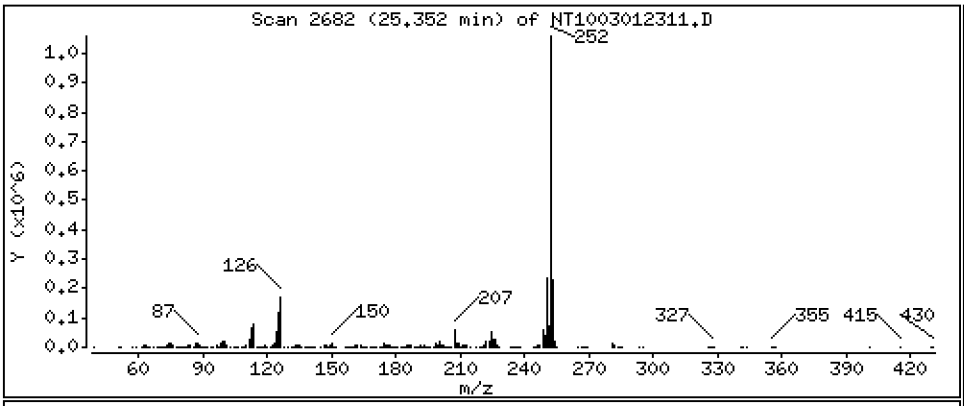
Operator: VTS

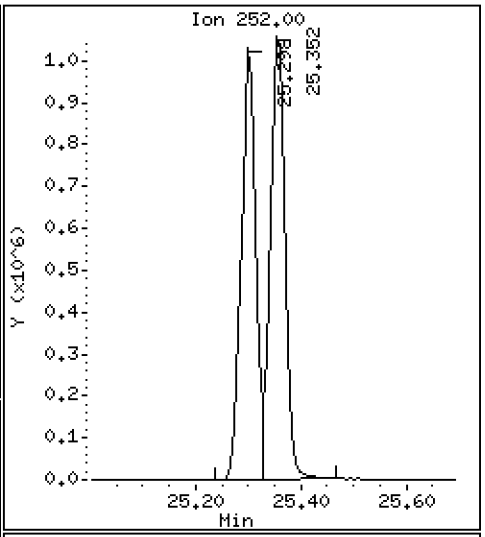
Column phase: ZB-5msi

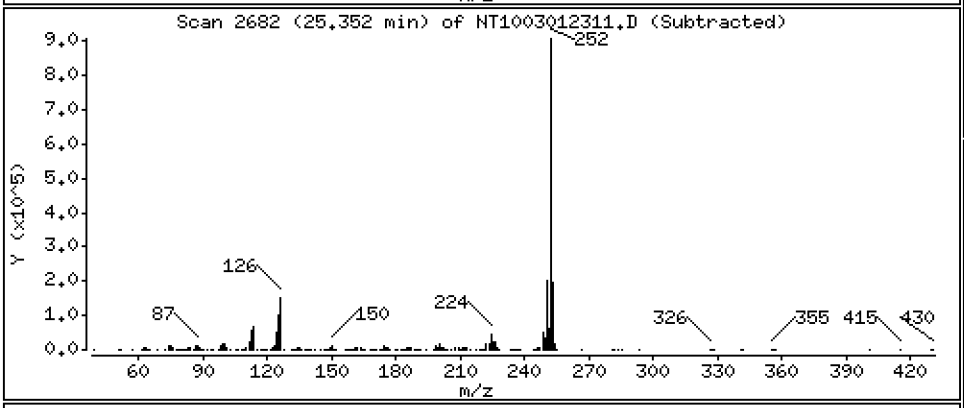
Column diameter: 0.25

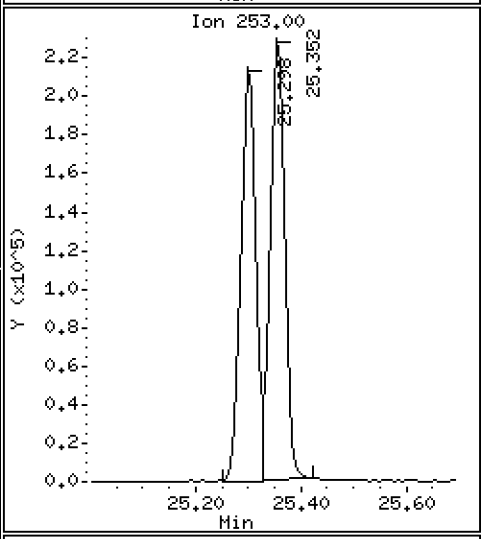
75 Benzo(k)fluoranthene

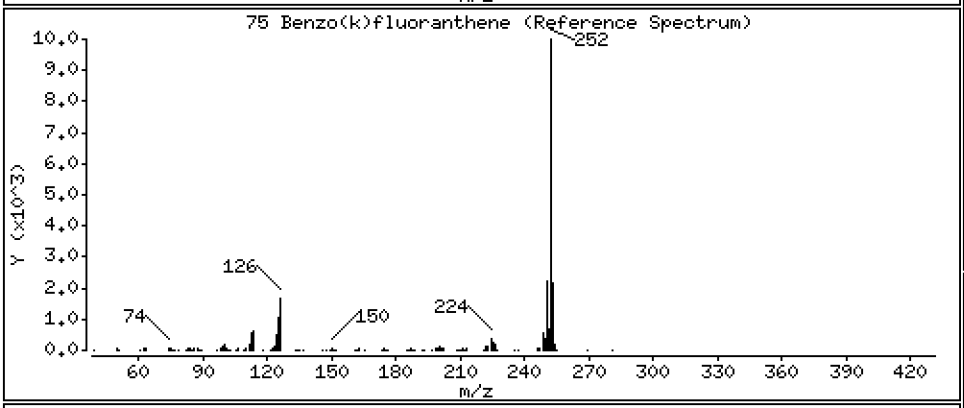
Concentration: 4.563 ug/mL

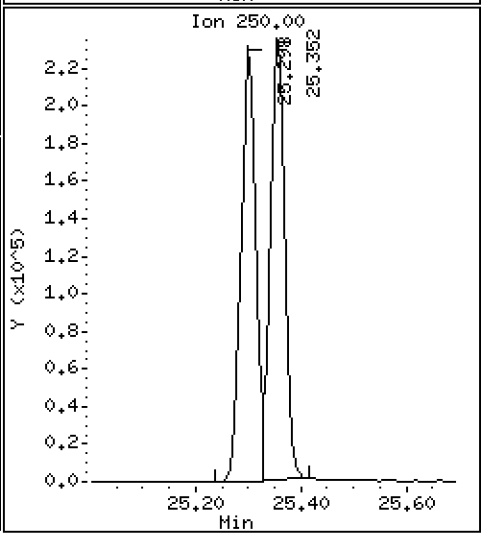


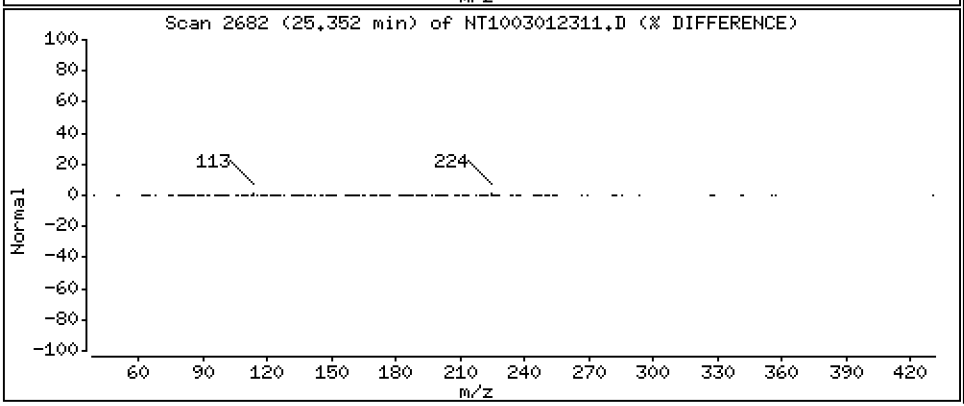












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

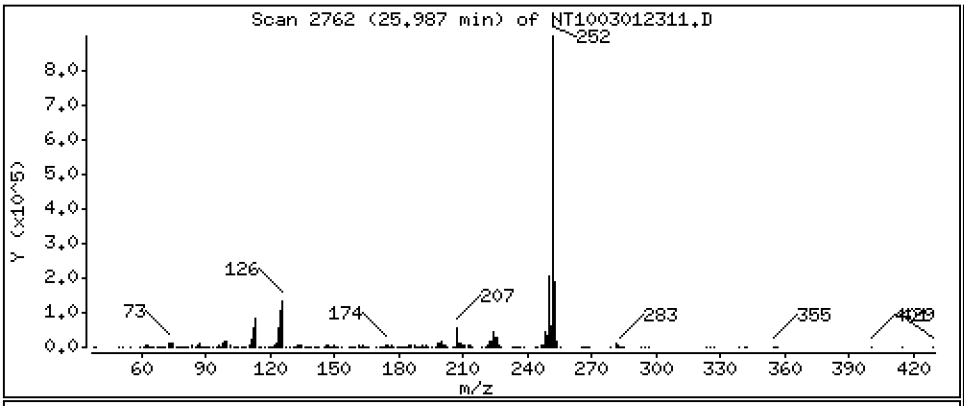
Operator: VTS

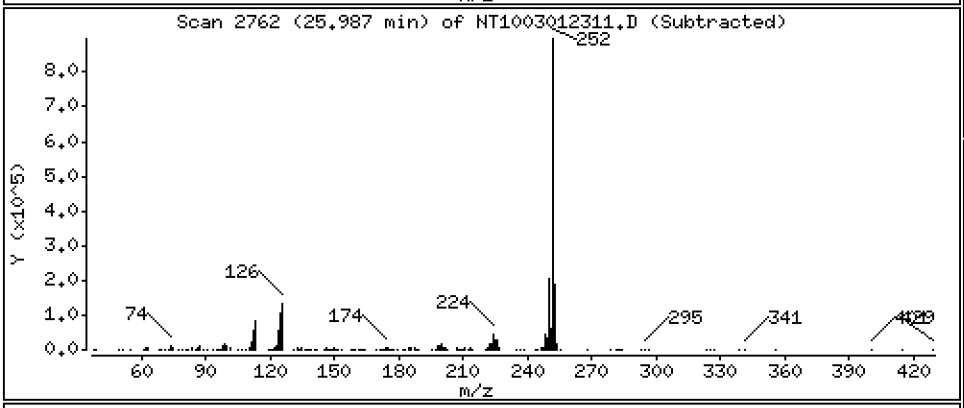
Column phase: ZB-5msi

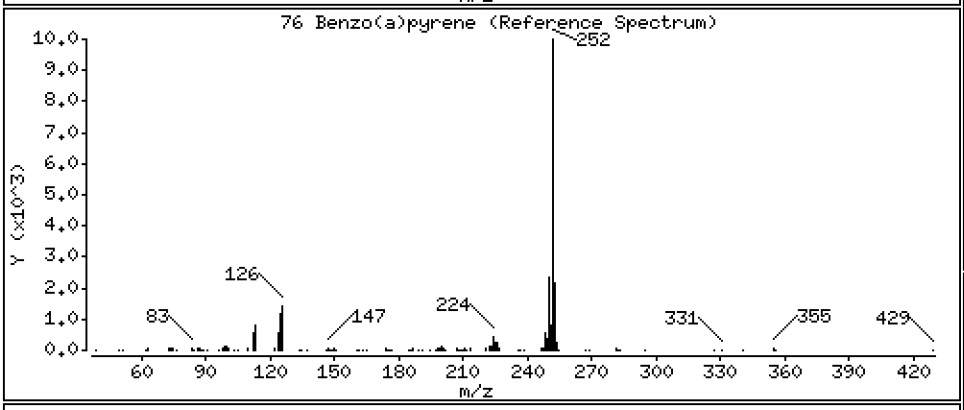
Column diameter: 0.25

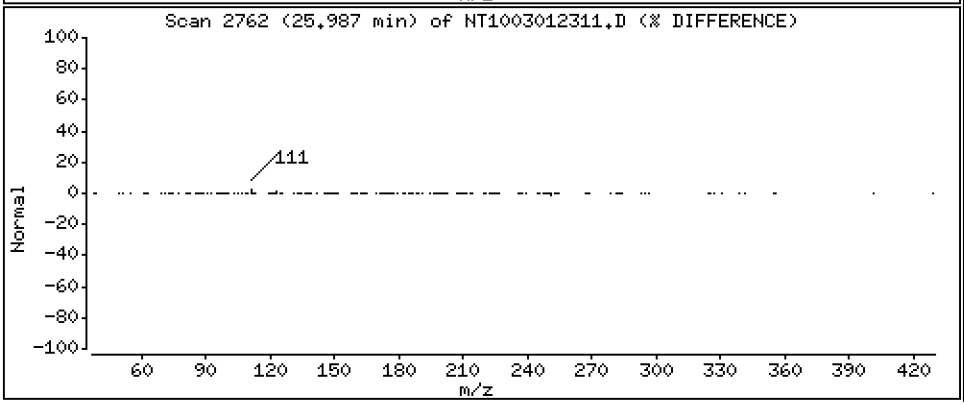
76 Benzo(a)pyrene

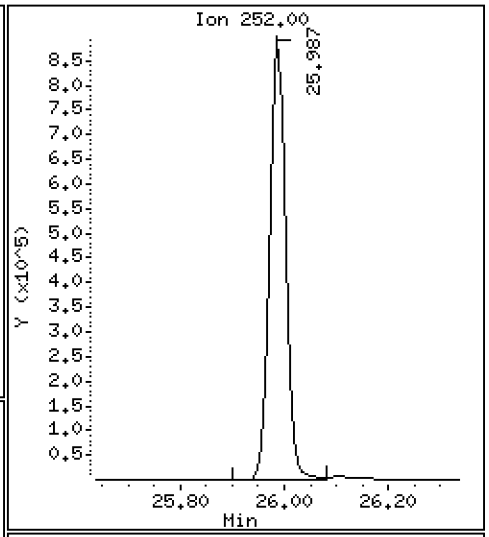
Concentration: 4.445 ug/mL

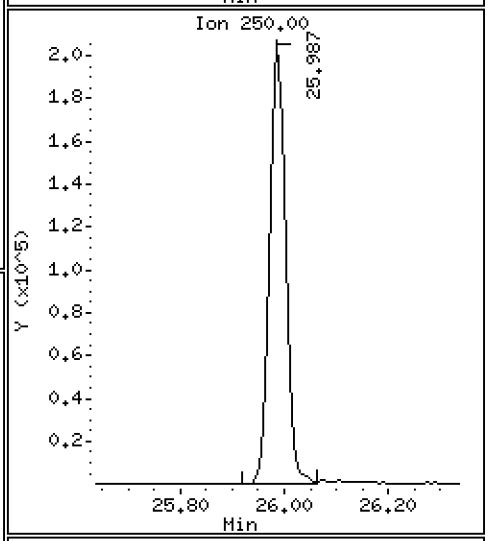


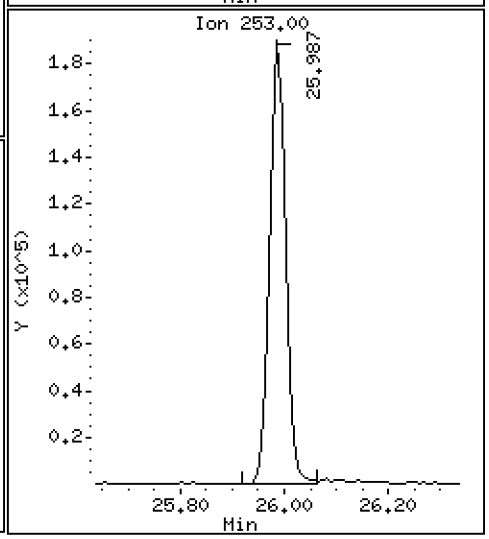












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

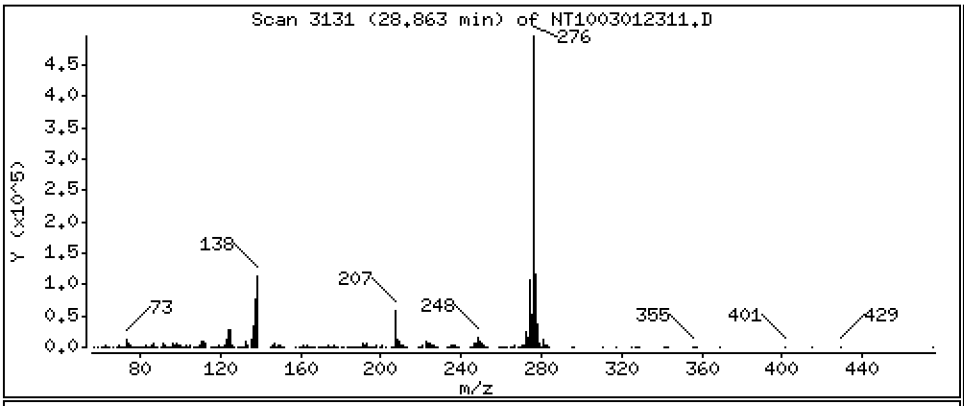
Operator: VTS

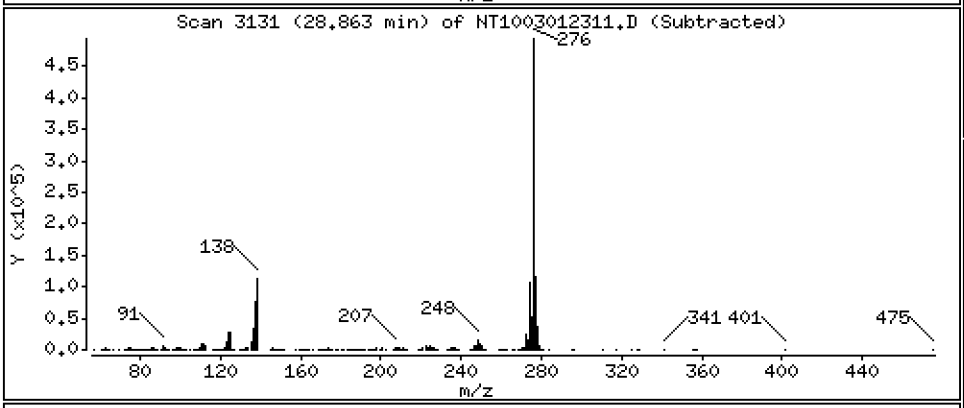
Column phase: ZB-5msi

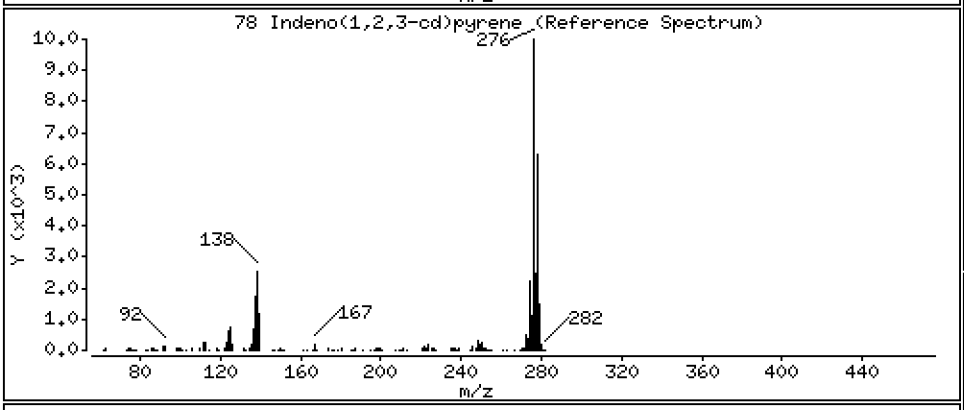
Column diameter: 0.25

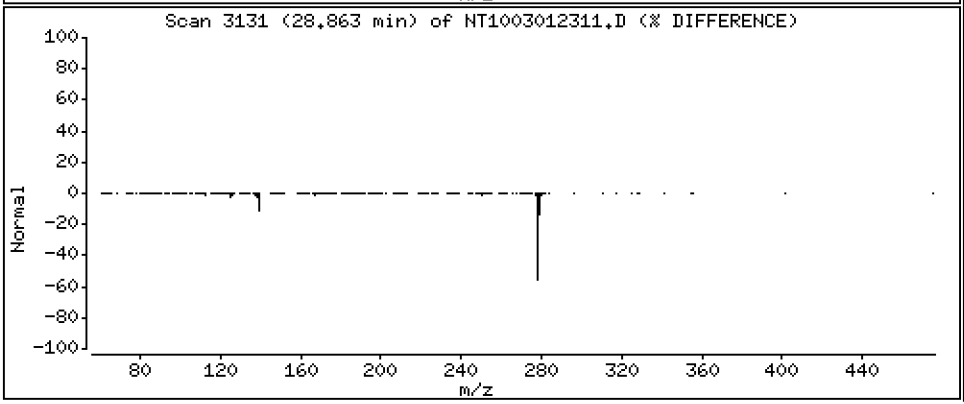
78 Indeno(1,2,3-cd)pyrene

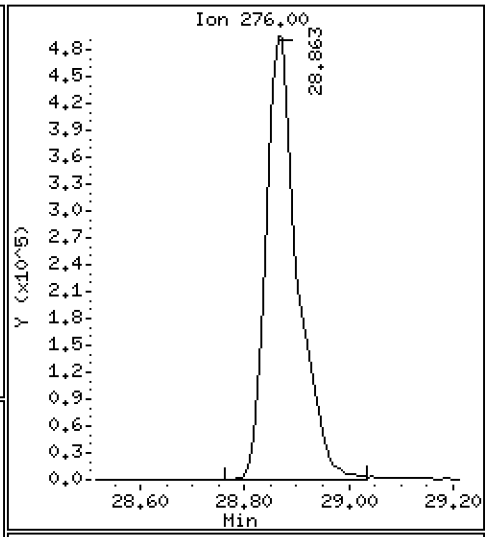
Concentration: 4.345 ug/mL

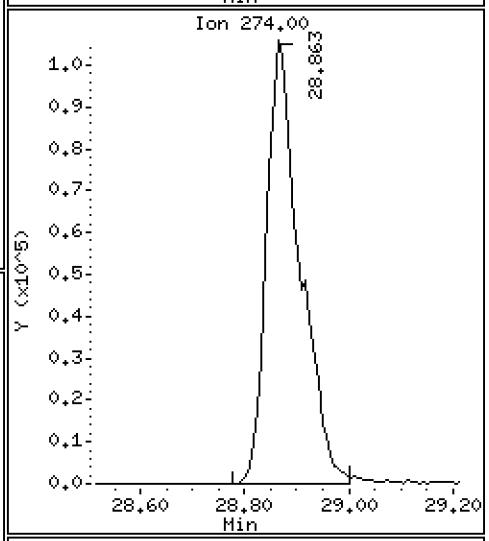


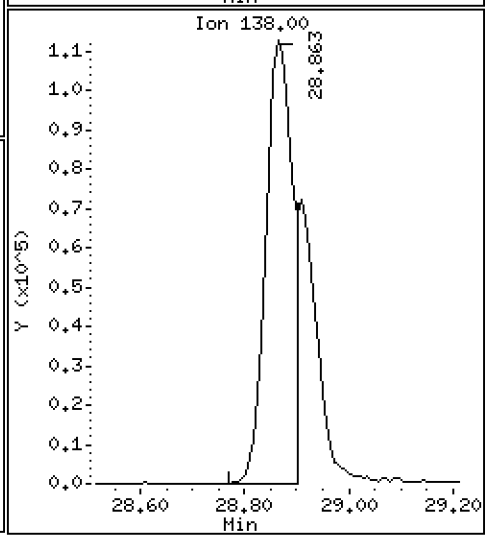












Date : 01-MAR-2023 21:46

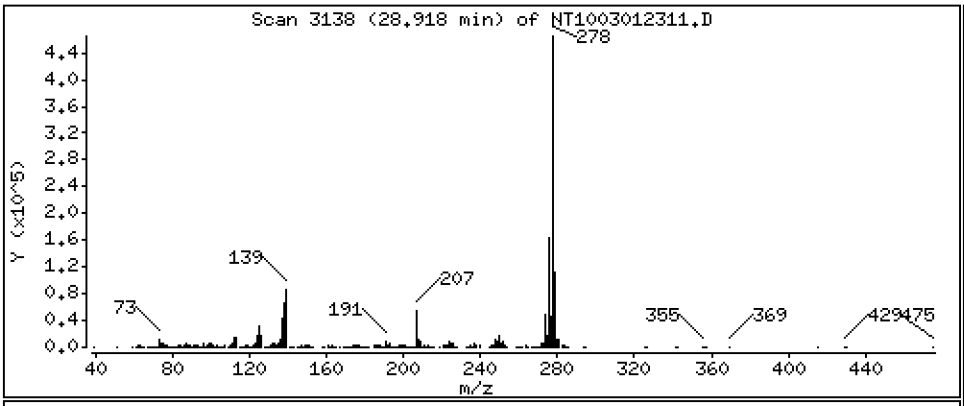
Client ID: Instrument: nt10.i

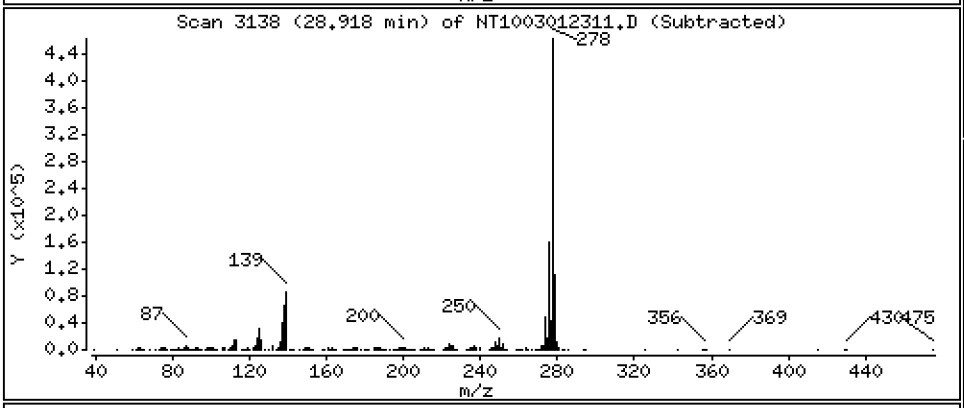
Sample Info: SEQ-SCV1

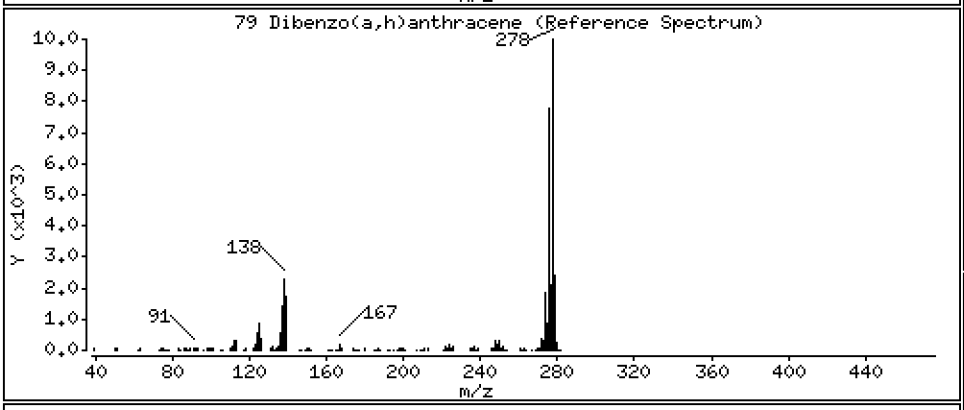
Operator: VTS

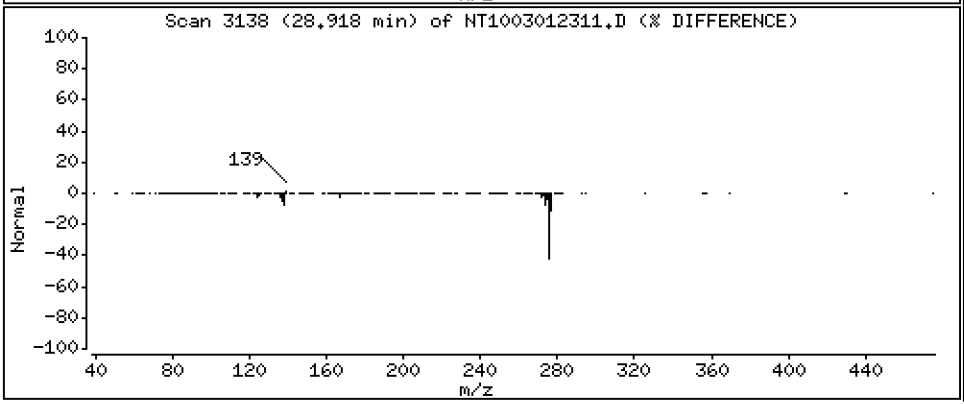
Column phase: ZB-5msi Column diameter: 0.25

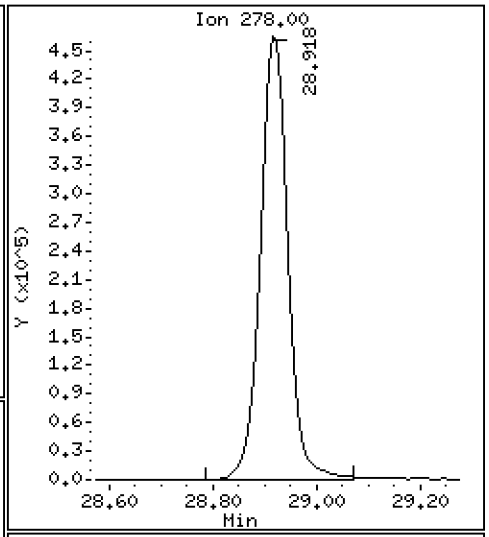
79 Dibenzo(a,h)anthracene Concentration: 4.608 ug/mL

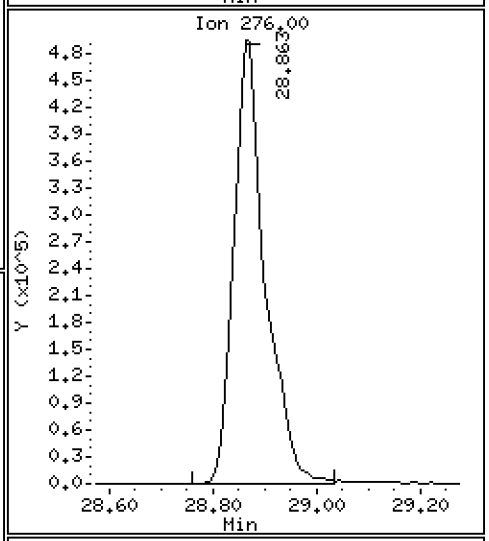


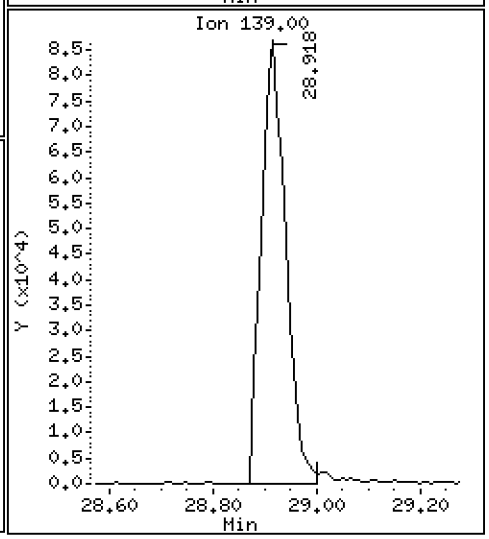












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

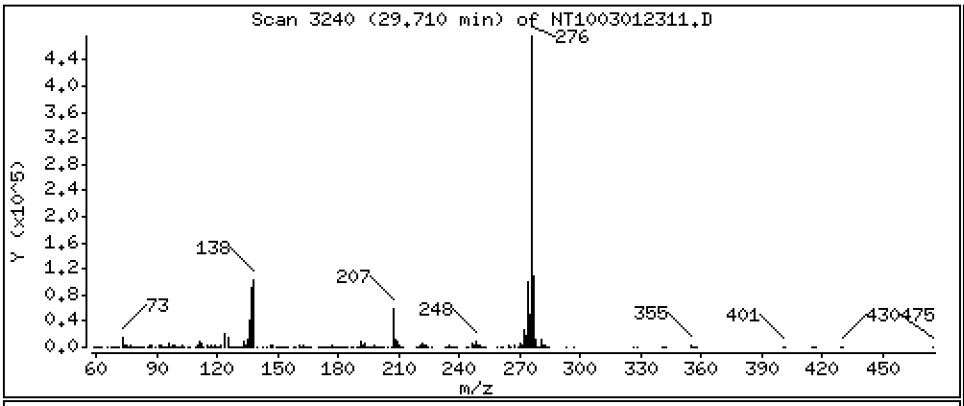
Operator: VTS

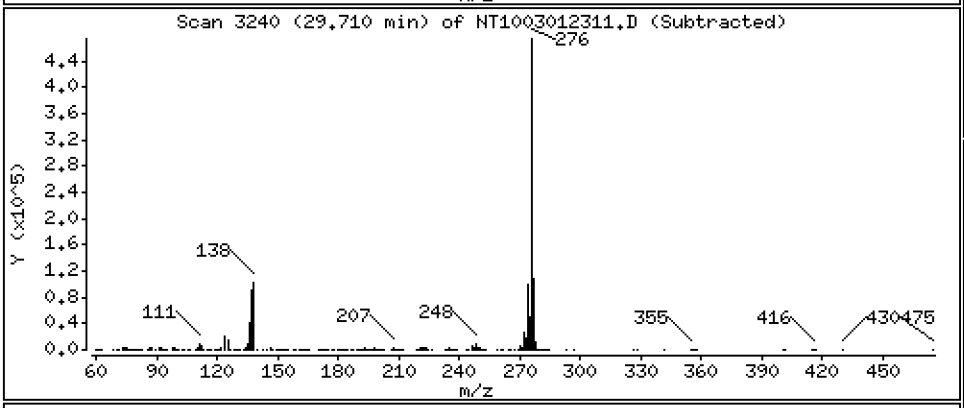
Column phase: ZB-5msi

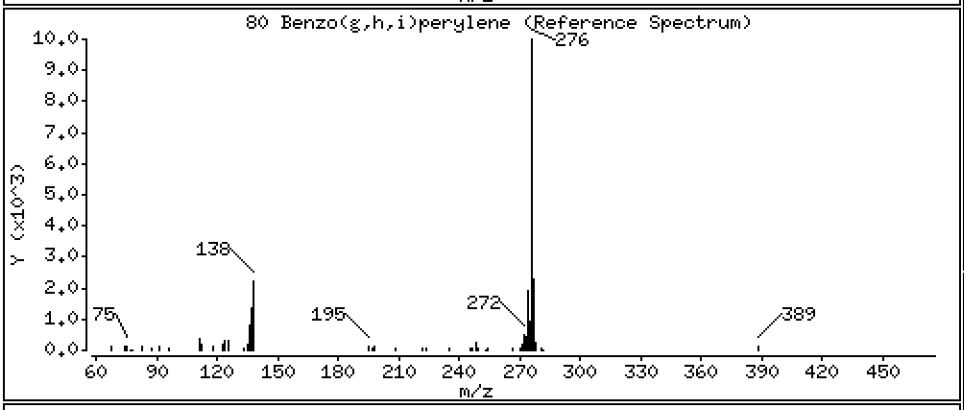
Column diameter: 0.25

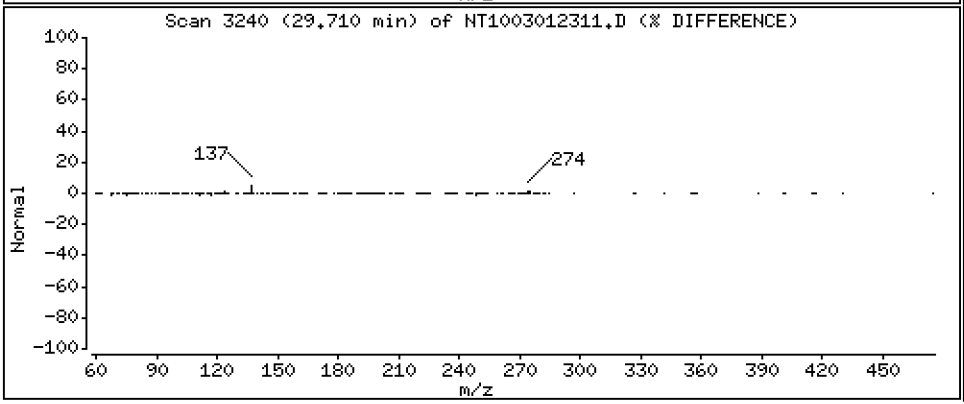
80 Benzo(g,h,i)perylene

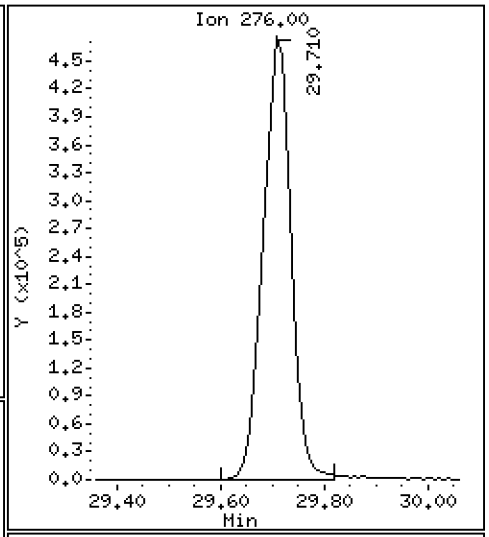
Concentration: 4.602 ug/mL

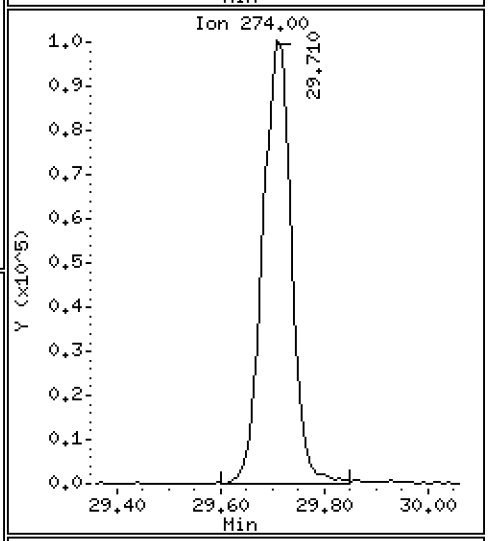


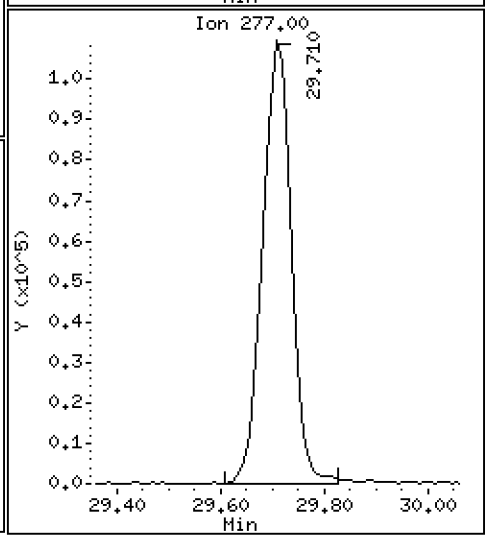












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

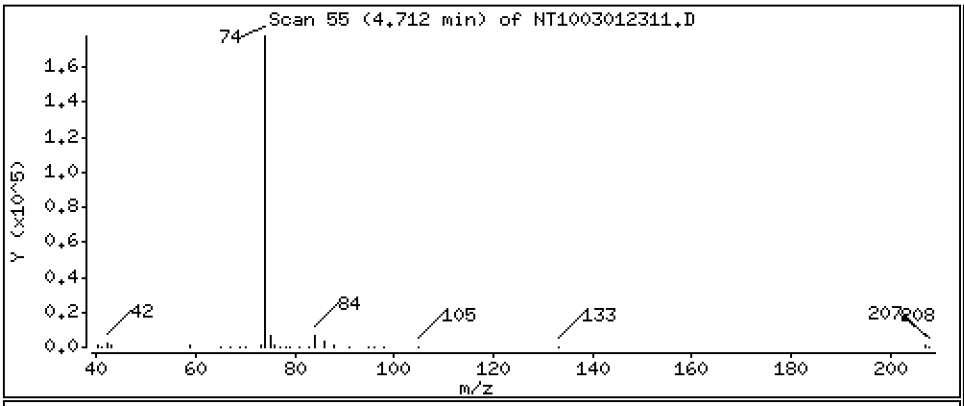
Operator: VTS

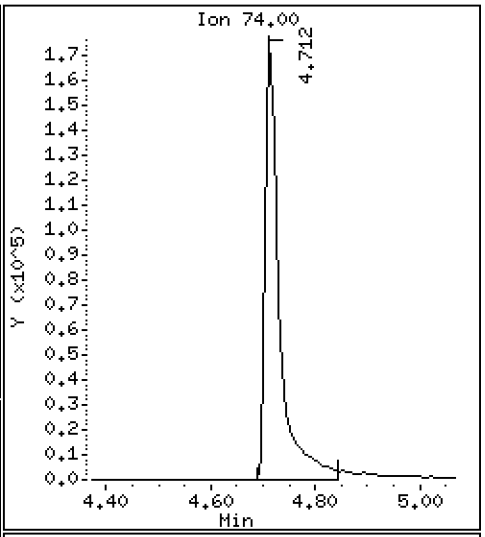
Column phase: ZB-5msi

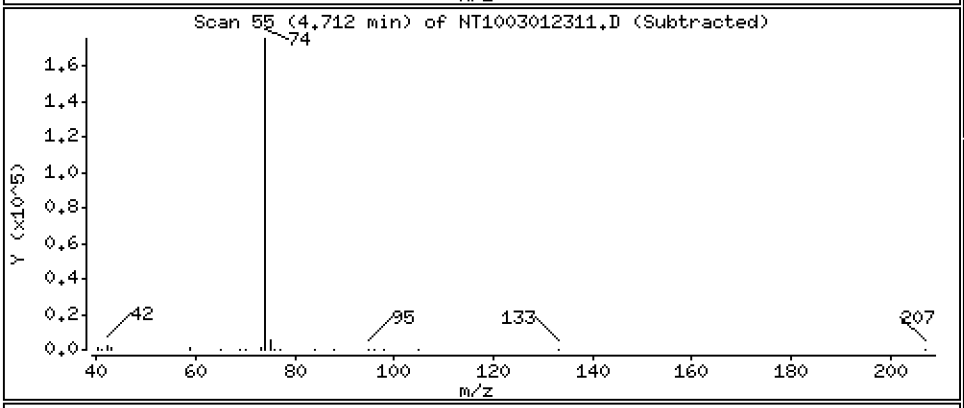
Column diameter: 0.25

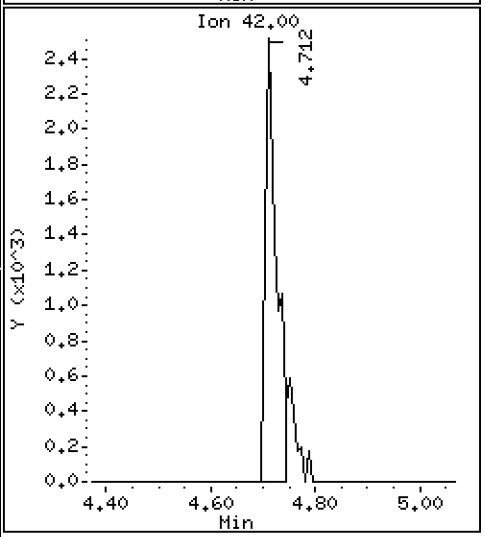
90 N-Nitrosodimethylamine

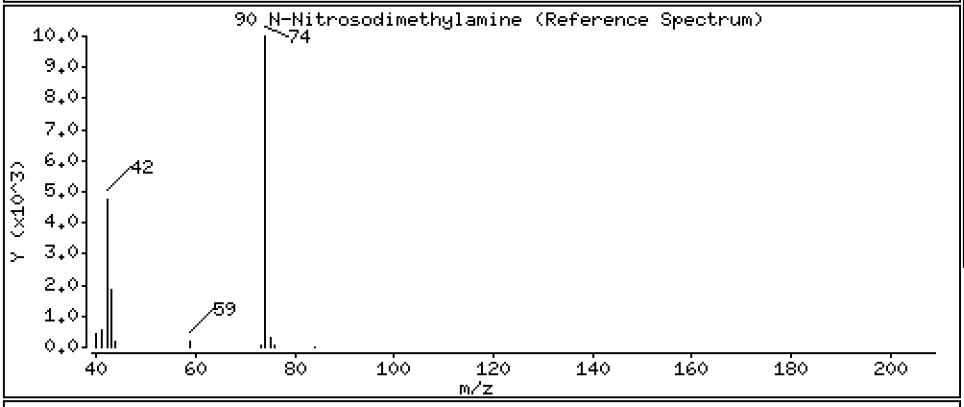
Concentration: 5.491 ug/mL

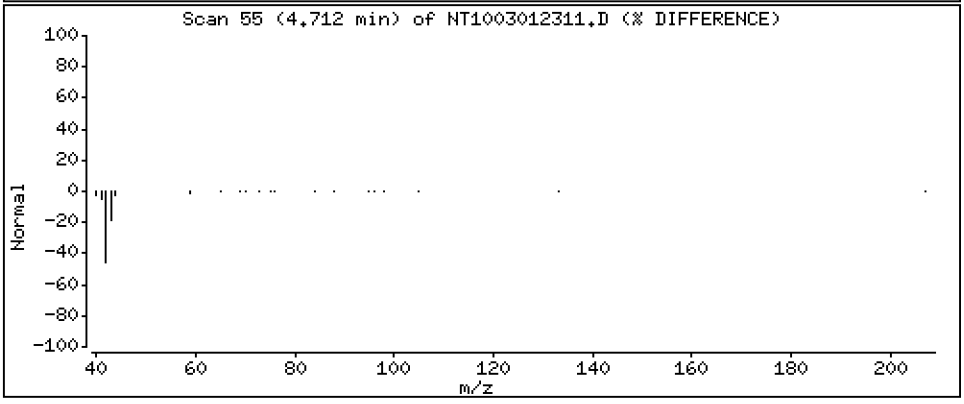












Date : 01-MAR-2023 21:46

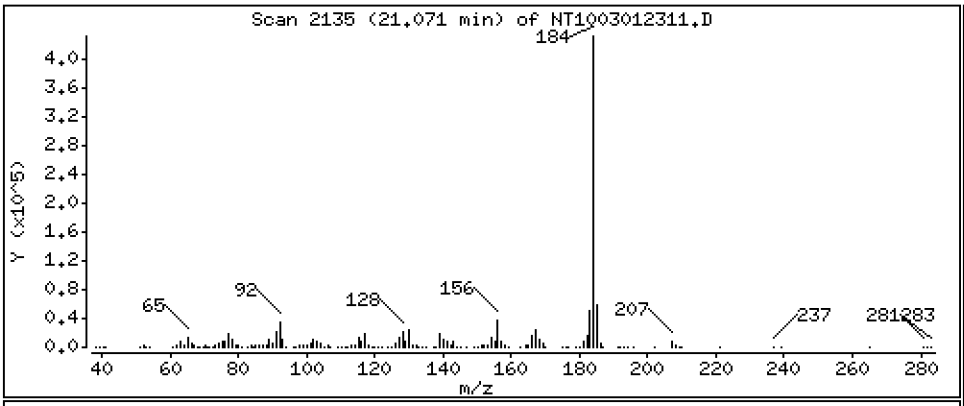
Client ID: Instrument: nt10.i

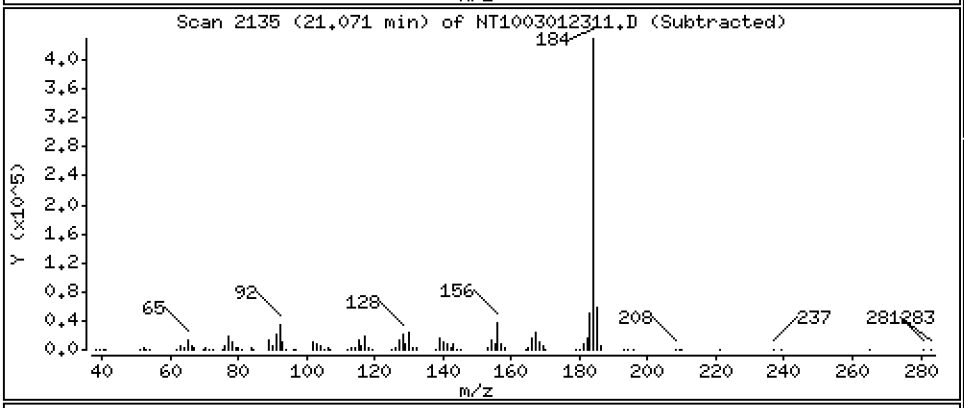
Sample Info: SEQ-SCV1

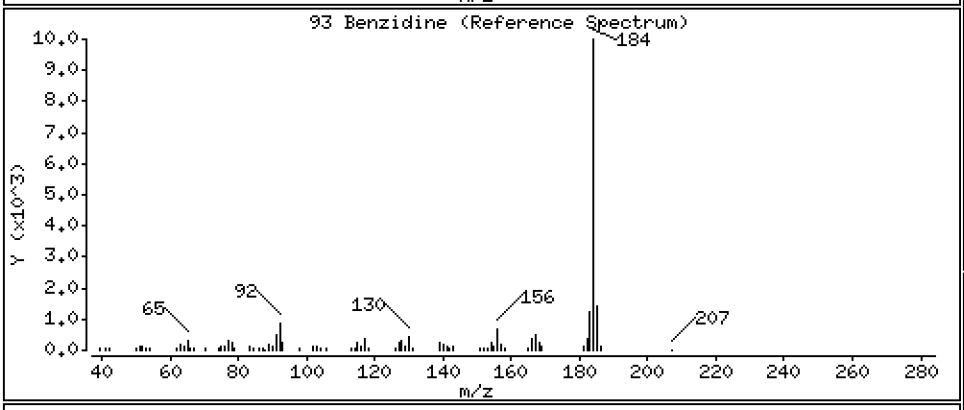
Operator: VTS

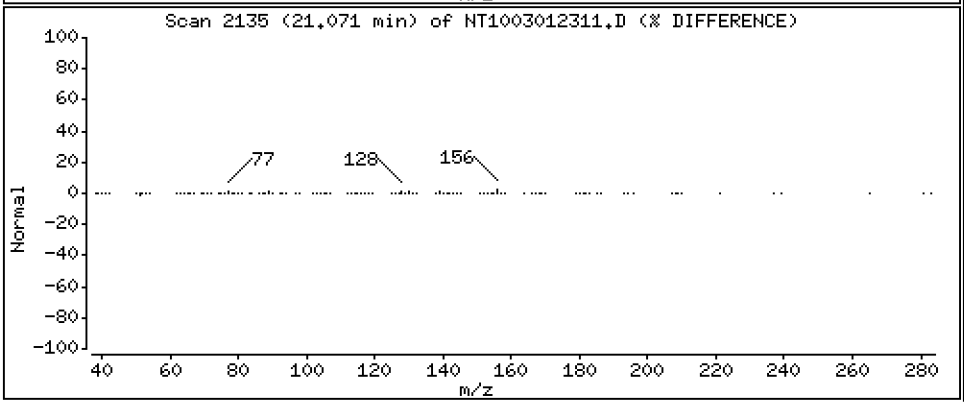
Column phase: ZB-5msi Column diameter: 0.25

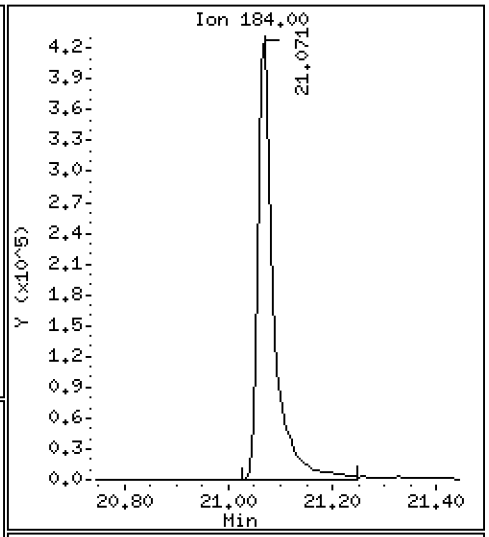
93 Benzidine Concentration: 5.007 ug/mL

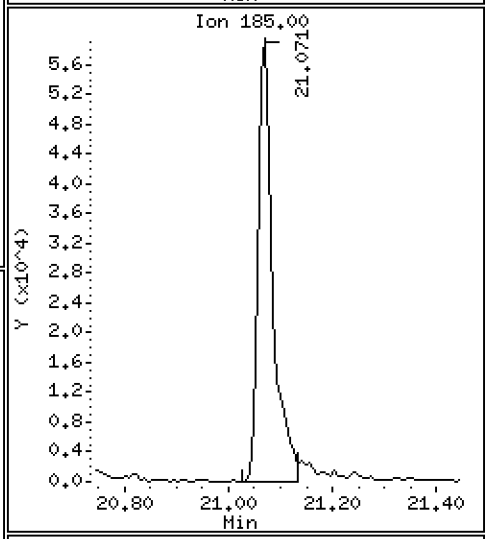


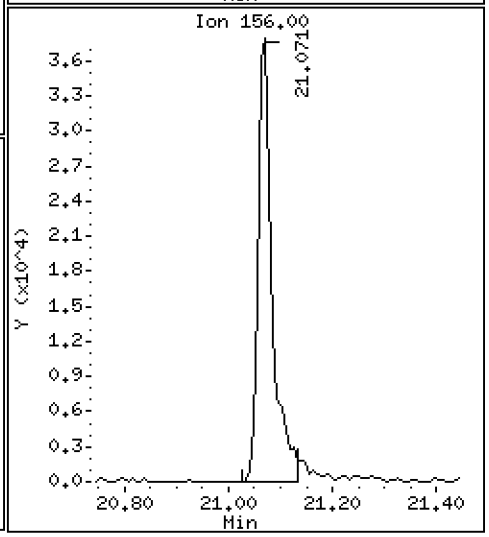












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

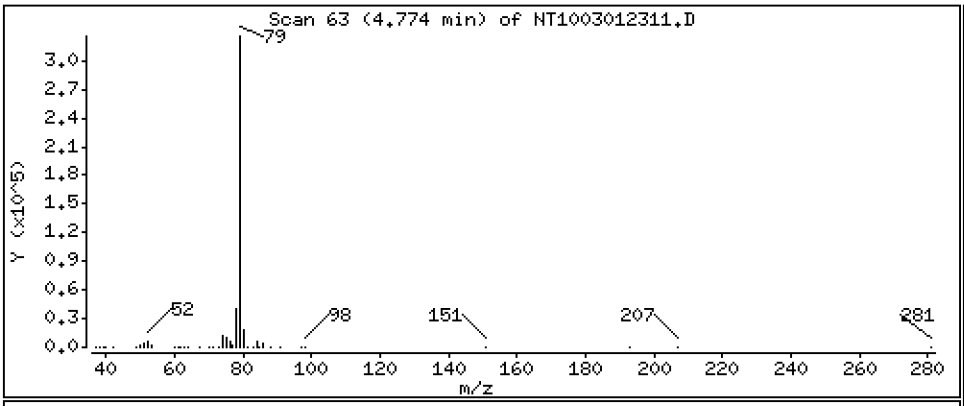
Operator: VTS

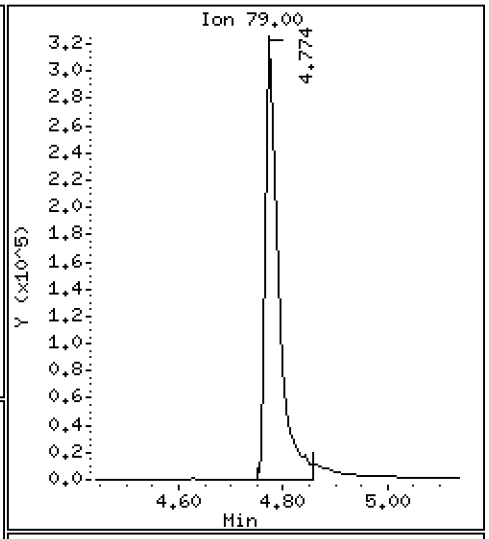
Column phase: ZB-5msi

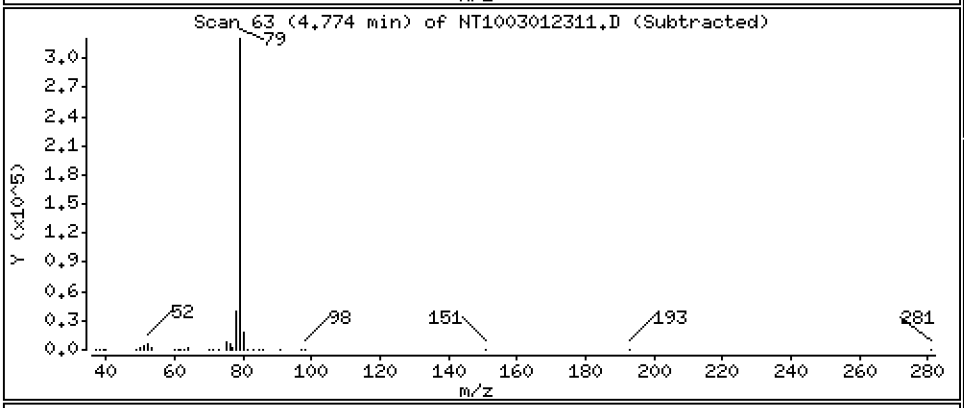
Column diameter: 0.25

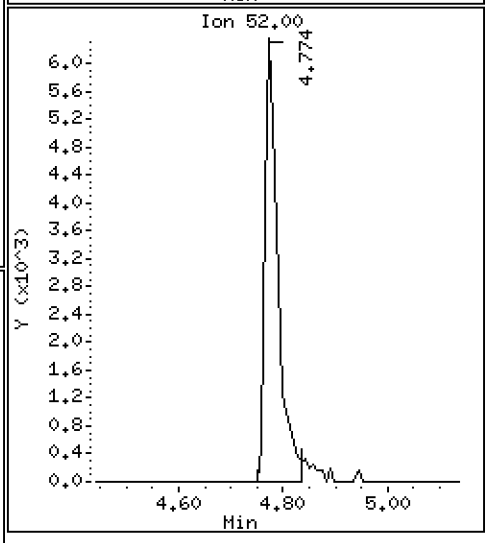
103 Pyridine

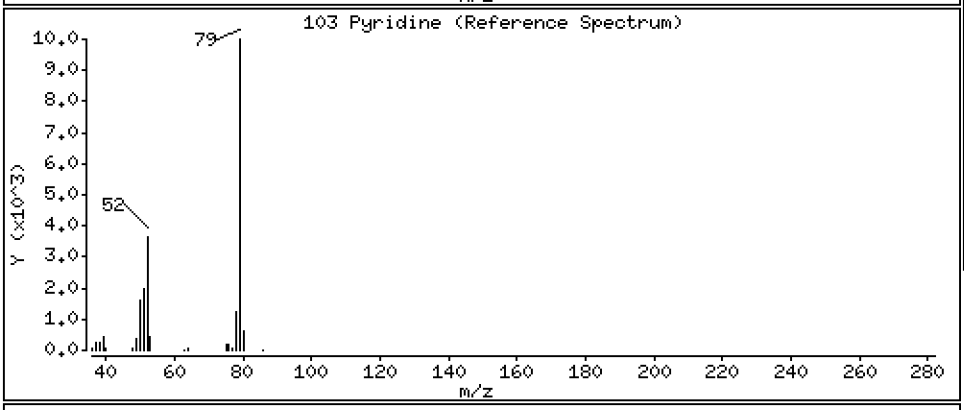
Concentration: 5.430 ug/mL

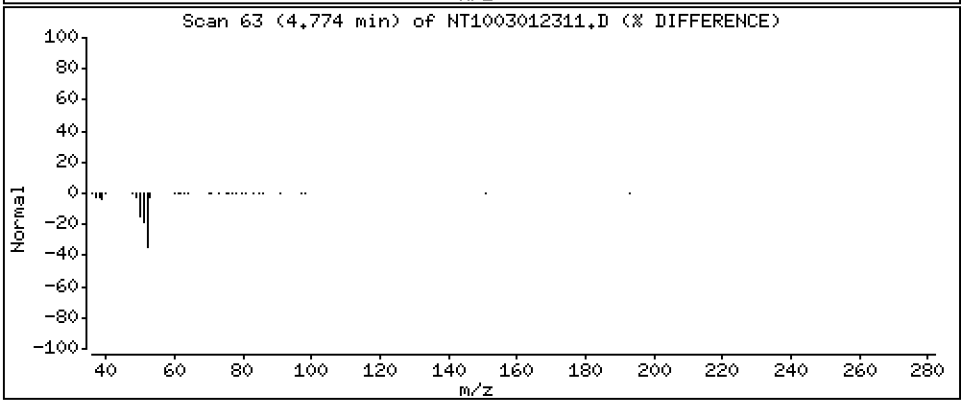












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

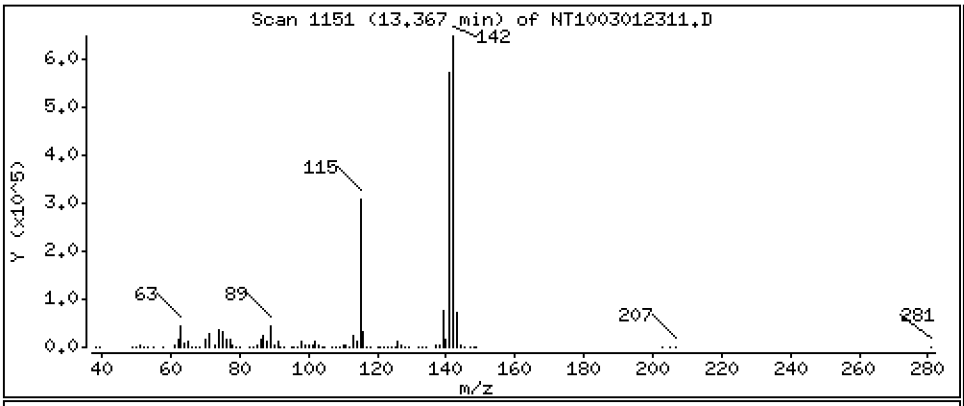
Operator: VTS

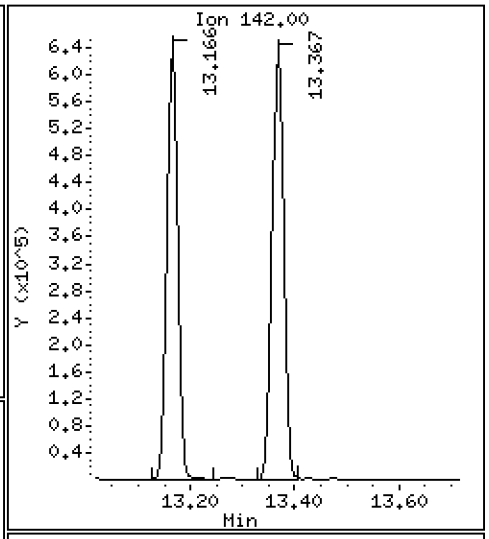
Column phase: ZB-5msi

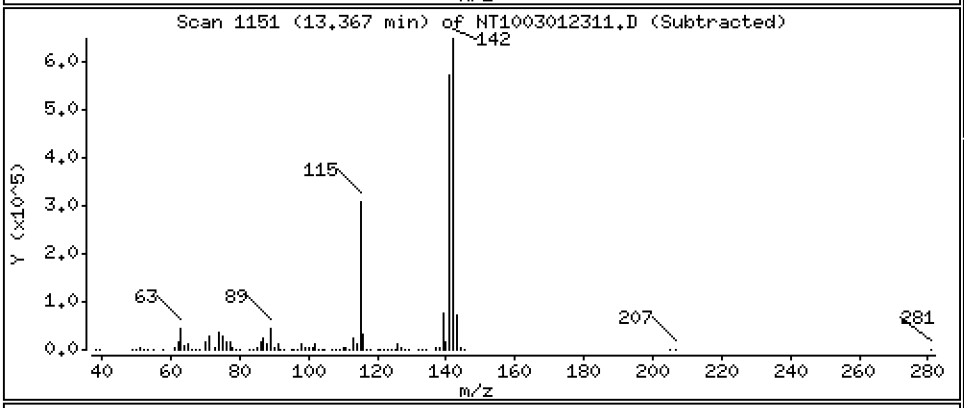
Column diameter: 0.25

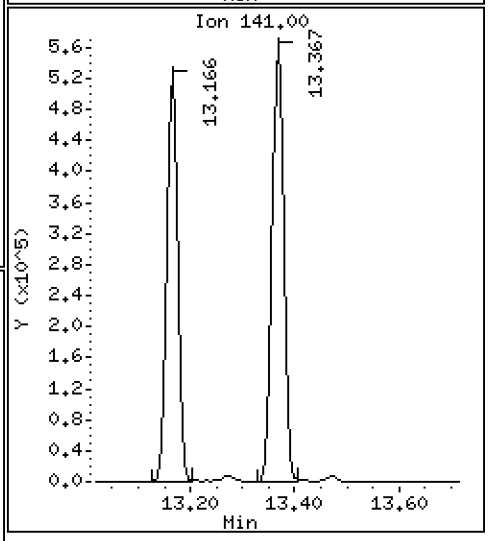
105 1-methylnaphthalene

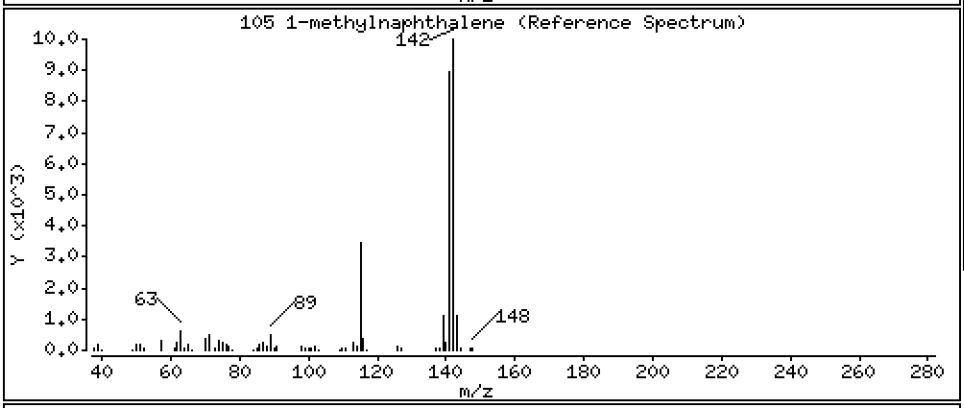
Concentration: 5.219 ug/mL

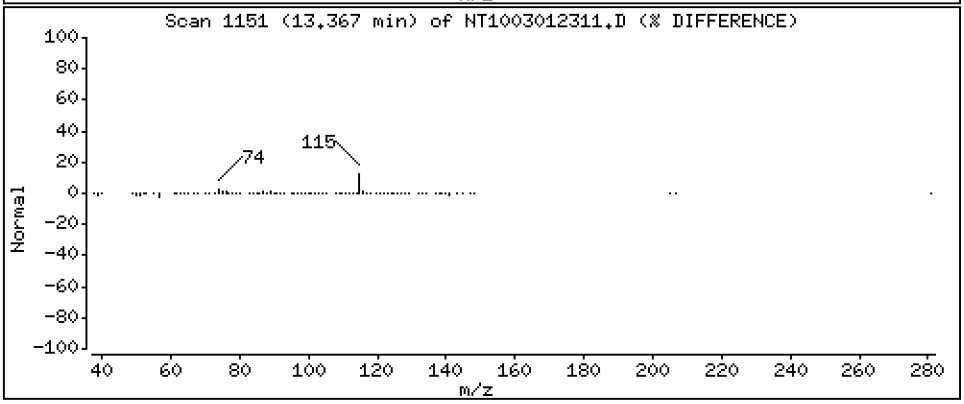












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

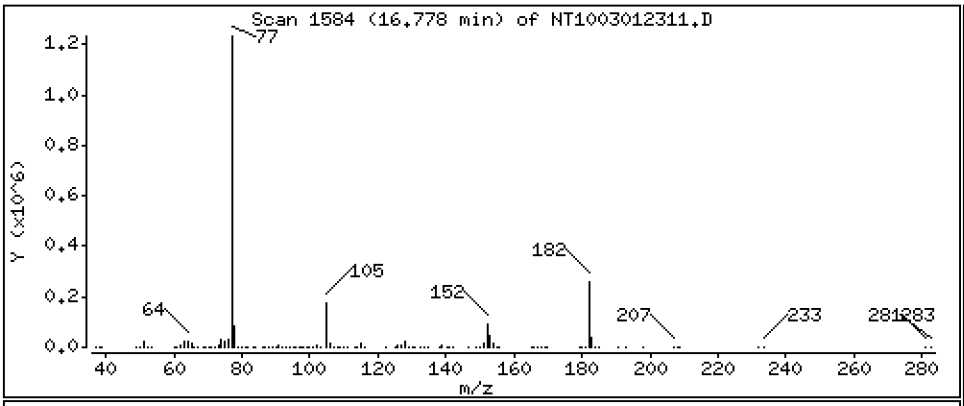
Operator: VTS

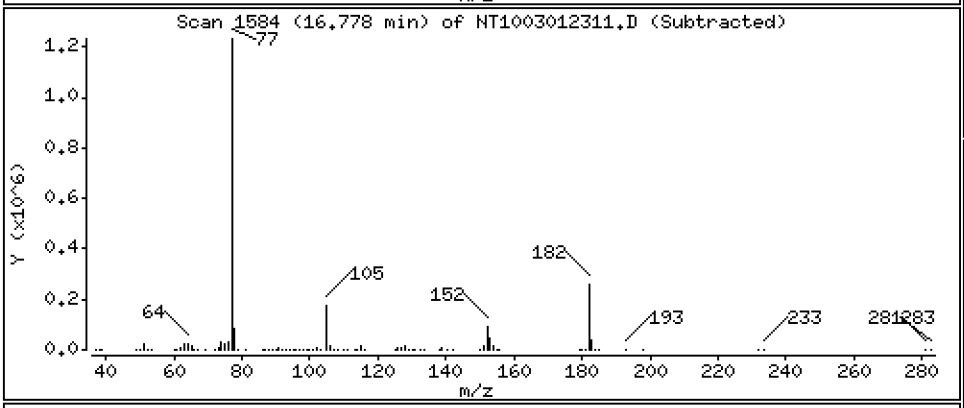
Column phase: ZB-5msi

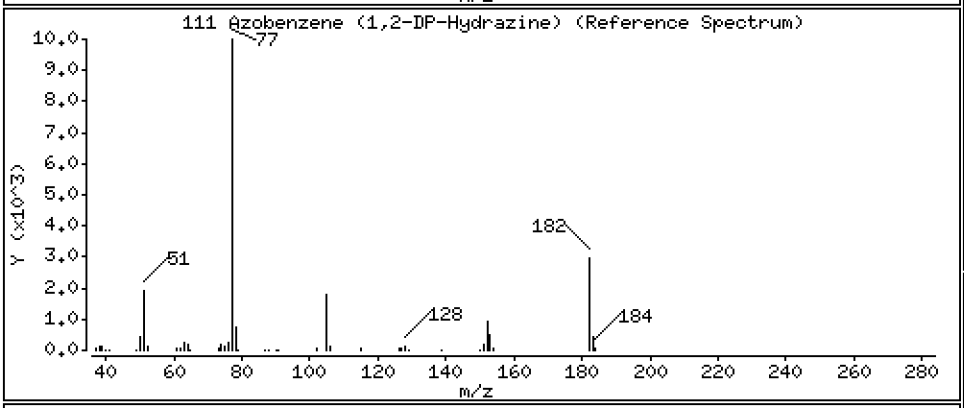
Column diameter: 0.25

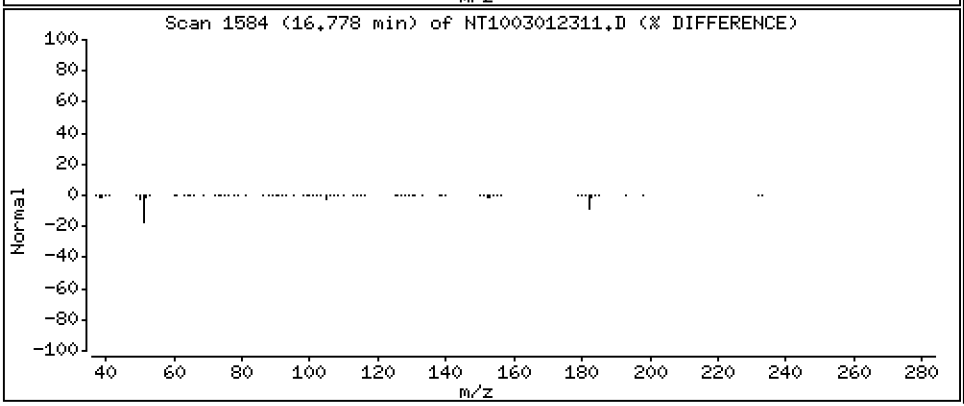
111 Azobenzene (1,2-DP-Hydrazine)

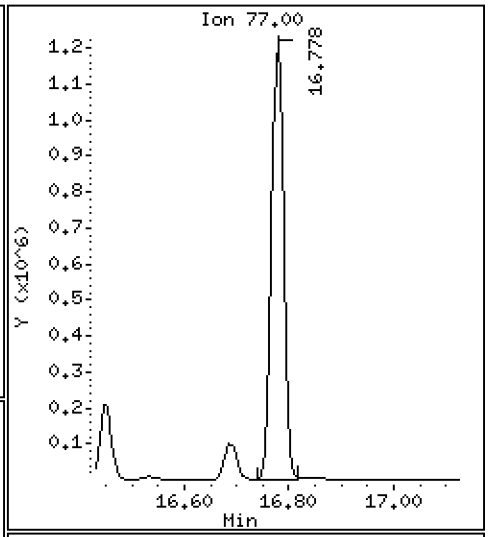
Concentration: 5.953 ug/mL

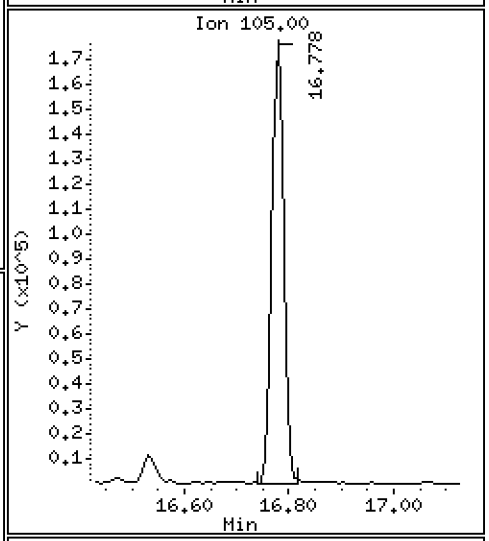


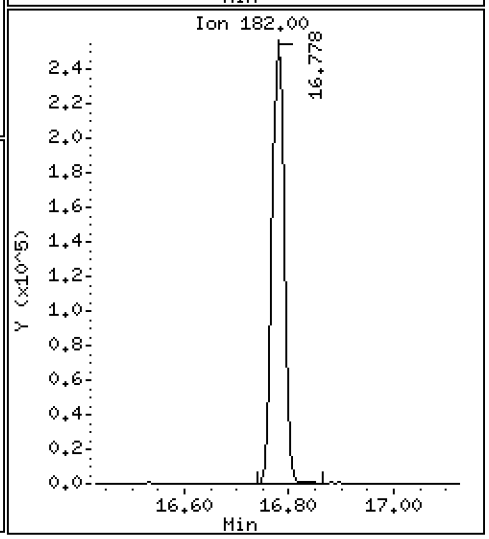












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

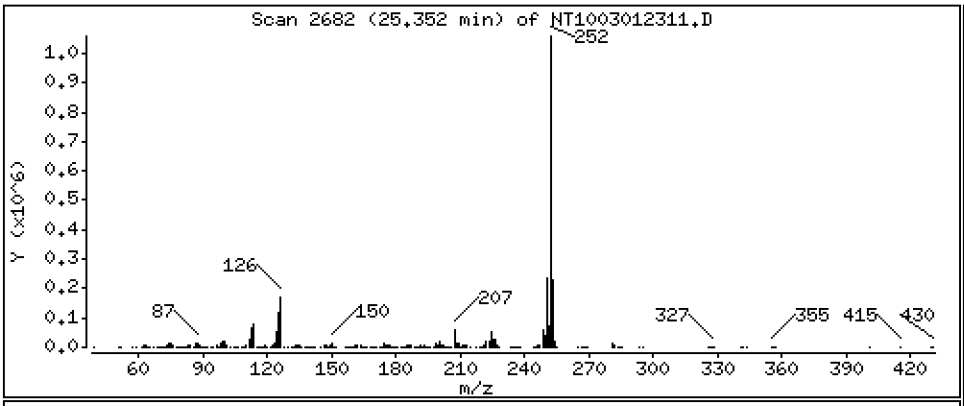
Operator: VTS

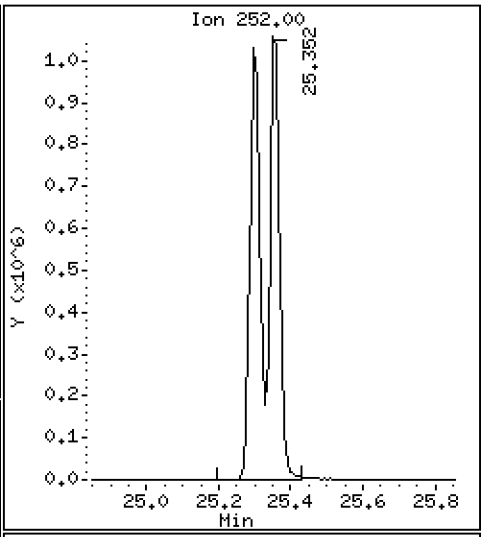
Column phase: ZB-5msi

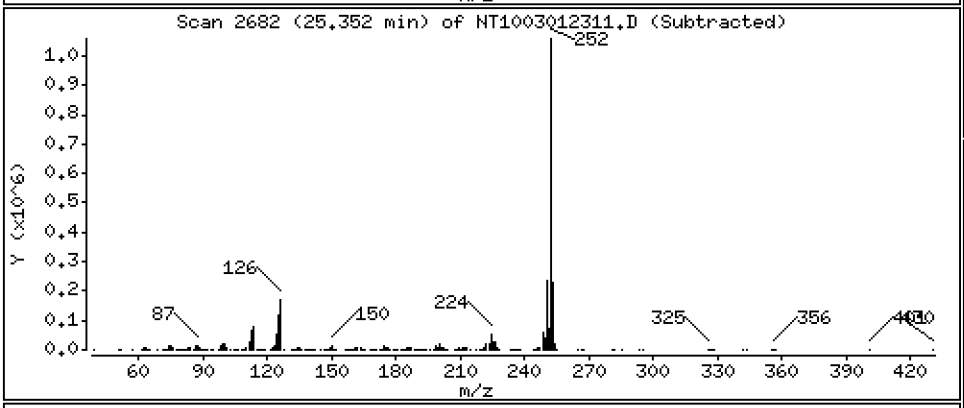
Column diameter: 0.25

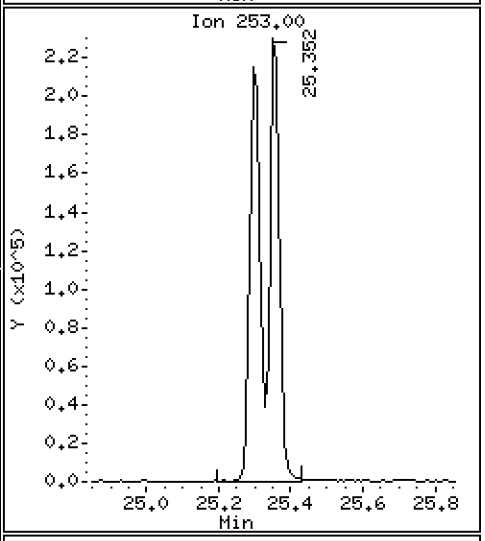
187 Total Benzofluoranthenes

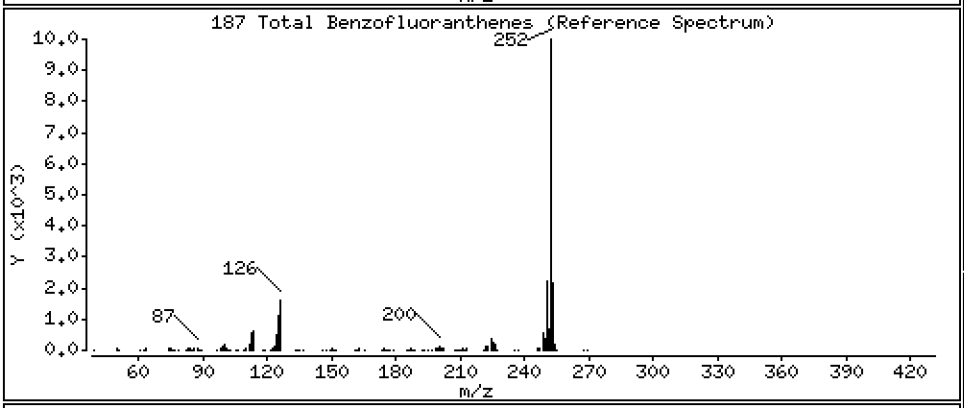
Concentration: 8.905 ug/mL

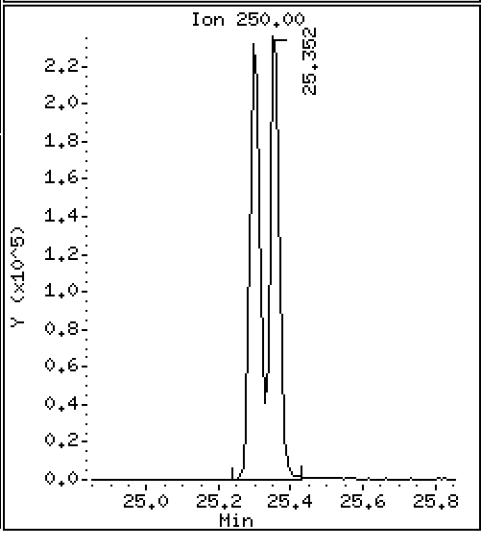


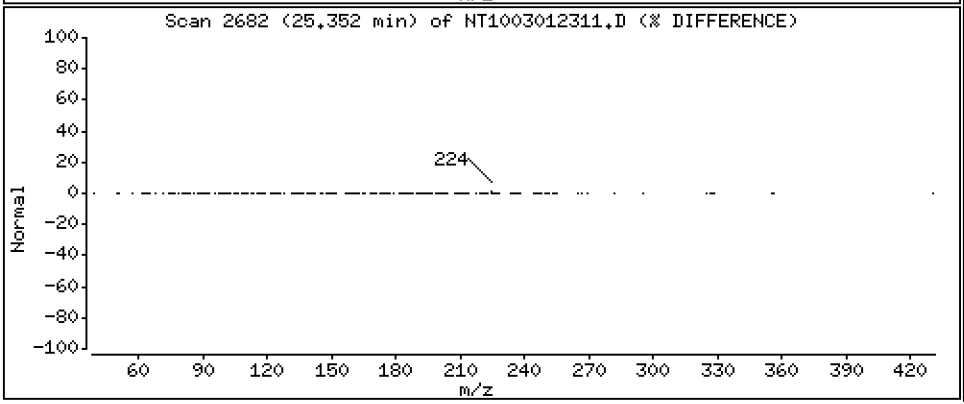












Data File: \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

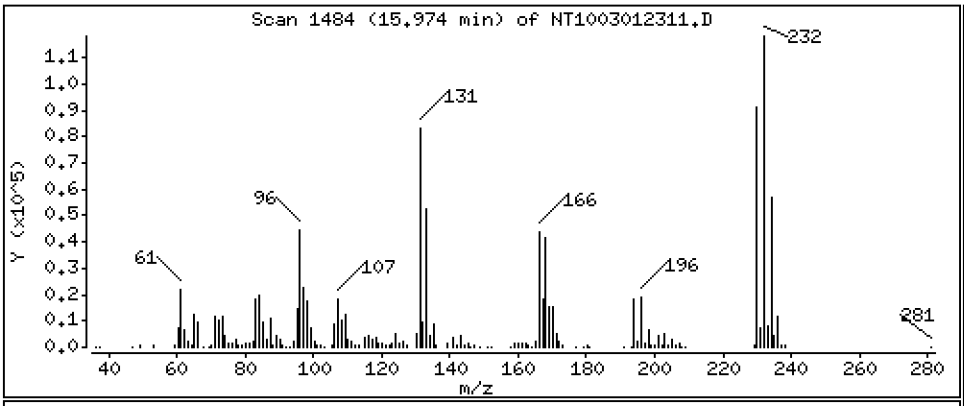
Operator: VTS

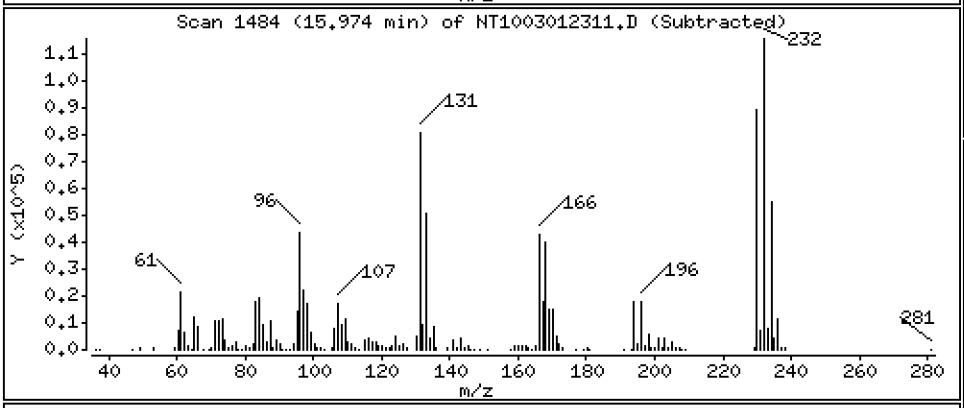
Column phase: ZB-5msi

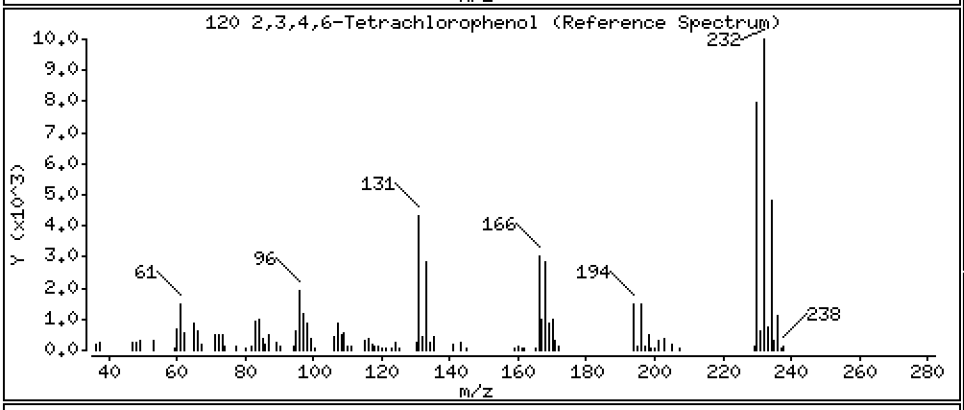
Column diameter: 0.25

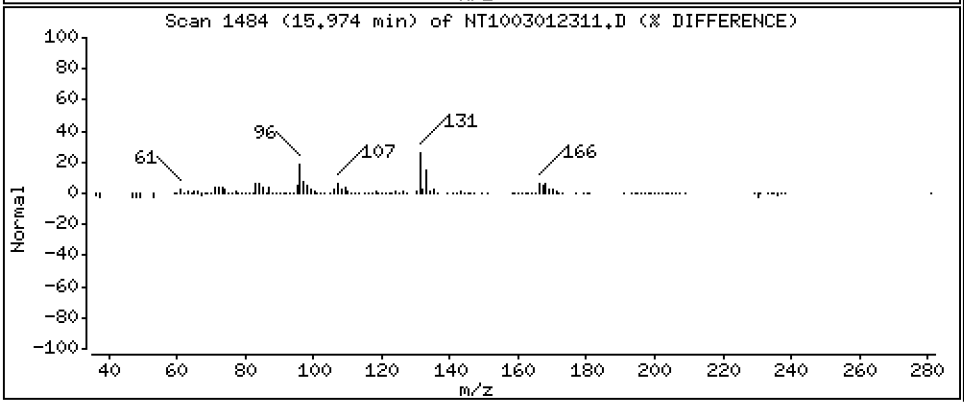
120 2,3,4,6-Tetrachlorophenol

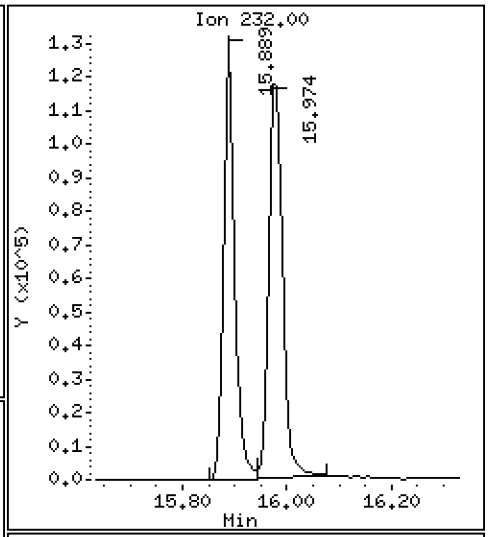
Concentration: 3.534 ug/mL

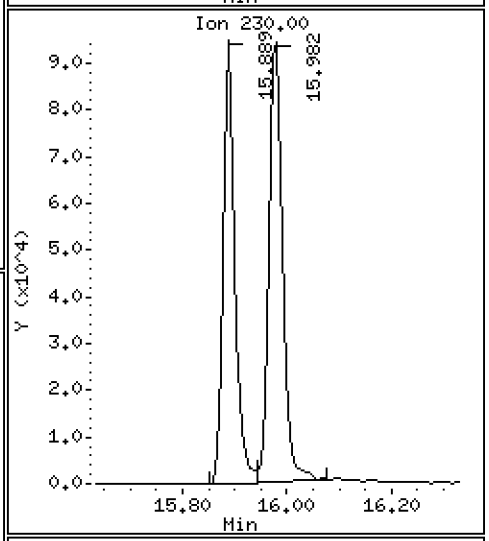


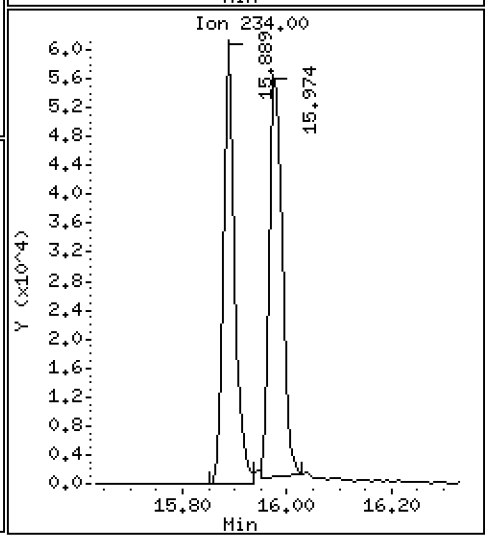












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230301.b\NT1003012311.D
Lab Smp Id: SLC0084-SCV1
Inj Date : 01-MAR-2023 21:46
Operator : VTS Inst ID: nt10.i
Smp Info : SEQ-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230301.b\ABN.m
Meth Date : 07-Mar-2023 12:44 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: ORGDATA102

								CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	Compound Not Detected.						
$	2 Phenol-d5	99	Compound Not Detected.						
	3 Phenol	94	8.512	8.512	(0.921)	534295		4.85212	4.852
$	5 2-Chlorophenol-d4	132	Compound Not Detected.						
	4 Bis(2-Chloroethyl)ether	93	8.728	8.728	(0.944)	498825		5.92811	5.928(M)
	6 2-Chlorophenol	128	8.844	8.844	(0.956)	430747		4.69234	4.692
	7 1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	533006		5.26632	5.266
*	8 1,4-Dichlorobenzene-d4	152	9.247	9.247	(1.000)	283537		4.00000	
	9 1,4-Dichlorobenzene	146	9.278	9.278	(1.003)	524367		5.21589	5.216
$	10 1,2-Dichlorobenzene-d4	152	9.247	9.534	(1.000)	283537		4.29482	4.295
	12 1,2-Dichlorobenzene	146	9.557	9.565	(1.034)	505415		5.19402	5.194
	11 Benzyl alcohol	108	9.472	9.472	(1.024)	283618		4.89779	4.898
	14 2,2'-oxybis(1-Chloropropane)	121	9.736	9.728	(1.053)	174821		6.23165	6.232
	13 2-Methylphenol	108	9.650	9.650	(1.044)	364596		4.19238	4.192
	17 Hexachloroethane	117	10.209	10.209	(1.104)	224586		5.44260	5.443
	16 N-Nitroso-di-n-propylamine	70	9.977	9.976	(1.079)	392376		5.90505	5.905
	15 4-Methylphenol	108	9.945	9.938	(1.076)	448938		4.23938	4.239
$	18 Nitrobenzene-d5	82	Compound Not Detected.						
	19 Nitrobenzene	77	10.326	10.326	(0.881)	624582		5.56925	5.569
	20 Isophorone	82	10.784	10.784	(0.920)	1098236		7.67155	7.672
	21 2-Nitrophenol	139	10.950	10.951	(0.934)	197578		3.24407	3.244
	22 2,4-Dimethylphenol	107	10.993	10.993	(0.938)	379240		3.50675	3.507
	23 Bis(2-Chloroethoxy)methane	93	11.205	11.205	(0.956)	595145		6.72720	6.727
	24 Benzoic acid	105	11.103	11.052	(0.947)	362406		5.63546	5.635
	25 2,4-Dichlorophenol	162	11.417	11.417	(0.974)	379310		4.43743	4.437
	26 1,2,4-Trichlorobenzene	180	11.595	11.595	(0.989)	413079		4.90787	4.908
*	27 Naphthalene-d8	136	11.719	11.719	(1.000)	1089120		4.00000	
	28 Naphthalene	128	11.765	11.765	(1.004)	1468990		5.25508	5.255
	29 4-Chloroaniline	127	11.858	11.858	(1.012)	469377		3.79133	3.791
	30 Hexachlorobutadiene	225	11.989	11.997	(1.023)	307313		5.01449	5.014
	31 4-Chloro-3-methylphenol	107	12.802	12.809	(1.092)	402740		4.45246	4.452
	32 2-Methylnaphthalene	142	13.165	13.165	(1.123)	977687		4.95082	4.951
	33 Hexachlorocyclopentadiene	237	13.467	13.475	(0.879)	52130		2.56222	2.562

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
34	2,4,6-Trichlorophenol	196	13.722	13.730	(0.896)	241174	4.12027	4.120
35	2,4,5-Trichlorophenol	196	13.792	13.808	(0.900)	259485	4.14893	4.149(M)
$ 36	2-Fluorobiphenyl	172	Compound Not Detected.					
37	2-Chloronaphthalene	162	14.164	14.164	(0.925)	895889	5.26440	5.264
38	2-Nitroaniline	65	14.365	14.365	(0.938)	237773	5.02711	5.027
39	Dimethylphthalate	163	14.736	14.736	(0.962)	1056857	5.38446	5.384
40	Acenaphthylene	152	15.023	15.023	(0.981)	1703355	5.80574	5.806
41	2,6-Dinitrotoluene	165	14.868	14.868	(0.971)	227062	5.18679	5.187
* 42	Acenaphthene-d10	164	15.317	15.309	(1.000)	607772	4.00000	
43	3-Nitroaniline	138	15.208	15.224	(0.993)	256002	5.17200	5.172
44	Acenaphthene	153	15.379	15.378	(1.004)	911910	5.15374	5.154
45	2,4-Dinitrophenol	184	15.433	15.487	(1.008)	3021	0.26673	0.2667
46	Dibenzofuran	168	15.742	15.734	(1.028)	1311367	4.99365	4.994
47	4-Nitrophenol	109	15.533	15.603	(1.014)	133260	3.82233	3.822(M)
48	2,4-Dinitrotoluene	165	15.695	15.703	(1.025)	300469	4.72923	4.729
50	Diethylphthalate	149	16.206	16.198	(1.058)	1172442	5.63859	5.639
49	Fluorene	166	16.453	16.453	(1.074)	1159050	5.30478	5.305
51	4-Chlorophenyl-phenylether	204	16.453	16.453	(1.074)	527532	5.25262	5.253
52	4-Nitroaniline	138	16.469	16.484	(1.075)	278392	5.23237	5.232
53	4,6-Dinitro-2-methylphenol	198	16.531	16.538	(0.898)	36409	1.29161	1.292
54	N-Nitrosodiphenylamine	169	16.685	16.693	(0.907)	966268	5.41587	5.416
$ 55	2,4,6-Tribromophenol	330	Compound Not Detected.					
56	4-Bromophenyl-phenylether	248	17.465	17.472	(0.949)	394706	5.45981	5.460
57	Hexachlorobenzene	284	17.573	17.573	(0.955)	391196	4.80535	4.805
58	Pentachlorophenol	266	17.984	17.983	(0.977)	133557	3.49178	3.492
* 59	Phenanthrene-d10	188	18.401	18.401	(1.000)	1205858	4.00000	
60	Phenanthrene	178	18.448	18.448	(1.003)	1569094	5.08454	5.085
61	Anthracene	178	18.556	18.556	(1.008)	1371933	4.58472	4.585
62	Carbazole	167	18.889	18.889	(1.026)	1462441	5.33467	5.335
63	Di-n-butylphthalate	149	19.585	19.585	(1.064)	2114080	5.46304	5.463
64	Fluoranthene	202	20.815	20.815	(0.889)	1905220	4.54169	4.542
65	Pyrene	202	21.248	21.248	(0.907)	1975953	4.62585	4.626
$ 66	Terphenyl-d14	244	21.519	21.527	(0.919)	6779	0.01961	0.01961
67	Butylbenzylphthalate	149	22.410	22.410	(0.957)	1022950	4.52520	4.525
68	Benzo(a)anthracene	228	23.401	23.401	(0.999)	1968545	4.57826	4.578
* 69	Chrysene-d12	240	23.416	23.416	(1.000)	1219436	4.00000	
70	3,3'-Dichlorobenzidine	252	23.347	23.347	(0.997)	1426681	7.38255	7.383
71	Chrysene	228	23.463	23.463	(1.002)	1735599	4.96674	4.967
72	bis(2-Ethylhexyl)phthalate	149	23.401	23.409	(0.956)	1660477	4.95568	4.956
* 134	Di-n-octylphthalate-d4	153	24.485	24.485	(1.000)	2317357	4.00000	
73	Di-n-octylphthalate	149	24.492	24.492	(1.000)	3003083	5.84397	5.844
74	Benzo(b)fluoranthene	252	25.298	25.298	(0.969)	1988643	4.31882	4.319
75	Benzo(k)fluoranthene	252	25.352	25.352	(0.971)	2031546	4.56297	4.563
76	Benzo(a)pyrene	252	25.987	25.987	(0.996)	1831856	4.44514	4.445
* 77	Perylene-d12	264	26.103	26.103	(1.000)	1289108	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.863	28.863	(1.106)	2089660	4.34488	4.345
79	Dibenzo(a,h)anthracene	278	28.917	28.925	(1.108)	1695484	4.60754	4.608
80	Benzo(g,h,i)perylene	276	29.709	29.709	(1.138)	1753537	4.60249	4.602
90	N-Nitrosodimethylamine	74	4.712	4.719	(0.510)	316213	5.49082	5.491
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	21.071	21.094	(0.900)	932502	5.00739	5.007
103	Pyridine	79	4.774	4.789	(0.516)	554573	5.42989	5.430
105	1-methylnaphthalene	142	13.366	13.366	(1.141)	932752	5.21855	5.219
111	Azobenzene (1,2-DP-Hydrazine)	77	16.778	16.778	(1.095)	1848373	5.95279	5.953

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.352	25.352	(0.971)	3948555	8.90452	8.905
120 2,3,4,6-Tetrachlorophenol	232	15.974	15.982	(1.043)	209122	3.53394	3.534

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012311.D
Lab Smp Id: SLC0084-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230301.b\ABN.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 17:21
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	337641	168821	675282	283537	-16.02
27 Naphthalene-d8	1265187	632594	2530374	1089120	-13.92
42 Acenaphthene-d10	692385	346193	1384770	607772	-12.22
59 Phenanthrene-d10	1376777	688389	2753554	1205858	-12.41
69 Chrysene-d12	1019524	509762	2039048	1219436	19.61
134 Di-n-octylphthala	2027111	1013556	4054222	2317357	14.32
77 Perylene-d12	1027409	513705	2054818	1289108	25.47

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.01
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.32	0.05
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
134 Di-n-octylphthala	24.48	23.98	24.98	24.49	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012311.D

Lab ID: SLC0084-SCV1
nt10.i, 20230301.b\ABN.m,   01-MAR-2023 21:46

RT	CO-ELUTION COMPOUNDS
23.401	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.014	1.019	-0.0051	4-Nitrophenol
1.000	1.031	-0.0310	1,2-Dichlorobenzene-d4

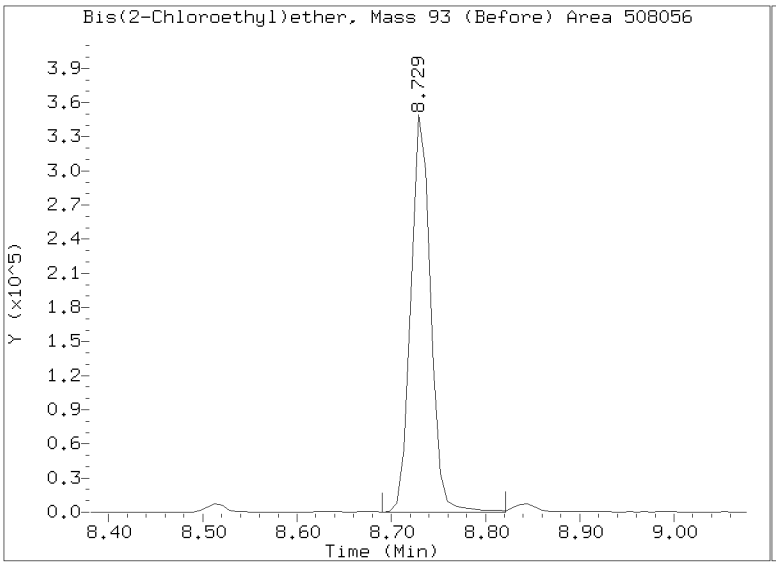
RRT check based on Ccal File: NT1003012307.D

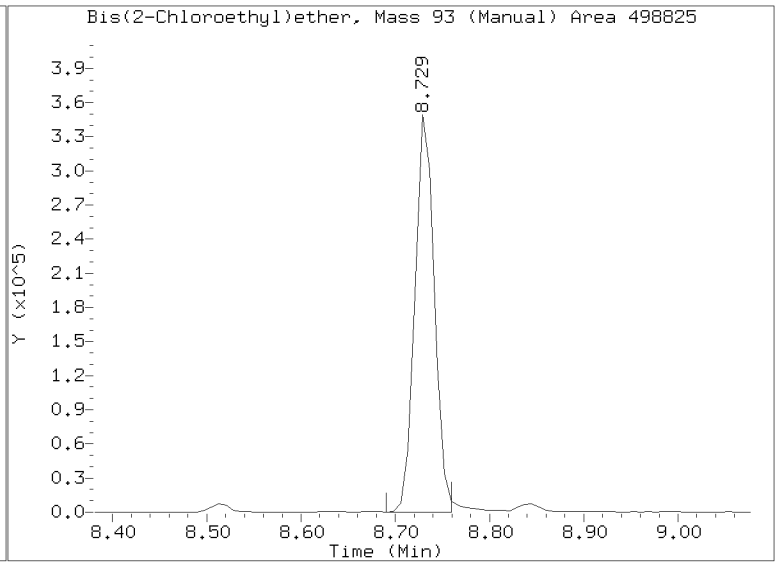
On Column LOD for nt10.i, 20230301.b\ABN.m, ICAL.sub = 0.0000

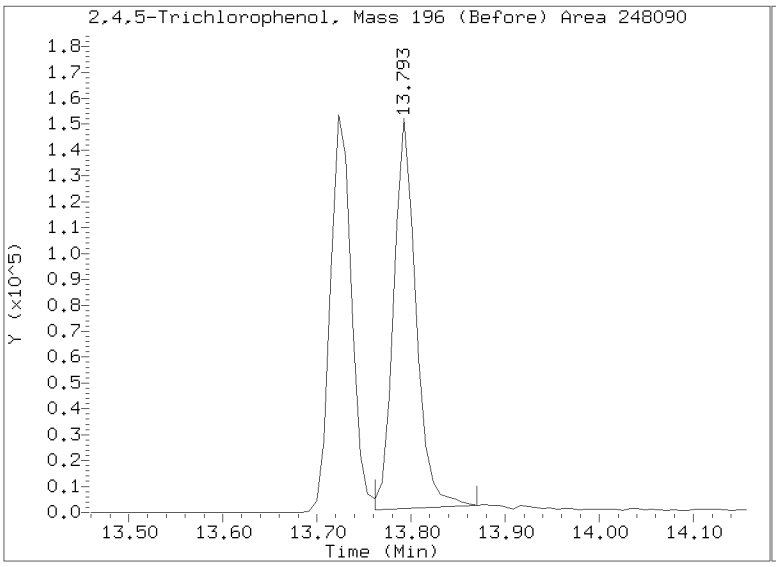
* Only compounds listed in the work order have been verified by the analyst *

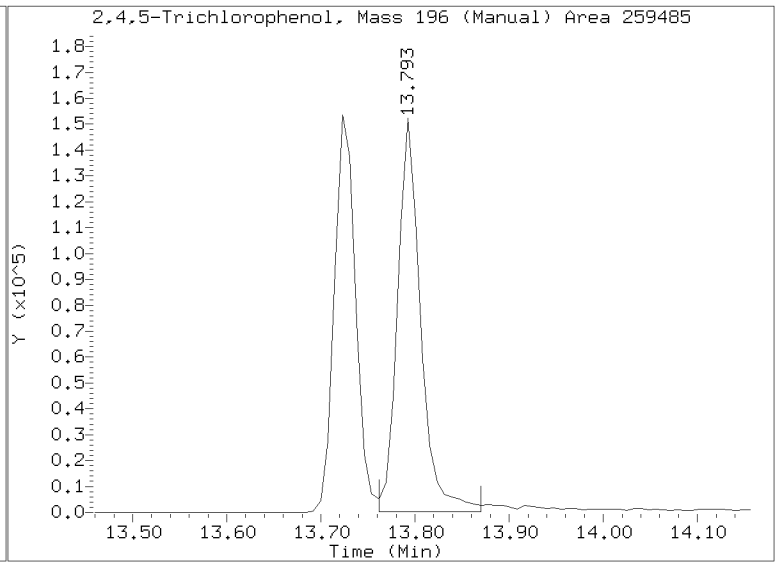
Quant Ion Manual Peak Adjustment Report

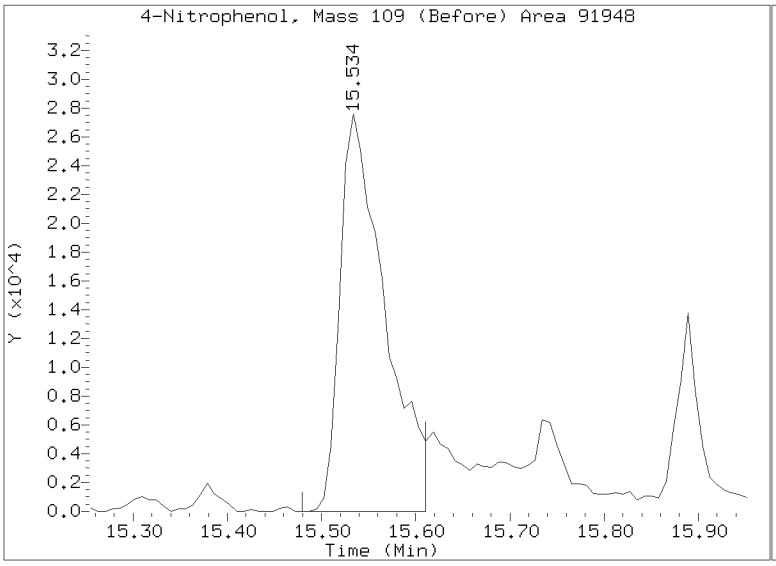
Datafile: //target/share/chem3/nt10.i/20230301.b/NT1003012311.D
Injection Date: 01-MAR-2023 21:46
Lab ID:SLC0084-SCV1 Client ID:
Report Date: 03/07/2023 12:48

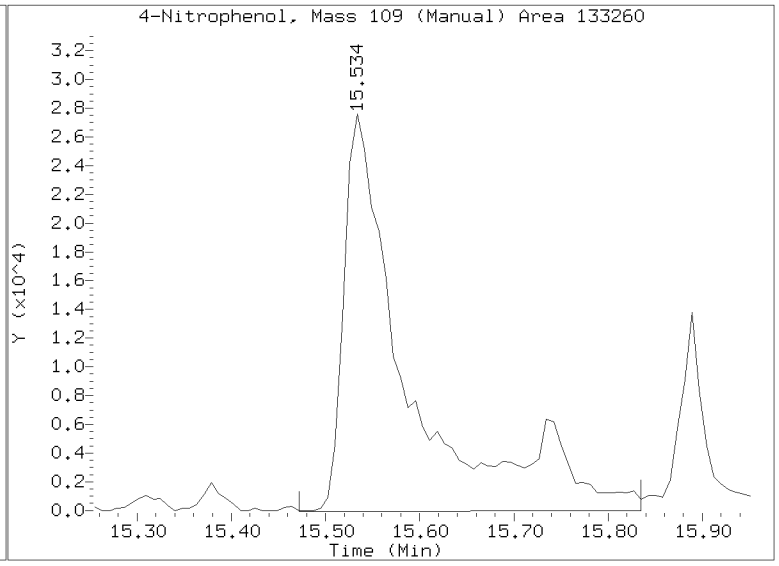












Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00019
Lab File ID:	NT1003052314.D	Calibration Date:	03/01/2023
Sequence:	SLC0401	Injection Date:	03/05/23
Lab Sample ID:	SLC0401-CCV1	Injection Time:	21:38
Sequence Name:	Calibration Check		

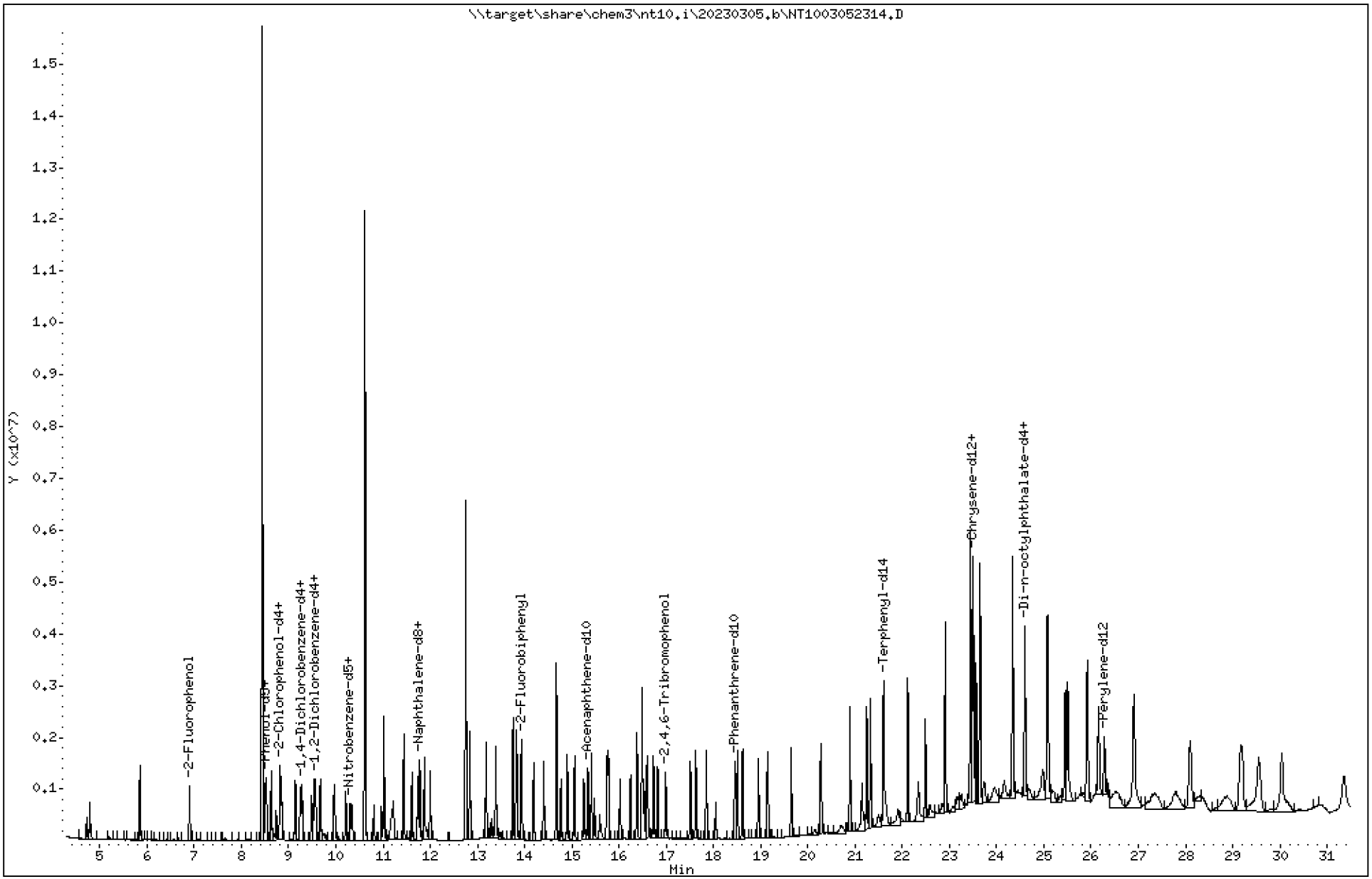
		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	5.0000	5.2	1.5534590	1.6188800		4.2	+/-50
4-Methylphenol	A	5.0000	4.3	1.2087680	1.2744640		-14.7	+/-50
Naphthalene	A	5.0000	4.7	1.0266520	0.9624076		-6.3	+/-50
2-Methylnaphthalene	A	5.0000	5.0	0.7252818	0.7190208		-0.9	+/-50
Acenaphthylene	A	5.0000	5.5	1.9309320	2.1082640		9.2	+/-50
Dimethylphthalate	A	5.0000	4.8	1.2917940	1.2345270		-4.4	+/-50
Acenaphthene	A	5.0000	4.9	1.1645250	1.1316320		-2.8	+/-50
Dibenzofuran	A	5.0000	5.1	1.7283260	1.7707780		2.5	+/-50
Fluorene	A	5.0000	4.8	1.4379840	1.3930440		-3.1	+/-50
Phenanthrene	A	5.0000	4.8	1.0236730	0.9865838		-3.6	+/-50
Anthracene	A	5.0000	5.2	0.9926226	1.0325820		4.0	+/-50
Fluoranthene	A	5.0000	4.2	1.3760330	1.1451070		-16.8	+/-50
Pyrene	A	5.0000	4.3	1.4011560	1.2004140		-14.3	+/-50
Butylbenzylphthalate	A	5.0000	3.7	0.6475451	0.5563039		-25.2	+/-50
Benzo(a)anthracene	A	5.0000	4.7	1.4104100	1.3244670		-6.1	+/-50
Chrysene	A	5.0000	5.1	1.1462500	1.1674650		1.9	+/-50
bis(2-Ethylhexyl)phthalate	A	5.0000	4.7	0.5331838	0.5410252		-6.3	+/-50
Benzofluoranthenes, Total	A	10.000	8.8	1.3383070	1.2096380		-12.0	+/-50
Benzo(a)pyrene	A	5.0000	4.5	1.2312020	1.1412360		-10.8	+/-50
Indeno(1,2,3-cd)pyrene	A	5.0000	4.6	1.4033590	1.3722900		-8.3	+/-50
Dibenzo(a,h)anthracene	A	5.0000	4.9	1.1150690	1.1351340		-1.0	+/-50
Benzo(g,h,i)perylene	A	5.0000	4.8	1.1245240	1.1408660		-3.7	+/-50
2-Fluorophenol	A	7.5000	7.38	1.2585100	1.2383040		-1.6	+/-50
Phenol-d5	A	7.5000	8.22	1.4611190	1.6015740		9.6	+/-50
2-Chlorophenol-d4	A	7.5000	7.97	1.2465880	1.3246490		6.3	+/-50
1,2-Dichlorobenzene-d4	A	5.0000	4.86	0.9313544	0.9044504		-2.9	+/-50
Nitrobenzene-d5	A	5.0000	5.35	0.4390871	0.4698152		7.0	+/-50
2-Fluorobiphenyl	A	5.0000	5.23	1.4267270	1.4928270		4.6	+/-50
2,4,6-Tribromophenol	A	7.5000	7.63	0.2287830	0.2638791		1.7	+/-50
p-Terphenyl-d14	A	5.0000	4.59	1.1337350	1.0405920		-8.2	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D
Date : 05-MAR-2023 21:38
Client ID:
Sample Info: SLC0401-CCV1

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

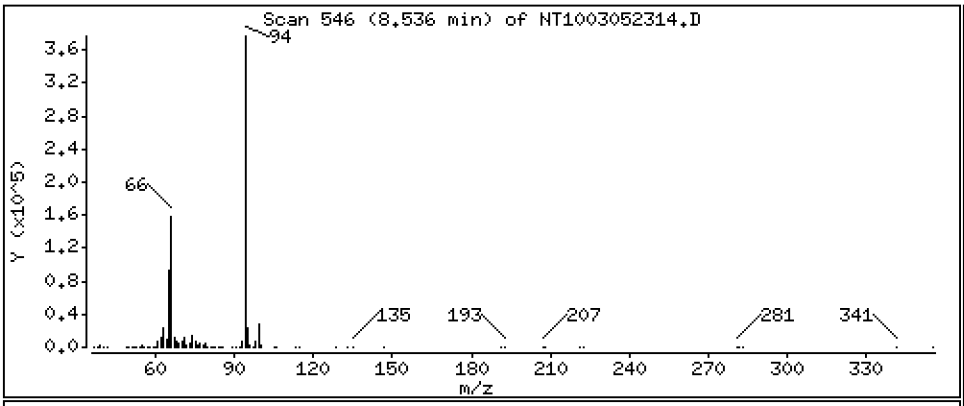
Operator: VTS

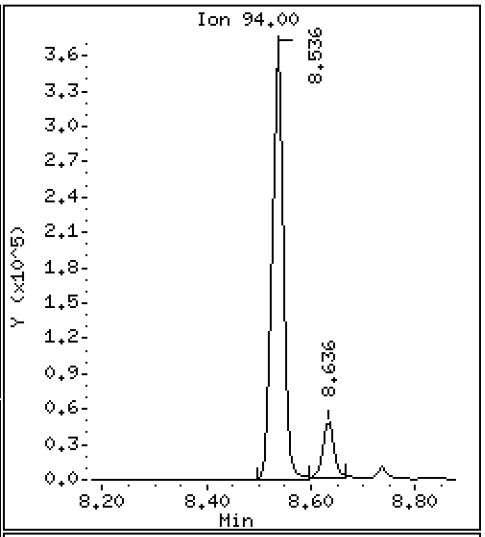
Column phase: ZB-5msi

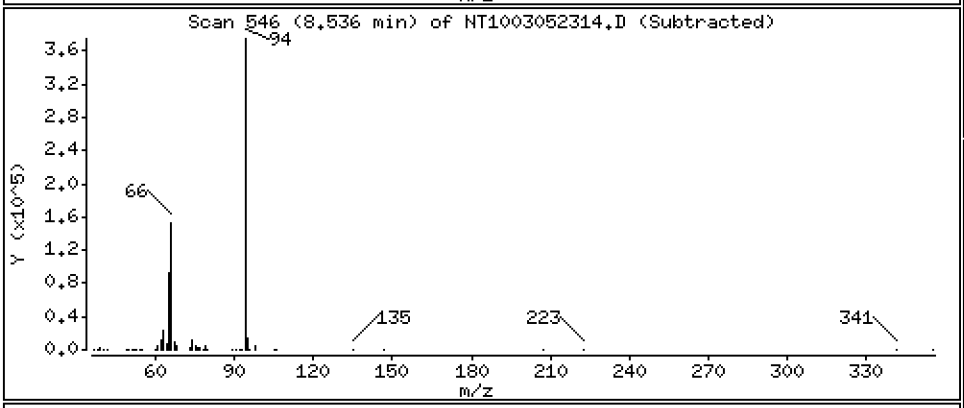
Column diameter: 0.25

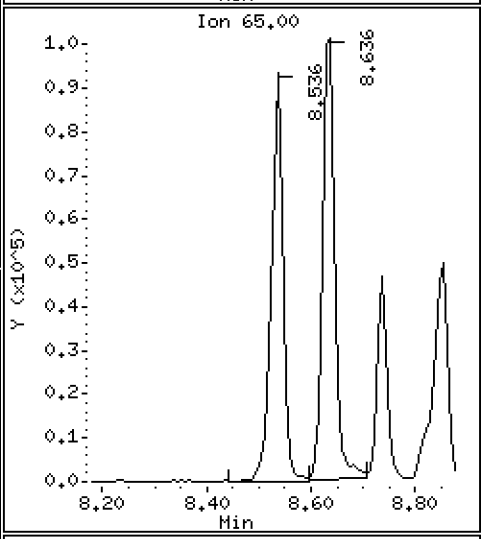
3 Phenol

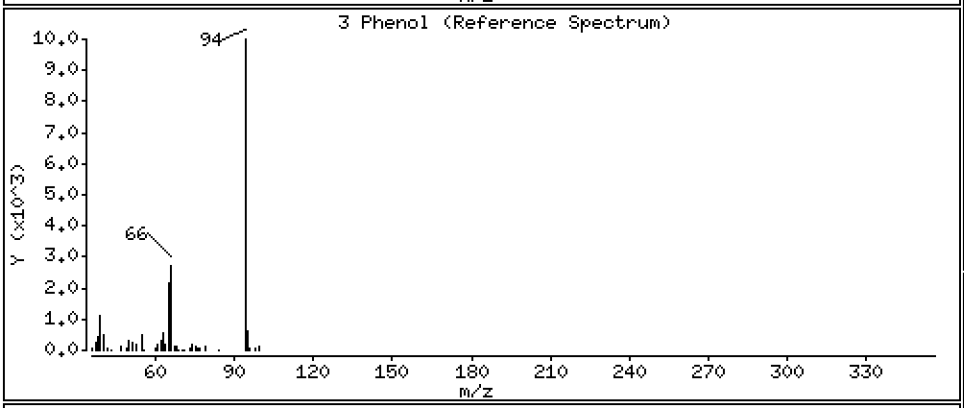
Concentration: 5.211 ug/mL

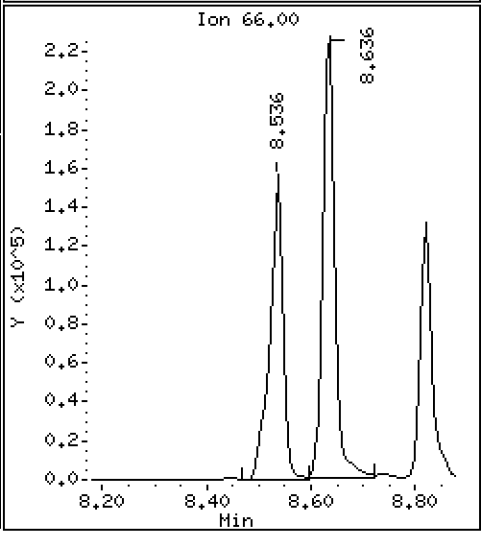


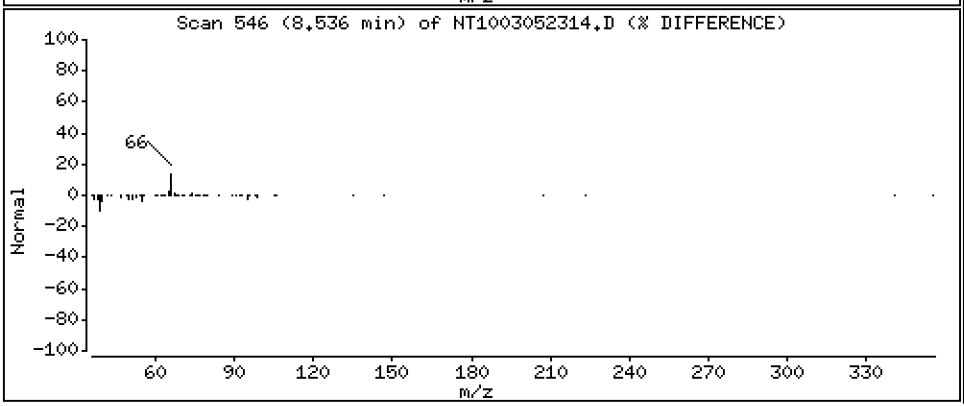












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

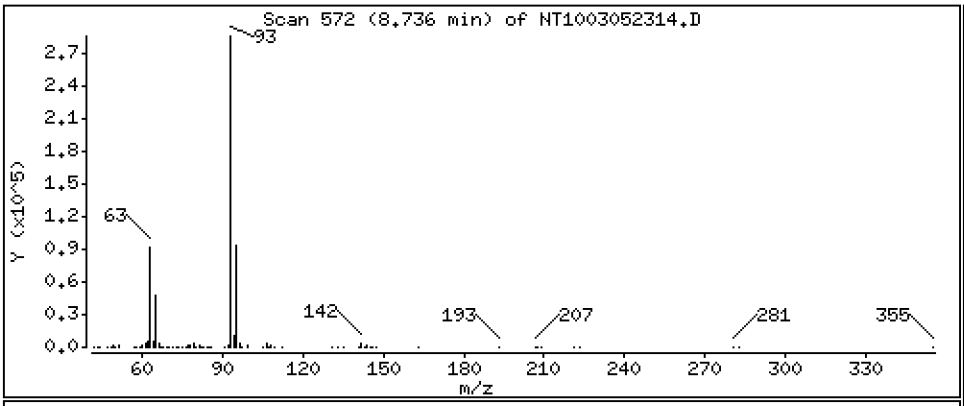
Operator: VTS

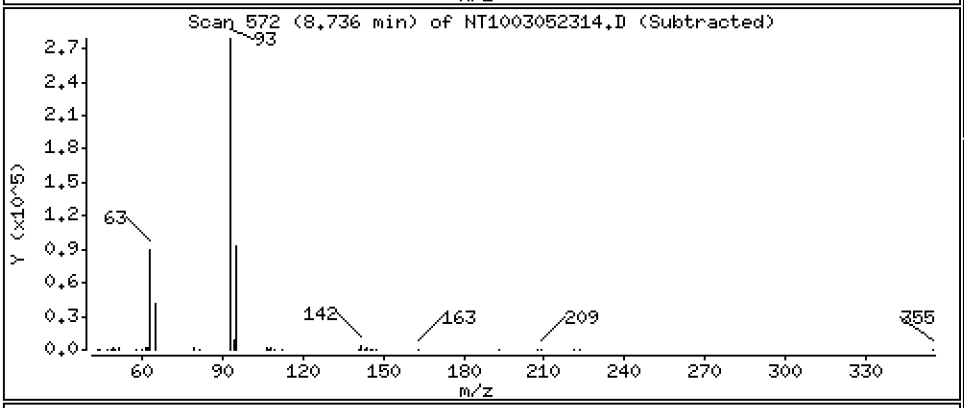
Column phase: ZB-5msi

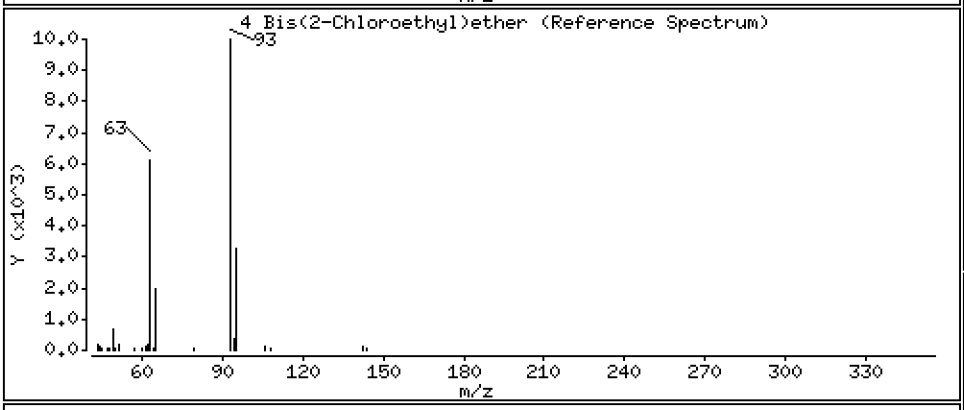
Column diameter: 0.25

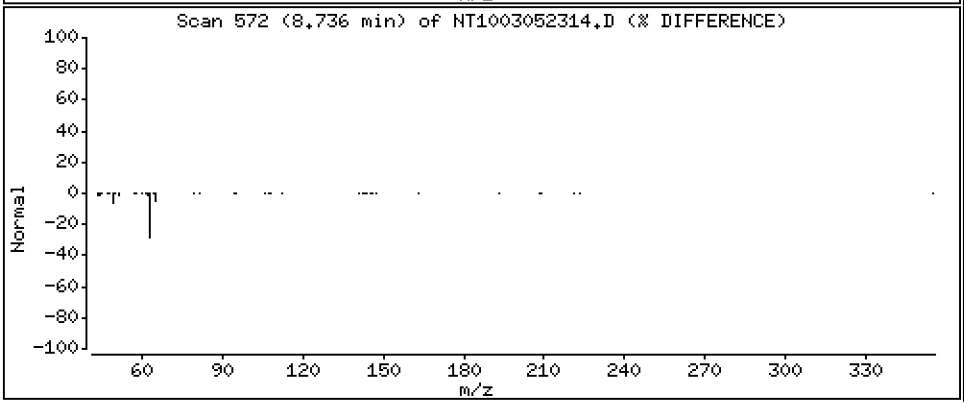
4 Bis(2-Chloroethyl)ether

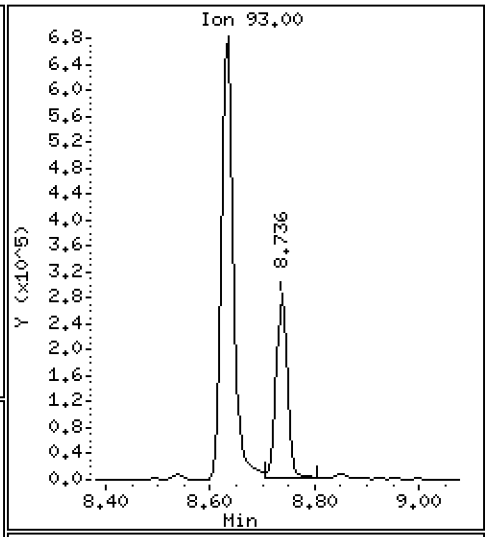
Concentration: 5.008 ug/mL

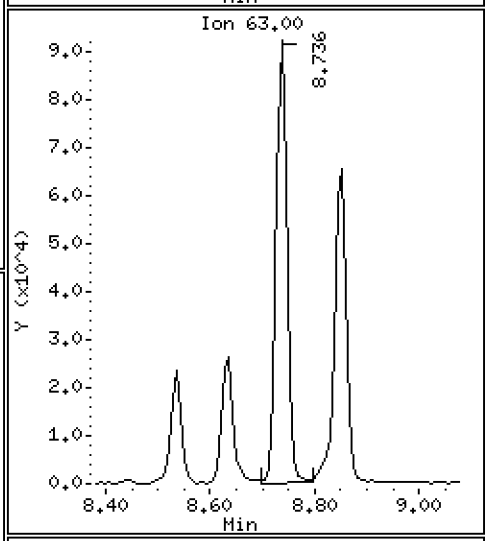


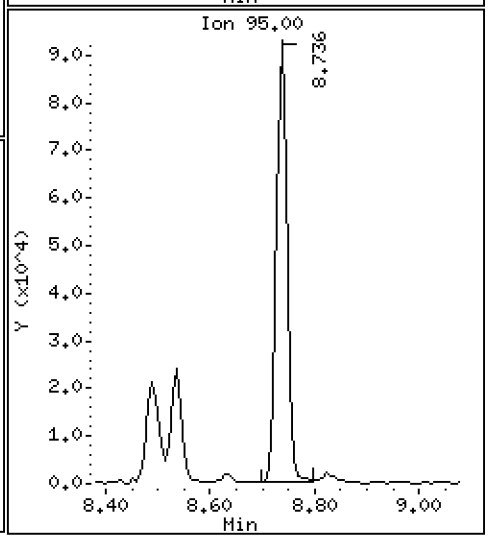












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

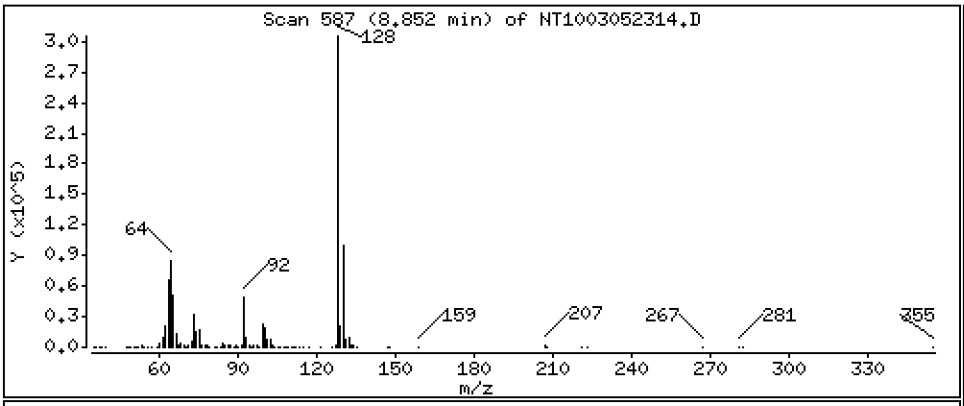
Operator: VTS

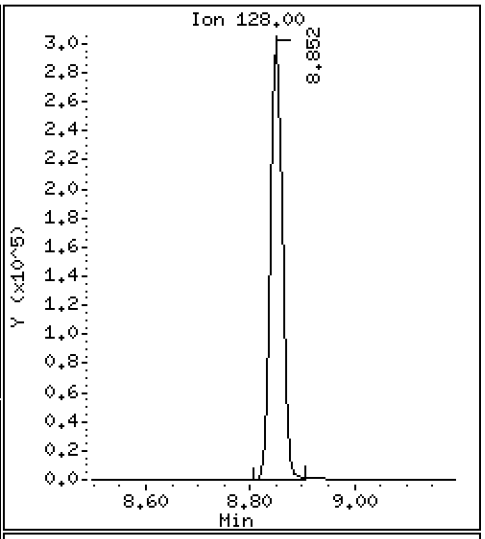
Column phase: ZB-5msi

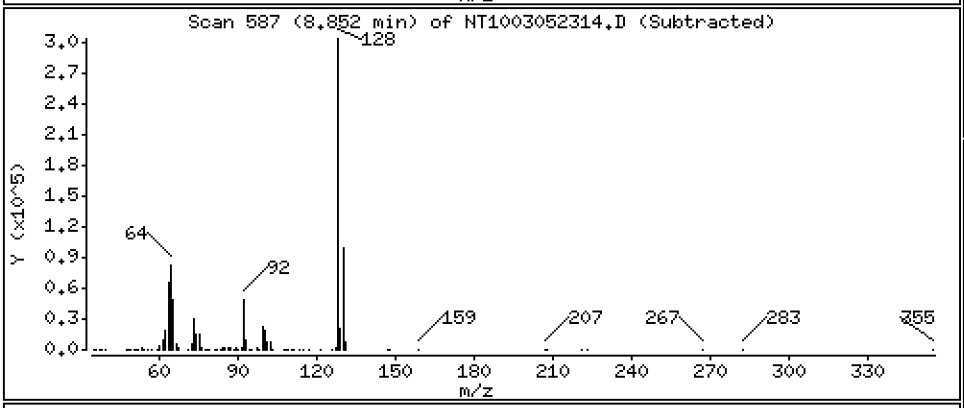
Column diameter: 0.25

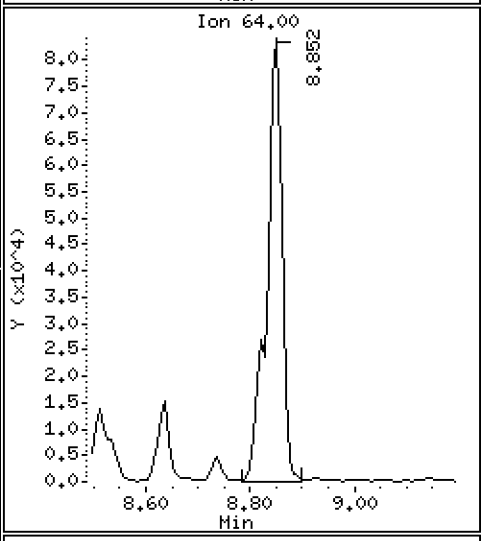
6 2-Chlorophenol

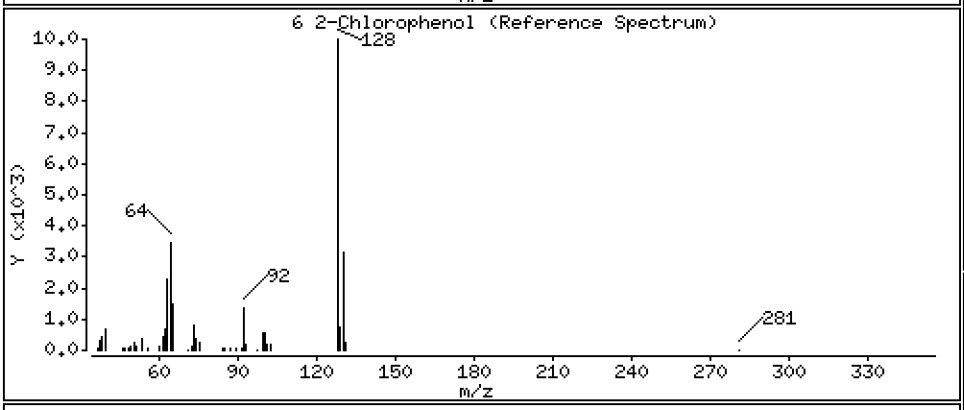
Concentration: 5.271 ug/mL

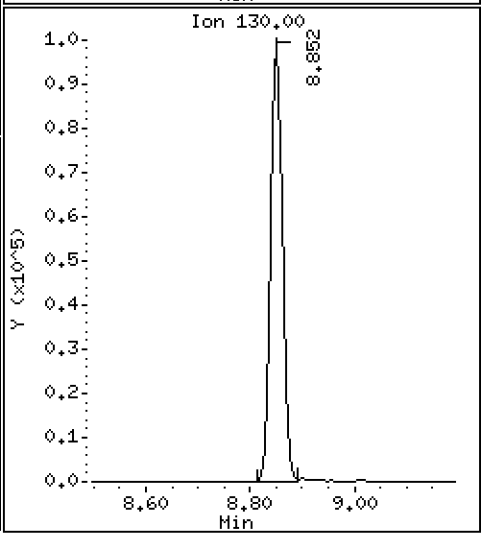


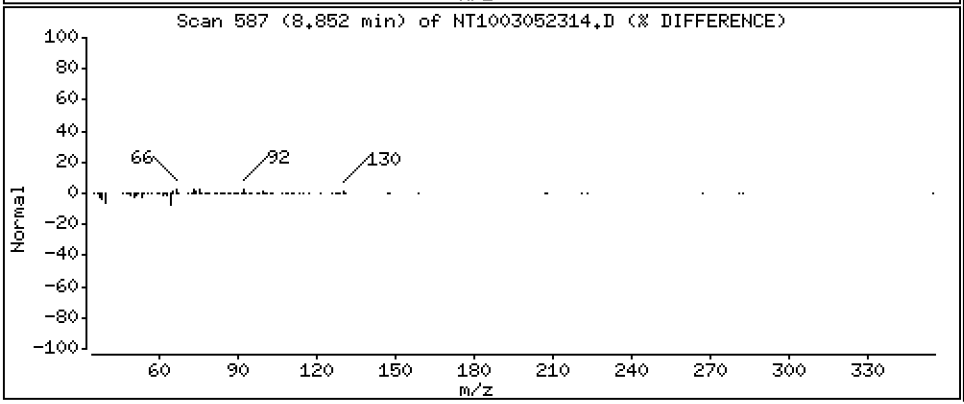












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

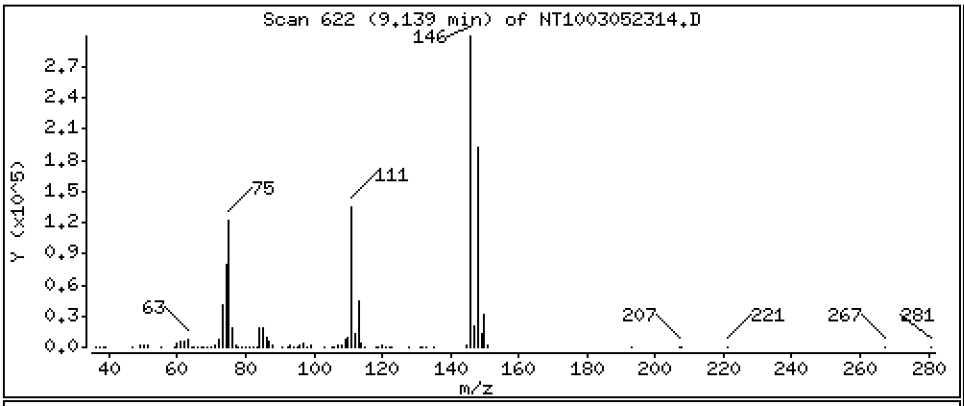
Operator: VTS

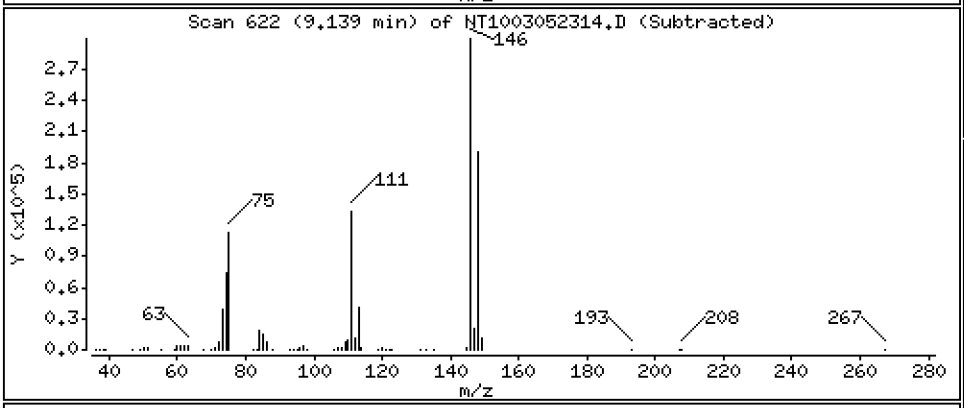
Column phase: ZB-5msi

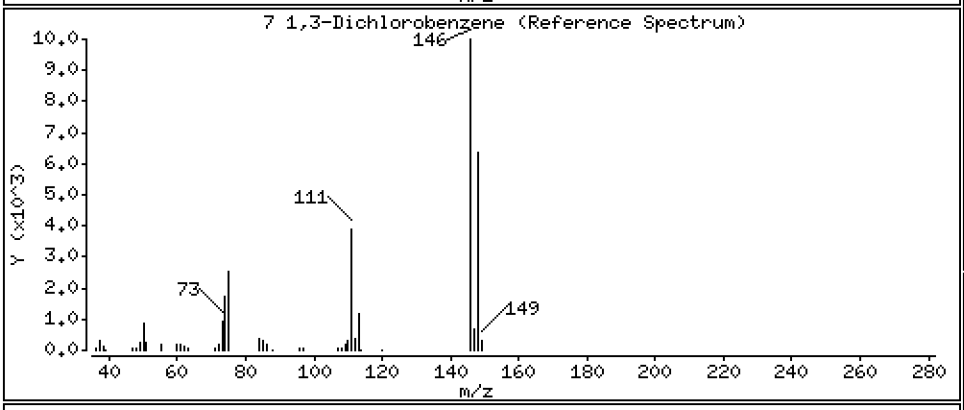
Column diameter: 0.25

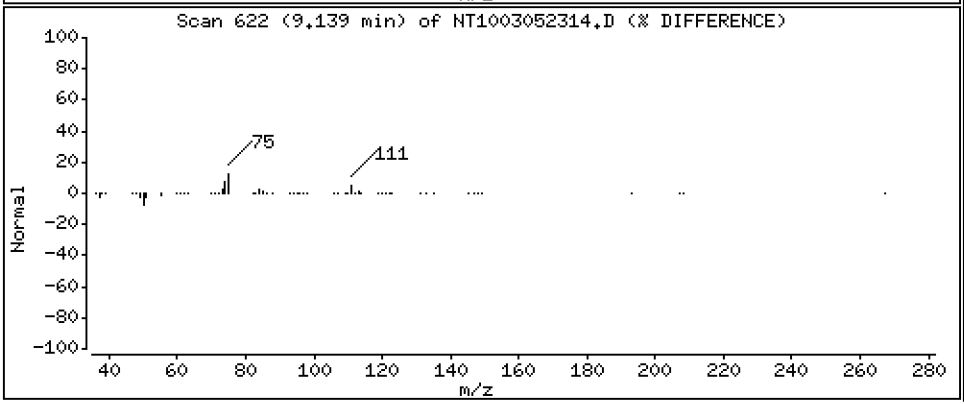
7 1,3-Dichlorobenzene

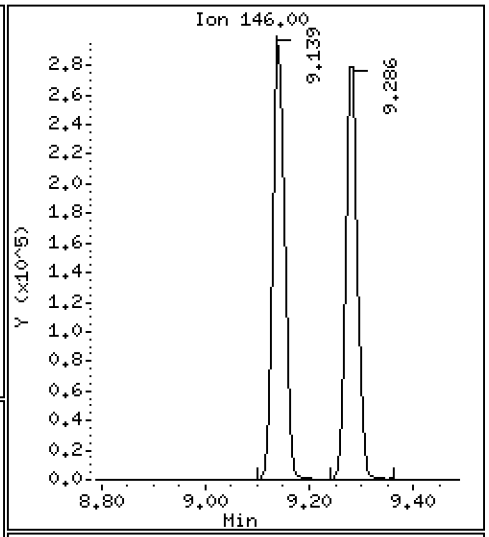
Concentration: 4.802 ug/mL

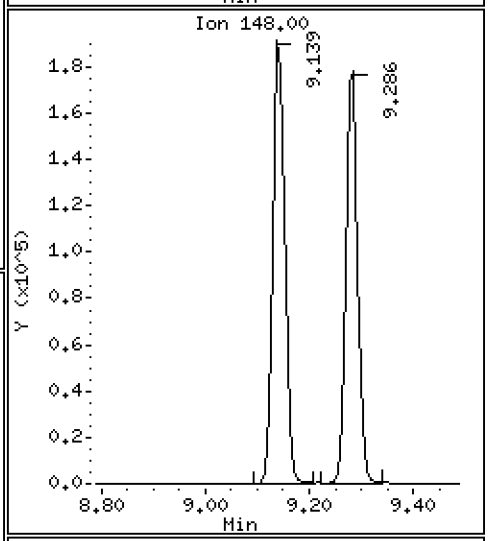


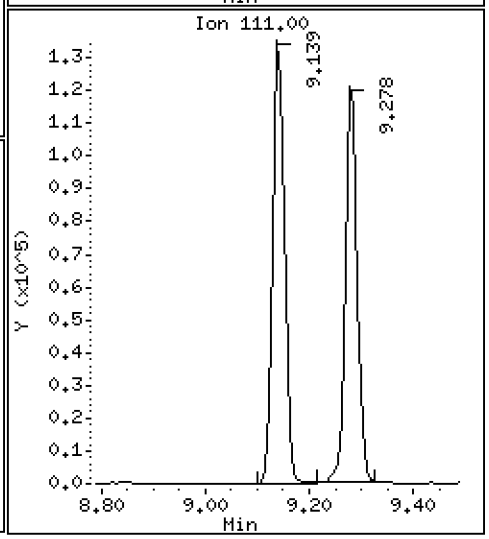












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

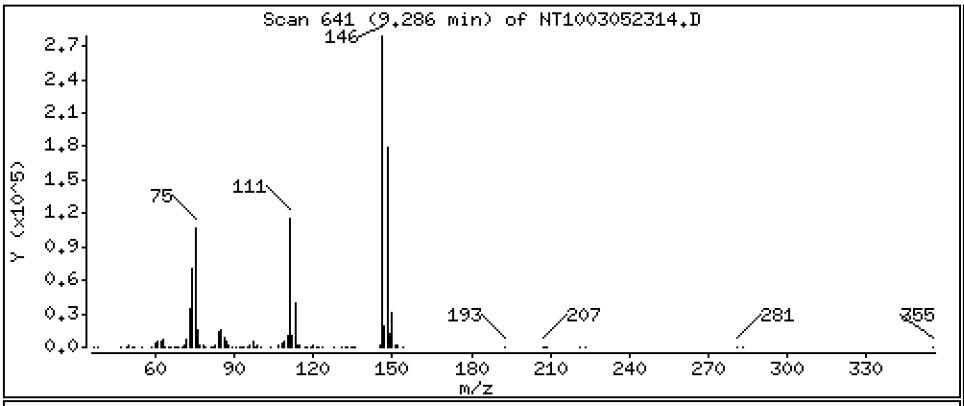
Operator: VTS

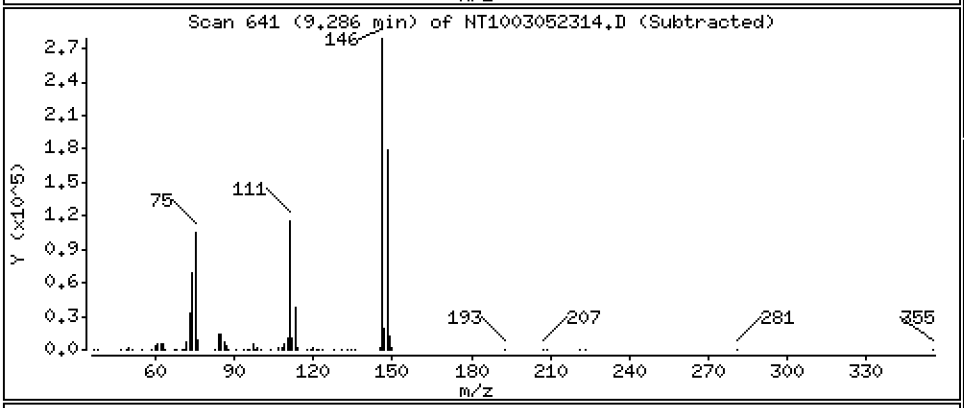
Column phase: ZB-5msi

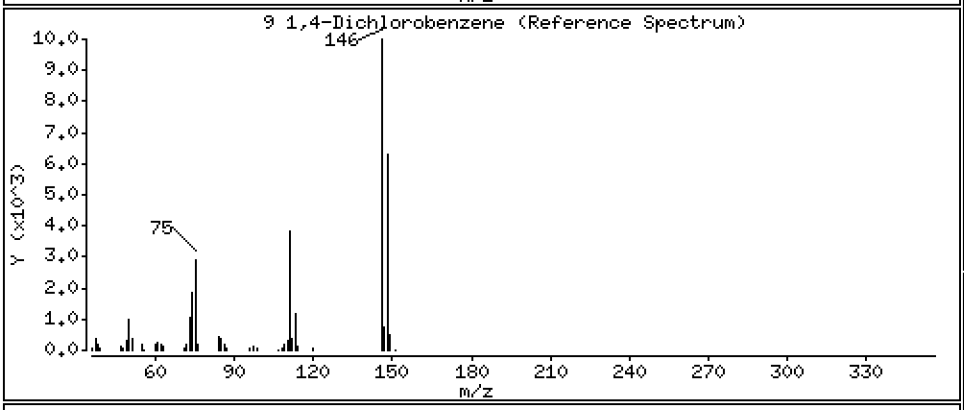
Column diameter: 0.25

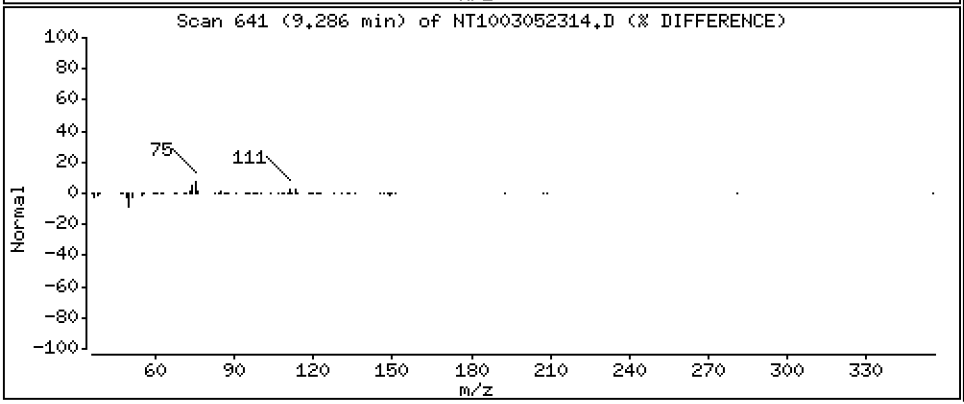
9 1,4-Dichlorobenzene

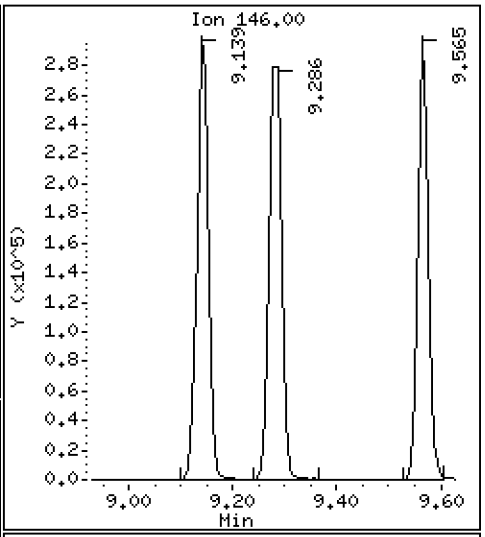
Concentration: 4.686 ug/mL

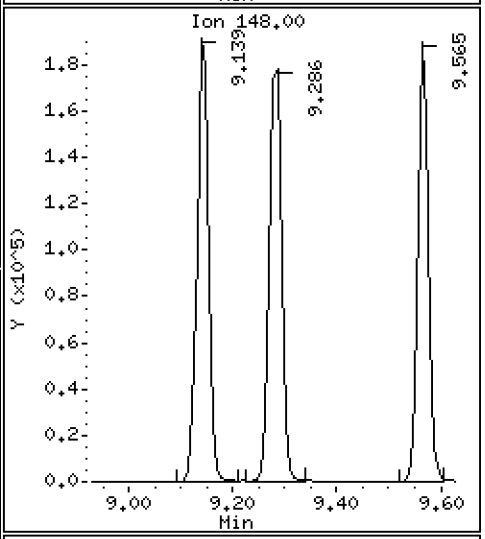


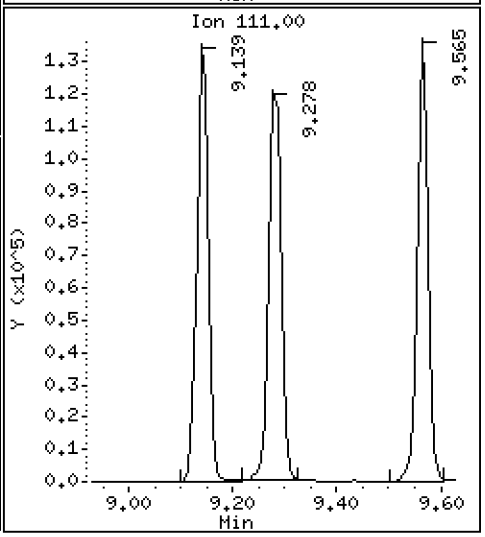












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

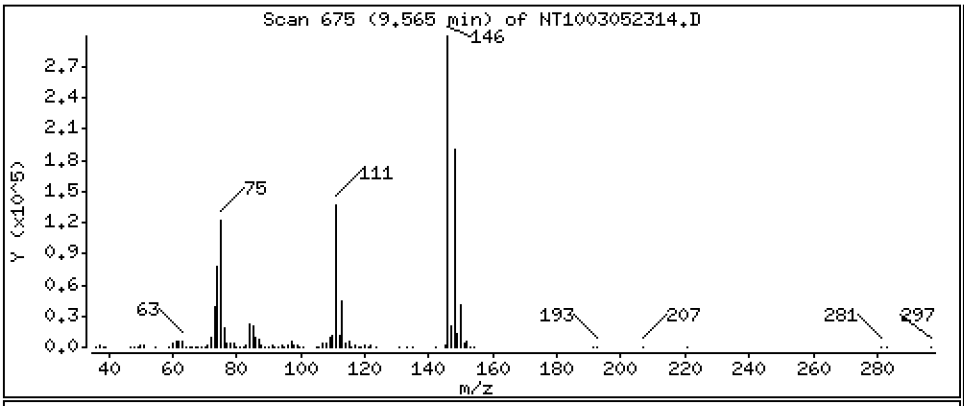
Operator: VTS

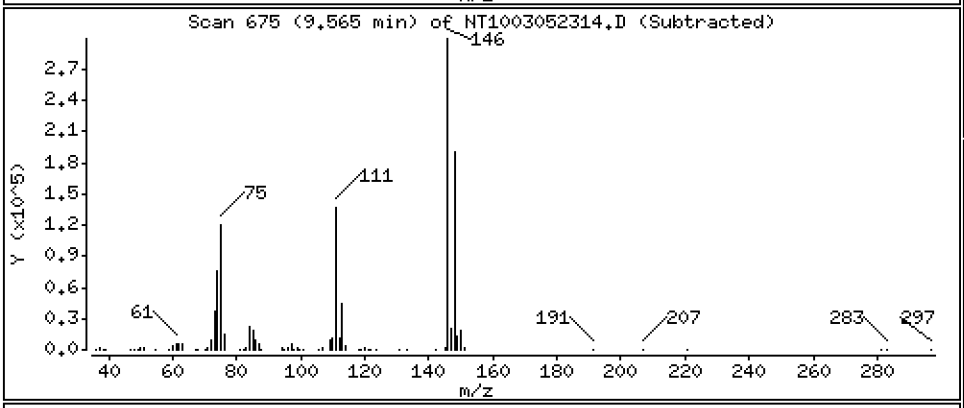
Column phase: ZB-5msi

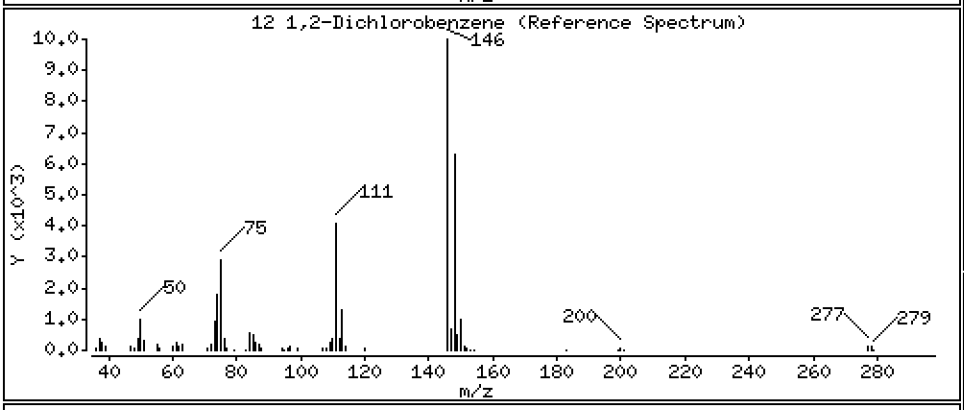
Column diameter: 0.25

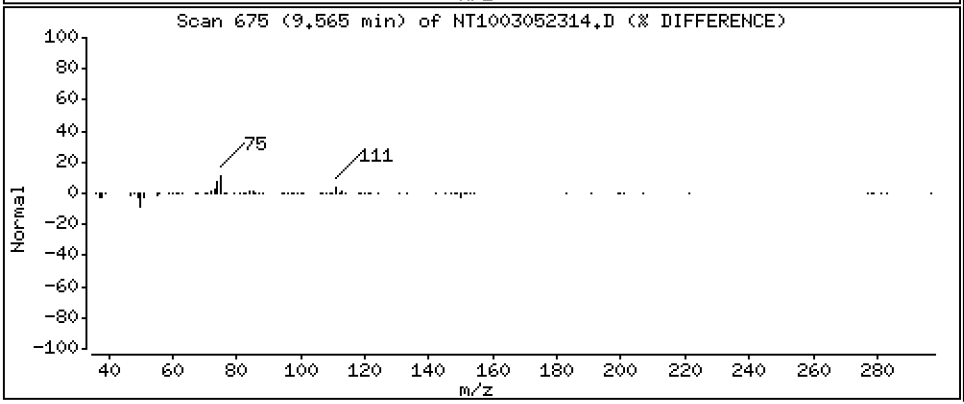
12 1,2-Dichlorobenzene

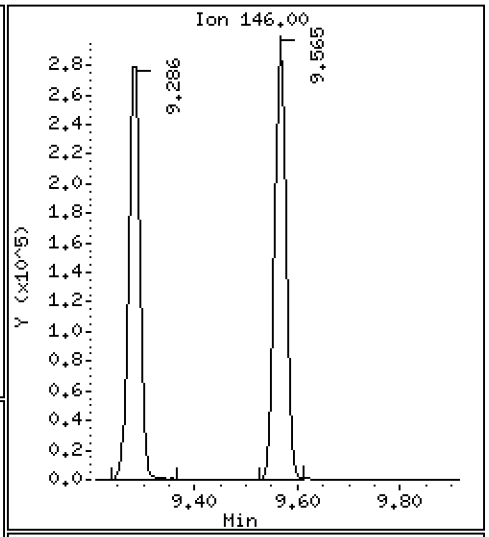
Concentration: 4.709 ug/mL

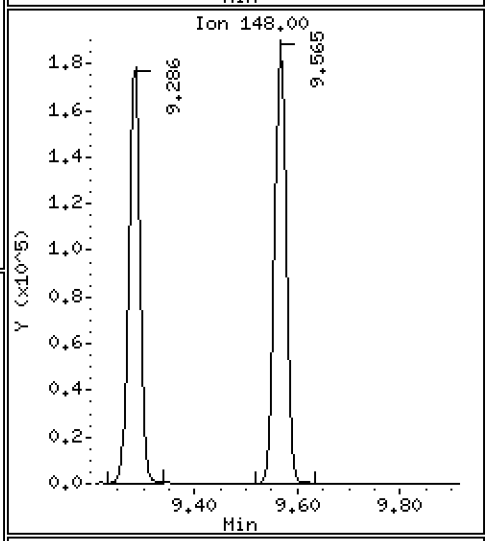


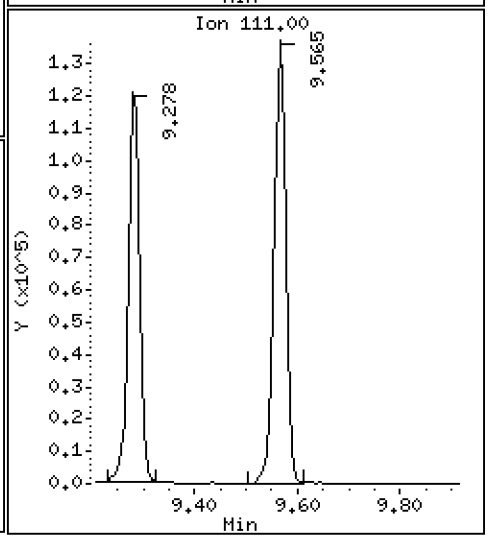












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

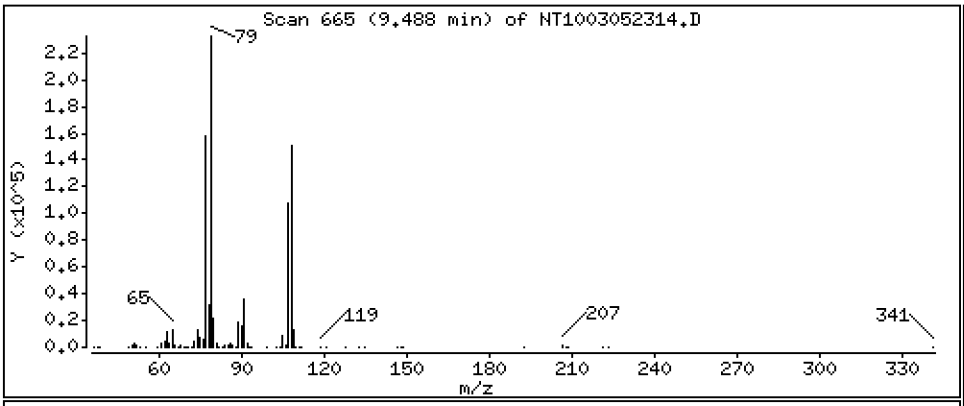
Operator: VTS

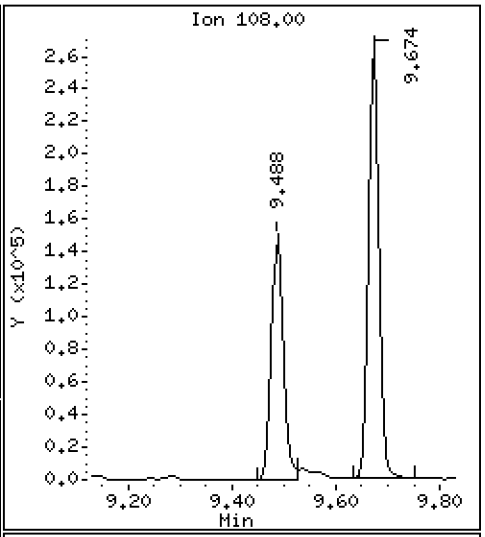
Column phase: ZB-5msi

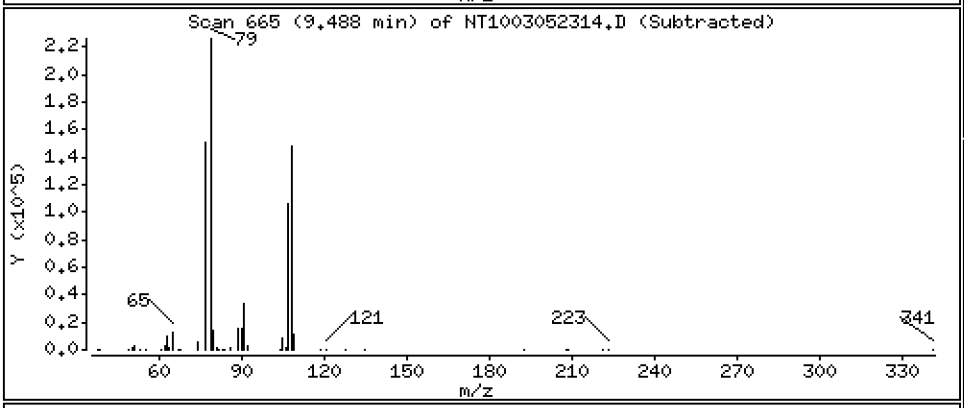
Column diameter: 0.25

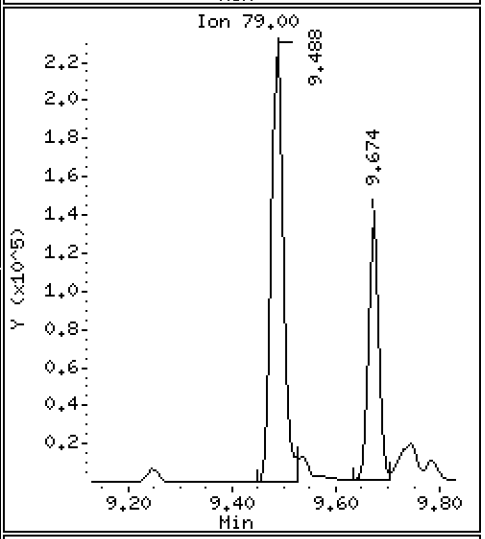
11 Benzyl alcohol

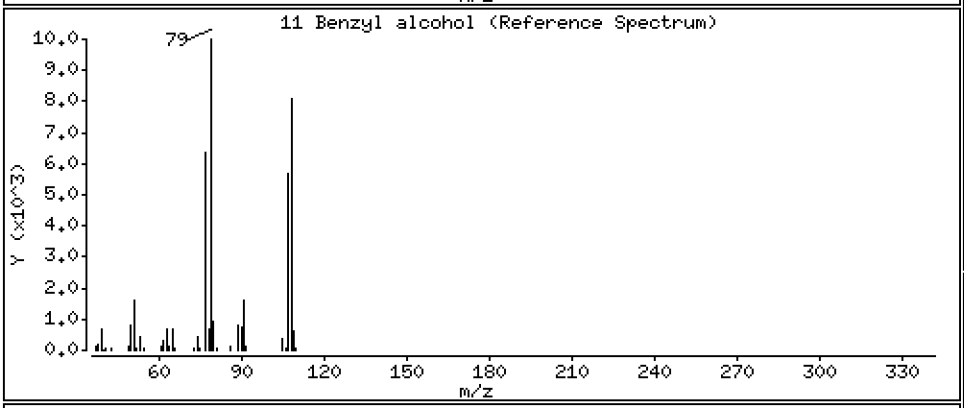
Concentration: 4.246 ug/mL

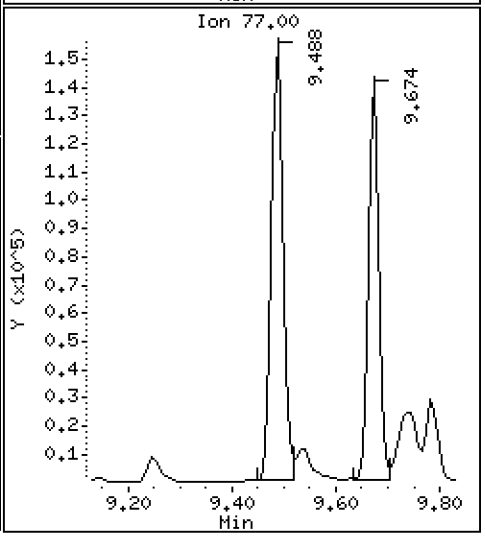


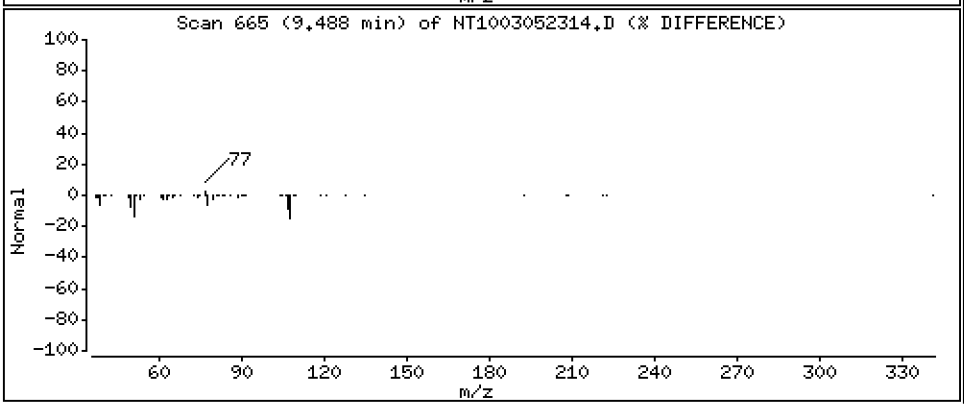












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

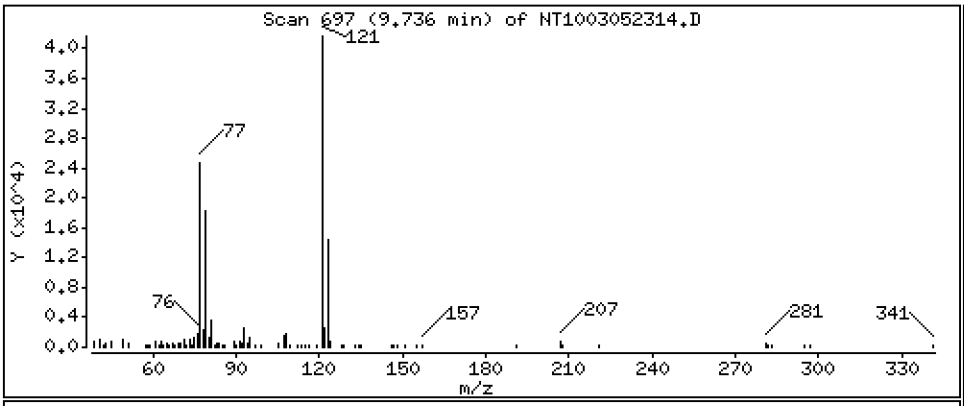
Operator: VTS

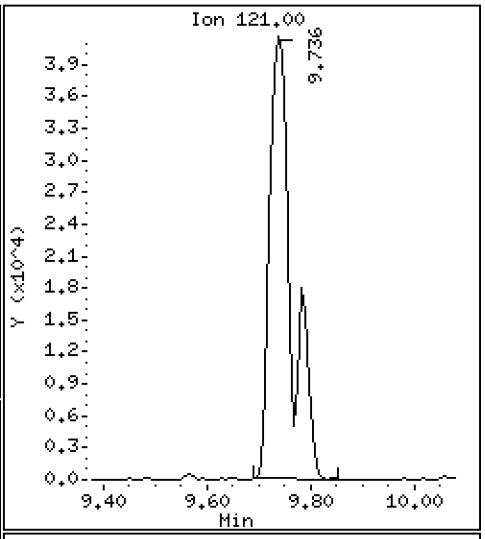
Column phase: ZB-5msi

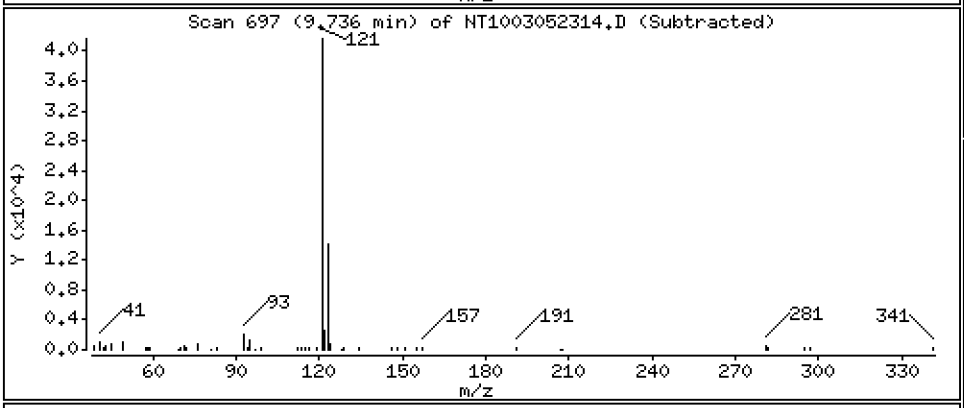
Column diameter: 0.25

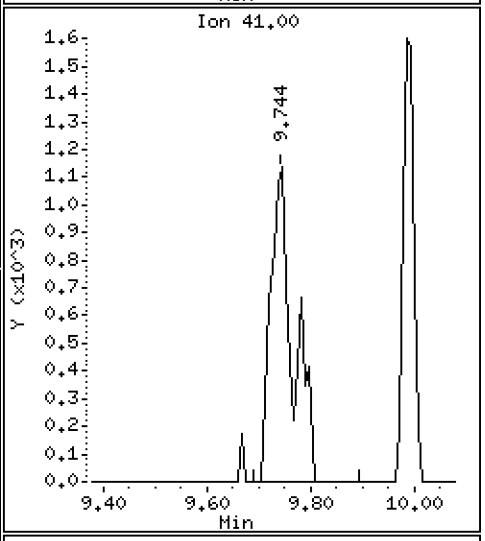
14 2,2'-oxybis(1-Chloropropane)

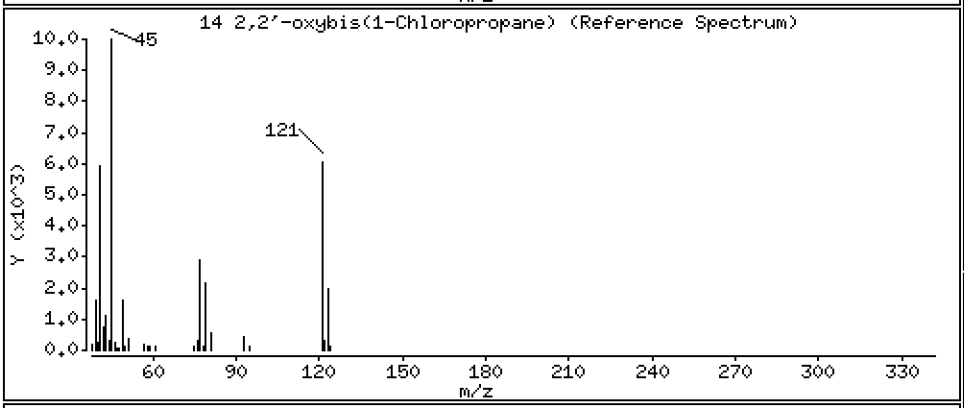
Concentration: 4.600 ug/mL

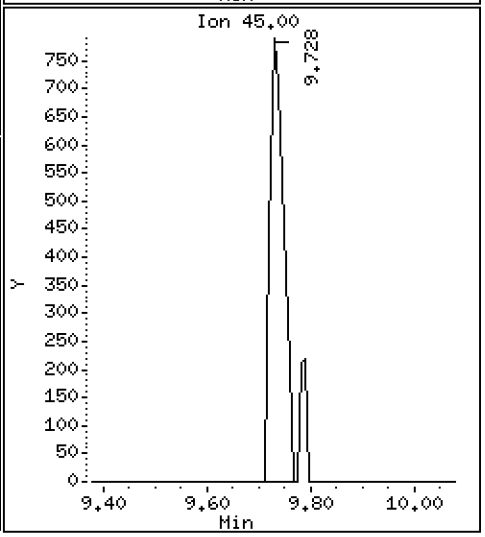


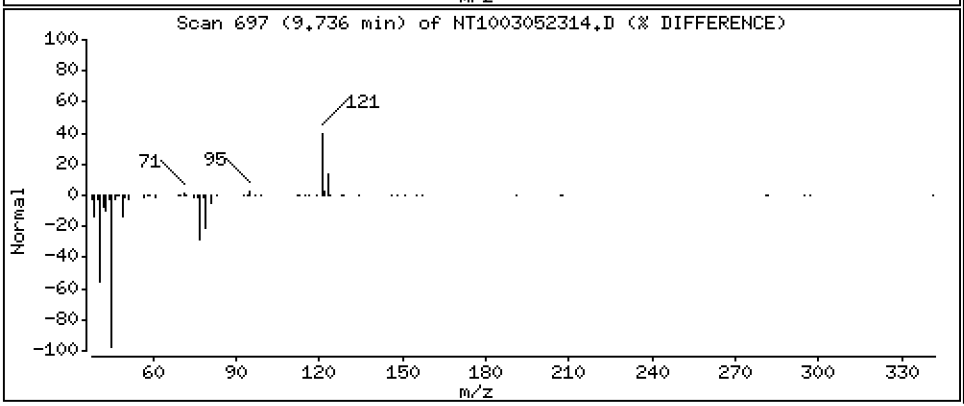












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

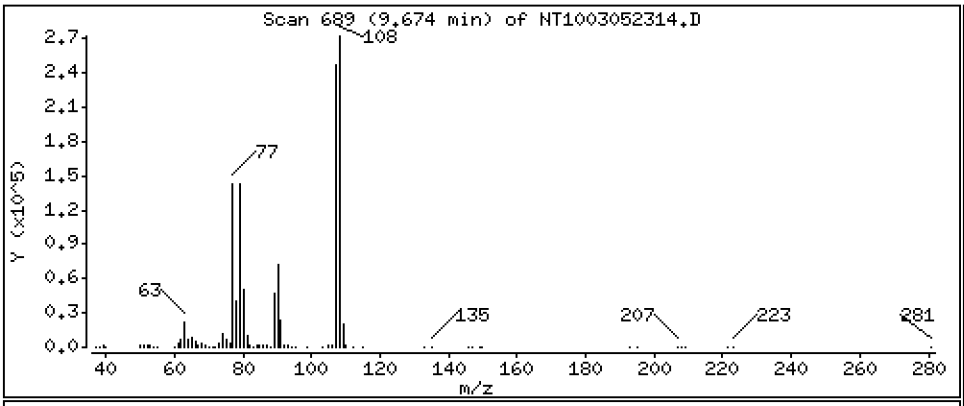
Operator: VTS

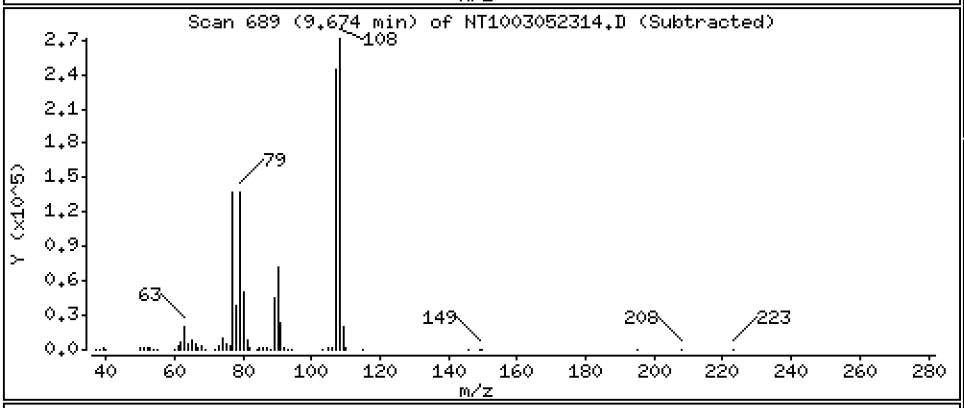
Column phase: ZB-5msi

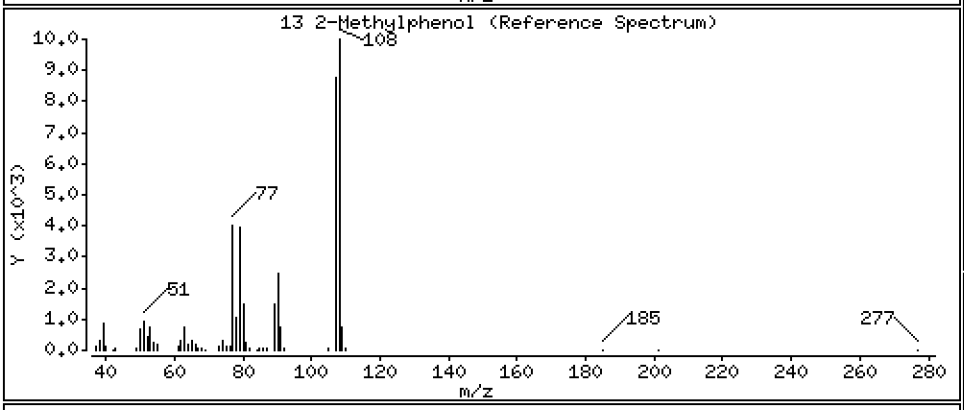
Column diameter: 0.25

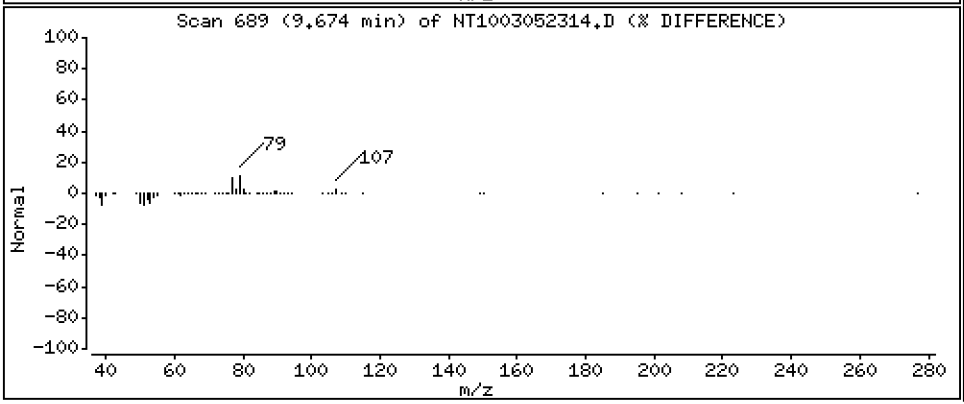
13 2-Methylphenol

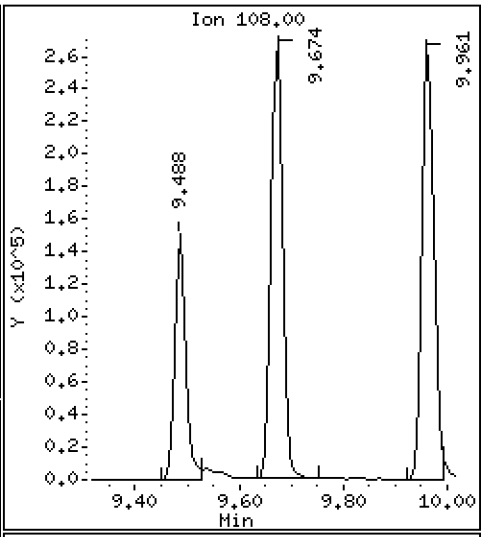
Concentration: 4.843 ug/mL

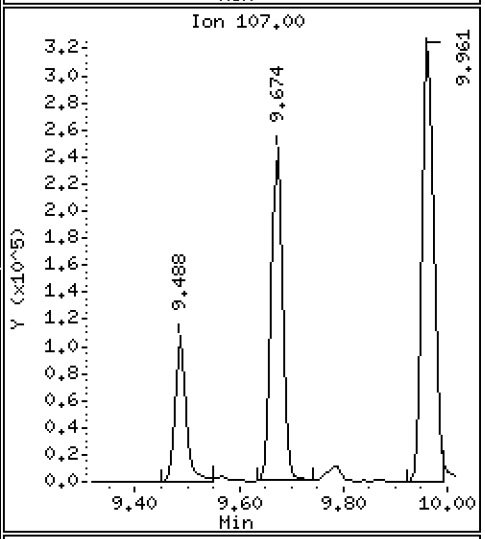


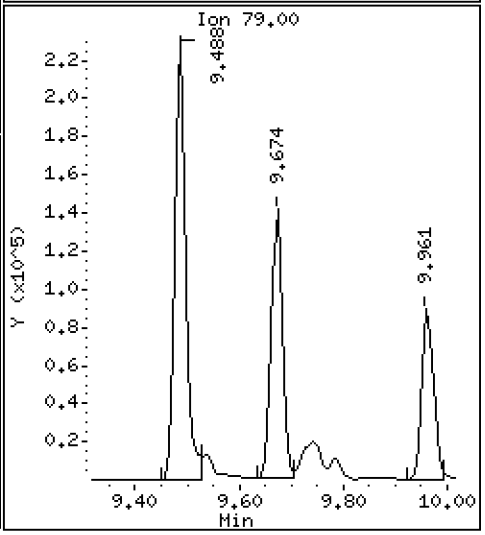












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

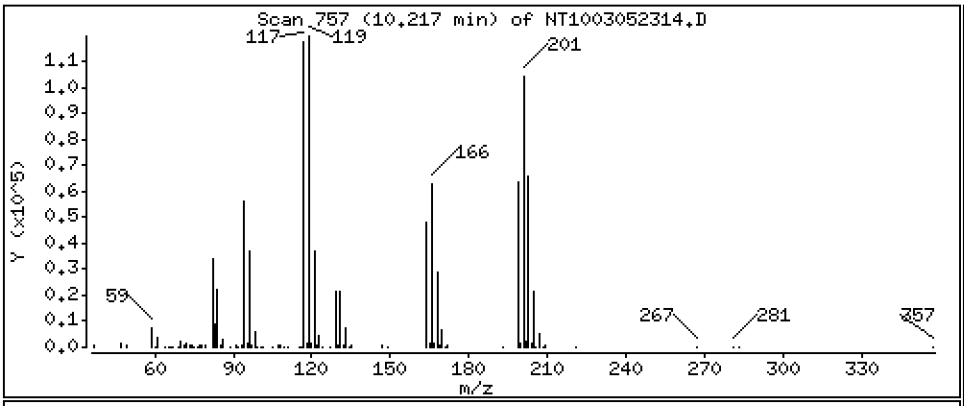
Operator: VTS

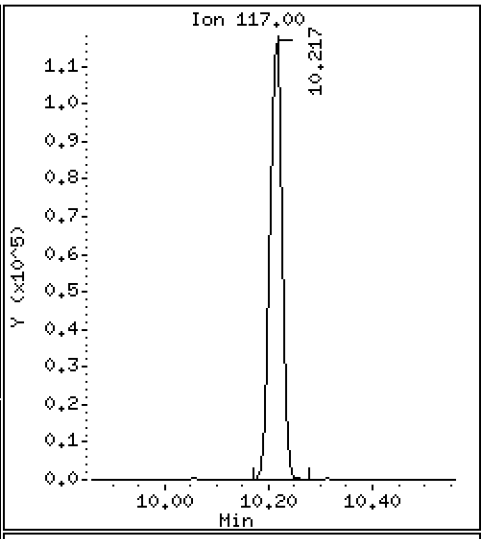
Column phase: ZB-5msi

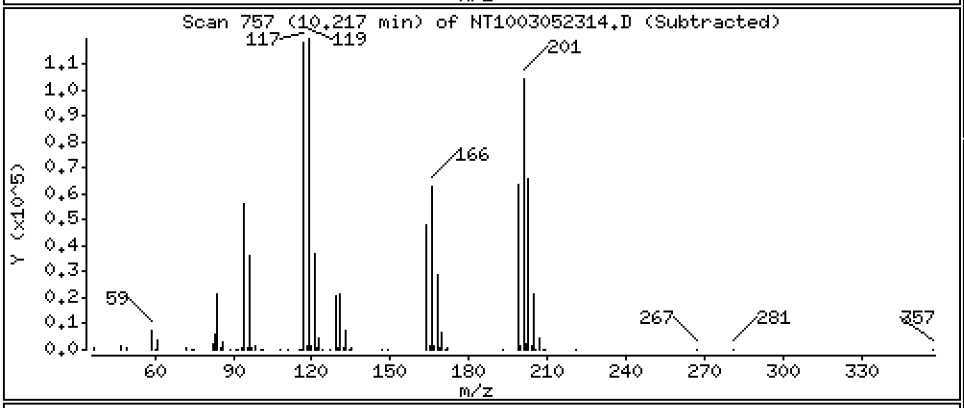
Column diameter: 0.25

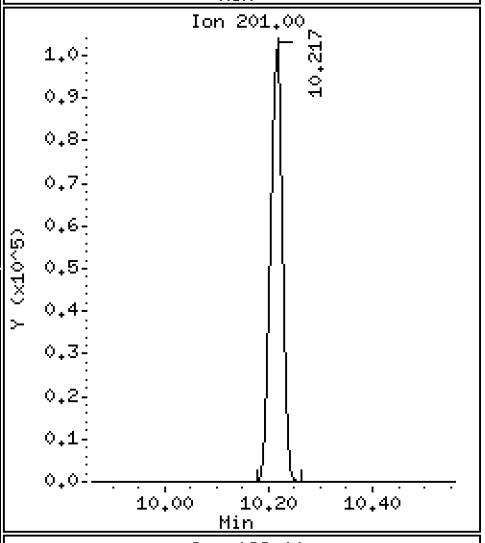
17 Hexachloroethane

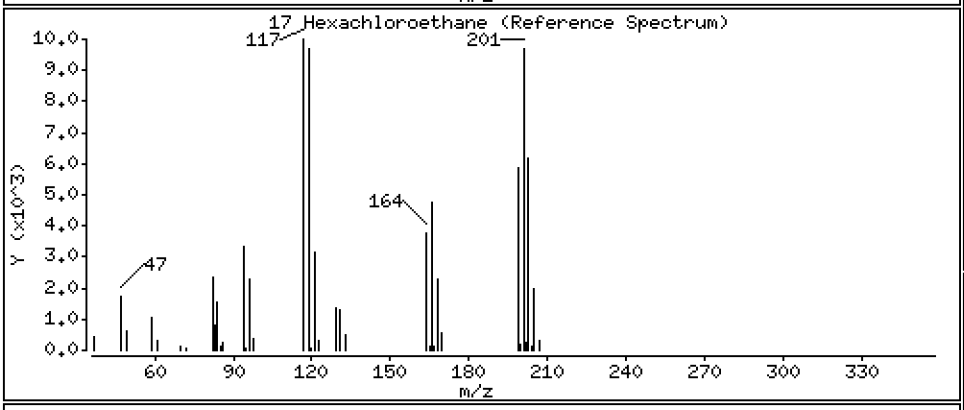
Concentration: 4.750 ug/mL

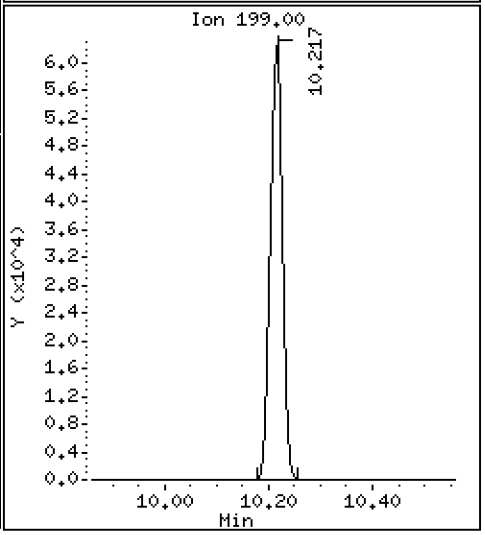


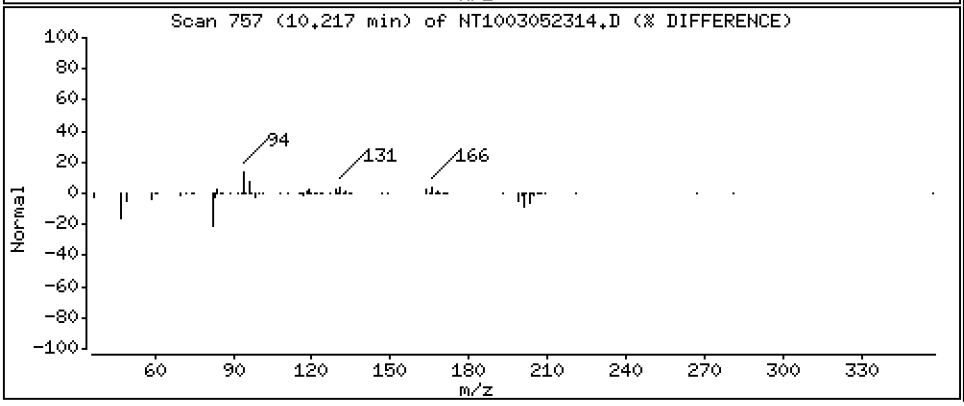












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

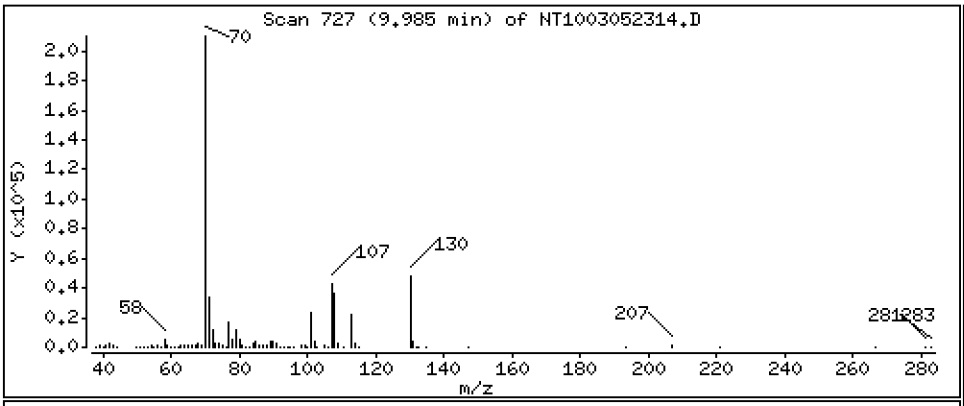
Operator: VTS

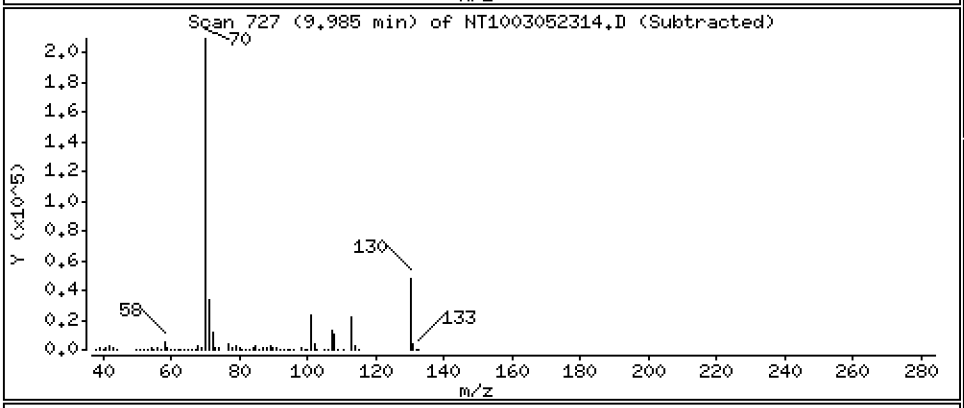
Column phase: ZB-5msi

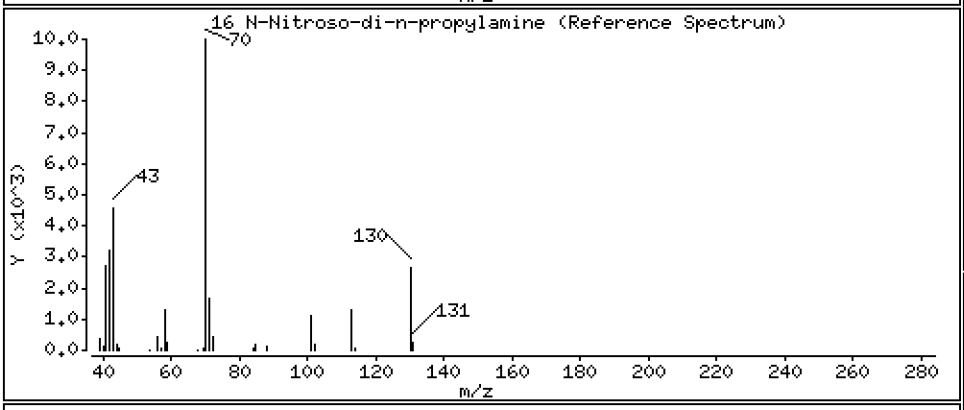
Column diameter: 0.25

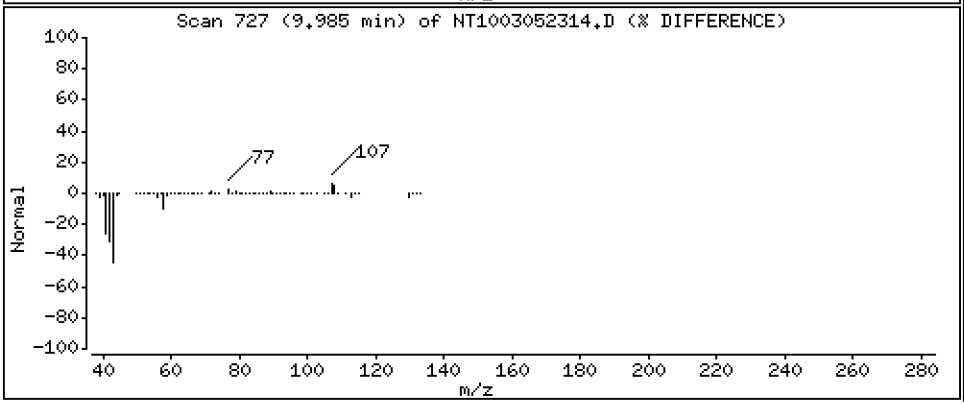
16 N-Nitroso-di-n-propylamine

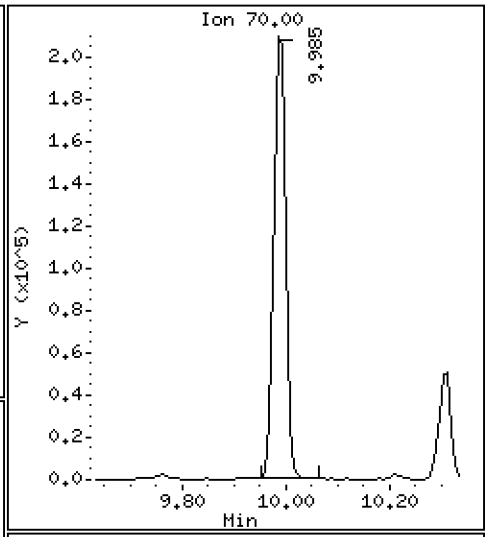
Concentration: 5.147 ug/mL

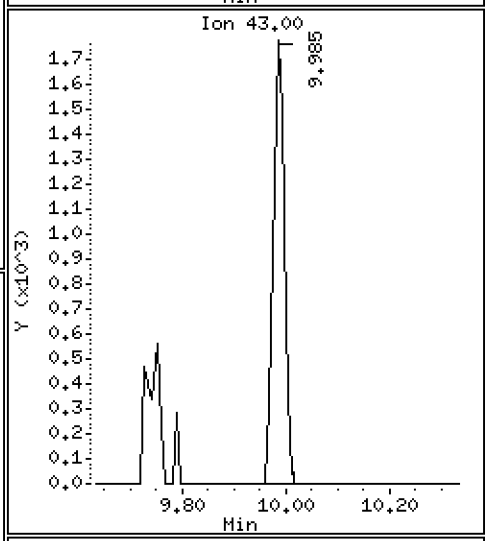


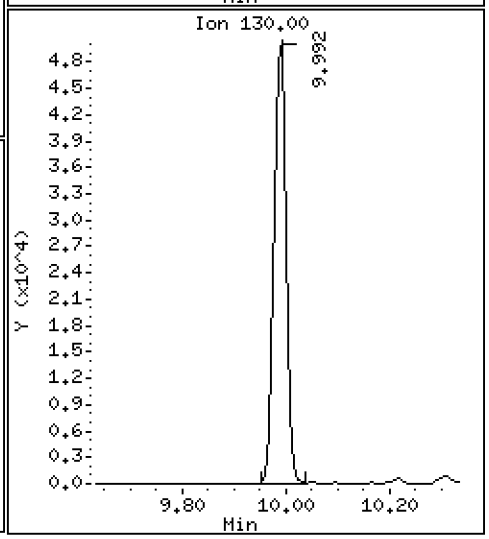












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

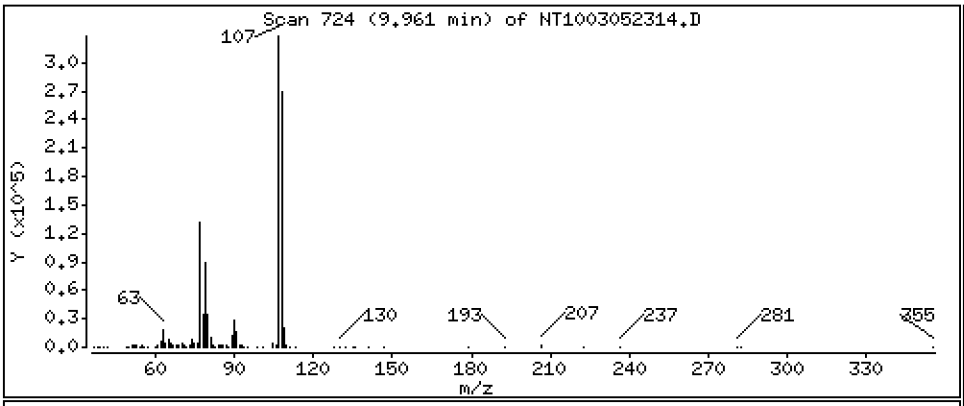
Operator: VTS

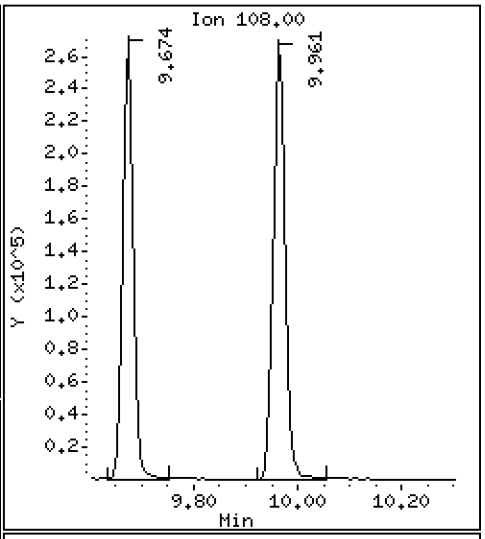
Column phase: ZB-5msi

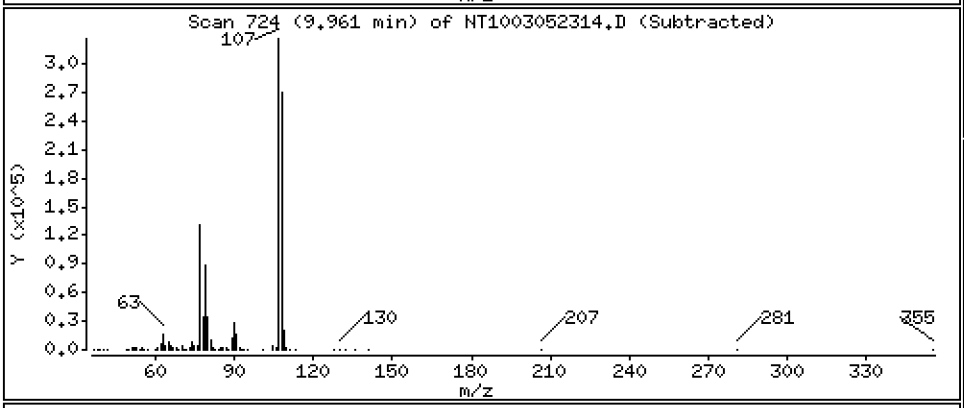
Column diameter: 0.25

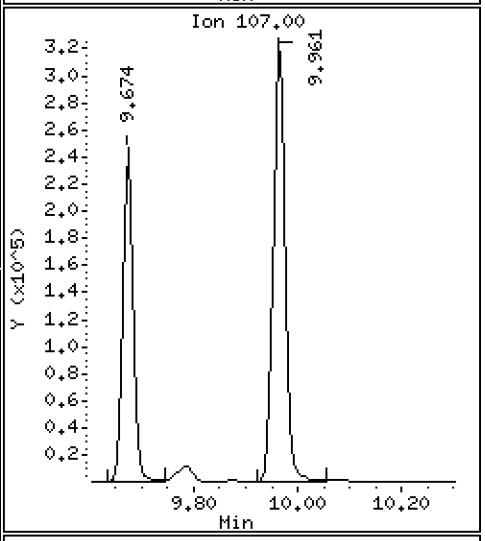
15 4-Methylphenol

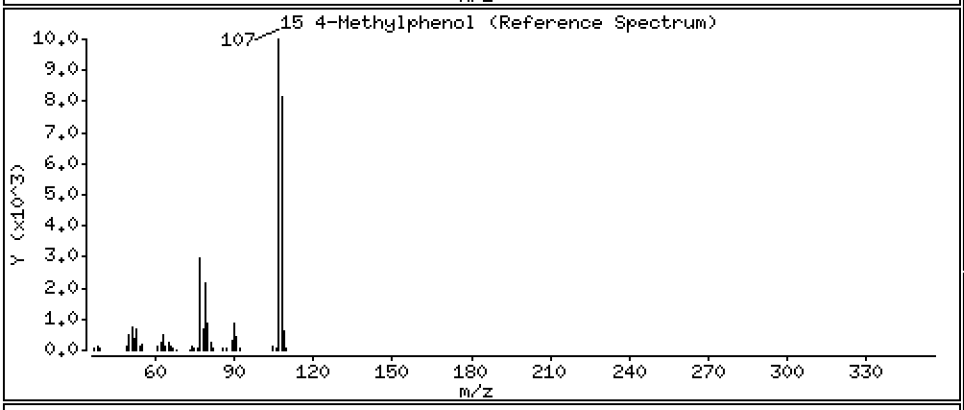
Concentration: 4.266 ug/mL

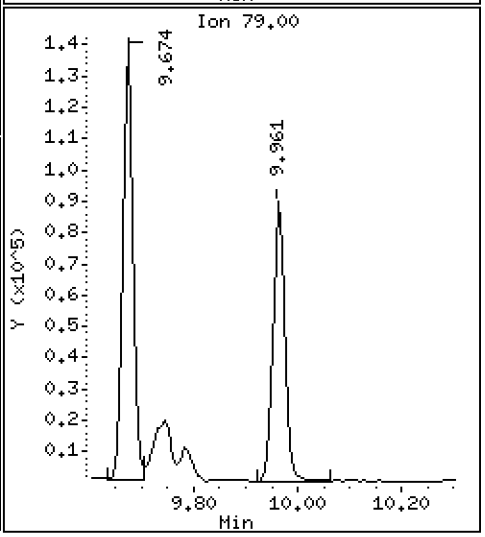


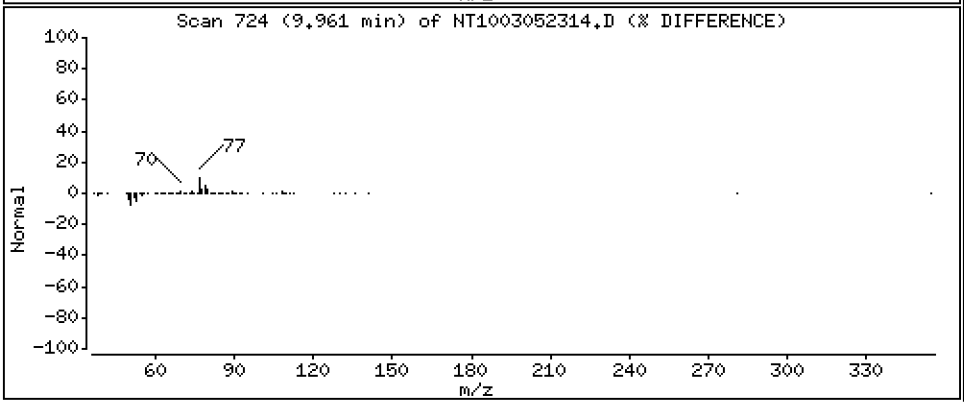












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

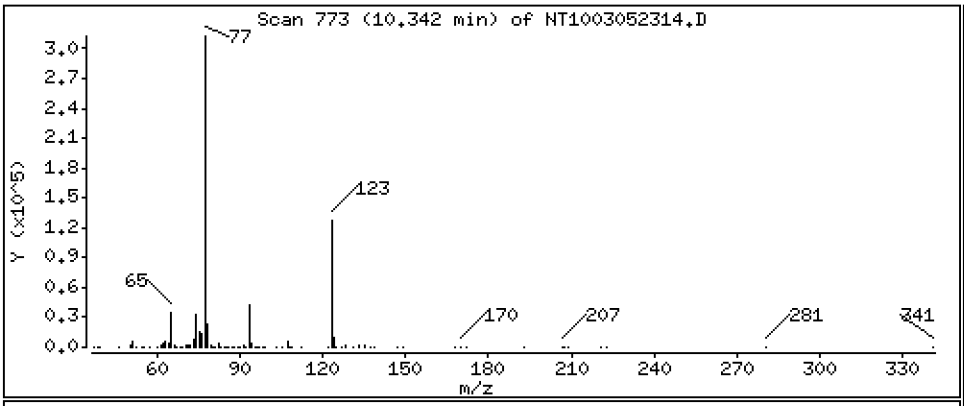
Operator: VTS

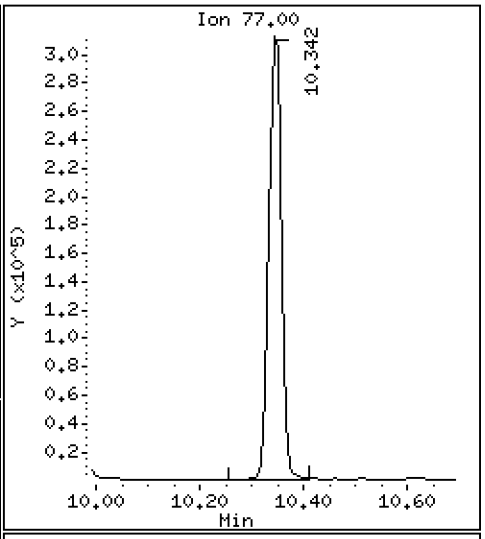
Column phase: ZB-5msi

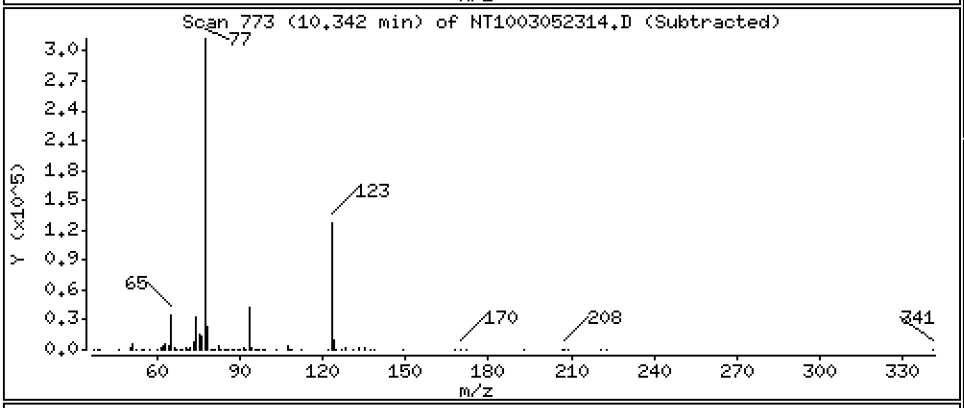
Column diameter: 0.25

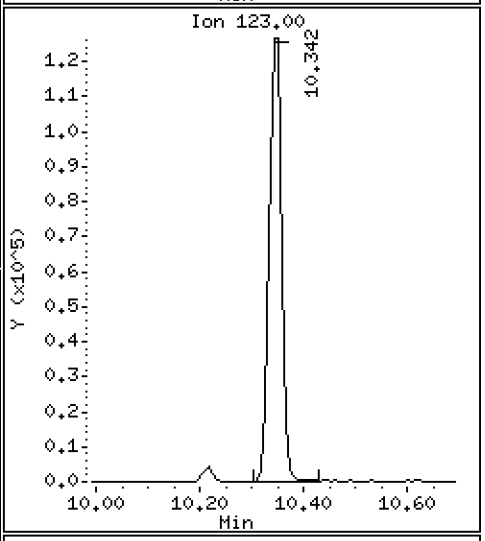
19 Nitrobenzene

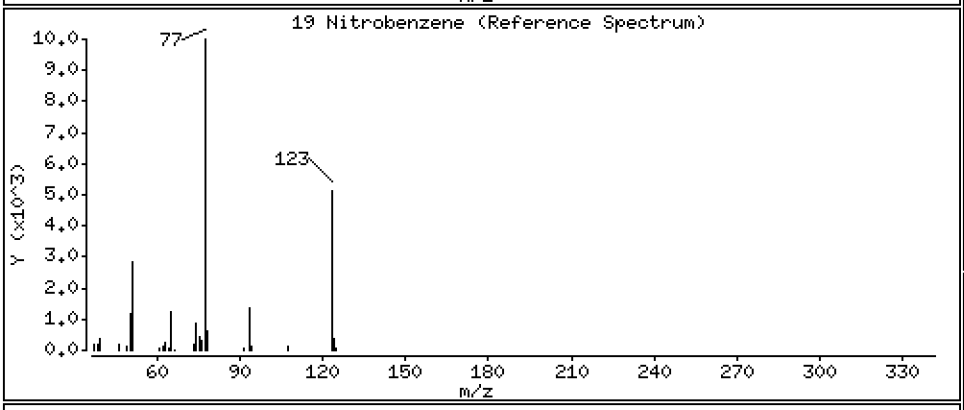
Concentration: 5.154 ug/mL

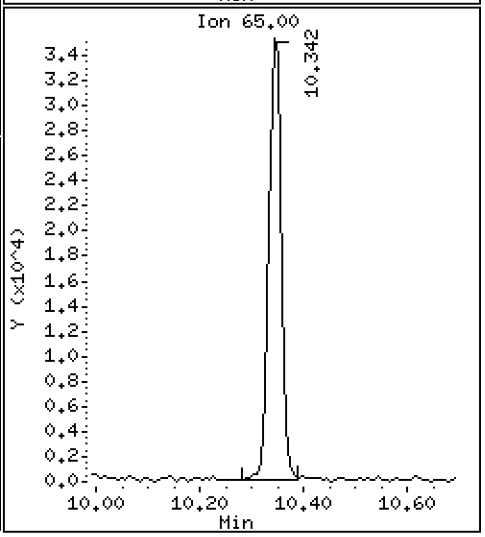


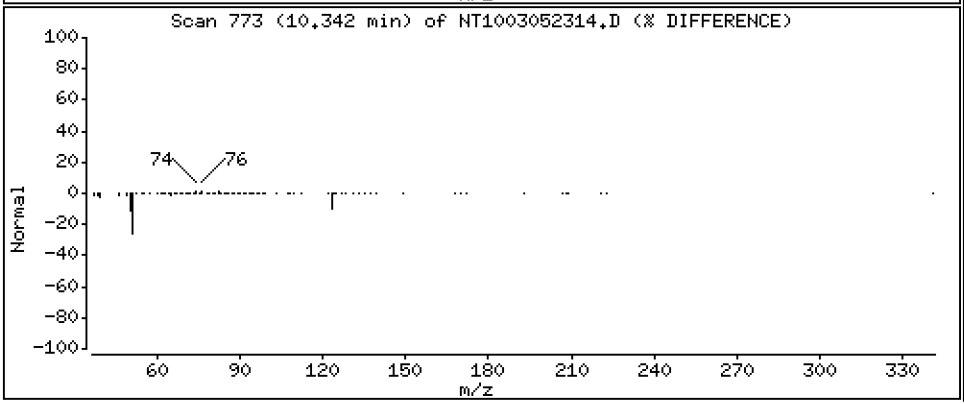












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

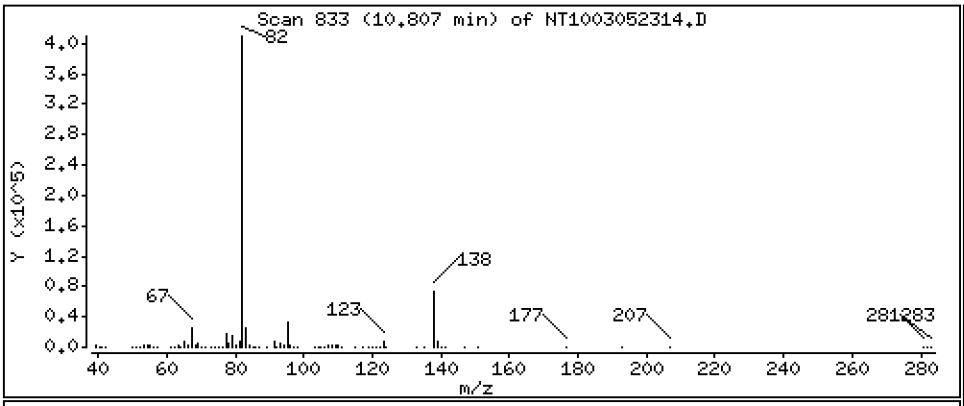
Operator: VTS

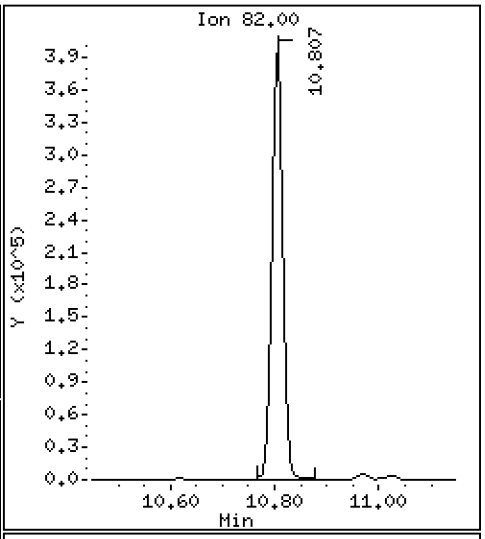
Column phase: ZB-5msi

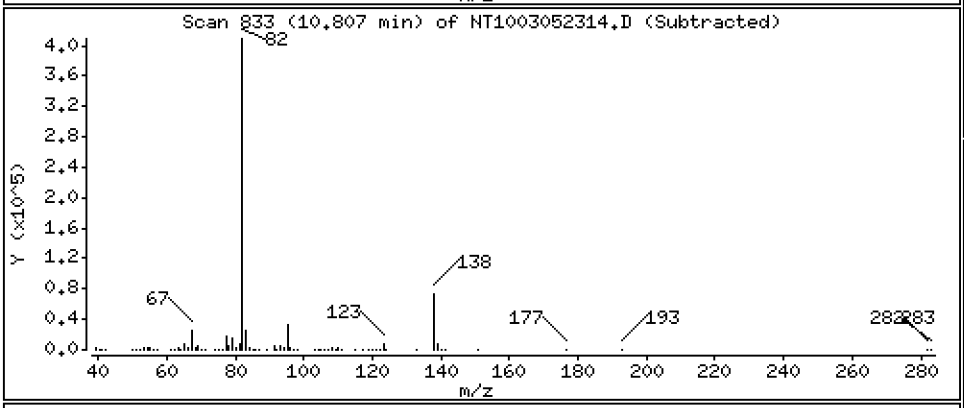
Column diameter: 0.25

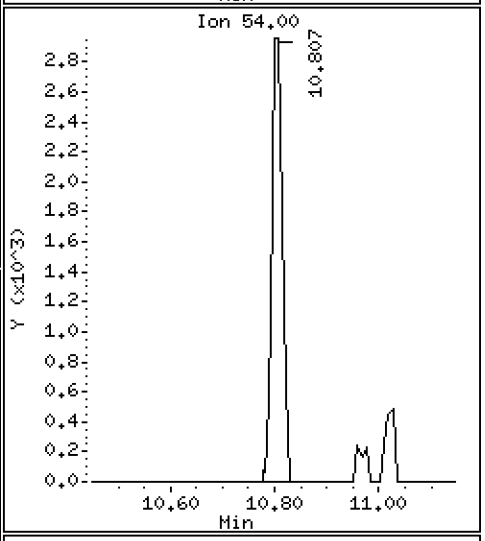
20 Isophorone

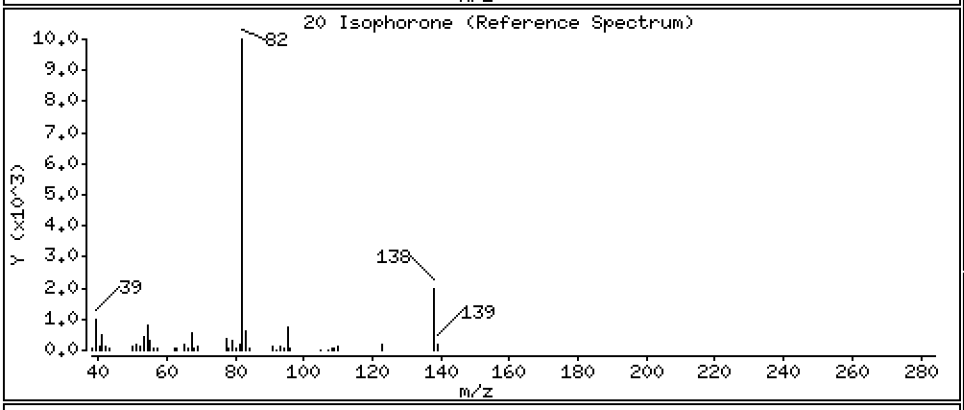
Concentration: 4.876 ug/mL

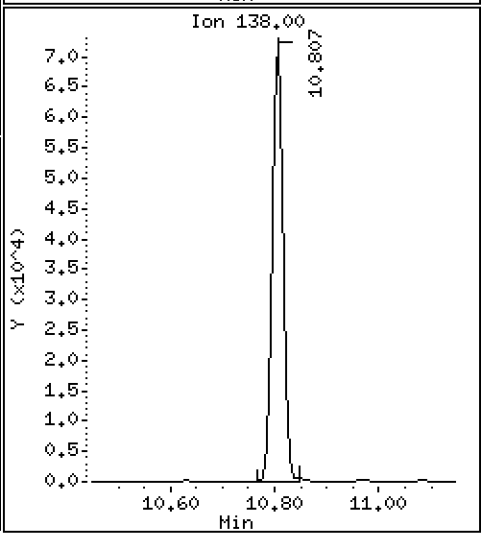


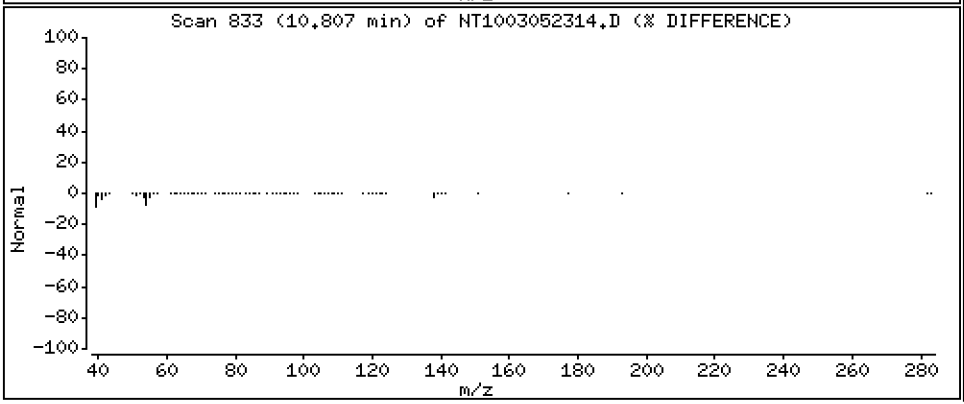












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

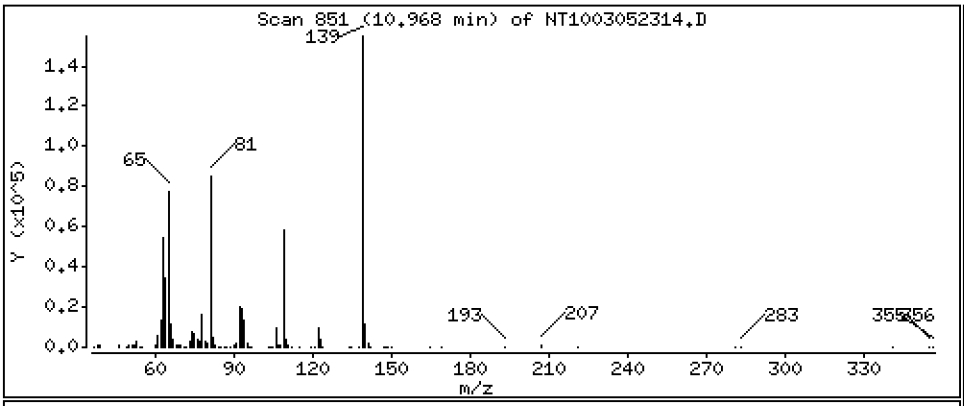
Operator: VTS

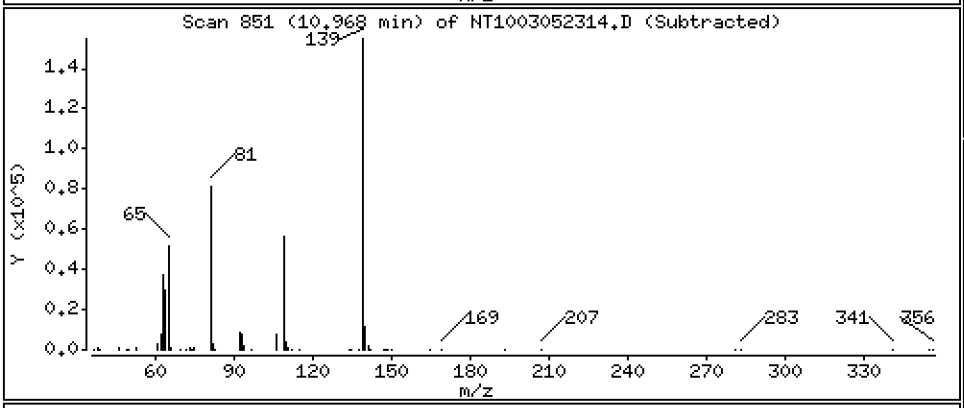
Column phase: ZB-5msi

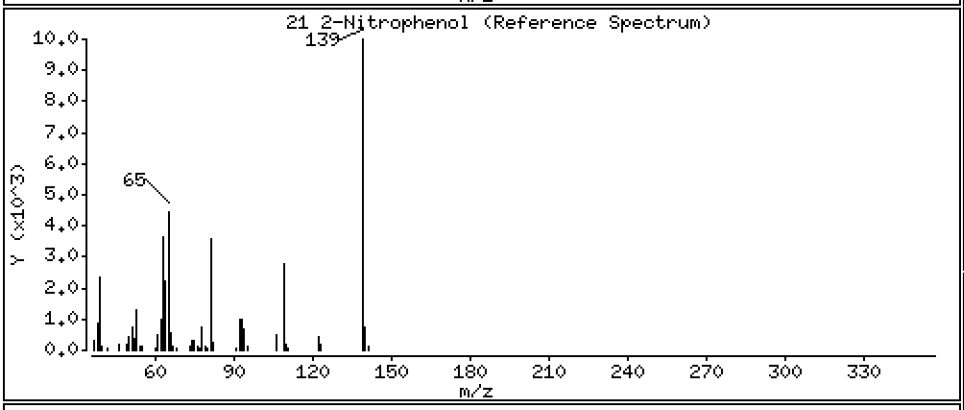
Column diameter: 0.25

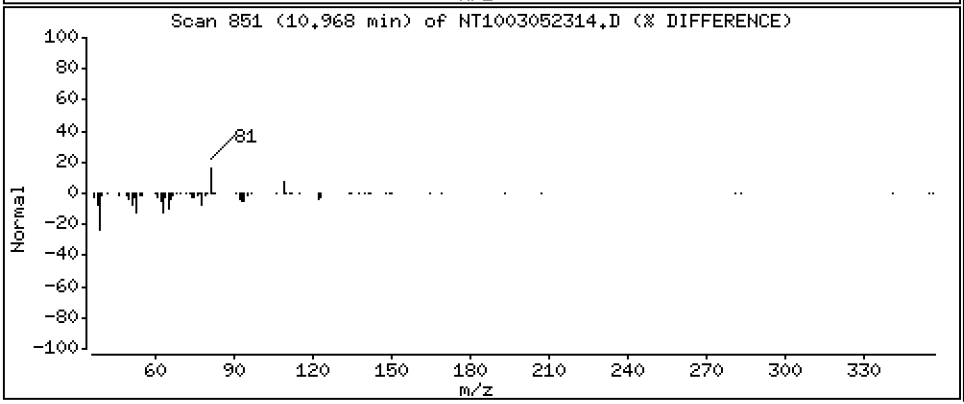
21 2-Nitrophenol

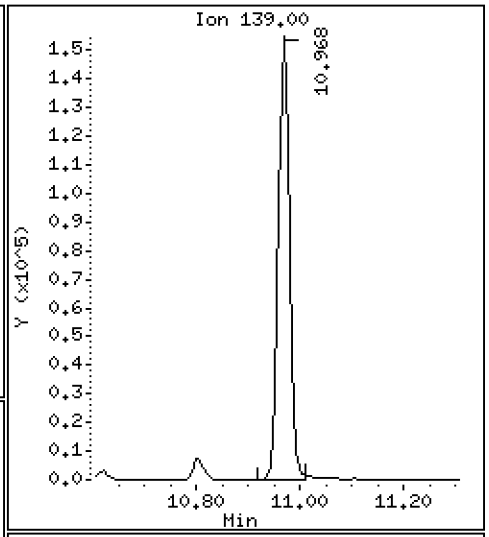
Concentration: 4.456 ug/mL

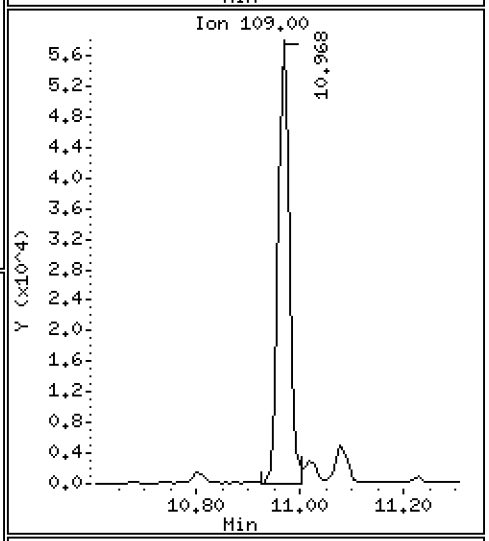


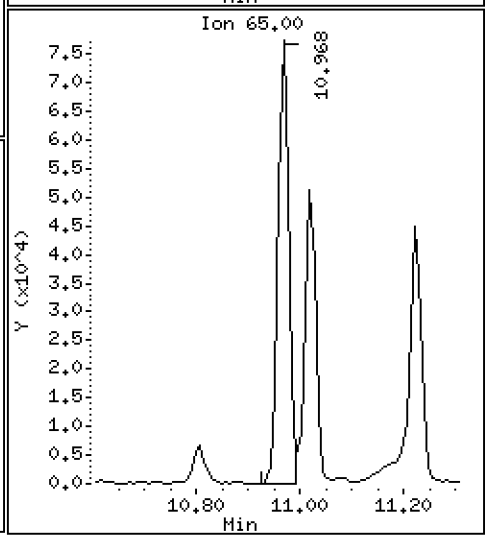












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

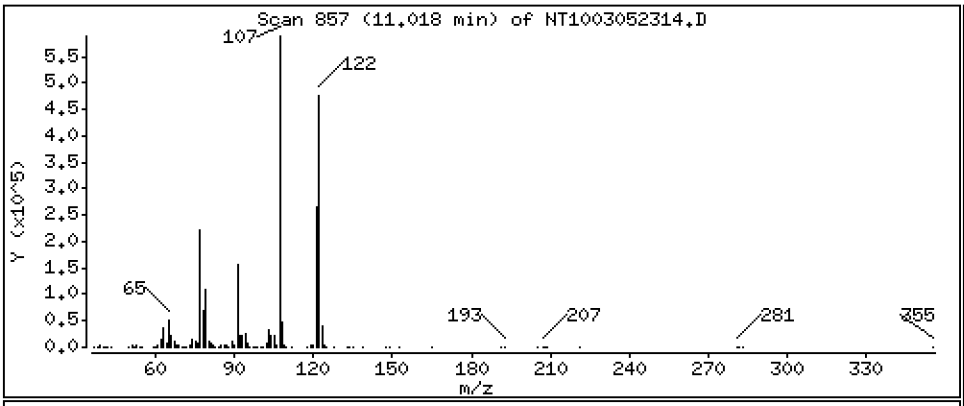
Operator: VTS

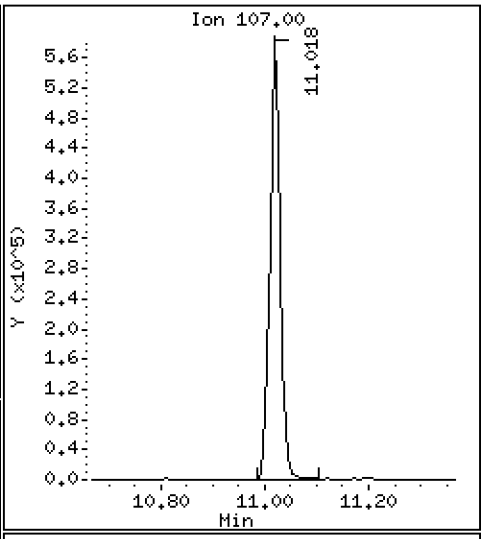
Column phase: ZB-5msi

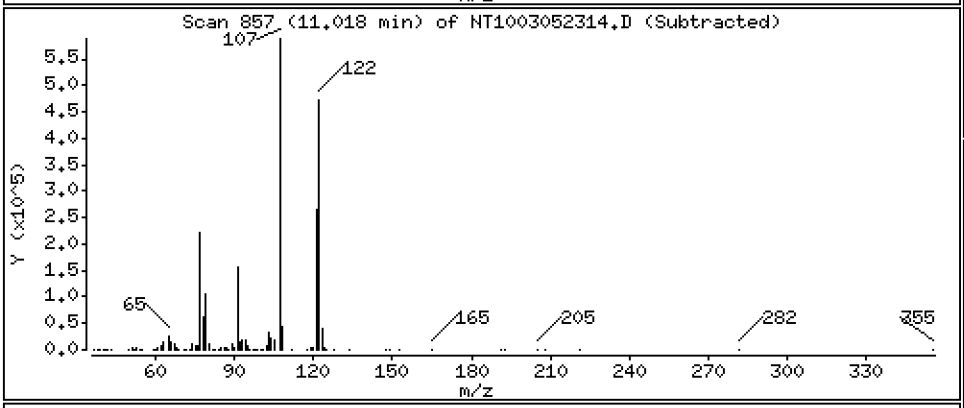
Column diameter: 0.25

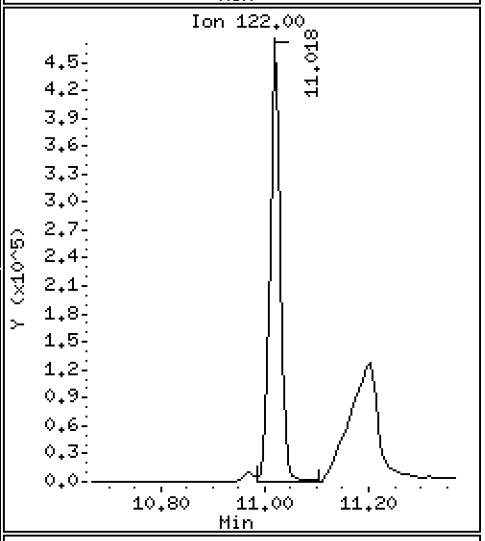
22 2,4-Dimethylphenol

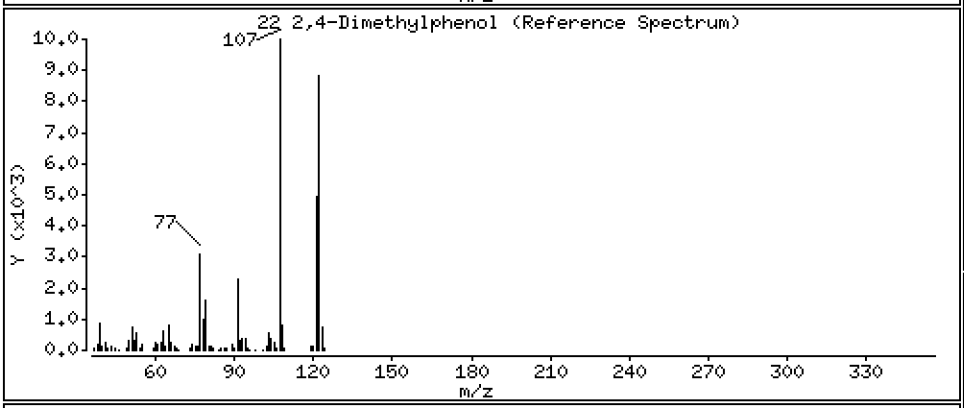
Concentration: 8.771 ug/mL

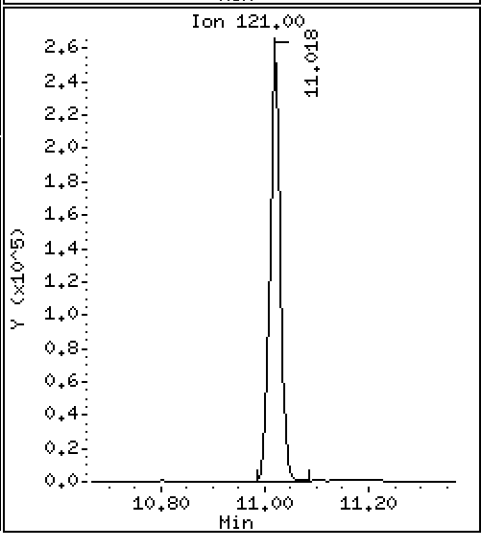


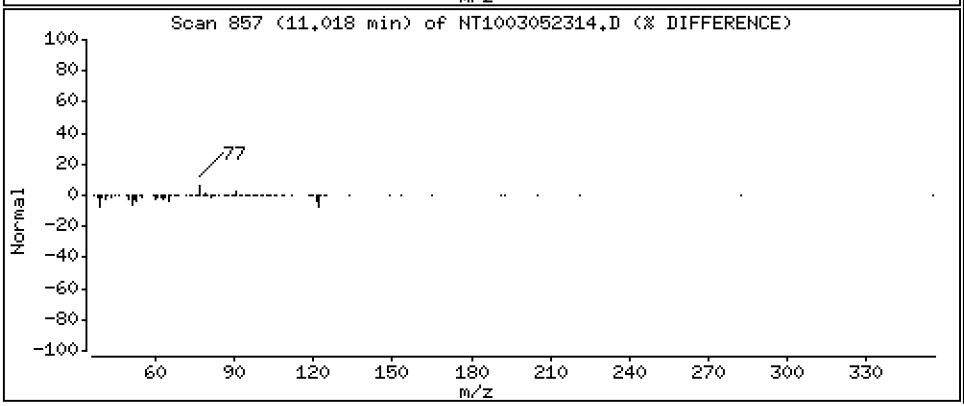












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

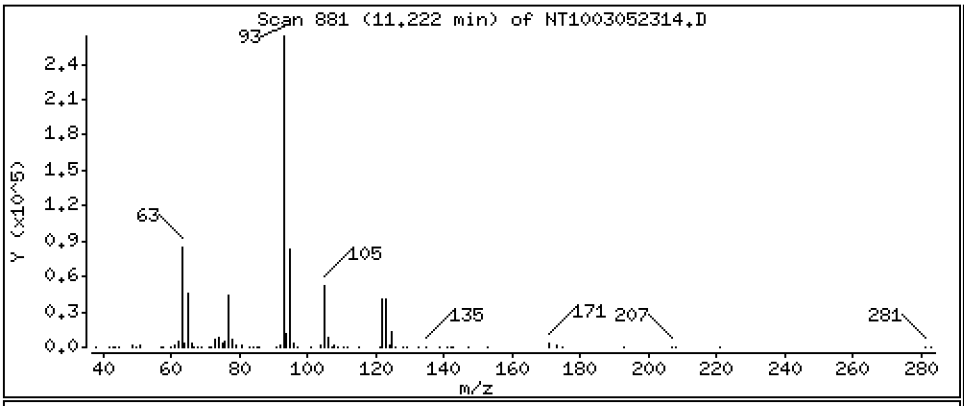
Operator: VTS

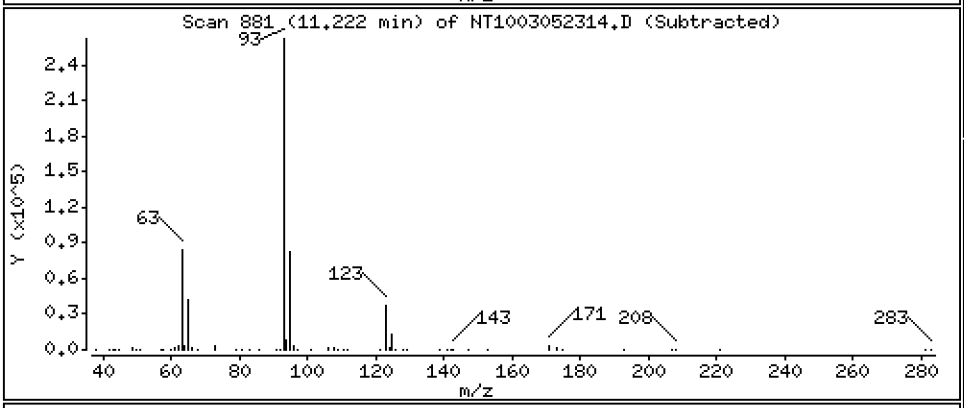
Column phase: ZB-5msi

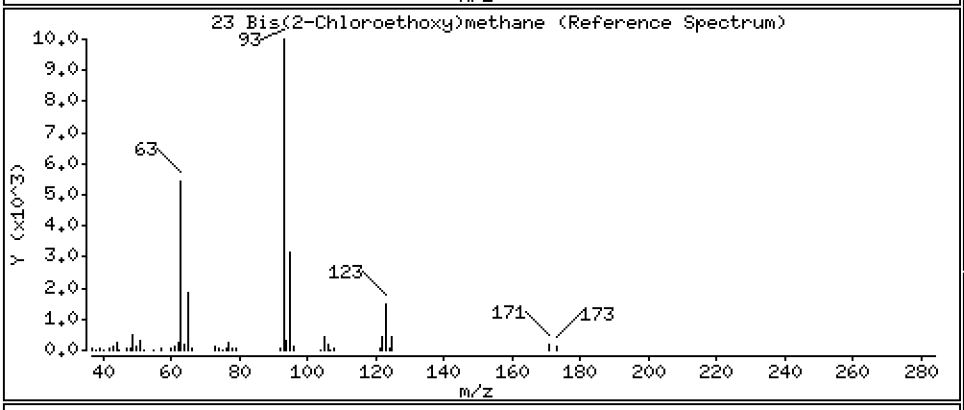
Column diameter: 0.25

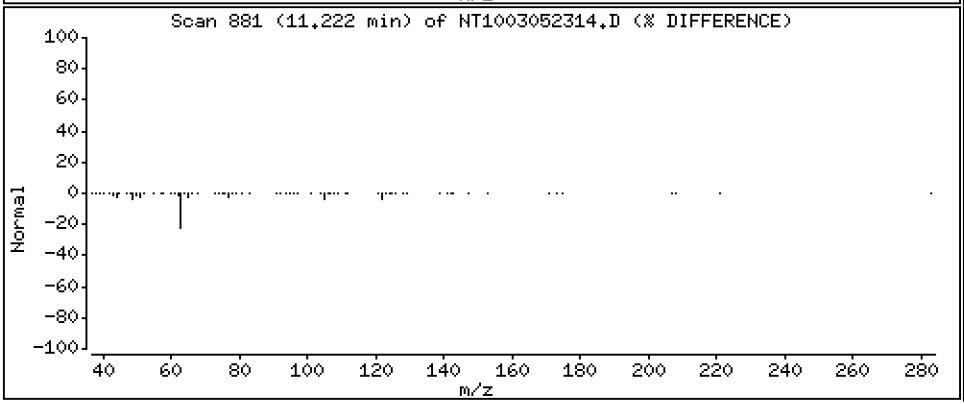
23 Bis(2-Chloroethoxy)methane

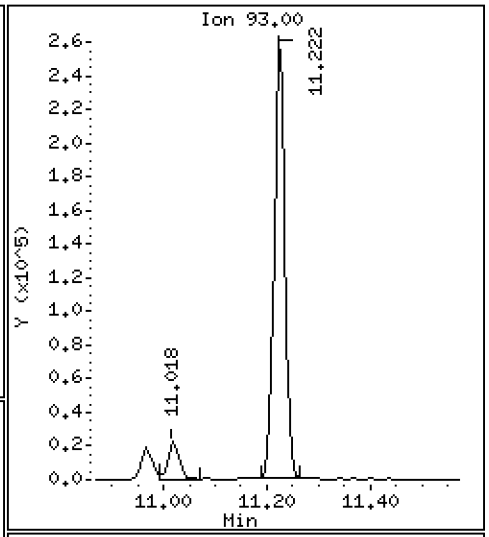
Concentration: 5.029 ug/mL

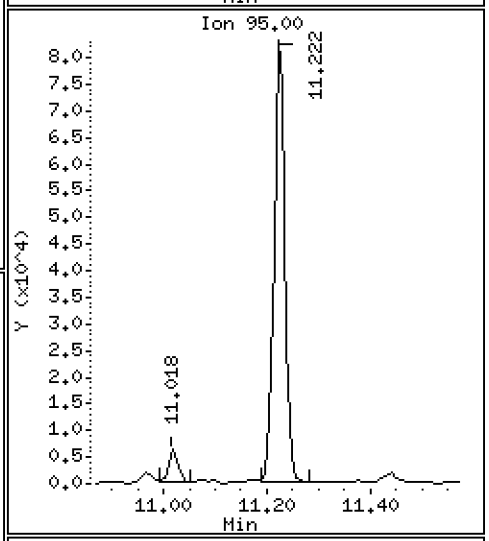


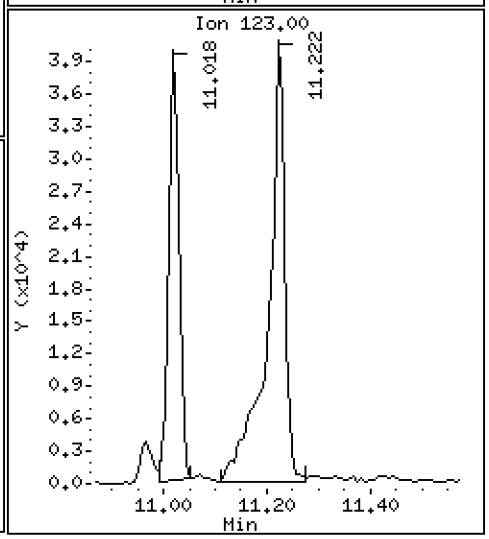












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

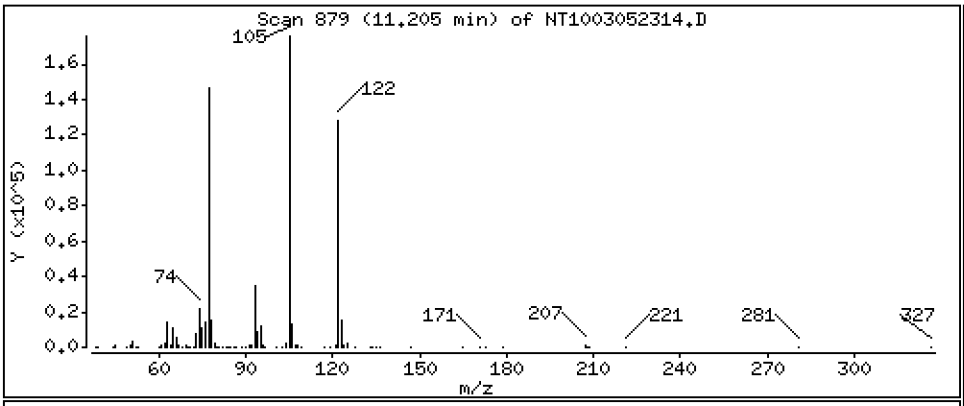
Operator: VTS

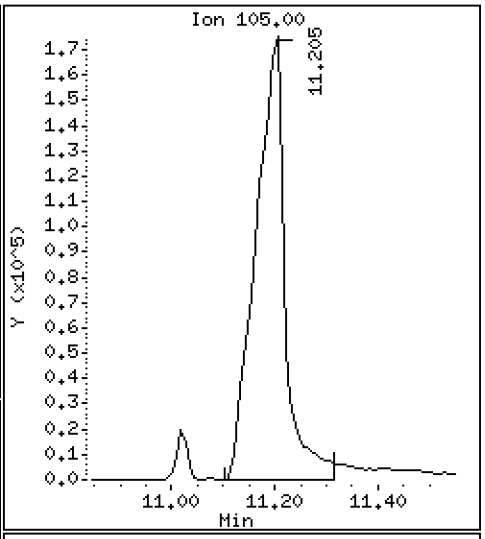
Column phase: ZB-5msi

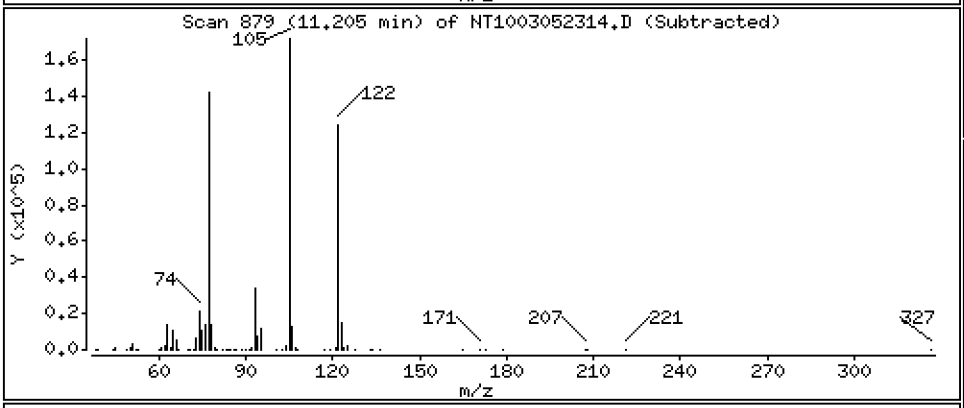
Column diameter: 0.25

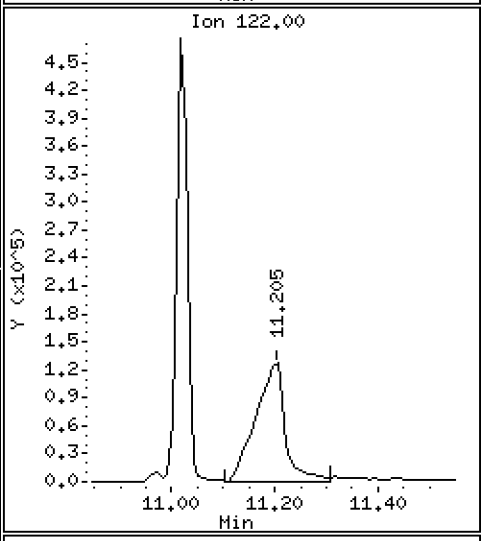
24 Benzoic acid

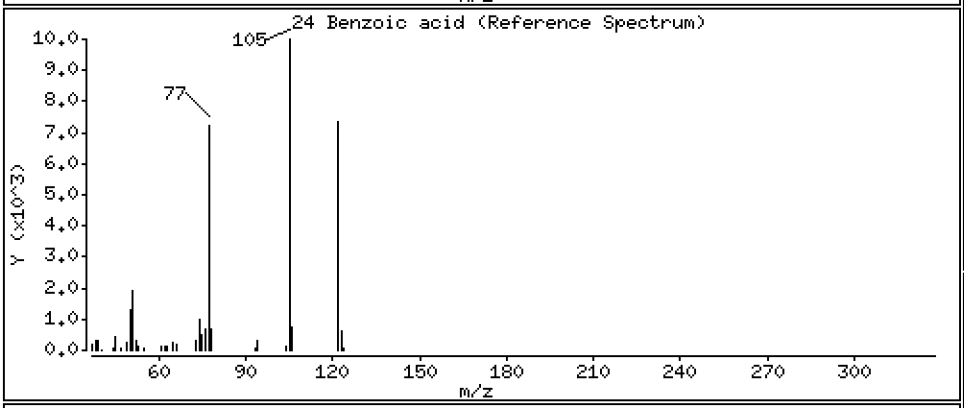
Concentration: 12.15 ug/mL

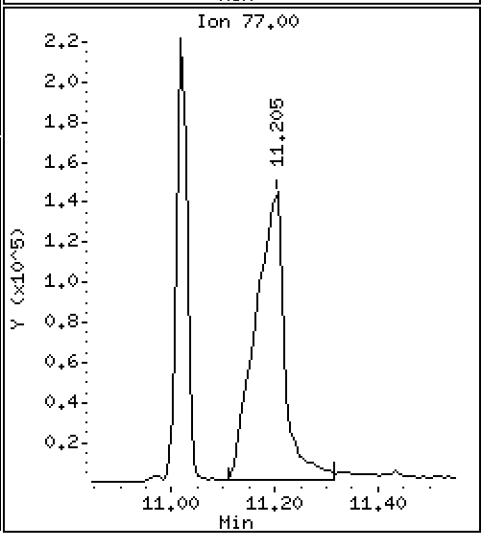


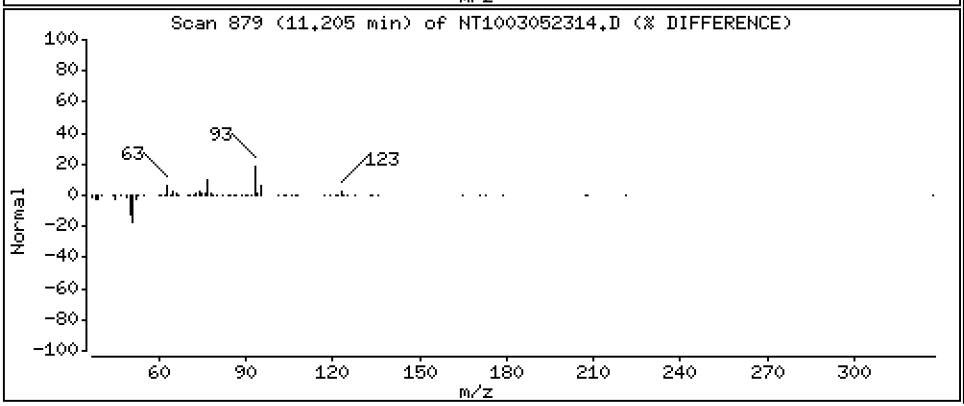












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

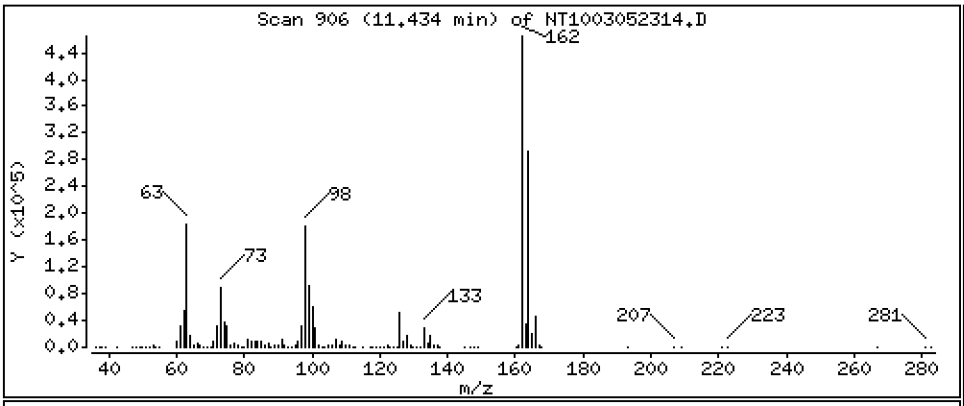
Operator: VTS

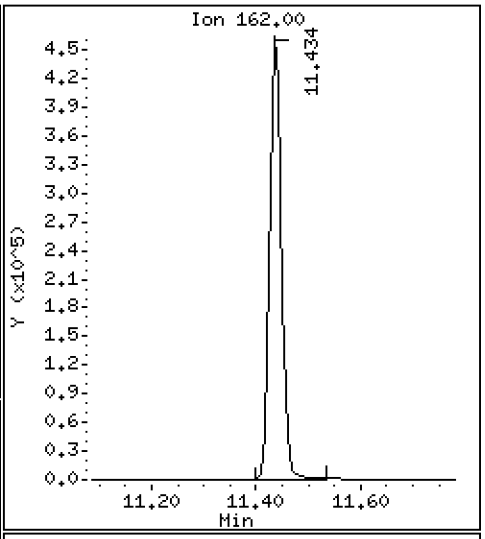
Column phase: ZB-5msi

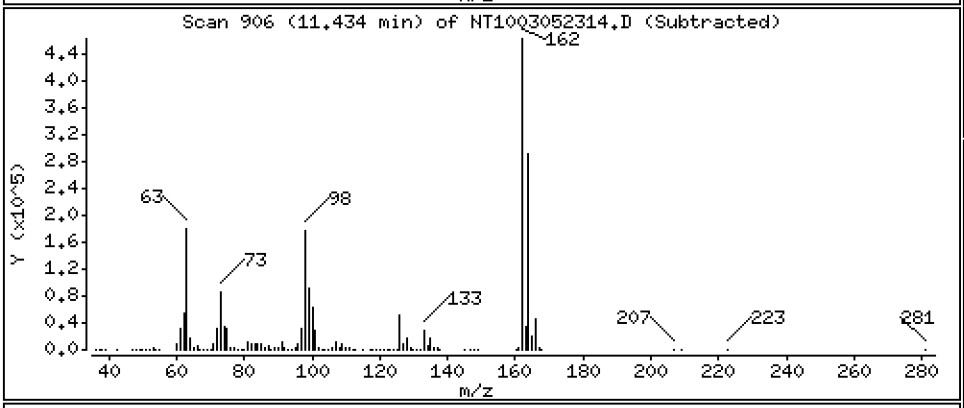
Column diameter: 0.25

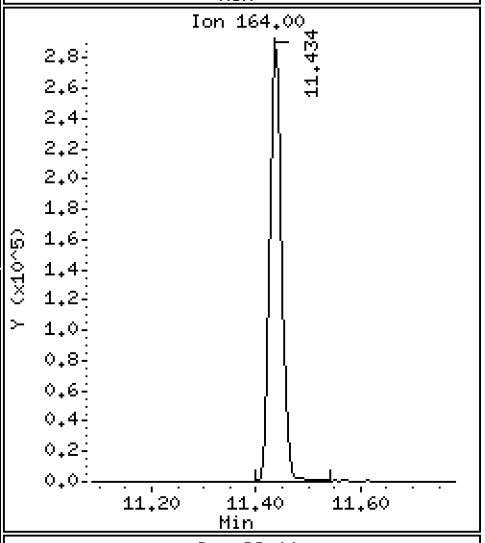
25 2,4-Dichlorophenol

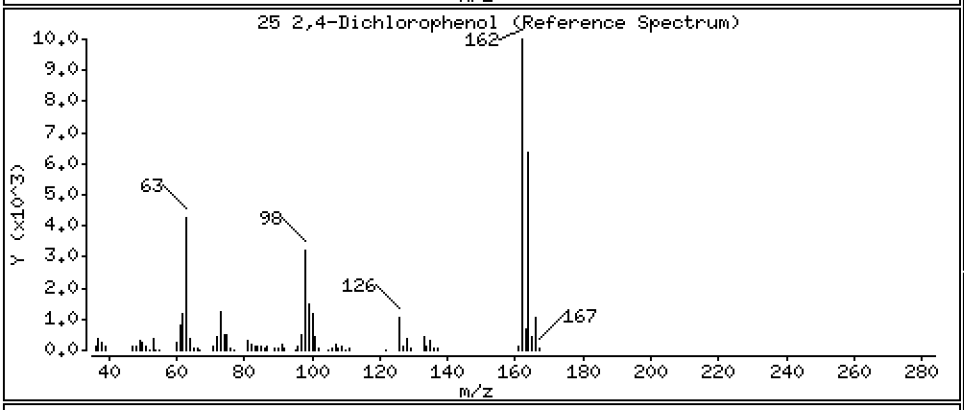
Concentration: 10.60 ug/mL

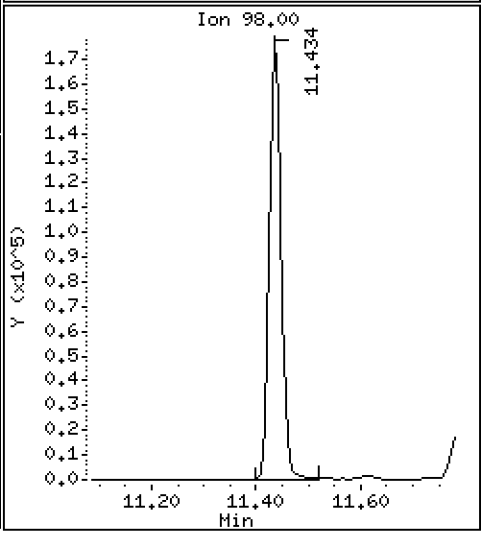


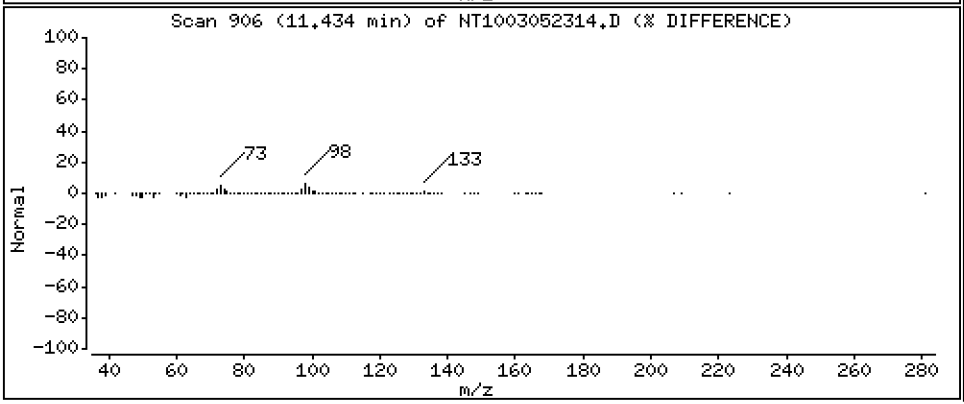












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

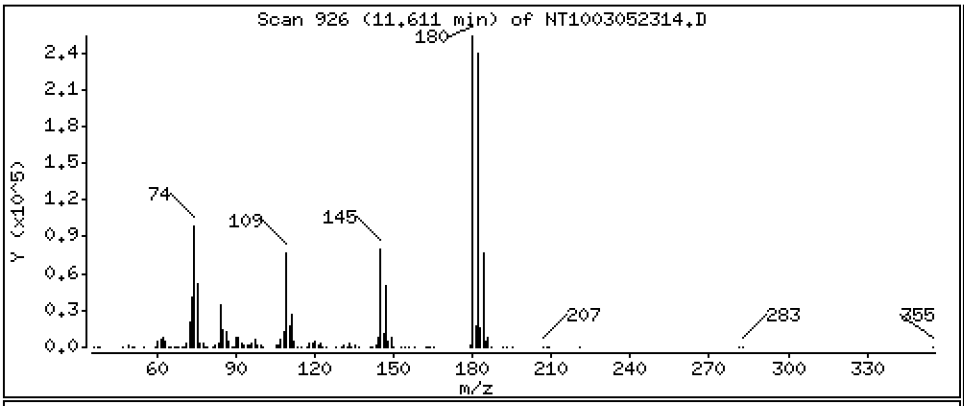
Operator: VTS

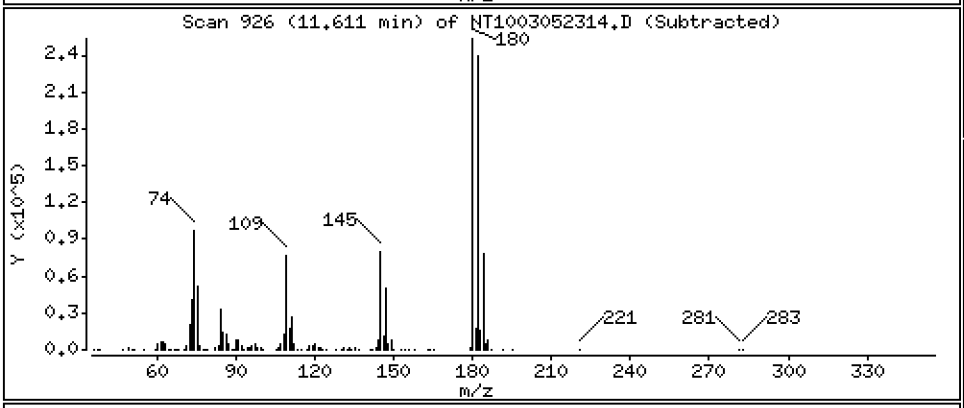
Column phase: ZB-5msi

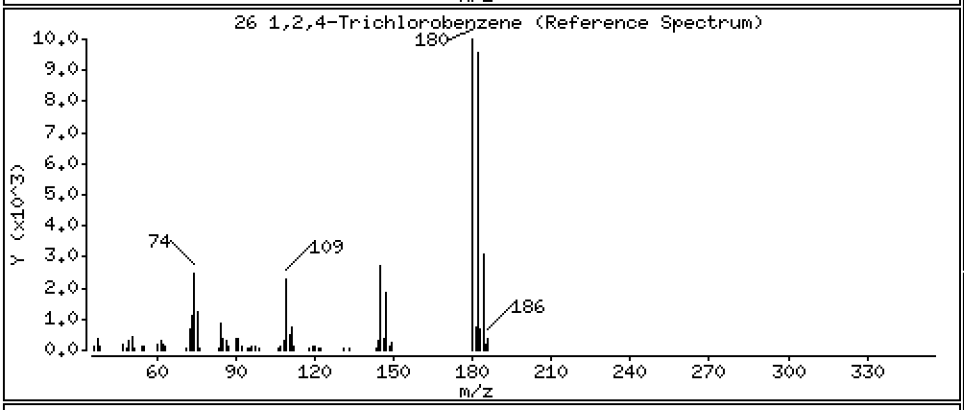
Column diameter: 0.25

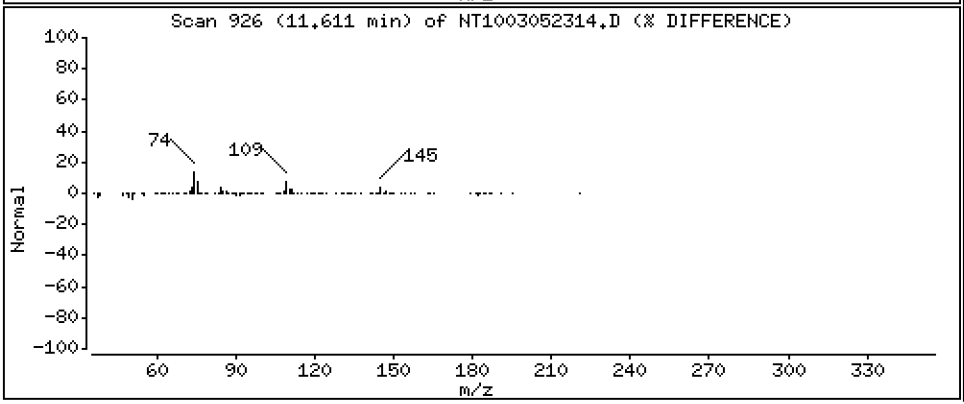
26 1,2,4-Trichlorobenzene

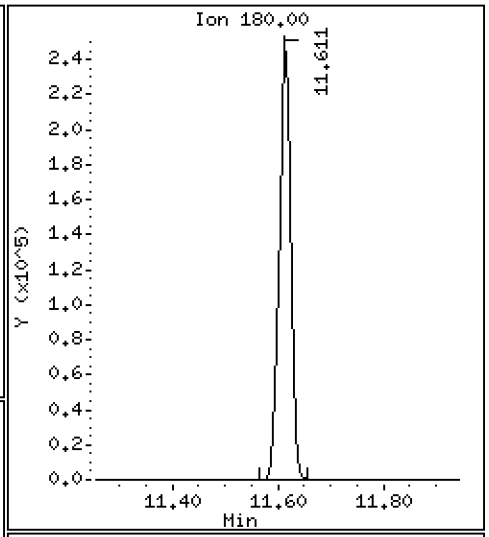
Concentration: 5.192 ug/mL

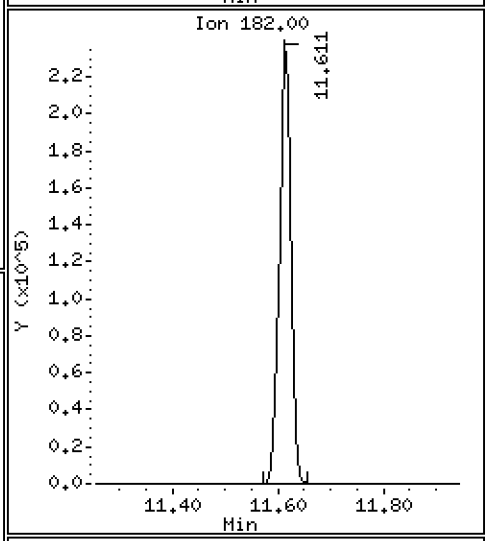


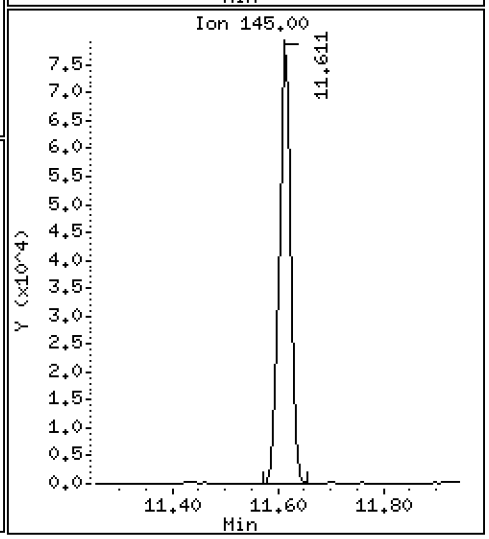












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

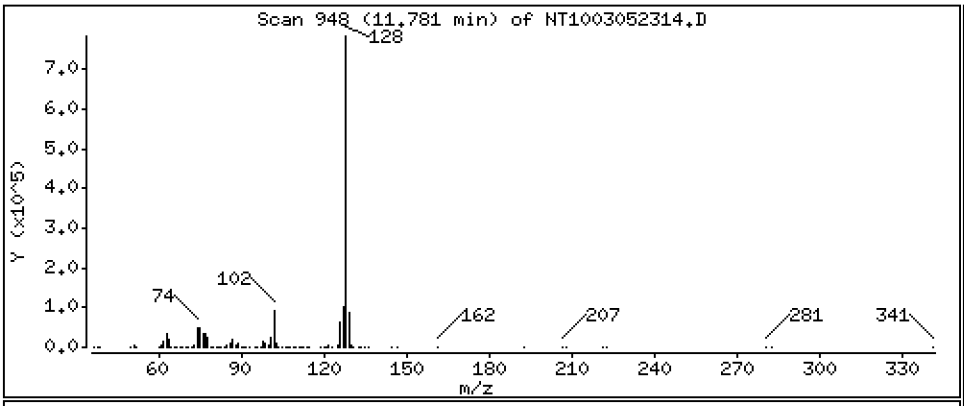
Operator: VTS

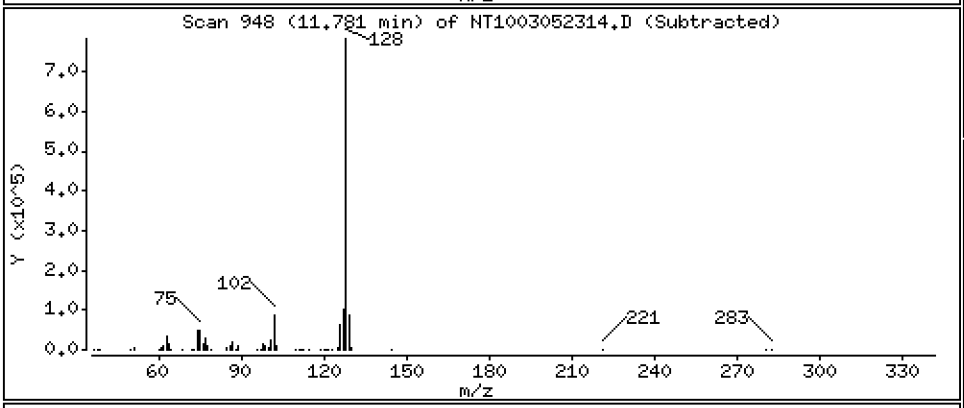
Column phase: ZB-5msi

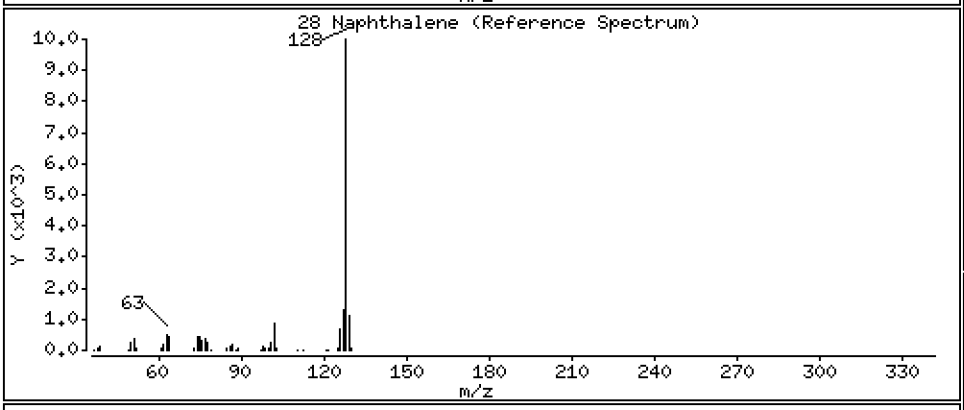
Column diameter: 0.25

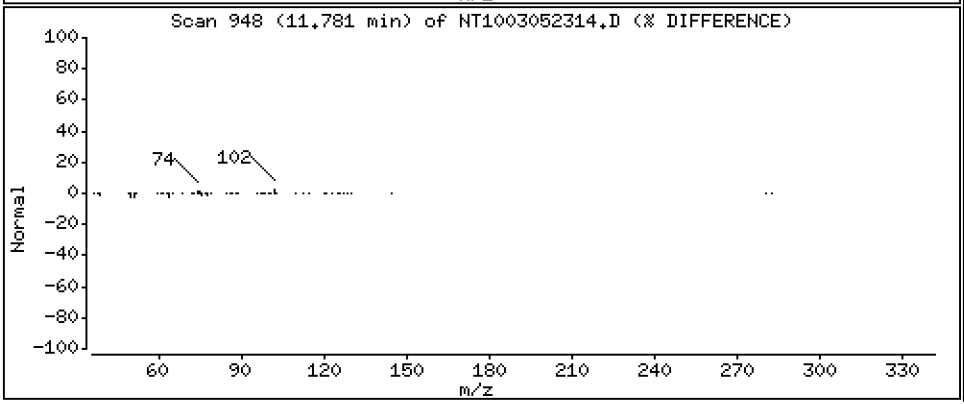
28 Naphthalene

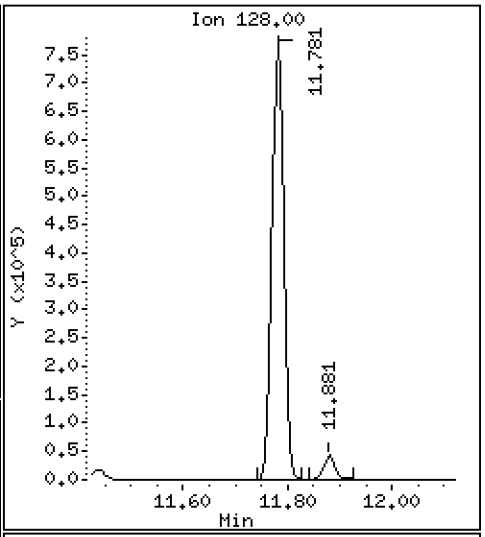
Concentration: 4.687 ug/mL

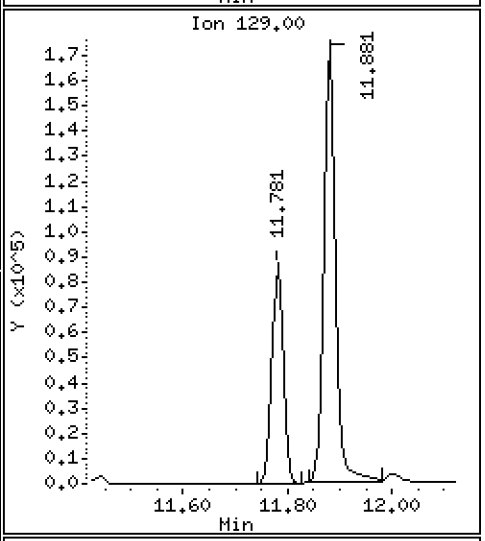


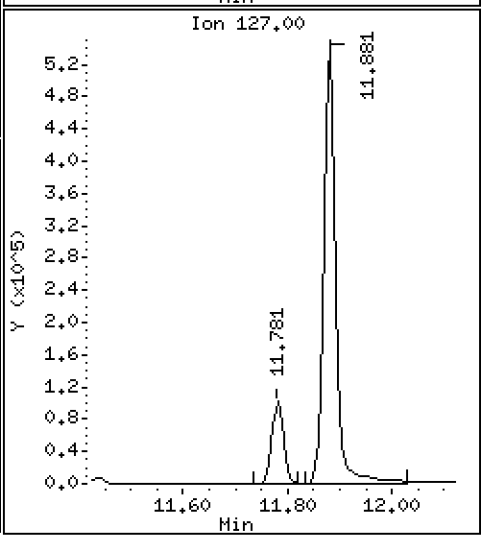












Date : 05-MAR-2023 21:38

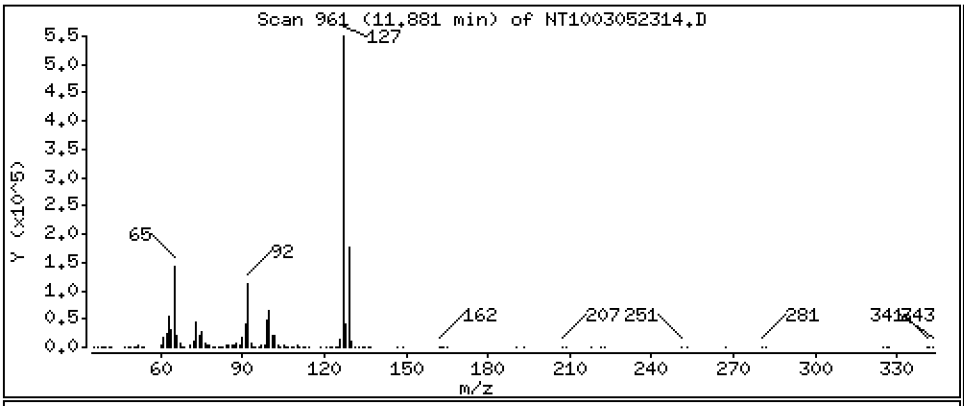
Client ID: Instrument: nt10.i

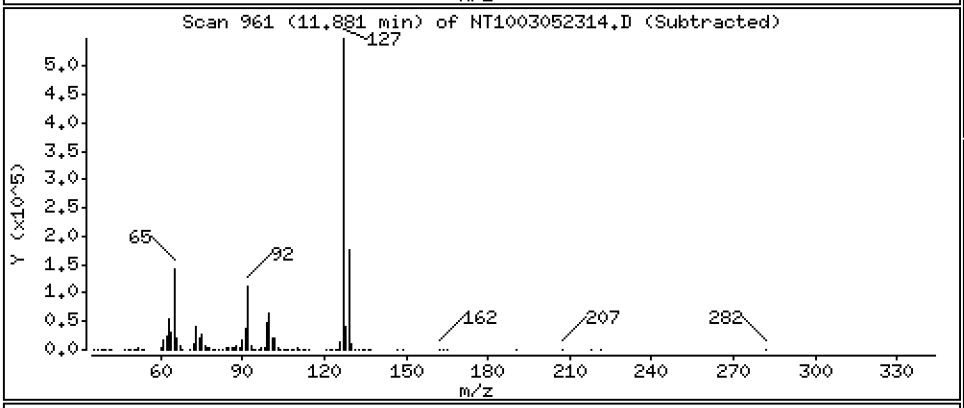
Sample Info: SLC0401-CCV1

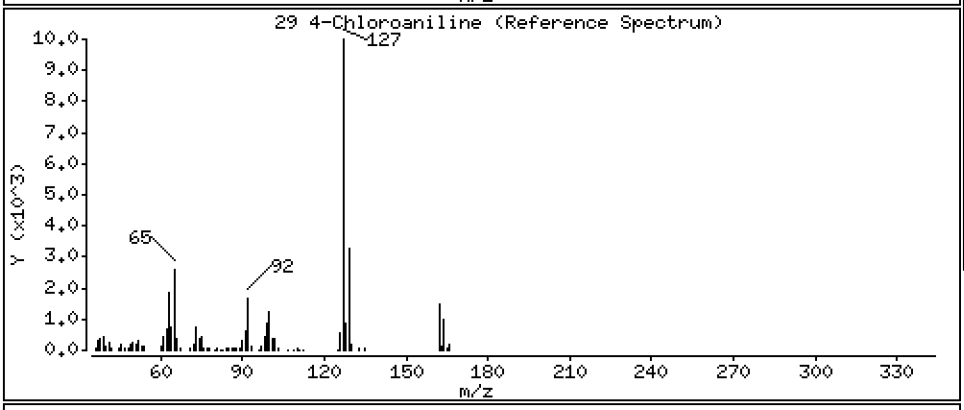
Operator: VTS

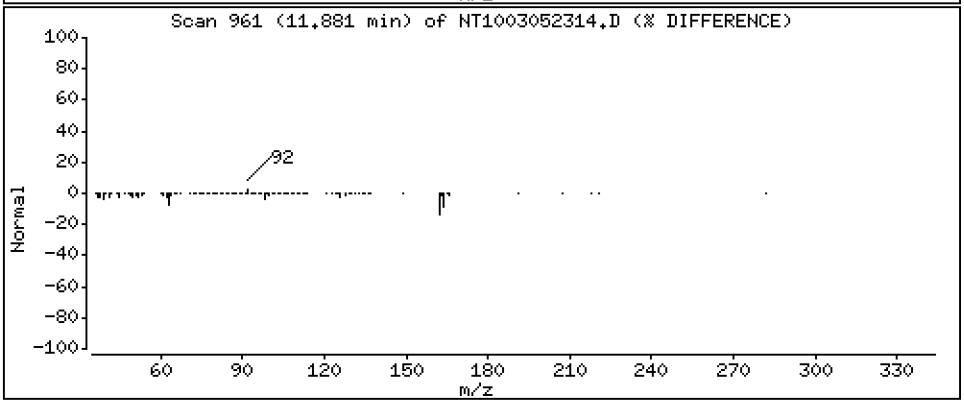
Column phase: ZB-5msi Column diameter: 0.25

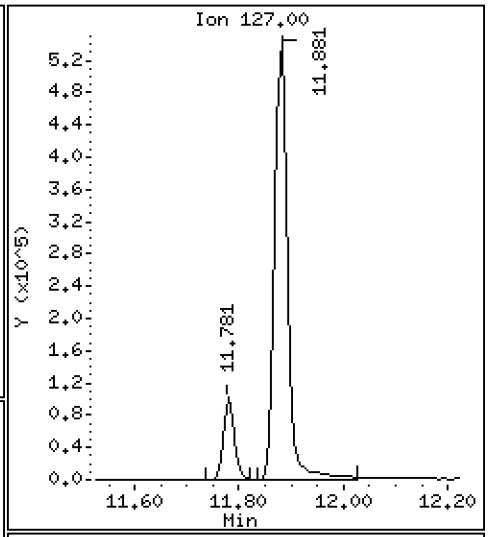
29 4-Chloroaniline Concentration: 8.733 ug/mL

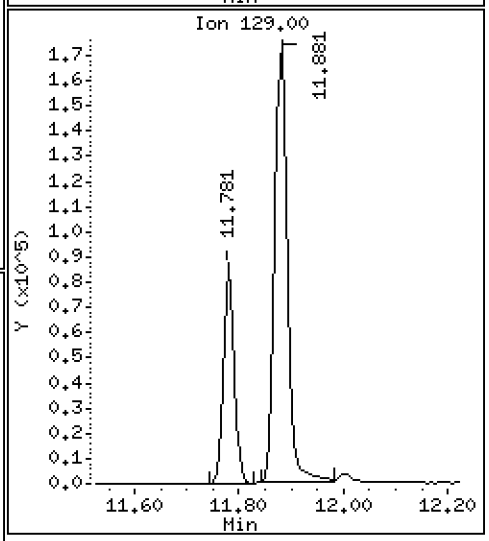












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D

Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

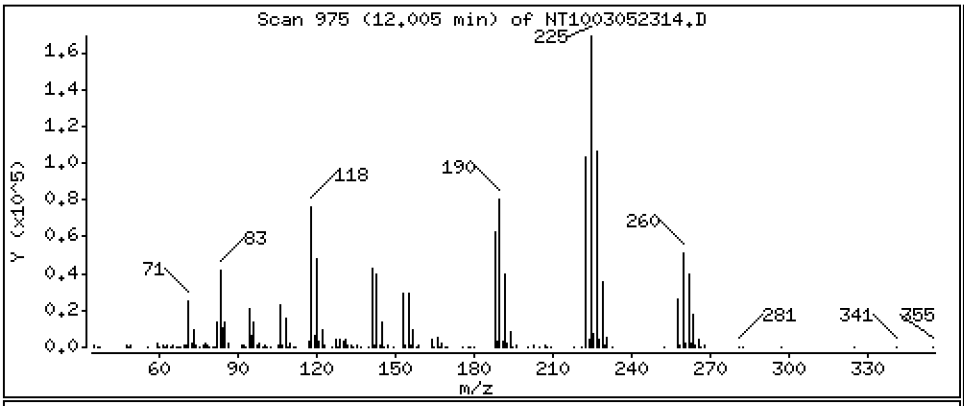
Operator: VTS

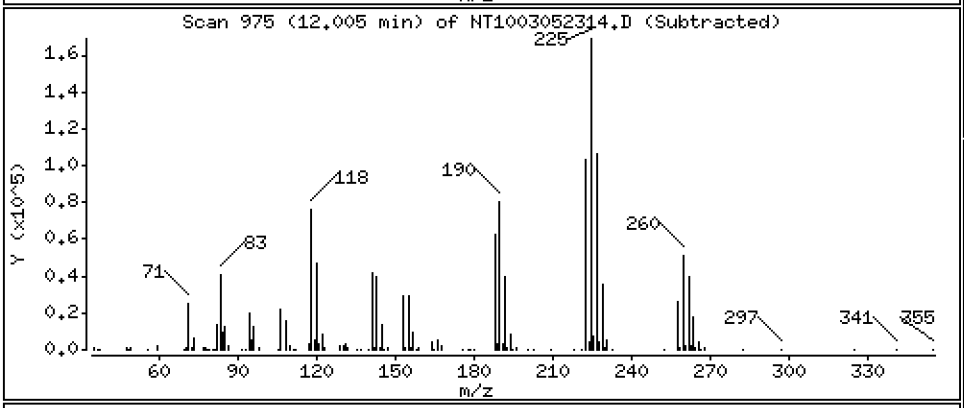
Column phase: ZB-5msi

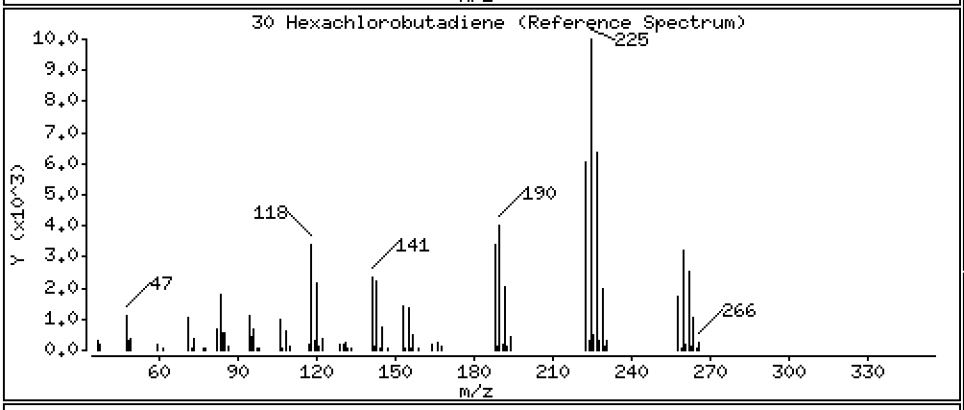
Column diameter: 0.25

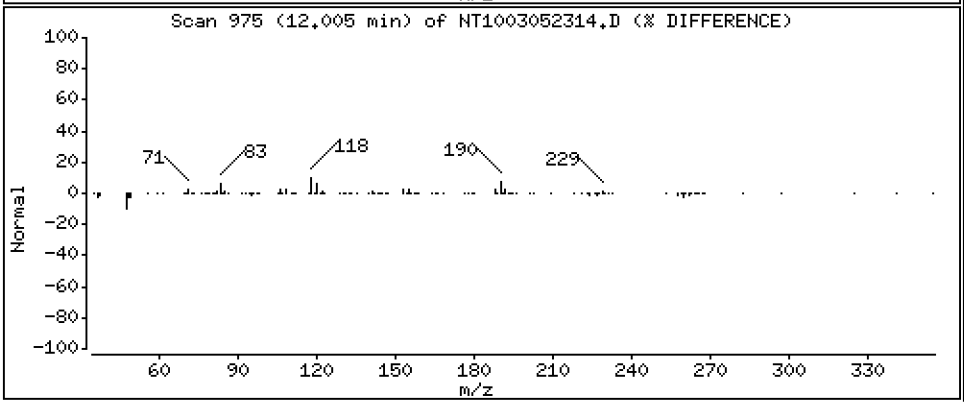
30 Hexachlorobutadiene

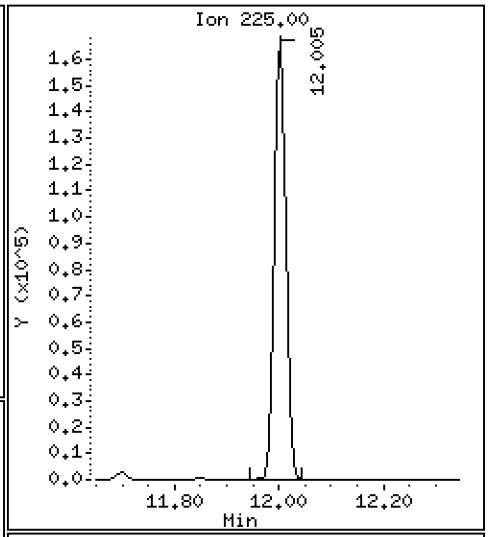
Concentration: 5.391 ug/mL

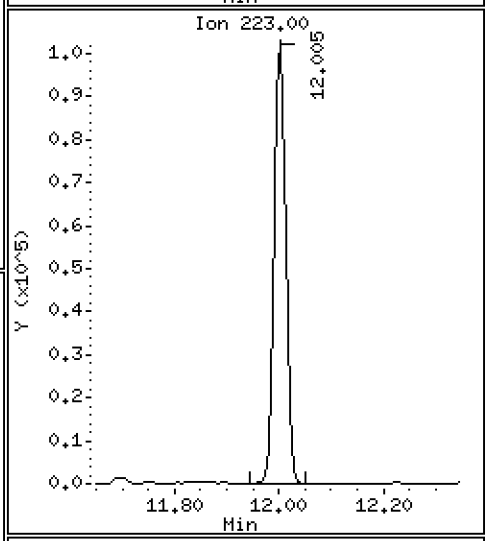


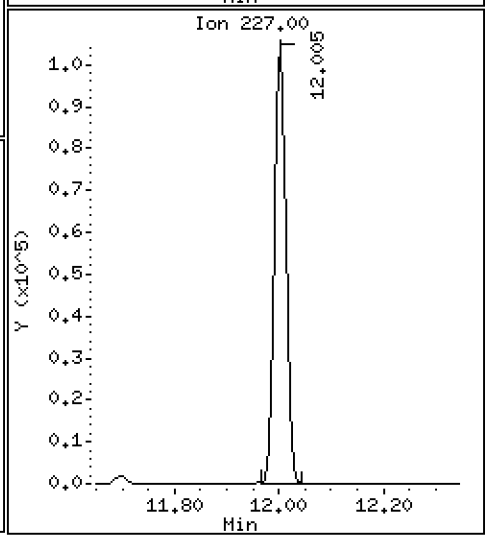












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D

Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

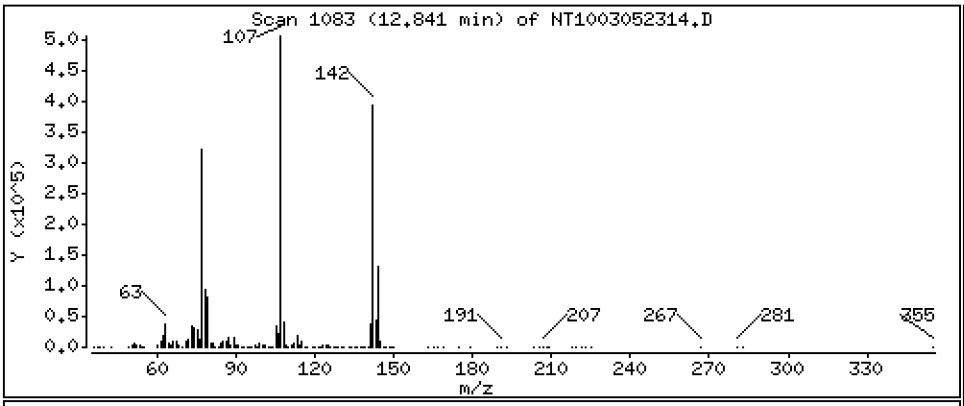
Operator: VTS

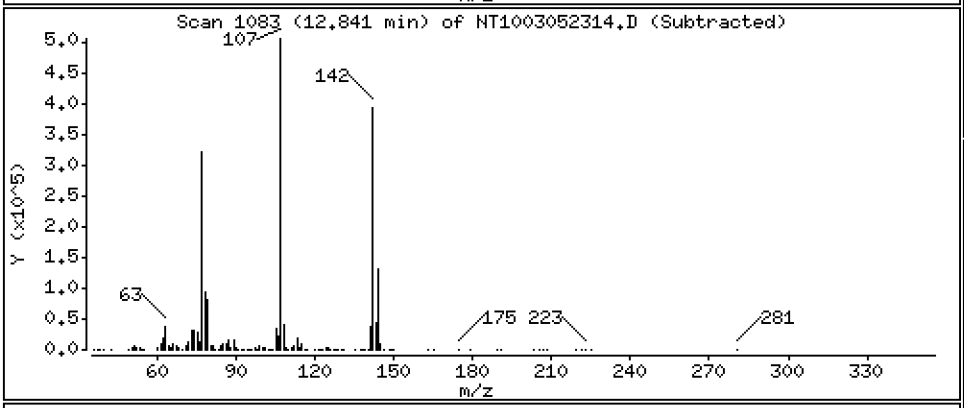
Column phase: ZB-5msi

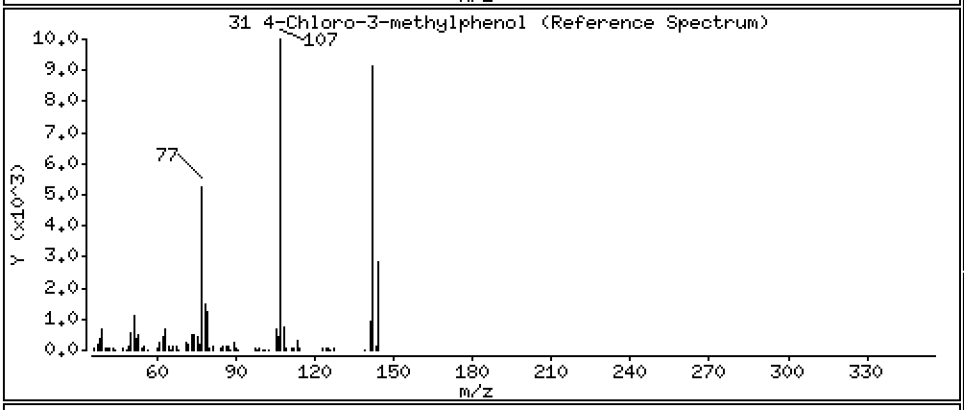
Column diameter: 0.25

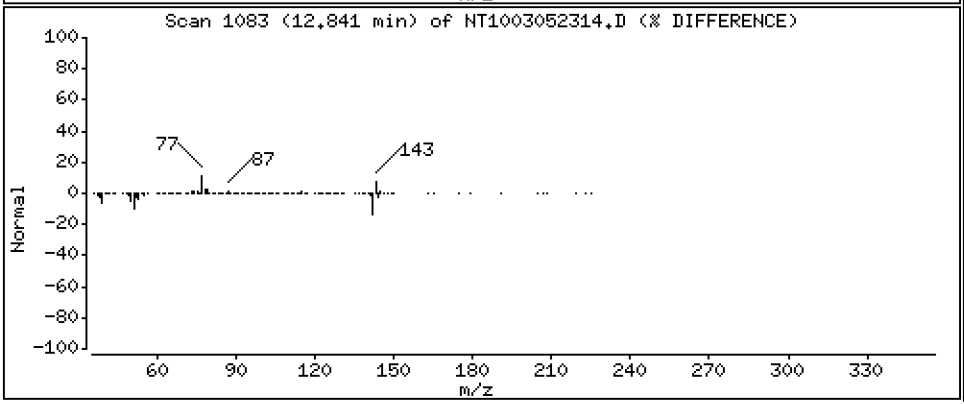
31 4-Chloro-3-methylphenol

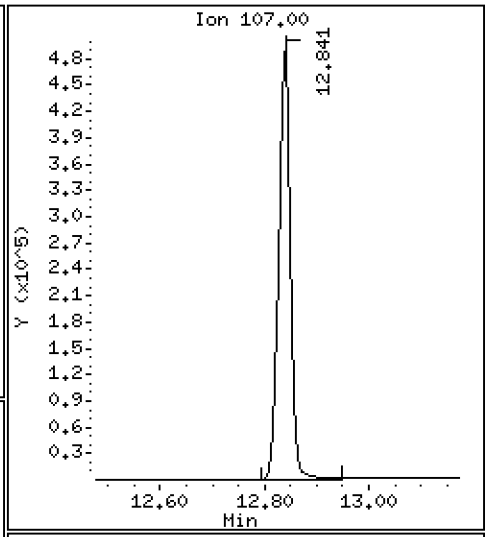
Concentration: 9.582 ug/mL

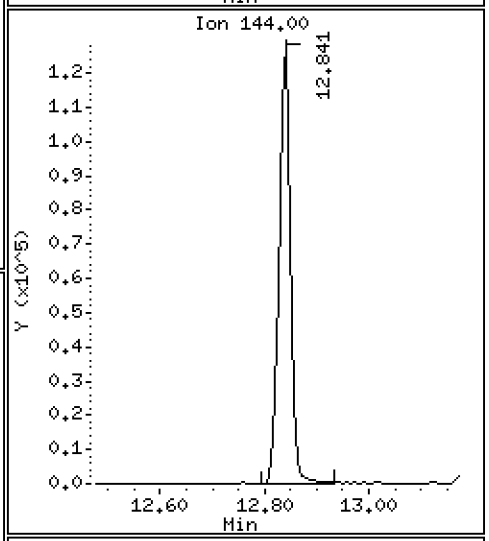


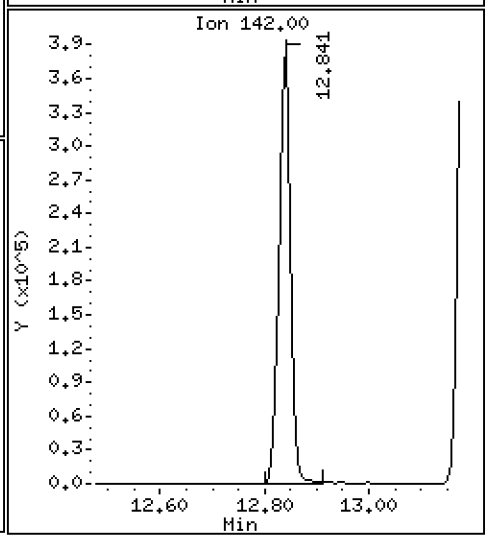












Date : 05-MAR-2023 21:38

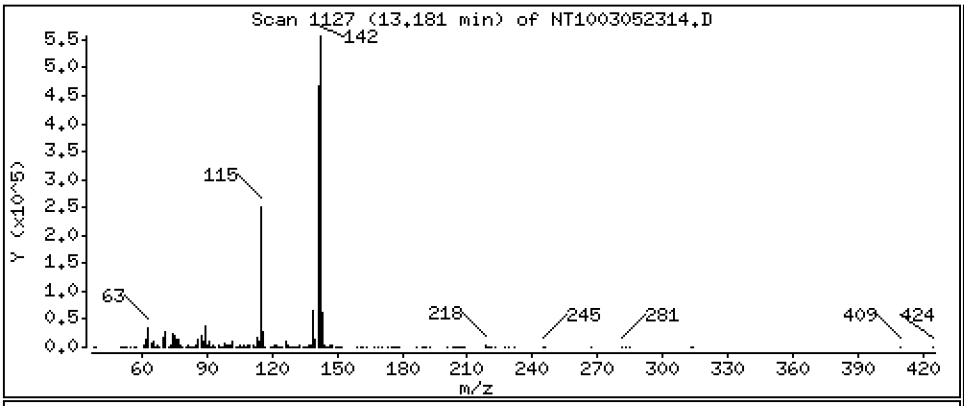
Client ID: Instrument: nt10.i

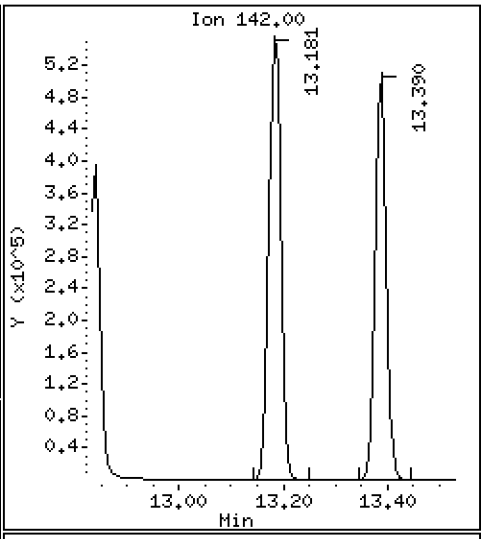
Sample Info: SLC0401-CCV1

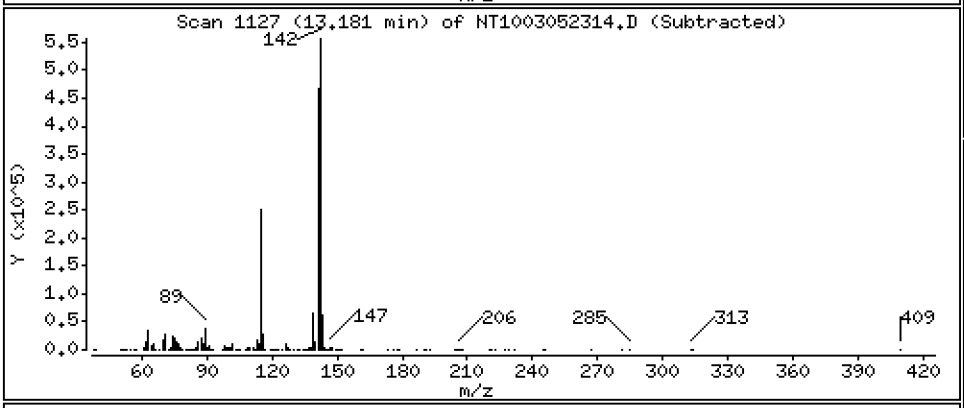
Operator: VTS

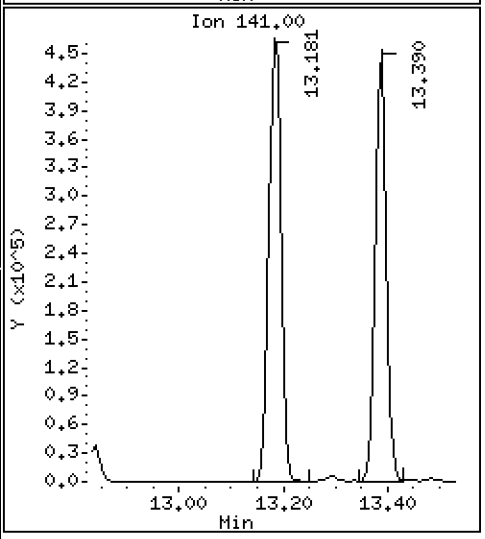
Column phase: ZB-5msi Column diameter: 0.25

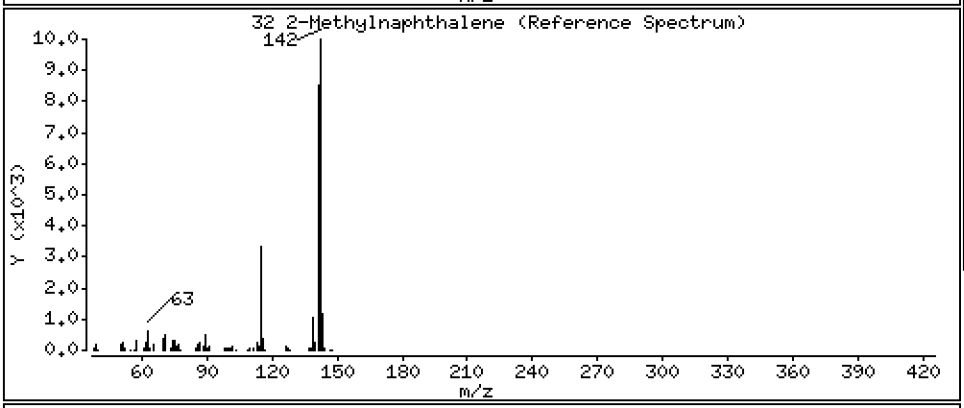
32 2-Methylnaphthalene Concentration: 4.957 ug/mL

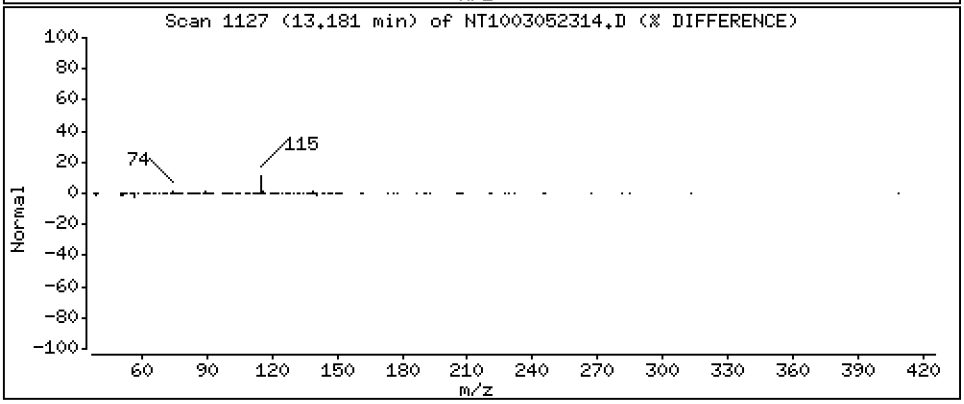












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

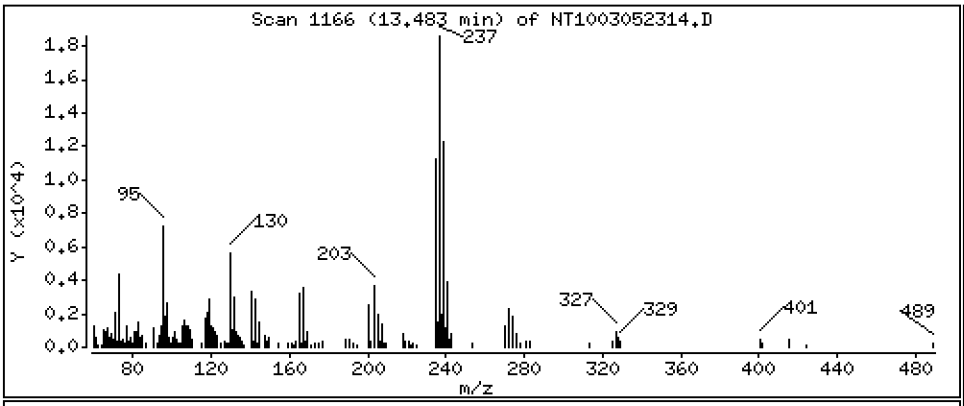
Operator: VTS

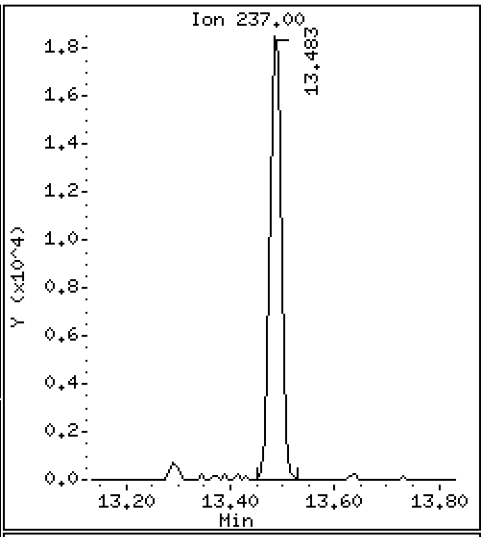
Column phase: ZB-5msi

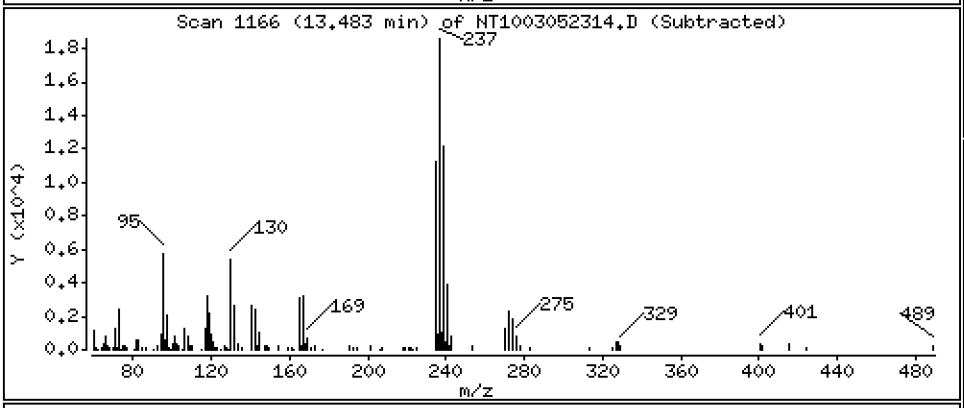
Column diameter: 0.25

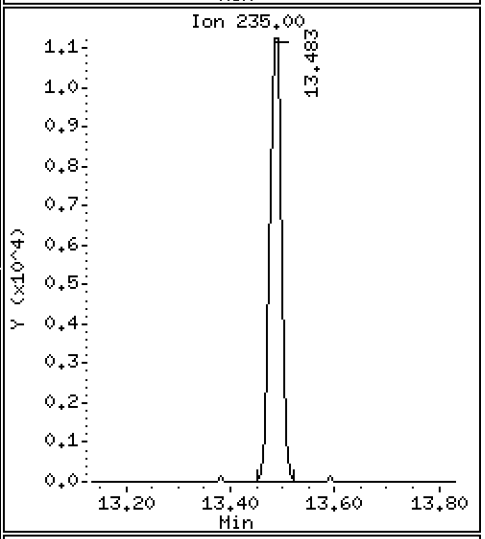
33 Hexachlorocyclopentadiene

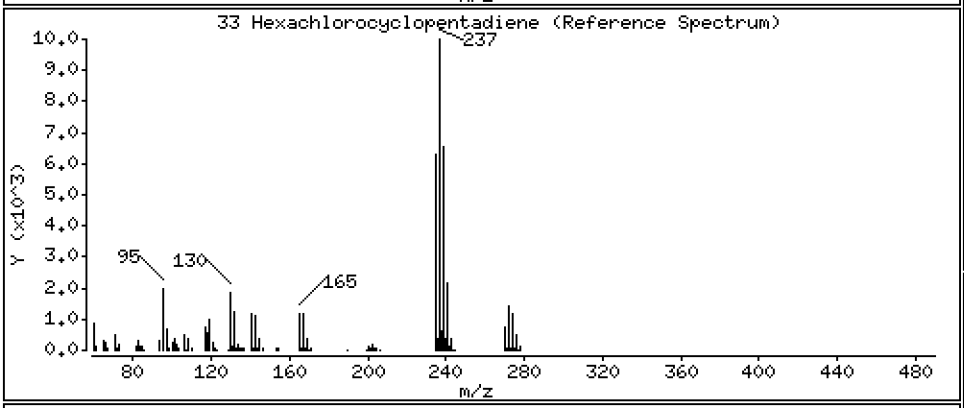
Concentration: 1.598 ug/mL

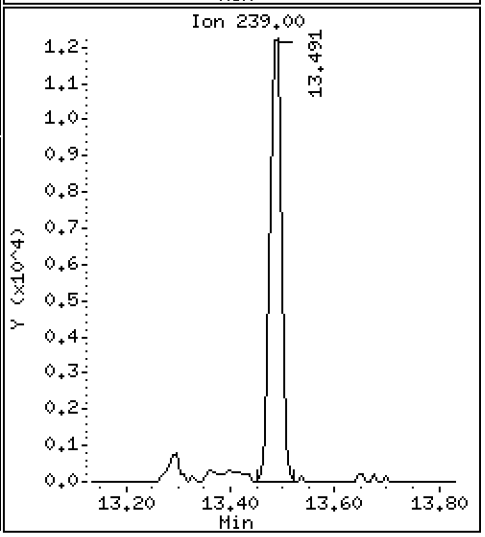


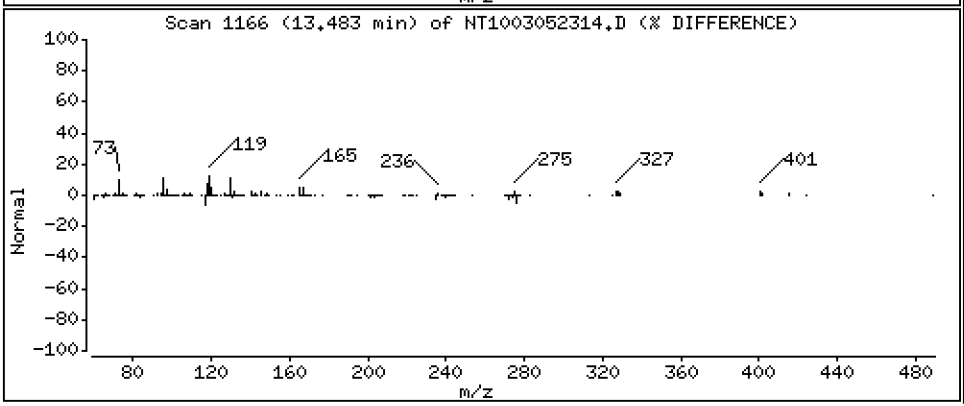












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

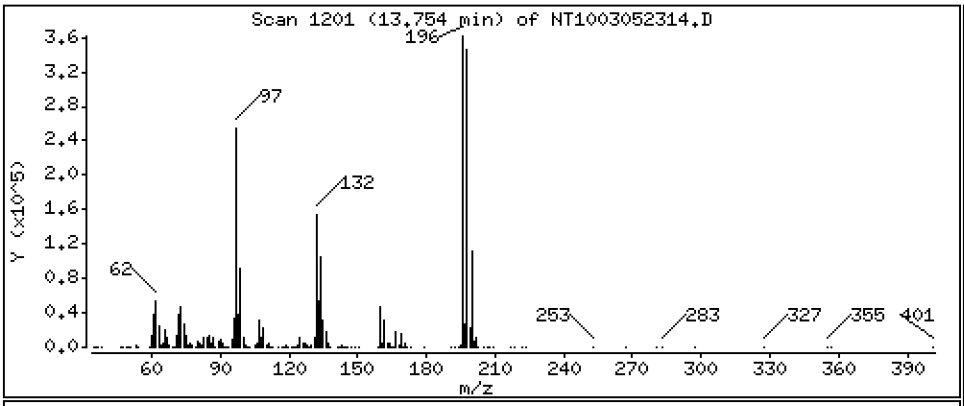
Operator: VTS

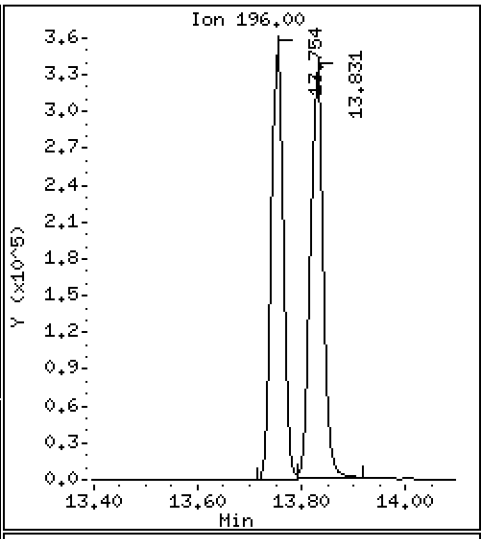
Column phase: ZB-5msi

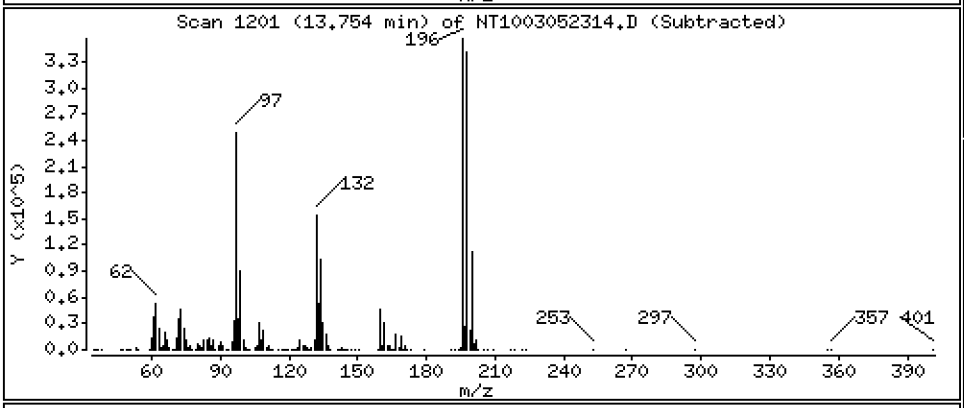
Column diameter: 0.25

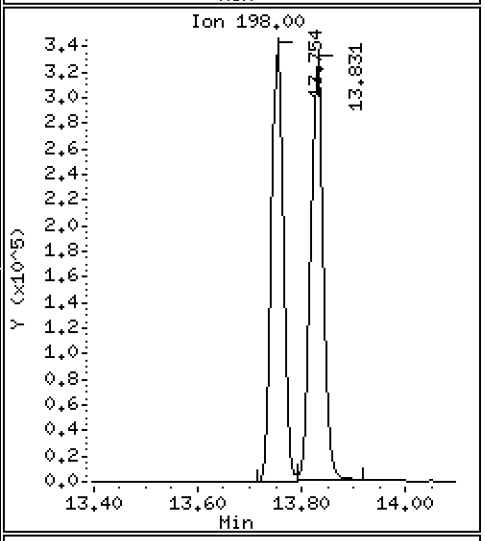
34 2,4,6-Trichlorophenol

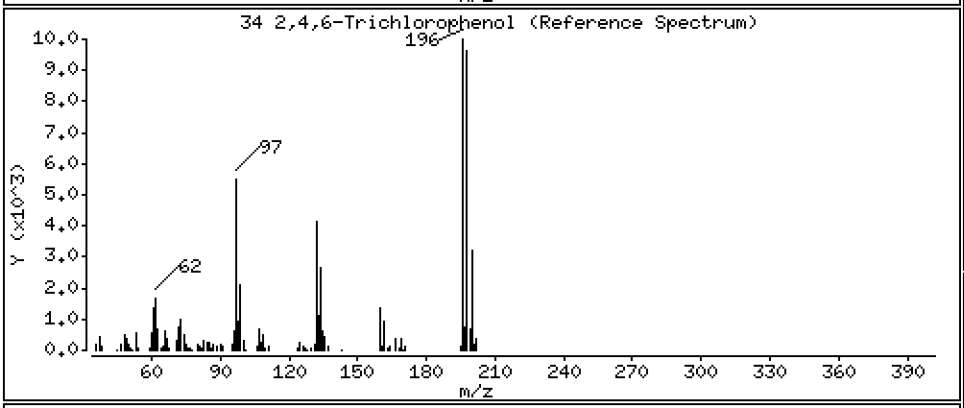
Concentration: 10.50 ug/mL

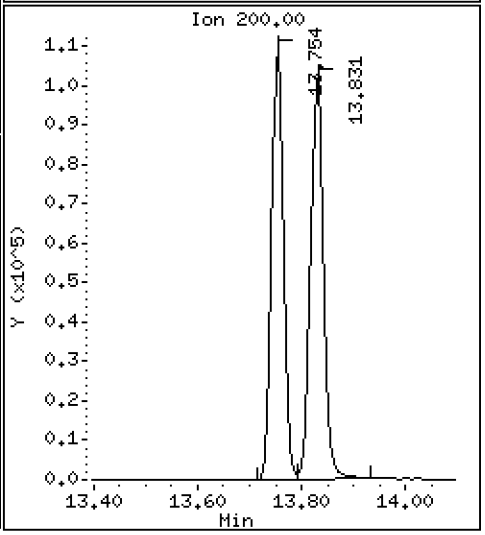


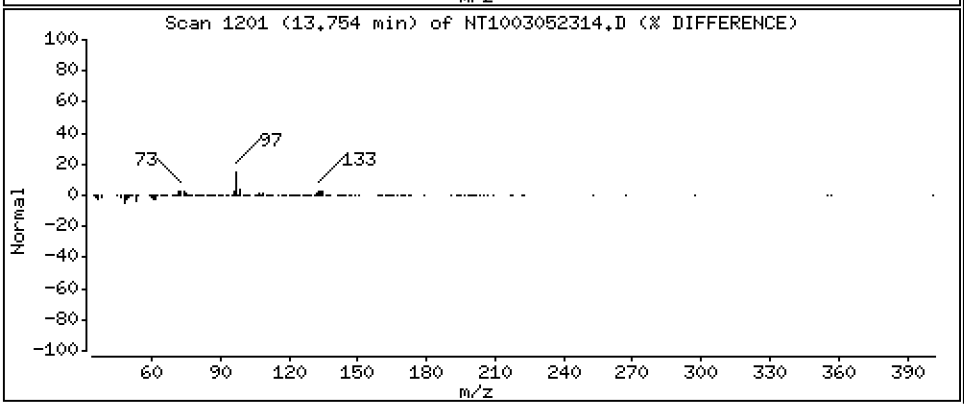












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D

Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

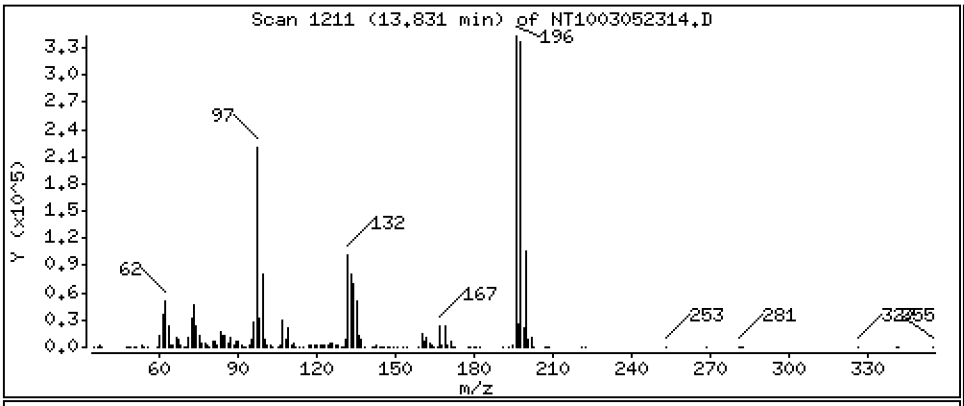
Operator: VTS

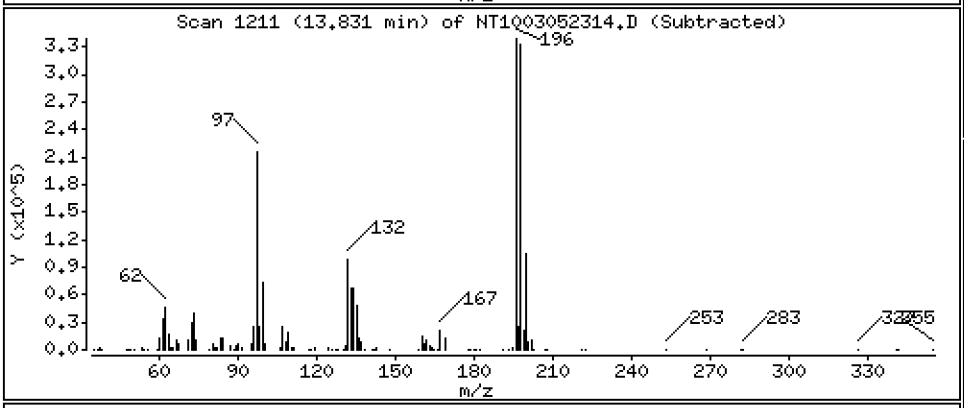
Column phase: ZB-5msi

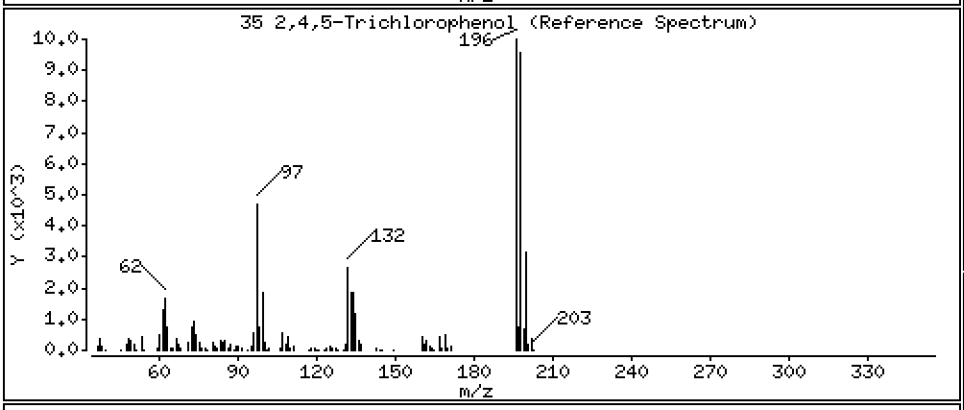
Column diameter: 0.25

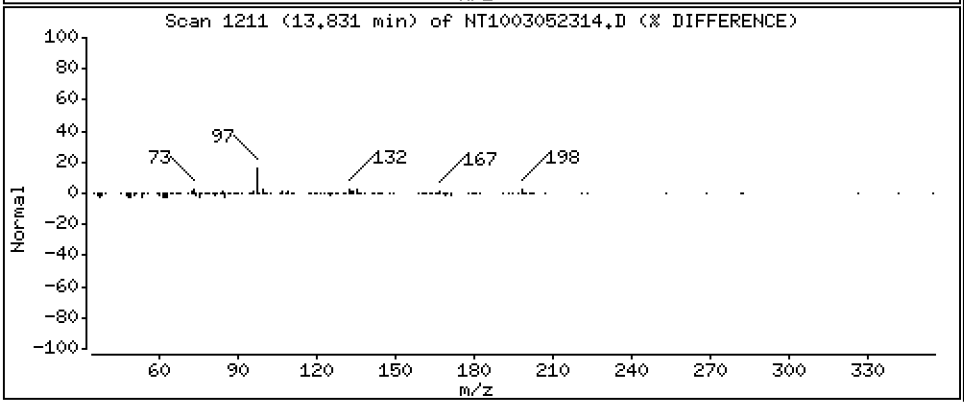
35 2,4,5-Trichlorophenol

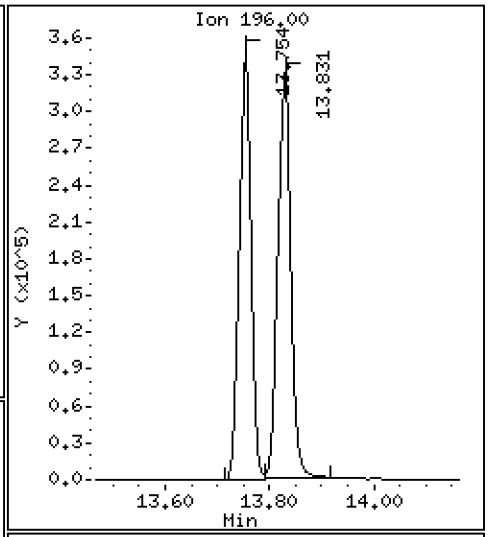
Concentration: 10.27 ug/mL

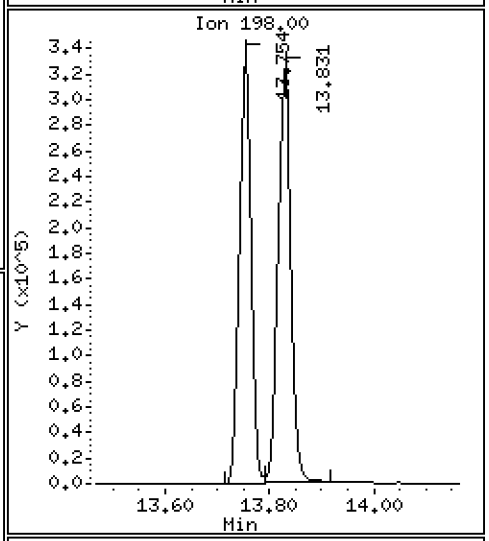


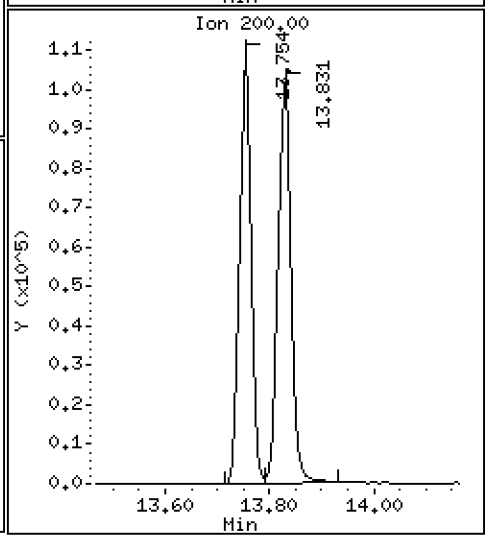












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D

Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

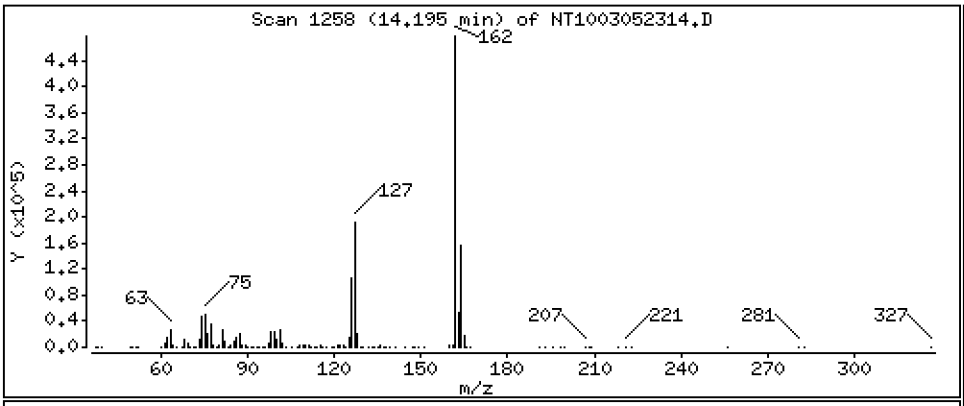
Operator: VTS

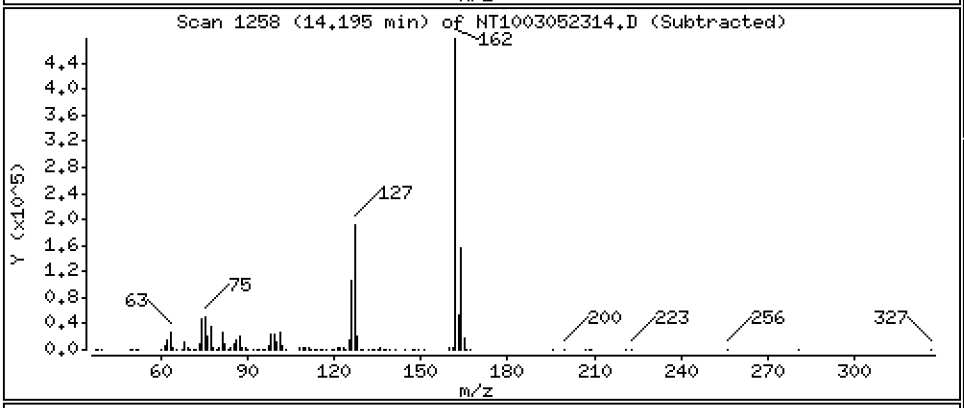
Column phase: ZB-5msi

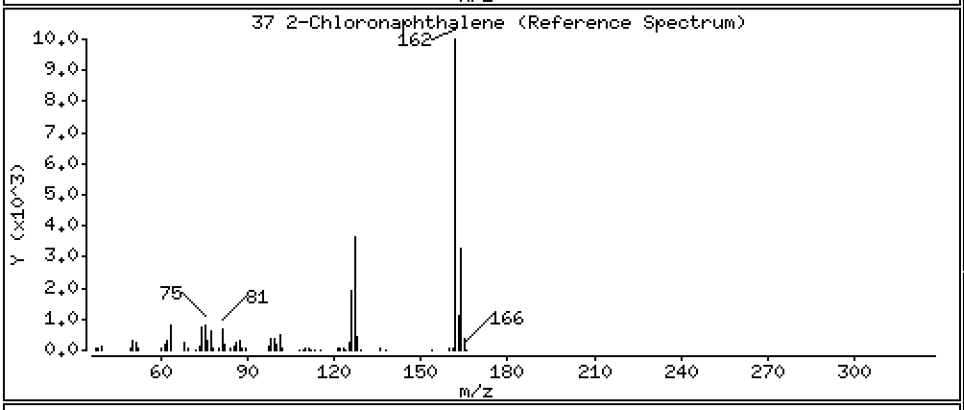
Column diameter: 0.25

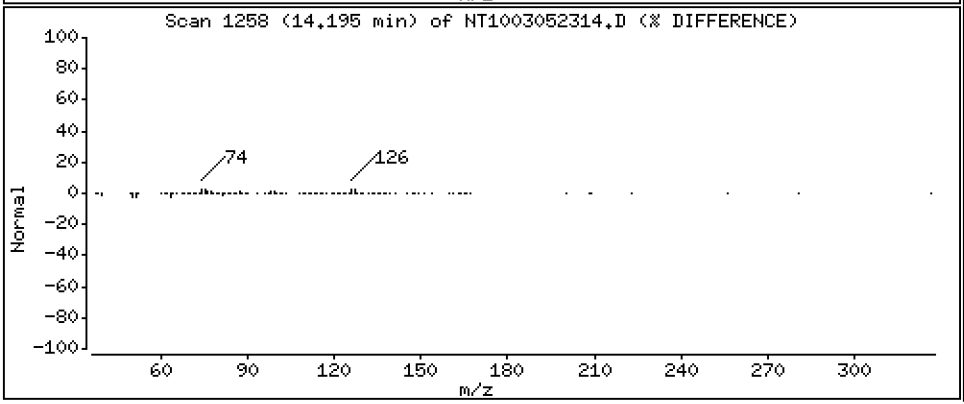
37 2-Chloronaphthalene

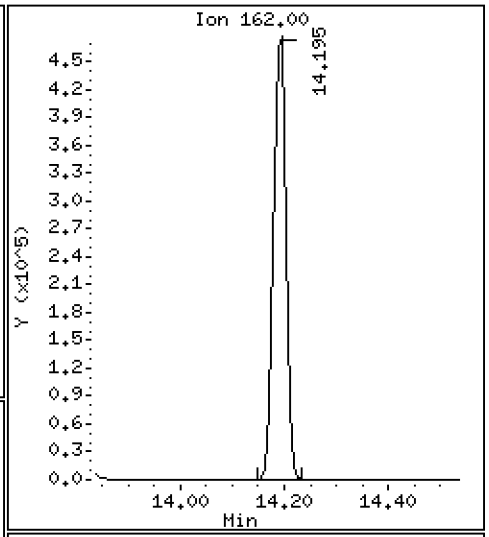
Concentration: 5.365 ug/mL

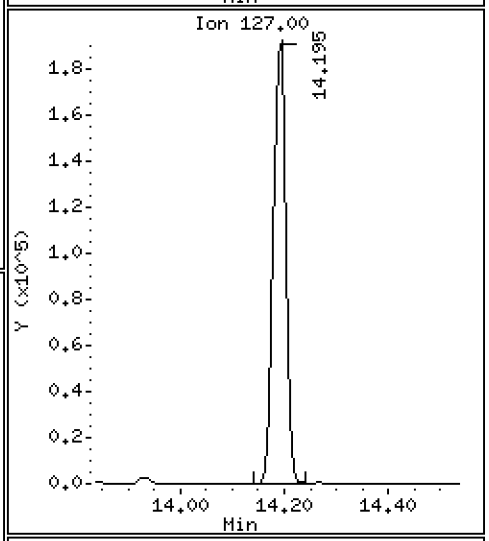


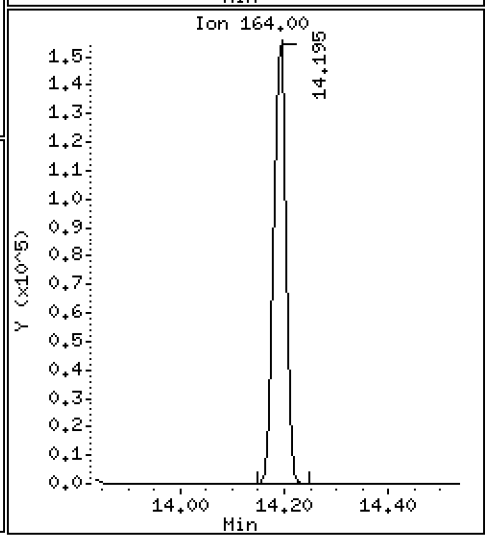












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

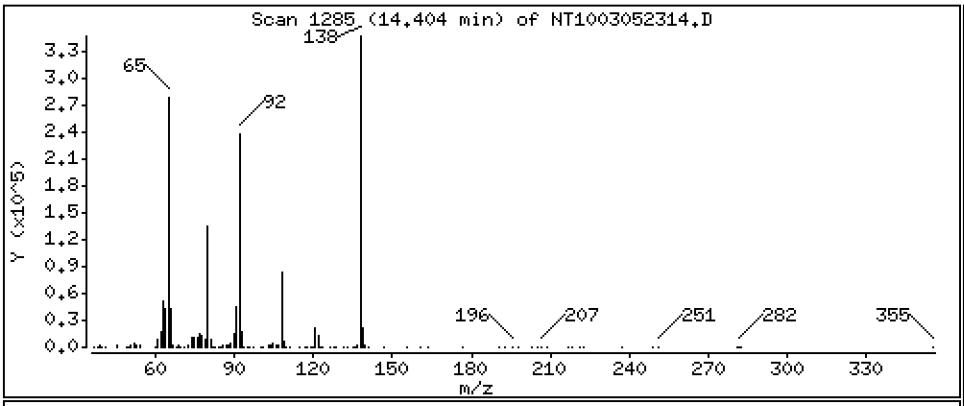
Operator: VTS

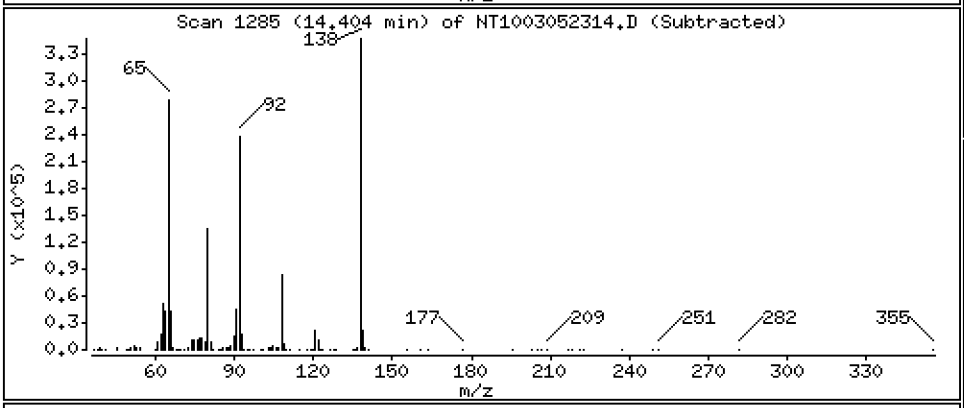
Column phase: ZB-5msi

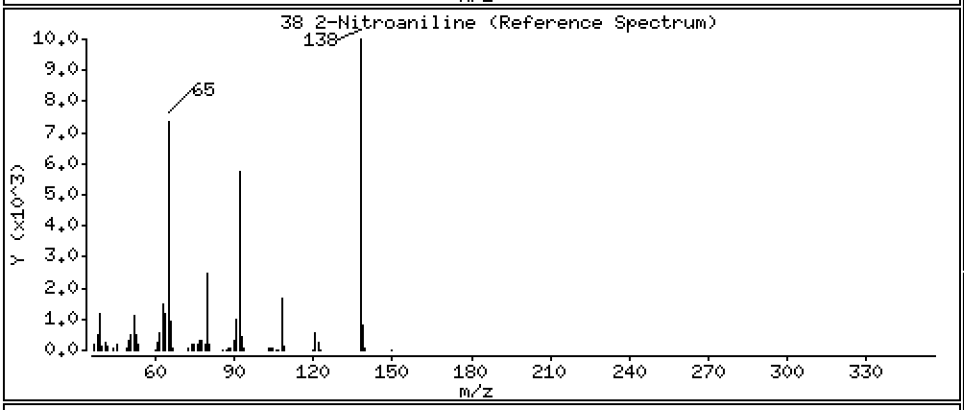
Column diameter: 0.25

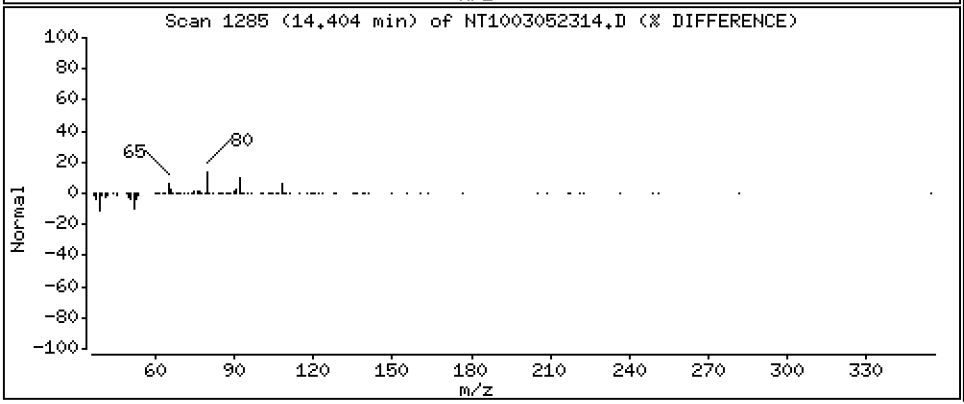
38 2-Nitroaniline

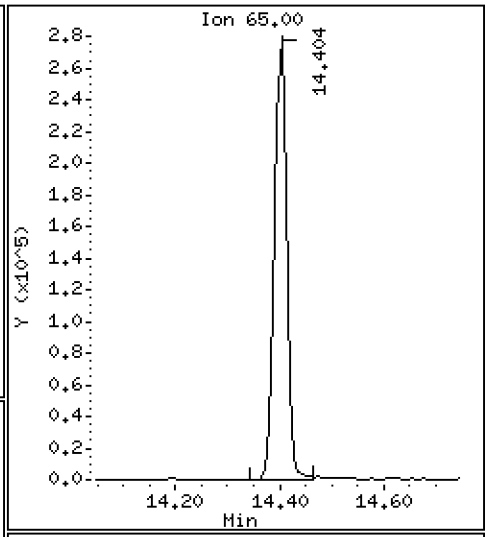
Concentration: 10.73 ug/mL

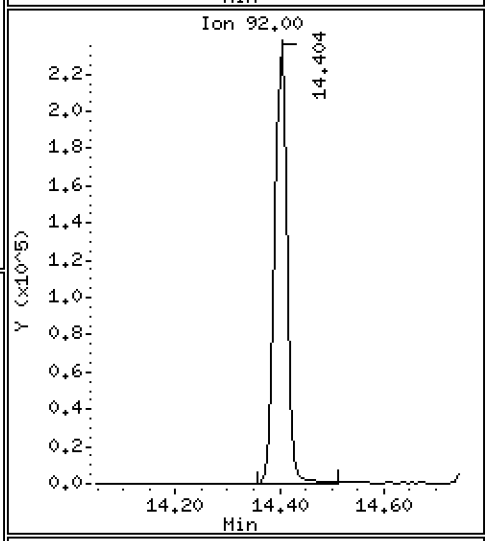


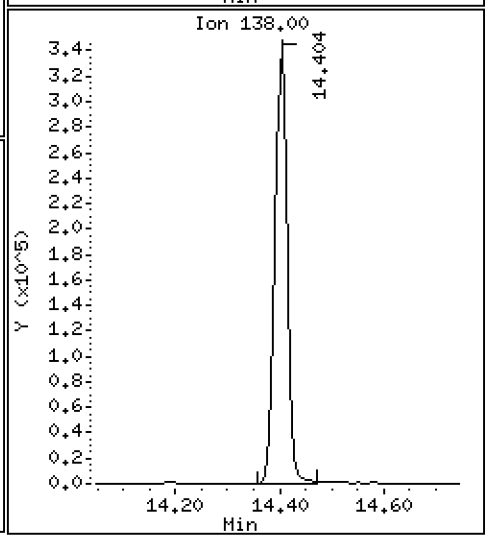












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

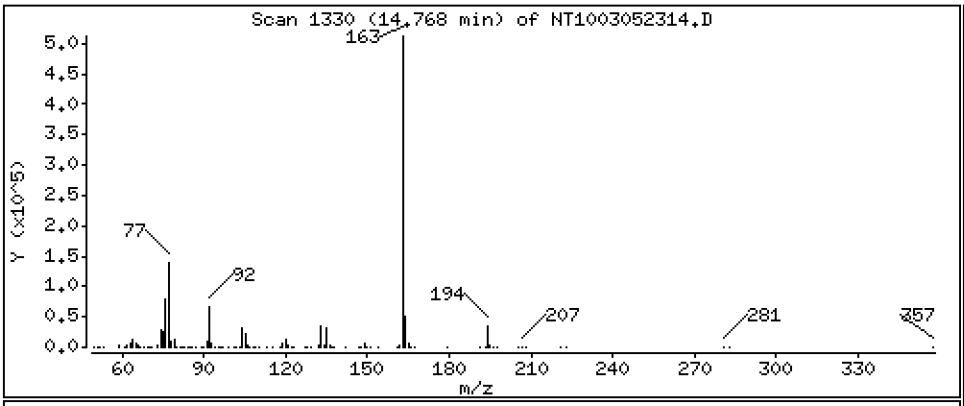
Operator: VTS

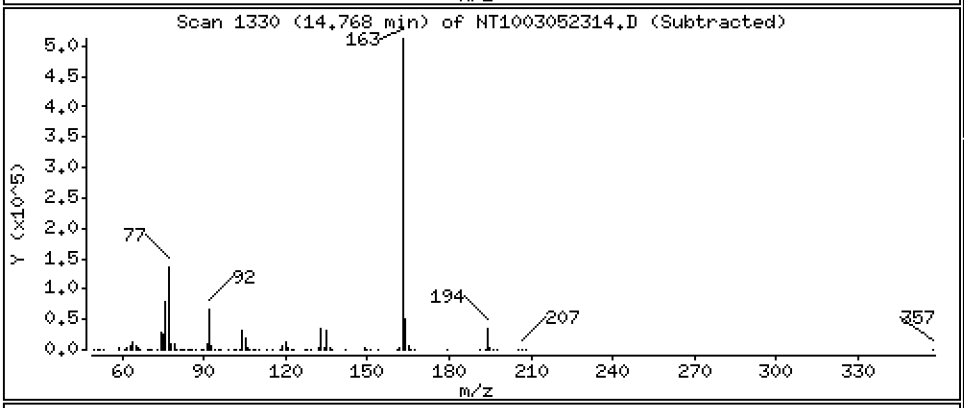
Column phase: ZB-5msi

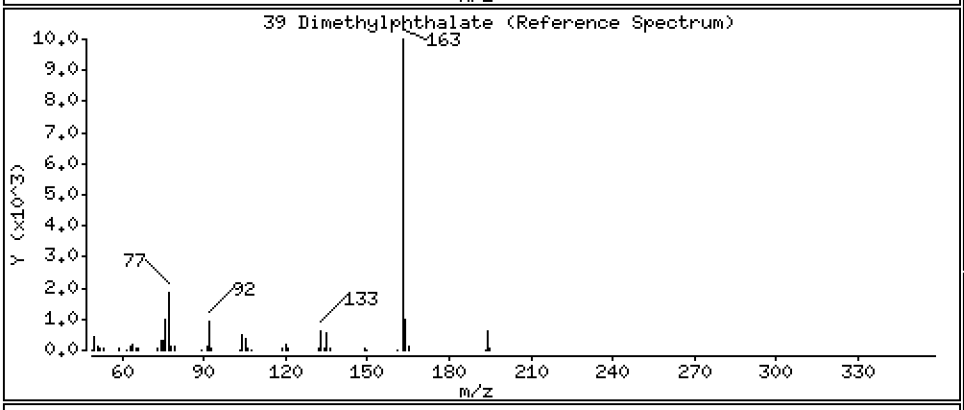
Column diameter: 0.25

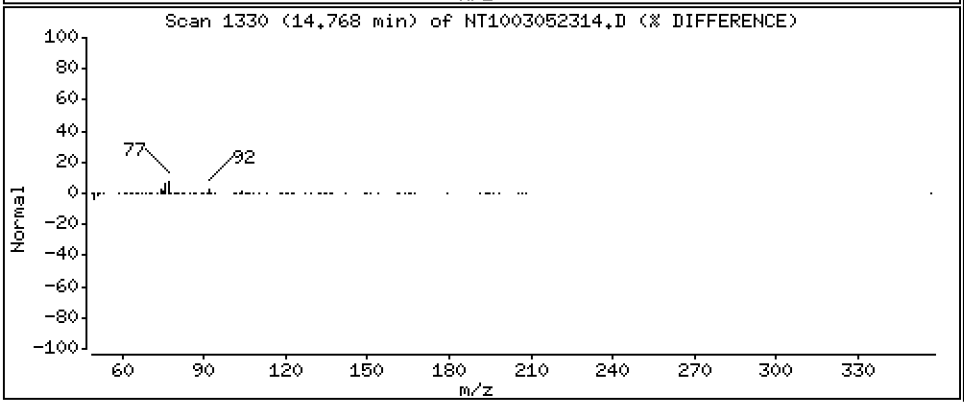
39 Dimethylphthalate

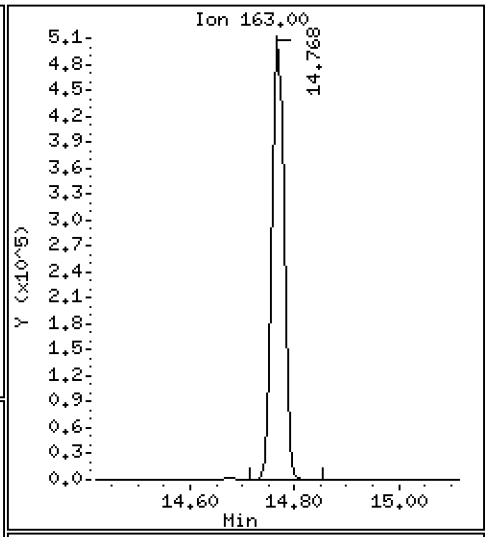
Concentration: 4.778 ug/mL

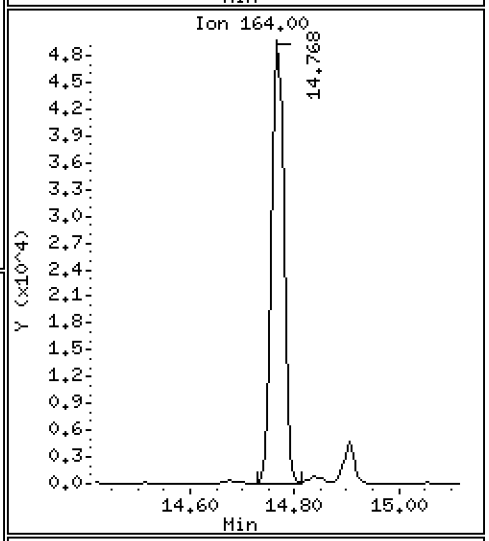


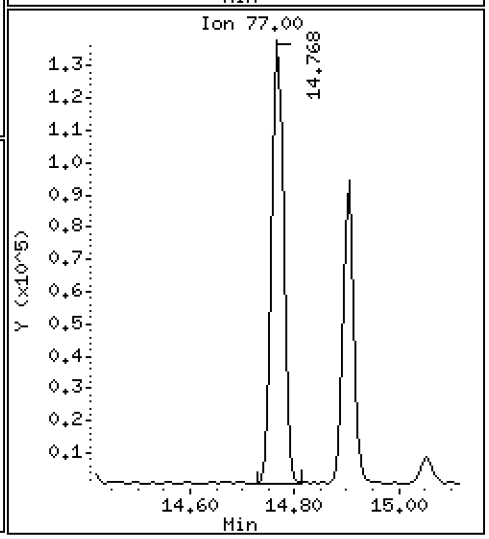












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

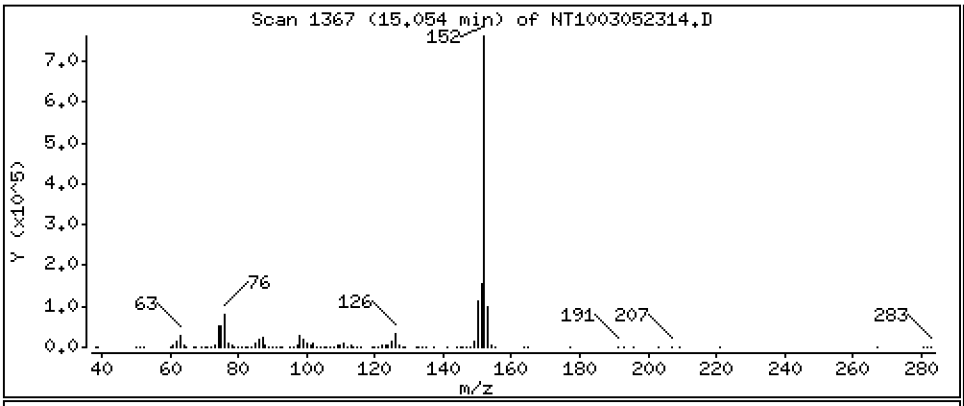
Operator: VTS

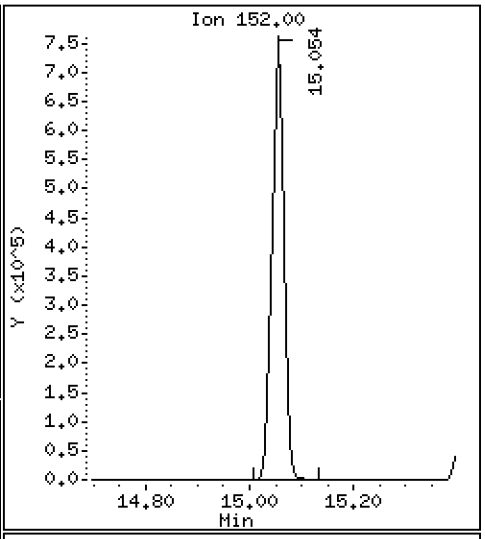
Column phase: ZB-5msi

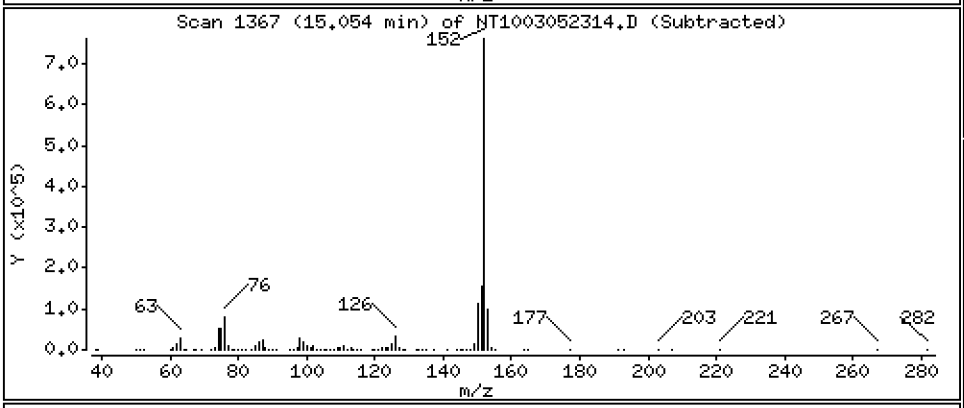
Column diameter: 0.25

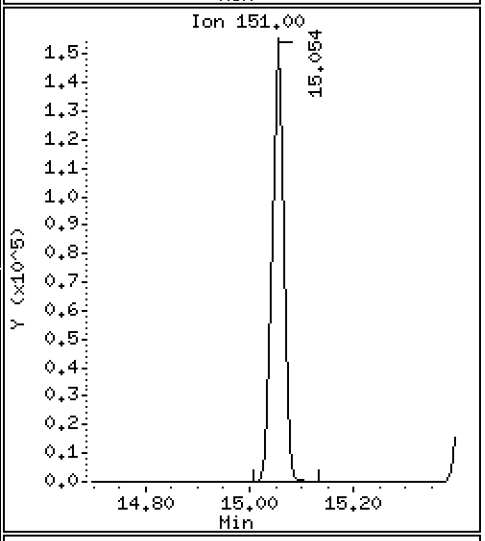
40 Acenaphthylene

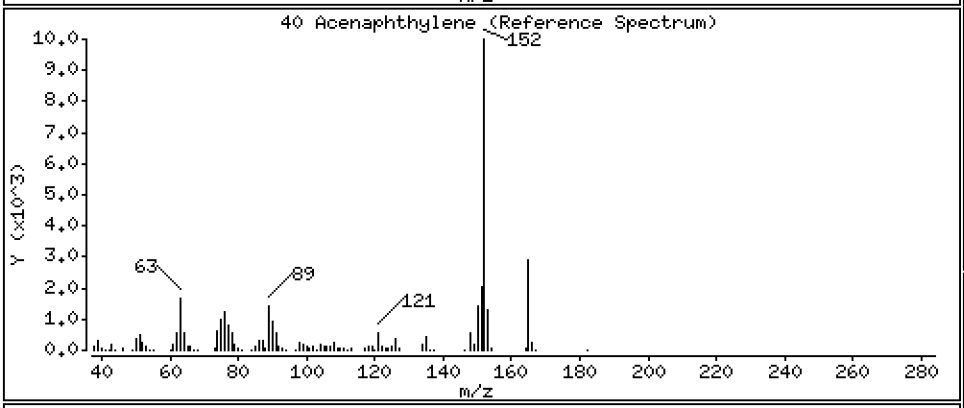
Concentration: 5.459 ug/mL

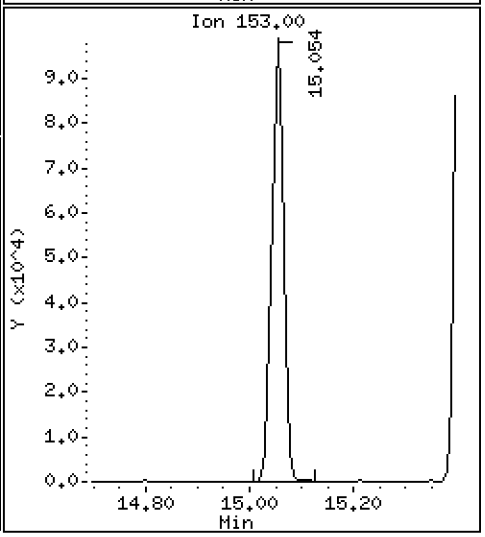


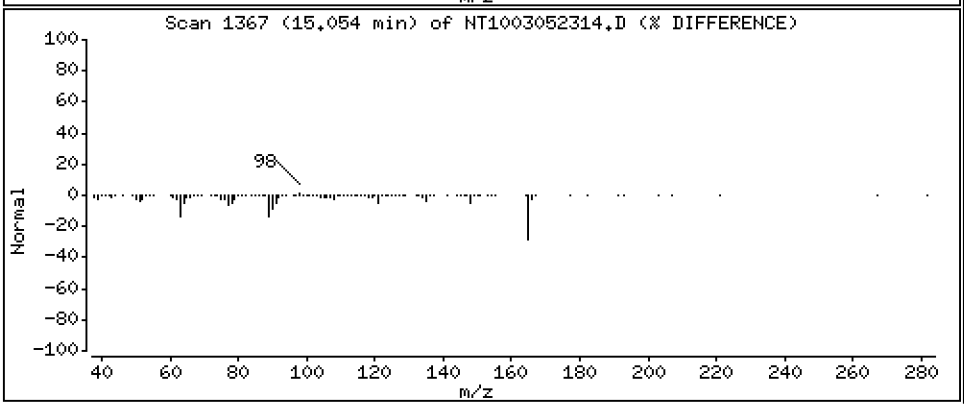












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

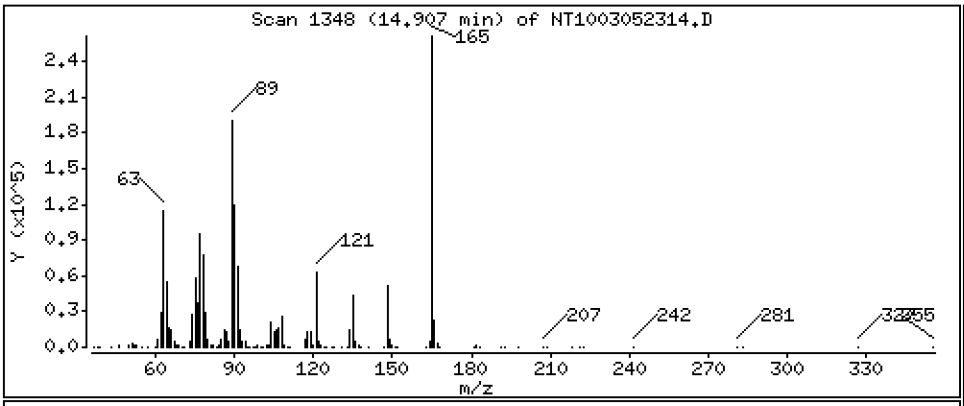
Operator: VTS

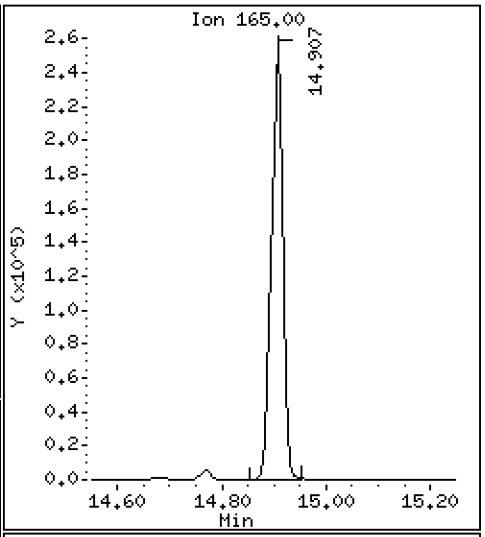
Column phase: ZB-5msi

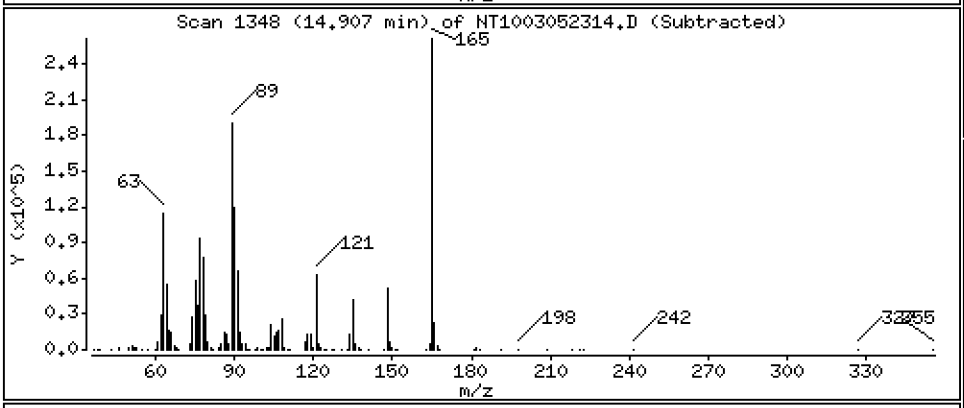
Column diameter: 0.25

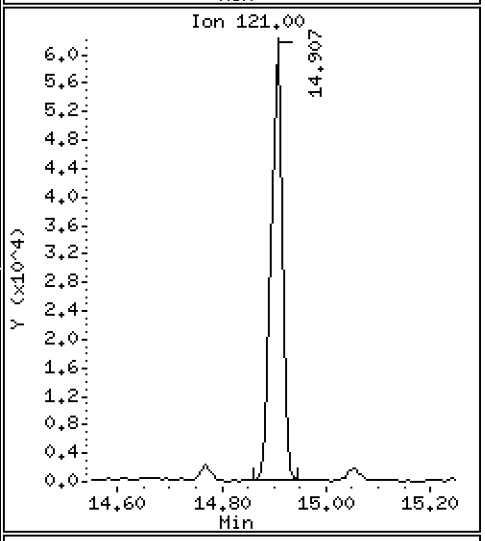
41 2,6-Dinitrotoluene

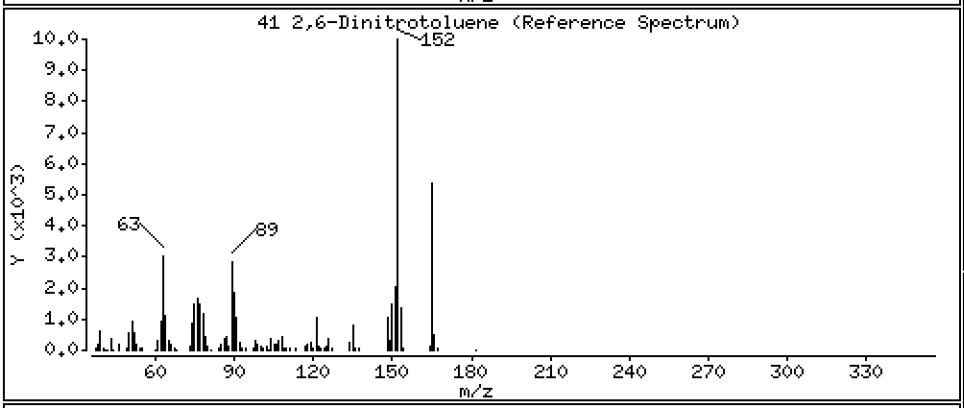
Concentration: 10.17 ug/mL

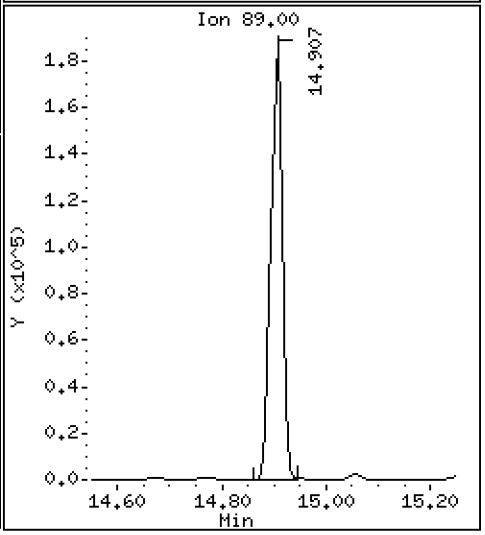


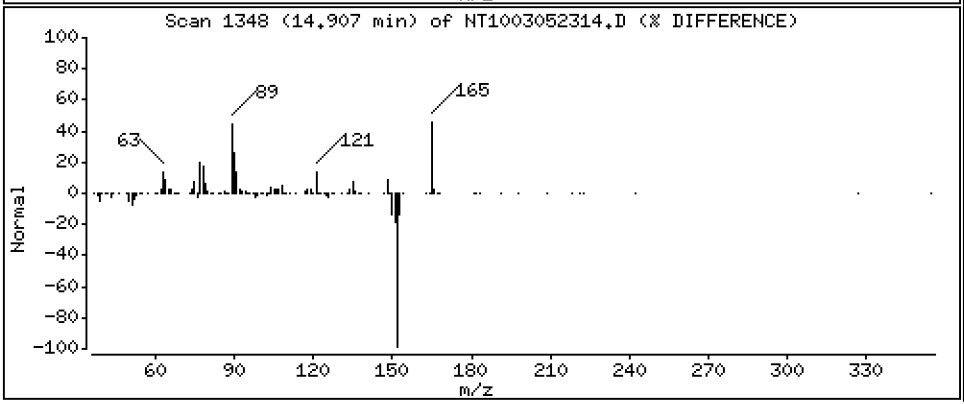












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

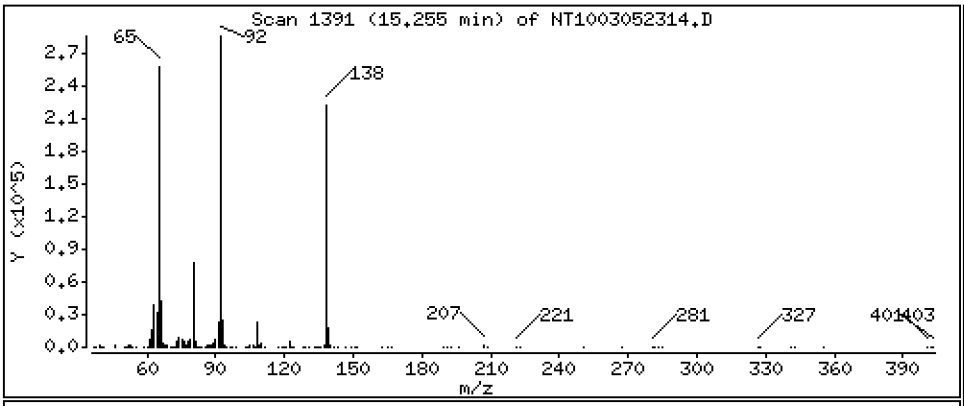
Operator: VTS

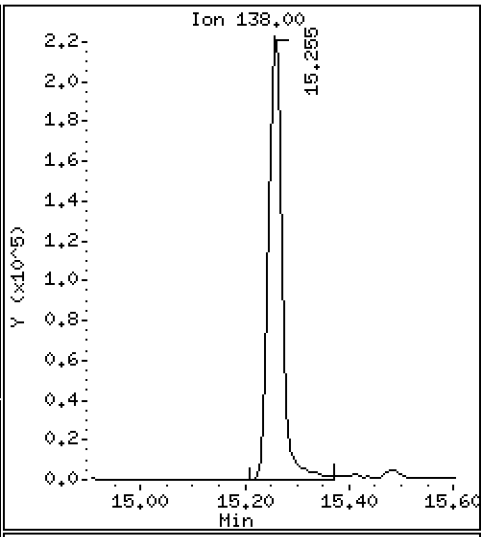
Column phase: ZB-5msi

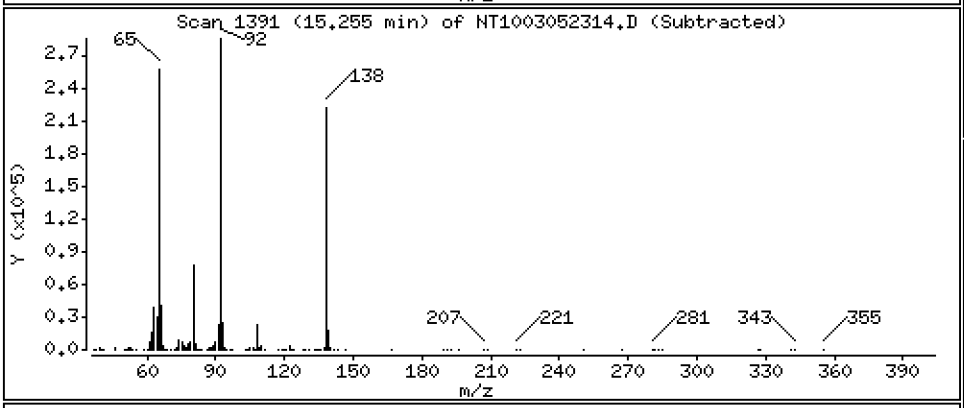
Column diameter: 0.25

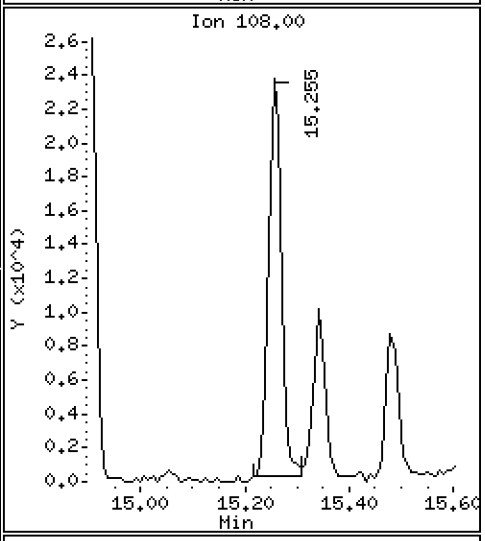
43 3-Nitroaniline

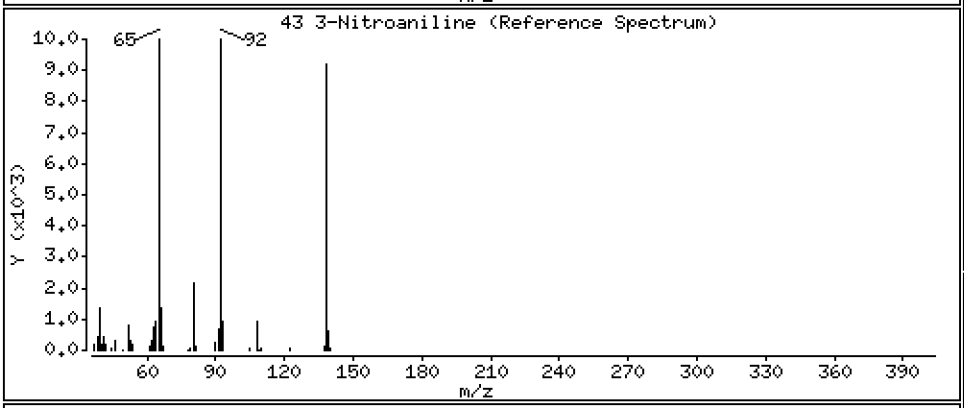
Concentration: 9.490 ug/mL

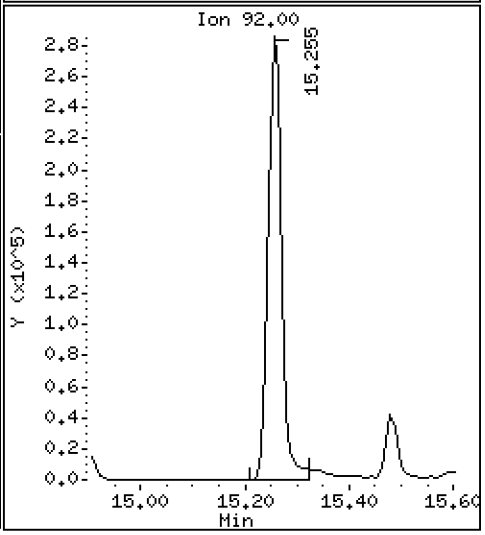


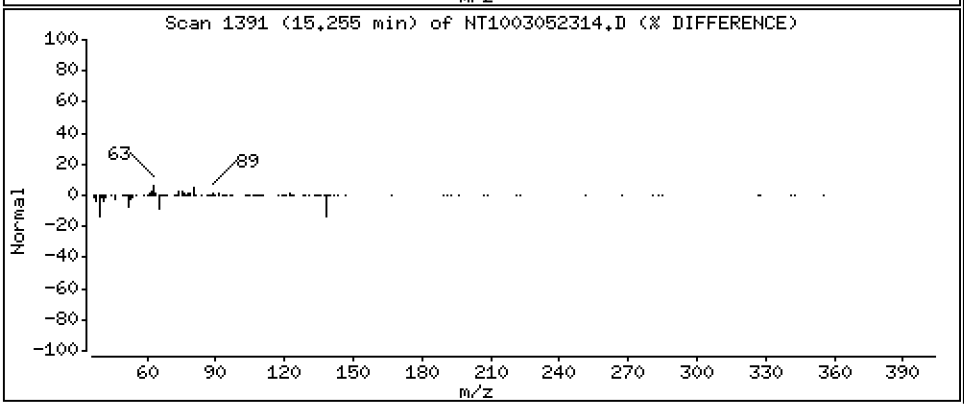












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

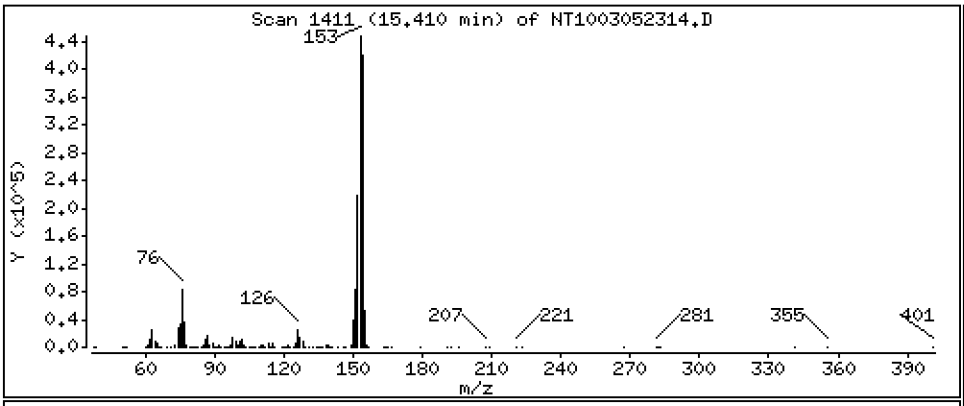
Operator: VTS

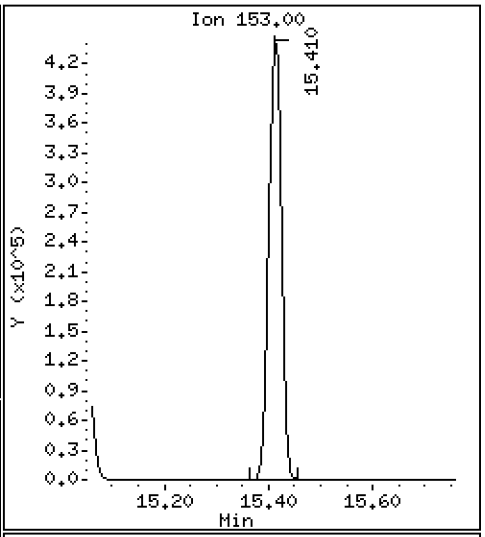
Column phase: ZB-5msi

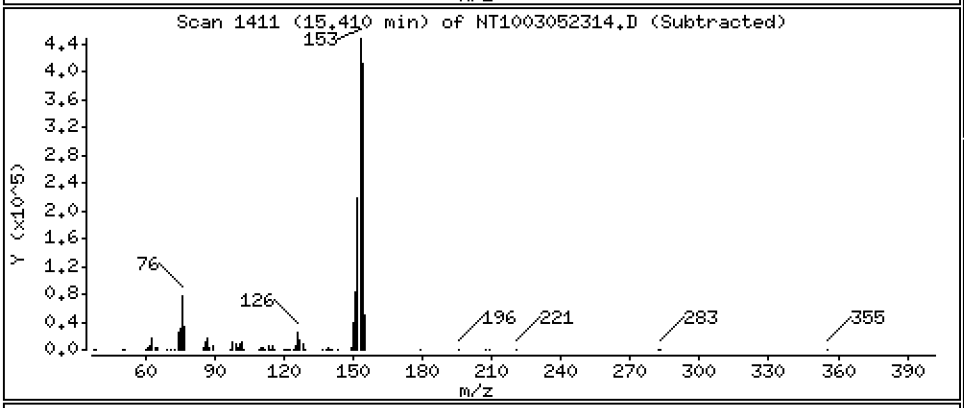
Column diameter: 0.25

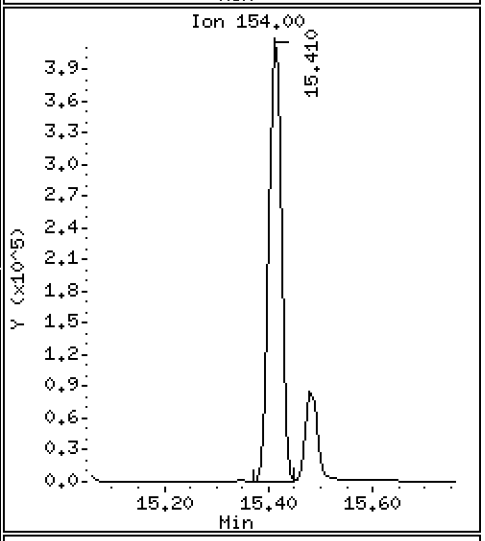
44 Acenaphthene

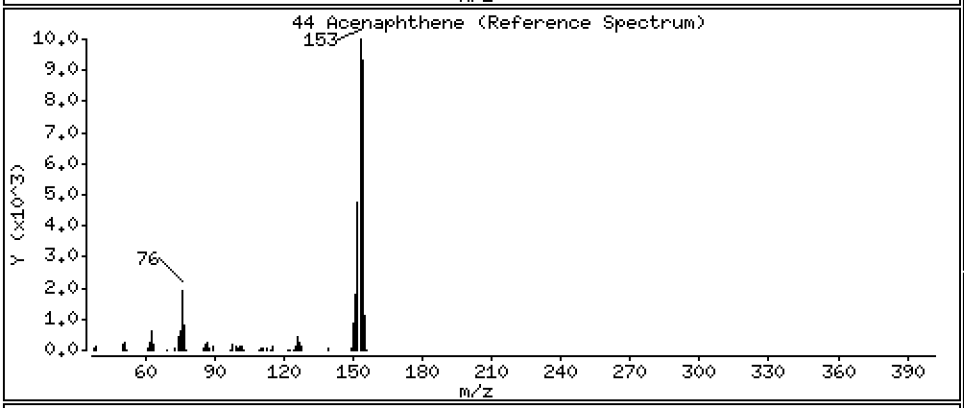
Concentration: 4.859 ug/mL

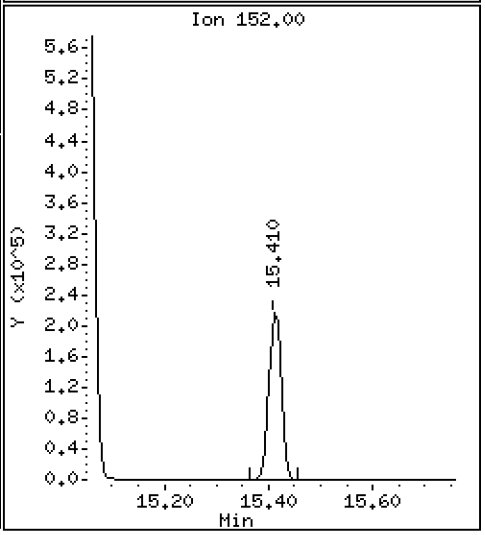


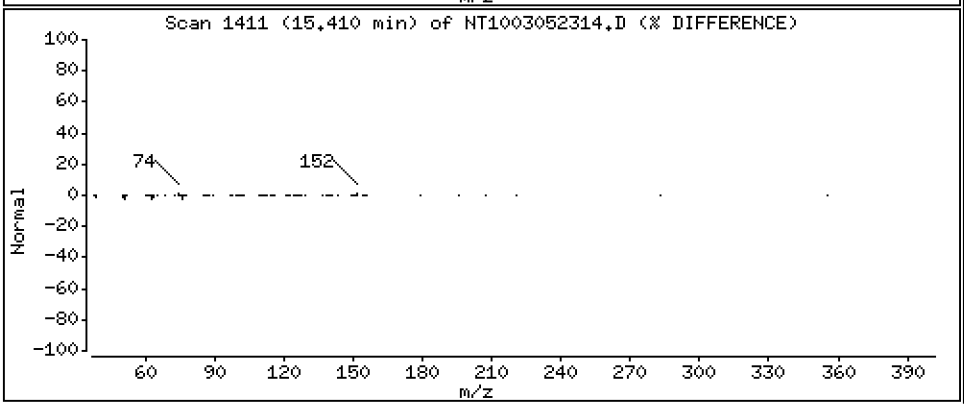












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

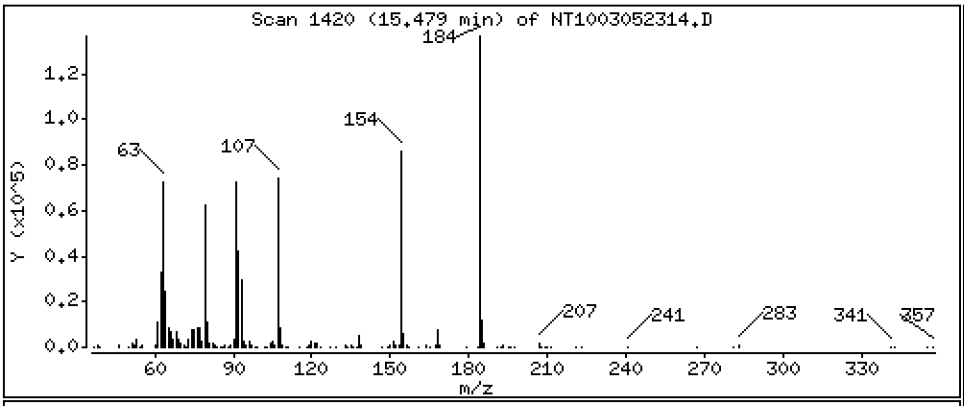
Operator: VTS

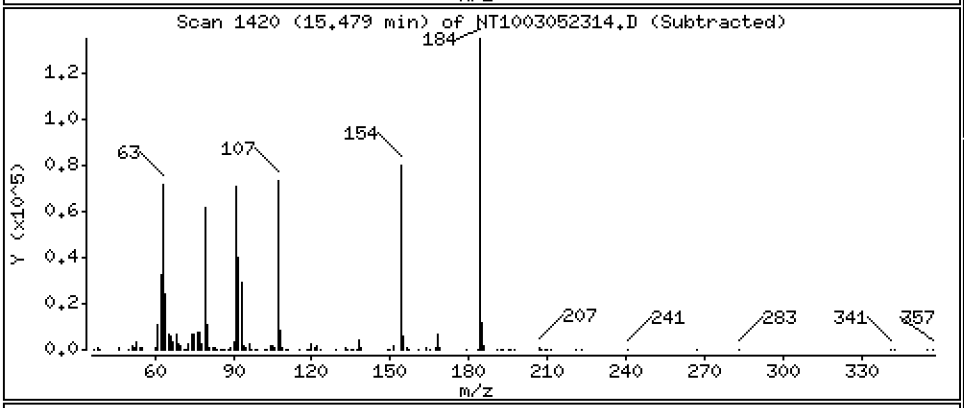
Column phase: ZB-5msi

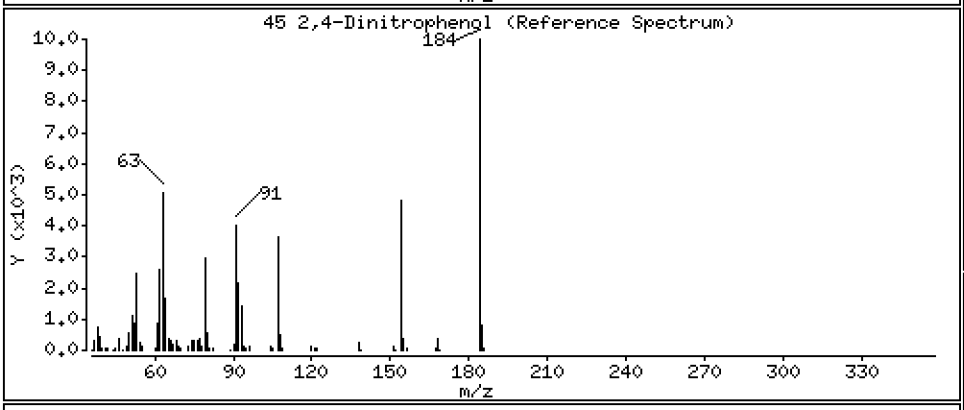
Column diameter: 0.25

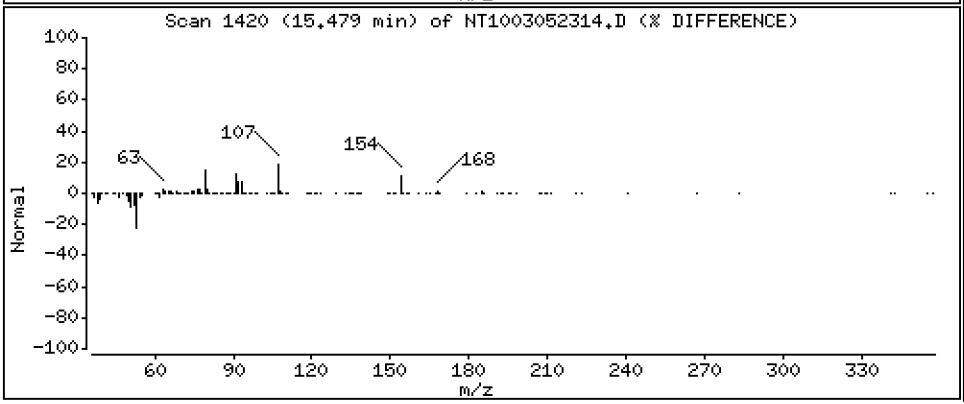
45 2,4-Dinitrophenol

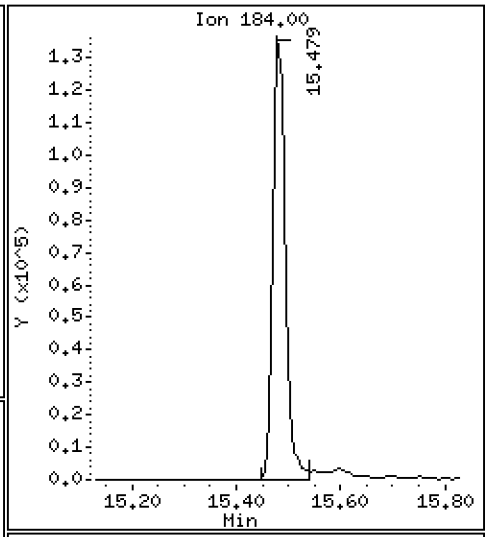
Concentration: 20.88 ug/mL

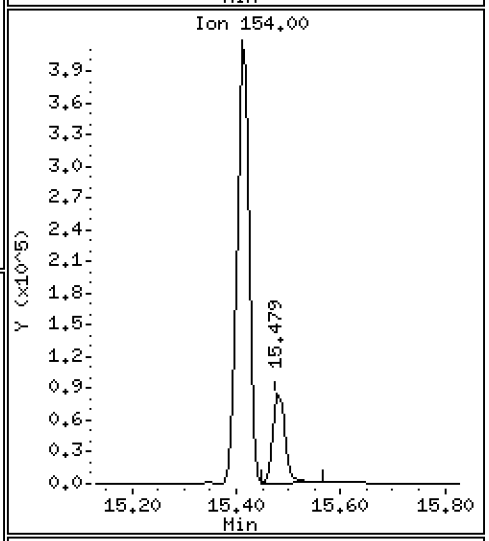


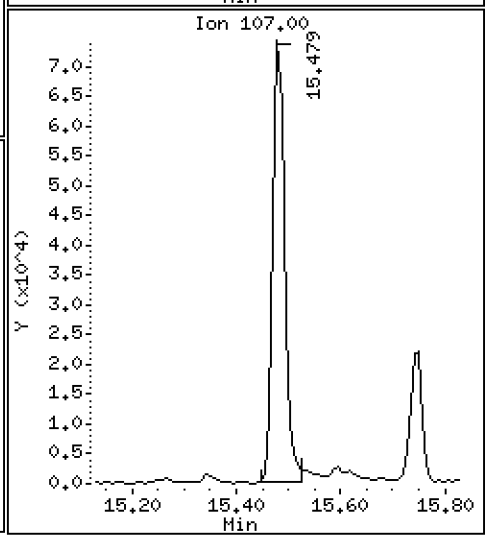












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

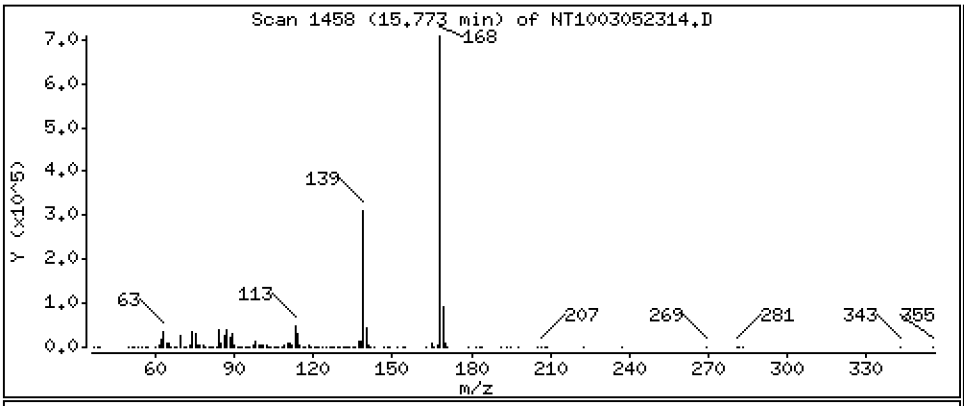
Operator: VTS

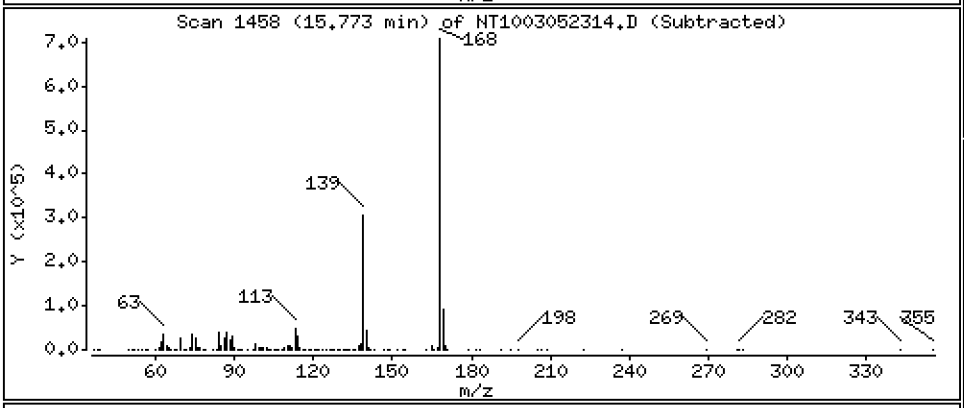
Column phase: ZB-5msi

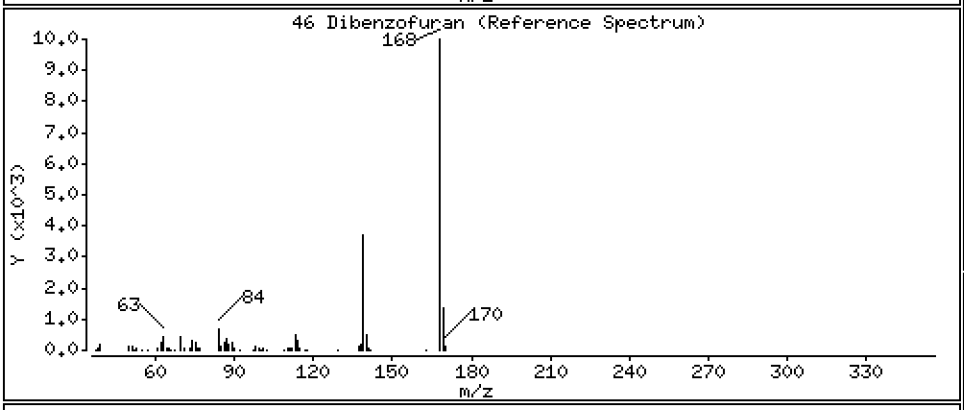
Column diameter: 0.25

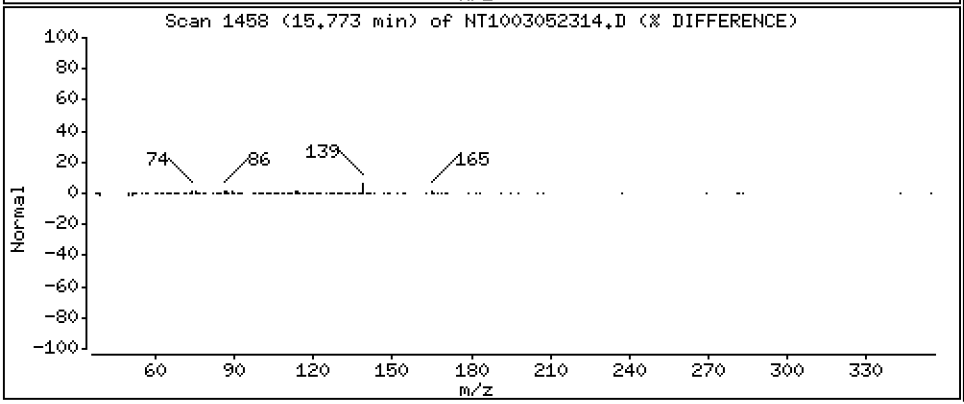
46 Dibenzofuran

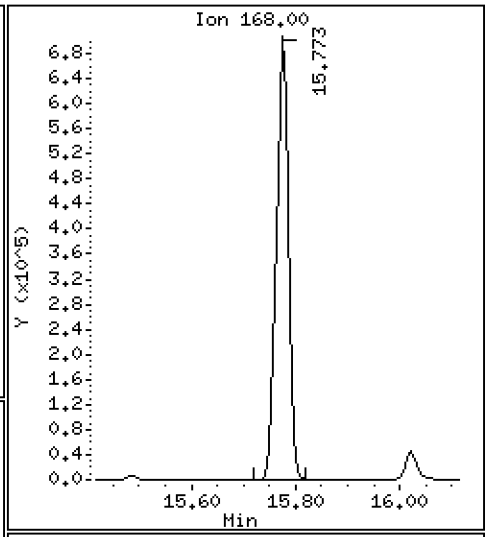
Concentration: 5.123 ug/mL

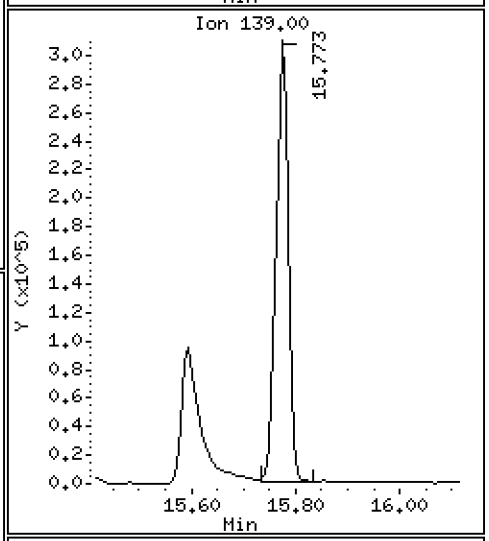


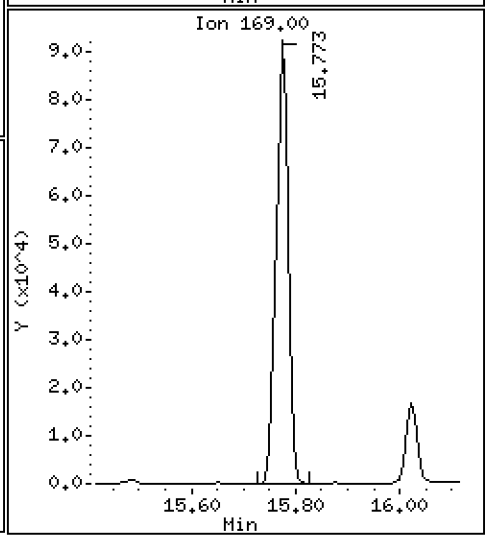












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

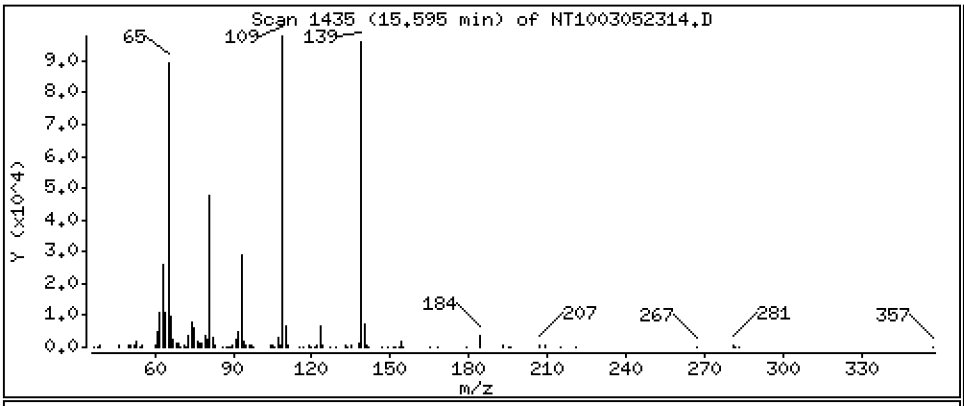
Operator: VTS

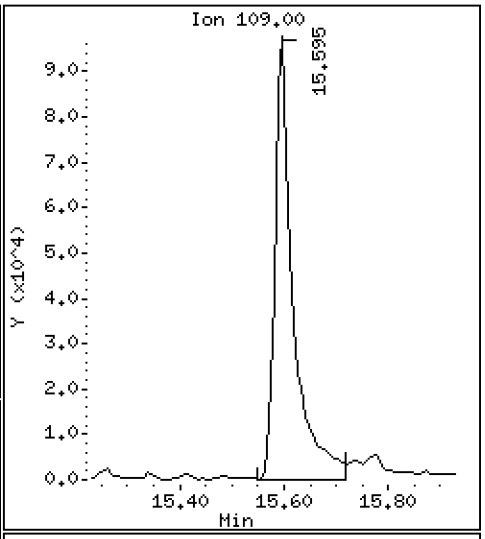
Column phase: ZB-5msi

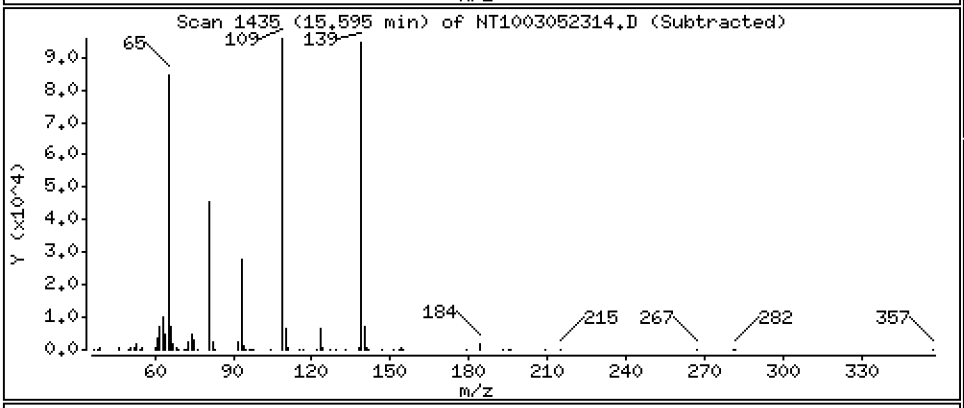
Column diameter: 0.25

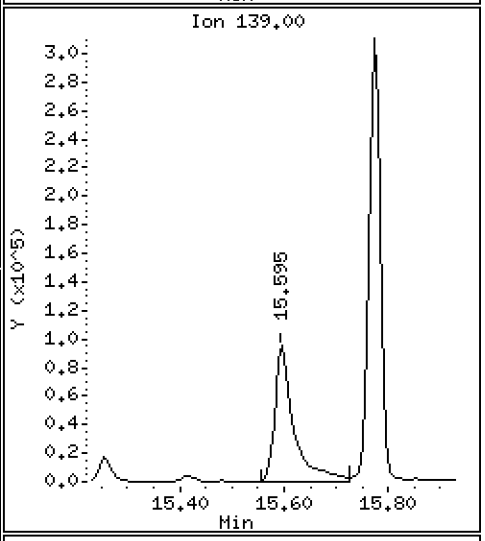
47 4-Nitrophenol

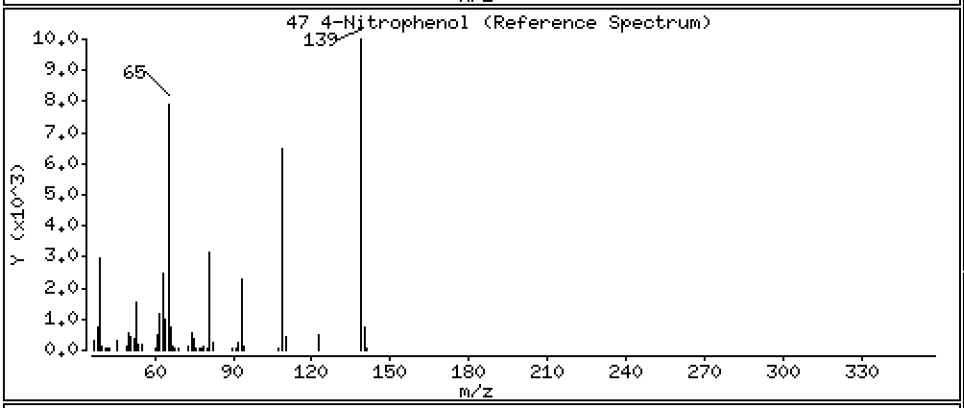
Concentration: 8.051 ug/mL

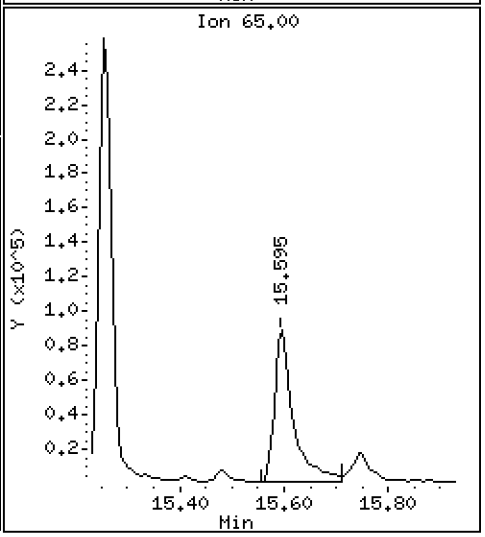


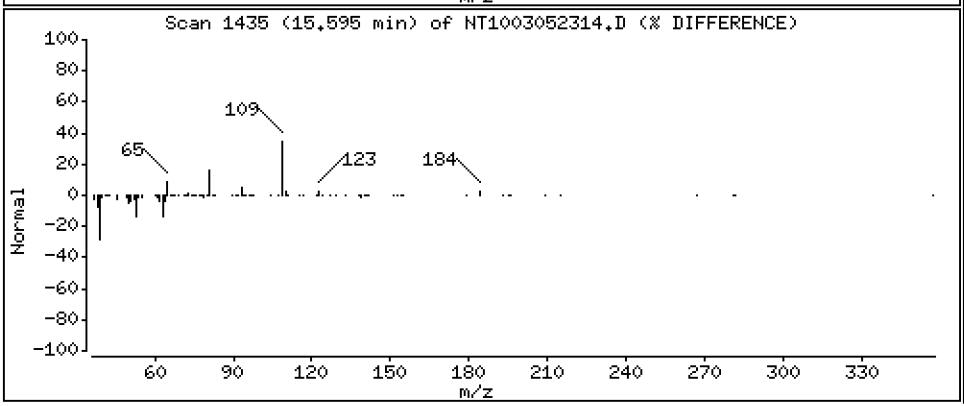












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

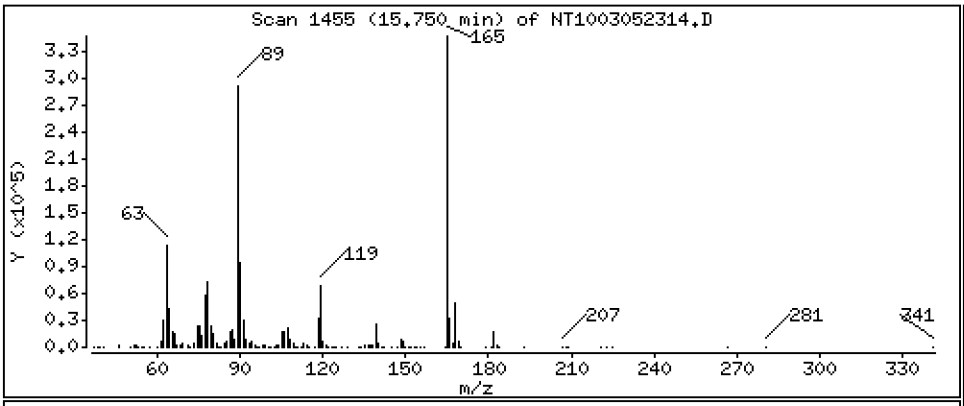
Operator: VTS

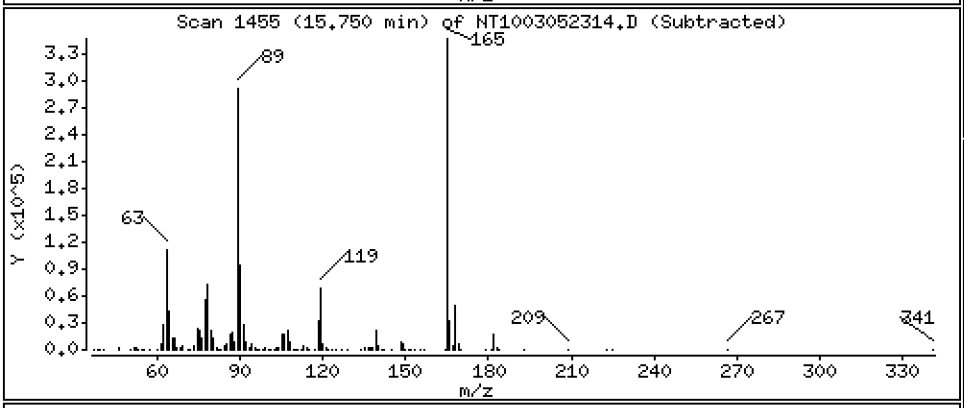
Column phase: ZB-5msi

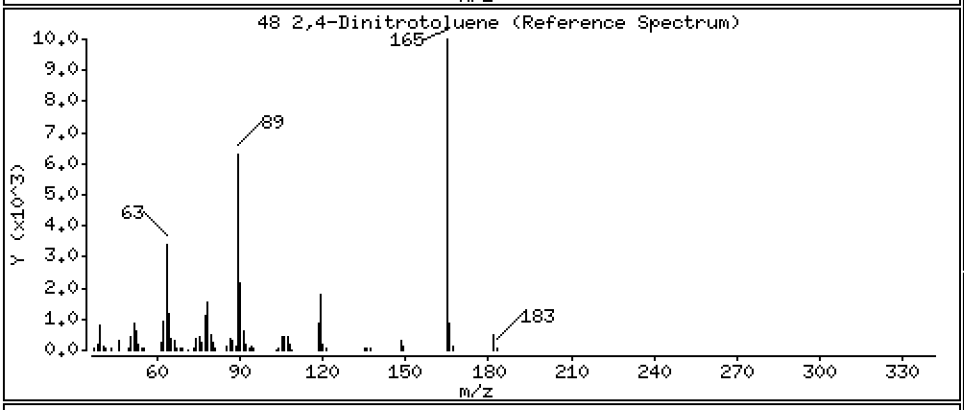
Column diameter: 0.25

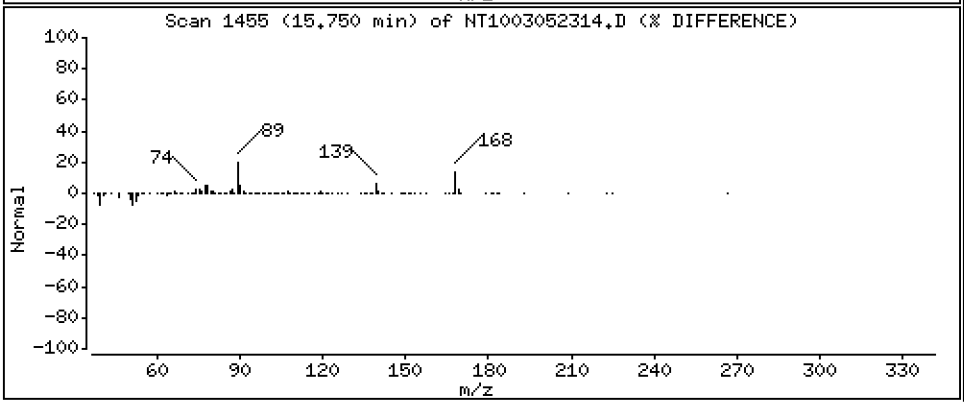
48 2,4-Dinitrotoluene

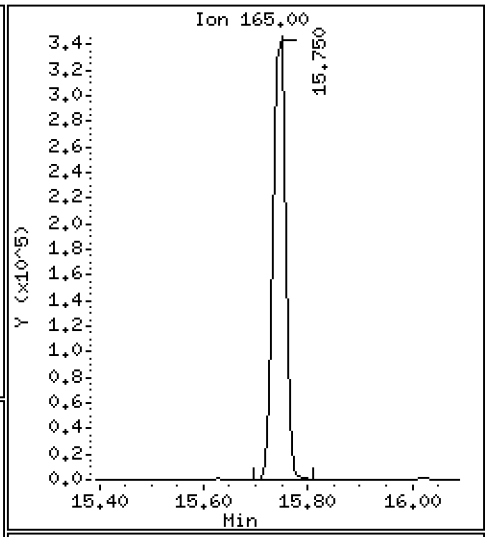
Concentration: 10.06 ug/mL

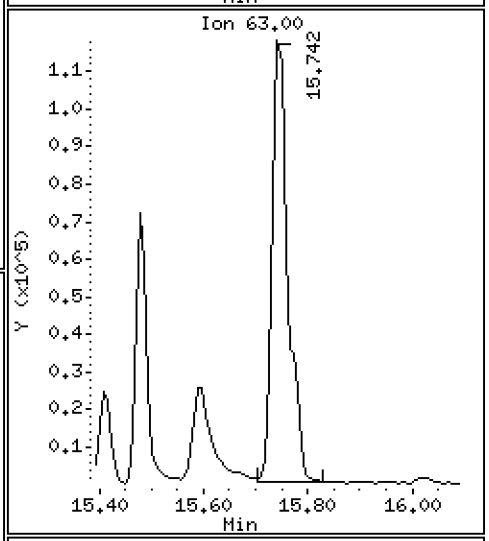


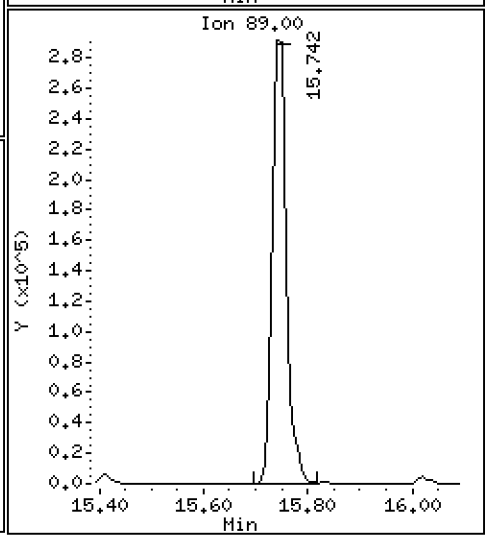












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

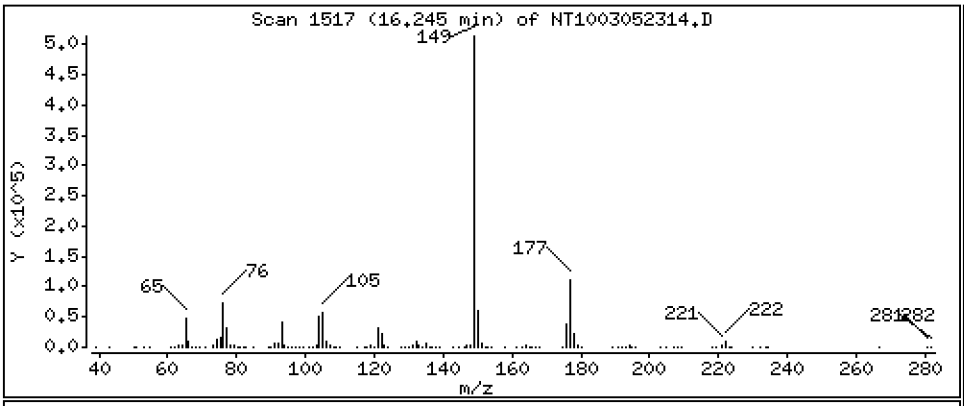
Operator: VTS

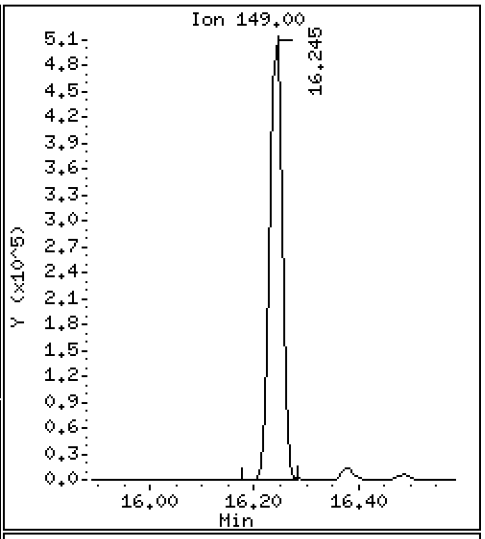
Column phase: ZB-5msi

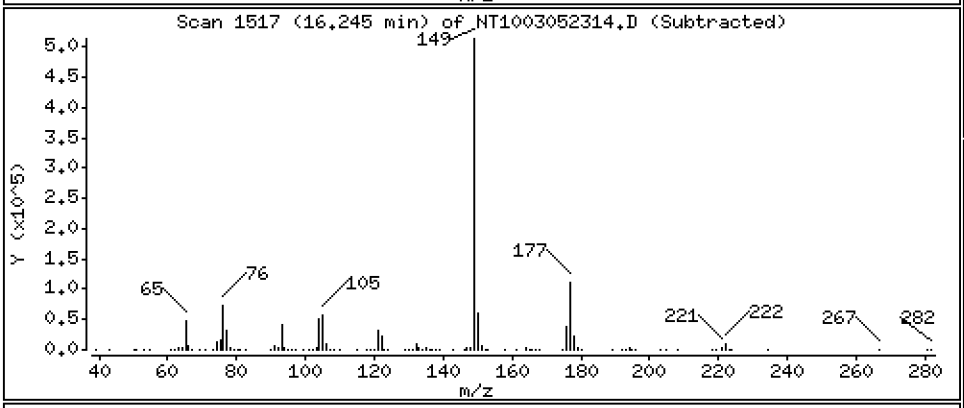
Column diameter: 0.25

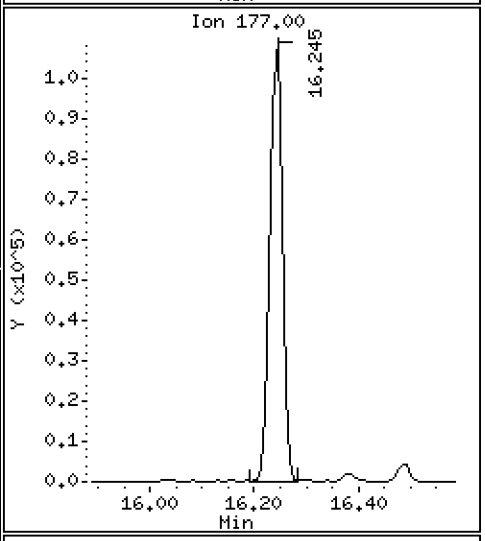
50 Diethylphthalate

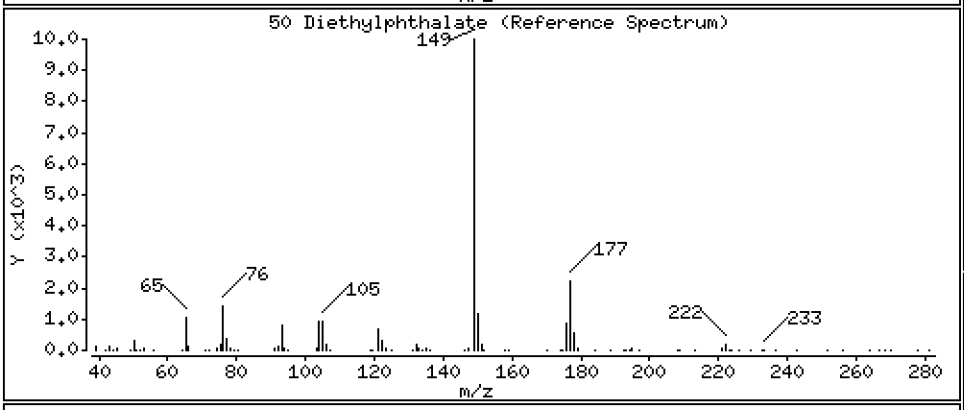
Concentration: 4.674 ug/mL

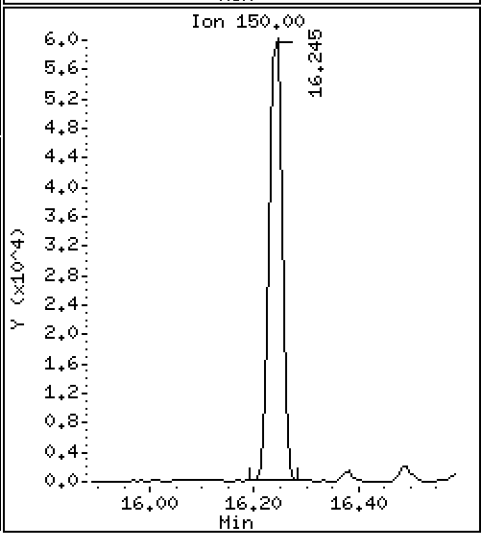


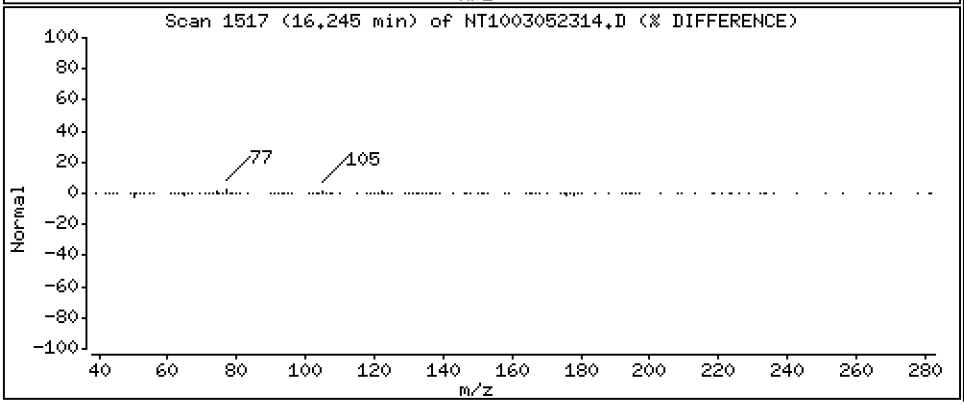












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

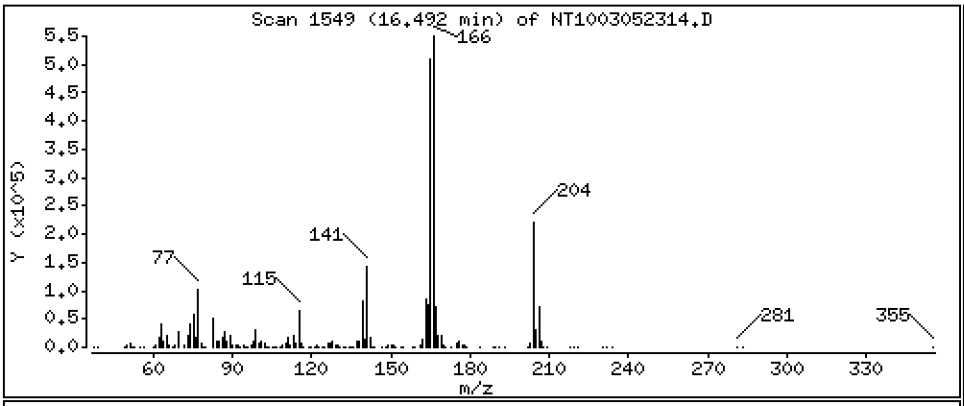
Operator: VTS

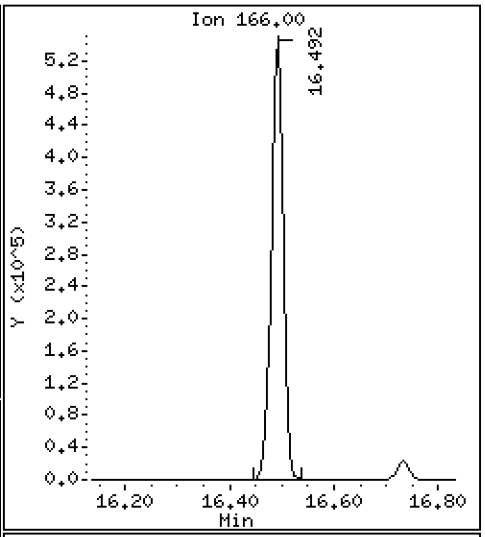
Column phase: ZB-5msi

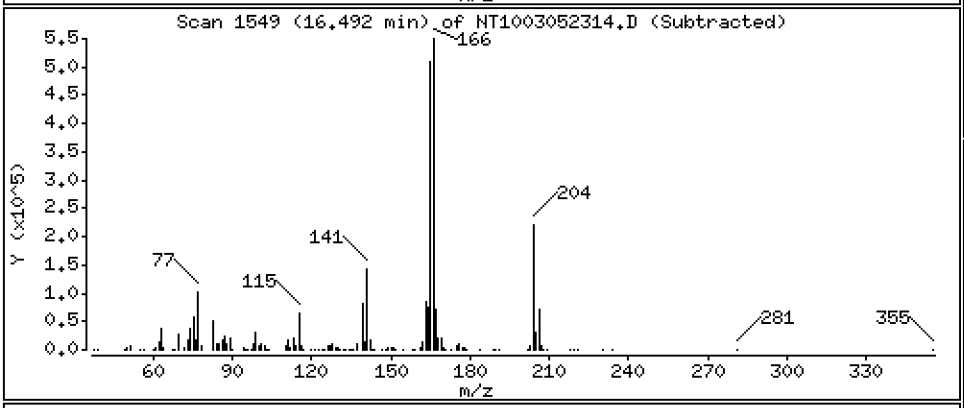
Column diameter: 0.25

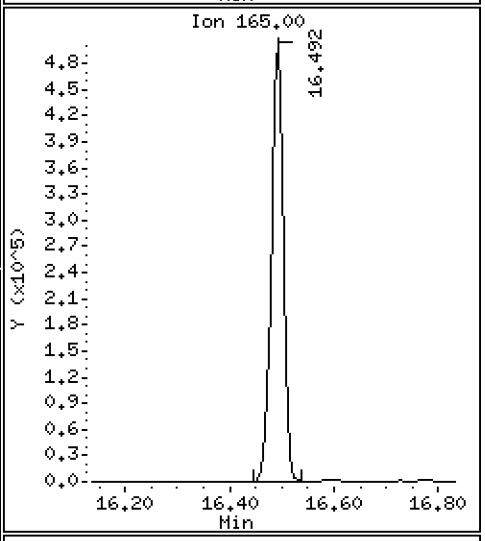
49 Fluorene

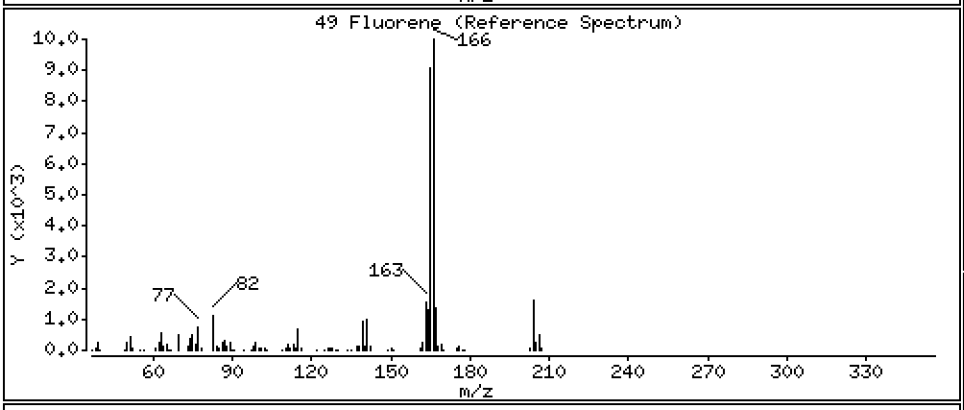
Concentration: 4.844 ug/mL

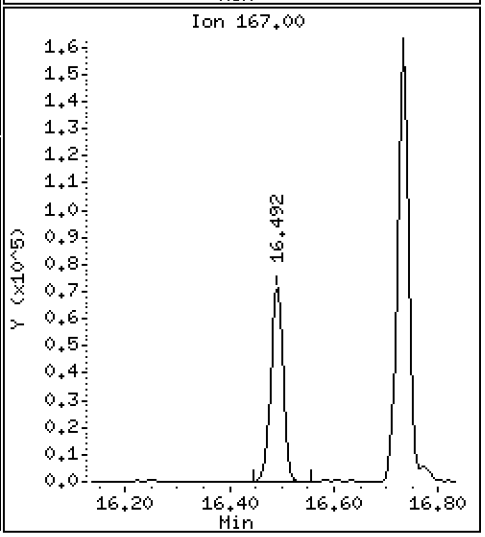


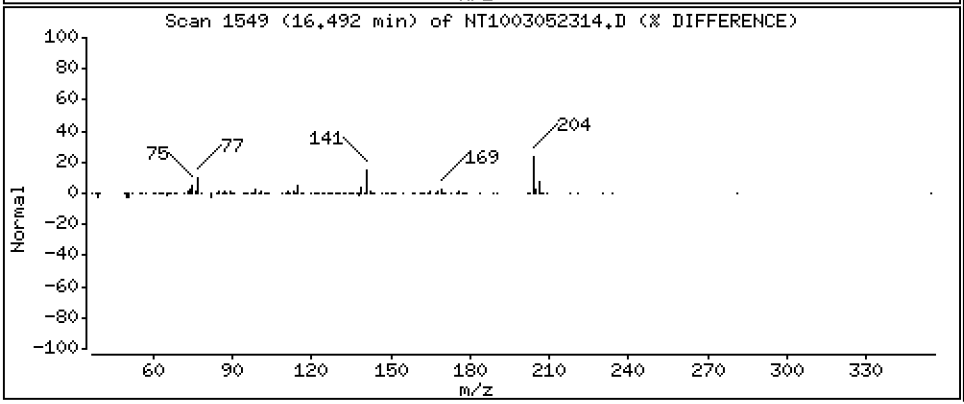












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

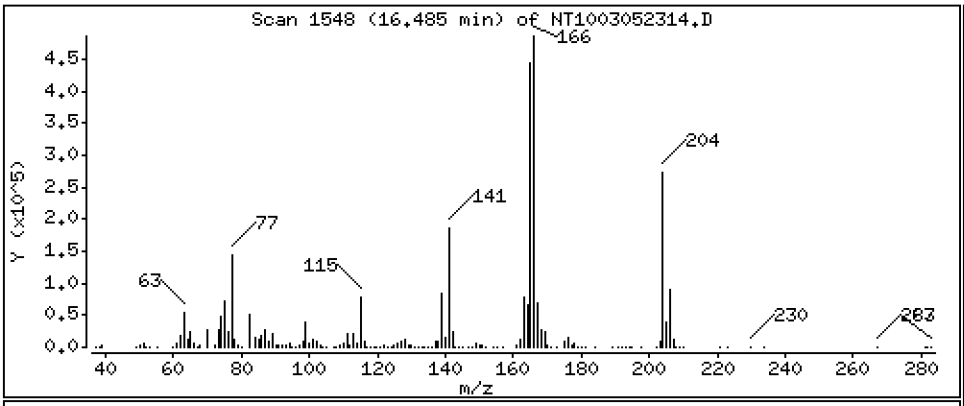
Operator: VTS

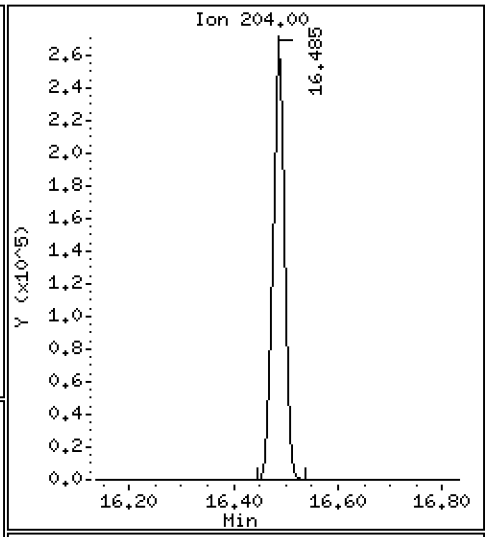
Column phase: ZB-5msi

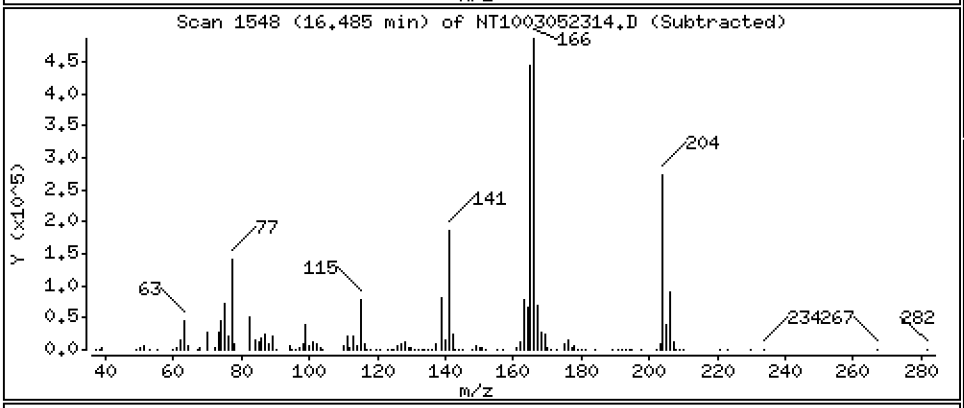
Column diameter: 0.25

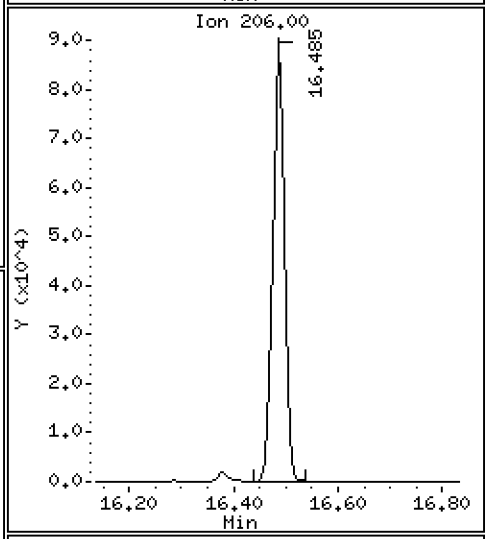
51 4-Chlorophenyl-phenylether

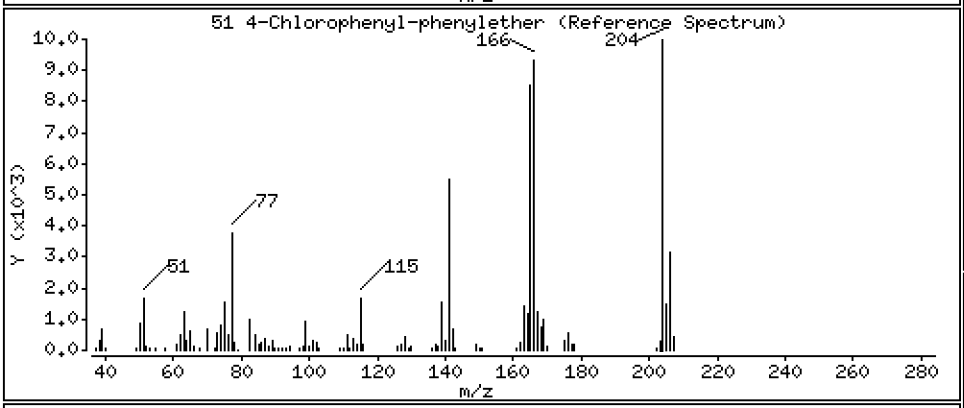
Concentration: 4.866 ug/mL

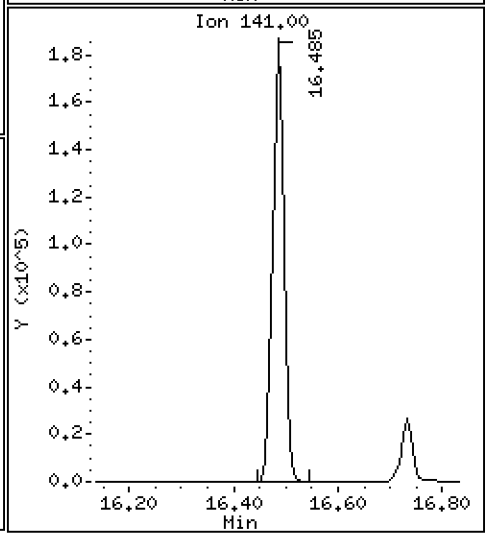


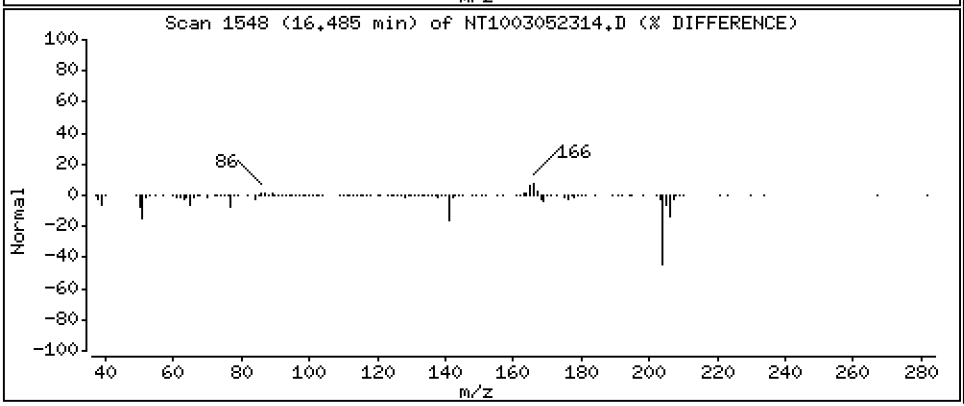












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D

Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

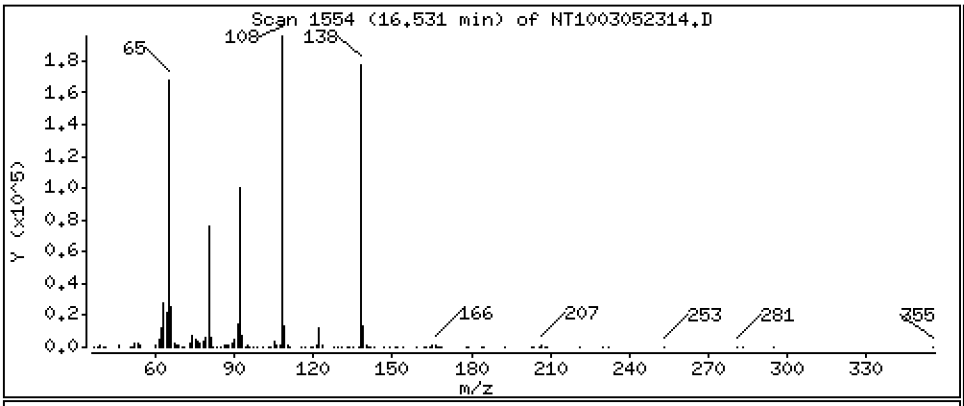
Operator: VTS

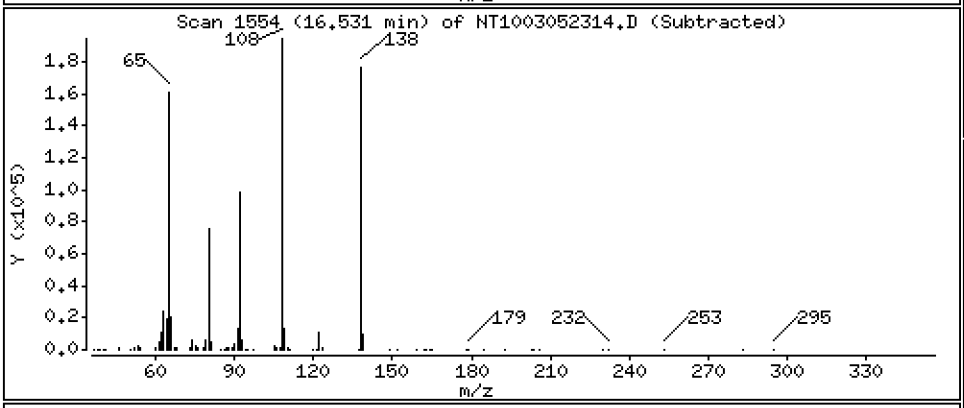
Column phase: ZB-5msi

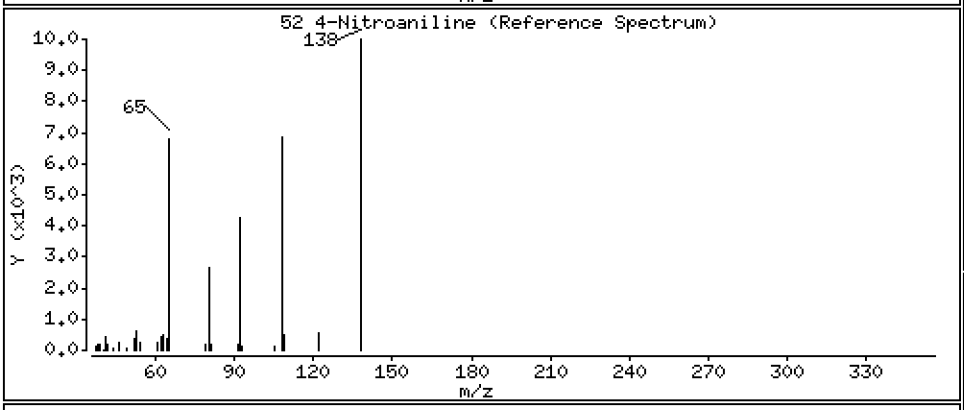
Column diameter: 0.25

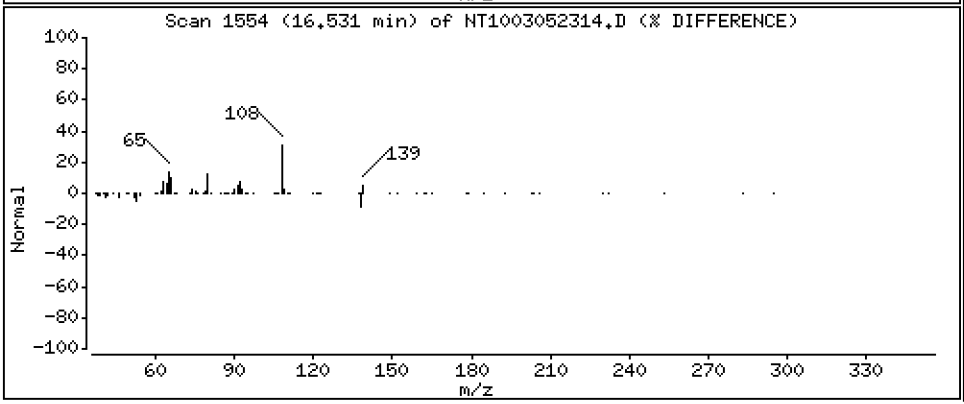
52 4-Nitroaniline

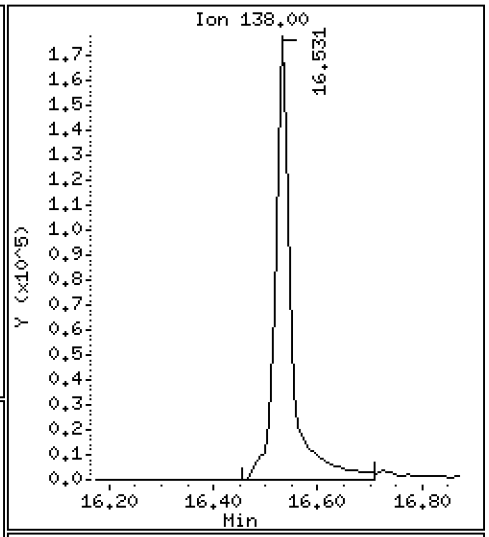
Concentration: 9.144 ug/mL

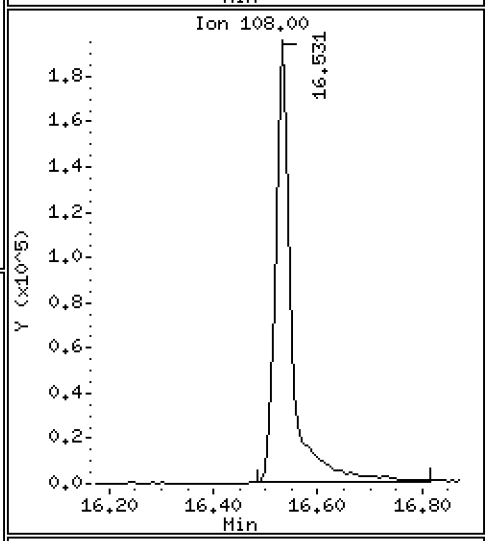


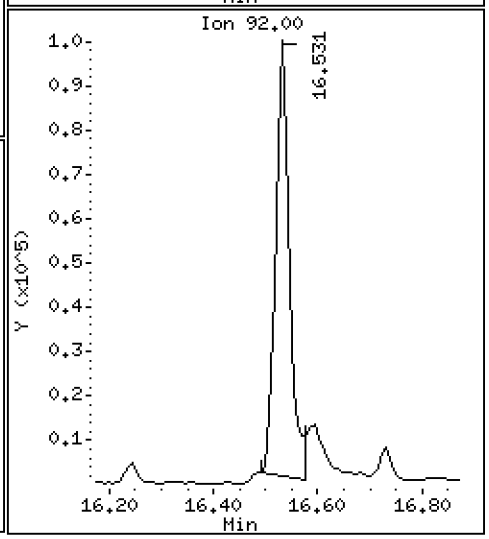












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

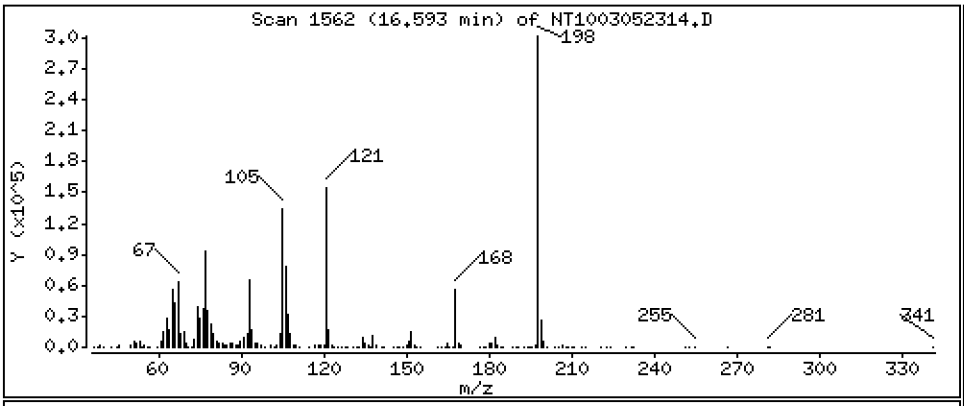
Operator: VTS

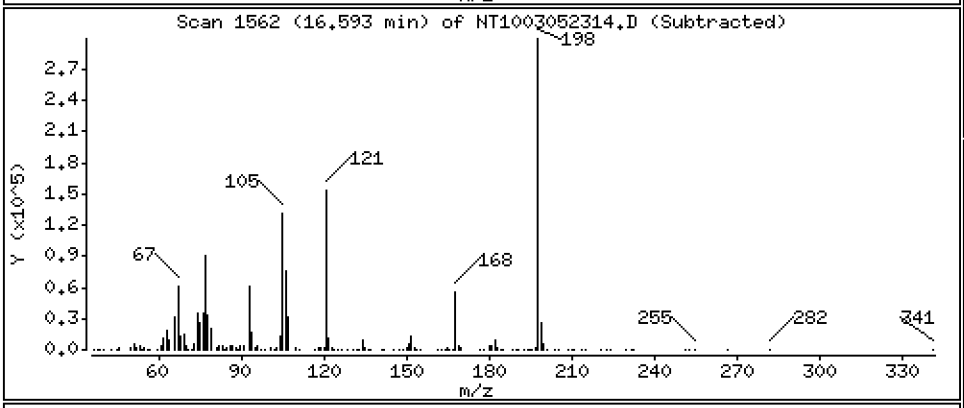
Column phase: ZB-5msi

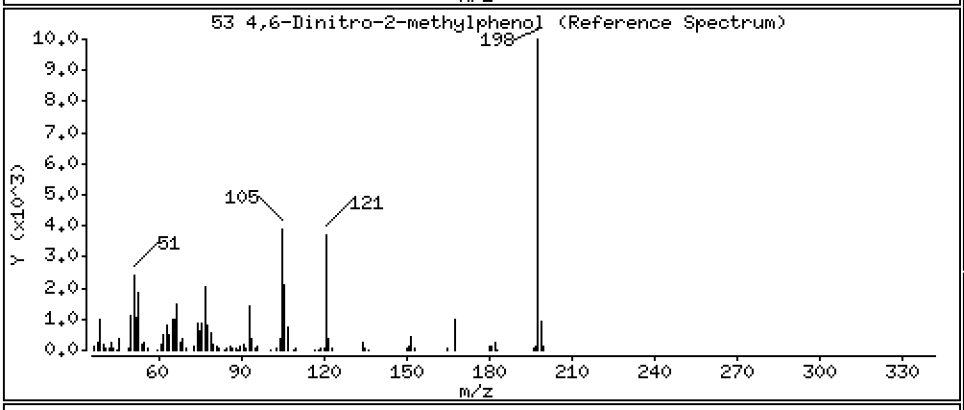
Column diameter: 0.25

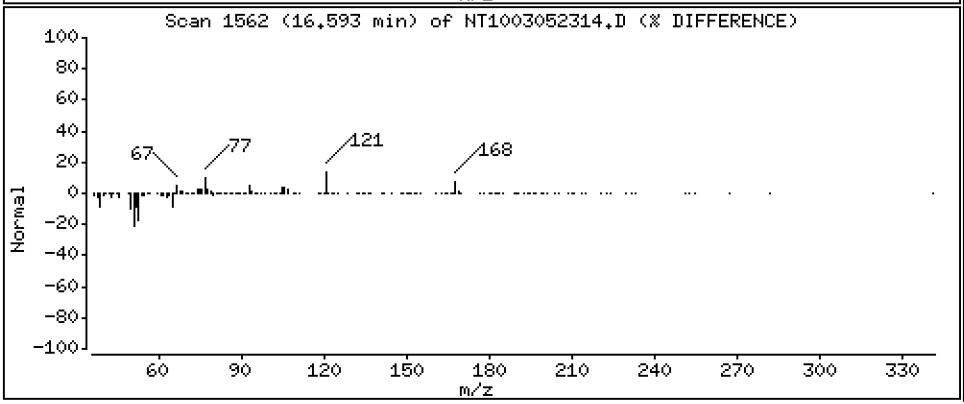
53 4,6-Dinitro-2-methylphenol

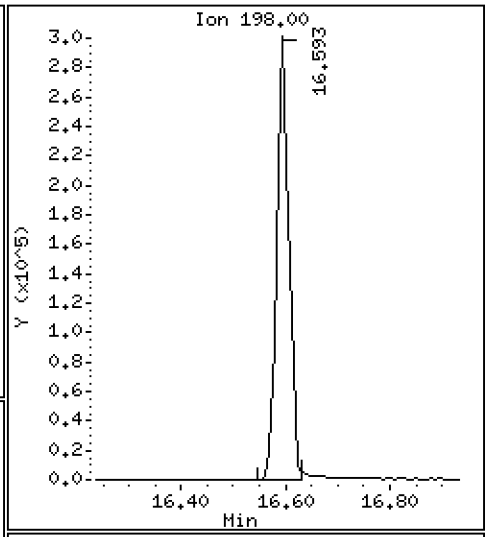
Concentration: 20.78 ug/mL

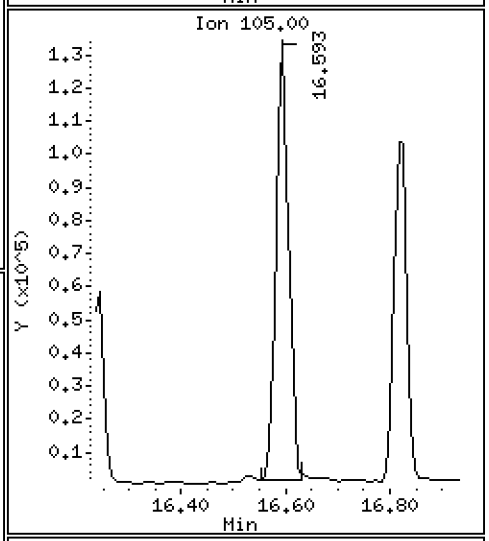


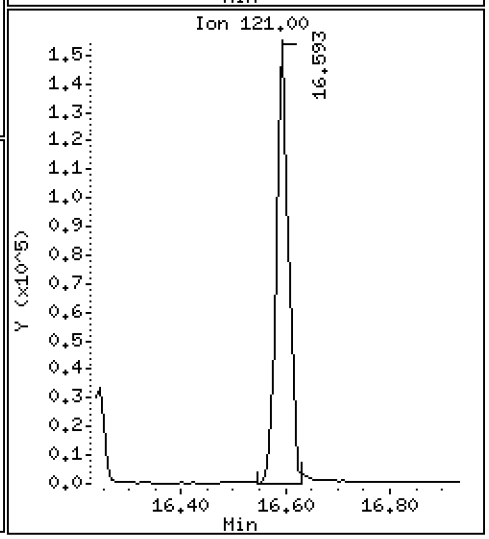












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

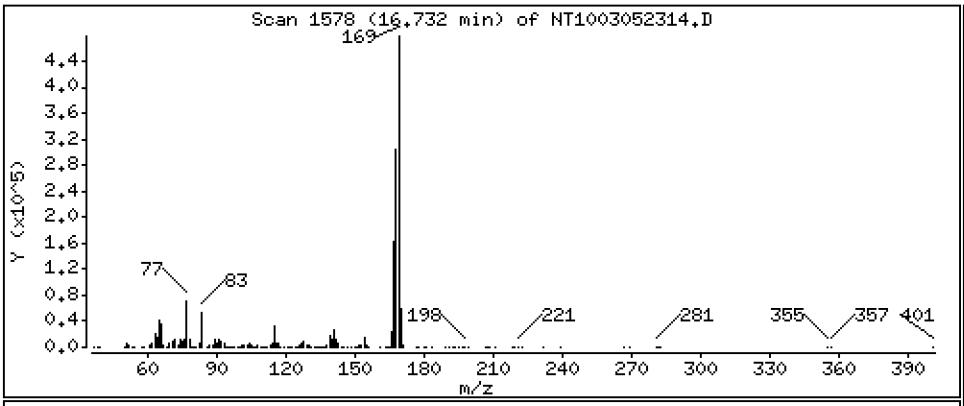
Operator: VTS

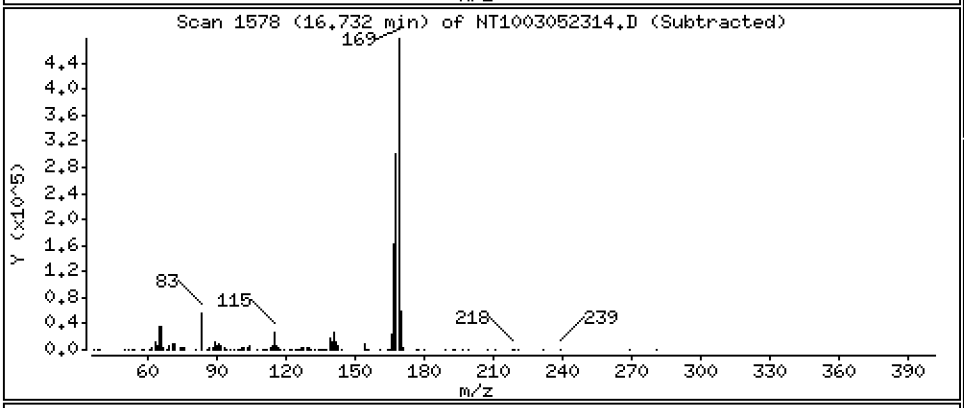
Column phase: ZB-5msi

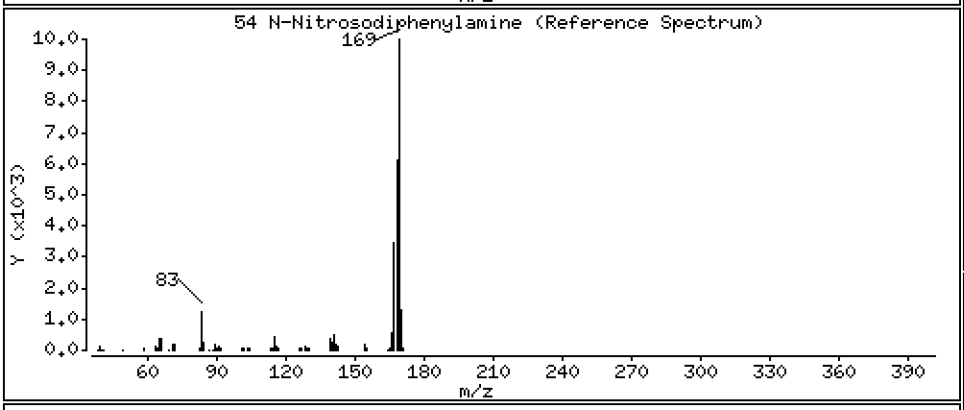
Column diameter: 0.25

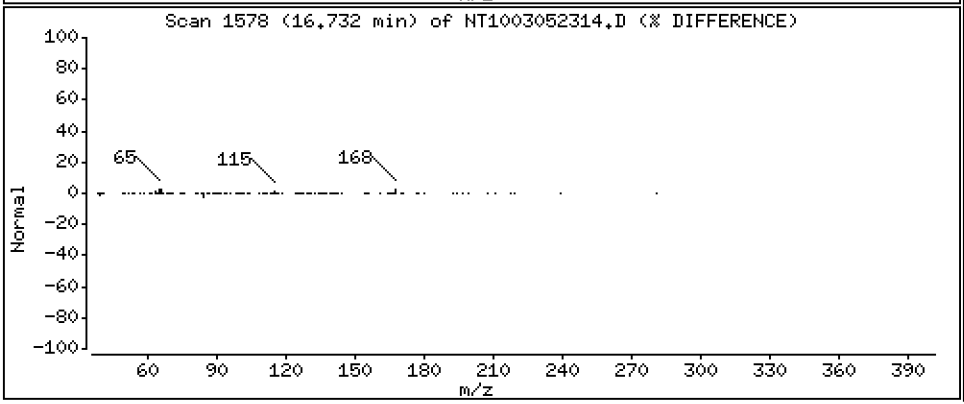
54 N-Nitrosodiphenylamine

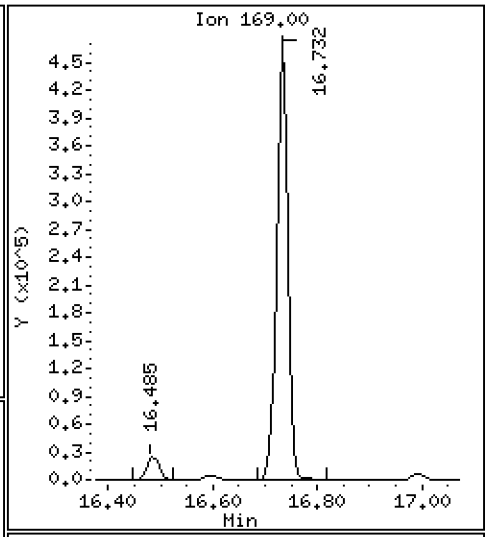
Concentration: 5.085 ug/mL

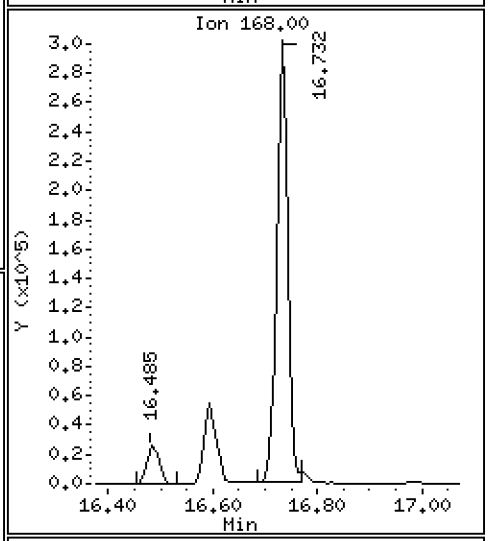


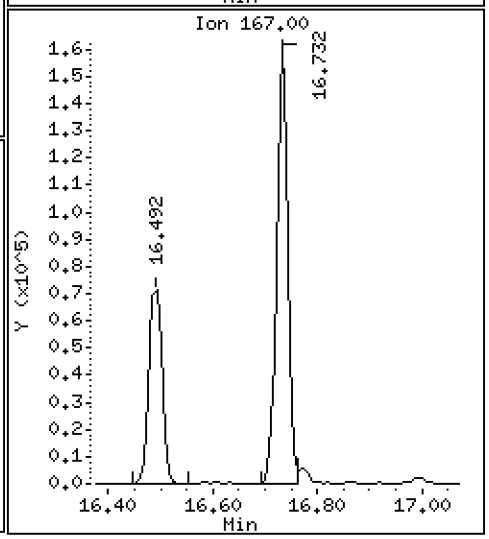












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

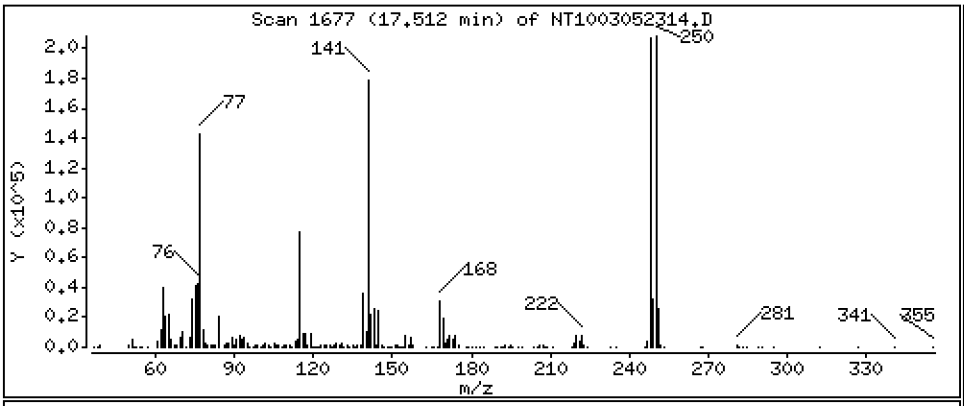
Operator: VTS

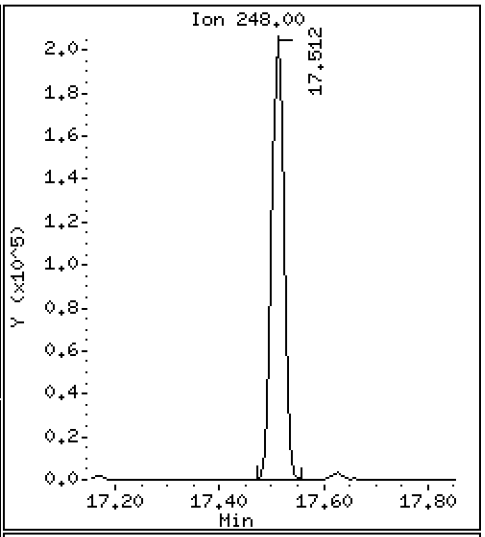
Column phase: ZB-5msi

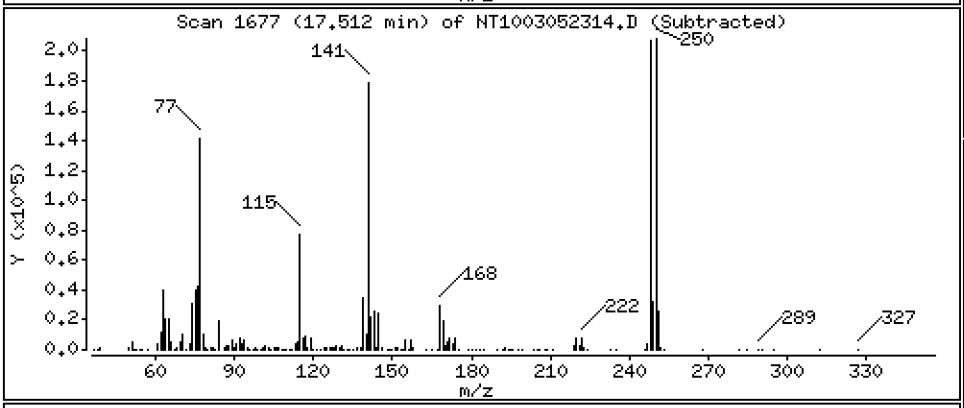
Column diameter: 0.25

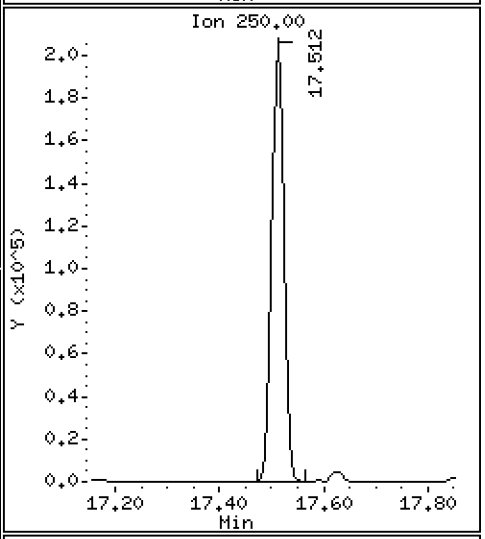
56 4-Bromophenyl-phenylether

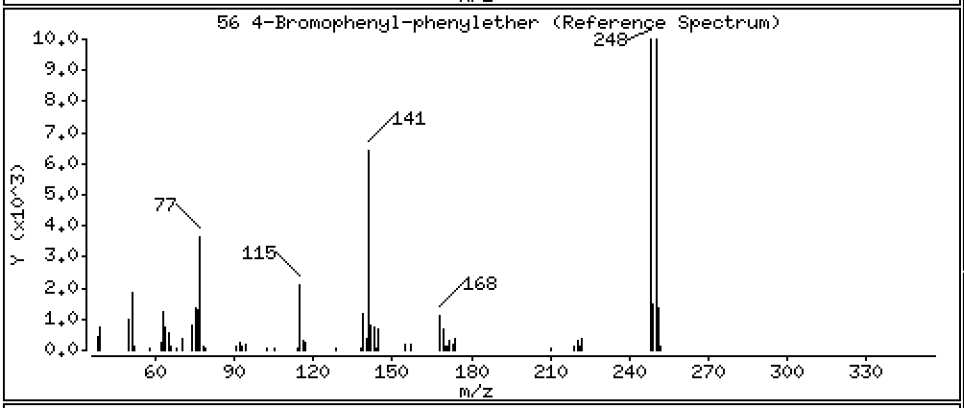
Concentration: 5.637 ug/mL

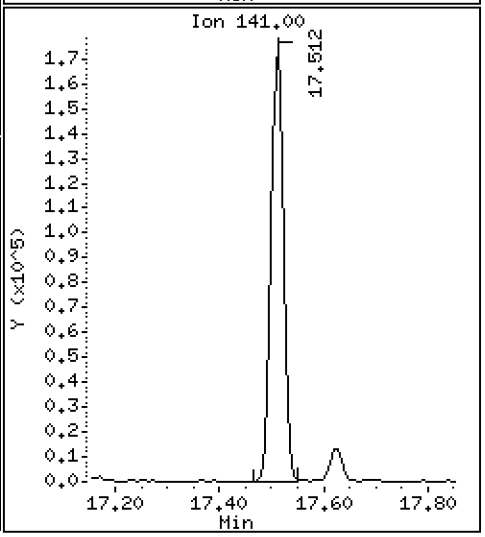


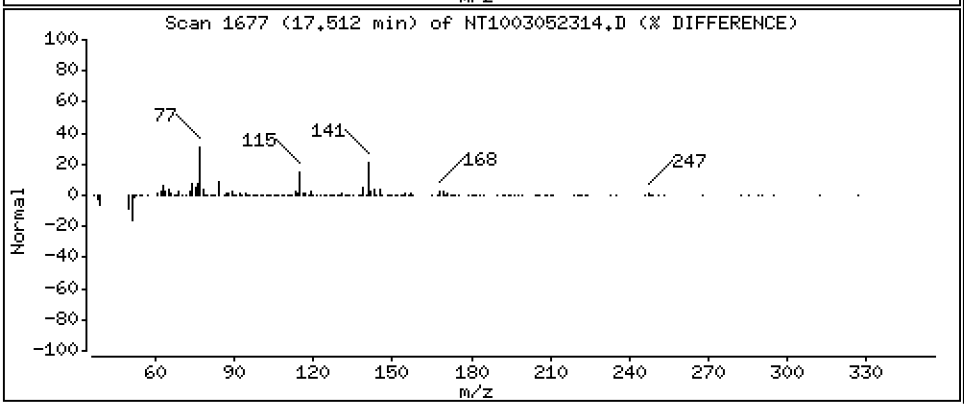












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

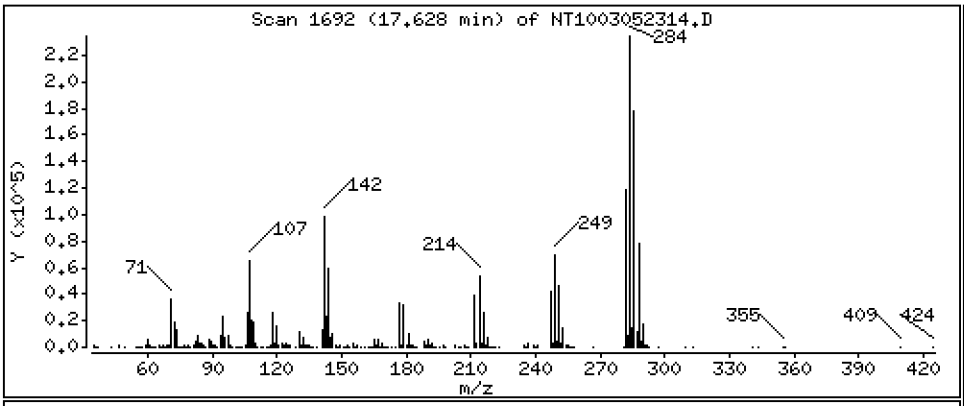
Operator: VTS

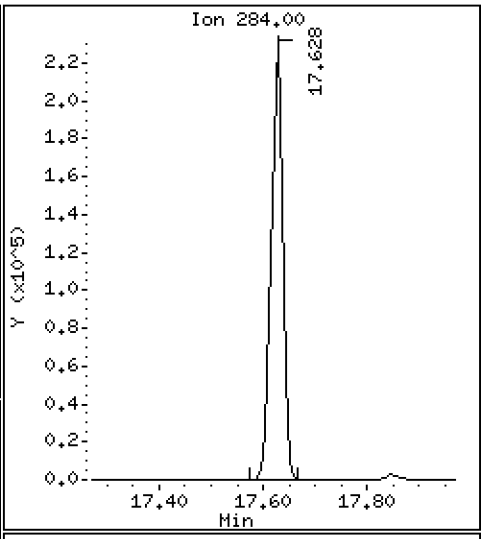
Column phase: ZB-5msi

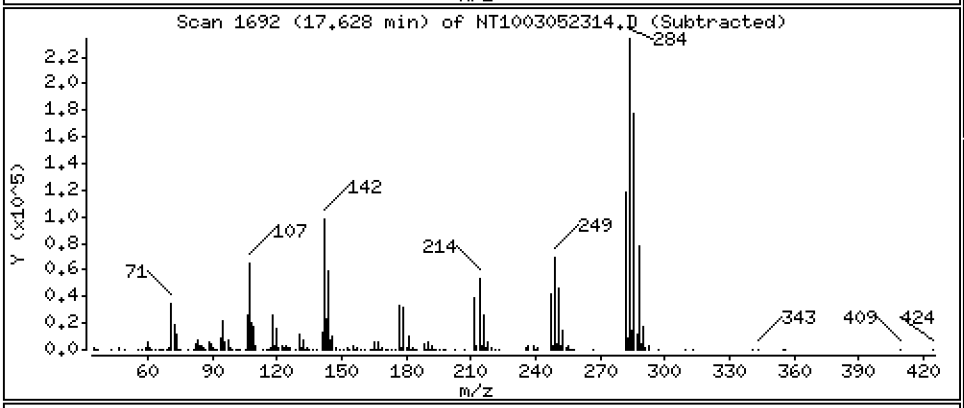
Column diameter: 0.25

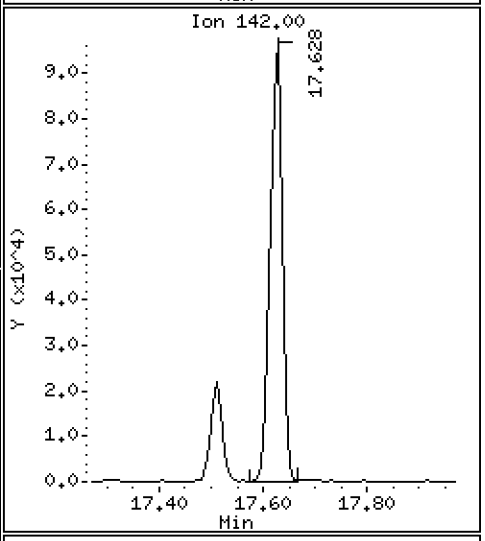
57 Hexachlorobenzene

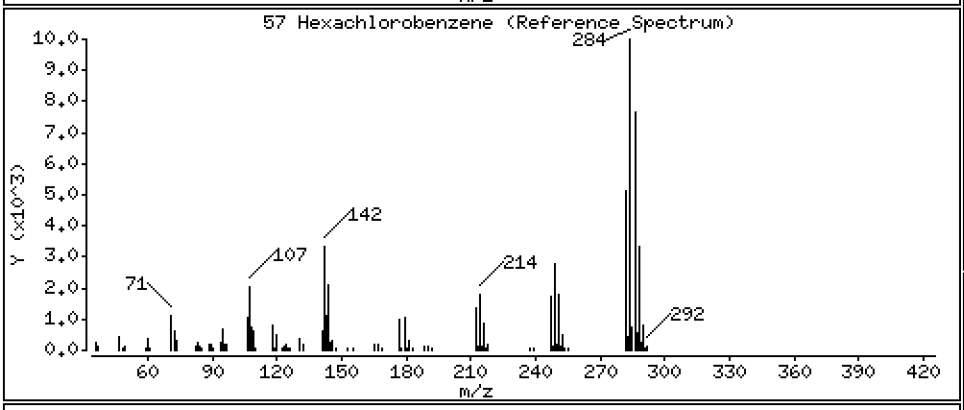
Concentration: 5.466 ug/mL

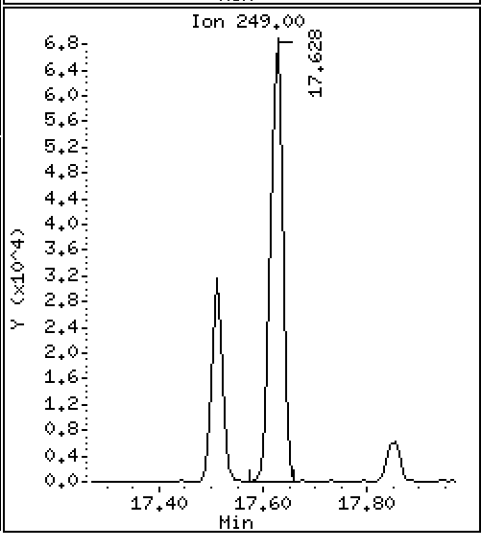


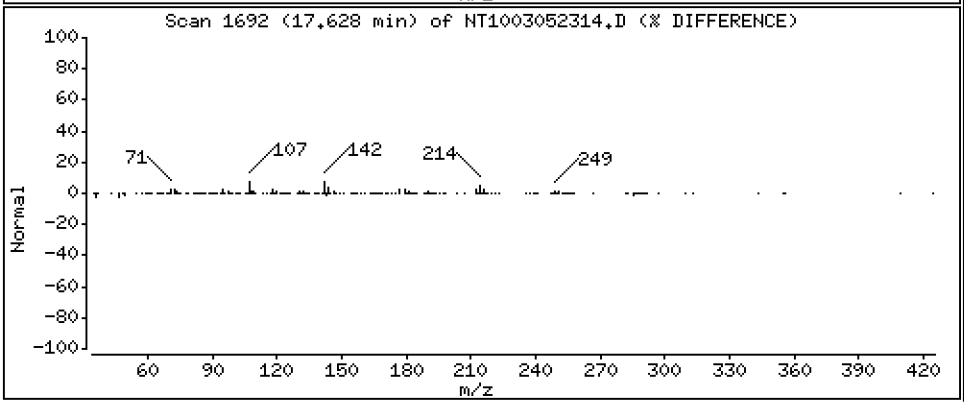












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

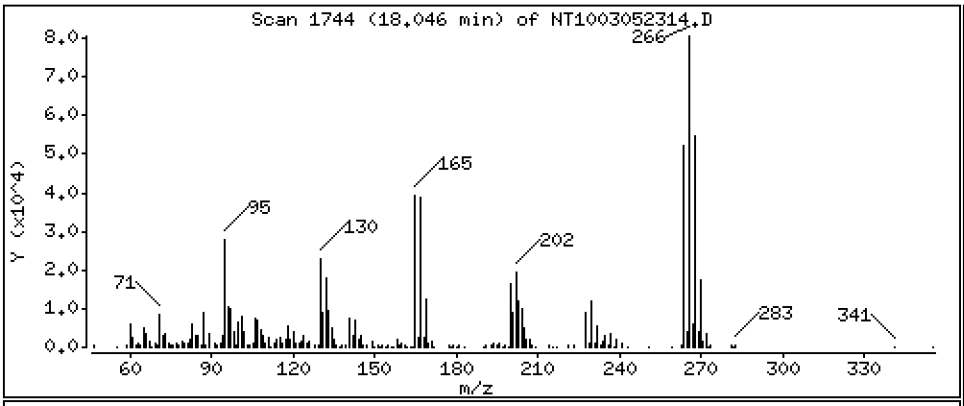
Operator: VTS

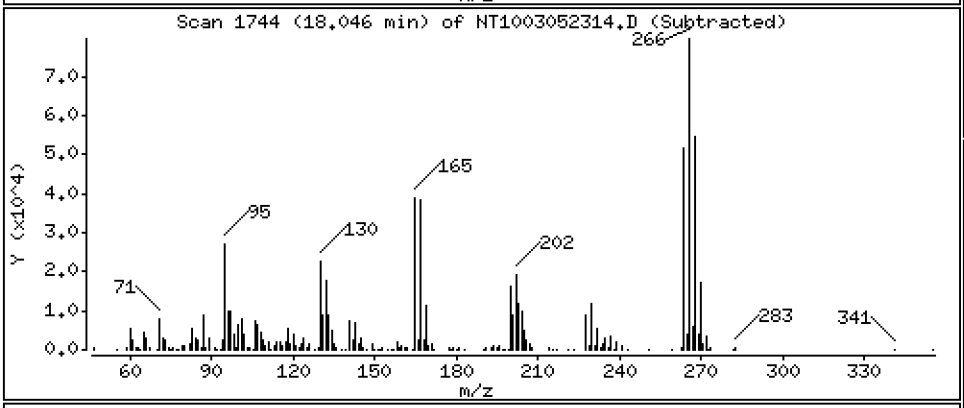
Column phase: ZB-5msi

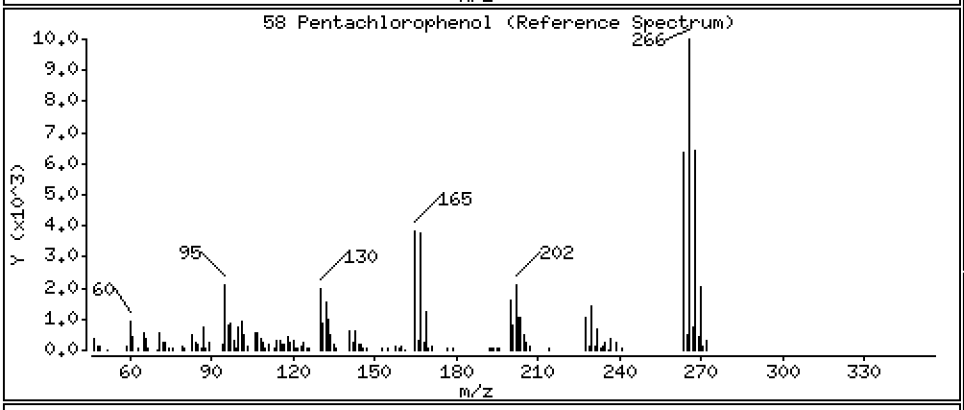
Column diameter: 0.25

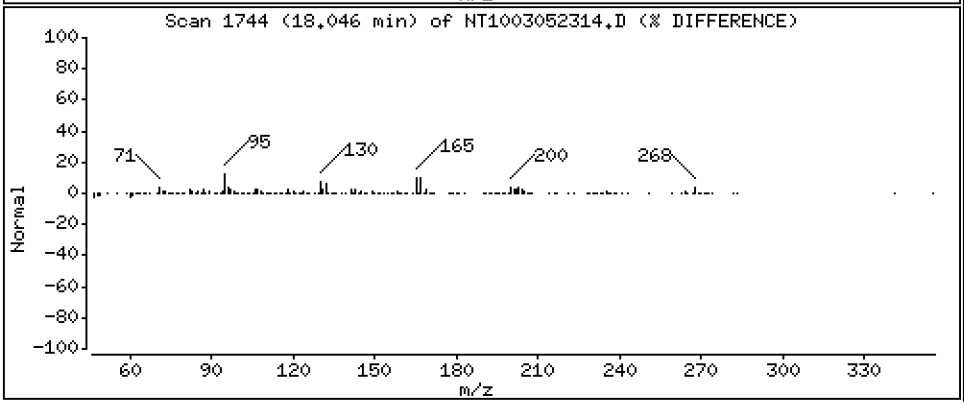
58 Pentachlorophenol

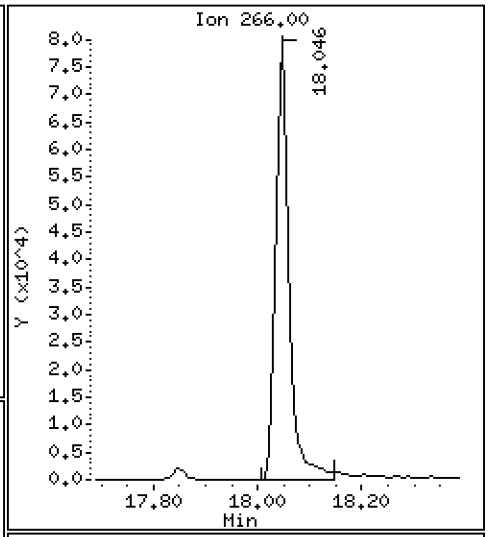
Concentration: 4.639 ug/mL

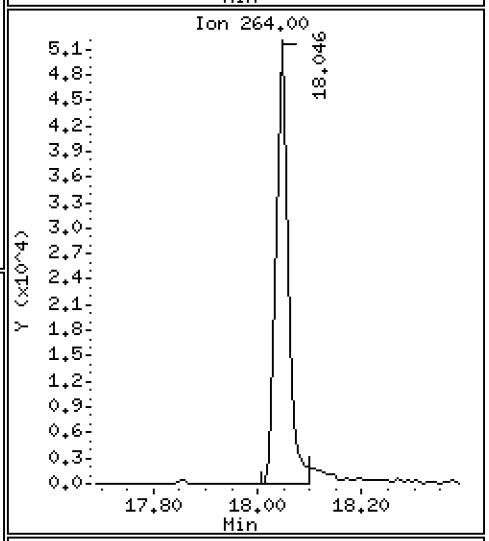


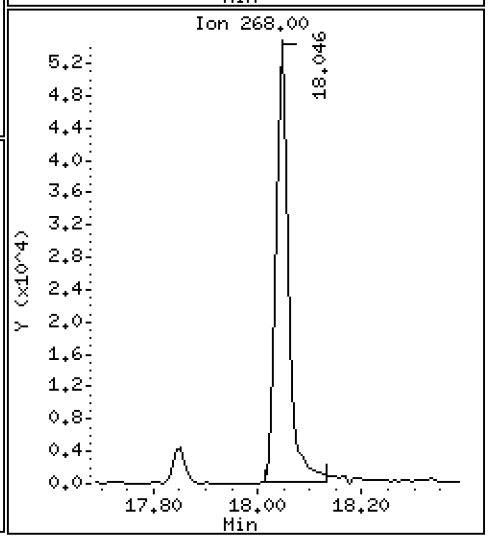












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

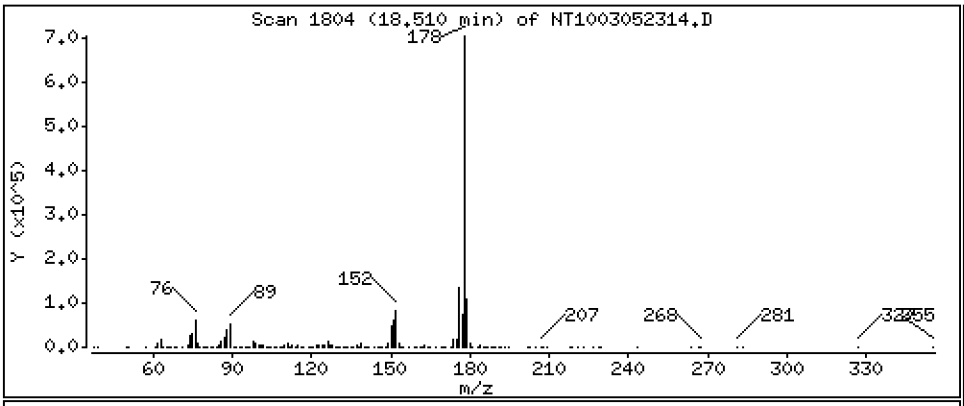
Operator: VTS

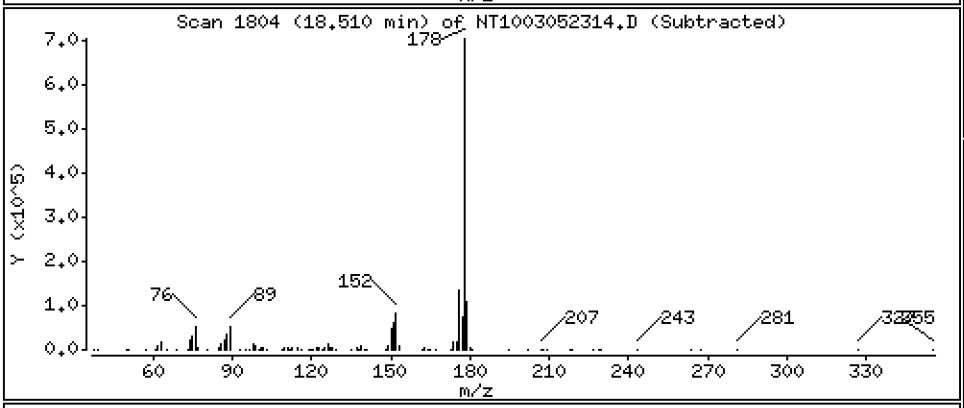
Column phase: ZB-5msi

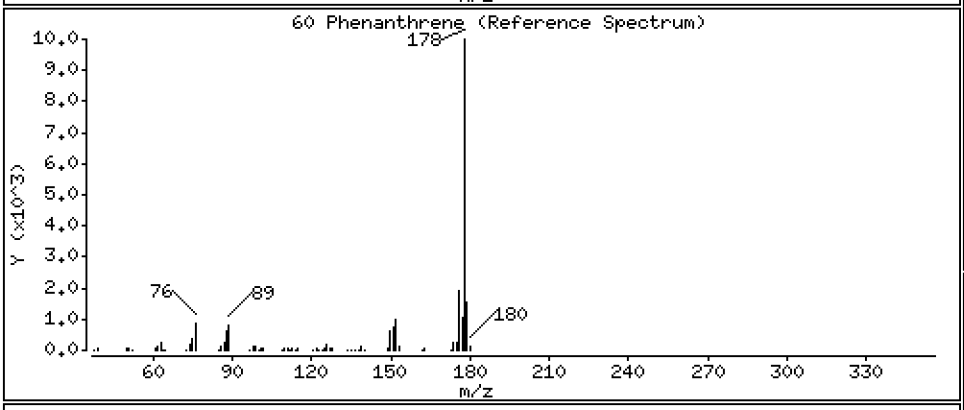
Column diameter: 0.25

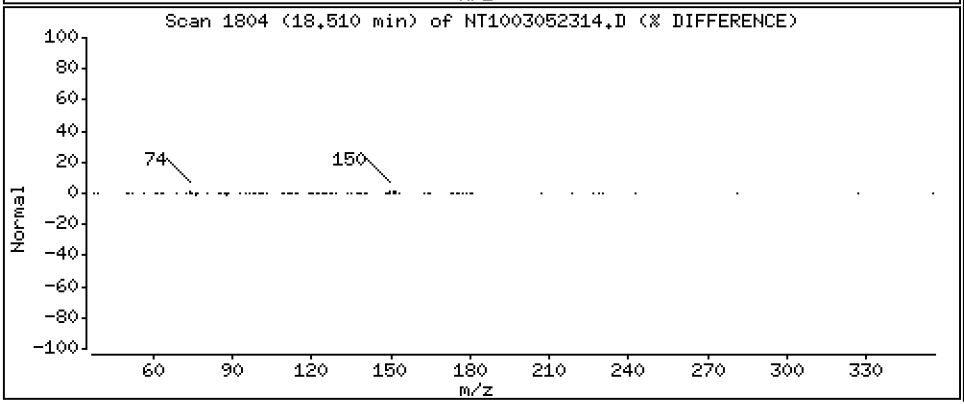
60 Phenanthrene

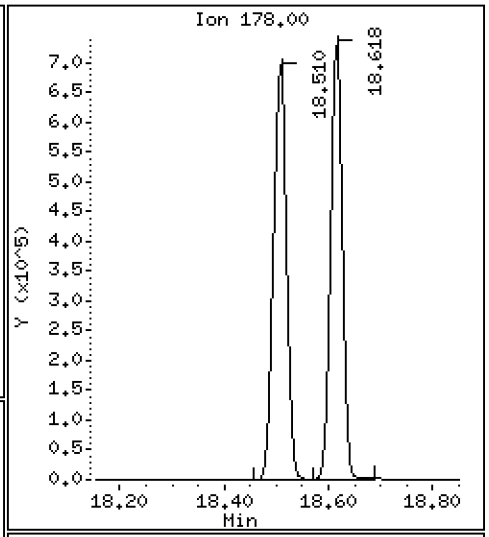
Concentration: 4.819 ug/mL

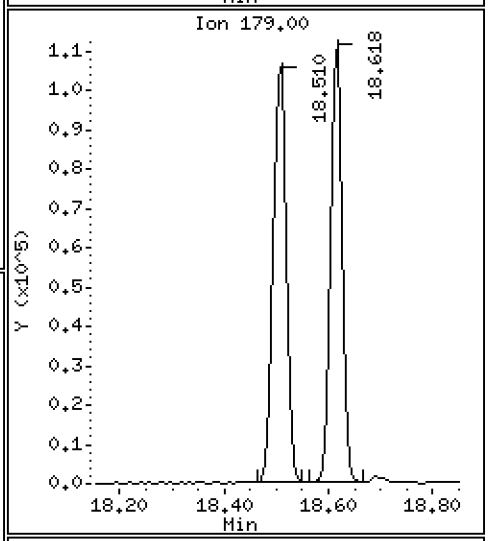


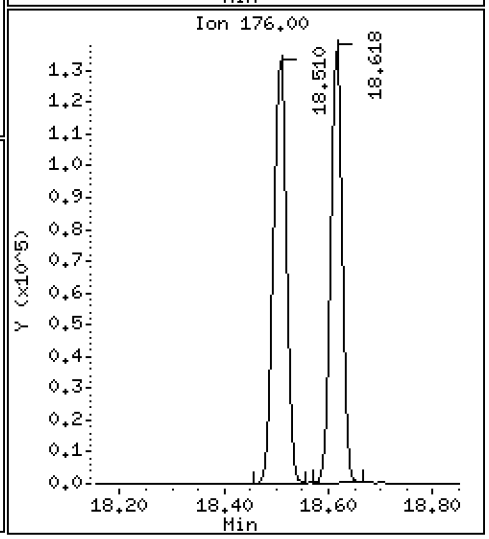












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D

Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

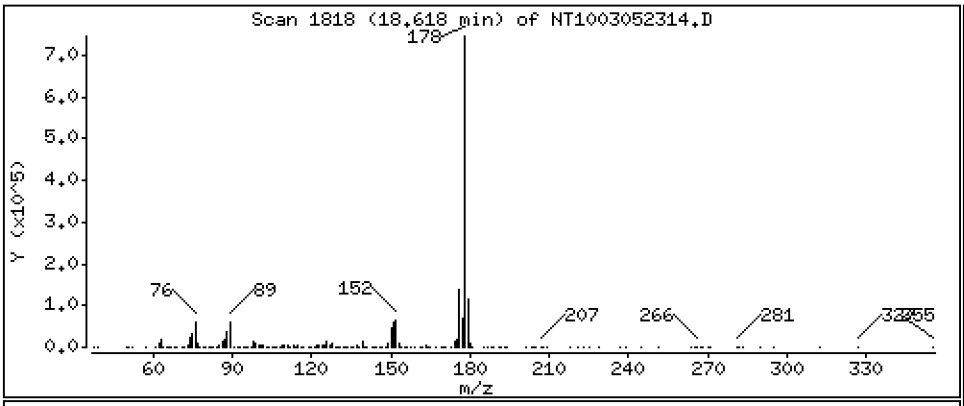
Operator: VTS

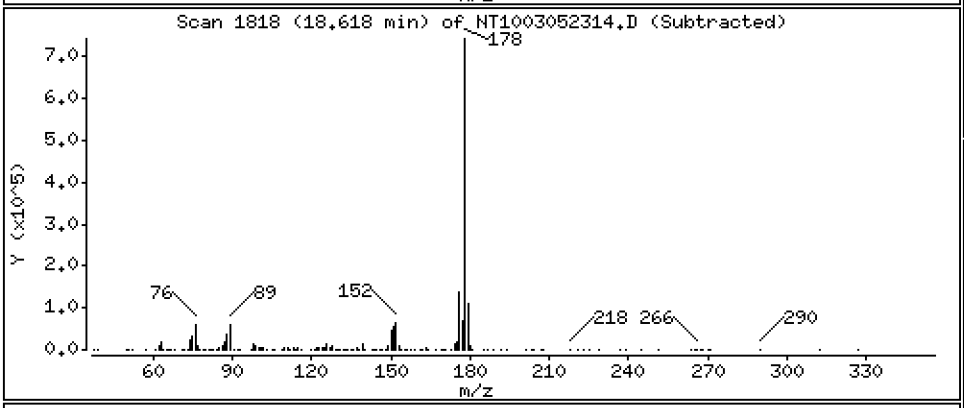
Column phase: ZB-5msi

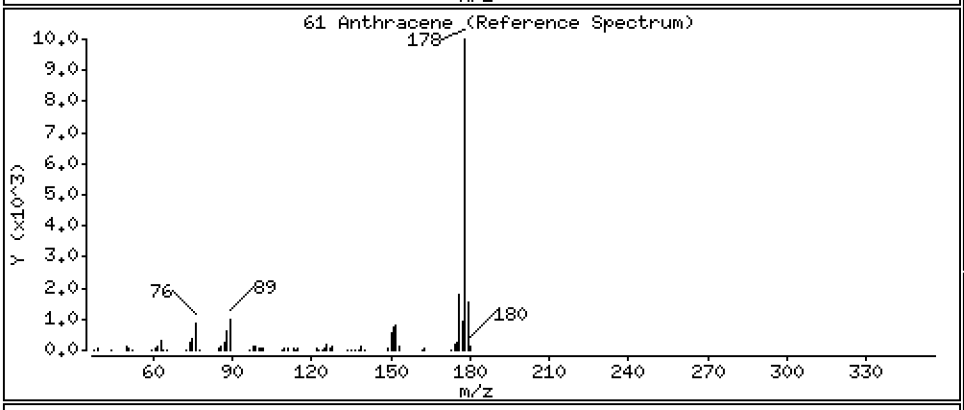
Column diameter: 0.25

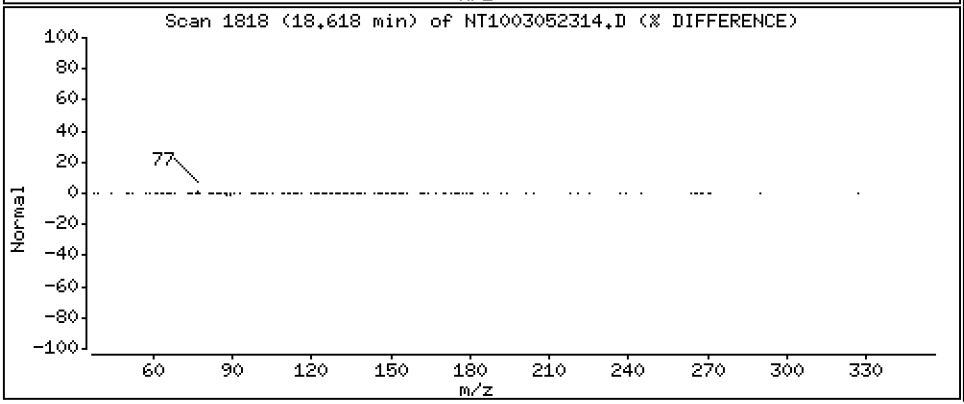
61 Anthracene

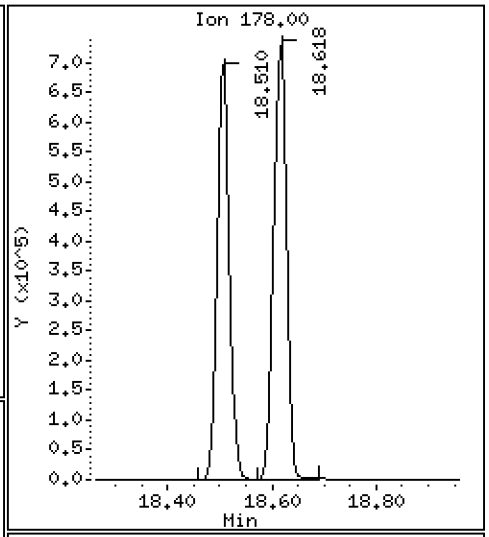
Concentration: 5.201 ug/mL

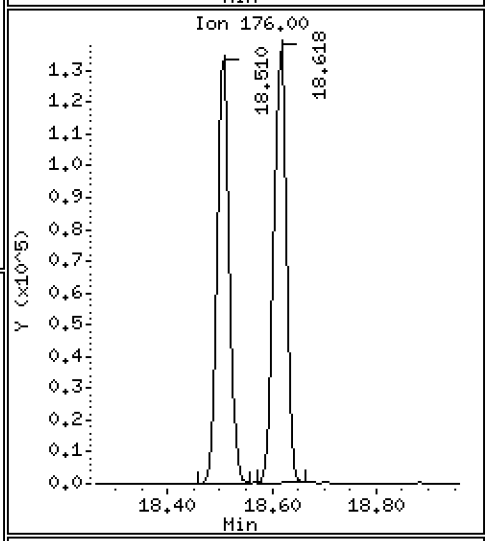


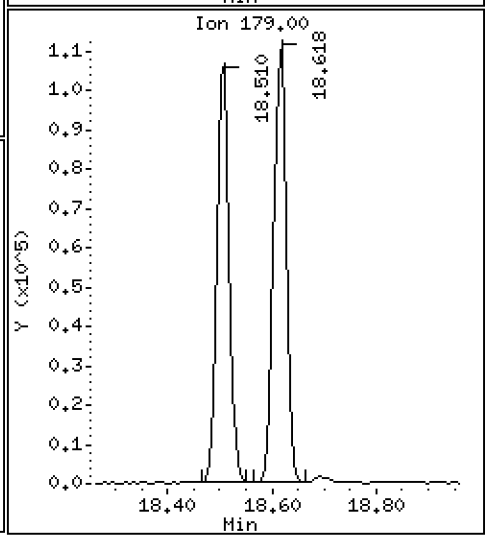












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

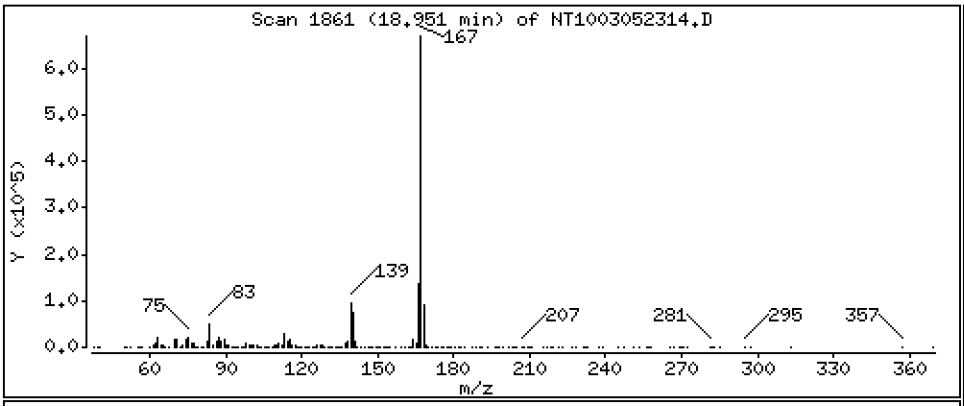
Operator: VTS

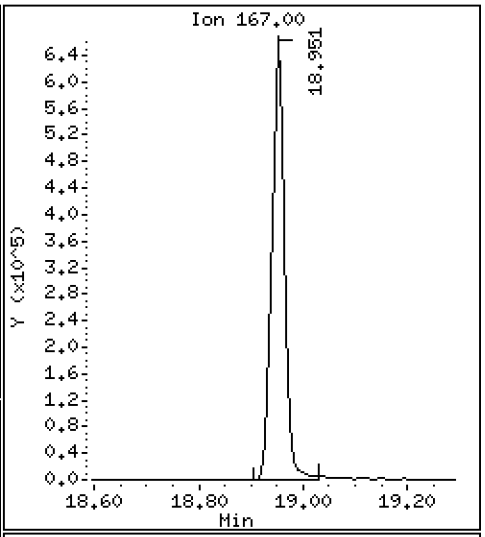
Column phase: ZB-5msi

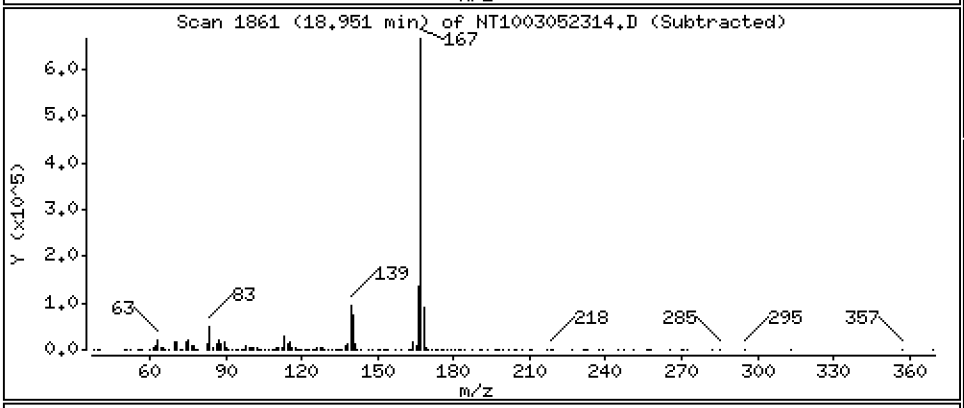
Column diameter: 0.25

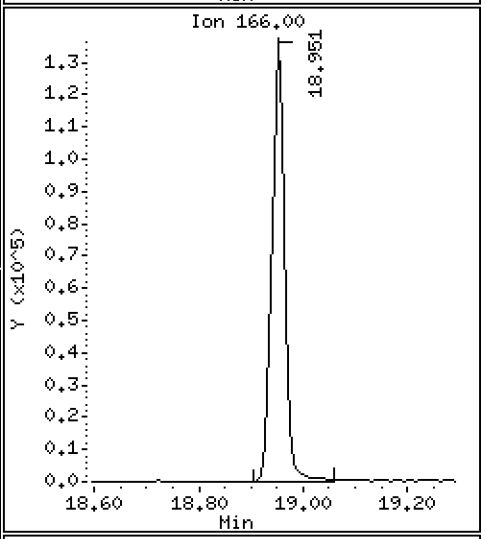
62 Carbazole

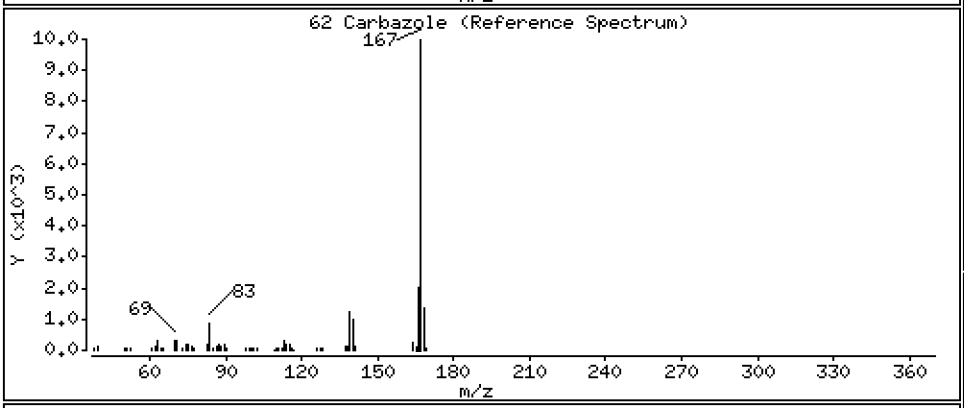
Concentration: 5.068 ug/mL

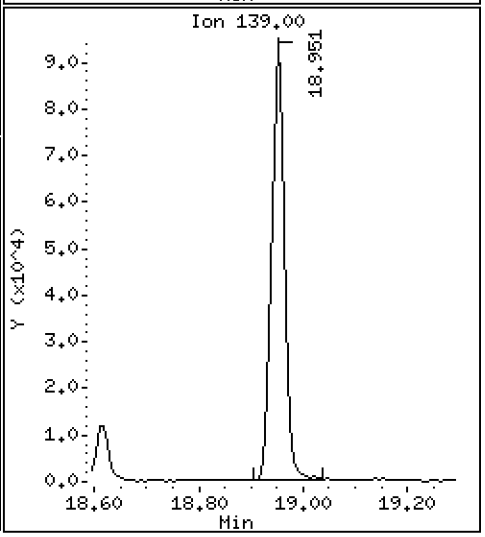


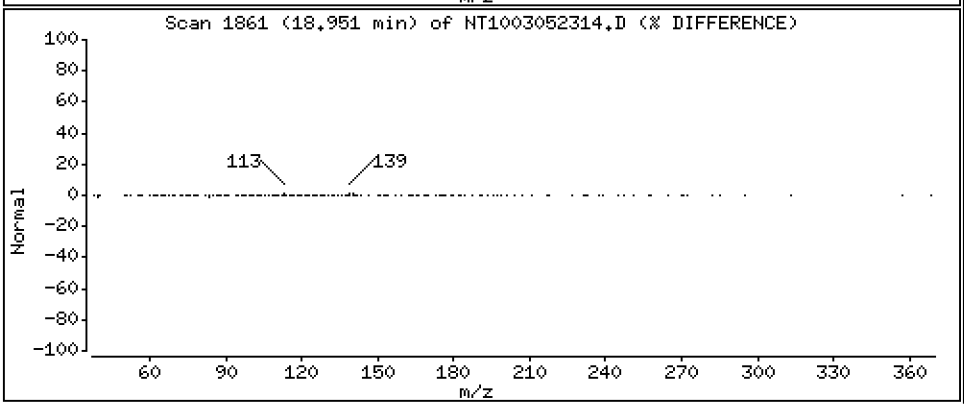












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D

Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

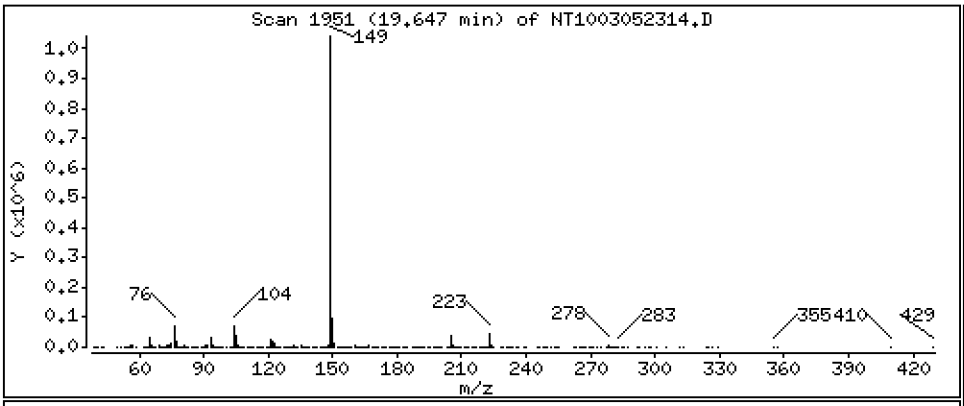
Operator: VTS

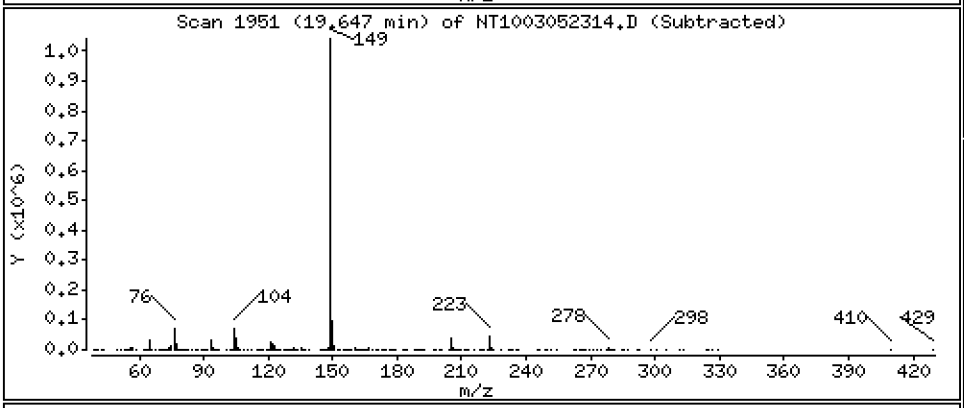
Column phase: ZB-5msi

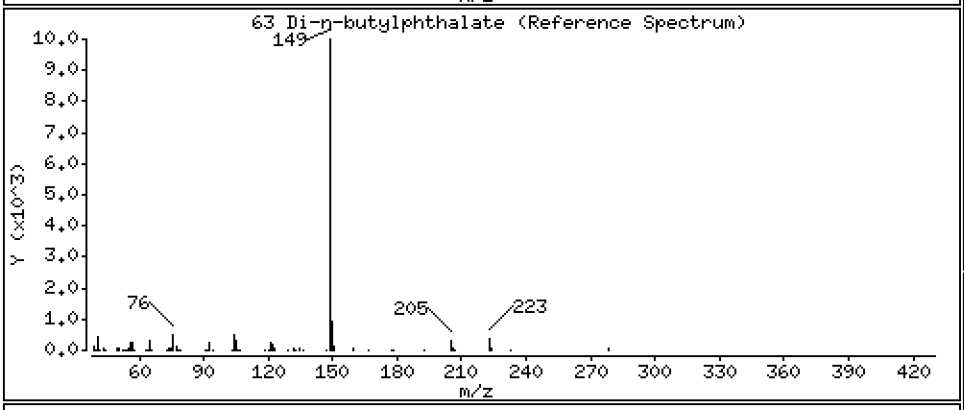
Column diameter: 0.25

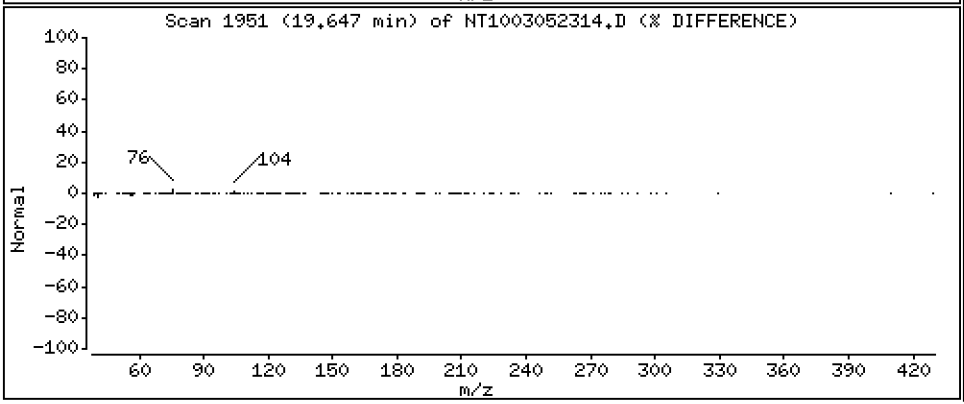
63 Di-n-butylphthalate

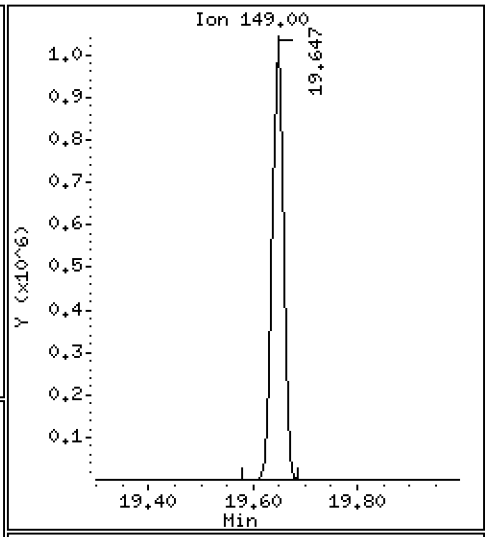
Concentration: 4.811 ug/mL

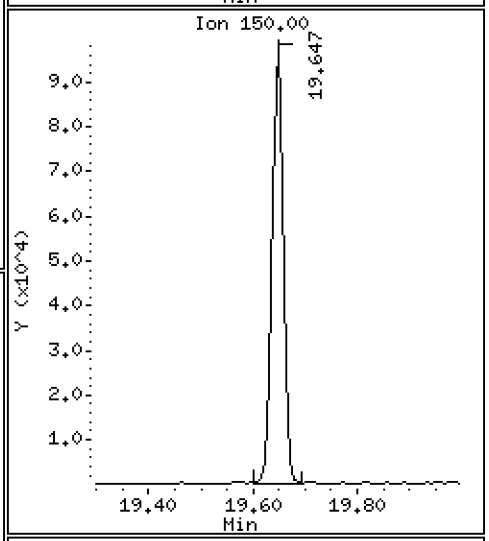


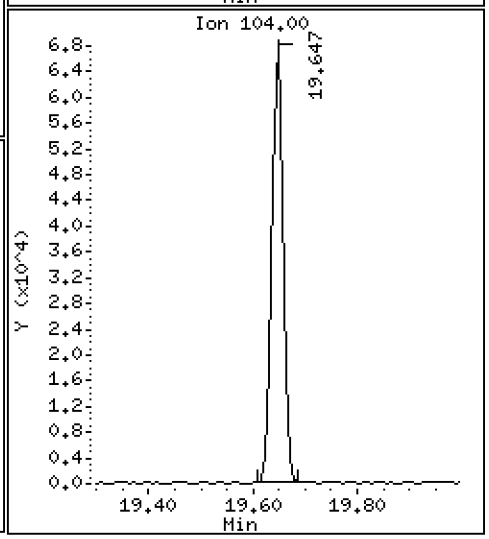












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

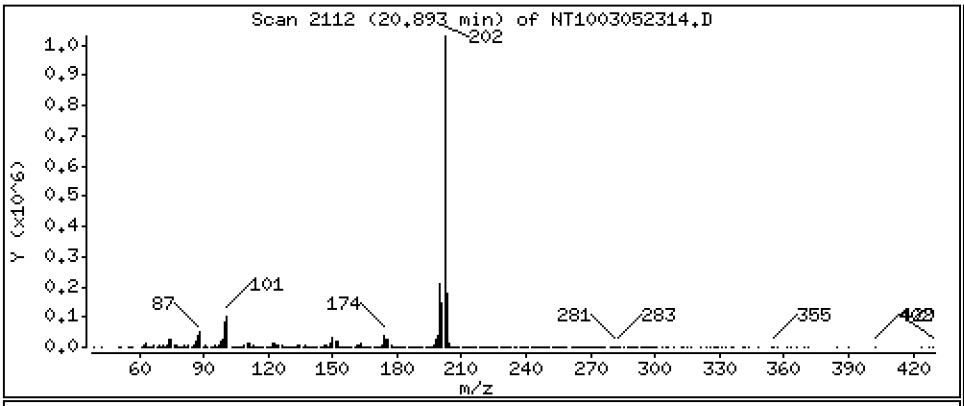
Operator: VTS

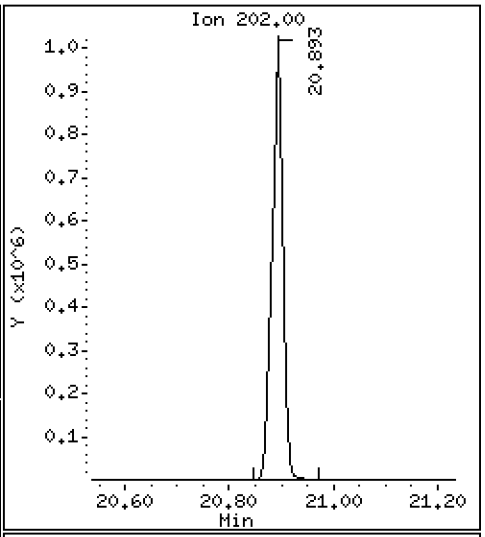
Column phase: ZB-5msi

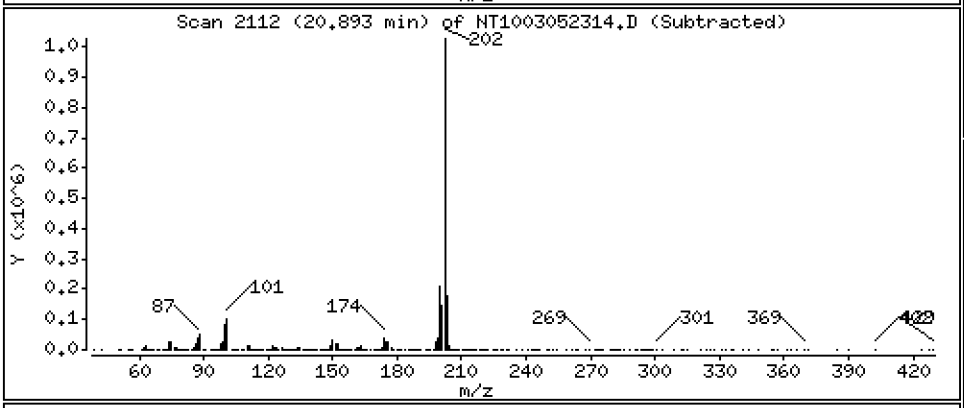
Column diameter: 0.25

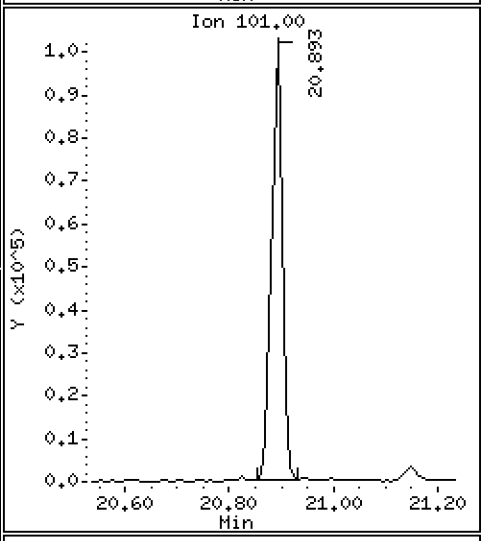
64 Fluoranthene

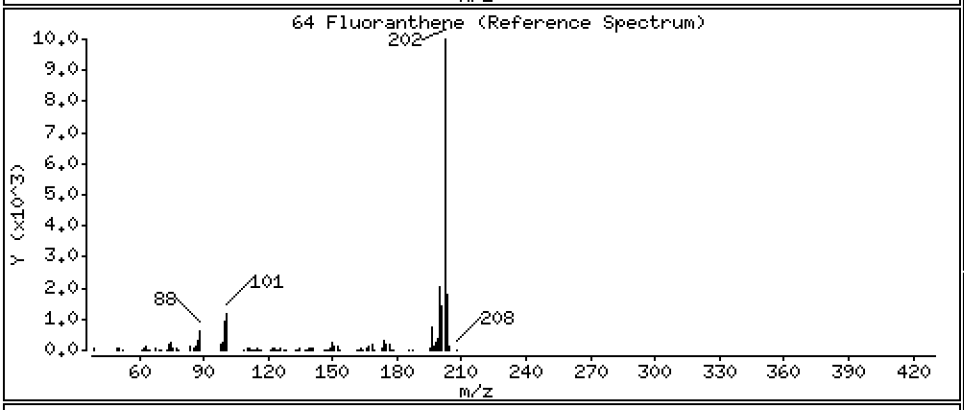
Concentration: 4.161 ug/mL

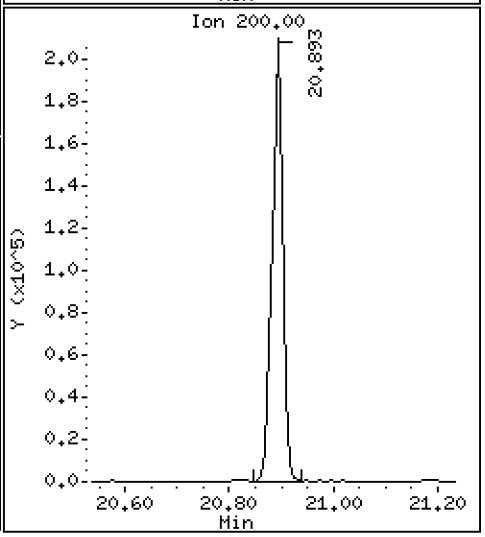


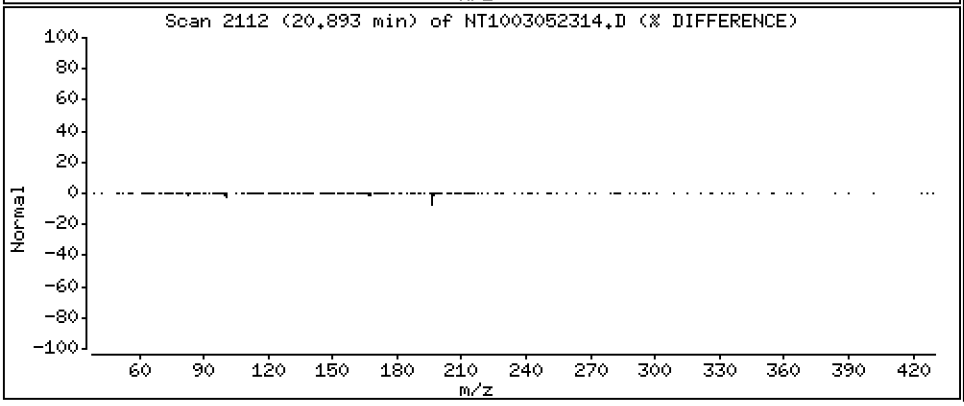












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

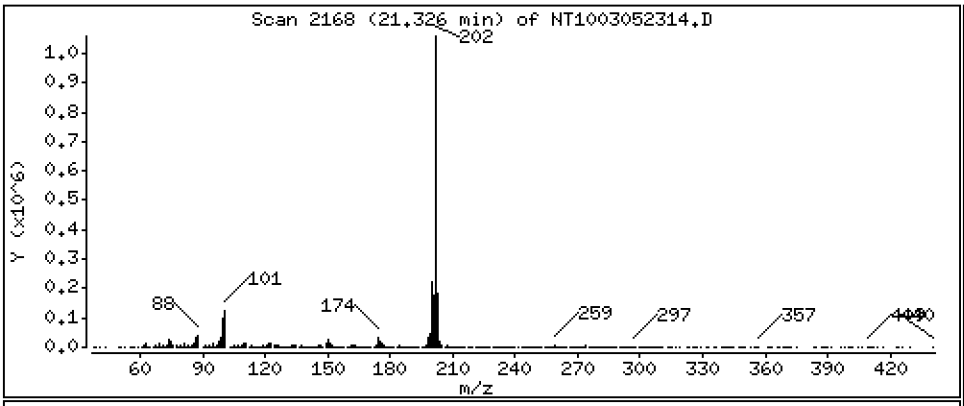
Operator: VTS

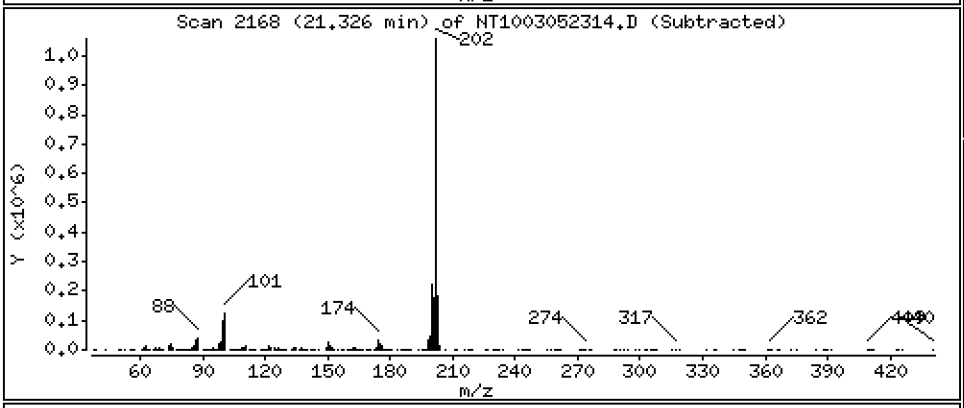
Column phase: ZB-5msi

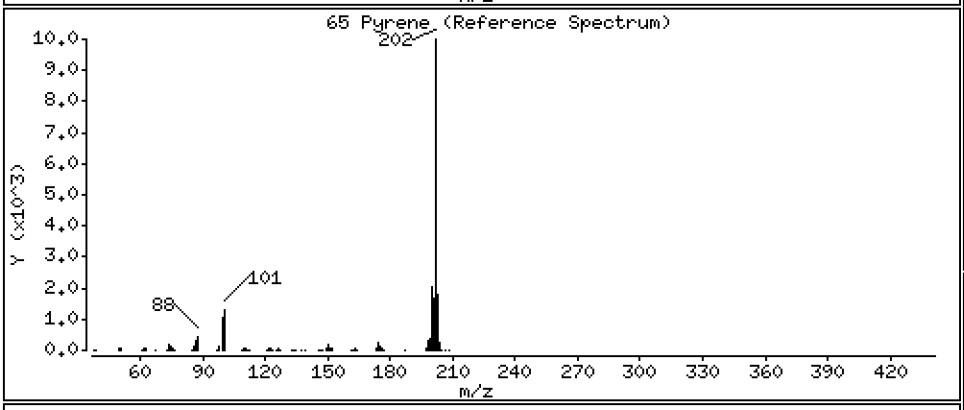
Column diameter: 0.25

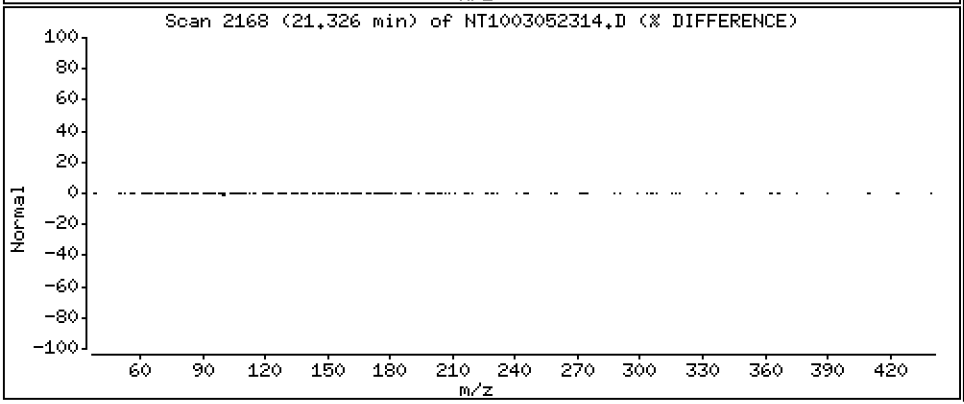
65 Pyrene

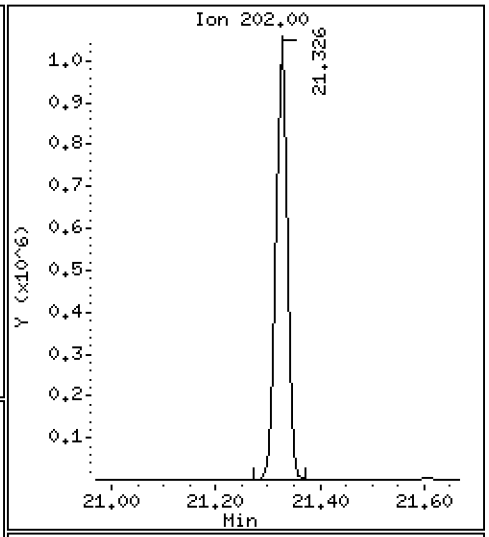
Concentration: 4.284 ug/mL

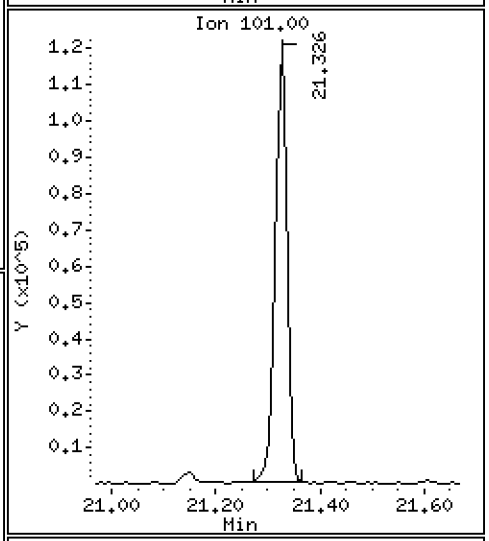


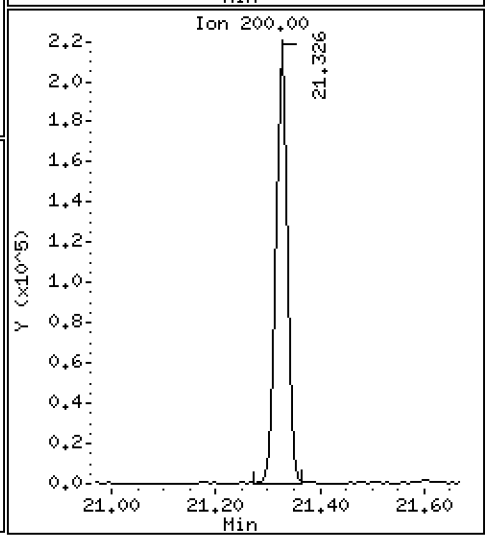












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

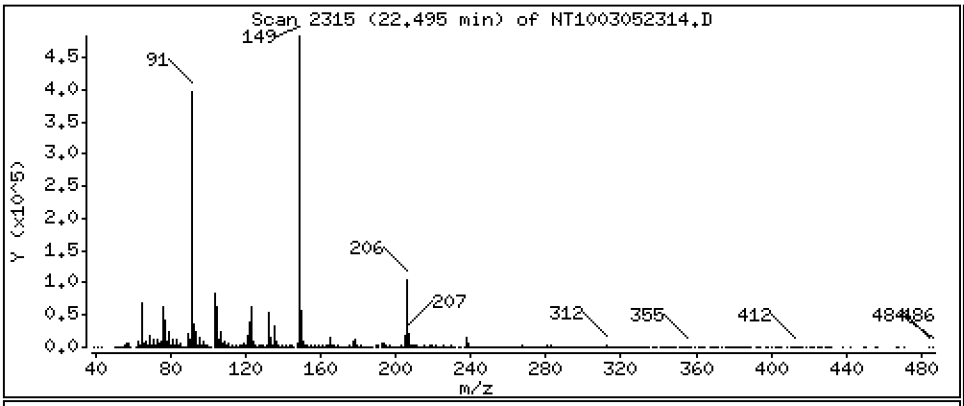
Operator: VTS

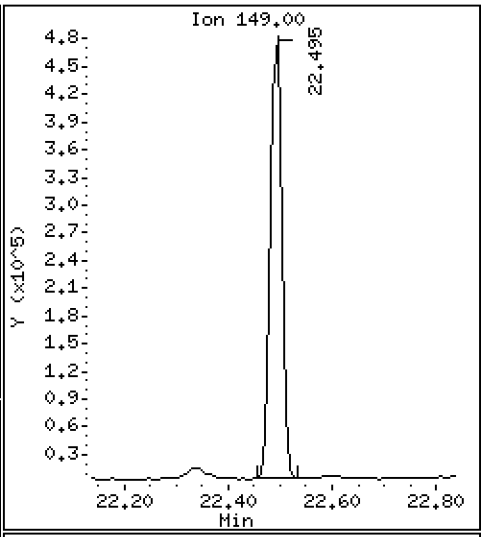
Column phase: ZB-5msi

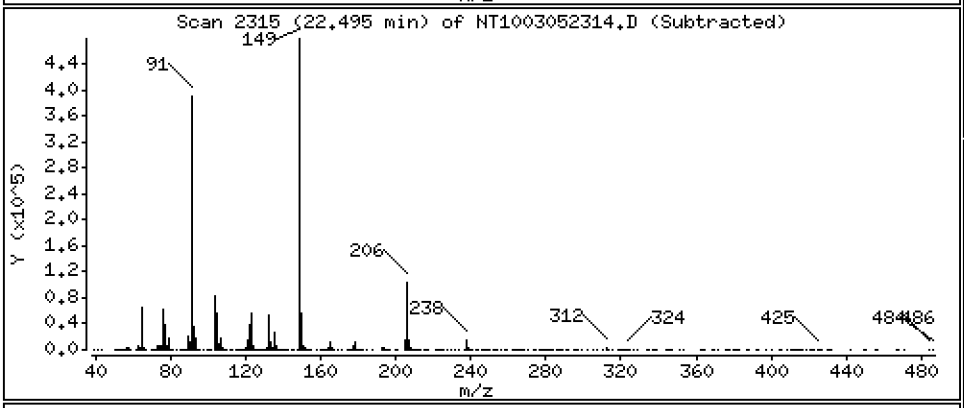
Column diameter: 0.25

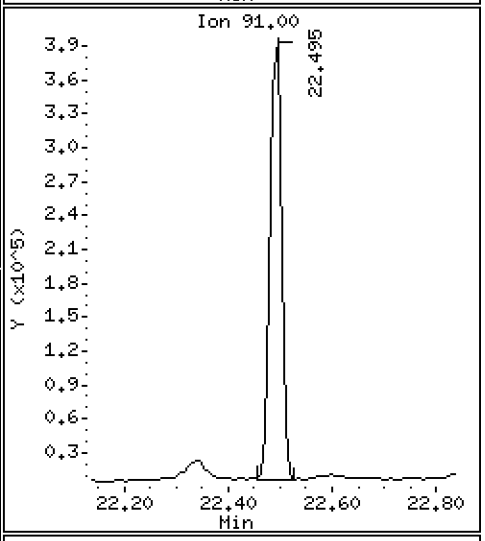
67 Butylbenzylphthalate

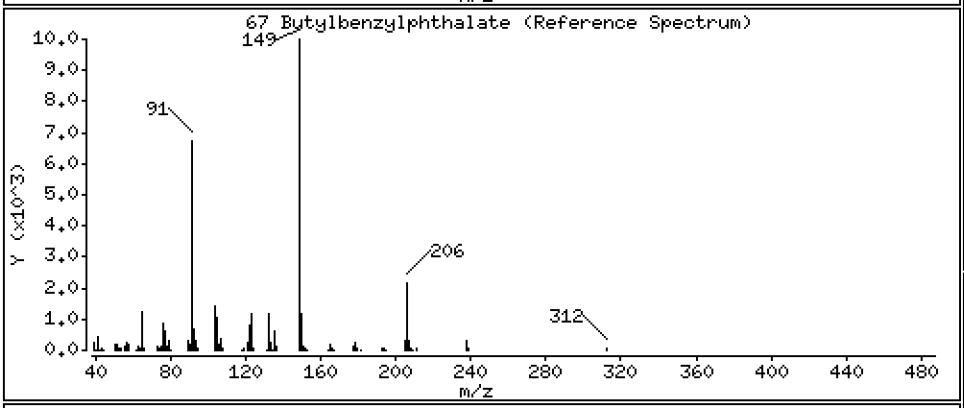
Concentration: 3.740 ug/mL

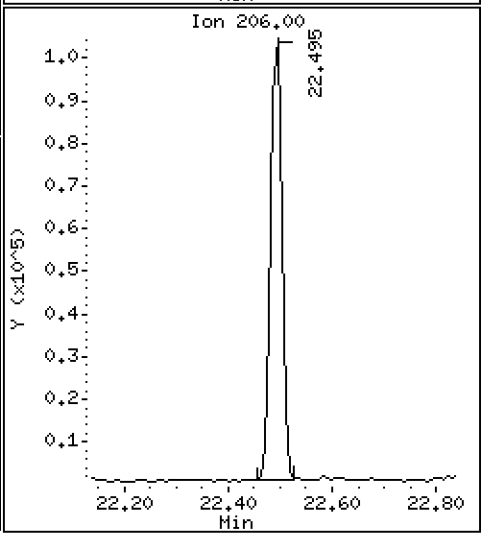


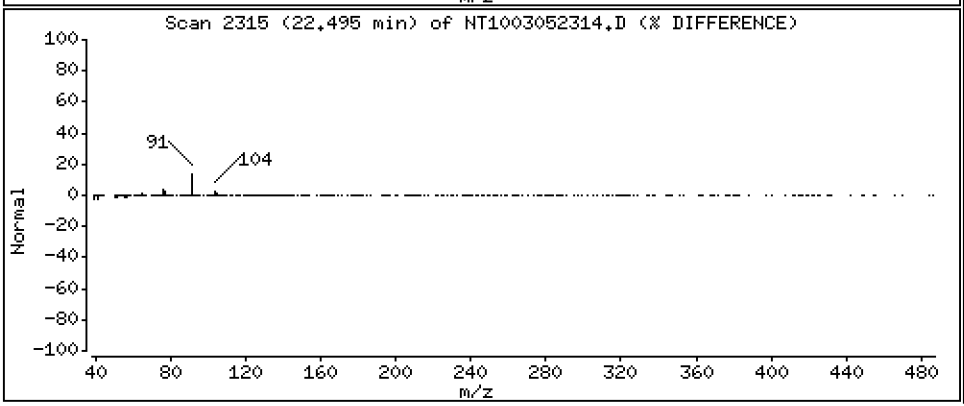












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

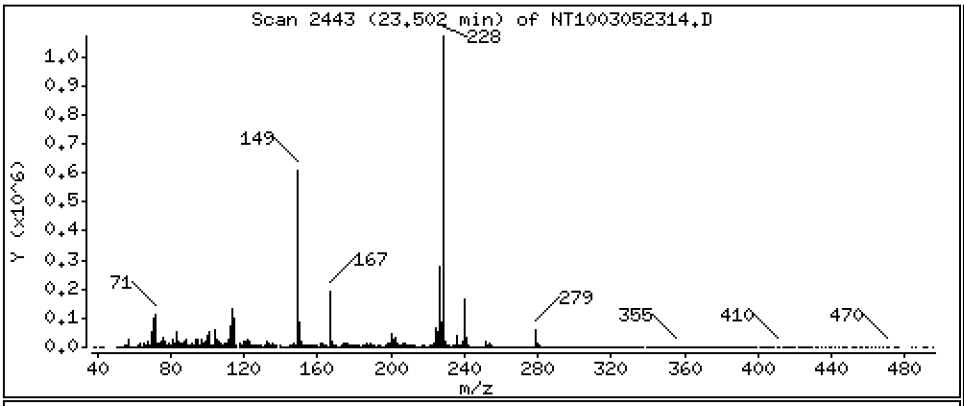
Operator: VTS

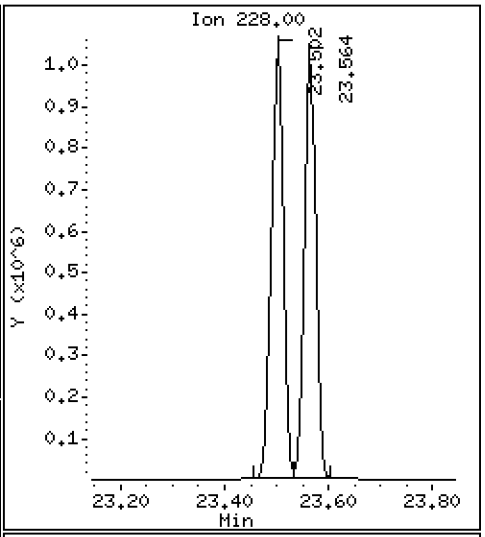
Column phase: ZB-5msi

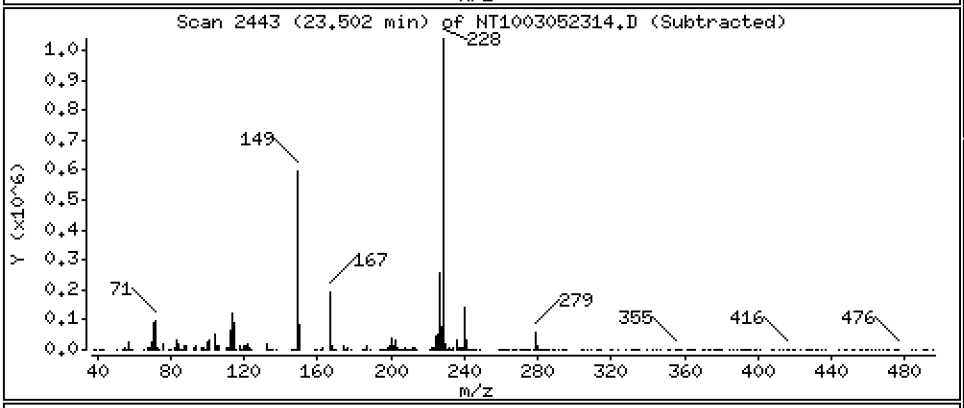
Column diameter: 0.25

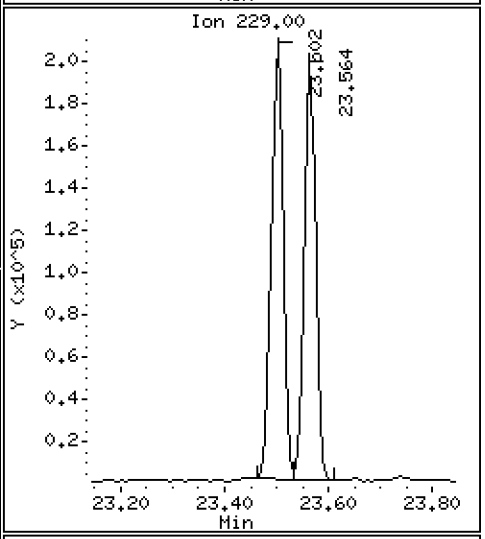
68 Benzo(a)anthracene

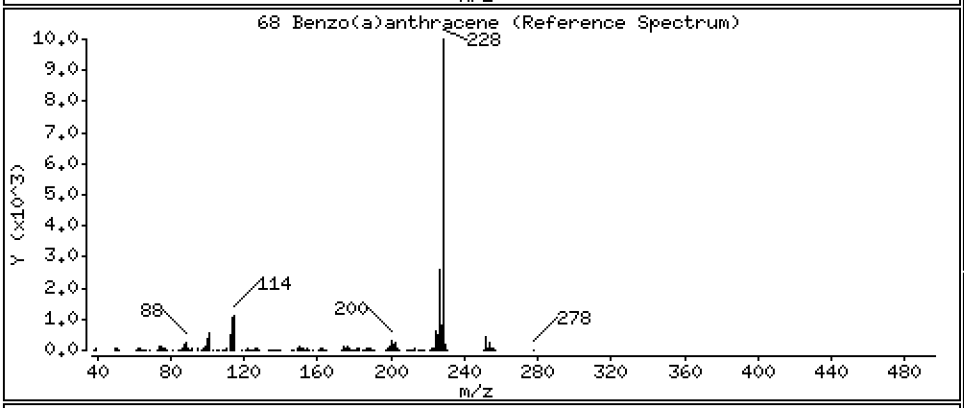
Concentration: 4.695 ug/mL

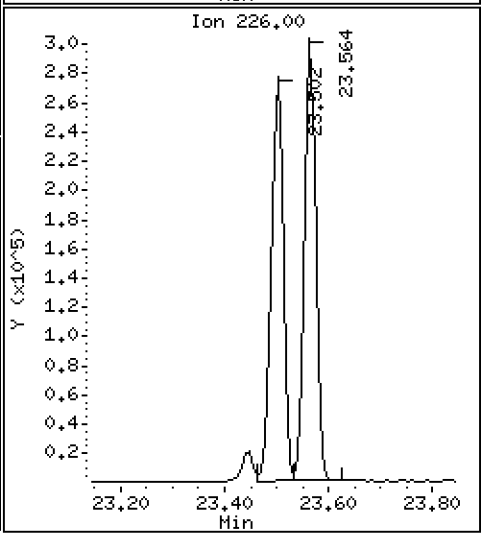


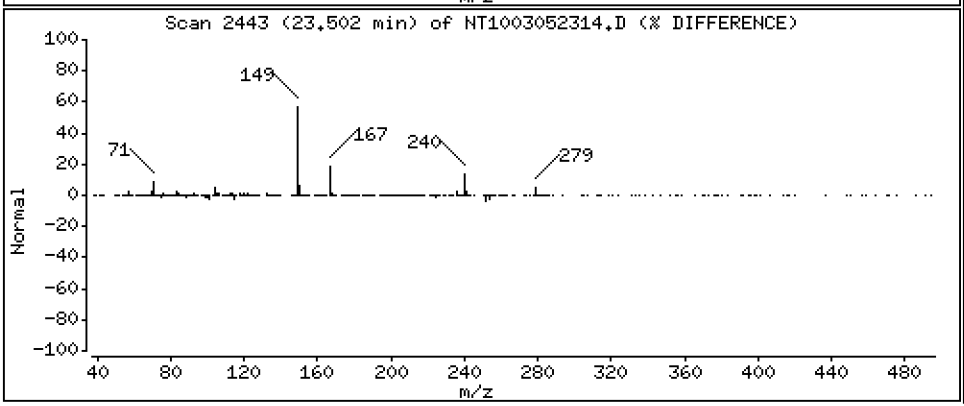












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D

Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

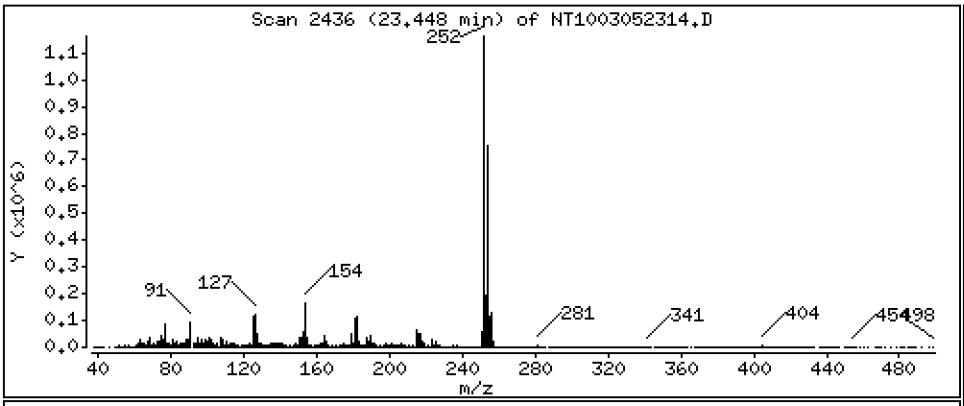
Operator: VTS

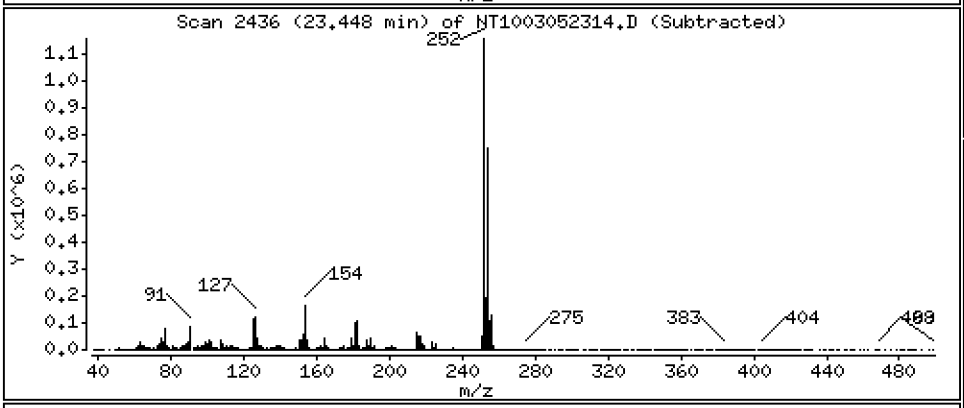
Column phase: ZB-5msi

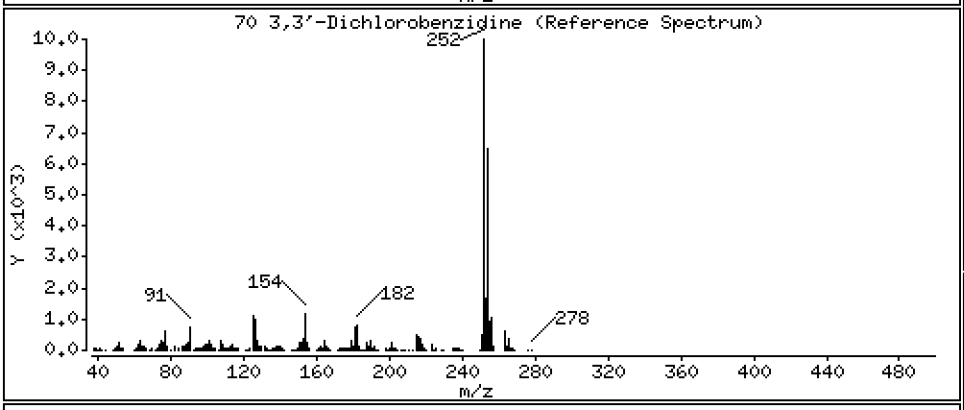
Column diameter: 0.25

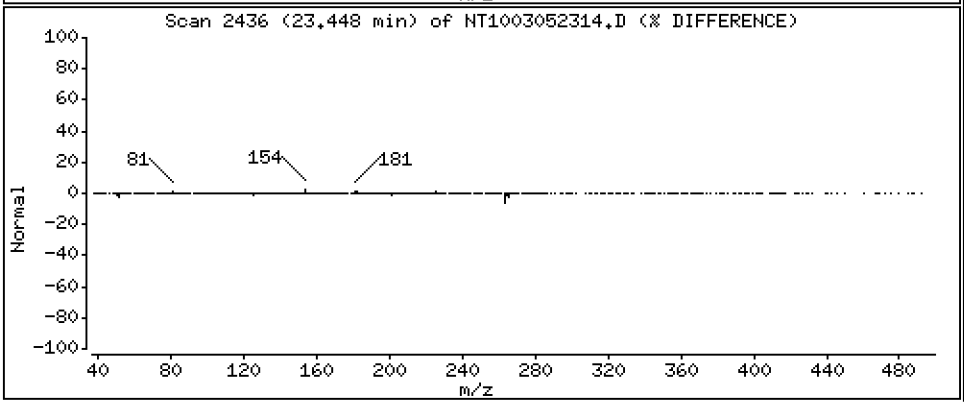
70 3,3'-Dichlorobenzidine

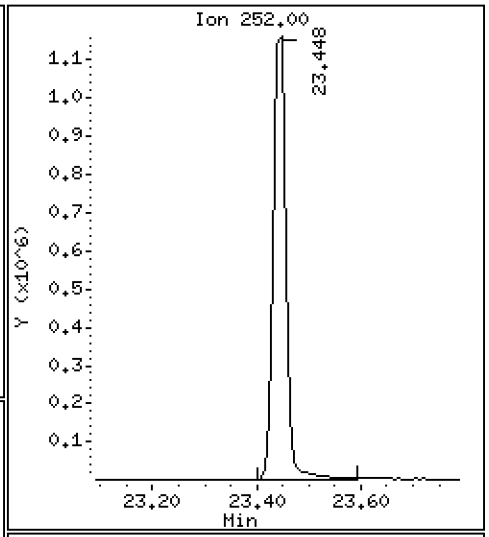
Concentration: 11.71 ug/mL

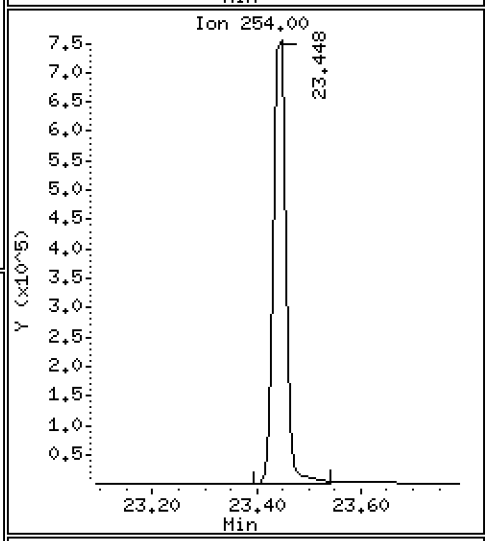


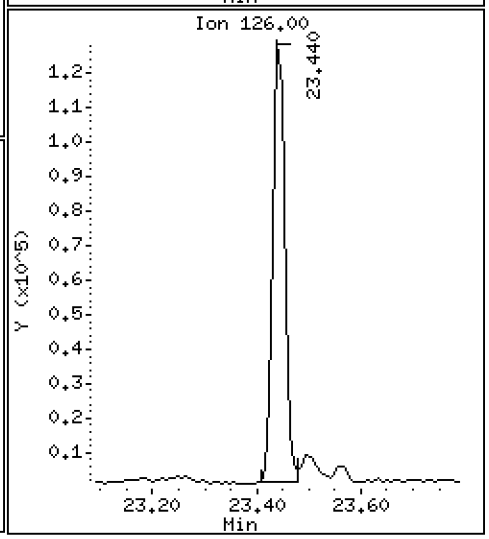












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

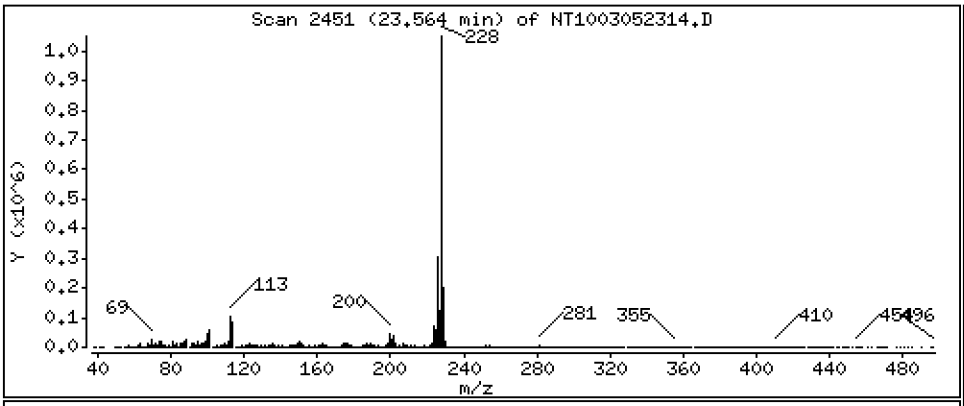
Operator: VTS

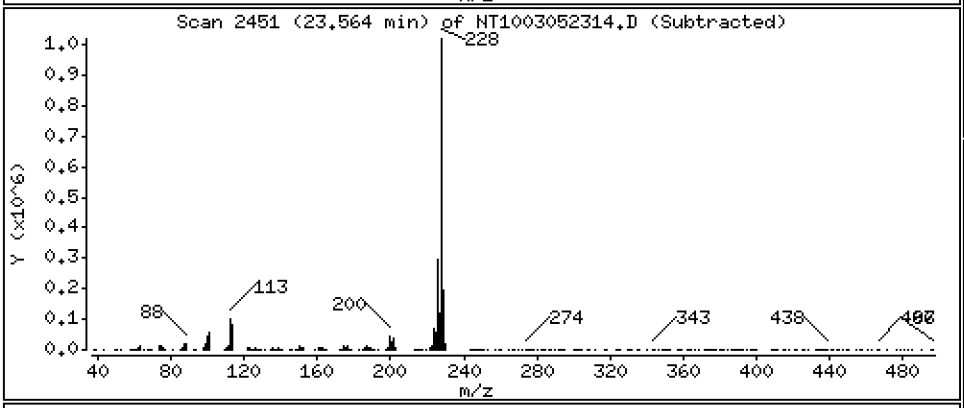
Column phase: ZB-5msi

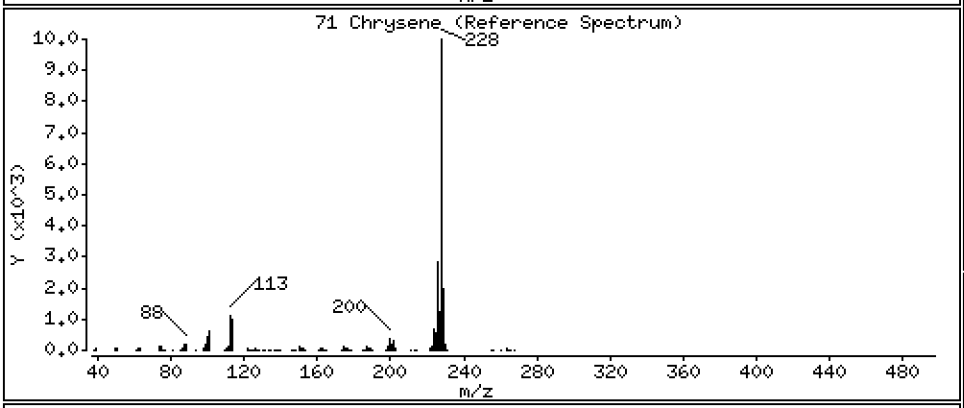
Column diameter: 0.25

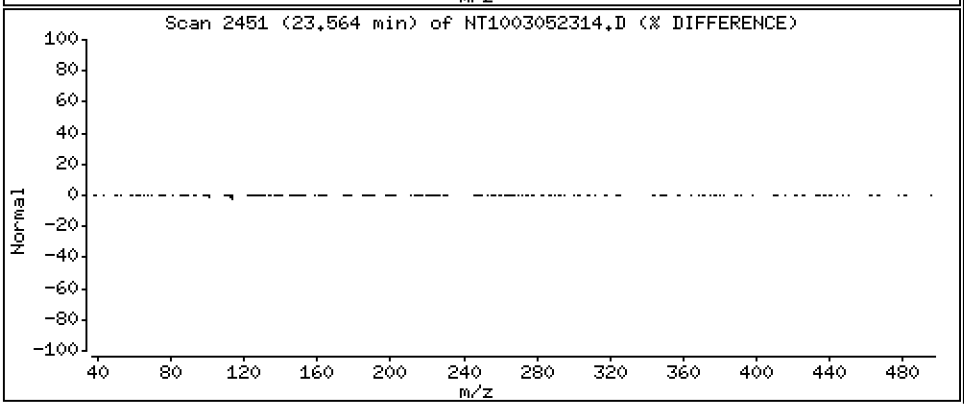
71 Chrysene

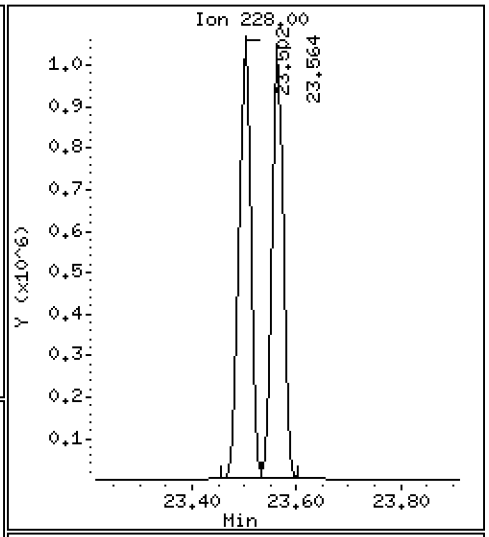
Concentration: 5.093 ug/mL

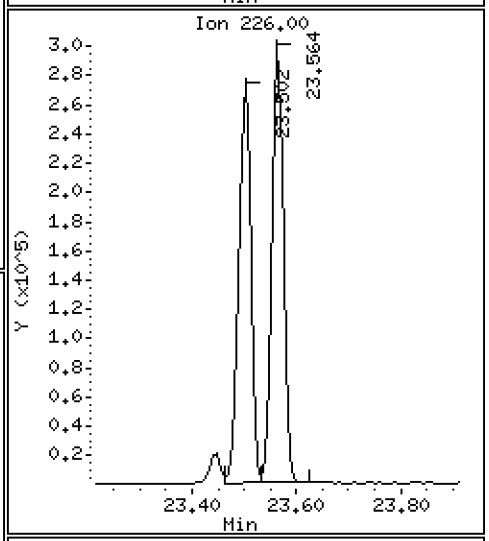


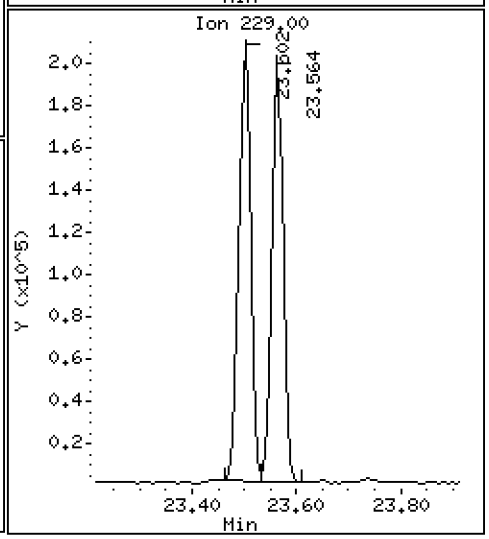












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D

Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

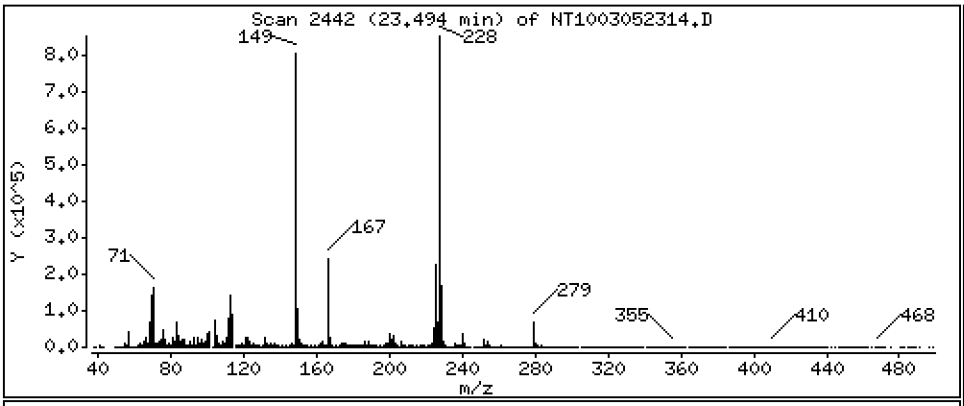
Operator: VTS

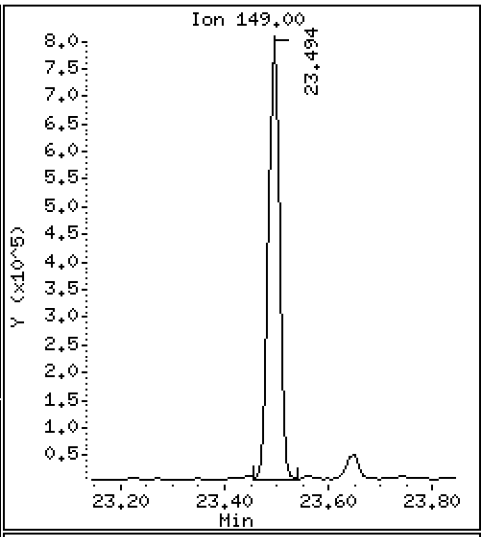
Column phase: ZB-5msi

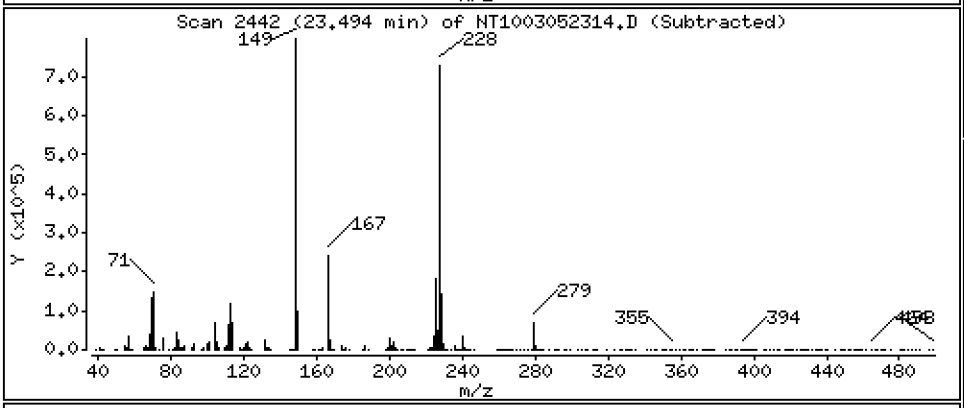
Column diameter: 0.25

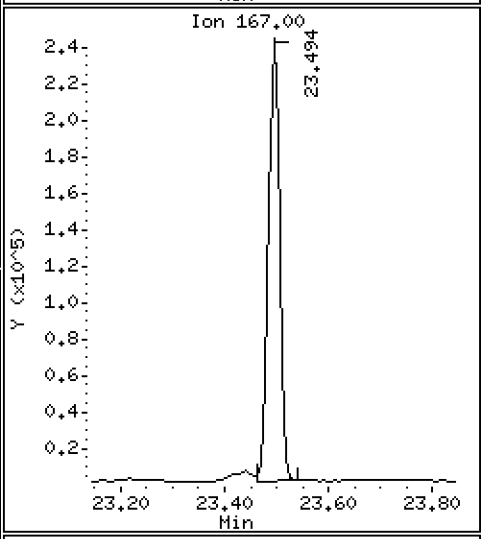
72 bis(2-Ethylhexyl)phthalate

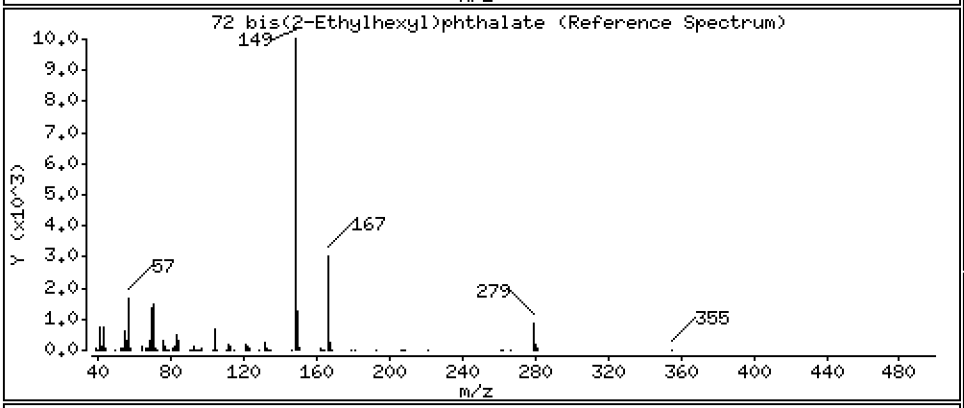
Concentration: 4.686 ug/mL

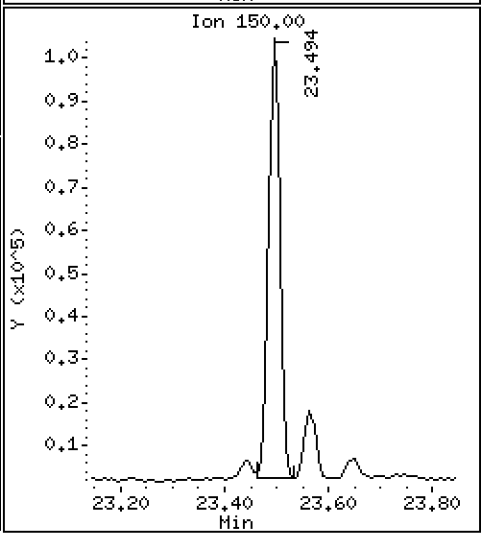


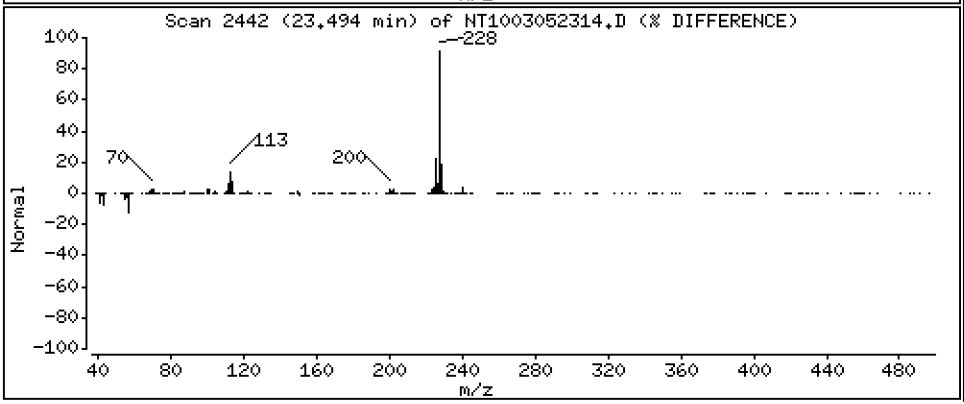












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

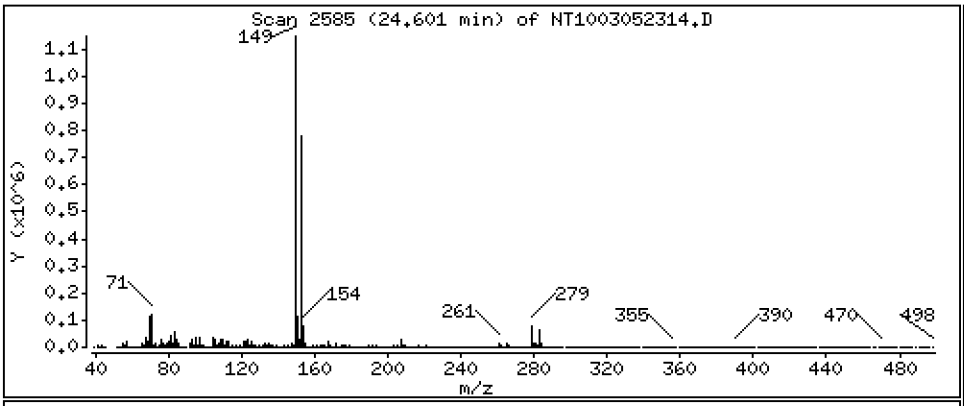
Operator: VTS

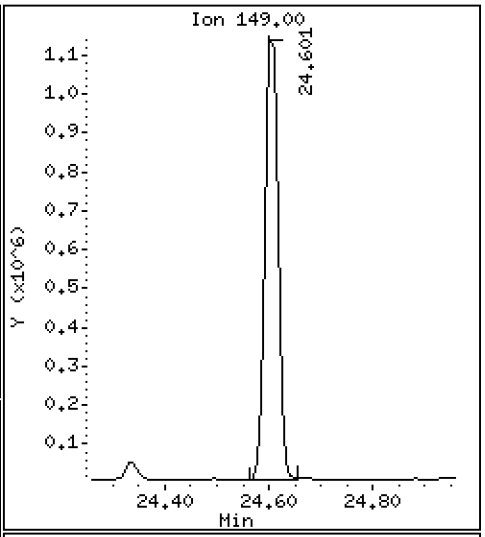
Column phase: ZB-5msi

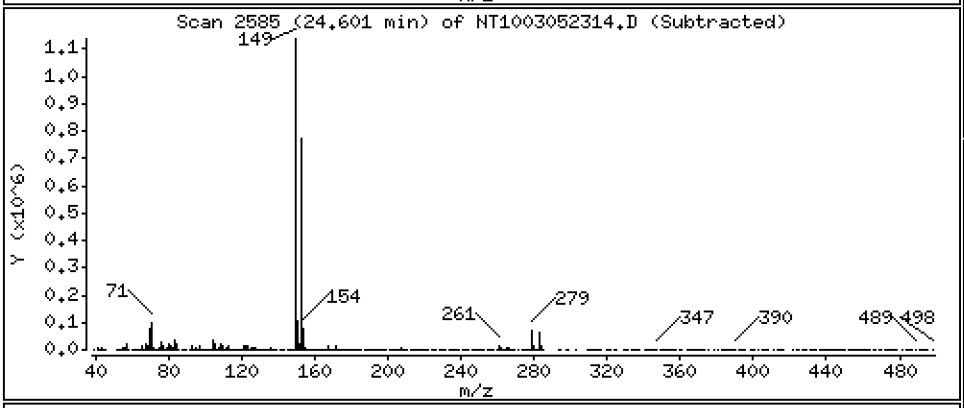
Column diameter: 0.25

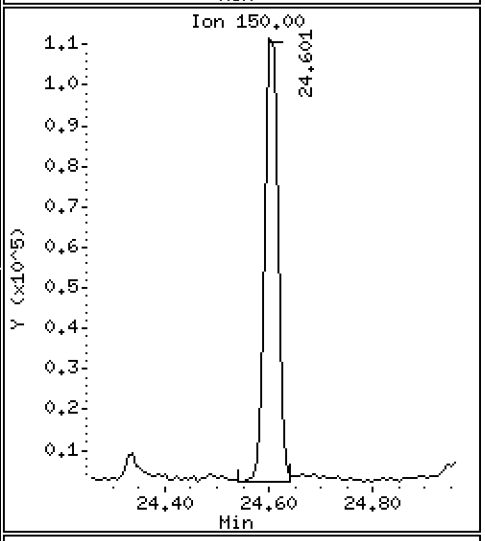
73 Di-n-octylphthalate

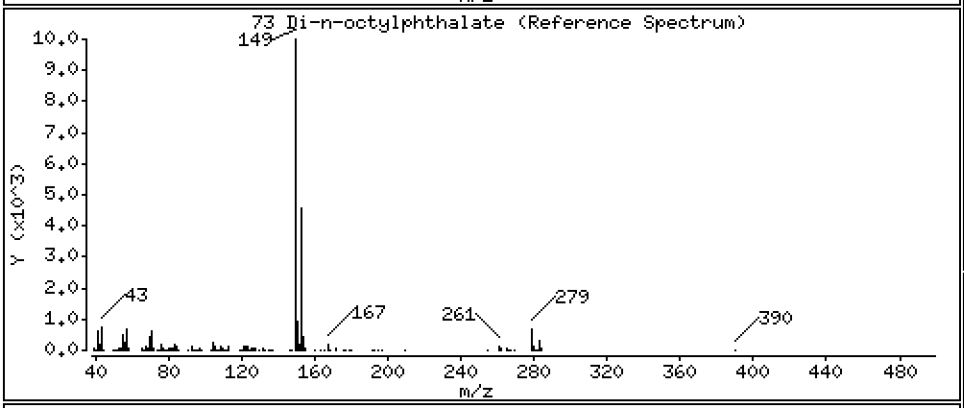
Concentration: 5.195 ug/mL

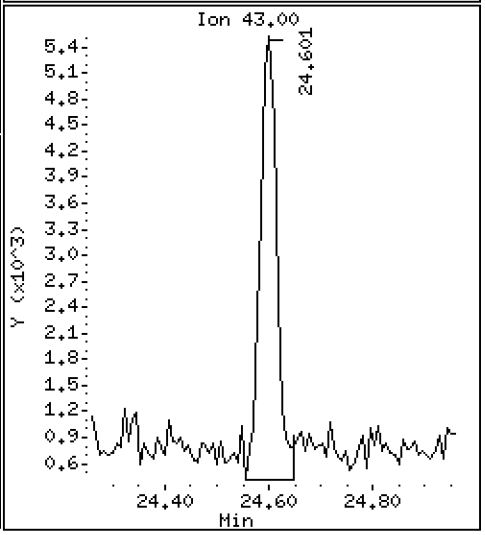


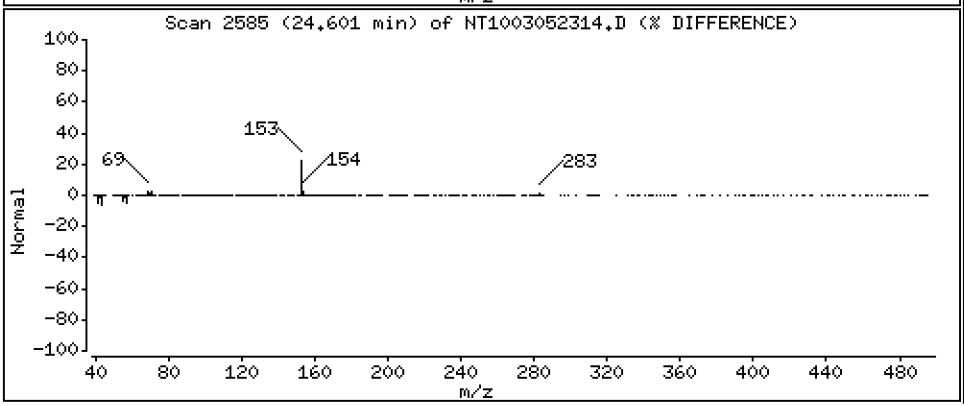












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

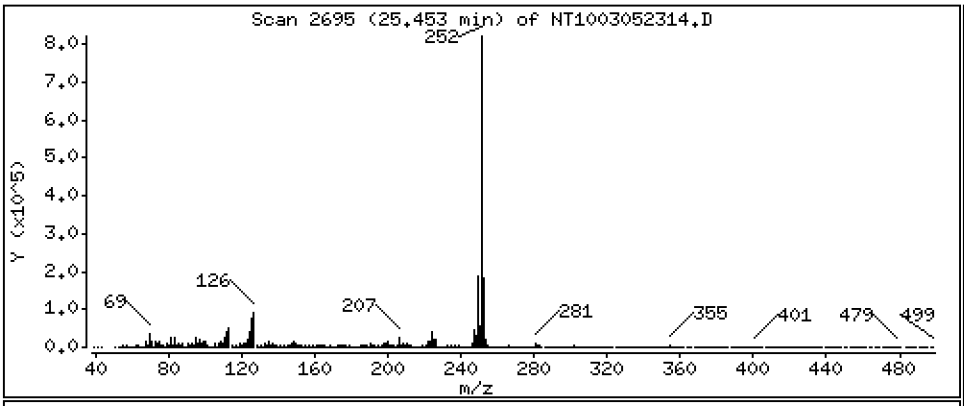
Operator: VTS

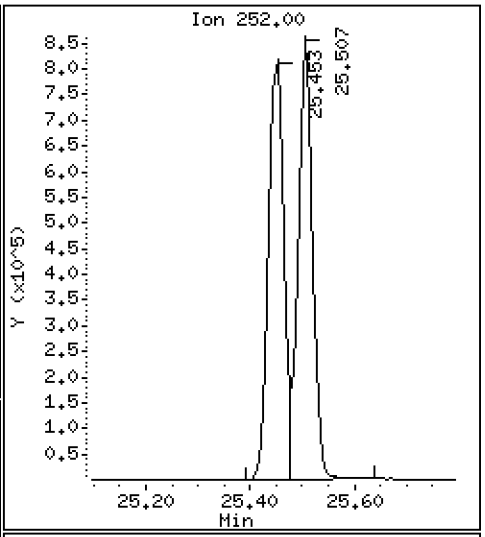
Column phase: ZB-5msi

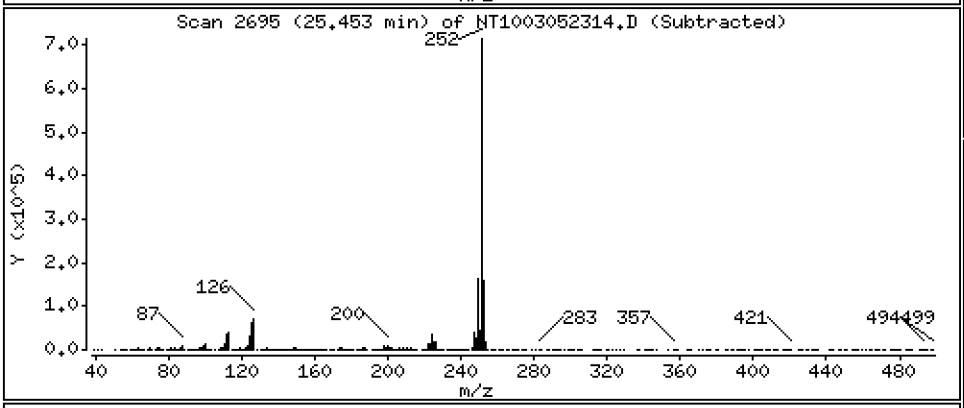
Column diameter: 0.25

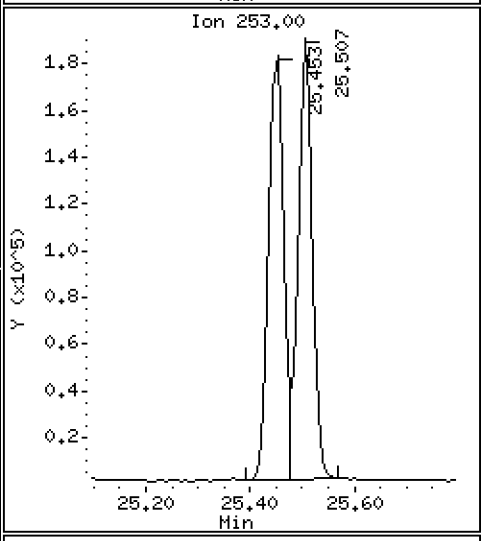
74 Benzo(b)fluoranthene

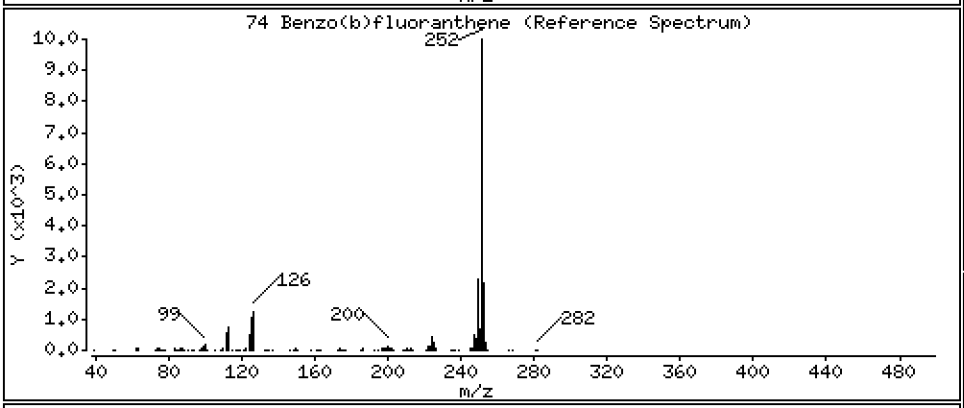
Concentration: 4.209 ug/mL

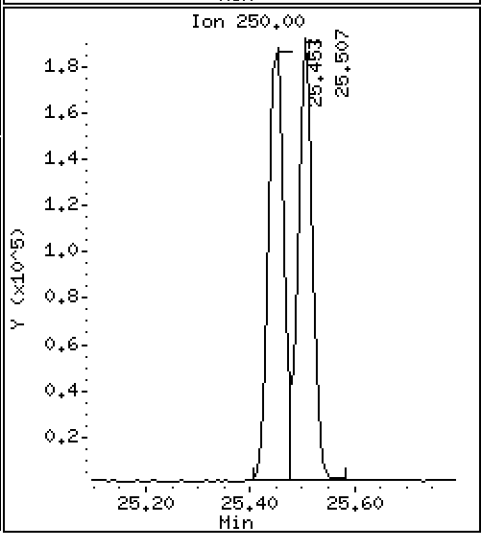


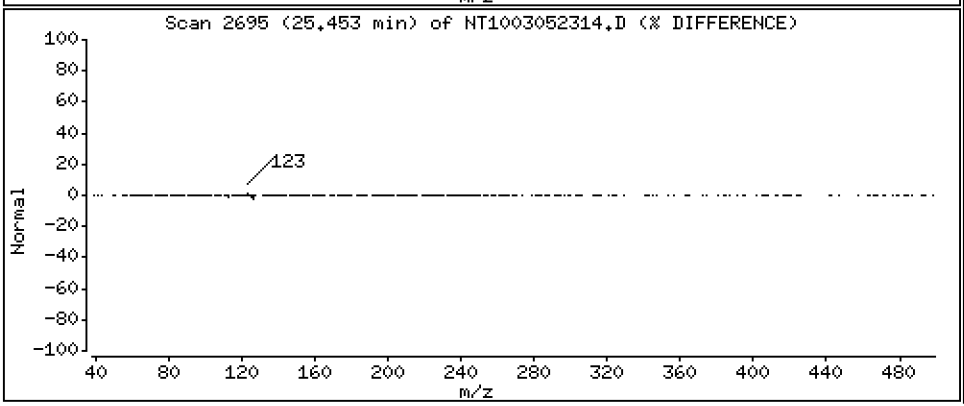












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

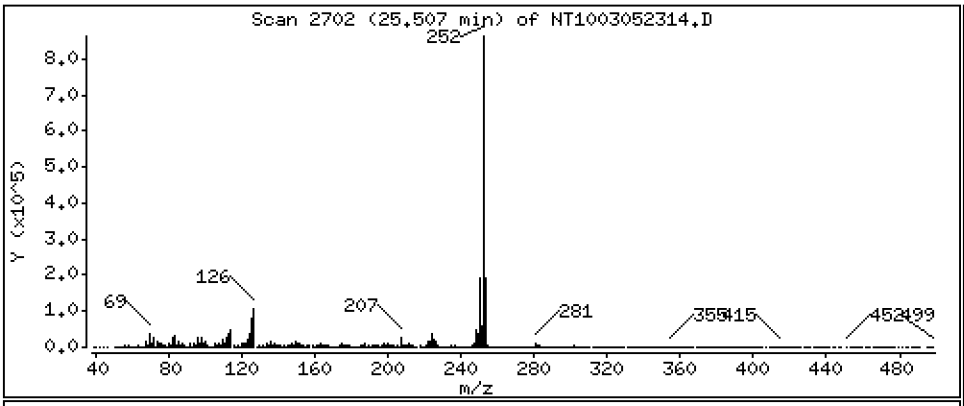
Operator: VTS

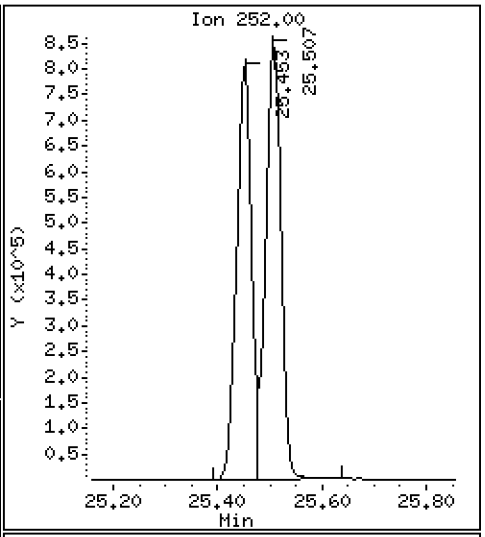
Column phase: ZB-5msi

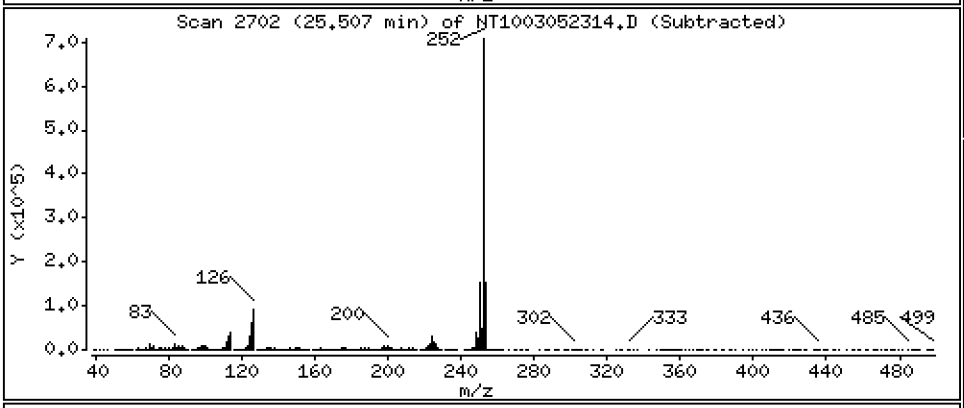
Column diameter: 0.25

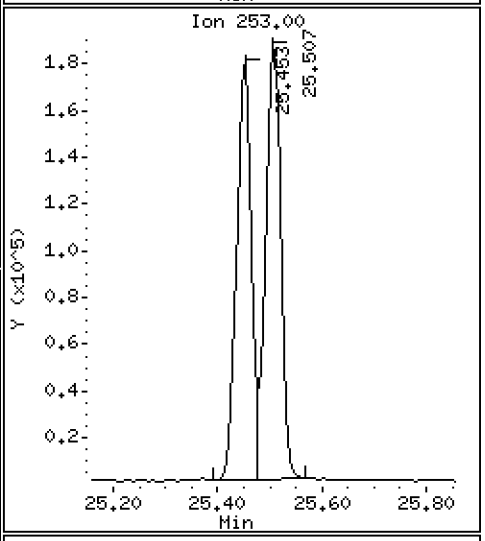
75 Benzo(k)fluoranthene

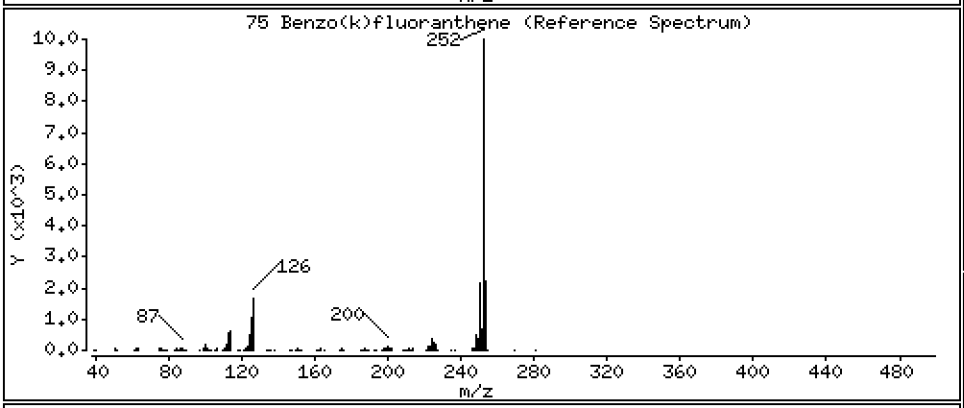
Concentration: 4.595 ug/mL

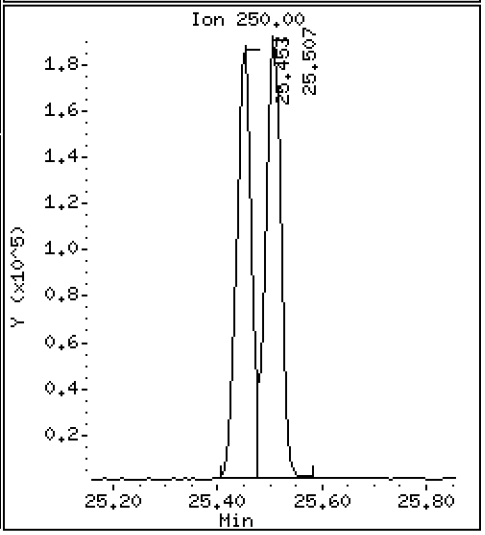


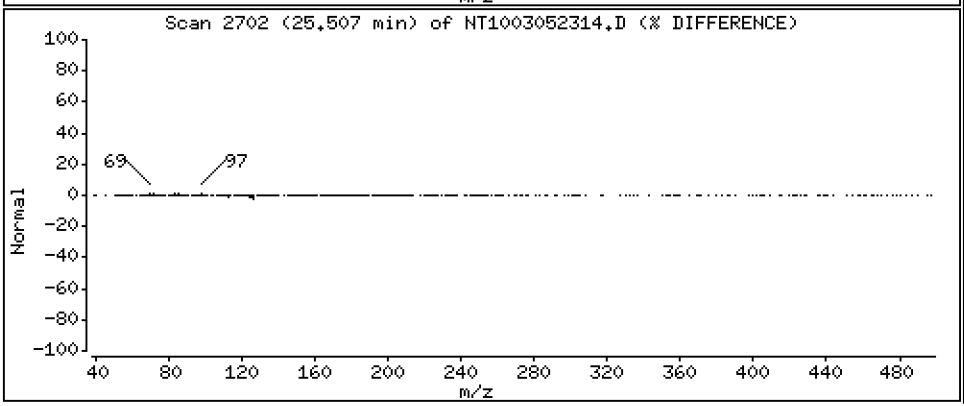












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

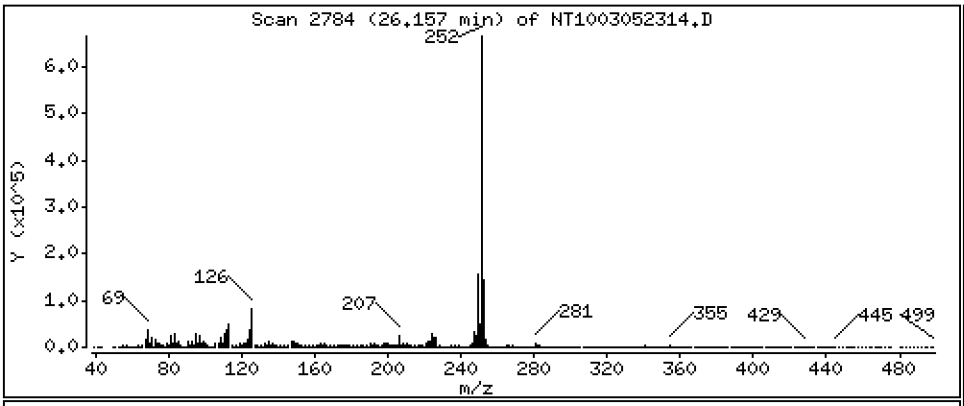
Operator: VTS

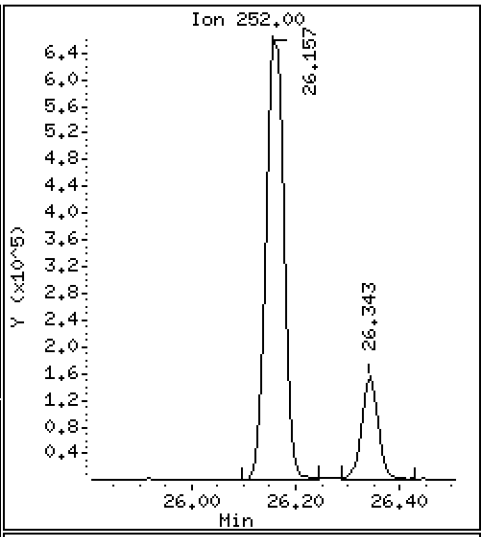
Column phase: ZB-5msi

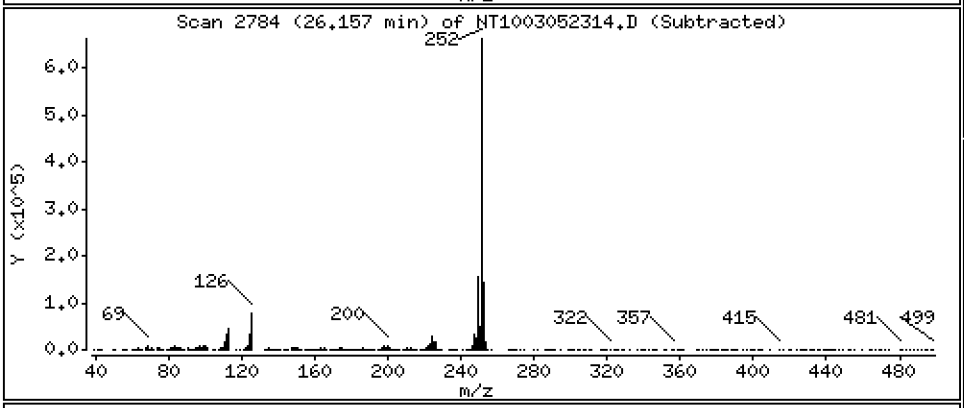
Column diameter: 0.25

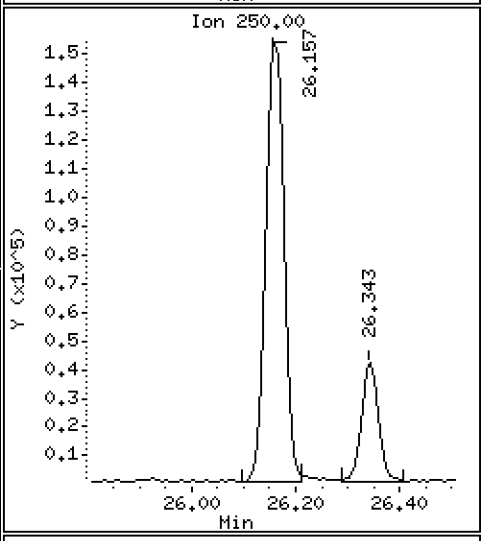
76 Benzo(a)pyrene

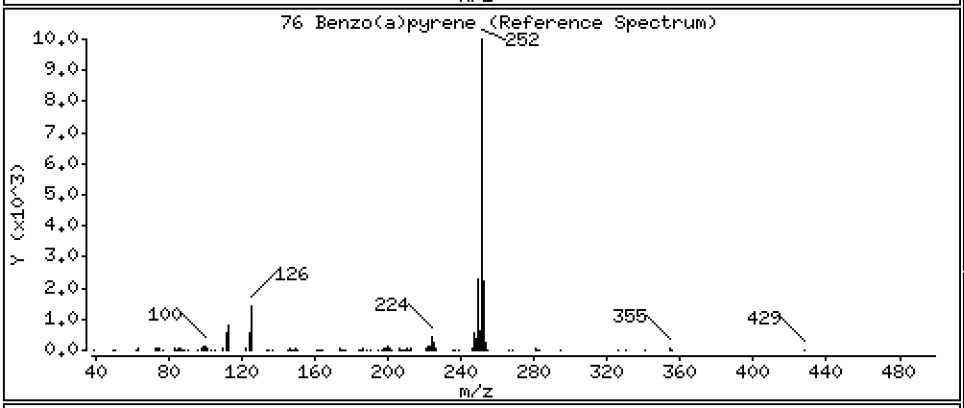
Concentration: 4.462 ug/mL

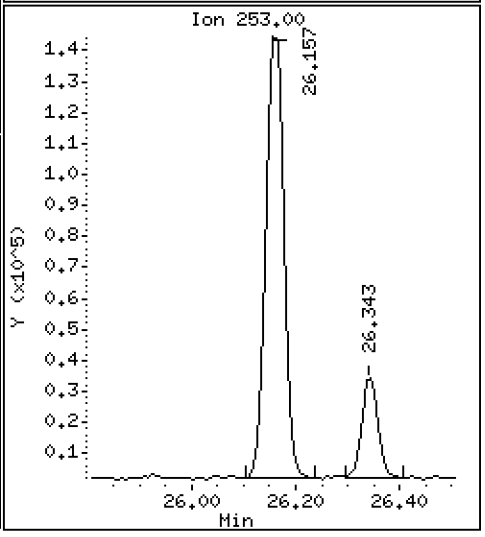


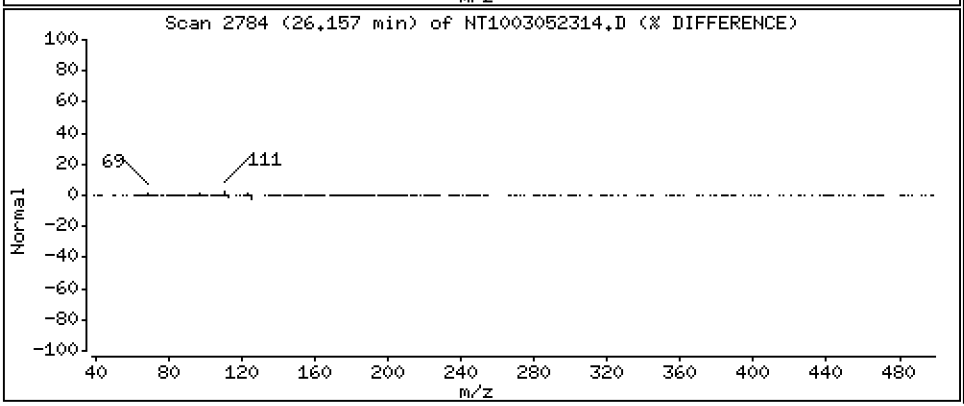












Date : 05-MAR-2023 21:38

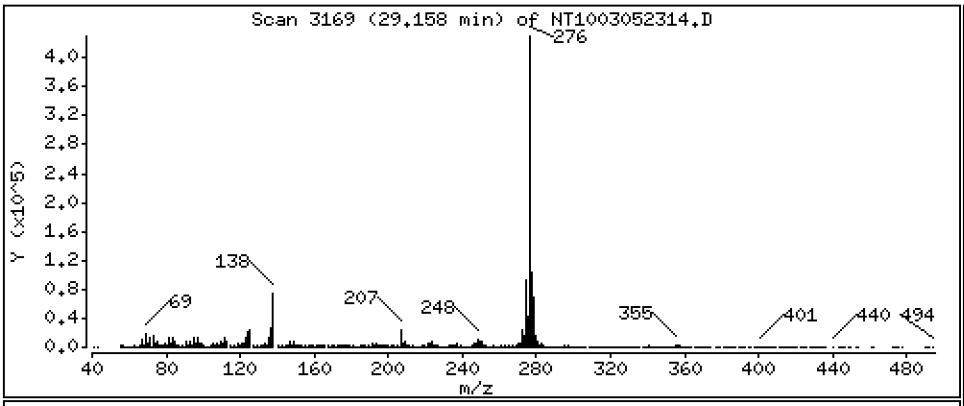
Client ID: Instrument: nt10.i

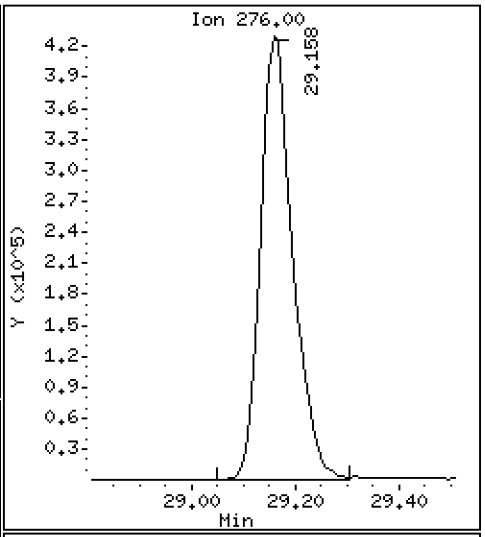
Sample Info: SLC0401-CCV1

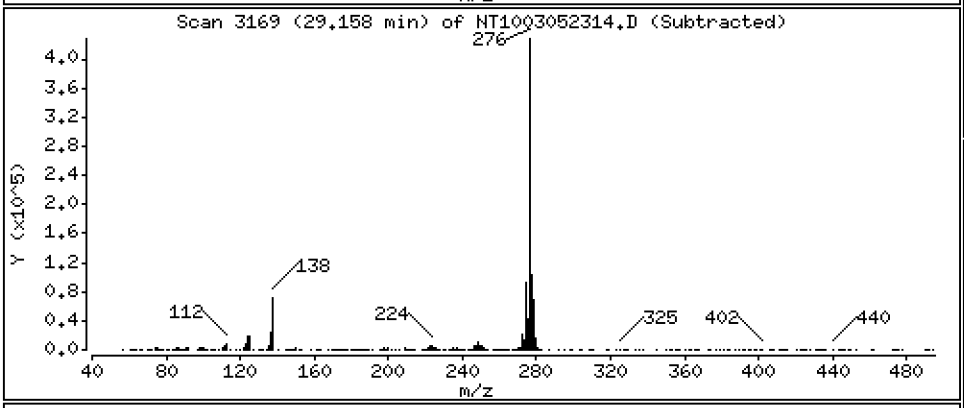
Operator: VTS

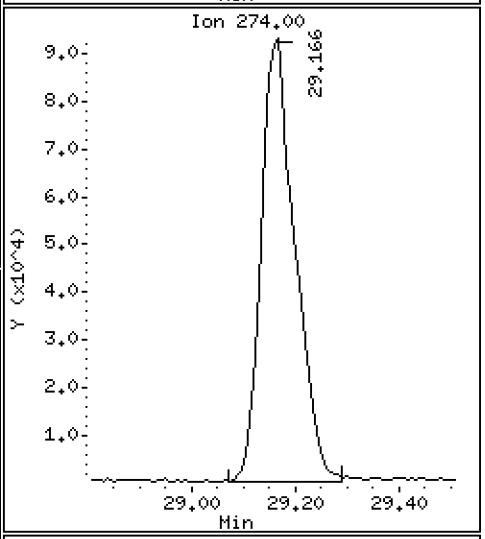
Column phase: ZB-5msi Column diameter: 0.25

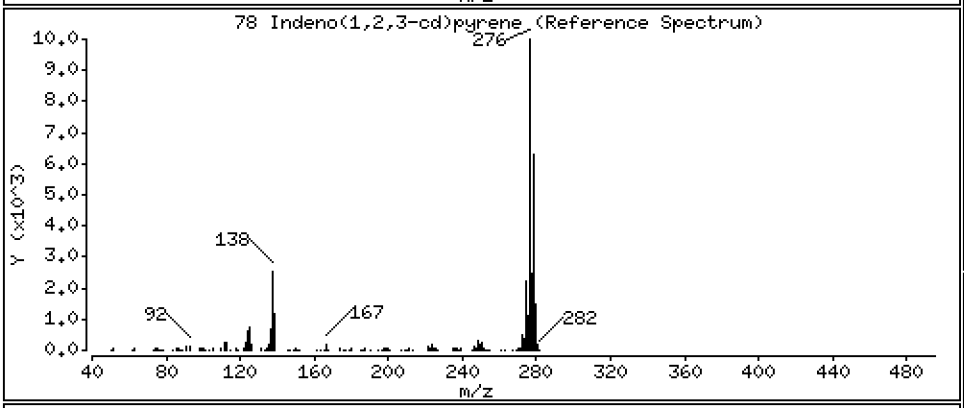
78 Indeno(1,2,3-cd)pyrene Concentration: 4.585 ug/mL

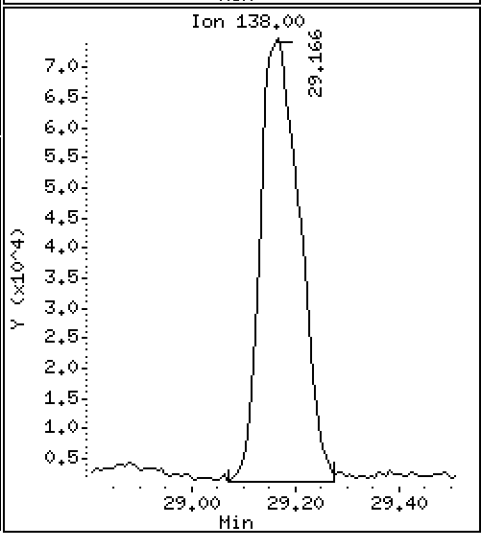


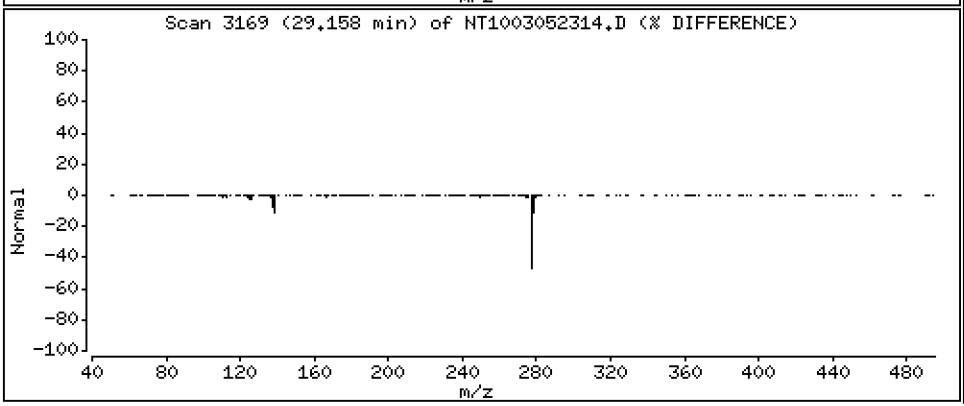












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D

Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

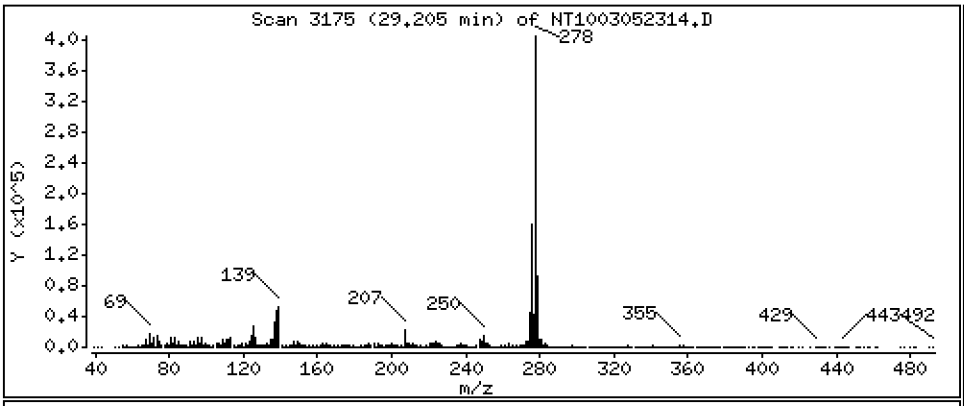
Operator: VTS

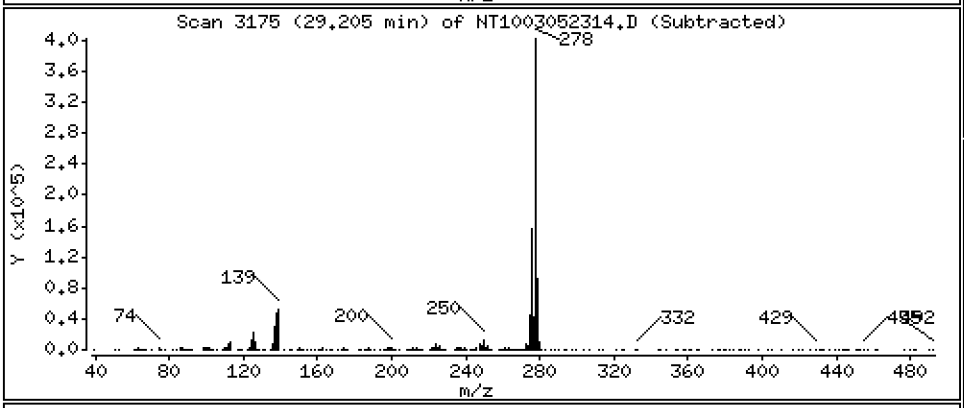
Column phase: ZB-5msi

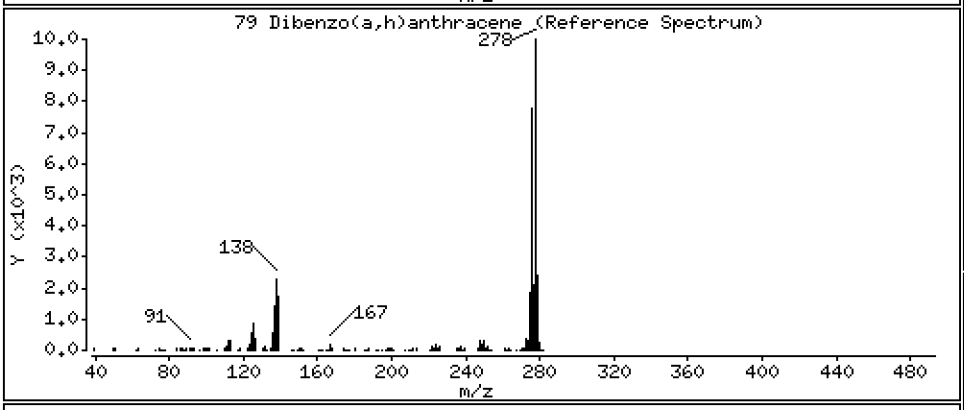
Column diameter: 0.25

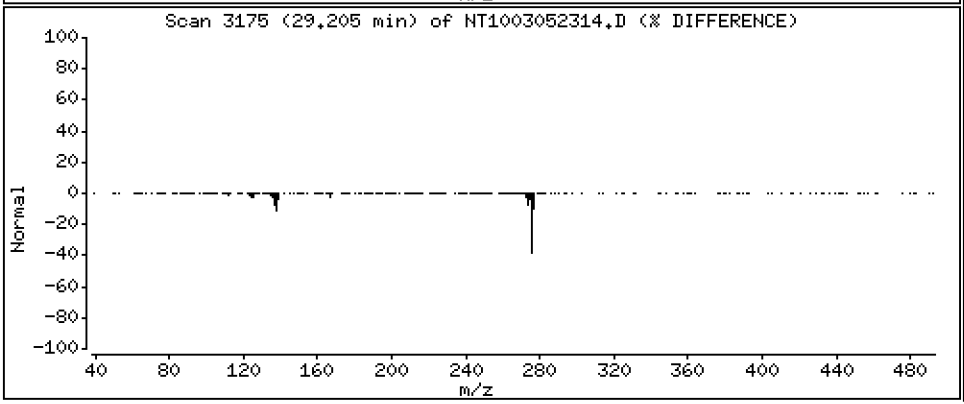
79 Dibenzo(a,h)anthracene

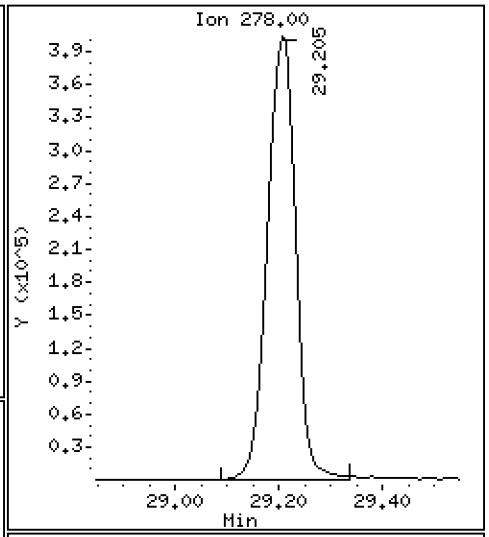
Concentration: 4.948 ug/mL

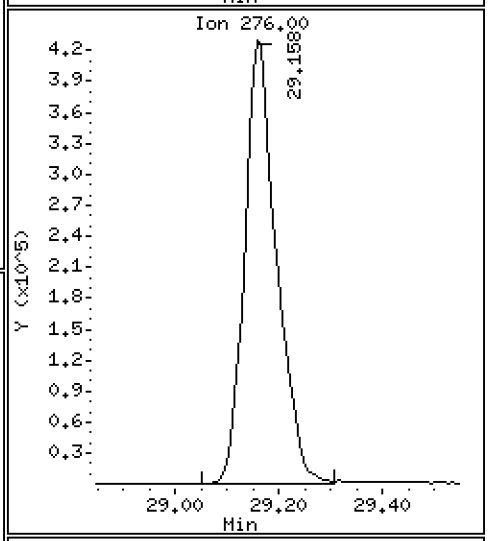


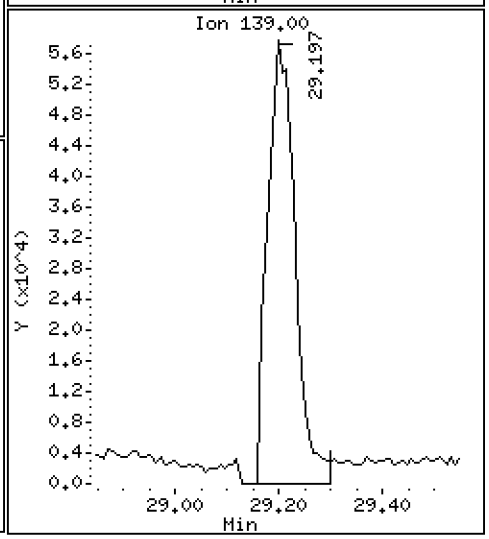












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D

Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

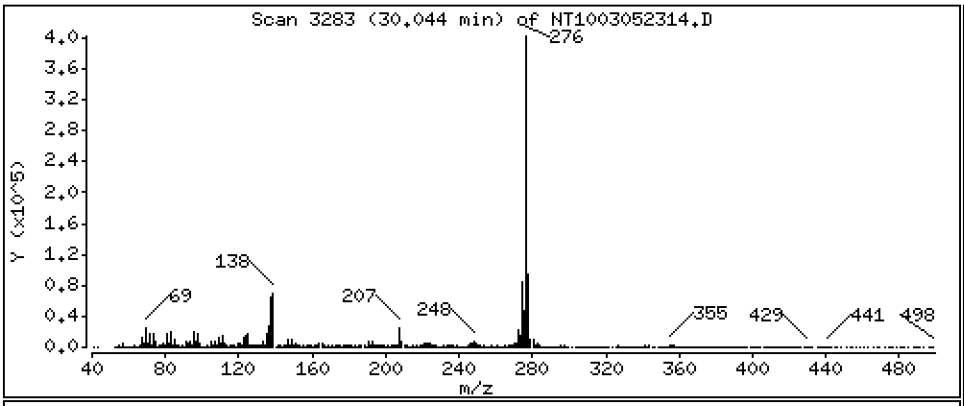
Operator: VTS

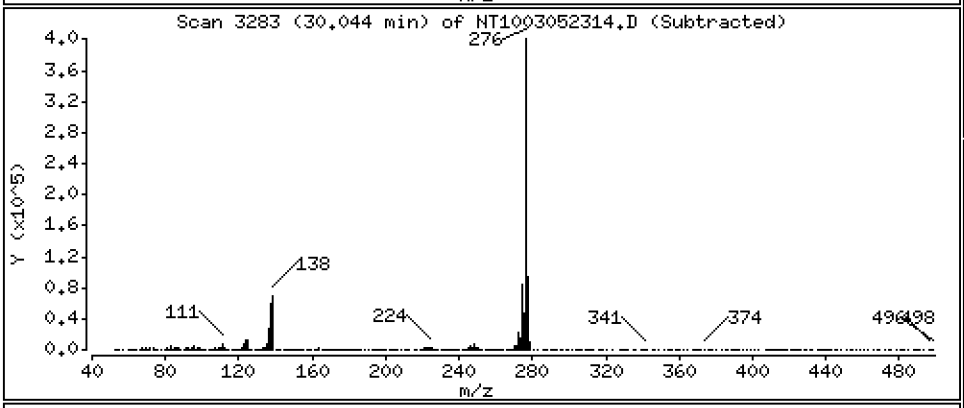
Column phase: ZB-5msi

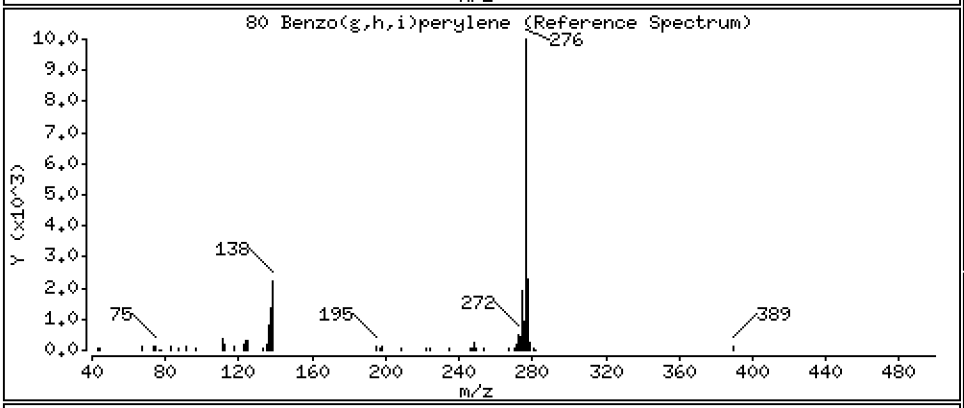
Column diameter: 0.25

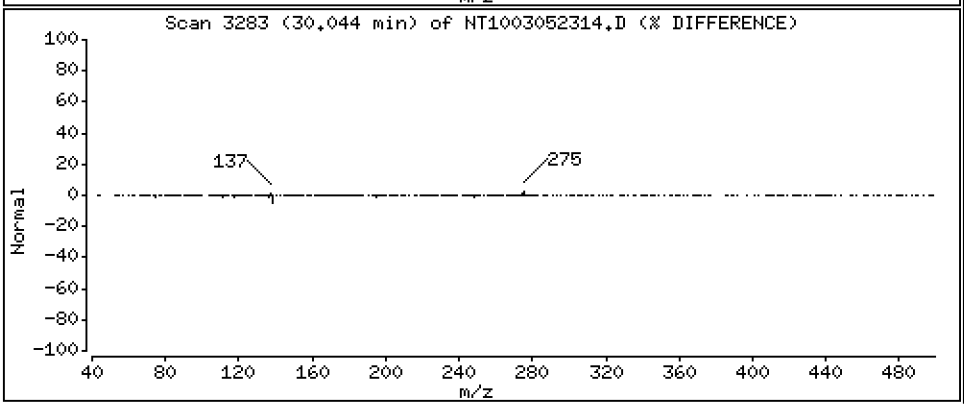
80 Benzo(g,h,i)perylene

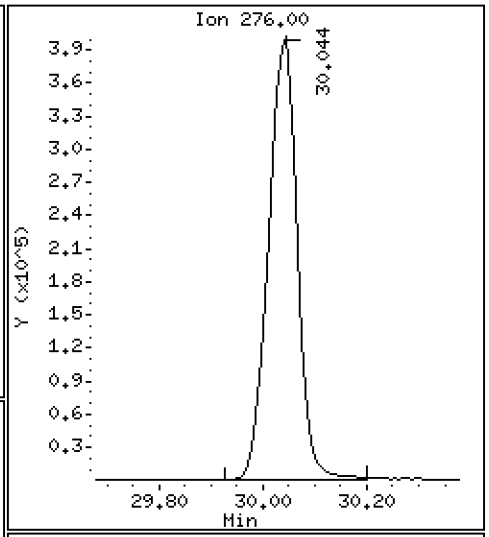
Concentration: 4.815 ug/mL

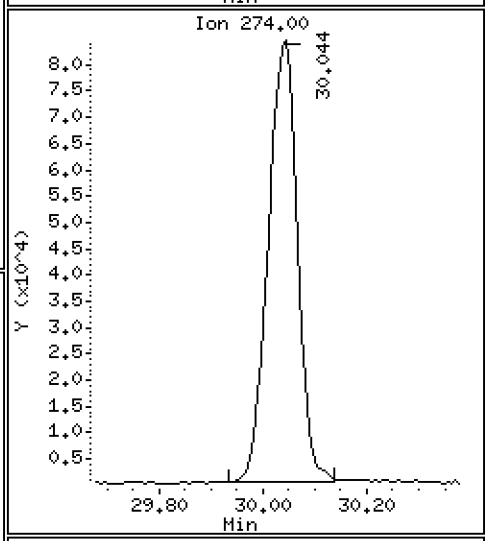


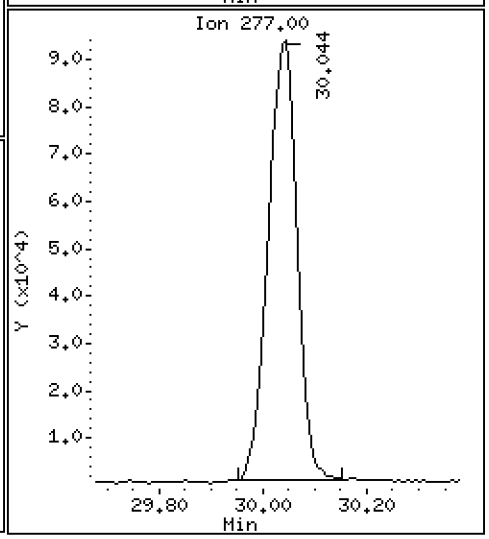












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

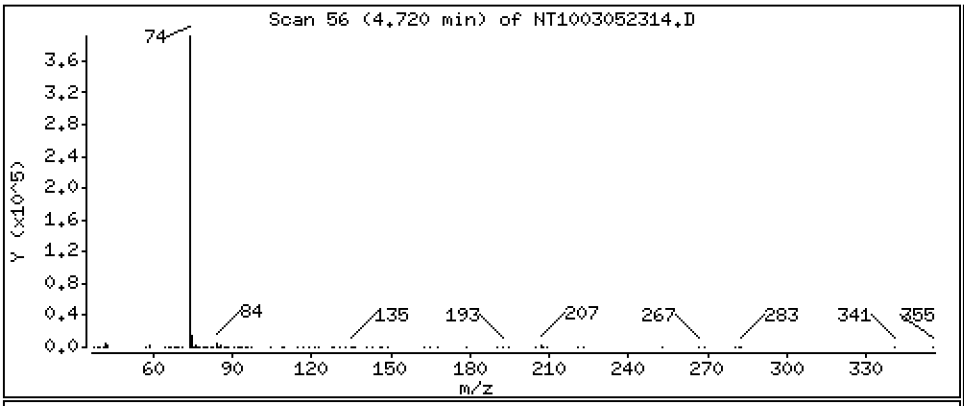
Operator: VTS

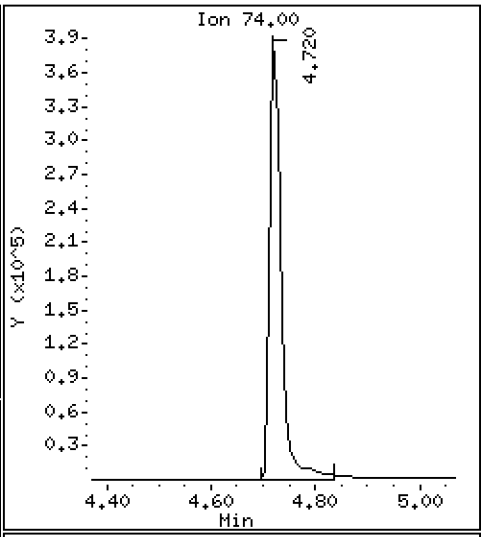
Column phase: ZB-5msi

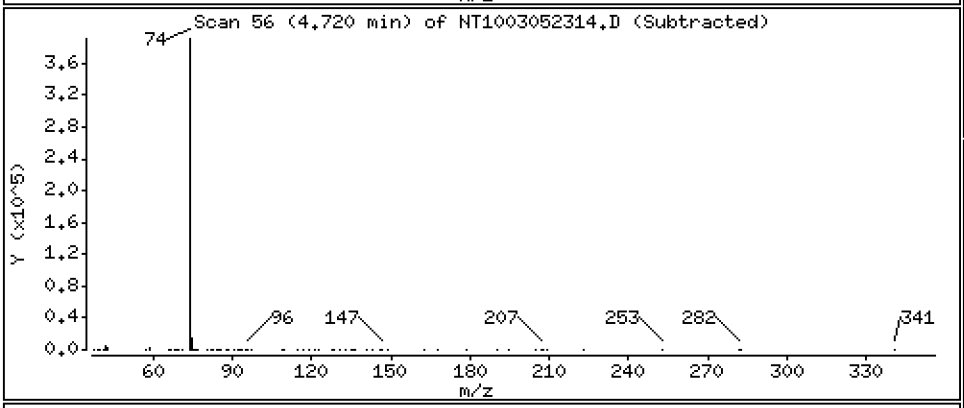
Column diameter: 0.25

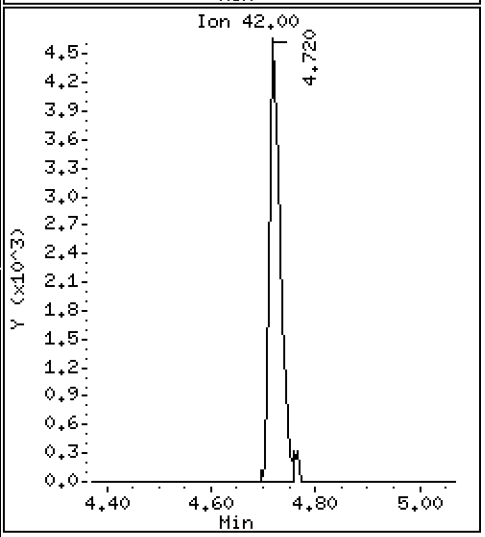
90 N-Nitrosodimethylamine

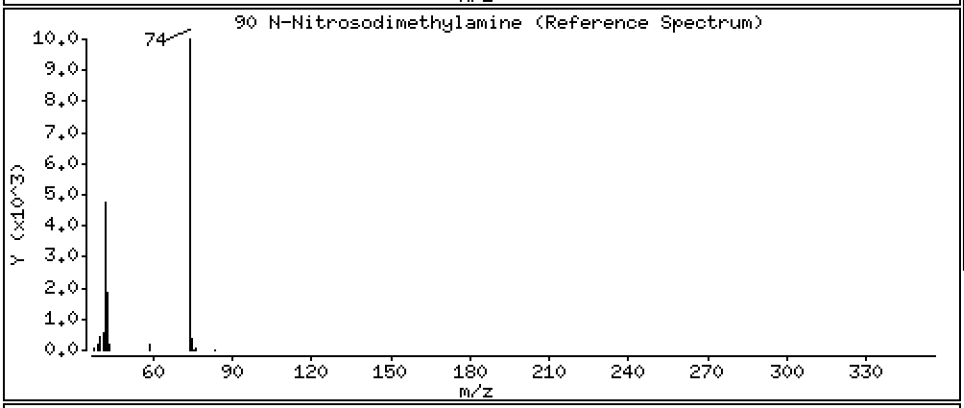
Concentration: 10.36 ug/mL

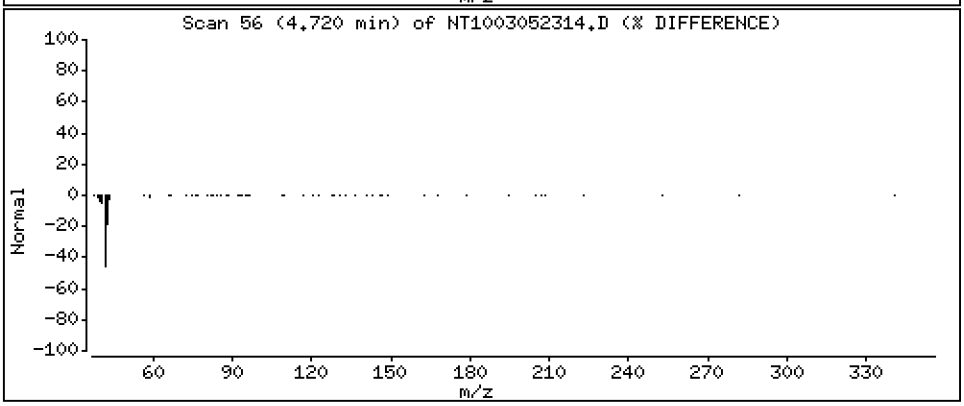












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

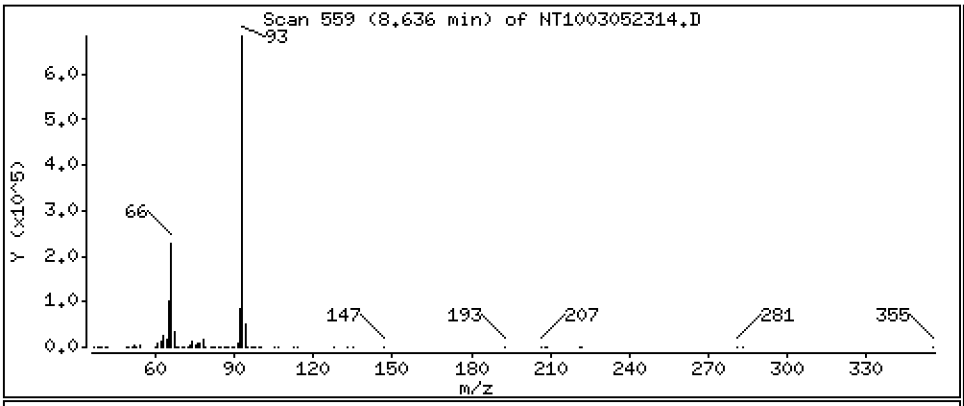
Operator: VTS

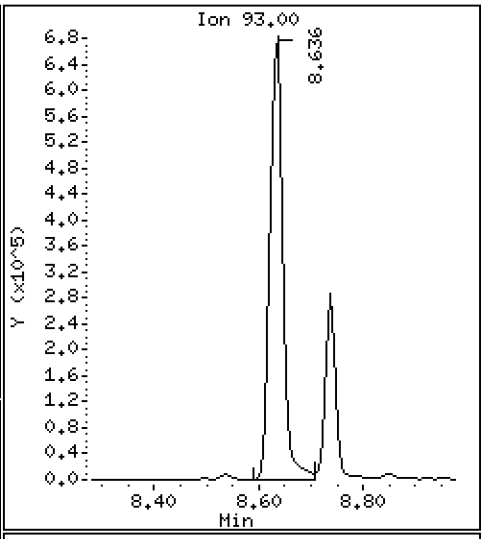
Column phase: ZB-5msi

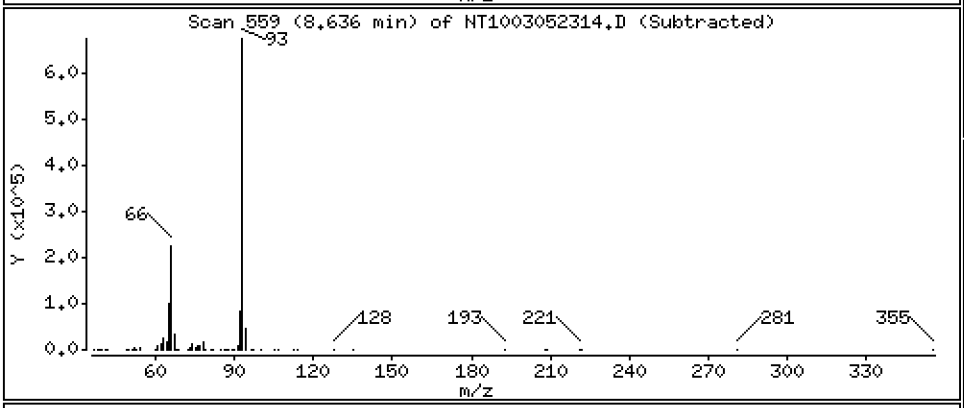
Column diameter: 0.25

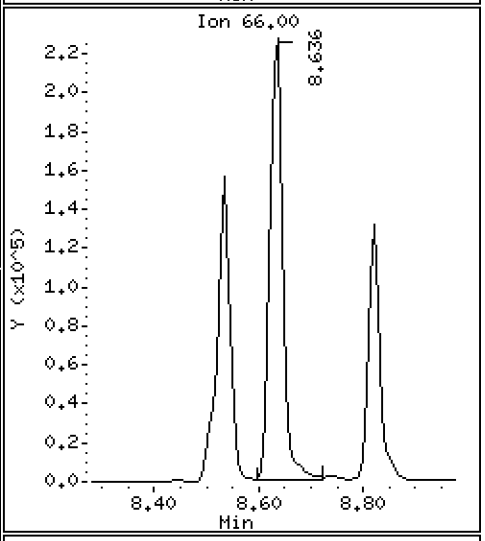
91 Aniline

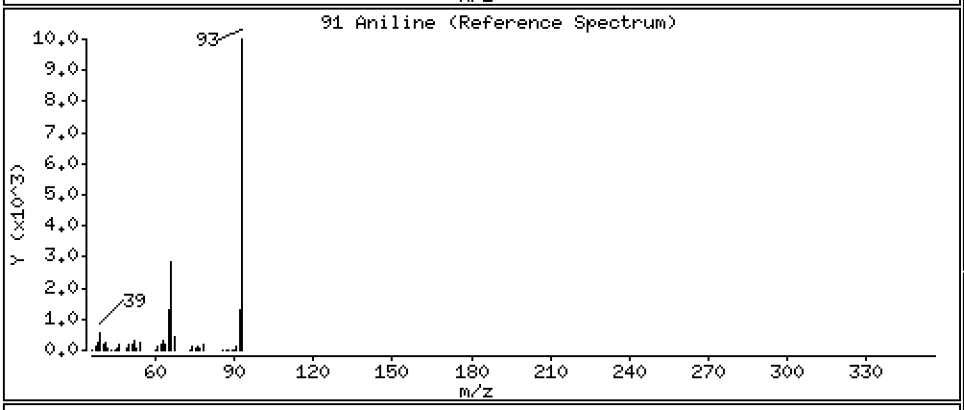
Concentration: 9.517 ug/mL

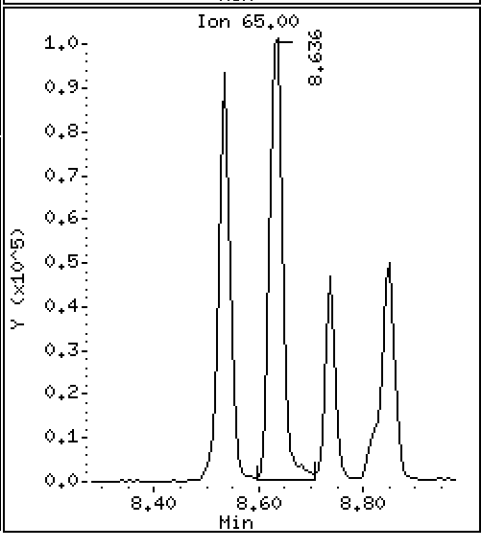


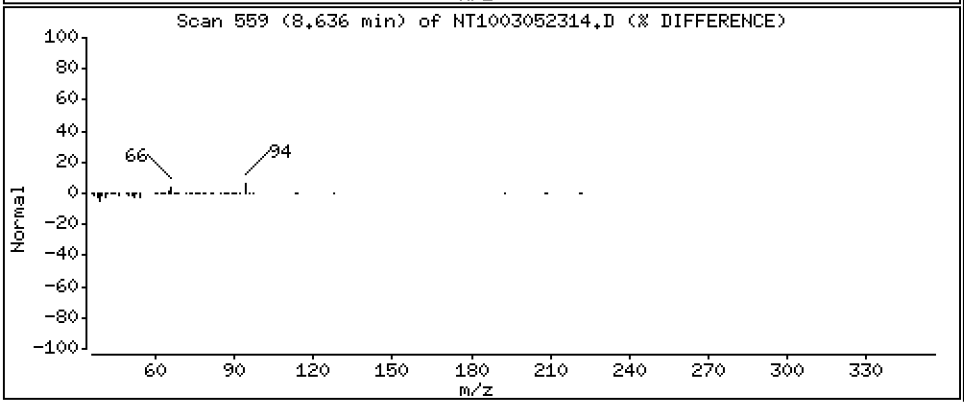












Date : 05-MAR-2023 21:38

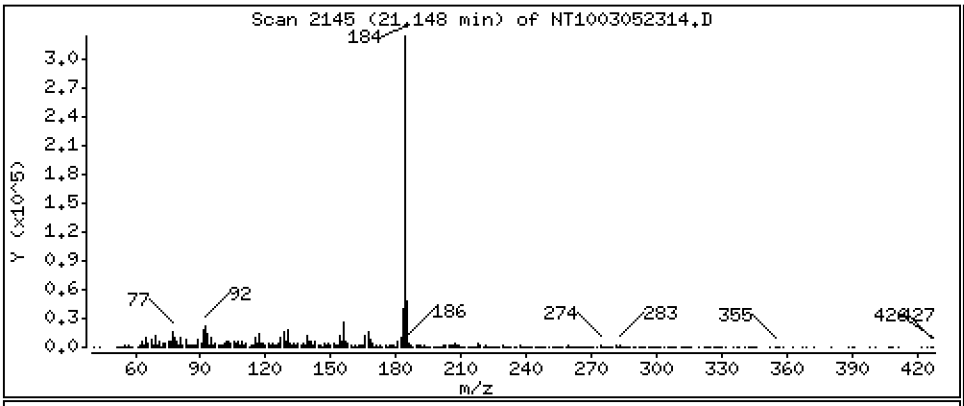
Client ID: Instrument: nt10.i

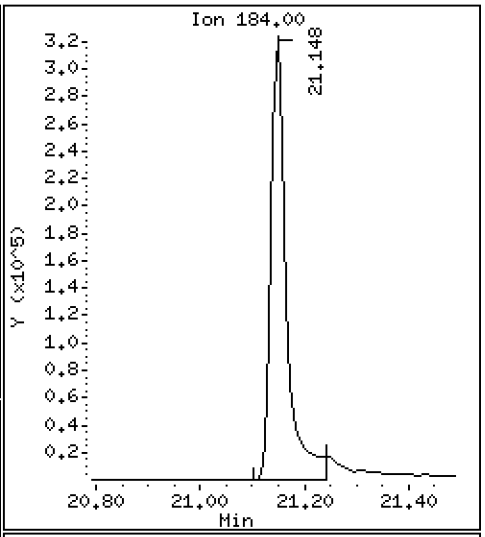
Sample Info: SLC0401-CCV1

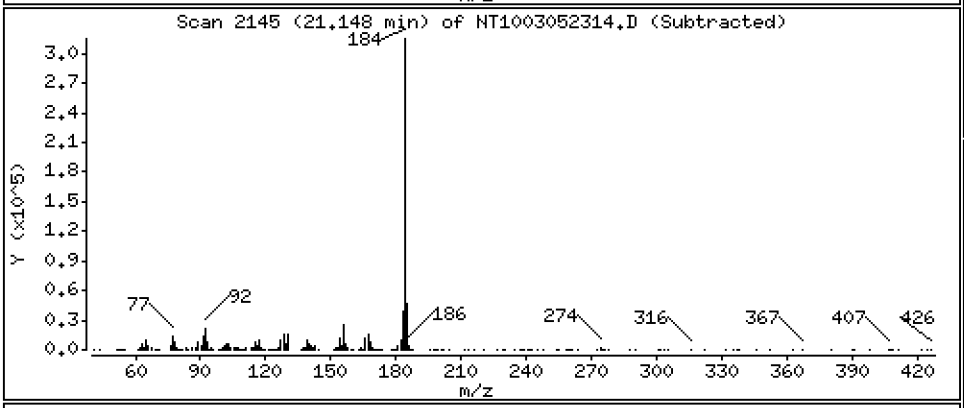
Operator: VTS

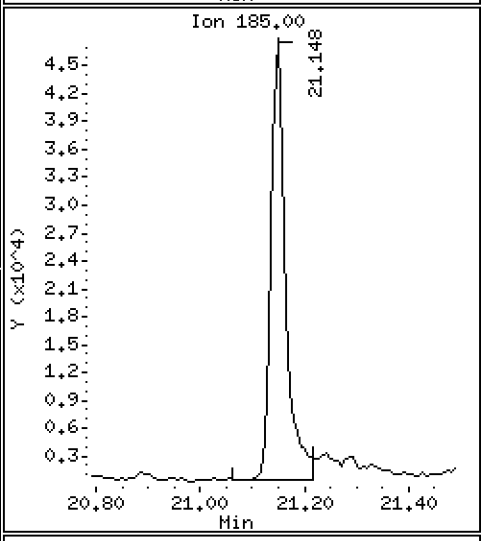
Column phase: ZB-5msi Column diameter: 0.25

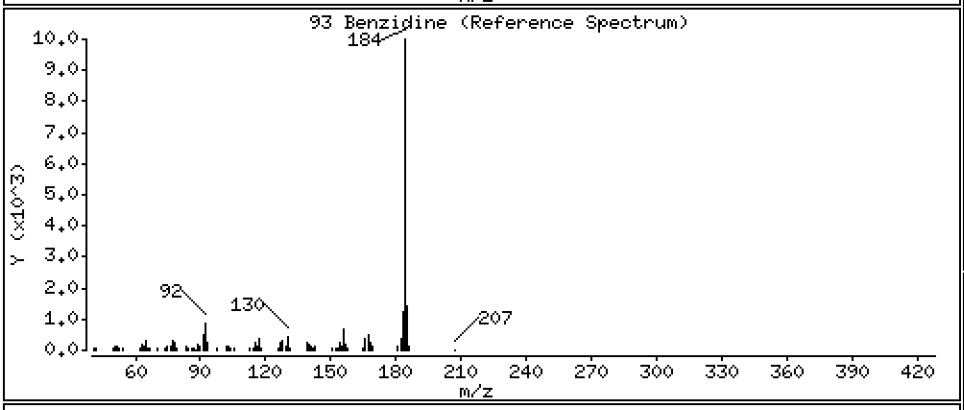
93 Benzidine Concentration: 4.227 ug/mL

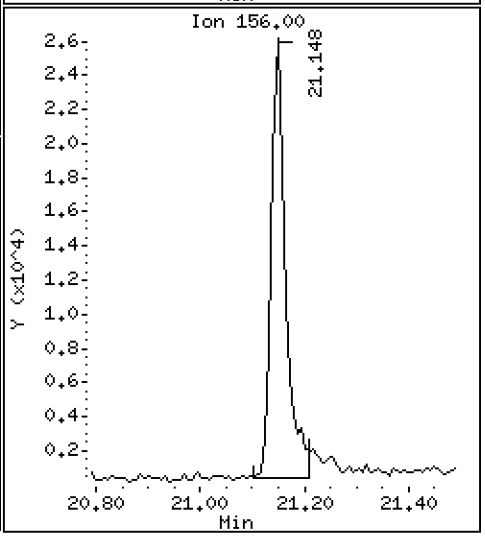


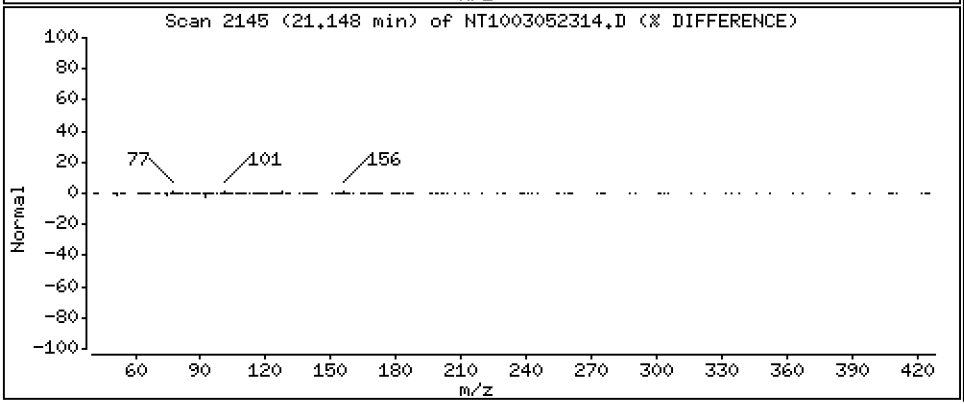












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D

Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

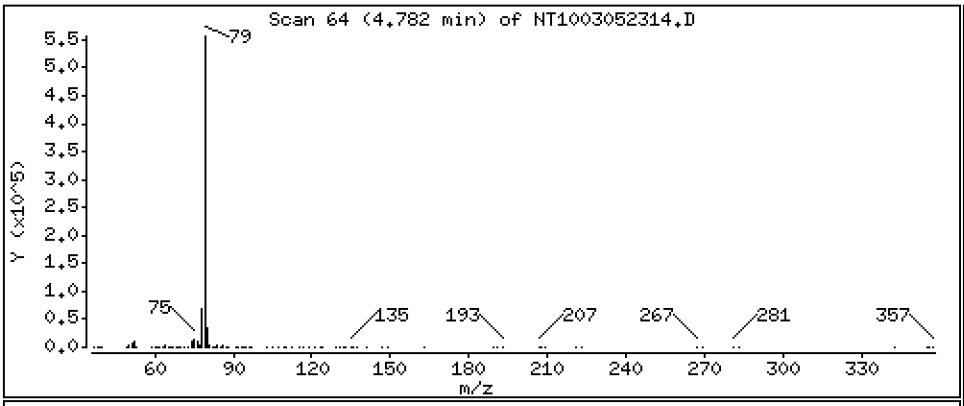
Operator: VTS

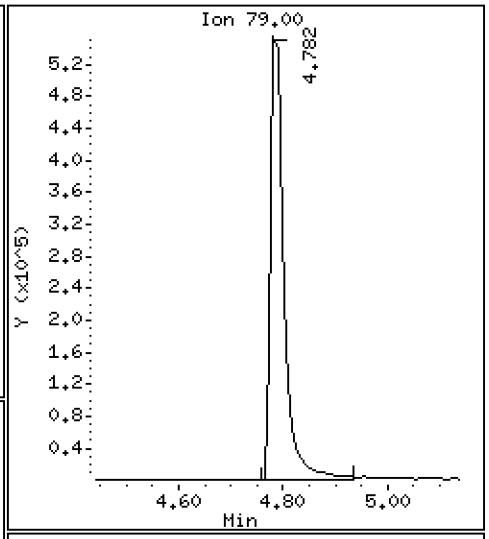
Column phase: ZB-5msi

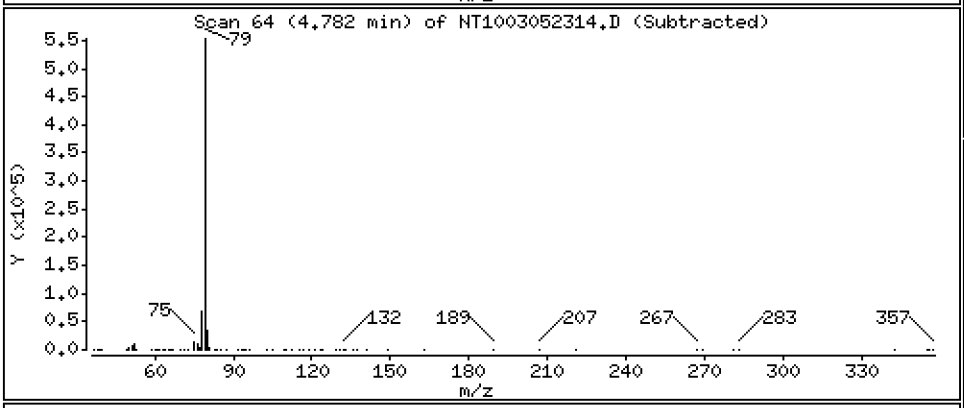
Column diameter: 0.25

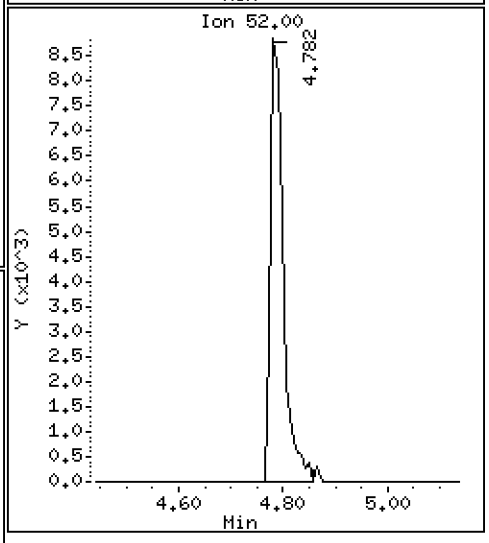
103 Pyridine

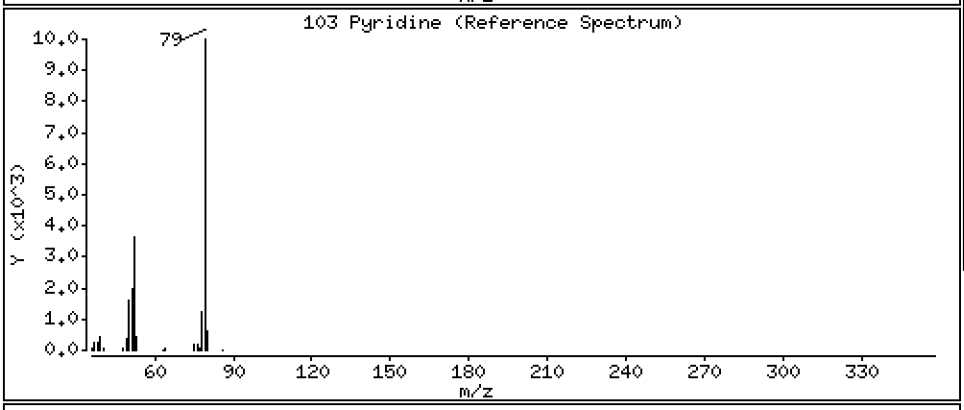
Concentration: 9.923 ug/mL

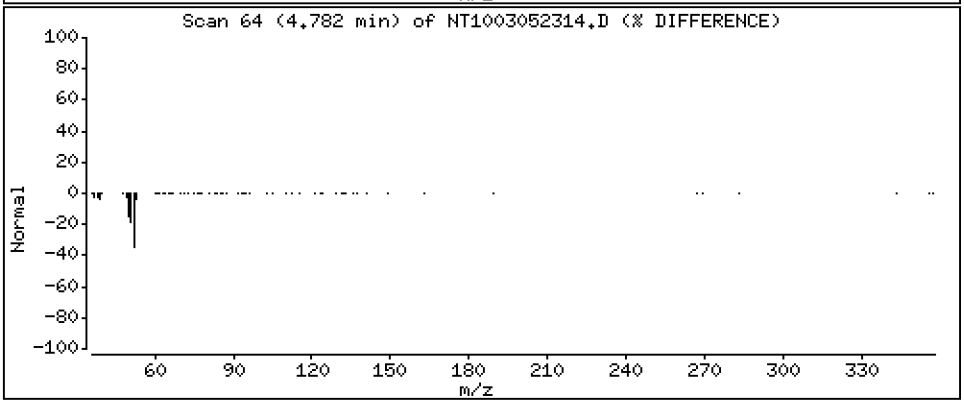












Date : 05-MAR-2023 21:38

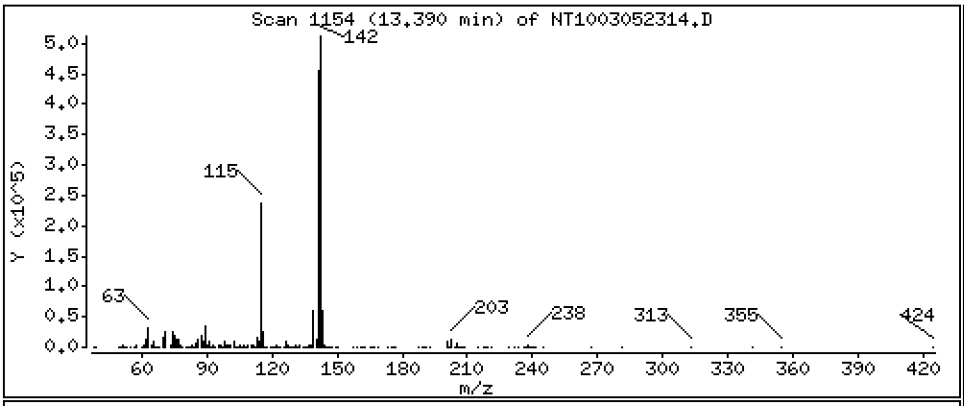
Client ID: Instrument: nt10.i

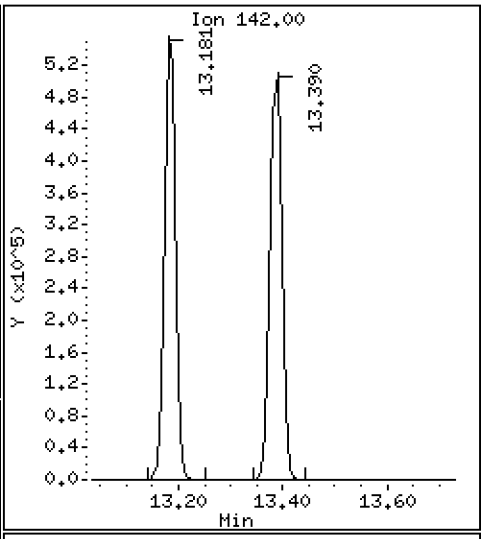
Sample Info: SLC0401-CCV1

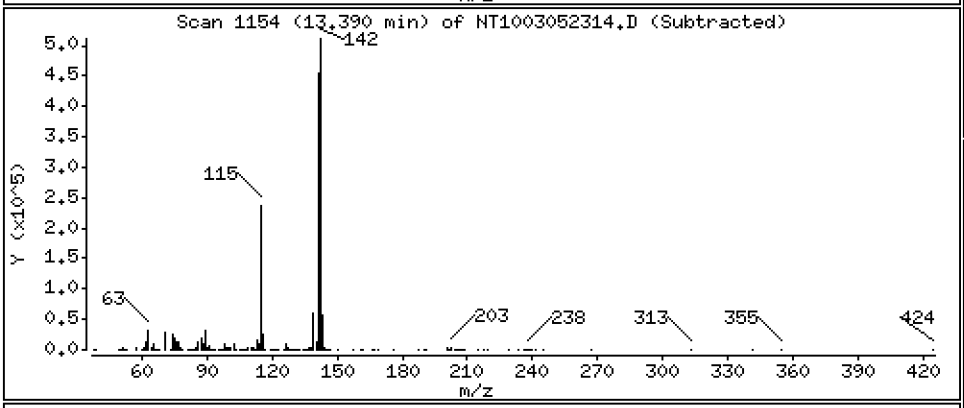
Operator: VTS

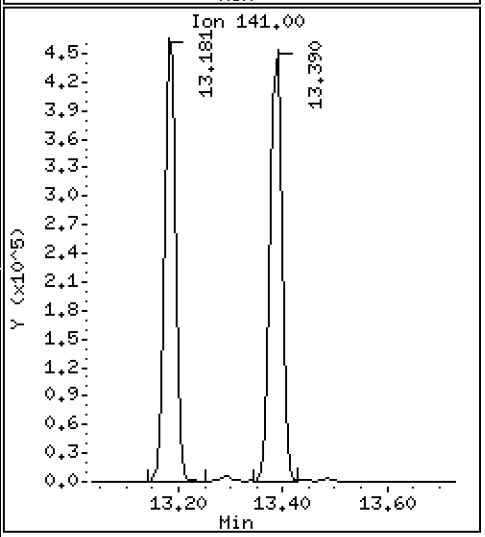
Column phase: ZB-5msi Column diameter: 0.25

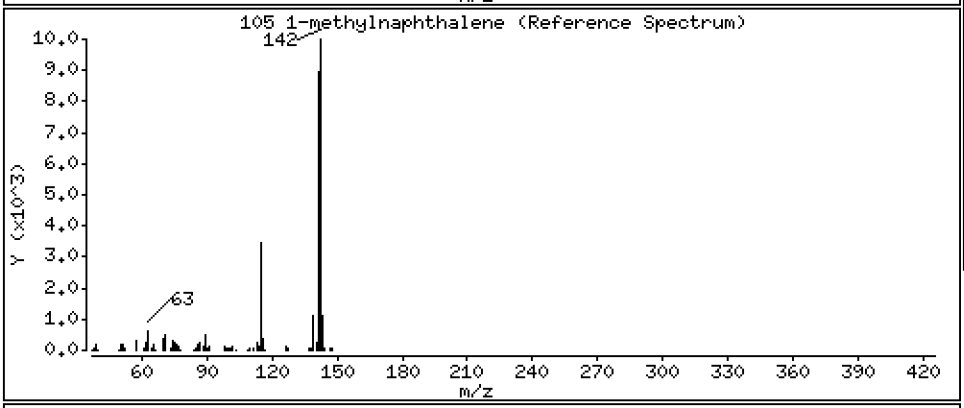
105 1-methylnaphthalene Concentration: 4.973 ug/mL

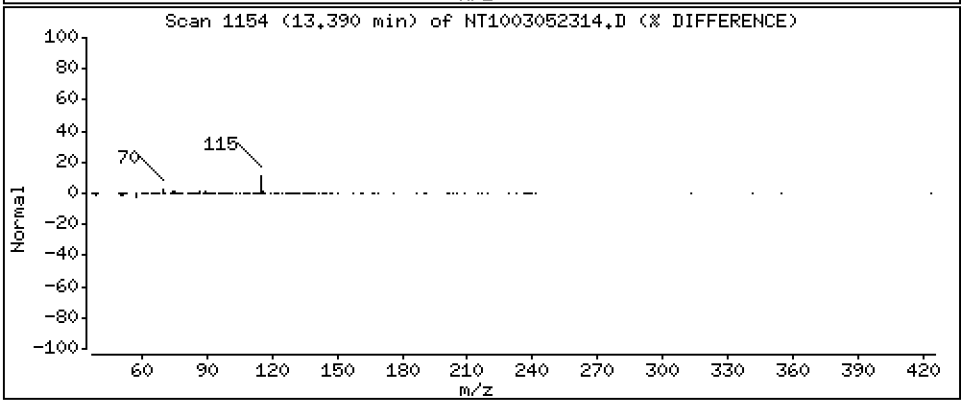












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

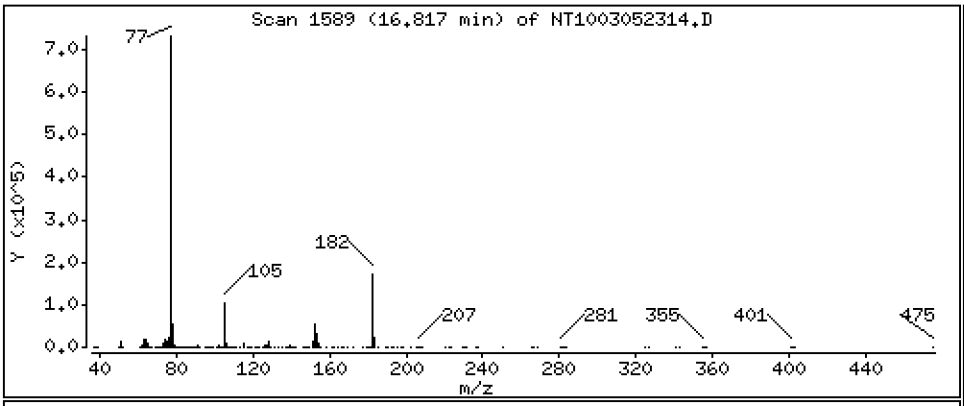
Operator: VTS

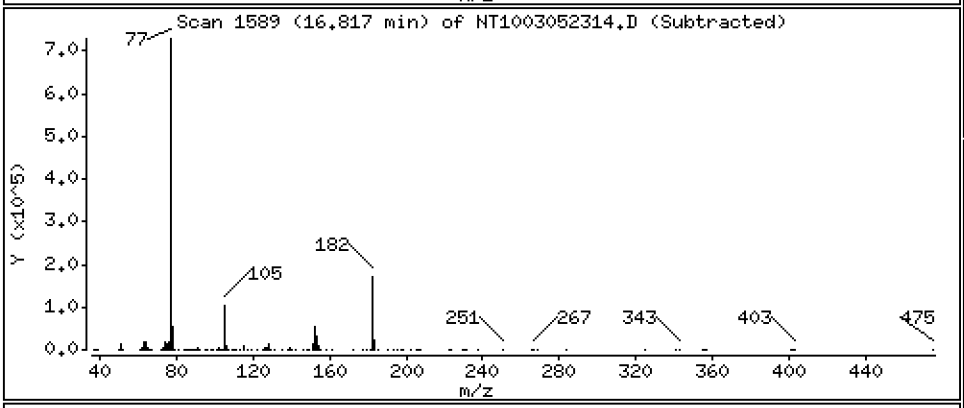
Column phase: ZB-5msi

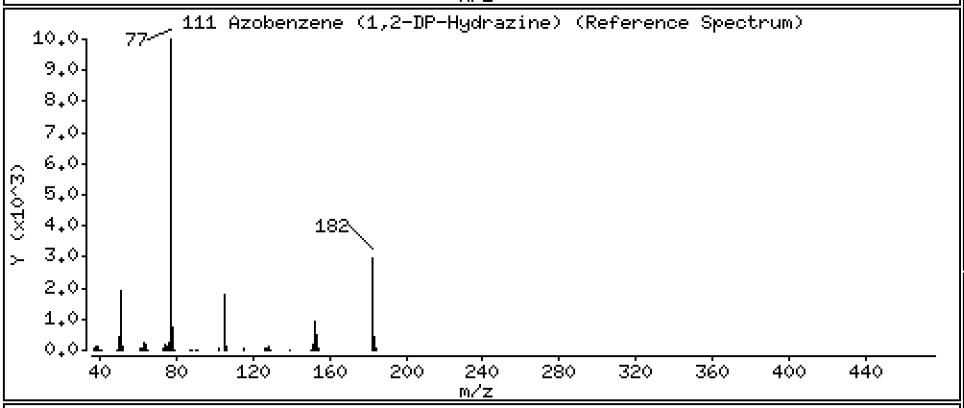
Column diameter: 0.25

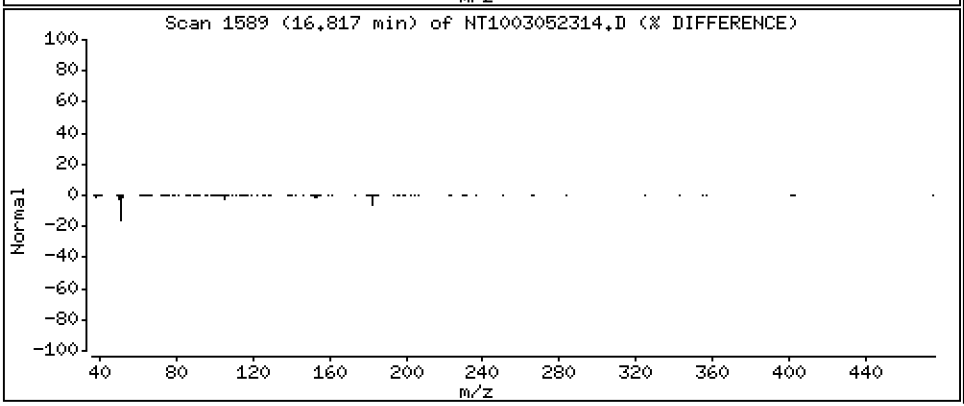
111 Azobenzene (1,2-DP-Hydrazine)

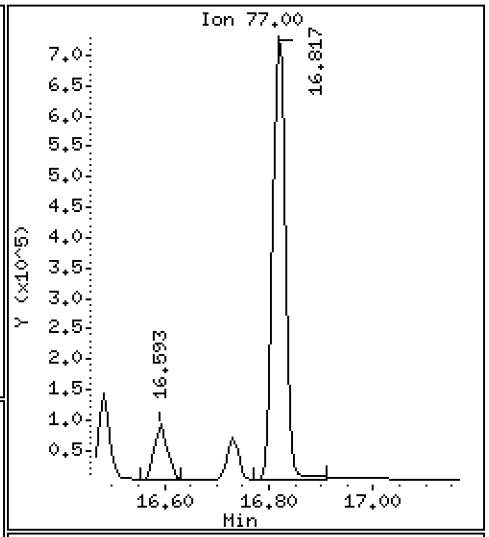
Concentration: 4.559 ug/mL

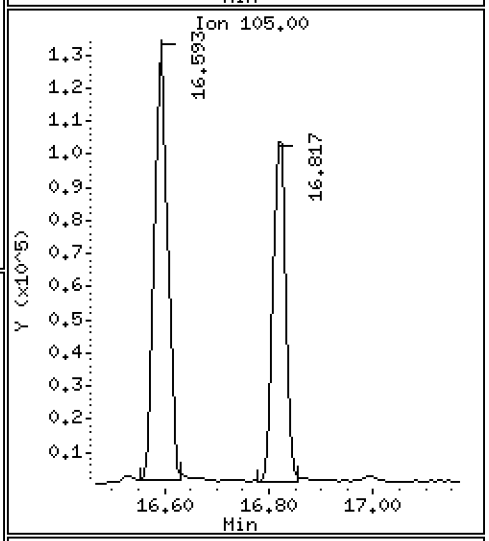


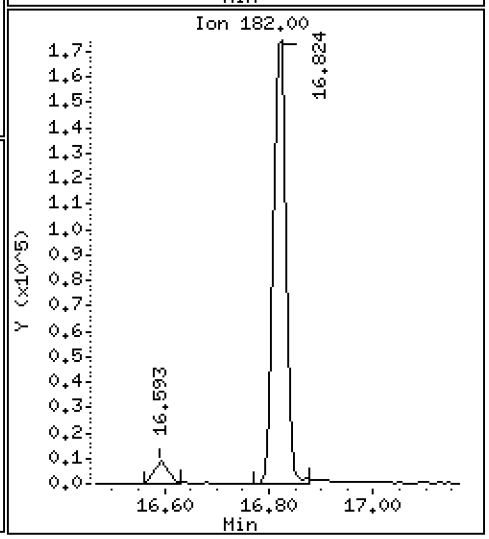












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

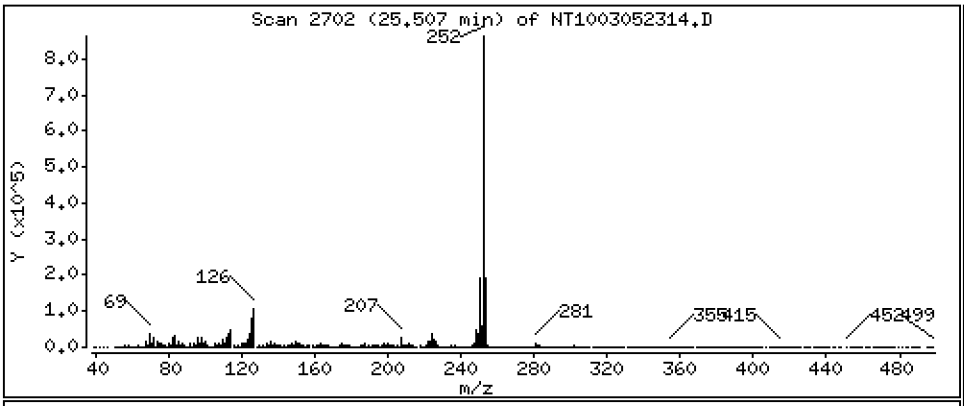
Operator: VTS

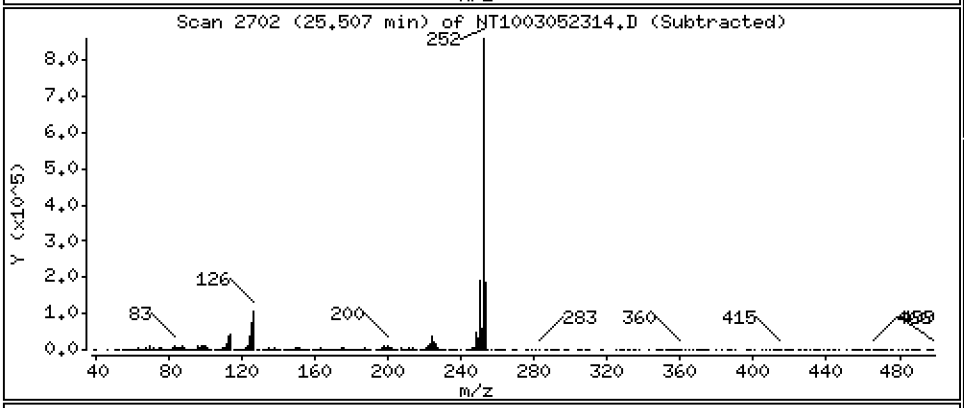
Column phase: ZB-5msi

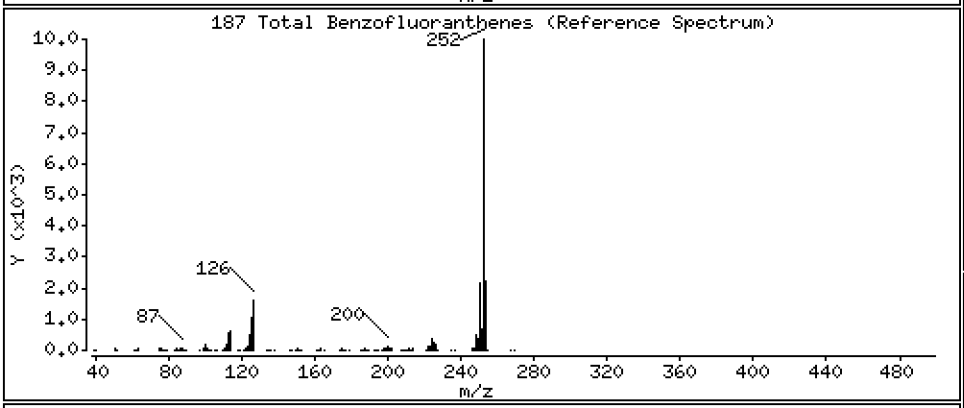
Column diameter: 0.25

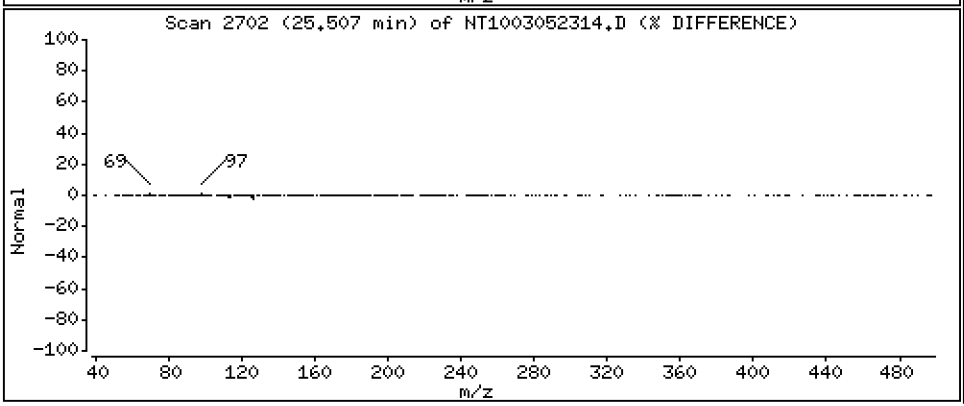
187 Total Benzofluoranthenes

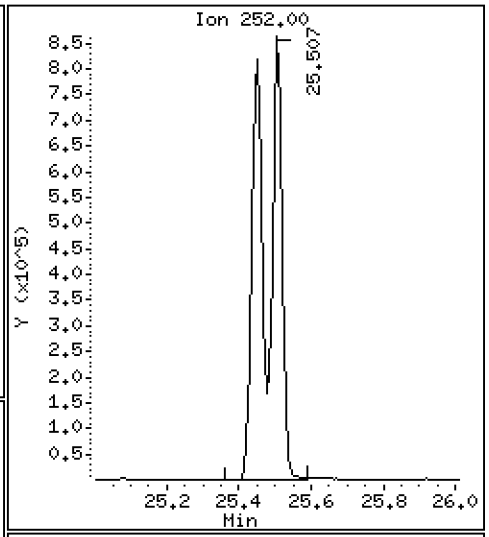
Concentration: 8.797 ug/mL

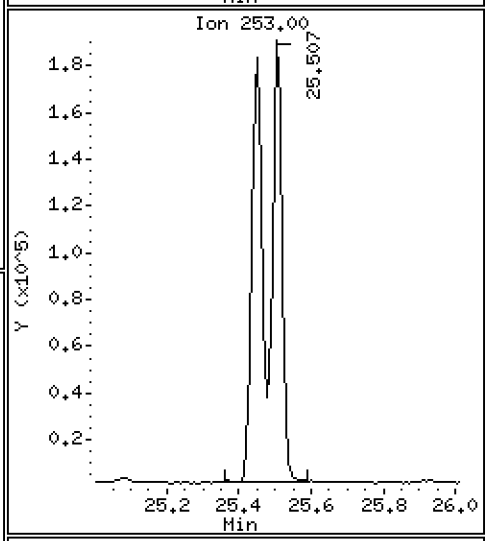


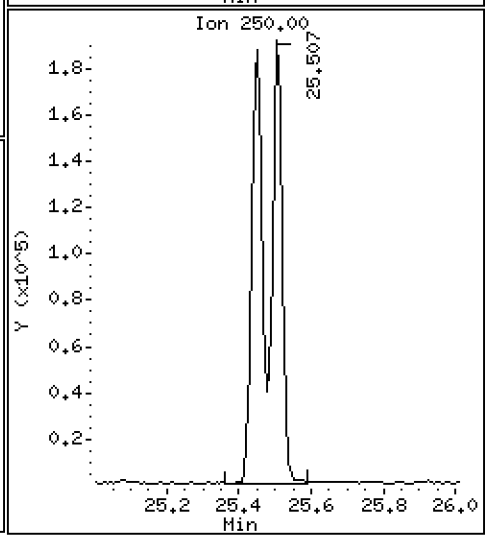












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Date : 05-MAR-2023 21:38

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-CCV1

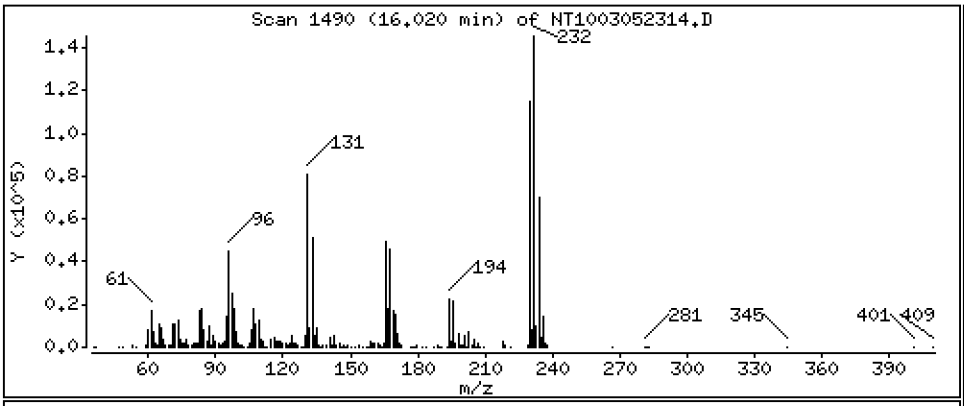
Operator: VTS

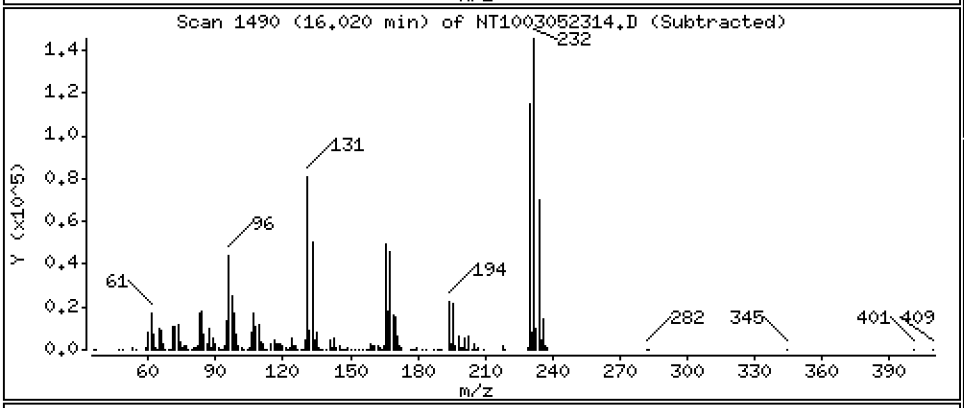
Column phase: ZB-5msi

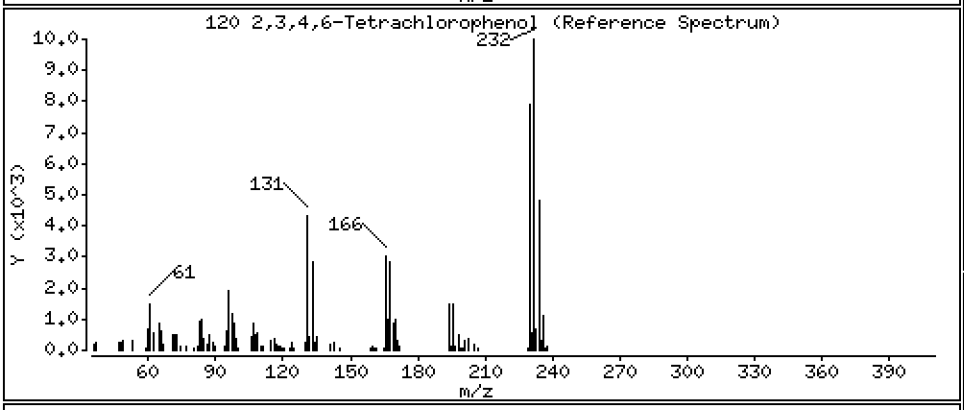
Column diameter: 0.25

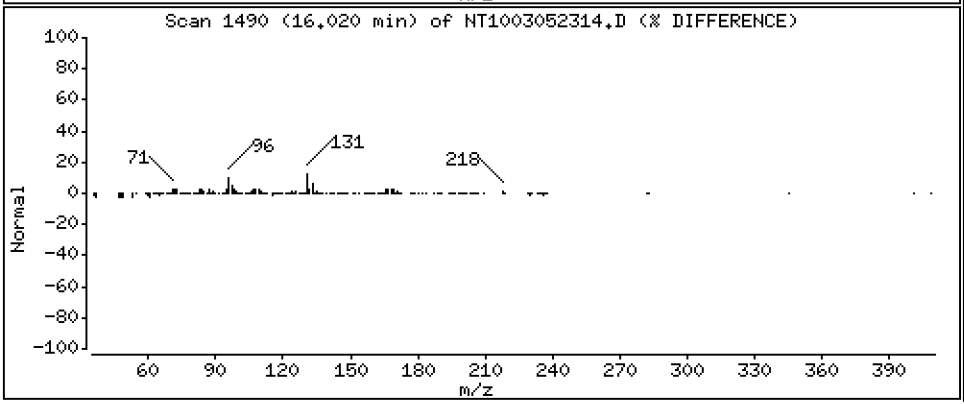
120 2,3,4,6-Tetrachlorophenol

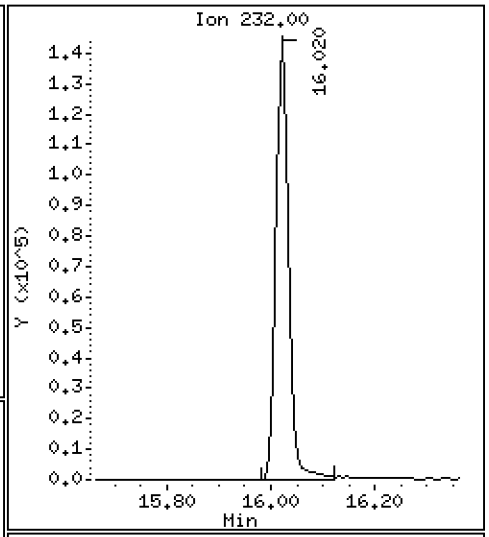
Concentration: 5.119 ug/mL

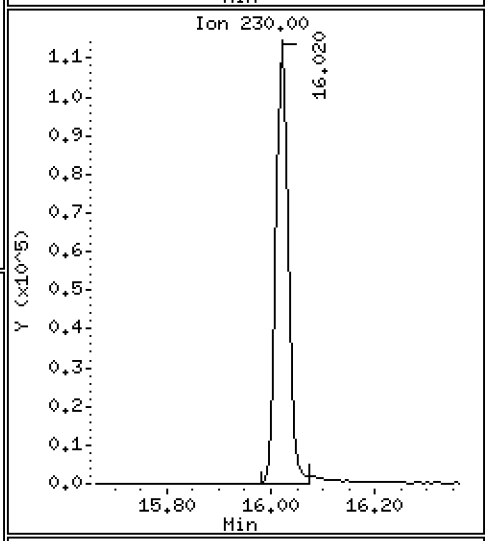


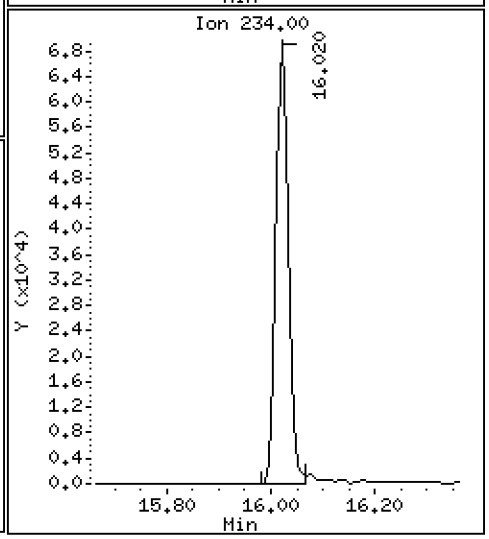












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305.b\NT1003052314.D
Lab Smp Id: SLC0401-CCV1
Inj Date : 05-MAR-2023 21:38
Operator : VTS Inst ID: nt10.i
Smp Info : SLC0401-CCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305.b\ABN.m
Meth Date : 27-Mar-2023 12:21 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.905	6.897	(0.747)	615101	7.37958	7.380
$	2 Phenol-d5	99	8.512	8.504	(0.921)	795548	8.22096	8.221
	3 Phenol	94	8.535	8.528	(0.923)	536096	5.21056	5.211
$	5 2-Chlorophenol-d4	132	8.821	8.813	(0.954)	657991	7.96964	7.970
	4 Bis(2-Chloroethyl)ether	93	8.736	8.728	(0.945)	393765	5.00837	5.008
	6 2-Chlorophenol	128	8.852	8.844	(0.957)	452124	5.27129	5.271
	7 1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	454091	4.80186	4.802
*	8 1,4-Dichlorobenzene-d4	152	9.247	9.239	(1.000)	264922	4.00000	
	9 1,4-Dichlorobenzene	146	9.286	9.278	(1.004)	440157	4.68589	4.686
$	10 1,2-Dichlorobenzene-d4	152	9.542	9.534	(1.032)	299511	4.85557	4.856
	12 1,2-Dichlorobenzene	146	9.565	9.557	(1.034)	428111	4.70873	4.709
	11 Benzyl alcohol	108	9.487	9.480	(1.026)	228904	4.24590	4.246
	14 2,2'-oxybis(1-Chloropropane)	121	9.736	9.728	(1.053)	120587	4.60046	4.600(M)
	13 2-Methylphenol	108	9.674	9.666	(1.046)	394803	4.84308	4.843
	17 Hexachloroethane	117	10.217	10.209	(1.105)	183133	4.74987	4.750
	16 N-Nitroso-di-n-propylamine	70	9.984	9.984	(1.080)	319576	5.14739	5.147
	15 4-Methylphenol	108	9.961	9.953	(1.077)	422042	4.26572	4.266
$	18 Nitrobenzene-d5	82	10.302	10.302	(0.878)	556462	5.34991	5.350
	19 Nitrobenzene	77	10.341	10.341	(0.881)	502881	5.15406	5.154
	20 Isophorone	82	10.807	10.799	(0.921)	607351	4.87646	4.876
	21 2-Nitrophenol	139	10.967	10.959	(0.935)	234271	4.45649	4.456
	22 2,4-Dimethylphenol	107	11.018	11.018	(0.939)	836721	8.77098	8.771
	23 Bis(2-Chloroethoxy)methane	93	11.222	11.222	(0.956)	387079	5.02908	5.029
	24 Benzoic acid	105	11.205	11.196	(0.955)	690083	12.1487	12.15
	25 2,4-Dichlorophenol	162	11.434	11.434	(0.974)	802248	10.6036	10.60
	26 1,2,4-Trichlorobenzene	180	11.610	11.603	(0.989)	380183	5.19195	5.192
*	27 Naphthalene-d8	136	11.734	11.726	(1.000)	947542	4.00000	
	28 Naphthalene	128	11.780	11.773	(1.004)	1139902	4.68712	4.687
	29 4-Chloroaniline	127	11.881	11.873	(1.012)	957026	8.73281	8.733
	30 Hexachlorobutadiene	225	12.004	11.997	(1.023)	287413	5.39051	5.391
	31 4-Chloro-3-methylphenol	107	12.840	12.825	(1.094)	770771	9.58155	9.582
	32 2-Methylnaphthalene	142	13.181	13.181	(1.123)	851628	4.95684	4.957
	33 Hexachlorocyclopentadiene	237	13.482	13.483	(0.879)	26882	1.59800	1.598

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	13.753	13.746	(0.897)	528333	10.4999	10.50
	35	2,4,5-Trichlorophenol	196	13.831	13.815	(0.902)	552007	10.2657	10.27
$	36	2-Fluorobiphenyl	172	13.931	13.924	(0.908)	943590	5.23165	5.232
	37	2-Chloronaphthalene	162	14.194	14.187	(0.925)	759613	5.36493	5.365
	38	2-Nitroaniline	65	14.403	14.396	(0.939)	431088	10.7319	10.73
	39	Dimethylphthalate	163	14.767	14.767	(0.963)	780323	4.77834	4.778
	40	Acenaphthylene	152	15.054	15.046	(0.981)	1332597	5.45919	5.459
	41	2,6-Dinitrotoluene	165	14.907	14.899	(0.972)	376924	10.1731	10.17
*	42	Acenaphthene-d10	164	15.340	15.340	(1.000)	505666	4.00000	
	43	3-Nitroaniline	138	15.255	15.255	(0.994)	390807	9.48974	9.490
	44	Acenaphthene	153	15.409	15.409	(1.005)	715285	4.85877	4.859
	45	2,4-Dinitrophenol	184	15.479	15.479	(1.009)	211324	20.8821	20.88
	46	Dibenzofuran	168	15.773	15.765	(1.028)	1119278	5.12281	5.123
	47	4-Nitrophenol	109	15.595	15.579	(1.017)	238701	8.05129	8.051
	48	2,4-Dinitrotoluene	165	15.749	15.742	(1.027)	543213	10.0570	10.06
	50	Diethylphthalate	149	16.244	16.237	(1.059)	808607	4.67405	4.674
	49	Fluorene	166	16.492	16.484	(1.075)	880519	4.84374	4.844
	51	4-Chlorophenyl-phenylether	204	16.484	16.484	(1.075)	404773	4.86581	4.866
	52	4-Nitroaniline	138	16.531	16.523	(1.078)	404772	9.14384	9.144
	53	4,6-Dinitro-2-methylphenol	198	16.593	16.585	(0.899)	487517	20.7779	20.78
	54	N-Nitrosodiphenylamine	169	16.731	16.724	(0.907)	707394	5.08475	5.085
$	55	2,4,6-Tribromophenol	330	16.994	16.986	(1.108)	250190	7.62903	7.629
	56	4-Bromophenyl-phenylether	248	17.511	17.504	(0.949)	317759	5.63689	5.637
	57	Hexachlorobenzene	284	17.627	17.620	(0.955)	346958	5.46569	5.466
	58	Pentachlorophenol	266	18.045	18.038	(0.978)	139344	4.63876	4.639
*	59	Phenanthrene-d10	188	18.455	18.448	(1.000)	940283	4.00000	
	60	Phenanthrene	178	18.509	18.502	(1.003)	1159585	4.81884	4.819
	61	Anthracene	178	18.618	18.610	(1.009)	1213649	5.20128	5.201
	62	Carbazole	167	18.950	18.943	(1.027)	1083313	5.06781	5.068
	63	Di-n-butylphthalate	149	19.647	19.647	(1.065)	1444373	4.81119	4.811
	64	Fluoranthene	202	20.892	20.885	(0.888)	1414139	4.16090	4.161
	65	Pyrene	202	21.326	21.318	(0.907)	1482439	4.28366	4.284
$	66	Terphenyl-d14	244	21.604	21.597	(0.919)	1285069	4.58922	4.589
	67	Butylbenzylphthalate	149	22.495	22.487	(0.957)	687002	3.73975	3.740
	68	Benzo(a)anthracene	228	23.501	23.494	(0.999)	1635637	4.69532	4.695
*	69	Chrysene-d12	240	23.517	23.517	(1.000)	987952	4.00000	
	70	3,3'-Dichlorobenzidine	252	23.447	23.440	(0.997)	1843312	11.7070	11.71
	71	Chrysene	228	23.563	23.563	(1.002)	1441749	5.09254	5.093
	72	bis(2-Ethylhexyl)phthalate	149	23.494	23.494	(0.955)	1098969	4.68573	4.686
*	134	Di-n-octylphthalate-d4	153	24.593	24.593	(1.000)	1625017	4.00000	
	73	Di-n-octylphthalate	149	24.601	24.609	(1.000)	1872021	5.19501	5.195
	74	Benzo(b)fluoranthene	252	25.452	25.445	(0.968)	1612424	4.20942	4.209(H)
	75	Benzo(k)fluoranthene	252	25.507	25.507	(0.970)	1704767	4.59493	4.595
	76	Benzo(a)pyrene	252	26.157	26.157	(0.995)	1531821	4.46152	4.462
*	77	Perylene-d12	264	26.289	26.281	(1.000)	1073798	4.00000	
	78	Indeno(1,2,3-cd)pyrene	276	29.158	29.158	(1.109)	1841953	4.58483	4.585
	79	Dibenzo(a,h)anthracene	278	29.204	29.197	(1.111)	1523631	4.94802	4.948
	80	Benzo(g,h,i)perylene	276	30.043	30.028	(1.143)	1531325	4.81537	4.815
	90	N-Nitrosodimethylamine	74	4.719	4.719	(0.510)	557365	10.3583	10.36
	91	Aniline	93	8.636	8.628	(0.934)	1135375	9.51739	9.517
	93	Benzidine	184	21.148	21.140	(0.899)	637697	4.22668	4.227
	103	Pyridine	79	4.781	4.789	(0.517)	946906	9.92273	9.923
	105	1-methylnaphthalene	142	13.390	13.382	(1.141)	773355	4.97325	4.973
	111	Azobenzene (1,2-DP-Hydrazine)	77	16.816	16.816	(1.096)	1177852	4.55930	4.559

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.507	25.507	(0.970)	3247268	8.79719	8.797
120 2,3,4,6-Tetrachlorophenol	232	16.020	16.012	(1.044)	257039	5.11850	5.119

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052314.D
Lab Smp Id: SLC0401-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:03
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	297263	148632	594526	264922	-10.88
27 Naphthalene-d8	1085336	542668	2170672	947542	-12.70
42 Acenaphthene-d10	563464	281732	1126928	505666	-10.26
59 Phenanthrene-d10	1038318	519159	2076636	940283	-9.44
69 Chrysene-d12	1012751	506376	2025502	987952	-2.45
134 Di-n-octylphthala	1628890	814445	3257780	1625017	-0.24
77 Perylene-d12	1152264	576132	2304528	1073798	-6.81

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.06
42 Acenaphthene-d10	15.34	14.84	15.84	15.34	-0.00
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.52	23.02	24.02	23.52	-0.00
134 Di-n-octylphthala	24.59	24.09	25.09	24.59	-0.00
77 Perylene-d12	26.28	25.78	26.78	26.29	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052314.D

Lab ID: SLC0401-CCV1
nt10.i, 20230305.b\ABN.m,   05-MAR-2023 21:38

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

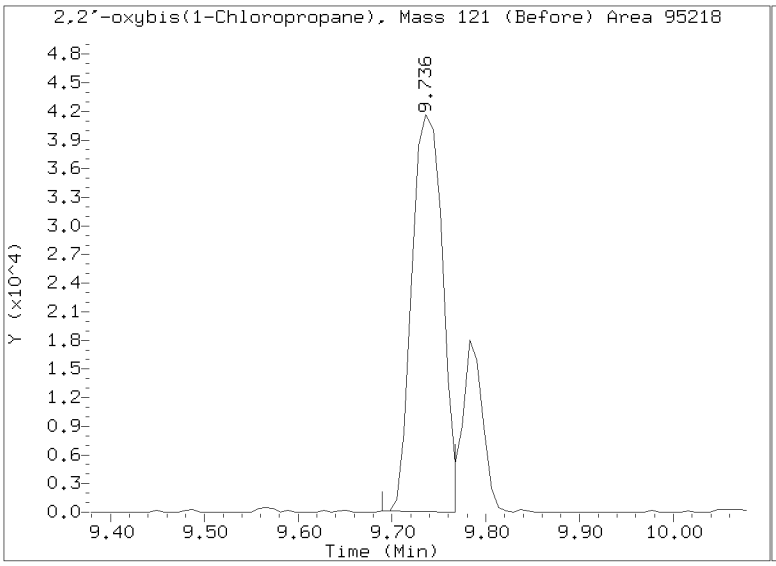
RRT check based on Ccal File: NT1003052302.D

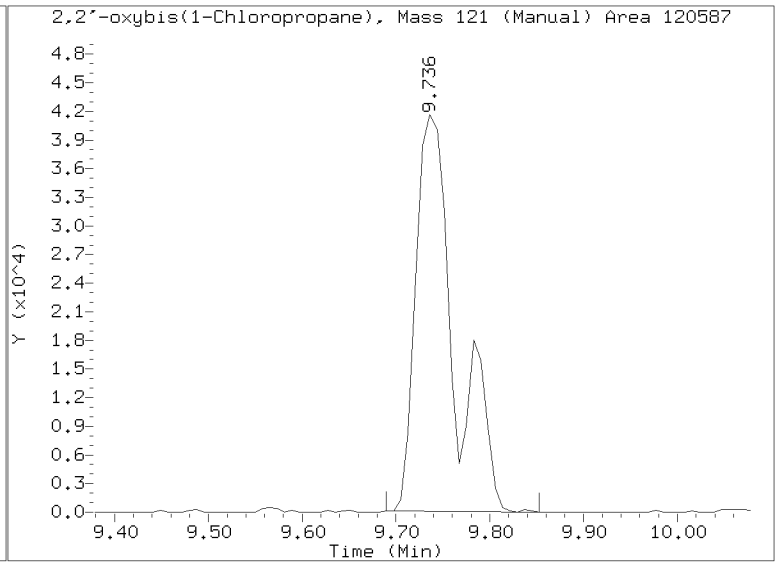
On Column LOD for nt10.i, 20230305.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305.b/NT1003052314.D
Injection Date: 05-MAR-2023 21:38
Lab ID:SLC0401-CCV1 Client ID:
Report Date: 03/27/2023 14:39





APPROVED

By Deenay Dunmore at 2:40 pm, Mar 27, 2023

Analytical Resources, LLC
Analytical Chemists and Consultants

LOW-CONCENTRATION CONTINUING CALIBRATION CHECK

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00019
Lab File ID:	NT1003052304.D	Calibration Date:	03/01/2023
Sequence:	SLC0401	Injection Date:	03/05/23
Lab Sample ID:	SLC0401-LCV1	Injection Time:	15:18
Sequence Name:	ABN 0.2		

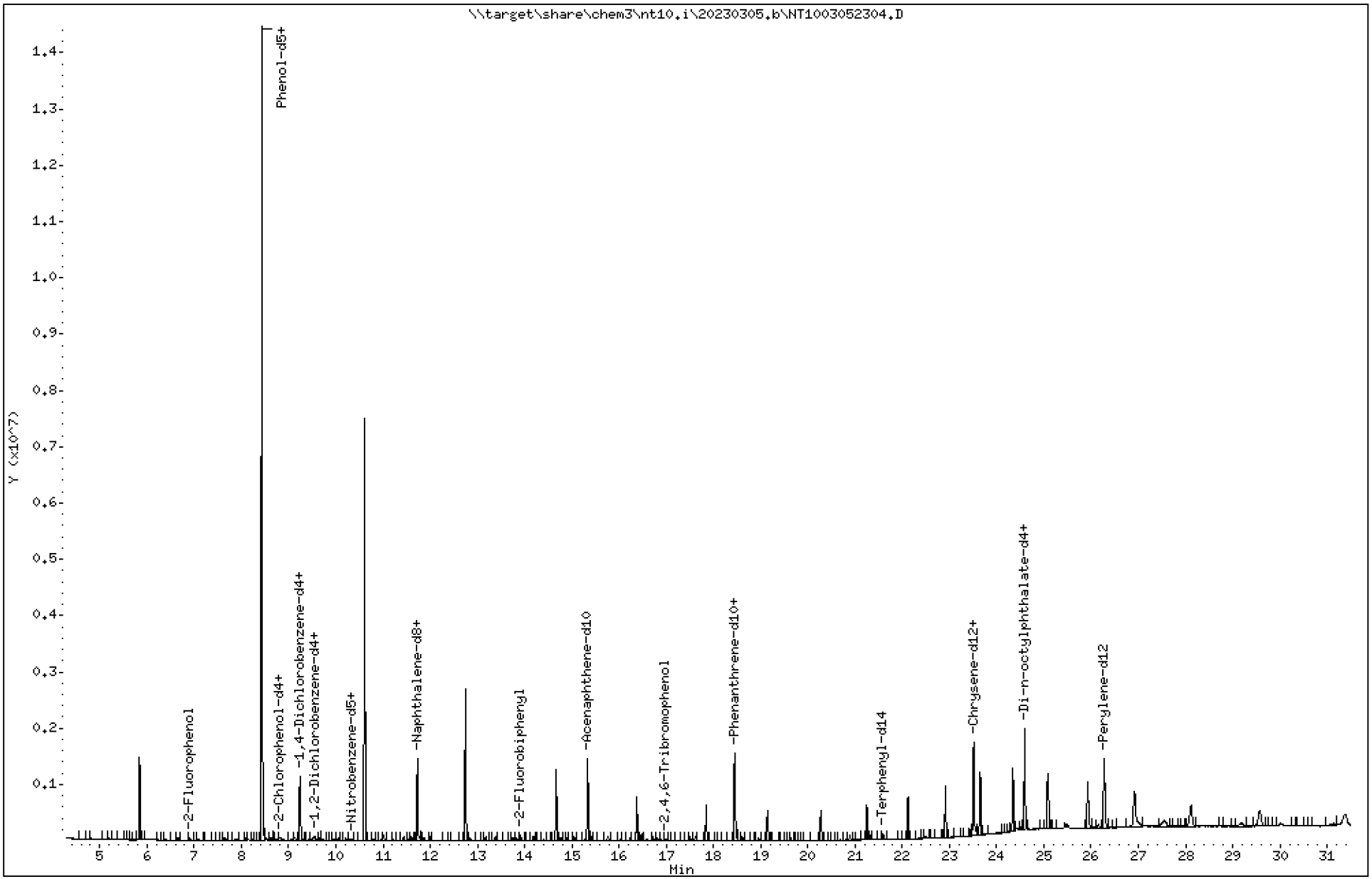
		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
Phenol	A	0.20000	0.1	1.5534590	1.1047010		-28.9	+/-50	
4-Methylphenol	A	0.20000	0.1	1.2087680	0.9482317		-37.2	+/-50	
Naphthalene	A	0.20000	0.2	1.0266520	1.0524390		2.5	+/-50	
2-Methylnaphthalene	A	0.20000	0.2	0.7252818	0.7050019		-2.8	+/-50	
Acenaphthylene	A	0.20000	0.2	1.9309320	1.8152270		-6.0	+/-50	
Dimethylphthalate	A	0.20000	0.2	1.2917940	1.0742520		-16.8	+/-50	
Acenaphthene	A	0.20000	0.2	1.1645250	1.1447860		-1.7	+/-50	
Dibenzofuran	A	0.20000	0.2	1.7283260	1.7730860		2.6	+/-50	
Fluorene	A	0.20000	0.2	1.4379840	1.4209420		-1.2	+/-50	
Phenanthrene	A	0.20000	0.2	1.0236730	0.9811991		-4.2	+/-50	
Anthracene	A	0.20000	0.2	0.9926226	0.8619449		-13.2	+/-50	
Fluoranthene	A	0.20000	0.2	1.3760330	1.2253120		-11.0	+/-50	
Pyrene	A	0.20000	0.2	1.4011560	1.2577370		-10.2	+/-50	
Butylbenzylphthalate	A	0.20000	0.09	0.6475451	0.3415815		-54.7	+/-50	*
Benzo(a)anthracene	A	0.20000	0.2	1.4104100	1.3197650		-6.4	+/-50	
Chrysene	A	0.20000	0.2	1.1462500	1.1622120		1.4	+/-50	
bis(2-Ethylhexyl)phthalate	A	0.20000	0.1	0.5331838	0.4076073		-27.3	+/-50	
Benzofluoranthenes, Total	A	0.40000	0.4	1.3383070	1.2053400		-8.0	+/-50	
Benzo(a)pyrene	A	0.20000	0.2	1.2312020	1.0647960		-12.7	+/-50	
Indeno(1,2,3-cd)pyrene	A	0.20000	0.2	1.4033590	1.3158250		-7.7	+/-50	
Dibenzo(a,h)anthracene	A	0.20000	0.2	1.1150690	1.1212030		3.7	+/-50	
Benzo(g,h,i)perylene	A	0.20000	0.2	1.1245240	1.2043440		6.0	+/-50	
2-Fluorophenol	A	0.30000	0.219	1.2585100	0.9177441		-27.1	+/-50	
Phenol-d5	A	0.30000	0.187	1.4611190	0.9095438		-37.8	+/-50	
2-Chlorophenol-d4	A	0.30000	0.241	1.2465880	1.0008460		-19.7	+/-50	
1,2-Dichlorobenzene-d4	A	0.20000	0.220	0.9313544	1.0238210		9.9	+/-50	
Nitrobenzene-d5	A	0.20000	0.156	0.4390871	0.3421860		-22.1	+/-50	
2-Fluorobiphenyl	A	0.20000	0.216	1.4267270	1.5426200		8.1	+/-50	
2,4,6-Tribromophenol	A	0.30000	0.0217	0.2287830	0.0177828		-92.8	+/-50	*
p-Terphenyl-d14	A	0.20000	0.191	1.1337350	1.0846960		-4.3	+/-50	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D
Date : 05-MAR-2023 15:18
Client ID:
Sample Info: SLC0401-LCV1

Instrument: nt10.i
Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

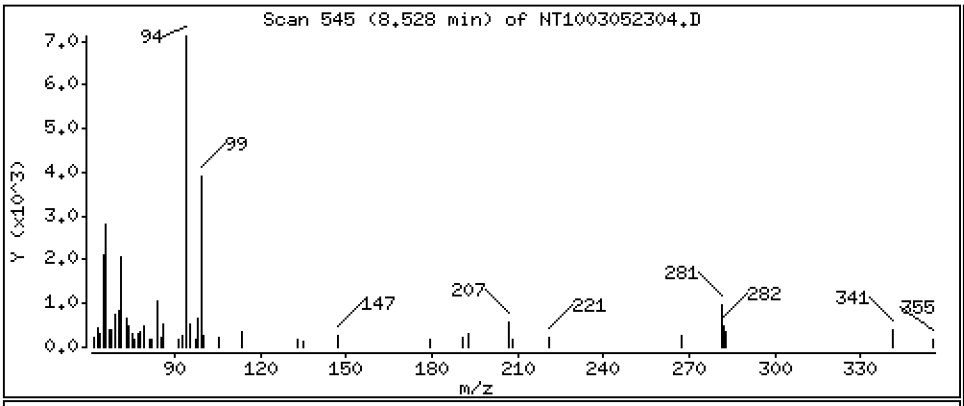
Operator: VTS

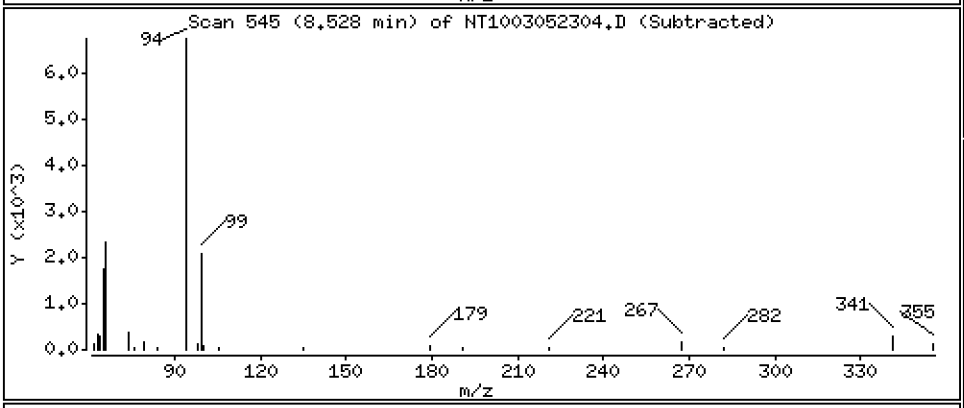
Column phase: ZB-5msi

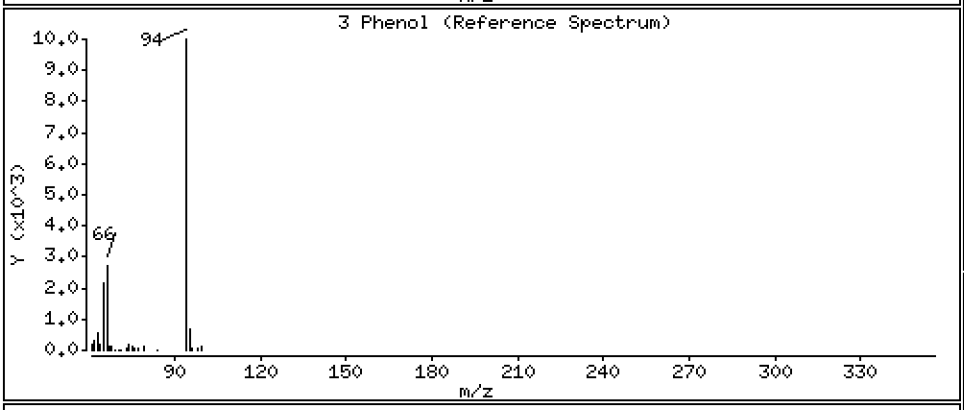
Column diameter: 0.25

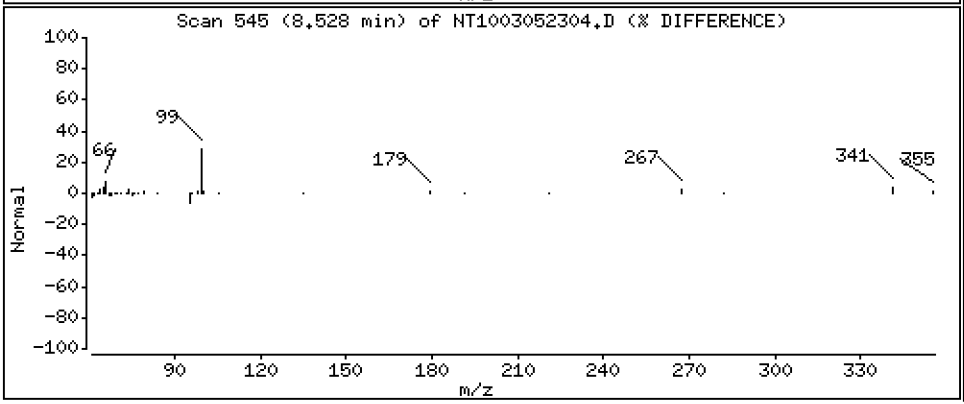
3 Phenol

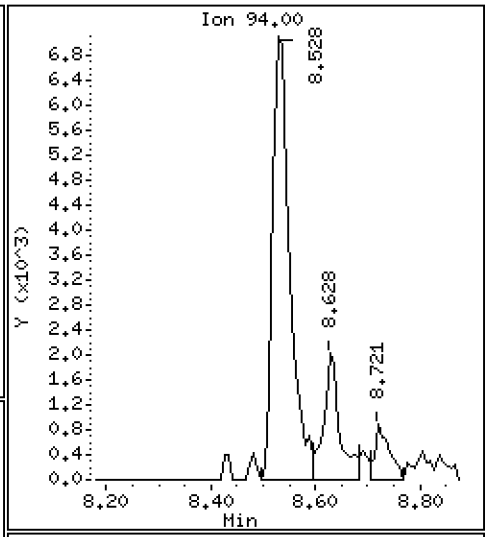
Concentration: 0.1422 ug/mL

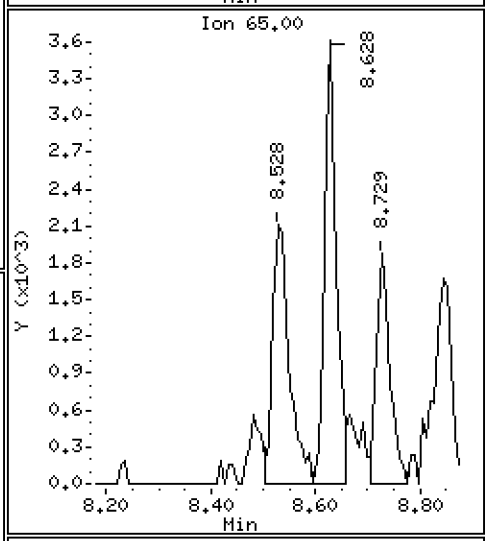


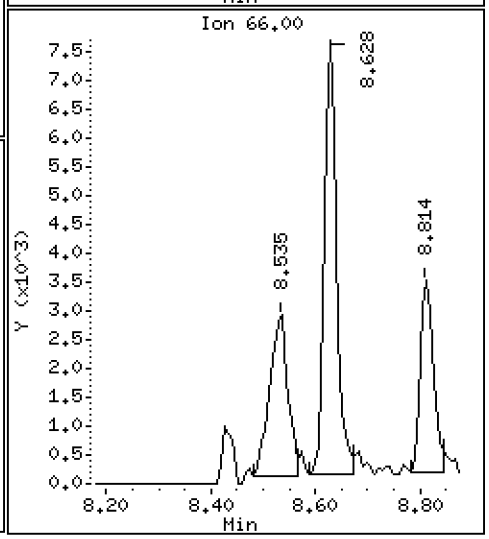












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

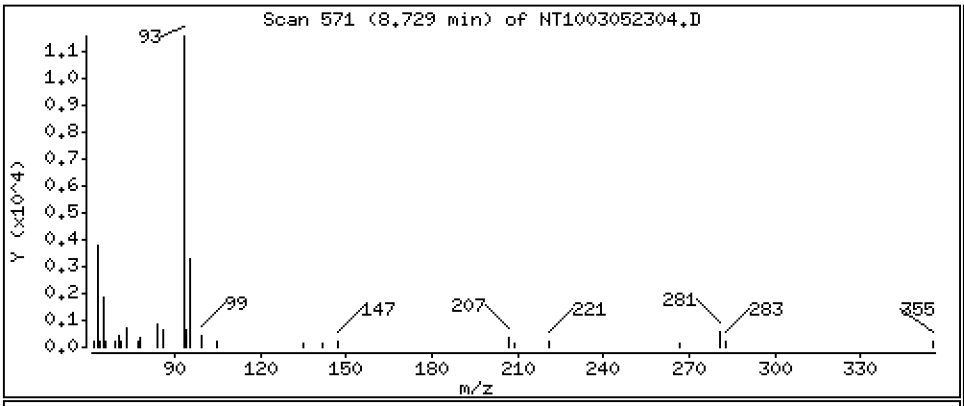
Operator: VTS

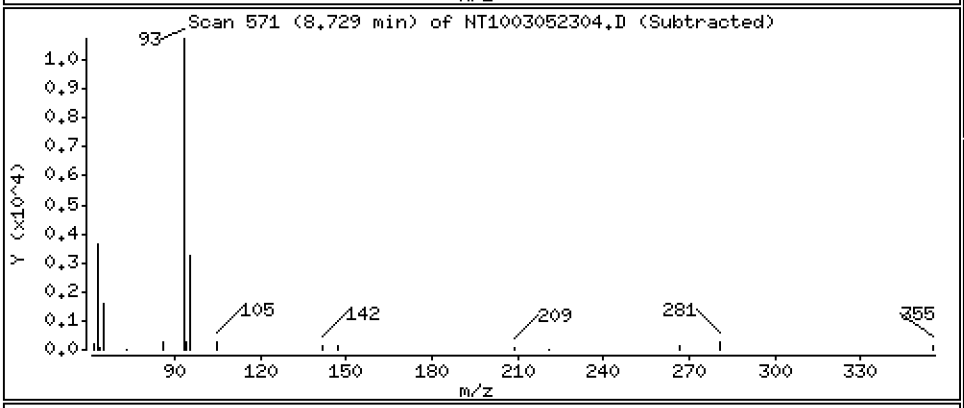
Column phase: ZB-5msi

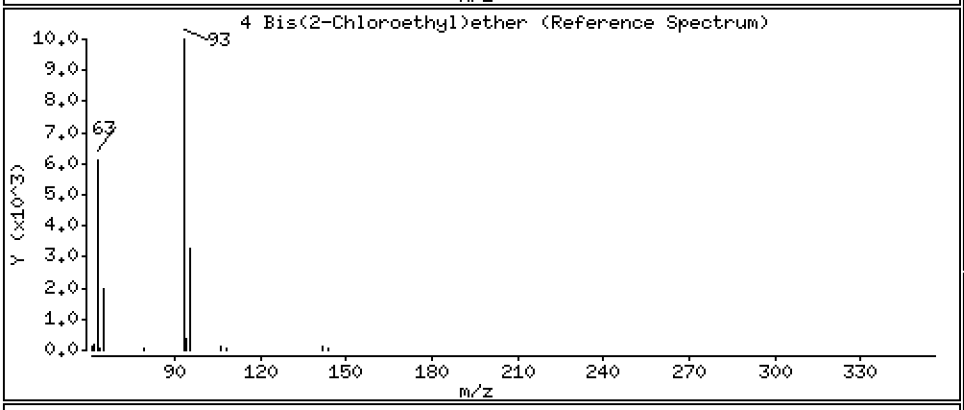
Column diameter: 0.25

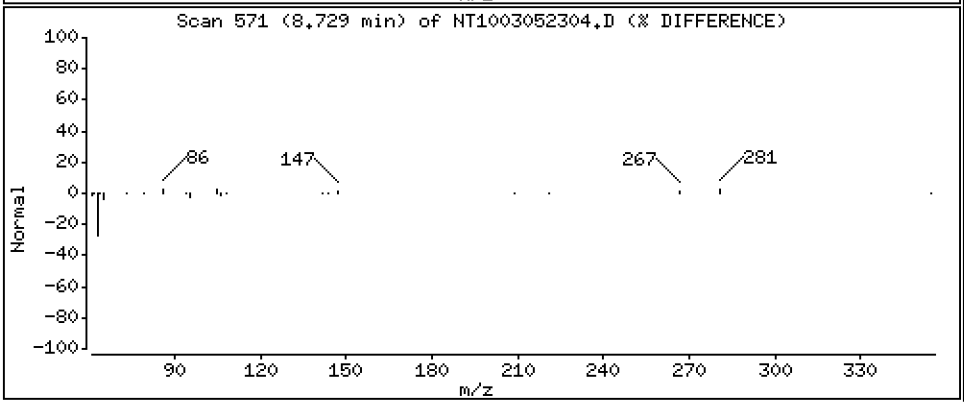
4 Bis(2-Chloroethyl)ether

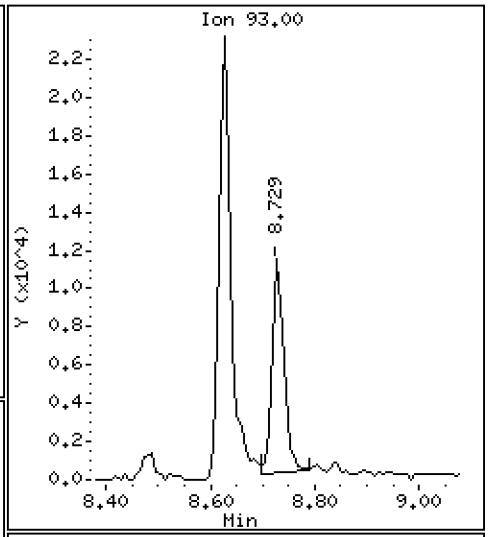
Concentration: 0.1911 ug/mL

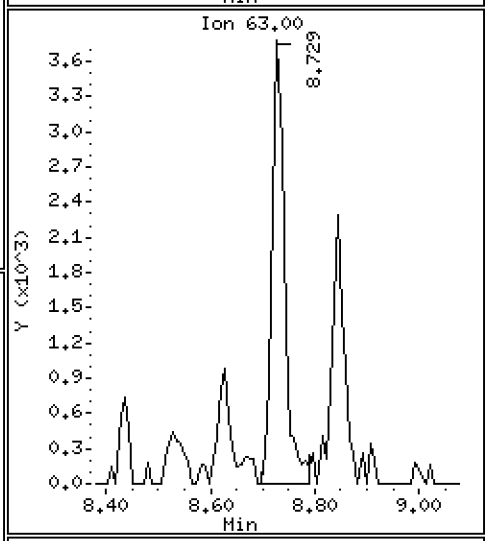


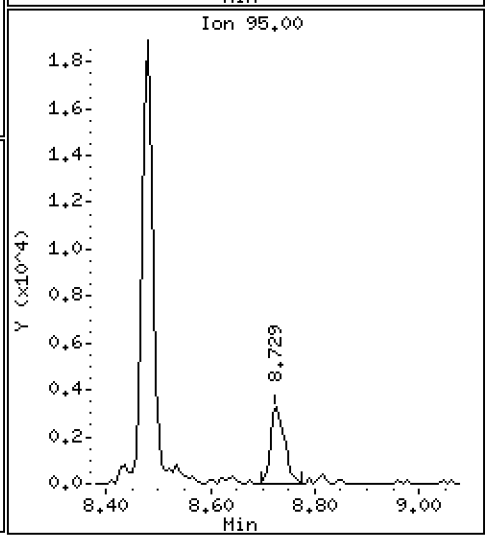












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

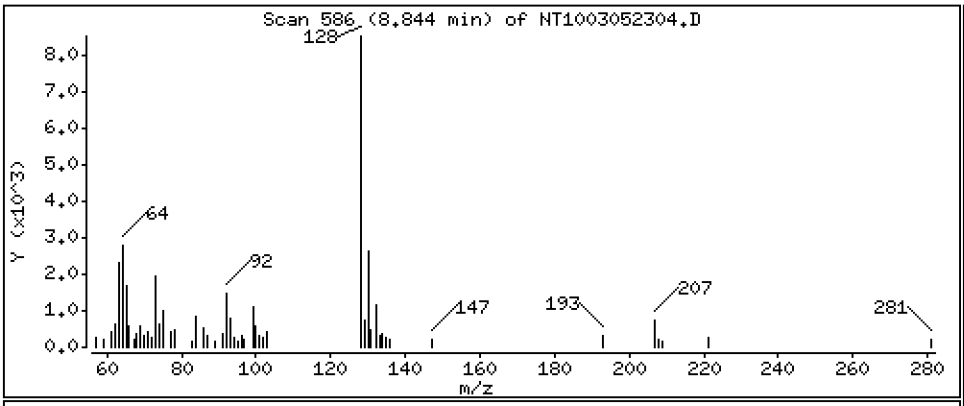
Operator: VTS

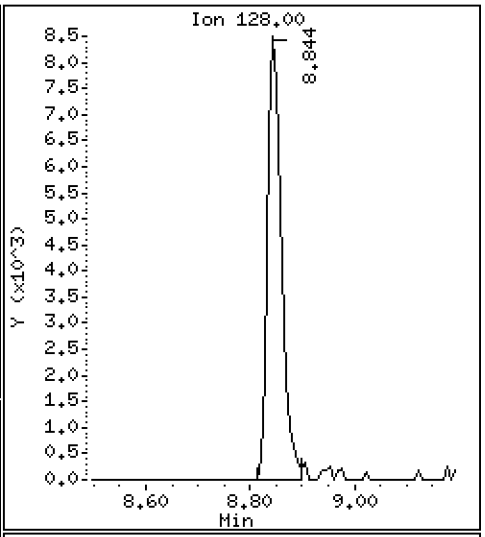
Column phase: ZB-5msi

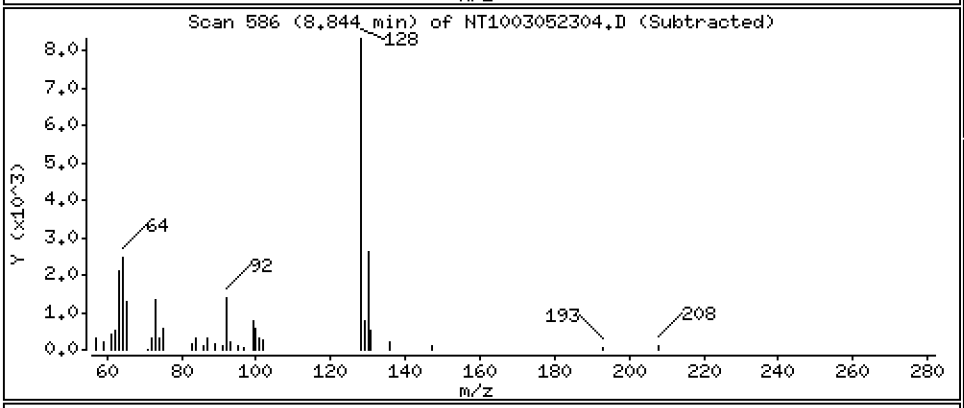
Column diameter: 0.25

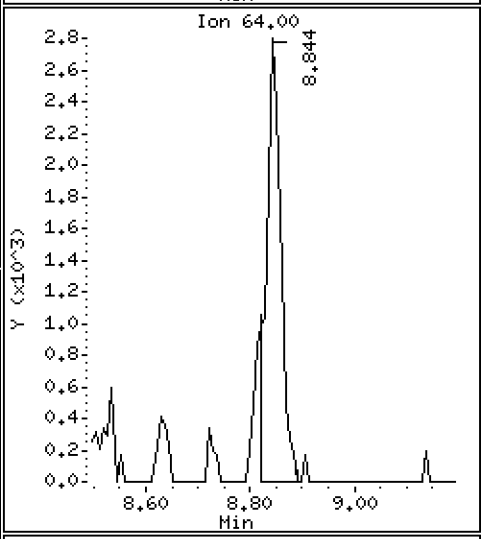
6 2-Chlorophenol

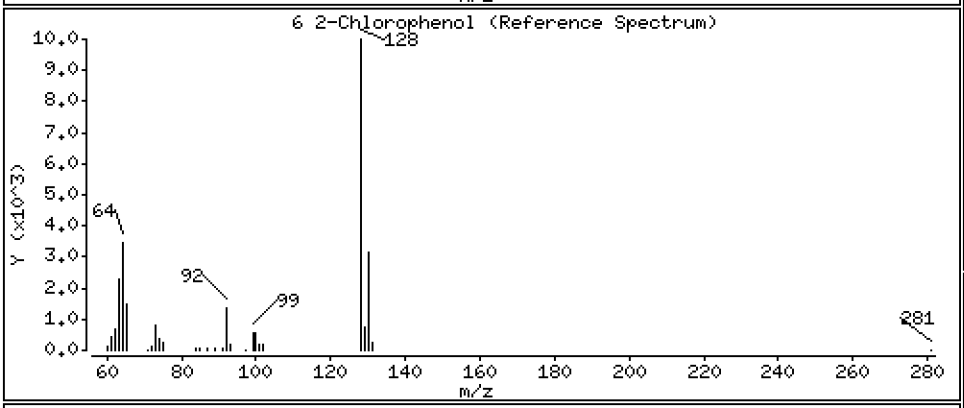
Concentration: 0.1636 ug/mL

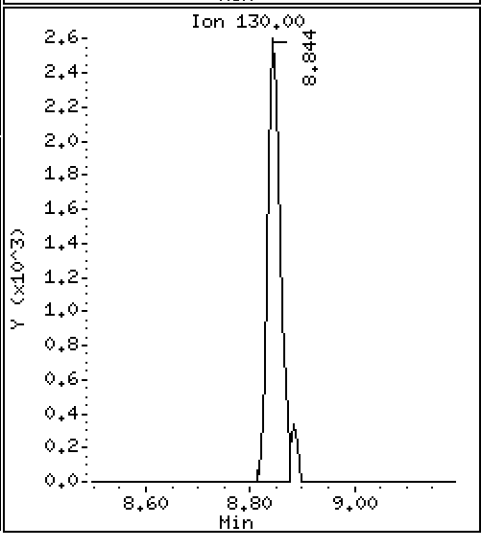


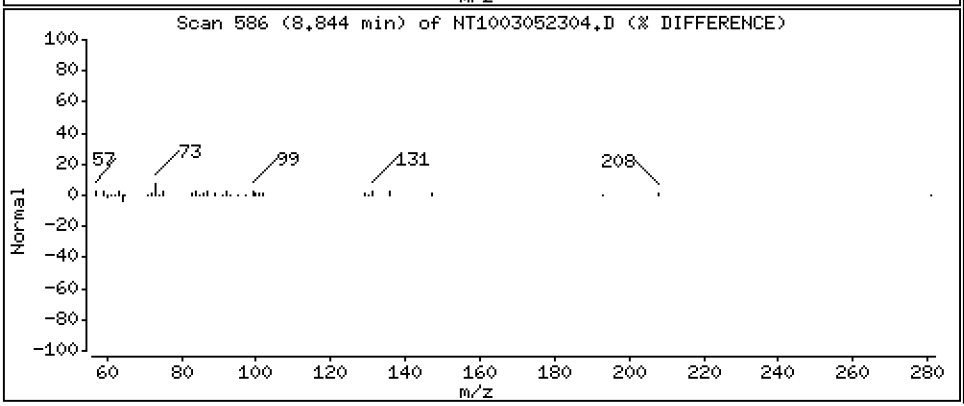












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

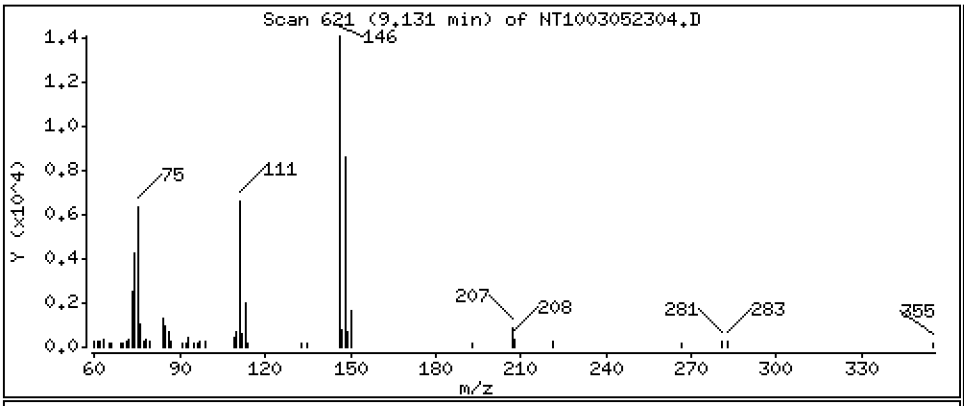
Operator: VTS

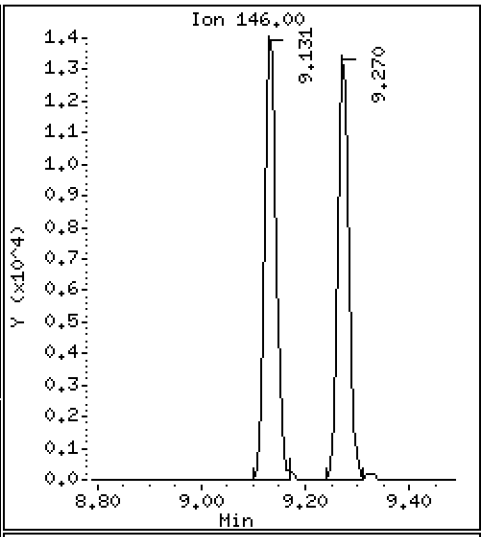
Column phase: ZB-5msi

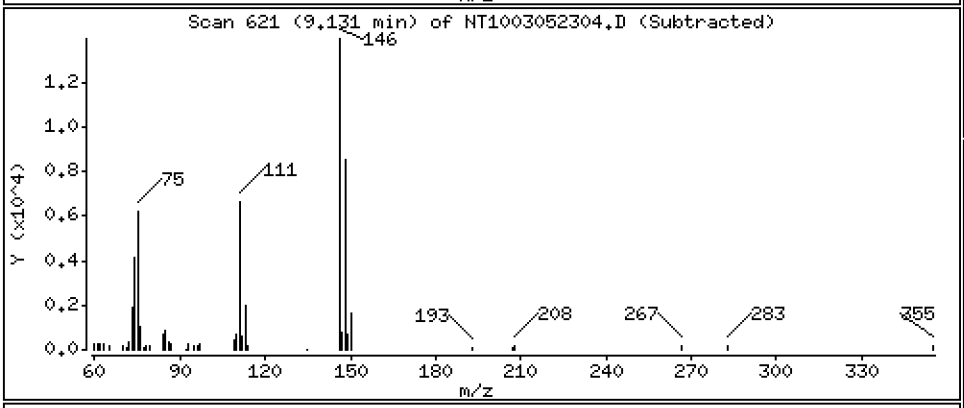
Column diameter: 0.25

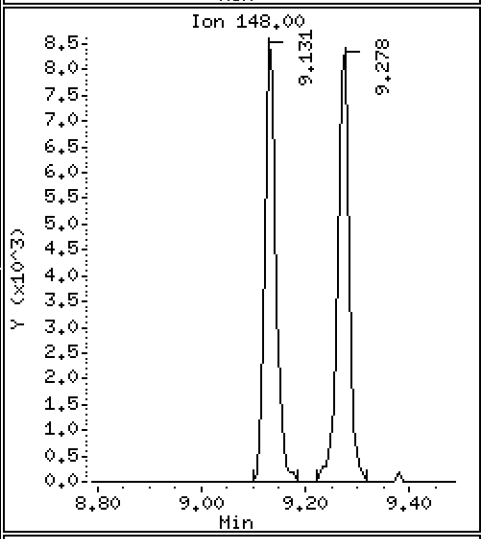
7 1,3-Dichlorobenzene

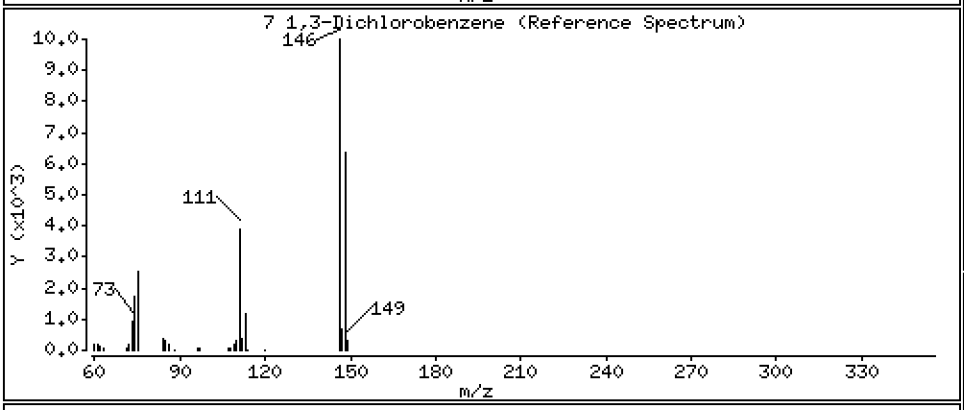
Concentration: 0.2131 ug/mL

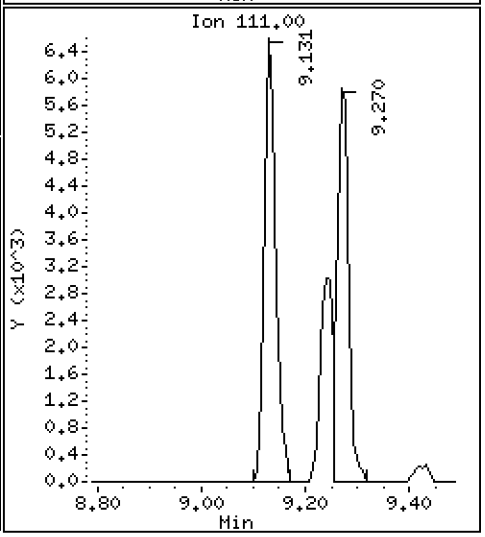


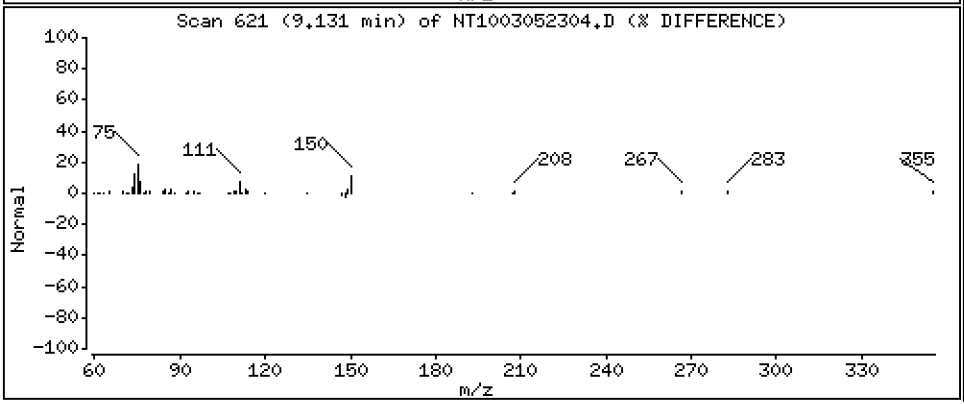












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

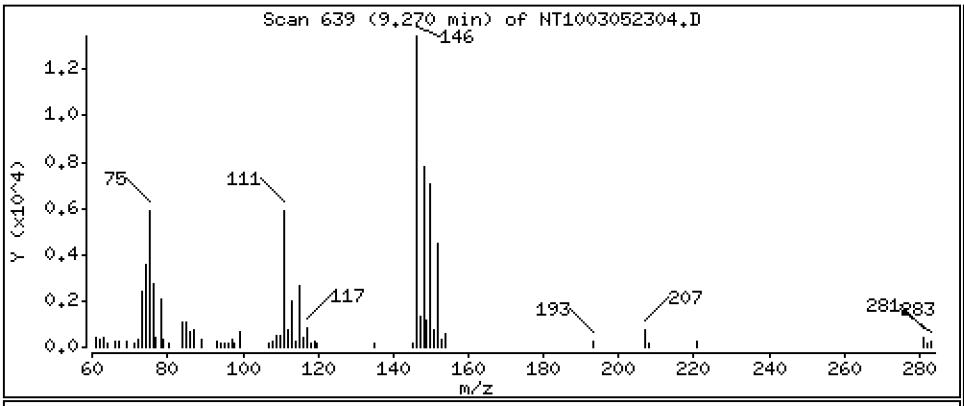
Operator: VTS

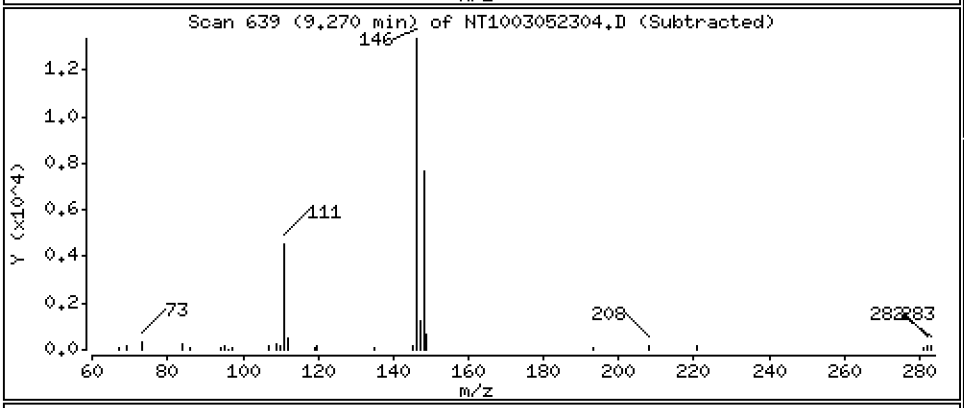
Column phase: ZB-5msi

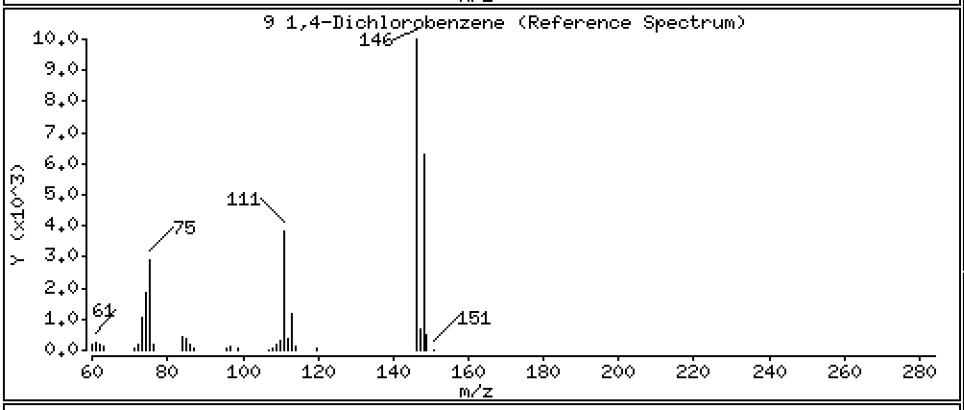
Column diameter: 0.25

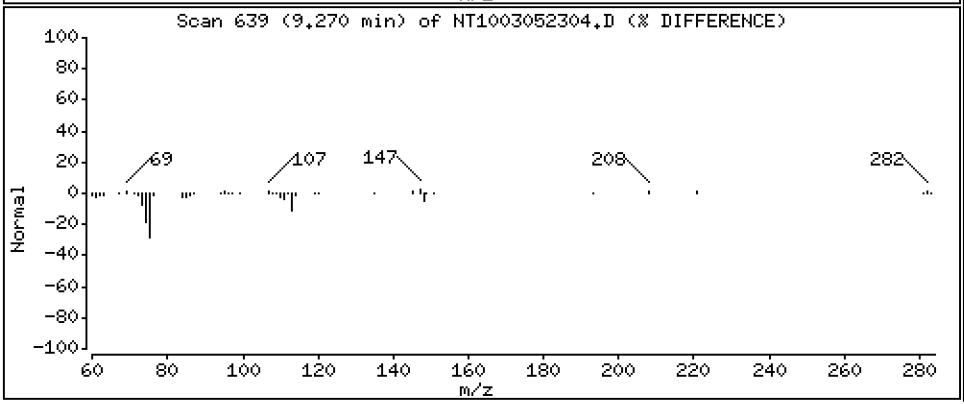
9 1,4-Dichlorobenzene

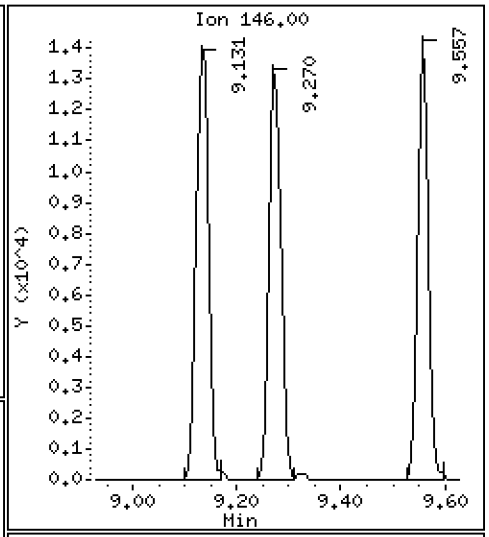
Concentration: 0.1992 ug/mL

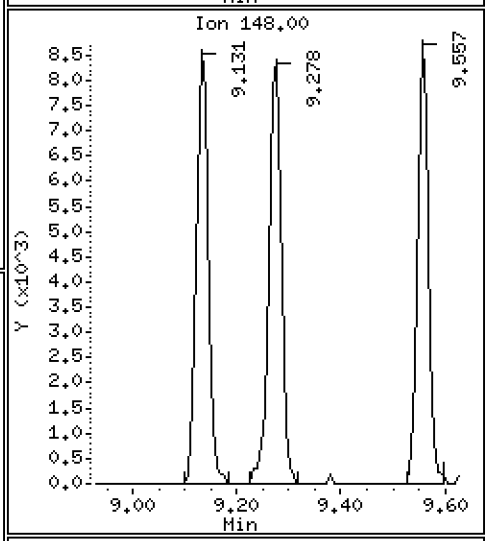


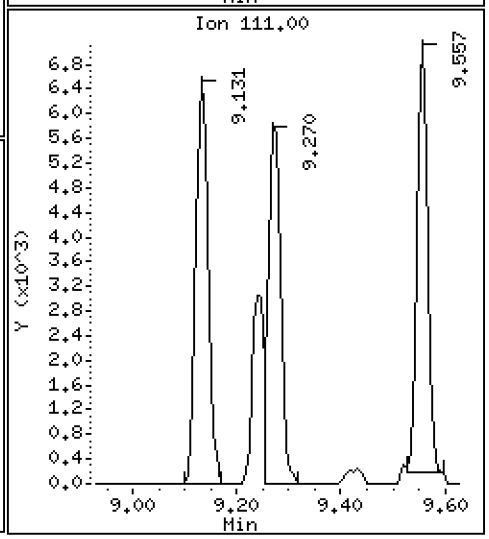












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

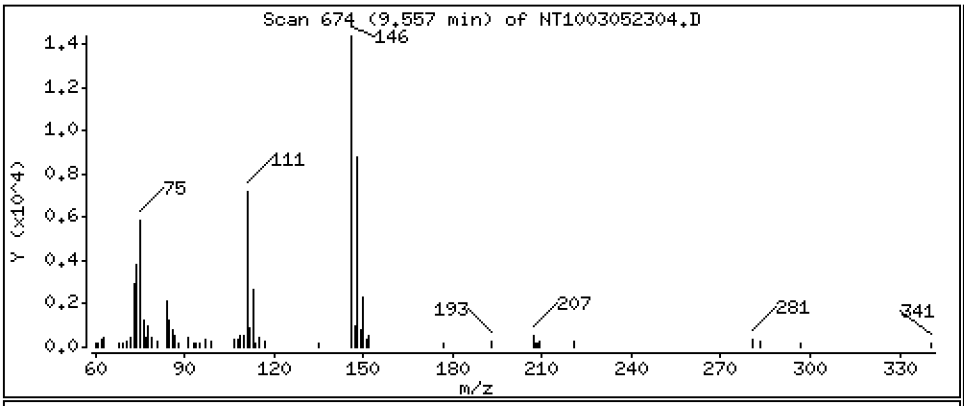
Operator: VTS

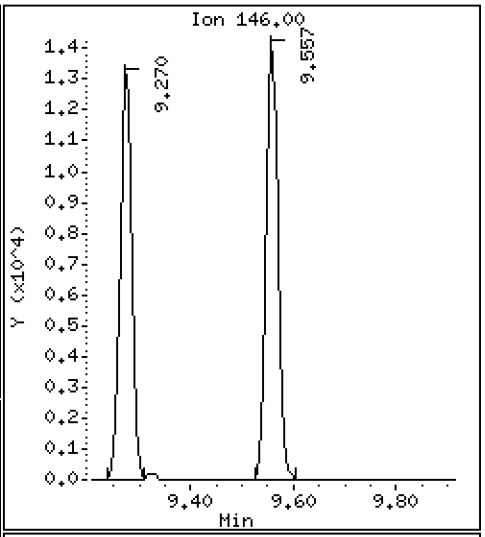
Column phase: ZB-5msi

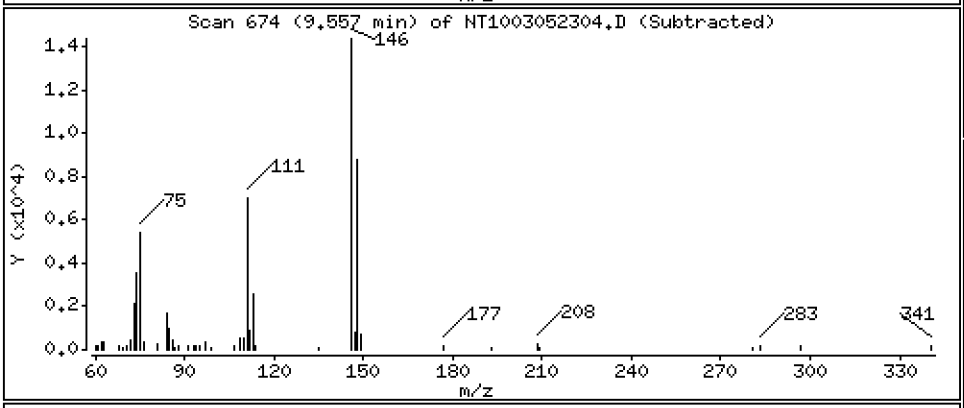
Column diameter: 0.25

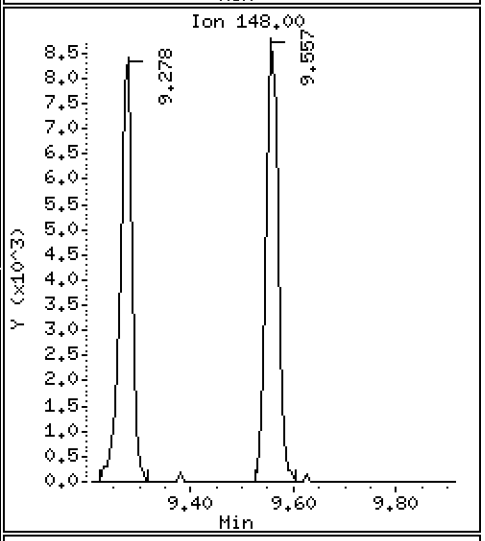
12 1,2-Dichlorobenzene

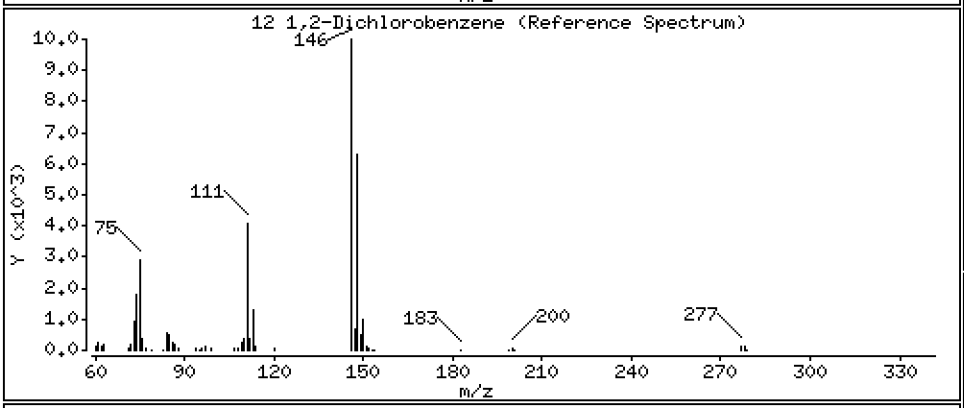
Concentration: 0.2113 ug/mL

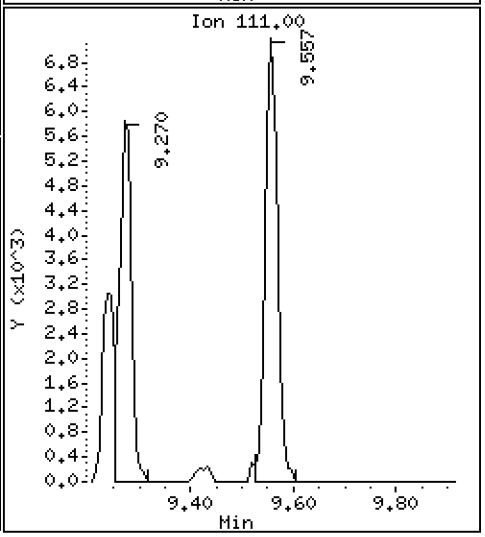


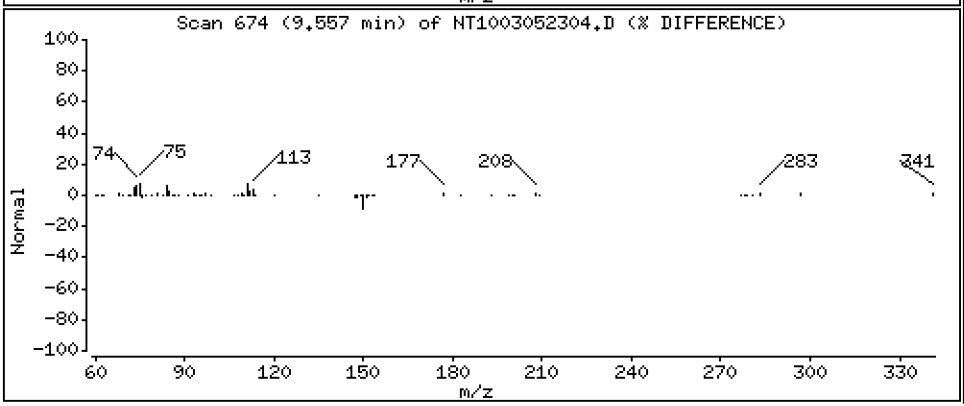












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

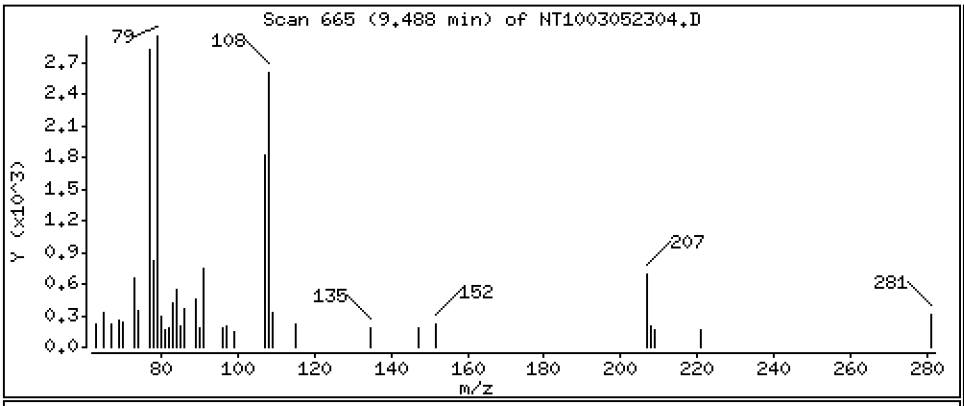
Operator: VTS

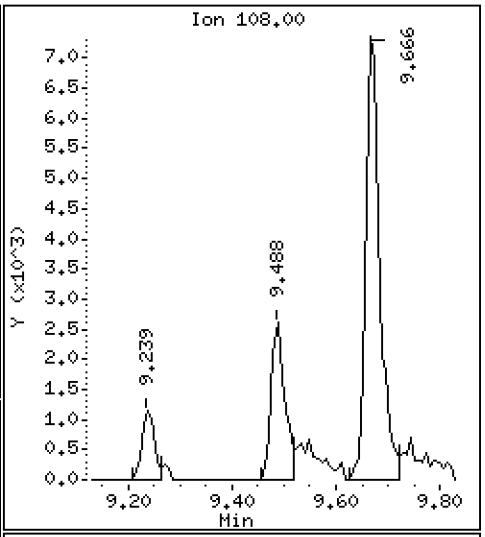
Column phase: ZB-5msi

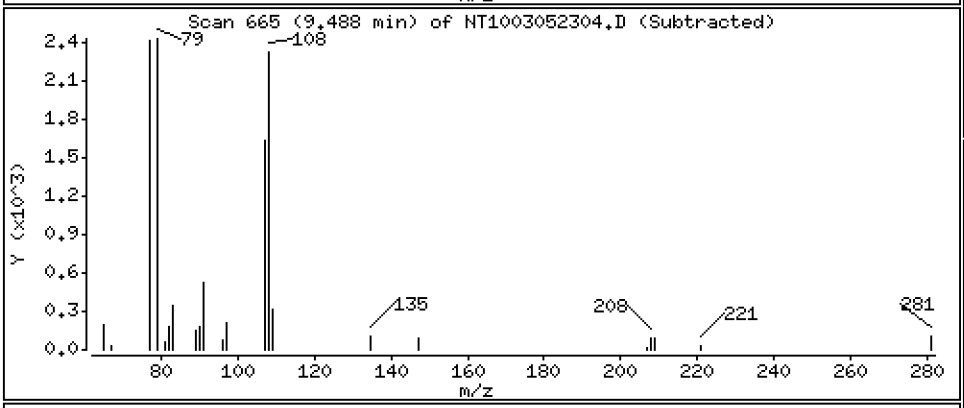
Column diameter: 0.25

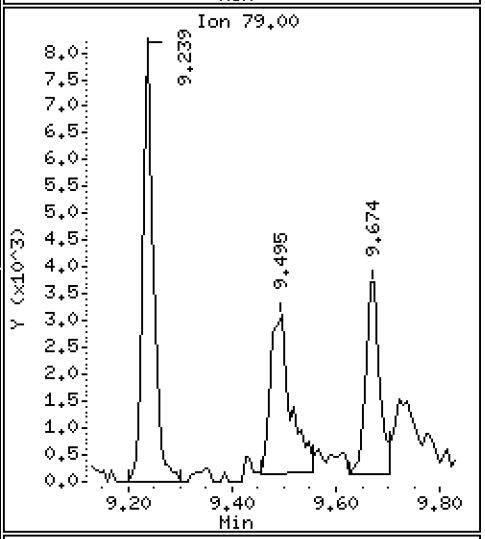
11 Benzyl alcohol

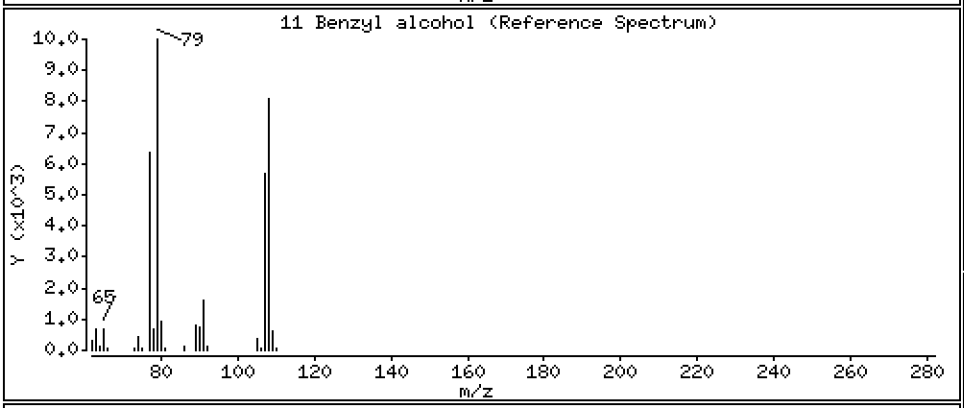
Concentration: 0.07919 ug/mL

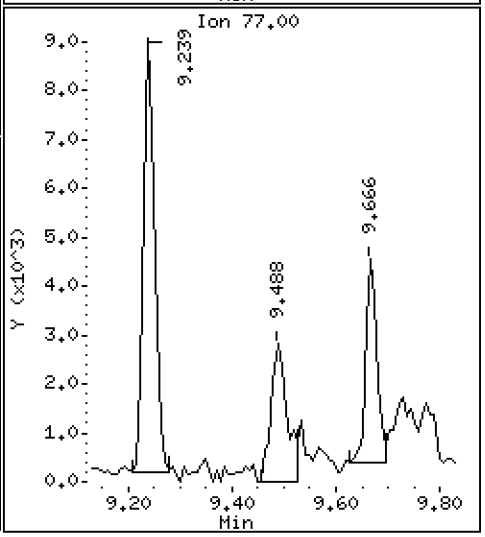


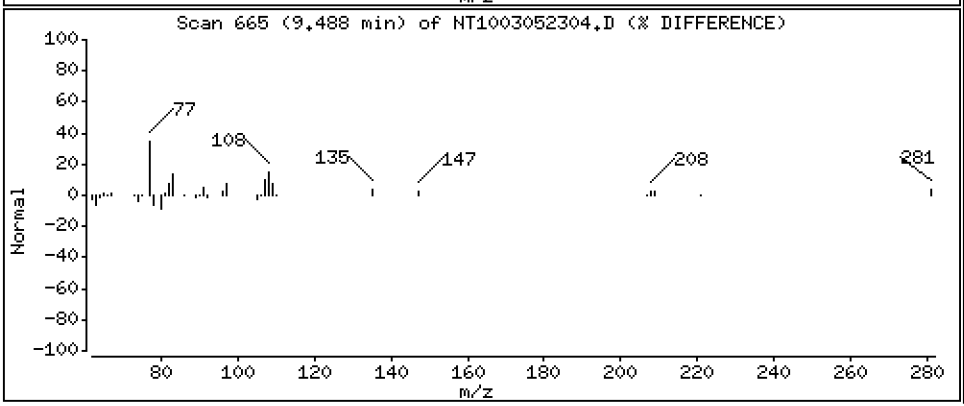












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

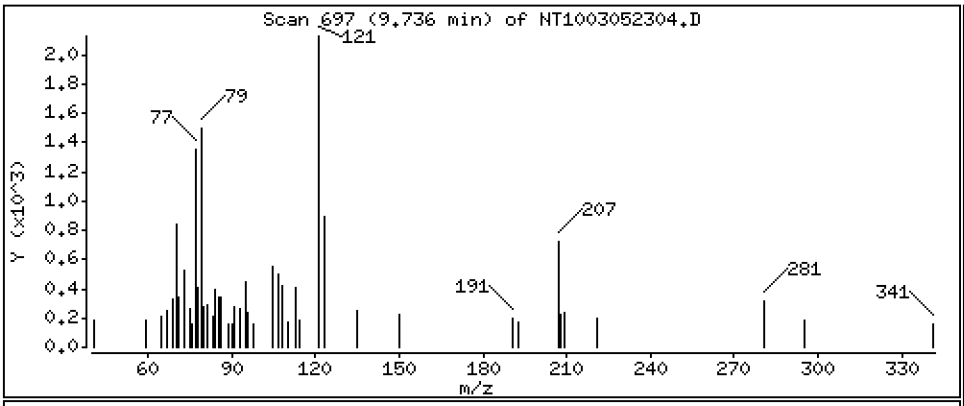
Operator: VTS

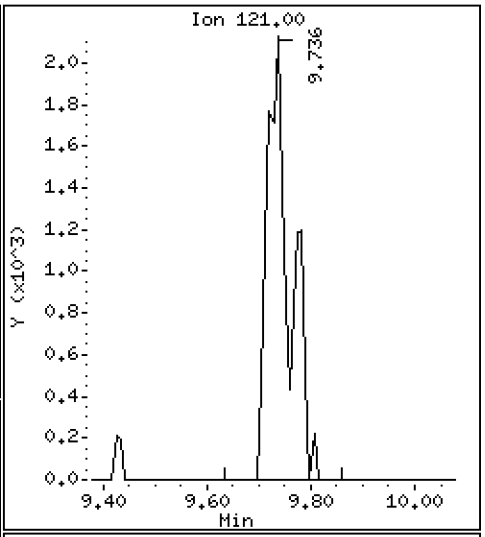
Column phase: ZB-5msi

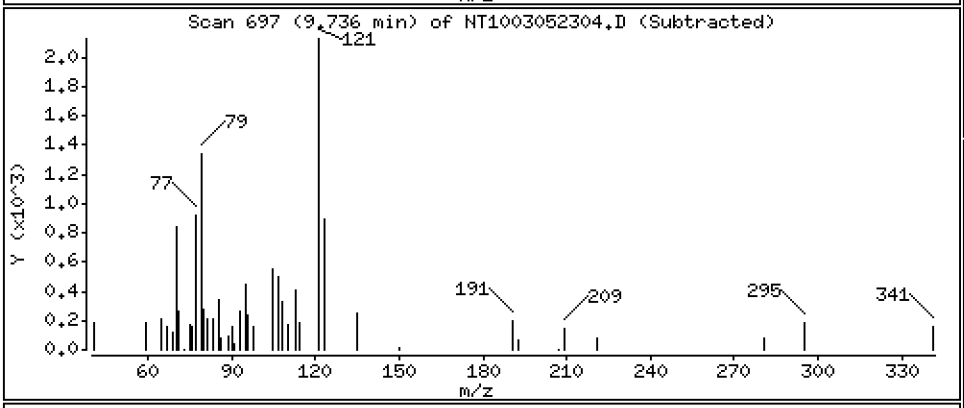
Column diameter: 0.25

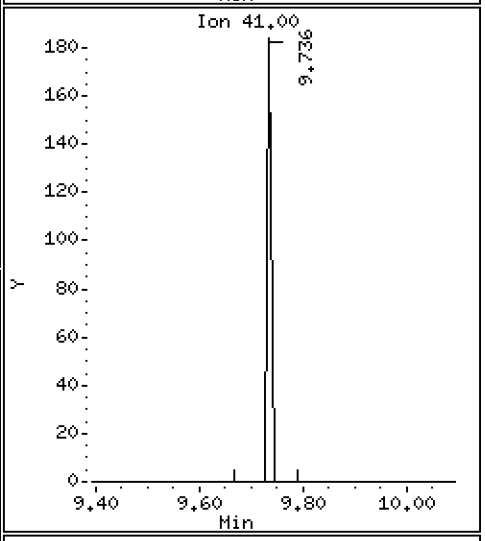
14 2,2'-oxybis(1-Chloropropane)

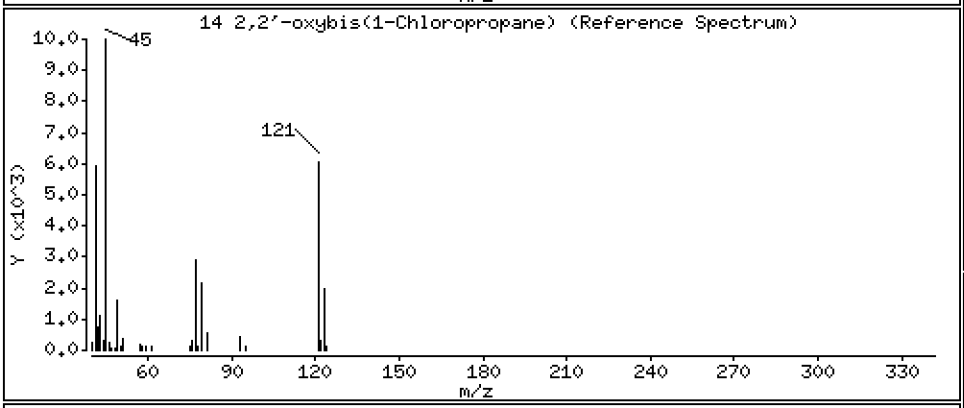
Concentration: 0.2239 ug/mL

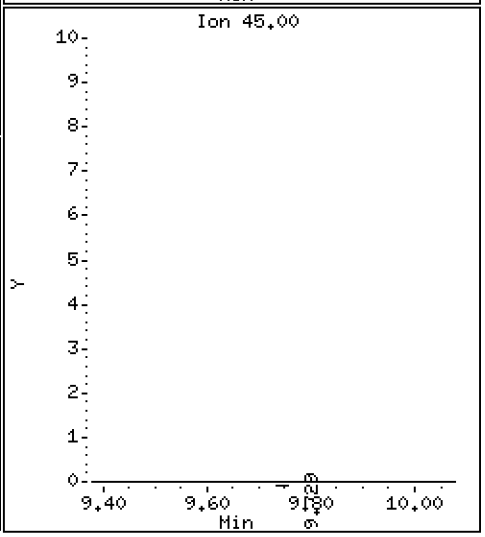


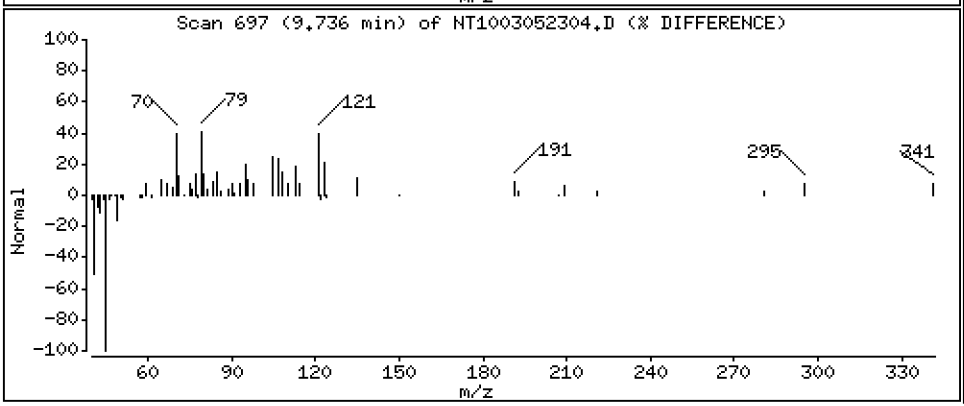












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

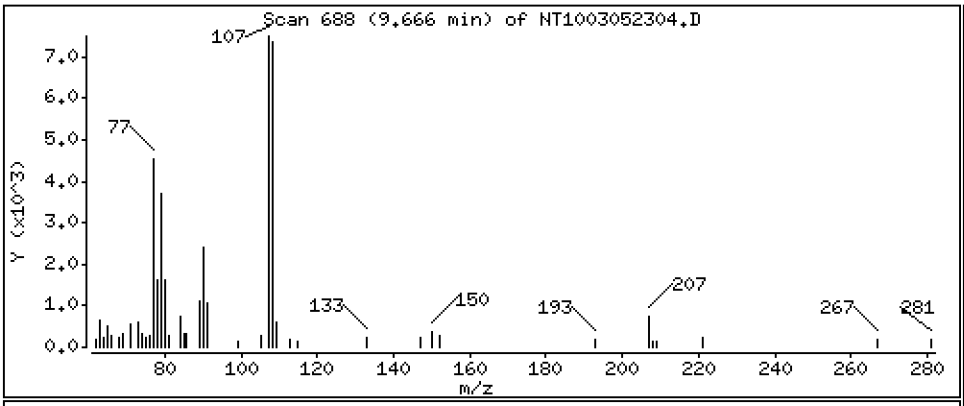
Operator: VTS

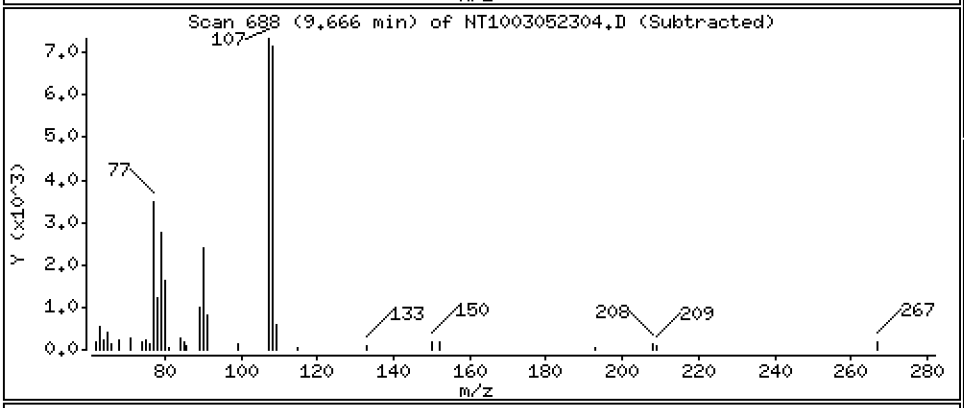
Column phase: ZB-5msi

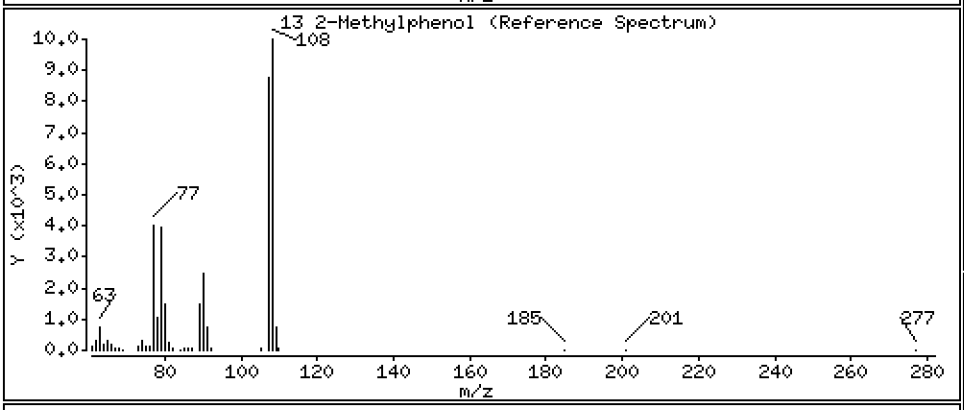
Column diameter: 0.25

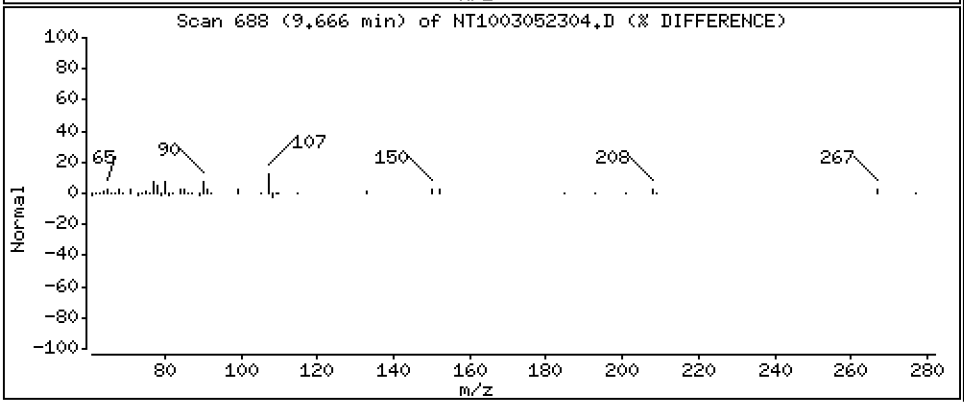
13 2-Methylphenol

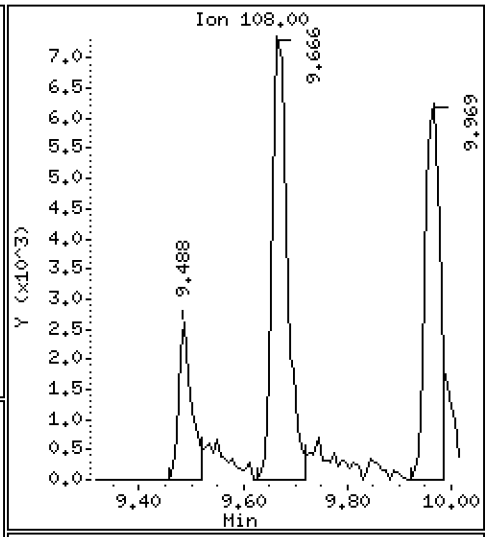
Concentration: 0.1660 ug/mL

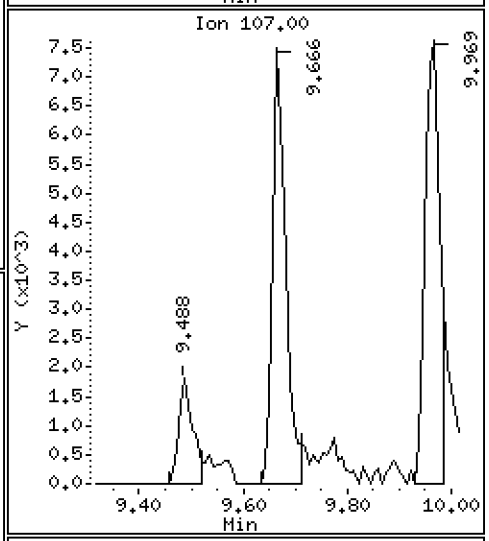


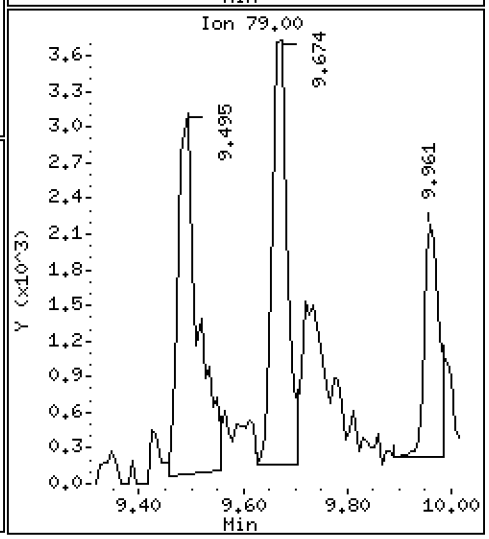












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

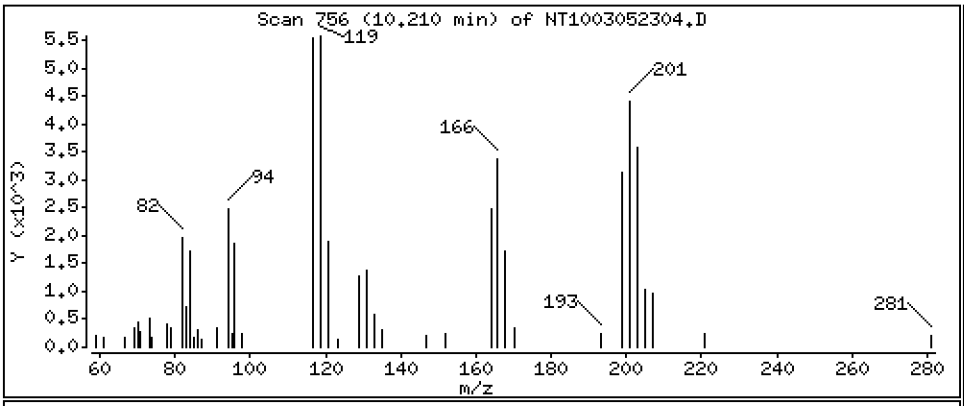
Operator: VTS

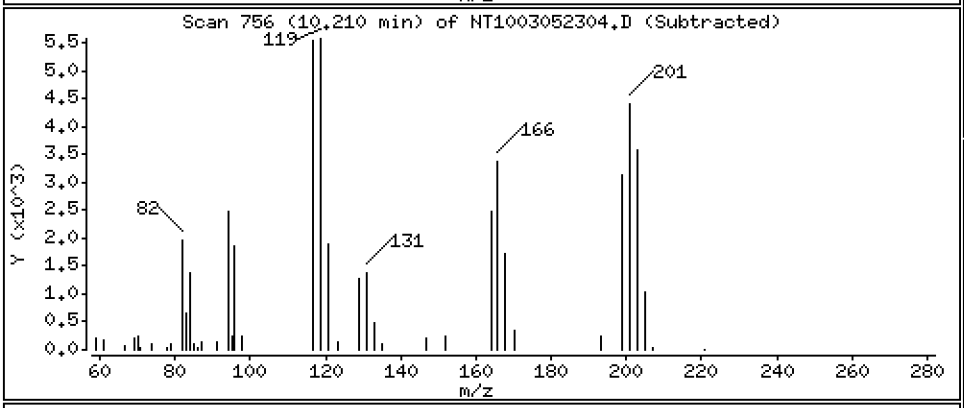
Column phase: ZB-5msi

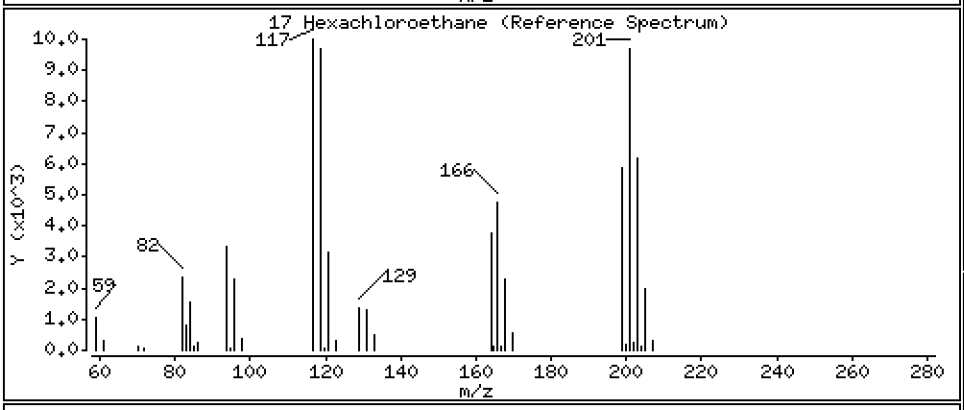
Column diameter: 0.25

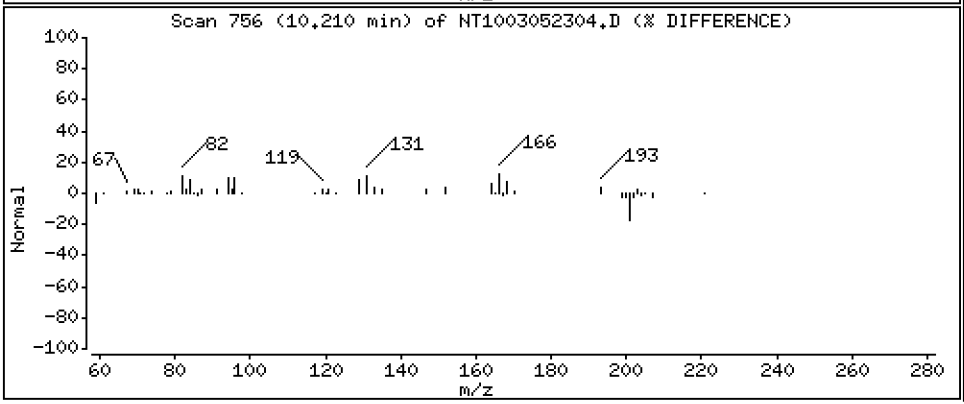
17 Hexachloroethane

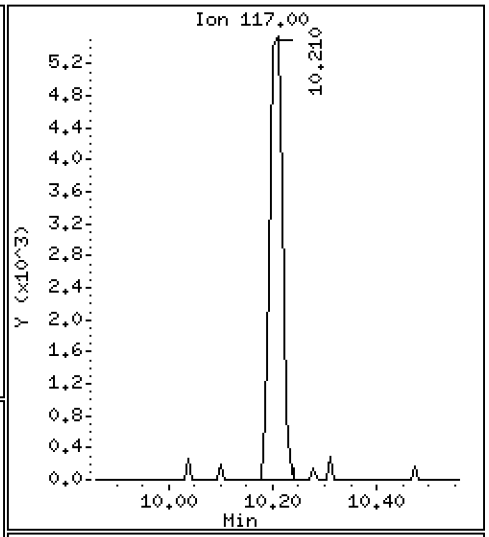
Concentration: 0.2085 ug/mL

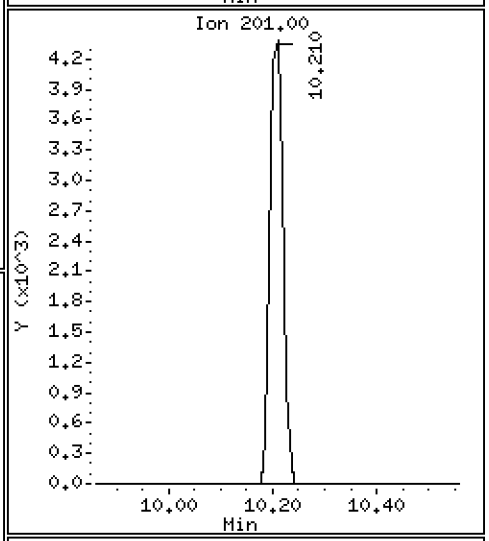


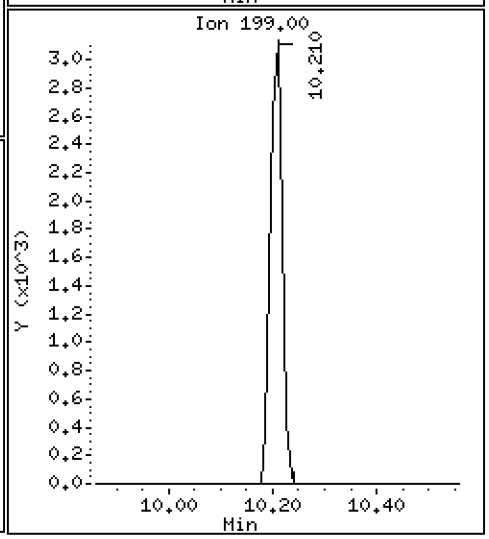












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

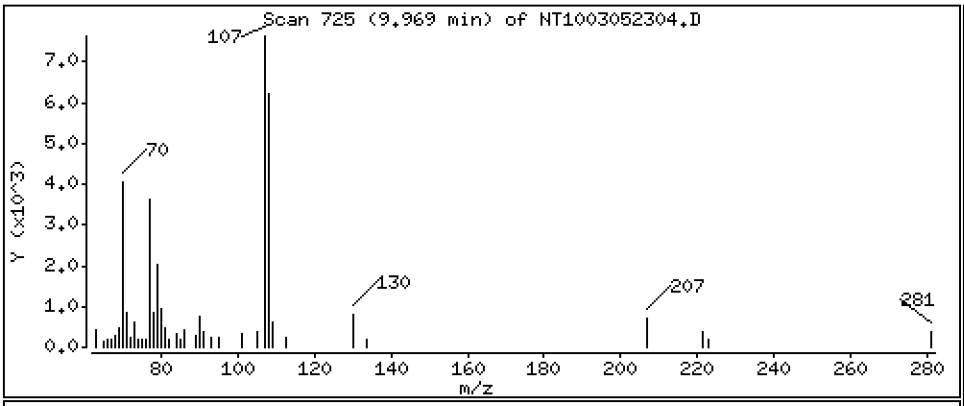
Operator: VTS

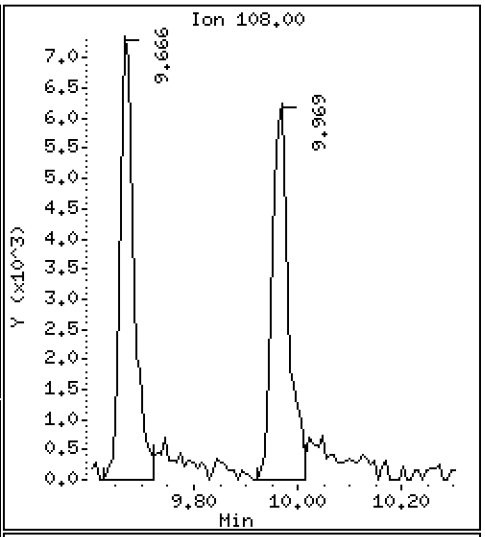
Column phase: ZB-5msi

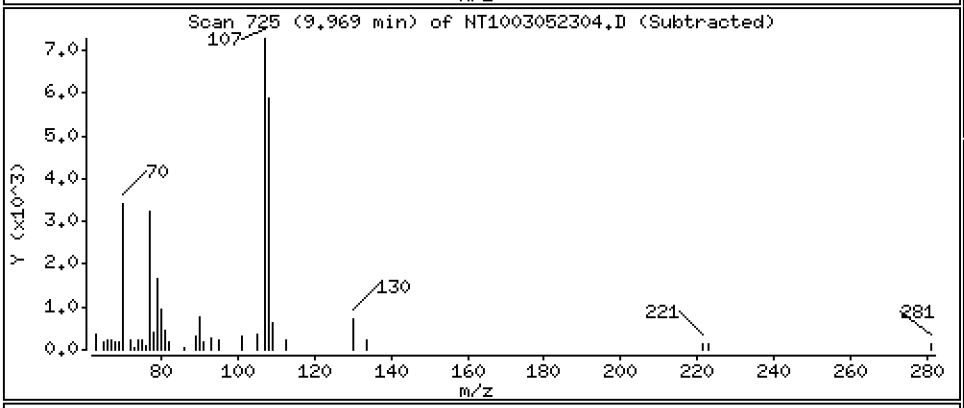
Column diameter: 0.25

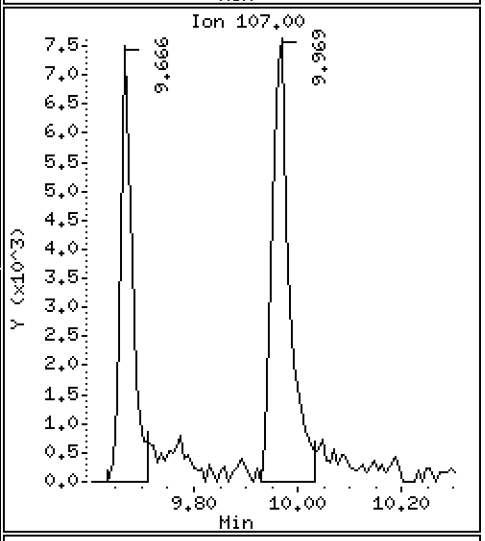
15 4-Methylphenol

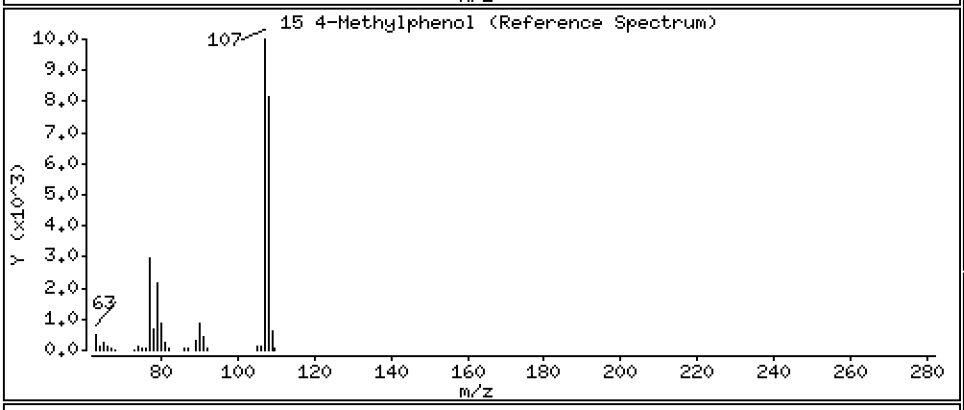
Concentration: 0.1256 ug/mL

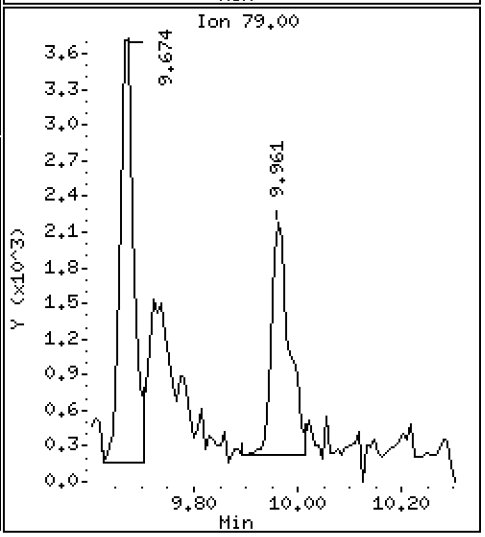


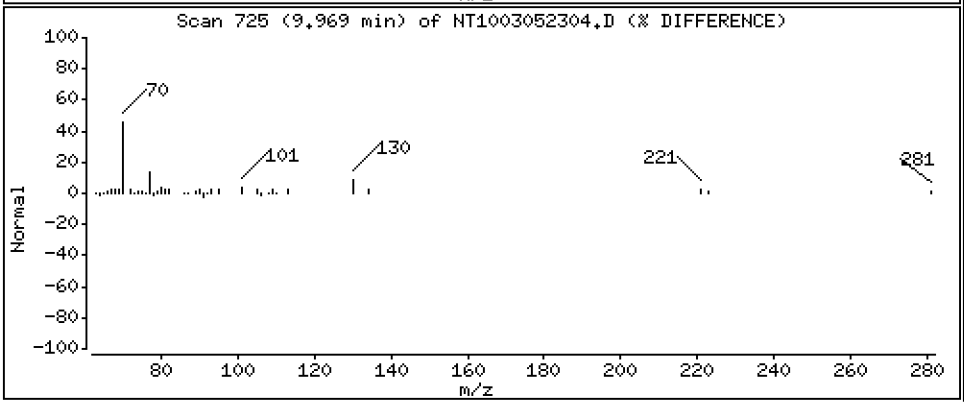












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

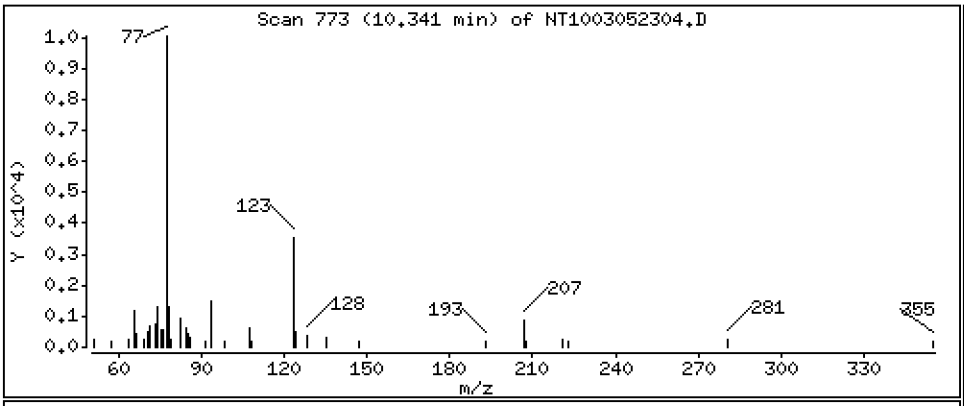
Operator: VTS

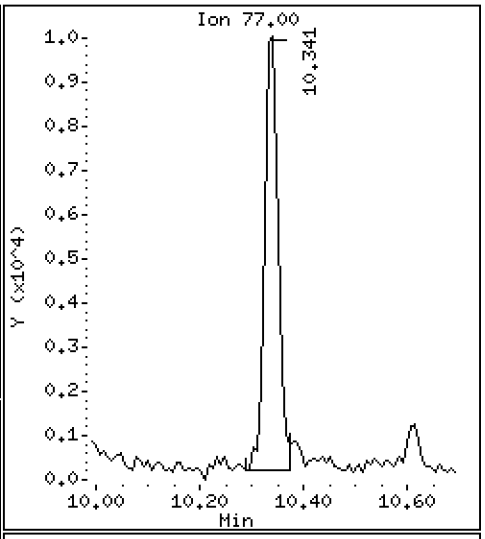
Column phase: ZB-5msi

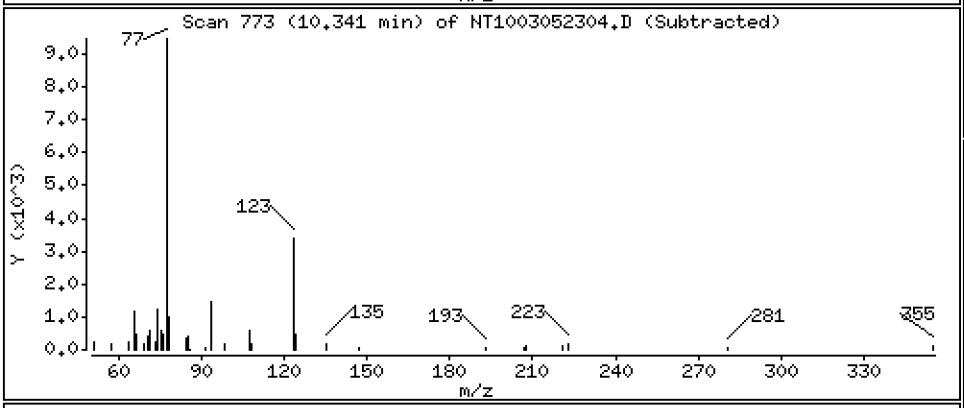
Column diameter: 0.25

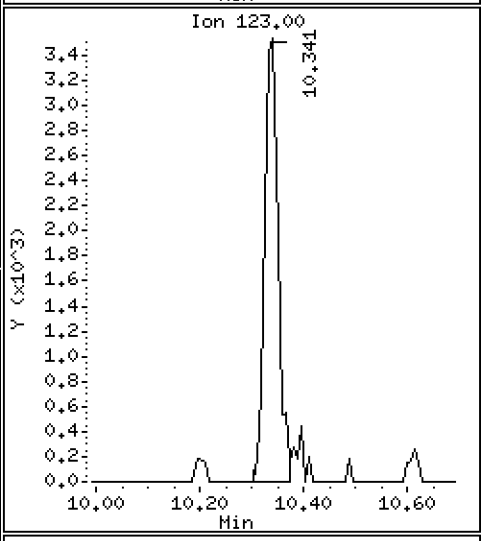
19 Nitrobenzene

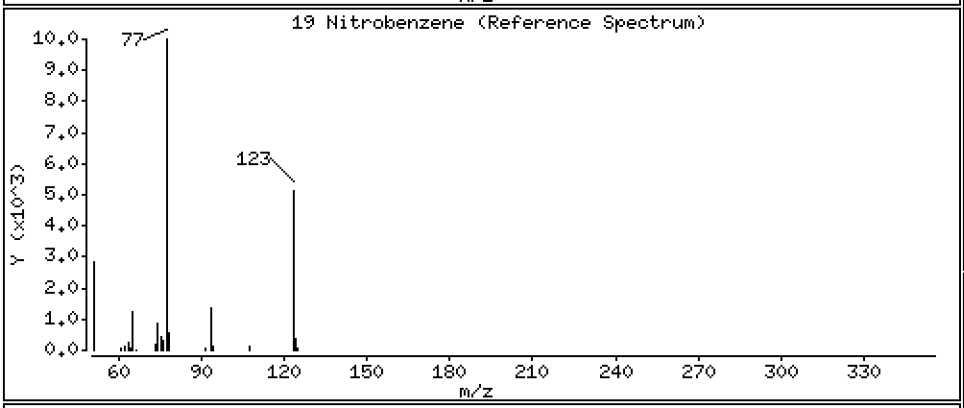
Concentration: 0.1566 ug/mL

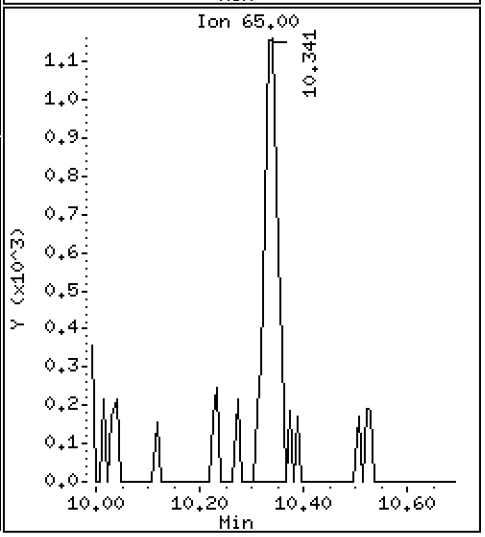


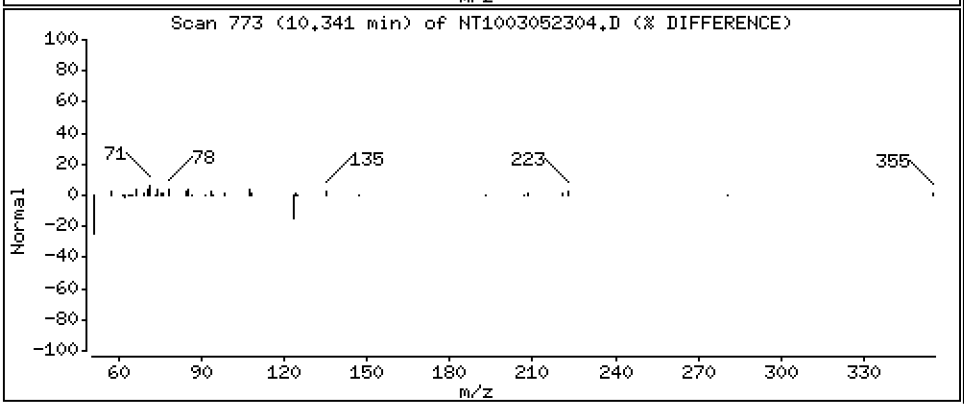












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

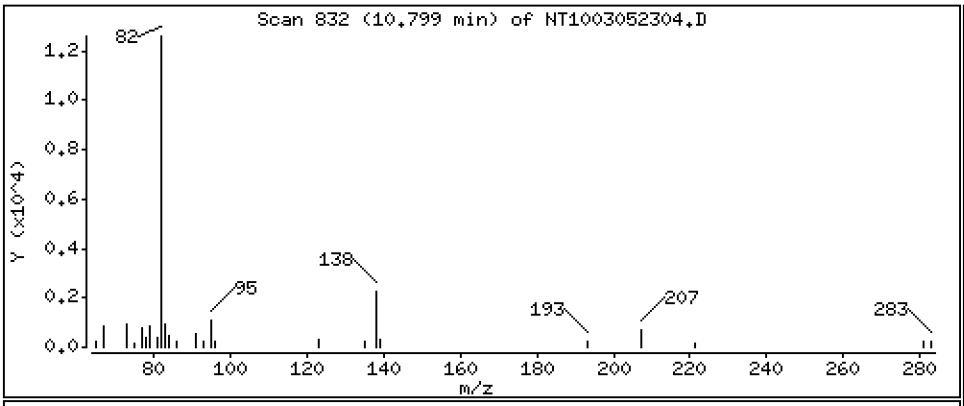
Operator: VTS

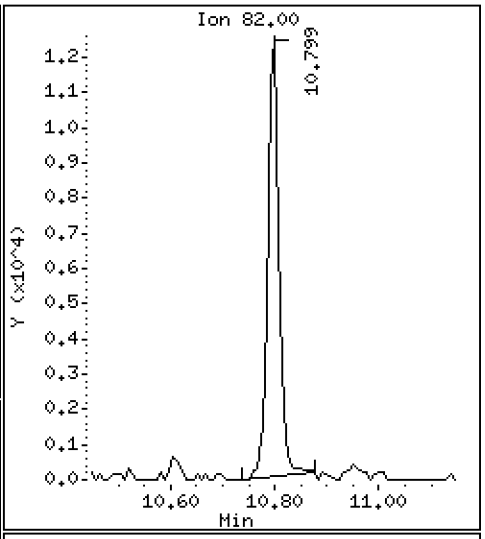
Column phase: ZB-5msi

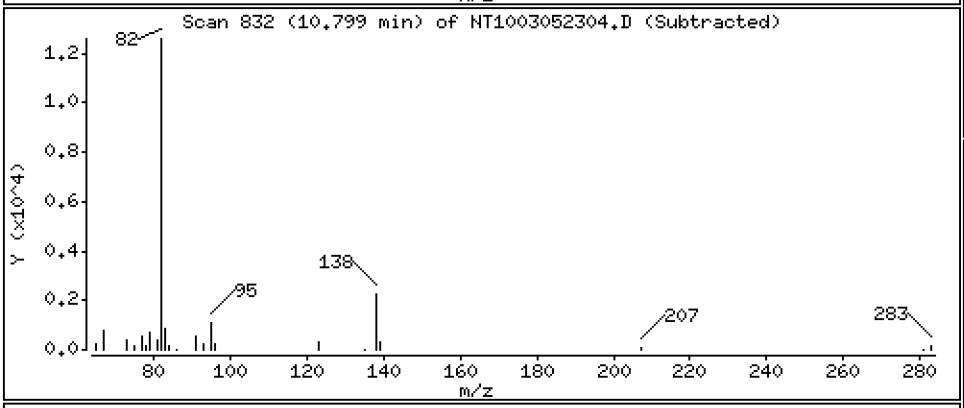
Column diameter: 0.25

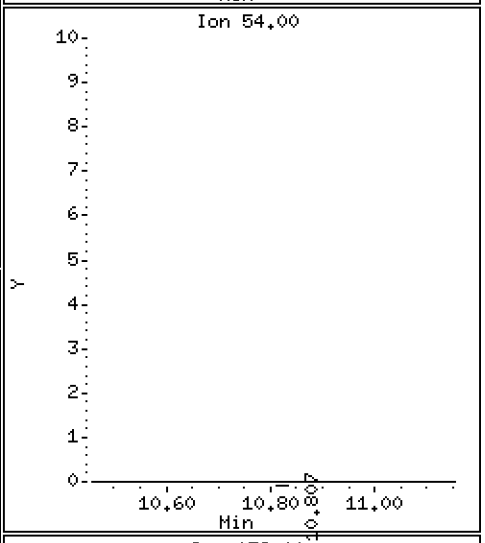
20 Isophorone

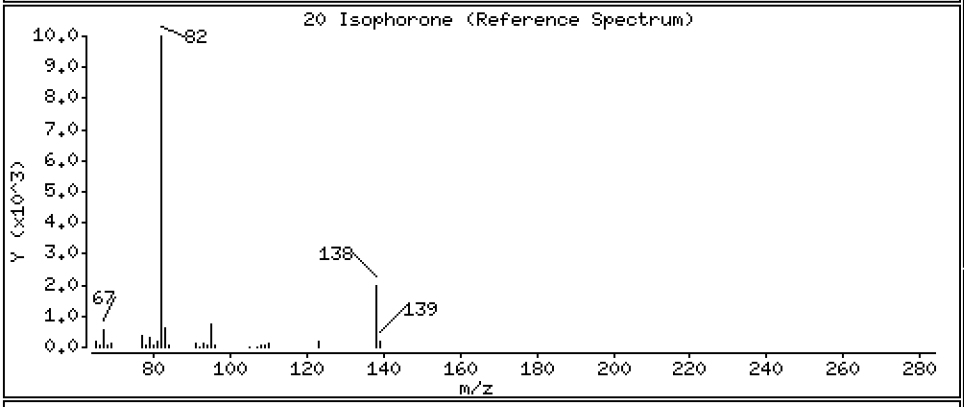
Concentration: 0.1386 ug/mL

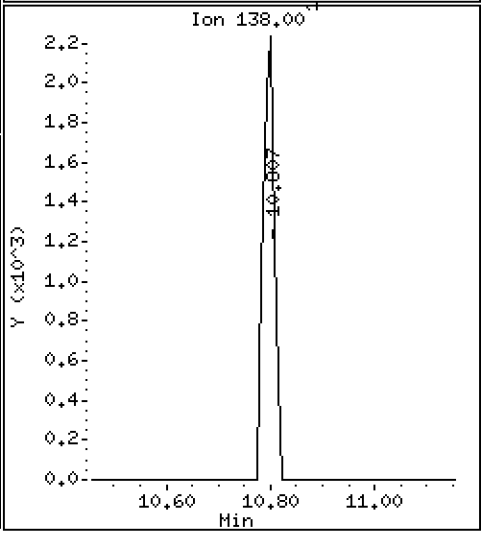


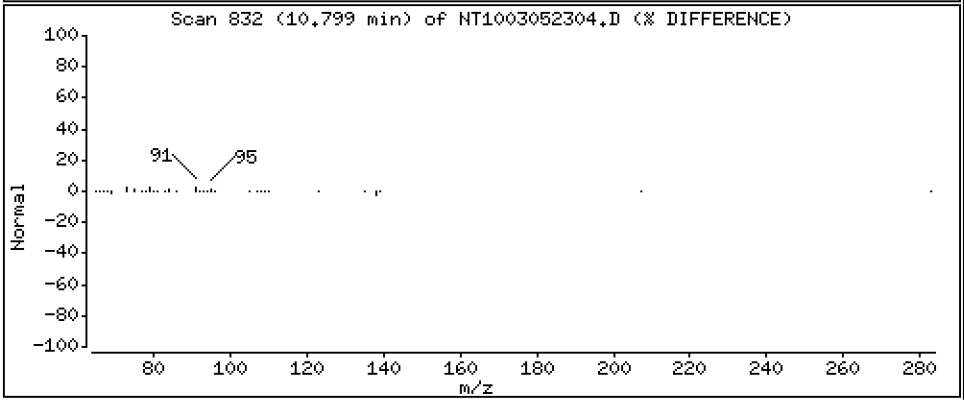












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

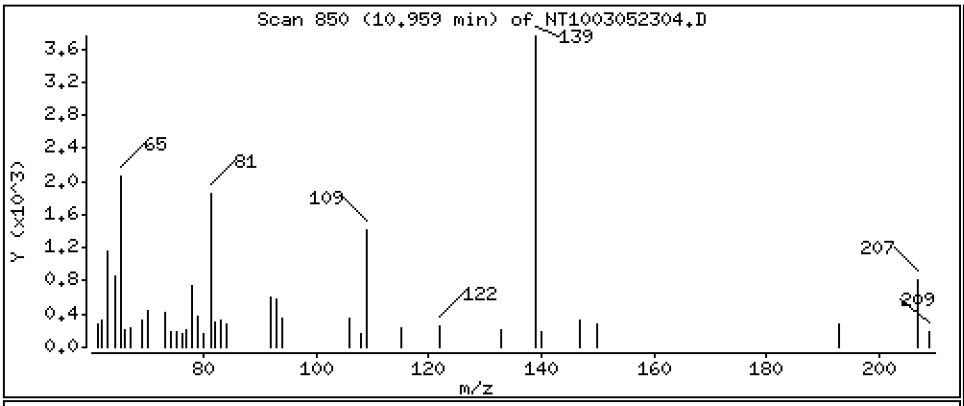
Operator: VTS

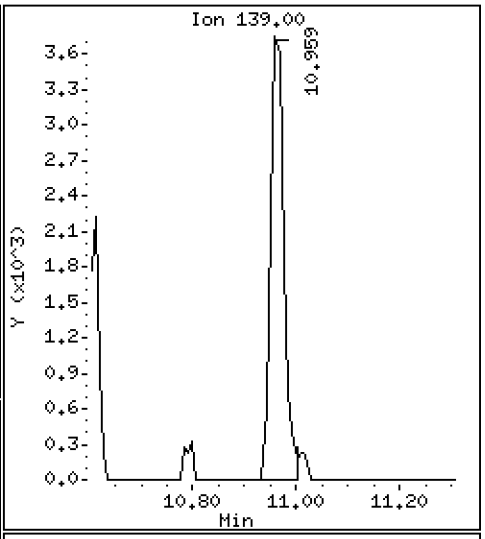
Column phase: ZB-5msi

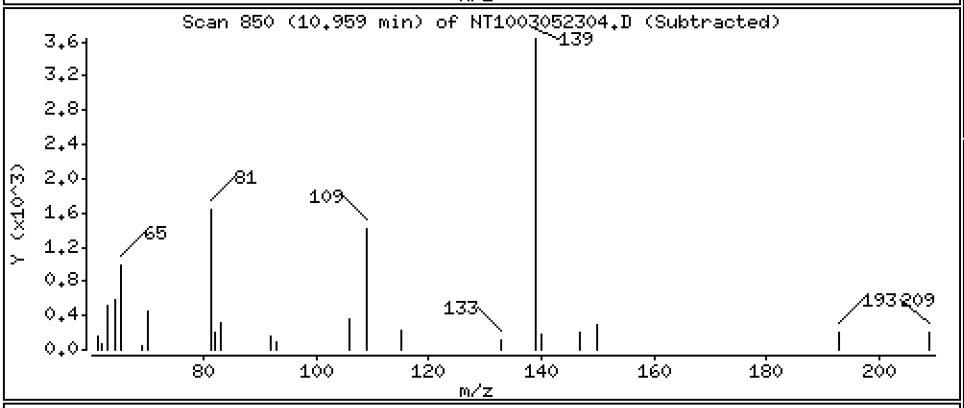
Column diameter: 0.25

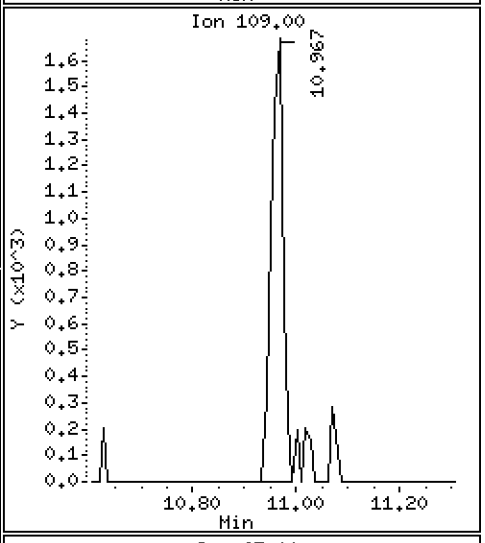
21 2-Nitrophenol

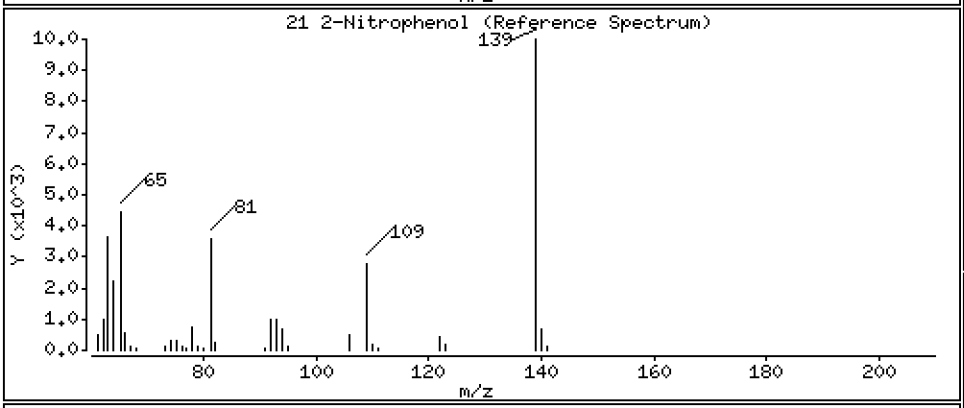
Concentration: 0.1110 ug/mL

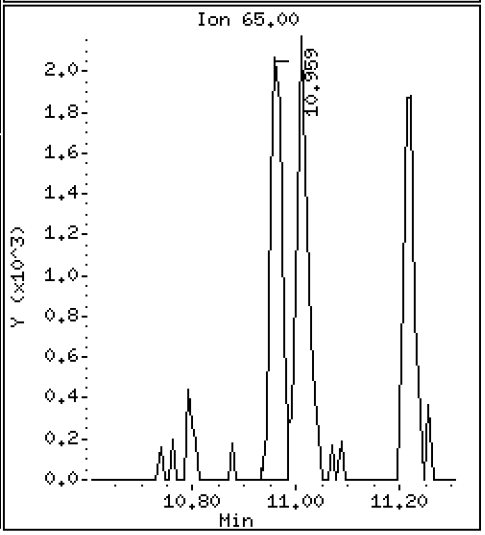


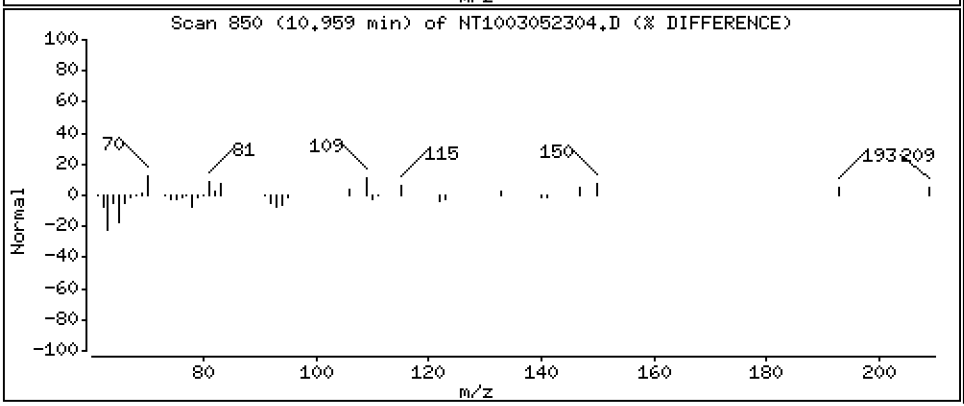












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

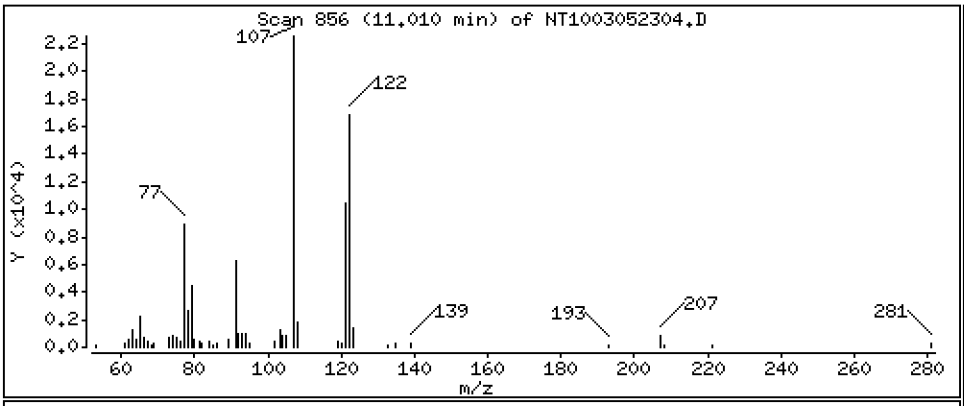
Operator: VTS

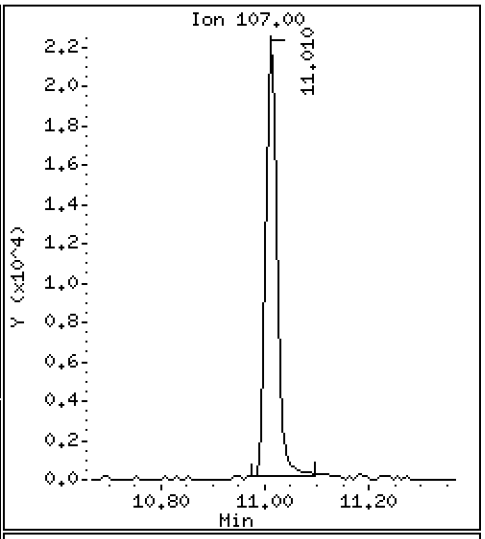
Column phase: ZB-5msi

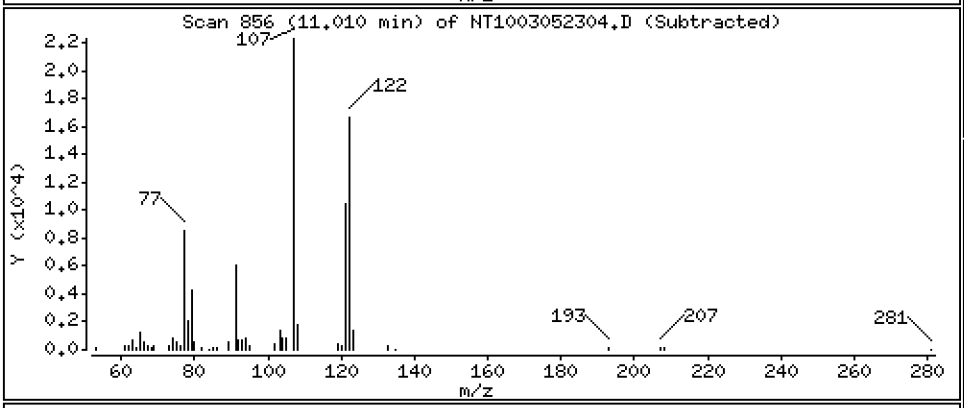
Column diameter: 0.25

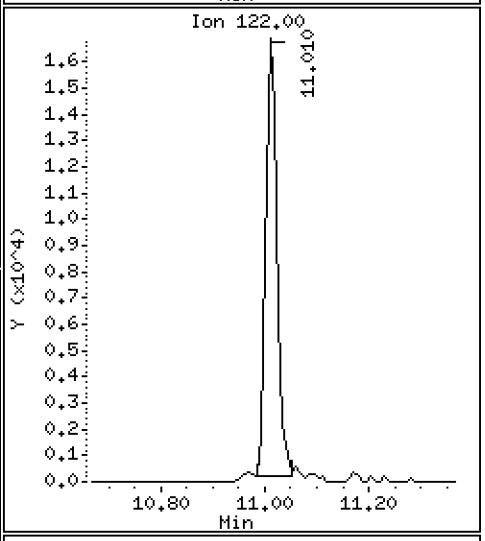
22 2,4-Dimethylphenol

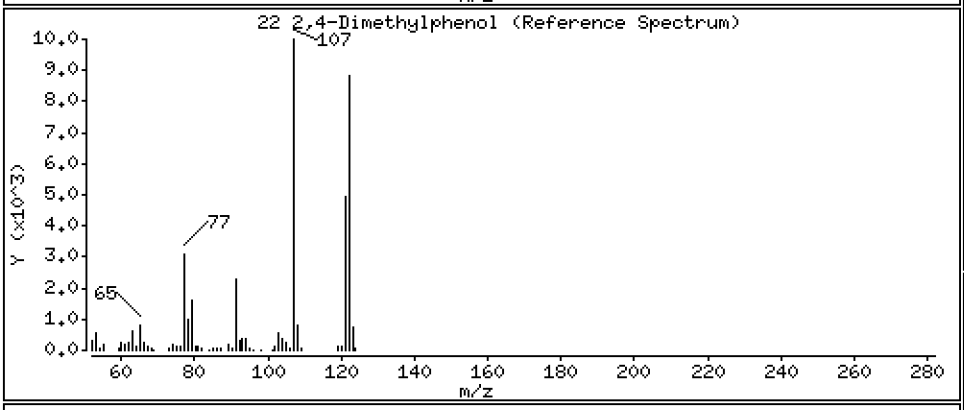
Concentration: 0.3287 ug/mL

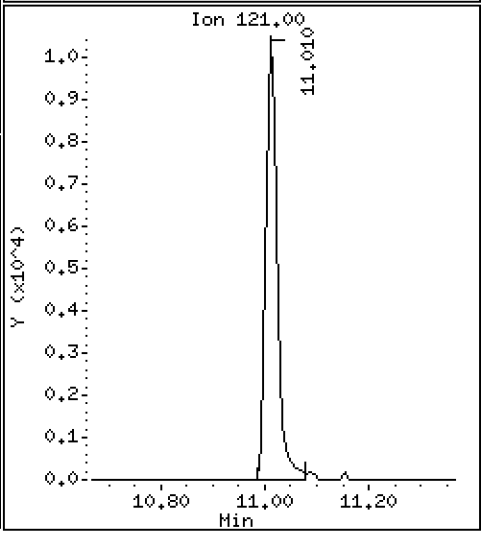


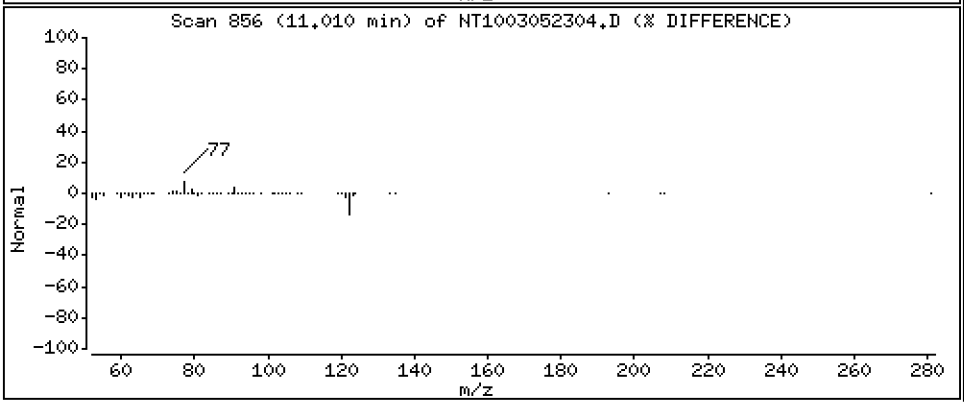












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

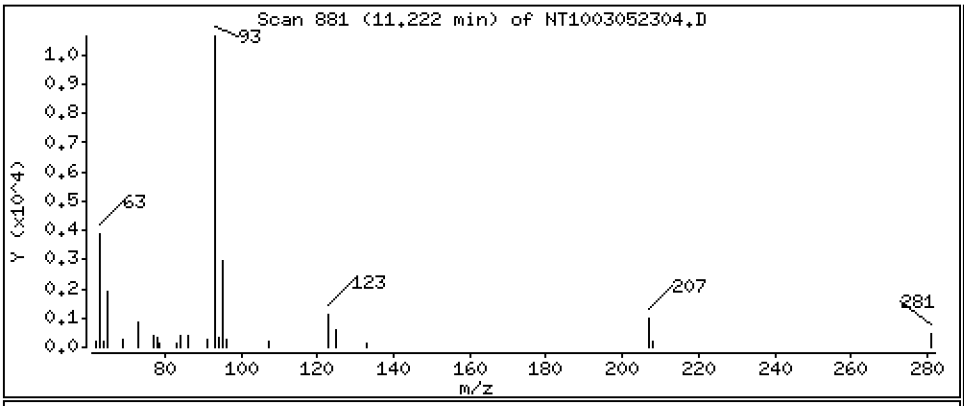
Operator: VTS

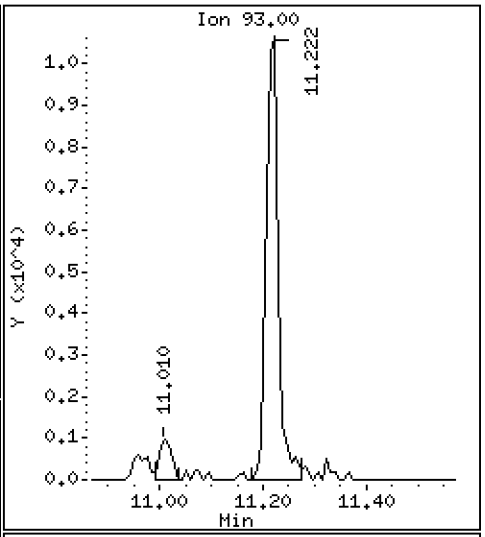
Column phase: ZB-5msi

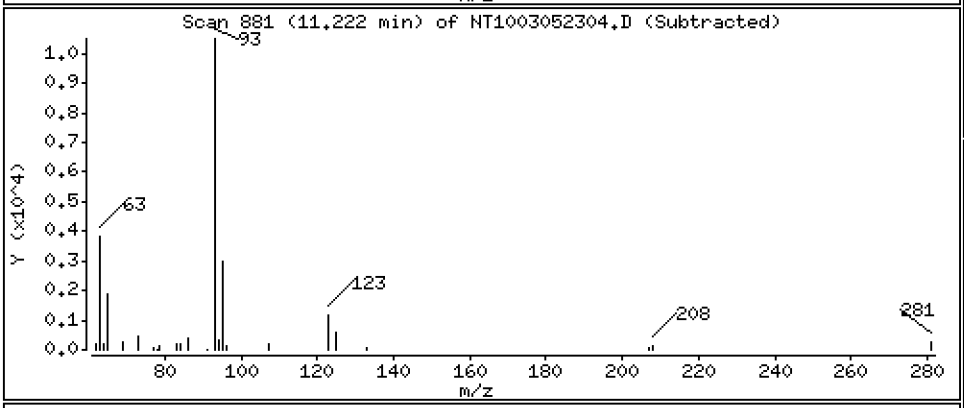
Column diameter: 0.25

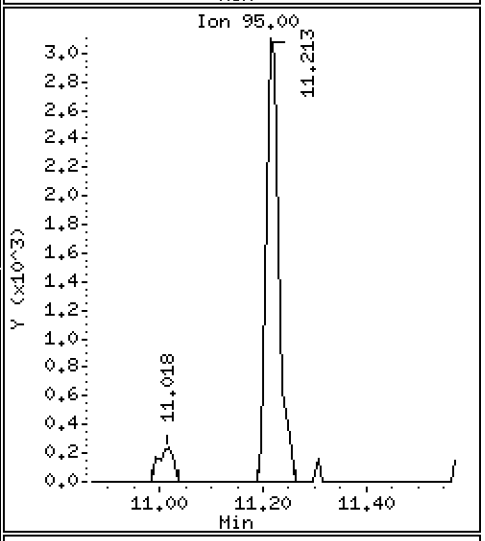
23 Bis(2-Chloroethoxy)methane

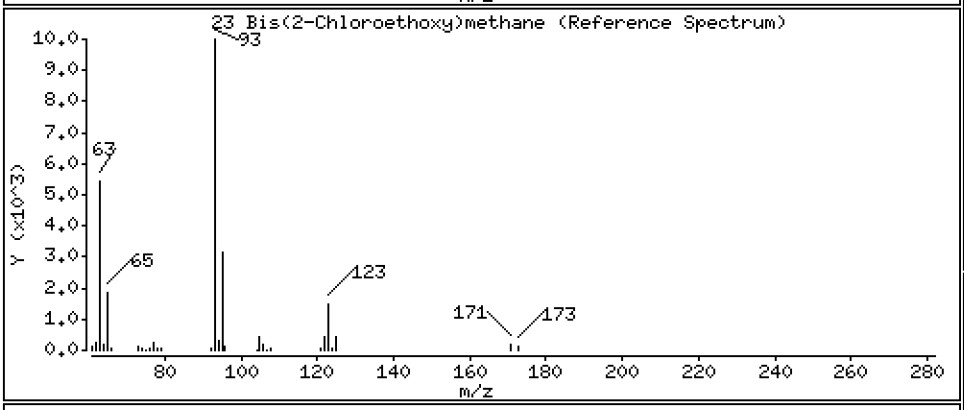
Concentration: 0.2050 ug/mL

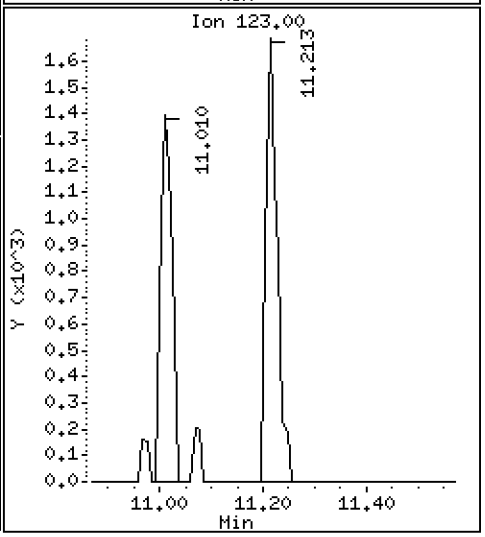


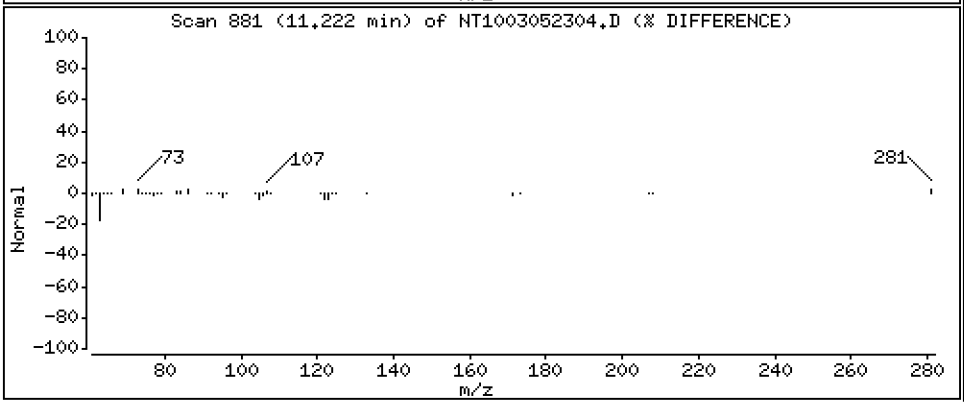












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

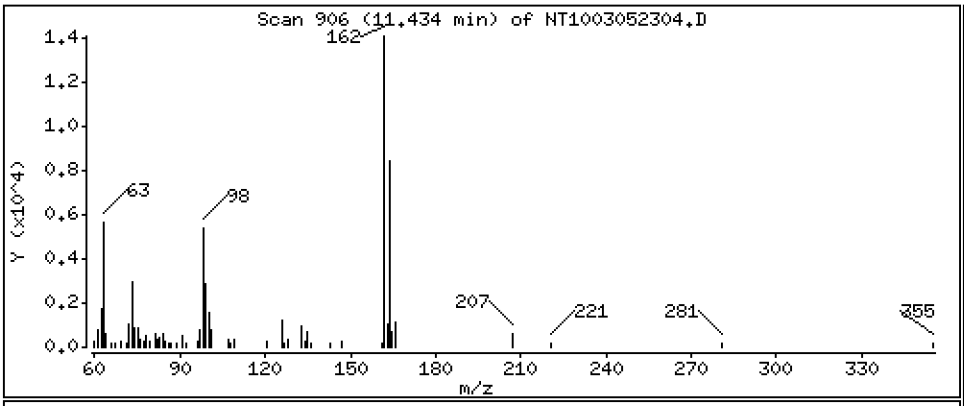
Operator: VTS

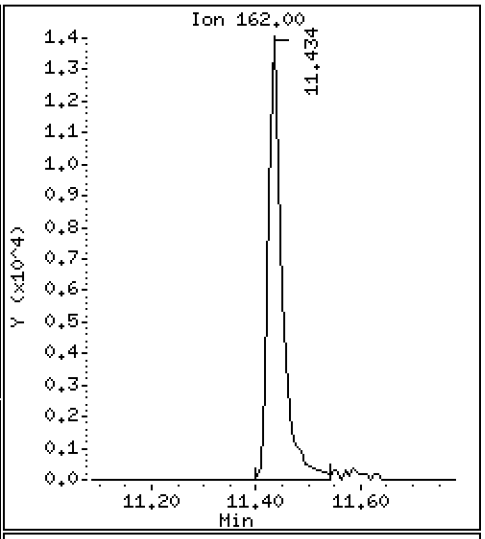
Column phase: ZB-5msi

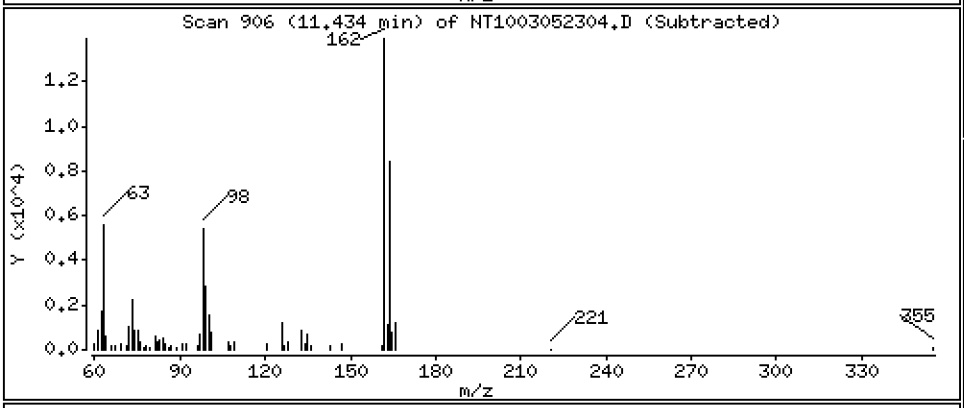
Column diameter: 0.25

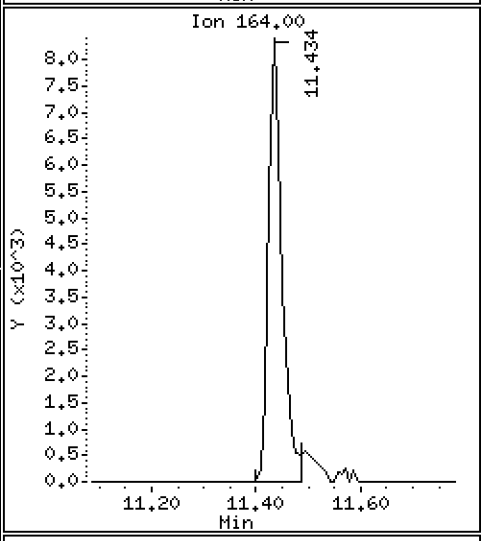
25 2,4-Dichlorophenol

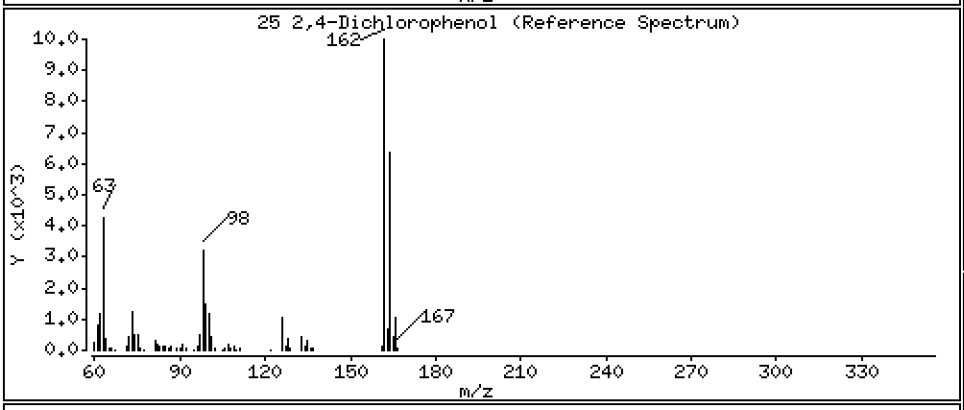
Concentration: 0.3393 ug/mL

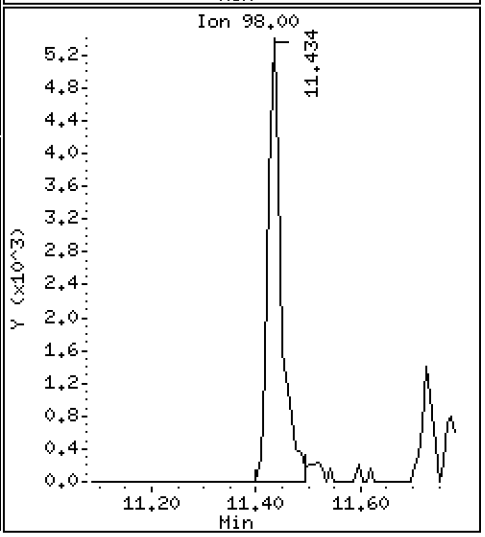


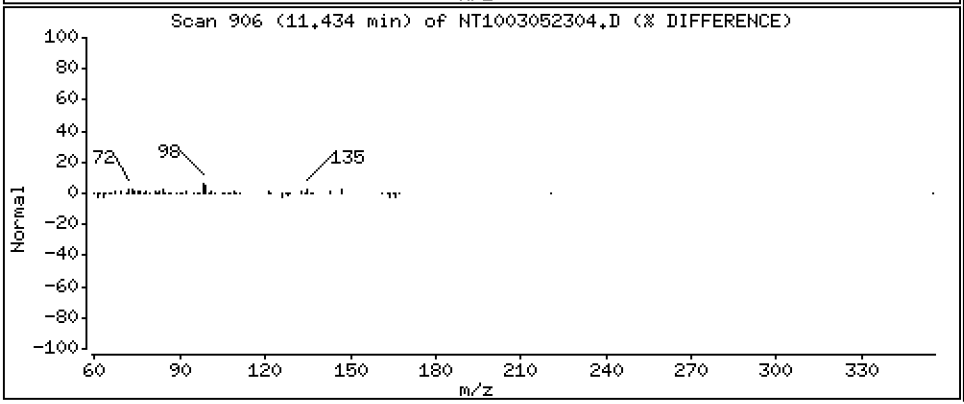












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

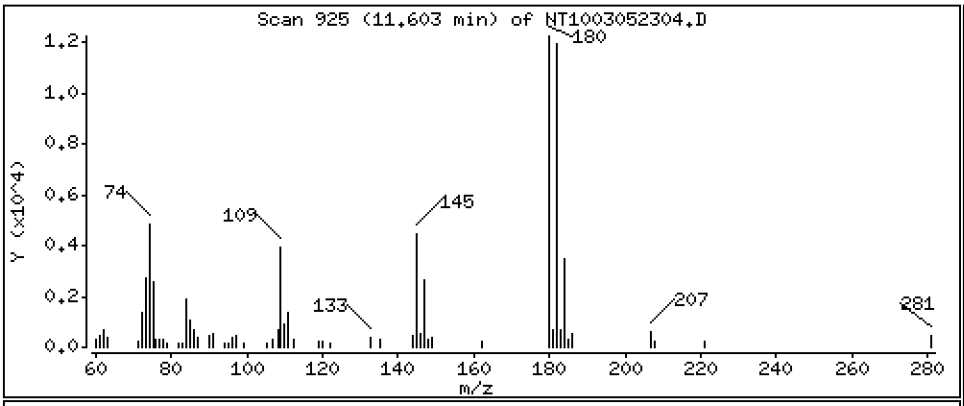
Operator: VTS

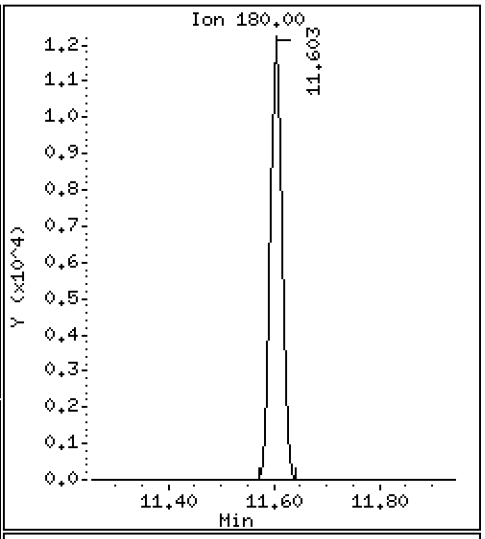
Column phase: ZB-5msi

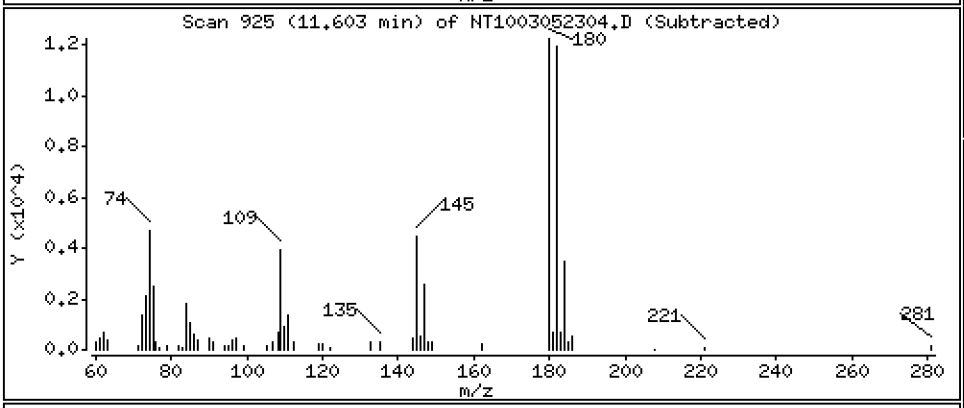
Column diameter: 0.25

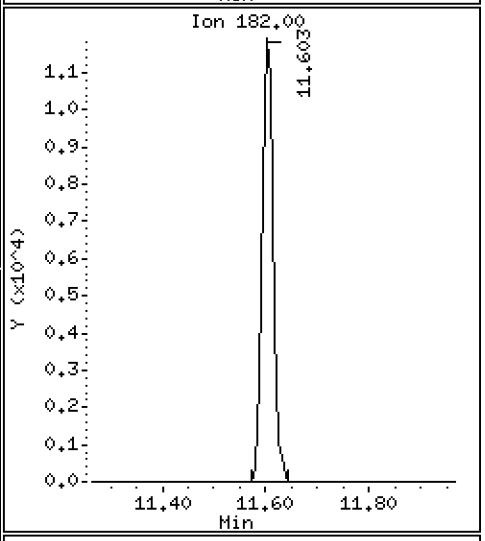
26 1,2,4-Trichlorobenzene

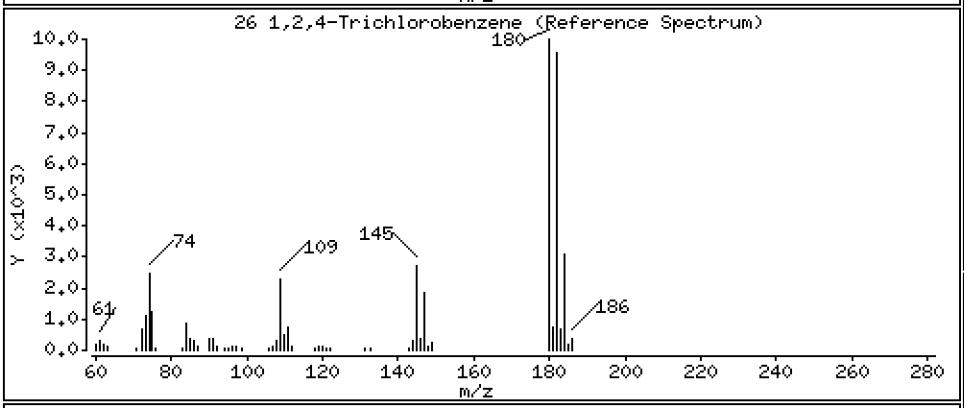
Concentration: 0.2133 ug/mL

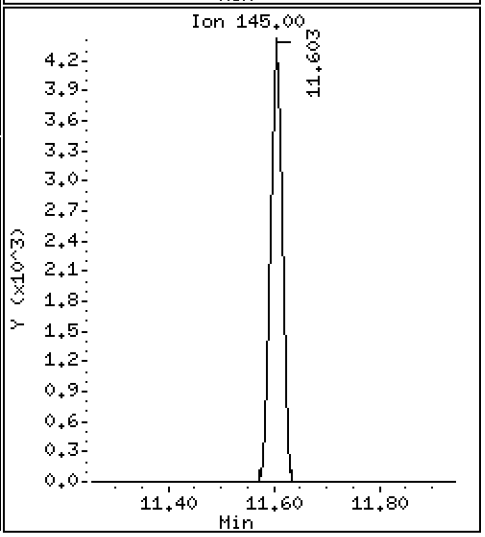


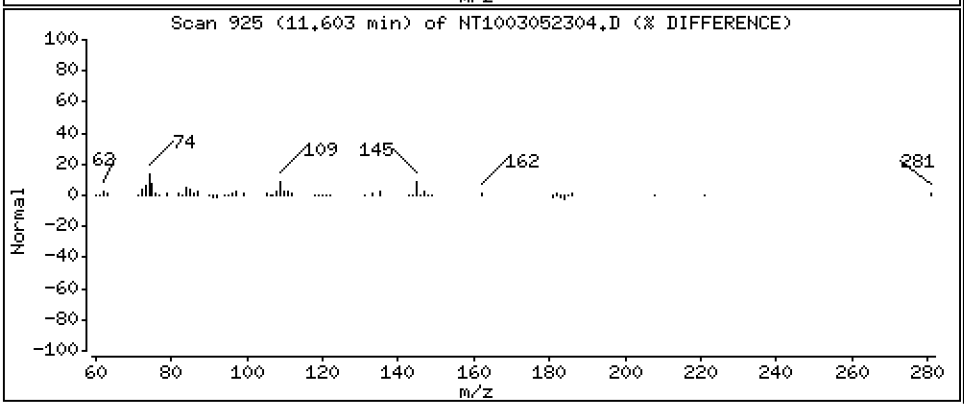












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

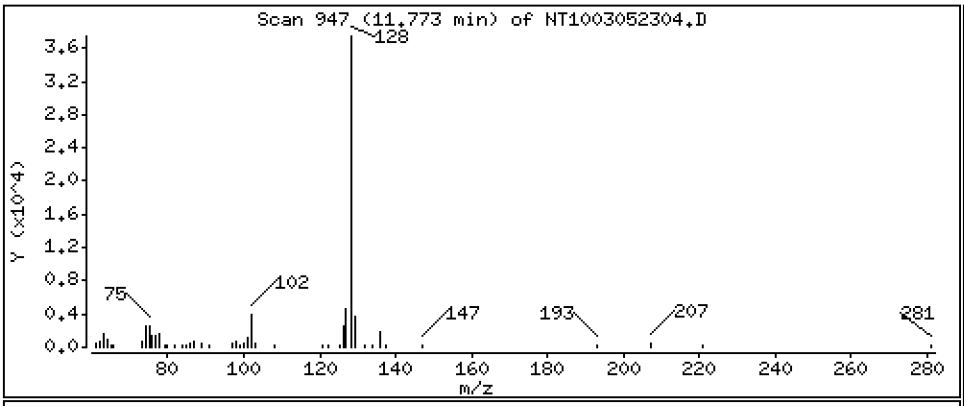
Operator: VTS

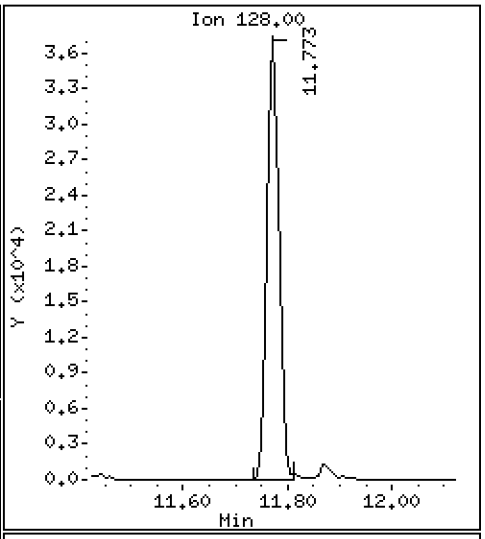
Column phase: ZB-5msi

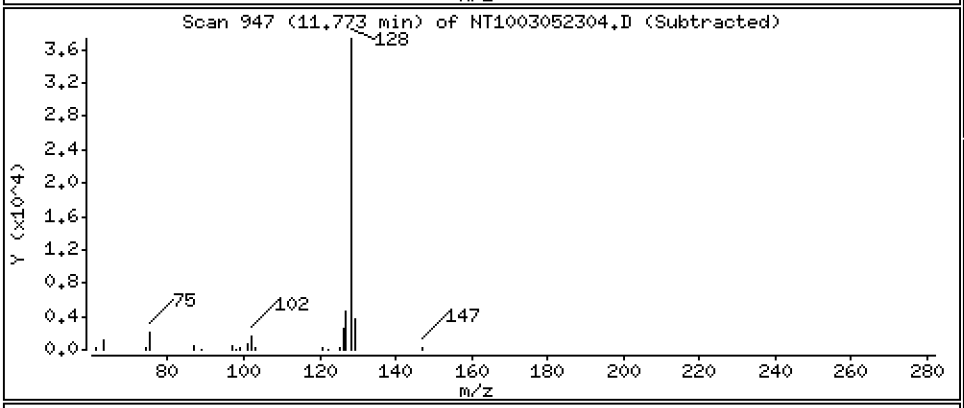
Column diameter: 0.25

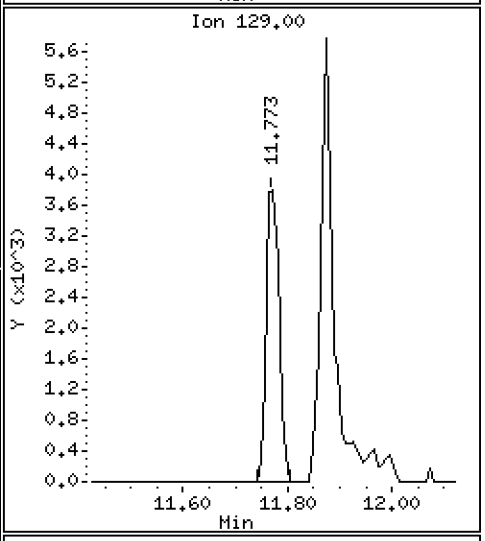
28 Naphthalene

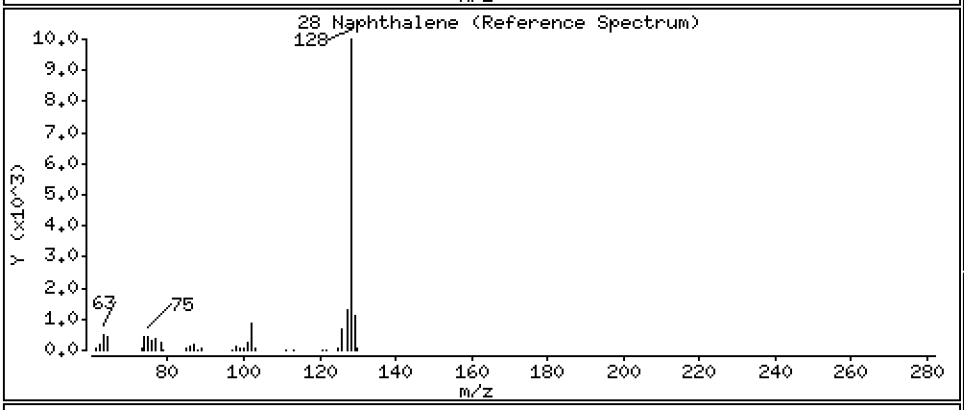
Concentration: 0.2050 ug/mL

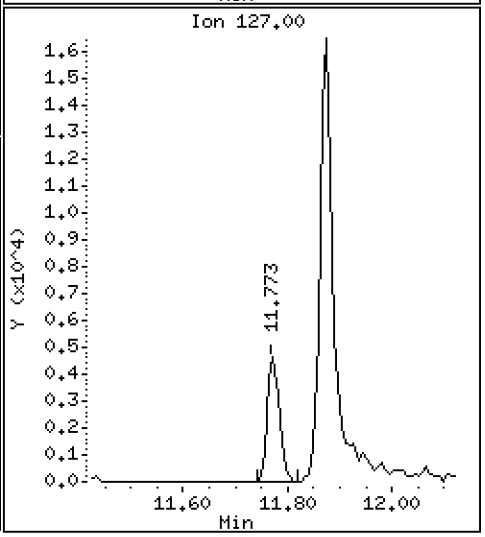


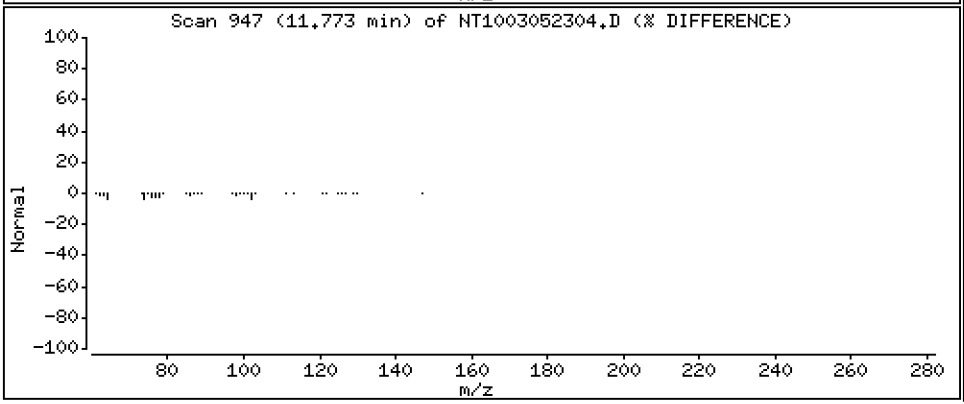












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

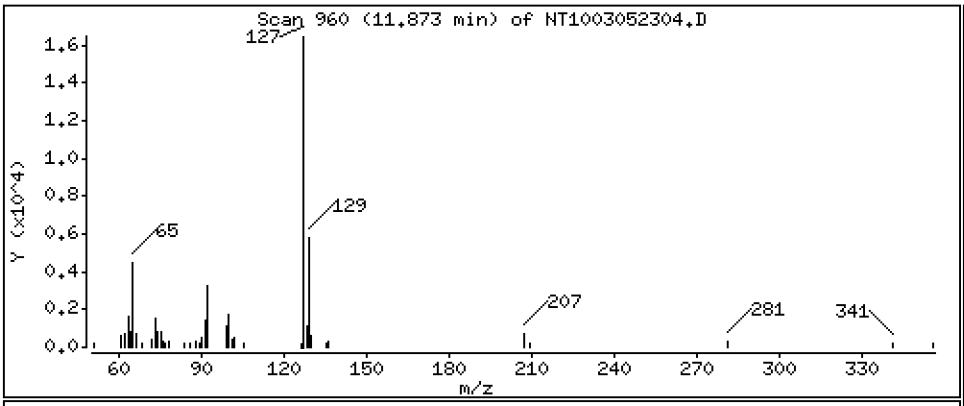
Operator: VTS

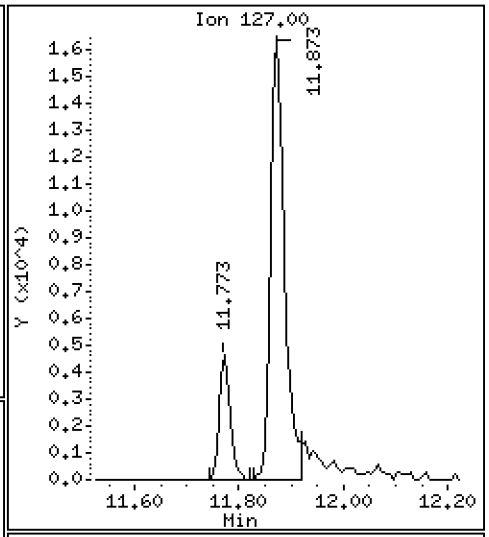
Column phase: ZB-5msi

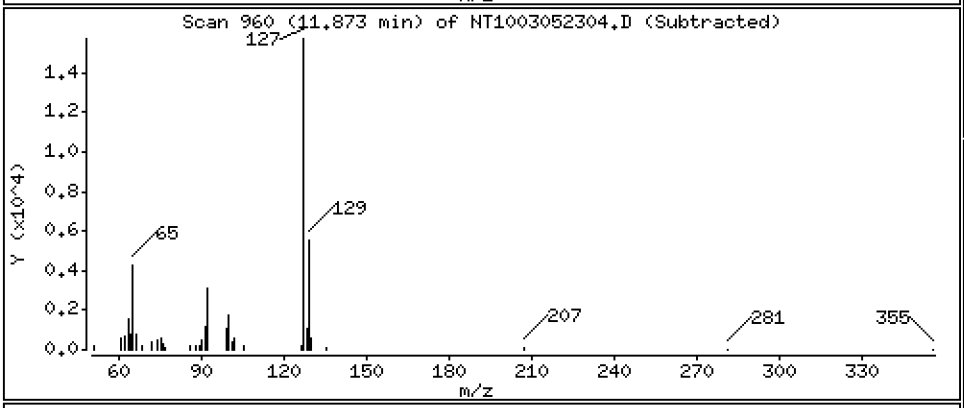
Column diameter: 0.25

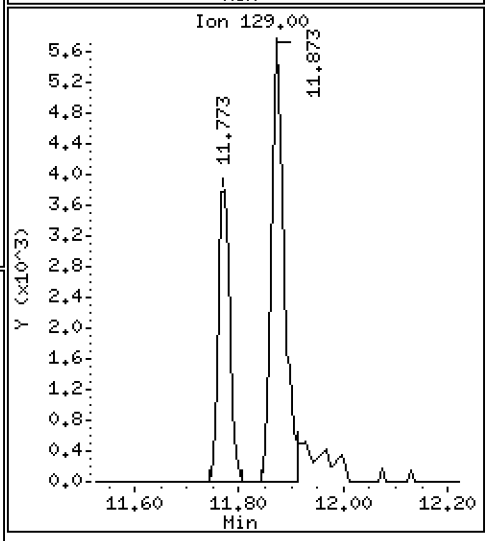
29 4-Chloroaniline

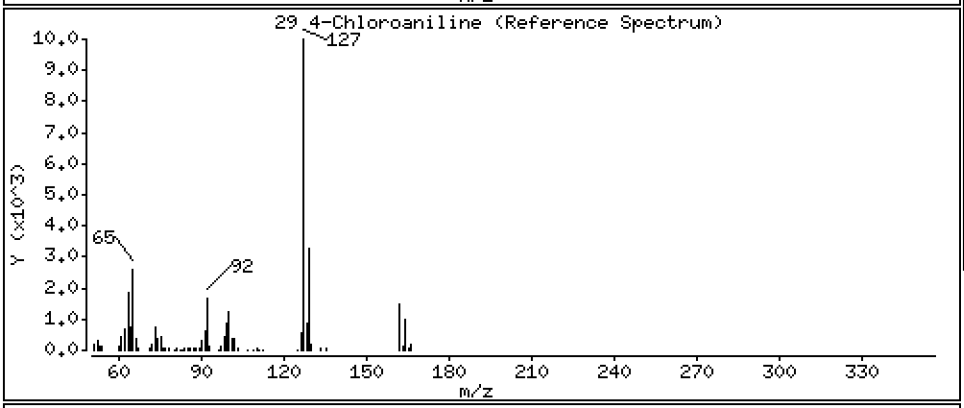
Concentration: 0.2422 ug/mL

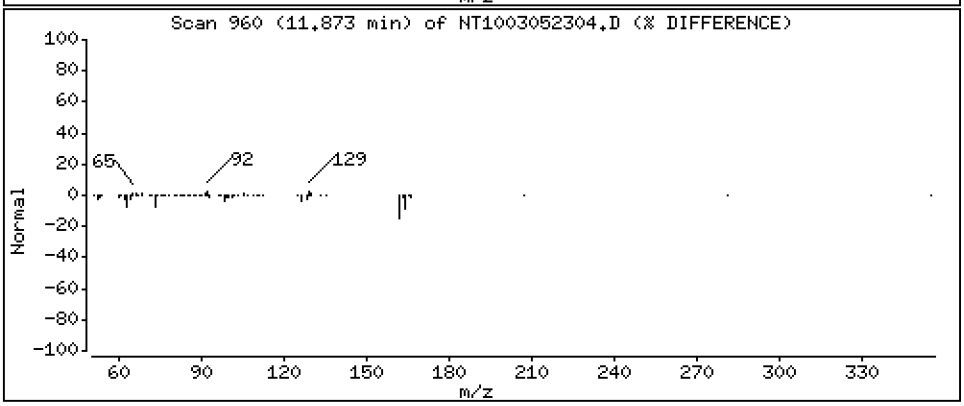












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

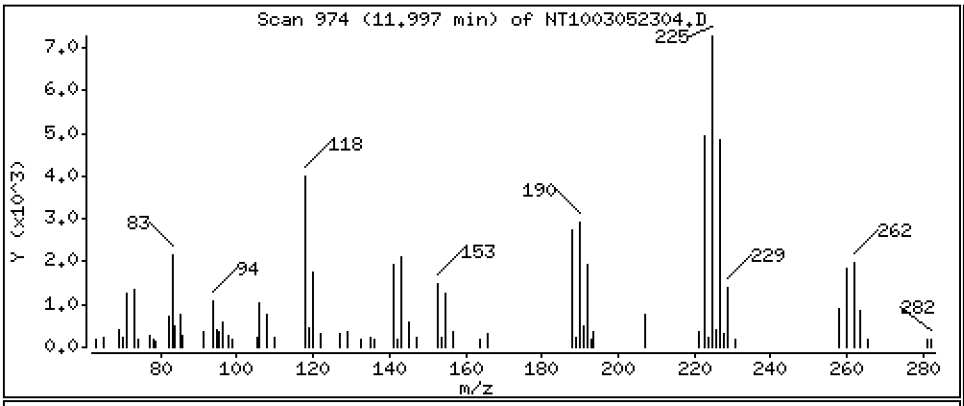
Operator: VTS

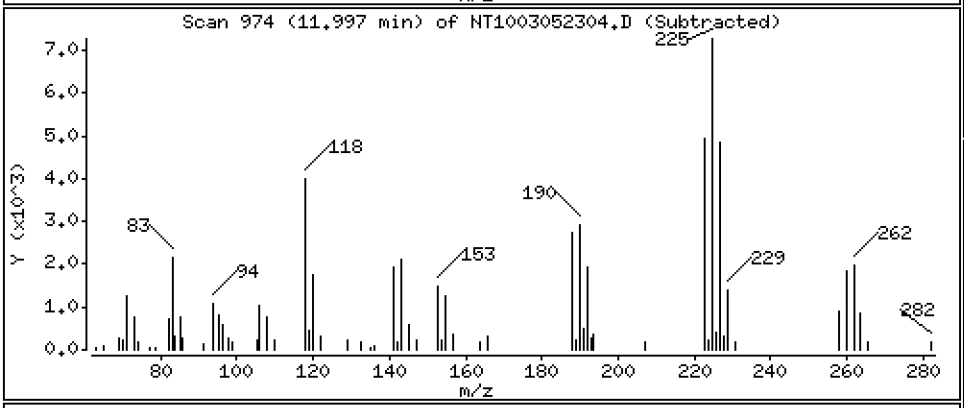
Column phase: ZB-5msi

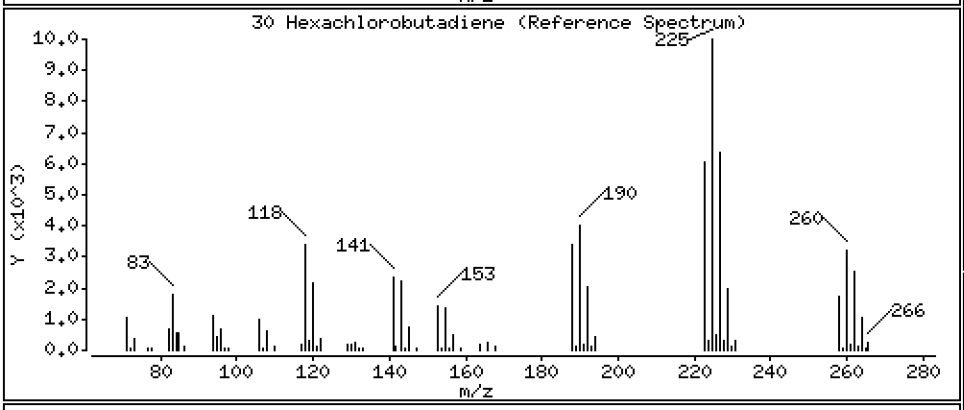
Column diameter: 0.25

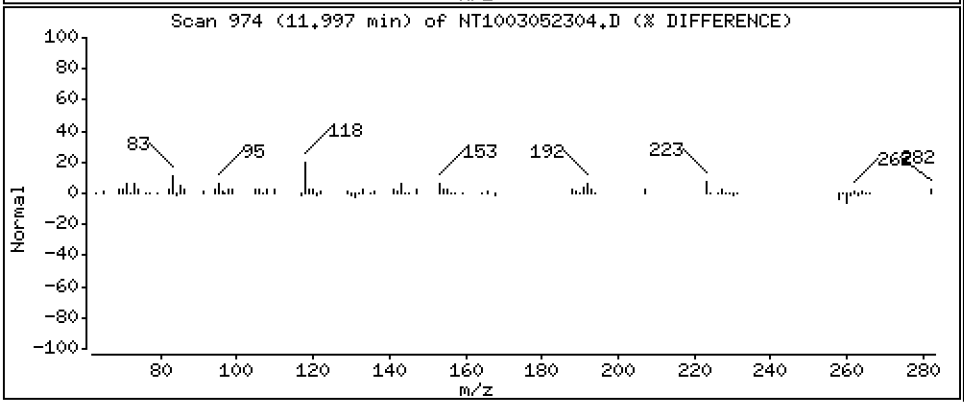
30 Hexachlorobutadiene

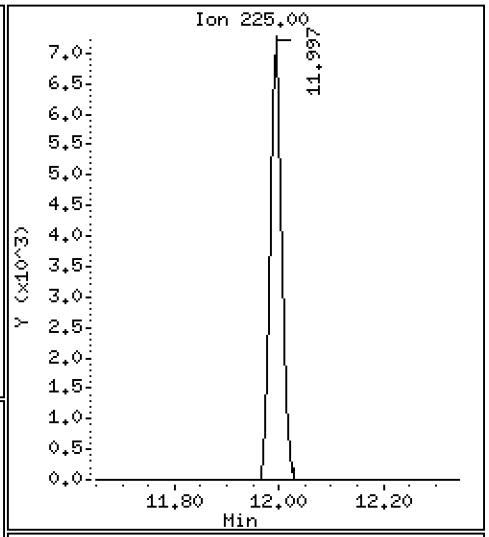
Concentration: 0.1815 ug/mL

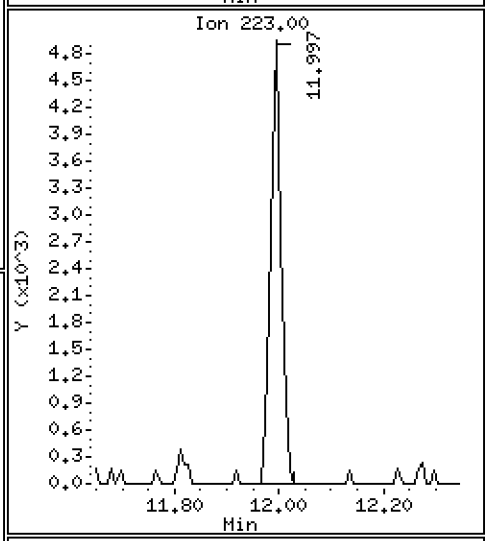


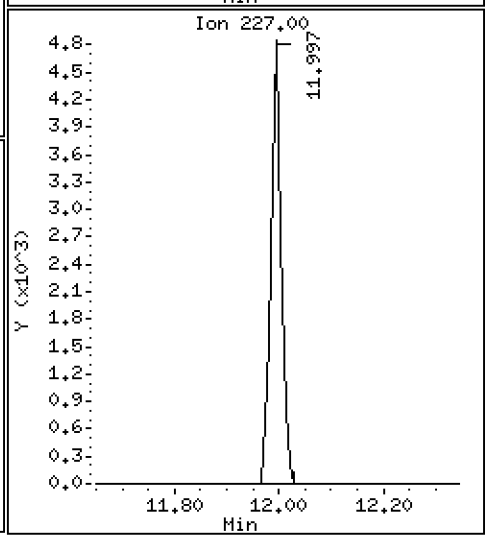












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

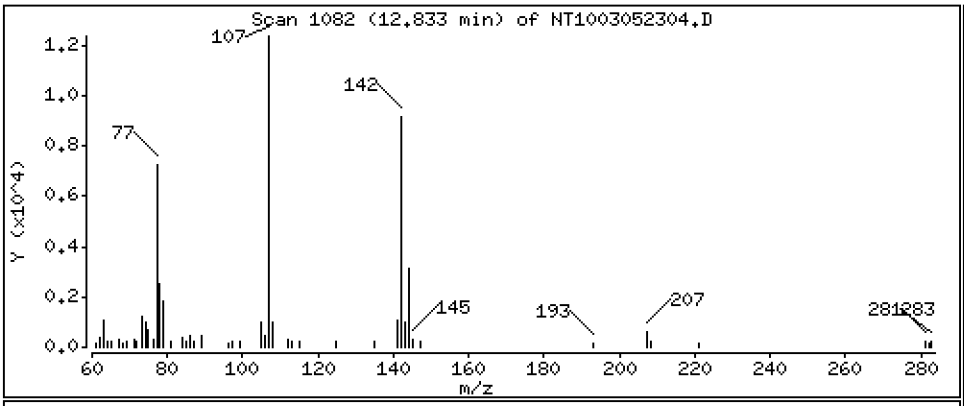
Operator: VTS

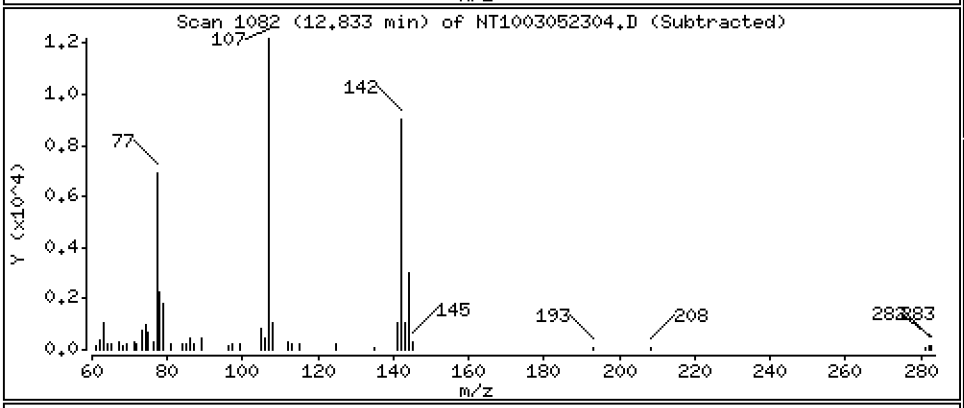
Column phase: ZB-5msi

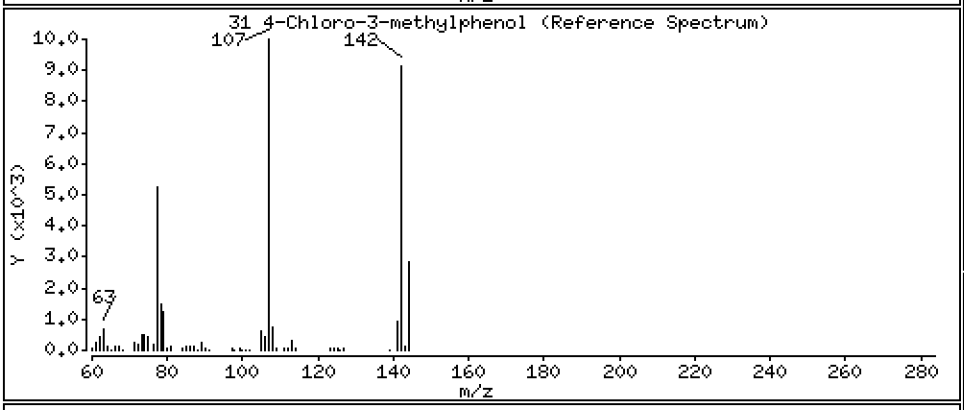
Column diameter: 0.25

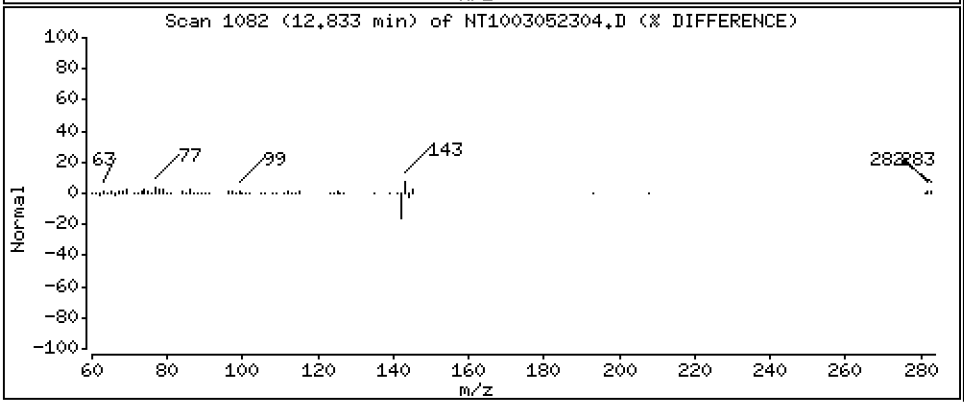
31 4-Chloro-3-methylphenol

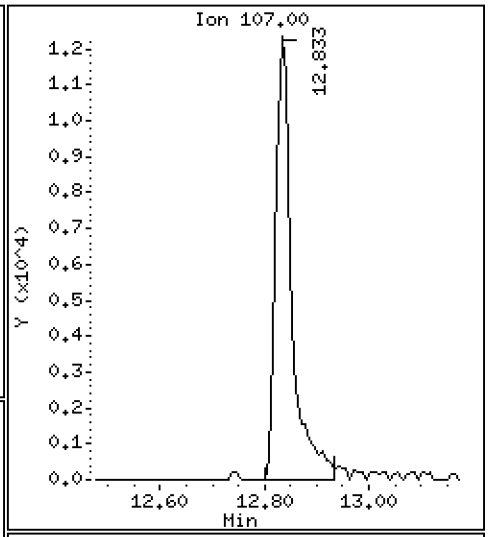
Concentration: 0.2973 ug/mL

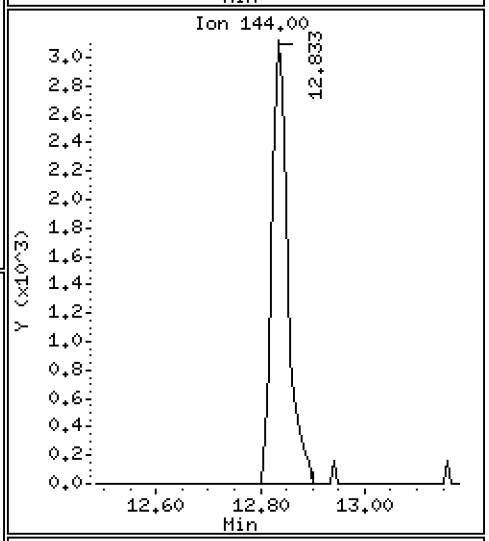


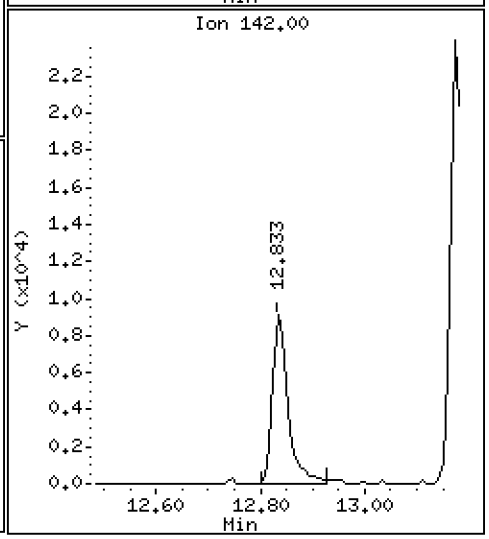












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

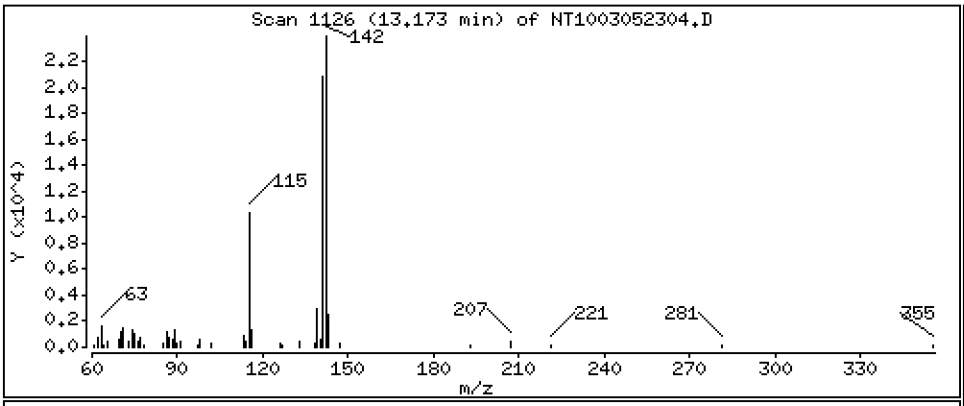
Operator: VTS

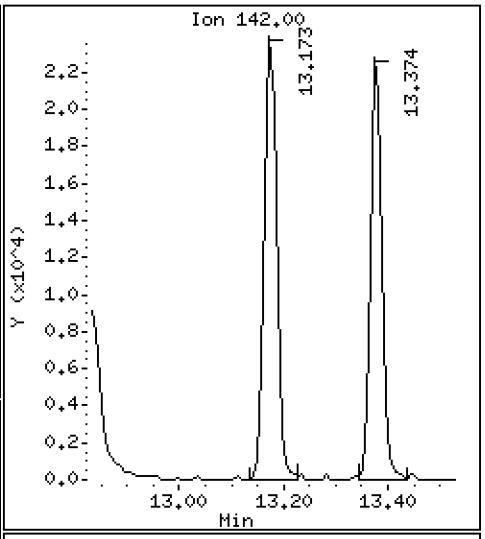
Column phase: ZB-5msi

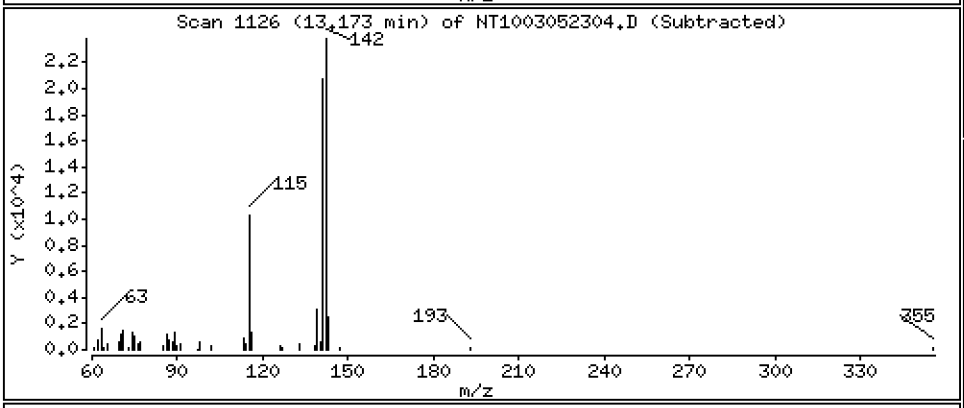
Column diameter: 0.25

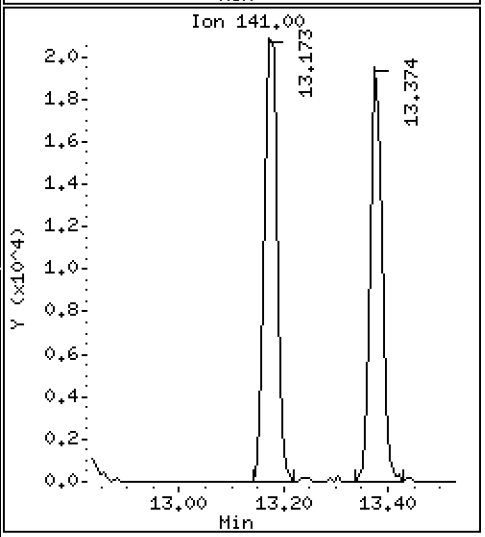
32 2-Methylnaphthalene

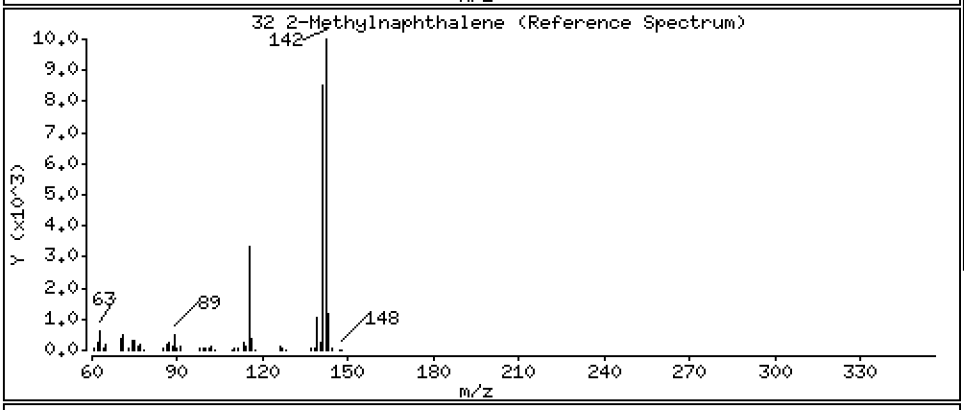
Concentration: 0.1944 ug/mL

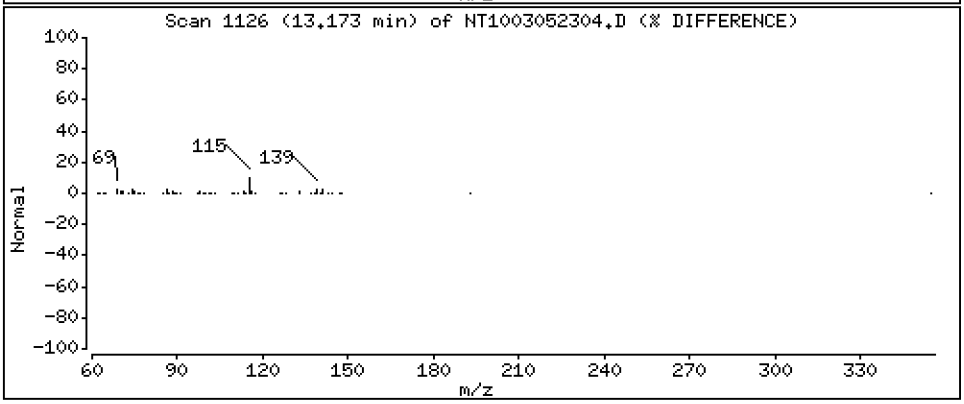












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

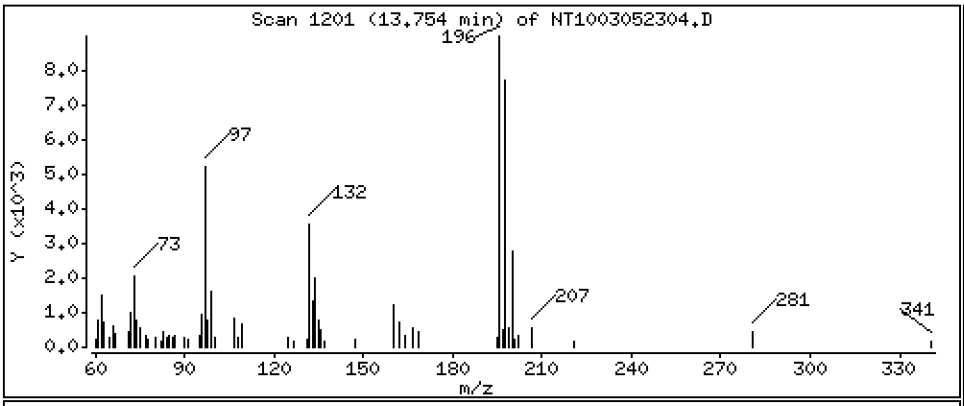
Operator: VTS

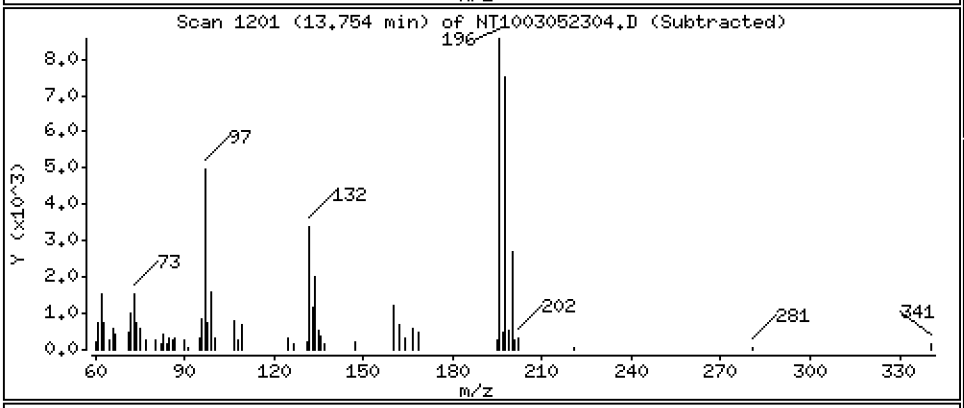
Column phase: ZB-5msi

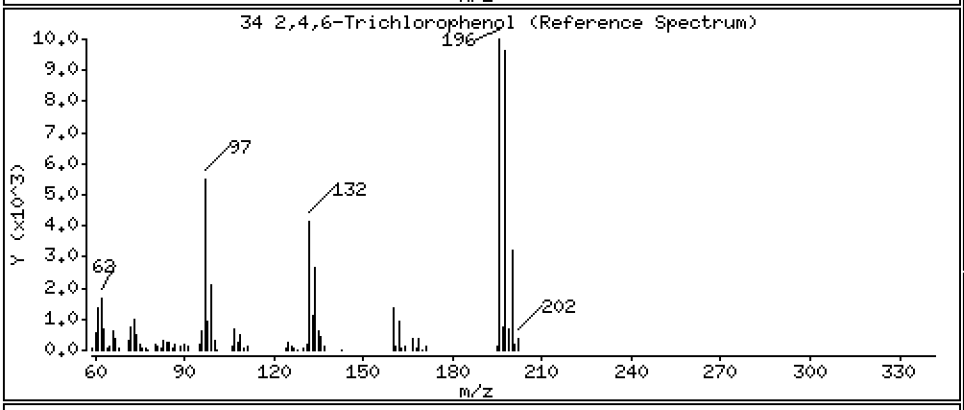
Column diameter: 0.25

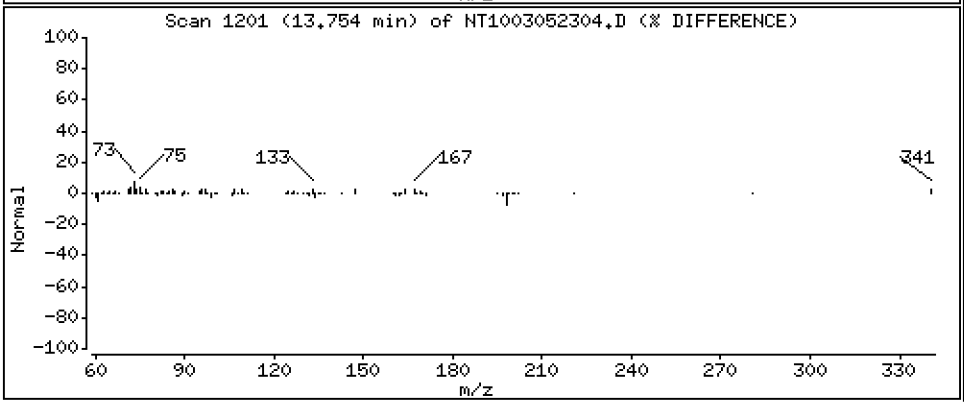
34 2,4,6-Trichlorophenol

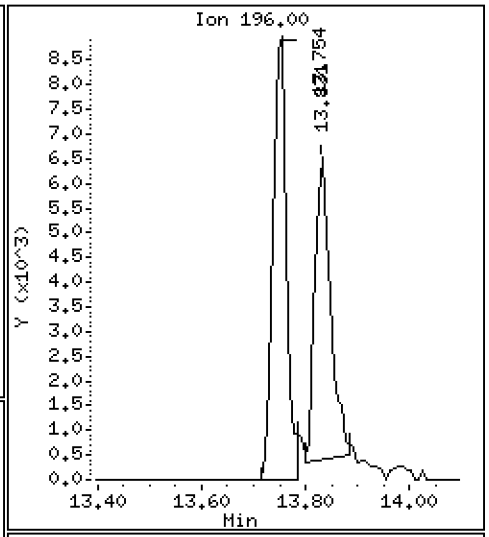
Concentration: 0.3094 ug/mL

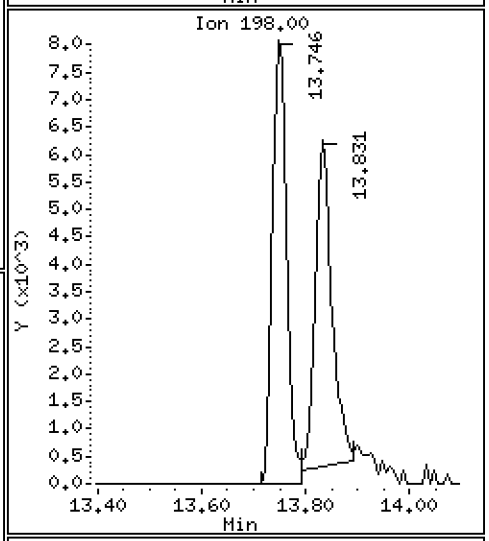


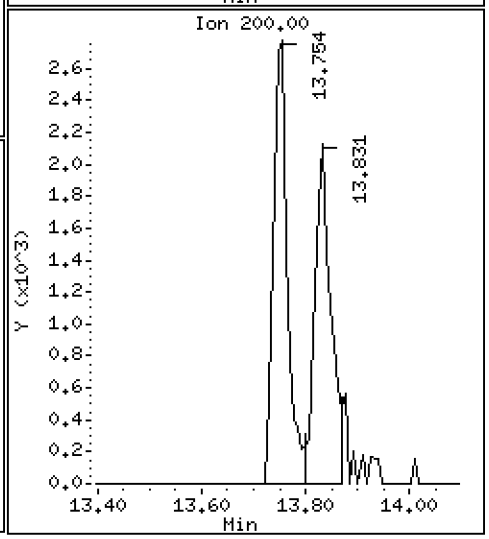












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

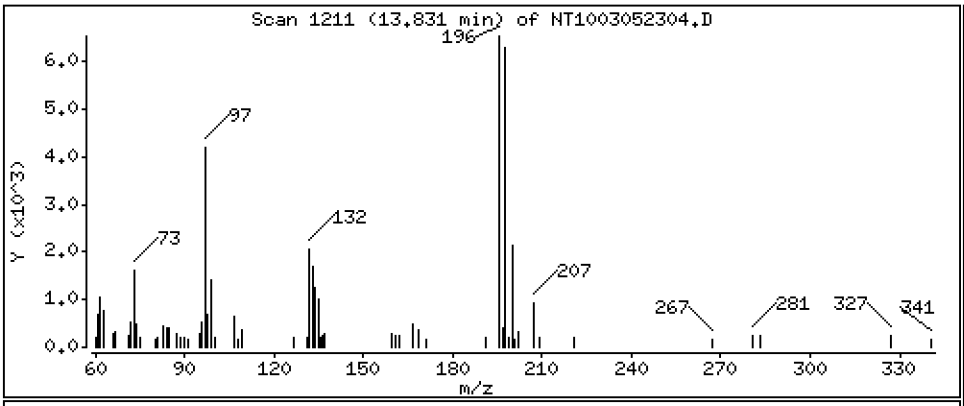
Operator: VTS

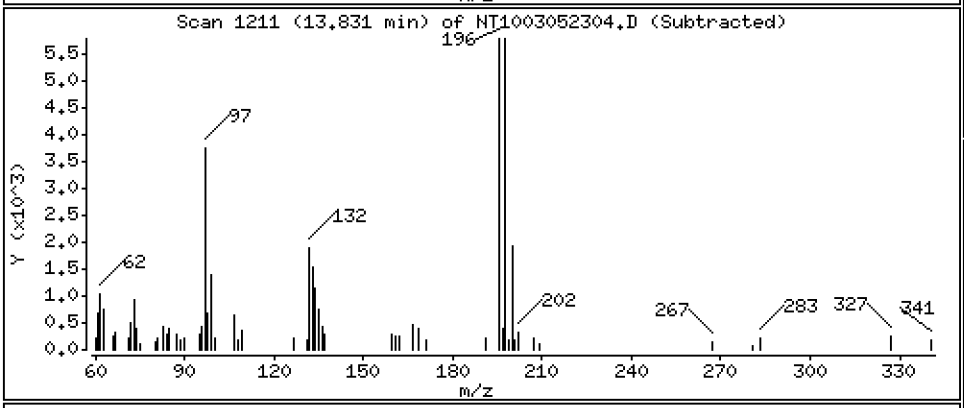
Column phase: ZB-5msi

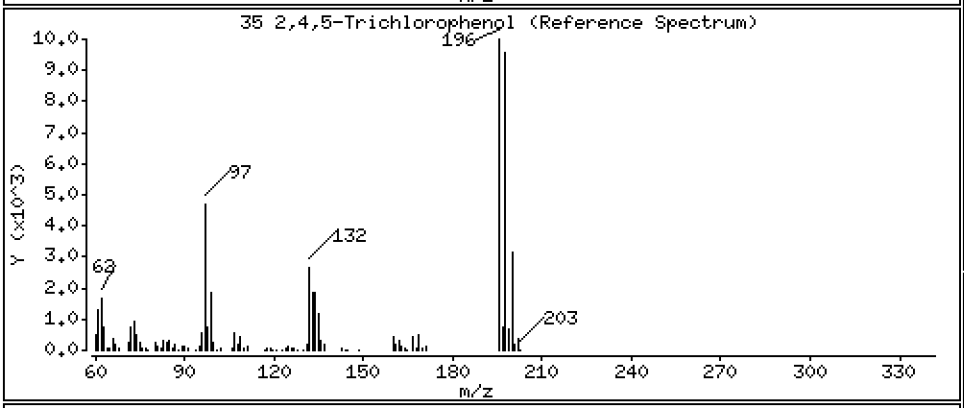
Column diameter: 0.25

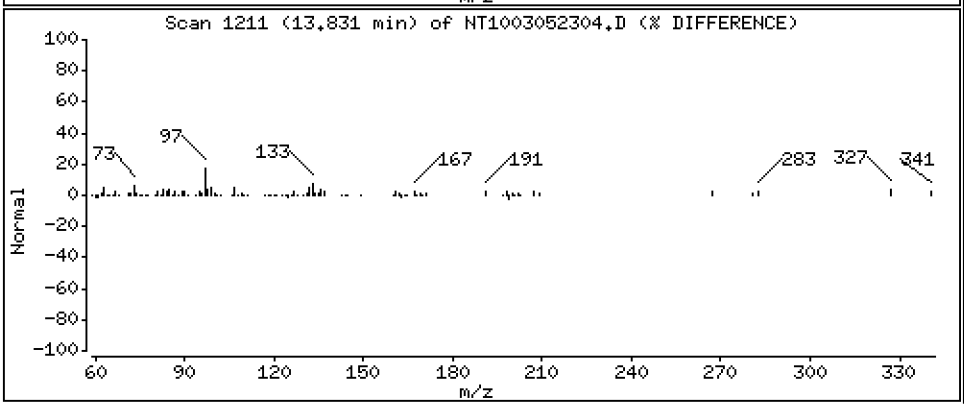
35 2,4,5-Trichlorophenol

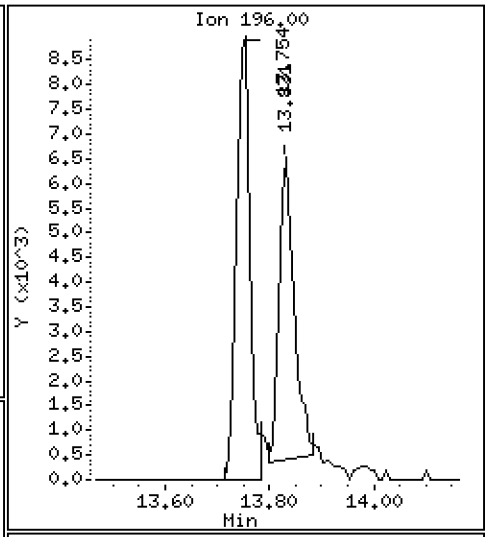
Concentration: 0.2335 ug/mL

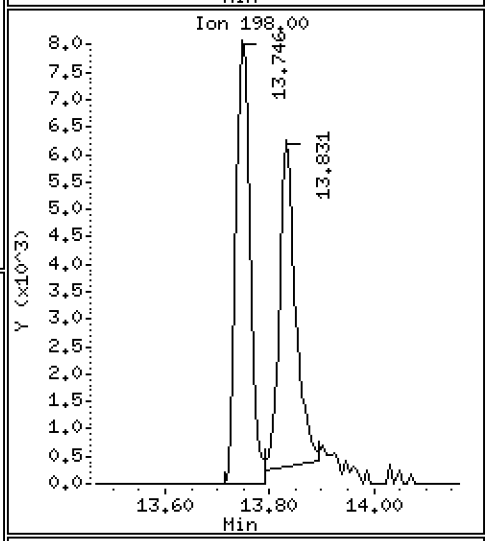


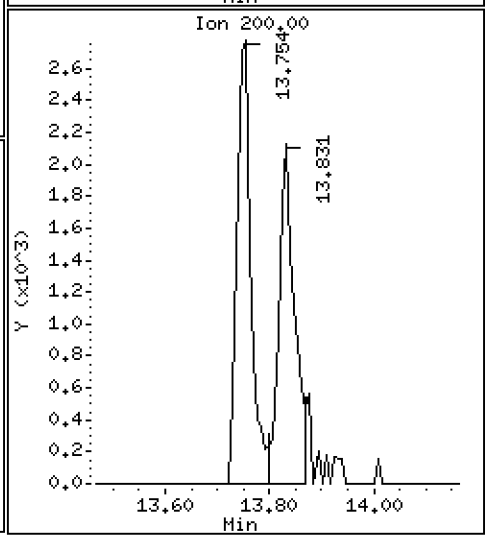












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

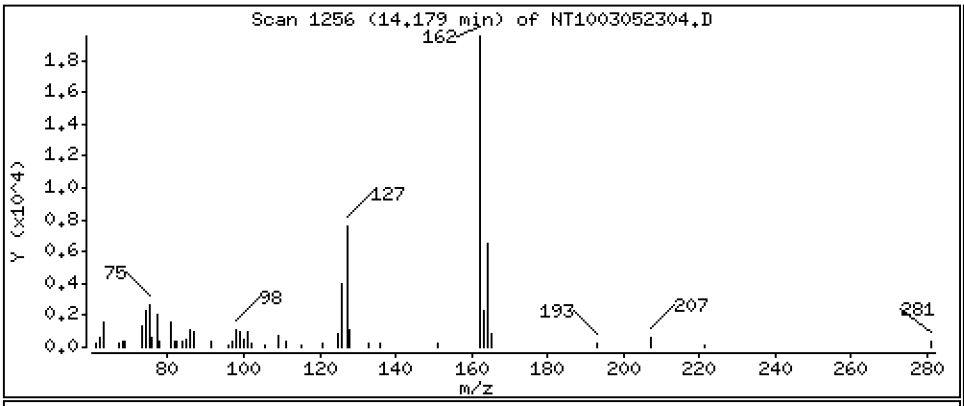
Operator: VTS

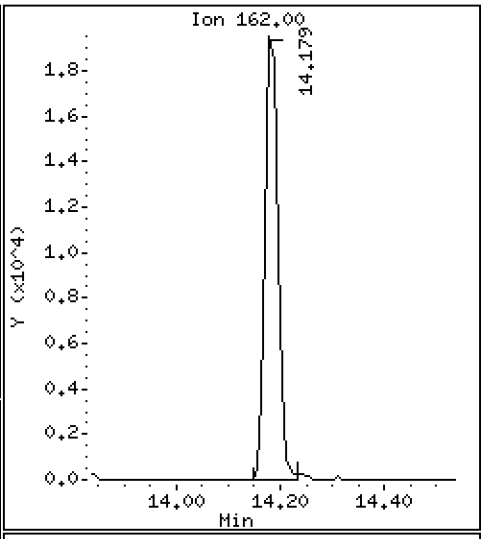
Column phase: ZB-5msi

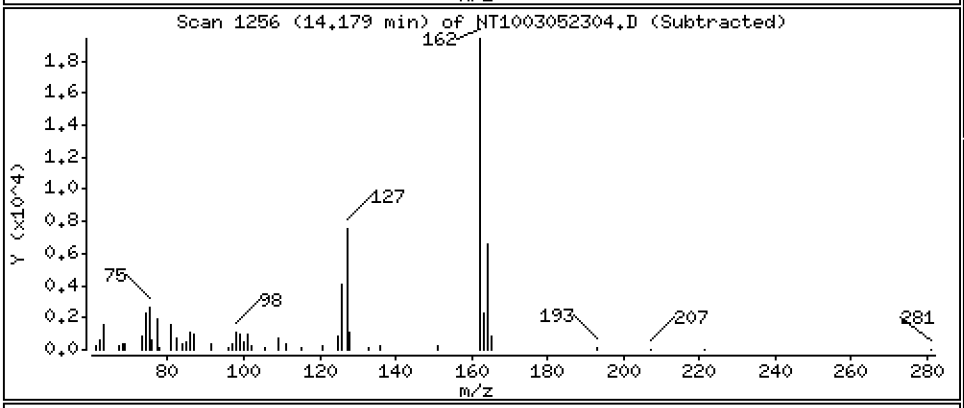
Column diameter: 0.25

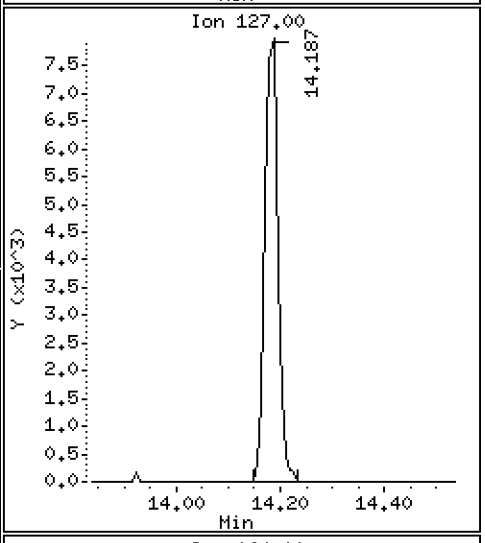
37 2-Chloronaphthalene

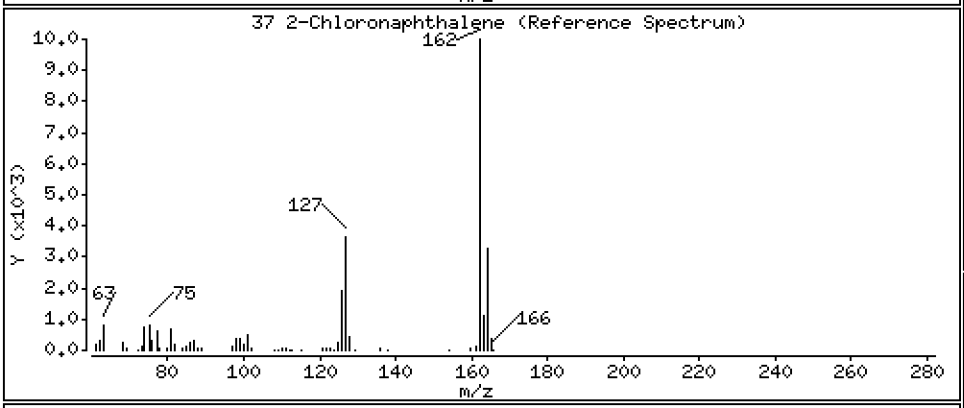
Concentration: 0.2133 ug/mL

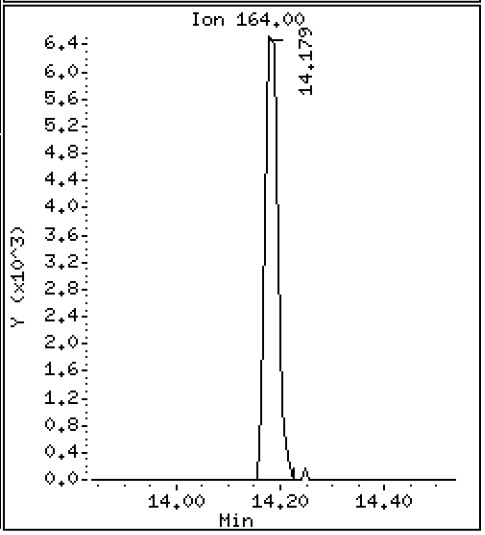


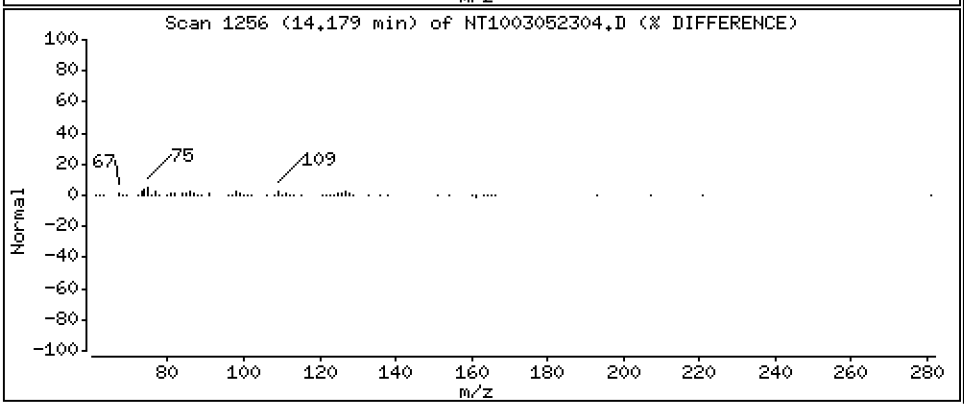












Date : 05-MAR-2023 15:18

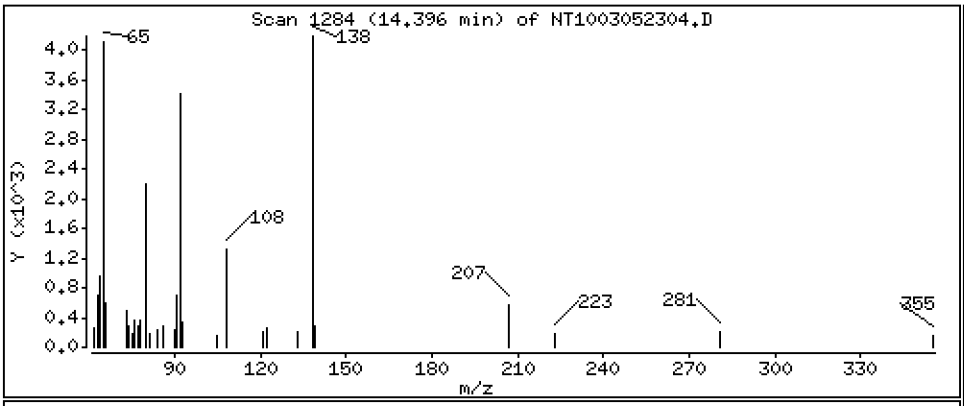
Client ID: Instrument: nt10.i

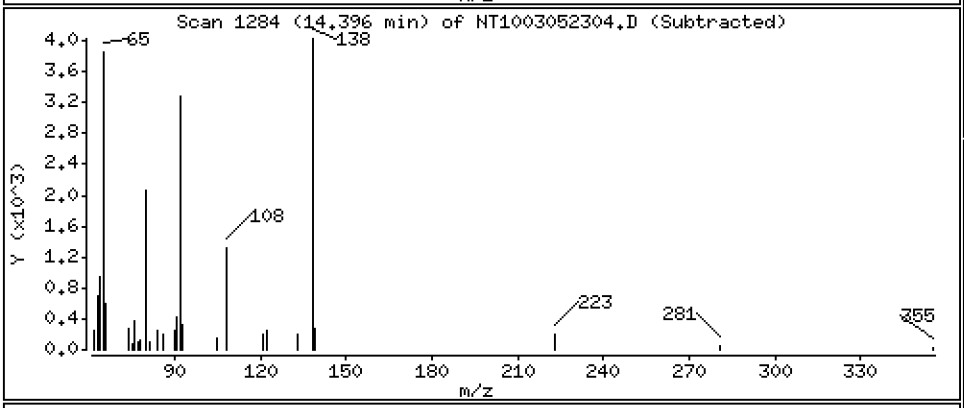
Sample Info: SLC0401-LCV1

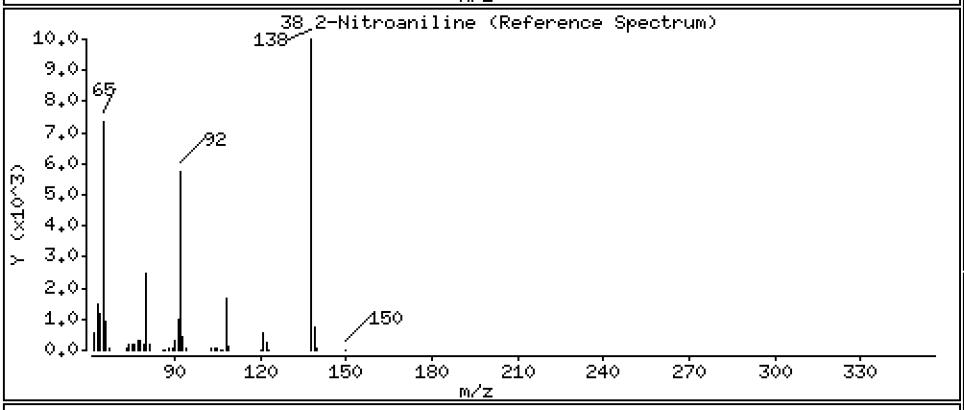
Operator: VTS

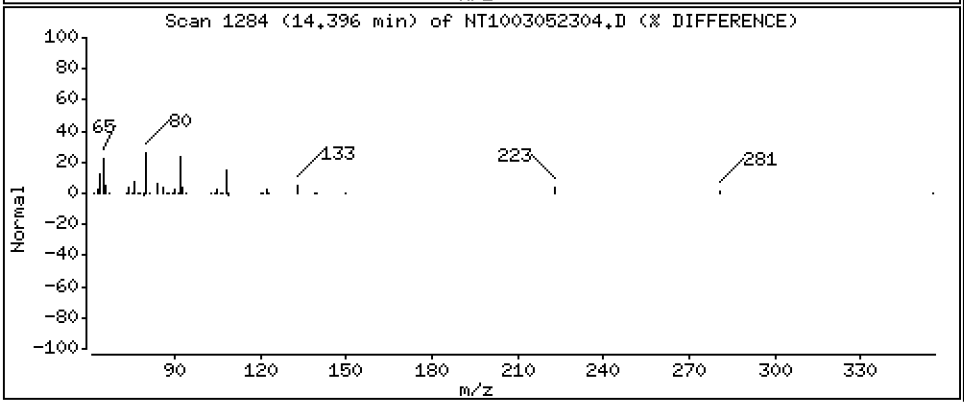
Column phase: ZB-5msi Column diameter: 0.25

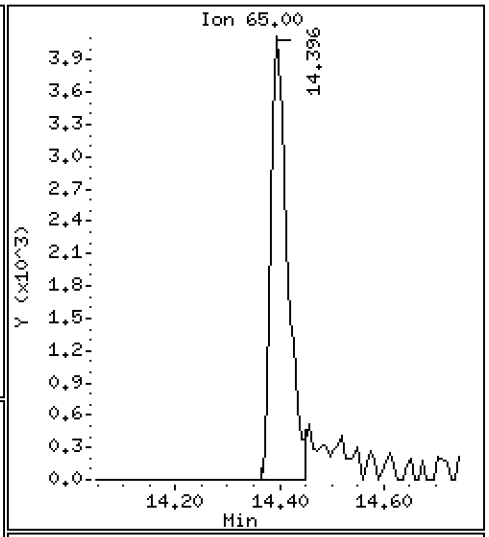
38 2-Nitroaniline Concentration: 0.2160 ug/mL

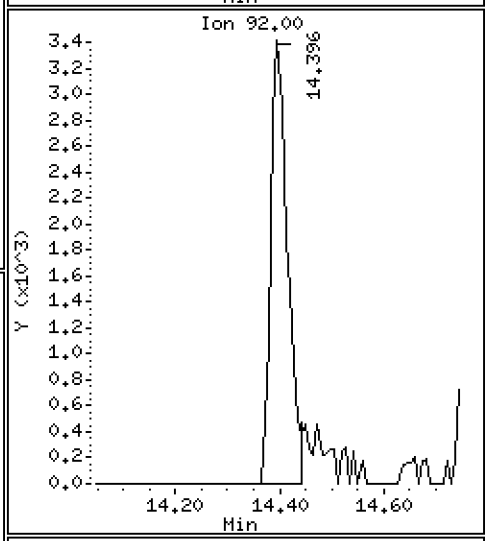


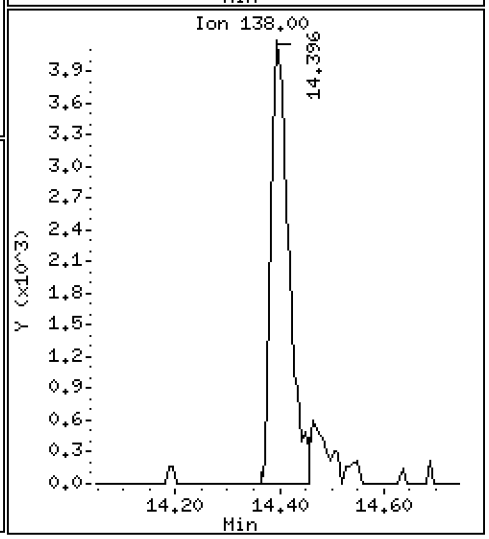












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

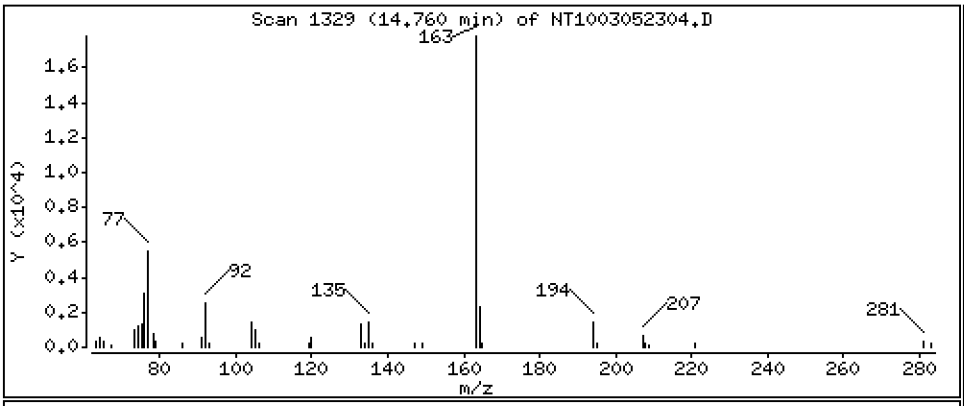
Operator: VTS

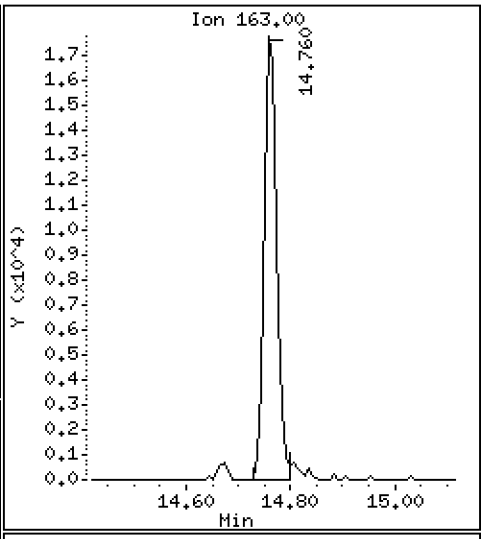
Column phase: ZB-5msi

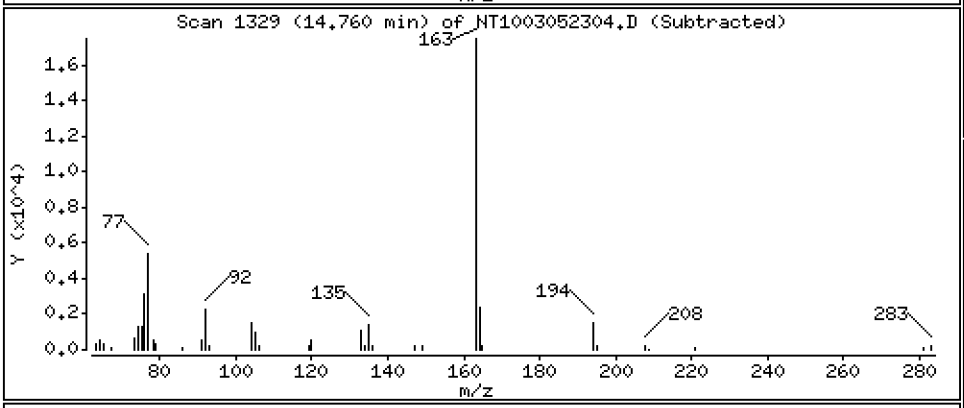
Column diameter: 0.25

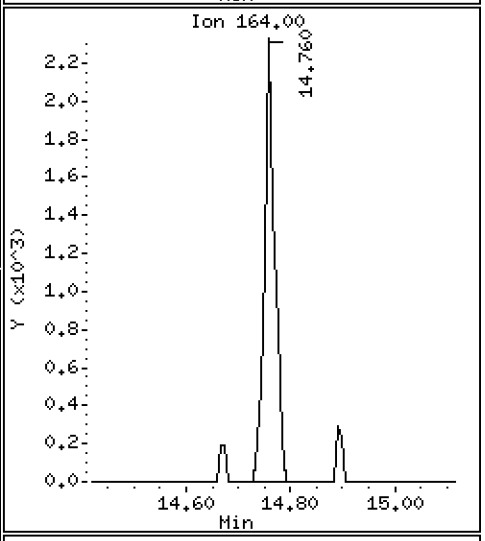
39 Dimethylphthalate

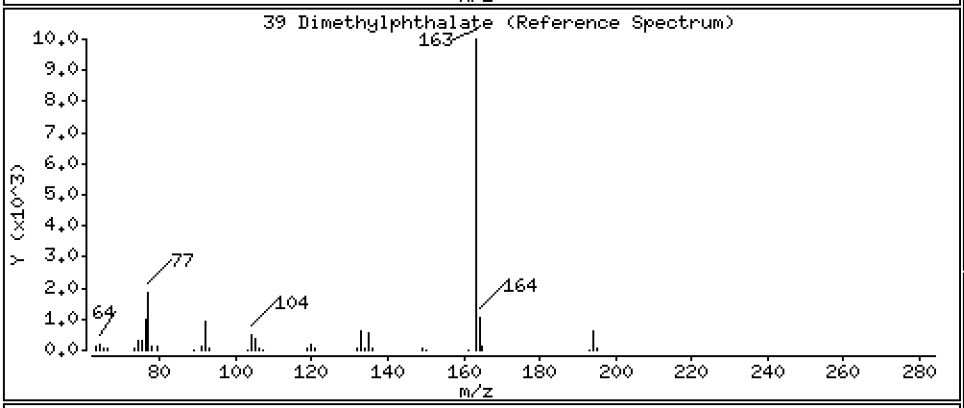
Concentration: 0.1663 ug/mL

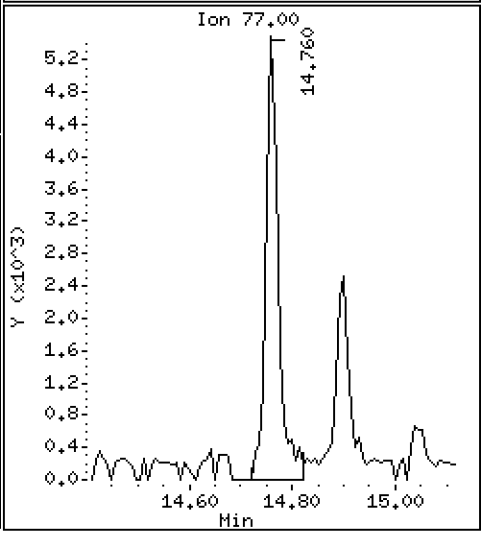


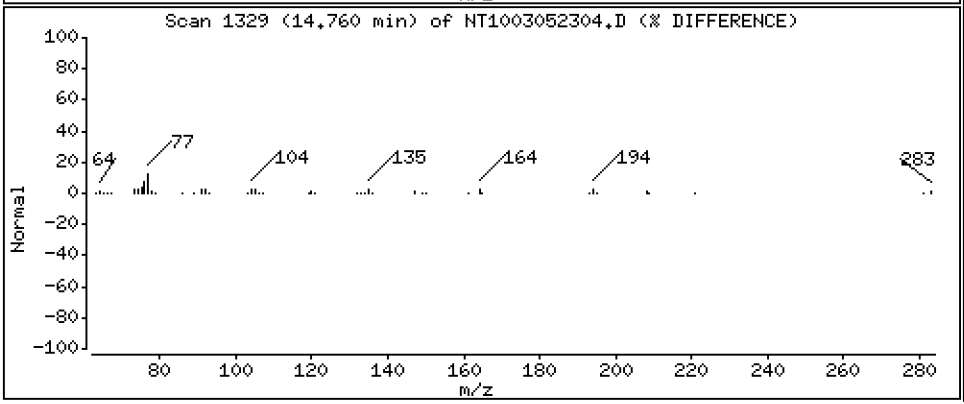












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

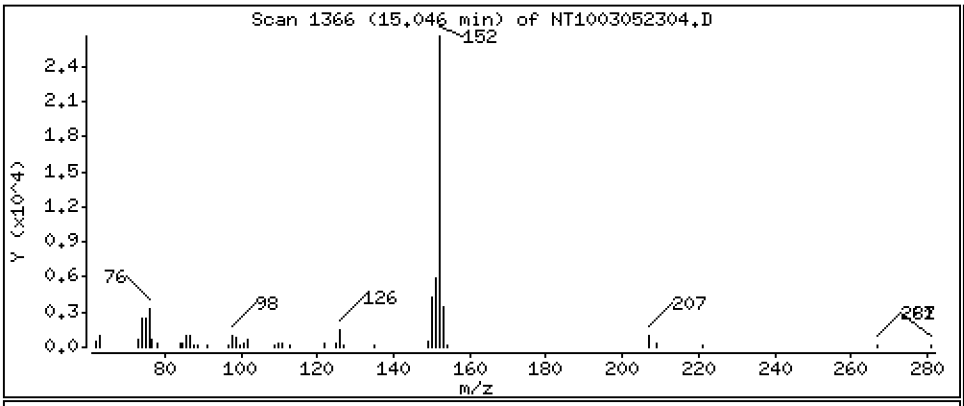
Operator: VTS

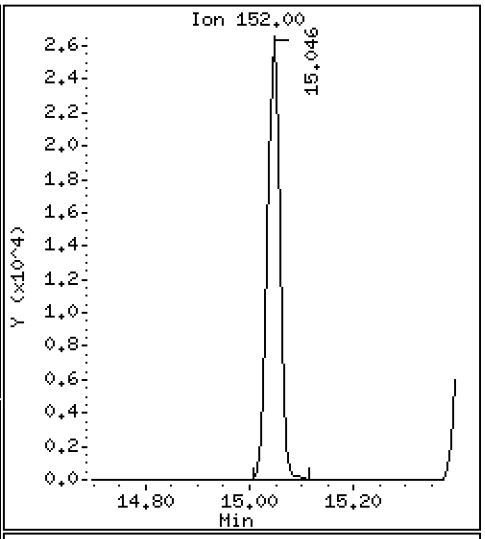
Column phase: ZB-5msi

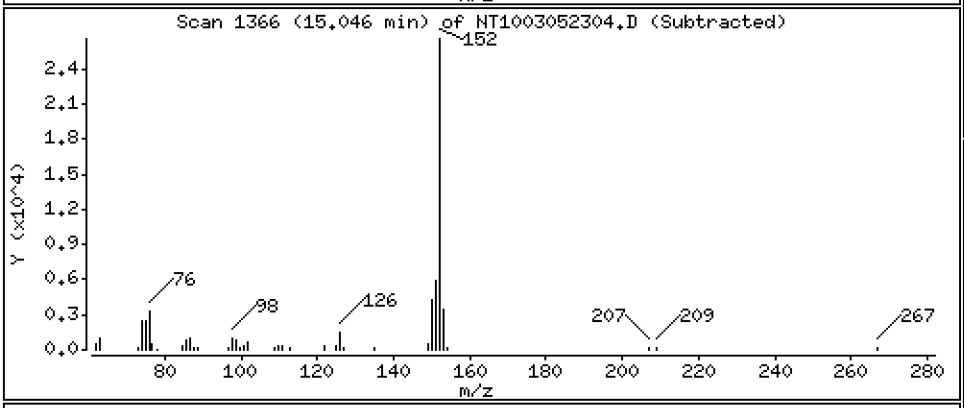
Column diameter: 0.25

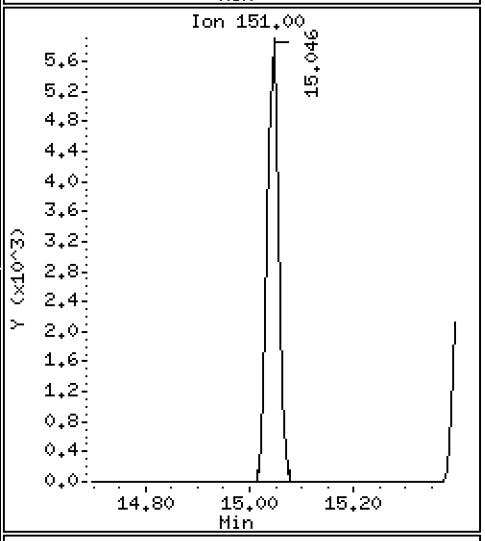
40 Acenaphthylene

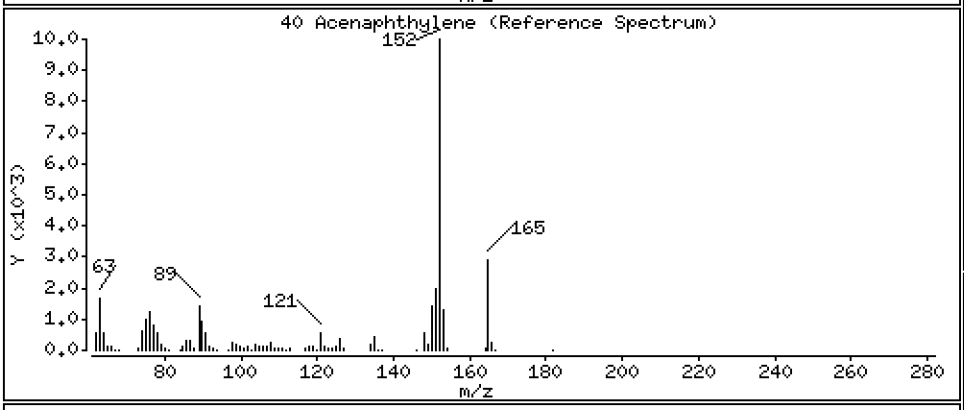
Concentration: 0.1880 ug/mL

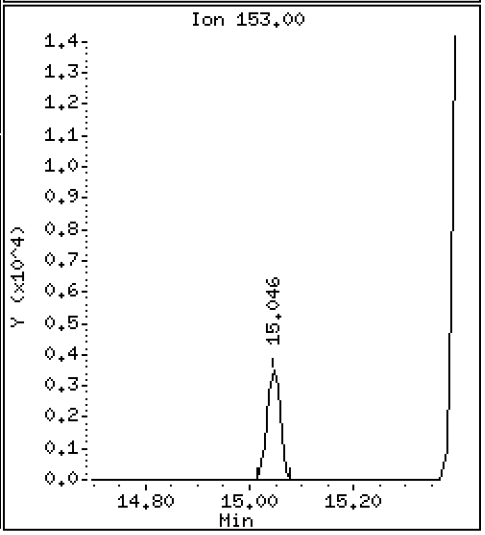


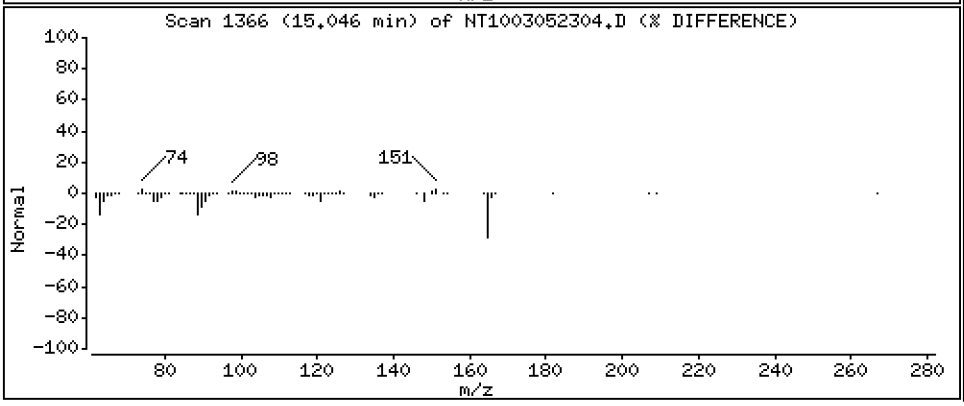












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

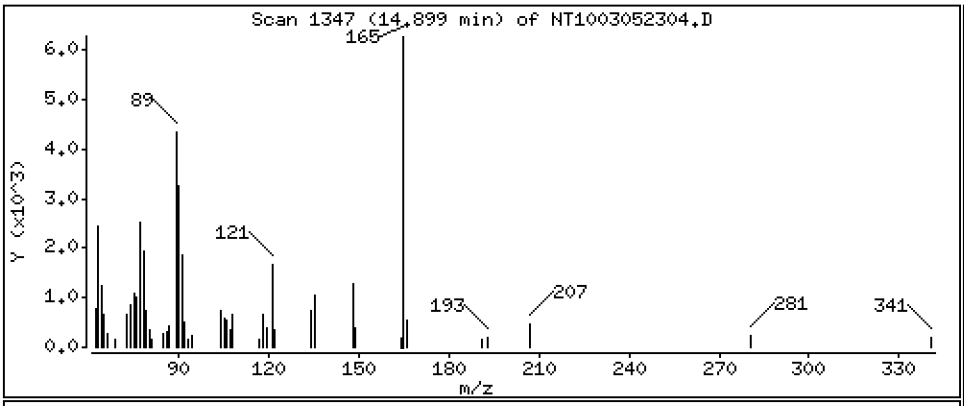
Operator: VTS

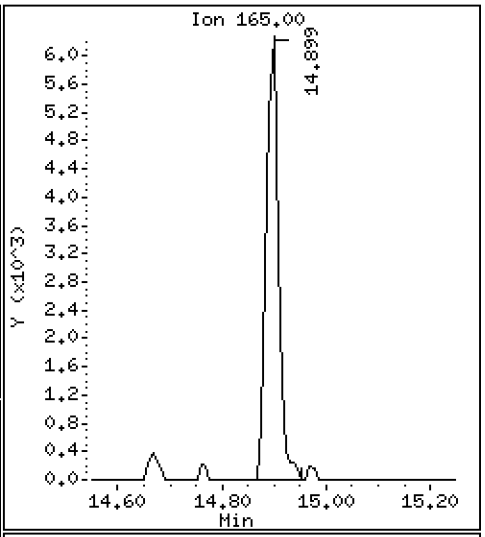
Column phase: ZB-5msi

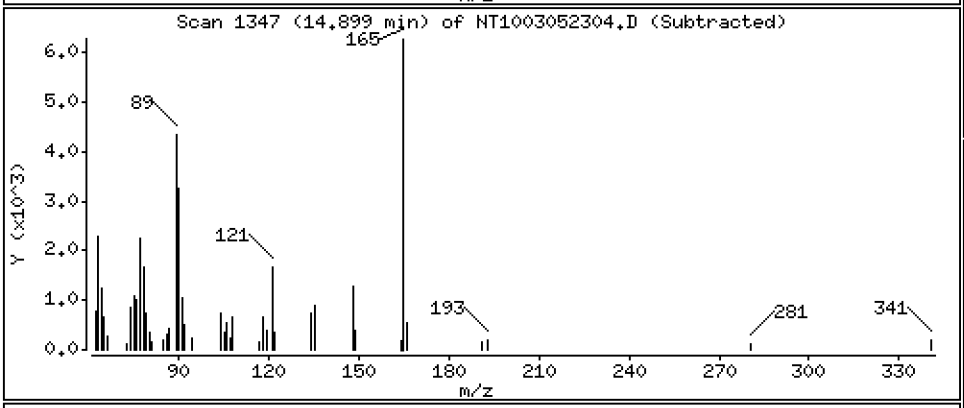
Column diameter: 0.25

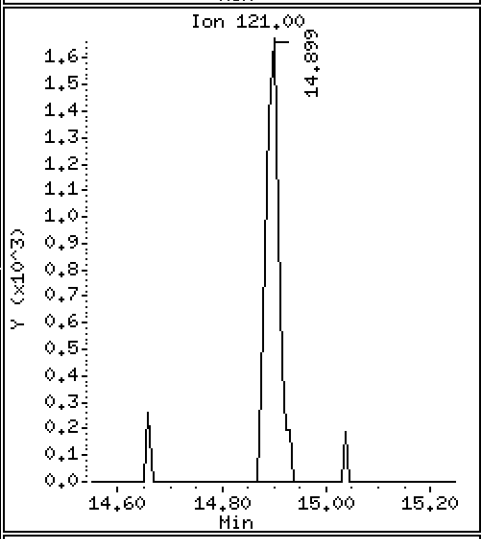
41 2,6-Dinitrotoluene

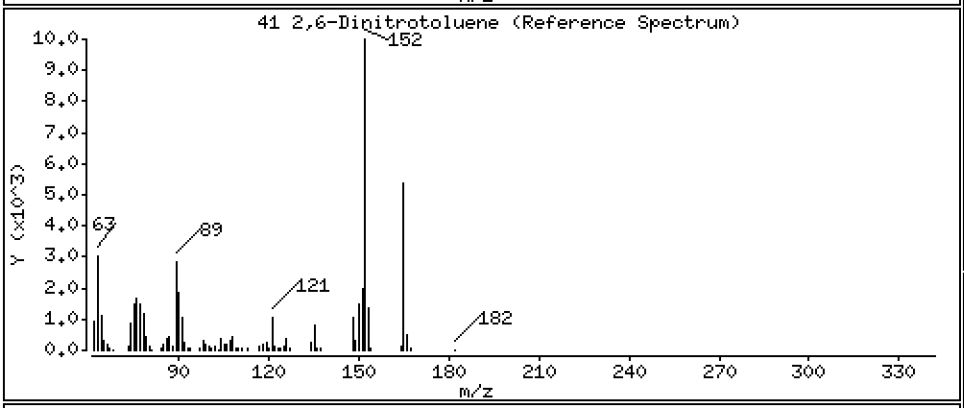
Concentration: 0.2545 ug/mL

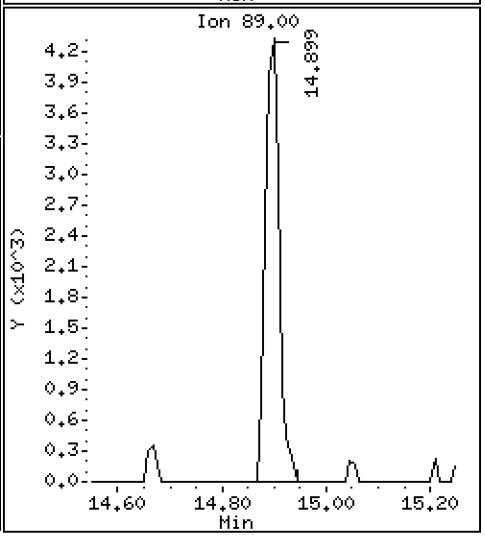


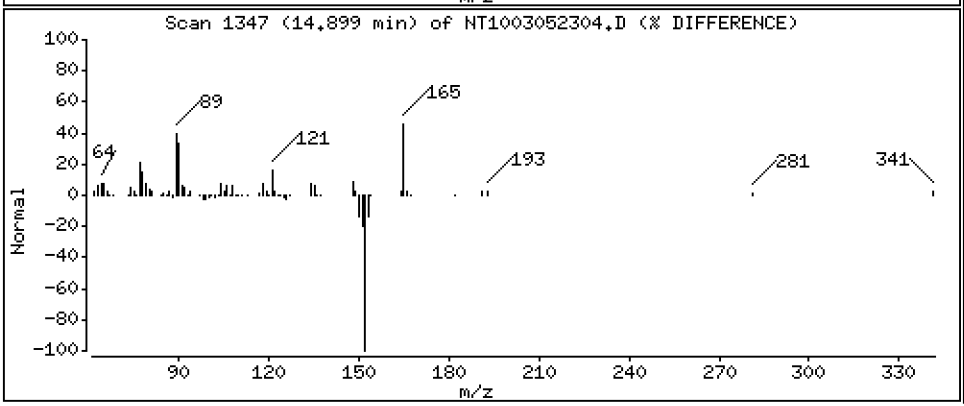












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

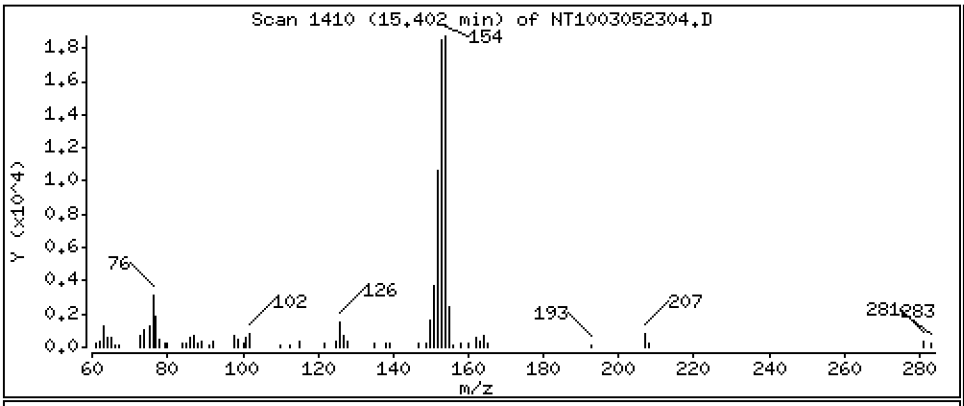
Operator: VTS

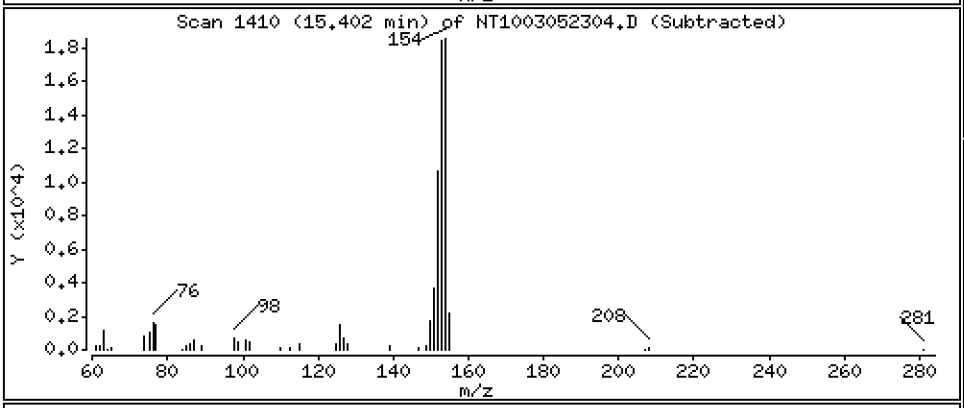
Column phase: ZB-5msi

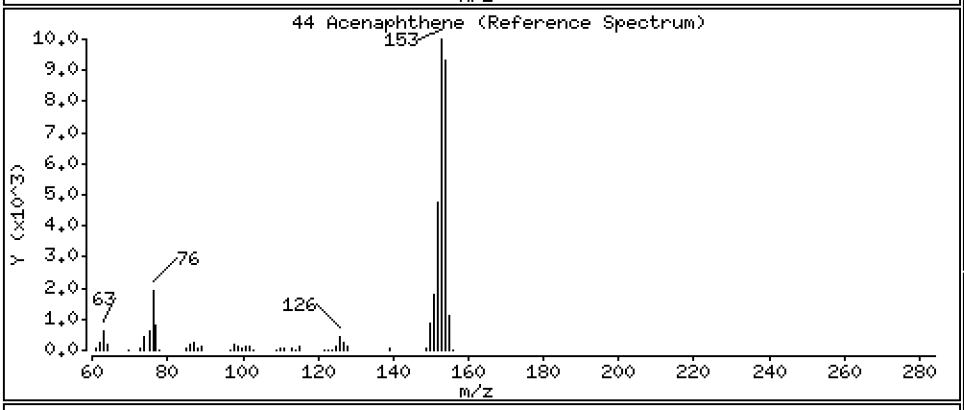
Column diameter: 0.25

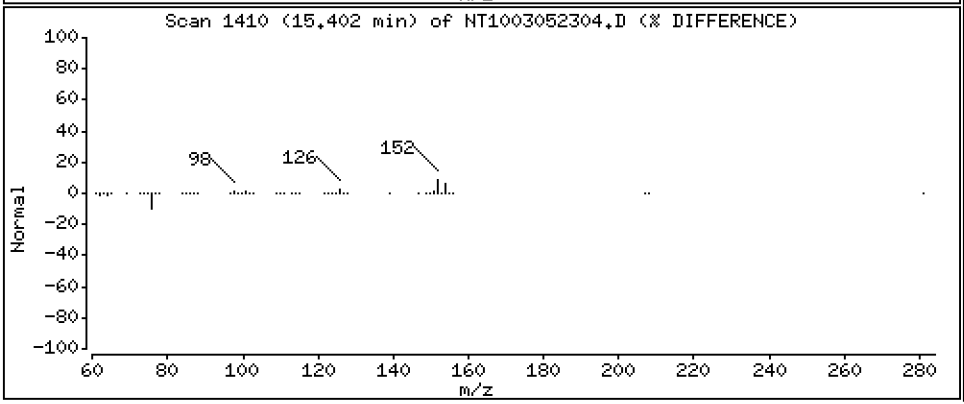
44 Acenaphthene

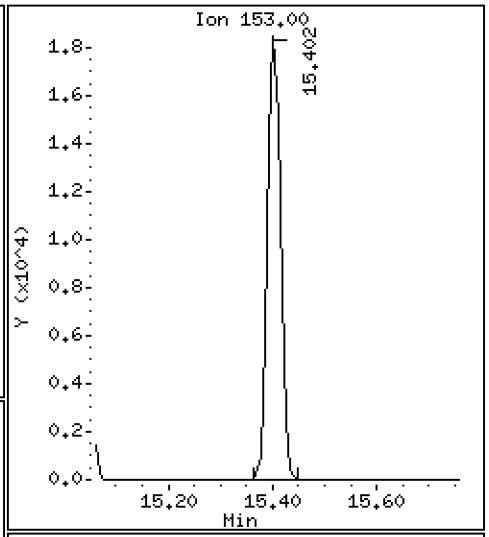
Concentration: 0.1966 ug/mL

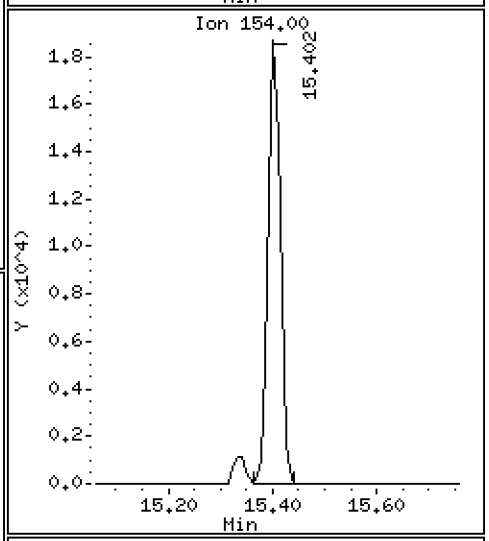


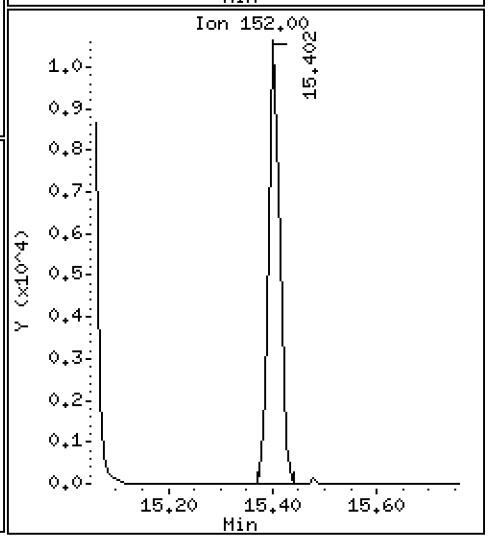












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

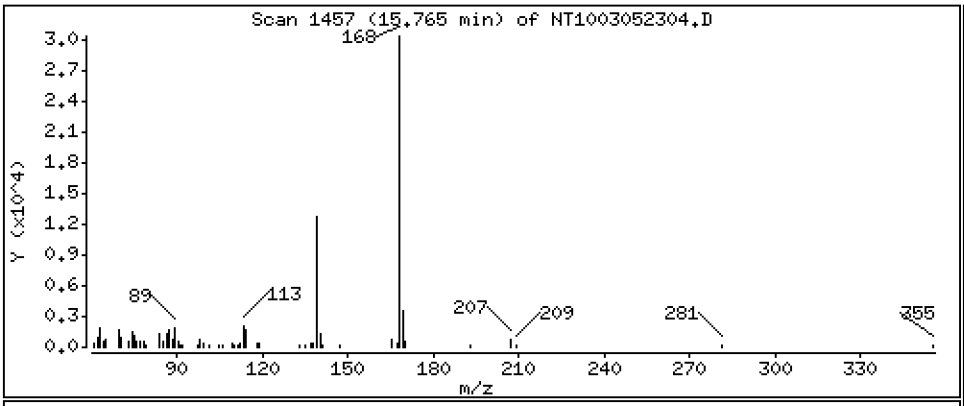
Operator: VTS

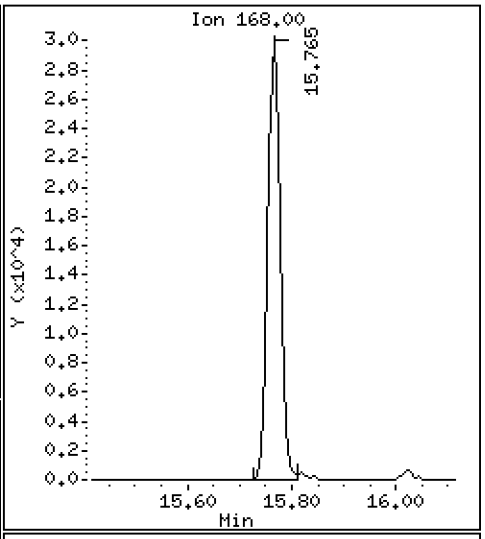
Column phase: ZB-5msi

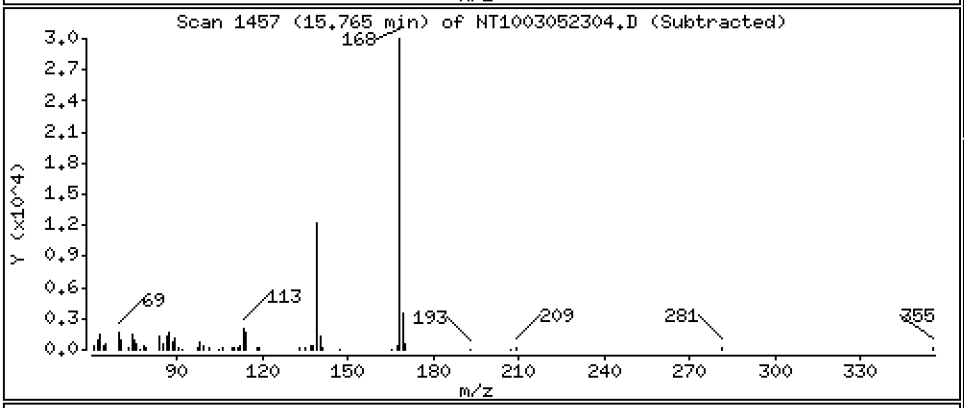
Column diameter: 0.25

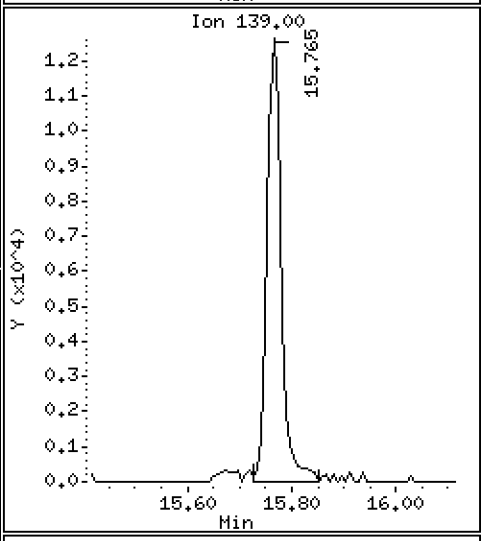
46 Dibenzofuran

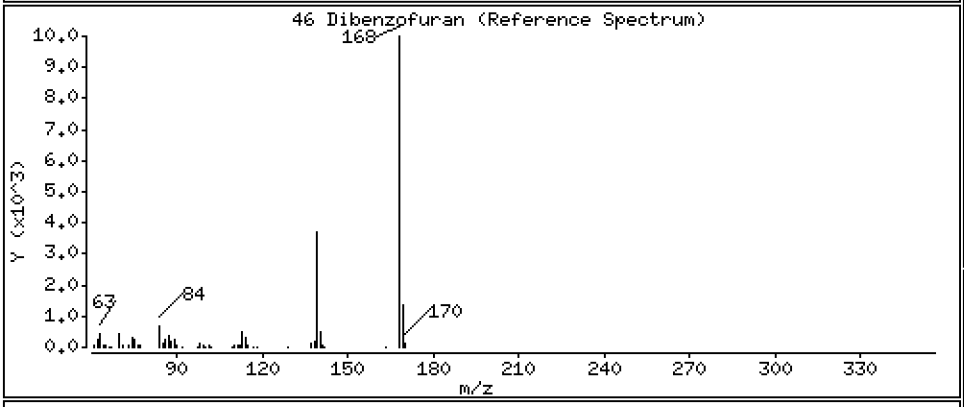
Concentration: 0.2052 ug/mL

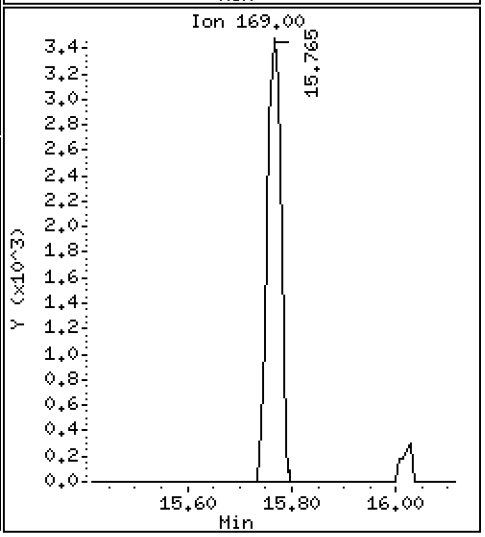


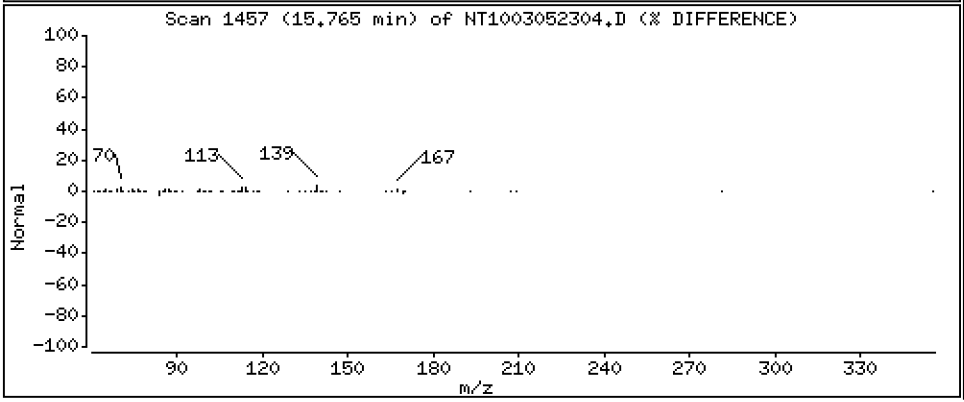












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

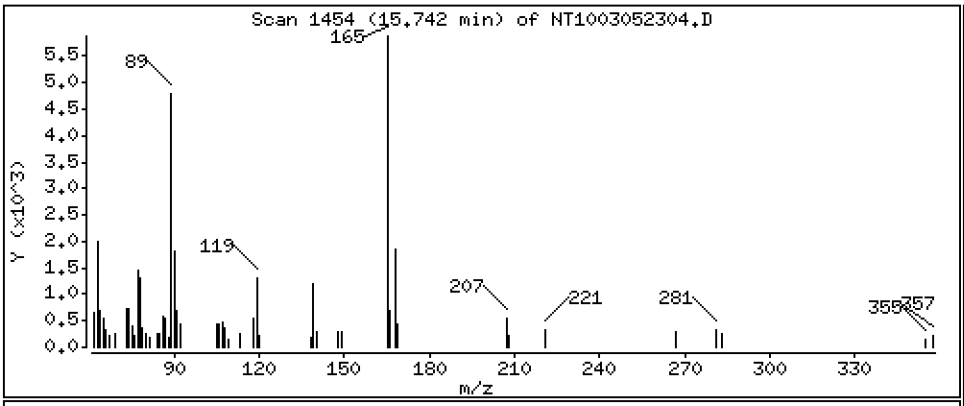
Operator: VTS

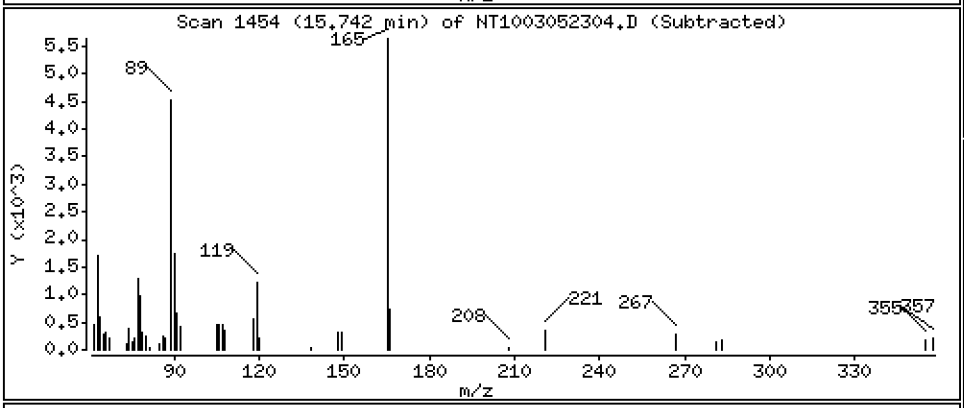
Column phase: ZB-5msi

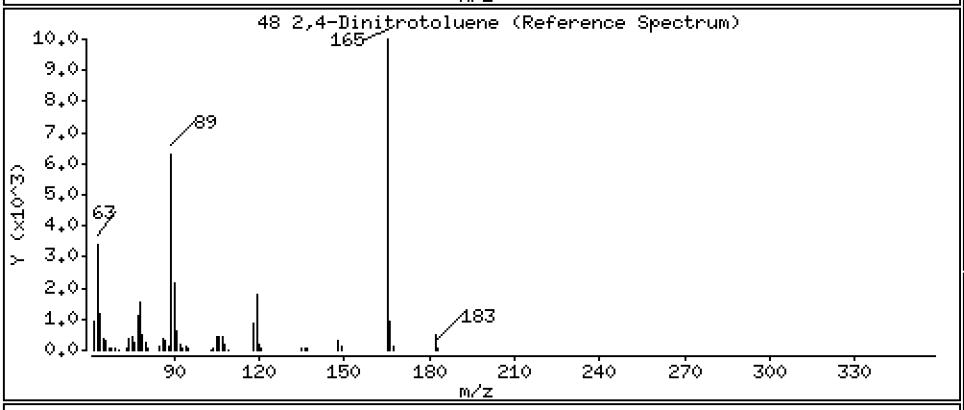
Column diameter: 0.25

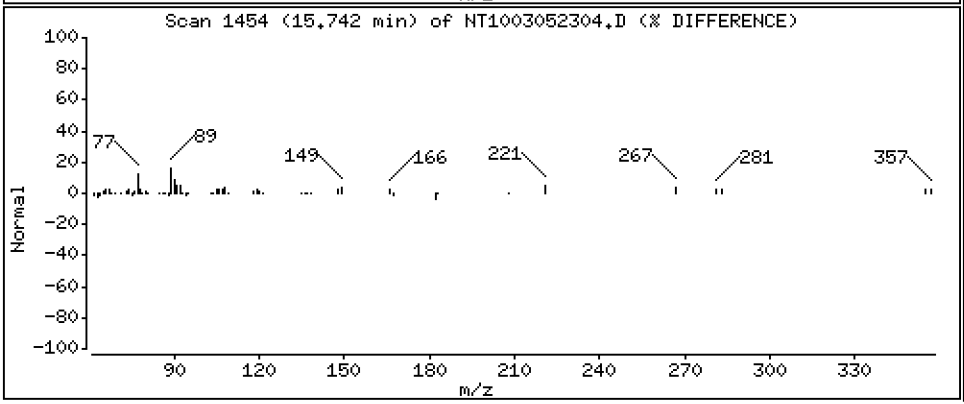
48 2,4-Dinitrotoluene

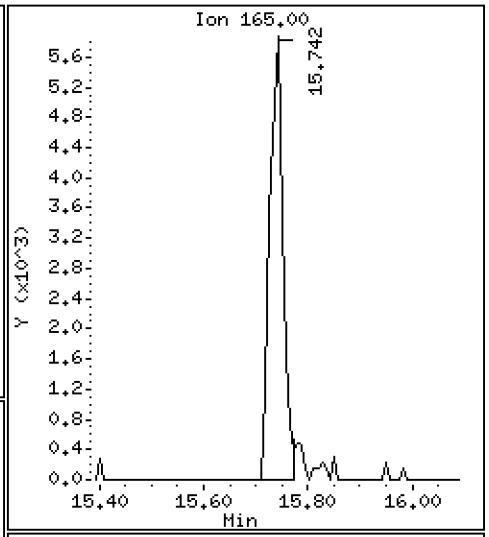
Concentration: 0.1793 ug/mL

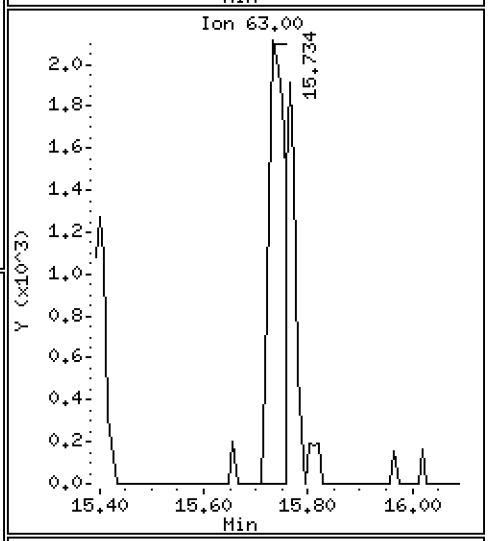


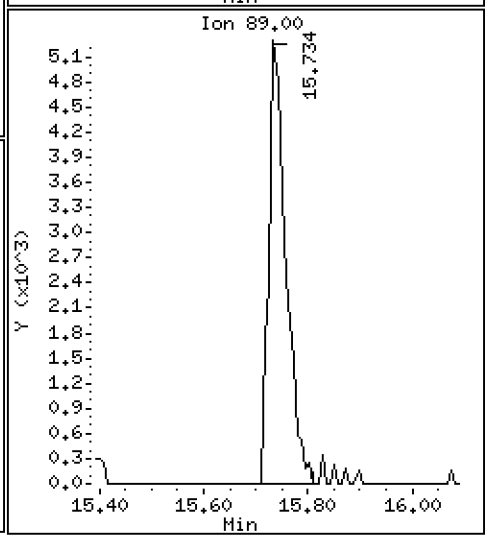












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

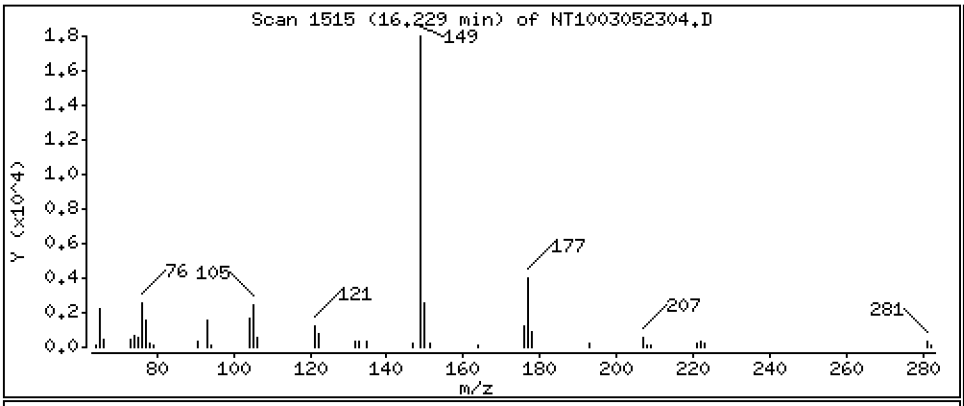
Operator: VTS

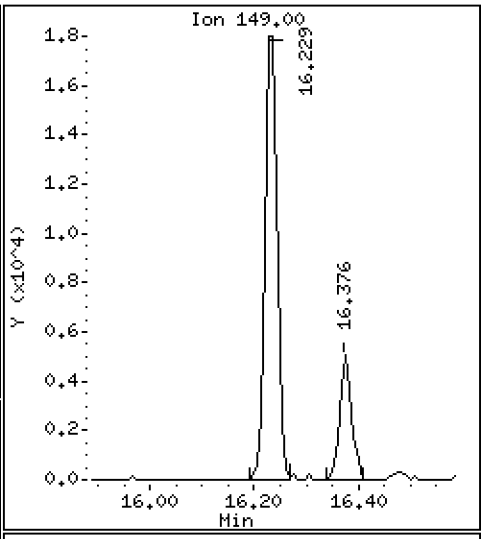
Column phase: ZB-5msi

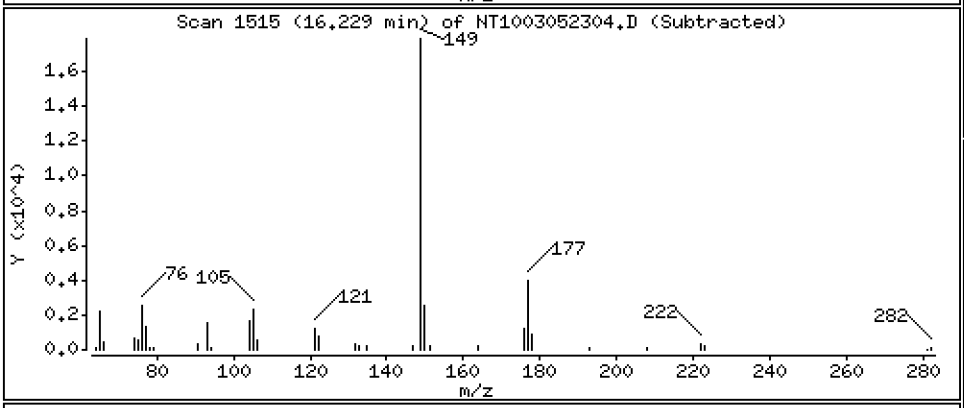
Column diameter: 0.25

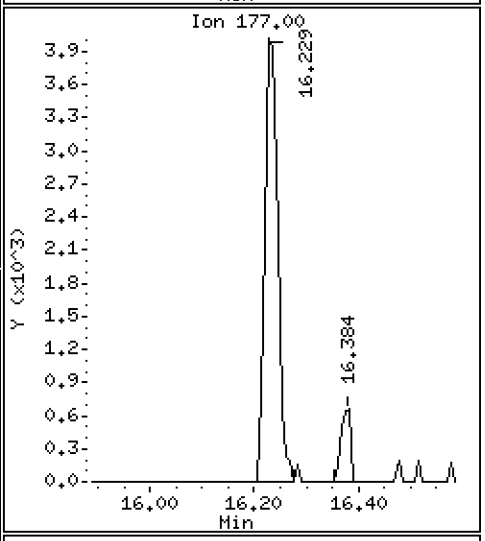
50 Diethylphthalate

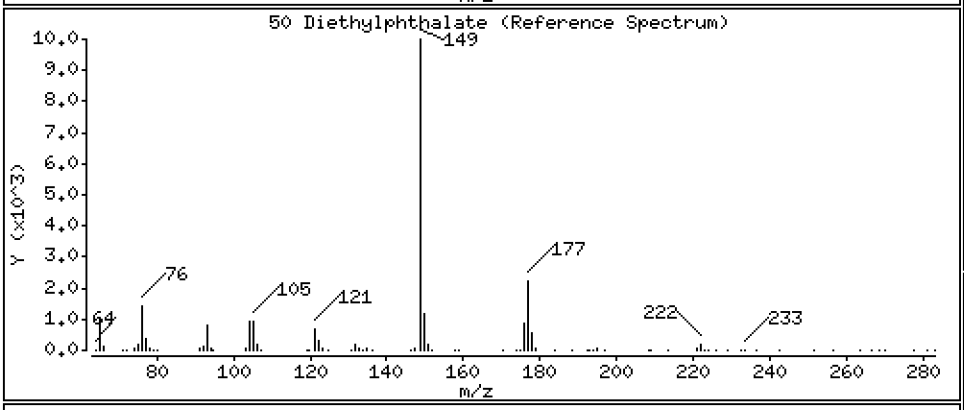
Concentration: 0.1525 ug/mL

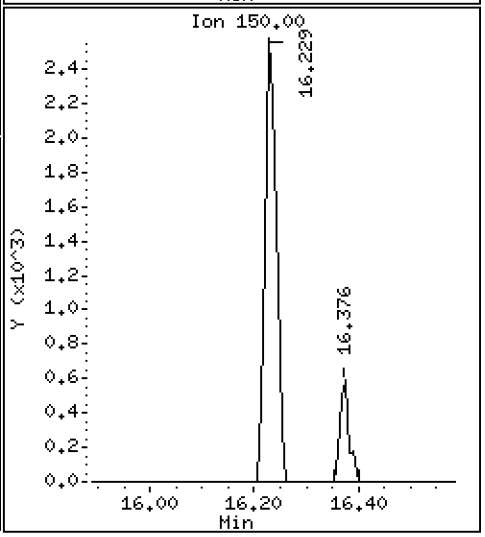


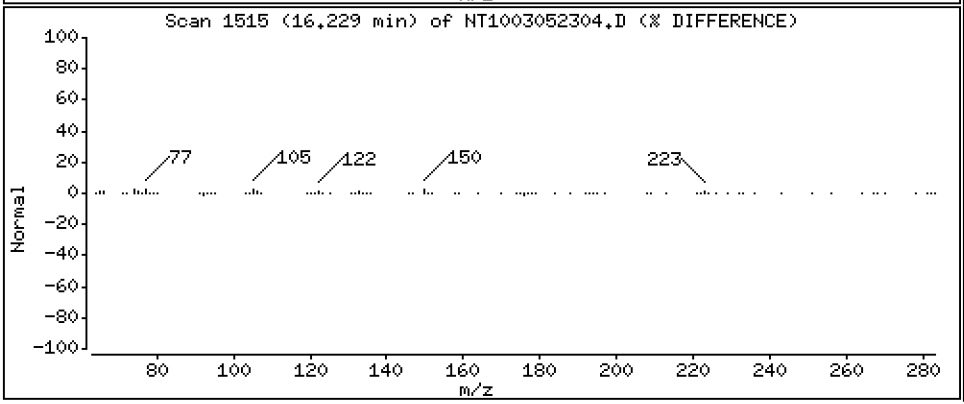












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

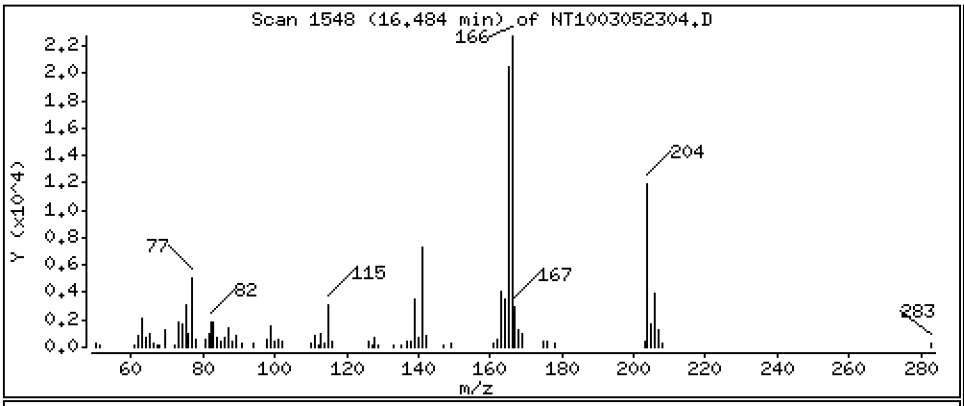
Operator: VTS

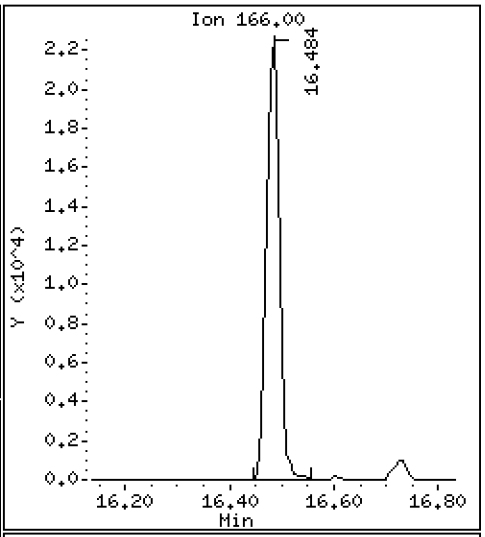
Column phase: ZB-5msi

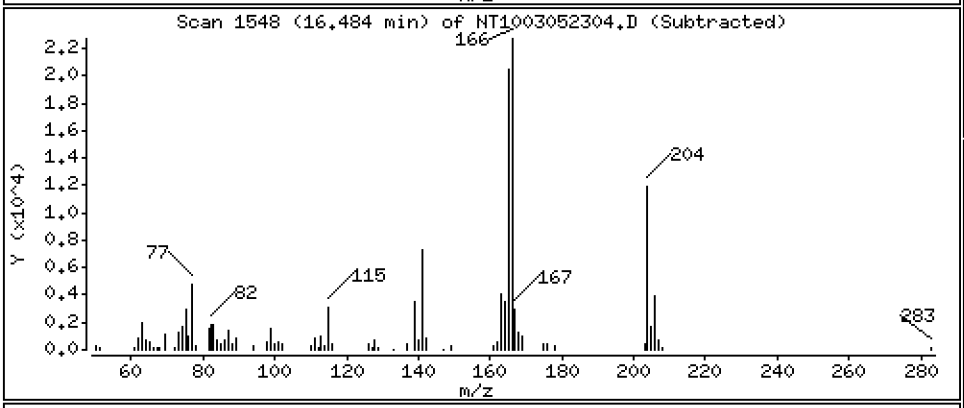
Column diameter: 0.25

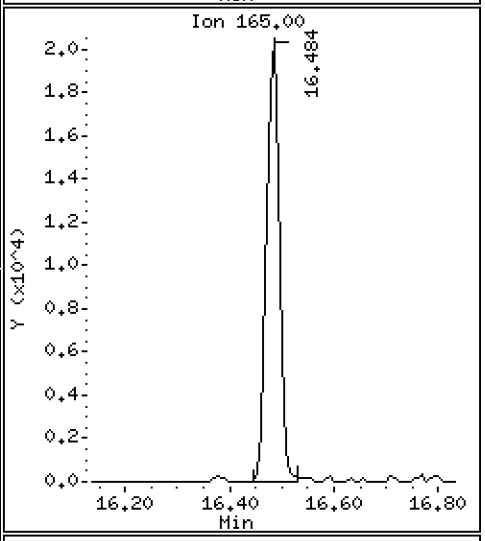
49 Fluorene

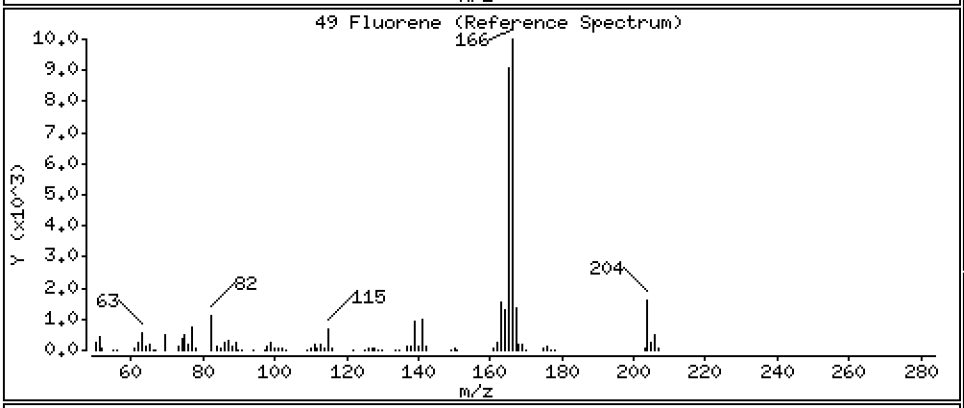
Concentration: 0.1976 ug/mL

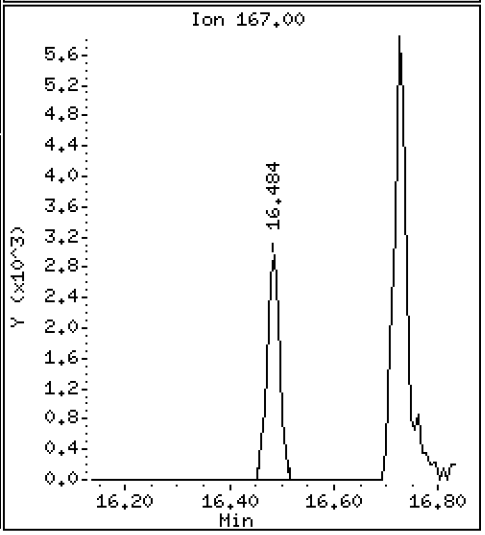


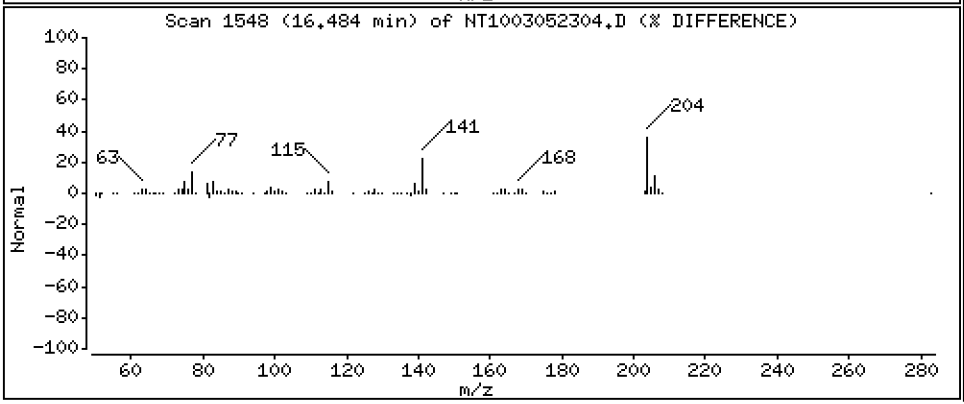












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

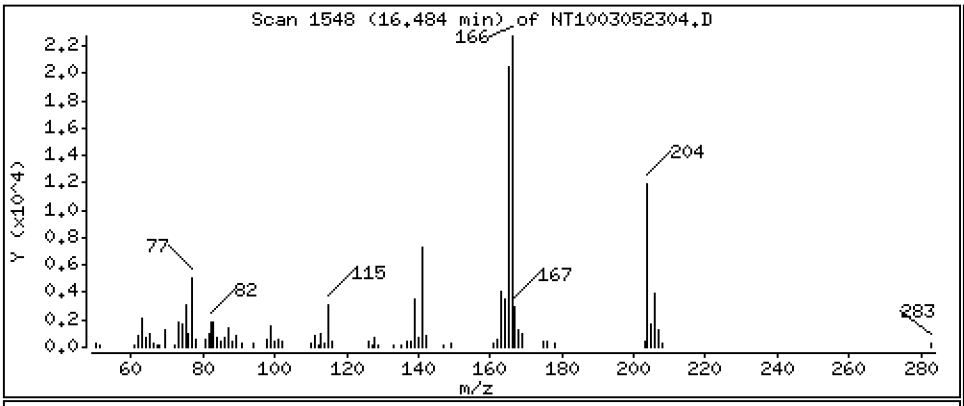
Operator: VTS

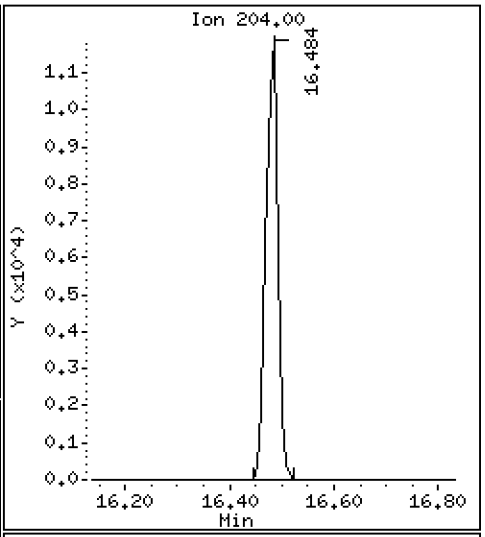
Column phase: ZB-5msi

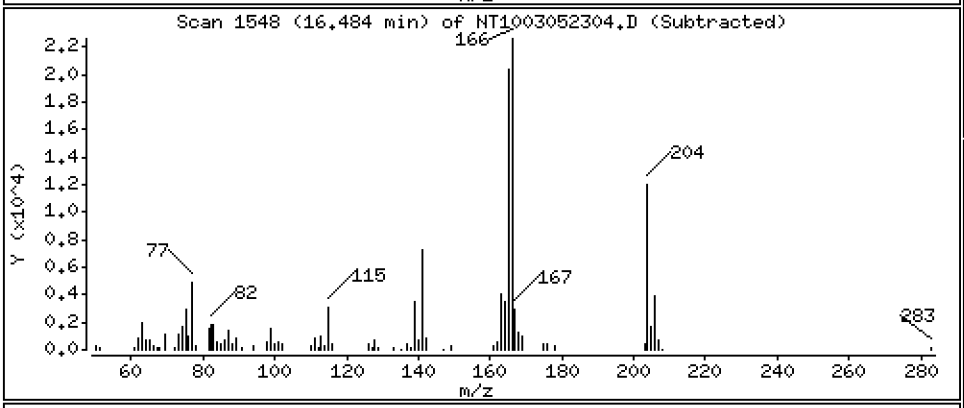
Column diameter: 0.25

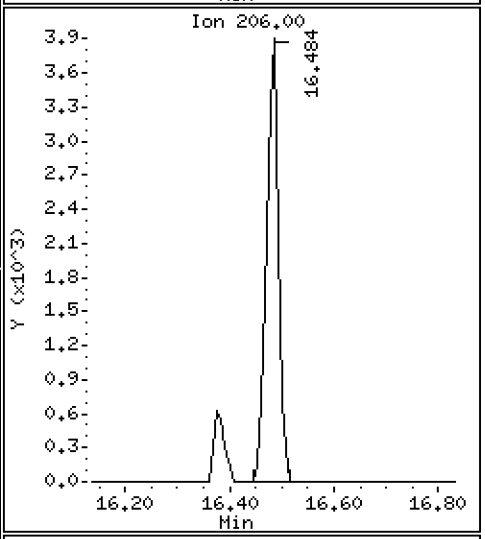
51 4-Chlorophenyl-phenylether

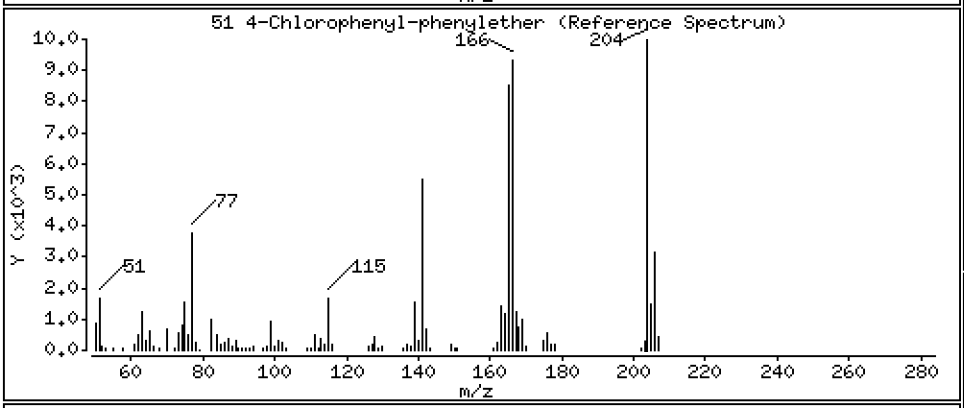
Concentration: 0.2177 ug/mL

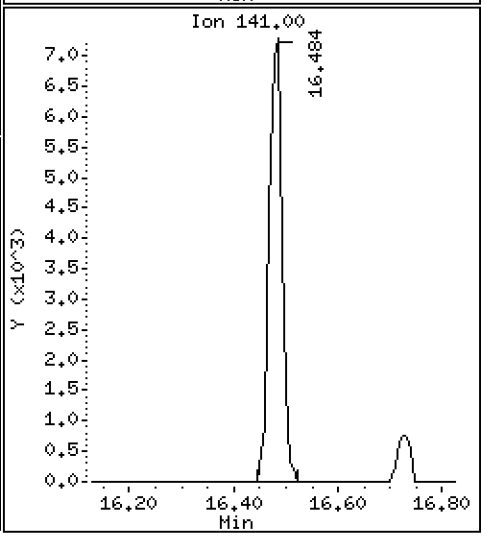


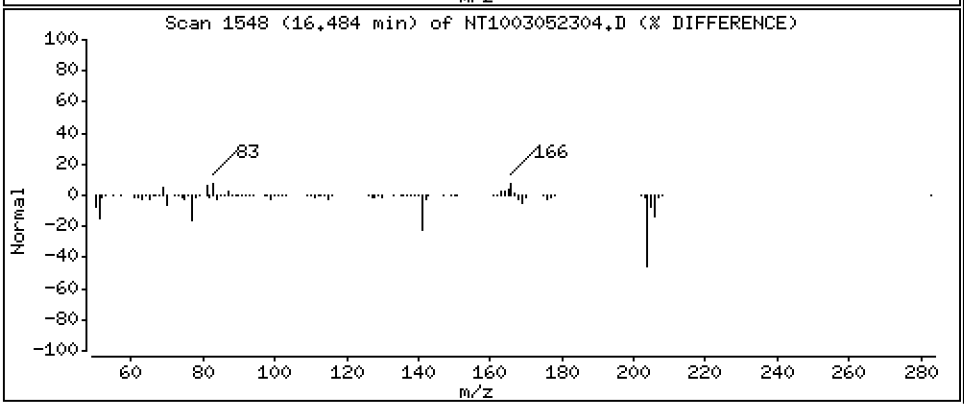












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

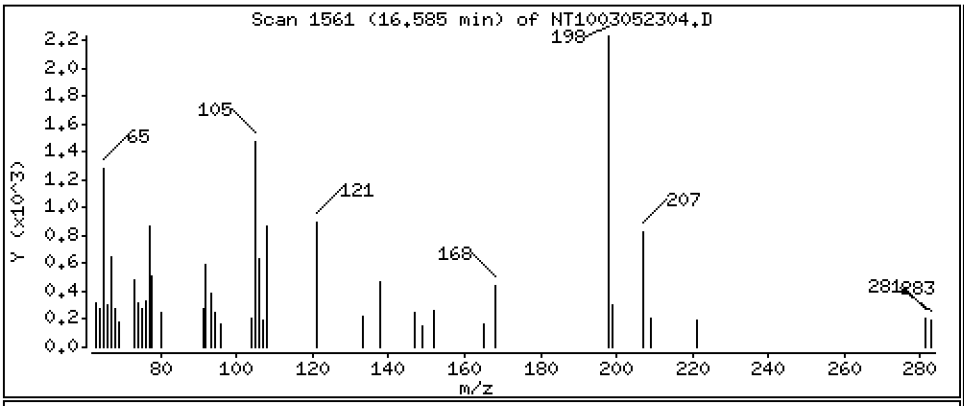
Operator: VTS

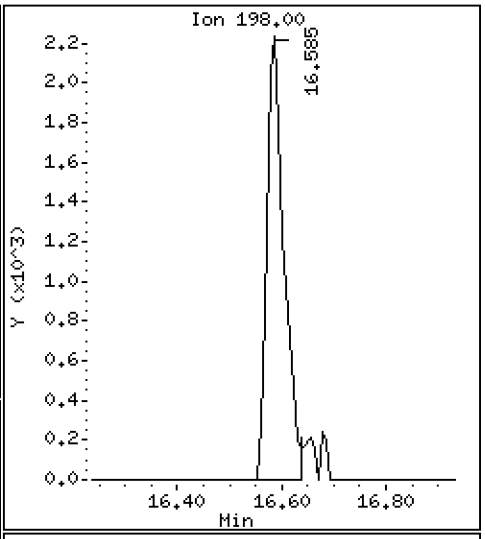
Column phase: ZB-5msi

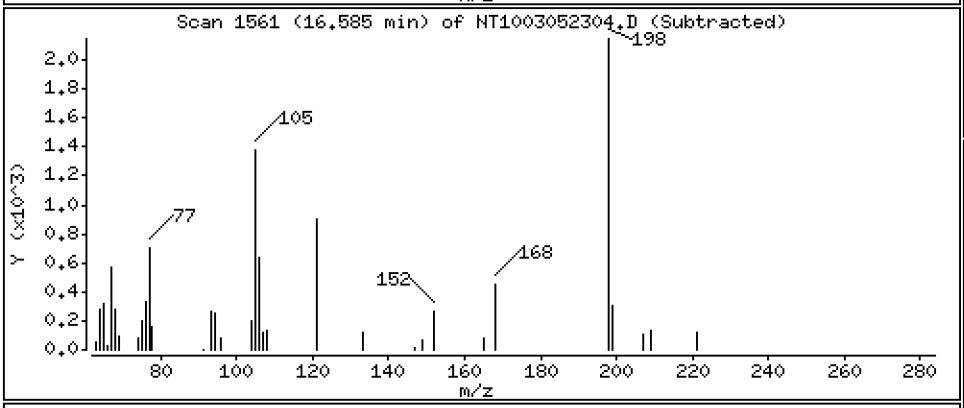
Column diameter: 0.25

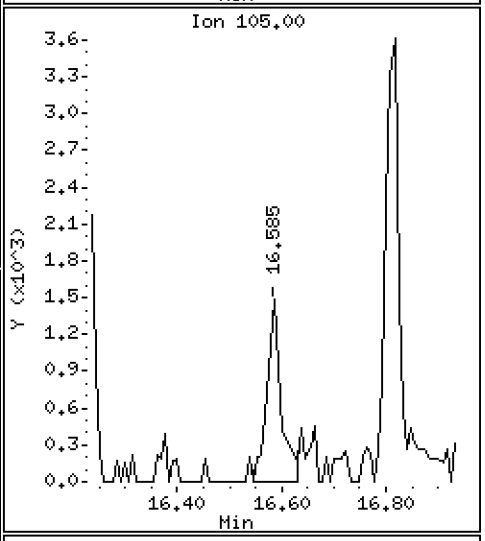
53 4,6-Dinitro-2-methylphenol

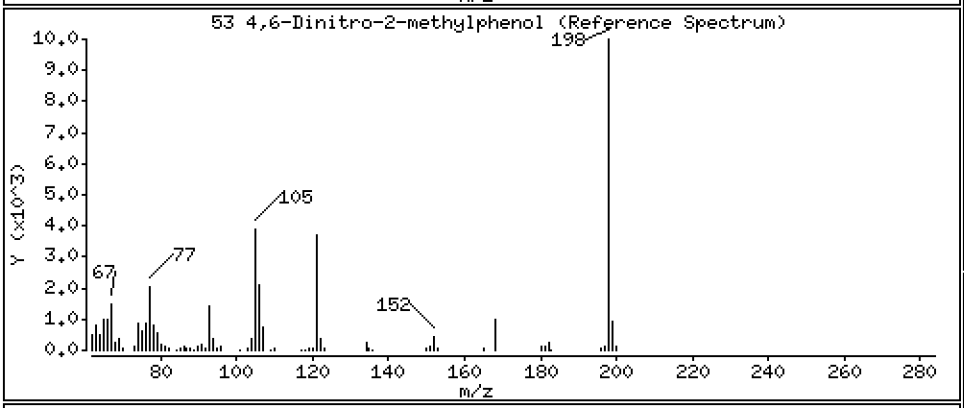
Concentration: 0.2329 ug/mL

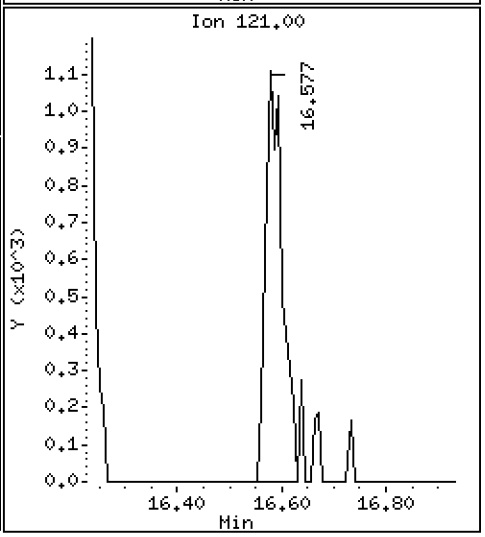


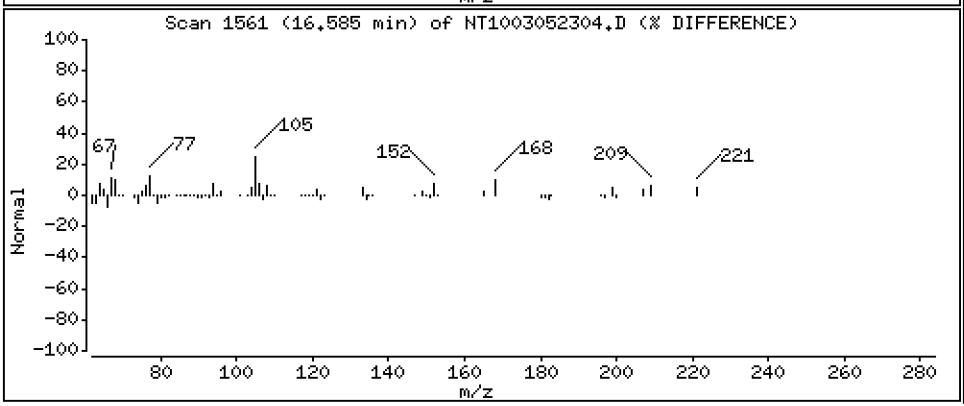












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

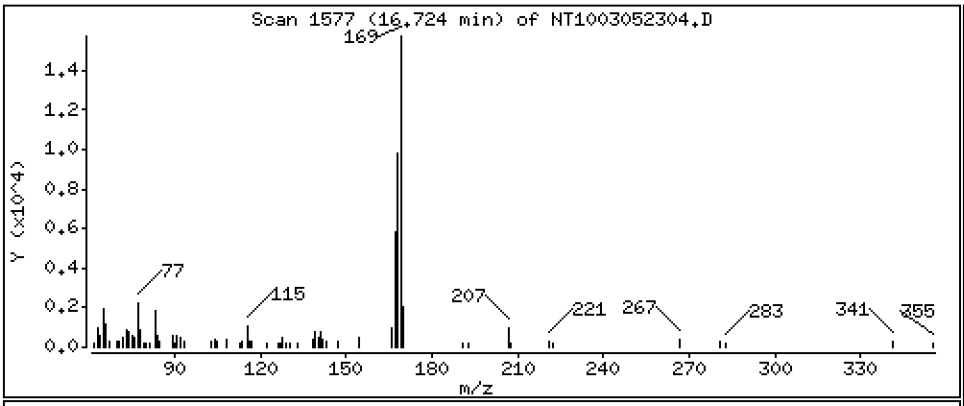
Operator: VTS

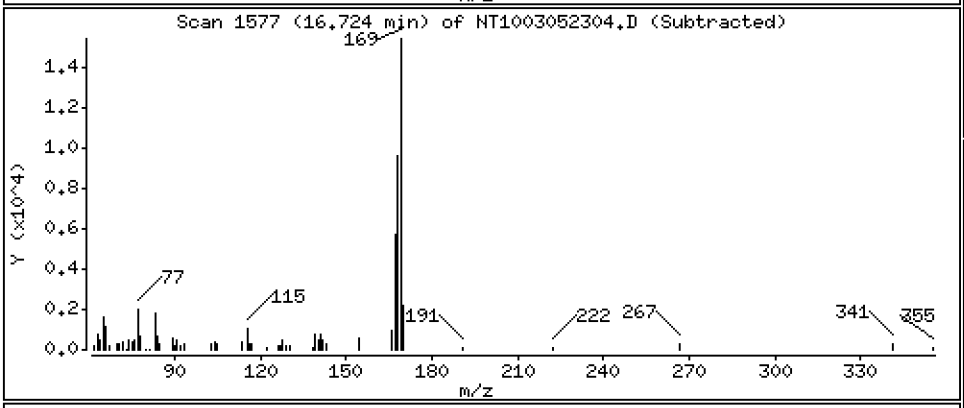
Column phase: ZB-5msi

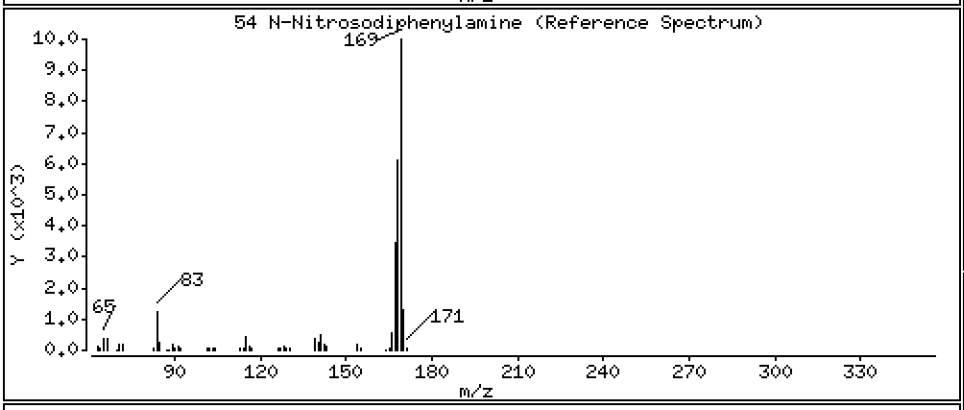
Column diameter: 0.25

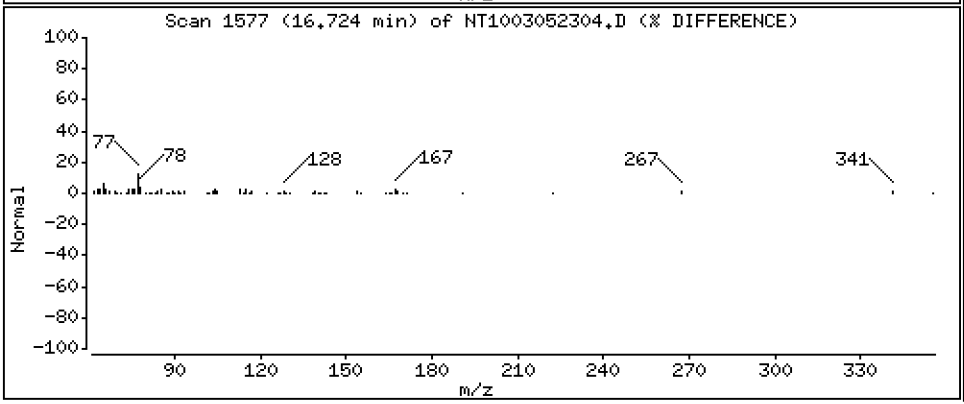
54 N-Nitrosodiphenylamine

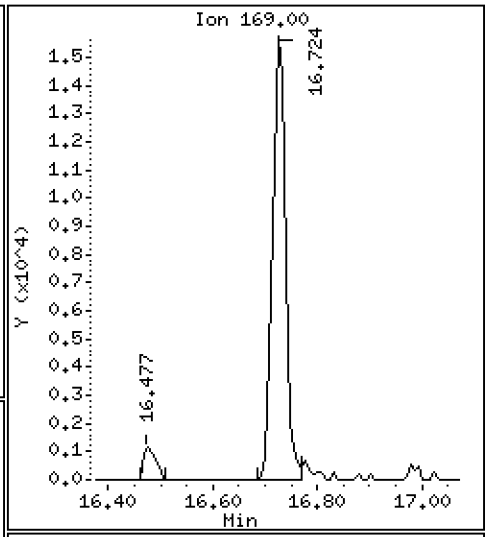
Concentration: 0.1900 ug/mL

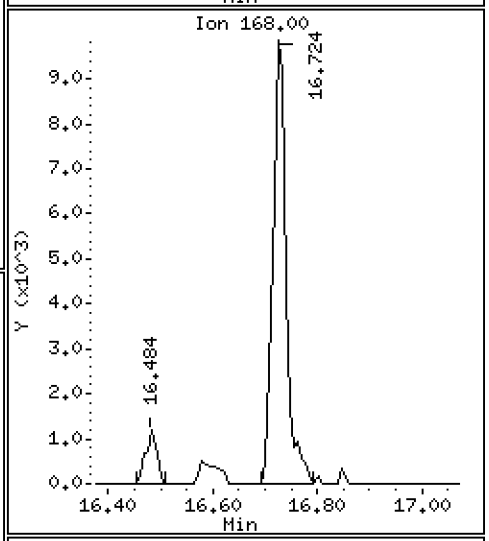


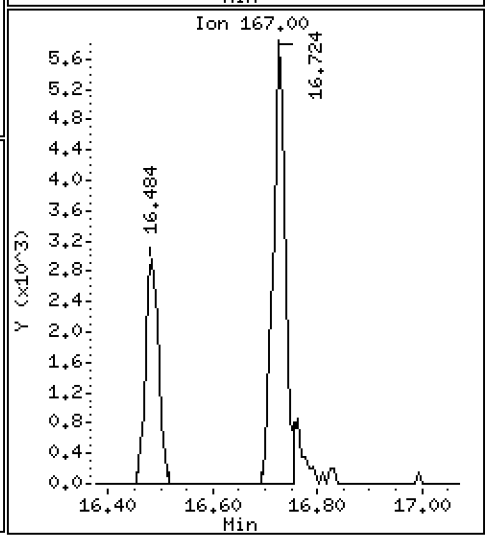












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

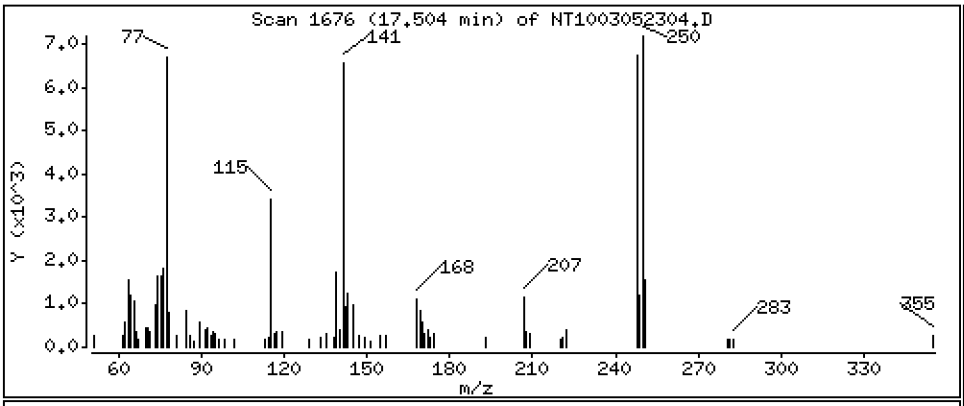
Operator: VTS

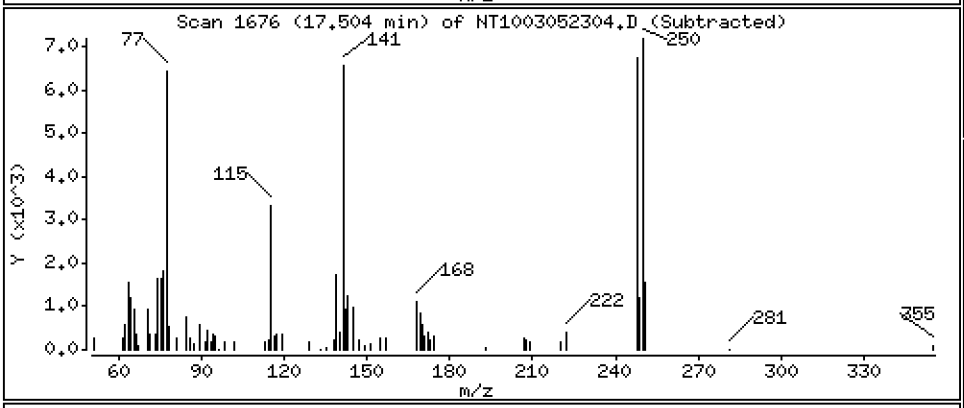
Column phase: ZB-5msi

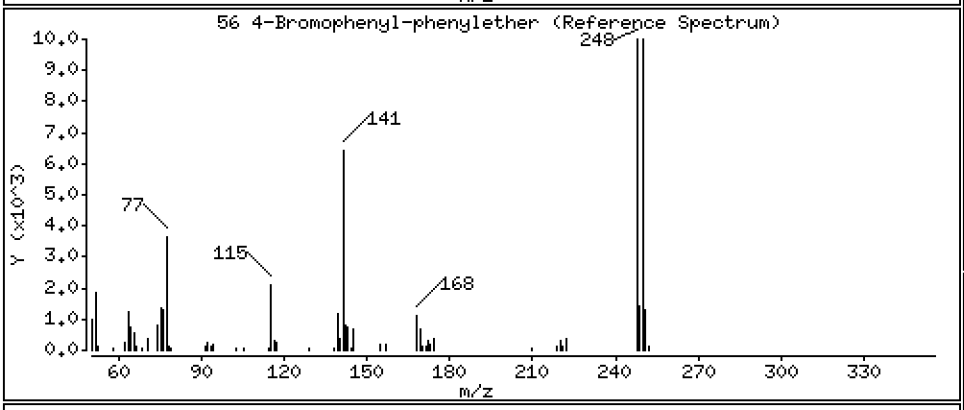
Column diameter: 0.25

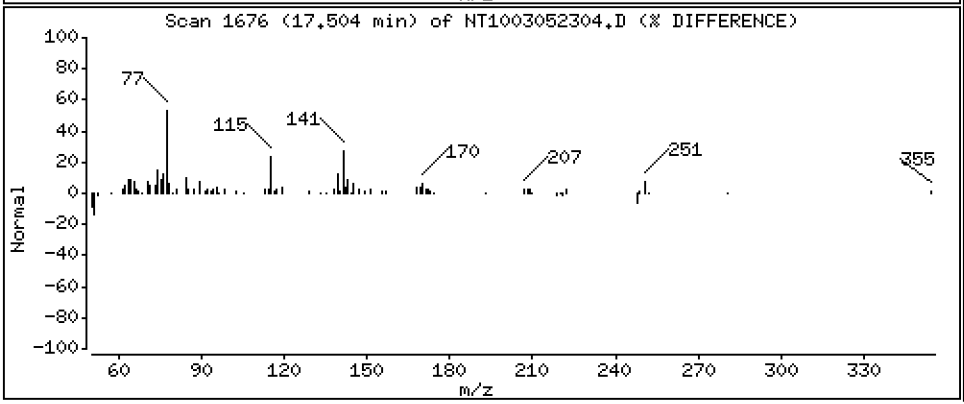
56 4-Bromophenyl-phenylether

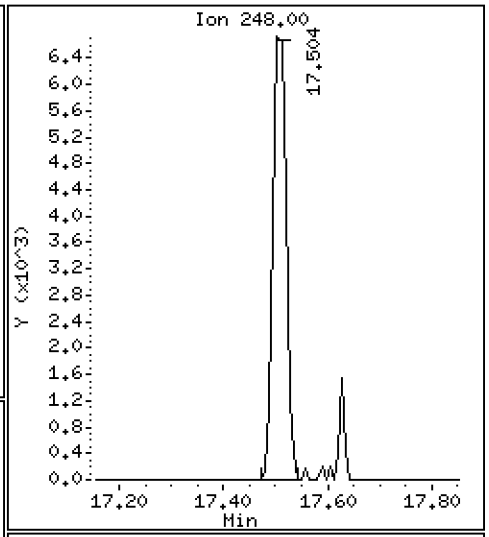
Concentration: 0.1965 ug/mL

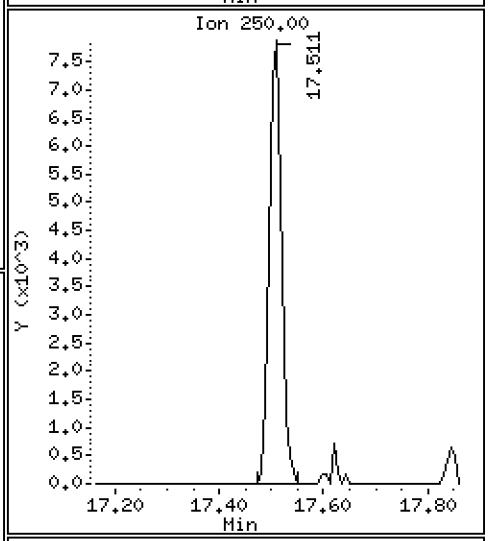


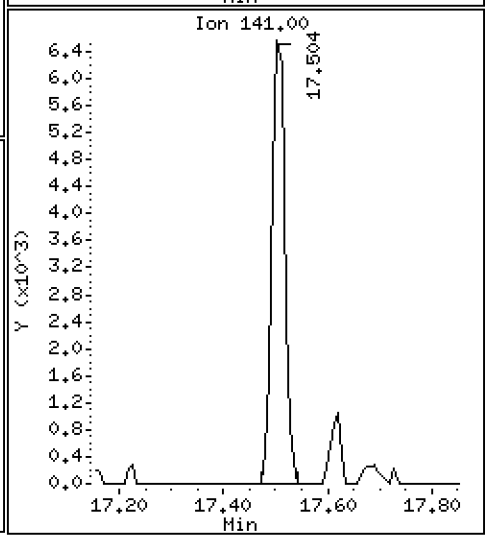












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

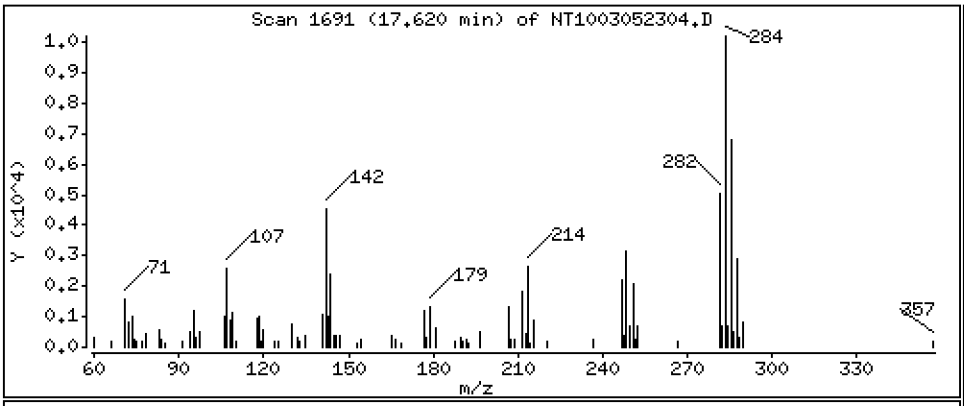
Operator: VTS

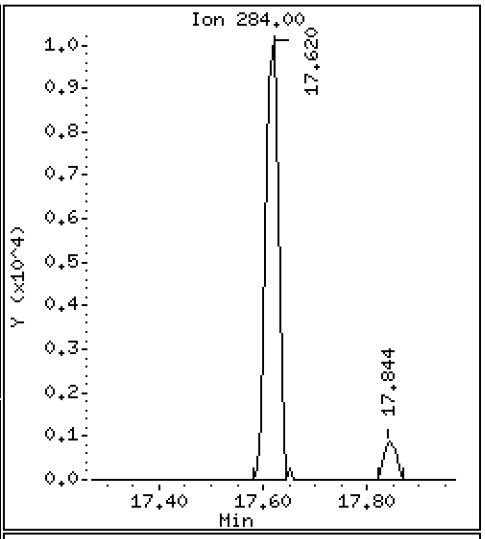
Column phase: ZB-5msi

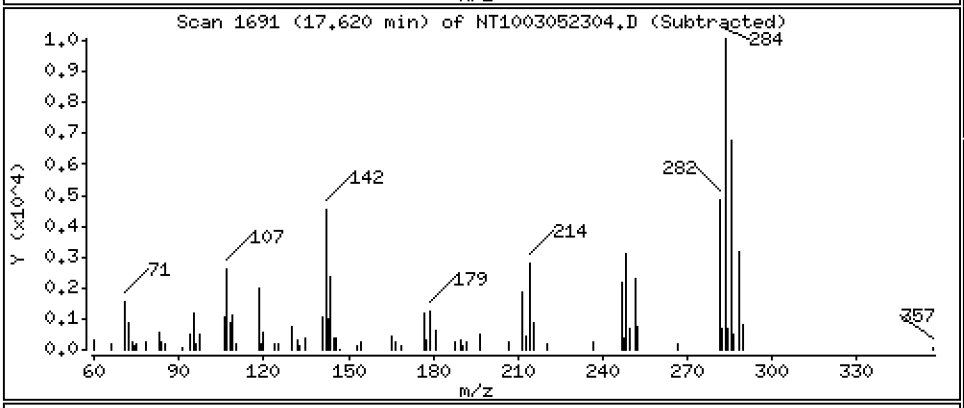
Column diameter: 0.25

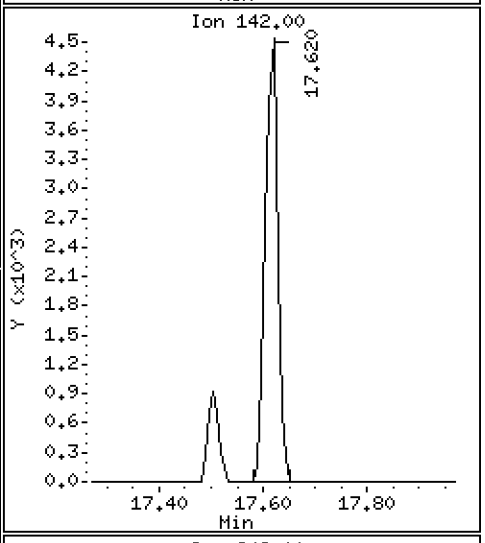
57 Hexachlorobenzene

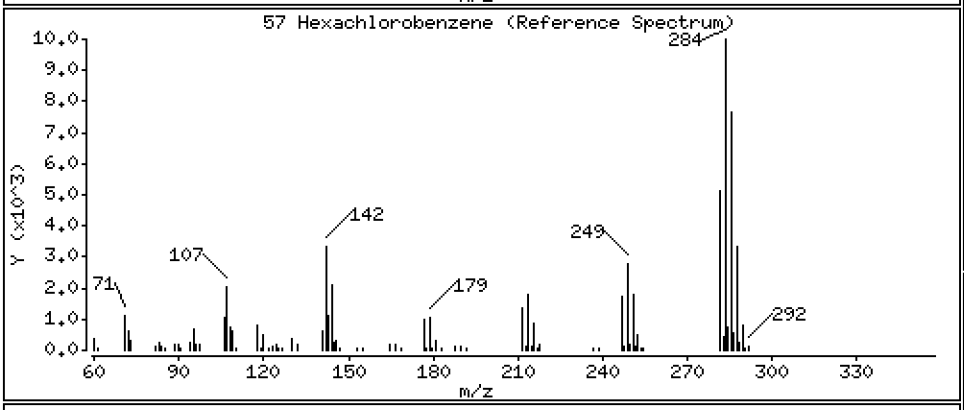
Concentration: 0.2515 ug/mL

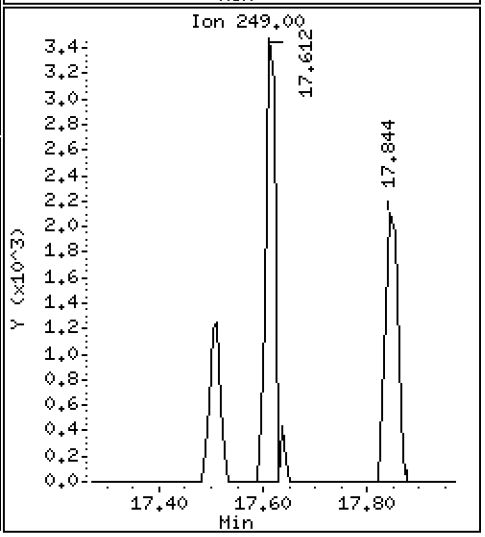


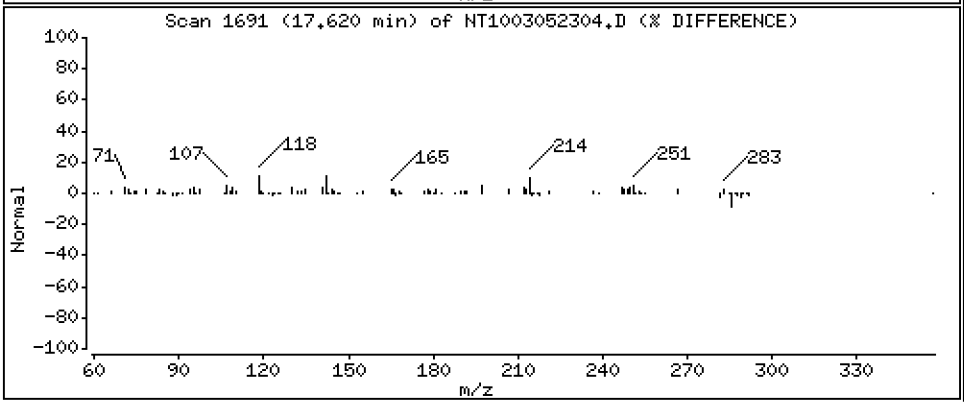












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

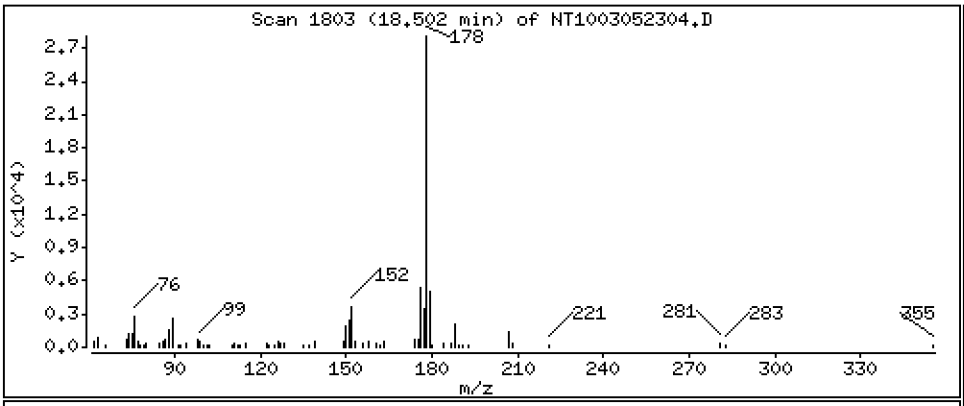
Operator: VTS

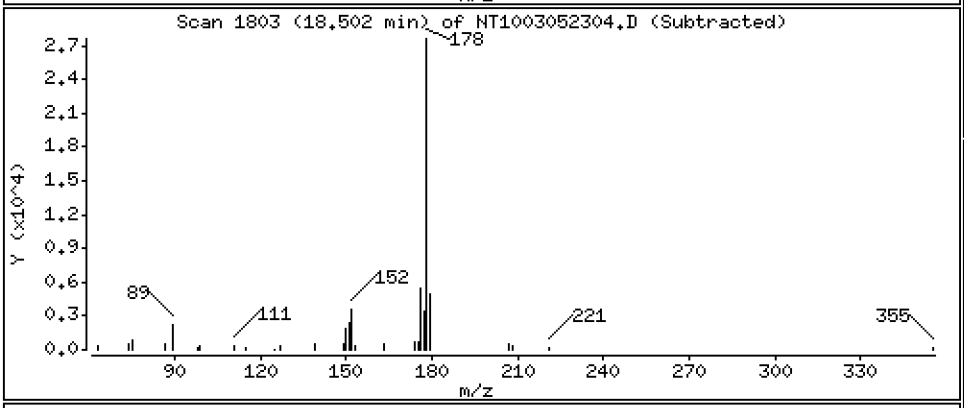
Column phase: ZB-5msi

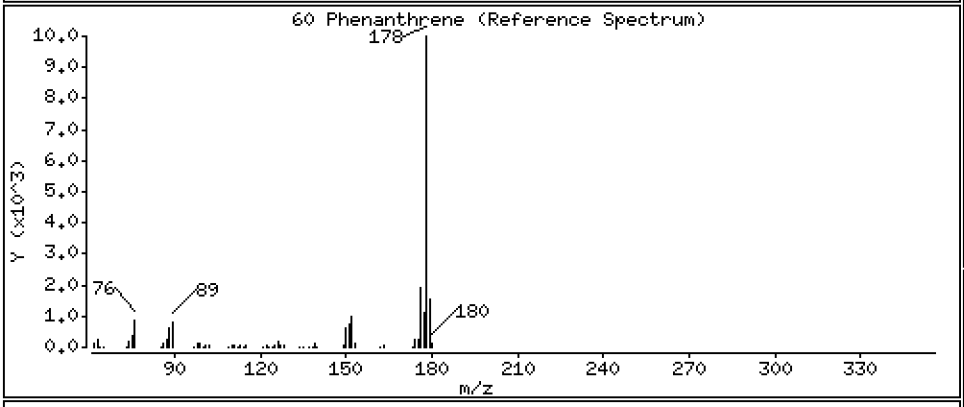
Column diameter: 0.25

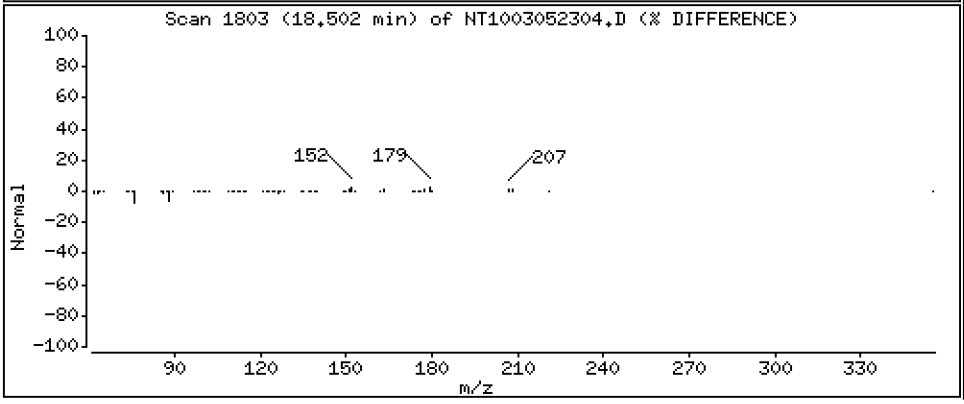
60 Phenanthrene

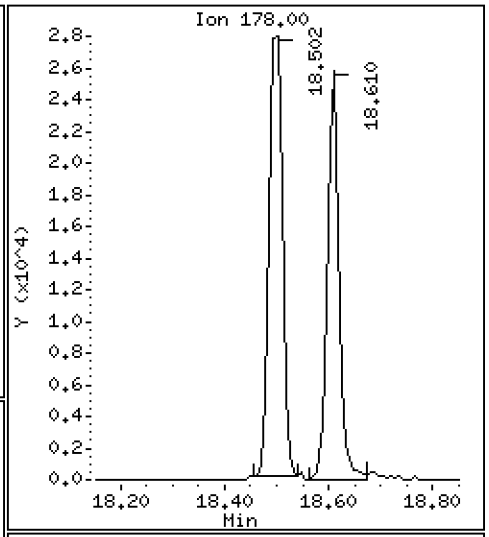
Concentration: 0.1917 ug/mL

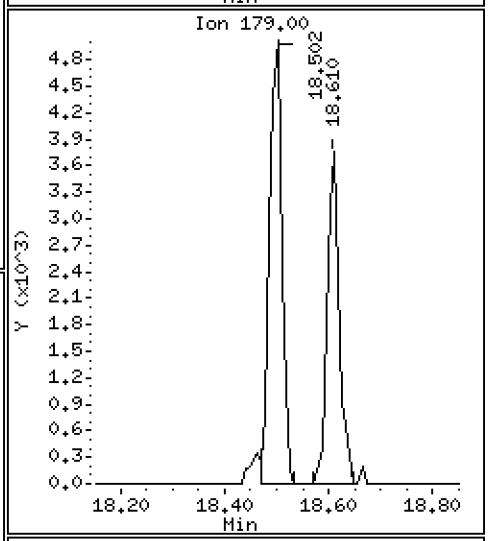


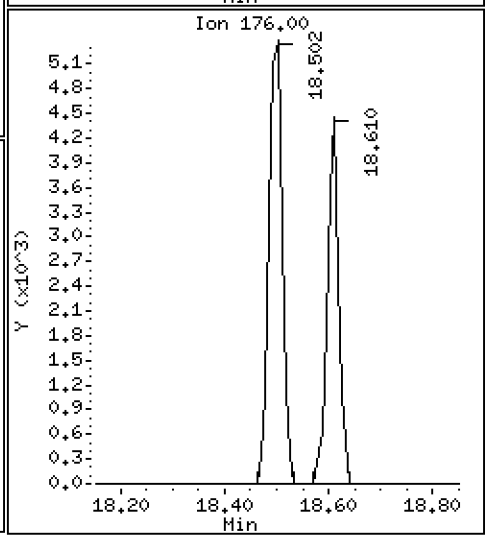












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

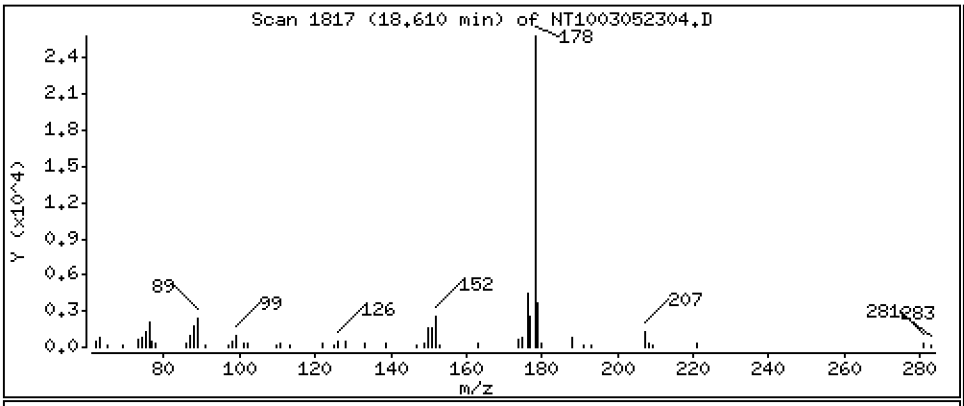
Operator: VTS

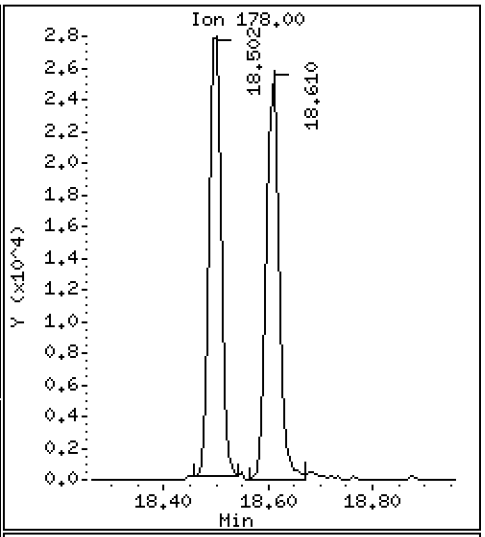
Column phase: ZB-5msi

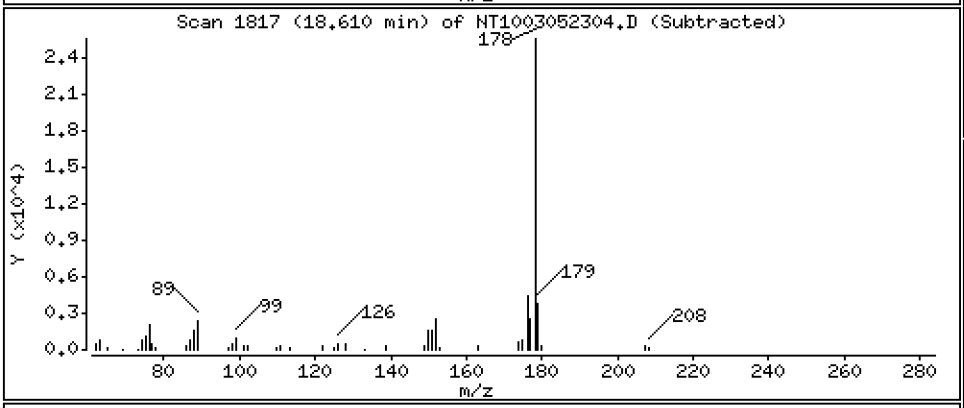
Column diameter: 0.25

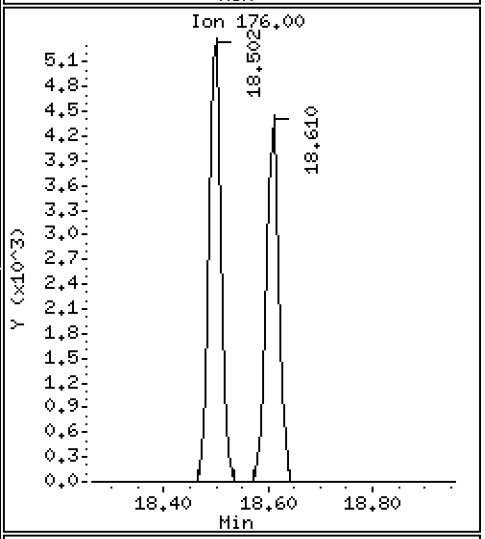
61 Anthracene

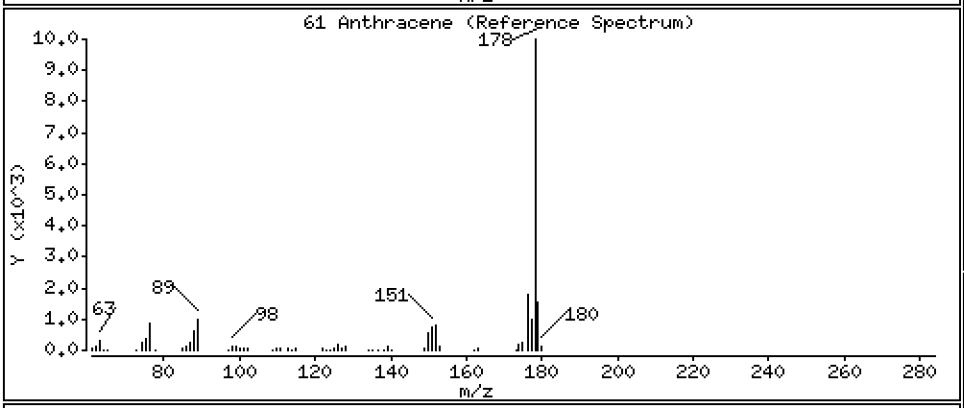
Concentration: 0.1737 ug/mL

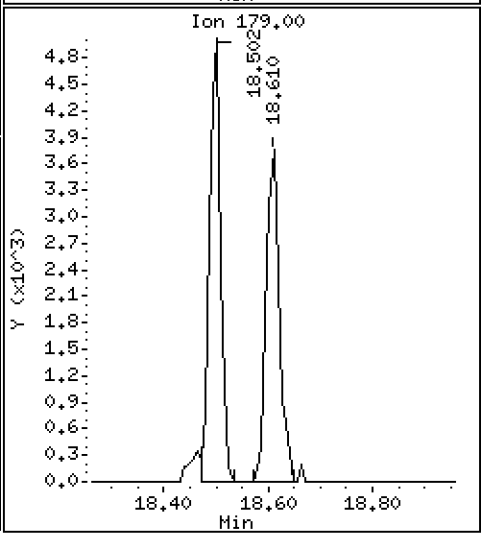


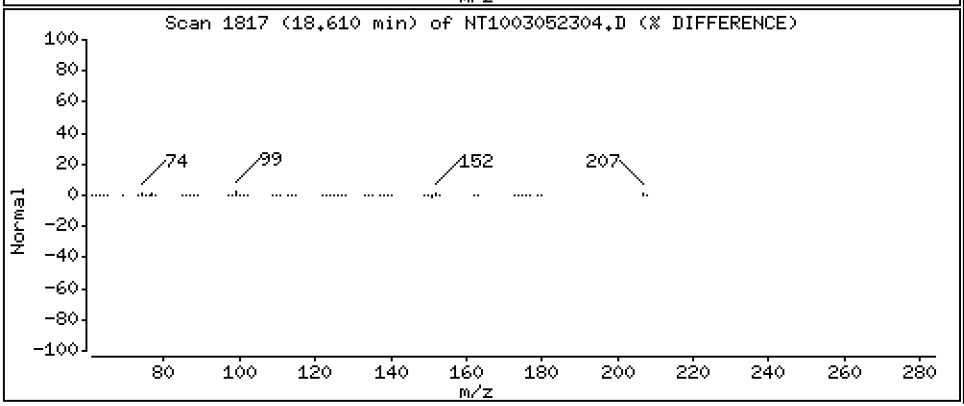












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

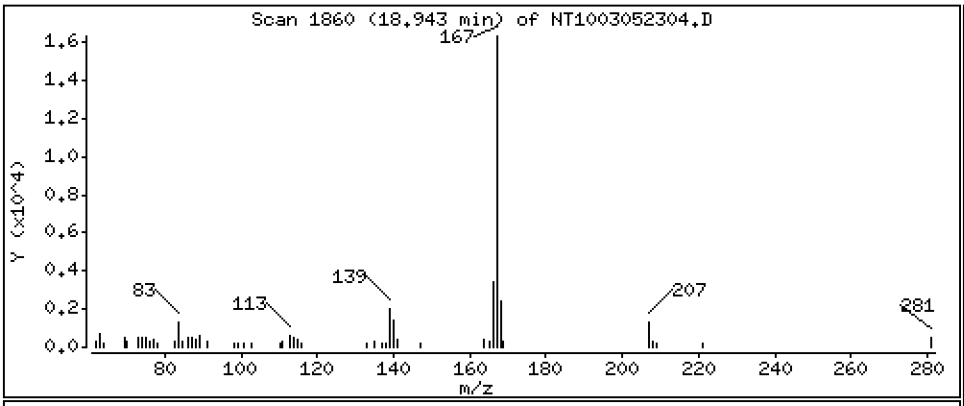
Operator: VTS

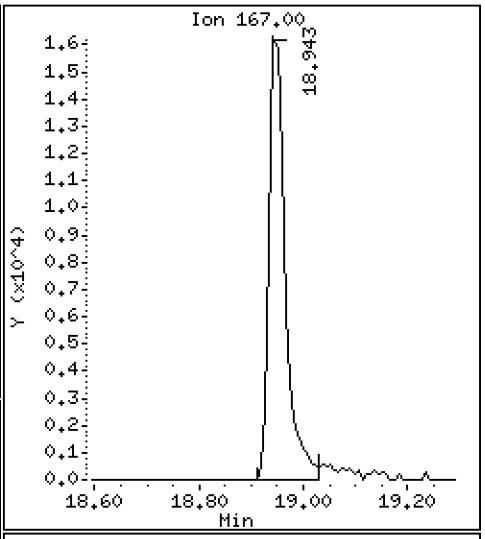
Column phase: ZB-5msi

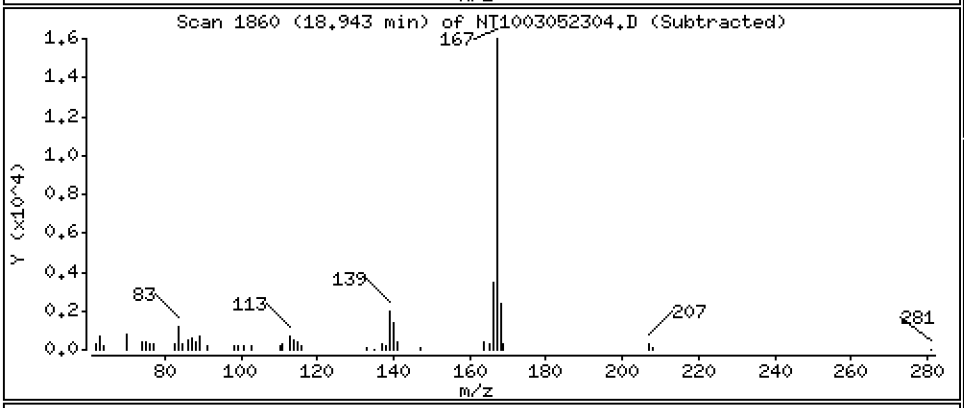
Column diameter: 0.25

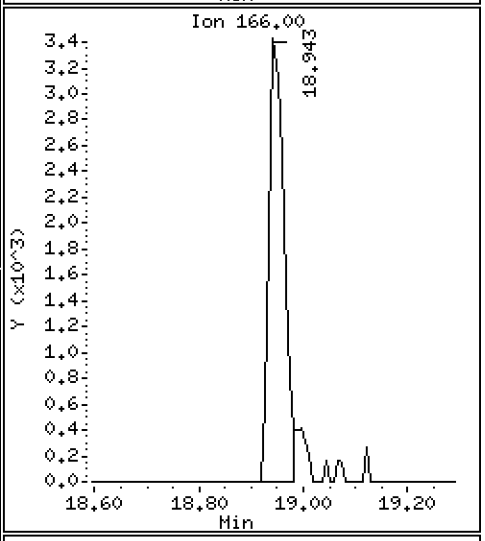
62 Carbazole

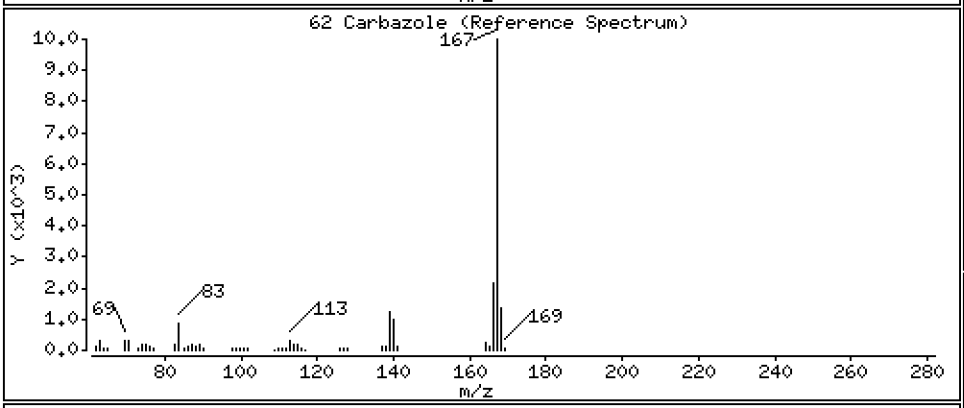
Concentration: 0.1563 ug/mL

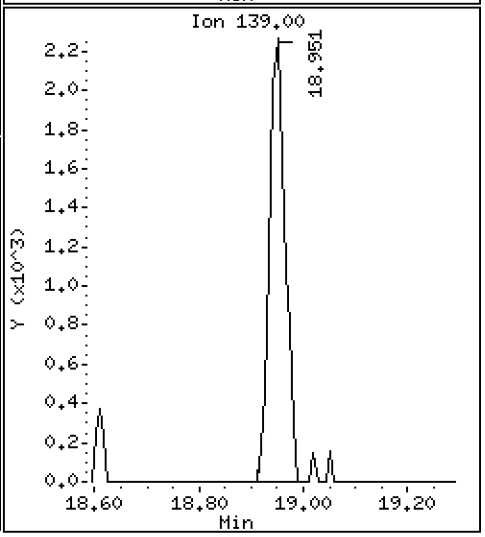


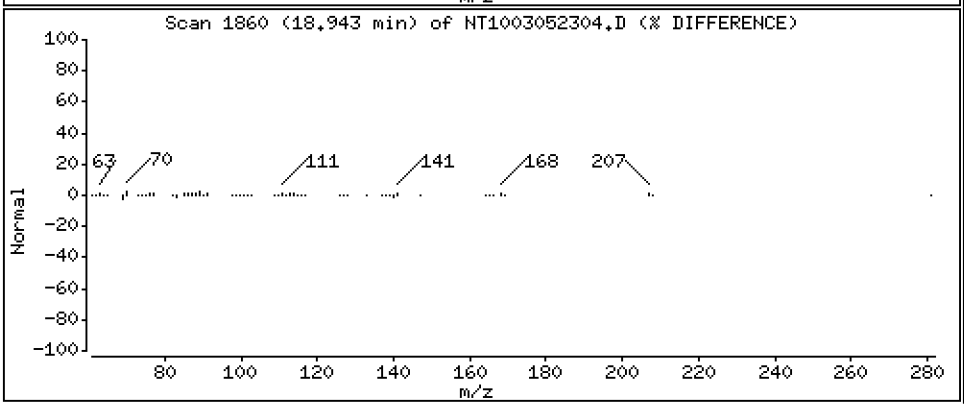












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

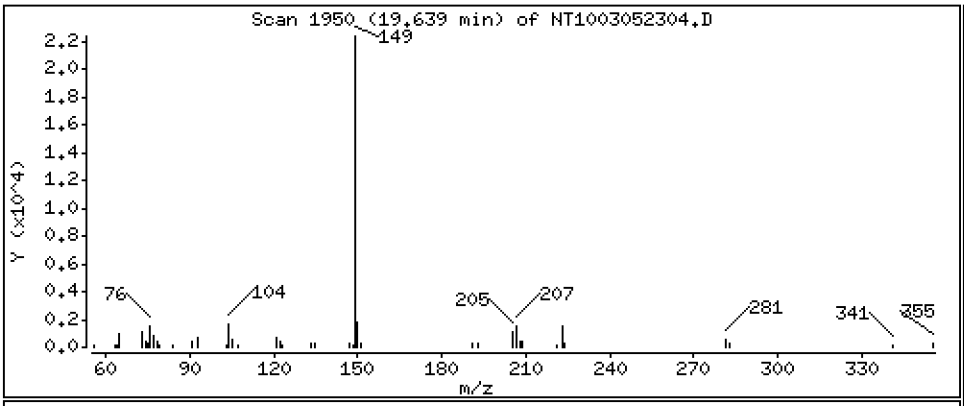
Operator: VTS

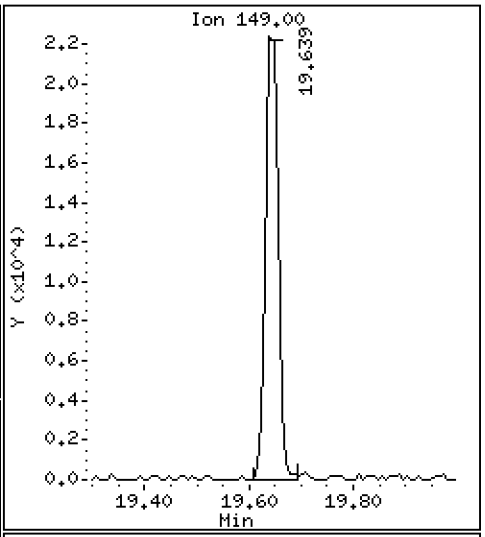
Column phase: ZB-5msi

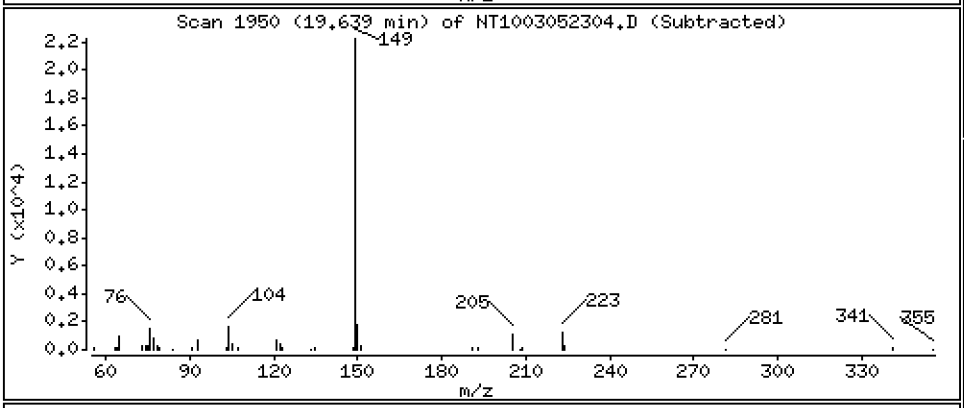
Column diameter: 0.25

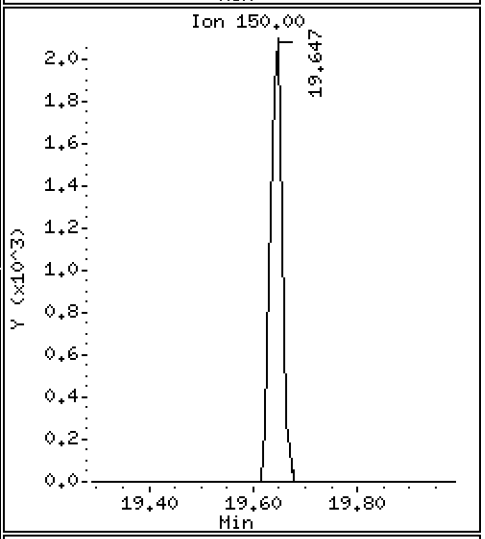
63 Di-n-butylphthalate

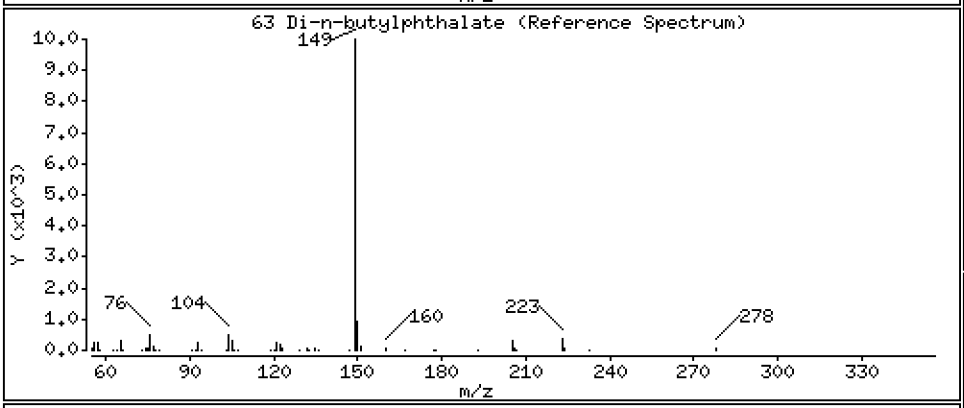
Concentration: 0.1206 ug/mL

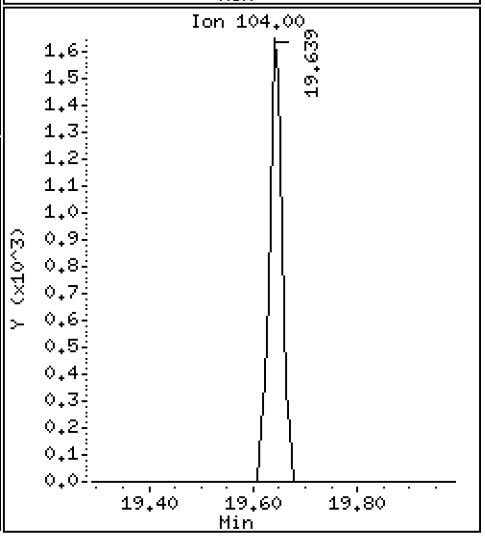


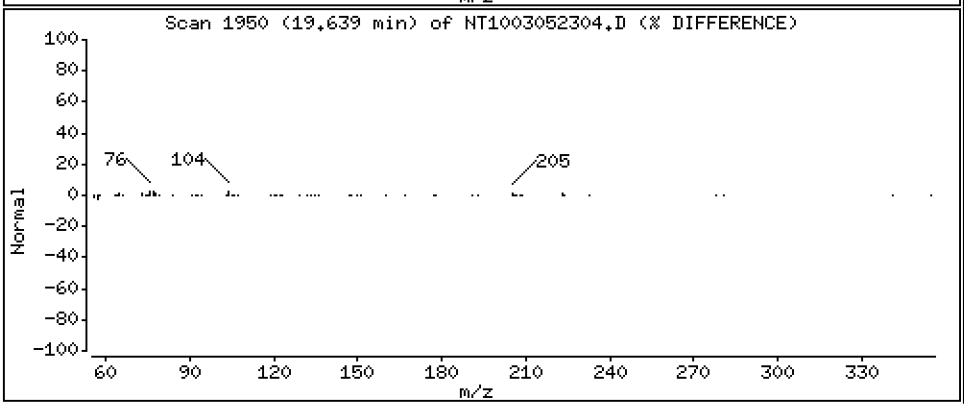












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

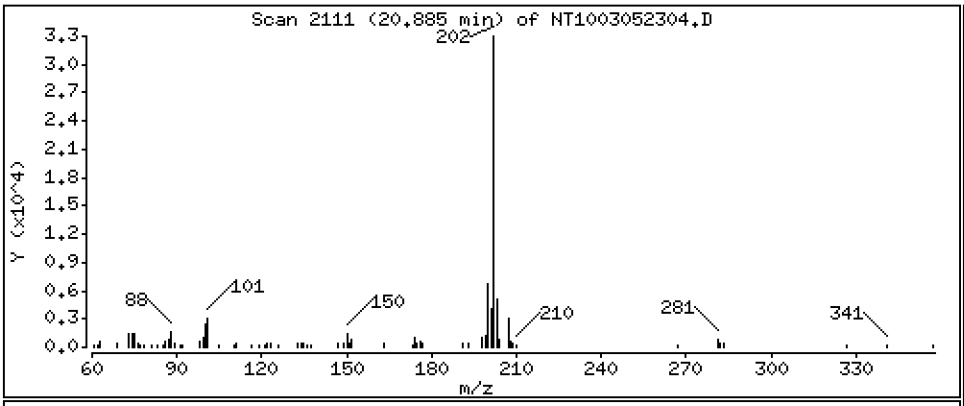
Operator: VTS

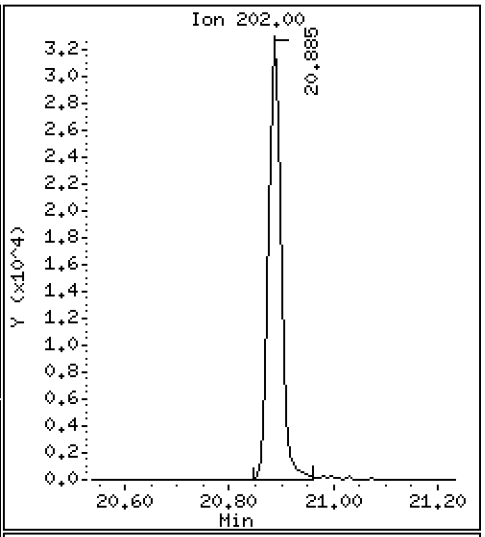
Column phase: ZB-5msi

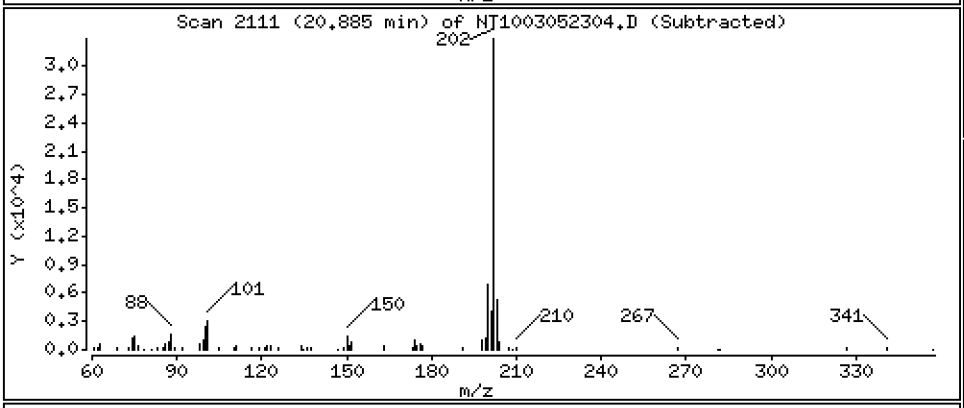
Column diameter: 0.25

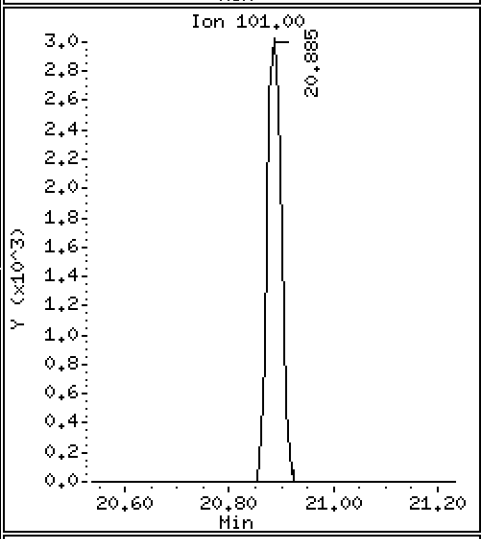
64 Fluoranthene

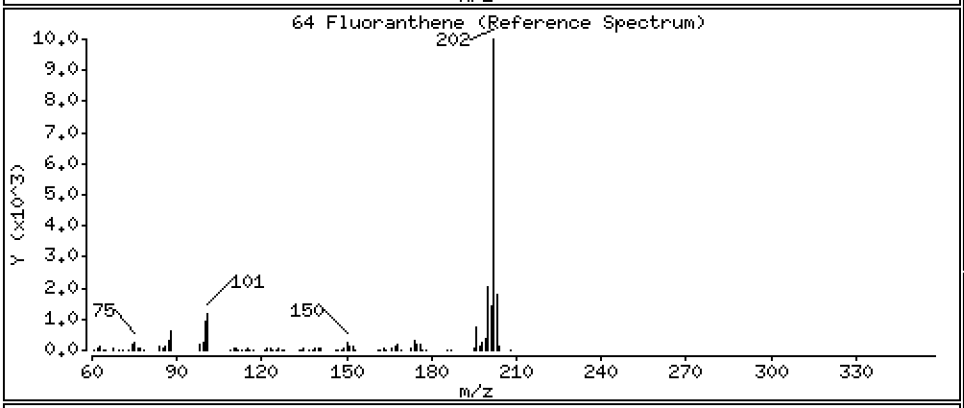
Concentration: 0.1781 ug/mL

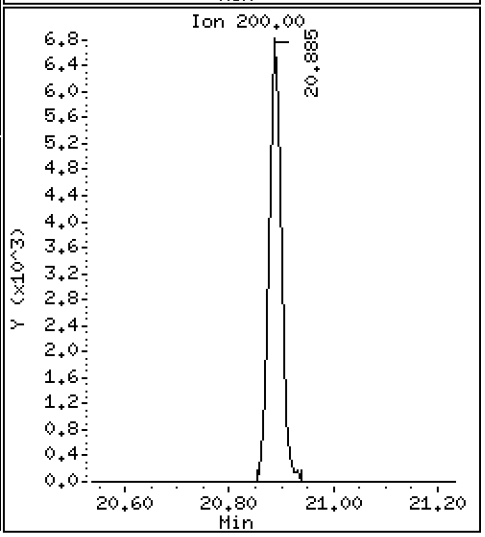


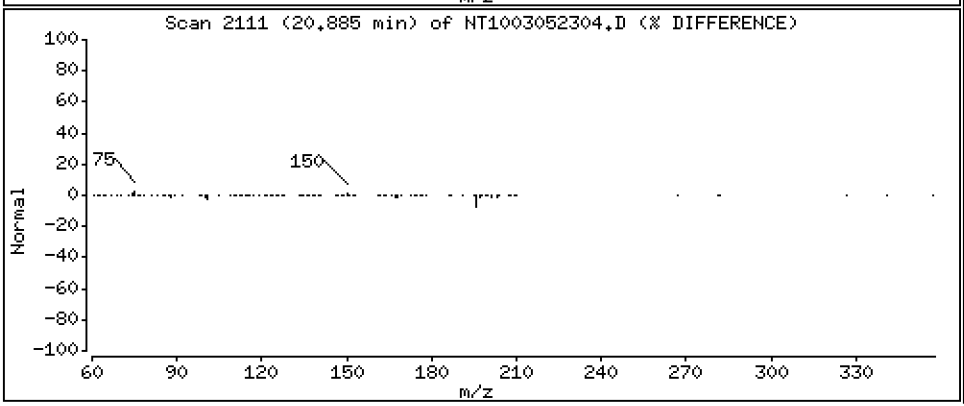












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

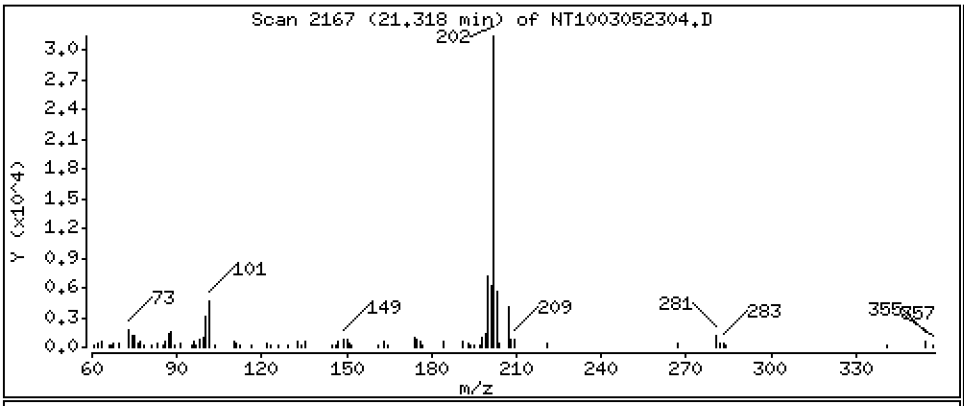
Operator: VTS

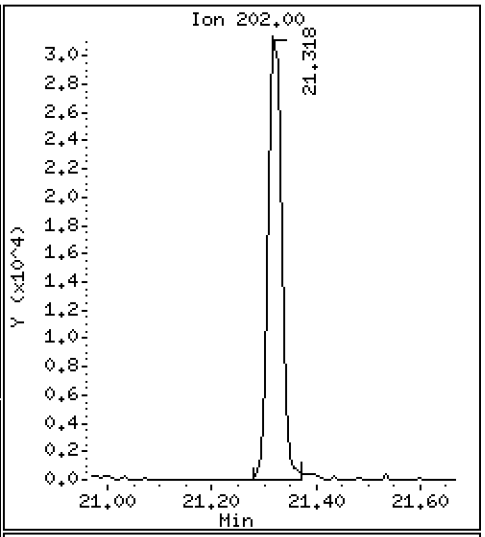
Column phase: ZB-5msi

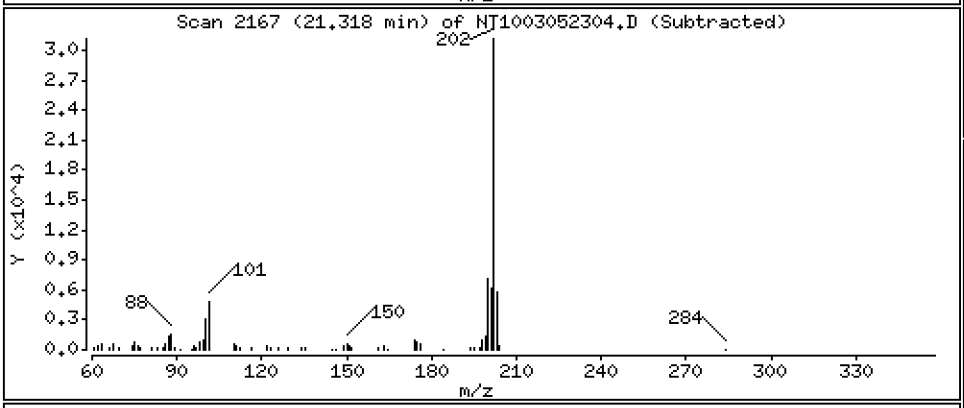
Column diameter: 0.25

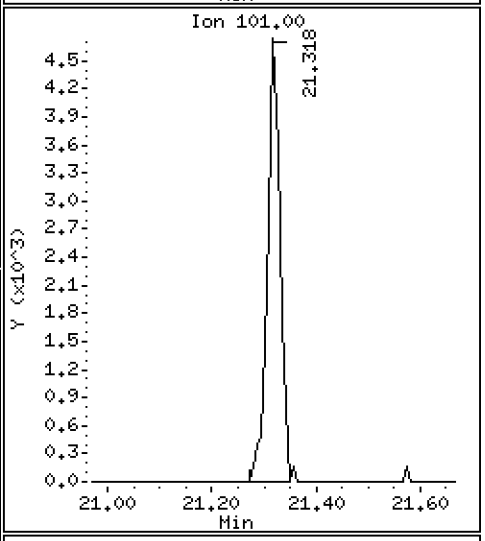
65 Pyrene

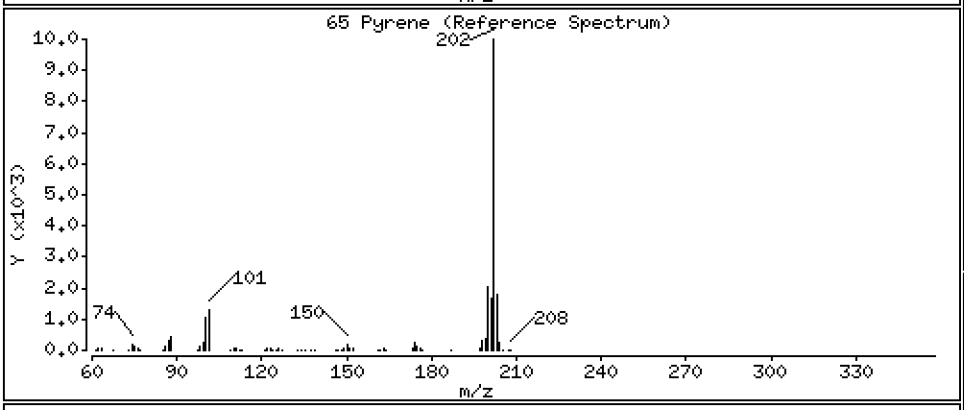
Concentration: 0.1795 ug/mL

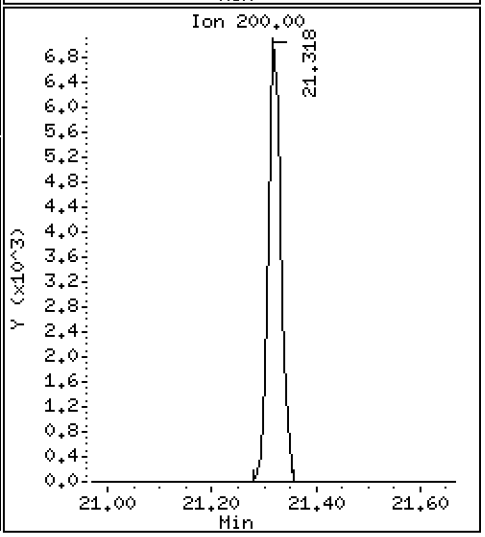


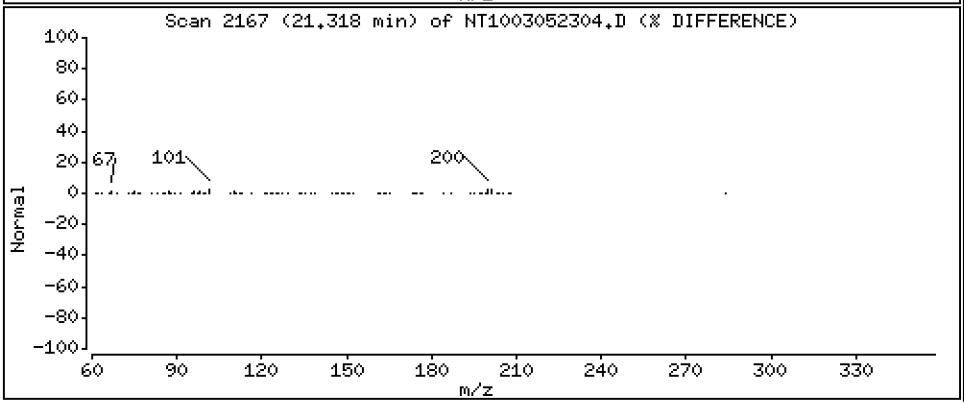












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

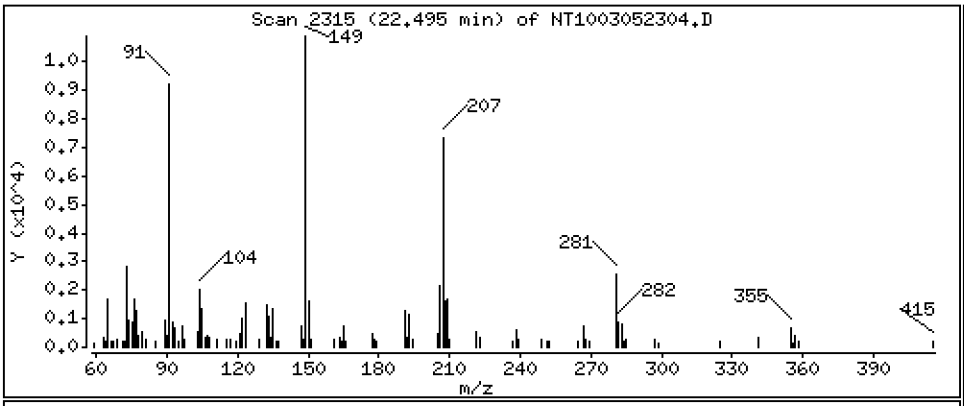
Operator: VTS

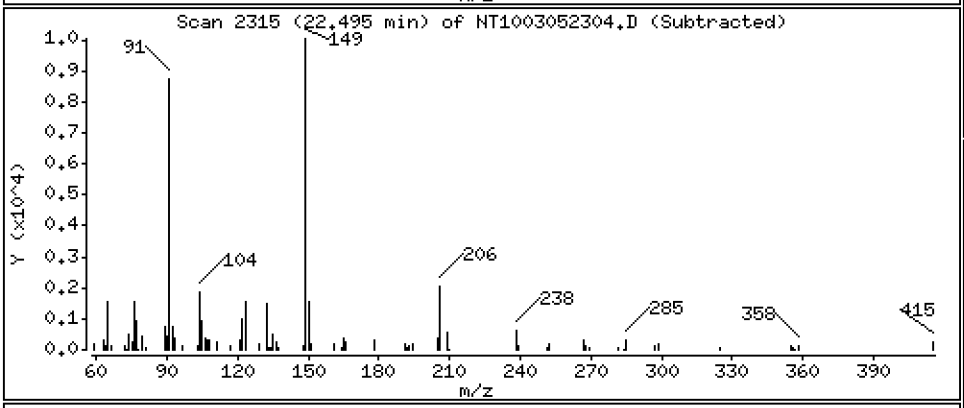
Column phase: ZB-5msi

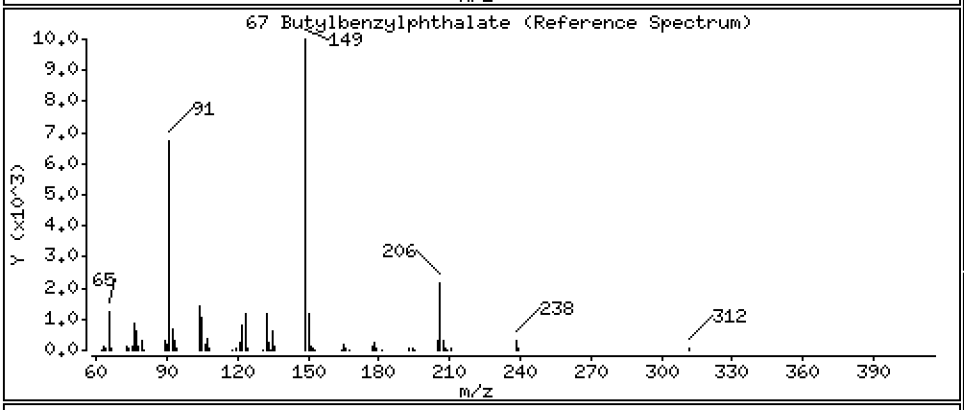
Column diameter: 0.25

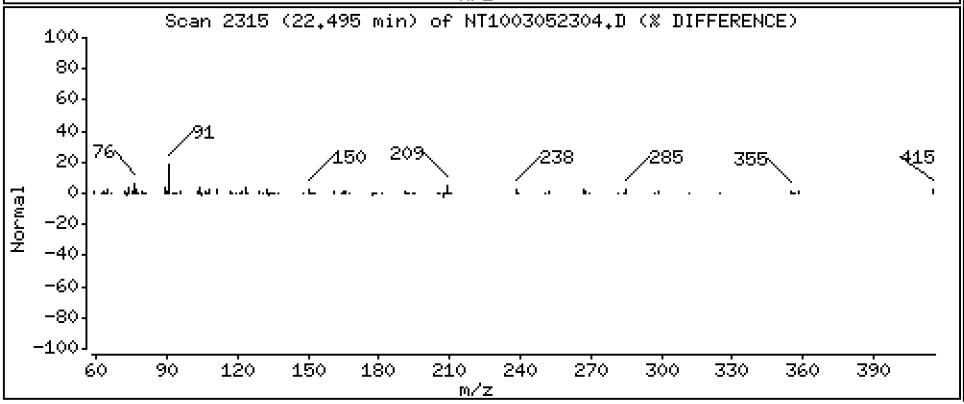
67 Butylbenzylphthalate

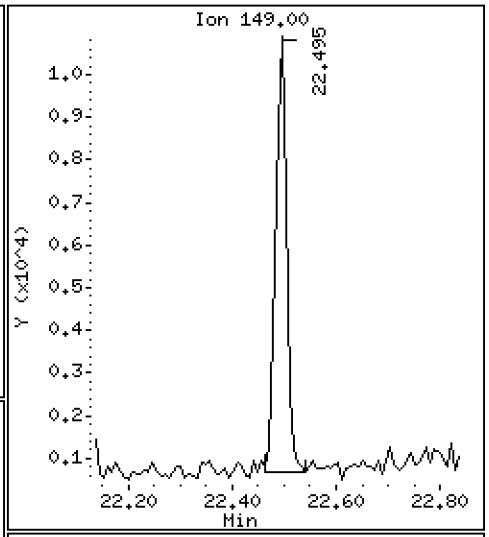
Concentration: 0.09053 ug/mL

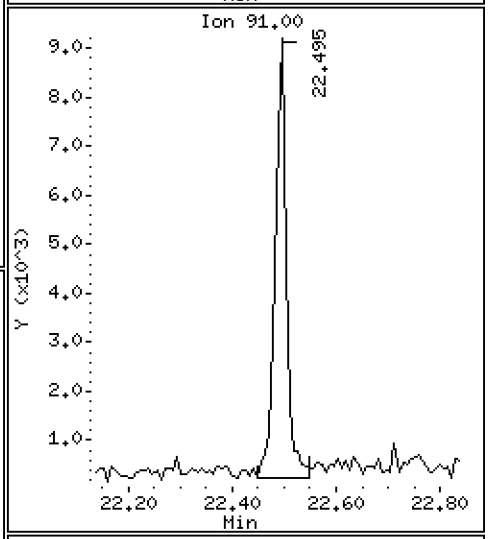


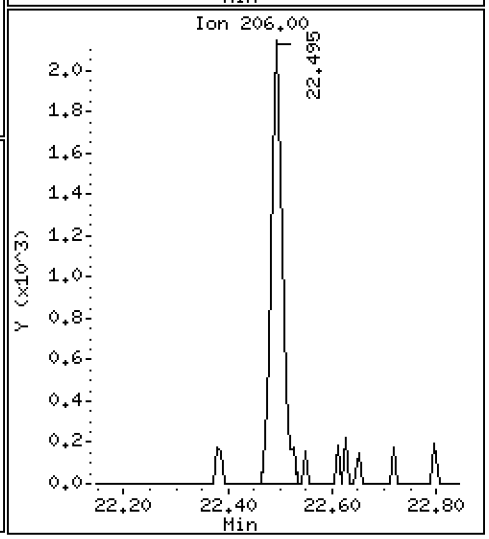












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

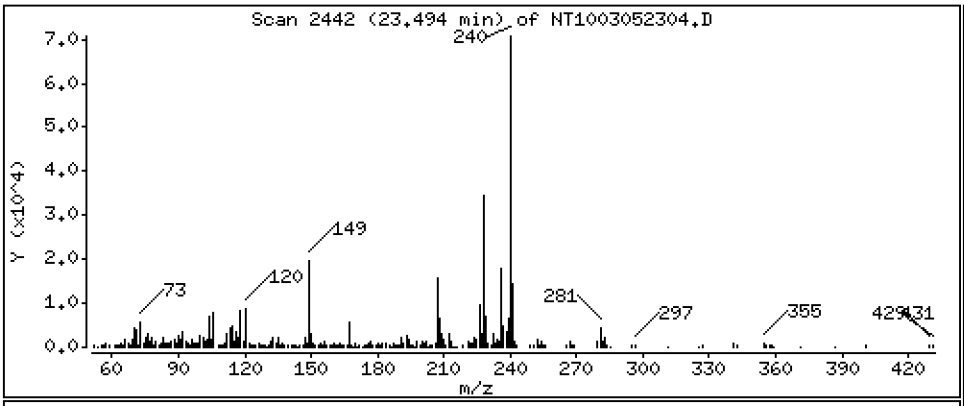
Operator: VTS

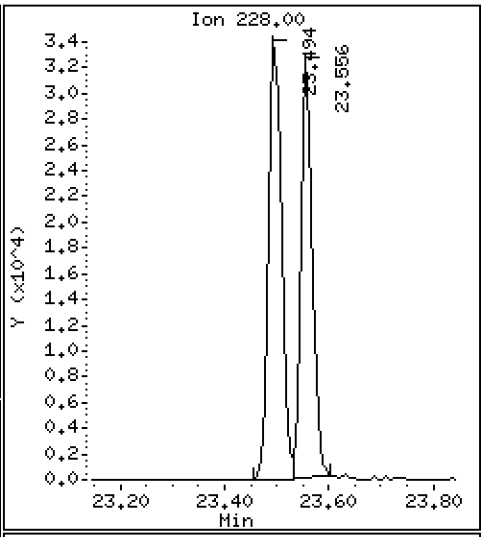
Column phase: ZB-5msi

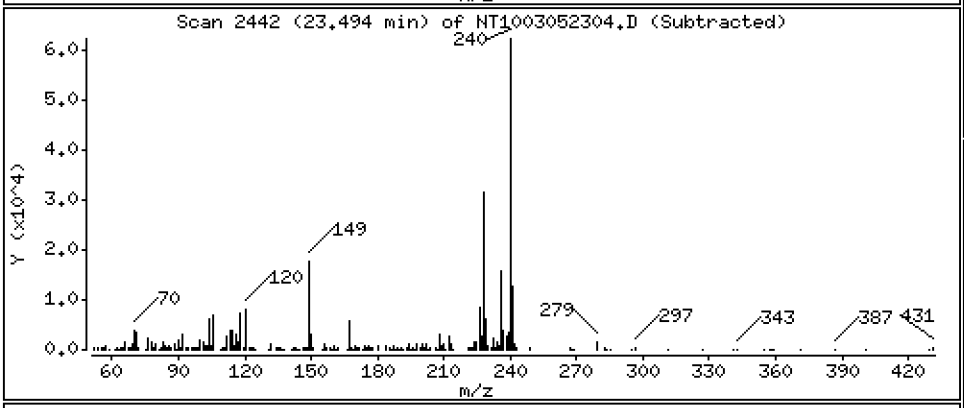
Column diameter: 0.25

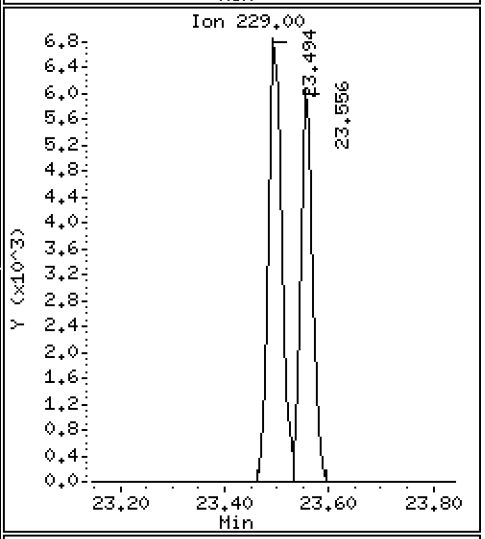
68 Benzo(a)anthracene

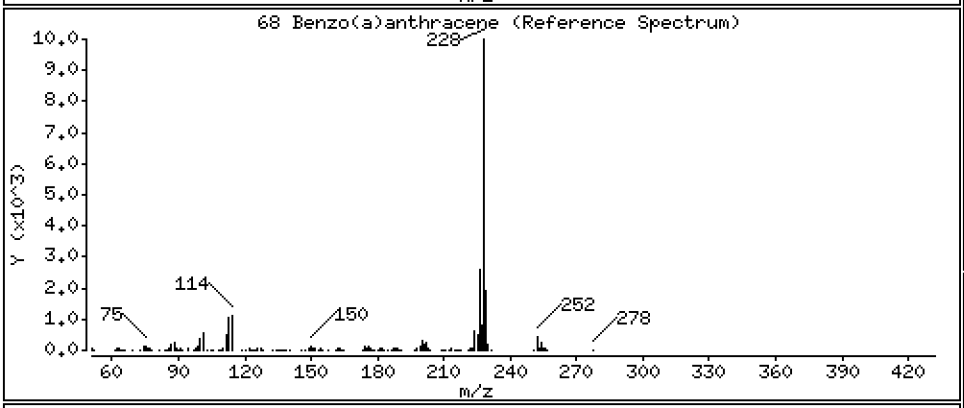
Concentration: 0.1871 ug/mL

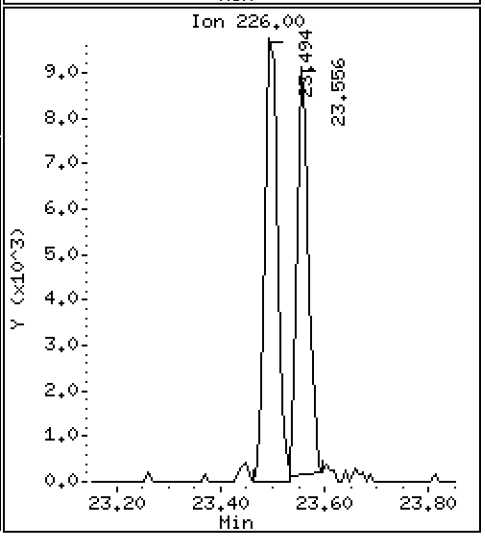


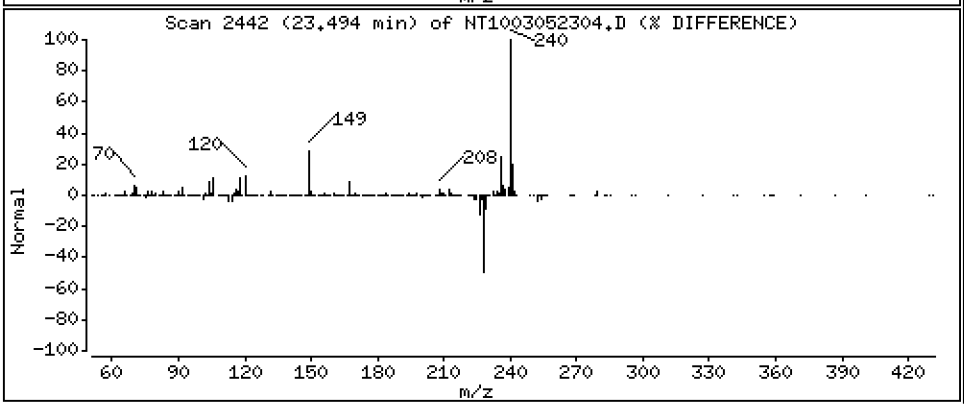












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

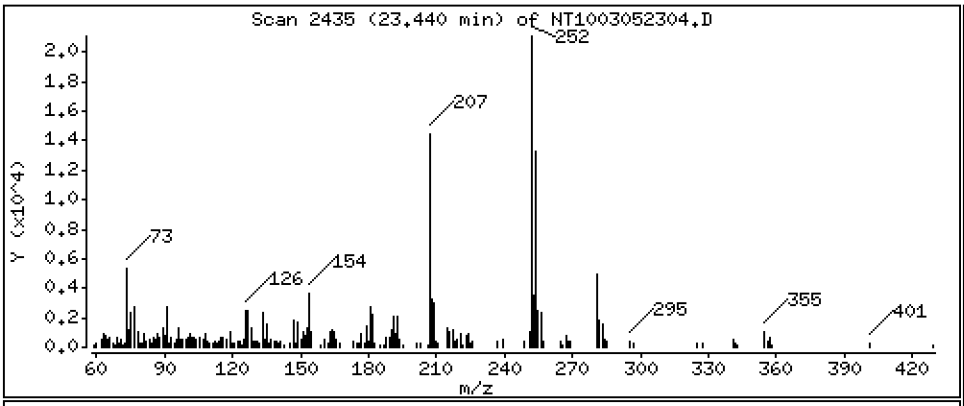
Operator: VTS

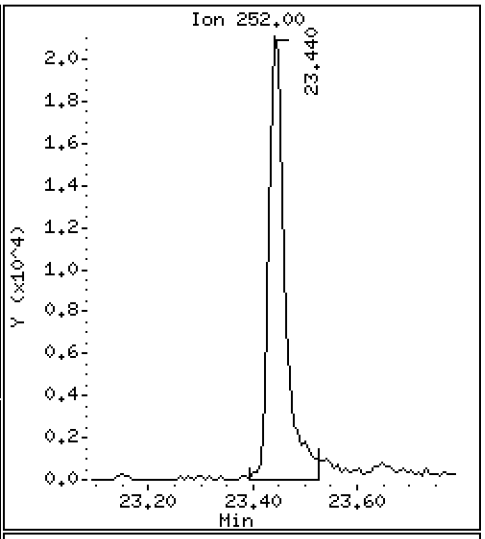
Column phase: ZB-5msi

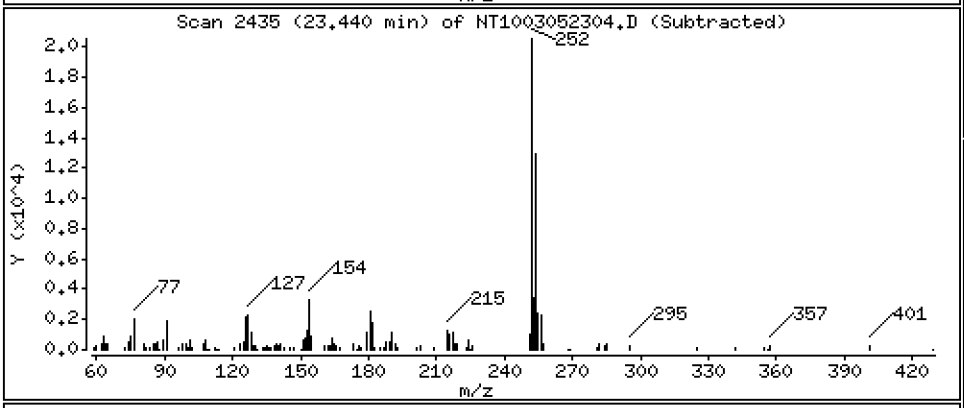
Column diameter: 0.25

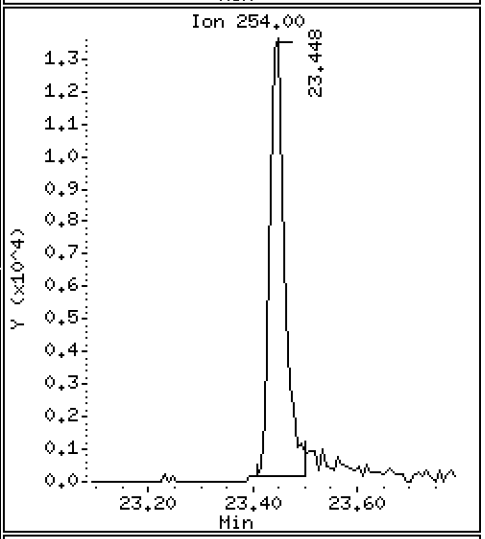
70 3,3'-Dichlorobenzidine

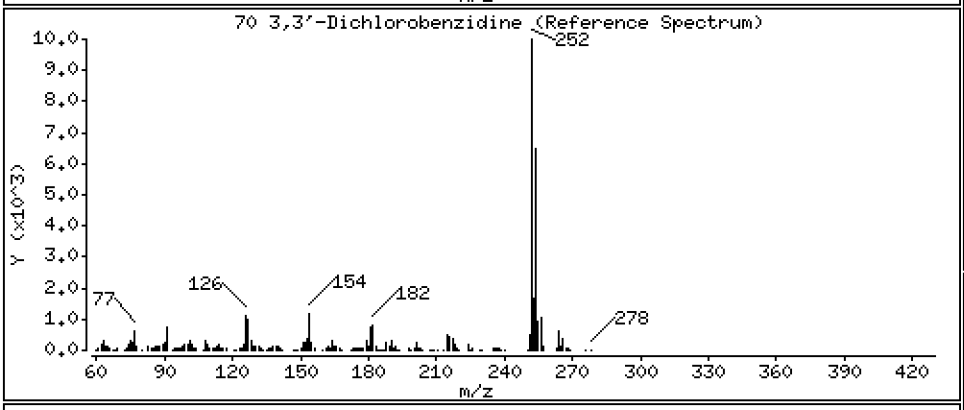
Concentration: 0.3333 ug/mL

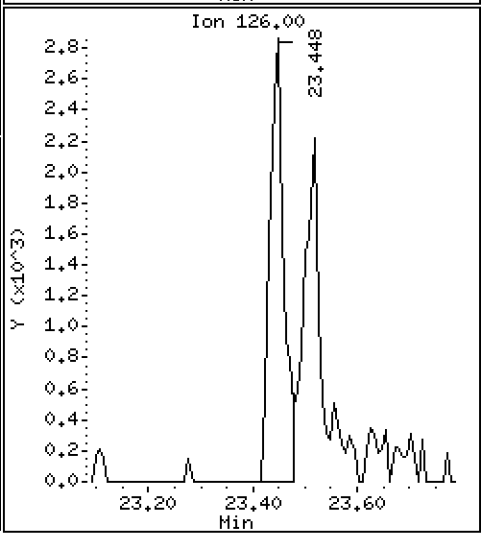


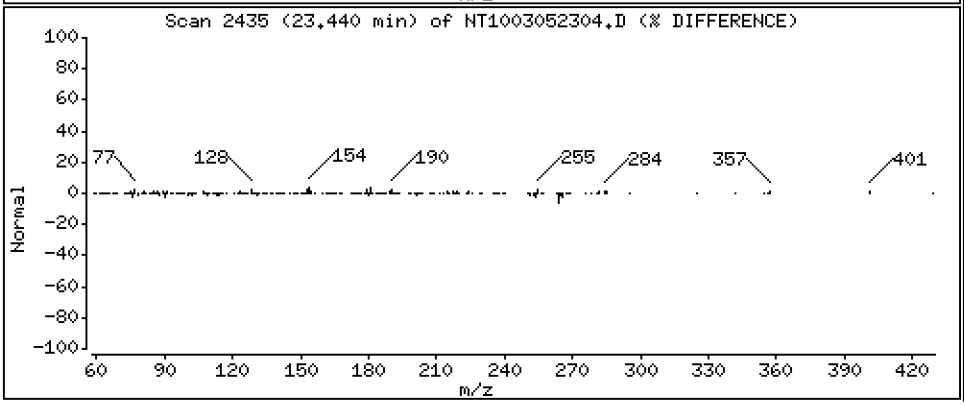












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

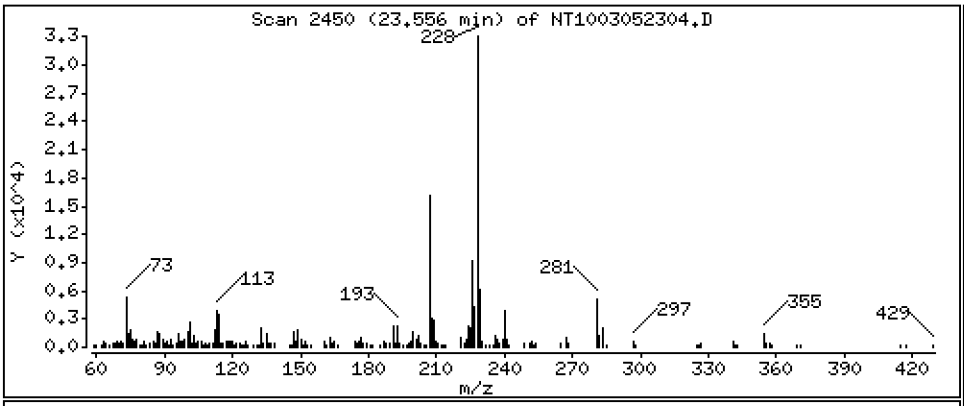
Operator: VTS

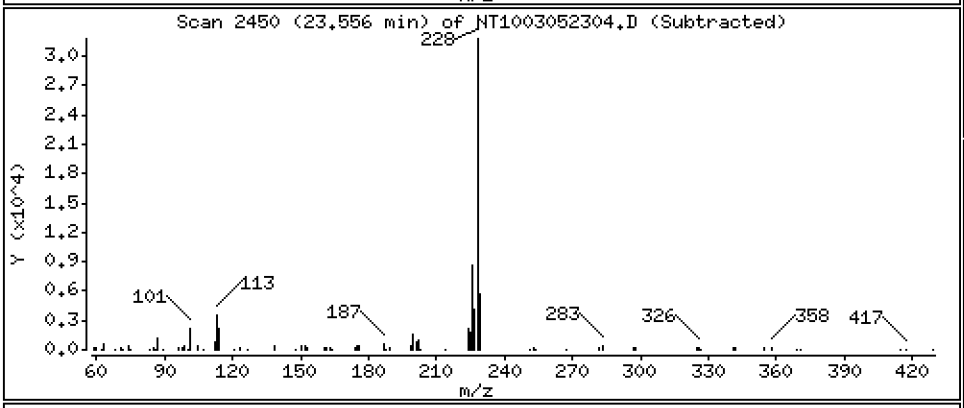
Column phase: ZB-5msi

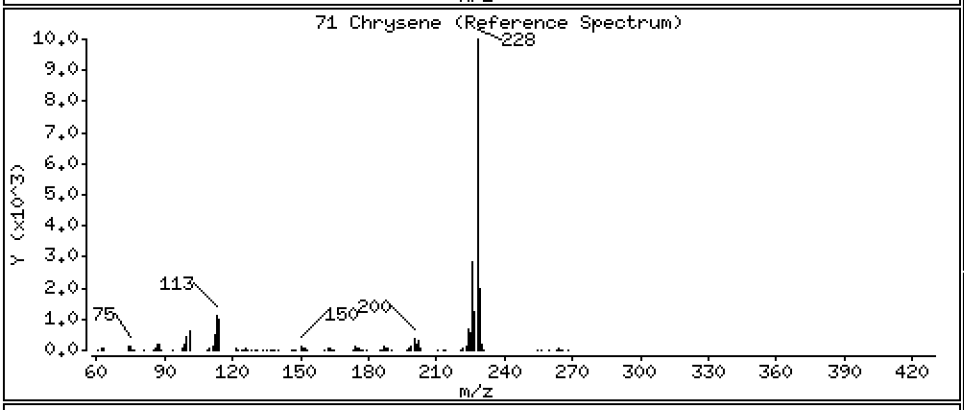
Column diameter: 0.25

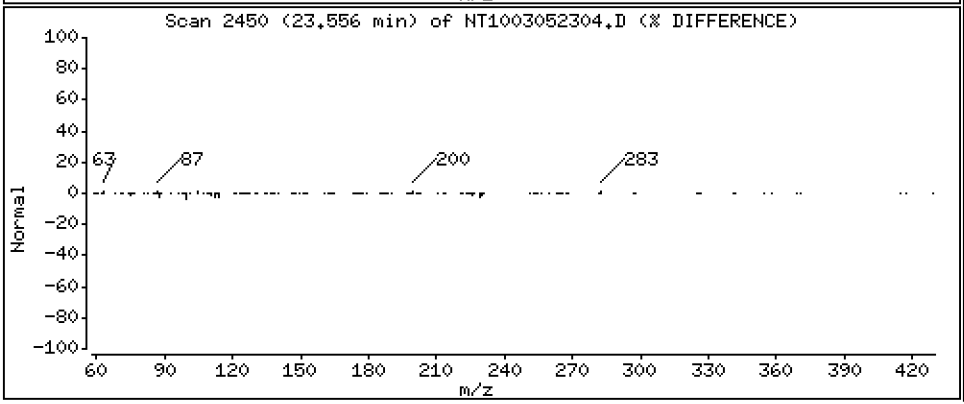
71 Chrysene

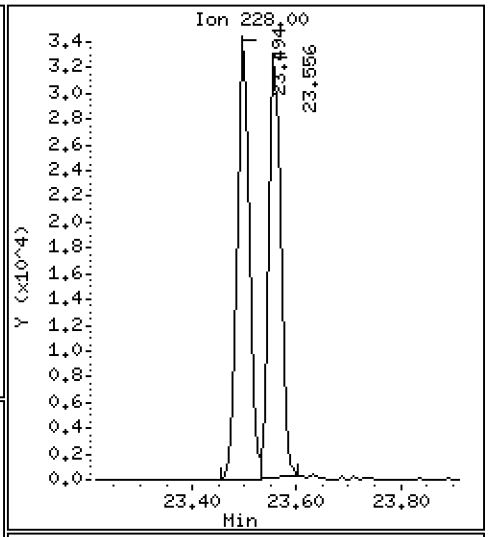
Concentration: 0.2028 ug/mL

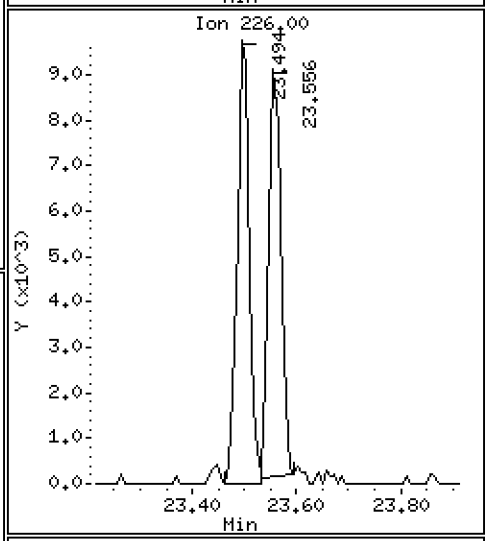


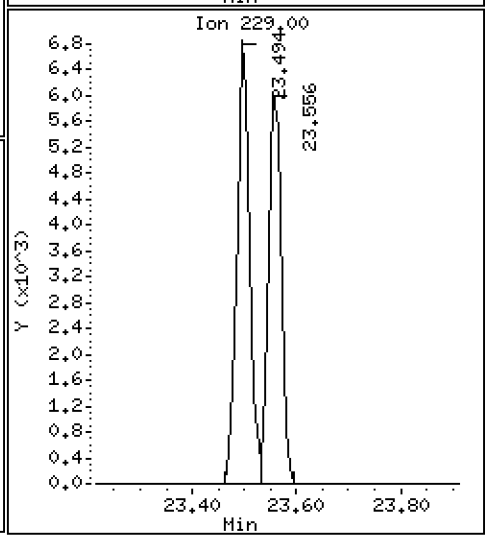












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

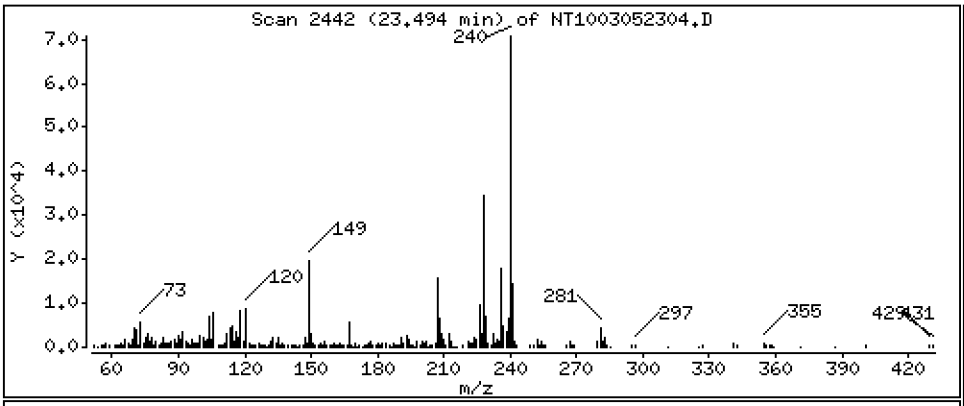
Operator: VTS

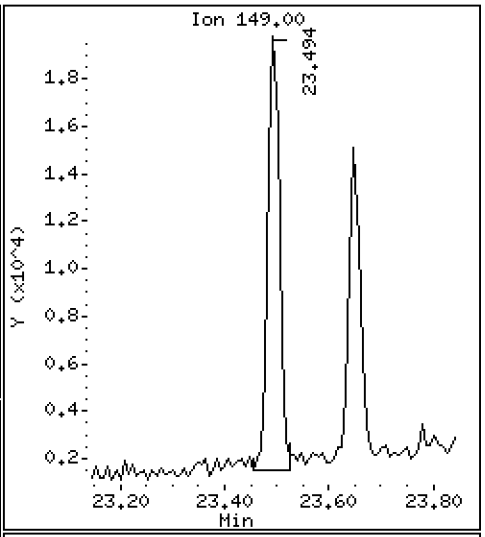
Column phase: ZB-5msi

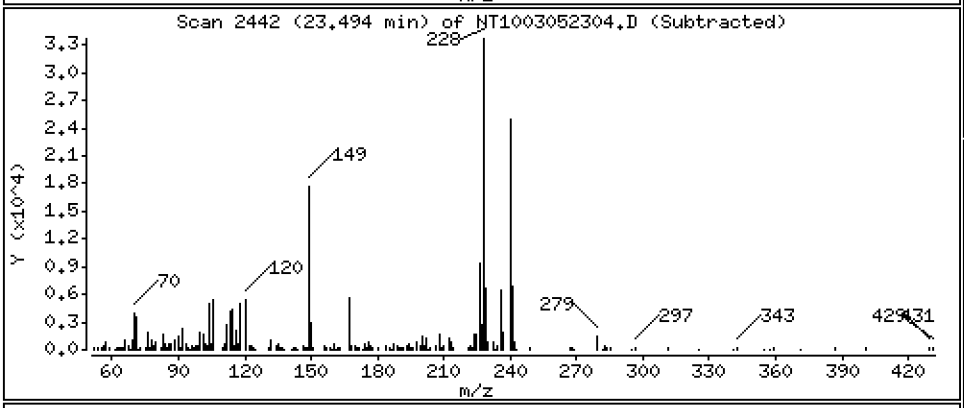
Column diameter: 0.25

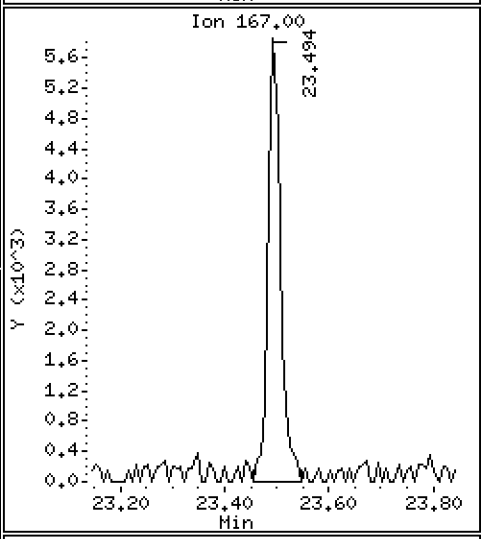
72 bis(2-Ethylhexyl)phthalate

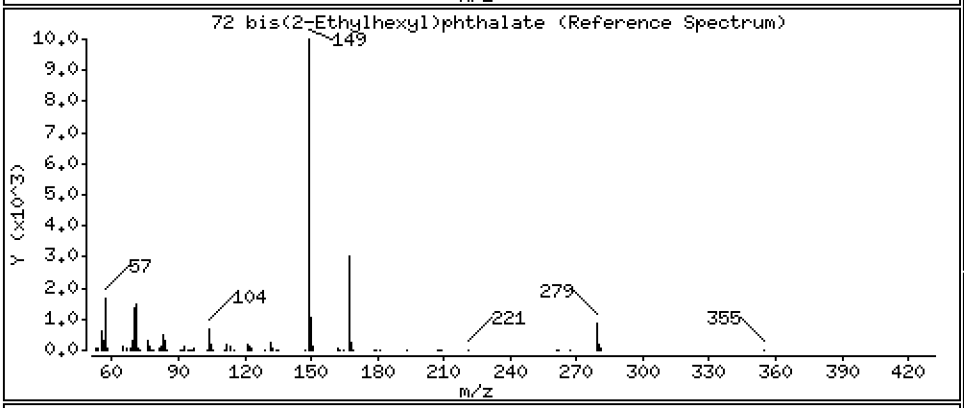
Concentration: 0.1454 ug/mL

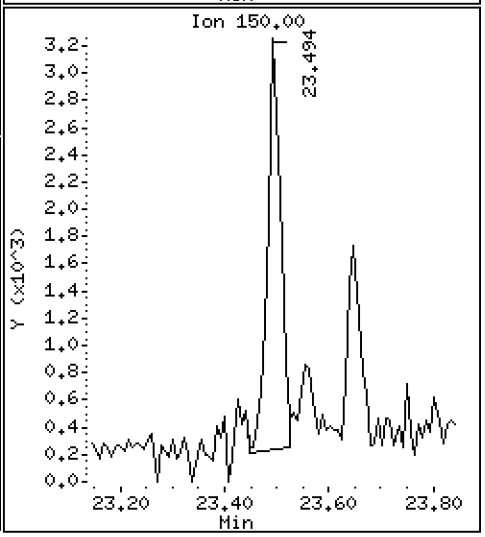


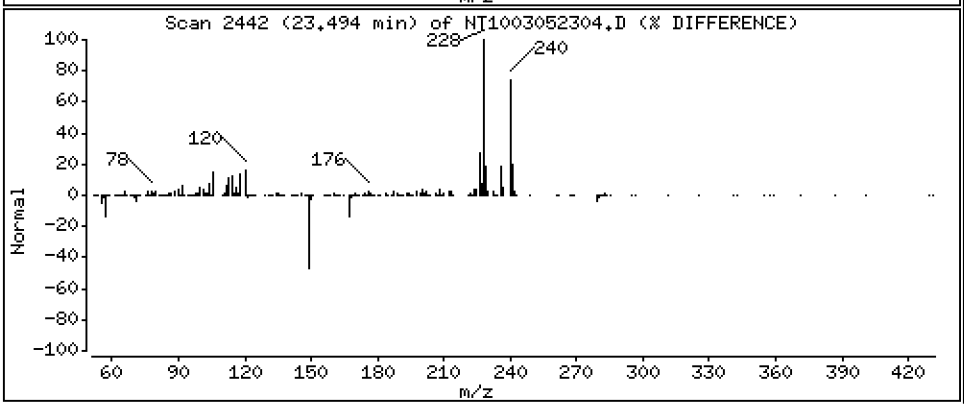












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

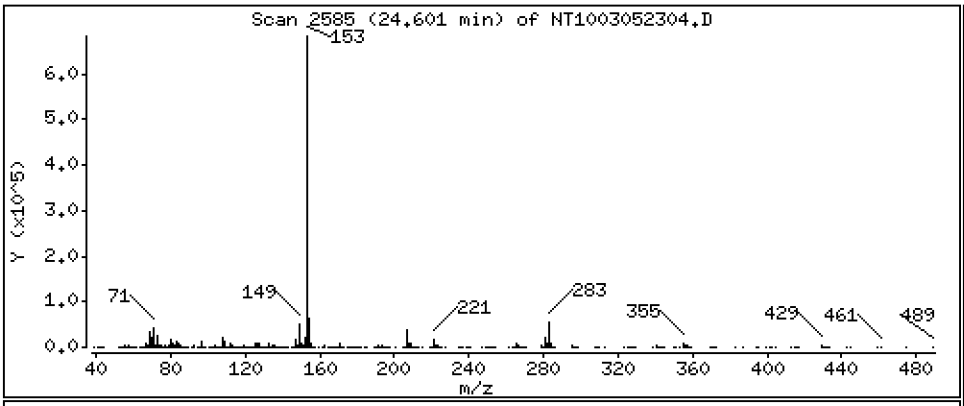
Operator: VTS

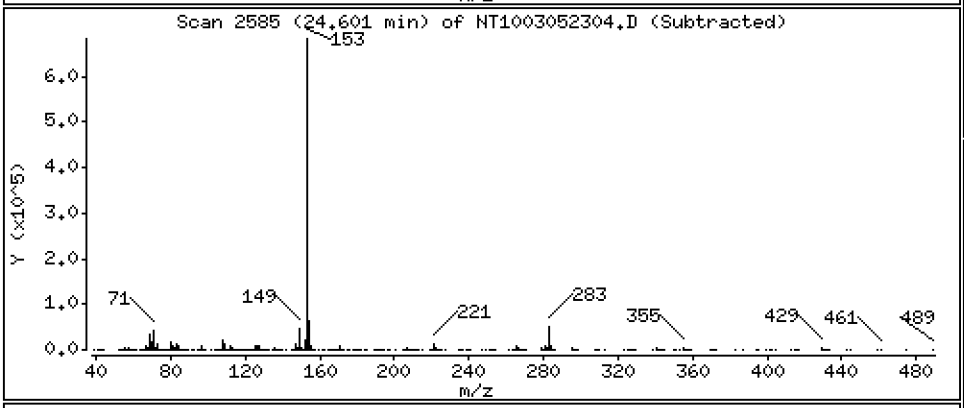
Column phase: ZB-5msi

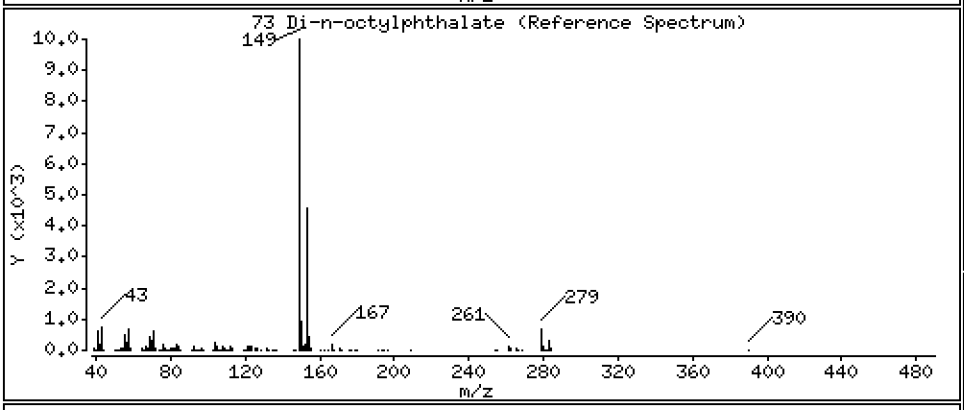
Column diameter: 0.25

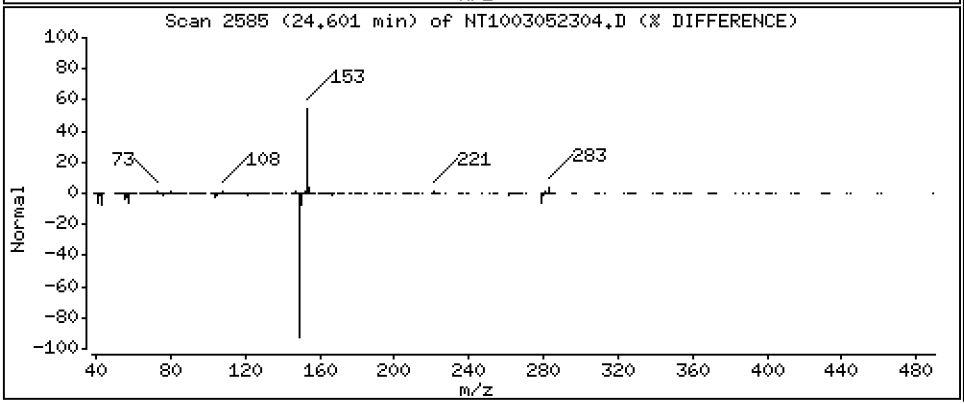
73 Di-n-octylphthalate

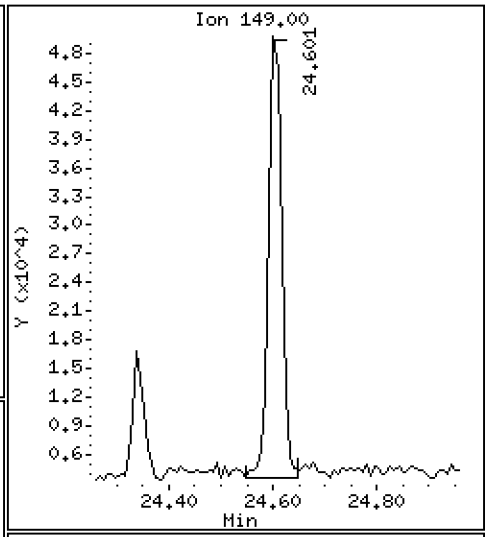
Concentration: 0.2618 ug/mL

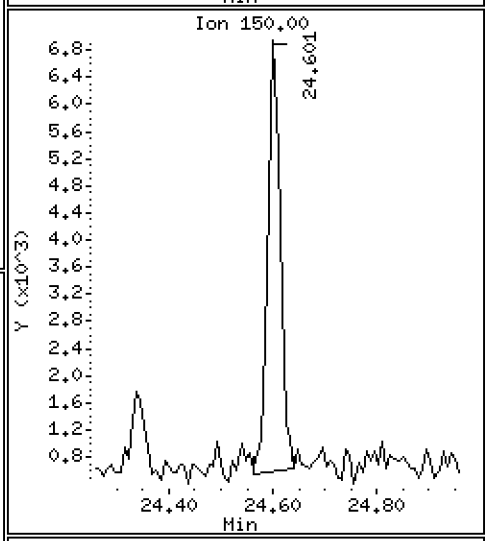


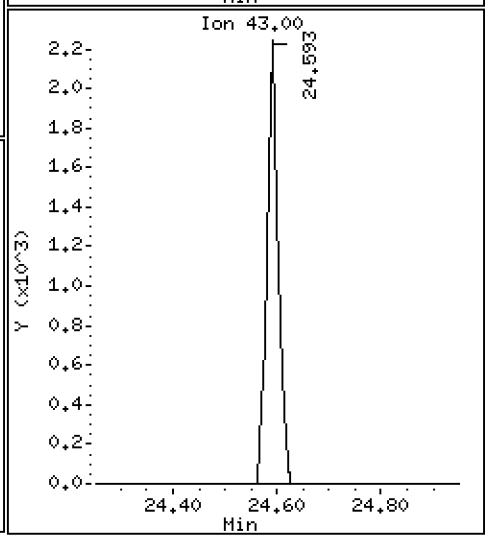












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

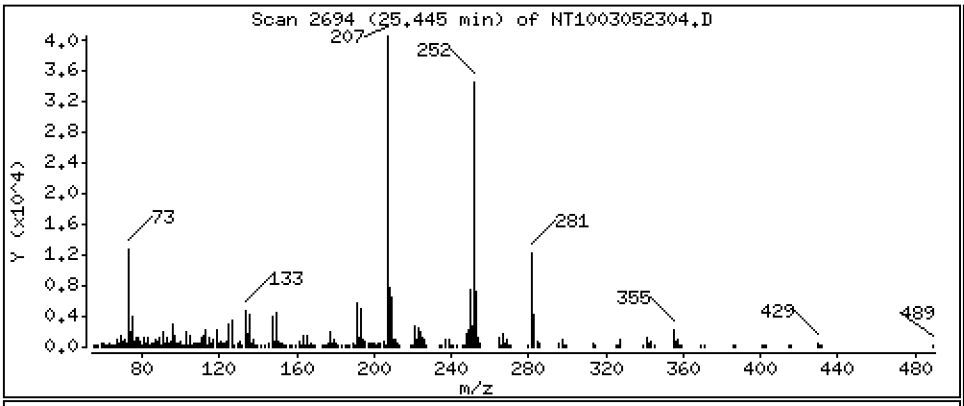
Operator: VTS

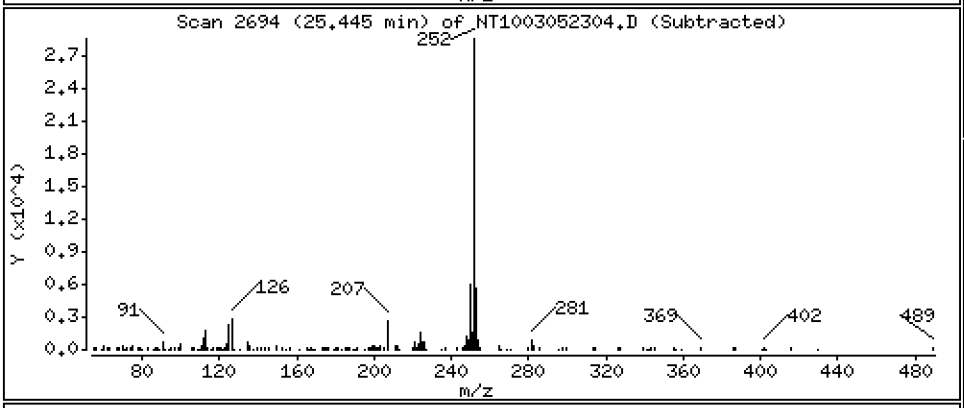
Column phase: ZB-5msi

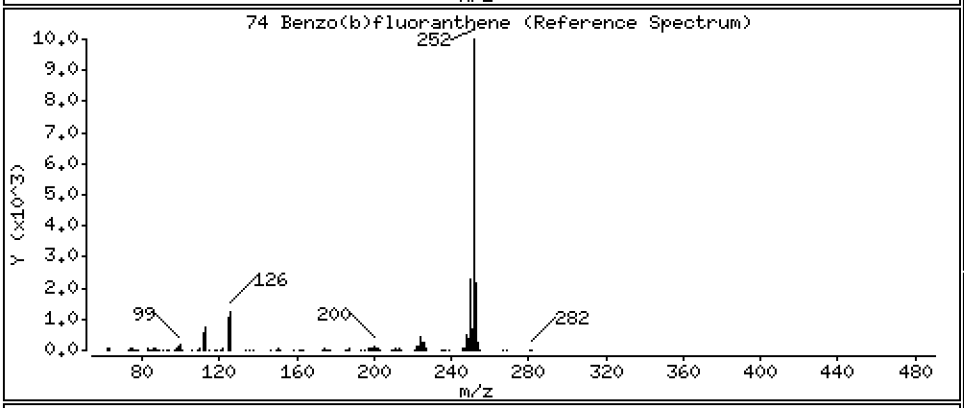
Column diameter: 0.25

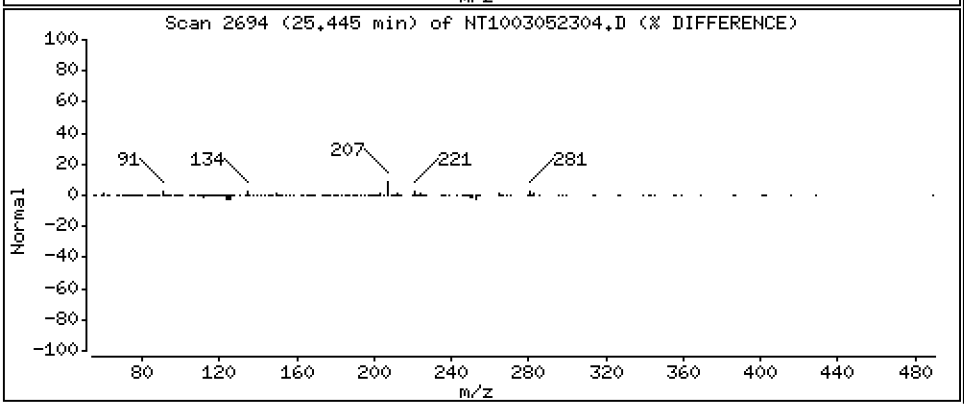
74 Benzo(b)fluoranthene

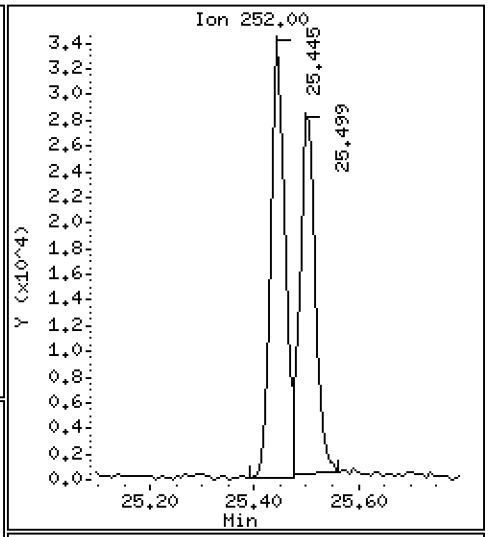
Concentration: 0.1779 ug/mL

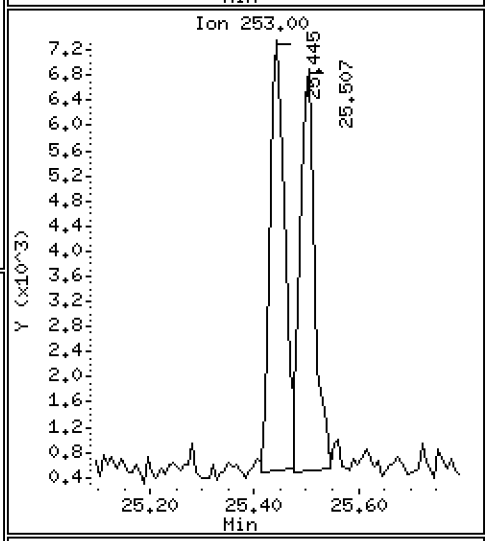


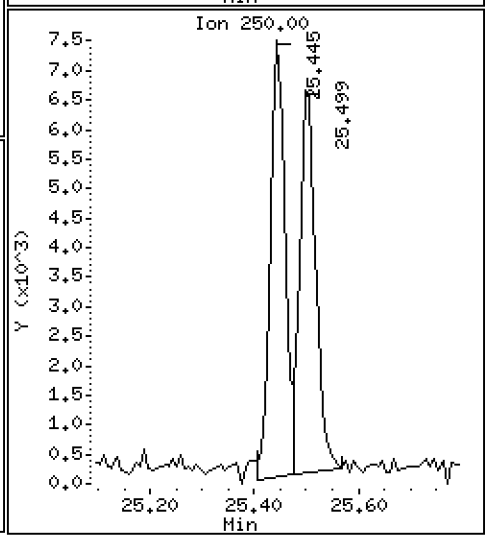












Data File: \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

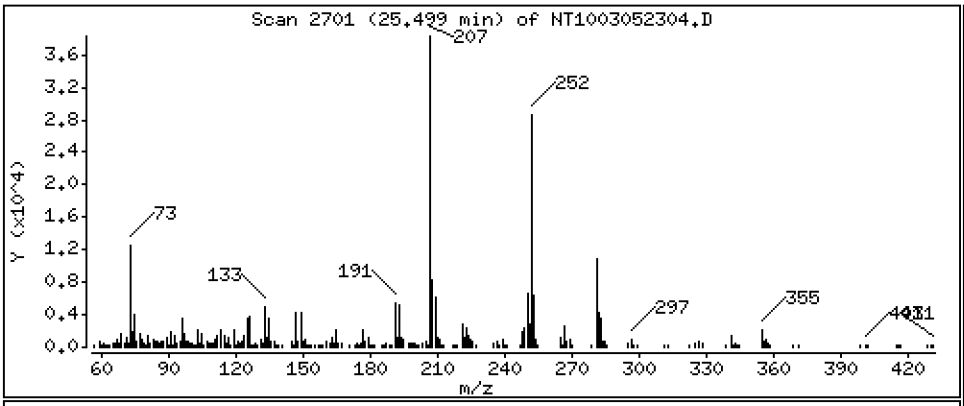
Operator: VTS

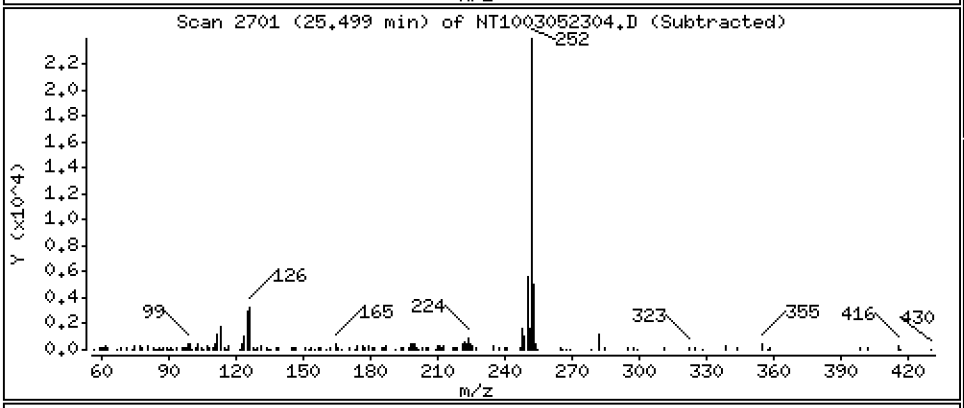
Column phase: ZB-5msi

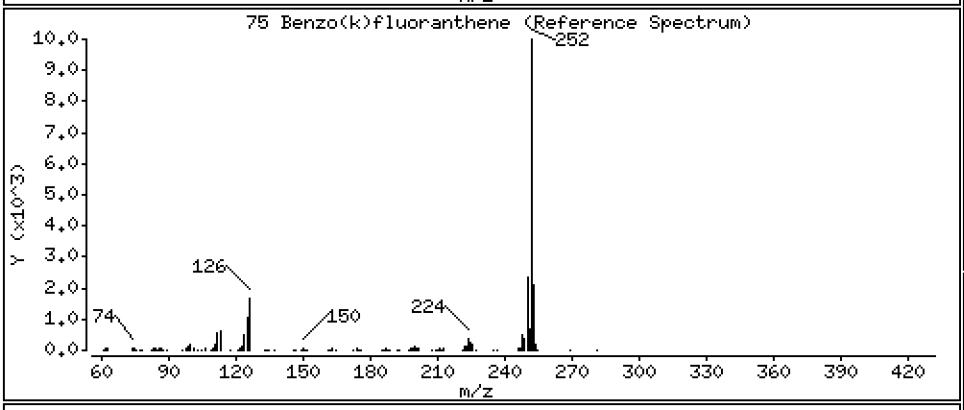
Column diameter: 0.25

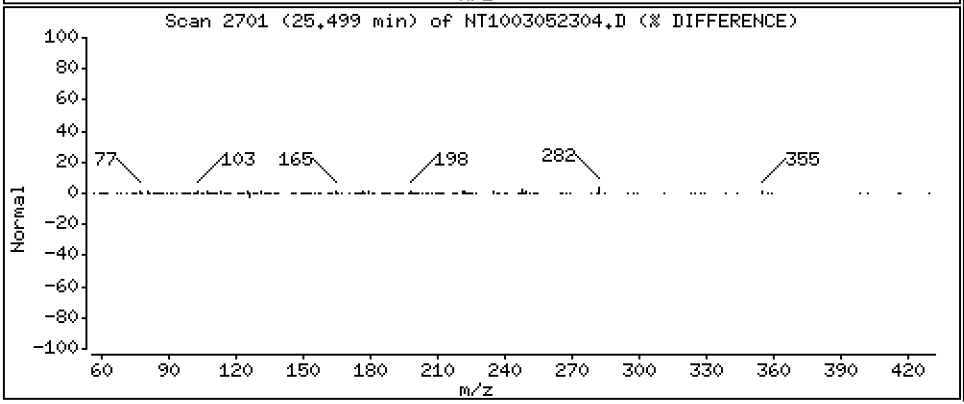
75 Benzo(k)fluoranthene

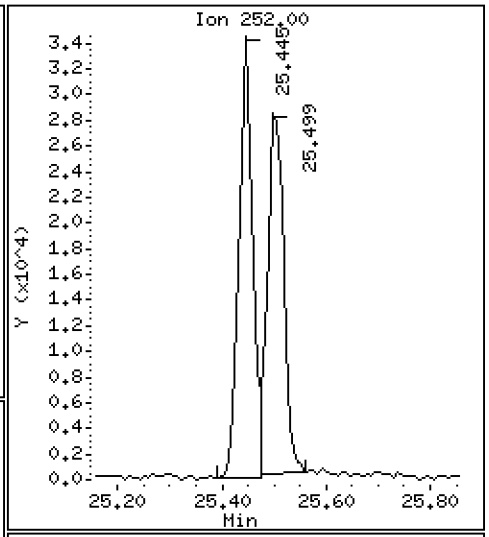
Concentration: 0.1763 ug/mL

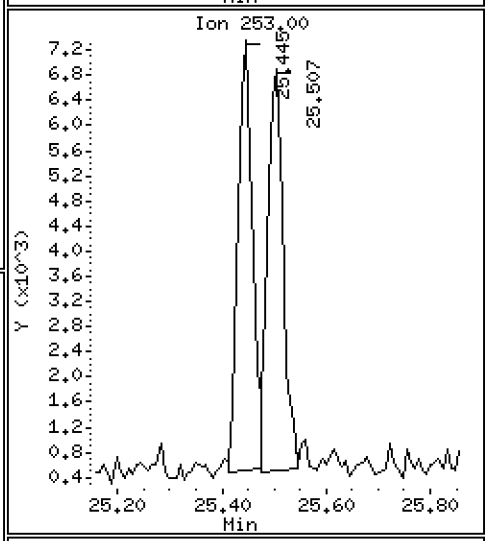


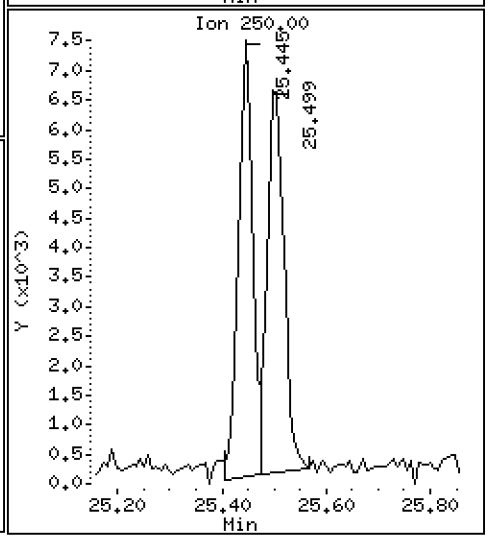












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

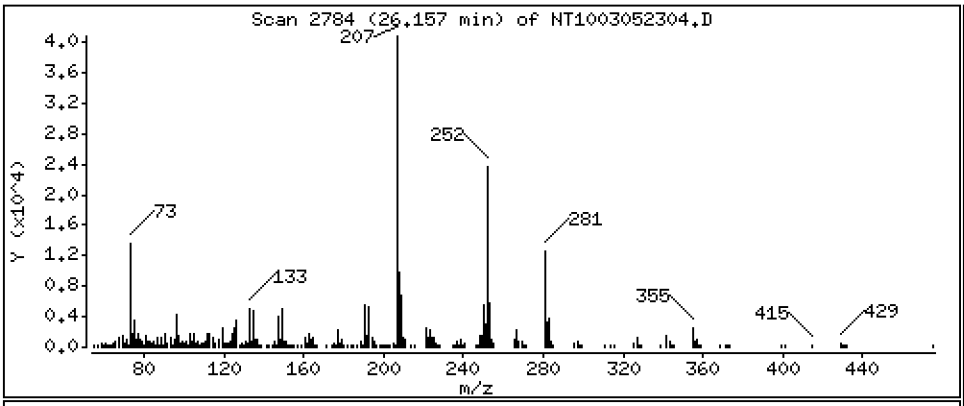
Operator: VTS

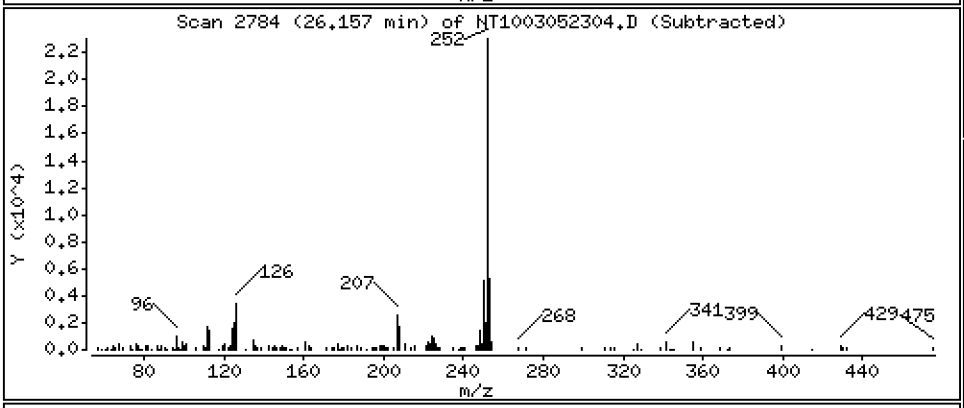
Column phase: ZB-5msi

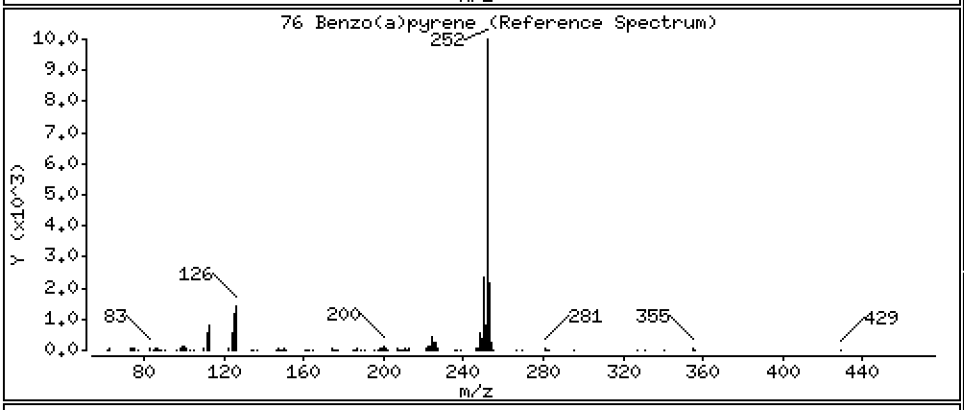
Column diameter: 0.25

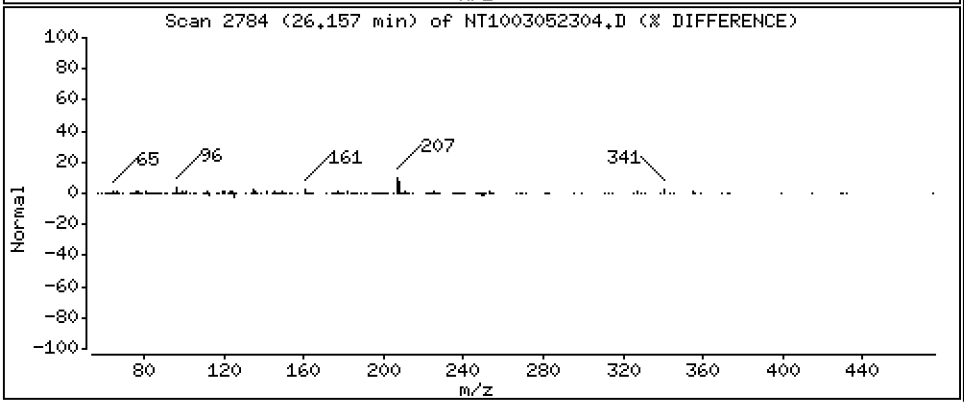
76 Benzo(a)pyrene

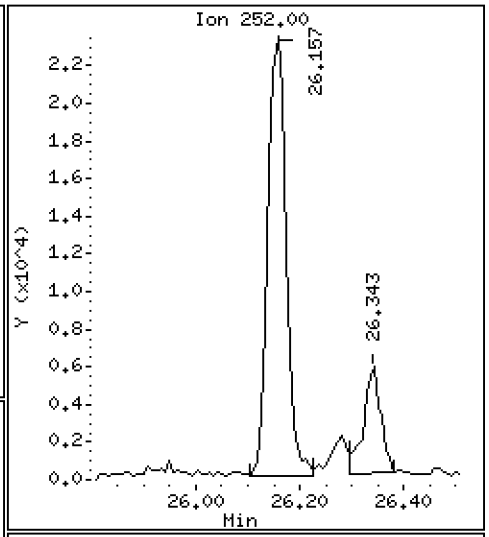
Concentration: 0.1746 ug/mL

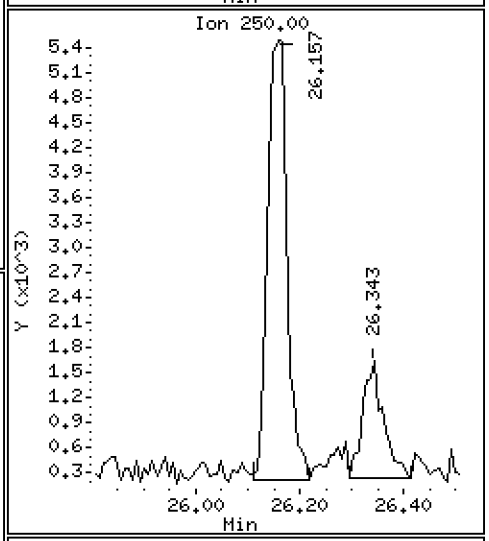


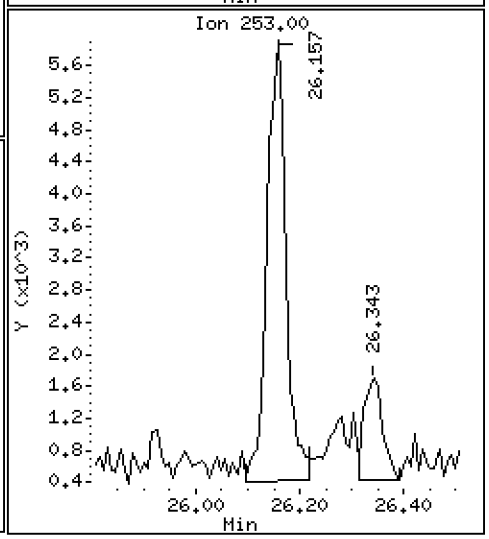












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

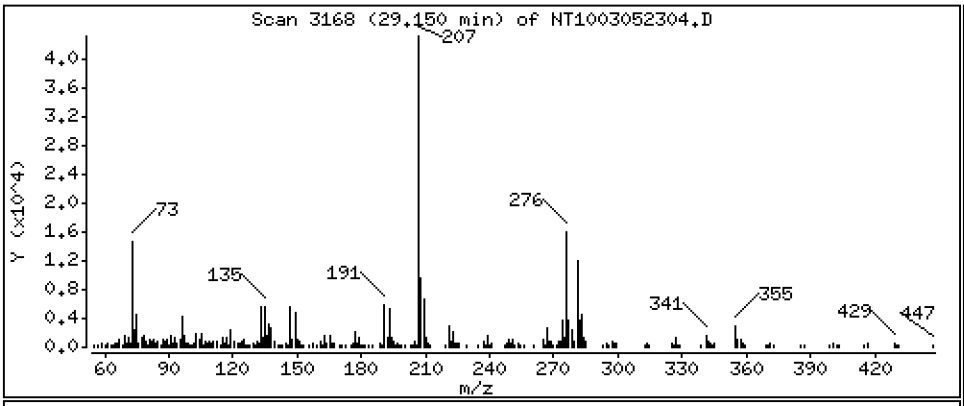
Operator: VTS

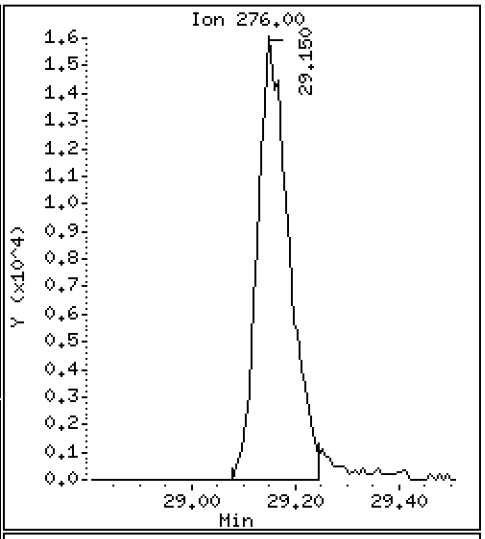
Column phase: ZB-5msi

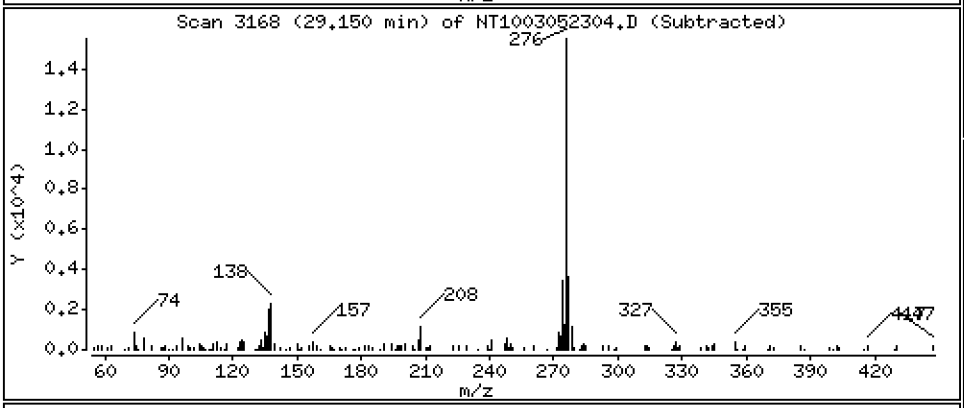
Column diameter: 0.25

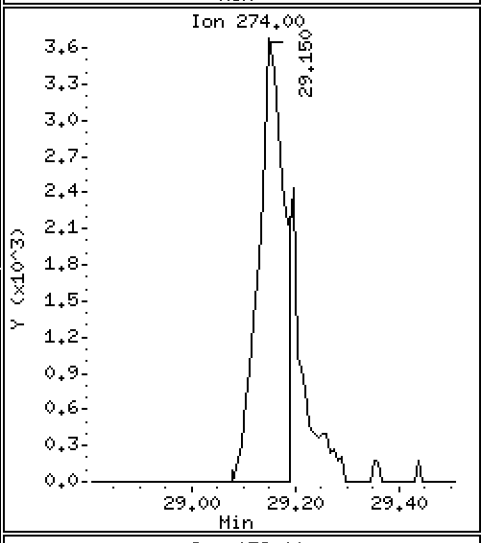
78 Indeno(1,2,3-cd)pyrene

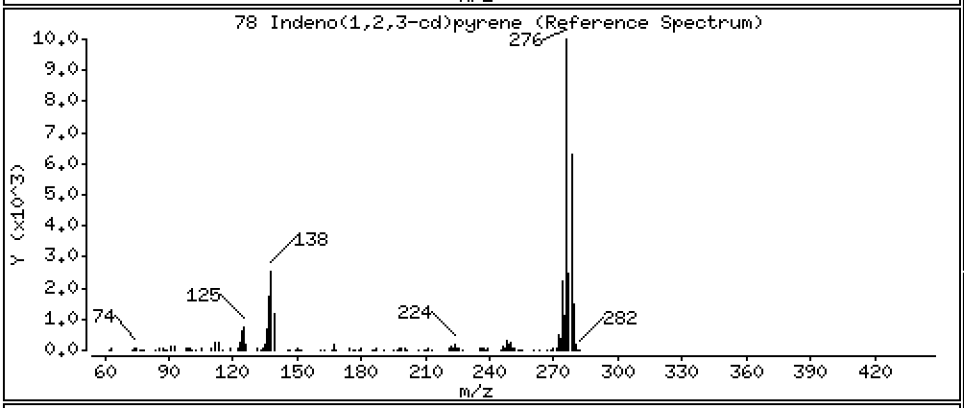
Concentration: 0.1845 ug/mL

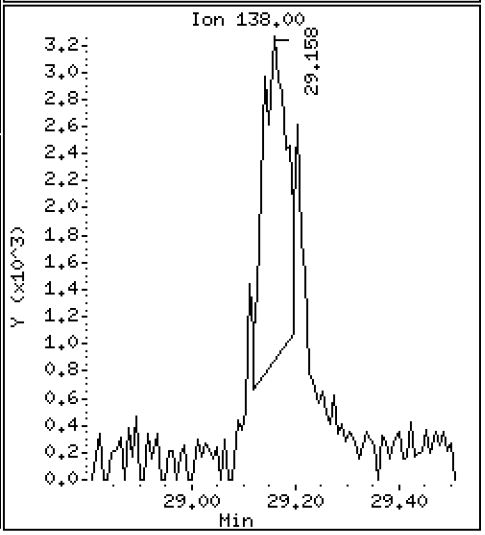


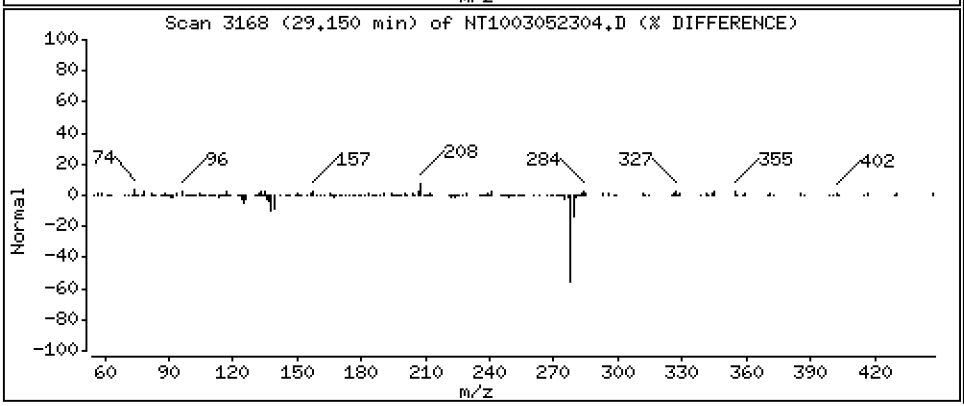












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

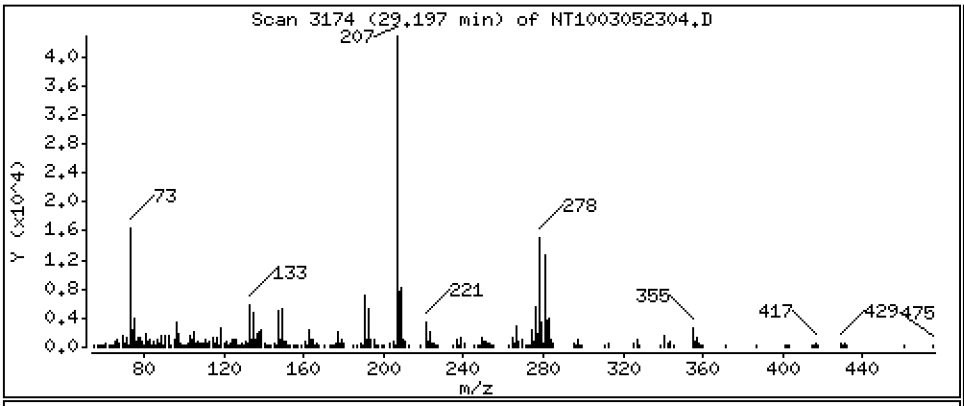
Operator: VTS

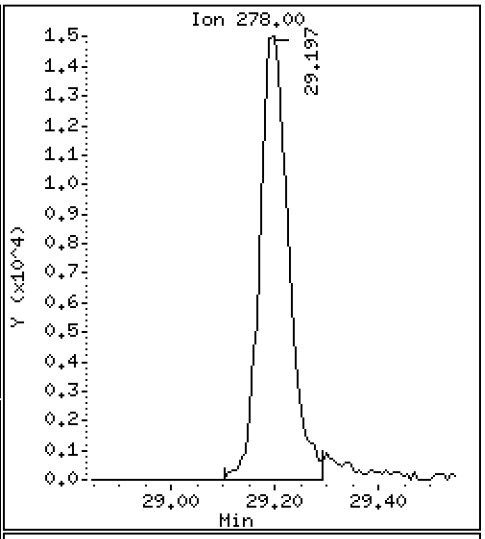
Column phase: ZB-5msi

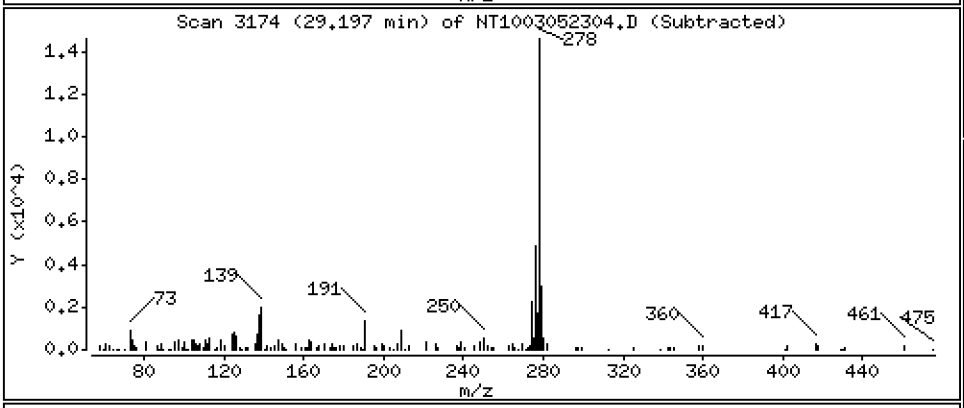
Column diameter: 0.25

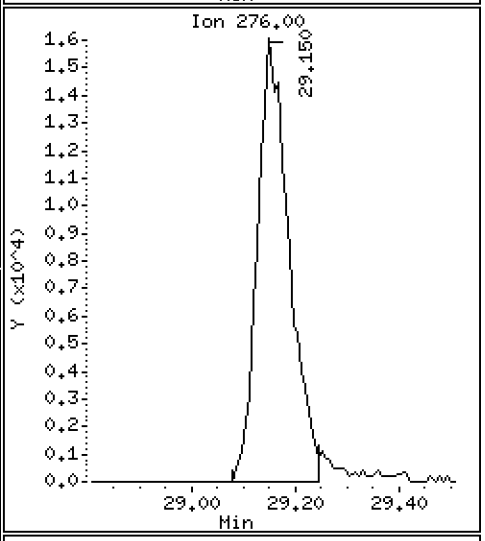
79 Dibenzo(a,h)anthracene

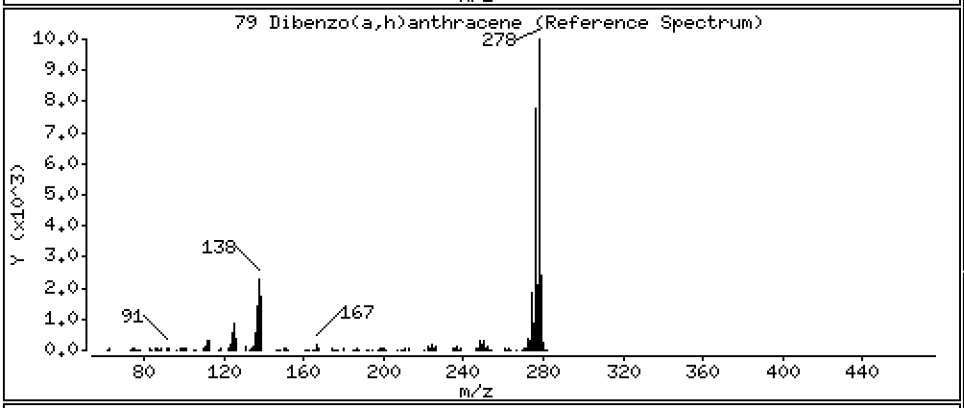
Concentration: 0.2073 ug/mL

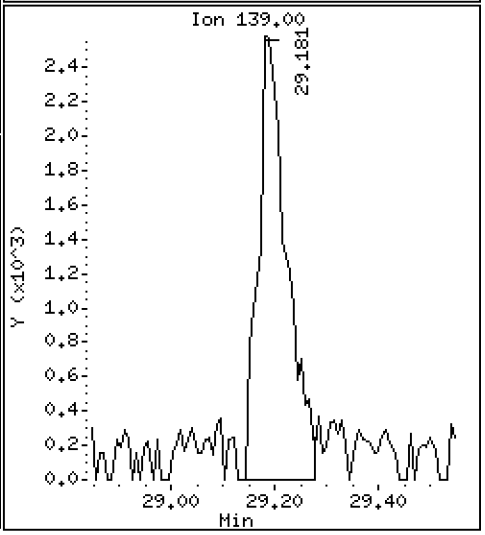


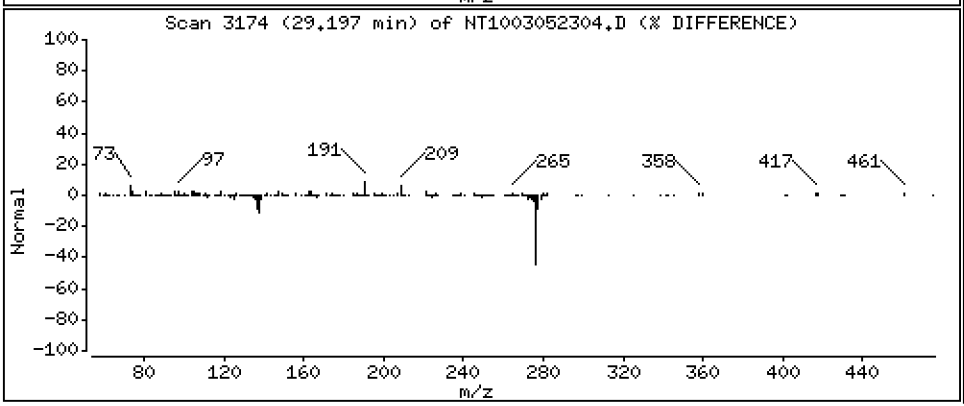












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

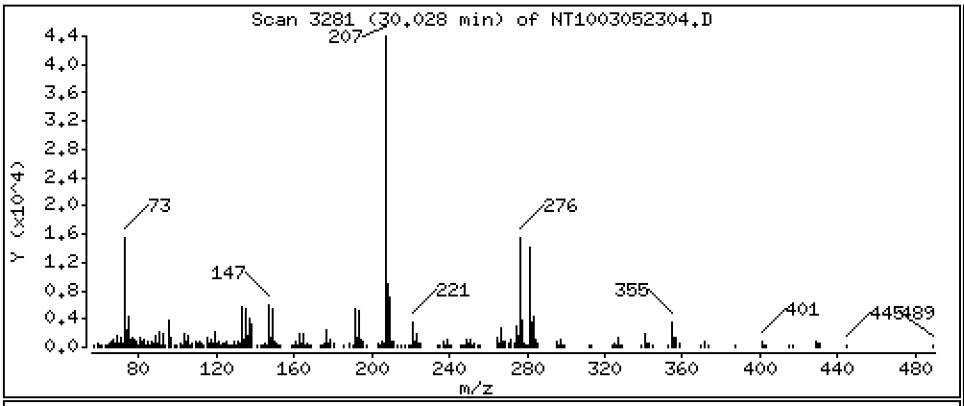
Operator: VTS

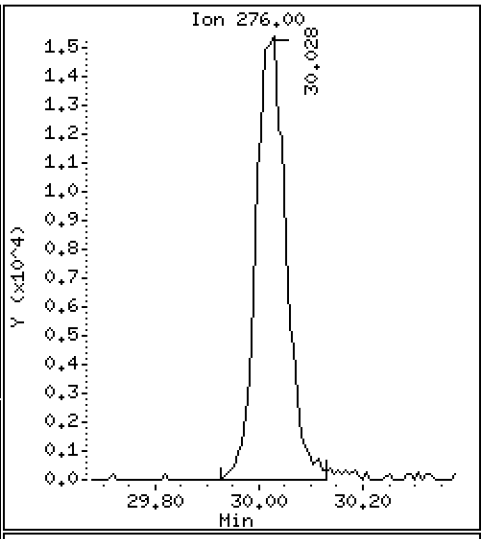
Column phase: ZB-5msi

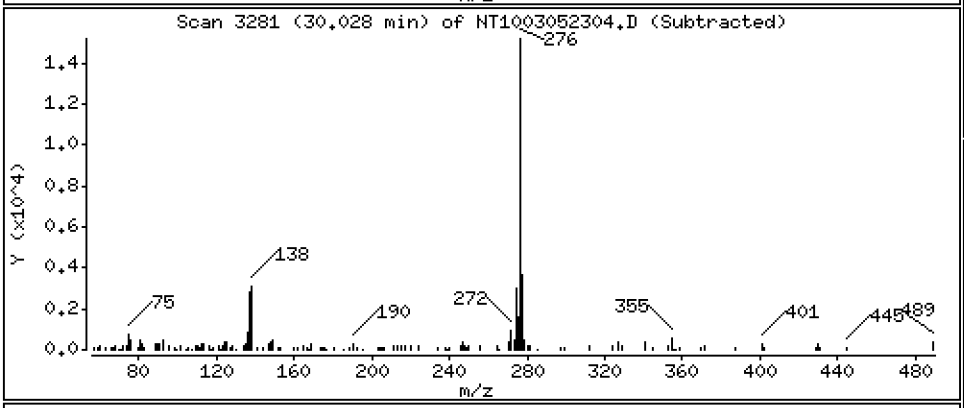
Column diameter: 0.25

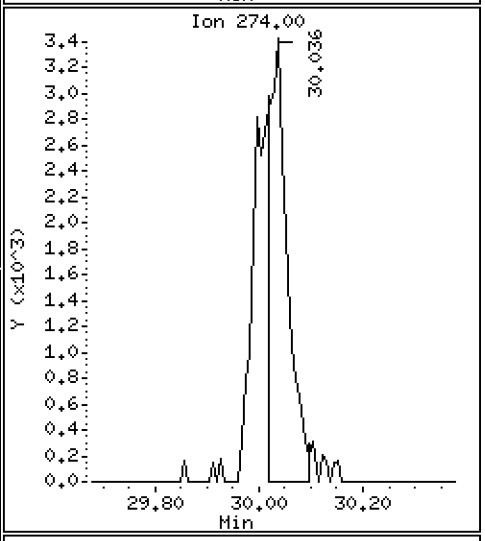
80 Benzo(g,h,i)perylene

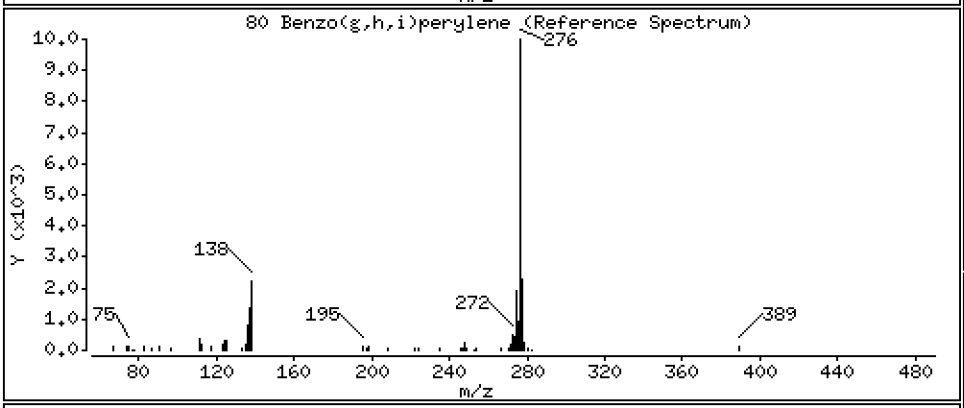
Concentration: 0.2119 ug/mL

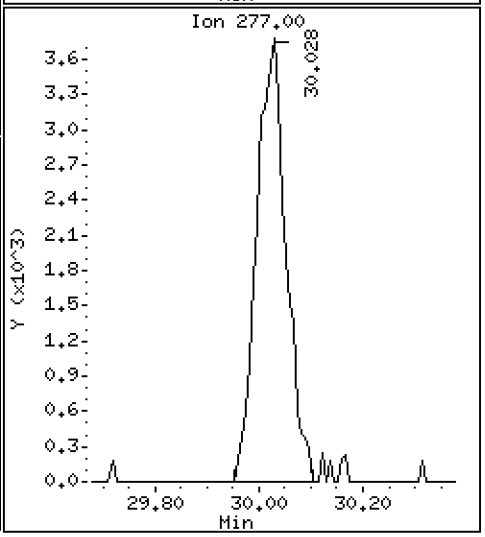


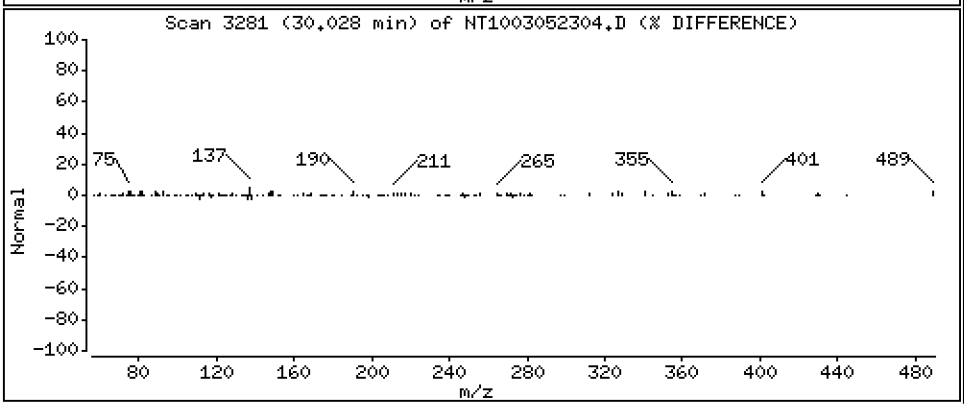












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

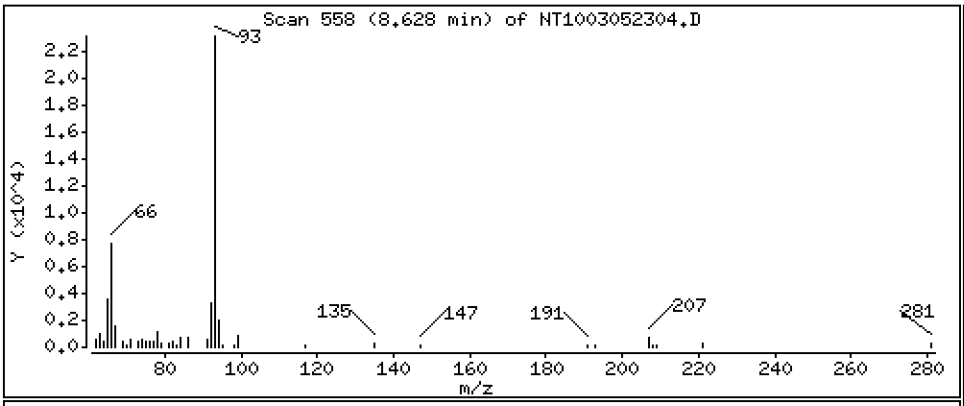
Operator: VTS

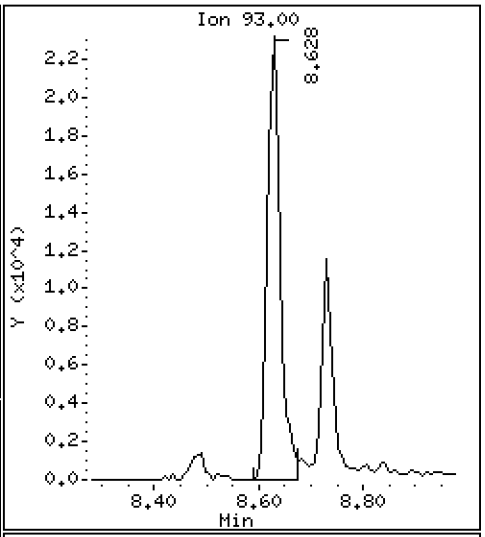
Column phase: ZB-5msi

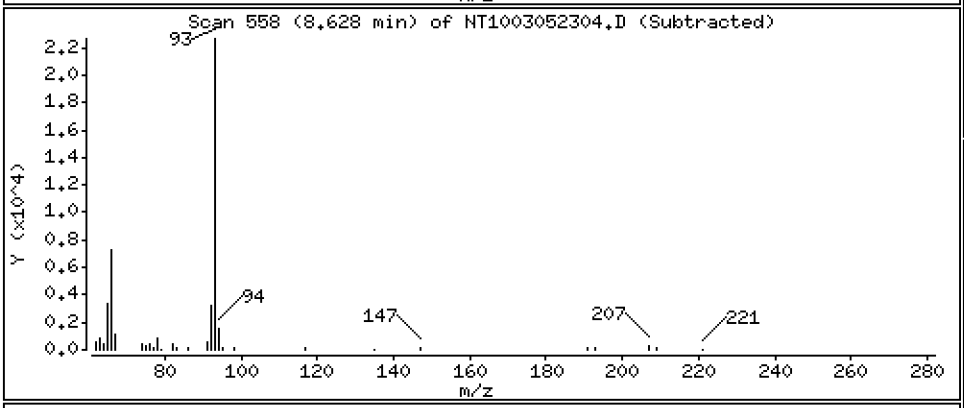
Column diameter: 0.25

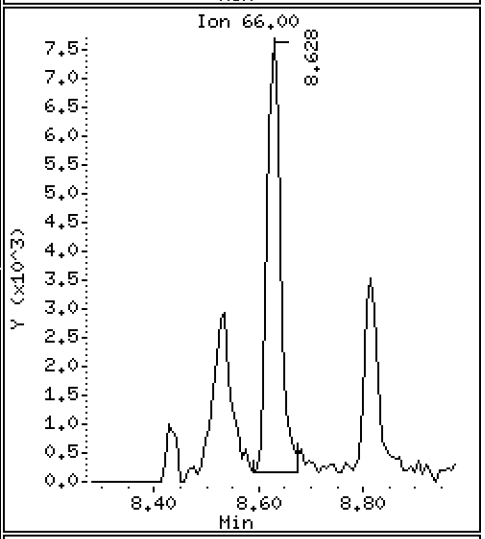
91 Aniline

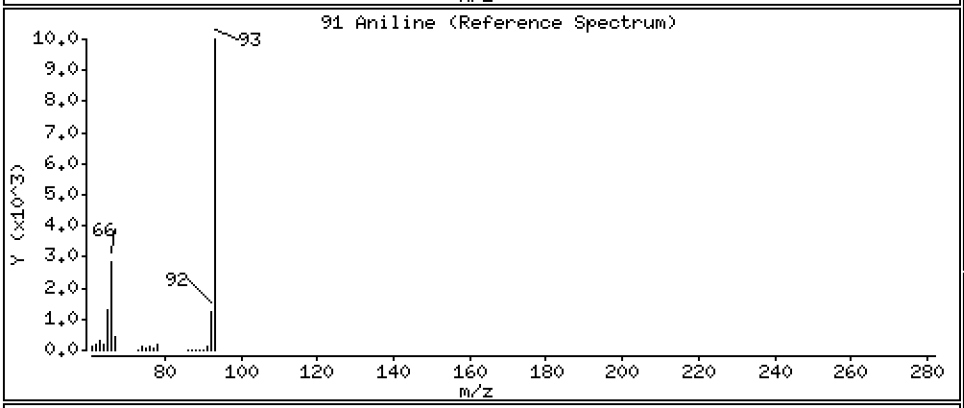
Concentration: 0.2915 ug/mL

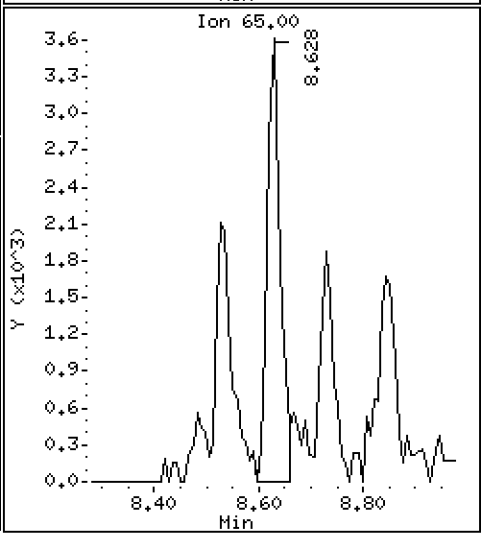


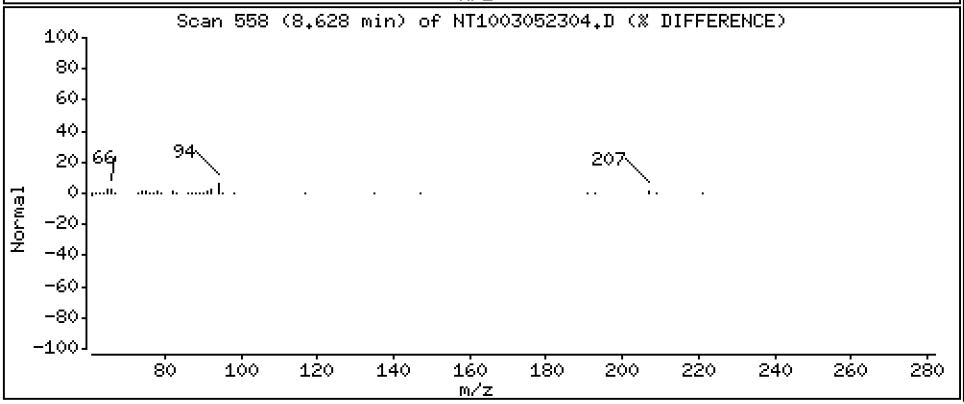












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

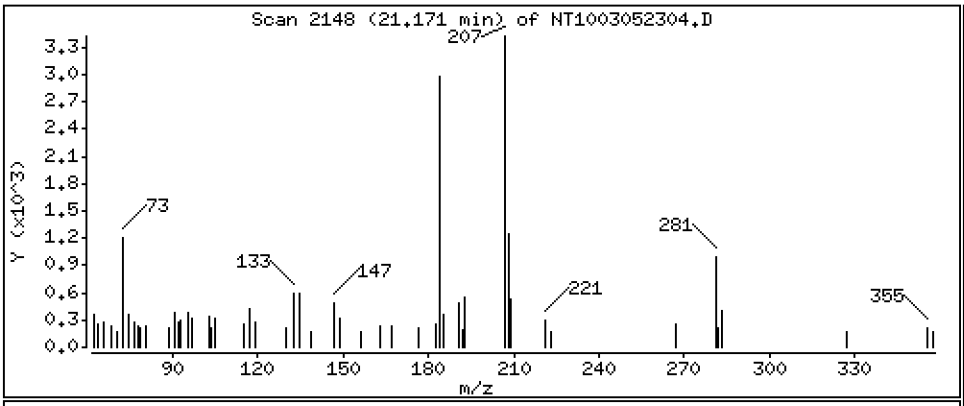
Operator: VTS

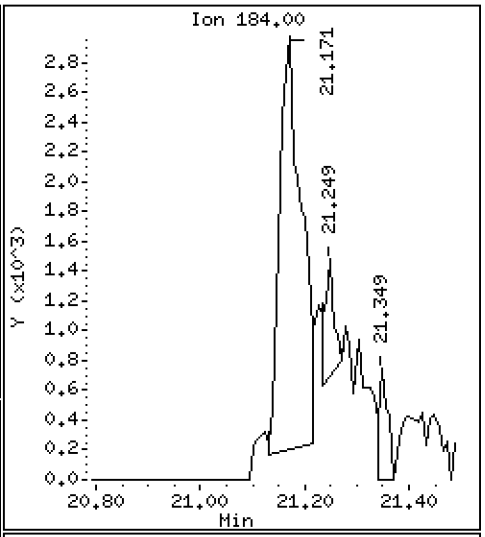
Column phase: ZB-5msi

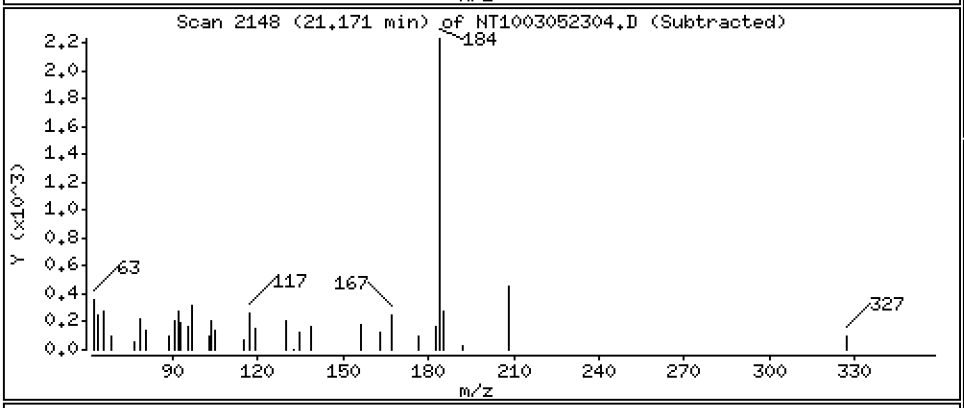
Column diameter: 0.25

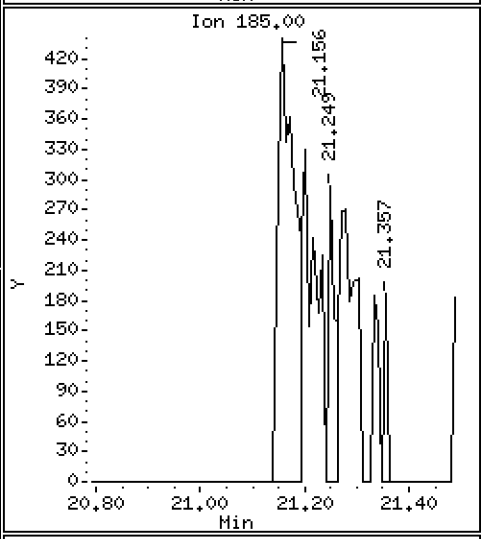
93 Benzidine

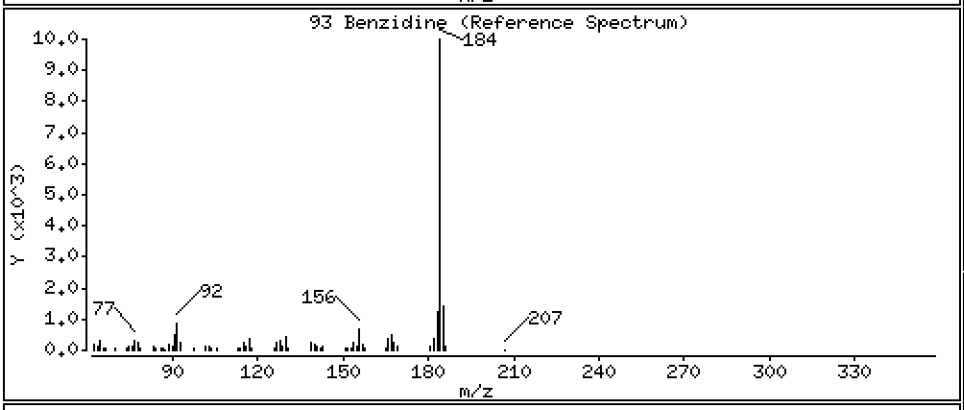
Concentration: 0.06408 ug/mL

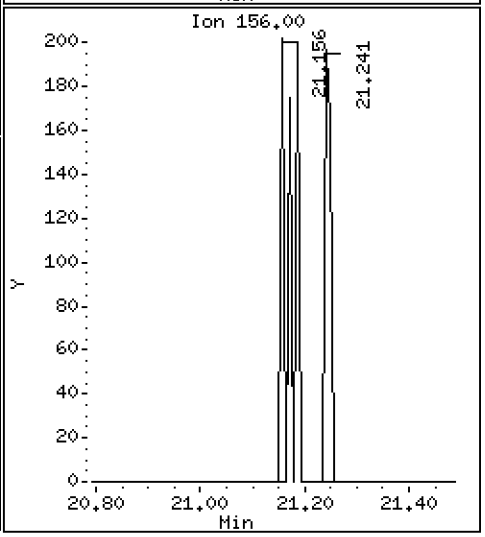


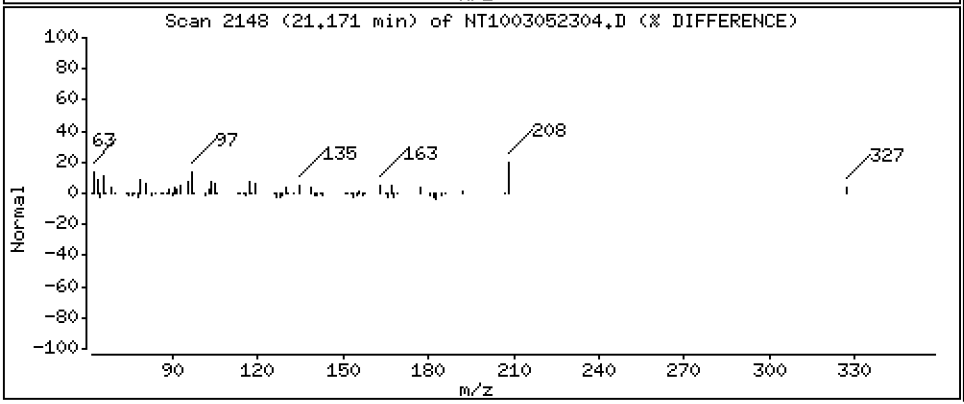












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

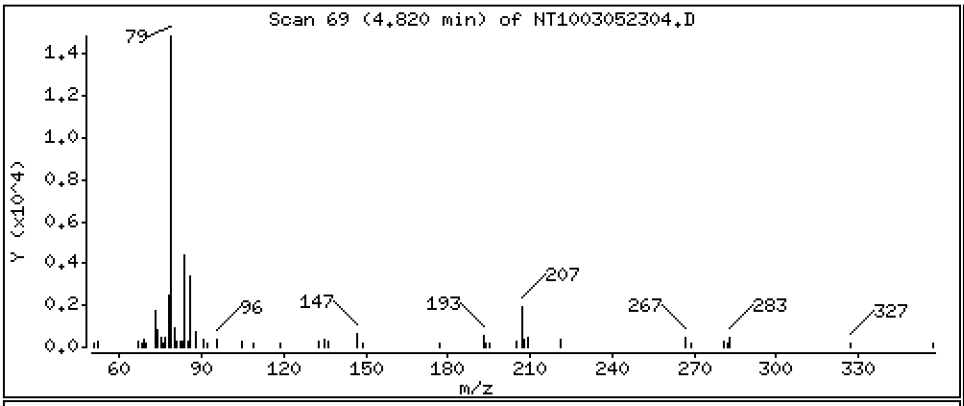
Operator: VTS

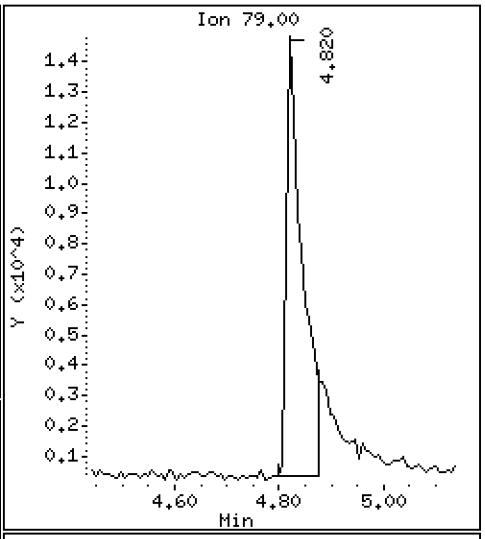
Column phase: ZB-5msi

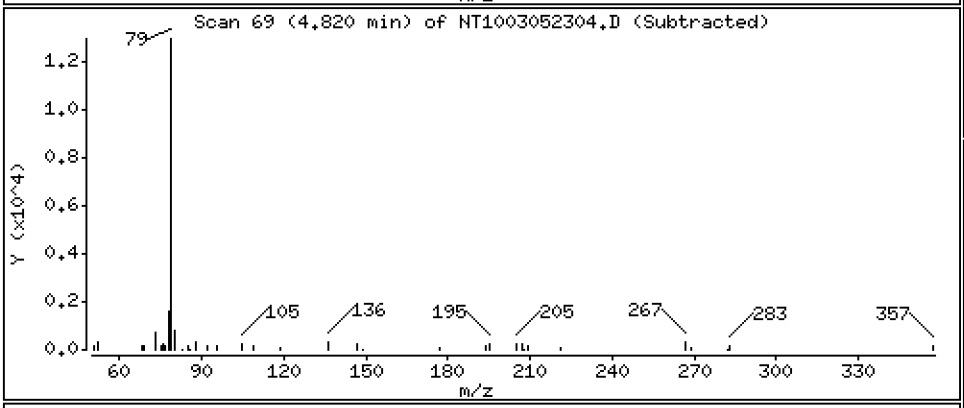
Column diameter: 0.25

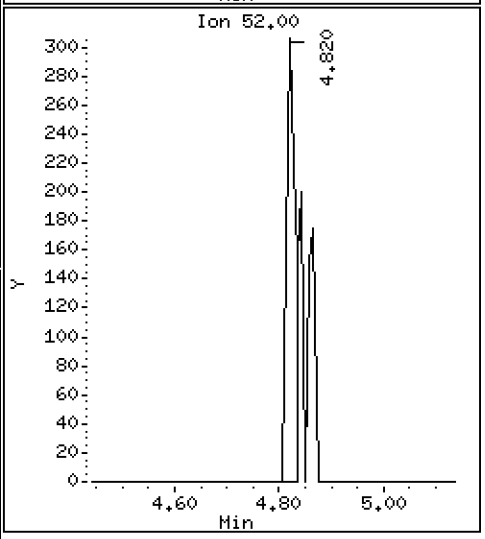
103 Pyridine

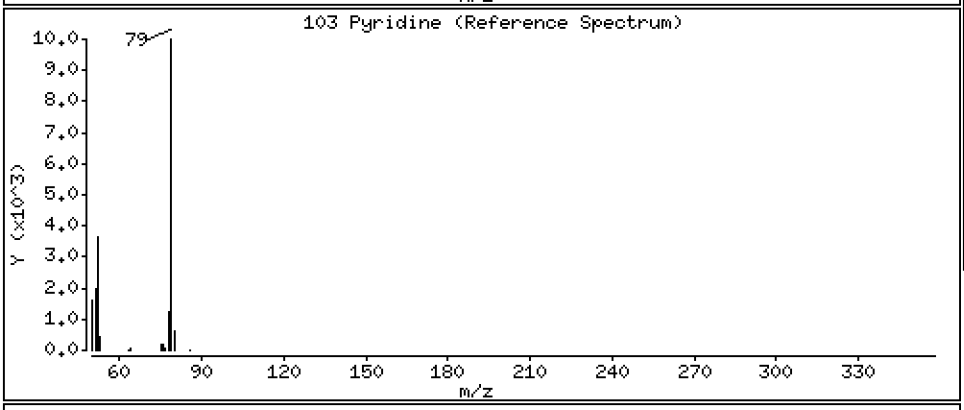
Concentration: 0.3047 ug/mL

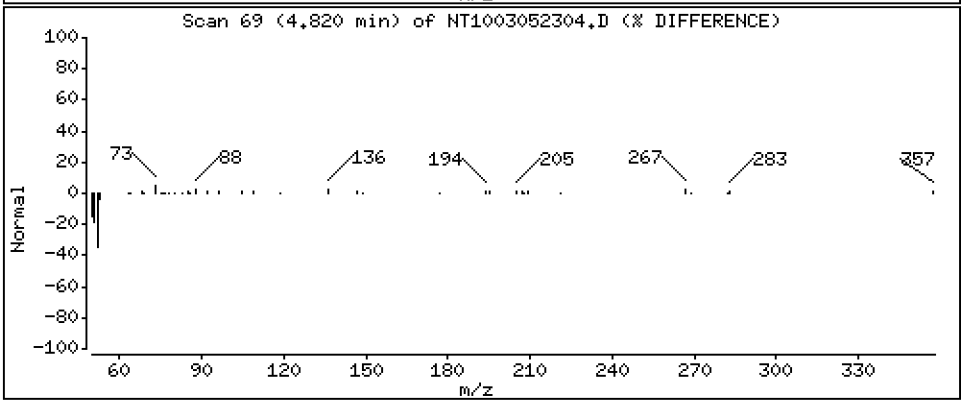












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

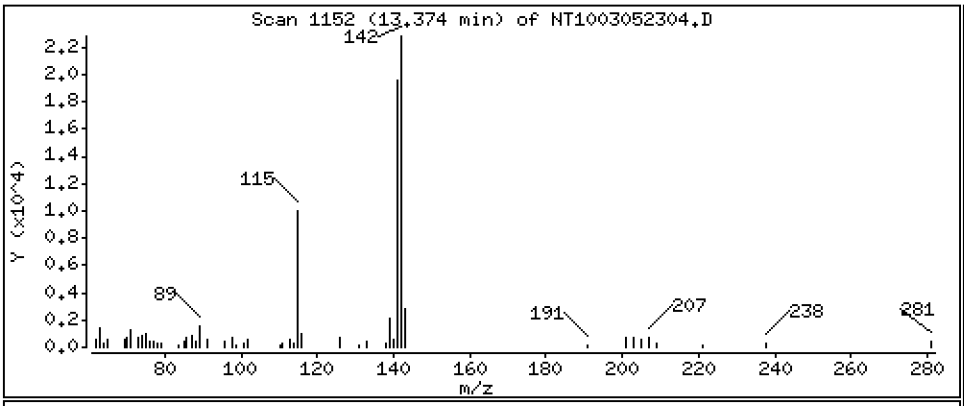
Operator: VTS

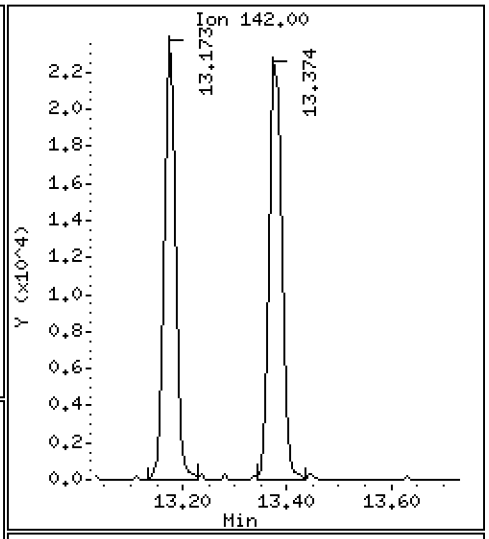
Column phase: ZB-5msi

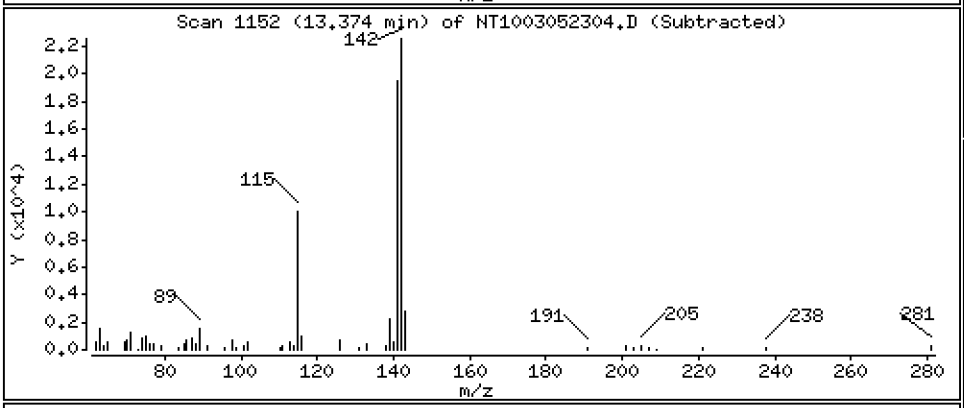
Column diameter: 0.25

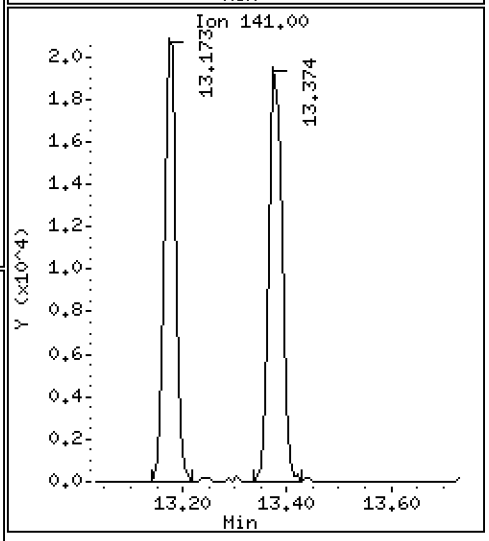
105 1-methylnaphthalene

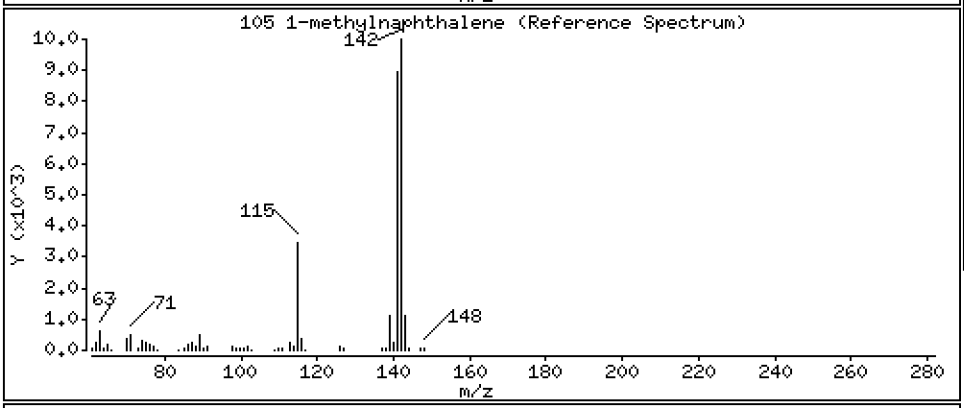
Concentration: 0.2064 ug/mL

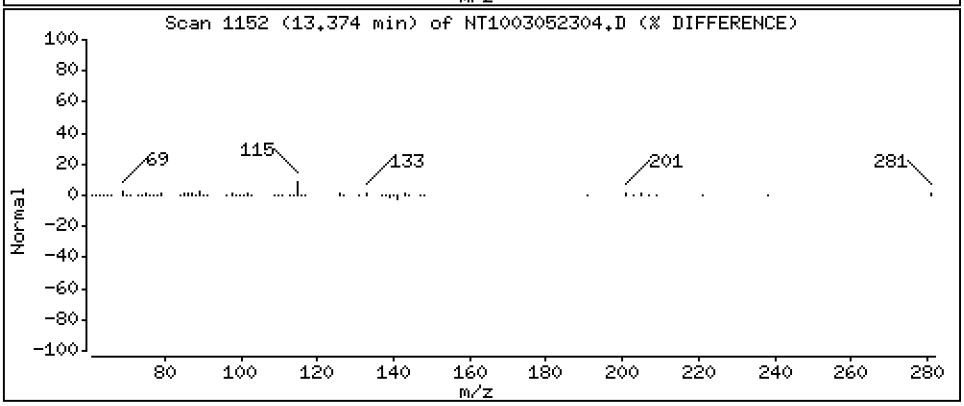












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

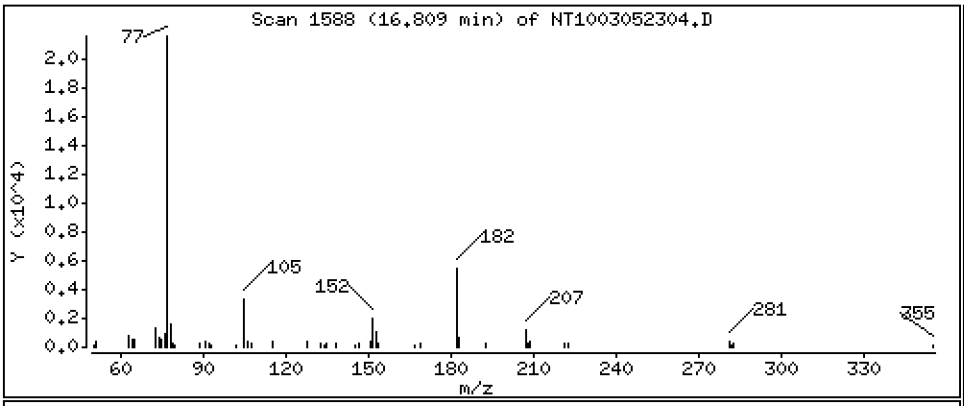
Operator: VTS

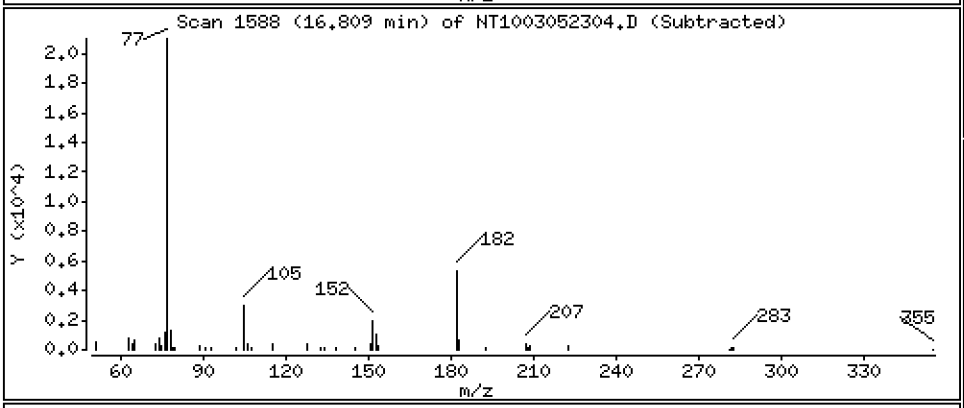
Column phase: ZB-5msi

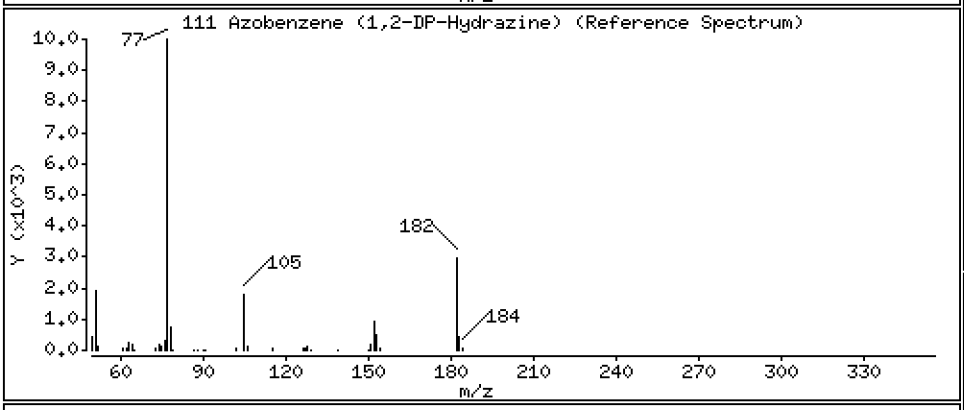
Column diameter: 0.25

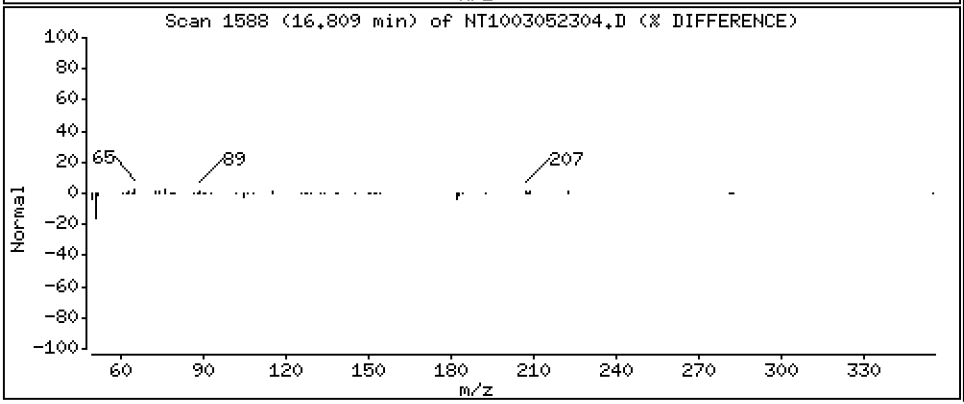
111 Azobenzene (1,2-DP-Hydrazine)

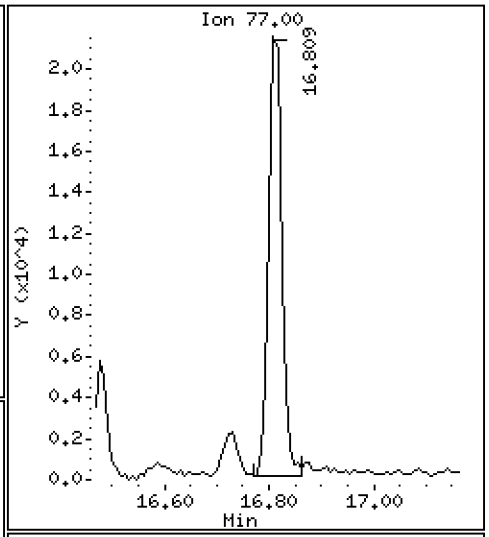
Concentration: 0.1298 ug/mL

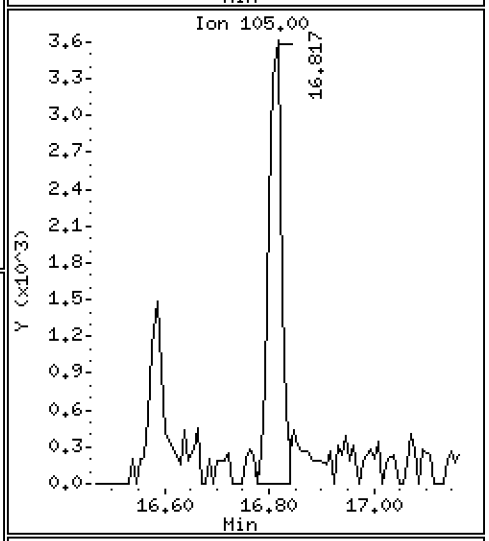


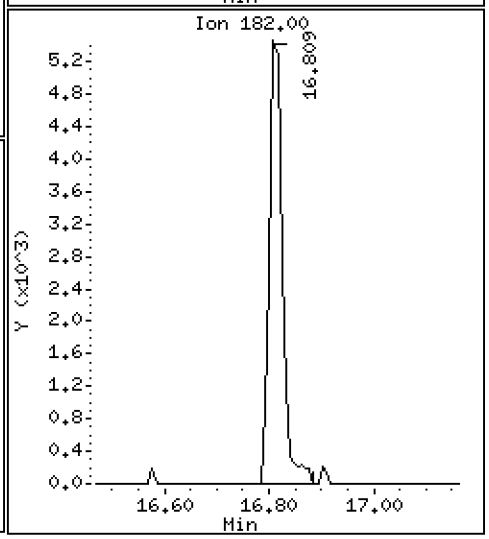












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

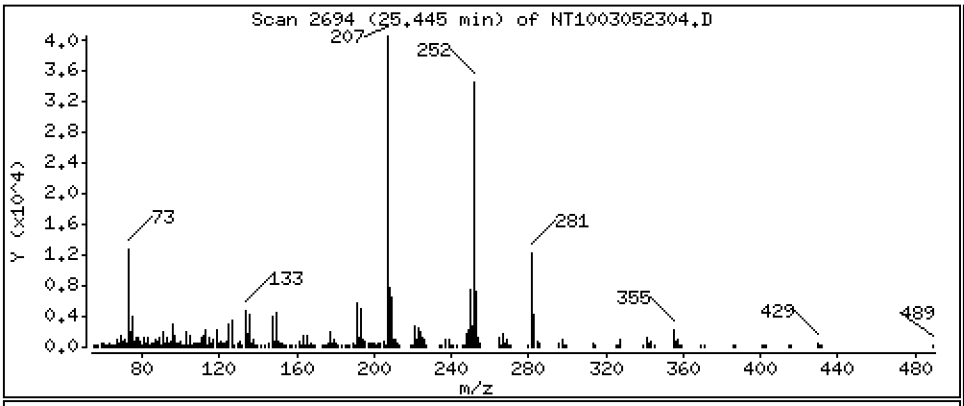
Operator: VTS

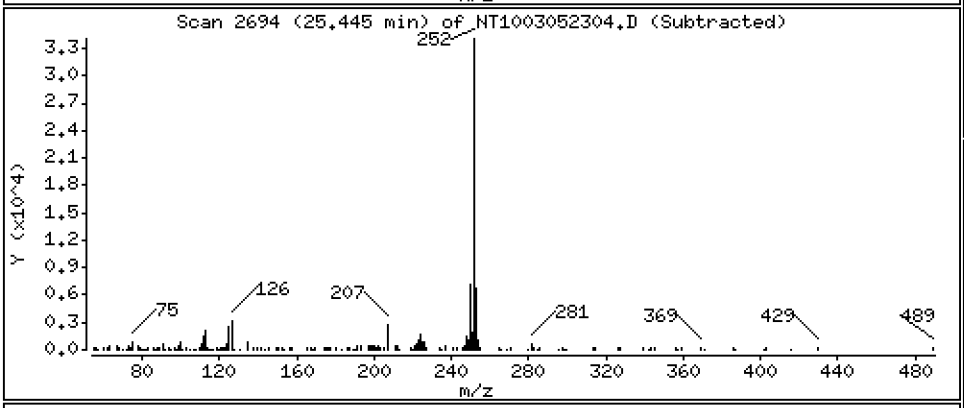
Column phase: ZB-5msi

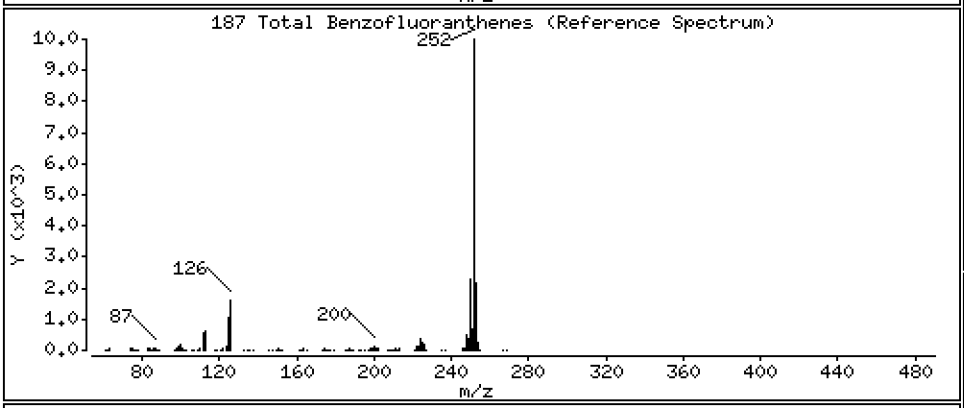
Column diameter: 0.25

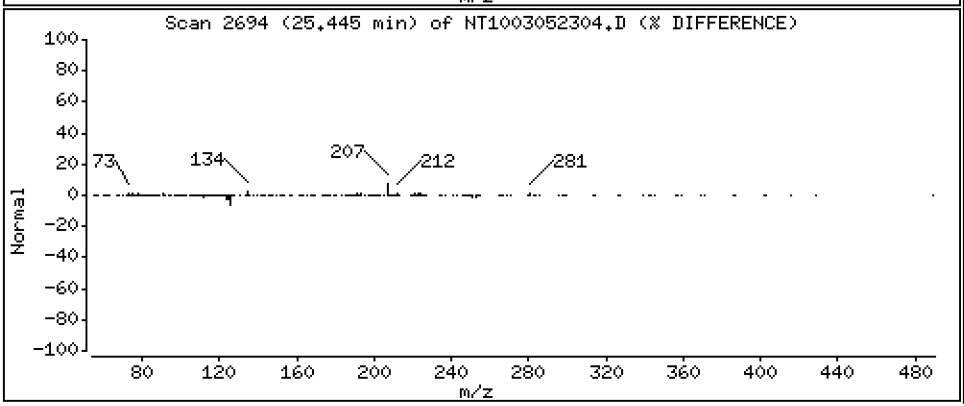
187 Total Benzofluoranthenes

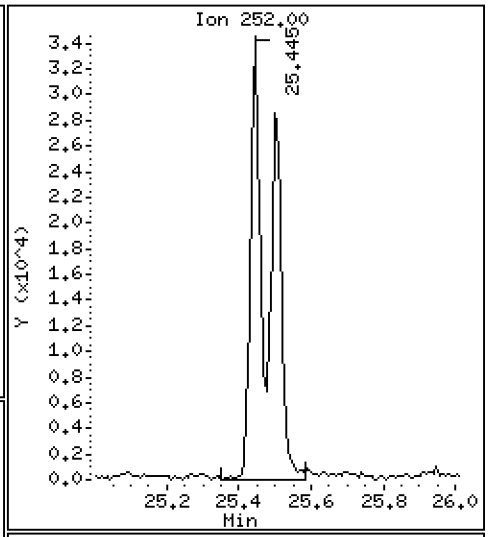
Concentration: 0.3679 ug/mL

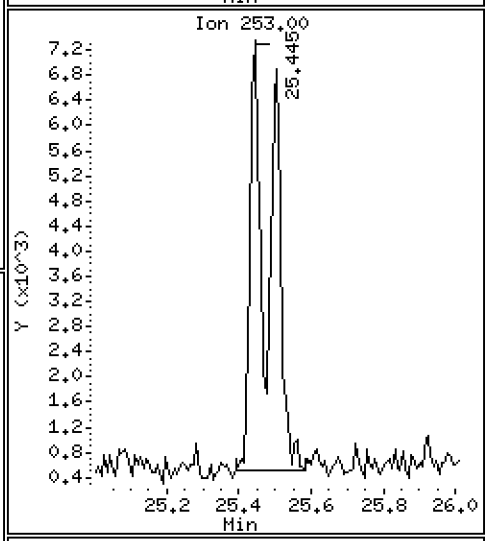


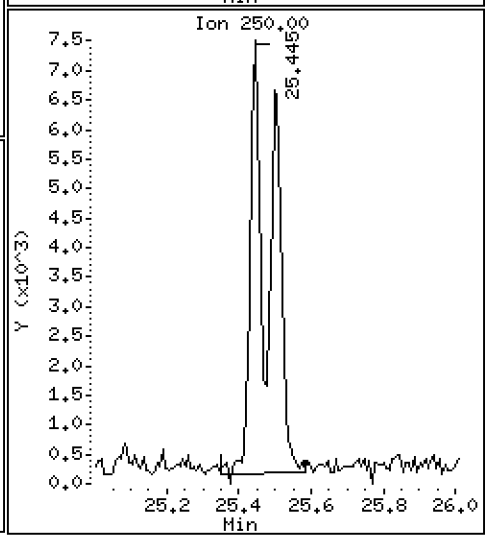












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0401-LCV1

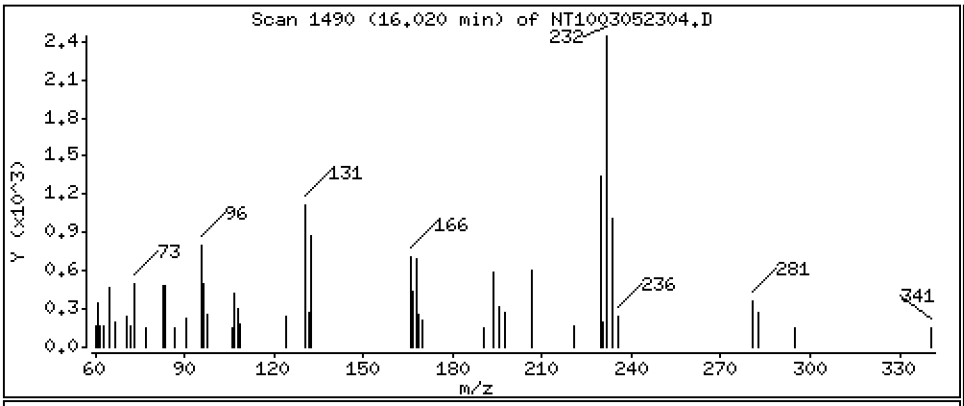
Operator: VTS

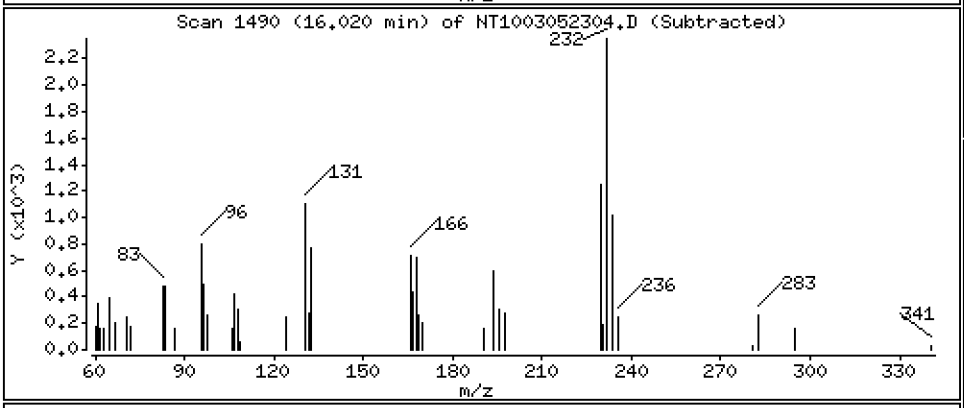
Column phase: ZB-5msi

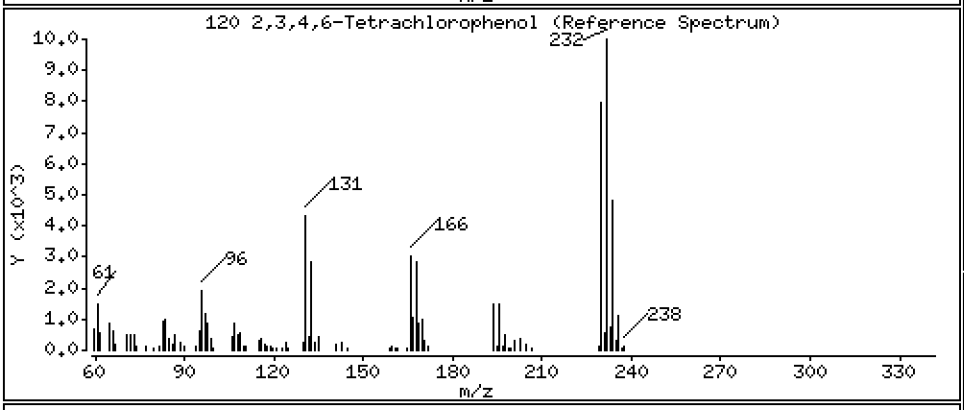
Column diameter: 0.25

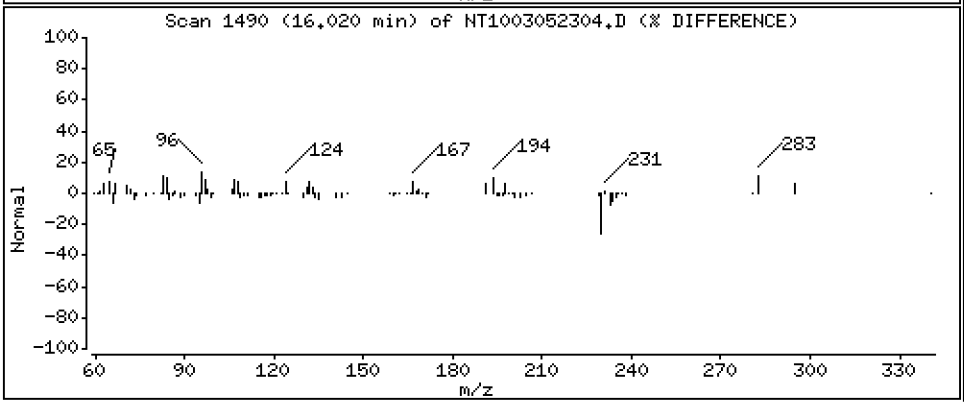
120 2,3,4,6-Tetrachlorophenol

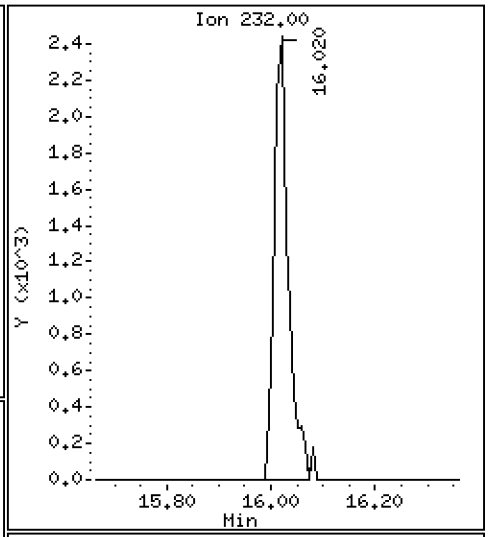
Concentration: 0.08686 ug/mL

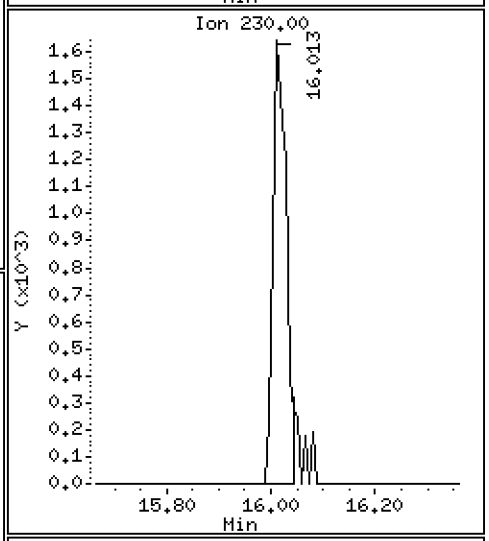


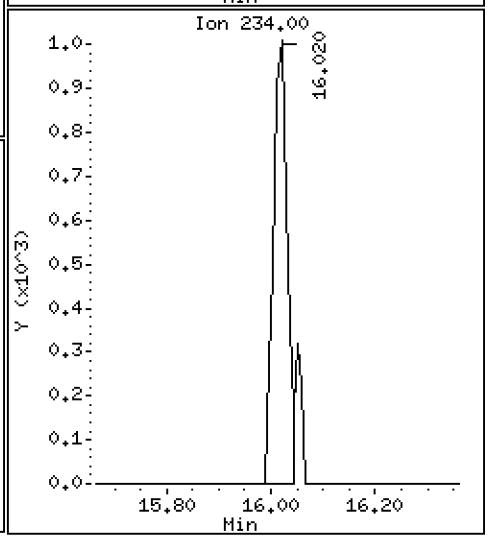












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305.b\NT1003052304.D
Lab Smp Id: SLC0401-LCV1
Inj Date : 05-MAR-2023 15:18
Operator : VTS Inst ID: nt10.i
Smp Info : SLC0401-LCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305.b\ABN.m
Meth Date : 27-Mar-2023 11:22 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.905	6.897	(0.747)	20033	0.21877	0.2188
$	2 Phenol-d5	99	8.504	8.504	(0.920)	19854	0.18675	0.1867(M)
	3 Phenol	94	8.527	8.528	(0.923)	16076	0.14222	0.1422
$	5 2-Chlorophenol-d4	132	8.813	8.813	(0.954)	21847	0.24086	0.2409
	4 Bis(2-Chloroethyl)ether	93	8.728	8.728	(0.945)	16507	0.19111	0.1911
	6 2-Chlorophenol	128	8.844	8.844	(0.957)	15414	0.16358	0.1636
	7 1,3-Dichlorobenzene	146	9.130	9.138	(0.988)	22137	0.21308	0.2131
*	8 1,4-Dichlorobenzene-d4	152	9.239	9.239	(1.000)	291047	4.00000	
	9 1,4-Dichlorobenzene	146	9.270	9.278	(1.003)	20559	0.19922	0.1992
$	10 1,2-Dichlorobenzene-d4	152	9.526	9.534	(1.031)	14899	0.21986	0.2199
	12 1,2-Dichlorobenzene	146	9.557	9.557	(1.034)	21110	0.21134	0.2113
	11 Benzyl alcohol	108	9.487	9.480	(1.027)	4588	0.07919	0.07919
	14 2,2'-oxybis(1-Chloropropane)	121	9.736	9.728	(1.054)	6447	0.22388	0.2239(M)
	13 2-Methylphenol	108	9.666	9.666	(1.046)	14535	0.16599	0.1660
	17 Hexachloroethane	117	10.209	10.209	(1.105)	8831	0.20849	0.2085
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	9.968	9.953	(1.079)	13799	0.12564	0.1256
$	18 Nitrobenzene-d5	82	10.294	10.302	(0.878)	18312	0.15586	0.1559
	19 Nitrobenzene	77	10.341	10.341	(0.882)	17256	0.15657	0.1566
	20 Isophorone	82	10.799	10.799	(0.921)	19501	0.13862	0.1386(M)
	21 2-Nitrophenol	139	10.958	10.959	(0.935)	6786	0.11098	0.1110
	22 2,4-Dimethylphenol	107	11.009	11.018	(0.939)	34653	0.32871	0.3287
	23 Bis(2-Chloroethoxy)methane	93	11.221	11.222	(0.957)	17820	0.20497	0.2050
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	11.434	11.434	(0.975)	28189	0.33927	0.3393
	26 1,2,4-Trichlorobenzene	180	11.603	11.603	(0.989)	17643	0.21331	0.2133
*	27 Naphthalene-d8	136	11.726	11.726	(1.000)	1070295	4.00000	
	28 Naphthalene	128	11.772	11.773	(1.004)	56321	0.20502	0.2050
	29 4-Chloroaniline	127	11.873	11.873	(1.013)	29121	0.24222	0.2422
	30 Hexachlorobutadiene	225	11.996	11.997	(1.023)	10931	0.18150	0.1815
	31 4-Chloro-3-methylphenol	107	12.832	12.825	(1.094)	25987	0.29730	0.2973
	32 2-Methylnaphthalene	142	13.173	13.181	(1.123)	37728	0.19441	0.1944
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
Compounds								
34	2,4,6-Trichlorophenol	196	13.753	13.746	(0.897)	15665	0.30937	0.3094
35	2,4,5-Trichlorophenol	196	13.831	13.815	(0.902)	12614	0.23346	0.2335
$ 36	2-Fluorobiphenyl	172	13.923	13.924	(0.908)	41292	0.21625	0.2162
37	2-Chloronaphthalene	162	14.179	14.187	(0.925)	31977	0.21332	0.2133
38	2-Nitroaniline	65	14.395	14.396	(0.939)	8851	0.21596	0.2160
39	Dimethylphthalate	163	14.759	14.767	(0.963)	28755	0.16632	0.1663
40	Acenaphthylene	152	15.046	15.046	(0.981)	48589	0.18802	0.1880
41	2,6-Dinitrotoluene	165	14.899	14.899	(0.972)	9657	0.25450	0.2545
* 42	Acenaphthene-d10	164	15.332	15.340	(1.000)	535349	4.00000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	15.401	15.409	(1.005)	30643	0.19661	0.1966
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	15.765	15.765	(1.028)	47461	0.20518	0.2052
47	4-Nitrophenol	109	Compound Not Detected.					
48	2,4-Dinitrotoluene	165	15.742	15.742	(1.027)	9863	0.17933	0.1793
50	Diethylphthalate	149	16.229	16.237	(1.058)	27937	0.15253	0.1525
49	Fluorene	166	16.484	16.484	(1.075)	38035	0.19763	0.1976
51	4-Chlorophenyl-phenylether	204	16.484	16.484	(1.075)	18253	0.21774	0.2177
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	16.585	16.585	(0.899)	5226	0.23289	0.2329
54	N-Nitrosodiphenylamine	169	16.723	16.724	(0.907)	27067	0.18997	0.1900
$ 55	2,4,6-Tribromophenol	330	16.970	16.986	(1.107)	714	0.02174	0.02174
56	4-Bromophenyl-phenylether	248	17.503	17.504	(0.949)	11347	0.19654	0.1965
57	Hexachlorobenzene	284	17.619	17.620	(0.955)	16352	0.25152	0.2515
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	18.447	18.448	(1.000)	962985	4.00000	
60	Phenanthrene	178	18.502	18.502	(1.003)	47244	0.19170	0.1917
61	Anthracene	178	18.610	18.610	(1.009)	41502	0.17367	0.1737
62	Carbazole	167	18.943	18.943	(1.027)	34213	0.15628	0.1563
63	Di-n-butylphthalate	149	19.639	19.647	(1.065)	35815	0.12059	0.1206
64	Fluoranthene	202	20.885	20.885	(0.888)	52527	0.17809	0.1781
65	Pyrene	202	21.318	21.318	(0.906)	53917	0.17953	0.1795
$ 66	Terphenyl-d14	244	21.596	21.597	(0.918)	46499	0.19135	0.1913
67	Butylbenzylphthalate	149	22.495	22.487	(0.957)	14643	0.09053	0.09053
68	Benzo(a)anthracene	228	23.493	23.494	(0.999)	56576	0.18715	0.1871
* 69	Chrysene-d12	240	23.517	23.517	(1.000)	857365	4.00000	
70	3,3'-Dichlorobenzidine	252	23.439	23.440	(0.997)	44875	0.33327	0.3333
71	Chrysene	228	23.555	23.563	(1.002)	49822	0.20279	0.2028
72	bis(2-Ethylhexyl)phthalate	149	23.493	23.494	(0.955)	27381	0.14537	0.1454
* 134	Di-n-octylphthalate-d4	153	24.593	24.593	(1.000)	1343499	4.00000	
73	Di-n-octylphthalate	149	24.601	24.609	(1.000)	77989	0.26178	0.2618
74	Benzo(b)fluoranthene	252	25.444	25.445	(0.968)	62792	0.17794	0.1779(H)
75	Benzo(k)fluoranthene	252	25.499	25.507	(0.970)	59902	0.17633	0.1763
76	Benzo(a)pyrene	252	26.157	26.157	(0.995)	55083	0.17465	0.1746
* 77	Perylene-d12	264	26.281	26.281	(1.000)	1034621	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	29.150	29.158	(1.109)	68069	0.18452	0.1845
79	Dibenzo(a,h)anthracene	278	29.196	29.197	(1.111)	58001	0.20730	0.2073
80	Benzo(g,h,i)perylene	276	30.027	30.028	(1.143)	62302	0.21192	0.2119
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	8.628	8.628	(0.934)	38208	0.29153	0.2915
93	Benzidine	184	21.171	21.140	(0.900)	8390	0.06408	0.06408
103	Pyridine	79	4.820	4.789	(0.522)	31948	0.30474	0.3047
105	1-methylnaphthalene	142	13.374	13.382	(1.141)	36246	0.20636	0.2064
111	Azobenzene (1,2-DP-Hydrazine)	77	16.808	16.816	(1.096)	35500	0.12980	0.1298

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.444	25.507	(0.968)	124707	0.36788	0.3679
120 2,3,4,6-Tetrachlorophenol	232	16.020	16.012	(1.045)	4353	0.08686	0.08686

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052304.D
Lab Smp Id: SLC0401-LCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:03
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	297263	148632	594526	291047	-2.09
27 Naphthalene-d8	1085336	542668	2170672	1070295	-1.39
42 Acenaphthene-d10	563464	281732	1126928	535349	-4.99
59 Phenanthrene-d10	1038318	519159	2076636	962985	-7.26
69 Chrysene-d12	1012751	506376	2025502	857365	-15.34
134 Di-n-octylphthala	1628890	814445	3257780	1343499	-17.52
77 Perylene-d12	1152264	576132	2304528	1034621	-10.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.24	-0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.00
42 Acenaphthene-d10	15.34	14.84	15.84	15.33	-0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	-0.00
69 Chrysene-d12	23.52	23.02	24.02	23.52	-0.00
134 Di-n-octylphthala	24.59	24.09	25.09	24.59	-0.00
77 Perylene-d12	26.28	25.78	26.78	26.28	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052304.D

Lab ID: SLC0401-LCV1
nt10.i, 20230305.b\ABN.m,   05-MAR-2023 15:18

RT	CO-ELUTION COMPOUNDS
23.494	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

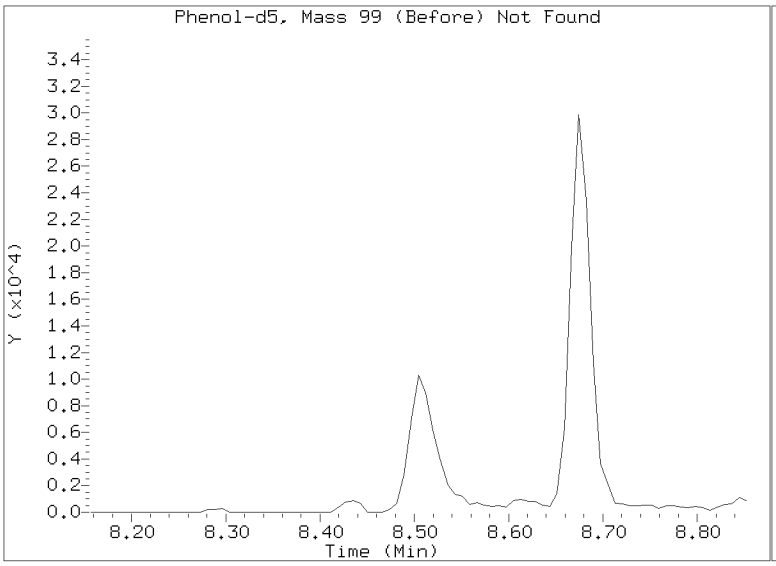
RRT check based on Ccal File: NT1003052302.D

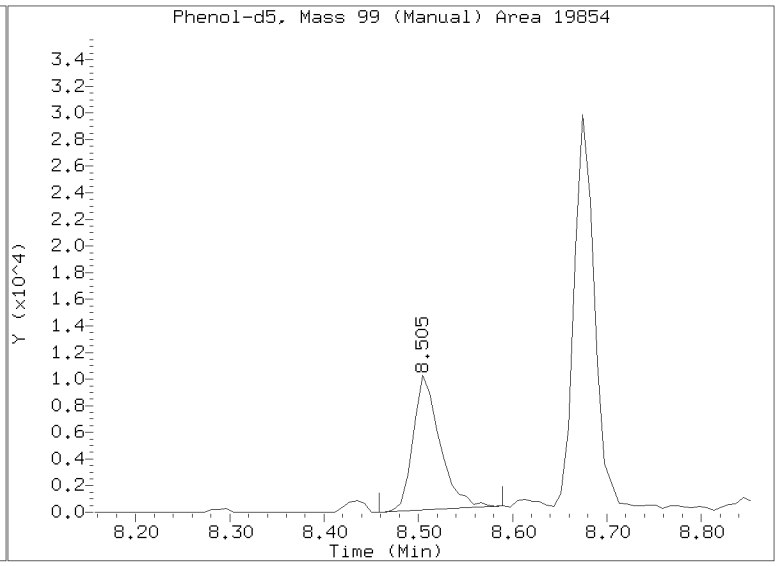
On Column LOD for nt10.i, 20230305.b\ABN.m, ICAL.sub = 0.0000

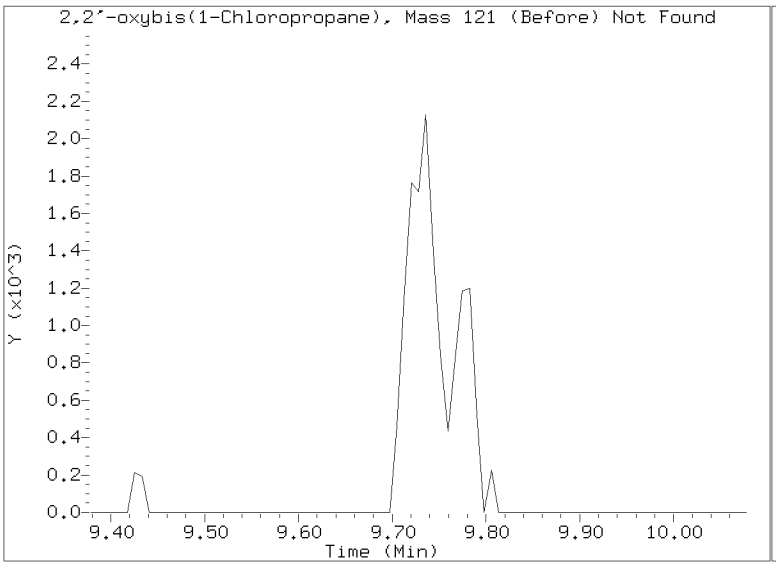
* Only compounds listed in the work order have been verified by the analyst *

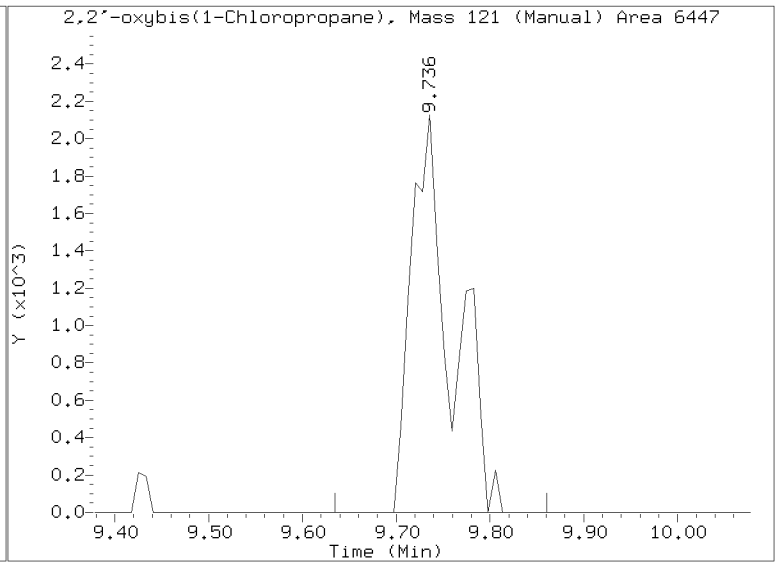
Quant Ion Manual Peak Adjustment Report

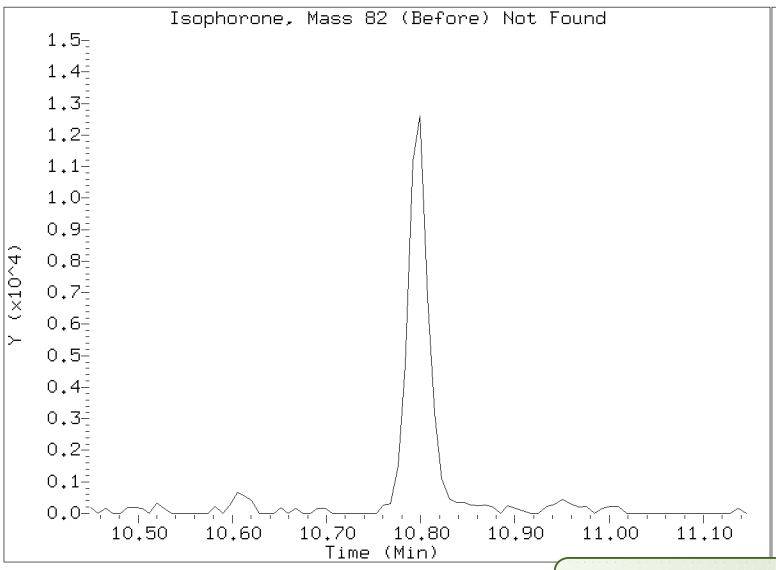
Datafile: //target/share/chem3/nt10.i/20230305.b/NT1003052304.D
Injection Date: 05-MAR-2023 15:18
Lab ID:SLC0401-LCV1 Client ID:
Report Date: 03/27/2023 11:22

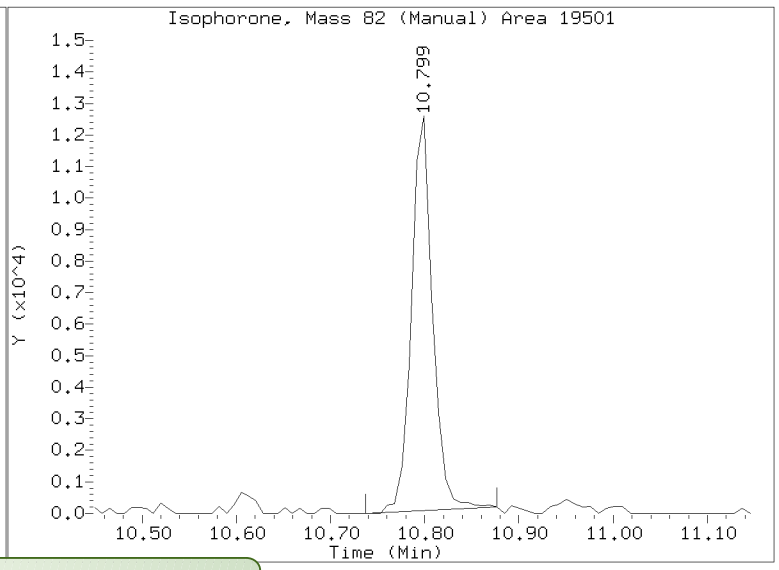












APPROVED
By Deenay Dunmore at 2:07 pm, Mar 27, 2023

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00019
Lab File ID:	NT1003052325.D	Calibration Date:	03/01/2023
Sequence:	SLC0415	Injection Date:	03/06/23
Lab Sample ID:	SLC0415-CCV1	Injection Time:	04:32
Sequence Name:	Calibration Check		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	5.0000	5.1	1.5534590	1.5972540		2.8	+/-50
4-Methylphenol	A	5.0000	4.2	1.2087680	1.2427800		-16.8	+/-50
Naphthalene	A	5.0000	4.8	1.0266520	0.9762232		-4.9	+/-50
2-Methylnaphthalene	A	5.0000	5.0	0.7252818	0.7229156		-0.3	+/-50
Acenaphthylene	A	5.0000	5.5	1.9309320	2.1147470		9.5	+/-50
Dimethylphthalate	A	5.0000	4.8	1.2917940	1.2295940		-4.8	+/-50
Acenaphthene	A	5.0000	4.7	1.1645250	1.0886570		-6.5	+/-50
Dibenzofuran	A	5.0000	5.0	1.7283260	1.7322310		0.2	+/-50
Fluorene	A	5.0000	4.8	1.4379840	1.3813860		-3.9	+/-50
Phenanthrene	A	5.0000	4.9	1.0236730	1.0085230		-1.5	+/-50
Anthracene	A	5.0000	5.3	0.9926226	1.0549600		6.3	+/-50
Fluoranthene	A	5.0000	4.1	1.3760330	1.1271120		-18.1	+/-50
Pyrene	A	5.0000	4.2	1.4011560	1.1872420		-15.3	+/-50
Butylbenzylphthalate	A	5.0000	3.6	0.6475451	0.5410213		-27.3	+/-50
Benzo(a)anthracene	A	5.0000	4.7	1.4104100	1.3267490		-5.9	+/-50
Chrysene	A	5.0000	5.2	1.1462500	1.1881060		3.7	+/-50
bis(2-Ethylhexyl)phthalate	A	5.0000	4.6	0.5331838	0.5301781		-8.1	+/-50
Benzofluoranthenes, Total	A	10.000	8.9	1.3383070	1.2247210		-11.0	+/-50
Benzo(a)pyrene	A	5.0000	4.5	1.2312020	1.1439840		-10.6	+/-50
Indeno(1,2,3-cd)pyrene	A	5.0000	4.5	1.4033590	1.3554640		-9.4	+/-50
Dibenzo(a,h)anthracene	A	5.0000	5.0	1.1150690	1.1362700		-0.9	+/-50
Benzo(g,h,i)perylene	A	5.0000	4.6	1.1245240	1.0839360		-8.3	+/-50
2-Fluorophenol	A	7.5000	7.59	1.2585100	1.2731630		1.2	+/-50
Phenol-d5	A	7.5000	8.18	1.4611190	1.5928210		9.0	+/-50
2-Chlorophenol-d4	A	7.5000	7.92	1.2465880	1.3167740		5.6	+/-50
1,2-Dichlorobenzene-d4	A	5.0000	4.80	0.9313544	0.8938771		-4.0	+/-50
Nitrobenzene-d5	A	5.0000	5.45	0.4390871	0.4790405		9.1	+/-50
2-Fluorobiphenyl	A	5.0000	5.08	1.4267270	1.4491650		1.6	+/-50
2,4,6-Tribromophenol	A	7.5000	7.41	0.2287830	0.2559487		-1.2	+/-50
p-Terphenyl-d14	A	5.0000	4.46	1.1337350	1.0103300		-10.9	+/-50

* Values outside of QC limits

* Values outside of QC limits

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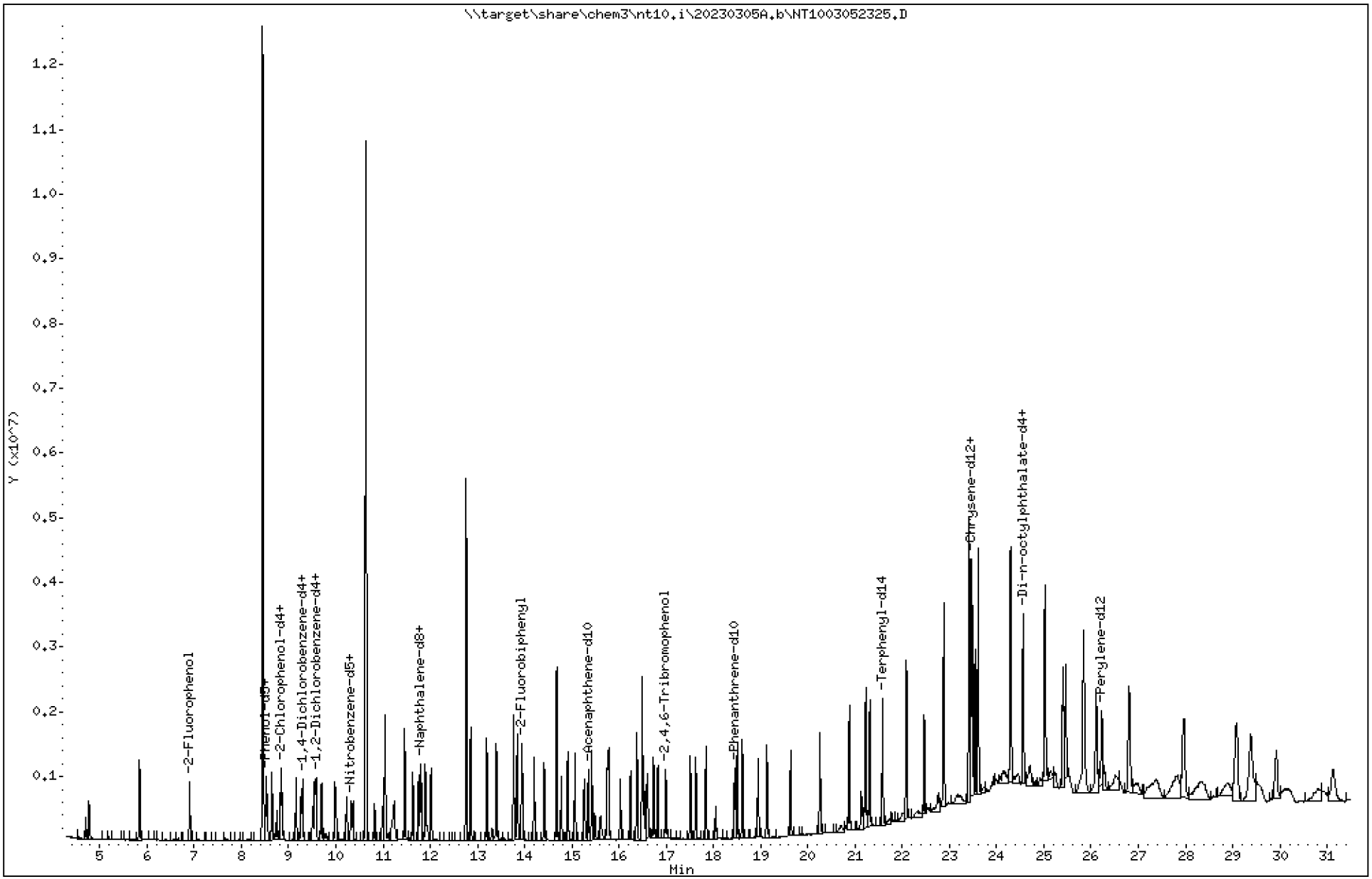
Date : 06-MAR-2023 04:32
Client ID:
Sample Info: SLC0415-CCV1

Instrument: nt10.i
Operator: VTS
Column phase: ZB-5msi
Column diameter: 0.25



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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

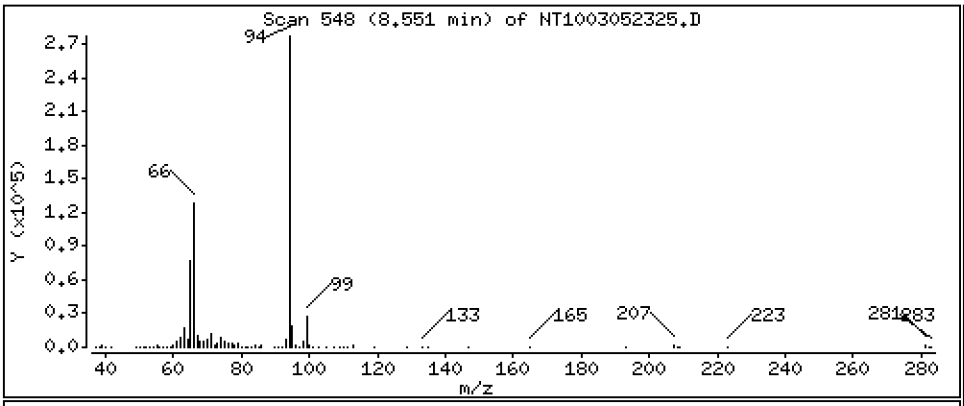
Operator: VTS

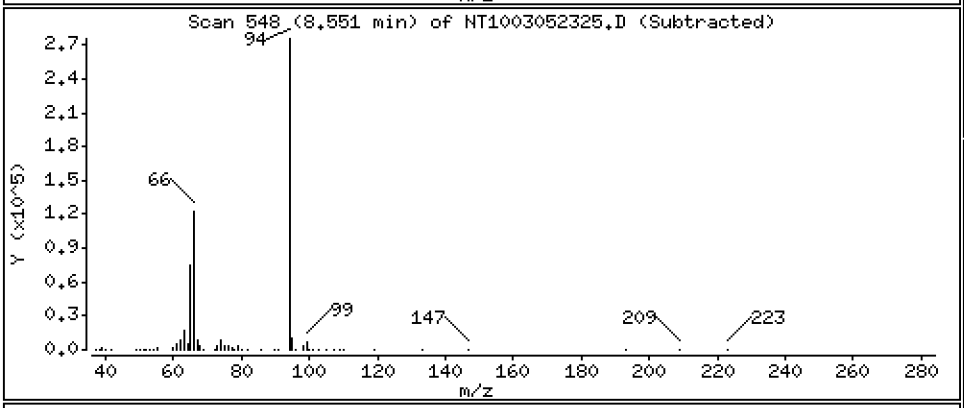
Column phase: ZB-5msi

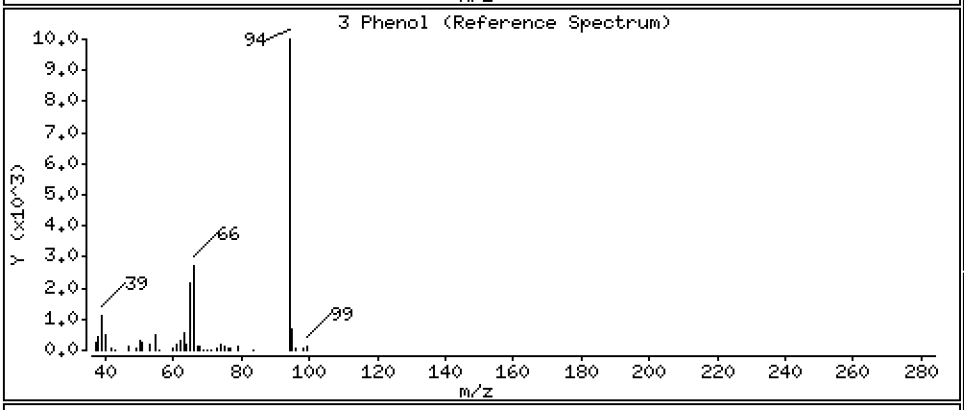
Column diameter: 0.25

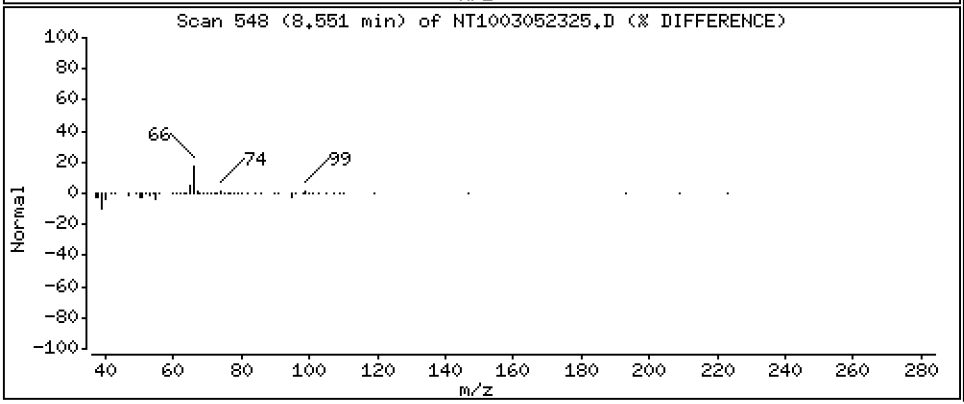
3 Phenol

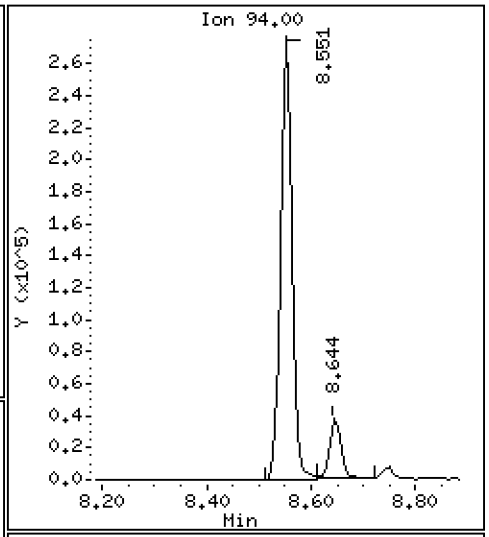
Concentration: 5.141 ug/mL

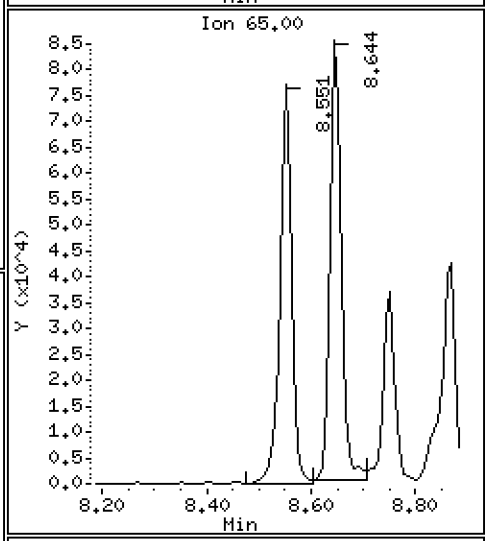


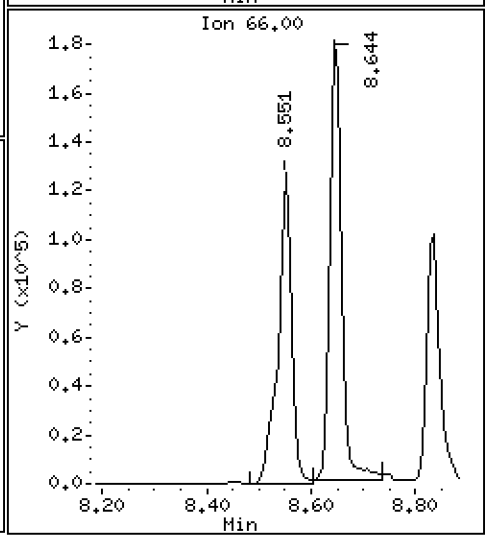












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

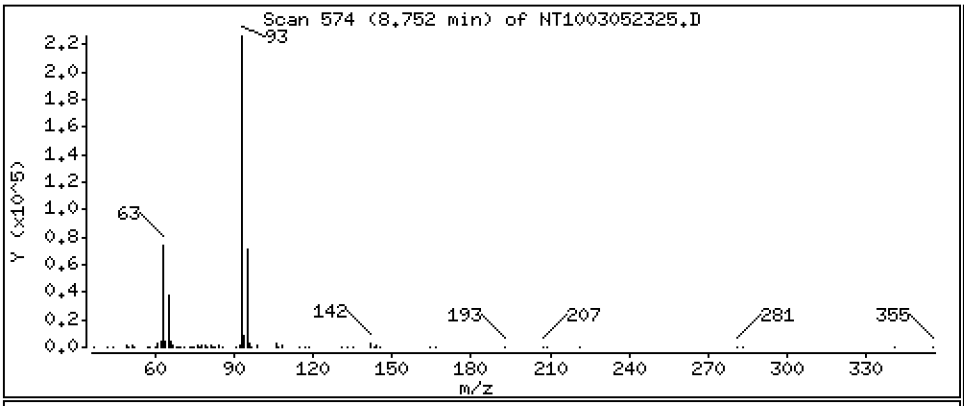
Operator: VTS

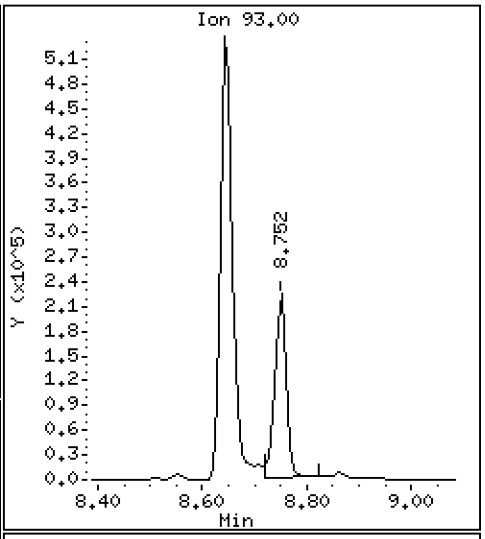
Column phase: ZB-5msi

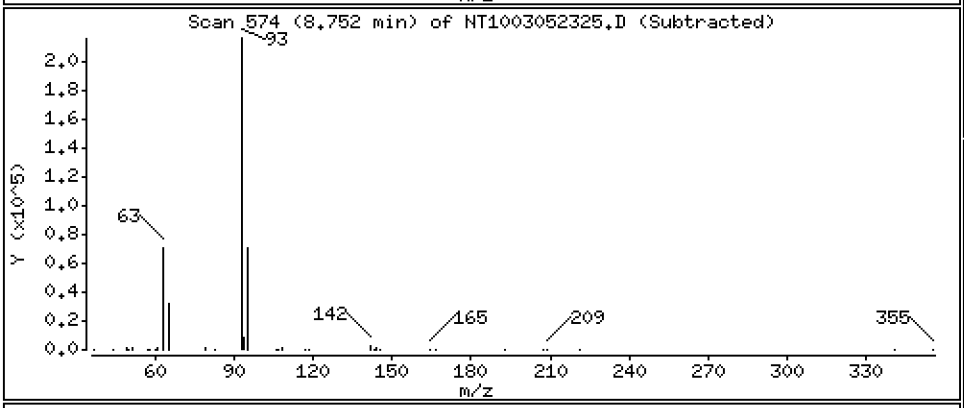
Column diameter: 0.25

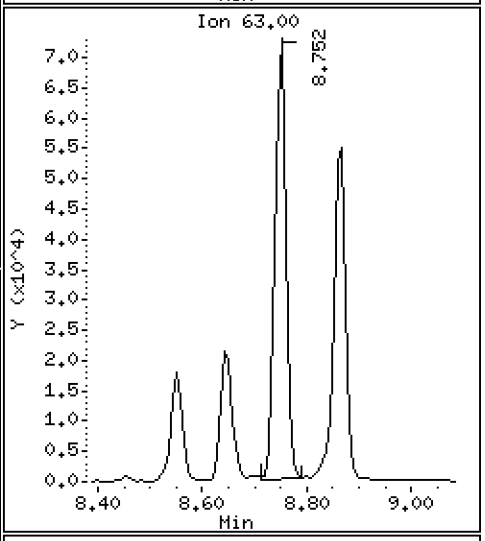
4 Bis(2-Chloroethyl)ether

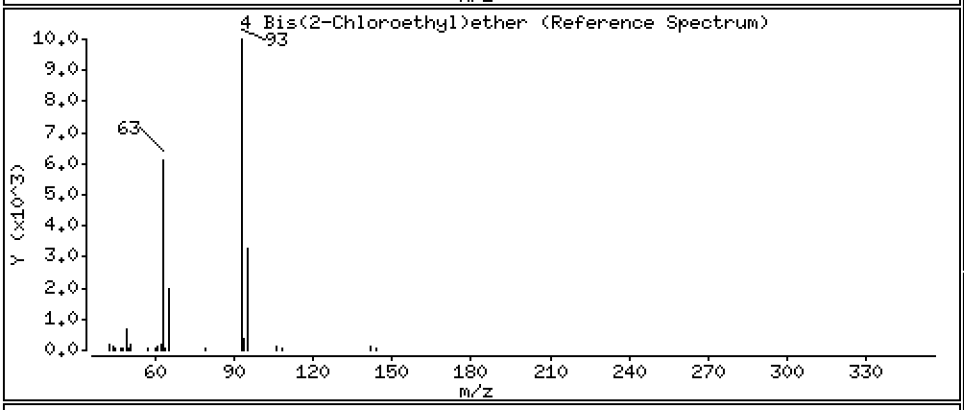
Concentration: 5.175 ug/mL

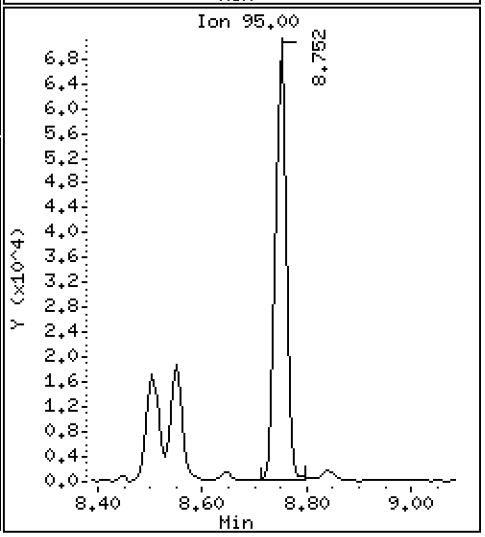


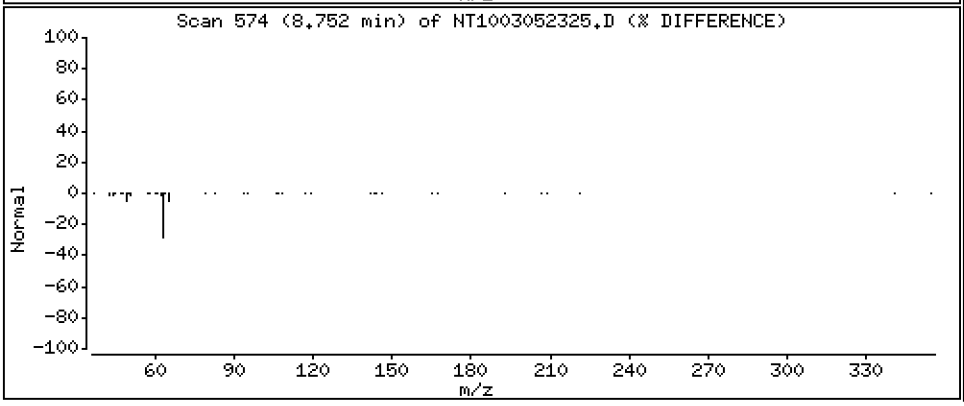












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

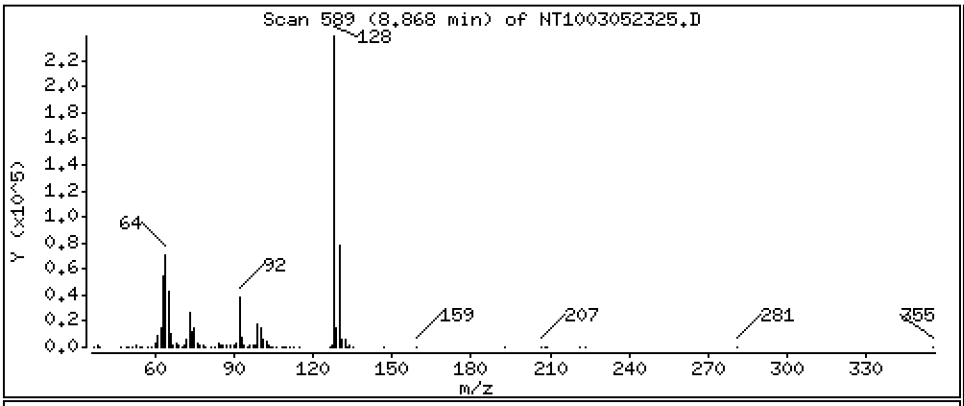
Operator: VTS

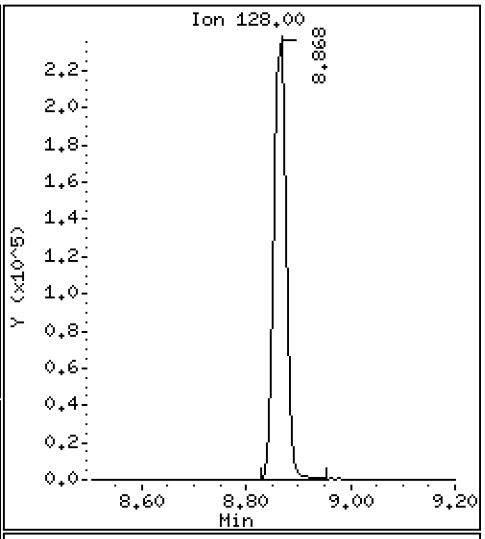
Column phase: ZB-5msi

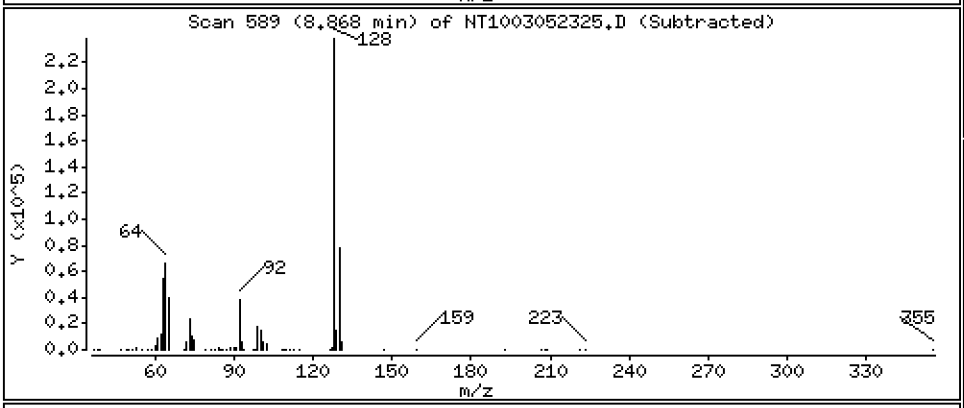
Column diameter: 0.25

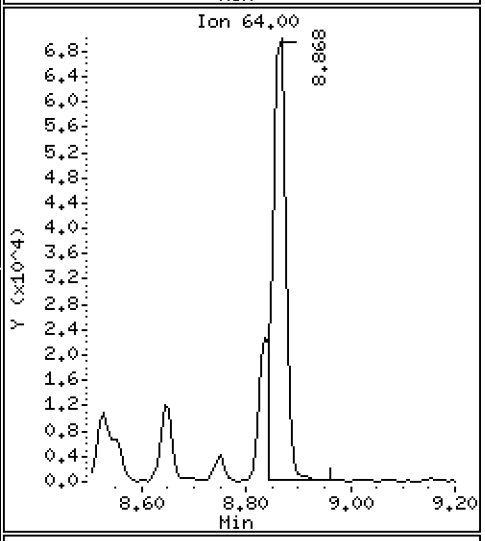
6 2-Chlorophenol

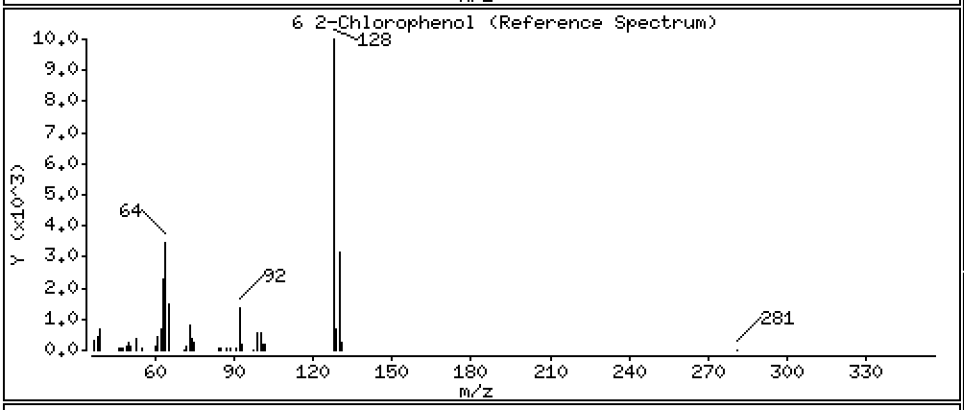
Concentration: 5.237 ug/mL

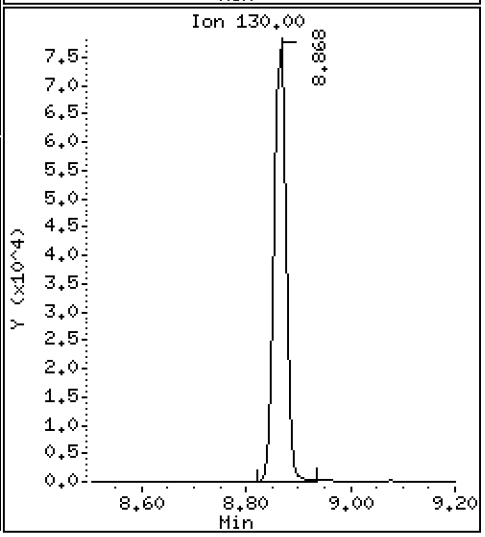


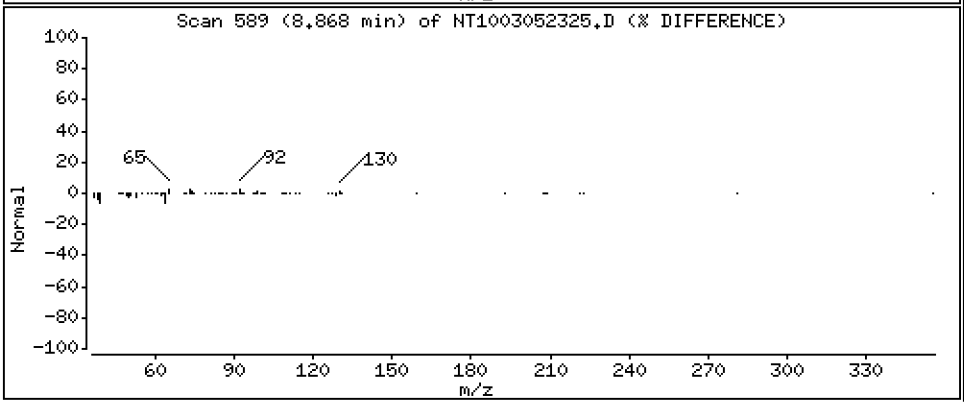












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

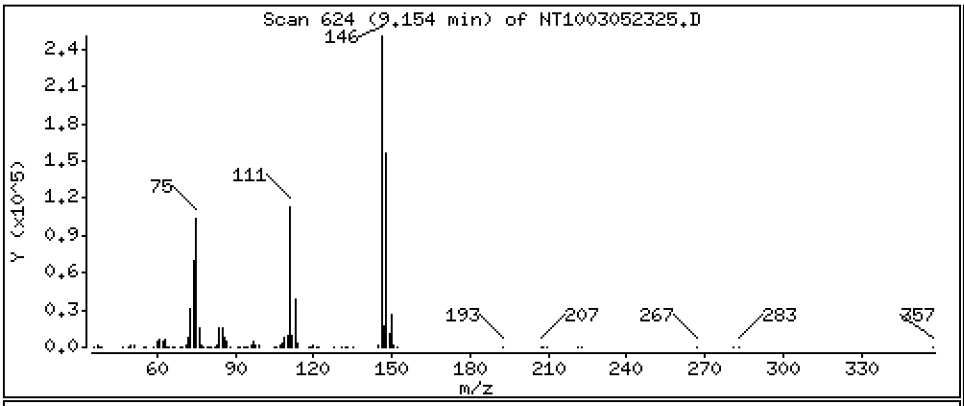
Operator: VTS

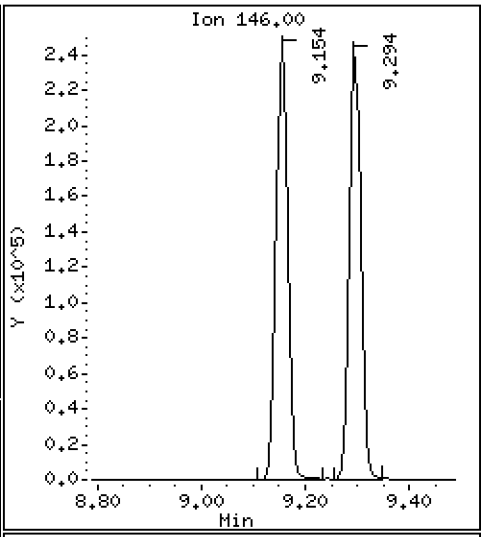
Column phase: ZB-5msi

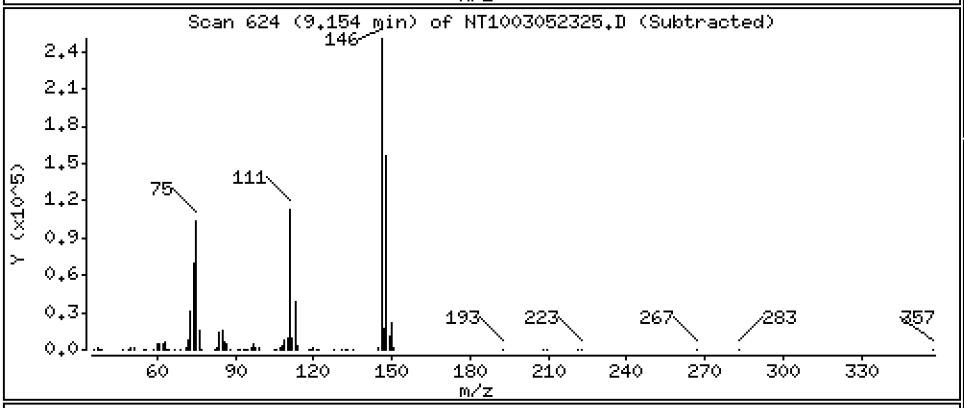
Column diameter: 0.25

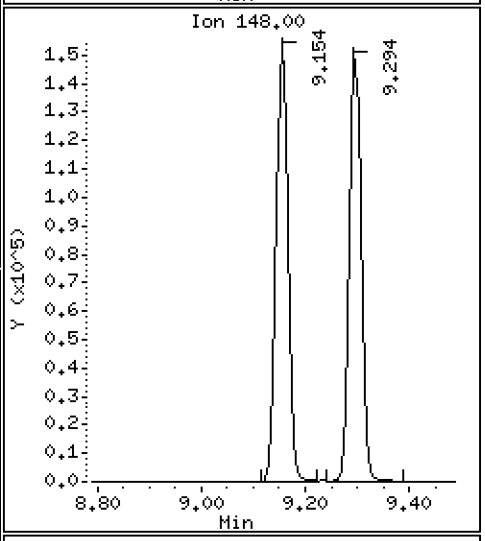
7 1,3-Dichlorobenzene

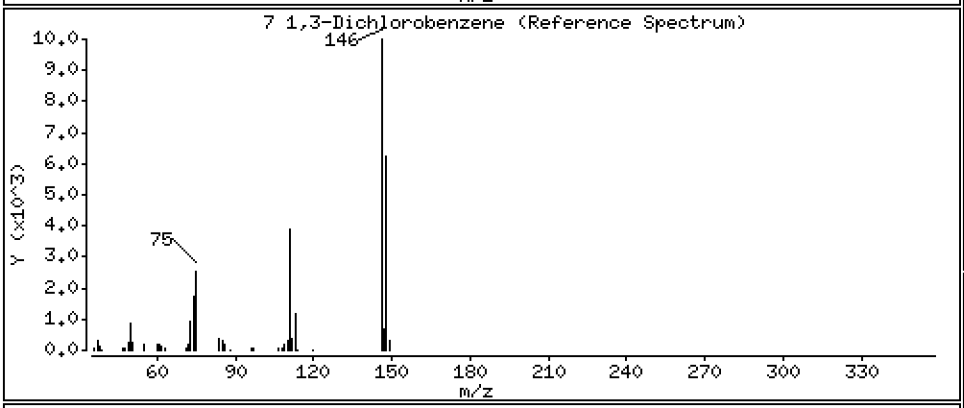
Concentration: 4.796 ug/mL

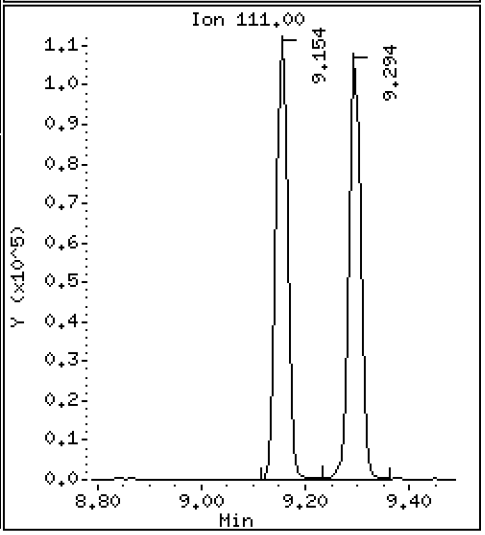


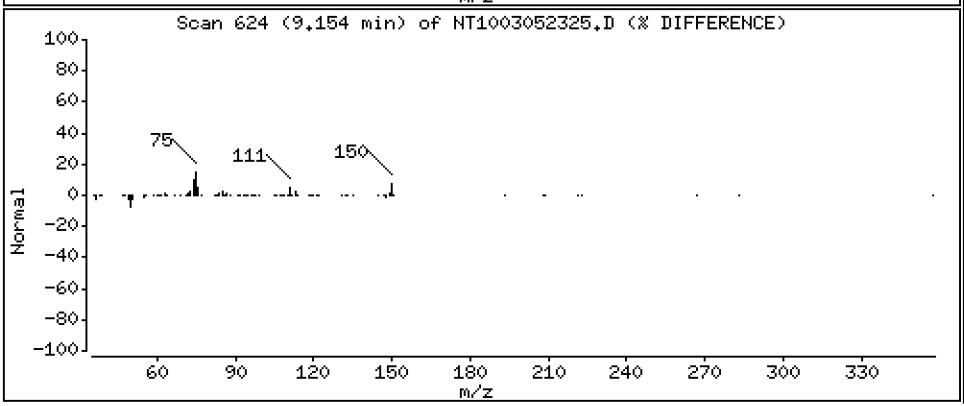












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

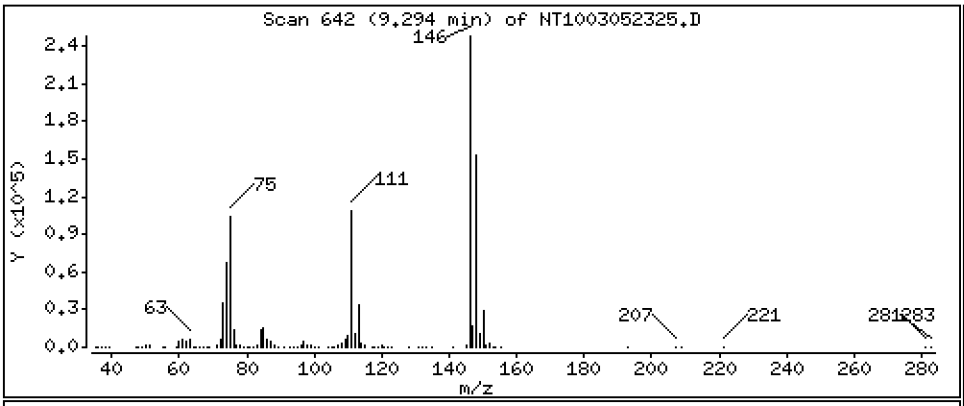
Operator: VTS

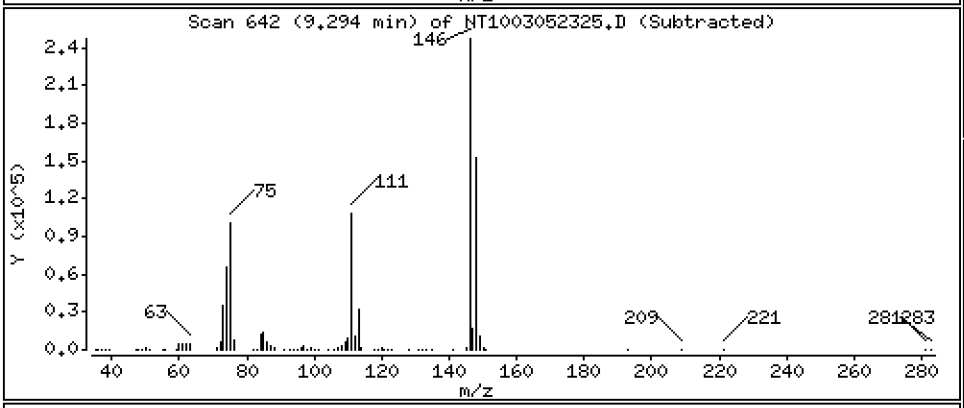
Column phase: ZB-5msi

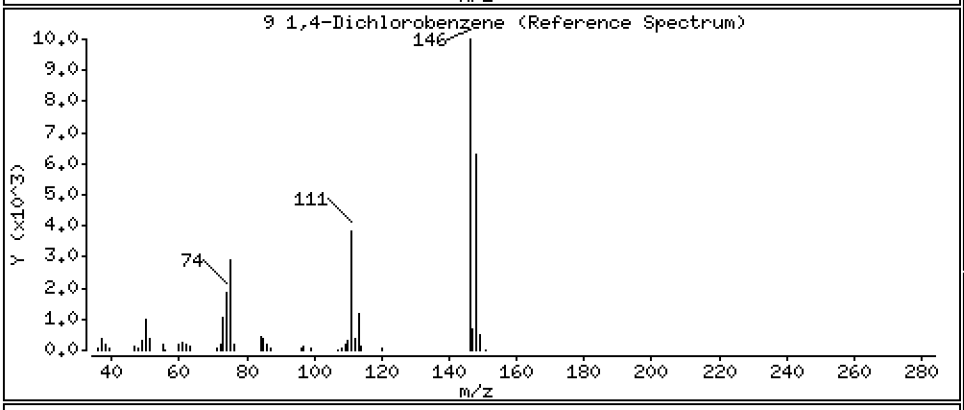
Column diameter: 0.25

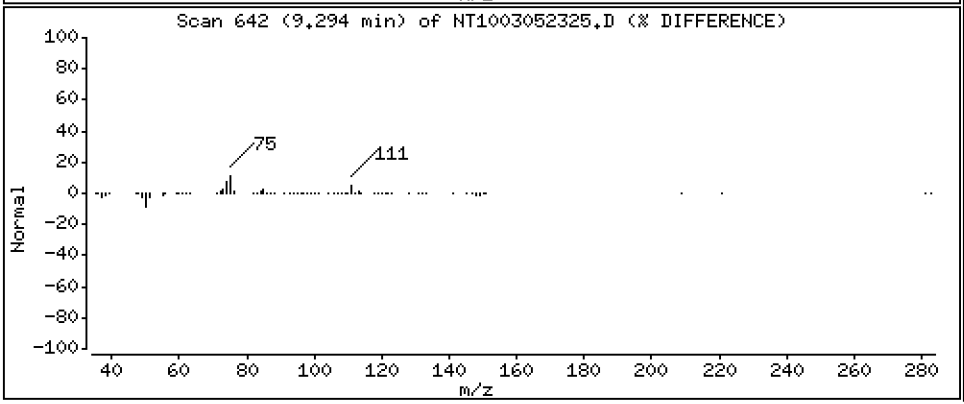
9 1,4-Dichlorobenzene

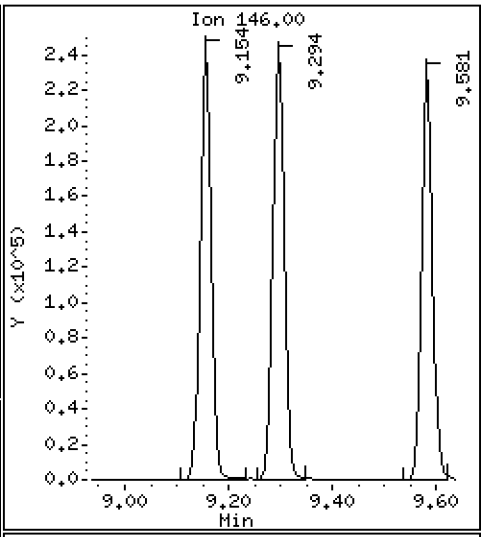
Concentration: 4.620 ug/mL

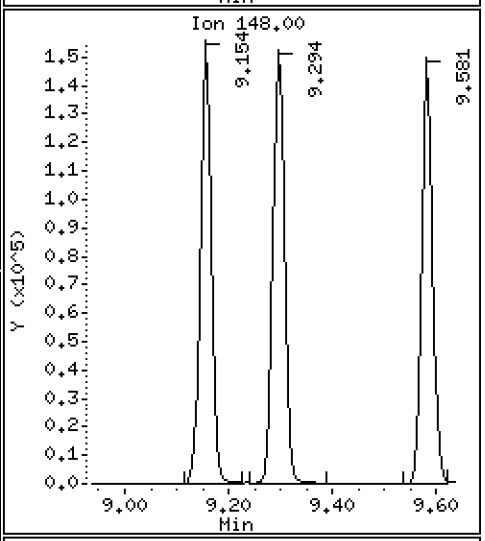


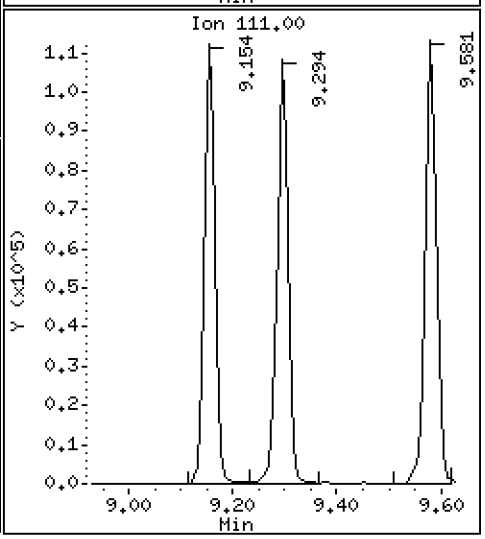












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

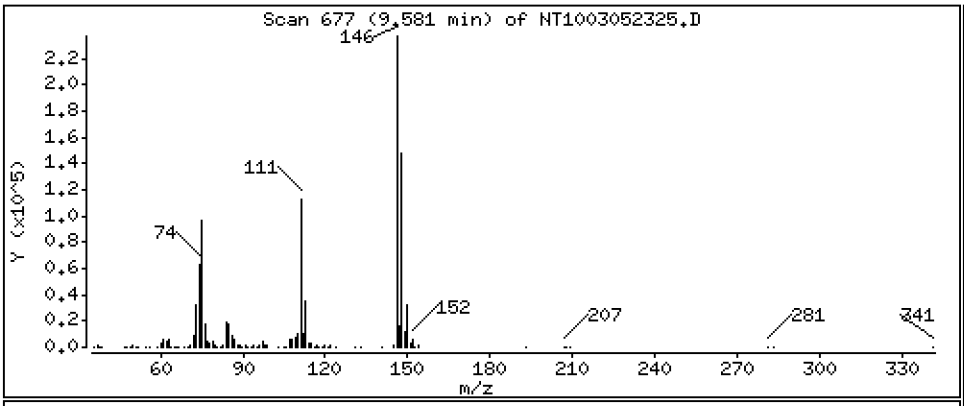
Operator: VTS

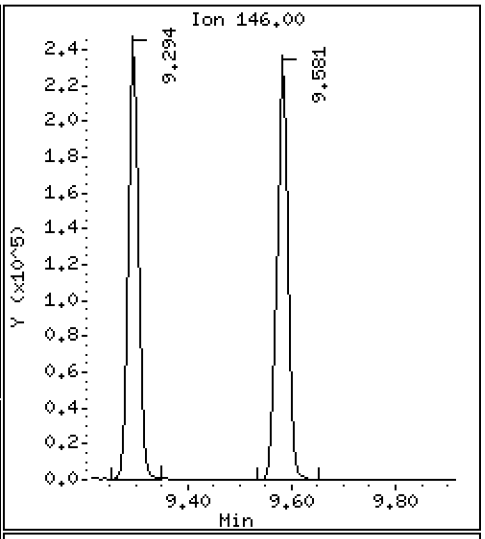
Column phase: ZB-5msi

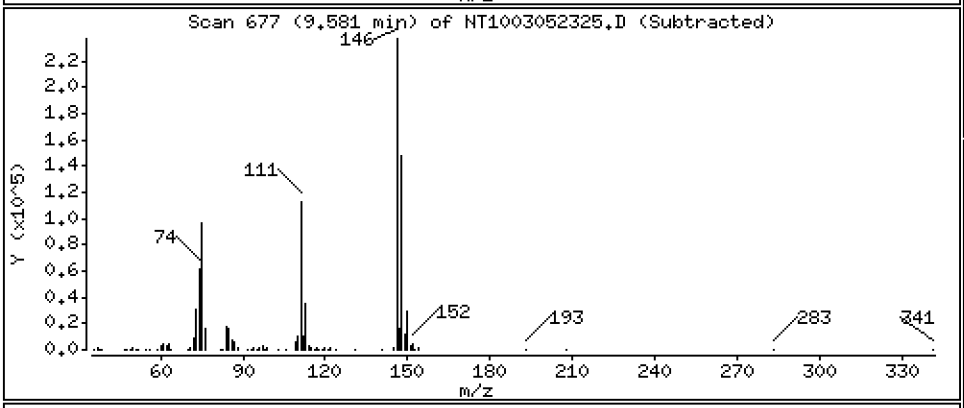
Column diameter: 0.25

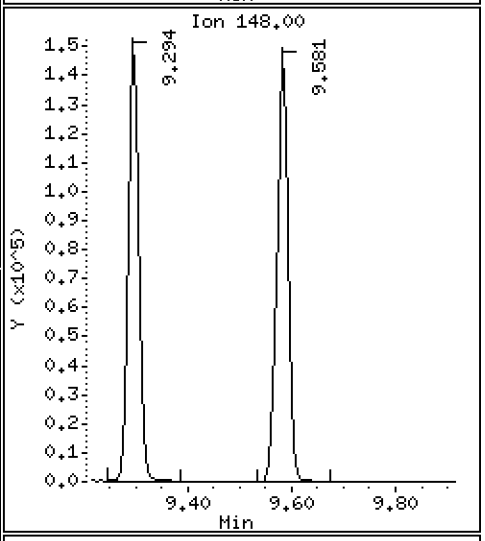
12 1,2-Dichlorobenzene

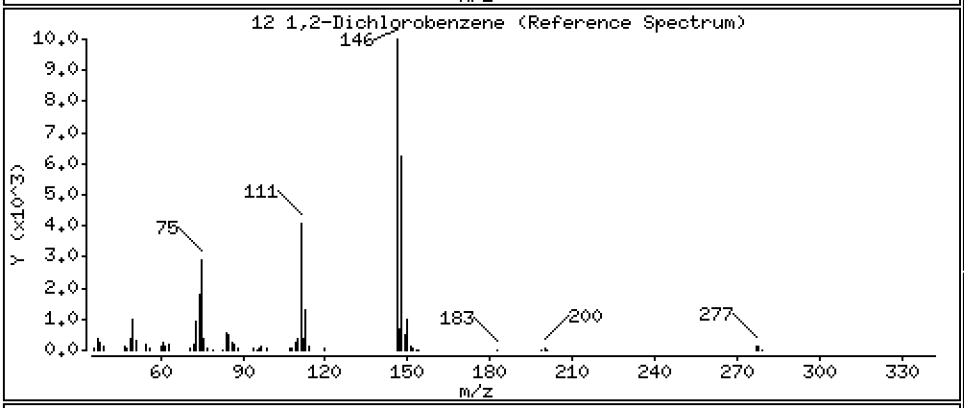
Concentration: 4.630 ug/mL

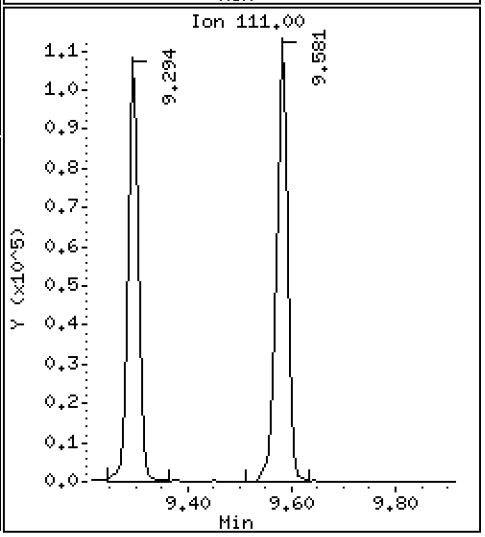


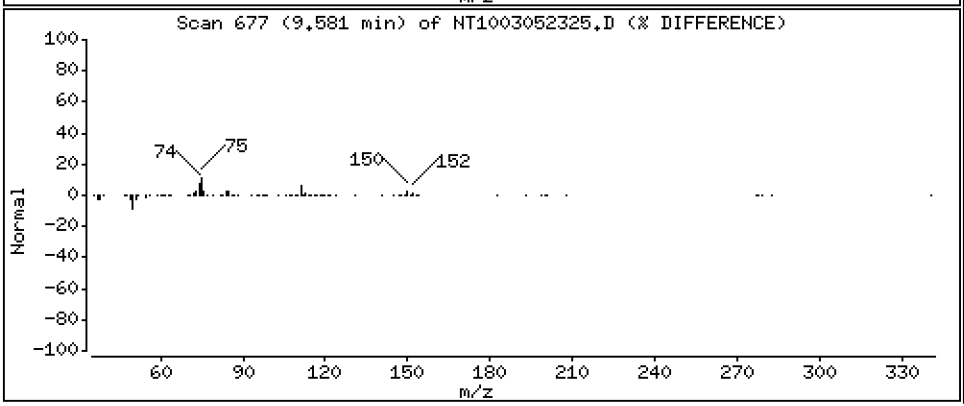












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

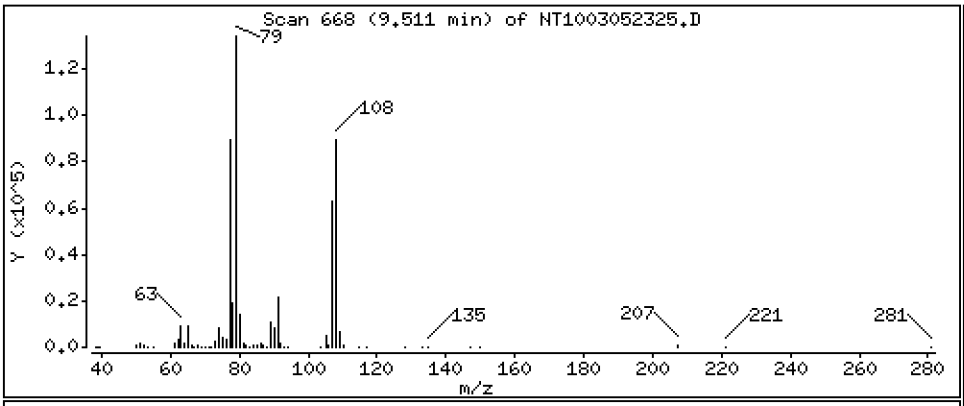
Operator: VTS

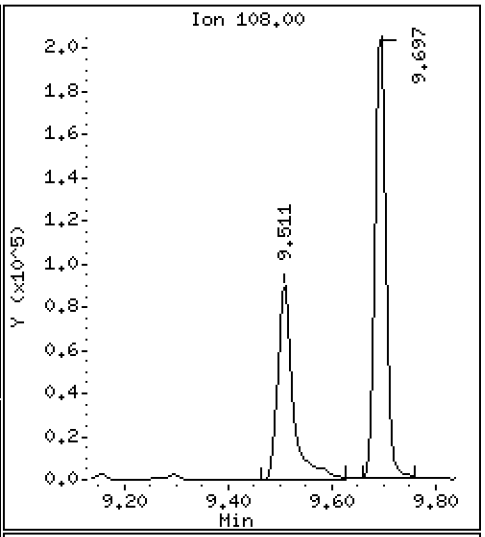
Column phase: ZB-5msi

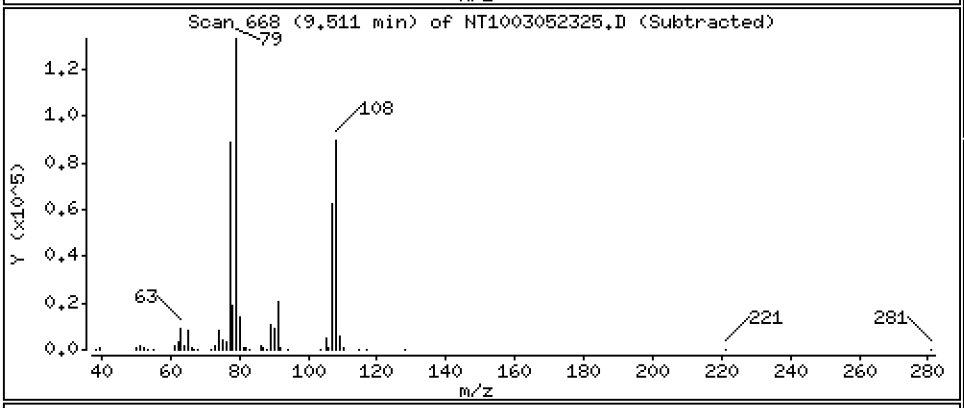
Column diameter: 0.25

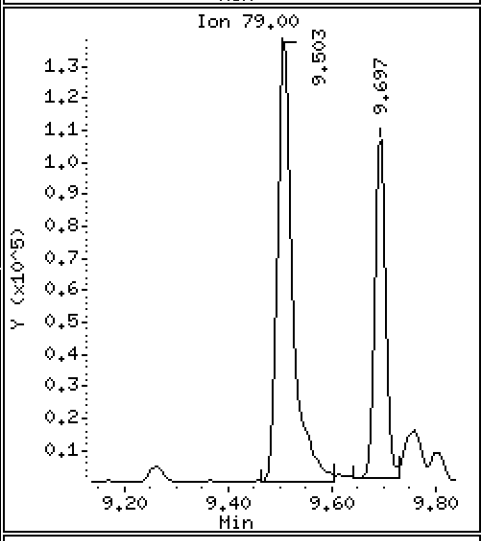
11 Benzyl alcohol

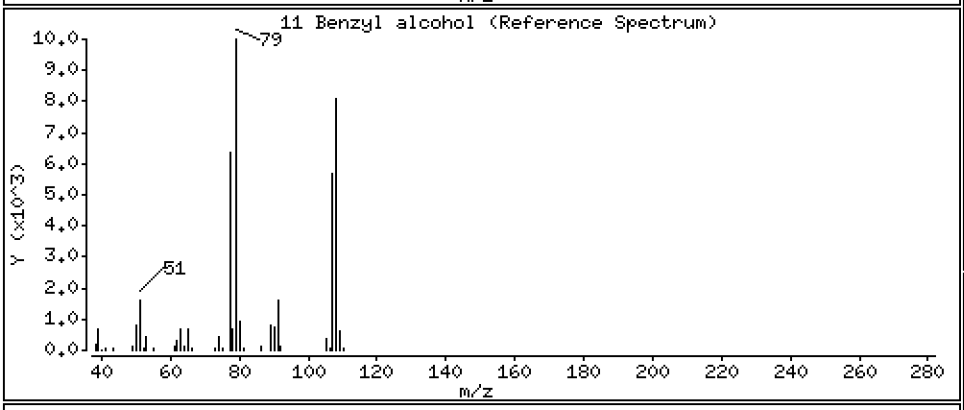
Concentration: 4.334 ug/mL

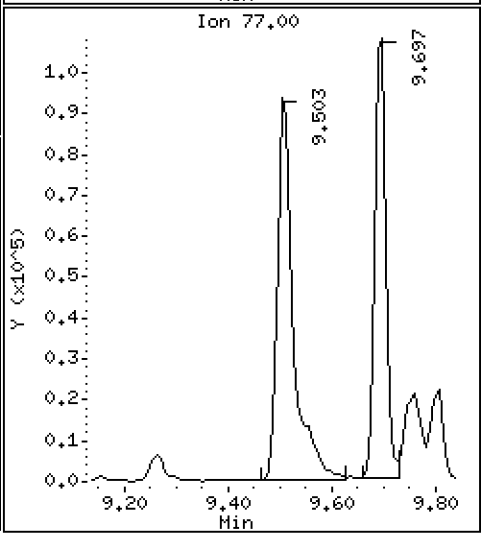


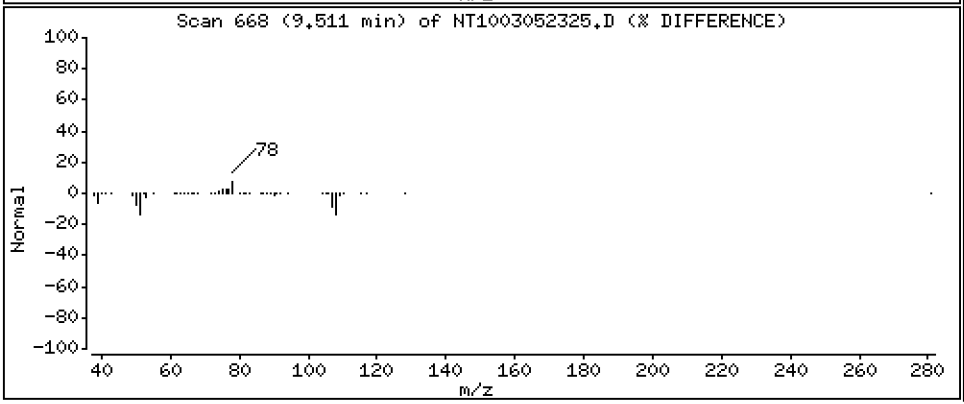












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

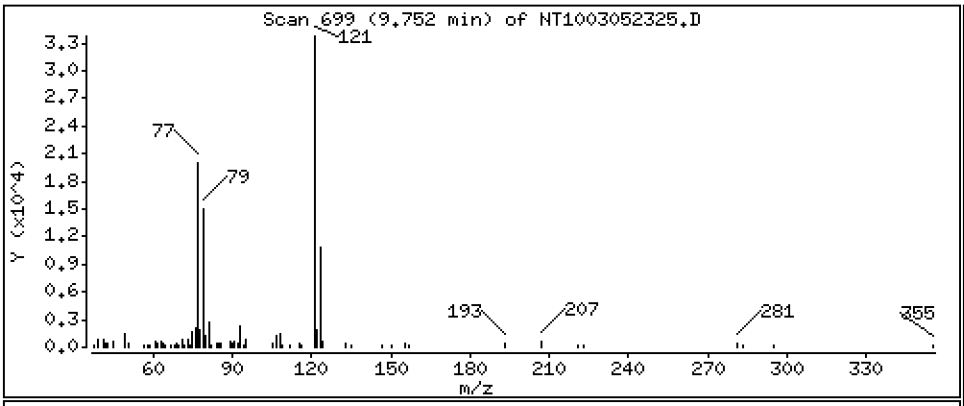
Operator: VTS

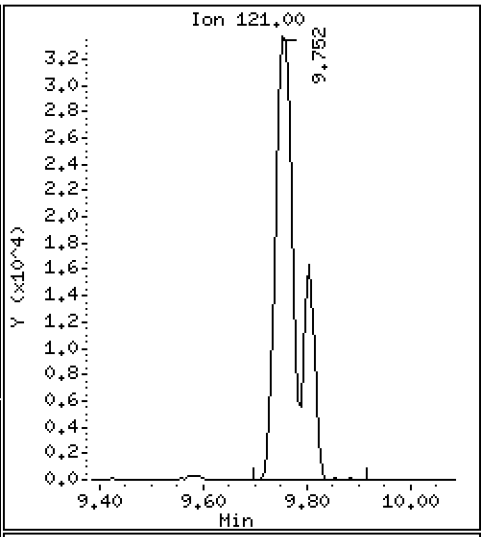
Column phase: ZB-5msi

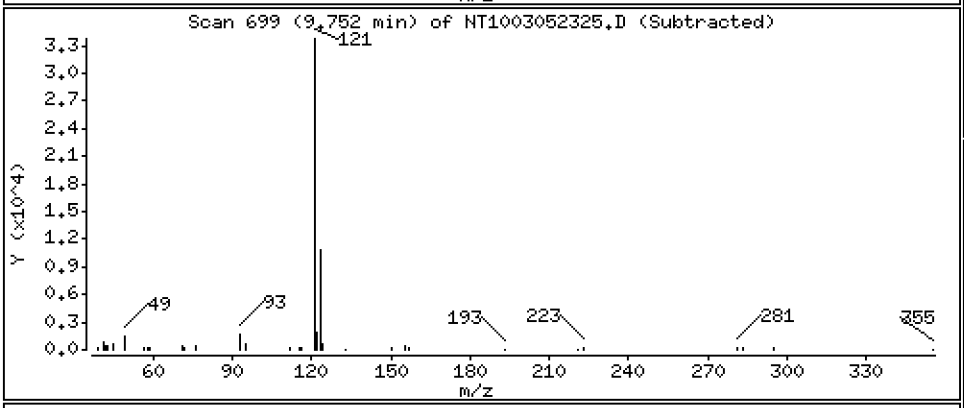
Column diameter: 0.25

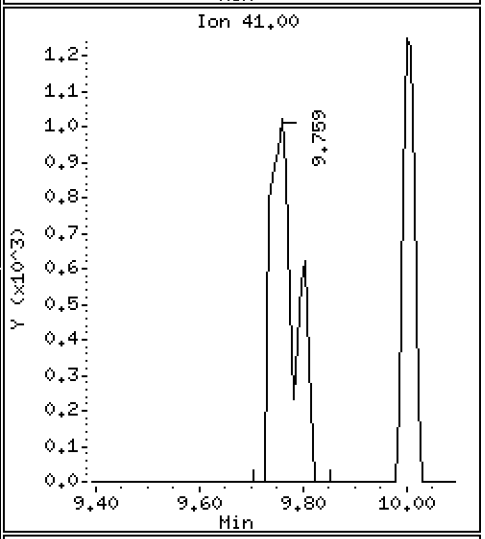
14 2,2'-oxybis(1-Chloropropane)

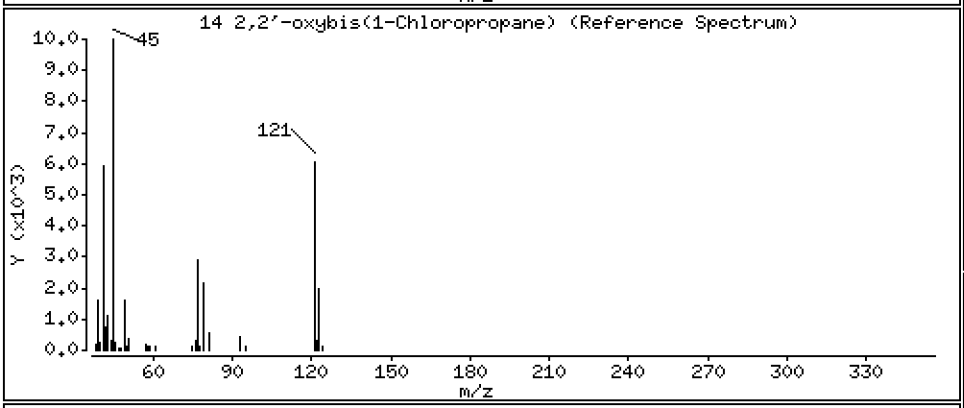
Concentration: 5.037 ug/mL

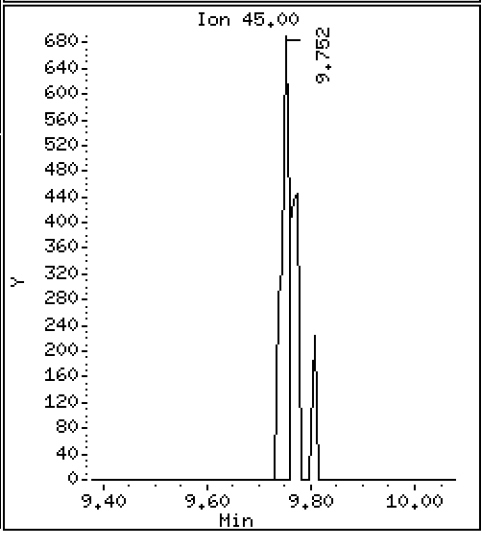


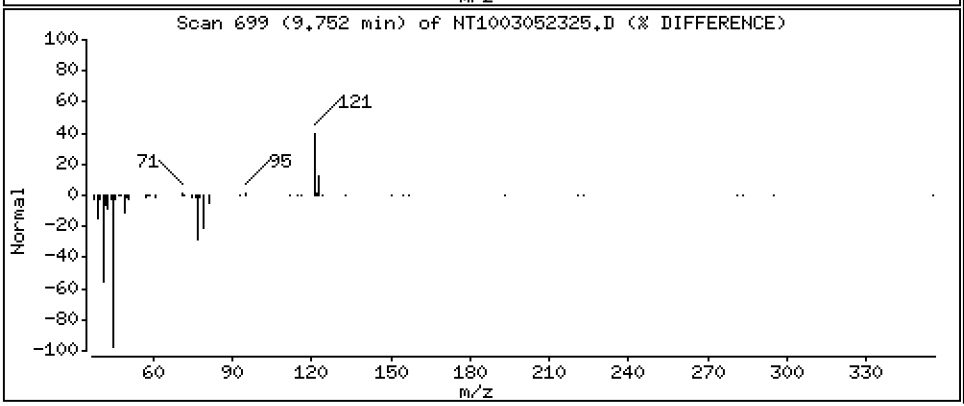












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

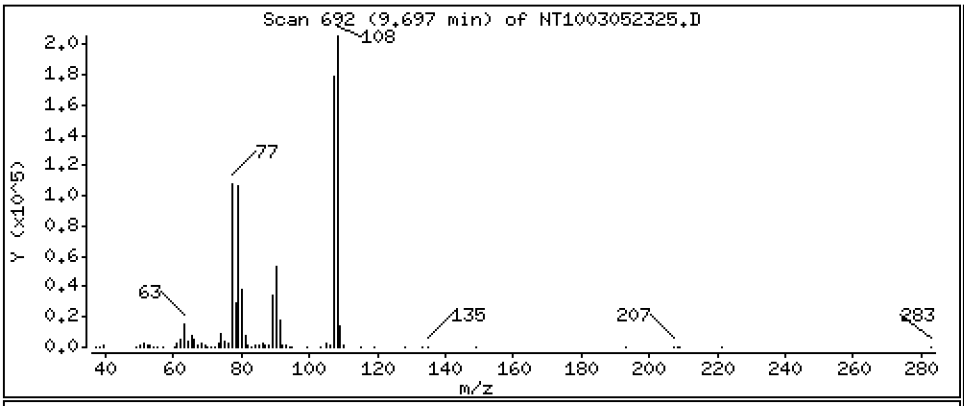
Operator: VTS

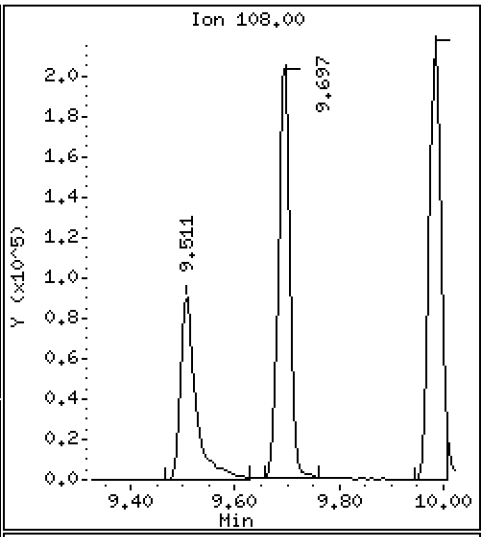
Column phase: ZB-5msi

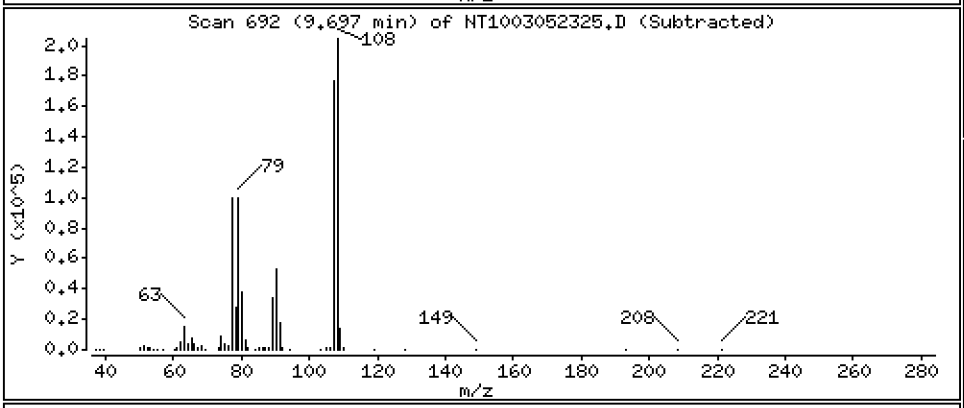
Column diameter: 0.25

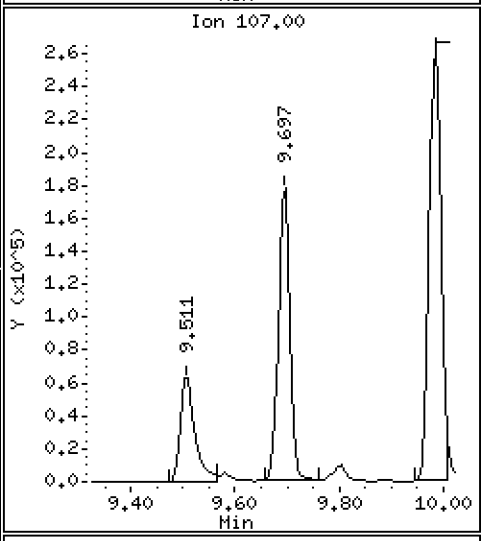
13 2-Methylphenol

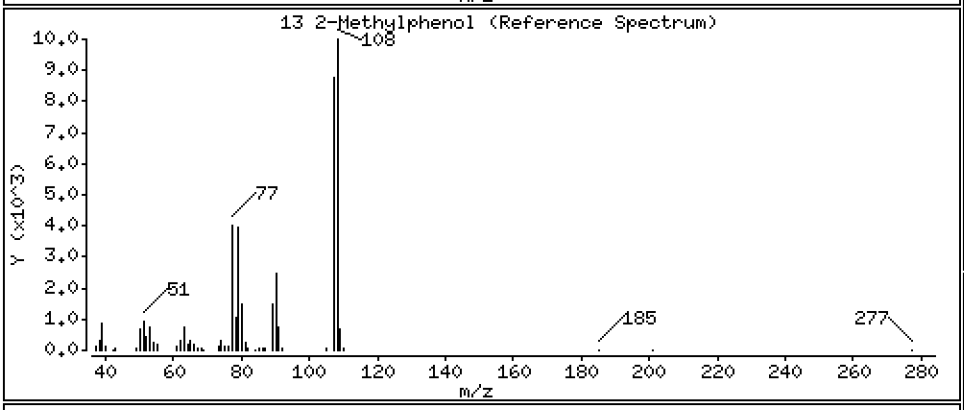
Concentration: 4.807 ug/mL

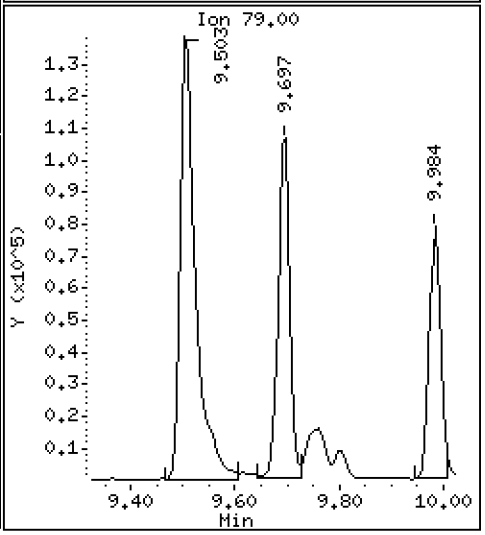


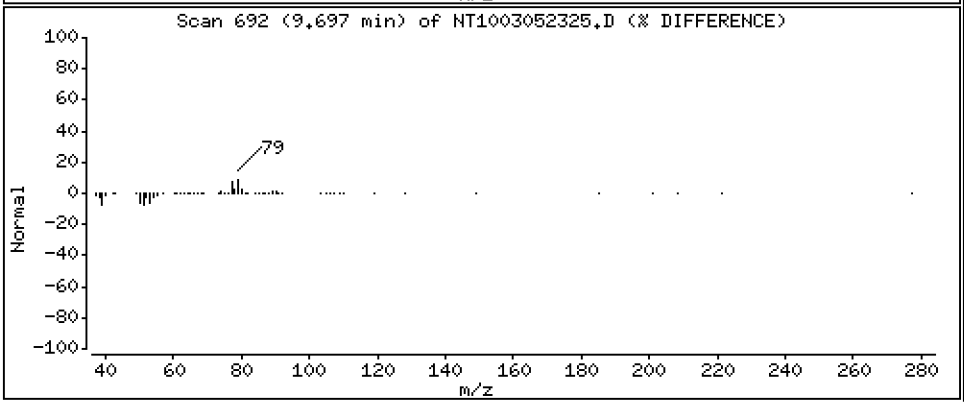












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

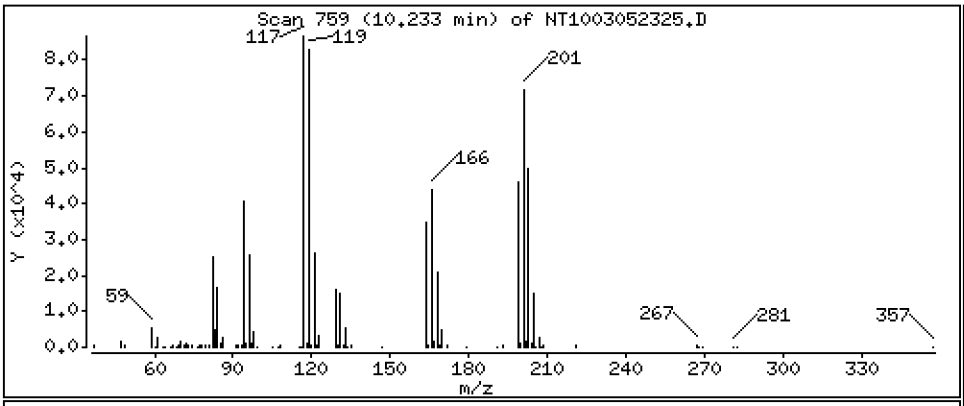
Operator: VTS

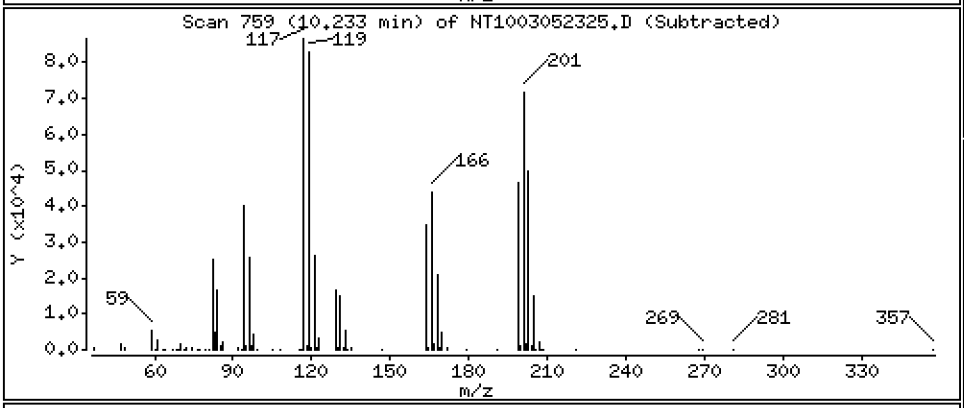
Column phase: ZB-5msi

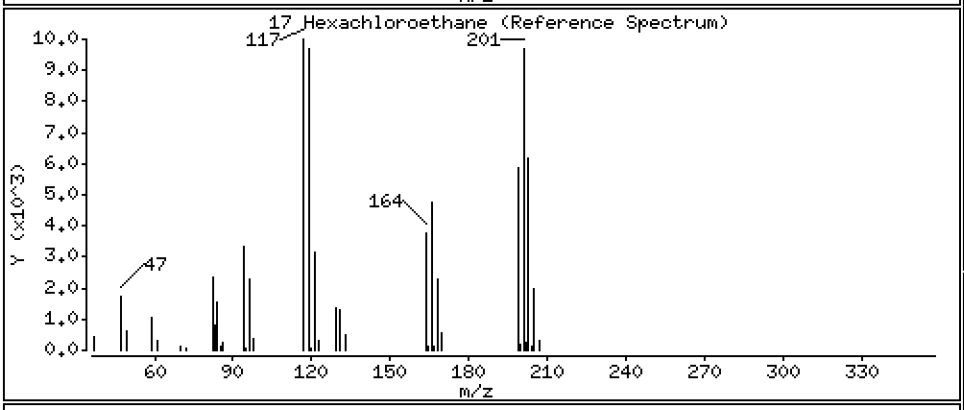
Column diameter: 0.25

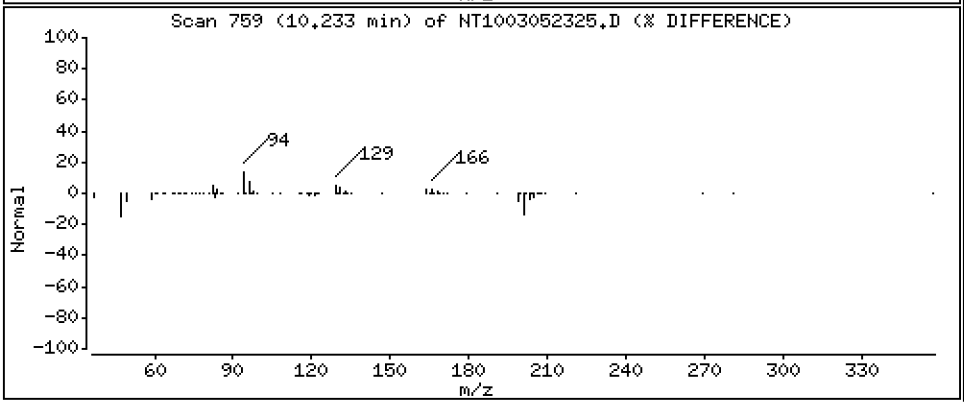
17 Hexachloroethane

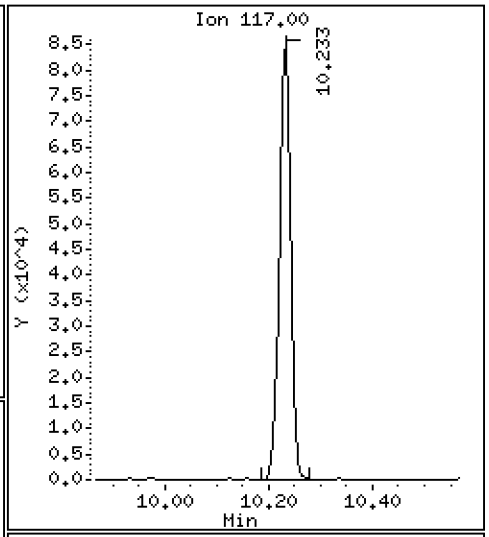
Concentration: 4.231 ug/mL

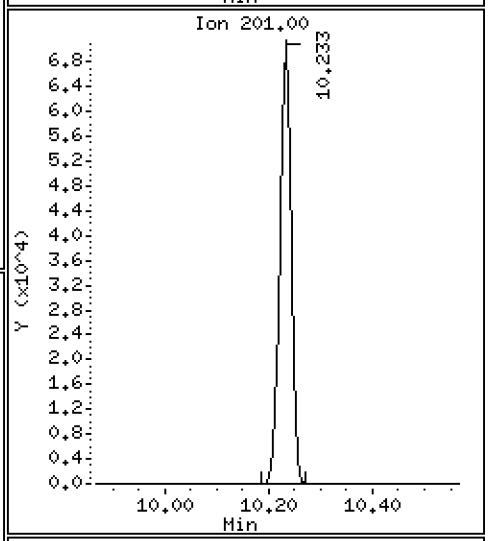


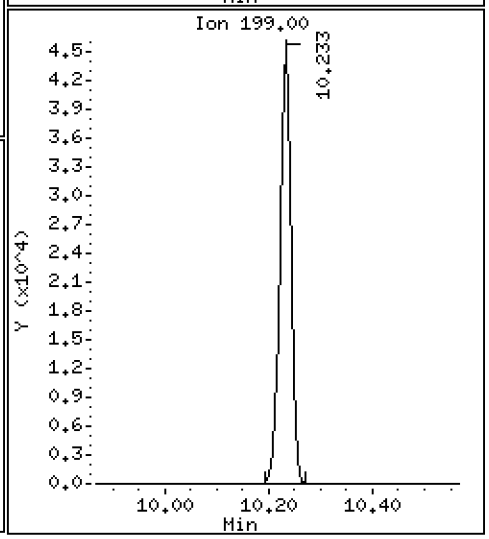












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

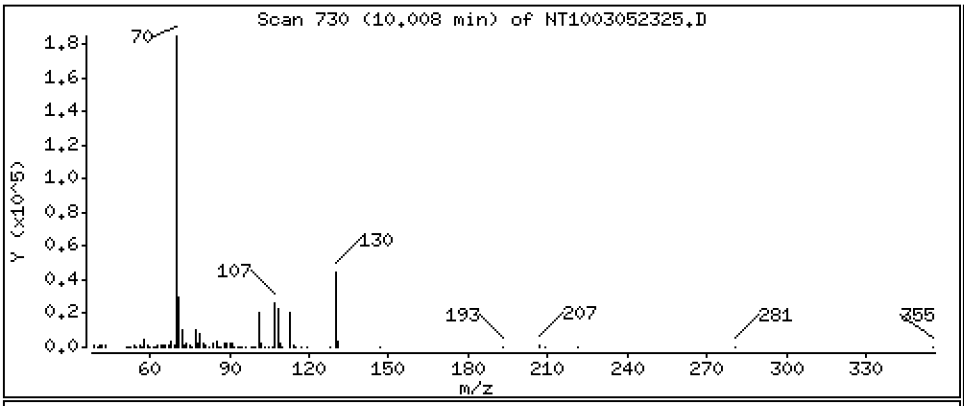
Operator: VTS

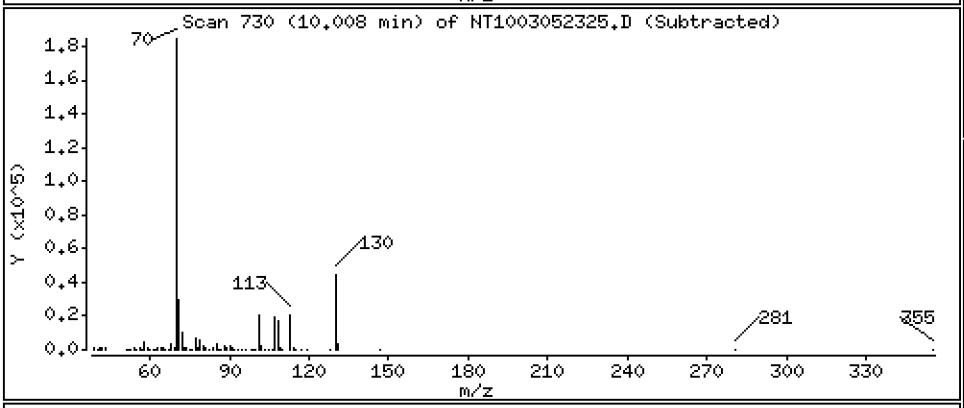
Column phase: ZB-5msi

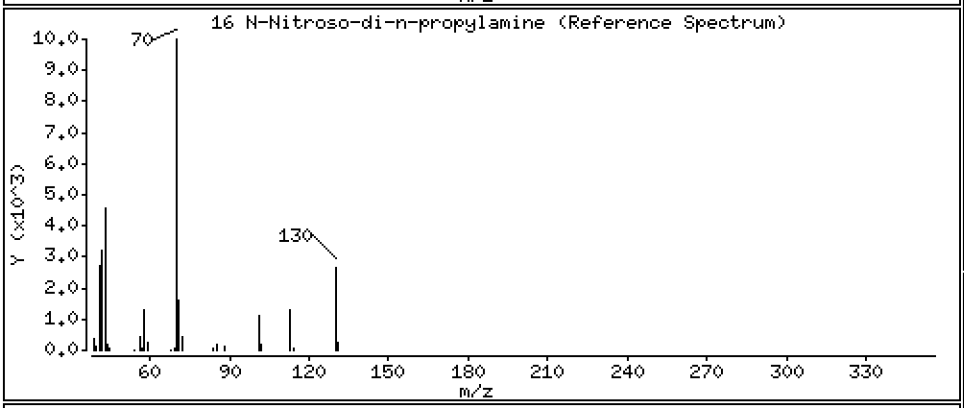
Column diameter: 0.25

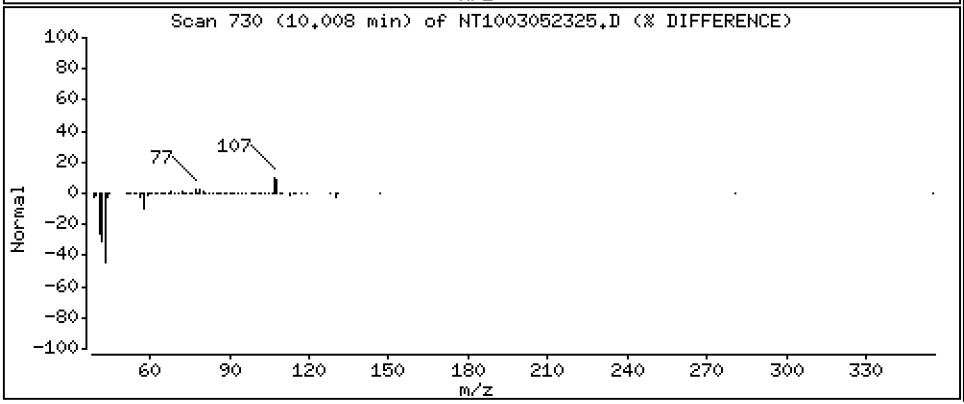
16 N-Nitroso-di-n-propylamine

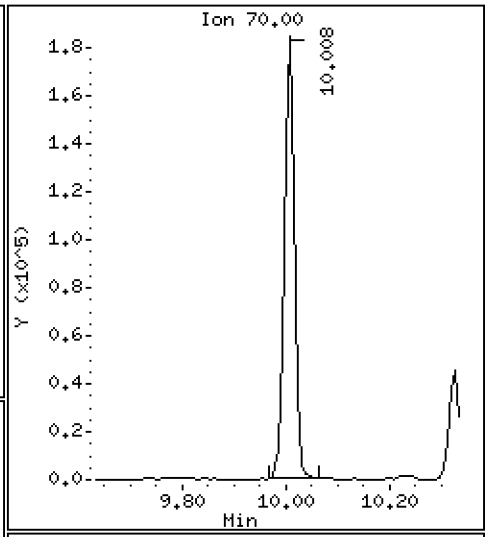
Concentration: 5.140 ug/mL

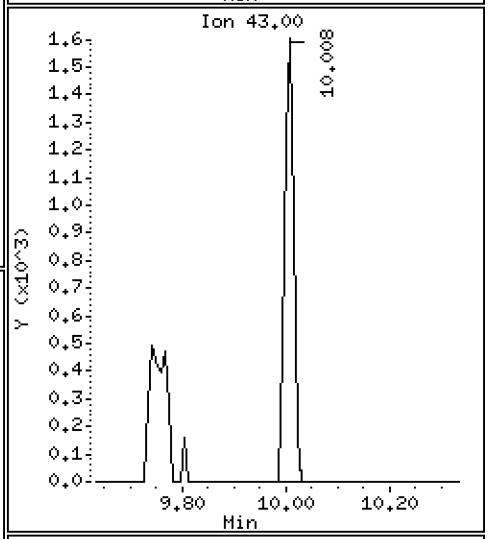


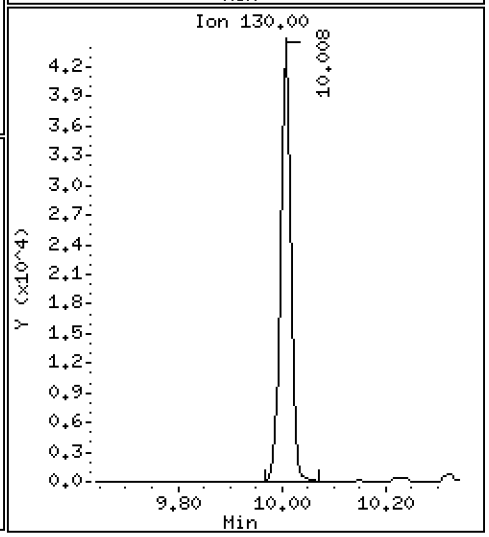












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

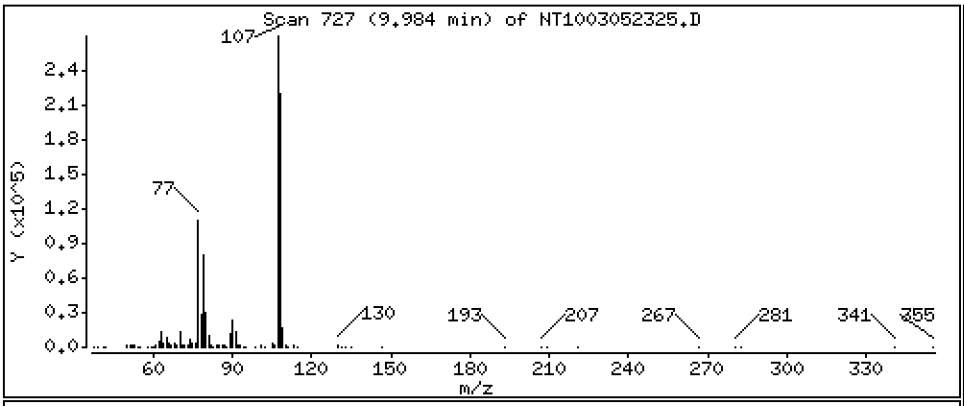
Operator: VTS

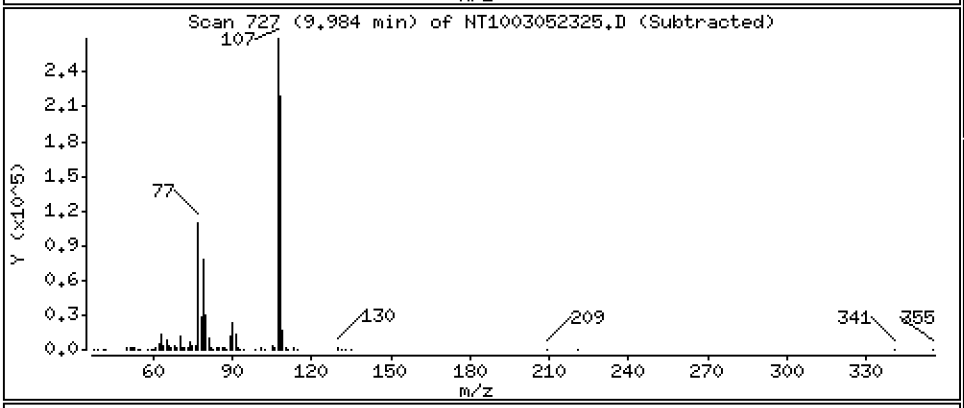
Column phase: ZB-5msi

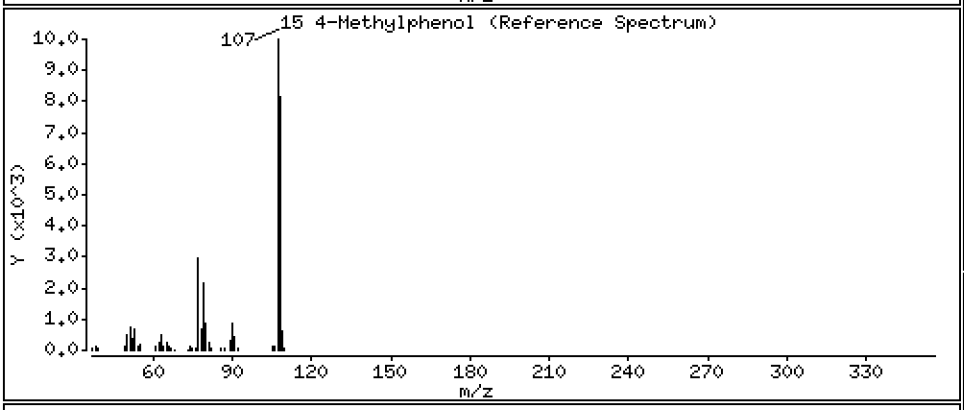
Column diameter: 0.25

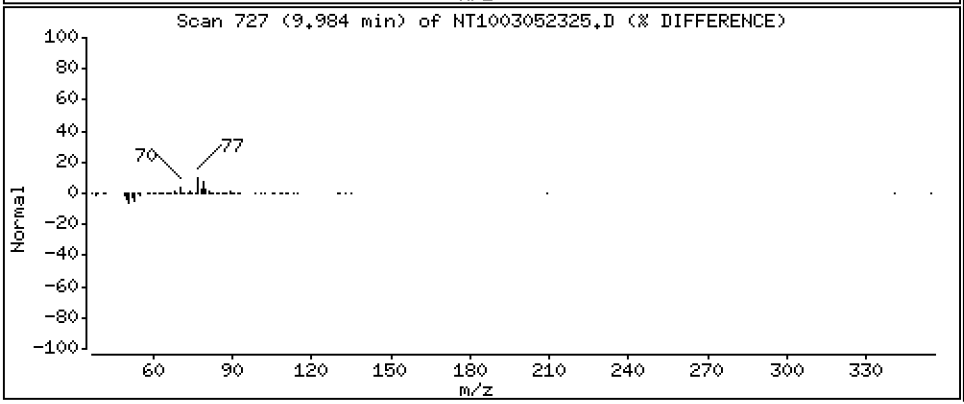
15 4-Methylphenol

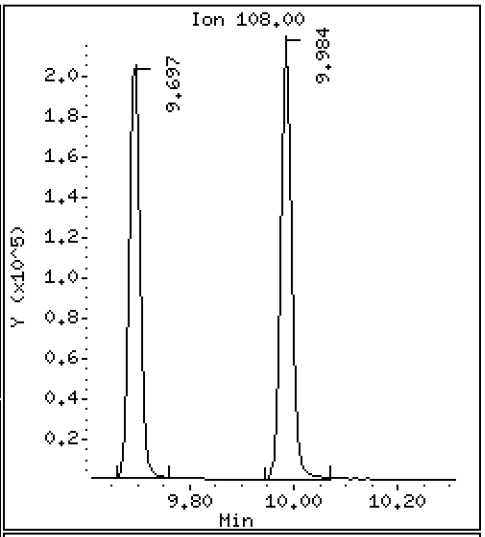
Concentration: 4.159 ug/mL

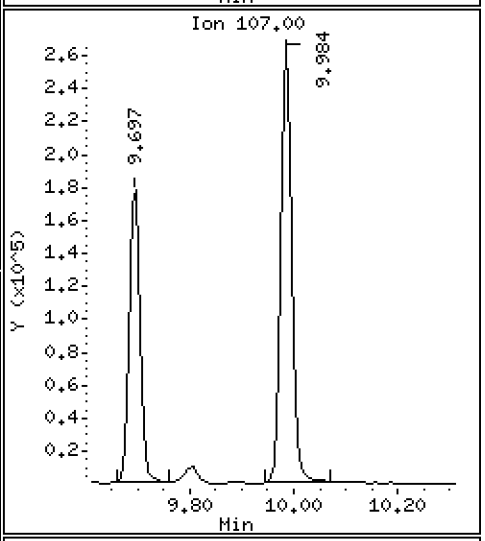


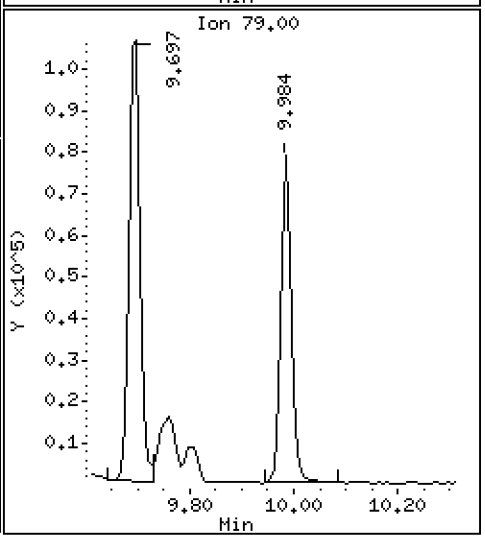












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

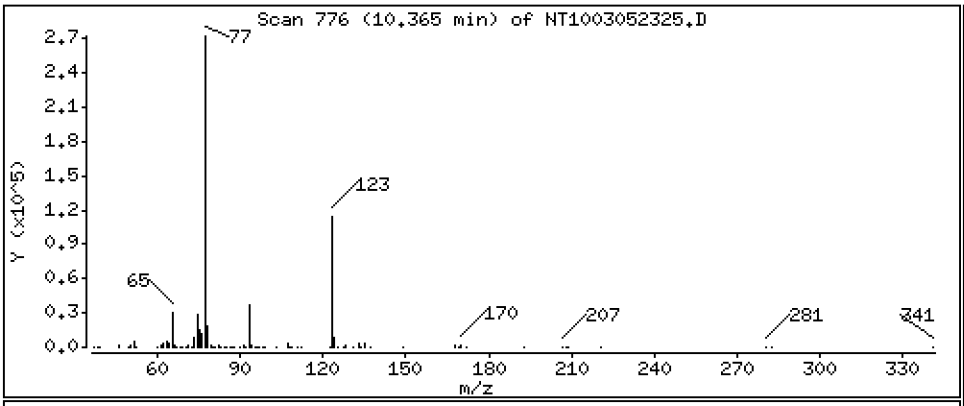
Operator: VTS

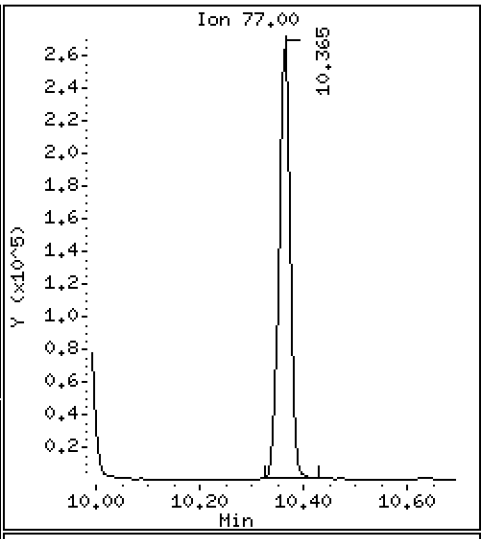
Column phase: ZB-5msi

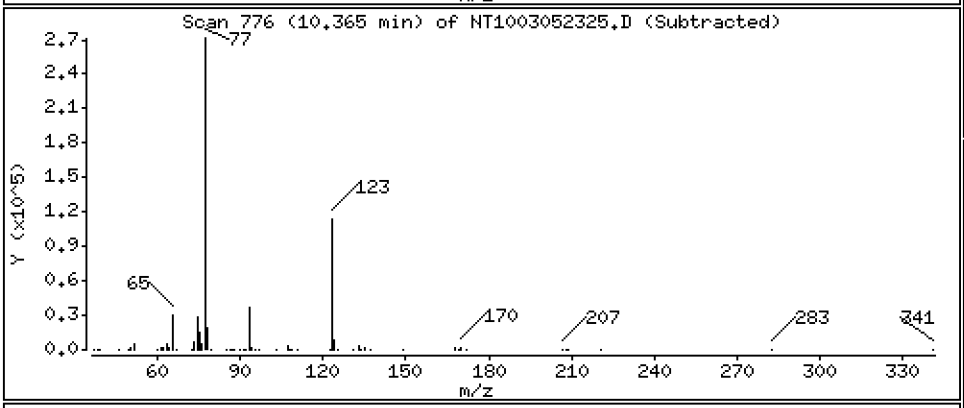
Column diameter: 0.25

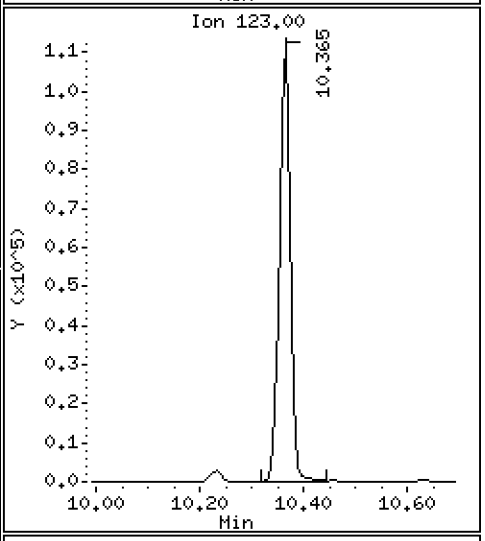
19 Nitrobenzene

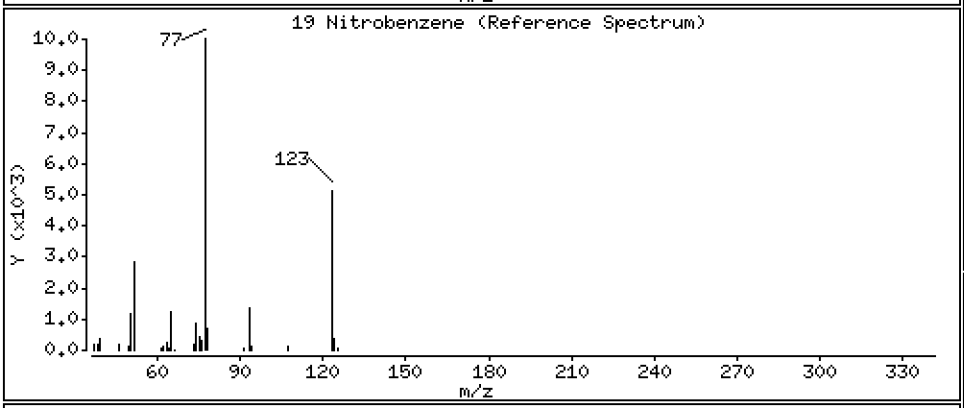
Concentration: 5.235 ug/mL

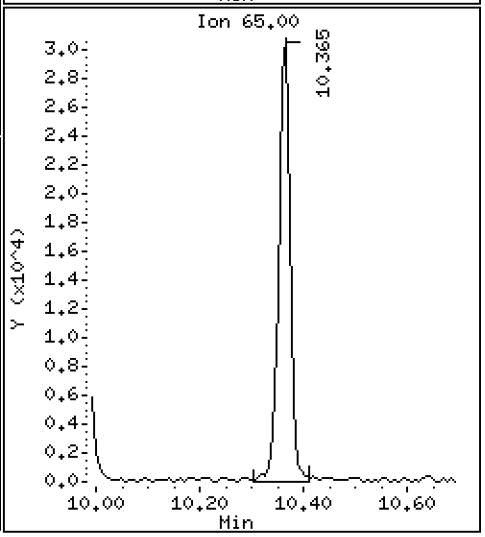


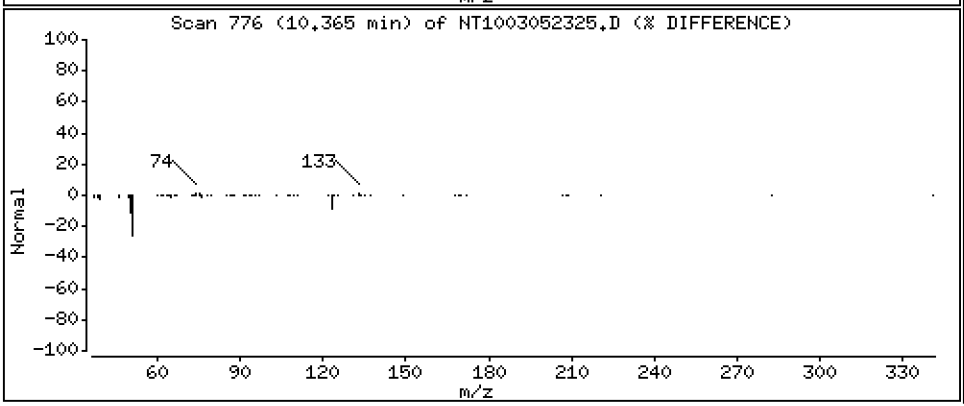












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

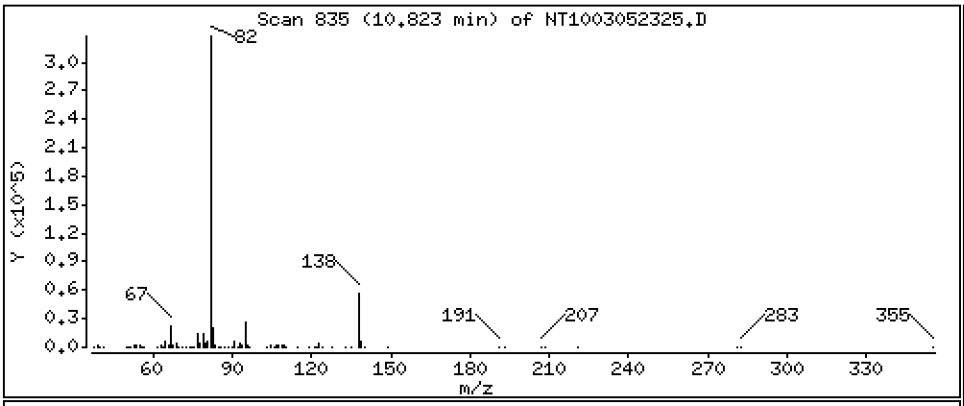
Operator: VTS

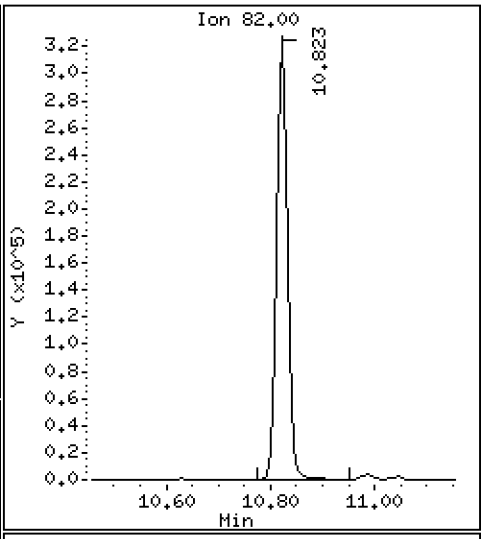
Column phase: ZB-5msi

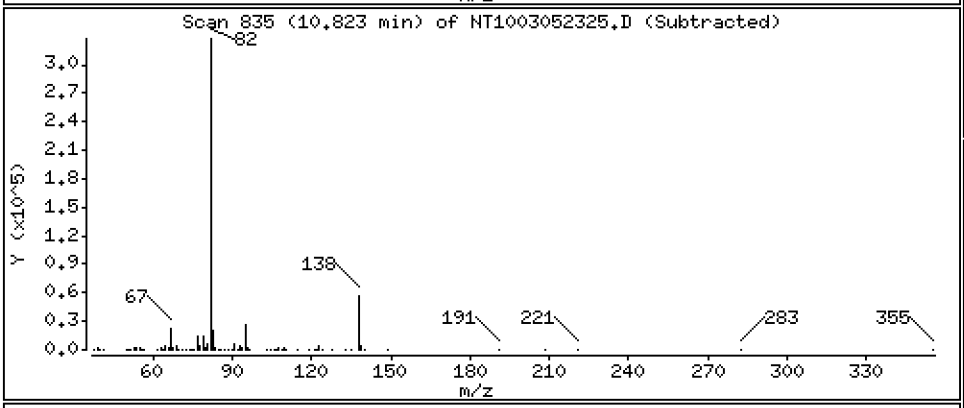
Column diameter: 0.25

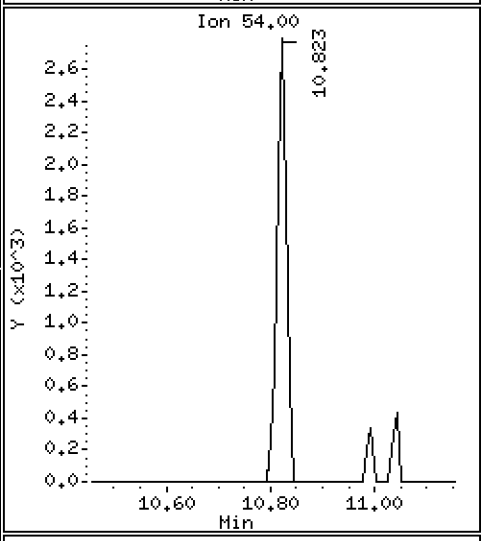
20 Isophorone

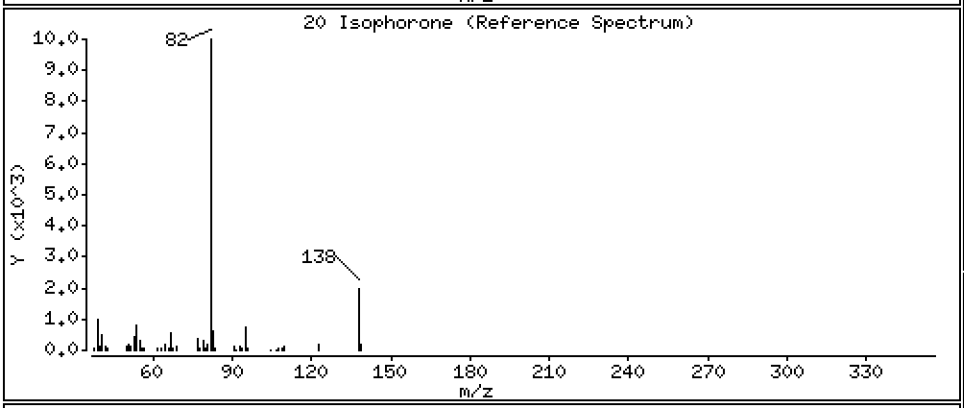
Concentration: 5.606 ug/mL

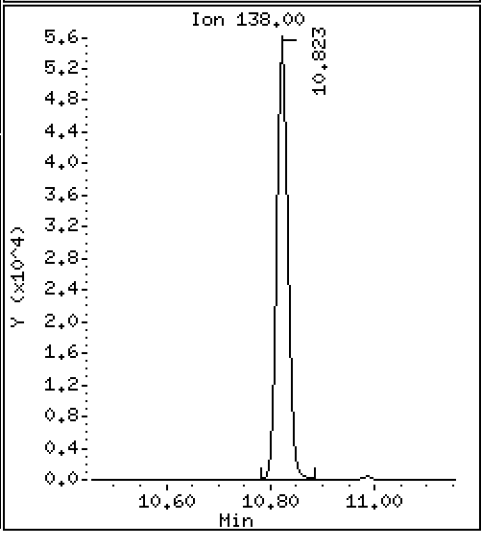


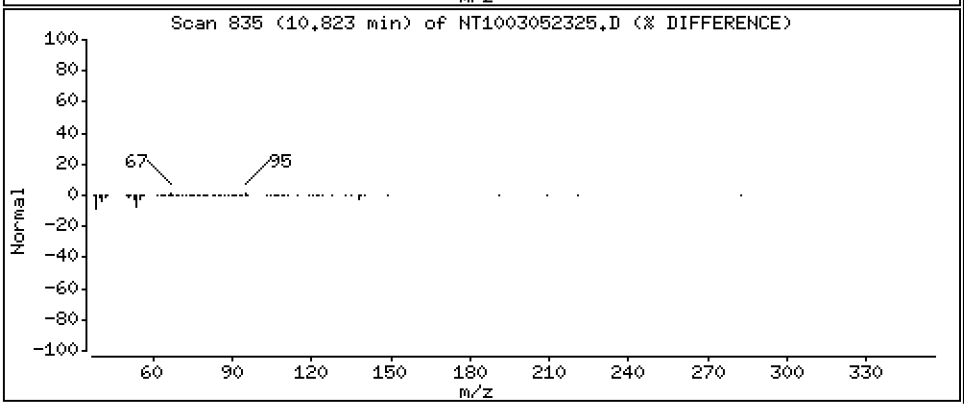












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

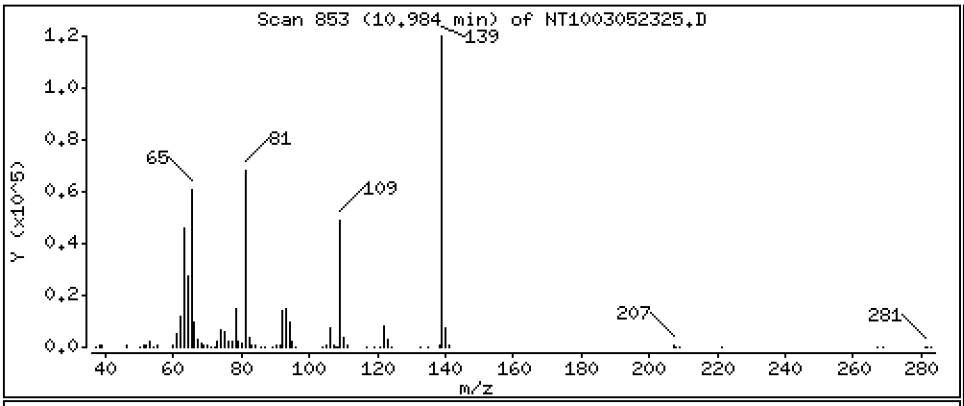
Operator: VTS

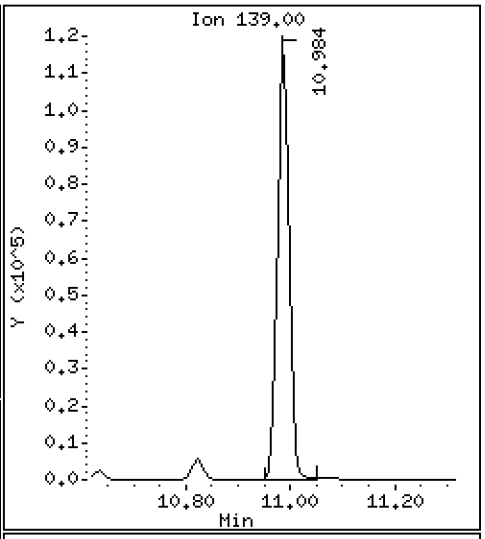
Column phase: ZB-5msi

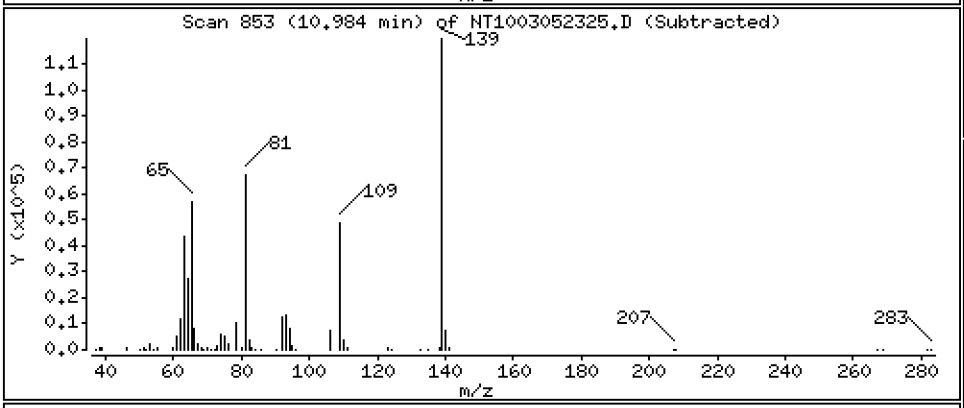
Column diameter: 0.25

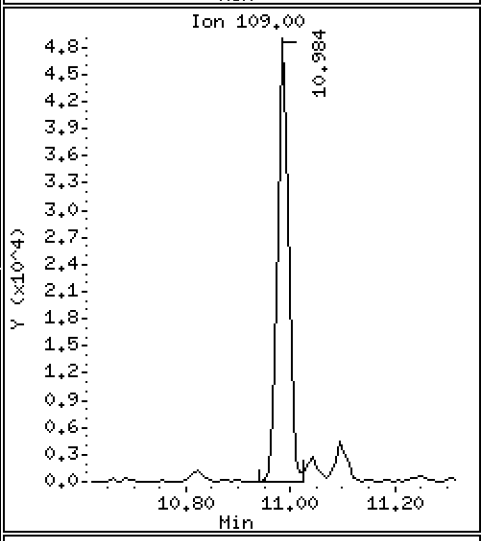
21 2-Nitrophenol

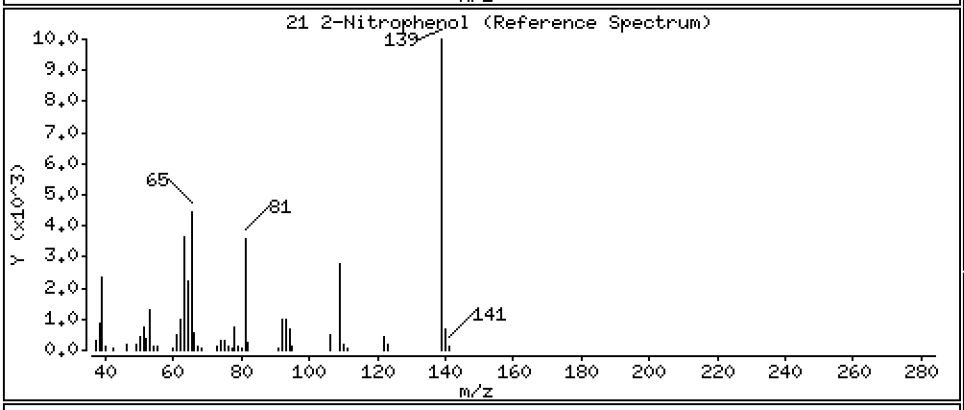
Concentration: 4.357 ug/mL

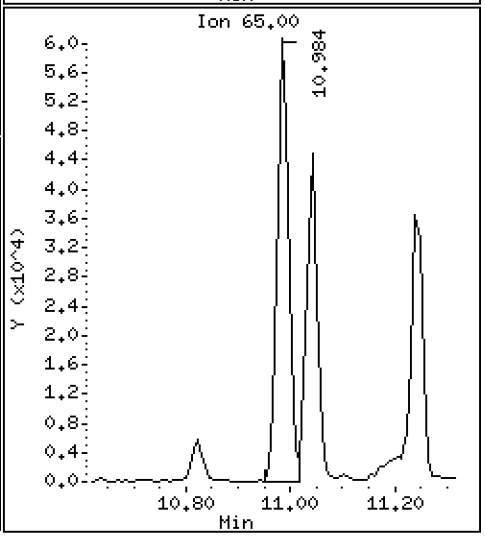


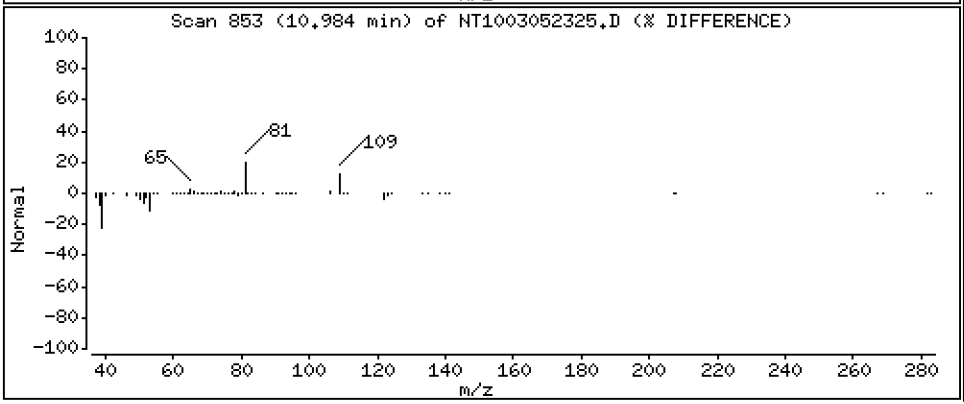












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

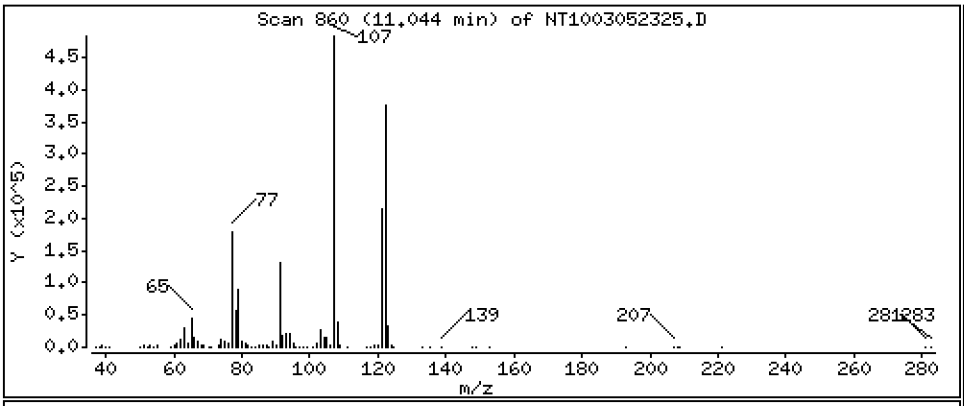
Operator: VTS

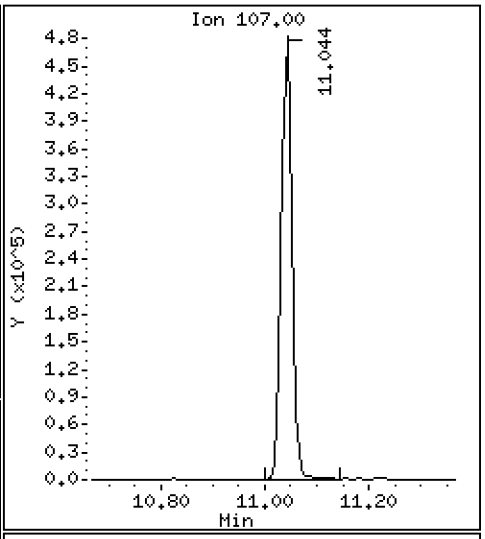
Column phase: ZB-5msi

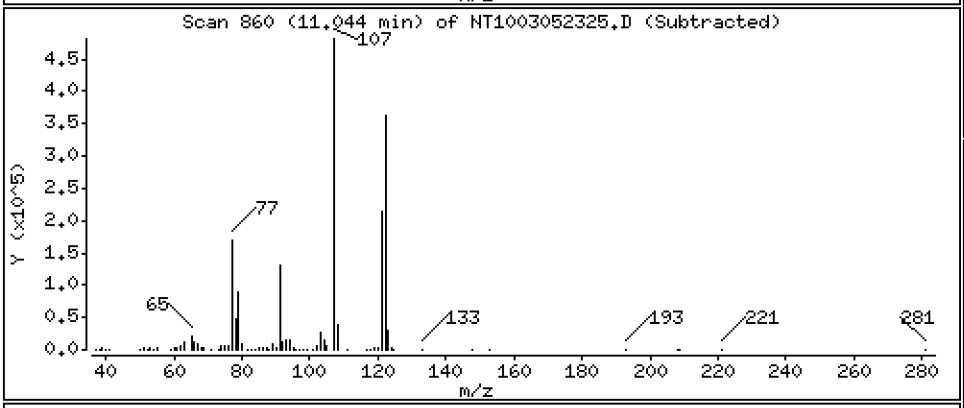
Column diameter: 0.25

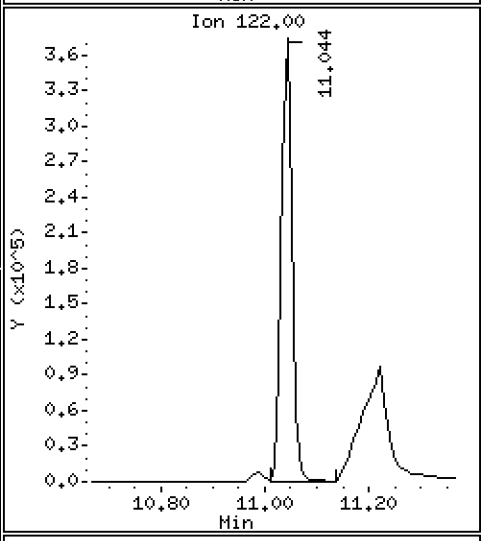
22 2,4-Dimethylphenol

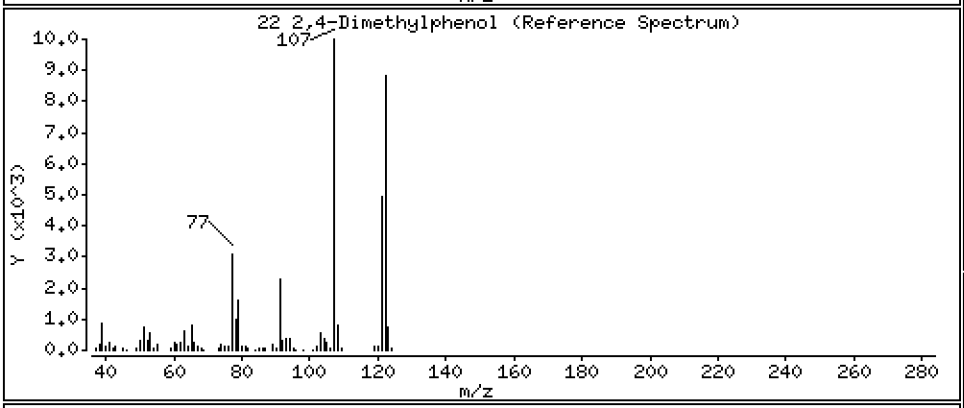
Concentration: 8.992 ug/mL

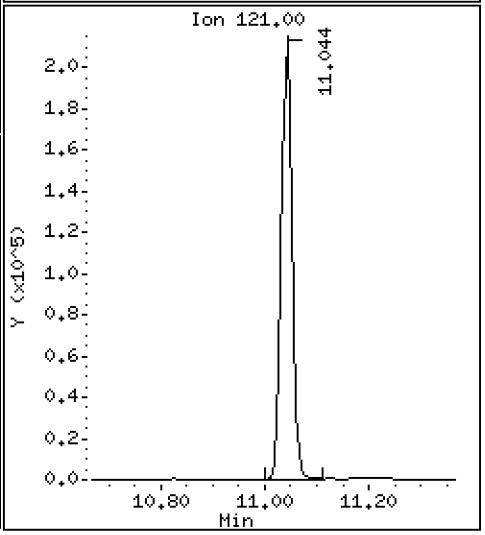


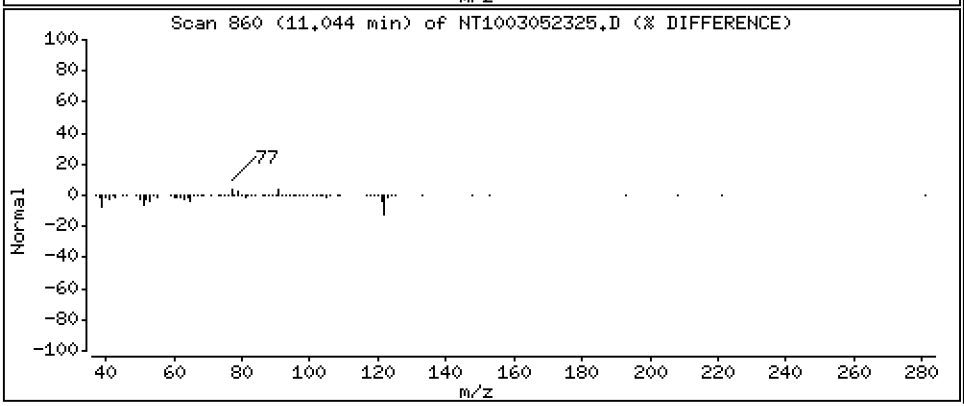












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

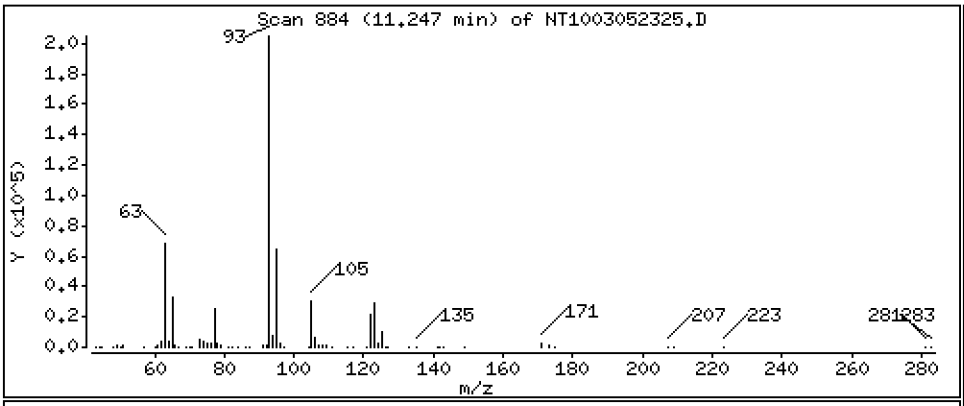
Operator: VTS

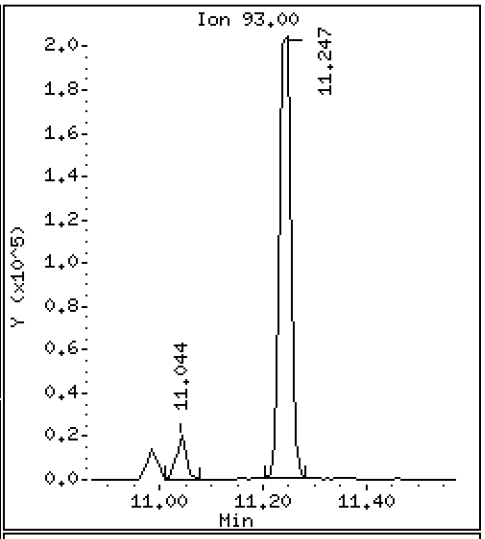
Column phase: ZB-5msi

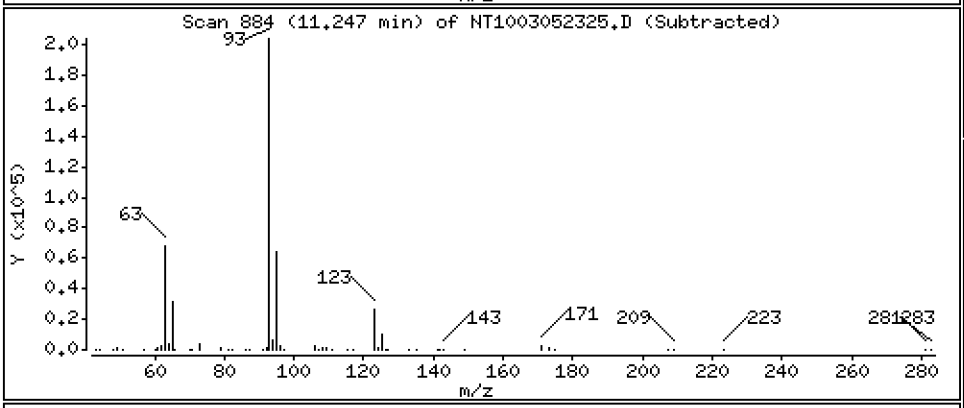
Column diameter: 0.25

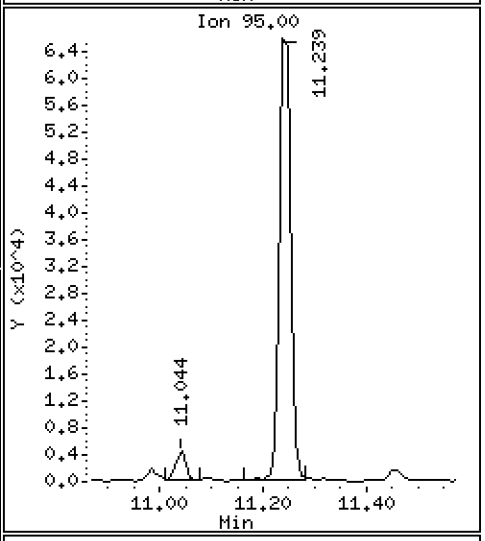
23 Bis(2-Chloroethoxy)methane

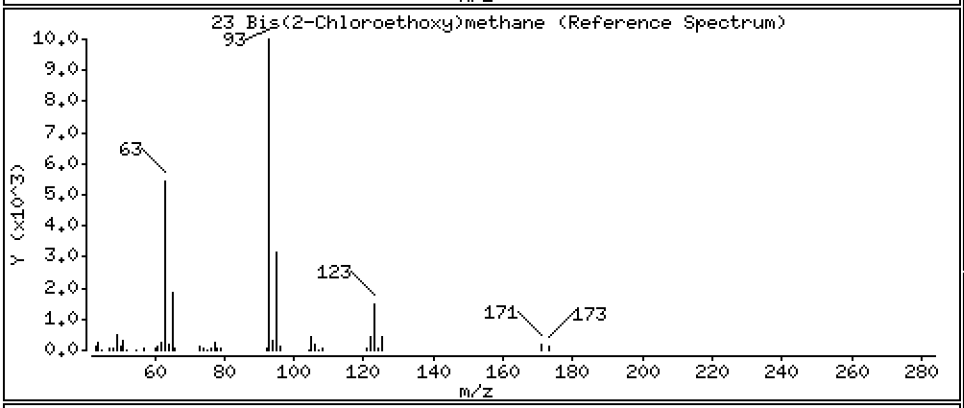
Concentration: 5.094 ug/mL

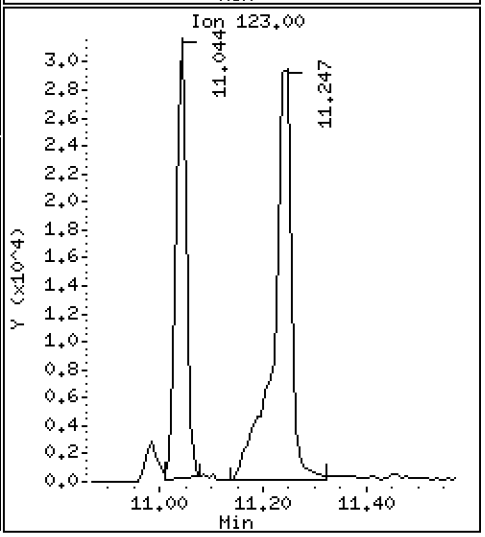


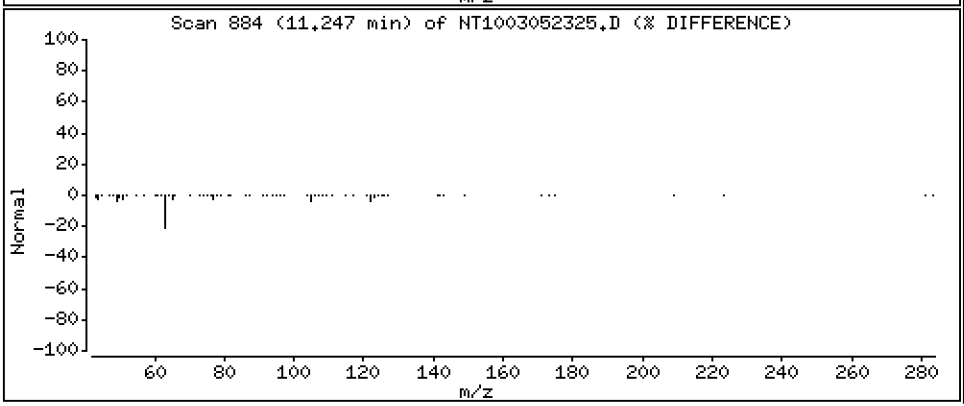












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052325.D

Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

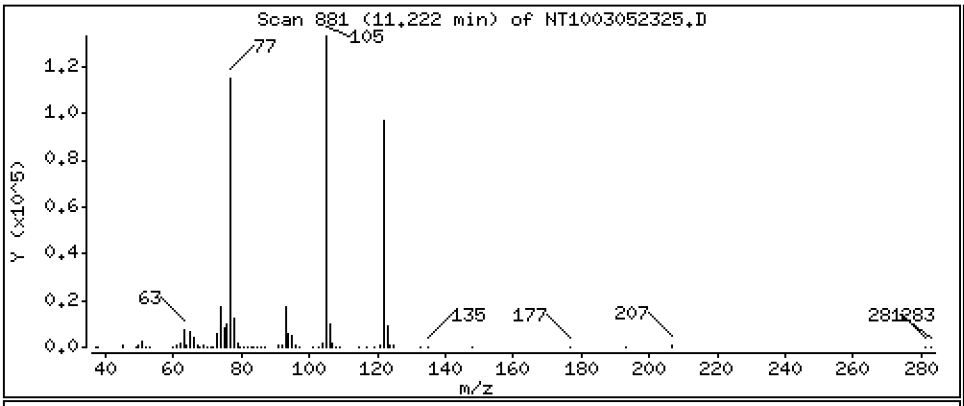
Operator: VTS

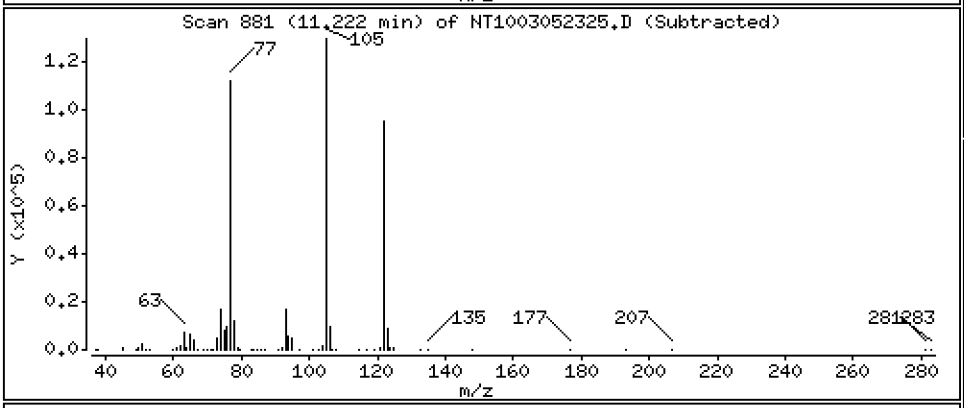
Column phase: ZB-5msi

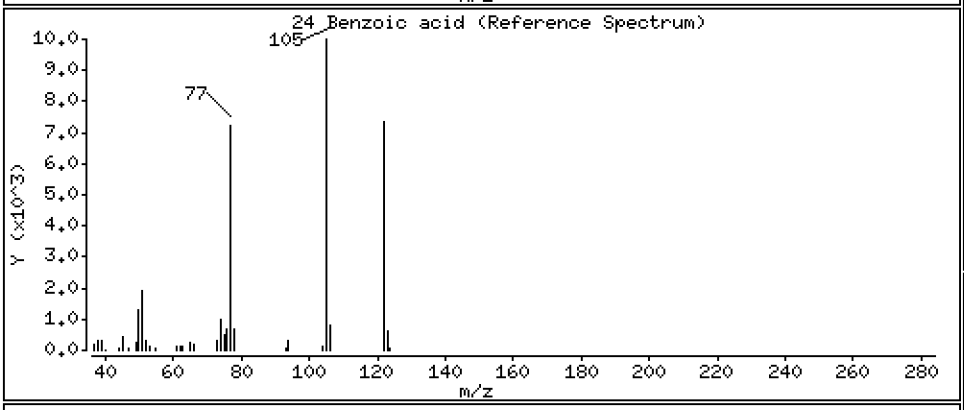
Column diameter: 0.25

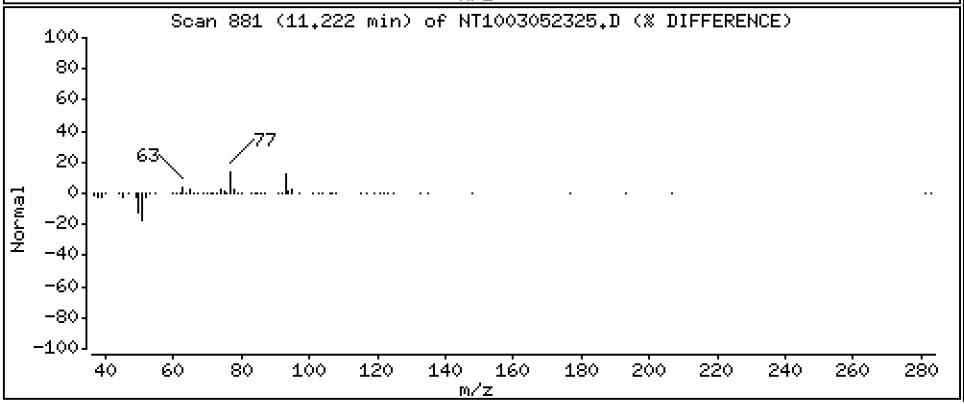
24 Benzoic acid

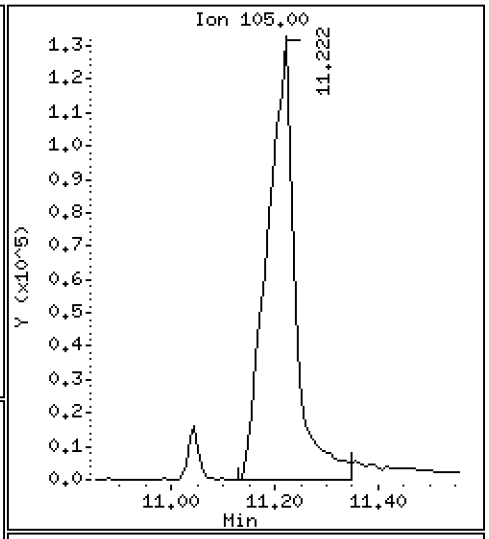
Concentration: 11.05 ug/mL

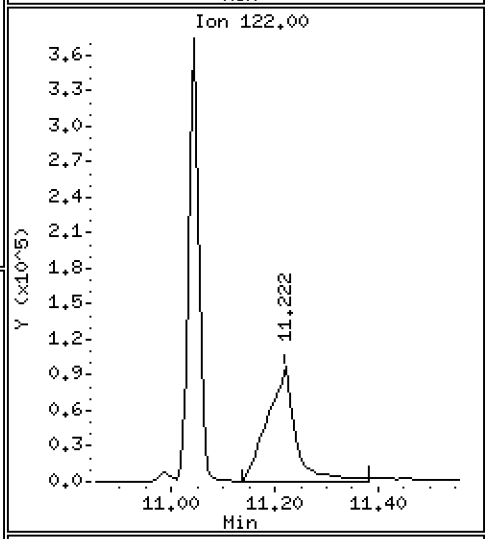


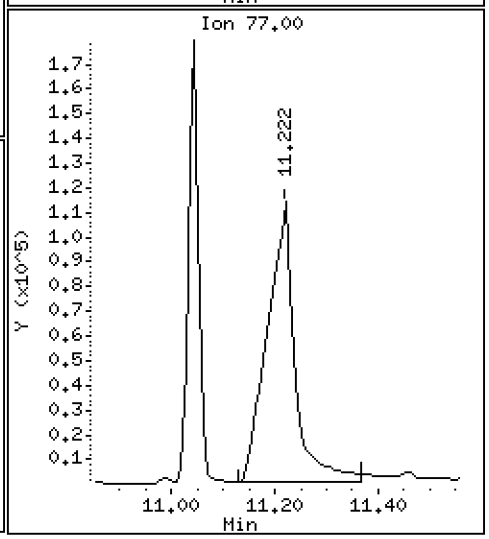












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

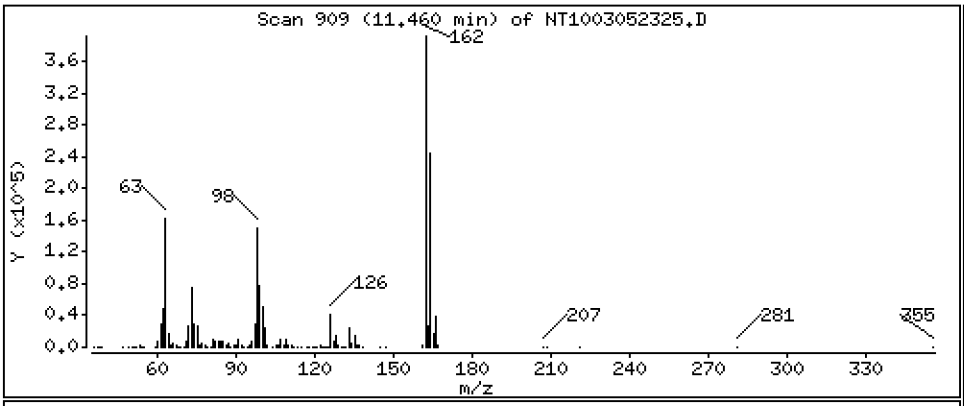
Operator: VTS

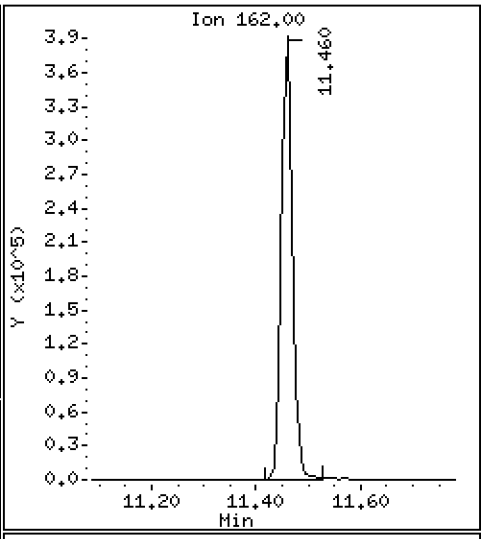
Column phase: ZB-5msi

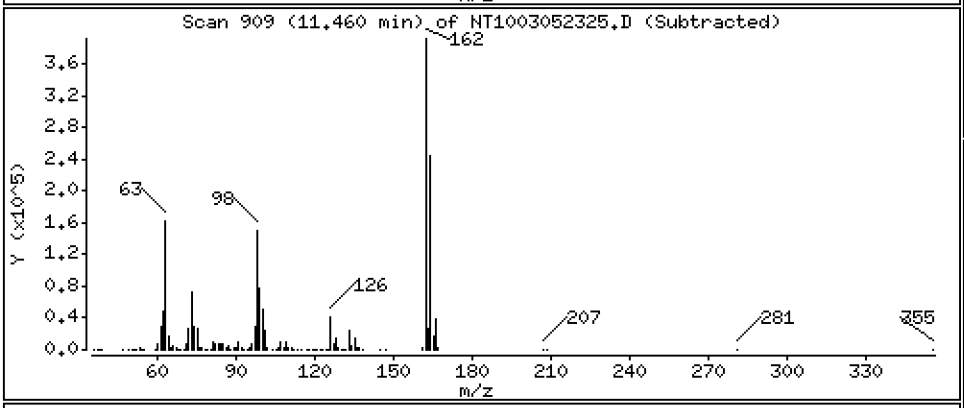
Column diameter: 0.25

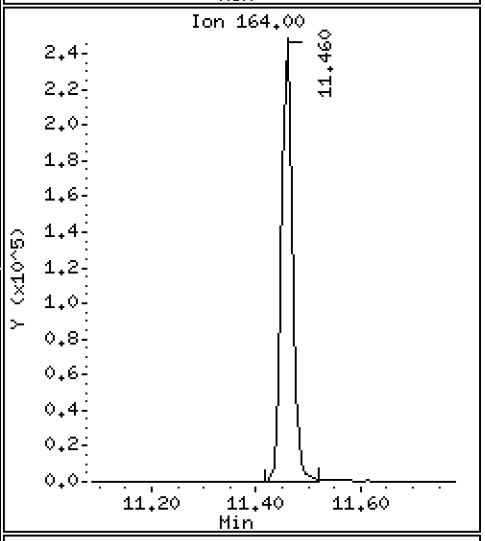
25 2,4-Dichlorophenol

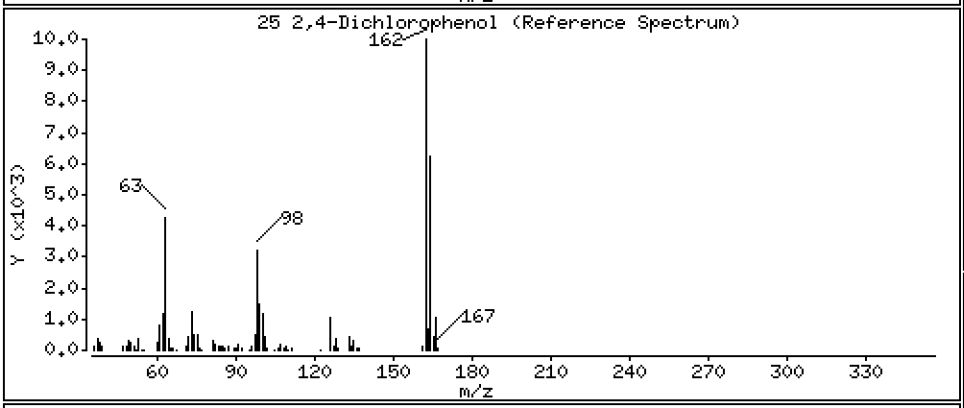
Concentration: 11.00 ug/mL

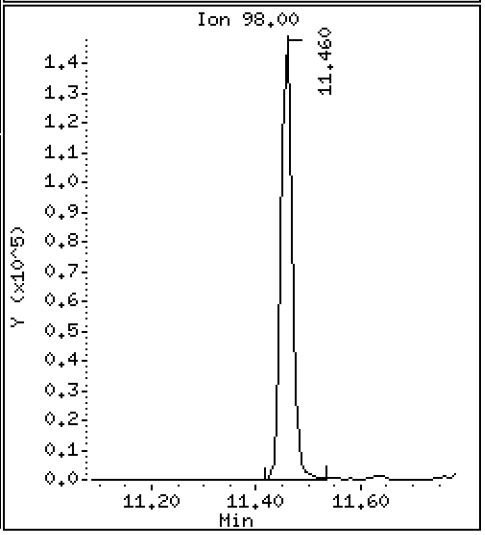


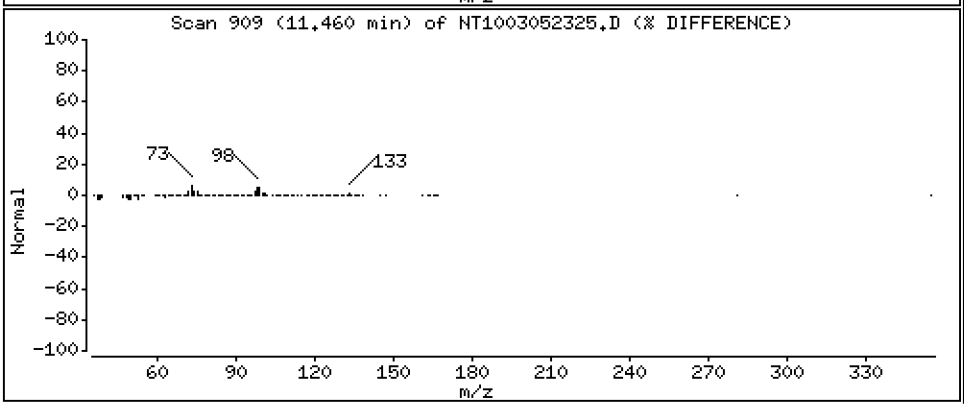












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

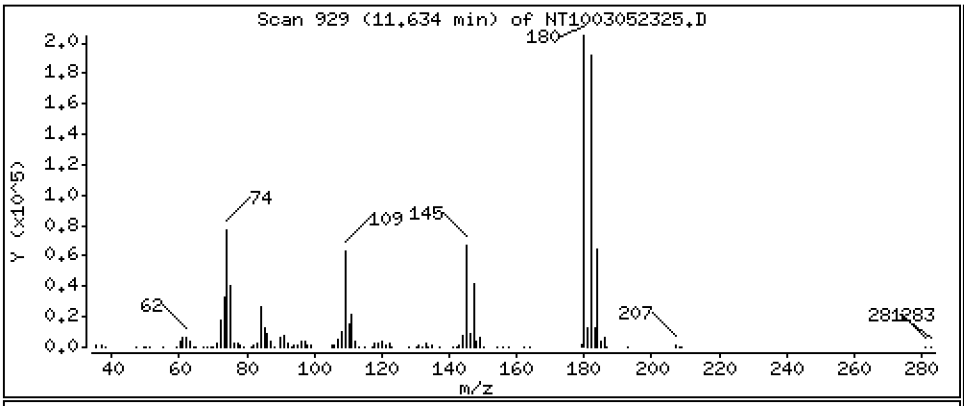
Operator: VTS

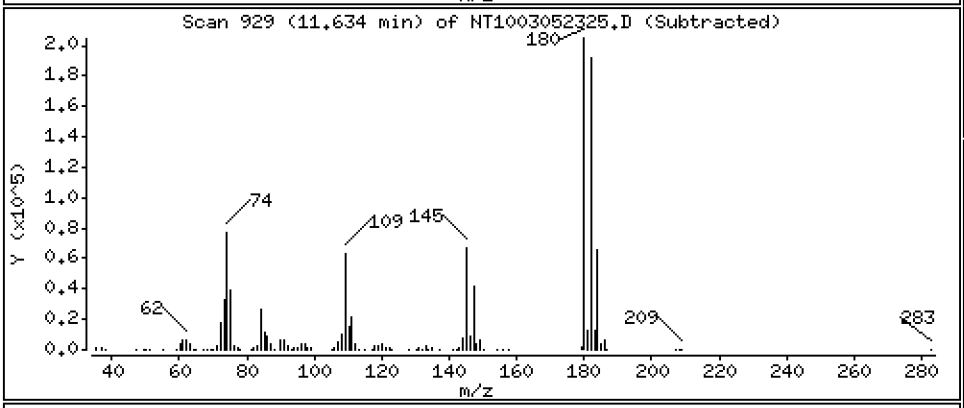
Column phase: ZB-5msi

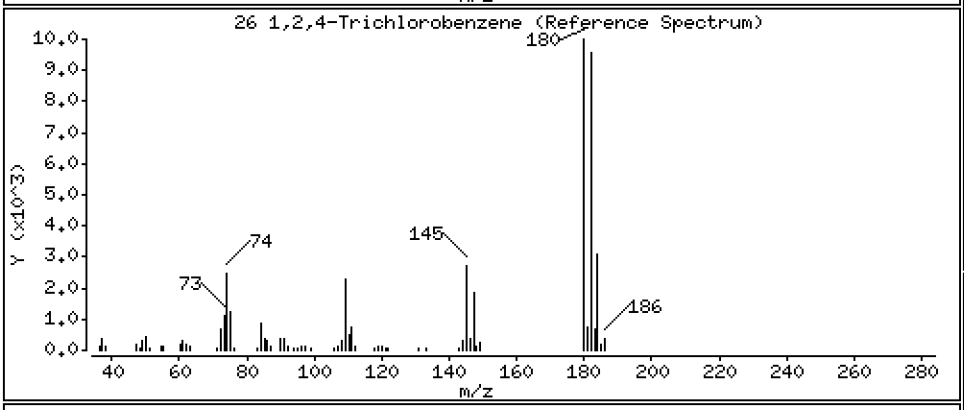
Column diameter: 0.25

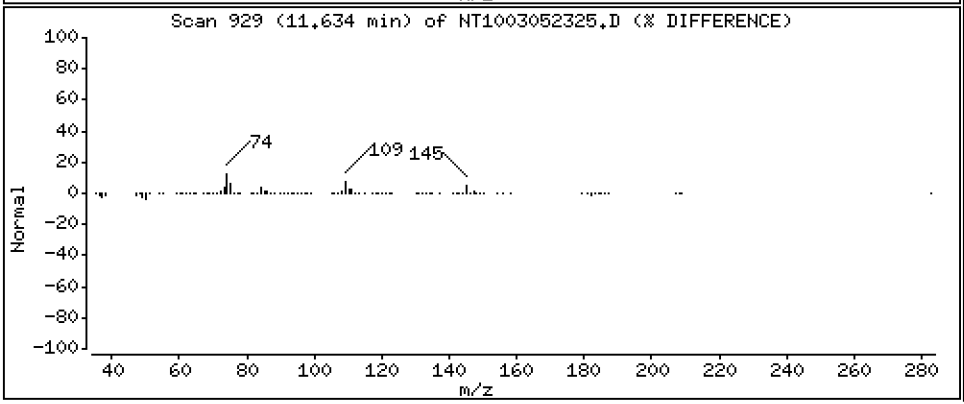
26 1,2,4-Trichlorobenzene

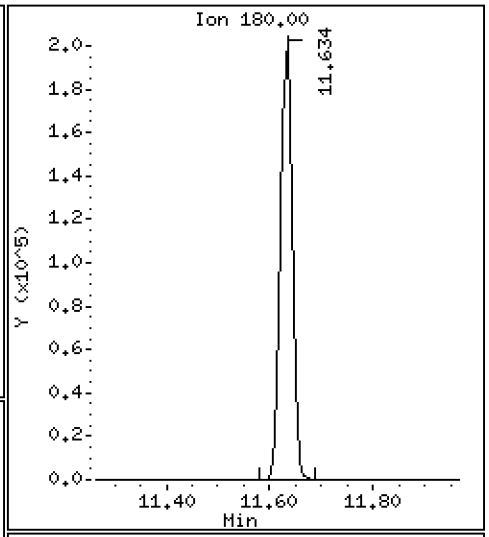
Concentration: 5.123 ug/mL

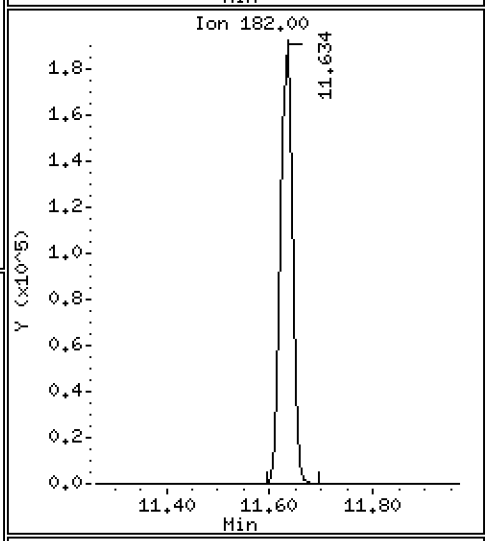


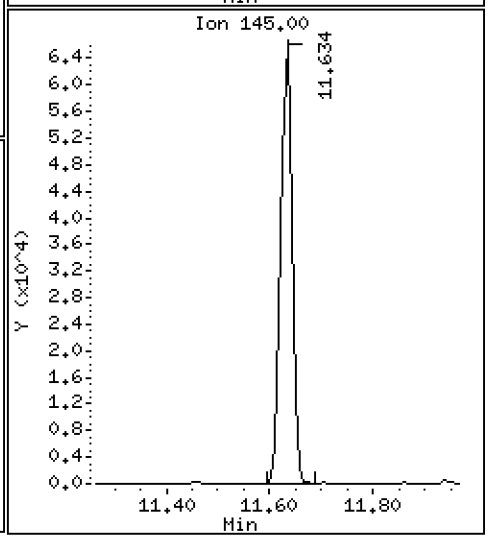












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

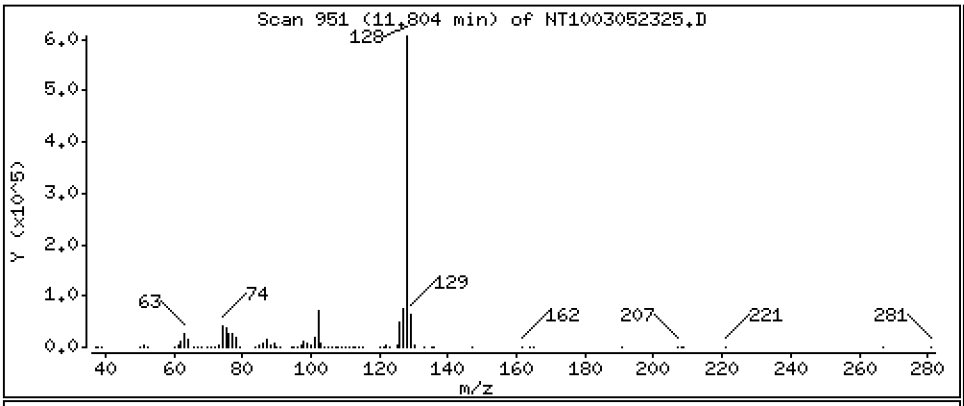
Operator: VTS

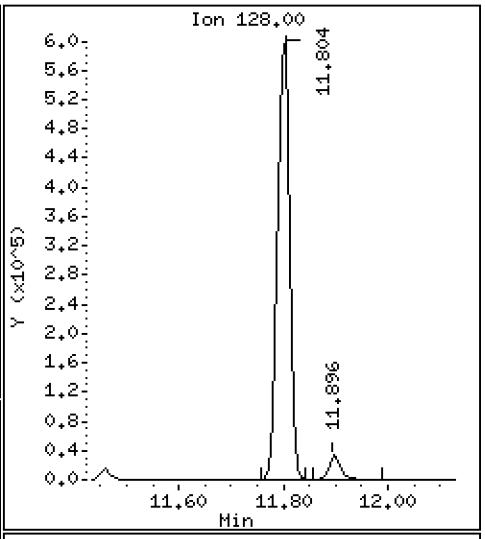
Column phase: ZB-5msi

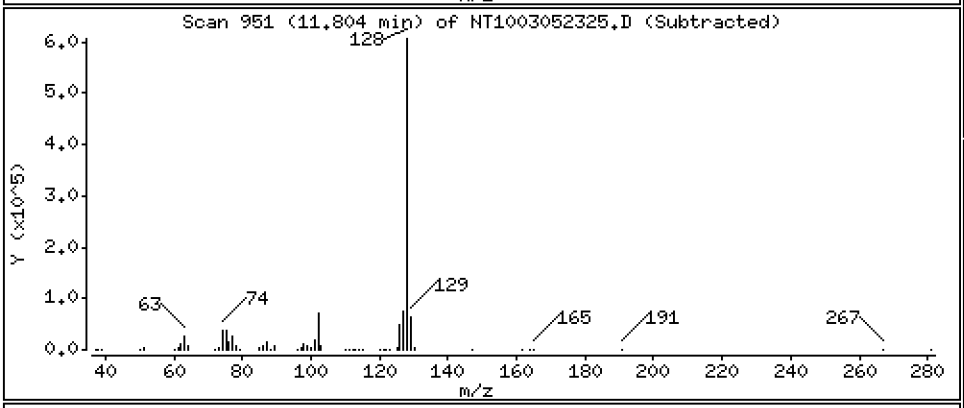
Column diameter: 0.25

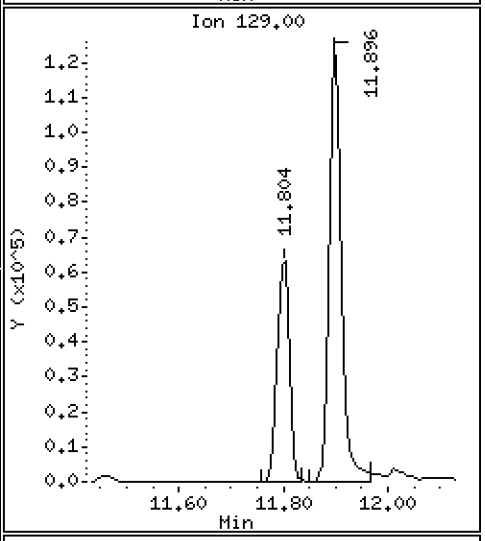
28 Naphthalene

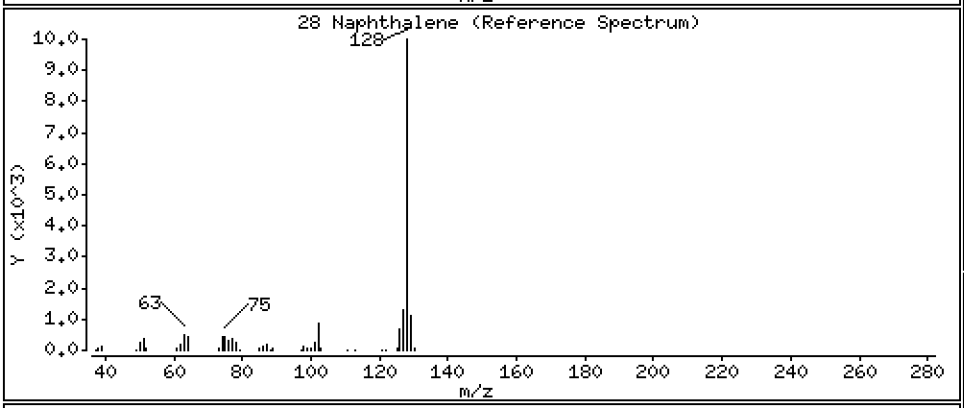
Concentration: 4.754 ug/mL

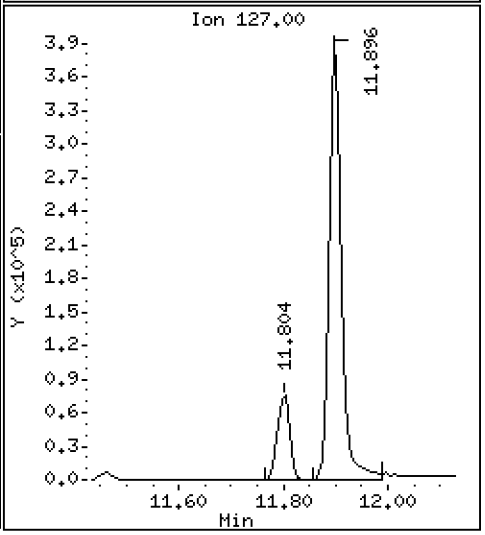


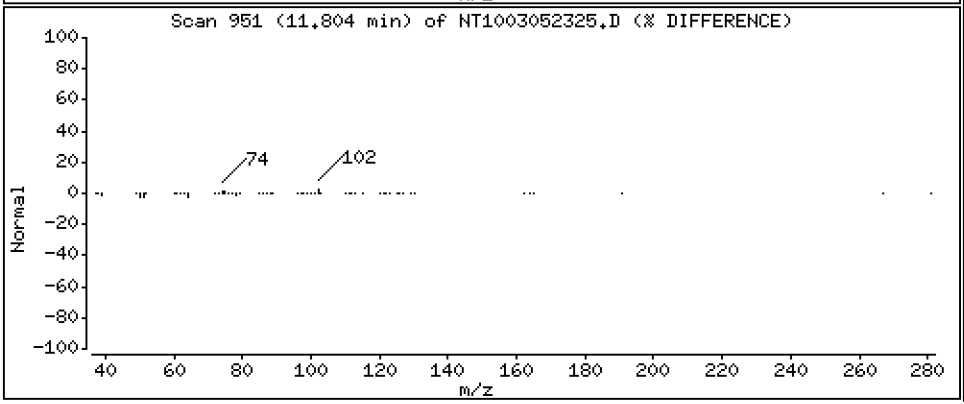












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

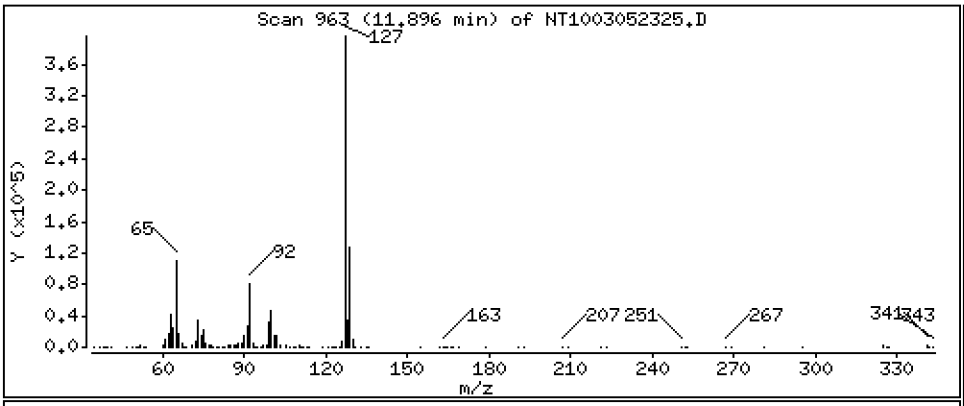
Operator: VTS

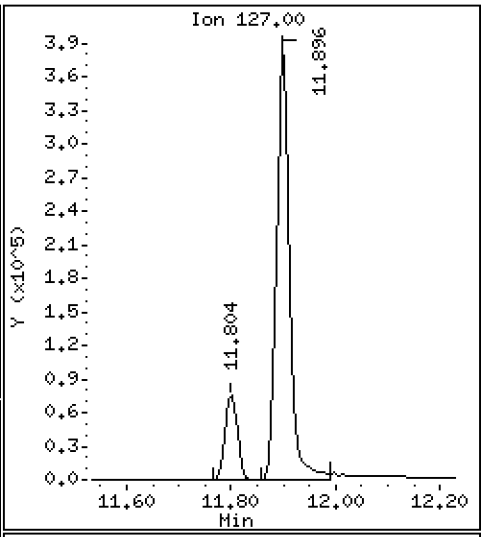
Column phase: ZB-5msi

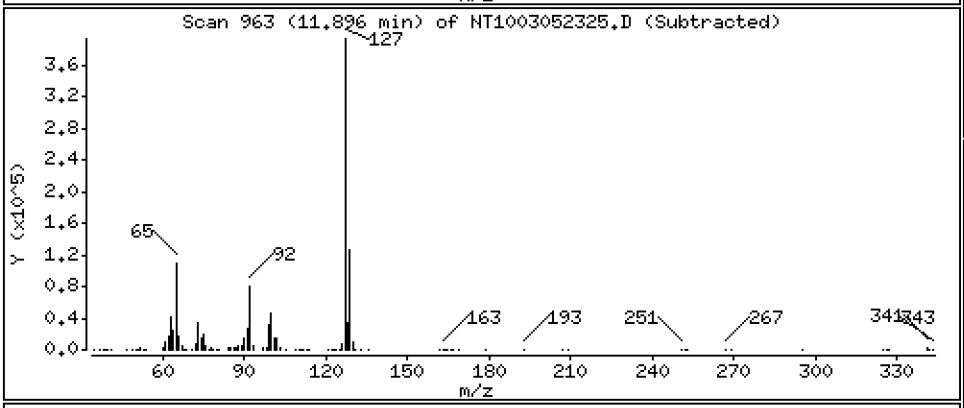
Column diameter: 0.25

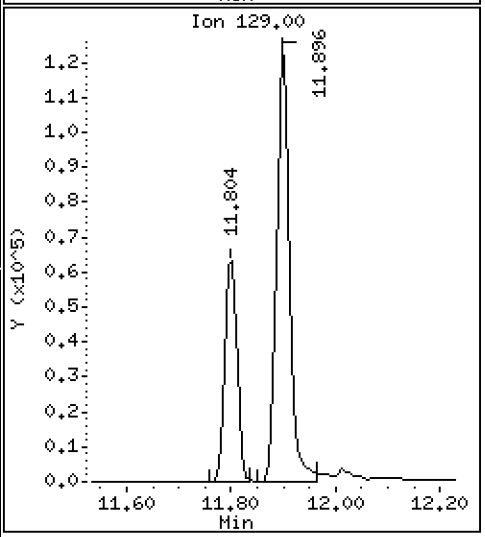
29 4-Chloroaniline

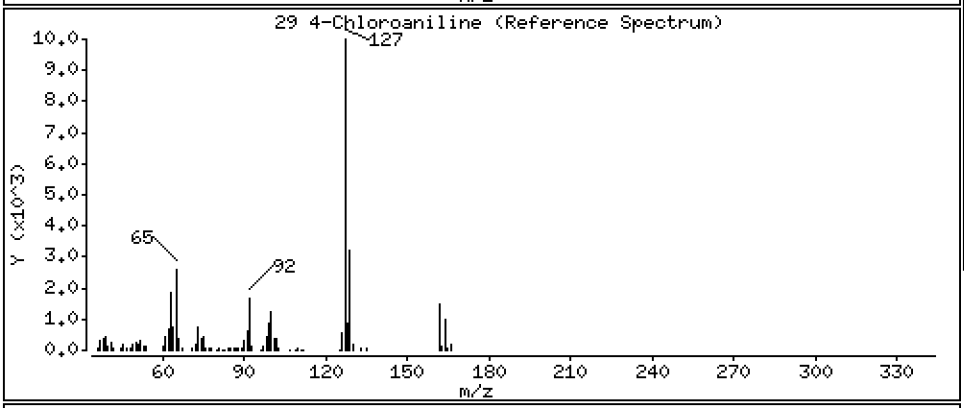
Concentration: 8.444 ug/mL

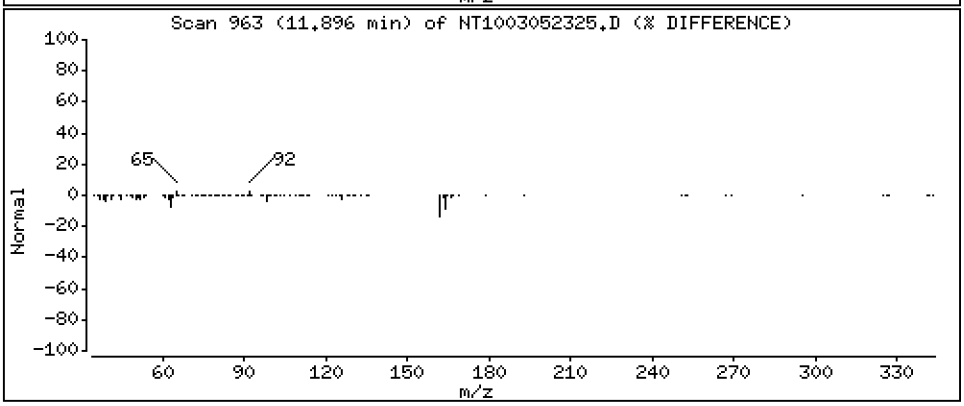












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

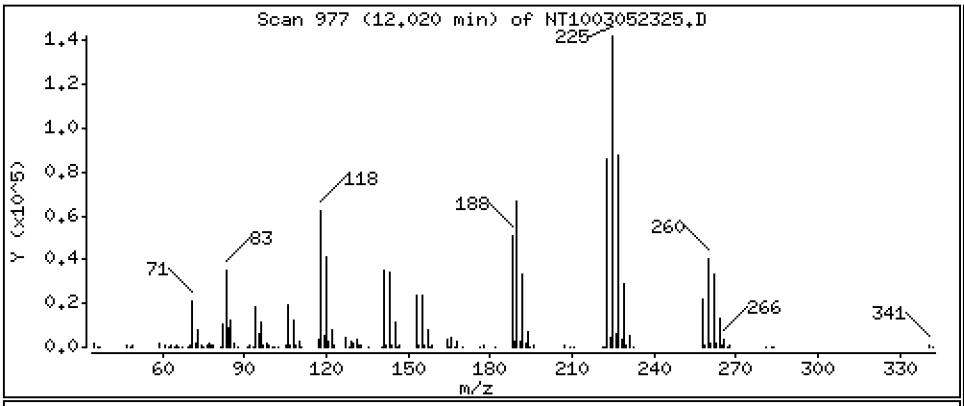
Operator: VTS

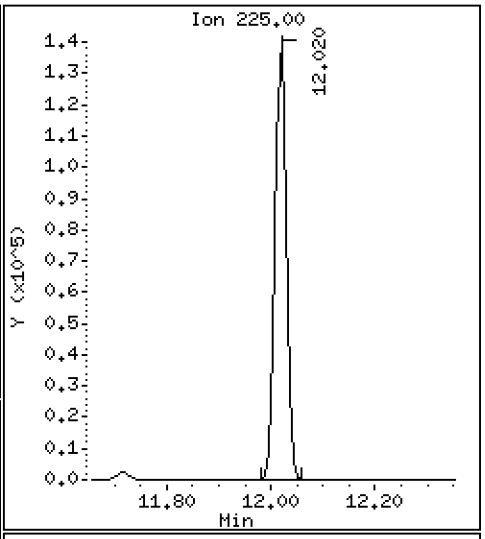
Column phase: ZB-5msi

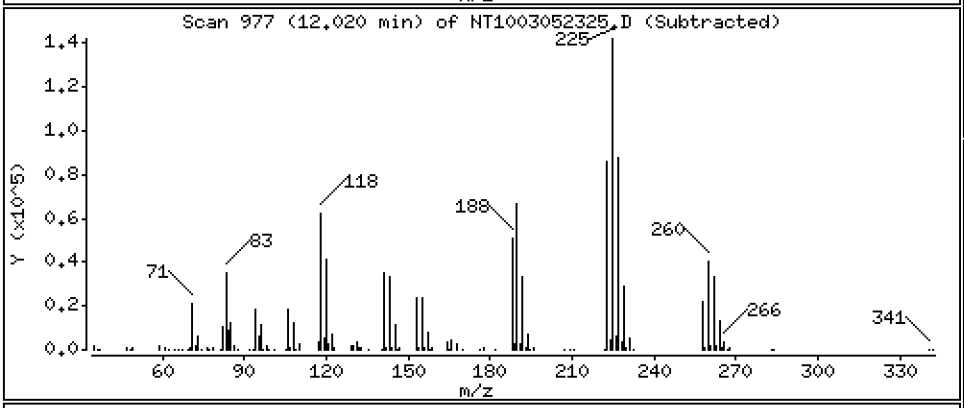
Column diameter: 0.25

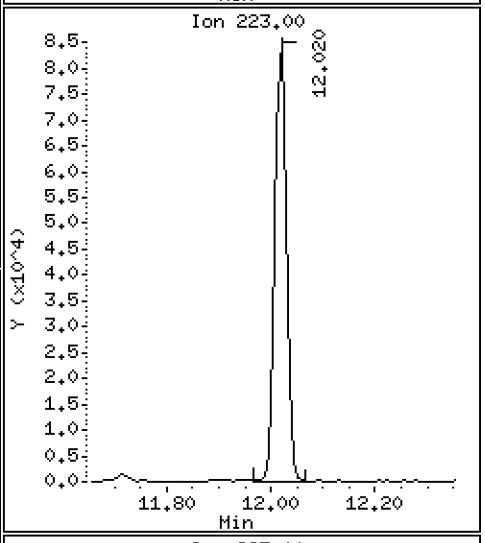
30 Hexachlorobutadiene

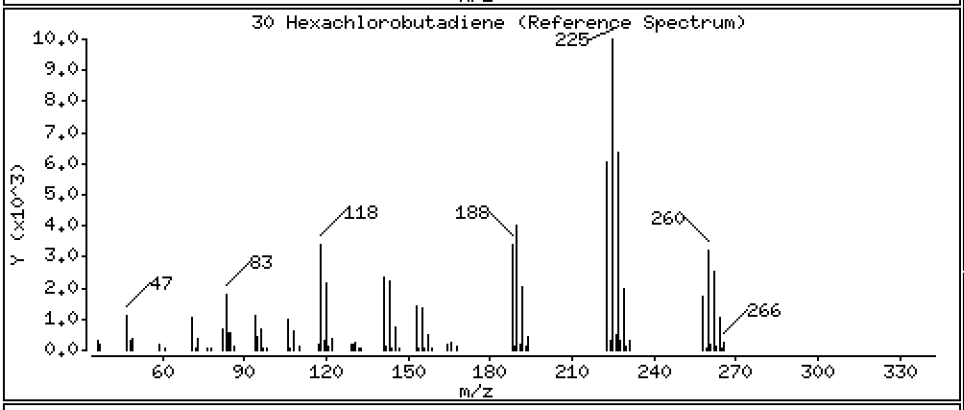
Concentration: 4.622 ug/mL

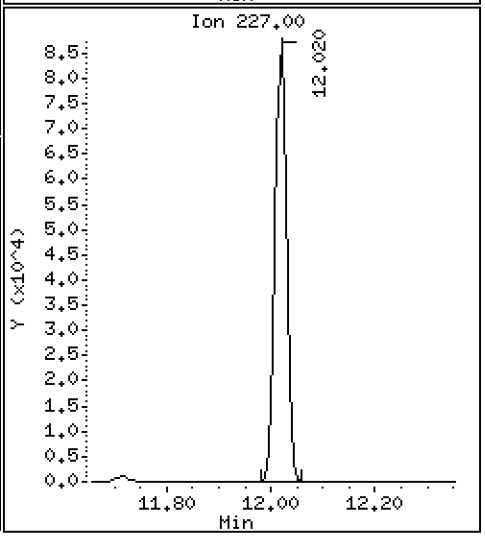


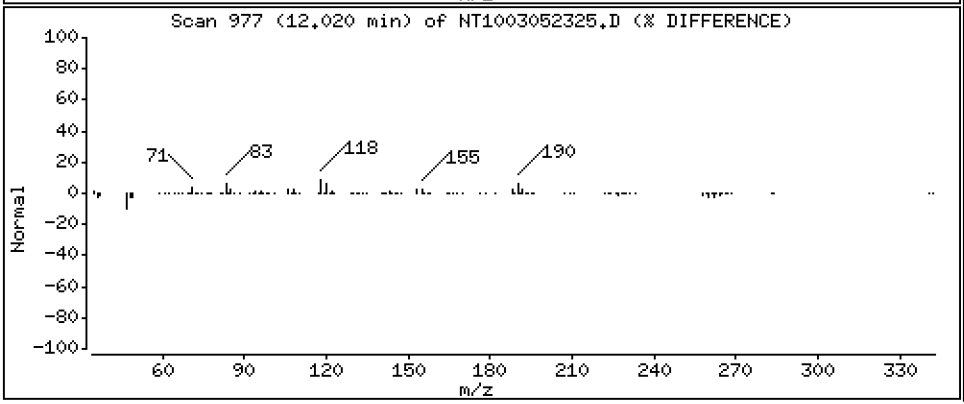












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

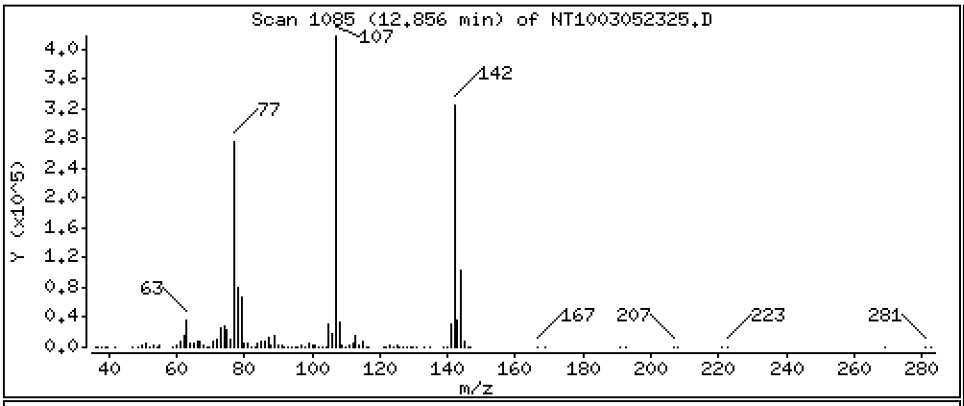
Operator: VTS

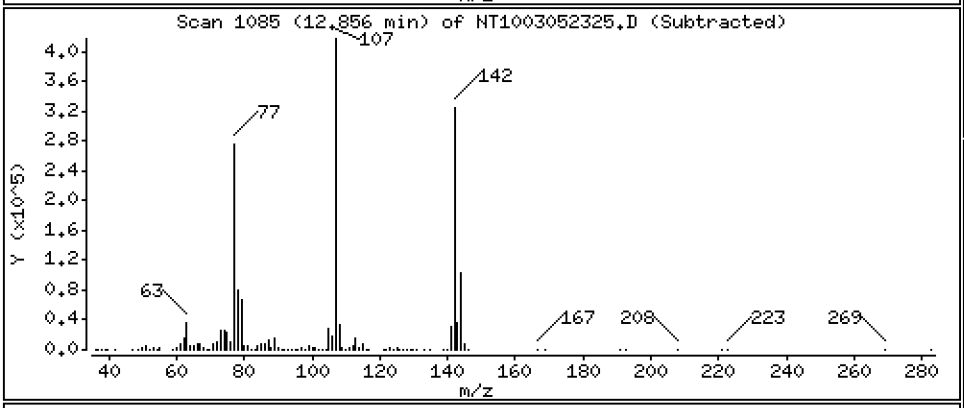
Column phase: ZB-5msi

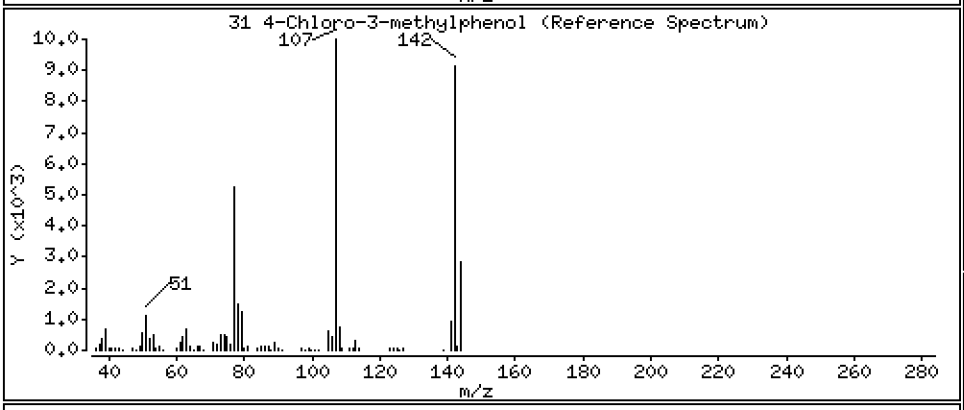
Column diameter: 0.25

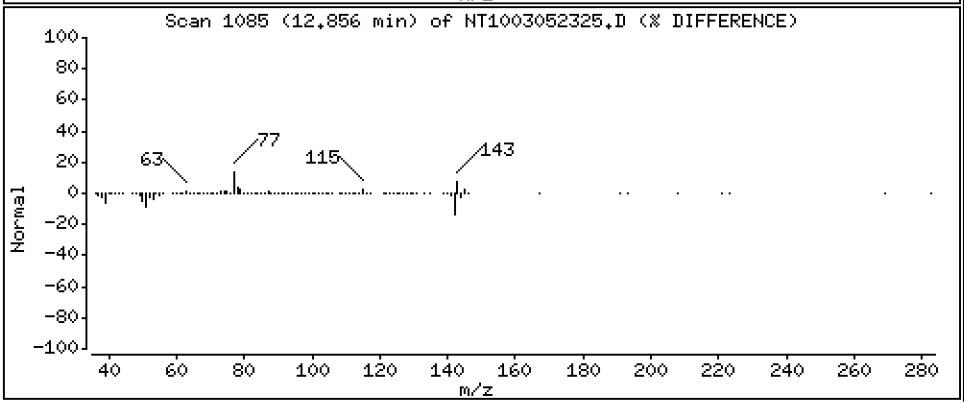
31 4-Chloro-3-methylphenol

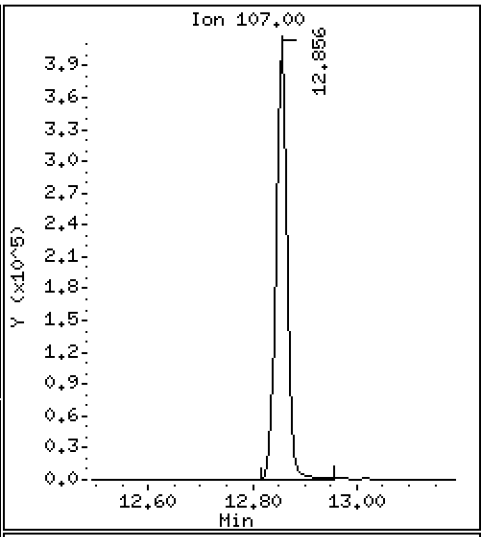
Concentration: 9.660 ug/mL

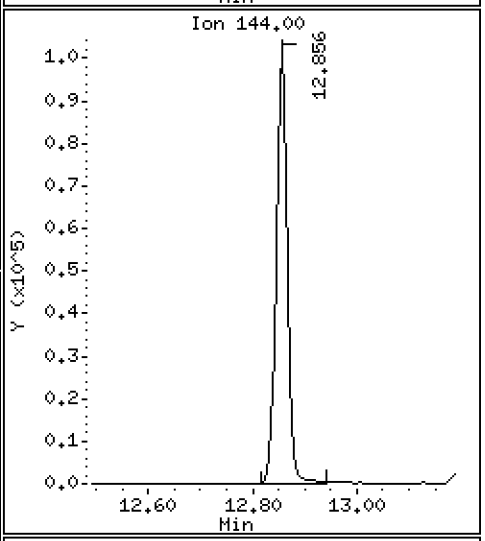


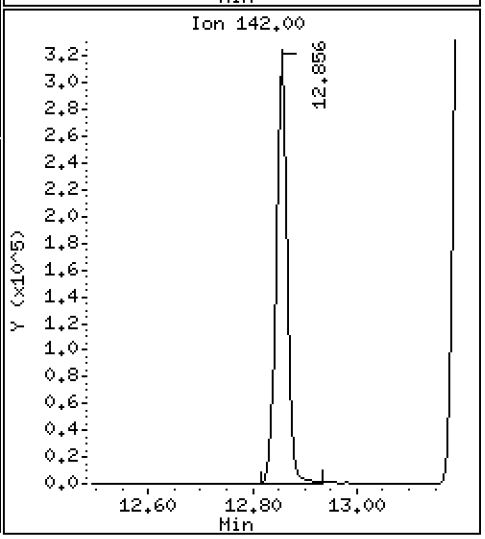












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

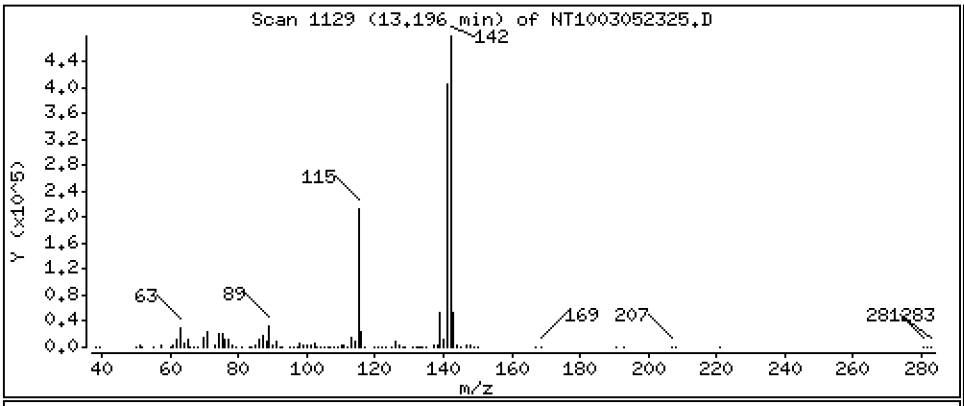
Operator: VTS

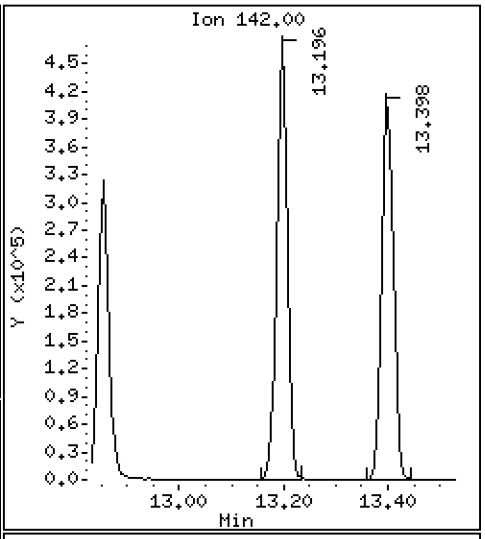
Column phase: ZB-5msi

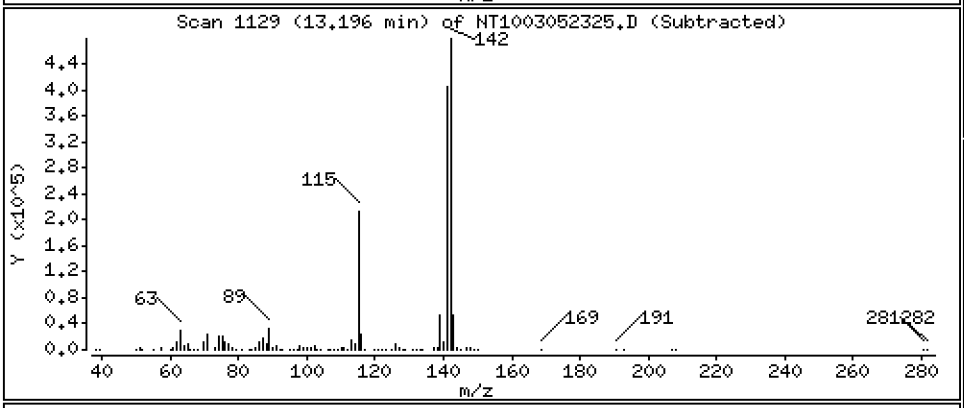
Column diameter: 0.25

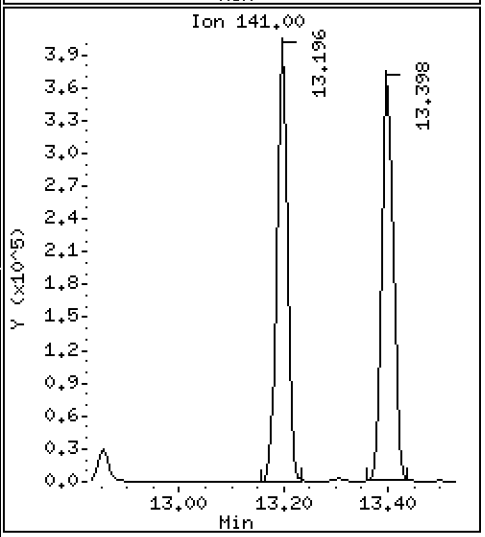
32 2-Methylnaphthalene

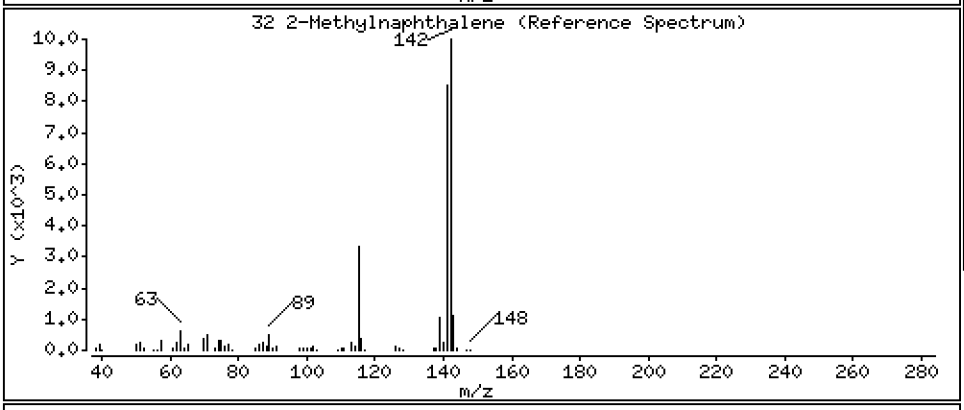
Concentration: 4.984 ug/mL

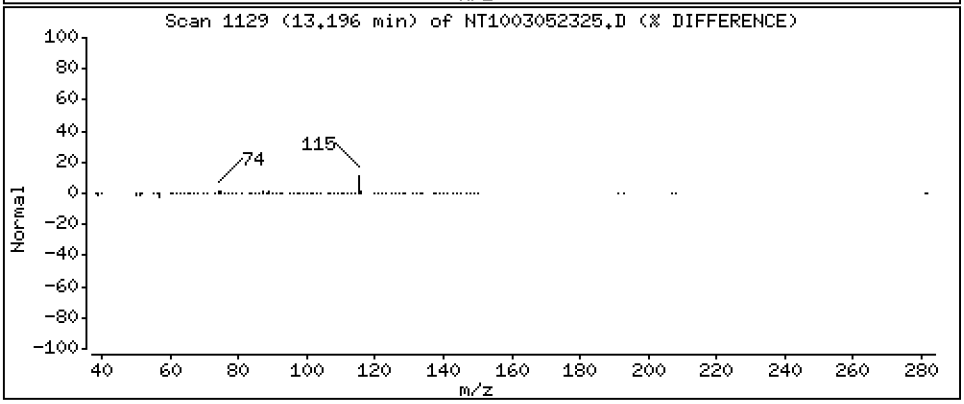












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

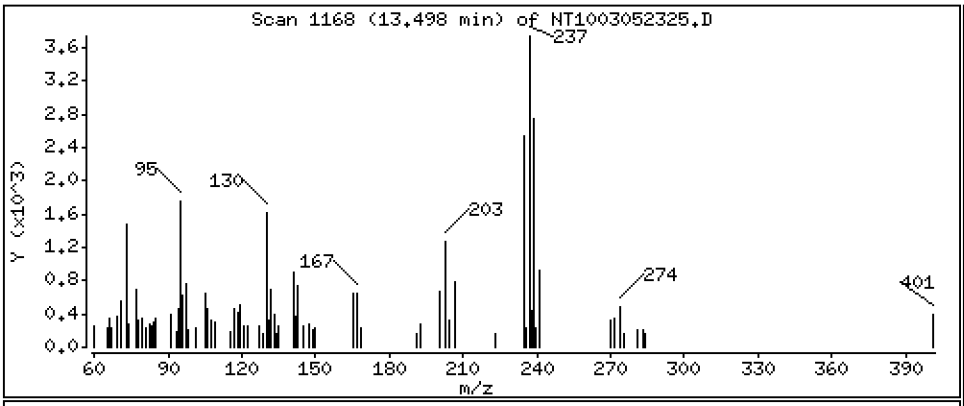
Operator: VTS

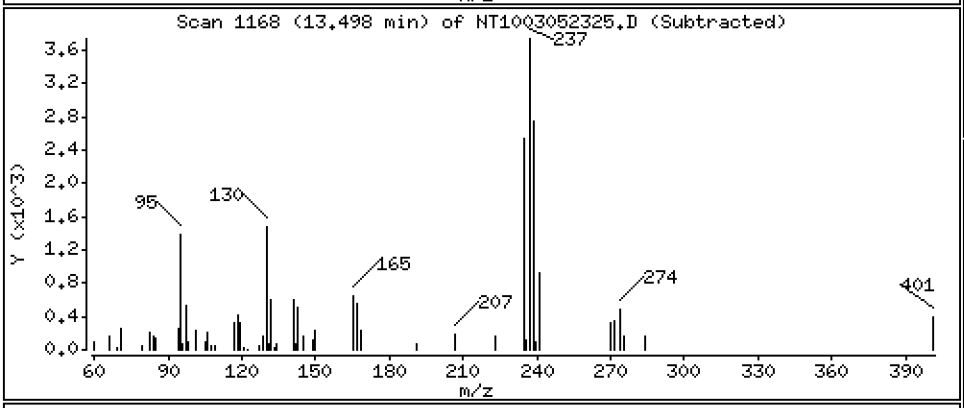
Column phase: ZB-5msi

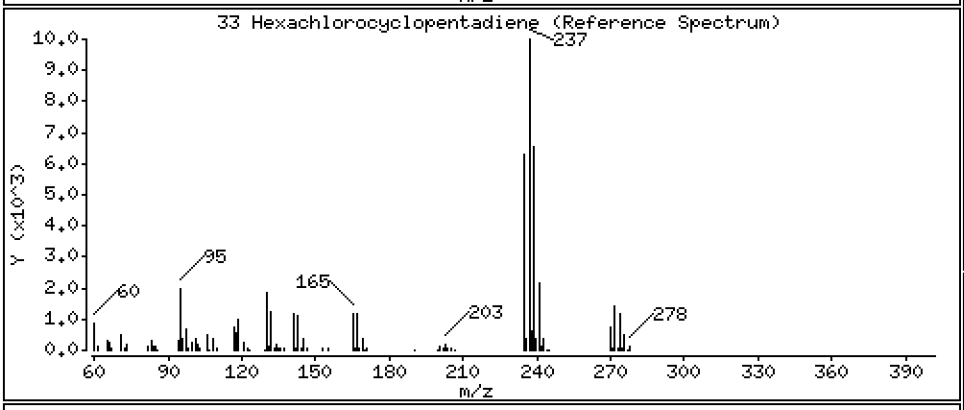
Column diameter: 0.25

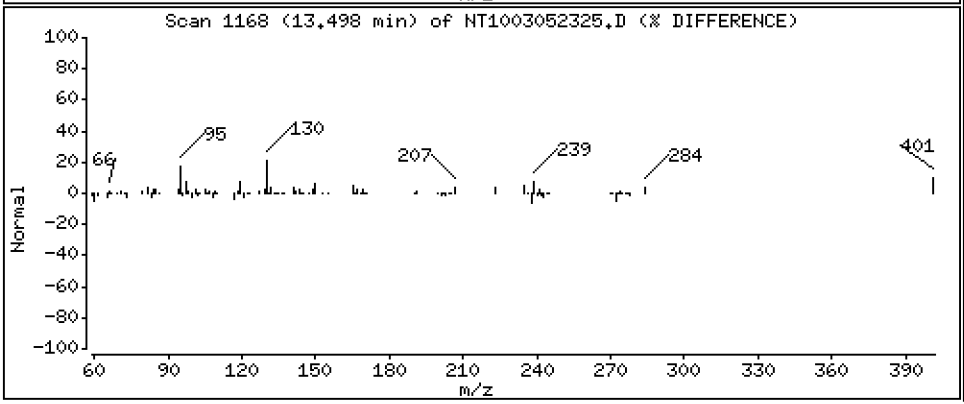
33 Hexachlorocyclopentadiene

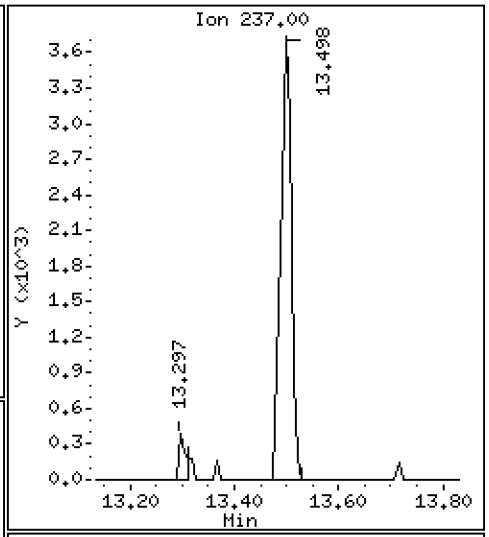
Concentration: 0.3836 ug/mL

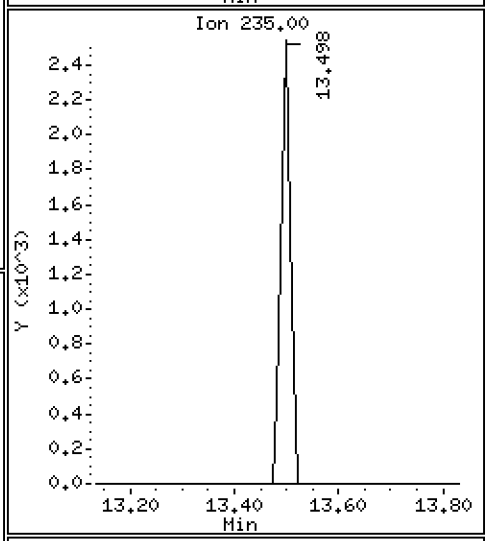


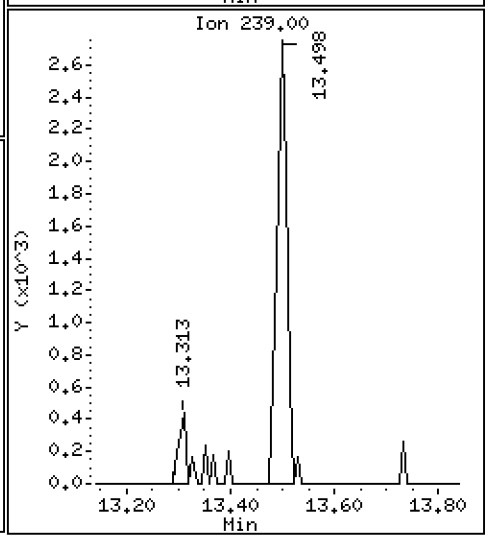












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

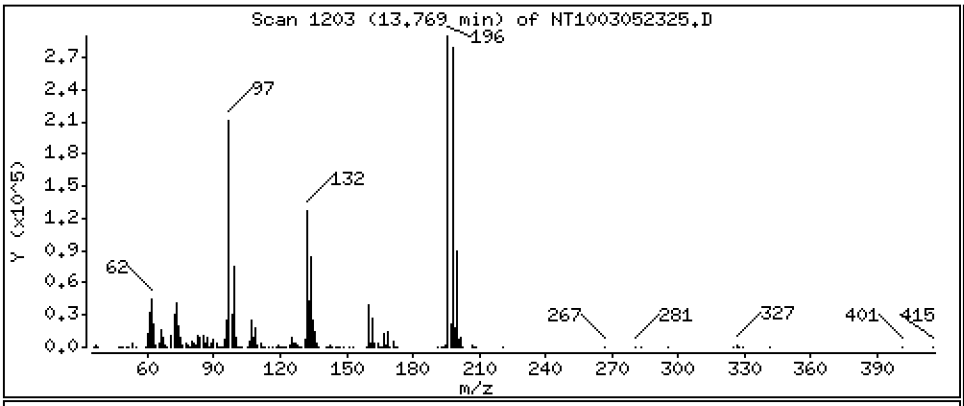
Operator: VTS

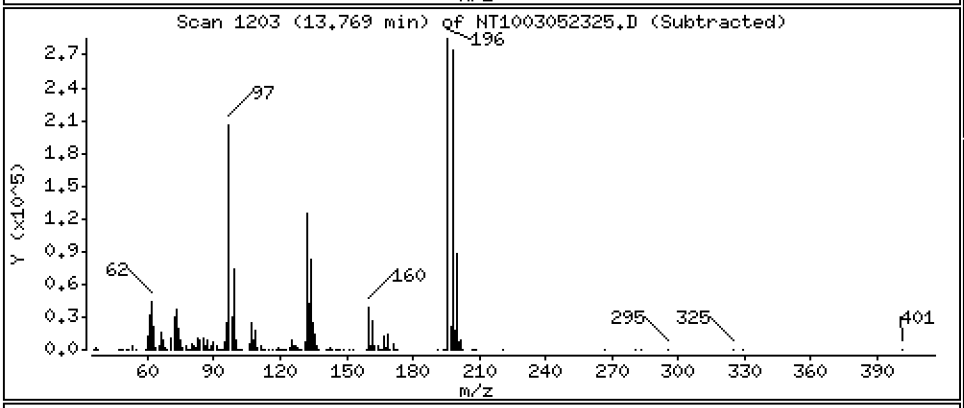
Column phase: ZB-5msi

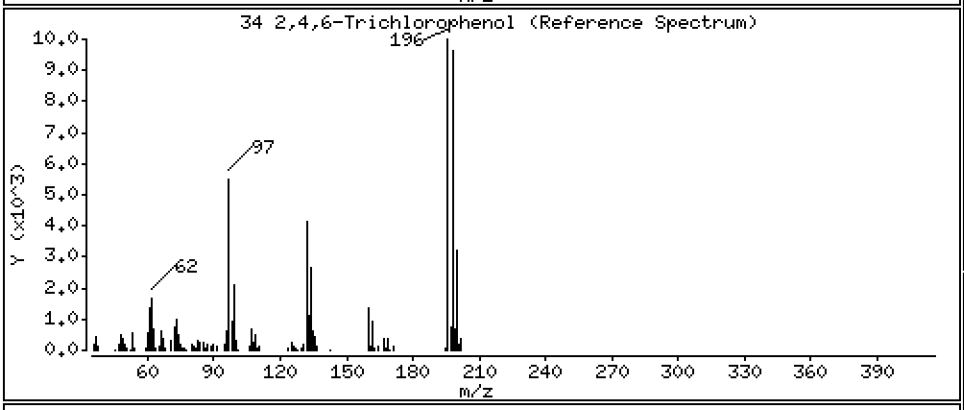
Column diameter: 0.25

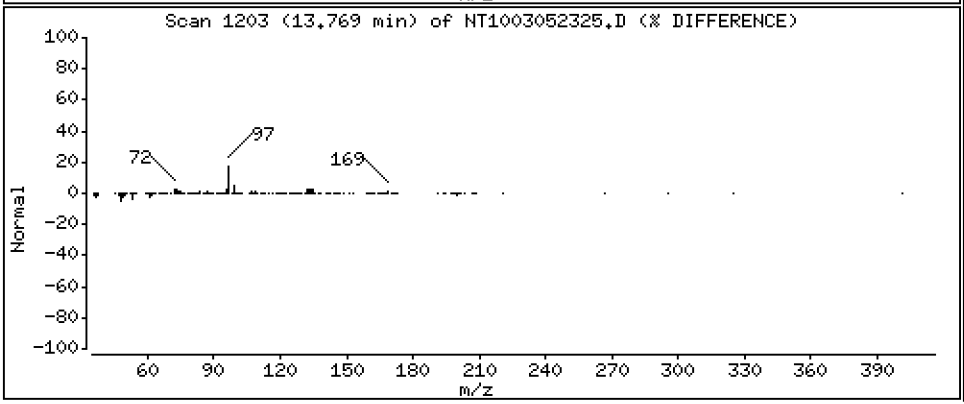
34 2,4,6-Trichlorophenol

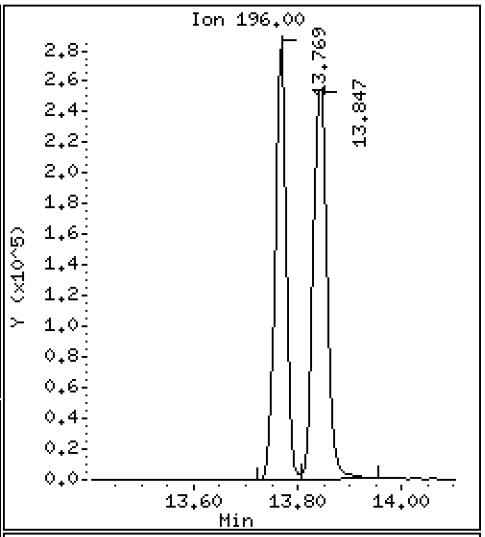
Concentration: 10.39 ug/mL

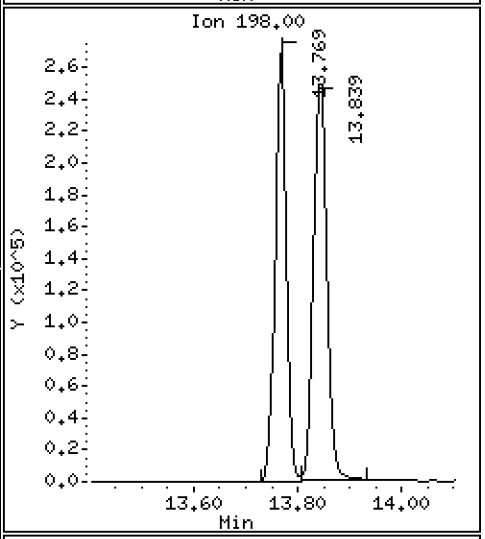


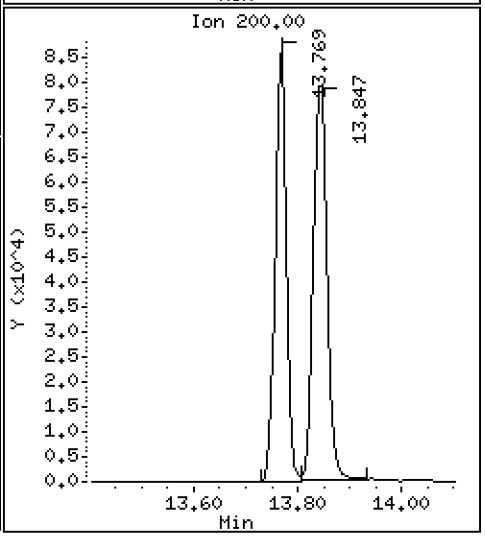












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

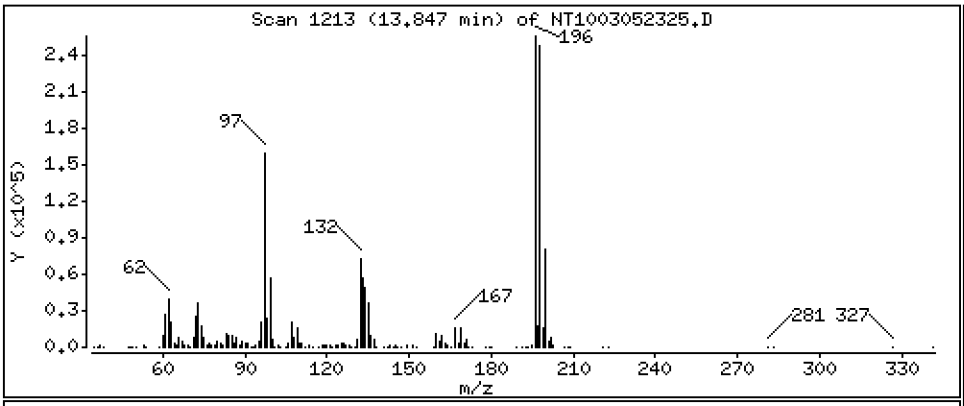
Operator: VTS

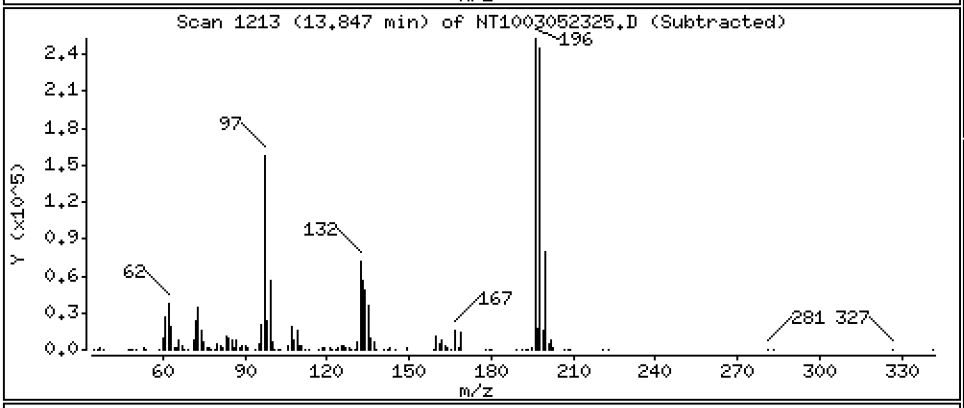
Column phase: ZB-5msi

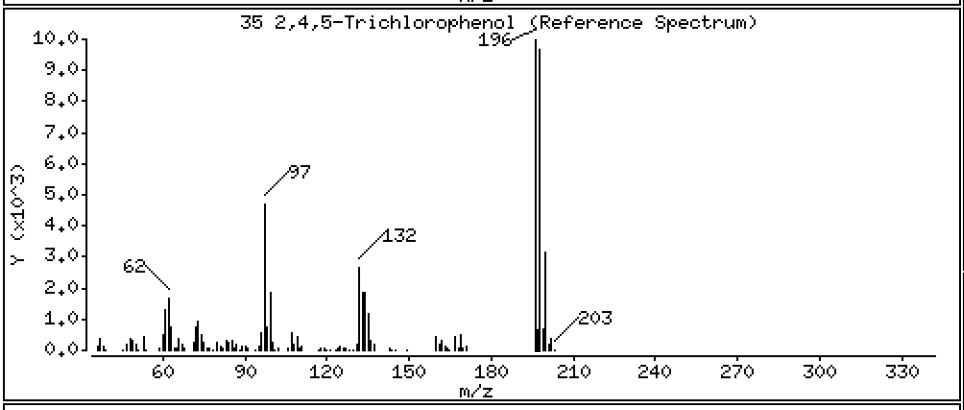
Column diameter: 0.25

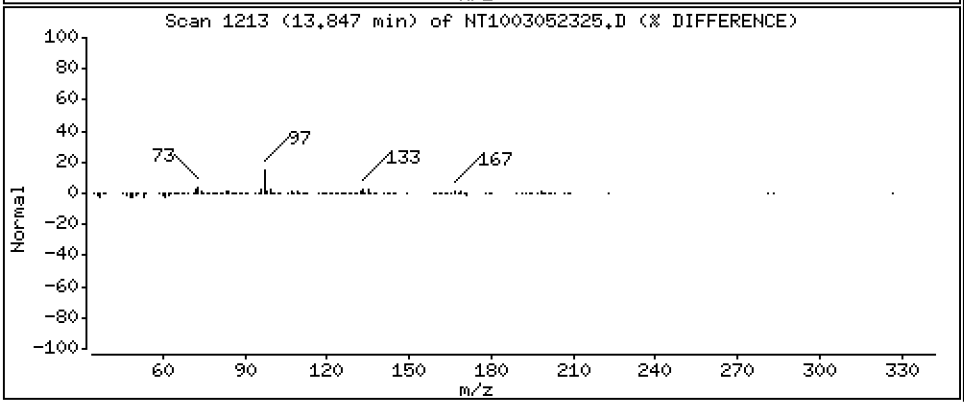
35 2,4,5-Trichlorophenol

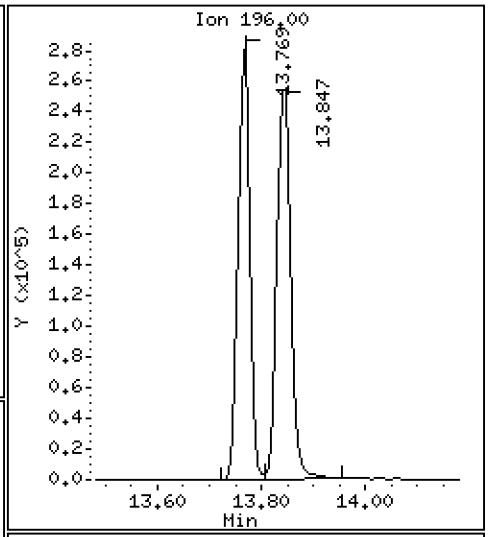
Concentration: 10.39 ug/mL

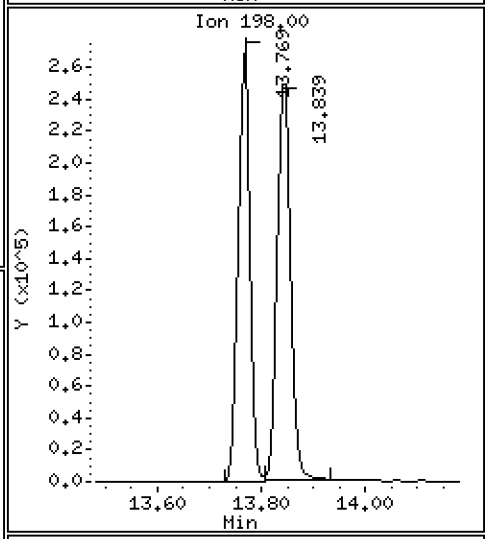


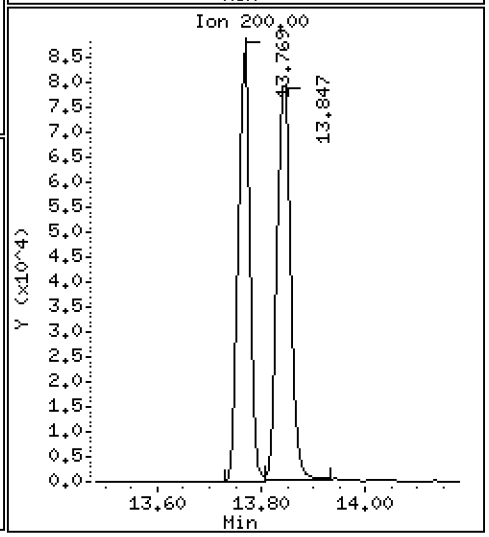












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

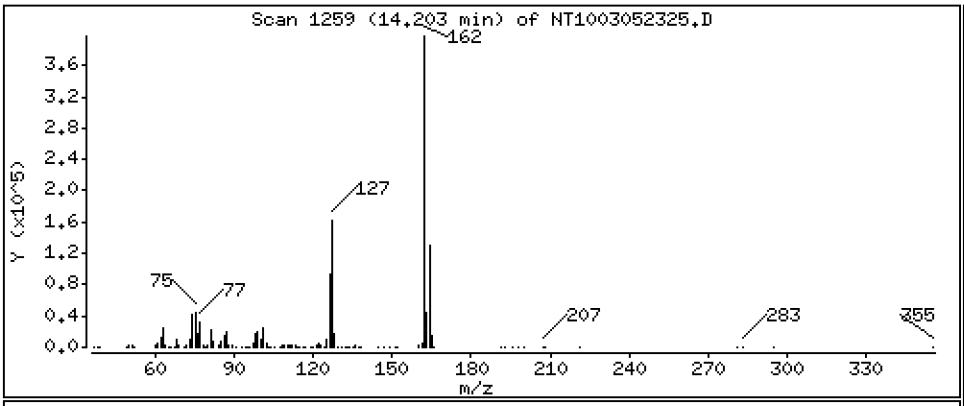
Operator: VTS

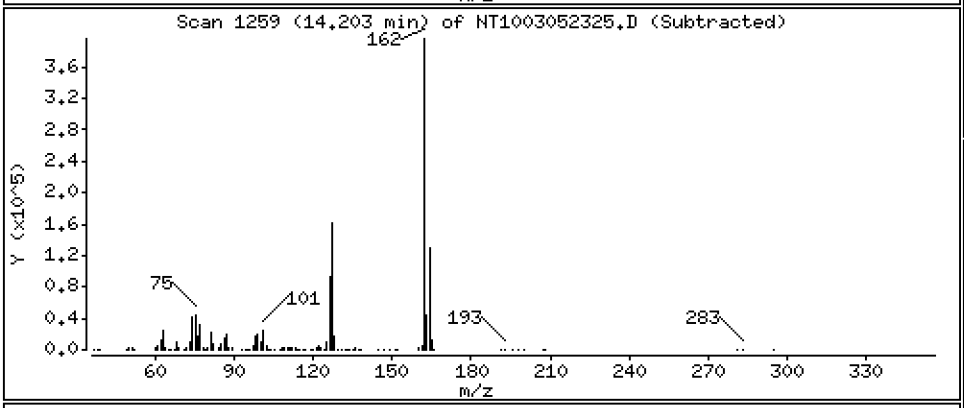
Column phase: ZB-5msi

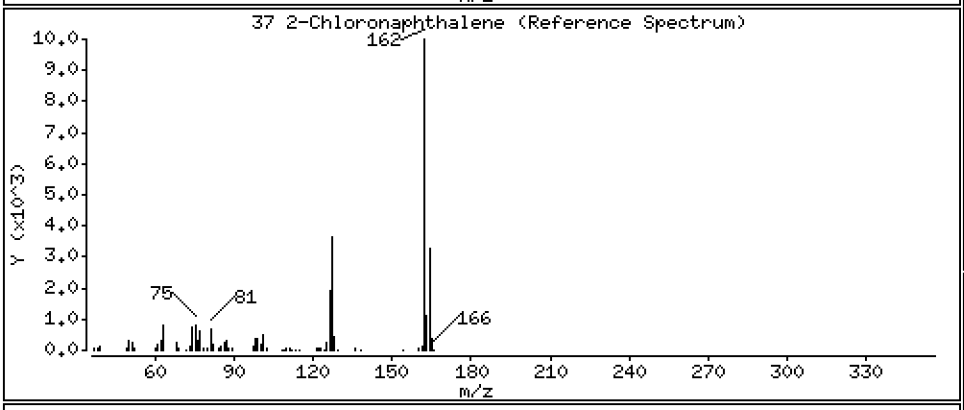
Column diameter: 0.25

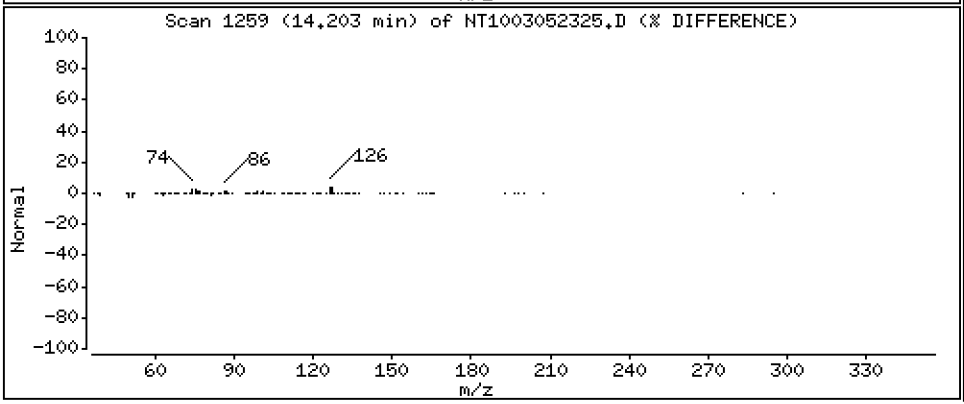
37 2-Chloronaphthalene

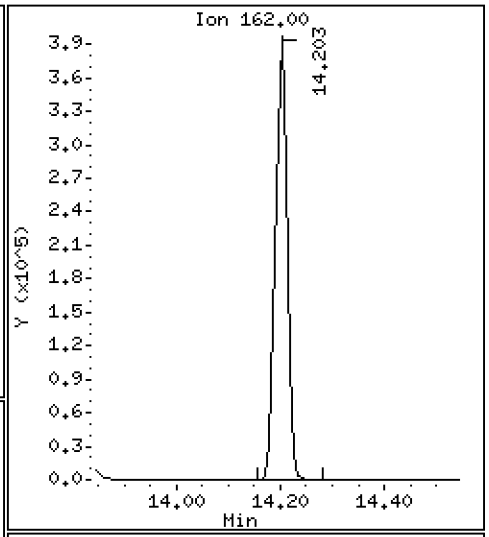
Concentration: 5.239 ug/mL

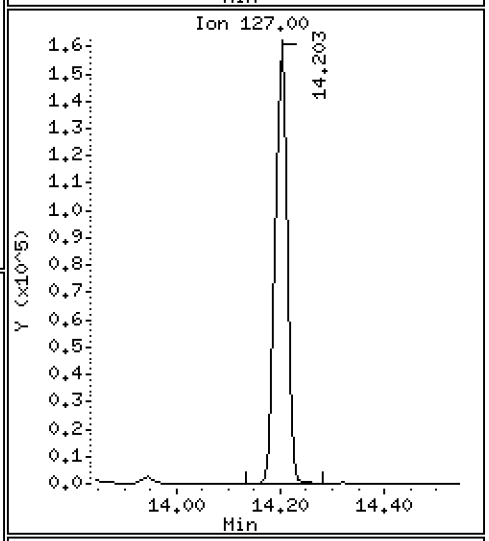


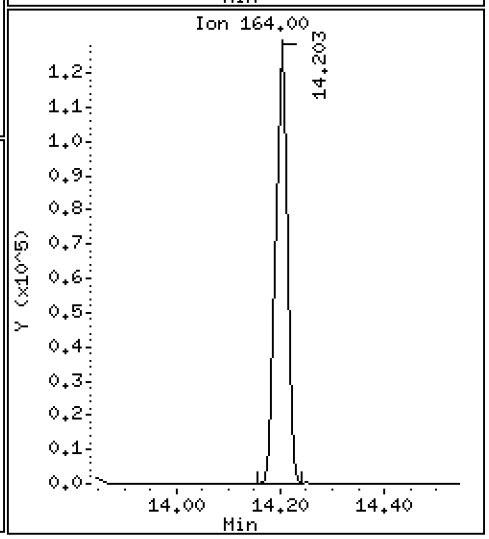












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

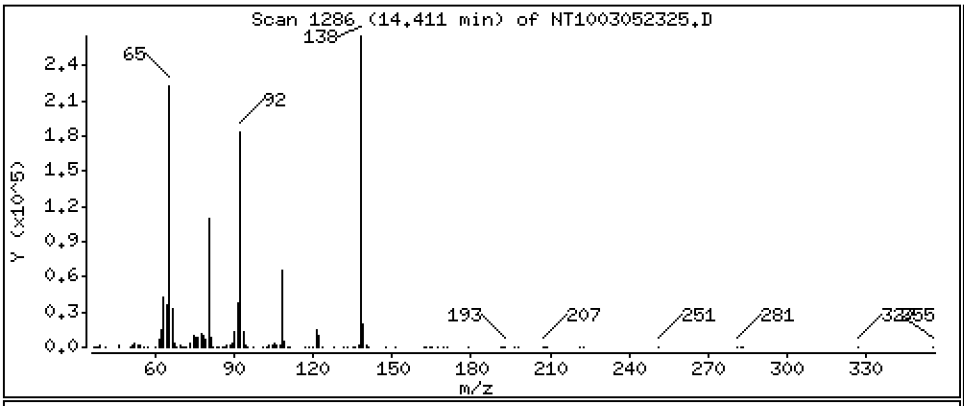
Operator: VTS

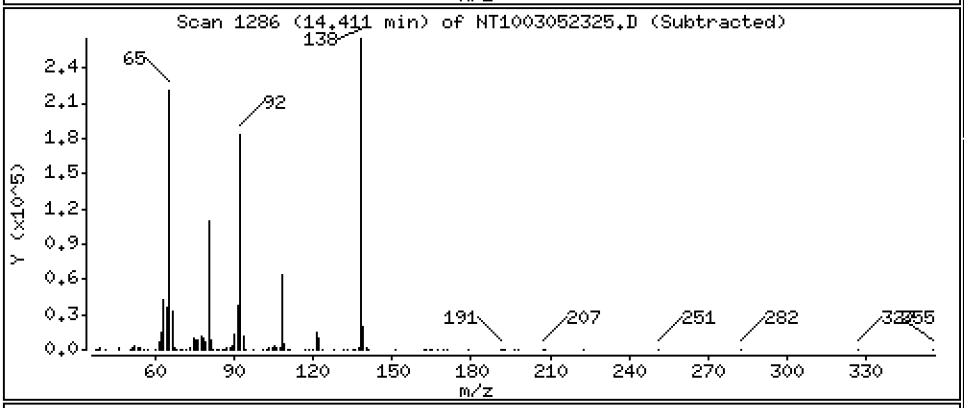
Column phase: ZB-5msi

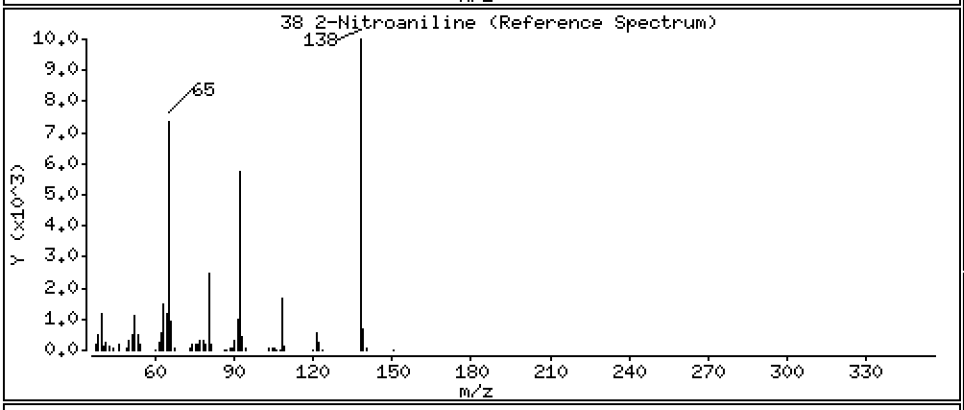
Column diameter: 0.25

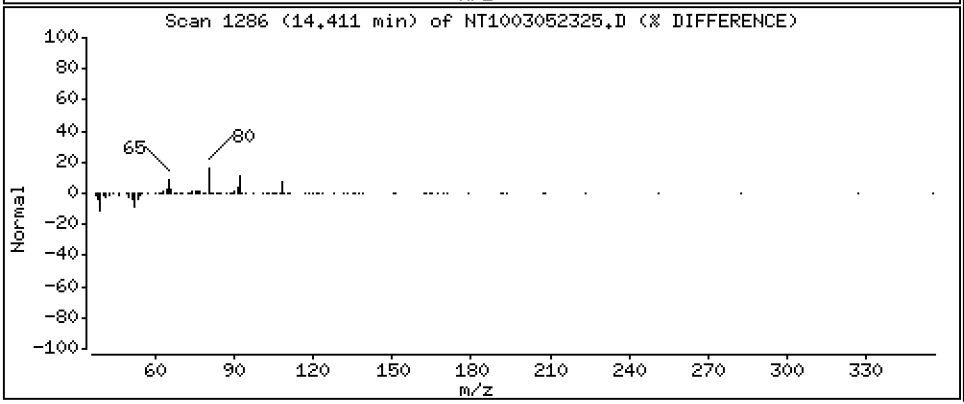
38 2-Nitroaniline

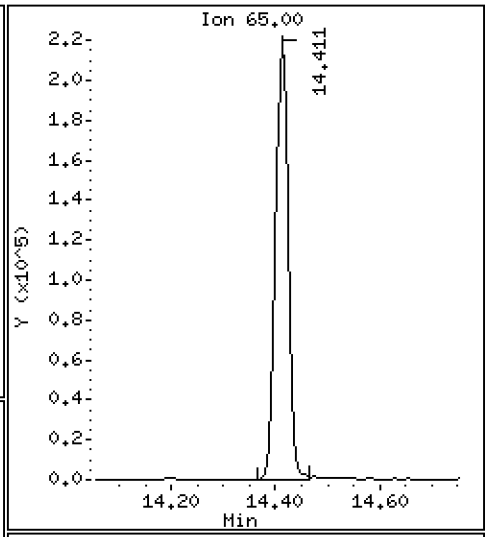
Concentration: 10.76 ug/mL

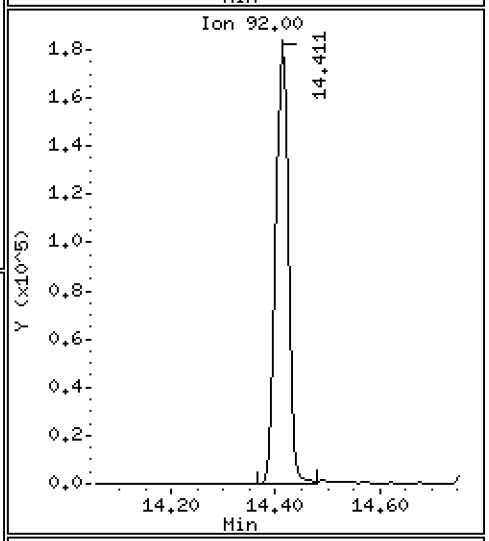


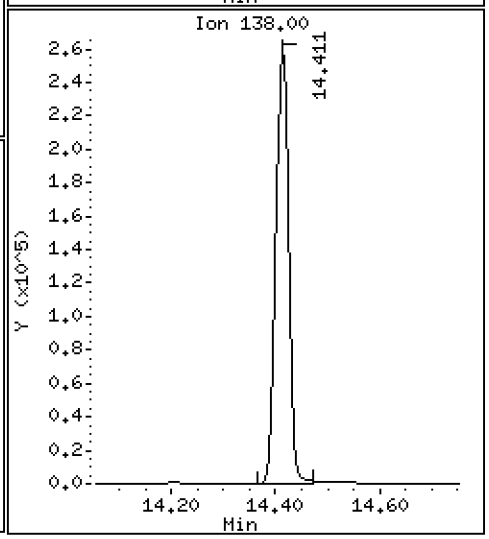












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

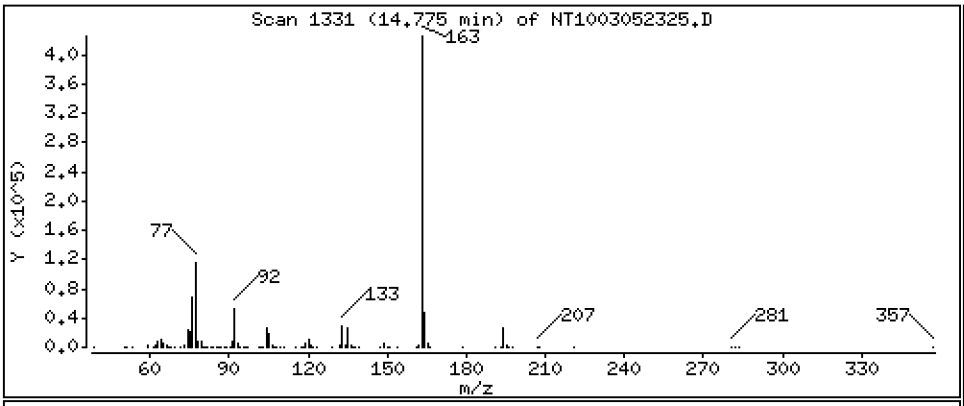
Operator: VTS

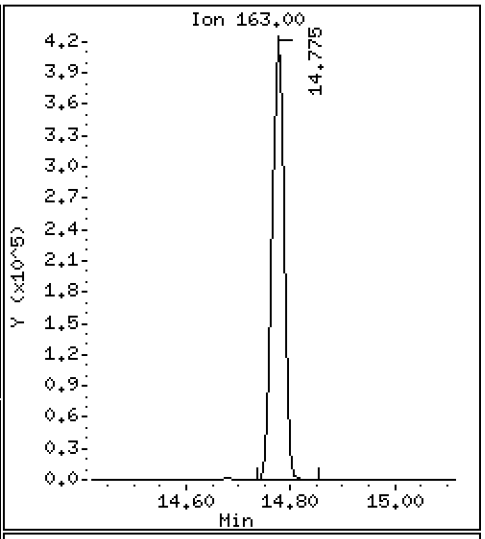
Column phase: ZB-5msi

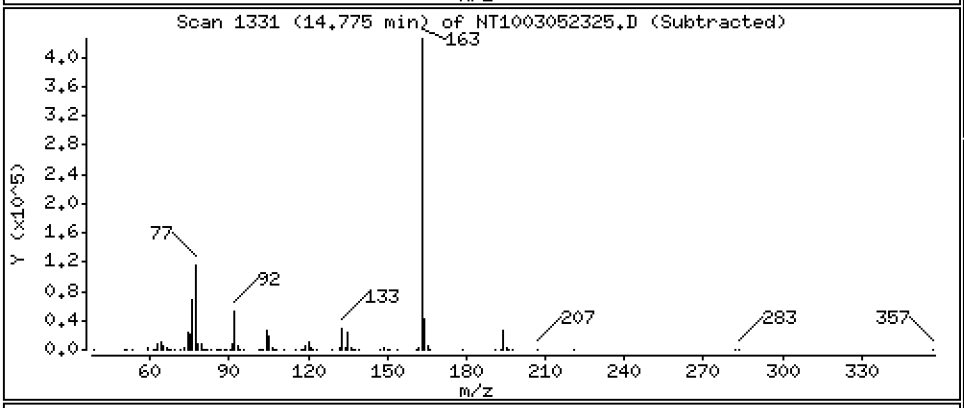
Column diameter: 0.25

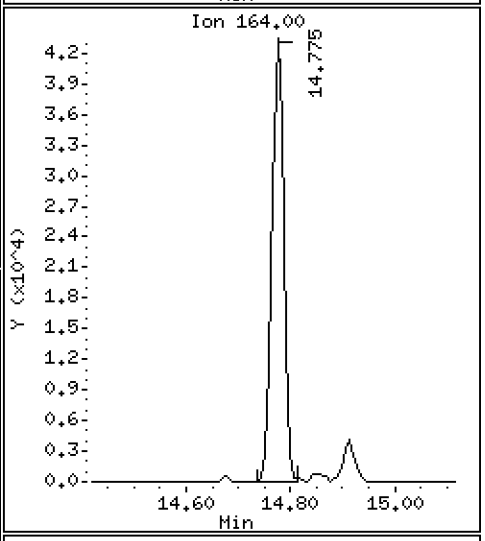
39 Dimethylphthalate

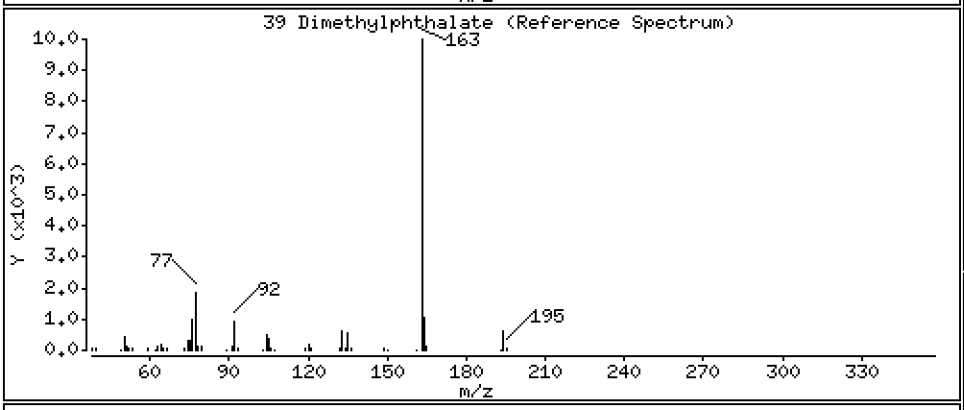
Concentration: 4.759 ug/mL

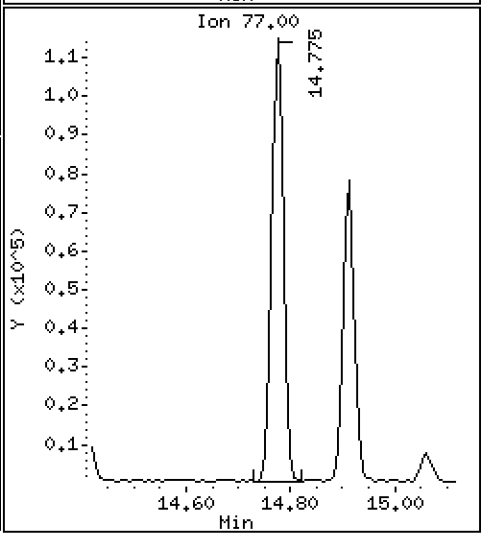


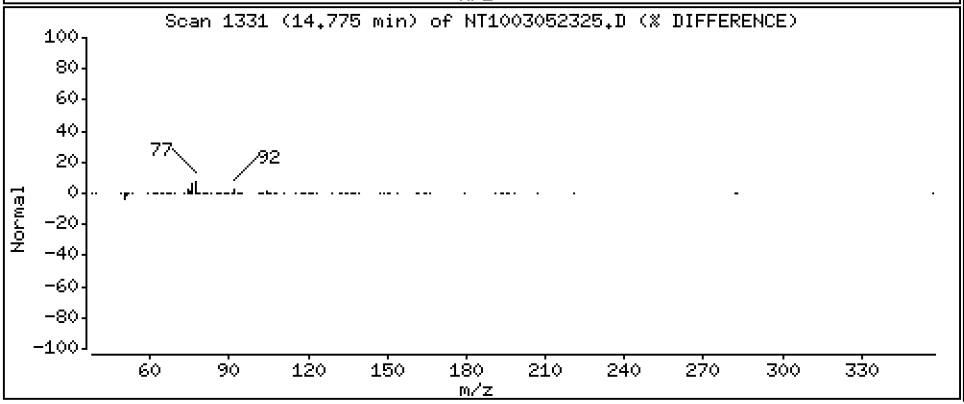












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052325.D

Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

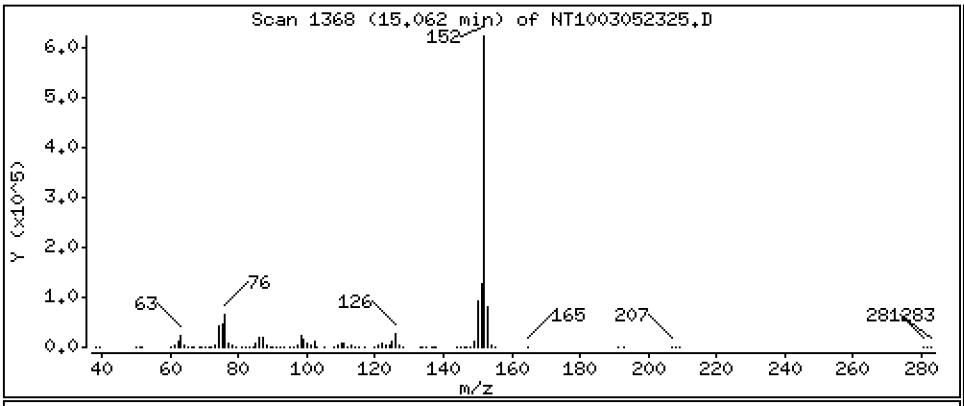
Operator: VTS

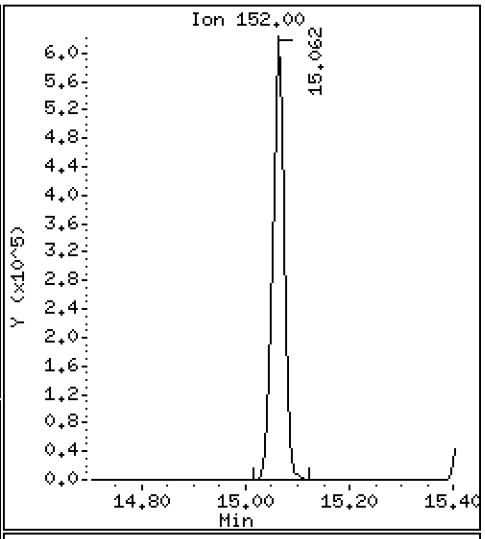
Column phase: ZB-5msi

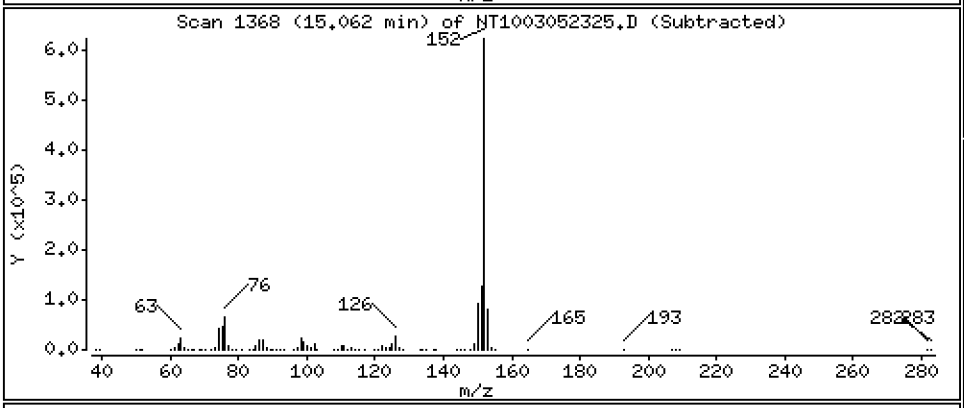
Column diameter: 0.25

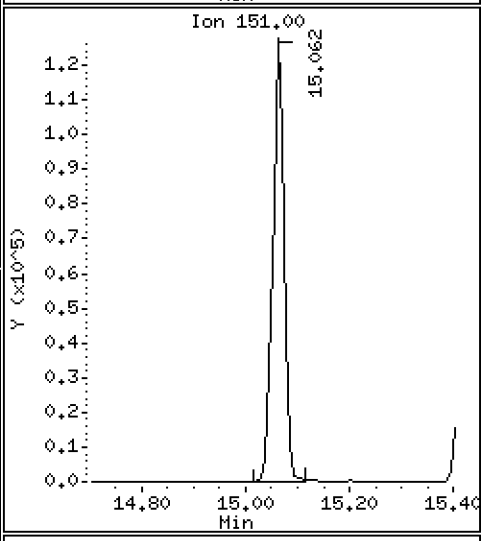
40 Acenaphthylene

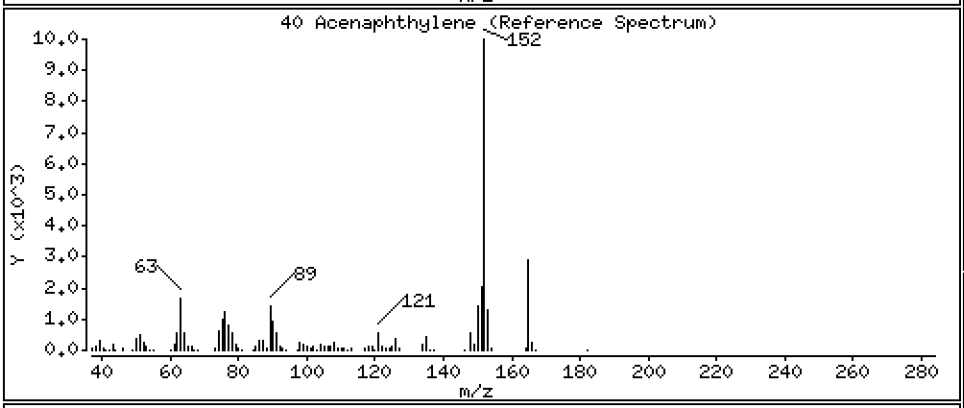
Concentration: 5.476 ug/mL

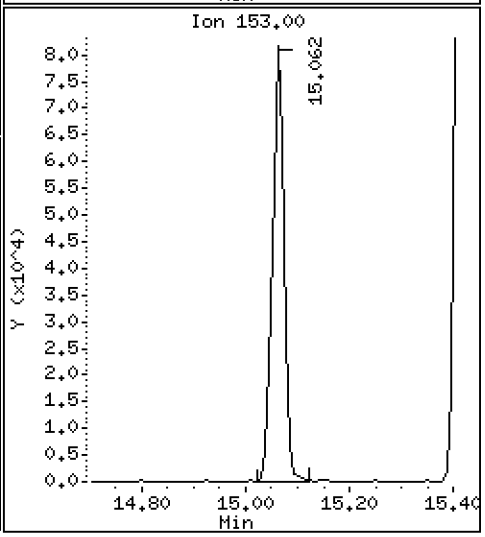


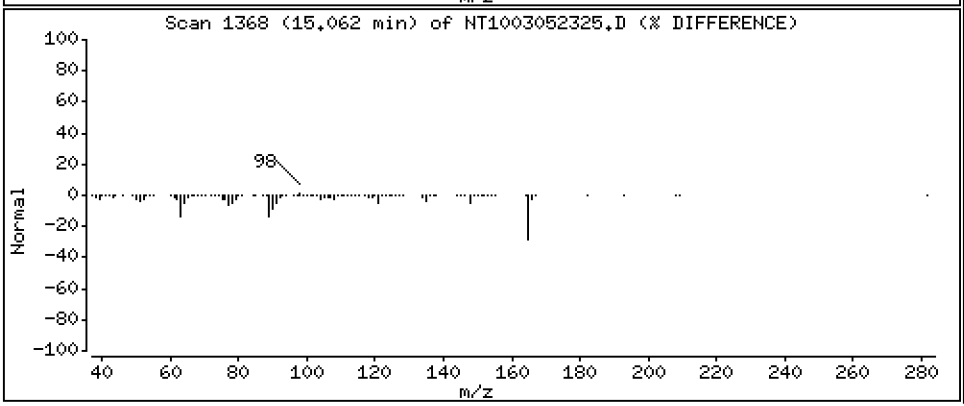












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

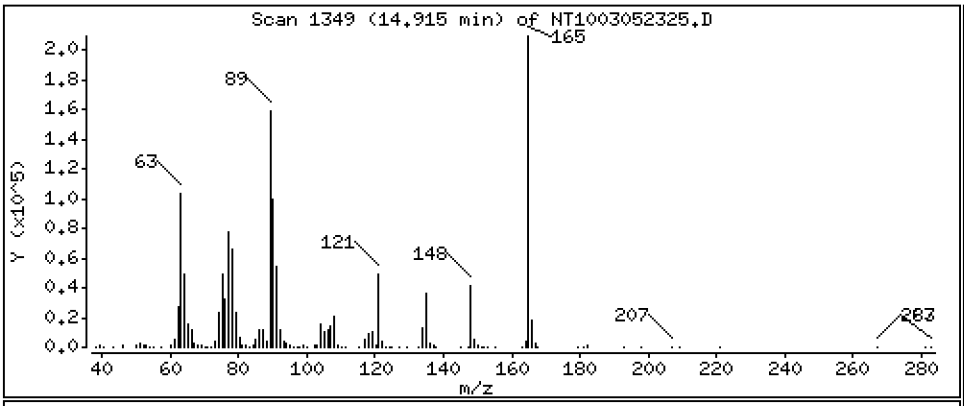
Operator: VTS

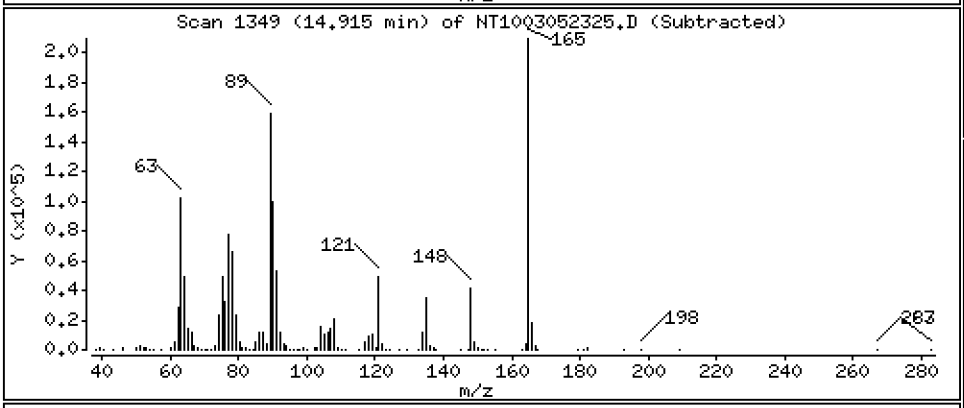
Column phase: ZB-5msi

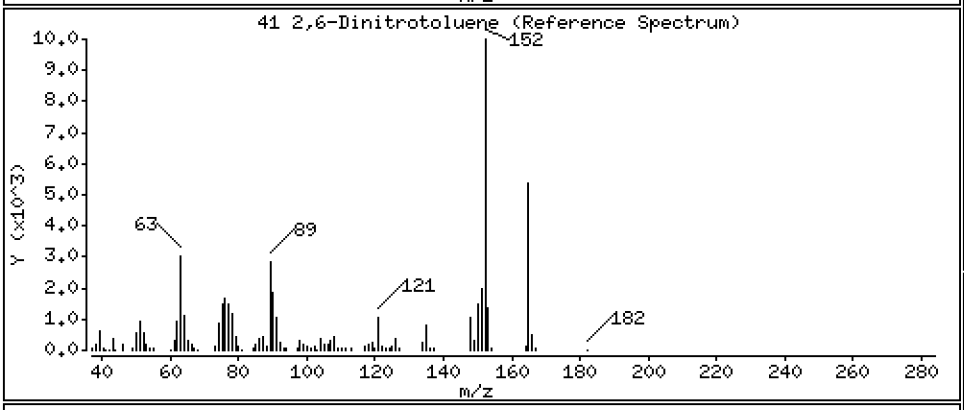
Column diameter: 0.25

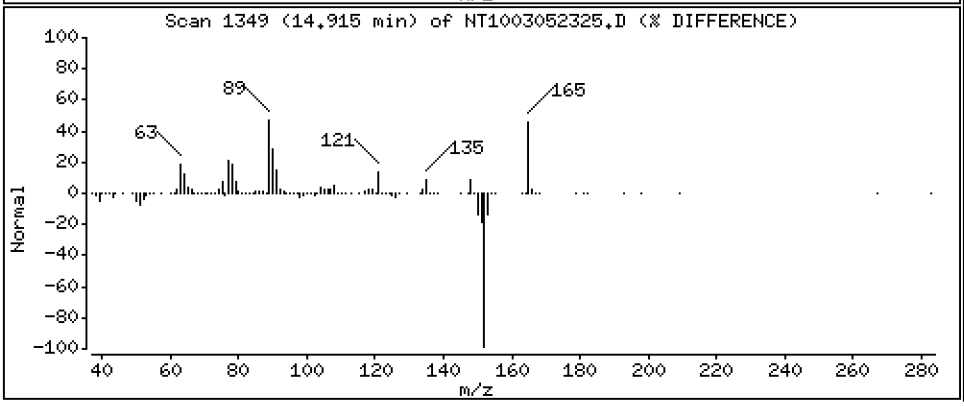
41 2,6-Dinitrotoluene

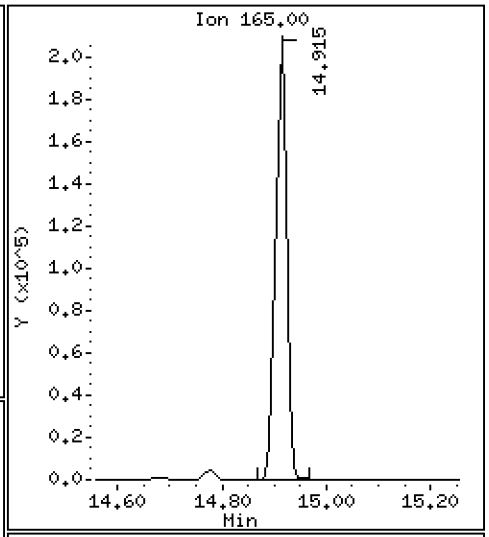
Concentration: 9.933 ug/mL

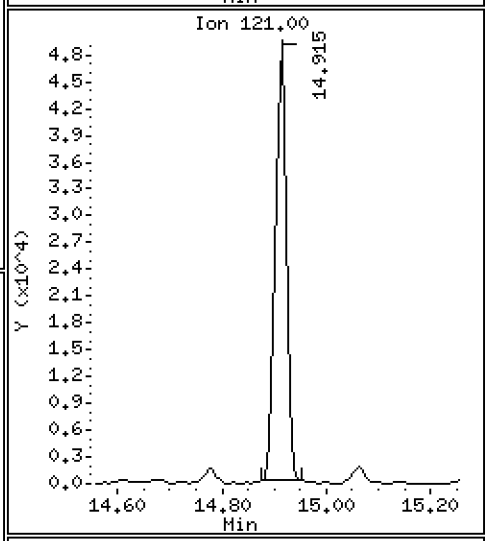


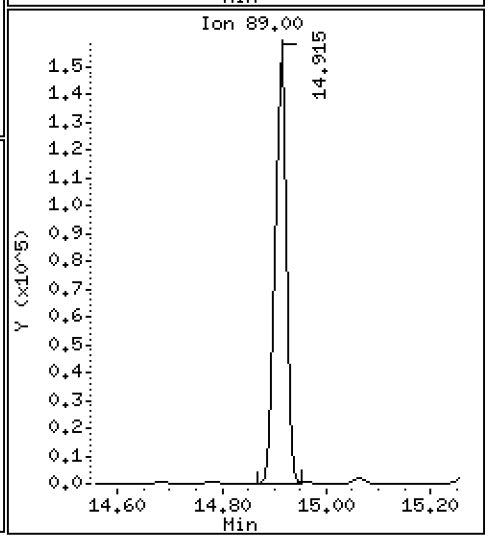












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

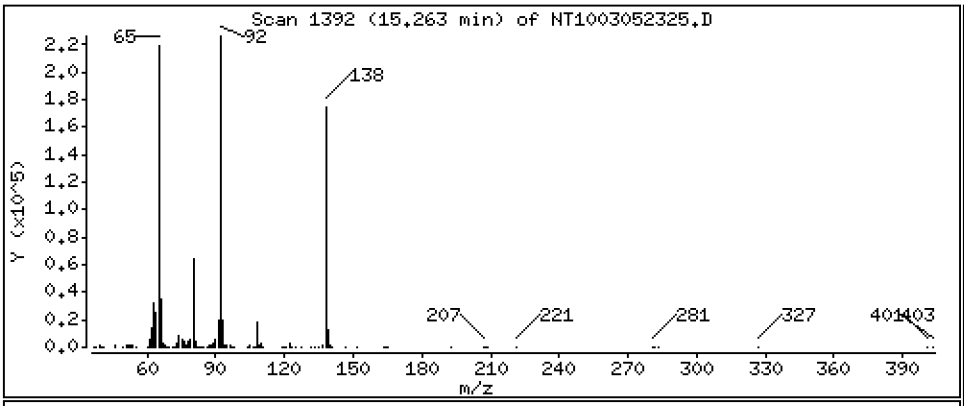
Operator: VTS

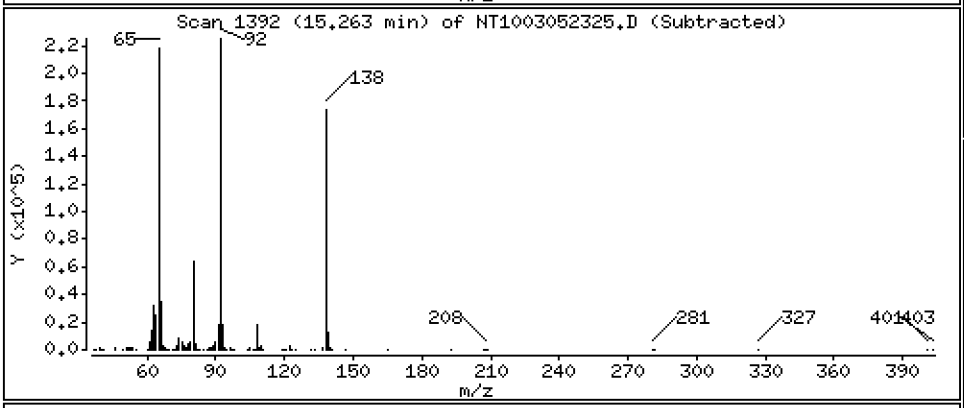
Column phase: ZB-5msi

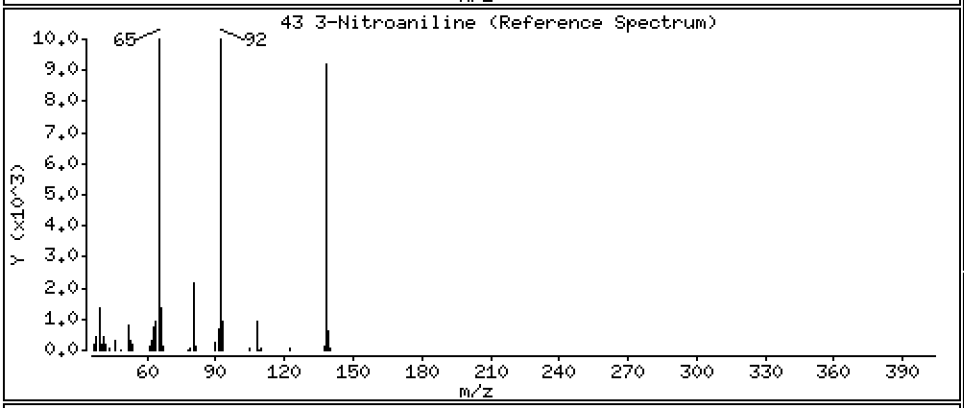
Column diameter: 0.25

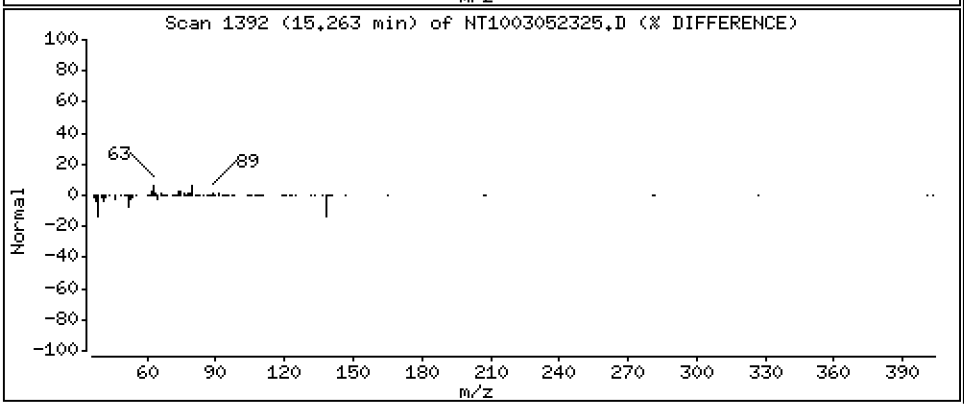
43 3-Nitroaniline

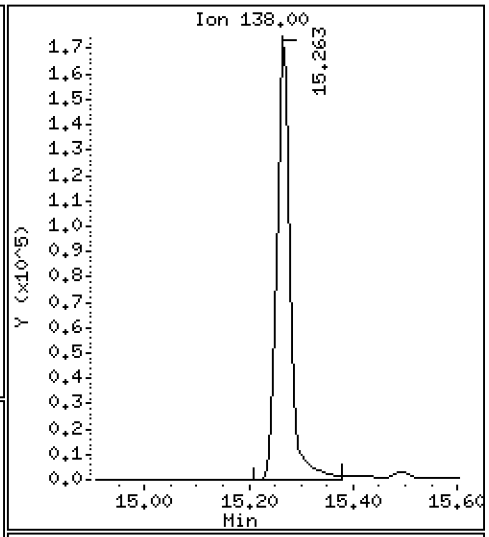
Concentration: 9.201 ug/mL

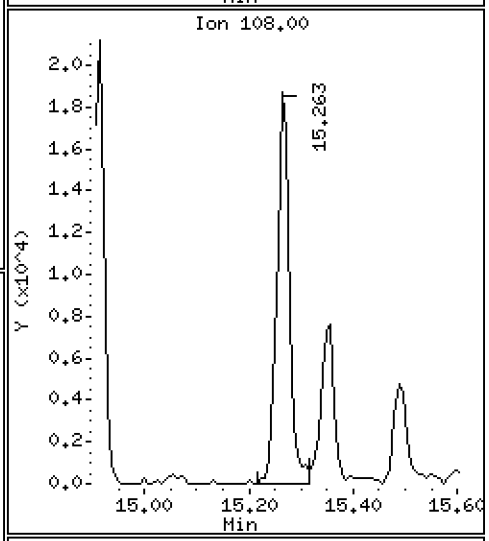


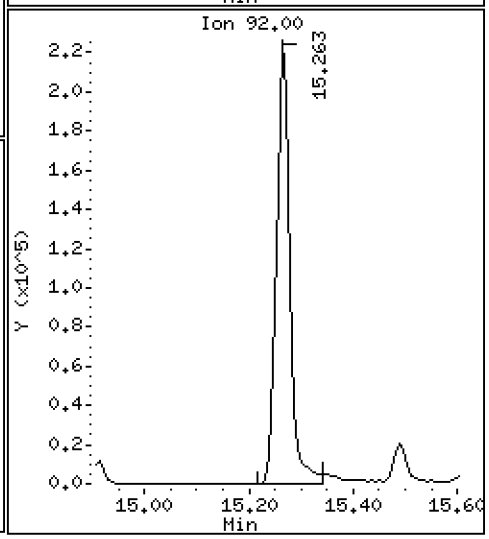












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

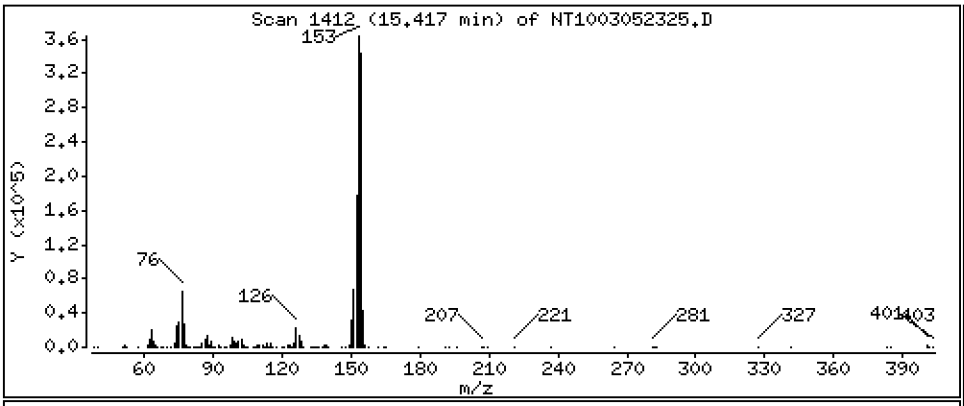
Operator: VTS

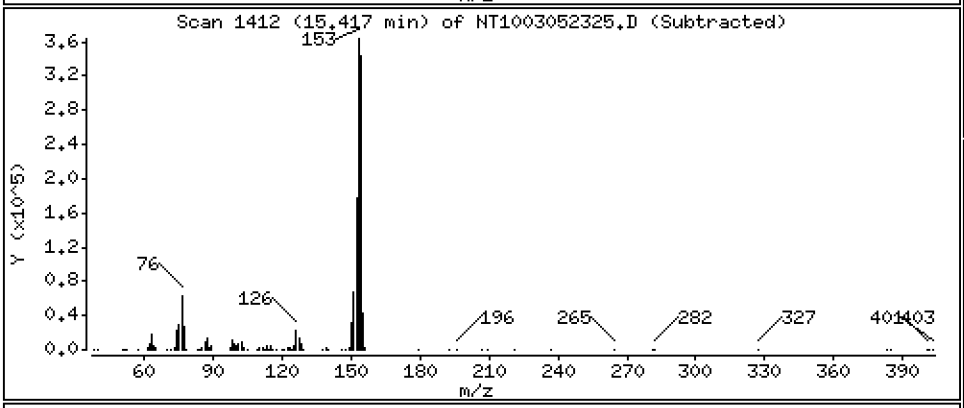
Column phase: ZB-5msi

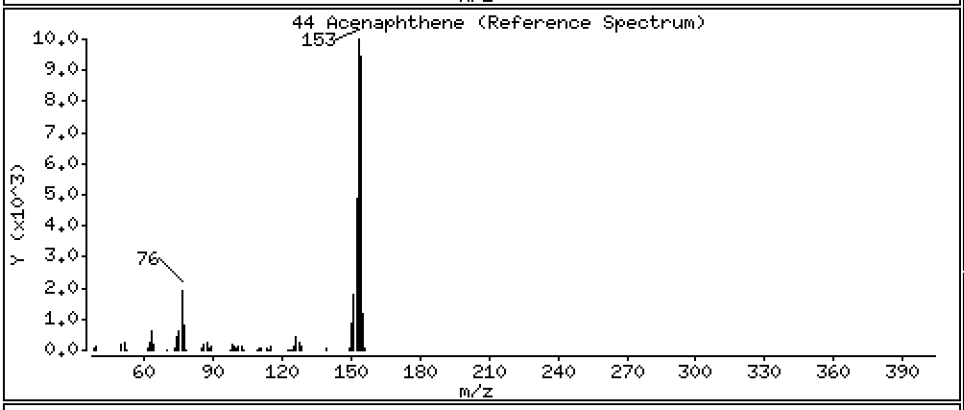
Column diameter: 0.25

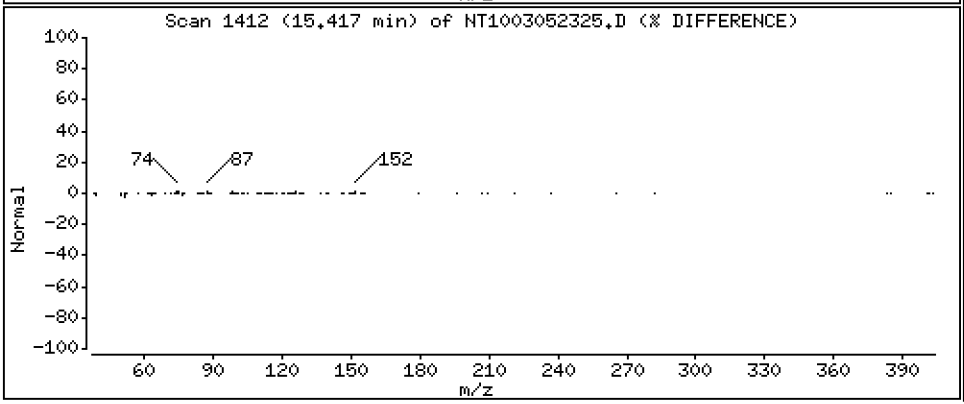
44 Acenaphthene

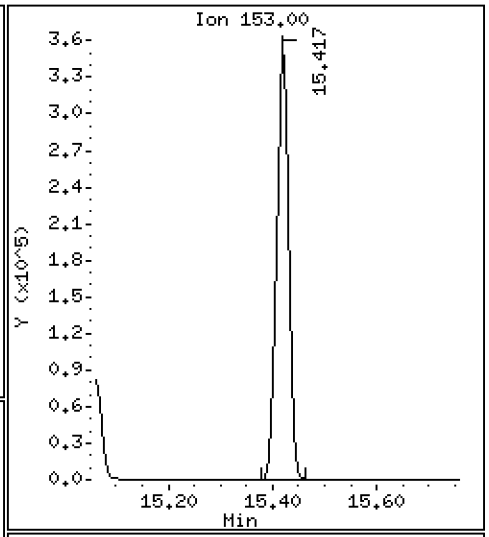
Concentration: 4.674 ug/mL

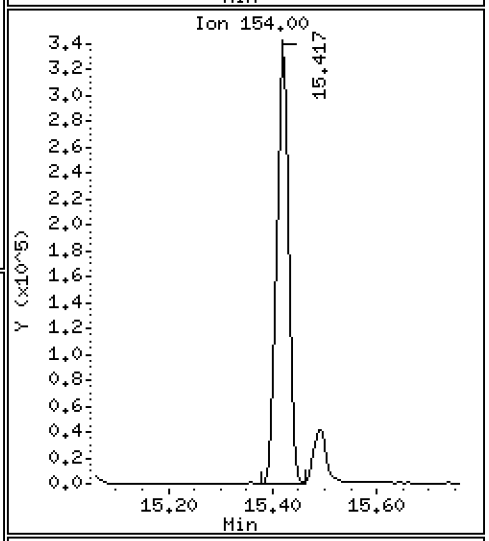


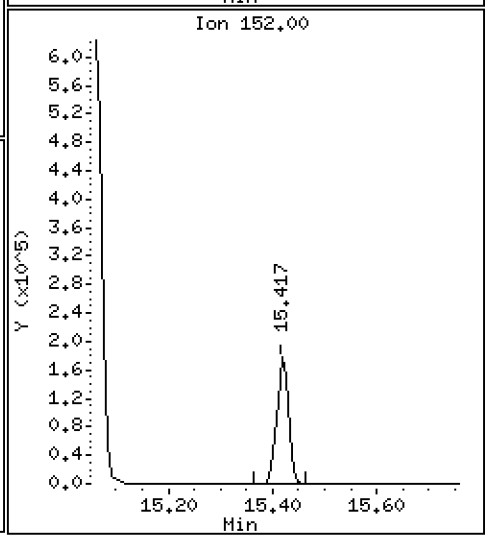












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

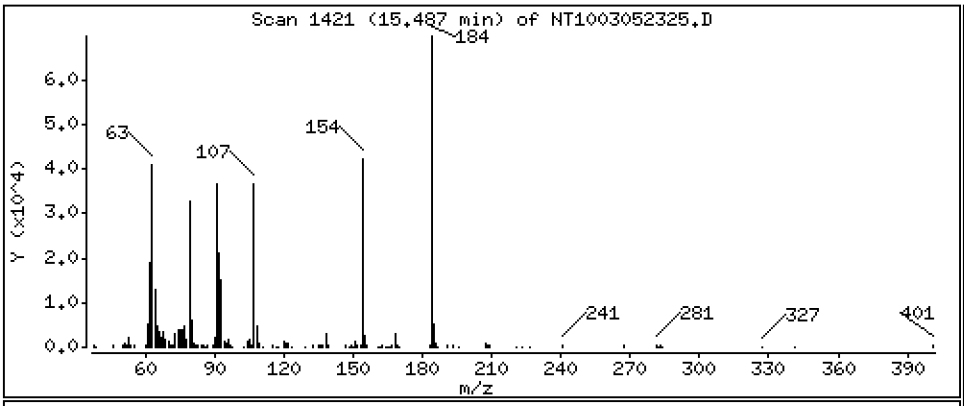
Operator: VTS

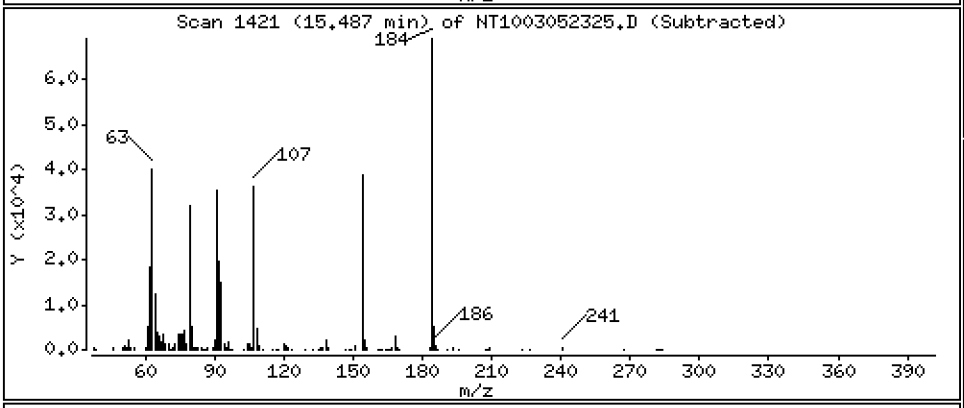
Column phase: ZB-5msi

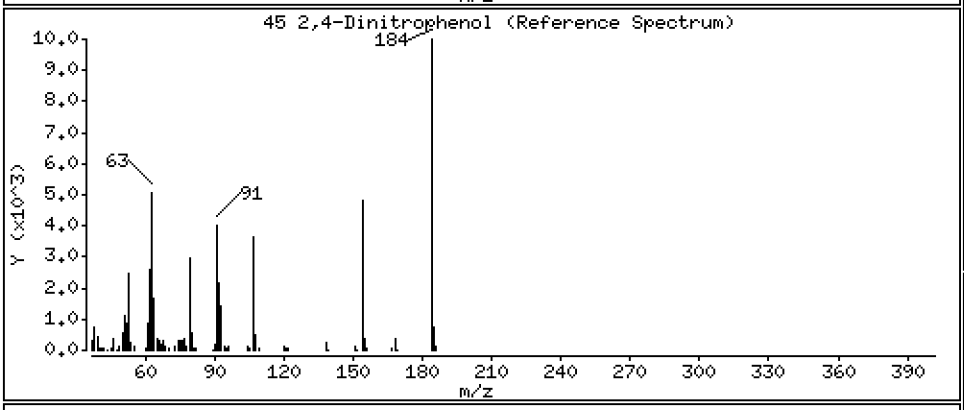
Column diameter: 0.25

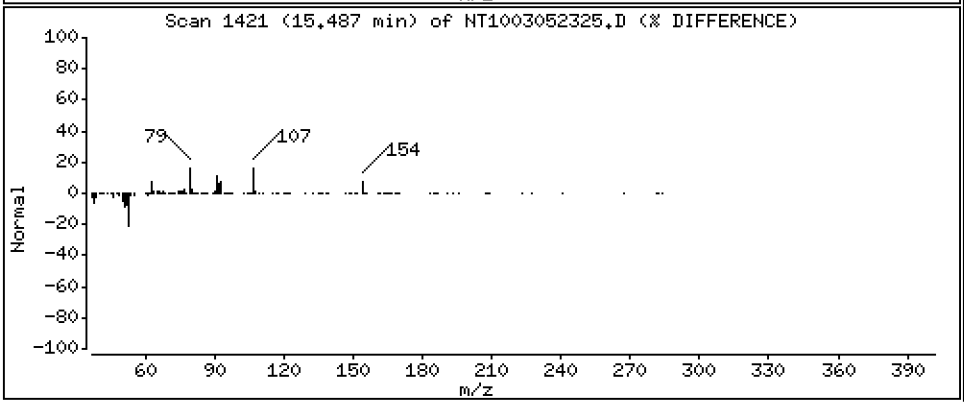
45 2,4-Dinitrophenol

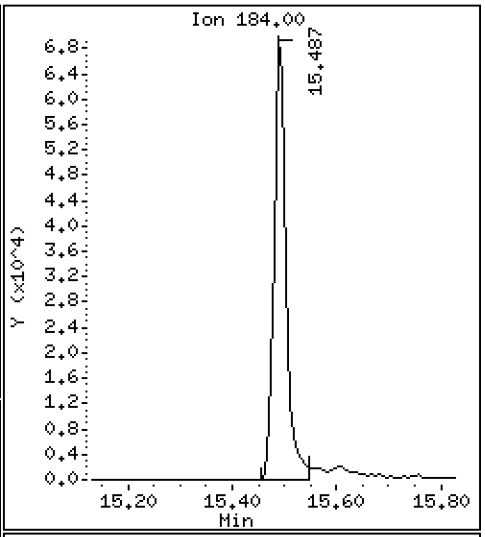
Concentration: 13.96 ug/mL

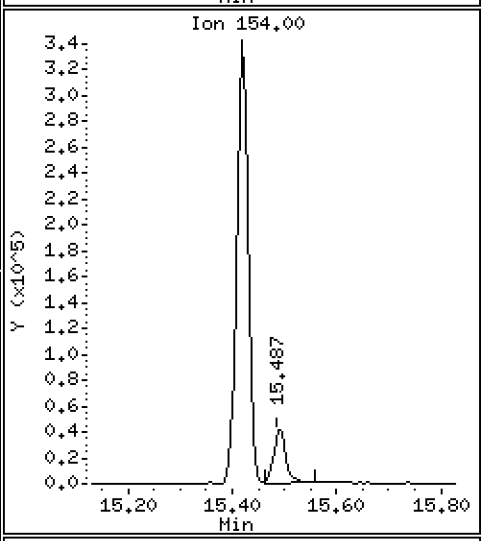


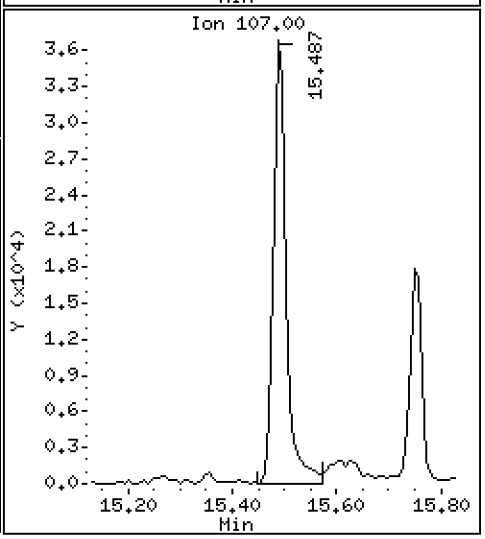












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

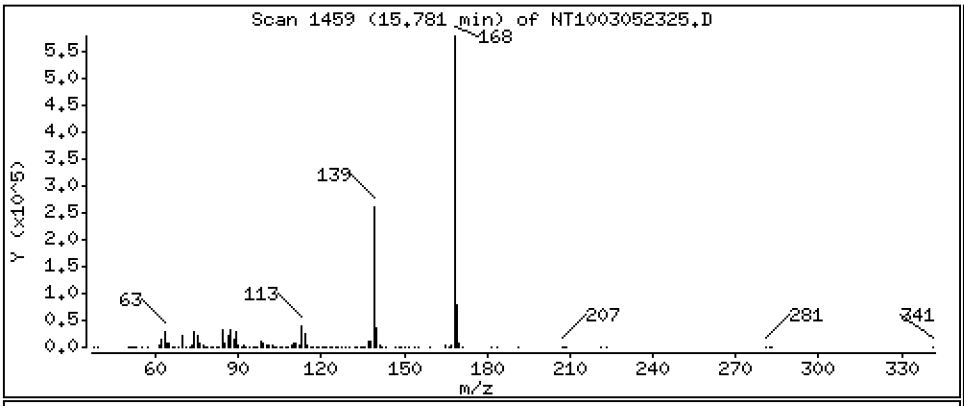
Operator: VTS

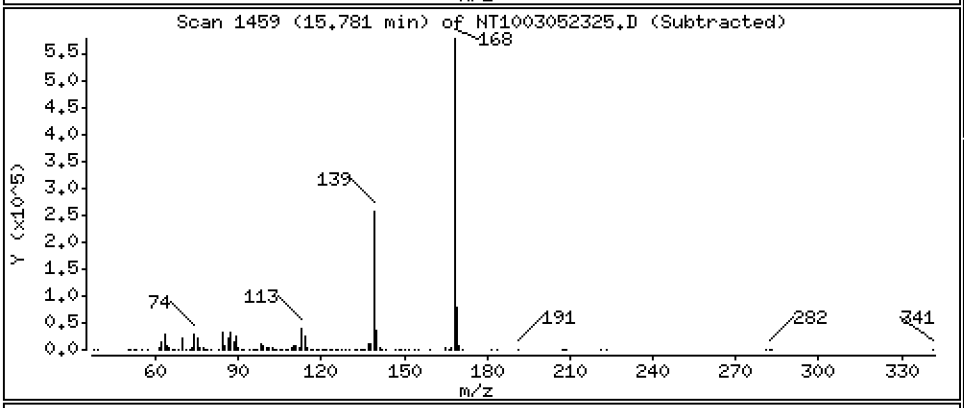
Column phase: ZB-5msi

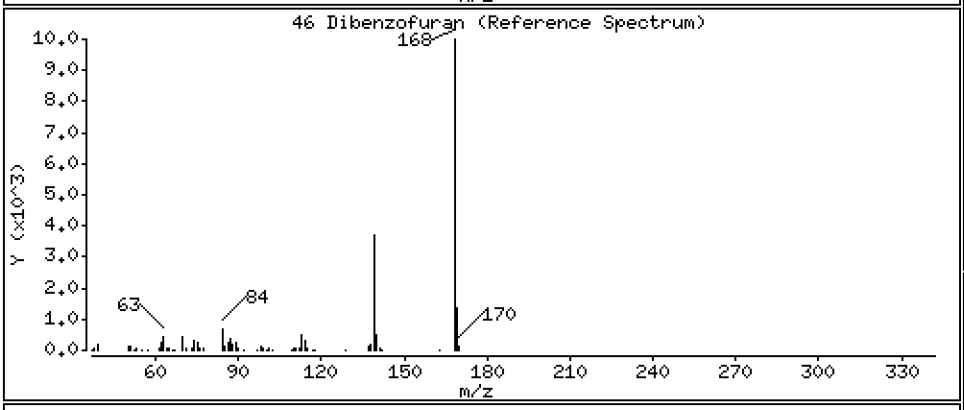
Column diameter: 0.25

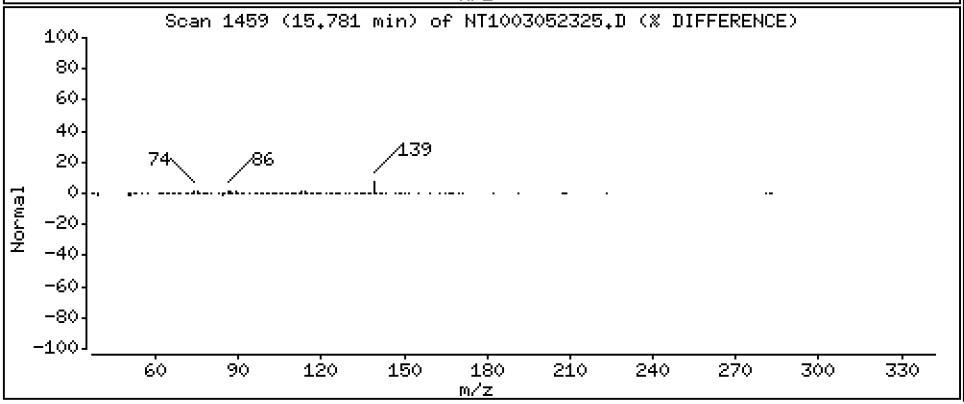
46 Dibenzofuran

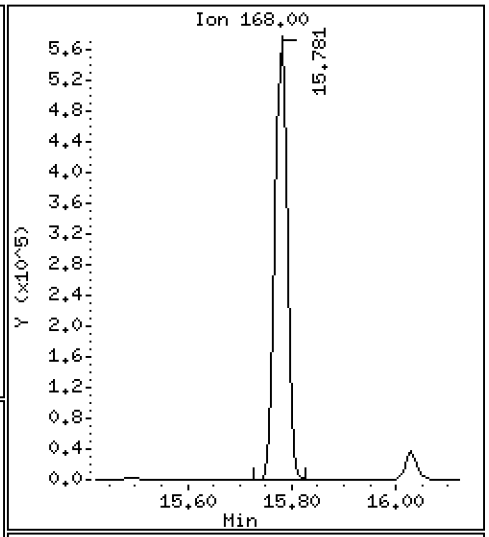
Concentration: 5.011 ug/mL

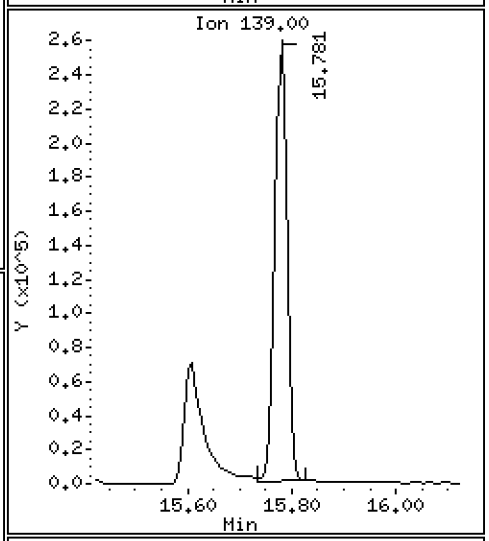


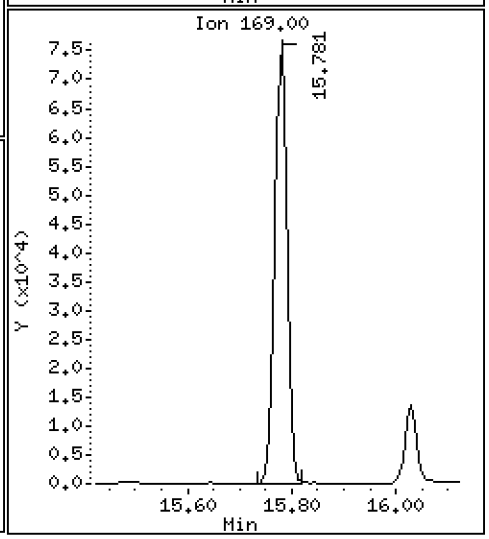












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

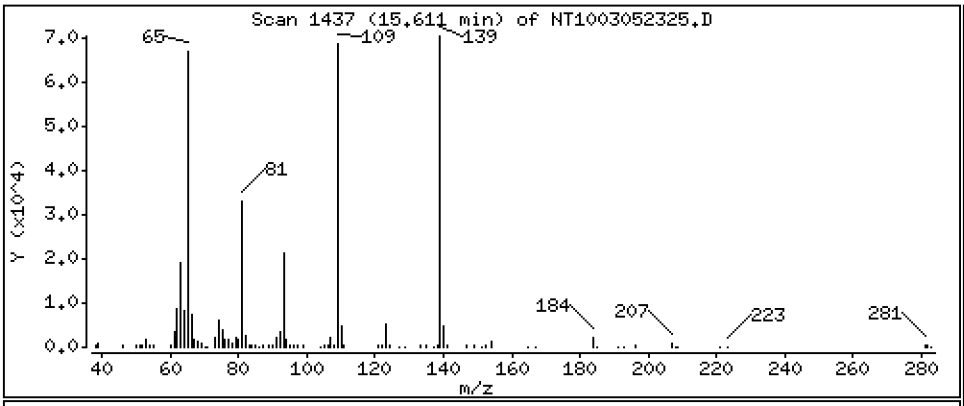
Operator: VTS

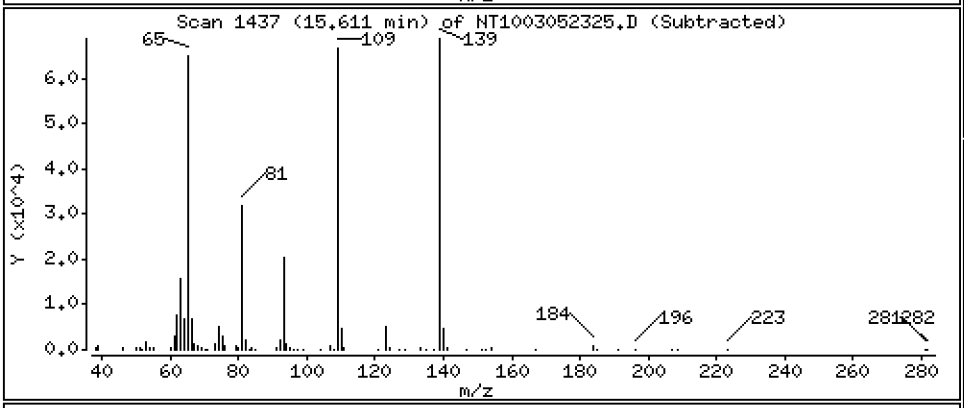
Column phase: ZB-5msi

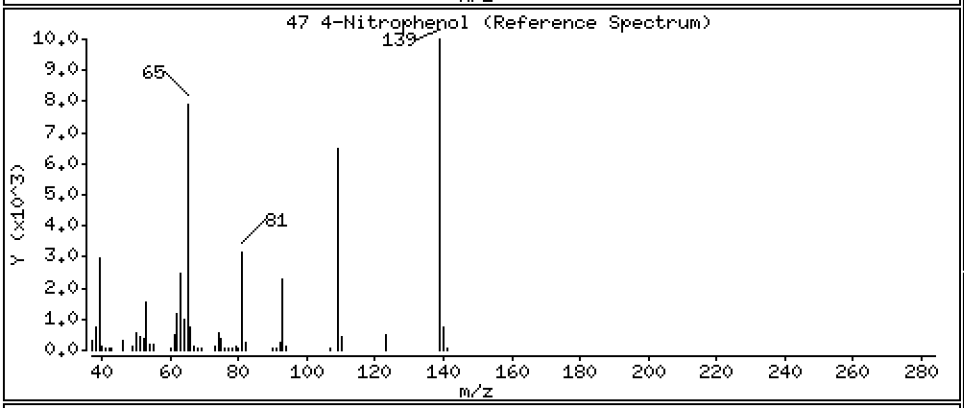
Column diameter: 0.25

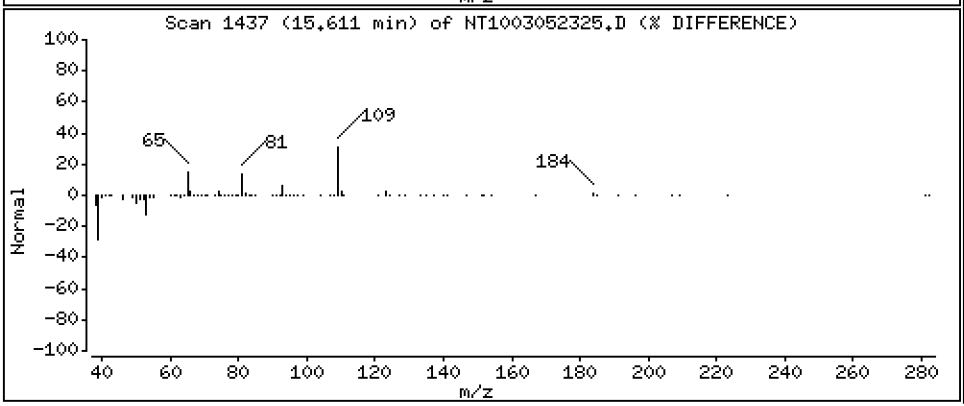
47 4-Nitrophenol

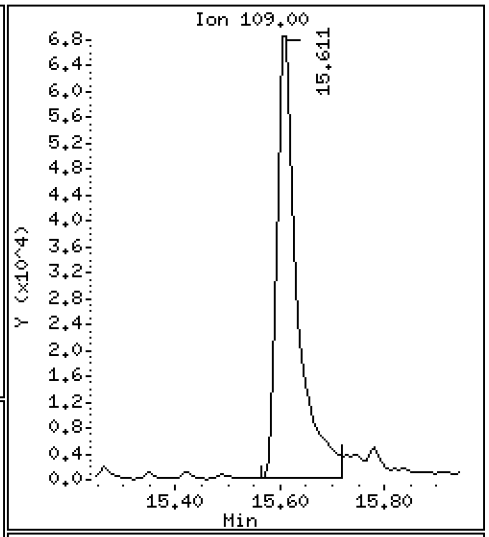
Concentration: 7.786 ug/mL

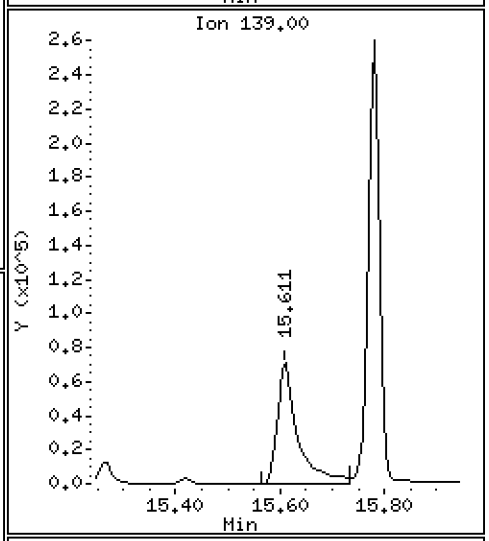


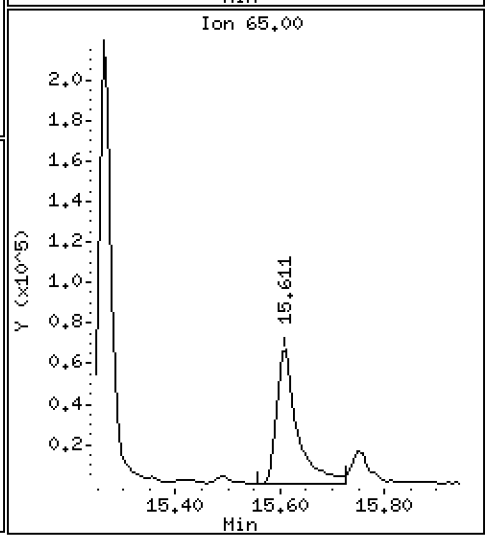












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052325.D

Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

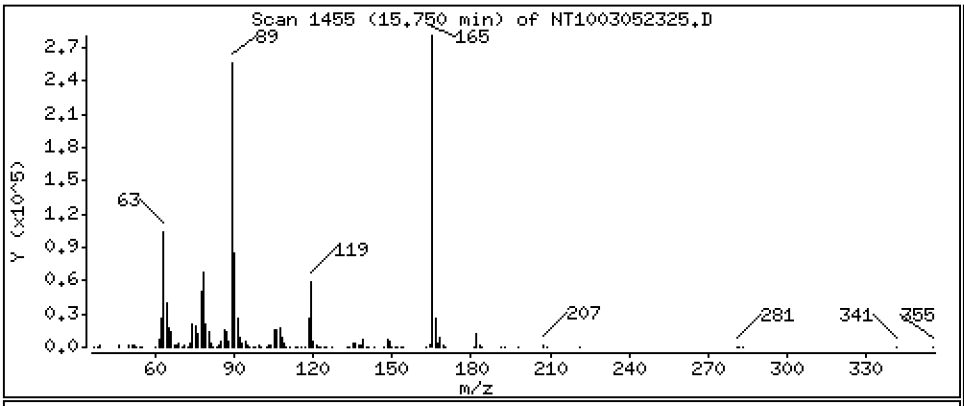
Operator: VTS

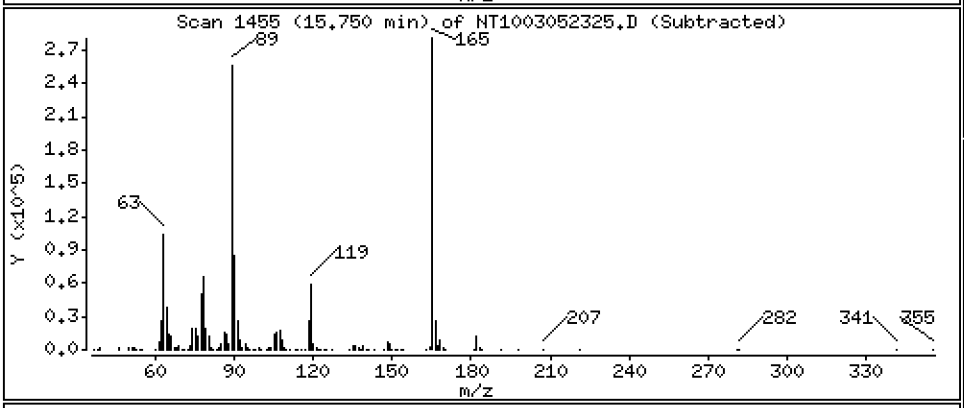
Column phase: ZB-5msi

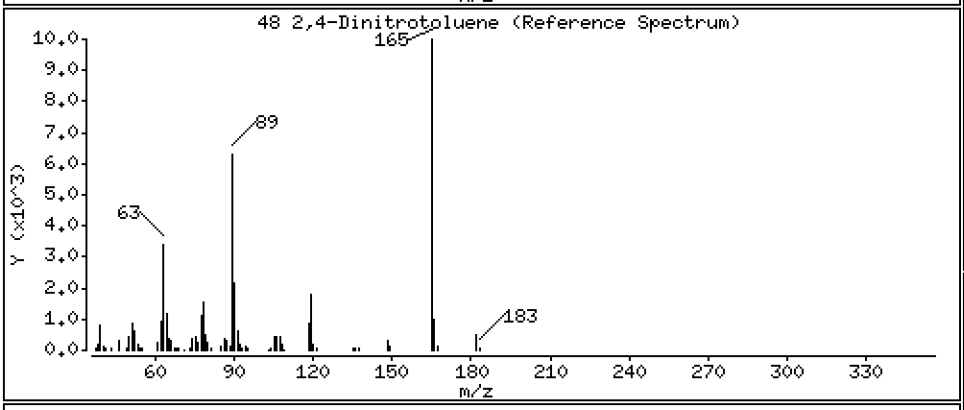
Column diameter: 0.25

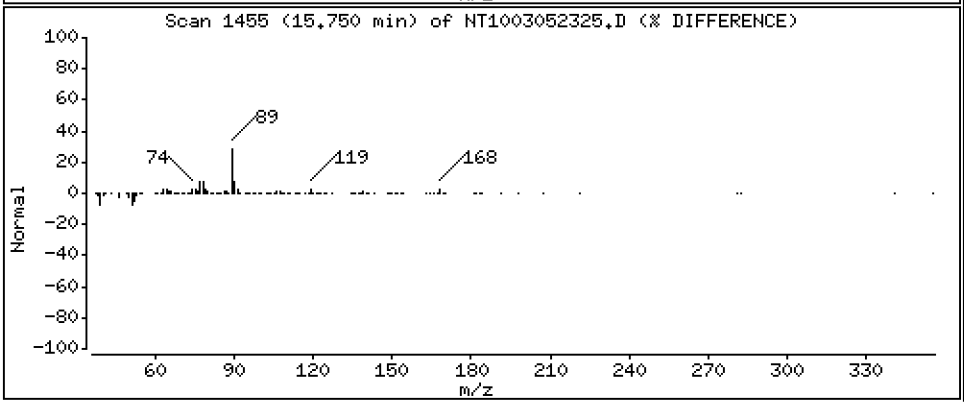
48 2,4-Dinitrotoluene

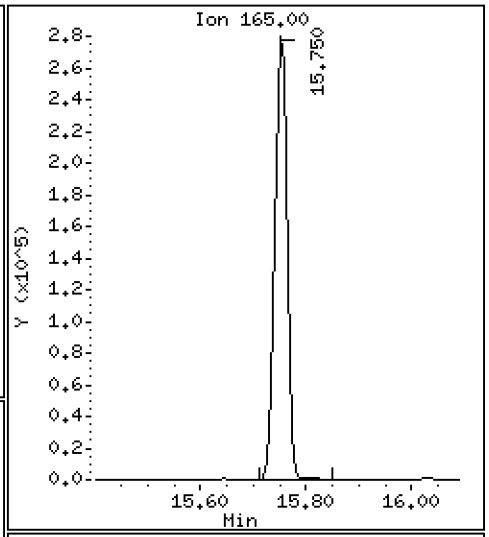
Concentration: 9.886 ug/mL

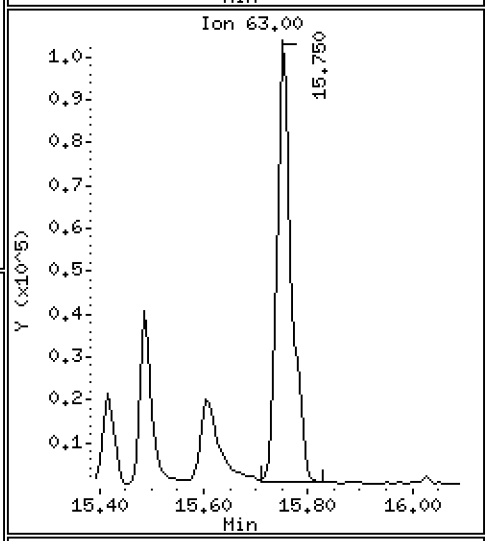


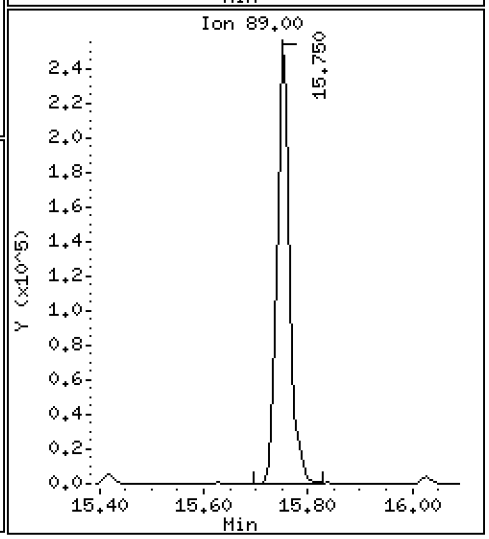












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

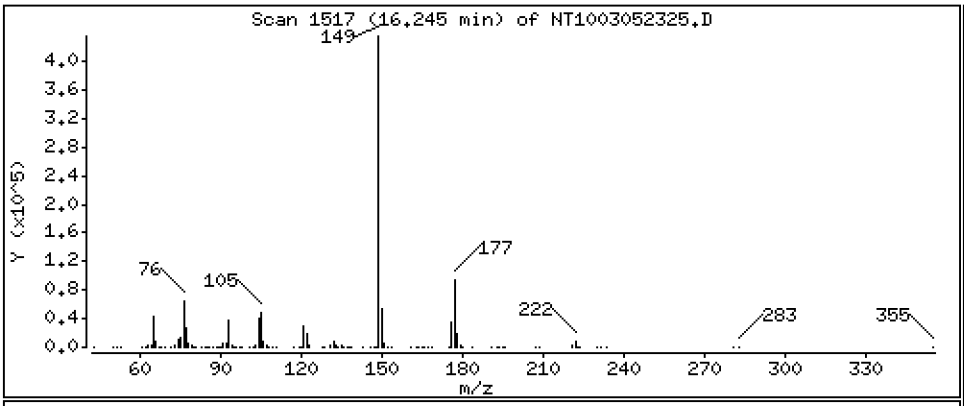
Operator: VTS

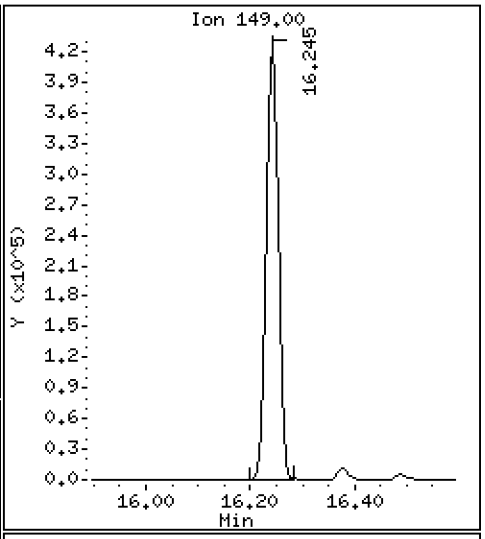
Column phase: ZB-5msi

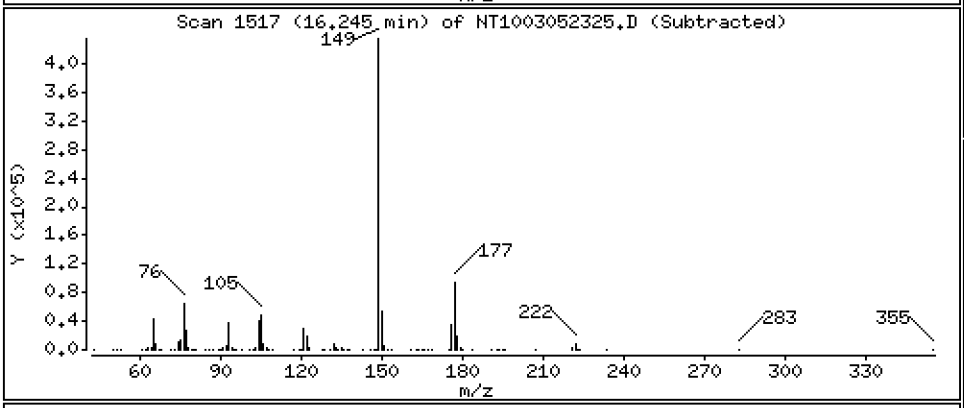
Column diameter: 0.25

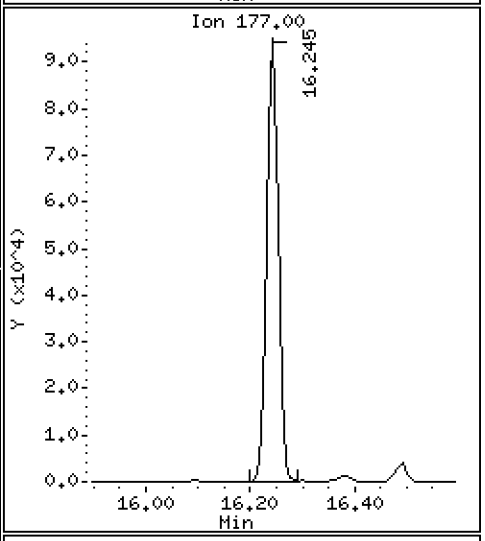
50 Diethylphthalate

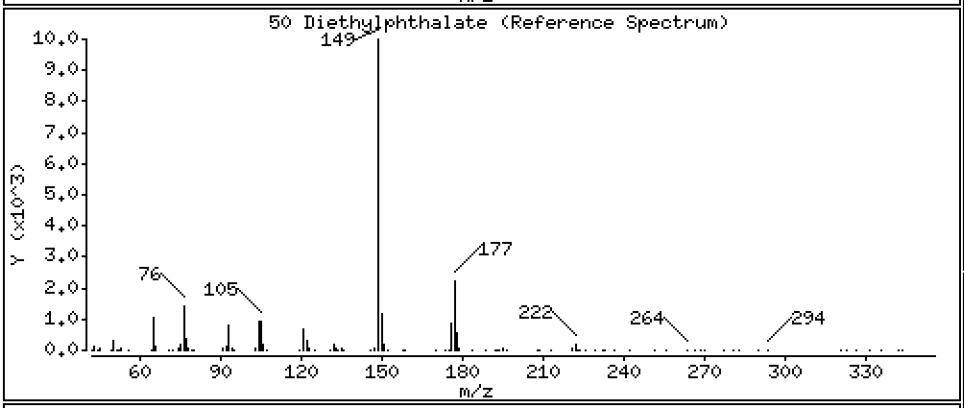
Concentration: 4.612 ug/mL

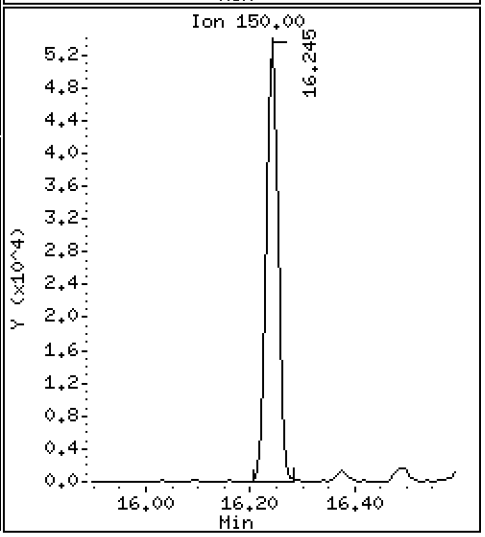


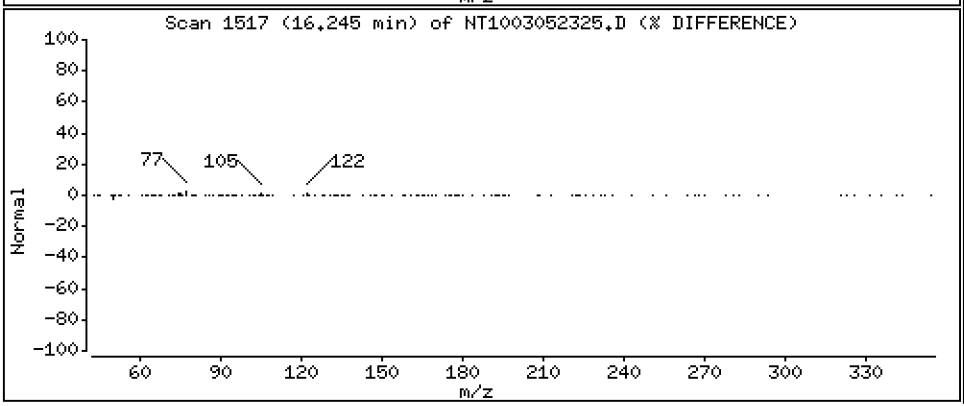












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

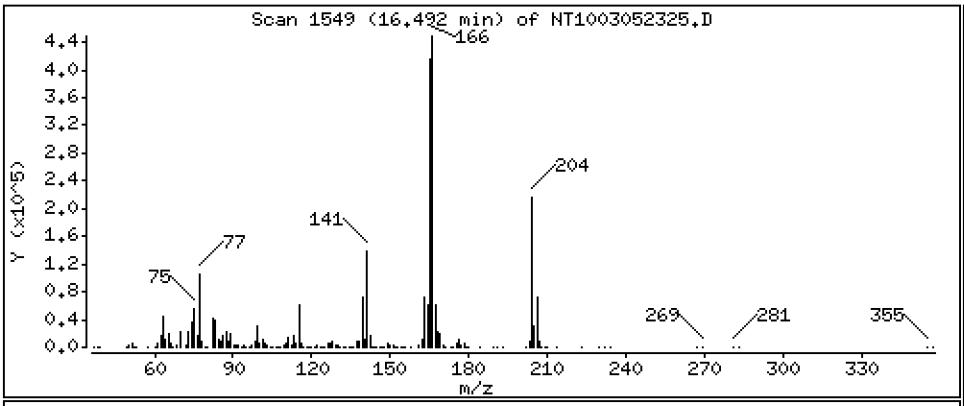
Operator: VTS

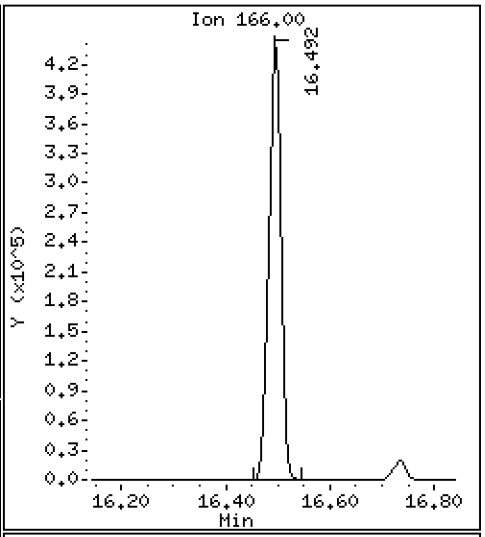
Column phase: ZB-5msi

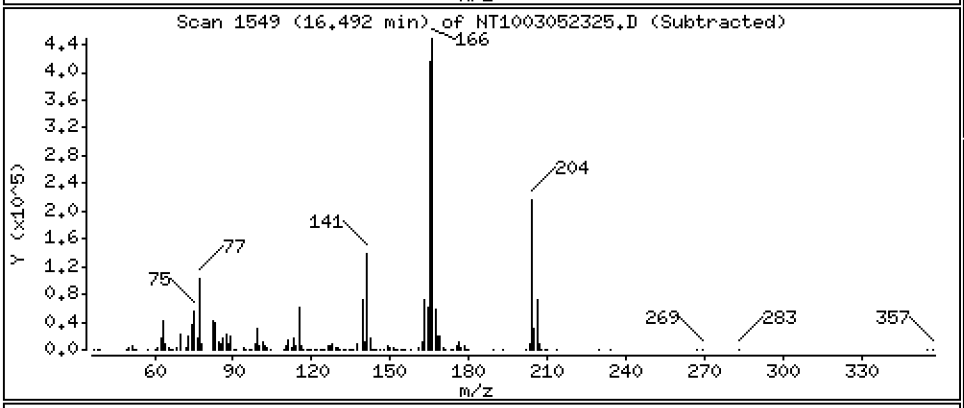
Column diameter: 0.25

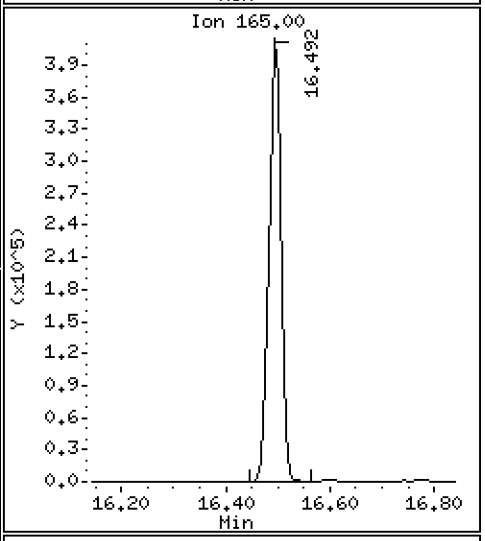
49 Fluorene

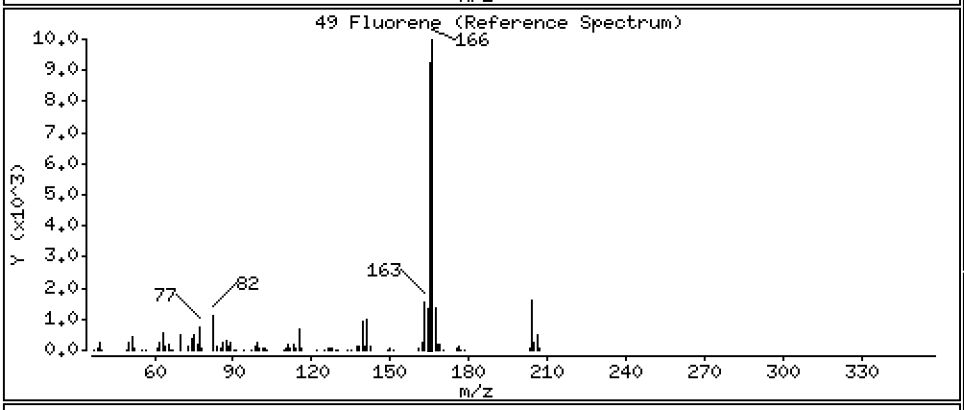
Concentration: 4.803 ug/mL

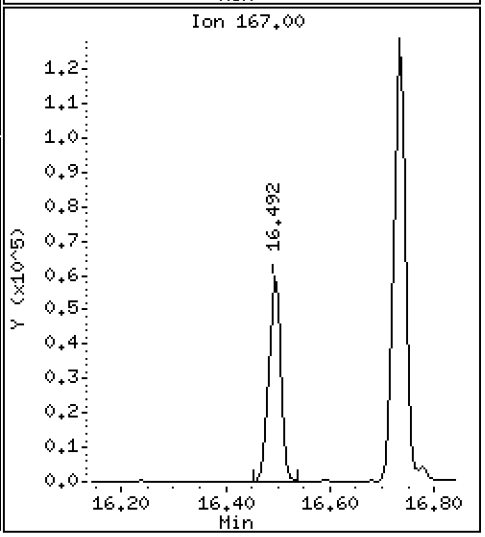


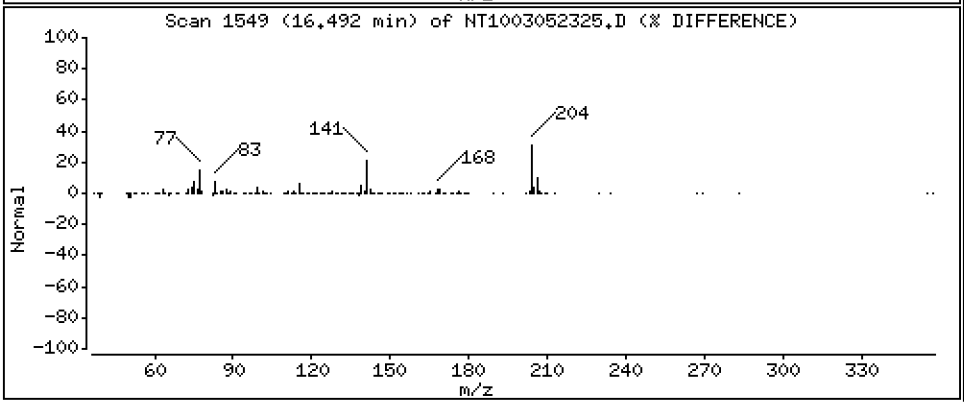












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

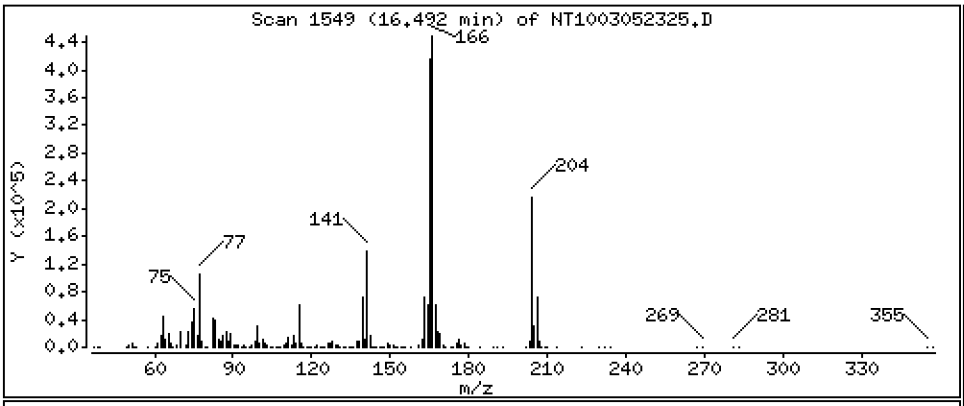
Operator: VTS

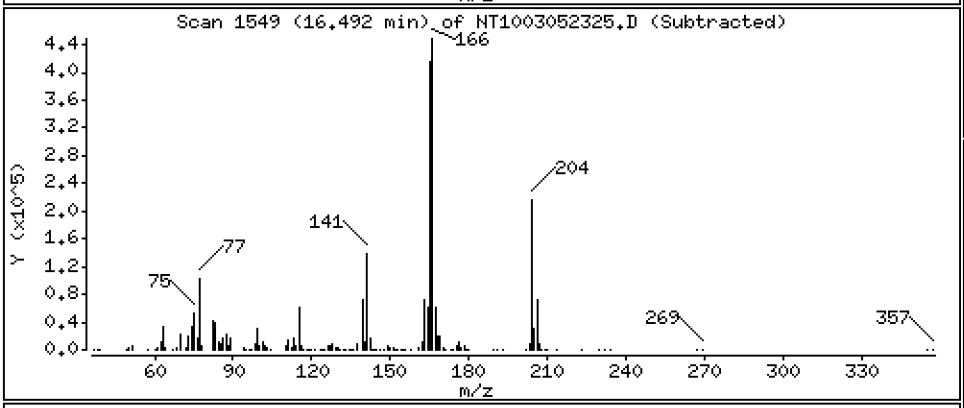
Column phase: ZB-5msi

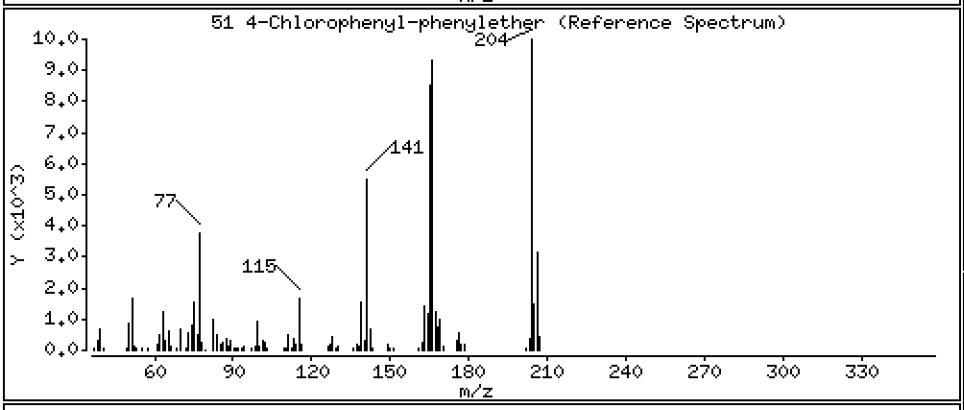
Column diameter: 0.25

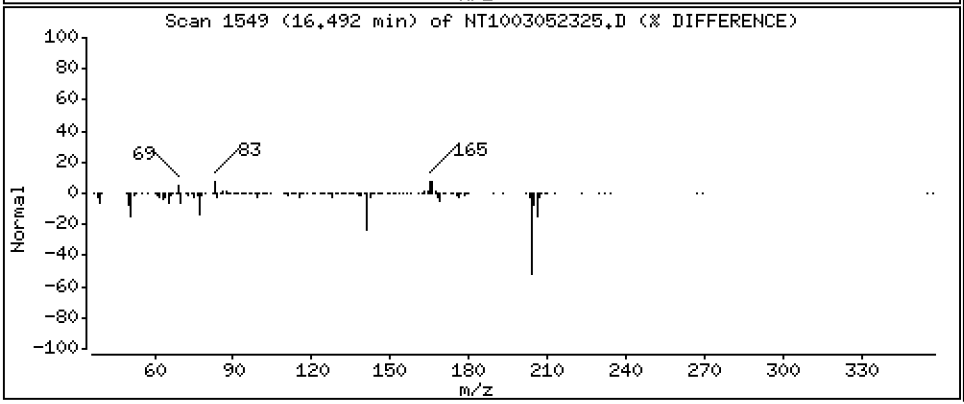
51 4-Chlorophenyl-phenylether

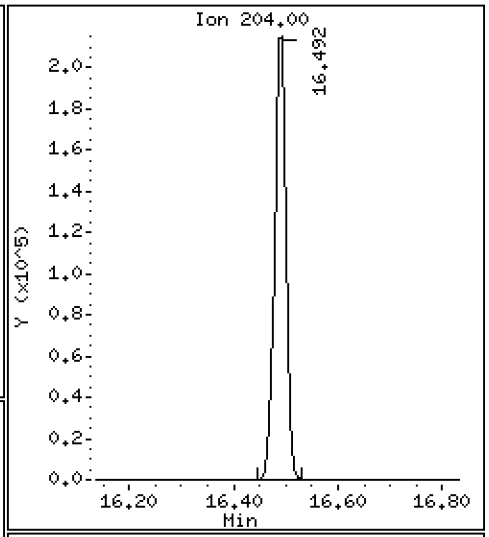
Concentration: 4.911 ug/mL

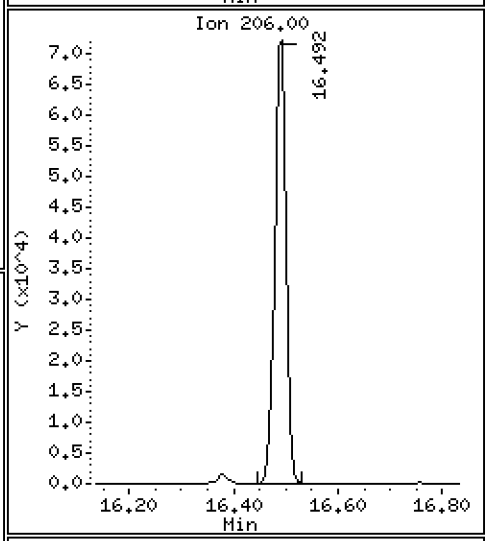


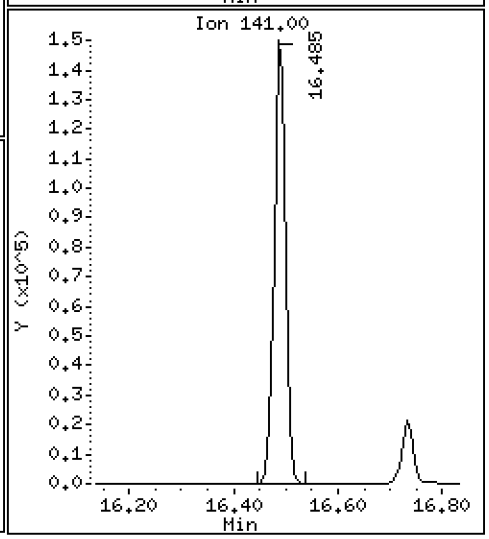












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

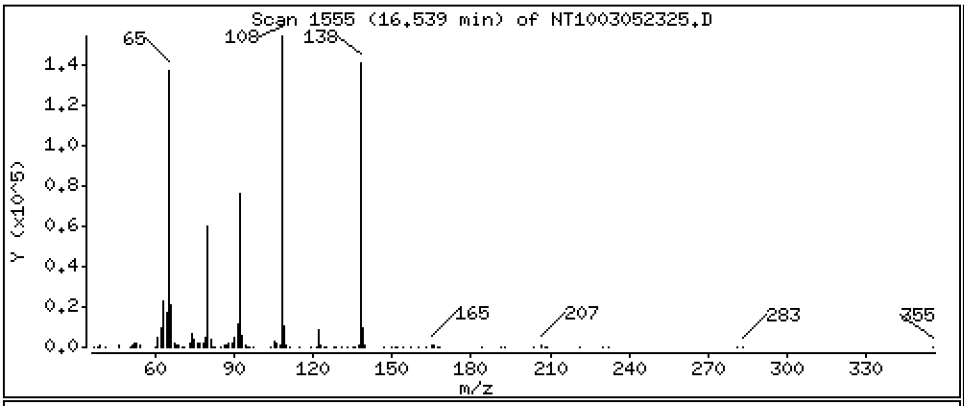
Operator: VTS

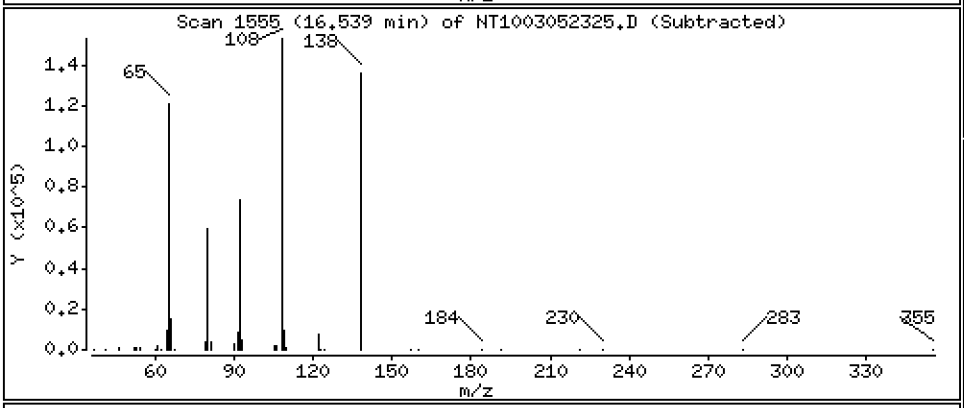
Column phase: ZB-5msi

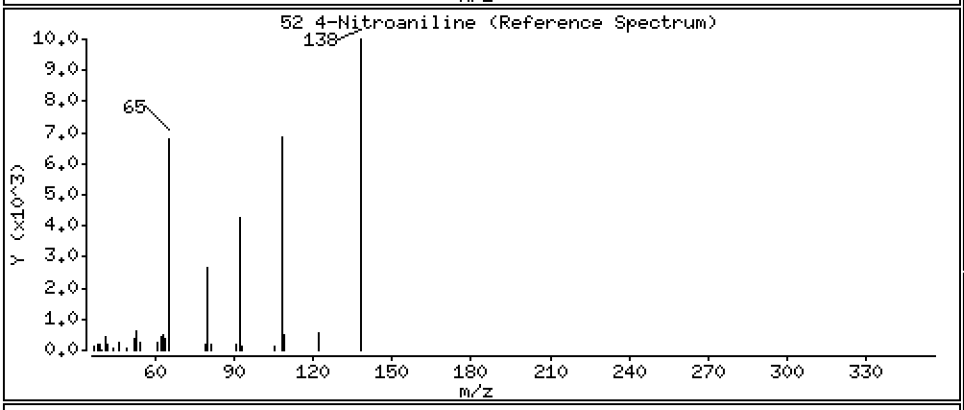
Column diameter: 0.25

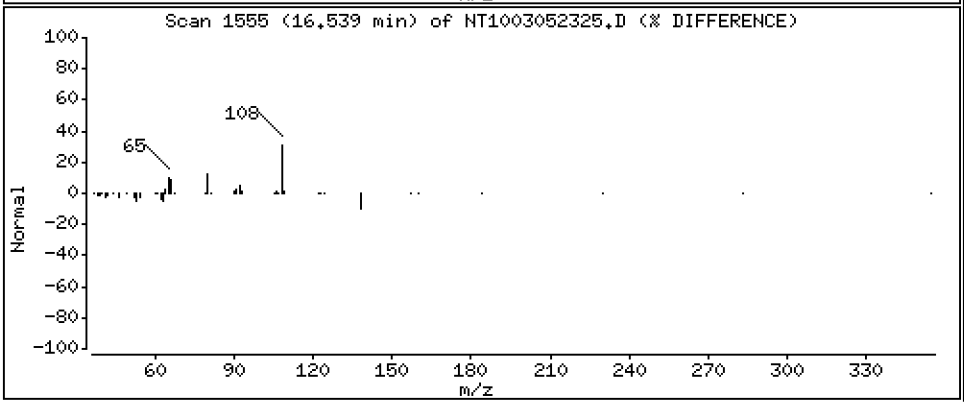
52 4-Nitroaniline

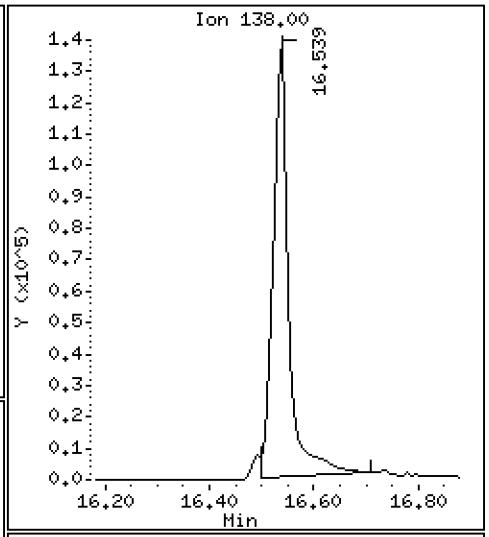
Concentration: 8.415 ug/mL

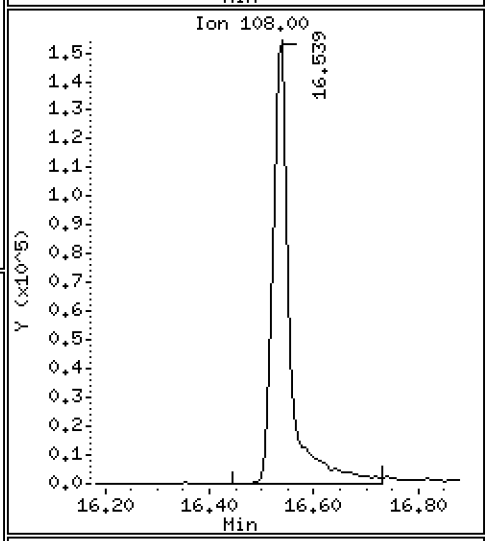


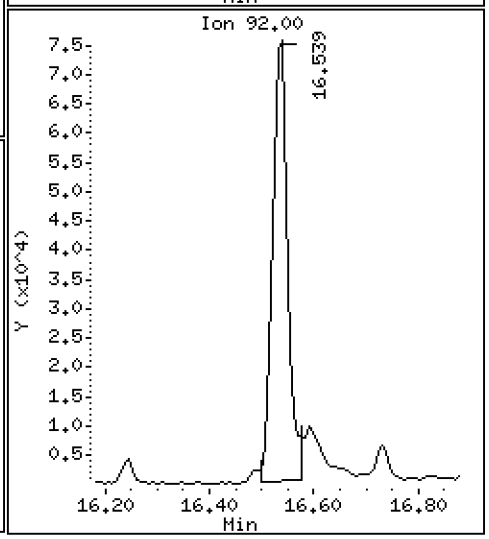












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

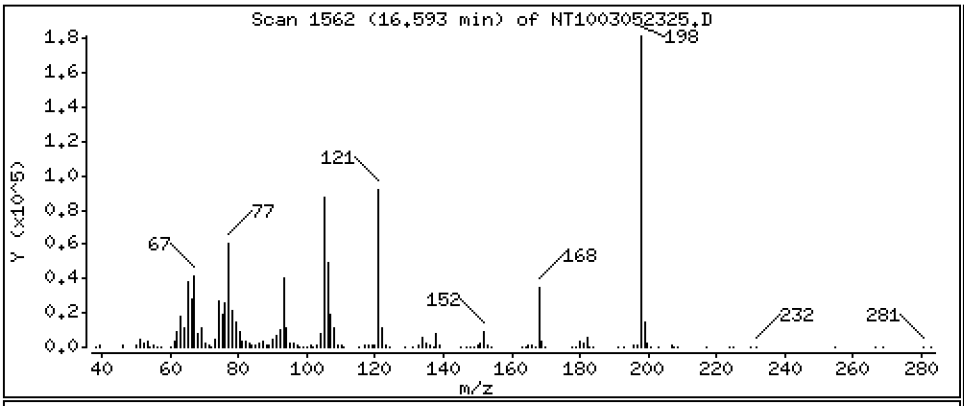
Operator: VTS

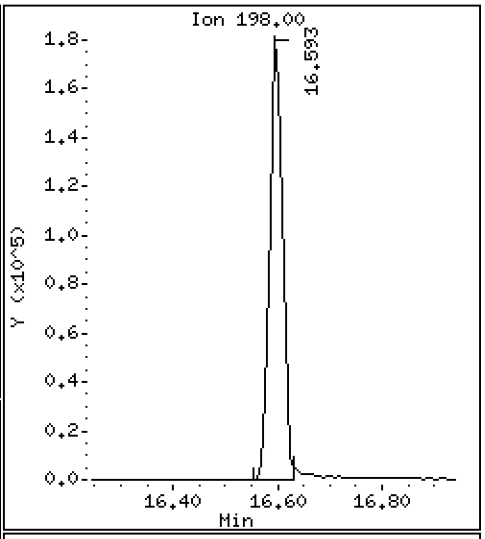
Column phase: ZB-5msi

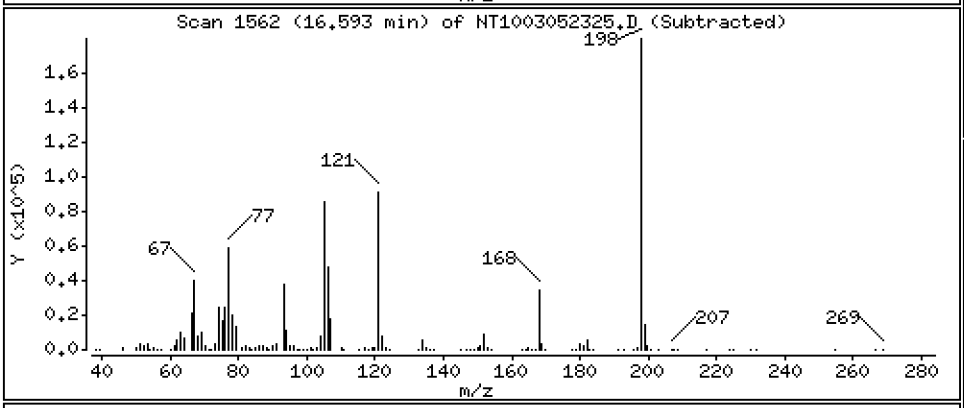
Column diameter: 0.25

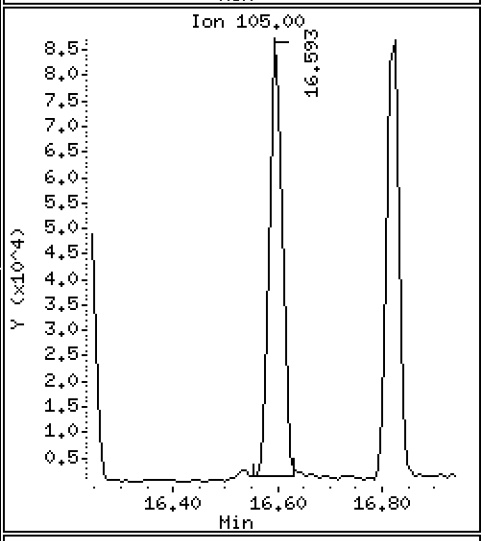
53 4,6-Dinitro-2-methylphenol

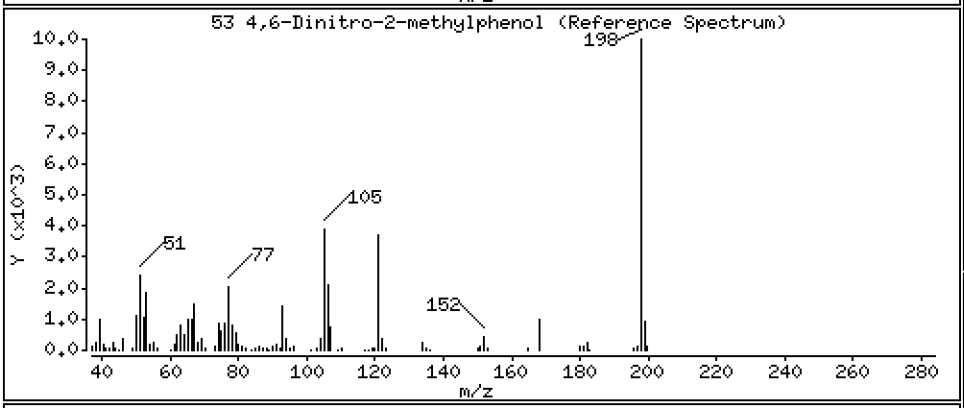
Concentration: 16.02 ug/mL

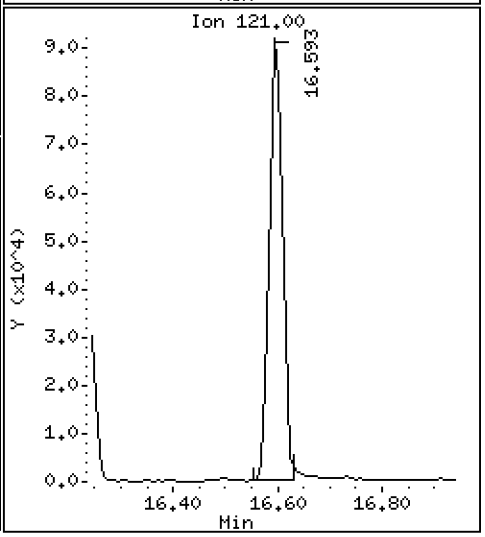


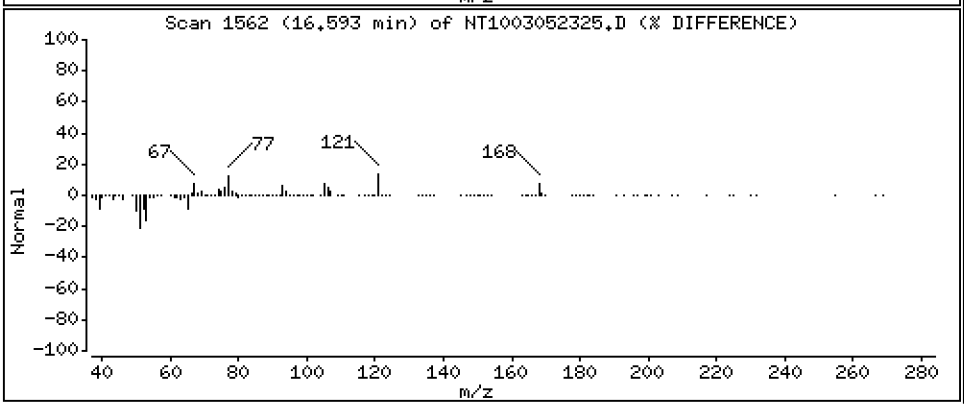












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

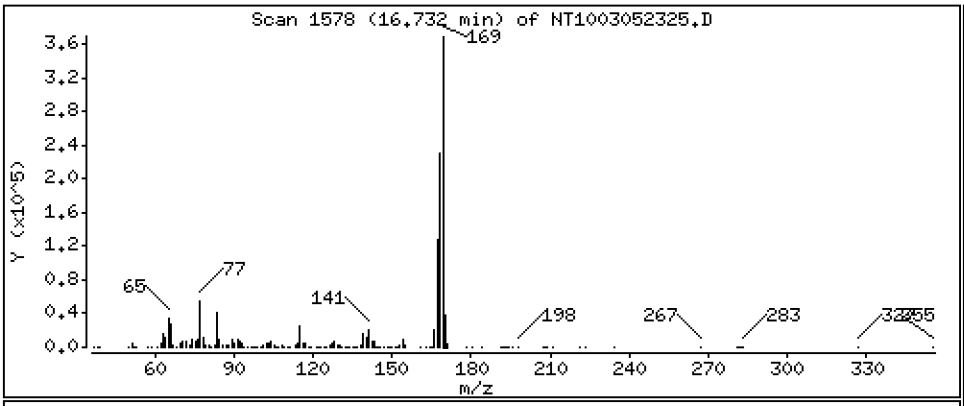
Operator: VTS

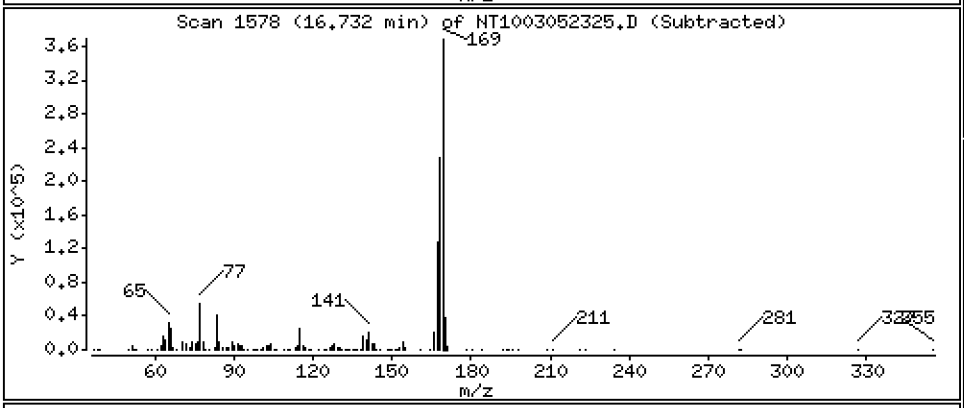
Column phase: ZB-5msi

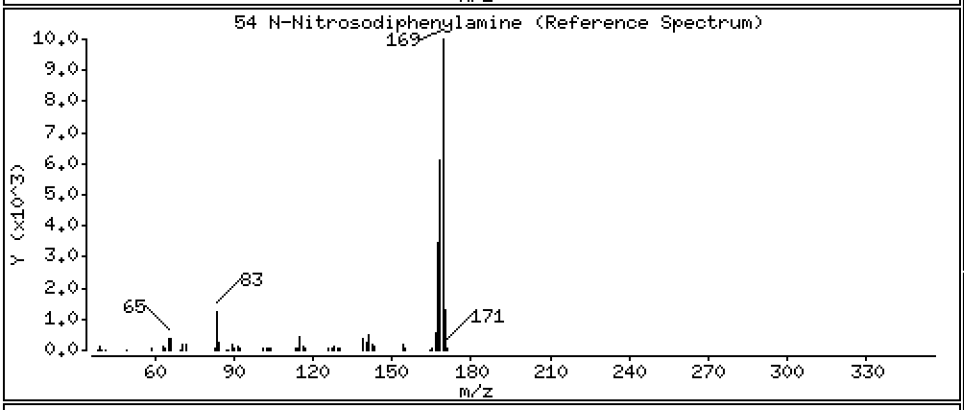
Column diameter: 0.25

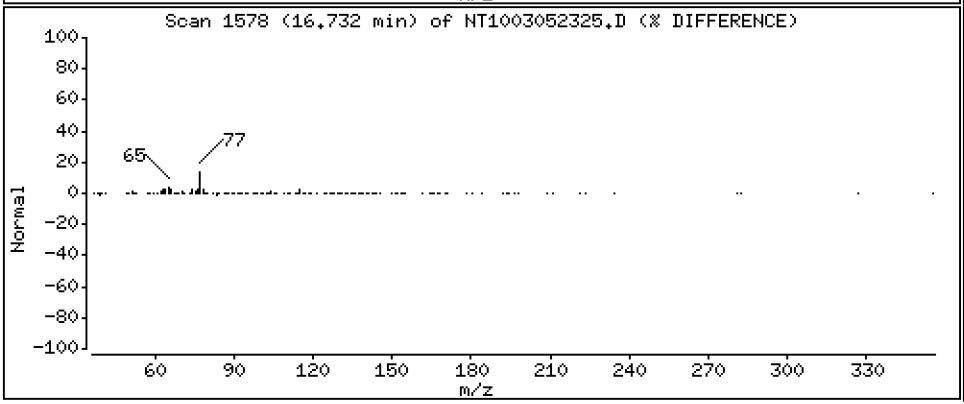
54 N-Nitrosodiphenylamine

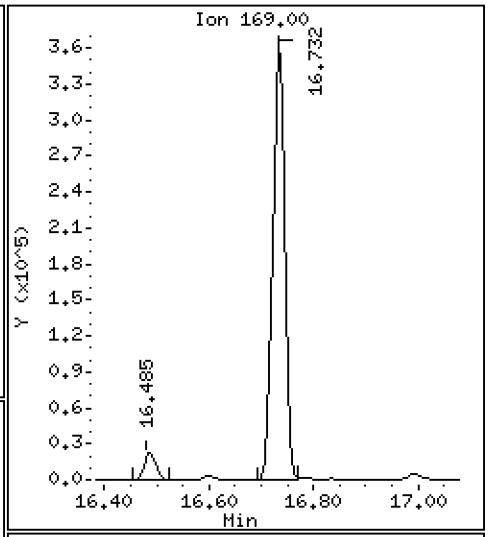
Concentration: 5.156 ug/mL

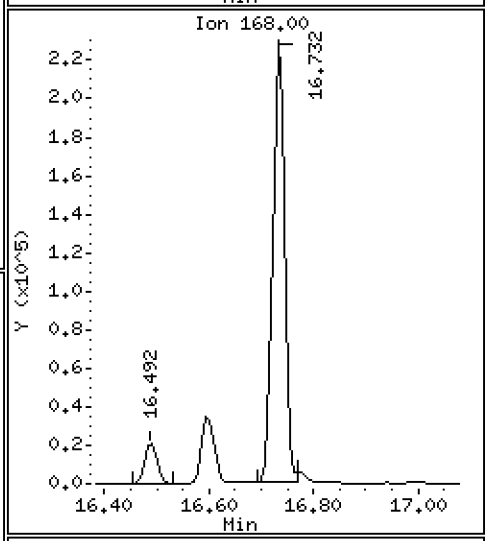


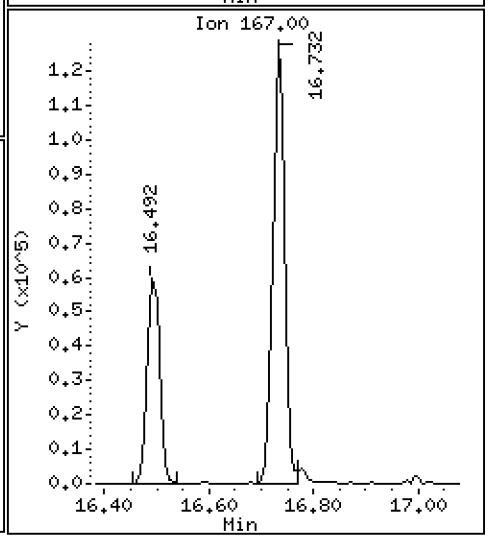












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052325.D

Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

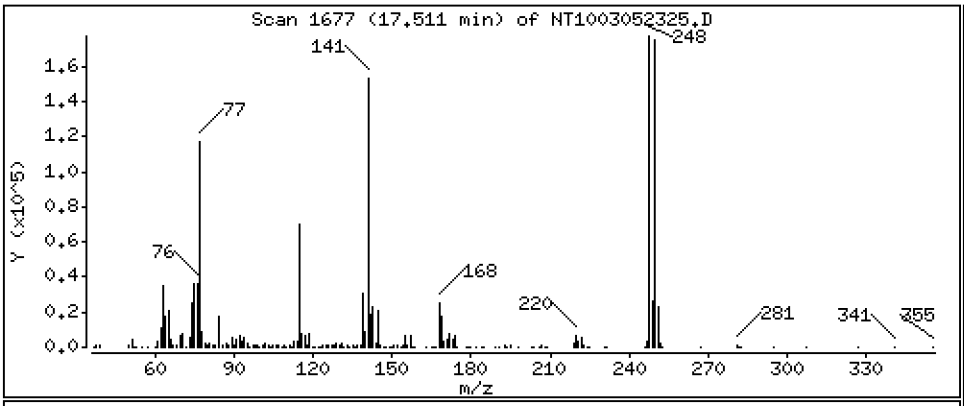
Operator: VTS

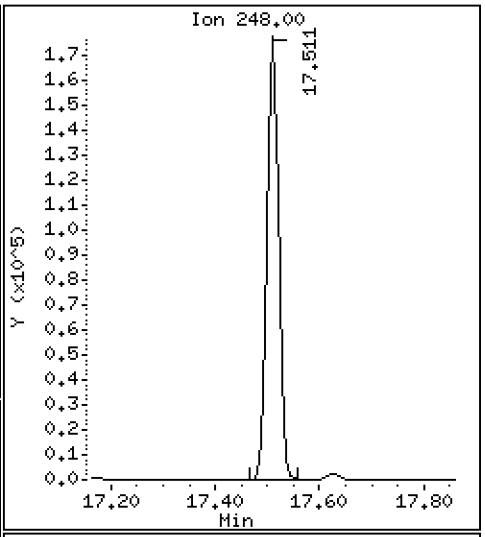
Column phase: ZB-5msi

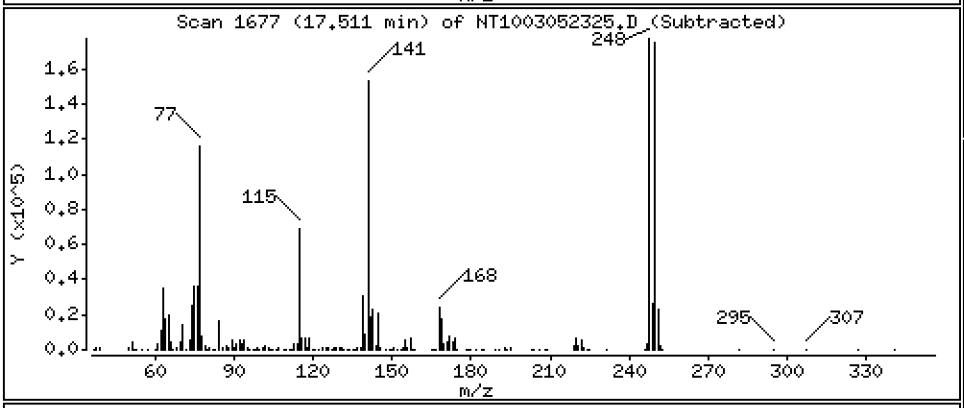
Column diameter: 0.25

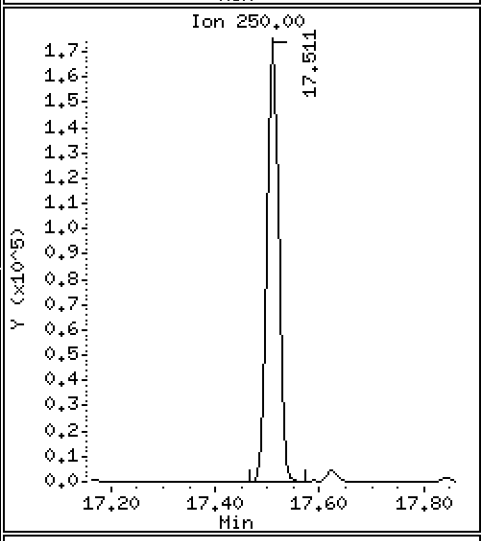
56 4-Bromophenyl-phenylether

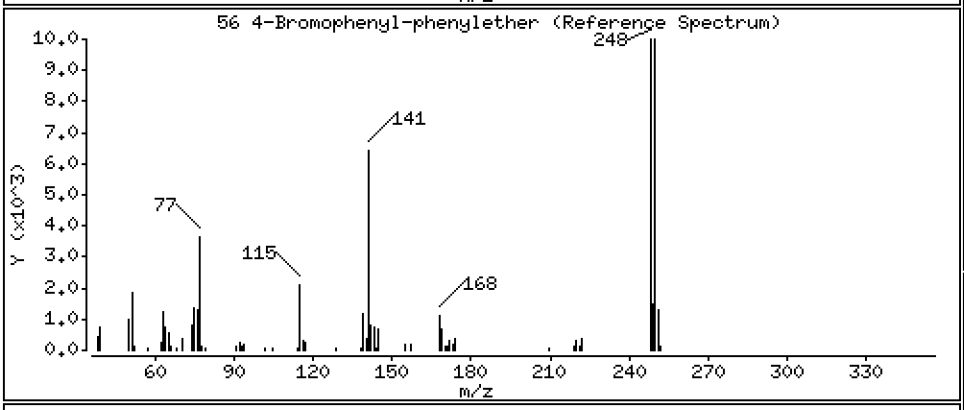
Concentration: 5.811 ug/mL

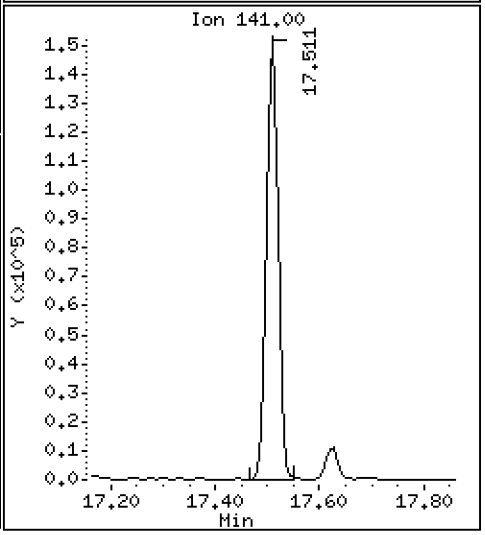


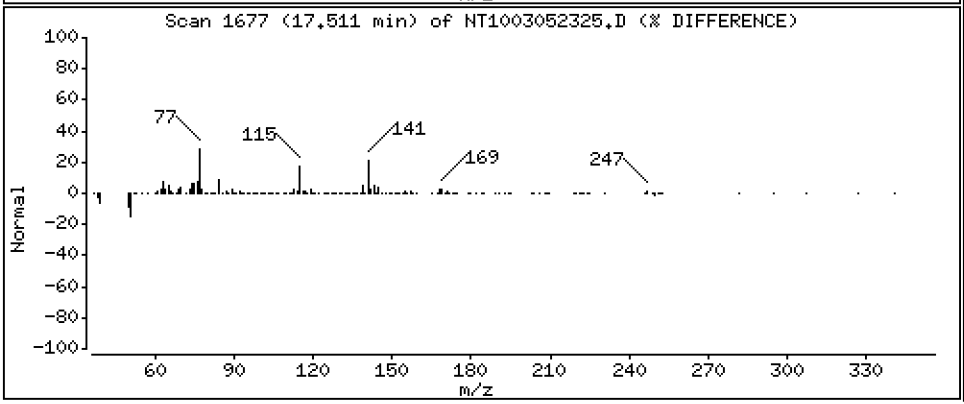












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

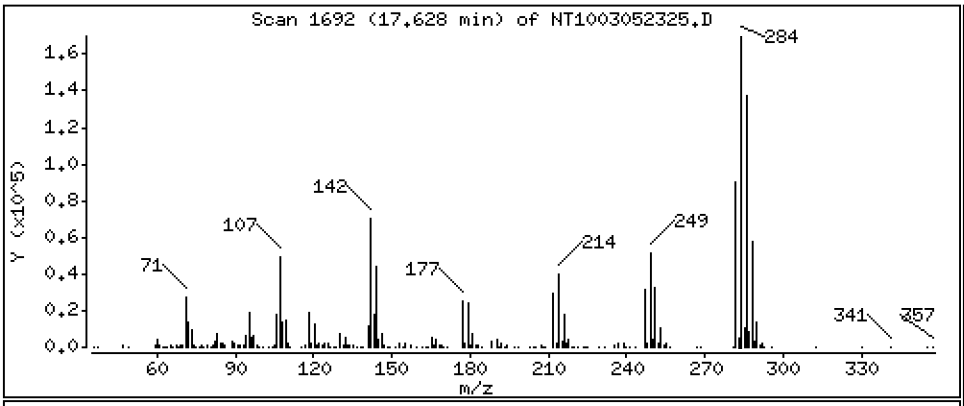
Operator: VTS

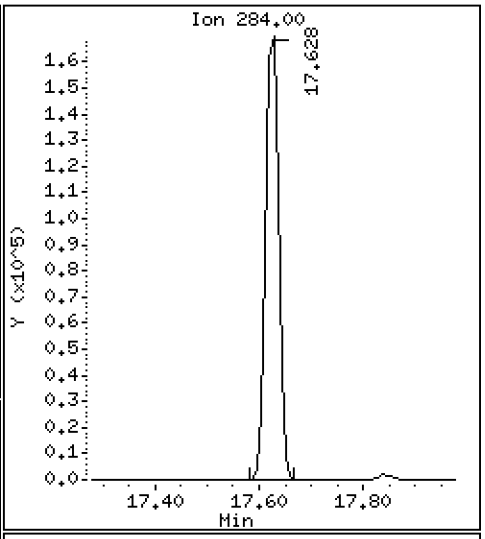
Column phase: ZB-5msi

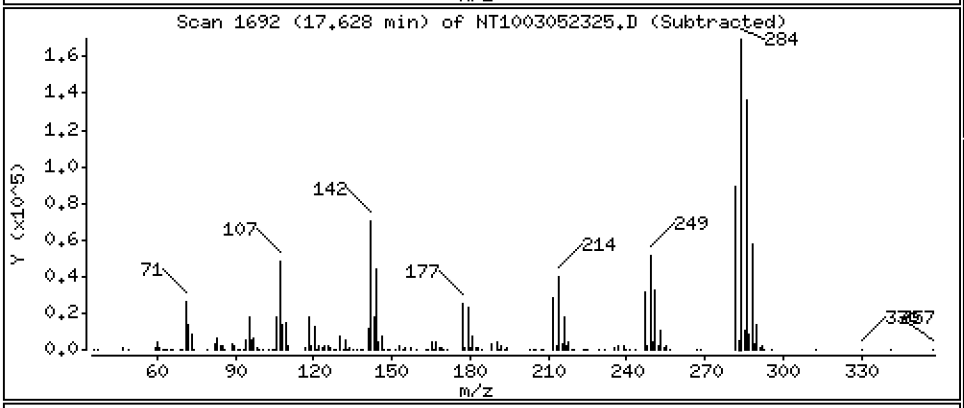
Column diameter: 0.25

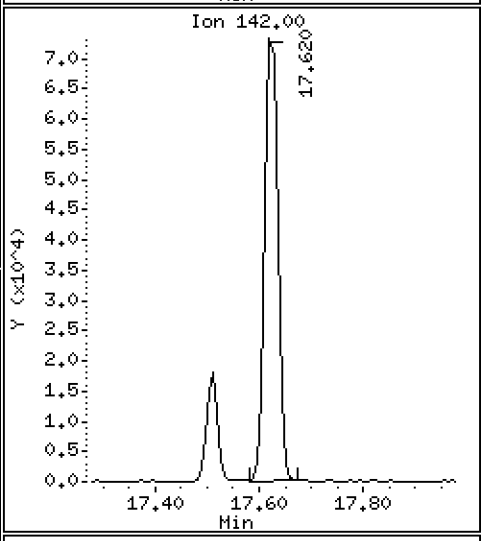
57 Hexachlorobenzene

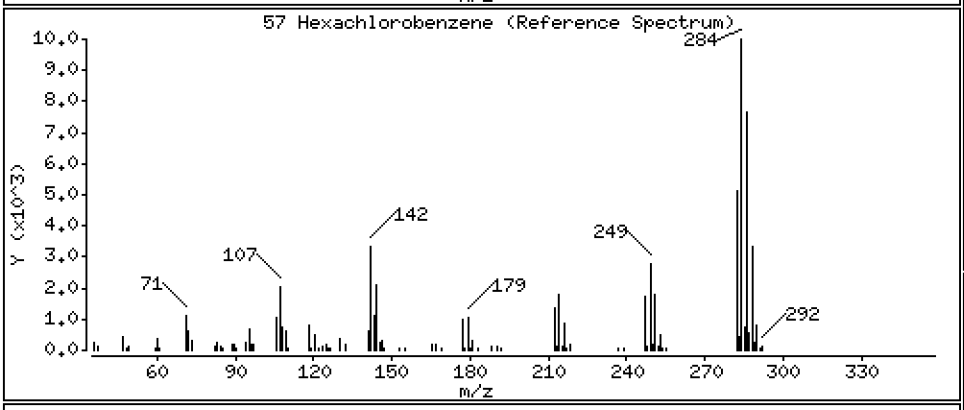
Concentration: 5.632 ug/mL

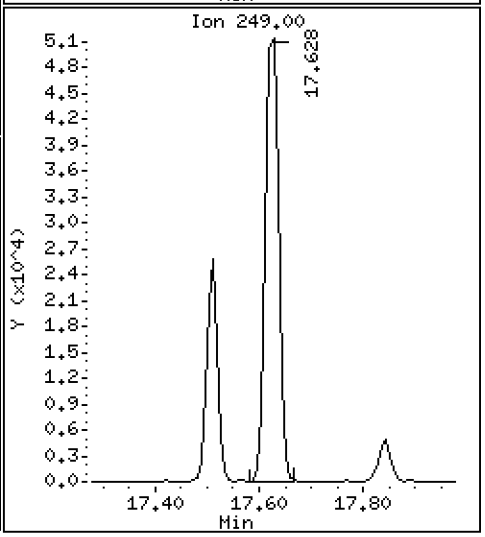


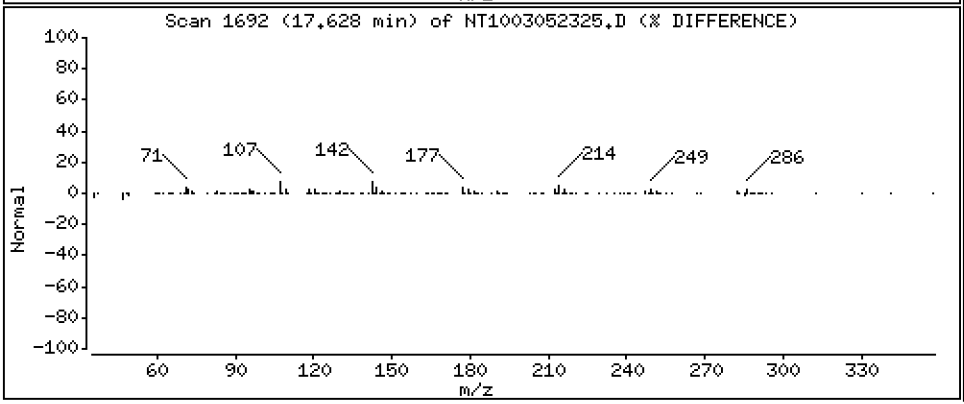












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

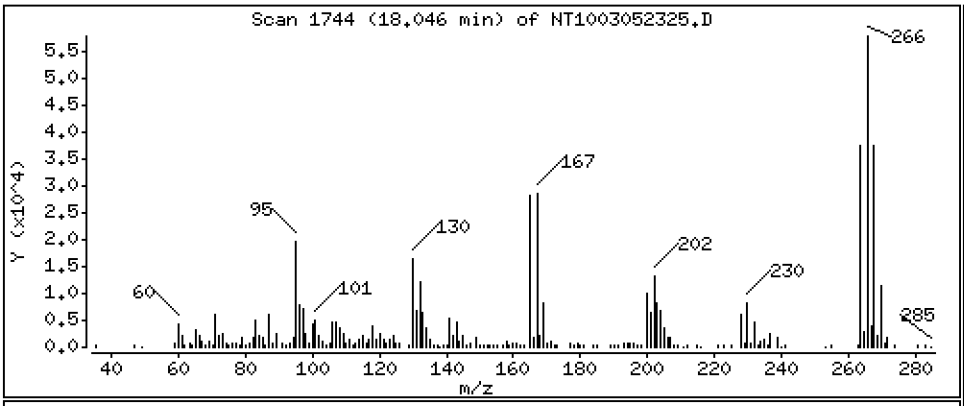
Operator: VTS

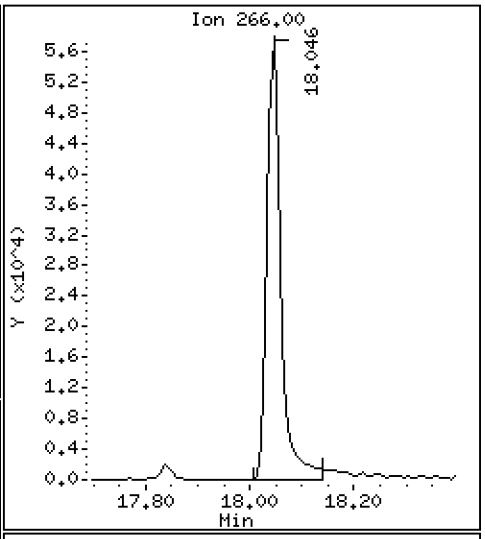
Column phase: ZB-5msi

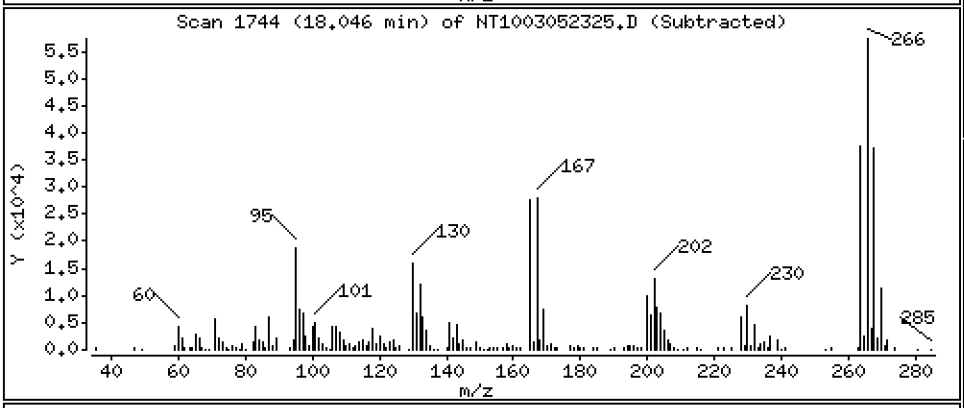
Column diameter: 0.25

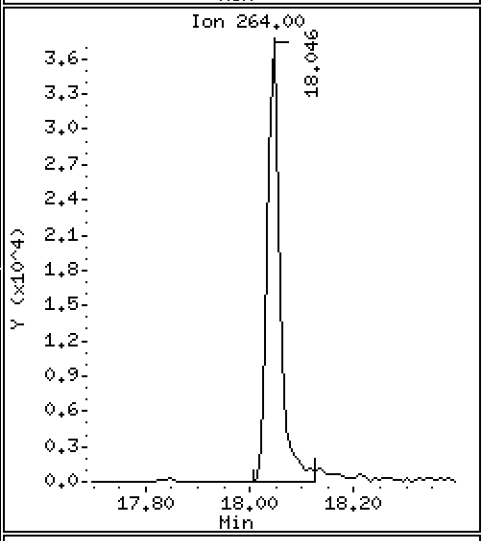
58 Pentachlorophenol

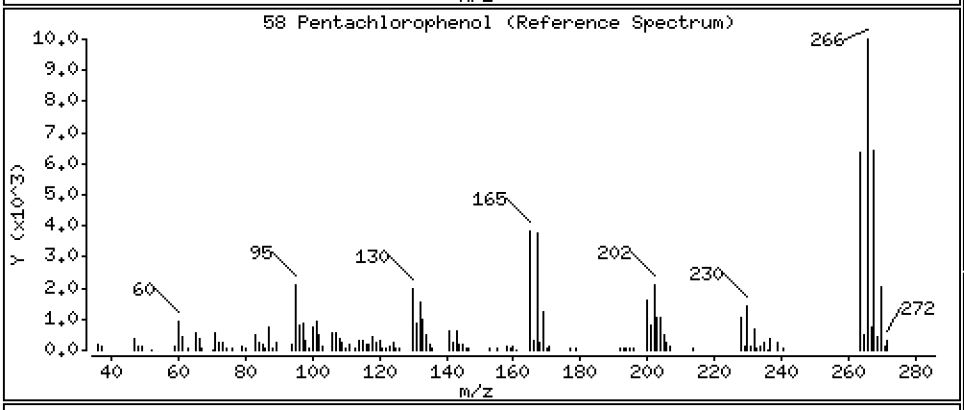
Concentration: 4.306 ug/mL

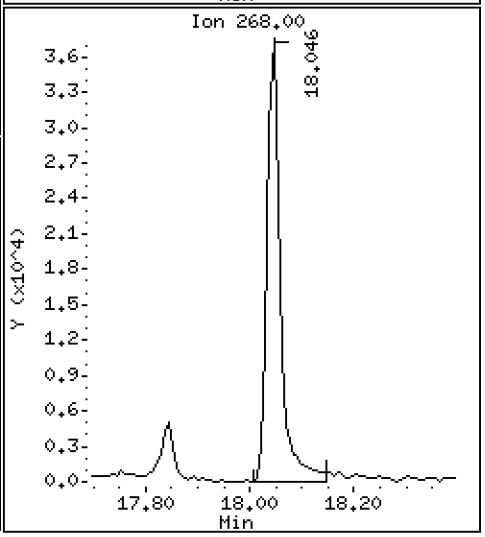


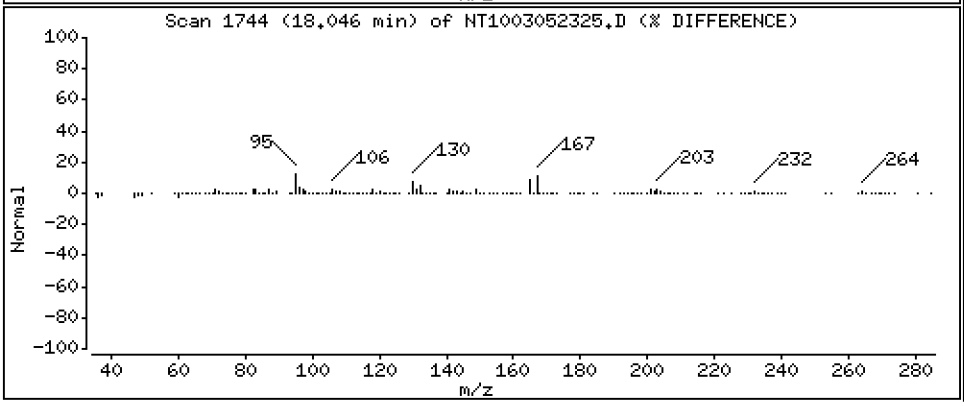












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

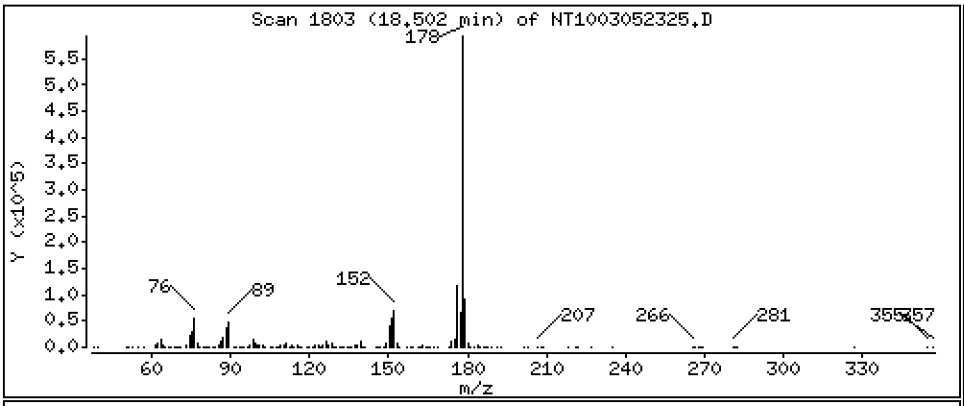
Operator: VTS

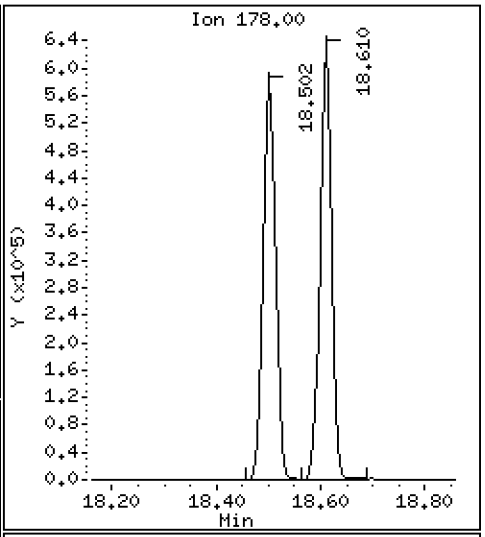
Column phase: ZB-5msi

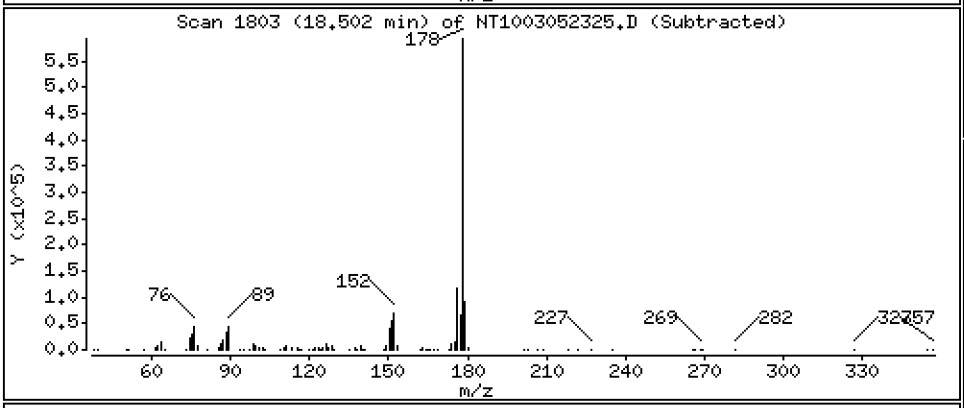
Column diameter: 0.25

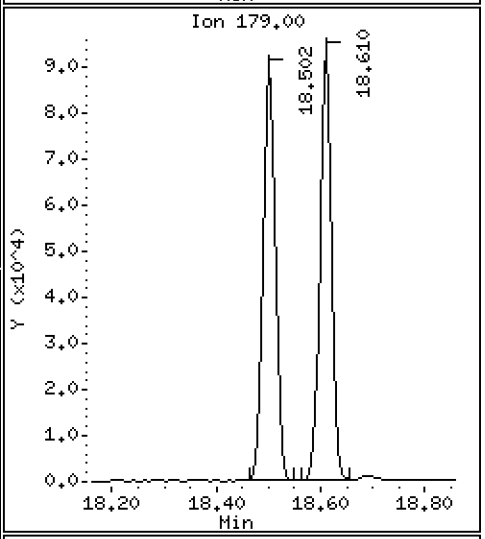
60 Phenanthrene

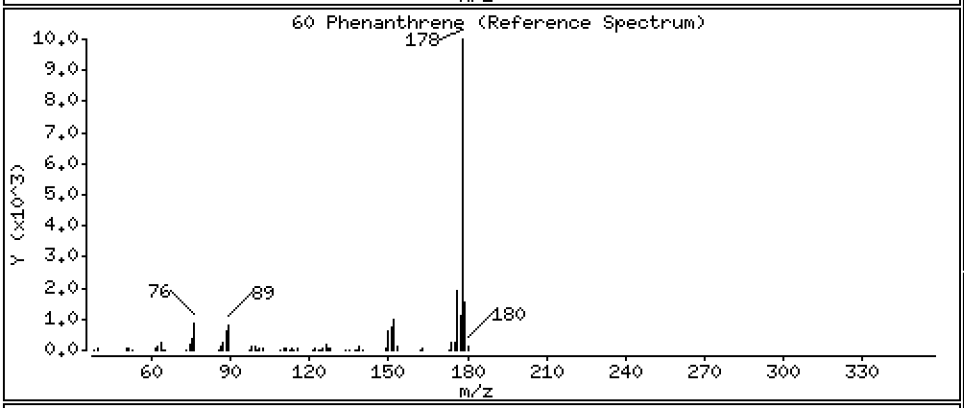
Concentration: 4.926 ug/mL

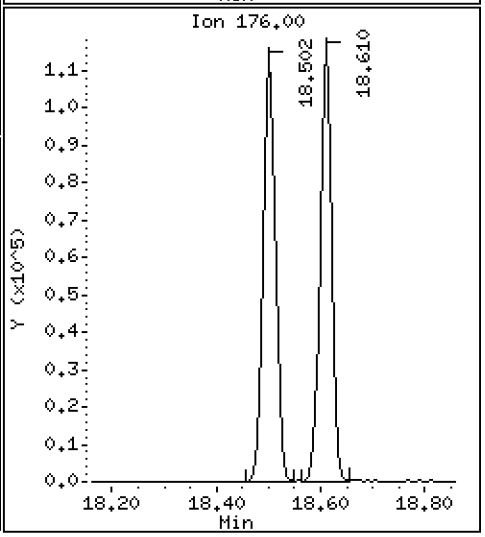


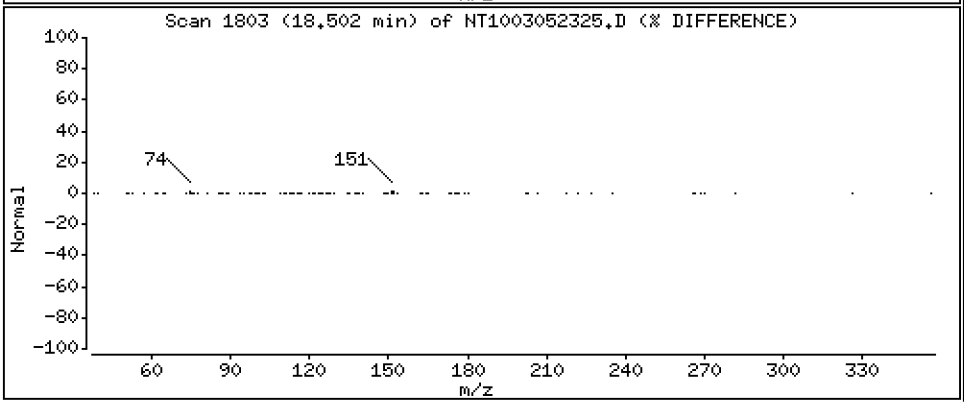












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

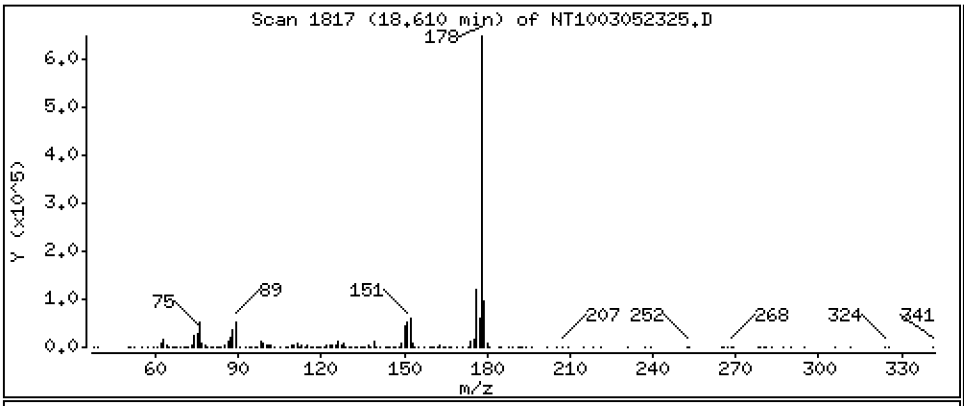
Operator: VTS

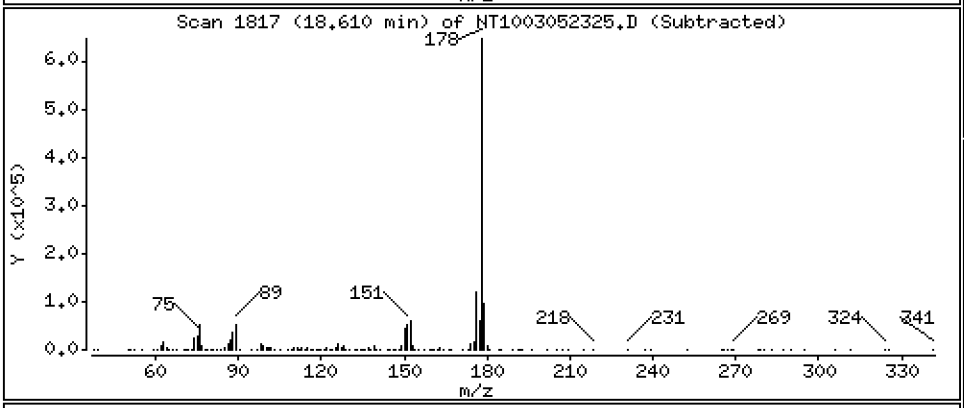
Column phase: ZB-5msi

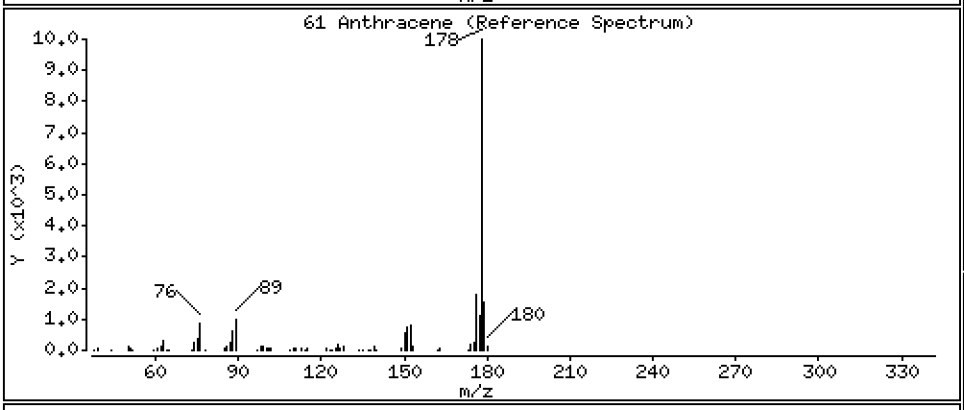
Column diameter: 0.25

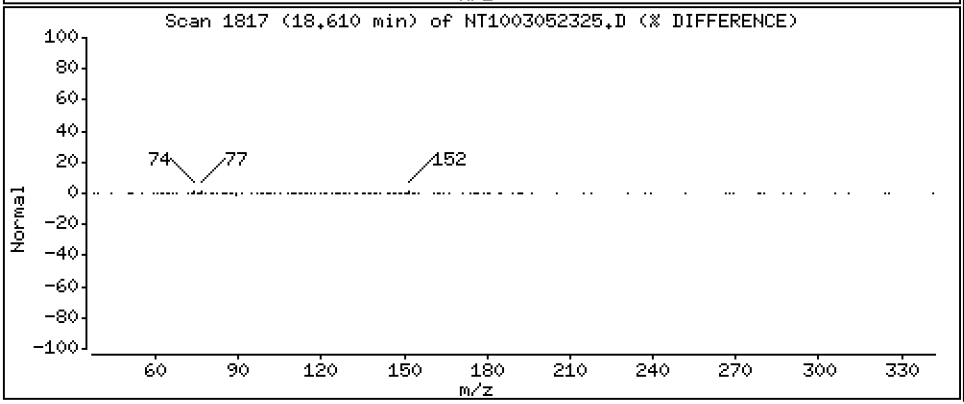
61 Anthracene

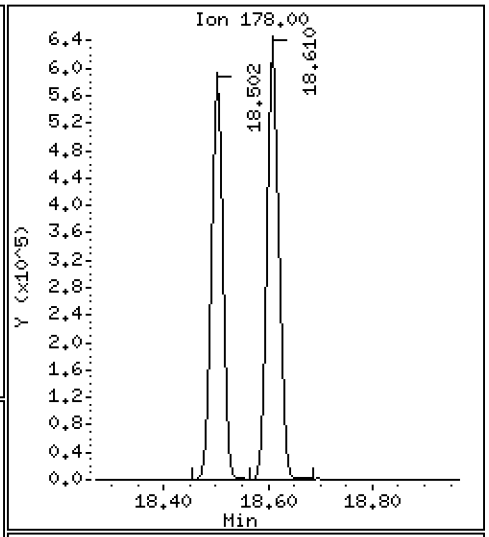
Concentration: 5.314 ug/mL

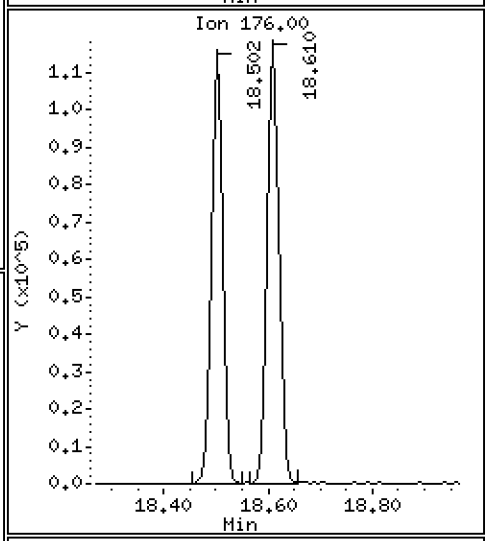


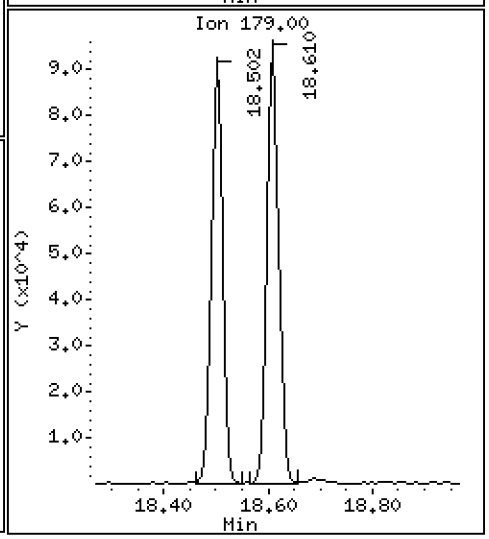












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

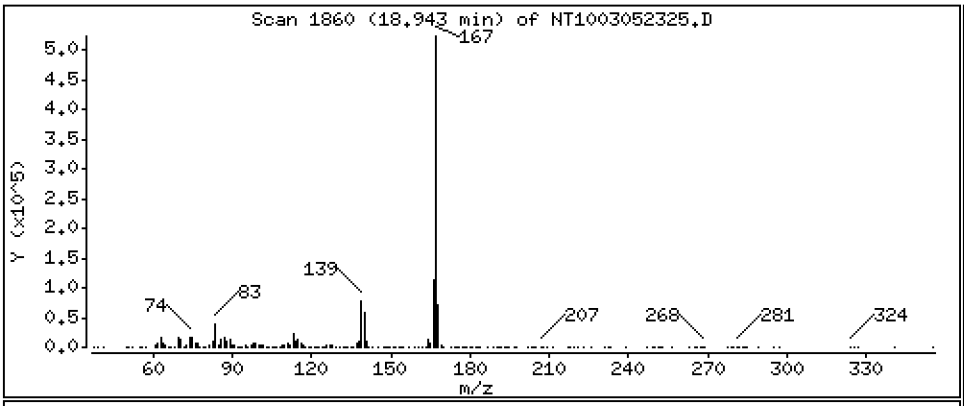
Operator: VTS

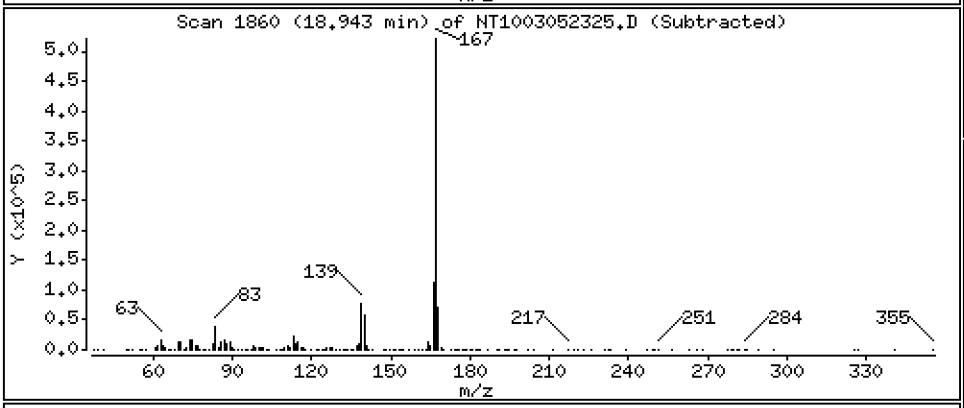
Column phase: ZB-5msi

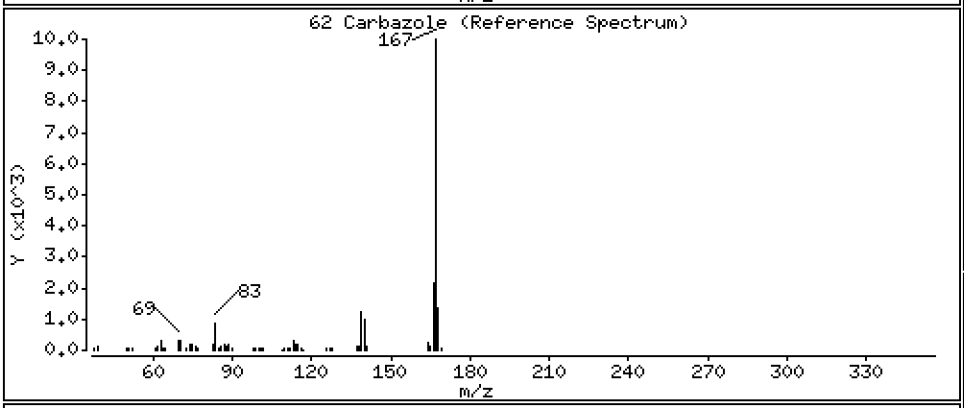
Column diameter: 0.25

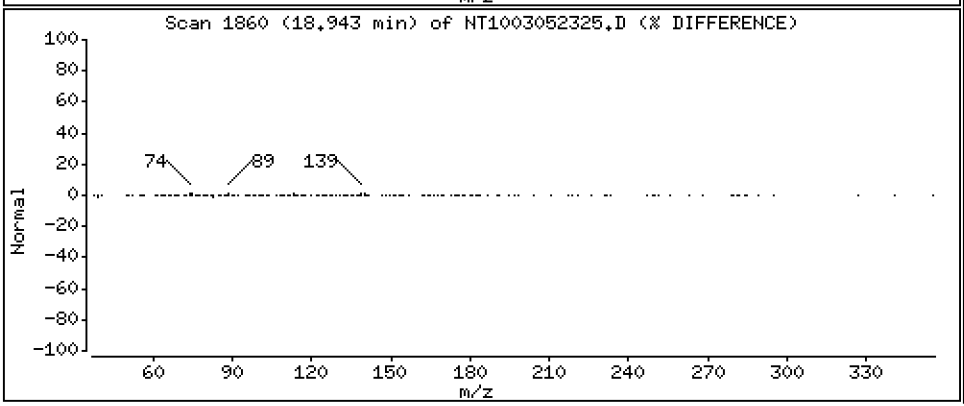
62 Carbazole

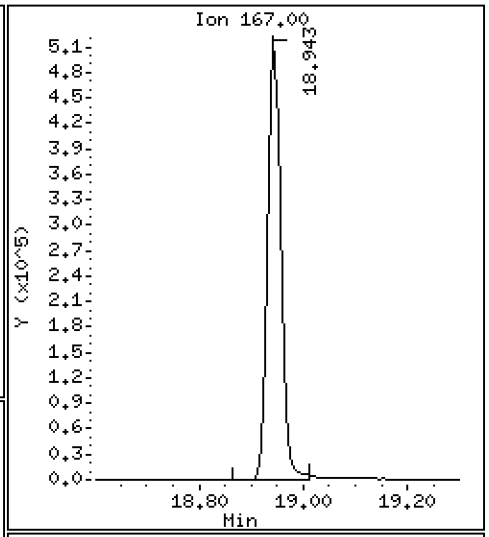
Concentration: 5.127 ug/mL

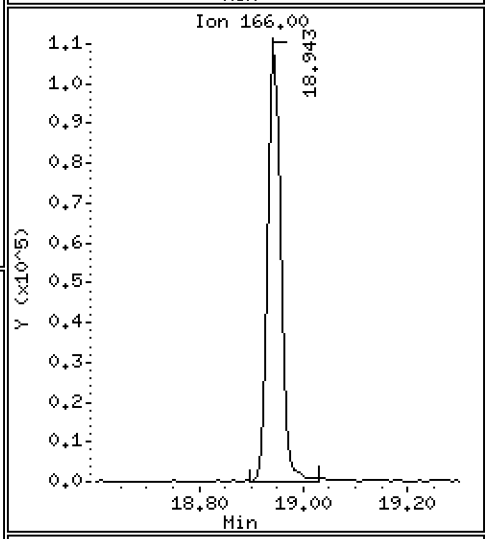


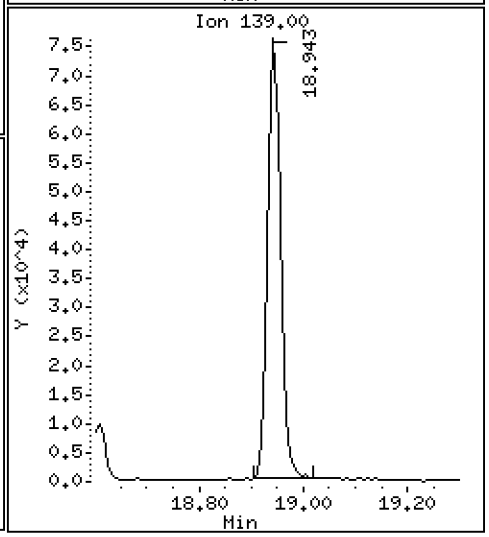












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

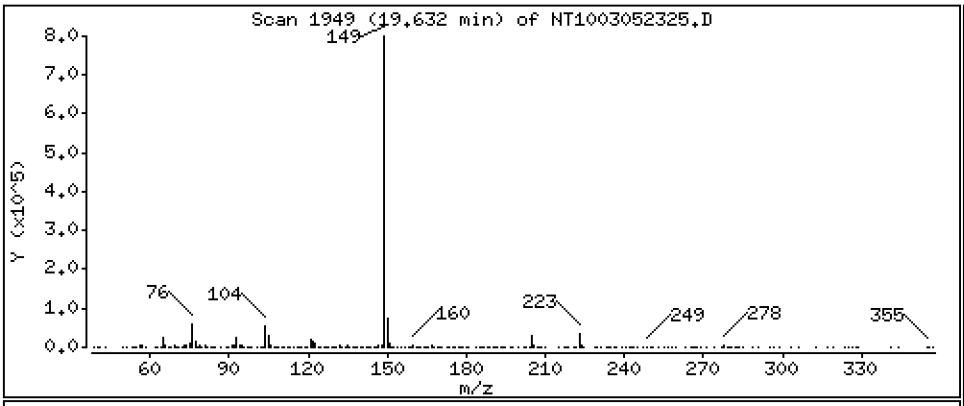
Operator: VTS

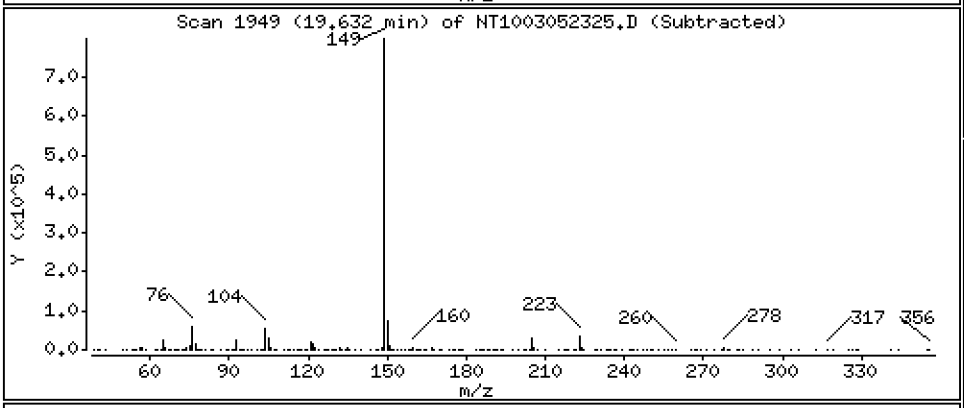
Column phase: ZB-5msi

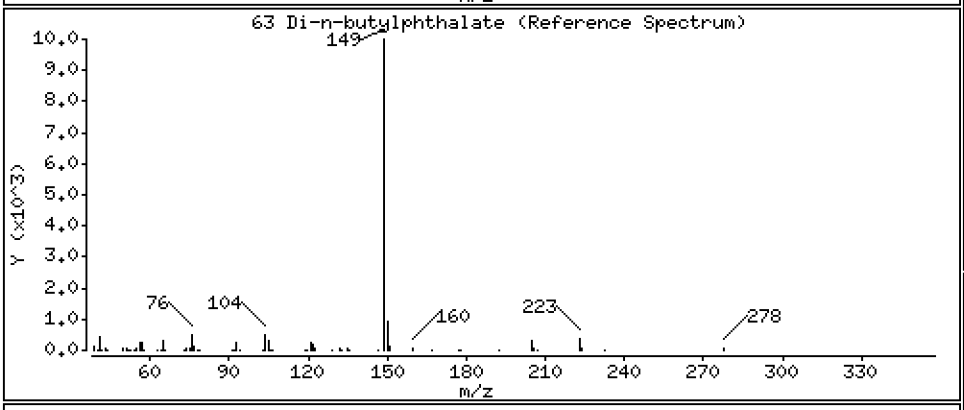
Column diameter: 0.25

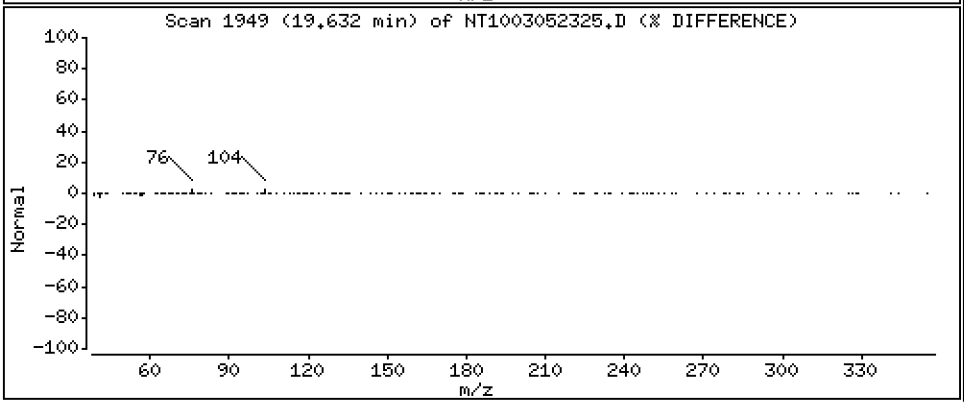
63 Di-n-butylphthalate

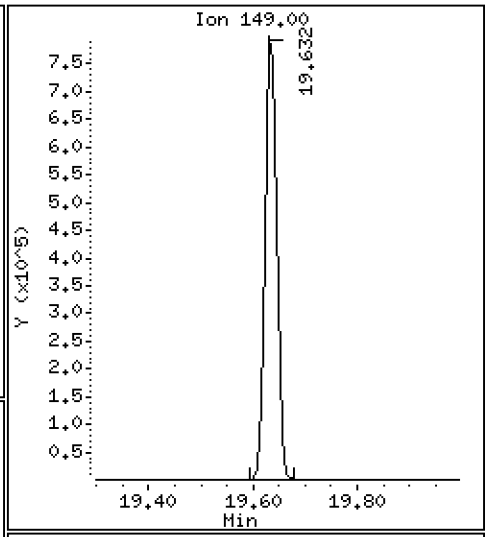
Concentration: 4.978 ug/mL

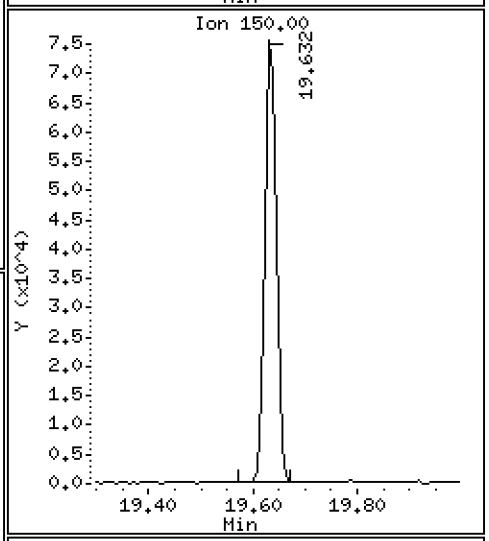


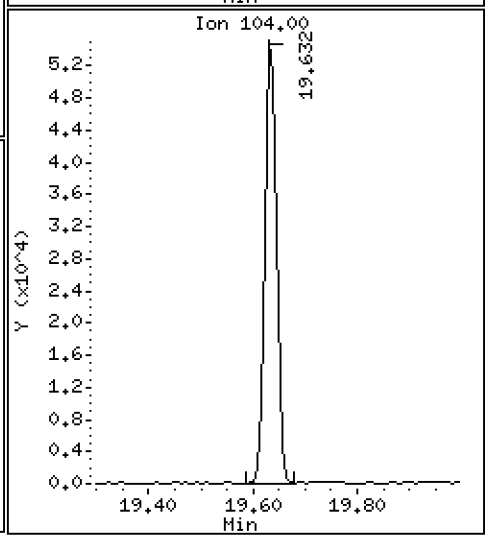












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052325.D

Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

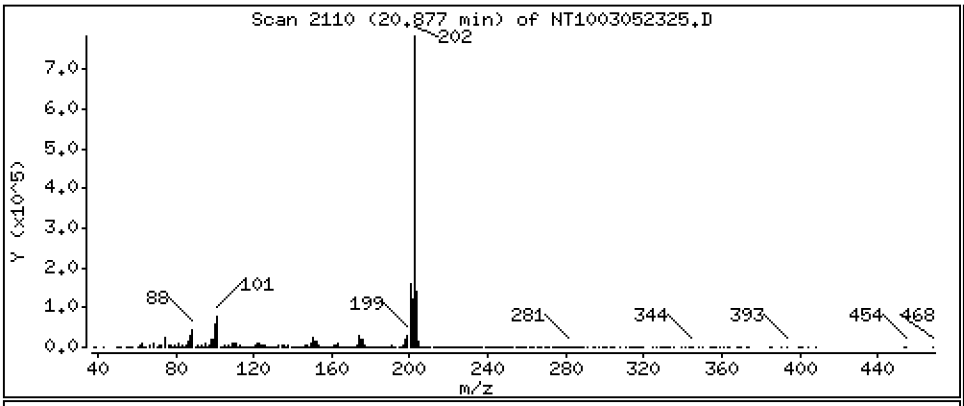
Operator: VTS

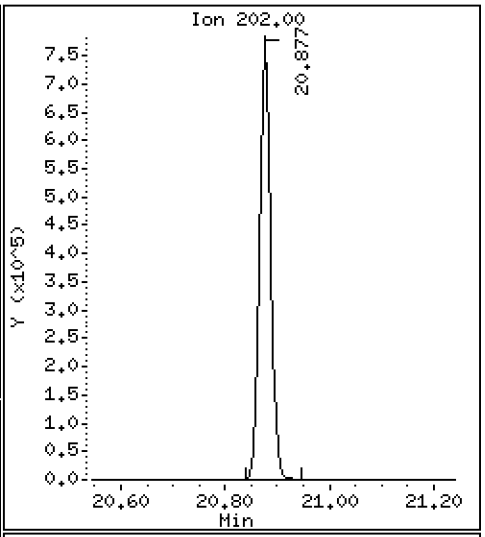
Column phase: ZB-5msi

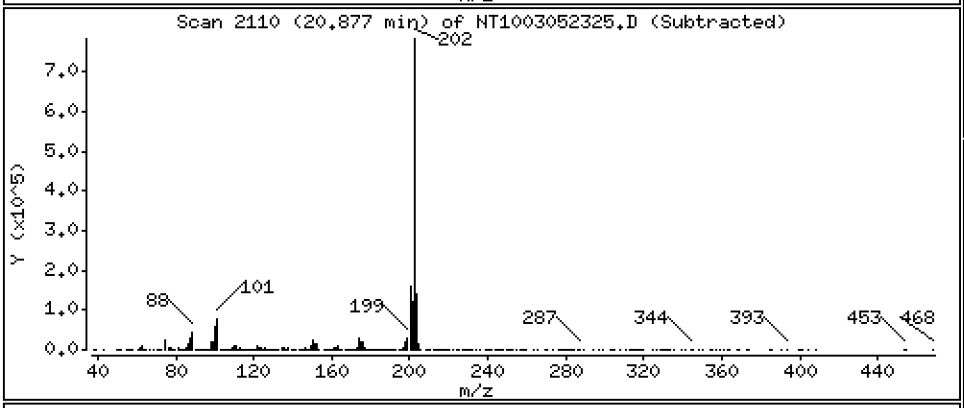
Column diameter: 0.25

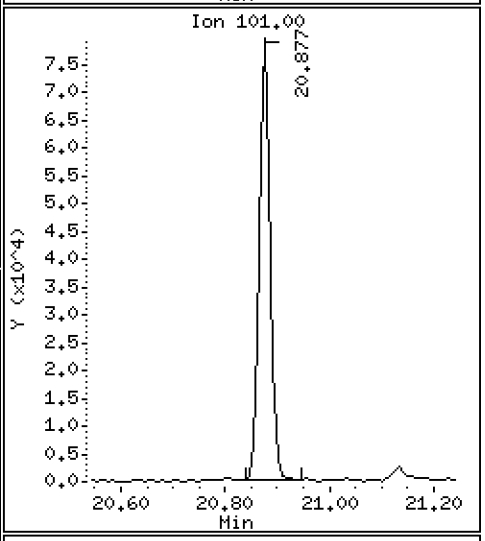
64 Fluoranthene

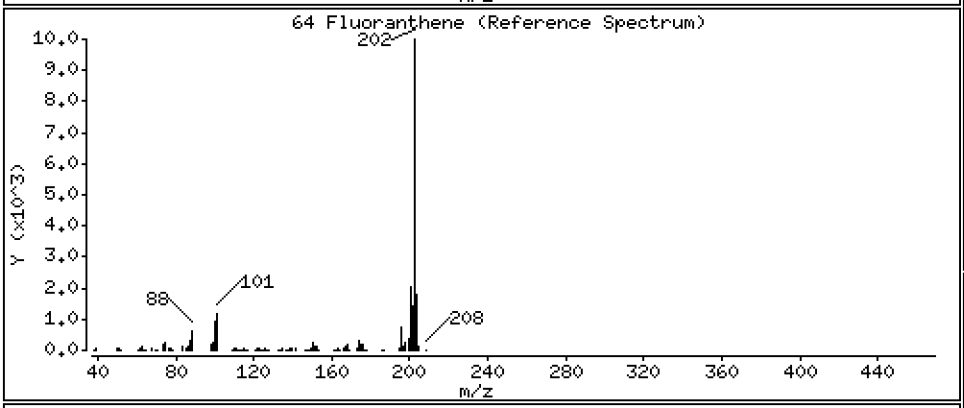
Concentration: 4.096 ug/mL

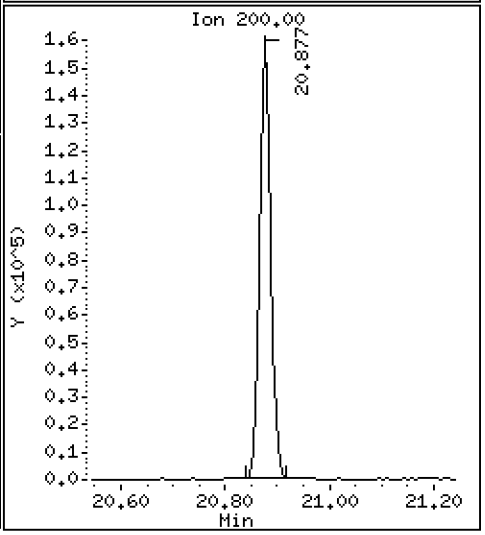


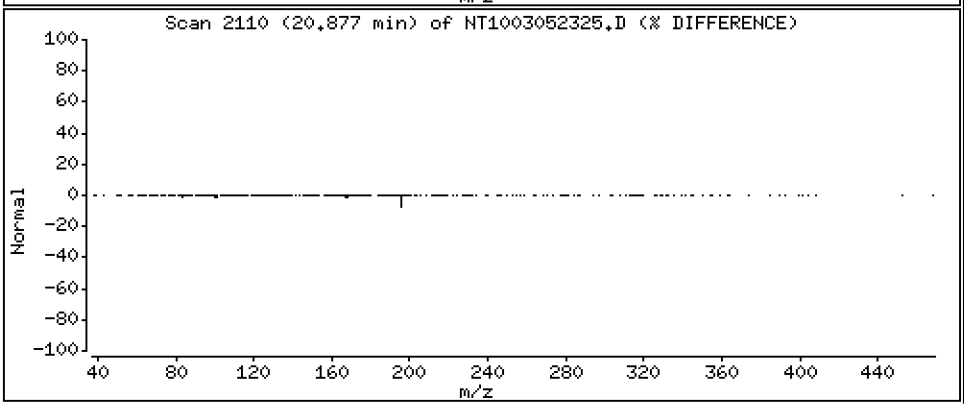












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

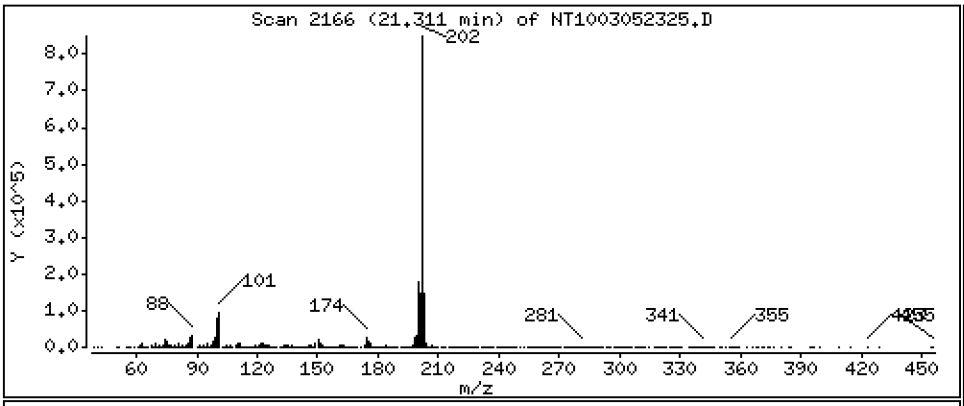
Operator: VTS

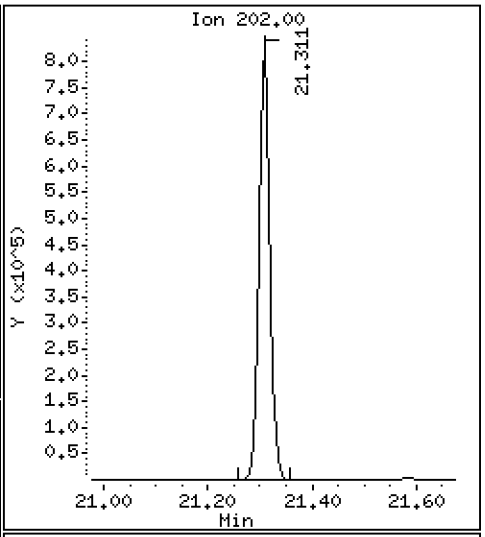
Column phase: ZB-5msi

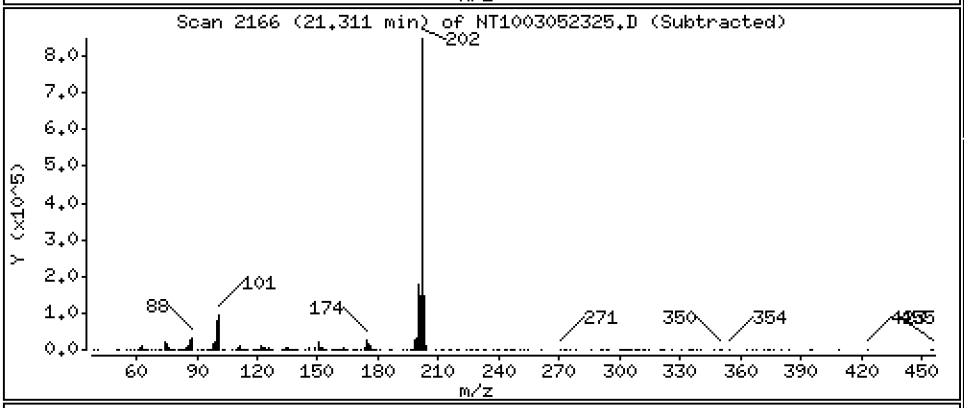
Column diameter: 0.25

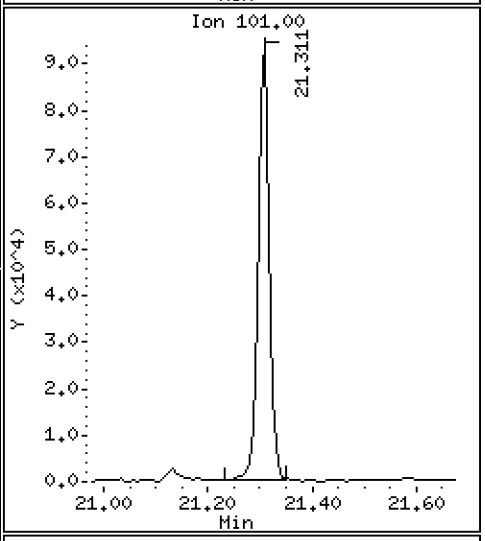
65 Pyrene

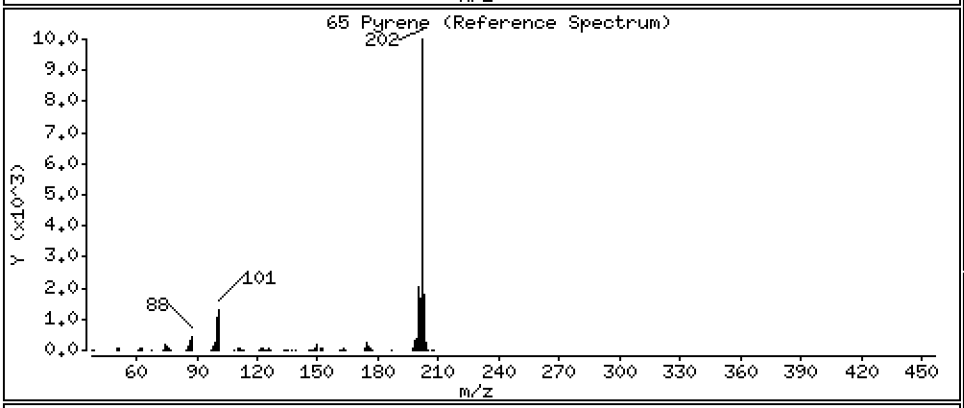
Concentration: 4.237 ug/mL

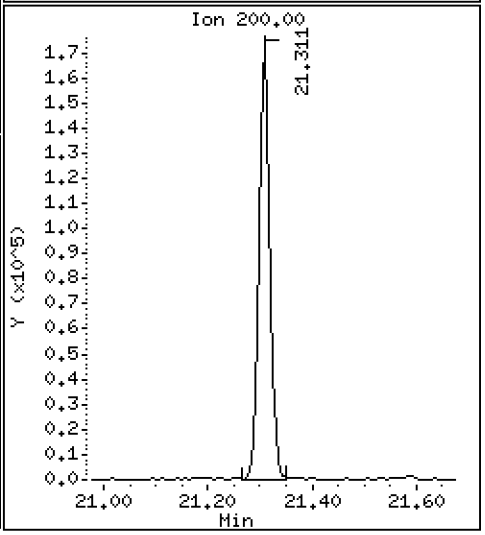


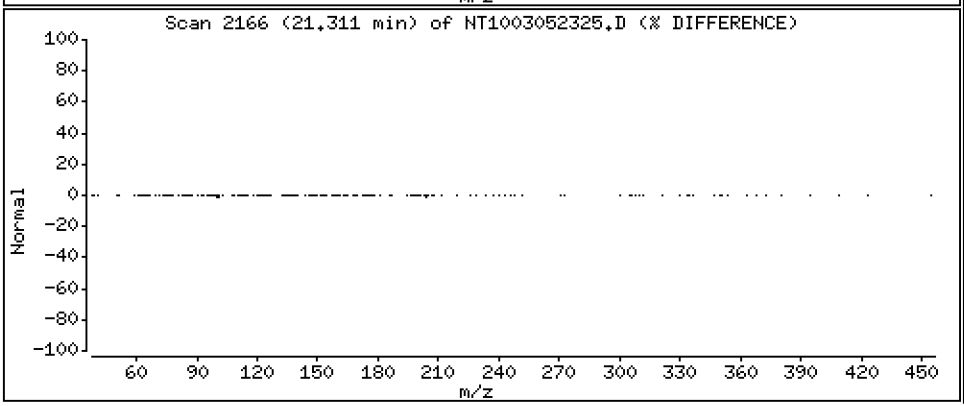












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

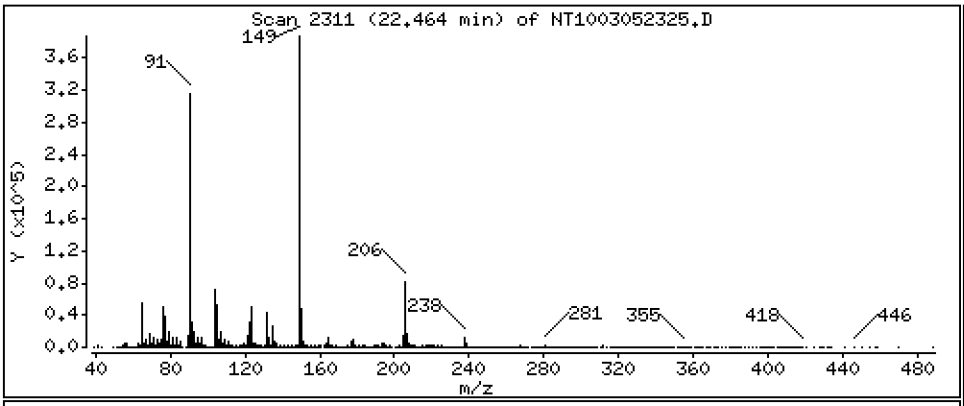
Operator: VTS

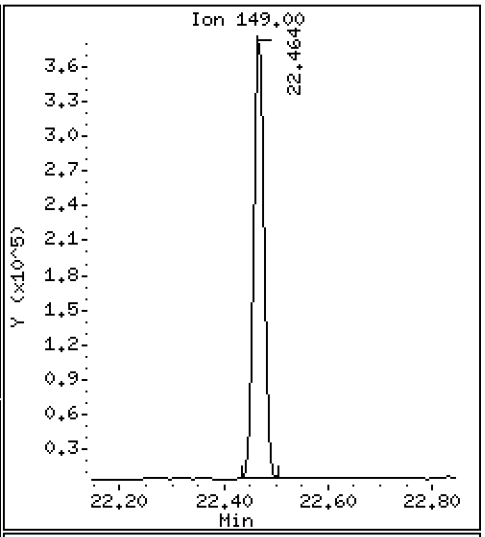
Column phase: ZB-5msi

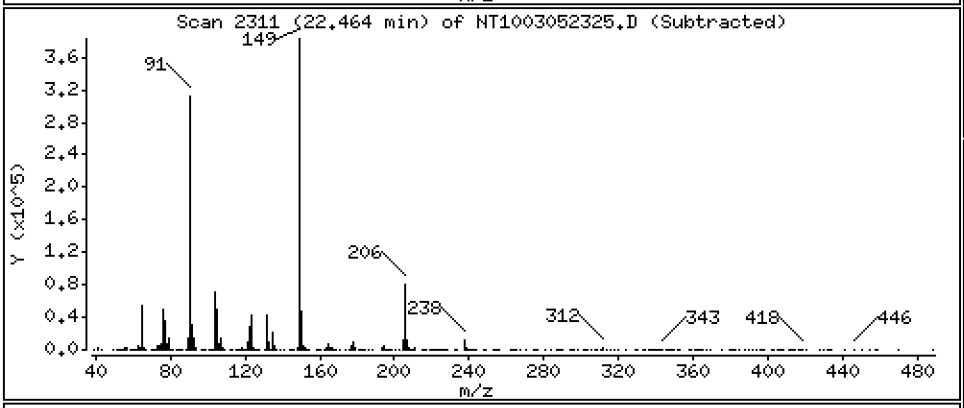
Column diameter: 0.25

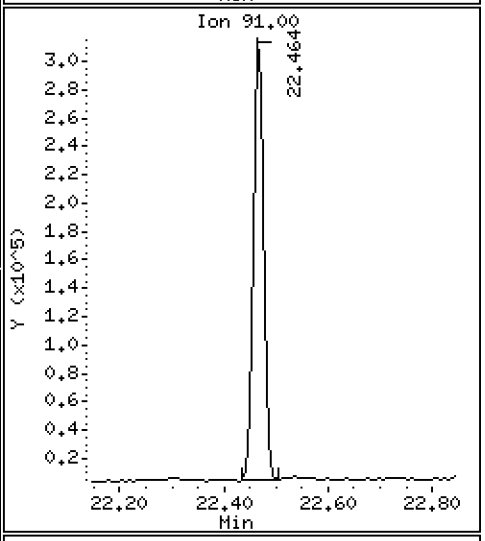
67 Butylbenzylphthalate

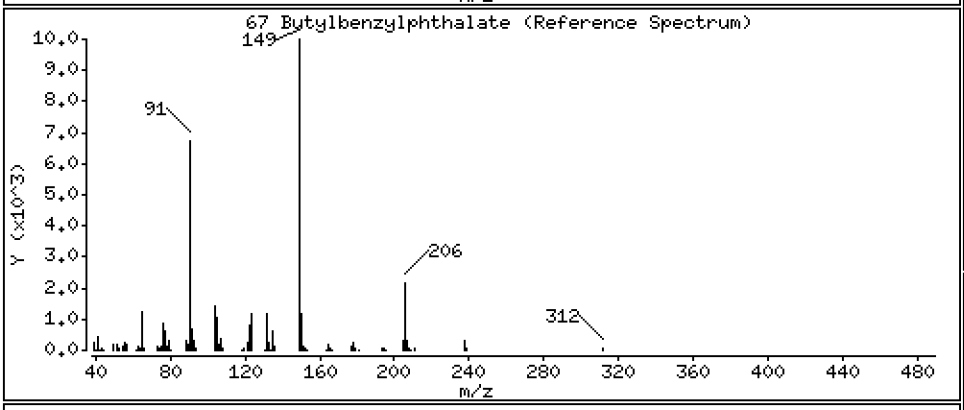
Concentration: 3.636 ug/mL

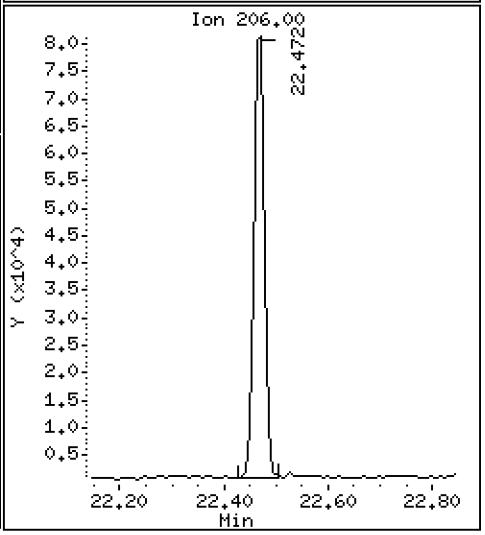


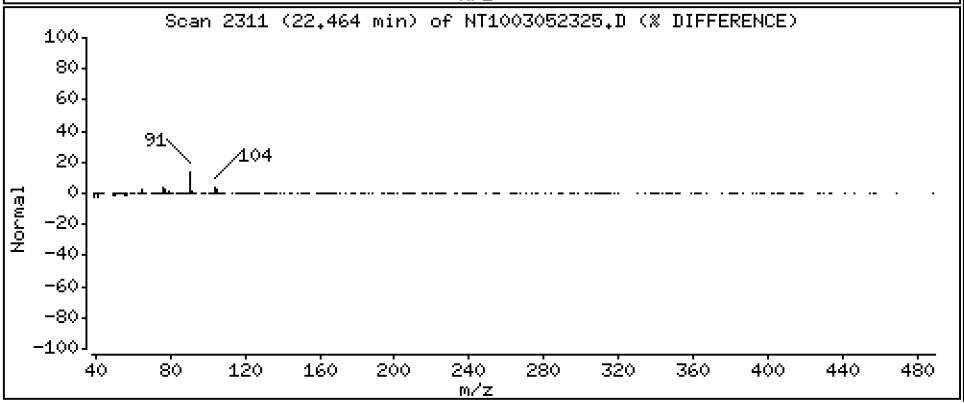












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

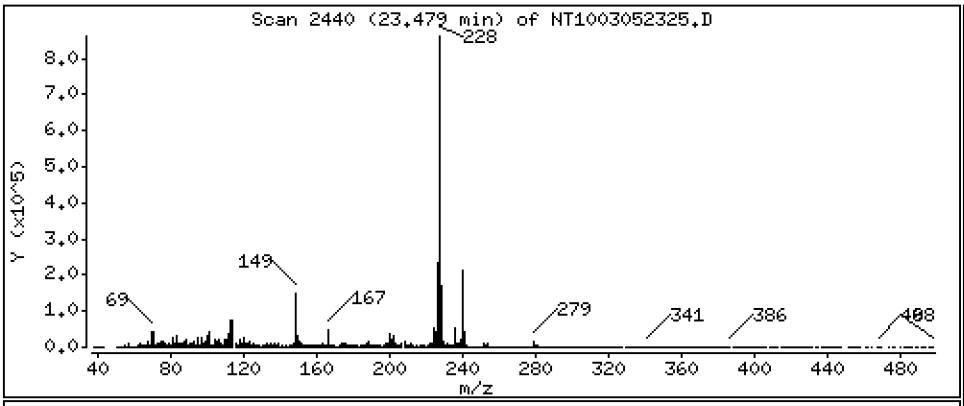
Operator: VTS

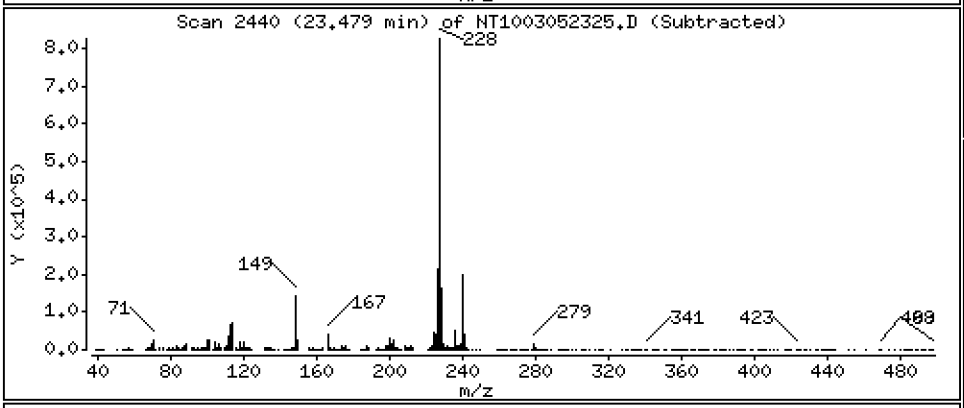
Column phase: ZB-5msi

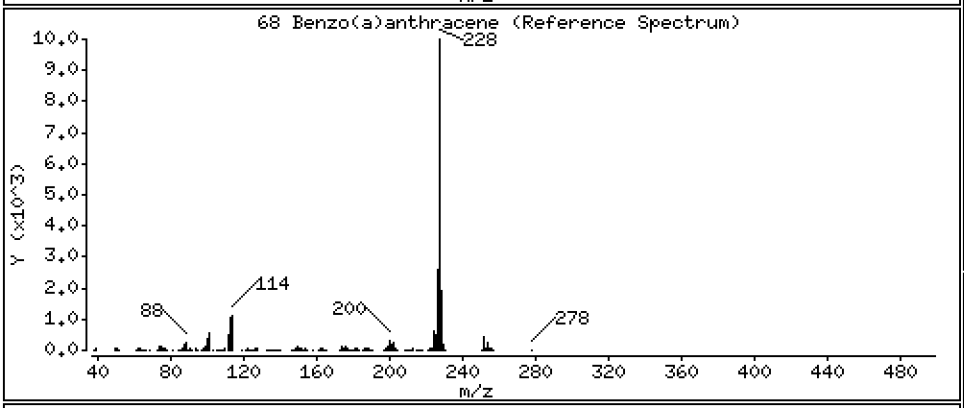
Column diameter: 0.25

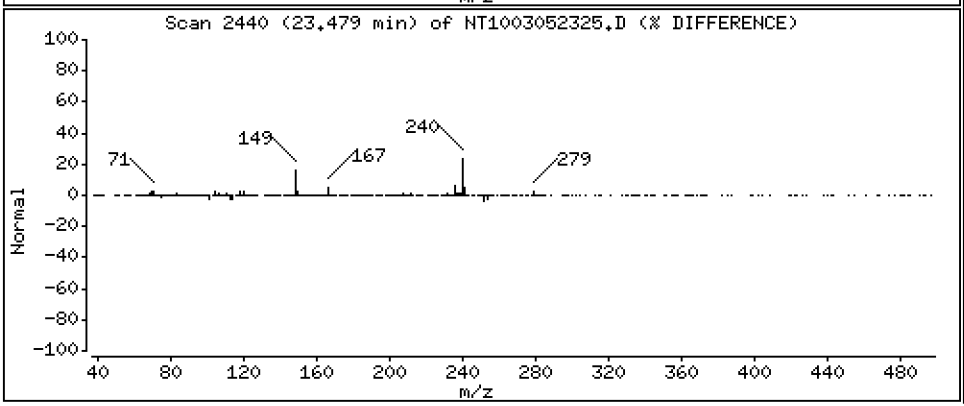
68 Benzo(a)anthracene

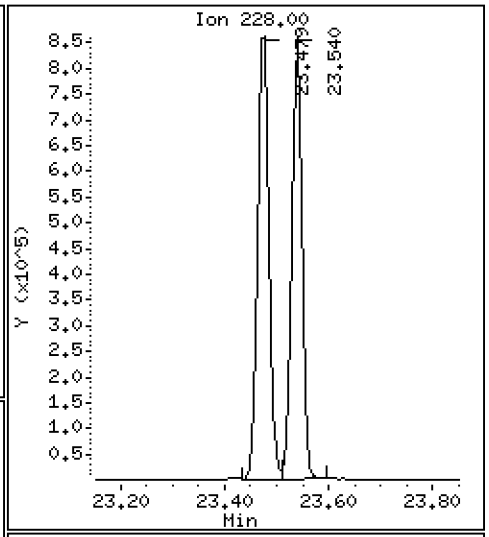
Concentration: 4.703 ug/mL

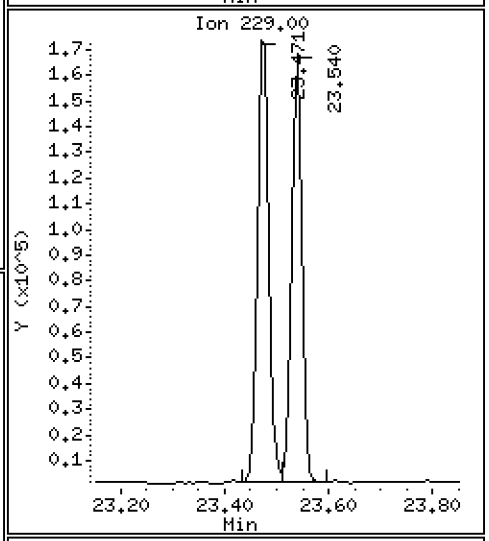


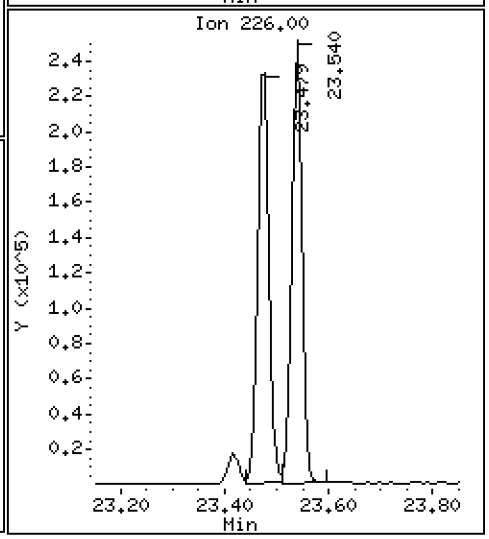












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

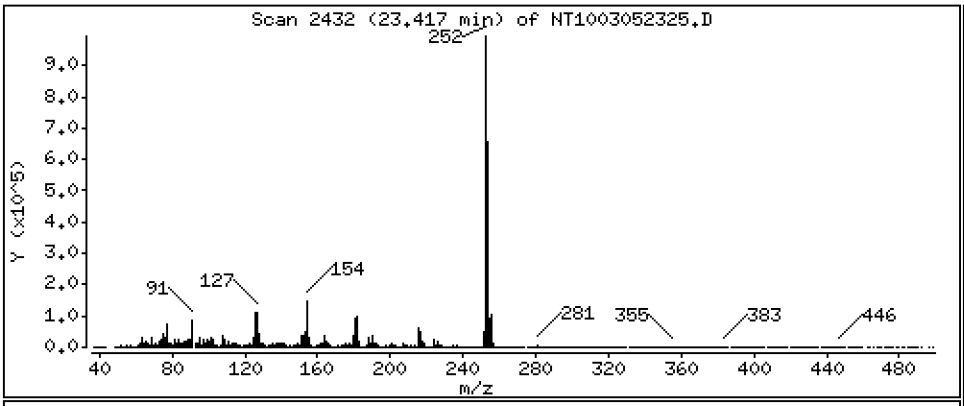
Operator: VTS

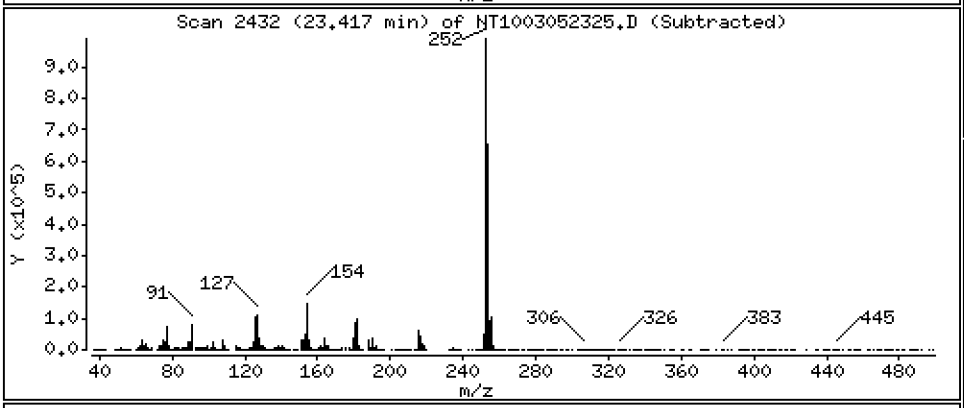
Column phase: ZB-5msi

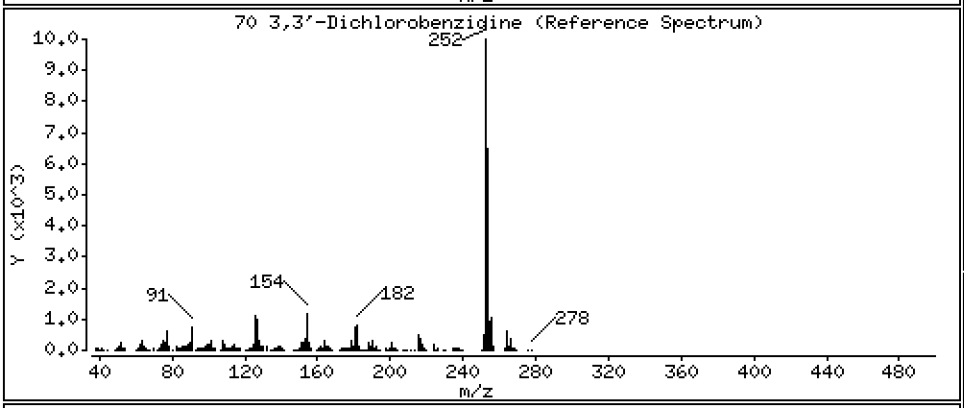
Column diameter: 0.25

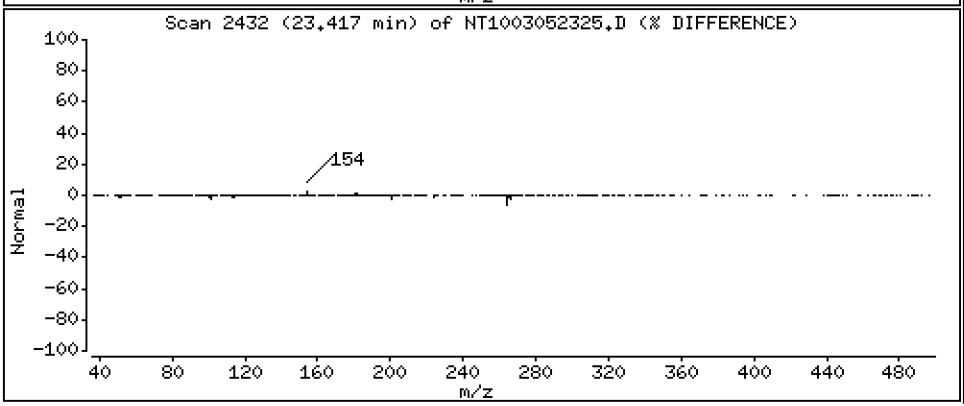
70 3,3'-Dichlorobenzidine

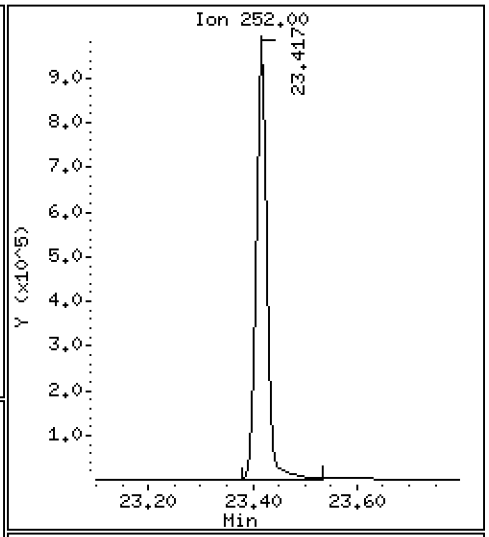
Concentration: 11.12 ug/mL

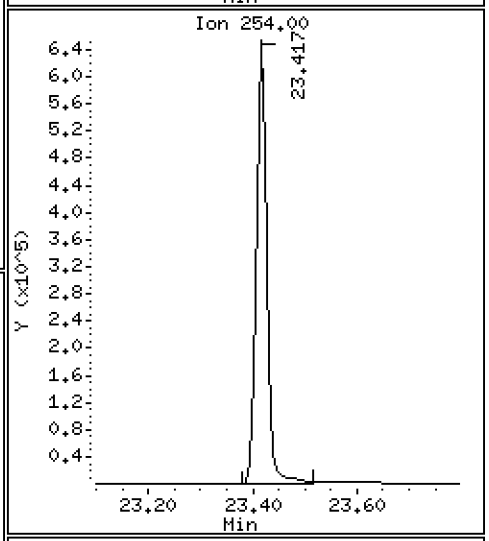


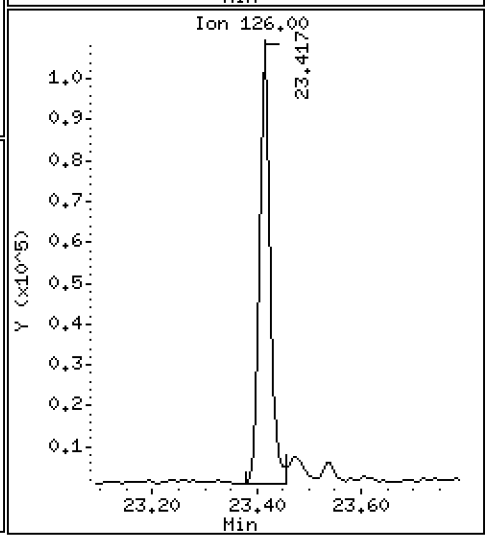












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

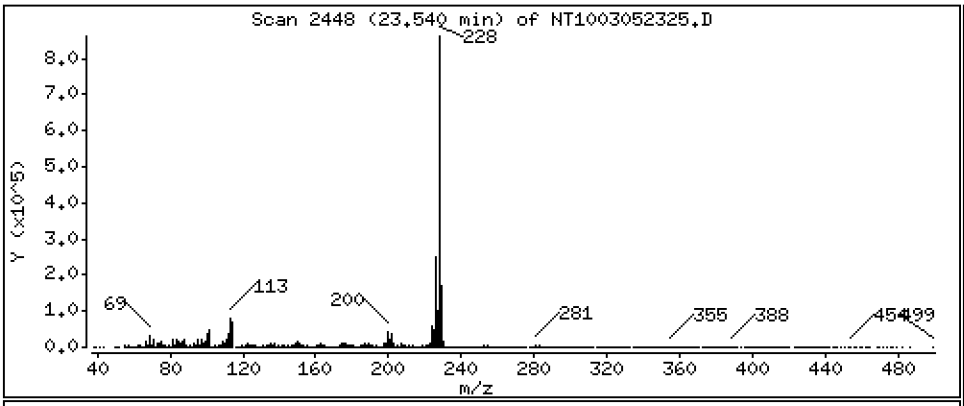
Operator: VTS

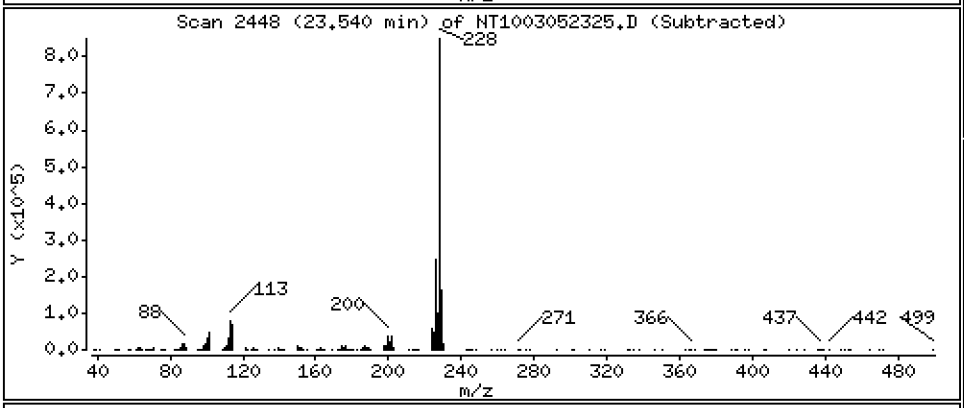
Column phase: ZB-5msi

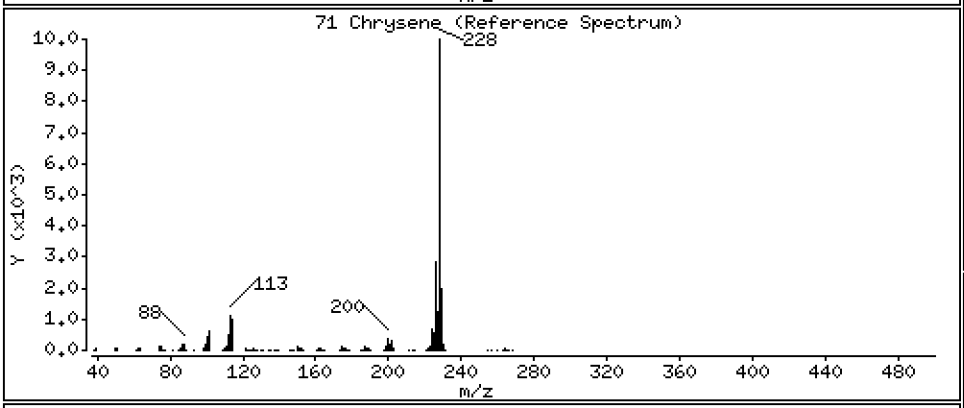
Column diameter: 0.25

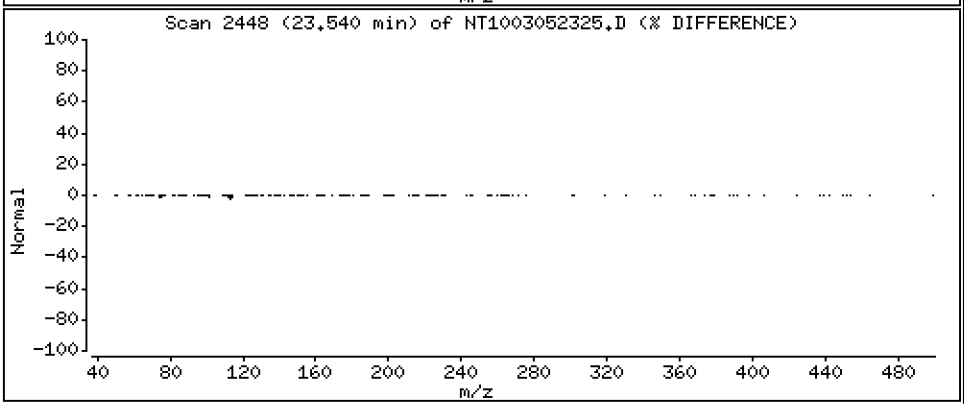
71 Chrysene

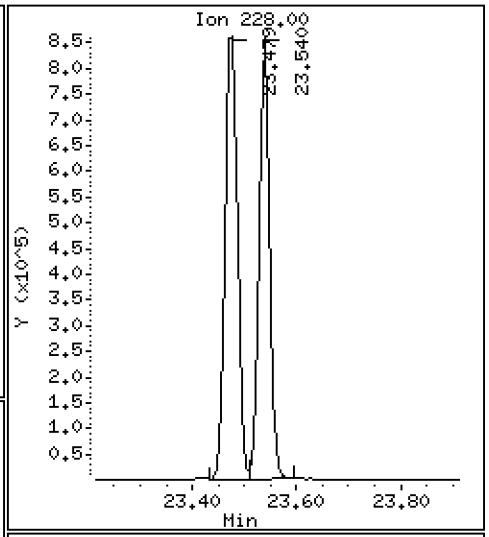
Concentration: 5.183 ug/mL

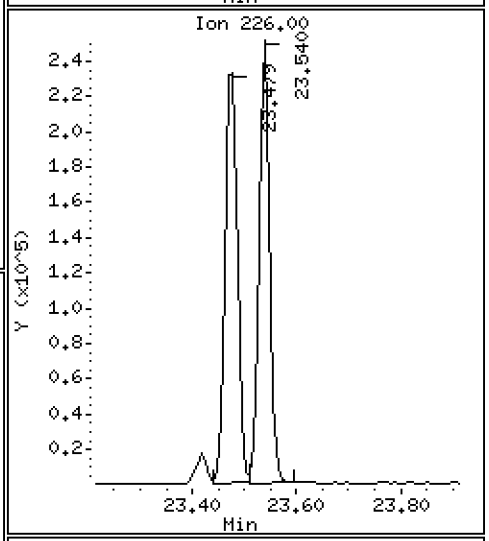


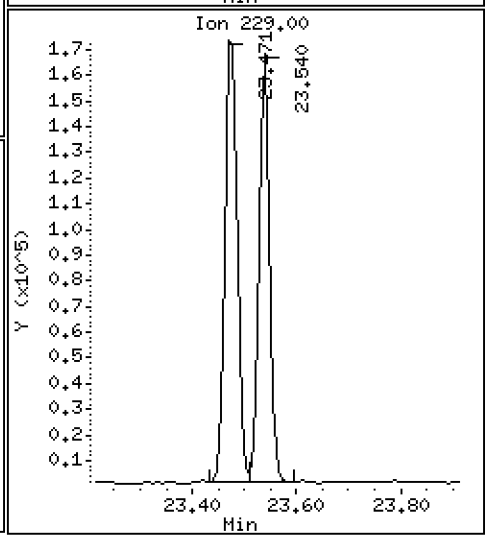












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

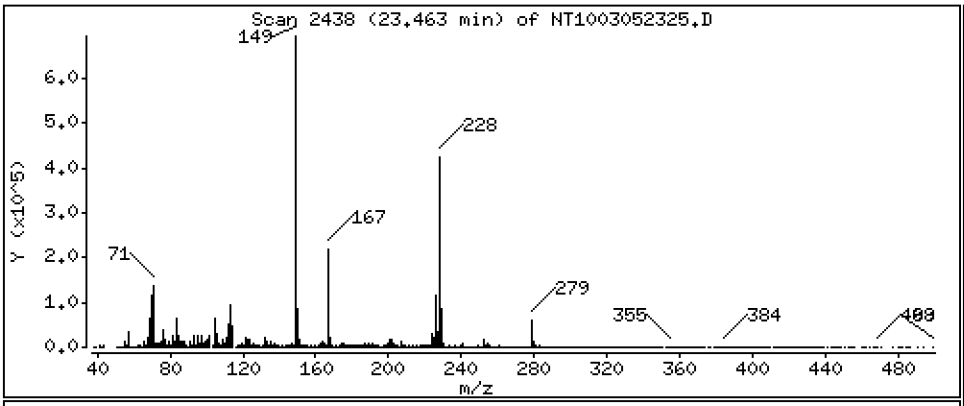
Operator: VTS

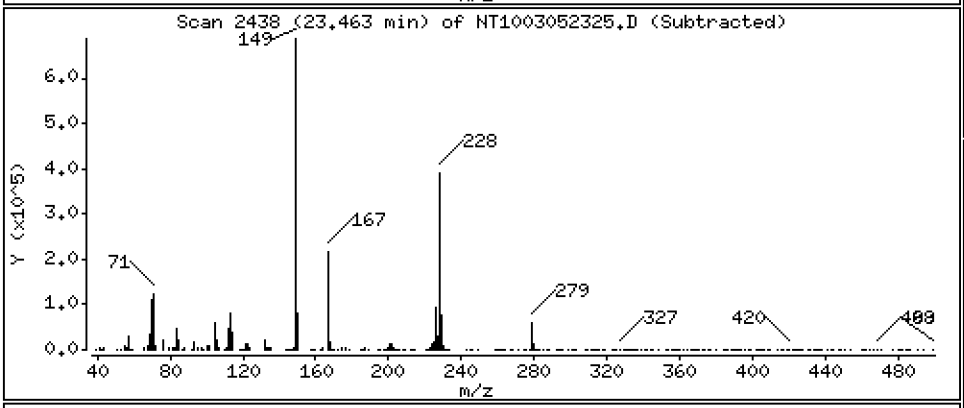
Column phase: ZB-5msi

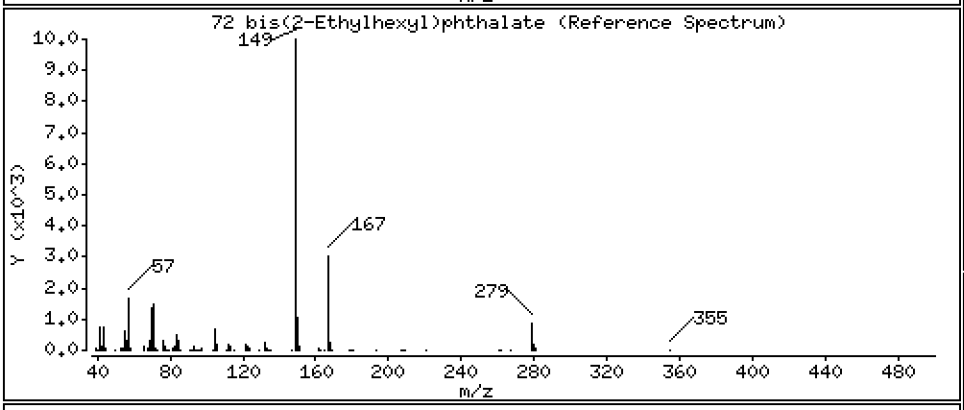
Column diameter: 0.25

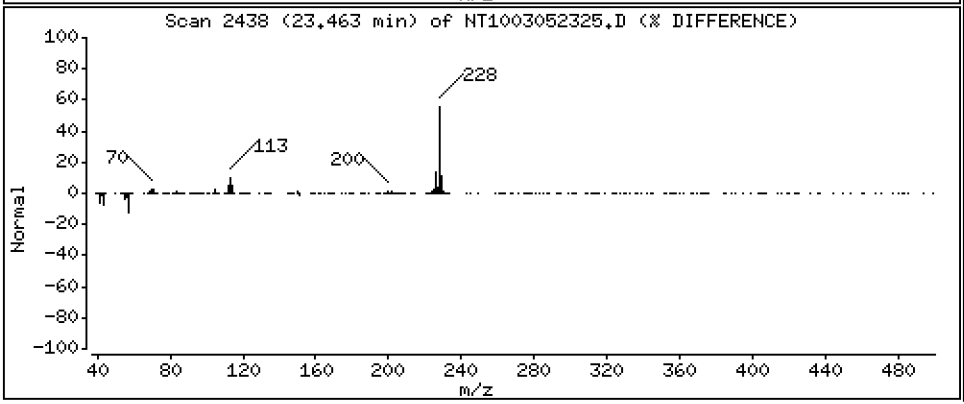
72 bis(2-Ethylhexyl)phthalate

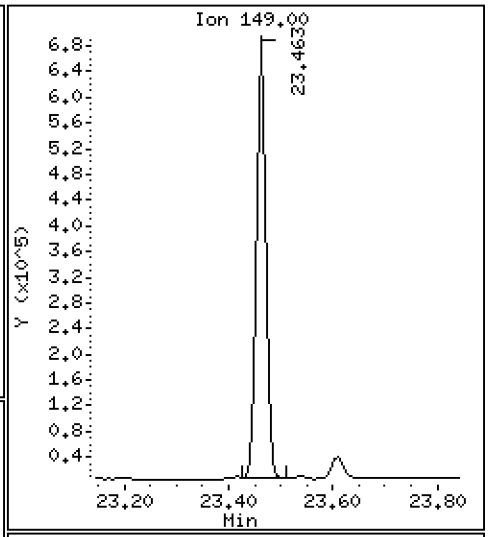
Concentration: 4.595 ug/mL

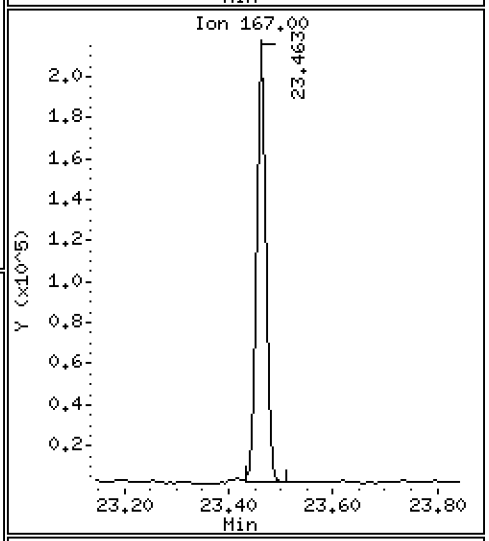


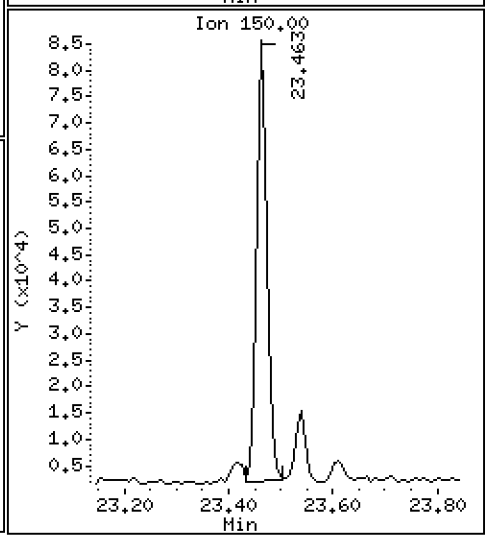












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

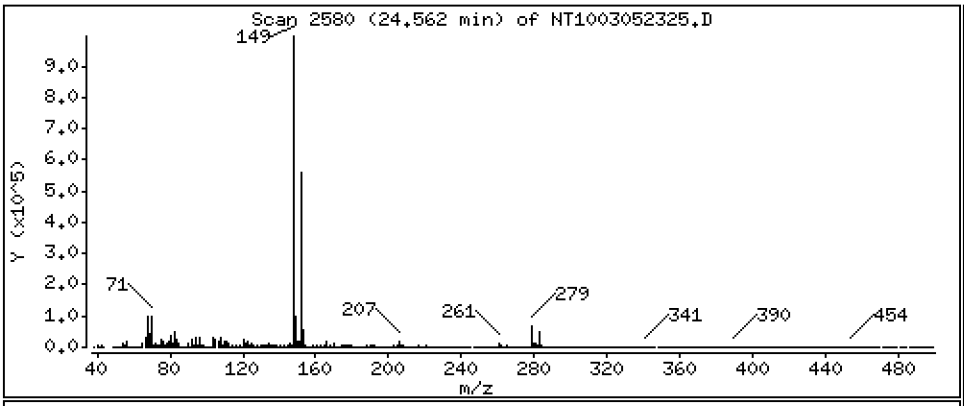
Operator: VTS

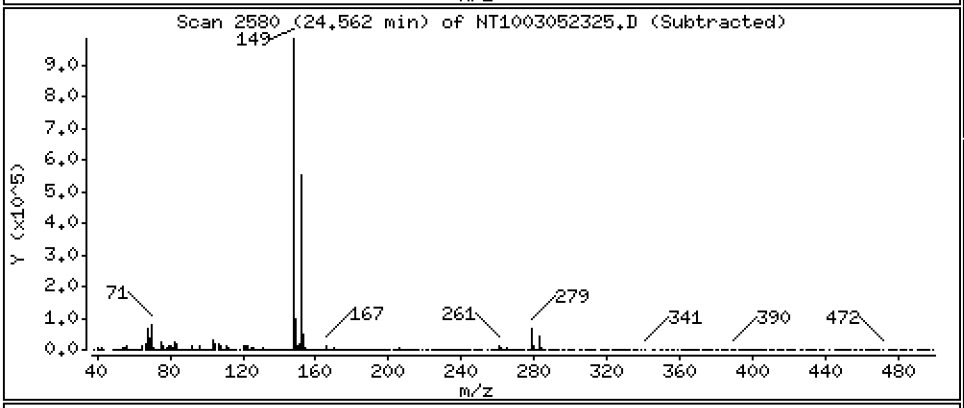
Column phase: ZB-5msi

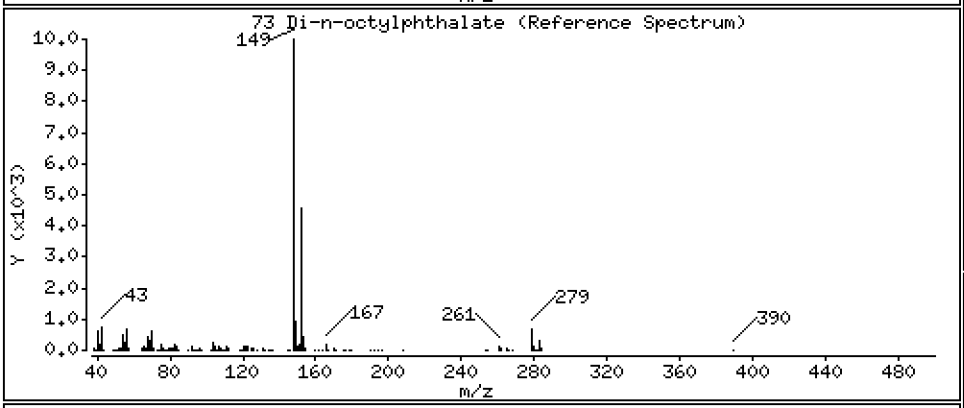
Column diameter: 0.25

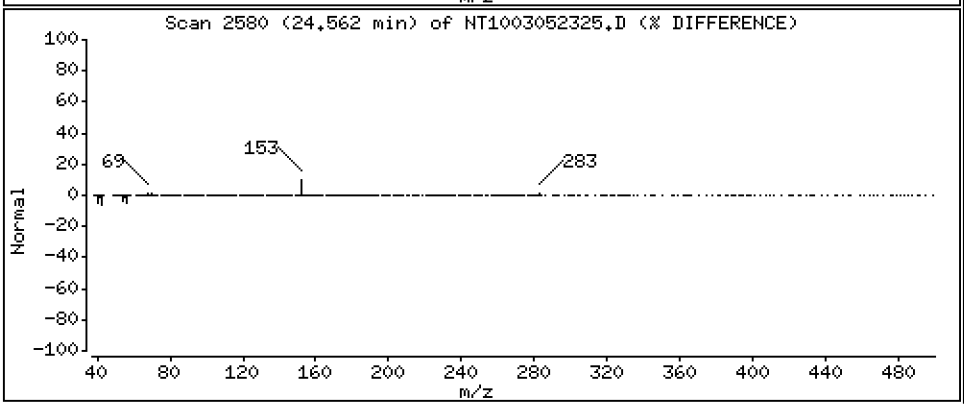
73 Di-n-octylphthalate

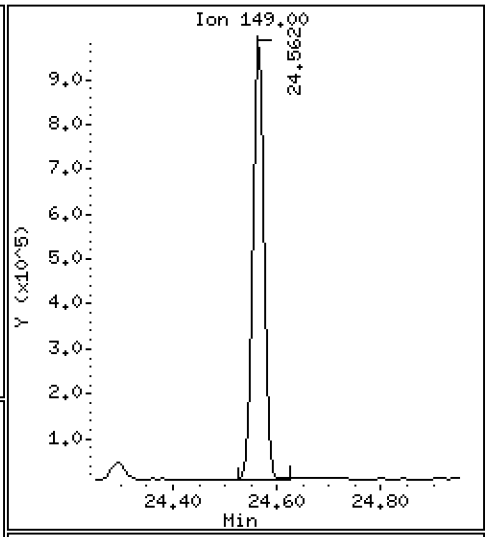
Concentration: 5.124 ug/mL

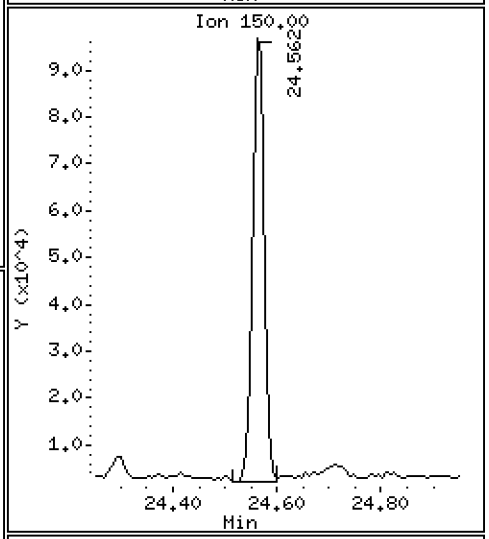


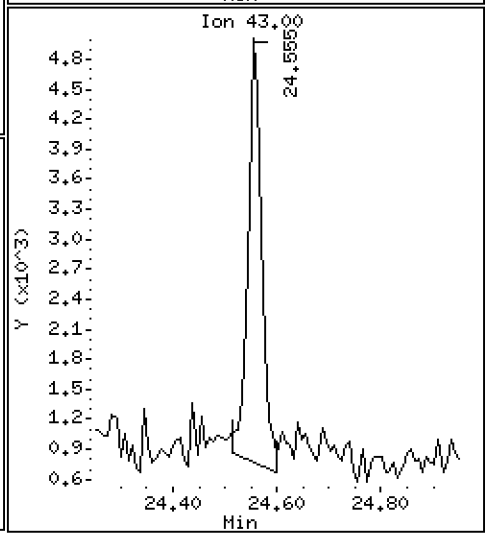












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

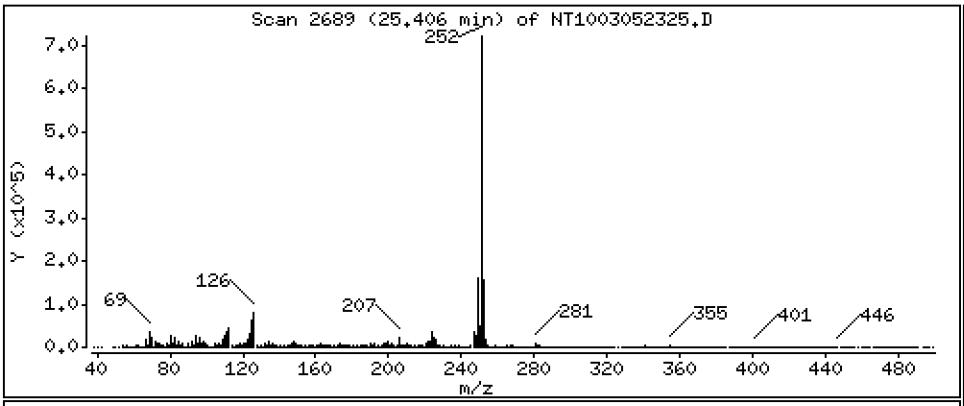
Operator: VTS

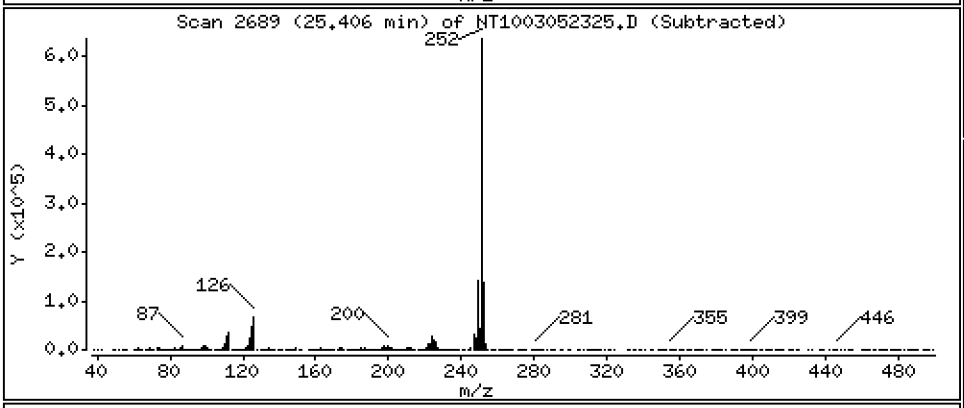
Column phase: ZB-5msi

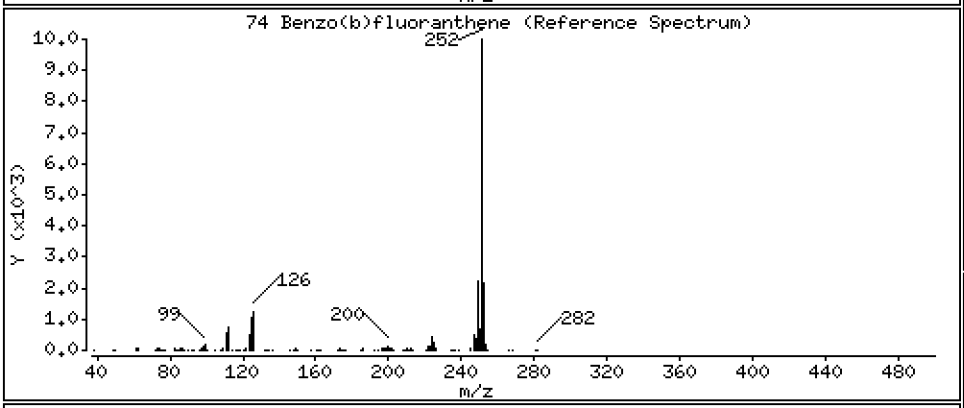
Column diameter: 0.25

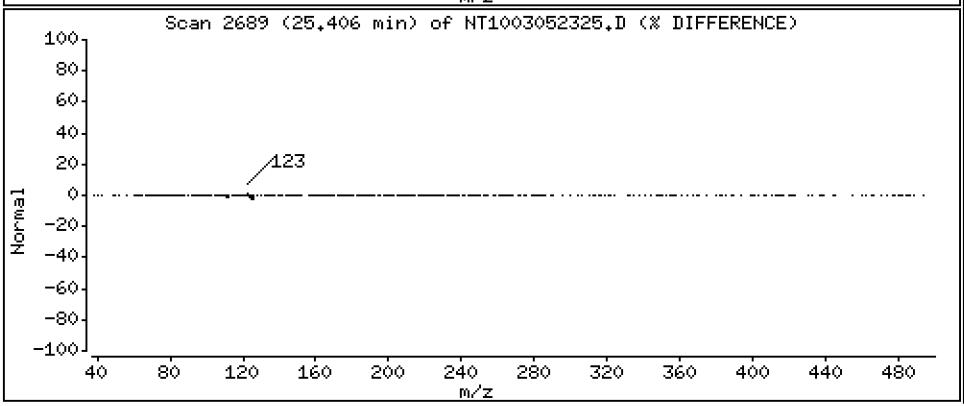
74 Benzo(b)fluoranthene

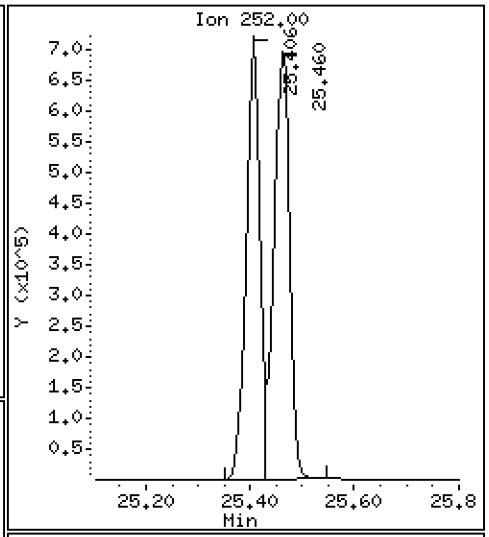
Concentration: 4.266 ug/mL

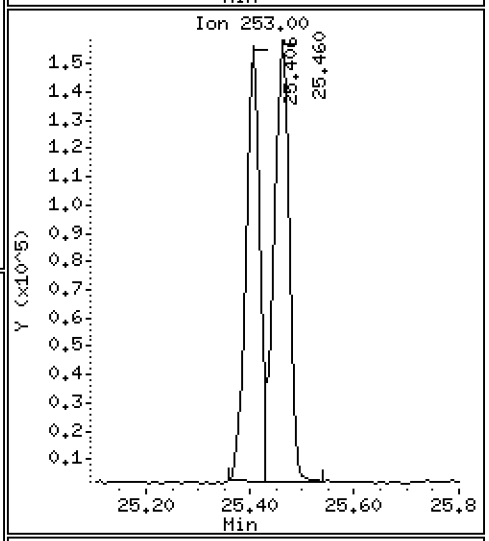


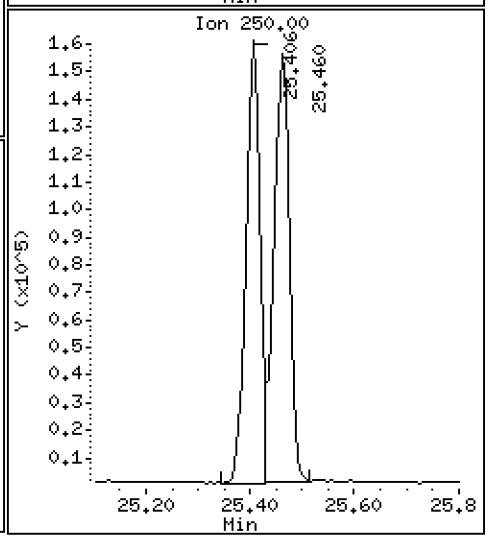












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

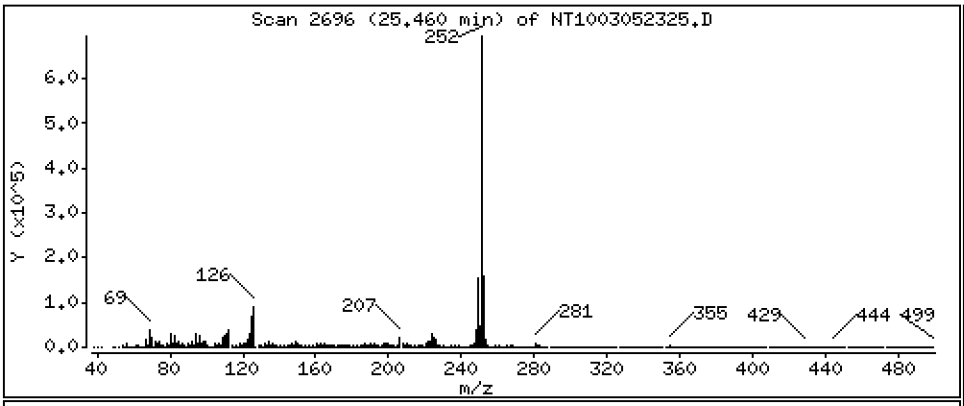
Operator: VTS

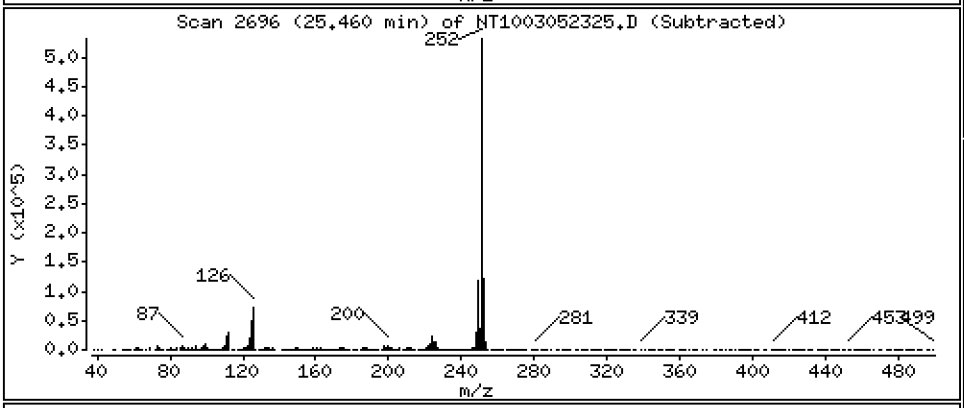
Column phase: ZB-5msi

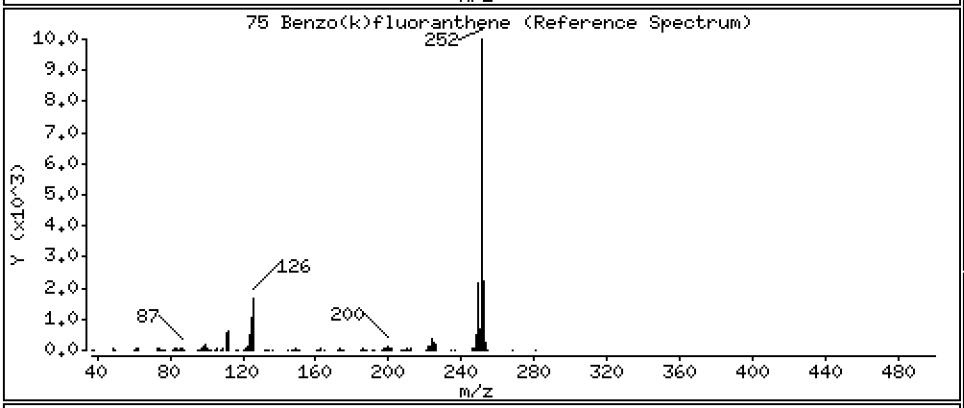
Column diameter: 0.25

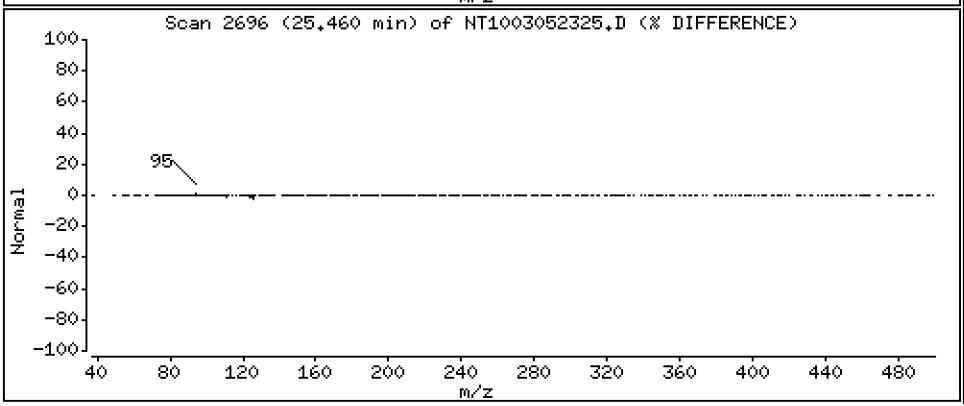
75 Benzo(k)fluoranthene

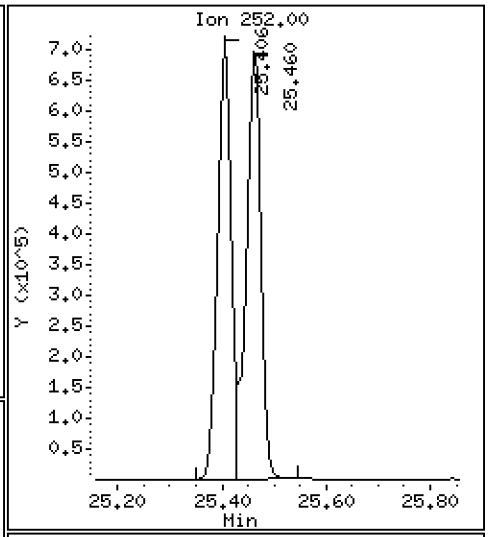
Concentration: 4.641 ug/mL

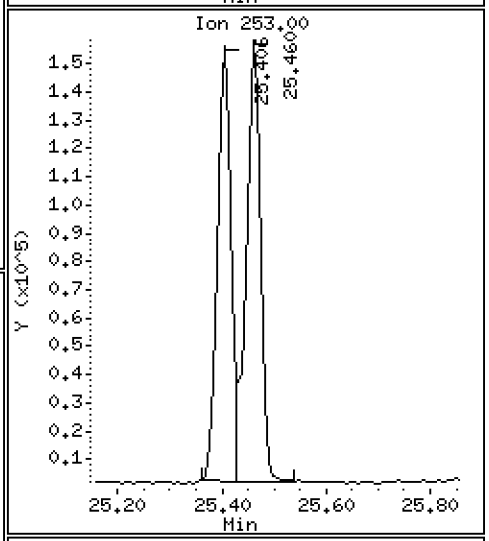


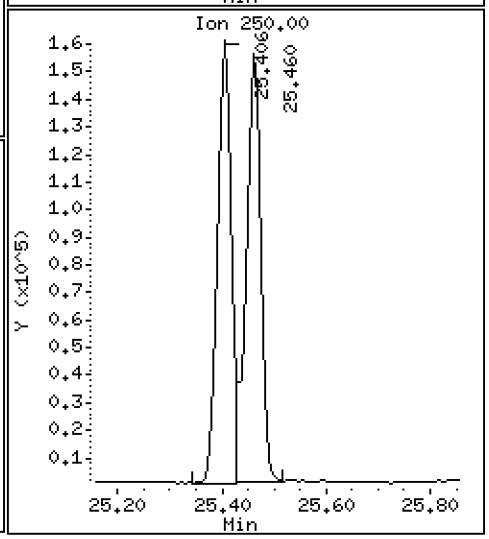












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

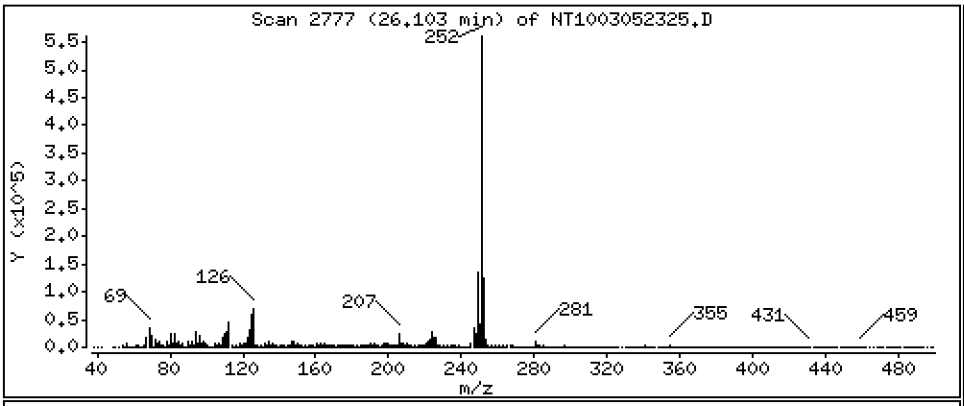
Operator: VTS

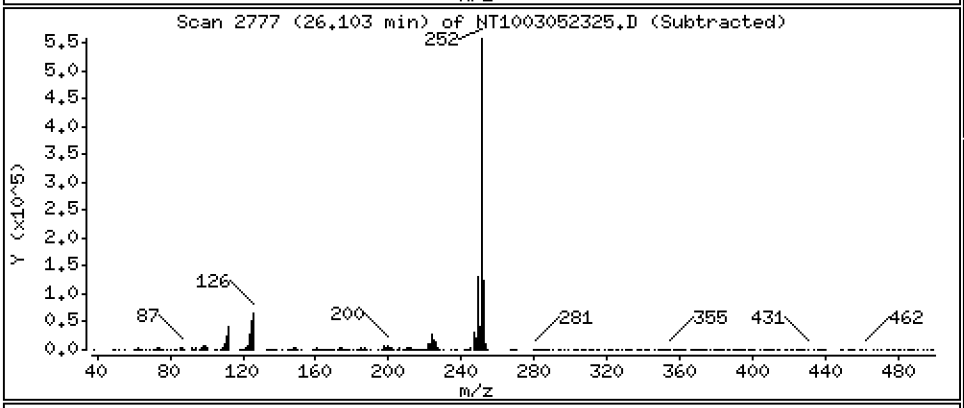
Column phase: ZB-5msi

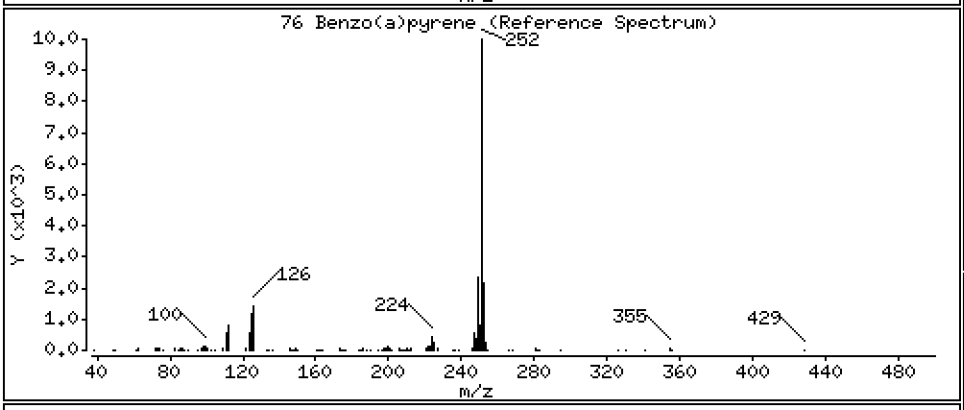
Column diameter: 0.25

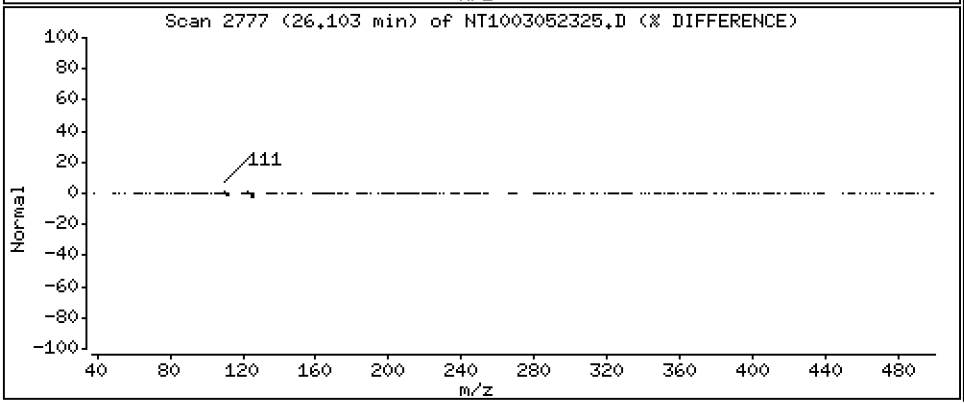
76 Benzo(a)pyrene

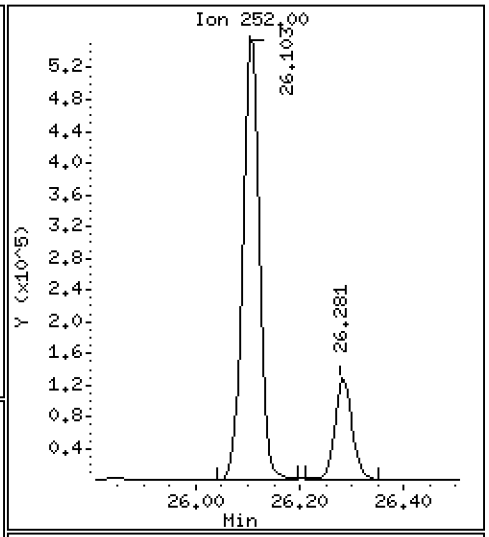
Concentration: 4.472 ug/mL

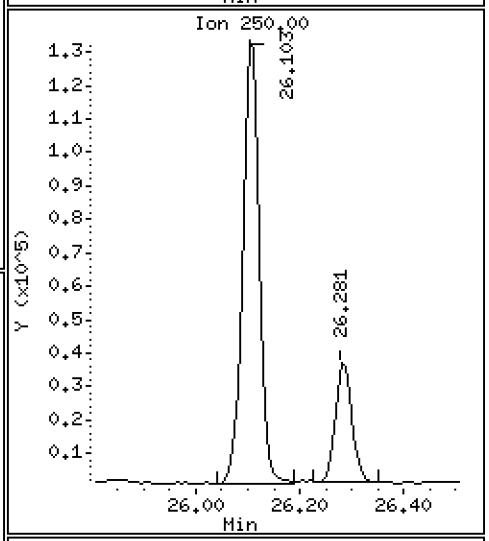


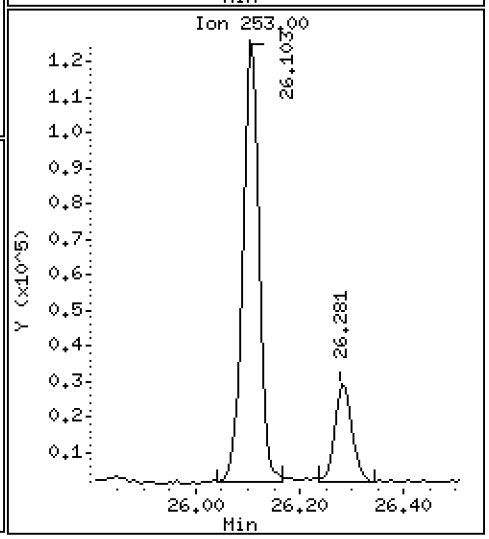












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

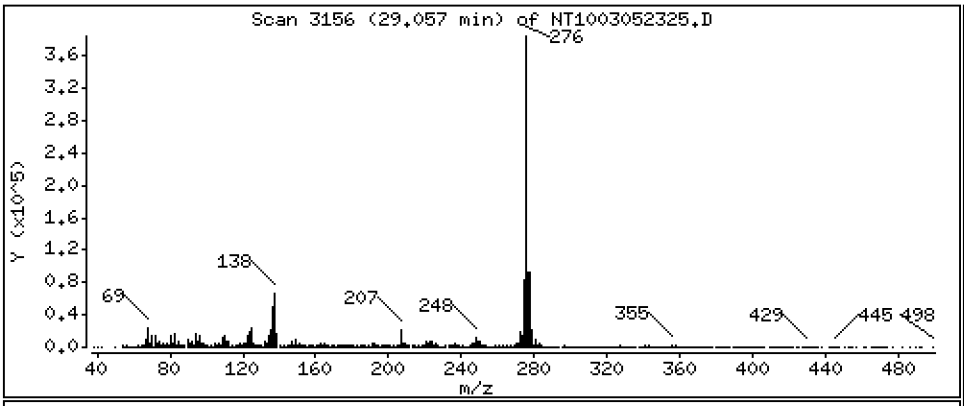
Operator: VTS

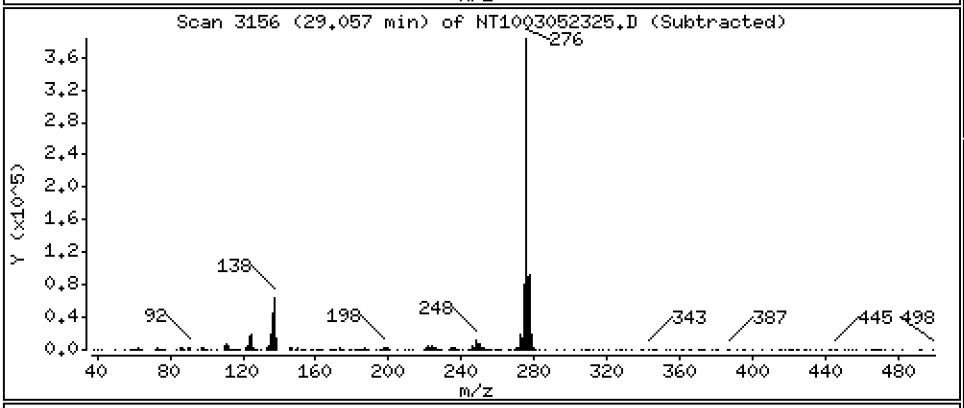
Column phase: ZB-5msi

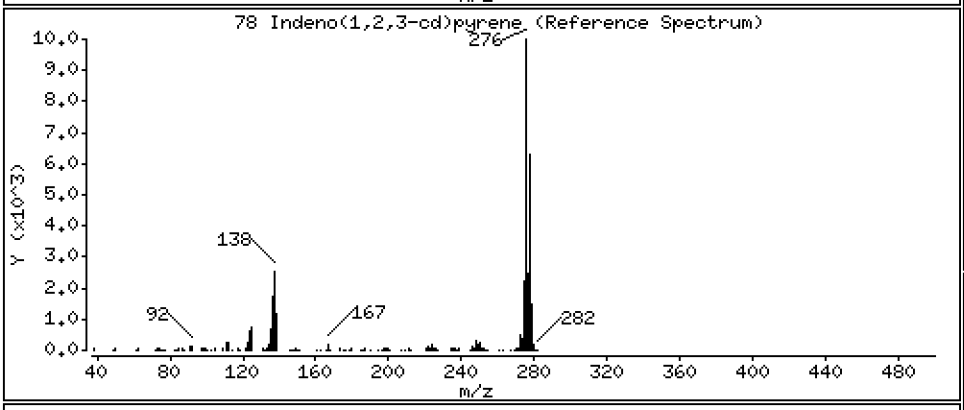
Column diameter: 0.25

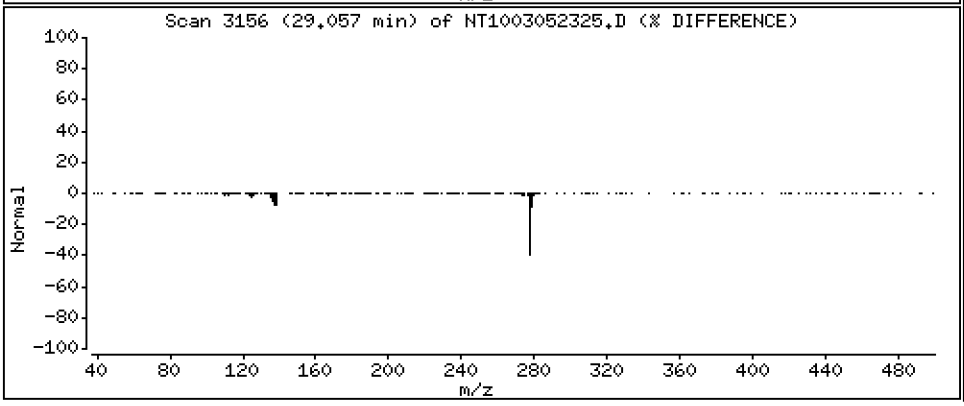
78 Indeno(1,2,3-cd)pyrene

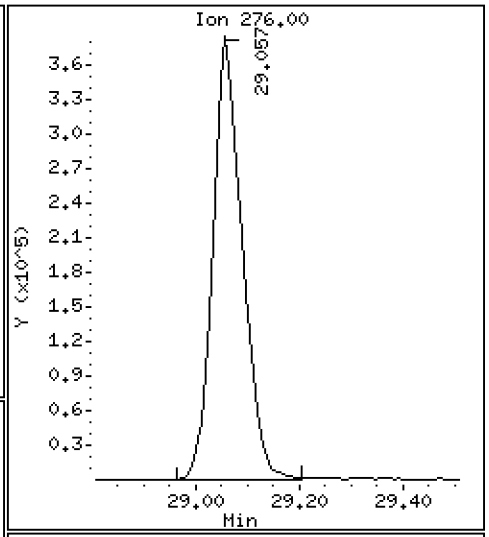
Concentration: 4.531 ug/mL

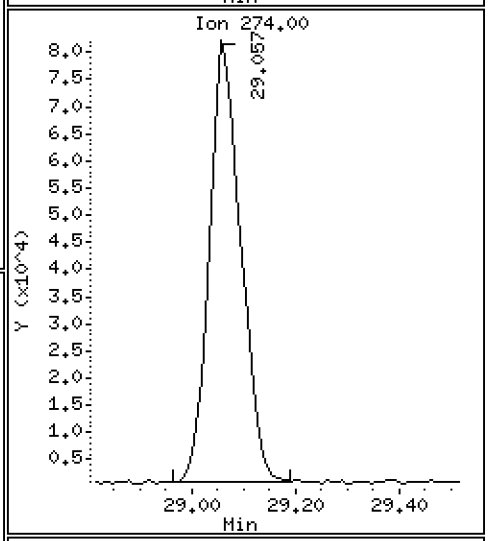


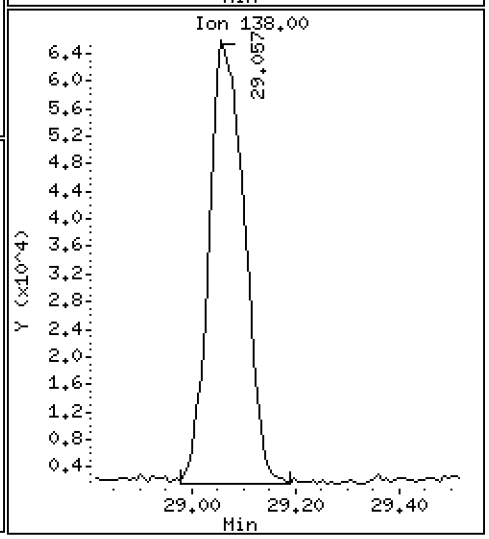












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

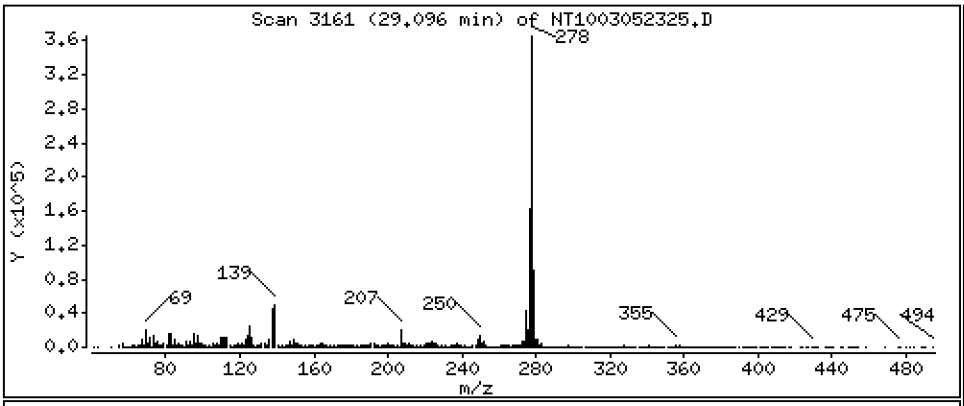
Operator: VTS

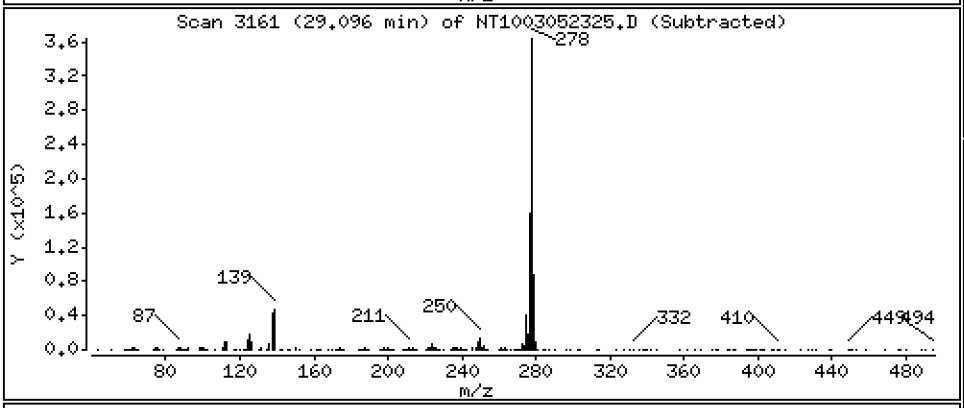
Column phase: ZB-5msi

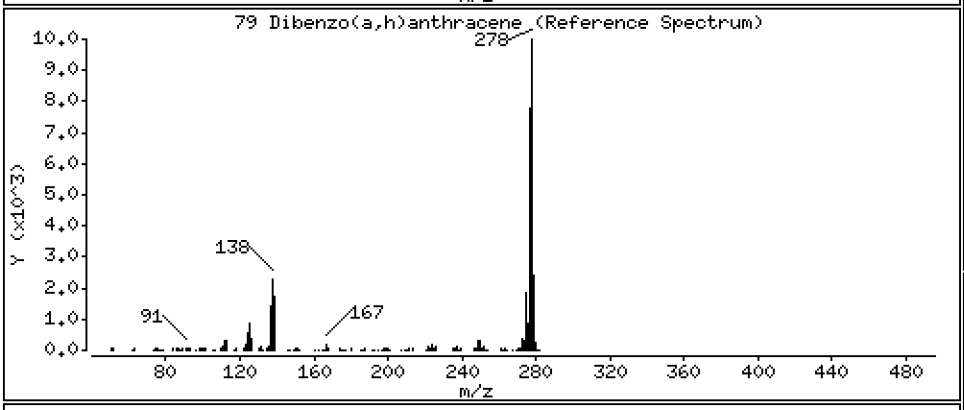
Column diameter: 0.25

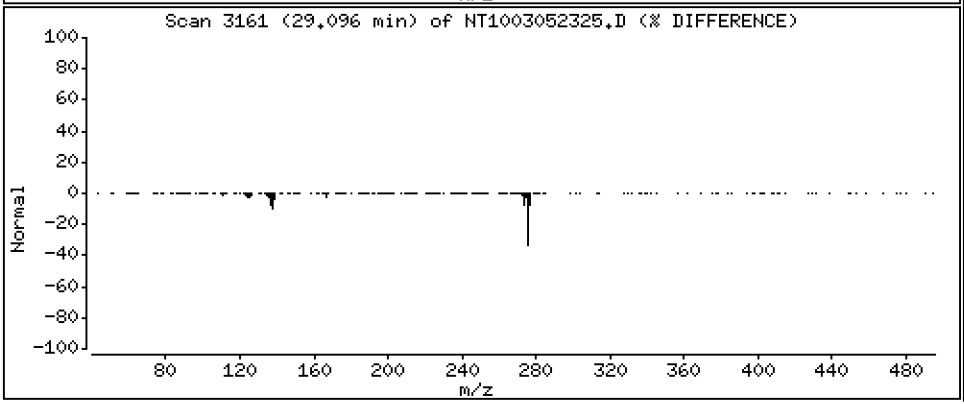
79 Dibenzo(a,h)anthracene

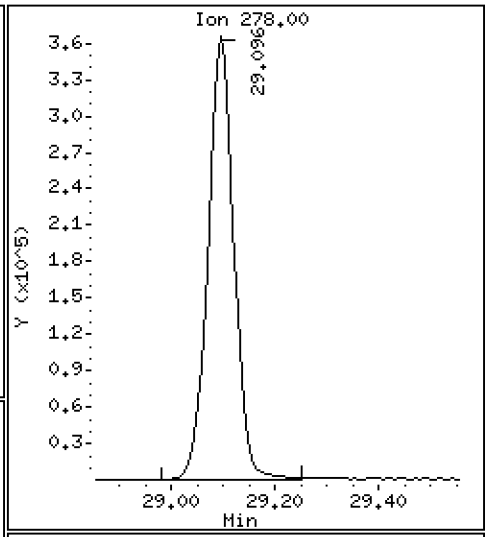
Concentration: 4.953 ug/mL

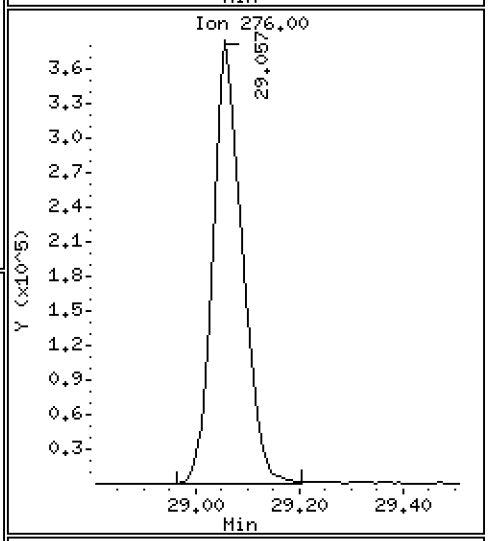


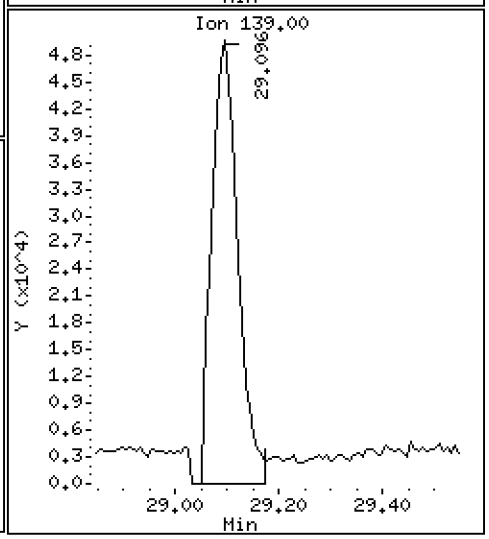












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

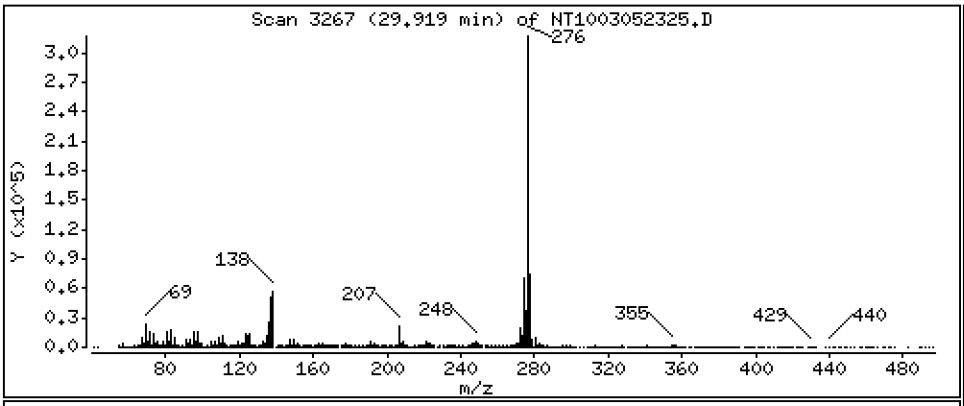
Operator: VTS

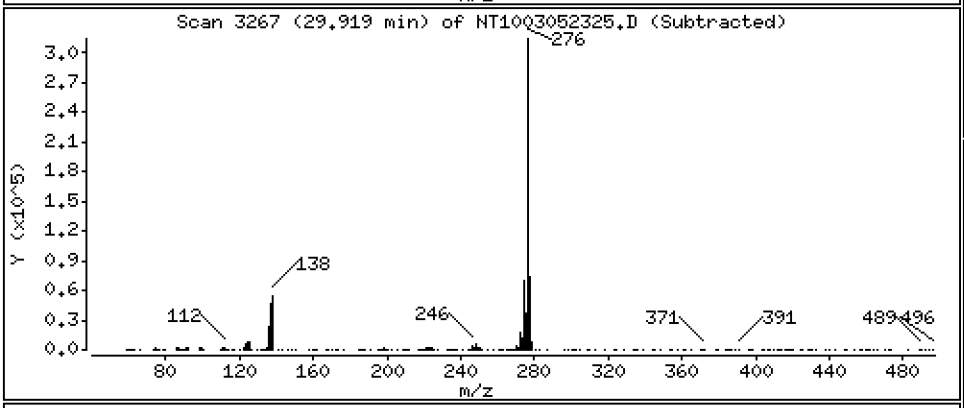
Column phase: ZB-5msi

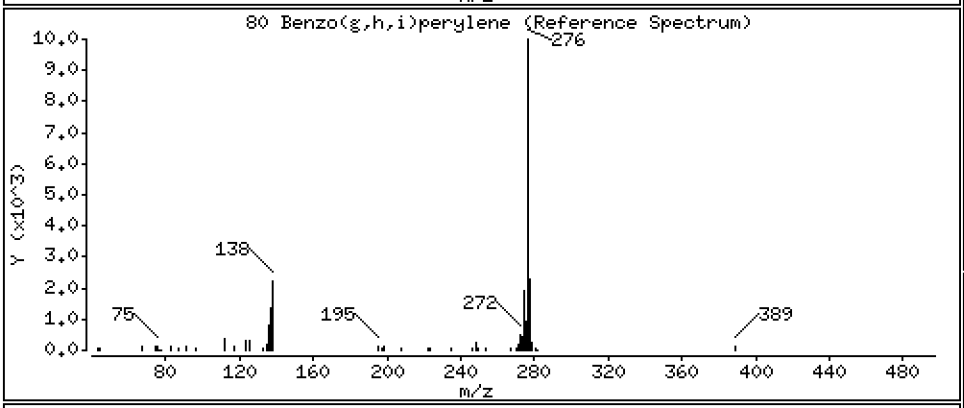
Column diameter: 0.25

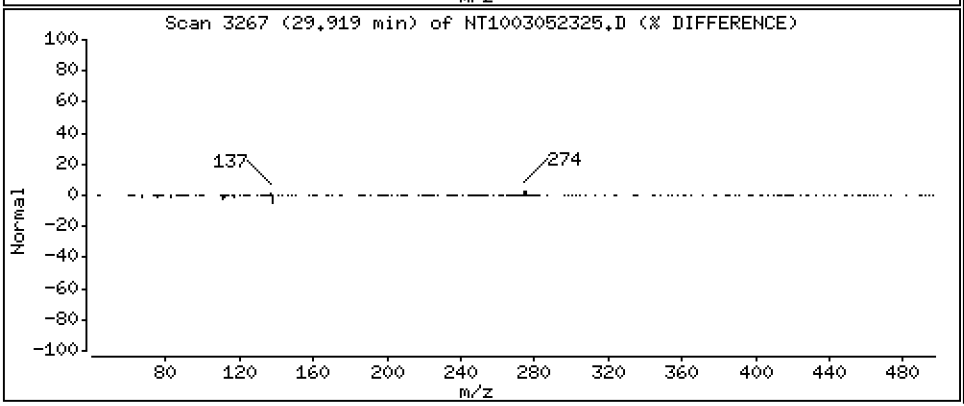
80 Benzo(g,h,i)perylene

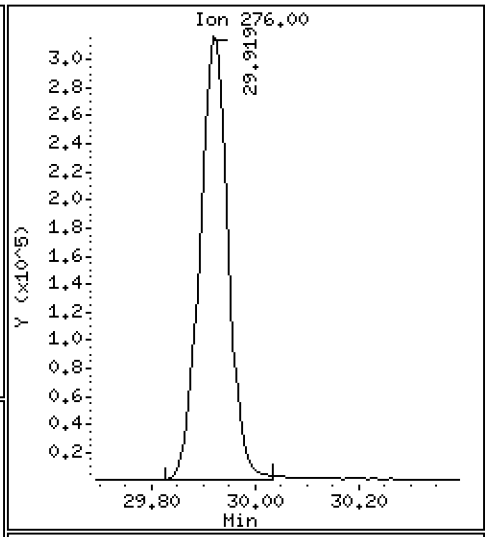
Concentration: 4.585 ug/mL

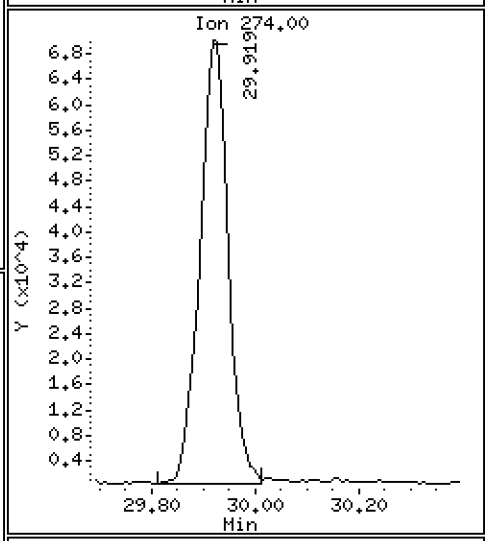


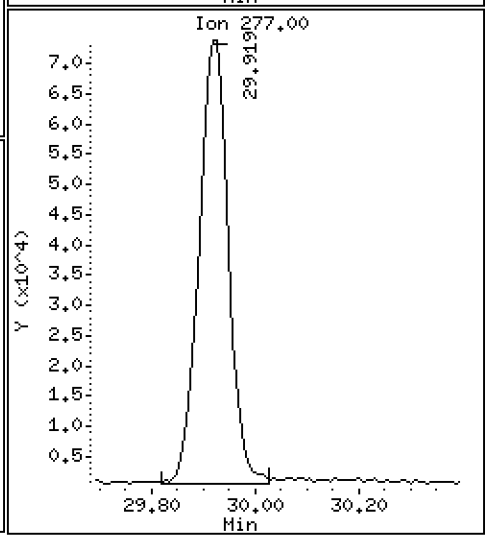












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052325.D

Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

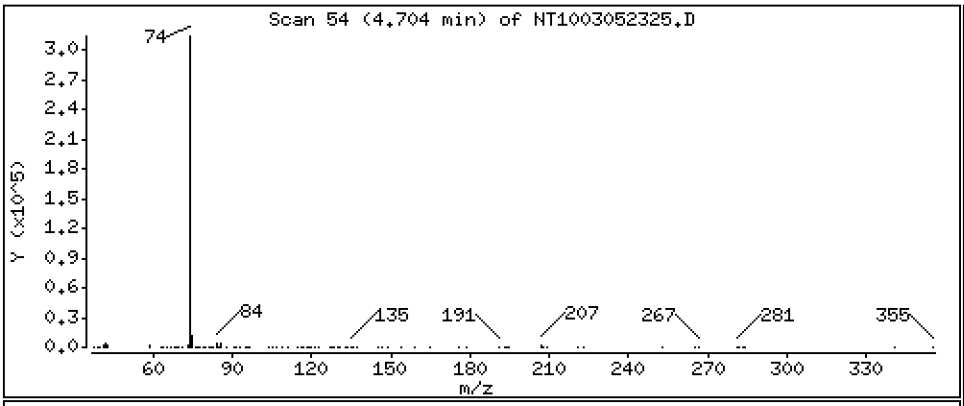
Operator: VTS

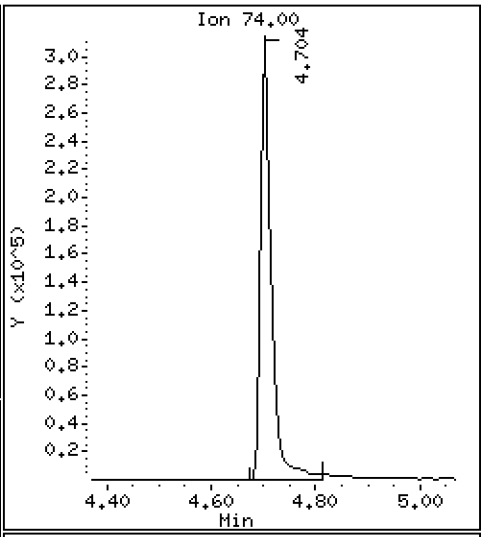
Column phase: ZB-5msi

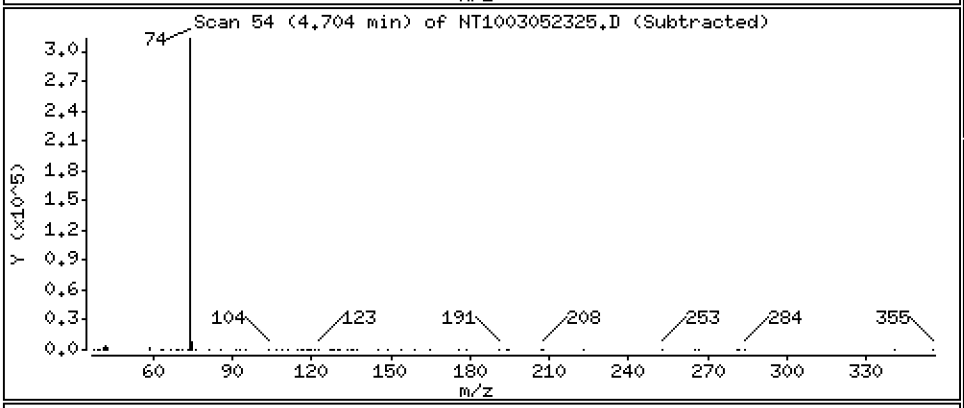
Column diameter: 0.25

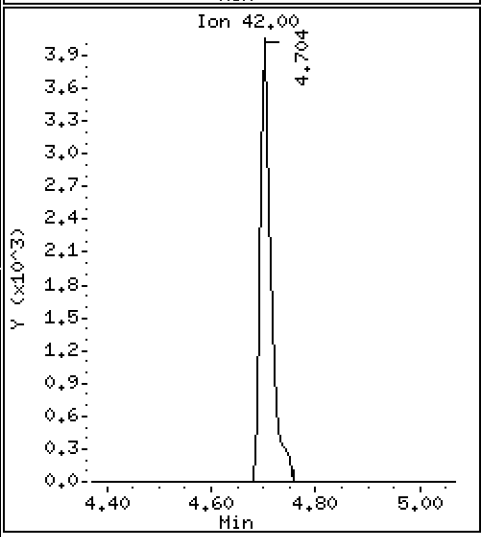
90 N-Nitrosodimethylamine

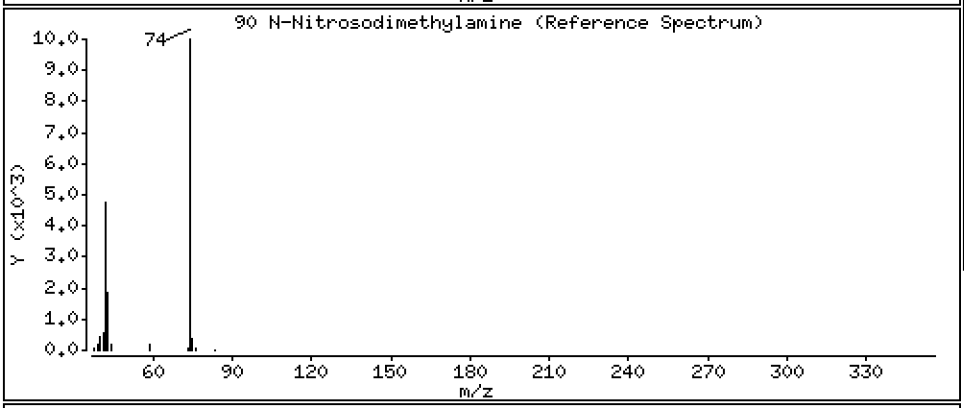
Concentration: 10.09 ug/mL

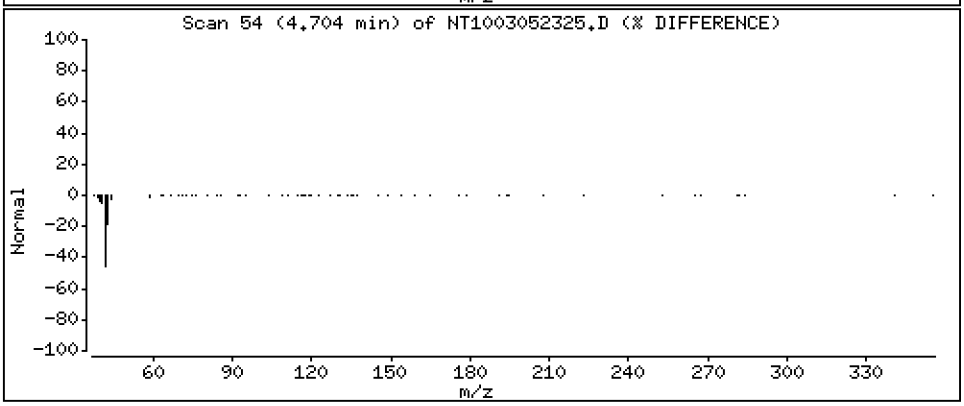












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

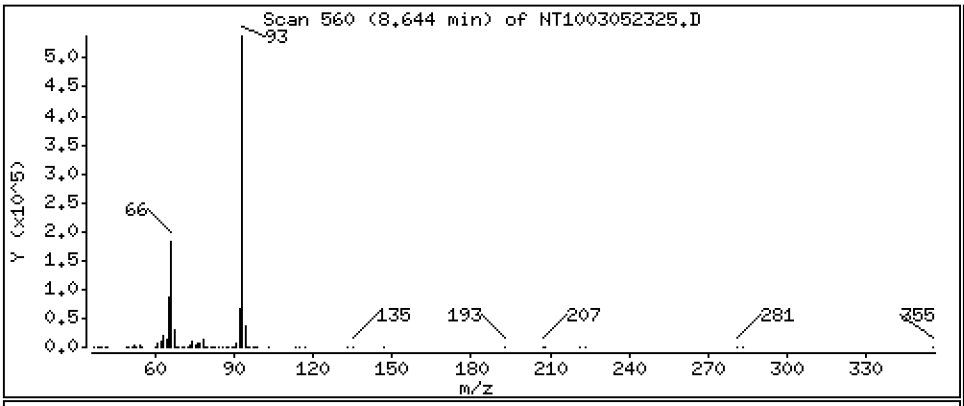
Operator: VTS

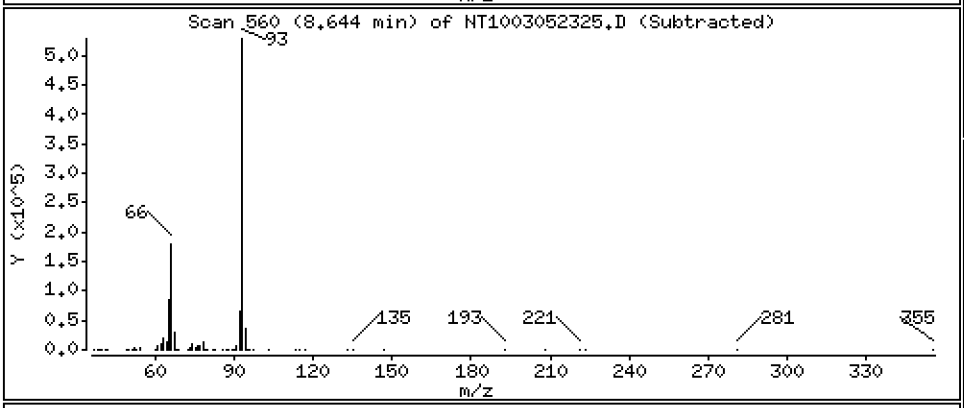
Column phase: ZB-5msi

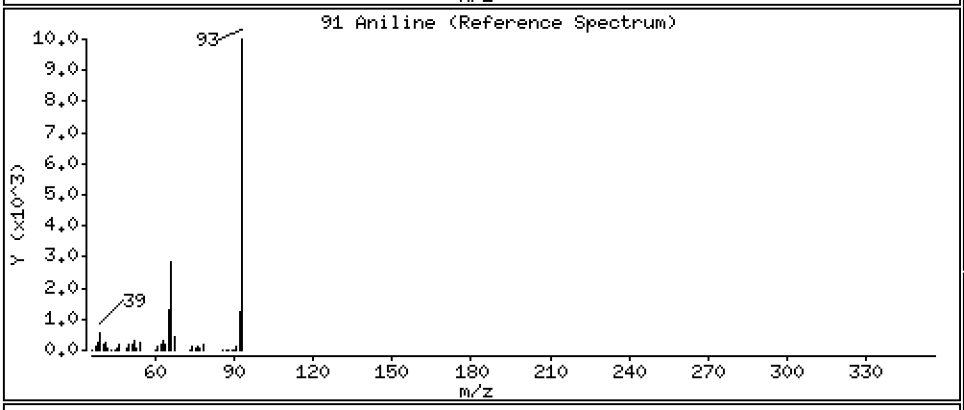
Column diameter: 0.25

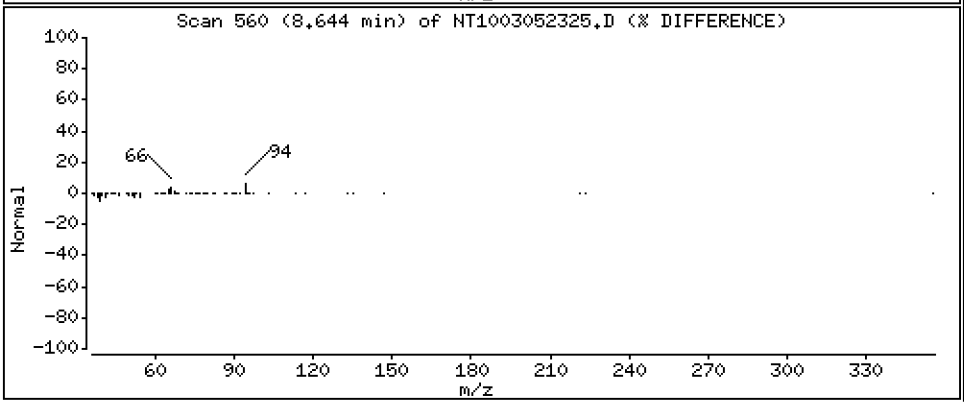
91 Aniline

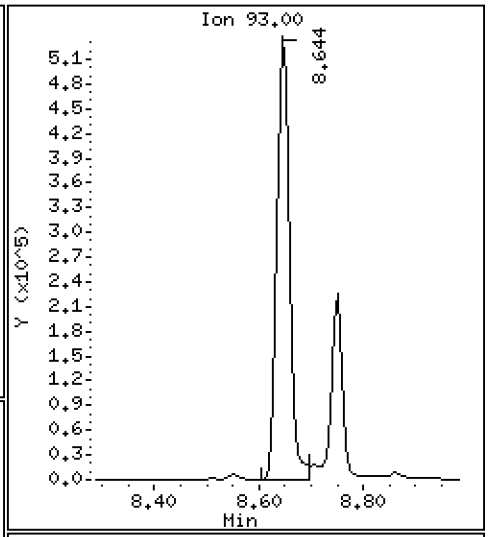
Concentration: 8.982 ug/mL

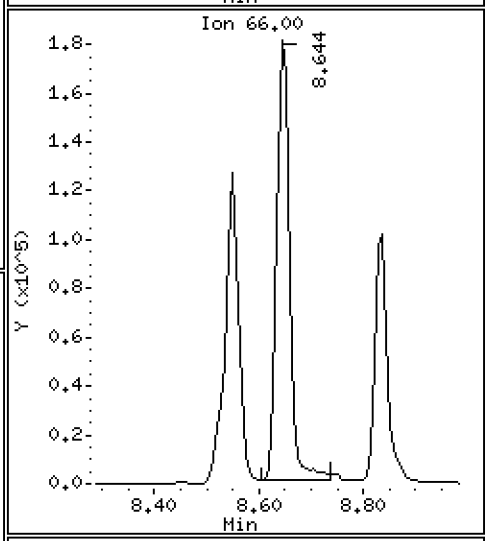


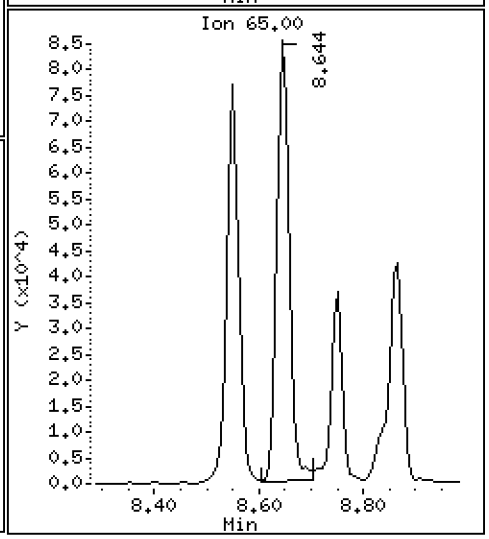












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052325.D

Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

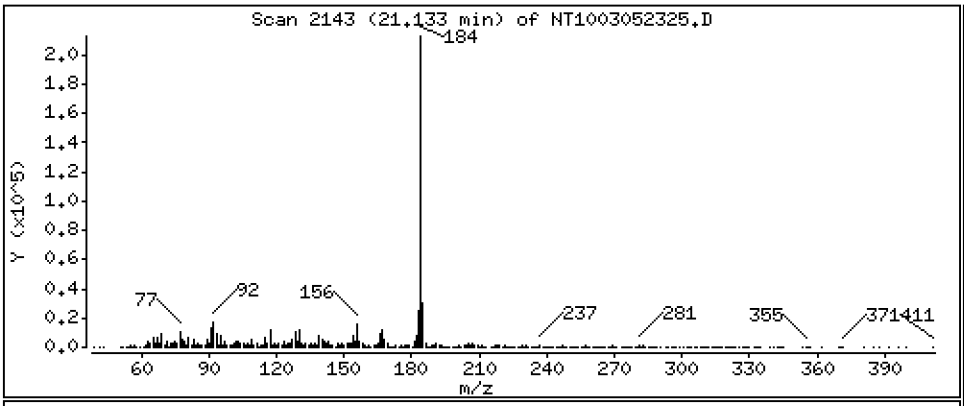
Operator: VTS

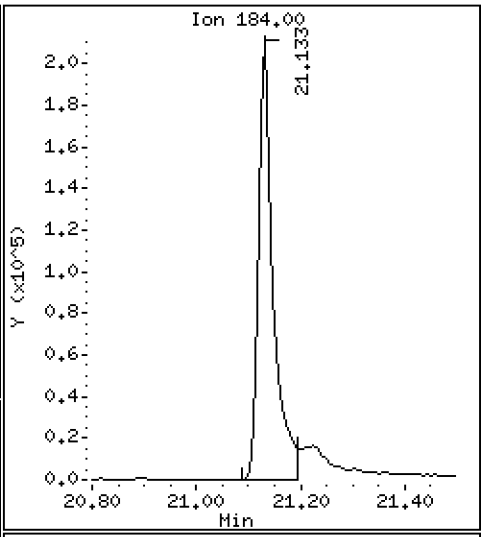
Column phase: ZB-5msi

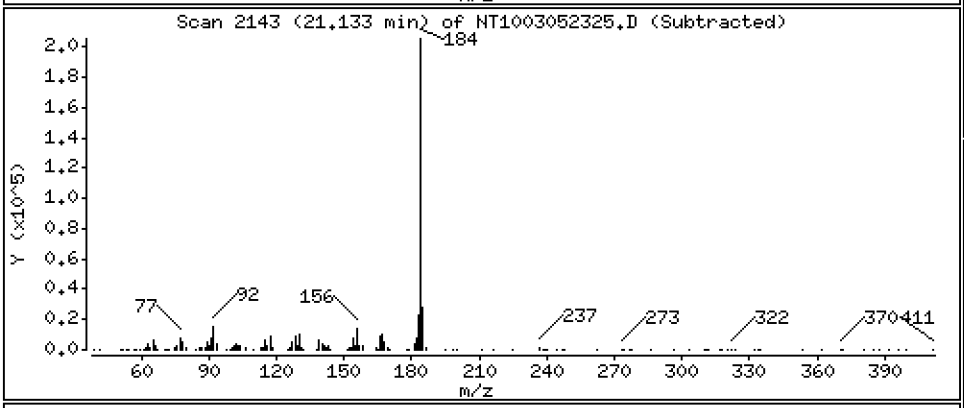
Column diameter: 0.25

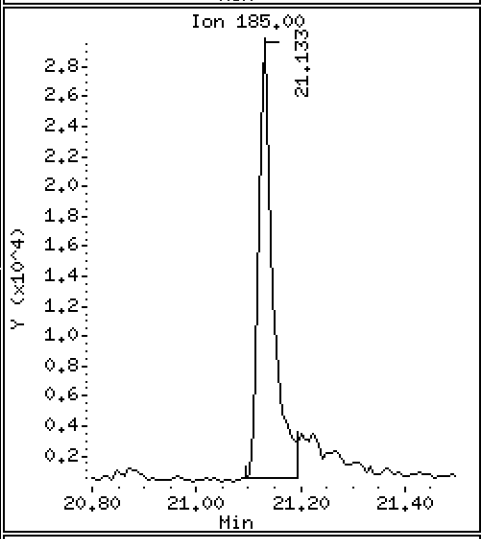
93 Benzidine

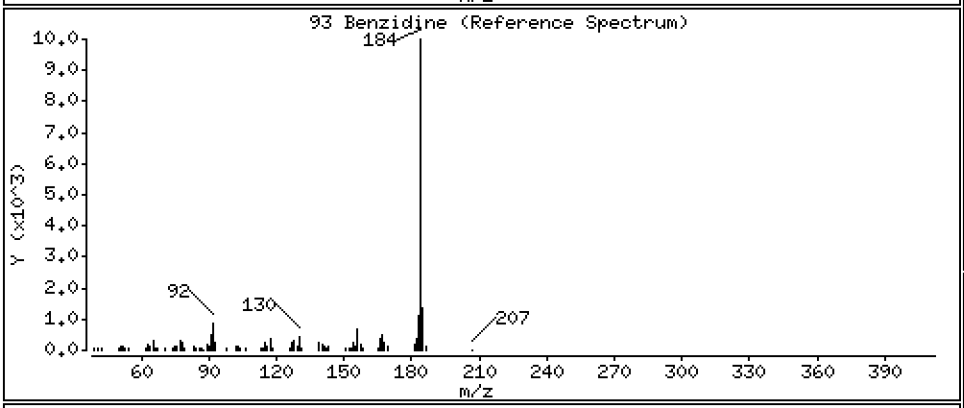
Concentration: 3.308 ug/mL

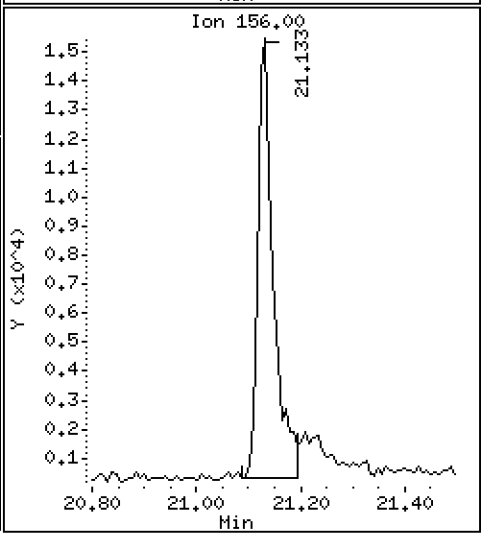


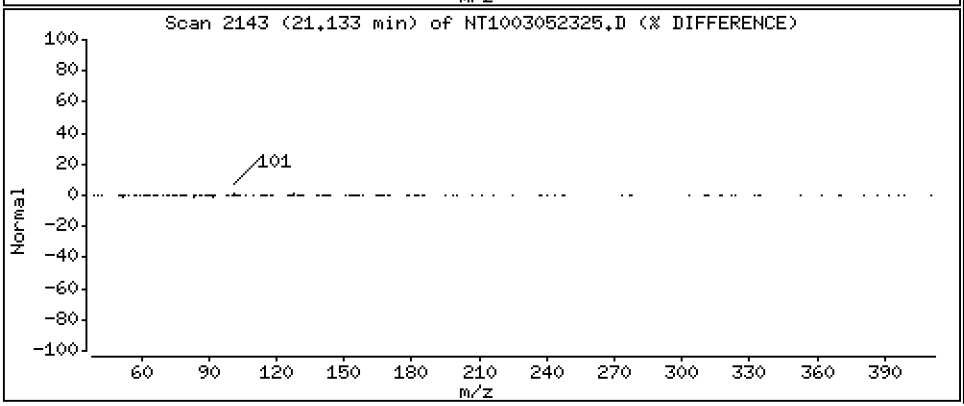












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052325.D

Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

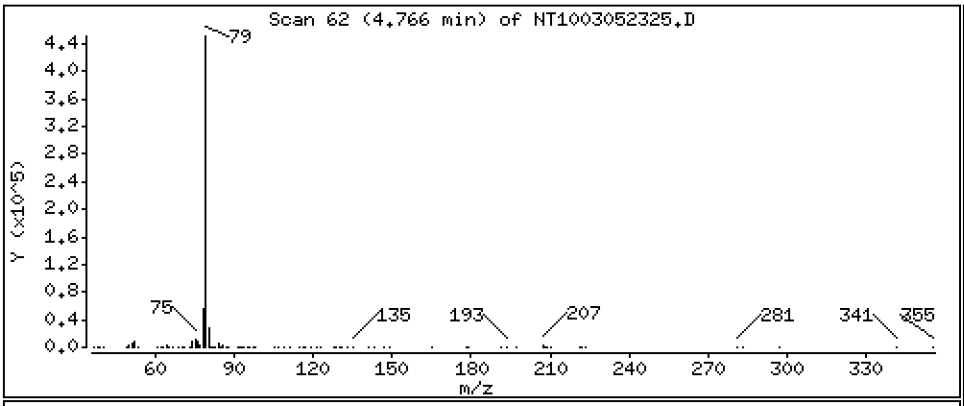
Operator: VTS

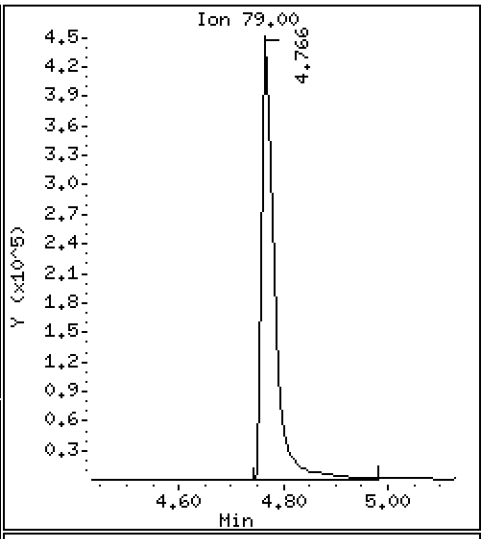
Column phase: ZB-5msi

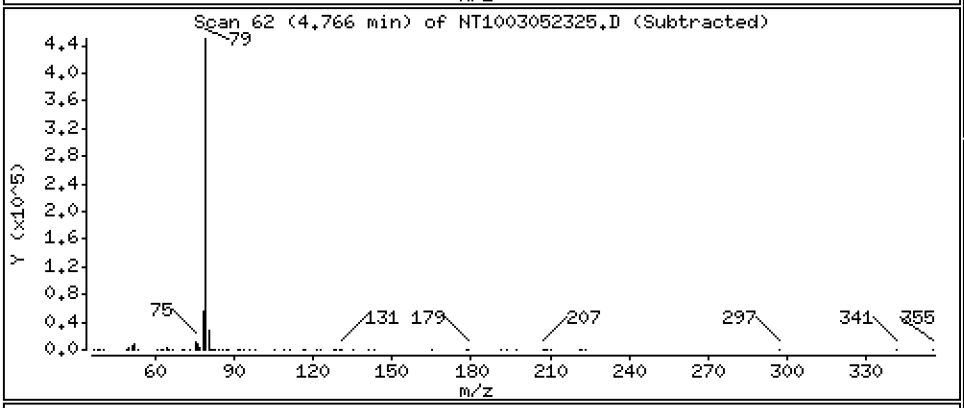
Column diameter: 0.25

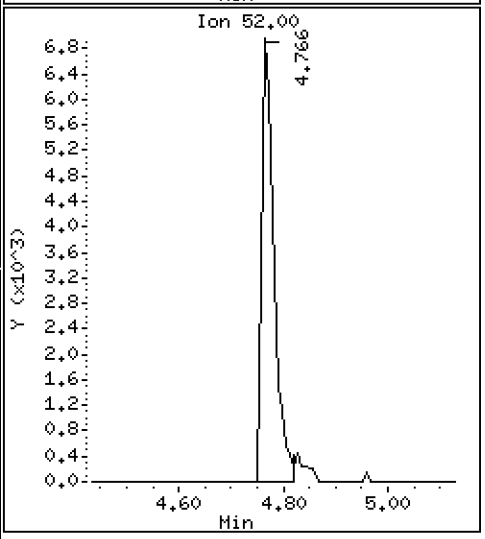
103 Pyridine

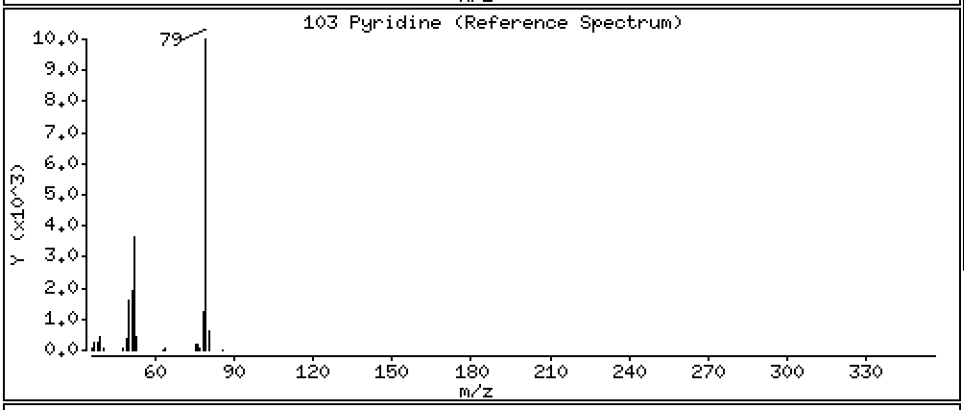
Concentration: 9.701 ug/mL

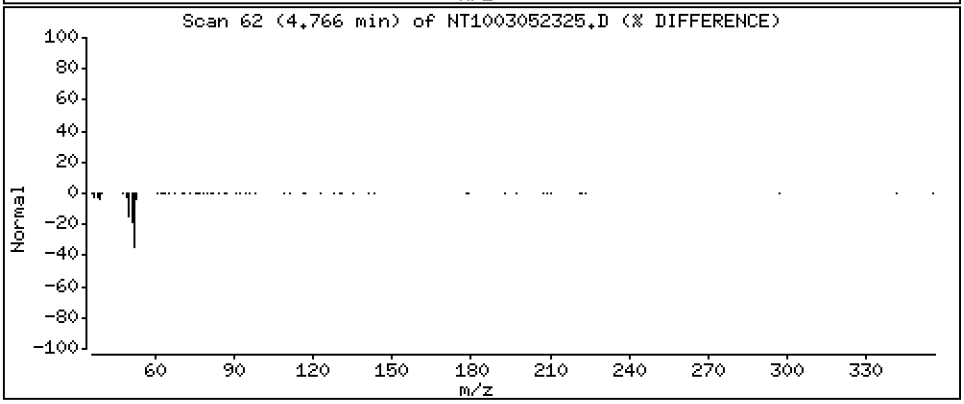












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

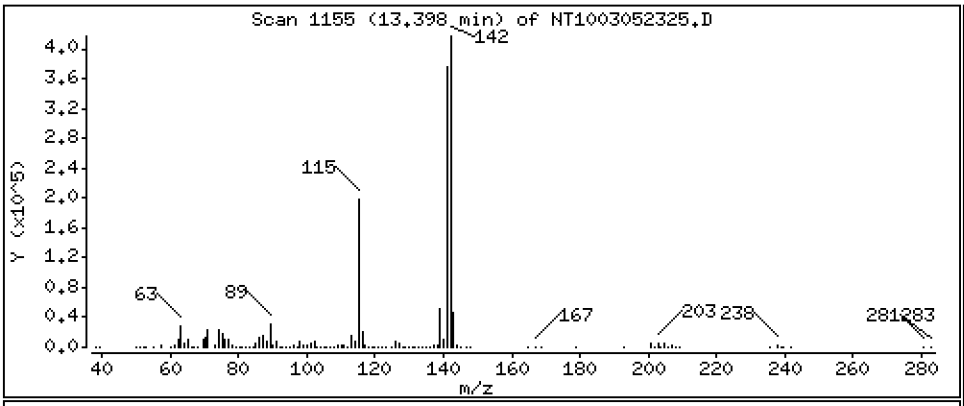
Operator: VTS

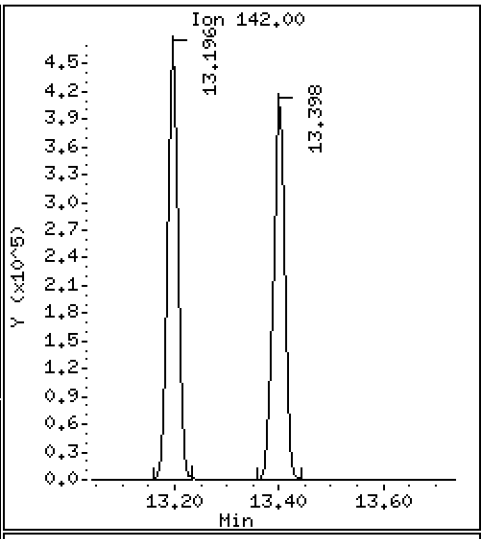
Column phase: ZB-5msi

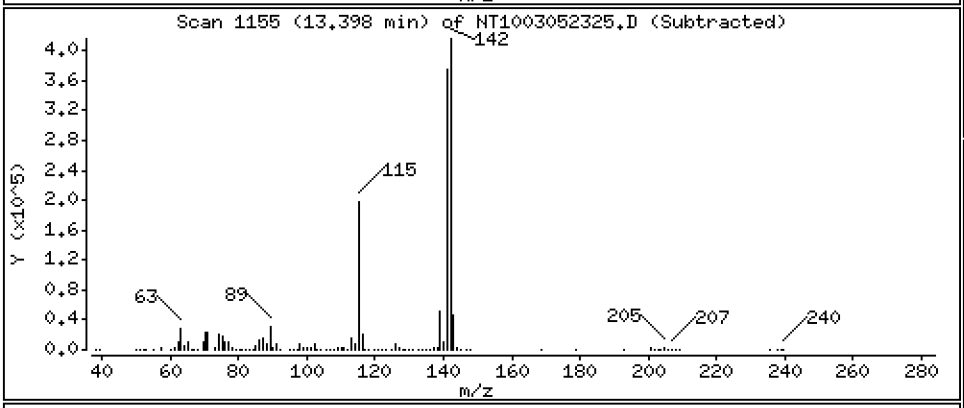
Column diameter: 0.25

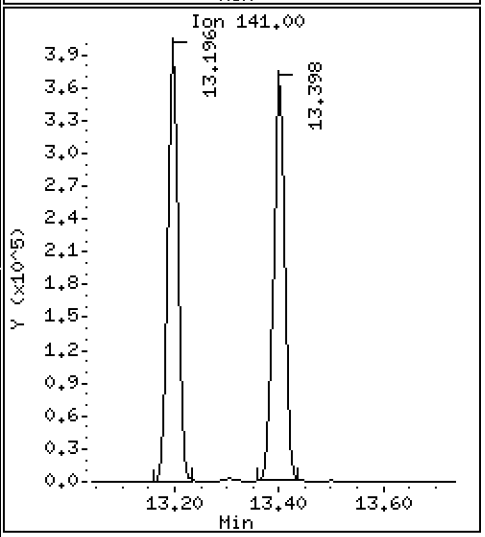
105 1-methylnaphthalene

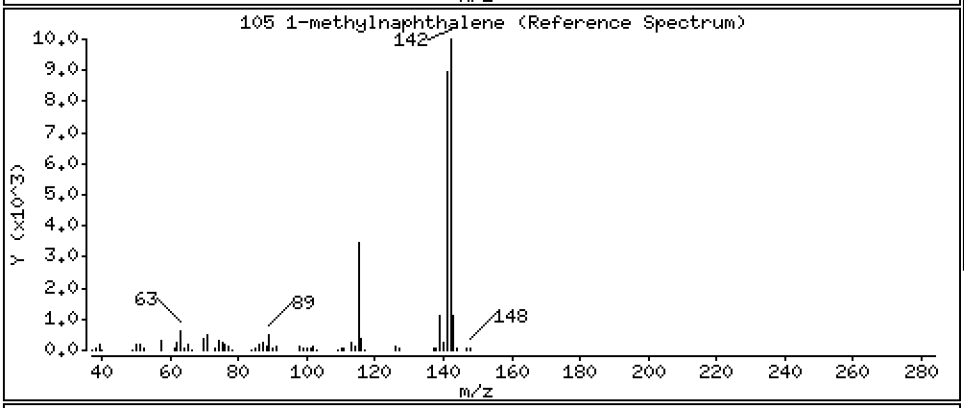
Concentration: 4.999 ug/mL

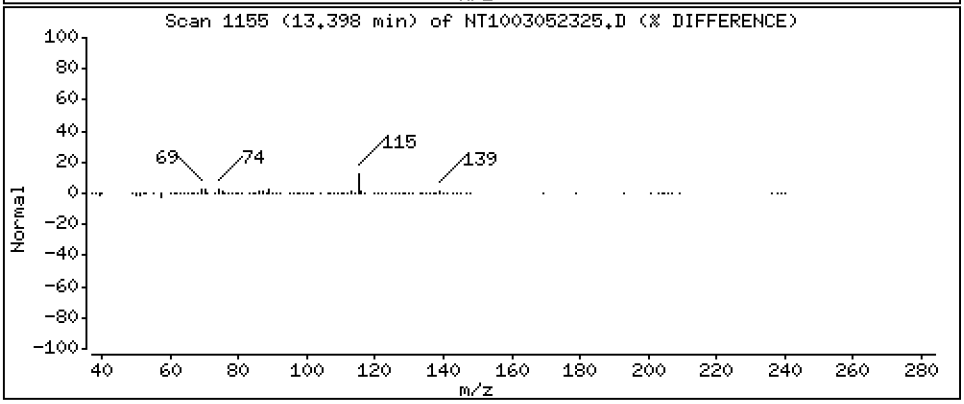












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Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

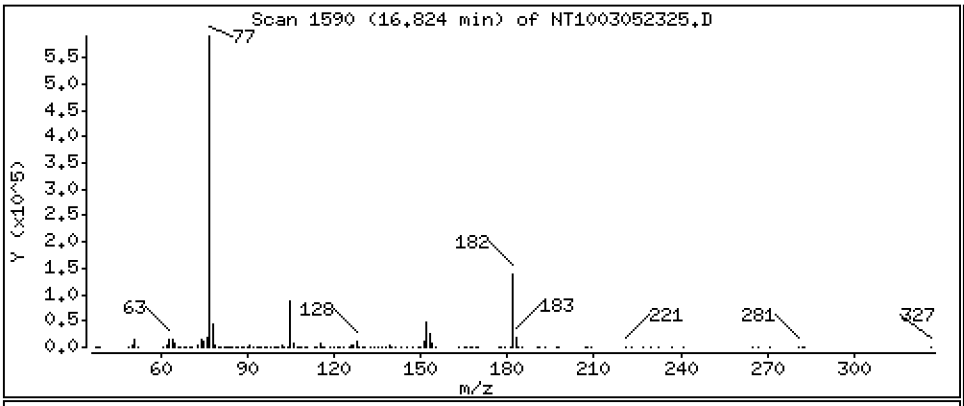
Operator: VTS

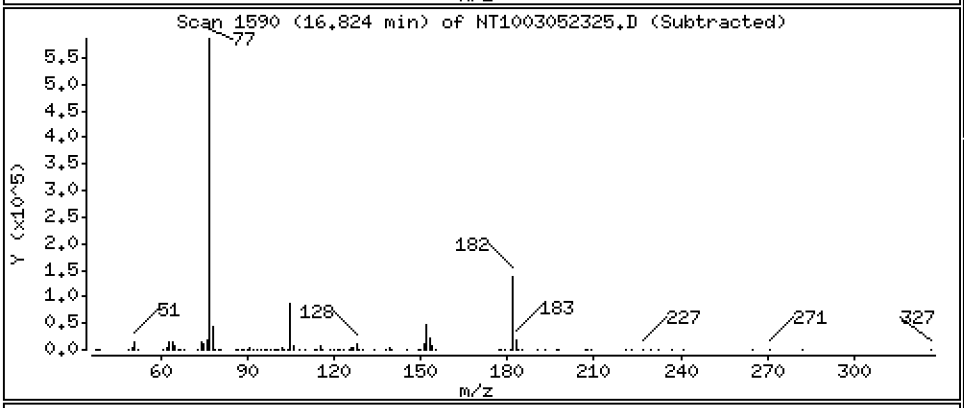
Column phase: ZB-5msi

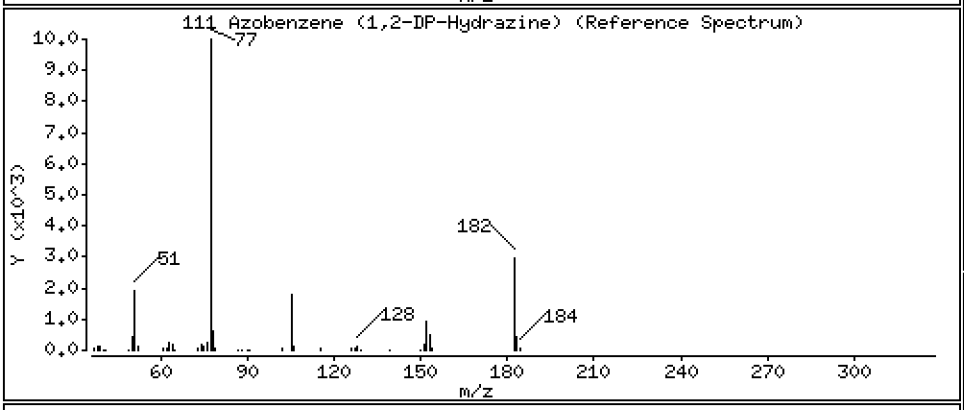
Column diameter: 0.25

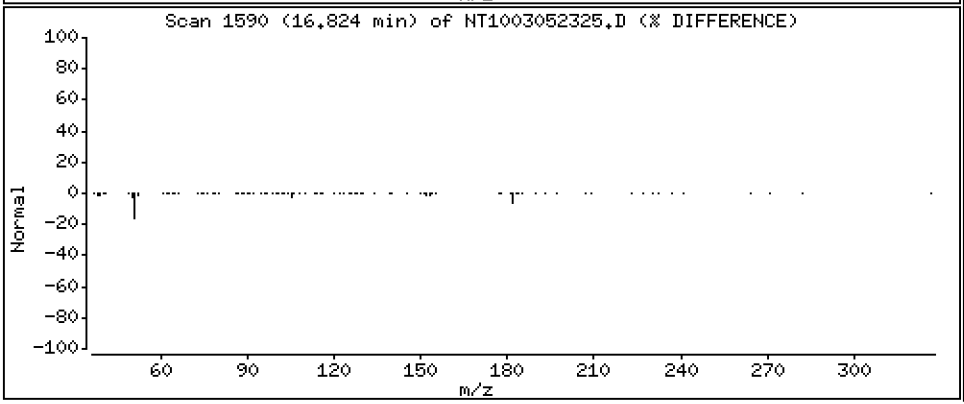
111 Azobenzene (1,2-DP-Hydrazine)

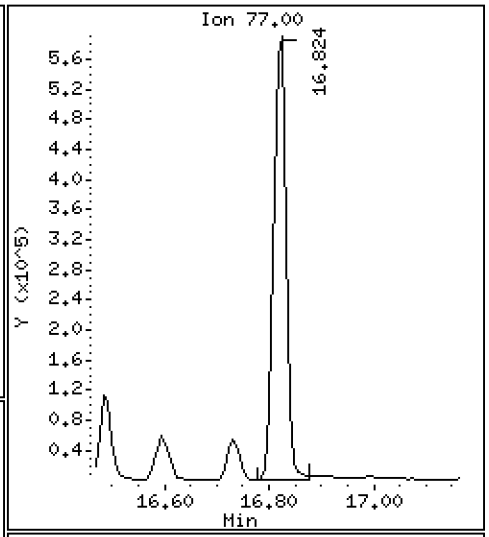
Concentration: 4.464 ug/mL

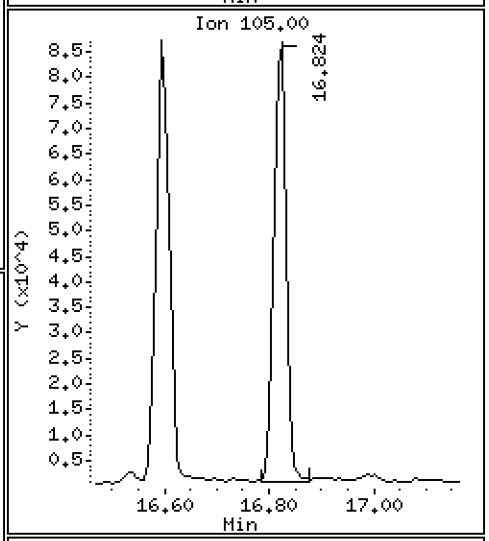


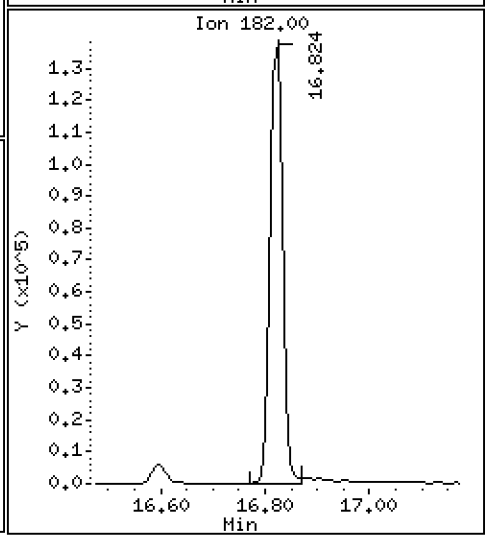












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052325.D

Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

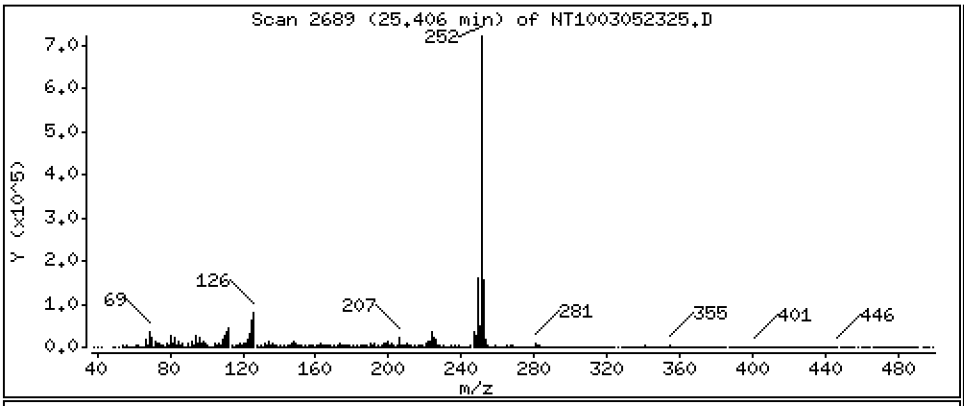
Operator: VTS

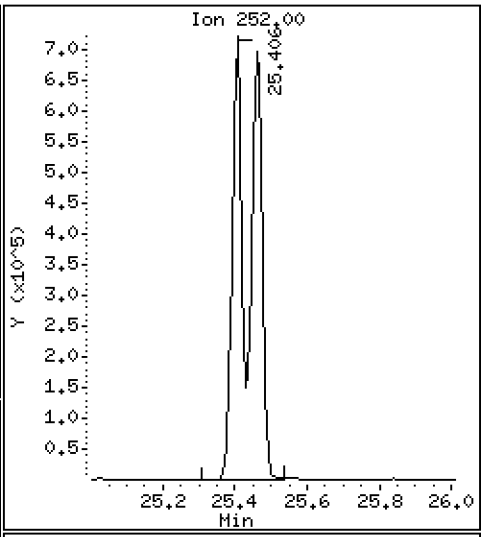
Column phase: ZB-5msi

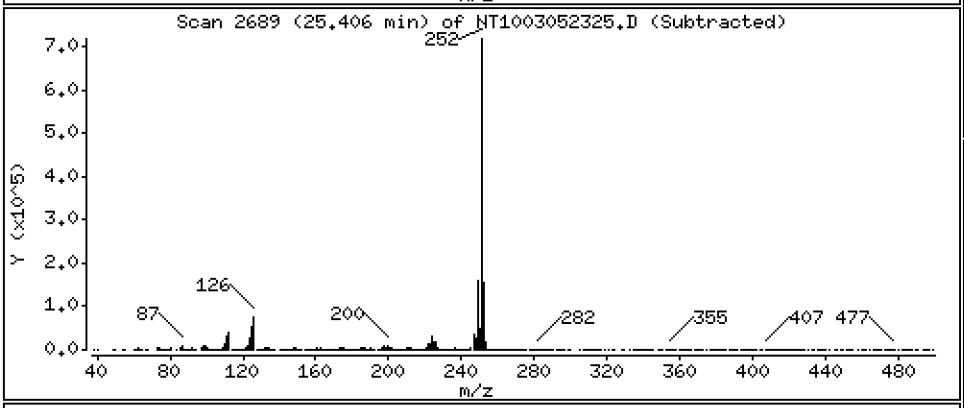
Column diameter: 0.25

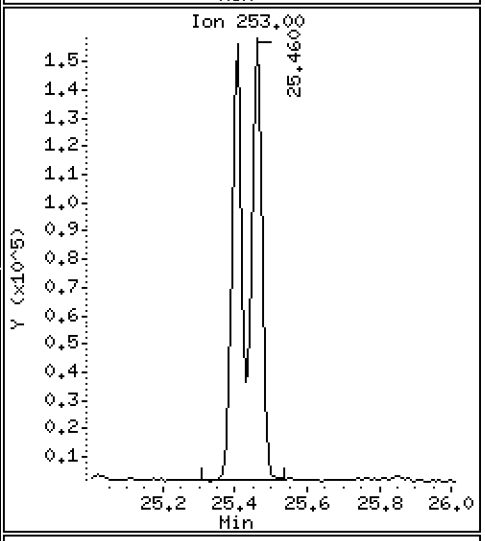
187 Total Benzofluoranthenes

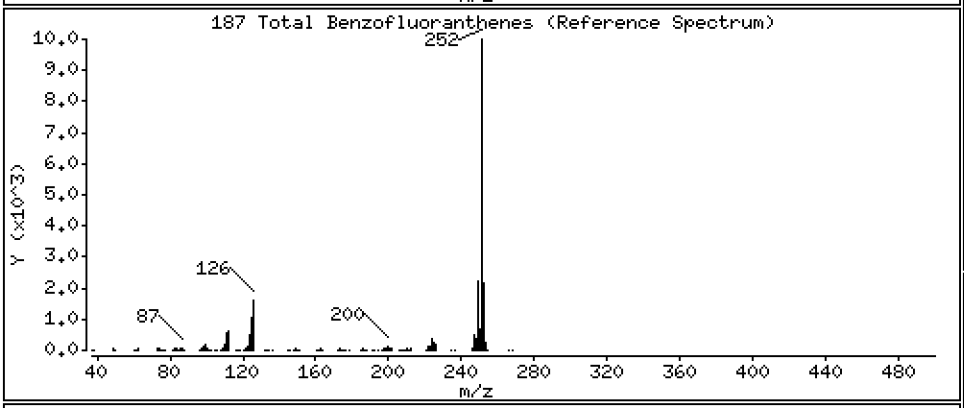
Concentration: 8.901 ug/mL

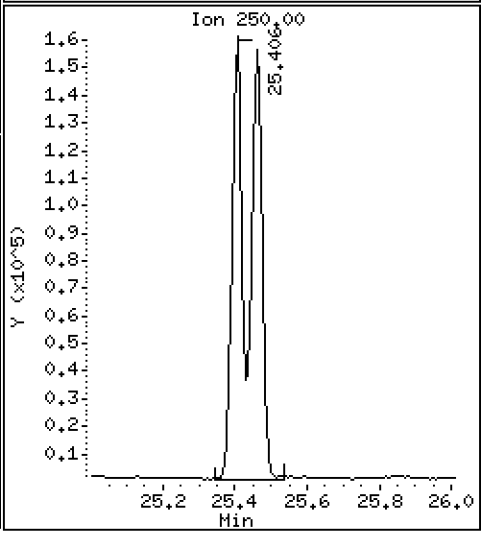


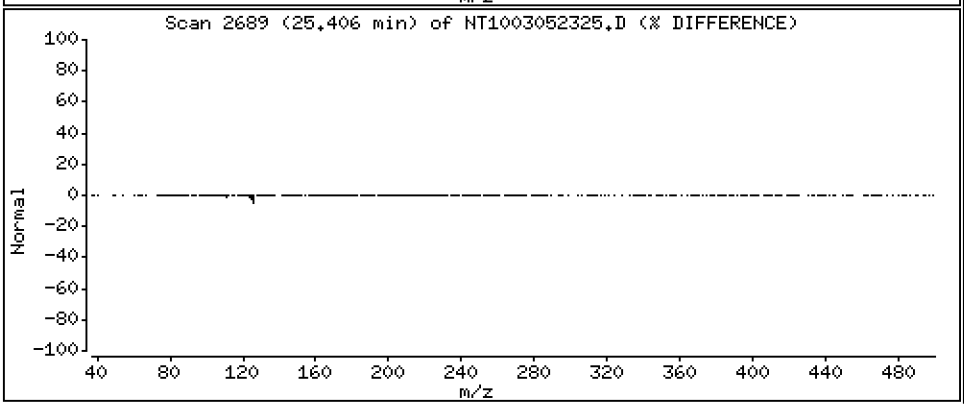












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052325.D

Date : 06-MAR-2023 04:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-CCV1

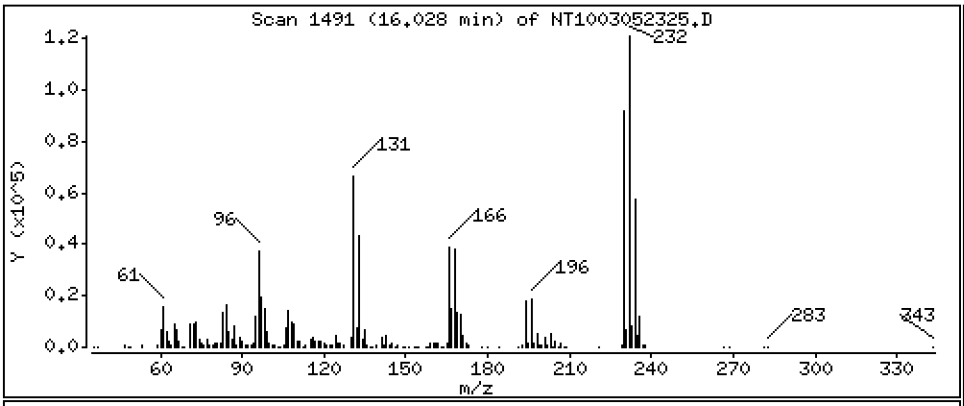
Operator: VTS

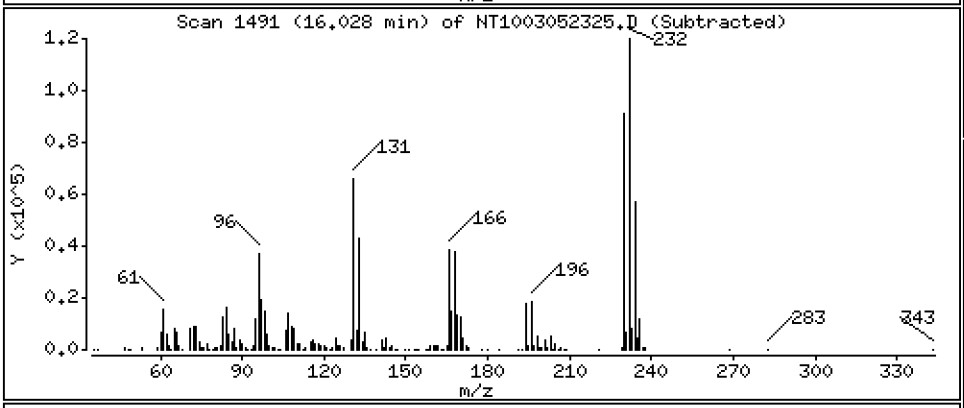
Column phase: ZB-5msi

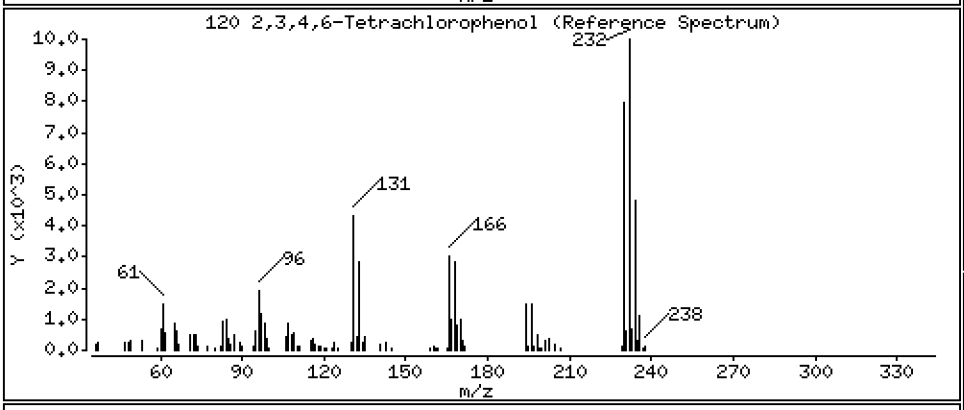
Column diameter: 0.25

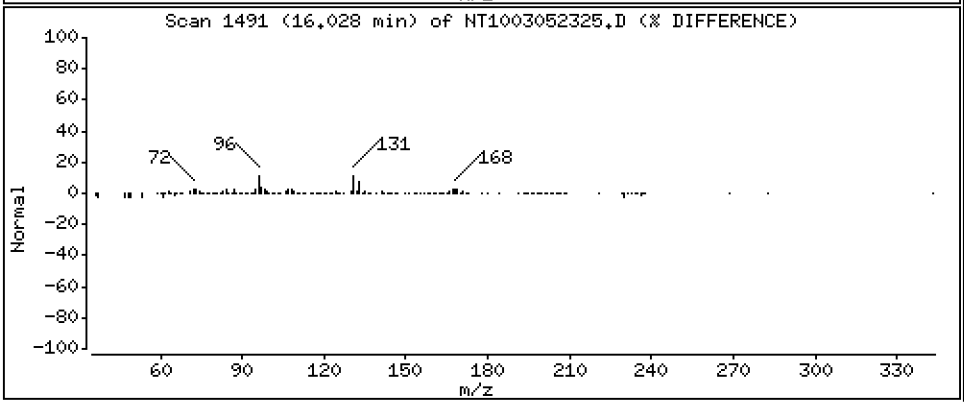
120 2,3,4,6-Tetrachlorophenol

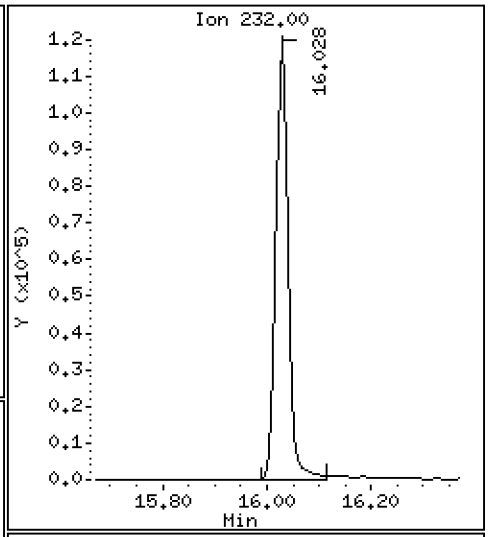
Concentration: 5.133 ug/mL

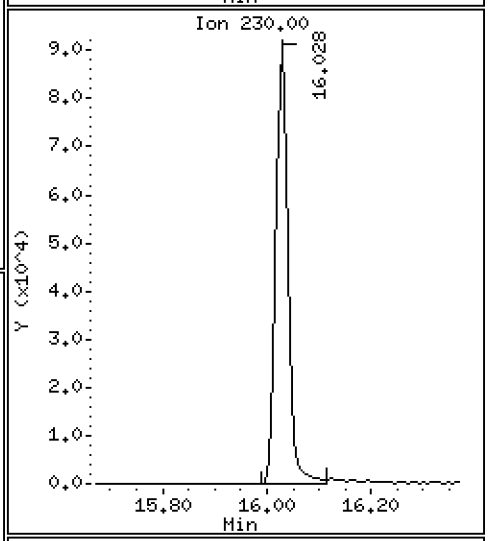


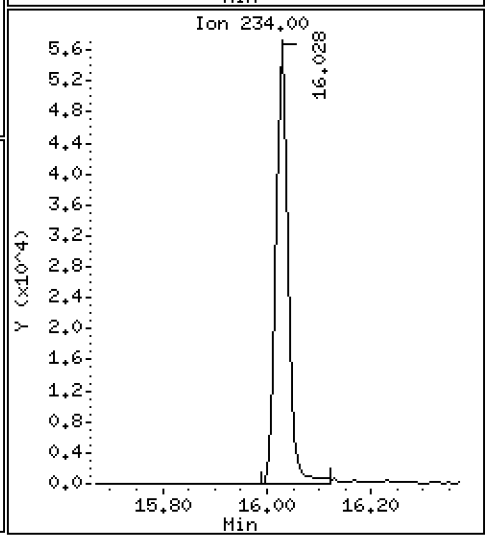












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305A.b\NT1003052325.D
Lab Smp Id: SLC0415-CCV1
Inj Date : 06-MAR-2023 04:32
Operator : VTS Inst ID: nt10.i
Smp Info : SLC0415-CCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Meth Date : 27-Mar-2023 13:49 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.905	6.905	(0.745)	510427	7.58732	7.587
$	2 Phenol-d5	99	8.527	8.512	(0.921)	638582	8.17603	8.176
	3 Phenol	94	8.550	8.535	(0.923)	426906	5.14096	5.141
$	5 2-Chlorophenol-d4	132	8.836	8.821	(0.954)	527911	7.92226	7.922
	4 Bis(2-Chloroethyl)ether	93	8.751	8.736	(0.945)	328403	5.17531	5.175
	6 2-Chlorophenol	128	8.867	8.852	(0.957)	362563	5.23736	5.237
	7 1,3-Dichlorobenzene	146	9.153	9.138	(0.988)	366047	4.79593	4.796
*	8 1,4-Dichlorobenzene-d4	152	9.262	9.247	(1.000)	213820	4.00000	
	9 1,4-Dichlorobenzene	146	9.293	9.286	(1.003)	350249	4.61989	4.620
$	10 1,2-Dichlorobenzene-d4	152	9.557	9.542	(1.032)	238911	4.79880	4.799
	12 1,2-Dichlorobenzene	146	9.580	9.565	(1.034)	339743	4.62986	4.630
	11 Benzyl alcohol	108	9.510	9.487	(1.027)	188659	4.33366	4.334
	14 2,2'-oxybis(1-Chloropropane)	121	9.751	9.736	(1.053)	106563	5.03706	5.037(M)
	13 2-Methylphenol	108	9.697	9.674	(1.047)	316228	4.80716	4.807
	17 Hexachloroethane	117	10.232	10.217	(1.105)	131659	4.23093	4.231
	16 N-Nitroso-di-n-propylamine	70	10.007	9.984	(1.080)	257585	5.14047	5.140
	15 4-Methylphenol	108	9.984	9.961	(1.078)	332164	4.15857	4.159
$	18 Nitrobenzene-d5	82	10.325	10.302	(0.878)	452707	5.45496	5.455
	19 Nitrobenzene	77	10.364	10.341	(0.882)	407518	5.23474	5.235
	20 Isophorone	82	10.822	10.807	(0.920)	557077	5.60588	5.606
	21 2-Nitrophenol	139	10.984	10.967	(0.934)	182875	4.35726	4.357
	22 2,4-Dimethylphenol	107	11.043	11.018	(0.939)	684831	8.99201	8.992(H)
	23 Bis(2-Chloroethoxy)methane	93	11.247	11.222	(0.957)	312842	5.09422	5.094
	24 Benzoic acid	105	11.221	11.205	(0.954)	499371	11.0471	11.05
	25 2,4-Dichlorophenol	162	11.459	11.434	(0.975)	664679	10.9983	11.00
	26 1,2,4-Trichlorobenzene	180	11.633	11.610	(0.989)	299307	5.12292	5.123
*	27 Naphthalene-d8	136	11.757	11.734	(1.000)	756023	4.00000	
	28 Naphthalene	128	11.803	11.780	(1.004)	922559	4.75440	4.754
	29 4-Chloroaniline	127	11.896	11.881	(1.012)	737596	8.44427	8.444
	30 Hexachlorobutadiene	225	12.020	12.004	(1.022)	196611	4.62162	4.622
	31 4-Chloro-3-methylphenol	107	12.855	12.840	(1.093)	620256	9.66036	9.660
	32 2-Methylnaphthalene	142	13.196	13.181	(1.122)	683176	4.98369	4.984
	33 Hexachlorocyclopentadiene	237	13.498	13.482	(0.879)	5211	0.38360	0.3836

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	13.769	13.753	(0.897)	425340	10.3934	10.39
	35	2,4,5-Trichlorophenol	196	13.846	13.831	(0.902)	454938	10.3893	10.39
$	36	2-Fluorobiphenyl	172	13.939	13.931	(0.908)	745409	5.07864	5.079
	37	2-Chloronaphthalene	162	14.202	14.194	(0.925)	603674	5.23928	5.239
	38	2-Nitroaniline	65	14.411	14.403	(0.939)	351662	10.7571	10.76
	39	Dimethylphthalate	163	14.775	14.767	(0.963)	632468	4.75925	4.759
	40	Acenaphthylene	152	15.061	15.054	(0.981)	1087765	5.47597	5.476
	41	2,6-Dinitrotoluene	165	14.914	14.907	(0.972)	299253	9.93349	9.933
*	42	Acenaphthene-d10	164	15.347	15.340	(1.000)	411497	4.00000	
	43	3-Nitroaniline	138	15.262	15.255	(0.994)	308338	9.20060	9.201
	44	Acenaphthene	153	15.417	15.409	(1.005)	559974	4.67426	4.674
	45	2,4-Dinitrophenol	184	15.486	15.479	(1.009)	112034	13.9588	13.96
	46	Dibenzofuran	168	15.780	15.773	(1.028)	891010	5.01130	5.011
	47	4-Nitrophenol	109	15.610	15.595	(1.017)	187589	7.78627	7.786
	48	2,4-Dinitrotoluene	165	15.749	15.749	(1.026)	434240	9.88632	9.886
	50	Diethylphthalate	149	16.244	16.244	(1.058)	649229	4.61159	4.612
	49	Fluorene	166	16.492	16.492	(1.075)	710545	4.80320	4.803
	51	4-Chlorophenyl-phenylether	204	16.492	16.484	(1.075)	332625	4.91100	4.911
	52	4-Nitroaniline	138	16.538	16.531	(1.078)	303151	8.41539	8.415
	53	4,6-Dinitro-2-methylphenol	198	16.592	16.593	(0.899)	292545	16.0222	16.02
	54	N-Nitrosodiphenylamine	169	16.731	16.731	(0.907)	567880	5.15607	5.156
$	55	2,4,6-Tribromophenol	330	16.993	16.994	(1.107)	197479	7.41250	7.413
	56	4-Bromophenyl-phenylether	248	17.511	17.511	(0.949)	259346	5.81133	5.811
	57	Hexachlorobenzene	284	17.627	17.627	(0.955)	283058	5.63246	5.632
	58	Pentachlorophenol	266	18.045	18.045	(0.978)	102176	4.30552	4.306
*	59	Phenanthrene-d10	188	18.455	18.455	(1.000)	744396	4.00000	
	60	Phenanthrene	178	18.502	18.509	(1.002)	938426	4.92600	4.926
	61	Anthracene	178	18.610	18.618	(1.008)	981635	5.31400	5.314
	62	Carbazole	167	18.943	18.950	(1.026)	867609	5.12678	5.127
	63	Di-n-butylphthalate	149	19.631	19.647	(1.064)	1184741	4.97834	4.978
	64	Fluoranthene	202	20.877	20.892	(0.889)	1159524	4.09551	4.096
	65	Pyrene	202	21.310	21.326	(0.907)	1221383	4.23665	4.237
$	66	Terphenyl-d14	244	21.581	21.604	(0.919)	1039383	4.45576	4.456
	67	Butylbenzylphthalate	149	22.464	22.495	(0.956)	556579	3.63553	3.636
	68	Benzo(a)anthracene	228	23.478	23.501	(0.999)	1364901	4.70341	4.703
*	69	Chrysene-d12	240	23.494	23.517	(1.000)	823005	4.00000	
	70	3,3'-Dichlorobenzidine	252	23.416	23.447	(0.997)	1458047	11.1246	11.12
	71	Chrysene	228	23.540	23.563	(1.002)	1222271	5.18258	5.183
	72	bis(2-Ethylhexyl)phthalate	149	23.463	23.494	(0.956)	894991	4.59459	4.595
*	134	Di-n-octylphthalate-d4	153	24.554	24.593	(1.000)	1350476	4.00000	
	73	Di-n-octylphthalate	149	24.562	24.601	(1.000)	1534343	5.12353	5.124
	74	Benzo(b)fluoranthene	252	25.406	25.452	(0.969)	1361439	4.26582	4.266
	75	Benzo(k)fluoranthene	252	25.460	25.507	(0.971)	1434523	4.64114	4.641
	76	Benzo(a)pyrene	252	26.103	26.157	(0.995)	1278494	4.47172	4.472
*	77	Perylene-d12	264	26.227	26.289	(1.000)	894064	4.00000	
	78	Indeno(1,2,3-cd)pyrene	276	29.057	29.158	(1.108)	1514840	4.53147	4.531
	79	Dibenzo(a,h)anthracene	278	29.095	29.204	(1.109)	1269873	4.95266	4.953
	80	Benzo(g,h,i)perylene	276	29.919	30.043	(1.141)	1211385	4.58514	4.585
	90	N-Nitrosodimethylamine	74	4.704	4.719	(0.508)	438193	10.0898	10.09
	91	Aniline	93	8.643	8.636	(0.933)	864851	8.98235	8.982
	93	Benzidine	184	21.132	21.148	(0.899)	415797	3.30826	3.308
	103	Pyridine	79	4.766	4.781	(0.515)	747172	9.70095	9.701
	105	1-methylnaphthalene	142	13.397	13.390	(1.139)	620266	4.99923	4.999
	111	Azobenzene (1,2-DP-Hydrazine)	77	16.824	16.816	(1.096)	938445	4.46389	4.464

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.406	25.507	(0.969)	2737448	8.90119	8.901
120 2,3,4,6-Tetrachlorophenol	232	16.028	16.020	(1.044)	209811	5.13319	5.133

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052325.D
Lab Smp Id: SLC0415-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 21:38
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	264922	132461	529844	213820	-19.29
27 Naphthalene-d8	947542	473771	1895084	756023	-20.21
42 Acenaphthene-d10	505666	252833	1011332	411497	-18.62
59 Phenanthrene-d10	940283	470142	1880566	744396	-20.83
69 Chrysene-d12	987952	493976	1975904	823005	-16.70
134 Di-n-octylphthala	1625017	812509	3250034	1350476	-16.89
77 Perylene-d12	1073798	536899	2147596	894064	-16.74

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.26	0.17
27 Naphthalene-d8	11.73	11.23	12.23	11.76	0.20
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.46	17.96	18.96	18.46	-0.00
69 Chrysene-d12	23.52	23.02	24.02	23.49	-0.10
134 Di-n-octylphthala	24.59	24.09	25.09	24.55	-0.16
77 Perylene-d12	26.29	25.79	26.79	26.23	-0.24

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052325.D

Lab ID: SLC0415-CCV1
nt10.i, 20230305A.b\ABN.m,   06-MAR-2023 04:32

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

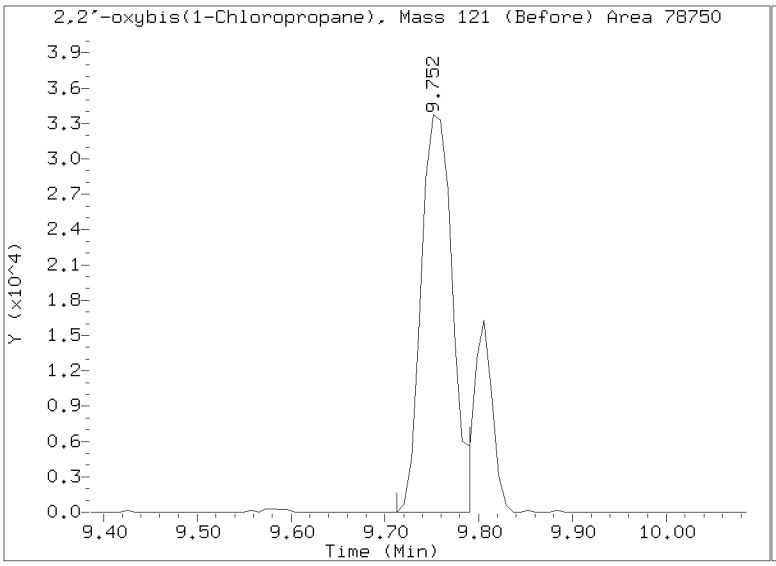
RRT check based on Ccal File: NT1003052314.D

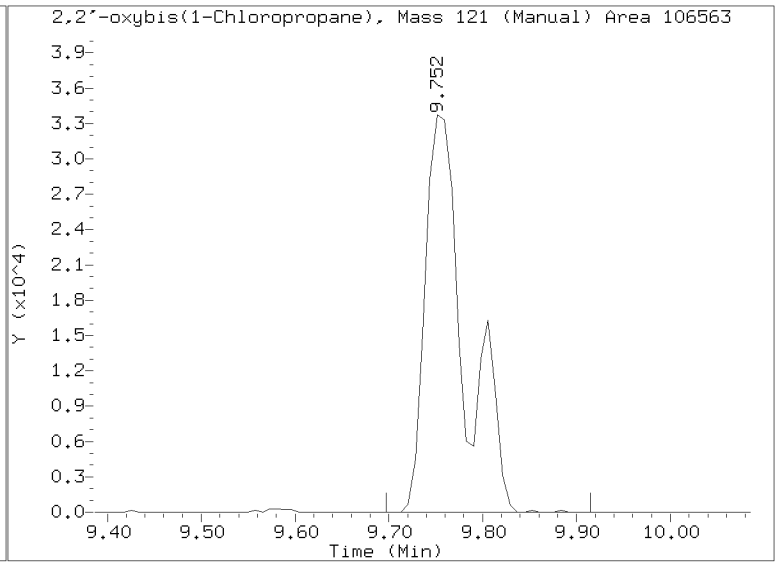
On Column LOD for nt10.i, 20230305A.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305A.b/NT1003052325.D
Injection Date: 06-MAR-2023 04:32
Lab ID:SLC0415-CCV1 Client ID:
Report Date: 03/27/2023 13:58





APPROVED

By Deenay Dunmore at 2:08 pm, Mar 27, 2023

Analytical Resources, LLC
Analytical Chemists and Consultants

LOW-CONCENTRATION CONTINUING CALIBRATION CHECK

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00019
Lab File ID:	NT1003052316.D	Calibration Date:	03/01/2023
Sequence:	SLC0415	Injection Date:	03/05/23
Lab Sample ID:	SLC0415-LCV1	Injection Time:	22:54
Sequence Name:	ABN 0.2		

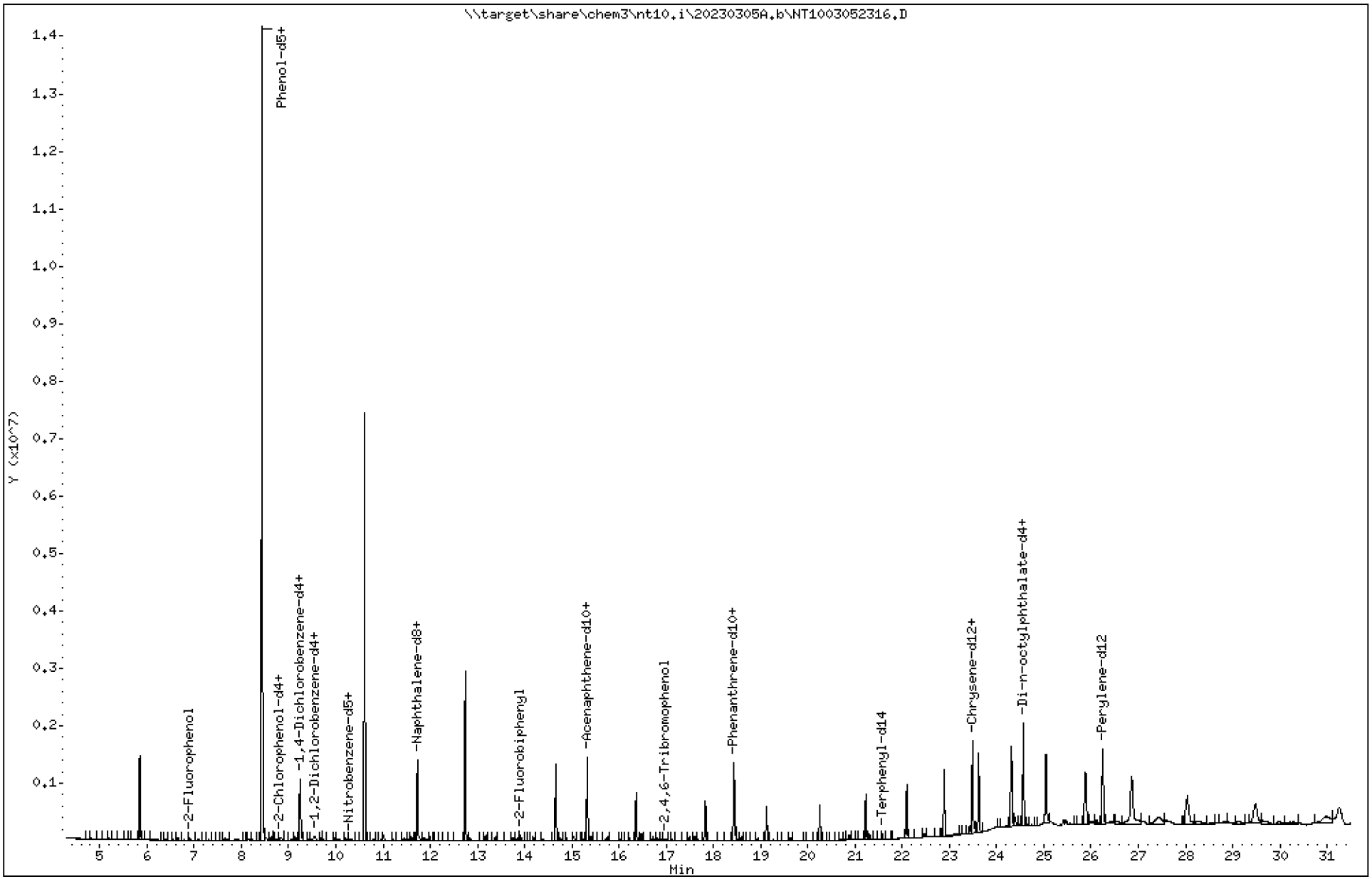
		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
Phenol	A	0.20000	0.2	1.5534590	1.3099870		-15.7	+/-50	
4-Methylphenol	A	0.20000	0.1	1.2087680	1.1194750		-25.8	+/-50	
Naphthalene	A	0.20000	0.2	1.0266520	1.0394820		1.3	+/-50	
2-Methylnaphthalene	A	0.20000	0.2	0.7252818	0.7131369		-1.7	+/-50	
Acenaphthylene	A	0.20000	0.2	1.9309320	1.8125060		-6.1	+/-50	
Dimethylphthalate	A	0.20000	0.2	1.2917940	1.2618540		-2.3	+/-50	
Acenaphthene	A	0.20000	0.2	1.1645250	1.1532140		-1.0	+/-50	
Dibenzofuran	A	0.20000	0.2	1.7283260	1.7418940		0.8	+/-50	
Fluorene	A	0.20000	0.2	1.4379840	1.3925950		-3.2	+/-50	
Phenanthrene	A	0.20000	0.2	1.0236730	1.0126520		-1.1	+/-50	
Anthracene	A	0.20000	0.2	0.9926226	0.9744375		-1.8	+/-50	
Fluoranthene	A	0.20000	0.2	1.3760330	1.2601190		-8.4	+/-50	
Pyrene	A	0.20000	0.2	1.4011560	1.2726620		-9.2	+/-50	
Butylbenzylphthalate	A	0.20000	0.1	0.6475451	0.5162728		-31.6	+/-50	
Benzo(a)anthracene	A	0.20000	0.2	1.4104100	1.4070560		-0.2	+/-50	
Chrysene	A	0.20000	0.2	1.1462500	1.2534210		9.4	+/-50	
bis(2-Ethylhexyl)phthalate	A	0.20000	0.2	0.5331838	0.5229379		-6.8	+/-50	
Benzofluoranthenes, Total	A	0.40000	0.4	1.3383070	1.2091670		-7.7	+/-50	
Benzo(a)pyrene	A	0.20000	0.2	1.2312020	1.1441300		-6.2	+/-50	
Indeno(1,2,3-cd)pyrene	A	0.20000	0.2	1.4033590	1.4175680		-0.6	+/-50	
Dibenzo(a,h)anthracene	A	0.20000	0.2	1.1150690	1.1780240		8.9	+/-50	
Benzo(g,h,i)perylene	A	0.20000	0.2	1.1245240	1.1757520		3.4	+/-50	
2-Fluorophenol	A	0.30000	0.257	1.2585100	1.0794540		-14.2	+/-50	
Phenol-d5	A	0.30000	0.241	1.4611190	1.1758820		-19.5	+/-50	
2-Chlorophenol-d4	A	0.30000	0.295	1.2465880	1.2266150		-1.6	+/-50	
1,2-Dichlorobenzene-d4	A	0.20000	0.186	0.9313544	0.8672566		-6.9	+/-50	
Nitrobenzene-d5	A	0.20000	0.194	0.4390871	0.4251185		-3.2	+/-50	
2-Fluorobiphenyl	A	0.20000	0.224	1.4267270	1.5970890		11.9	+/-50	
2,4,6-Tribromophenol	A	0.30000	0.136	0.2287830	0.1116112		-54.6	+/-50	*
p-Terphenyl-d14	A	0.20000	0.197	1.1337350	1.1186470		-1.3	+/-50	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052316.D
Date : 05-MAR-2023 22:54
Client ID:
Sample Info: SLC0415-LCV1

Instrument: nt10.i
Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

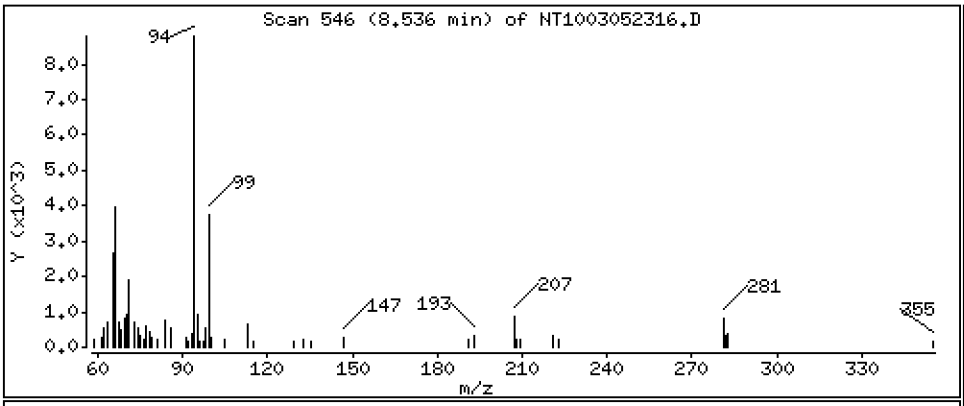
Operator: VTS

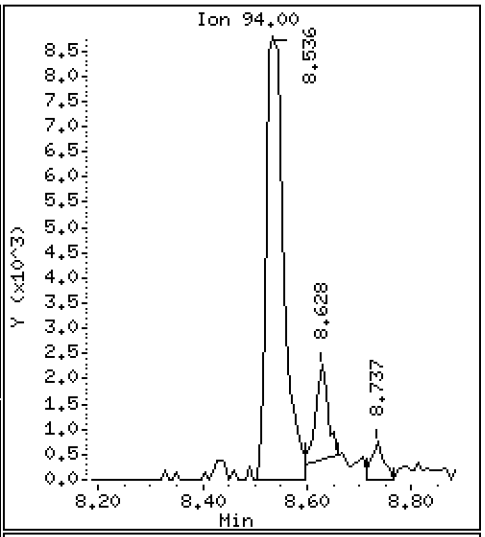
Column phase: ZB-5msi

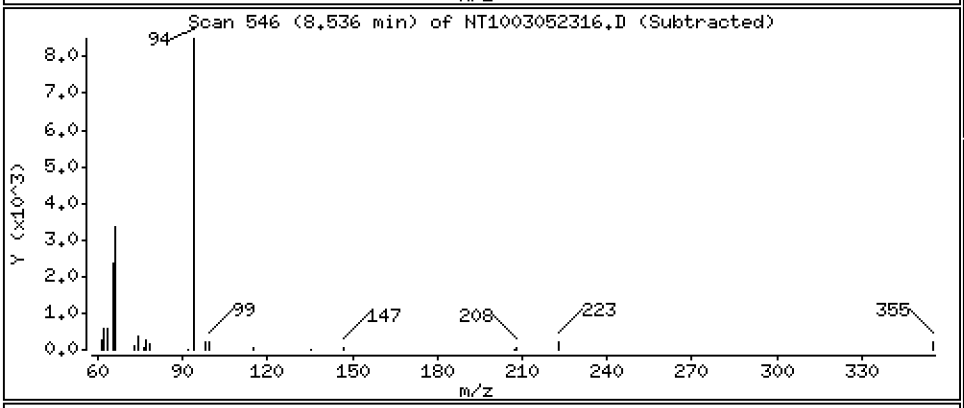
Column diameter: 0.25

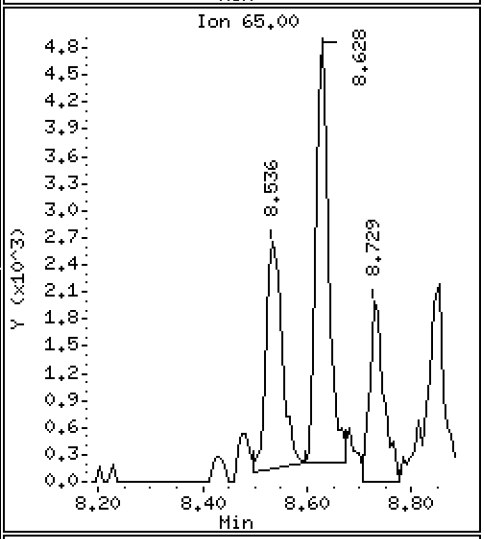
3 Phenol

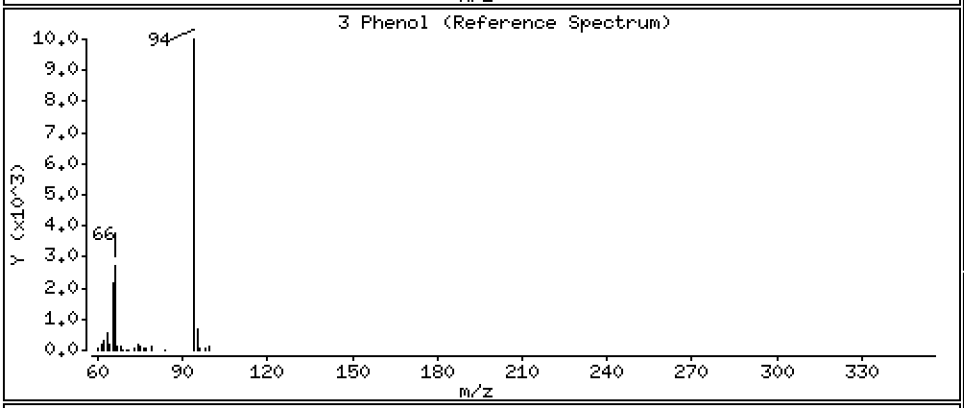
Concentration: 0.1687 ug/mL

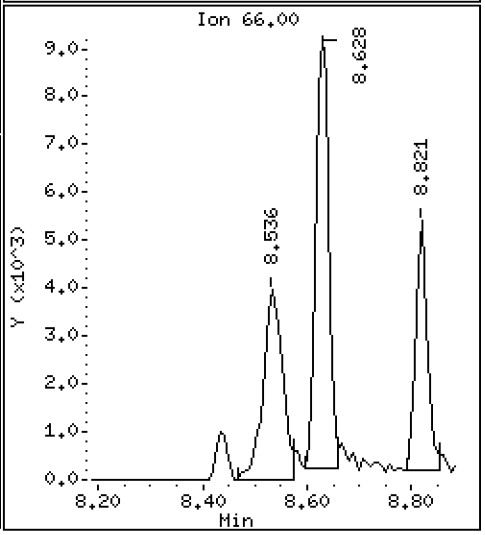


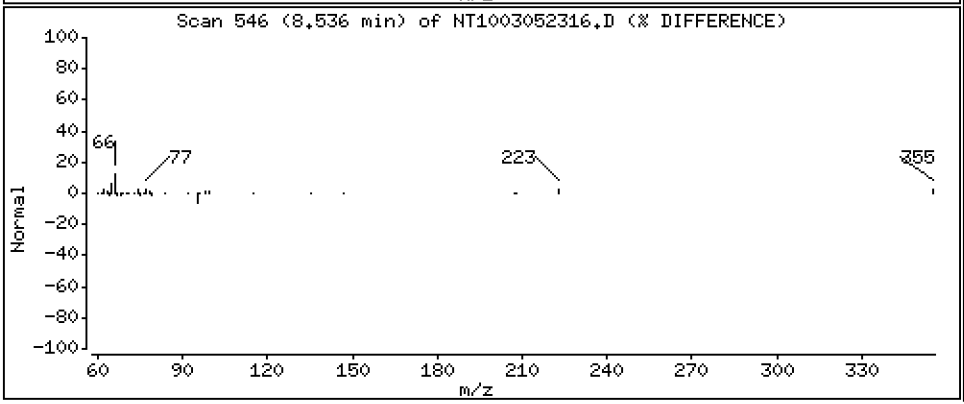












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

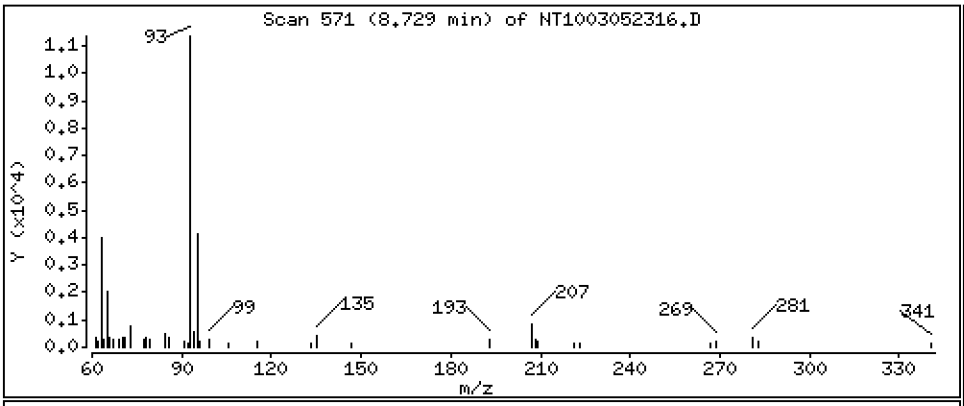
Operator: VTS

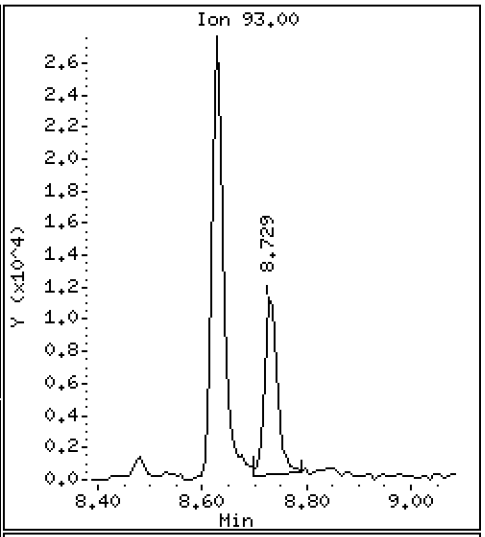
Column phase: ZB-5msi

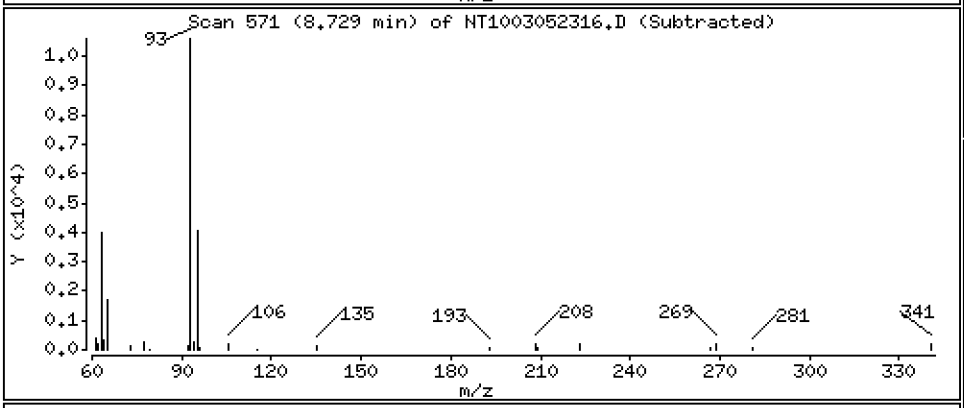
Column diameter: 0.25

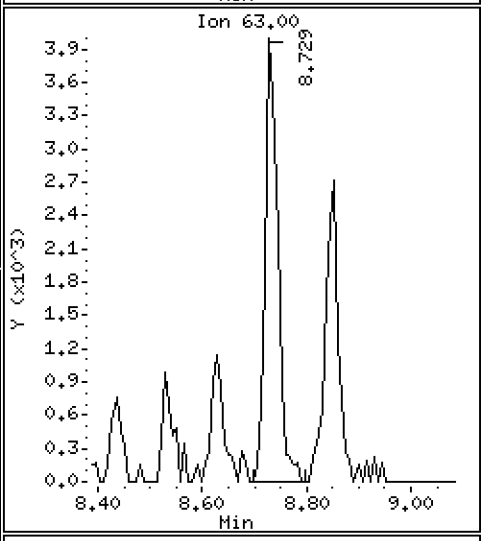
4 Bis(2-Chloroethyl)ether

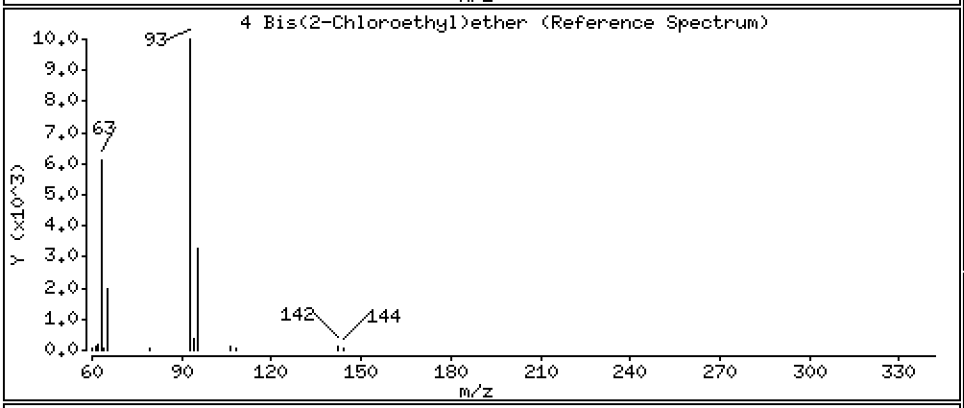
Concentration: 0.2005 ug/mL

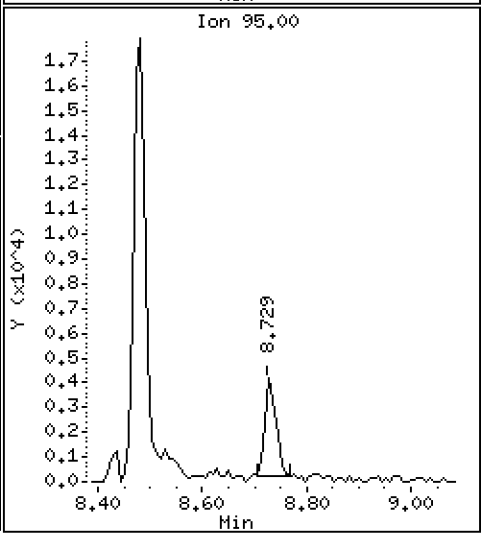


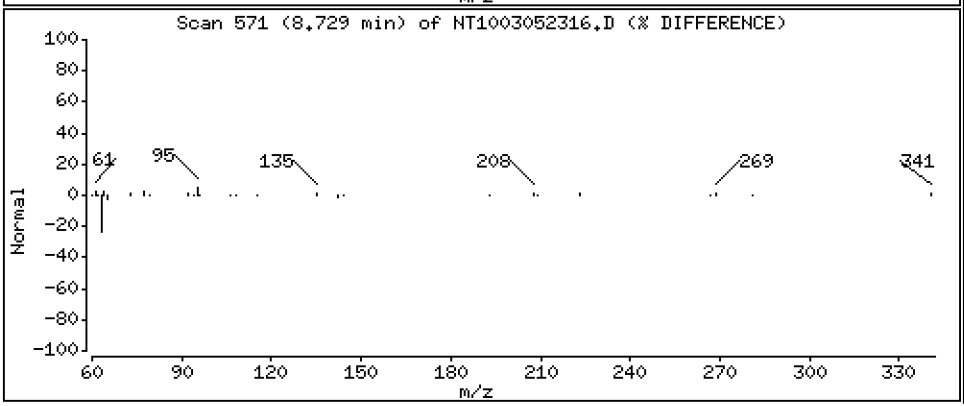












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

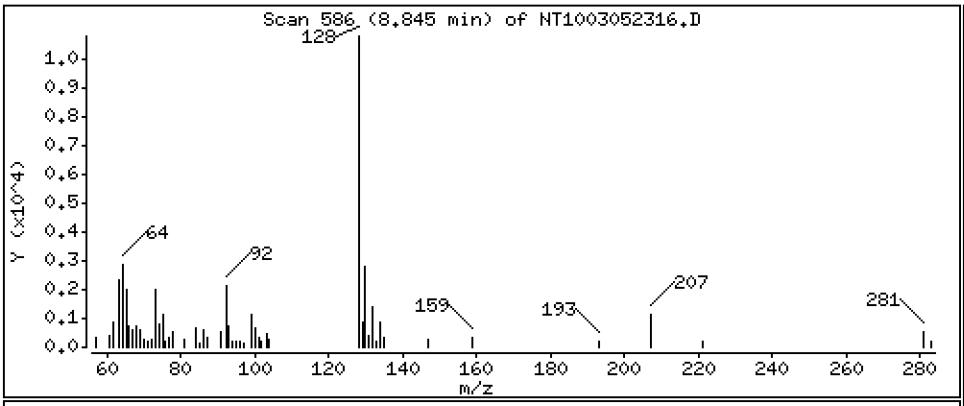
Operator: VTS

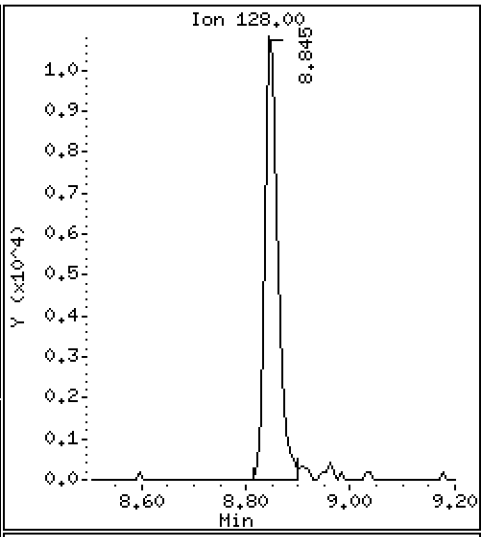
Column phase: ZB-5msi

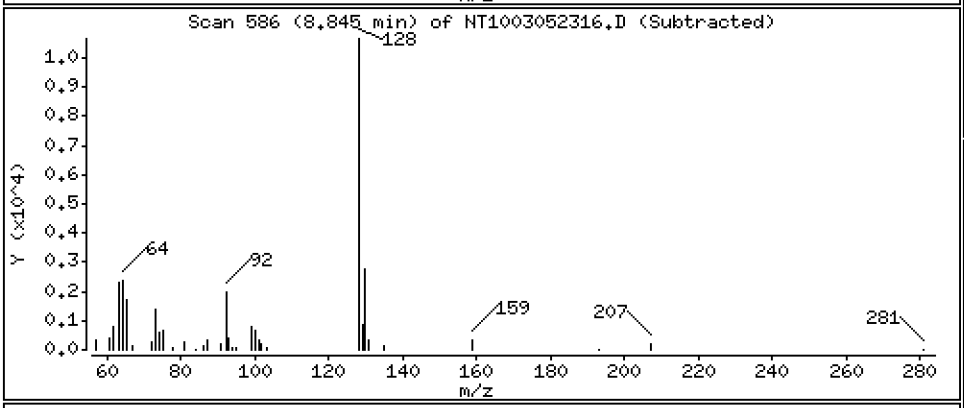
Column diameter: 0.25

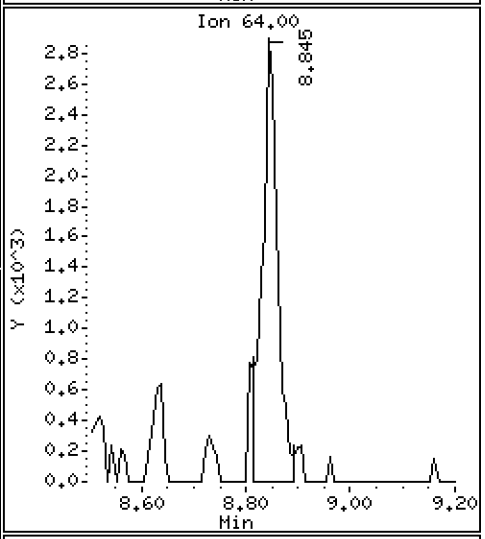
6 2-Chlorophenol

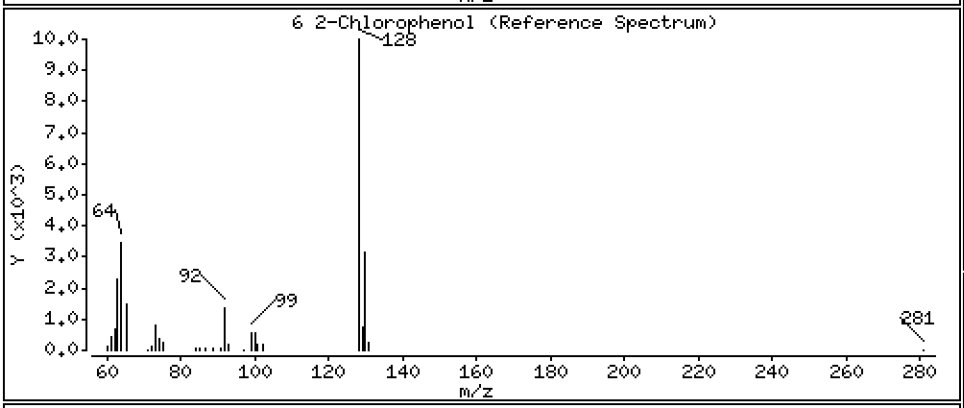
Concentration: 0.1918 ug/mL

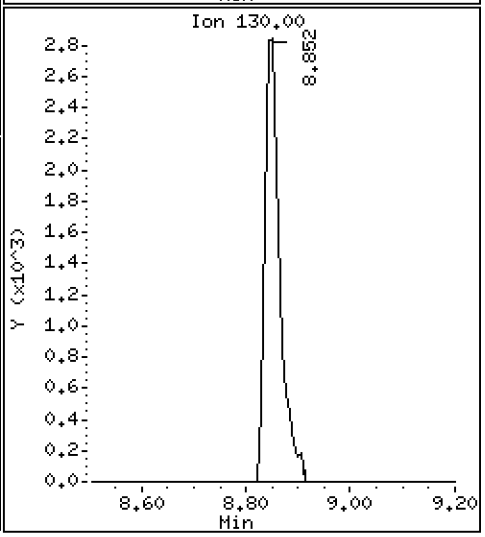


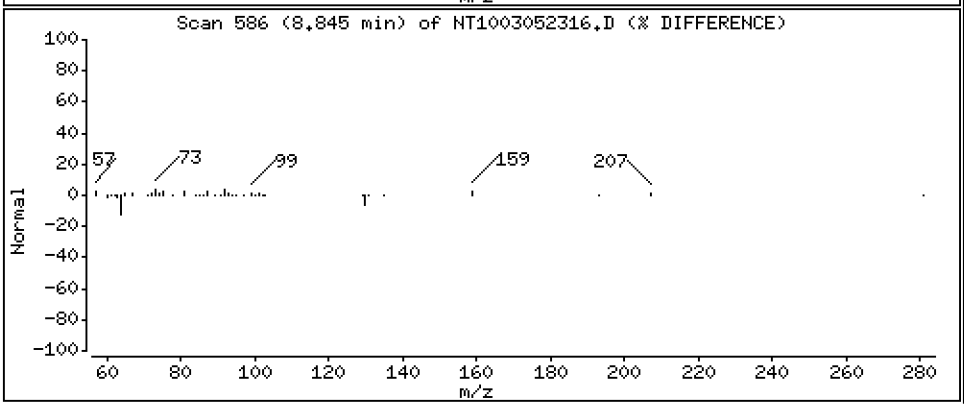












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

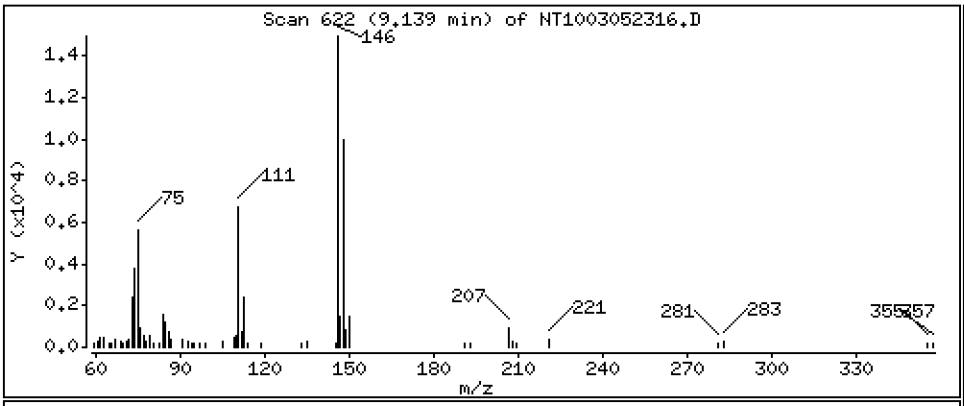
Operator: VTS

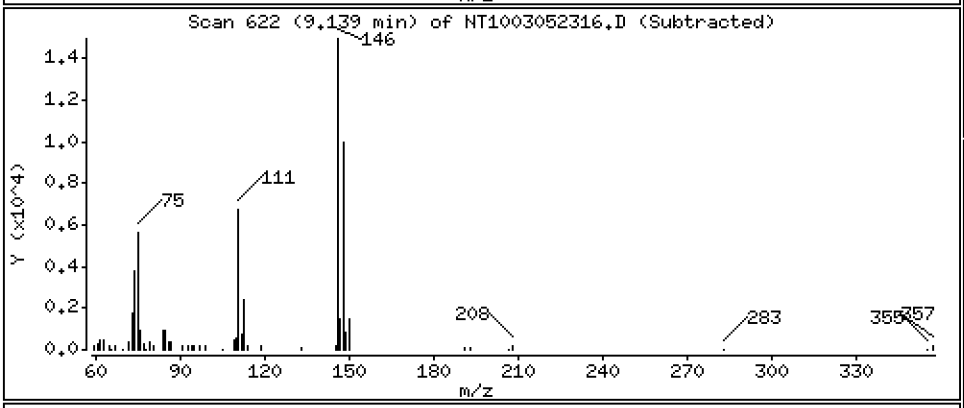
Column phase: ZB-5msi

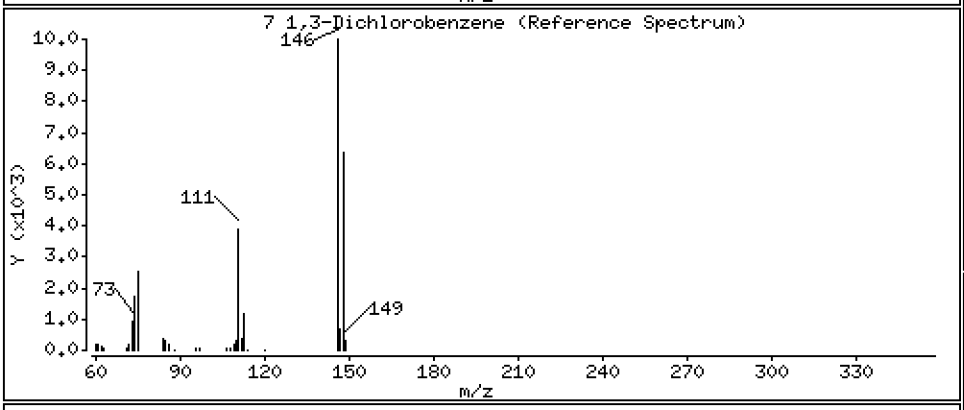
Column diameter: 0.25

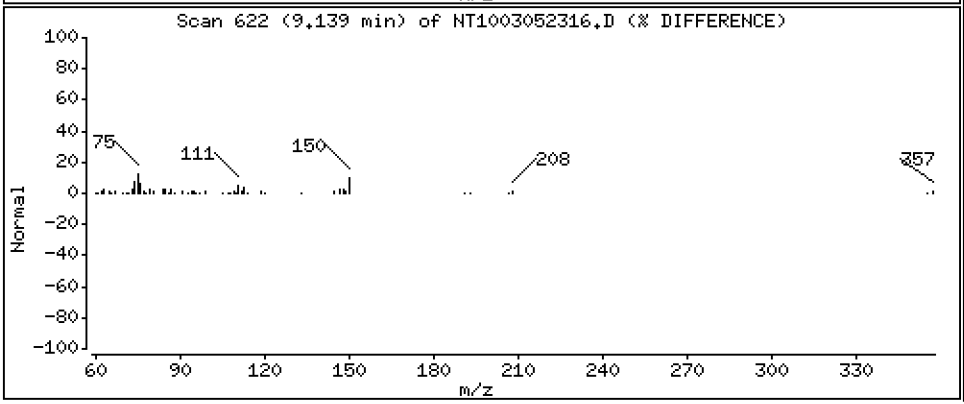
7 1,3-Dichlorobenzene

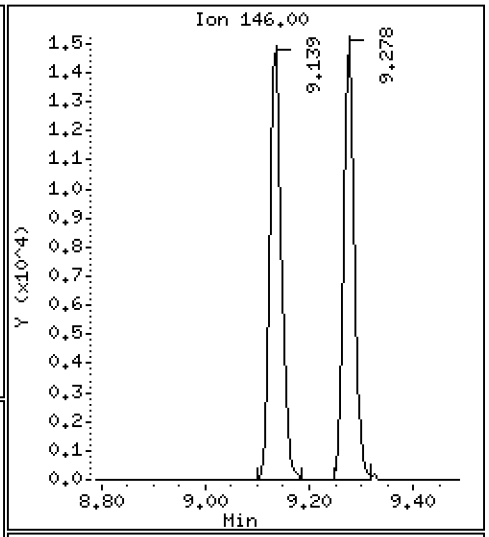
Concentration: 0.2139 ug/mL

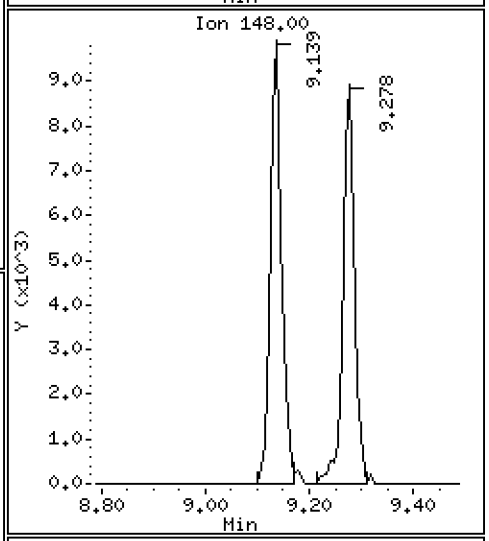


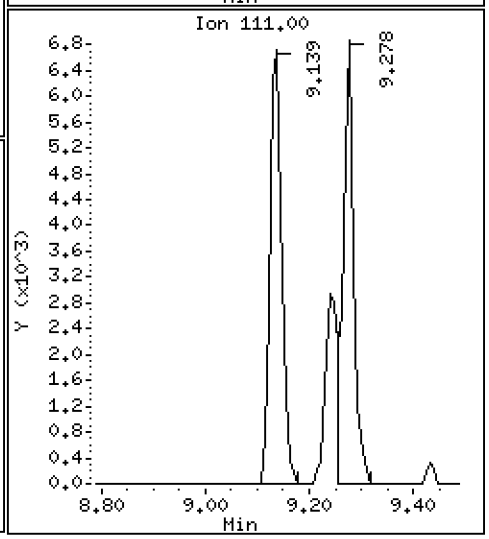












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

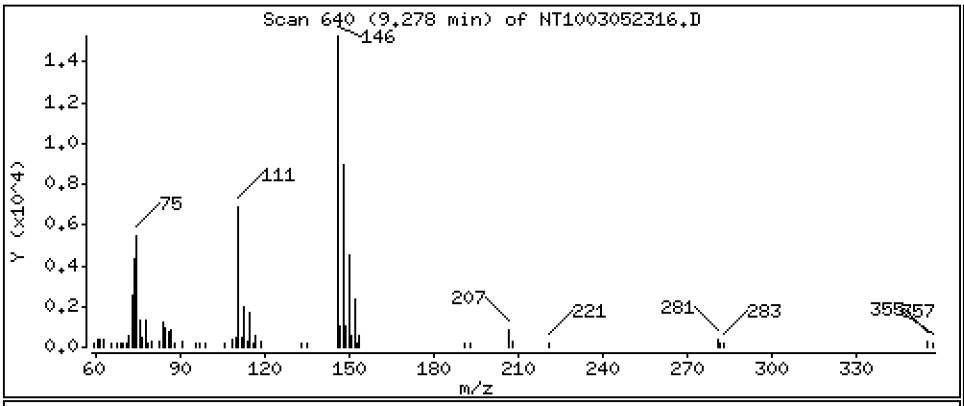
Operator: VTS

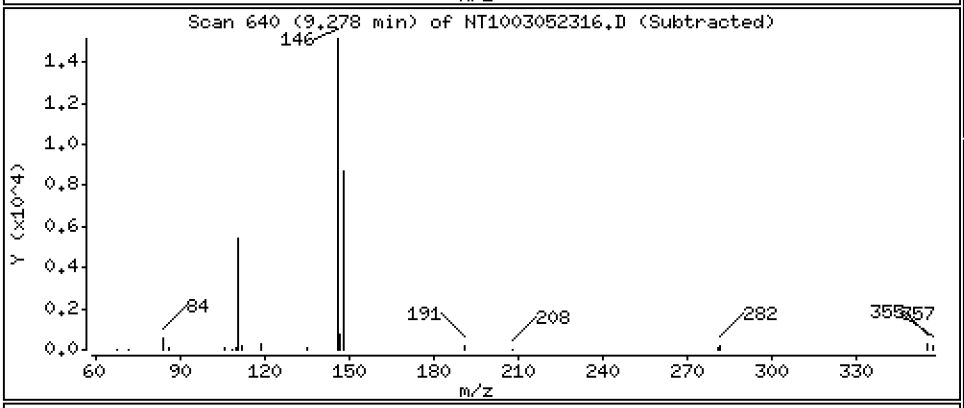
Column phase: ZB-5msi

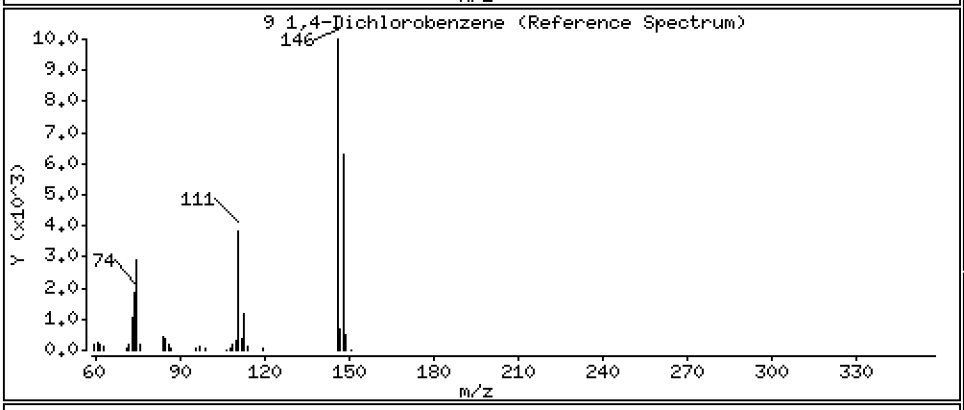
Column diameter: 0.25

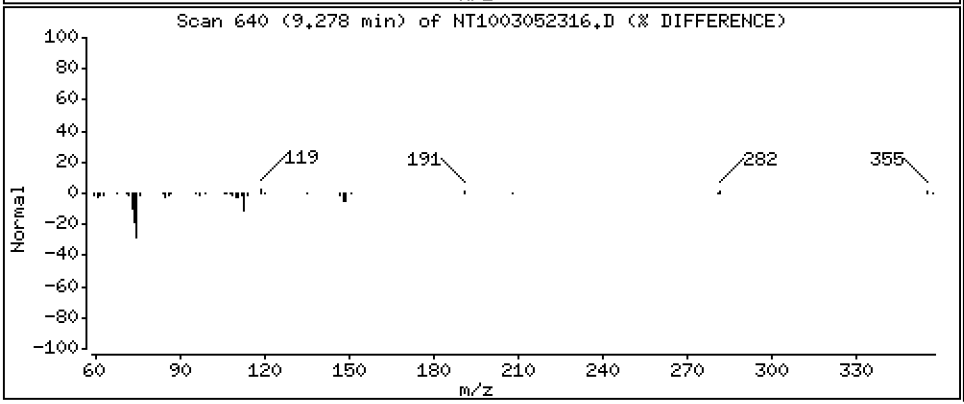
9 1,4-Dichlorobenzene

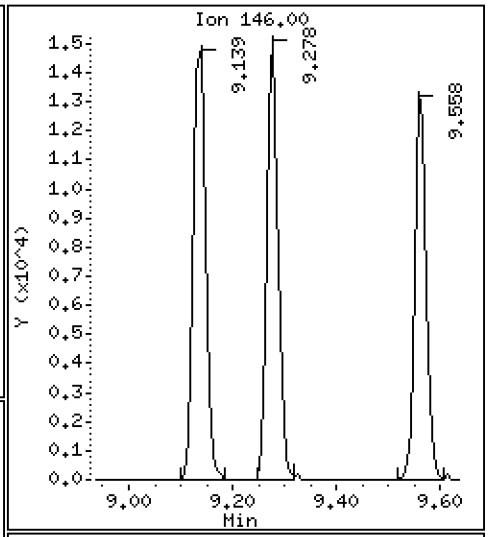
Concentration: 0.2076 ug/mL

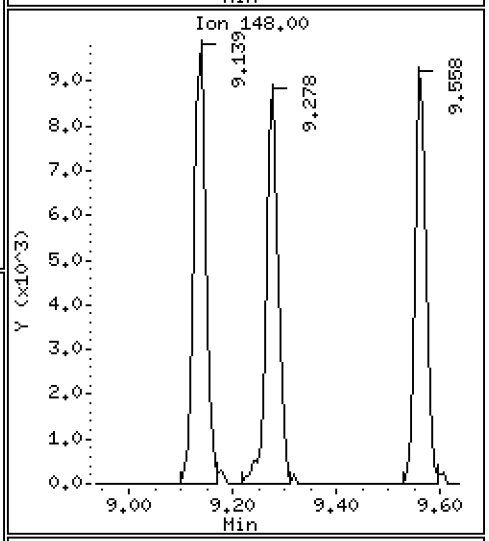


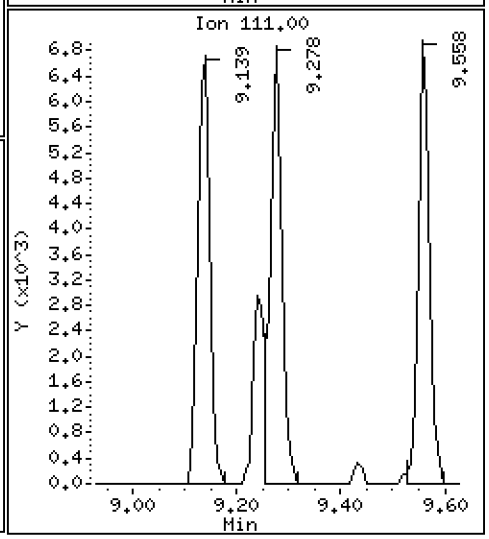












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

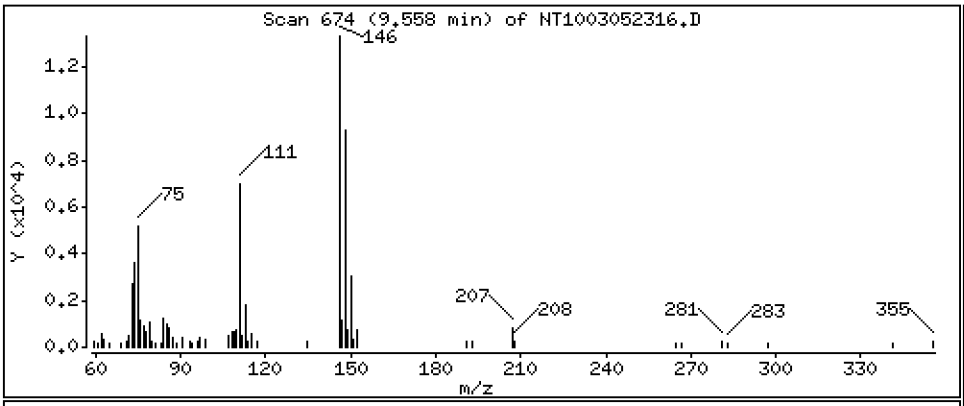
Operator: VTS

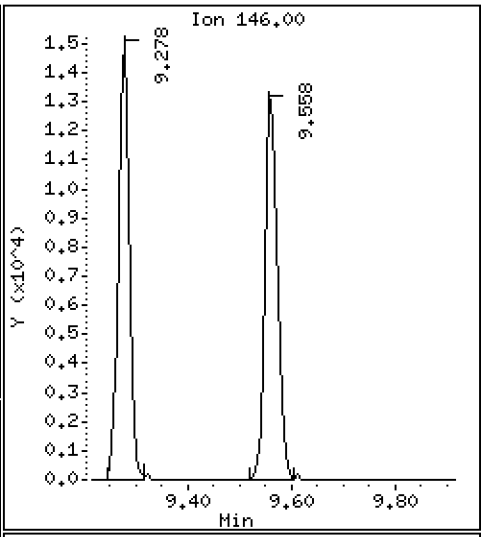
Column phase: ZB-5msi

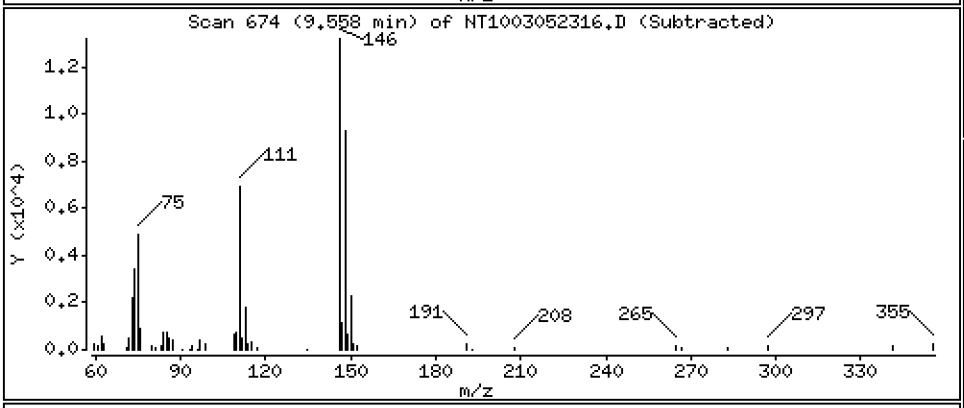
Column diameter: 0.25

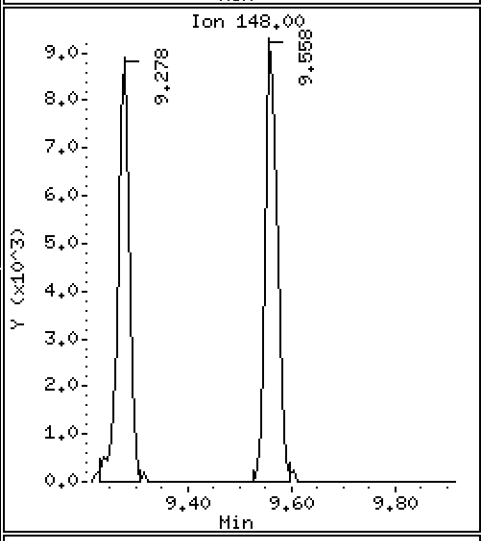
12 1,2-Dichlorobenzene

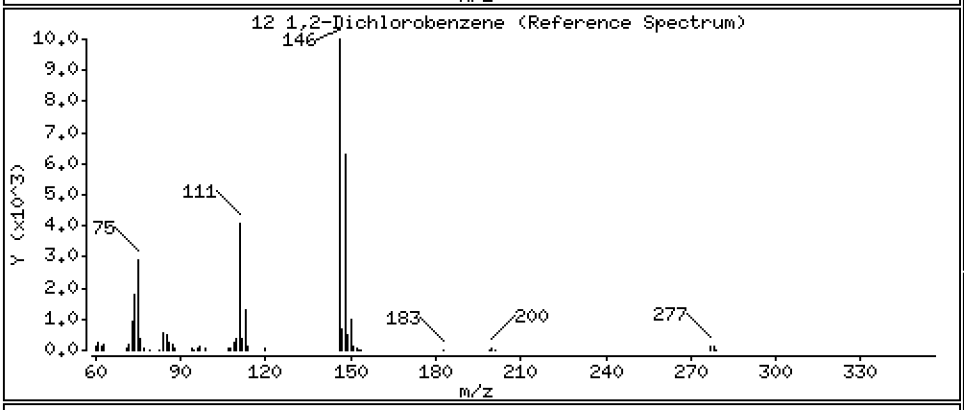
Concentration: 0.2019 ug/mL

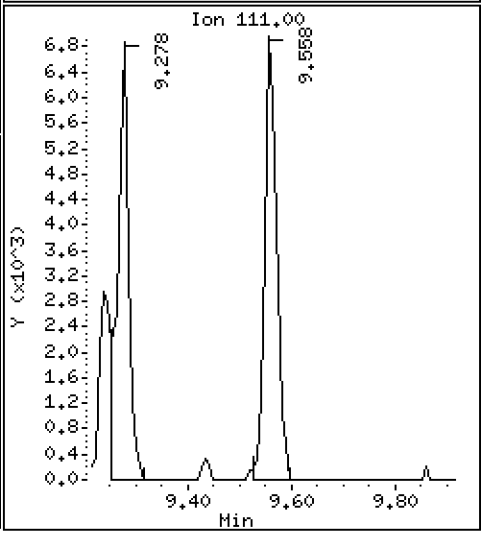


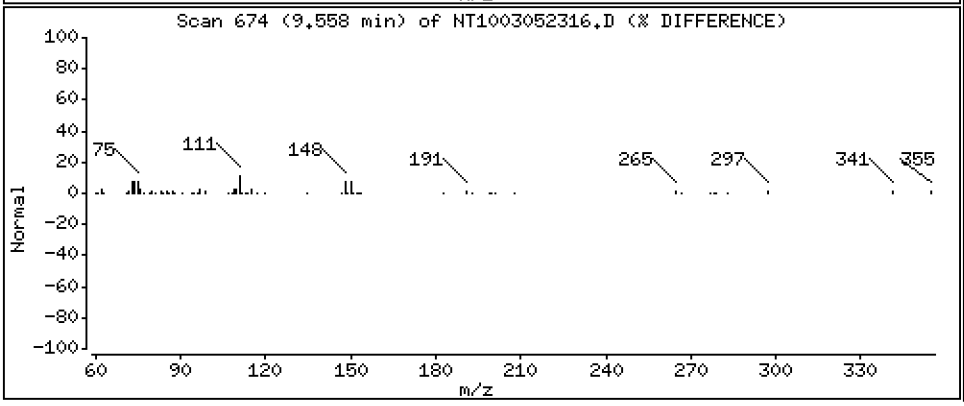












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

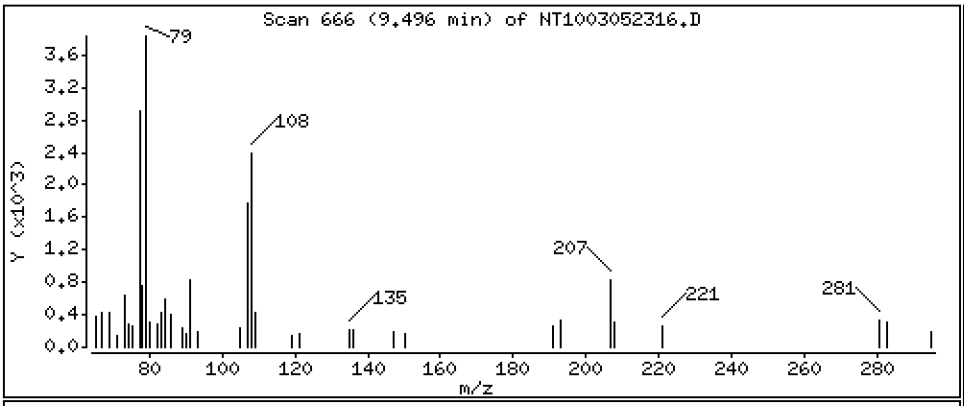
Operator: VTS

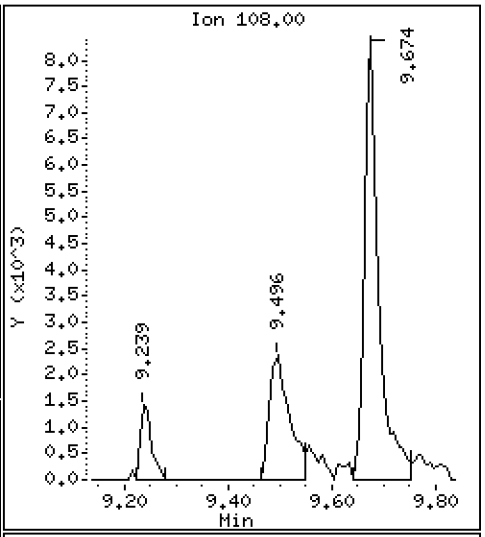
Column phase: ZB-5msi

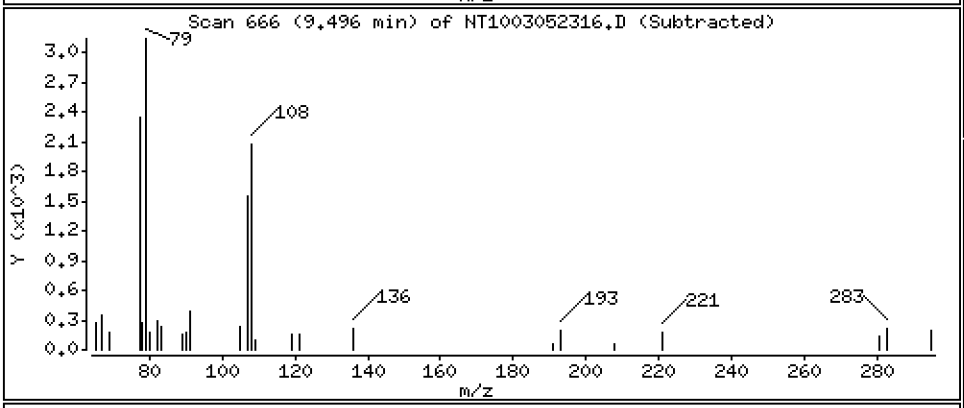
Column diameter: 0.25

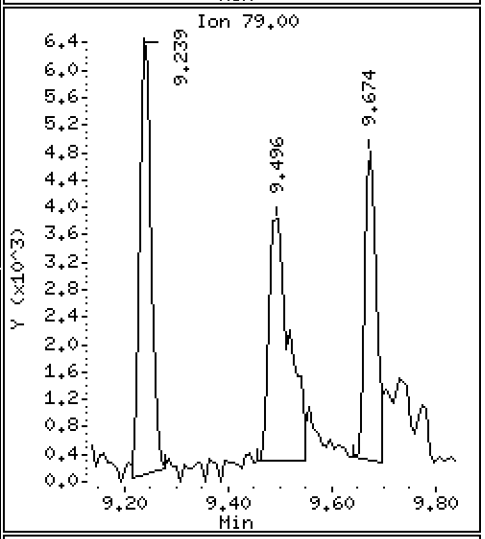
11 Benzyl alcohol

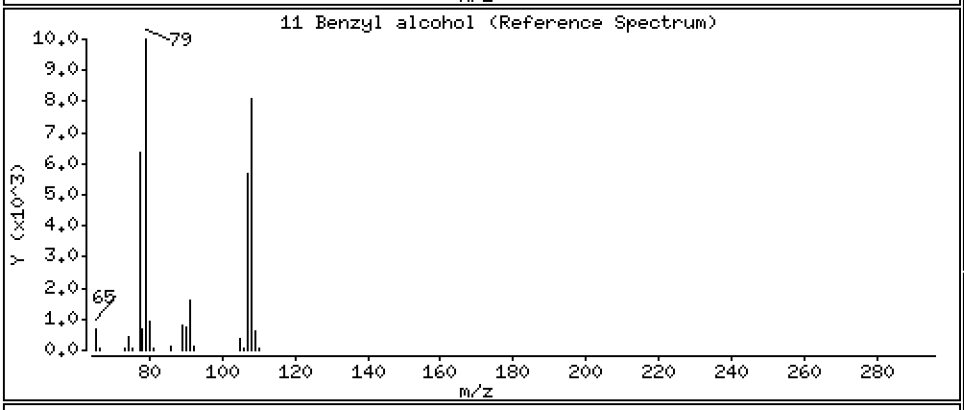
Concentration: 0.1045 ug/mL

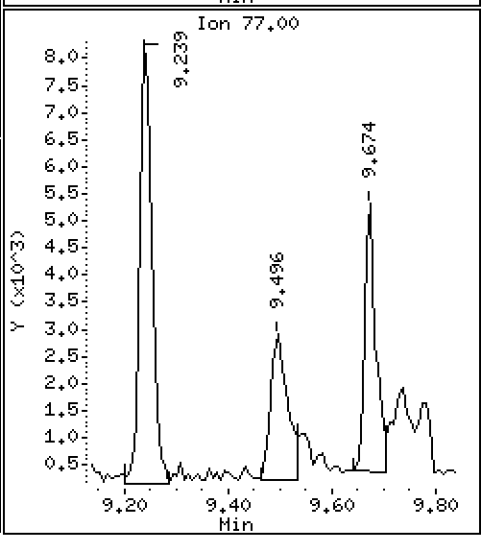


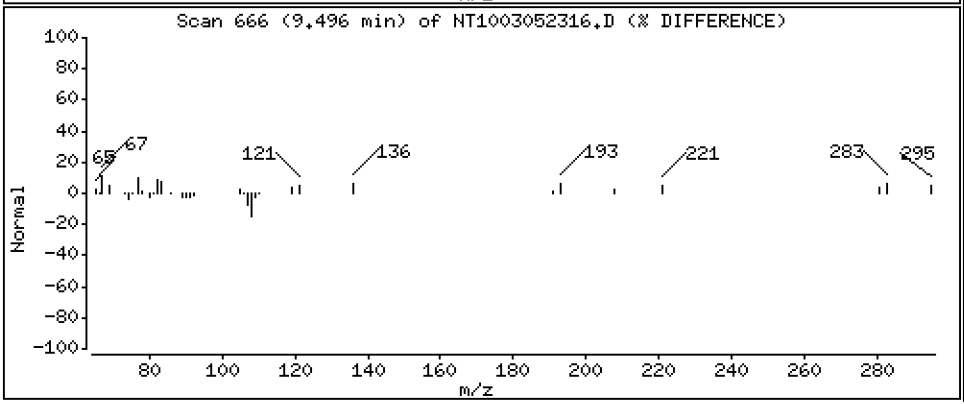












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

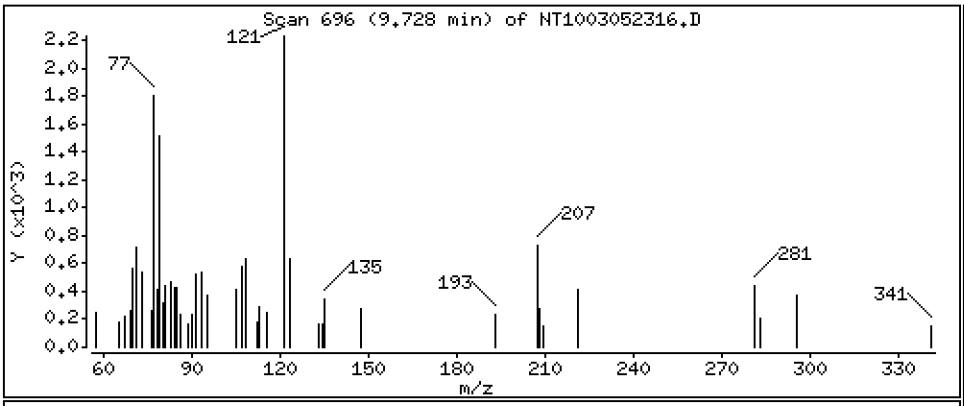
Operator: VTS

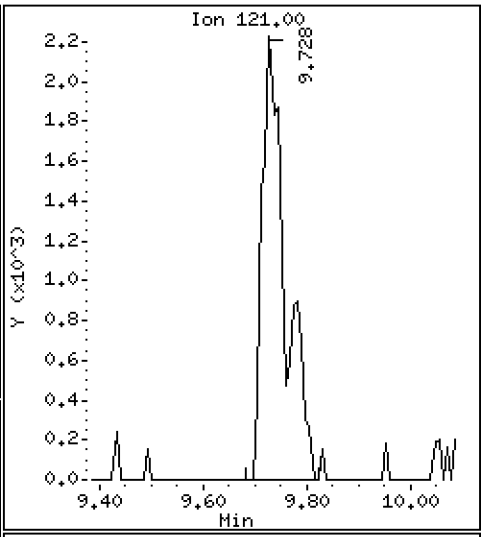
Column phase: ZB-5msi

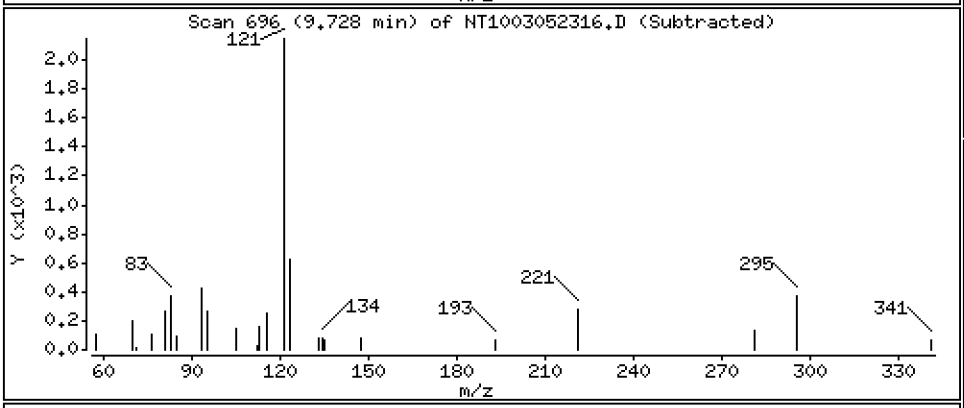
Column diameter: 0.25

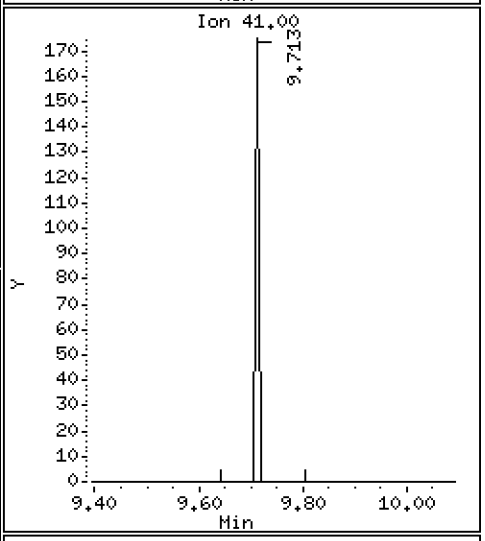
14 2,2'-oxybis(1-Chloropropane)

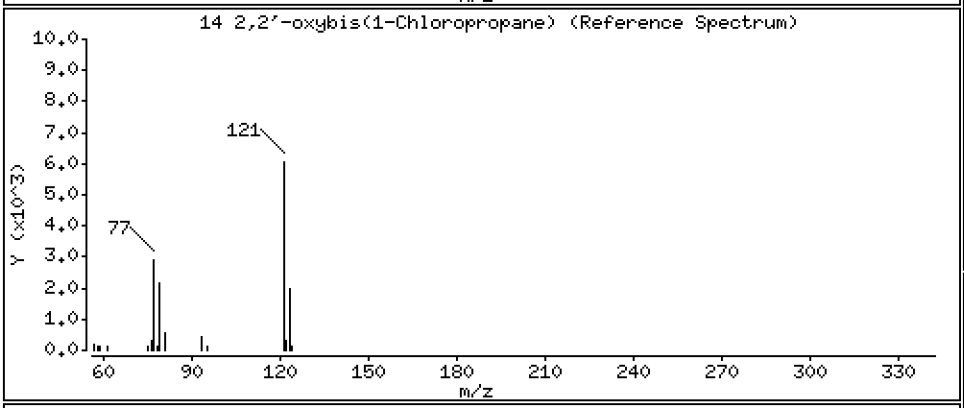
Concentration: 0.2259 ug/mL

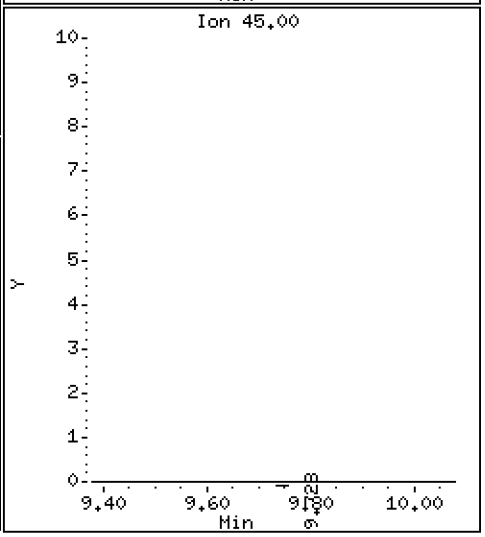


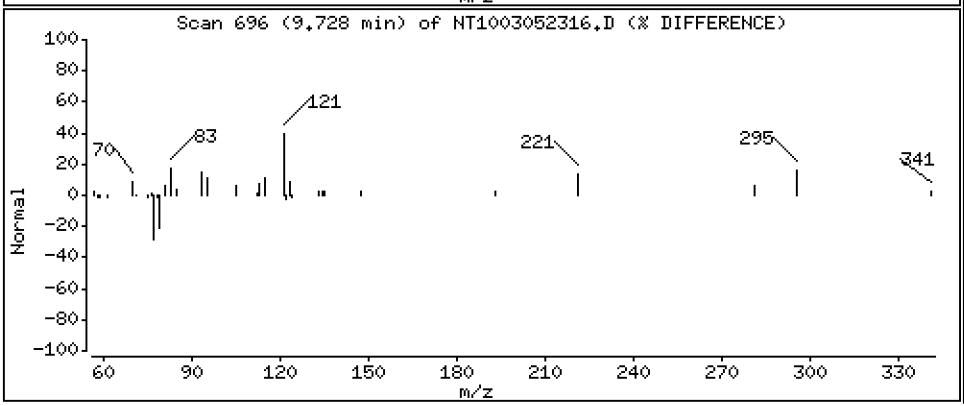












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

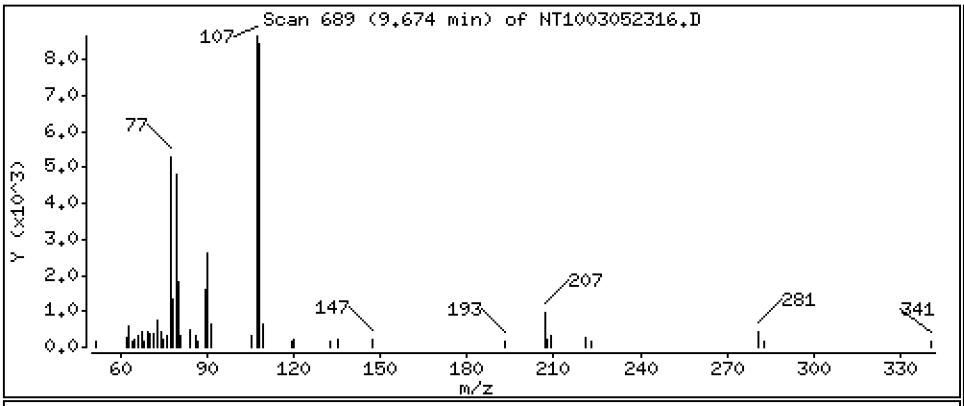
Operator: VTS

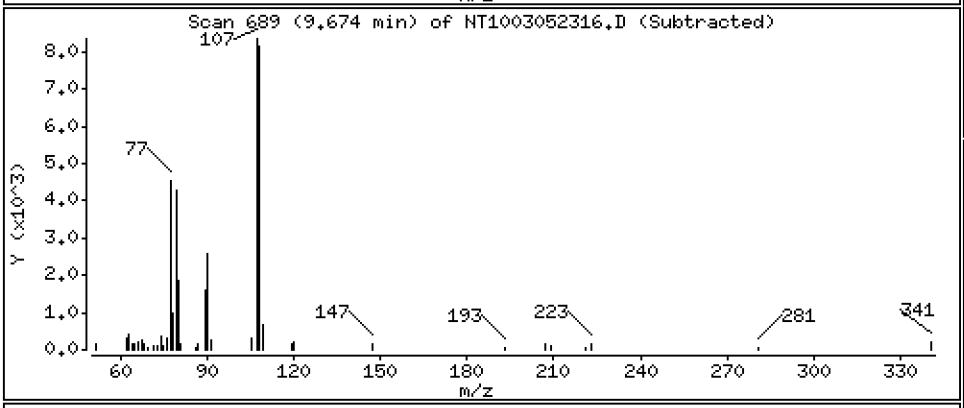
Column phase: ZB-5msi

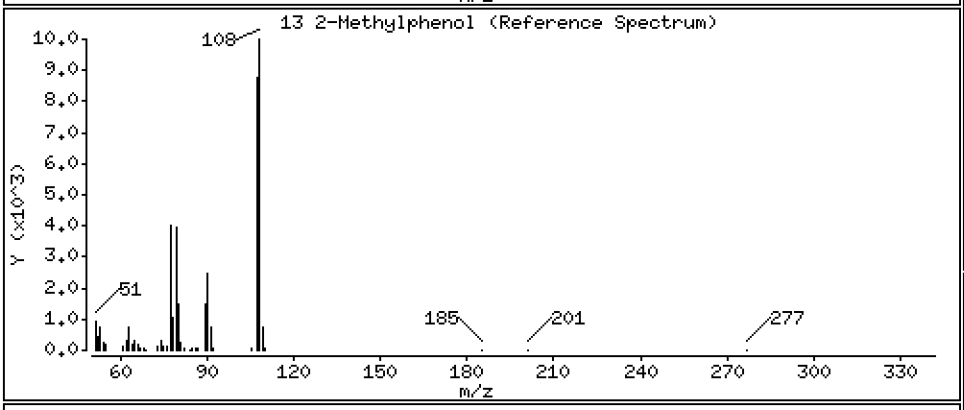
Column diameter: 0.25

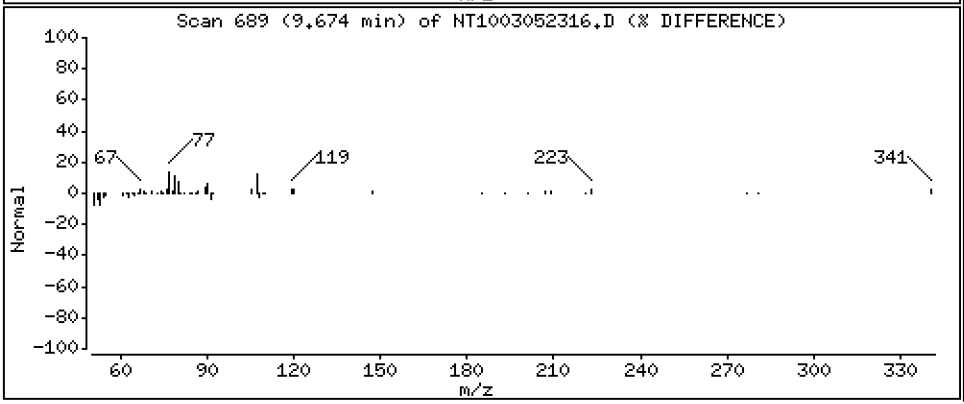
13 2-Methylphenol

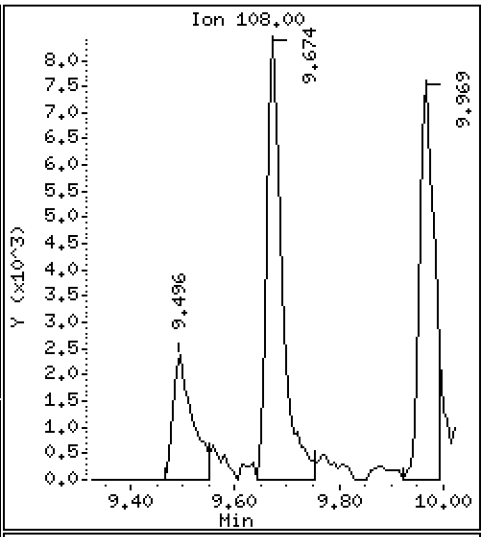
Concentration: 0.1827 ug/mL

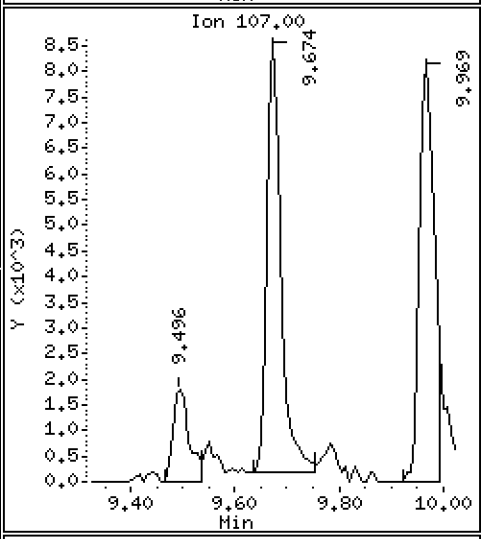


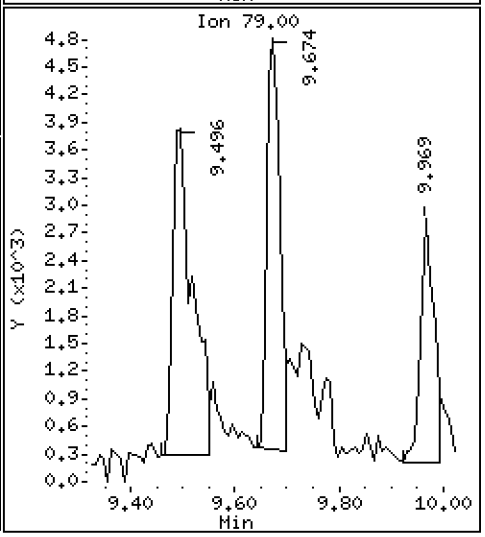












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

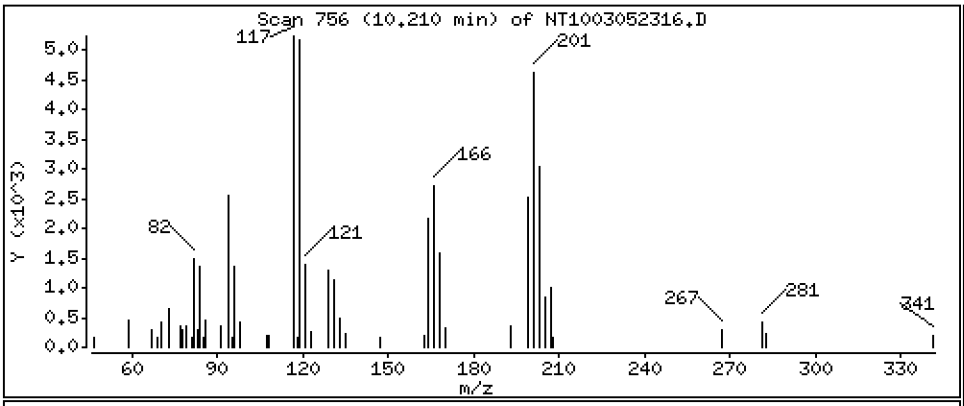
Operator: VTS

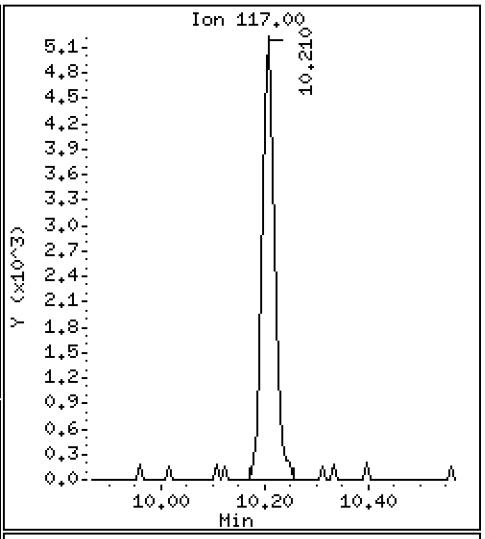
Column phase: ZB-5msi

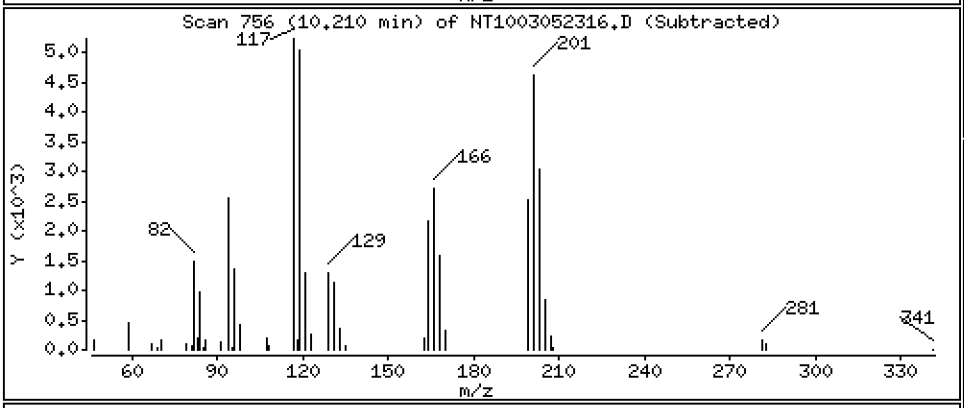
Column diameter: 0.25

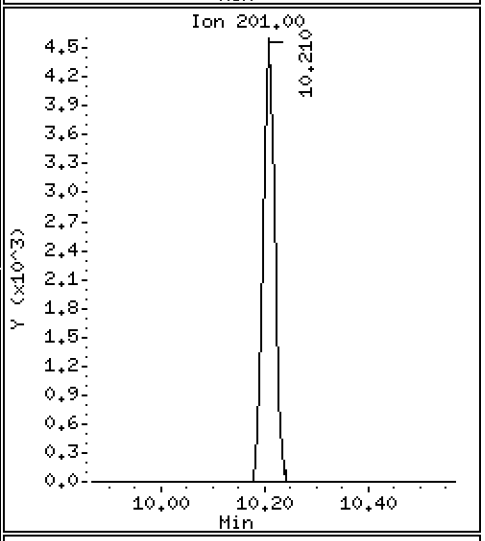
17 Hexachloroethane

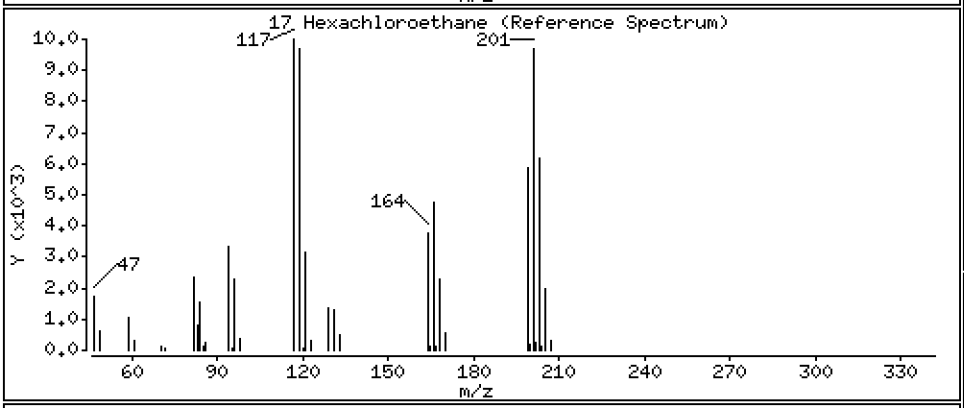
Concentration: 0.1872 ug/mL

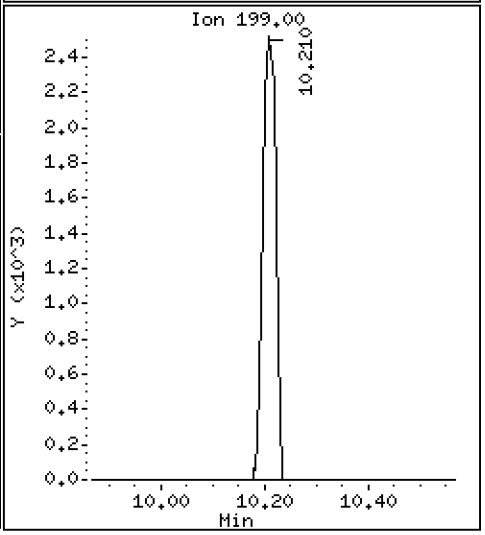


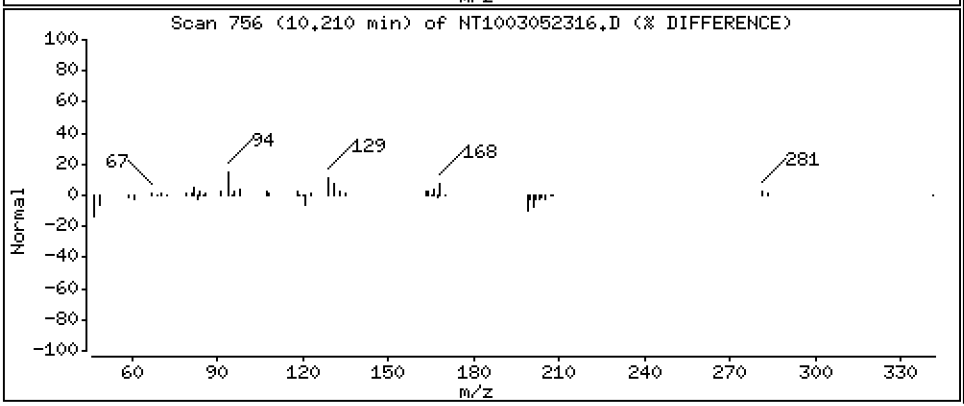












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

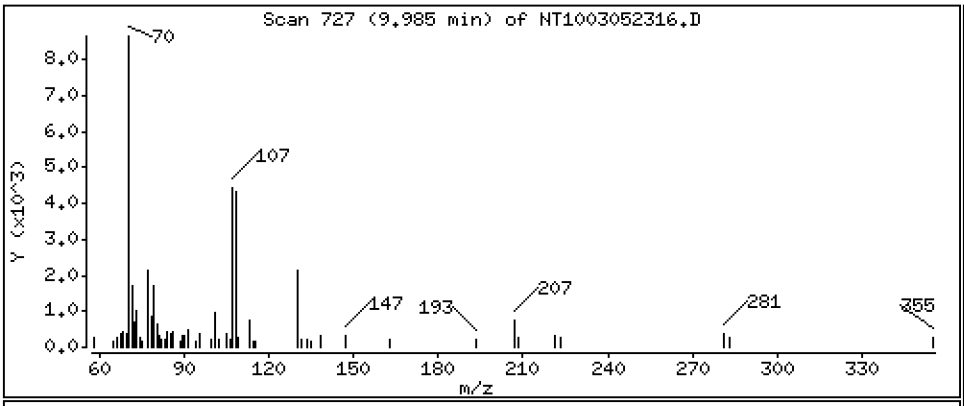
Operator: VTS

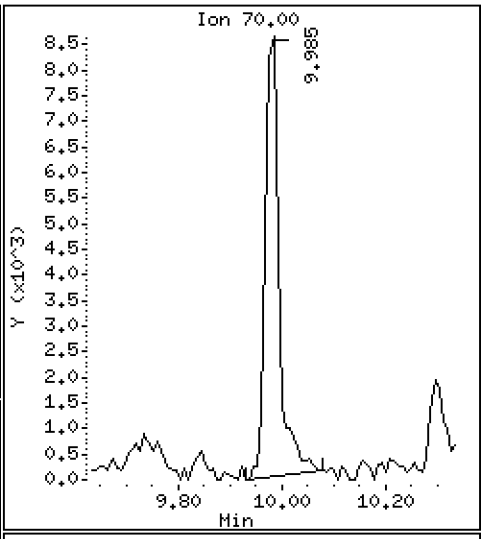
Column phase: ZB-5msi

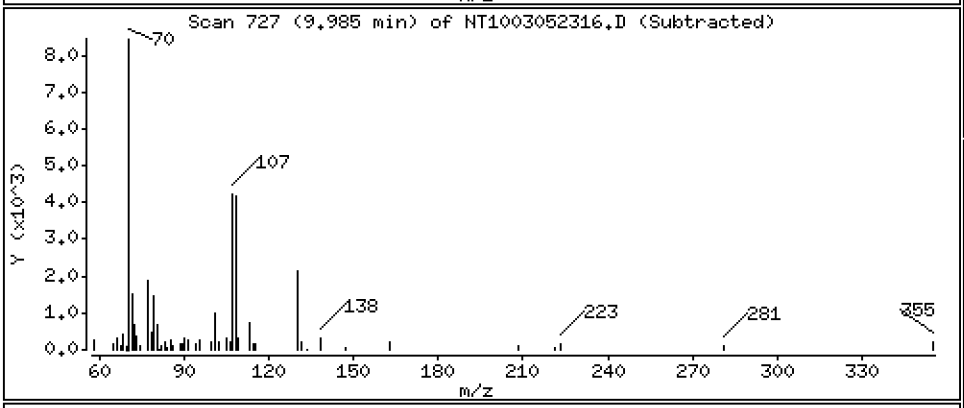
Column diameter: 0.25

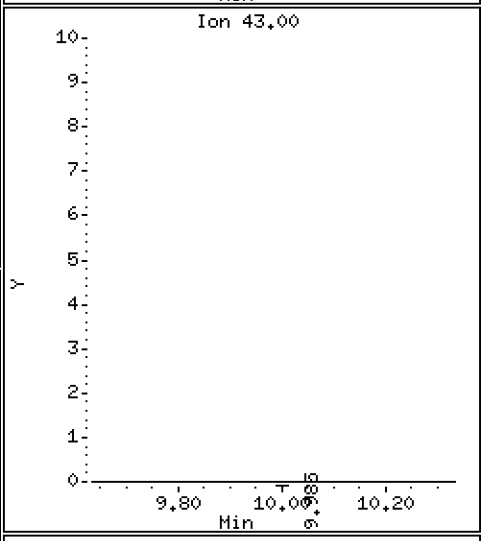
16 N-Nitroso-di-n-propylamine

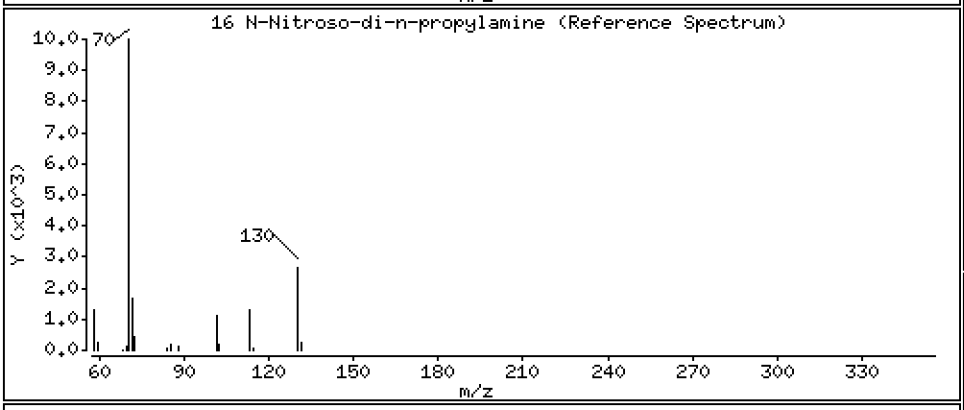
Concentration: 0.2130 ug/mL

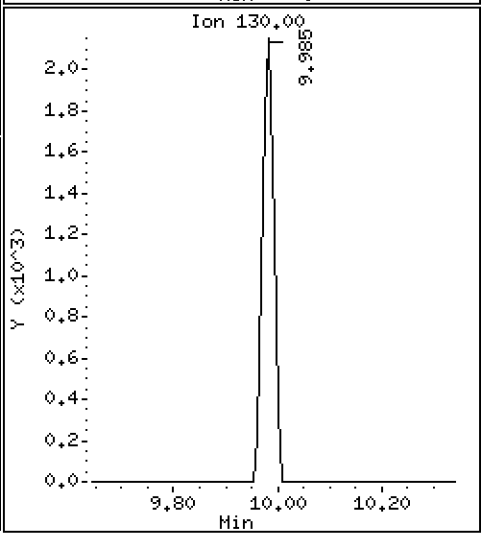


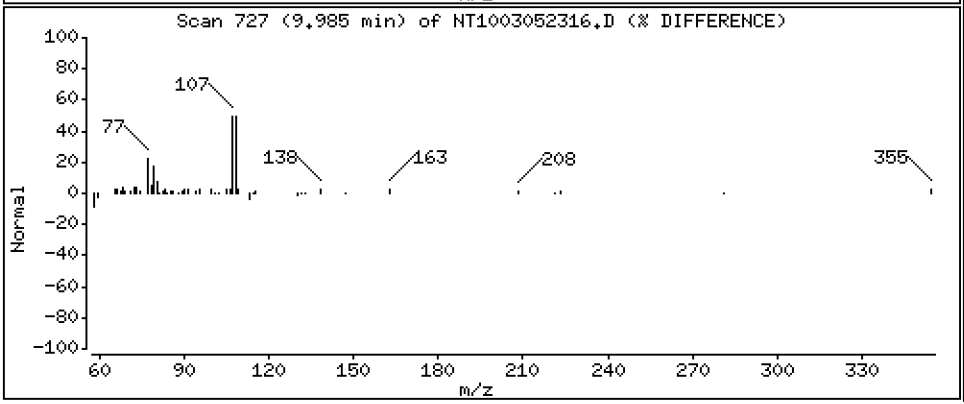












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

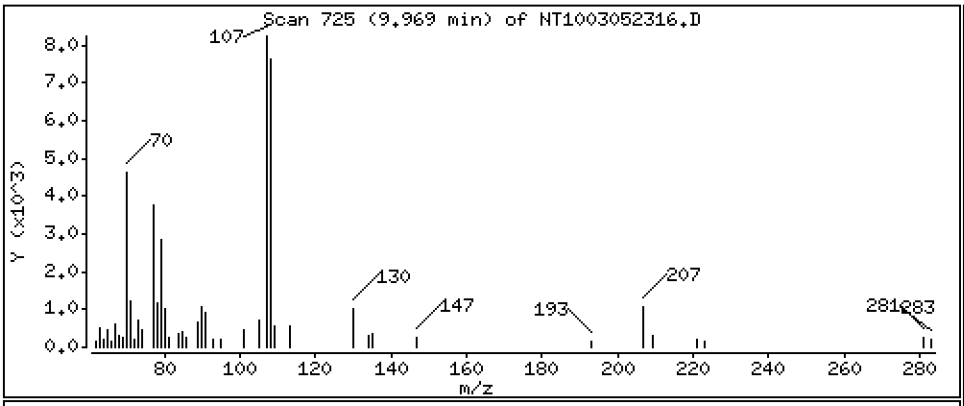
Operator: VTS

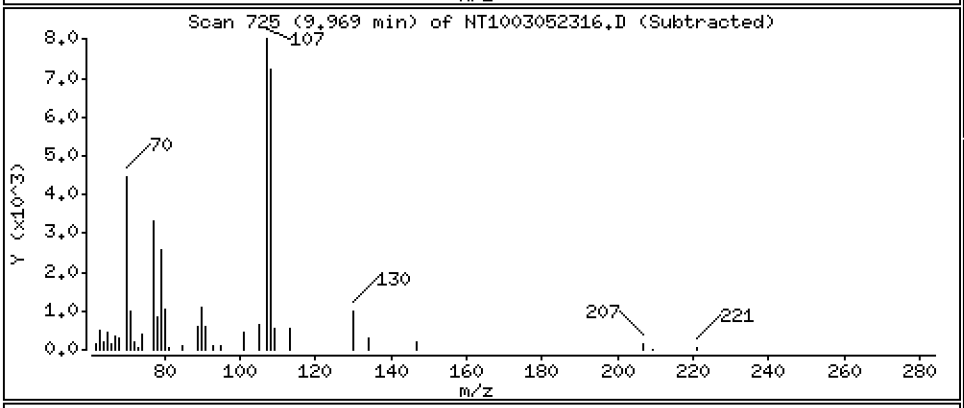
Column phase: ZB-5msi

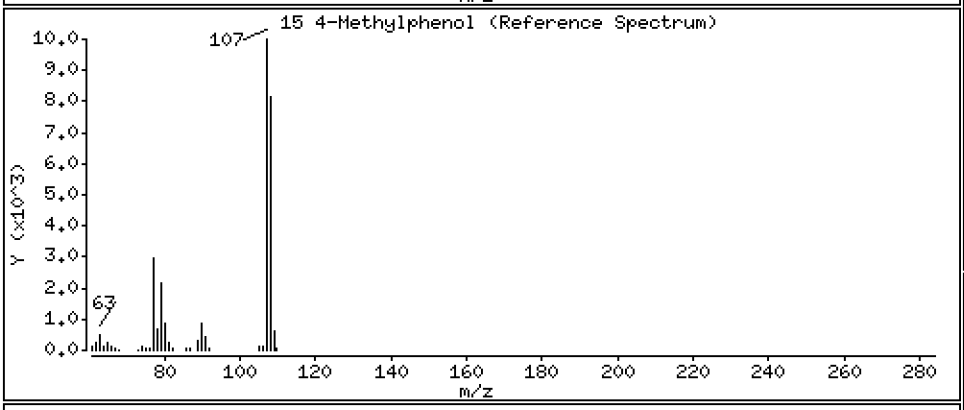
Column diameter: 0.25

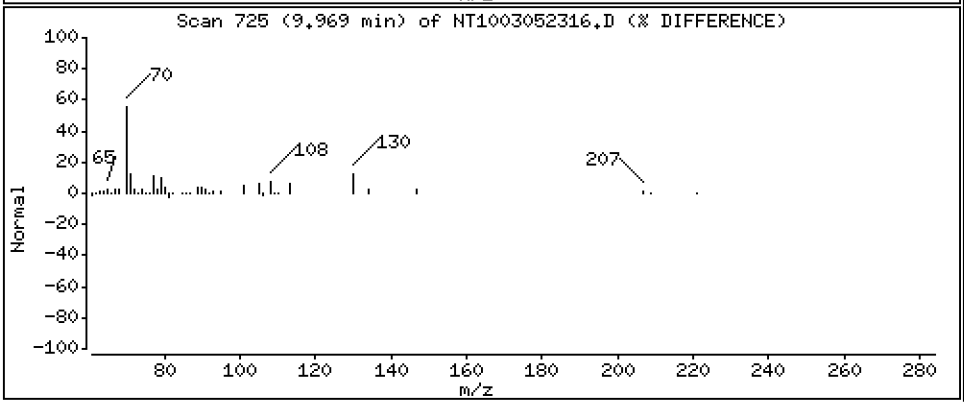
15 4-Methylphenol

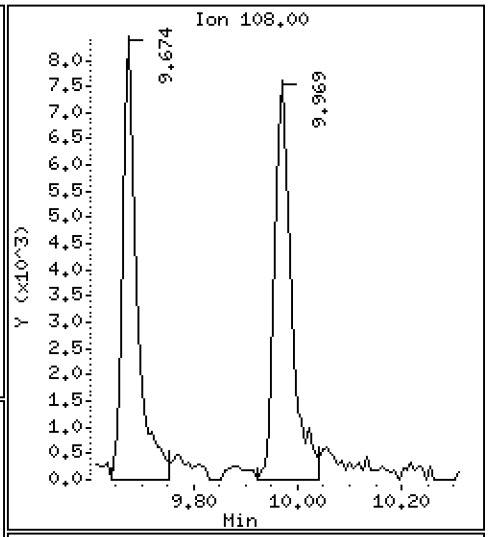
Concentration: 0.1483 ug/mL

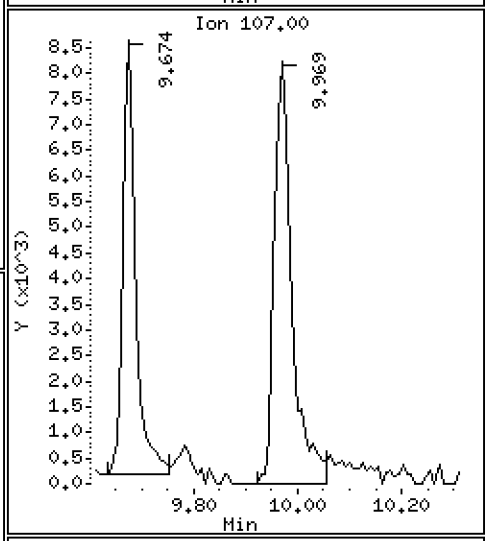


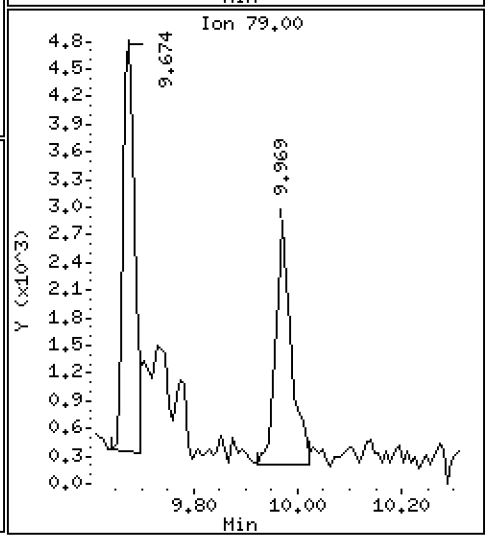












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

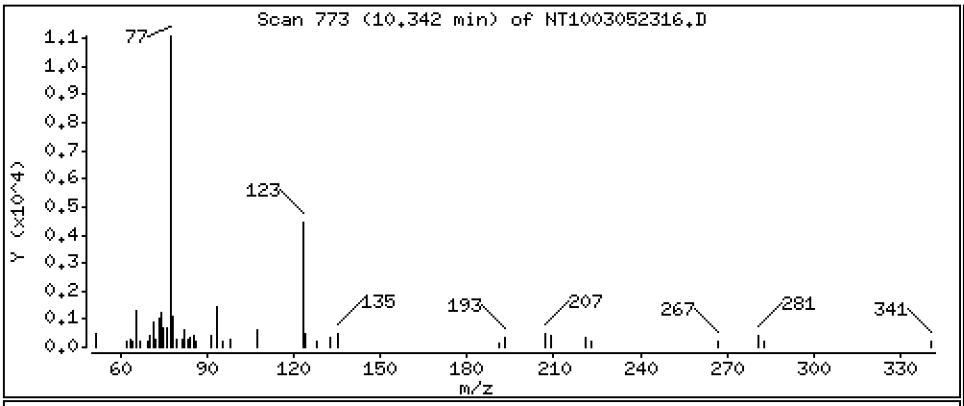
Operator: VTS

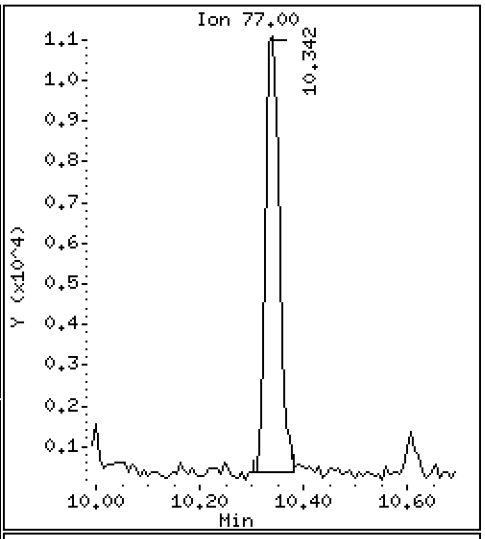
Column phase: ZB-5msi

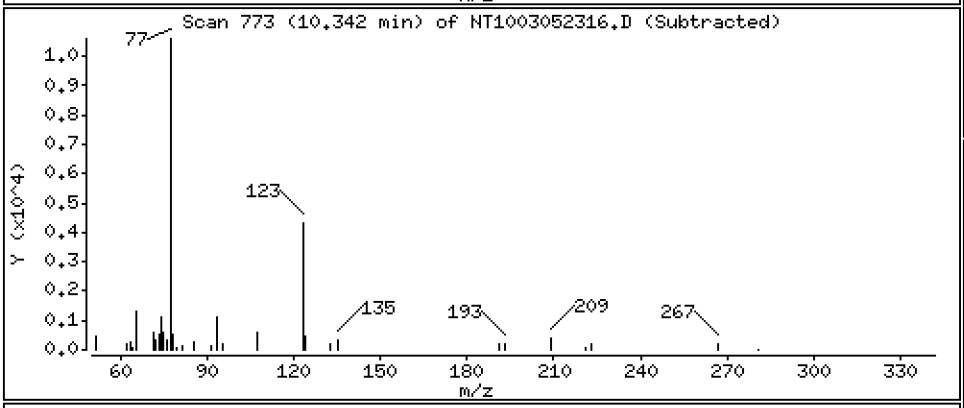
Column diameter: 0.25

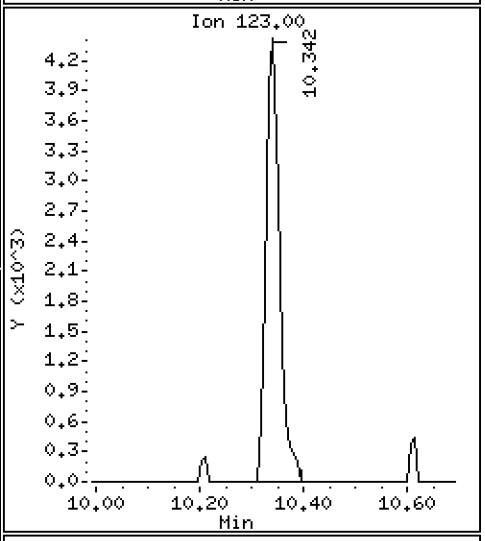
19 Nitrobenzene

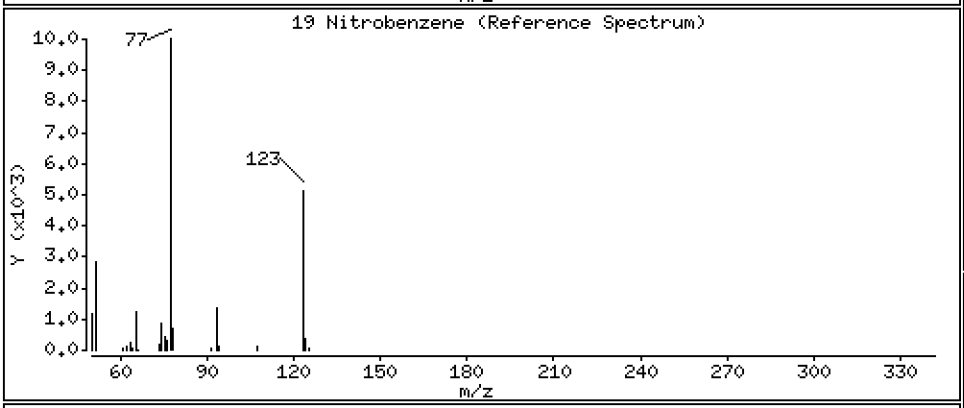
Concentration: 0.1752 ug/mL

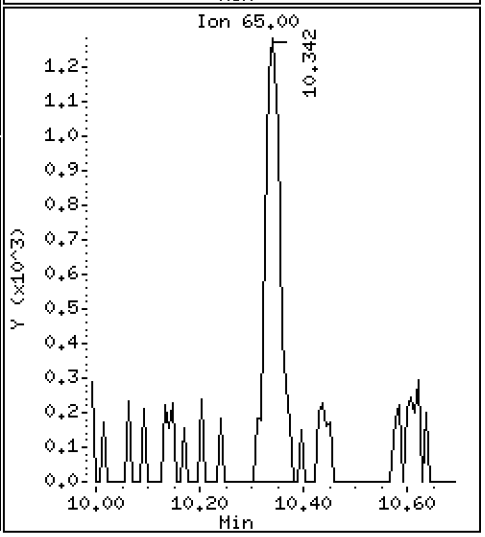


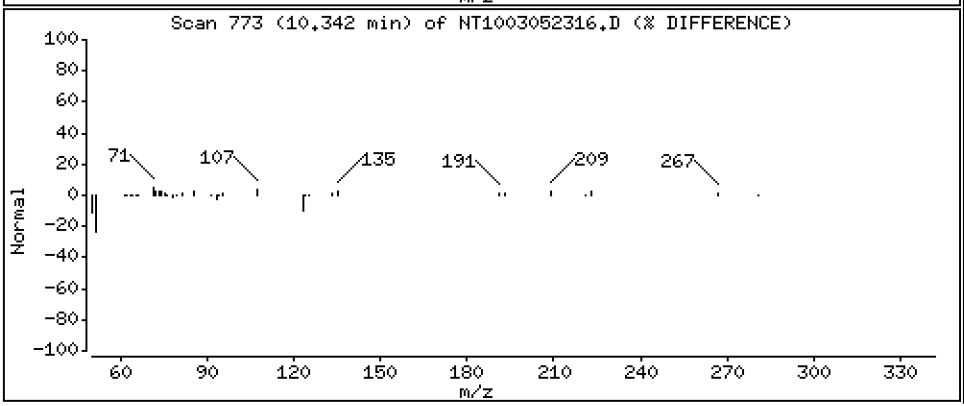












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

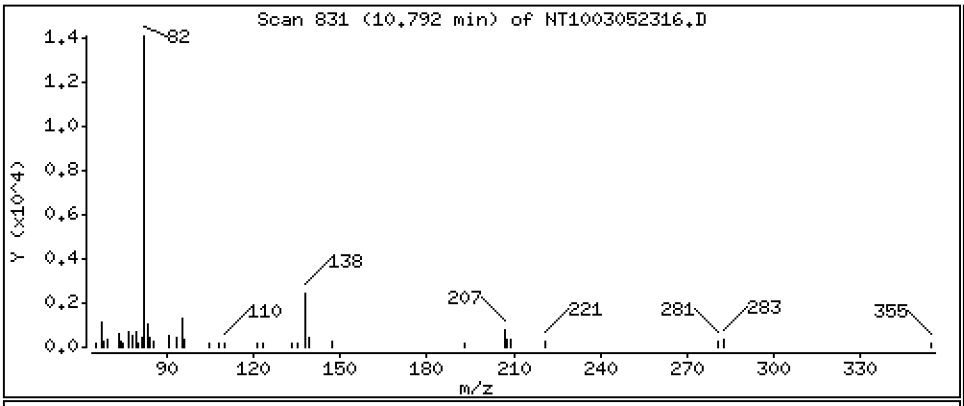
Operator: VTS

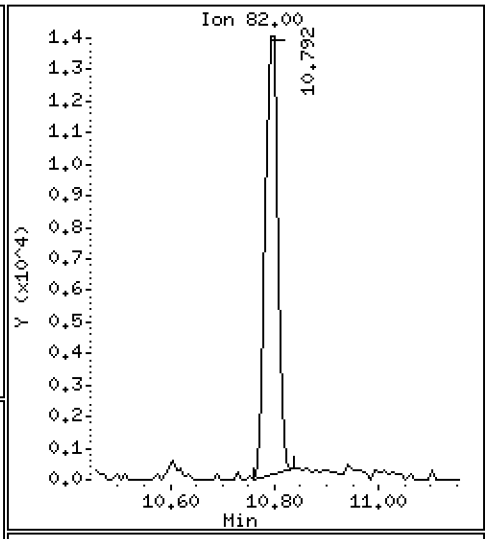
Column phase: ZB-5msi

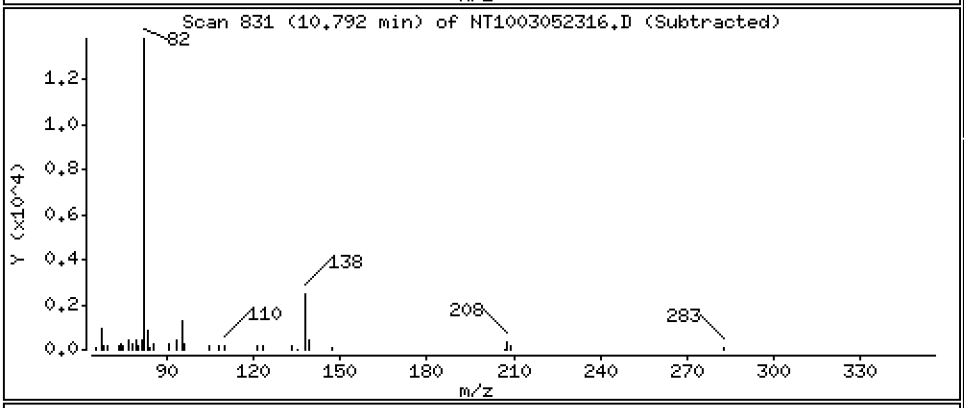
Column diameter: 0.25

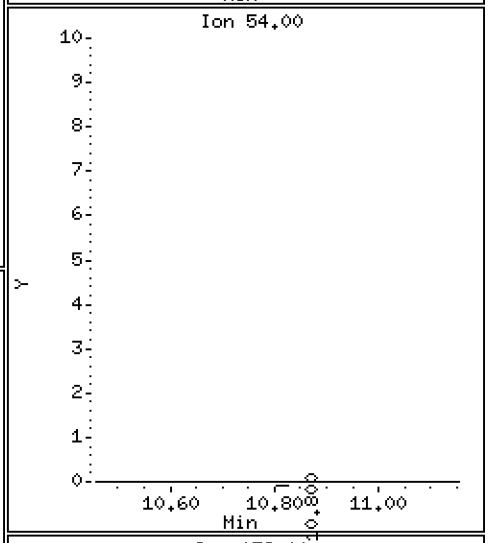
20 Isophorone

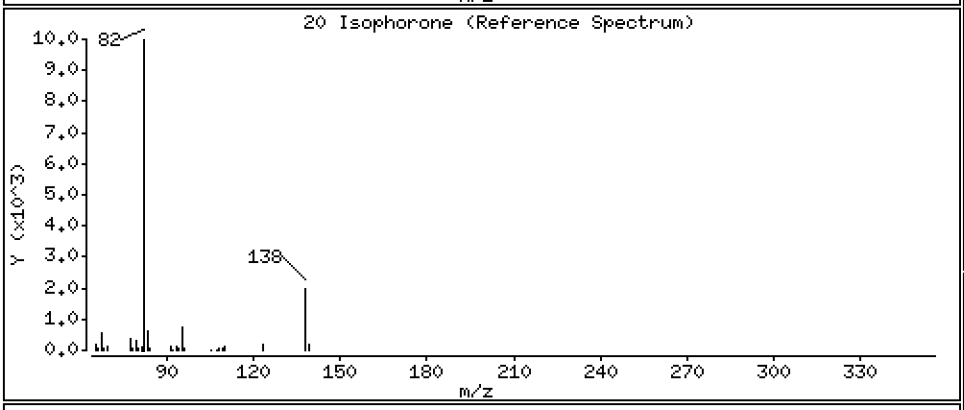
Concentration: 0.1613 ug/mL

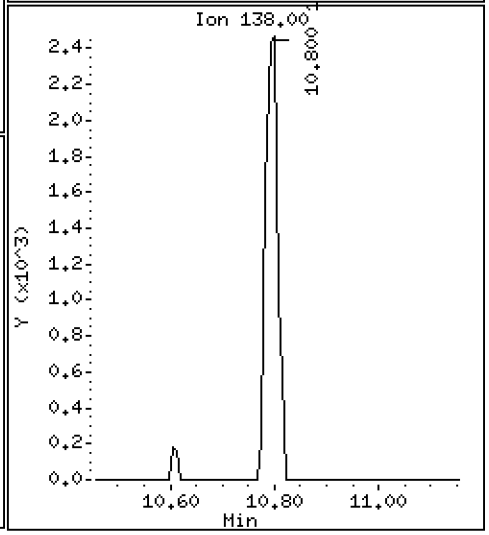


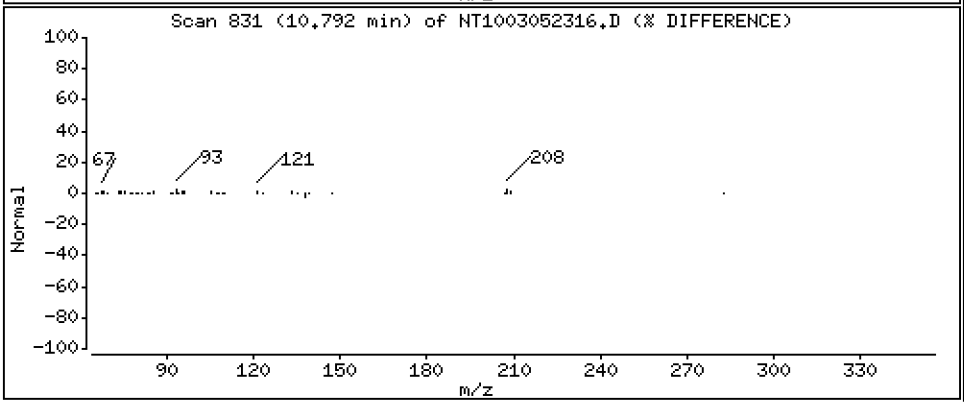












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

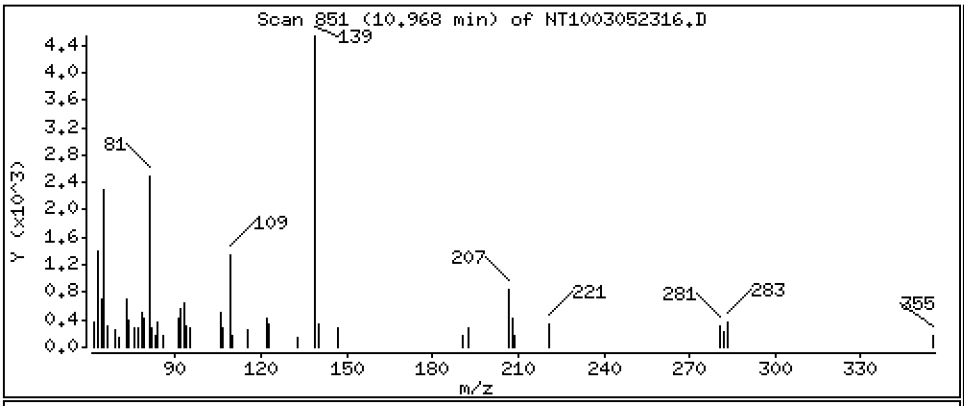
Operator: VTS

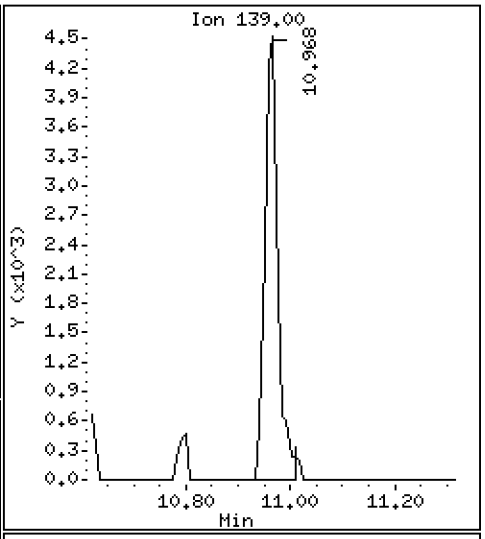
Column phase: ZB-5msi

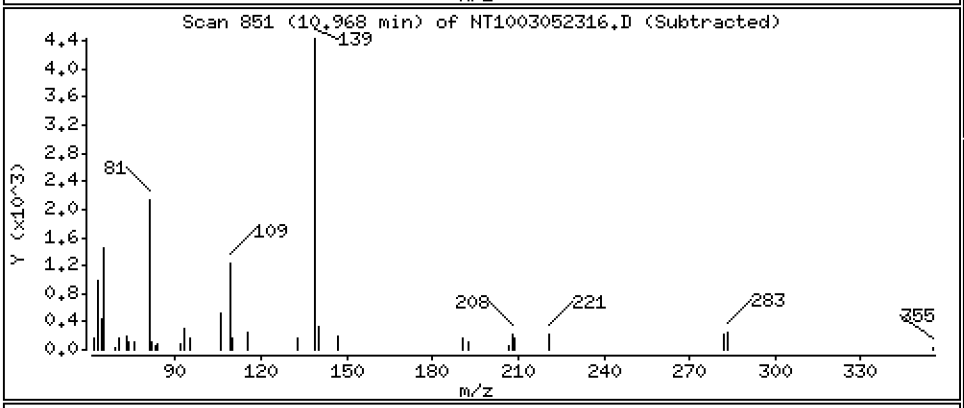
Column diameter: 0.25

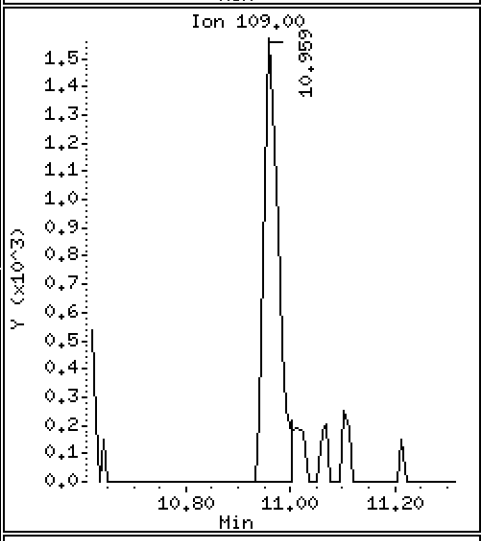
21 2-Nitrophenol

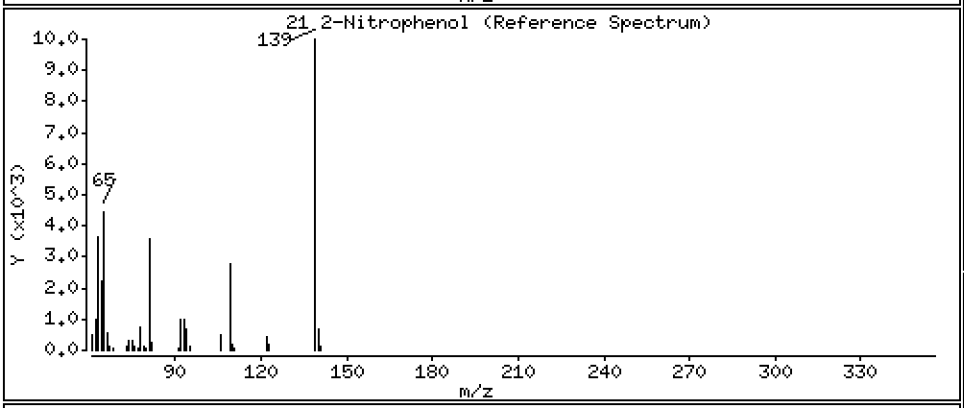
Concentration: 0.1286 ug/mL

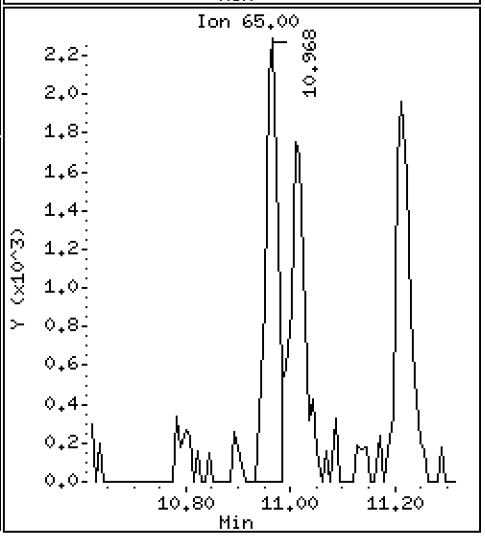


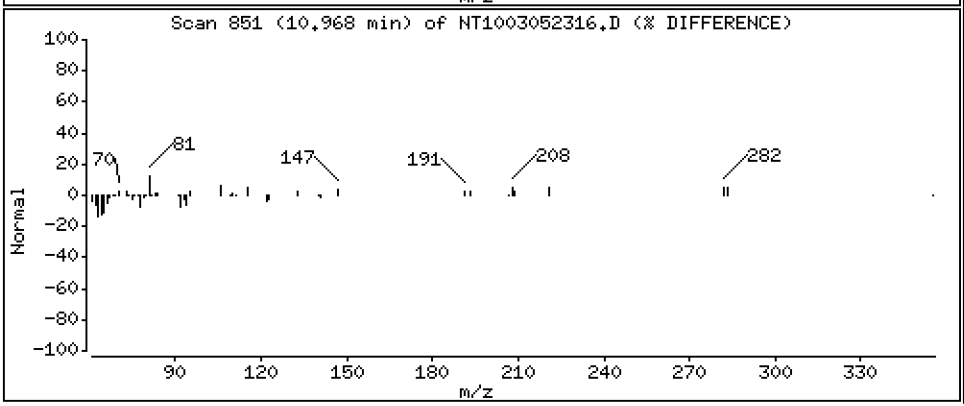












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

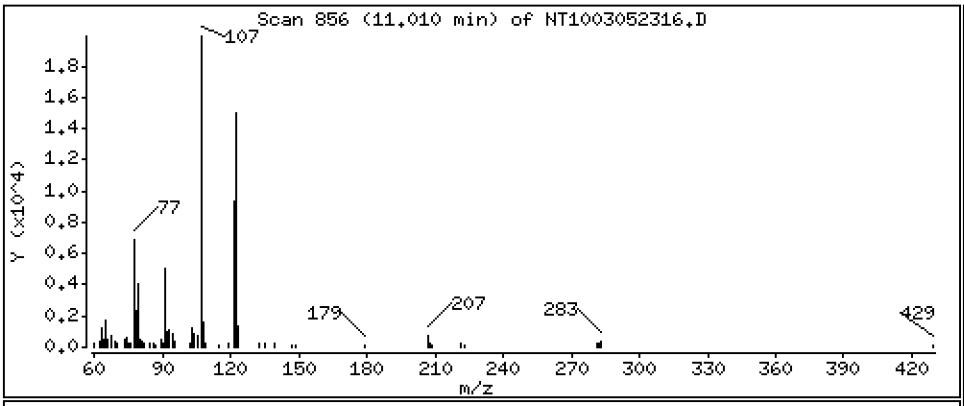
Operator: VTS

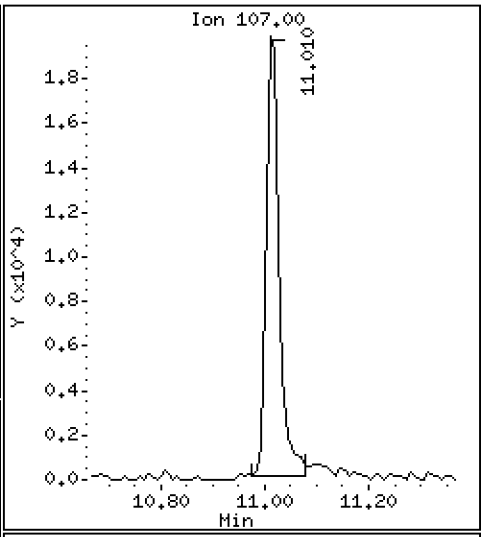
Column phase: ZB-5msi

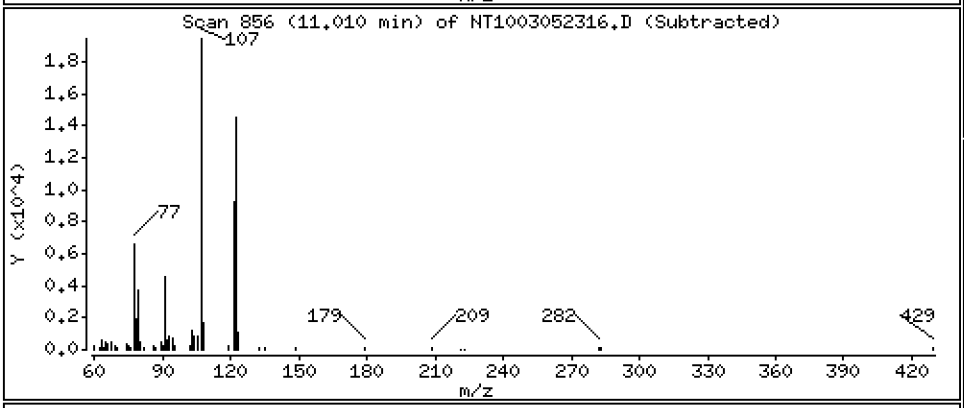
Column diameter: 0.25

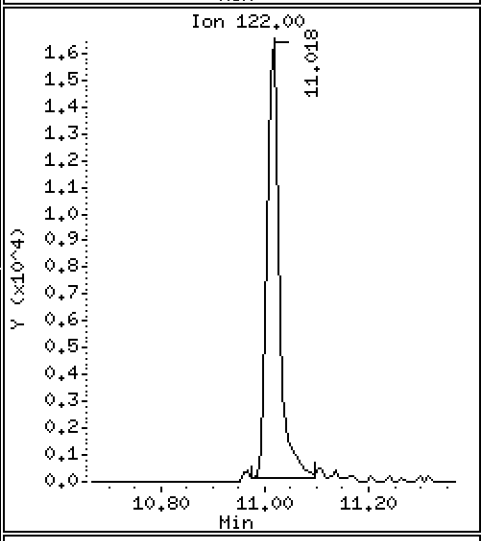
22 2,4-Dimethylphenol

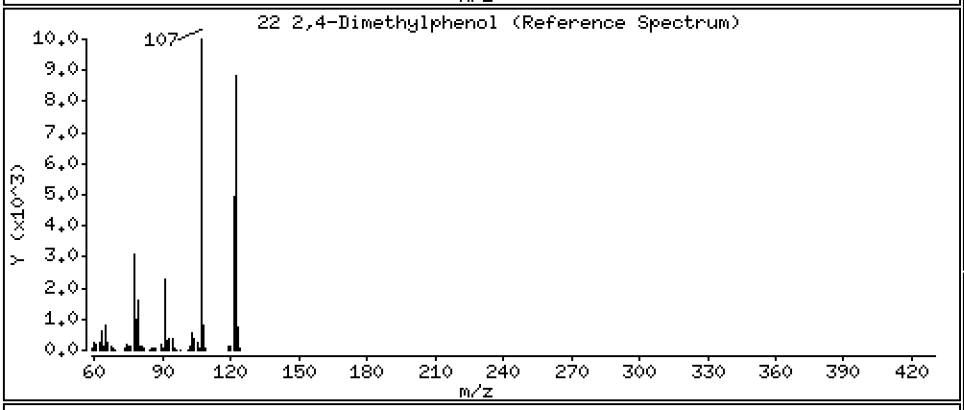
Concentration: 0.3387 ug/mL

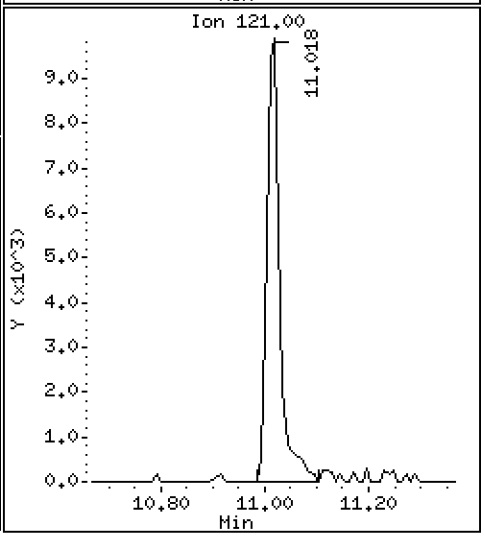


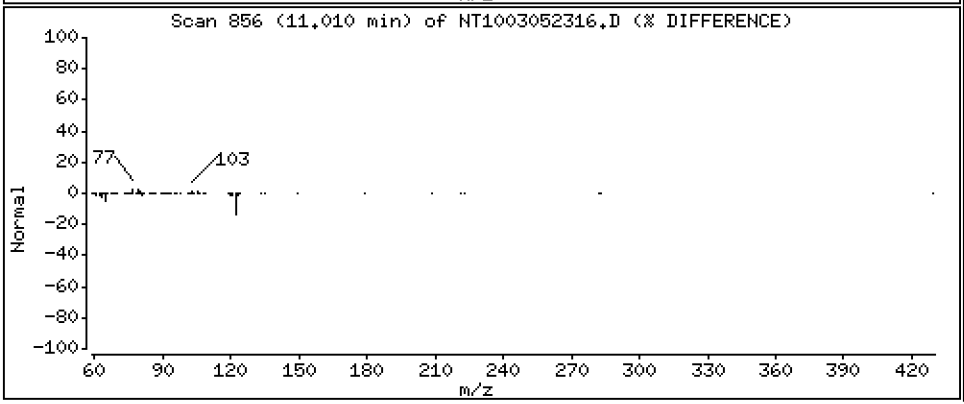












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

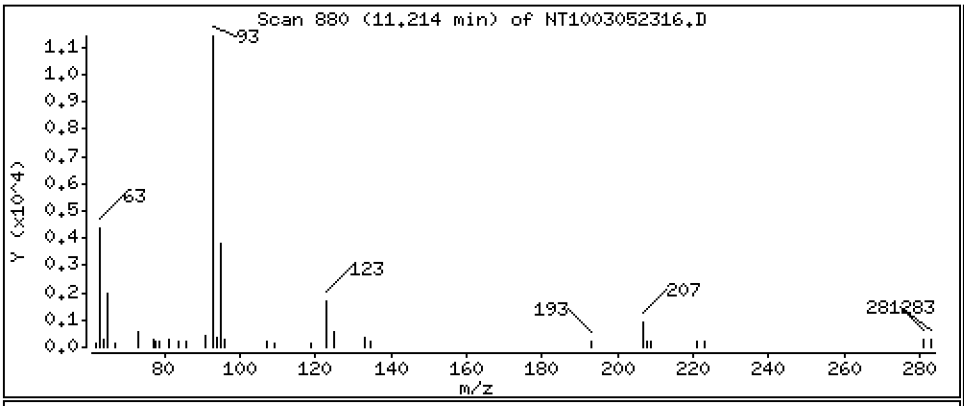
Operator: VTS

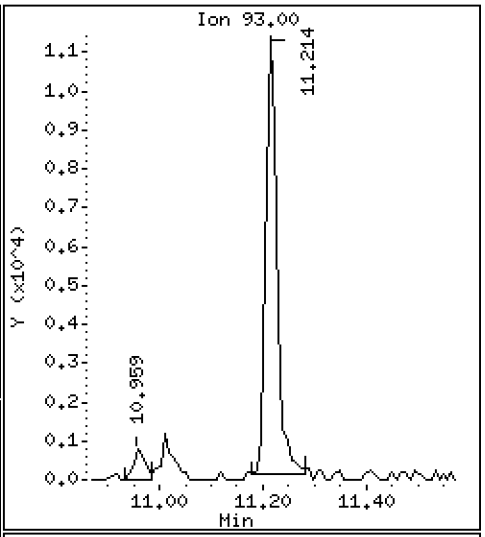
Column phase: ZB-5msi

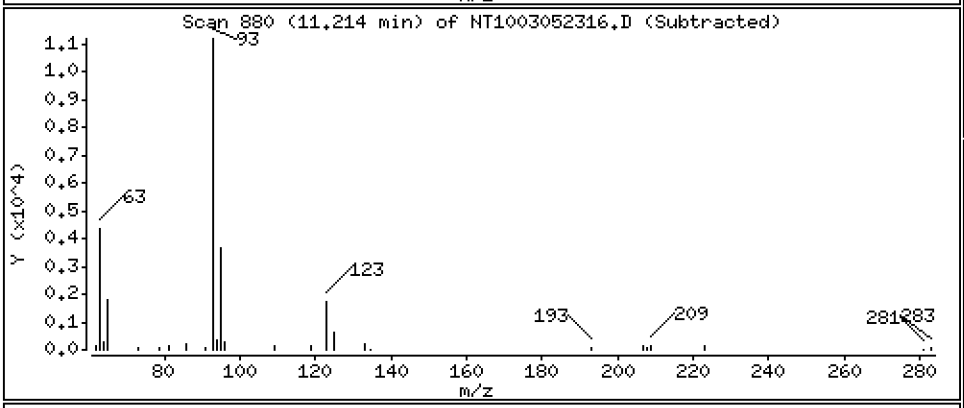
Column diameter: 0.25

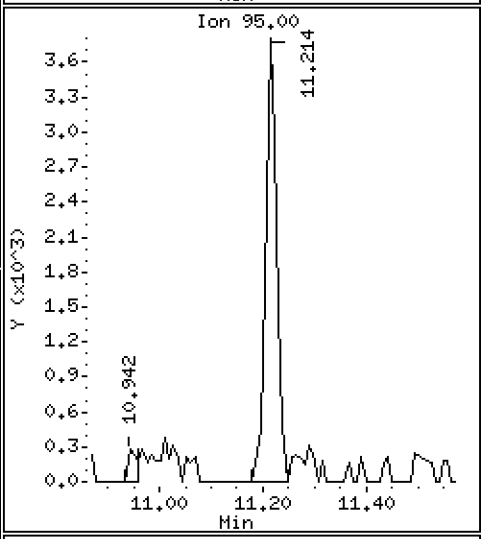
23 Bis(2-Chloroethoxy)methane

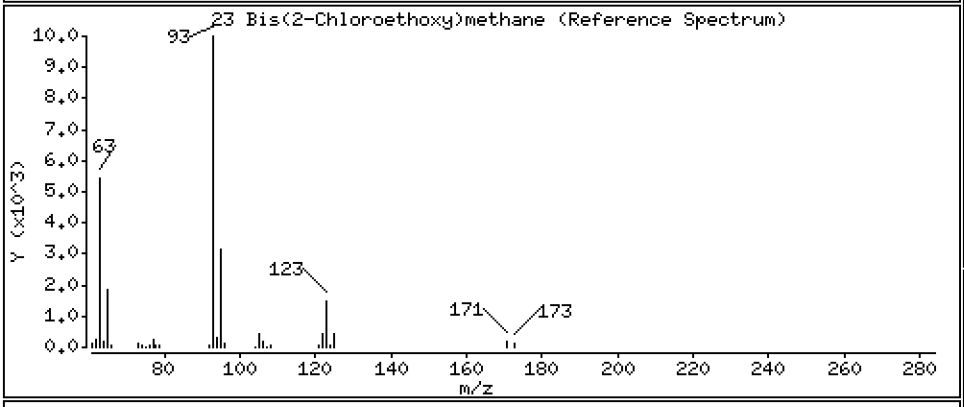
Concentration: 0.2003 ug/mL

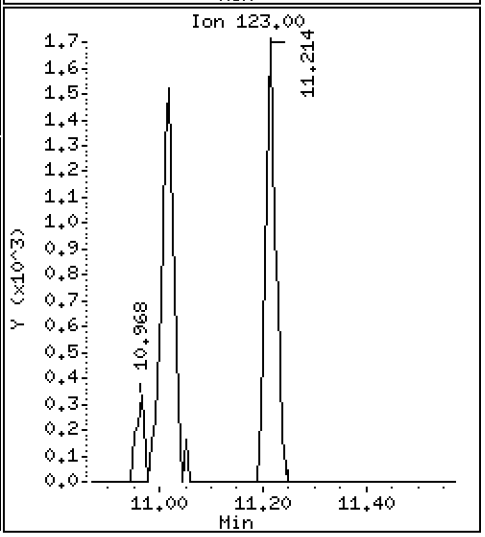


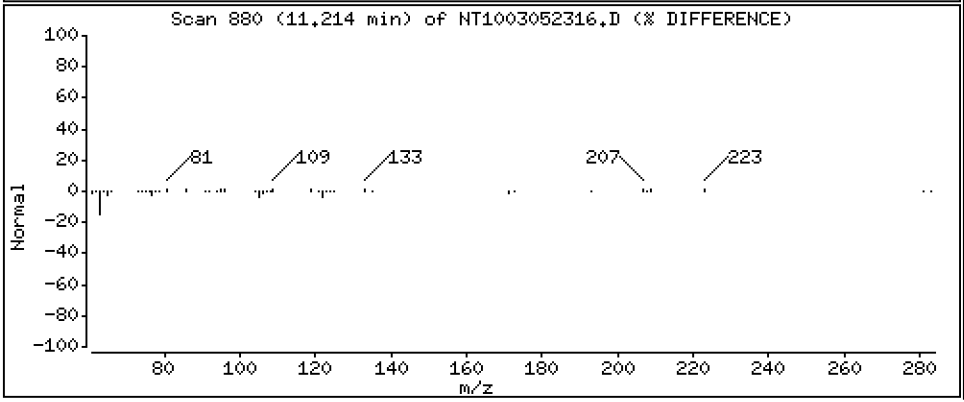












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

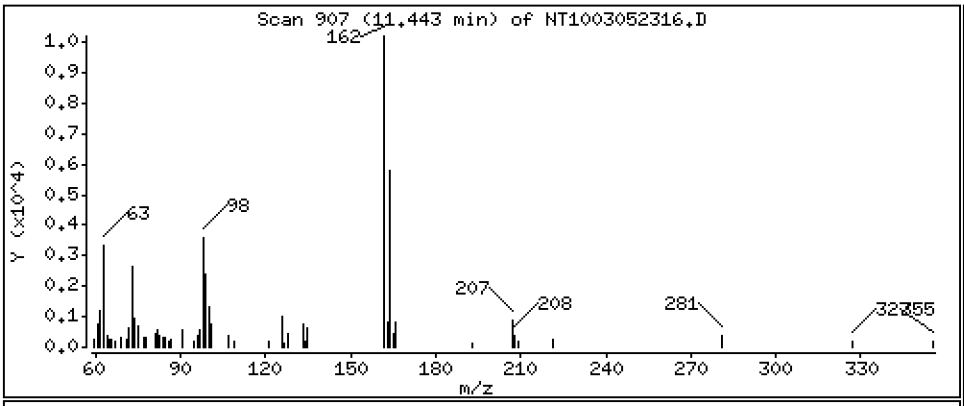
Operator: VTS

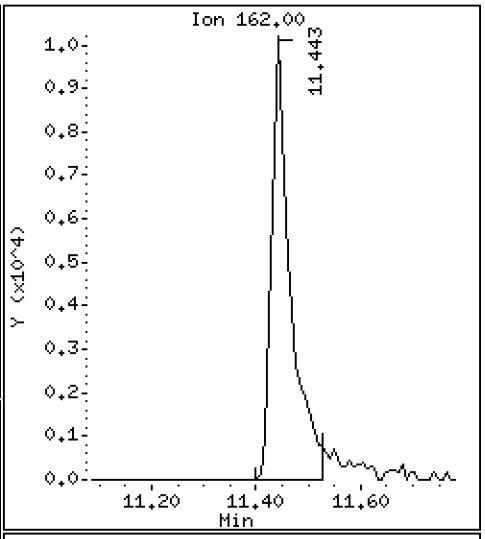
Column phase: ZB-5msi

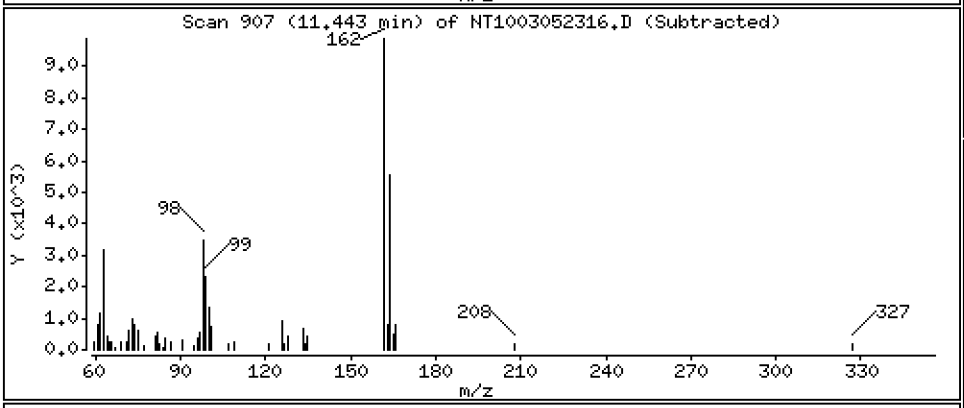
Column diameter: 0.25

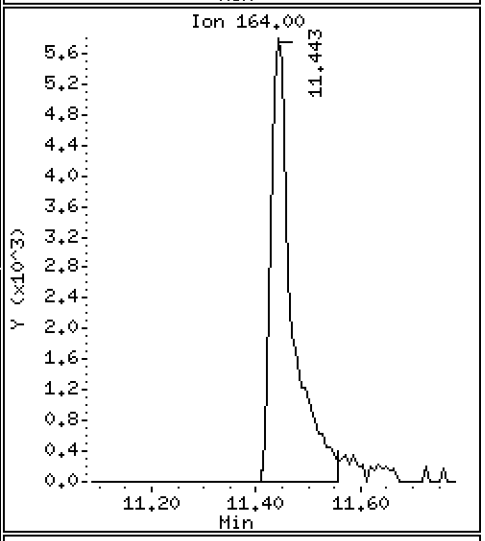
25 2,4-Dichlorophenol

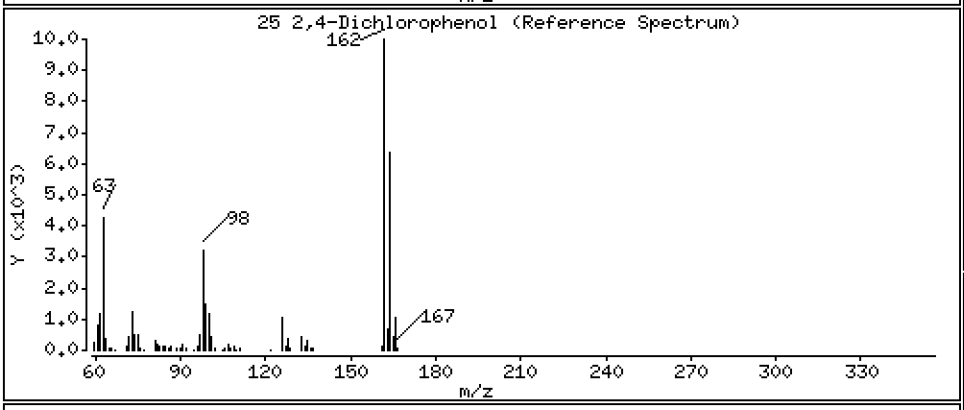
Concentration: 0.3387 ug/mL

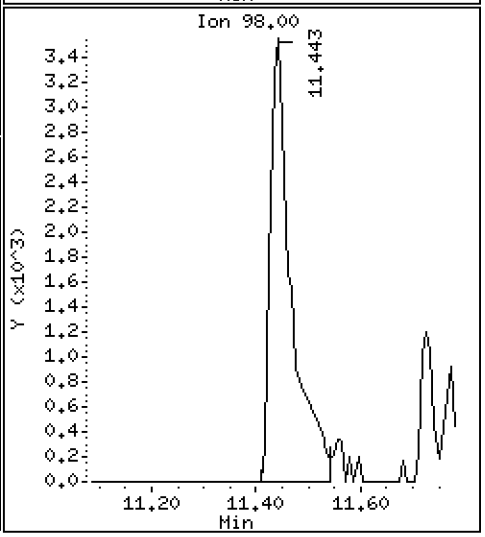


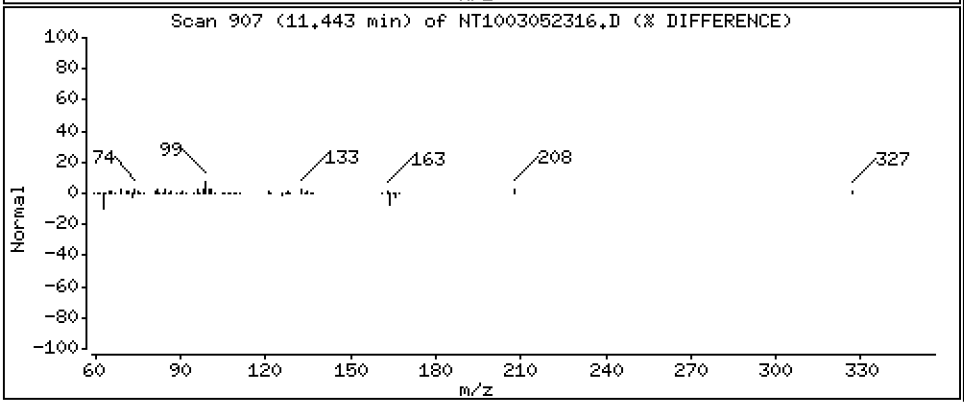












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

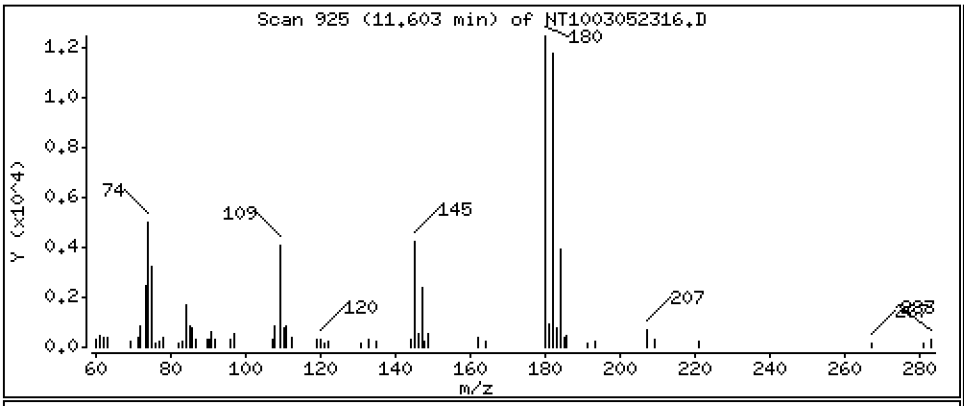
Operator: VTS

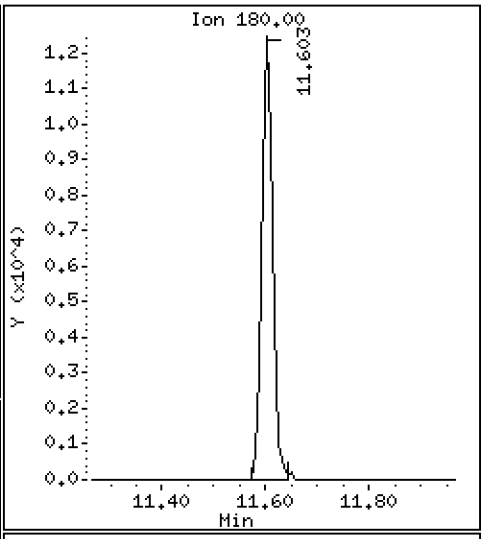
Column phase: ZB-5msi

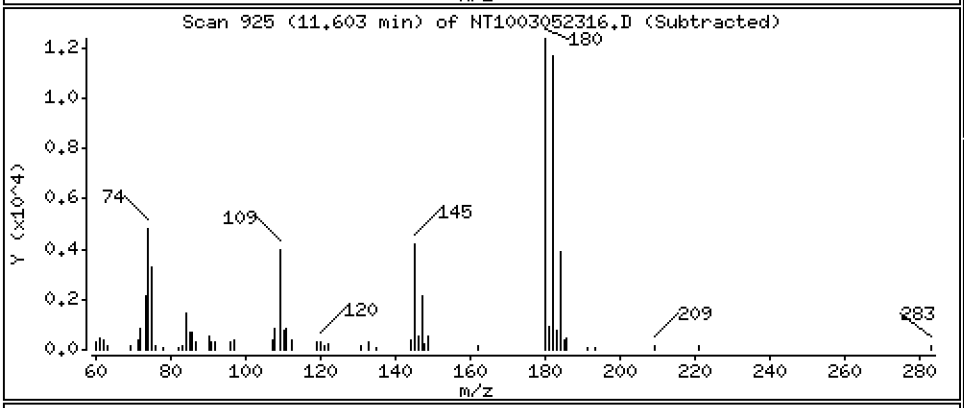
Column diameter: 0.25

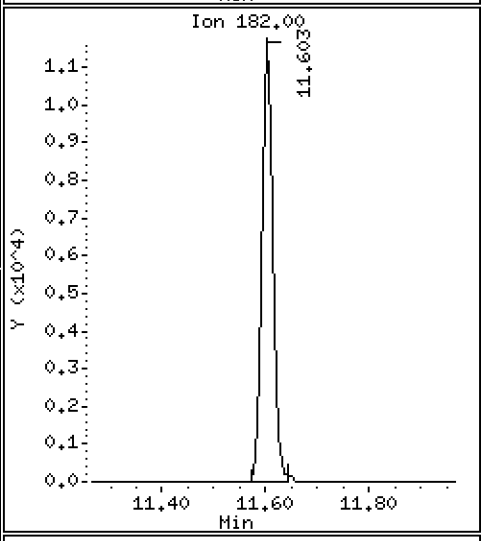
26 1,2,4-Trichlorobenzene

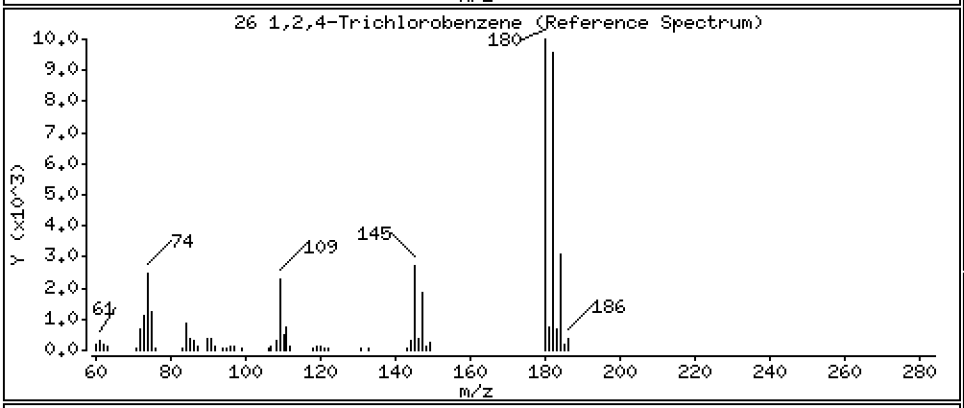
Concentration: 0.2309 ug/mL

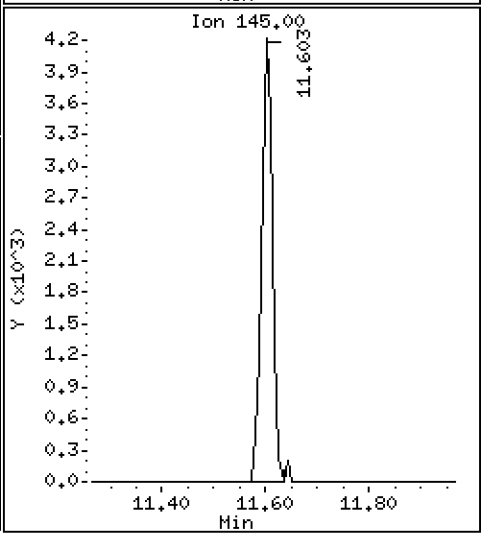


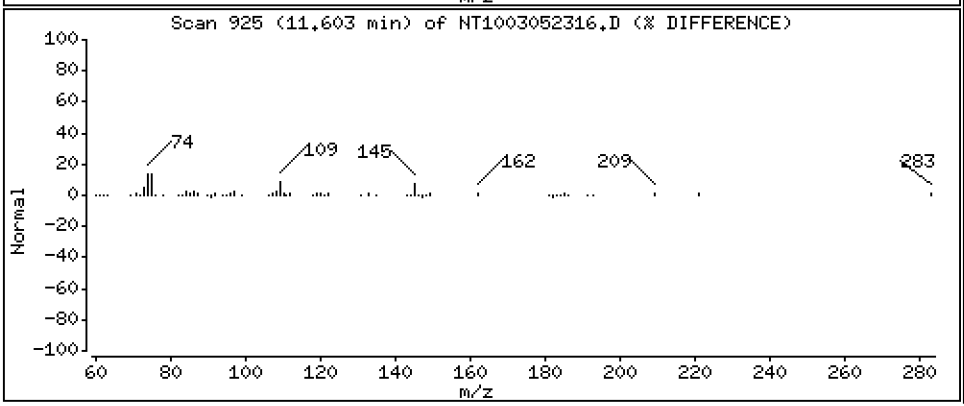












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

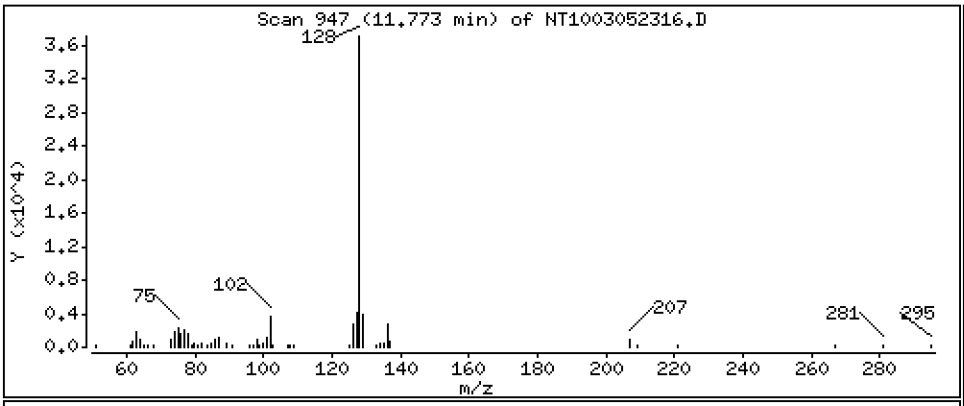
Operator: VTS

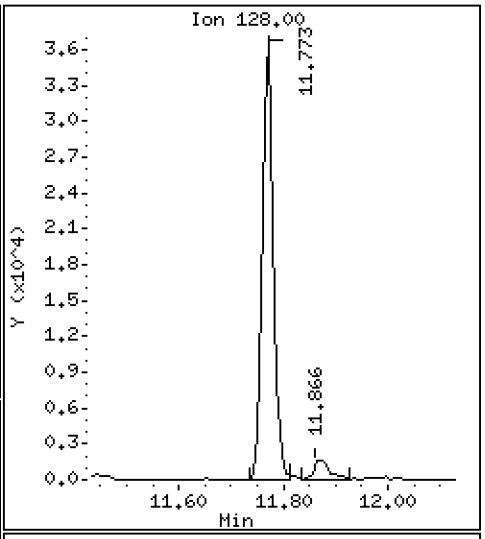
Column phase: ZB-5msi

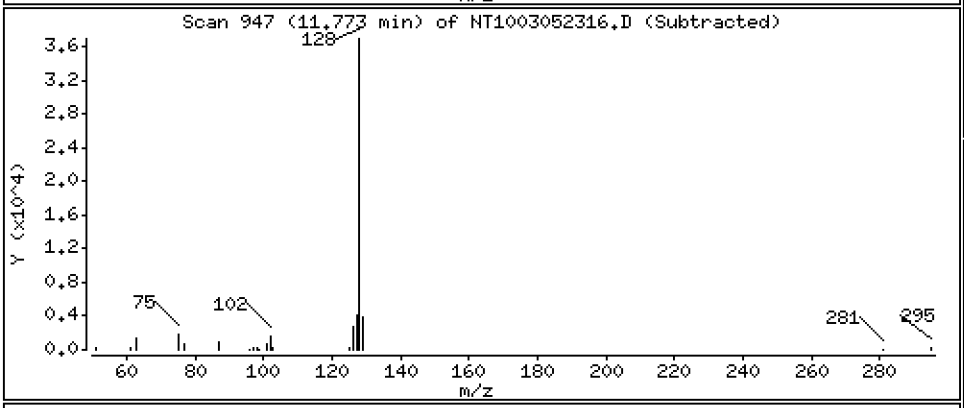
Column diameter: 0.25

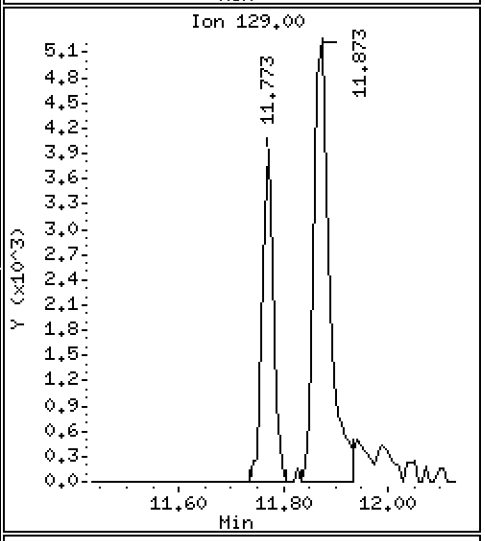
28 Naphthalene

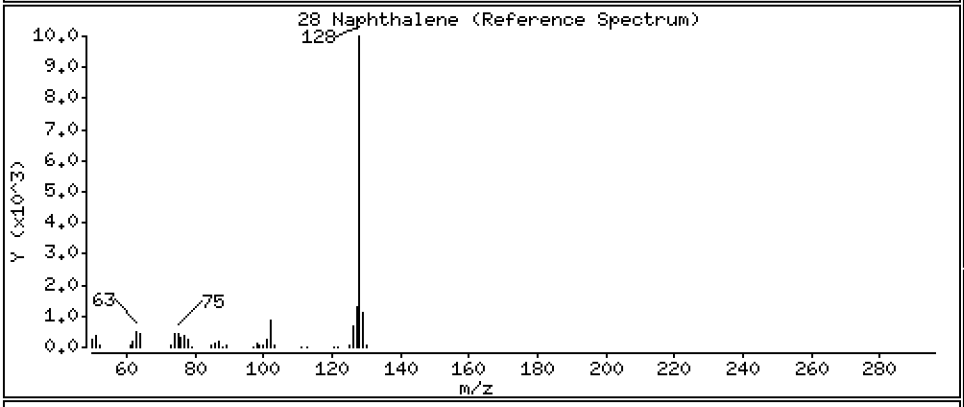
Concentration: 0.2025 ug/mL

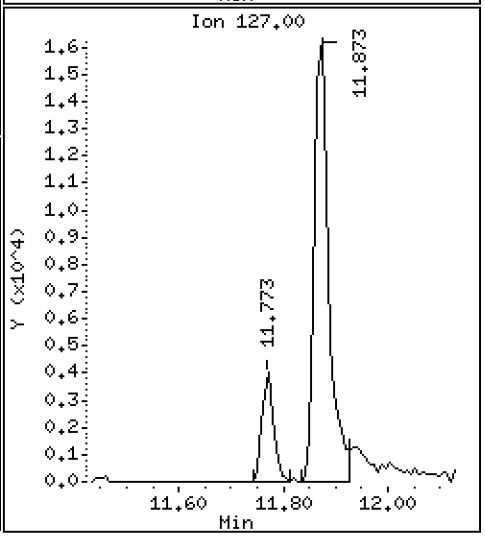


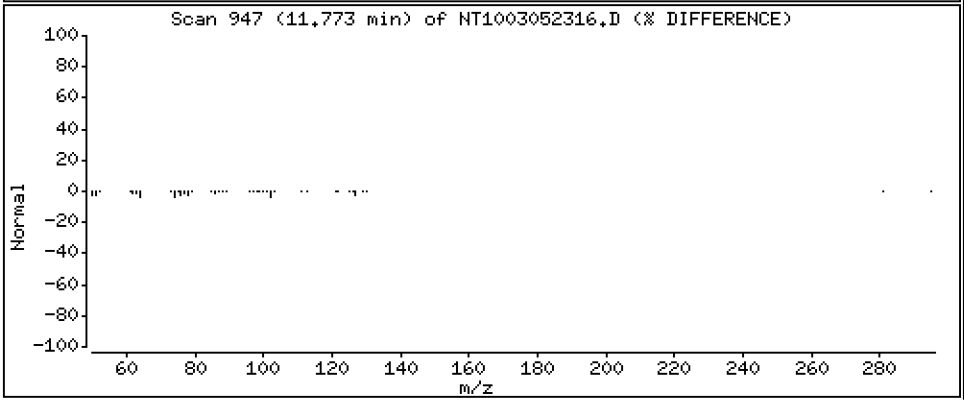












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

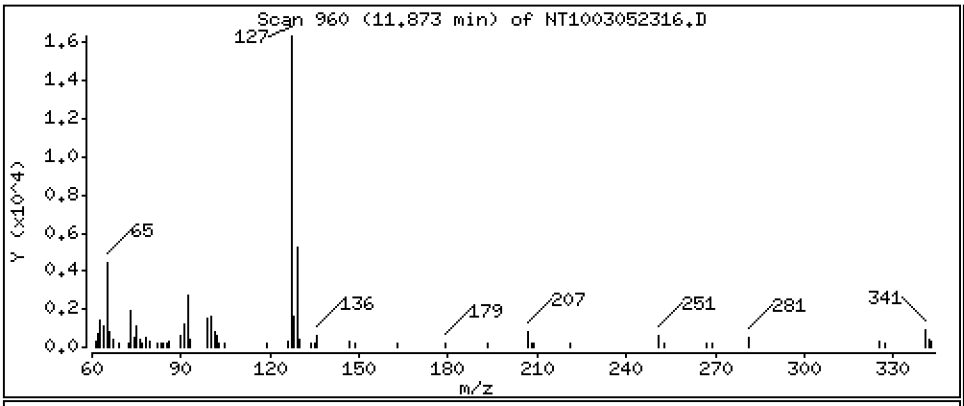
Operator: VTS

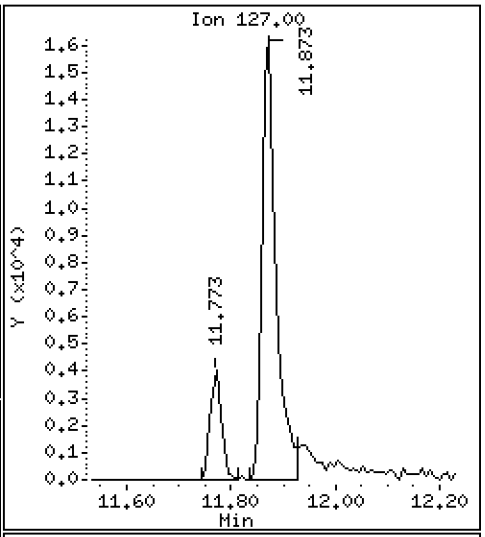
Column phase: ZB-5msi

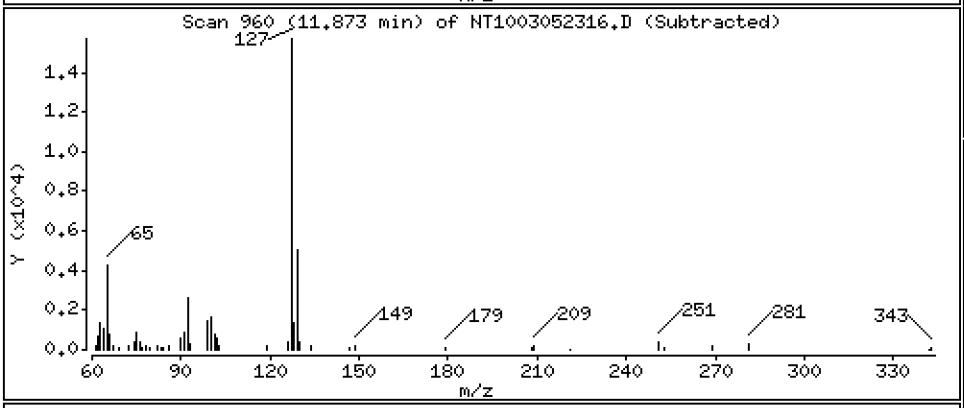
Column diameter: 0.25

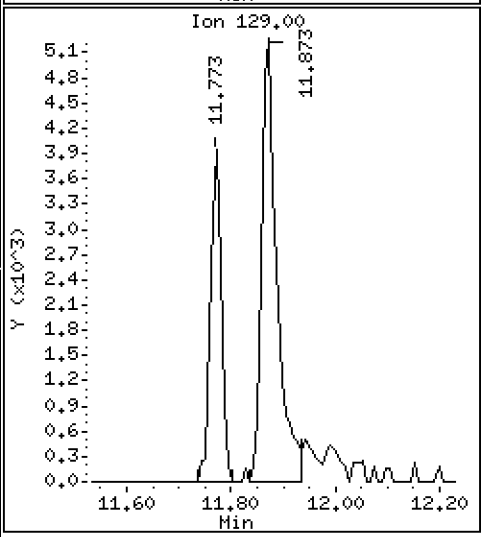
29 4-Chloroaniline

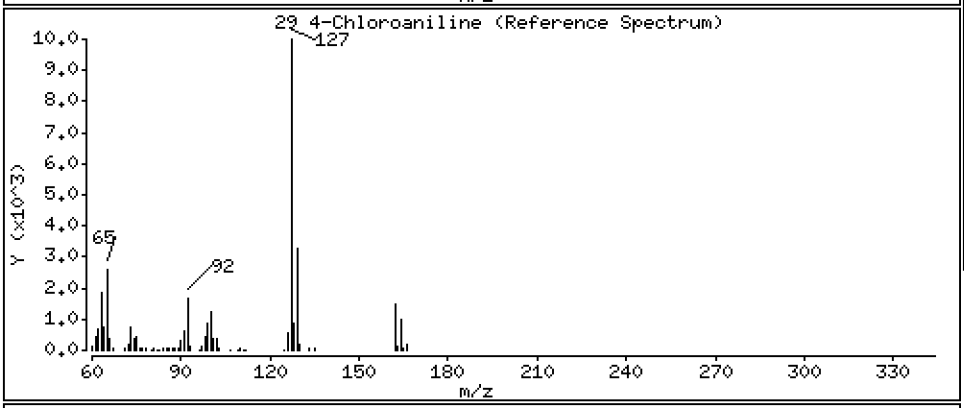
Concentration: 0.2560 ug/mL

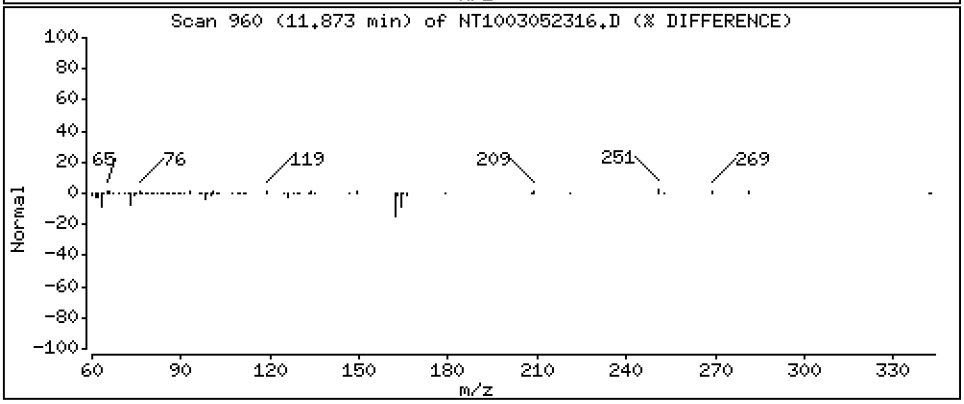












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

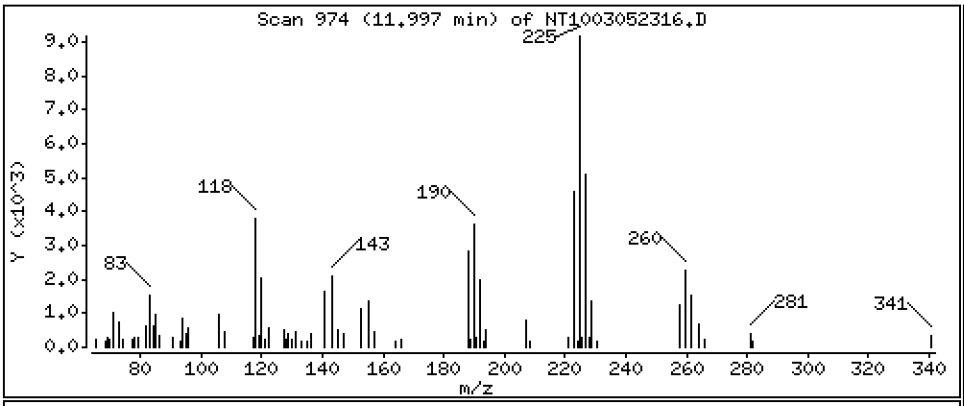
Operator: VTS

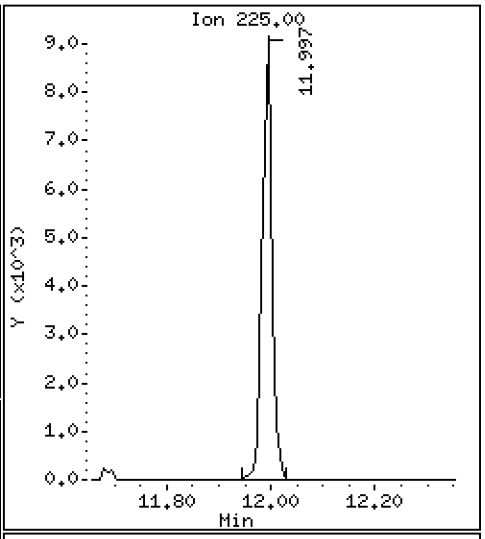
Column phase: ZB-5msi

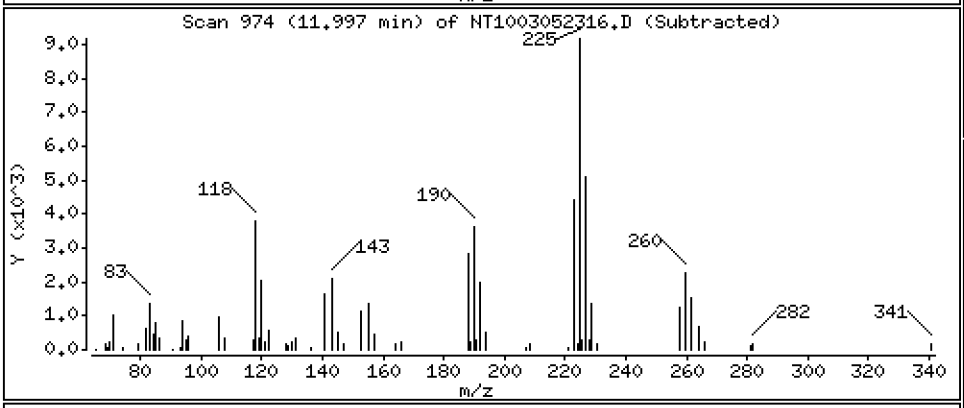
Column diameter: 0.25

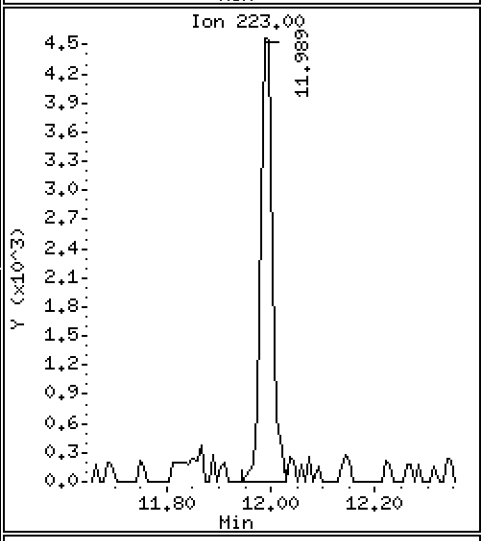
30 Hexachlorobutadiene

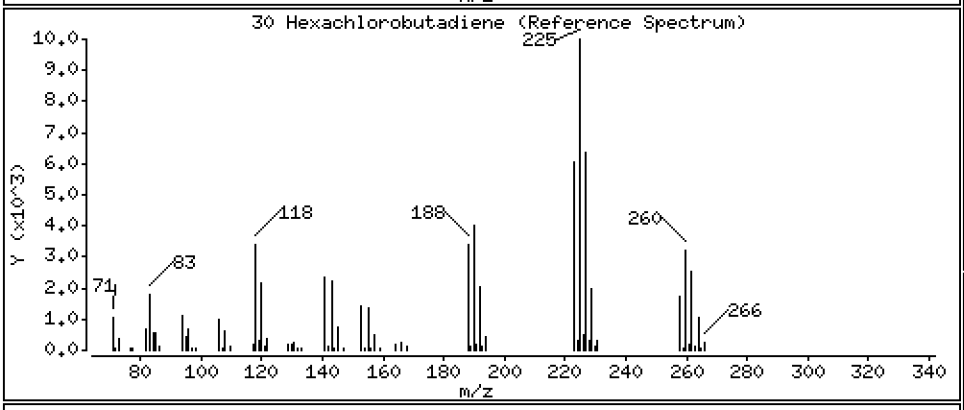
Concentration: 0.2510 ug/mL

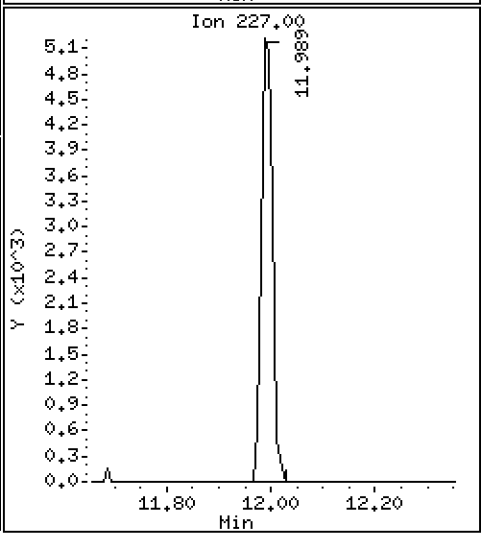


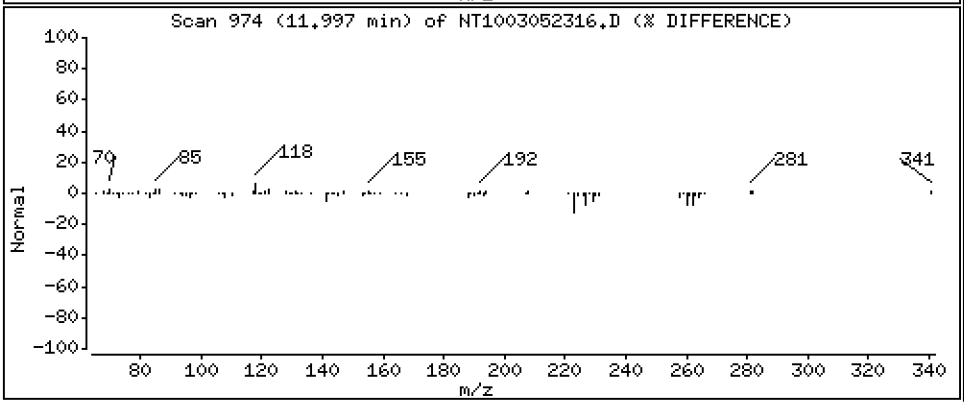












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

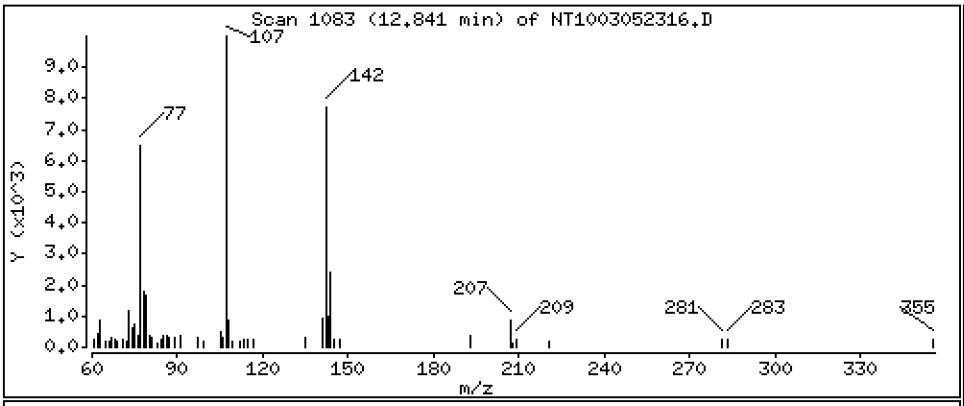
Operator: VTS

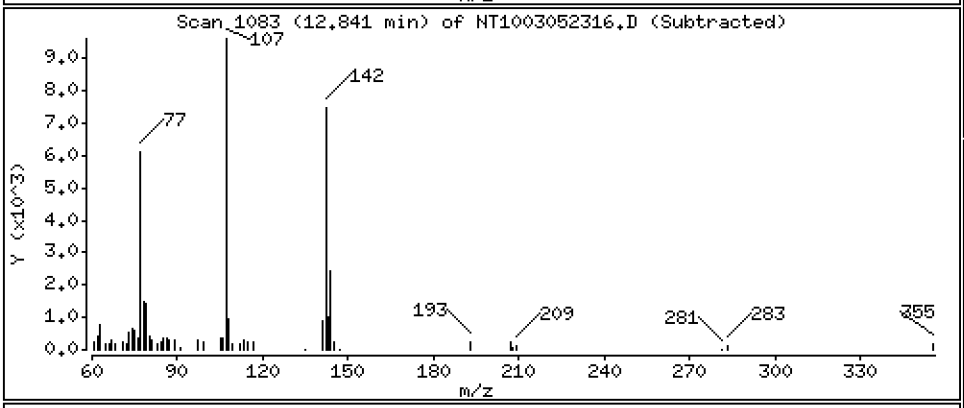
Column phase: ZB-5msi

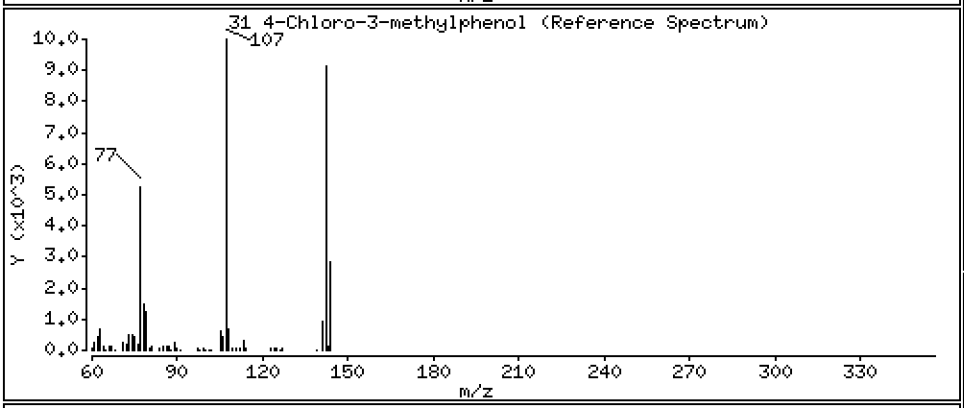
Column diameter: 0.25

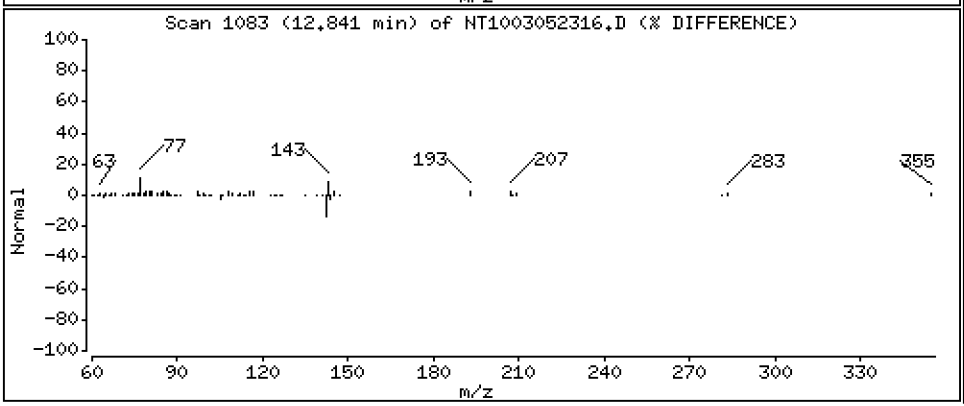
31 4-Chloro-3-methylphenol

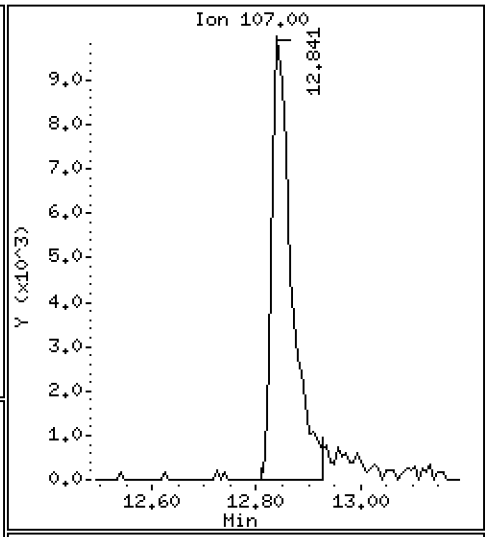
Concentration: 0.2986 ug/mL

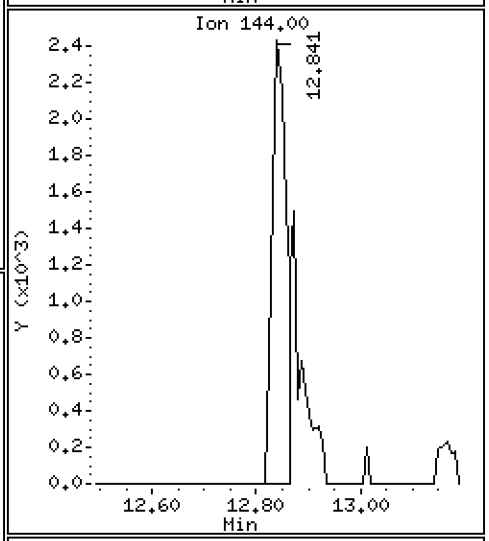


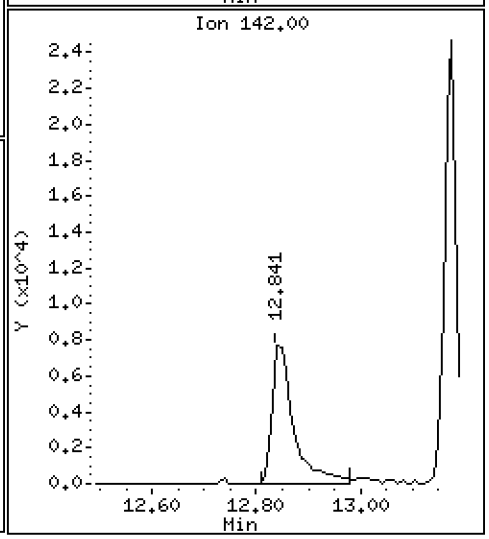












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

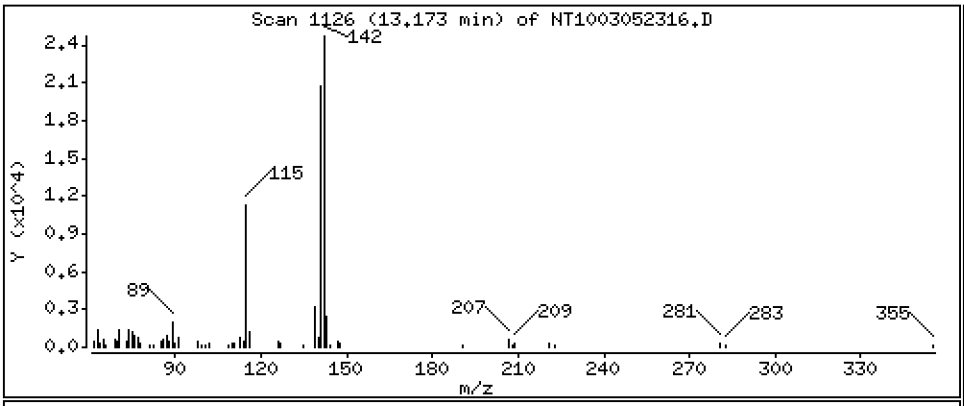
Operator: VTS

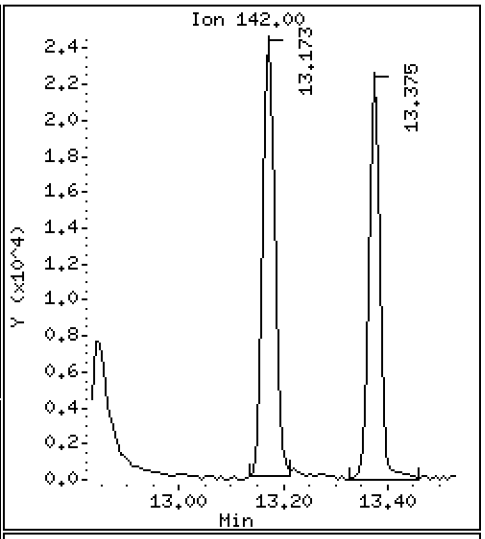
Column phase: ZB-5msi

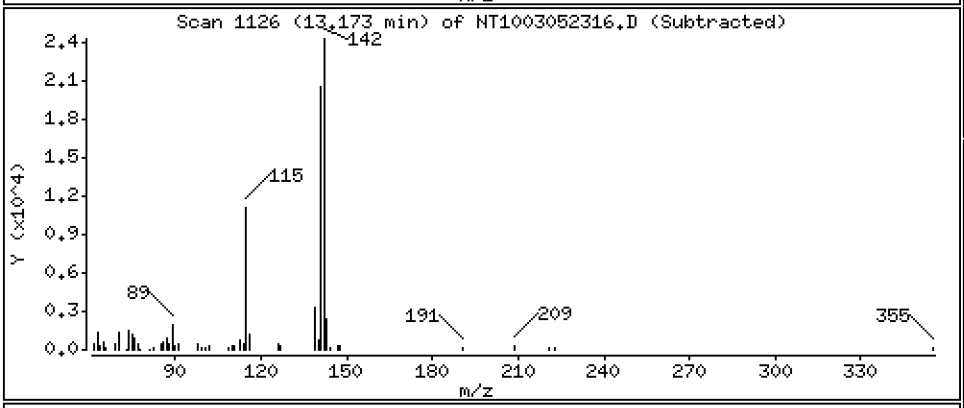
Column diameter: 0.25

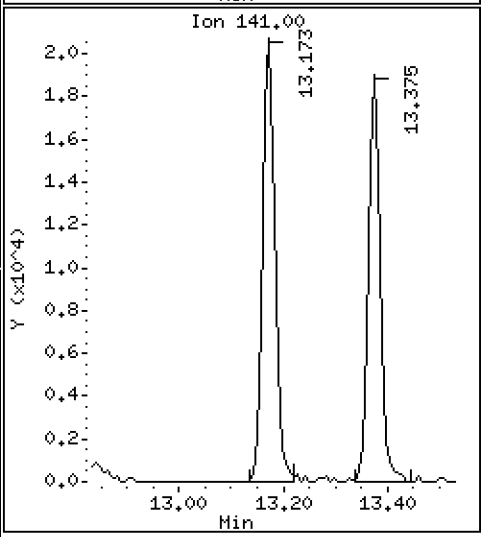
32 2-Methylnaphthalene

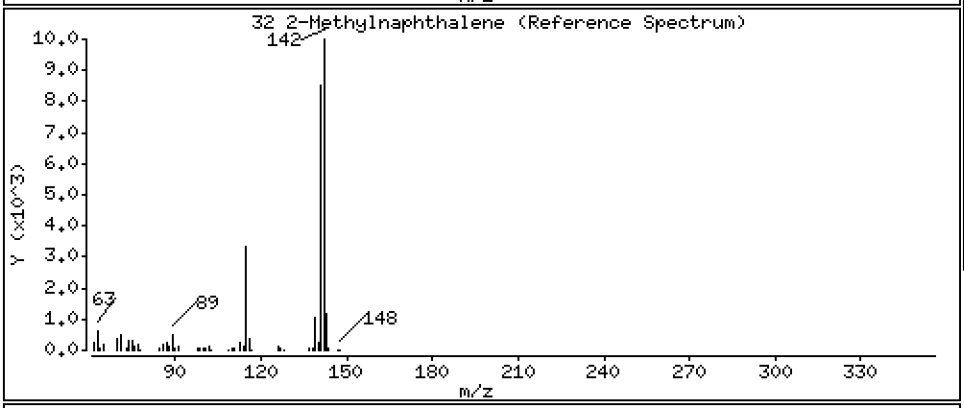
Concentration: 0.1967 ug/mL

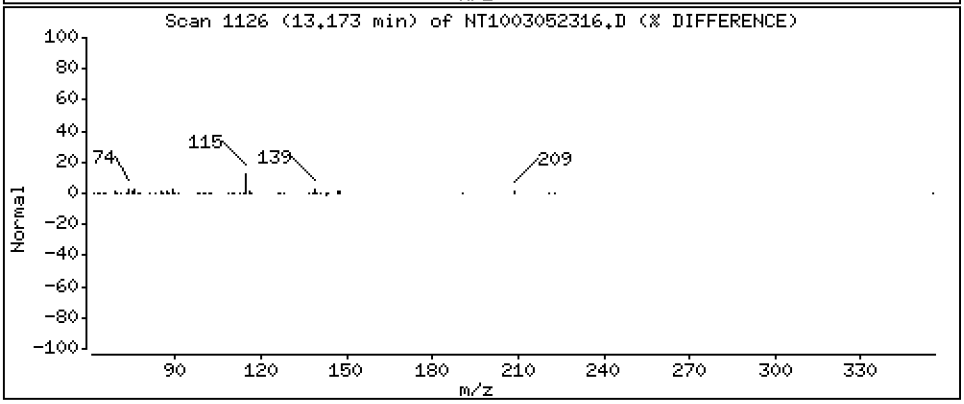












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

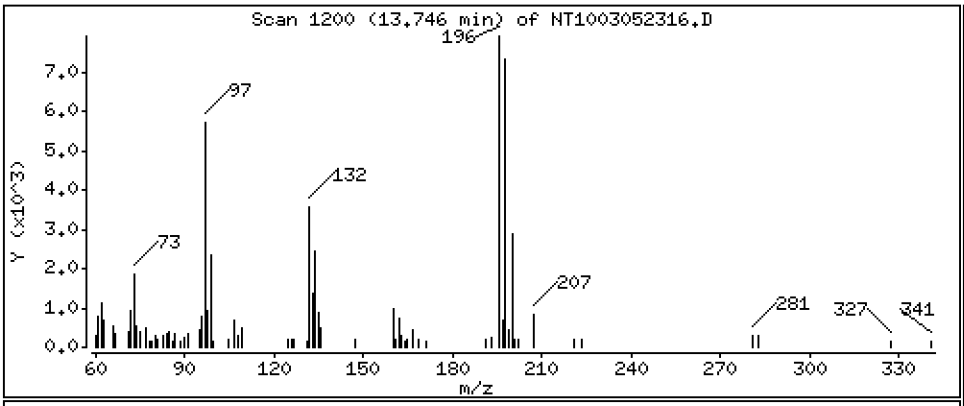
Operator: VTS

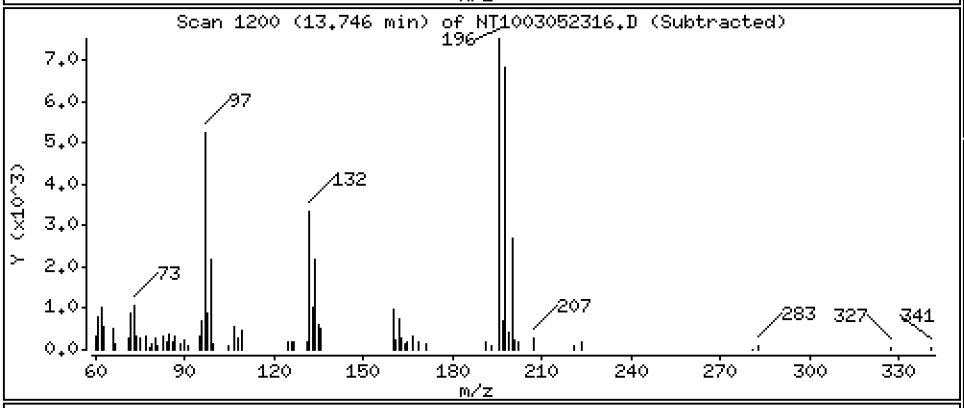
Column phase: ZB-5msi

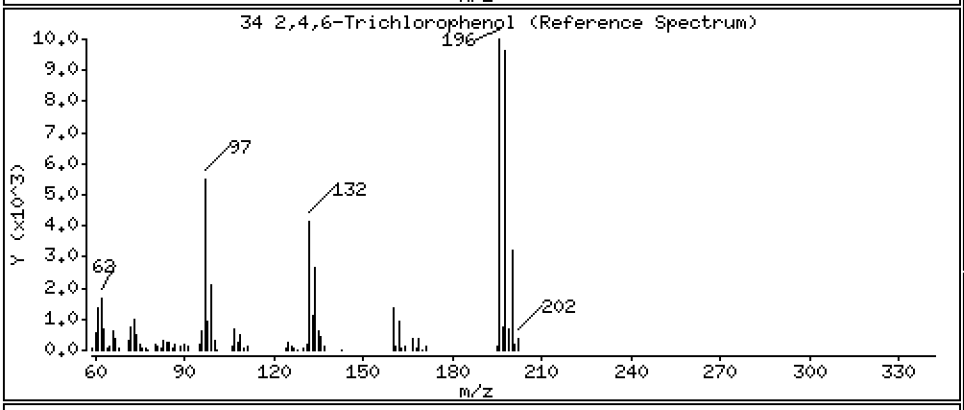
Column diameter: 0.25

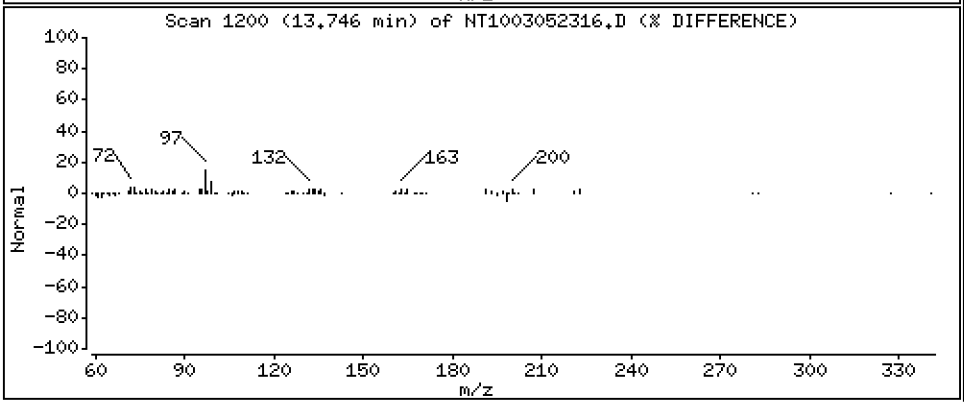
34 2,4,6-Trichlorophenol

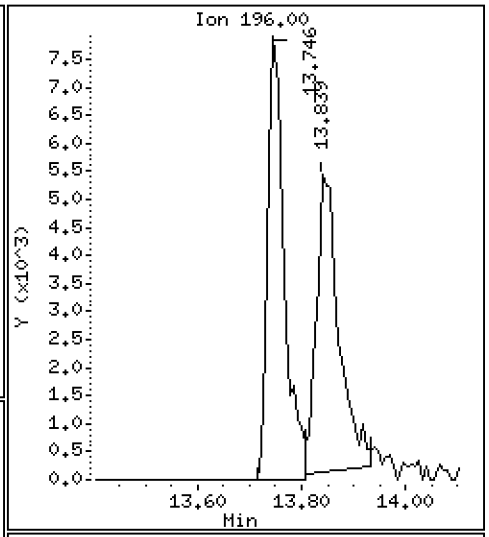
Concentration: 0.3294 ug/mL

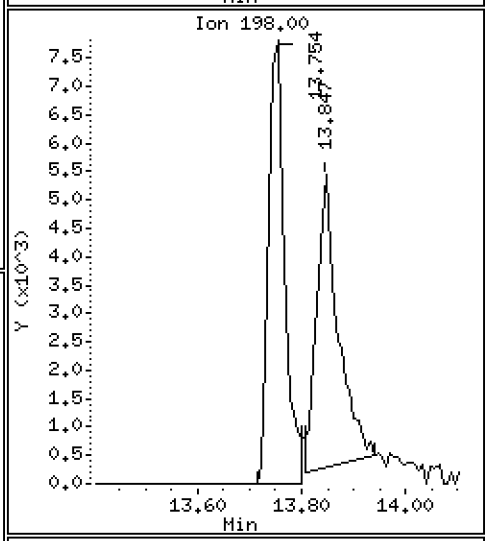


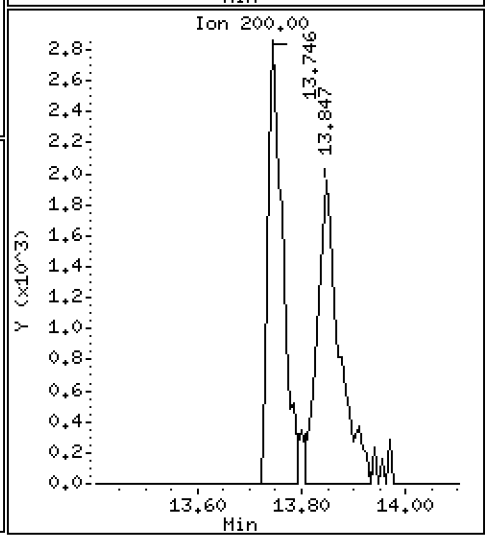












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

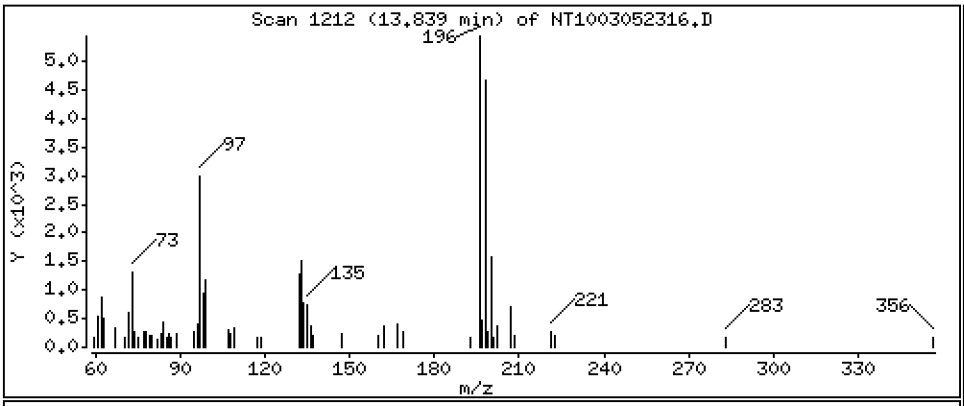
Operator: VTS

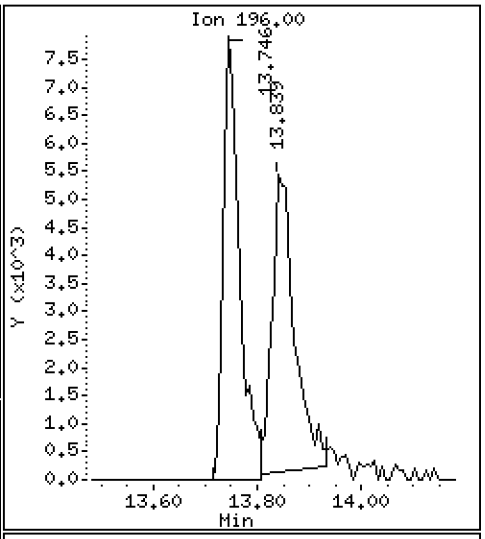
Column phase: ZB-5msi

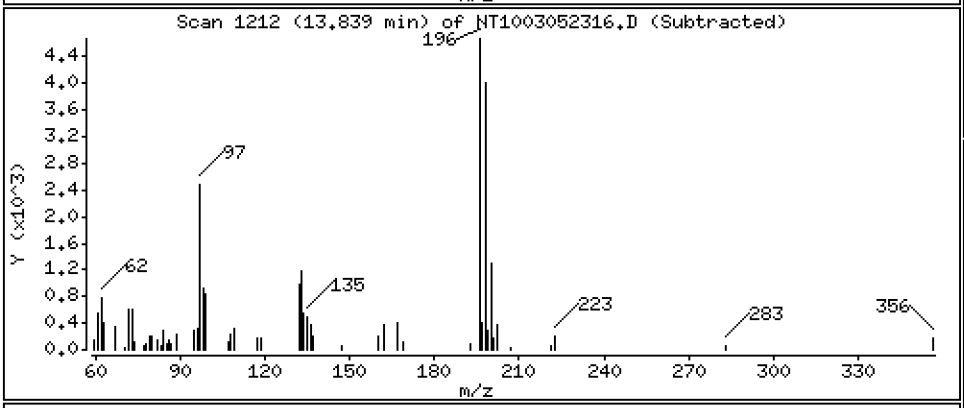
Column diameter: 0.25

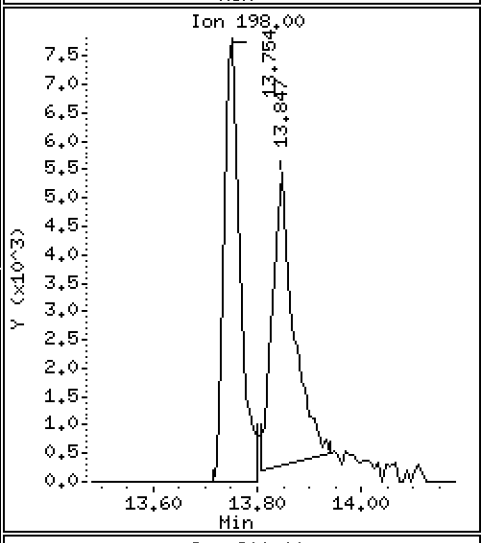
35 2,4,5-Trichlorophenol

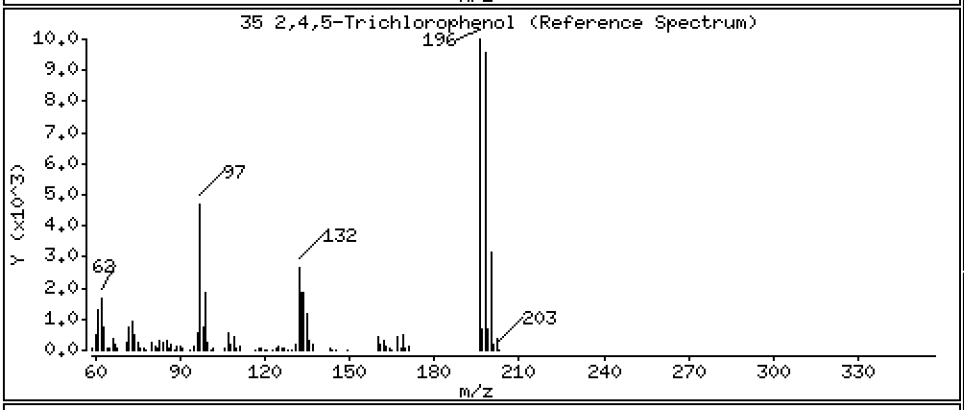
Concentration: 0.2931 ug/mL

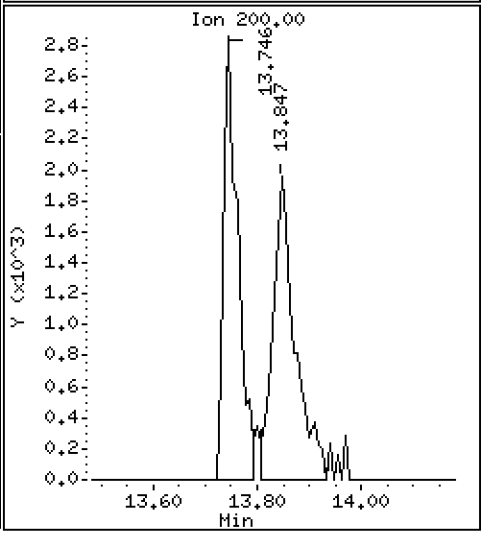


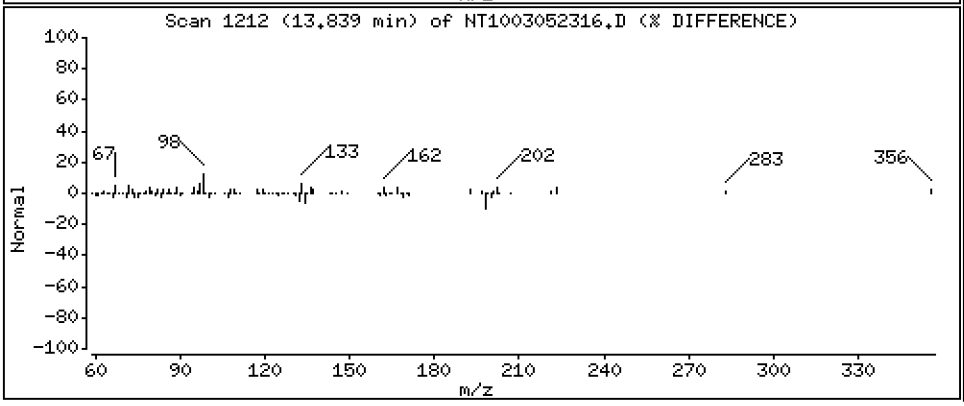












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

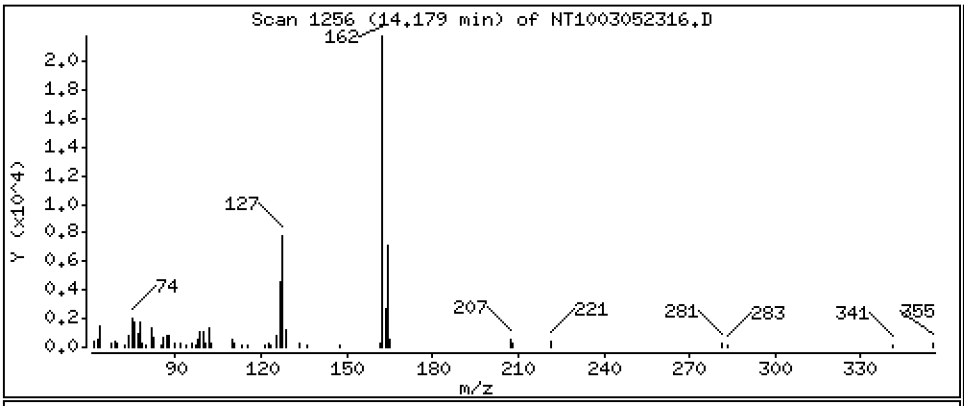
Operator: VTS

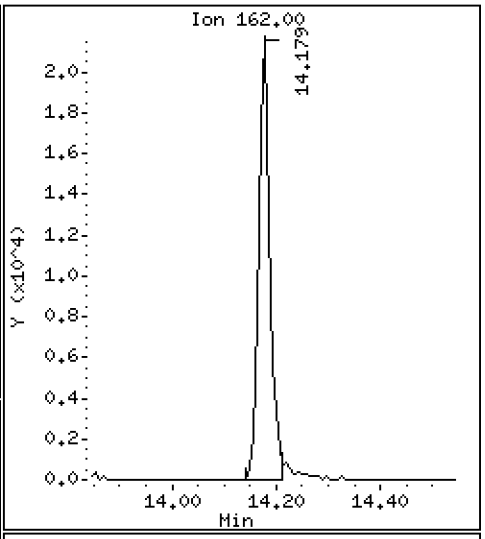
Column phase: ZB-5msi

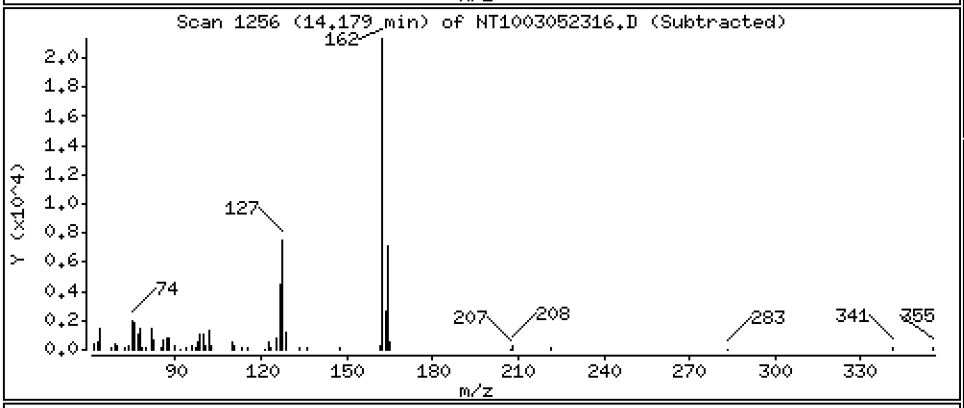
Column diameter: 0.25

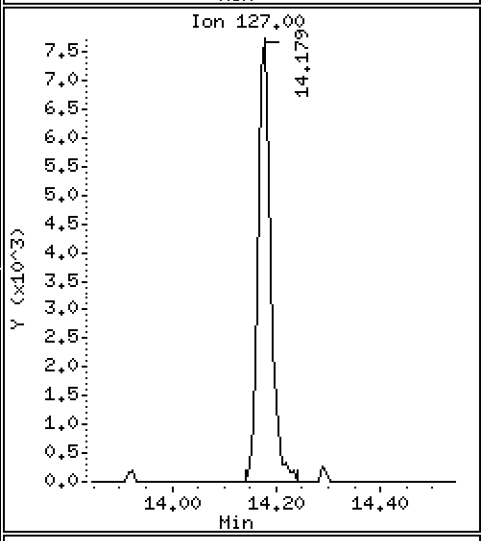
37 2-Chloronaphthalene

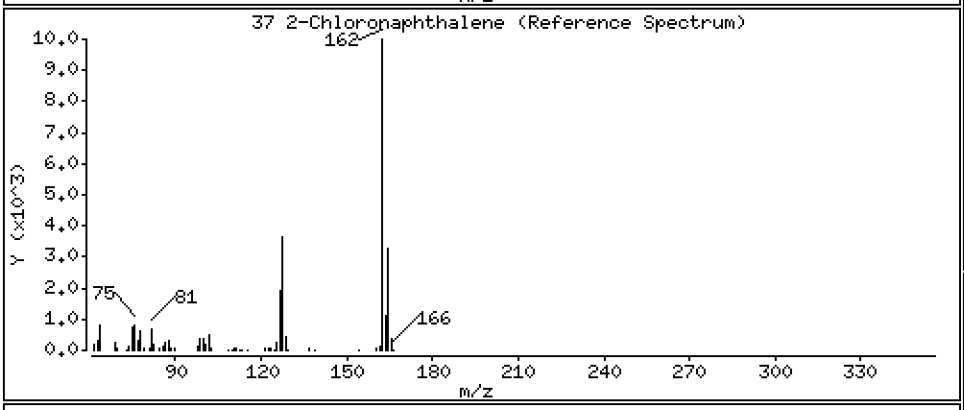
Concentration: 0.2152 ug/mL

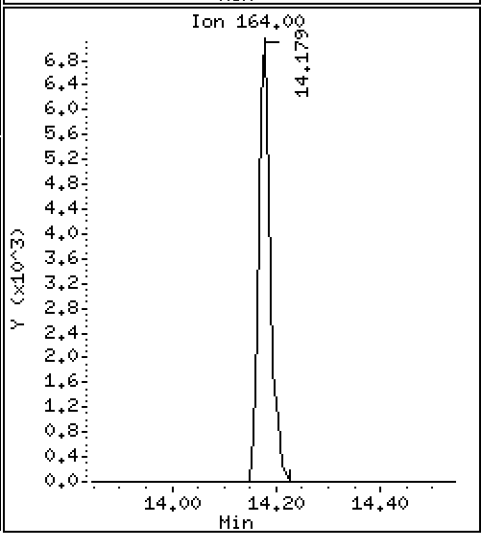


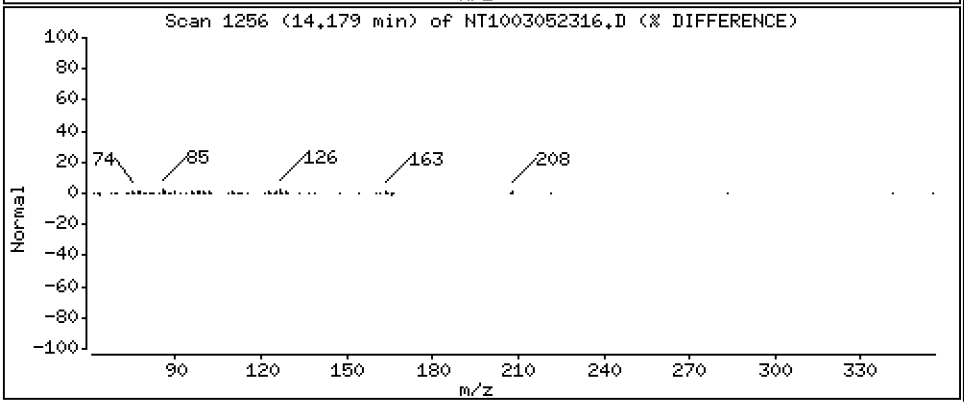












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

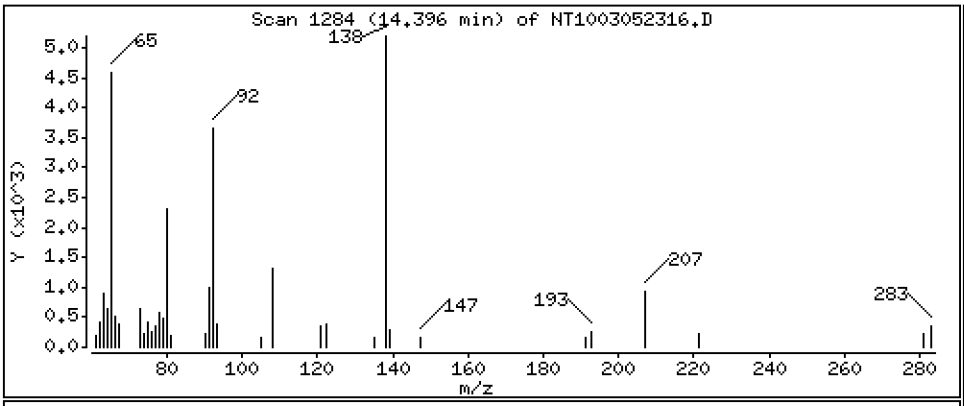
Operator: VTS

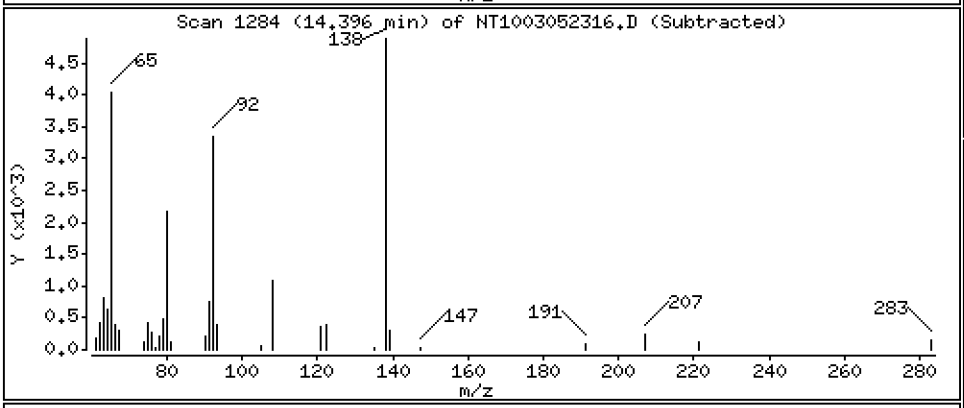
Column phase: ZB-5msi

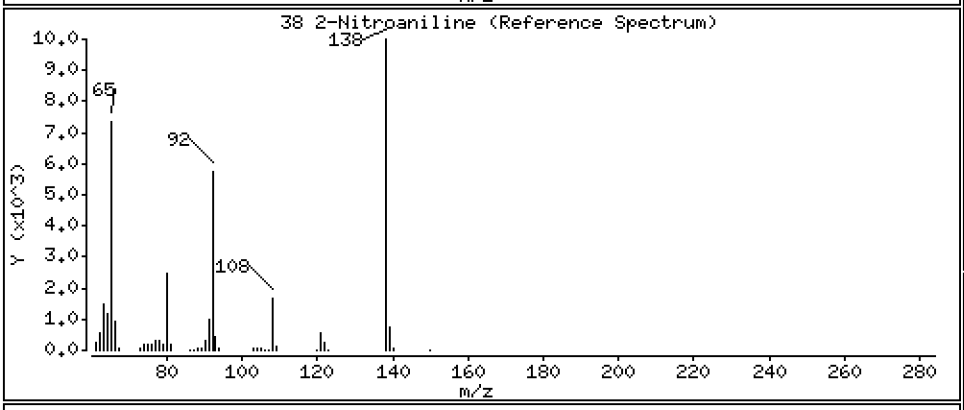
Column diameter: 0.25

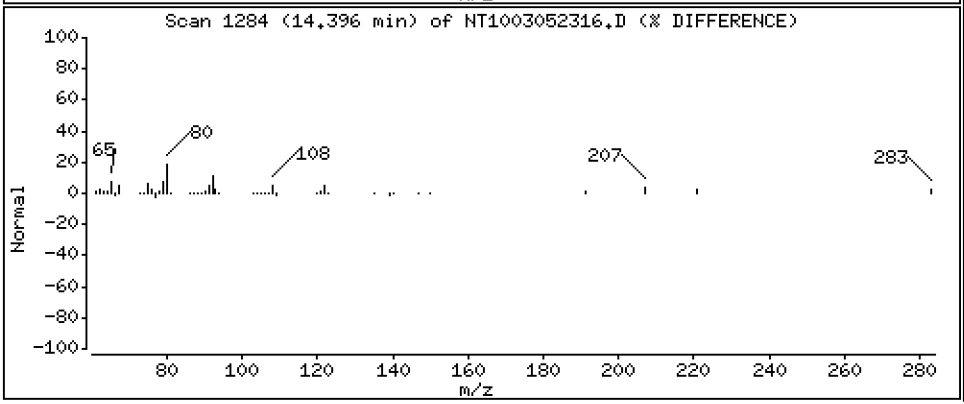
38 2-Nitroaniline

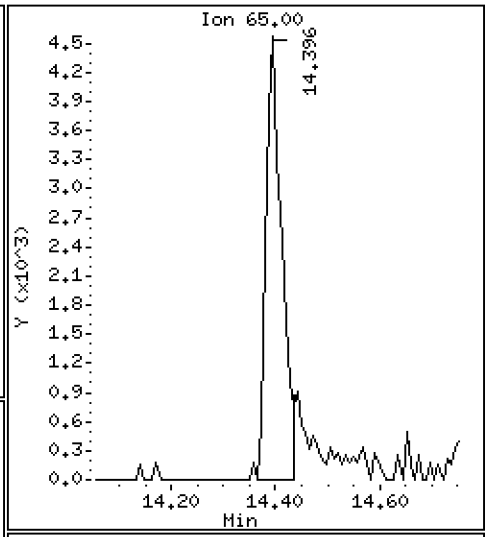
Concentration: 0.2264 ug/mL

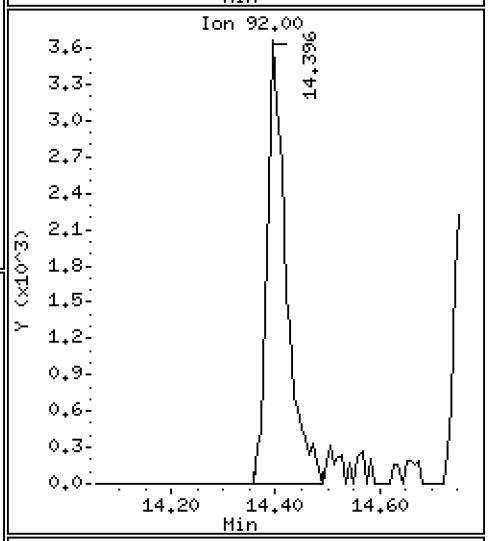


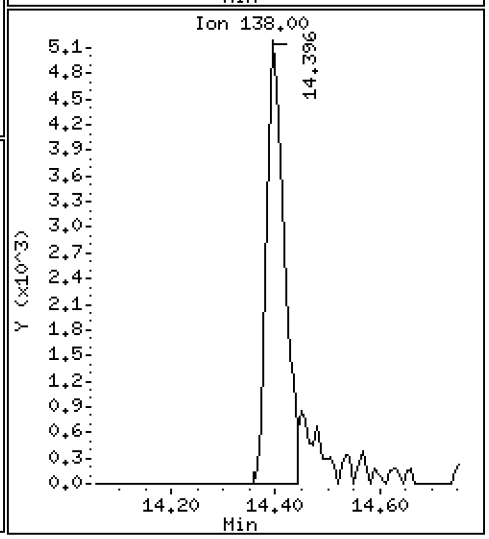












Data File: \\target\share\chem3\nt10.i\20230305A.b\NT1003052316.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

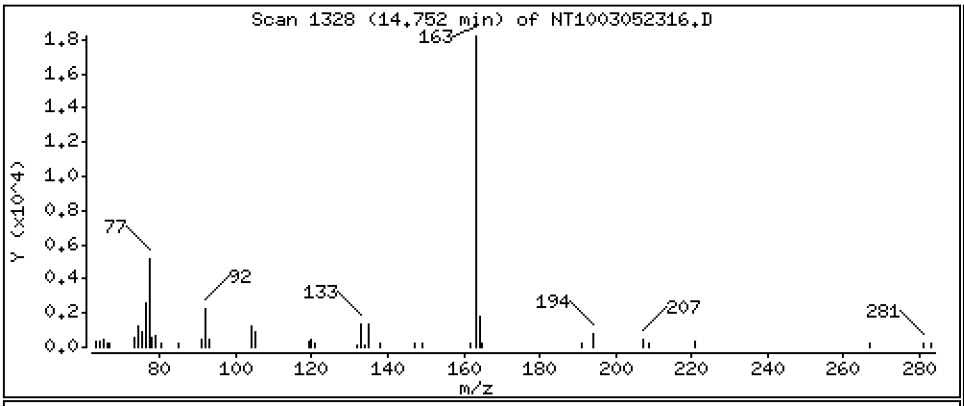
Operator: VTS

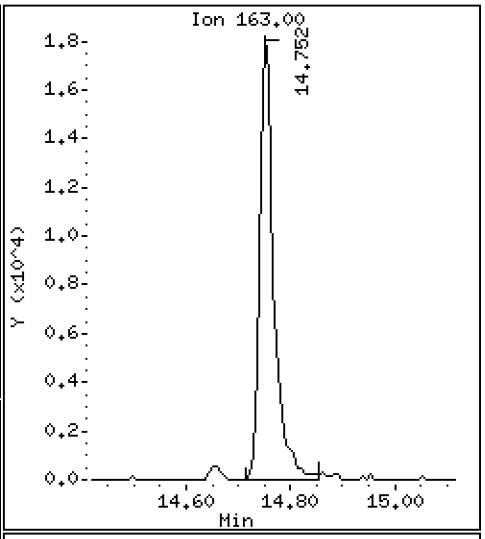
Column phase: ZB-5msi

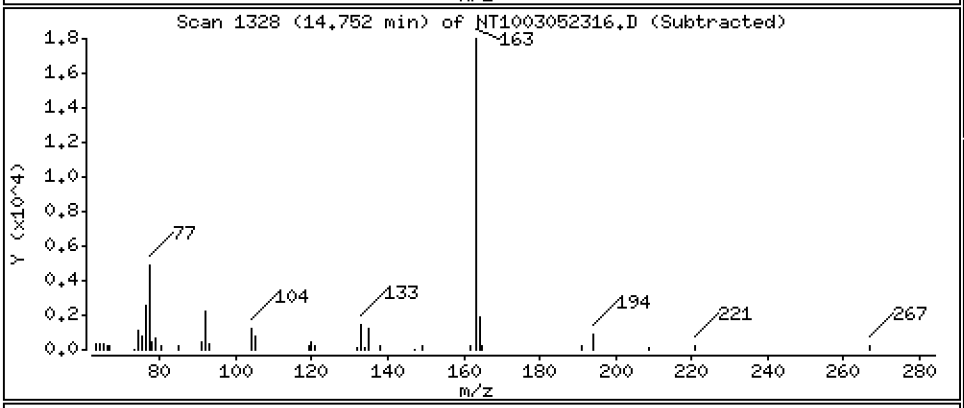
Column diameter: 0.25

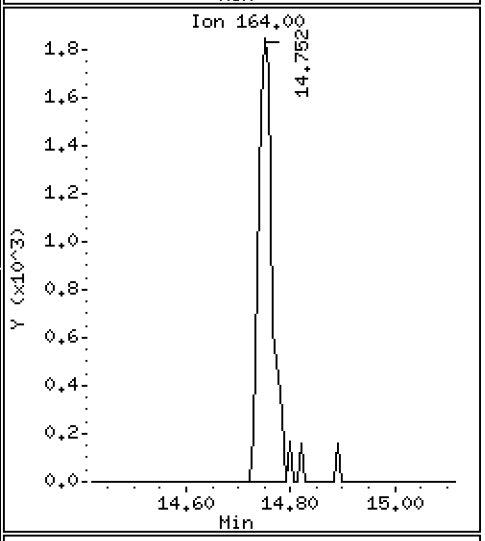
39 Dimethylphthalate

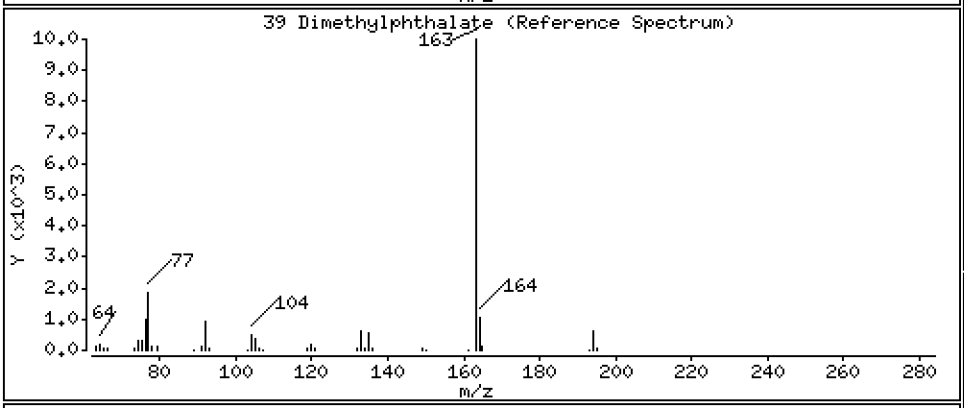
Concentration: 0.1954 ug/mL

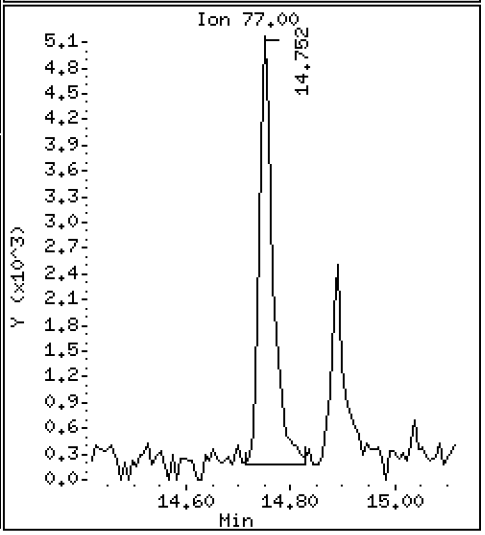


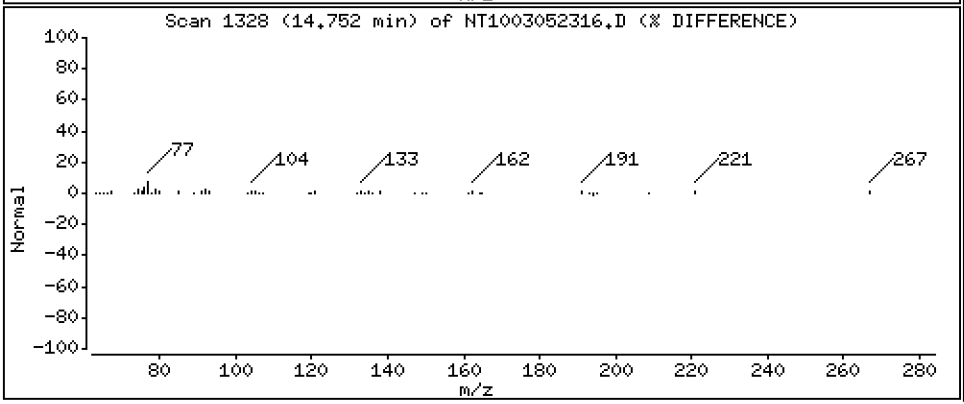












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

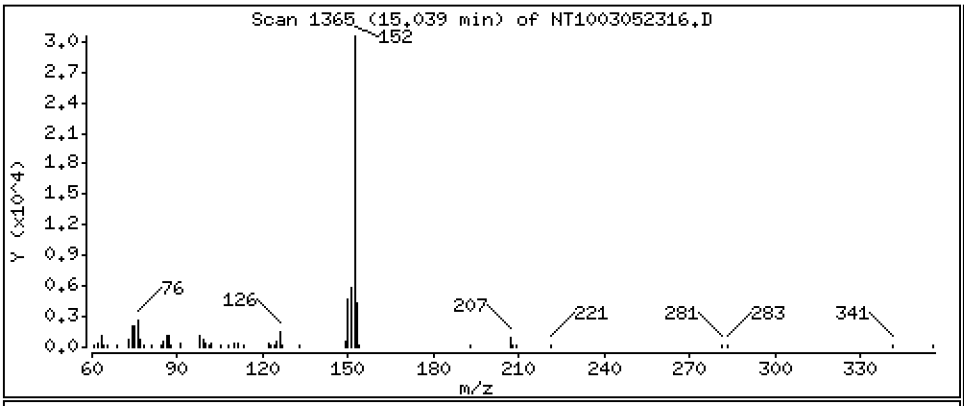
Operator: VTS

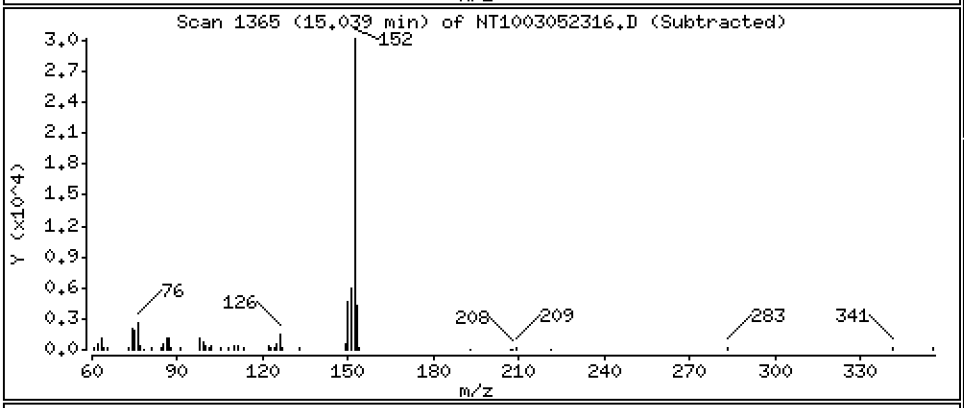
Column phase: ZB-5msi

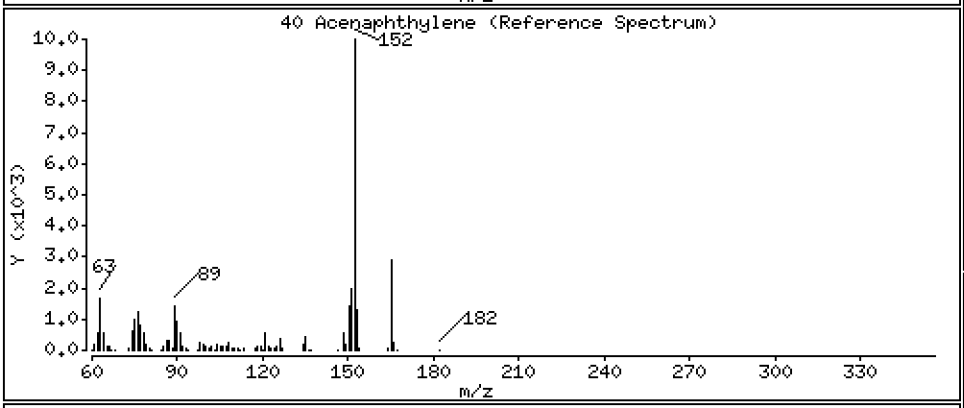
Column diameter: 0.25

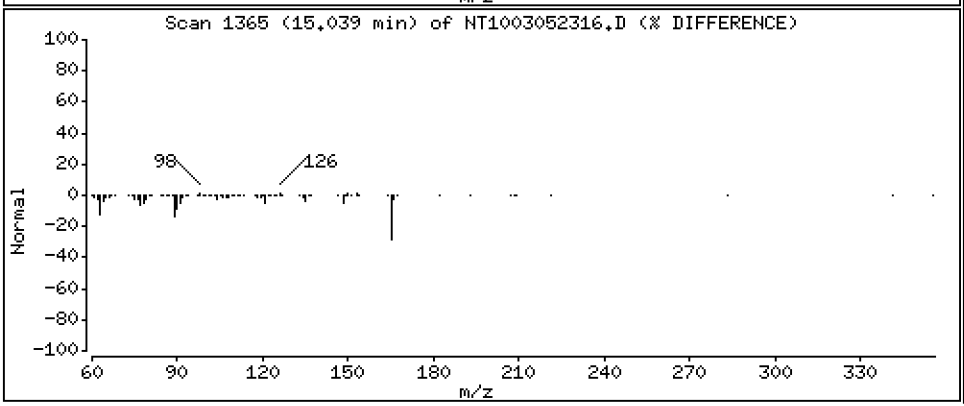
40 Acenaphthylene

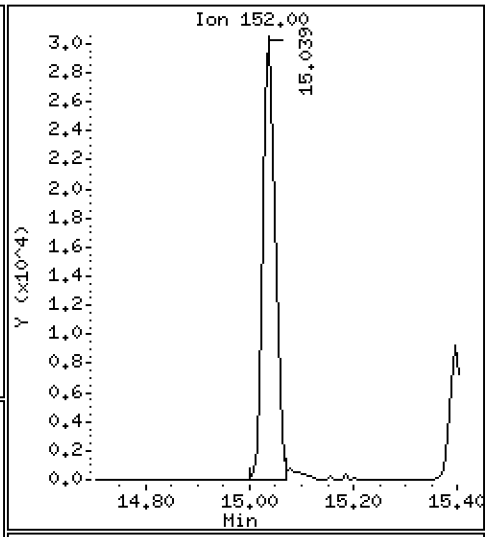
Concentration: 0.1877 ug/mL

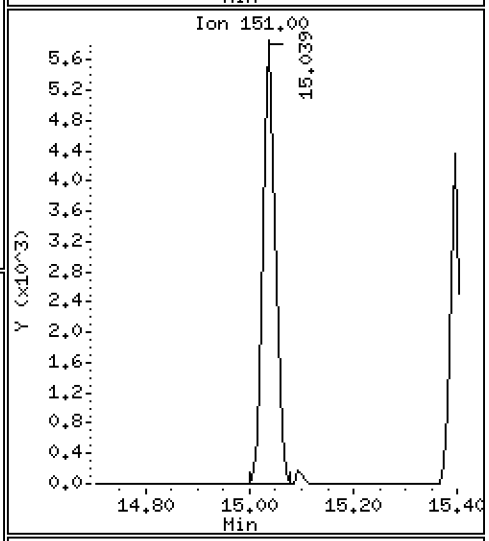


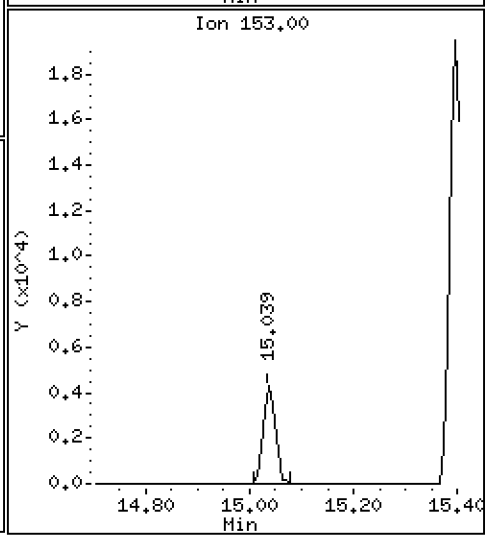












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

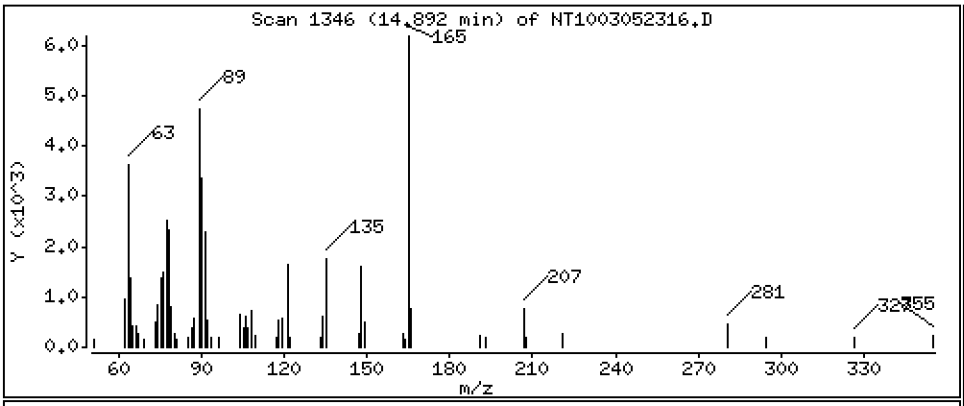
Operator: VTS

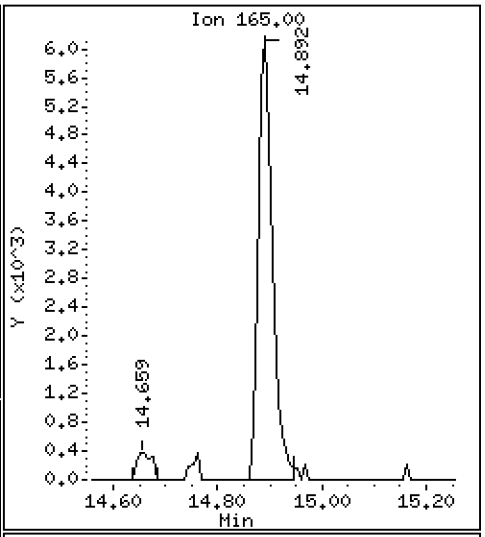
Column phase: ZB-5msi

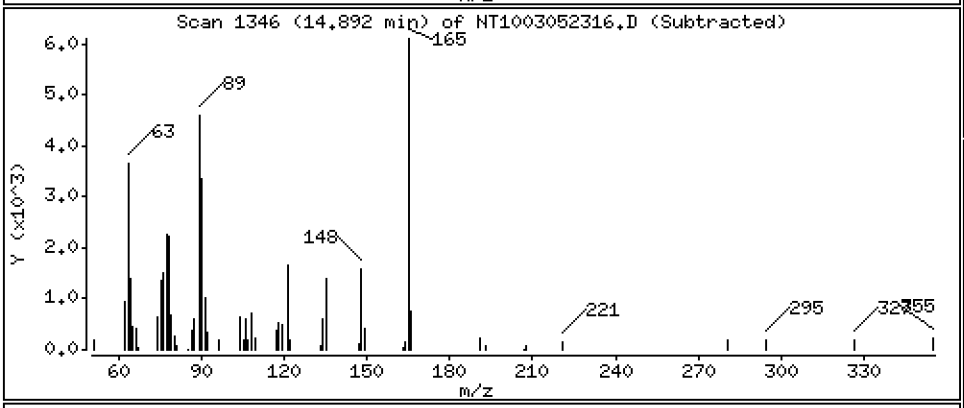
Column diameter: 0.25

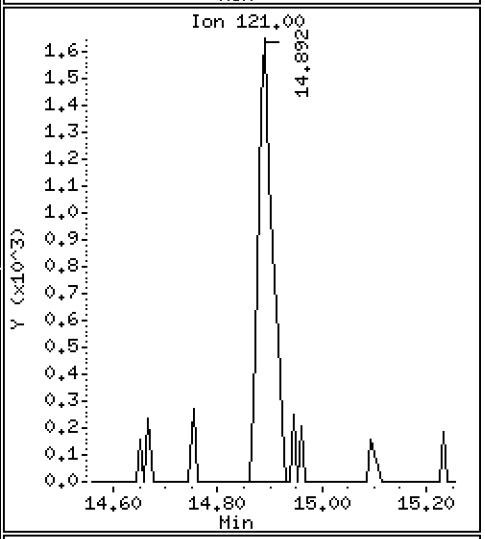
41 2,6-Dinitrotoluene

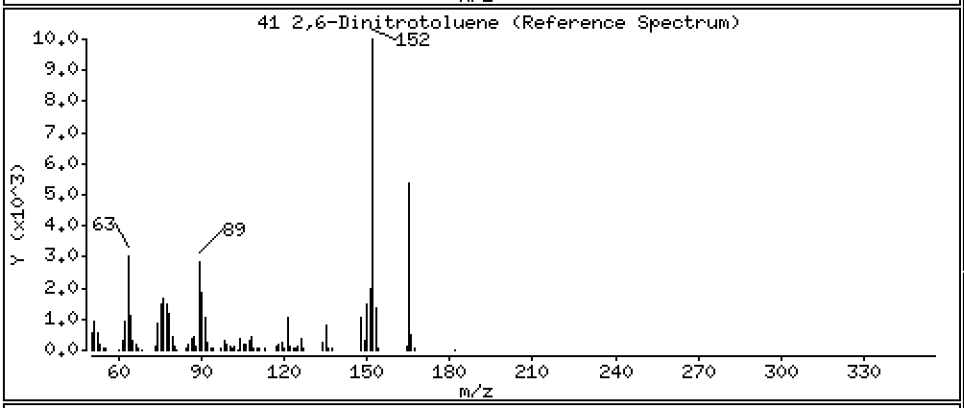
Concentration: 0.2957 ug/mL

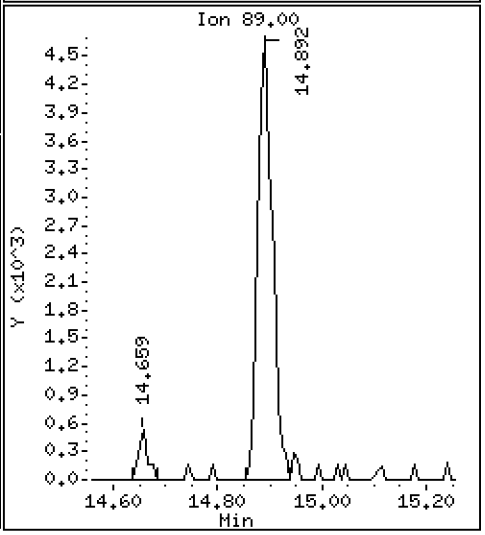


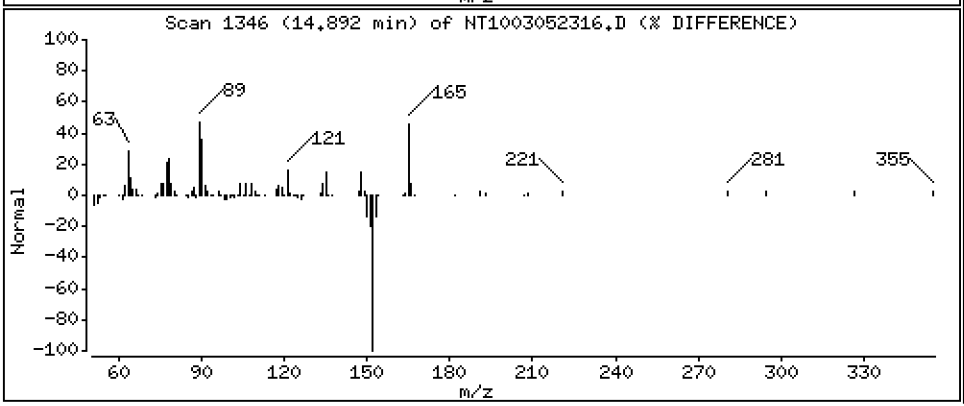












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

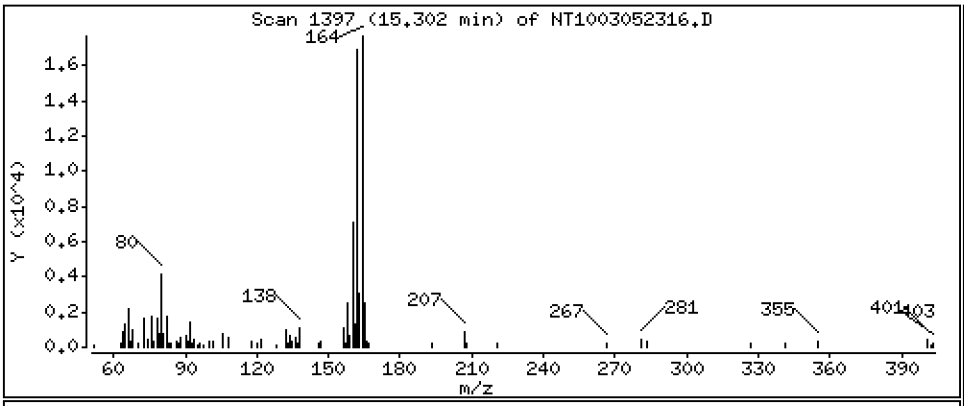
Operator: VTS

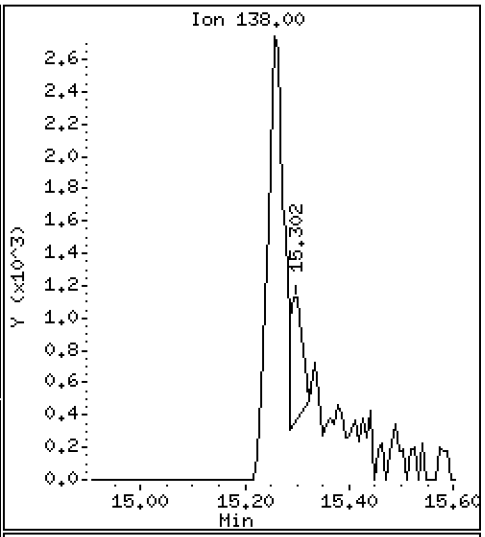
Column phase: ZB-5msi

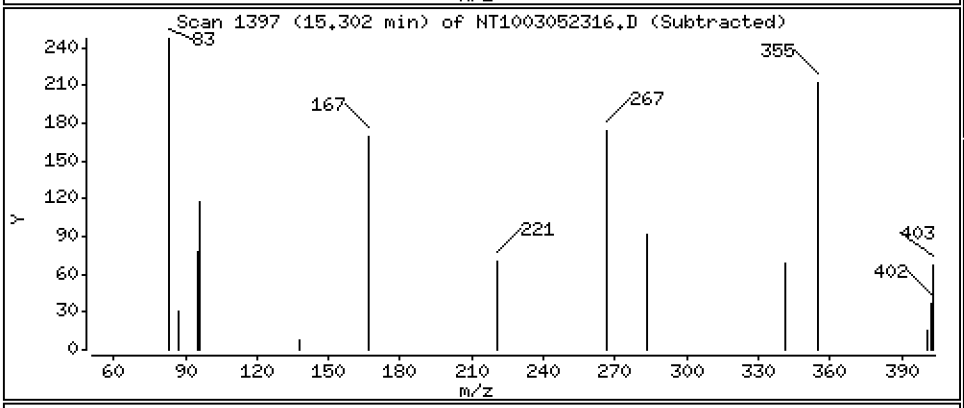
Column diameter: 0.25

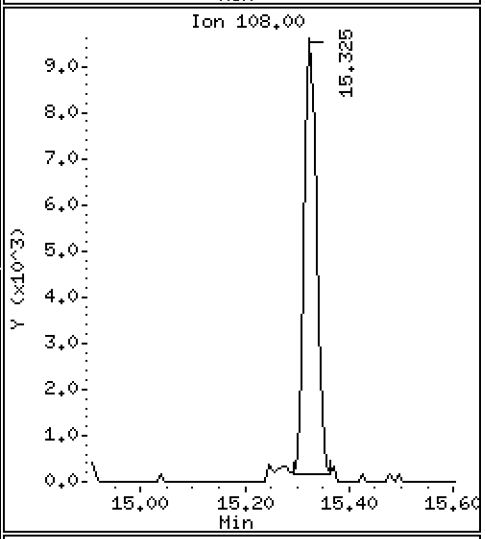
43 3-Nitroaniline

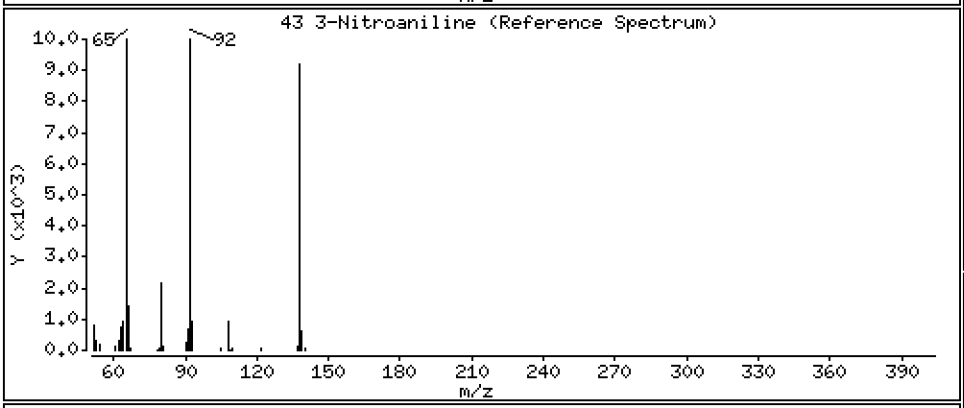
Concentration: 0.03059 ug/mL

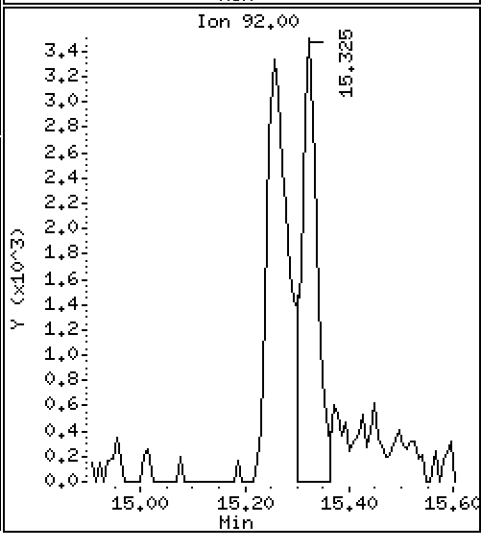


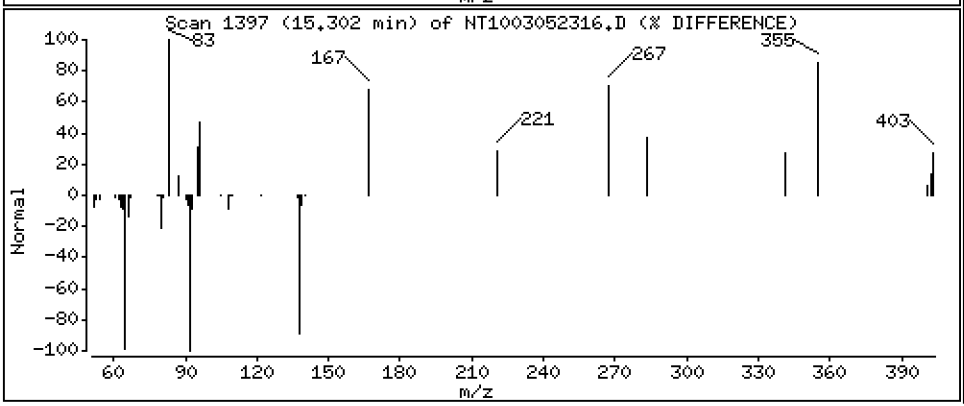












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

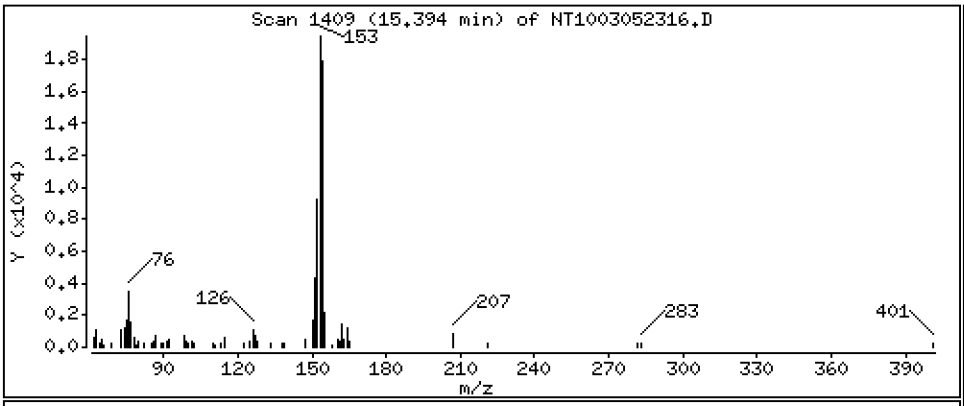
Operator: VTS

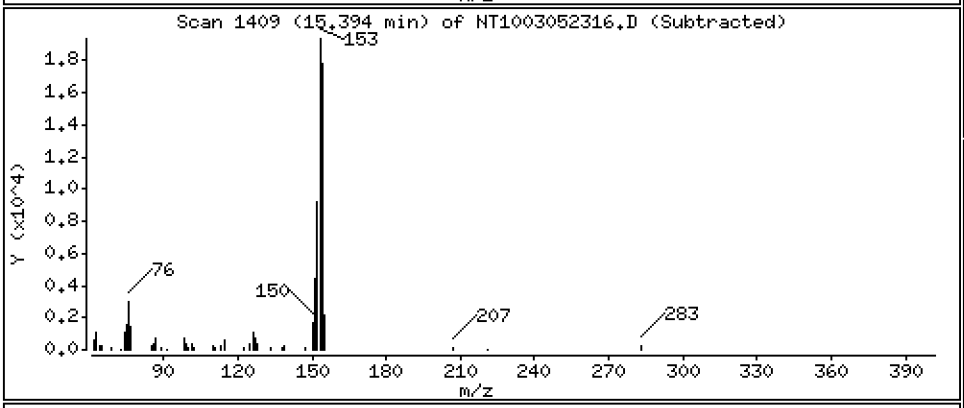
Column phase: ZB-5msi

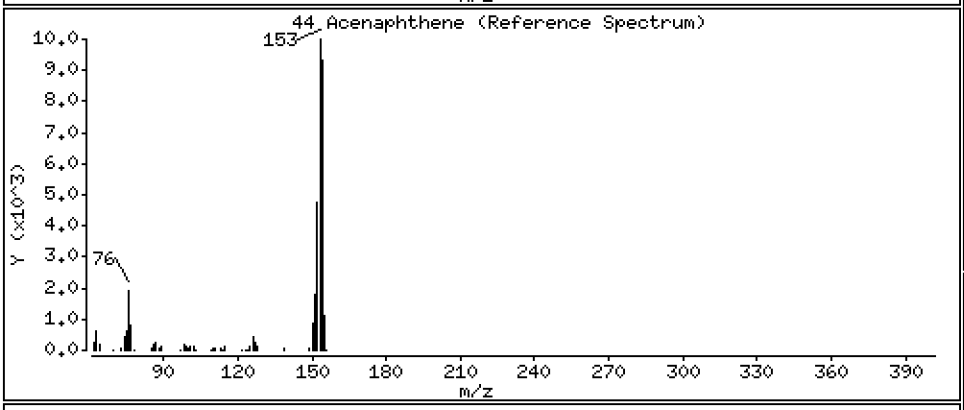
Column diameter: 0.25

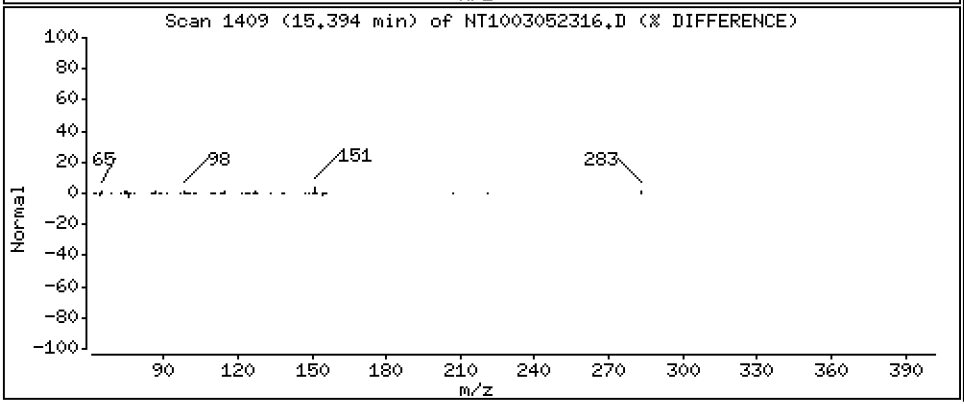
44 Acenaphthene

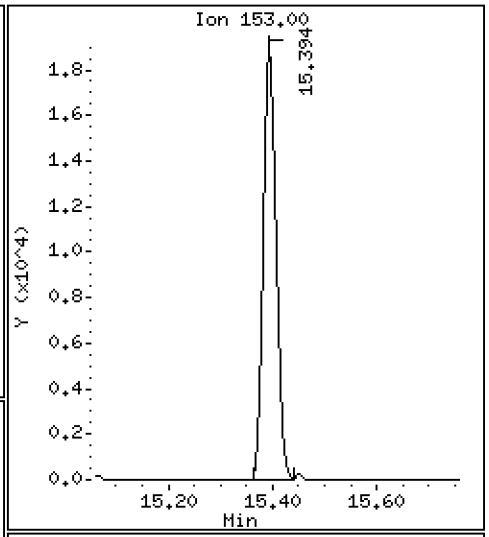
Concentration: 0.1981 ug/mL

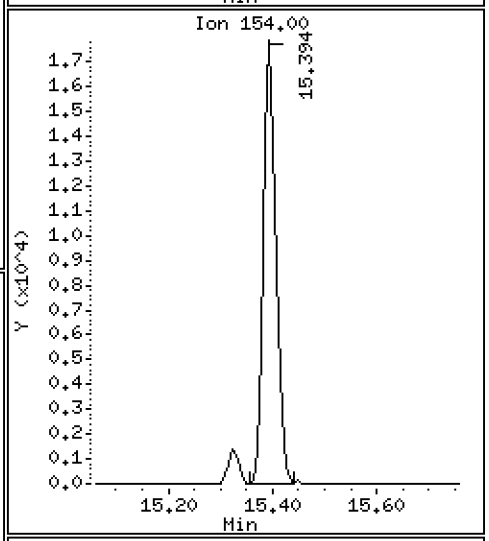


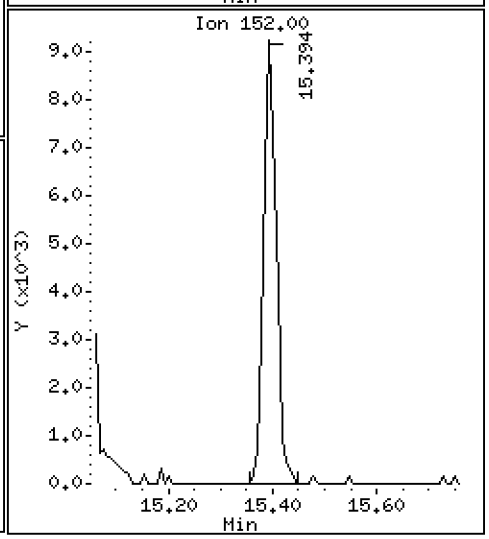












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

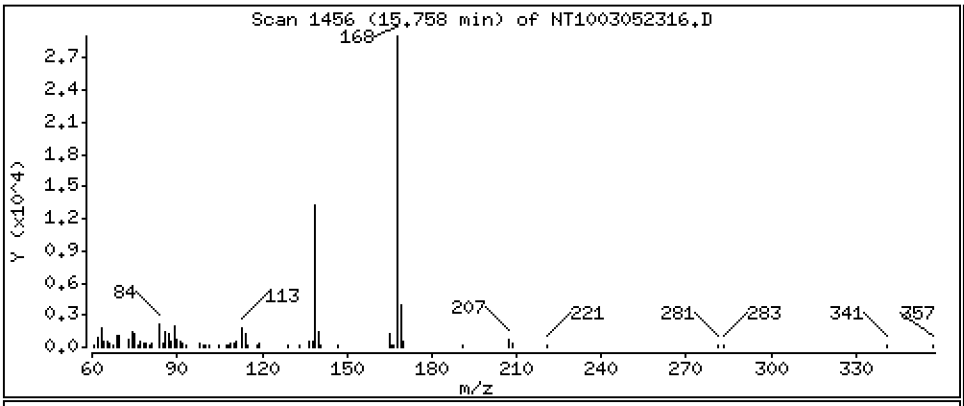
Operator: VTS

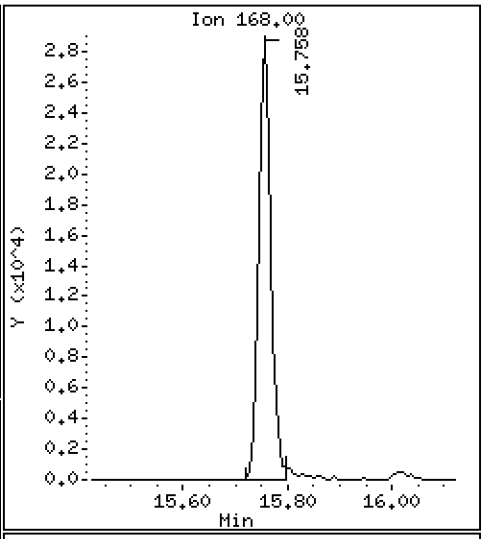
Column phase: ZB-5msi

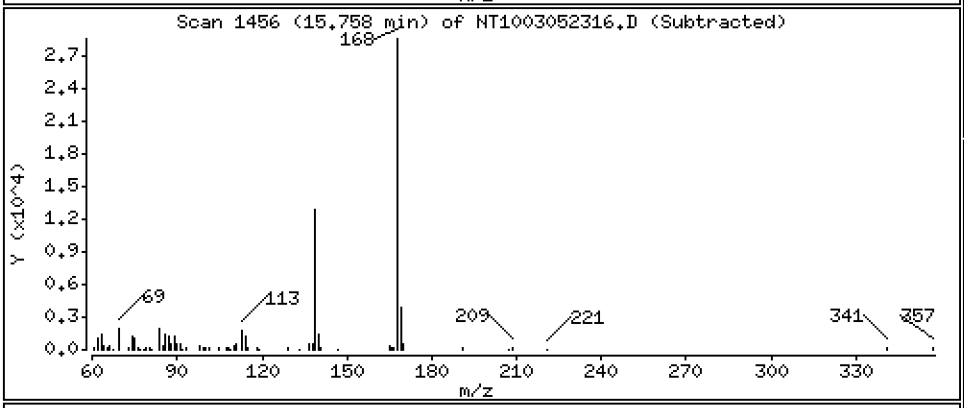
Column diameter: 0.25

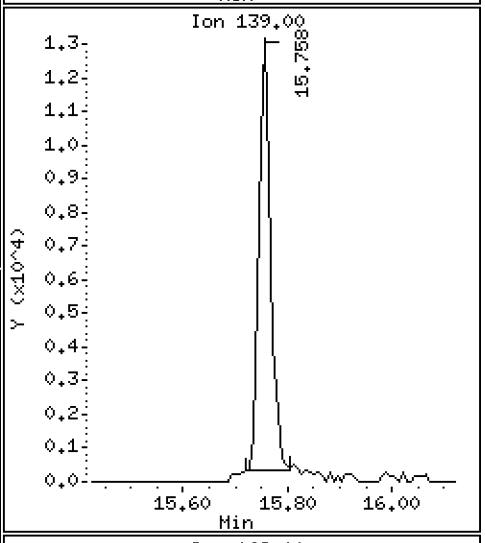
46 Dibenzofuran

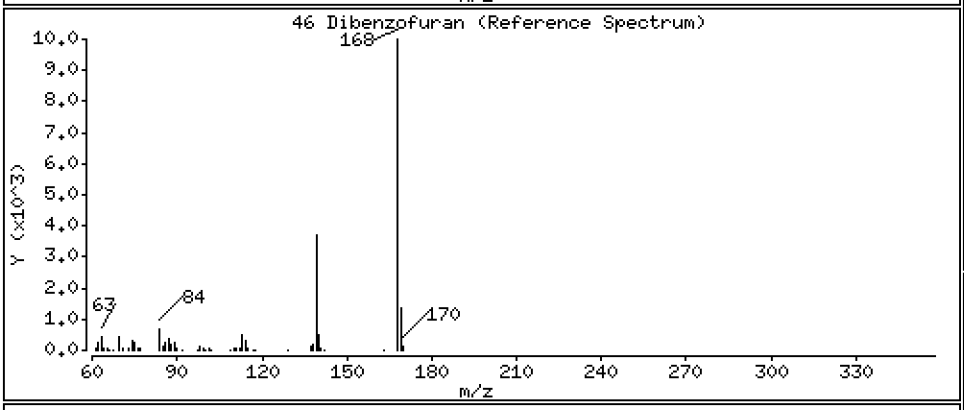
Concentration: 0.2016 ug/mL

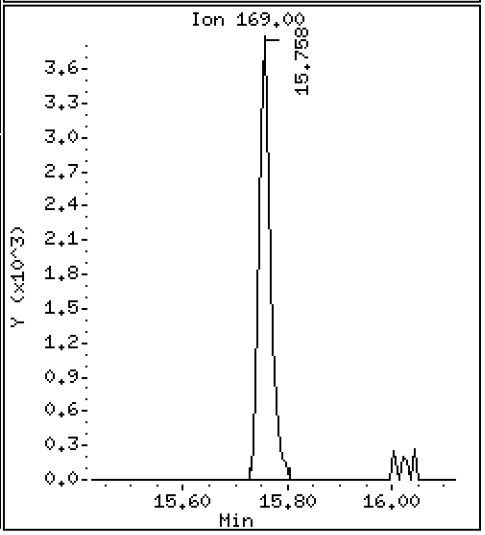


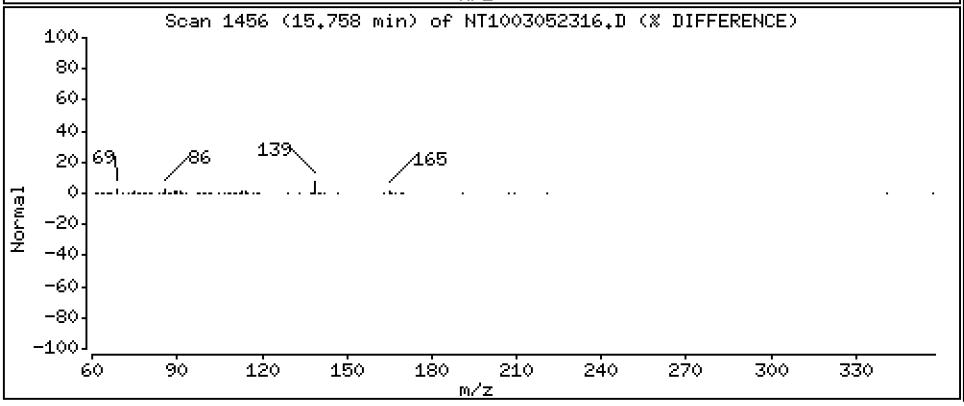












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

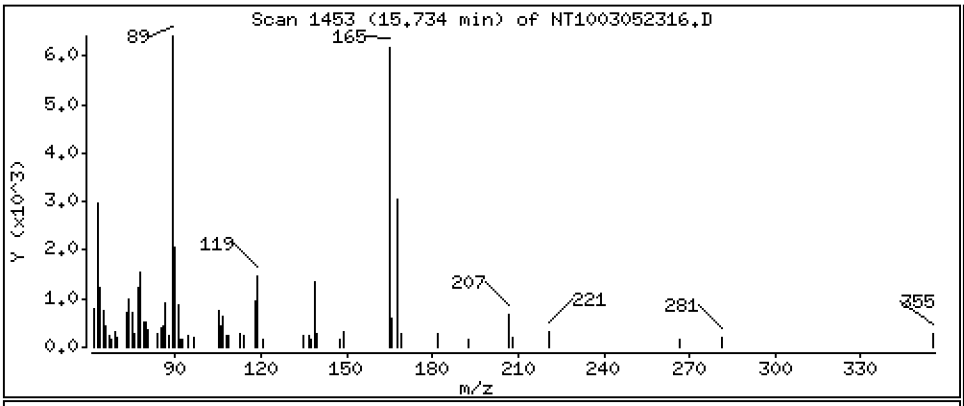
Operator: VTS

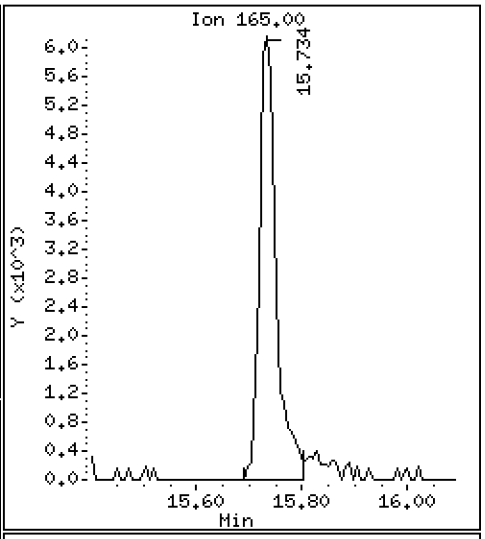
Column phase: ZB-5msi

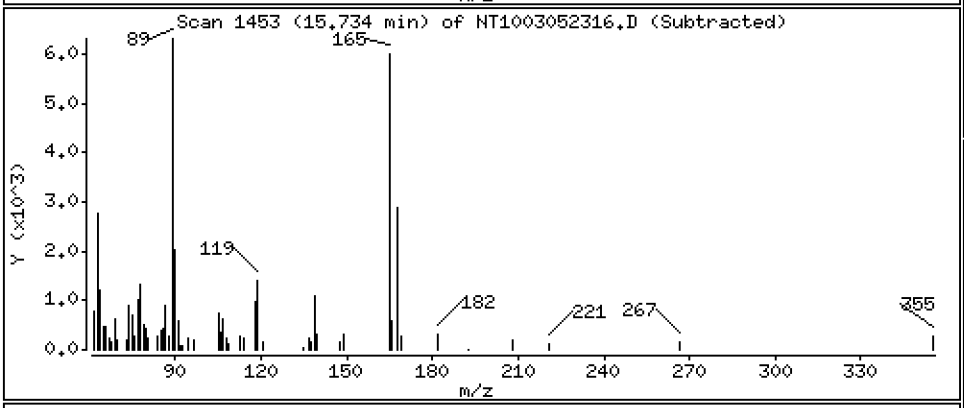
Column diameter: 0.25

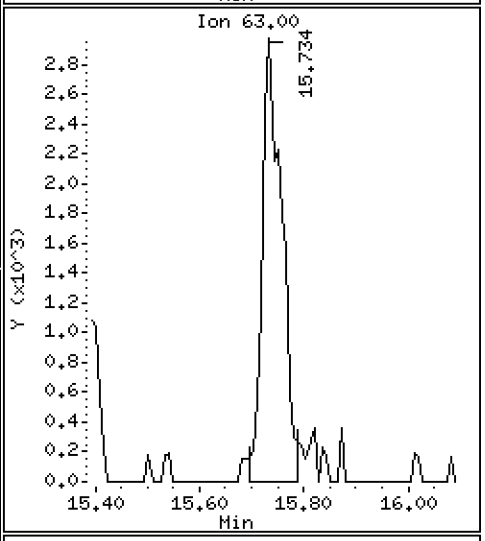
48 2,4-Dinitrotoluene

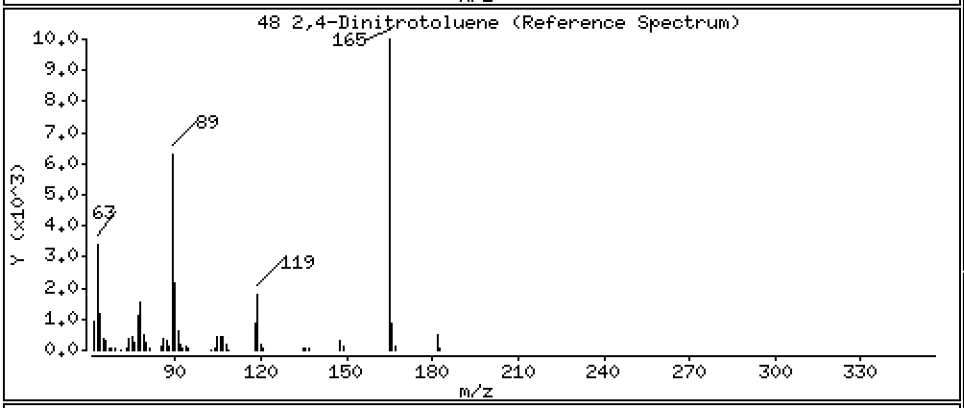
Concentration: 0.2445 ug/mL

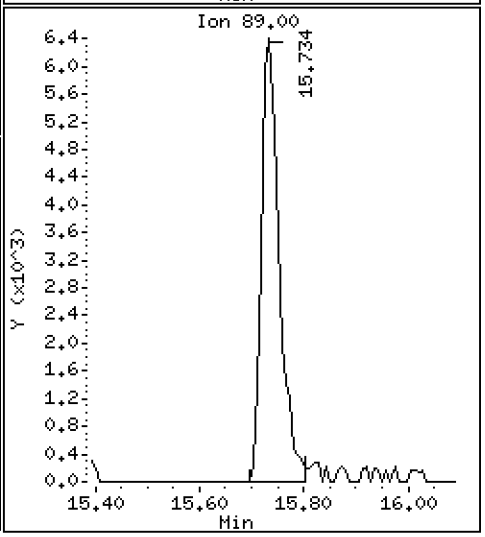


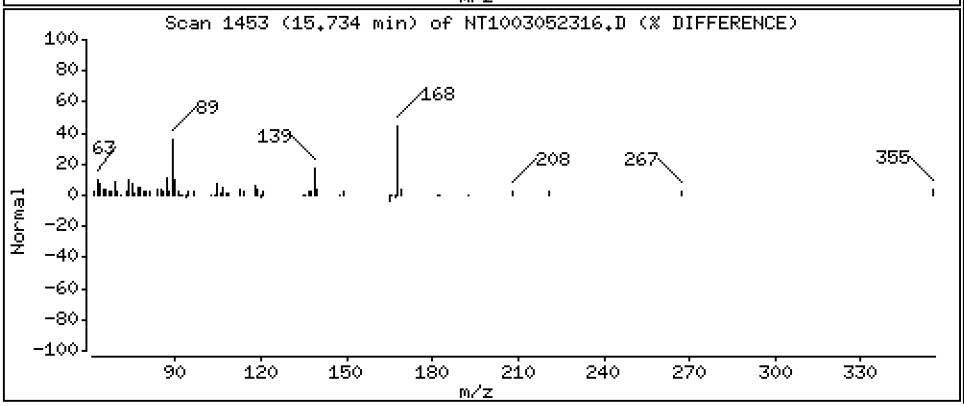












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

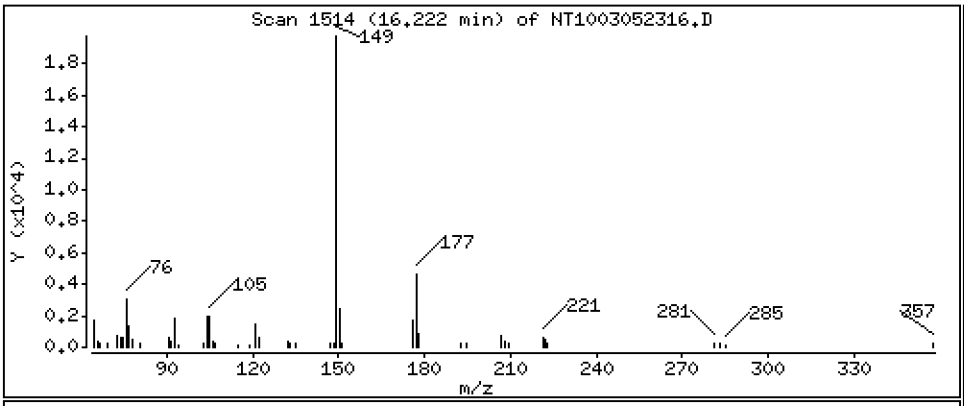
Operator: VTS

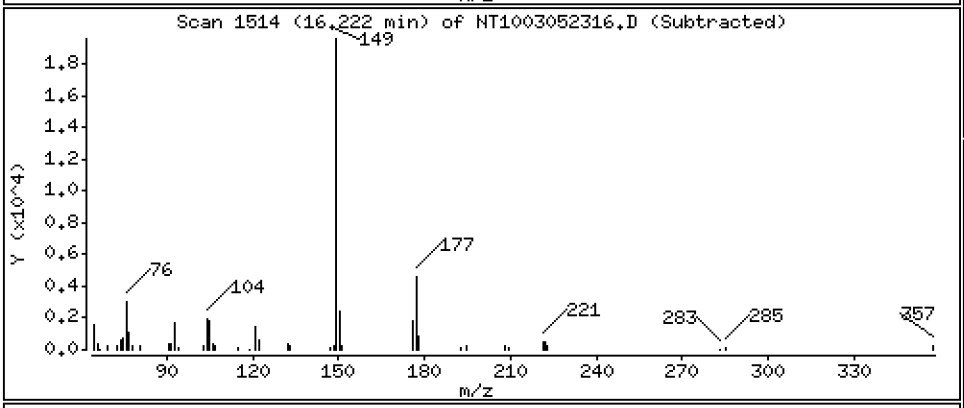
Column phase: ZB-5msi

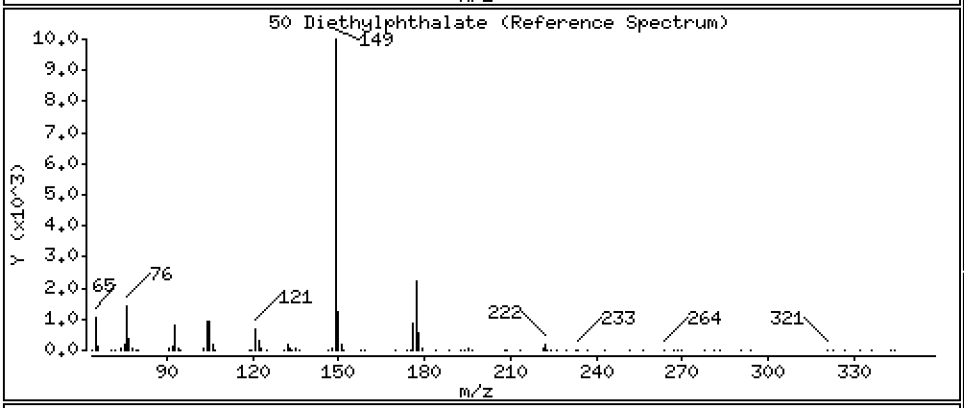
Column diameter: 0.25

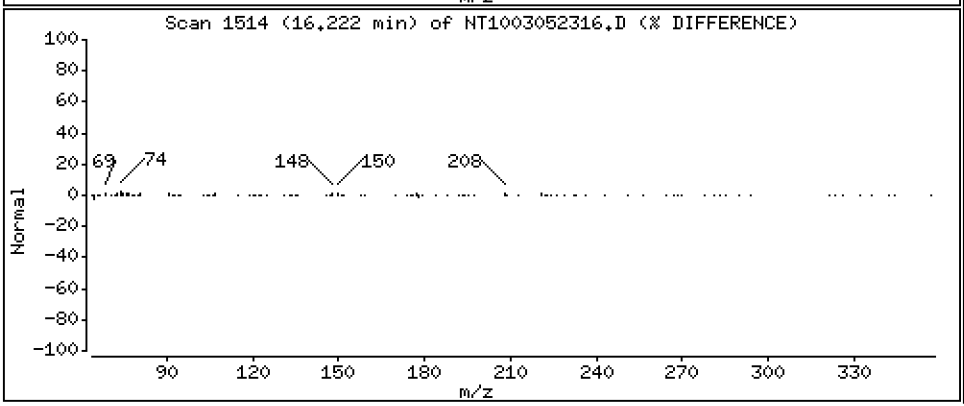
50 Diethylphthalate

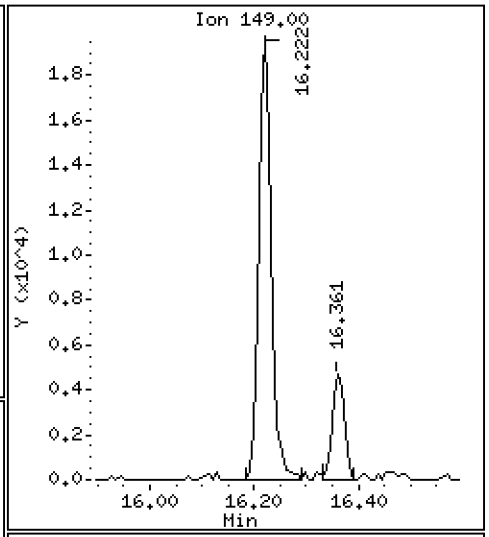
Concentration: 0.1810 ug/mL

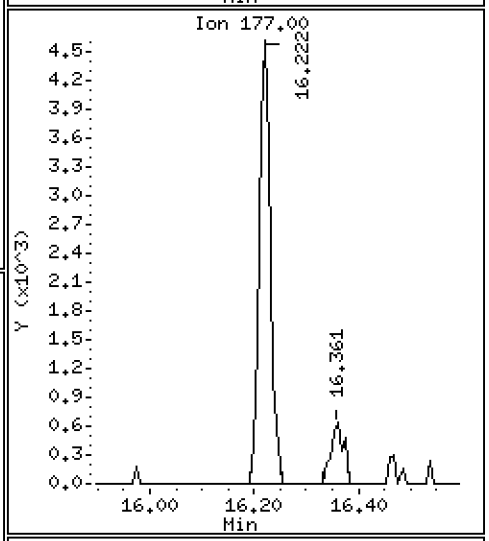


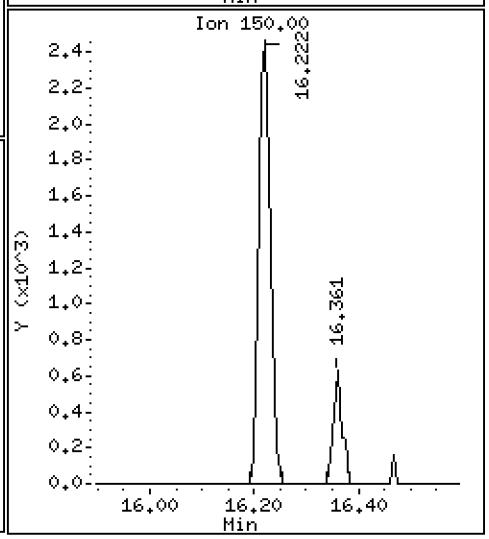












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

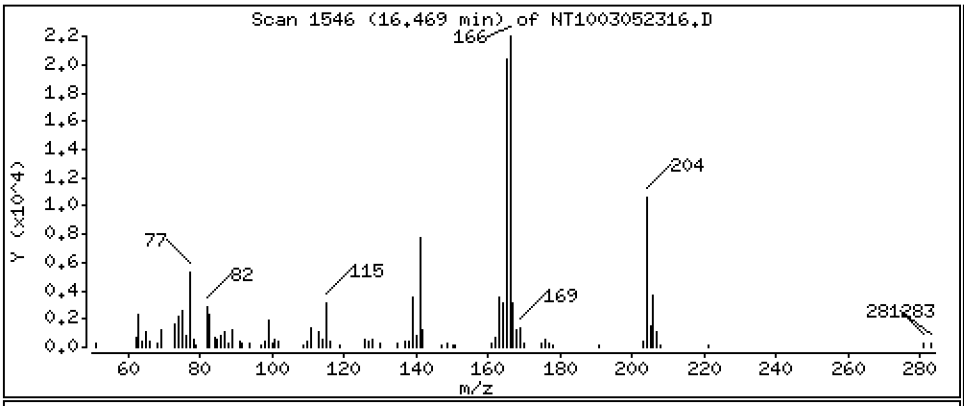
Operator: VTS

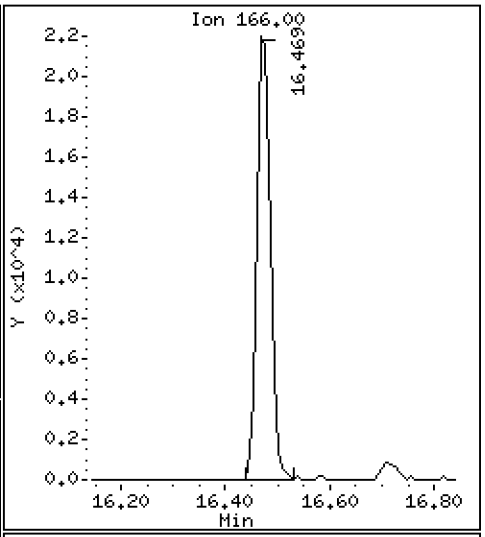
Column phase: ZB-5msi

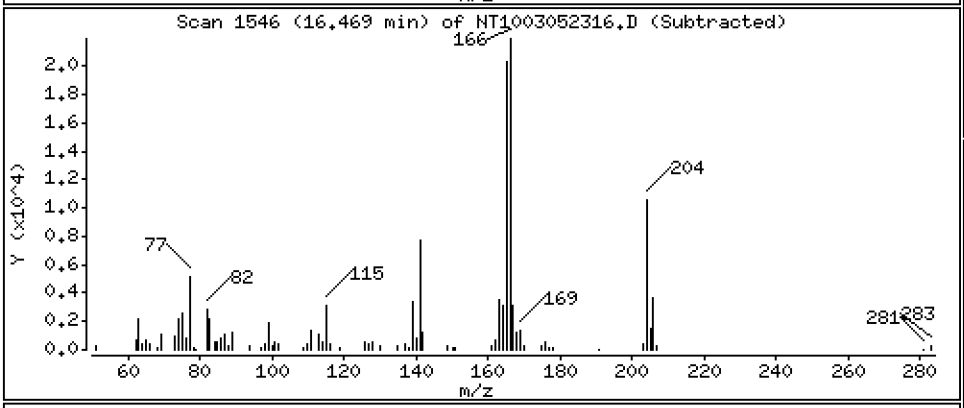
Column diameter: 0.25

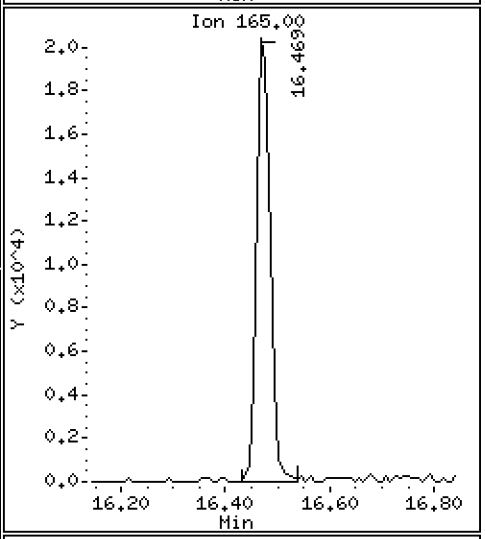
49 Fluorene

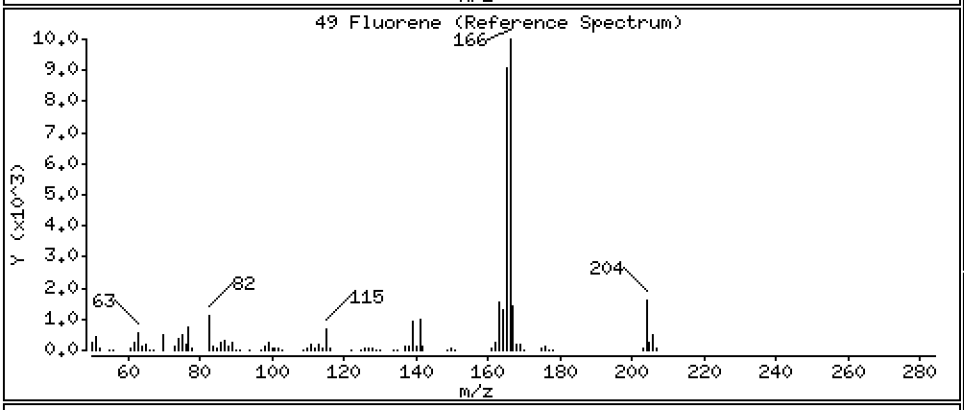
Concentration: 0.1937 ug/mL

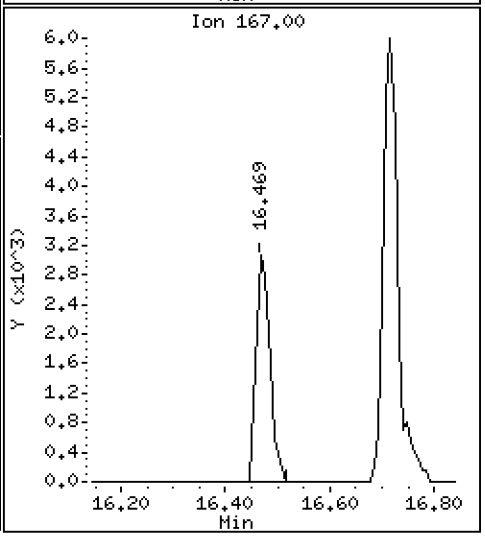


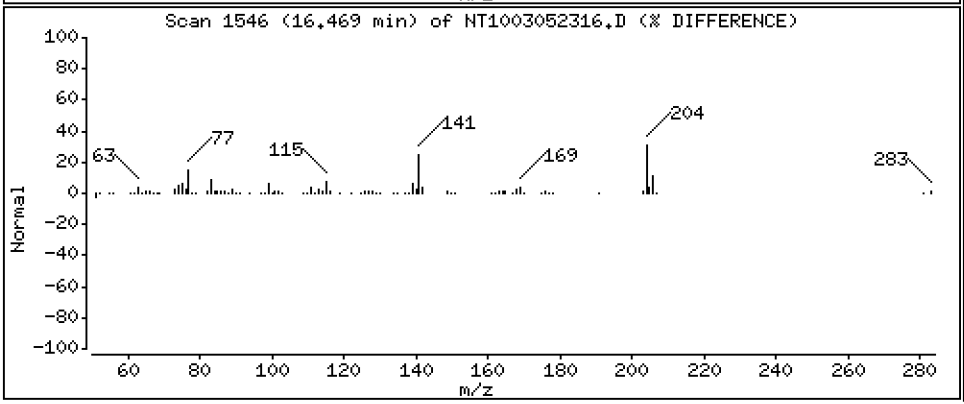












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

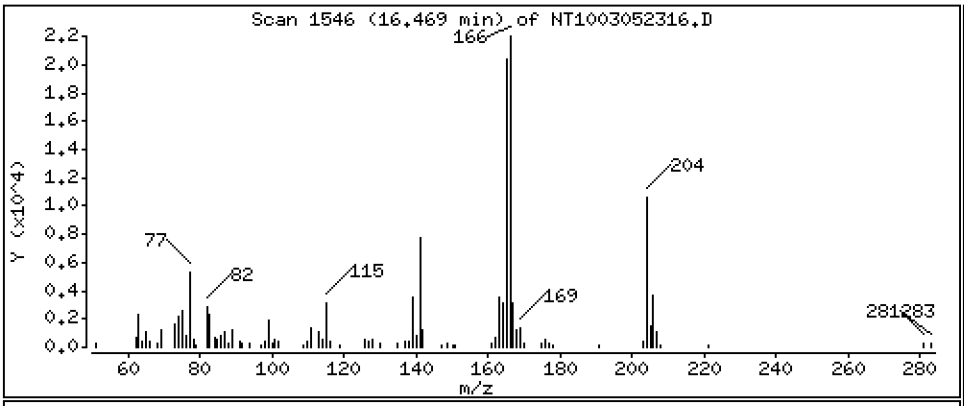
Operator: VTS

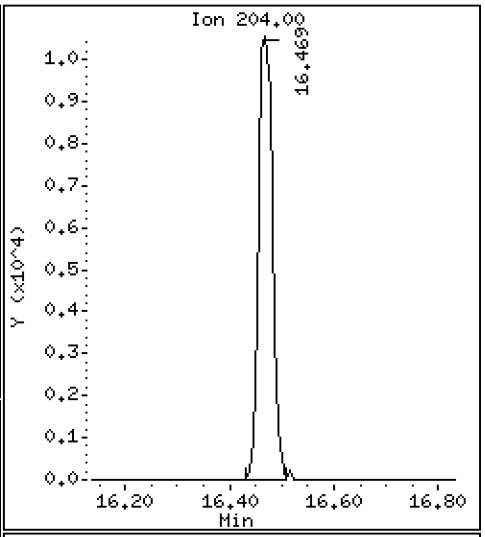
Column phase: ZB-5msi

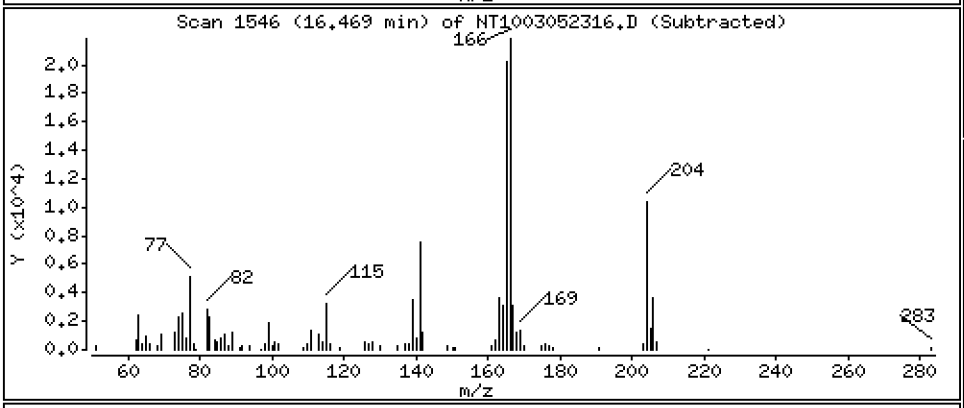
Column diameter: 0.25

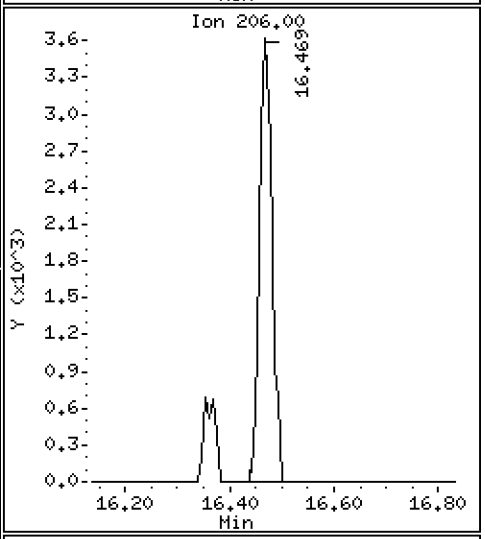
51 4-Chlorophenyl-phenylether

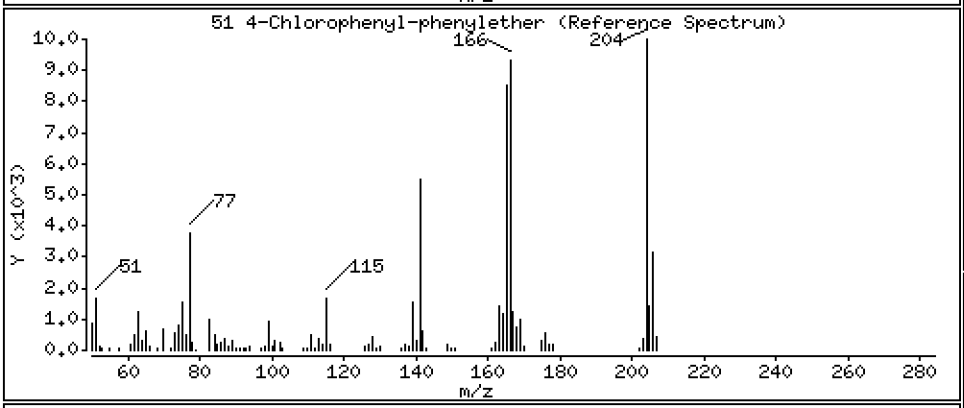
Concentration: 0.2170 ug/mL

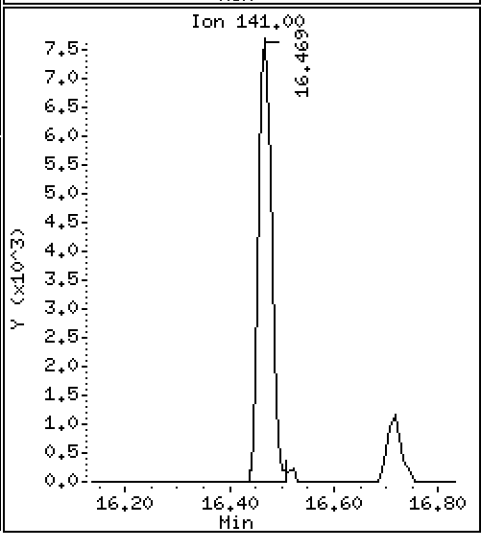


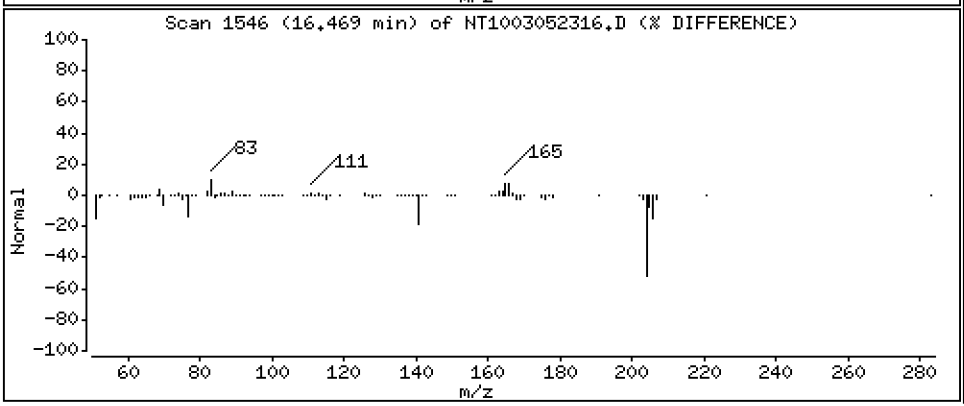












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

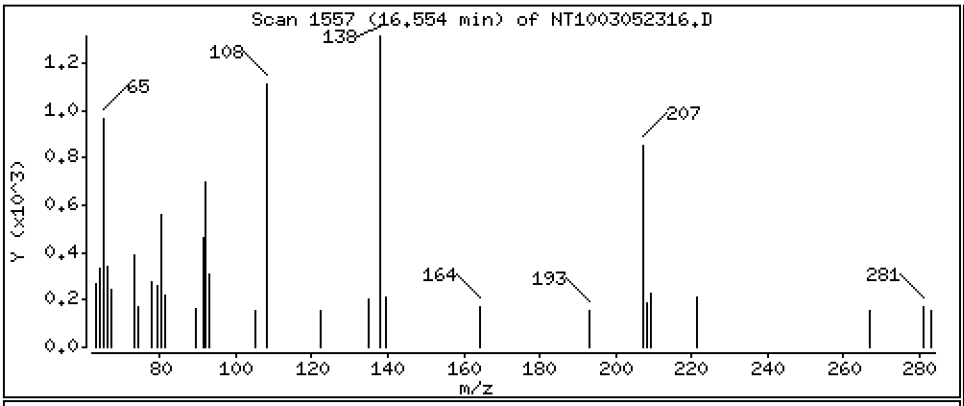
Operator: VTS

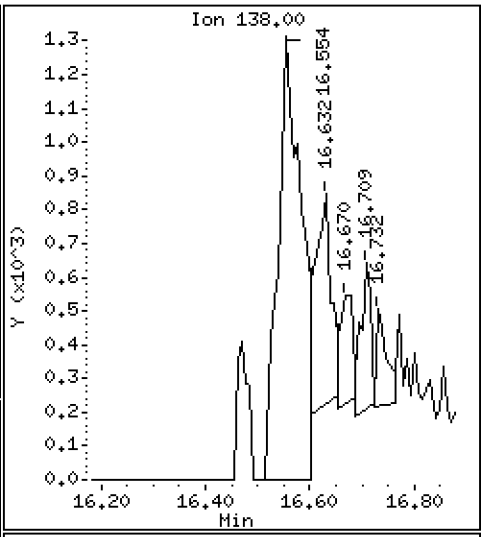
Column phase: ZB-5msi

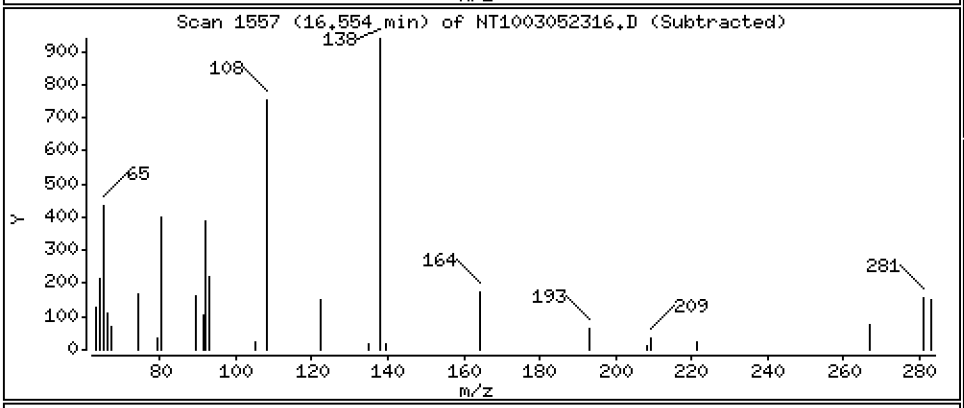
Column diameter: 0.25

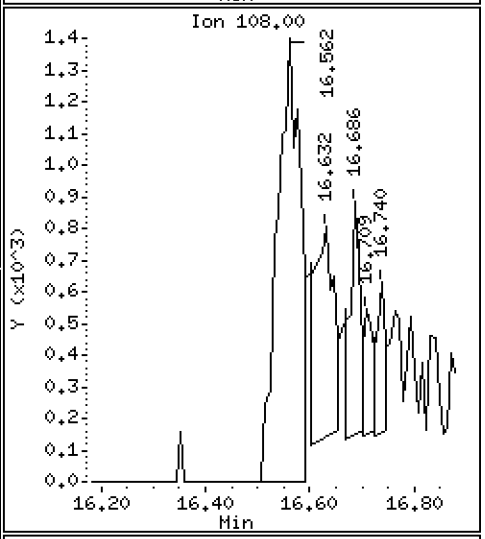
52 4-Nitroaniline

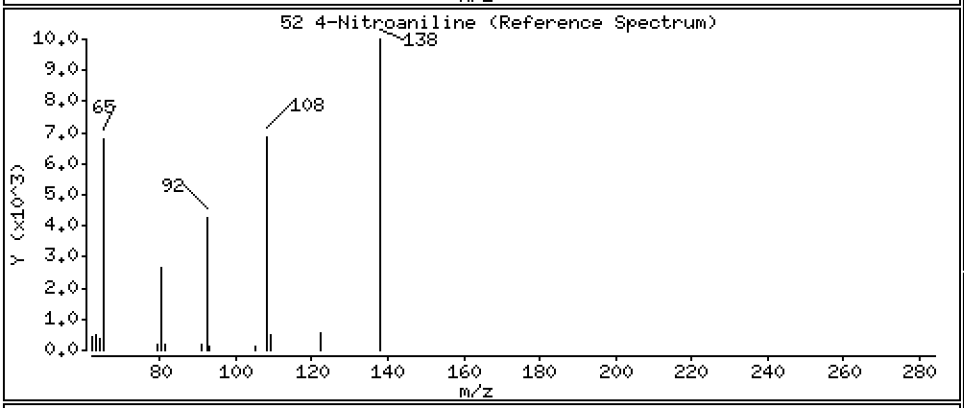
Concentration: 0.08725 ug/mL

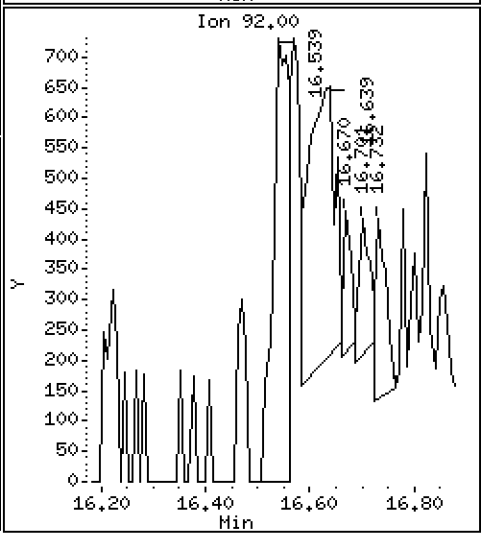


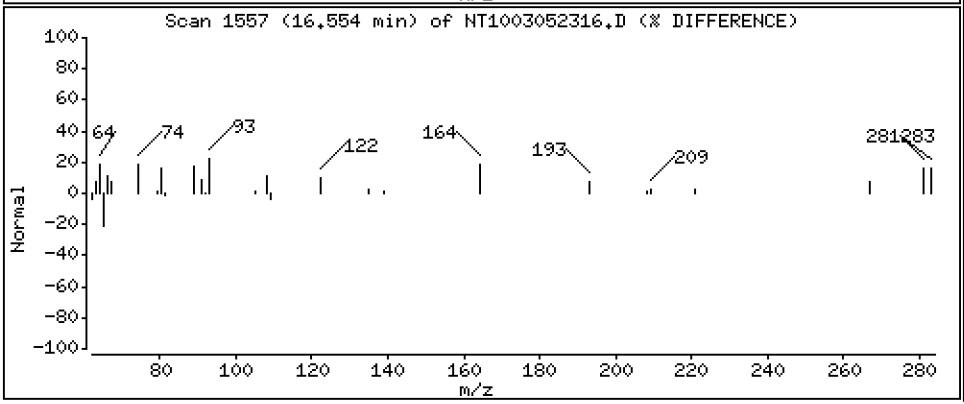












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

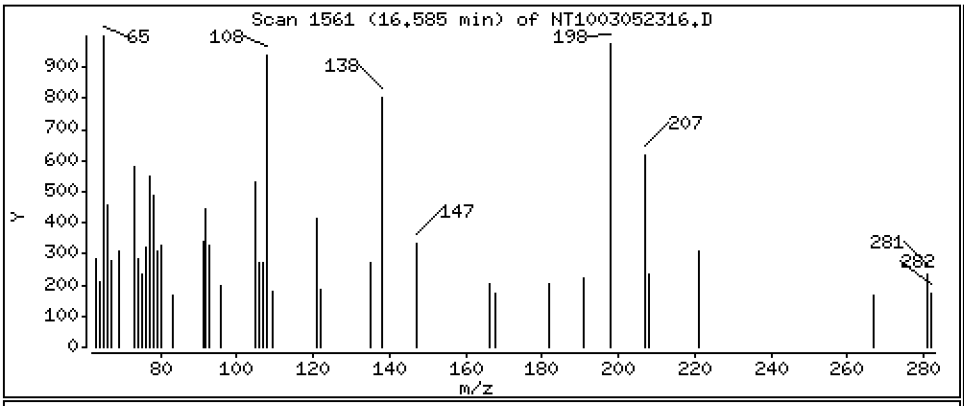
Operator: VTS

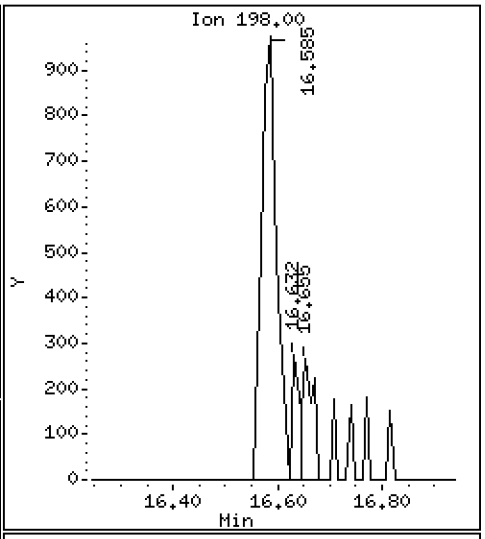
Column phase: ZB-5msi

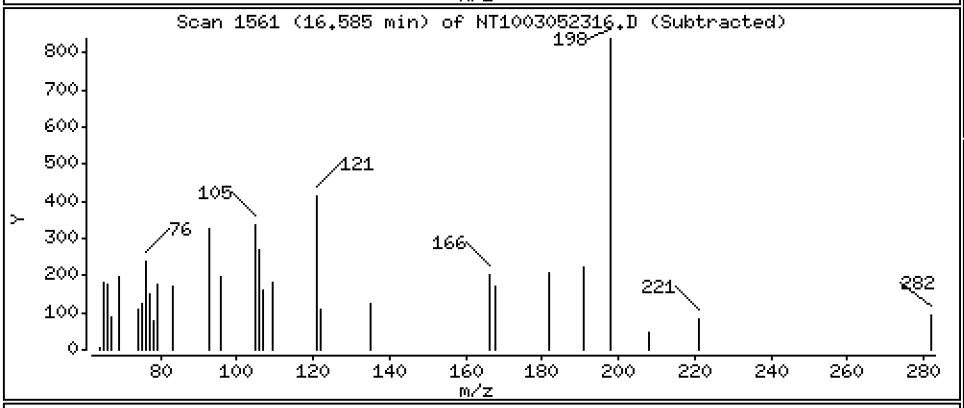
Column diameter: 0.25

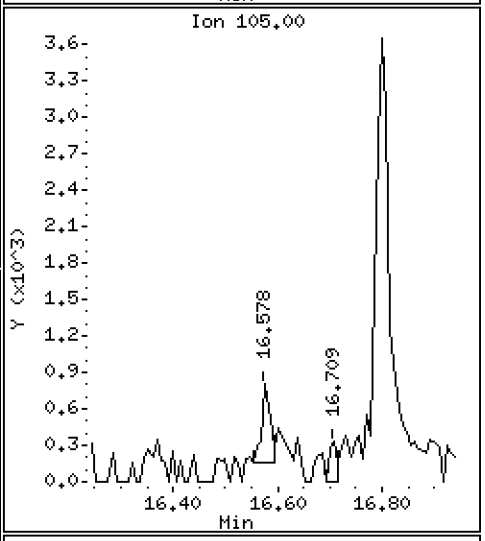
53 4,6-Dinitro-2-methylphenol

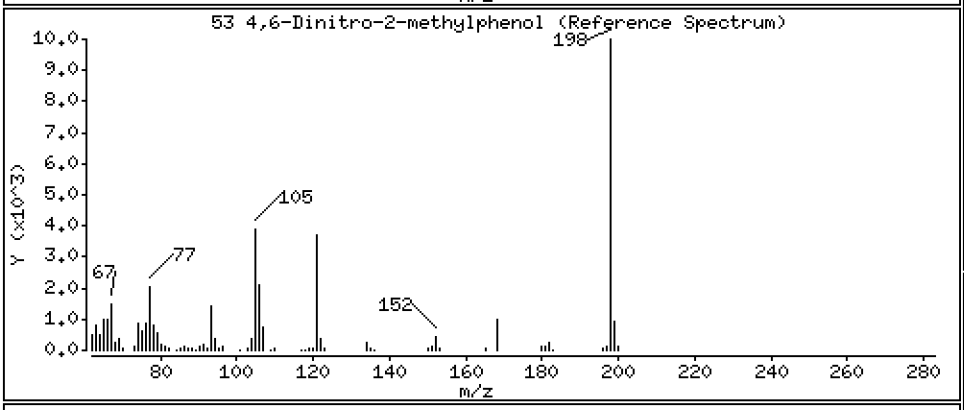
Concentration: 0.09412 ug/mL

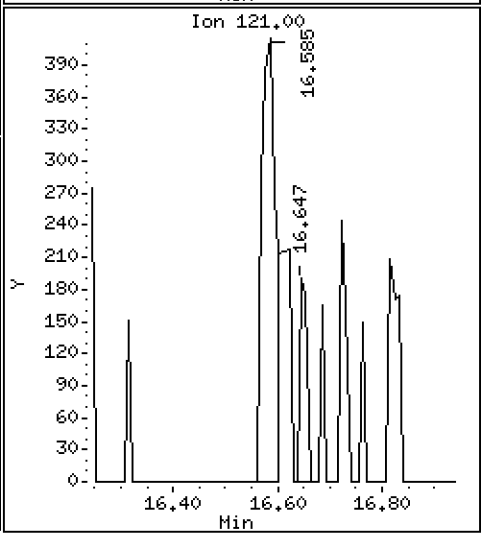


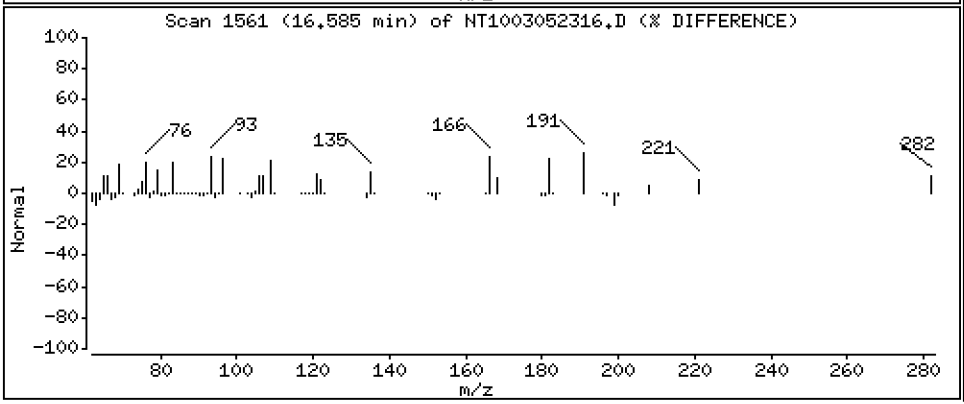












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

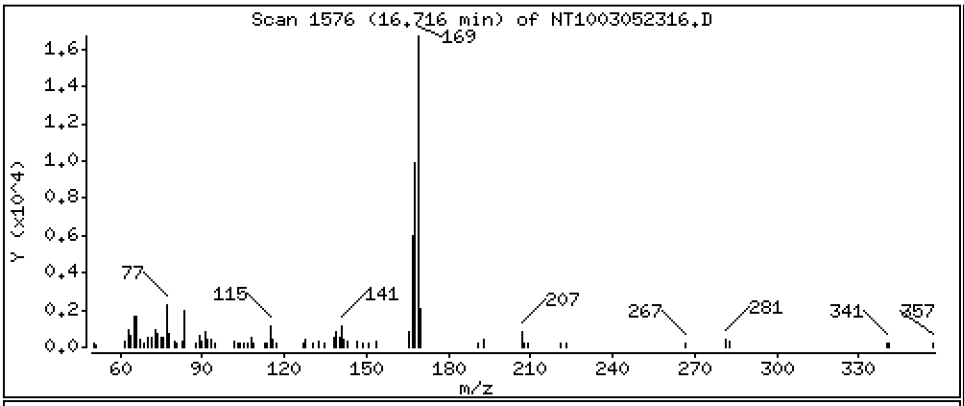
Operator: VTS

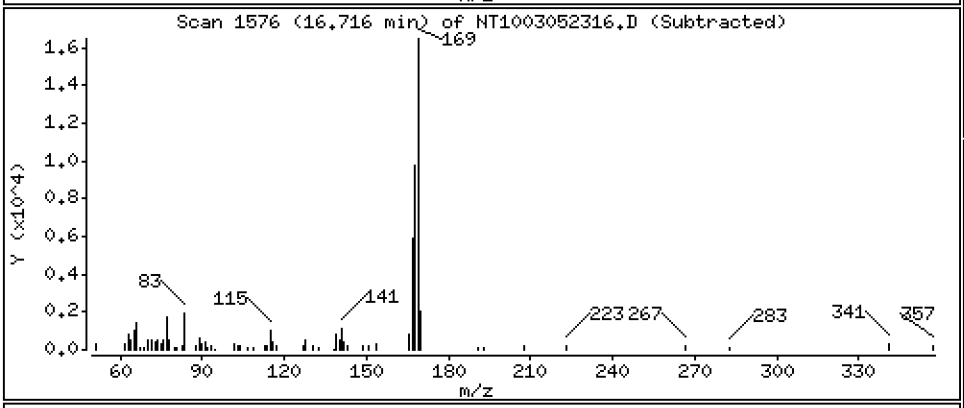
Column phase: ZB-5msi

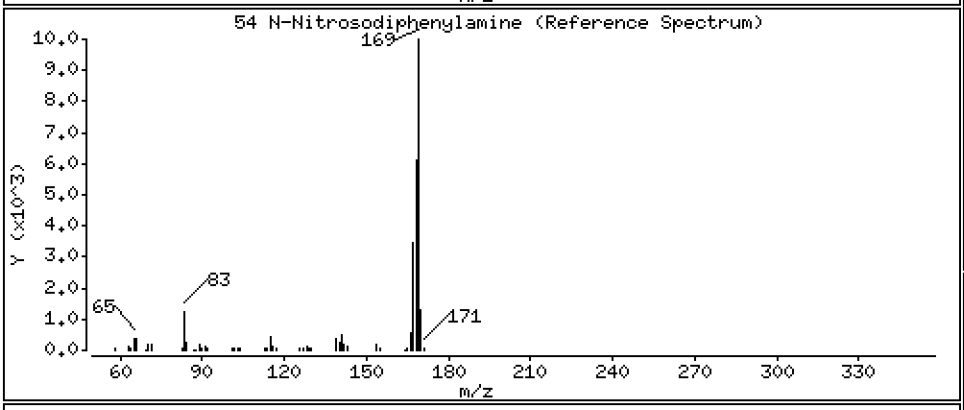
Column diameter: 0.25

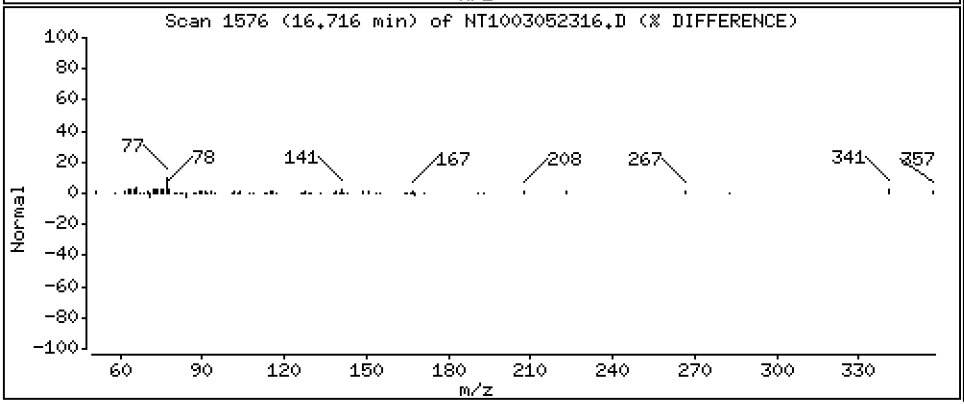
54 N-Nitrosodiphenylamine

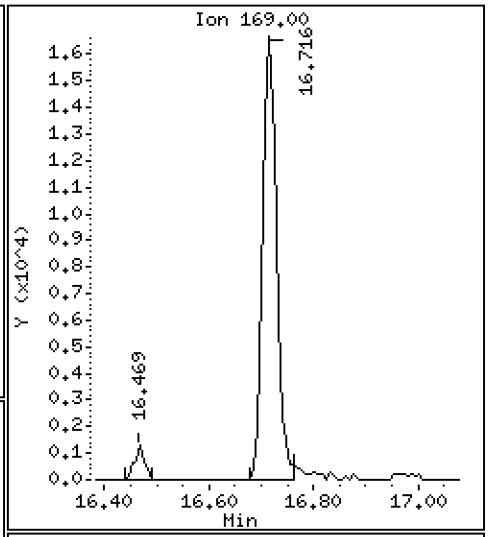
Concentration: 0.2028 ug/mL

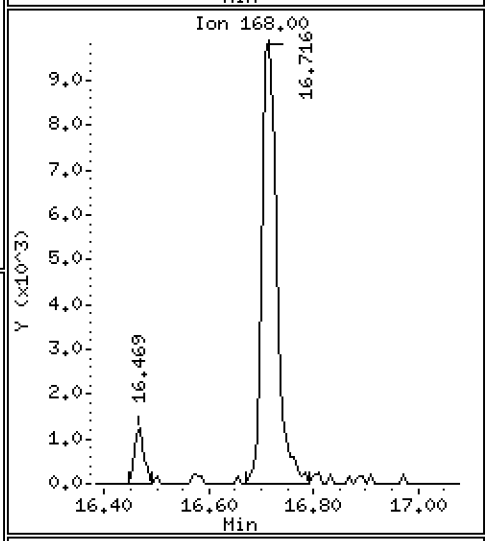


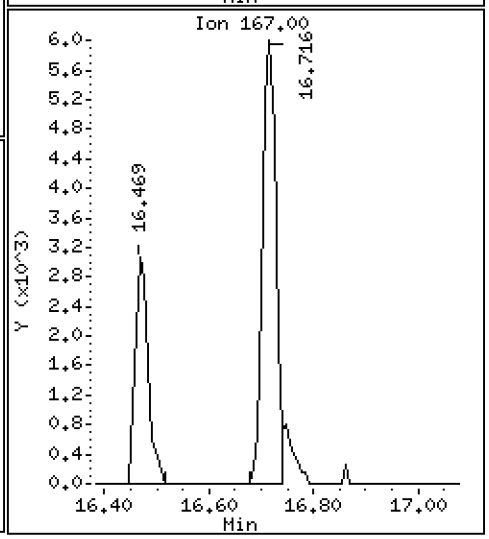












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

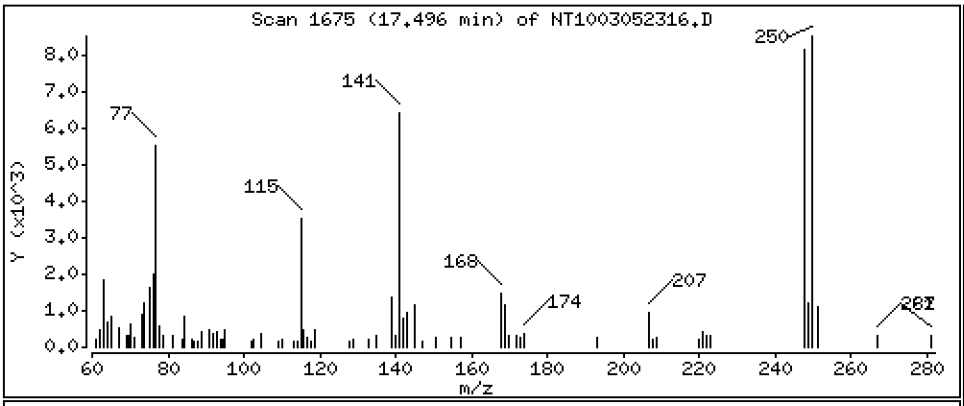
Operator: VTS

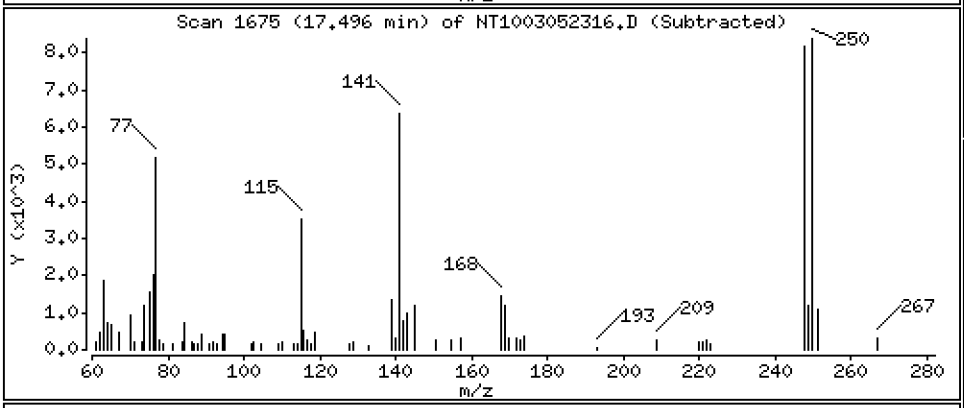
Column phase: ZB-5msi

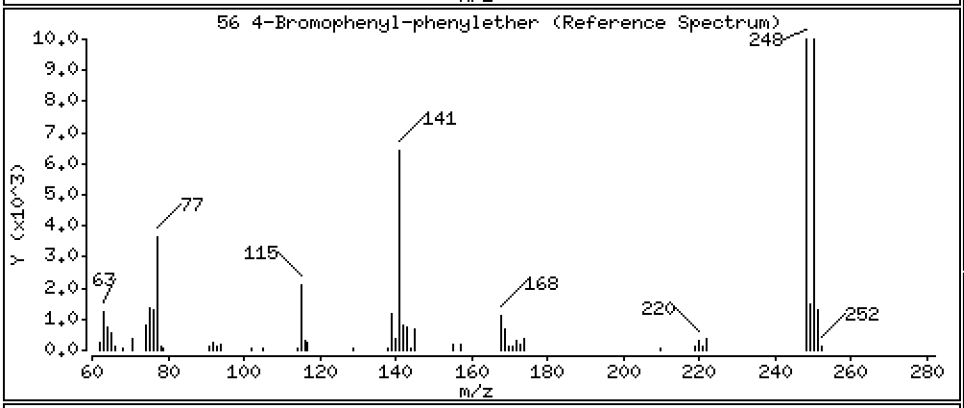
Column diameter: 0.25

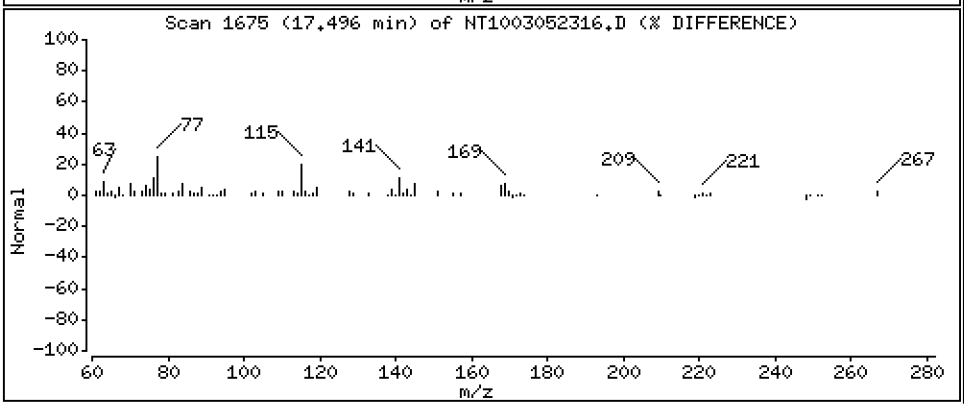
56 4-Bromophenyl-phenylether

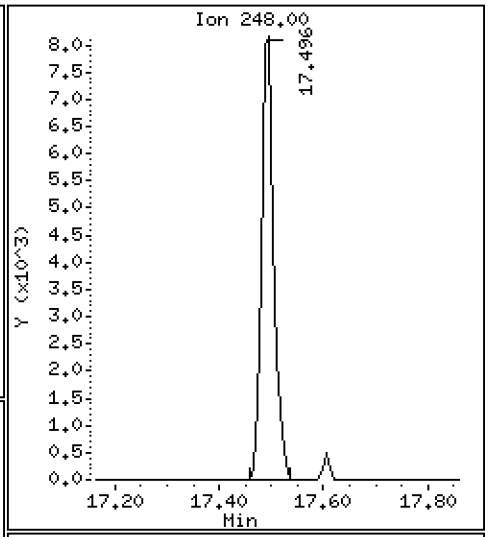
Concentration: 0.2320 ug/mL

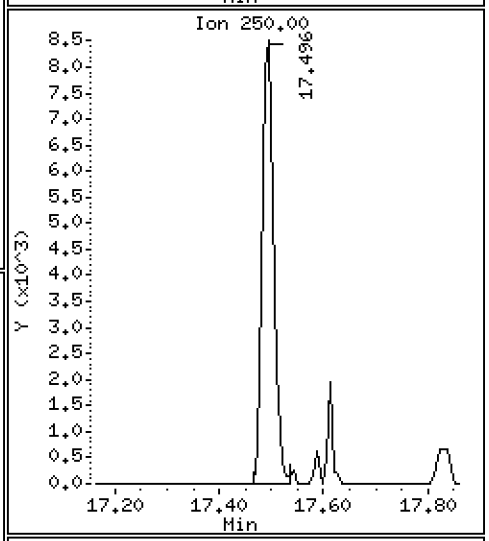


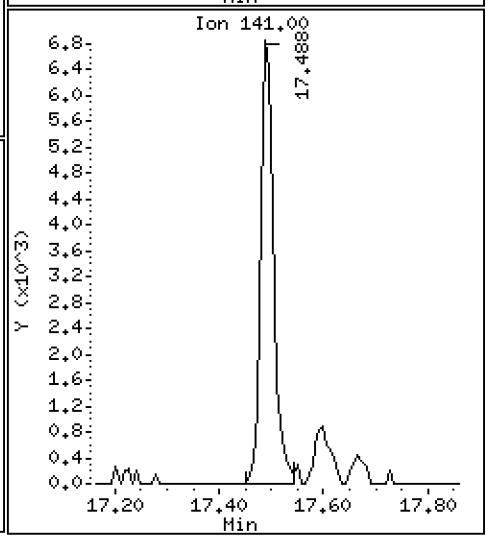












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

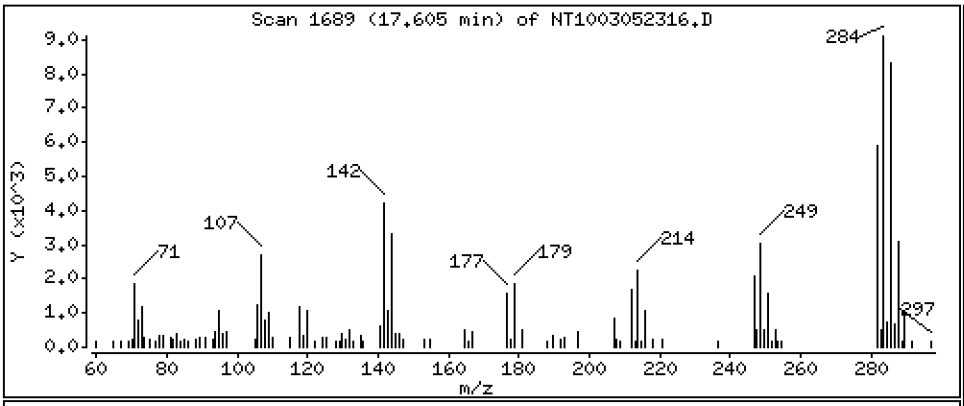
Operator: VTS

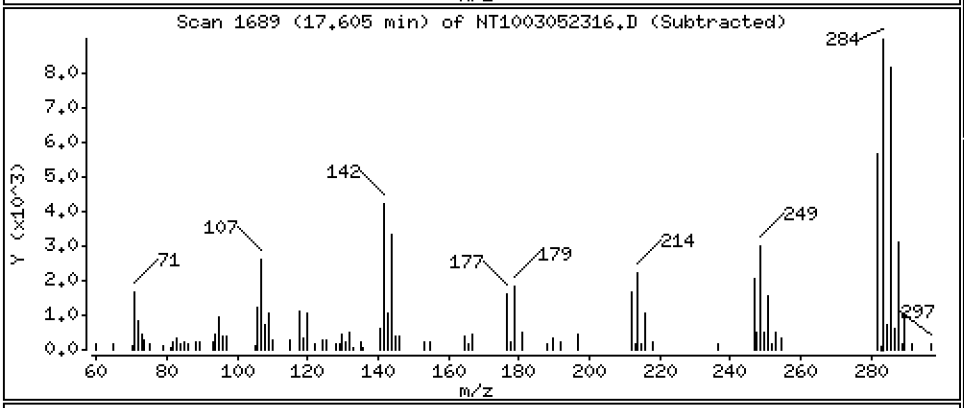
Column phase: ZB-5msi

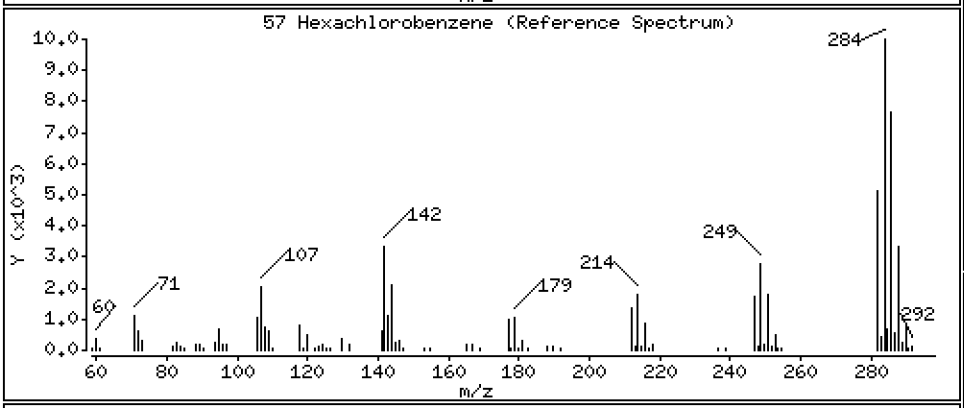
Column diameter: 0.25

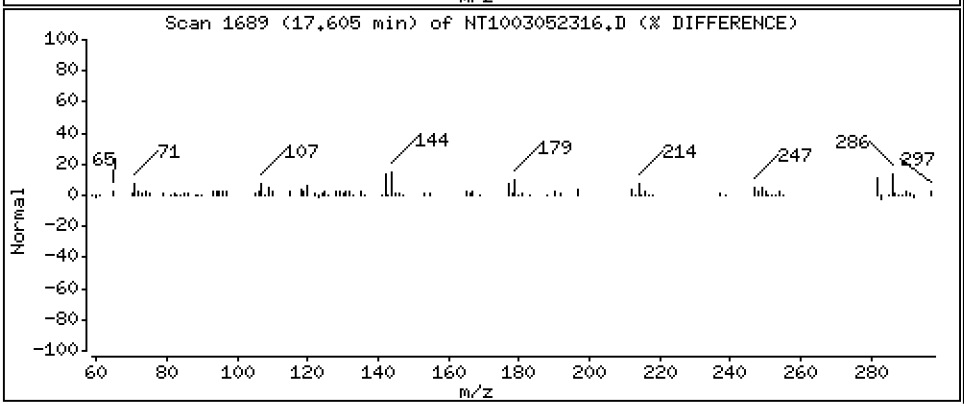
57 Hexachlorobenzene

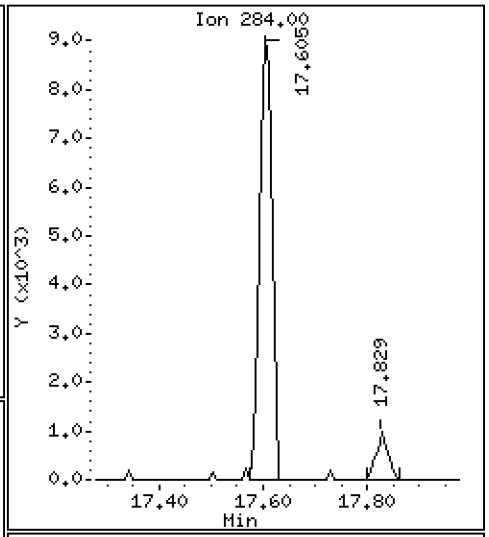
Concentration: 0.2329 ug/mL

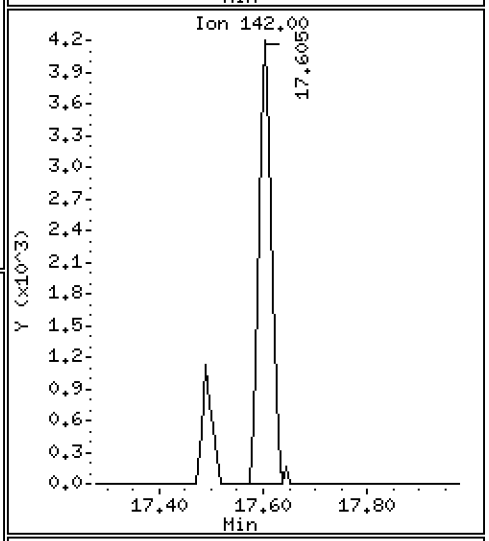


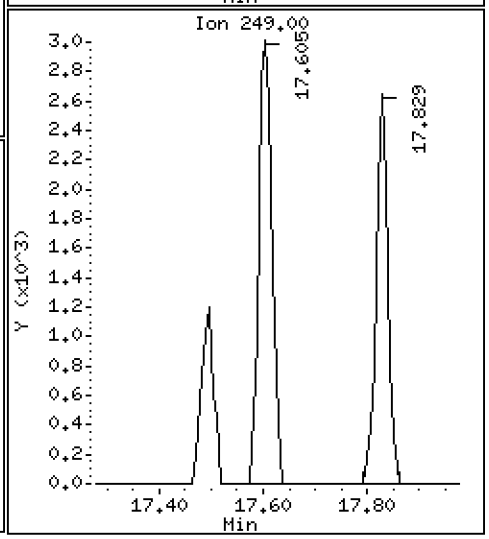












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

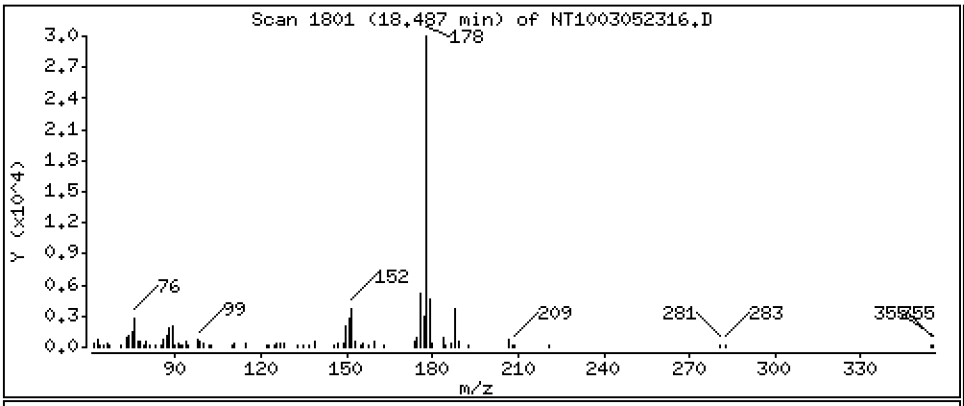
Operator: VTS

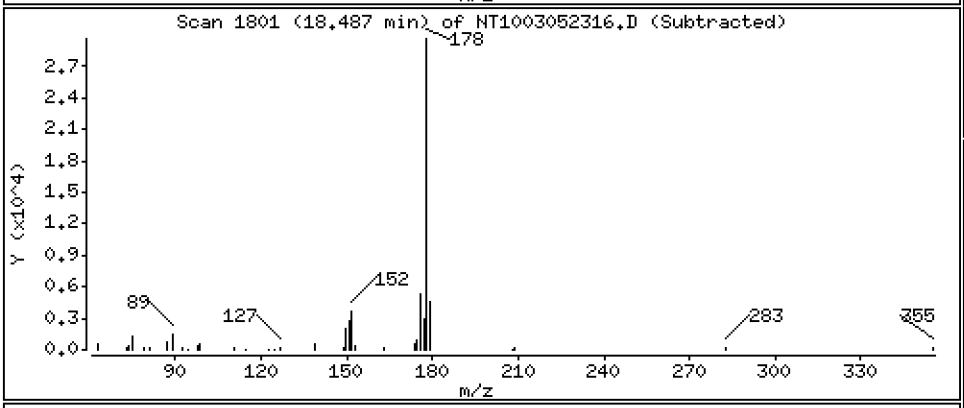
Column phase: ZB-5msi

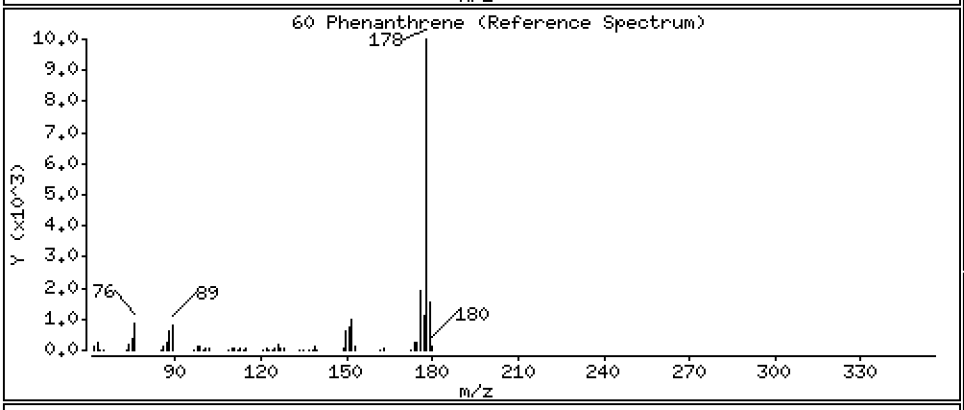
Column diameter: 0.25

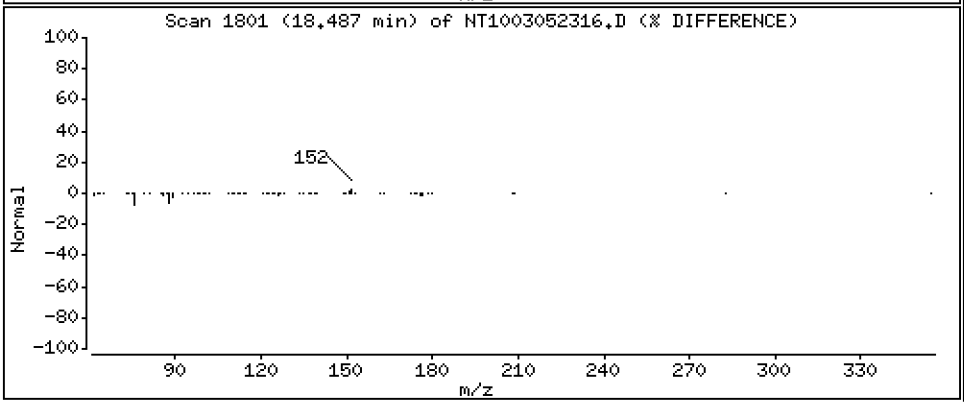
60 Phenanthrene

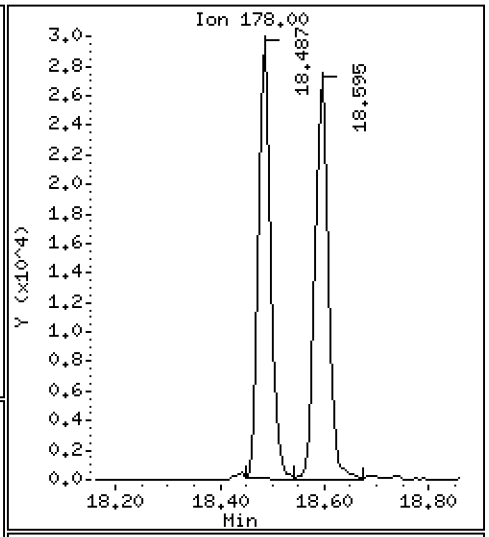
Concentration: 0.1978 ug/mL

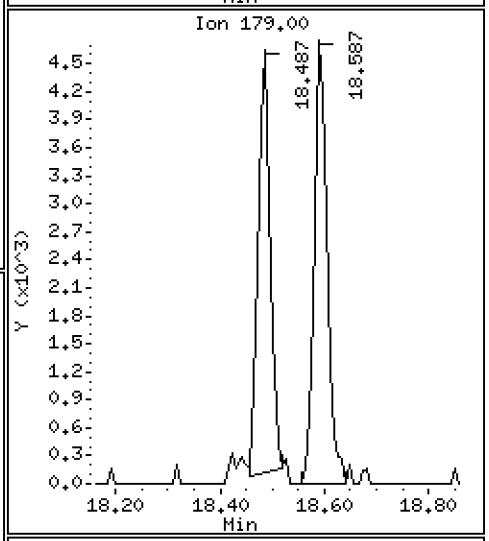


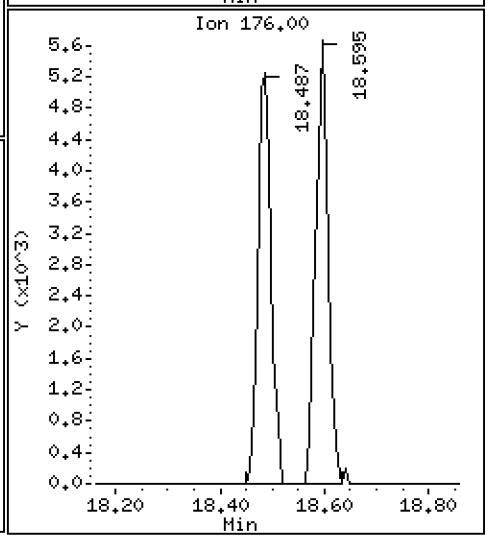












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

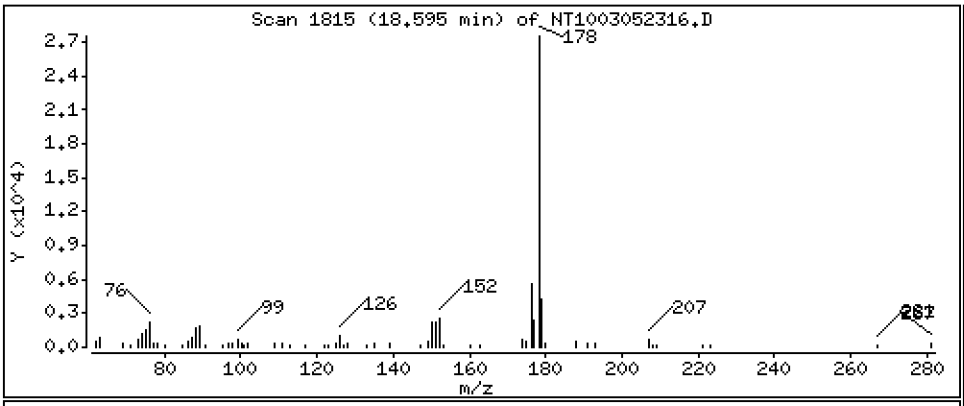
Operator: VTS

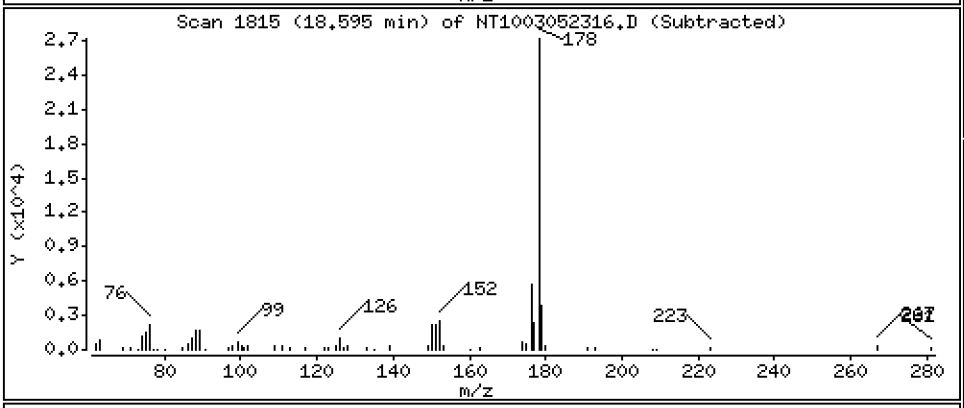
Column phase: ZB-5msi

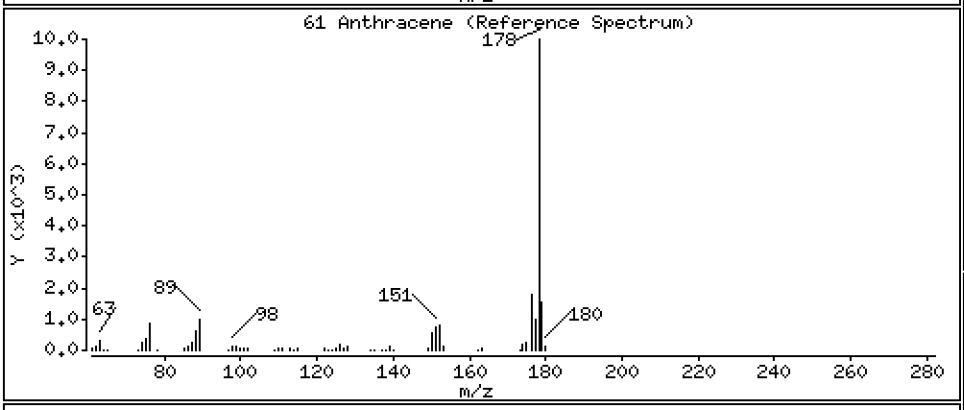
Column diameter: 0.25

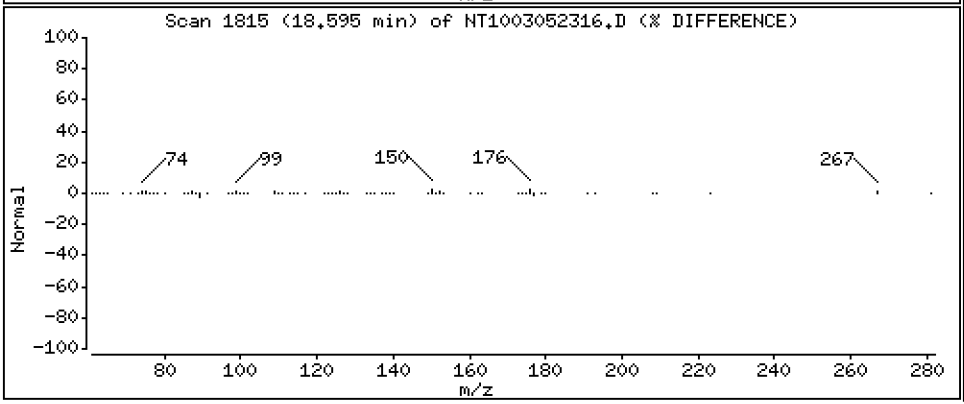
61 Anthracene

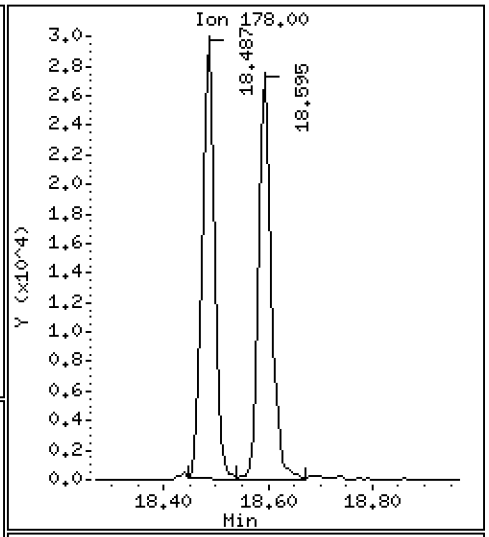
Concentration: 0.1963 ug/mL

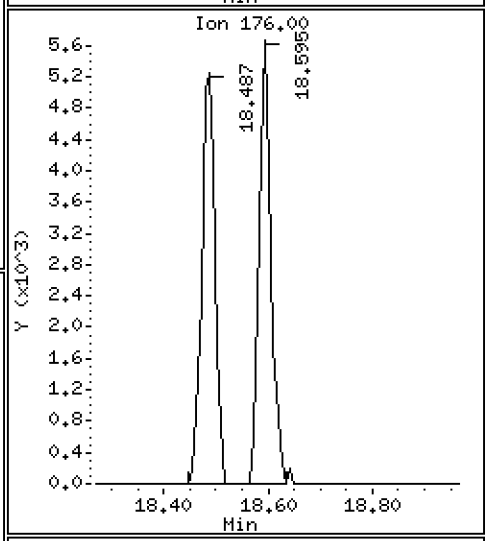


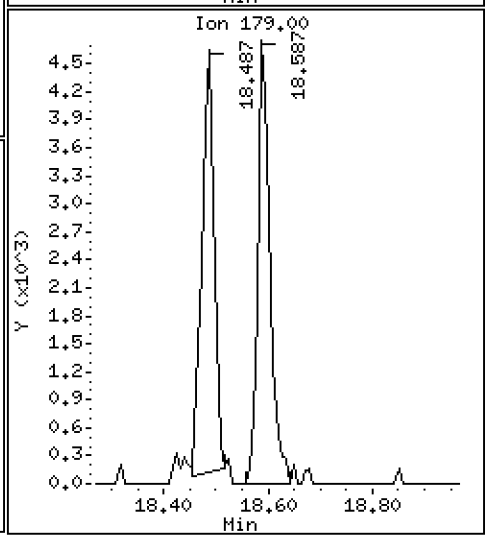












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

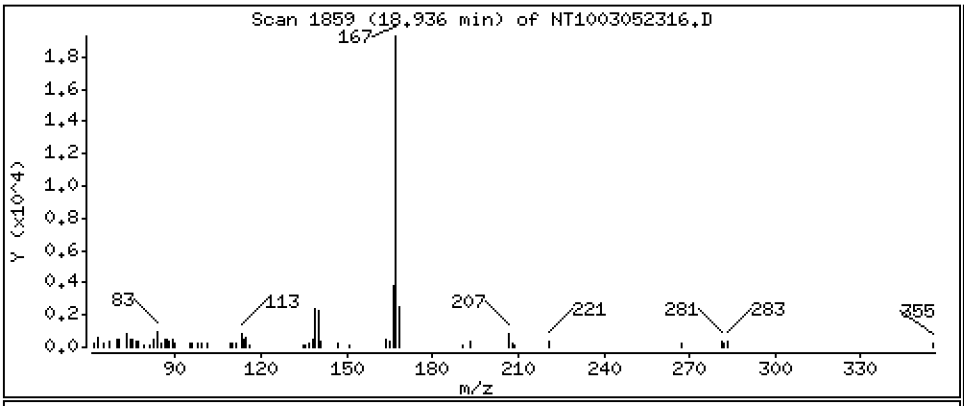
Operator: VTS

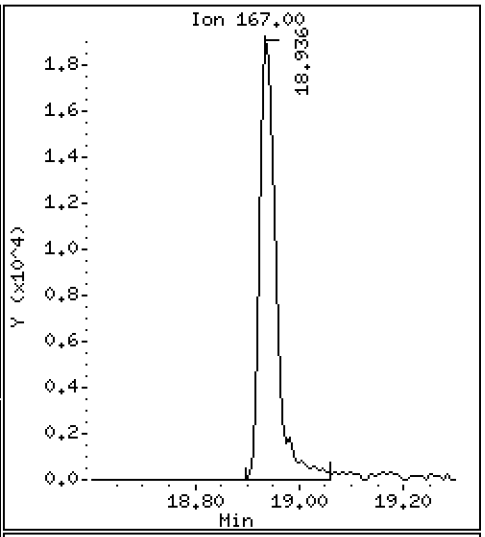
Column phase: ZB-5msi

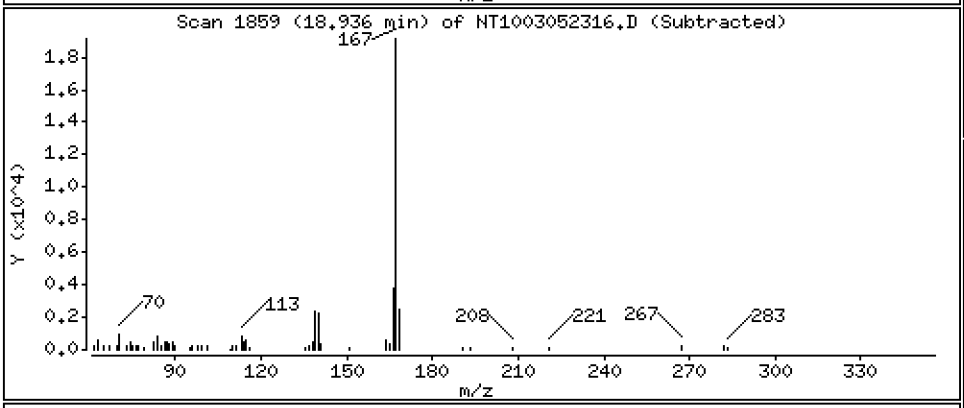
Column diameter: 0.25

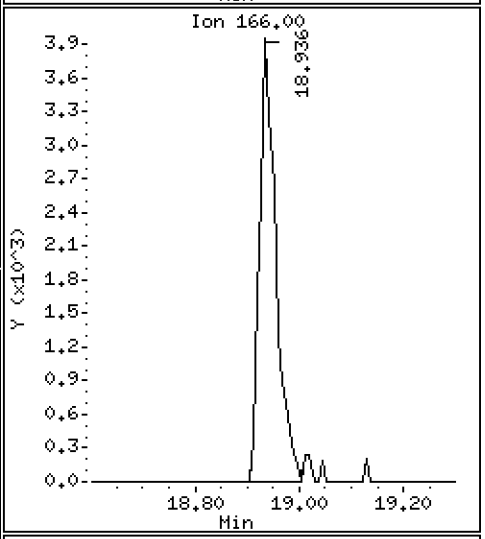
62 Carbazole

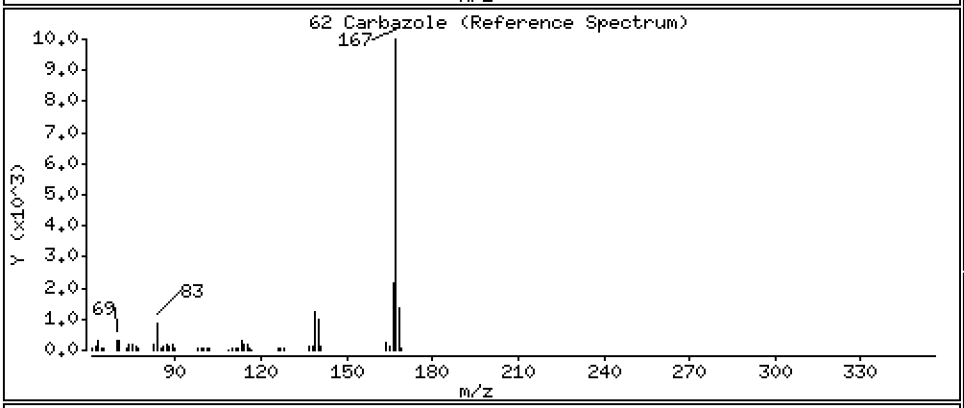
Concentration: 0.1858 ug/mL

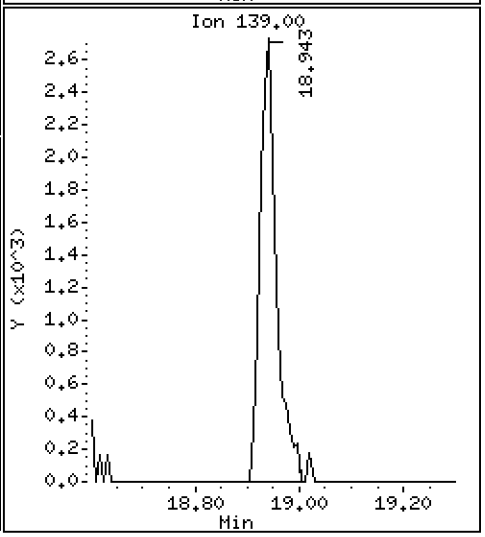


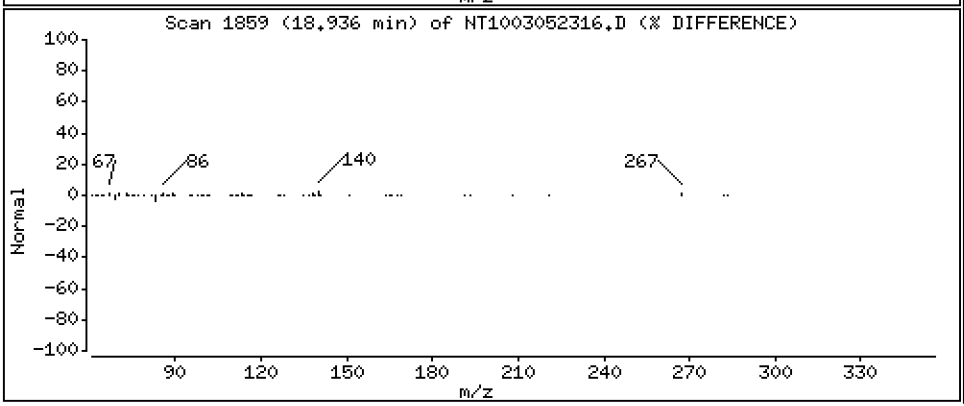












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

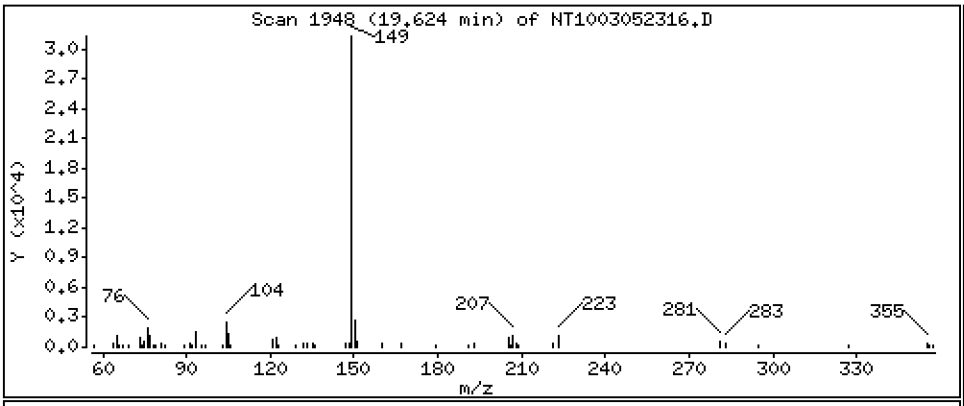
Operator: VTS

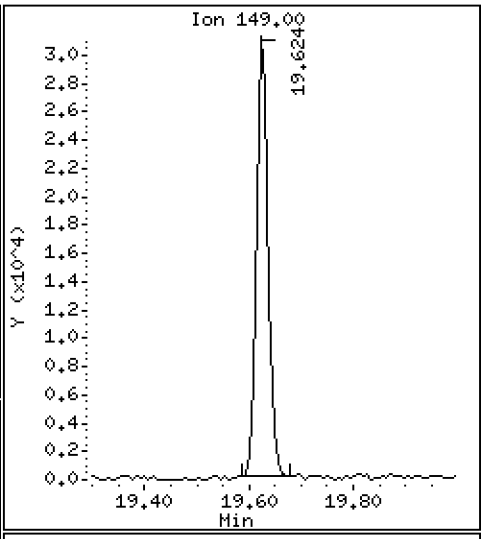
Column phase: ZB-5msi

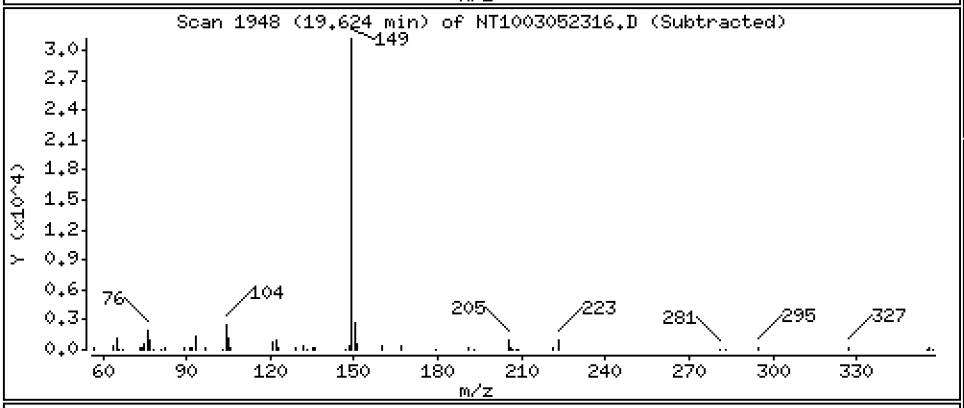
Column diameter: 0.25

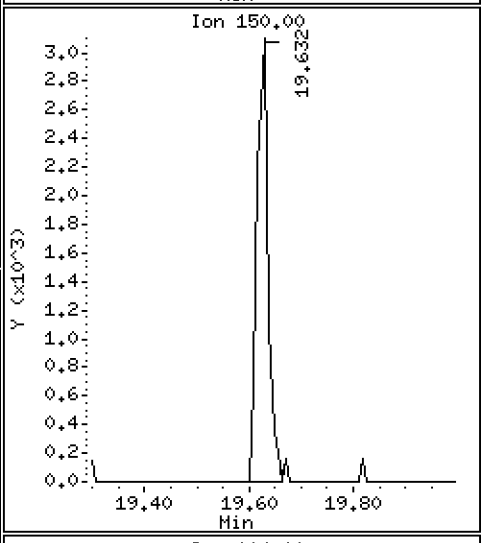
63 Di-n-butylphthalate

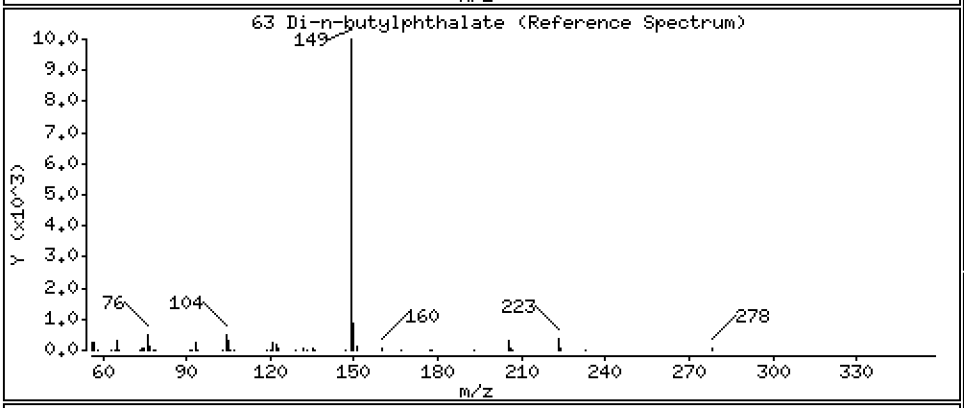
Concentration: 0.1588 ug/mL

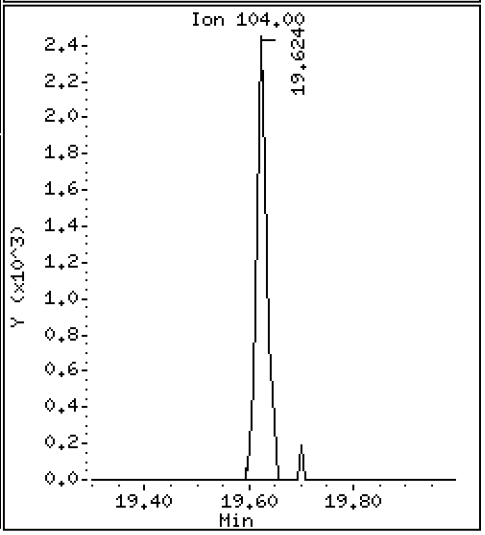


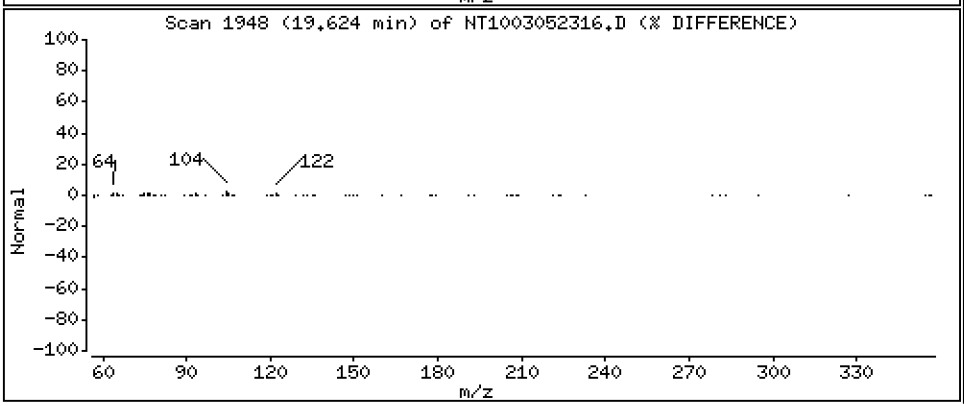












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

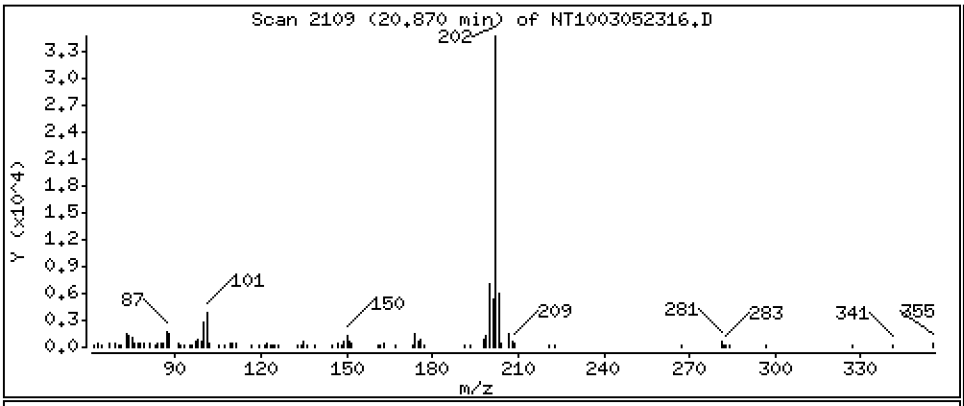
Operator: VTS

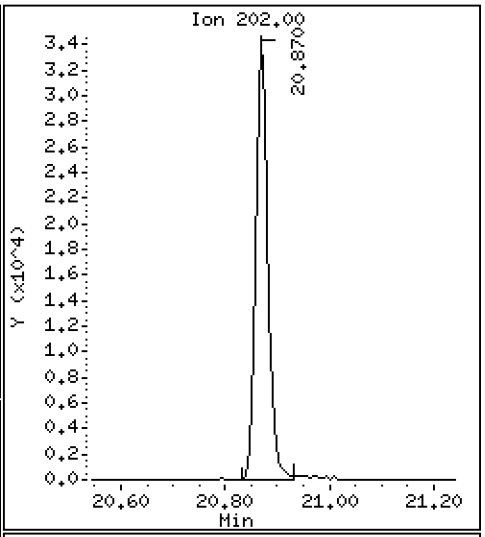
Column phase: ZB-5msi

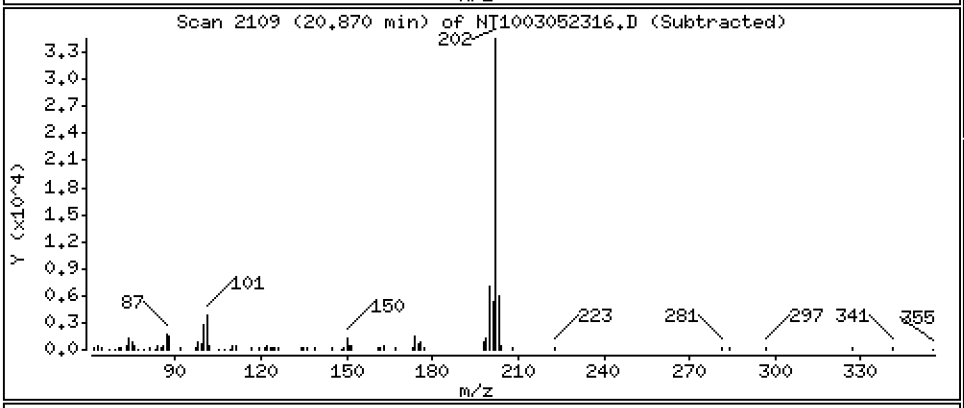
Column diameter: 0.25

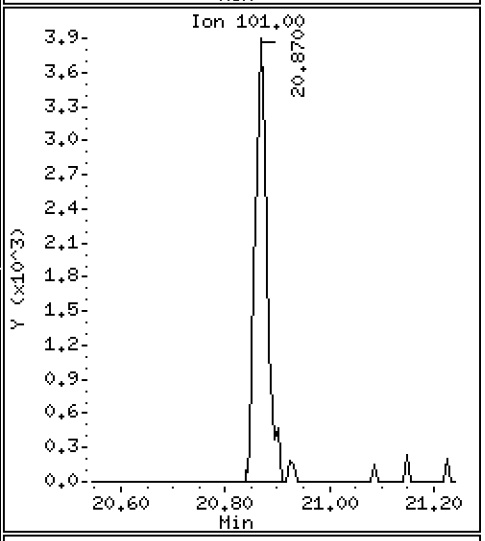
64 Fluoranthene

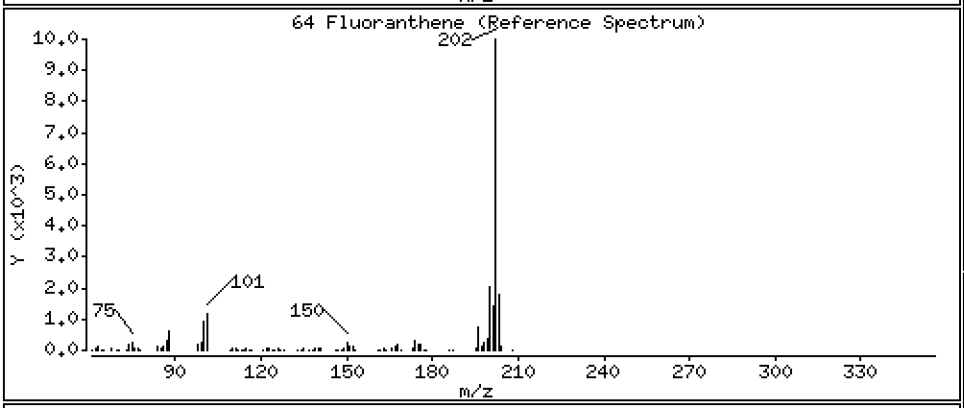
Concentration: 0.1832 ug/mL

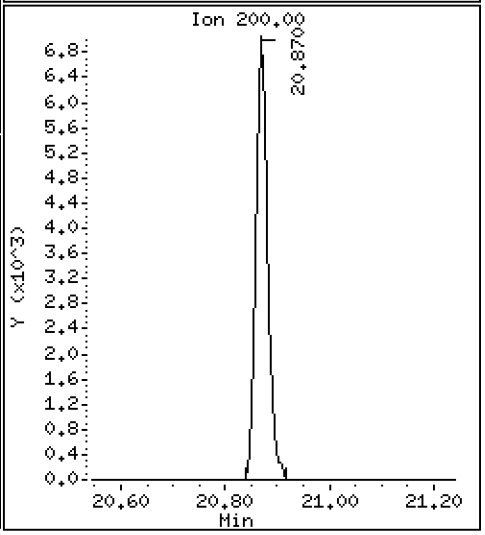


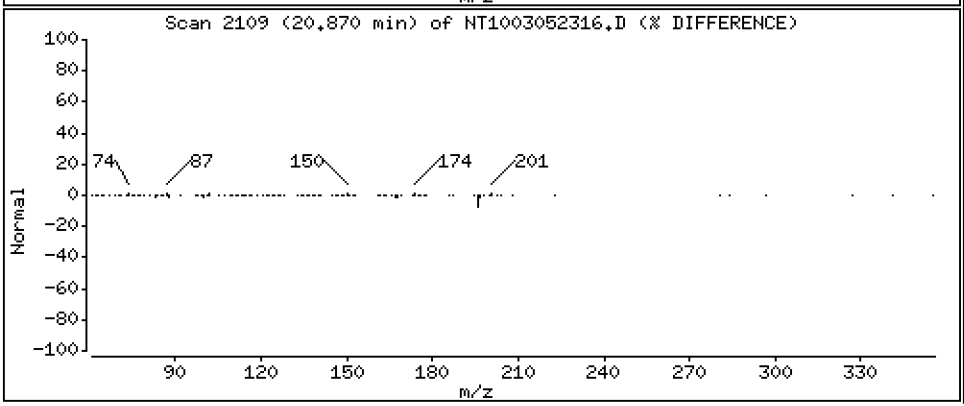












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

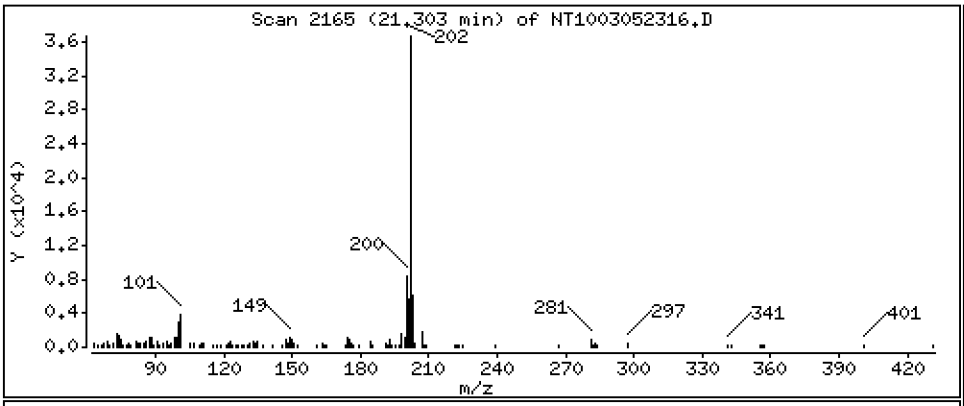
Operator: VTS

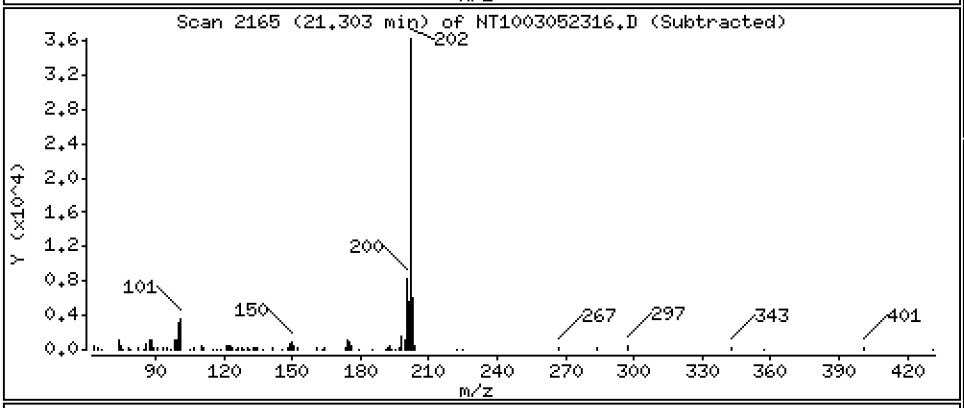
Column phase: ZB-5msi

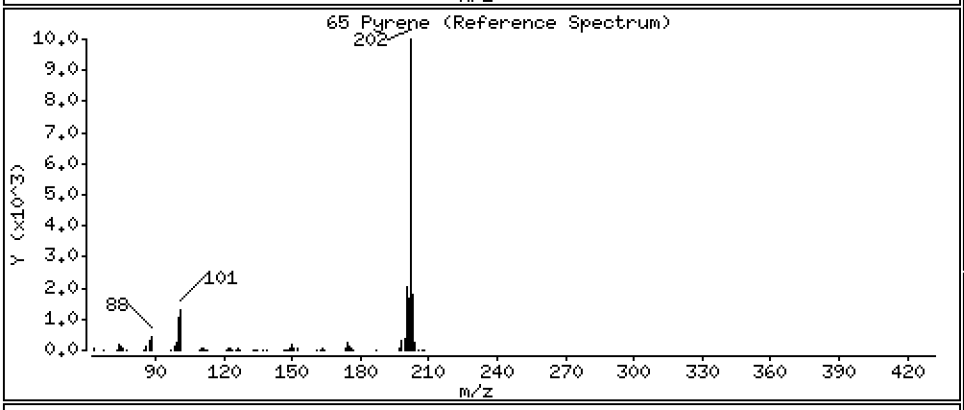
Column diameter: 0.25

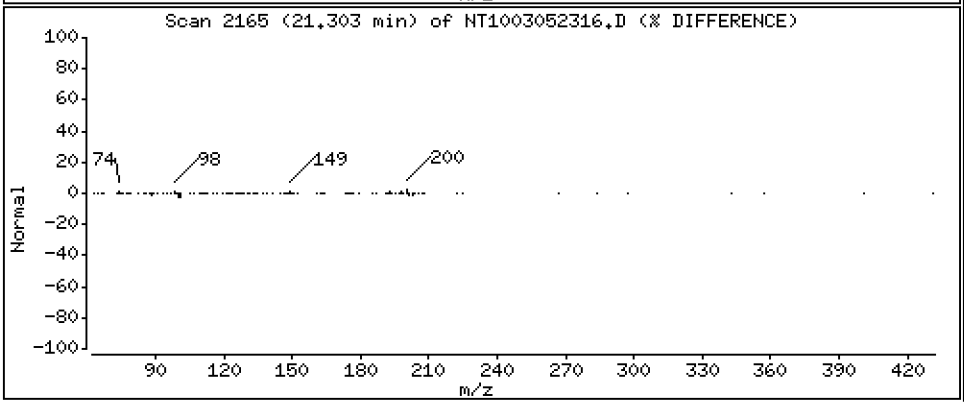
65 Pyrene

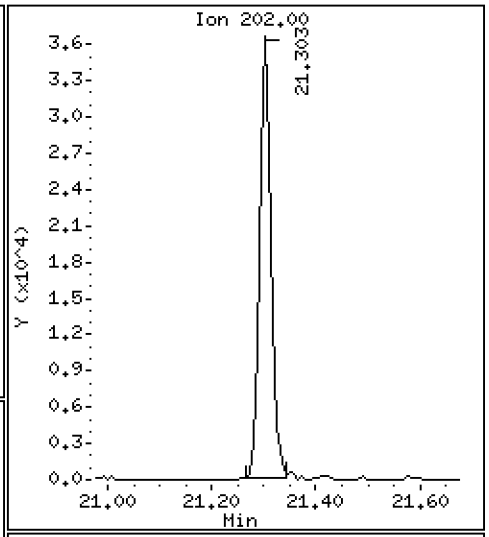
Concentration: 0.1817 ug/mL

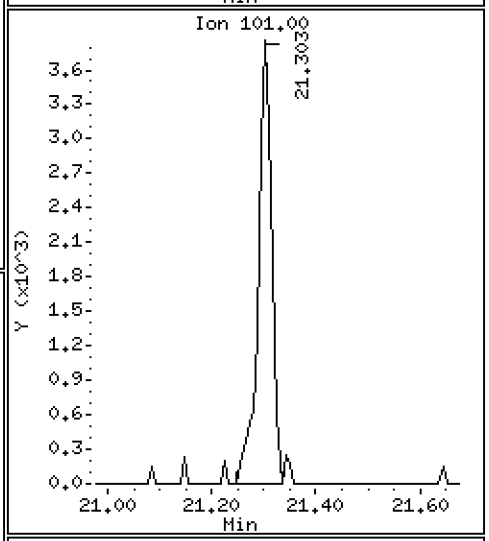


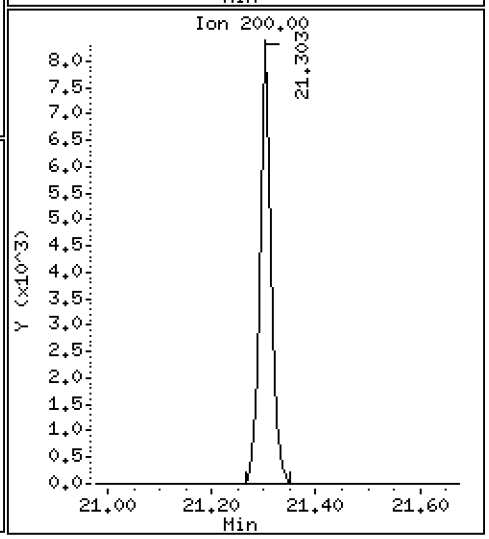












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

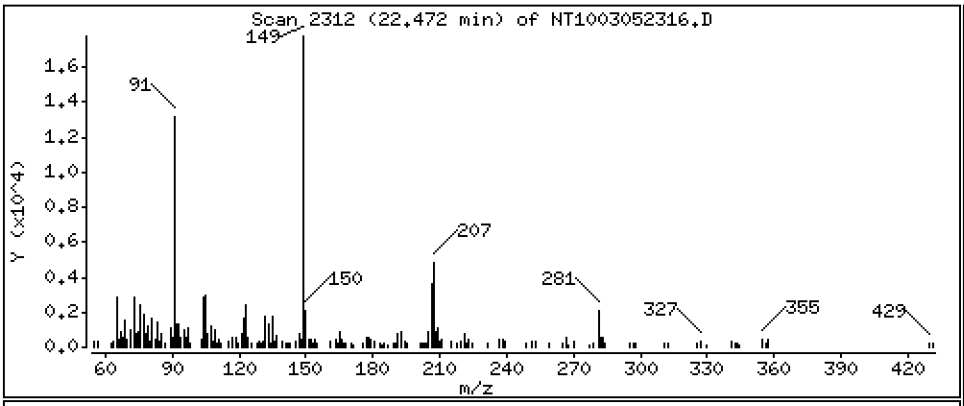
Operator: VTS

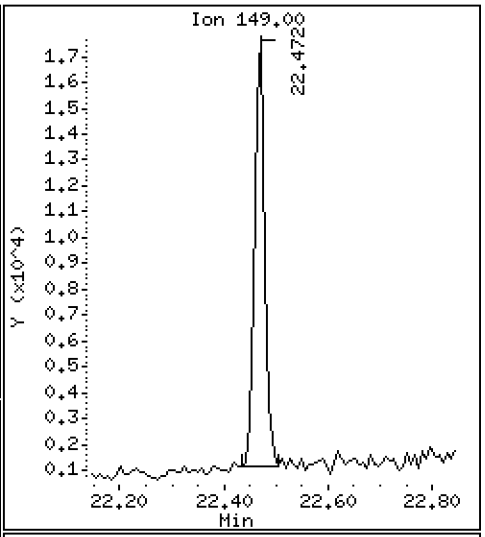
Column phase: ZB-5msi

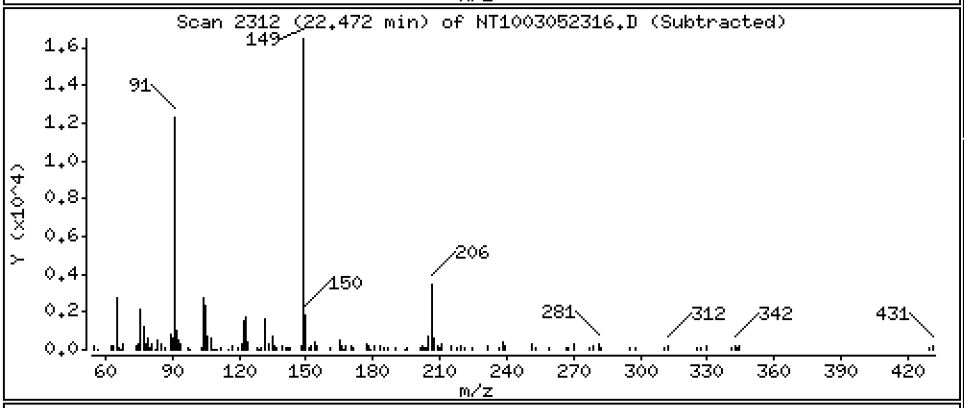
Column diameter: 0.25

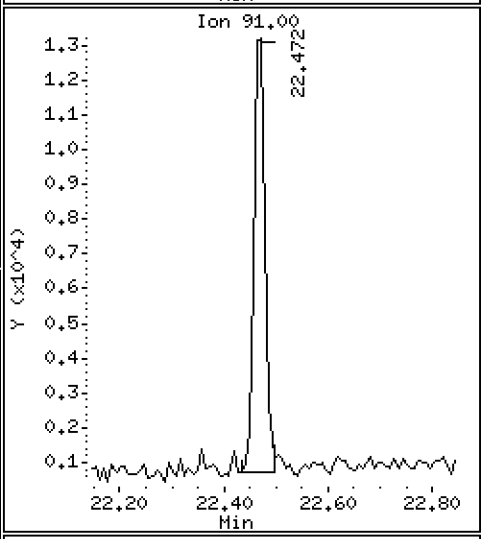
67 Butylbenzylphthalate

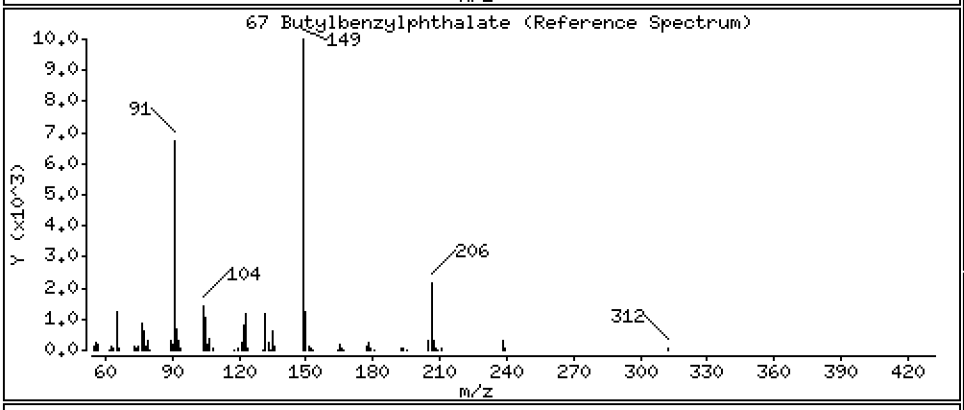
Concentration: 0.1369 ug/mL

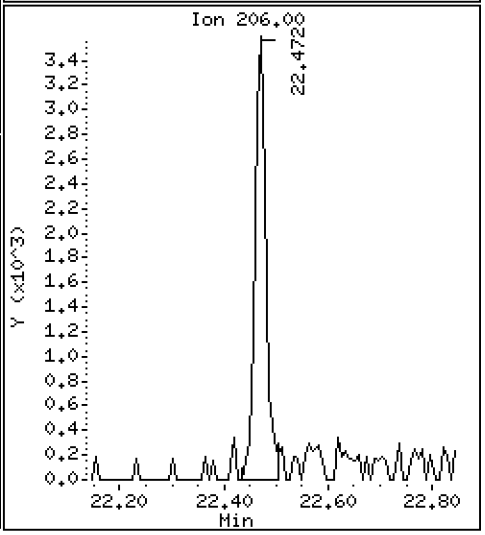


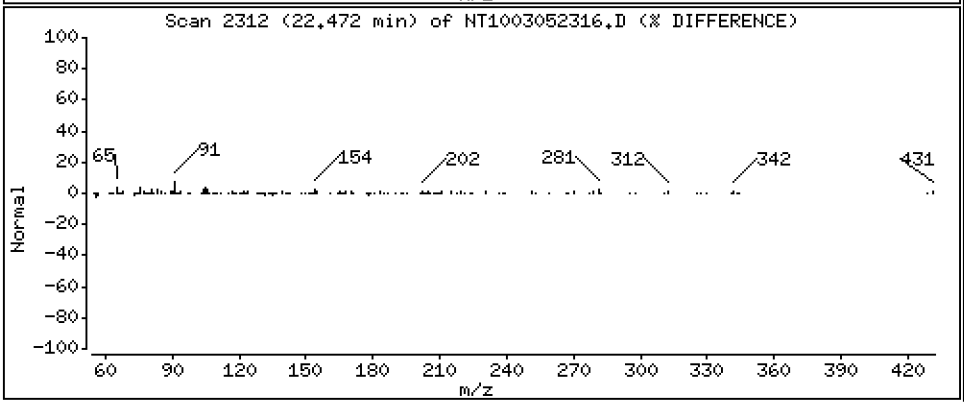












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

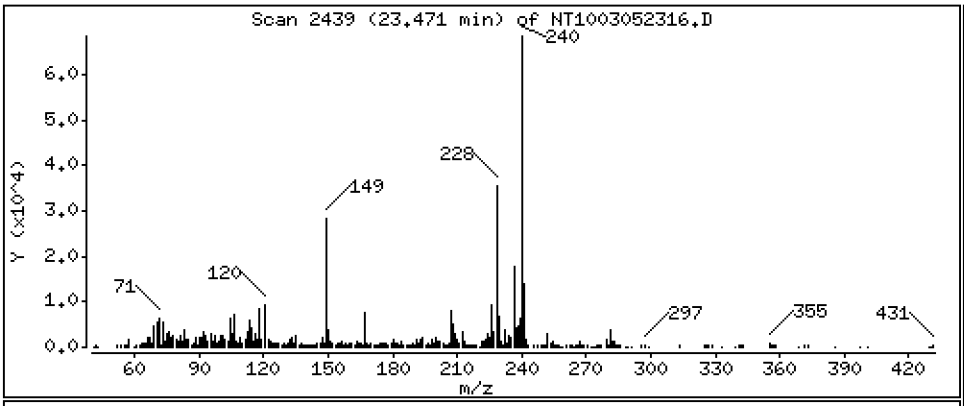
Operator: VTS

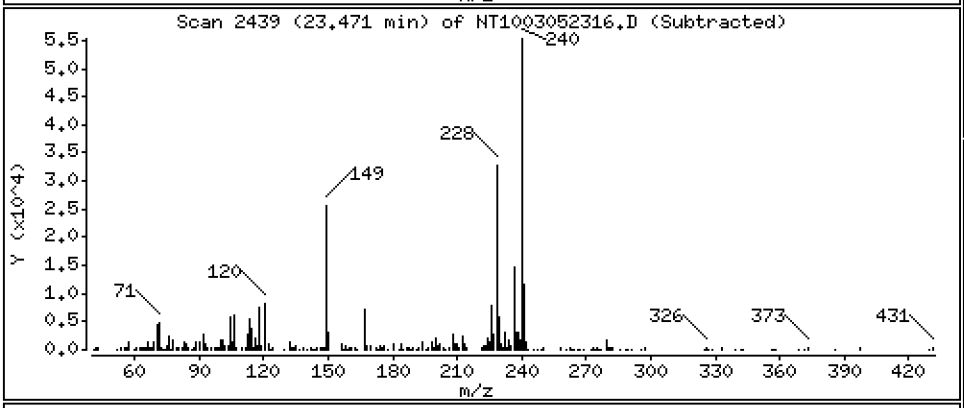
Column phase: ZB-5msi

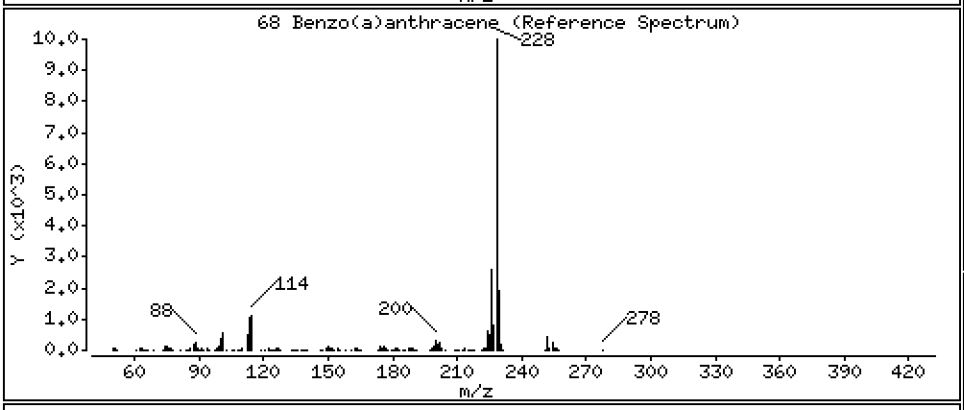
Column diameter: 0.25

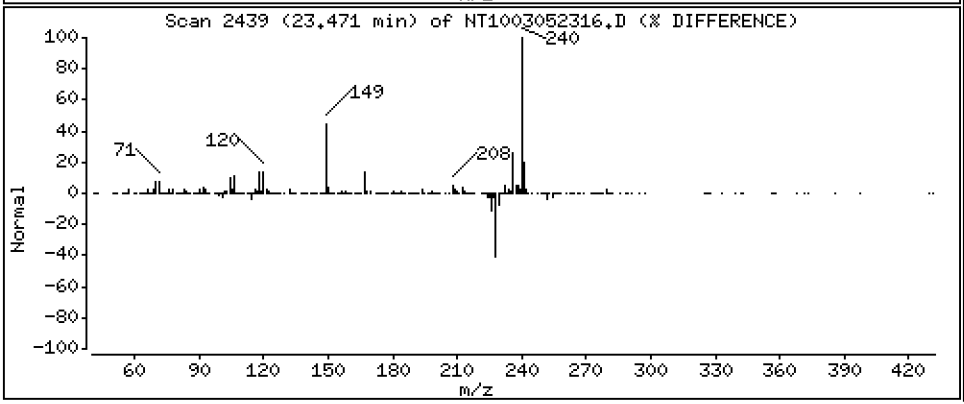
68 Benzo(a)anthracene

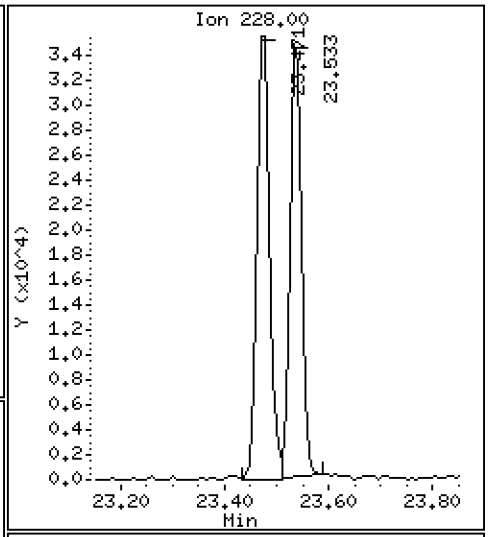
Concentration: 0.1995 ug/mL

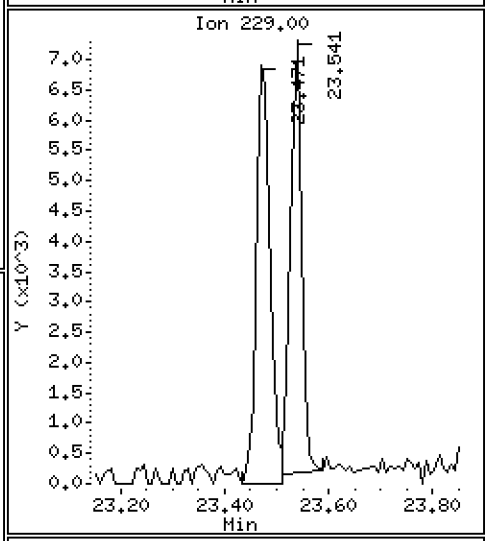


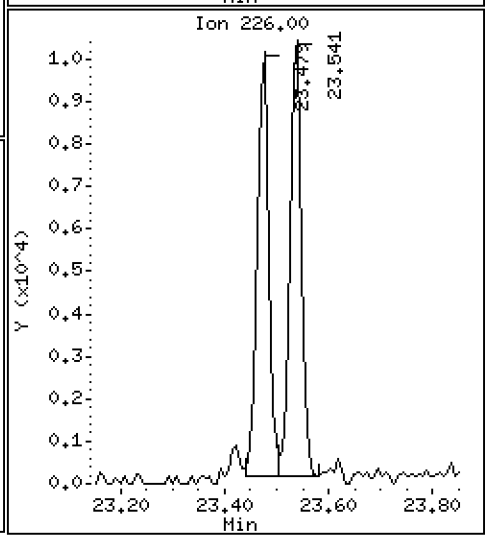












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

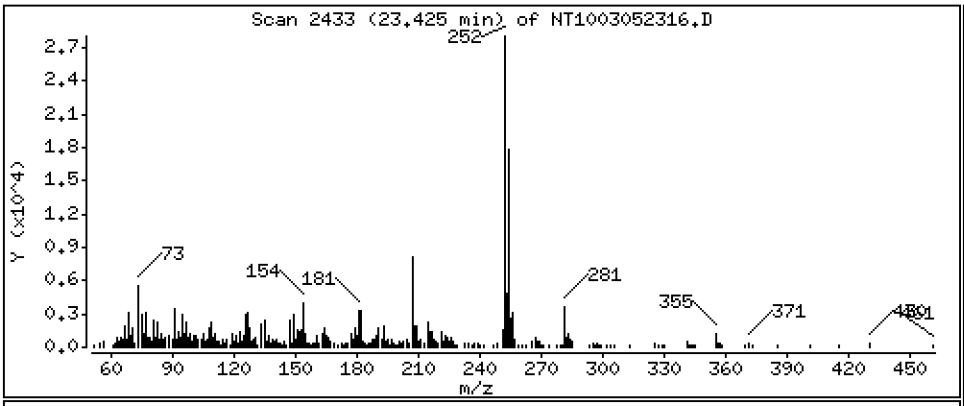
Operator: VTS

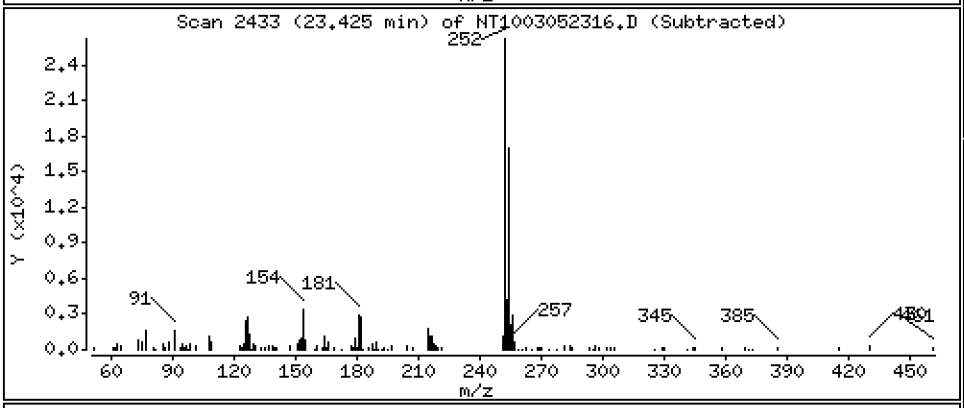
Column phase: ZB-5msi

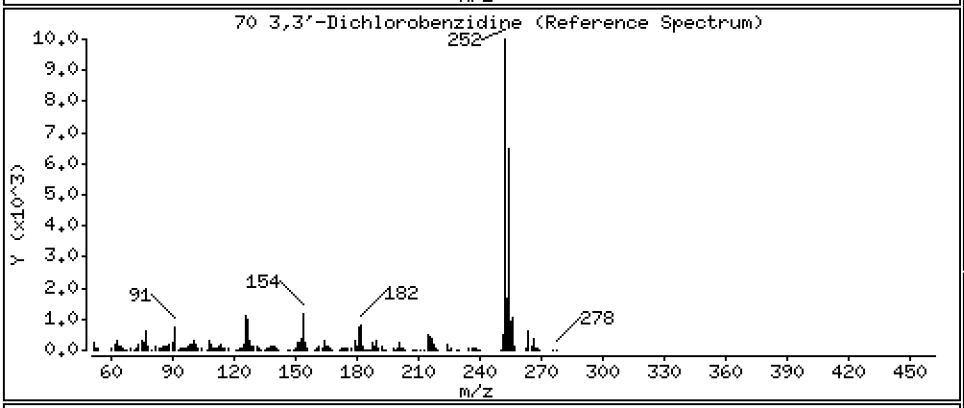
Column diameter: 0.25

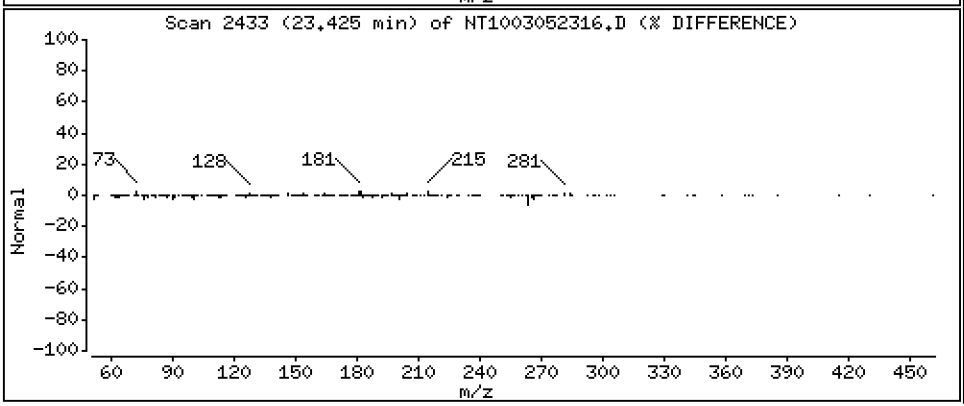
70 3,3'-Dichlorobenzidine

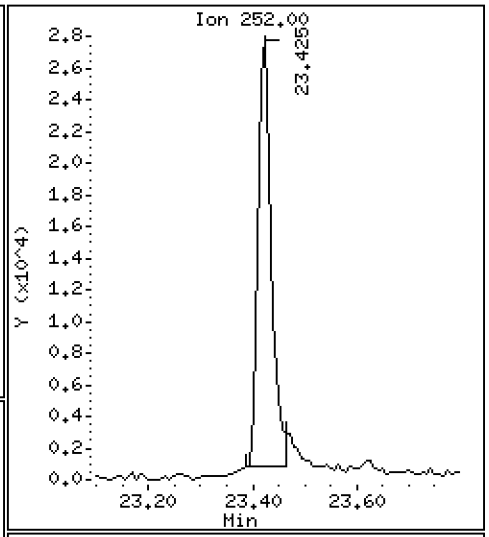
Concentration: 0.3521 ug/mL

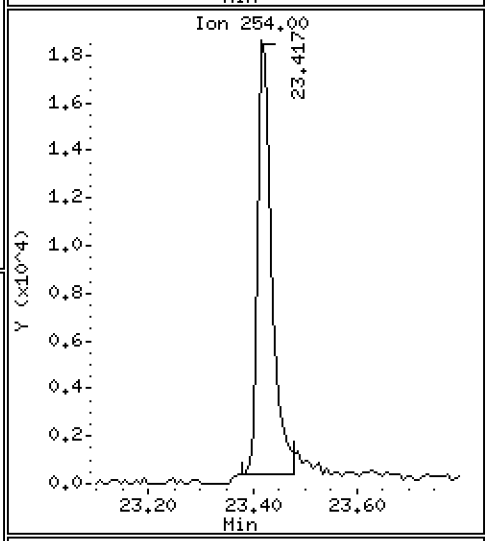


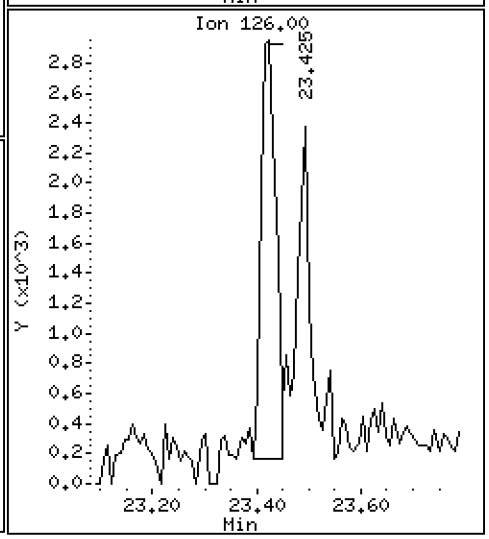












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

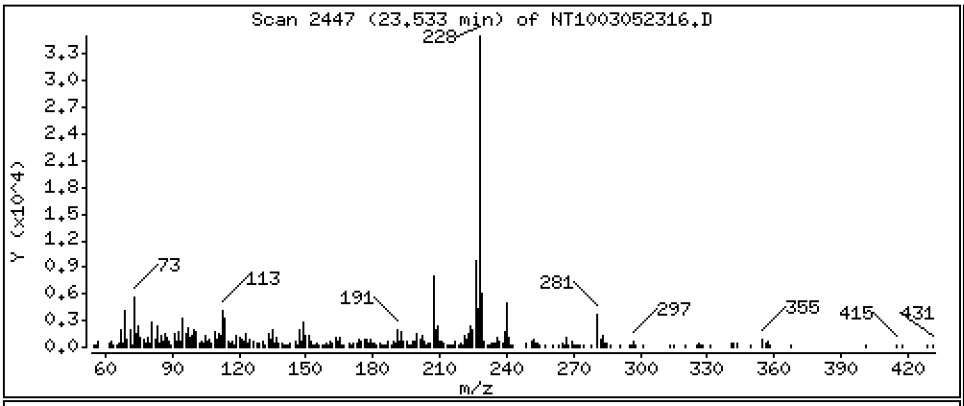
Operator: VTS

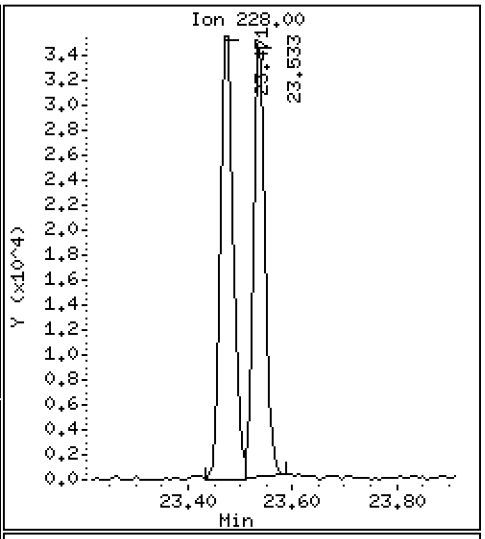
Column phase: ZB-5msi

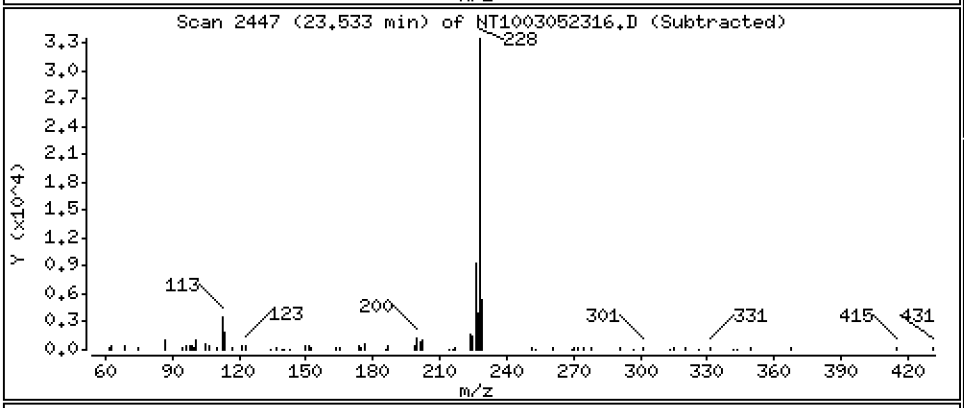
Column diameter: 0.25

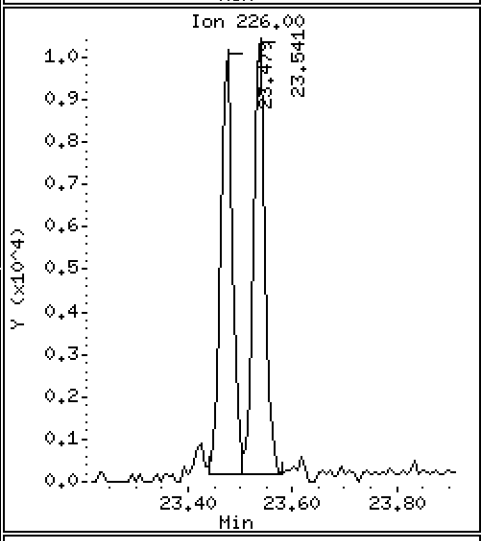
71 Chrysene

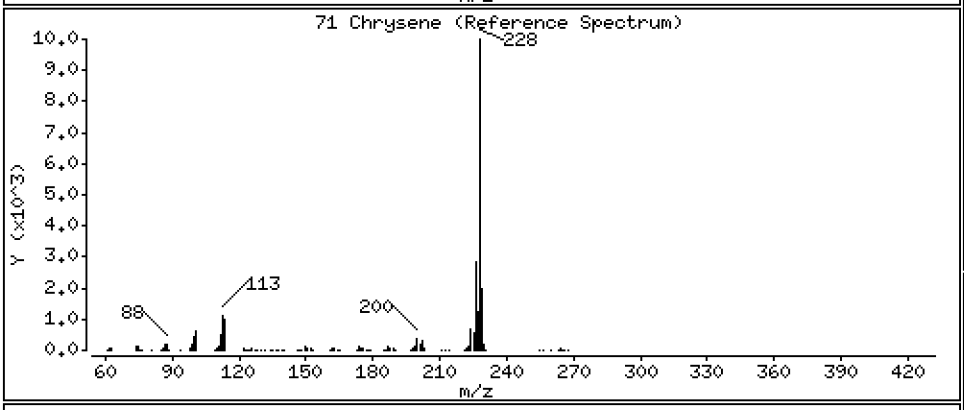
Concentration: 0.2187 ug/mL

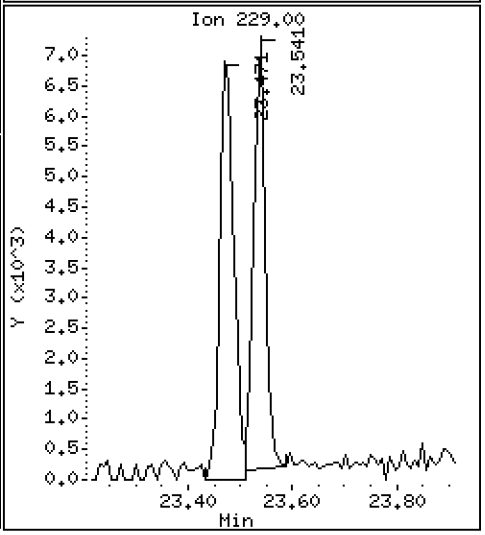


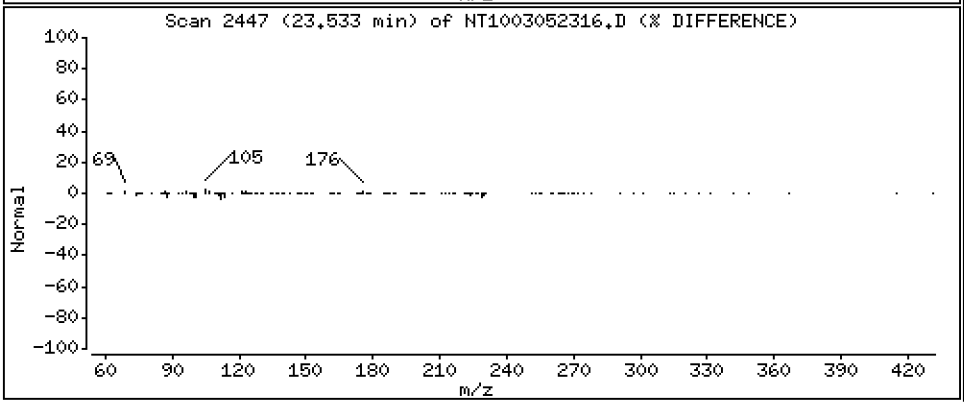












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

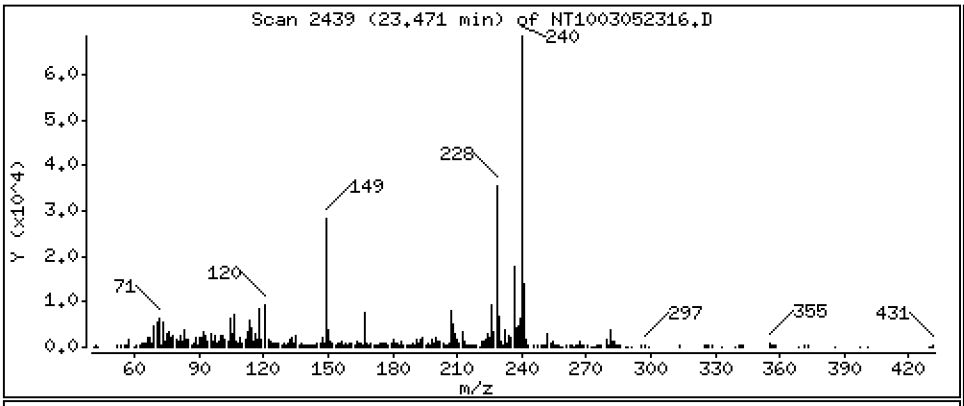
Operator: VTS

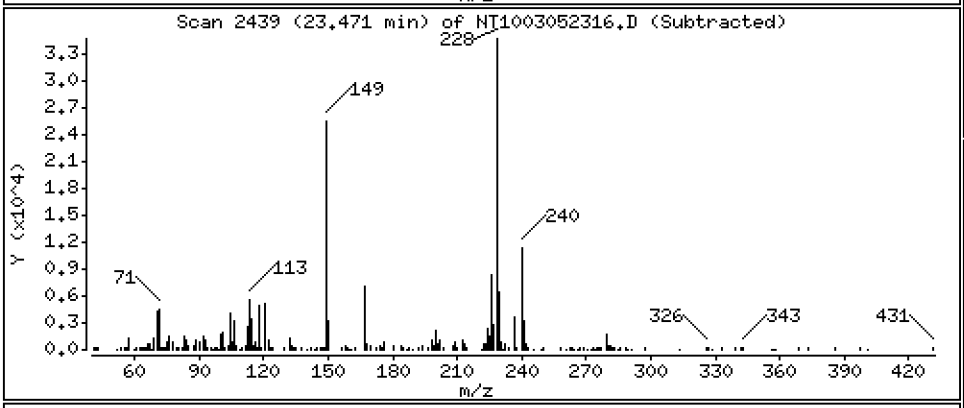
Column phase: ZB-5msi

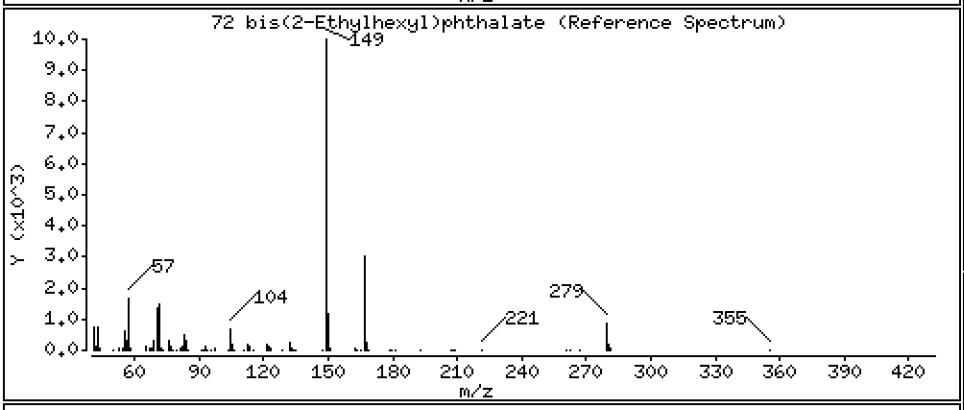
Column diameter: 0.25

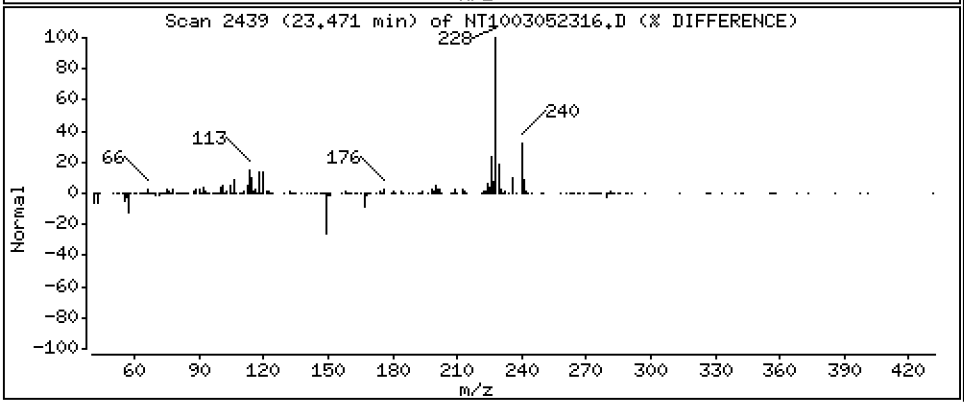
72 bis(2-Ethylhexyl)phthalate

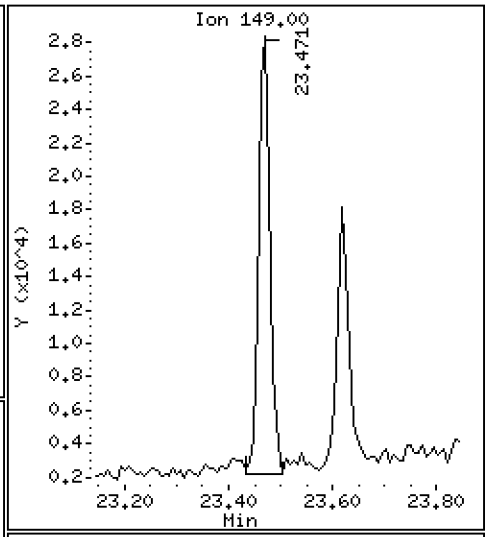
Concentration: 0.1865 ug/mL

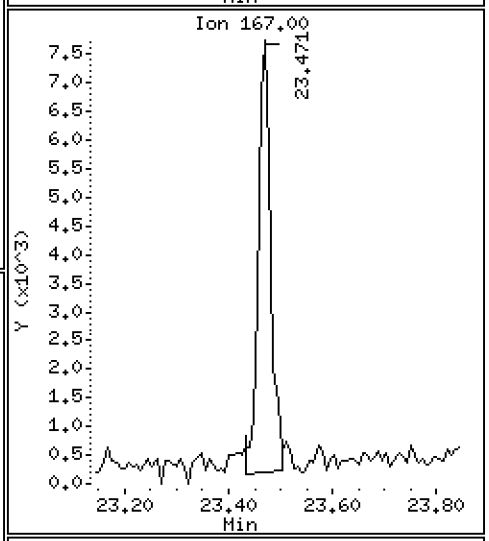


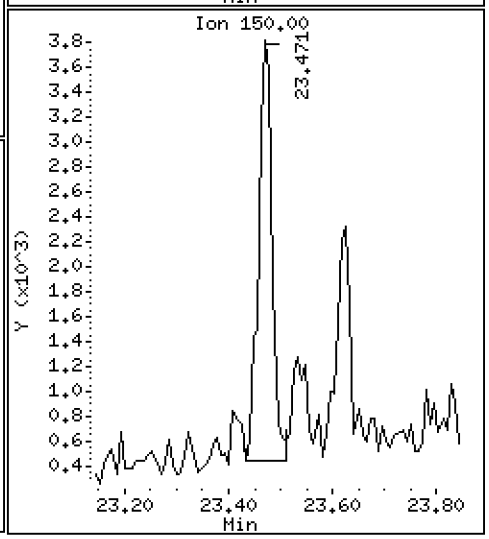












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

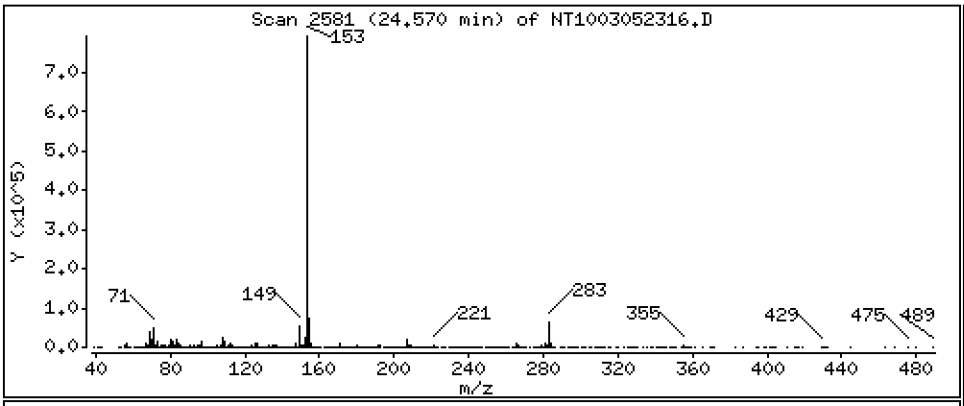
Operator: VTS

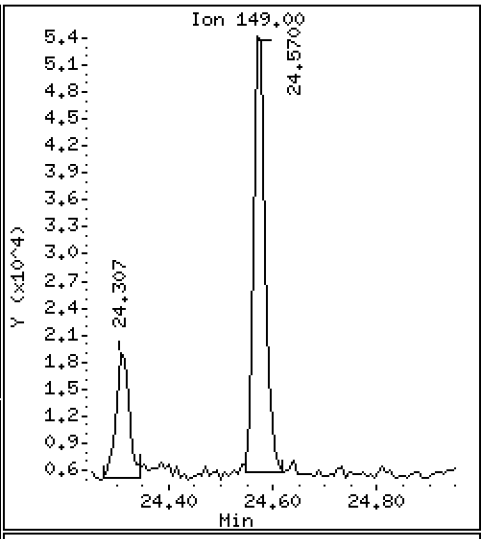
Column phase: ZB-5msi

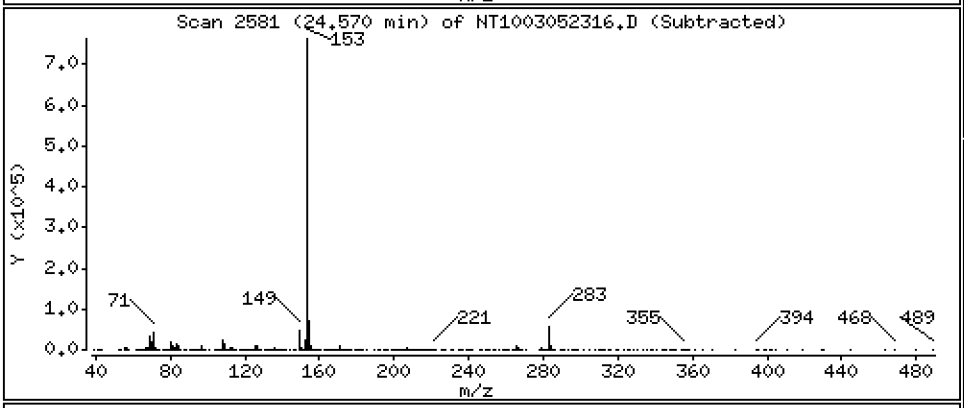
Column diameter: 0.25

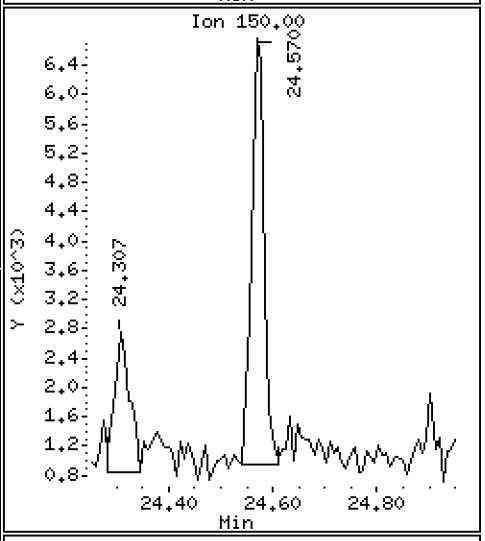
73 Di-n-octylphthalate

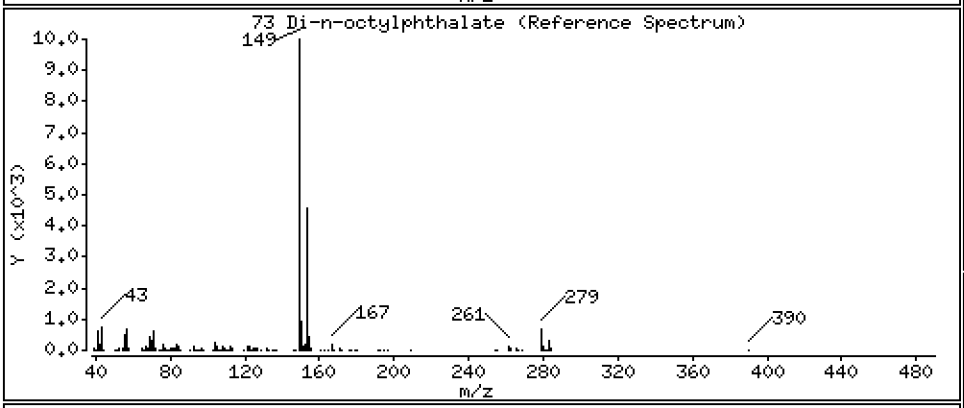
Concentration: 0.2258 ug/mL

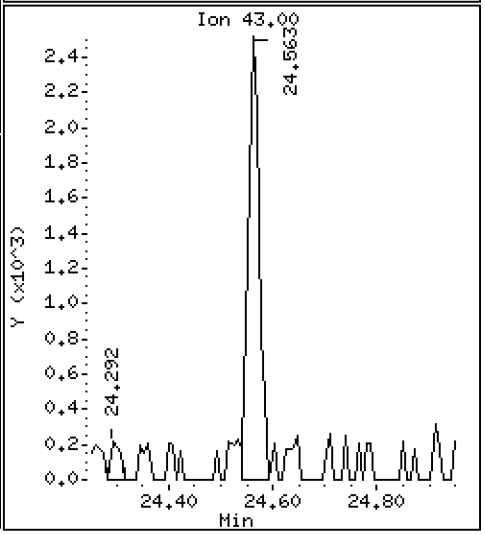


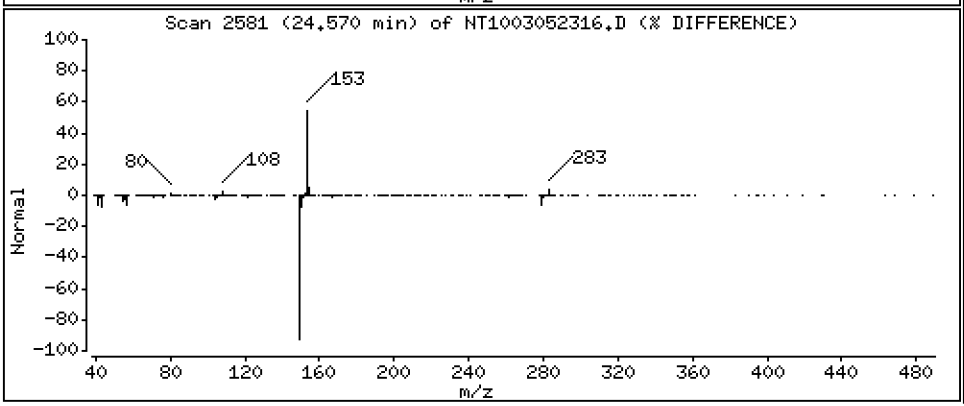












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

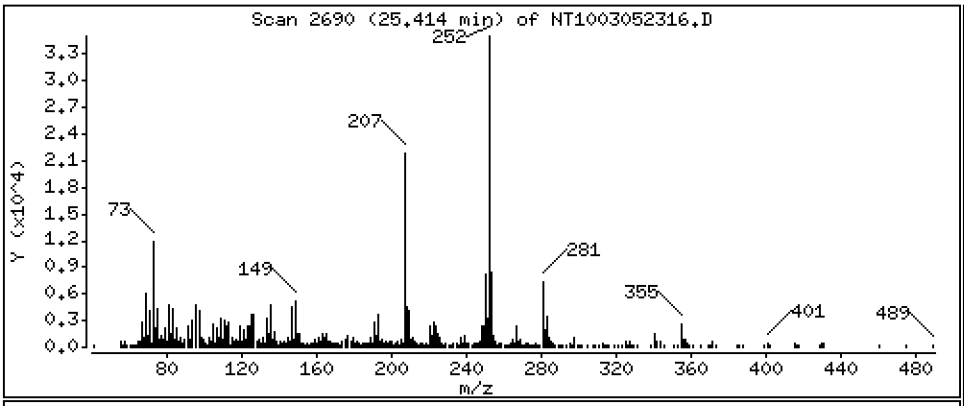
Operator: VTS

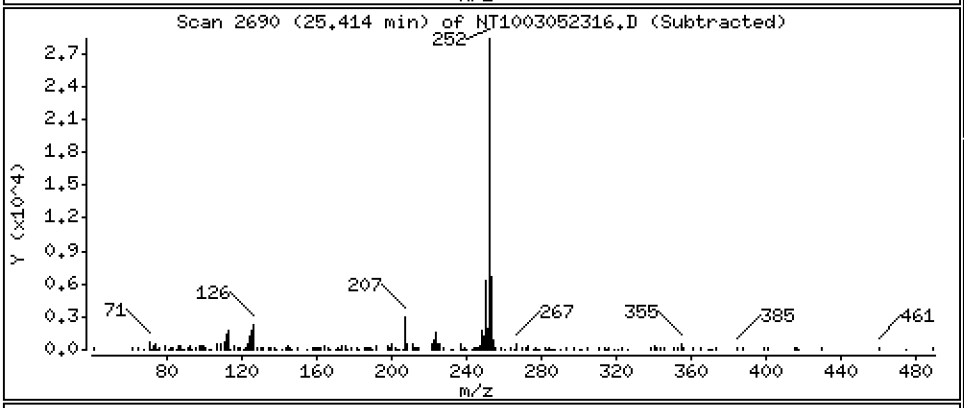
Column phase: ZB-5msi

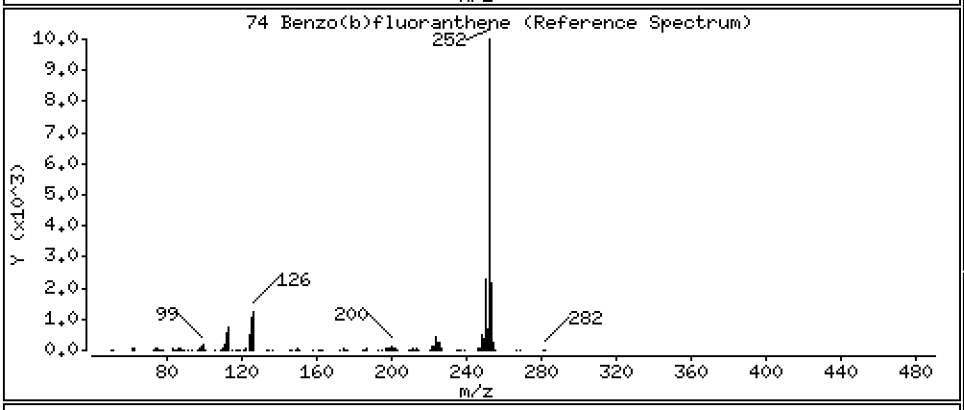
Column diameter: 0.25

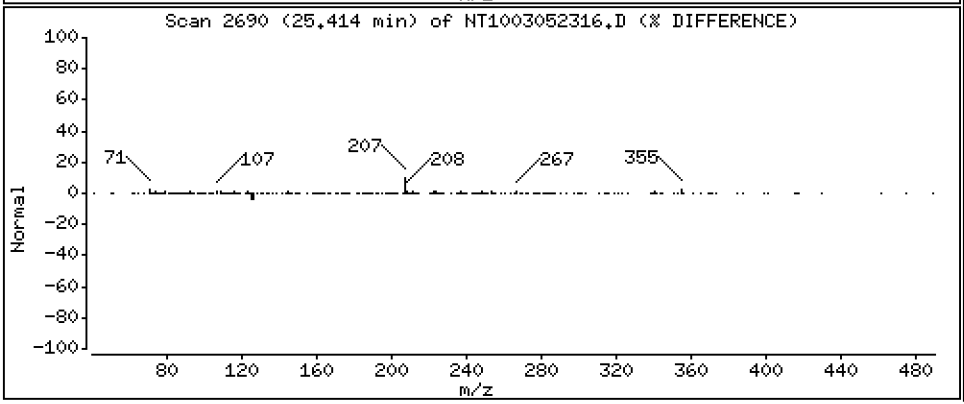
74 Benzo(b)fluoranthene

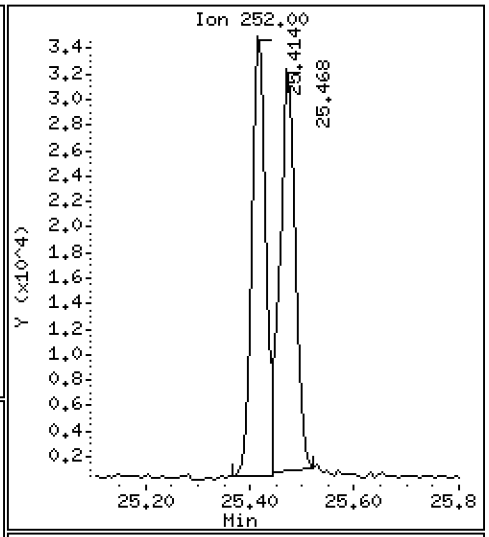
Concentration: 0.1802 ug/mL

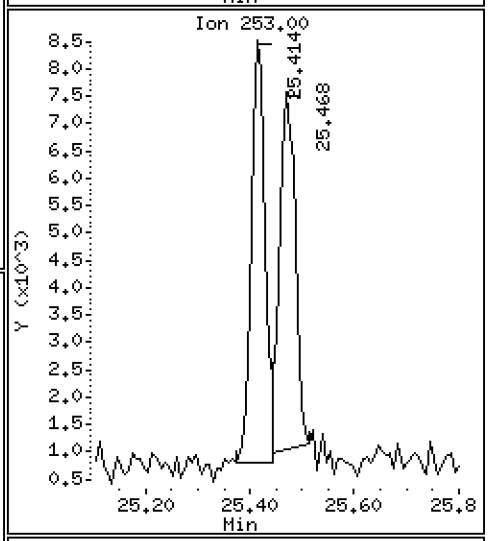


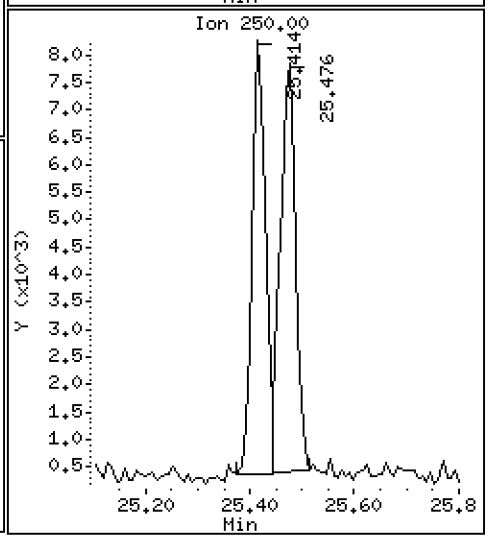












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

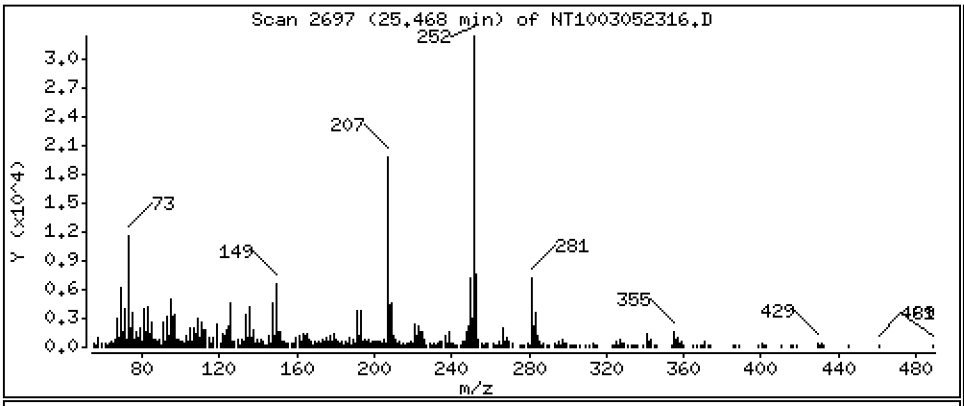
Operator: VTS

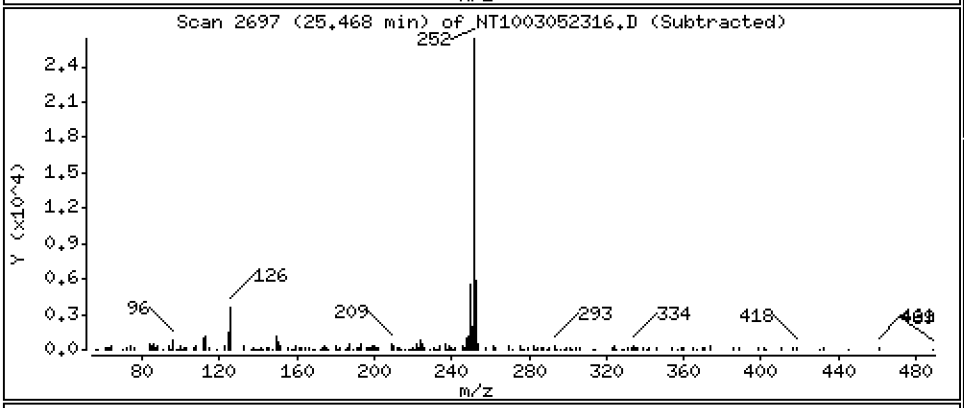
Column phase: ZB-5msi

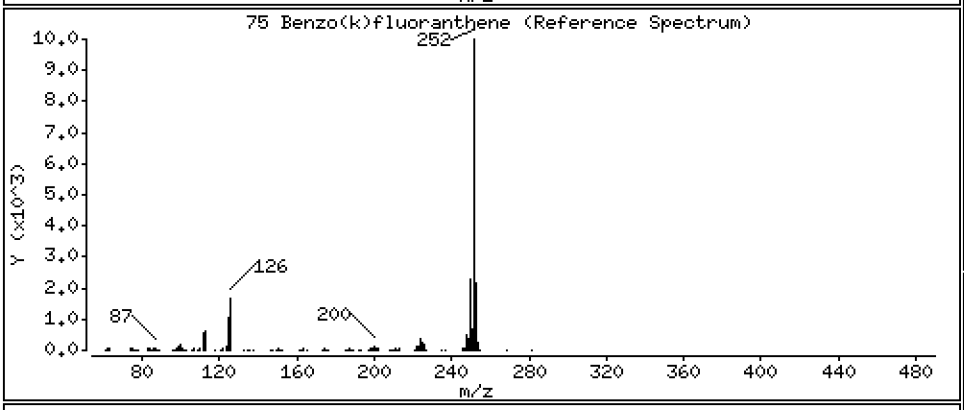
Column diameter: 0.25

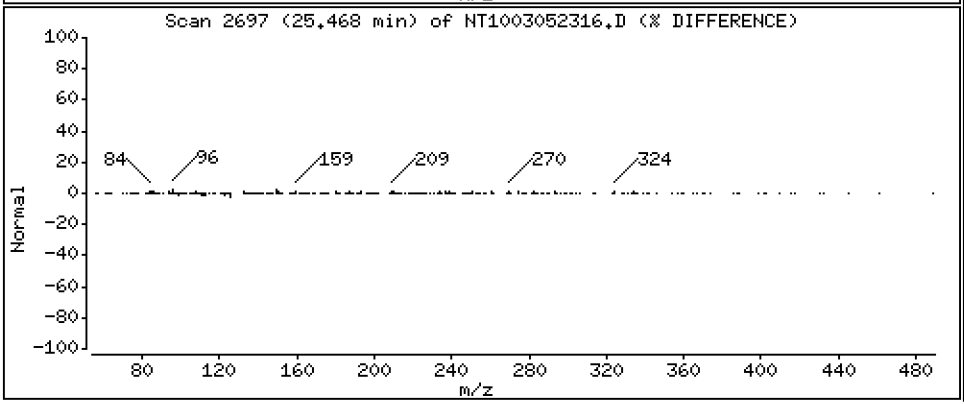
75 Benzo(k)fluoranthene

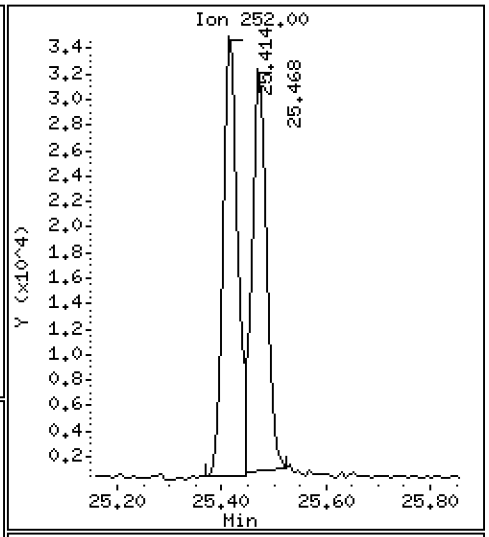
Concentration: 0.1792 ug/mL

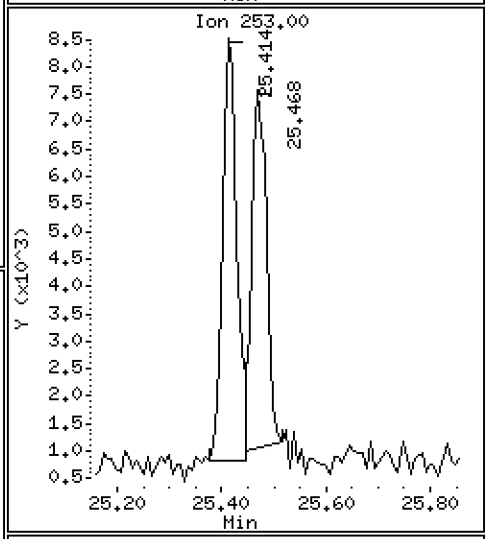


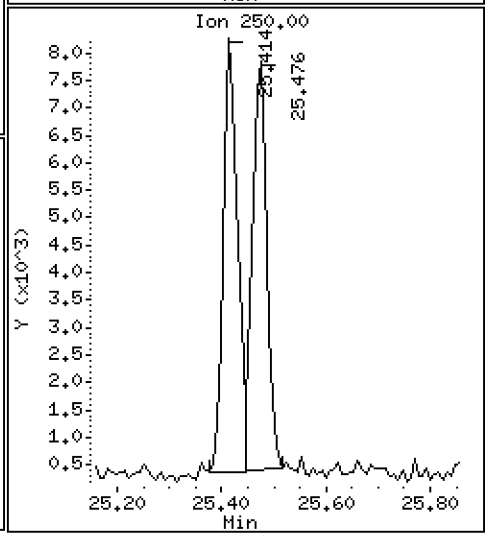












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

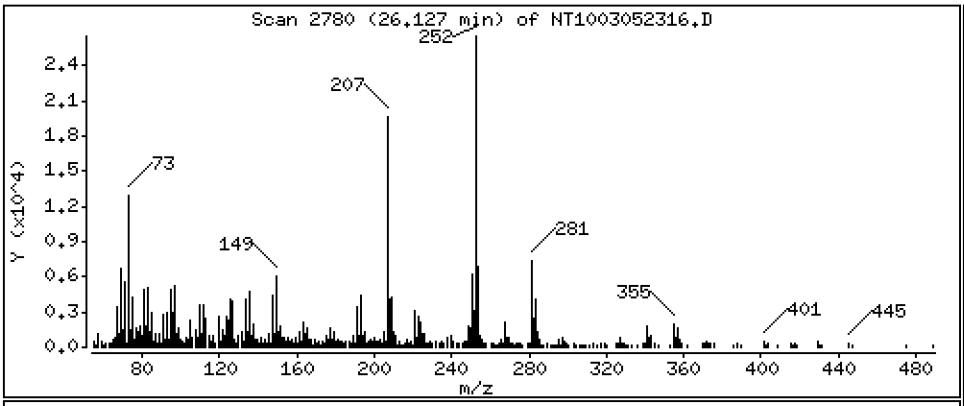
Operator: VTS

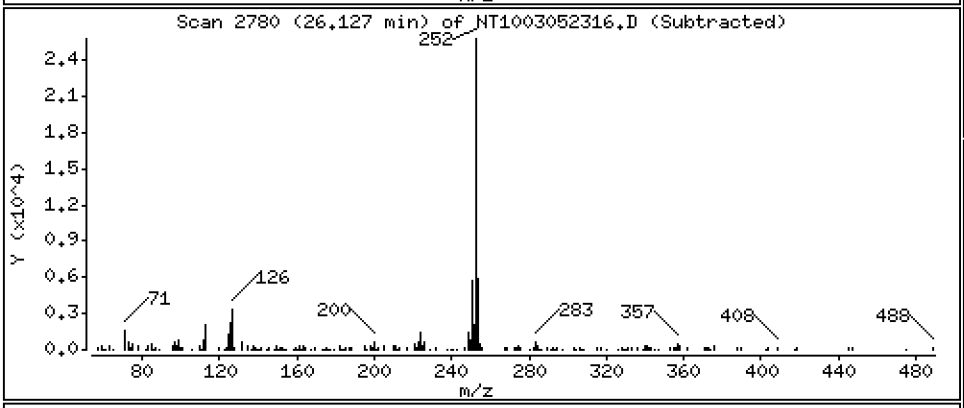
Column phase: ZB-5msi

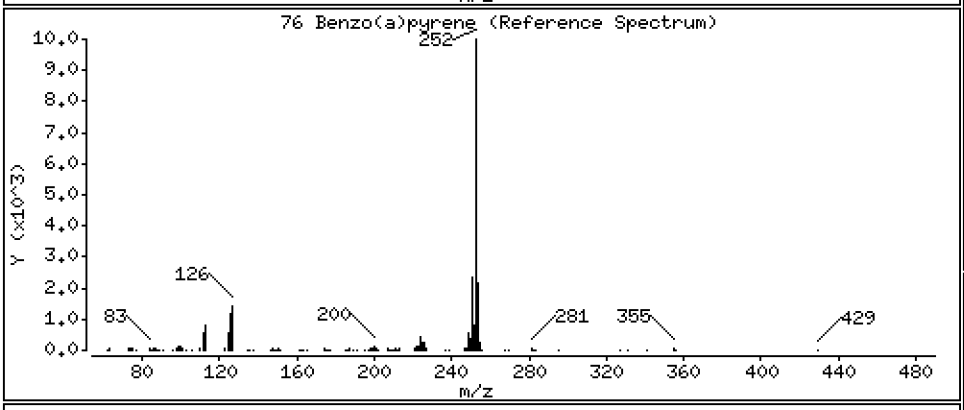
Column diameter: 0.25

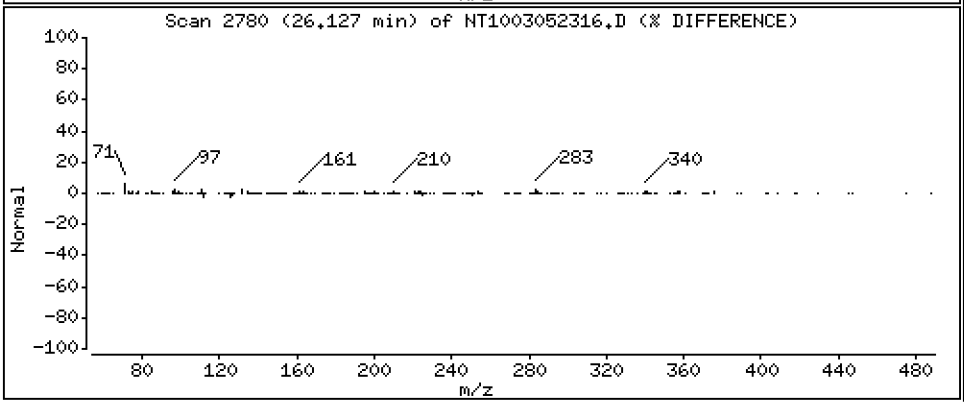
76 Benzo(a)pyrene

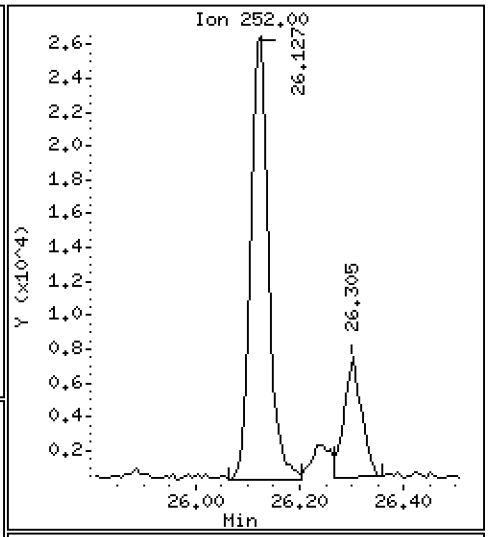
Concentration: 0.1876 ug/mL

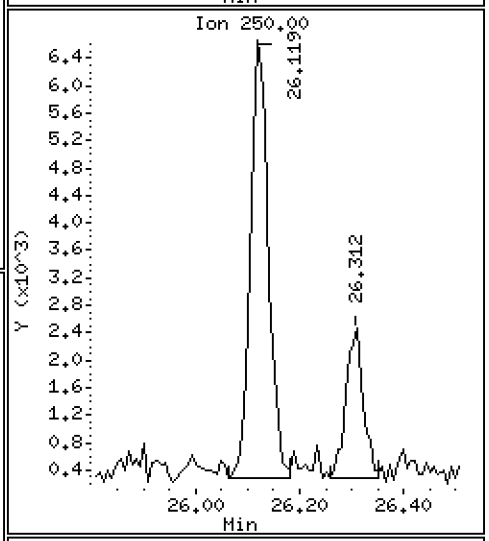


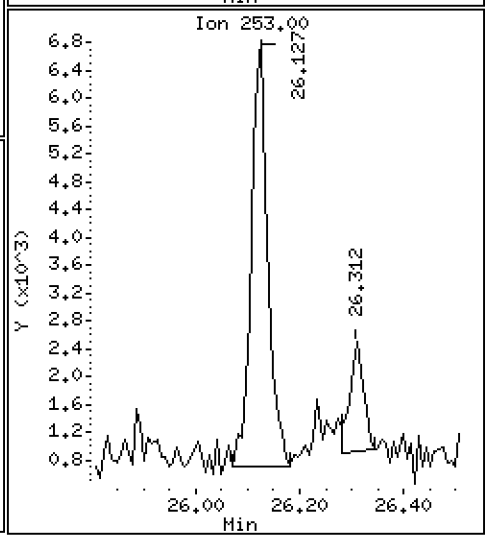












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

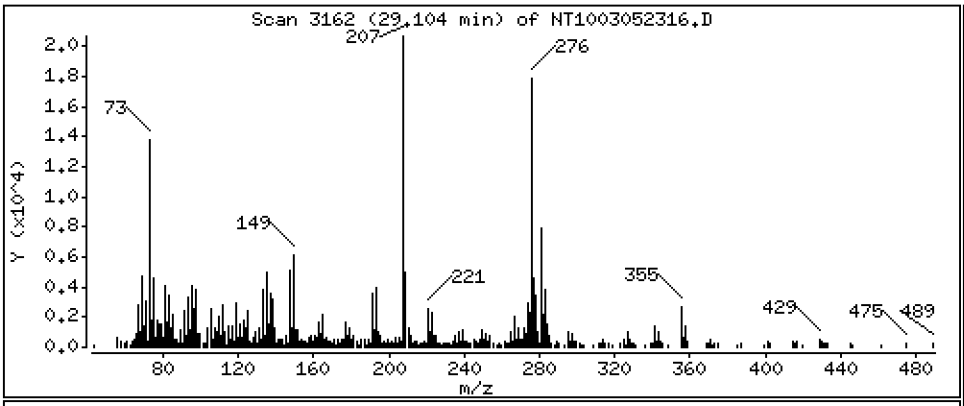
Operator: VTS

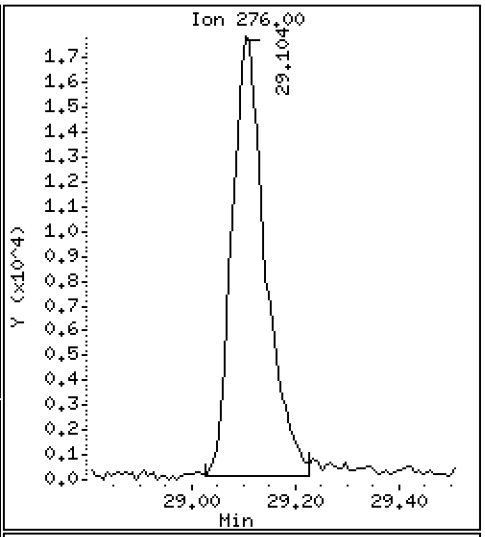
Column phase: ZB-5msi

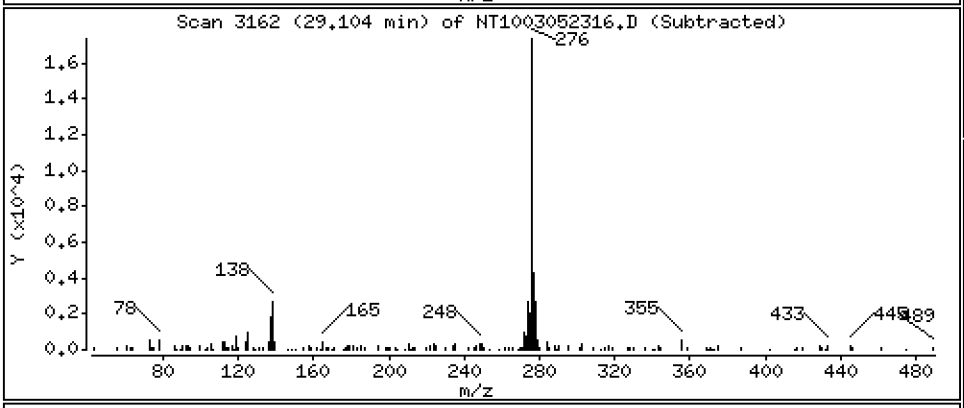
Column diameter: 0.25

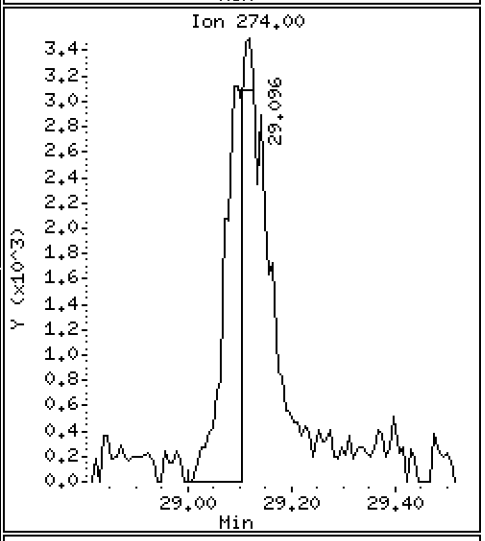
78 Indeno(1,2,3-cd)pyrene

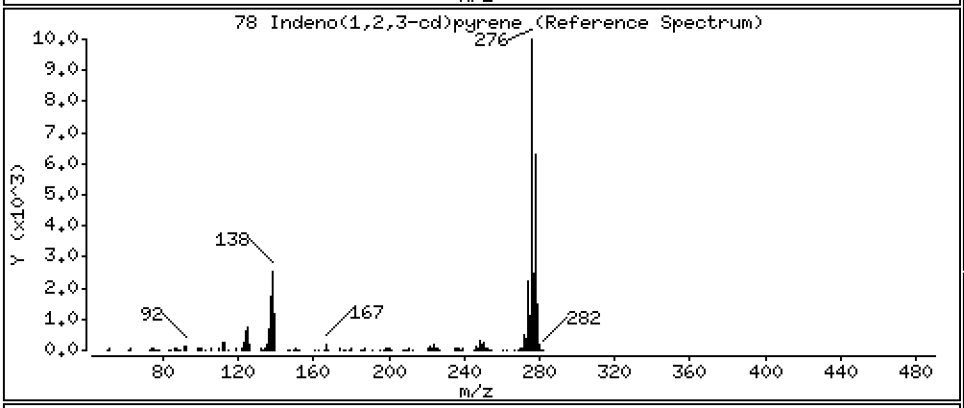
Concentration: 0.1988 ug/mL

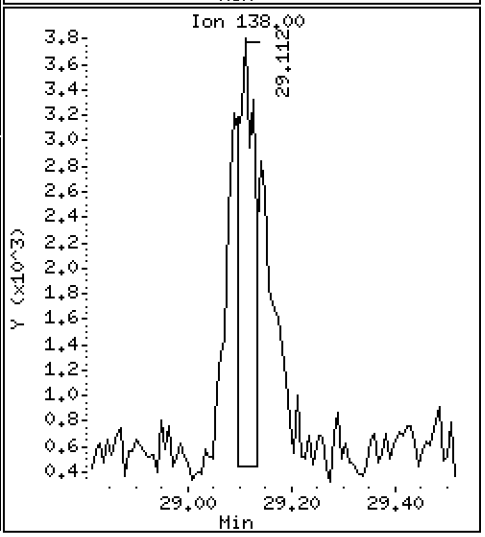


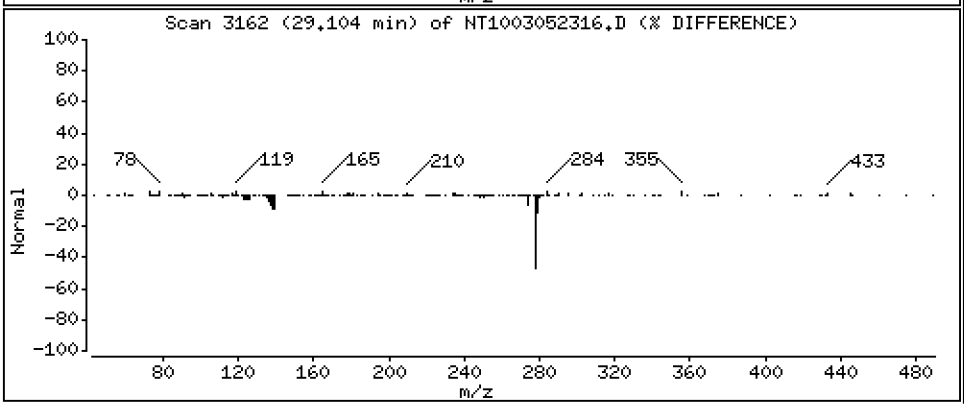












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

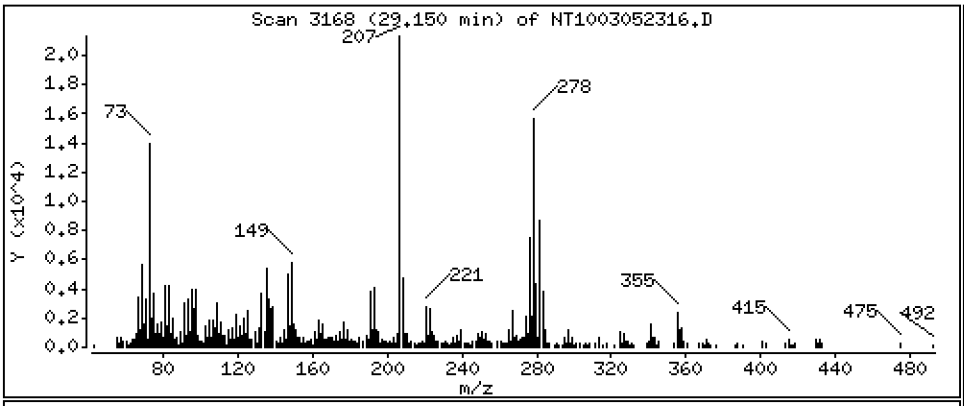
Operator: VTS

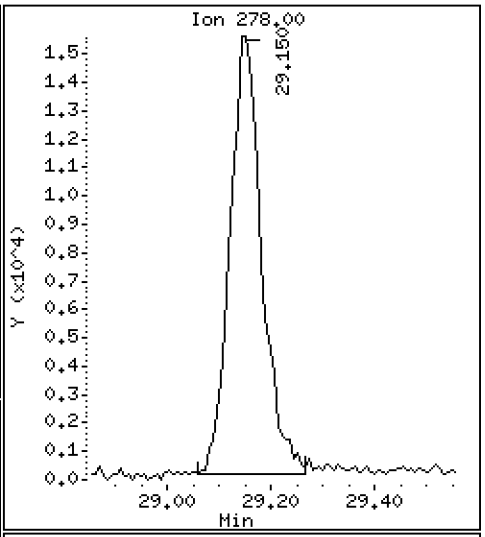
Column phase: ZB-5msi

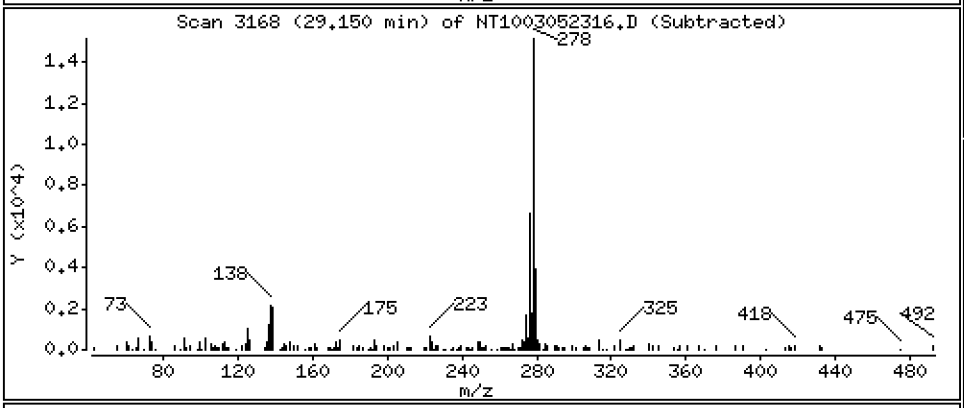
Column diameter: 0.25

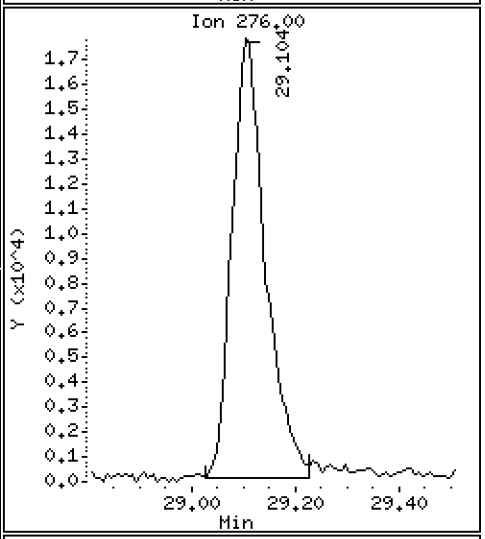
79 Dibenzo(a,h)anthracene

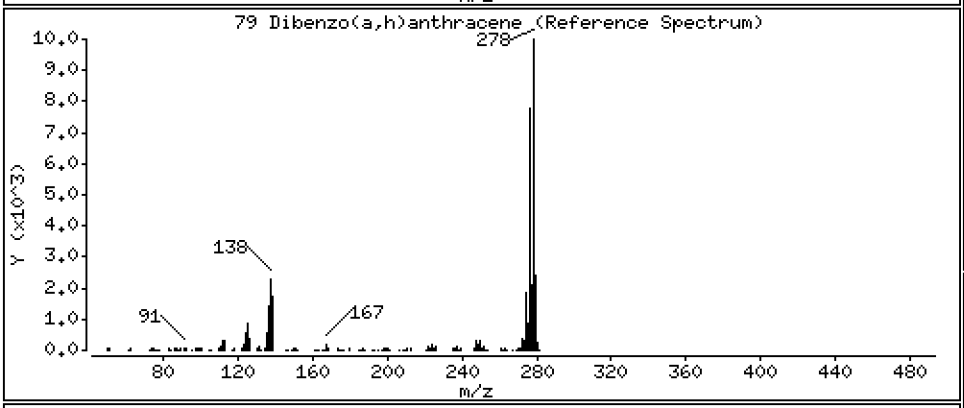
Concentration: 0.2178 ug/mL

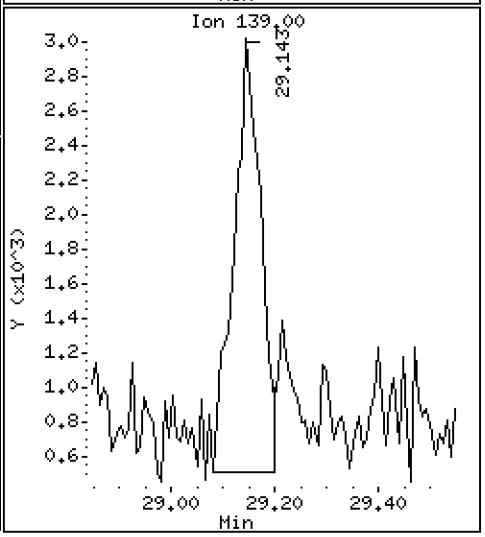


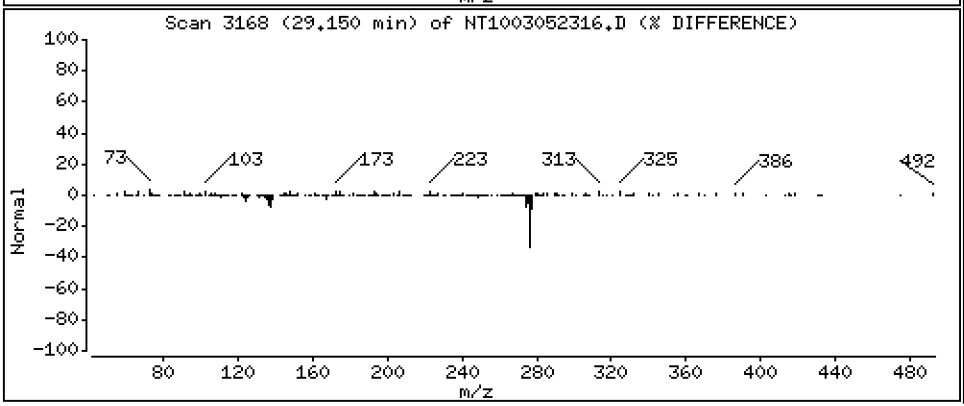












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

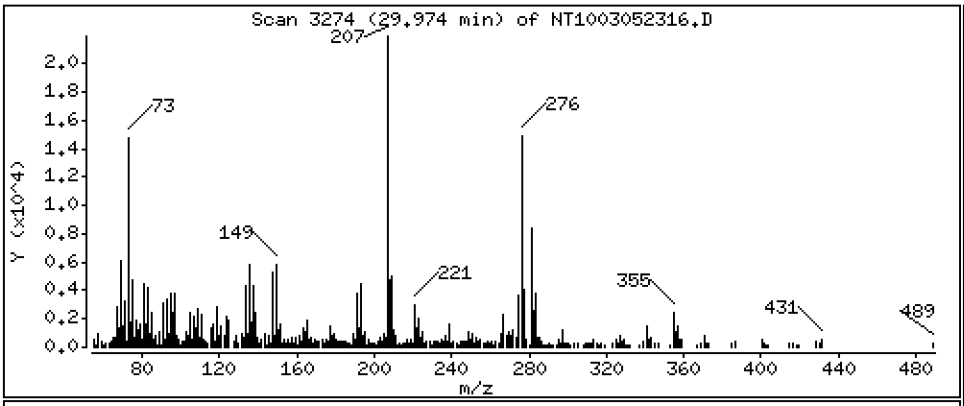
Operator: VTS

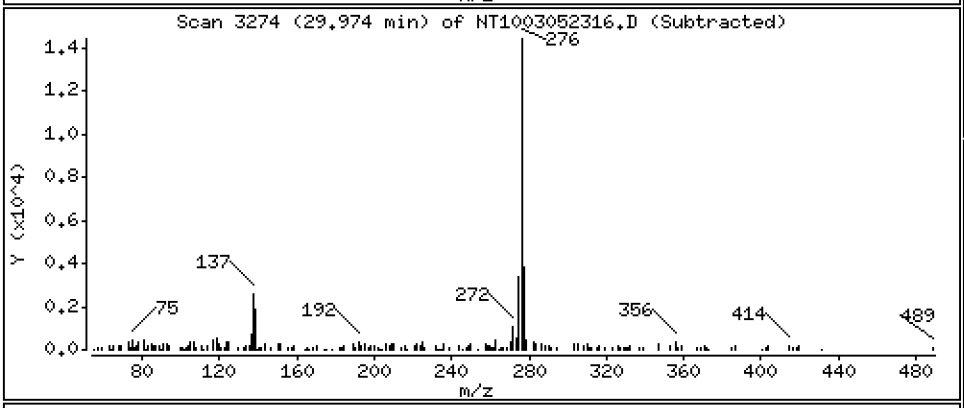
Column phase: ZB-5msi

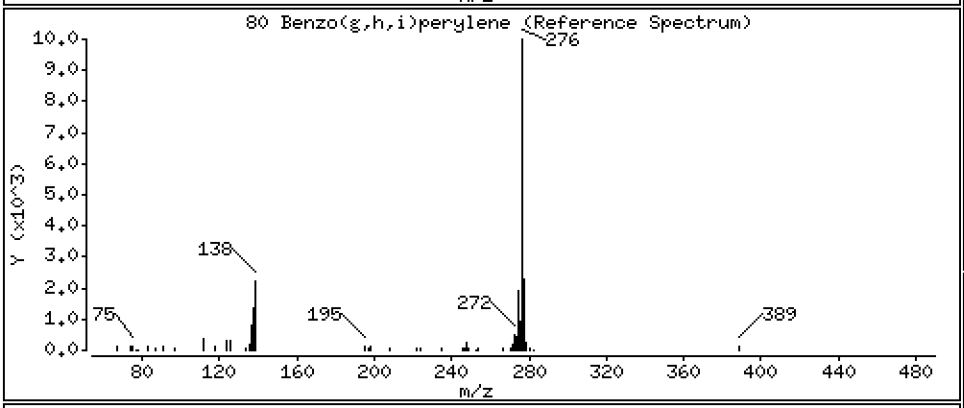
Column diameter: 0.25

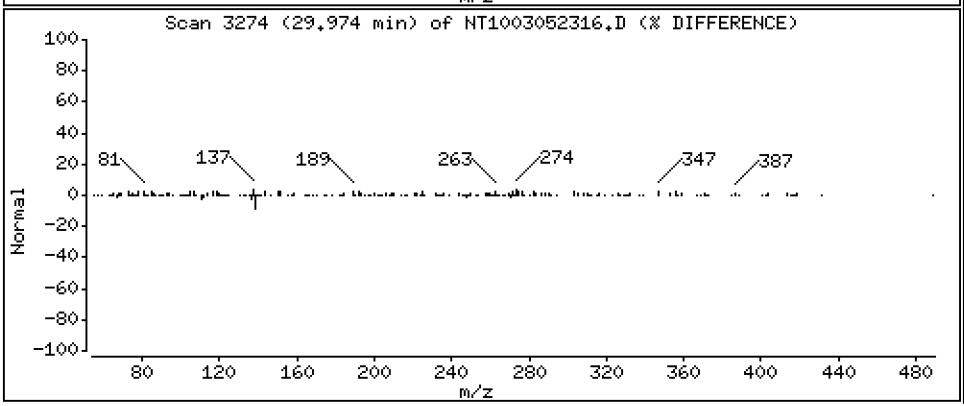
80 Benzo(g,h,i)perylene

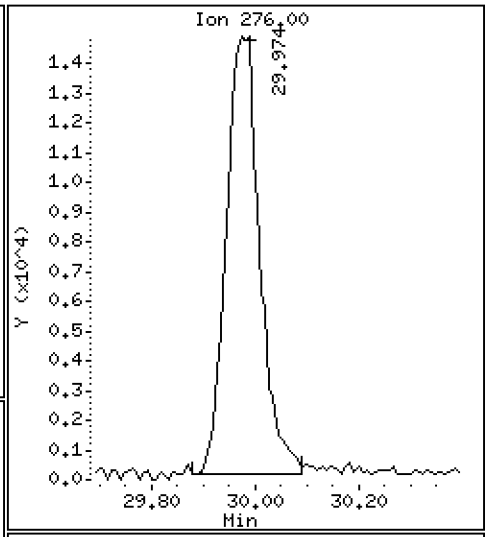
Concentration: 0.2069 ug/mL

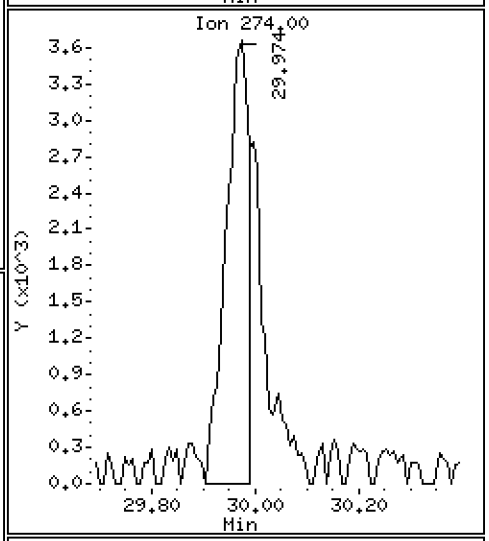


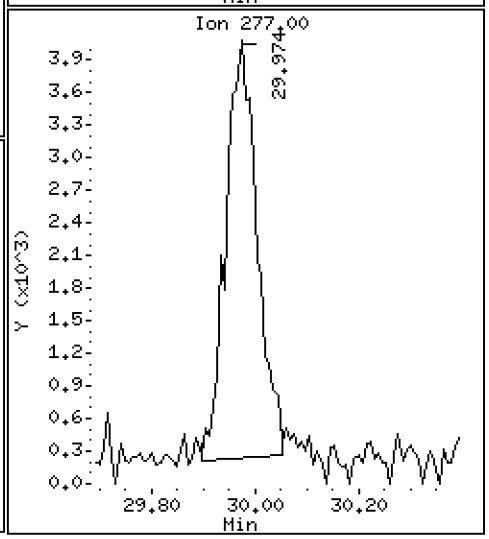












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

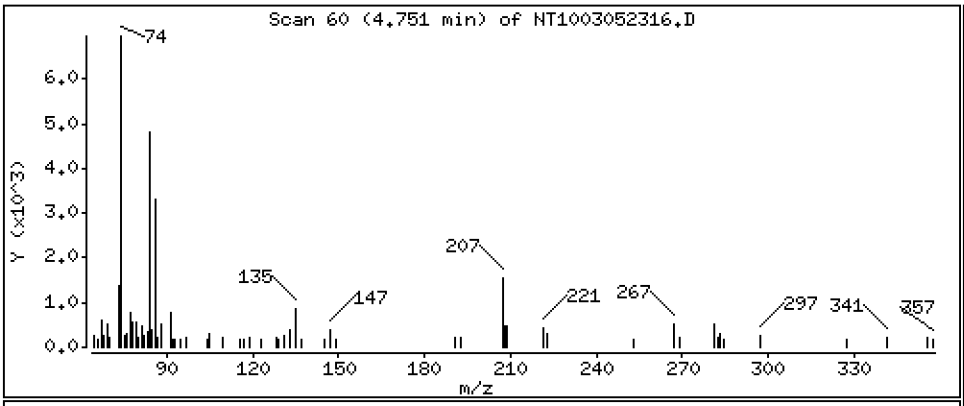
Operator: VTS

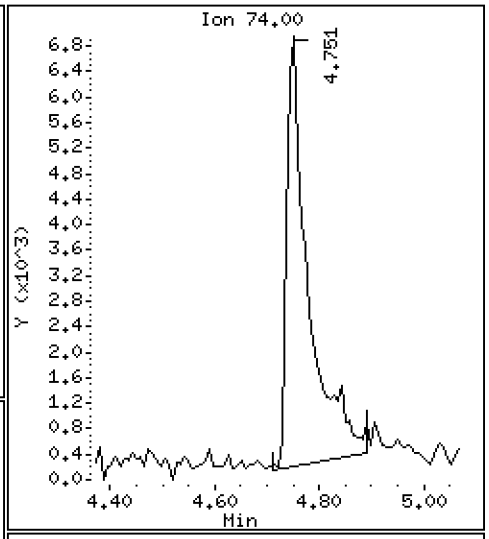
Column phase: ZB-5msi

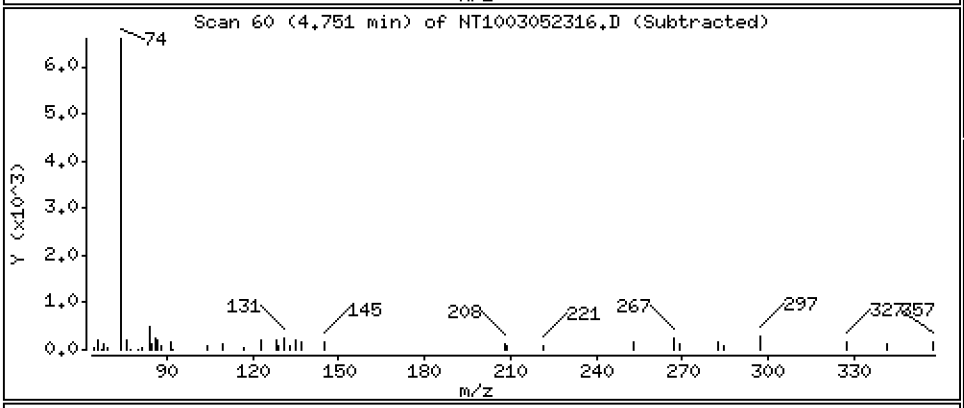
Column diameter: 0.25

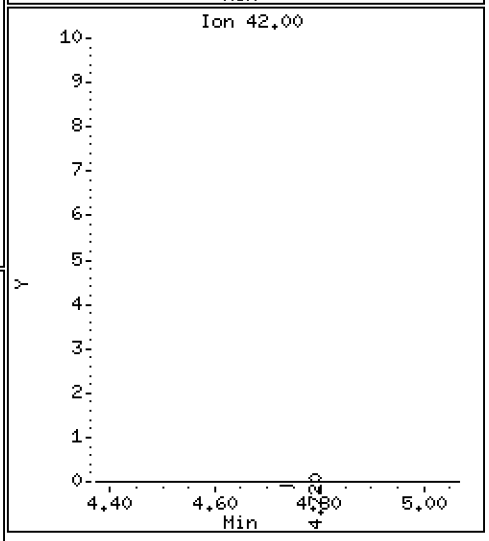
90 N-Nitrosodimethylamine

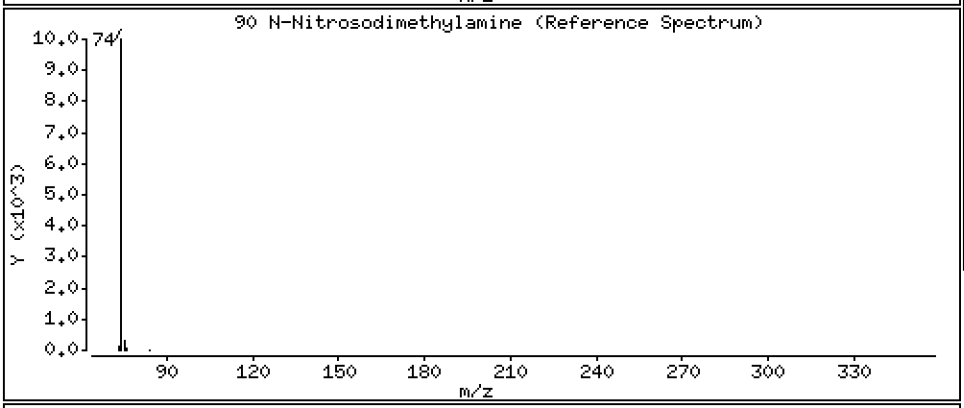
Concentration: 0.3262 ug/mL

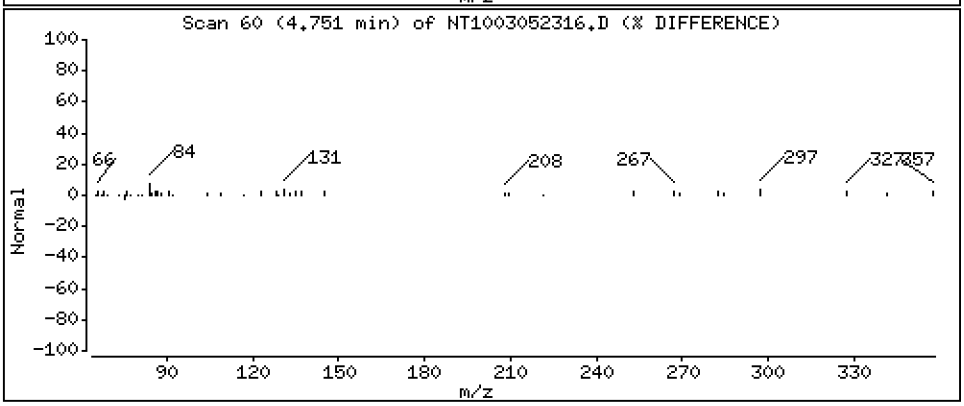












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

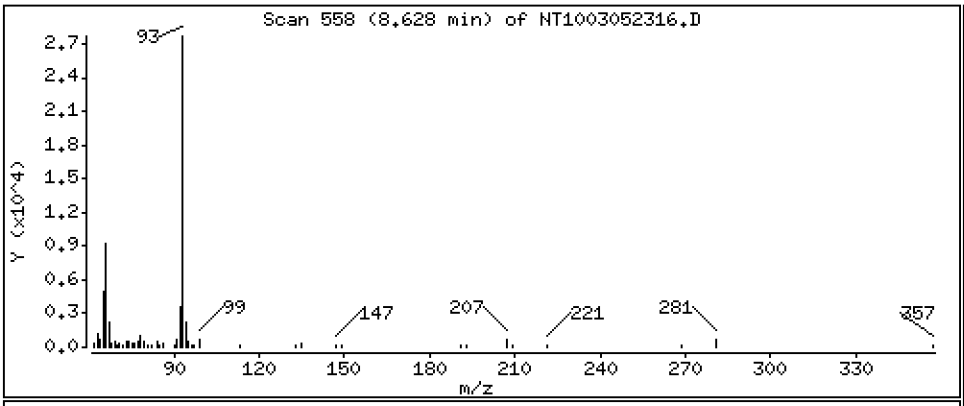
Operator: VTS

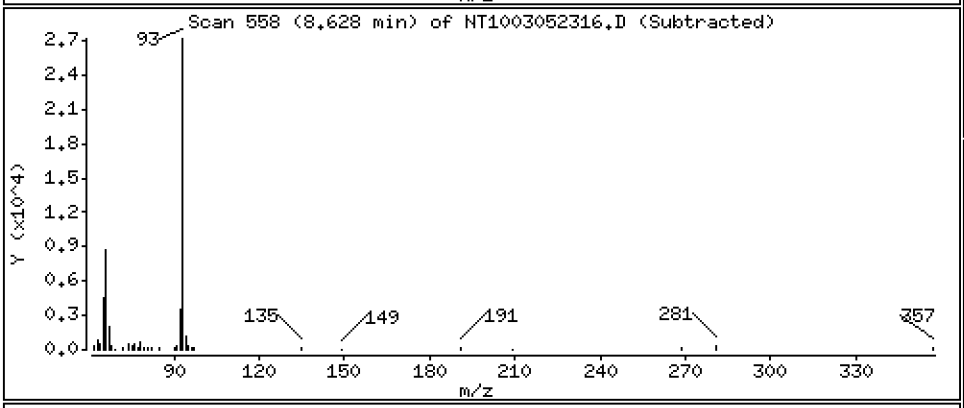
Column phase: ZB-5msi

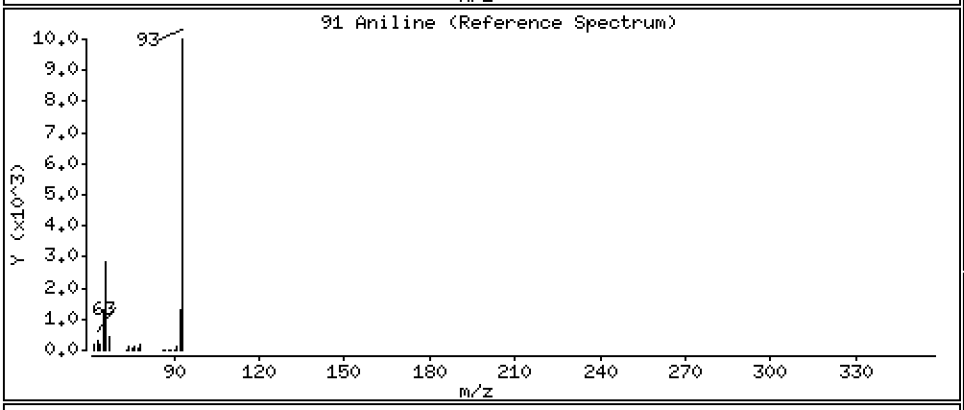
Column diameter: 0.25

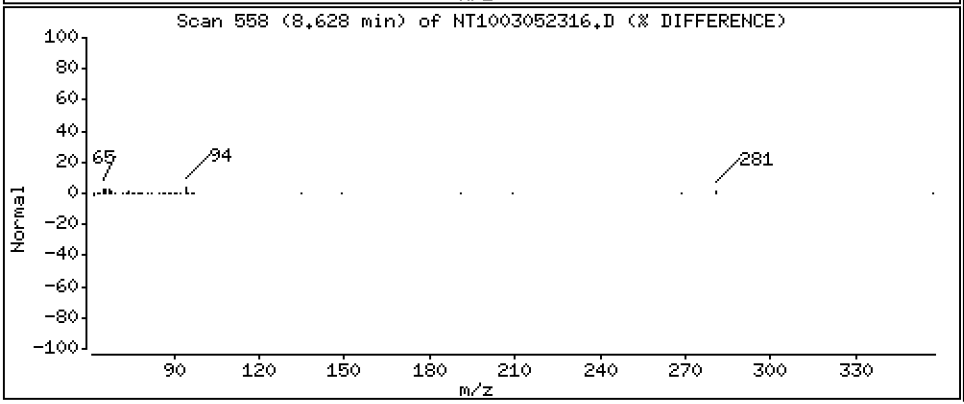
91 Aniline

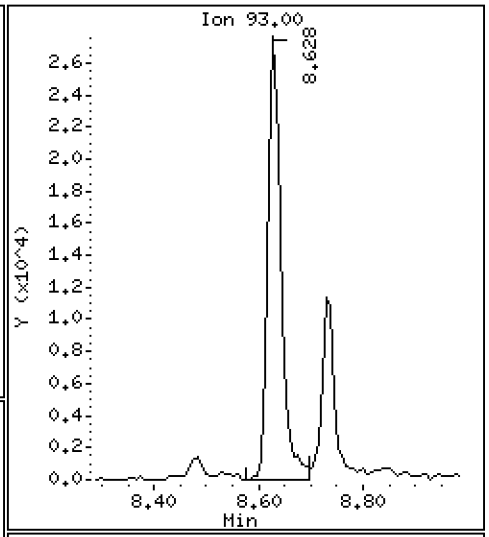
Concentration: 0.3386 ug/mL

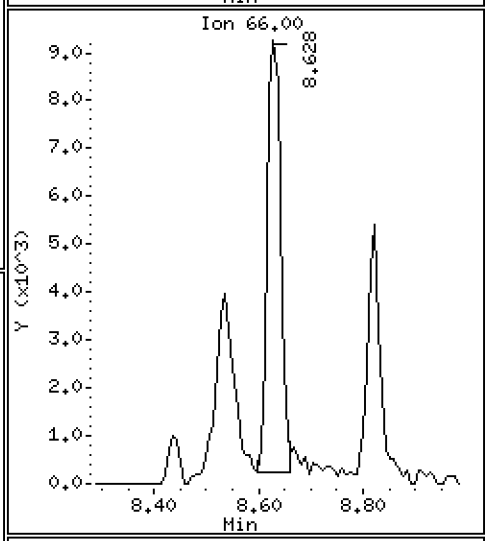


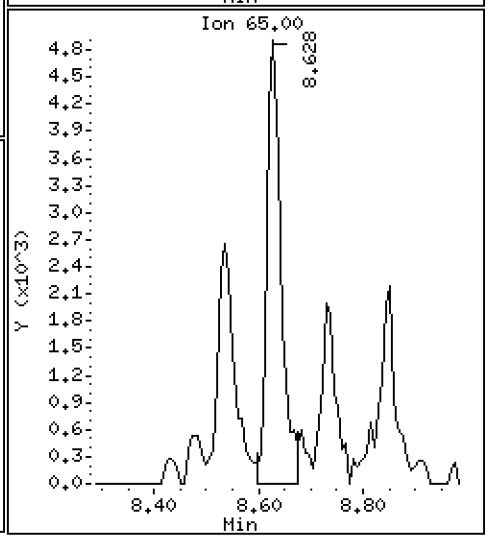












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

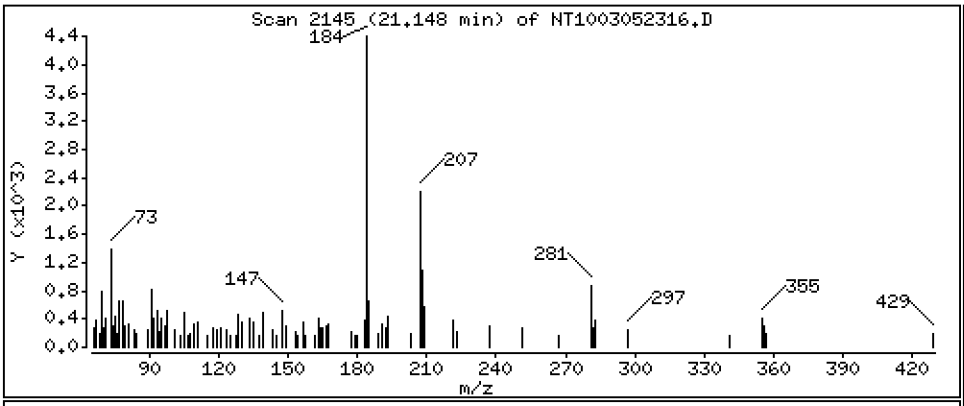
Operator: VTS

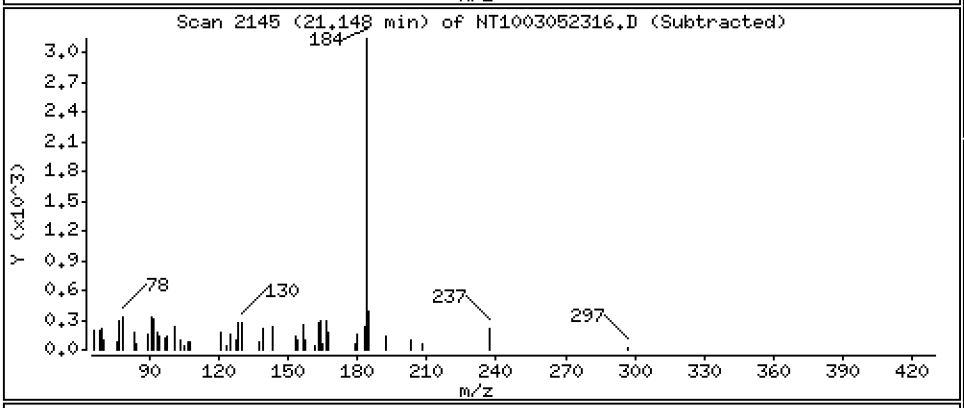
Column phase: ZB-5msi

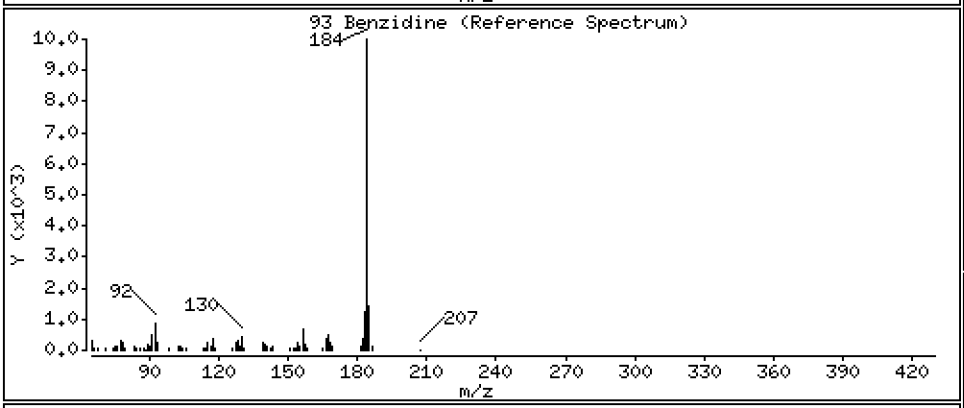
Column diameter: 0.25

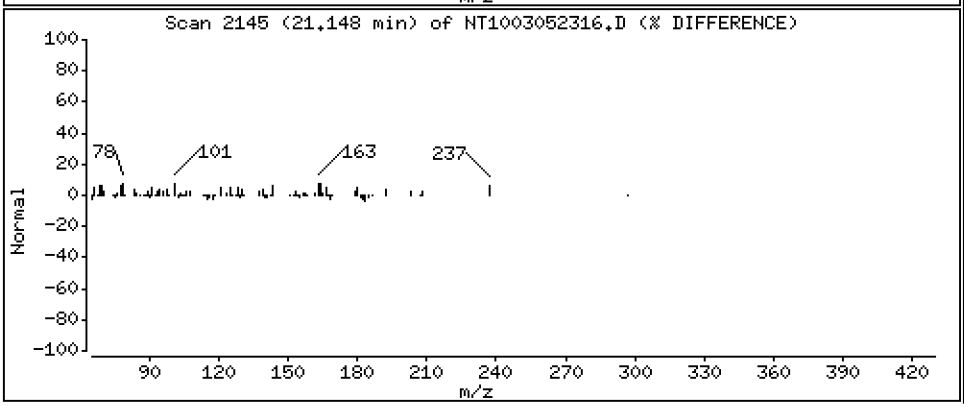
93 Benzidine

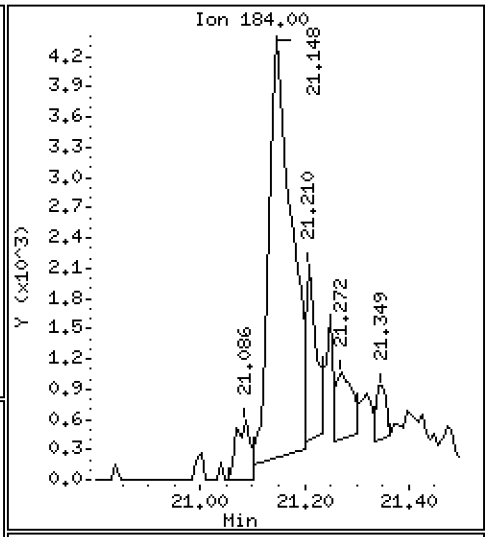
Concentration: 0.09219 ug/mL

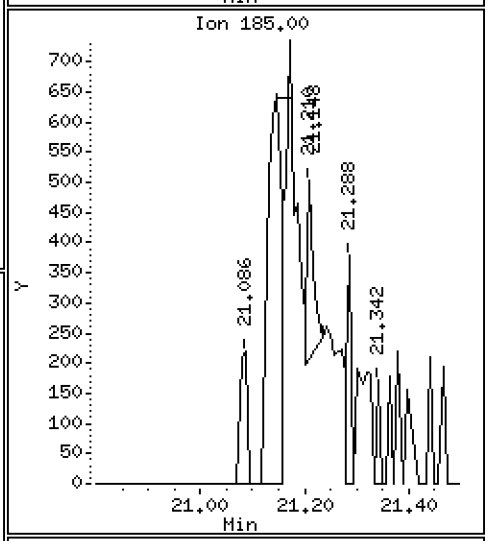


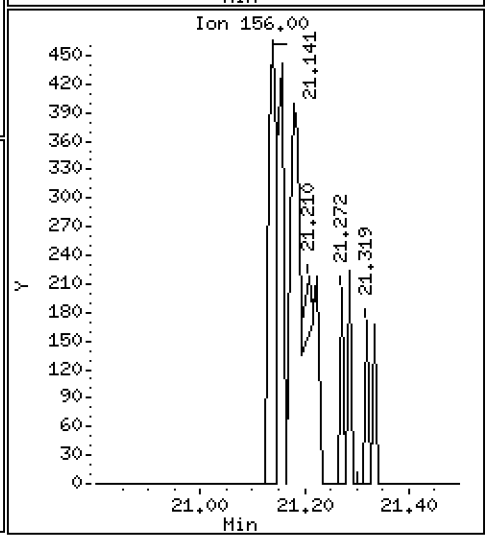












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

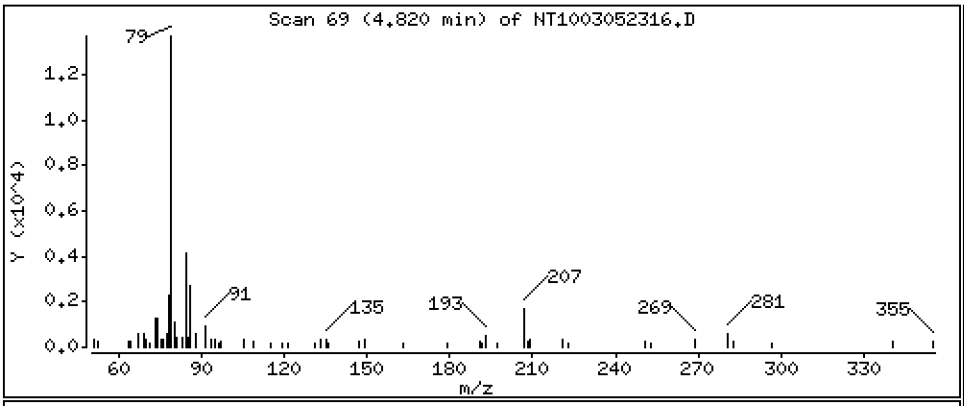
Operator: VTS

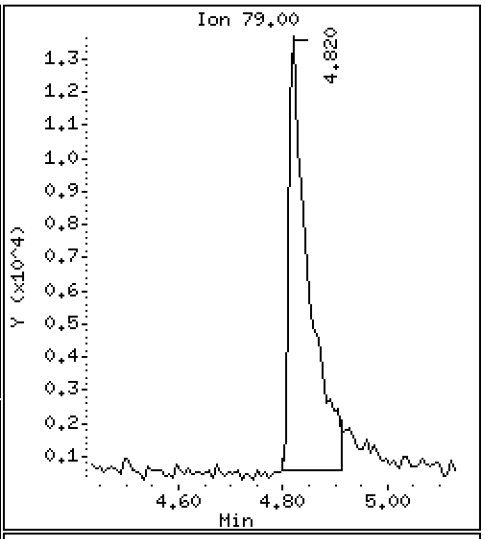
Column phase: ZB-5msi

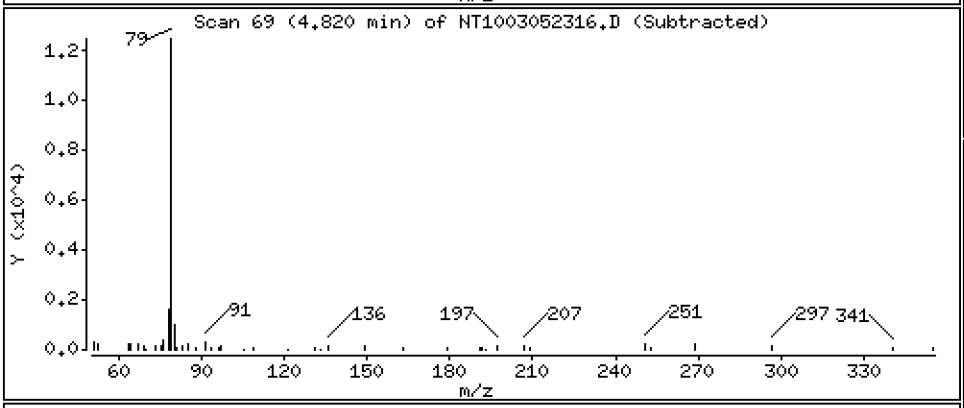
Column diameter: 0.25

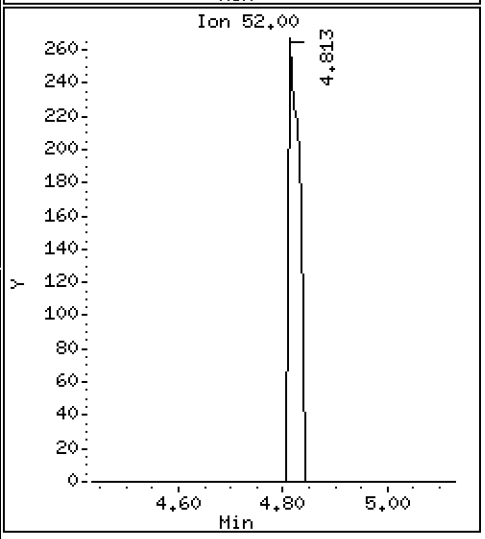
103 Pyridine

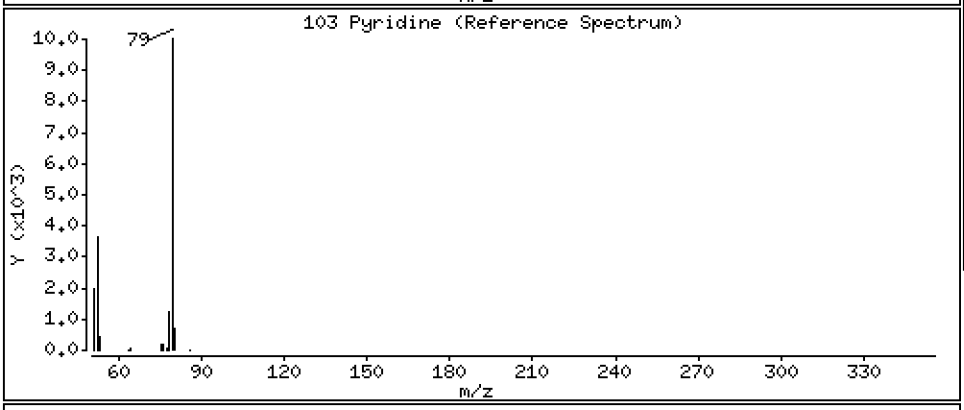
Concentration: 0.3228 ug/mL

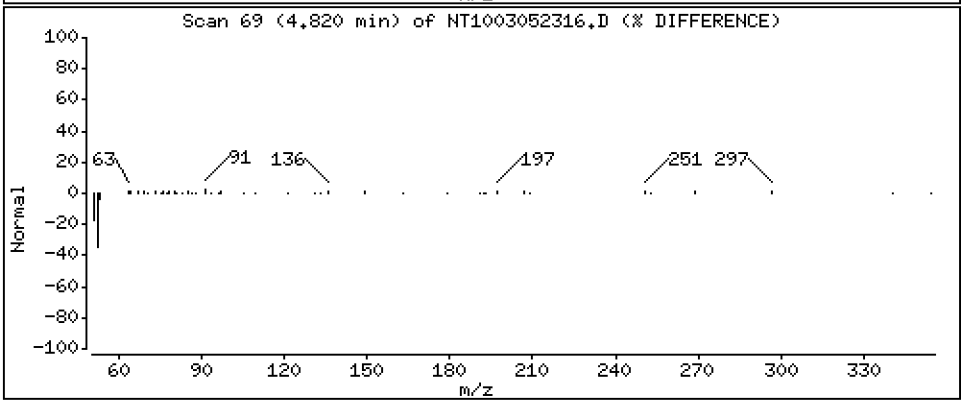












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

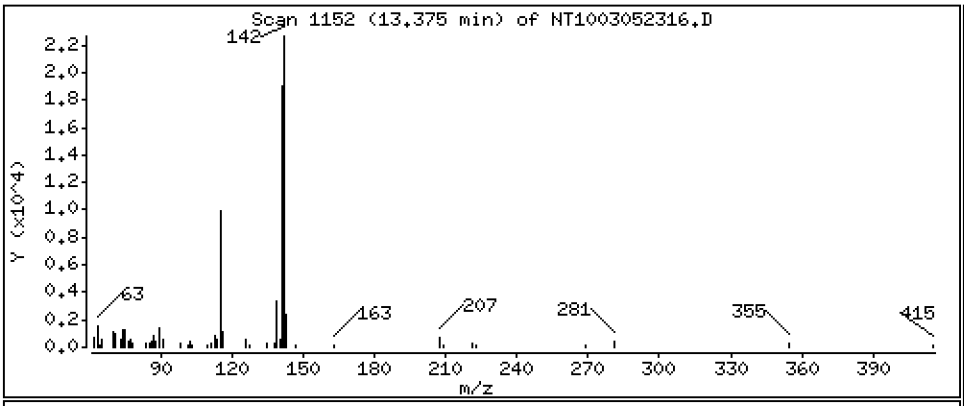
Operator: VTS

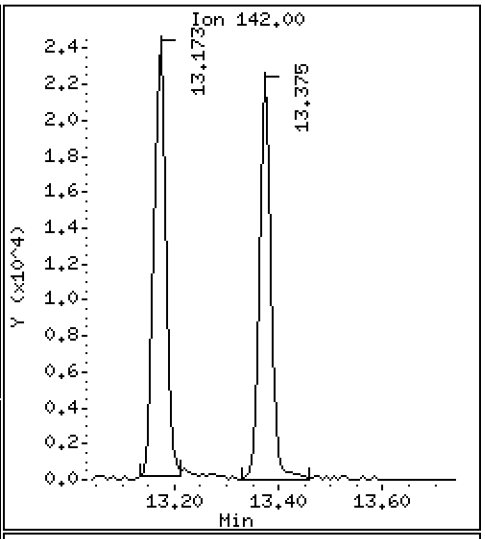
Column phase: ZB-5msi

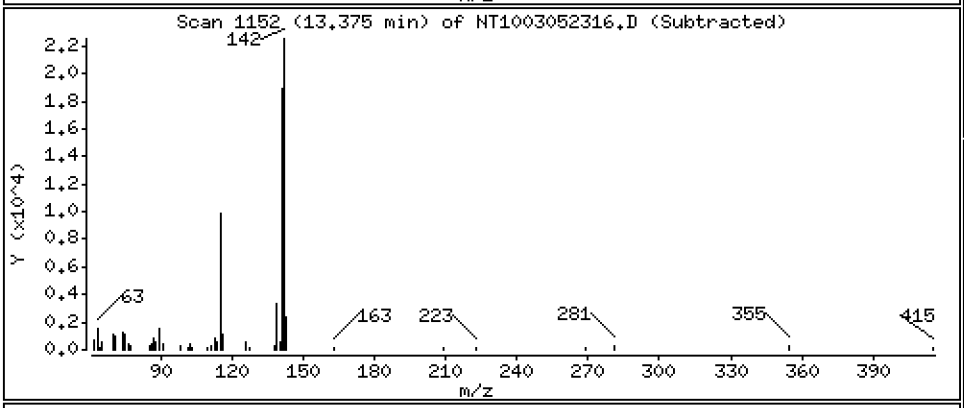
Column diameter: 0.25

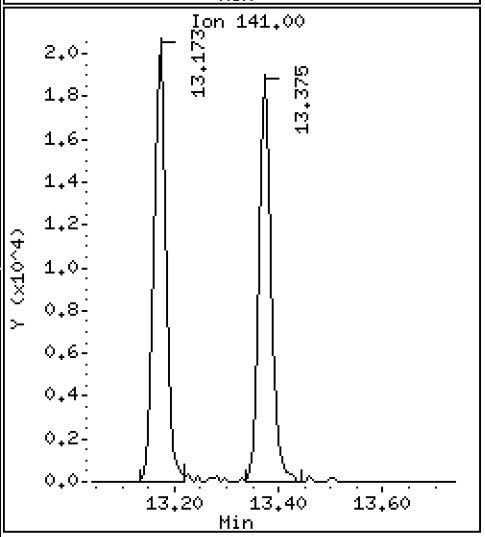
105 1-methylnaphthalene

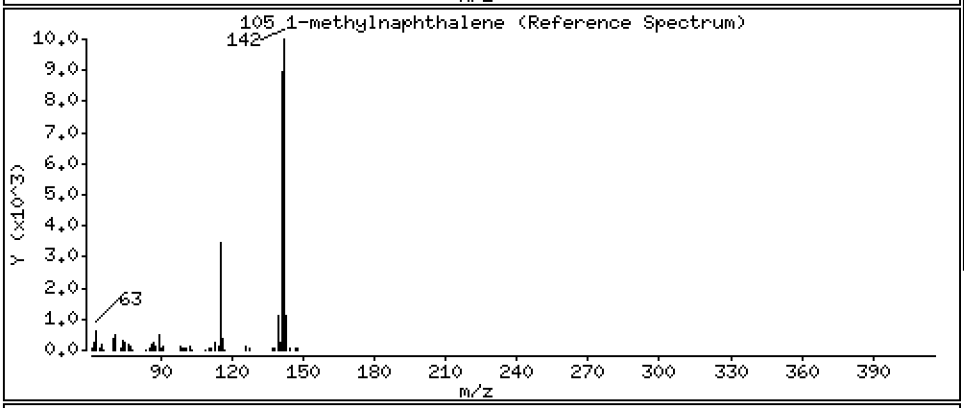
Concentration: 0.2037 ug/mL

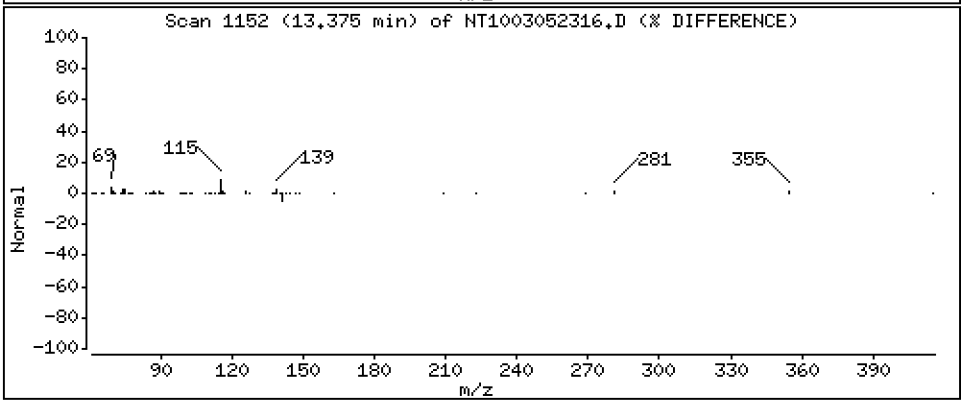












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

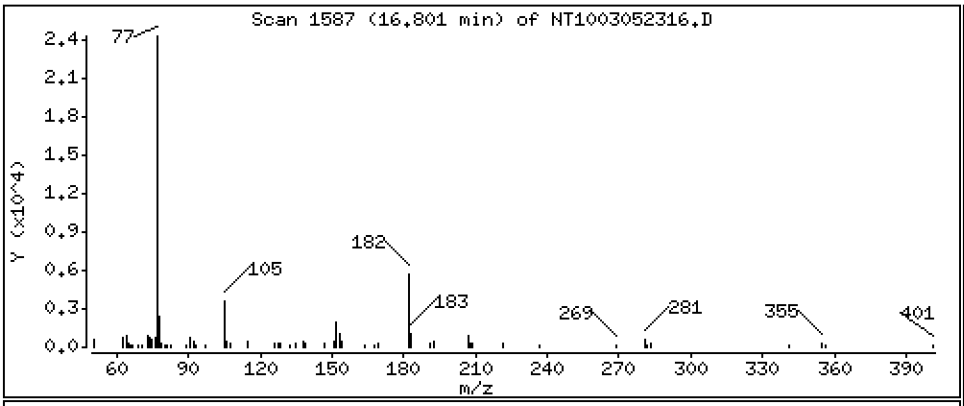
Operator: VTS

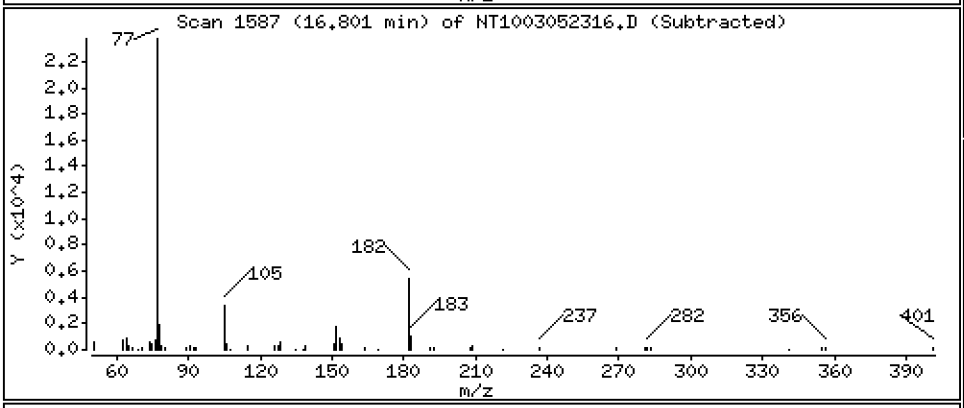
Column phase: ZB-5msi

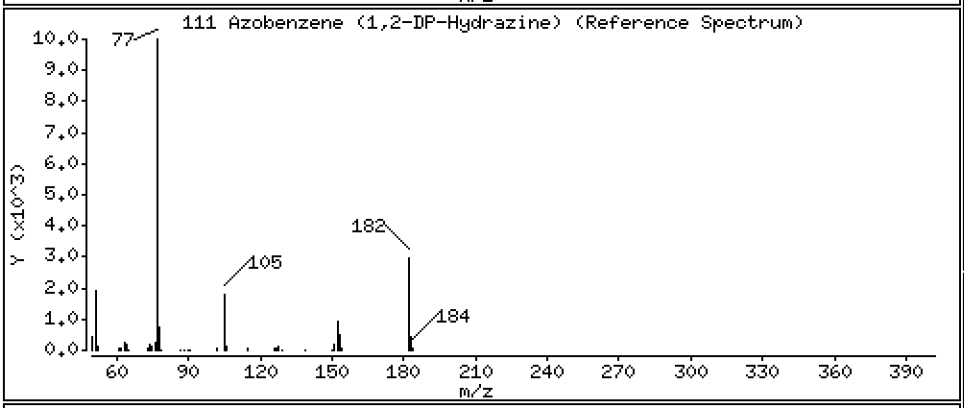
Column diameter: 0.25

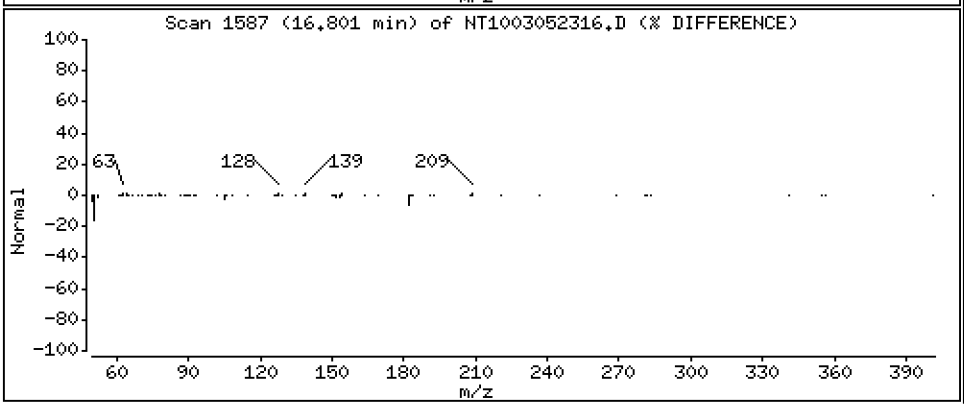
111 Azobenzene (1,2-DP-Hydrazine)

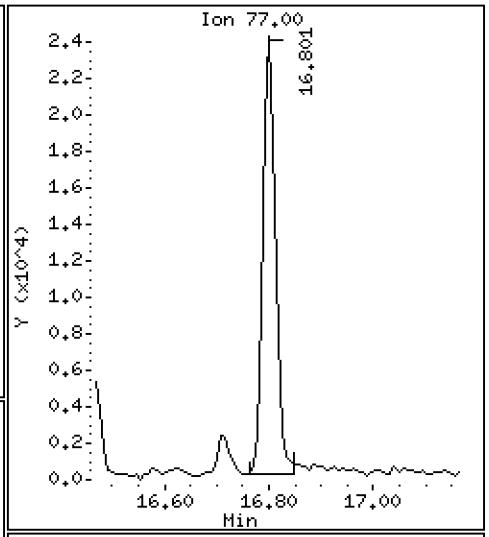
Concentration: 0.1426 ug/mL

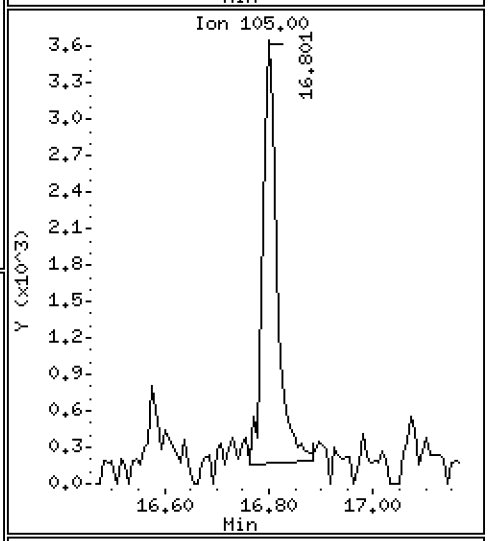


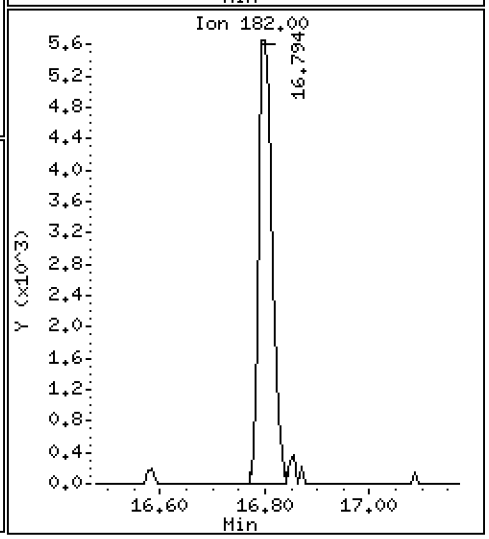












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

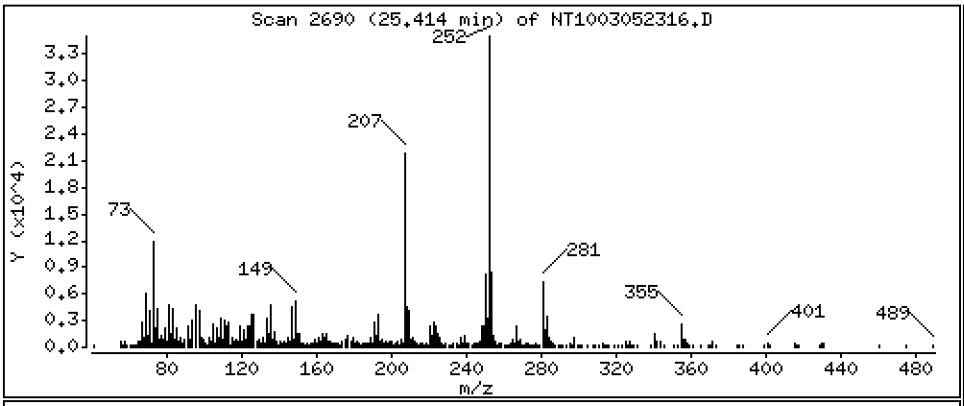
Operator: VTS

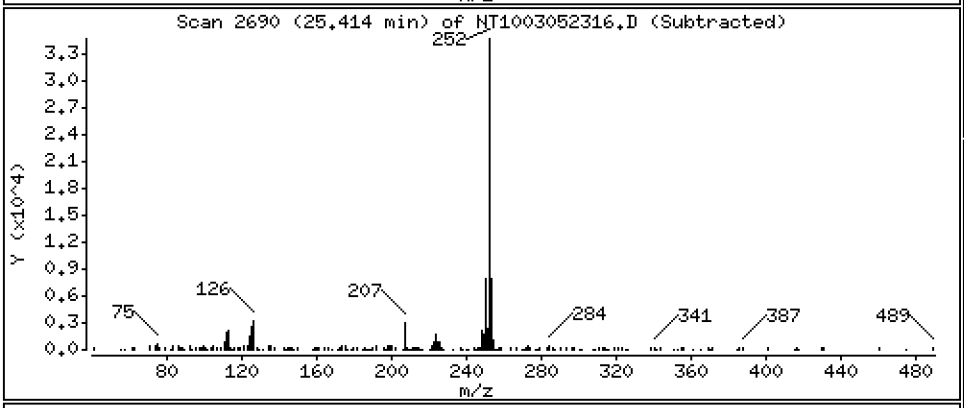
Column phase: ZB-5msi

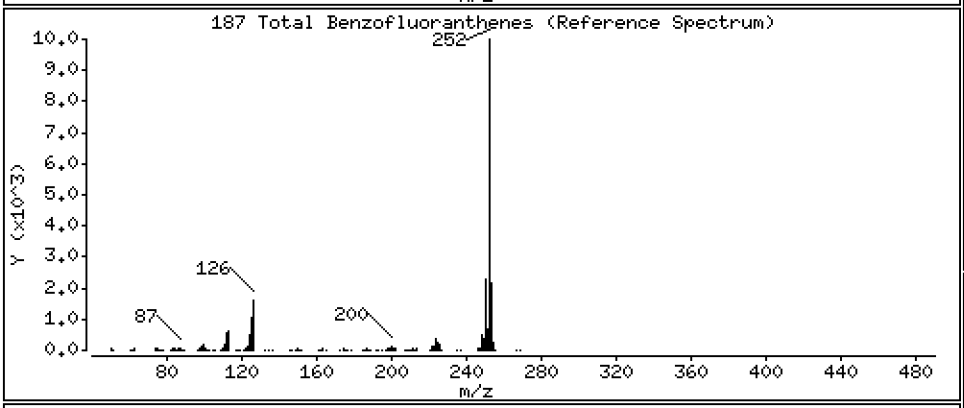
Column diameter: 0.25

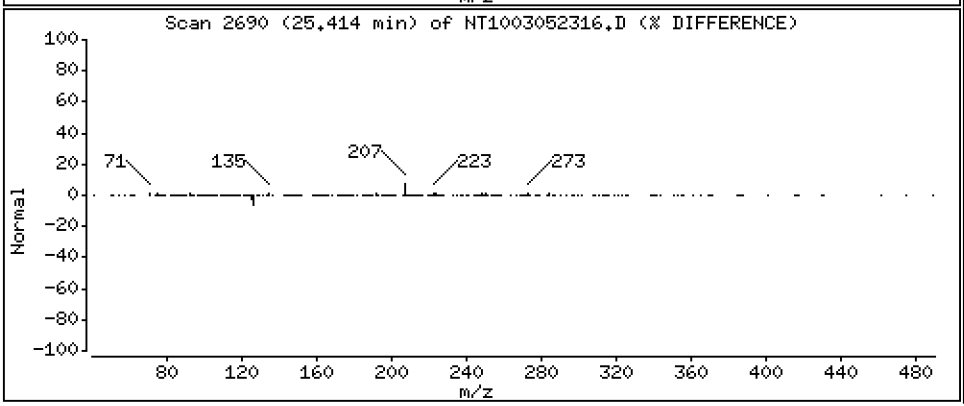
187 Total Benzofluoranthenes

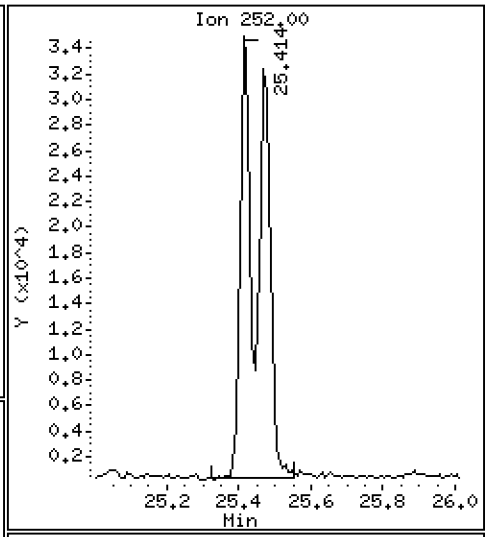
Concentration: 0.3690 ug/mL

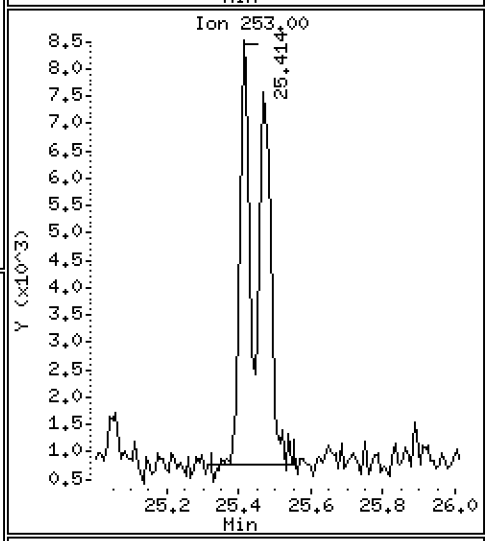


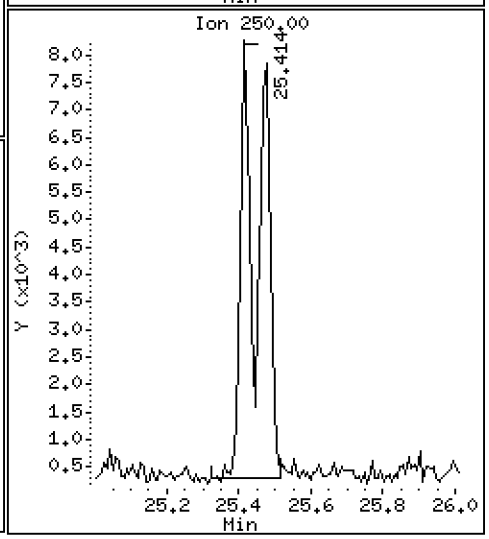












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0415-LCV1

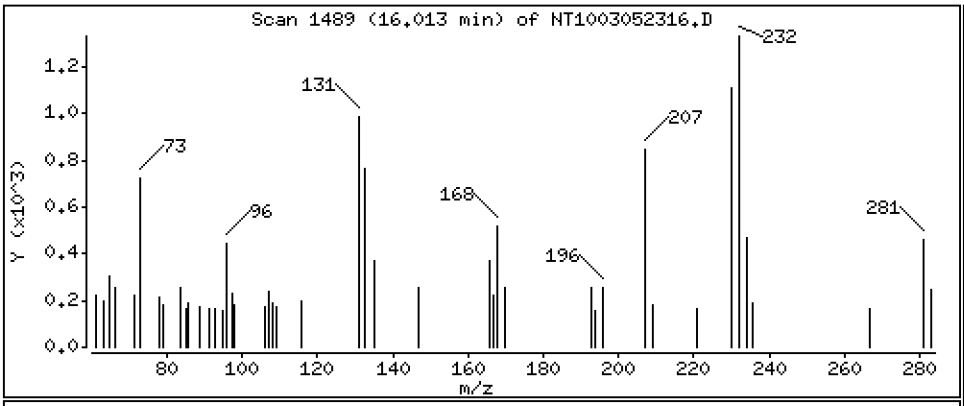
Operator: VTS

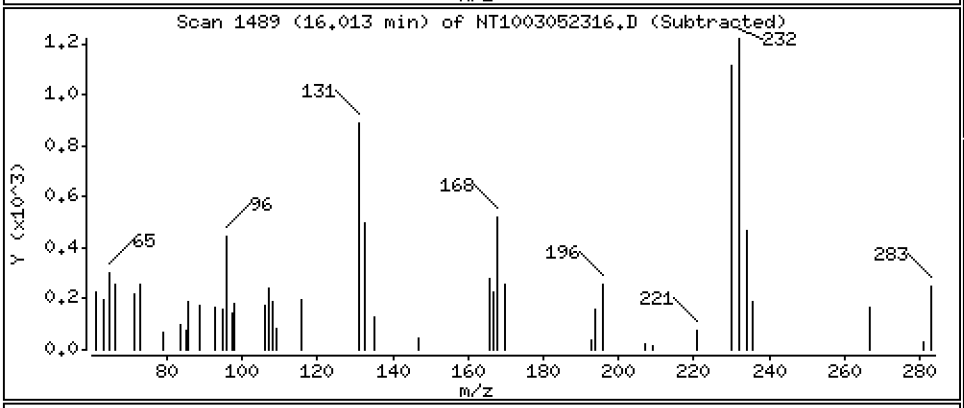
Column phase: ZB-5msi

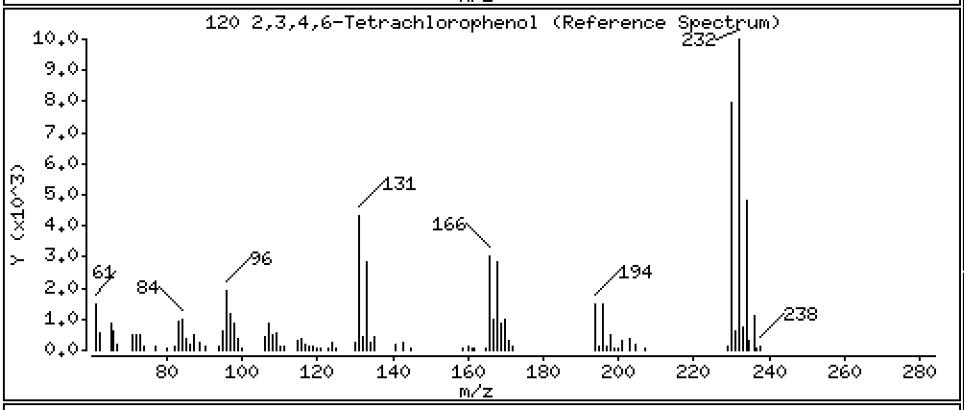
Column diameter: 0.25

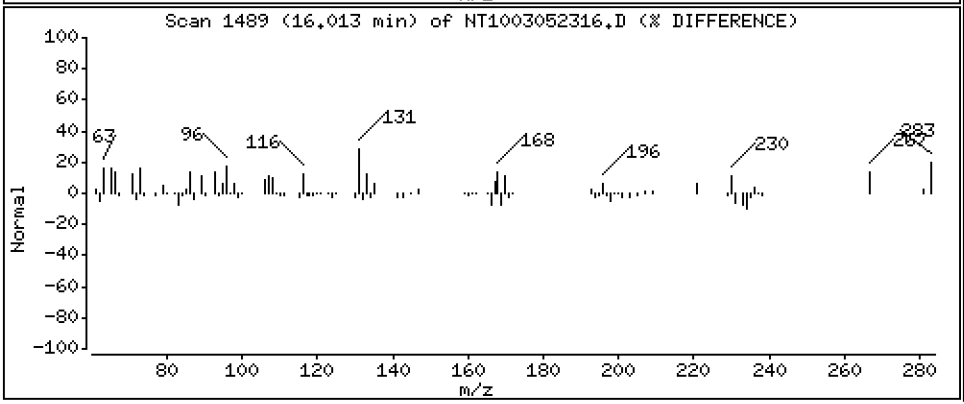
120 2,3,4,6-Tetrachlorophenol

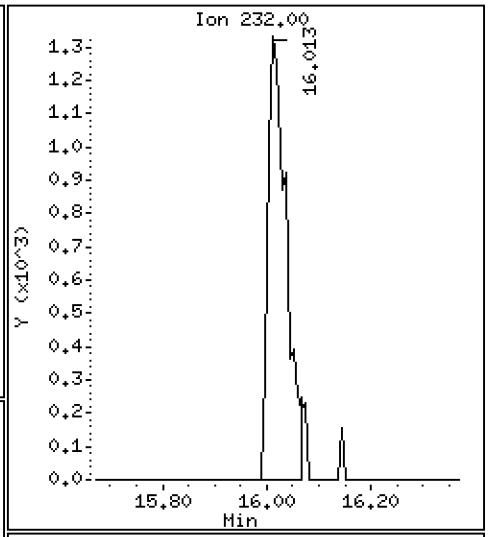
Concentration: 0.06265 ug/mL

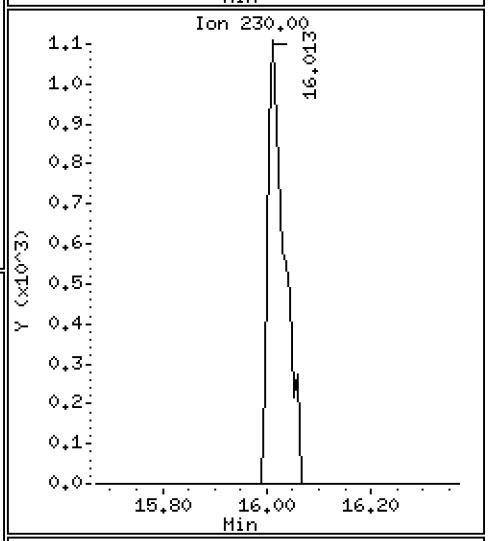


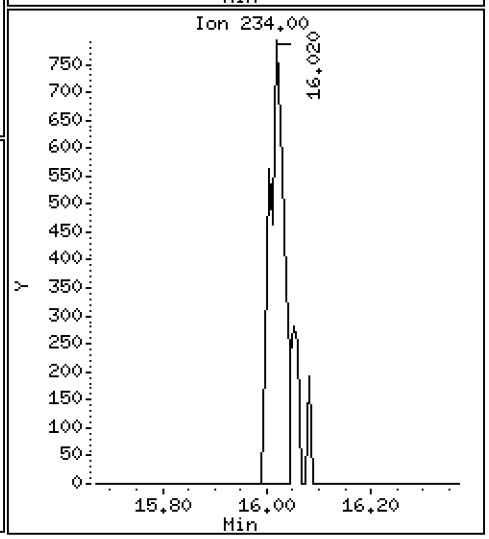












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230305A.b\NT1003052316.D
Lab Smp Id: SLC0415-LCV1
Inj Date : 05-MAR-2023 22:54
Operator : VTS Inst ID: nt10.i
Smp Info : SLC0415-LCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Meth Date : 27-Mar-2023 13:49 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 19:15 Cal File: NT1003012307.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICAL.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.905	6.905	(0.747)	24639	0.25732	0.2573
$	2 Phenol-d5	99	8.512	8.512	(0.921)	26840	0.24143	0.2414(M)
	3 Phenol	94	8.535	8.535	(0.923)	19934	0.16865	0.1687
$	5 2-Chlorophenol-d4	132	8.821	8.821	(0.954)	27998	0.29519	0.2952
	4 Bis(2-Chloroethyl)ether	93	8.728	8.736	(0.944)	18111	0.20052	0.2005
	6 2-Chlorophenol	128	8.844	8.852	(0.956)	18894	0.19175	0.1918
	7 1,3-Dichlorobenzene	146	9.138	9.138	(0.988)	23235	0.21388	0.2139
*	8 1,4-Dichlorobenzene-d4	152	9.247	9.247	(1.000)	304339	4.00000	
	9 1,4-Dichlorobenzene	146	9.278	9.286	(1.003)	22403	0.20761	0.2076
$	10 1,2-Dichlorobenzene-d4	152	9.534	9.542	(1.031)	13197	0.18624	0.1862(MH)
	12 1,2-Dichlorobenzene	146	9.557	9.565	(1.034)	21085	0.20187	0.2019
	11 Benzyl alcohol	108	9.495	9.487	(1.027)	6331	0.10449	0.1045
	14 2,2'-oxybis(1-Chloropropane)	121	9.728	9.736	(1.052)	6802	0.22589	0.2259(M)
	13 2-Methylphenol	108	9.674	9.674	(1.046)	16731	0.18271	0.1827
	17 Hexachloroethane	117	10.209	10.217	(1.104)	8290	0.18717	0.1872
	16 N-Nitroso-di-n-propylamine	70	9.984	9.984	(1.080)	15192	0.21300	0.2130(M)
	15 4-Methylphenol	108	9.969	9.961	(1.078)	17035	0.14834	0.1483
$	18 Nitrobenzene-d5	82	10.302	10.302	(0.879)	22428	0.19364	0.1936
	19 Nitrobenzene	77	10.341	10.341	(0.882)	19034	0.17519	0.1752
	20 Isophorone	82	10.791	10.807	(0.920)	22364	0.16125	0.1613(M)
	21 2-Nitrophenol	139	10.967	10.967	(0.935)	7751	0.12860	0.1286
	22 2,4-Dimethylphenol	107	11.009	11.018	(0.939)	35197	0.33865	0.3387
	23 Bis(2-Chloroethoxy)methane	93	11.213	11.222	(0.956)	17168	0.20031	0.2003
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	11.442	11.434	(0.976)	27743	0.33870	0.3387
	26 1,2,4-Trichlorobenzene	180	11.603	11.610	(0.989)	18827	0.23089	0.2309
*	27 Naphthalene-d8	136	11.726	11.734	(1.000)	1055141	4.00000	
	28 Naphthalene	128	11.773	11.780	(1.004)	54840	0.20250	0.2025
	29 4-Chloroaniline	127	11.873	11.881	(1.013)	30346	0.25602	0.2560
	30 Hexachlorobutadiene	225	11.997	12.004	(1.023)	14901	0.25097	0.2510
	31 4-Chloro-3-methylphenol	107	12.840	12.840	(1.095)	25733	0.29862	0.2986
	32 2-Methylnaphthalene	142	13.173	13.181	(1.123)	37623	0.19665	0.1967
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

							CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34 2,4,6-Trichlorophenol	196	13.746	13.753	(0.897)	17060	0.32942	0.3294
	35 2,4,5-Trichlorophenol	196	13.838	13.831	(0.903)	16201	0.29311	0.2931
$	36 2-Fluorobiphenyl	172	13.916	13.931	(0.908)	43720	0.22388	0.2239
	37 2-Chloronaphthalene	162	14.179	14.194	(0.925)	32997	0.21524	0.2152
	38 2-Nitroaniline	65	14.396	14.403	(0.939)	9490	0.22640	0.2264
	39 Dimethylphthalate	163	14.752	14.767	(0.963)	34543	0.19536	0.1954
	40 Acenaphthylene	152	15.038	15.054	(0.981)	49617	0.18773	0.1877
	41 2,6-Dinitrotoluene	165	14.891	14.907	(0.972)	11477	0.29572	0.2957
*	42 Acenaphthene-d10	164	15.324	15.340	(1.000)	547496	4.00000	
	43 3-Nitroaniline	138	15.301	15.255	(0.998)	1364	0.03059	0.03059
	44 Acenaphthene	153	15.394	15.409	(1.005)	31569	0.19806	0.1981
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	15.757	15.773	(1.028)	47684	0.20157	0.2016
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	15.734	15.749	(1.027)	13756	0.24450	0.2445
	50 Diethylphthalate	149	16.221	16.244	(1.059)	33898	0.18097	0.1810
	49 Fluorene	166	16.469	16.492	(1.075)	38122	0.19369	0.1937
	51 4-Chlorophenyl-phenylether	204	16.469	16.484	(1.075)	18604	0.21700	0.2170
	52 4-Nitroaniline	138	16.554	16.531	(1.080)	4182	0.08725	0.08725
	53 4,6-Dinitro-2-methylphenol	198	16.585	16.593	(0.899)	2150	0.09412	0.09412
	54 N-Nitrosodiphenylamine	169	16.716	16.731	(0.907)	29423	0.20276	0.2028
$	55 2,4,6-Tribromophenol	330	16.978	16.994	(1.108)	4583	0.13635	0.1363
	56 4-Bromophenyl-phenylether	248	17.496	17.511	(0.949)	13639	0.23196	0.2320
	57 Hexachlorobenzene	284	17.604	17.627	(0.955)	15418	0.23286	0.2329
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.440	18.455	(1.000)	980771	4.00000	
	60 Phenanthrene	178	18.486	18.509	(1.003)	49659	0.19785	0.1978
	61 Anthracene	178	18.595	18.618	(1.008)	47785	0.19634	0.1963
	62 Carbazole	167	18.935	18.950	(1.027)	41438	0.18585	0.1858
	63 Di-n-butylphthalate	149	19.624	19.647	(1.064)	48037	0.15877	0.1588
	64 Fluoranthene	202	20.869	20.892	(0.888)	56258	0.18315	0.1832
	65 Pyrene	202	21.303	21.326	(0.907)	56818	0.18166	0.1817
$	66 Terphenyl-d14	244	21.581	21.604	(0.919)	49942	0.19734	0.1973
	67 Butylbenzylphthalate	149	22.472	22.495	(0.956)	23049	0.13685	0.1369
	68 Benzo(a)anthracene	228	23.470	23.501	(0.999)	62818	0.19952	0.1995
*	69 Chrysene-d12	240	23.494	23.517	(1.000)	892900	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.424	23.447	(0.997)	49374	0.35208	0.3521
	71 Chrysene	228	23.532	23.563	(1.002)	55959	0.21870	0.2187
	72 bis(2-Ethylhexyl)phthalate	149	23.470	23.494	(0.956)	40516	0.18646	0.1865
*	134 Di-n-octylphthalate-d4	153	24.562	24.593	(1.000)	1549553	4.00000	
	73 Di-n-octylphthalate	149	24.570	24.601	(1.000)	77579	0.22577	0.2258
	74 Benzo(b)fluoranthene	252	25.414	25.452	(0.968)	69278	0.18022	0.1802
	75 Benzo(k)fluoranthene	252	25.468	25.507	(0.970)	66325	0.17922	0.1792
	76 Benzo(a)pyrene	252	26.126	26.157	(0.996)	64475	0.18763	0.1876
*	77 Perylene-d12	264	26.242	26.289	(1.000)	1127057	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	29.103	29.158	(1.109)	79884	0.19876	0.1988
	79 Dibenzo(a,h)anthracene	278	29.150	29.204	(1.111)	66385	0.21777	0.2178
	80 Benzo(g,h,i)perylene	276	29.973	30.043	(1.142)	66257	0.20689	0.2069
	90 N-Nitrosodimethylamine	74	4.750	4.719	(0.514)	20166	0.32623	0.3262(M)
	91 Aniline	93	8.628	8.636	(0.933)	46399	0.33857	0.3386
	93 Benzidine	184	21.148	21.148	(0.900)	12571	0.09219	0.09219
	103 Pyridine	79	4.820	4.781	(0.521)	35382	0.32275	0.3228
	105 1-methylnaphthalene	142	13.374	13.390	(1.141)	35278	0.20373	0.2037
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.801	16.816	(1.096)	39886	0.14260	0.1426

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.414	25.507	(0.968)	136280	0.36905	0.3690
120 2,3,4,6-Tetrachlorophenol	232	16.012	16.020	(1.045)	3210	0.06265	0.06265

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052316.D
Lab Smp Id: SLC0415-LCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt10.i\20230305A.b\ABN.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 21:38
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	264922	132461	529844	304339	14.88
27 Naphthalene-d8	947542	473771	1895084	1055141	11.36
42 Acenaphthene-d10	505666	252833	1011332	547496	8.27
59 Phenanthrene-d10	940283	470142	1880566	980771	4.31
69 Chrysene-d12	987952	493976	1975904	892900	-9.62
134 Di-n-octylphthala	1625017	812509	3250034	1549553	-4.64
77 Perylene-d12	1073798	536899	2147596	1127057	4.96

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.07
42 Acenaphthene-d10	15.34	14.84	15.84	15.32	-0.10
59 Phenanthrene-d10	18.46	17.96	18.96	18.44	-0.08
69 Chrysene-d12	23.52	23.02	24.02	23.49	-0.10
134 Di-n-octylphthala	24.59	24.09	25.09	24.56	-0.13
77 Perylene-d12	26.29	25.79	26.79	26.24	-0.18

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052316.D

Lab ID: SLC0415-LCV1
nt10.i, 20230305A.b\ABN.m,   05-MAR-2023 22:54

RT	CO-ELUTION COMPOUNDS
23.471	bis(2-Ethylhexyl)phthalate and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

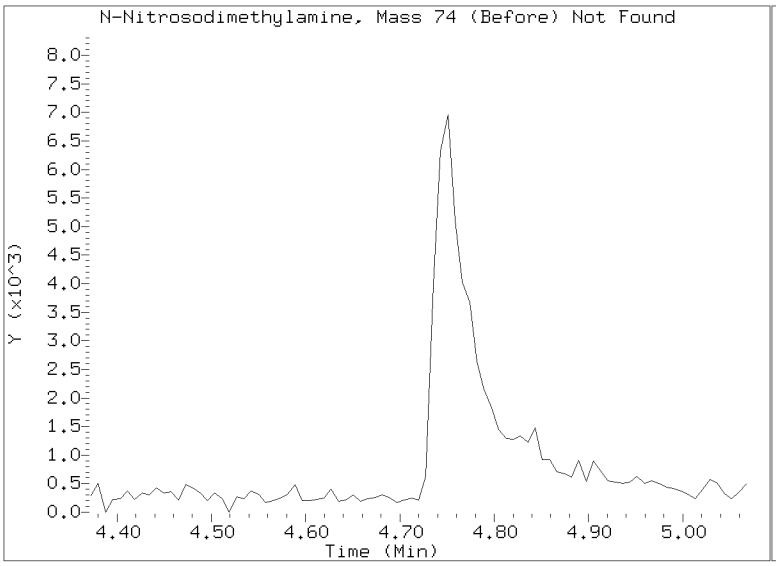
RRT check based on Ccal File: NT1003052314.D

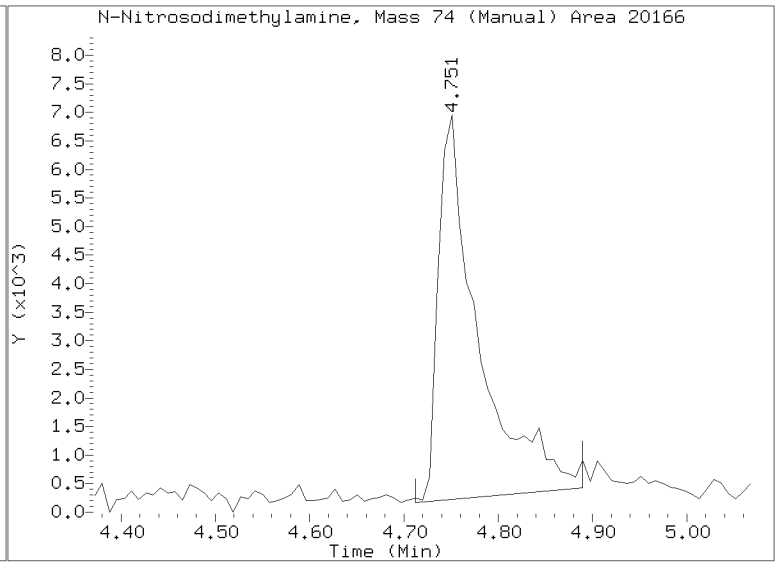
On Column LOD for nt10.i, 20230305A.b\ABN.m, ICAL.sub = 0.0000

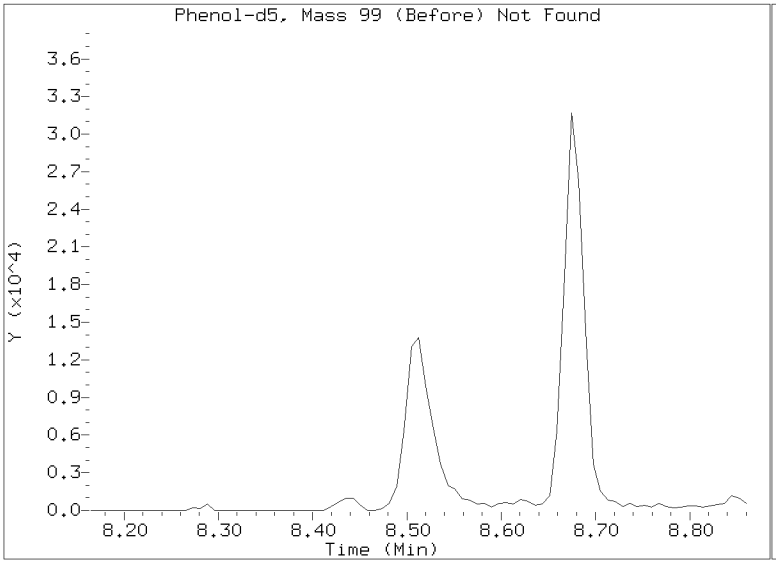
* Only compounds listed in the work order have been verified by the analyst *

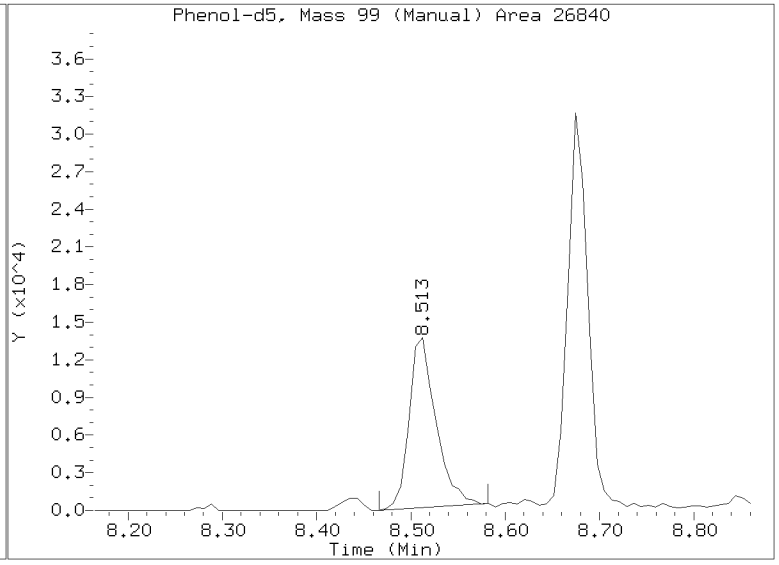
Quant Ion Manual Peak Adjustment Report

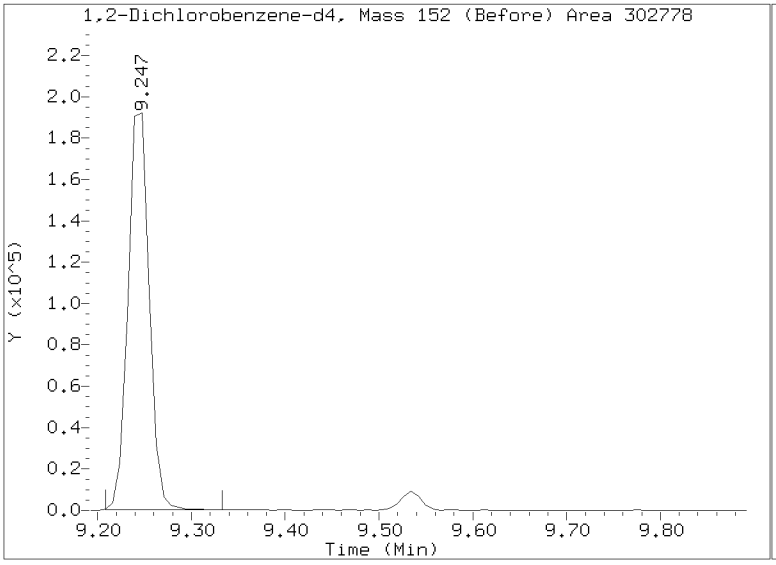
Datafile: //target/share/chem3/nt10.i/20230305A.b/NT1003052316.D
Injection Date: 05-MAR-2023 22:54
Lab ID:SLC0415-LCV1 Client ID:
Report Date: 03/27/2023 13:58

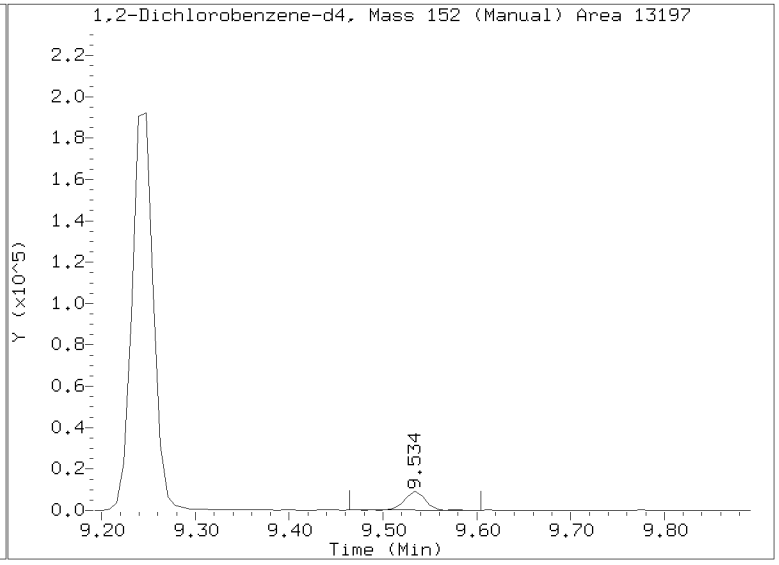












Quant Ion Manual Peak Adjustment Report

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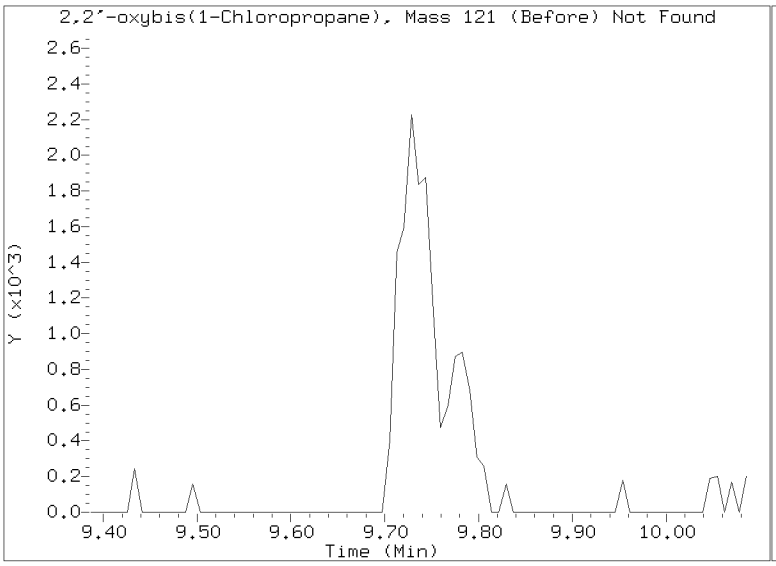
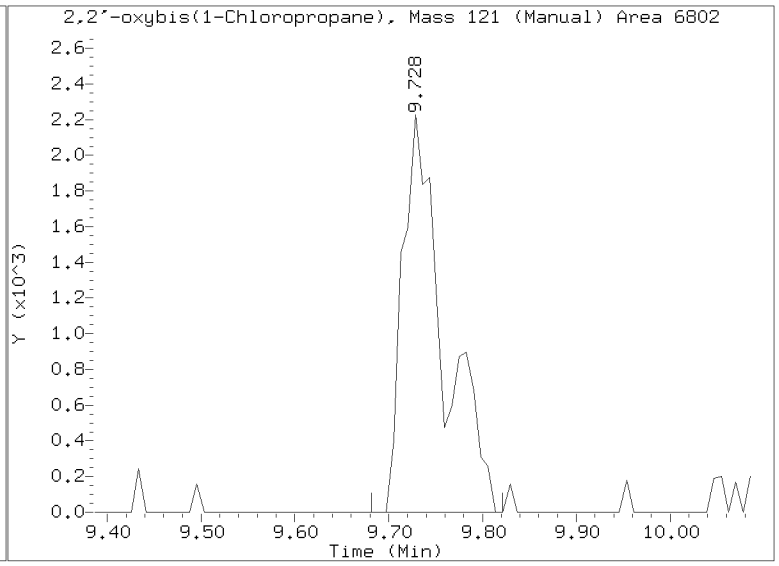
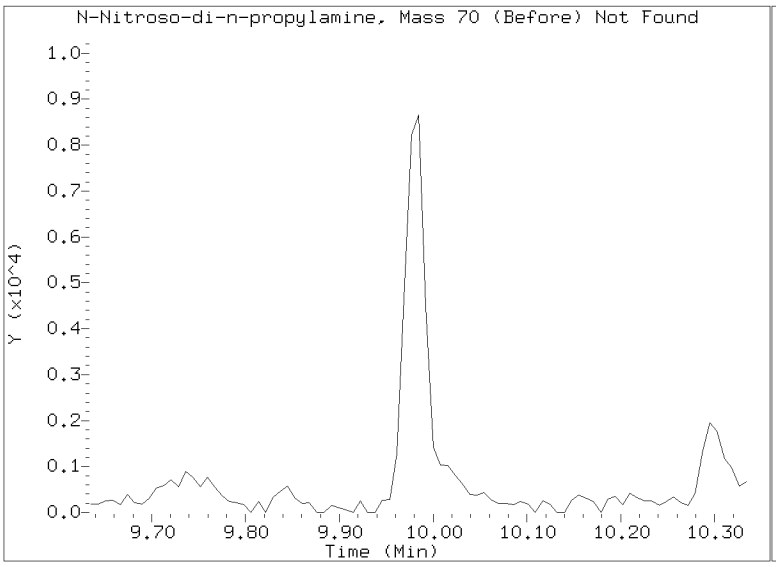
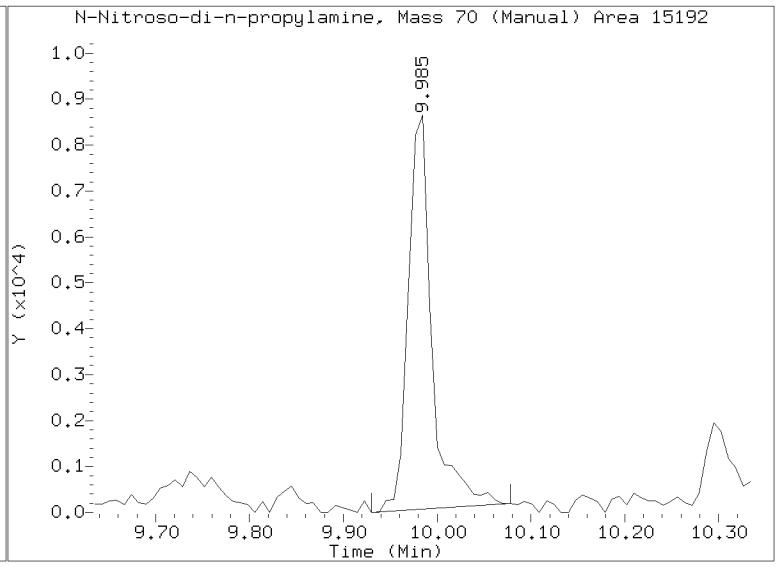
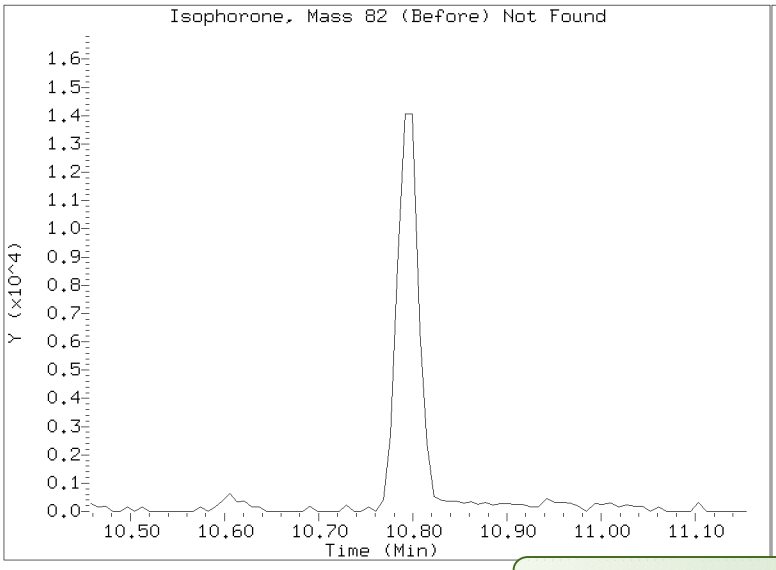
Injection Date: 05-MAR-2023 22:54
Lab ID:SLC0415-LCV1 Client ID:
Report Date: 03/27/2023 13:58

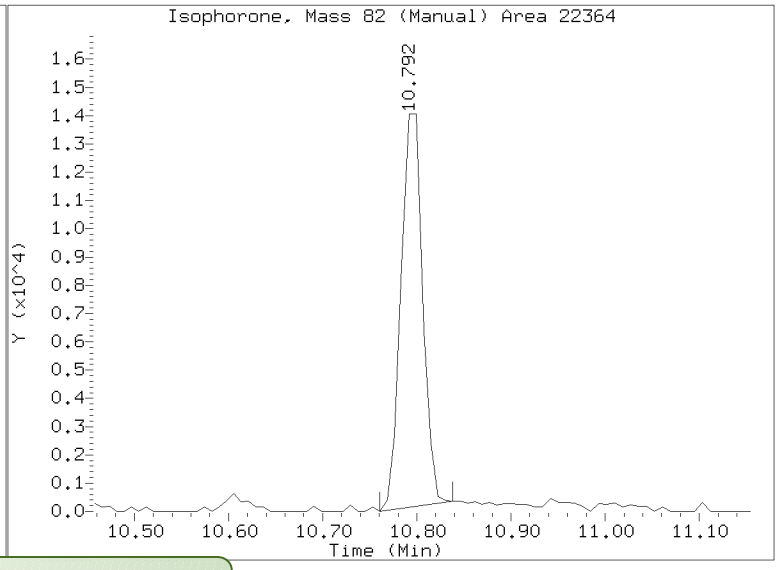












APPROVED
By Deenay Dunmore at 2:10 pm, Mar 27, 2023

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0084	Instrument:	NT10
		Calibration:	GC00019

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLC0084-TUN1	NT1003012301.D	NA	03/01/23 15:49
CAL 20	SLC0084-CAL7	NT1003012302.D	NA	03/01/23 16:04
CAL 10	SLC0084-CAL6	NT1003012303.D	NA	03/01/23 16:42
CAL 5	SLC0084-CAL5	NT1003012304.D	NA	03/01/23 17:21
CAL 2.5	SLC0084-CAL4	NT1003012305.D	NA	03/01/23 17:59
CAL 1.0	SLC0084-CAL3	NT1003012306.D	NA	03/01/23 18:37
CAL 0.5	SLC0084-CAL2	NT1003012307.D	NA	03/01/23 19:15
CAL 0.2	SLC0084-CAL1	NT1003012308.D	NA	03/01/23 19:53
SCV 5.0	SLC0084-SCV1	NT1003012311.D	NA	03/01/23 21:46
Initial Cal Blank	SLC0084-ICB1	NT1003012312.D	NA	03/01/23 22:24

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLC0084

Instrument: NT10
Calibration ID: UNASSIGNED

Printed: 3/7/2023 1:01:11PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLC0084-TUN1	QC		1		K004775			
SLC0084-CAL1	QC		2		K011105	K010831		
SLC0084-CAL2	QC		3		K011106	K010831		
SLC0084-CAL3	QC		4		K011107	K010831		
SLC0084-CAL4	QC		5		K011108	K010831		
SLC0084-CAL5	QC		6		K011109	K010831		
SLC0084-CAL6	QC		7		K011110	K010831		
SLC0084-CAL7	QC		8		K011111	K010831		
SLC0084-SCV1	QC		9		K010066	K010831		
SLC0084-ICB1	QC		10		K005156	K010831		

Samples Loaded By Date

Data Processed By Date

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230301.b

	Time	Filename	LabID	ClientId	DF															
1	1549	NT1003012301.D	SLC0084-TUN1		1	|NO ISTDS FOUND||														
2	1604	NT1003012302.D	SLC0084-CAL7		1	| 9.25	350339	||11.73	1337321	||15.32	721926	||18.41	1389567	||23.42	1382735	||26.11	1052577	||24.49	2772507 |
3	1642	NT1003012303.D	SLC0084-CAL6		1	| 9.25	343229	||11.72	1283371	||15.32	697310	||18.40	1340795	||23.42	1088479	||26.11	973894	||24.48	2152692 |
4	1721	NT1003012304.D	SLC0084-CAL5		1	| 9.25	337641	||11.72	1265187	||15.31	692385	||18.40	1376777	||23.42	1019524	||26.10	1027409	||24.48	2027111 |
5	1759	NT1003012305.D	SLC0084-CAL4		1	| 9.25	320922	||11.72	1174958	||15.31	642002	||18.40	1218560	||23.42	904733	||26.10	947785	||24.48	1785837 |
6	1837	NT1003012306.D	SLC0084-CAL3		1	| 9.25	301377	||11.72	1117281	||15.31	611509	||18.40	1193129	||23.42	938680	||26.10	995239	||24.49	1744984 |
7	1915	NT1003012307.D	SLC0084-CAL2		1	| 9.25	309085	||11.72	1141293	||15.31	610034	||18.40	1173527	||23.42	1001661	||26.10	1066145	||24.49	1783007 |
8	1953	NT1003012308.D	SLC0084-CAL1		1	| 9.25	295317	||11.72	1075084	||15.32	525641	||18.40	1064230	||23.42	908515	||26.10	969731	||24.48	1659419 |
9	2030	NT1003012309.D	SEQ-SIM2		1	| 9.25	285326	||11.72	1006391	||15.31	485266	||18.40	993728	||23.42	888551	||26.10	1001314	||24.49	1646702 |
10	2109	NT1003012310.D	SEQ-SIM1		1	| 9.25	350039	||11.72	1219070	||15.31	587402	||18.40	1179509	||23.42	1044485	||26.10	1189301	||24.48	1916581 |
11	2146	NT1003012311.D	SLC0084-SCV1		1	| 9.25	283537	||11.72	1089120	||15.32	607772	||18.40	1205858	||23.42	1219436	||26.10	1289108	||24.49	2317357 |
12	2224	NT1003012312.D	SLC0084-ICB1		1	| 9.25	480761	||11.72	1681746	||15.31	836849	||18.40	1648281	||23.42	1391477	||26.10	1542419	||24.48	2481481 |

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230301.b

ARI Job No.: SLC0 Method: DFTPP8270E.m Instrument: nt10.i Date: 01-MAR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1549	NT1003012301.D	SLC0084-TUN1		1	NO MANUAL INTEGRATION
1604	NT1003012302.D	SLC0084-CAL7		1	2,2'-oxybis(1-Chloropropane), 2,4-Dinitrophenol,
1642	NT1003012303.D	SLC0084-CAL6		1	2,2'-oxybis(1-Chloropropane), 2,4-Dinitrophenol,
1721	NT1003012304.D	SLC0084-CAL5		1	2,2'-oxybis(1-Chloropropane), 2,4-Dinitrophenol,
1759	NT1003012305.D	SLC0084-CAL4		1	2,2'-oxybis(1-Chloropropane), 2,4-Dinitrophenol, 4-Nitrophenol,
1837	NT1003012306.D	SLC0084-CAL3		1	2,2'-oxybis(1-Chloropropane), Benzoic acid, 3-Nitroaniline, 2,4-Dinitrophenol, 4-Nitrophenol,
1915	NT1003012307.D	SLC0084-CAL2		1	2,2'-oxybis(1-Chloropropane), Benzoic acid, 4-Chloro-3-methylphenol, 2,4,5-Trichlorophenol, 3-Nitroaniline, 2,4-Dinitropheno 4-Nitrophenol, 4-Nitroaniline, N-Nitrosodimethylamine, Benzidine,
1953	NT1003012308.D	SLC0084-CAL1		1	2,2'-oxybis(1-Chloropropane), N-Nitroso-di-n-propylamine, 4-Methylphenol, Isophorone, 2,4-Dichlorophenol, Benzoic acid, 4-Chloroaniline, 4-Chloro-3-methylphenol, 2,4,5-Trichlorophenol, 2-Nitroaniline, 3-Nitroaniline, 4-Nitroaniline, Pentachlorophenol, Carbazole, Chrysene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, N-Nitrosodimethylami
2030	NT1003012309.D	SEQ-SIM2		1	NO MANUAL INTEGRATION
2109	NT1003012310.D	SEQ-SIM1		1	NO MANUAL INTEGRATION
2146	NT1003012311.D	SLC0084-SCV1		1	Bis(2-Chloroethyl)ether, 2,4,5-Trichlorophenol, 4-Nitrophenol,
2224	NT1003012312.D	SLC0084-ICB1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 07-Mar-2023 12:54

NT1003012301.D	Data Locked	yev, 07-
NT1003012302.D	Data Locked	yev, 07-
NT1003012303.D	Data Locked	yev, 07-
NT1003012304.D	Data Locked	yev, 07-
NT1003012305.D	Data Locked	yev, 07-
NT1003012306.D	Data Locked	yev, 07-
NT1003012307.D	Data Locked	yev, 07-
NT1003012308.D	Data Locked	yev, 07-
NT1003012309.D	Data Locked	yev, 07-
NT1003012310.D	Data Locked	yev, 07-
NT1003012311.D	Data Locked	yev, 07-
NT1003012312.D	Data Locked	yev, 07-

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0401	Instrument:	NT10
		Calibration:	GC00019

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLC0401-TUN1	NT1003052301.D	NA	03/05/23 13:48
Initial Cal Check	SLC0401-ICV1	NT1003052302.D	NA	03/05/23 14:03
ABN 0.2	SLC0401-LCV1	NT1003052304.D	NA	03/05/23 15:18
Blank	BLA0685-BLK1	NT1003052307.D	Solid	03/05/23 17:12
LCS	BLA0685-BS1	NT1003052308.D	Solid	03/05/23 17:50
LCS Dup	BLA0685-BSD1	NT1003052309.D	Solid	03/05/23 18:28
LDW23-SC1159	BLA0685-MS1	NT1003052310.D	Solid	03/05/23 19:06
LDW23-SC1159	BLA0685-MSD1	NT1003052311.D	Solid	03/05/23 19:44
Reference	BLA0685-SRM1	NT1003052312.D	Solid	03/05/23 20:22
LDW23-SC1016A	23A0313-08	NT1003052313.D	Solid	03/05/23 21:00
Calibration Check	SLC0401-CCV1	NT1003052314.D	NA	03/05/23 21:38

ANALYSIS SEQUENCE

SLC0401

Instrument ID: NT10
Calibration ID: GC00019
MS EM Level: 1317.6 EV

GCMS Description: Agilent 5975/MS http://bi
GCMS Column ID: l001330

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLC0401-TUN1	MS Tune	QC		1	L002618		03/05/2023 13:48	NT1003052301.D	JGR	
SLC0401-ICV1	Initial Cal Check	QC		2	K011109	K010831	03/05/2023 14:03	NT1003052302.D	VTS	
SLC0401-LCV1	ABN 0.2	QC		3	K011105	K010831	03/05/2023 15:18	NT1003052304.D	VTS	
BLA0685-BLK1	Blank	QC		4		K010831	03/05/2023 17:12	NT1003052307.D	VTS	
BLA0685-BS1	LCS	QC		5		K010831	03/05/2023 17:50	NT1003052308.D	VTS	
BLA0685-BSD1	LCS Dup	QC		6		K010831	03/05/2023 18:28	NT1003052309.D	VTS	
BLA0685-SRM1	Reference	QC		7		K010831	03/05/2023 20:22	NT1003052312.D	VTS	
BLA0685-MS1	Matrix Spike	QC		8		K010831	03/05/2023 19:06	NT1003052310.D	VTS	
BLA0685-MSD1	Matrix Spike Dup	QC		9		K010831	03/05/2023 19:44	NT1003052311.D	VTS	
23A0313-08	LDW23-SC1016A	(20ug/kg solid or 0.2ug/L l	A 04	10		K010831	03/05/2023 21:00	NT1003052313.D	VTS	
SLC0401-CCV1	Calibration Check	QC		11	K011109	K010831	03/05/2023 21:38	NT1003052314.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230305.b

	Time	Filename	LabID	ClientId	DF														
1	1348	NT1003052301.D	SLC0401-TUN1		1	NO ISTDS FOUND													
2	1403	NT1003052302.D	SLC0401-ICV1		1	9.24	297263	11.73	1085336	15.34	563464	18.45	1038318	23.52	1012751	26.28	1152264	24.59	1628890
3	1518	NT1003052304.D	SLC0401-LCV1		1	9.24	291047	11.73	1070295	15.33	535349	18.45	962985	23.52	857365	26.28	1034621	24.59	1343499
4	1712	NT1003052307.D	BLA0685-BLK1		1	9.25	270013	11.73	975565	15.34	517251	18.46	919568	23.52	824155	26.29	859021	24.60	1193964
5	1750	NT1003052308.D	BLA0685-BS1		1	9.25	297547	11.73	1075395	15.35	556840	18.46	1006737	23.53	916837	26.30	977237	24.61	1539451
6	1828	NT1003052309.D	BLA0685-BSD1		1	9.25	329316	11.74	1198408	15.35	627739	18.46	1127626	23.51	1035914	26.27	1019954	24.59	1620537
7	1906	NT1003052310.D	BLA0685-MS1		1	9.26	304011	11.74	1089158	15.35	569639	18.46	1067304	23.52	1060207	26.28	1160159	24.59	1794535
8	1944	NT1003052311.D	BLA0685-MSD1		1	9.25	289157	11.74	1034245	15.35	551777	18.46	1017136	23.52	1007411	26.29	1089312	24.60	1705215
9	2022	NT1003052312.D	BLA0685-SRM1		1	9.25	256880	11.74	917867	15.35	495256	18.46	917438	23.52	883418	26.28	987411	24.59	1475913
10	2100	NT1003052313.D	23A0313-08		1	9.25	312712	11.73	1122631	15.34	581958	18.46	1092541	23.53	985415	26.31	1124941	24.61	1778606
11	2138	NT1003052314.D	SLC0401-CCV1		1	9.25	264922	11.73	947542	15.34	505666	18.46	940283	23.52	987952	26.29	1073798	24.59	1625017

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230305.b

ARI Job No.: SLC0 Method: DFTPP8270E.m Instrument: nt10.i Date: 05-MAR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1348	NT1003052301.D	SLC0401-TUN1		1	NO MANUAL INTEGRATION
1403	NT1003052302.D	SLC0401-ICV1		1	2,2'-oxybis(1-Chloropropane),
1440	NT1003052303.D	SEQ-ICVSIM		1	NO MANUAL INTEGRATION
1518	NT1003052304.D	SLC0401-LCV1		1	2,2'-oxybis(1-Chloropropane), Isophorone, Phenol-d5,
1556	NT1003052305.D	SEQ-SIM100		1	NO MANUAL INTEGRATION
1634	NT1003052306.D	SEQ-SIM500		1	NO MANUAL INTEGRATION
1712	NT1003052307.D	BLA0685-BLK1		1	NO MANUAL INTEGRATION
1750	NT1003052308.D	BLA0685-BS1		1	NO MANUAL INTEGRATION
1828	NT1003052309.D	BLA0685-BSD1		1	NO MANUAL INTEGRATION
1906	NT1003052310.D	BLA0685-MS1		1	NO MANUAL INTEGRATION
1944	NT1003052311.D	BLA0685-MSD1		1	NO MANUAL INTEGRATION
2022	NT1003052312.D	BLA0685-SRM1		1	NO MANUAL INTEGRATION
2100	NT1003052313.D	23A0313-08		1	Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
2138	NT1003052314.D	SLC0401-CCV1		1	2,2'-oxybis(1-Chloropropane),

Security Status Report

Date: 27-Mar-2023 09:31

NT1003052301.D	Data Locked	deenayd, 27-
NT1003052302.D	Data Locked	deenayd, 27-
NT1003052303.D	Data Locked	deenayd, 27-
NT1003052304.D	Data Locked	deenayd, 27-
NT1003052305.D	Data Locked	deenayd, 27-
NT1003052306.D	Data Locked	deenayd, 27-
NT1003052307.D	Data Locked	deenayd, 27-
NT1003052308.D	Data Locked	deenayd, 27-
NT1003052309.D	Data Locked	deenayd, 27-
NT1003052310.D	Data Locked	deenayd, 27-
NT1003052311.D	Data Locked	deenayd, 27-
NT1003052312.D	Data Locked	deenayd, 27-
NT1003052313.D	Data Locked	deenayd, 27-
NT1003052314.D	Data Locked	deenayd, 27-

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0415	Instrument:	NT10
		Calibration:	GC00019

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLC0415-TUN1	NT1003052301A.D	NA	03/05/23 13:48
Initial Cal Check	SLC0415-ICV1	NT1003052314A.D	NA	03/05/23 21:38
ABN 0.2	SLC0415-LCV1	NT1003052316.D	NA	03/05/23 22:54
LDW23-SC1011A	23A0313-09	NT1003052319.D	Solid	03/06/23 00:47
LDW23-SC1006A	23A0313-10	NT1003052320.D	Solid	03/06/23 01:25
LDW23-SC1012B	23A0313-11	NT1003052321.D	Solid	03/06/23 02:02
LDW23-SC1159	23A0313-13	NT1003052322.D	Solid	03/06/23 02:40
ZZZZZ	23A0326-01	NT1003052323.D	Solid	03/06/23 03:17
ZZZZZ	23A0326-02	NT1003052324.D	Solid	03/06/23 03:55
Calibration Check	SLC0415-CCV1	NT1003052325.D	NA	03/06/23 04:32

Printed: 3/27/2023 3:39:00PM

ANALYSIS SEQUENCE

SLC0415

Instrument ID: NT10
Calibration ID: GC00019
MS EM Level: 1317.6 EV

GCMS Description: Agilent 5975/MS http://bi
GCMS Column ID: l001330

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLC0415-TUN1	MS Tune	QC		1	L002618		03/05/2023 13:48	NT1003052301A.D	JGR	
SLC0415-ICV1	Initial Cal Check	QC		2	K011109	K010831	03/05/2023 21:38	NT1003052314A.D	VTS	
SLC0415-LCV1	ABN 0.2	QC		3	K011105	K010831	03/05/2023 22:54	NT1003052316.D	VTS	
23A0313-09	LDW23-SC1011A	(20ug/kg solid or 0.2ug/L l	A 04	4		K010831	03/06/2023 00:47	NT1003052319.D	VTS	
23A0313-10	LDW23-SC1006A	(20ug/kg solid or 0.2ug/L l	A 04	5		K010831	03/06/2023 01:25	NT1003052320.D	VTS	
23A0313-11	LDW23-SC1012B	(20ug/kg solid or 0.2ug/L l	A 04	6		K010831	03/06/2023 02:02	NT1003052321.D	VTS	
23A0313-13	LDW23-SC1159	(20ug/kg solid or 0.2ug/L l	A 04	7		K010831	03/06/2023 02:40	NT1003052322.D	VTS	
23A0326-01	LDW23-SC1028	(20ug/kg solid or 0.2ug/L l	A 04	8		K010831	03/06/2023 03:17	NT1003052323.D	VTS	
23A0326-02	LDW23-SC1032	(20ug/kg solid or 0.2ug/L l	A 04	9		K010831	03/06/2023 03:55	NT1003052324.D	VTS	
SLC0415-CCV1	Calibration Check	QC		10	K011109	K010831	03/06/2023 04:32	NT1003052325.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230305A.b

	Time	Filename	LabID	ClientId	DF																	
1	1348	NT1003052301.D	SLC0415-TUN1		1	|NO ISTDS FOUND||																
2	2138	NT1003052314.D	SLC0415-CCV1		1	| 9.25	264922	||11.73	947542	||15.34	505666	||18.46	940283	||23.52	987952	||26.29	1073798	||24.59	1625017 |		
3	2254	NT1003052316.D	SLC0415-LCV1		1	| 9.25	304339	||11.73	1055141	||15.32	547496	||18.44	980771	||23.49	892900	||26.24	1127057	||24.56	1549553 |		
4	0047	NT1003052319.D	23A0313-09		1	| 9.26	277293	||11.75	992421	||15.35	516457	||18.45	940974	||23.50	975868	||26.23	1137199	||24.56	1678858 |		
5	0125	NT1003052320.D	23A0313-10		1	| 9.26	280367	||11.75	999488	||15.35	522549	||18.46	968354	||23.50	930222	||26.24	1058029	||24.56	1588066 |		
6	0202	NT1003052321.D	23A0313-11		1	| 9.26	280895	||11.75	1014485	||15.35	550303	||18.46	999299	||23.51	951686	||26.24	1056489	||24.56	1621502 |		
7	0240	NT1003052322.D	23A0313-13		1	| 9.25	223750	||11.75	792377	||15.35	431810	||18.46	804967	||23.50	771106	||26.24	880428	||24.56	1322148 |		
8	0317	NT1003052323.D	23A0326-01		1	| 9.25	212800	||11.76	756268	||15.35	401662	||18.46	743666	||23.51	720209	||26.24	842018	||24.56	1261487 |		
9	0355	NT1003052324.D	23A0326-02		1	| 9.26	253055	||11.76	915691	||15.35	493607	||18.46	887512	||23.51	852573	||26.25	964821	||24.56	1479196 |		
10	0432	NT1003052325.D	SLC0415-CCV1		1	| 9.26	213820	||11.76	756023	||15.35	411497	||18.46	744396	||23.49	823005	||26.23	894064	||24.55	1350476 |		

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230305A.b

ARI Job No.: SLC0 Method: DFTPP8270E.m Instrument: nt10.i Date: 05-MAR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1348	NT1003052301A.D	SLC0415-TUN1		1	NO MANUAL INTEGRATION
2138	NT1003052314A.D	SLC0415-ICV1		1	2,2'-oxybis(1-Chloropropane),
2216	NT1003052315.D	SEQ-CCVSIM		1	NO MANUAL INTEGRATION
2254	NT1003052316.D	SLC0415-LCV1		1	2,2'-oxybis(1-Chloropropane), N-Nitroso-di-n-propylamine, Isophorone, N-Nitrosodimethylamine, Phenol-d5, 1,2-Dichlorobenzene
2332	NT1003052317.D	SEQ-SIM100		1	NO MANUAL INTEGRATION
0009	NT1003052318.D	SEQ-SIM500		1	NO MANUAL INTEGRATION
0047	NT1003052319.D	23A0313-09		1	Benzoic acid, Dibenzo(a,h)anthracene, Pyridine,
0125	NT1003052320.D	23A0313-10		1	Benzoic acid, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
0202	NT1003052321.D	23A0313-11		1	Dibenzo(a,h)anthracene,
0240	NT1003052322.D	23A0313-13		1	2,2'-oxybis(1-Chloropropane), Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Pyridine,
0317	NT1003052323.D	23A0326-01		1	2,2'-oxybis(1-Chloropropane), Benzo(k)fluoranthene, Phenol-d5,
0355	NT1003052324.D	23A0326-02		1	Benzoic acid, Dibenzo(a,h)anthracene,
0432	NT1003052325.D	SLC0415-CCV1		1	2,2'-oxybis(1-Chloropropane),

Security Status Report

Date: 27-Mar-2023 15:37

NT1003052301A.D	Data Locked	deenayd, 27-
NT1003052314A.D	Data Locked	deenayd, 27-
NT1003052315.D	Data Locked	deenayd, 27-
NT1003052316.D	Data Locked	deenayd, 27-
NT1003052317.D	Data Locked	deenayd, 27-
NT1003052318.D	Data Locked	deenayd, 27-
NT1003052319.D	Data Locked	deenayd, 27-
NT1003052320.D	Data Locked	deenayd, 27-
NT1003052321.D	Data Locked	deenayd, 27-
NT1003052322.D	Data Locked	deenayd, 27-
NT1003052323.D	Data Locked	deenayd, 27-
NT1003052324.D	Data Locked	deenayd, 27-
NT1003052325.D	Data Locked	deenayd, 27-

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
SDG/WO: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLC0084
Instrument: NT10
Calibration: GC00019
Calibration Date: 03/01/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLC0084-SCV1 (Water)			Lab File ID: NT1003012311.D			Analyzed: 03/01/23 21:46		
2-Fluorophenol	7.5000		80 - 120		6.898143	-6.8981	N/A	*
Phenol-d5	7.5000		80 - 120		8.491857	-8.4919	N/A	*
2-Chlorophenol-d4	7.5000		80 - 120		8.814143	-8.8141	N/A	*
1,2-Dichlorobenzene-d4	5.0000	85.9	80 - 120	9.247	9.534572	-0.2876	N/A	
Nitrobenzene-d5	5.0000		80 - 120		10.29314	-10.2931	N/A	*
2-Fluorobiphenyl	5.0000		80 - 120		13.91014	-13.9101	N/A	*
2,4,6-Tribromophenol	7.5000		80 - 120		16.947	-16.9470	N/A	*
p-Terphenyl-d14	5.0000	0.392	80 - 120	21.519	21.52357	-0.0046	N/A	*
SLC0084-ICB1 (Water)			Lab File ID: NT1003012312.D			Analyzed: 03/01/23 22:24		
2-Fluorophenol	7.5000	100	30 - 160	6.897	6.898143	-0.0011	N/A	
Phenol-d5	7.5000	95.7	30 - 160	8.489	8.491857	-0.0029	N/A	
2-Chlorophenol-d4	7.5000	98.9	30 - 160	8.813	8.814143	-0.0011	N/A	
1,2-Dichlorobenzene-d4	5.0000	94.9	30 - 160	9.534	9.534572	-0.0006	N/A	
Nitrobenzene-d5	5.0000	100	30 - 160	10.294	10.29314	0.0009	N/A	
2-Fluorobiphenyl	5.0000	98.2	30 - 160	13.908	13.91014	-0.0021	N/A	
2,4,6-Tribromophenol	7.5000	74.9	30 - 160	16.947	16.947	0.0000	N/A	
p-Terphenyl-d14	5.0000	96.4	30 - 160	21.527	21.52357	0.0034	N/A	

Analytical Resources, LLC
Analytical Chemists and Consultants

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0401	Instrument:	NT10
Calibration:	GC00019	Calibration Date:	03/01/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLC0401-ICV1 (Solid)			Lab File ID: NT1003052302.D			Analyzed: 03/05/23 14:03		
2-Fluorophenol	7.5000	96.3	80 - 120	6.897	6.898143	-0.0011	N/A	
Phenol-d5	7.5000	106	80 - 120	8.504	8.491857	0.0121	N/A	
2-Chlorophenol-d4	7.5000	103	80 - 120	8.813	8.814143	-0.0011	N/A	
1,2-Dichlorobenzene-d4	5.0000	97.7	80 - 120	9.534	9.534572	-0.0006	N/A	
Nitrobenzene-d5	5.0000	102	80 - 120	10.302	10.29314	0.0089	N/A	
2-Fluorobiphenyl	5.0000	107	80 - 120	13.924	13.91014	0.0139	N/A	
2,4,6-Tribromophenol	7.5000	106	80 - 120	16.986	16.947	0.0390	N/A	
p-Terphenyl-d14	5.0000	90.8	80 - 120	21.597	21.52357	0.0734	N/A	
SLC0401-LCV1 (Solid)			Lab File ID: NT1003052304.D			Analyzed: 03/05/23 15:18		
2-Fluorophenol	0.30000	72.9	50 - 150	6.905	6.898143	0.0069	N/A	
Phenol-d5	0.30000	62.3	50 - 150	8.504	8.491857	0.0121	N/A	
2-Chlorophenol-d4	0.30000	80.3	50 - 150	8.813	8.814143	-0.0011	N/A	
1,2-Dichlorobenzene-d4	0.20000	110	50 - 150	9.526	9.534572	-0.0086	N/A	
Nitrobenzene-d5	0.20000	77.9	50 - 150	10.294	10.29314	0.0009	N/A	
2-Fluorobiphenyl	0.20000	108	50 - 150	13.923	13.91014	0.0129	N/A	
2,4,6-Tribromophenol	0.30000	7.25	50 - 150	16.97	16.947	0.0230	N/A	*
p-Terphenyl-d14	0.20000	95.7	50 - 150	21.596	21.52357	0.0724	N/A	
BLA0685-BLK1 (Solid)			Lab File ID: NT1003052307.D			Analyzed: 03/05/23 17:12		
2-Fluorophenol	750.00	58.1	27 - 120	6.897	6.898143	-0.0011	N/A	
Phenol-d5	750.00	67.6	29 - 120	8.504	8.491857	0.0121	N/A	
2-Chlorophenol-d4	750.00	73.2	31 - 120	8.813	8.814143	-0.0011	N/A	
1,2-Dichlorobenzene-d4	500.00	72.5	32 - 120	9.534	9.534572	-0.0006	N/A	
Nitrobenzene-d5	500.00	77.4	30 - 120	10.302	10.29314	0.0089	N/A	
2-Fluorobiphenyl	500.00	80.7	35 - 120	13.931	13.91014	0.0209	N/A	
2,4,6-Tribromophenol	750.00	47.4	24 - 134	16.986	16.947	0.0390	N/A	
p-Terphenyl-d14	500.00	96.9	37 - 120	21.604	21.52357	0.0804	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
SDG/WO: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLC0401
Instrument: NT10
Calibration: GC00019
Calibration Date: 03/01/2023

Surrogate Compound	Spike Level ug/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLA0685-BS1 (Solid)			Lab File ID: NT1003052308.D			Analyzed: 03/05/23 17:50		
2-Fluorophenol	750.00	77.5	27 - 120	6.905	6.898143	0.0069	N/A	
Phenol-d5	750.00	86.4	29 - 120	8.504	8.491857	0.0121	N/A	
2-Chlorophenol-d4	750.00	85.6	31 - 120	8.821	8.814143	0.0069	N/A	
1,2-Dichlorobenzene-d4	500.00	74.4	32 - 120	9.534	9.534572	-0.0006	N/A	
Nitrobenzene-d5	500.00	84.4	30 - 120	10.302	10.29314	0.0089	N/A	
2-Fluorobiphenyl	500.00	89.3	35 - 120	13.931	13.91014	0.0209	N/A	
2,4,6-Tribromophenol	750.00	99.1	24 - 134	16.994	16.947	0.0470	N/A	
p-Terphenyl-d14	500.00	99.8	37 - 120	21.612	21.52357	0.0884	N/A	
BLA0685-BSD1 (Solid)			Lab File ID: NT1003052309.D			Analyzed: 03/05/23 18:28		
2-Fluorophenol	750.00	76.4	27 - 120	6.905	6.898143	0.0069	N/A	
Phenol-d5	750.00	89.1	29 - 120	8.512	8.491857	0.0201	N/A	
2-Chlorophenol-d4	750.00	89.1	31 - 120	8.821	8.814143	0.0069	N/A	
1,2-Dichlorobenzene-d4	500.00	79.2	32 - 120	9.542	9.534572	0.0074	N/A	
Nitrobenzene-d5	500.00	88.5	30 - 120	10.302	10.29314	0.0089	N/A	
2-Fluorobiphenyl	500.00	90.7	35 - 120	13.931	13.91014	0.0209	N/A	
2,4,6-Tribromophenol	750.00	94.7	24 - 134	16.986	16.947	0.0390	N/A	
p-Terphenyl-d14	500.00	92.2	37 - 120	21.597	21.52357	0.0734	N/A	
BLA0685-MS1 (Solid)			Lab File ID: NT1003052310.D			Analyzed: 03/05/23 19:06		
2-Fluorophenol	750.14	73.1	27 - 120	6.92	6.898143	0.0219	N/A	
Phenol-d5	750.14	82.2	29 - 120	8.52	8.491857	0.0281	N/A	
2-Chlorophenol-d4	750.14	84.6	31 - 120	8.829	8.814143	0.0149	N/A	
1,2-Dichlorobenzene-d4	500.09	73.5	32 - 120	9.542	9.534572	0.0074	N/A	
Nitrobenzene-d5	500.09	88.8	30 - 120	10.31	10.29314	0.0169	N/A	
2-Fluorobiphenyl	500.09	91.0	35 - 120	13.931	13.91014	0.0209	N/A	
2,4,6-Tribromophenol	750.14	94.7	24 - 134	16.986	16.947	0.0390	N/A	
p-Terphenyl-d14	500.09	76.9	37 - 120	21.604	21.52357	0.0804	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
SDG/WO: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLC0401
Instrument: NT10
Calibration: GC00019
Calibration Date: 03/01/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLA0685-MSD1 (Solid)			Lab File ID: NT1003052311.D				Analyzed: 03/05/23 19:44	
2-Fluorophenol	750.14	63.2	27 - 120	6.912	6.898143	0.0139	N/A	
Phenol-d5	750.14	75.3	29 - 120	8.512	8.491857	0.0201	N/A	
2-Chlorophenol-d4	750.14	78.1	31 - 120	8.828	8.814143	0.0139	N/A	
1,2-Dichlorobenzene-d4	500.09	67.5	32 - 120	9.541	9.534572	0.0064	N/A	
Nitrobenzene-d5	500.09	82.0	30 - 120	10.31	10.29314	0.0169	N/A	
2-Fluorobiphenyl	500.09	85.0	35 - 120	13.931	13.91014	0.0209	N/A	
2,4,6-Tribromophenol	750.14	86.1	24 - 134	16.993	16.947	0.0460	N/A	
p-Terphenyl-d14	500.09	76.6	37 - 120	21.612	21.52357	0.0884	N/A	
BLA0685-SRM1 (Solid)			Lab File ID: NT1003052312.D				Analyzed: 03/05/23 20:22	
2-Fluorophenol	7500.0	80.4	27 - 120	6.905	6.898143	0.0069	N/A	
Phenol-d5	7500.0	85.7	29 - 120	8.512	8.491857	0.0201	N/A	
2-Chlorophenol-d4	7500.0	90.0	31 - 120	8.821	8.814143	0.0069	N/A	
1,2-Dichlorobenzene-d4	5000.0	80.9	32 - 120	9.541	9.534572	0.0064	N/A	
Nitrobenzene-d5	5000.0	90.9	30 - 120	10.31	10.29314	0.0169	N/A	
2-Fluorobiphenyl	5000.0	89.3	35 - 120	13.931	13.91014	0.0209	N/A	
2,4,6-Tribromophenol	7500.0	95.5	24 - 134	16.993	16.947	0.0460	N/A	
p-Terphenyl-d14	5000.0	84.8	37 - 120	21.604	21.52357	0.0804	N/A	
23A0313-08 (Solid)			Lab File ID: NT1003052313.D				Analyzed: 03/05/23 21:00	
2-Fluorophenol	745.45	74.9	27 - 120	6.92	6.898143	0.0219	N/A	
Phenol-d5	745.45	85.6	29 - 120	8.512	8.491857	0.0201	N/A	
2-Chlorophenol-d4	745.45	85.9	31 - 120	8.829	8.814143	0.0149	N/A	
1,2-Dichlorobenzene-d4	496.97	74.0	32 - 120	9.542	9.534572	0.0074	N/A	
Nitrobenzene-d5	496.97	86.7	30 - 120	10.302	10.29314	0.0089	N/A	
2-Fluorobiphenyl	496.97	90.9	35 - 120	13.931	13.91014	0.0209	N/A	
2,4,6-Tribromophenol	745.45	97.5	24 - 134	16.994	16.947	0.0470	N/A	
p-Terphenyl-d14	496.97	77.2	37 - 120	21.62	21.52357	0.0964	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0401	Instrument:	NT10
Calibration:	GC00019	Calibration Date:	03/01/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLC0401-CCV1 (Solid)			Lab File ID: NT1003052314.D				Analyzed: 03/05/23 21:38	
2-Fluorophenol	7.5000	98.4	50 - 150	6.905	6.898143	0.0069	N/A	
Phenol-d5	7.5000	110	50 - 150	8.512	8.491857	0.0201	N/A	
2-Chlorophenol-d4	7.5000	106	50 - 150	8.821	8.814143	0.0069	N/A	
1,2-Dichlorobenzene-d4	5.0000	97.1	50 - 150	9.542	9.534572	0.0074	N/A	
Nitrobenzene-d5	5.0000	107	50 - 150	10.302	10.29314	0.0089	N/A	
2-Fluorobiphenyl	5.0000	105	50 - 150	13.931	13.91014	0.0209	N/A	
2,4,6-Tribromophenol	7.5000	102	50 - 150	16.994	16.947	0.0470	N/A	
p-Terphenyl-d14	5.0000	91.8	50 - 150	21.604	21.52357	0.0804	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0415	Instrument:	NT10
Calibration:	GC00019	Calibration Date:	03/01/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLC0415-ICV1 (Solid)			Lab File ID: NT1003052314A.D			Analyzed: 03/05/23 21:38		
2-Fluorophenol	7.5000	98.4	80 - 120	6.905	6.898143	0.0069	N/A	
Phenol-d5	7.5000	110	80 - 120	8.512	8.491857	0.0201	N/A	
2-Chlorophenol-d4	7.5000	106	80 - 120	8.821	8.814143	0.0069	N/A	
1,2-Dichlorobenzene-d4	5.0000	97.1	80 - 120	9.542	9.534572	0.0074	N/A	
Nitrobenzene-d5	5.0000	107	80 - 120	10.302	10.29314	0.0089	N/A	
2-Fluorobiphenyl	5.0000	105	80 - 120	13.931	13.91014	0.0209	N/A	
2,4,6-Tribromophenol	7.5000	102	80 - 120	16.994	16.947	0.0470	N/A	
p-Terphenyl-d14	5.0000	91.8	80 - 120	21.604	21.52357	0.0804	N/A	
SLC0415-LCV1 (Solid)			Lab File ID: NT1003052316.D			Analyzed: 03/05/23 22:54		
2-Fluorophenol	0.30000	85.8	50 - 150	6.905	6.898143	0.0069	N/A	
Phenol-d5	0.30000	80.5	50 - 150	8.512	8.491857	0.0201	N/A	
2-Chlorophenol-d4	0.30000	98.4	50 - 150	8.821	8.814143	0.0069	N/A	
1,2-Dichlorobenzene-d4	0.20000	93.1	50 - 150	9.534	9.534572	-0.0006	N/A	
Nitrobenzene-d5	0.20000	96.8	50 - 150	10.302	10.29314	0.0089	N/A	
2-Fluorobiphenyl	0.20000	112	50 - 150	13.916	13.91014	0.0059	N/A	
2,4,6-Tribromophenol	0.30000	45.5	50 - 150	16.978	16.947	0.0310	N/A	*
p-Terphenyl-d14	0.20000	98.7	50 - 150	21.581	21.52357	0.0574	N/A	
23A0313-09 (Solid)			Lab File ID: NT1003052319.D			Analyzed: 03/06/23 00:47		
2-Fluorophenol	738.15	68.6	27 - 120	6.912	6.898143	0.0139	N/A	
Phenol-d5	738.15	77.4	29 - 120	8.527	8.491857	0.0351	N/A	
2-Chlorophenol-d4	738.15	75.8	31 - 120	8.836	8.814143	0.0219	N/A	
1,2-Dichlorobenzene-d4	492.10	61.9	32 - 120	9.549	9.534572	0.0144	N/A	
Nitrobenzene-d5	492.10	84.7	30 - 120	10.318	10.29314	0.0249	N/A	
2-Fluorobiphenyl	492.10	89.0	35 - 120	13.939	13.91014	0.0289	N/A	
2,4,6-Tribromophenol	738.15	58.3	24 - 134	16.986	16.947	0.0390	N/A	
p-Terphenyl-d14	492.10	79.6	37 - 120	21.589	21.52357	0.0654	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
SDG/WO: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLC0415
Instrument: NT10
Calibration: GC00019
Calibration Date: 03/01/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
23A0313-10 (Solid)			Lab File ID: NT1003052320.D			Analyzed: 03/06/23 01:25		
2-Fluorophenol	748.01	75.1	27 - 120	6.913	6.898143	0.0149	N/A	
Phenol-d5	748.01	80.5	29 - 120	8.528	8.491857	0.0361	N/A	
2-Chlorophenol-d4	748.01	82.2	31 - 120	8.836	8.814143	0.0219	N/A	
1,2-Dichlorobenzene-d4	498.67	72.2	32 - 120	9.549	9.534572	0.0144	N/A	
Nitrobenzene-d5	498.67	83.6	30 - 120	10.318	10.29314	0.0249	N/A	
2-Fluorobiphenyl	498.67	88.6	35 - 120	13.939	13.91014	0.0289	N/A	
2,4,6-Tribromophenol	748.01	92.7	24 - 134	16.994	16.947	0.0470	N/A	
p-Terphenyl-d14	498.67	79.2	37 - 120	21.597	21.52357	0.0734	N/A	
23A0313-11 (Solid)			Lab File ID: NT1003052321.D			Analyzed: 03/06/23 02:02		
2-Fluorophenol	712.29	77.6	27 - 120	6.904	6.898143	0.0059	N/A	
Phenol-d5	712.29	84.8	29 - 120	8.527	8.491857	0.0351	N/A	
2-Chlorophenol-d4	712.29	85.5	31 - 120	8.836	8.814143	0.0219	N/A	
1,2-Dichlorobenzene-d4	474.86	76.1	32 - 120	9.549	9.534572	0.0144	N/A	
Nitrobenzene-d5	474.86	84.8	30 - 120	10.318	10.29314	0.0249	N/A	
2-Fluorobiphenyl	474.86	89.4	35 - 120	13.939	13.91014	0.0289	N/A	
2,4,6-Tribromophenol	712.29	87.8	24 - 134	16.993	16.947	0.0460	N/A	
p-Terphenyl-d14	474.86	72.0	37 - 120	21.596	21.52357	0.0724	N/A	
23A0313-13 (Solid)			Lab File ID: NT1003052322.D			Analyzed: 03/06/23 02:40		
2-Fluorophenol	750.14	75.5	27 - 120	6.905	6.898143	0.0069	N/A	
Phenol-d5	750.14	81.8	29 - 120	8.527	8.491857	0.0351	N/A	
2-Chlorophenol-d4	750.14	83.9	31 - 120	8.829	8.814143	0.0149	N/A	
1,2-Dichlorobenzene-d4	500.09	73.9	32 - 120	9.549	9.534572	0.0144	N/A	
Nitrobenzene-d5	500.09	87.1	30 - 120	10.318	10.29314	0.0249	N/A	
2-Fluorobiphenyl	500.09	89.1	35 - 120	13.939	13.91014	0.0289	N/A	
2,4,6-Tribromophenol	750.14	87.5	24 - 134	16.993	16.947	0.0460	N/A	
p-Terphenyl-d14	500.09	84.5	37 - 120	21.597	21.52357	0.0734	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0415	Instrument:	NT10
Calibration:	GC00019	Calibration Date:	03/01/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLC0415-CCV1 (Solid)			Lab File ID: NT1003052325.D			Analyzed: 03/06/23 04:32		
2-Fluorophenol	7.5000	101	50 - 150	6.905	6.898143	0.0069	N/A	
Phenol-d5	7.5000	109	50 - 150	8.527	8.491857	0.0351	N/A	
2-Chlorophenol-d4	7.5000	106	50 - 150	8.836	8.814143	0.0219	N/A	
1,2-Dichlorobenzene-d4	5.0000	96.0	50 - 150	9.557	9.534572	0.0224	N/A	
Nitrobenzene-d5	5.0000	109	50 - 150	10.325	10.29314	0.0319	N/A	
2-Fluorobiphenyl	5.0000	102	50 - 150	13.939	13.91014	0.0289	N/A	
2,4,6-Tribromophenol	7.5000	98.8	50 - 150	16.993	16.947	0.0460	N/A	
p-Terphenyl-d14	5.0000	89.1	50 - 150	21.581	21.52357	0.0574	N/A	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0084	Instrument:	NT10
		Calibration:	GC00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLC0084-SCV1)		(Water)	Lab File ID: NT1003012311.D				Analyzed: 03/01/23 21:46		
1,4-Dichlorobenzene-d4	283537	9.247	337641	9.246	84	50 - 200	0.001	+/-0.50	
Naphthalene-d8	1089120	11.719	1265187	11.718	86	50 - 200	0.001	+/-0.50	
Acenaphthene-d10	607772	15.317	692385	15.308	88	50 - 200	0.009	+/-0.50	
Phenanthrene-d10	1205858	18.401	1376777	18.401	88	50 - 200	0.000	+/-0.50	
Chrysene-d12	1219436	23.416	1019524	23.416	120	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	2317357	24.485	2027111	24.484	114	50 - 200	0.001	+/-0.50	
Perylene-d12	1289108	26.103	1027409	26.102	125	50 - 200	0.001	+/-0.50	
Initial Cal Blank (SLC0084-ICB1)		(Water)	Lab File ID: NT1003012312.D				Analyzed: 03/01/23 22:24		
1,4-Dichlorobenzene-d4	480761	9.246	337641	9.246	142	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1681746	11.718	1265187	11.718	133	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	836849	15.308	692385	15.308	121	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	1648281	18.401	1376777	18.401	120	50 - 200	0.000	+/-0.50	
Chrysene-d12	1391477	23.416	1019524	23.416	136	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	2481481	24.484	2027111	24.484	122	50 - 200	0.000	+/-0.50	
Perylene-d12	1542419	26.102	1027409	26.102	150	50 - 200	0.000	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0401	Instrument:	NT10
		Calibration:	GC00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLC0401-ICV1)		(Solid)	Lab File ID: NT1003052302.D				Analyzed: 03/05/23 14:03		
1,4-Dichlorobenzene-d4	297263	9.239	297263	9.239	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1085336	11.726	1085336	11.726	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	563464	15.34	563464	15.34	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	1038318	18.448	1038318	18.448	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	1012751	23.517	1012751	23.517	100	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	1628890	24.593	1628890	24.593	100	50 - 200	0.000	+/-0.50	
Perylene-d12	1152264	26.281	1152264	26.281	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLC0401-LCV1)		(Solid)	Lab File ID: NT1003052304.D				Analyzed: 03/05/23 15:18		
1,4-Dichlorobenzene-d4	291047	9.239	297263	9.239	98	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1070295	11.726	1085336	11.726	99	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	535349	15.332	563464	15.34	95	50 - 200	-0.008	+/-0.50	
Phenanthrene-d10	962985	18.447	1038318	18.448	93	50 - 200	-0.001	+/-0.50	
Chrysene-d12	857365	23.517	1012751	23.517	85	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	1343499	24.593	1628890	24.593	82	50 - 200	0.000	+/-0.50	
Perylene-d12	1034621	26.281	1152264	26.281	90	50 - 200	0.000	+/-0.50	
Blank (BLA0685-BLK1)		(Solid)	Lab File ID: NT1003052307.D				Analyzed: 03/05/23 17:12		
1,4-Dichlorobenzene-d4	270013	9.247	297263	9.239	91	50 - 200	0.008	+/-0.50	
Naphthalene-d8	975565	11.734	1085336	11.726	90	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	517251	15.34	563464	15.34	92	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	919568	18.455	1038318	18.448	89	50 - 200	0.007	+/-0.50	
Chrysene-d12	824155	23.517	1012751	23.517	81	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	1193964	24.601	1628890	24.593	73	50 - 200	0.008	+/-0.50	
Perylene-d12	859021	26.289	1152264	26.281	75	50 - 200	0.008	+/-0.50	
LCS (BLA0685-BS1)		(Solid)	Lab File ID: NT1003052308.D				Analyzed: 03/05/23 17:50		
1,4-Dichlorobenzene-d4	297547	9.247	297263	9.239	100	50 - 200	0.008	+/-0.50	
Naphthalene-d8	1075395	11.734	1085336	11.726	99	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	556840	15.347	563464	15.34	99	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	1006737	18.455	1038318	18.448	97	50 - 200	0.007	+/-0.50	
Chrysene-d12	916837	23.525	1012751	23.517	91	50 - 200	0.008	+/-0.50	
Di-n-Octylphthalate-d4	1539451	24.608	1628890	24.593	95	50 - 200	0.015	+/-0.50	
Perylene-d12	977237	26.296	1152264	26.281	85	50 - 200	0.015	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLC0401

SDG: 23A0313
Project: AOC5 MR Phase 1
Instrument: NT10
Calibration: GC00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS Dup (BLA0685-BSD1)		(Solid)	Lab File ID: NT1003052309.D				Analyzed: 03/05/23 18:28		
1,4-Dichlorobenzene-d4	329316	9.247	297263	9.239	111	50 - 200	0.008	+/-0.50	
Naphthalene-d8	1198408	11.742	1085336	11.726	110	50 - 200	0.016	+/-0.50	
Acenaphthene-d10	627739	15.348	563464	15.34	111	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	1127626	18.455	1038318	18.448	109	50 - 200	0.007	+/-0.50	
Chrysene-d12	1035914	23.509	1012751	23.517	102	50 - 200	-0.008	+/-0.50	
Di-n-Octylphthalate-d4	1620537	24.593	1628890	24.593	99	50 - 200	0.000	+/-0.50	
Perylene-d12	1019954	26.273	1152264	26.281	89	50 - 200	-0.008	+/-0.50	
Matrix Spike (BLA0685-MS1)		(Solid)	Lab File ID: NT1003052310.D				Analyzed: 03/05/23 19:06		
1,4-Dichlorobenzene-d4	304011	9.255	297263	9.239	102	50 - 200	0.016	+/-0.50	
Naphthalene-d8	1089158	11.742	1085336	11.726	100	50 - 200	0.016	+/-0.50	
Acenaphthene-d10	569639	15.348	563464	15.34	101	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	1067304	18.455	1038318	18.448	103	50 - 200	0.007	+/-0.50	
Chrysene-d12	1060207	23.517	1012751	23.517	105	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	1794535	24.593	1628890	24.593	110	50 - 200	0.000	+/-0.50	
Perylene-d12	1160159	26.281	1152264	26.281	101	50 - 200	0.000	+/-0.50	
Matrix Spike Dup (BLA0685-MSD1)		(Solid)	Lab File ID: NT1003052311.D				Analyzed: 03/05/23 19:44		
1,4-Dichlorobenzene-d4	289157	9.254	297263	9.239	97	50 - 200	0.015	+/-0.50	
Naphthalene-d8	1034245	11.741	1085336	11.726	95	50 - 200	0.015	+/-0.50	
Acenaphthene-d10	551777	15.347	563464	15.34	98	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	1017136	18.455	1038318	18.448	98	50 - 200	0.007	+/-0.50	
Chrysene-d12	1007411	23.524	1012751	23.517	99	50 - 200	0.007	+/-0.50	
Di-n-Octylphthalate-d4	1705215	24.6	1628890	24.593	105	50 - 200	0.007	+/-0.50	
Perylene-d12	1089312	26.288	1152264	26.281	95	50 - 200	0.007	+/-0.50	
Reference (BLA0685-SRM1)		(Solid)	Lab File ID: NT1003052312.D				Analyzed: 03/05/23 20:22		
1,4-Dichlorobenzene-d4	256880	9.247	297263	9.239	86	50 - 200	0.008	+/-0.50	
Naphthalene-d8	917867	11.742	1085336	11.726	85	50 - 200	0.016	+/-0.50	
Acenaphthene-d10	495256	15.347	563464	15.34	88	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	917438	18.455	1038318	18.448	88	50 - 200	0.007	+/-0.50	
Chrysene-d12	883418	23.517	1012751	23.517	87	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	1475913	24.593	1628890	24.593	91	50 - 200	0.000	+/-0.50	
Perylene-d12	987411	26.281	1152264	26.281	86	50 - 200	0.000	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0401	Instrument:	NT10
		Calibration:	GC00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SC1016A (23A0313-08)		(Solid)		Lab File ID: NT1003052313.D				Analyzed: 03/05/23 21:00	
1,4-Dichlorobenzene-d4	312712	9.247	297263	9.239	105	50 - 200	0.008	+/-0.50	
Naphthalene-d8	1122631	11.734	1085336	11.726	103	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	581958	15.34	563464	15.34	103	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	1092541	18.463	1038318	18.448	105	50 - 200	0.015	+/-0.50	
Chrysene-d12	985415	23.532	1012751	23.517	97	50 - 200	0.015	+/-0.50	
Di-n-Octylphthalate-d4	1778606	24.608	1628890	24.593	109	50 - 200	0.015	+/-0.50	
Perylene-d12	1124941	26.312	1152264	26.281	98	50 - 200	0.031	+/-0.50	
Calibration Check (SLC0401-CCV1)		(Water)		Lab File ID: NT1003052314.D				Analyzed: 03/05/23 21:38	
1,4-Dichlorobenzene-d4	264922	9.247	297263	9.239	89	50 - 200	0.008	+/-0.50	
Naphthalene-d8	947542	11.734	1085336	11.726	87	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	505666	15.34	563464	15.34	90	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	940283	18.455	1038318	18.448	91	50 - 200	0.007	+/-0.50	
Chrysene-d12	987952	23.517	1012751	23.517	98	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	1625017	24.593	1628890	24.593	100	50 - 200	0.000	+/-0.50	
Perylene-d12	1073798	26.289	1152264	26.281	93	50 - 200	0.008	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0415	Instrument:	NT10
		Calibration:	GC00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLC0415-ICV1)		(Solid)	Lab File ID: NT1003052314A.D				Analyzed: 03/05/23 21:38		
1,4-Dichlorobenzene-d4	264922	9.247	264922	9.247	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	947542	11.734	947542	11.734	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	505666	15.34	505666	15.34	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	940283	18.455	940283	18.455	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	987952	23.517	987952	23.517	100	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	1625017	24.593	1625017	24.593	100	50 - 200	0.000	+/-0.50	
Perylene-d12	1073798	26.289	1073798	26.289	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLC0415-LCV1)		(Solid)	Lab File ID: NT1003052316.D				Analyzed: 03/05/23 22:54		
1,4-Dichlorobenzene-d4	304339	9.247	264922	9.247	115	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1055141	11.726	947542	11.734	111	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	547496	15.324	505666	15.34	108	50 - 200	-0.016	+/-0.50	
Phenanthrene-d10	980771	18.44	940283	18.455	104	50 - 200	-0.015	+/-0.50	
Chrysene-d12	892900	23.494	987952	23.517	90	50 - 200	-0.023	+/-0.50	
Di-n-Octylphthalate-d4	1549553	24.562	1625017	24.593	95	50 - 200	-0.031	+/-0.50	
Perylene-d12	1127057	26.242	1073798	26.289	105	50 - 200	-0.047	+/-0.50	
LDW23-SC1011A (23A0313-09)		(Solid)	Lab File ID: NT1003052319.D				Analyzed: 03/06/23 00:47		
1,4-Dichlorobenzene-d4	277293	9.262	264922	9.247	105	50 - 200	0.015	+/-0.50	
Naphthalene-d8	992421	11.749	947542	11.734	105	50 - 200	0.015	+/-0.50	
Acenaphthene-d10	516457	15.347	505666	15.34	102	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	940974	18.447	940283	18.455	100	50 - 200	-0.008	+/-0.50	
Chrysene-d12	975868	23.501	987952	23.517	99	50 - 200	-0.016	+/-0.50	
Di-n-Octylphthalate-d4	1678858	24.562	1625017	24.593	103	50 - 200	-0.031	+/-0.50	
Perylene-d12	1137199	26.234	1073798	26.289	106	50 - 200	-0.055	+/-0.50	
LDW23-SC1006A (23A0313-10)		(Solid)	Lab File ID: NT1003052320.D				Analyzed: 03/06/23 01:25		
1,4-Dichlorobenzene-d4	280367	9.262	264922	9.247	106	50 - 200	0.015	+/-0.50	
Naphthalene-d8	999488	11.75	947542	11.734	105	50 - 200	0.016	+/-0.50	
Acenaphthene-d10	522549	15.348	505666	15.34	103	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	968354	18.455	940283	18.455	103	50 - 200	0.000	+/-0.50	
Chrysene-d12	930222	23.502	987952	23.517	94	50 - 200	-0.015	+/-0.50	
Di-n-Octylphthalate-d4	1588066	24.562	1625017	24.593	98	50 - 200	-0.031	+/-0.50	
Perylene-d12	1058029	26.242	1073798	26.289	99	50 - 200	-0.047	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0415	Instrument:	NT10
		Calibration:	GC00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SC1012B (23A0313-11)		(Solid)		Lab File ID: NT1003052321.D			Analyzed: 03/06/23 02:02		
1,4-Dichlorobenzene-d4	280895	9.262	264922	9.247	106	50 - 200	0.015	+/-0.50	
Naphthalene-d8	1014485	11.749	947542	11.734	107	50 - 200	0.015	+/-0.50	
Acenaphthene-d10	550303	15.347	505666	15.34	109	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	999299	18.455	940283	18.455	106	50 - 200	0.000	+/-0.50	
Chrysene-d12	951686	23.509	987952	23.517	96	50 - 200	-0.008	+/-0.50	
Di-n-Octylphthalate-d4	1621502	24.562	1625017	24.593	100	50 - 200	-0.031	+/-0.50	
Perylene-d12	1056489	26.242	1073798	26.289	98	50 - 200	-0.047	+/-0.50	
LDW23-SC1159 (23A0313-13)		(Solid)		Lab File ID: NT1003052322.D			Analyzed: 03/06/23 02:40		
1,4-Dichlorobenzene-d4	223750	9.254	264922	9.247	84	50 - 200	0.007	+/-0.50	
Naphthalene-d8	792377	11.749	947542	11.734	84	50 - 200	0.015	+/-0.50	
Acenaphthene-d10	431810	15.347	505666	15.34	85	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	804967	18.455	940283	18.455	86	50 - 200	0.000	+/-0.50	
Chrysene-d12	771106	23.501	987952	23.517	78	50 - 200	-0.016	+/-0.50	
Di-n-Octylphthalate-d4	1322148	24.562	1625017	24.593	81	50 - 200	-0.031	+/-0.50	
Perylene-d12	880428	26.242	1073798	26.289	82	50 - 200	-0.047	+/-0.50	
Calibration Check (SLC0415-CCV1)		(Water)		Lab File ID: NT1003052325.D			Analyzed: 03/06/23 04:32		
1,4-Dichlorobenzene-d4	213820	9.262	264922	9.247	81	50 - 200	0.015	+/-0.50	
Naphthalene-d8	756023	11.757	947542	11.734	80	50 - 200	0.023	+/-0.50	
Acenaphthene-d10	411497	15.347	505666	15.34	81	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	744396	18.455	940283	18.455	79	50 - 200	0.000	+/-0.50	
Chrysene-d12	823005	23.494	987952	23.517	83	50 - 200	-0.023	+/-0.50	
Di-n-Octylphthalate-d4	1350476	24.554	1625017	24.593	83	50 - 200	-0.039	+/-0.50	
Perylene-d12	894064	26.227	1073798	26.289	83	50 - 200	-0.062	+/-0.50	

HOLDING TIME SUMMARY

Analysis: EPA 8270E

Laboratory: Analytical Resources, LLC SDG: 23A0313

Client: Anchor QEA, LLC Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SC1016A 23A0313-08	01/16/23 11:11	01/16/23 16:35	02/02/23 13:06	17	365	03/05/23 21:00	31	40	
LDW23-SC1011A 23A0313-09	01/16/23 11:46	01/16/23 16:35	02/02/23 13:06	17	365	03/06/23 00:47	31	40	
LDW23-SC1006A 23A0313-10	01/16/23 12:29	01/16/23 16:35	02/02/23 13:06	17	365	03/06/23 01:25	32	40	
LDW23-SC1012B 23A0313-11	01/16/23 13:13	01/16/23 16:35	02/02/23 13:06	16	365	03/06/23 02:02	32	40	
LDW23-SC1159 23A0313-13	01/16/23 14:26	01/16/23 16:35	02/02/23 13:06	16	365	03/06/23 02:40	32	40	
Matrix Spike BLA0685-MS1	01/16/23 14:26	01/16/23 16:35	02/02/23 13:06	16	365	03/05/23 19:06	31	40	
Matrix Spike Dup BLA0685-MSD1	01/16/23 14:26	01/16/23 16:35	02/02/23 13:06	16	365	03/05/23 19:44	31	40	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 8270E

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Instrument: NT10

Analyte	MDL	RL	Units
Phenol	4.4	20.0	ug/kg
4-Methylphenol	7.4	20.0	ug/kg
Naphthalene	4.2	20.0	ug/kg
2-Methylnaphthalene	4.5	20.0	ug/kg
Acenaphthylene	6.2	20.0	ug/kg
Dimethylphthalate	4.4	20.0	ug/kg
Acenaphthene	5.2	20.0	ug/kg
Dibenzofuran	14.1	20.0	ug/kg
Fluorene	14.6	20.0	ug/kg
Phenanthrene	8.7	20.0	ug/kg
Anthracene	7.2	20.0	ug/kg
Fluoranthene	6.1	20.0	ug/kg
Pyrene	5.7	20.0	ug/kg
Butylbenzylphthalate	9.4	20.0	ug/kg
Benzo(a)anthracene	6.0	20.0	ug/kg
Chrysene	6.1	20.0	ug/kg
bis(2-Ethylhexyl)phthalate	14.1	50.0	ug/kg
Benzofluoranthenes, Total	21.0	40.0	ug/kg
Benzo(a)pyrene	4.2	20.0	ug/kg
Indeno(1,2,3-cd)pyrene	14.7	20.0	ug/kg
Dibenzo(a,h)anthracene	17.2	20.0	ug/kg
Benzo(g,h,i)perylene	13.6	20.0	ug/kg

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: NA

Chemical: Tributyl Phosphate

Manufacturer: Chemservice

Product #: O-916

Lot #: 59-57A

Purity: 99%

Analyst: VB

Element: B000954

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001873

Printed: 9/23/2013 11:47:03AM

Description:	SVOC 4,4 DDT	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	23-Sep-13
Solvent:	N/A	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 11:46 by JZ
Vendor:	Chem Service	Lot #:	198-128A
Vendor Catalog #:			

Comments

Neat, Purity @ 99.2%. (ARI#: 790A)

Analyte	CAS Number	Concentration	Units
4,4'-DDT	50-29-3	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: 4,4' DDT

Manufacturer: Chem Service

Product #: _____

Lot #: 198-128A

Purity: 99.2%

Analyst: AB

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001875

Printed: 9/23/2013 12:13:55PM

Description:	SVOC alpha-Terpineol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	N/A	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 12:13 by JZ
Vendor:	ACROS Organics	Lot #:	AD16481201
Vendor Catalog #:			

Comments

Neat, Purity @ 98%. (ARI#: I1582A)

Analyte	CAS Number	Concentration	Units
alpha-Terpineol	98-55-5	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: alpha-Terpineol

Manufacturer: Acros Organics

Product #: _____

Lot #: A0648170 1

Purity: 98%

Analyst: [signature]

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001885

Printed: 9/23/2013 3:45:57PM

Description:	SVOA Dibutyl Phenyl phosphate	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 15:45 by JZ
Vendor:	Monsanto	Lot #:	N/A
Vendor Catalog #:			

Comments

Neat, Purity @ 98.9%.

Analyte	CAS Number	Concentration	Units
Dibutyl Phenyl Phosphate	2528-36-1	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: Dibutyl Phenyl Phosphate

Manufacturer: Monsanto

Product #: N/A

Lot #: N/A

Purity: 98.9%

Analyst: [signature]

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001886

Printed: 9/23/2013 3:59:35PM

Description:	SVOC Triphenyl Phosphate	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 15:59 by JZ
Vendor:	Aldrich	Lot #:	04902CM
Vendor Catalog #:			

Comments

Neat, Purity @ 99%.

Analyte	CAS Number	Concentration	Units
Triphenyl Phosphate	115-86-6	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: Triphenyl Phosphate

Manufacturer: Aldrich

Product #: _____

Lot #: 04907CM

Purity: 99%

Analyst: _____

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001887

Printed: 9/23/2013 4:18:55PM

Description:	SVOC Butylated Hydroxytoluene	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 16:18 by JZ
Vendor:	SIGMA	Lot #:	39F-0197
Vendor Catalog #:			

Comments

neat,Purity @ 99.9%.

Analyte	CAS Number	Concentration	Units
Butylated Hydroxytoluene	128-37-0	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Butylated Hydroxytoluene

Manufacturer: Sigma

Product #: _____

Lot #: 39F-0197

Purity: 99.8%

Analyst: AR

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001890

Printed: 9/23/2013 5:02:53PM

Description:	SVOC Butyl Diphenyl Phosphate	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 17:02 by JZ
Vendor:	Monsanto	Lot #:	N/A
Vendor Catalog #:			

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Butyl Diphenyl Phosphate	2752-95-6	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Butyl Diphenyl Phosphate

Manufacturer: Monsanto

Product #: NA

Lot #: NA

Purity: 98%

Analyst: [signature]

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001941

Printed: 9/25/2013 1:45:31PM

Description:	SVOC 2,4-Dinitrophenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 13:45 by JZ
Vendor:	SIGMA	Lot #:	65H5021
Vendor Catalog #:			

Comments

Neat, Purity @ 90-95%. (ARI#: 0466)

Analyte	CAS Number	Concentration	Units
2,4-Dinitrophenol	51-28-5	1000000	ug/mL

B001941
SVOA 2,4-Dinitrophenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: 2,4-Dinitrophenol

Manufacturer: Sigma

Product #: _____

Lot #: bEH 502 1

Purity: 90 ~ 94%

Analyst: _____

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001945

Printed: 9/25/2013 3:23:22PM

Description:	SVOC Benzoic Acid	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:23 by JZ
Vendor:	ACROS Organics	Lot #:	A0224339
Vendor Catalog #:			

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Benzoic acid	65-85-0	1000000	ug/mL

B001945
SVOC Benzoic Acid
Expires 12/31/2029
Prepared By Jianqing Zhou 12/31/2012

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: Benzoic Acid

Manufacturer: Acros Organics

Product #: _____

Lot #: A0214339

Purity: 98%

Analyst: [signature]

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001948

Printed: 9/25/2013 3:37:51PM

Description:	SVOC 4,6-Dinitro-2-Methylphenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:37 by JZ
Vendor:	Chem Service	Lot #:	179-31A
Vendor Catalog #:			

Comments

Neat, Purity @ 99%. (ARI#: 009A)

Analyte	CAS Number	Concentration	Units
4,6-Dinitro-2-methylphenol	534-52-1	1000000	ug/mL

B001948
SVOA 4,6-Dinitro-2-Methylphenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 4,6-Dinitro-2-Methylphenol

Manufacturer: Chem Service

Product #: _____

Lot #: 179-31A

Purity: 99%

Analyst: KB

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B002054

Printed: 10/4/2013 6:32:21PM

Description:	SVOA 1-Methylnaphthalene	Expires:	02-Apr-14
Standard Type:	Analyte Spike	Prepared:	13-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	04-Oct-13 18:32 by JZ
Vendor:	Chem Service	Lot #:	62-5B
Vendor Catalog #:			

Comments

Neat, Purity @ 99%

Analyte	CAS Number	Concentration	Units
1-Methylnaphthalene	90-12-0	1000000	ug/mL

B002054
SVOA 1-Methylnaphthalene
Solvent / Lot: NA
Prep: 12/13/2012 by JZ
Exp: 12/31/2029
Location:

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: 1-Methyl naphthalene

Manufacturer: Chem Service

Product #: 0787

Lot #: 67-53

Purity: 99%

Analyst: AZ

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B002135

Printed: 10/15/2013 12:07:39PM

Description:	SVOA Benzidine	Expires:	31-Dec-29
Standard Type:	Analyte Spike	Prepared:	15-Oct-13
Solvent:	N/A	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	15-Oct-13 12:07 by JZ
Vendor:	SIGMA	Lot #:	18C0024
Vendor Catalog #:			

Comments

Purity @ 95%. ARI#: 0467.

Analyte	CAS Number	Concentration	Units
Benzidine	92-87-5	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: Benzidine

Manufacturer: Sigma

Product #: B-3503

Lot #: 18C0024

Purity: 98%

Analyst: [signature]

Certificate of Analysis

Product Name:	1,2,4,5-Tetrachlorobenzene
Product Description:	98%
Product Brand:	Sigma-Aldrich
Product Number:	131857
Molecular Weight:	215.89
CAS Number:	95-94-3

TEST	SPECIFICATION	LOT 19309JR RESULTS
APPEARANCE	WHITE POWDER, CHIPS OR CRYSTALS	WHITE CHIPS
INFRARED SPECTRUM	CONFORMS TO STRUCTURE.	CONFORMS TO STRUCTURE AND STANDARD AS
** **		ILLUSTRATED ON PAGE 1011C OF EDITION I,
** **		VOLUME 1 OF "THE ALDRICH LIBRARY OF FT-IR
** **		SPECTRA".
GAS LIQUID	97.5% (MINIMUM)	99.9 %
QUALITY CONTROL		JULY 1997

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

F009172
SVOC 1,2,4,5-Tetrachlorobenzene
Expires 12/31/2079
Prepared By Joshua Rains 10/6/2017

H000691

Data File: \\target\share\chem2\fid4a.i\20230317.b\423C1703.D

Page 1

Date : 17-MAR-2023 10:46

Client ID:

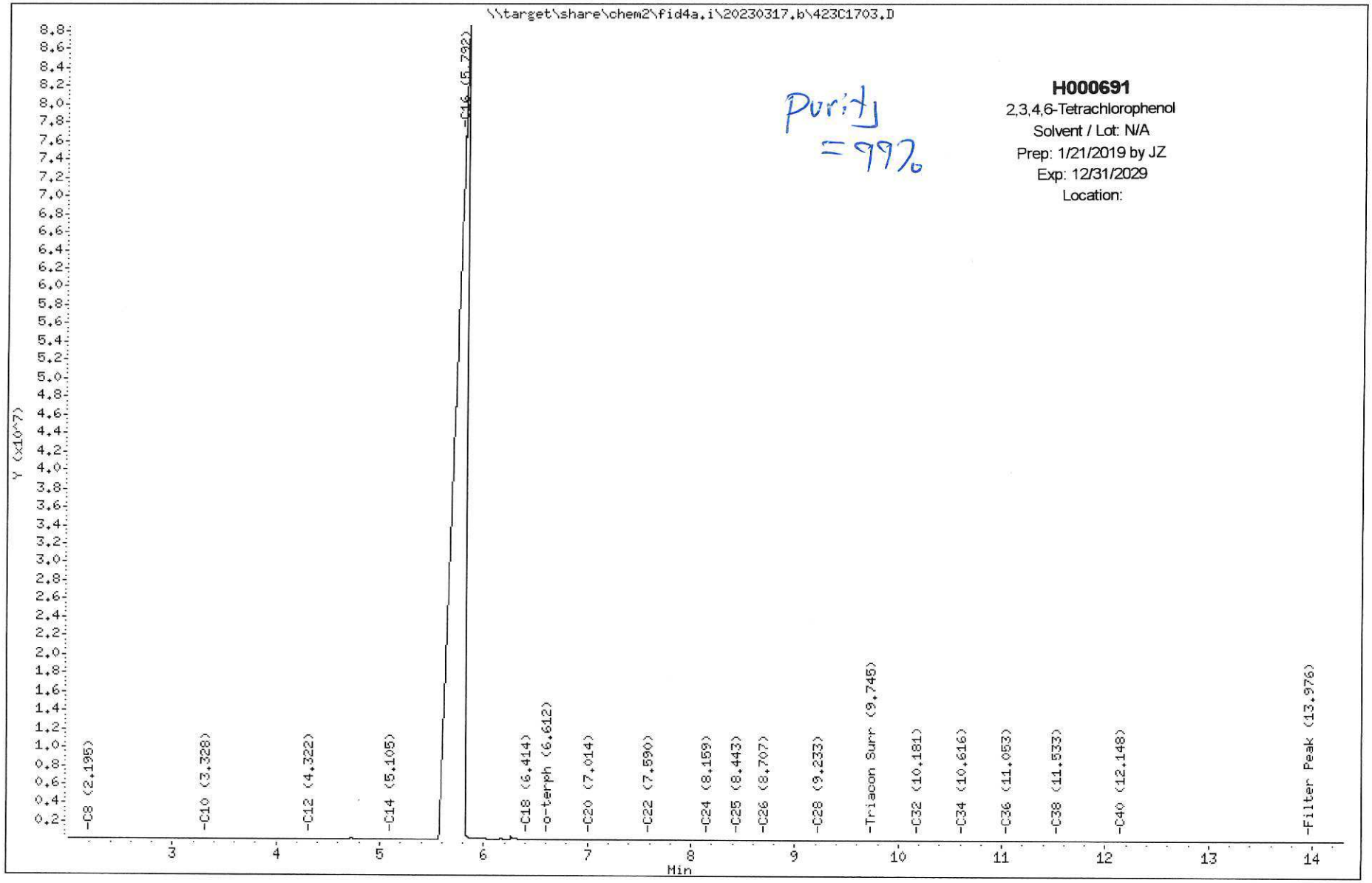
Instrument: fid4a.i

Sample Info: K007226

Operator: AA

Column phase: RTX-1

Column diameter: 0.25



Purity = 99%

H000691
2,3,4,6-Tetrachlorophenol
Solvent / Lot: N/A
Prep: 1/21/2019 by JZ
Exp: 12/31/2029
Location:

ARI Labs, Inc.

Data file : \\target\share\chem2\fid4a.i\20230317.b\423C1703.D
Lab Smp Id: K007226
Inj Date : 17-MAR-2023 10:46
Operator : AA Inst ID: fid4a.i
Smp Info : K007226
Misc Info :
Comment   :
Method   : \\target\share\chem2\fid4a.i\20230317.b\FID4TPH.m
Meth Date : 17-Mar-2023 16:58 alfonso Quant Type: AREA%
Cal Date : 18-AUG-2022 11:51 Cal File: 422H1803.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: Falcon+ Compound Sublist: tph.sub
Target Version: 4.14
Processing Host: ALFONSO-201901

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
2.043	81395	55677	0.684	0.012	1 Toluene
2.074	68503	39991	0.584	0.010	
2.104	85451	37158	0.435	0.012	
2.146	59381	25207	0.424	0.008	
2.181	11414	22862	2.003	0.001	
2.195	34939	23199	0.664	0.005	2 C8
2.218	8679	21808	2.513	0.001	
2.224	21070	21832	1.036	0.003	
2.243	45086	20191	0.448	0.006	
2.286	3130	15677	5.009	0.000	
2.291	12615	15880	1.259	0.001	
2.313	20979	15888	0.757	0.003	
2.333	7621	15373	2.017	0.001	
2.348	31874	17112	0.537	0.004	
2.373	4619	13267	2.872	0.000	
2.380	12003	13446	1.120	0.001	
2.393	10327	13347	1.292	0.001	
2.408	9963	12697	1.274	0.001	
2.446	24366	11882	0.488	0.003	
2.498	24898	10214	0.410	0.003	
2.557	1592	6395	4.017	0.000	
2.570	4427	6384	1.442	0.000	
2.583	4275	6215	1.454	0.000	
2.595	1208	6068	5.024	0.000	
2.602	3076	6230	2.025	0.000	
2.607	1560	6270	4.019	0.000	
2.631	17195	8933	0.520	0.002	
2.654	17386	7637	0.439	0.002	
2.703	4531	5468	1.207	0.000	
2.717	9156	5741	0.627	0.001	
2.740	3955	5045	1.275	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
2.768	1029	4134	4.017	0.000	
2.771	830	4189	5.050	0.000	
2.778	1924	4438	2.307	0.000	
2.784	5498	4564	0.830	0.000	
2.846	25970	8400	0.323	0.003	
2.880	939	3165	3.370	0.000	
2.884	1885	3183	1.688	0.000	
2.901	4805	3504	0.729	0.000	
2.938	581	1990	3.423	0.000	
2.944	1450	2016	1.390	0.000	
2.955	449	1816	4.043	0.000	
2.967	1234	2009	1.629	0.000	
2.982	712	2087	2.931	0.000	
2.988	1000	2338	2.337	0.000	
3.001	3475	3541	1.019	0.000	
3.018	3528	3705	1.050	0.000	
3.033	983	2521	2.564	0.000	
3.038	1297	2686	2.070	0.000	
3.044	2547	2541	0.997	0.000	
3.069	389	1330	3.418	0.000	
3.078	728	1545	2.123	0.000	
3.085	1244	1637	1.316	0.000	
3.098	1115	1624	1.457	0.000	
3.108	926	1475	1.593	0.000	
3.119	239	1202	5.036	0.000	
3.125	540	1251	2.315	0.000	
3.133	409	1219	2.978	0.000	
3.144	2600	1886	0.725	0.000	
3.165	620	1604	2.588	0.000	
3.173	554	1647	2.972	0.000	
3.192	2423	2273	0.938	0.000	
3.197	582	2418	4.158	0.000	
3.204	1161	2723	2.346	0.000	
3.208	825	2777	3.364	0.000	
3.228	4472	3391	0.758	0.000	
3.246	1586	2676	1.688	0.000	
3.279	1194	2070	1.734	0.000	
3.293	854	1951	2.285	0.000	
3.298	595	2029	3.408	0.000	
3.315	2640	2597	0.984	0.000	
3.320	1015	2542	2.504	0.000	
3.328	1549	2593	1.674	0.000	3 C10
3.338	1314	2533	1.928	0.000	
3.350	523	2159	4.130	0.000	
3.358	1776	2105	1.185	0.000	
3.371	356	1797	5.043	0.000	
3.378	914	1880	2.057	0.000	
3.383	380	1927	5.068	0.000	
3.387	595	2023	3.399	0.000	
3.395	1390	2270	1.633	0.000	
3.405	1490	1994	1.338	0.000	
3.423	690	1601	2.321	0.000	
3.435	821	1554	1.894	0.000	
3.441	387	1583	4.087	0.000	
3.444	401	1625	4.051	0.000	
3.448	403	1636	4.060	0.000	
3.455	1216	1700	1.398	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
3.478	235	1185	5.047	0.000	
3.482	412	1229	2.986	0.000	
3.488	695	1177	1.694	0.000	
3.501	239	969	4.063	0.000	
3.509	914	1149	1.258	0.000	
3.520	1078	1069	0.992	0.000	
3.540	301	927	3.079	0.000	
3.556	406	849	2.089	0.000	
3.567	370	873	2.359	0.000	
3.572	178	939	5.270	0.000	
3.578	591	1171	1.981	0.000	
3.591	869	1353	1.556	0.000	
3.596	741	1352	1.826	0.000	
3.606	471	1401	2.976	0.000	
3.613	548	1411	2.577	0.000	
3.618	433	1521	3.511	0.000	
3.625	710	1635	2.303	0.000	
3.630	910	1667	1.832	0.000	
3.652	661	1562	2.362	0.000	
3.670	462	1214	2.627	0.000	
3.686	1036	1453	1.403	0.000	
3.690	829	1374	1.658	0.000	
3.702	531	1191	2.241	0.000	
3.712	452	1355	3.001	0.000	
3.716	820	1423	1.736	0.000	
3.736	2685	2093	0.780	0.000	
3.752	689	2030	2.946	0.000	
3.760	4109	2349	0.572	0.000	
3.805	3183	2036	0.640	0.000	
3.823	496	1686	3.401	0.000	
3.835	1641	2314	1.410	0.000	
3.859	9243	4616	0.499	0.001	
3.897	851	1745	2.051	0.000	
3.904	503	1721	3.419	0.000	
3.927	3866	3293	0.852	0.000	
3.941	5520	3558	0.645	0.000	
3.980	573	1715	2.991	0.000	
3.992	1027	1794	1.748	0.000	
3.995	1494	1860	1.245	0.000	
4.010	887	1639	1.847	0.000	
4.021	663	1724	2.602	0.000	
4.026	1380	1776	1.287	0.000	
4.045	306	1546	5.059	0.000	
4.053	1001	1758	1.757	0.000	
4.061	1137	1804	1.586	0.000	
4.072	779	1773	2.275	0.000	
4.080	989	1896	1.917	0.000	
4.087	561	1905	3.396	0.000	
4.098	1956	2156	1.103	0.000	
4.106	1168	2044	1.750	0.000	
4.127	1049	1627	1.551	0.000	
4.142	587	1545	2.633	0.000	
4.148	1155	1572	1.361	0.000	
4.173	3682	2398	0.651	0.000	
4.189	1023	1738	1.700	0.000	
4.204	549	1627	2.961	0.000	
4.213	628	1658	2.641	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
4.221	1039	1830	1.761	0.000	
4.227	447	1814	4.058	0.000	
4.248	2703	2638	0.976	0.000	
4.256	1387	2945	2.123	0.000	
4.260	743	2988	4.022	0.000	
4.265	912	3081	3.378	0.000	
4.268	779	3140	4.031	0.000	
4.275	1736	3217	1.853	0.000	
4.289	2688	3495	1.300	0.000	
4.295	3466	3448	0.995	0.000	
4.322	1054	2680	2.543	0.000	4 C12
4.330	1686	2627	1.558	0.000	
4.358	1066	1974	1.852	0.000	
4.378	434	1758	4.054	0.000	
4.384	1324	1879	1.419	0.000	
4.403	860	1608	1.869	0.000	
4.414	457	1567	3.431	0.000	
4.421	1117	1675	1.499	0.000	
4.433	910	1538	1.690	0.000	
4.439	865	1534	1.774	0.000	
4.449	764	1302	1.705	0.000	
4.471	433	1123	2.593	0.000	
4.476	734	1135	1.546	0.000	
4.490	385	1005	2.610	0.000	
4.498	555	1186	2.137	0.000	
4.502	695	1166	1.677	0.000	
4.518	587	949	1.618	0.000	
4.526	316	925	2.924	0.000	
4.533	560	989	1.765	0.000	
4.543	469	1001	2.135	0.000	
4.548	222	916	4.130	0.000	
4.553	188	980	5.207	0.000	
4.558	255	1038	4.076	0.000	
4.568	652	1157	1.775	0.000	
4.573	338	1151	3.409	0.000	
4.580	487	1283	2.636	0.000	
4.596	3801	1950	0.513	0.000	
4.631	531	1429	2.692	0.000	
4.663	4548	3737	0.822	0.000	
4.667	2815	3822	1.358	0.000	
4.679	2199	3760	1.710	0.000	
4.688	1068	3585	3.356	0.000	
4.694	2166	3742	1.727	0.000	
4.723	372603	172476	0.463	0.055	
4.894	47034	21828	0.464	0.006	
4.956	80510	28154	0.350	0.011	
4.999	54273	16950	0.312	0.008	
5.068	1137	5713	5.027	0.000	
5.072	8415	5792	0.688	0.001	
5.105	4203	4316	1.027	0.000	5 C14
5.146	660	2685	4.070	0.000	
5.153	2524	2649	1.050	0.000	
5.170	1076	2437	2.265	0.000	
5.174	2371	2438	1.028	0.000	
5.201	1013	2011	1.986	0.000	
5.210	2064	2332	1.130	0.000	
5.224	1083	2304	2.127	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
5.228	2027	2354	1.162	0.000	
5.276	4673	2682	0.574	0.000	
5.322	195	844	4.328	0.000	
5.331	977	1203	1.231	0.000	
5.356	490	993	2.027	0.000	
5.361	814	1044	1.283	0.000	
5.382	115	387	3.351	0.000	
5.399	619	960	1.551	0.000	
5.406	402	1035	2.576	0.000	
5.410	378	1122	2.968	0.000	
5.423	1663	1555	0.935	0.000	
5.452	5951	5020	0.844	0.000	
5.501	290	797	2.753	0.000	
5.523	2317	2472	1.067	0.000	
5.538	5946	6823	1.147	0.000	
5.792	501855376	76456669	0.152	74.449	6 C16
5.807	79757019	82319946	1.032	11.775	
5.823	77929961	88539160	1.136	11.505	
5.962	75333	84828	1.126	0.011	
5.986	474748	124326	0.262	0.070	
6.070	17103	57180	3.343	0.002	
6.074	120761	57565	0.477	0.017	
6.113	90233	47140	0.522	0.013	
6.165	407438	218439	0.536	0.060	
6.263	944101	374166	0.396	0.139	
6.414	114839	39498	0.344	0.016	7 C18
6.464	53190	31177	0.586	0.007	
6.523	31509	25870	0.821	0.004	
6.551	4785	23963	5.008	0.000	
6.559	51194	25409	0.496	0.007	
6.590	21354	21666	1.015	0.003	
6.612	35061	21127	0.603	0.005	$ 8 o-terph
6.638	17712	19934	1.125	0.002	
6.672	22159	19651	0.887	0.003	
6.683	26846	19268	0.718	0.003	
6.708	5413	18142	3.351	0.000	
6.713	24941	18247	0.732	0.003	
6.747	50657	18478	0.365	0.007	
6.795	23973	17444	0.728	0.003	
6.814	28457	17895	0.629	0.004	
6.837	10746	15445	1.437	0.001	
6.871	29974	21406	0.714	0.004	
6.874	4287	21471	5.009	0.000	
6.882	20520	21675	1.056	0.003	
6.944	32864	17445	0.531	0.004	
6.978	9138	15347	1.679	0.001	
7.014	4130	13830	3.348	0.000	9 C20
7.025	12567	14083	1.121	0.001	
7.038	4952	14274	2.882	0.000	
7.044	6508	14578	2.240	0.000	
7.050	25344	14736	0.581	0.003	
7.099	5531	12365	2.236	0.000	
7.108	16440	12371	0.752	0.002	
7.129	9415	11275	1.198	0.001	
7.175	3589	10327	2.878	0.000	
7.182	7285	10474	1.438	0.001	
7.212	11252	10002	0.889	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
7.227	5193	9506	1.830	0.000	
7.237	5172	9476	1.832	0.000	
7.247	4652	9357	2.011	0.000	
7.254	3258	9369	2.875	0.000	
7.259	7003	9455	1.350	0.001	
7.272	5540	9252	1.670	0.000	
7.283	4511	9087	2.014	0.000	
7.296	5828	9031	1.550	0.000	
7.308	4850	8866	1.828	0.000	
7.318	3111	9014	2.897	0.000	
7.324	3191	9168	2.873	0.000	
7.328	2775	9325	3.360	0.000	
7.339	6190	9713	1.569	0.000	
7.344	2920	9761	3.343	0.000	
7.350	17091	9874	0.578	0.002	
7.379	7217	8616	1.194	0.001	
7.395	5430	8408	1.548	0.000	
7.404	2492	8342	3.348	0.000	
7.409	1666	8354	5.014	0.000	
7.415	2955	8500	2.877	0.000	
7.423	3887	8782	2.259	0.000	
7.465	28160	14253	0.506	0.004	
7.471	6466	14499	2.242	0.000	
7.480	6649	15111	2.273	0.000	
7.484	26595	15197	0.571	0.003	
7.514	13964	13621	0.975	0.002	
7.539	8118	12614	1.554	0.001	
7.553	10540	12495	1.185	0.001	
7.584	2820	11307	4.010	0.000	
7.590	4522	11429	2.527	0.000	10 C22
7.620	16634	10435	0.627	0.002	
7.653	6793	9783	1.440	0.001	
7.663	8606	9666	1.123	0.001	
7.675	2827	9464	3.347	0.000	
7.683	9373	9620	1.026	0.001	
7.699	3657	9205	2.517	0.000	
7.708	5071	9290	1.832	0.000	
7.713	10483	9274	0.885	0.001	
7.735	10686	9257	0.866	0.001	
7.752	4732	8664	1.831	0.000	
7.765	5624	8765	1.558	0.000	
7.773	5614	8686	1.547	0.000	
7.784	3375	8506	2.520	0.000	
7.793	2118	8517	4.021	0.000	
7.799	10086	8544	0.847	0.001	
7.817	7761	8325	1.073	0.001	
7.833	2415	8088	3.350	0.000	
7.838	2838	8160	2.875	0.000	
7.844	3649	8173	2.240	0.000	
7.858	2009	8069	4.017	0.000	
7.864	4482	8197	1.829	0.000	
7.871	3688	8223	2.230	0.000	
7.879	4875	8269	1.696	0.000	
7.889	2009	8061	4.013	0.000	
7.897	4080	8308	2.036	0.000	
7.916	17828	10103	0.567	0.002	
7.935	4052	9086	2.242	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
7.940	2229	8948	4.015	0.000	
7.945	5765	8973	1.556	0.000	
7.954	6458	8765	1.357	0.000	
7.976	2099	8428	4.016	0.000	
7.984	10213	8807	0.862	0.001	
7.999	4897	8282	1.691	0.000	
8.013	8782	8112	0.924	0.001	
8.028	5860	7858	1.341	0.000	
8.040	3929	7871	2.003	0.000	
8.054	9161	8146	0.889	0.001	
8.067	2701	7766	2.876	0.000	
8.074	3069	7702	2.510	0.000	
8.081	2694	7742	2.874	0.000	
8.088	2705	7793	2.881	0.000	
8.095	5842	7832	1.341	0.000	
8.104	5419	7841	1.447	0.000	
8.119	5740	7735	1.348	0.000	
8.134	4986	7768	1.558	0.000	
8.141	5893	8009	1.359	0.000	
8.159	9098	8027	0.882	0.001	11 C24
8.174	3156	7971	2.526	0.000	
8.185	2376	7967	3.353	0.000	
8.190	4739	7937	1.675	0.000	
8.202	5181	8028	1.549	0.000	
8.212	1994	8027	4.025	0.000	
8.223	6137	8270	1.348	0.000	
8.236	6864	8171	1.190	0.001	
8.248	2383	7986	3.351	0.000	
8.253	2405	8059	3.351	0.000	
8.259	5294	8207	1.550	0.000	
8.268	2866	8235	2.874	0.000	
8.280	6583	8312	1.263	0.000	
8.289	4538	8296	1.828	0.000	
8.295	2060	8300	4.029	0.000	
8.300	2063	8291	4.020	0.000	
8.313	7062	8400	1.189	0.001	
8.318	1667	8375	5.023	0.000	
8.332	11362	9100	0.801	0.001	
8.343	4357	8741	2.006	0.000	
8.358	1267	8458	6.676	0.000	
8.363	2991	8621	2.882	0.000	
8.371	3980	8983	2.257	0.000	
8.379	6330	9083	1.435	0.000	
8.385	3111	8963	2.881	0.000	
8.393	6706	9050	1.349	0.000	
8.404	4903	8943	1.824	0.000	
8.417	8437	8972	1.063	0.001	
8.438	7166	9103	1.270	0.001	
8.443	3211	9227	2.873	0.000	12 C25
8.450	3688	9295	2.521	0.000	
8.455	2313	9276	4.010	0.000	
8.475	30054	13714	0.456	0.004	
8.504	5760	9733	1.690	0.000	
8.519	2799	9376	3.350	0.000	
8.529	4766	9710	2.037	0.000	
8.537	4875	9815	2.013	0.000	
8.543	8411	9973	1.186	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
8.555	2969	9916	3.340	0.000	
8.560	3974	9987	2.513	0.000	
8.568	2483	9997	4.026	0.000	
8.572	5007	10043	2.006	0.000	
8.591	14074	10725	0.762	0.002	
8.602	2648	10665	4.028	0.000	
8.606	2159	10862	5.032	0.000	
8.609	2183	10952	5.017	0.000	
8.633	7361	10561	1.435	0.001	
8.647	6774	10495	1.549	0.001	
8.658	2596	10420	4.014	0.000	
8.663	4723	10573	2.239	0.000	
8.669	3156	10589	3.355	0.000	
8.687	15405	11334	0.736	0.002	
8.699	6103	11158	1.828	0.000	
8.707	2223	11136	5.009	0.000	13 C26
8.730	28697	12536	0.437	0.004	
8.754	8658	11553	1.334	0.001	
8.763	2896	11612	4.010	0.000	
8.780	15029	12352	0.822	0.002	
8.788	1833	12243	6.680	0.000	
8.798	11854	12679	1.070	0.001	
8.806	1873	12509	6.677	0.000	
8.809	3133	12565	4.011	0.000	
8.813	2506	12550	5.008	0.000	
8.819	7588	12757	1.681	0.001	
8.829	4418	12679	2.870	0.000	
8.835	6988	12762	1.826	0.001	
8.848	13711	13258	0.967	0.002	
8.872	26625	13656	0.513	0.003	
8.894	4575	13127	2.869	0.000	
8.898	2631	13188	5.013	0.000	
8.902	5918	13262	2.241	0.000	
8.914	8577	13313	1.552	0.001	
8.922	4011	13433	3.349	0.000	
8.926	4724	13546	2.867	0.000	
8.933	6787	13651	2.011	0.001	
8.946	9614	13923	1.448	0.001	
8.951	6274	14004	2.232	0.000	
8.960	5592	14036	2.510	0.000	
8.966	3513	14090	4.011	0.000	
8.969	2829	14171	5.009	0.000	
8.973	4976	14233	2.860	0.000	
8.980	4289	14365	3.350	0.000	
8.996	27708	16441	0.593	0.004	
9.013	8129	14847	1.827	0.001	
9.025	8129	14840	1.826	0.001	
9.036	7503	15229	2.030	0.001	
9.040	4559	15225	3.340	0.000	
9.057	14920	16251	1.089	0.002	
9.067	9915	16831	1.698	0.001	
9.076	8535	17331	2.031	0.001	
9.081	5250	17596	3.352	0.000	
9.084	10558	17675	1.674	0.001	
9.095	4386	17601	4.013	0.000	
9.111	30564	19262	0.630	0.004	
9.128	8346	18722	2.243	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.139	15095	18986	1.258	0.002	
9.149	6655	19050	2.862	0.000	
9.158	23240	19719	0.848	0.003	
9.171	1903	19042	10.005	0.000	
9.175	4773	19156	4.013	0.000	
9.187	23630	19927	0.843	0.003	
9.199	4925	19763	4.013	0.000	
9.208	14115	20394	1.445	0.002	
9.219	12303	20691	1.682	0.001	
9.226	7266	20831	2.867	0.001	
9.233	15622	21000	1.344	0.002	14 C28
9.247	9280	20714	2.232	0.001	
9.262	45057	27849	0.618	0.006	
9.281	22651	23200	1.024	0.003	
9.304	13489	22820	1.692	0.001	
9.307	18038	22862	1.267	0.002	
9.328	8656	21778	2.516	0.001	
9.334	8635	21650	2.507	0.001	
9.343	16240	21738	1.339	0.002	
9.354	5409	21709	4.013	0.000	
9.367	16481	22234	1.349	0.002	
9.370	6683	22346	3.344	0.000	
9.382	14775	23166	1.568	0.002	
9.390	11679	23531	2.015	0.001	
9.394	12888	23584	1.830	0.001	
9.408	18752	23645	1.261	0.002	
9.416	4675	23396	5.004	0.000	
9.428	25138	24392	0.970	0.003	
9.438	20233	24095	1.191	0.002	
9.468	67429	26696	0.396	0.009	
9.496	8413	24122	2.867	0.001	
9.507	12049	24259	2.013	0.001	
9.527	36362	25771	0.709	0.005	
9.538	12891	25911	2.010	0.001	
9.543	6452	25853	4.007	0.000	
9.551	10420	26202	2.515	0.001	
9.557	29750	26593	0.894	0.004	
9.574	6252	25071	4.010	0.000	
9.593	29143	27655	0.949	0.004	
9.599	40783	27905	0.684	0.006	
9.620	13159	26364	2.004	0.001	
9.632	17259	26799	1.553	0.002	
9.640	13210	26592	2.013	0.001	
9.664	35362	28170	0.797	0.005	
9.672	27890	28134	1.009	0.004	
9.696	26737	28634	1.071	0.003	
9.711	53475	30848	0.577	0.007	
9.745	33266	29504	0.887	0.004	$ 15 Triacon Surr
9.752	7348	29501	4.015	0.001	
9.756	20542	29565	1.439	0.003	
9.768	7255	29059	4.005	0.001	
9.773	7275	29173	4.010	0.001	
9.785	31543	30611	0.970	0.004	
9.803	46804	32832	0.701	0.006	
9.821	10456	30060	2.875	0.001	
9.833	30772	31156	1.012	0.004	
9.860	77784	33514	0.431	0.011	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.881	12779	32069	2.510	0.001	
9.892	14531	32668	2.248	0.002	
9.896	8201	32902	4.012	0.001	
9.908	23357	33882	1.451	0.003	
9.912	27050	34095	1.260	0.003	
9.939	14585	32570	2.233	0.002	
9.951	23032	33095	1.437	0.003	
9.956	11596	33292	2.871	0.001	
9.966	16544	33271	2.011	0.002	
9.971	11660	33391	2.864	0.001	
9.975	10051	33617	3.345	0.001	
9.983	15209	33983	2.234	0.002	
9.988	15177	33830	2.229	0.002	
9.996	10128	33907	3.348	0.001	
10.018	43348	35629	0.822	0.006	
10.021	7133	35693	5.004	0.001	
10.025	8960	35988	4.016	0.001	
10.034	42064	36944	0.878	0.006	
10.063	65447	38699	0.591	0.009	
10.077	7375	36906	5.004	0.001	
10.083	16743	37428	2.235	0.002	
10.095	34467	38665	1.122	0.005	
10.118	90921	40621	0.447	0.013	
10.151	37738	38047	1.008	0.005	
10.158	11383	38037	3.342	0.001	
10.168	36074	38274	1.061	0.005	
10.181	15072	37809	2.509	0.002	16 C32
10.185	5655	37746	6.675	0.000	
10.198	43905	38471	0.876	0.006	
10.208	24771	38177	1.541	0.003	
10.218	19031	38113	2.003	0.002	
10.228	13353	38279	2.867	0.001	
10.237	21225	38826	1.829	0.003	
10.243	30946	38929	1.258	0.004	
10.266	43064	39733	0.923	0.006	
10.275	11912	39784	3.340	0.001	
10.278	19932	39886	2.001	0.002	
10.293	46366	40725	0.878	0.006	
10.318	46465	41024	0.883	0.006	
10.328	24720	41353	1.673	0.003	
10.334	10308	41278	4.005	0.001	
10.343	29100	41866	1.439	0.004	
10.354	22822	41695	1.827	0.003	
10.360	16568	41490	2.504	0.002	
10.376	31388	42321	1.348	0.004	
10.384	36478	43119	1.182	0.005	
10.393	21427	43144	2.014	0.003	
10.416	82339	44731	0.543	0.012	
10.434	23173	42257	1.824	0.003	
10.455	42801	43684	1.021	0.006	
10.459	19648	44004	2.240	0.002	
10.469	19632	43883	2.235	0.002	
10.492	56113	45807	0.816	0.008	
10.497	20626	45915	2.226	0.003	
10.503	27439	45837	1.671	0.004	
10.513	31833	45842	1.440	0.004	
10.523	6773	45190	6.672	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
10.529	22697	45513	2.005	0.003	
10.543	39087	46432	1.188	0.005	
10.552	16284	46719	2.869	0.002	
10.558	18796	47158	2.509	0.002	
10.576	69878	48769	0.698	0.010	
10.586	12085	48384	4.004	0.001	
10.592	21757	48469	2.228	0.003	
10.609	46960	50482	1.075	0.006	
10.616	40486	50812	1.255	0.005	17 C34
10.628	52392	50284	0.960	0.007	
10.665	99744	52644	0.528	0.014	
10.680	20832	52264	2.509	0.003	
10.699	126137	55939	0.443	0.018	
10.723	18258	52316	2.865	0.002	
10.733	65550	52928	0.807	0.009	
10.751	49102	51903	1.057	0.007	
10.765	10288	51490	5.005	0.001	
10.777	73220	52877	0.722	0.010	
10.791	15621	52150	3.338	0.002	
10.799	46819	52190	1.115	0.006	
10.817	52000	52328	1.006	0.007	
10.828	13014	52167	4.008	0.001	
10.833	18275	52280	2.861	0.002	
10.838	67284	52271	0.777	0.009	
10.860	15395	51401	3.339	0.002	
10.867	15366	51252	3.335	0.002	
10.874	25712	51608	2.007	0.003	
10.885	59363	52064	0.877	0.008	
10.901	33199	51247	1.544	0.004	
10.911	35859	51446	1.435	0.005	
10.925	15150	50526	3.335	0.002	
10.936	27761	50508	1.819	0.004	
10.954	40634	51235	1.261	0.005	
10.958	17973	51428	2.861	0.002	
10.982	101216	54997	0.543	0.014	
10.999	80380	54264	0.675	0.011	
11.022	15822	52869	3.342	0.002	
11.029	23878	53171	2.227	0.003	
11.032	23908	53219	2.226	0.003	
11.044	39793	53228	1.338	0.005	
11.053	13218	52959	4.007	0.001	19 C36
11.057	26491	53088	2.004	0.003	
11.069	47933	53454	1.115	0.007	
11.079	78088	52997	0.679	0.011	
11.132	4853	48537	10.002	0.000	
11.138	21933	48845	2.227	0.003	
11.148	46678	49317	1.057	0.006	
11.158	12248	49060	4.006	0.001	
11.164	14711	49102	3.338	0.002	
11.179	64473	49939	0.775	0.009	
11.192	19751	49439	2.503	0.002	
11.197	14848	49541	3.337	0.002	
11.202	17336	49566	2.859	0.002	
11.206	12400	49639	4.003	0.001	
11.212	56808	49881	0.878	0.008	
11.230	26830	48794	1.819	0.003	
11.263	19014	47590	2.503	0.002	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
11.267	11927	47790	4.007	0.001	
11.285	66432	50042	0.753	0.009	
11.308	17214	49235	2.860	0.002	
11.312	19684	49285	2.504	0.002	
11.322	19740	49570	2.511	0.002	
11.331	27467	50208	1.828	0.004	
11.334	12565	50301	4.003	0.001	
11.338	17617	50367	2.859	0.002	
11.356	50450	50688	1.005	0.007	
11.383	31641	48774	1.541	0.004	
11.392	14562	48589	3.337	0.002	
11.398	14566	48593	3.336	0.002	
11.405	21947	48858	2.226	0.003	
11.418	36961	49602	1.342	0.005	
11.428	52174	49838	0.955	0.007	
11.438	46900	49605	1.058	0.006	
11.456	66003	49218	0.746	0.009	
11.481	84312	48818	0.579	0.012	
11.518	39837	46996	1.180	0.005	
11.533	55836	46822	0.839	0.008	20 C38
11.560	30101	46465	1.544	0.004	
11.568	20916	46512	2.224	0.003	
11.573	11637	46596	4.004	0.001	
11.579	23274	46598	2.002	0.003	
11.586	13953	46531	3.335	0.002	
11.591	9318	46631	5.004	0.001	
11.623	97892	48831	0.499	0.014	
11.631	17107	48984	2.863	0.002	
11.638	22090	49260	2.230	0.003	
11.642	32050	49351	1.540	0.004	
11.669	95446	50981	0.534	0.014	
11.685	95822	49865	0.520	0.014	
11.788	8918	44609	5.002	0.001	
11.791	35704	44768	1.254	0.005	
11.804	11082	44350	4.002	0.001	
11.813	22172	44403	2.003	0.003	
11.823	19993	44543	2.228	0.002	
11.829	13395	44754	3.341	0.001	
11.837	20184	44981	2.228	0.002	
11.852	26933	44942	1.669	0.003	
11.866	36041	45224	1.255	0.005	
11.877	15835	45355	2.864	0.002	
11.883	18222	45726	2.509	0.002	
11.889	15985	45741	2.861	0.002	
11.896	20679	46117	2.230	0.003	
11.905	23259	46896	2.016	0.003	
11.929	70146	49826	0.710	0.010	
11.936	52288	50085	0.958	0.007	
11.951	14787	49369	3.339	0.002	
11.957	17313	49595	2.865	0.002	
11.961	32199	49647	1.542	0.004	
11.971	19578	49063	2.506	0.002	
11.980	34244	49065	1.433	0.005	
12.019	96987	51133	0.527	0.014	
12.025	48685	51499	1.058	0.007	
12.053	38386	51386	1.339	0.005	
12.062	38575	51549	1.336	0.005	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
12.070	17923	51300	2.862	0.002	
12.078	45780	51141	1.117	0.006	
12.105	31495	48817	1.550	0.004	
12.118	85510	48295	0.565	0.012	
12.148	55474	46657	0.841	0.008	21 C40
12.172	34299	45899	1.338	0.005	
12.181	18286	45754	2.502	0.002	
12.188	20565	45727	2.223	0.003	
12.198	29701	45787	1.542	0.004	
12.212	11377	45530	4.002	0.001	
12.218	29576	45566	1.541	0.004	
12.237	41054	45750	1.114	0.006	
12.243	13695	45701	3.337	0.002	
12.253	27528	46122	1.675	0.004	
12.260	16149	46201	2.861	0.002	
12.272	32473	46571	1.434	0.004	
12.347	231342	54259	0.235	0.034	
12.355	96470	54322	0.563	0.014	
12.383	13155	52687	4.005	0.001	
12.389	52817	52930	1.002	0.007	
12.434	117936	55204	0.468	0.017	
12.440	19323	55283	2.861	0.002	
12.448	22049	55156	2.502	0.003	
12.460	127044	56114	0.442	0.018	
12.500	63536	55700	0.877	0.009	
12.519	44746	56237	1.257	0.006	
12.523	16928	56556	3.341	0.002	
12.528	14154	56666	4.003	0.002	
12.532	14154	56644	4.002	0.002	
12.538	25607	57089	2.229	0.003	
12.543	31284	57010	1.822	0.004	
12.560	76588	57084	0.745	0.011	
12.574	22463	56167	2.500	0.003	
12.583	192414	56305	0.293	0.028	
12.668	201456	54098	0.269	0.029	
12.722	63529	49368	0.777	0.009	
12.744	14574	48683	3.340	0.002	
12.757	68233	49046	0.719	0.010	
12.777	29106	48653	1.672	0.004	
12.802	69072	49884	0.722	0.010	
12.805	19947	49915	2.502	0.002	
12.813	12457	49907	4.006	0.001	
12.826	42860	50672	1.182	0.006	
12.830	15192	50711	3.338	0.002	
12.835	63121	50727	0.804	0.009	
12.856	30109	50299	1.671	0.004	
12.871	12459	49875	4.003	0.001	
12.876	24950	49913	2.001	0.003	
12.883	12458	49860	4.002	0.001	
12.892	24999	50091	2.004	0.003	
12.904	37682	50442	1.339	0.005	
12.918	60965	51059	0.838	0.009	
12.929	15268	50972	3.338	0.002	
12.950	101236	52476	0.518	0.014	
12.991	32619	50285	1.542	0.004	
13.030	23826	47690	2.002	0.003	
13.047	49429	47410	0.959	0.007	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
13.072	11668	46709	4.003	0.001	
13.077	14056	46964	3.341	0.002	
13.083	21201	47214	2.227	0.003	
13.092	45034	47490	1.055	0.006	
13.103	33139	47401	1.430	0.004	
13.119	58622	47300	0.807	0.008	
13.136	61979	46406	0.749	0.009	
13.163	36232	45399	1.253	0.005	
13.172	13552	45219	3.337	0.002	
13.178	13550	45211	3.337	0.002	
13.183	13581	45318	3.337	0.002	
13.188	15867	45365	2.859	0.002	
13.193	11350	45433	4.003	0.001	
13.206	54879	45909	0.837	0.008	
13.233	74220	46899	0.632	0.010	
13.246	18724	46923	2.506	0.002	
13.250	14089	47028	3.338	0.002	
13.254	9392	46999	5.004	0.001	
13.261	35241	47103	1.337	0.005	
13.270	21093	46884	2.223	0.003	
13.278	16404	46889	2.858	0.002	
13.284	28108	46937	1.670	0.004	
13.309	27777	46575	1.677	0.004	
13.313	11643	46617	4.004	0.001	
13.323	30391	46938	1.544	0.004	
13.337	49696	47554	0.957	0.007	
13.345	11906	47686	4.005	0.001	
13.352	21499	47921	2.229	0.003	
13.358	14416	48133	3.339	0.002	
13.366	24163	48487	2.007	0.003	
13.391	108474	49842	0.459	0.016	
13.411	39818	49922	1.254	0.005	
13.421	140245	49882	0.356	0.020	
13.468	75433	46221	0.613	0.011	
13.519	59701	44435	0.744	0.008	
13.538	26345	44021	1.671	0.003	
13.553	17475	43727	2.502	0.002	
13.559	19699	43828	2.225	0.002	
13.566	15324	43832	2.860	0.002	
13.574	28519	43956	1.541	0.004	
13.585	21950	43943	2.002	0.003	
13.595	26497	44341	1.673	0.003	
13.603	22230	44574	2.005	0.003	
13.608	11135	44585	4.004	0.001	
13.633	100703	46371	0.460	0.014	
13.650	25255	45974	1.820	0.003	
13.663	20511	45675	2.227	0.003	
13.670	15945	45584	2.859	0.002	
13.677	40973	45642	1.114	0.006	
13.688	4544	45448	10.002	0.000	
13.693	29520	45508	1.542	0.004	
13.718	24720	44995	1.820	0.003	
13.727	11216	44890	4.002	0.001	
13.735	29185	45025	1.543	0.004	
13.752	17874	44782	2.505	0.002	
13.767	35874	45020	1.255	0.005	
13.775	36036	45104	1.252	0.005	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
13.785	11226	44939	4.003	0.001	
13.790	47016	44953	0.956	0.006	
13.813	11118	44516	4.004	0.001	
13.818	37641	44507	1.182	0.005	
13.832	15424	44192	2.865	0.002	
13.838	17564	43967	2.503	0.002	
13.844	26339	43892	1.666	0.003	
13.855	30567	43821	1.434	0.004	
13.865	23854	43526	1.825	0.003	
13.882	28266	43639	1.544	0.004	
13.886	30418	43629	1.434	0.004	
13.901	34702	43472	1.253	0.005	
13.920	48162	44005	0.914	0.007	
13.928	17577	43956	2.501	0.002	
13.941	15410	44084	2.861	0.002	
13.946	11045	44251	4.006	0.001	
13.949	24369	44341	1.820	0.003	
13.959	22103	44264	2.003	0.003	
13.967	22088	44195	2.001	0.003	
13.976	33207	44336	1.335	0.004	18 Filter Peak
13.998	24195	44018	1.819	0.003	
14.007	15335	43888	2.862	0.002	
14.014	17519	43863	2.504	0.002	
14.019	54335	43870	0.807	0.008	
14.046	10722	42915	4.003	0.001	
14.052	19305	42955	2.225	0.002	
14.058	8568	42864	5.003	0.001	
14.067	38739	43159	1.114	0.005	
14.077	15012	42931	2.860	0.002	
14.083	25753	42977	1.669	0.003	
14.102	25682	42913	1.671	0.003	
14.108	19267	42865	2.225	0.002	
14.116	12834	42815	3.336	0.001	
14.126	25874	43369	1.676	0.003	
14.133	56339	43595	0.774	0.008	
14.161	32503	43582	1.341	0.004	
14.165	10909	43696	4.006	0.001	
14.170	15313	43822	2.862	0.002	
14.175	10960	43911	4.007	0.001	
14.178	13176	43945	3.335	0.001	
14.183	19785	43976	2.223	0.002	
14.191	8796	44018	5.005	0.001	
14.197	17636	44177	2.505	0.002	
14.208	28815	44459	1.543	0.004	
14.219	8873	44379	5.002	0.001	
14.223	13318	44445	3.337	0.001	
14.229	28860	44456	1.540	0.004	
14.247	15436	44194	2.863	0.002	
14.260	37147	43758	1.178	0.005	
14.274	45685	43705	0.957	0.006	
	677340272	268782821		100.000	

Total unknown % area = 25.478

Supelco®

www.sigmaaldrich.com

Certificate of Composition - Analytical Standard

BASE STOCK

Product no.: 22523051
Lot no.: LRAC9813
Expiry Date: May 2023
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: Dichloromethane
Certificate version: LRAC9813.01 *(Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*

J005199
SVOA-ABN BASE STOCK-200-800ug/ml
Expires 5/31/2023
Prepared By Jianqing Zhou 5/18/2021

Analyte	*Assigned Value*	*Units*	*Raw Material Purity,%*	*Raw Material Lot*
3,3'-DICHLOROBENZIDINE CAS# 91-94-1	802	µg/mL	99.9	LC27068
2,4-DINITROTOLUENE CAS# 121-14-2	802	µg/mL	97.8	LB46632
2,6-DINITROTOLUENE CAS# 606-20-2	801	µg/mL	99.9	LB79891
HEXACHLOROCYCLOPENTADIENE CAS# 77-47-4	802	µg/mL	96.0	LB95525
N-NITROSODIMETHYLAMINE CAS# 62-75-9	801	µg/mL	95.0	2019-030598 5
PERYLENE CAS# 198-55-0	201	µg/mL	99.6	04101PG
ANILINE CAS# 62-53-3	803	µg/mL	100.0	10126MG
4-CHLOROANILINE CAS# 106-47-8	803	µg/mL	100.0	MKBZ6909V
2-NITROANILINE CAS# 88-74-4	802	µg/mL	99.9	LC05068
3-NITROANILINE CAS# 99-09-2	802	µg/mL	99.9	LC09264
4-NITROANILINE CAS# 100-01-6	802	µg/mL	99.9	LC11400
PYRIDINE (LOW WATER) CAS# 110-86-1	802	µg/mL	100.0	SHBJ9218

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date: 12-May-2021

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAC9813.01	12-May-2021	Original Release Date

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www.sigmaaldrich.com

Certificate of Composition - Analytical Standard

ACID STOC"

Product no.: 22523046
Lot no.: LRAC9812
Expiry Date: May 2023
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: Dichloromethane
Certificate version: LRAC9812.01 *(Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*

J005200
SVOA-ABN ACID STOCK-200-800ug/ml
Solvent / Lot: DCM
Prep: 5/18/2021 by JZ
Exp: 5/31/2023
Location:

JZ 5/18/21

Analyte	*Assigned Value*	*Units*	*Raw Material Purity,%*	*Raw Material Lot*
2,4-DIMETHYLPHENOL CAS# 105-67-9	802	µg/mL	99.9	LB88935
2,4-DICHLOROPHENOL CAS# 120-83-2	802	µg/mL	100.0	BCBZ6787
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	802	µg/mL	99.9	JS00008
2,4-DINITROPHENOL CAS# 51-28-5	1806	µg/mL	75.9	MKBP5833V
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	803	µg/mL	98.7	LB82983
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	801	µg/mL	99.9	JS00013
4-NITROPHENOL CAS# 100-02-7	801	µg/mL	99.9	LC10889
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	1804	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	803	µg/mL	98.7	MKCK8156
BENZOIC ACID CAS# 65-85-0	1805	µg/mL	99.9	LC16514

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate of Analysis

J008074
SVOA PAH STD 2000ug/ml
Expires 6/30/2023
Prepared By Joshua Rains 8/5/2021

Product Name: PAH Standard

Product Number: US-106N-1

Lot Number: 0006540449

Lot Issue Date: 11-Jun-2020

Expiration Date: 30-Jun-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
acenaphthene	000083-32-9	RM10879	2008 ± 10 µg/mL
acenaphthylene	000208-96-8	RM10891	2003 ± 10 µg/mL
anthracene	000120-12-7	RM14212	2006 ± 10 µg/mL
benz[a]anthracene	000056-55-3	RM16072	2006 ± 10 µg/mL
benzo[b]fluoranthene	000205-99-2	RM14571	2005 ± 10 µg/mL
benzo[k]fluoranthene	000207-08-9	RM14321	2009 ± 10 µg/mL
benzo[ghi]perylene	000191-24-2	RM15761	2008 ± 10 µg/mL
benzo[a]pyrene	000050-32-8	RM12669	2009 ± 10 µg/mL
chrysene	000218-01-9	RM12260	2009 ± 10 µg/mL
dibenz[a,h]anthracene	000053-70-3	RM06786	2009 ± 10 µg/mL
fluoranthene	000206-44-0	RM12277	2004 ± 10 µg/mL
fluorene	000086-73-7	RM09441	2009 ± 10 µg/mL
indeno[1,2,3-cd]pyrene	000193-39-5	RM14192	2009 ± 10 µg/mL
naphthalene	000091-20-3	NT00970	2008 ± 10 µg/mL
phenanthrene	000085-01-8	RM10495	2009 ± 10 µg/mL
pyrene	000129-00-0	RM03479	2008 ± 10 µg/mL

Matrix: methylene chloride/benzene (1:1)

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/

ISO 17025 Cert No. AT-1937

Certificate of Analysis

Product Number: US-106N-1 **Lot Number:** 0006540449

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026
Page: 2 of 2

www.agilent.com/quality/

ISO 17025 Cert
No. AT-1937

Certificate of Analysis

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244
Lot Number: CL16062
Description: Benzidines Standard
Certification Date: November 19, 2020
Storage: 4 °C
Expiration Date: November 30, 2030
Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 2.740%
3,3'-Dichlorobenzidine	91-94-1	2000	± 3.229%

J008310
Benzidines std @2000ug/ml
Expires 11/30/2030
Prepared By Van Spohn 8/12/2021

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

IL64691018_us

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

   Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

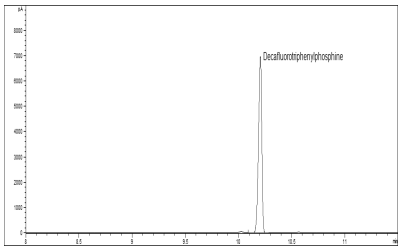
References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

Certificate of Analysis - Certified Reference Material

Decafluorotriphenylphosphine solution

Product no.: 48724-U
Lot no.: LRAD0628
Expiry Date: October 2024
Manufacturing Date: September 2021
Storage: ROOM TEMPERATURE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0628.01 (*Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*

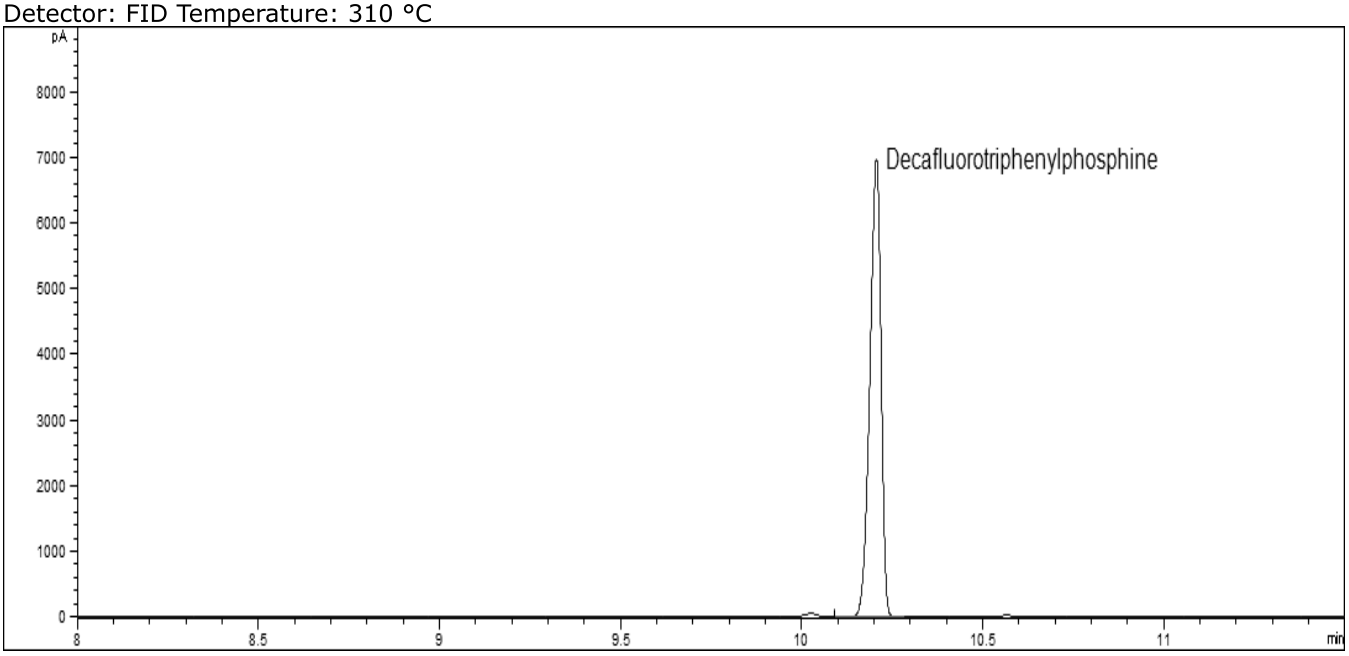


Certified Values:

Analyte	*Certified Value*	*Units*	*Raw Material Purity,%*	*Raw Material Lot*
DFTPP CAS# 5074-71-5	25.2 ± 2.6	mg/mL	97.0	10220909

ASSAY Method

METHOD: GC (BELLEFONTE)
Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness
Carrier Gas: H_2 Flow Rate: 4.3 mL/min
Inlet Temperature: 250 °C Injection Volume: 1 µL
Injection Mode: 25:1
Temperature Program: 120 °C (Hold 0 min) @ 12 °C/min to 260 °C (Hold 0 min)
Detector: FID Temperature: 310 °C



Sigma-Aldrich RTC, 2931 Soldier Springs Rd. Laramie, WY 82070, USA;
Tel. 1 307-742-5452; Fax 1 855-831-9211; www.sigmaaldrich.com
Sigma-Aldrich RTC is a subsidiary of Merck KGaA, Darmstadt, Germany.

Elution details:

EO	RT(MIN)	ANALYTE
1	10.206	Decafluorotriphenylphosphine

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Minimum sample size: 1 µL

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 30-Sep-2021

Andy Ommen - QC Manager

Scott Stetler - QA Manager

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{\text{hom } ogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment: Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0628.01	30-Sep-2021	Original Release Date

.

Certificate of Analysis

phenova Certified Reference Materials | A Phenomenex Company

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101246
Description: Benzoic Acid
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Lot Number: CL16693
Certification Date: May 6, 2021
Expiration Date: April 30, 2031

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 4.383%

K3238

A2LA ACCREDITED
Reference Material Producer
Certicate No. 2427.02

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Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

A2LA ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

IL64691018_us

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 25 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

Certificate of Analysis

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101443
Description: Aniline
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Lot Number: CL17696
Certification Date: December 14, 2021
Expiration Date: December 31, 2029

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aniline	62-53-3	1000	± 0.760%

K 3239

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

phenova Certified Reference Materials | A Phenomenex Company

Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

IL64691018_us

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2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

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References:

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[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
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[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

Certificate of Analysis

BNAs - Sandy Loam 1

Certified Reference Material

Description

Product ID CRM143-50G
Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Certified Values

Analyte	*Units*	*Certified Value* [1,4]
1,2,4-Trichlorobenzene	µg/Kg	1477 ± 181
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	1625 ± 292
1-Chloronaphthalene	µg/Kg	2809 ± 84
2,3-Dimethylphenol	µg/Kg	4552 ± 137
2,4,5-Trichlorophenol	µg/Kg	3438 ± 245
2,4,6-Trichlorophenol	µg/Kg	2194 ± 251
2,4-Dichlorophenol	µg/Kg	6991 ± 394
2,4-Dimethylphenol	µg/Kg	6357 ± 879
2,4-Dinitrophenol	µg/Kg	2922 ± 523
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	3318 ± 442
2,6-Dichlorophenol	µg/Kg	4578 ± 874
2,6-Dimethylphenol	µg/Kg	7582 ± 228
2-Chloronaphthalene	µg/Kg	2223 ± 168
2-Chlorophenol	µg/Kg	1678 ± 202
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	5148 ± 685
2-Methylphenol (o-Cresol)	µg/Kg	6004 ± 573
2-Nitrophenol	µg/Kg	6456 ± 383
3,4-Dimethylphenol	µg/Kg	7185 ± 216
3+4-Methylphenol (m+p-Cresol)	µg/Kg	8033 ± 1613
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	7169 ± 310
4-Chloro-3-methylphenol	µg/Kg	2071 ± 110
4-Chlorophenyl phenylether	µg/Kg	2052 ± 113
4-Methylphenol (p-Cresol)	µg/Kg	6617 ± 1371
4-Nitrophenol	µg/Kg	6812 ± 595
Acenaphthene	µg/Kg	5489 ± 380

Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Acenaphthylene	µg/Kg	1948 ± 240
Anthracene	µg/Kg	2866 ± 237
Benzo(a)anthracene	µg/Kg	5751 ± 552
Benzo(a)pyrene	µg/Kg	5902 ± 612
Benzo(b)fluoranthene	µg/Kg	3010 ± 409
Benzo(b+k)fluoranthene	µg/Kg	6534 ± 196
Benzo(g,h,i)perylene	µg/Kg	1380 ± 136
Benzo(k)fluoranthene	µg/Kg	2215 ± 237
Butyl benzyl phthalate	µg/Kg	3511 ± 384
Carbazole	µg/Kg	5412 ± 407
Chrysene	µg/Kg	1477 ± 72
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	2905 ± 321
Dibenzo(a,h)anthracene	µg/Kg	3420 ± 302
Dibenzofuran	µg/Kg	6130 ± 253
Dimethyl phthalate	µg/Kg	4537 ± 250
Di-n-butyl phthalate	µg/Kg	1721 ± 154
Di-n-octyl phthalate	µg/Kg	2744 ± 288
Fluoranthene	µg/Kg	2497 ± 222
Fluorene	µg/Kg	3724 ± 222
Hexachlorobutadiene	µg/Kg	1877 ± 245
Indeno(1,2,3-cd) pyrene	µg/Kg	3914 ± 409
Isophorone	µg/Kg	1615 ± 170
Naphthalene	µg/Kg	4458 ± 480
Nitrobenzene	µg/Kg	3539 ± 266
n-Nitrosodimethylamine	µg/Kg	1580 ± 402
n-Nitrosodiphenylamine	µg/Kg	2854 ± 379
Pentachlorophenol	µg/Kg	3411 ± 358
Phenanthrene	µg/Kg	5052 ± 385
Phenol	µg/Kg	2660 ± 184
Pyrene	µg/Kg	2964 ± 256
Pyridine	µg/Kg	1008 ± 30

Informational Values

Certificate of Analysis

BNAs - Sandy Loam 1

Certified Reference Material

Description

Product ID CRM143-50G
Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Analyte	*Units*	*Suggested Acceptance Windows*	*Standard Deviation*
1,2,4-Trichlorobenzene	µg/Kg	148 to 2853	459
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	163 to 3440	605
1-Chloronaphthalene	µg/Kg	1123 to 4494	562
2,3-Dimethylphenol	µg/Kg	1821 to 7284	910
2,4,5-Trichlorophenol	µg/Kg	1003 to 5872	811
2,4,6-Trichlorophenol	µg/Kg	640 to 3748	518
2,4-Dichlorophenol	µg/Kg	2391 to 11591	1533
2,4-Dimethylphenol	µg/Kg	0.00 to 13959	2534
2,4-Dinitrophenol	µg/Kg	1169 to 4675	584
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	1248 to 5388	690
2,6-Dichlorophenol	µg/Kg	1831 to 7324	916
2,6-Dimethylphenol	µg/Kg	3033 to 12132	1516
2-Chloronaphthalene	µg/Kg	748 to 3699	492
2-Chlorophenol	µg/Kg	415 to 2942	421
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	0.00 to 10347	1733
2-Methylphenol (o-Cresol)	µg/Kg	1306 to 10702	1566
2-Nitrophenol	µg/Kg	1534 to 11379	1641
3,4-Dimethylphenol	µg/Kg	2874 to 11495	1437
3+4-Methylphenol (m+p-Cresol)	µg/Kg	4054 to 16218	2027
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	2901 to 11437	1423
4-Chloro-3-methylphenol	µg/Kg	677 to 3464	464
4-Chlorophenyl phenylether	µg/Kg	756 to 3348	432
4-Methylphenol (p-Cresol)	µg/Kg	2647 to 10587	1323
4-Nitrophenol	µg/Kg	681 to 14762	2650
Acenaphthene	µg/Kg	2243 to 8736	1082
Acenaphthylene	µg/Kg	712 to 3183	412
Anthracene	µg/Kg	1218 to 4515	550
Benzo(a)anthracene	µg/Kg	2806 to 8696	982
Benzo(a)pyrene	µg/Kg	2512 to 9292	1130
Benzo(b)fluoranthene	µg/Kg	1197 to 4822	604
Benzo(b+k)fluoranthene	µg/Kg	2614 to 10454	1307

Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Benzo(g,h,i)perylene	µg/Kg	489 to 2271	297
Benzo(k)fluoranthene	µg/Kg	892 to 3537	441
Butyl benzyl phthalate	µg/Kg	1255 to 5766	752
Carbazole	µg/Kg	2032 to 8792	1127
Chrysene	µg/Kg	669 to 2284	269
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	765 to 5045	713
Dibenzo(a,h)anthracene	µg/Kg	1257 to 5583	721
Dibenzofuran	µg/Kg	2766 to 9493	1121
Dimethyl phthalate	µg/Kg	1842 to 7231	898
Di-n-butyl phthalate	µg/Kg	495 to 2947	409
Di-n-octyl phthalate	µg/Kg	690 to 4798	685
Fluoranthene	µg/Kg	984 to 4009	504
Fluorene	µg/Kg	1638 to 5810	695
Hexachlorobutadiene	µg/Kg	425 to 3329	484
Indeno(1,2,3-cd) pyrene	µg/Kg	870 to 6957	1015
Isophorone	µg/Kg	437 to 2792	392
Naphthalene	µg/Kg	1131 to 7784	1109
Nitrobenzene	µg/Kg	1024 to 6054	838
n-Nitrosodimethylamine	µg/Kg	632 to 2528	316
n-Nitrosodiphenylamine	µg/Kg	1142 to 4567	571
Pentachlorophenol	µg/Kg	341 to 7037	1209
Phenanthrene	µg/Kg	2307 to 7798	915
Phenol	µg/Kg	681 to 4639	660
Pyrene	µg/Kg	1118 to 4810	615
Pyridine	µg/Kg	403 to 1613	202

Additional Information:

DESCRIPTION

The organic sample is a soil containing extractable BNAs for analysis by 8100, 8270, 8310 or equivalent methods.

This product consist of a 5 vials each containing 10g of soil for analysis of PAHs. Each vial is identical and has been tested how homogeneity. Only one vial is need for test the remaining vials are to be used for multiple methods or routine testing.

The soil has been sterilized to minimize degradation of the sample.

The sample has been sized to 100 mesh.

Required storage condition is 4ºC.

The sample has been intentionally prepared with an apparent headspace.

STORAGE

The sample should be stored at 4ºC. It has been determined to be stable for the duration of the expiration date.

After sub-sampling replace cap securely and store remaining sample at 4ºC.

The shelf life of the product was determined by historic stability of similar CRM's. The expiration date may be extended based on stock and popularity upon successful stability testing by a 17025 accredited laboratory.

Certificate of Analysis

BNAs - Sandy Loam 1

Certified Reference Material

Description

Product ID	CRM143-50G
Lot	**LRAC8918**
Expiration Date	January 2024
Manufacturing Date	January 2021
Storage Conditions	Refrigerate
Solvent/Matrix	SOIL

Stability and shelf life after opening must be determined by the user, taking into account sampling frequency/volume and all local conditions.

SAMPLE PREPARATION

Extract the complete contents of a single vial. Transfer entire contents of one vial to extraction vessel. Rinse vial and cap with extraction solvent.

Assume a 10g sample size for all calculations.

Note: Sample extracts and calibration solutions should be in the same solvent.

Report all results on a wet weight basis, do not correct for moisture.

NOTE: For method 8100 and using a packed column gas chromatographic method or cannot adequately resolve the following may coelute in four pairs of compounds: anthracene and phenanthrene; chrysene and benzo(a)anthracene; benzo(b)fluoranthene and benzo(k)fluoranthene; and dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene.

SCOPE AND APPLICATION

The BNAs in Soil Certified Reference Material (CRM) consists of 5 10mL VOA vials, with a Teflon lined closures containing approximately 10 grams of soil, fortified with BNAs. Being a natural matrix waste sample the analyst is challenged by the same preparation problems, analytical interferences, etc. as is typical for similar matrices received by the laboratory for analysis.

Description

Lot	**LRAC8918**
Expiration Date	January 2024
Manufacturing Date	January 2021
Storage Conditions	Refrigerate
Solvent/Matrix	SOIL

1 **Metrological traceability:** Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. K=2 unless specified. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{\text{hom } ogeneity}^2 + u_{stability}^2}$$

***k*:** Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were preformed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH **ISO/IEC 17025:2017 (ANAB Cert AT-1467)** and **ISO 17034:2016 (ANAB Cert AR-1470).**

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Certification Date	January 05, 2021
Version	0-152021

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

Certificate of Analysis

Phenova Certified Reference Materials are sold by Phenomenex.
411 Madrid Ave., Torrance, CA 90501 USA ▪ Tel: 310-212-0555 ▪ Fax: 310-328-7768 ▪ info@phenomenex.com
Access your MSDS and digital C of A at **www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards**

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.:	AL0-101291	**Lot Number:**	CL11000
Description:	GC/MS Tuning Mix	**Certification Date:**	May 9, 2014
Storage:	4 °C	**Expiration Date:**	December 31, 2023
Provided As:	1 mL in 2 mL Ampoule in Methylene chloride	**Revision Date:**	August 5, 2015

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty (%)
Benzidine	92-87-5	1000	± 0.208%
Decafluorotriphenylphosphine (DFTPP)	5074-71-5	1000	± 0.057%
4,4'-DDT	50-29-3	1000	± 0.056%
Pentachlorophenol	87-86-5	1000	± 0.061%

K003891
GC/MS Tune solution-1000ug/ml
Solvent / Lot: CL11000
Prep: 4/22/2022 by VS
Exp: 12/31/2023
Location:

ACCREDITED
Reference Material Producer
Certificate No. 2427.02

phenova® Certified Reference Materials

Manufactured by Phenova, Inc.
Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ilac-MRA ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

IL111110613_us

Agilent

Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-103N-1 **Lot Issue Date:** 25-May-2021

Lot Number: 0006609664 **Expiration Date:** 30-Jun-2024

Description:
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
benzoic acid	000065-85-0	RM01884	2005 ± 10 µg/mL
o-cresol	000095-48-7	RM12877	2005 ± 10 µg/mL
p-cresol	000106-44-5	RM01988	2005 ± 10 µg/mL
2,4,5-trichlorophenol	000095-95-4	NT00344	2004 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

5/11/22

K004539
toxic sub mix#1
Solvent / Lot: methylene chloride
Prep: 5/11/2022 by JZ
Exp: 6/30/2024
Location:

ANAB ACCREDITED ISO17034 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO 17025 Cert No. AT-1937

ISO 17034

Agilent
Trusted Answers

Reference Material Certificate

Product Name: Phenols Standard
Product Number: US-107N-1
Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006648297
Lot Issue Date: 17-Nov-2021
Expiration Date: 31-Dec-2024

Component Name	CERTIFIED VALUES Concentration	Expanded Uncertainty	CAS#	Analyte Lot
4-chloro-3-methylphenol	2006 ±	10 µg/mL	000059-50-7	RM01885
2-chlorophenol	2007 ±	10 µg/mL	000095-57-8	RM01871
2,4-dichlorophenol	2005 ±	10 µg/mL	000120-83-2	RM13878
2,4-dimethylphenol	2006 ±	10 µg/mL	000105-67-9	RM13009
2,4-dinitrophenol	2006 ±	10 µg/mL	000051-28-5	RM02112
2-methyl-4,6-dinitrophenol	2005 ±	10 µg/mL	000534-52-1	RM02292
2-nitrophenol	2007 ±	10 µg/mL	000088-75-5	RM13445
4-nitrophenol	2006 ±	10 µg/mL	000100-02-7	RM03752
pentachlorophenol	2006 ±	10 µg/mL	000087-86-5	RM02474
phenol	2006 ±	10 µg/mL	000108-95-2	RM11471
2,4,6-trichlorophenol	2006 ±	10 µg/mL	000088-06-2	RM18096

Matrix: methylene chloride (dichloromethane)

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

5/11/22

CSD-QA-015.1

K004540
phenols mix
Solvent / Lot: methylene chloride
Prep: 5/11/2022 by JZ
Exp: 12/31/2024
Location:

ISO 17034

Agilent
Trusted Answers

Reference Material Certificate

Product Name: PAH Standard
Product Number: US-106N-1
Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006627349
Lot Issue Date: 17-Sep-2021
Expiration Date: 31-Oct-2024

Component Name	CERTIFIED VALUES Concentration	Expanded Uncertainty	CAS#	Analyte Lot
acenaphthene	2007 ±	10 µg/mL	000083-32-9	RM10879
acenaphthylene	2004 ±	10 µg/mL	000208-96-8	RM10891
anthracene	2006 ±	10 µg/mL	000120-12-7	RM14212
benz[a]anthracene	2006 ±	10 µg/mL	000056-55-3	RM16072
benzo[b]fluoranthene	2006 ±	10 µg/mL	000205-99-2	RM14571
benzo[k]fluoranthene	2006 ±	10 µg/mL	000207-08-9	RM18376
benzo[ghi]perylene	2006 ±	10 µg/mL	000191-24-2	RM15761
benzo[a]pyrene	2006 ±	10 µg/mL	000050-32-8	RM17573
chrysene	2007 ±	10 µg/mL	000218-01-9	RM13771
dibenz[a,h]anthracene	2006 ±	10 µg/mL	000053-70-3	RM06786
fluoranthene	2006 ±	10 µg/mL	000206-44-0	RM12277
fluorene	2006 ±	10 µg/mL	000086-73-7	RM09441
indeno[1,2,3-cd]pyrene	2006 ±	10 µg/mL	000193-39-5	RM14192
naphthalene	2007 ±	10 µg/mL	000091-20-3	RM10445
phenanthrene	2005 ±	10 µg/mL	000085-01-8	RM10495
pyrene	2005 ±	10 µg/mL	000129-00-0	RM16126

Matrix: methylene chloride/benzene (1:1)

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

K004541
SVOA PAH STD 2000ug/ml
Solvent / Lot: DCM/BENZENE
Prep: 5/11/2022 by JZ
Exp: 10/31/2024
Location: Fridge 19

CSD-QA-015.1

11/22

Reference Materials Producer
Cert #2495.01

Certificate of Analysis

Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030 **Lot No.** AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

This **SPEXOrganics**® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

Compound	CAS #	Labeled	Purity	Certified†	Uncertainty
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

Certificate of Reference Material

Catalog Number: ECS-A-030 **Lot No.** AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021 Certifying Officer: Shannon Mora

Report of Certification

Catalog Number: ECS-A-030 **Lot No.** AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory , please store this product in a refrigerator (2°C to 8°C). Note: Shipping conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and is applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve after one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that should be removed from this vial is 5 µL with a 25µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that come in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation have been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bottle variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i, where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breech of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liable for any loss of profits or any incidental, special, or consequential damages.

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Accredited to 17025 & Guide 34 ISO Certified to 9001

ACCREDITED
Reference Materials Producer
Cert #2495.01

ECS

Certificate of Analysis

ilac-MRA ACCREDITED
Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030 **Lot No.** AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

This **SPEXOrganics®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

Compound	CAS #	Labeled	Purity	Certified†	Uncertainty
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

K004542

Certificate of Reference Material

Catalog Number: ECS-A-030 **Lot No.** AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021 Certifying Officer: Shannon Nave

Report of Certification

Catalog Number: ECS-A-030 **Lot No.** AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in a refrigerator (2°C to 8°C). Note: Shipping conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and is applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve after one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that should be removed from this vial is 5µL with a 25µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that come in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation have been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bottle variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breech of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liable for any loss of profits or any incidental, special, or consequential damages.

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Accredited to 17025 & Guide 34 ISO Certified to 9001

Agilent

Certificate of Analysis

Product Name: 1-Methylnaphthalene Standard

Product Number: EPA-1225-1 **Lot Issue Date:** 19-Jul-2021

Lot Number: 0006624769 **Expiration Date:** 31-Jul-2023

Description:
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1-methylnaphthalene	000090-12-0	RM07712	999.3 ± 5.0 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

K004543
1-Methylnaphthalene
Solvent / Lot: MEOH
Prep: 5/11/2022 by JZ
Exp: 7/31/2023
Location:

5/11/22

Sample lot approver:
Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO17034 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026
Page: 1 of 1
www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO 17025 Cert
No. AT-1937

Agilent

Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-104N-1 **Lot Issue Date:** 02-Jul-2021

Lot Number: 0006620643 **Expiration Date:** 31-Jul-2023

Description:
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
aniline	000062-53-3	RM12853	2005 ± 10 µg/mL
benzyl alcohol	000100-51-6	RM10547	2004 ± 10 µg/mL
4-chloroaniline	000106-47-8	RM01886	2002 ± 10 µg/mL
dibenzofuran	000132-64-9	RM02077	2002 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	2006 ± 10 µg/mL
2-nitroaniline	000088-74-4	RM02402	2003 ± 10 µg/mL
3-nitroaniline	000099-09-2	RM02424	2003 ± 10 µg/mL
4-nitroaniline	000100-01-6	RM02425	2003 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

K004544
toxic sub mix#2
Solvent / Lot: methylene chloride
Prep: 5/11/2022 by JZ
Exp: 7/31/2023
Location:

05/11/22

ANAB ACCREDITED ISO17034 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO 17025 Cert No. AT-1937

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31493 **Lot No.:** A0181243

Description : CLP 04.1 BNA Surrogate Mix

CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2025 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

05/11/22

K004545
CLP 04.1 BNA SURR MIX
Solvent / Lot: AO175316
Prep: 5/11/2022 by JZ
Exp: 10/20/2025
Location:

Elution Order	Compound	Gr (weig					
1	2-Fluorophenol **CAS #** 367-12-4 (Lot STBJ2508) **Purity** 99%	1,50					
				+/-	53.3632	µg/mL	Stressed
2	Phenol-d6 **CAS #** 13127-88-3 (Lot PR-31262) **Purity** 99%	1,506.0	µg/mL	+/-	8.9452	µg/mL	Gravimetric
				+/-	43.9882	µg/mL	Unstressed
				+/-	53.3632	µg/mL	Stressed
3	2-Chlorophenol-d4 **CAS #** 93951-73-6 (Lot PR-30568) **Purity** 99%	1,510.0	µg/mL	+/-	8.9689	µg/mL	Gravimetric
				+/-	44.1050	µg/mL	Unstressed
				+/-	53.5049	µg/mL	Stressed
4	1,2-Dichlorobenzene-d4 **CAS #** 2199-69-1 (Lot PR-32542/022621DB1 **Purity** 99%	1,004.0	µg/mL	+/-	5.9635	µg/mL	Gravimetric
				+/-	29.3255	µg/mL	Unstressed
				+/-	35.5754	µg/mL	Stressed
5	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	1,008.0	µg/mL	+/-	5.9872	µg/mL	Gravimetric
				+/-	29.4423	µg/mL	Unstressed
				+/-	35.7172	µg/mL	Stressed
6	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 19169) **Purity** 99%	1,006.0	µg/mL	+/-	5.9753	µg/mL	Gravimetric
				+/-	29.3839	µg/mL	Unstressed
				+/-	35.6463	µg/mL	Stressed
7	2,4,6-Tribromophenol **CAS #** 118-79-6 (Lot MKCJ7664) **Purity** 99%	1,506.0	µg/mL	+/-	8.9452	µg/mL	Gravimetric
				+/-	43.9882	µg/mL	Unstressed
				+/-	53.3632	µg/mL	Stressed

Certificate of Analysis

phenova Certified Reference Materials | A Phenomenex Company

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.:	AL0-101246	**Lot Number:**	CL17953
Description:	Benzoic Acid	**Certification Date:**	January 31, 2022
Storage:	4 °C	**Expiration Date:**	January 31, 2032
Provided As:	1 mL in 2 mL Ampoule in Methylene Chloride		

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 2.714%

K004603
Benzoic Acid @2000ug/ml
Solvent / Lot: N/A
Prep: 5/13/2022 by JZ
Exp: 1/31/2032
Location: GC

5/13/22

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

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Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

IL64691018 us

Certificate of Analysis

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Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244
Description: Benzidines Standard
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Lot Number: CL17662
Certification Date: December 2, 2021
Expiration Date: November 30, 2031

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 0.211%
3,3'-Dichlorobenzidine	91-94-1	2000	± 1.305%

K004604
Benzidines std @2000ug/ml
Solvent / Lot: MeCl2
Prep: 5/13/2022 by JZ
Exp: 11/30/2031
Location: GC

5/13/22

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

phenova Certified Reference Materials | A Phenomenex Company

Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

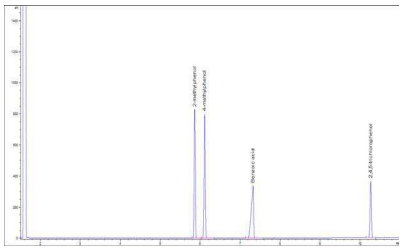
ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

IL64591018_us

Certificate of Analysis - Certified Reference Material

EPA TCL Hazardous Substances Mix 1

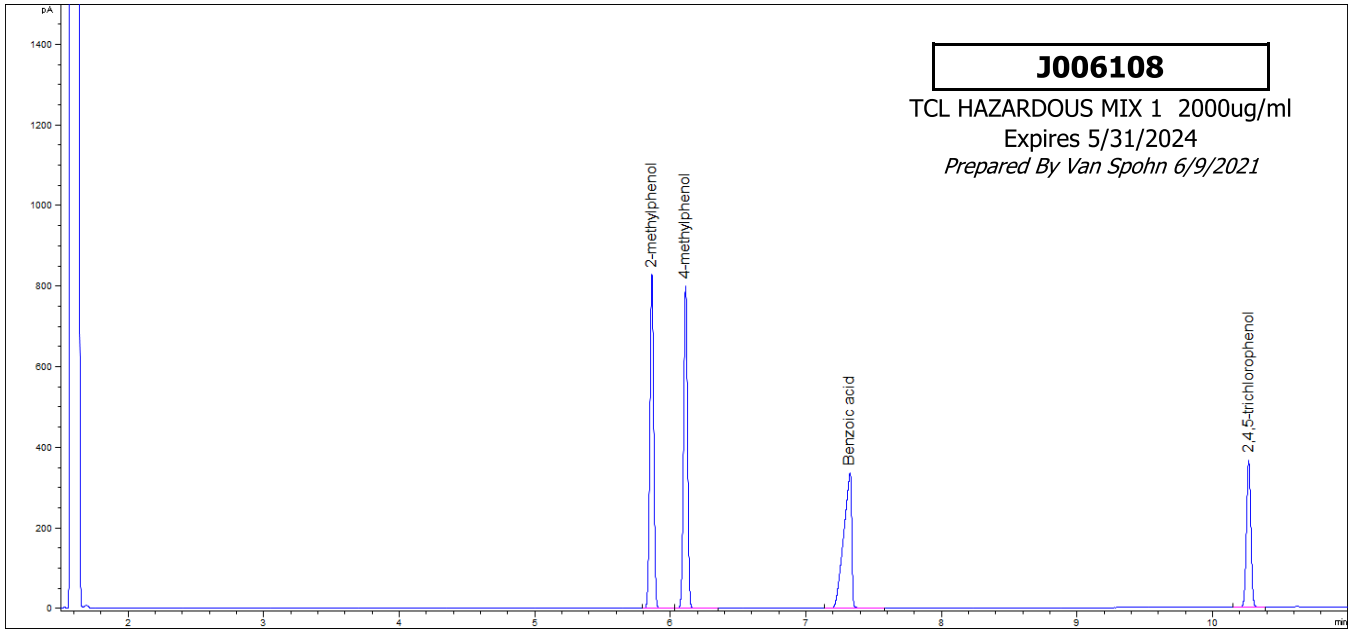
Product no.: 48907
Lot no.: LRAC9610
Expiry Date: May 2024
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAC9610.01 *(Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*



Certified Values:

Analyte	*Certified Value*	*Units*	*Raw Material Purity,%*	*Elution order*	*Raw Material Lot*
2-METHYLPHENOL CAS# 95-48-7	2004 ± 9	µg/mL	99.0	1	G1735A
4-METHYLPHENOL CAS# 106-44-5	2004 ± 13	µg/mL	98.9	2	06921MG
BENZOIC ACID CAS# 65-85-0	2012 ± 6	µg/mL	99.9	3	LC16514
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	2003 ± 6	µg/mL	99.9	4	JS00008

Informational Values:



Additional Information:
Analytical Method Parameters:
Column: Equity-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #98)
Carrier Gas: H2, Flow: 4.5 mL/min
Inlet Temperature: 170 °C, Injection Volume: 1 µL
Injection Mode: Split, Split Ratio: 20:1

Sigma-Aldrich RTC, 2931 Soldier Springs Rd. Laramie, WY 82070, USA;
Tel. 1 307-742-5452; Fax 1 855-831-9211; www.sigmaaldrich.com
Sigma-Aldrich RTC is a subsidiary of Merck KGaA, Darmstadt, Germany.

Temperature Program: 80 °C @ 10 °C/min to 190 °C (Hold 5 min)
Detector: FID
Detector Temperature: 310 °C

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 20-May-2021

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{\text{hom } ogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment: Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAC9610.01	20-May-2021	Original Release Date

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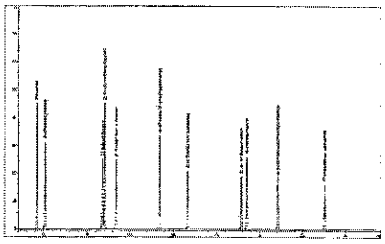
Certificate of Analysis - Certified Reference Material

EPA TCL Phenols Mix

Product no.: 48904
Lot no.: LRAD0139
Expiry Date: July 2024
Manufacturing Date: July 2021
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0139.01 *(Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*



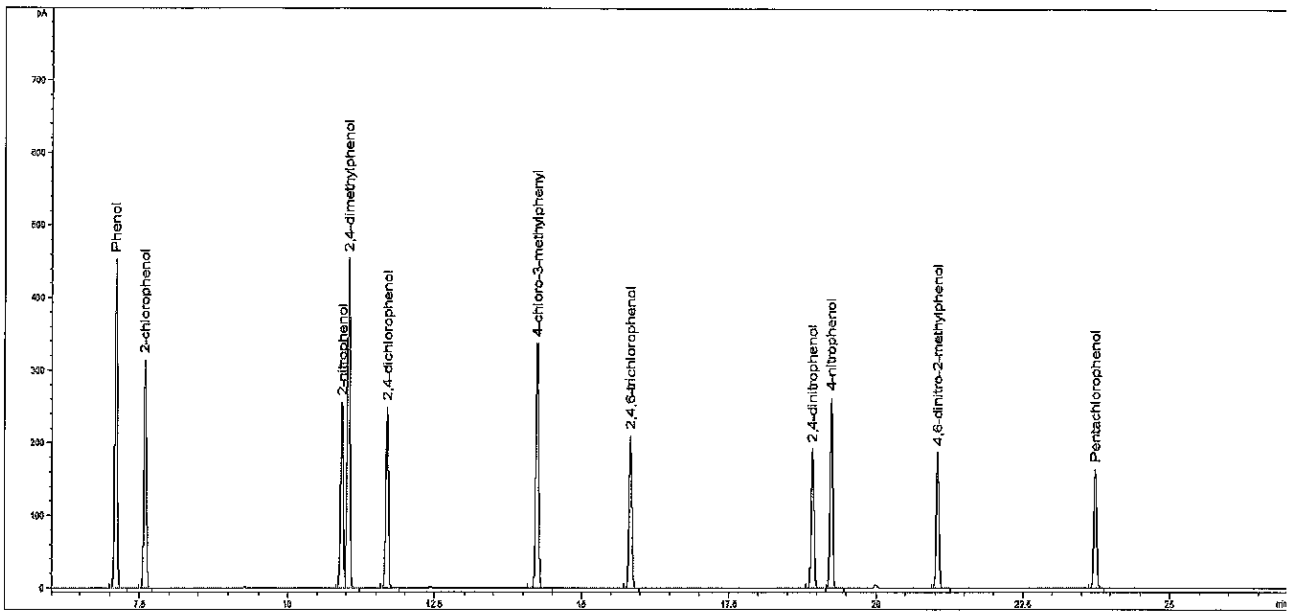
Certified Values:

Analyte	*Certified Value*	*Units*	*Raw Material Purity,%*	*Raw Material Lot*
2-CHLOROPHENOL CAS# 95-57-8	2001 ± 25	µg/mL	99.9	STBG3033V
2-NITROPHENOL CAS# 88-75-5	1999 ± 18	µg/mL	99.3	15905BB
2,4-DIMETHYLPHENOL CAS# 105-67-9	2000 ± 14	µg/mL	99.2	05421CO
2,4-DICHLOROPHENOL CAS# 120-83-2	2000 ± 17	µg/mL	99.5	03221TN
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	2000 ± 5	µg/mL	99.9	JS00013
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	2002 ± 5	µg/mL	99.5	04212PS
2,4-DINITROPHENOL CAS# 51-28-5	2000 ± 28	µg/mL	66.9	STBJ5751
4-NITROPHENOL CAS# 100-02-7	2000 ± 33	µg/mL	99.0	04628LT
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	2000 ± 27	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	1999 ± 25	µg/mL	97.9	MKCD2150

ASSAY Method

J013597
TCL Phenols Mix 2000ug/ml
Solvent / Lot: LRAD0139
Prep: 12/30/2021 by VS
Exp: 7/31/2024
Location:

Sigma-Aldrich RTC, 2931 Soldier Springs Rd. Laramie, WY 82070, USA;
Tel. 1 307-742-5452; Fax 1 855-831-9211; www.sigmaaldrich.com
Sigma-Aldrich RTC is a subsidiary of Merck KGaA, Darmstadt, Germany.



METHOD: GC (Bellefonte Method)

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness
Carrier Gas: H_2 Flow Rate: 4.5 mL/min
Inlet Temperature: 200 °C Injection Volume: 1.0 µL
Injection Mode: 25:1
Temperature Program: 80 °C (Hold 2 min) @ 6 °C/min to 260 °C (Hold 5 min)
Detector: FID Temperature: 310 °C

Elution details:

EO	RT(MIN)	ANALYTE
1	7.095	Phenol
2	7.585	2-chlorophenol
3	10.925	2-nitrophenol
4	11.037	2,4-dimethylphenol
5	11.696	2,4-dichlorphenol
6	14.242	4-chloro-3-m3thylphenol
7	15.842	2,4,6-trichlorophenol
8	18.93	2,4-dinitrophenol
9	19.25	4-nitrophenol
10	21.05	4,6-dinitro-2-methylphenol
11	23.752	Pentachlorophenol

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 12-Jul-2021

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{hom\ ogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment: Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0139.01	12-Jul-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.

RESTEK® C

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

K007194
CLP 04.1 BNA SURR MIX
Solvent / Lot: AO187400
Prep: 8/5/2022 by VS
Exp: 4/30/2026
Location:

Certificate of Analysis

IAL

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31493 **Lot No.:** A0187400

Description : CLP 04.1 BNA Surrogate Mix

CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Fluorophenol **CAS #** 367-12-4 (Lot STBJ3299) **Purity** 99%	1,508.0 µg/mL	+/- 8.9571 µg/mL +/- 44.0466 µg/mL +/- 53.4340 µg/mL	Gravimetric Unstressed Stressed
2	Phenol-d6 **CAS #** 13127-88-3 (Lot SL210831) **Purity** 99%	1,510.0 µg/mL	+/- 8.9689 µg/mL +/- 44.1050 µg/mL +/- 53.5049 µg/mL	Gravimetric Unstressed Stressed
3	2-Chlorophenol-d4 **CAS #** 93951-73-6 (Lot PR-30568) **Purity** 99%	1,512.0 µg/mL	+/- 8.9808 µg/mL +/- 44.1635 µg/mL +/- 53.5758 µg/mL	Gravimetric Unstressed Stressed
4	1,2-Dichlorobenzene-d4 **CAS #** 2199-69-1 (Lot PR-32597) **Purity** 99%	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 29.3255 µg/mL +/- 35.5754 µg/mL	Gravimetric Unstressed Stressed
5	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 29.3255 µg/mL +/- 35.5754 µg/mL	Gravimetric Unstressed Stressed
6	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 00021384) **Purity** 99%	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 29.3255 µg/mL +/- 35.5754 µg/mL	Gravimetric Unstressed Stressed
7	2,4,6-Tribromophenol **CAS #** 118-79-6 (Lot MKCJ7664) **Purity** 99%	1,502.0 µg/mL	+/- 8.9214 µg/mL +/- 43.8714 µg/mL +/- 53.2214 µg/mL	Gravimetric Unstressed Stressed

8	p-Terphenyl-d14		1,002.0	µg/mL	+/-	5.9516	µg/mL	Gravimetric
	CAS # 1718-51-0	(Lot PR-30504)			+/-	29.2671	µg/mL	Unstressed
	Purity 99%				+/-	35.5046	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

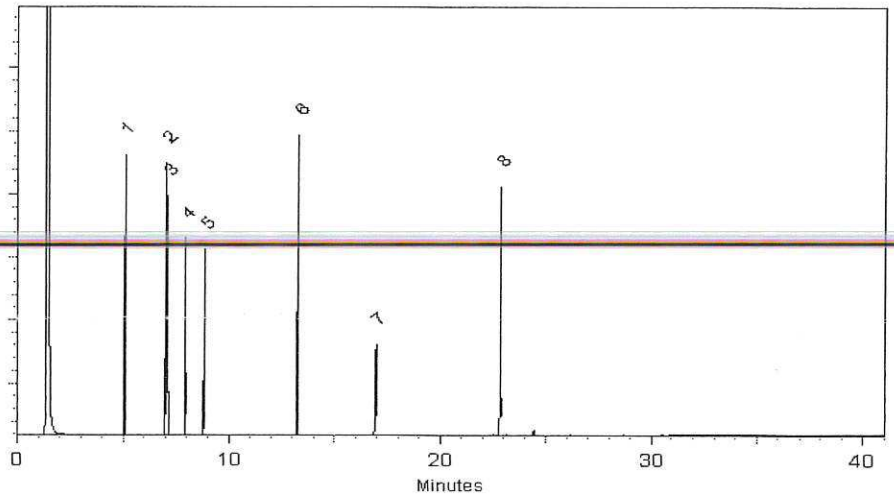
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 17-Jul-2022 **Balance:** 1128353505

Christie Mills - Operations Tech II - ARM QC

Date Passed: 21-Jul-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Certificate of Analysis

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL18355
Certification Date: July 25, 2022
Expiration Date: August 31, 2023

K007995
SVOA-8270 LCS MIX 1000ug/ml
Solvent / Lot: N/A
Prep: 8/29/2022 by JZ
Exp: 8/31/2023
Location: FREEZER 44

Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 0.300%
Acenaphthylene	208-96-8	1000	± 0.225%
Anthracene	120-12-7	1000	± 6.858%
Azobenzene	103-33-3	1000	± 0.224%
Benzo(a)anthracene	56-55-3	1000	± 0.247%
Benzo(a)pyrene	50-32-8	1000	± 0.270%
Benzo(b)fluoranthene	205-99-2	1000	± 0.635%
Benzo(k)fluoranthene	207-08-9	1000	± 0.682%
Benzo(g,h,i)perylene	191-24-2	1000	± 0.272%
Benzyl alcohol	100-51-6	1000	± 0.231%
Benzyl butyl phthalate	85-68-7	1000	± 0.480%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 0.479%
bis(2-Chloroethyl) ether	111-44-4	1000	± 0.479%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 0.550%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 0.479%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 0.479%
4-Bromophenyl phenyl ether	101-55-3	1000	± 0.479%
Carbazole	86-74-8	1000	± 0.146%

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Catalog No.: AL0-101444
Lot Number: CL18355
Description: 8270 Calibration Standard
Certification Date: July 25, 2022
Storage: -18 °C
Expiration Date: August 31, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 0.300%
4-Chloro-3-methylphenol	59-50-7	1000	± 0.545%
2-Chloronaphthalene	91-58-7	1000	± 0.224%
2-Chlorophenol	95-57-8	1000	± 0.507%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 0.479%
Chrysene	218-01-9	1000	± 0.145%
Dibenz(a,h)anthracene	53-70-3	1000	± 1.058%
Dibenzofuran	132-64-9	1000	± 0.302%
Di-n-butyl phthalate	84-74-2	1000	± 0.518%
1,2-Dichlorobenzene	95-50-1	1000	± 0.247%
1,3-Dichlorobenzene	541-73-1	1000	± 0.225%
1,4-Dichlorobenzene	106-46-7	1000	± 0.224%
2,4-Dichlorophenol	120-83-2	1000	± 0.545%
Diethyl phthalate	84-66-2	1000	± 0.518%
2,4-Dimethylphenol	105-67-9	1000	± 0.507%
Dimethyl phthalate	131-11-3	1000	± 0.518%
1,2-Dinitrobenzene	528-29-0	1000	± 0.361%
1,3-Dinitrobenzene	99-65-0	1000	± 0.300%
1,4-Dinitrobenzene	100-25-4	1000	± 0.242%
2,4-Dinitrophenol	51-28-5	1000	± 0.545%
2,4-Dinitrotoluene	121-14-2	1000	± 1.128%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444
Lot Number: CL18355
Description: 8270 Calibration Standard
Certification Date: July 25, 2022
Storage: -18 °C
Expiration Date: August 31, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 0.224%
Di-n-octyl phthalate	117-84-0	1000	± 0.486%
Fluoranthene	206-44-0	1000	± 0.224%
Fluorene	86-73-7	1000	± 0.224%
Hexachlorobenzene	118-74-1	1000	± 0.152%
Hexachlorobutadiene	87-68-3	1000	± 0.746%
Hexachlorocyclopentadiene	77-47-4	1000	± 0.153%
Hexachloroethane	67-72-1	1000	± 0.300%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 0.883%
Isophorone	78-59-1	1000	± 0.145%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 0.508%
1-Methylnaphthalene	90-12-0	1000	± 0.479%
2-Methylnaphthalene	91-57-6	1000	± 0.487%
2-Methylphenol	95-48-7	1000	± 0.545%
3-Methylphenol	108-39-4	500	± 0.279%
4-Methylphenol	106-44-5	500	± 0.399%
Naphthalene	91-20-3	1000	± 0.226%
2-Nitroaniline	88-74-4	1000	± 0.224%
3-Nitroaniline	99-09-2	1000	± 0.235%
4-Nitroaniline	100-01-6	1000	± 0.300%
Nitrobenzene	98-95-3	1000	± 0.300%

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Catalog No.: AL0-101444
Lot Number: CL18355
Description: 8270 Calibration Standard
Certification Date: July 25, 2022
Storage: -18 °C
Expiration Date: August 31, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 0.514%
4-Nitrophenol	100-02-7	1000	± 0.519%
N-Nitrosodimethylamine	62-75-9	1000	± 0.503%
N-Nitrosodiphenylamine	86-30-6	1000	± 0.476%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.461%
Pentachlorophenol	87-86-5	1000	± 0.202%
Phenanthrene	85-01-8	1000	± 0.145%
Phenol	108-95-2	1000	± 0.545%
Pyrene	129-00-0	1000	± 0.147%
Pyridine	110-86-1	1000	± 0.503%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 0.247%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 0.247%
1,2,4-Trichlorobenzene	120-82-1	1000	± 0.224%
2,4,5-Trichlorophenol	95-95-4	1000	± 0.507%
2,4,6-Trichlorophenol	88-06-2	1000	± 0.509%

Notes: The proper chemical name for Bis(2-Chloroiospropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

   Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

Supelco®

www.sigmaaldrich.com

Certificate of Composition - Analytical Standard

BASE STOCK

Product no.: 22523051
Lot no.: LRAD2751
Expiry Date: June 2024
Manufacturing Date: June 2022
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD2751.01 (*Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*

Analyte	*Assigned Value*	*Units*	*Raw Material Purity,%*	*Raw Material Lot*
3,3'-DICHLOROBENZIDINE, 100MG, NEAT CAS# 91-94-1	799	µg/mL	99.8	LRAD2376
2,4-DINITROTOLUENE CAS# 121-14-2	801	µg/mL	97.8	LB46632
2,6-DINITROTOLUENE CAS# 606-20-2	800	µg/mL	99.2	11231AN
HEXACHLOROCYCLOPENTADIENE CAS# 77-47-4	800	µg/mL	96.0	LB95525
N-NITROSODIMETHYLAMINE CAS# 62-75-9	800	µg/mL	95.0	2019-030598 5
PERYLENE CAS# 198-55-0	200	µg/mL	99.6	04101PG
ANILINE CAS# 62-53-3	800	µg/mL	99.9	LA41596
4-CHLOROANILINE CAS# 106-47-8	800	µg/mL	100.0	MKBZ6909V
2-NITROANILINE CAS# 88-74-4	799	µg/mL	99.9	07411KN
3-NITROANILINE CAS# 99-09-2	800	µg/mL	99.9	LC09264
4-NITROANILINE CAS# 100-01-6	800	µg/mL	99.9	15609AA
PYRIDINE (LOW WATER) CAS# 110-86-1	800	µg/mL	100.0	SHBJ9218

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Sigma-Aldrich RTC, 2931 Soldier Springs Rd. Laramie, WY 82070, USA;
Tel. 1 307-742-5452; Fax 1 855-831-9211; www.sigmaaldrich.com
Sigma-Aldrich RTC is a subsidiary of Merck KGaA, Darmstadt, Germany.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date: 03 JUN 2022

Andy Ommen - QC Manager

Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD2751.01	03 JUN 2022	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

Analytical Resources, LLC
Analytical Chemists and Consultants

LDW23-IT1114

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

Polynuclear Aromatic Hydrocarbons

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-03 A	SDG:	23A0313
Sampled:	01/16/23 08:42	Prepared:	02/01/23 11:29	File ID:	N823020628.D
% Solids:	62.68	Preparation:	EPA 3546 (Microwave)	Analyzed:	02/07/23 00:55
Batch:	BLA0683	Sequence:	SLB0075	Initial/Final:	15.97 g Wet / 0.5 mL
Instrument:	NT8	Column:	RXI-17Sil ms	Calibration:	GA00050
Cleanups:	GPC, Silica Gel				

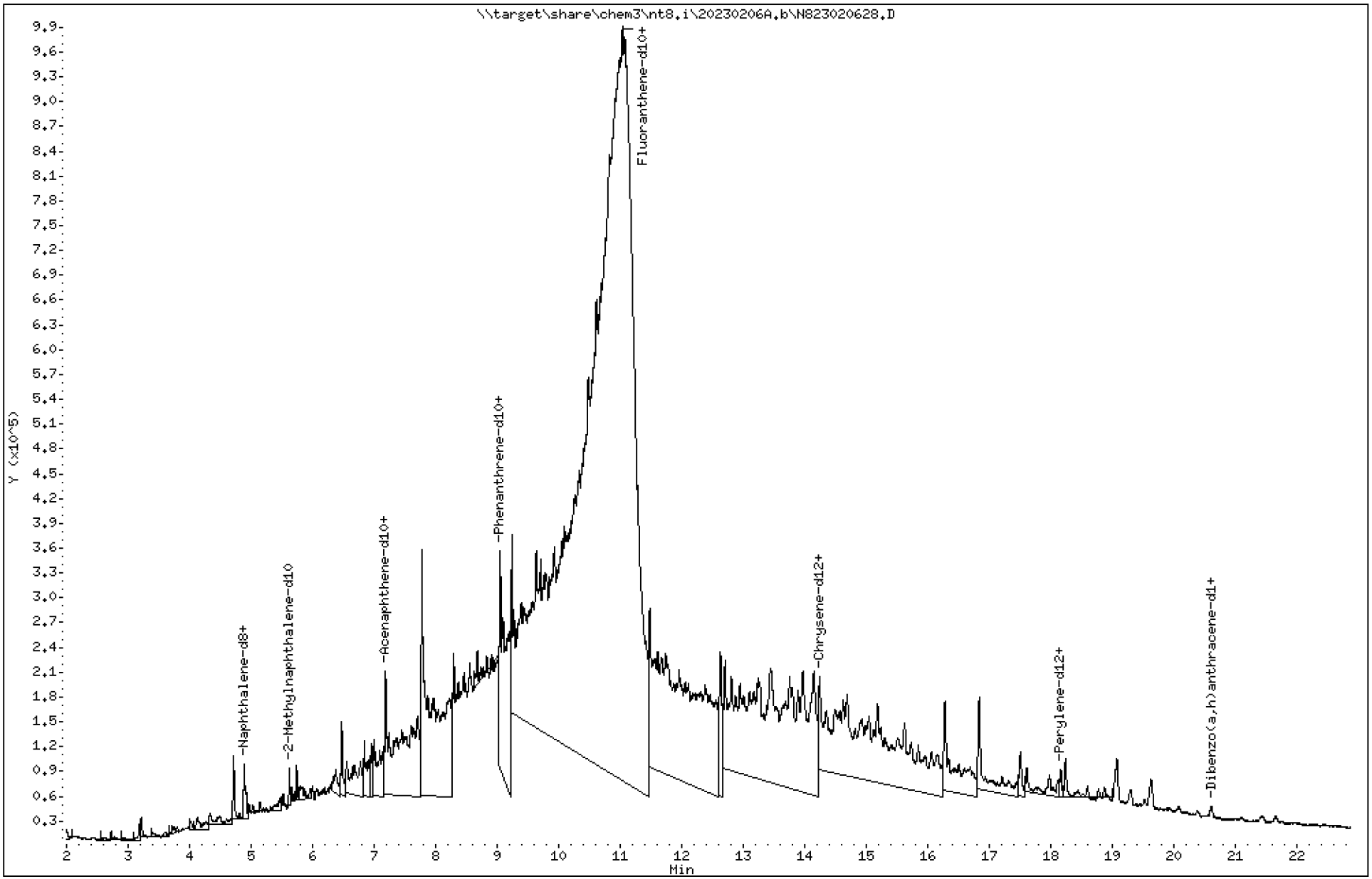
CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
56-55-3	Benzo(a)anthracene	3	44.4	D	2.47	15.0
218-01-9	Chrysene	3	40.9	D	3.16	15.0
205-99-2	Benzo(b)fluoranthene	3	31.1	D	4.11	15.0
207-08-9	Benzo(k)fluoranthene	3	15.0	D	2.28	15.0
50-32-8	Benzo(a)pyrene	3	27.6	D	1.84	15.0
193-39-5	Indeno(1,2,3-cd)pyrene	3	17.6	D	3.15	15.0
53-70-3	Dibenzo(a,h)anthracene	3	6.34	J, D	2.67	15.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	149.85	152	102	32 - 120	
Dibenzo[a,h]anthracene-d14	149.85	177	118	21 - 133	
Fluoranthene-d10	149.85	213	142	36 - 134	*

Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D
Date : 07-FEB-2023 00:55
Client ID:
Sample Info: 23A0313-03,3

Instrument: nt8.i
Operator: JZ
Column diameter: 0.25

Column phase: Rxi-17sil



Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

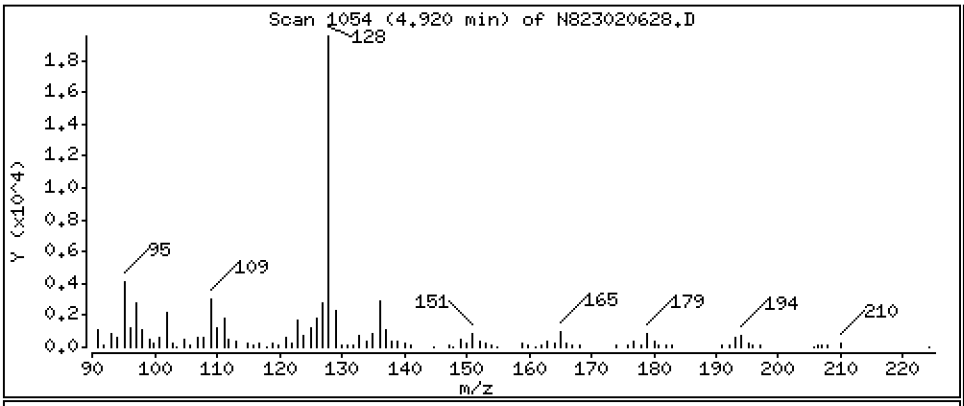
Operator: JZ

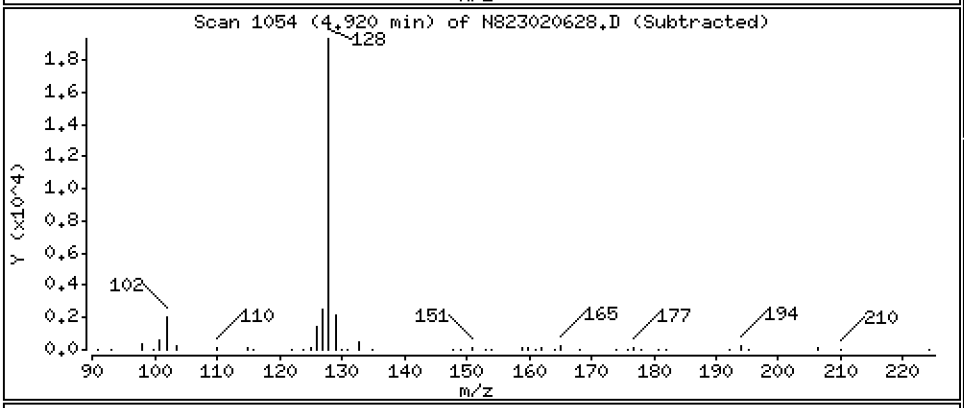
Column phase: Rxi-17sil

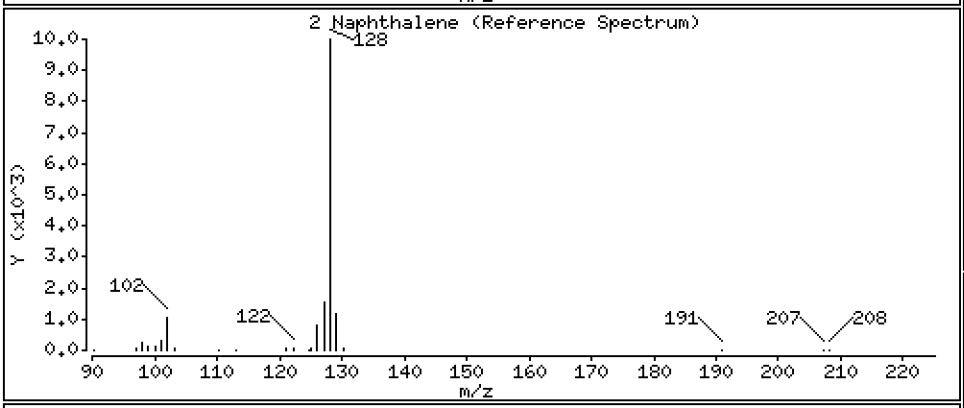
Column diameter: 0.25

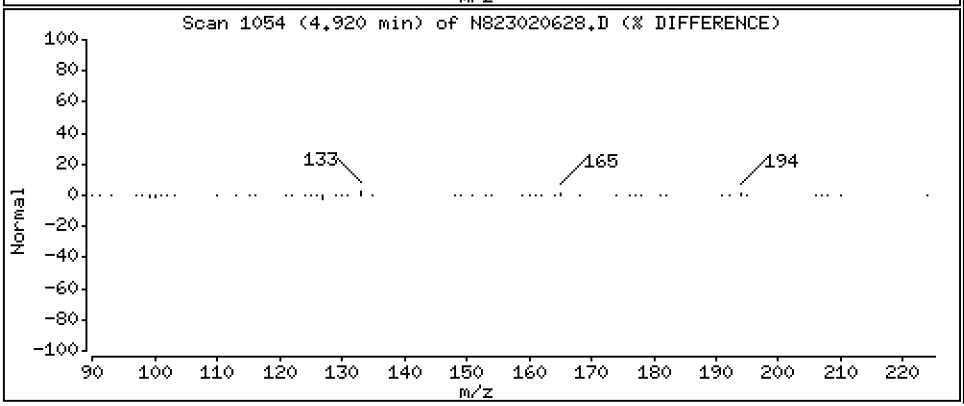
2 Naphthalene

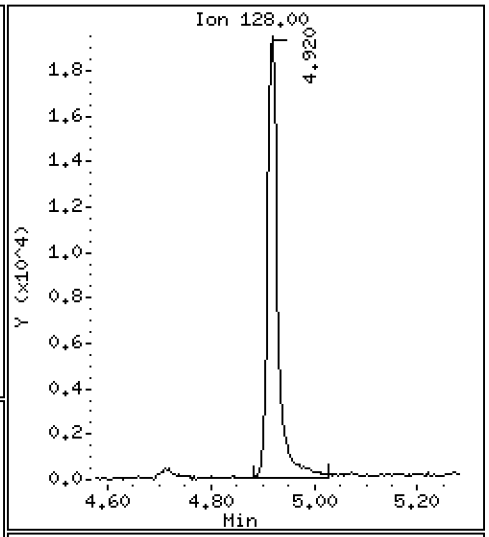
Concentration: 3.139 ug/mL

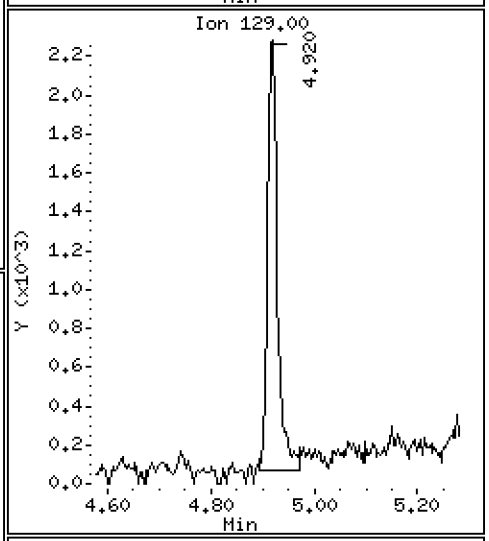


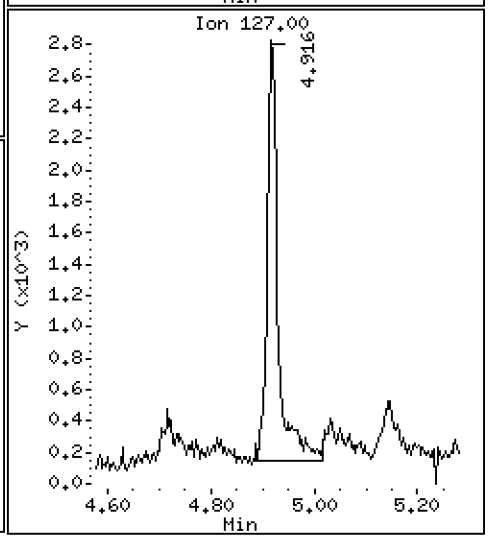












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Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

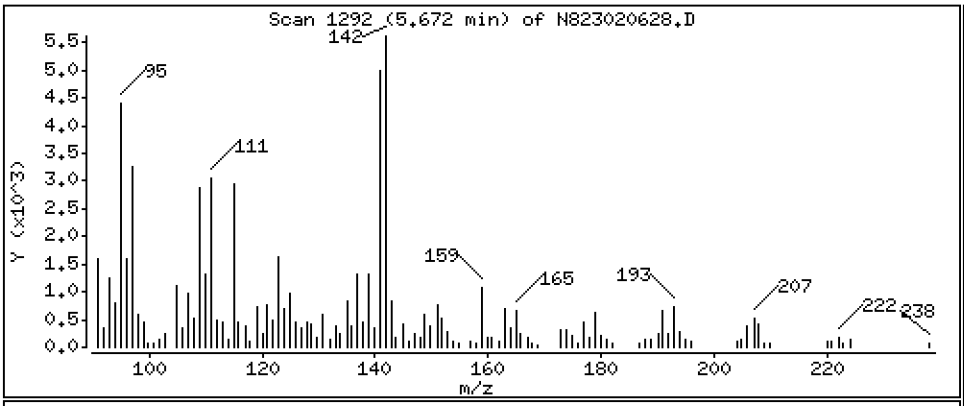
Operator: JZ

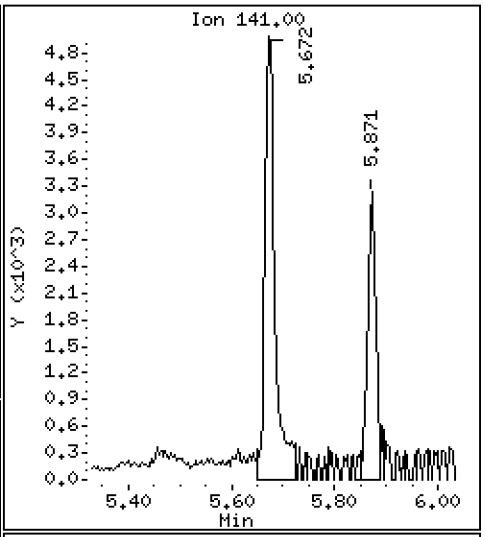
Column phase: Rxi-17sil

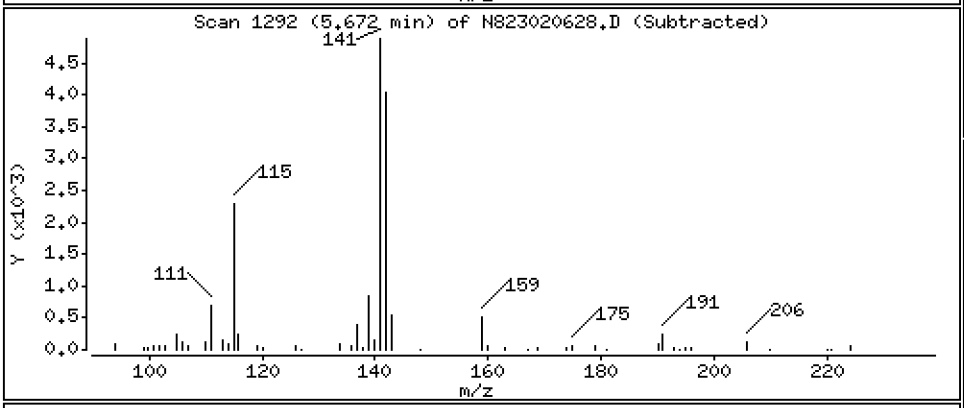
Column diameter: 0.25

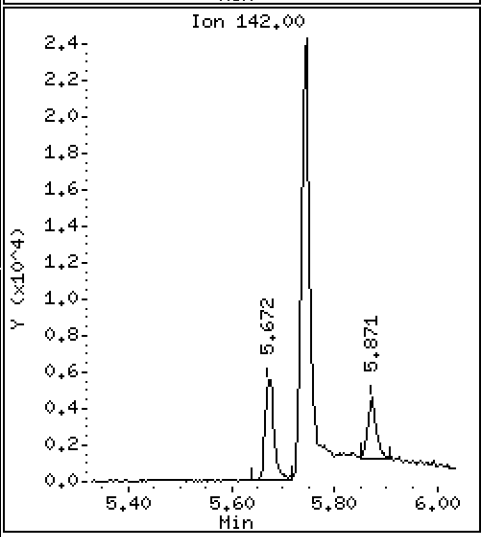
4 2-Methylnaphthalene

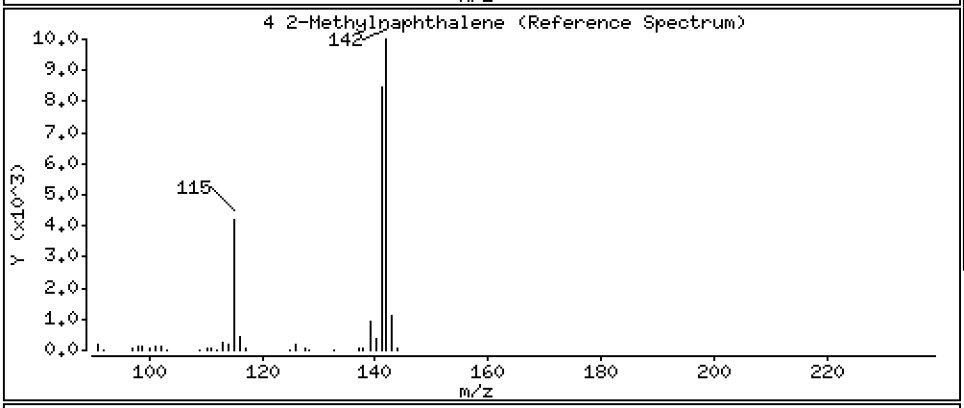
Concentration: 1.428 ug/mL

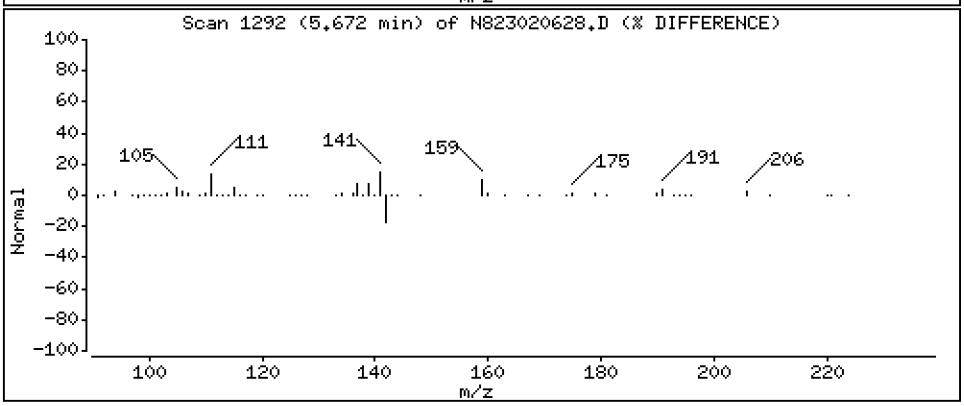












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Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

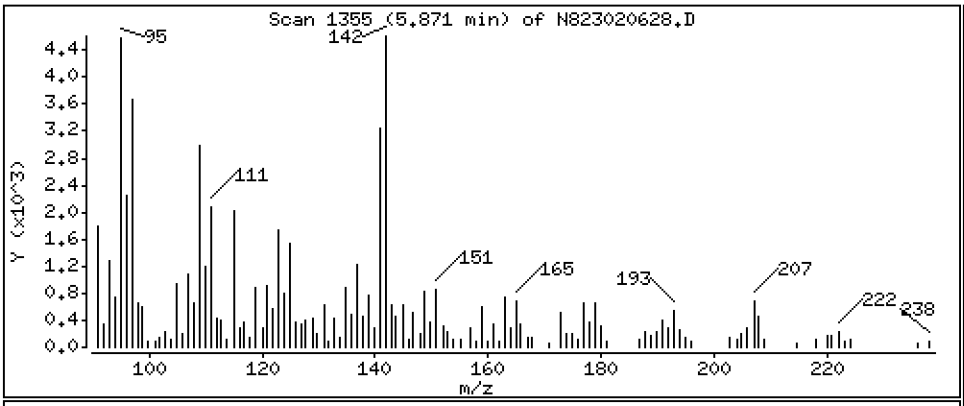
Operator: JZ

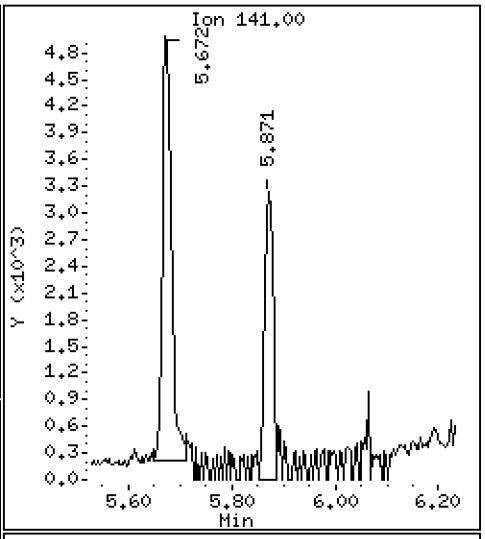
Column phase: Rxi-17sil

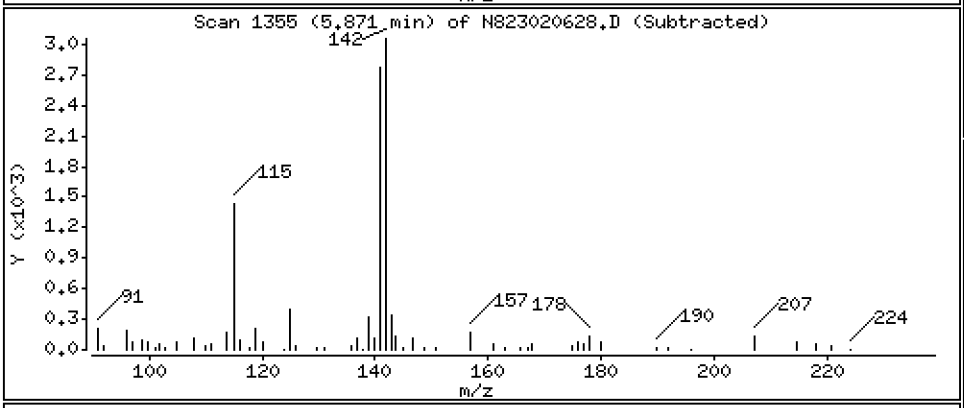
Column diameter: 0.25

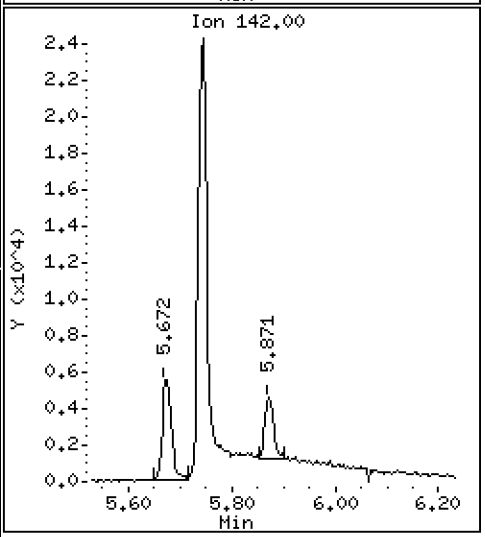
5 1-methylnaphthalene

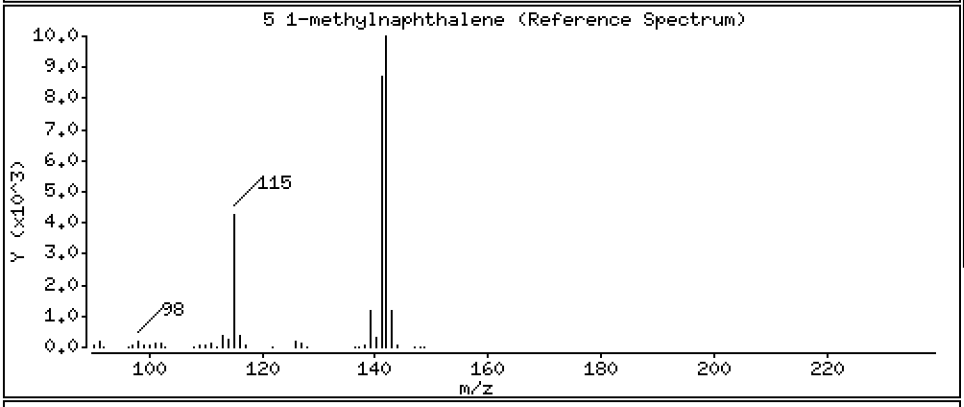
Concentration: 0.7377 ug/mL

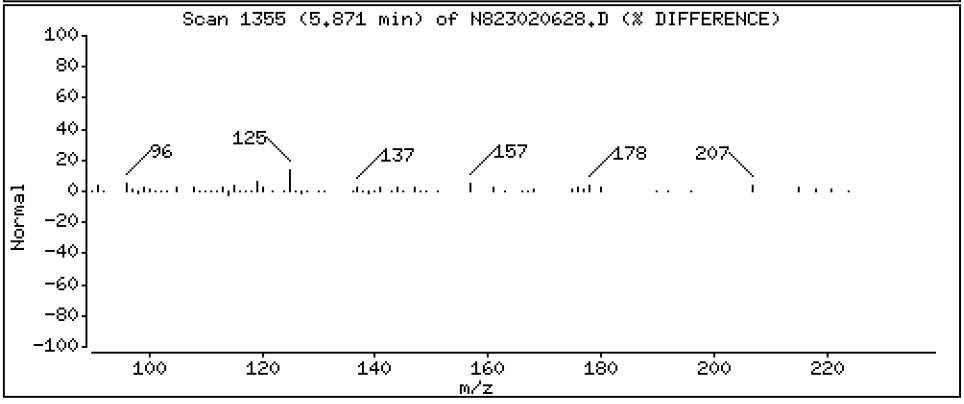












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Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

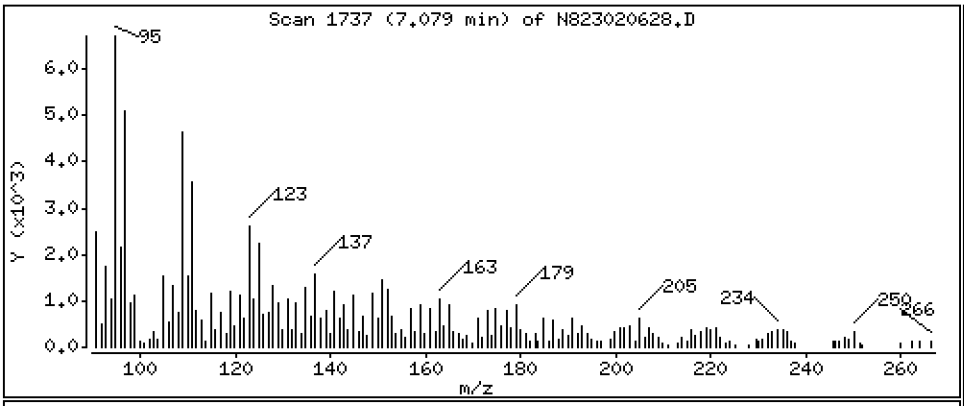
Operator: JZ

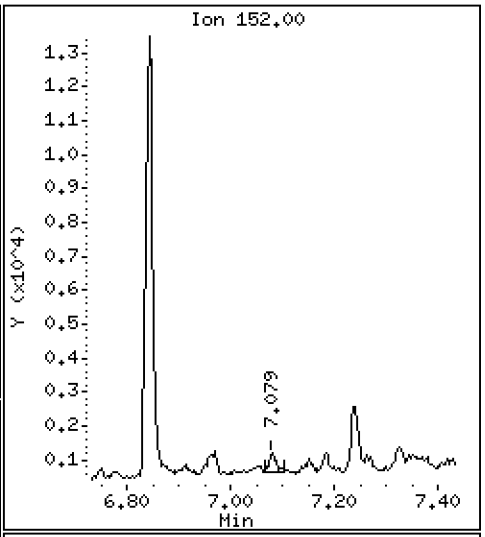
Column phase: Rxi-17sil

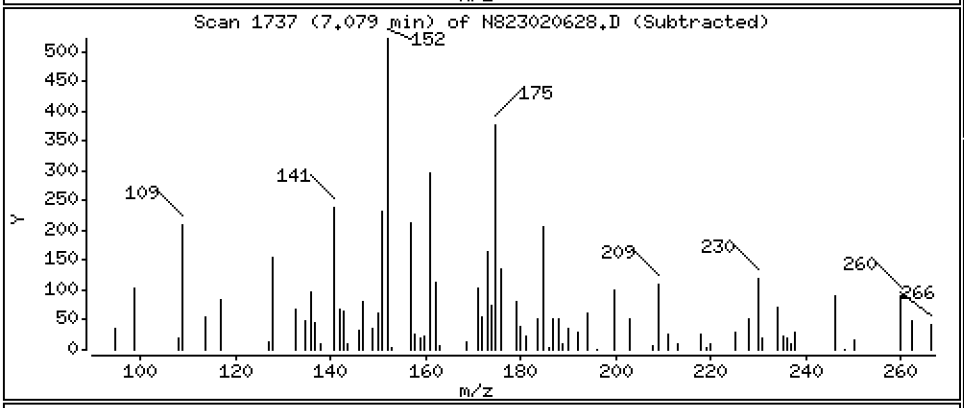
Column diameter: 0.25

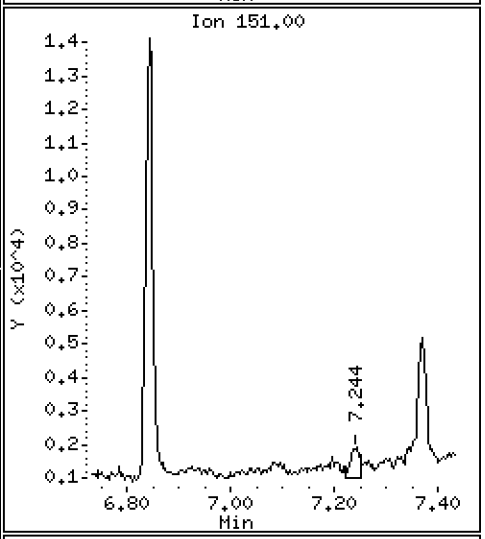
9 Acenaphthylene

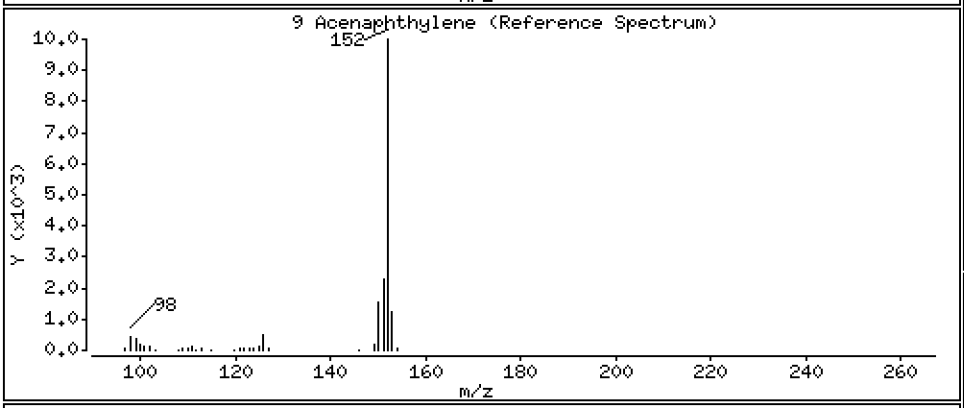
Concentration: 0.06940 ug/mL

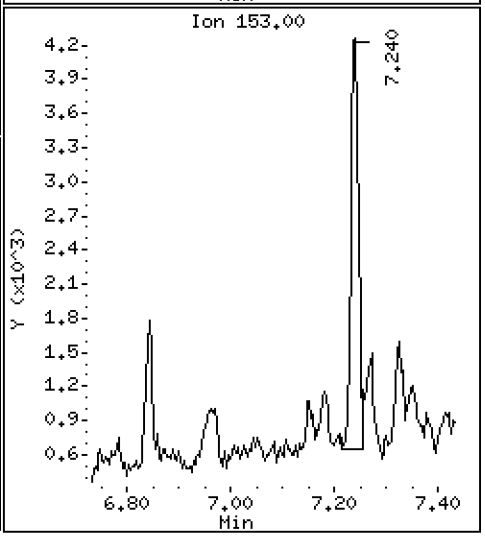


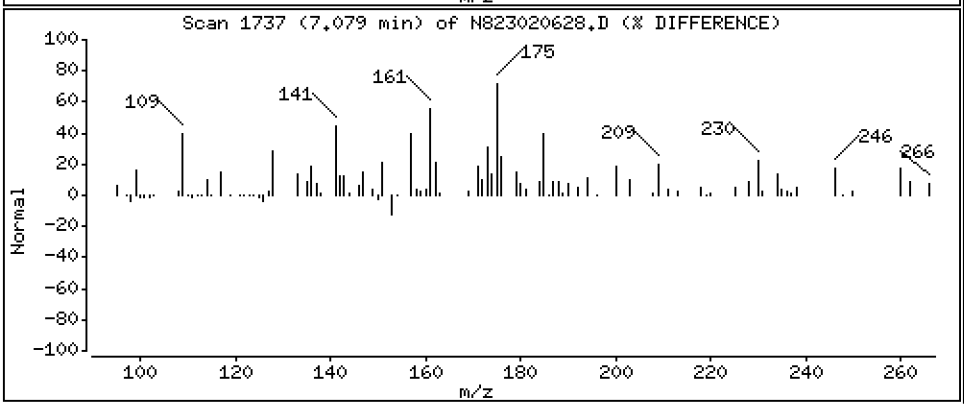












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Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

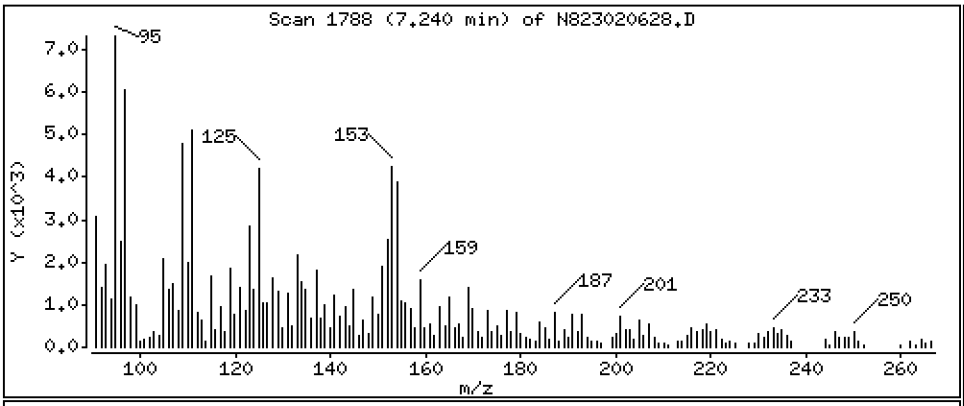
Operator: JZ

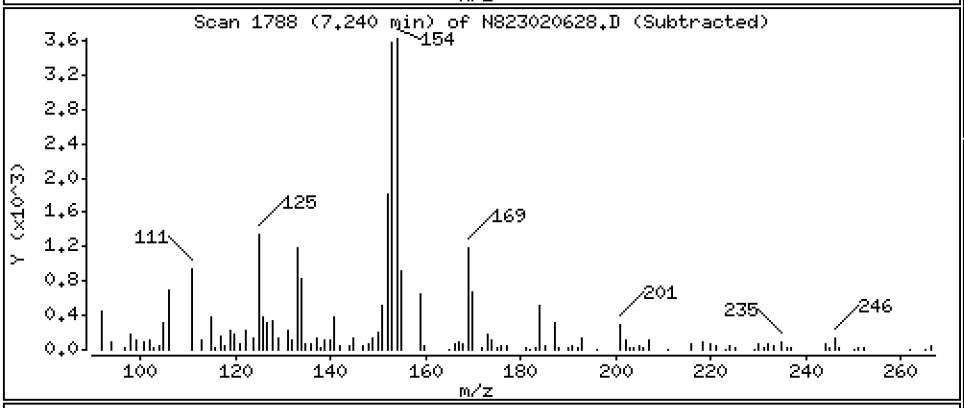
Column phase: Rxi-17sil

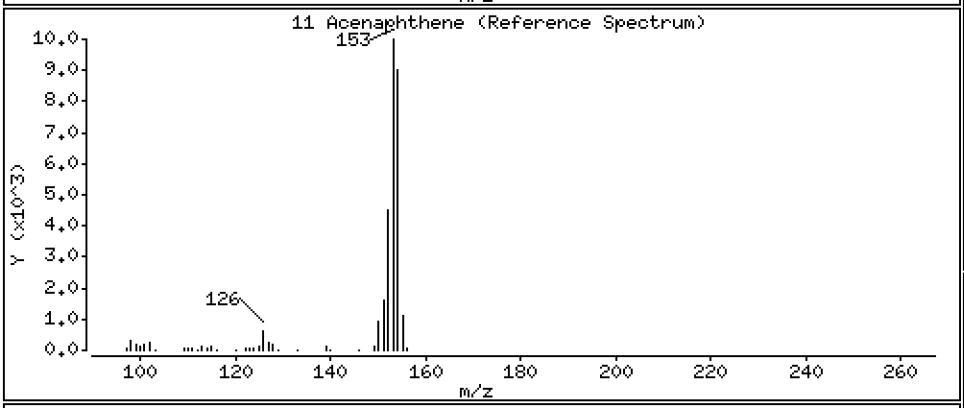
Column diameter: 0.25

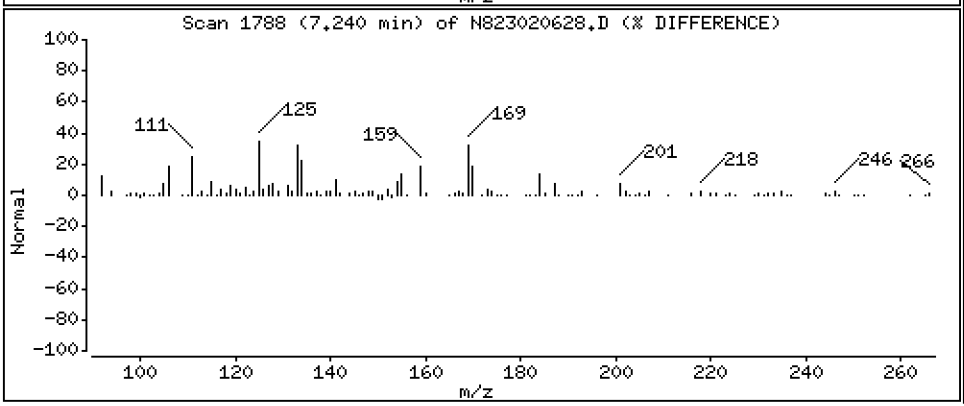
11 Acenaphthene

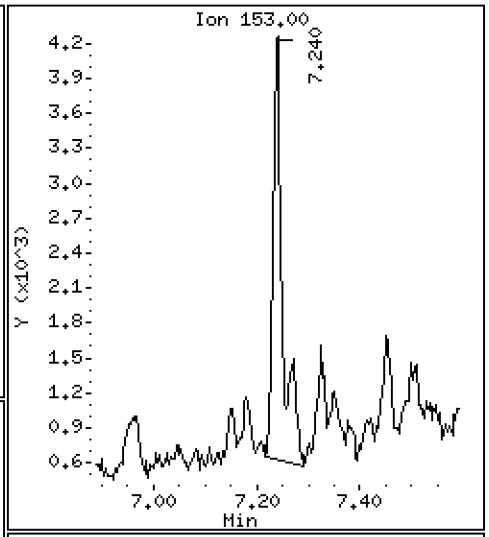
Concentration: 0.9296 ug/mL

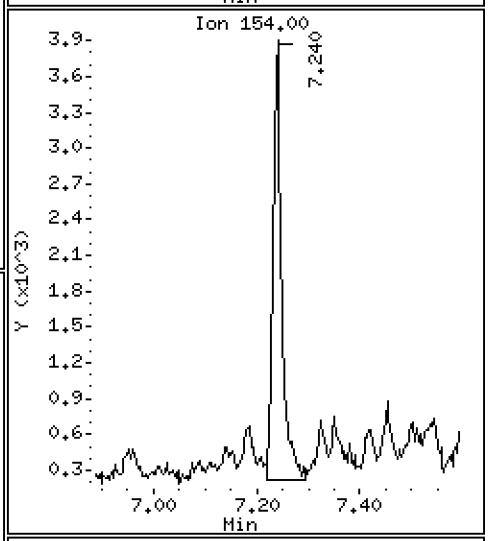


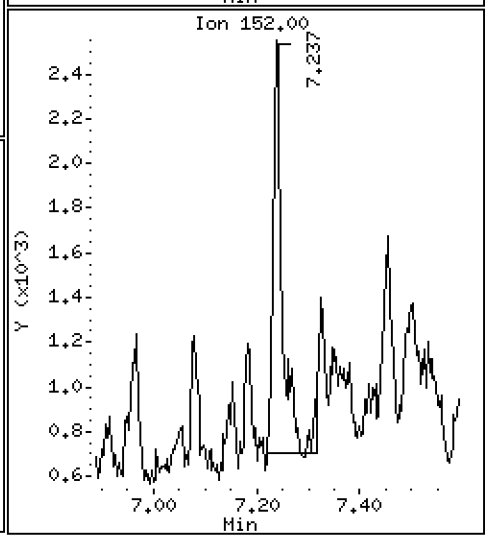












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Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

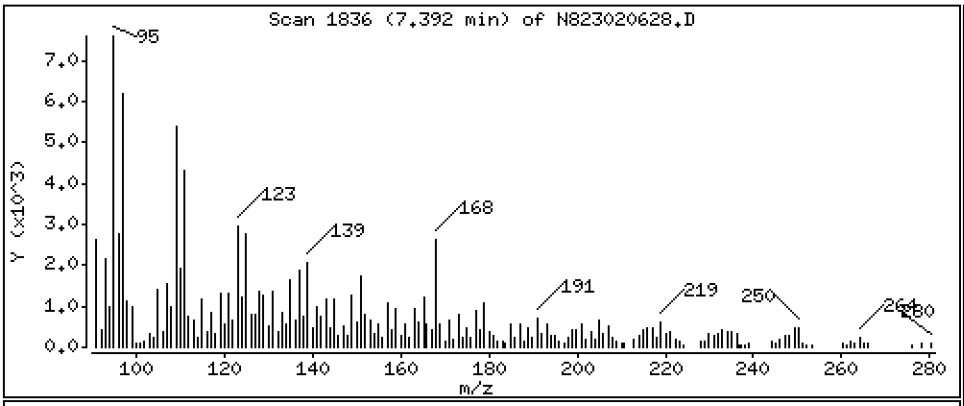
Operator: JZ

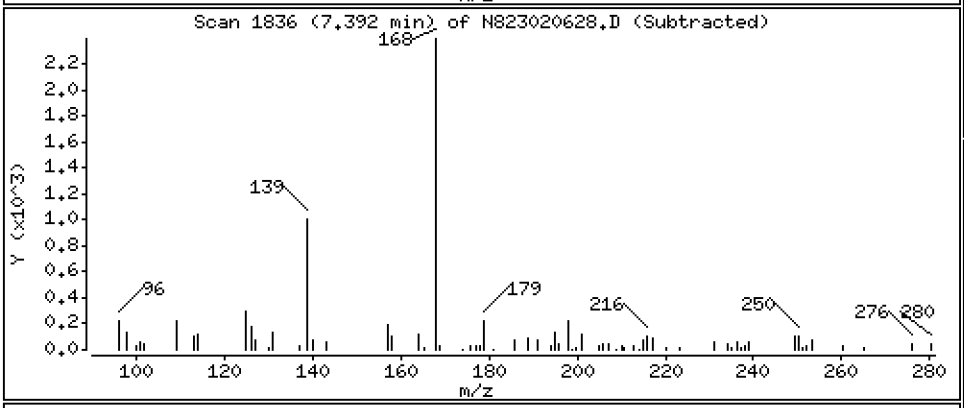
Column phase: Rxi-17sil

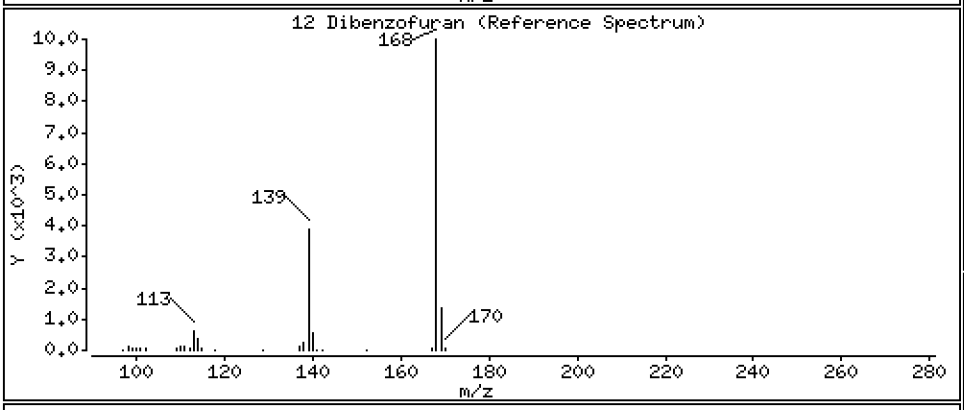
Column diameter: 0.25

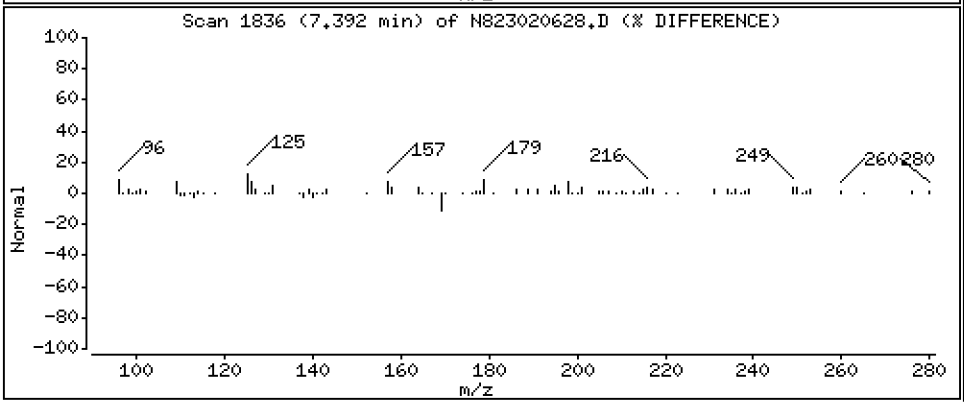
12 Dibenzofuran

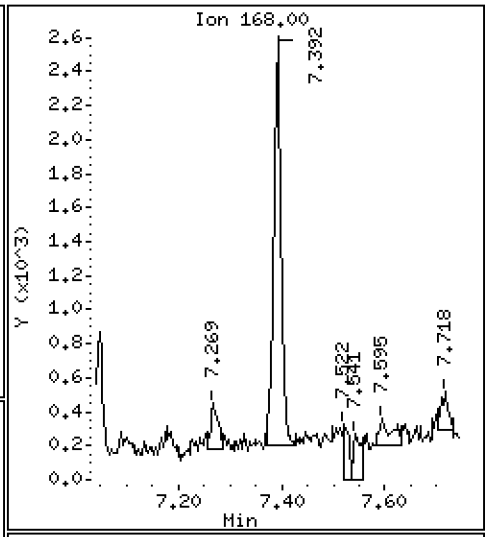
Concentration: 0.3129 ug/mL

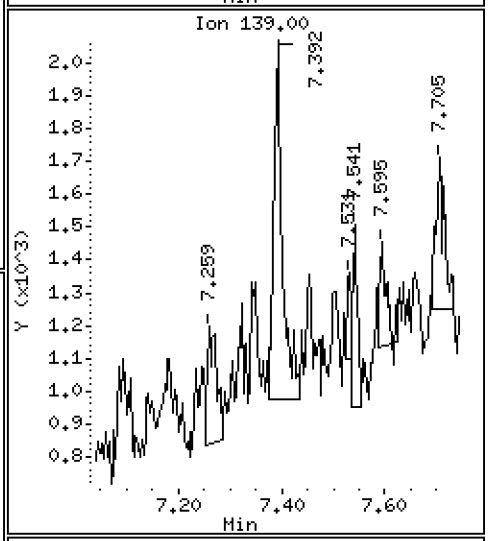


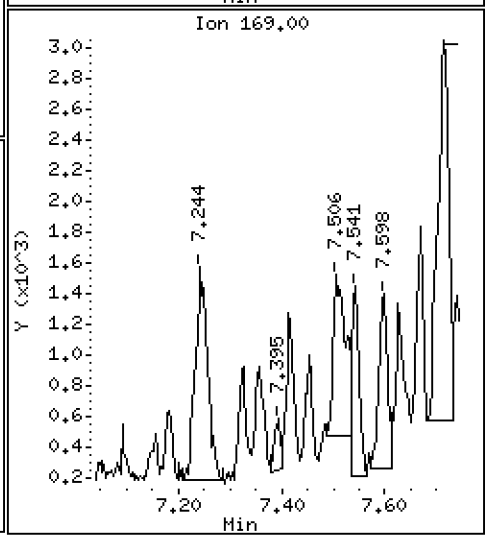












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Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

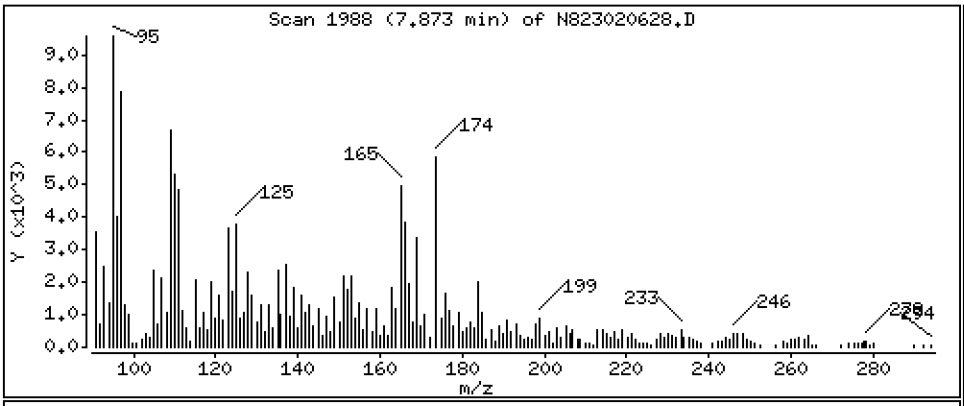
Operator: JZ

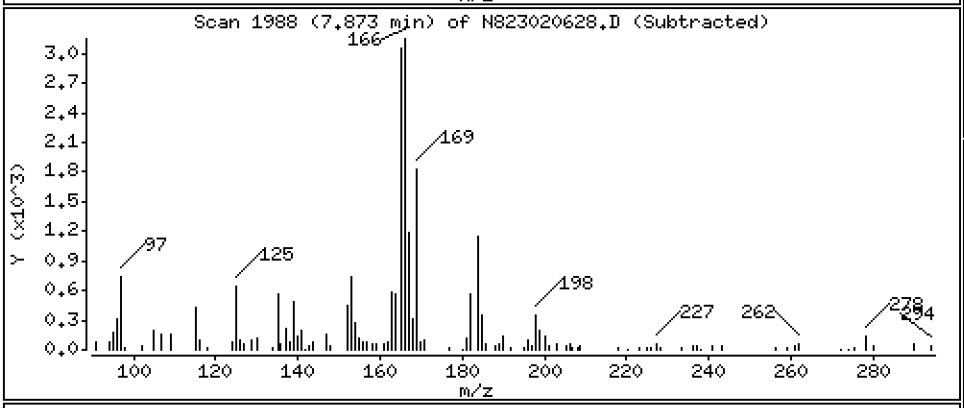
Column phase: Rxi-17sil

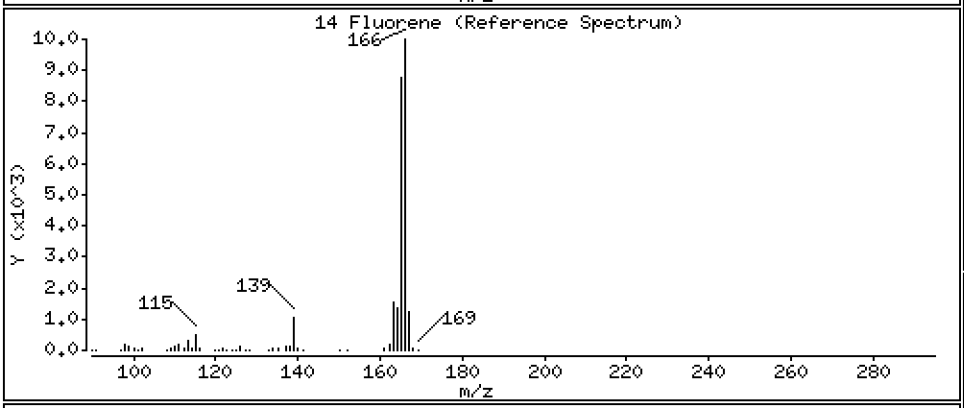
Column diameter: 0.25

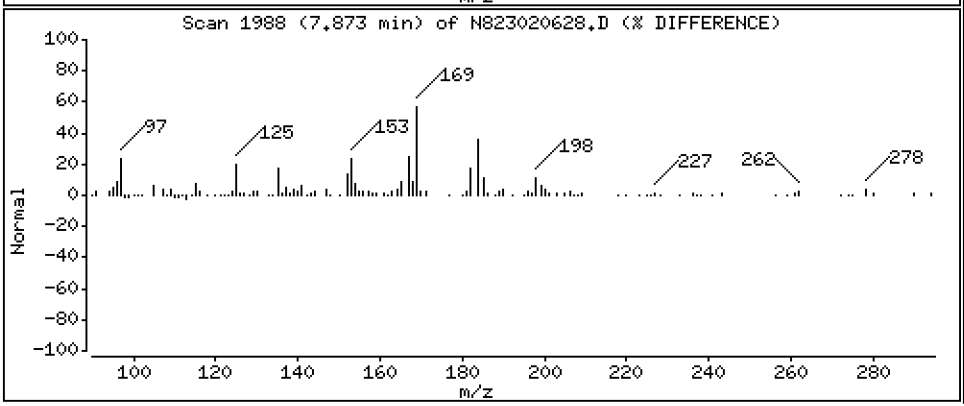
14 Fluorene

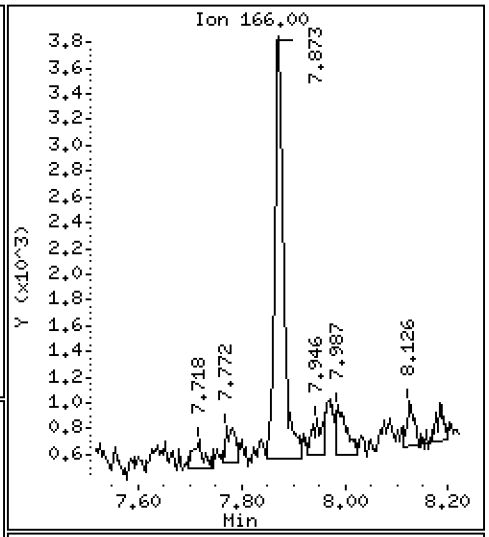
Concentration: 0.6582 ug/mL

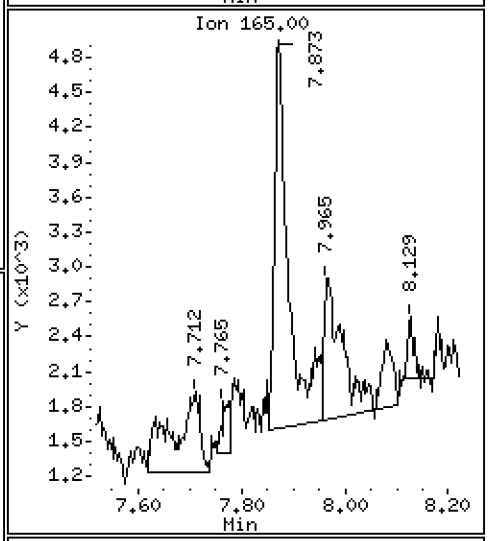


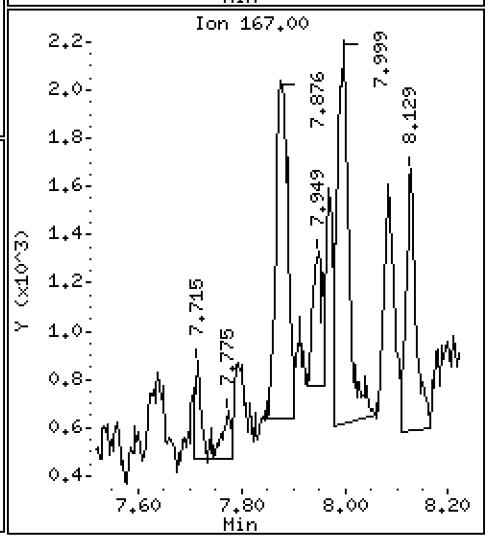












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Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

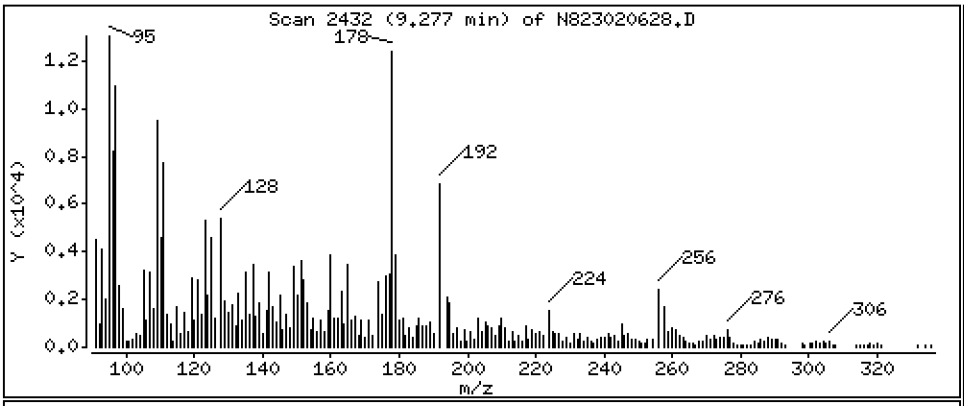
Operator: JZ

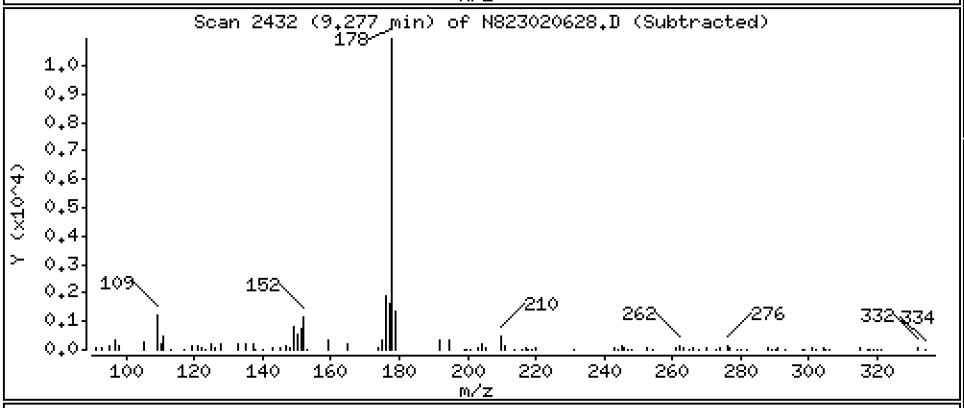
Column phase: Rxi-17sil

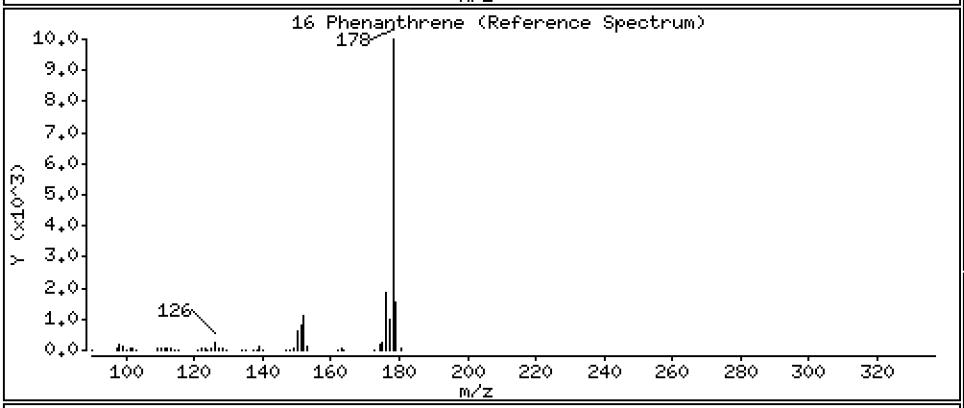
Column diameter: 0.25

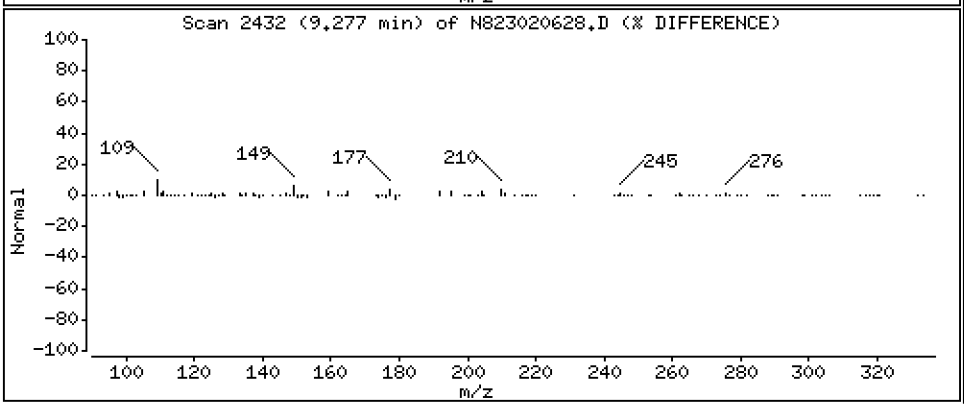
16 Phenanthrene

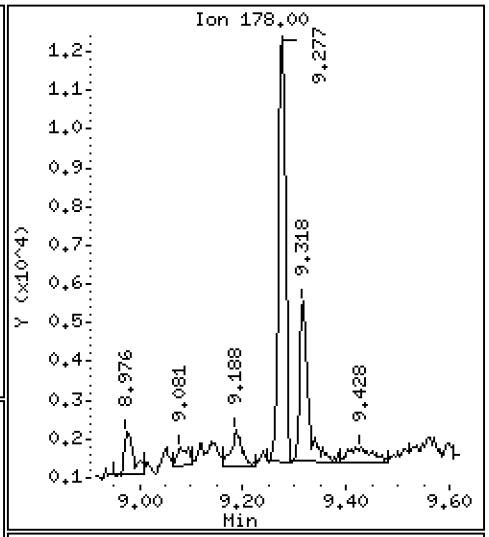
Concentration: 1.331 ug/mL

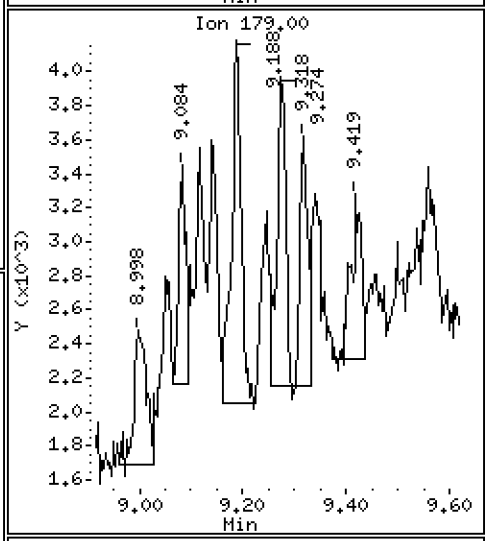


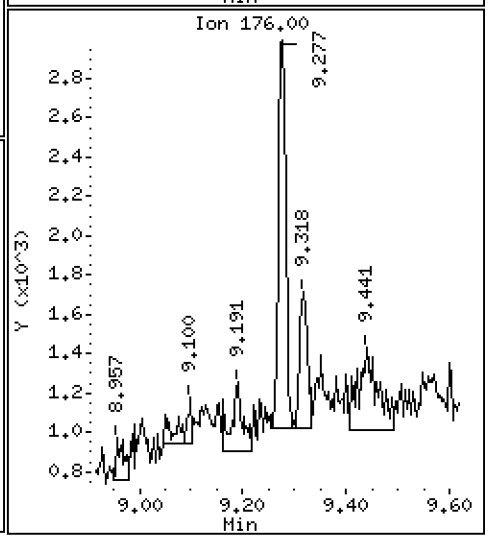












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

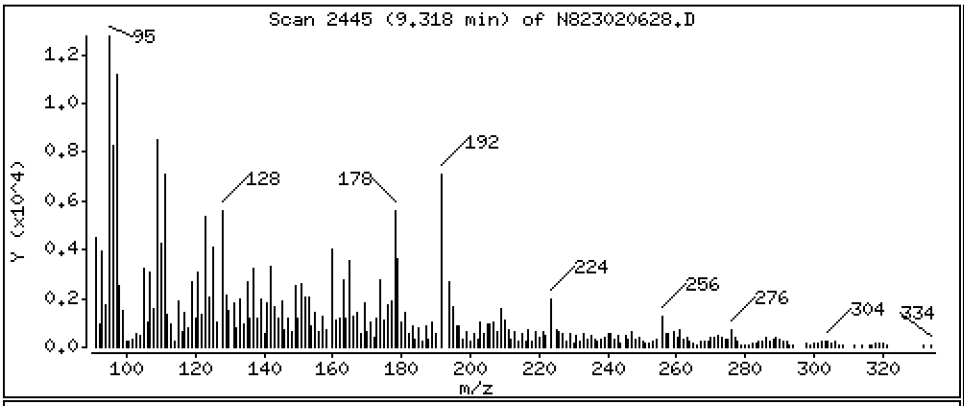
Operator: JZ

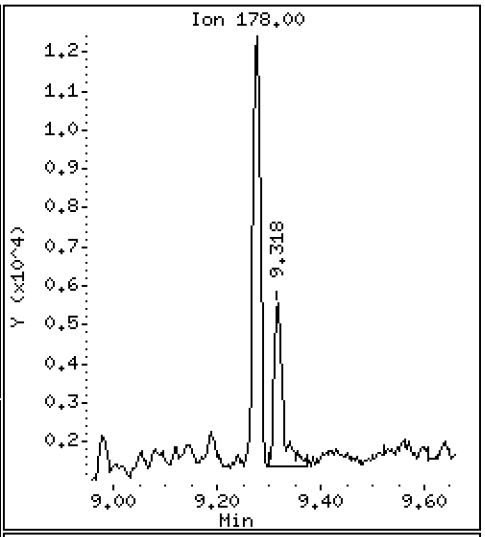
Column phase: Rxi-17sil

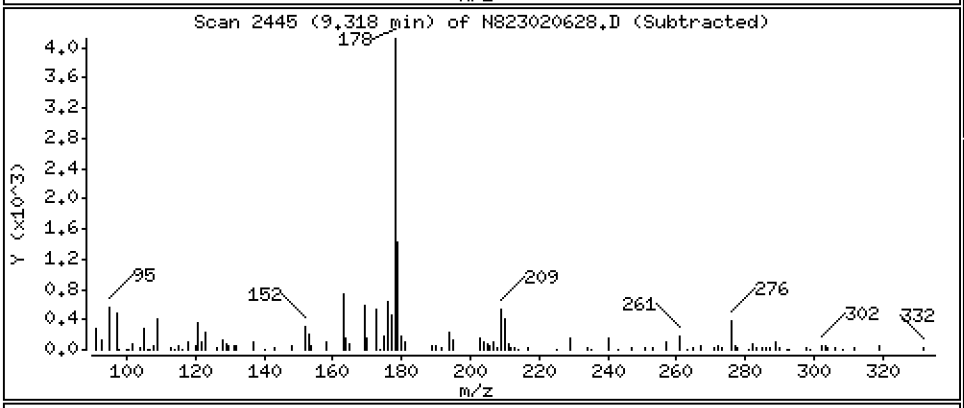
Column diameter: 0.25

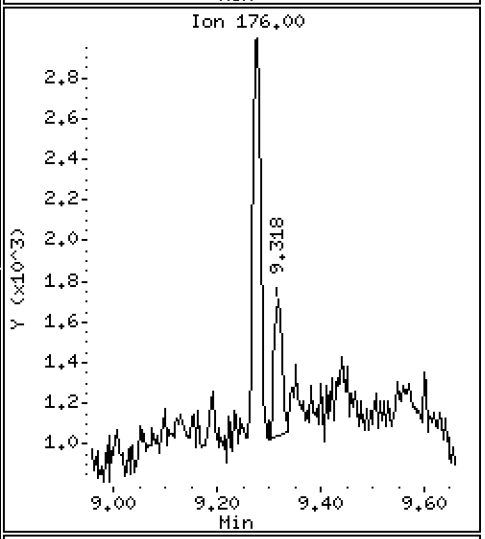
17 Anthracene

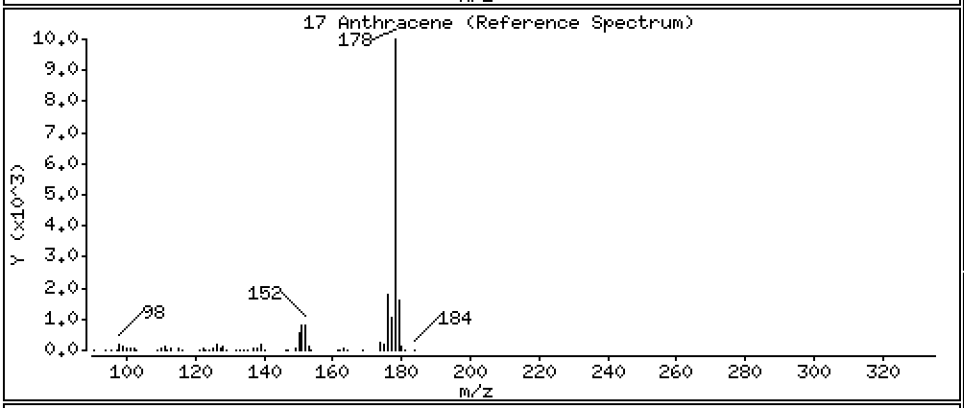
Concentration: 0.6646 ug/mL

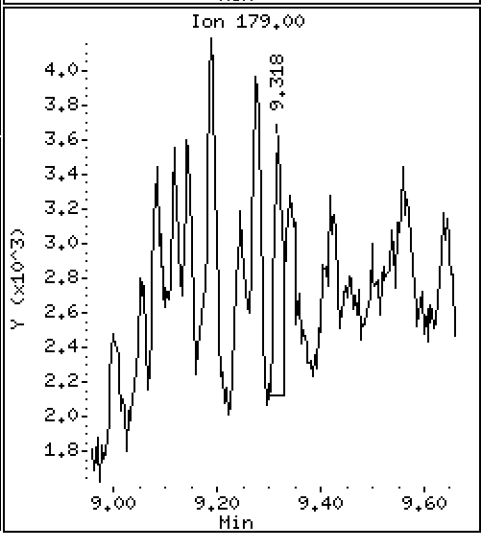


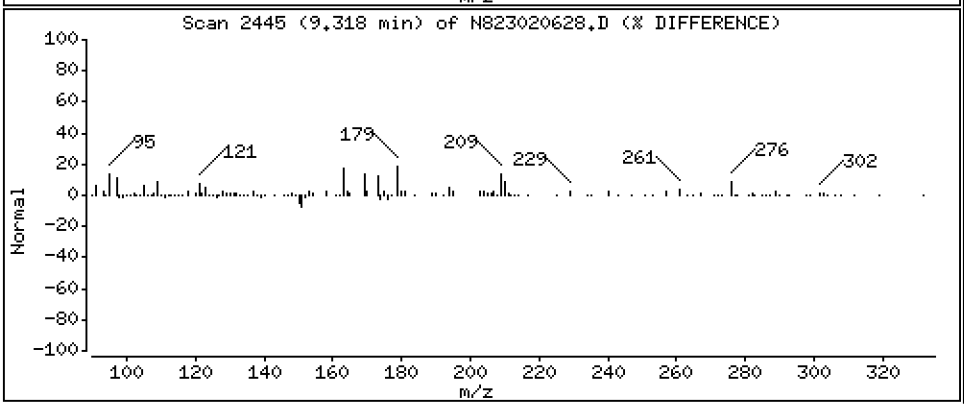












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

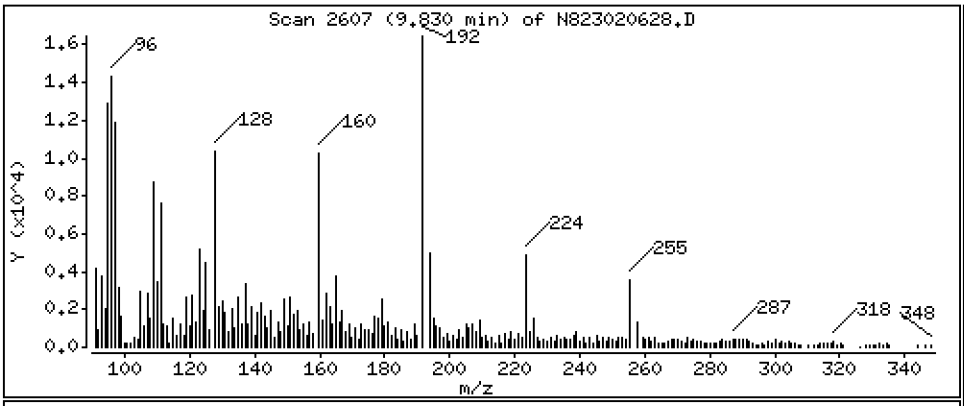
Operator: JZ

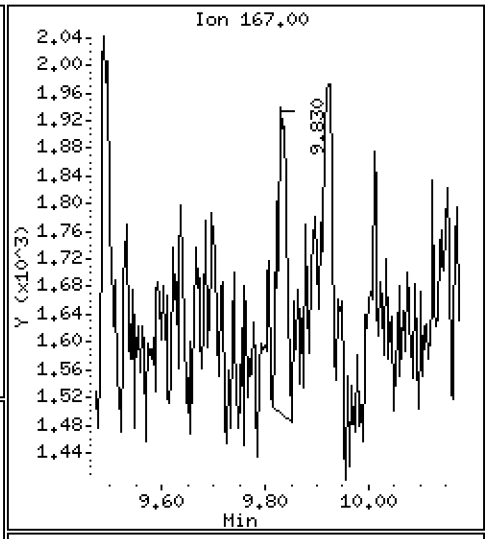
Column phase: Rxi-17sil

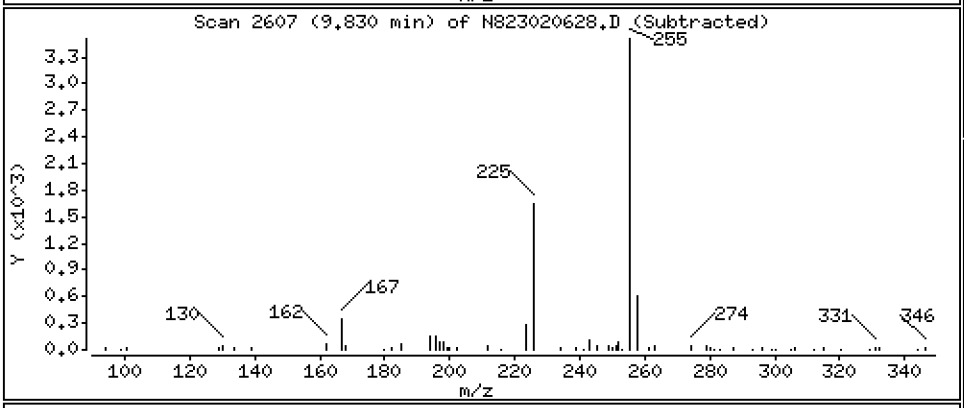
Column diameter: 0.25

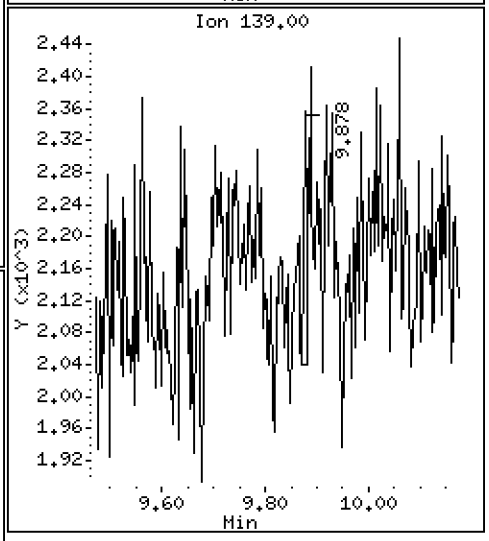
19 Carbazole

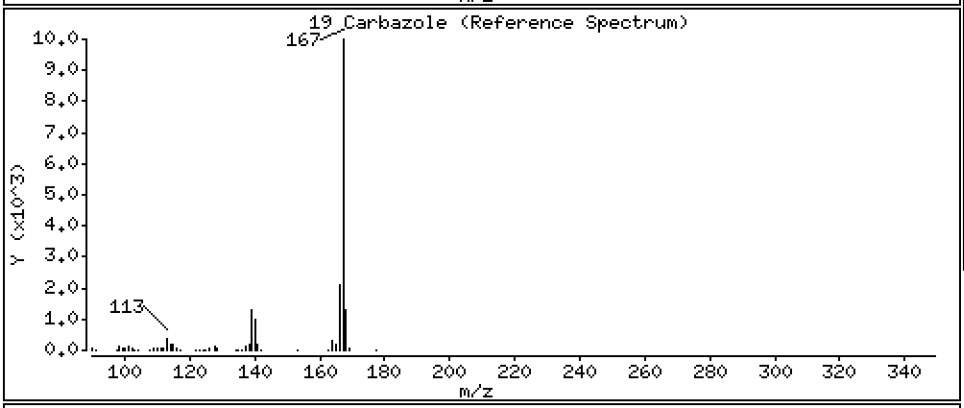
Concentration: 0.07956 ug/mL

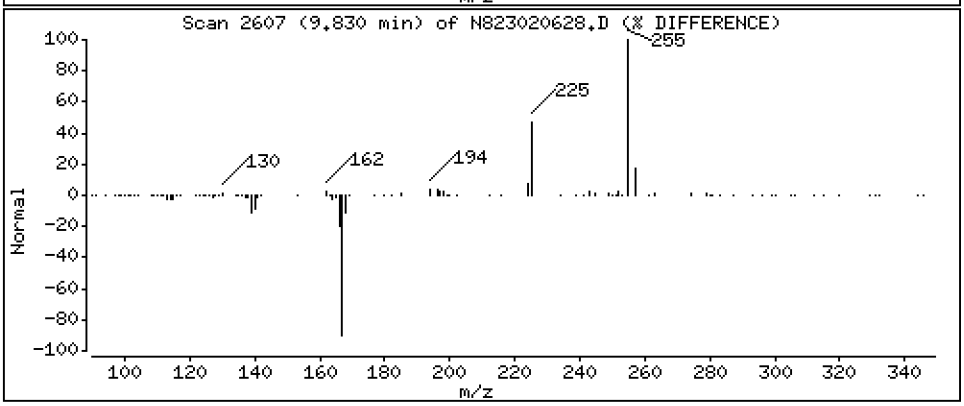












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

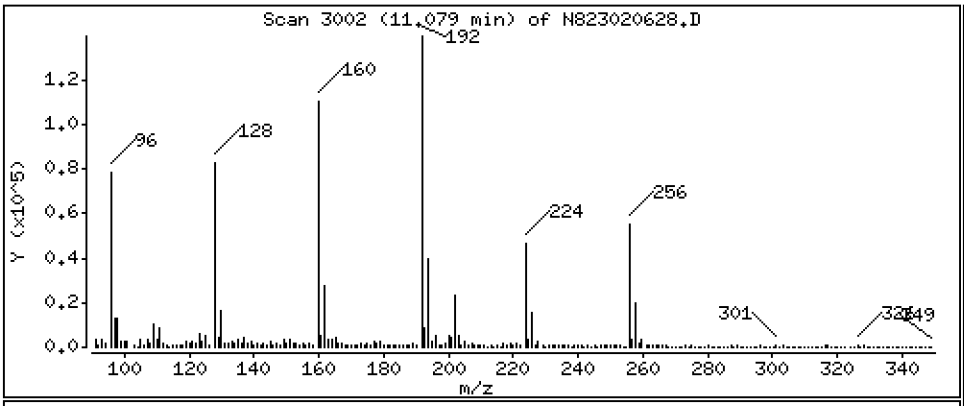
Operator: JZ

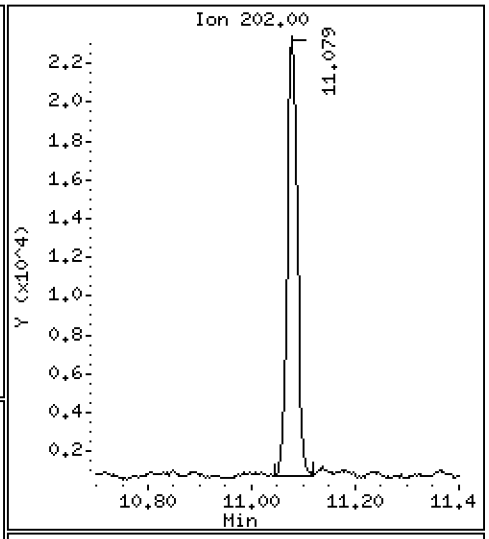
Column phase: Rxi-17sil

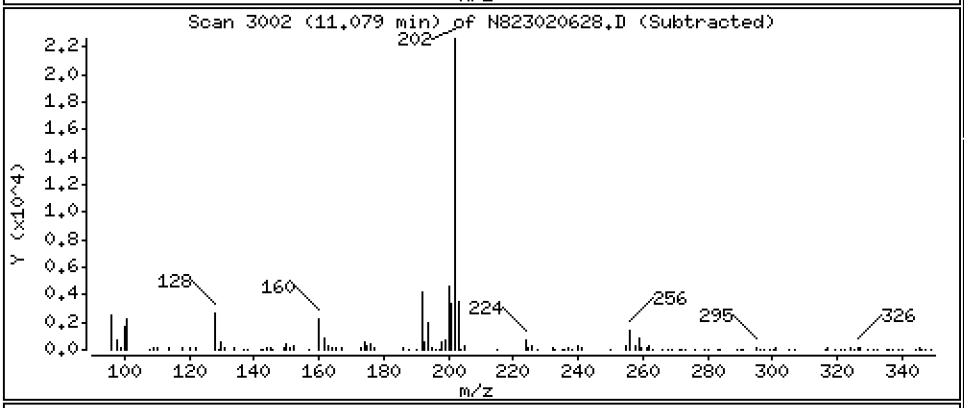
Column diameter: 0.25

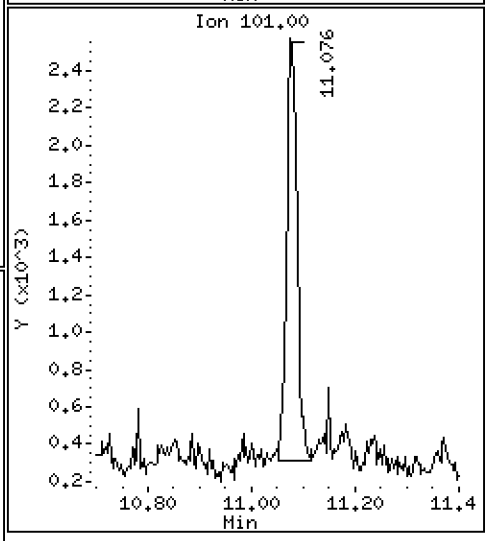
22 Fluoranthene

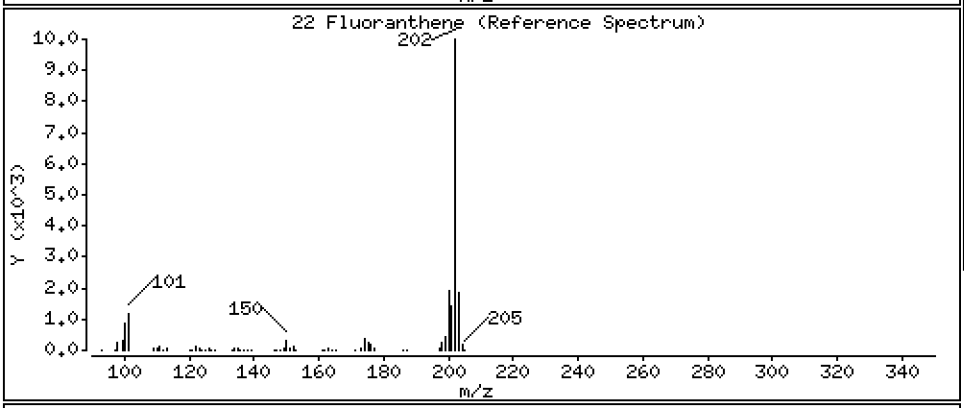
Concentration: 3.470 ug/mL

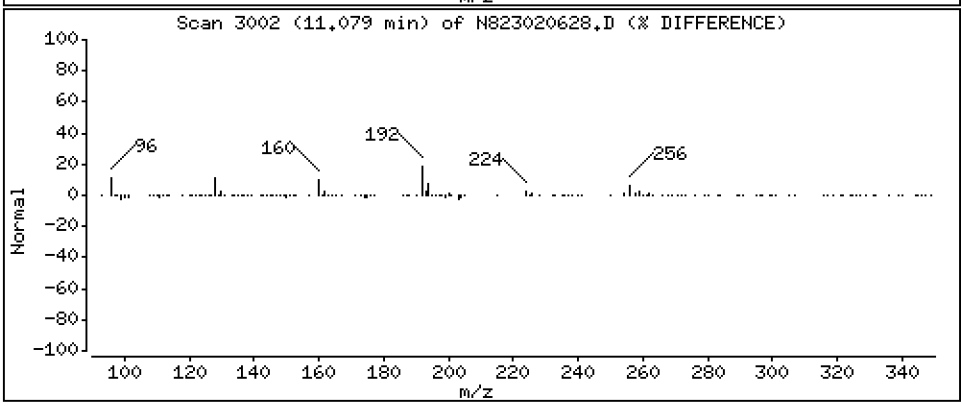












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

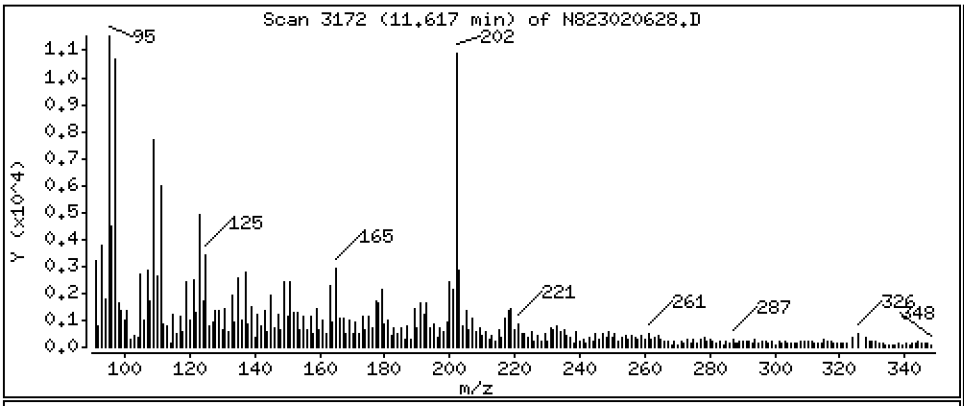
Operator: JZ

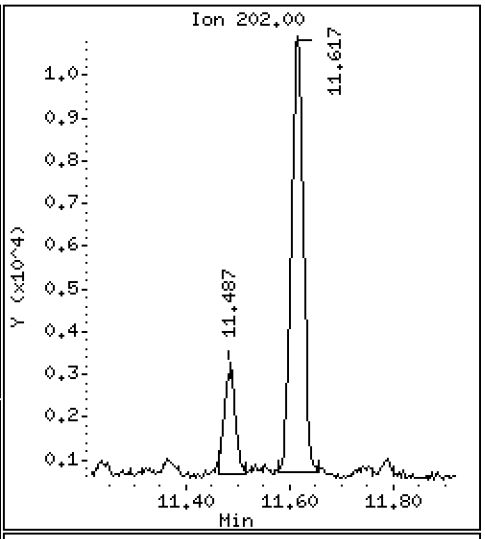
Column phase: Rxi-17sil

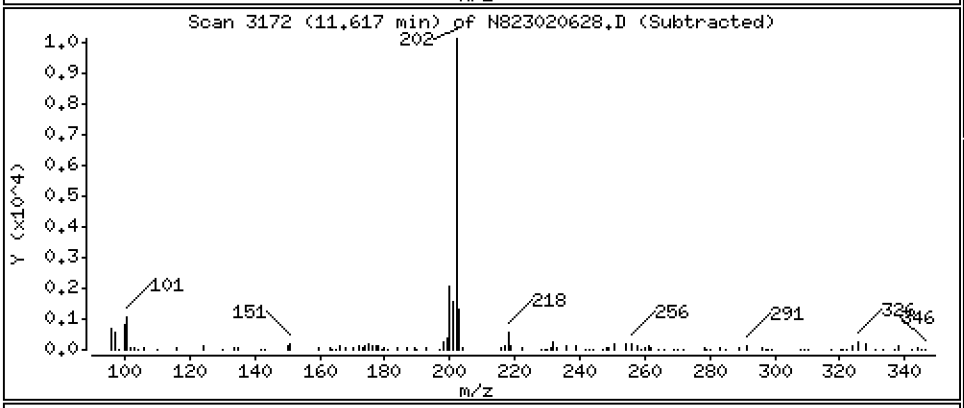
Column diameter: 0.25

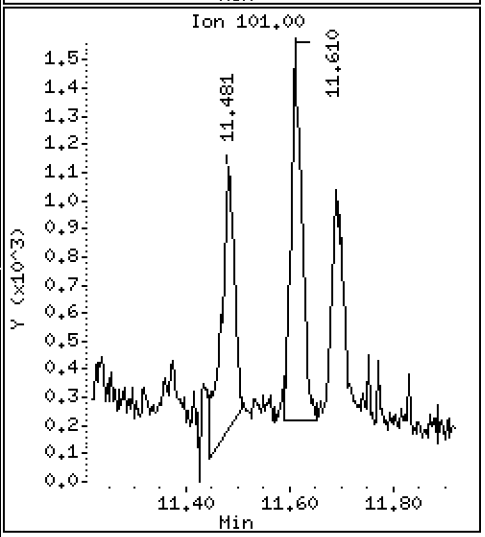
23 Pyrene

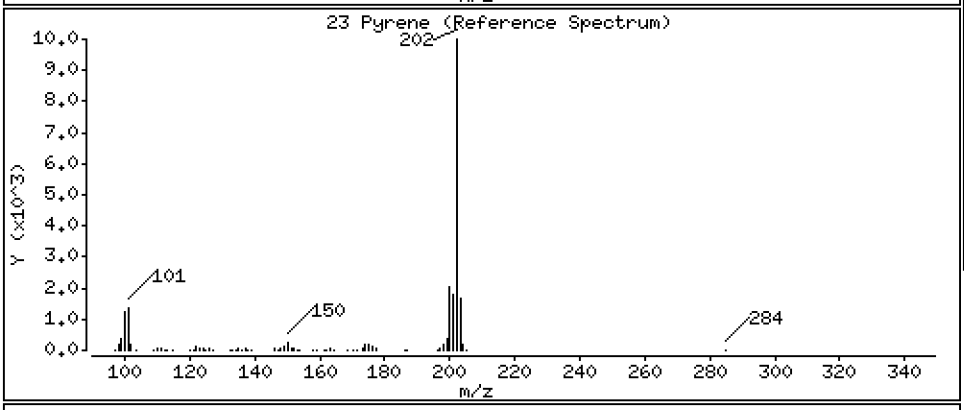
Concentration: 3.474 ug/mL

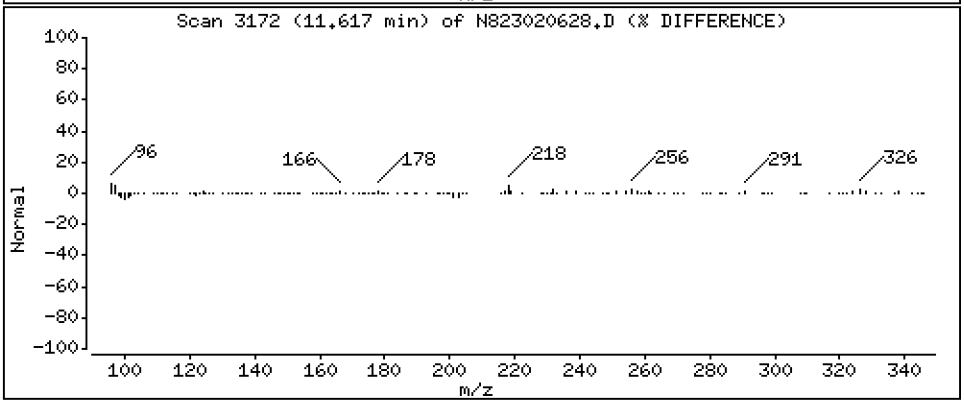












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

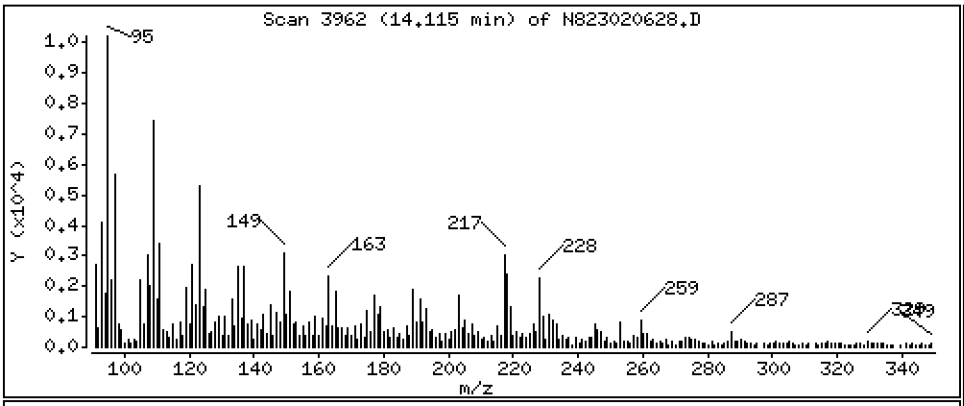
Operator: JZ

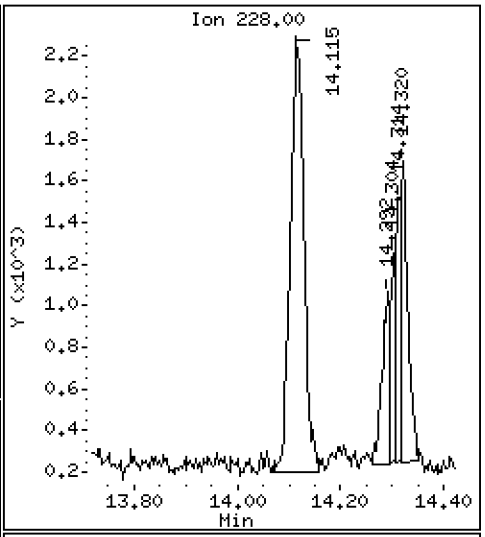
Column phase: Rxi-17sil

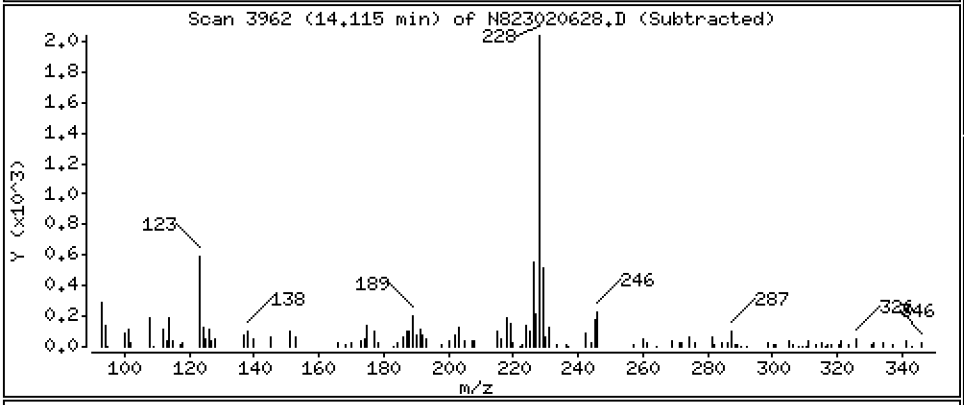
Column diameter: 0.25

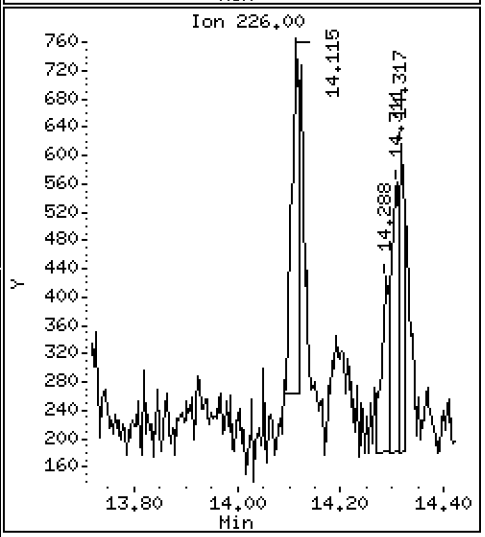
24 Benzo(a)anthracene

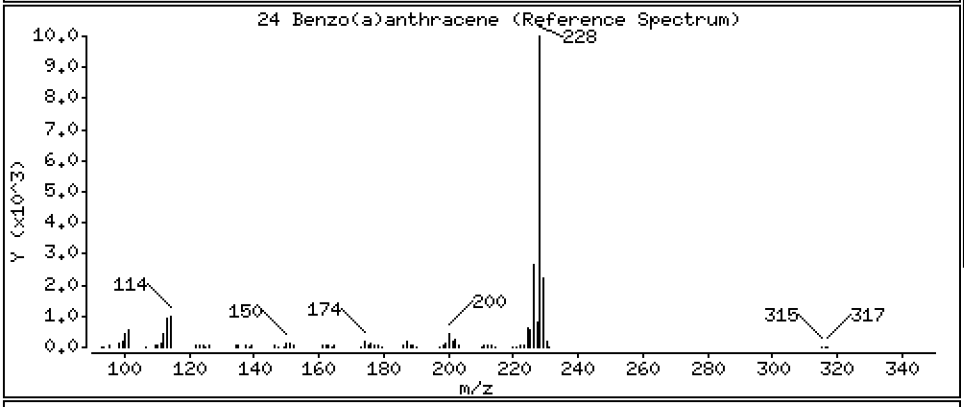
Concentration: 0.8897 ug/mL

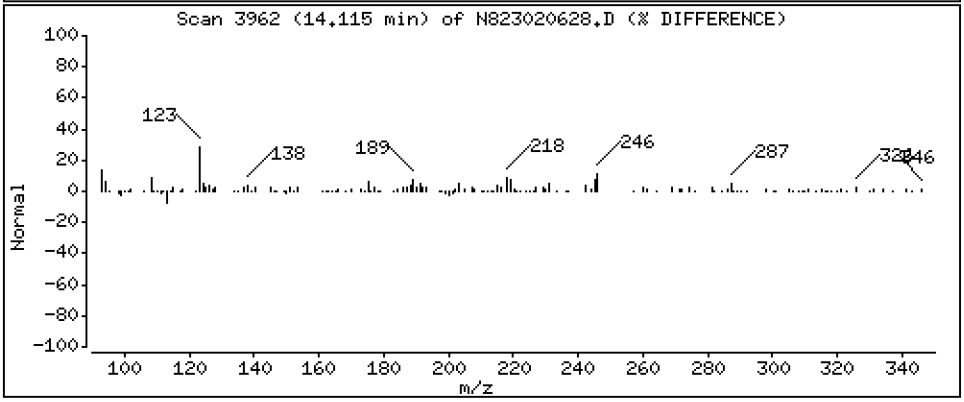












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

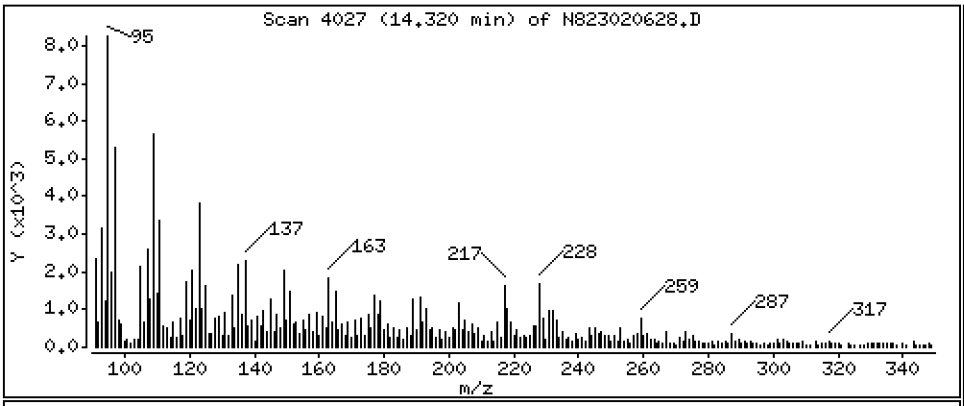
Operator: JZ

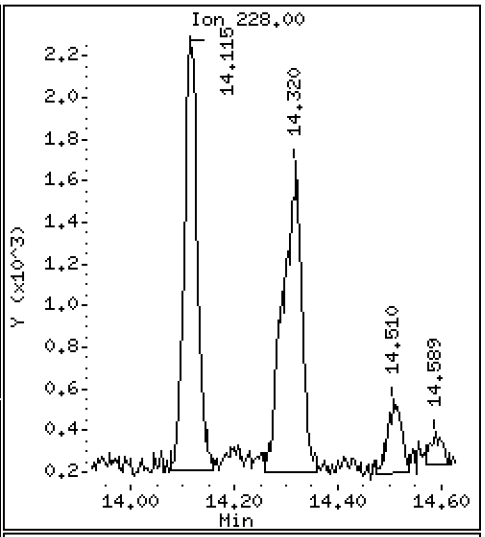
Column phase: Rxi-17sil

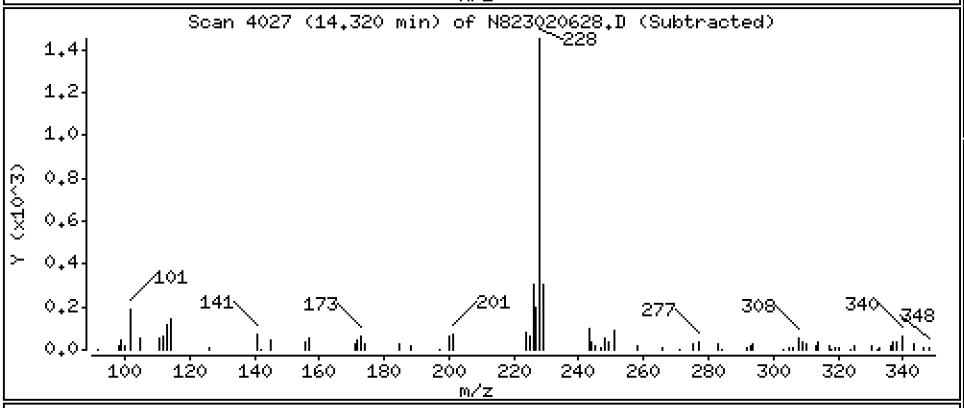
Column diameter: 0.25

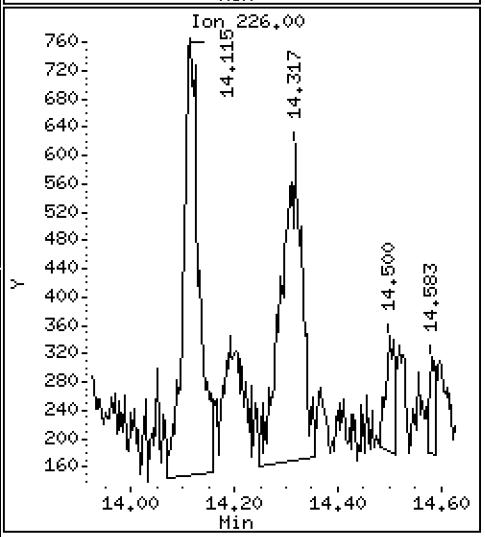
27 Chrysene

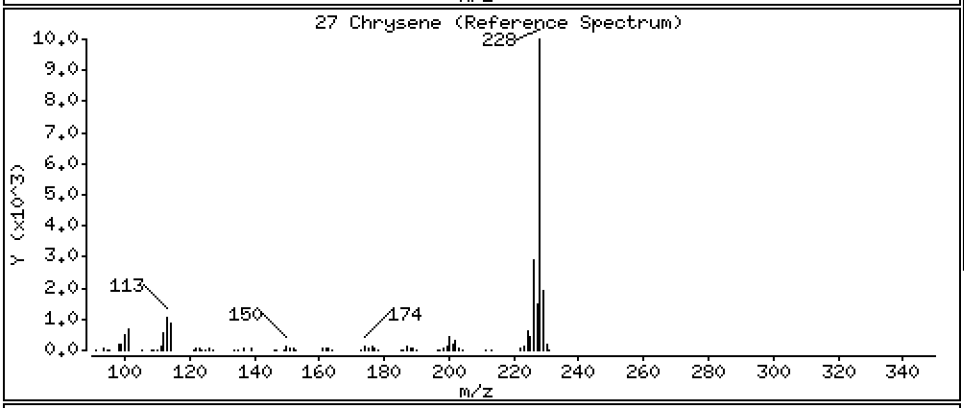
Concentration: 0.8185 ug/mL

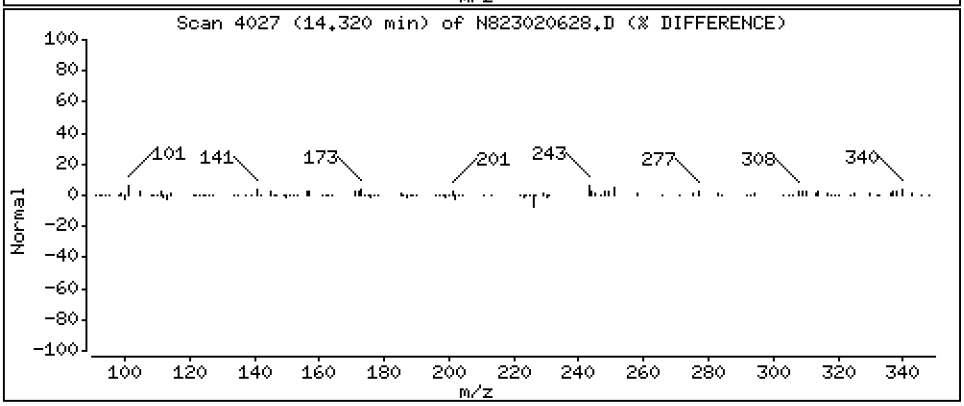












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

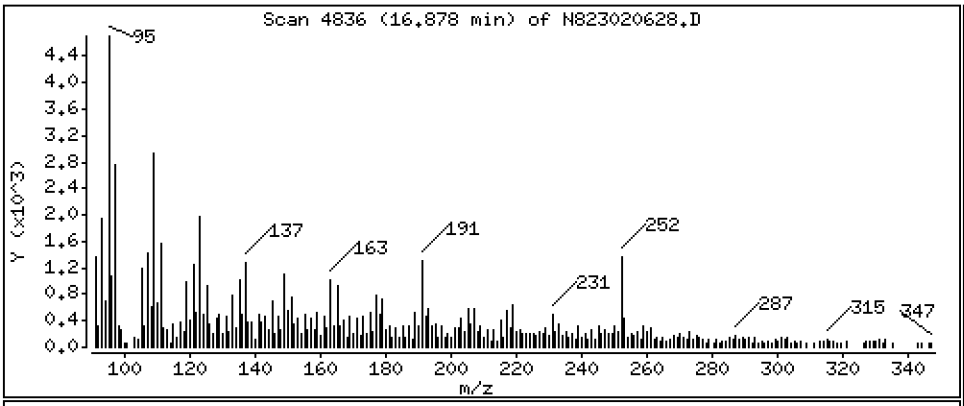
Operator: JZ

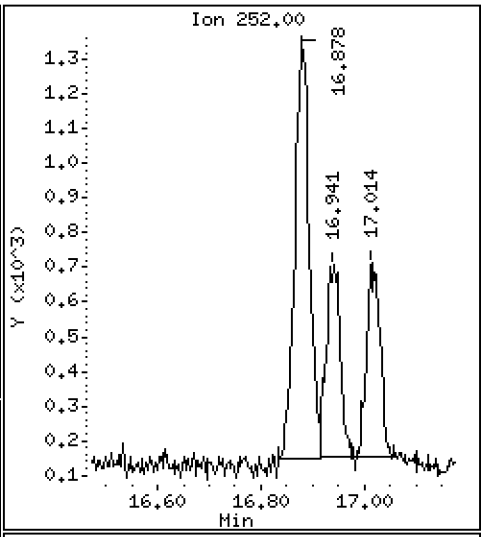
Column phase: Rxi-17sil

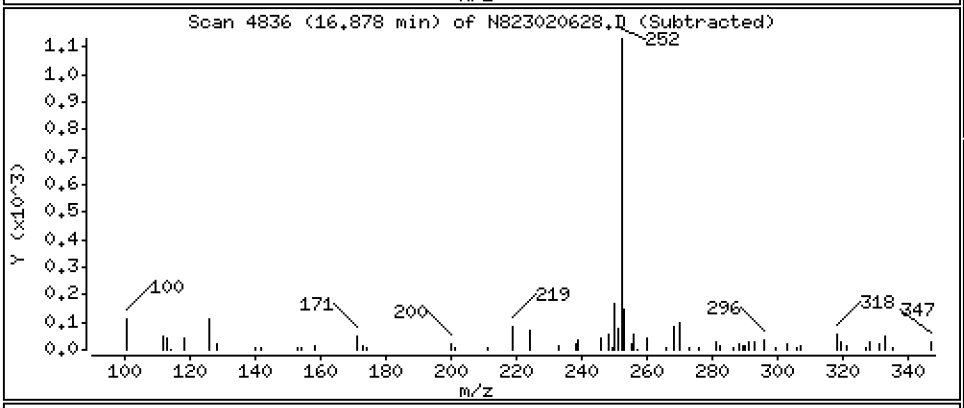
Column diameter: 0.25

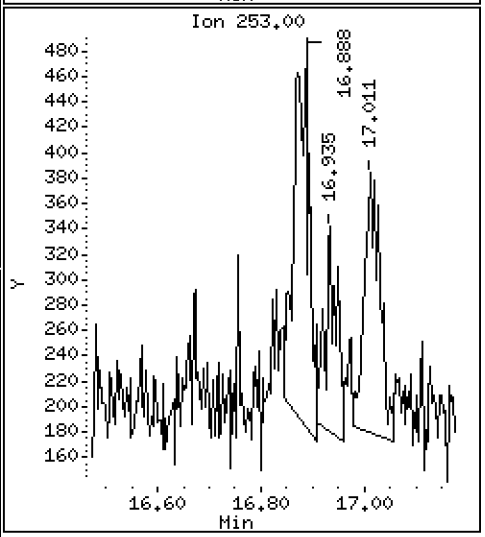
28 Benzo(b)fluoranthene

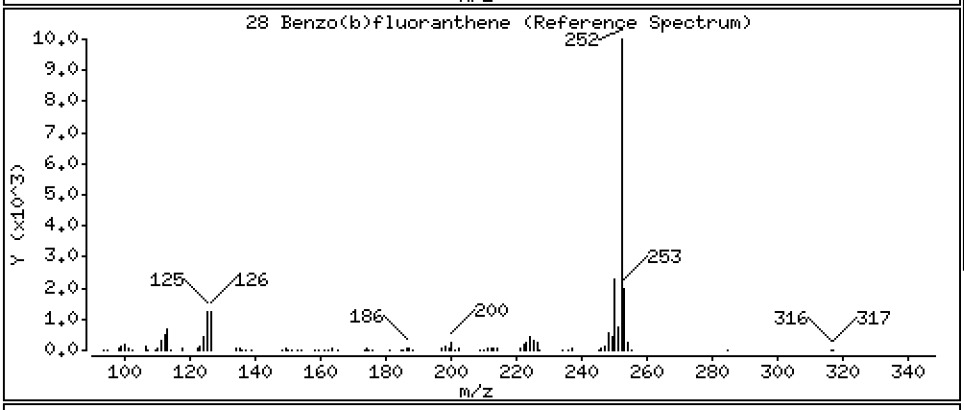
Concentration: 0.6220 ug/mL

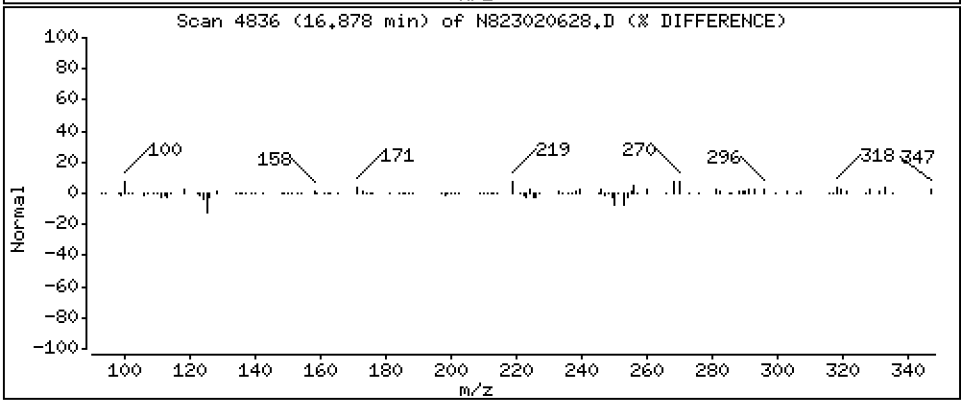












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

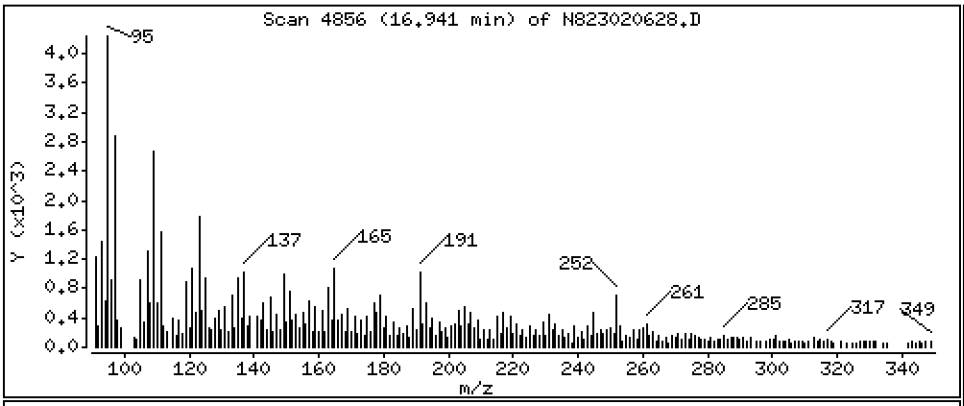
Operator: JZ

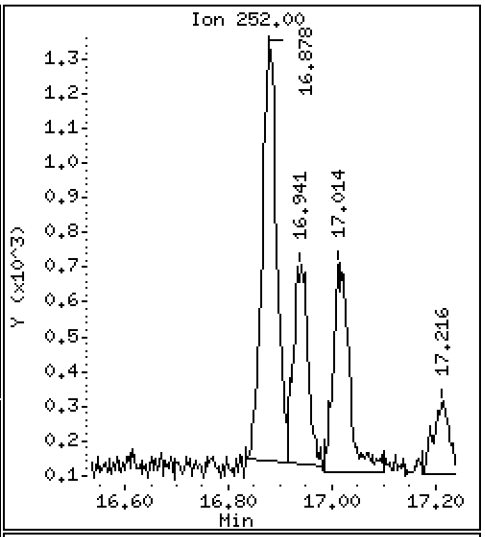
Column phase: Rxi-17sil

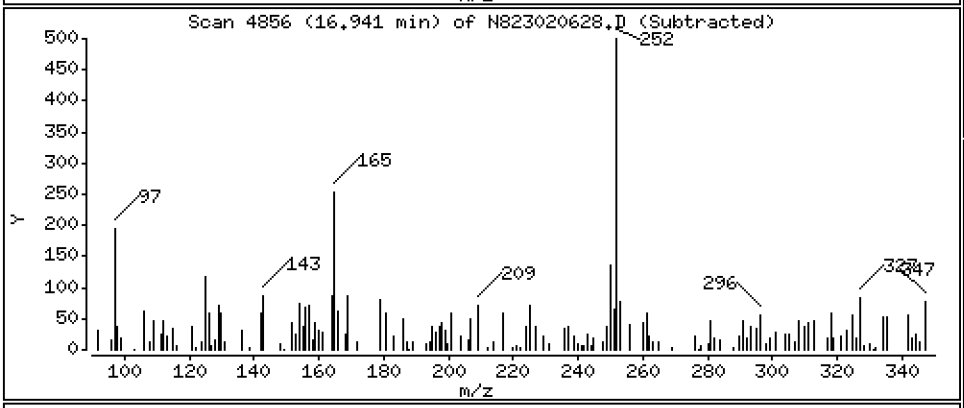
Column diameter: 0.25

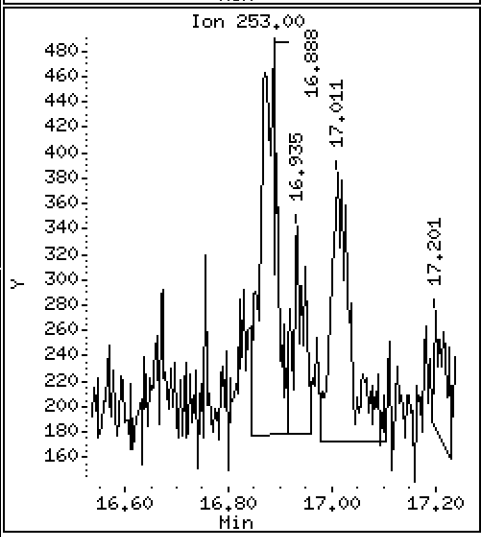
29 Benzo(k)fluoranthene

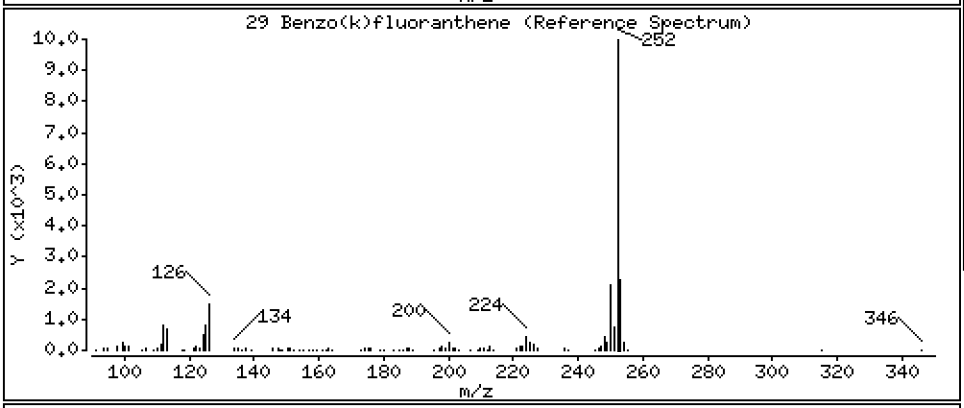
Concentration: 0.3011 ug/mL

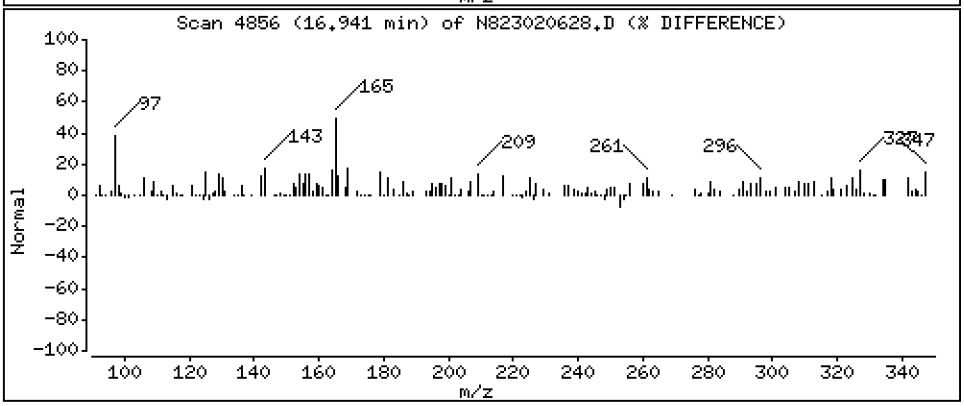












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

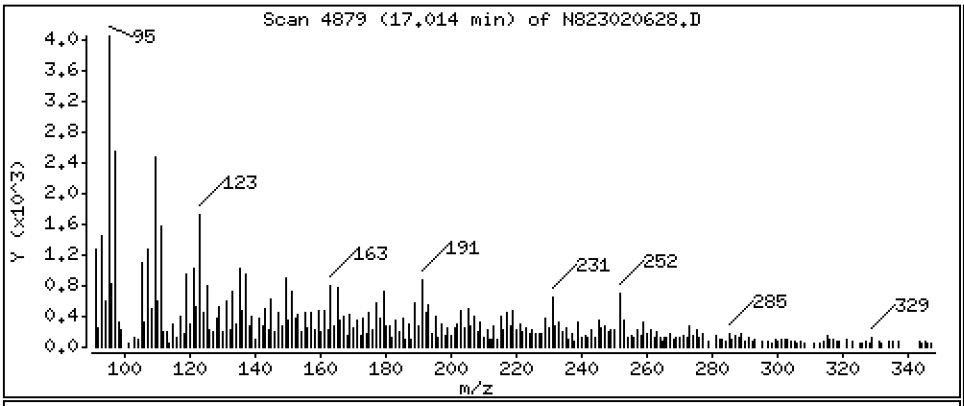
Operator: JZ

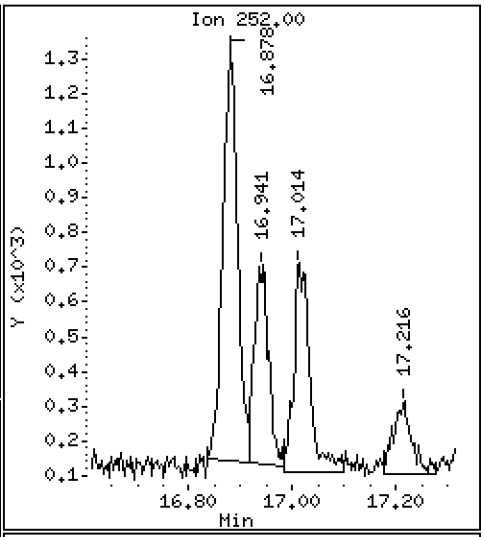
Column phase: Rxi-17sil

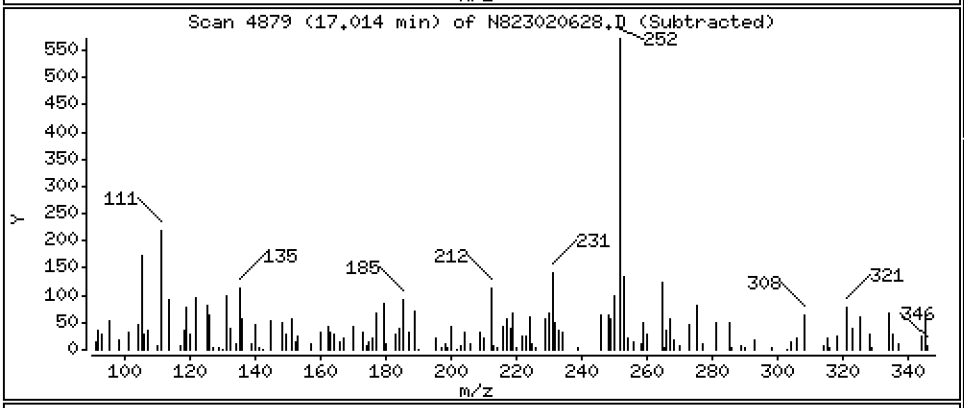
Column diameter: 0.25

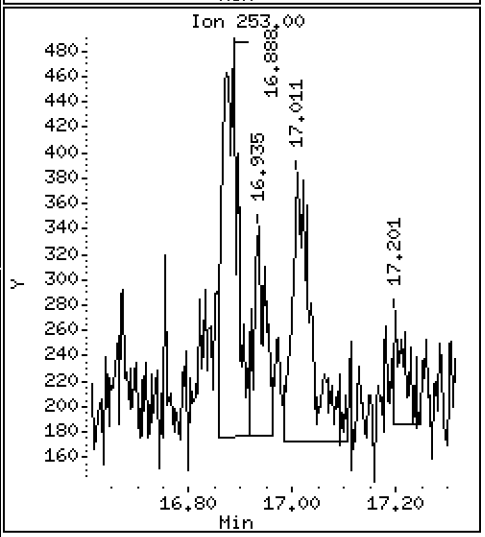
30 Benzo(j)fluoranthene

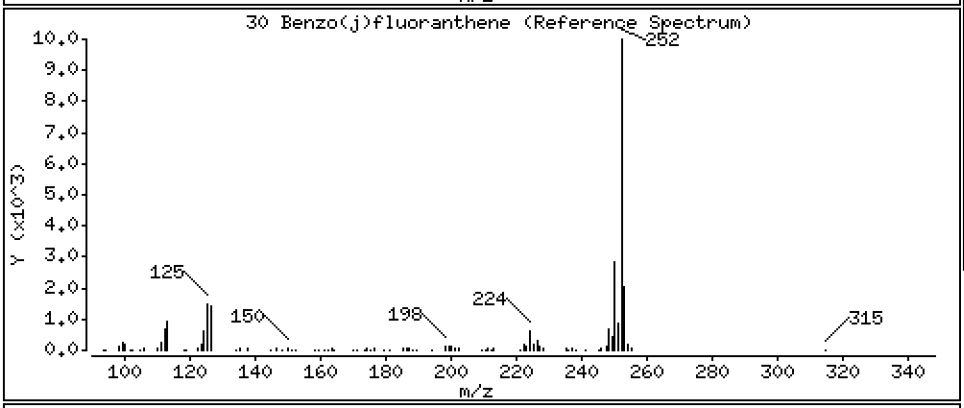
Concentration: 0.3915 ug/mL

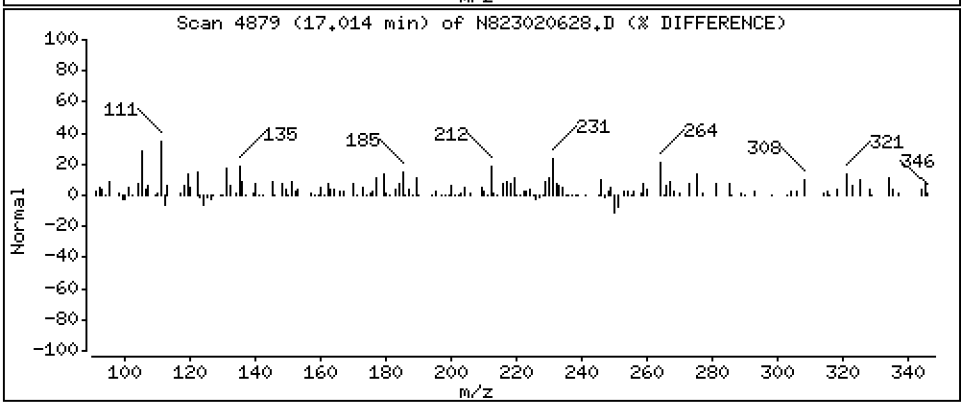












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

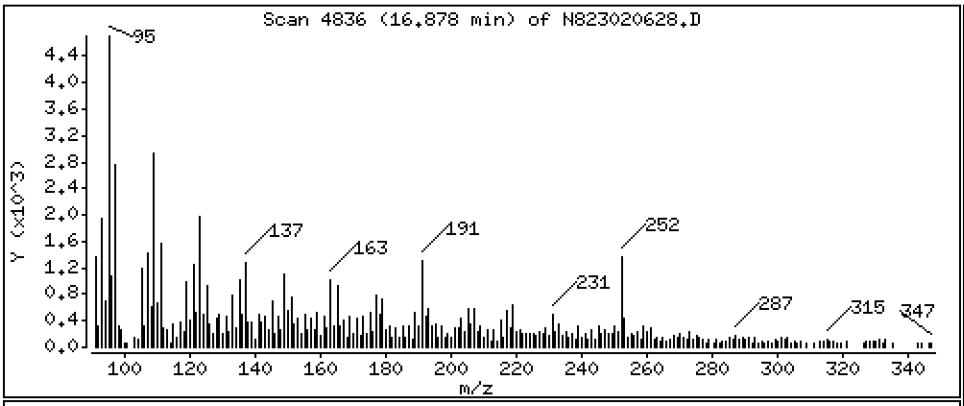
Operator: JZ

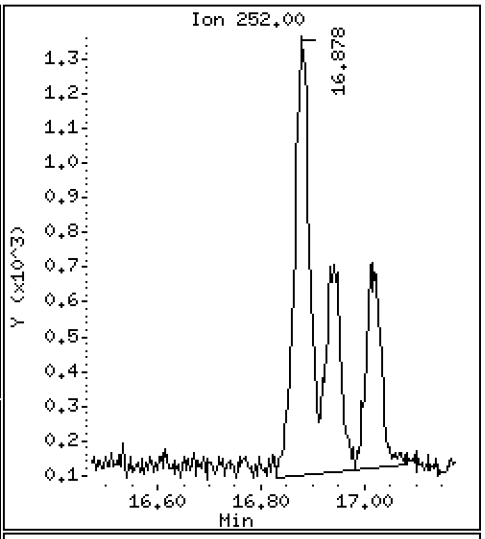
Column phase: Rxi-17sil

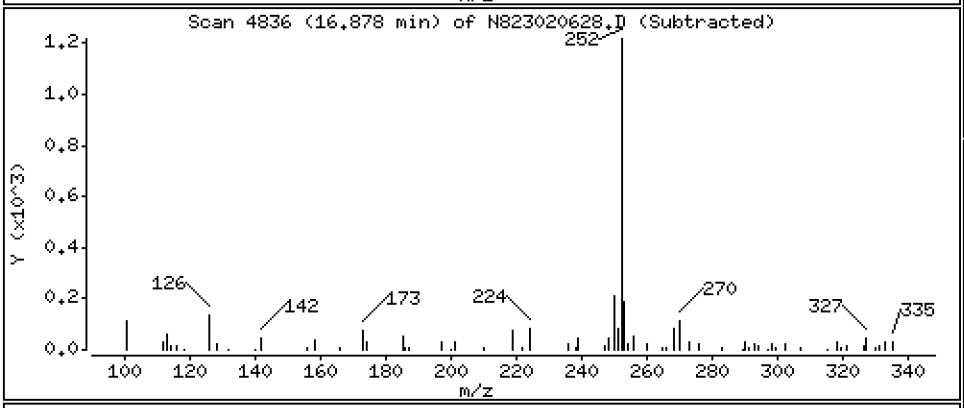
Column diameter: 0.25

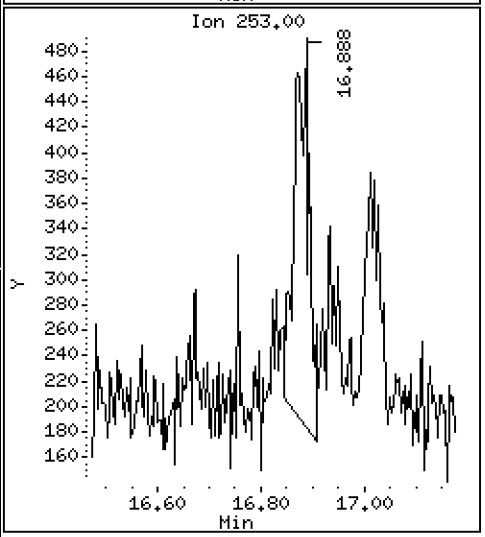
31 Total Benzofluoranthenes

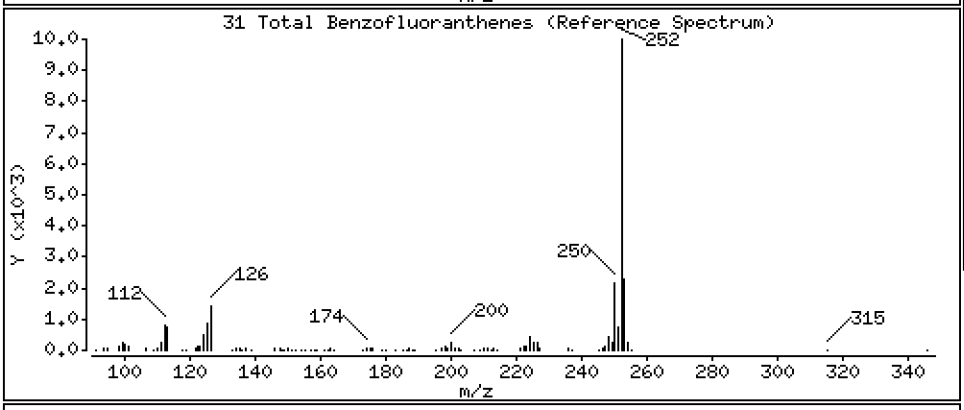
Concentration: 1.376 ug/mL

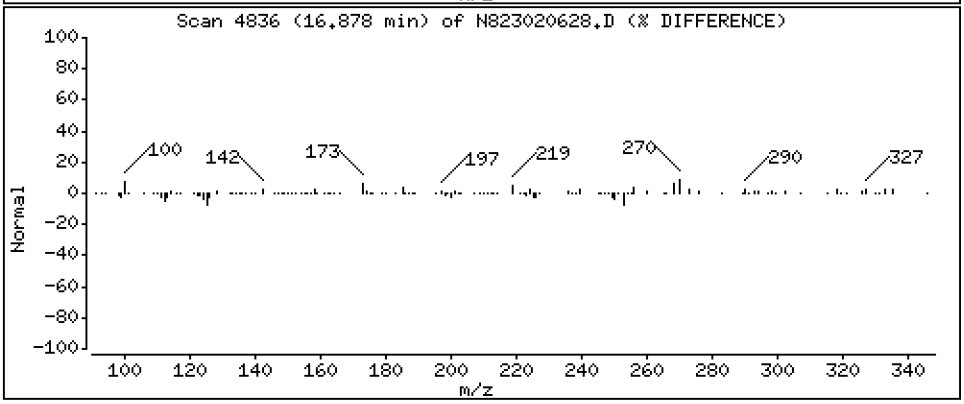












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

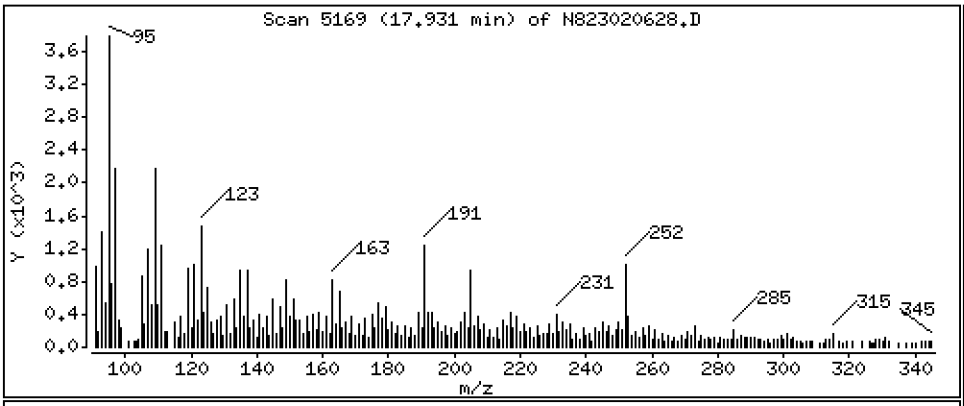
Operator: JZ

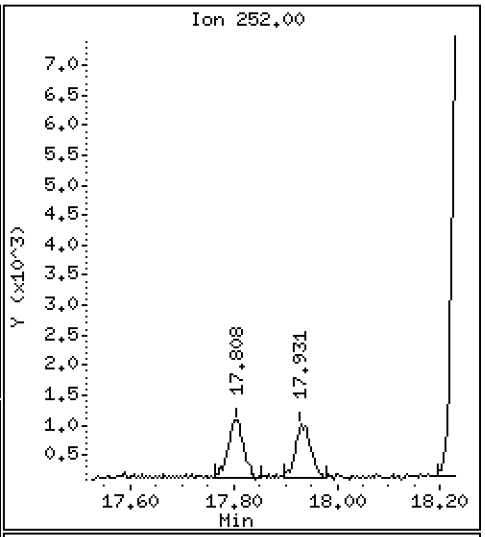
Column phase: Rxi-17sil

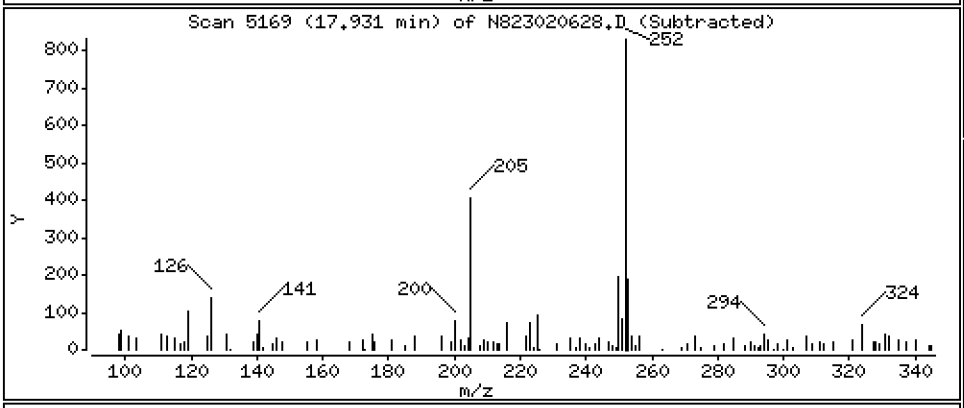
Column diameter: 0.25

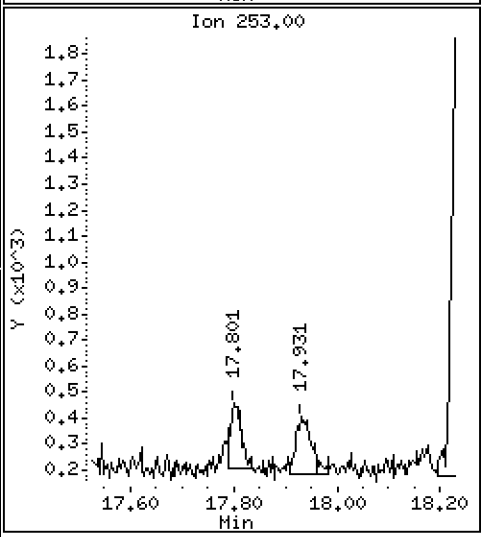
32 Benzo(a)pyrene

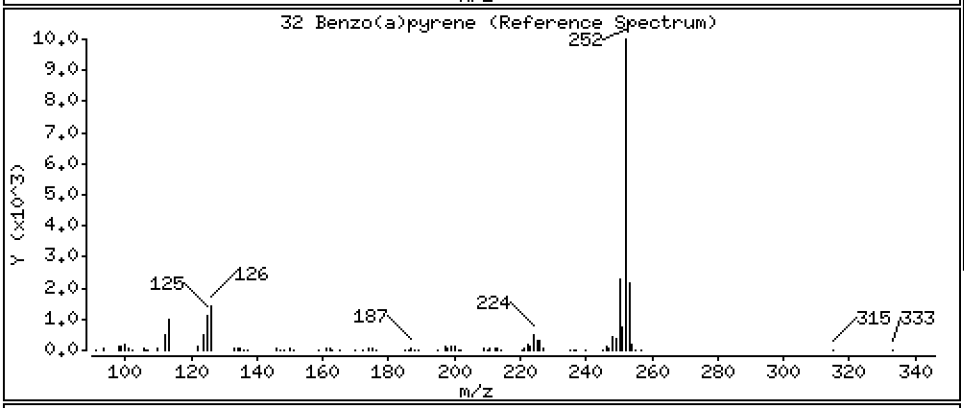
Concentration: 0.5519 ug/mL

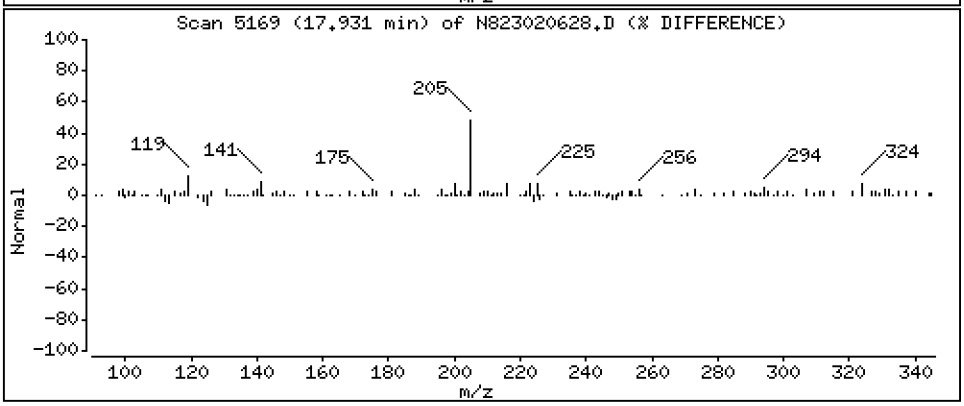












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

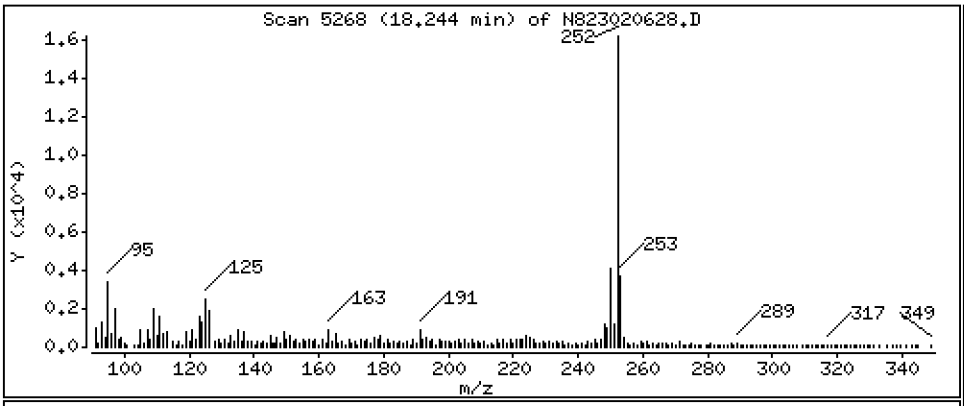
Operator: JZ

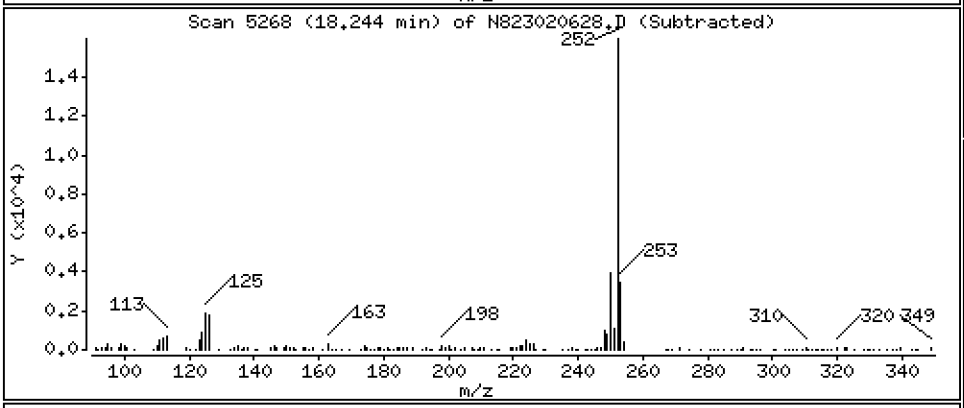
Column phase: Rxi-17sil

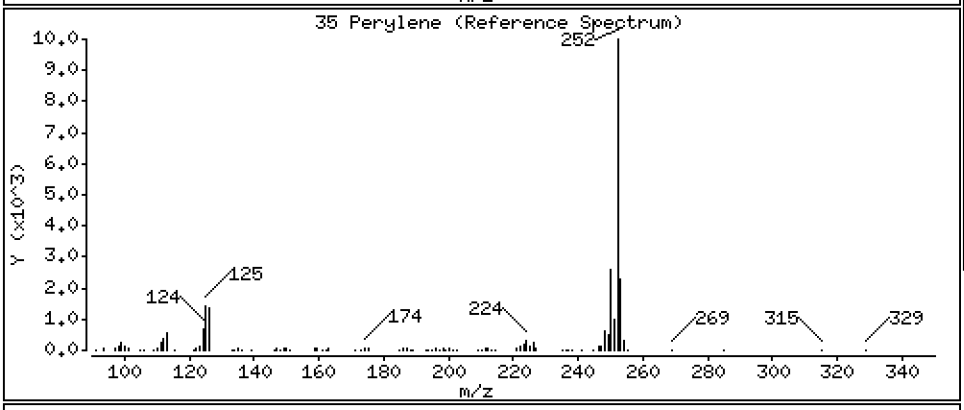
Column diameter: 0.25

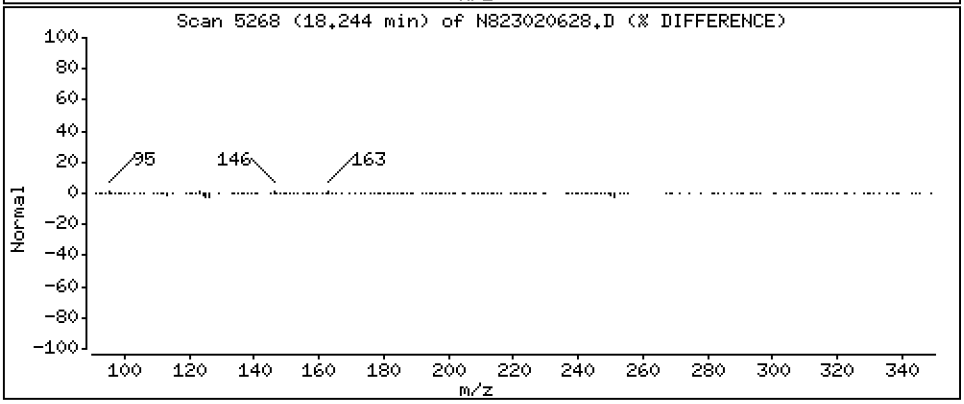
35 Perylene

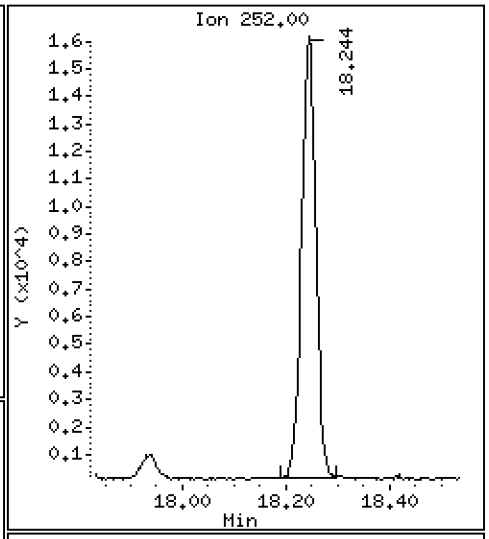
Concentration: 8.564 ug/mL

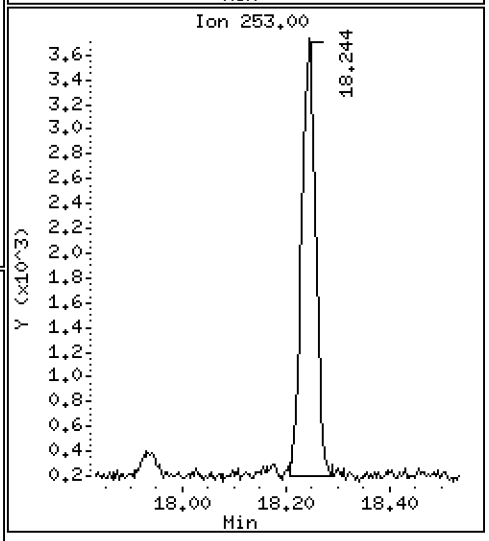












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

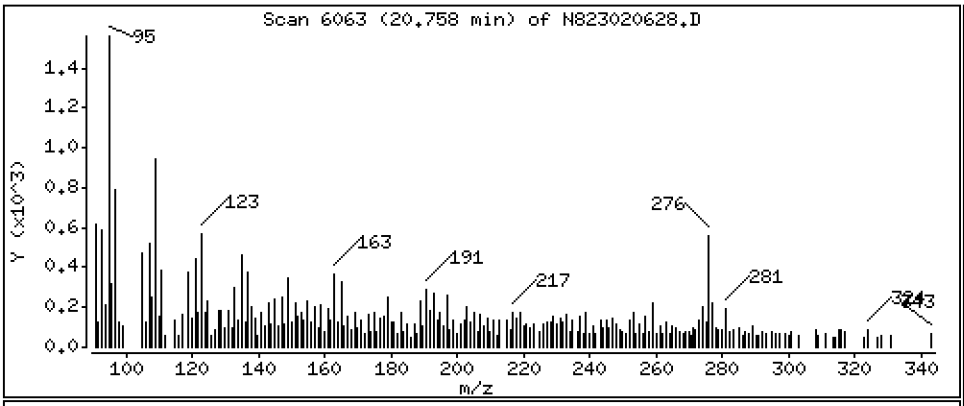
Operator: JZ

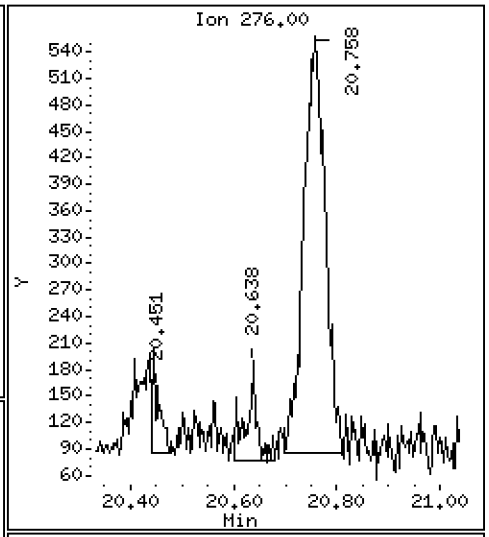
Column phase: Rxi-17sil

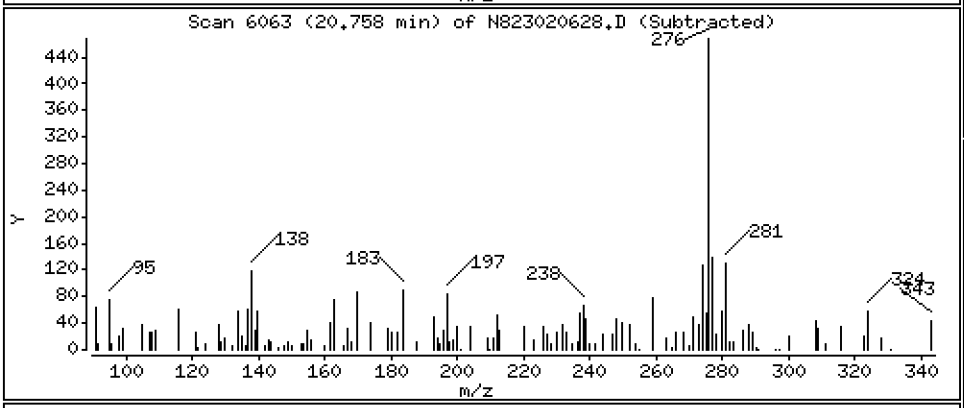
Column diameter: 0.25

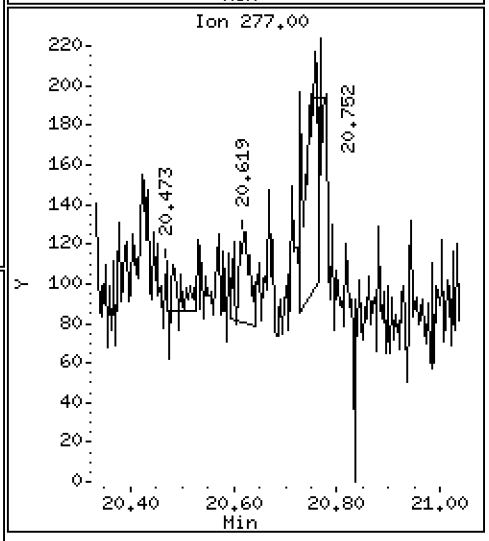
37 Indeno(1,2,3-cd)pyrene

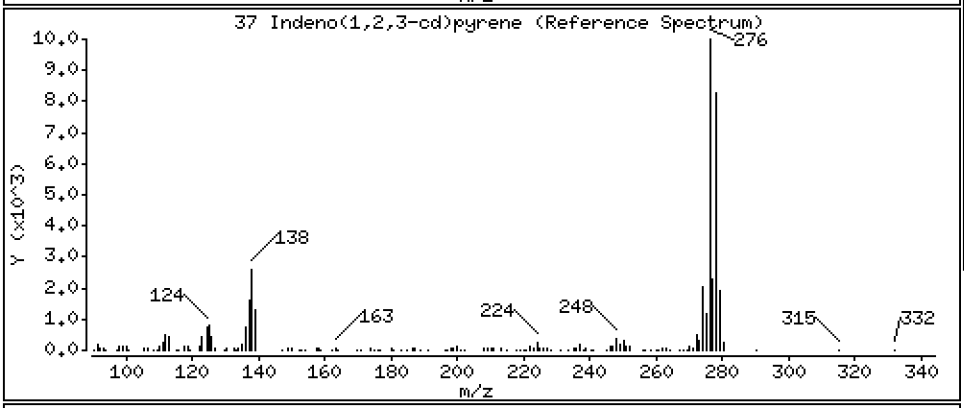
Concentration: 0.3524 ug/mL

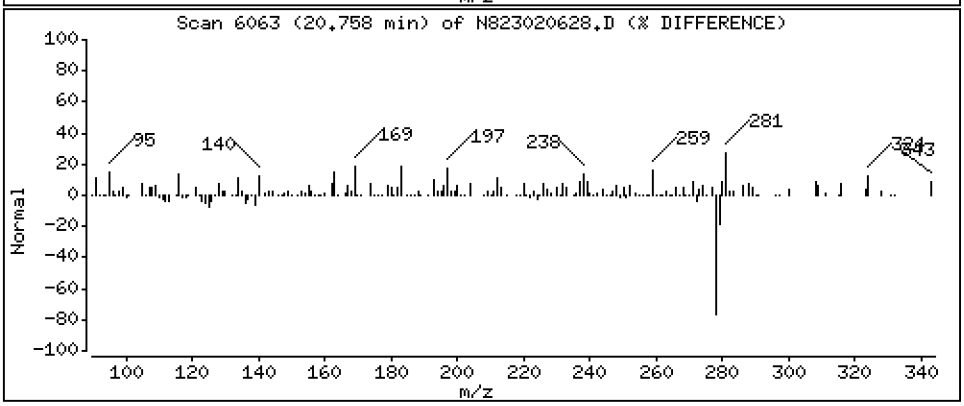












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

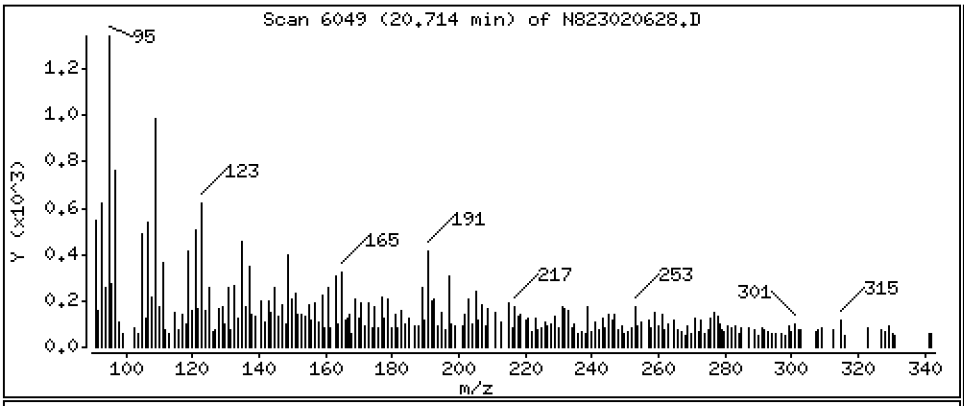
Operator: JZ

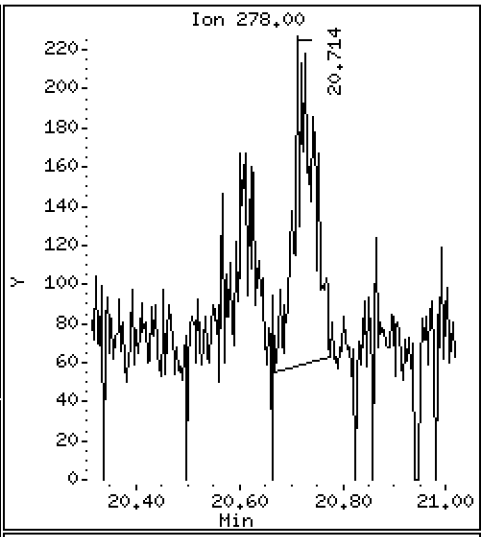
Column phase: Rxi-17sil

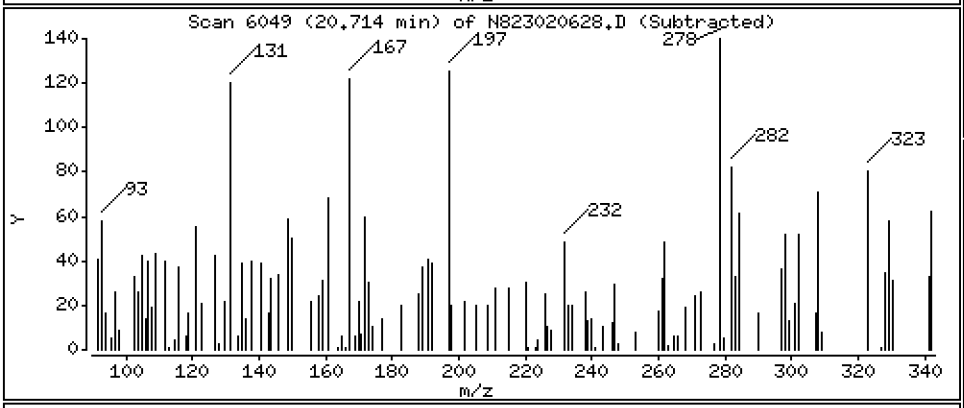
Column diameter: 0.25

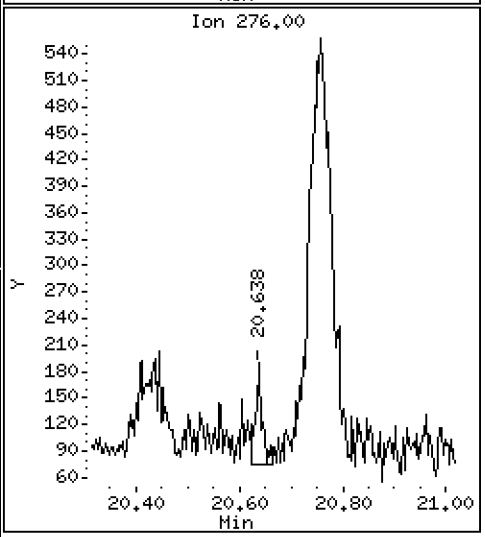
38 Dibenzo(a,h)anthracene

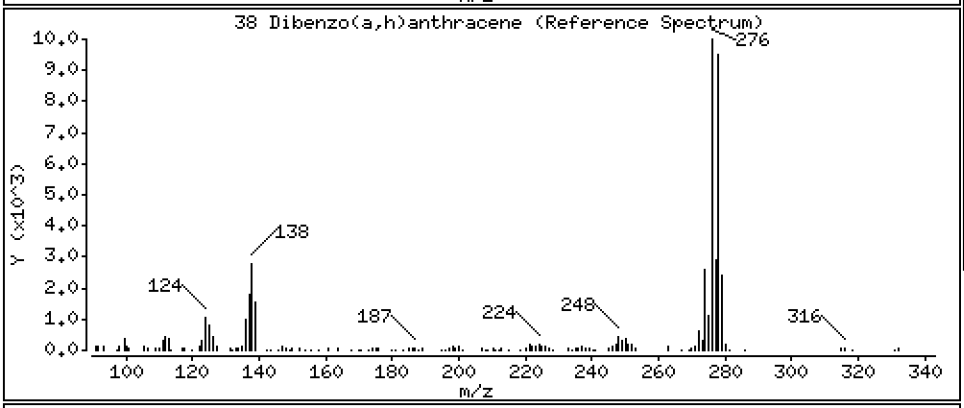
Concentration: 0.1268 ug/mL

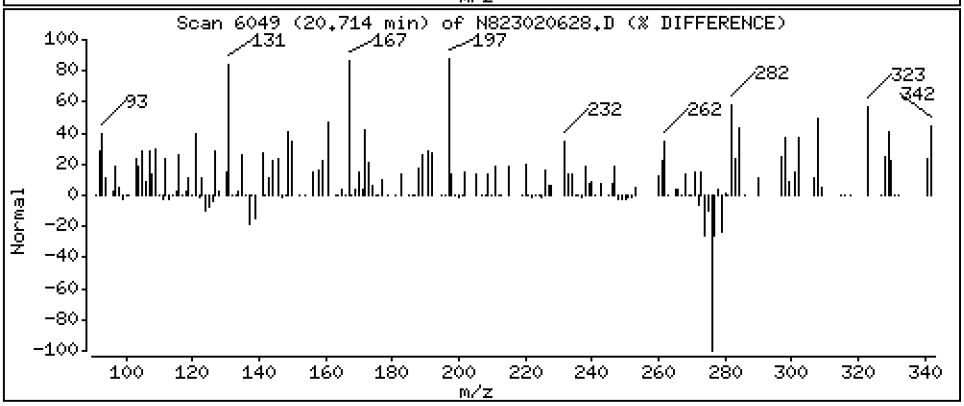












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020628.D

Date : 07-FEB-2023 00:55

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-03,3

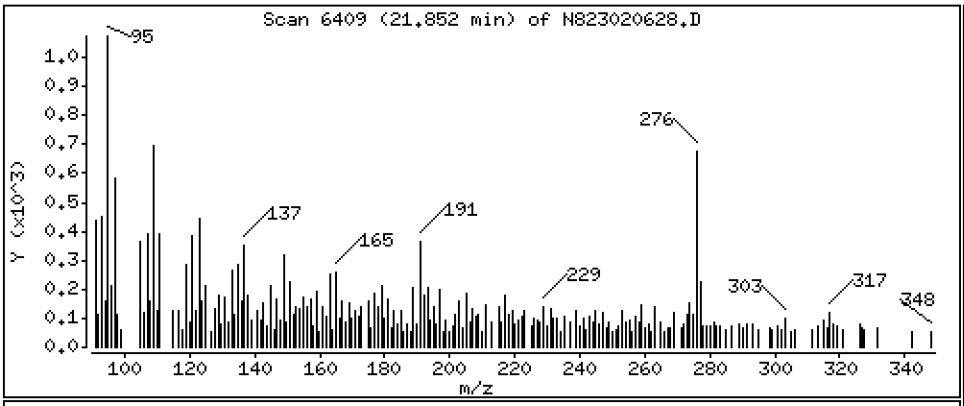
Operator: JZ

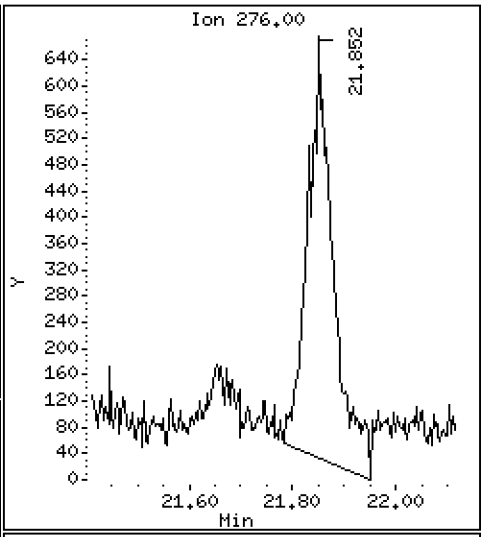
Column phase: Rxi-17sil

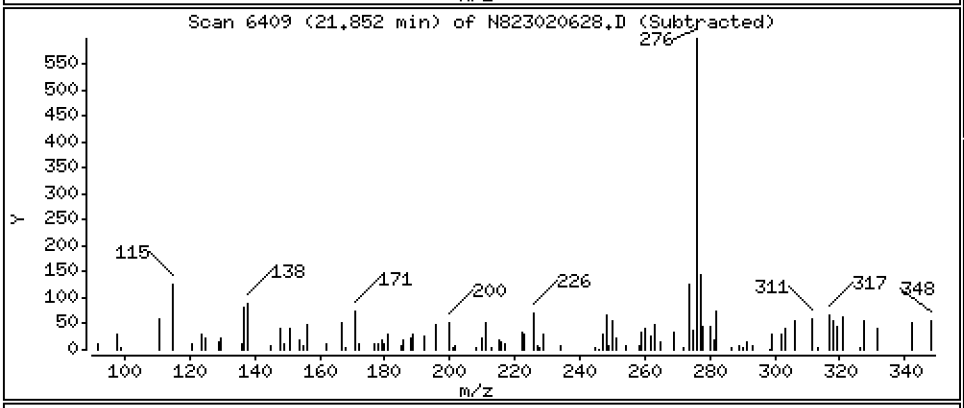
Column diameter: 0.25

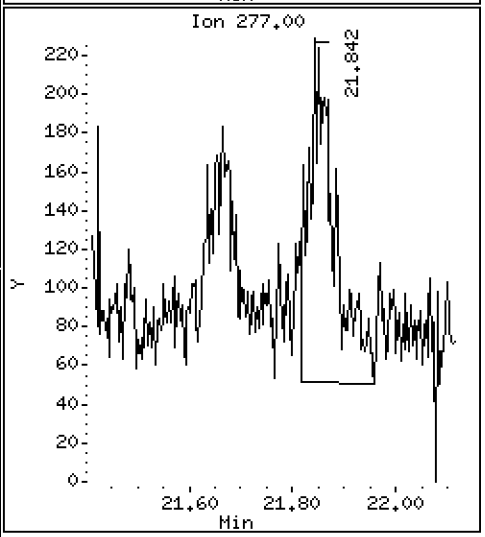
39 Benzo(g,h,i)perylene

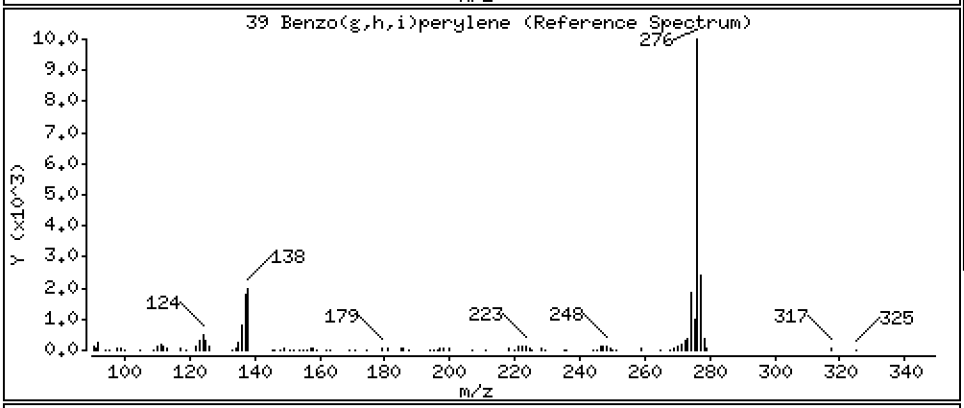
Concentration: 0.6297 ug/mL

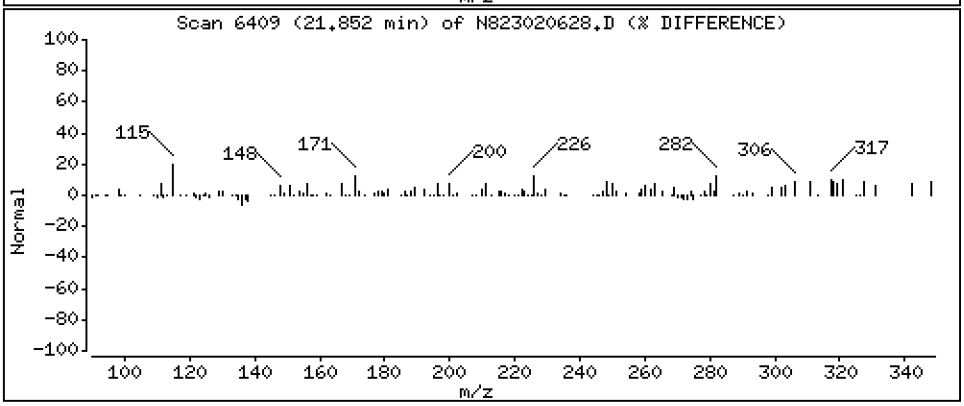












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230206A.b\N823020628.D
Lab Smp Id: 23A0313-03
Inj Date : 07-FEB-2023 00:55
Operator : JZ Inst ID: nt8.i
Smp Info : 23A0313-03,3
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Meth Date : 07-Feb-2023 13:04 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 28
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PNAXMDL.sub
Target Version: 4.14
Processing Host: JIANQING-202105

								CONCENTRATIONS	
		QUANT SIG						ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
*	1 Naphthalene-d8	136	4.887	4.900	(1.000)	56887		2.00000	
	2 Naphthalene	128	4.919	4.928	(1.006)	27675		1.04631	3.139
$	3 2-Methylnaphthalene-d10	152	5.627	5.634	(1.151)	15760		1.01582	3.047
	4 2-Methylnaphthalene	141	5.672	5.681	(1.160)	6923		0.47584	1.428
	5 1-methylnaphthalene	141	5.871	5.880	(1.201)	3631		0.24590	0.7377
	9 Acenaphthylene	152	7.079	7.082	(0.985)	532		0.02313	0.06940(M)
*	10 Acenaphthene-d10	164	7.189	7.189	(1.000)	30456		2.00000	
	11 Acenaphthene	153	7.240	7.240	(1.007)	4775		0.30987	0.9296(M)
	12 Dibenzofuran	168	7.392	7.392	(1.028)	2441		0.10429	0.3129
	14 Fluorene	166	7.872	7.869	(1.095)	3988		0.21939	0.6582
*	15 Phenanthrene-d10	188	9.238	9.232	(1.000)	48664		2.00000	
	16 Phenanthrene	178	9.276	9.267	(1.004)	10549		0.44377	1.331
	17 Anthracene	178	9.317	9.308	(1.009)	4784		0.22154	0.6646(M)
	19 Carbazole	167	9.830	9.823	(1.064)	525		0.02652	0.07956(M)
	22 Fluoranthene	202	11.079	11.050	(1.199)	29932		1.15678	3.470
$	21 Fluoranthene-d10	212	11.041	11.009	(1.195)	30565		1.42359	4.271
	23 Pyrene	202	11.616	11.569	(0.815)	16507		1.15795	3.474
	24 Benzo(a)anthracene	228	14.114	14.070	(0.991)	3832		0.29658	0.8897
*	25 Chrysene-d12	240	14.247	14.202	(1.000)	22993		2.00000	
	27 Chrysene	228	14.320	14.275	(1.005)	3753		0.27285	0.8185
	28 Benzo(b)fluoranthene	252	16.878	16.824	(0.929)	2387		0.20732	0.6220
	29 Benzo(k)fluoranthene	252	16.941	16.887	(0.932)	1132		0.10038	0.3011
	30 Benzo(j)fluoranthene	252	17.014	16.963	(0.936)	1325		0.13051	0.3915
	31 Total Benzofluoranthenes	252	16.878	16.824	(0.929)	5002		0.45873	1.376(M)
	32 Benzo(a)pyrene	252	17.931	17.877	(0.987)	1864		0.18397	0.5519
*	33 Perylene-d12	264	18.168	18.107	(1.000)	19769		2.00000	
	35 Perylene	252	18.244	18.183	(1.004)	31037		2.85462	8.564
$	36 Dibenzo(a,h)anthracene-d14	292	20.621	20.549	(1.135)	9173		1.18424	3.553
	37 Indeno(1,2,3-cd)pyrene	276	20.757	20.684	(1.143)	1356		0.11748	0.3524
	38 Dibenzo(a,h)anthracene	278	20.713	20.666	(1.140)	420		0.04228	0.1268(M)
	39 Benzo(g,h,i)perylene	276	21.851	21.763	(1.203)	2195		0.20989	0.6297(M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823020628.D
Lab Smp Id: 23A0313-03
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 06-FEB-2023
Calibration Time: 15:15
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44336	22168	88672	56887	28.31
10 Acenaphthene-d10	26127	13064	52254	30456	16.57
15 Phenanthrene-d10	47424	23712	94848	48664	2.61
25 Chrysene-d12	36794	18397	73588	22993	-37.51
33 Perylene-d12	36636	18318	73272	19769	-46.04

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.90	4.40	5.40	4.89	-0.26
10 Acenaphthene-d10	7.19	6.69	7.69	7.19	0.00
15 Phenanthrene-d10	9.23	8.73	9.73	9.24	0.07
25 Chrysene-d12	14.20	13.70	14.70	14.25	0.31
33 Perylene-d12	18.11	17.61	18.61	18.17	0.33

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823020628.D

Lab ID: 23A0313-03
nt8.i, 20230206A.b\FSIMPNA230119.m,   07-FEB-2023 00:55

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

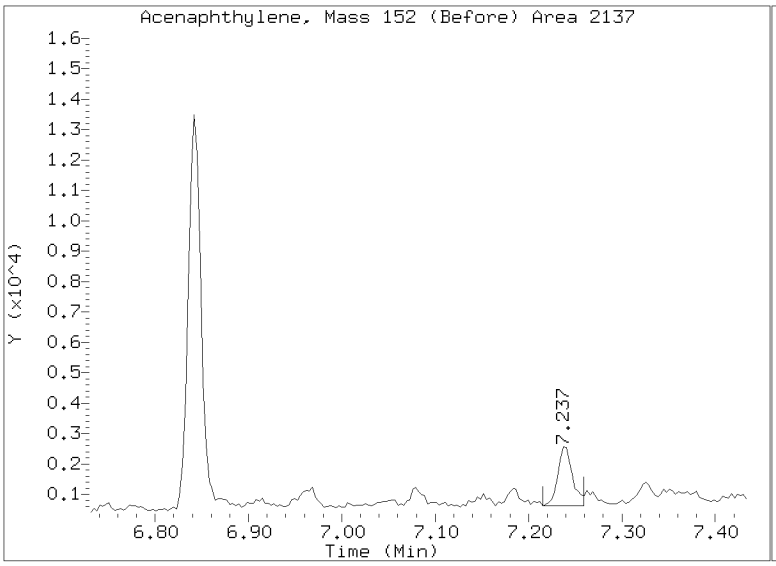
No RRT check performed

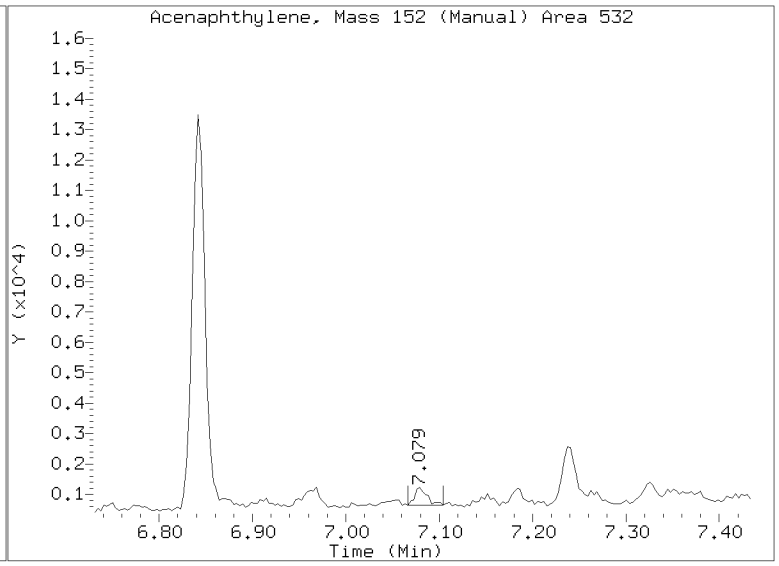
On Column LOD for nt8.i, 20230206A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

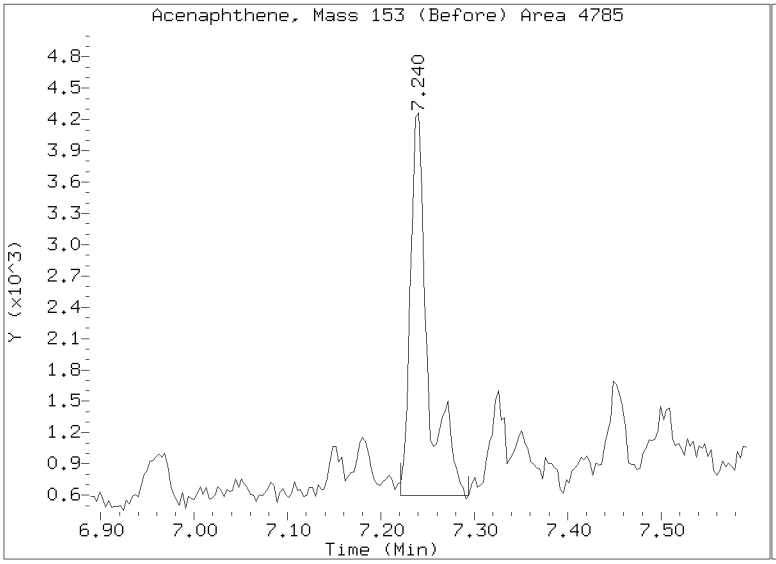
* Only compounds listed in the work order have been verified by the analyst *

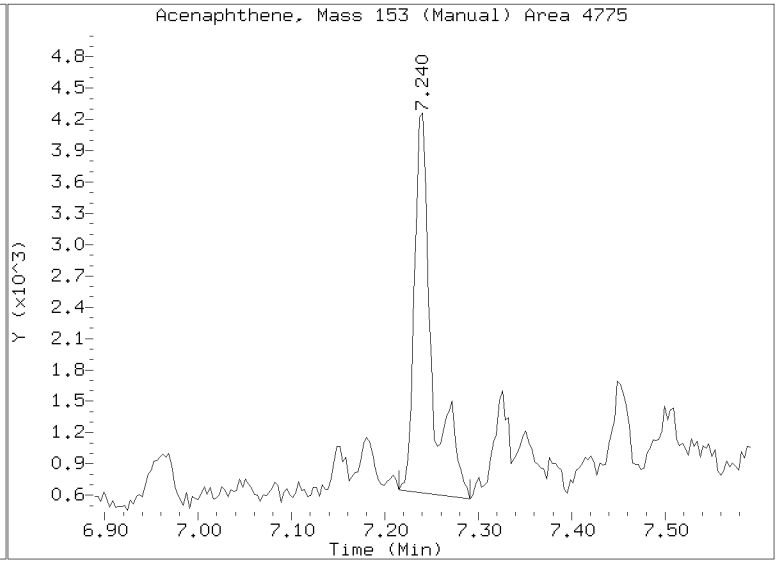
Quant Ion Manual Peak Adjustment Report

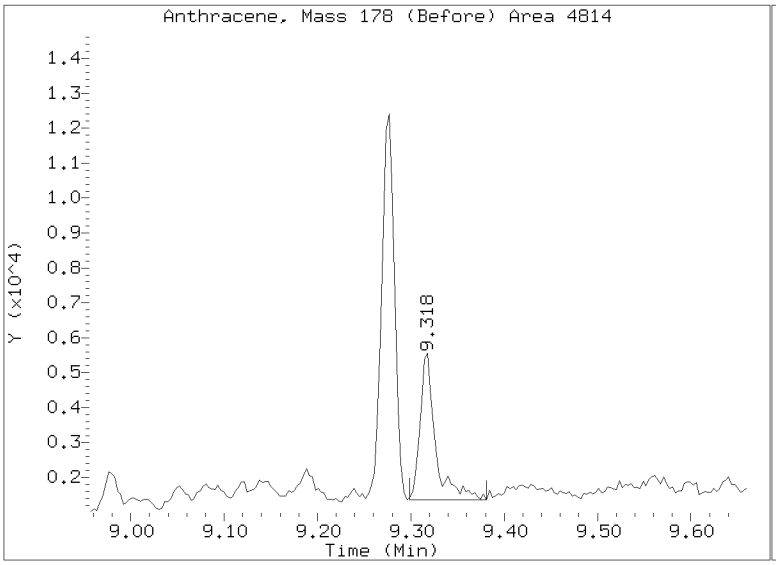
Datafile: //target/share/chem3/nt8.i/20230206A.b/N823020628.D
Injection Date: 07-FEB-2023 00:55
Lab ID:23A0313-03 Client ID:
Report Date: 02/07/2023 19:31

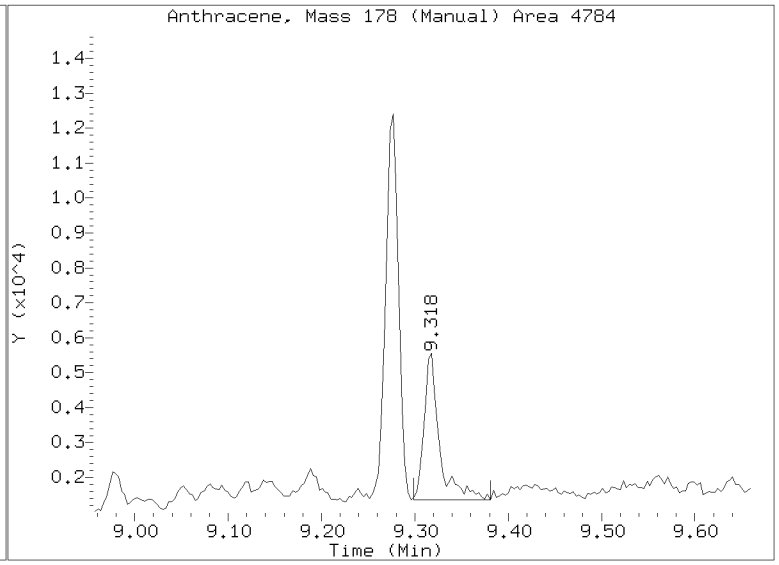












Quant Ion Manual Peak Adjustment Report

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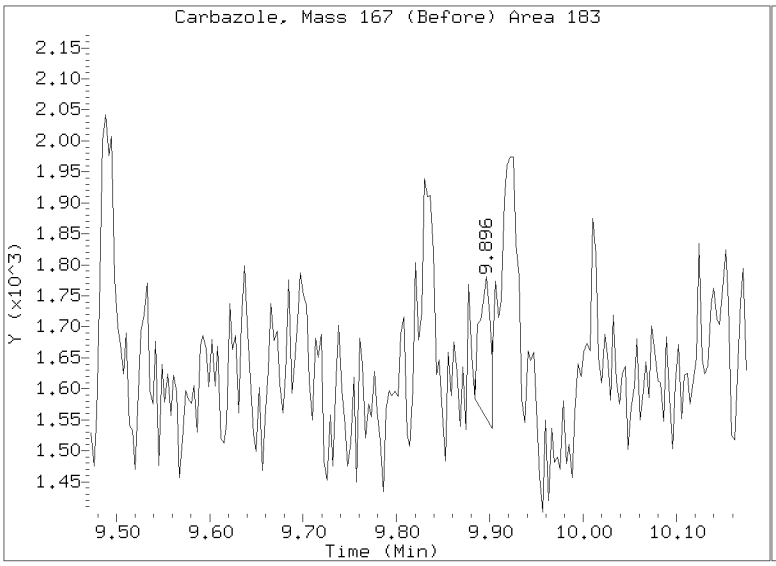
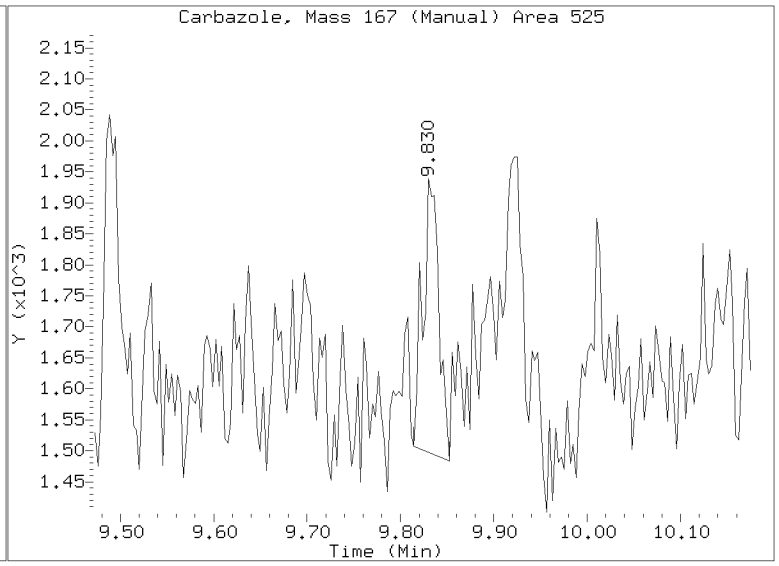
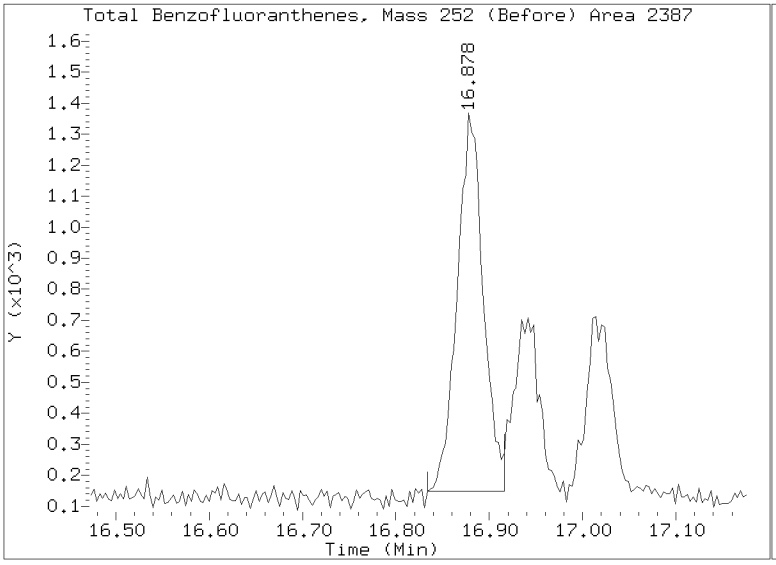
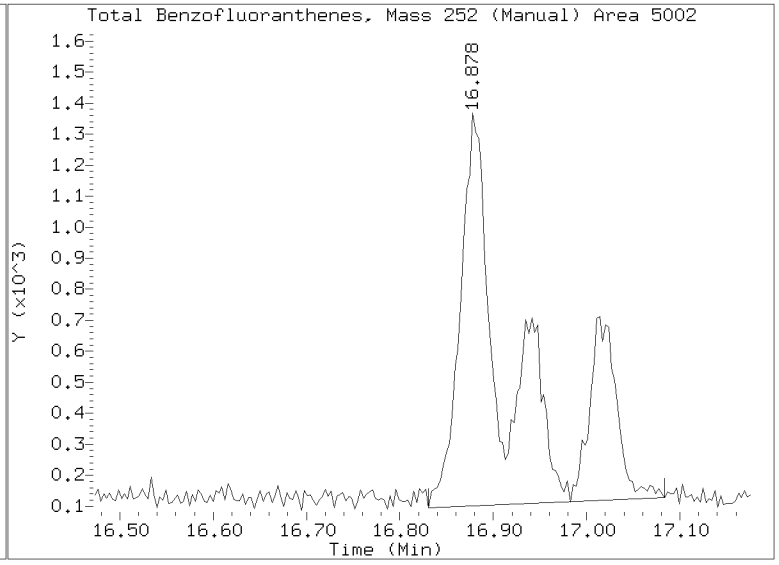
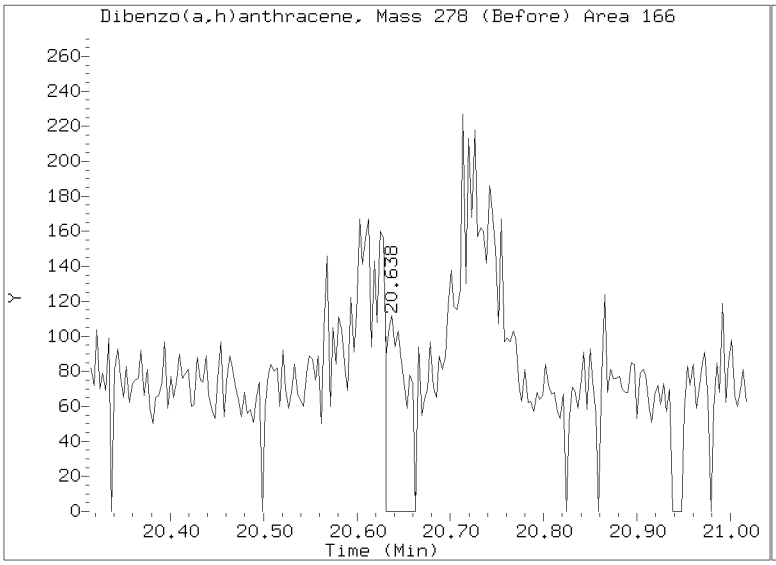
Lab ID:23A0313-03 Client ID:
Report Date: 02/07/2023 19:31

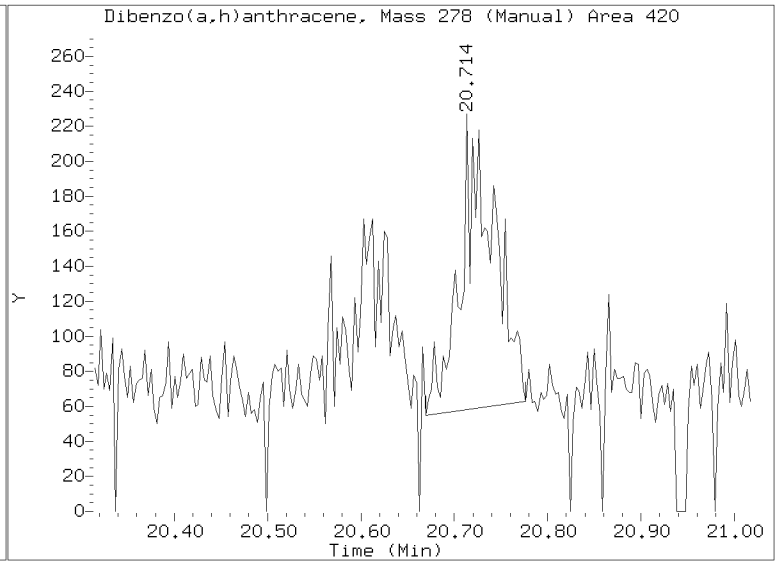






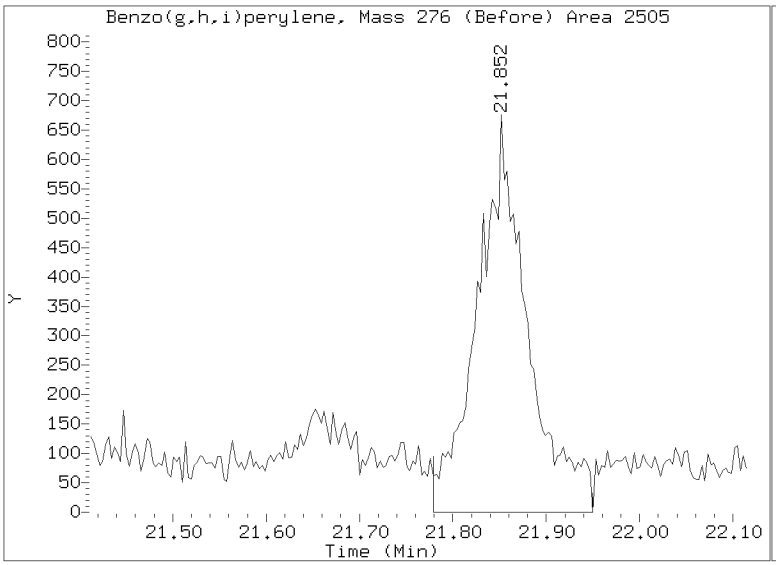


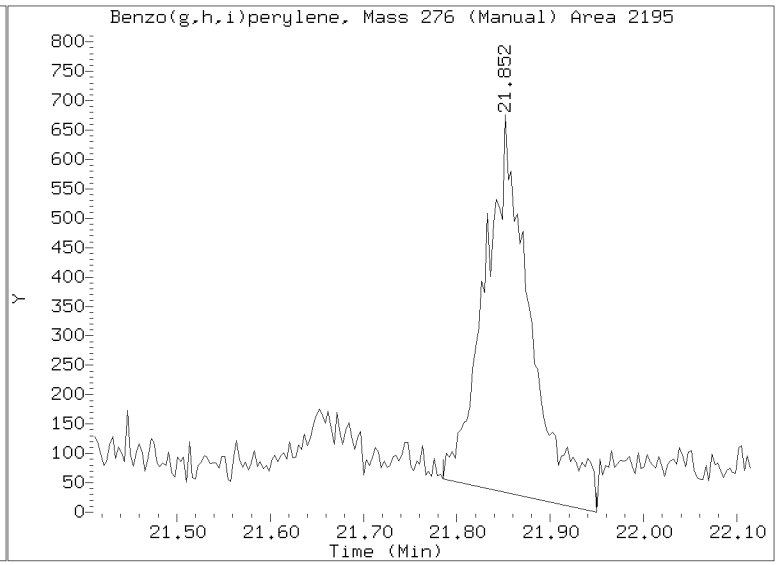




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230206A.b/N823020628.D
Injection Date: 07-FEB-2023 00:55
Lab ID:23A0313-03 Client ID:
Report Date: 02/07/2023 19:31





Analytical Resources, LLC
Analytical Chemists and Consultants

LDW23-IT1120

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

Polynuclear Aromatic Hydrocarbons

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-04 A	SDG:	23A0313
Sampled:	01/16/23 08:57	Prepared:	02/01/23 11:29	File ID:	N823020629.D
% Solids:	69.56	Preparation:	EPA 3546 (Microwave)	Analyzed:	02/07/23 01:22
Batch:	BLA0683	Sequence:	SLB0075	Initial/Final:	14.39 g Wet / 0.5 mL
Instrument:	NT8	Column:	RXI-17Sil ms	Calibration:	GA00050
Cleanups:	GPC, Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
56-55-3	Benzo(a)anthracene	1	170		0.82	5.00
218-01-9	Chrysene	1	133		1.05	5.00
205-99-2	Benzo(b)fluoranthene	1	156		1.37	5.00
207-08-9	Benzo(k)fluoranthene	1	69.4		0.76	5.00
50-32-8	Benzo(a)pyrene	1	155		0.61	5.00
193-39-5	Indeno(1,2,3-cd)pyrene	1	59.7		1.05	5.00
53-70-3	Dibenzo(a,h)anthracene	1	15.8		0.89	5.00

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	149.85	133	88.8	32 - 120	
Dibenzo[a,h]anthracene-d14	149.85	139	92.4	21 - 133	
Fluoranthene-d10	149.85	132	87.8	36 - 134	

Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Page 1

Date : 07-FEB-2023 01:22

Client ID:

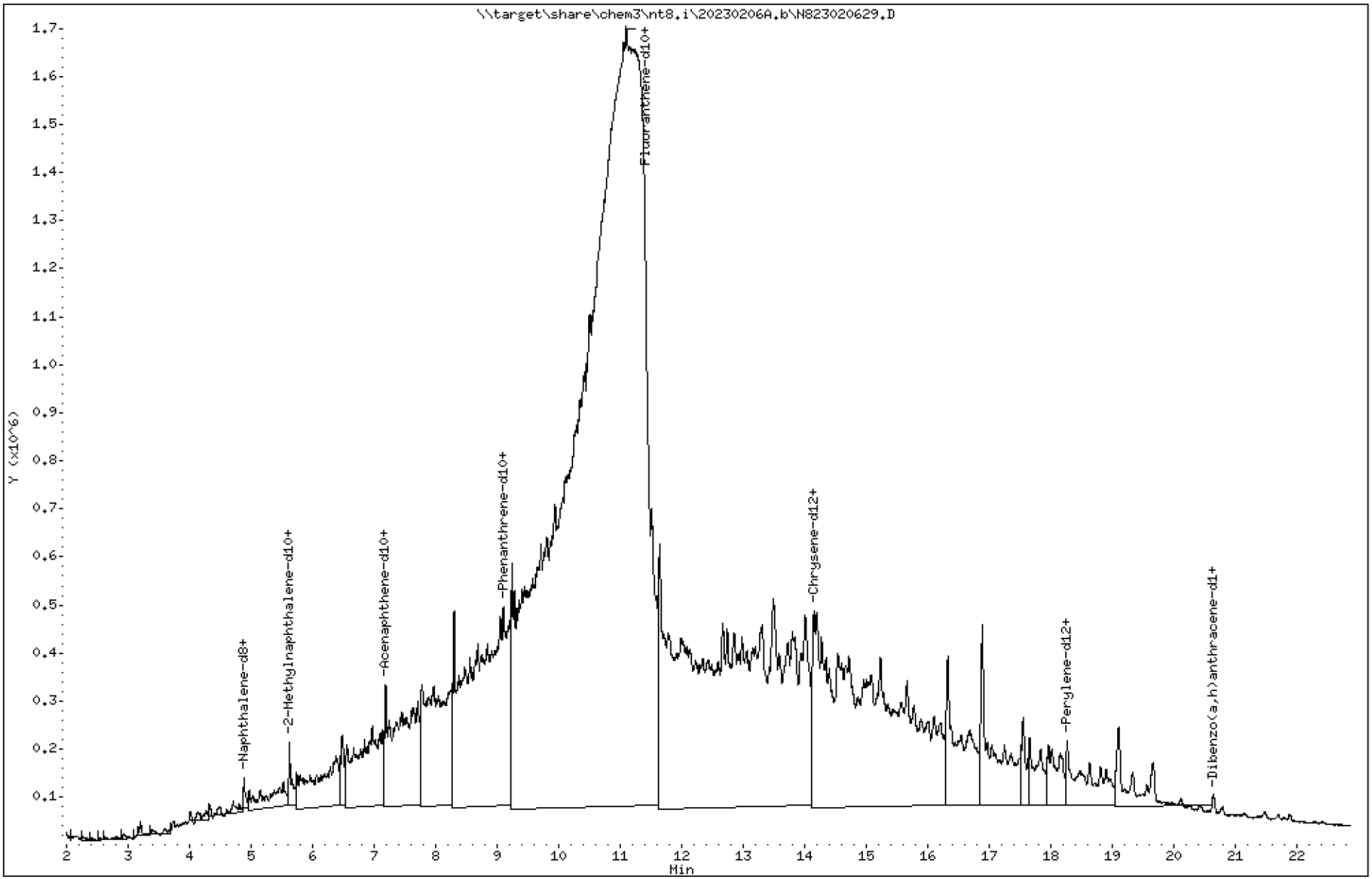
Instrument: nt8.i

Sample Info: 23A0313-04

Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25



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Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

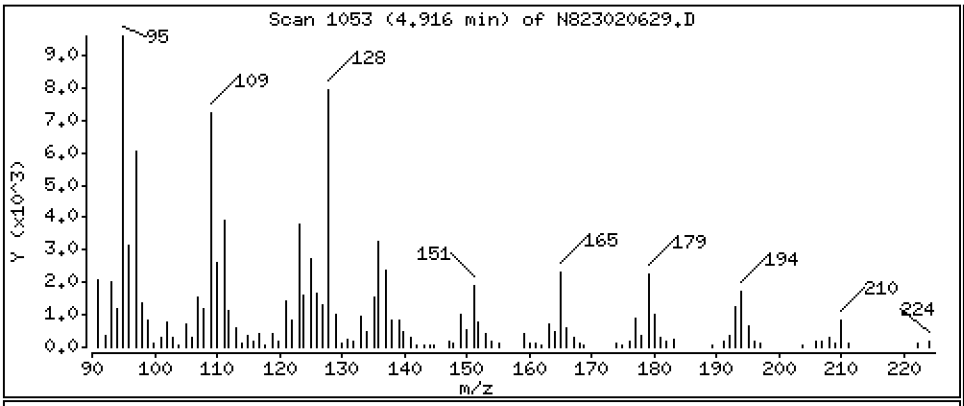
Operator: JZ

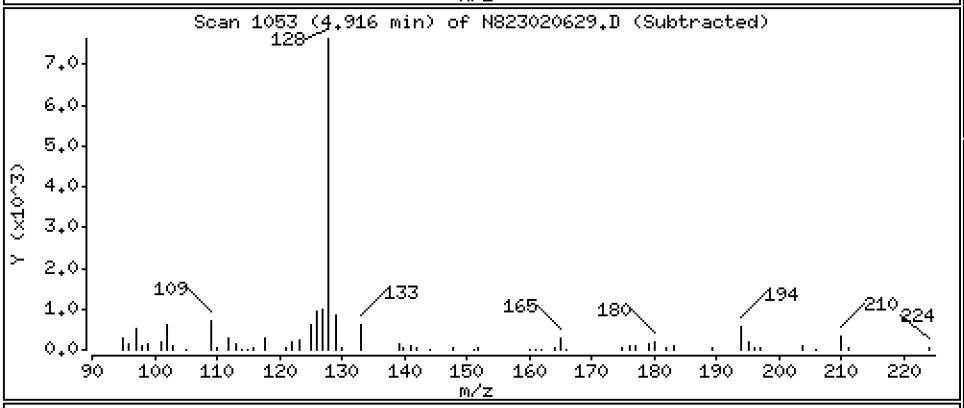
Column phase: Rxi-17sil

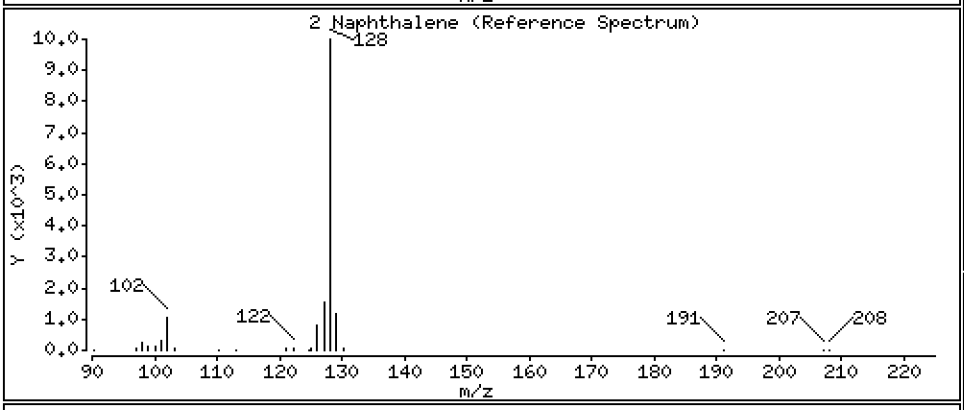
Column diameter: 0.25

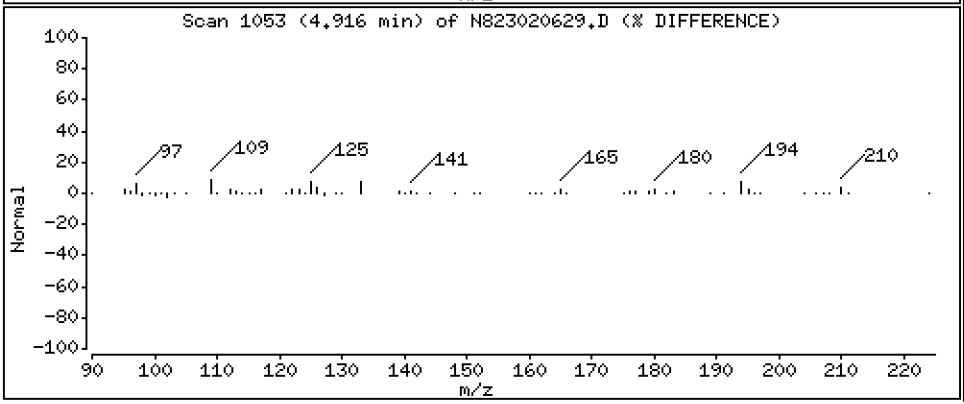
2 Naphthalene

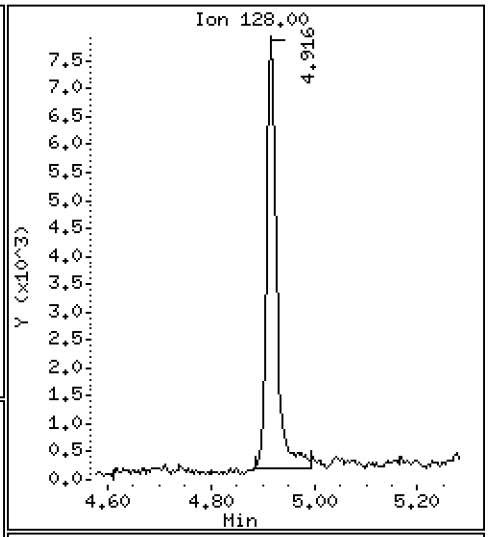
Concentration: 0.4159 ug/mL

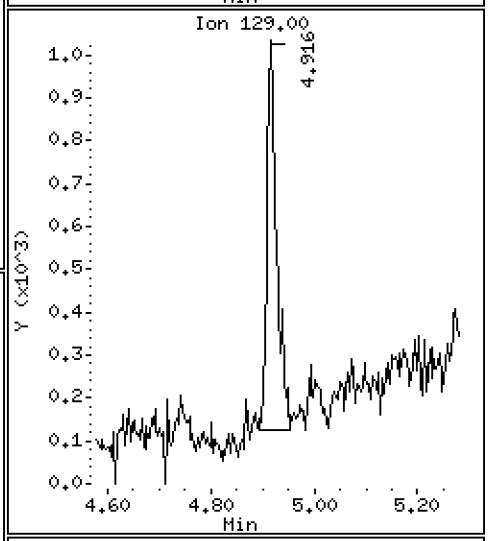


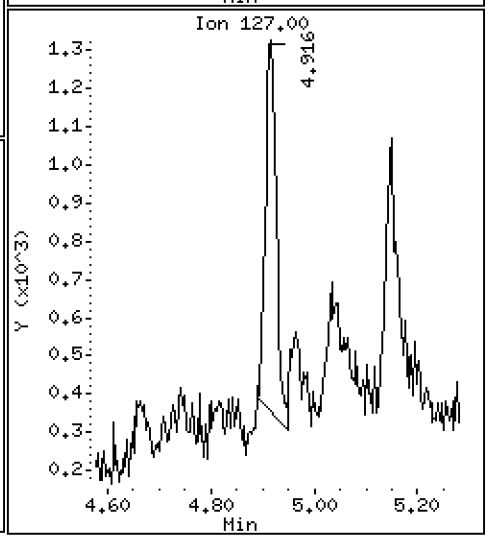












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Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

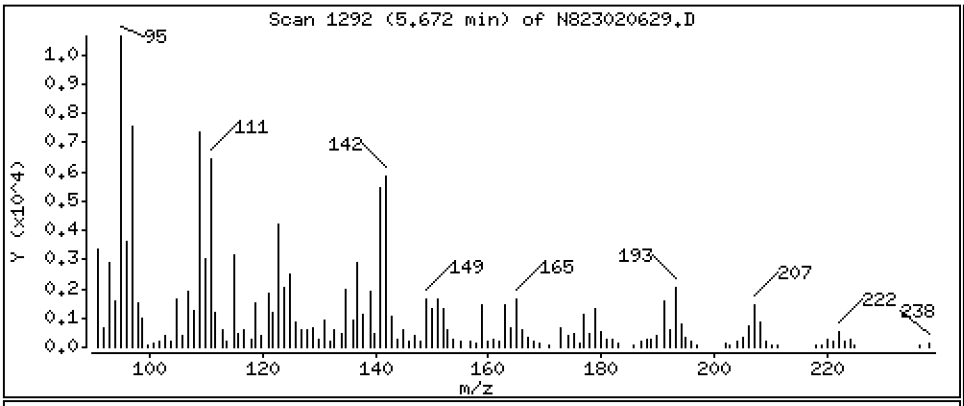
Operator: JZ

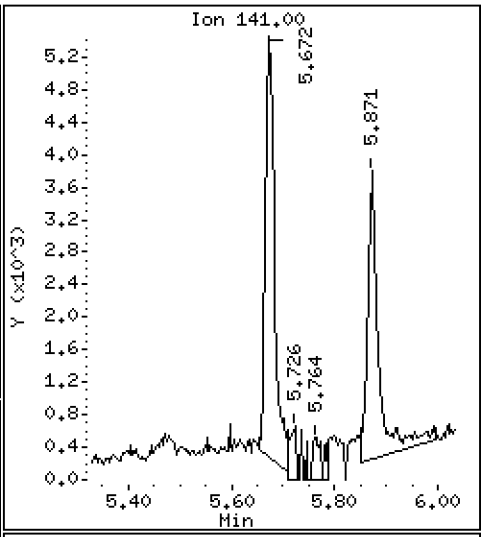
Column phase: Rxi-17sil

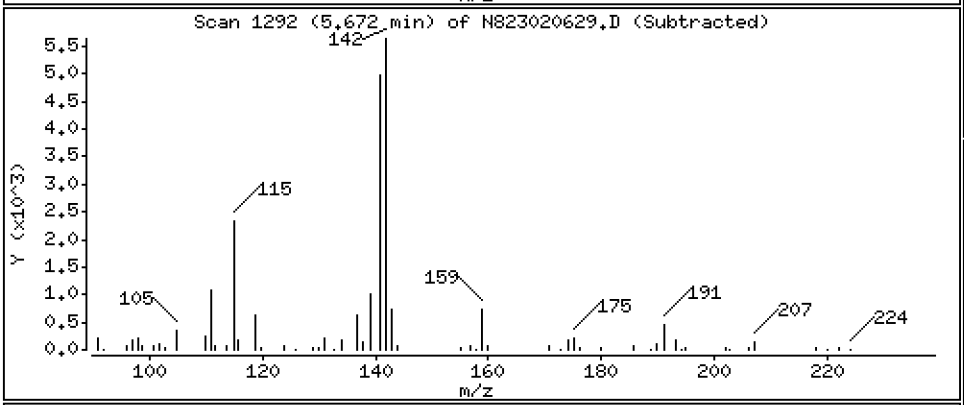
Column diameter: 0.25

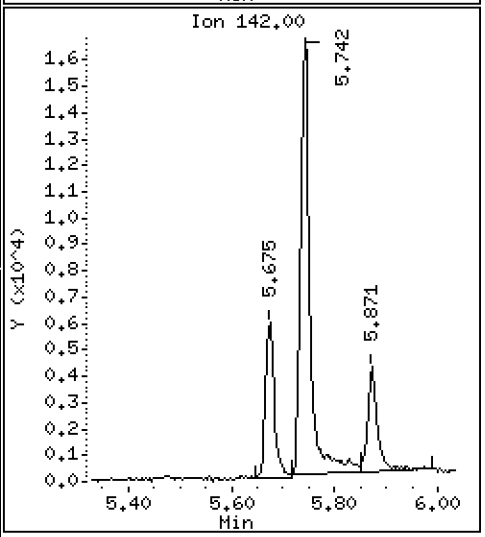
4 2-Methylnaphthalene

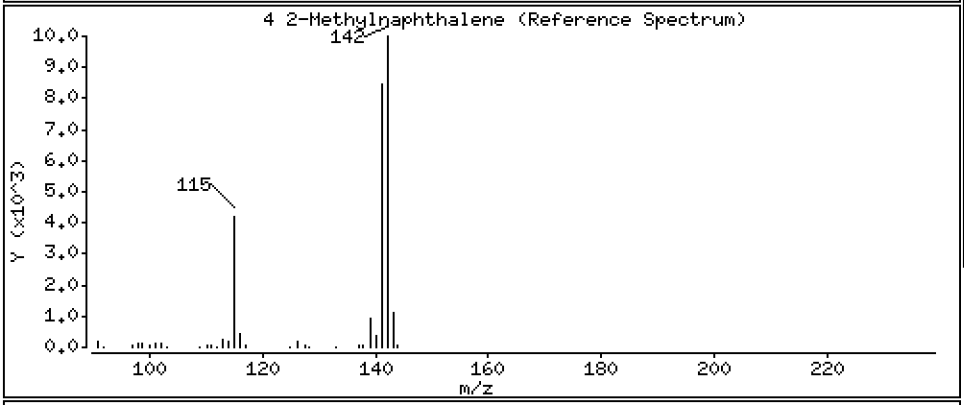
Concentration: 0.4668 ug/mL

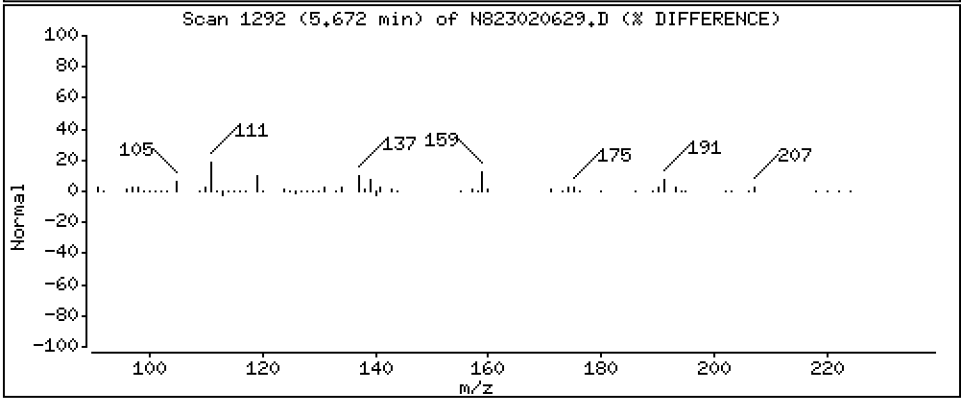












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Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

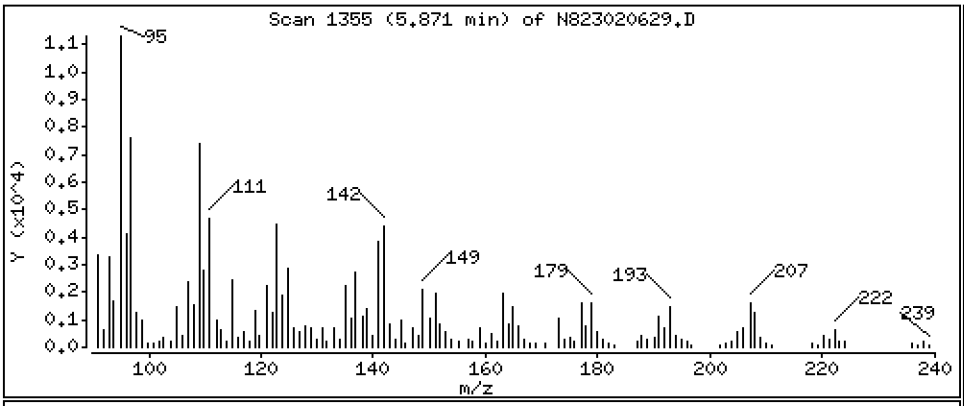
Operator: JZ

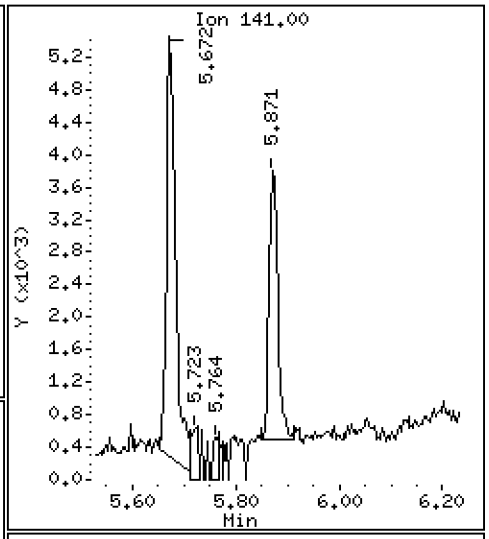
Column phase: Rxi-17sil

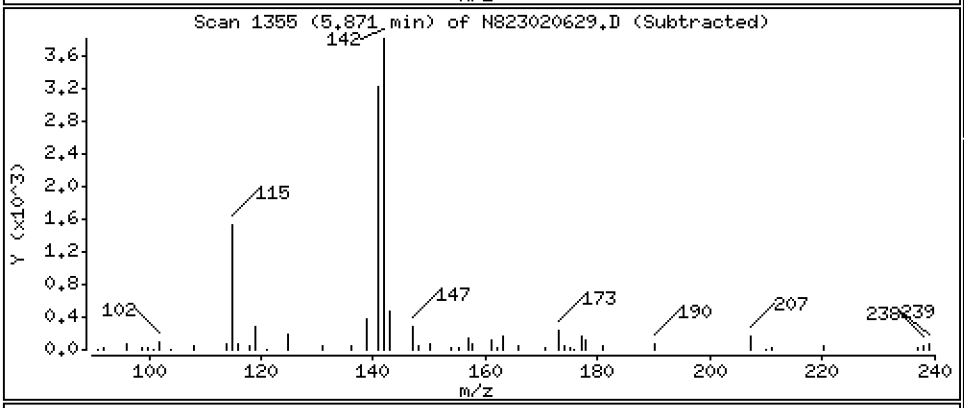
Column diameter: 0.25

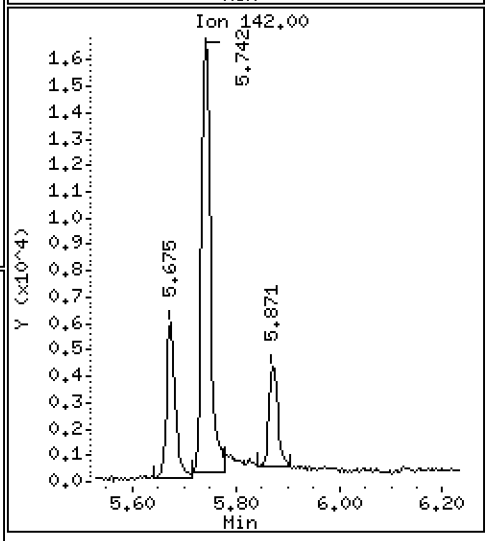
5 1-methylnaphthalene

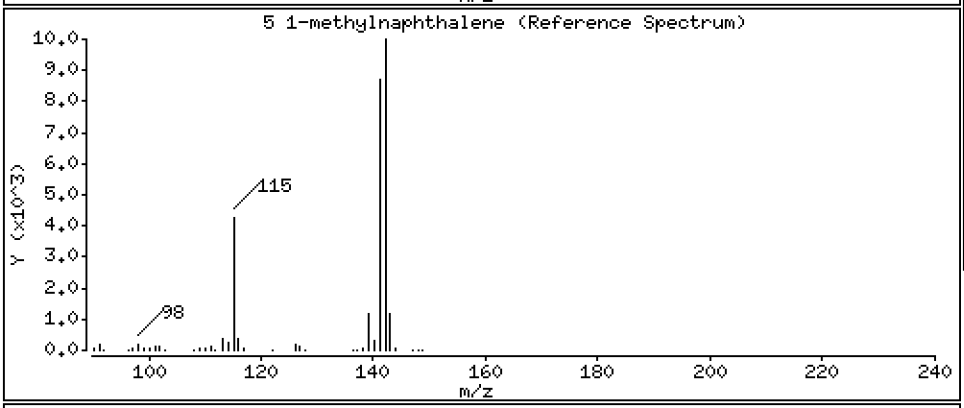
Concentration: 0.2719 ug/mL

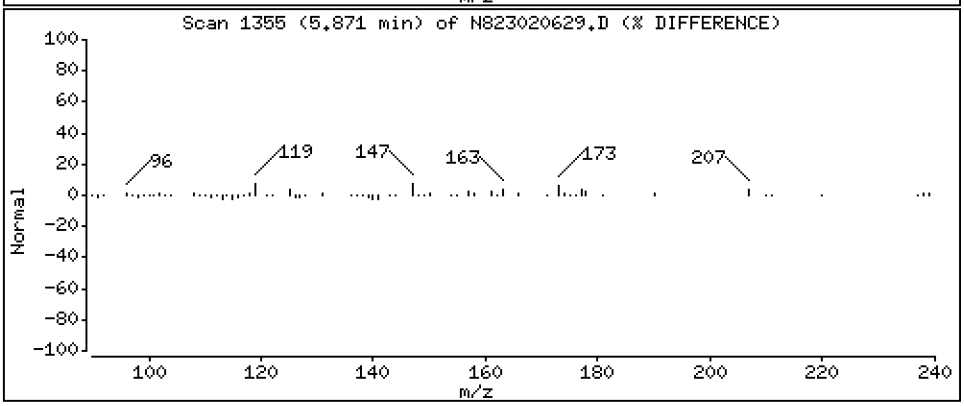












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Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

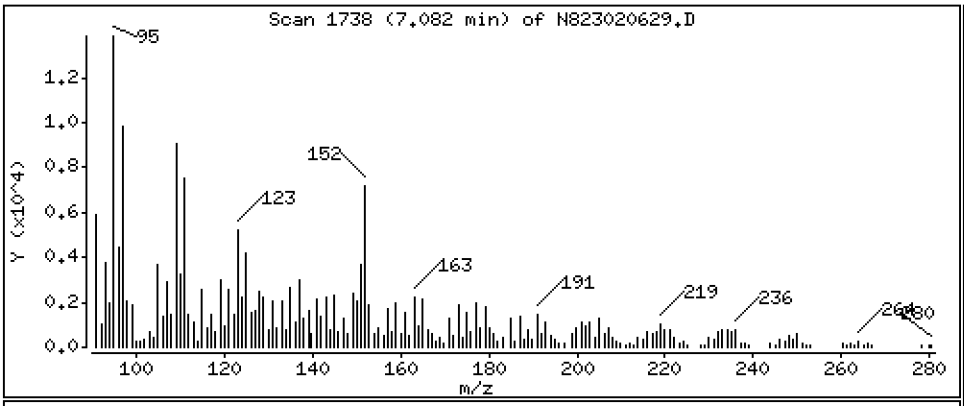
Operator: JZ

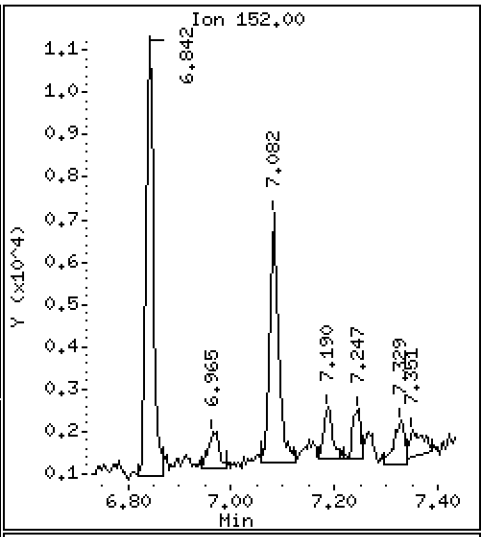
Column phase: Rxi-17sil

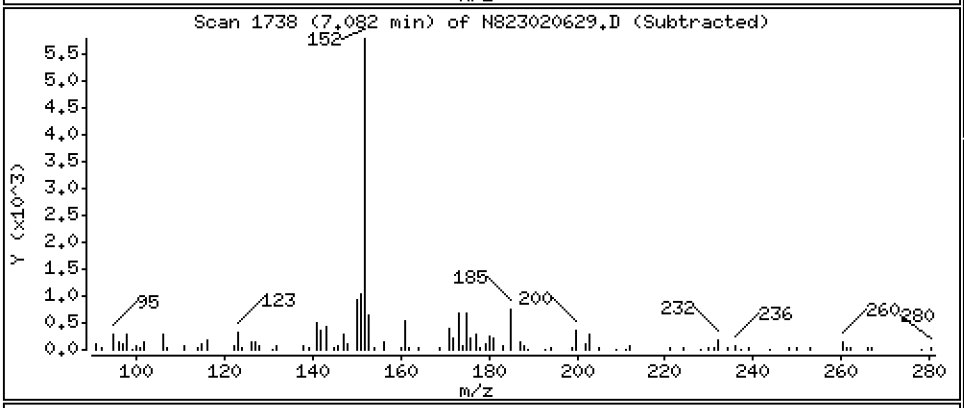
Column diameter: 0.25

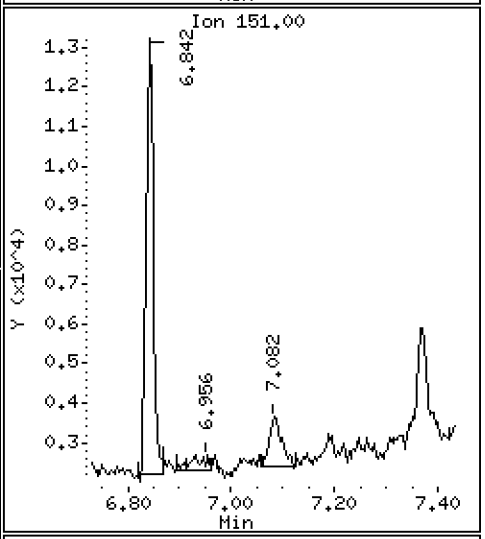
9 Acenaphthylene

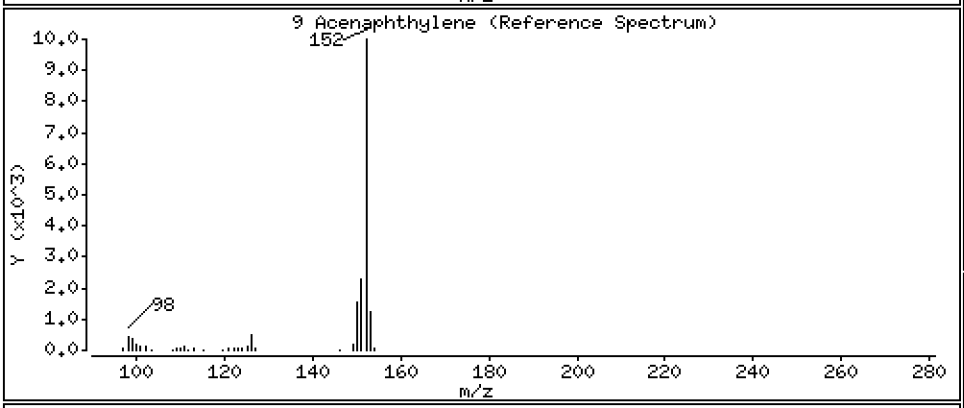
Concentration: 0.3347 ug/mL

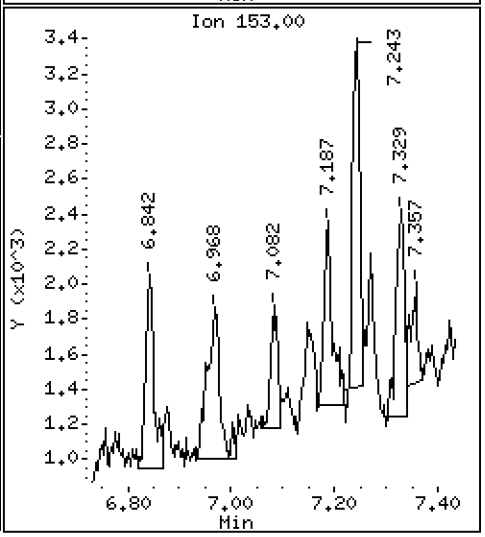


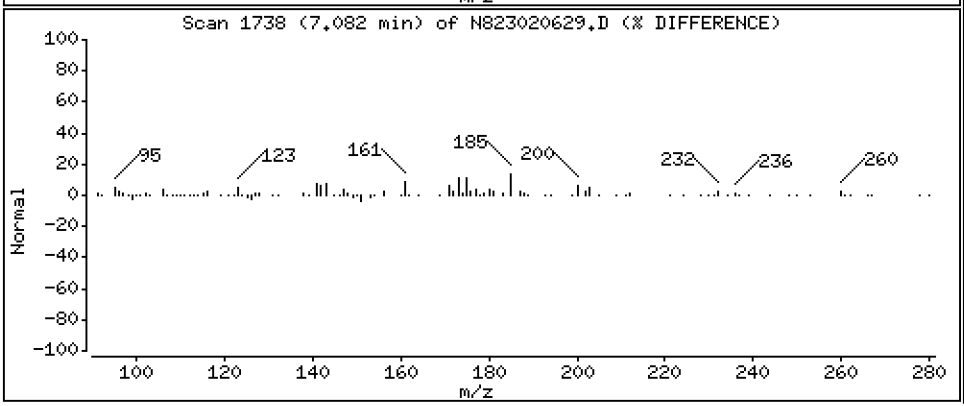












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Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

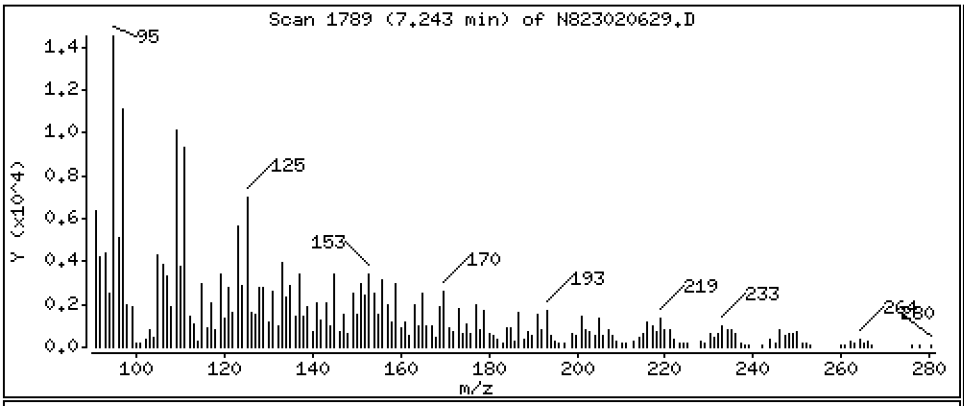
Operator: JZ

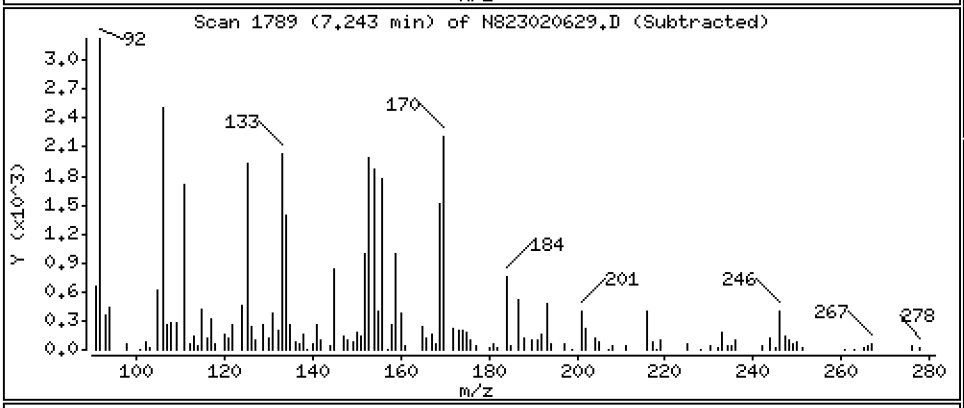
Column phase: Rxi-17sil

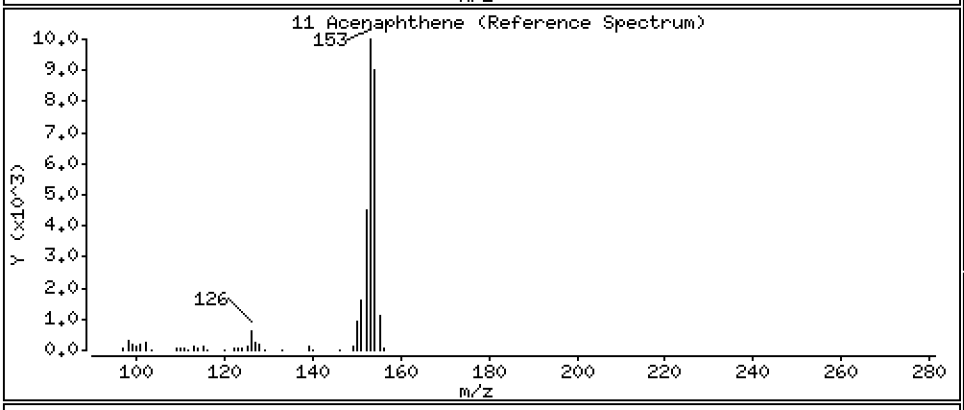
Column diameter: 0.25

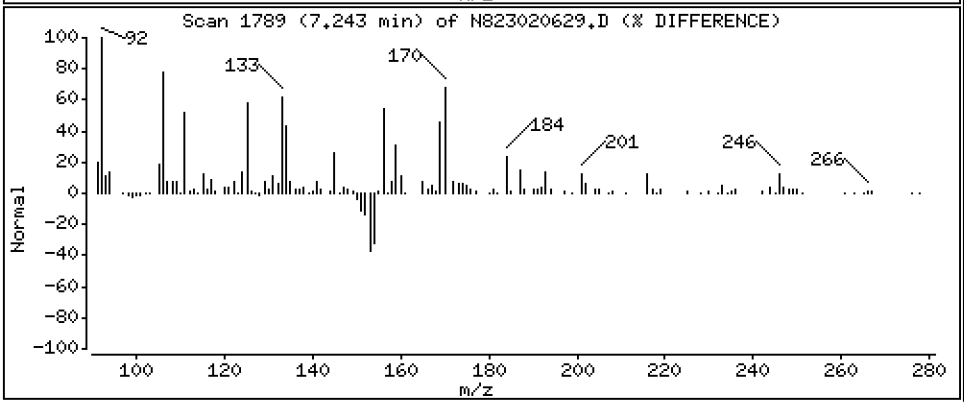
11 Acenaphthene

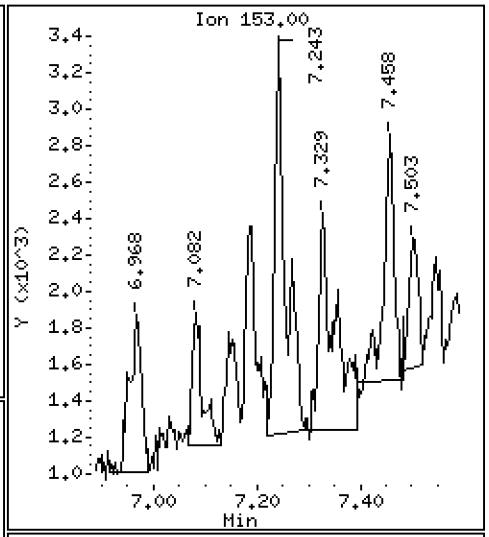
Concentration: 0.2296 ug/mL

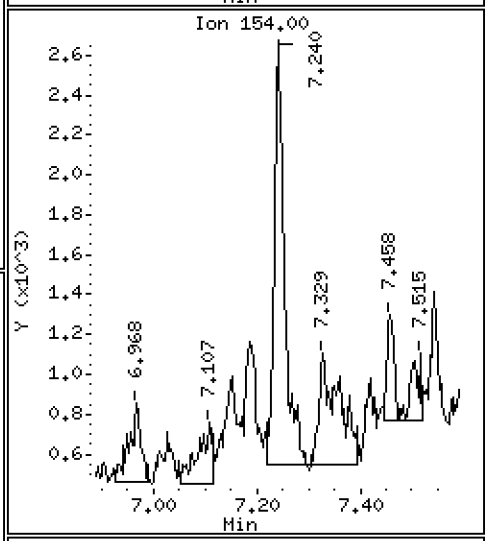


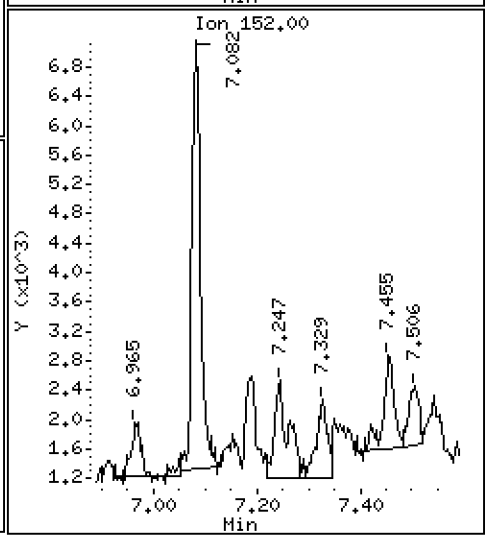












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Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

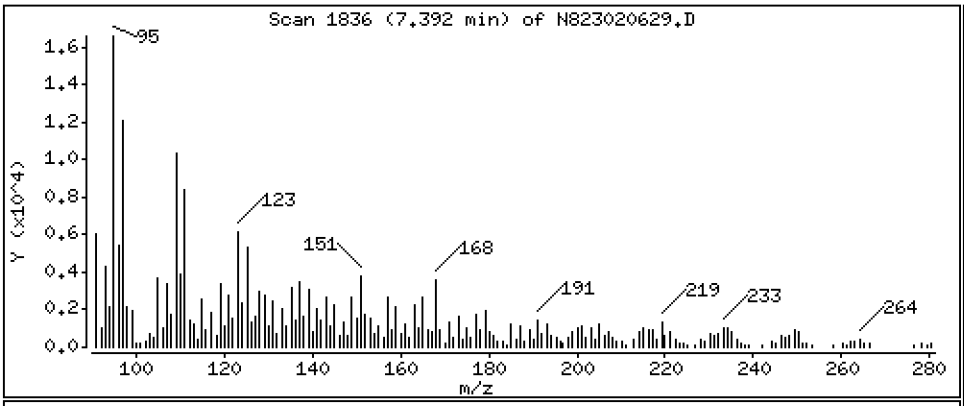
Operator: JZ

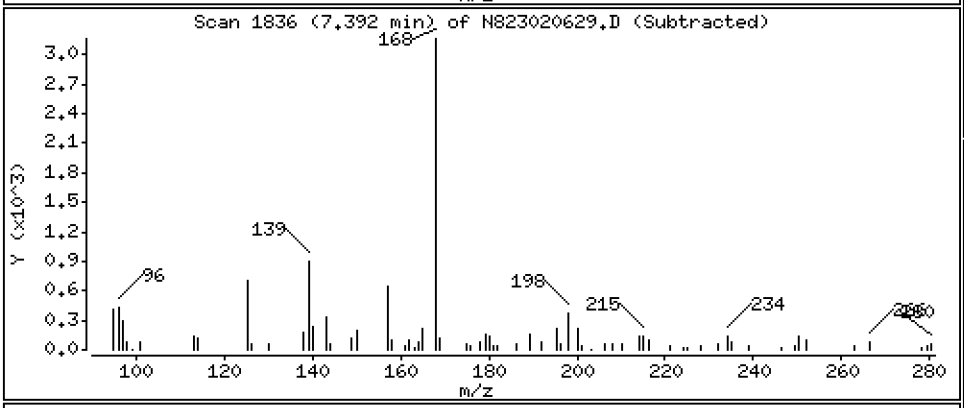
Column phase: Rxi-17sil

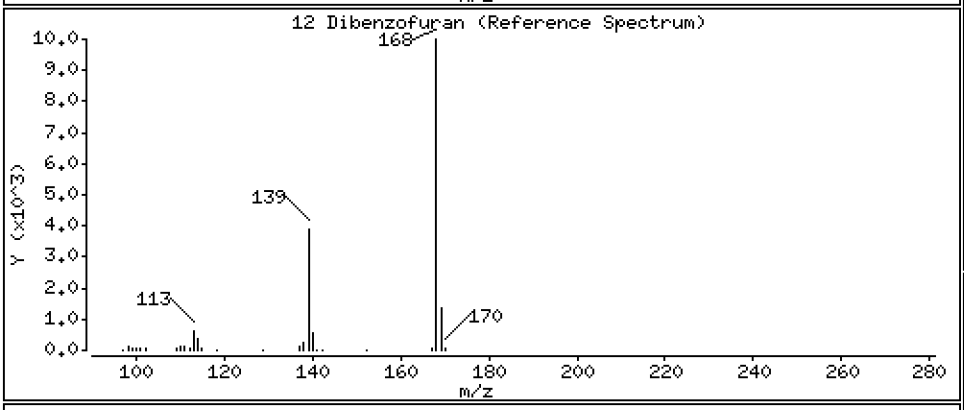
Column diameter: 0.25

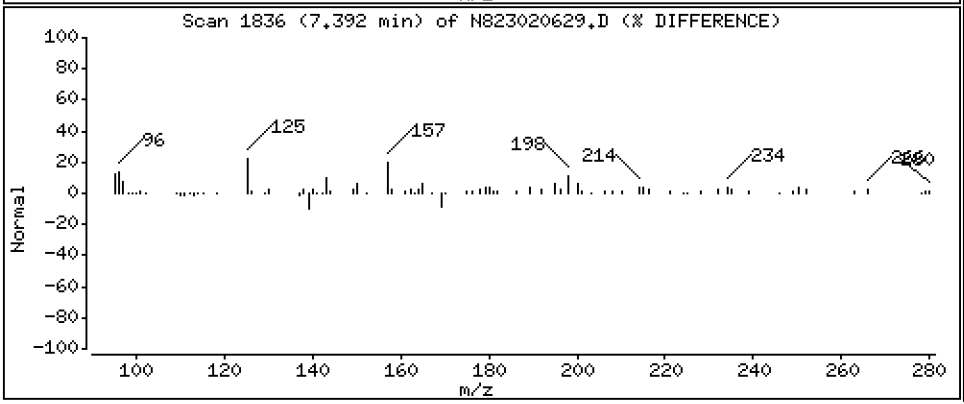
12 Dibenzofuran

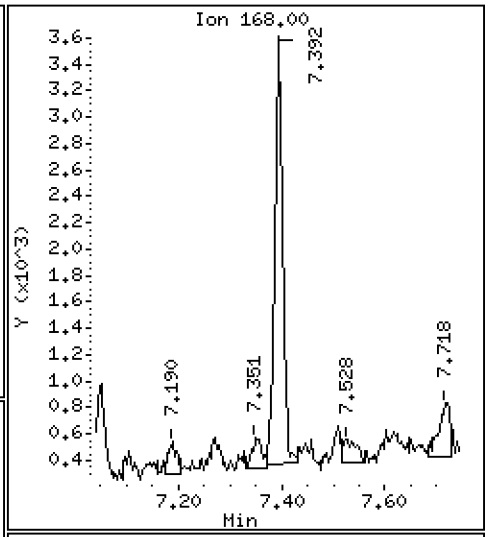
Concentration: 0.1630 ug/mL

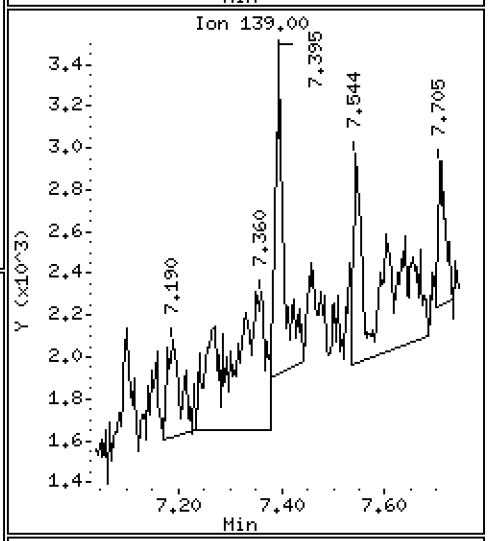


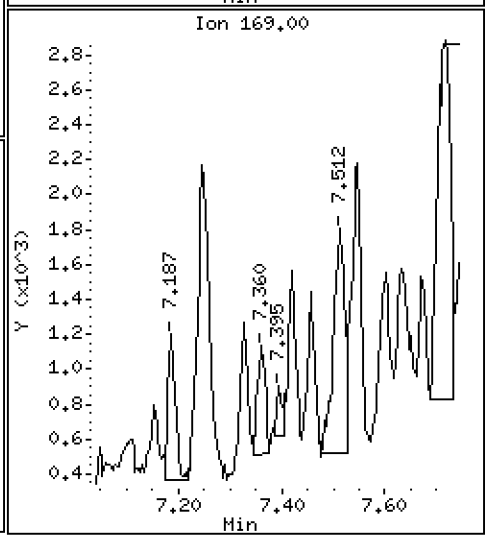












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Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

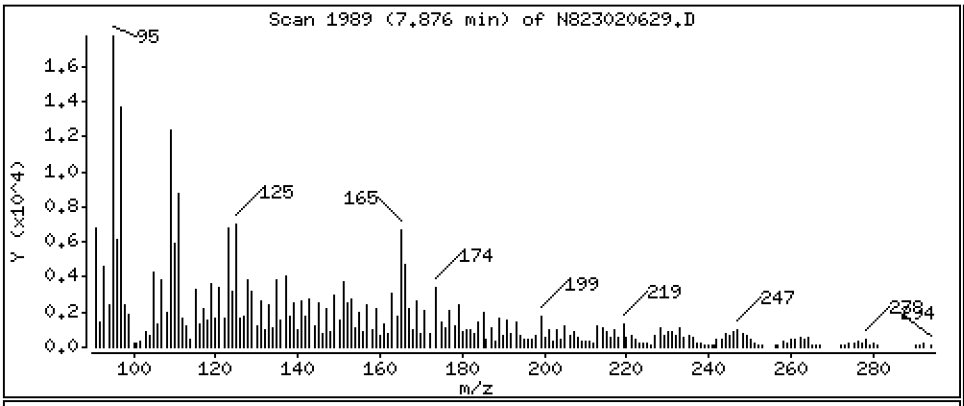
Operator: JZ

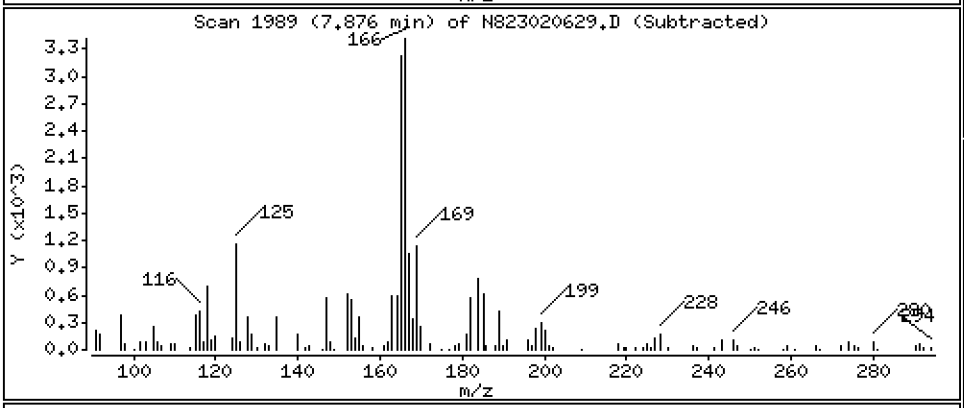
Column phase: Rxi-17sil

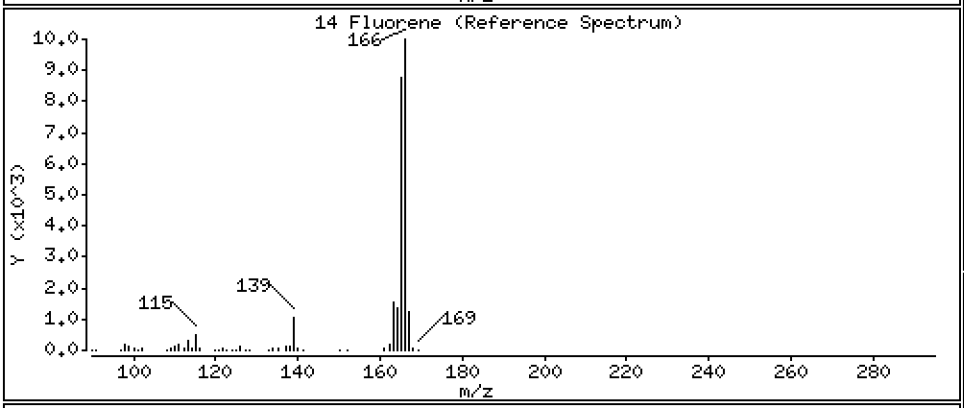
Column diameter: 0.25

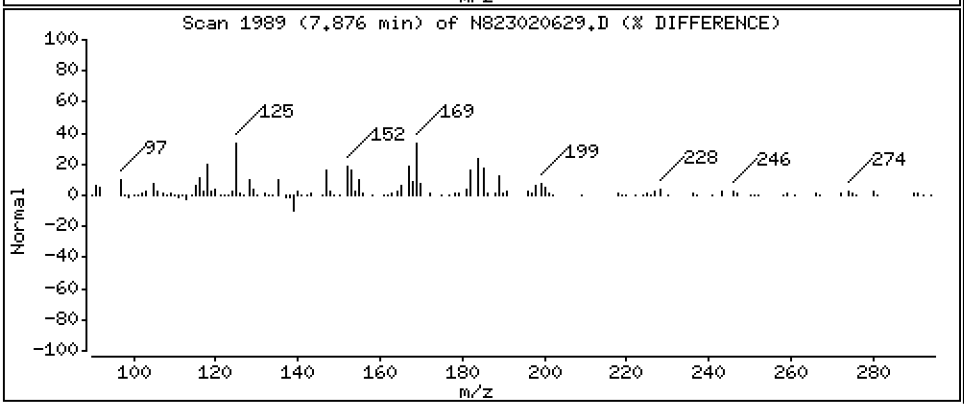
14 Fluorene

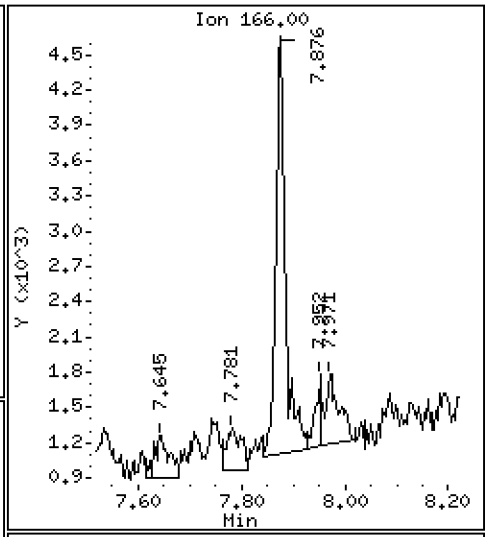
Concentration: 0.2728 ug/mL

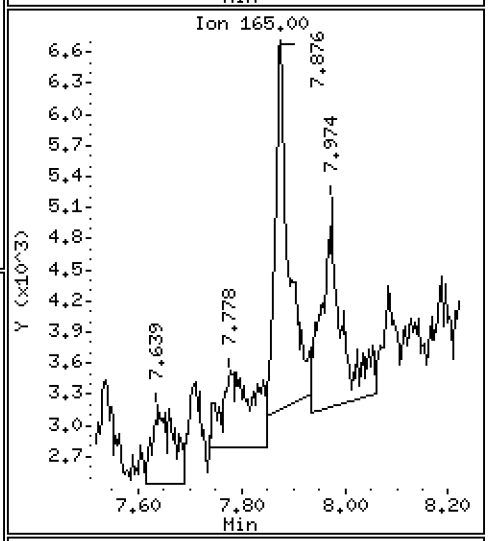


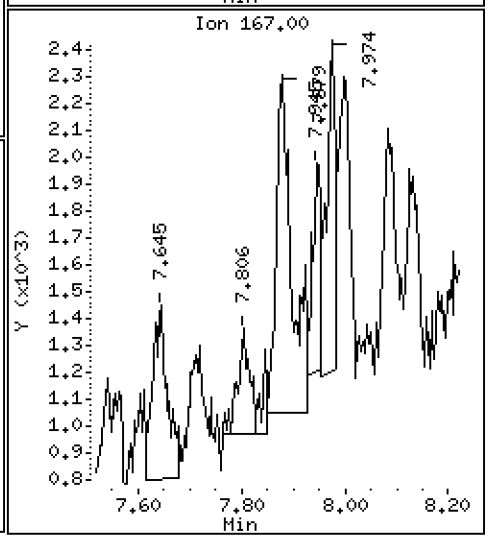












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Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

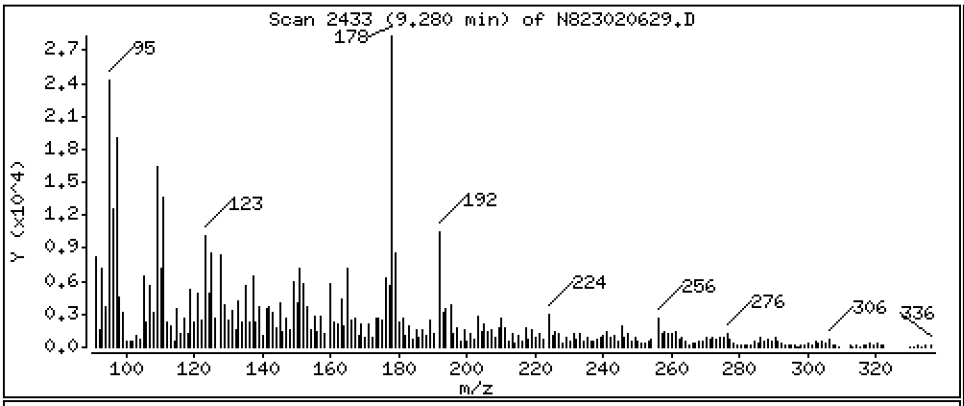
Operator: JZ

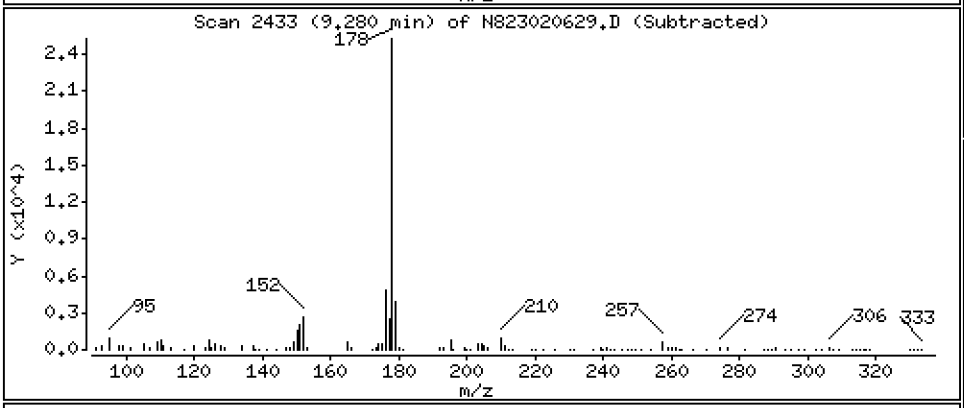
Column phase: Rxi-17sil

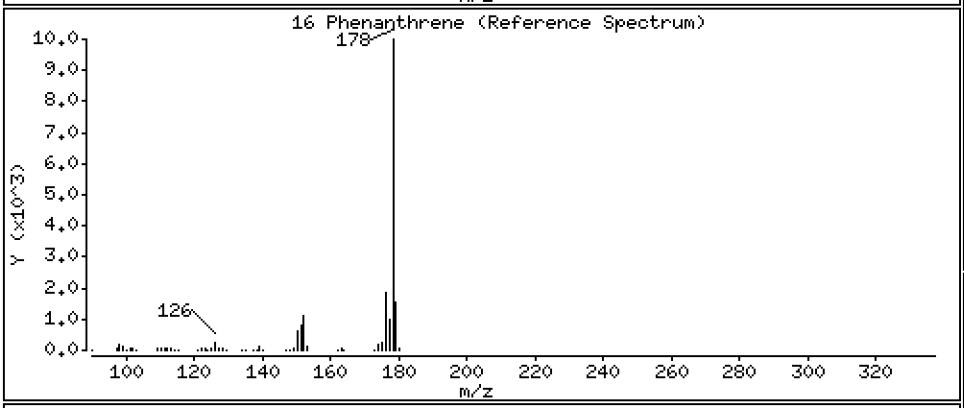
Column diameter: 0.25

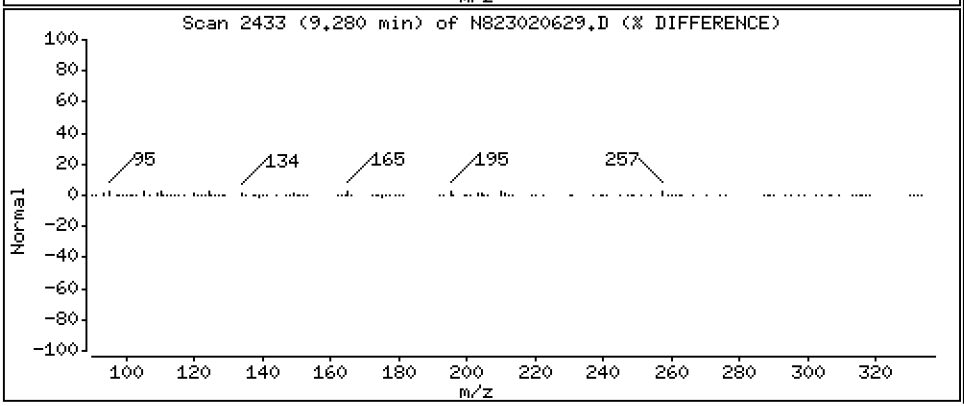
16 Phenanthrene

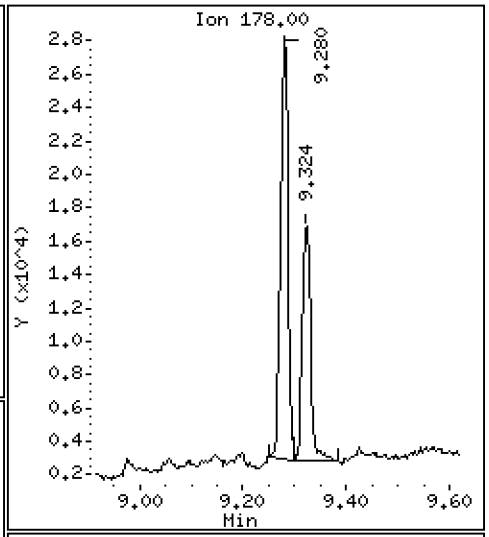
Concentration: 1.091 ug/mL

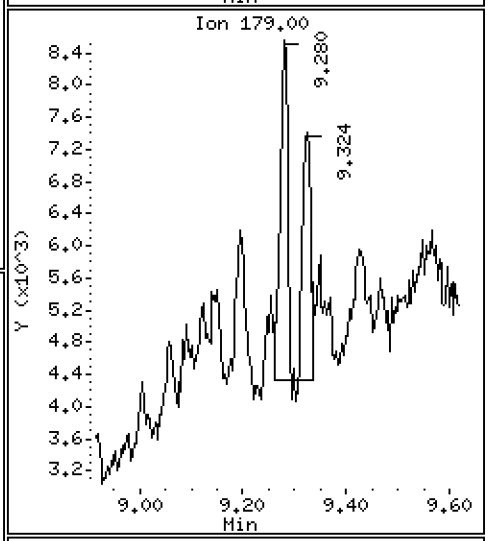


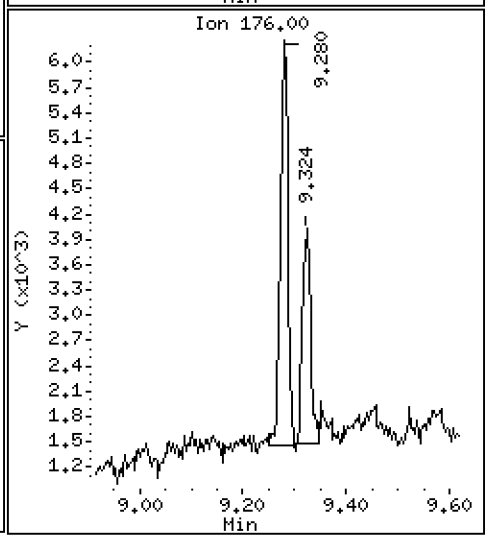












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Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

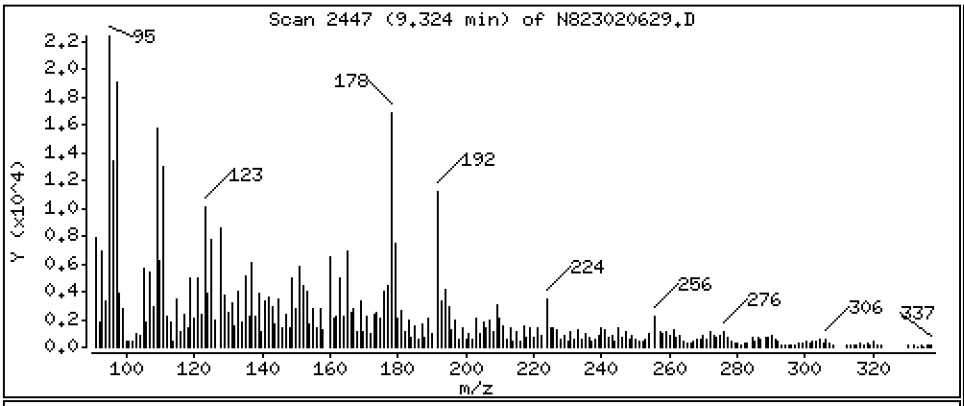
Operator: JZ

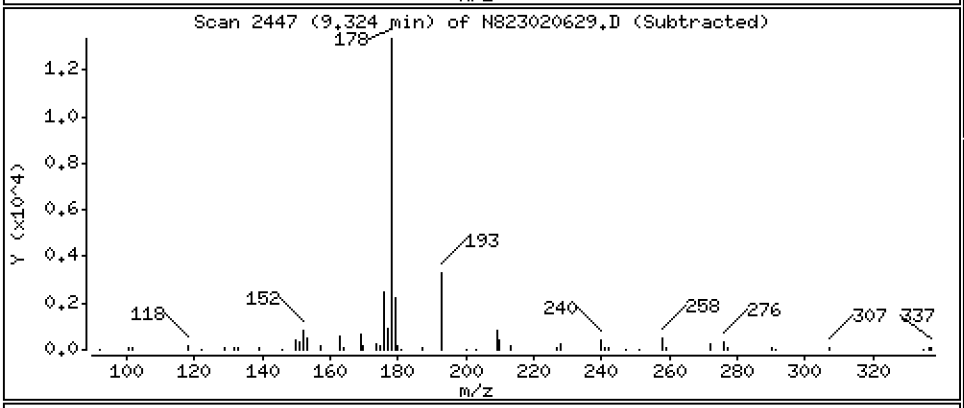
Column phase: Rxi-17sil

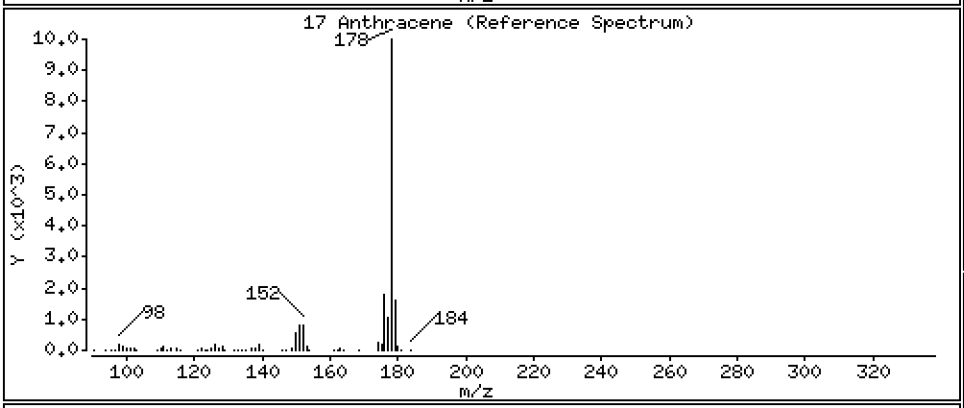
Column diameter: 0.25

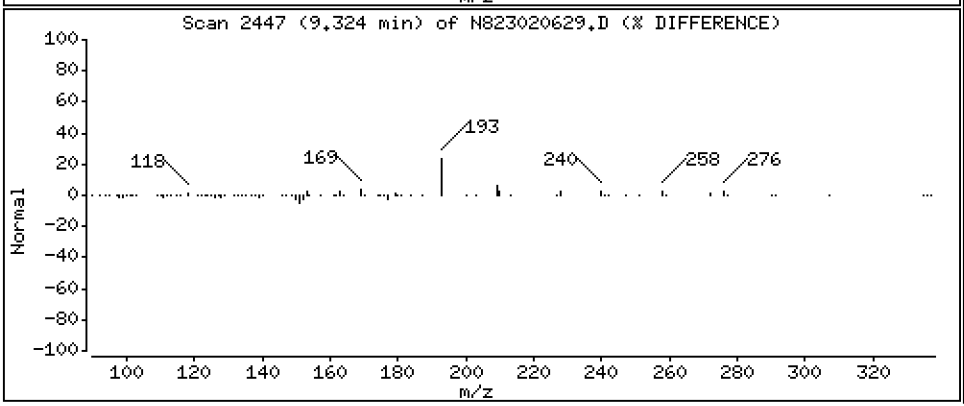
17 Anthracene

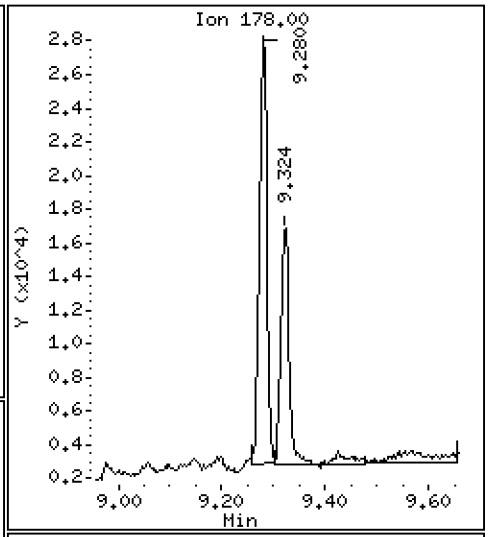
Concentration: 1.034 ug/mL

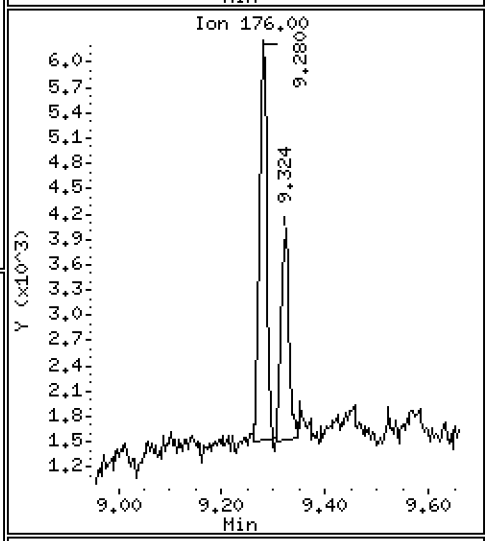


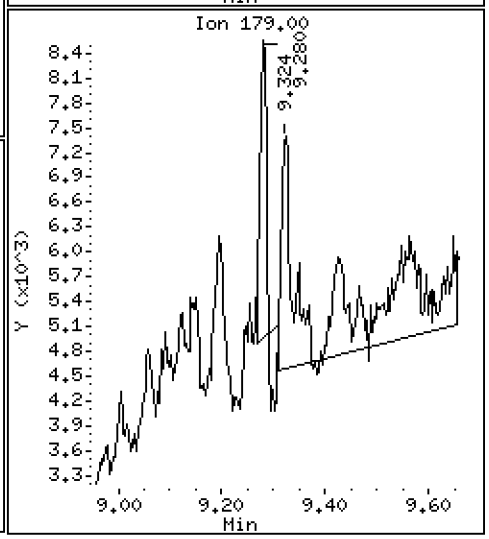












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Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

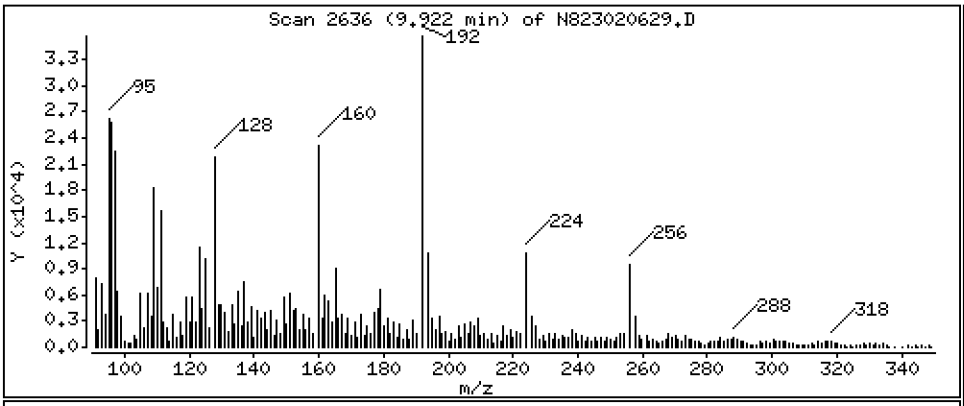
Operator: JZ

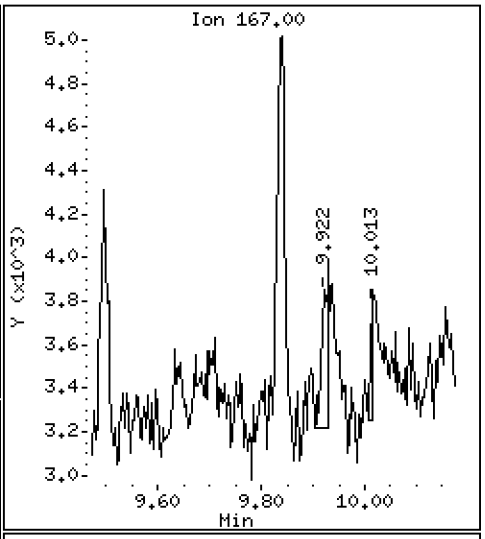
Column phase: Rxi-17sil

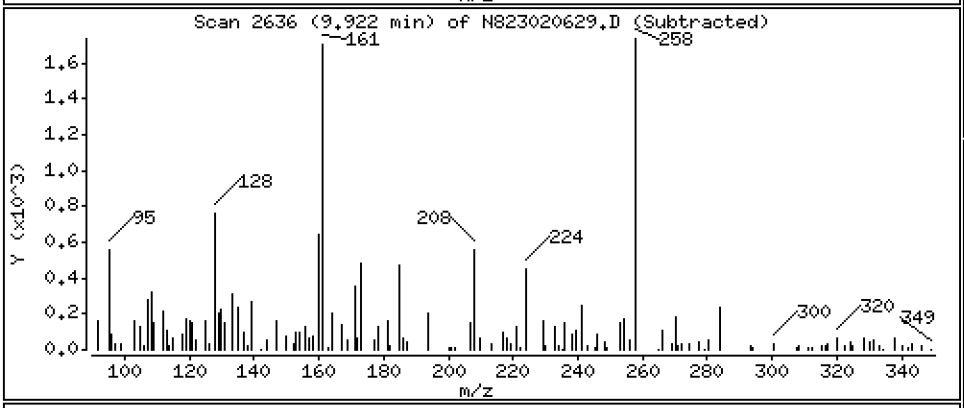
Column diameter: 0.25

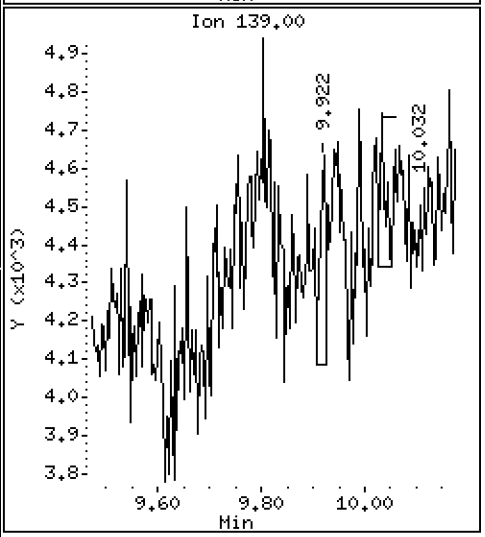
19 Carbazole

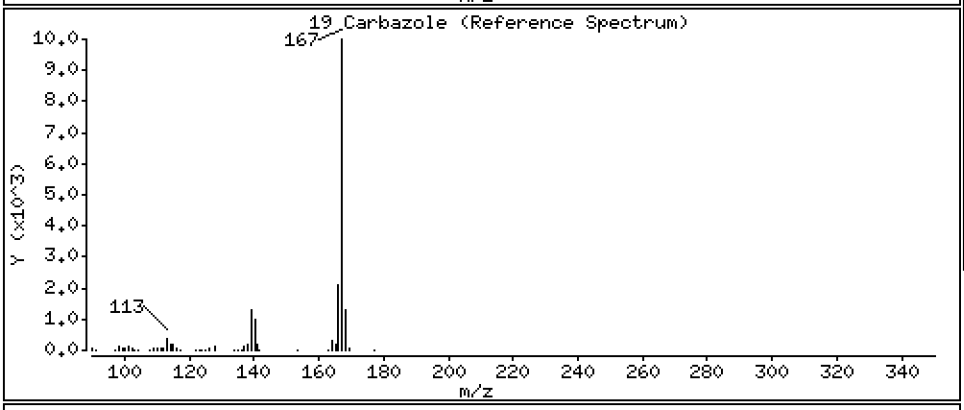
Concentration: 0.02765 ug/mL

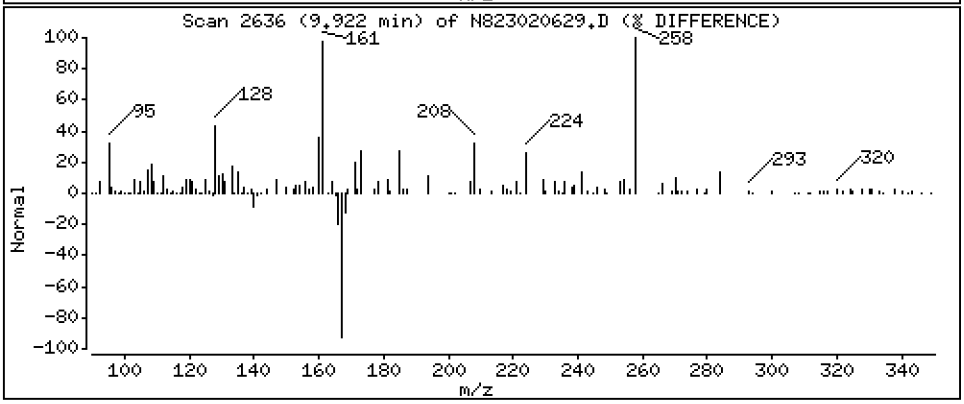












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

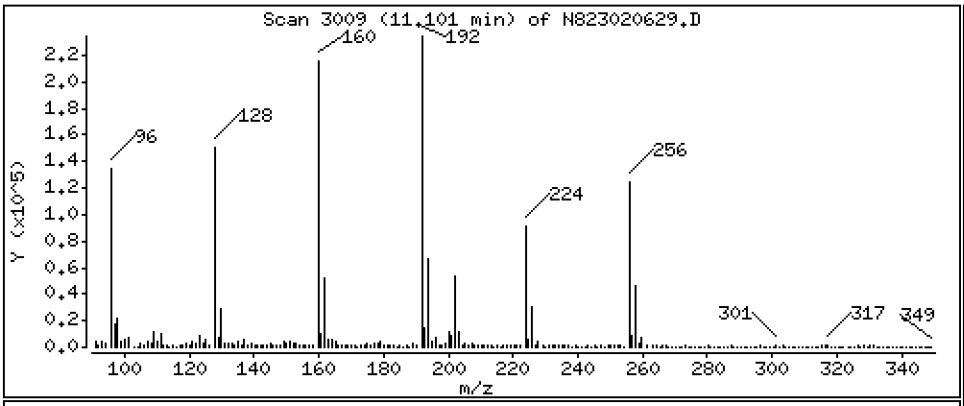
Operator: JZ

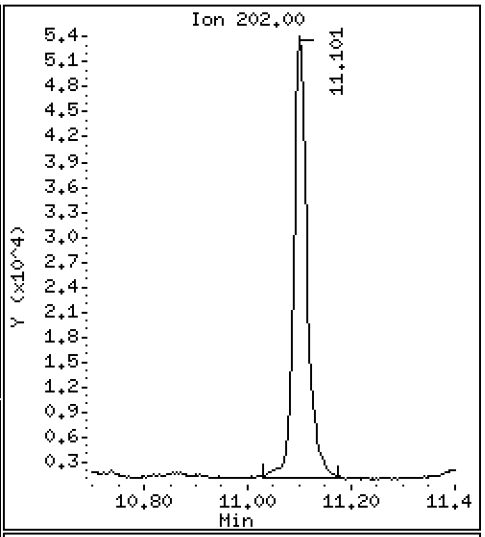
Column phase: Rxi-17sil

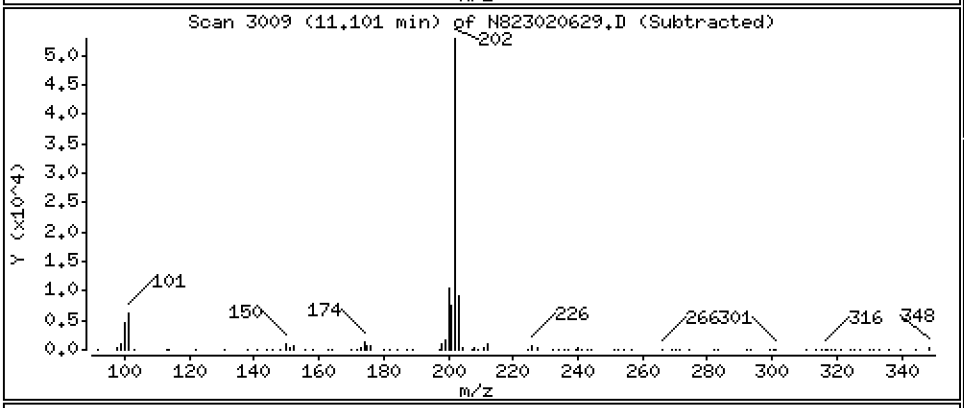
Column diameter: 0.25

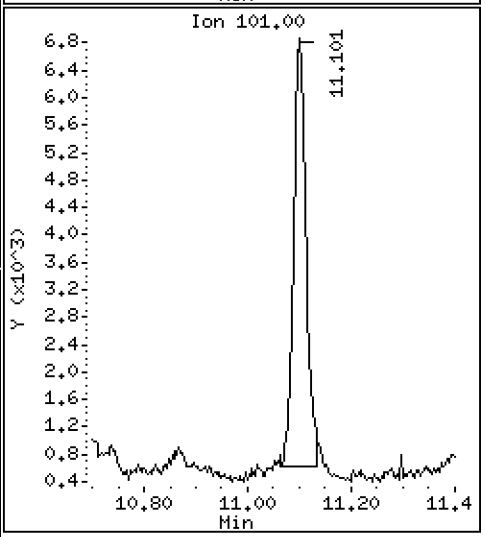
22 Fluoranthene

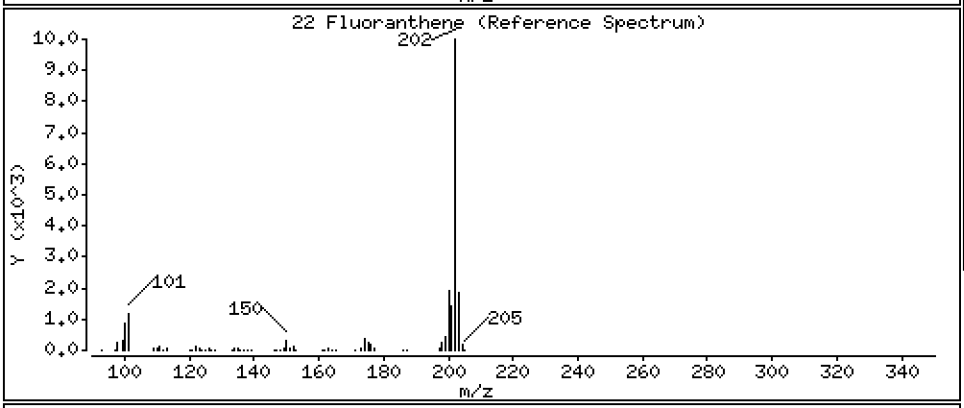
Concentration: 3.828 ug/mL

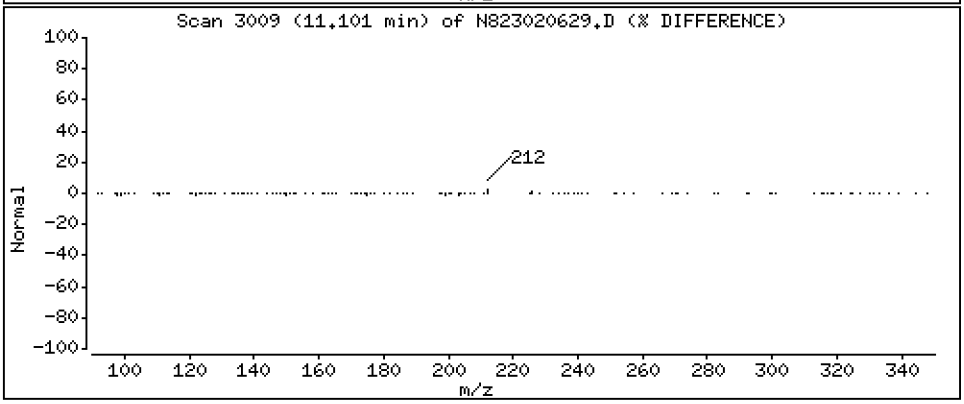












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

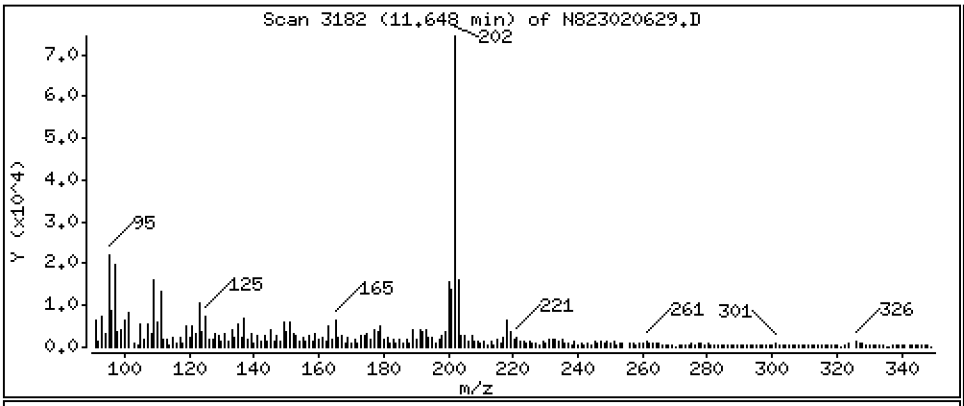
Operator: JZ

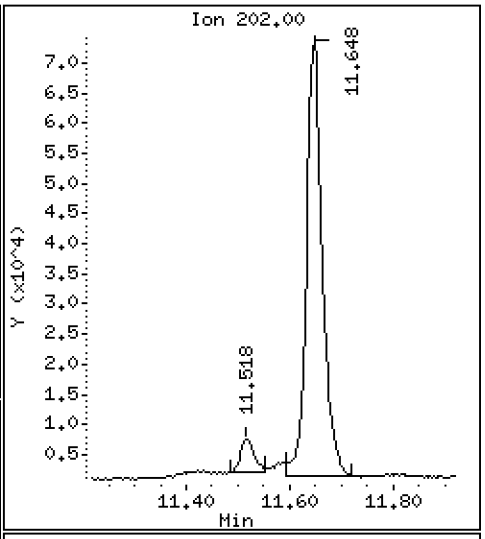
Column phase: Rxi-17sil

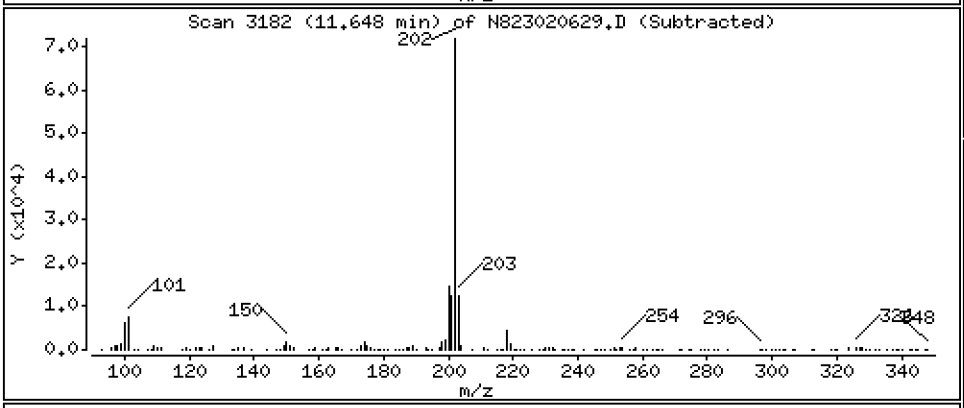
Column diameter: 0.25

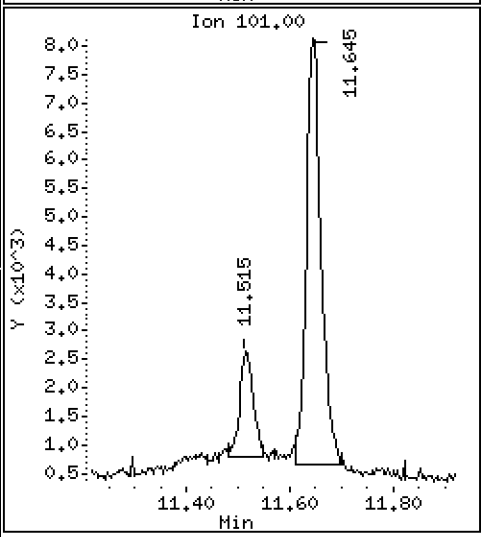
23 Pyrene

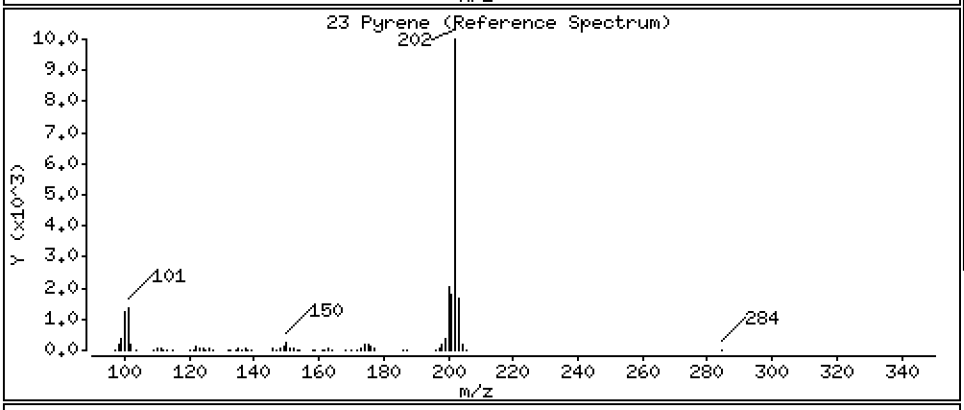
Concentration: 8.388 ug/mL

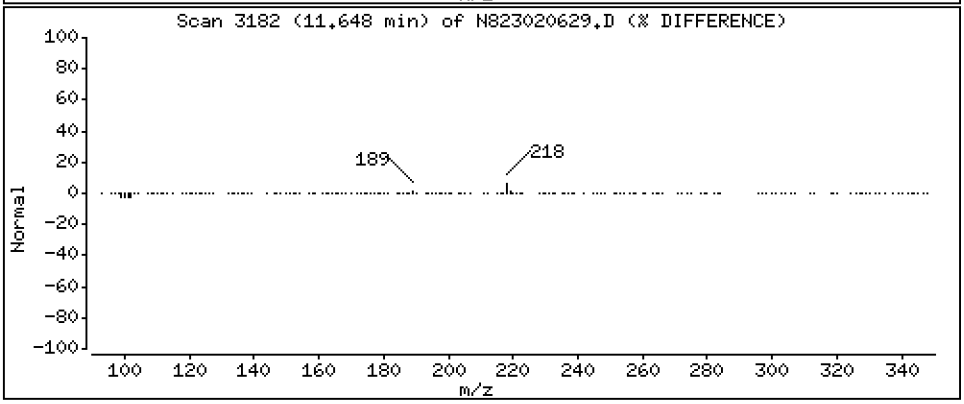












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

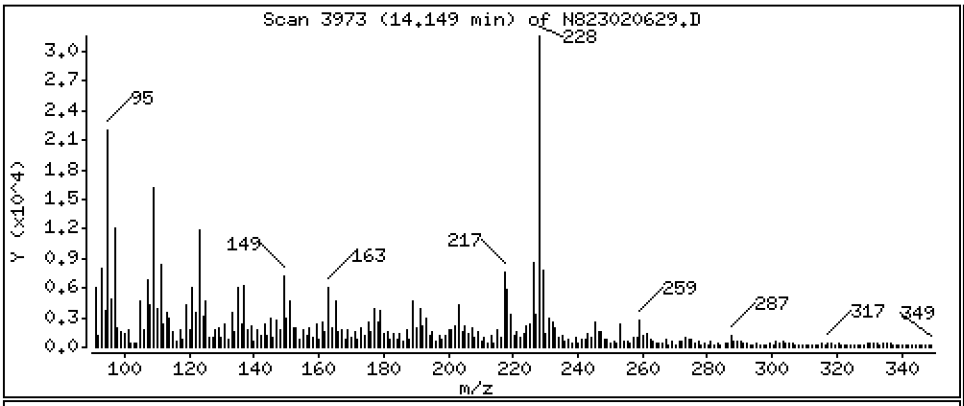
Operator: JZ

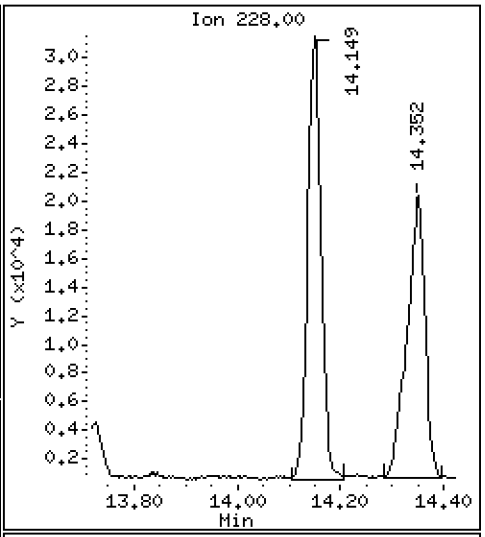
Column phase: Rxi-17sil

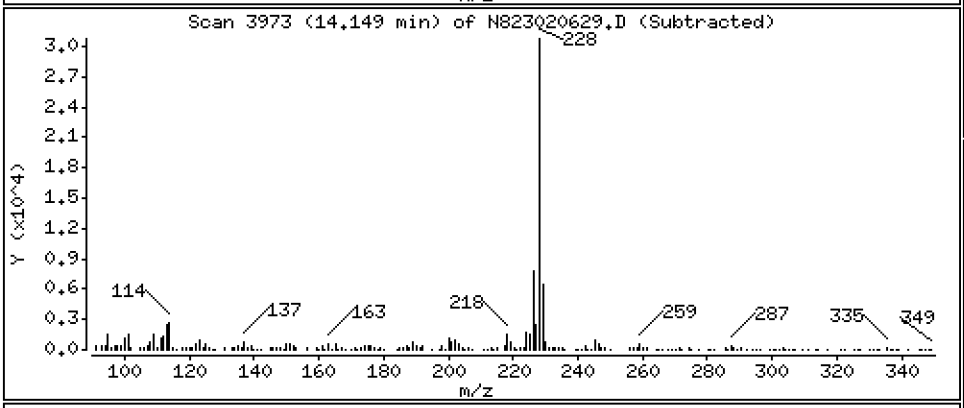
Column diameter: 0.25

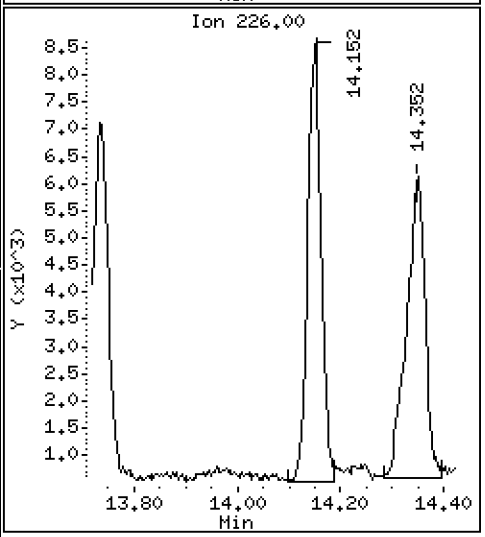
24 Benzo(a)anthracene

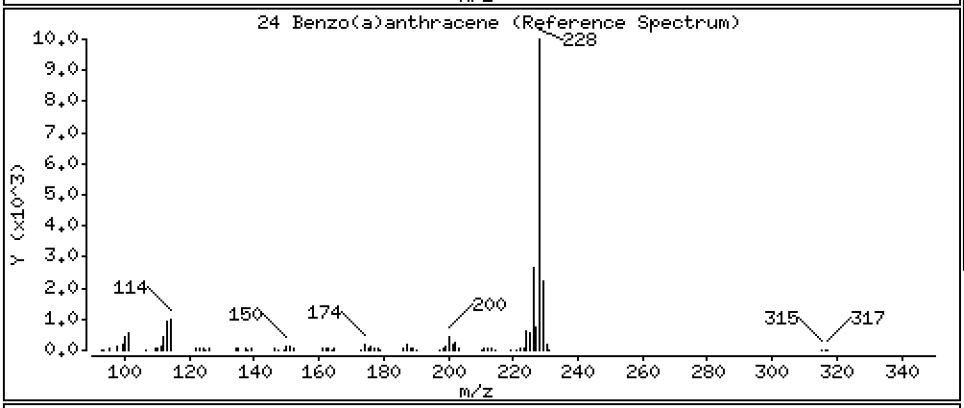
Concentration: 3.396 ug/mL

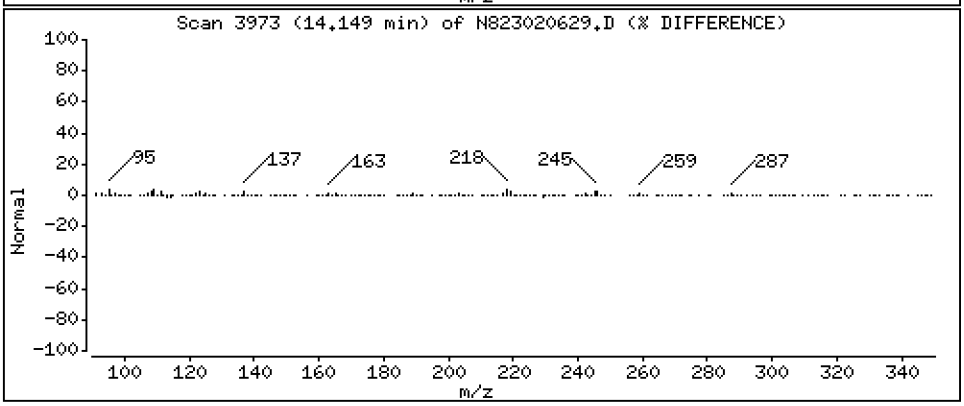












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

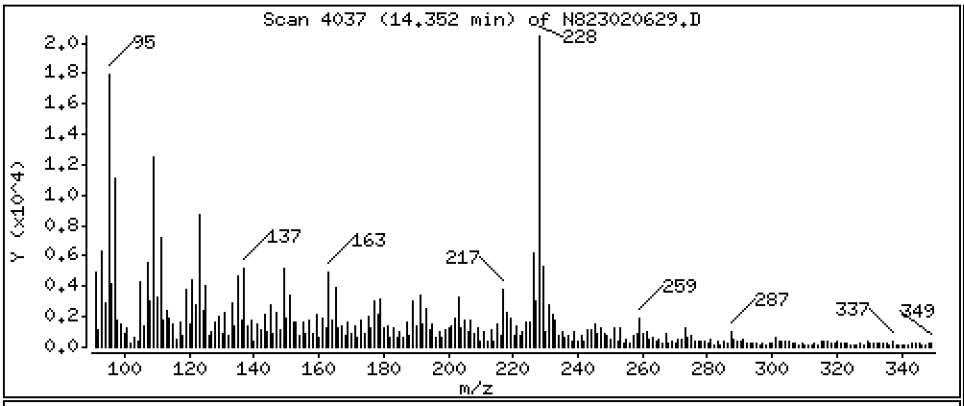
Operator: JZ

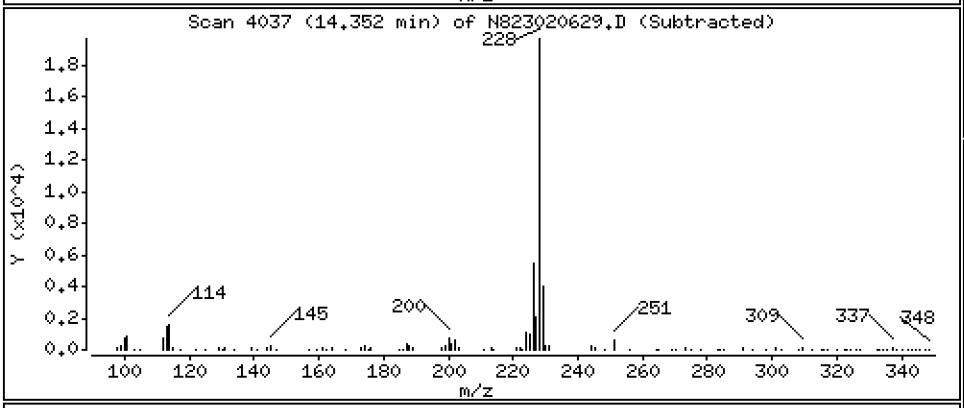
Column phase: Rxi-17sil

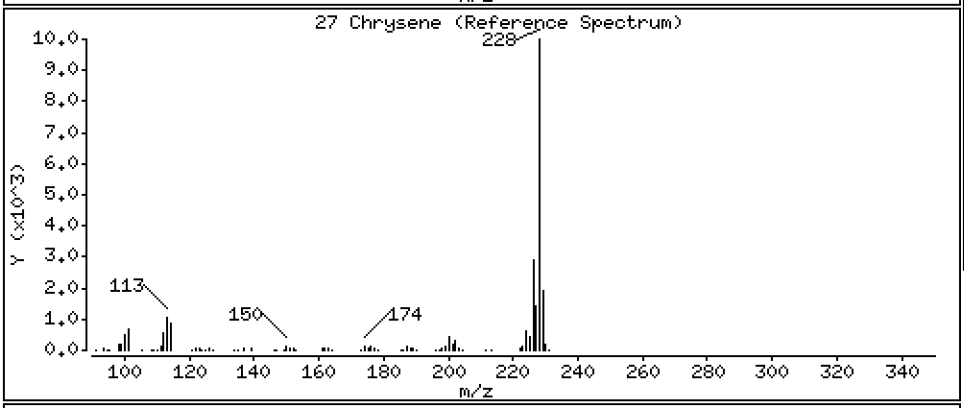
Column diameter: 0.25

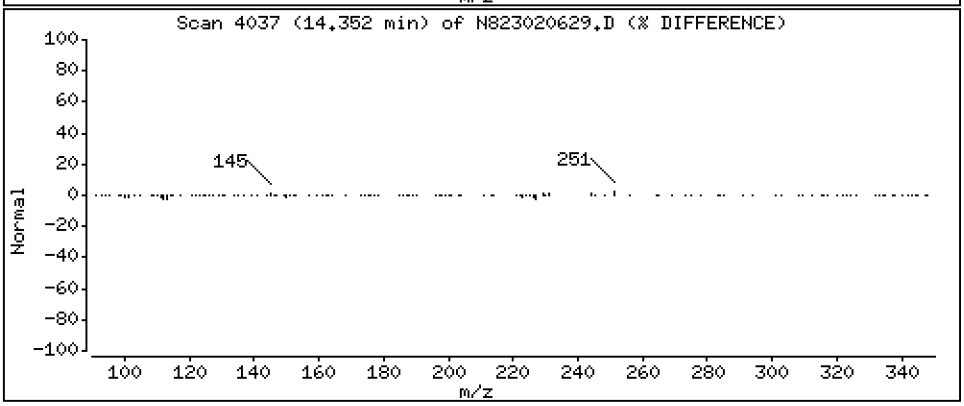
27 Chrysene

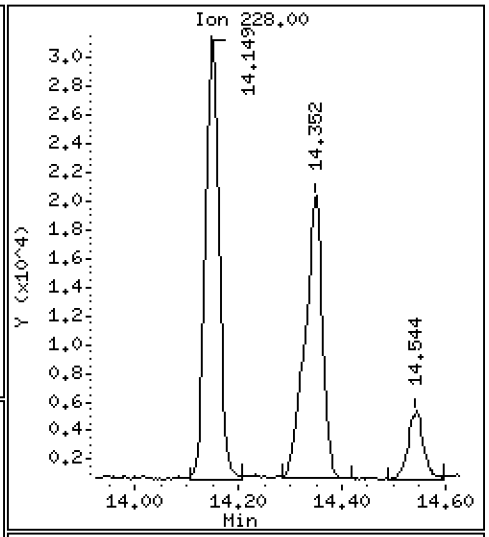
Concentration: 2.662 ug/mL

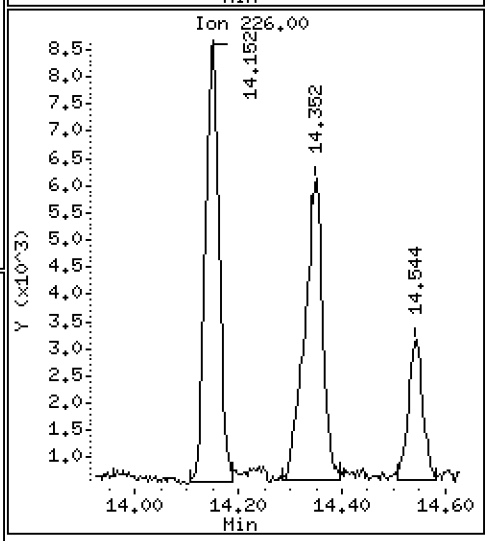












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

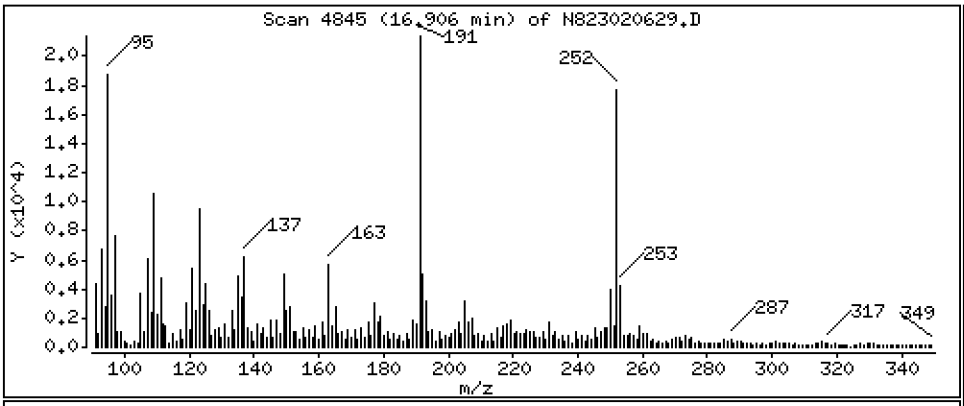
Operator: JZ

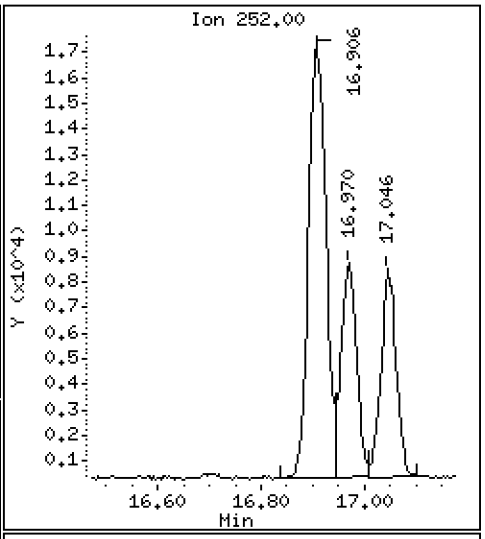
Column phase: Rxi-17sil

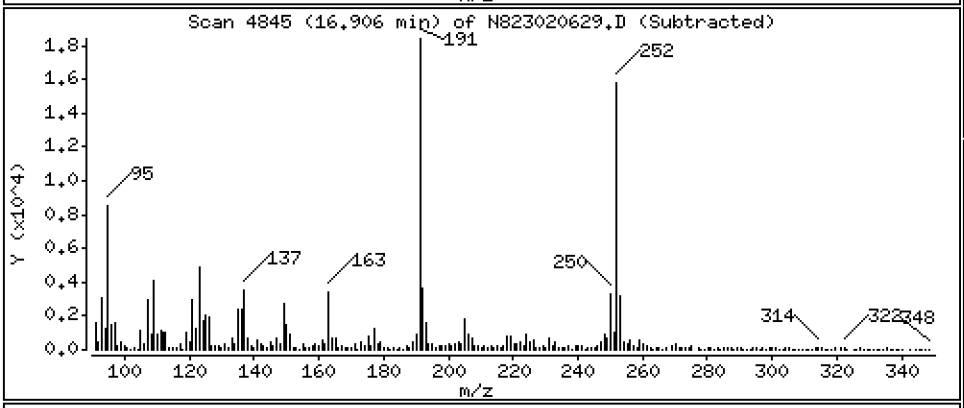
Column diameter: 0.25

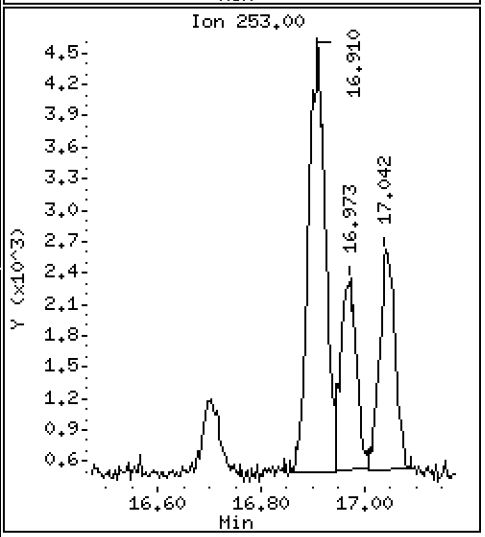
28 Benzo(b)fluoranthene

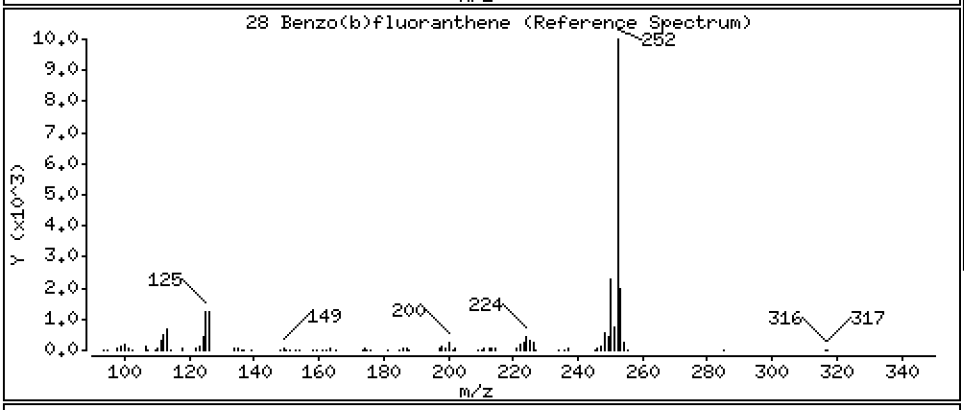
Concentration: 3.128 ug/mL

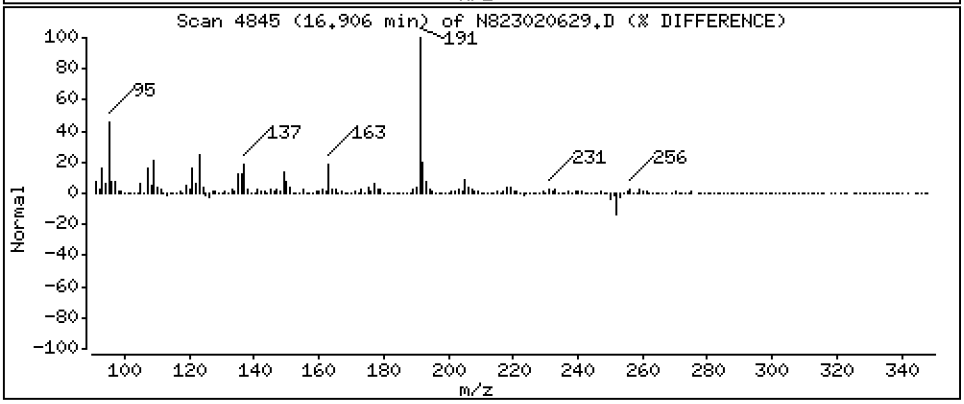












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

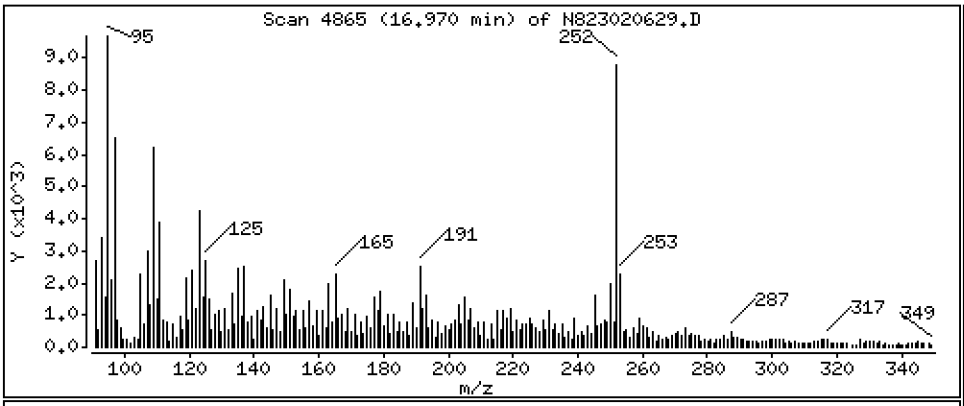
Operator: JZ

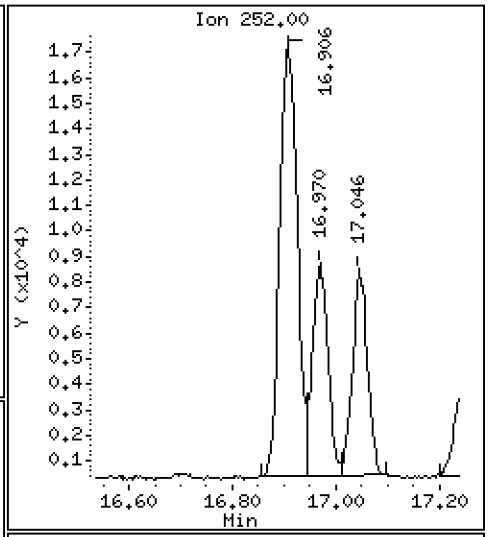
Column phase: Rxi-17sil

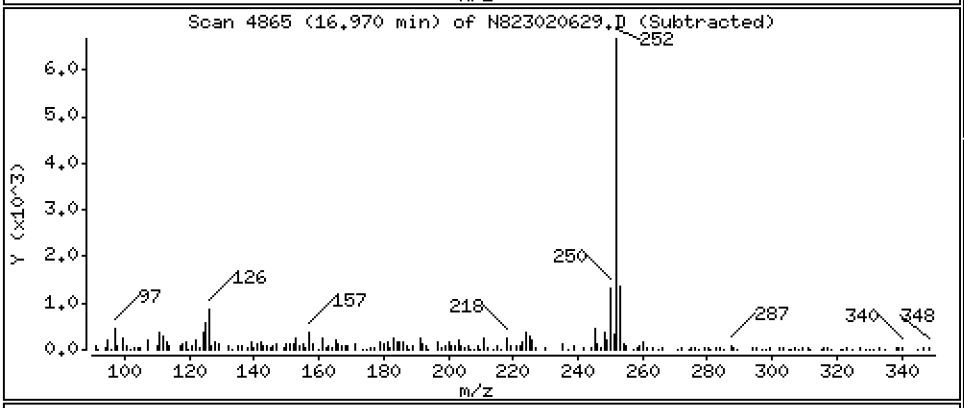
Column diameter: 0.25

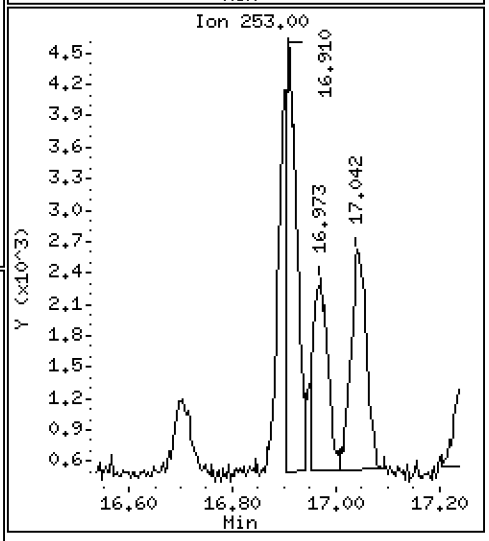
29 Benzo(k)fluoranthene

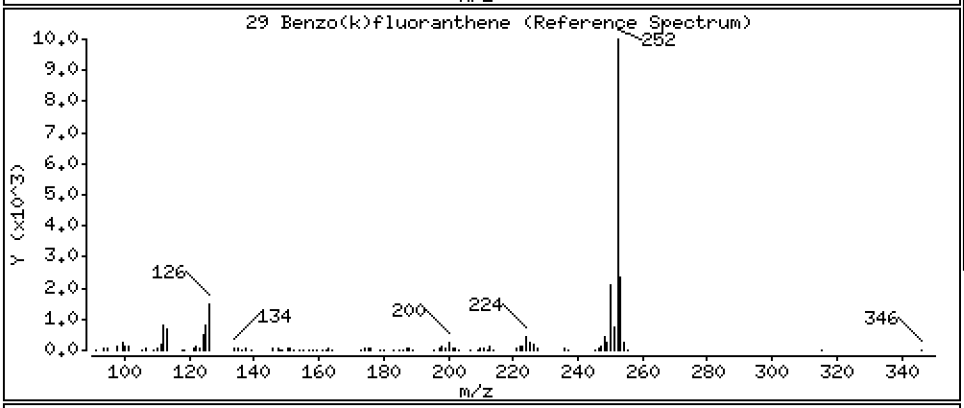
Concentration: 1.389 ug/mL

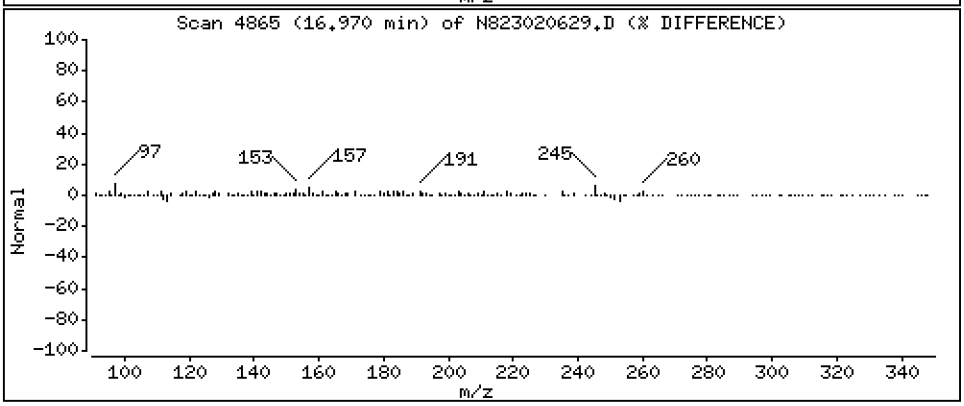












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

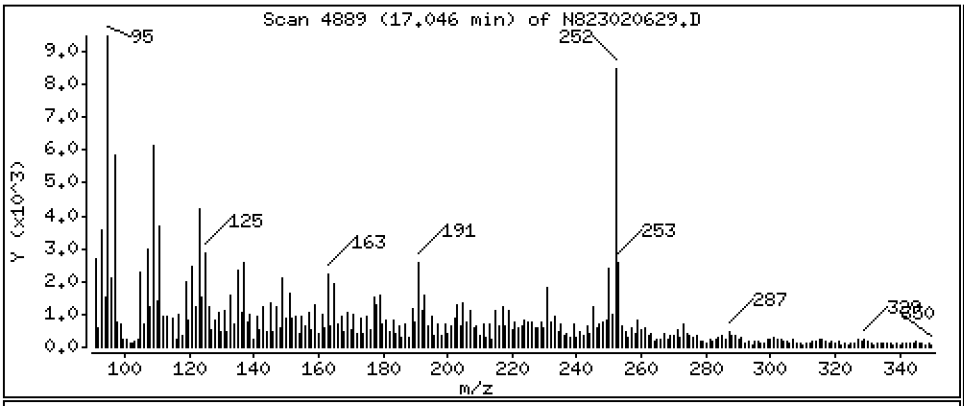
Operator: JZ

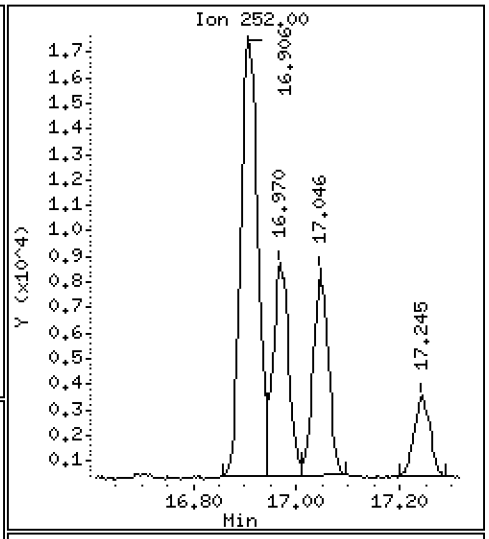
Column phase: Rxi-17sil

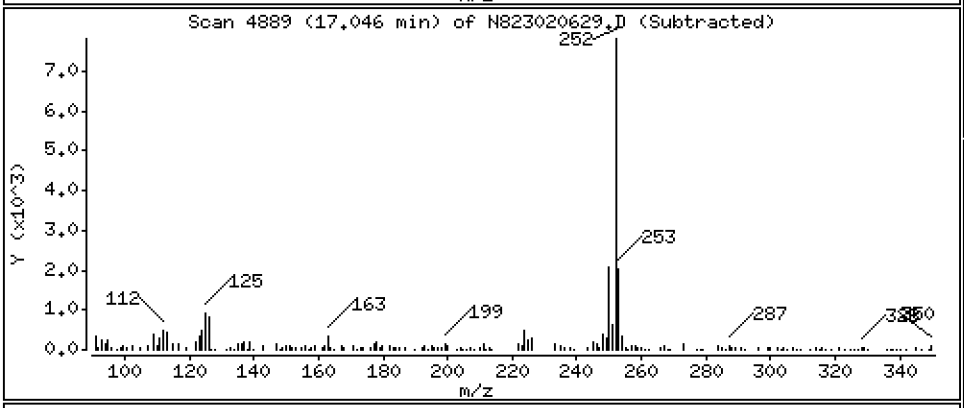
Column diameter: 0.25

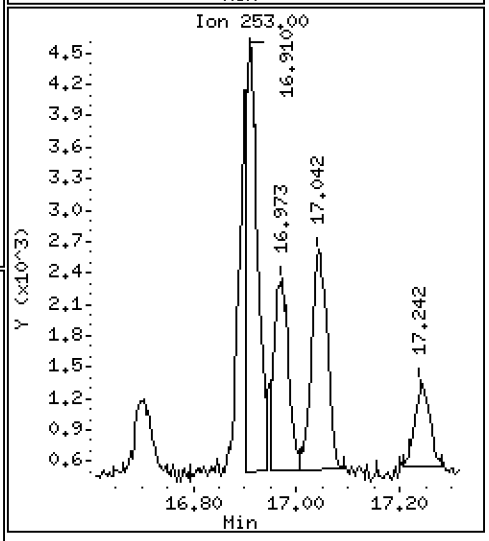
30 Benzo(j)fluoranthene

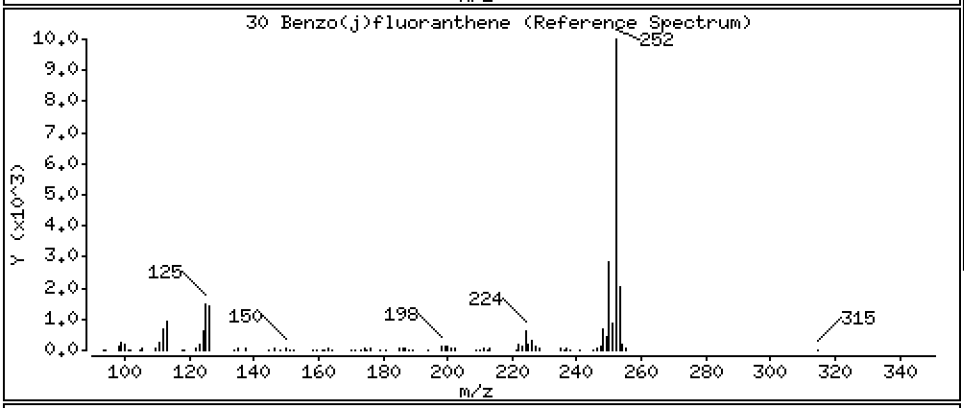
Concentration: 1.420 ug/mL

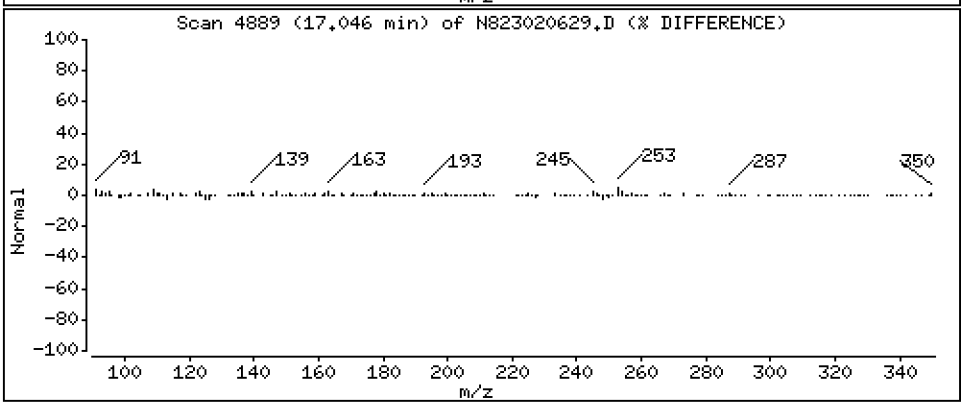












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

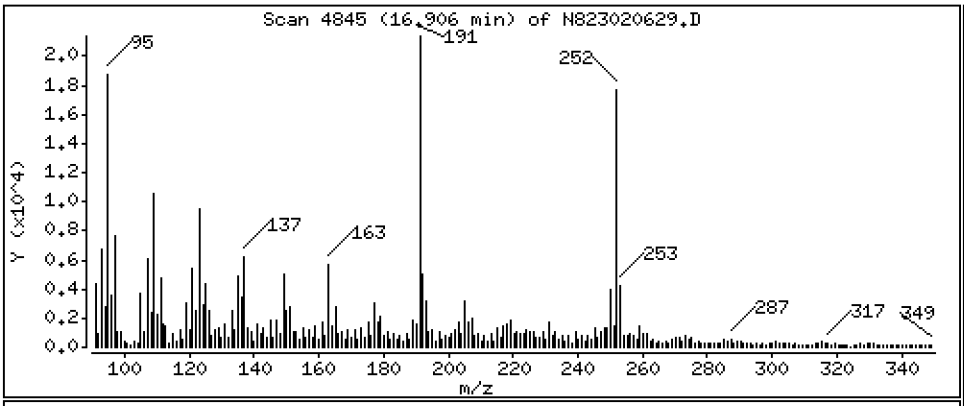
Operator: JZ

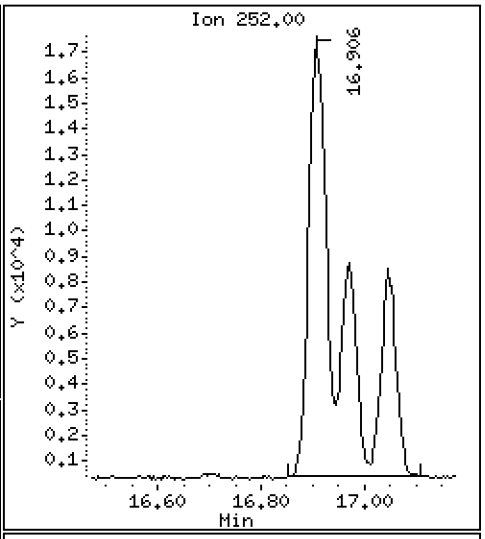
Column phase: Rxi-17sil

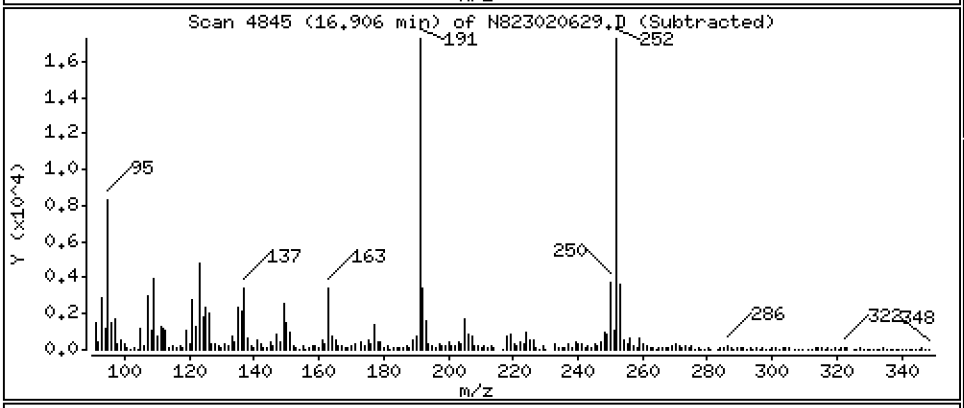
Column diameter: 0.25

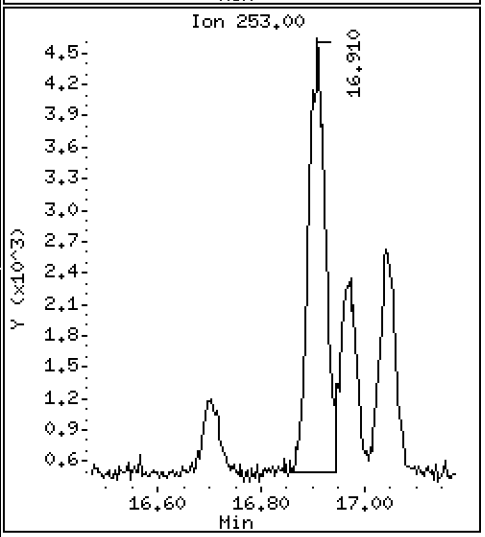
31 Total Benzofluoranthenes

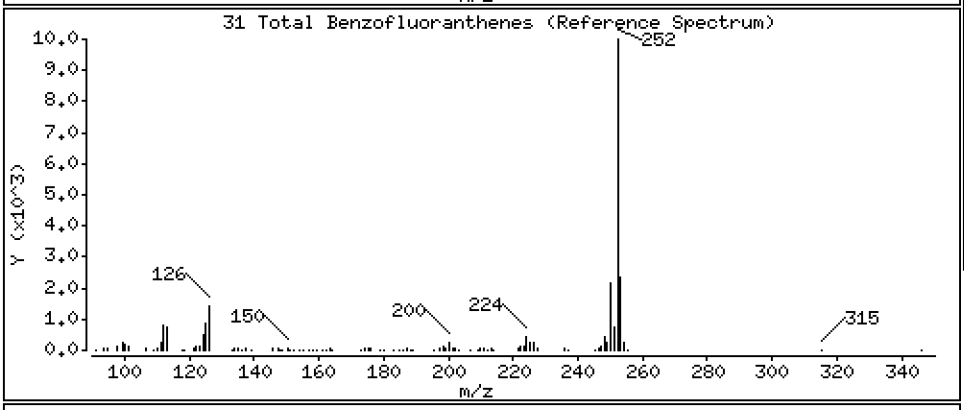
Concentration: 5.982 ug/mL

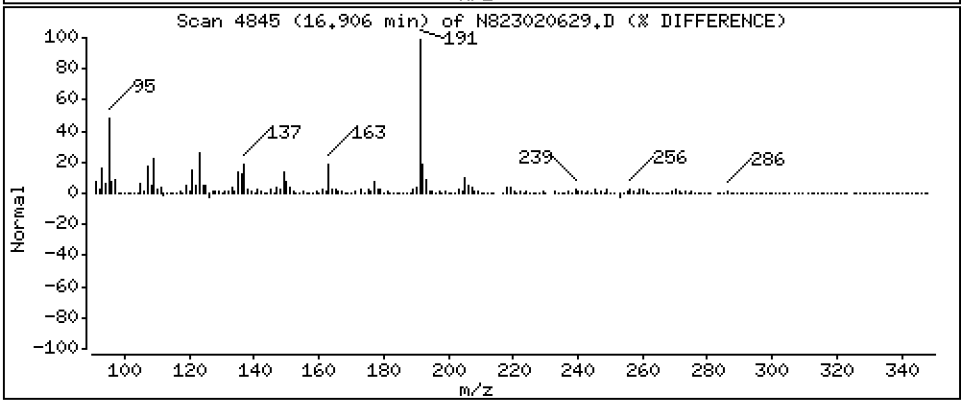












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

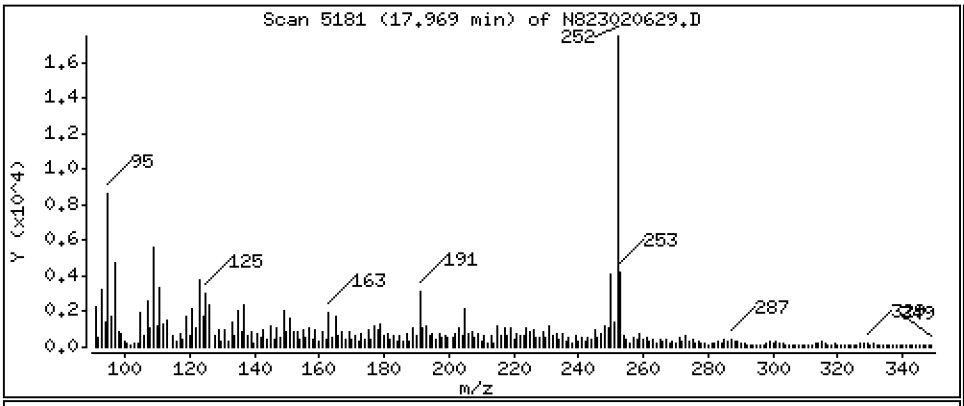
Operator: JZ

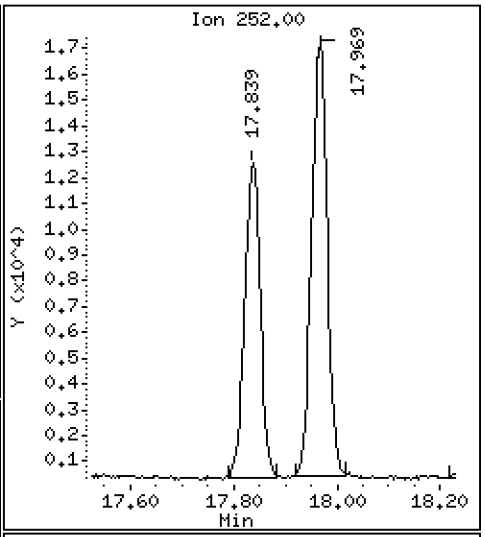
Column phase: Rxi-17sil

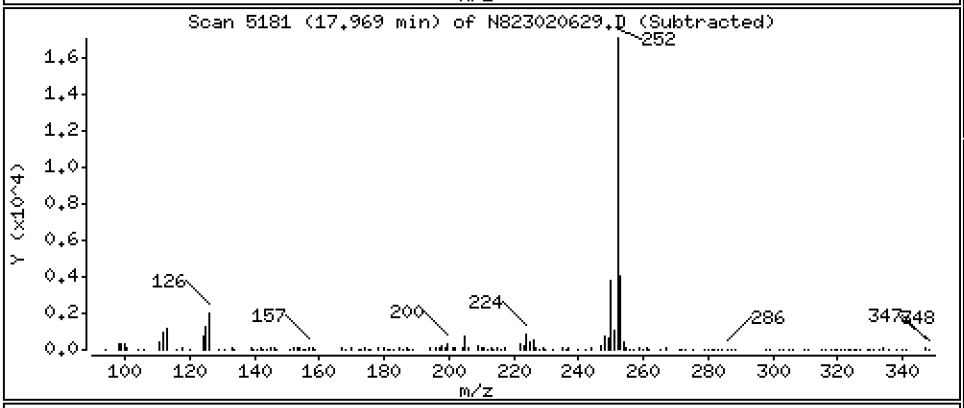
Column diameter: 0.25

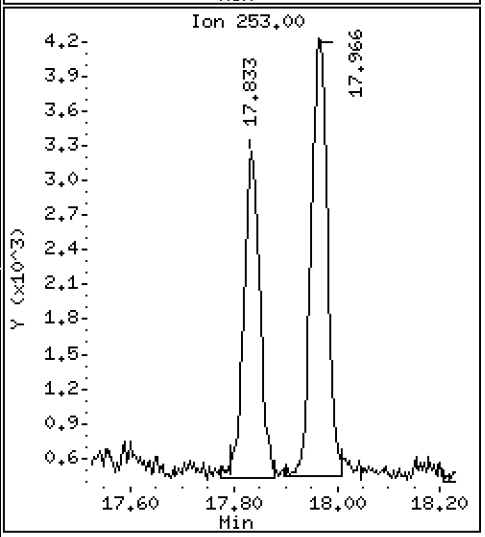
32 Benzo(a)pyrene

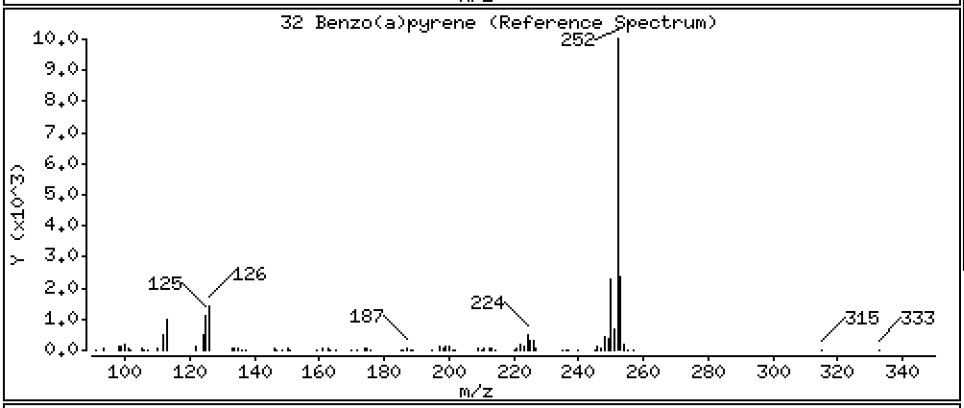
Concentration: 3.108 ug/mL

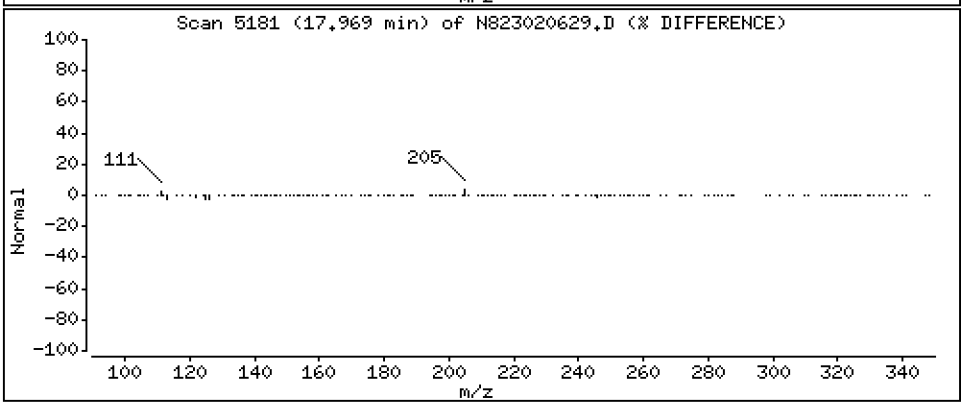












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

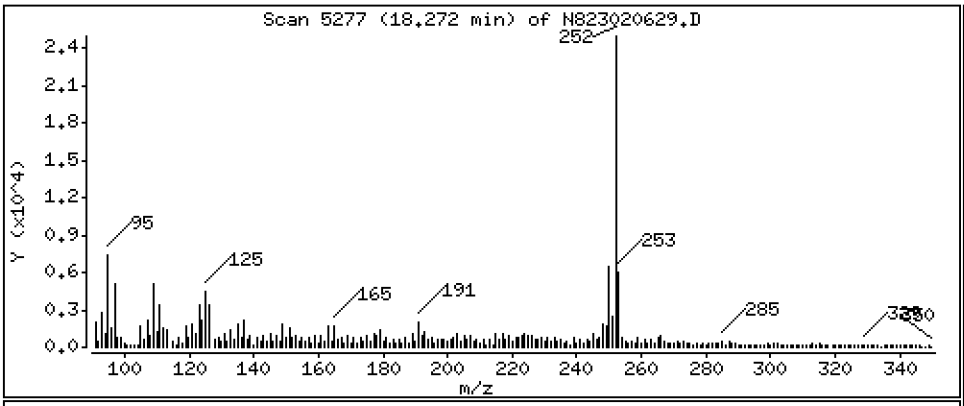
Operator: JZ

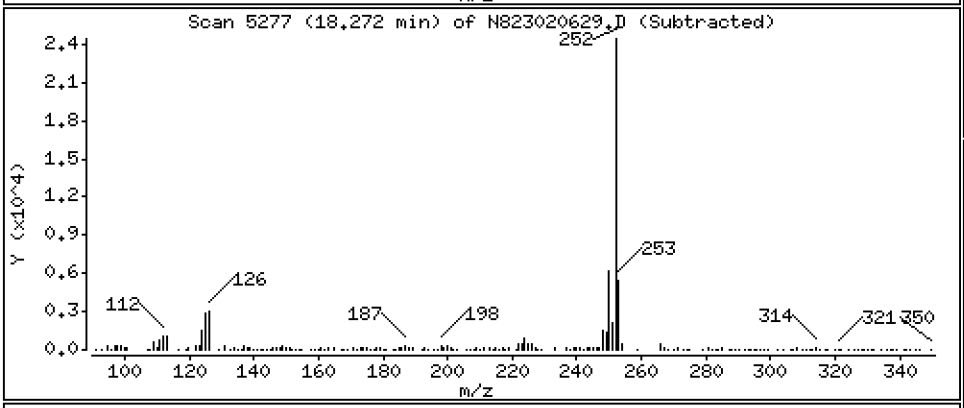
Column phase: Rxi-17sil

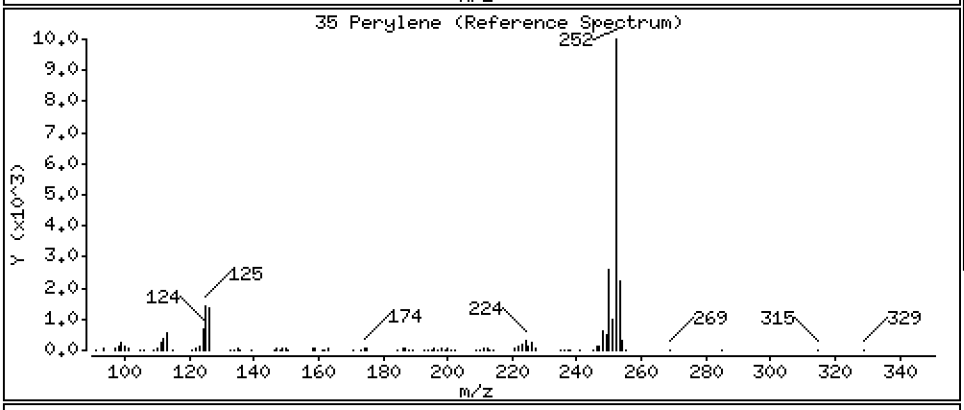
Column diameter: 0.25

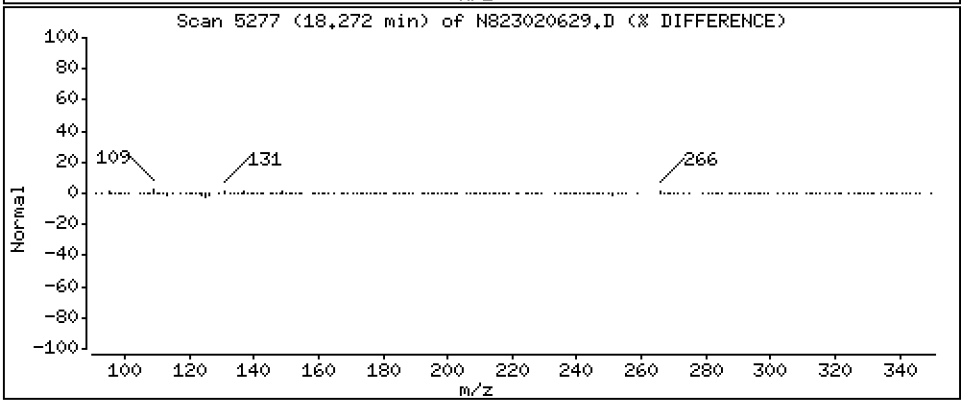
35 Perylene

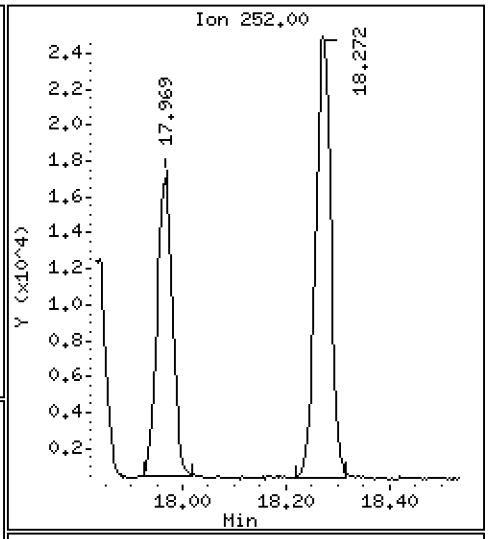
Concentration: 4.130 ug/mL

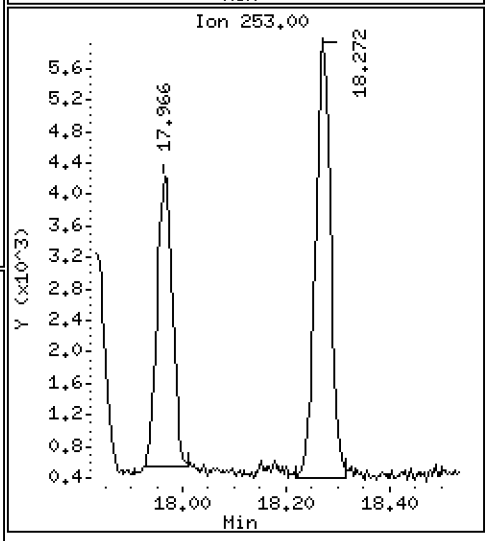












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

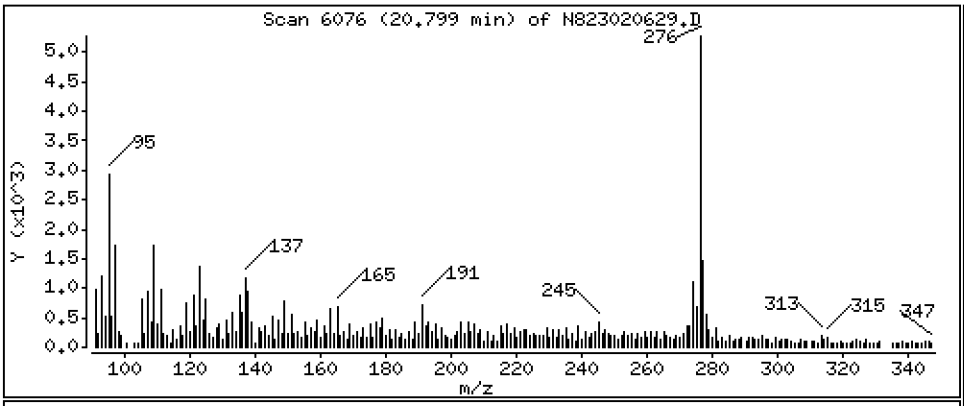
Operator: JZ

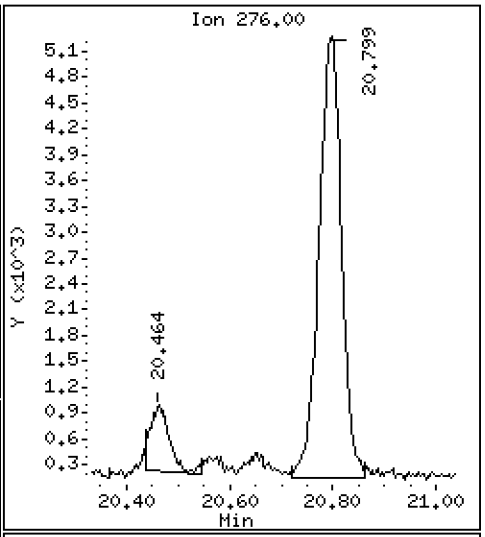
Column phase: Rxi-17sil

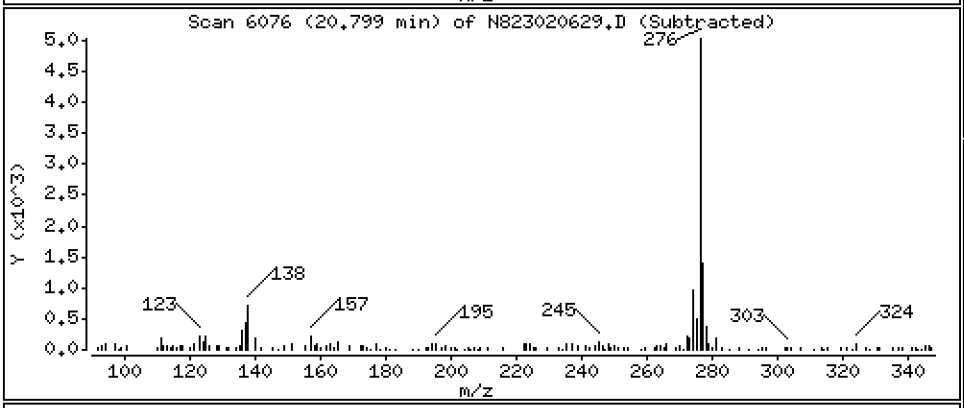
Column diameter: 0.25

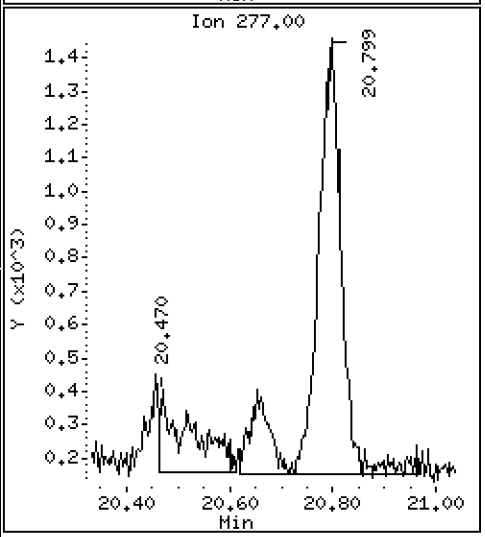
37 Indeno(1,2,3-cd)pyrene

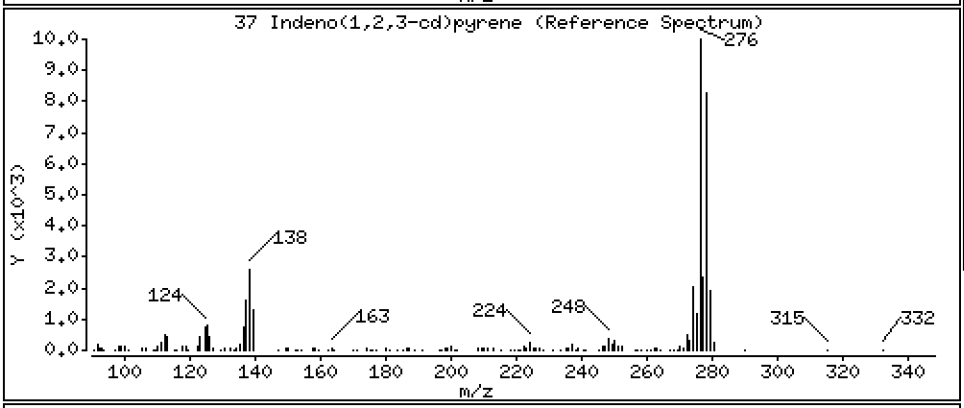
Concentration: 1.196 ug/mL

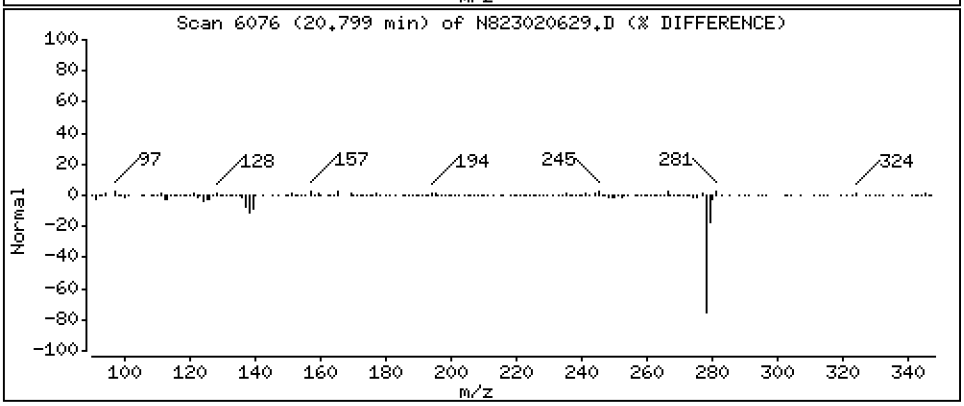












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

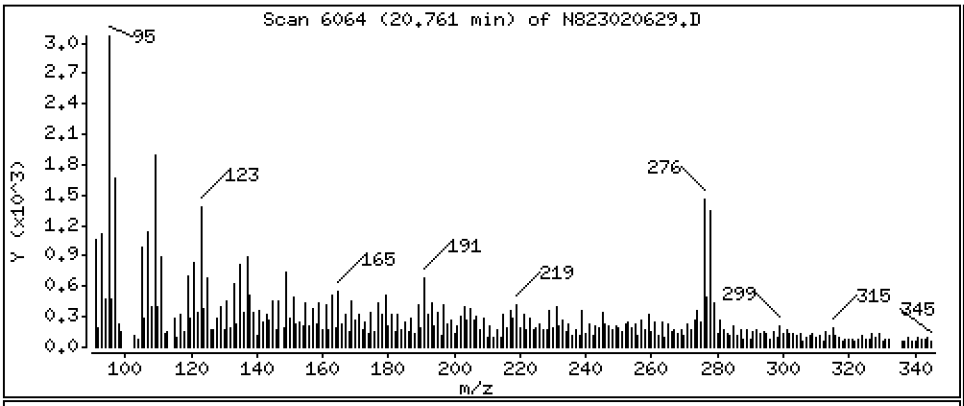
Operator: JZ

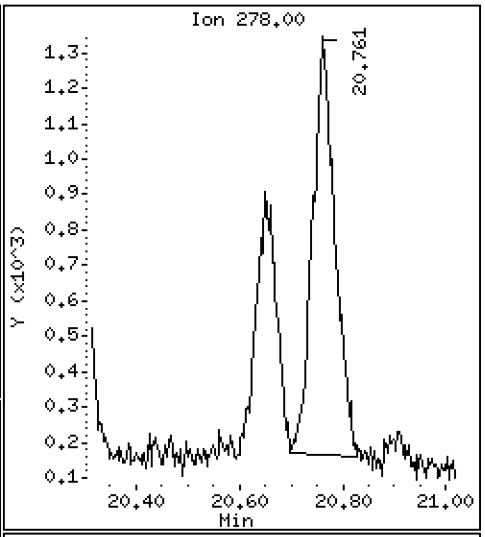
Column phase: Rxi-17sil

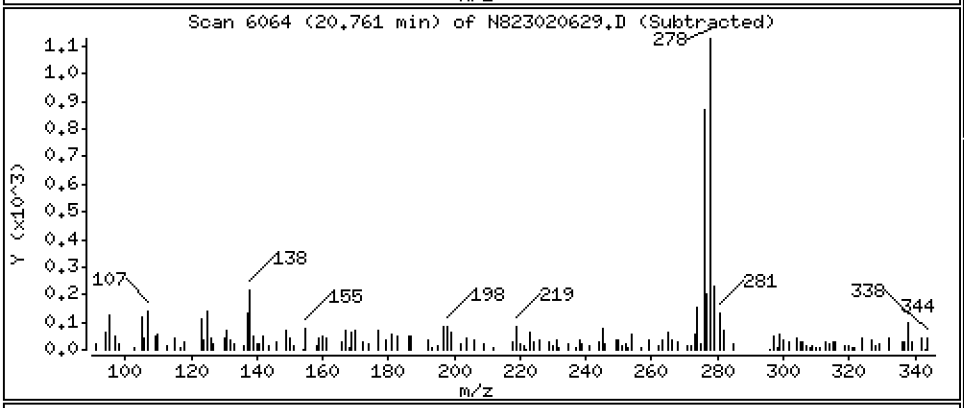
Column diameter: 0.25

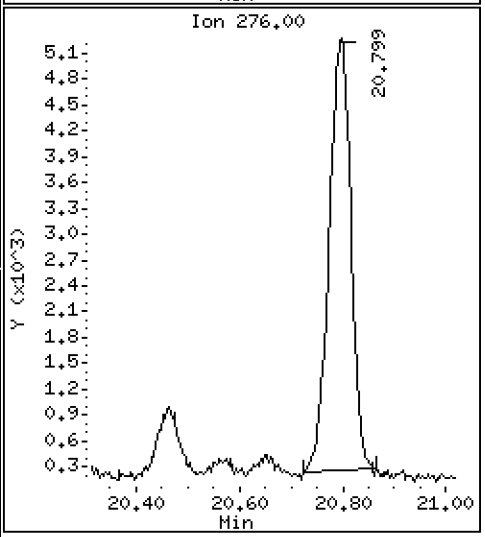
38 Dibenzo(a,h)anthracene

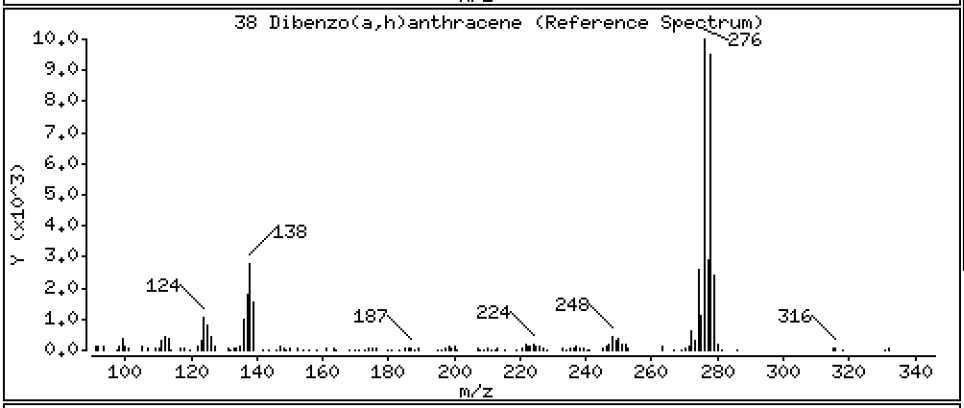
Concentration: 0.3159 ug/mL

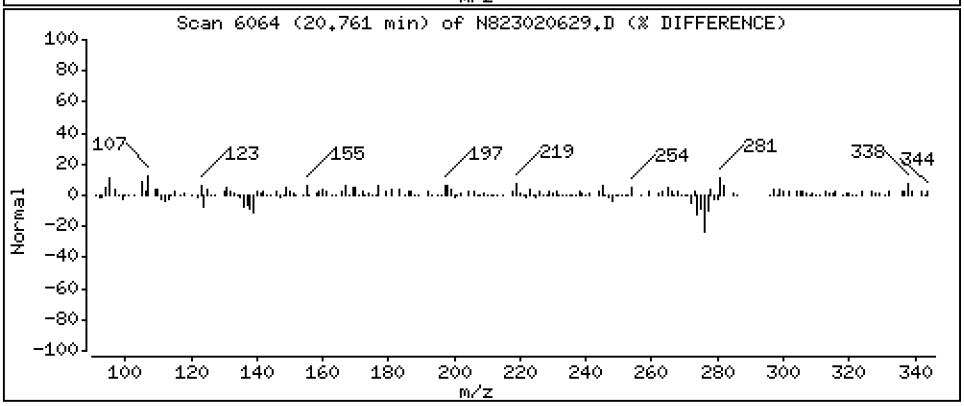












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020629.D

Date : 07-FEB-2023 01:22

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-04

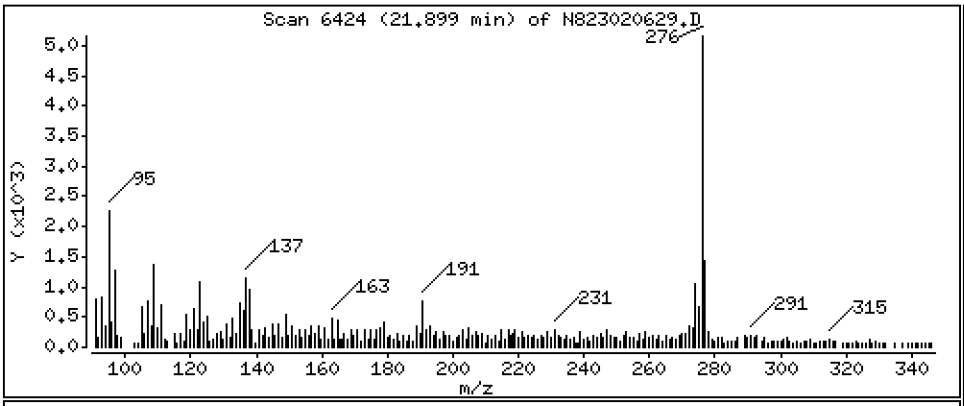
Operator: JZ

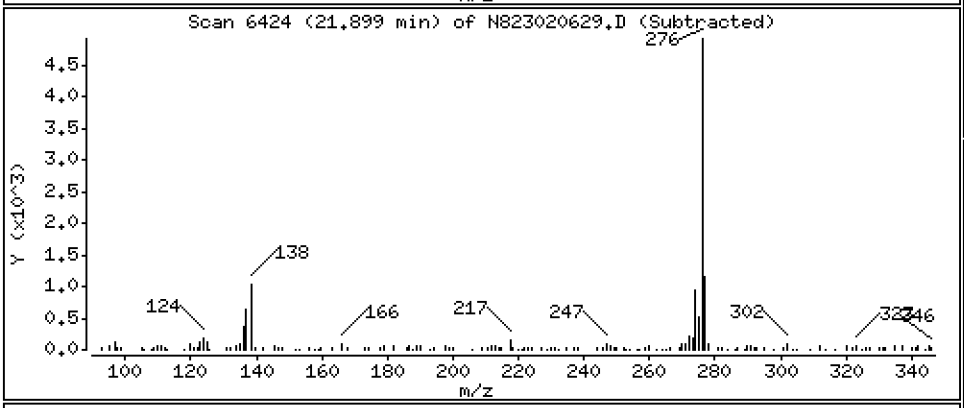
Column phase: Rxi-17sil

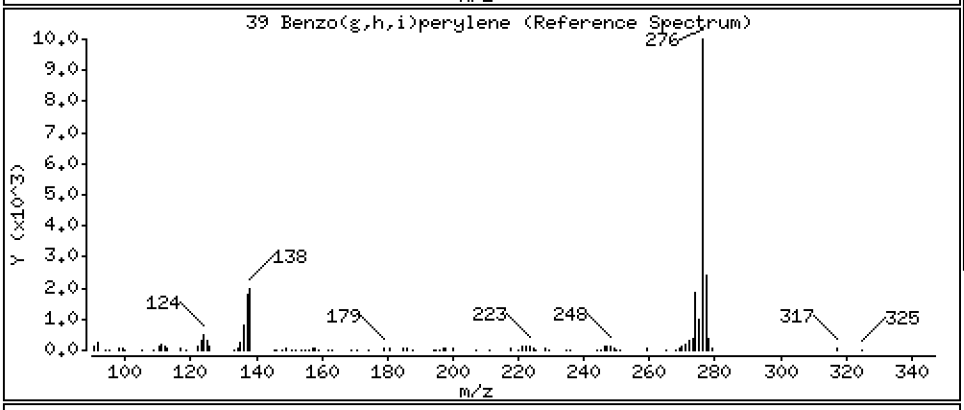
Column diameter: 0.25

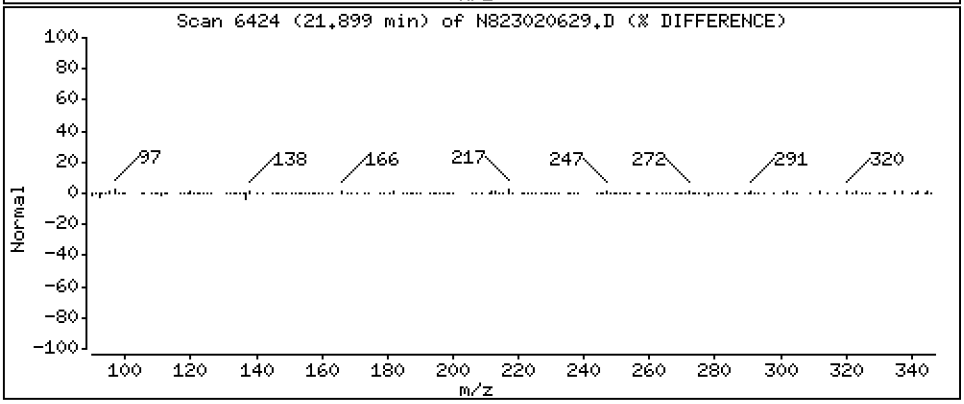
39 Benzo(g,h,i)perylene

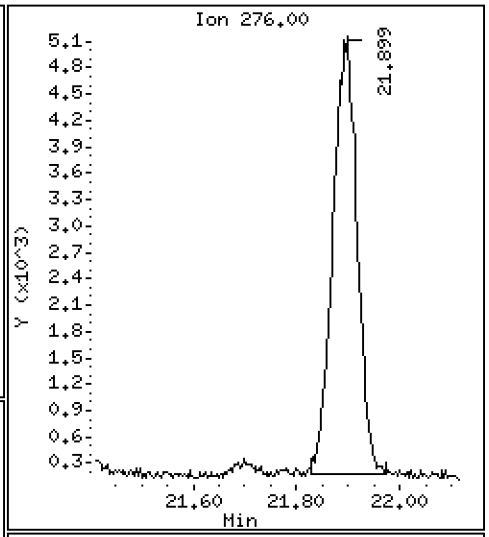
Concentration: 1.381 ug/mL

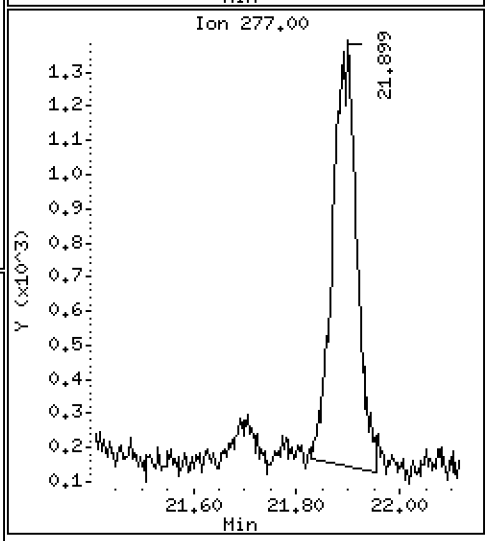












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230206A.b\N823020629.D
Lab Smp Id: 23A0313-04
Inj Date : 07-FEB-2023 01:22
Operator : JZ Inst ID: nt8.i
Smp Info : 23A0313-04
Misc Info : 23-
Comment : 1ul Injection
Method : \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Meth Date : 07-Feb-2023 13:04 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 29
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PNAXMDL.sub
Target Version: 4.14
Processing Host: JIANQING-202105

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
*	1 Naphthalene-d8	136	4.887	4.900	(1.000)	53062	2.00000	
	2 Naphthalene	128	4.916	4.928	(1.006)	10260	0.41586	0.4159
$	3 2-Methylnaphthalene-d10	152	5.627	5.634	(1.151)	38563	2.66479	2.665
	4 2-Methylnaphthalene	141	5.671	5.681	(1.160)	6335	0.46681	0.4668
	5 1-methylnaphthalene	141	5.871	5.880	(1.201)	3745	0.27191	0.2719
	9 Acenaphthylene	152	7.082	7.082	(0.985)	7138	0.33471	0.3347
*	10 Acenaphthene-d10	164	7.189	7.189	(1.000)	28241	2.00000	
	11 Acenaphthene	153	7.243	7.240	(1.007)	3280	0.22955	0.2296
	12 Dibenzofuran	168	7.392	7.392	(1.028)	3538	0.16302	0.1630
	14 Fluorene	166	7.875	7.869	(1.095)	4599	0.27284	0.2728
*	15 Phenanthrene-d10	188	9.244	9.232	(1.000)	46666	2.00000	
	16 Phenanthrene	178	9.279	9.267	(1.004)	24881	1.09150	1.091
	17 Anthracene	178	9.324	9.308	(1.009)	21414	1.03410	1.034
	19 Carbazole	167	9.921	9.823	(1.073)	525	0.02765	0.02765
	22 Fluoranthene	202	11.101	11.050	(1.201)	94994	3.82841	3.828
$	21 Fluoranthene-d10	212	11.063	11.009	(1.197)	54251	2.63497	2.635
	23 Pyrene	202	11.648	11.569	(0.816)	154918	8.38812	8.388
	24 Benzo(a)anthracene	228	14.149	14.070	(0.991)	56853	3.39629	3.396
*	25 Chrysene-d12	240	14.278	14.202	(1.000)	29789	2.00000	
	27 Chrysene	228	14.351	14.275	(1.005)	47445	2.66241	2.662
	28 Benzo(b)fluoranthene	252	16.906	16.824	(0.929)	40551	3.12803	3.128
	29 Benzo(k)fluoranthene	252	16.969	16.887	(0.933)	17638	1.38903	1.389
	30 Benzo(j)fluoranthene	252	17.045	16.963	(0.937)	16230	1.41979	1.420
	31 Total Benzofluoranthenes	252	16.906	16.824	(0.929)	73442	5.98190	5.982(M)
	32 Benzo(a)pyrene	252	17.968	17.877	(0.988)	35453	3.10772	3.108
*	33 Perylene-d12	264	18.193	18.107	(1.000)	22259	2.00000	
	35 Perylene	252	18.272	18.183	(1.004)	50565	4.13046	4.130
$	36 Dibenzo(a,h)anthracene-d14	292	20.656	20.549	(1.135)	24185	2.77301	2.773(M)
	37 Indeno(1,2,3-cd)pyrene	276	20.798	20.684	(1.143)	15540	1.19571	1.196
	38 Dibenzo(a,h)anthracene	278	20.760	20.666	(1.141)	3533	0.31588	0.3159(M)
	39 Benzo(g,h,i)perylene	276	21.899	21.763	(1.204)	16260	1.38088	1.381

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823020629.D
Lab Smp Id: 23A0313-04
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 06-FEB-2023
Calibration Time: 15:15
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44336	22168	88672	53062	19.68
10 Acenaphthene-d10	26127	13064	52254	28241	8.09
15 Phenanthrene-d10	47424	23712	94848	46666	-1.60
25 Chrysene-d12	36794	18397	73588	29789	-19.04
33 Perylene-d12	36636	18318	73272	22259	-39.24

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.90	4.40	5.40	4.89	-0.26
10 Acenaphthene-d10	7.19	6.69	7.69	7.19	0.00
15 Phenanthrene-d10	9.23	8.73	9.73	9.24	0.14
25 Chrysene-d12	14.20	13.70	14.70	14.28	0.53
33 Perylene-d12	18.11	17.61	18.61	18.19	0.47

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823020629.D

Lab ID: 23A0313-04
nt8.i, 20230206A.b\FSIMPNA230119.m,   07-FEB-2023 01:22

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

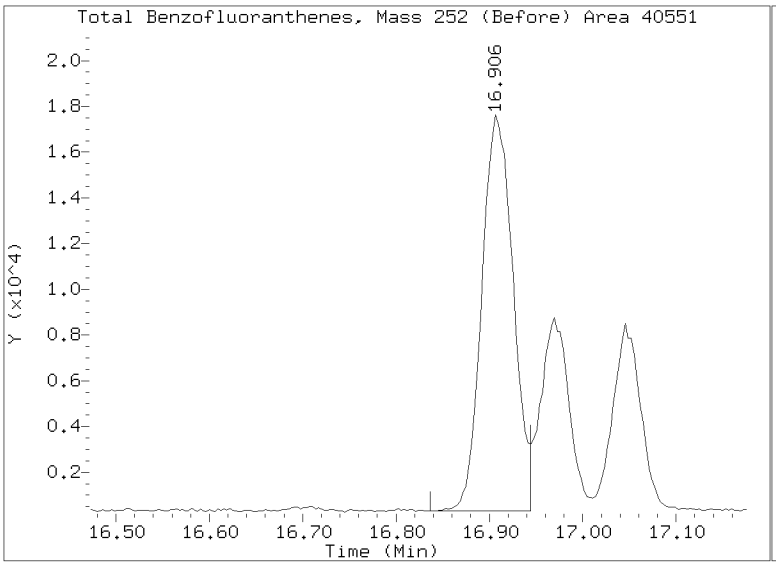
No RRT check performed

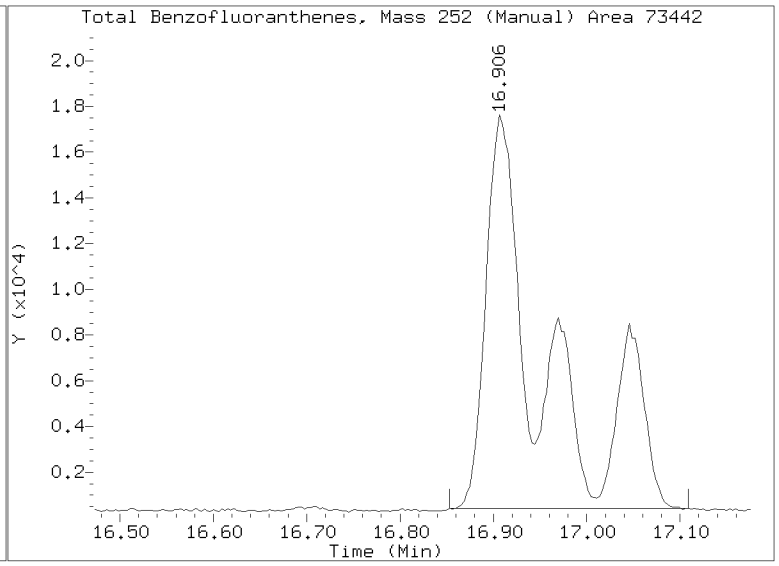
On Column LOD for nt8.i, 20230206A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

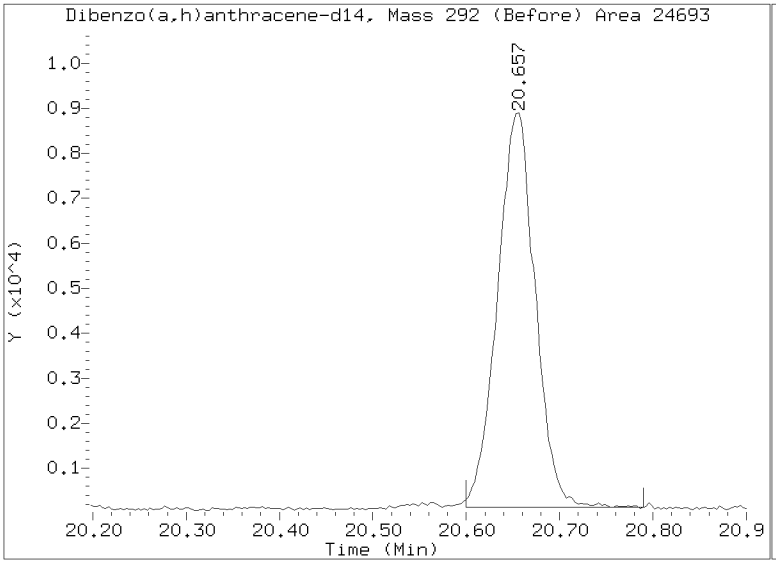
* Only compounds listed in the work order have been verified by the analyst *

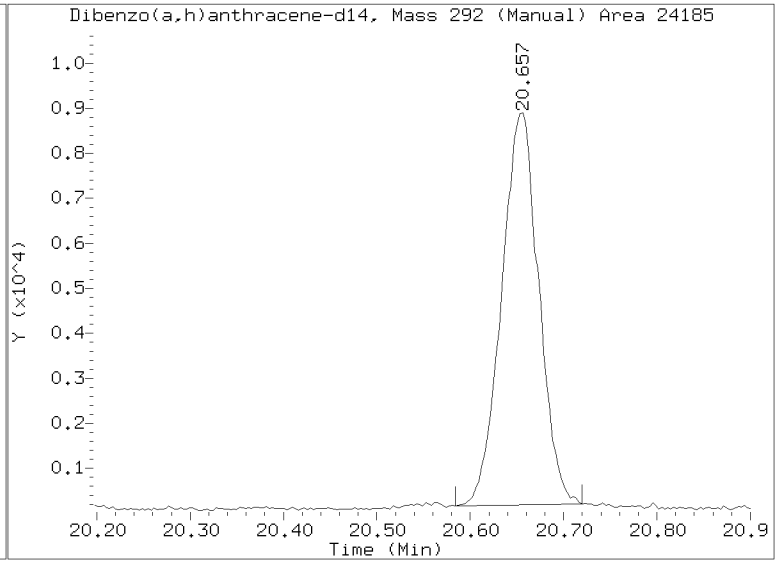
Quant Ion Manual Peak Adjustment Report

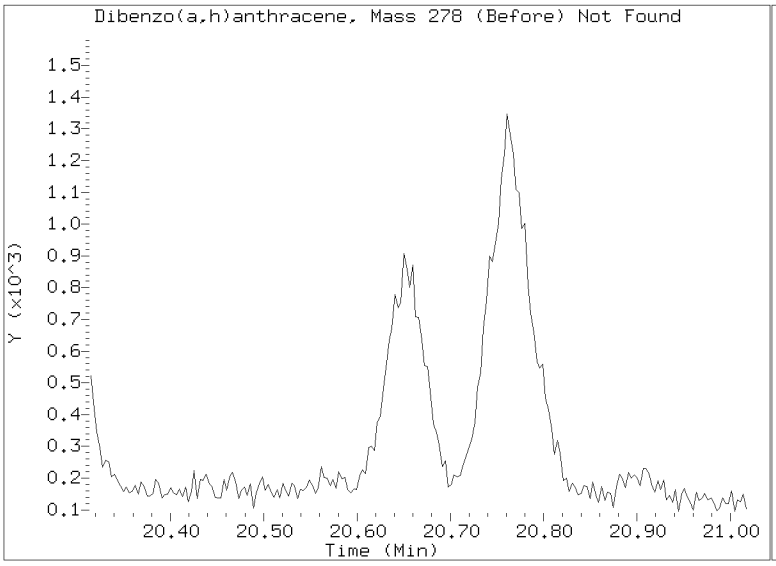
Datafile: //target/share/chem3/nt8.i/20230206A.b/N823020629.D
Injection Date: 07-FEB-2023 01:22
Lab ID:23A0313-04 Client ID:
Report Date: 02/07/2023 19:31

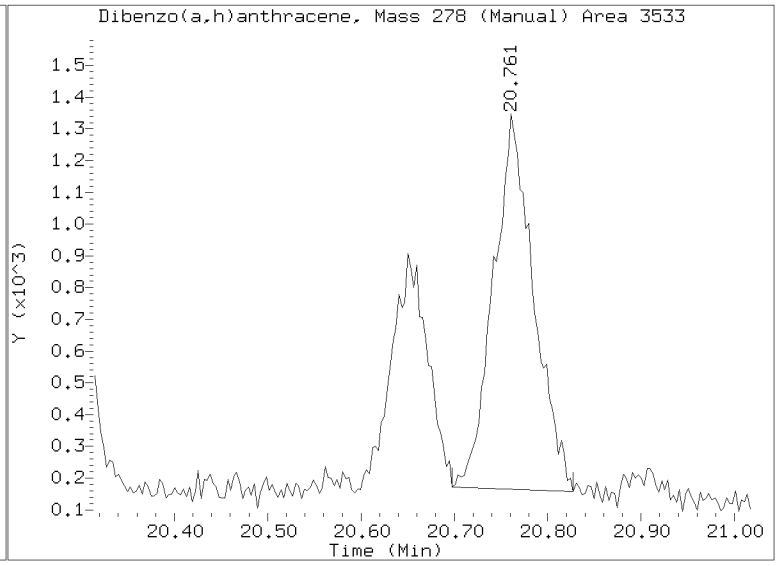












Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

SIM SVOC Organics (Dual scan list)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-08 A	SDG:	23A0313
Sampled:	01/16/23 11:11	Prepared:	02/02/23 13:06	File ID:	NT1003052313S.D
% Solids:	56.05	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/05/23 21:00
Batch:	BLA0685	Sequence:	SLC0435	Initial/Final:	17.95 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00032
Cleanups:	GPC				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	2.6	J	0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	5.0	U	0.7	5.0
100-51-6	Benzyl Alcohol	1	26.7		2.5	19.9
65-85-0	Benzoic acid	1	57.3	J	13.3	99.4
105-67-9	2,4-Dimethylphenol	1	7.9	J	2.2	19.9
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	5.6		1.3	5.0
87-86-5	Pentachlorophenol	1	19.9	U	2.1	19.9

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	745.45	609	81.7	27 - 120	
p-Terphenyl-d14	496.97	757	152	37 - 120	*,Q

Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523135.D

Page 1

Date : 05-MAR-2023 21:00

Client ID:

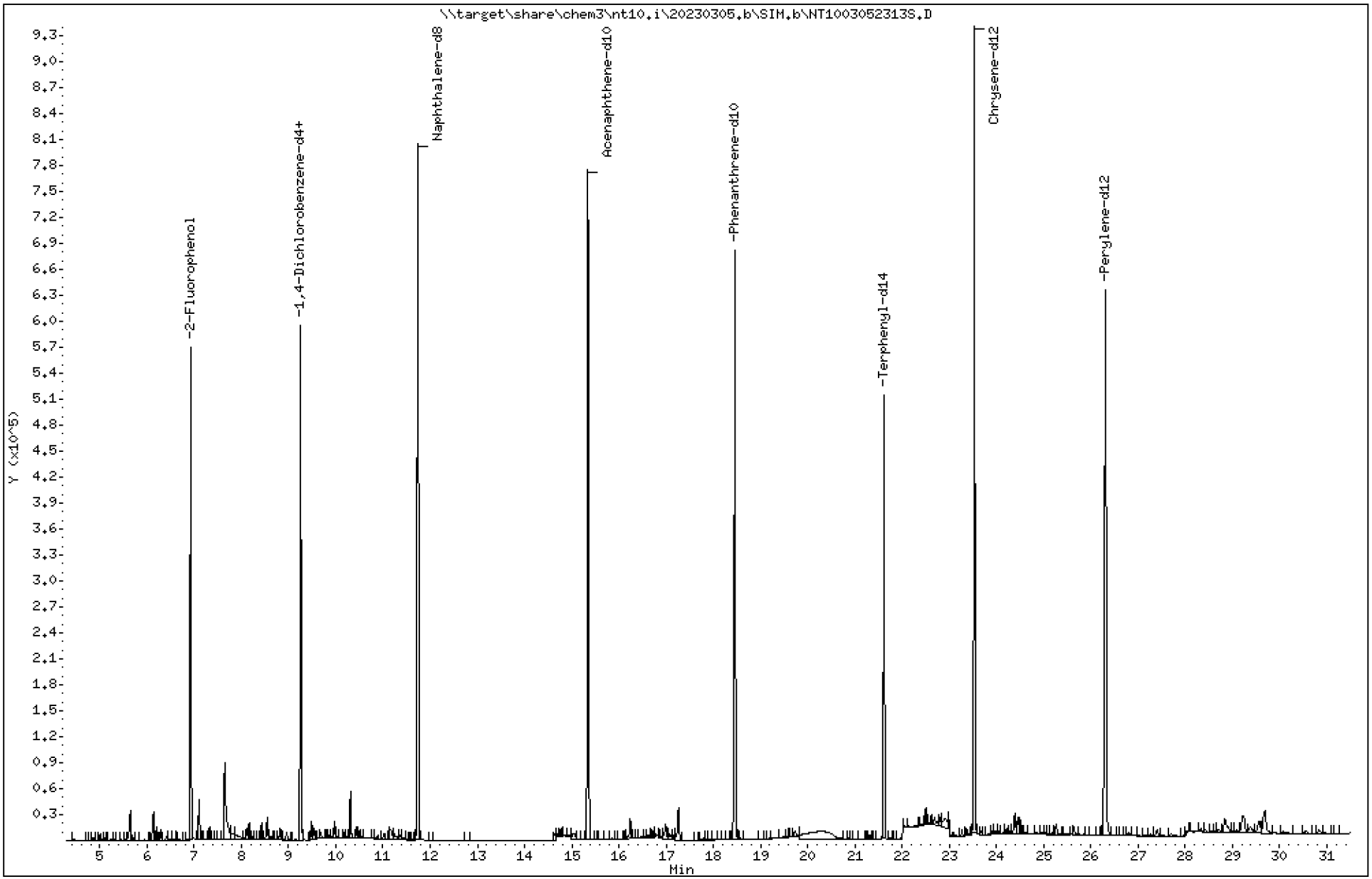
Instrument: nt10.i

Sample Info: 23A0313-08

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

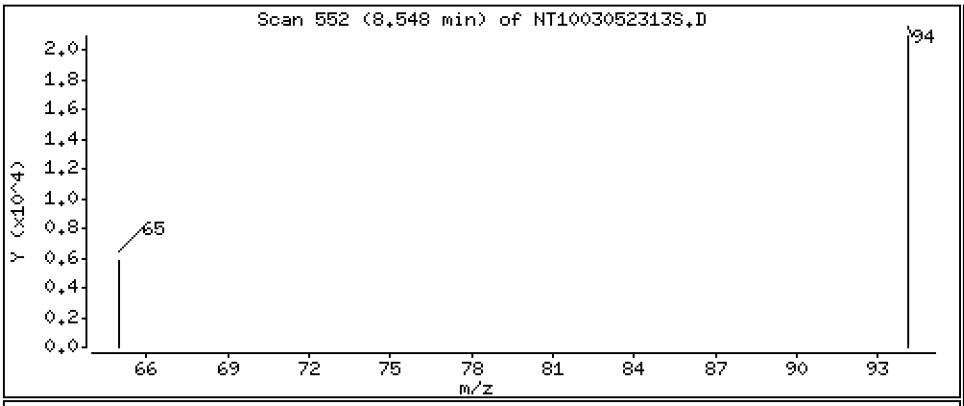
Operator: YZ

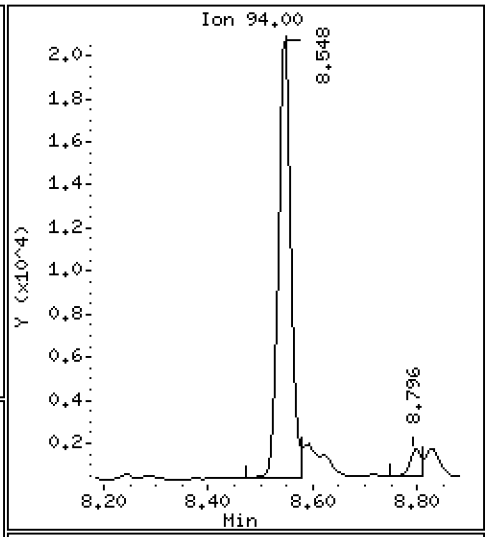
Column phase: ZB-5msi

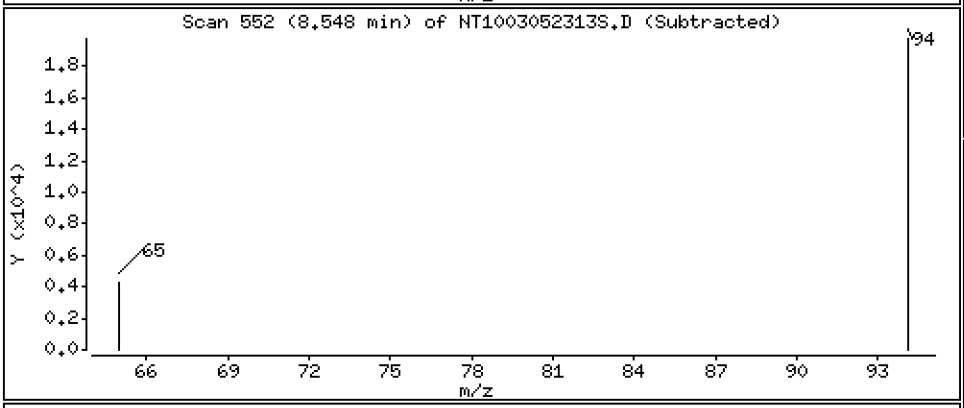
Column diameter: 0.25

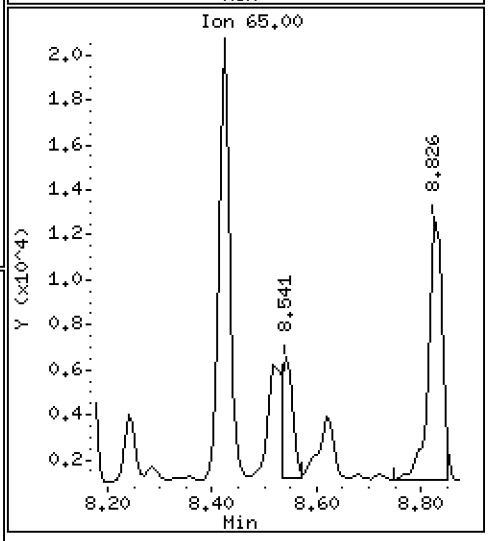
3 Phenol

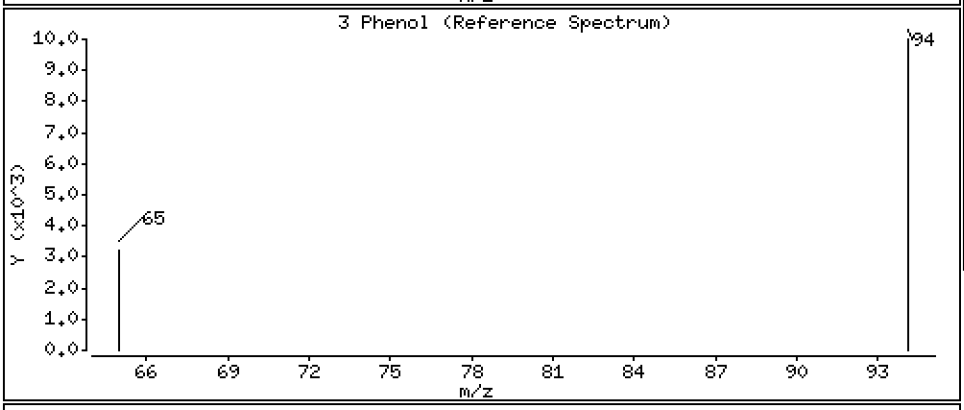
Concentration: 0.2349 ug/mL

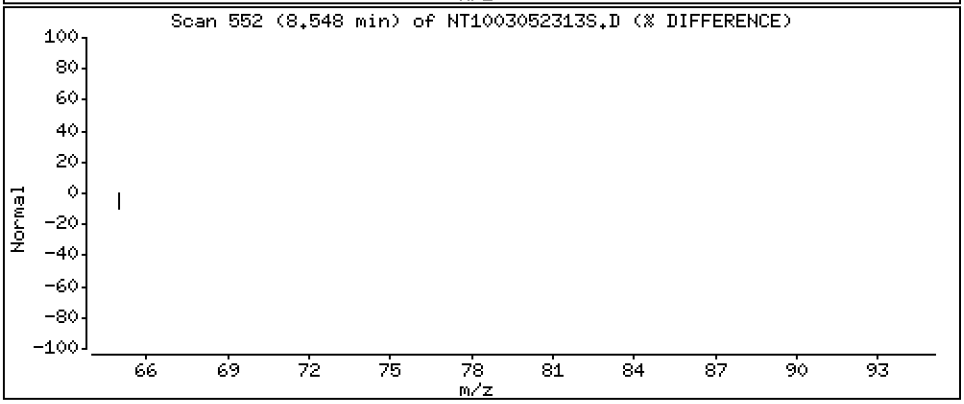












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

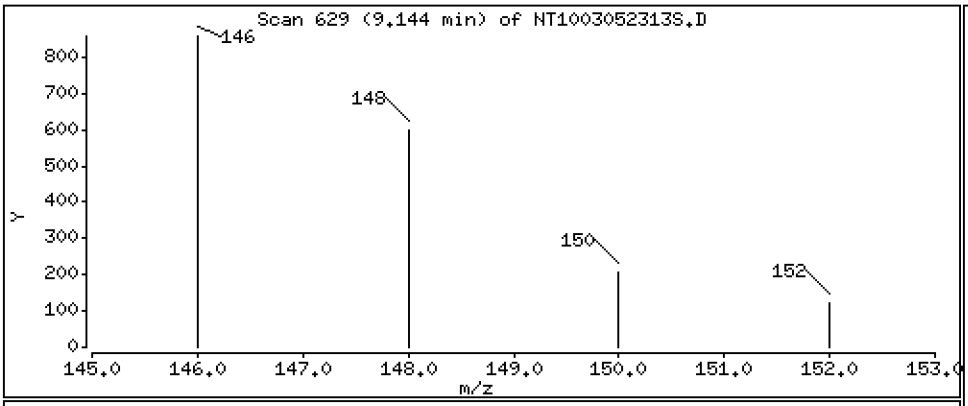
Operator: YZ

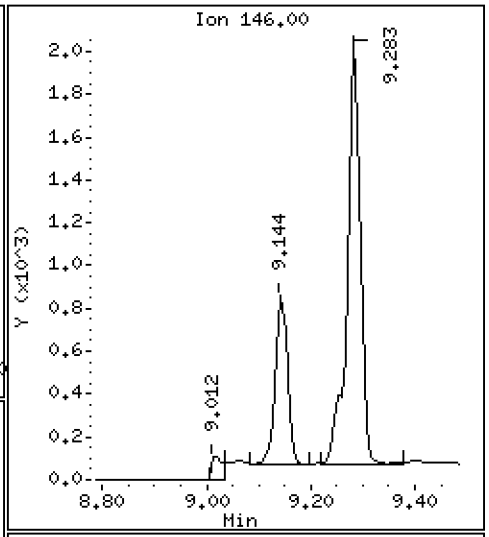
Column phase: ZB-5msi

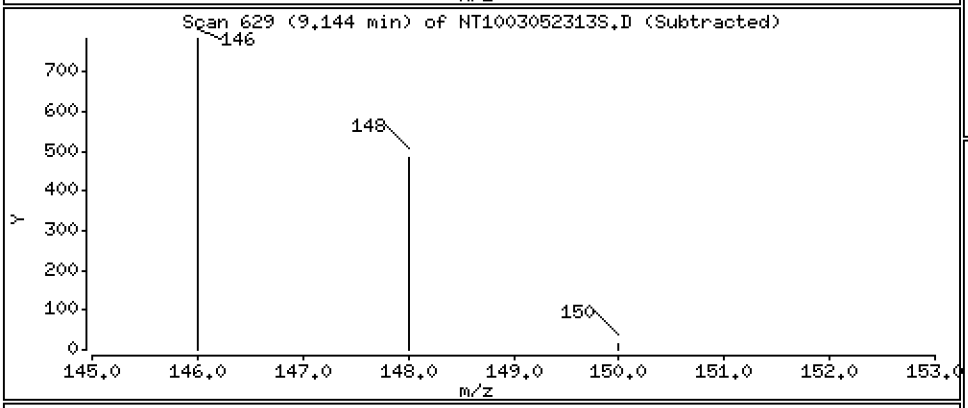
Column diameter: 0.25

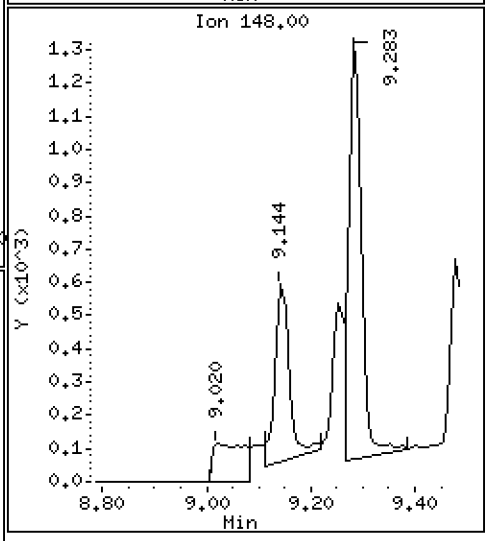
7 1,3-Dichlorobenzene

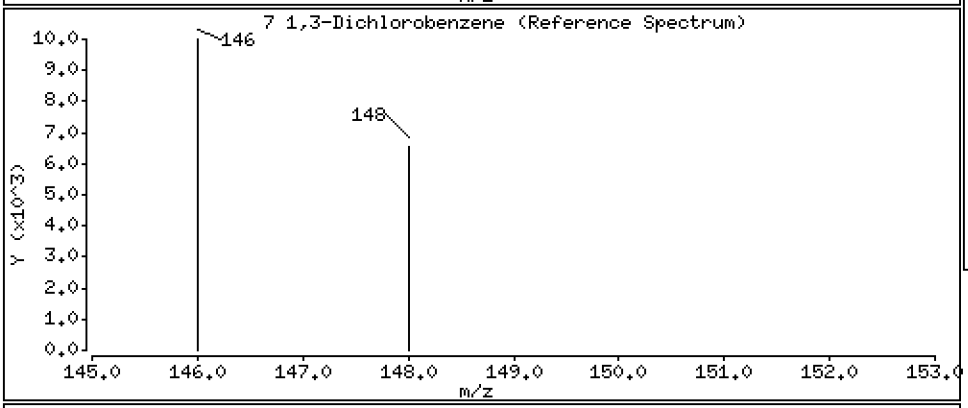
Concentration: 0.009325 ug/mL

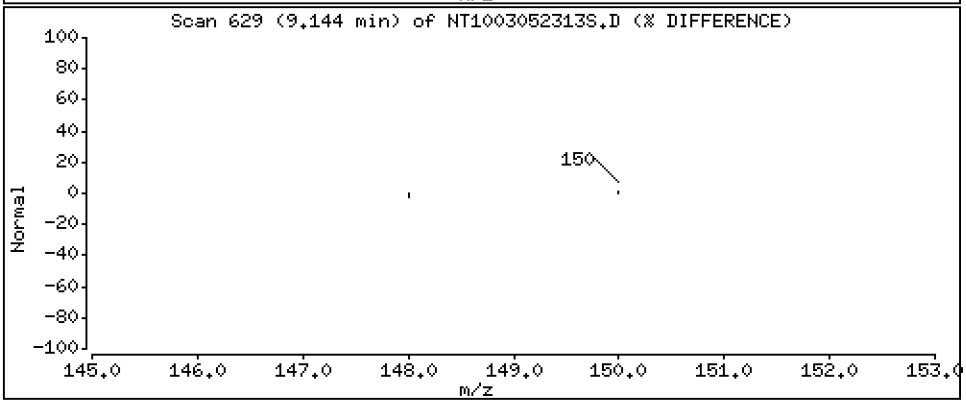












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

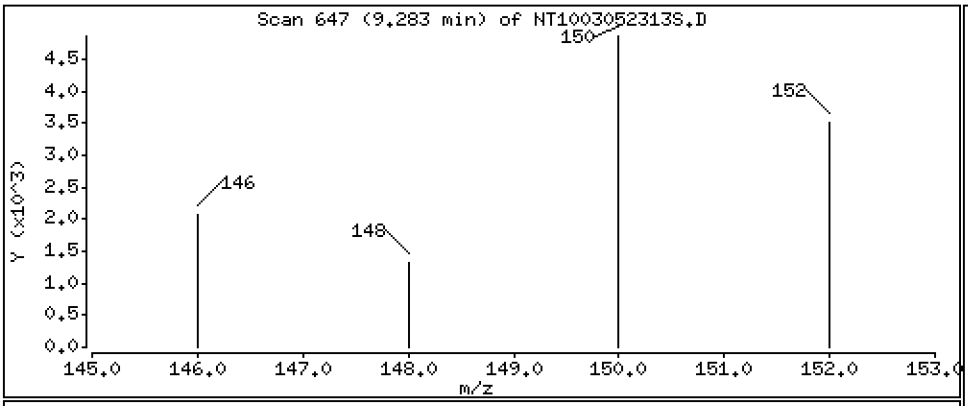
Operator: YZ

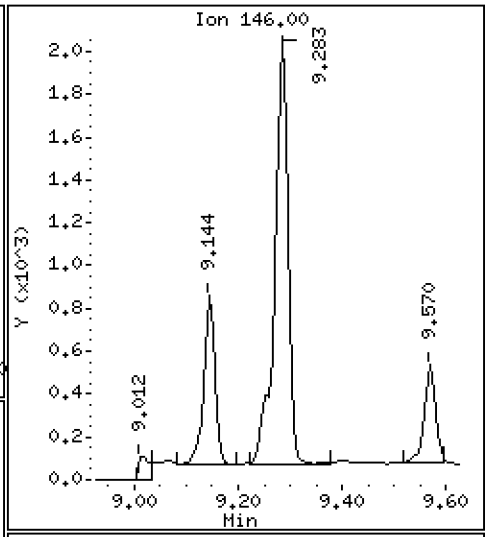
Column phase: ZB-5msi

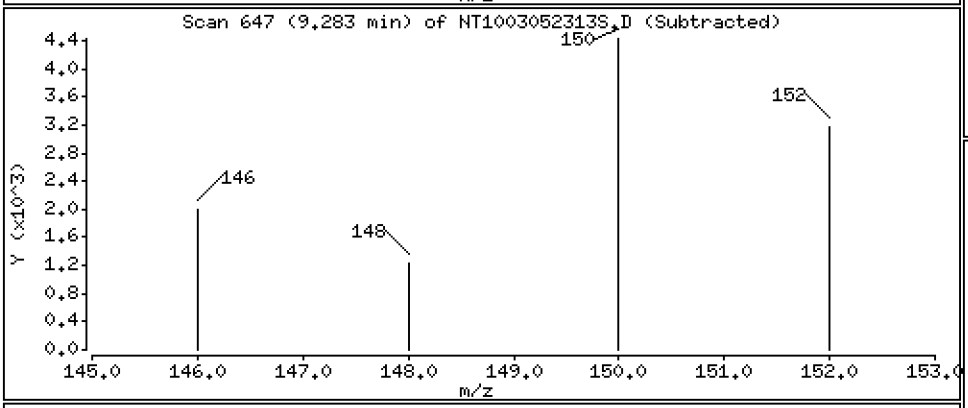
Column diameter: 0.25

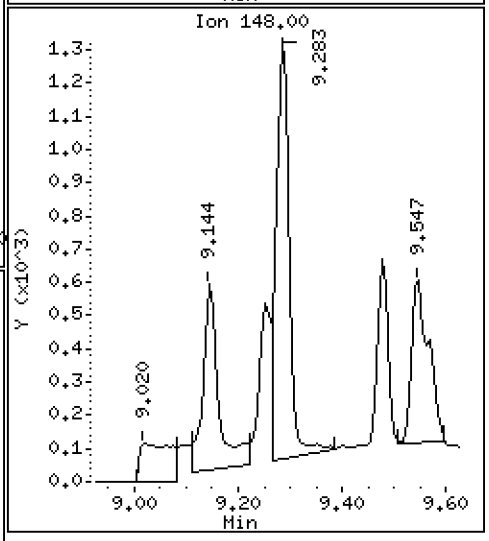
9 1,4-Dichlorobenzene

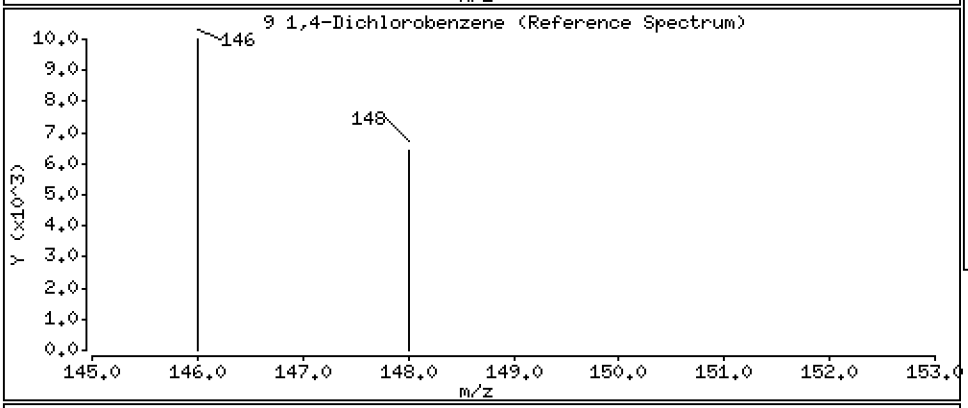
Concentration: 0.02648 ug/mL

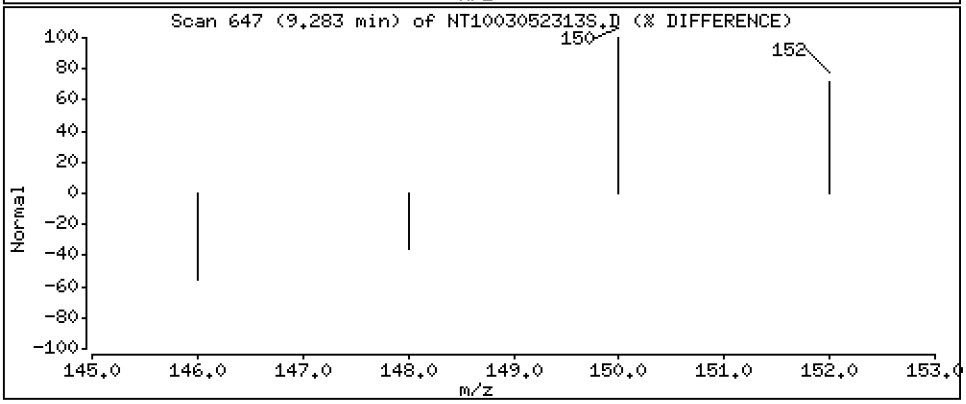












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

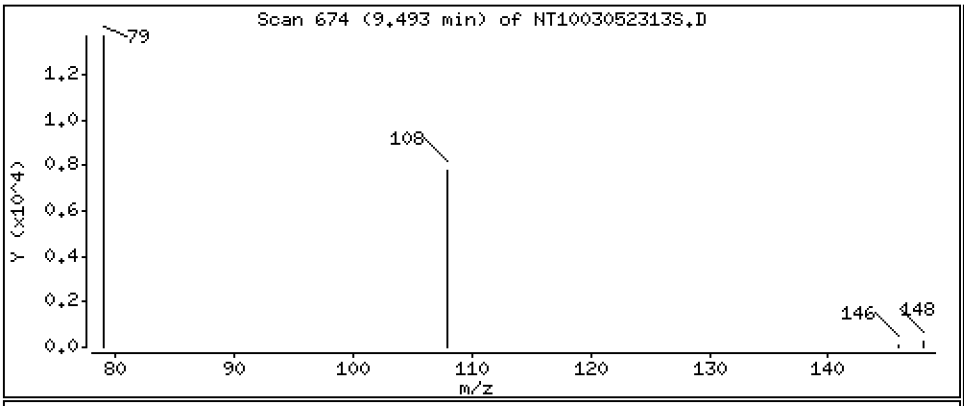
Operator: YZ

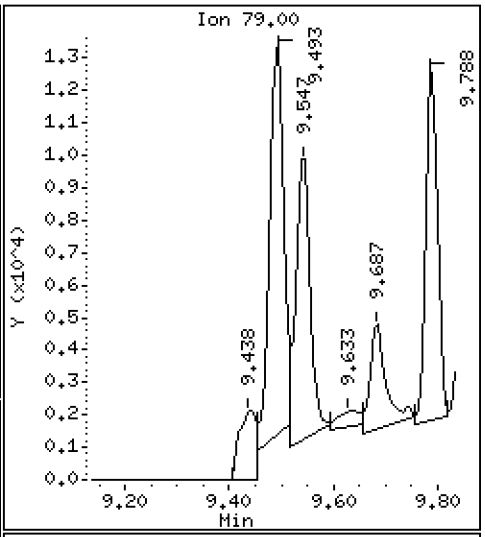
Column phase: ZB-5msi

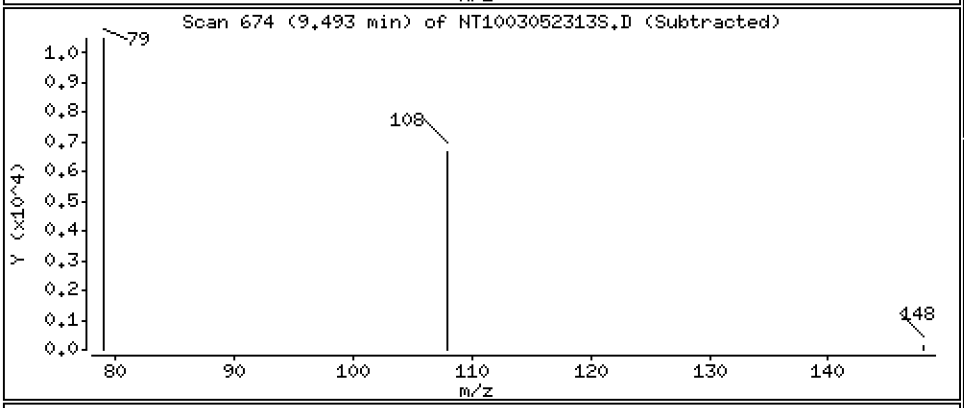
Column diameter: 0.25

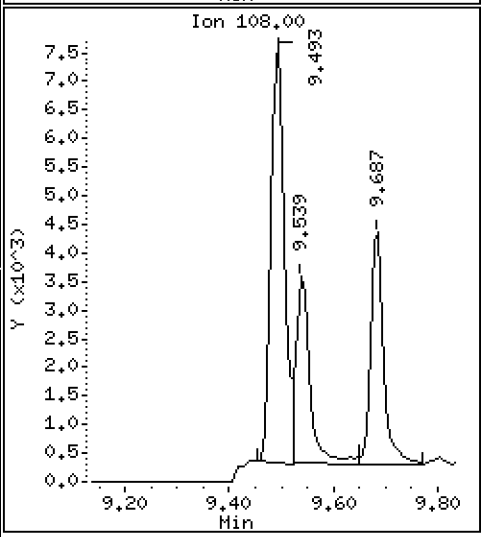
11 Benzyl alcohol

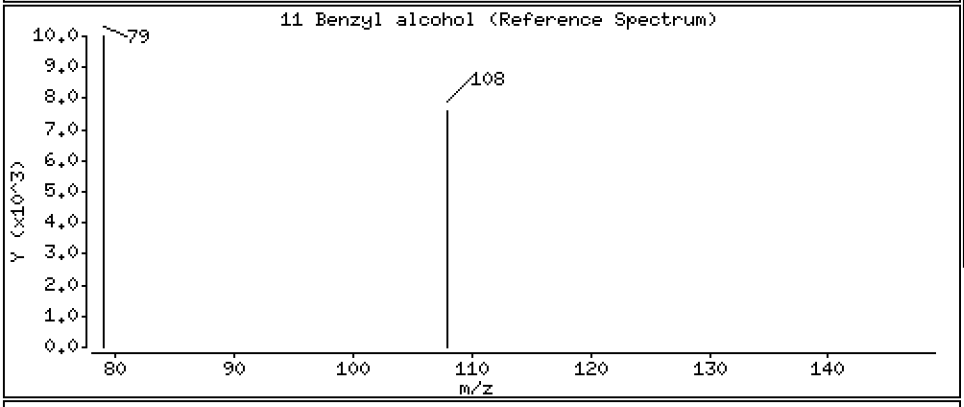
Concentration: 0.2685 ug/mL

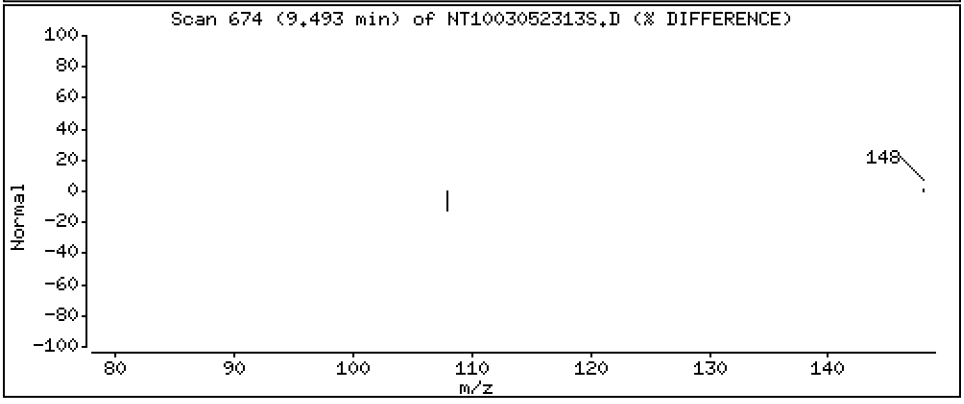












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

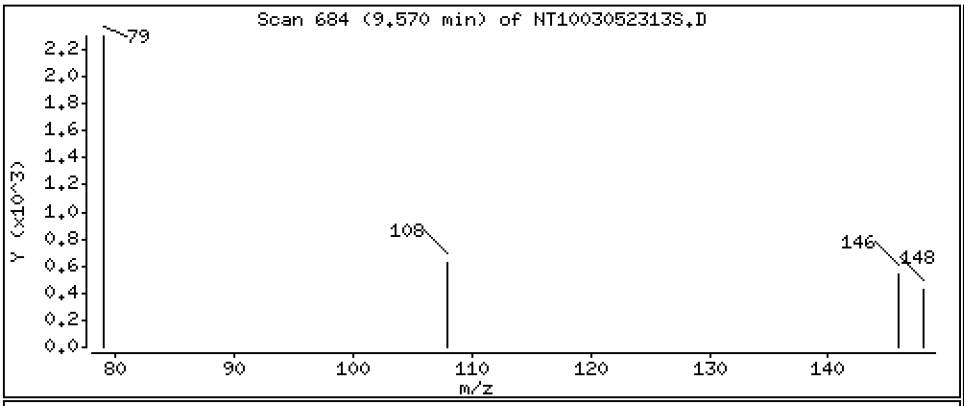
Operator: YZ

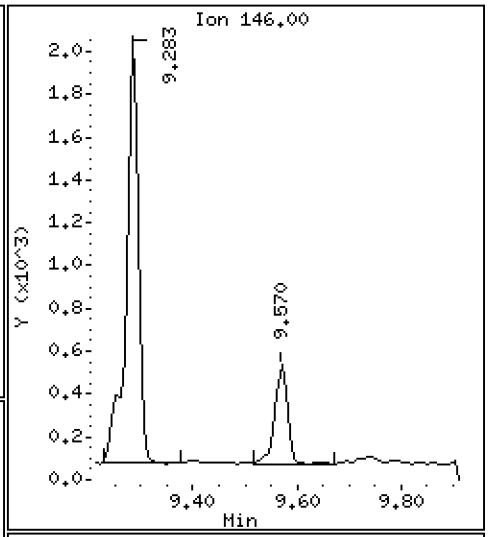
Column phase: ZB-5msi

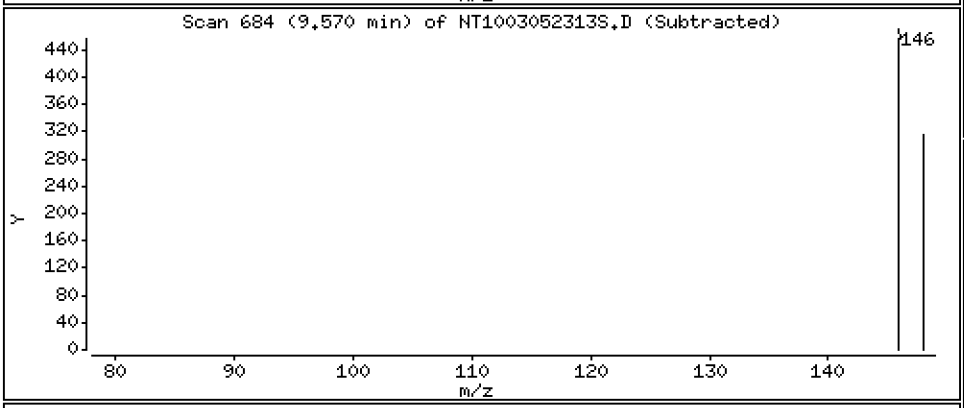
Column diameter: 0.25

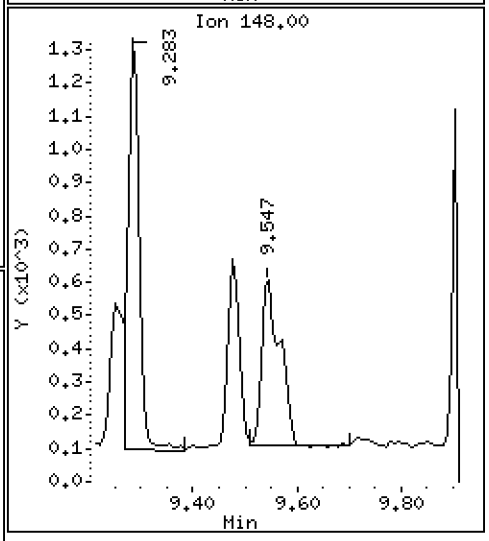
12 1,2-Dichlorobenzene

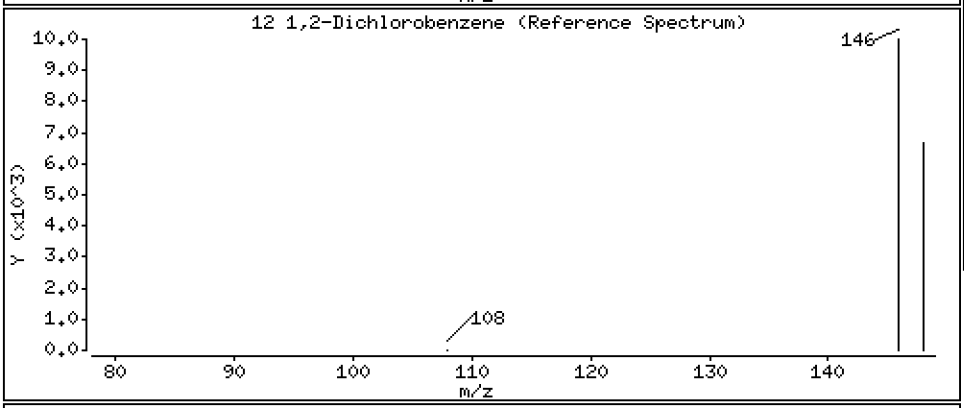
Concentration: 0.006501 ug/mL

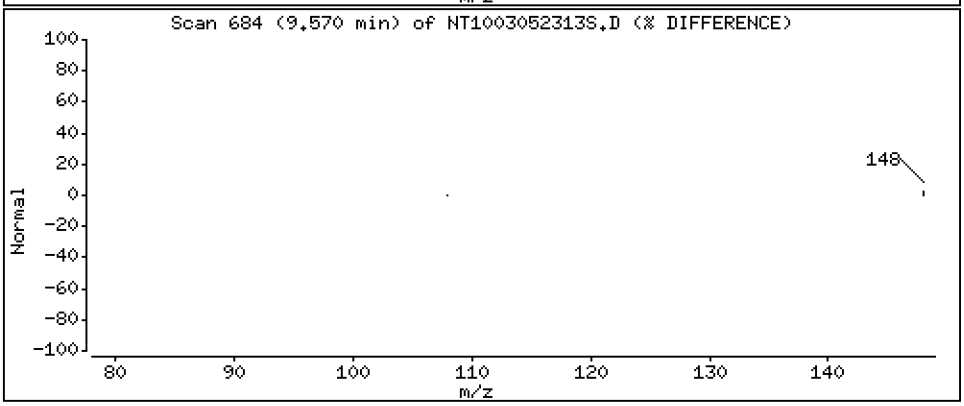












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

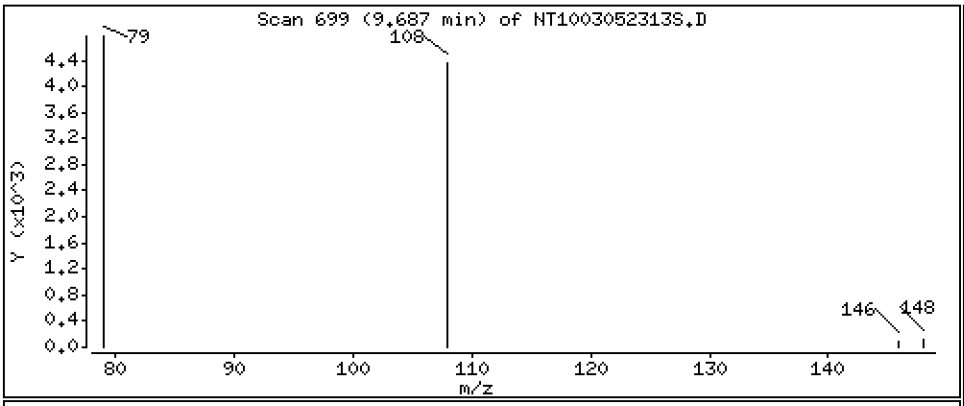
Operator: YZ

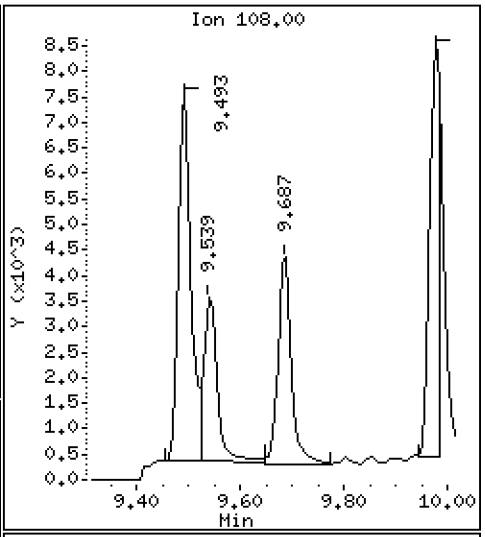
Column phase: ZB-5msi

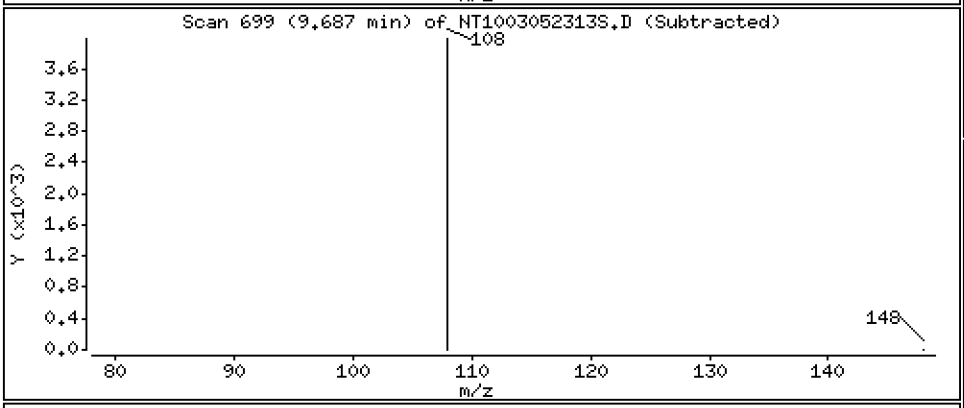
Column diameter: 0.25

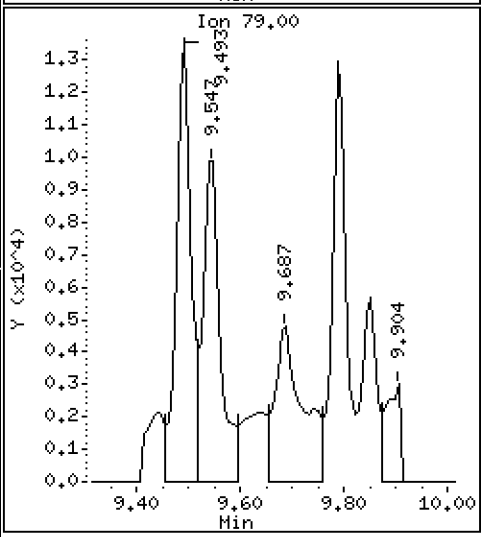
13 2-Methylphenol

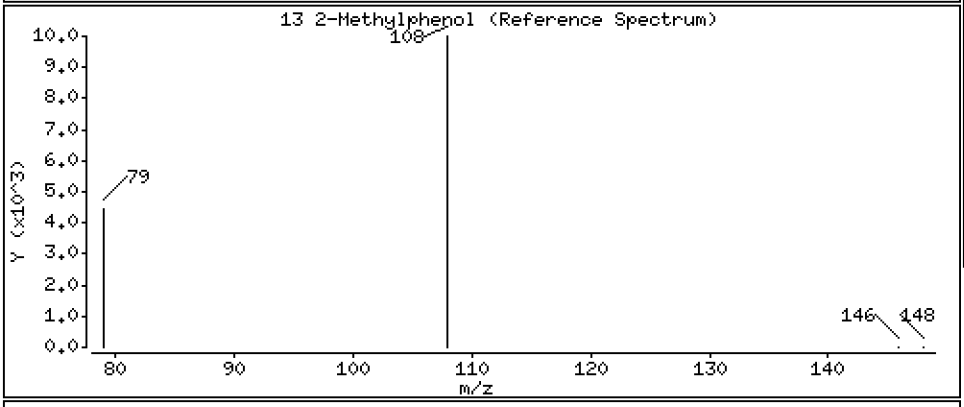
Concentration: 0.08175 ug/mL

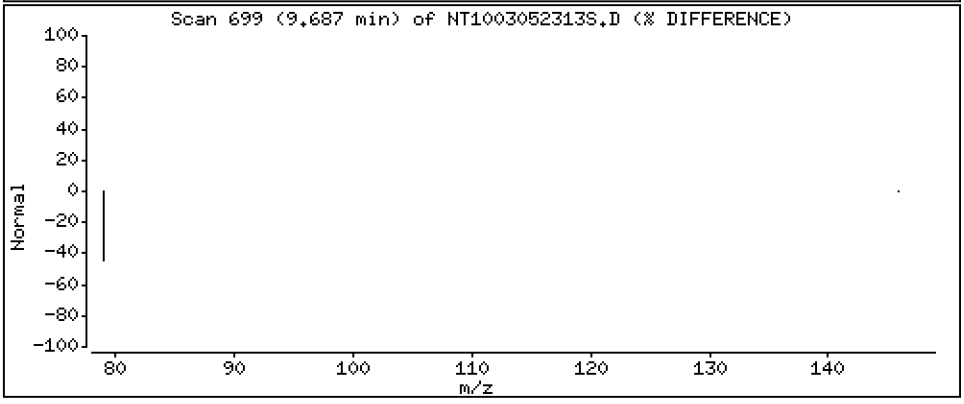












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

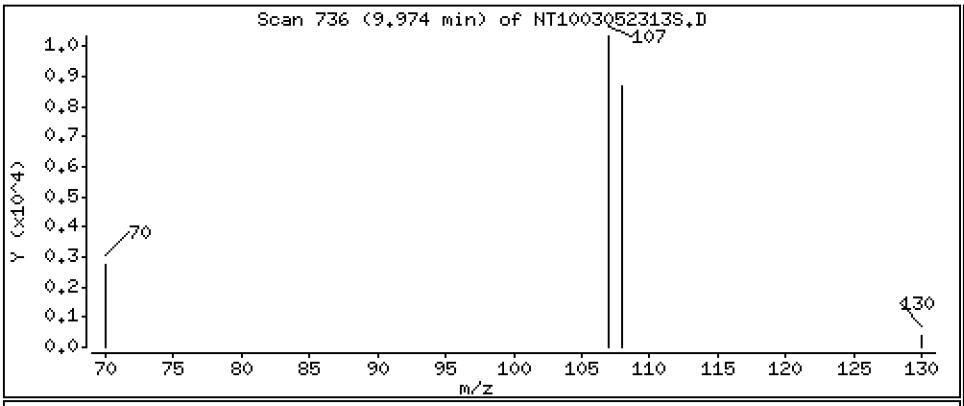
Operator: YZ

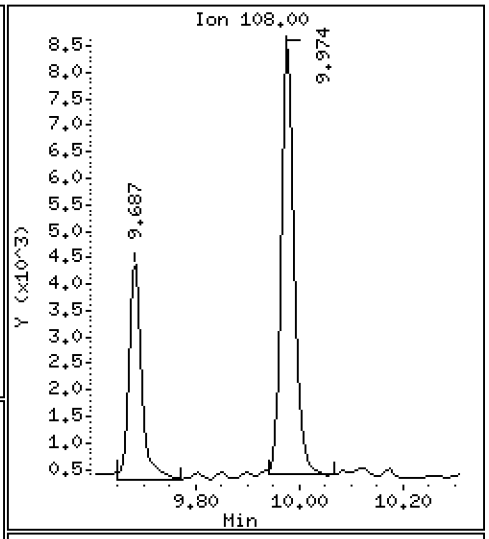
Column phase: ZB-5msi

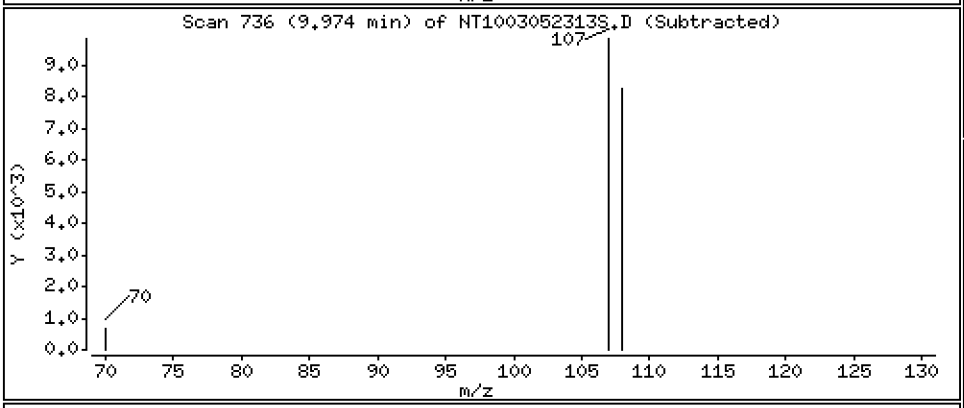
Column diameter: 0.25

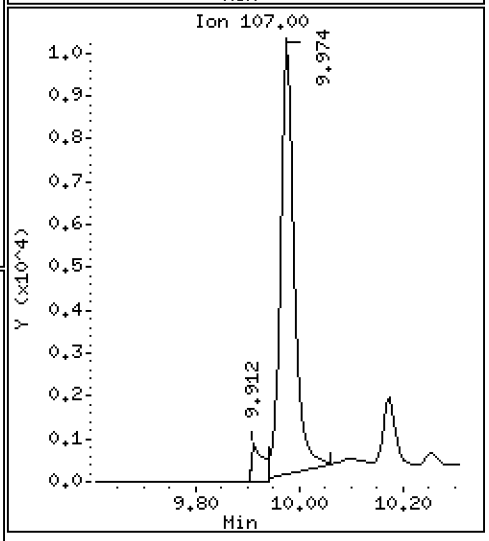
15 4-Methylphenol

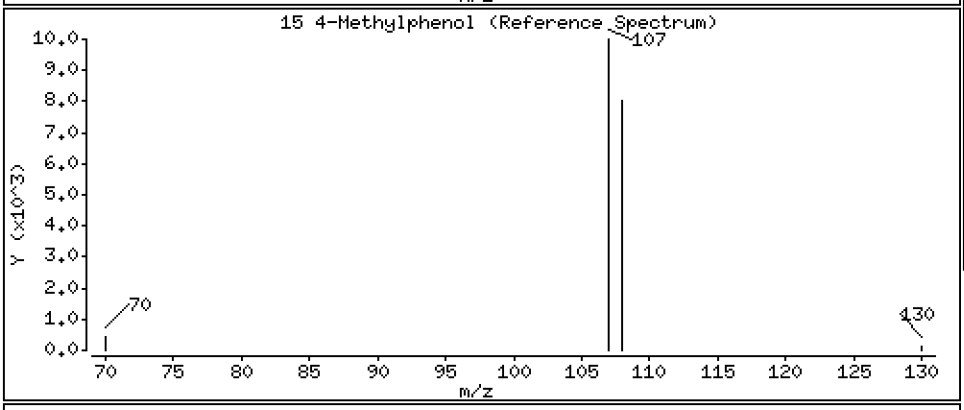
Concentration: 0.1566 ug/mL

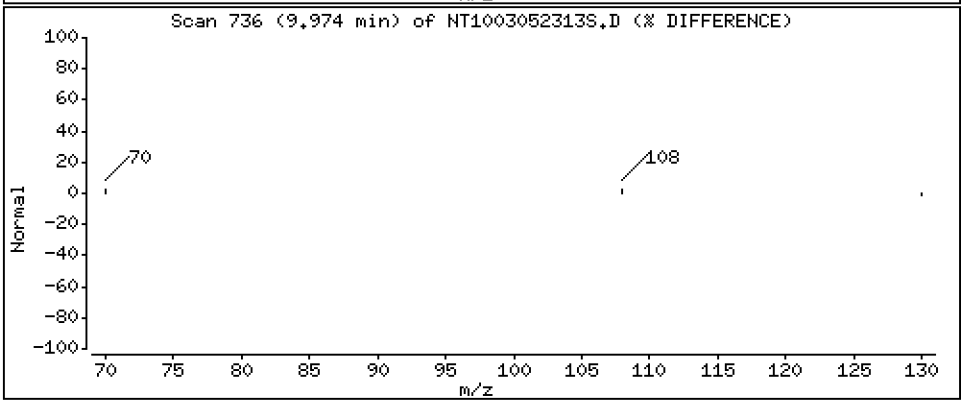












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523135.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

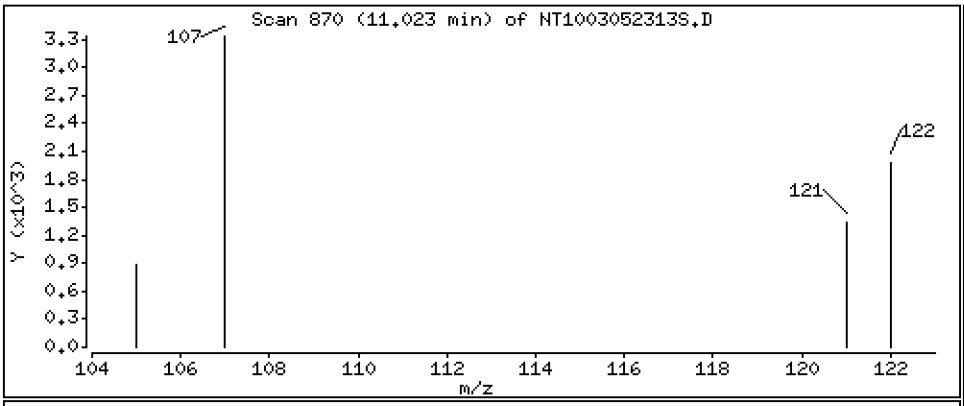
Operator: YZ

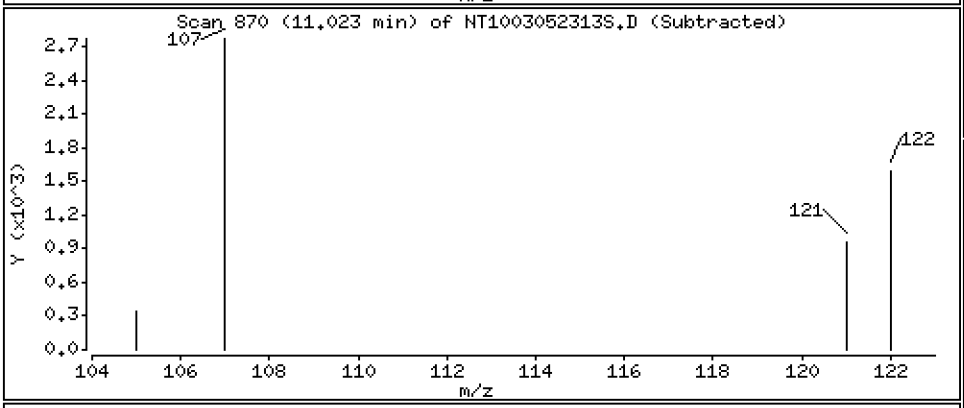
Column phase: ZB-5msi

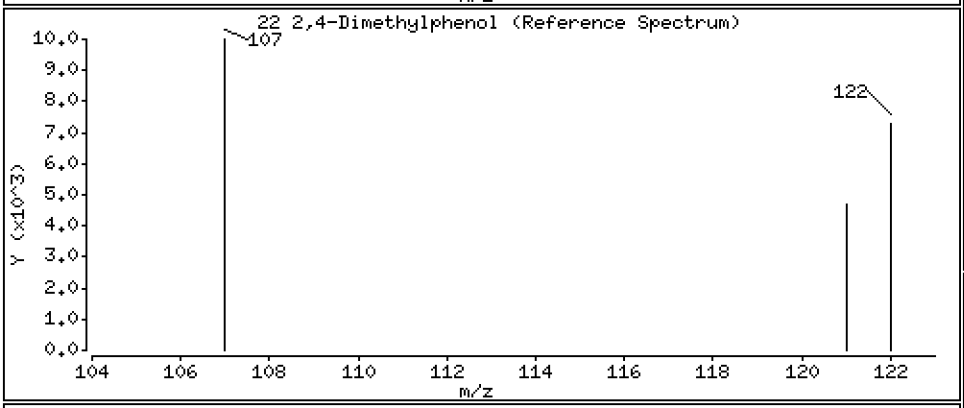
Column diameter: 0.25

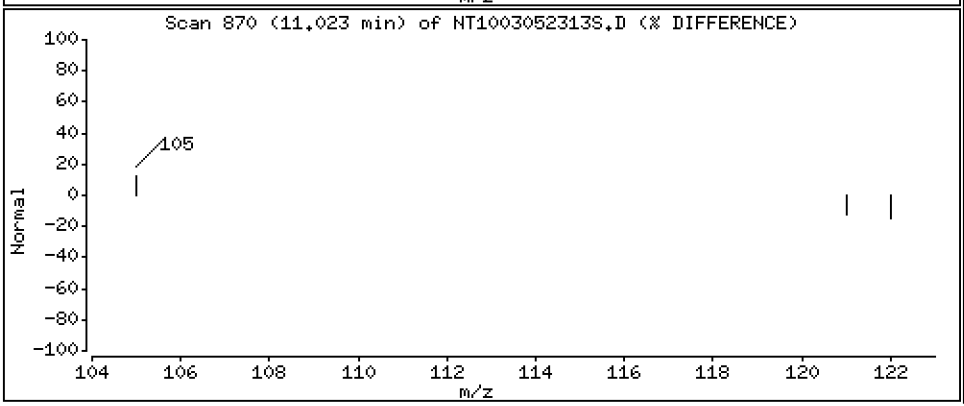
22 2,4-Dimethylphenol

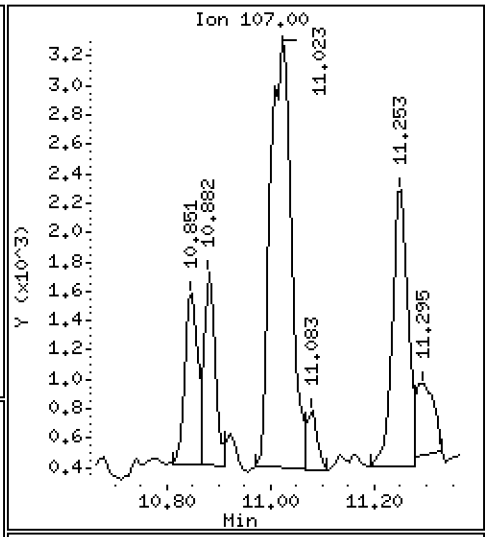
Concentration: 0.07916 ug/mL

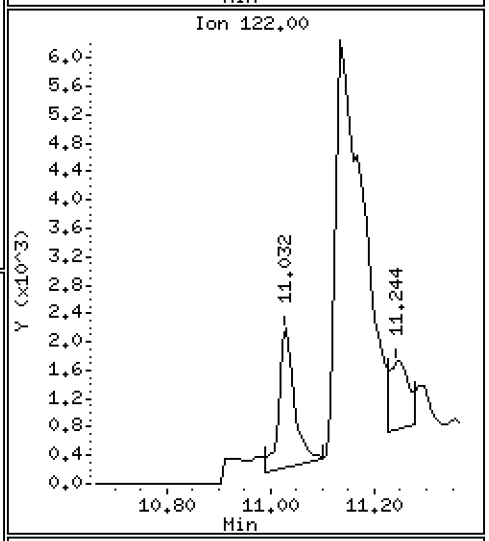


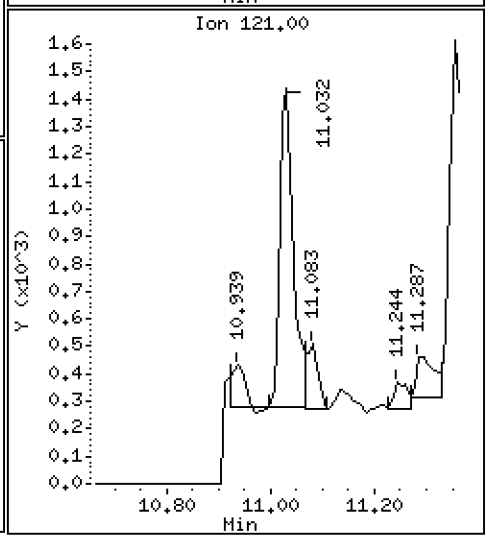












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

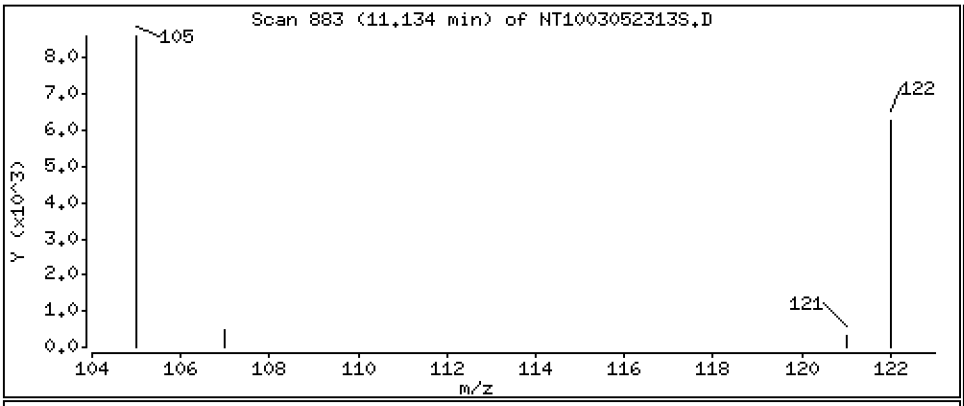
Operator: YZ

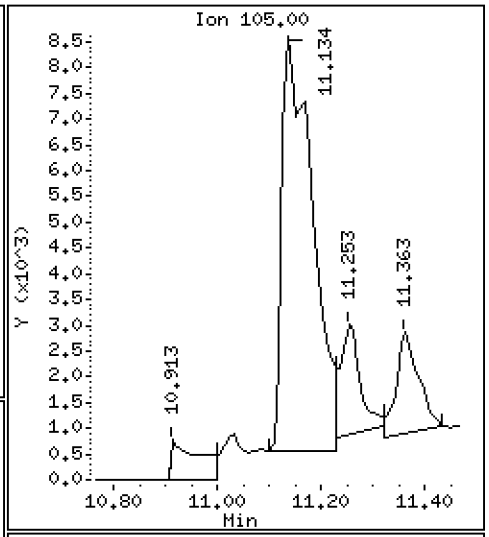
Column phase: ZB-5msi

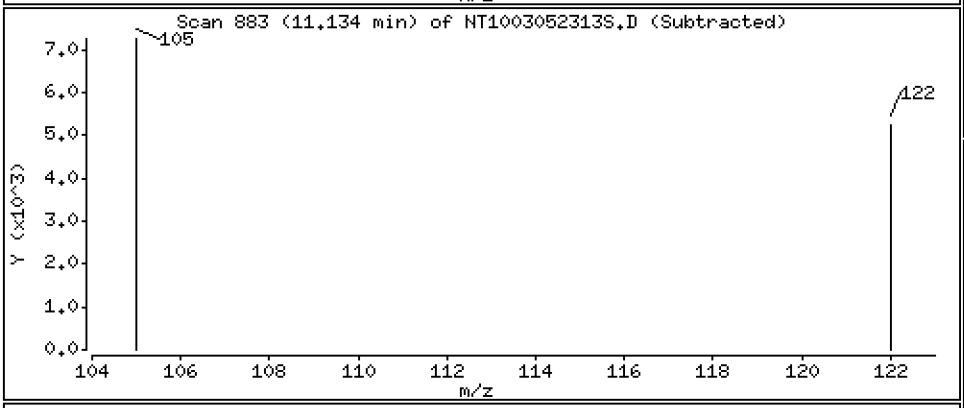
Column diameter: 0.25

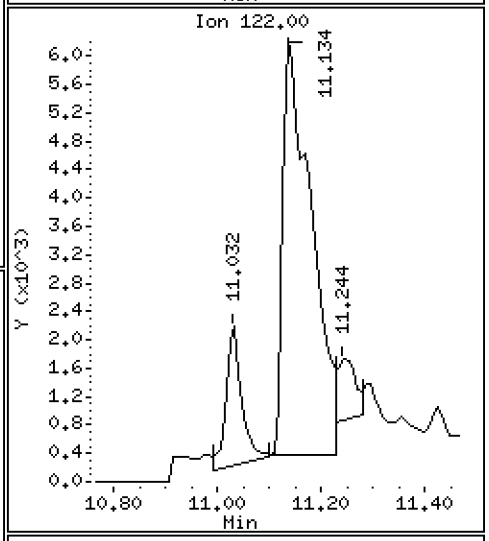
24 Benzoic acid

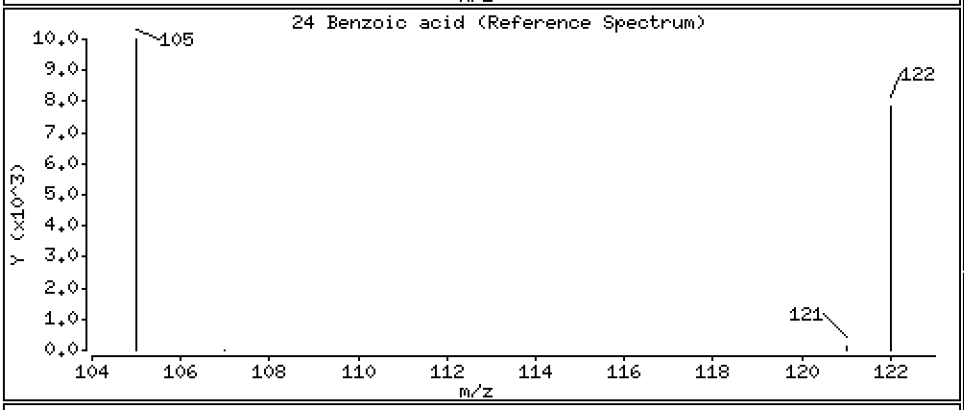
Concentration: 0.5762 ug/mL

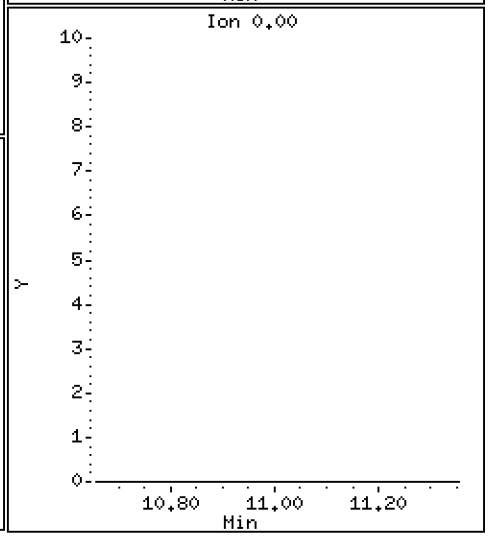


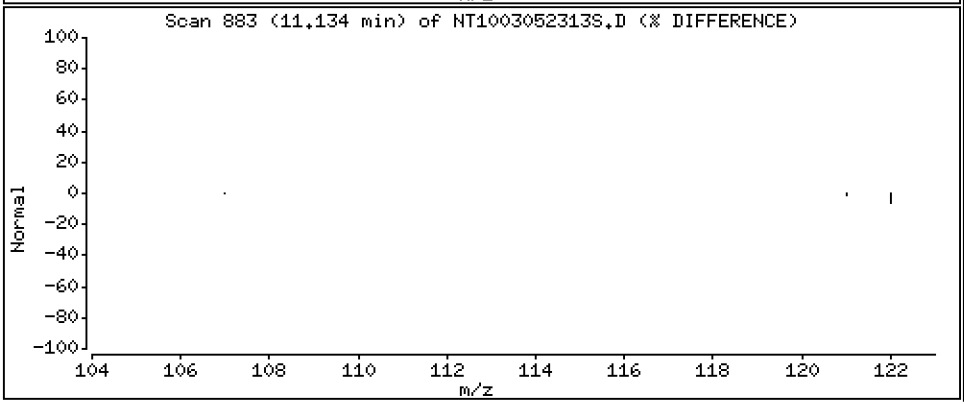












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523135.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

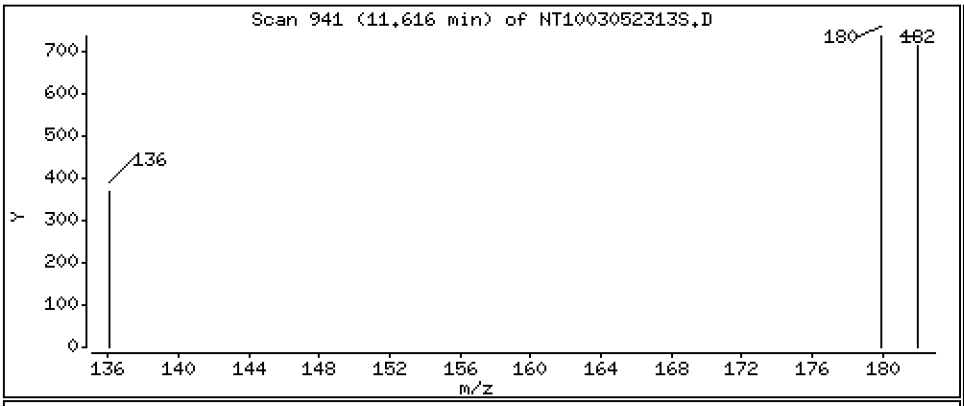
Operator: YZ

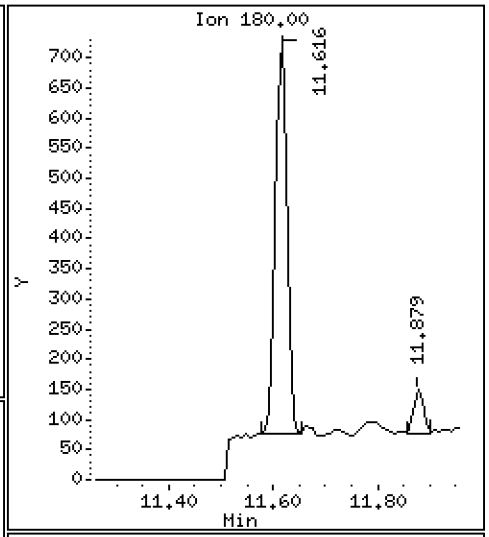
Column phase: ZB-5msi

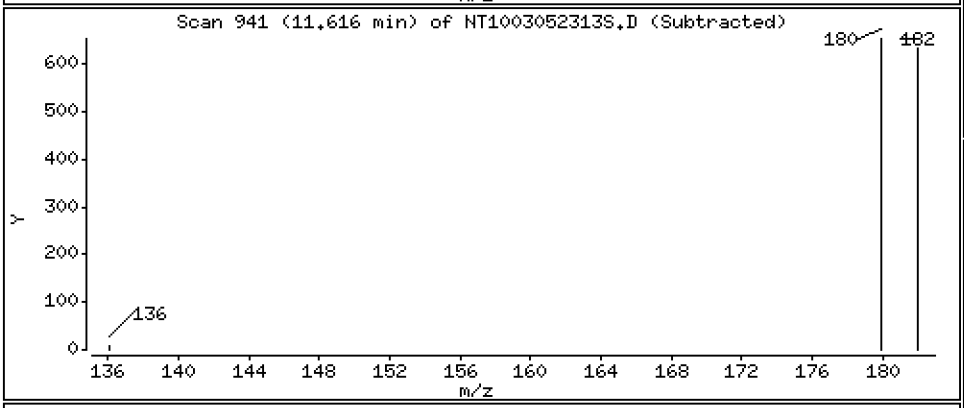
Column diameter: 0.25

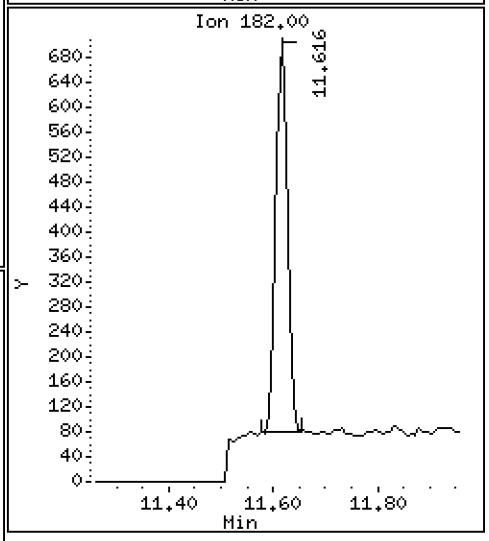
26 1,2,4-Trichlorobenzene

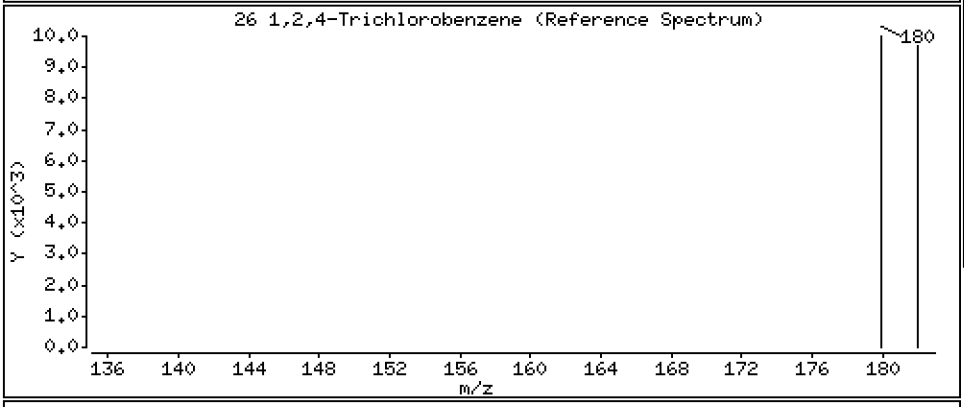
Concentration: 0.01063 ug/mL

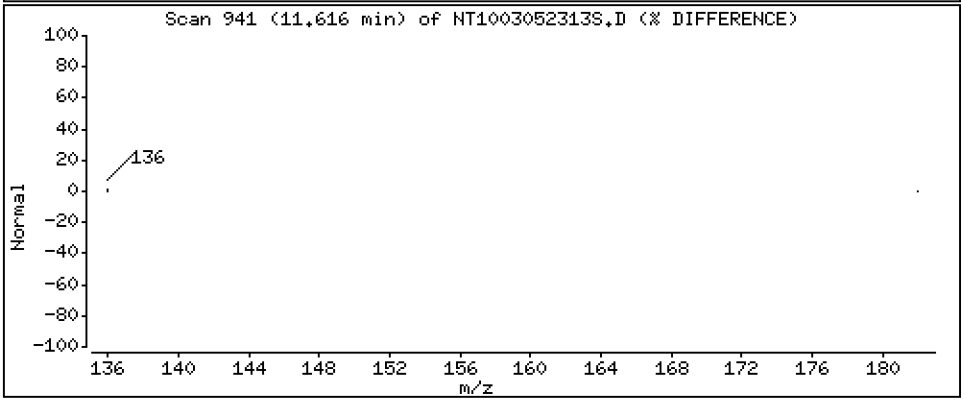












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052313S.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

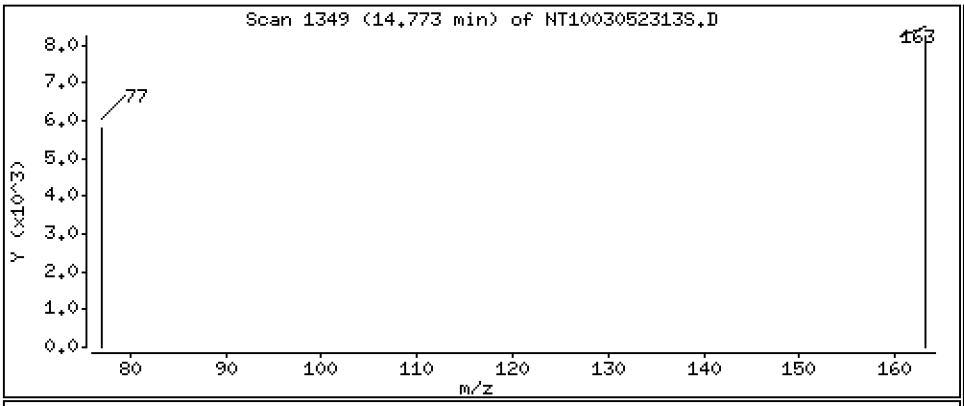
Operator: YZ

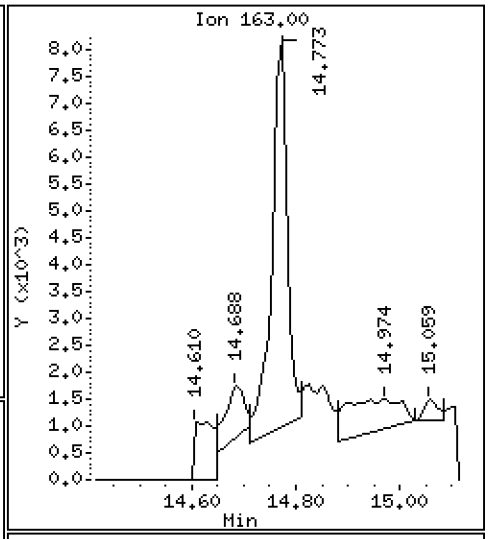
Column phase: ZB-5msi

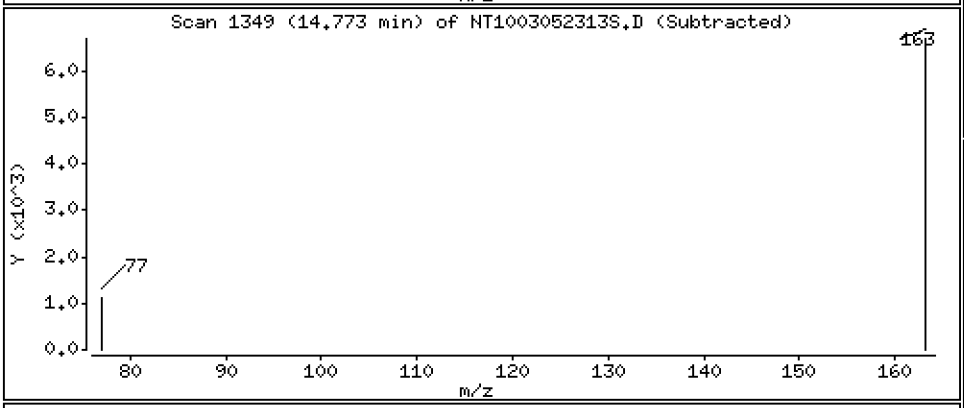
Column diameter: 0.25

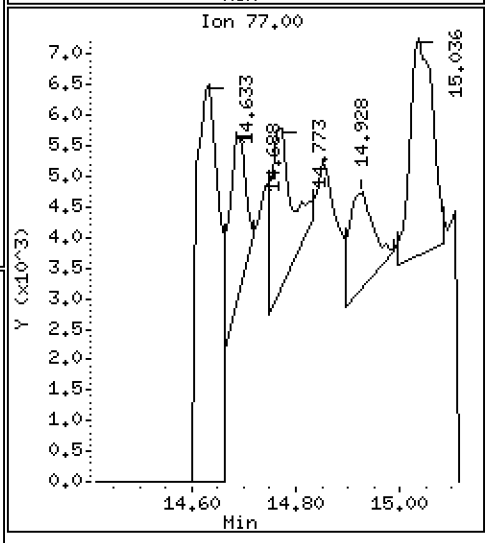
39 Dimethylphthalate

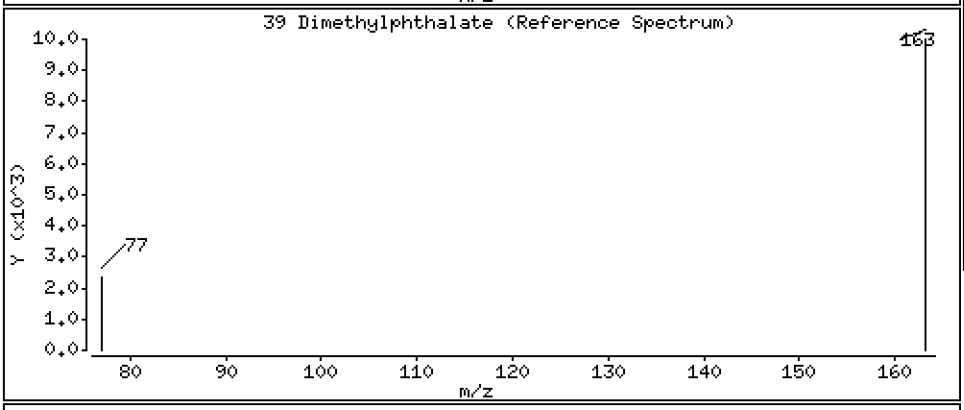
Concentration: 0.07519 ug/mL

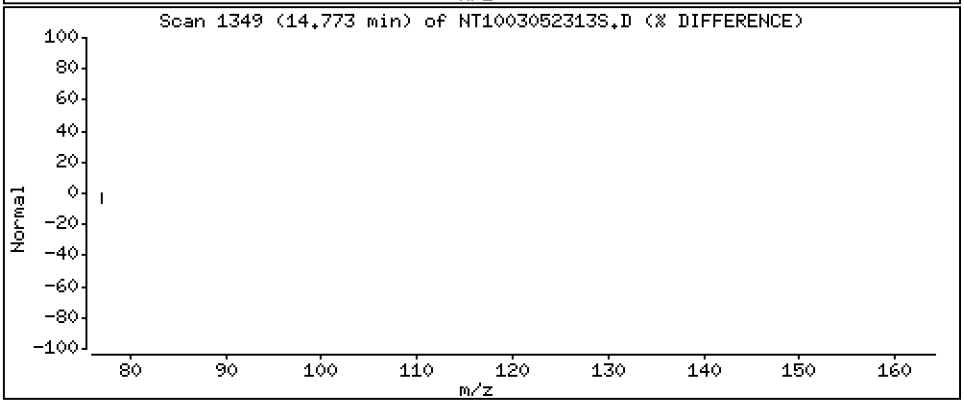












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052313S.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

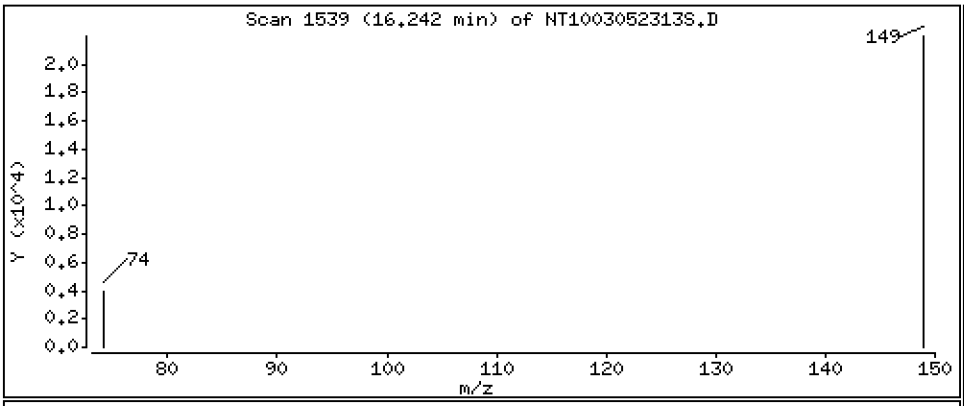
Operator: YZ

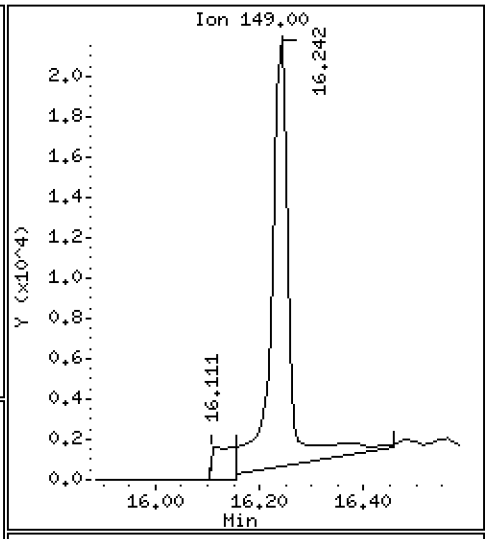
Column phase: ZB-5msi

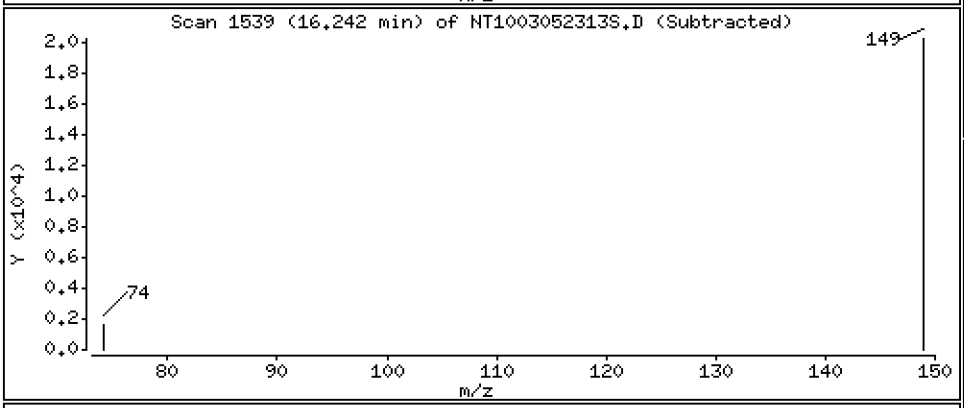
Column diameter: 0.25

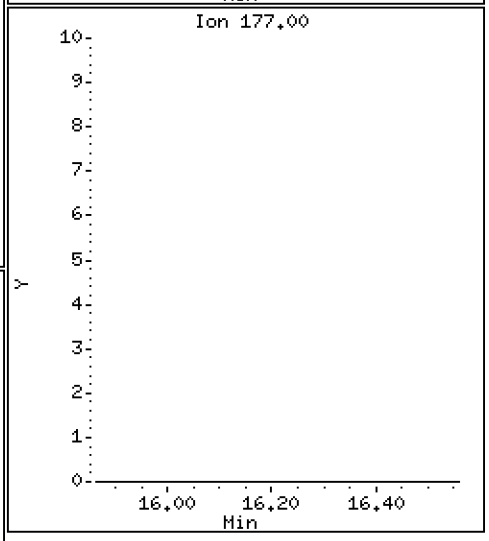
50 Diethylphthalate

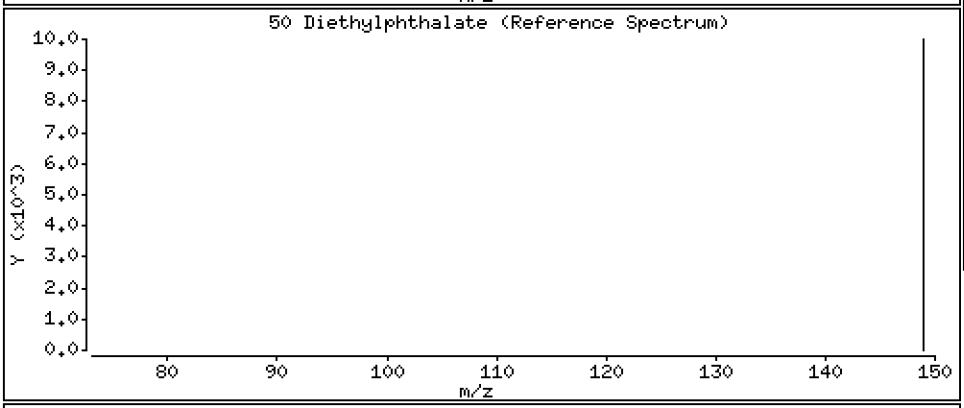
Concentration: 0.2704 ug/mL

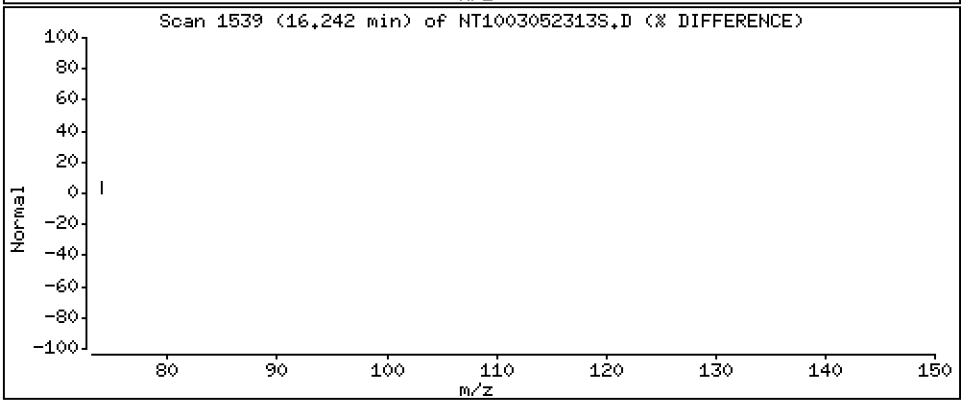












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

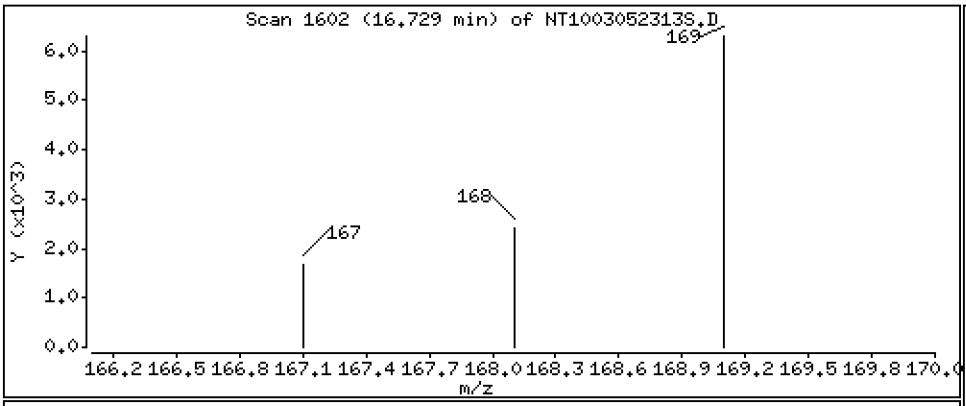
Operator: YZ

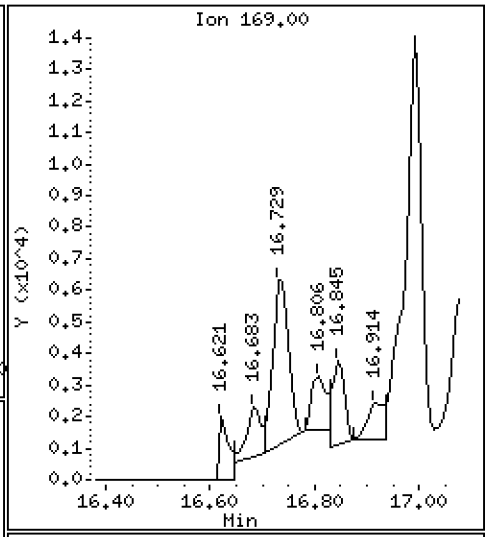
Column phase: ZB-5msi

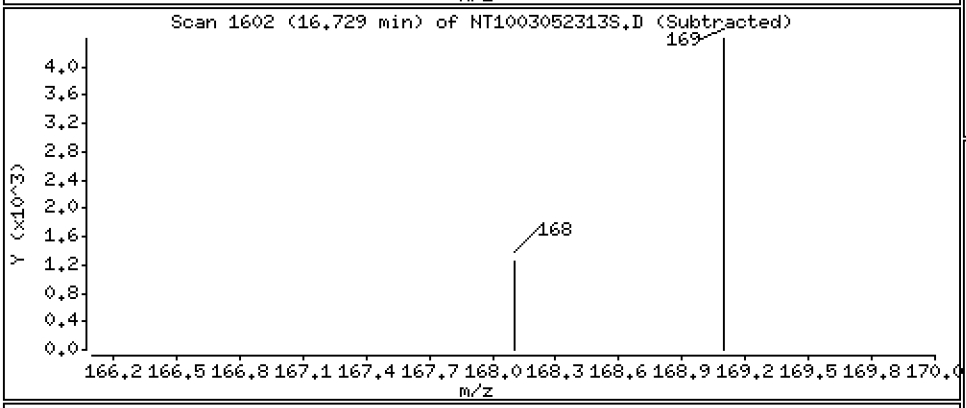
Column diameter: 0.25

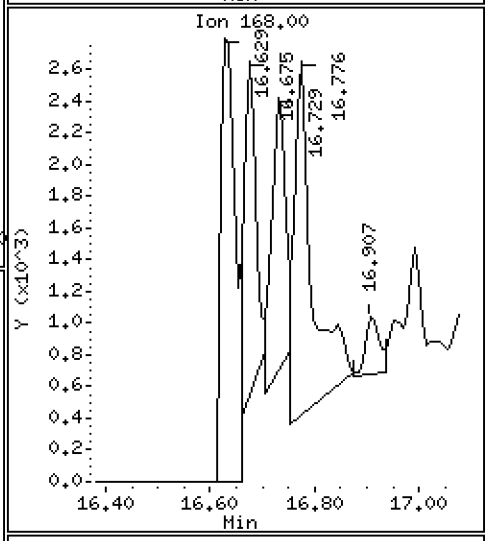
54 N-Nitrosodiphenylamine

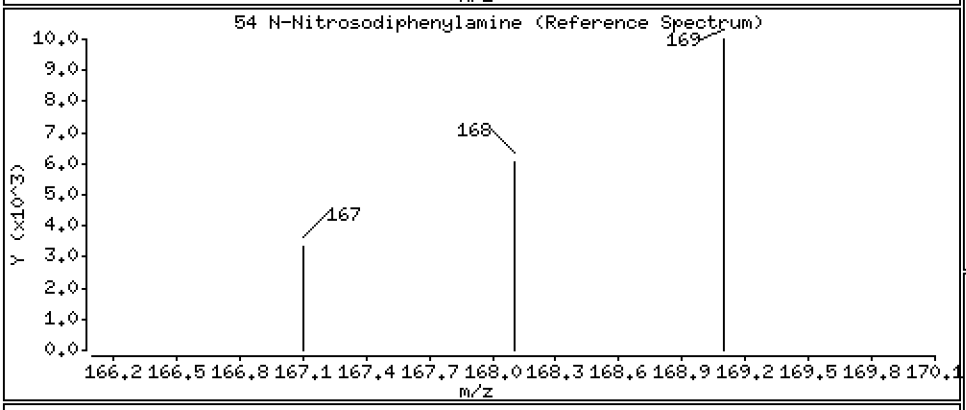
Concentration: 0.05649 ug/mL

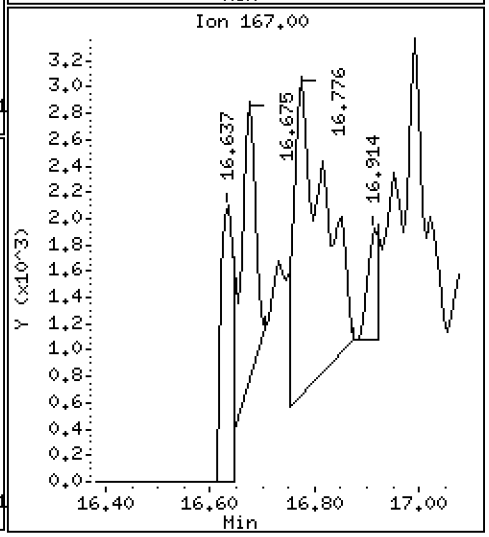


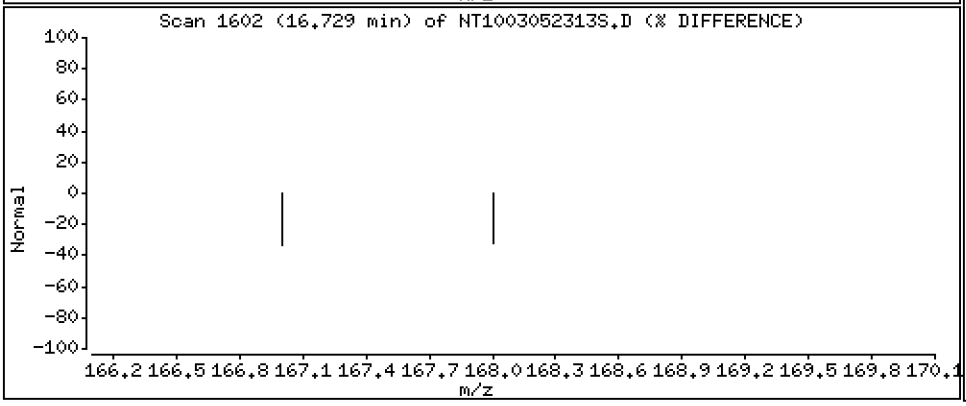












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Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

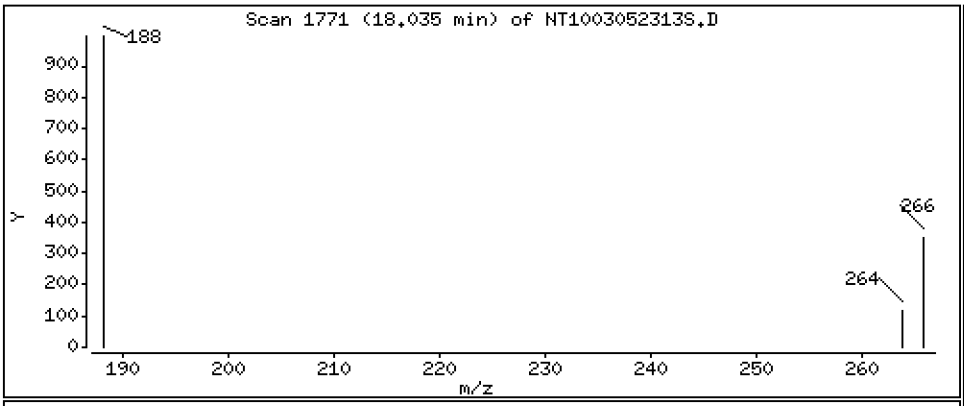
Operator: YZ

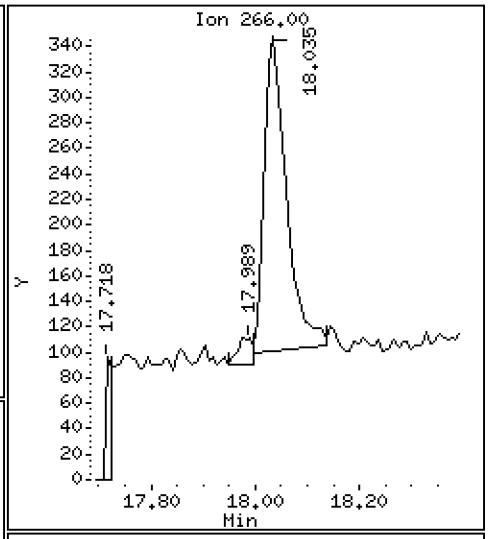
Column phase: ZB-5msi

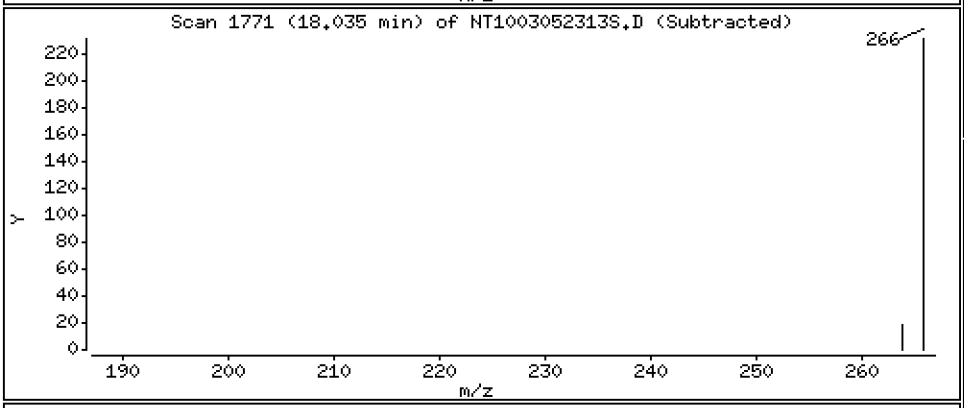
Column diameter: 0.25

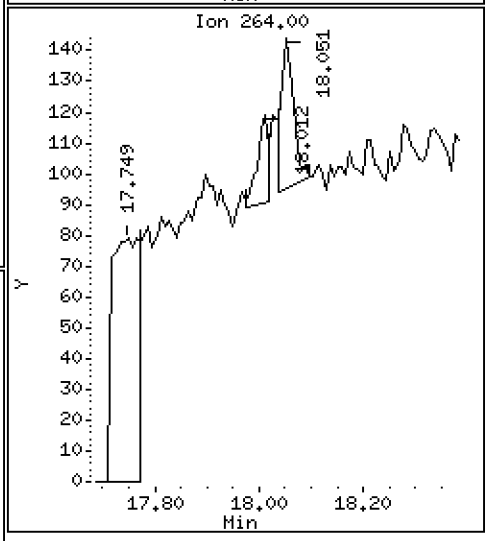
58 Pentachlorophenol

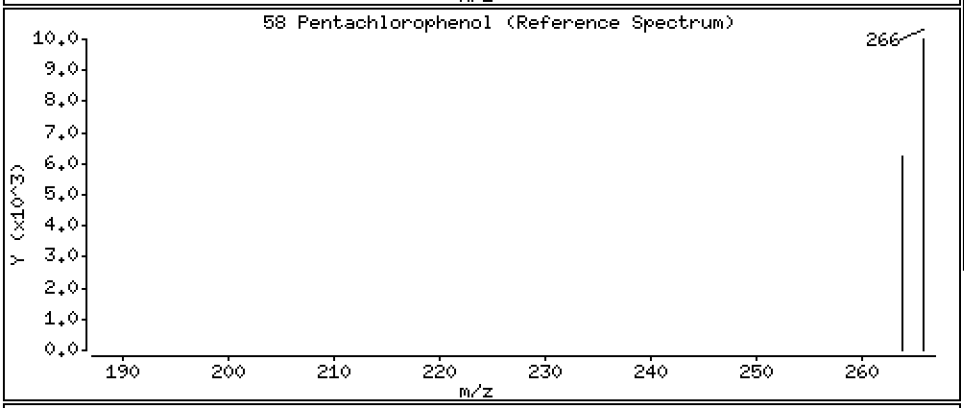
Concentration: 0.01788 ug/mL

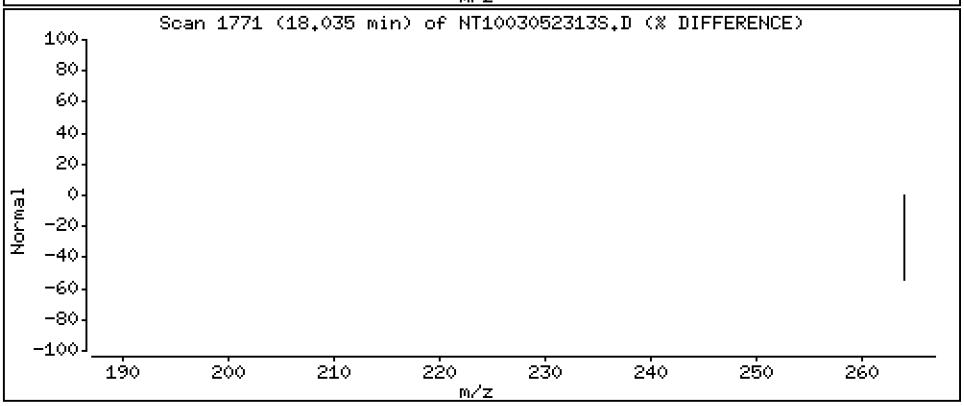












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052313S.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

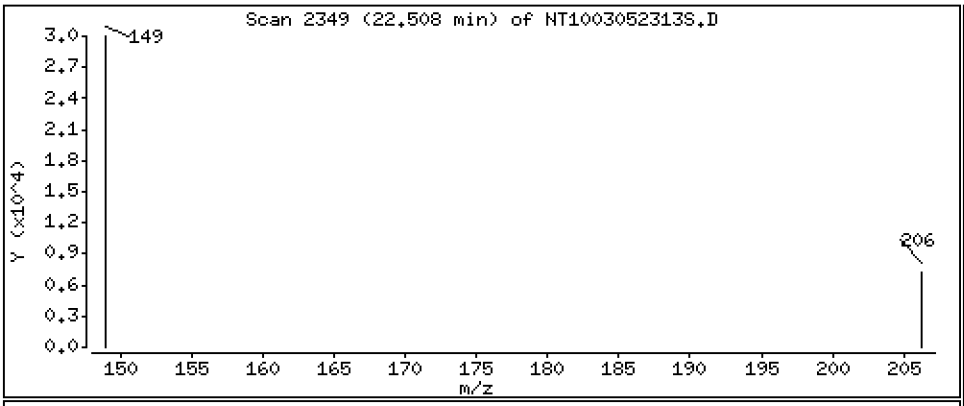
Operator: YZ

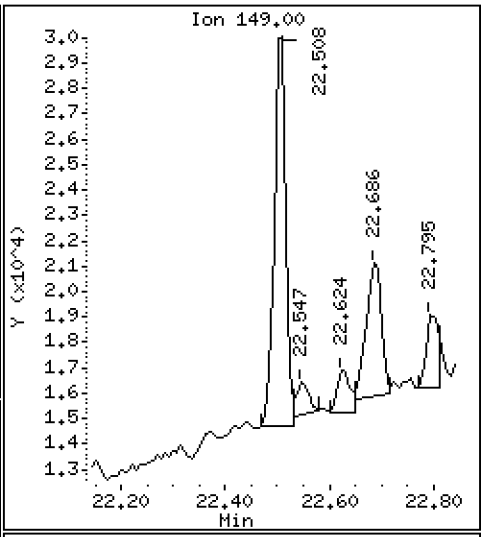
Column phase: ZB-5msi

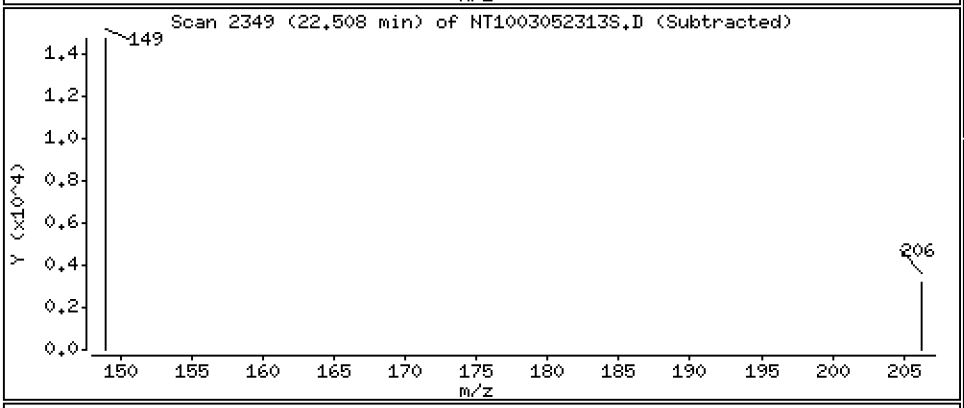
Column diameter: 0.25

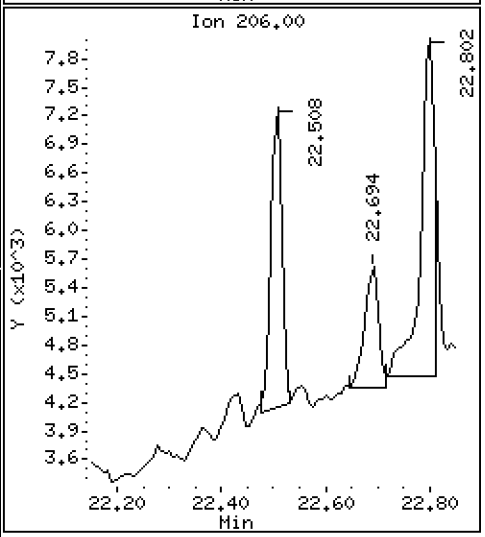
67 Butylbenzylphthalate

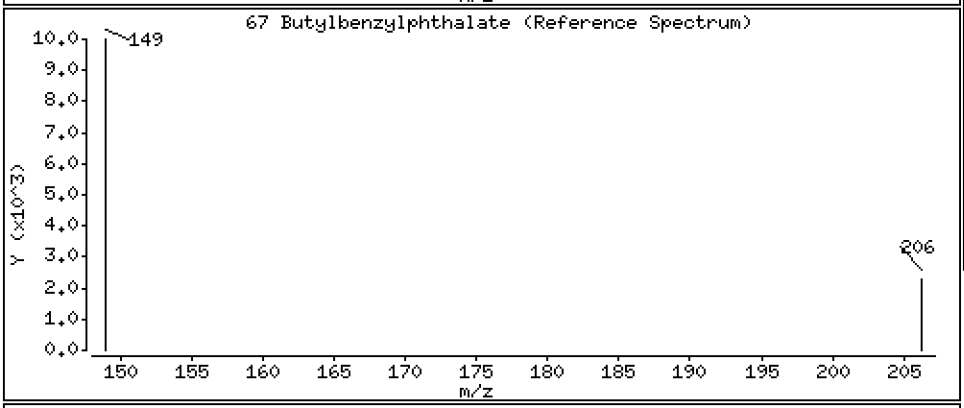
Concentration: 0.1246 ug/mL

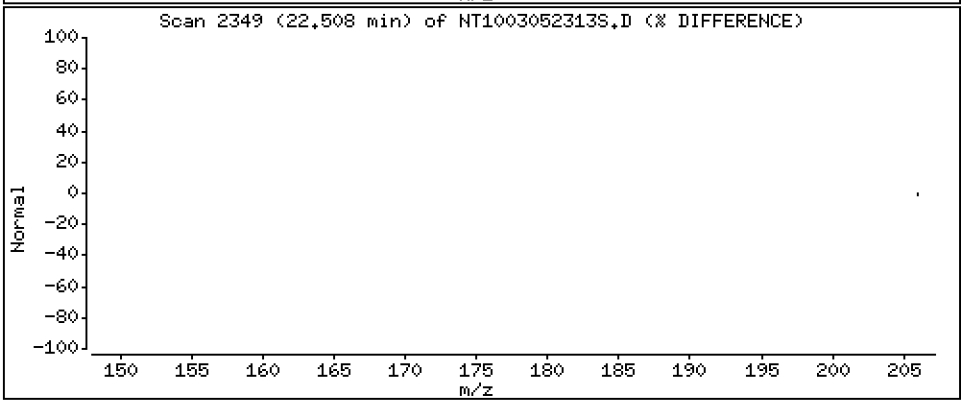












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052313S.D

Date : 05-MAR-2023 21:00

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-08

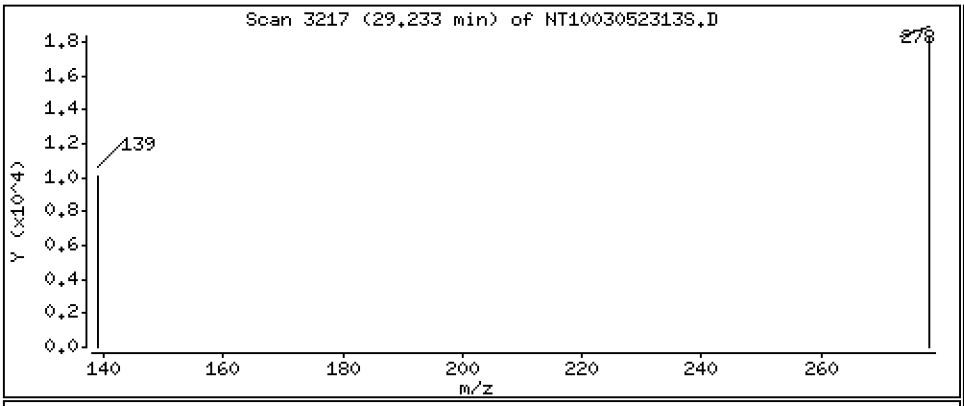
Operator: YZ

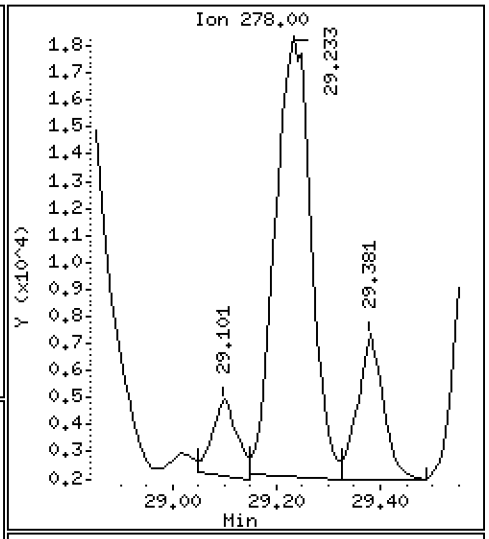
Column phase: ZB-5msi

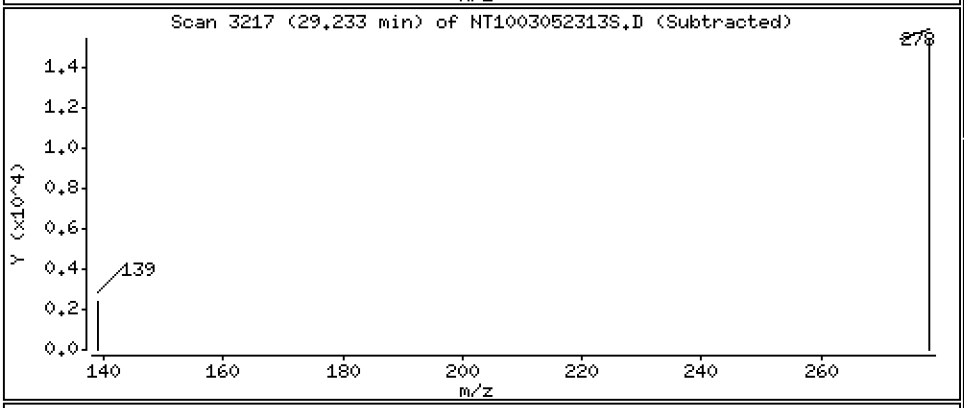
Column diameter: 0.25

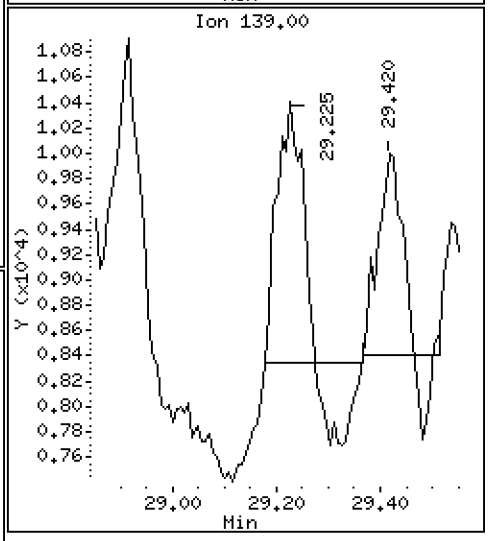
79 Dibenzo(a,h)anthracene

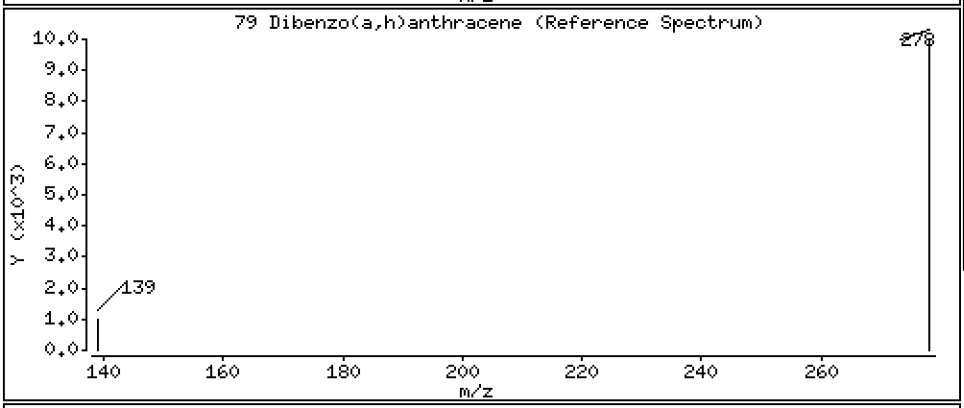
Concentration: 0.2626 ug/mL

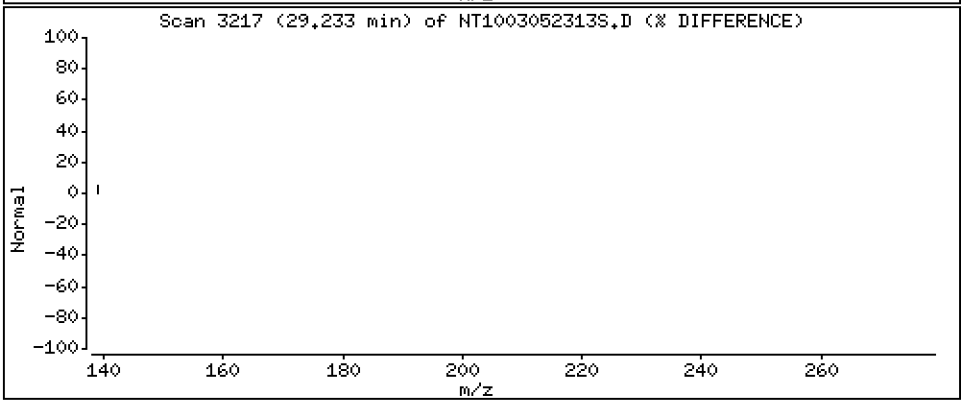












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052313S.D
Lab Smp Id: 23A0313-08
Inj Date : 05-MAR-2023 21:00
Operator : YZ Inst ID: nt10.i
Smp Info : 23A0313-08
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:00 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

								CONCENTRATIONS	
		QUANT SIG						ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
$	1 2-Fluorophenol	112	6.925	6.902	(0.749)	612654		6.12410	6.124(R)
	3 Phenol	94	8.548	8.533	(0.924)	34695		0.23490	0.2349
	7 1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	1211		0.00933	0.009325
*	8 1,4-Dichlorobenzene-d4	152	9.252	9.244	(1.000)	350409		4.00000	
	9 1,4-Dichlorobenzene	146	9.283	9.275	(1.003)	3343		0.02648	0.02648
	11 Benzyl alcohol	79	9.492	9.485	(1.026)	22026		0.26846	0.2685(H)
	12 1,2-Dichlorobenzene	146	9.570	9.562	(1.034)	789		0.00650	0.006501(H)
	13 2-Methylphenol	108	9.686	9.663	(1.047)	7255		0.08175	0.08175
	15 4-Methylphenol	108	9.974	9.958	(1.078)	14467		0.15661	0.1566
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.						
	22 2,4-Dimethylphenol	107	11.023	11.015	(0.939)	8300		0.07916	0.07916
	24 Benzoic acid	105	11.133	11.116	(0.948)	33207		0.57617	0.5762
	26 1,2,4-Trichlorobenzene	180	11.616	11.608	(0.989)	945		0.01063	0.01063
*	27 Naphthalene-d8	136	11.739	11.731	(1.000)	1235679		4.00000	
	30 Hexachlorobutadiene	225	Compound Not Detected.						
	39 Dimethylphthalate	163	14.772	14.765	(0.963)	14420		0.07519	0.07519
*	42 Acenaphthene-d10	162	15.345	15.337	(1.000)	603959		4.00000	
	50 Diethylphthalate	149	16.242	16.234	(1.058)	48908		0.27044	0.2704(H)
	54 N-Nitrosodiphenylamine	169	16.729	16.729	(0.906)	11005		0.05649	0.05649
	57 Hexachlorobenzene	284	Compound Not Detected.						
	58 Pentachlorophenol	266	18.035	18.043	(0.977)	713		0.01788	0.01788
*	59 Phenanthrene-d10	188	18.460	18.453	(1.000)	1203779		4.00000	
$	66 Terphenyl-d14	244	21.617	21.602	(0.918)	692987		7.61989	7.620(R)
	67 Butylbenzylphthalate	149	22.508	22.492	(0.956)	23645		0.12456	0.1246
*	69 Chrysene-d12	240	23.537	23.514	(1.000)	1124621		4.00000	
*	77 Perylene-d12	264	26.317	26.286	(1.000)	1296389		4.00000	
	79 Dibenzo(a,h)anthracene	278	29.233	29.202	(1.111)	79108		0.26257	0.2626
	90 N-Nitrosodimethylamine	74	Compound Not Detected.						

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052313S.D
Lab Smp Id: 23A0313-08
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:40
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	321376	160688	642752	350409	9.03
27 Naphthalene-d8	1132931	566466	2265862	1235679	9.07
42 Acenaphthene-d10	561597	280799	1123194	603959	7.54
59 Phenanthrene-d10	1068222	534111	2136444	1203779	12.69
69 Chrysene-d12	997572	498786	1995144	1124621	12.74
77 Perylene-d12	1245490	622745	2490980	1296389	4.09

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.74	0.07
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.51	23.01	24.01	23.54	0.10
77 Perylene-d12	26.29	25.79	26.79	26.32	0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052313S.D

Lab ID: 23A0313-08
nt10.i, 20230305.b\SIM.b\SIMABN2.m,   05-MAR-2023 21:00

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: SIM.b/NT1003052303S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, LLC
Analytical Chemists and Consultants

LDW23-SC1011A

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

SIM SVOC Organics (Dual scan list)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-09 A	SDG:	23A0313
Sampled:	01/16/23 11:46	Prepared:	02/02/23 13:06	File ID:	NT1003052319S.D
% Solids:	52.32	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/06/23 00:47
Batch:	BLA0685	Sequence:	SLC0440	Initial/Final:	19.42 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00032
Cleanups:	GPC				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	1.7	J	0.6	4.9
95-50-1	1,2-Dichlorobenzene	1	4.9	U	0.7	4.9
100-51-6	Benzyl Alcohol	1	19.7	U	2.4	19.7
65-85-0	Benzoic acid	1	43.2	J	13.2	98.4
105-67-9	2,4-Dimethylphenol	1	19.7	U	2.1	19.7
120-82-1	1,2,4-Trichlorobenzene	1	4.9	U	2.6	4.9
86-30-6	N-Nitrosodiphenylamine	1	4.8	J	1.3	4.9
87-86-5	Pentachlorophenol	1	19.7	U	2.1	19.7

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	738.15	551	74.6	27 - 120	
p-Terphenyl-d14	492.10	652	132	37 - 120	*

Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523195.D

Page 1

Date : 06-MAR-2023 00:47

Client ID:

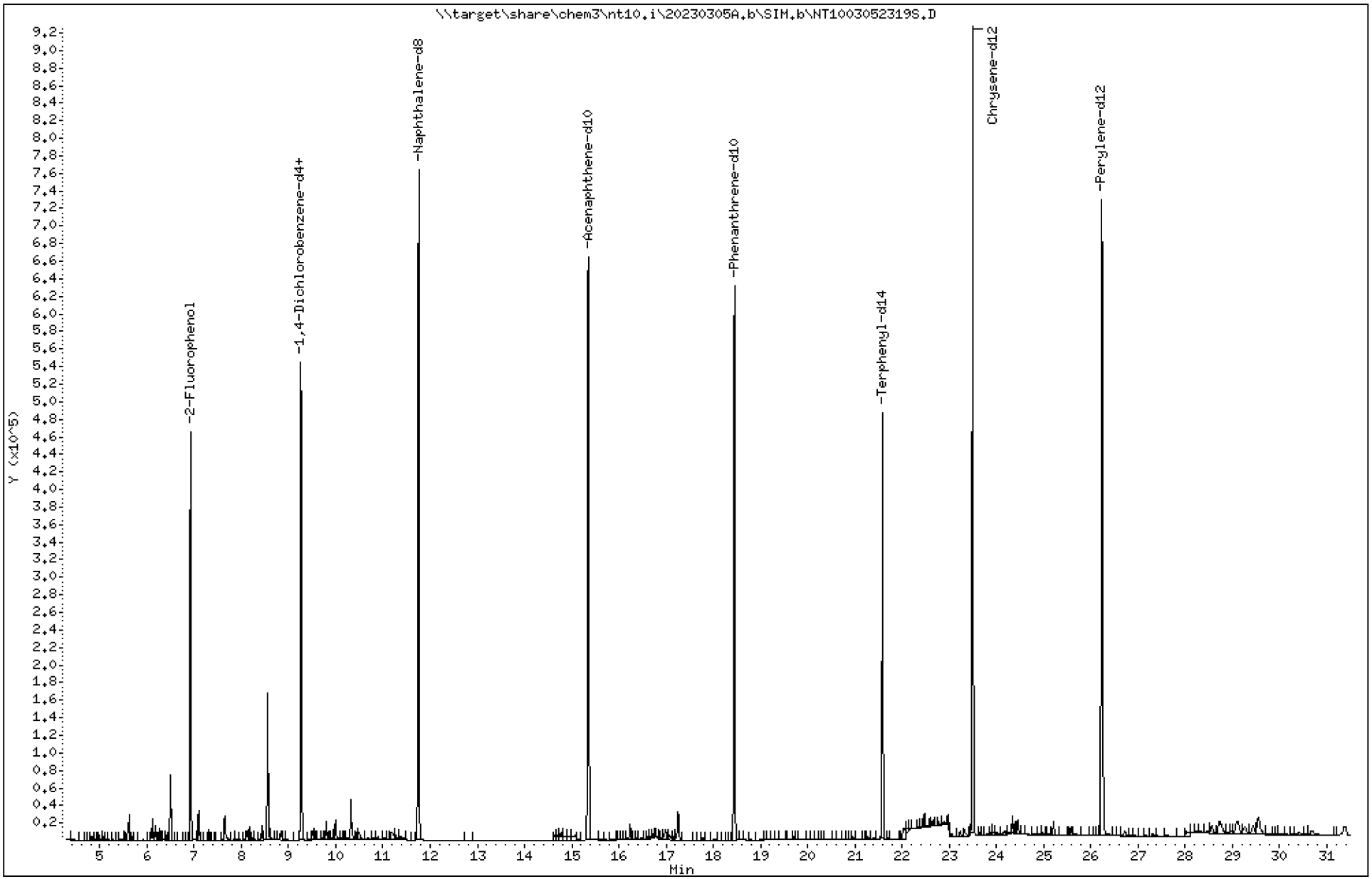
Instrument: nt10.i

Sample Info: 23A0313-09

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

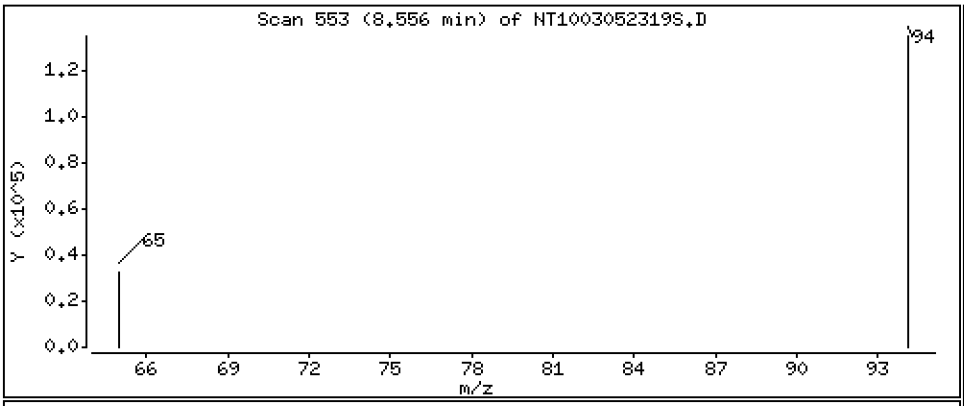
Operator: YZ

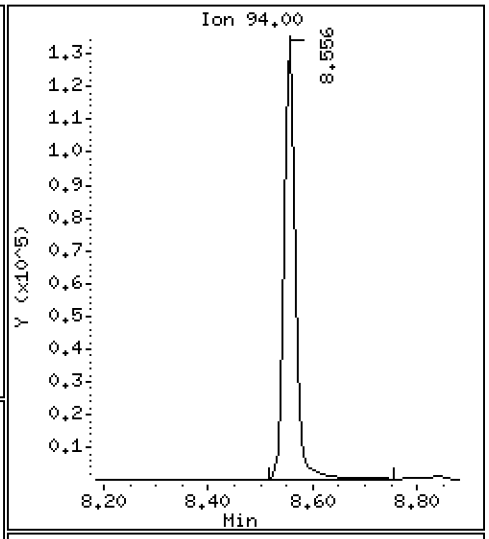
Column phase: ZB-5msi

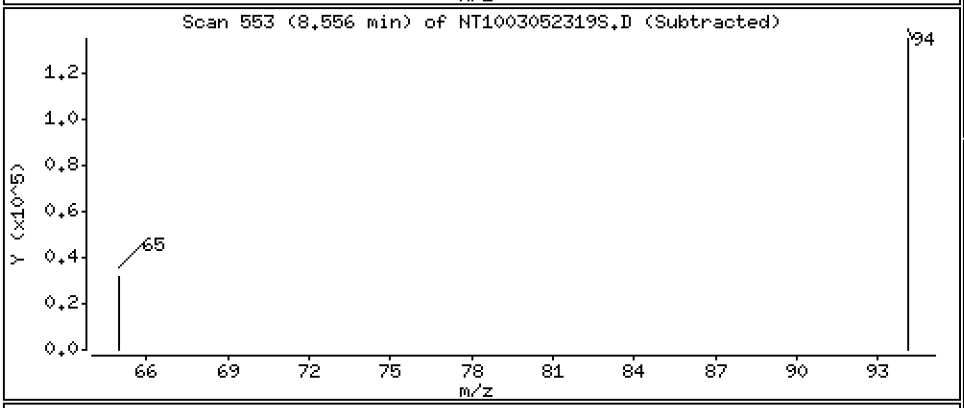
Column diameter: 0.25

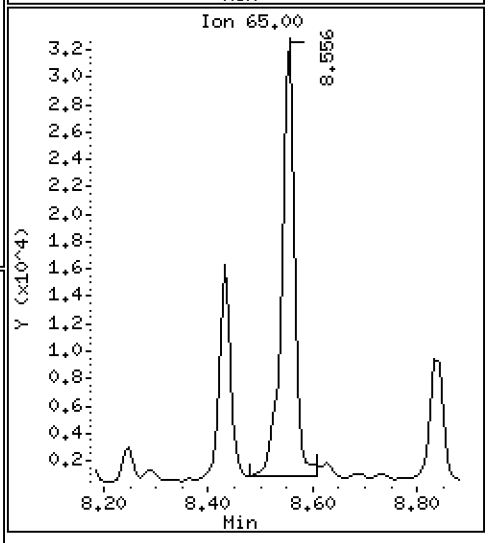
3 Phenol

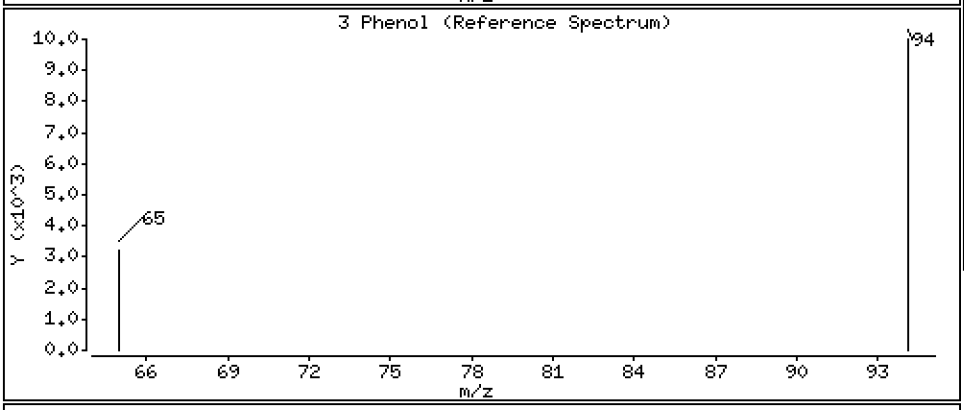
Concentration: 1.582 ug/mL

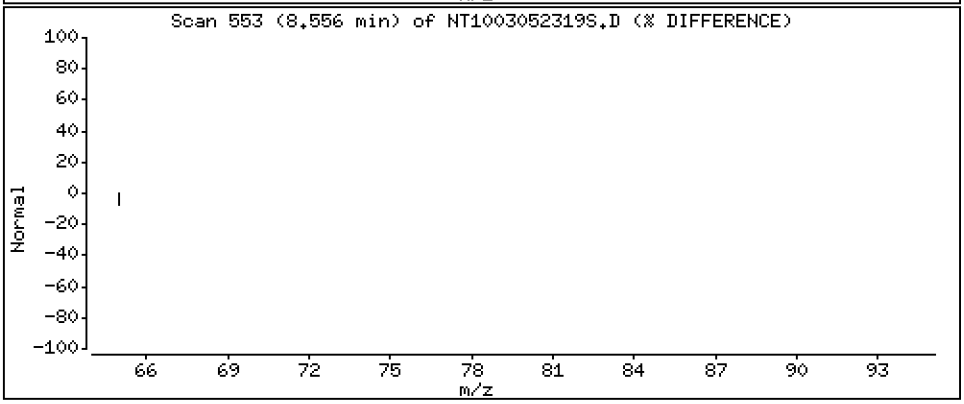












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

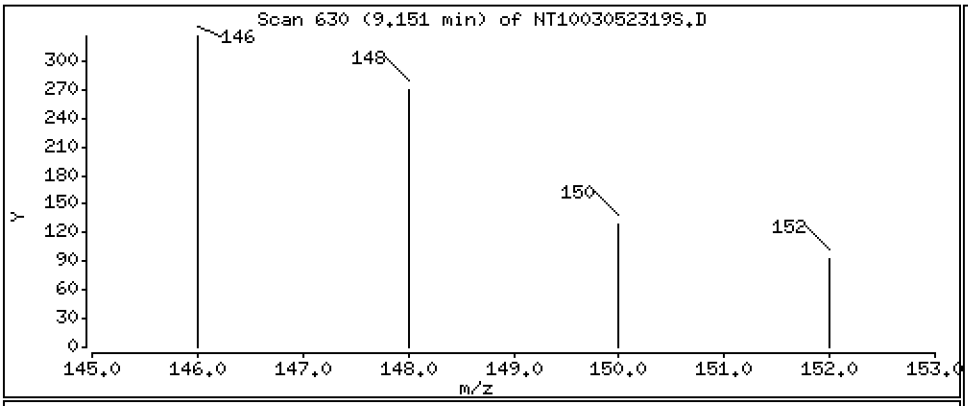
Operator: YZ

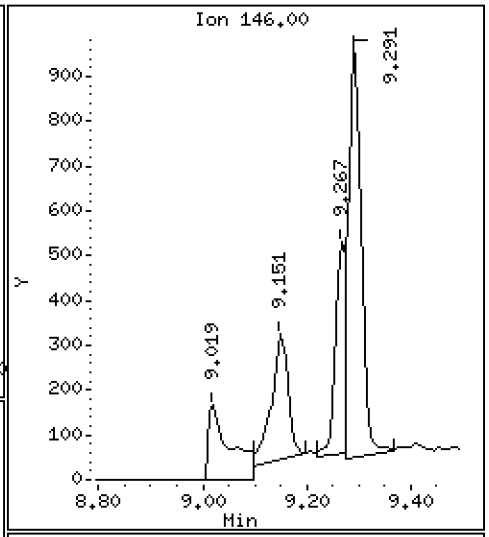
Column phase: ZB-5msi

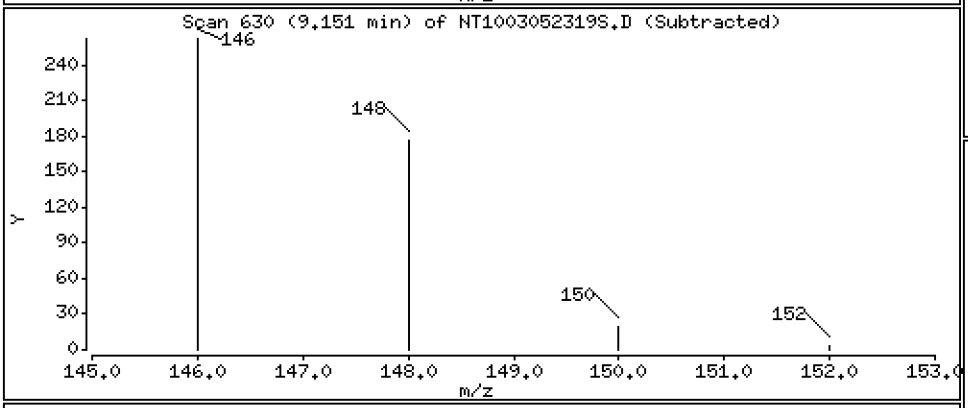
Column diameter: 0.25

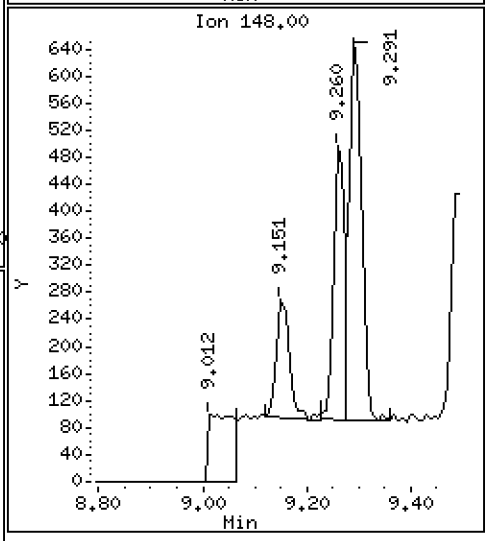
7 1,3-Dichlorobenzene

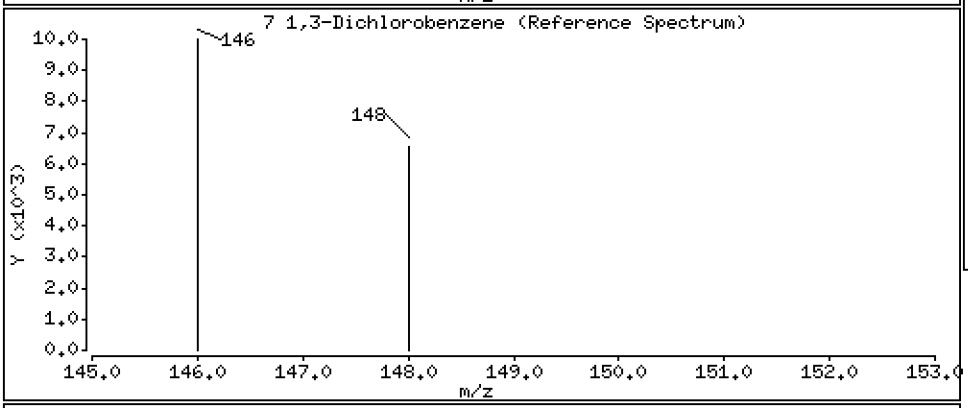
Concentration: 0.005294 ug/mL

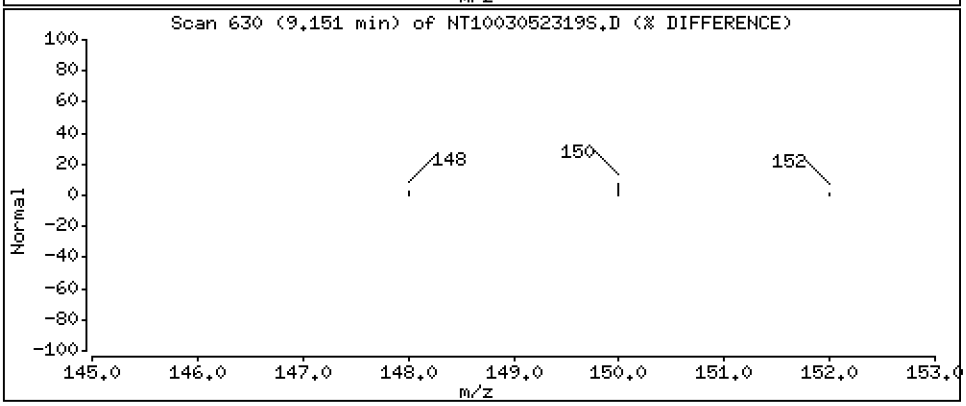












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523195.D

Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

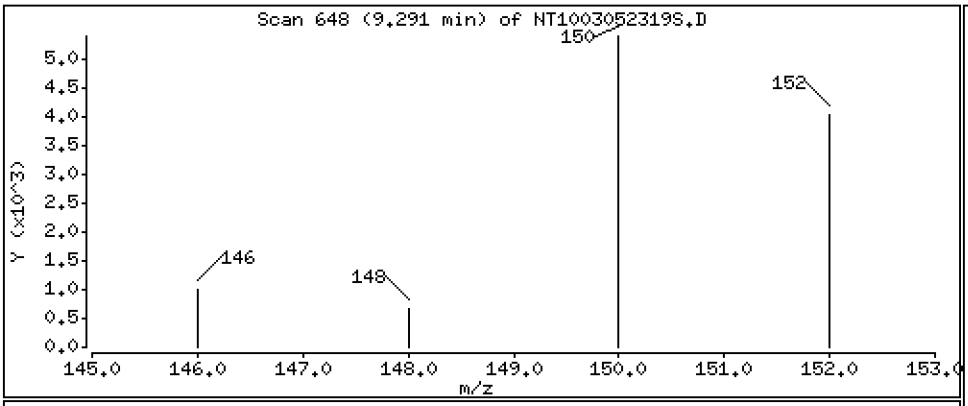
Operator: YZ

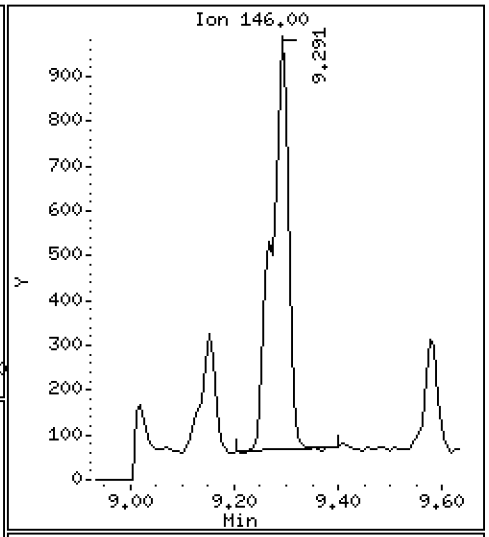
Column phase: ZB-5msi

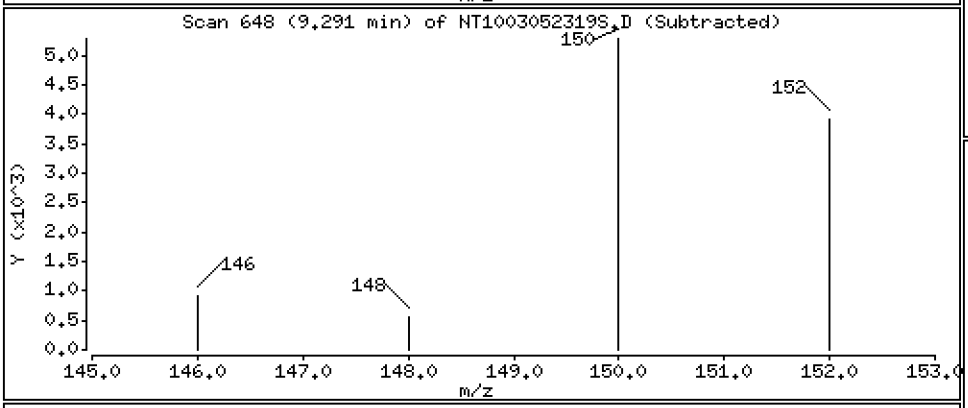
Column diameter: 0.25

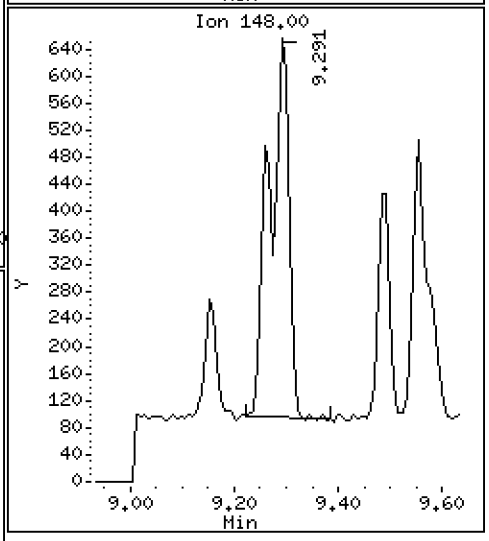
9 1,4-Dichlorobenzene

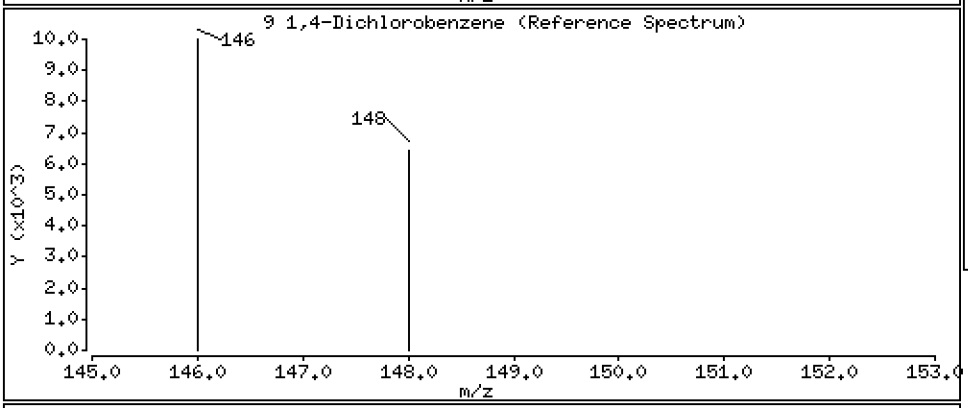
Concentration: 0.01774 ug/mL

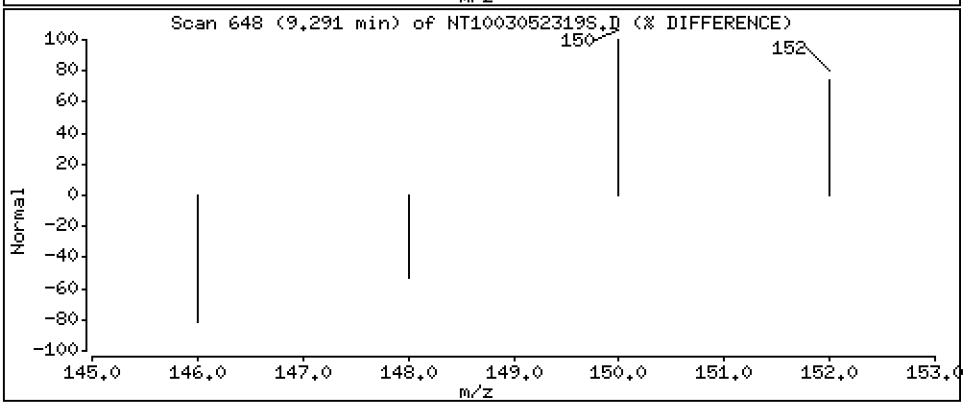












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052319S.D

Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

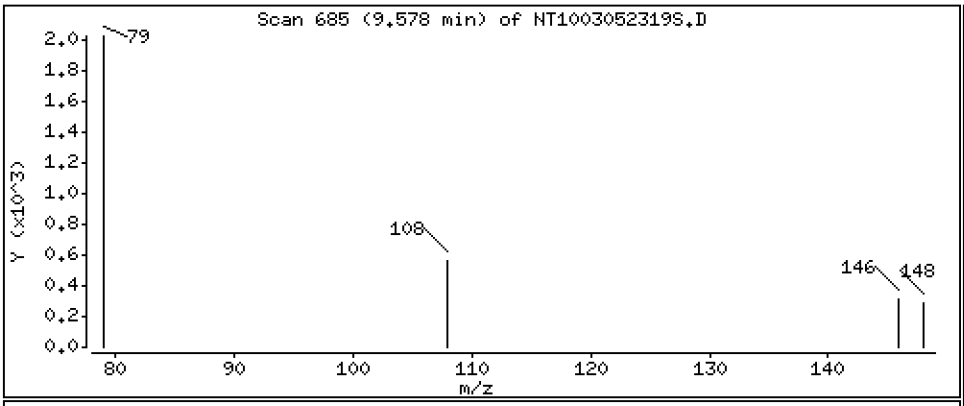
Operator: YZ

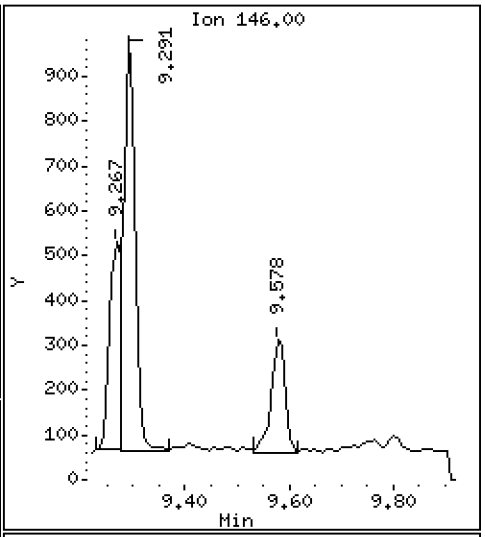
Column phase: ZB-5msi

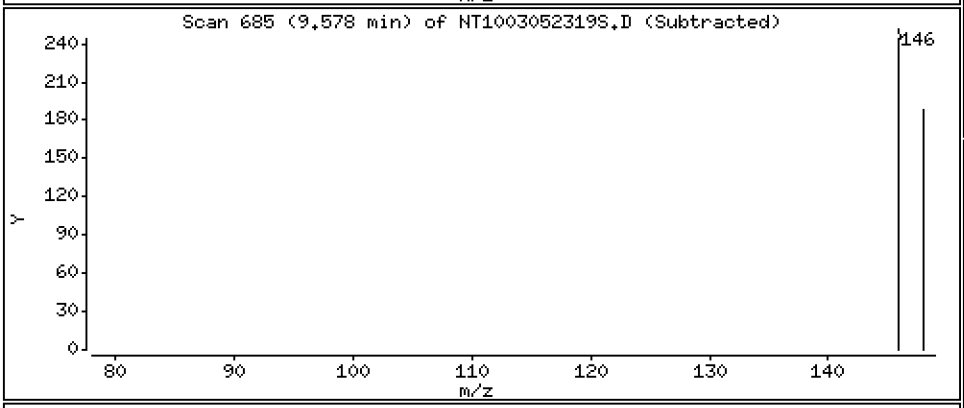
Column diameter: 0.25

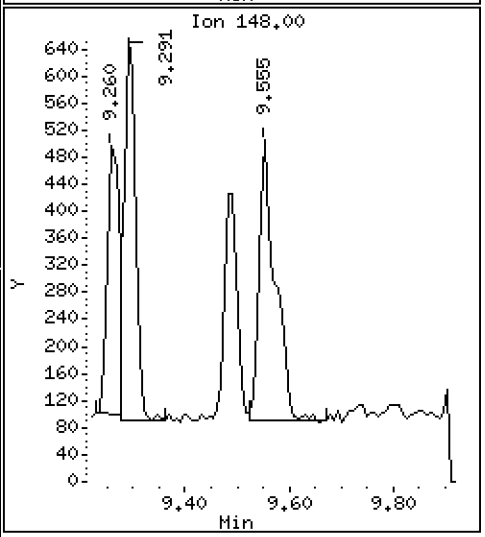
12 1,2-Dichlorobenzene

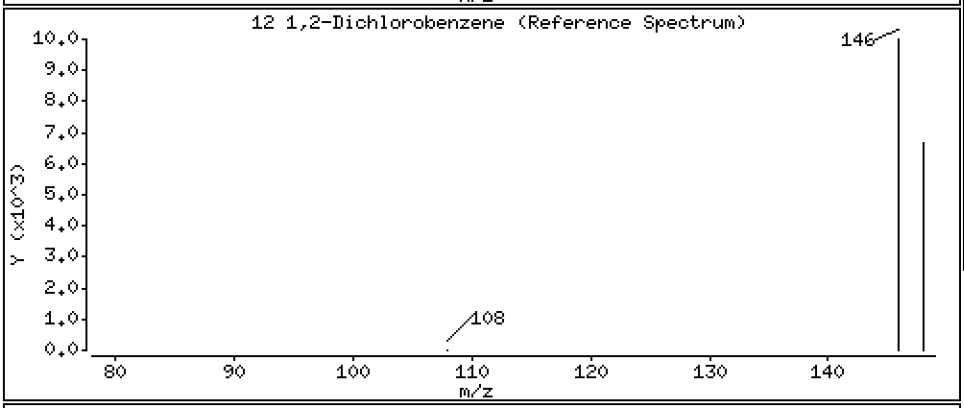
Concentration: 0.004131 ug/mL

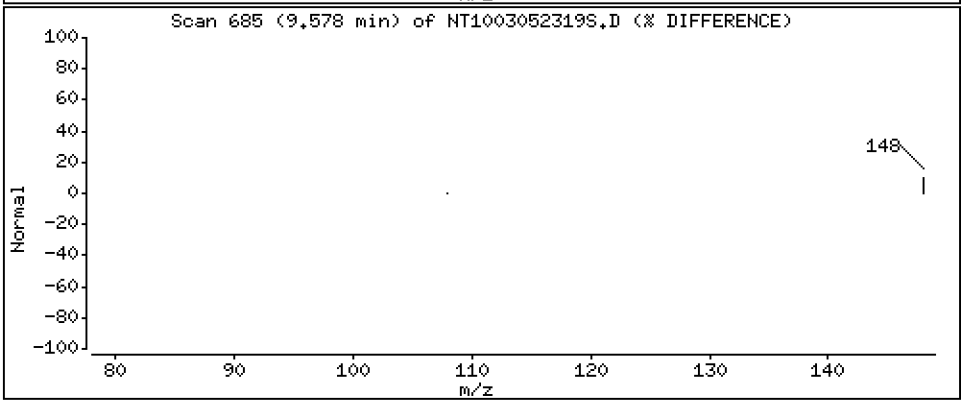












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052319S.D

Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

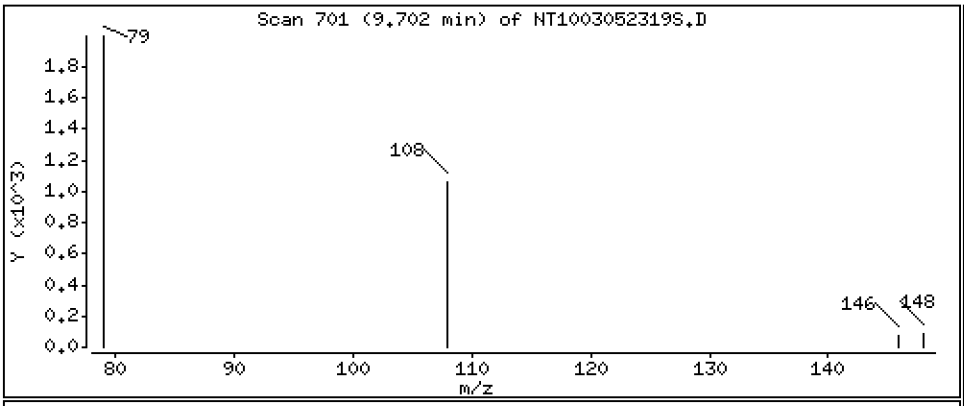
Operator: YZ

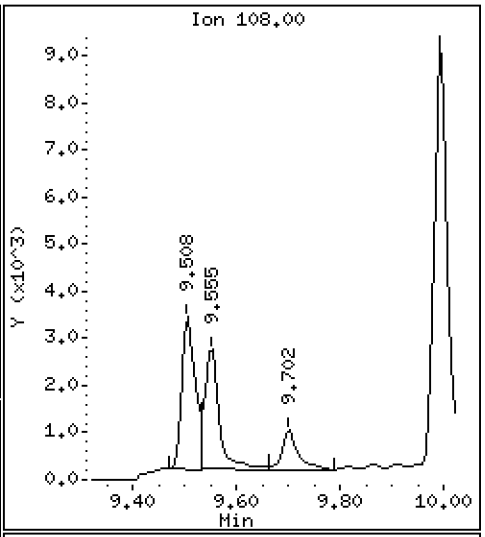
Column phase: ZB-5msi

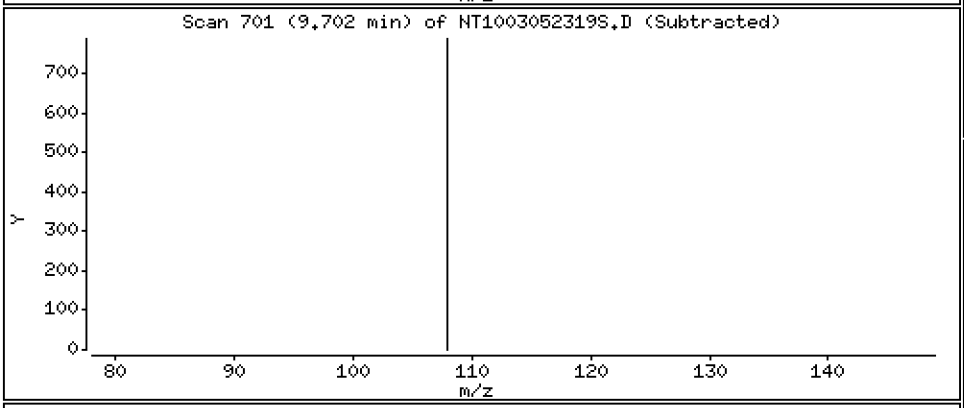
Column diameter: 0.25

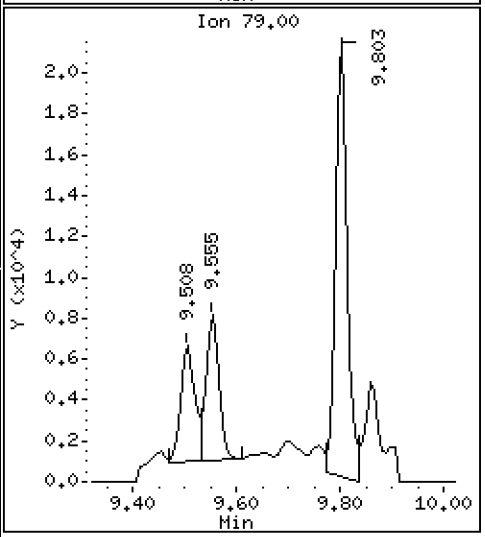
13 2-Methylphenol

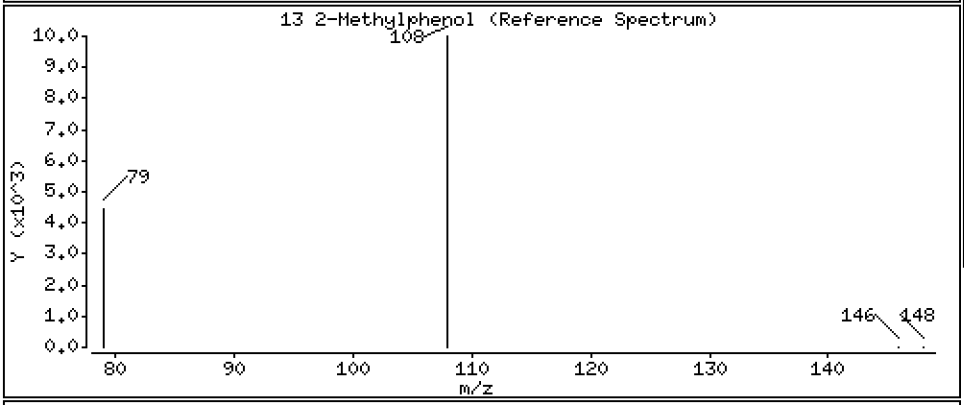
Concentration: 0.02257 ug/mL

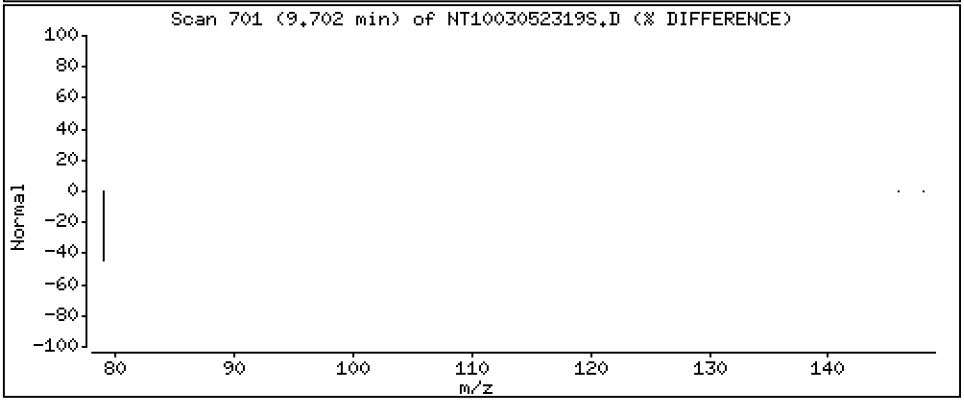












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523195.D

Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

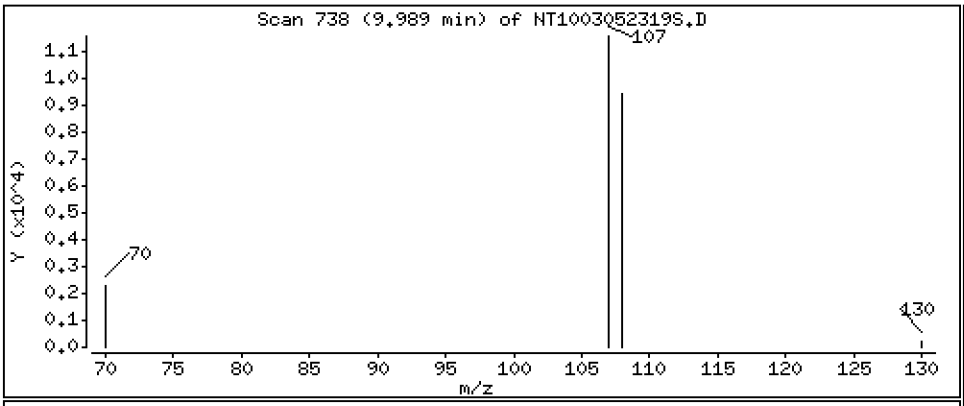
Operator: YZ

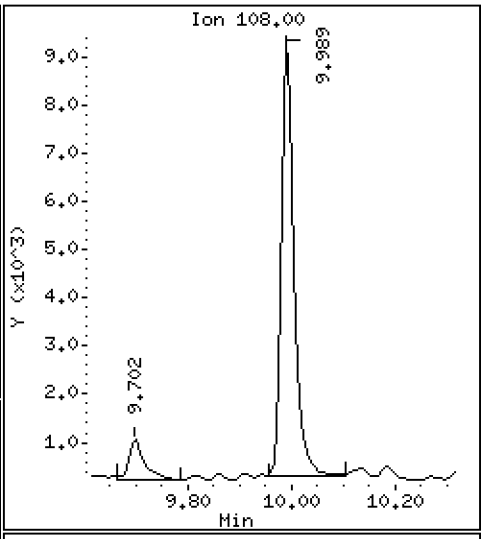
Column phase: ZB-5msi

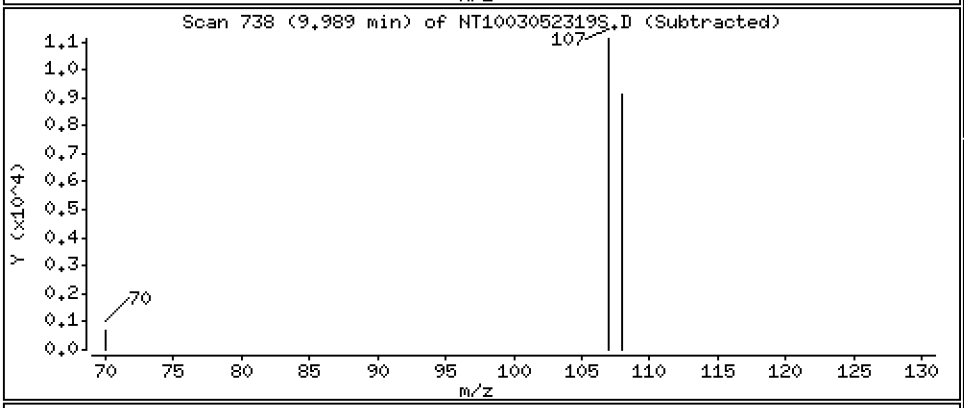
Column diameter: 0.25

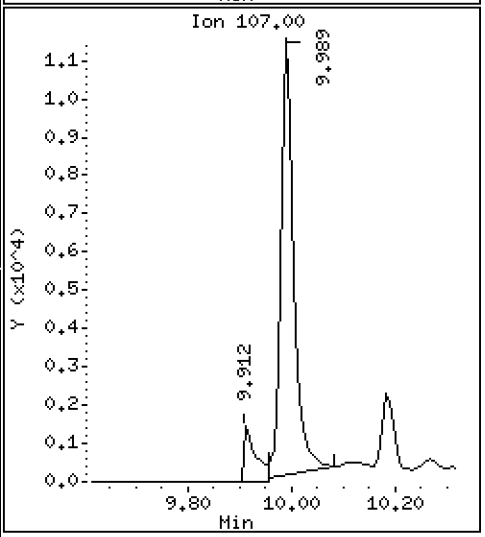
15 4-Methylphenol

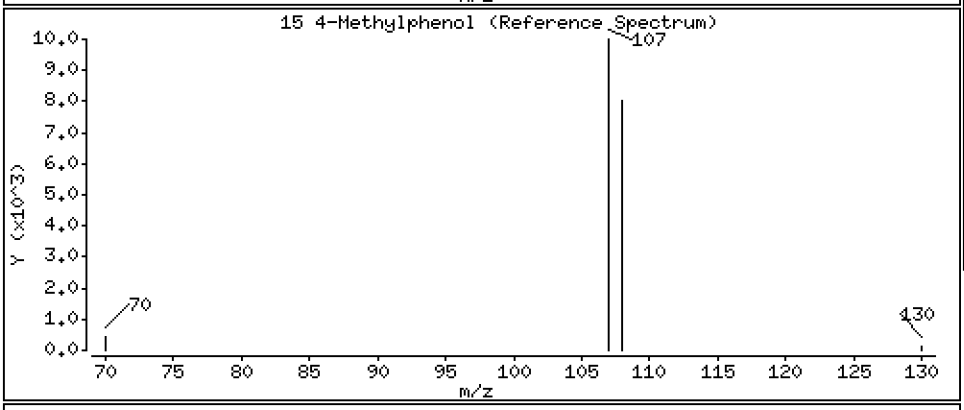
Concentration: 0.1920 ug/mL

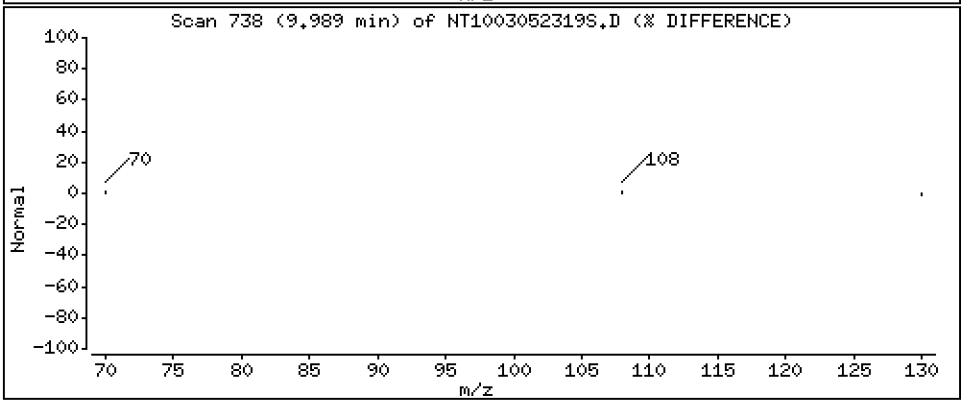












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523195.D

Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

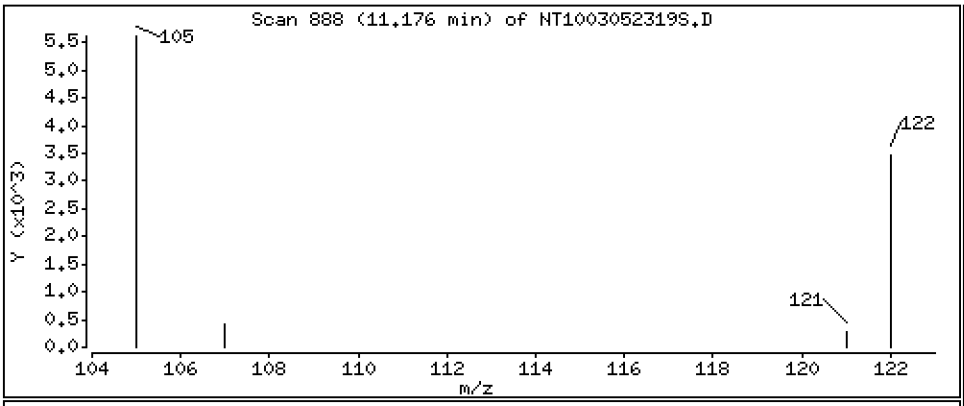
Operator: YZ

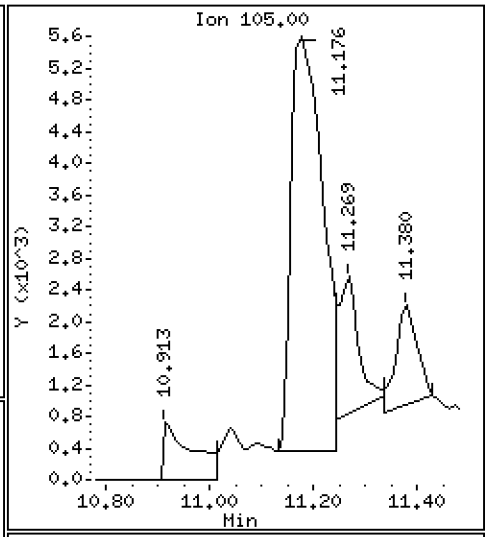
Column phase: ZB-5msi

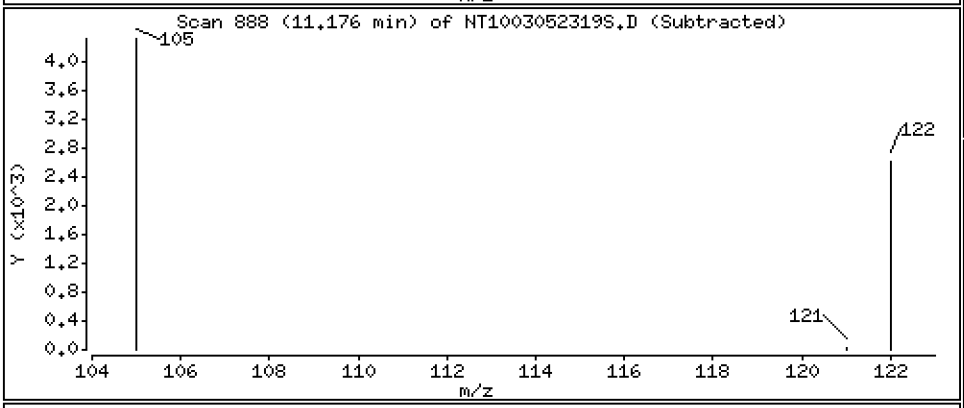
Column diameter: 0.25

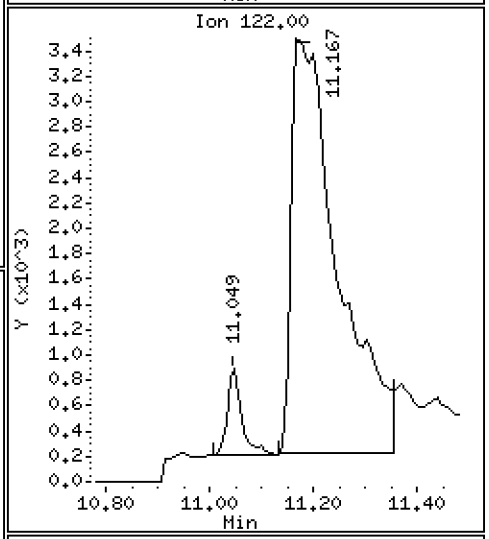
24 Benzoic acid

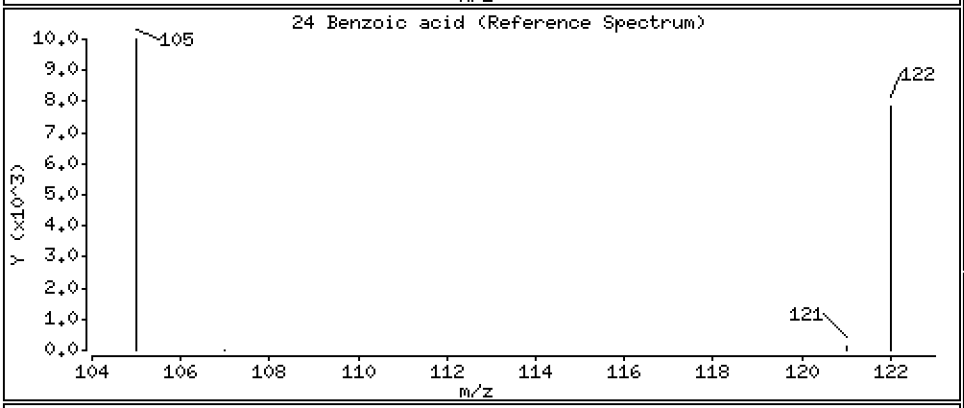
Concentration: 0.4388 ug/mL

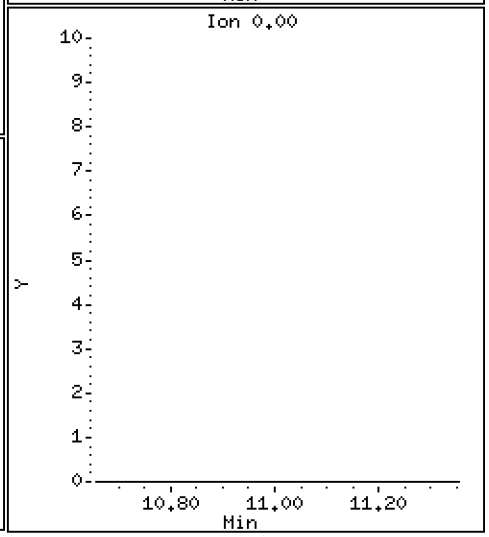


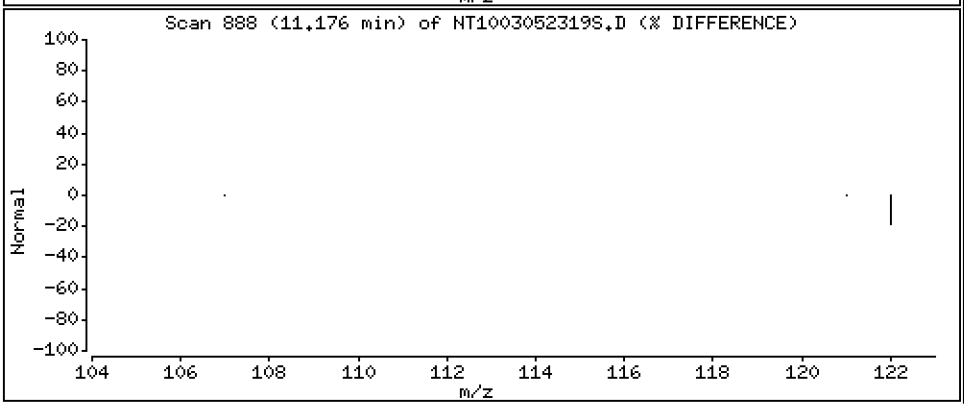












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052319S.D

Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

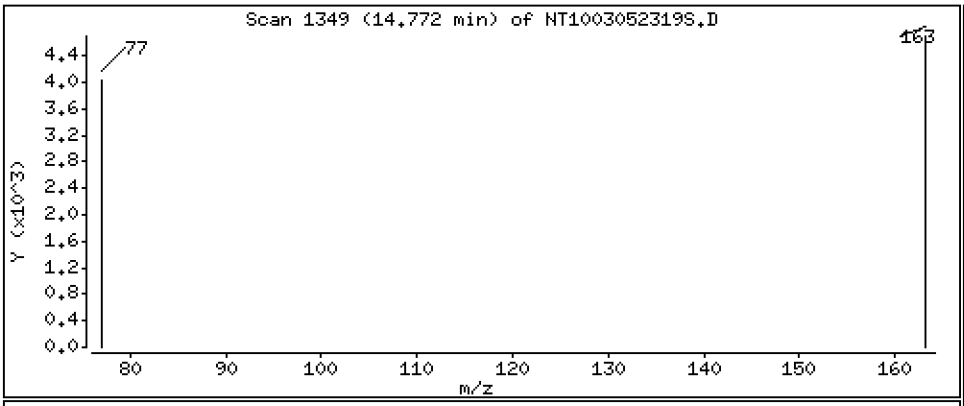
Operator: YZ

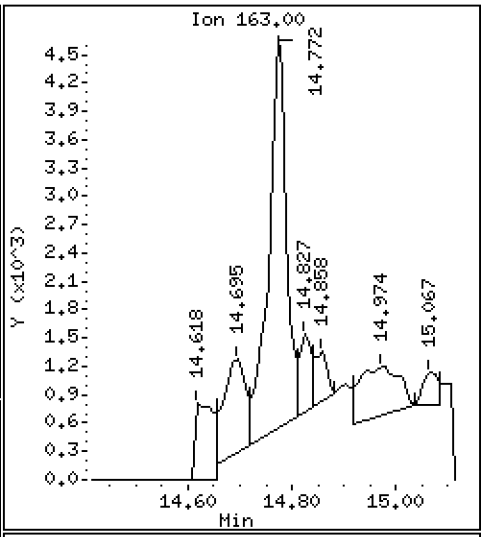
Column phase: ZB-5msi

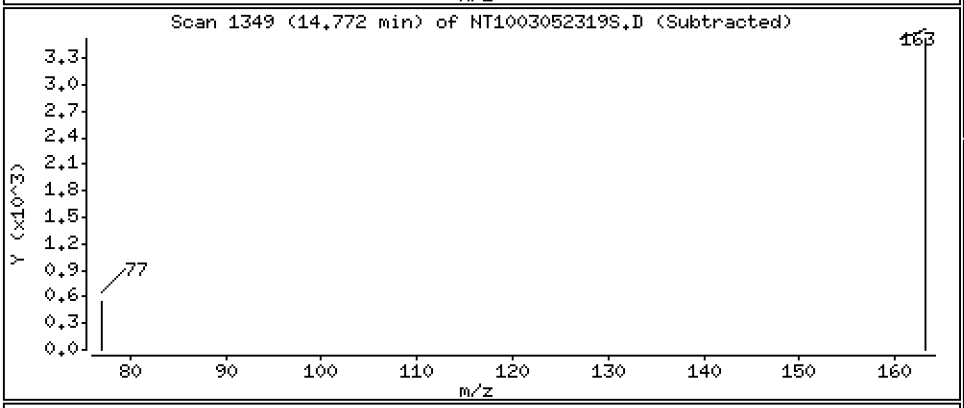
Column diameter: 0.25

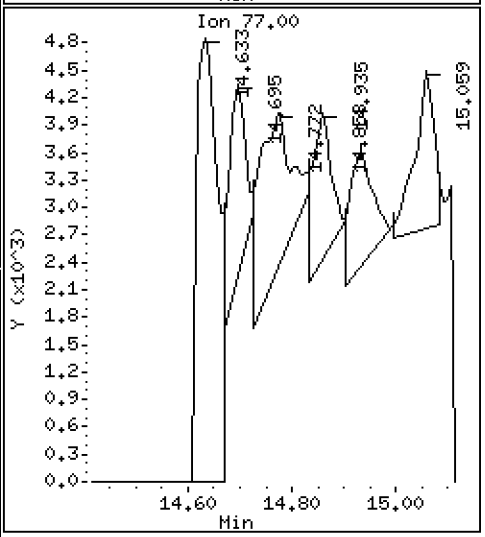
39 Dimethylphthalate

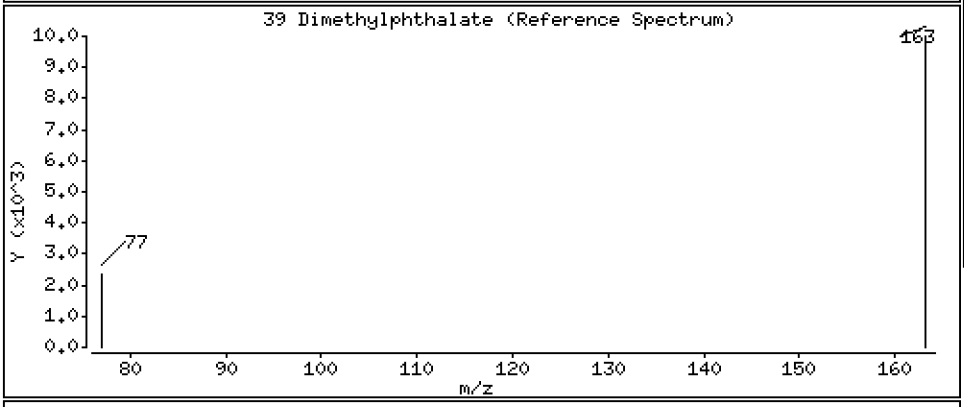
Concentration: 0.05643 ug/mL

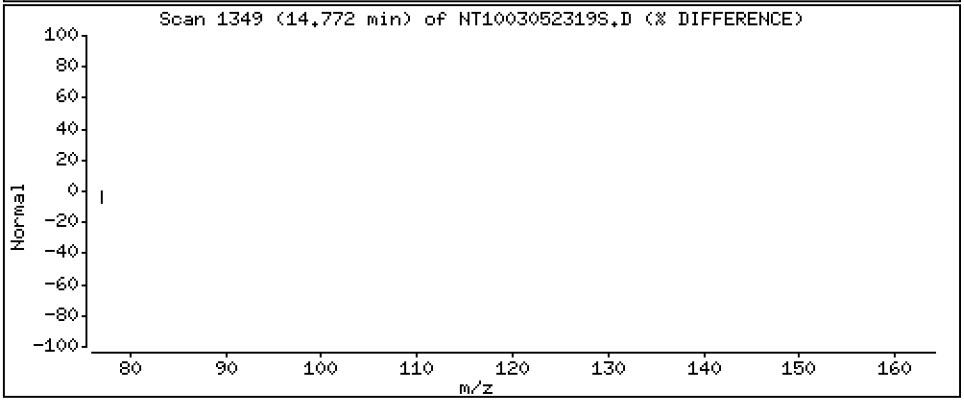












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

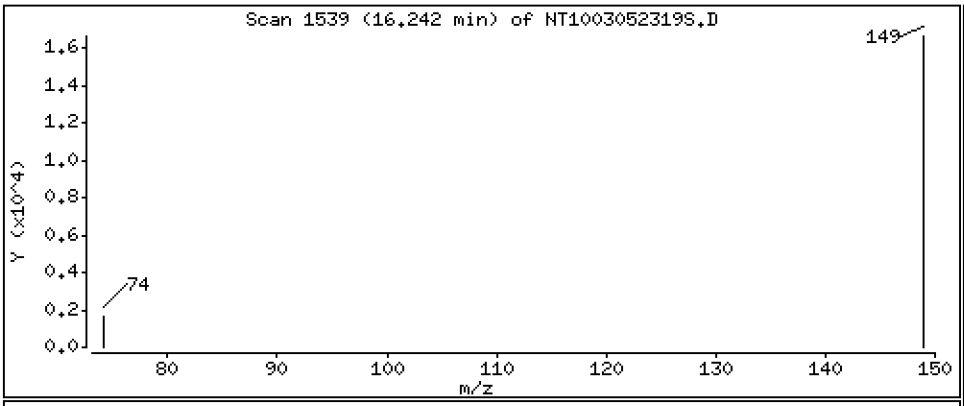
Operator: YZ

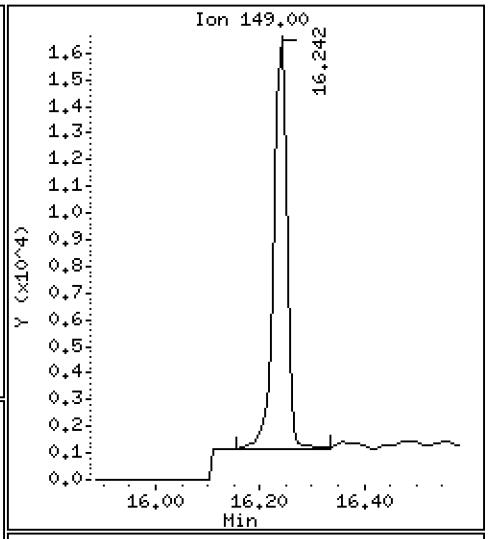
Column phase: ZB-5msi

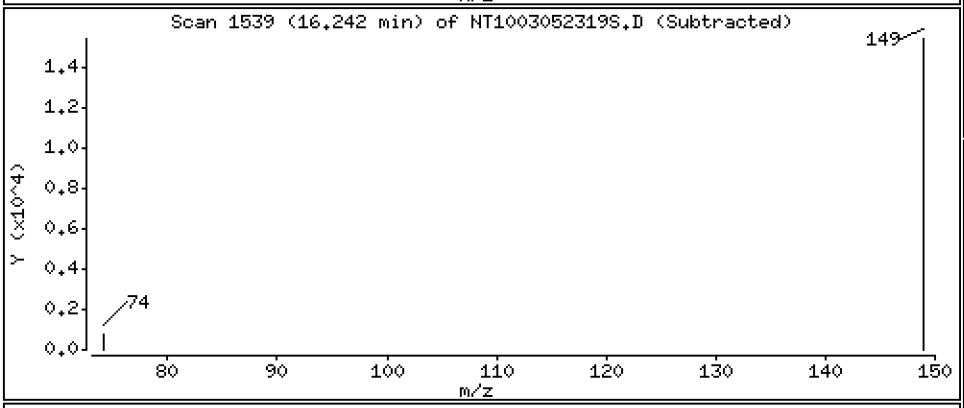
Column diameter: 0.25

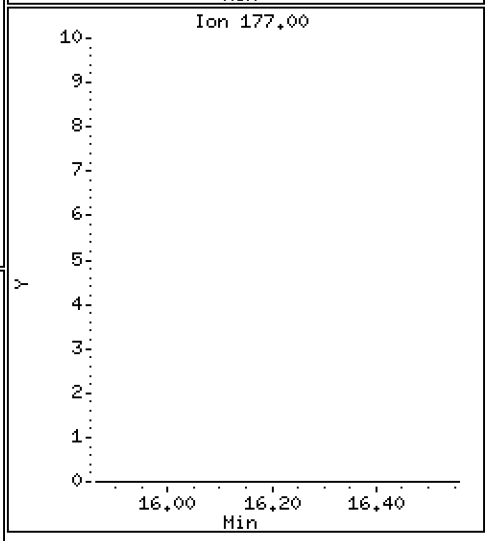
50 Diethylphthalate

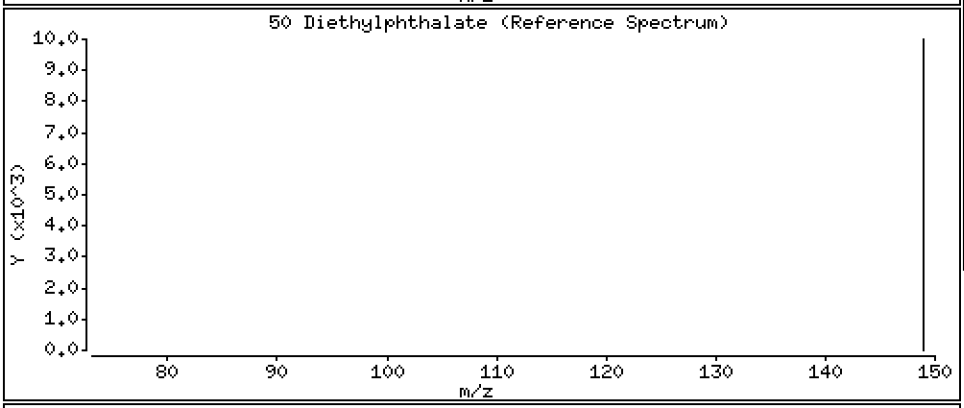
Concentration: 0.1581 ug/mL

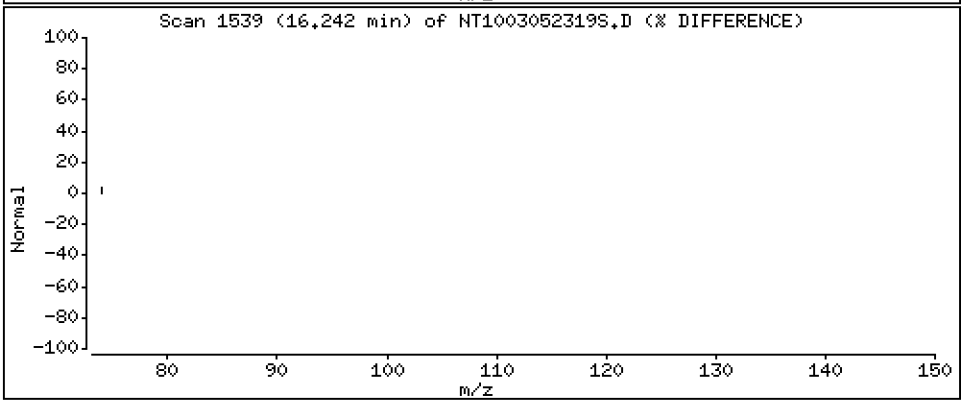












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523195.D

Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

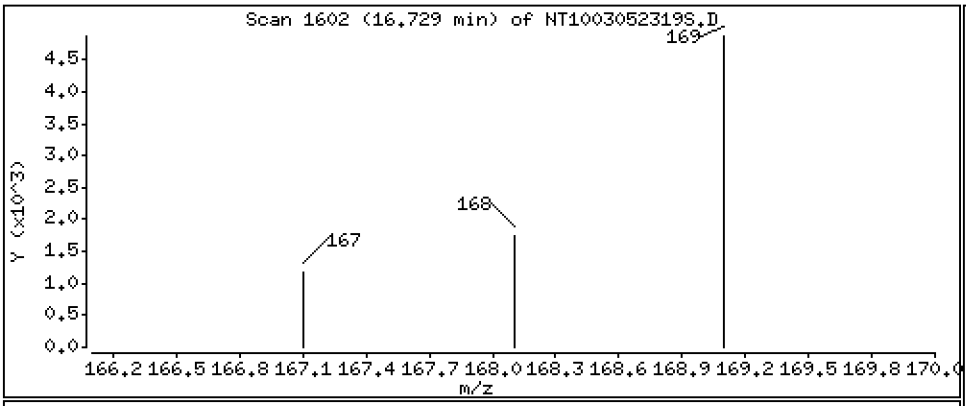
Operator: YZ

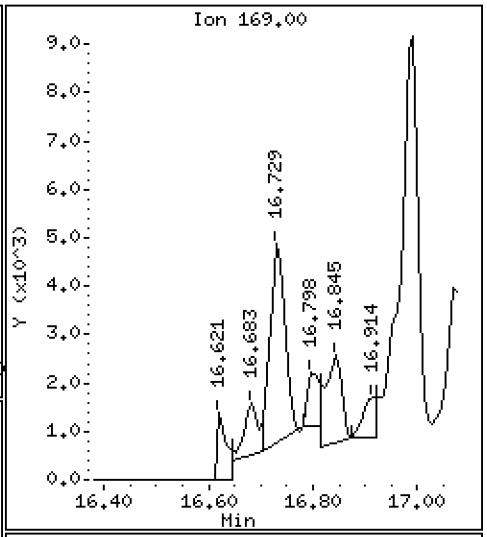
Column phase: ZB-5msi

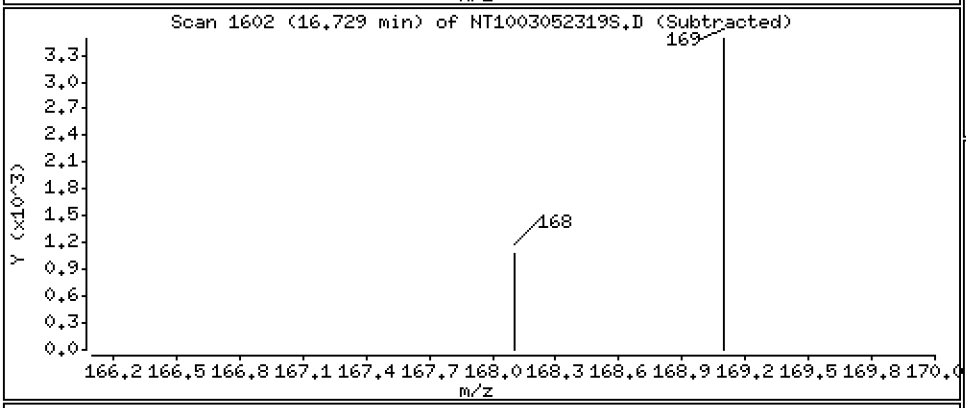
Column diameter: 0.25

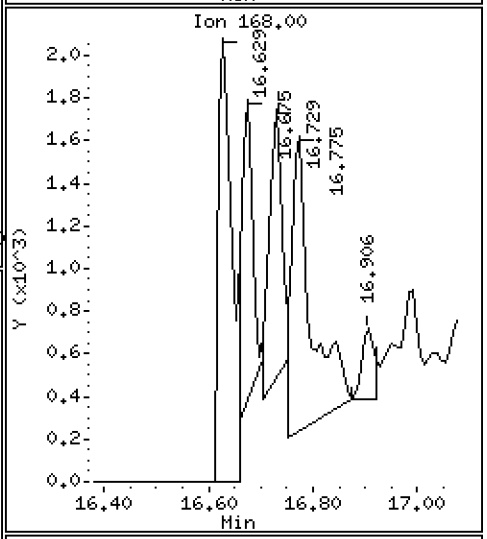
54 N-Nitrosodiphenylamine

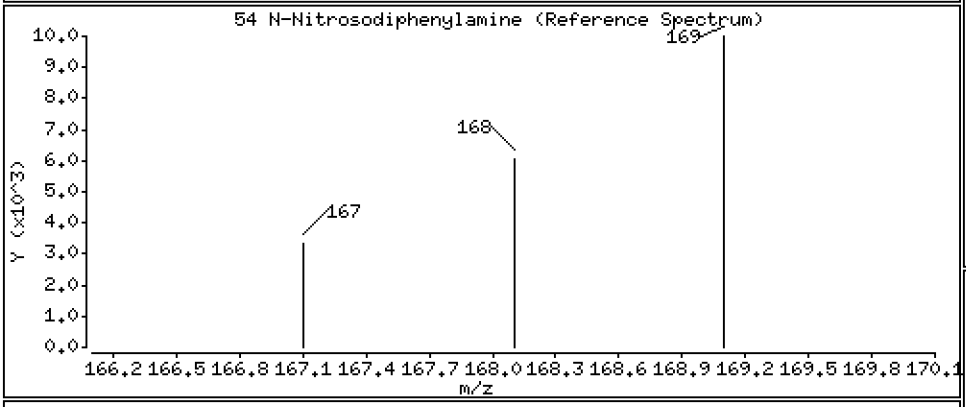
Concentration: 0.04888 ug/mL

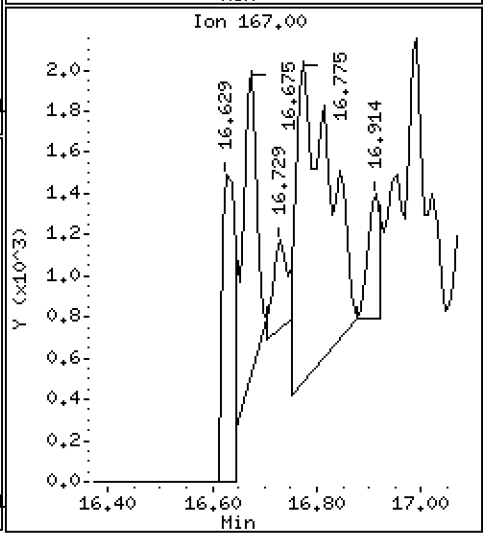


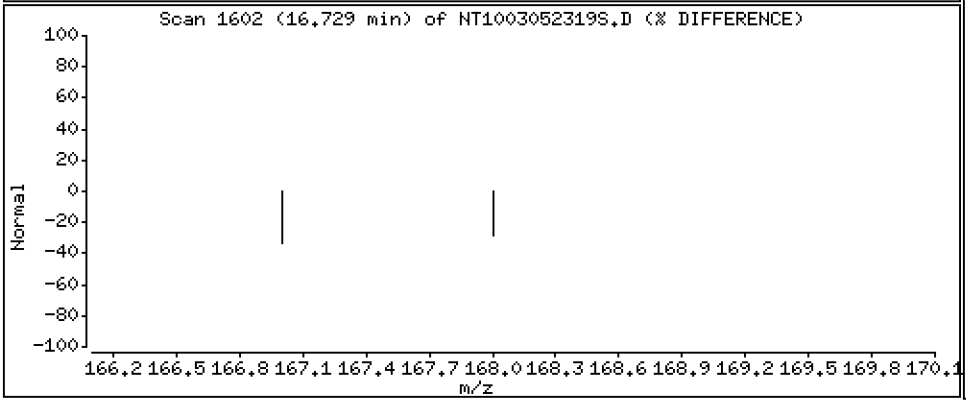












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052319S.D

Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

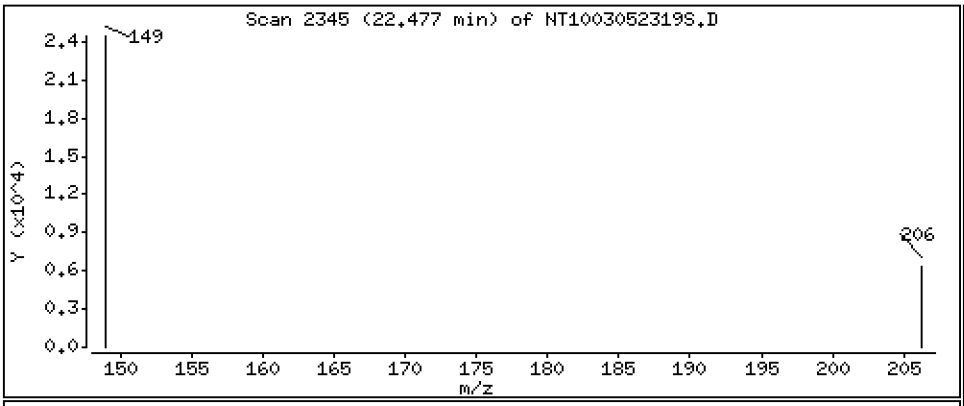
Operator: YZ

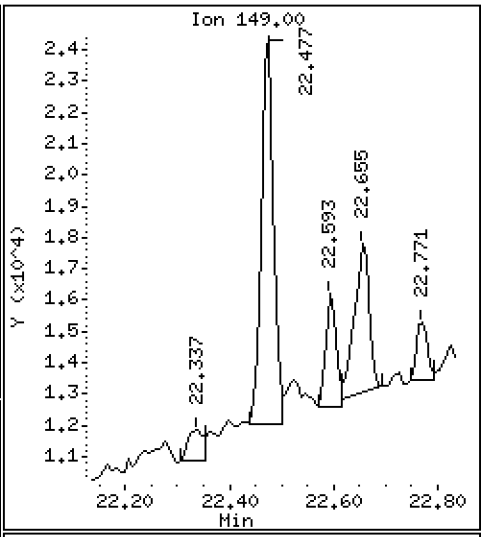
Column phase: ZB-5msi

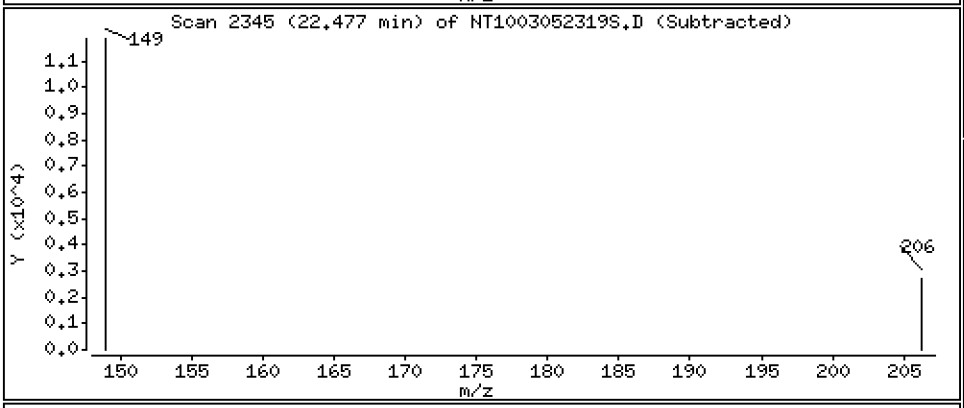
Column diameter: 0.25

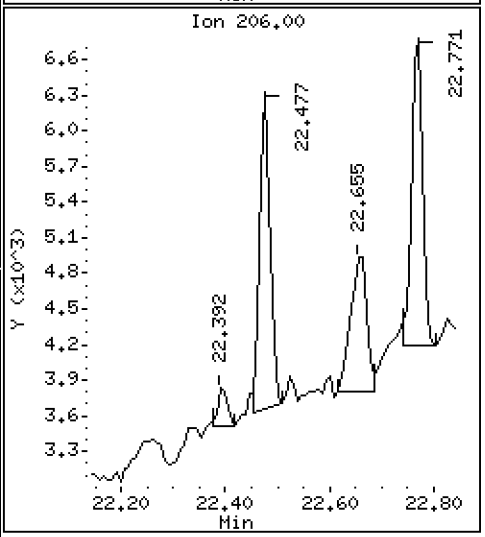
67 Butylbenzylphthalate

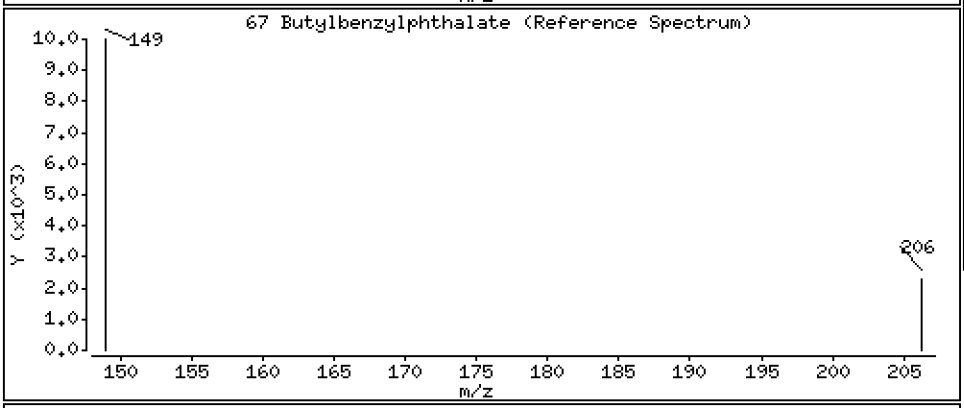
Concentration: 0.1061 ug/mL

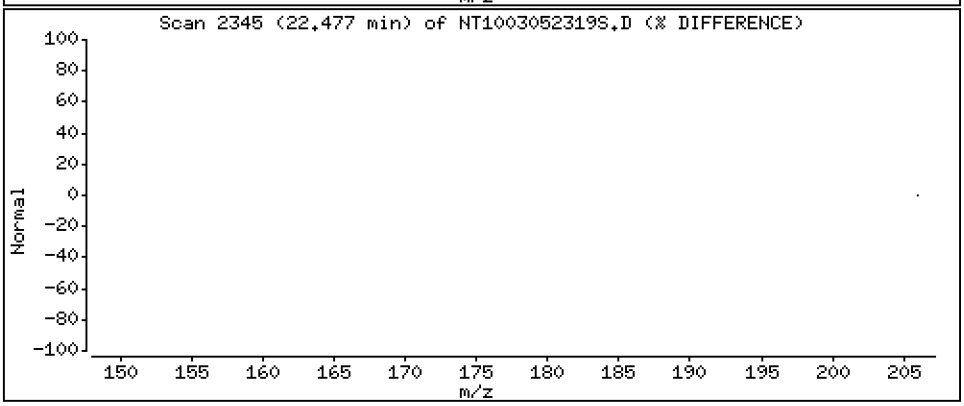












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052319S.D

Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

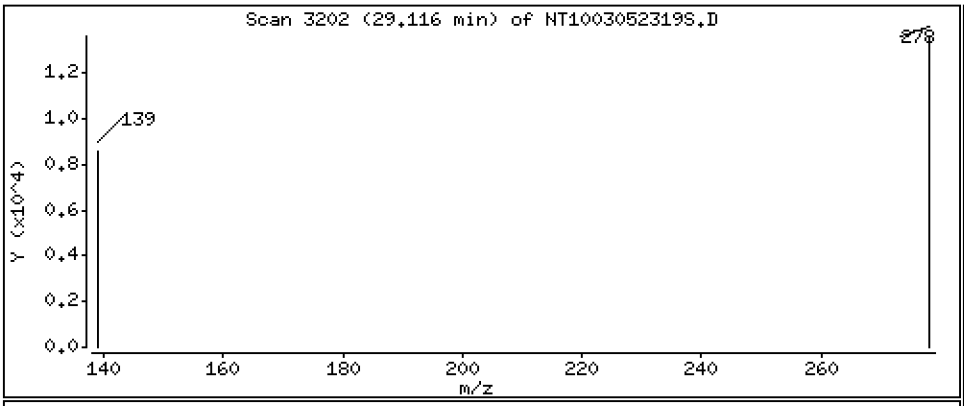
Operator: YZ

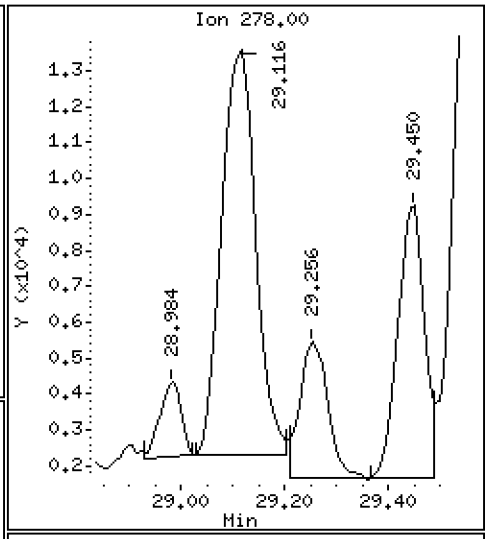
Column phase: ZB-5msi

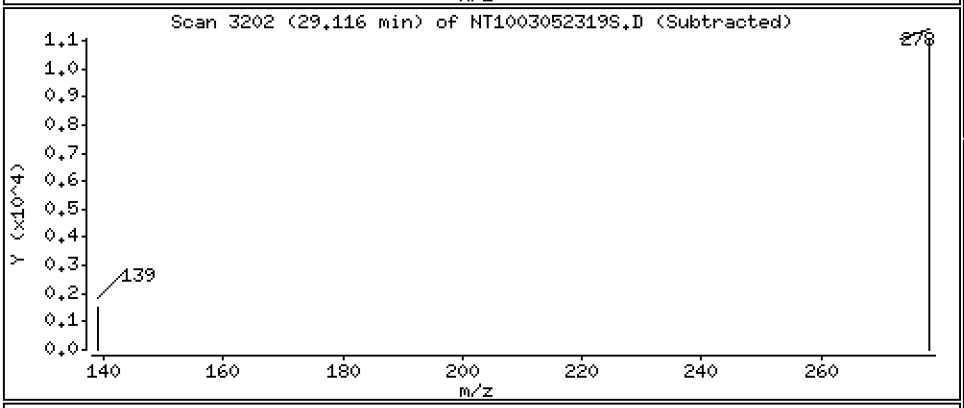
Column diameter: 0.25

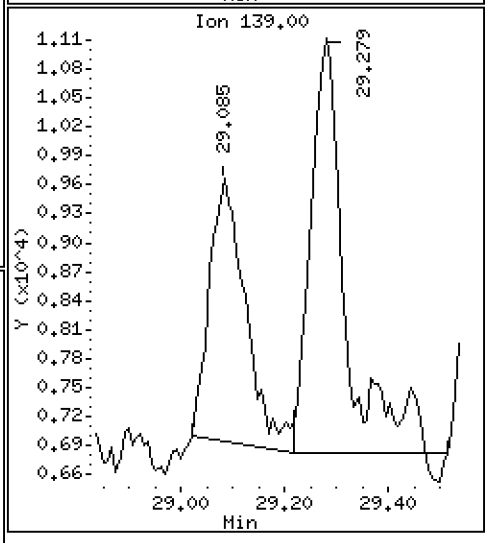
79 Dibenzo(a,h)anthracene

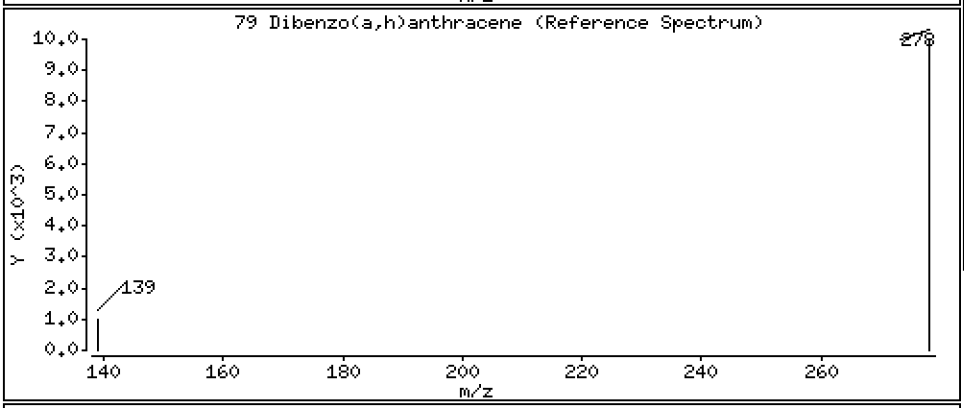
Concentration: 0.1654 ug/mL

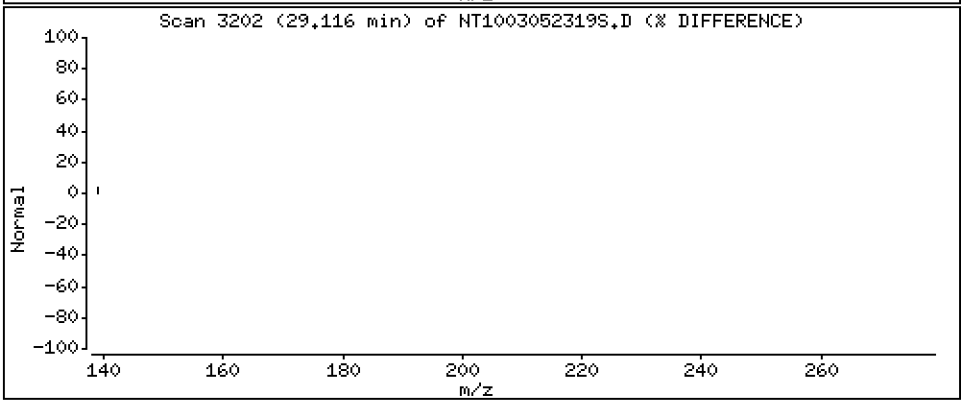












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Date : 06-MAR-2023 00:47

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-09

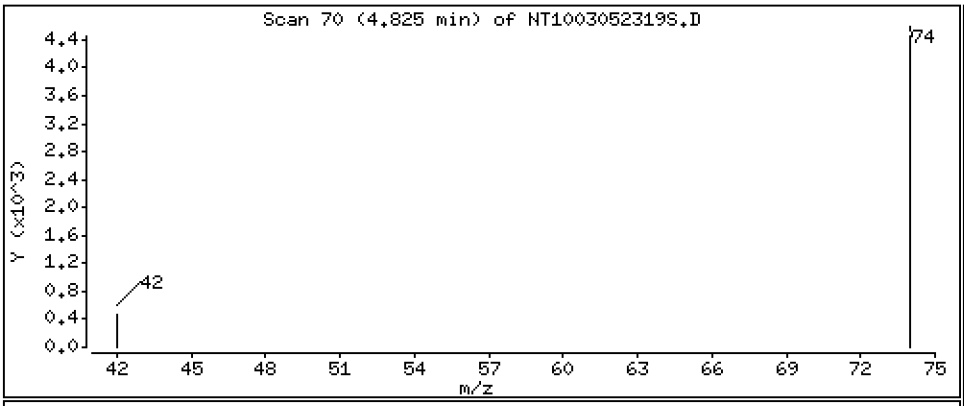
Operator: YZ

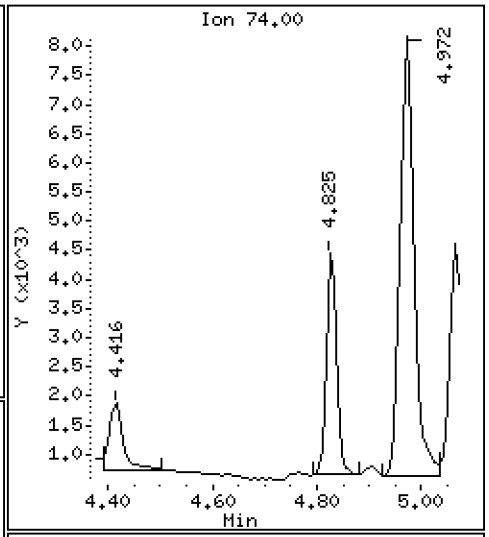
Column phase: ZB-5msi

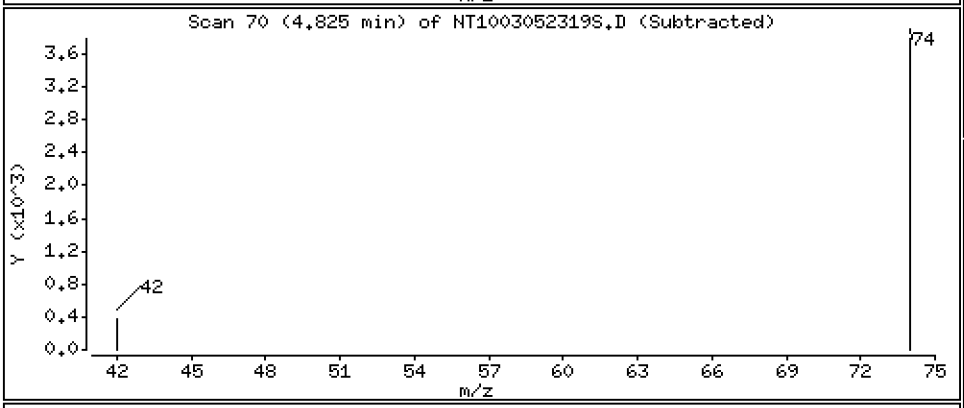
Column diameter: 0.25

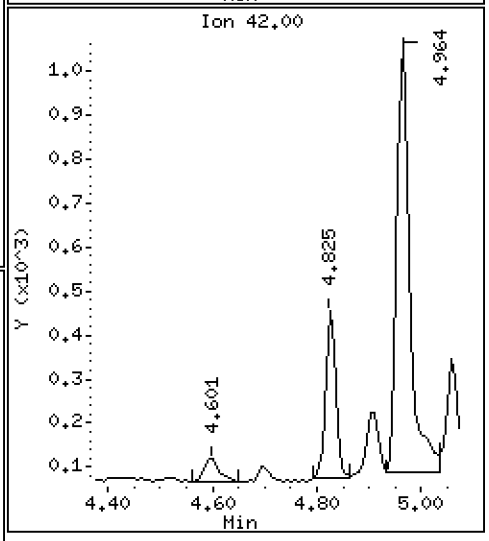
90 N-Nitrosodimethylamine

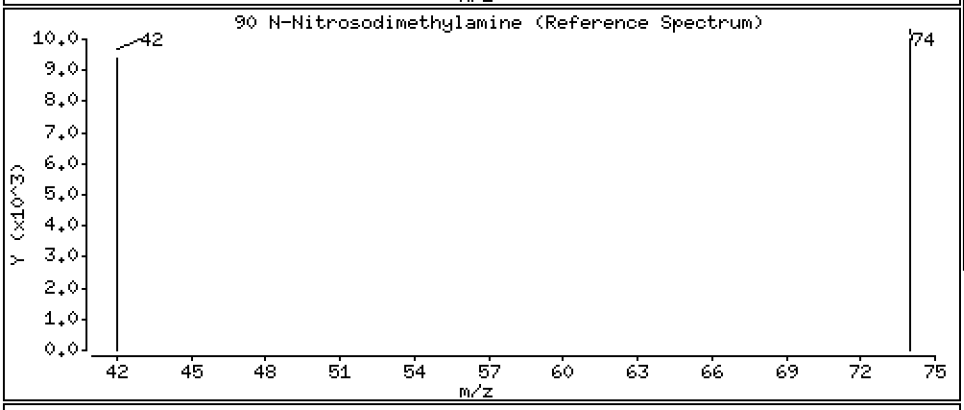
Concentration: 0.1018 ug/mL

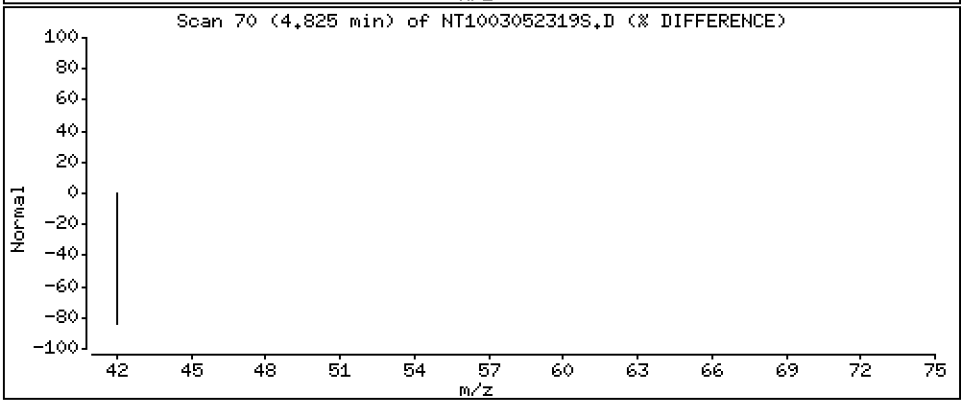












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052319S.D
Lab Smp Id: 23A0313-09
Inj Date : 06-MAR-2023 00:47
Operator : YZ Inst ID: nt10.i
Smp Info : 23A0313-09
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Meth Date : 29-Mar-2023 11:59 van Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: VANS-201906

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.917	6.902	(0.747)	499107	5.59500	5.595(R)
	3 Phenol	94	8.555	8.532	(0.924)	209792	1.58194	1.582
	7 1,3-Dichlorobenzene	146	9.151	9.143	(0.988)	613	0.00529	0.005294
*	8 1,4-Dichlorobenzene-d4	152	9.259	9.252	(1.000)	312461	4.00000	
	9 1,4-Dichlorobenzene	146	9.290	9.283	(1.003)	1997	0.01774	0.01774(M)
	11 Benzyl alcohol	79	Compound Not Detected.					
	12 1,2-Dichlorobenzene	146	9.577	9.570	(1.034)	447	0.00413	0.004131
	13 2-Methylphenol	108	9.702	9.671	(1.048)	1785	0.02257	0.02257
	15 4-Methylphenol	108	9.989	9.966	(1.079)	15822	0.19200	0.1920
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	24 Benzoic acid	105	11.175	11.133	(0.951)	22624	0.43877	0.4388
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.754	11.731	(1.000)	1106271	4.00000	
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	39 Dimethylphthalate	163	14.772	14.764	(0.963)	9686	0.05643	0.05643
*	42 Acenaphthene-d10	162	15.344	15.337	(1.000)	540606	4.00000	
	50 Diethylphthalate	149	16.241	16.234	(1.058)	25585	0.15805	0.1581
	54 N-Nitrosodiphenylamine	169	16.728	16.729	(0.907)	8160	0.04888	0.04888
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.452	18.453	(1.000)	1031434	4.00000	
$	66 Terphenyl-d14	244	21.586	21.594	(0.919)	597546	6.61961	6.620(R)
	67 Butylbenzylphthalate	149	22.476	22.484	(0.957)	19988	0.10608	0.1061(H)
*	69 Chrysene-d12	240	23.498	23.514	(1.000)	1116268	4.00000	
*	77 Perylene-d12	264	26.239	26.270	(1.000)	1332726	4.00000	
	79 Dibenzo(a,h)anthracene	278	29.116	29.186	(1.110)	51166	0.16542	0.1654(H)
	90 N-Nitrosodimethylamine	74	4.824	4.724	(0.521)	5379	0.10185	0.1018

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052319S.D
Lab Smp Id: 23A0313-09
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 22:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	293840	146920	587680	312461	6.34
27 Naphthalene-d8	1032639	516320	2065278	1106271	7.13
42 Acenaphthene-d10	502349	251175	1004698	540606	7.62
59 Phenanthrene-d10	975997	487999	1951994	1031434	5.68
69 Chrysene-d12	978544	489272	1957088	1116268	14.07
77 Perylene-d12	1201606	600803	2403212	1332726	10.91

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.26	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.75	0.20
42 Acenaphthene-d10	15.34	14.84	15.84	15.34	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	-0.00
69 Chrysene-d12	23.51	23.01	24.01	23.50	-0.07
77 Perylene-d12	26.27	25.77	26.77	26.24	-0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052319S.D

Lab ID: 23A0313-09
nt10.i, 20230305A.b\SIM.b\SIMABN2.m,   06-MAR-2023 00:47

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.521	0.511	0.0104	N-Nitrosodimethylamine

RRT check based on Ccal File: SIM.b/NT1003052315SA.D

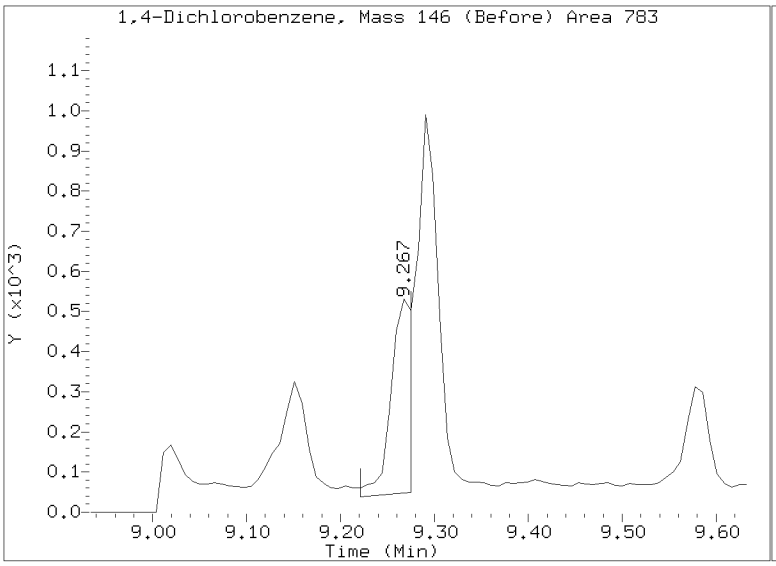
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

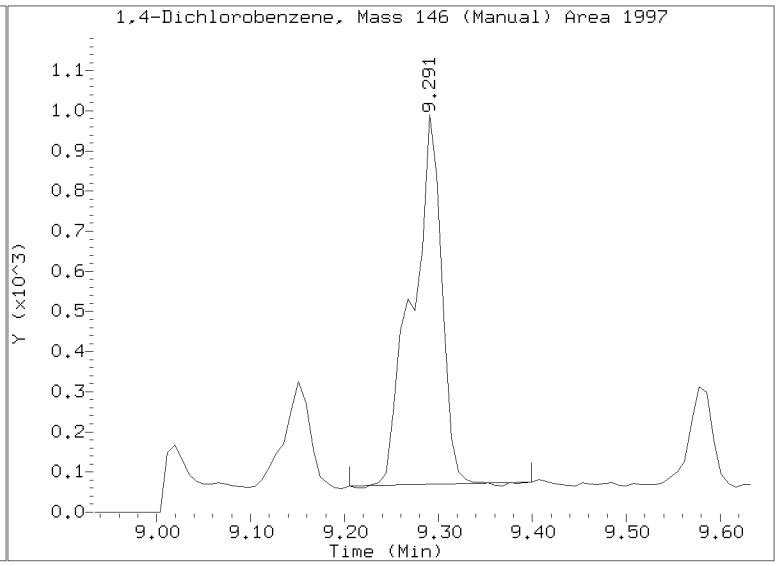
Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305A.b/SIM.b/NT1003052319S.D
Injection Date: 06-MAR-2023 00:47
Lab ID:23A0313-09 Client ID:
Report Date: 03/29/2023 11:59





Analytical Resources, LLC
Analytical Chemists and Consultants

LDW23-SC1006A

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

SIM SVOC Organics (Dual scan list)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-10 A	SDG:	23A0313
Sampled:	01/16/23 12:29	Prepared:	02/02/23 13:06	File ID:	NT1003052320S.D
% Solids:	54.11	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/06/23 01:25
Batch:	BLA0685	Sequence:	SLC0440	Initial/Final:	18.53 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00032
Cleanups:	GPC				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	2.3	J	0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	5.0	U	0.7	5.0
100-51-6	Benzyl Alcohol	1	22.5		2.5	19.9
65-85-0	Benzoic acid	1	30.0	J	13.4	99.7
105-67-9	2,4-Dimethylphenol	1	19.9	U	2.2	19.9
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	4.9	J	1.3	5.0
87-86-5	Pentachlorophenol	1	19.9	U	2.1	19.9

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	748.01	602	80.5	27 - 120	
p-Terphenyl-d14	498.67	774	155	37 - 120	*

Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523205.D

Page 1

Date : 06-MAR-2023 01:25

Client ID:

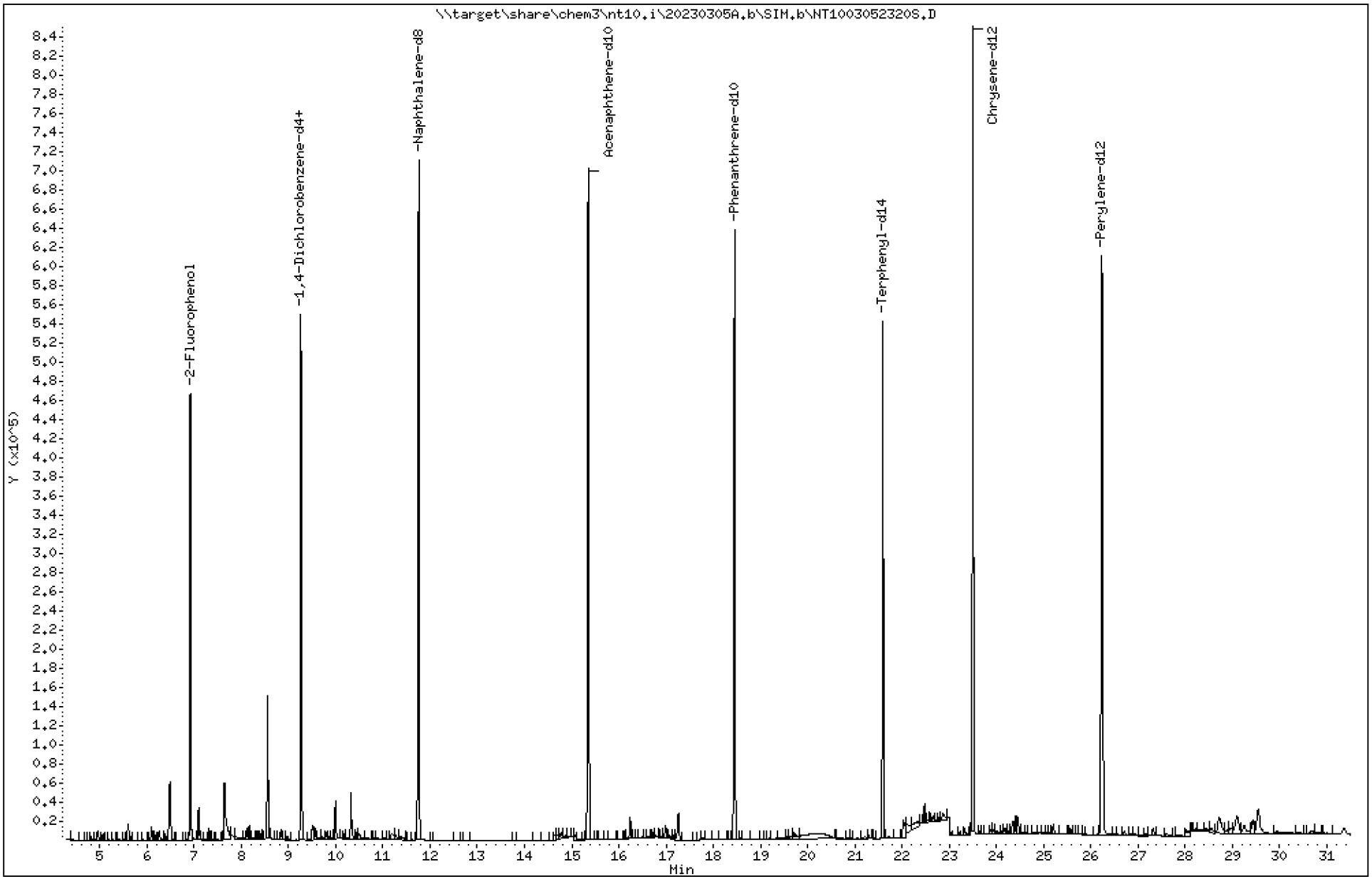
Instrument: nt10.i

Sample Info: 23A0313-10

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

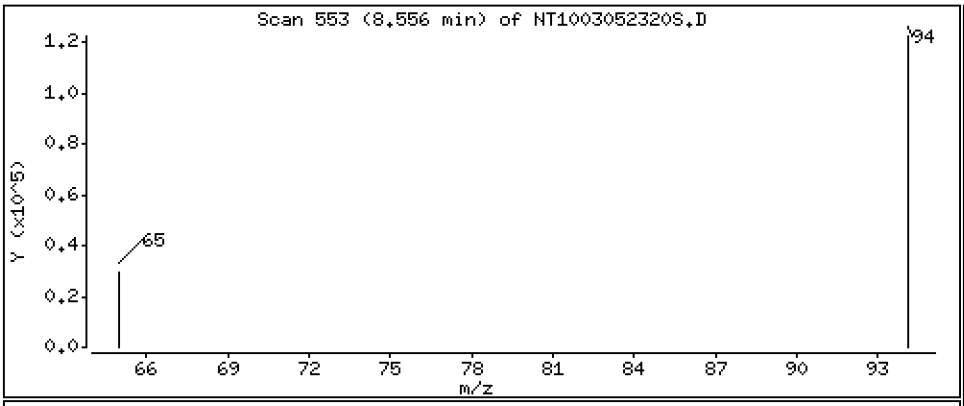
Operator: YZ

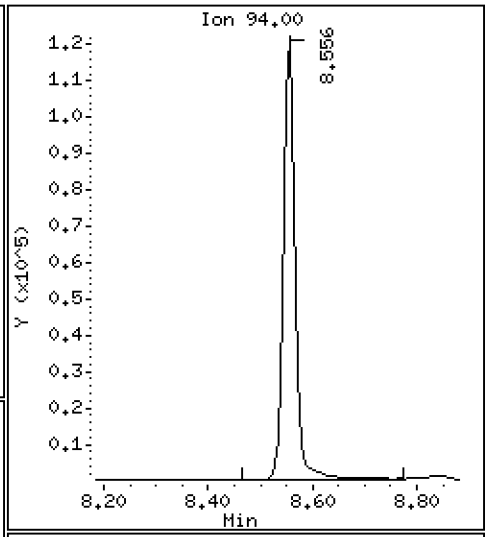
Column phase: ZB-5msi

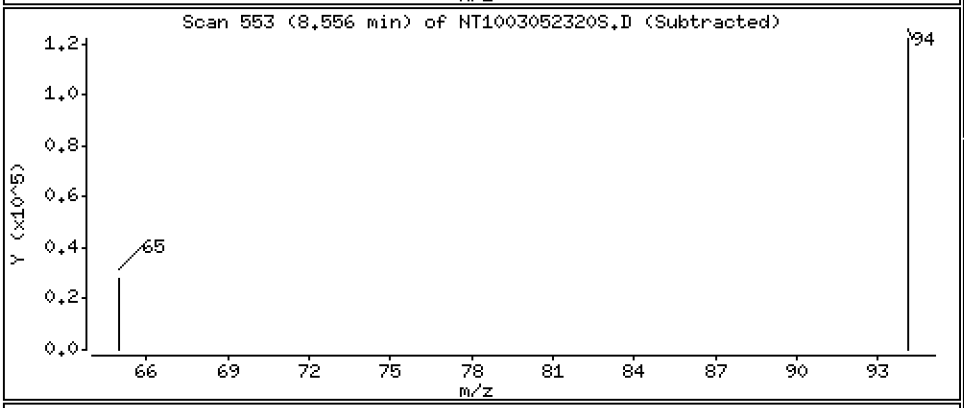
Column diameter: 0.25

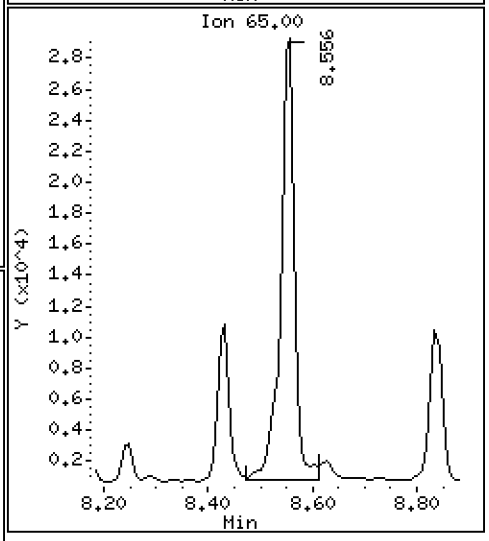
3 Phenol

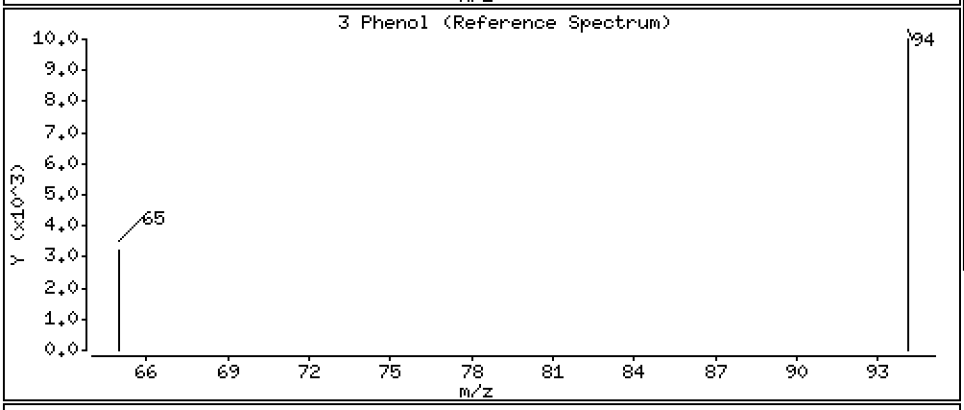
Concentration: 1.461 ug/mL

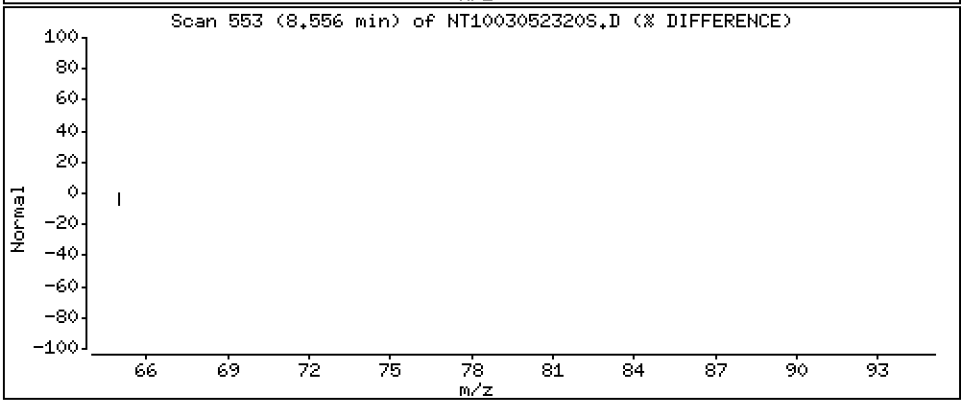












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

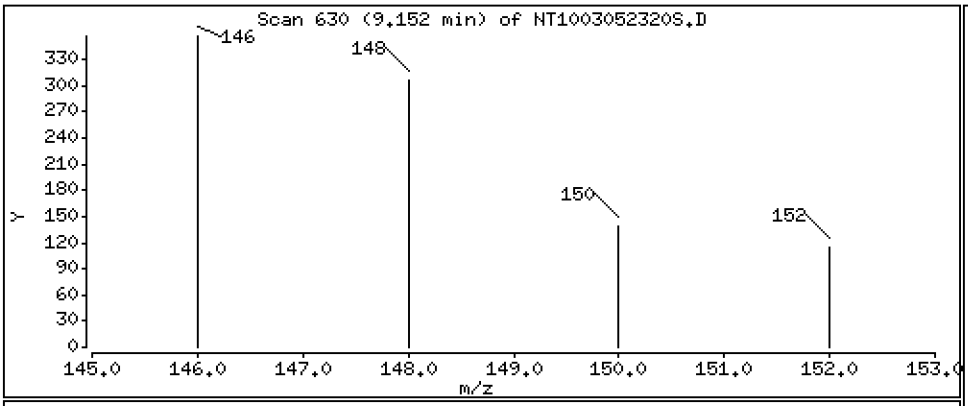
Operator: YZ

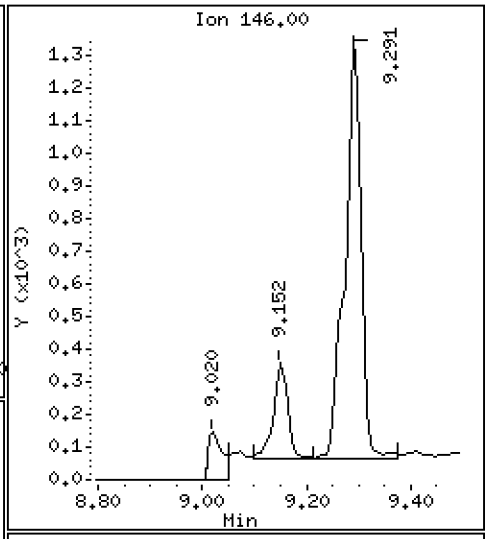
Column phase: ZB-5msi

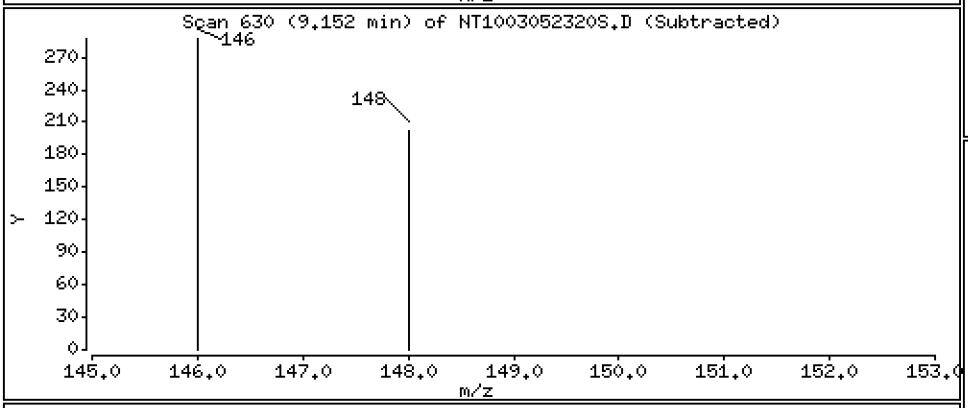
Column diameter: 0.25

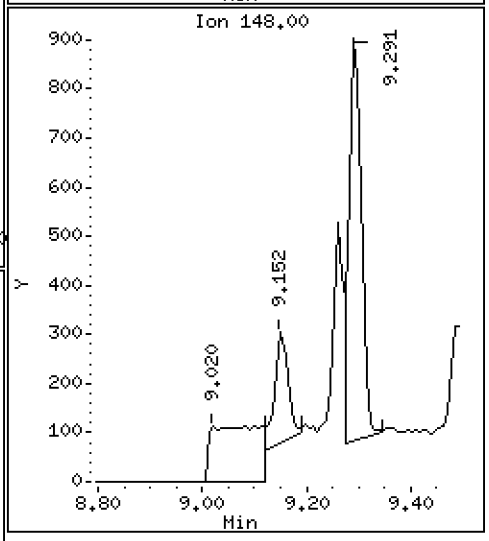
7 1,3-Dichlorobenzene

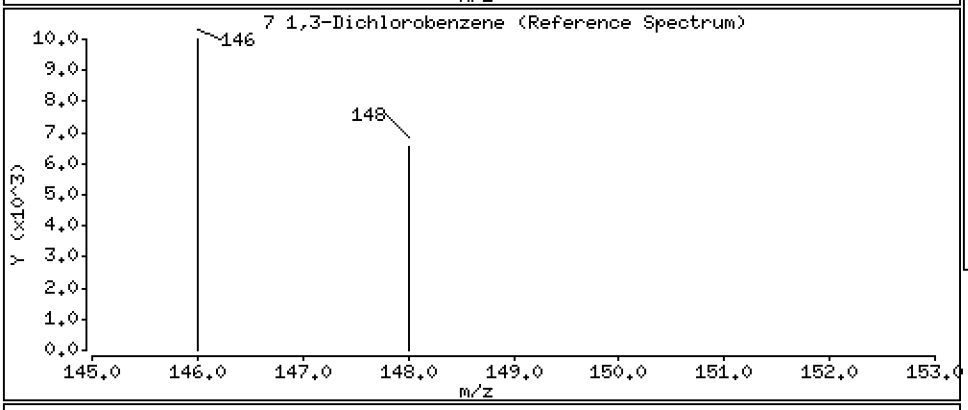
Concentration: 0.004420 ug/mL

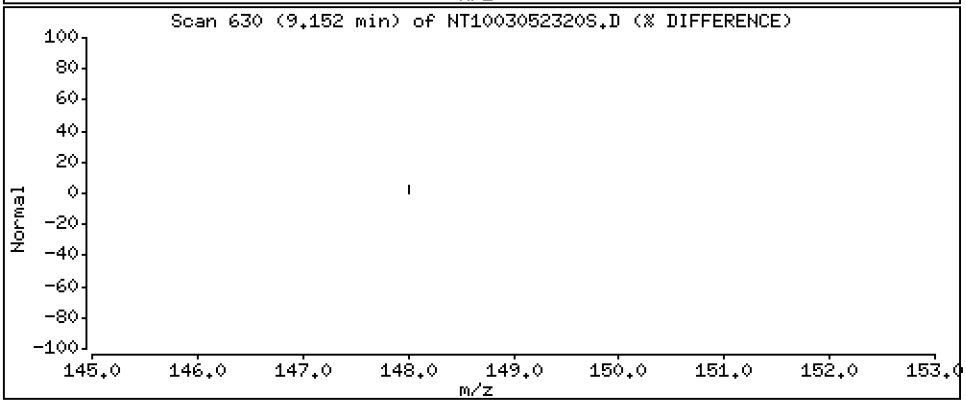












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052320S.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

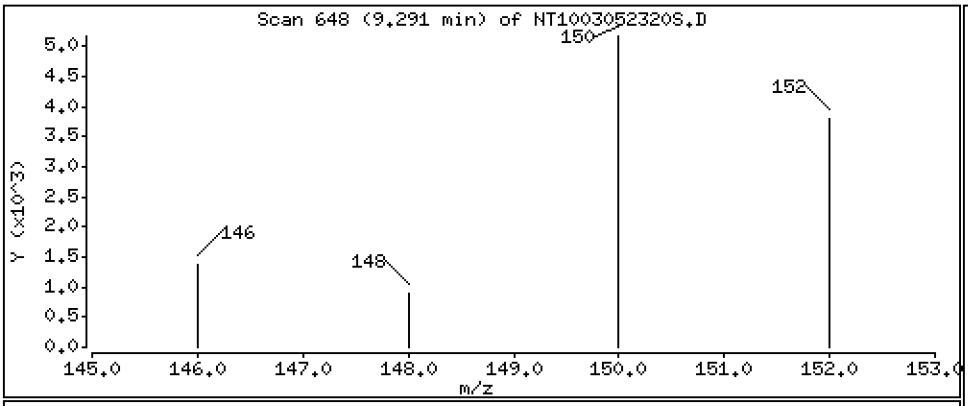
Operator: YZ

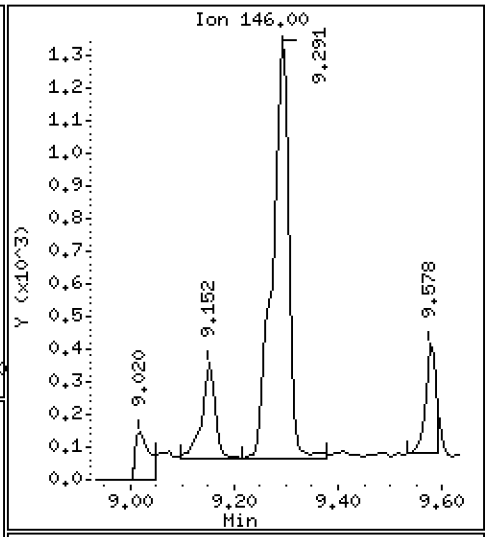
Column phase: ZB-5msi

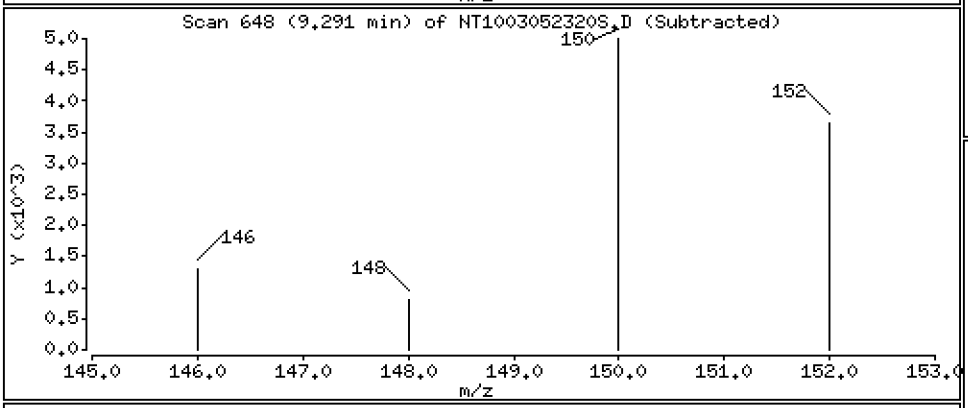
Column diameter: 0.25

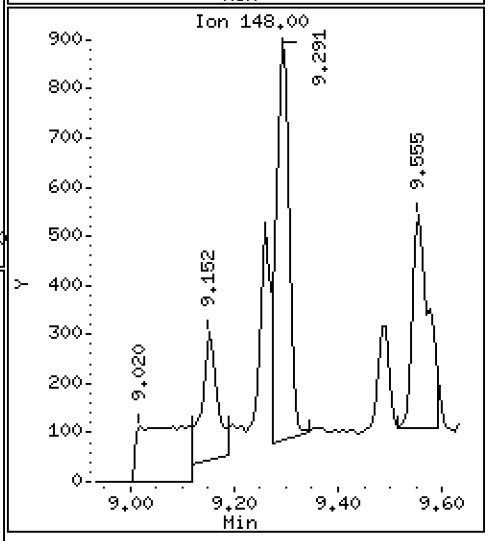
9 1,4-Dichlorobenzene

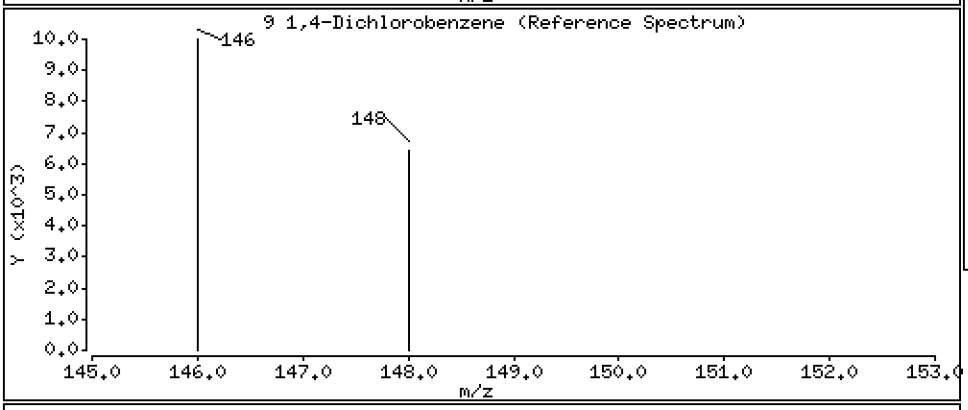
Concentration: 0.02354 ug/mL

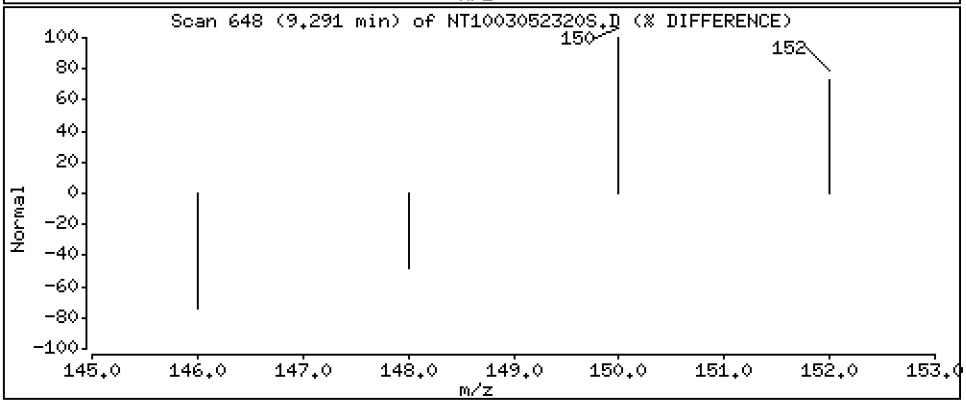












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052320S.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

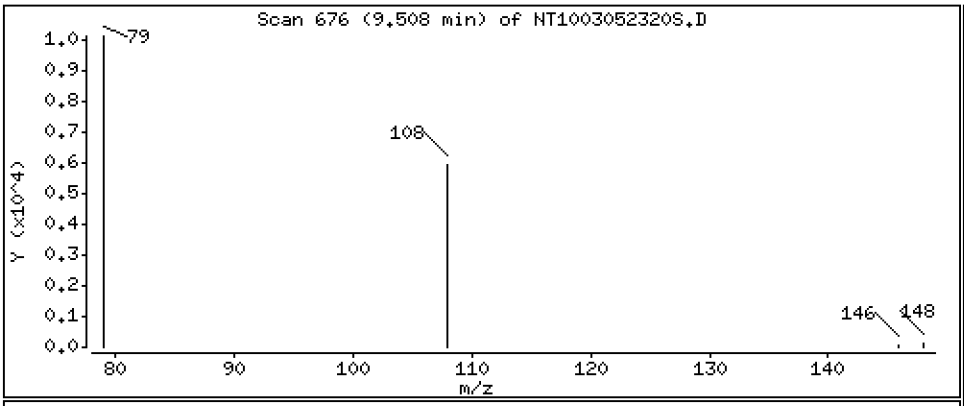
Operator: YZ

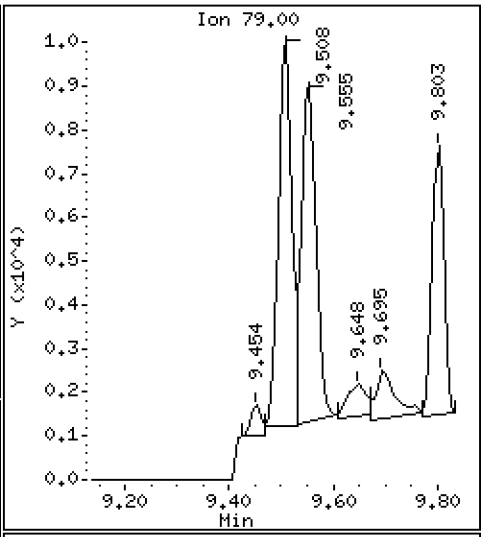
Column phase: ZB-5msi

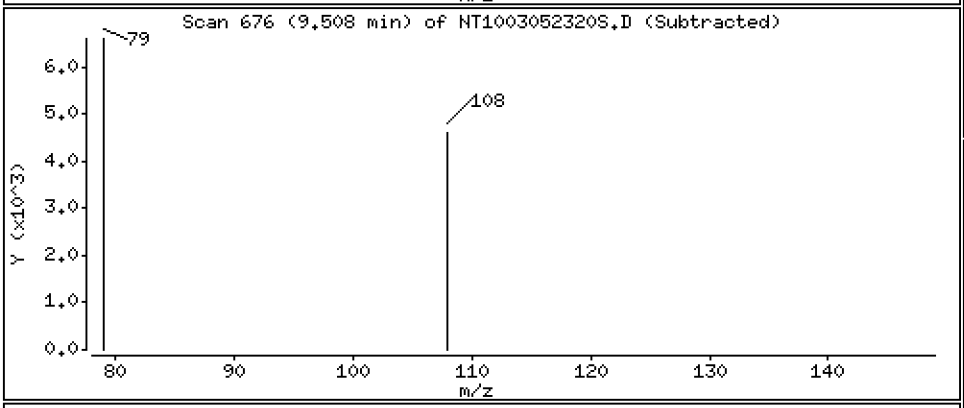
Column diameter: 0.25

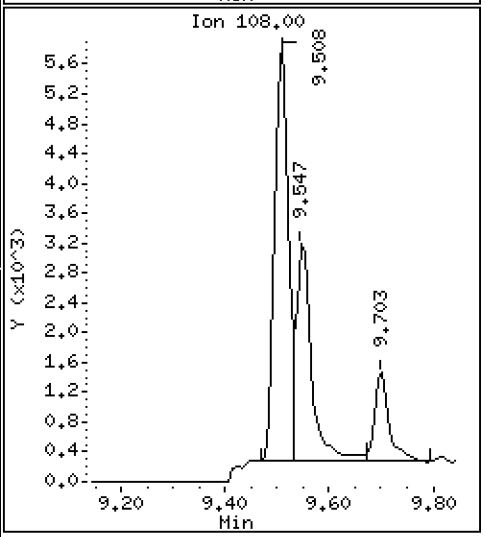
11 Benzyl alcohol

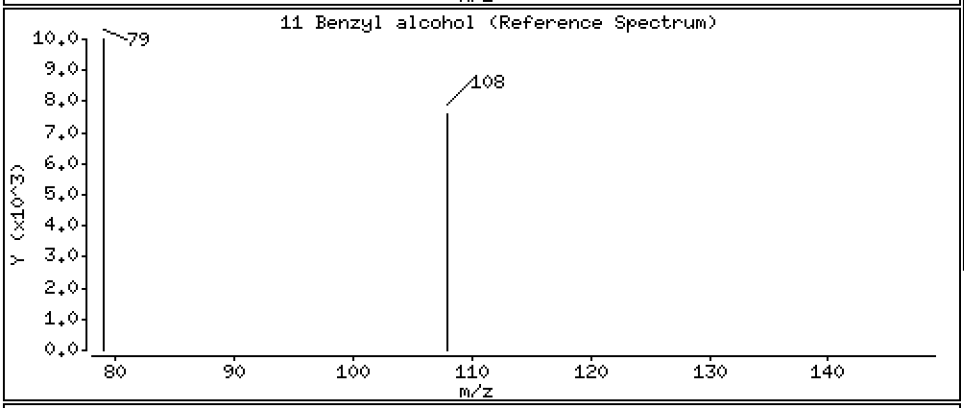
Concentration: 0.2253 ug/mL

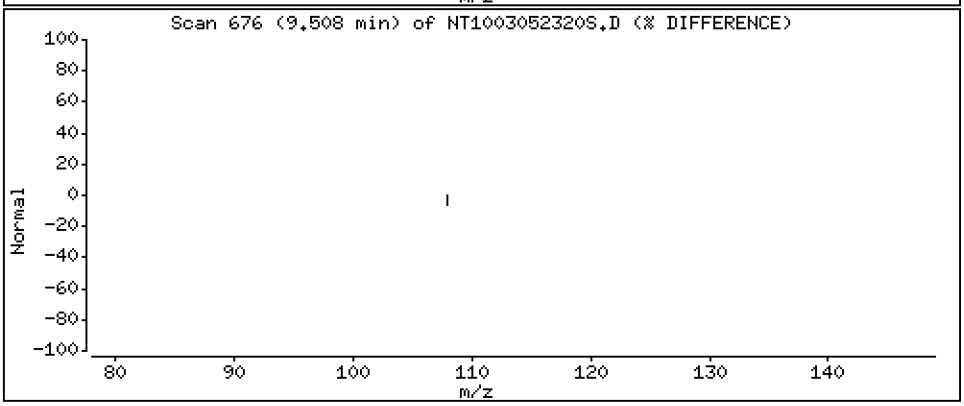












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052320S.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

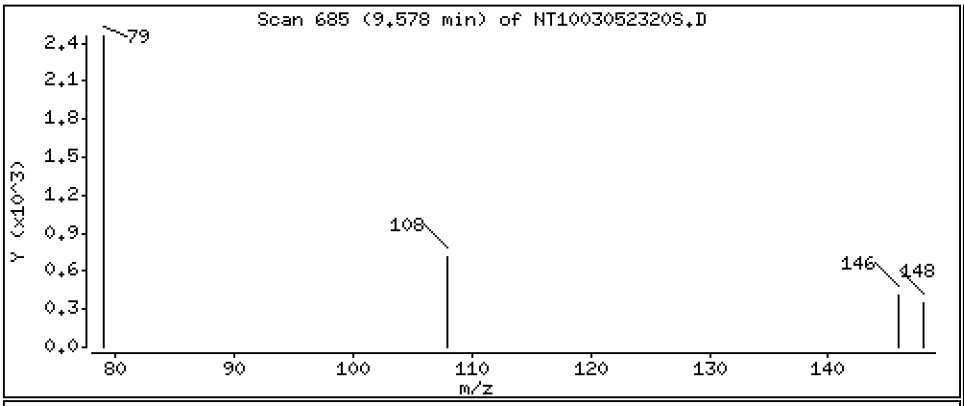
Operator: YZ

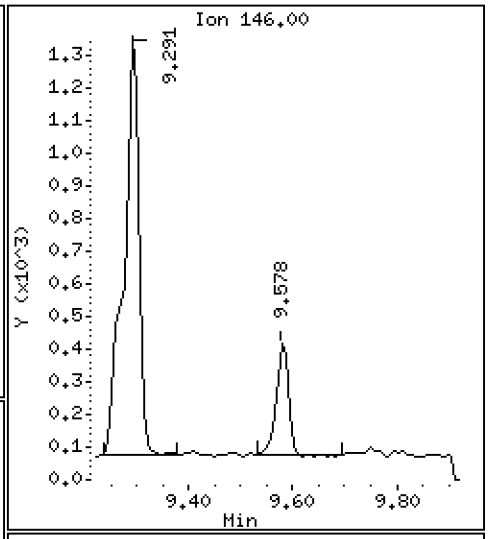
Column phase: ZB-5msi

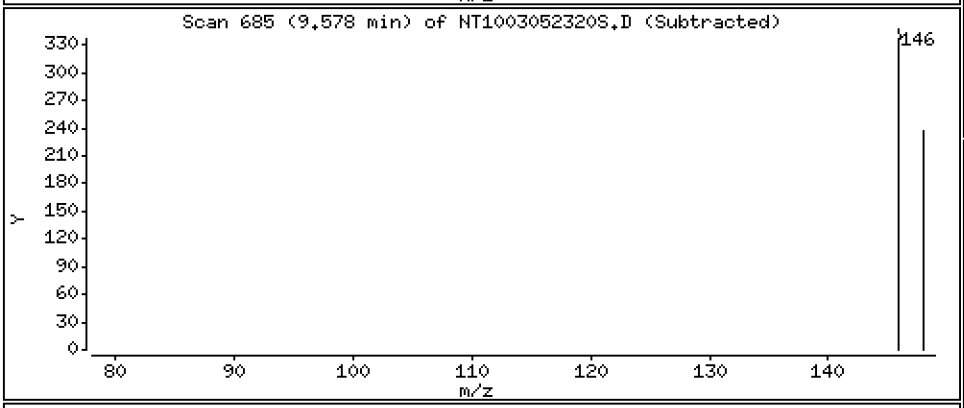
Column diameter: 0.25

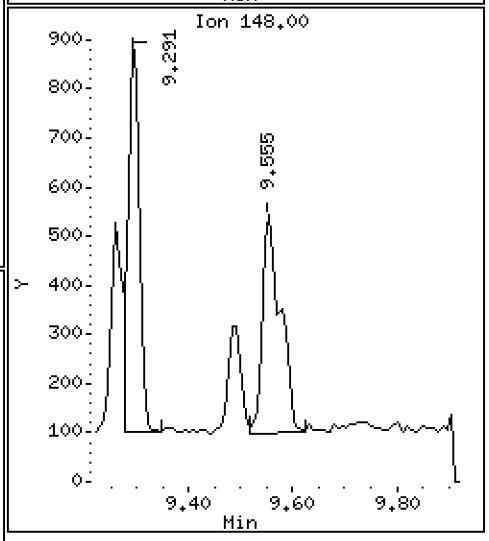
12 1,2-Dichlorobenzene

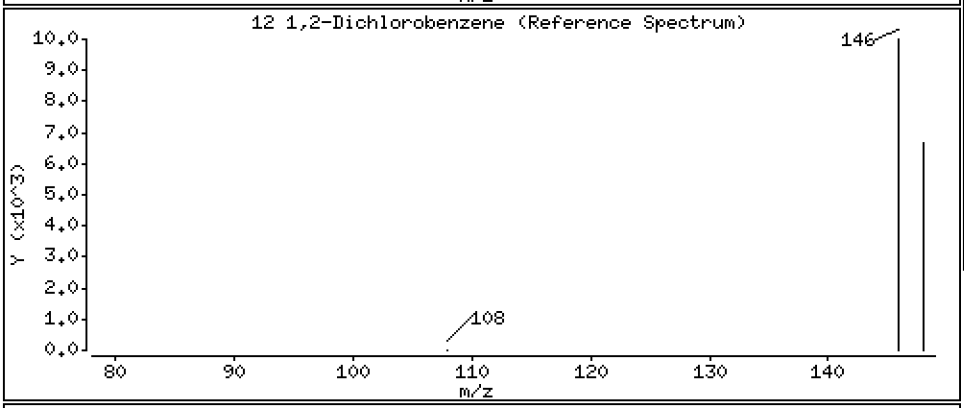
Concentration: 0.004476 ug/mL

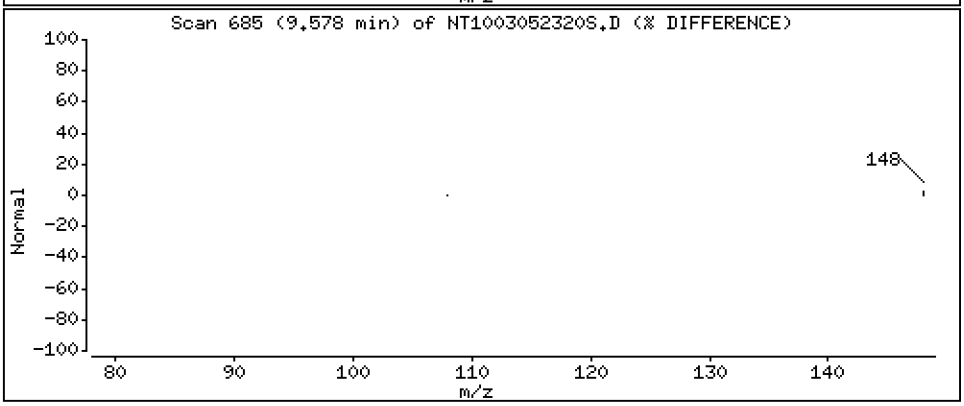












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052320S.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

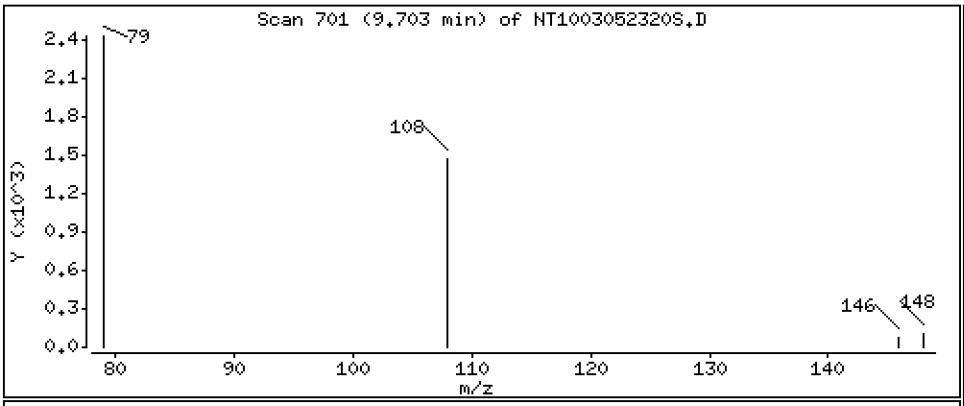
Operator: YZ

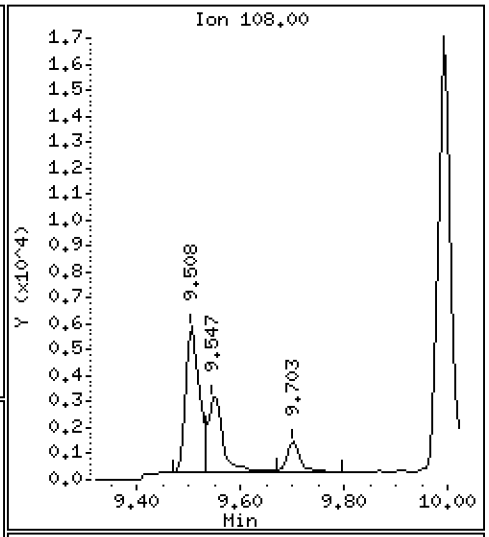
Column phase: ZB-5msi

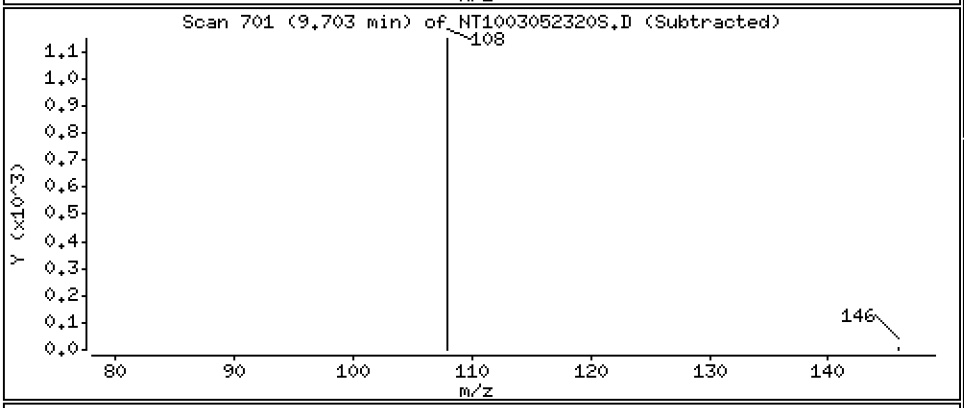
Column diameter: 0.25

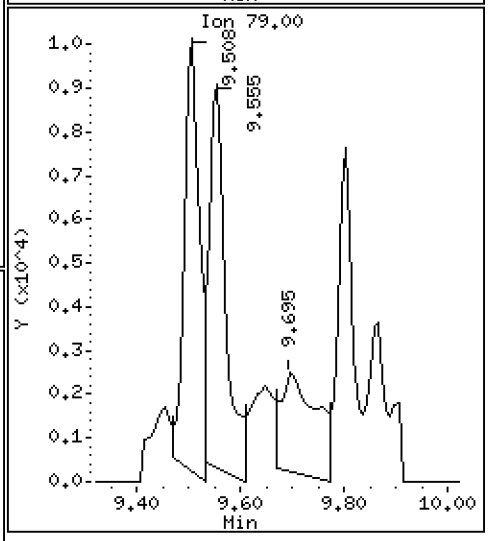
13 2-Methylphenol

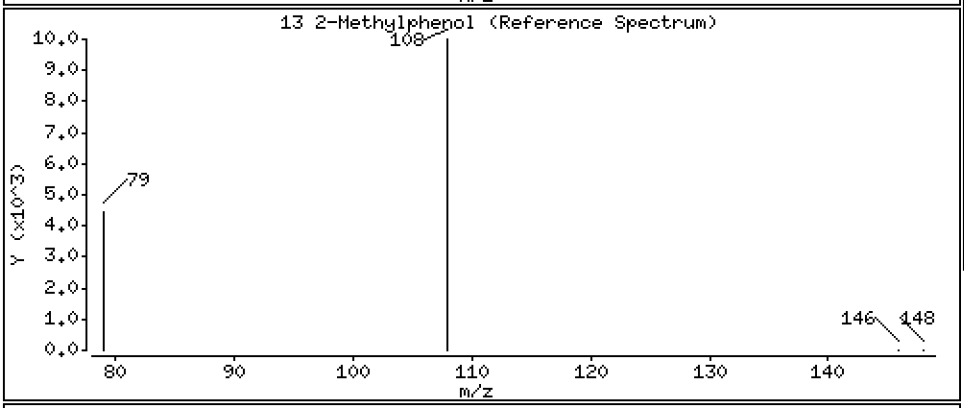
Concentration: 0.02900 ug/mL

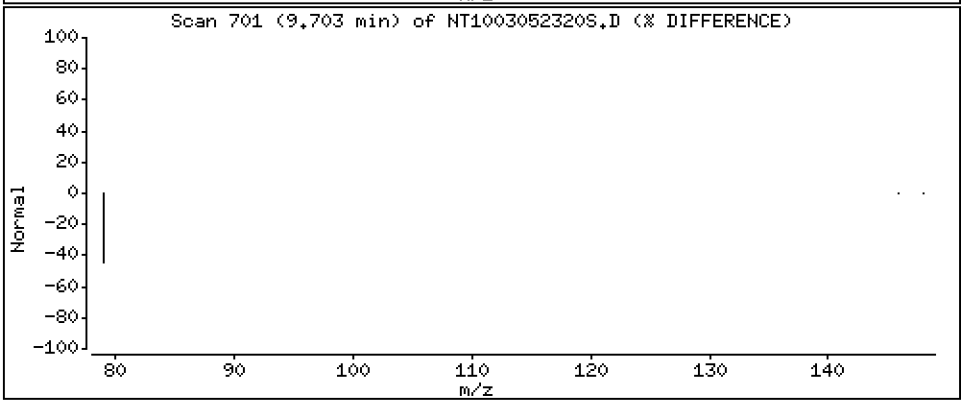












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052320S.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

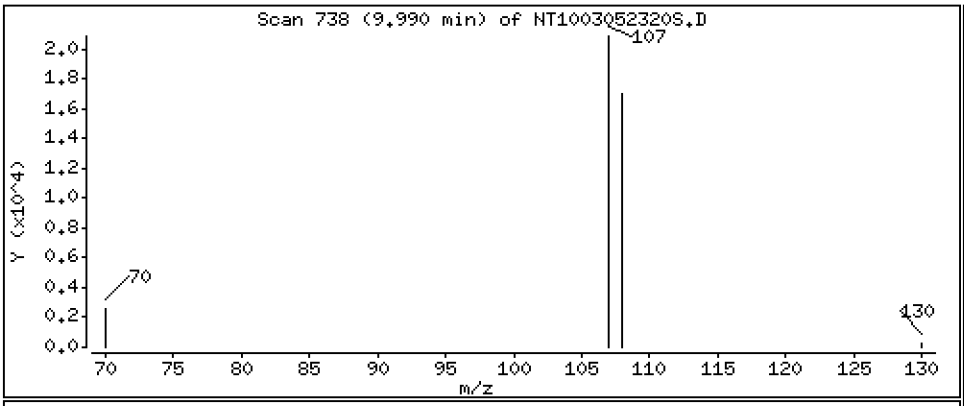
Operator: YZ

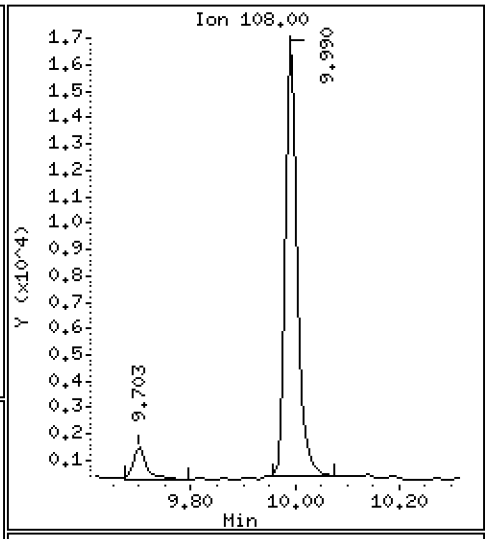
Column phase: ZB-5msi

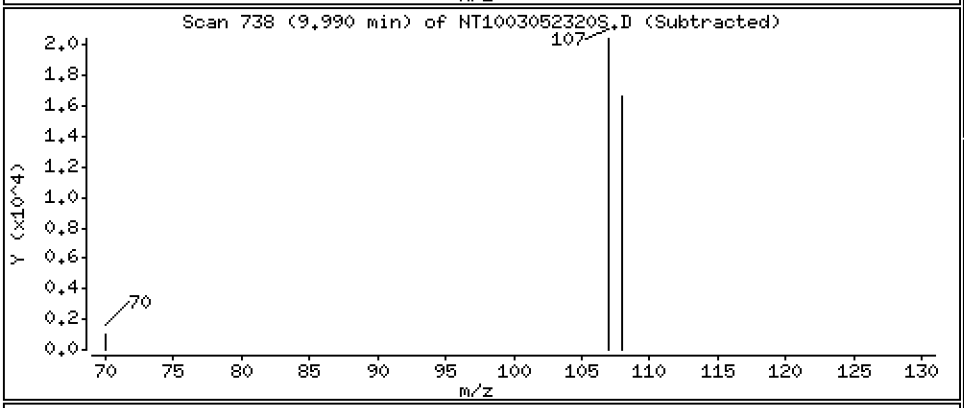
Column diameter: 0.25

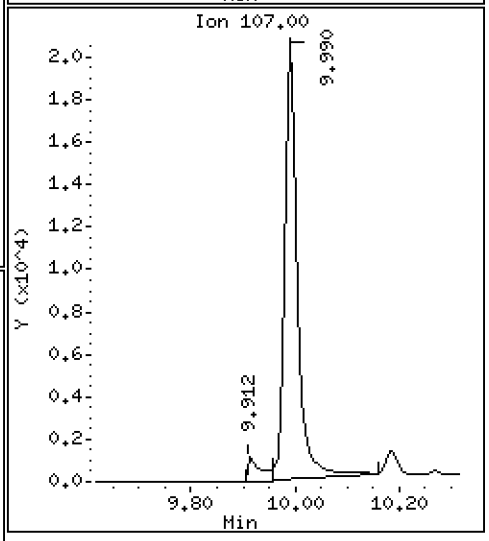
15 4-Methylphenol

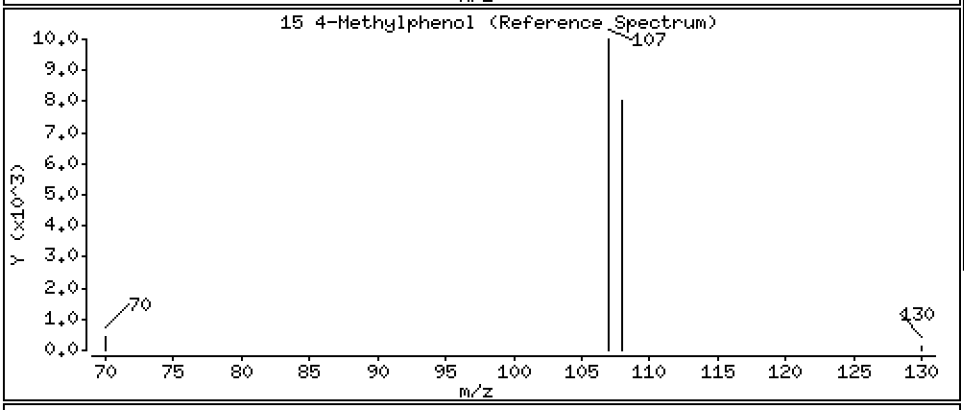
Concentration: 0.3268 ug/mL

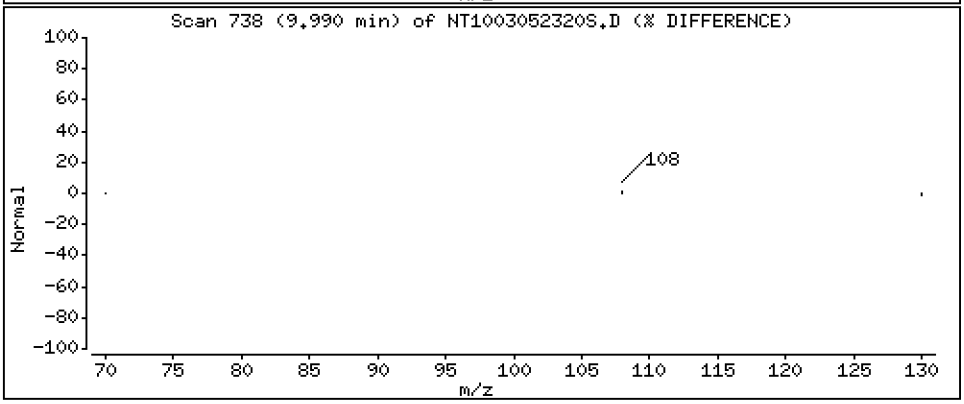












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Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

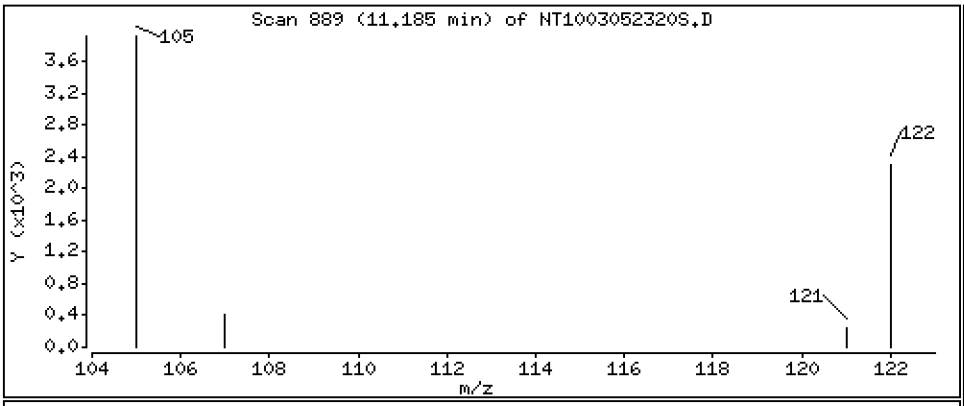
Operator: YZ

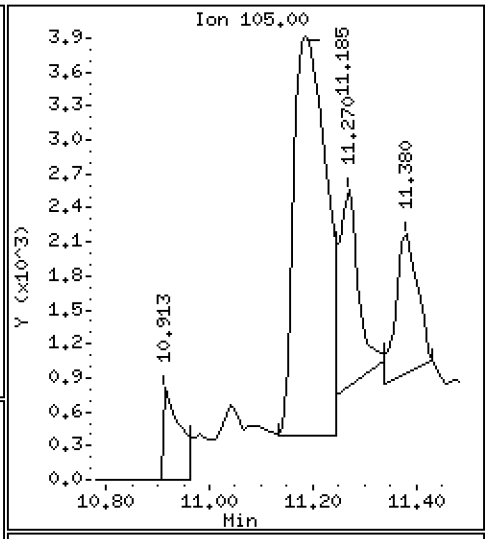
Column phase: ZB-5msi

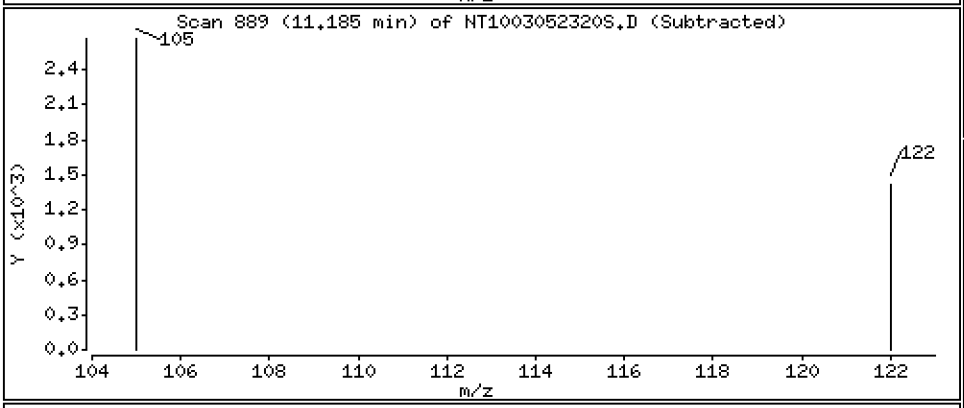
Column diameter: 0.25

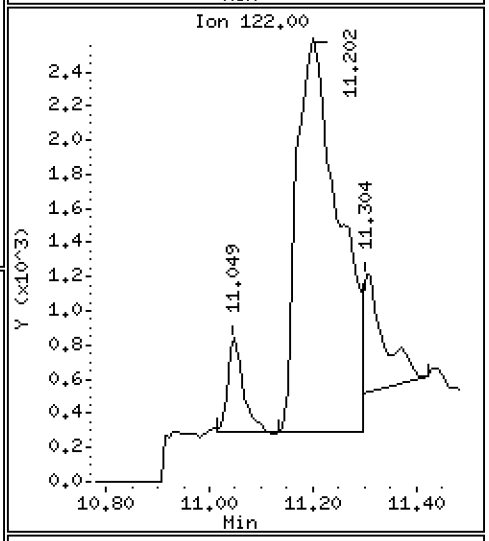
24 Benzoic acid

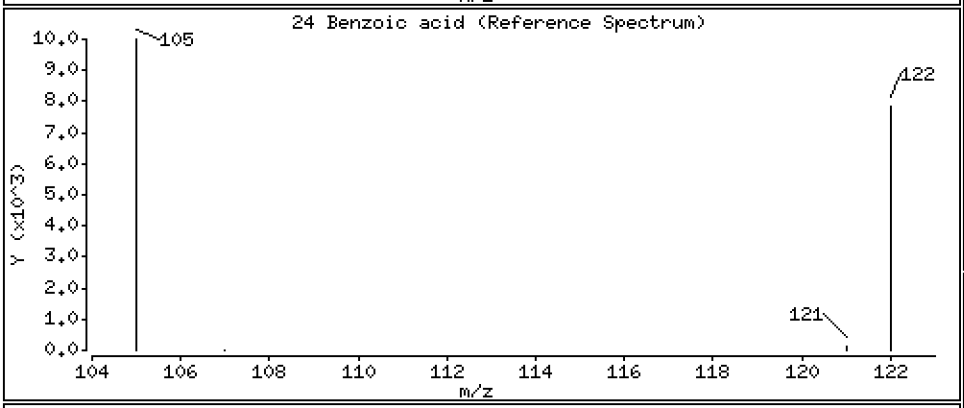
Concentration: 0.3009 ug/mL

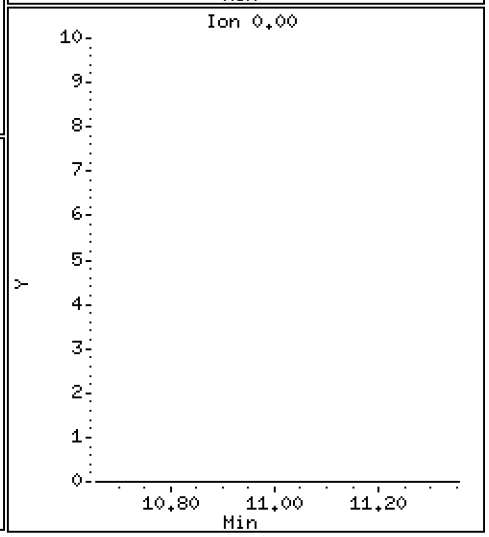


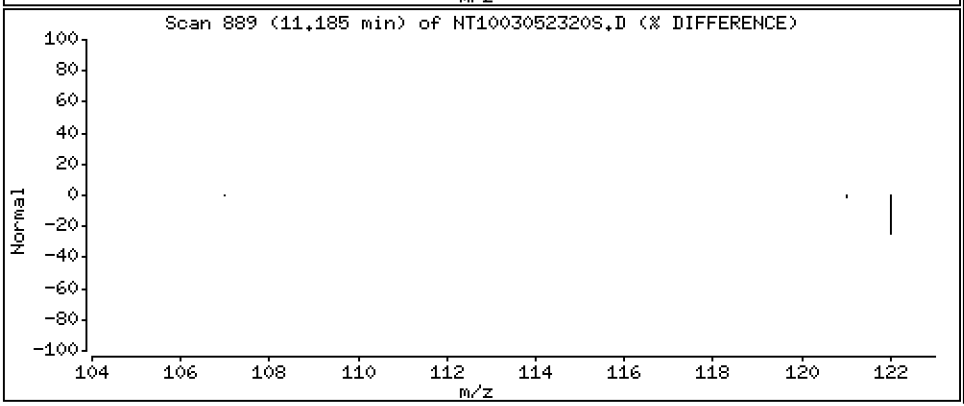












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052320S.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

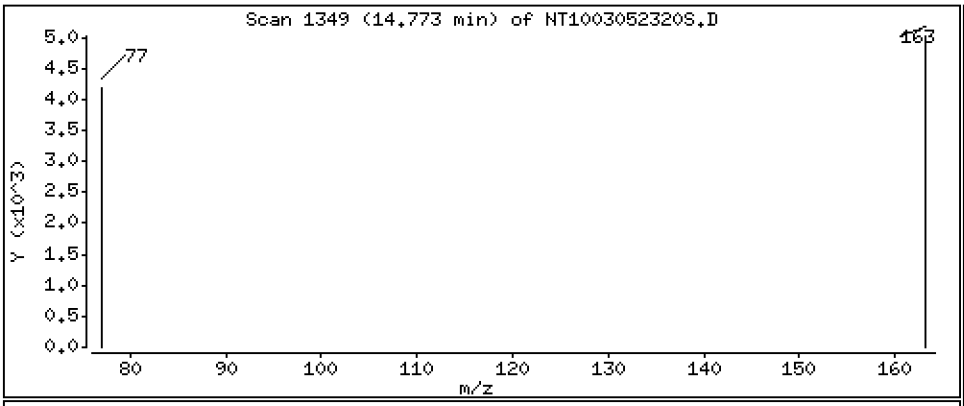
Operator: YZ

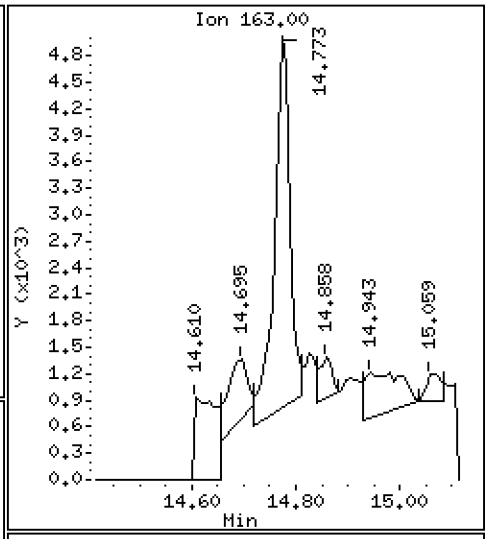
Column phase: ZB-5msi

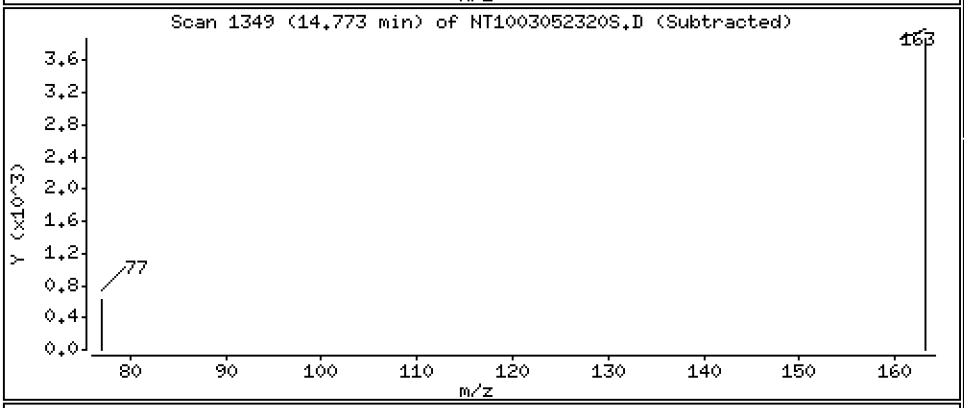
Column diameter: 0.25

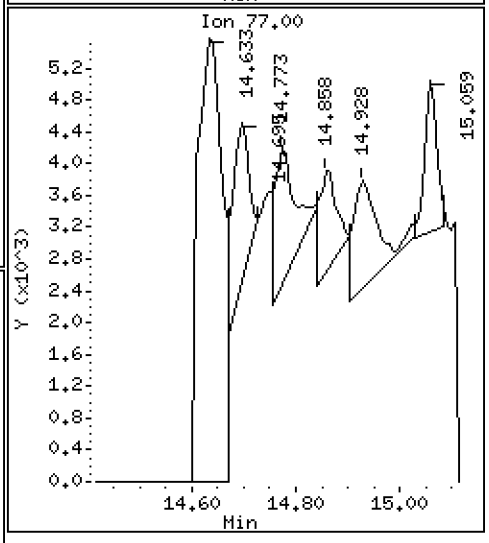
39 Dimethylphthalate

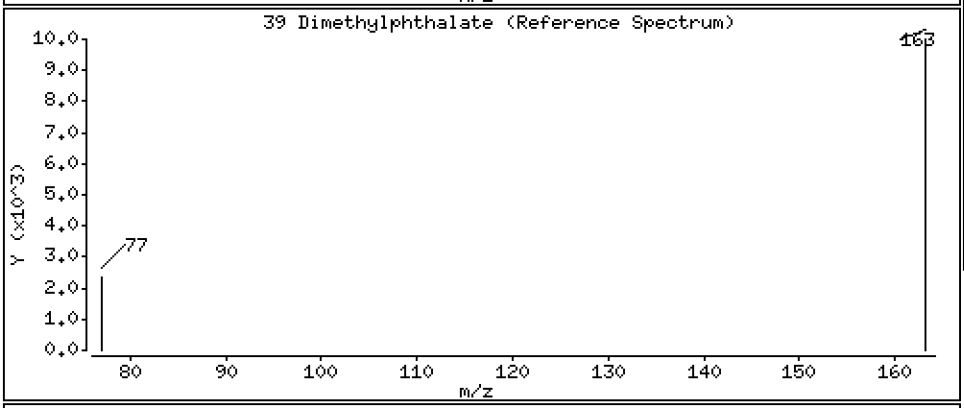
Concentration: 0.04910 ug/mL

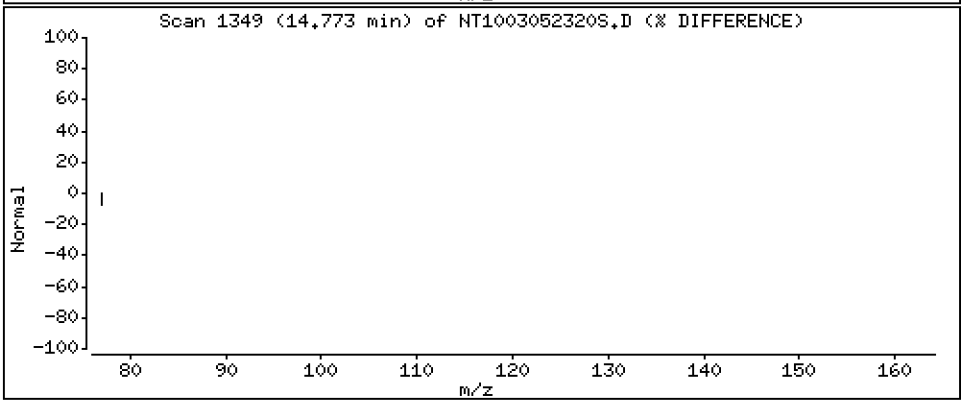












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052320S.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

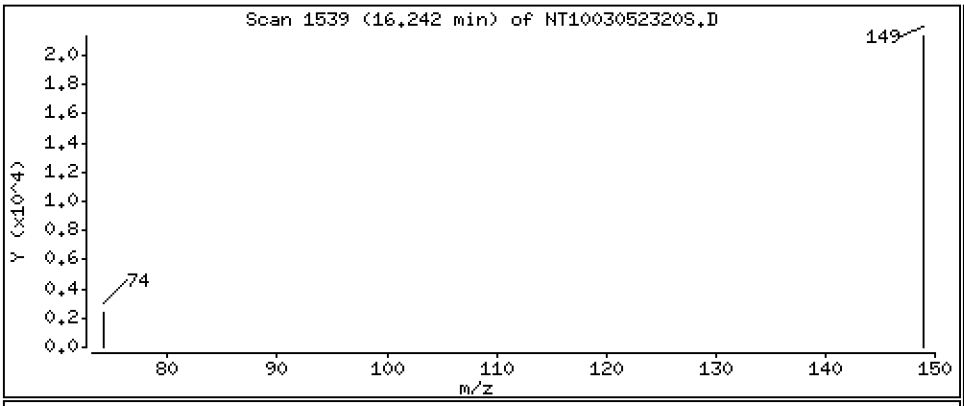
Operator: YZ

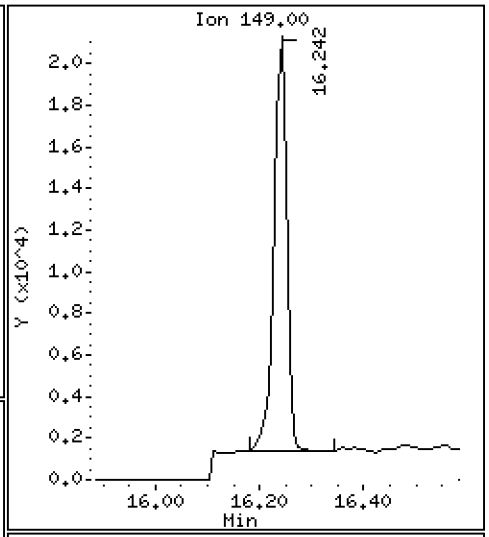
Column phase: ZB-5msi

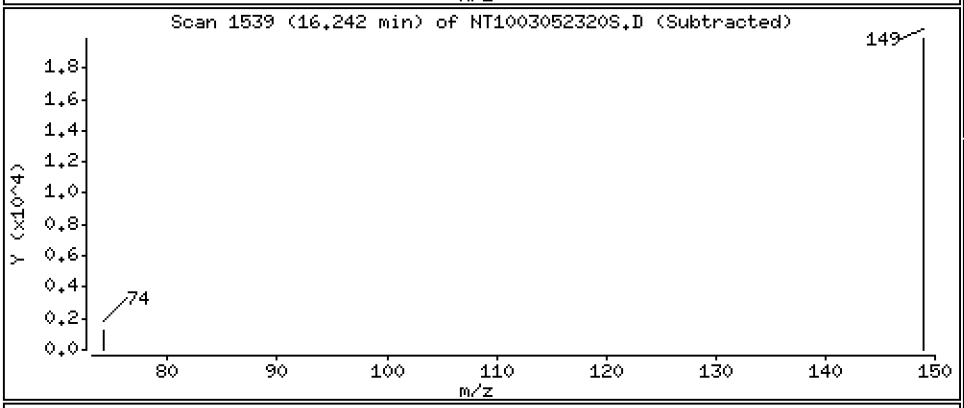
Column diameter: 0.25

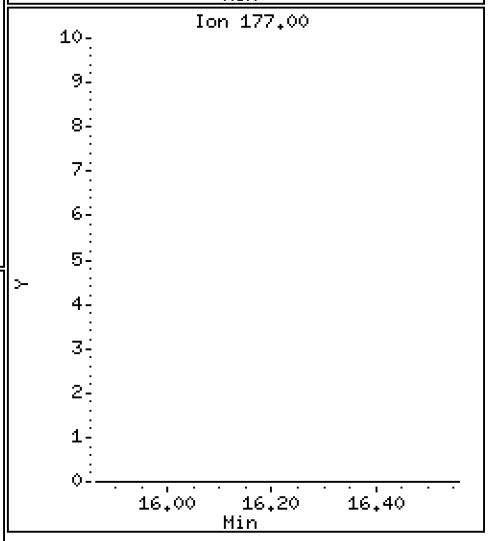
50 Diethylphthalate

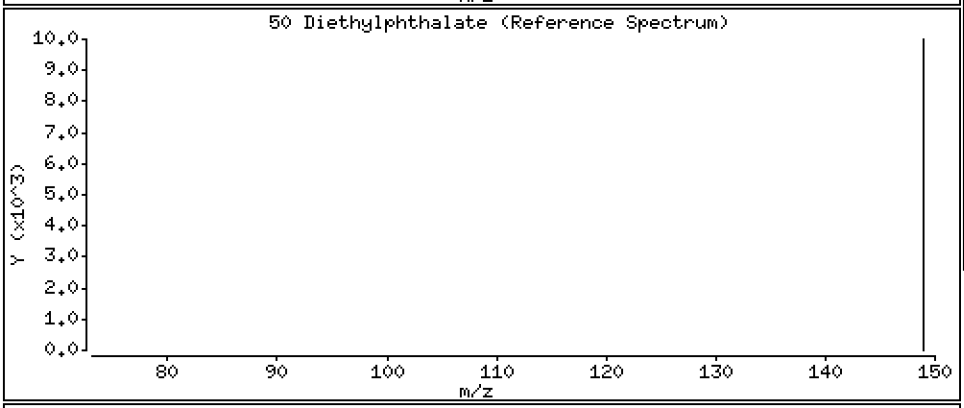
Concentration: 0.1960 ug/mL

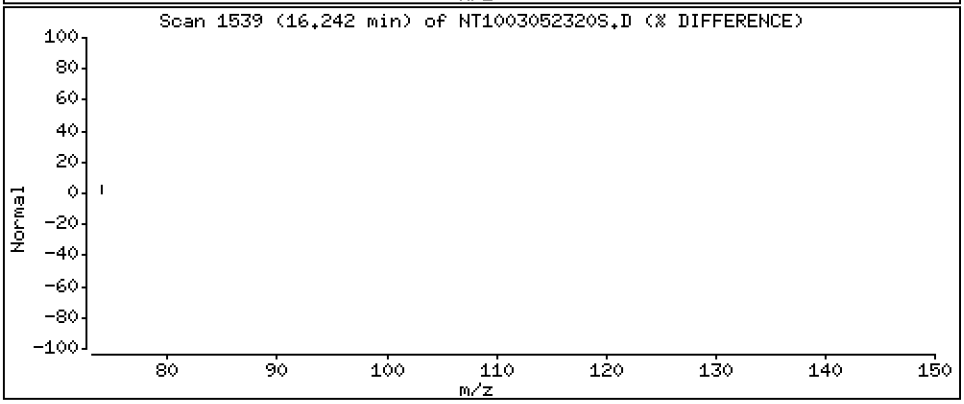












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052320S.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

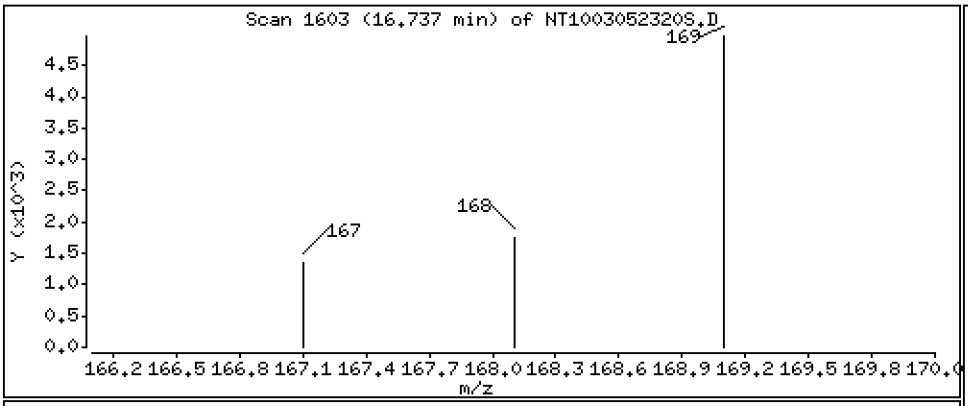
Operator: YZ

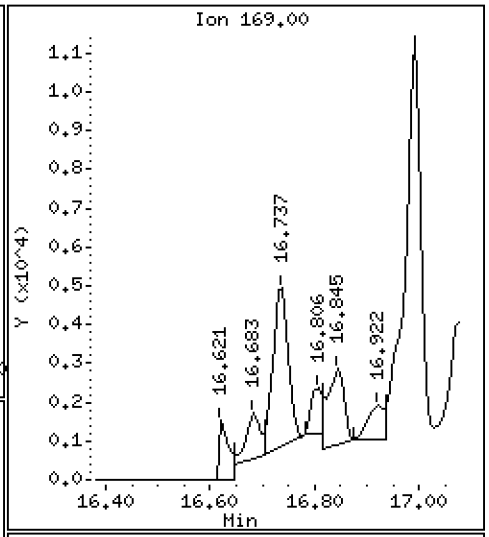
Column phase: ZB-5msi

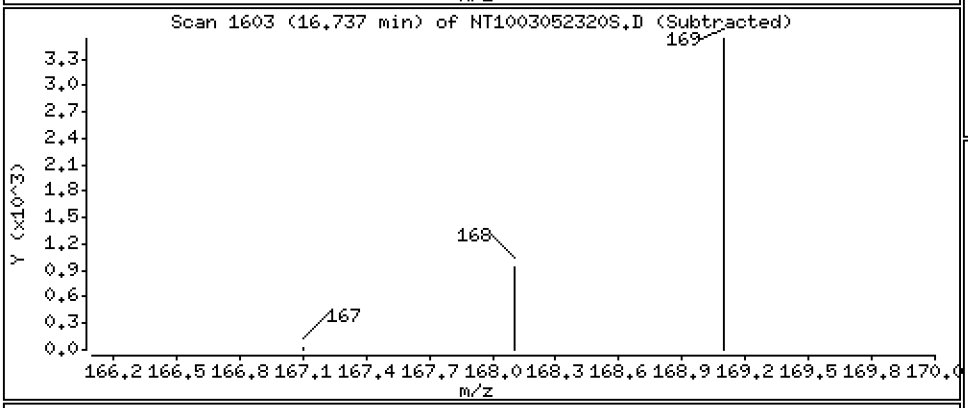
Column diameter: 0.25

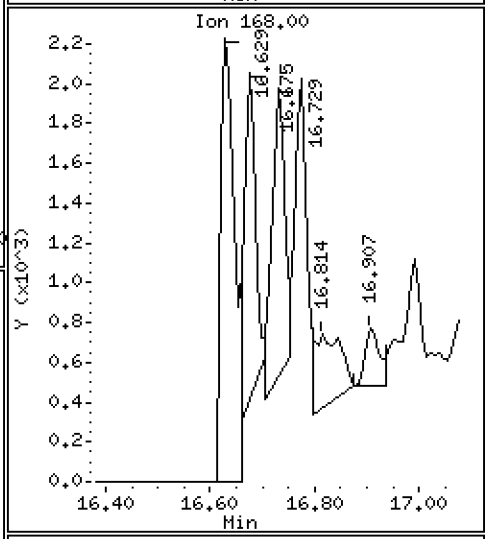
54 N-Nitrosodiphenylamine

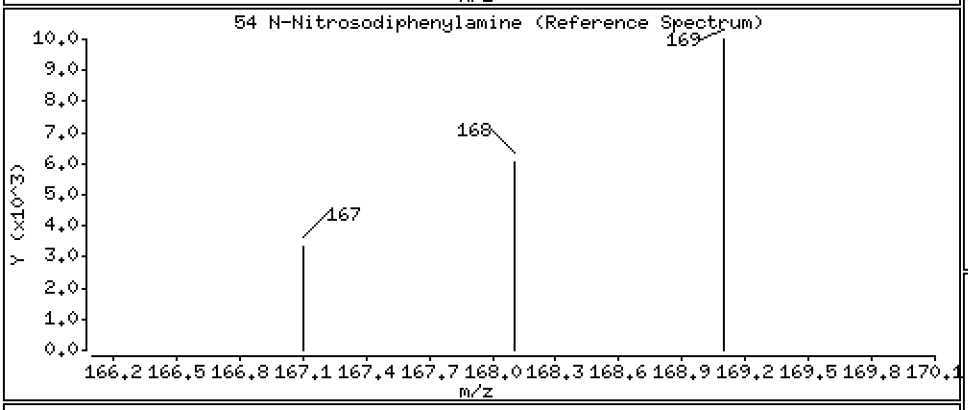
Concentration: 0.04947 ug/mL

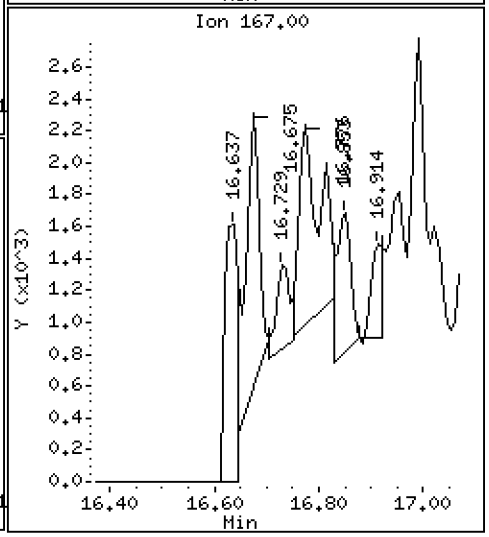


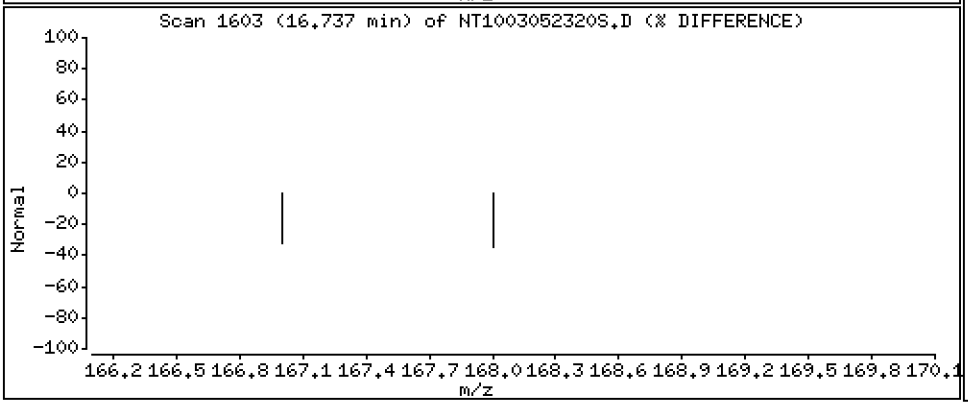












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052320S.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

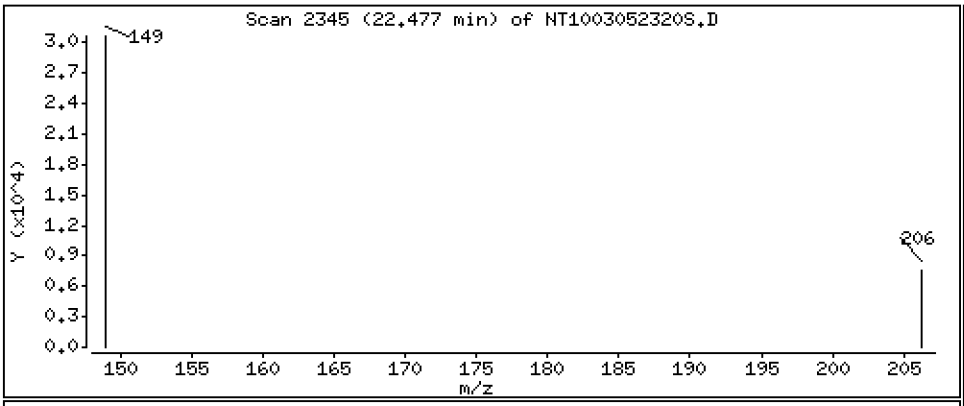
Operator: YZ

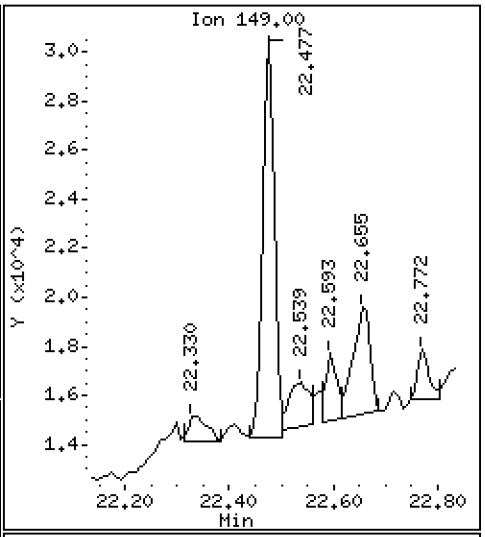
Column phase: ZB-5msi

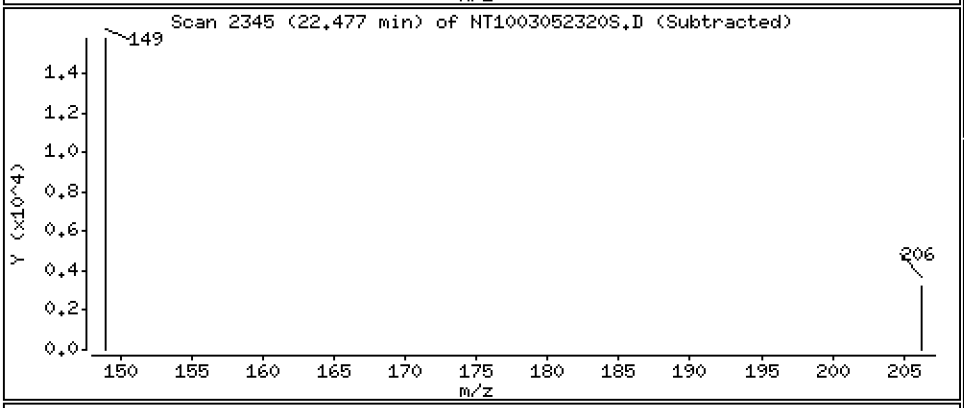
Column diameter: 0.25

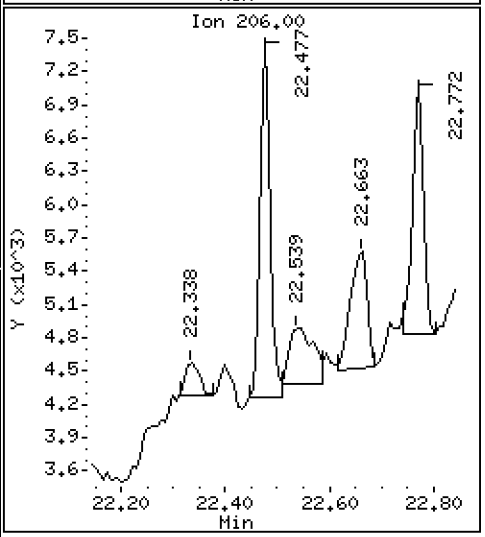
67 Butylbenzylphthalate

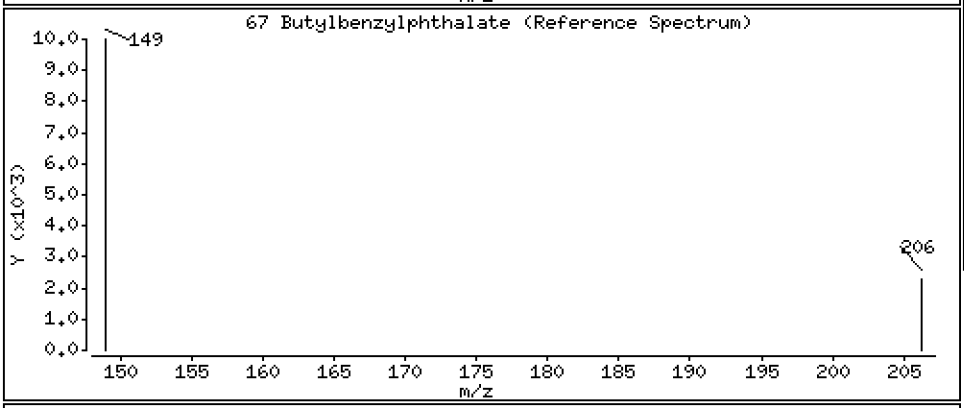
Concentration: 0.1323 ug/mL

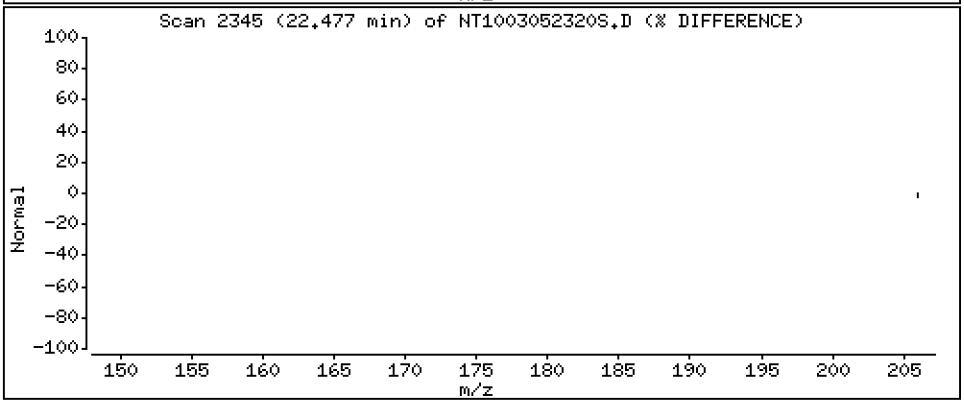












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052320S.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

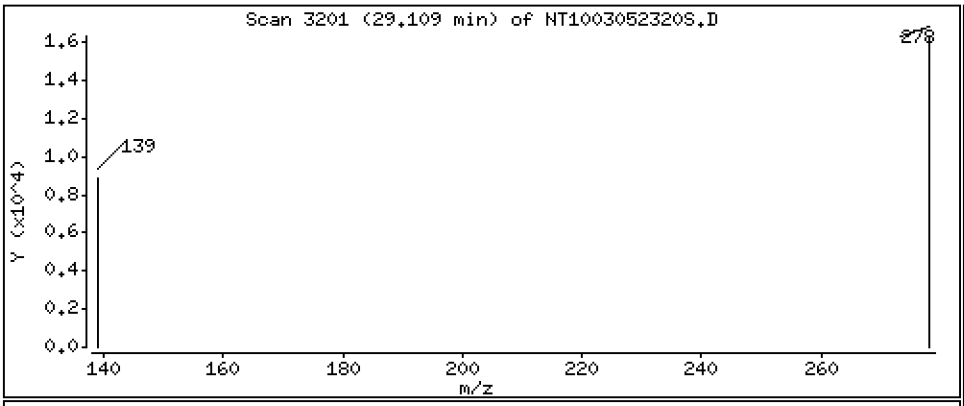
Operator: YZ

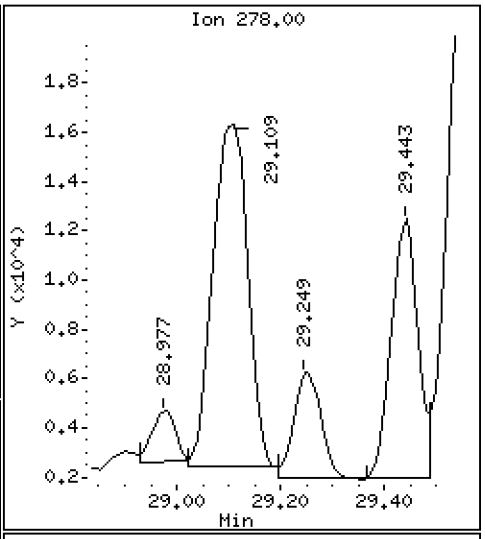
Column phase: ZB-5msi

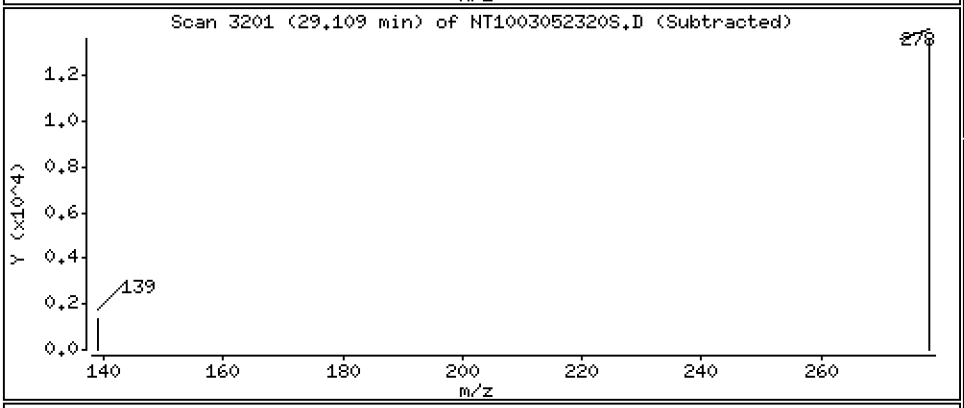
Column diameter: 0.25

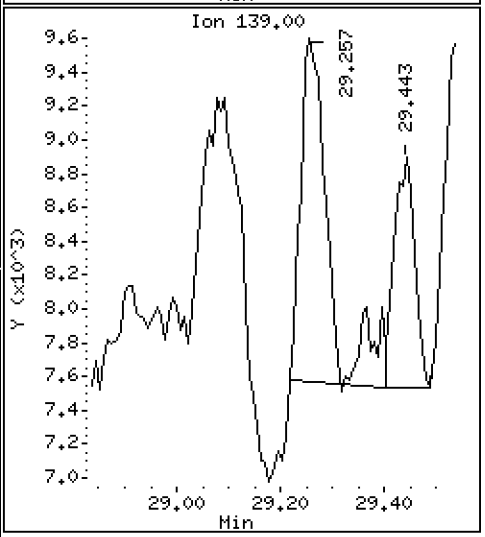
79 Dibenzo(a,h)anthracene

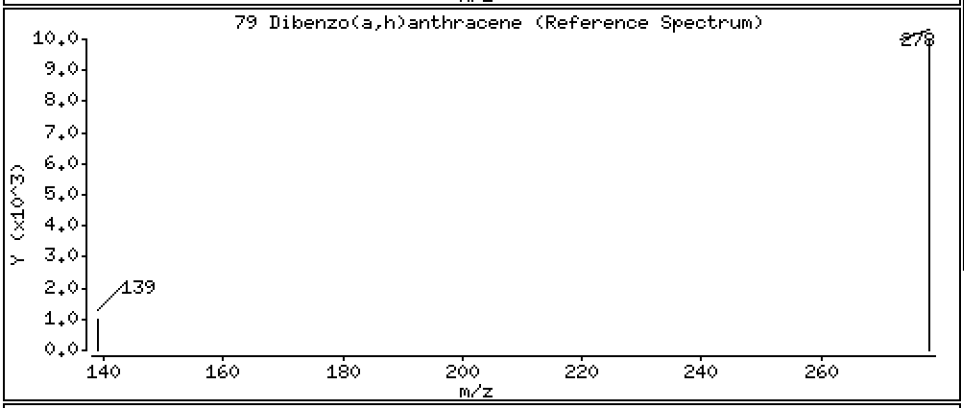
Concentration: 0.2337 ug/mL

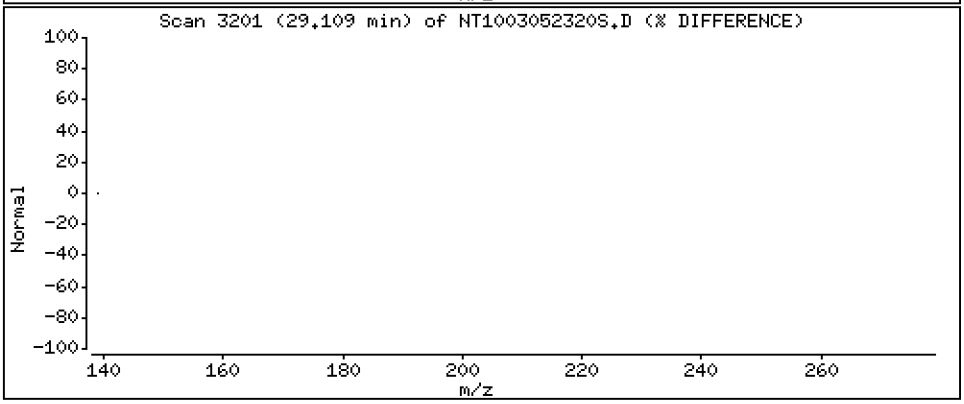












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052320S.D

Date : 06-MAR-2023 01:25

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-10

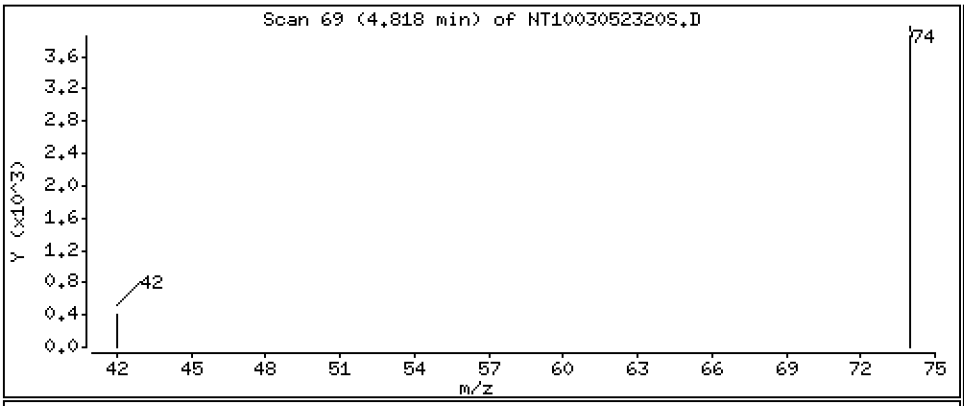
Operator: YZ

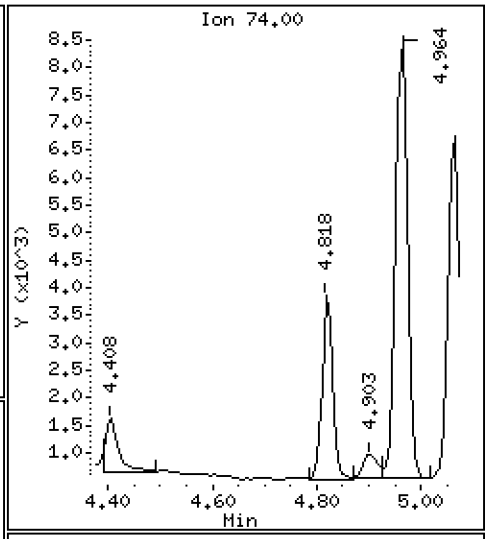
Column phase: ZB-5msi

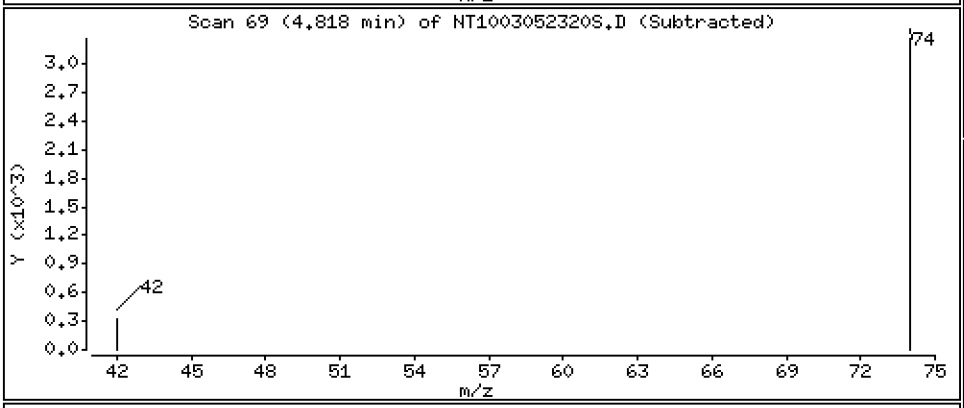
Column diameter: 0.25

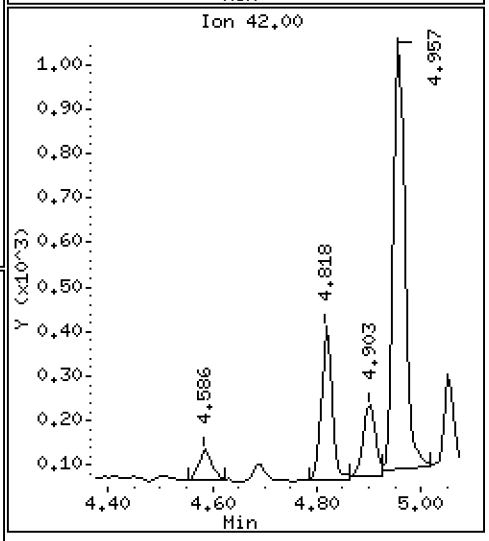
90 N-Nitrosodimethylamine

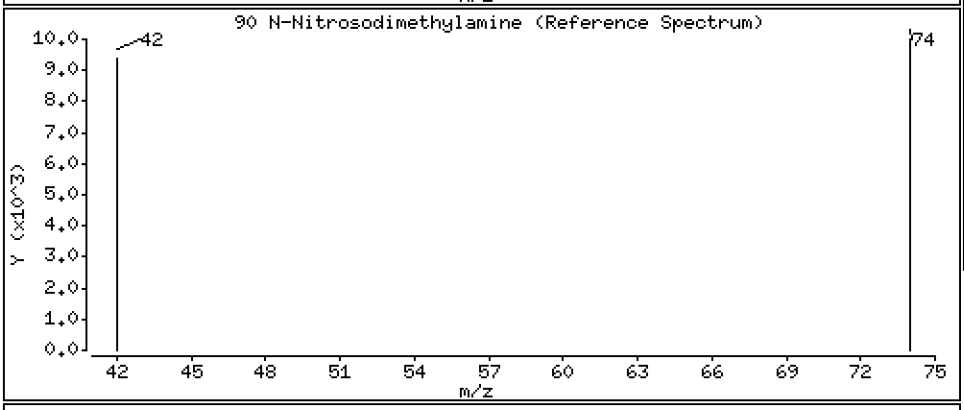
Concentration: 0.08619 ug/mL

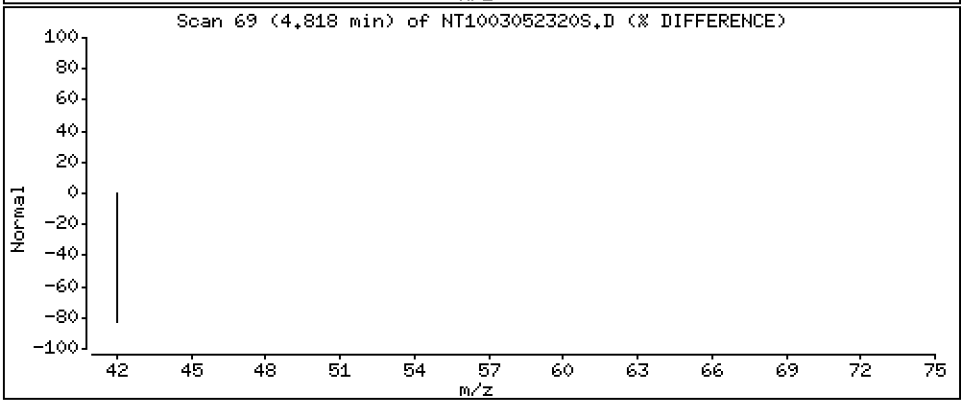












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052320S.D
Lab Smp Id: 23A0313-10
Inj Date : 06-MAR-2023 01:25
Operator : YZ Inst ID: nt10.i
Smp Info : 23A0313-10
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Meth Date : 29-Mar-2023 11:59 van Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: VANS-201906

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
$	1	2-Fluorophenol	112	6.918	6.902	(0.747)	548191	6.03770	6.038(R)
	3	Phenol	94	8.556	8.532	(0.924)	197111	1.46123	1.461
	7	1,3-Dichlorobenzene	146	9.151	9.143	(0.988)	521	0.00442	0.004420
*	8	1,4-Dichlorobenzene-d4	152	9.260	9.252	(1.000)	318026	4.00000	
	9	1,4-Dichlorobenzene	146	9.291	9.283	(1.003)	2697	0.02354	0.02354
	11	Benzyl alcohol	79	9.508	9.484	(1.027)	16765	0.22527	0.2253
	12	1,2-Dichlorobenzene	146	9.578	9.570	(1.034)	493	0.00448	0.004476
	13	2-Methylphenol	108	9.702	9.671	(1.048)	2335	0.02900	0.02900
	15	4-Methylphenol	108	9.989	9.966	(1.079)	27450	0.32681	0.3268
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	24	Benzoic acid	105	11.184	11.133	(0.951)	15596	0.30092	0.3009
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	11.755	11.731	(1.000)	1112734	4.00000	
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	39	Dimethylphthalate	163	14.772	14.764	(0.962)	8488	0.04910	0.04910
*	42	Acenaphthene-d10	162	15.353	15.337	(1.000)	544391	4.00000	
	50	Diethylphthalate	149	16.242	16.234	(1.058)	31955	0.19603	0.1960
	54	N-Nitrosodiphenylamine	169	16.737	16.729	(0.907)	8521	0.04947	0.04947
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	18.453	18.453	(1.000)	1064250	4.00000	
$	66	Terphenyl-d14	244	21.594	21.594	(0.919)	664175	7.76074	7.761(R)
	67	Butylbenzylphthalate	149	22.477	22.484	(0.956)	23630	0.13229	0.1323
*	69	Chrysene-d12	240	23.507	23.514	(1.000)	1058301	4.00000	
*	77	Perylene-d12	264	26.240	26.270	(1.000)	1201257	4.00000	
	79	Dibenzo(a,h)anthracene	278	29.108	29.186	(1.109)	65214	0.23369	0.2337(H)
	90	N-Nitrosodimethylamine	74	4.817	4.724	(0.520)	4633	0.08619	0.08619

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052320S.D
Lab Smp Id: 23A0313-10
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 22:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	293840	146920	587680	318026	8.23
27 Naphthalene-d8	1032639	516320	2065278	1112734	7.76
42 Acenaphthene-d10	502349	251175	1004698	544391	8.37
59 Phenanthrene-d10	975997	487999	1951994	1064250	9.04
69 Chrysene-d12	978544	489272	1957088	1058301	8.15
77 Perylene-d12	1201606	600803	2403212	1201257	-0.03

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.26	0.09
27 Naphthalene-d8	11.73	11.23	12.23	11.76	0.20
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.10
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	0.00
69 Chrysene-d12	23.51	23.01	24.01	23.51	-0.03
77 Perylene-d12	26.27	25.77	26.77	26.24	-0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052320S.D

Lab ID: 23A0313-10
nt10.i, 20230305A.b\SIM.b\SIMABN2.m,   06-MAR-2023 01:25

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.520	0.511	0.0096	N-Nitrosodimethylamine

RRT check based on Ccal File: SIM.b/NT1003052315SA.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

LDW23-SC1012B

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

SIM SVOC Organics (Dual scan list)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-11 A	SDG:	23A0313
Sampled:	01/16/23 13:13	Prepared:	02/02/23 13:06	File ID:	NT1003052321S.D
% Solids:	58.66	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/06/23 02:02
Batch:	BLA0685	Sequence:	SLC0440	Initial/Final:	17.95 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00032
Cleanups:	GPC				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	3.0	J	0.6	4.7
95-50-1	1,2-Dichlorobenzene	1	4.7	U	0.7	4.7
100-51-6	Benzyl Alcohol	1	16.1	J	2.4	19.0
65-85-0	Benzoic acid	1	18.9	J	12.7	95.0
105-67-9	2,4-Dimethylphenol	1	3.5	J	2.1	19.0
120-82-1	1,2,4-Trichlorobenzene	1	4.7	U	2.5	4.7
86-30-6	N-Nitrosodiphenylamine	1	5.2		1.2	4.7
87-86-5	Pentachlorophenol	1	19.0	U	2.0	19.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	712.29	594	83.4	27 - 120	
p-Terphenyl-d14	474.86	696	147	37 - 120	*

Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523215.D

Page 1

Date : 06-MAR-2023 02:02

Client ID:

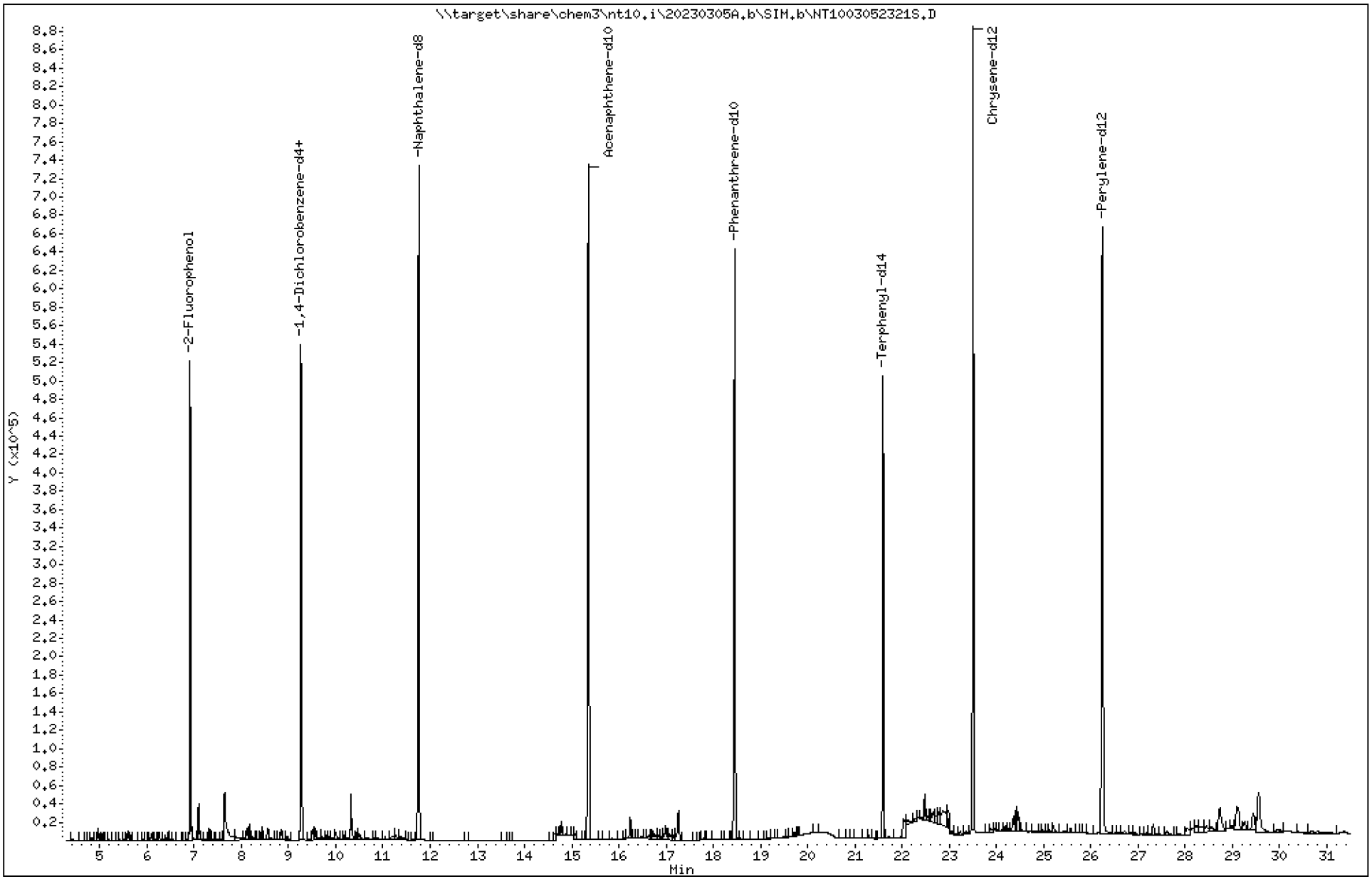
Instrument: nt10.i

Sample Info: 23A0313-11

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523215.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

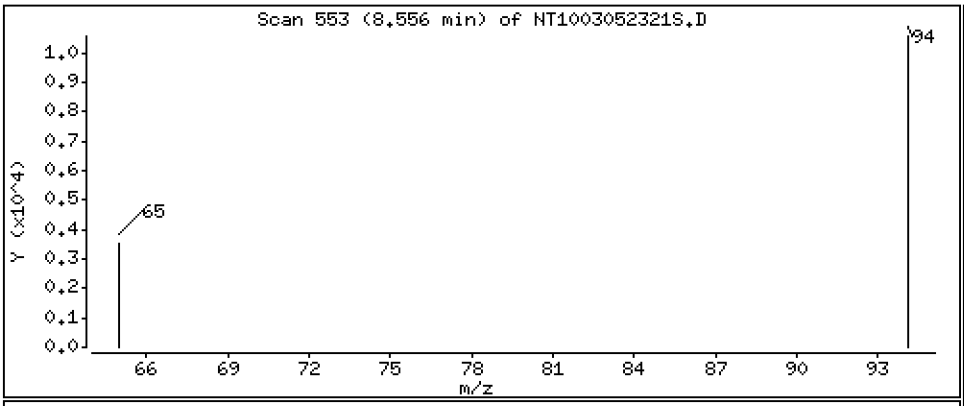
Operator: YZ

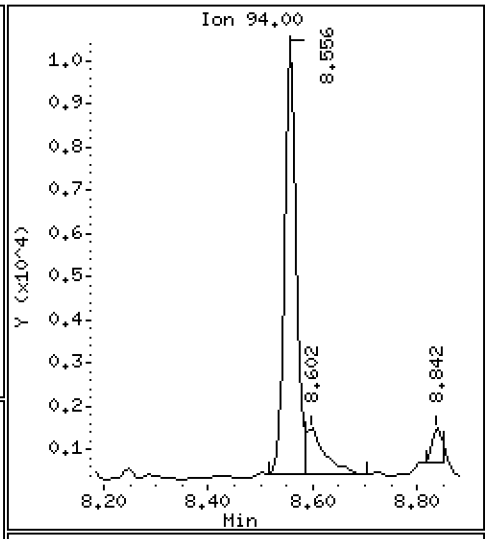
Column phase: ZB-5msi

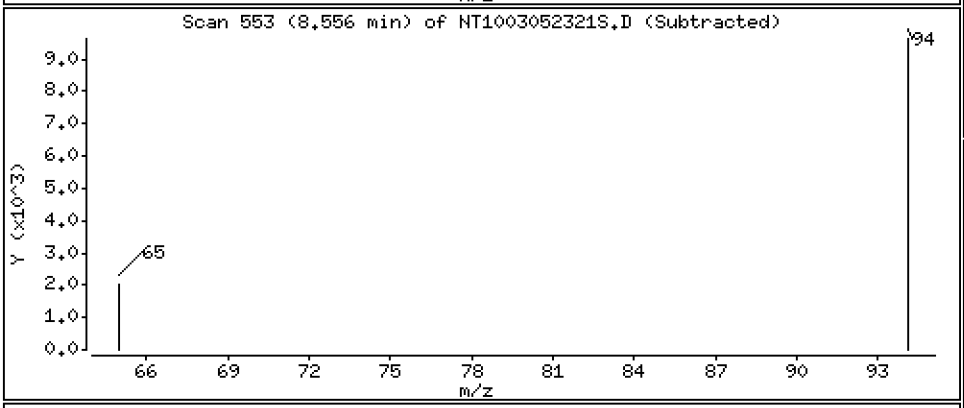
Column diameter: 0.25

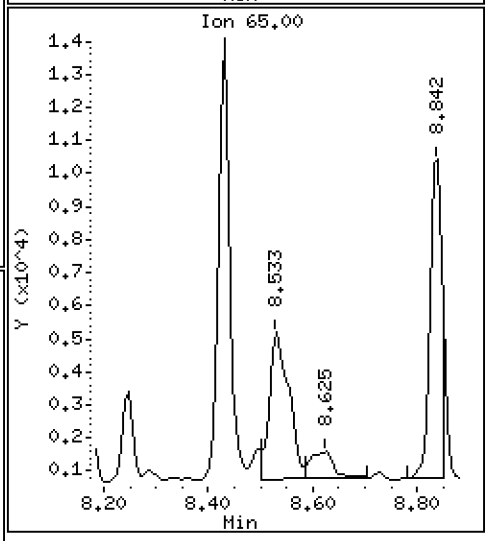
3 Phenol

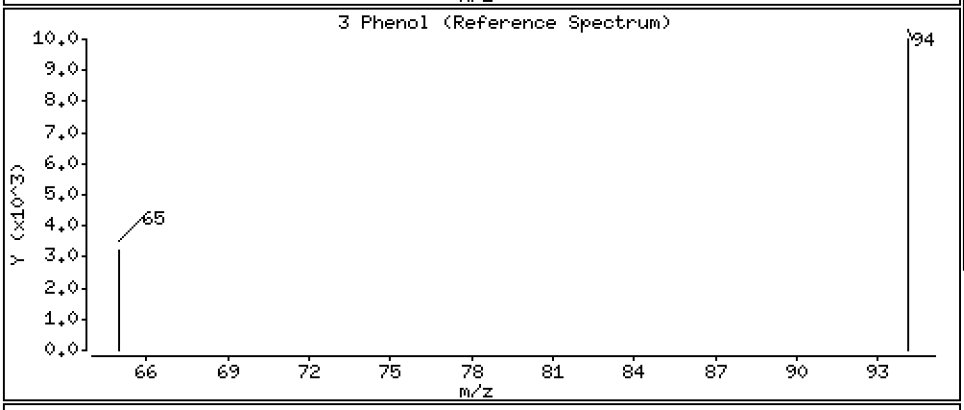
Concentration: 0.1170 ug/mL

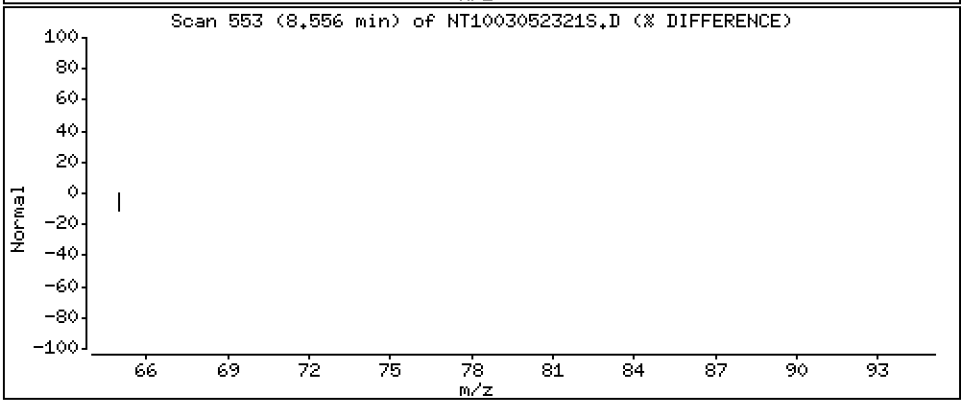












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523215.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

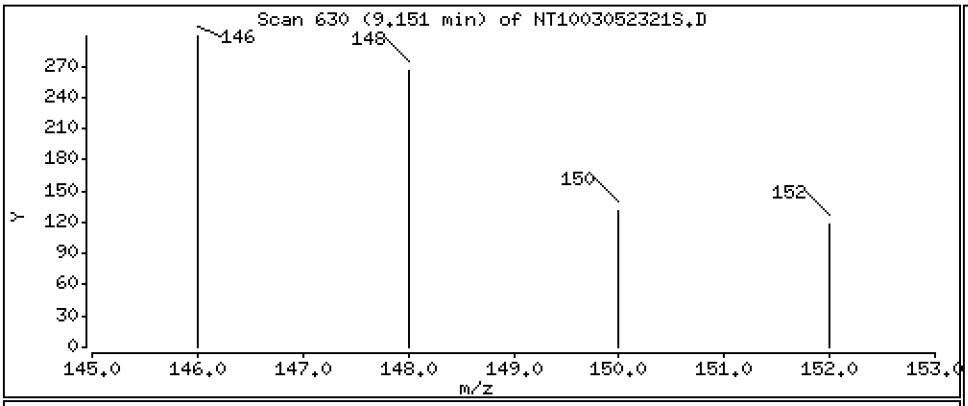
Operator: YZ

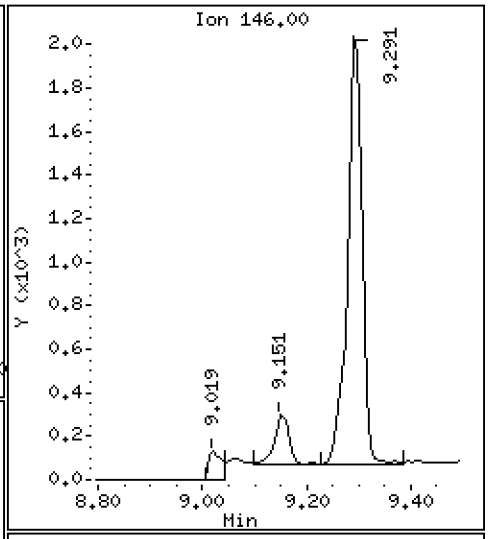
Column phase: ZB-5msi

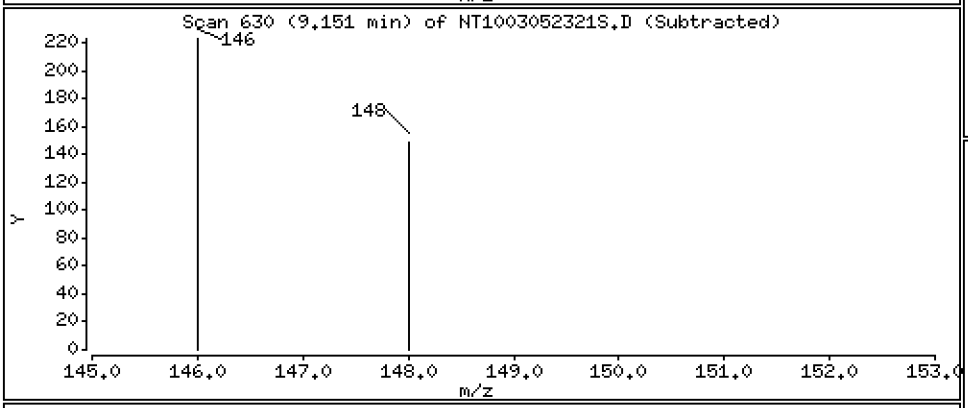
Column diameter: 0.25

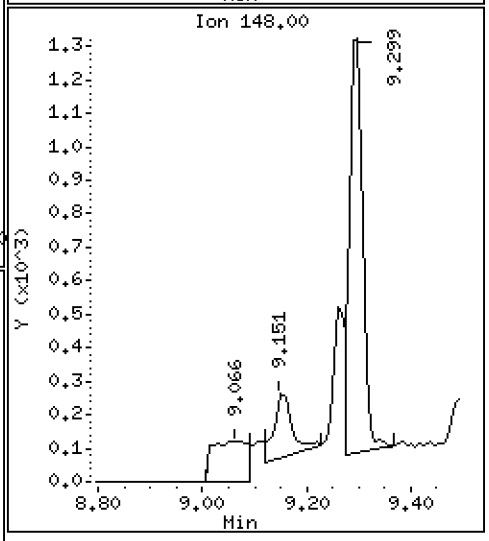
7 1,3-Dichlorobenzene

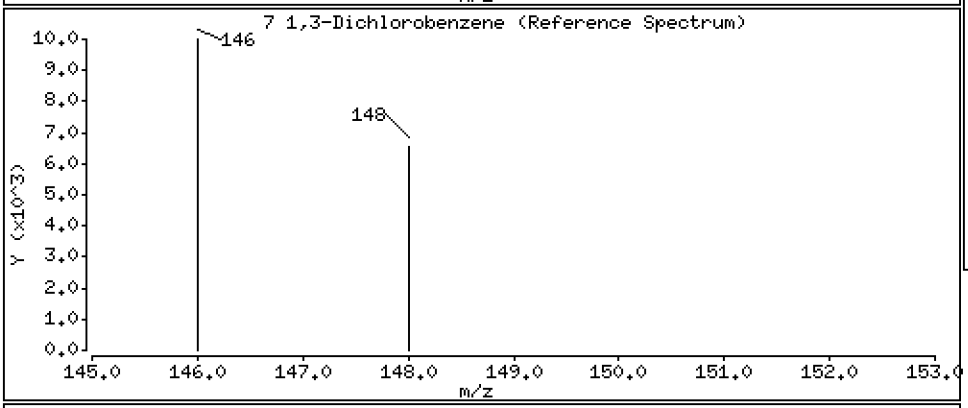
Concentration: 0.003378 ug/mL

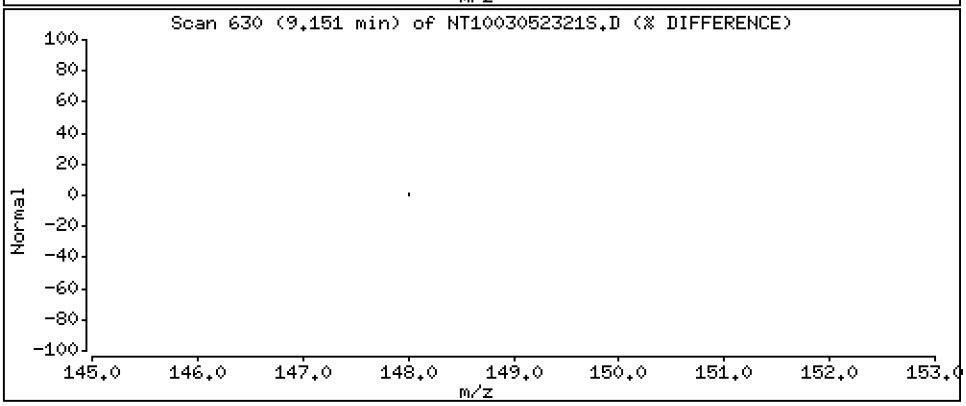












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523215.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

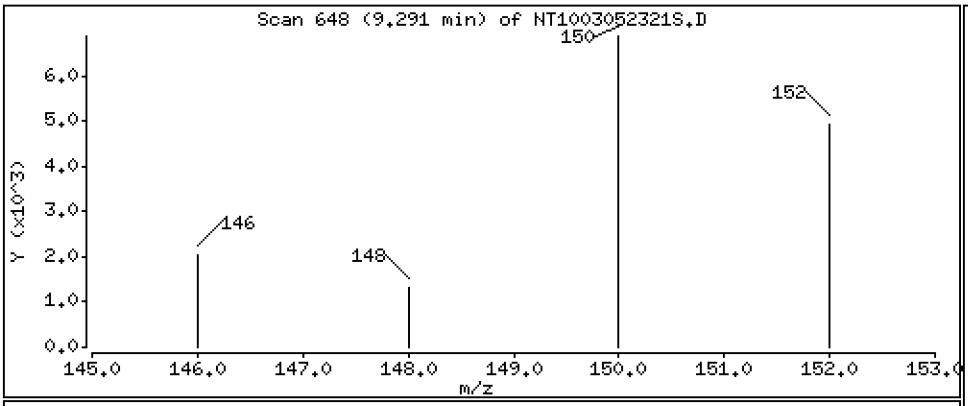
Operator: YZ

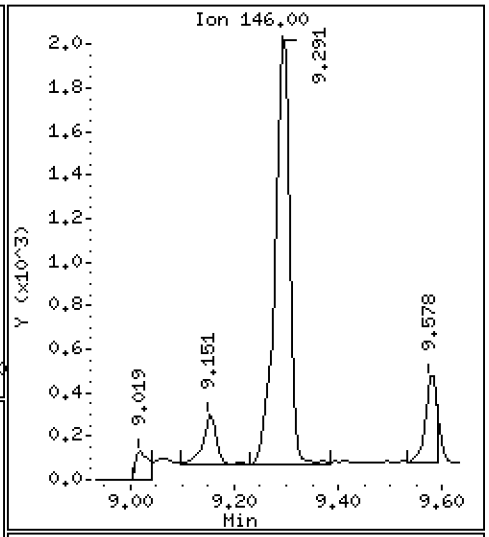
Column phase: ZB-5msi

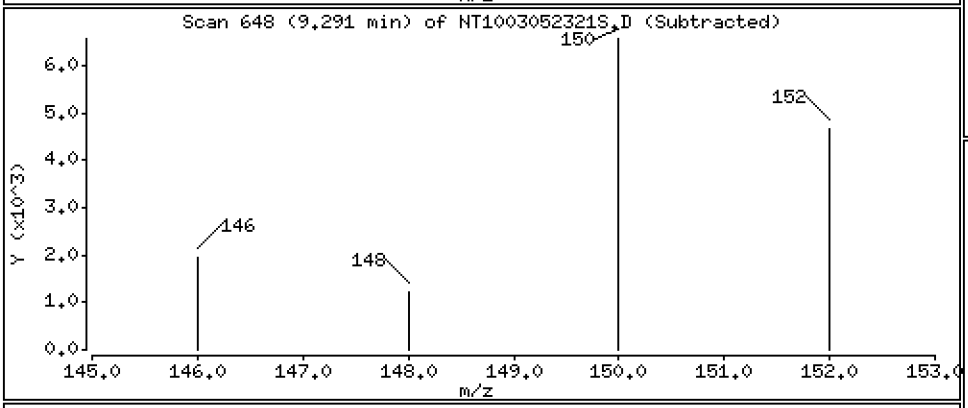
Column diameter: 0.25

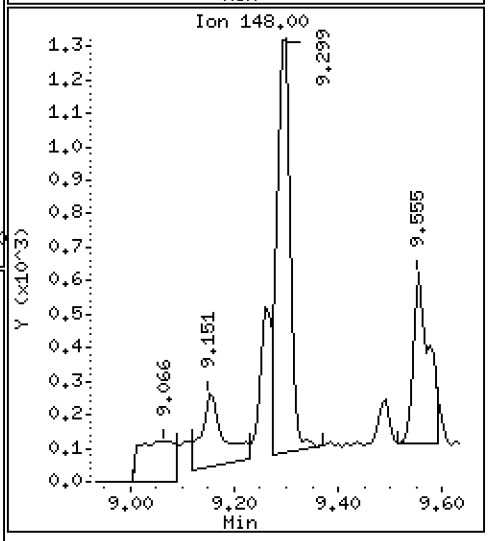
9 1,4-Dichlorobenzene

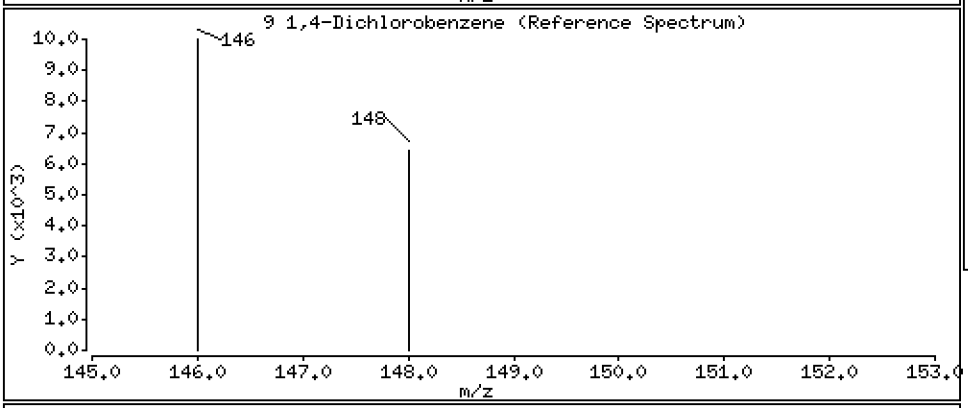
Concentration: 0.03177 ug/mL

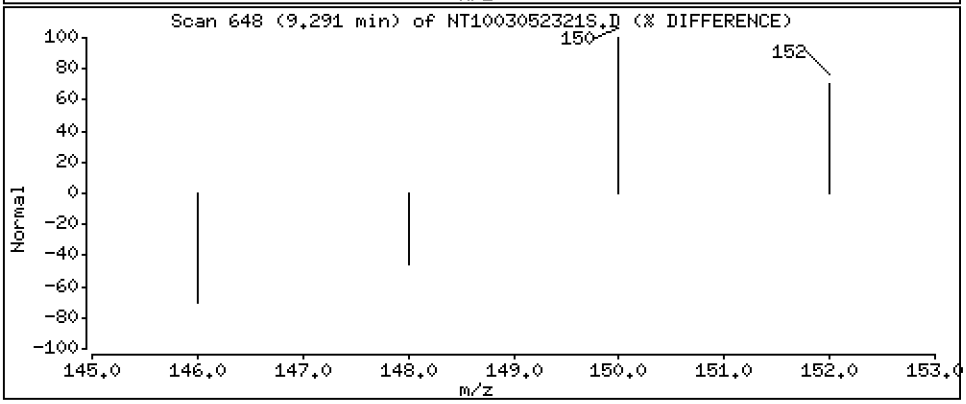












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

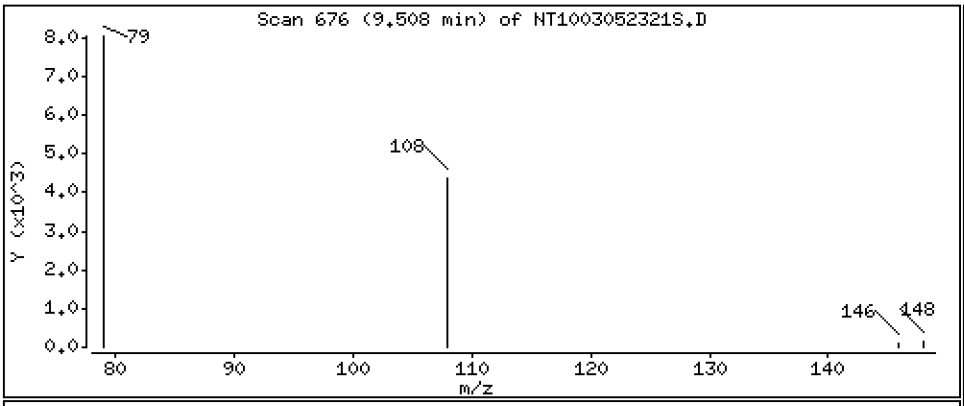
Operator: YZ

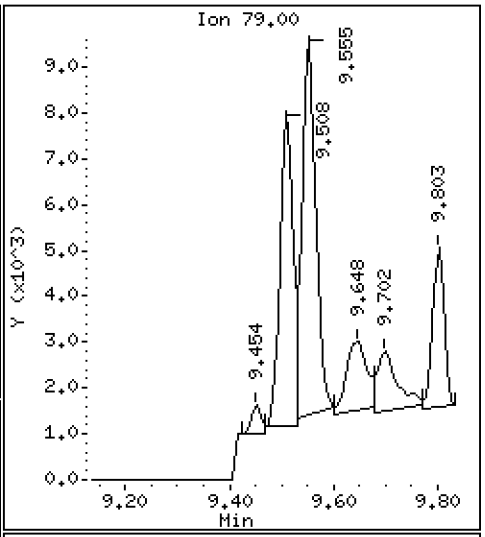
Column phase: ZB-5msi

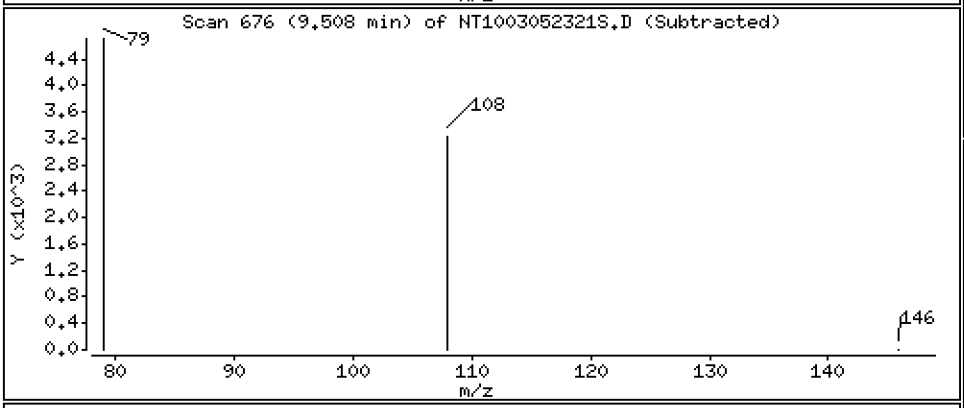
Column diameter: 0.25

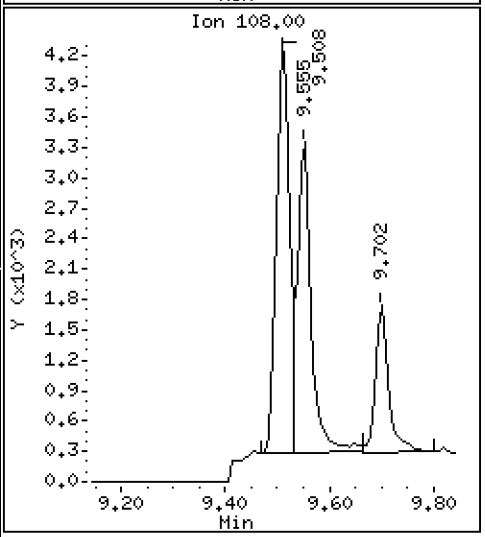
11 Benzyl alcohol

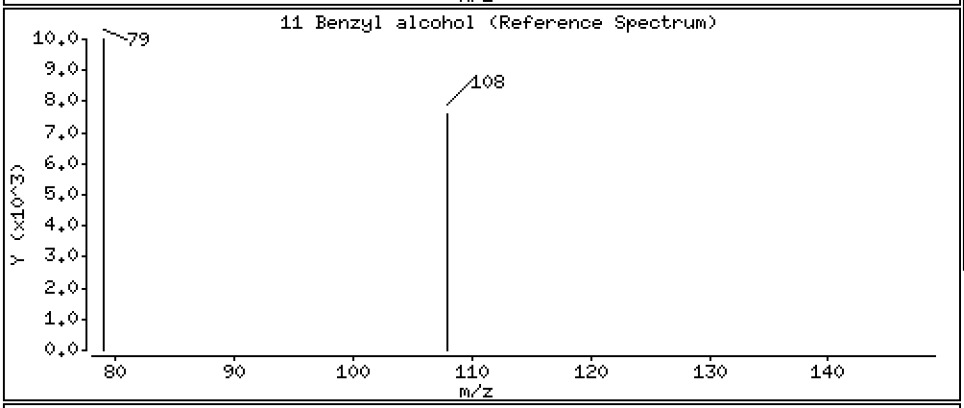
Concentration: 0.1691 ug/mL

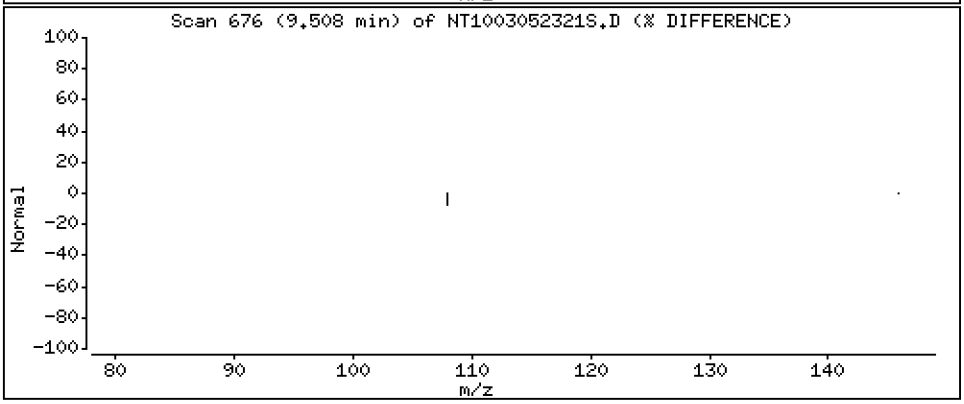












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523215.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

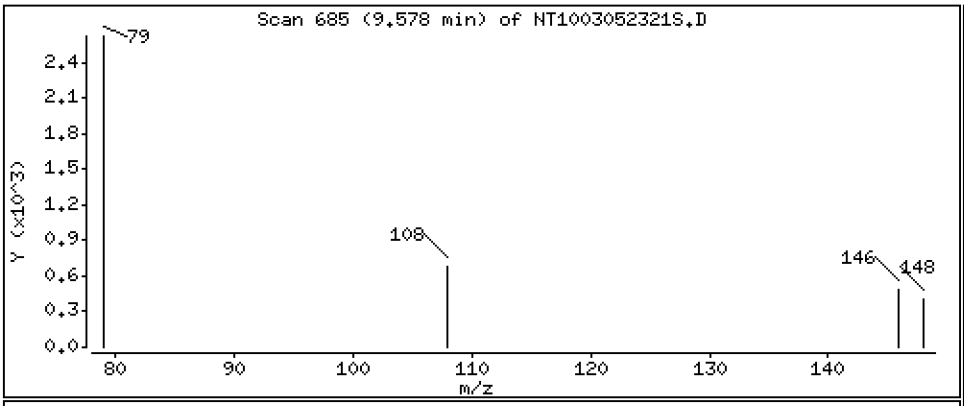
Operator: YZ

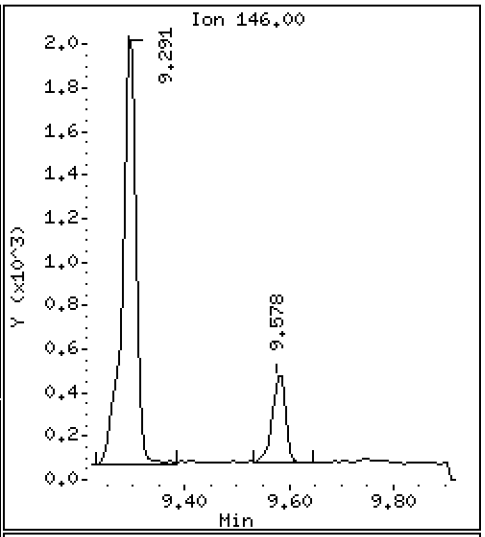
Column phase: ZB-5msi

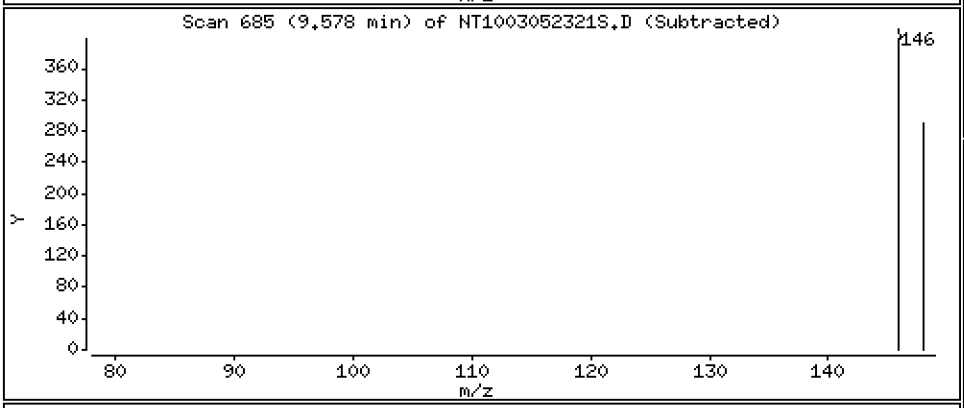
Column diameter: 0.25

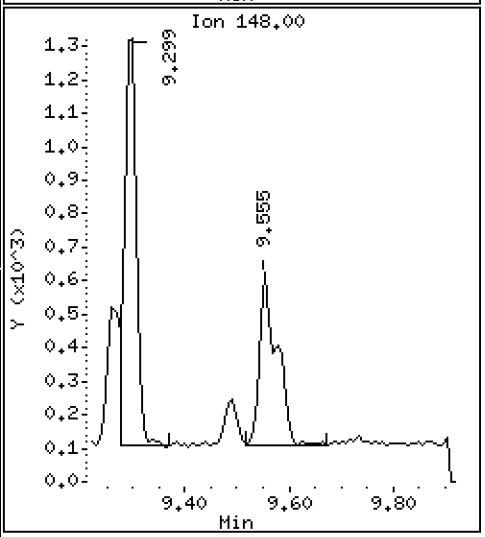
12 1,2-Dichlorobenzene

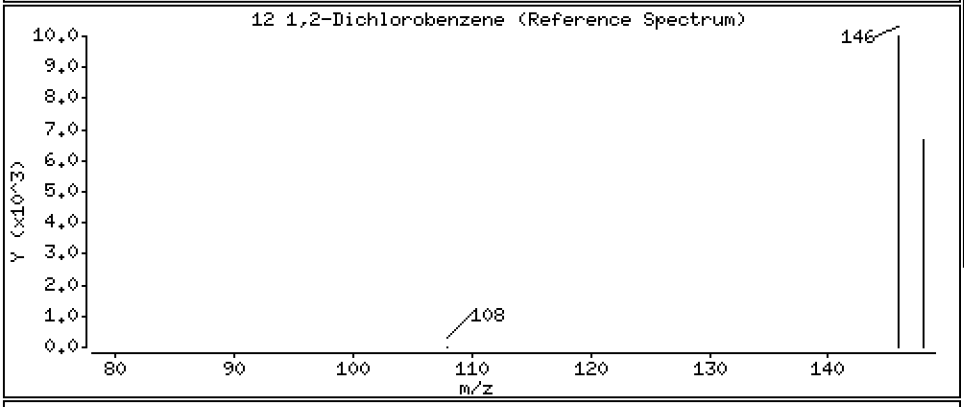
Concentration: 0.006360 ug/mL

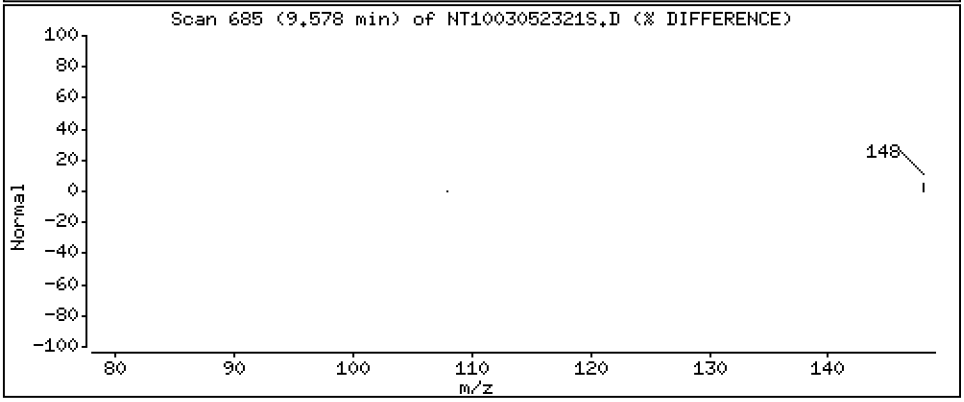












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523215.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

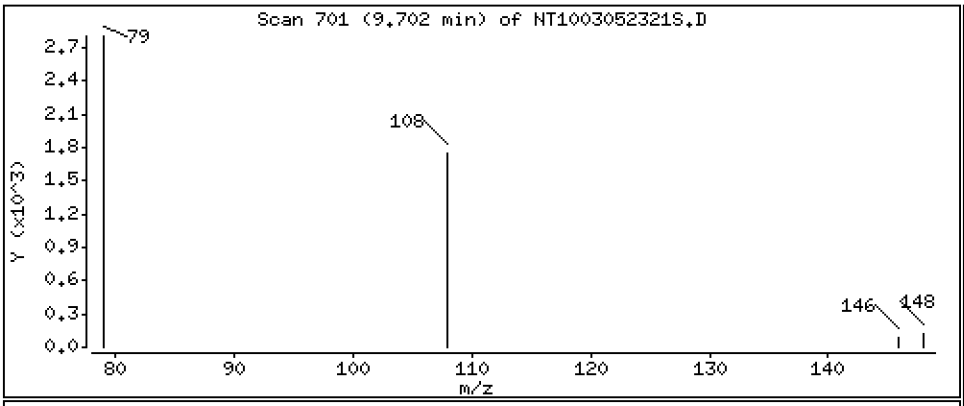
Operator: YZ

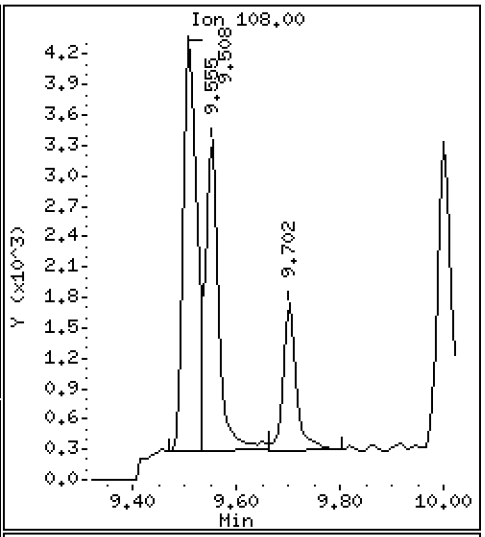
Column phase: ZB-5msi

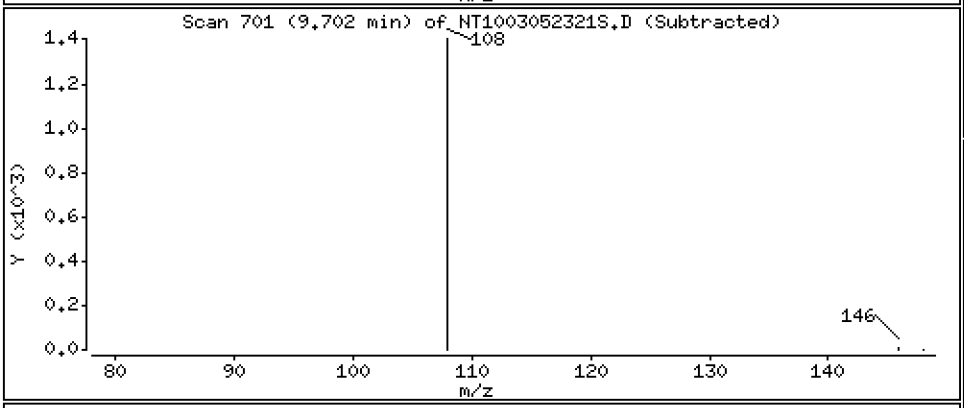
Column diameter: 0.25

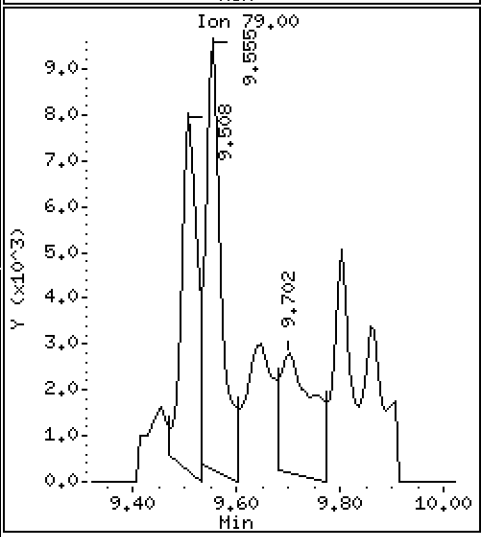
13 2-Methylphenol

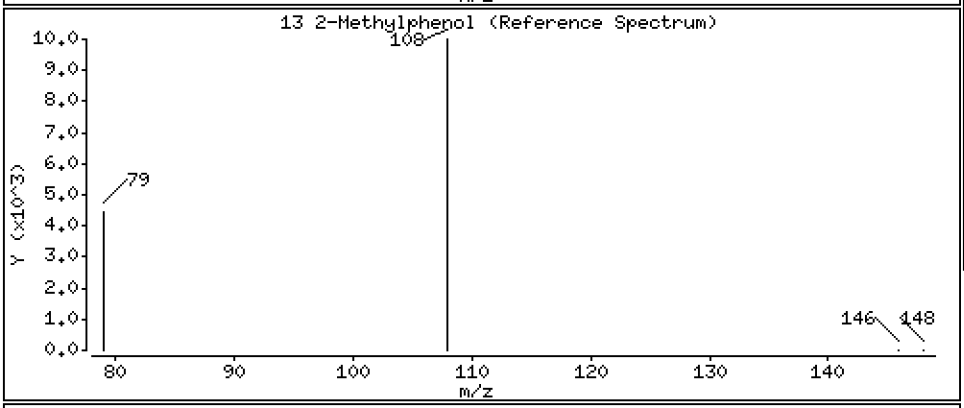
Concentration: 0.03327 ug/mL

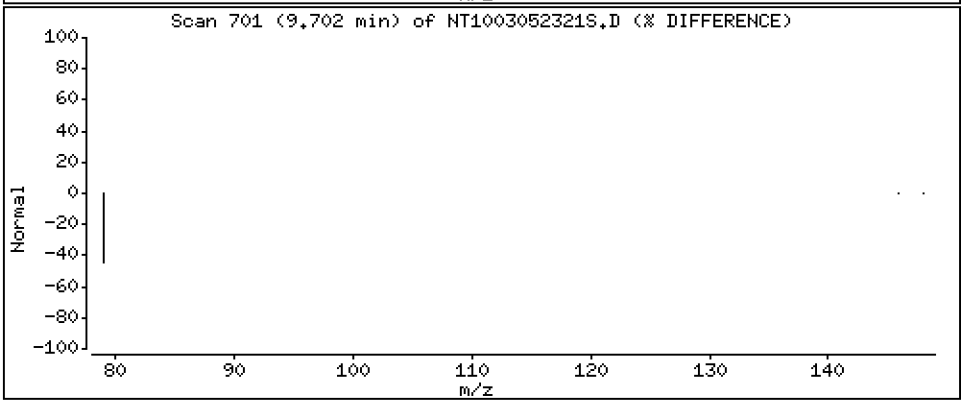












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523215.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

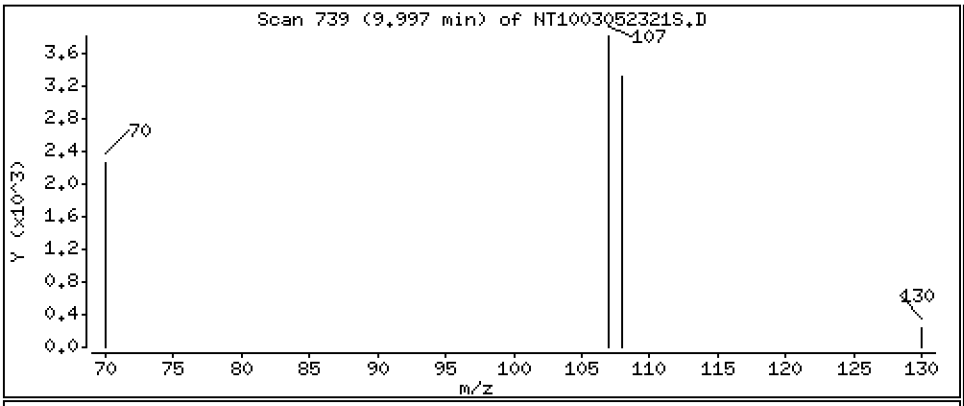
Operator: YZ

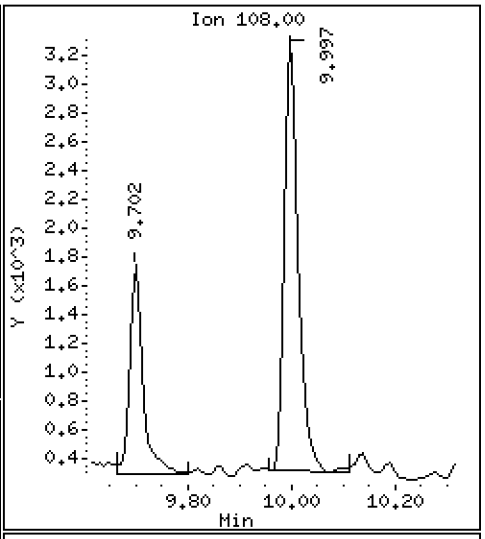
Column phase: ZB-5msi

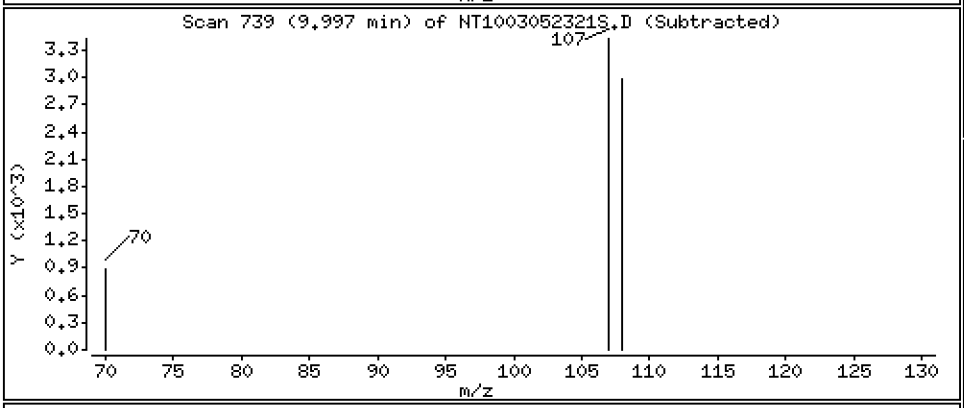
Column diameter: 0.25

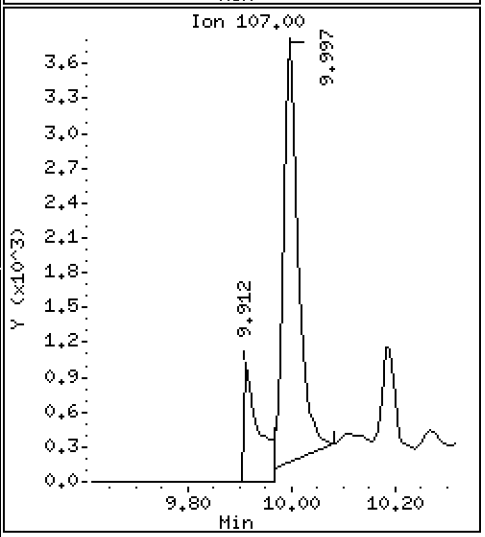
15 4-Methylphenol

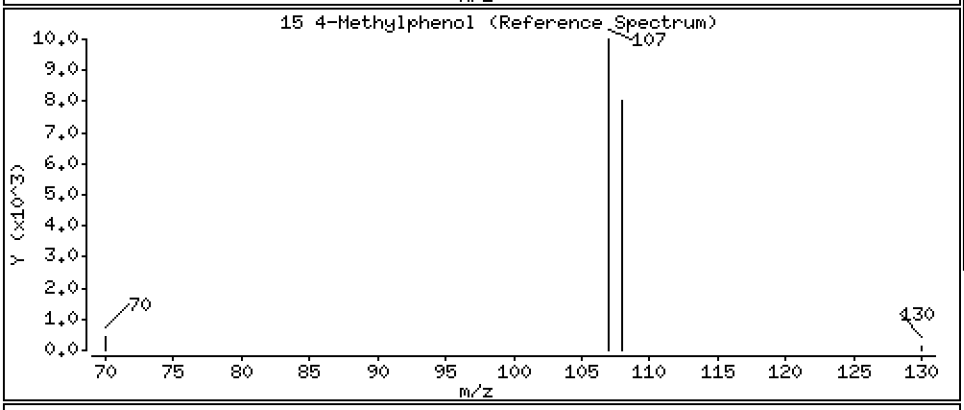
Concentration: 0.06929 ug/mL

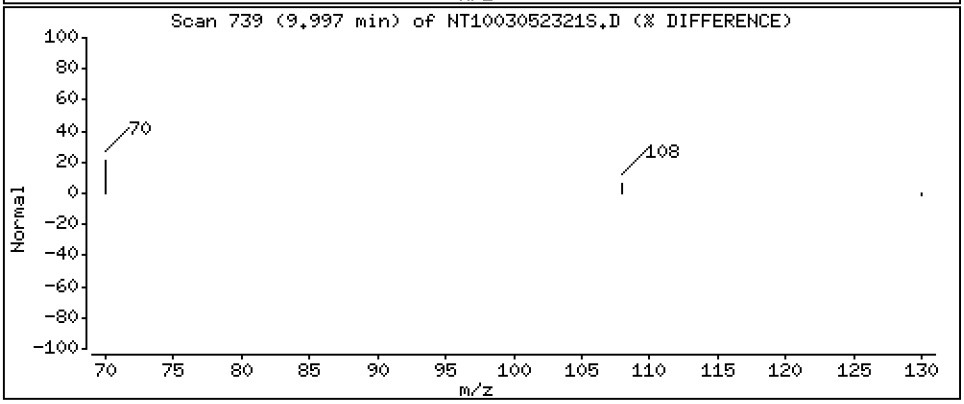












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523215.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

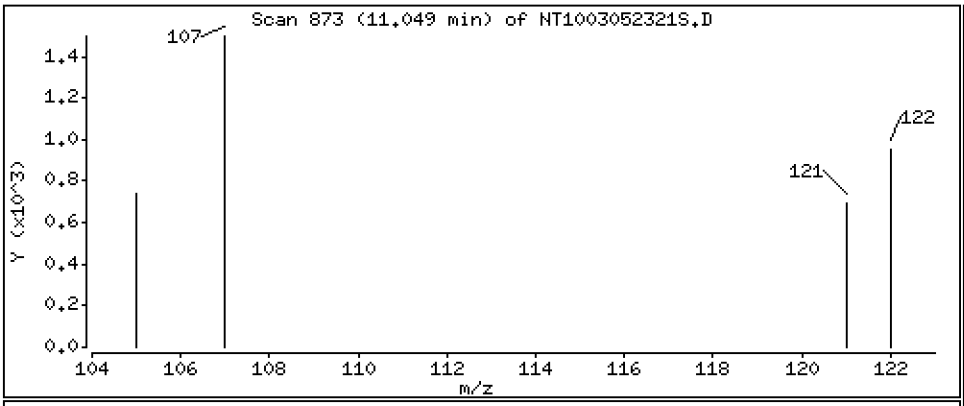
Operator: YZ

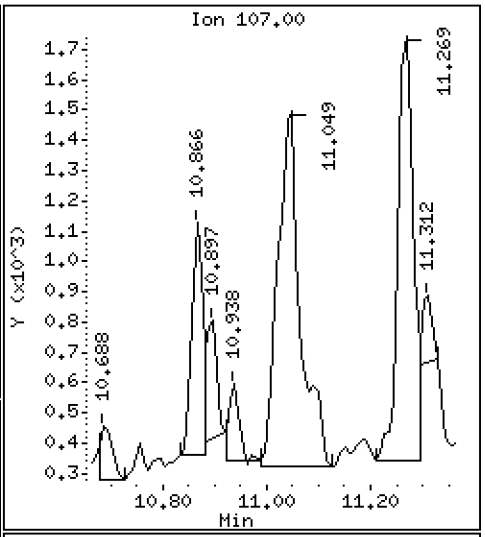
Column phase: ZB-5msi

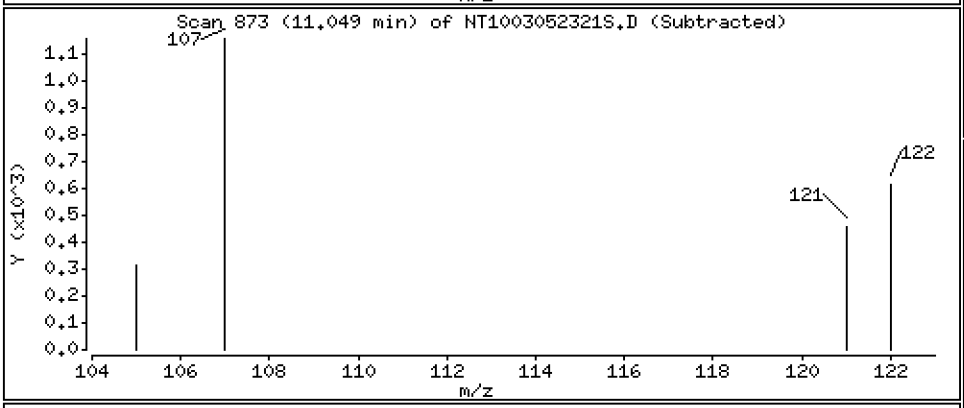
Column diameter: 0.25

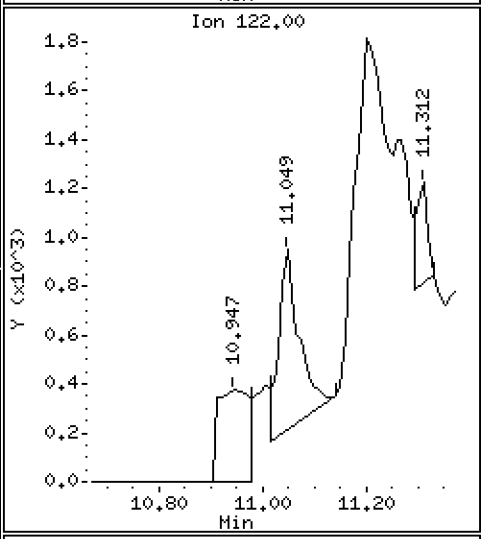
22 2,4-Dimethylphenol

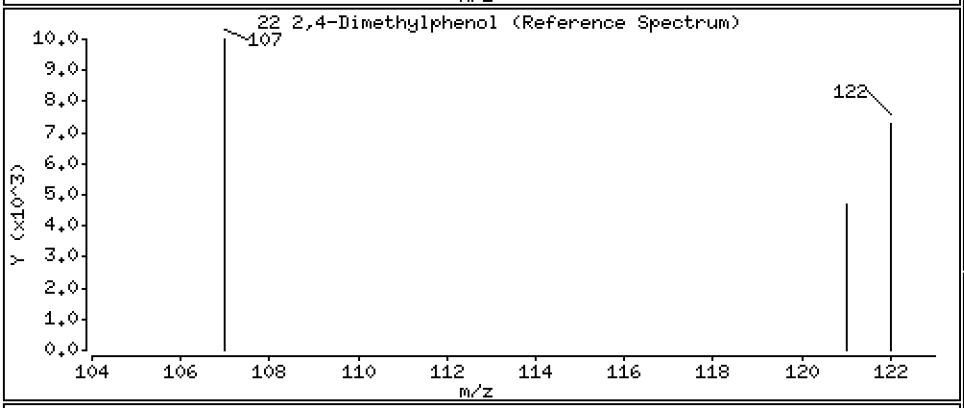
Concentration: 0.03686 ug/mL

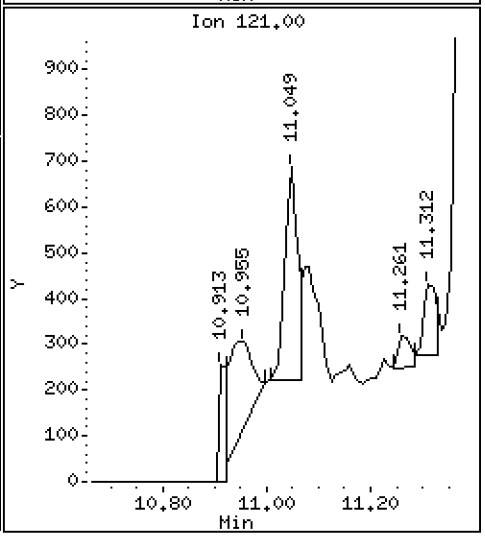


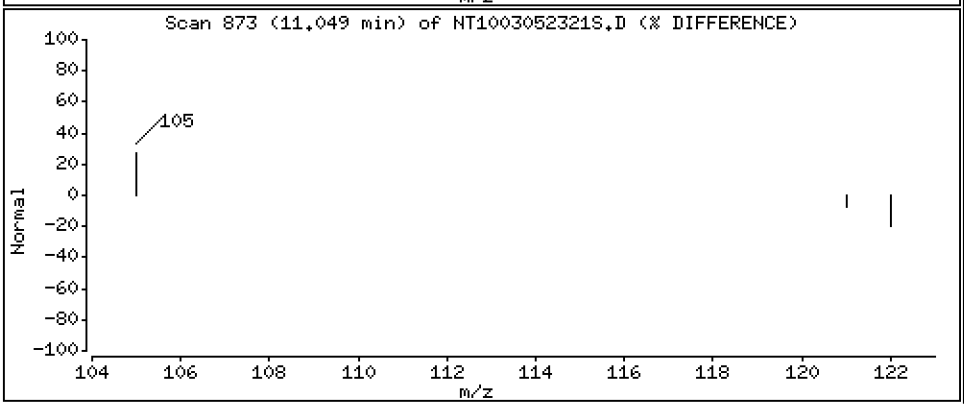












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523215.D

Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

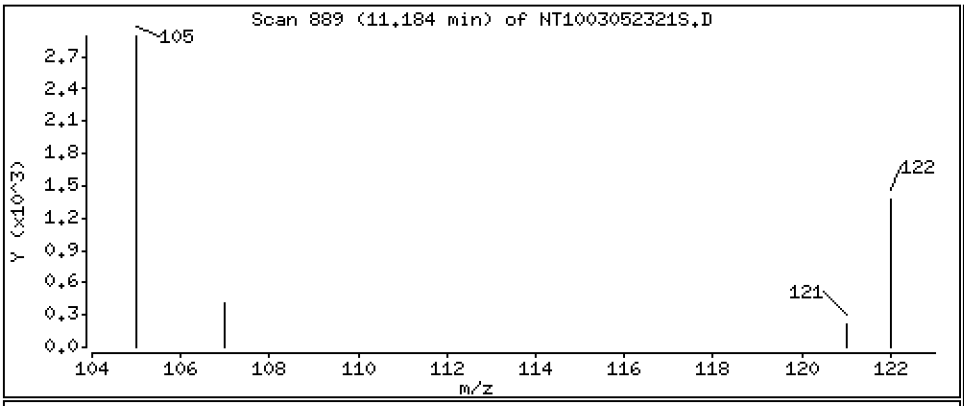
Operator: YZ

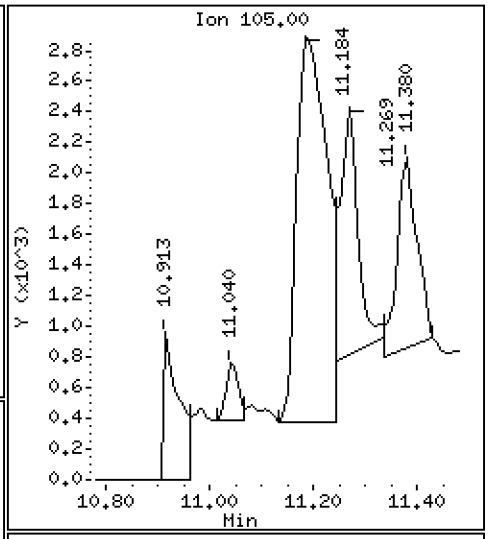
Column phase: ZB-5msi

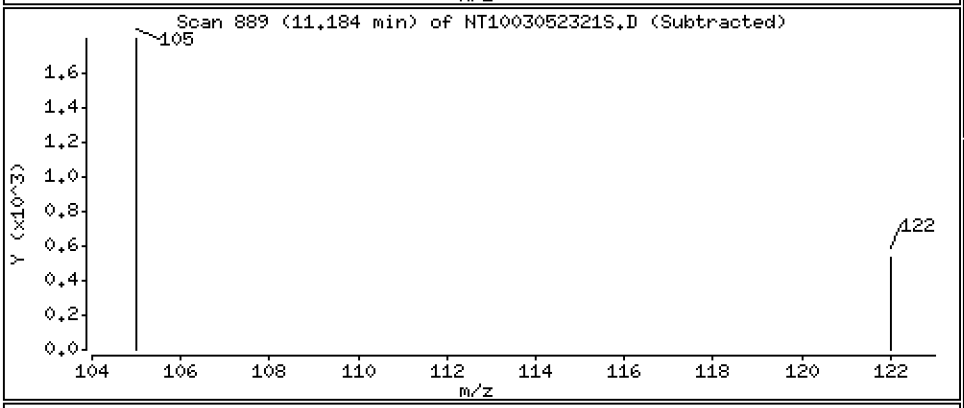
Column diameter: 0.25

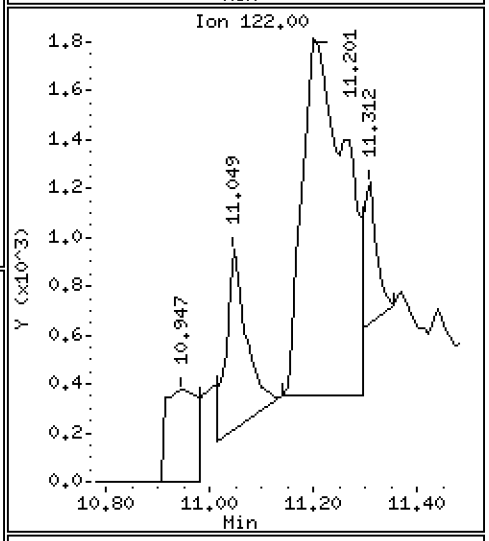
24 Benzoic acid

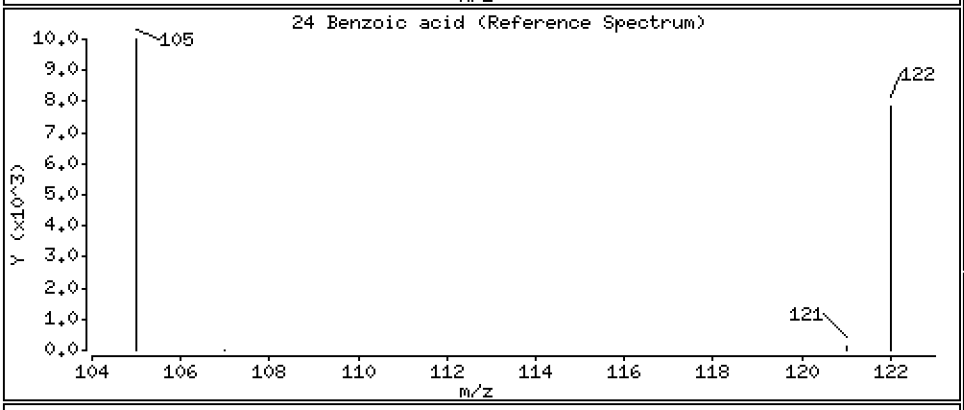
Concentration: 0.1992 ug/mL

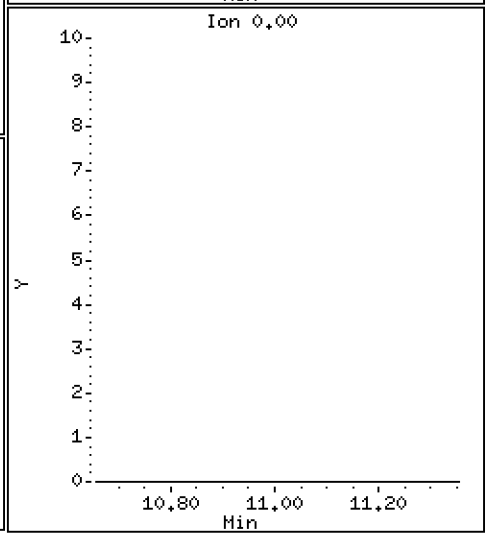


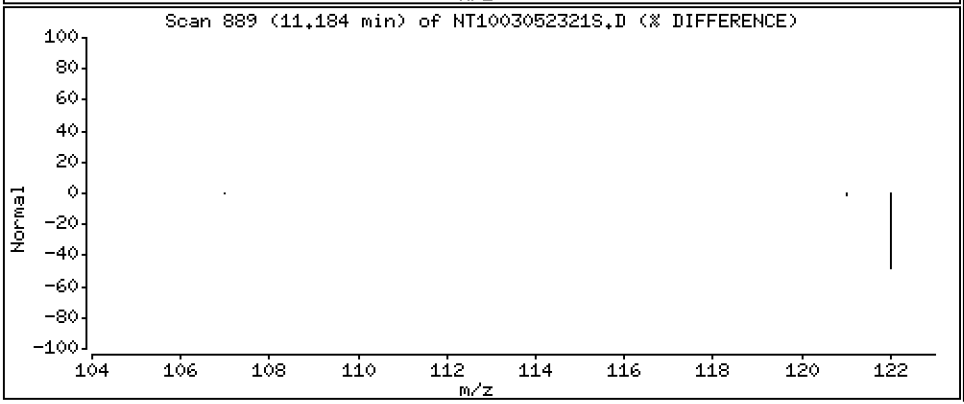












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

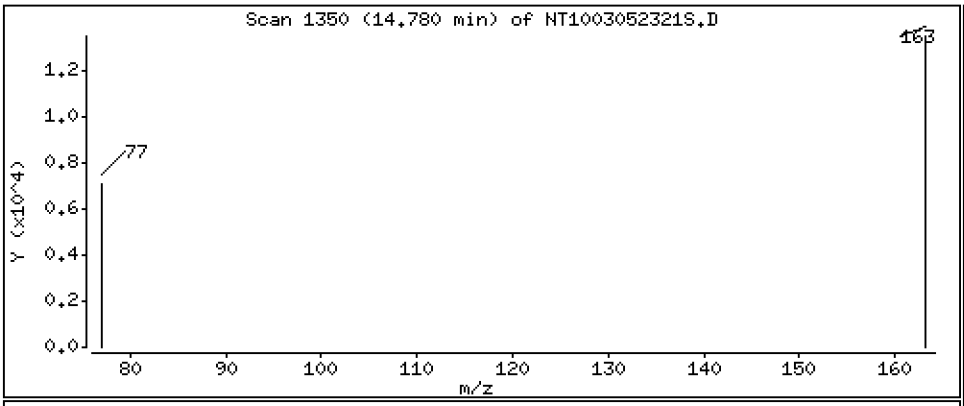
Operator: YZ

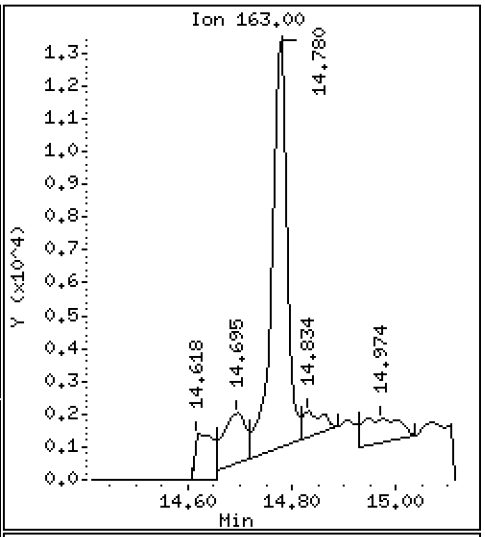
Column phase: ZB-5msi

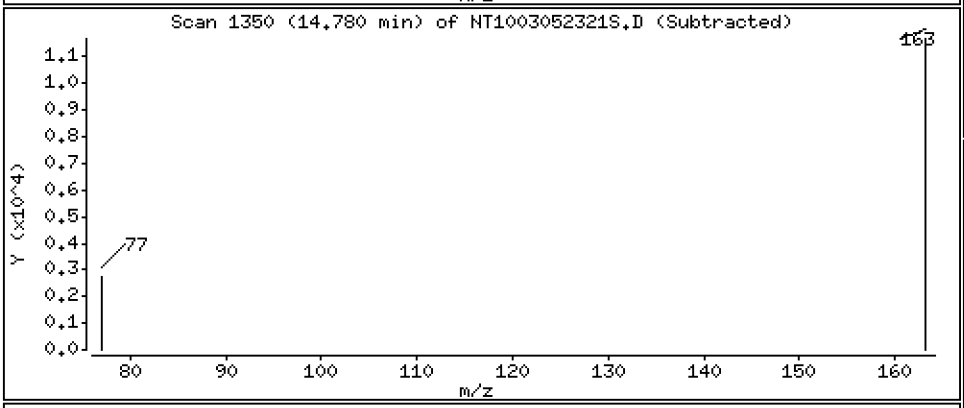
Column diameter: 0.25

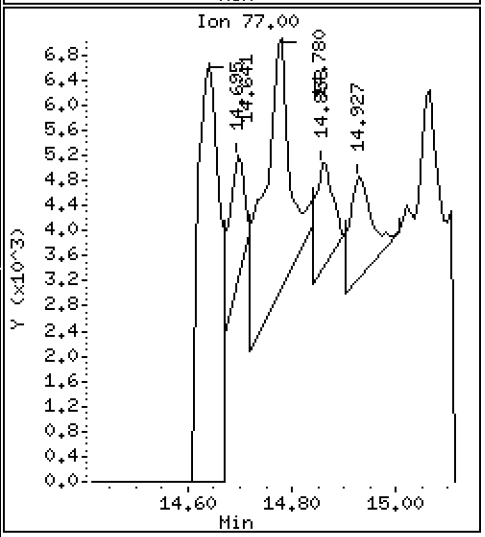
39 Dimethylphthalate

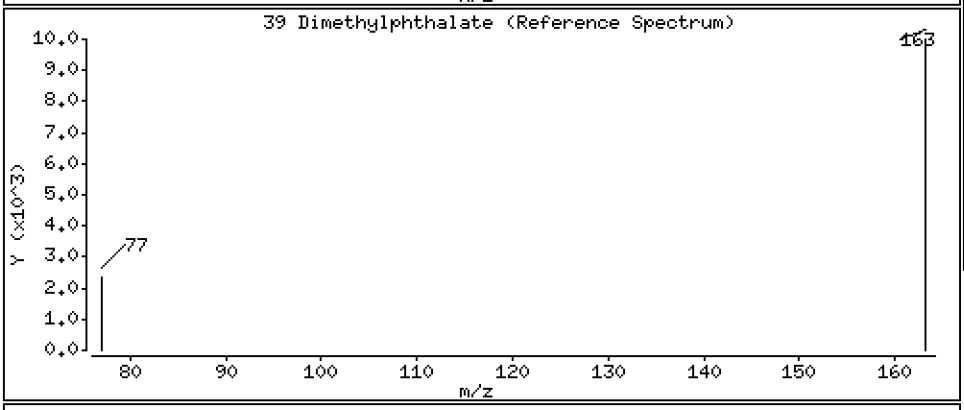
Concentration: 0.1370 ug/mL

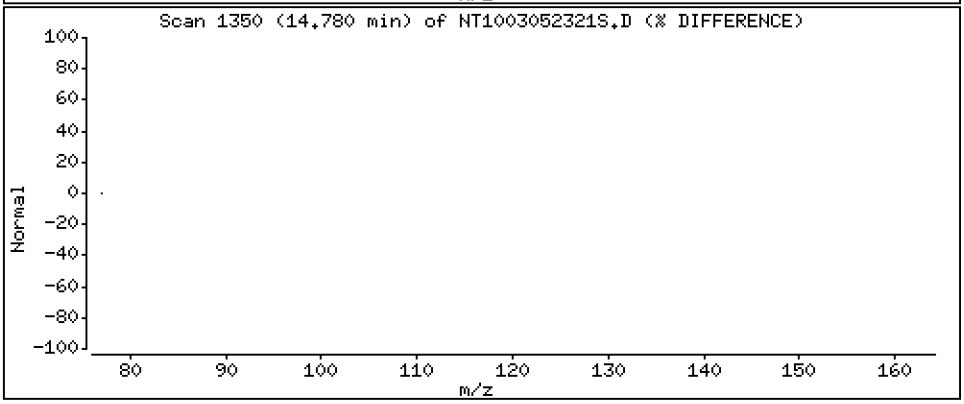












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

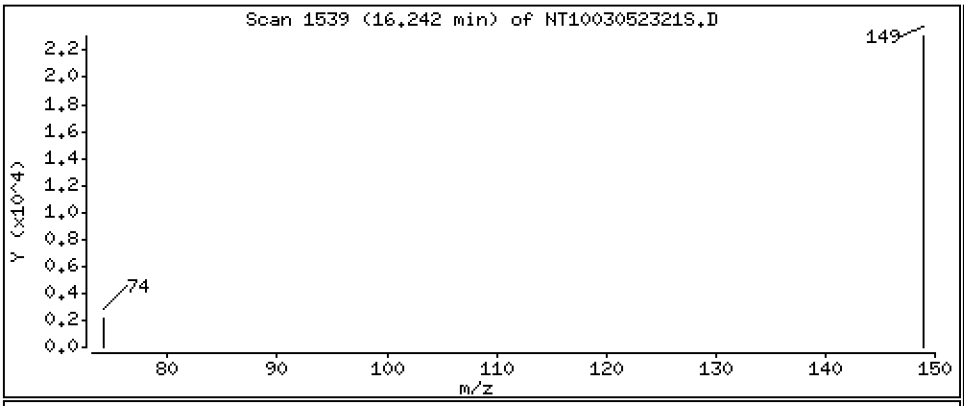
Operator: YZ

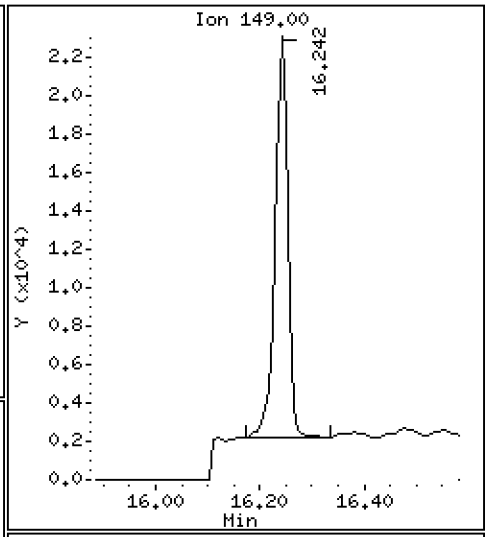
Column phase: ZB-5msi

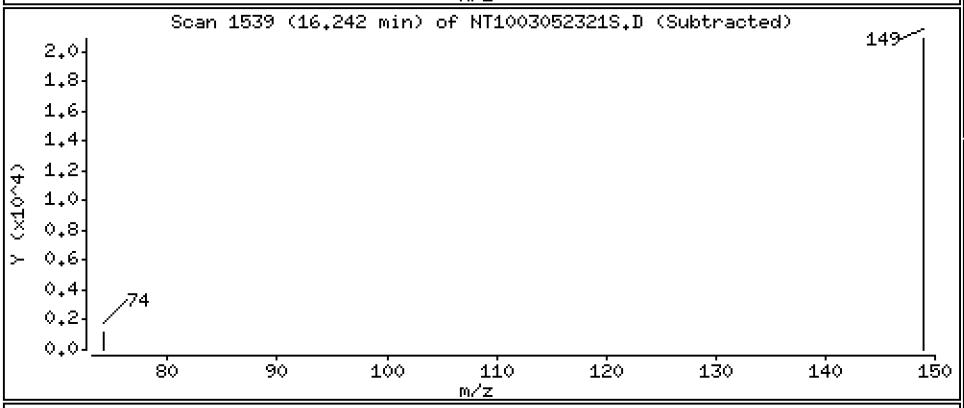
Column diameter: 0.25

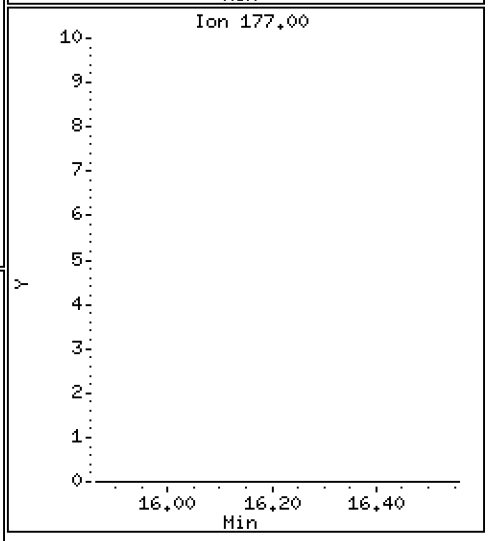
50 Diethylphthalate

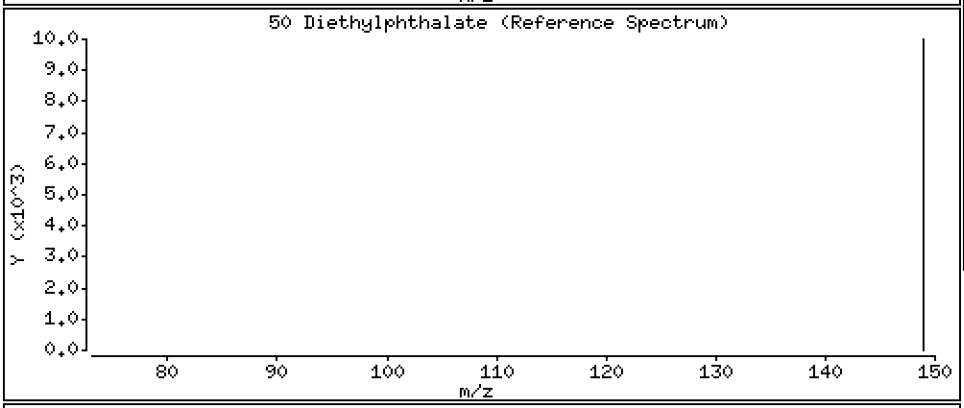
Concentration: 0.1957 ug/mL

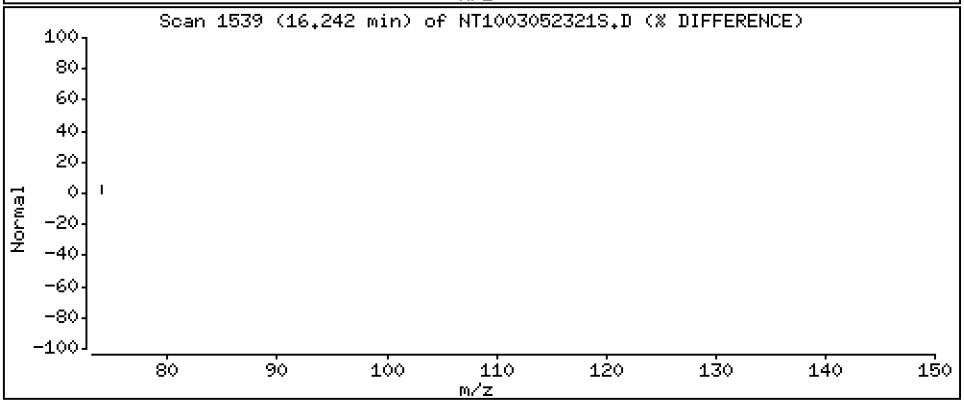












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

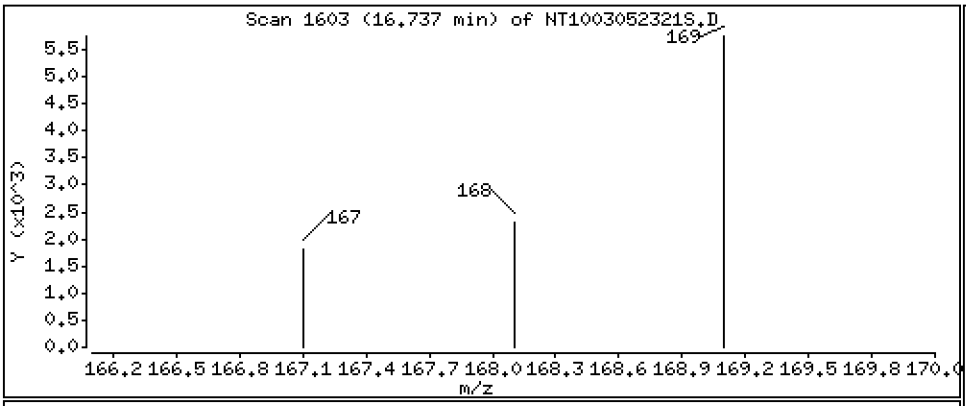
Operator: YZ

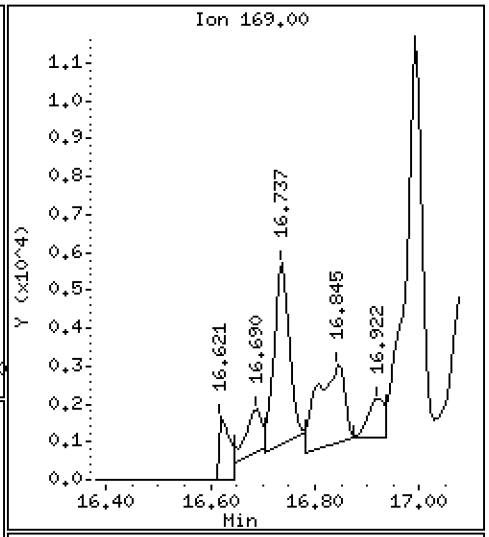
Column phase: ZB-5msi

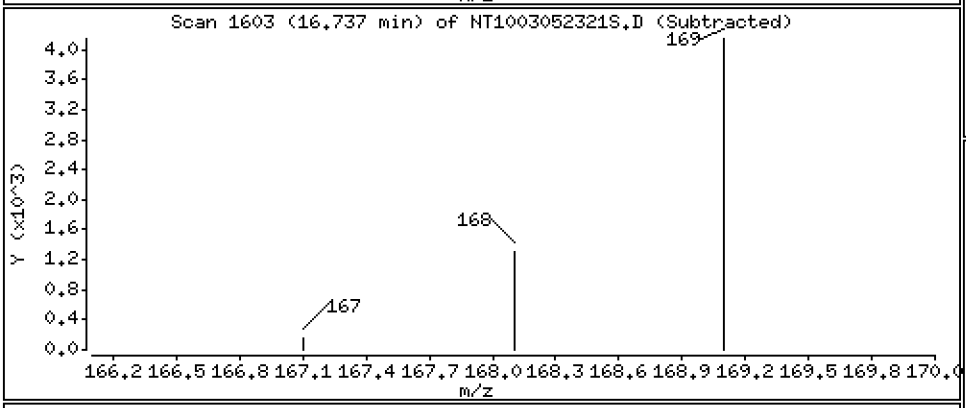
Column diameter: 0.25

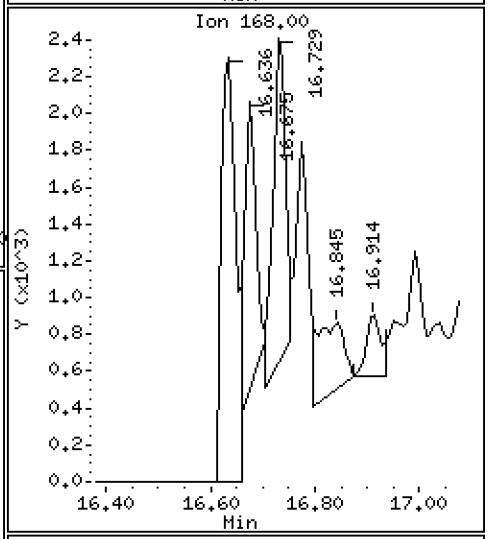
54 N-Nitrosodiphenylamine

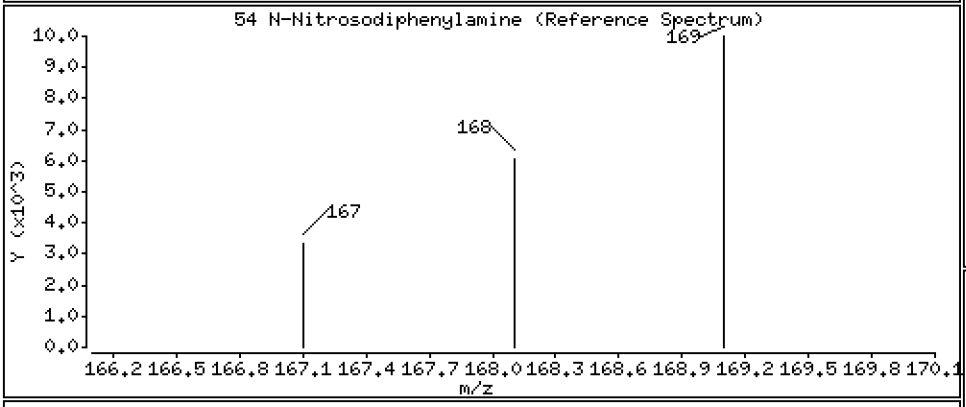
Concentration: 0.05504 ug/mL

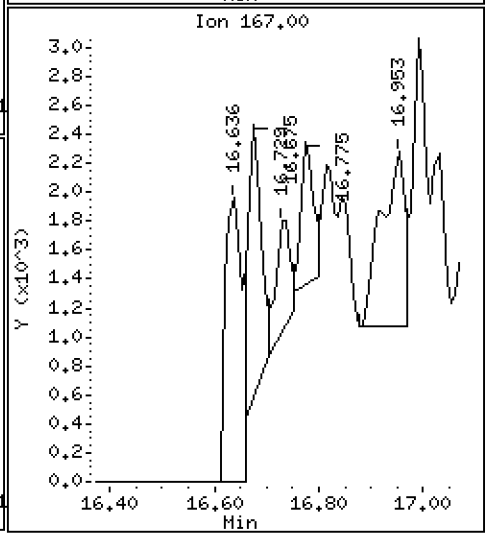


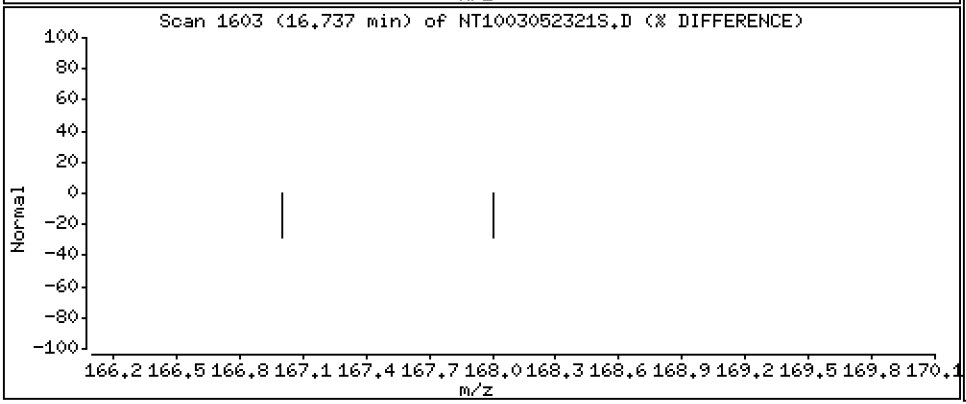












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

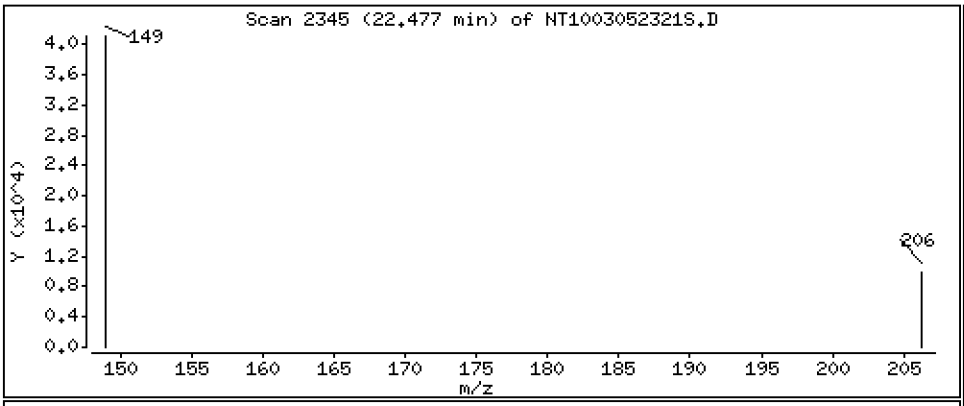
Operator: YZ

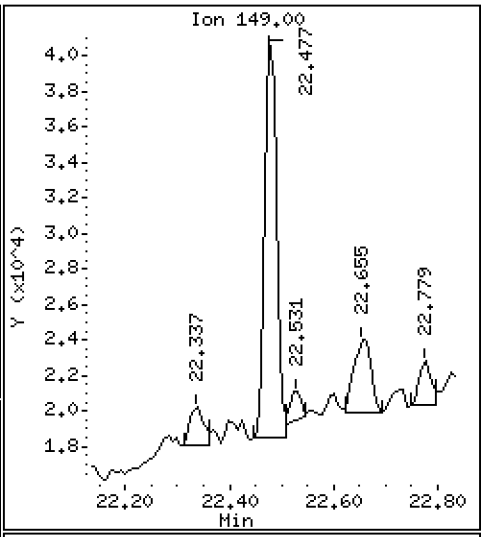
Column phase: ZB-5msi

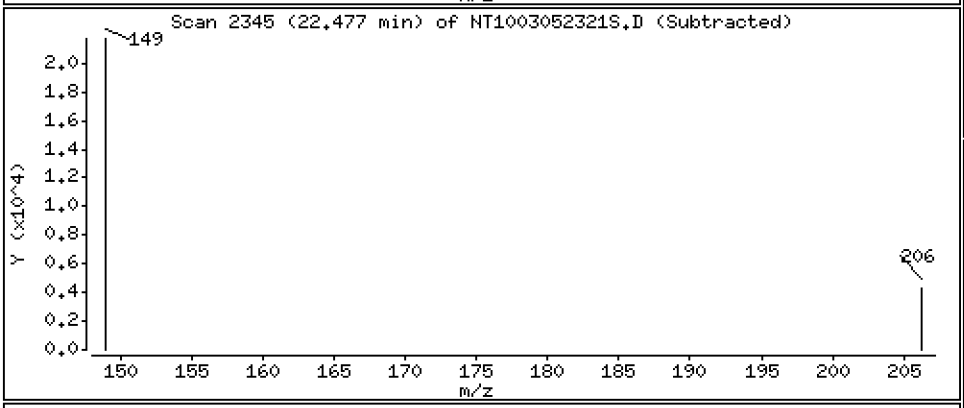
Column diameter: 0.25

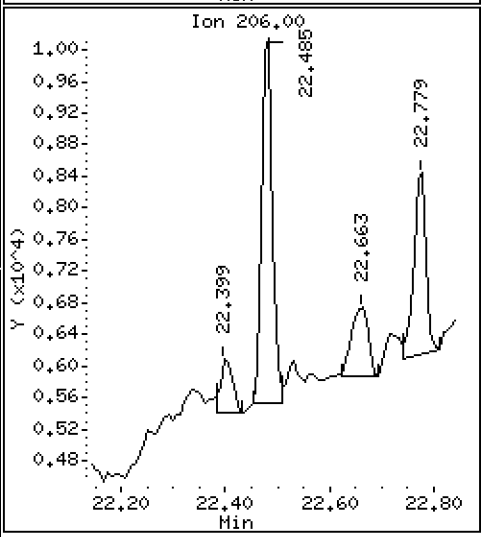
67 Butylbenzylphthalate

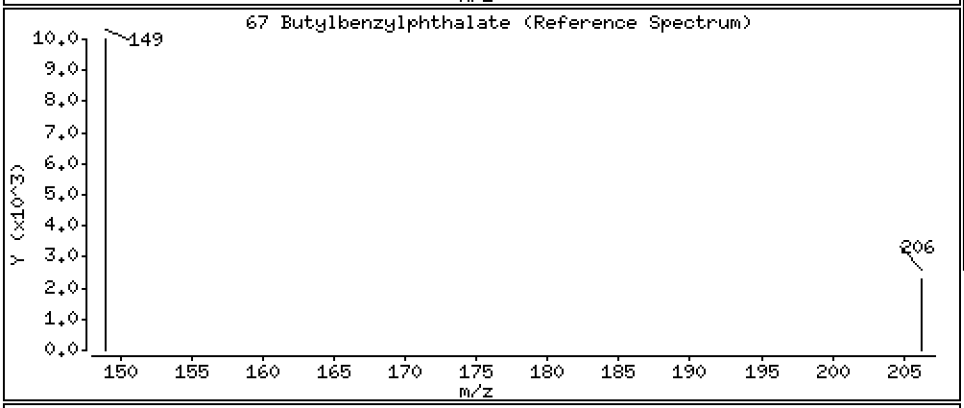
Concentration: 0.1847 ug/mL

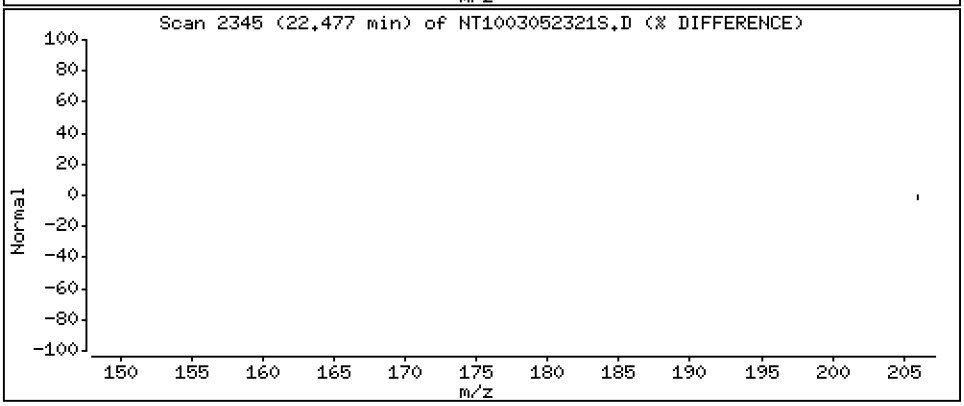












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

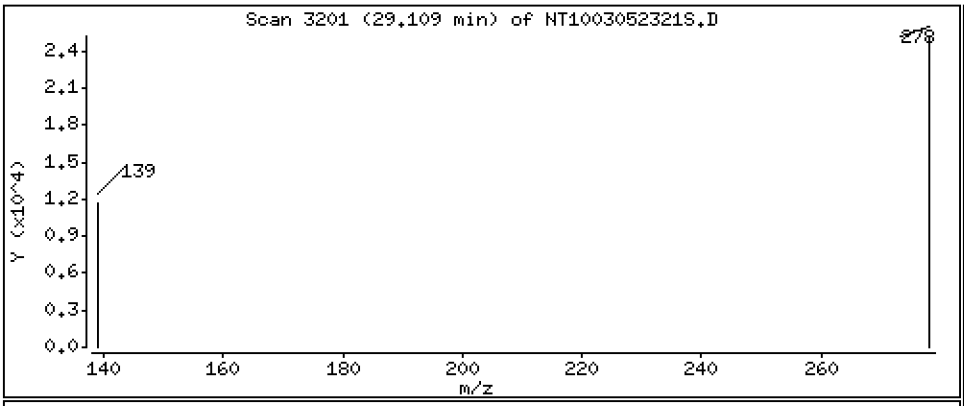
Operator: YZ

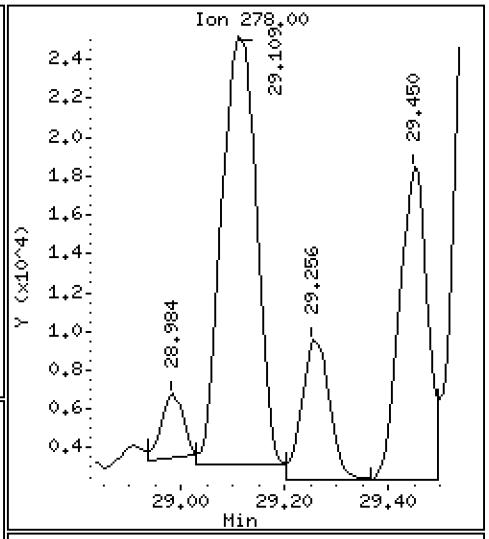
Column phase: ZB-5msi

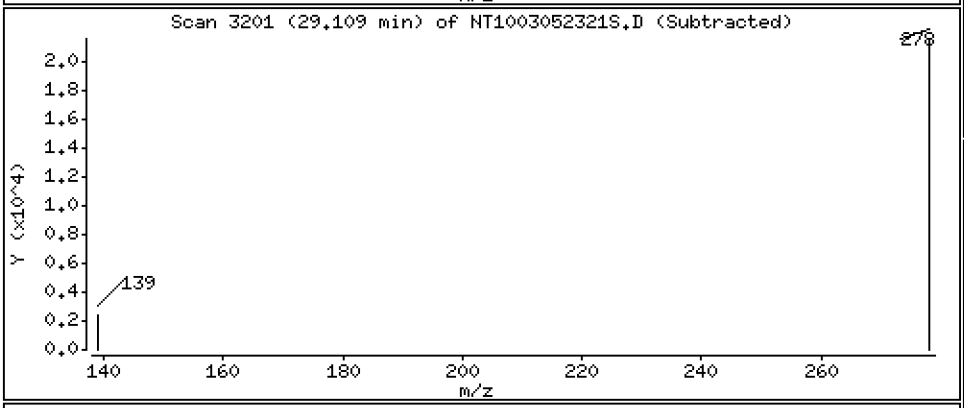
Column diameter: 0.25

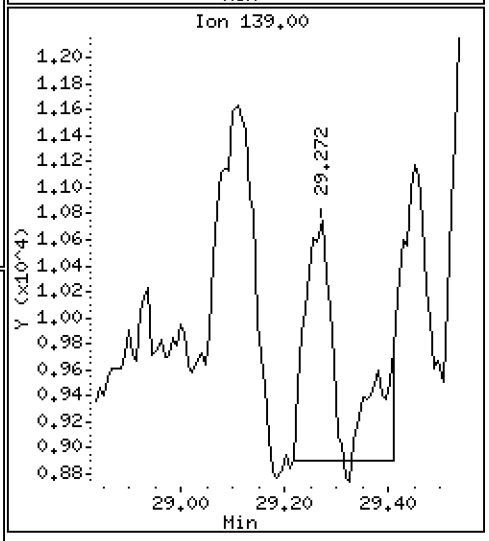
79 Dibenzo(a,h)anthracene

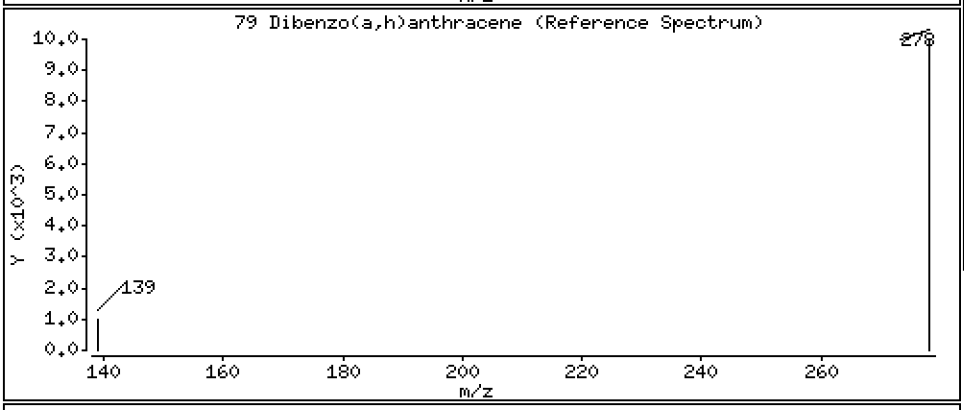
Concentration: 0.3560 ug/mL

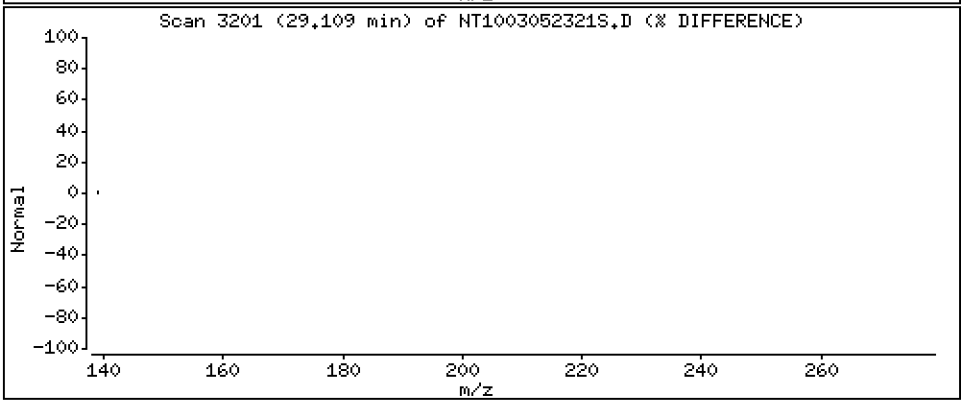












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Date : 06-MAR-2023 02:02

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-11

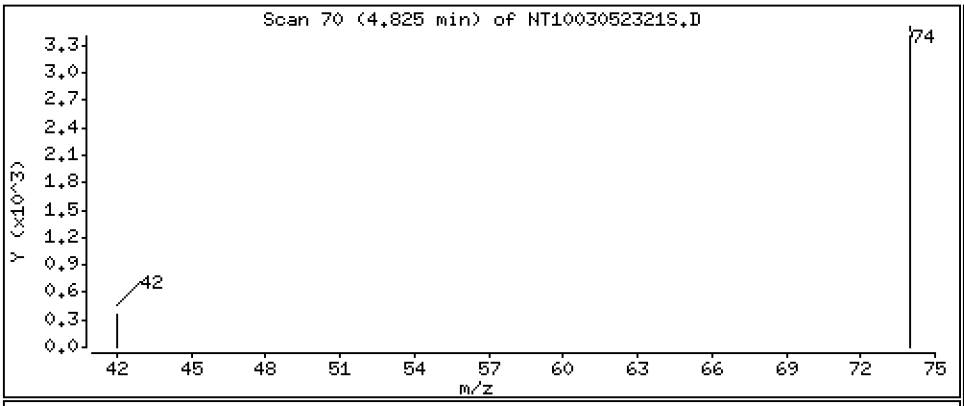
Operator: YZ

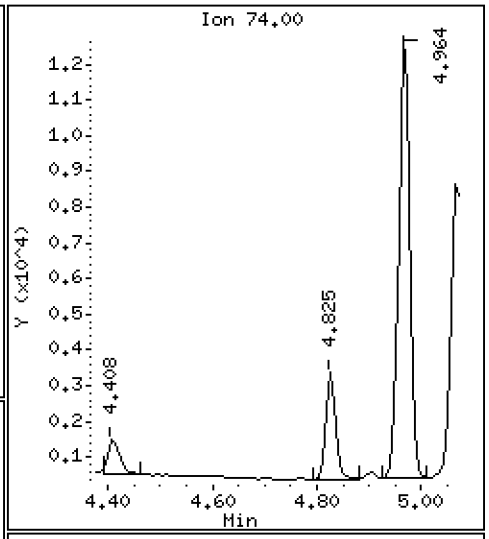
Column phase: ZB-5msi

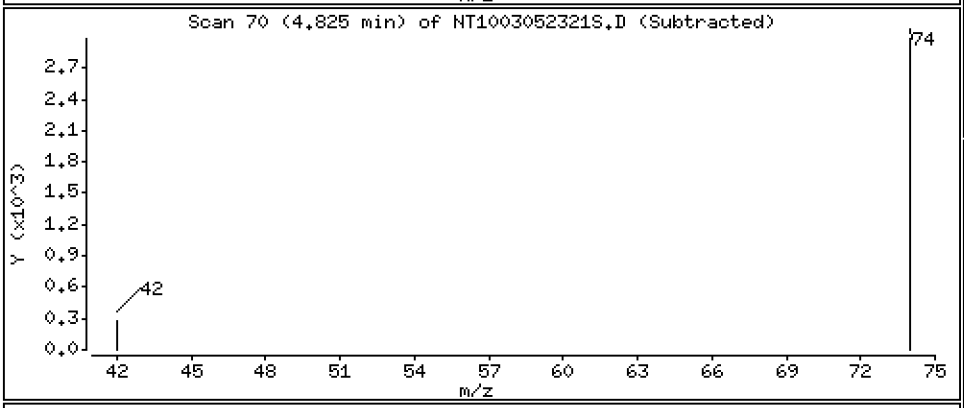
Column diameter: 0.25

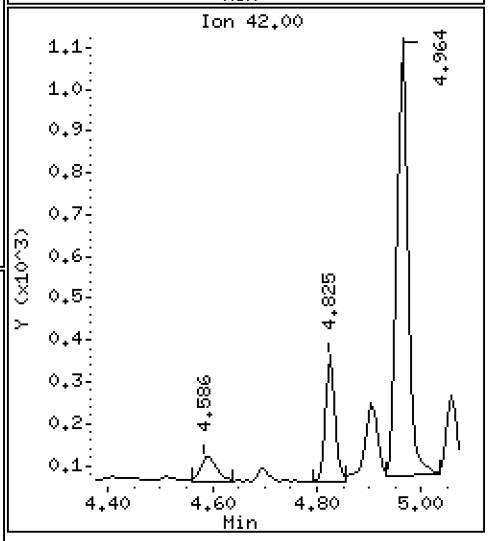
90 N-Nitrosodimethylamine

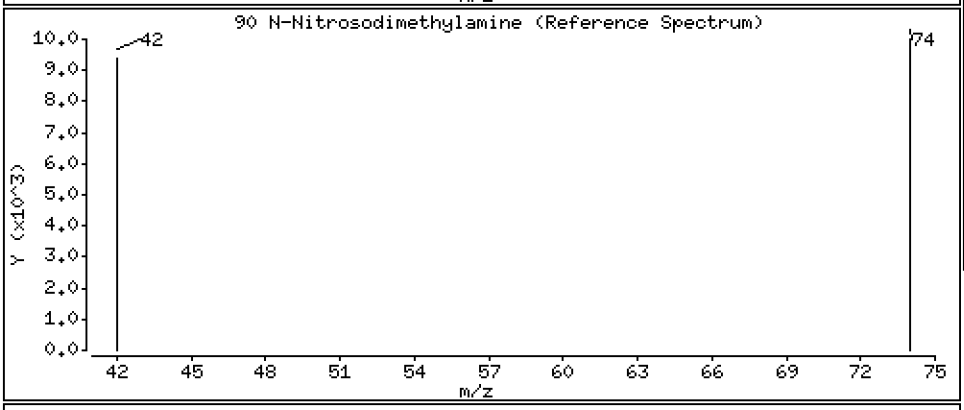
Concentration: 0.07356 ug/mL

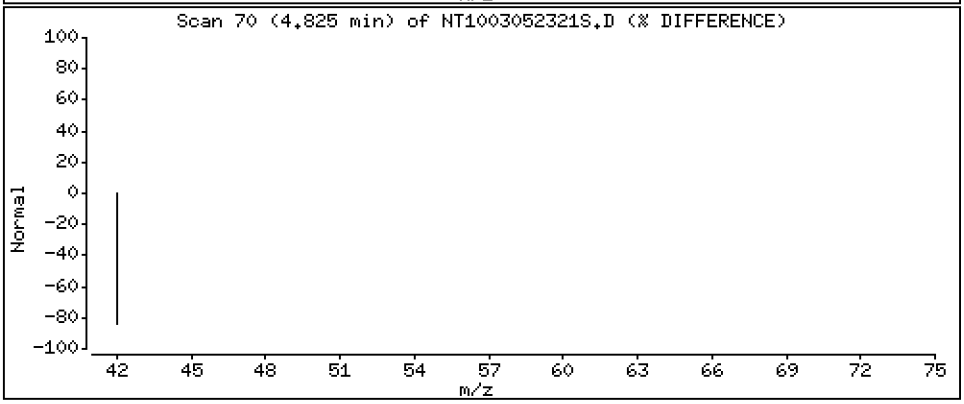












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052321S.D
Lab Smp Id: 23A0313-11
Inj Date : 06-MAR-2023 02:02
Operator : YZ Inst ID: nt10.i
Smp Info : 23A0313-11
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Meth Date : 29-Mar-2023 11:59 van Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: VANS-201906

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.910	6.902	(0.746)	574606	6.25309	6.253(R)
	3 Phenol	94	8.555	8.532	(0.924)	15864	0.11700	0.1170
	7 1,3-Dichlorobenzene	146	9.151	9.143	(0.988)	403	0.00338	0.003378
*	8 1,4-Dichlorobenzene-d4	152	9.259	9.252	(1.000)	321868	4.00000	
	9 1,4-Dichlorobenzene	146	9.290	9.283	(1.003)	3685	0.03177	0.03177
	11 Benzyl alcohol	79	9.508	9.484	(1.027)	12728	0.16910	0.1691(H)
	12 1,2-Dichlorobenzene	146	9.577	9.570	(1.034)	709	0.00636	0.006360
	13 2-Methylphenol	108	9.702	9.671	(1.048)	2711	0.03327	0.03327
	15 4-Methylphenol	108	9.997	9.966	(1.080)	5874	0.06929	0.06929
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	11.048	11.014	(0.940)	3552	0.03686	0.03686
	24 Benzoic acid	105	11.184	11.133	(0.951)	10532	0.19917	0.1992
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.754	11.731	(1.000)	1135908	4.00000	
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	39 Dimethylphthalate	163	14.780	14.764	(0.963)	24769	0.13700	0.1370
*	42 Acenaphthene-d10	162	15.352	15.337	(1.000)	569381	4.00000	
	50 Diethylphthalate	149	16.241	16.234	(1.058)	33364	0.19569	0.1957
	54 N-Nitrosodiphenylamine	169	16.736	16.729	(0.907)	9889	0.05504	0.05504
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.460	18.453	(1.000)	1110246	4.00000	
$	66 Terphenyl-d14	244	21.601	21.594	(0.919)	636106	7.33140	7.331(R)
	67 Butylbenzylphthalate	149	22.476	22.484	(0.956)	33435	0.18466	0.1847
*	69 Chrysene-d12	240	23.506	23.514	(1.000)	1072933	4.00000	
*	77 Perylene-d12	264	26.247	26.270	(1.000)	1245013	4.00000	
	79 Dibenzo(a,h)anthracene	278	29.108	29.186	(1.109)	103156	0.35604	0.3560(H)
	90 N-Nitrosodimethylamine	74	4.824	4.724	(0.521)	4002	0.07356	0.07356

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052321S.D
Lab Smp Id: 23A0313-11
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 22:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	293840	146920	587680	321868	9.54
27 Naphthalene-d8	1032639	516320	2065278	1135908	10.00
42 Acenaphthene-d10	502349	251175	1004698	569381	13.34
59 Phenanthrene-d10	975997	487999	1951994	1110246	13.76
69 Chrysene-d12	978544	489272	1957088	1072933	9.65
77 Perylene-d12	1201606	600803	2403212	1245013	3.61

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.26	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.75	0.20
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.10
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.51	23.01	24.01	23.51	-0.03
77 Perylene-d12	26.27	25.77	26.77	26.25	-0.09

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052321S.D

Lab ID: 23A0313-11
nt10.i, 20230305A.b\SIM.b\SIMABN2.m,   06-MAR-2023 02:02

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.521	0.511	0.0104	N-Nitrosodimethylamine

RRT check based on Ccal File: SIM.b/NT1003052315SA.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, LLC
Analytical Chemists and Consultants

LDW23-IT1148

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

Polynuclear Aromatic Hydrocarbons

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-12 A	SDG:	23A0313
Sampled:	01/16/23 14:44	Prepared:	02/01/23 11:29	File ID:	N823020630.D
% Solids:	50.04	Preparation:	EPA 3546 (Microwave)	Analyzed:	02/07/23 01:49
Batch:	BLA0683	Sequence:	SLB0075	Initial/Final:	19.99 g Wet / 0.5 mL
Instrument:	NT8	Column:	RXI-17Sil ms	Calibration:	GA00050
Cleanups:	GPC, Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
56-55-3	Benzo(a)anthracene	1	12.6		0.82	5.00
218-01-9	Chrysene	1	19.3		1.05	5.00
205-99-2	Benzo(b)fluoranthene	1	16.8		1.37	5.00
207-08-9	Benzo(k)fluoranthene	1	8.22		0.76	5.00
50-32-8	Benzo(a)pyrene	1	13.3		0.61	5.00
193-39-5	Indeno(1,2,3-cd)pyrene	1	8.62		1.05	5.00
53-70-3	Dibenzo(a,h)anthracene	1	2.93	J	0.89	5.00

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	149.96	148	98.5	32 - 120	
Dibenzo[a,h]anthracene-d14	149.96	187	125	21 - 133	
Fluoranthene-d10	149.96	155	103	36 - 134	

Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020630.D

Page 1

Date : 07-FEB-2023 01:49

Client ID:

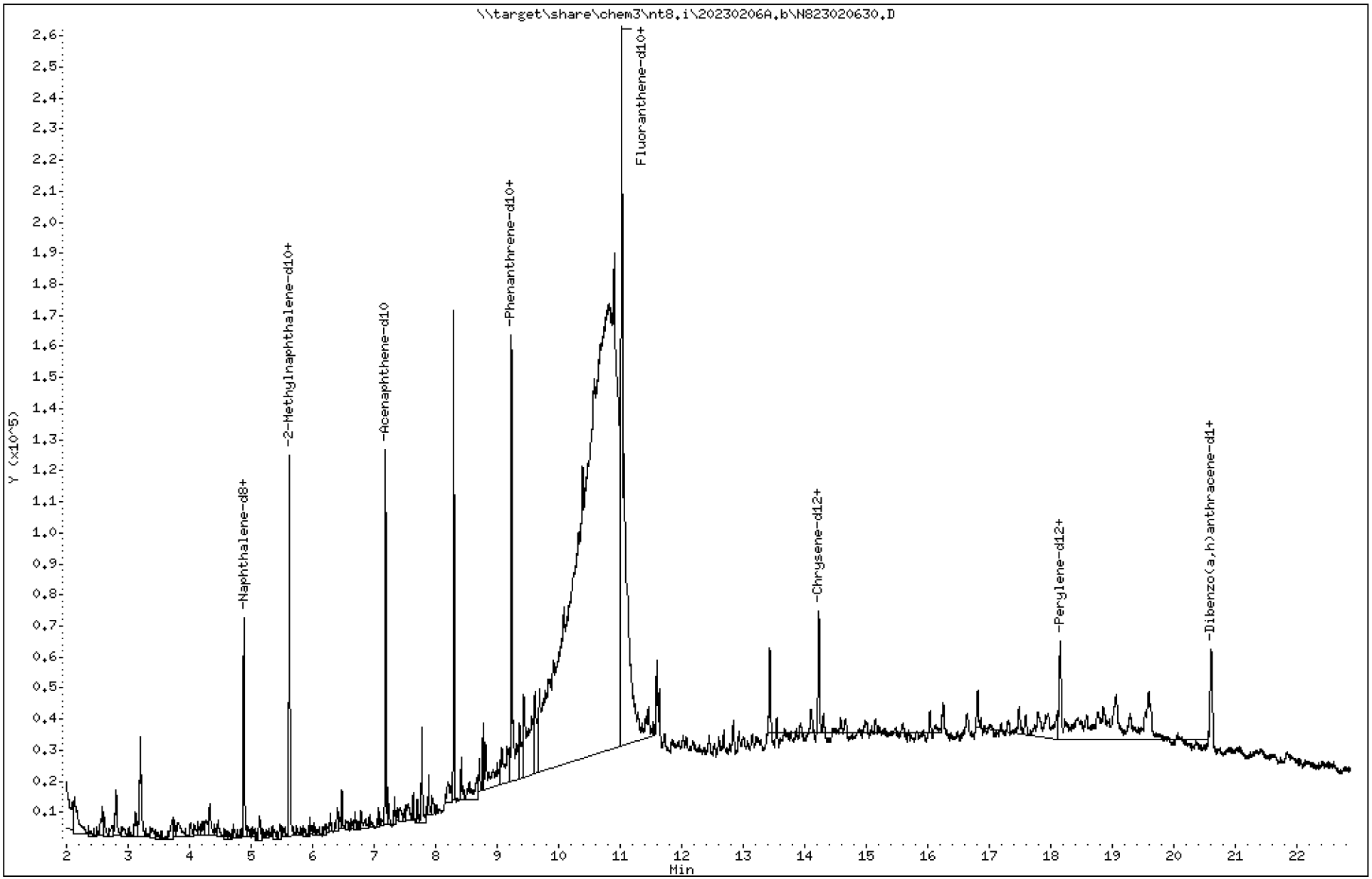
Instrument: nt8.i

Sample Info: 23A0313-12

Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25



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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

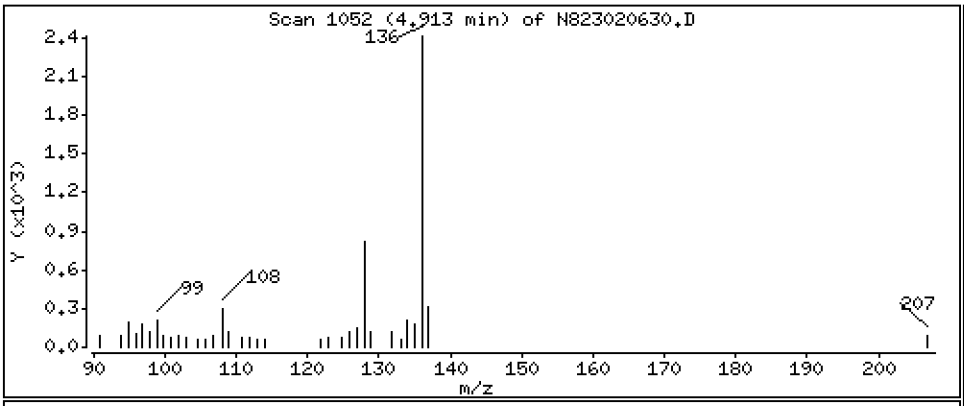
Operator: JZ

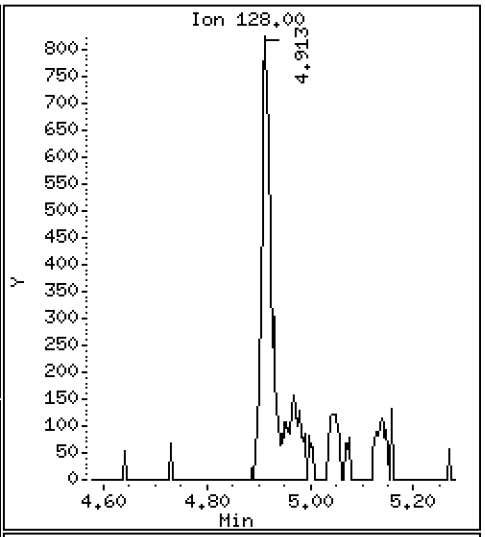
Column phase: Rxi-17sil

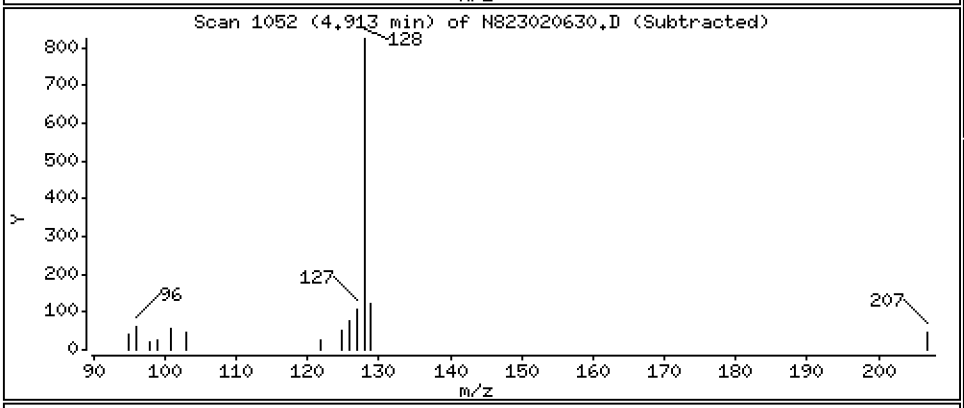
Column diameter: 0.25

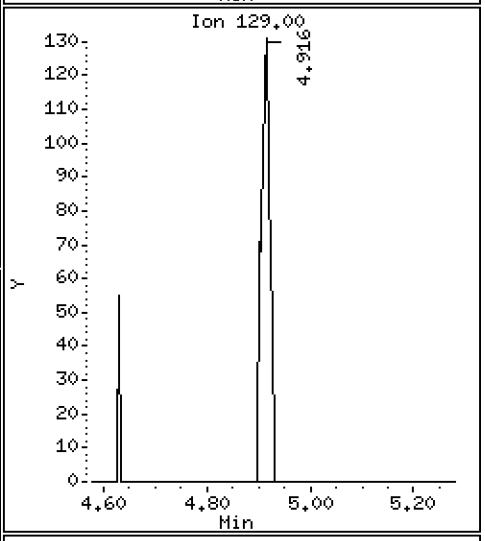
2 Naphthalene

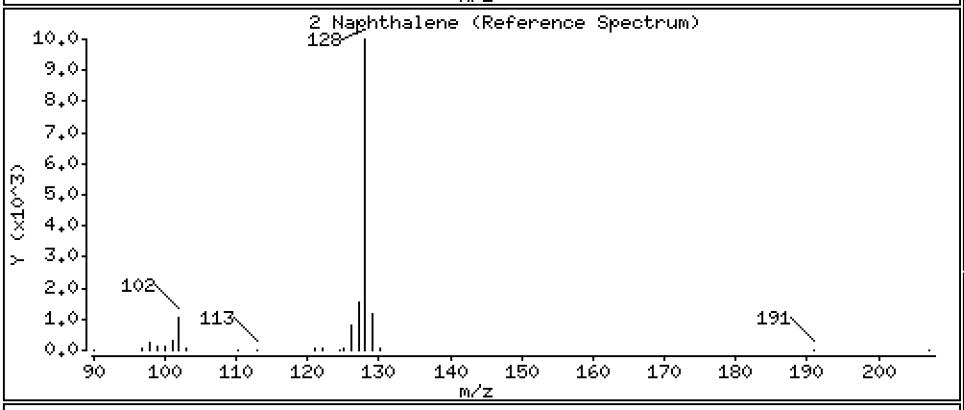
Concentration: 0.04977 ug/mL

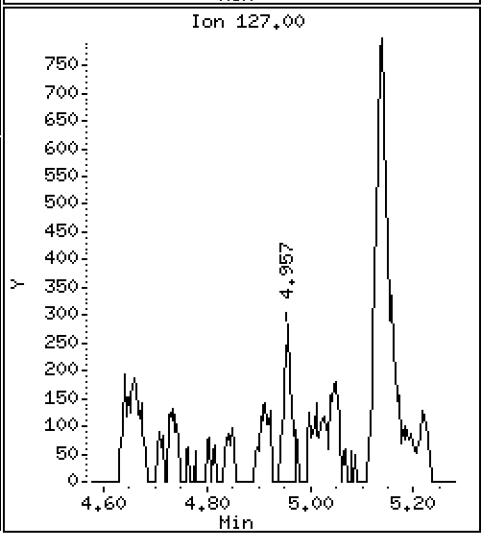


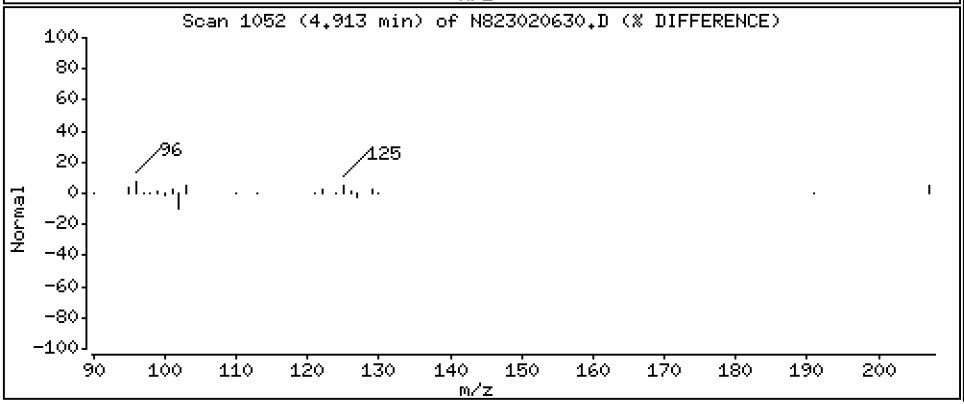












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

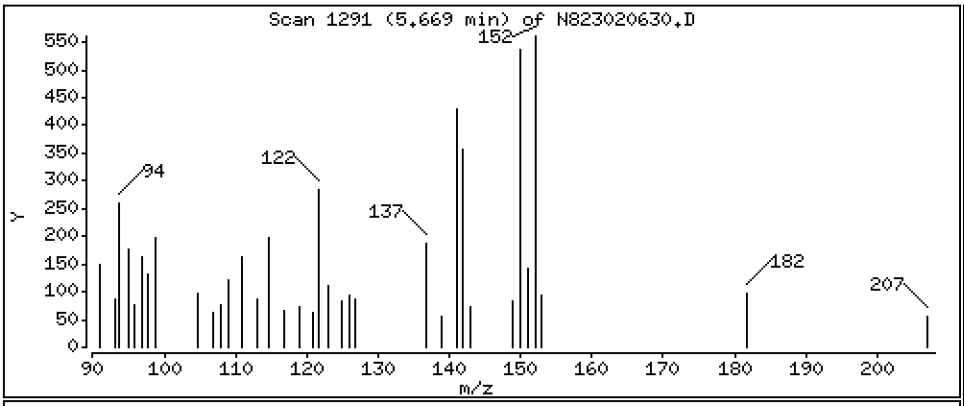
Operator: JZ

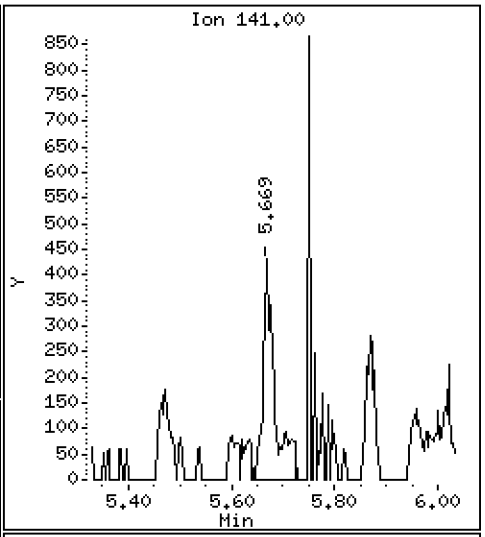
Column phase: Rxi-17sil

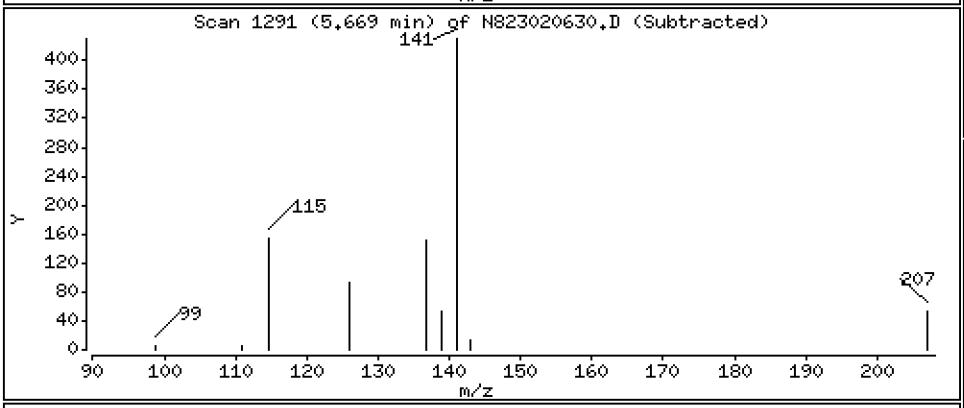
Column diameter: 0.25

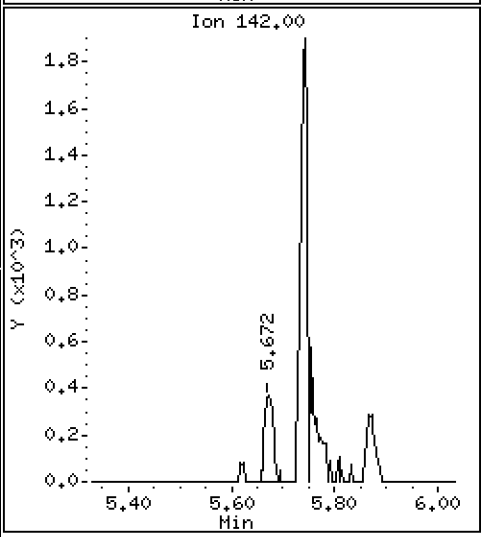
4 2-Methylnaphthalene

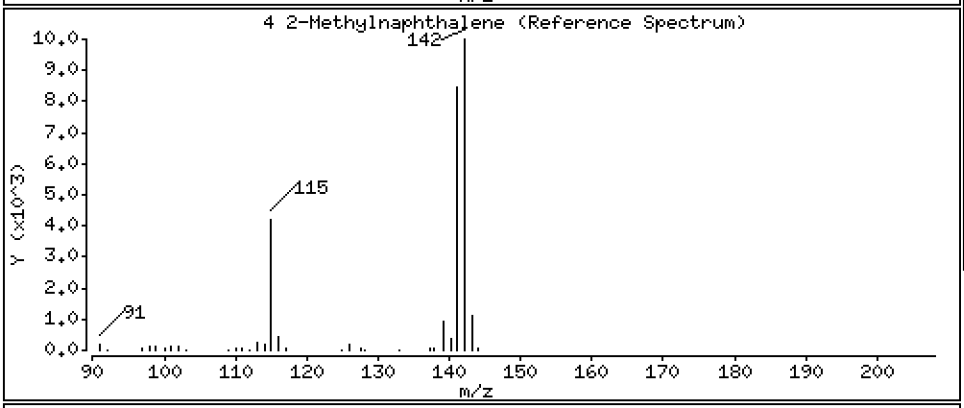
Concentration: 0.04346 ug/mL

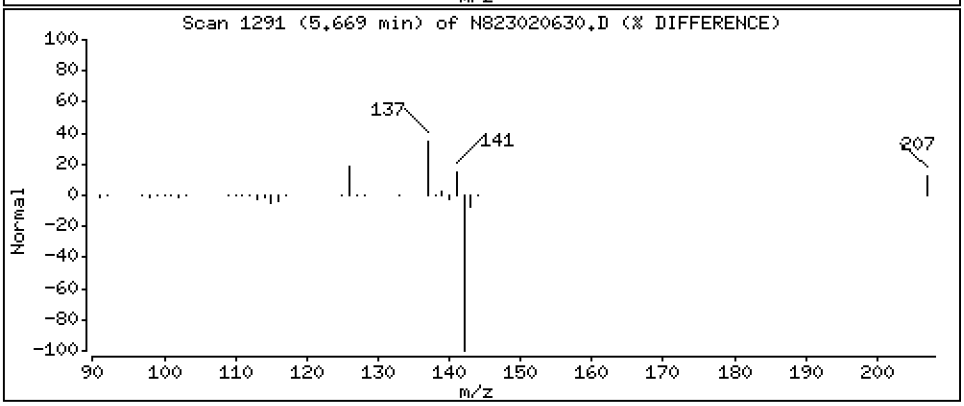












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

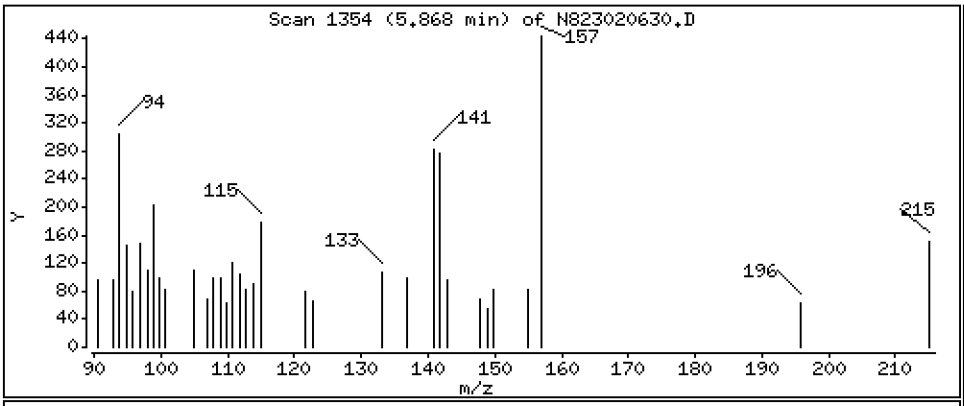
Operator: JZ

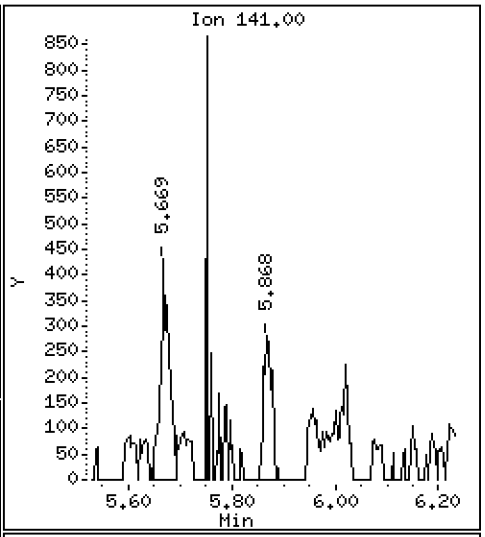
Column phase: Rxi-17sil

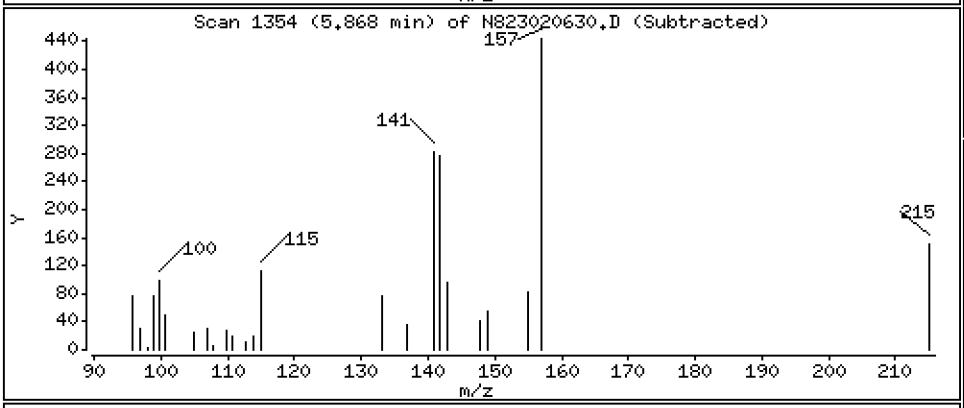
Column diameter: 0.25

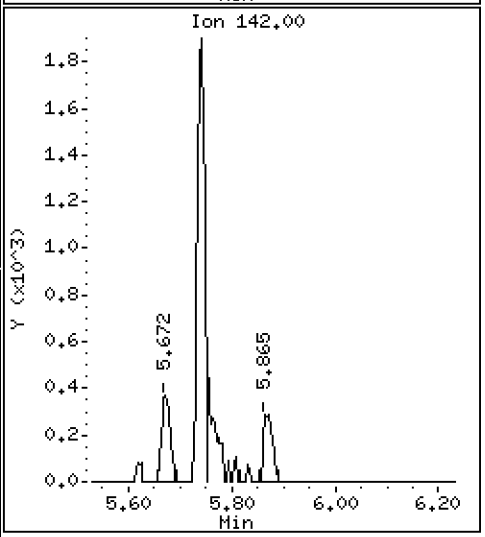
5 1-methylnaphthalene

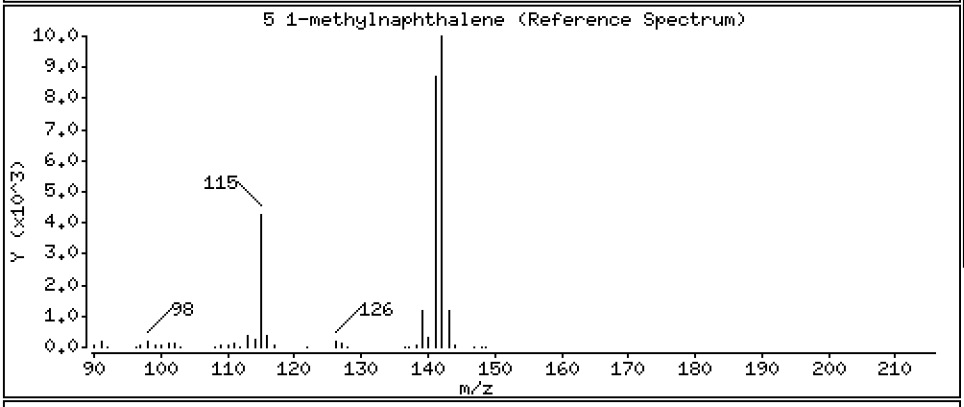
Concentration: 0.02055 ug/mL

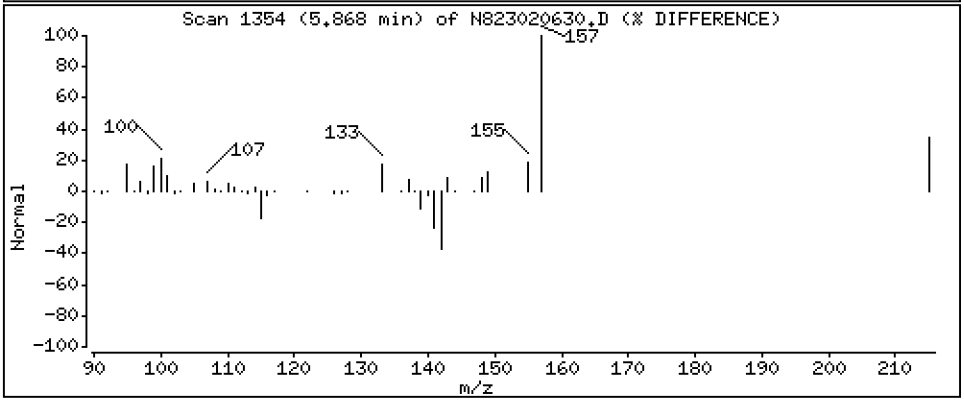












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

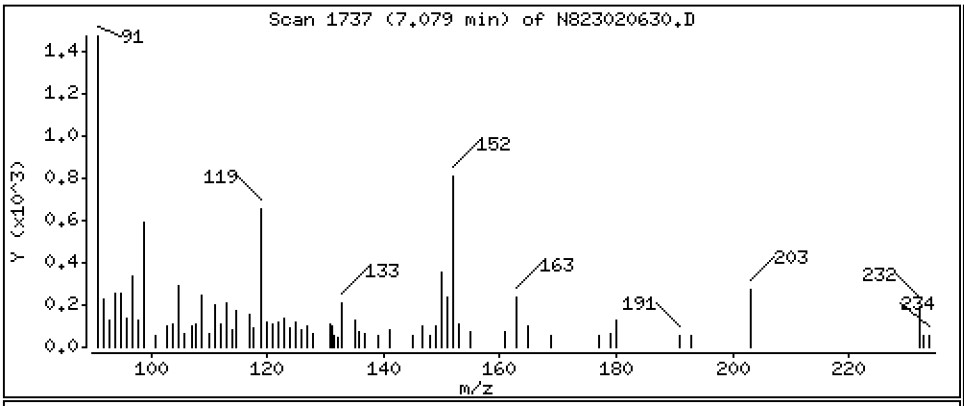
Operator: JZ

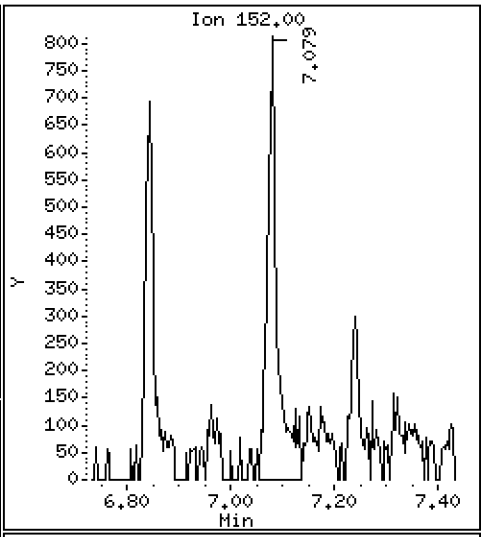
Column phase: Rxi-17sil

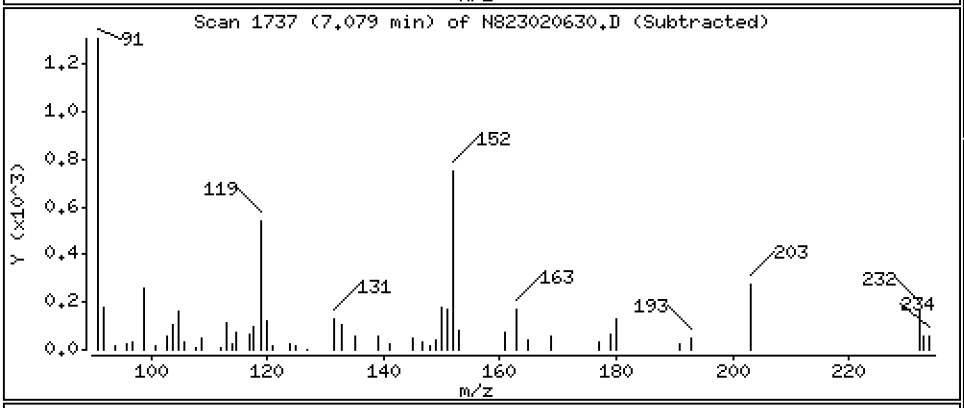
Column diameter: 0.25

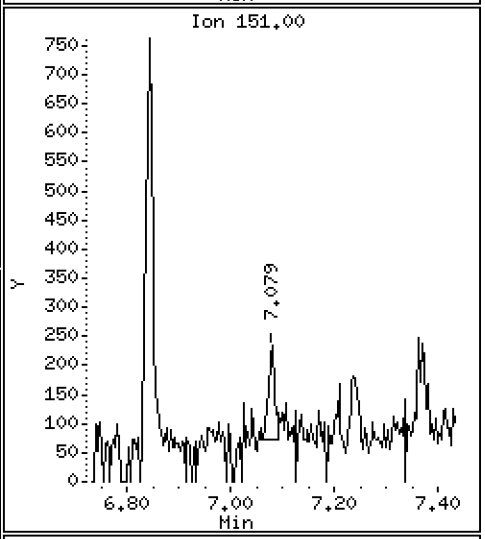
9 Acenaphthylene

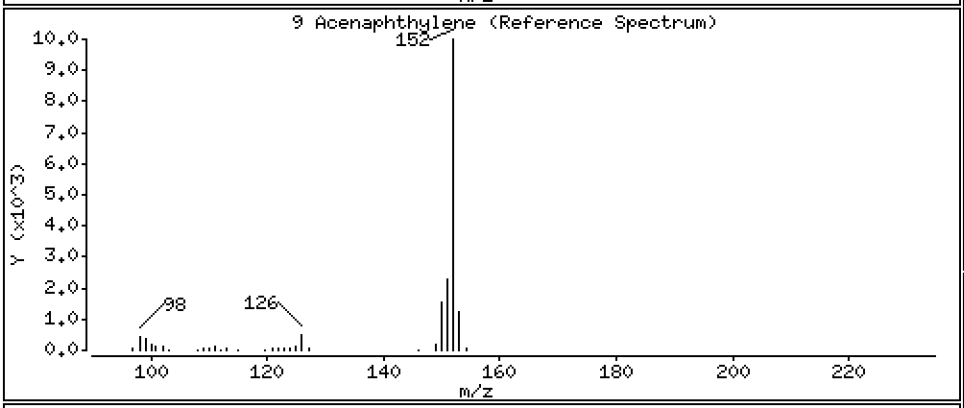
Concentration: 0.04116 ug/mL

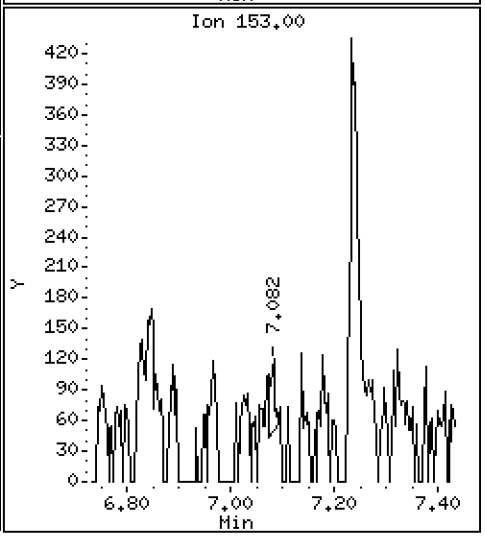


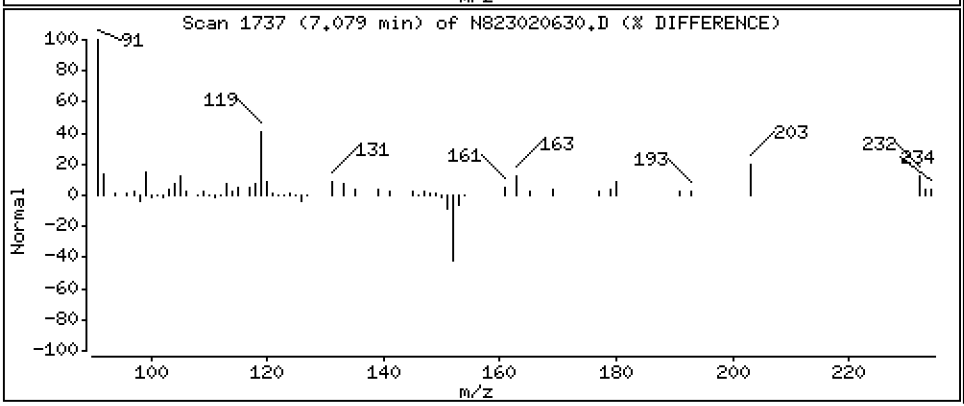












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020630.D

Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

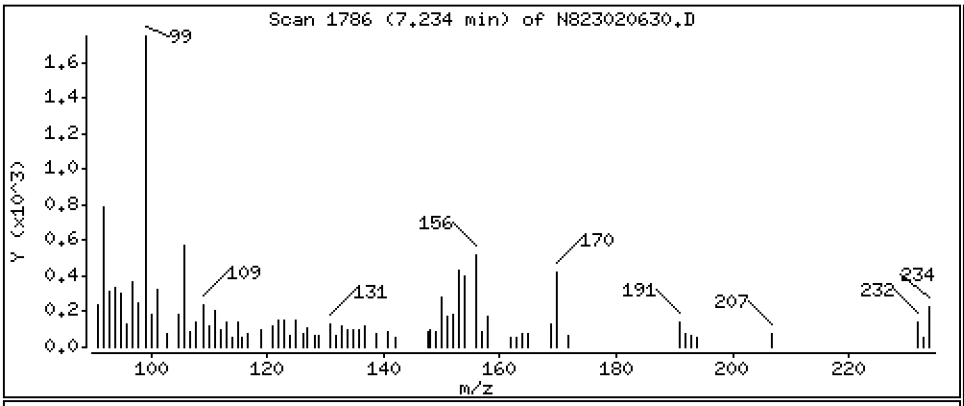
Operator: JZ

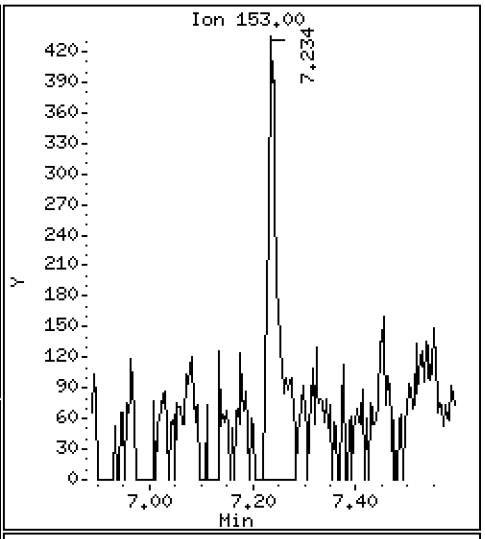
Column phase: Rxi-17sil

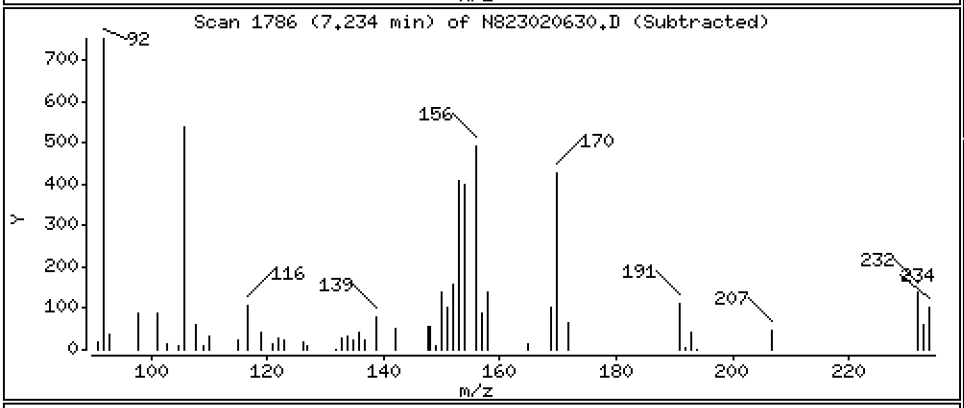
Column diameter: 0.25

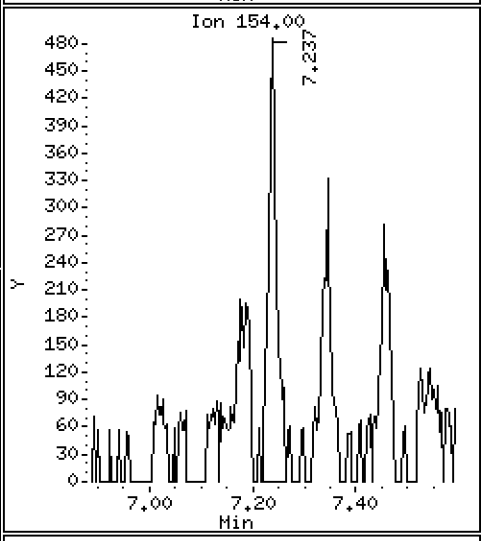
11 Acenaphthene

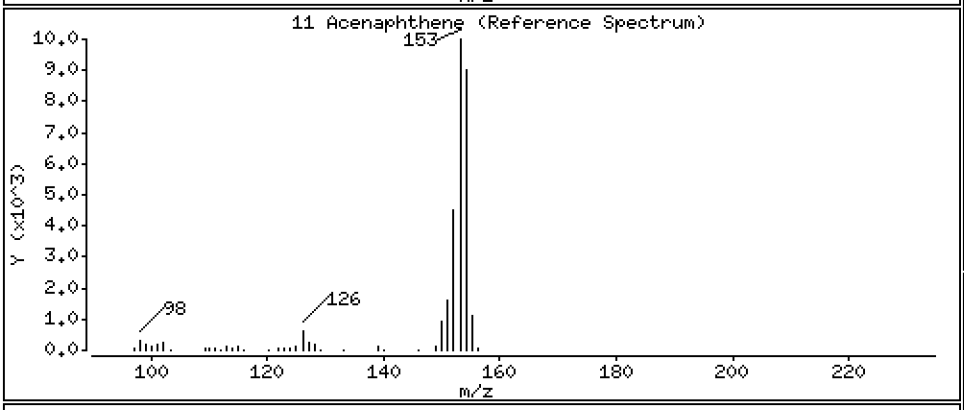
Concentration: 0.03505 ug/mL

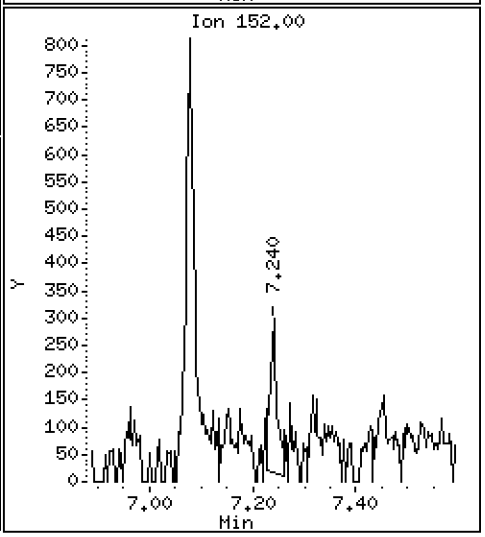


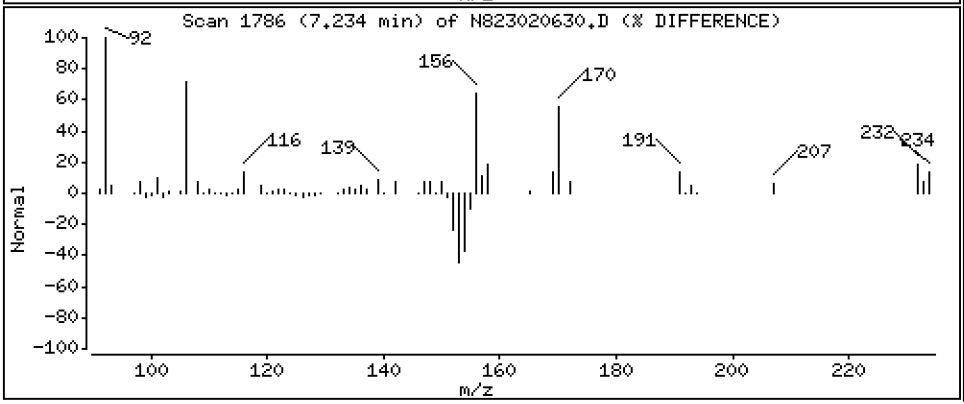












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

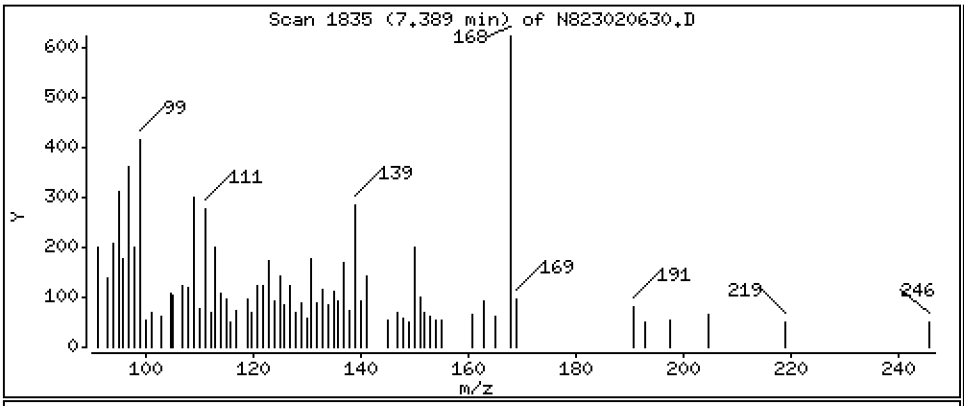
Operator: JZ

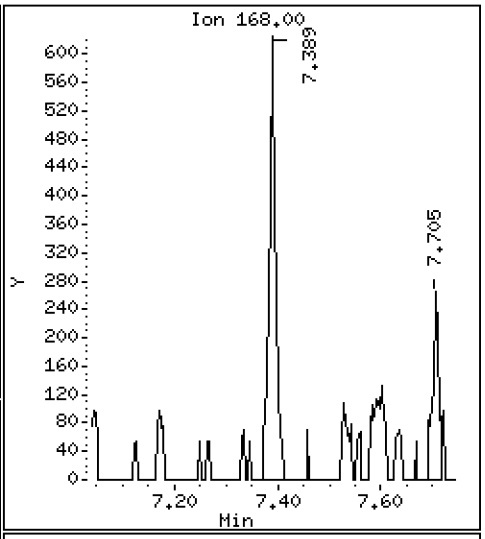
Column phase: Rxi-17sil

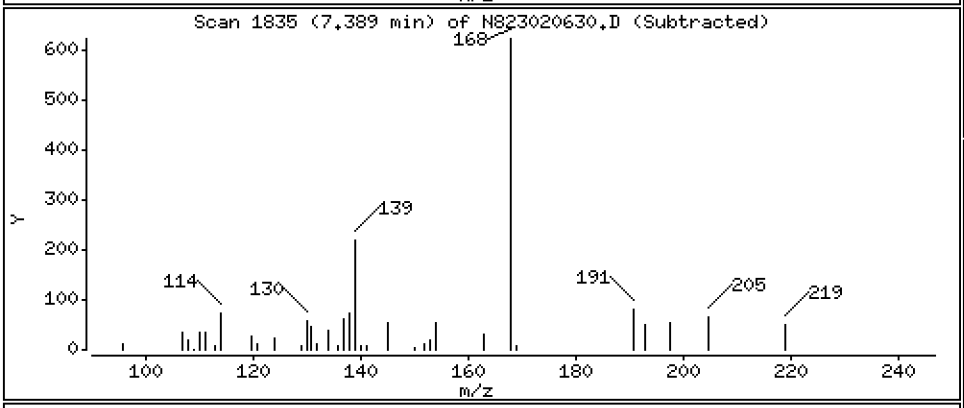
Column diameter: 0.25

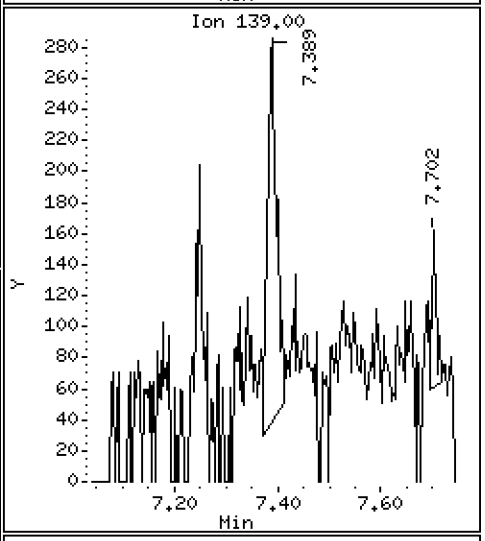
12 Dibenzofuran

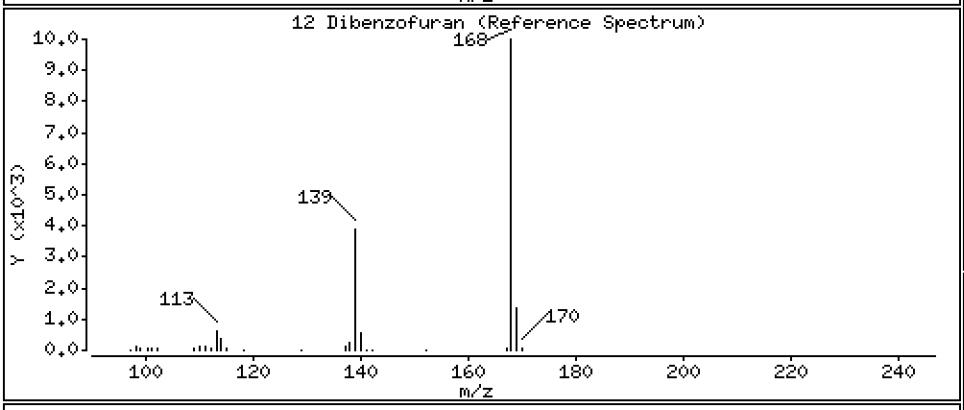
Concentration: 0.02120 ug/mL

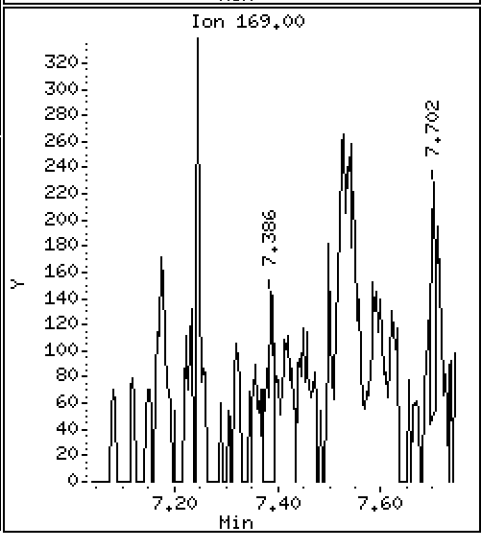


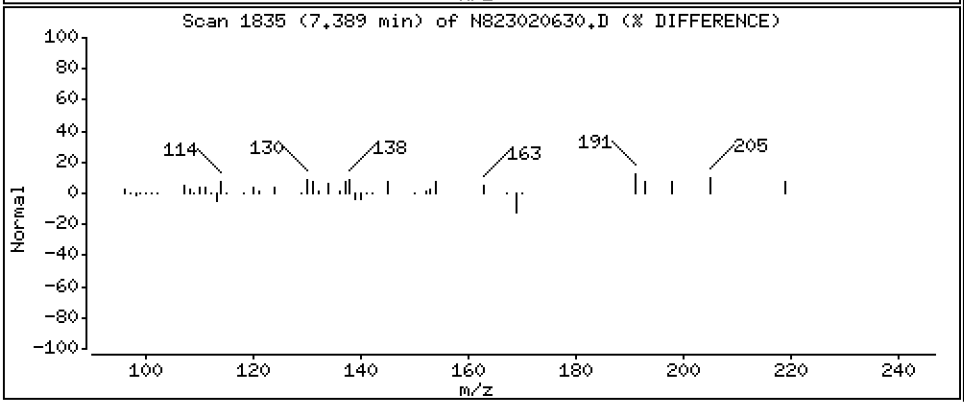












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

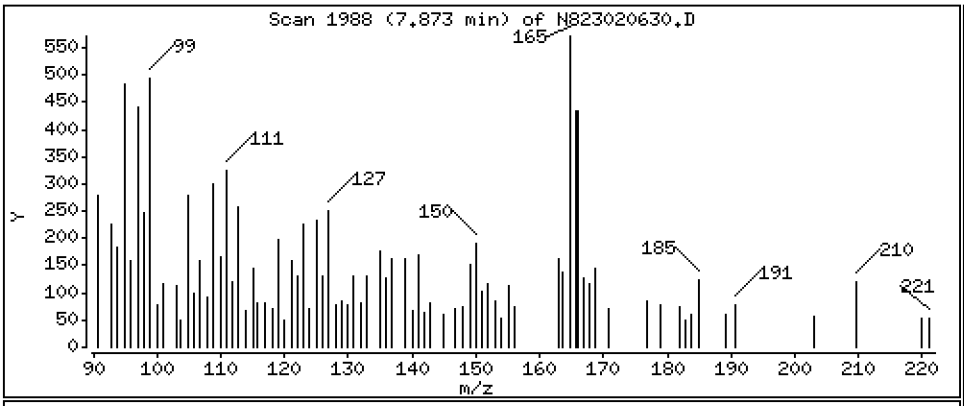
Operator: JZ

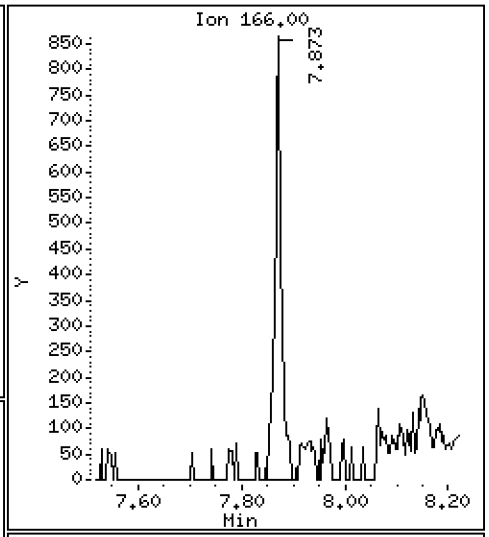
Column phase: Rxi-17sil

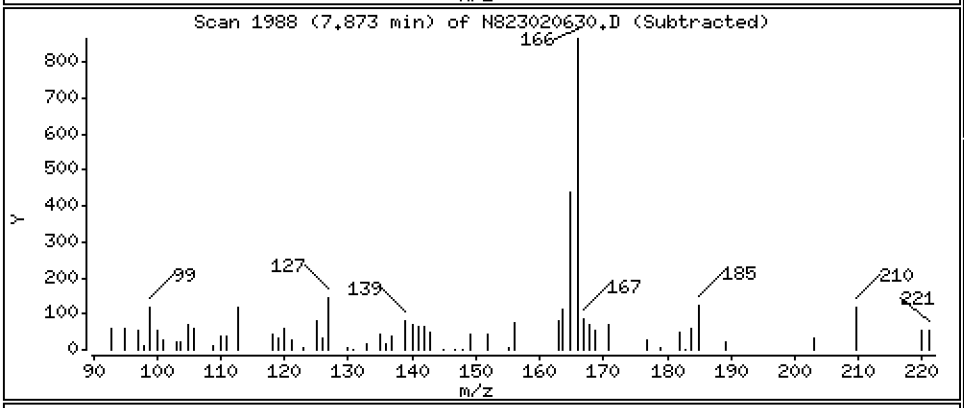
Column diameter: 0.25

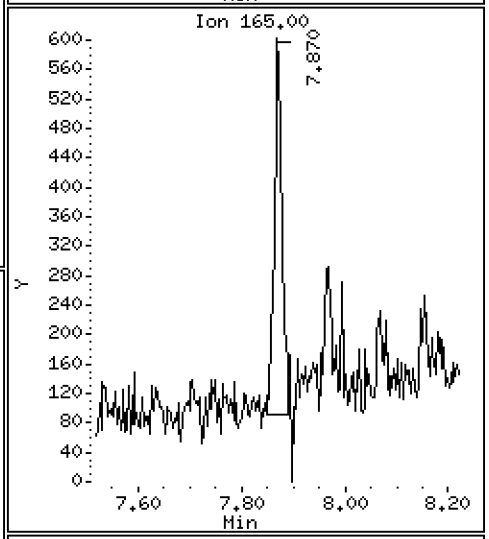
14 Fluorene

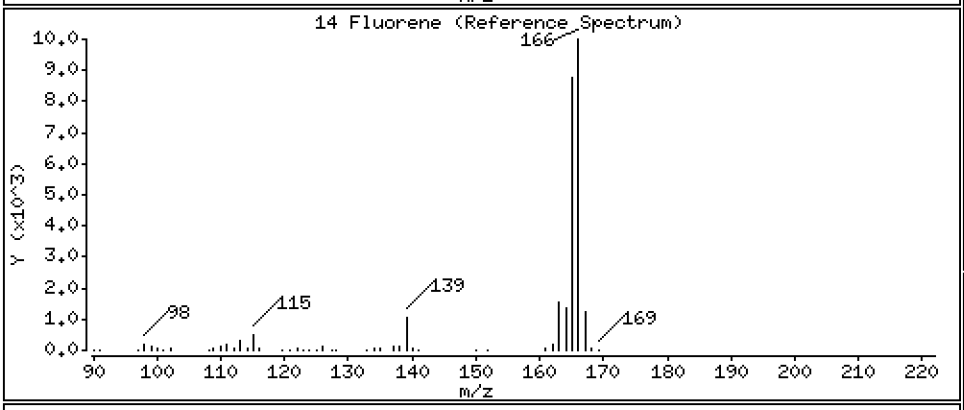
Concentration: 0.03658 ug/mL

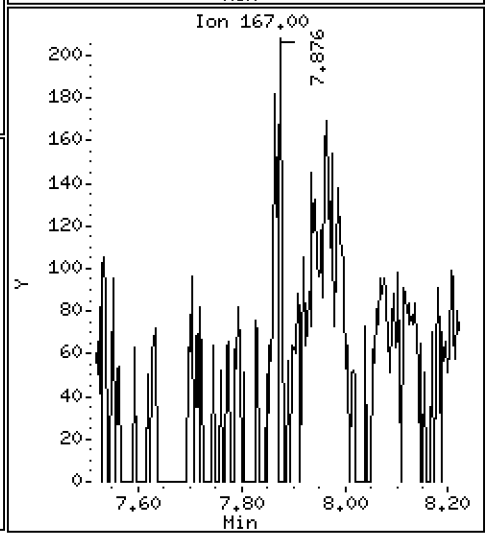


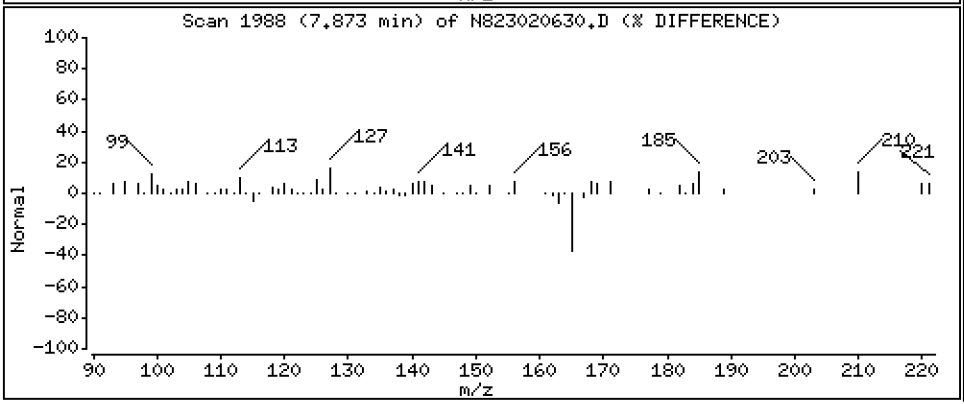












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

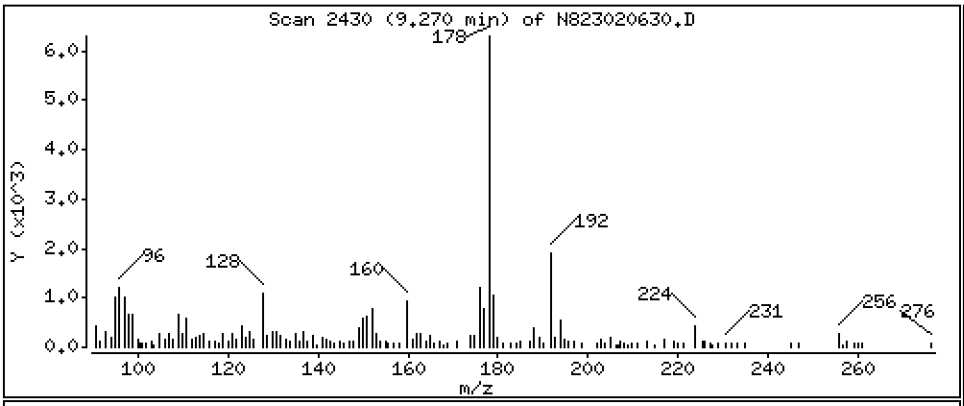
Operator: JZ

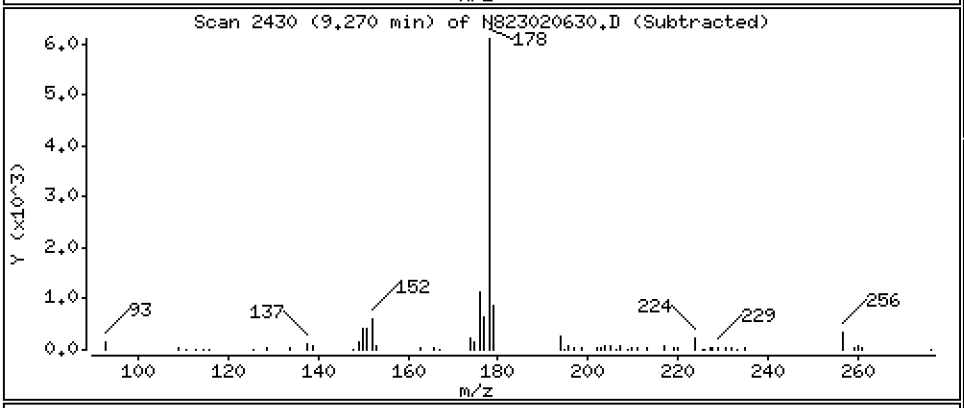
Column phase: Rxi-17sil

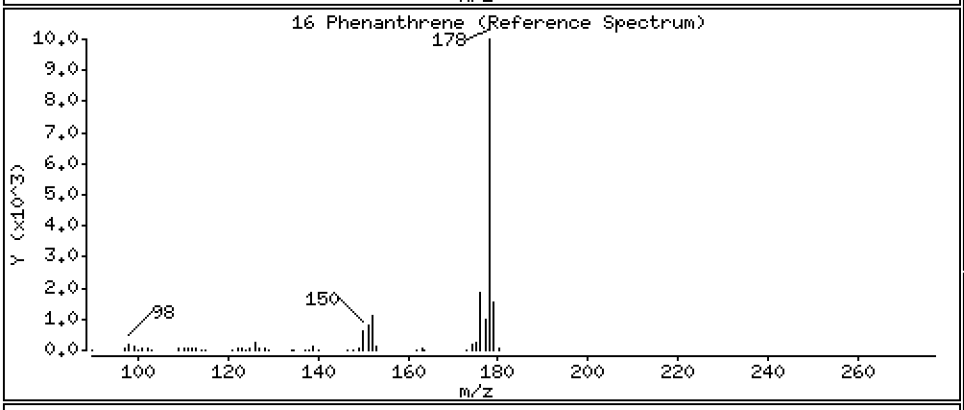
Column diameter: 0.25

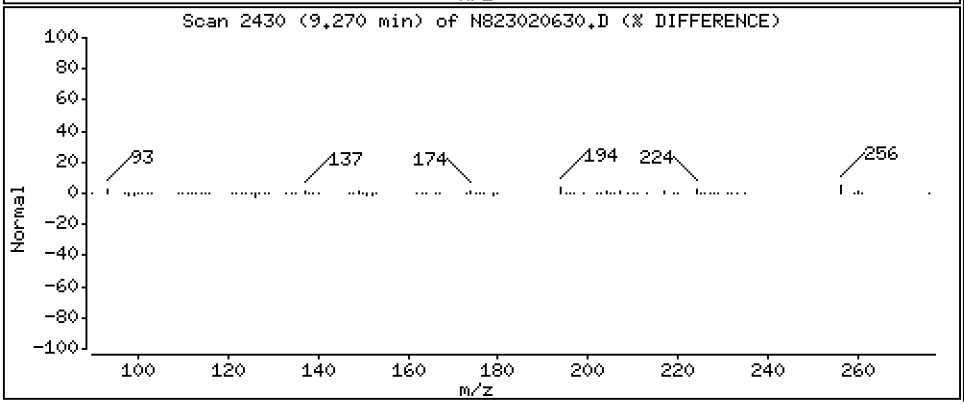
16 Phenanthrene

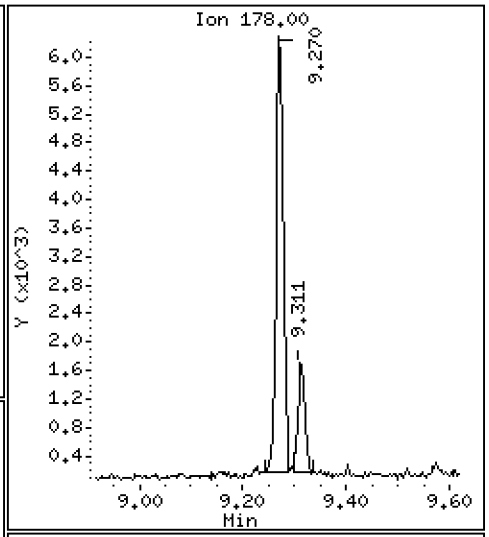
Concentration: 0.1930 ug/mL

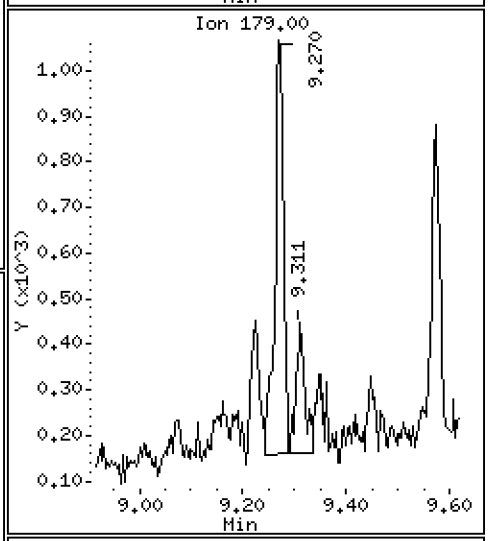


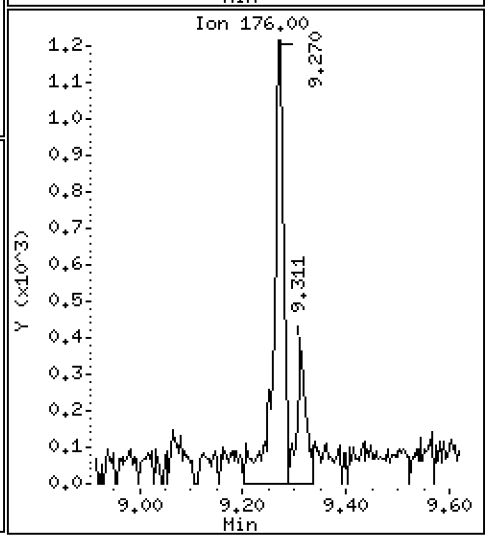












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

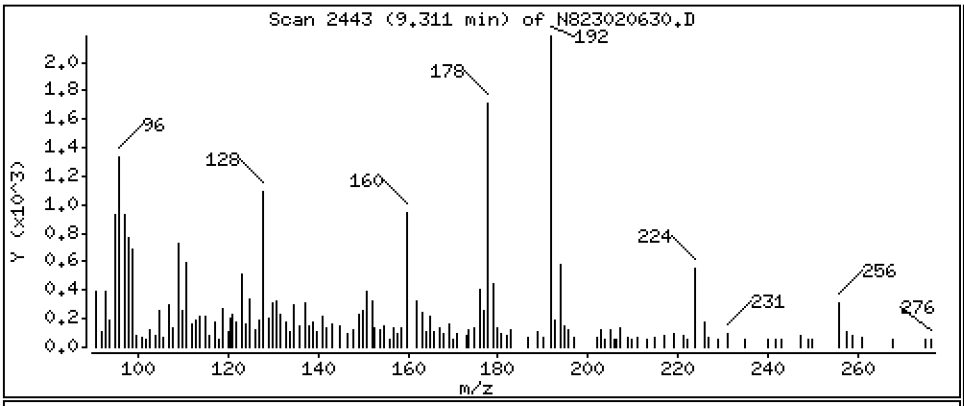
Operator: JZ

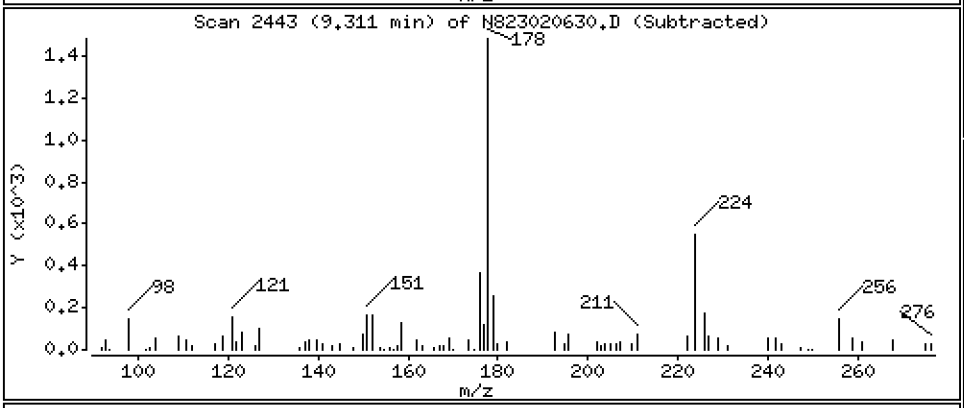
Column phase: Rxi-17sil

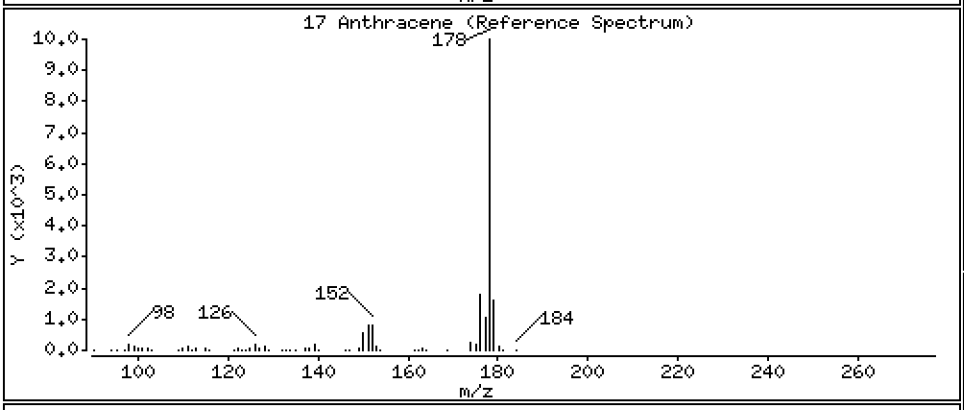
Column diameter: 0.25

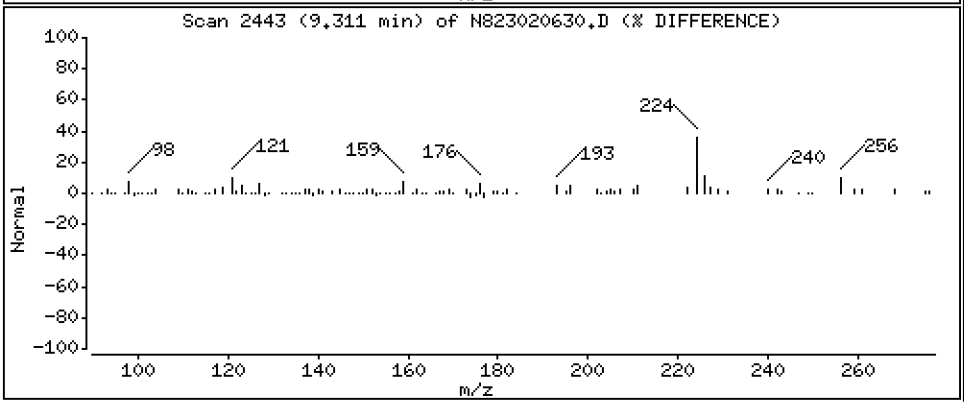
17 Anthracene

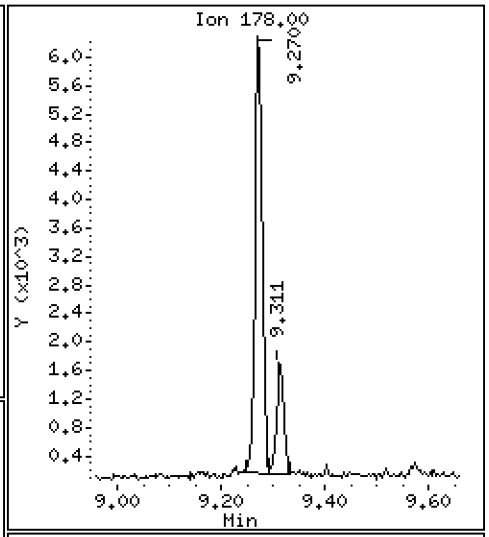
Concentration: 0.05713 ug/mL

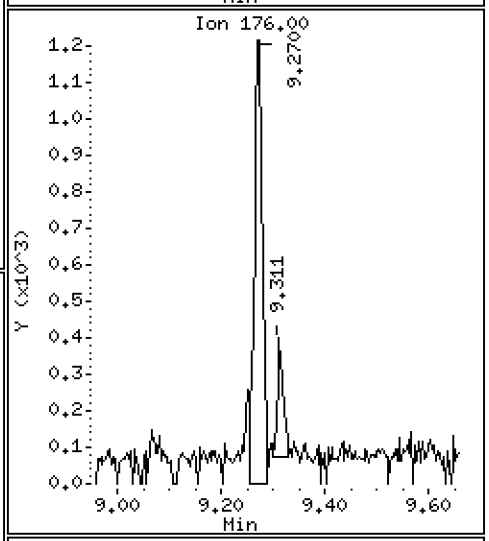


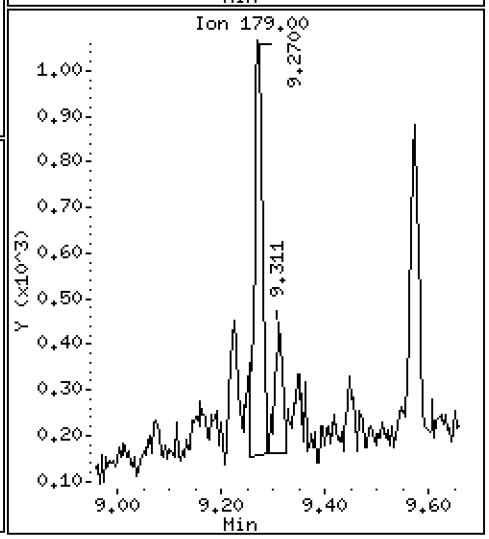












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

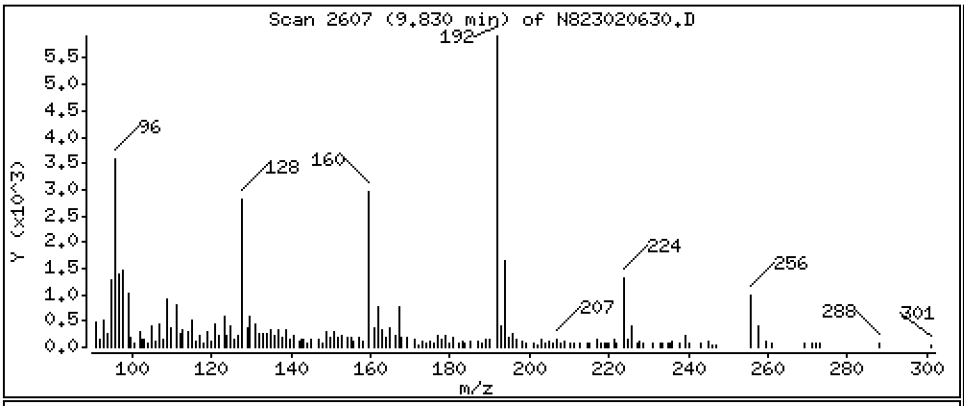
Operator: JZ

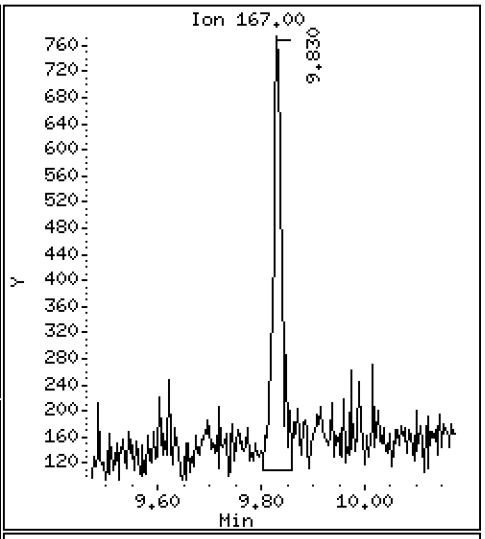
Column phase: Rxi-17sil

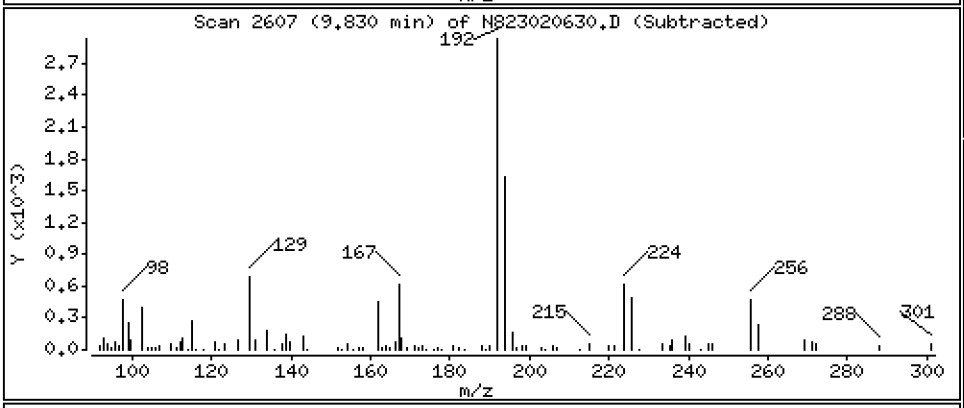
Column diameter: 0.25

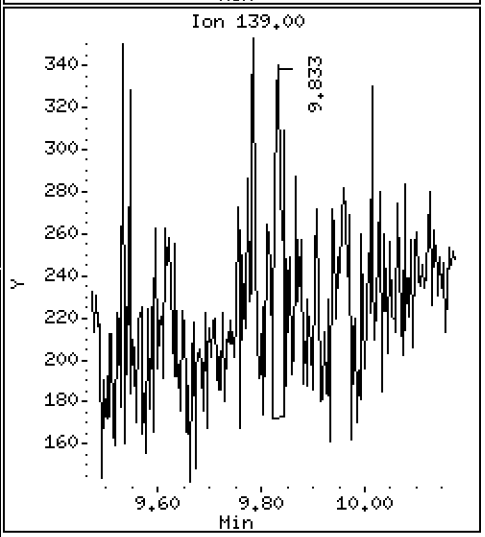
19 Carbazole

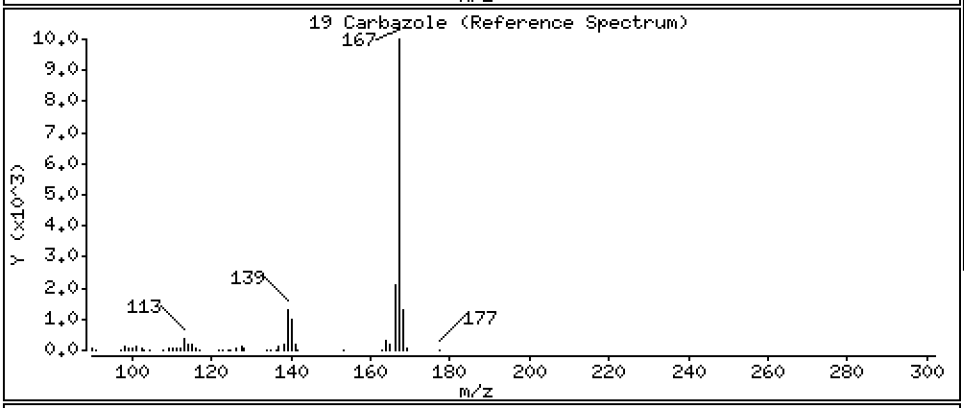
Concentration: 0.03100 ug/mL

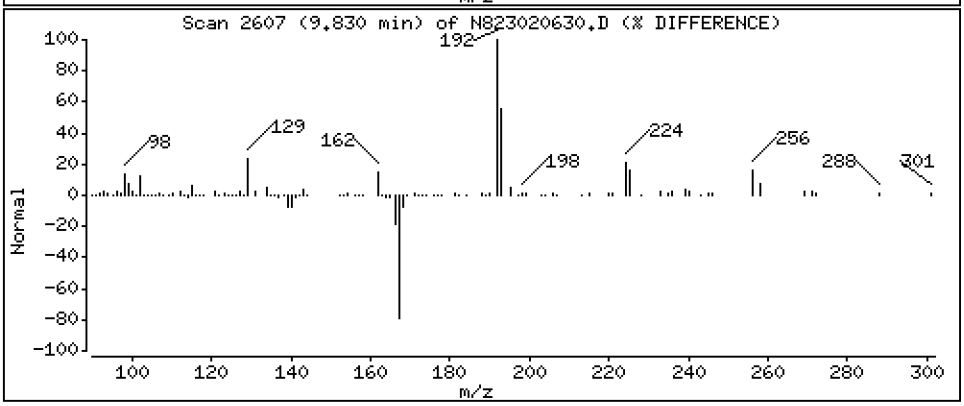












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

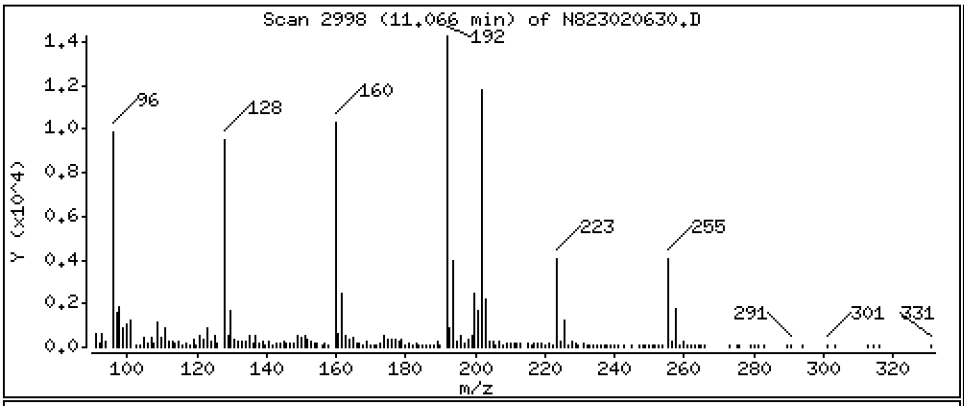
Operator: JZ

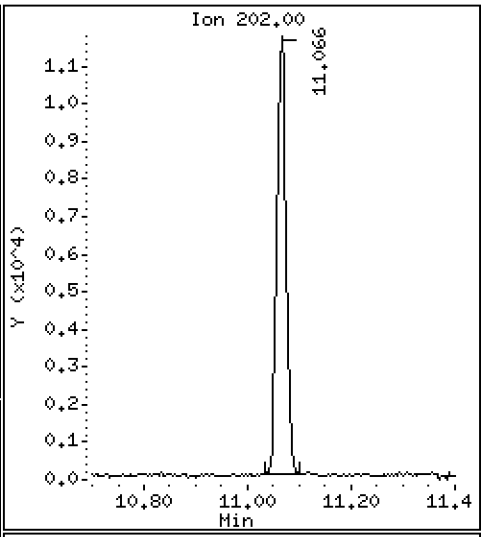
Column phase: Rxi-17sil

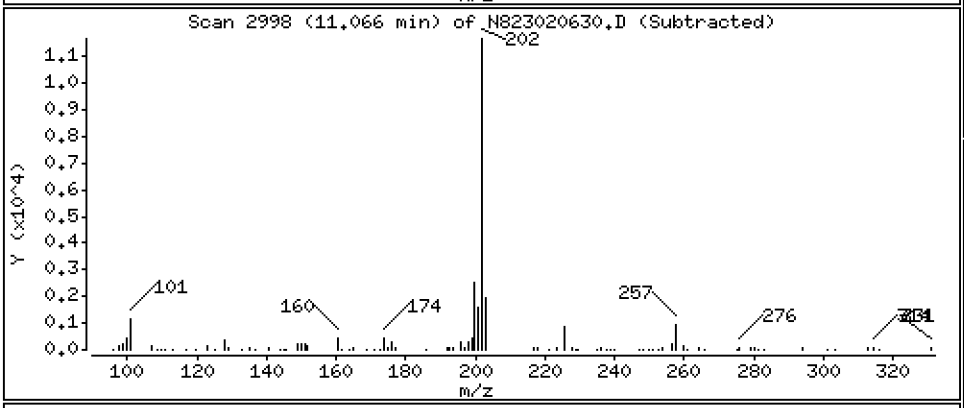
Column diameter: 0.25

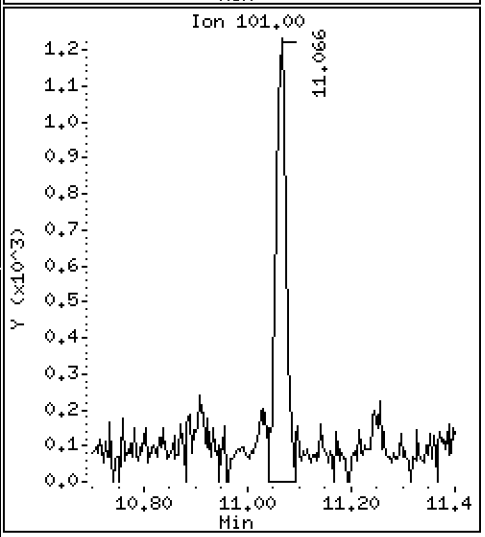
22 Fluoranthene

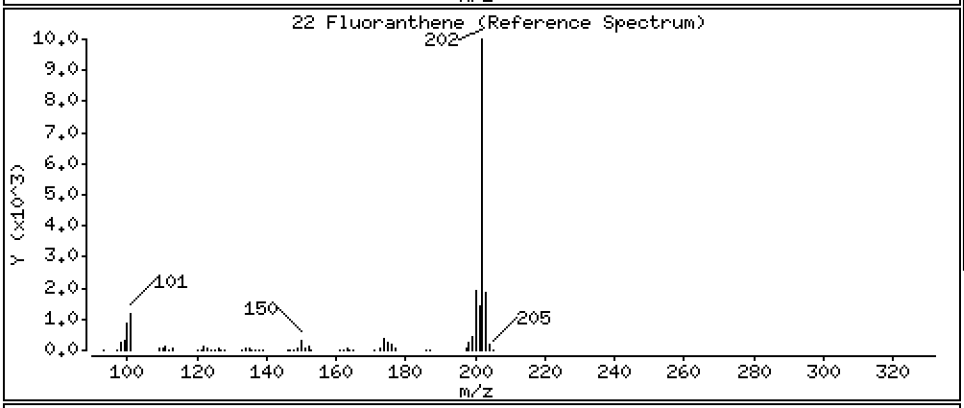
Concentration: 0.4424 ug/mL

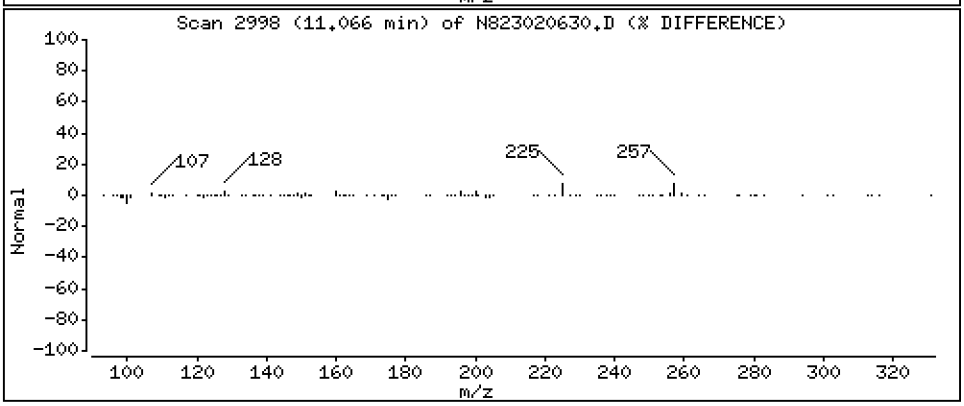












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

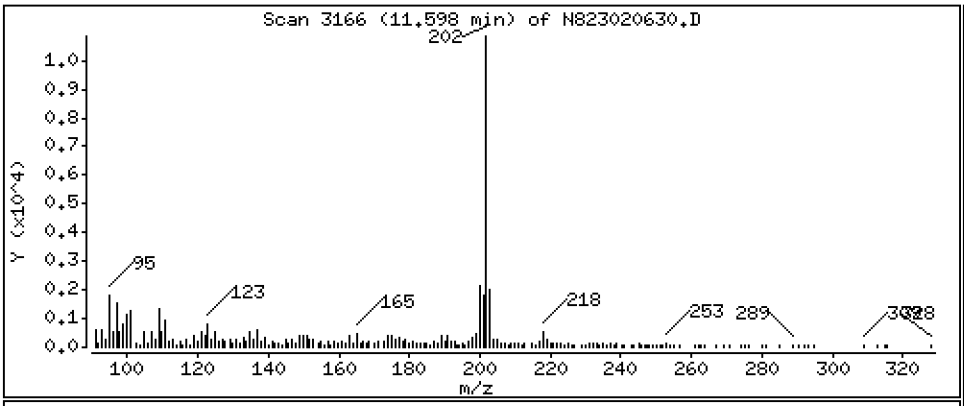
Operator: JZ

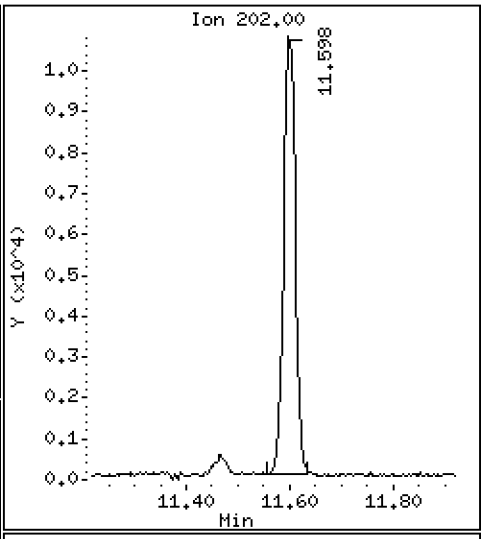
Column phase: Rxi-17sil

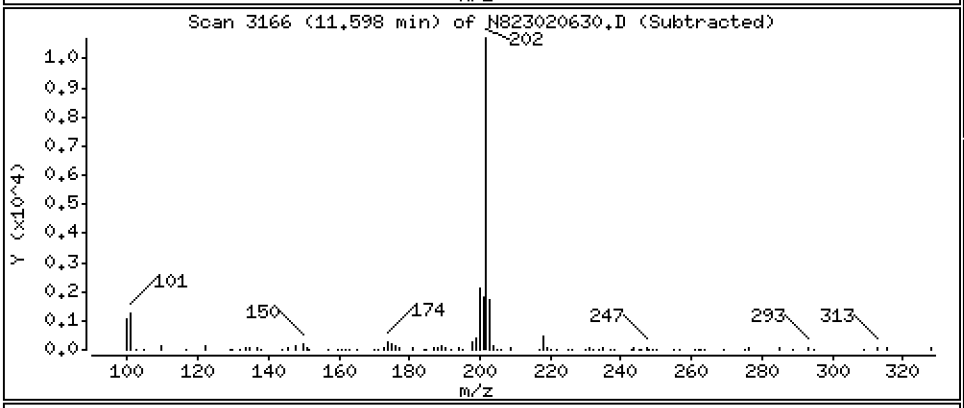
Column diameter: 0.25

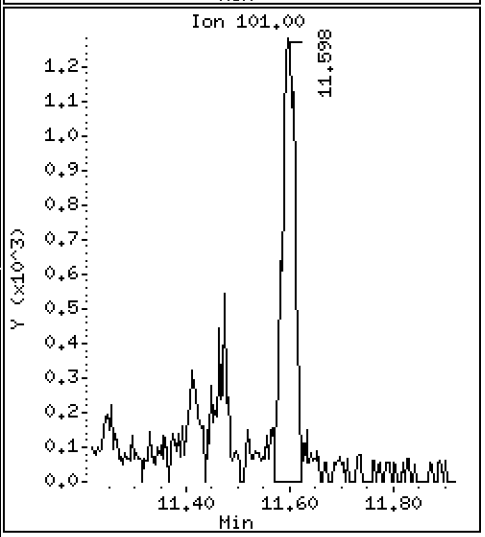
23 Pyrene

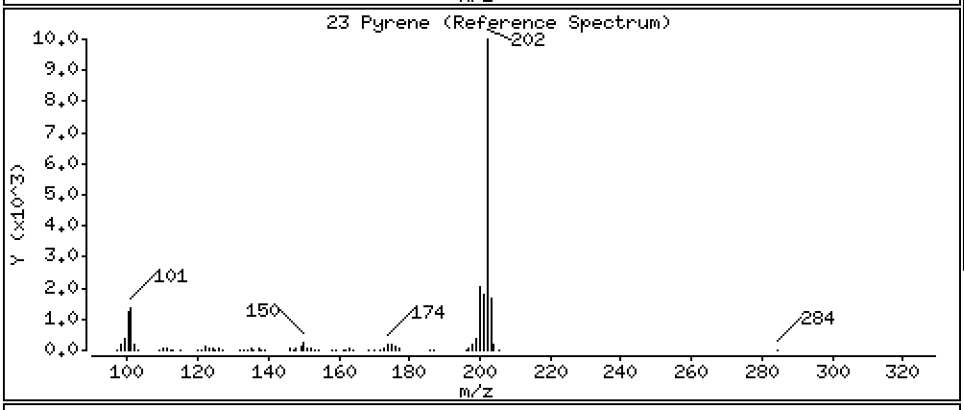
Concentration: 1.134 ug/mL

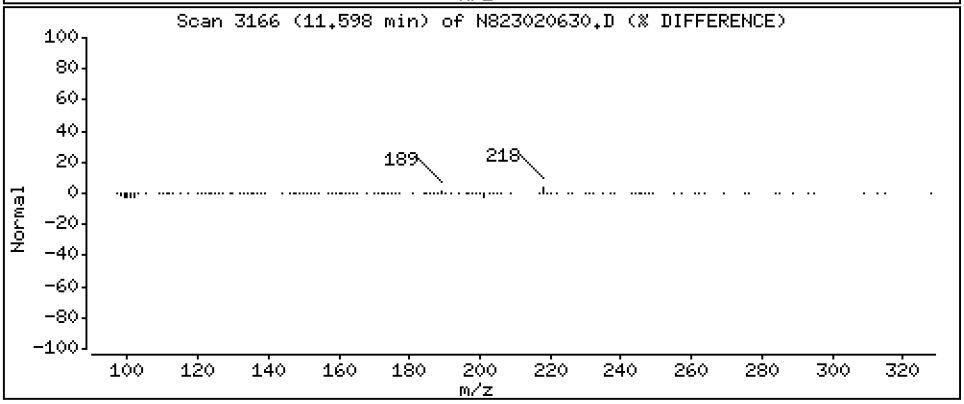












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

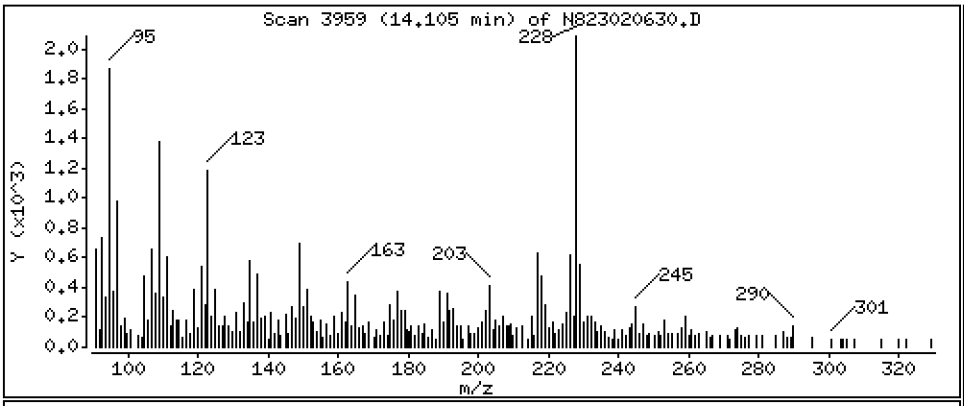
Operator: JZ

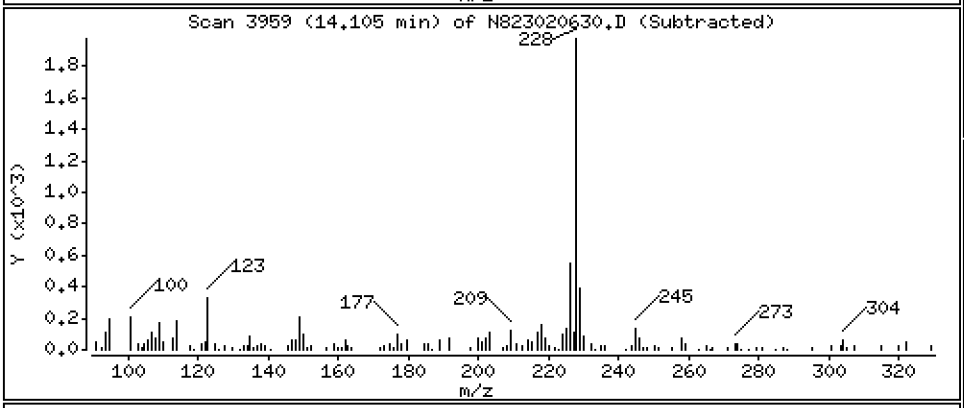
Column phase: Rxi-17sil

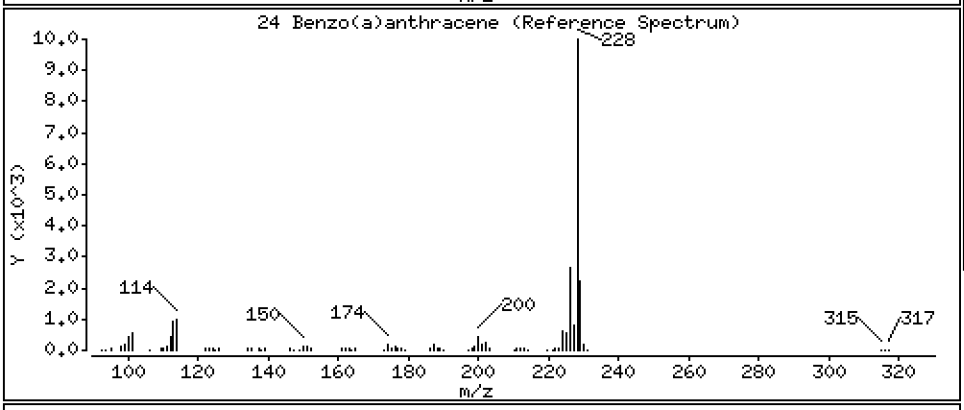
Column diameter: 0.25

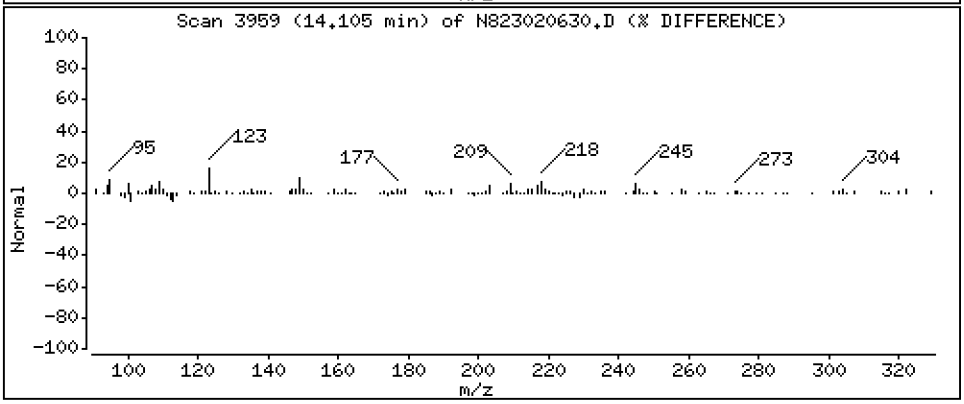
24 Benzo(a)anthracene

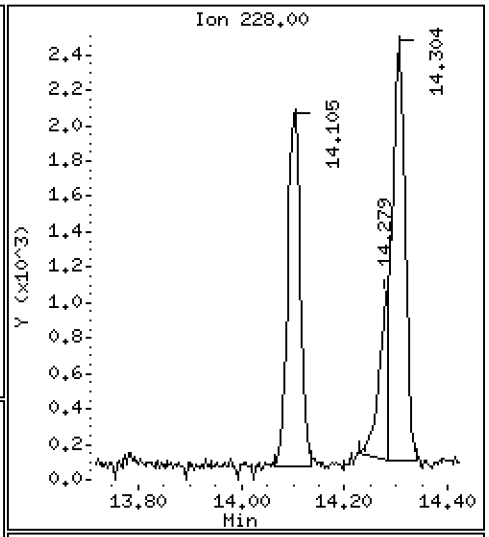
Concentration: 0.2523 ug/mL

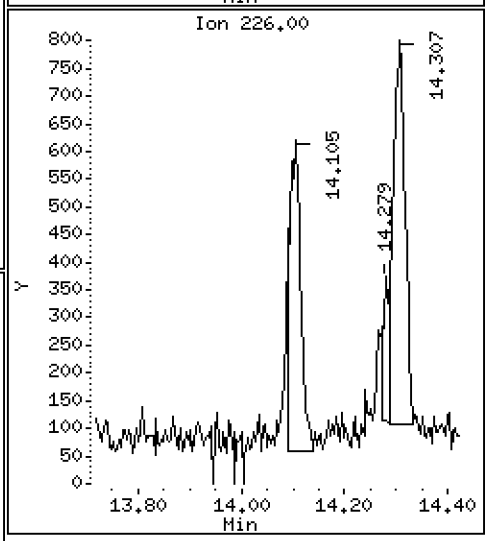












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020630.D

Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

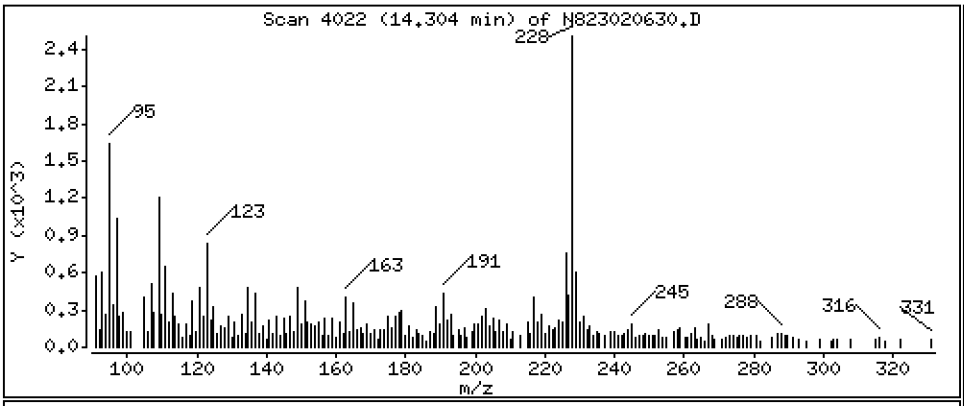
Operator: JZ

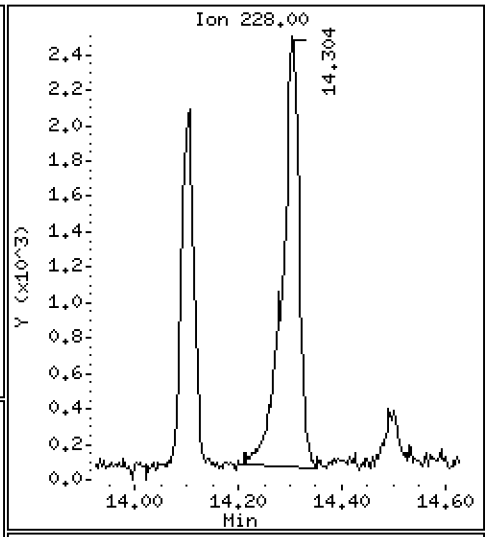
Column phase: Rxi-17sil

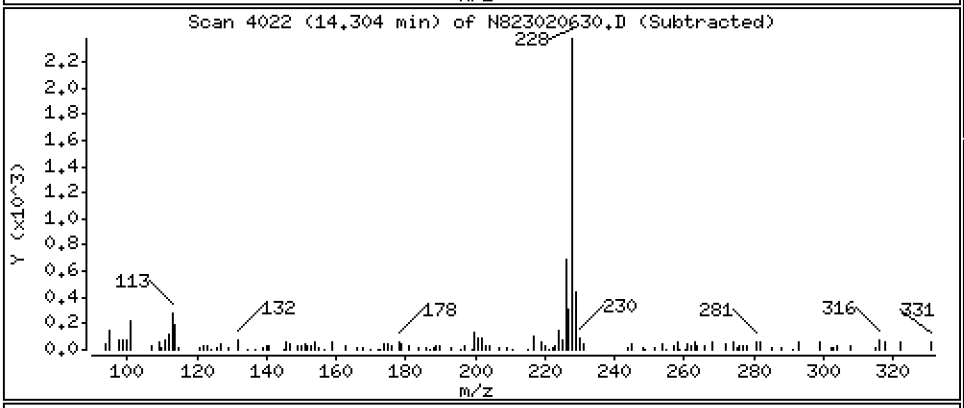
Column diameter: 0.25

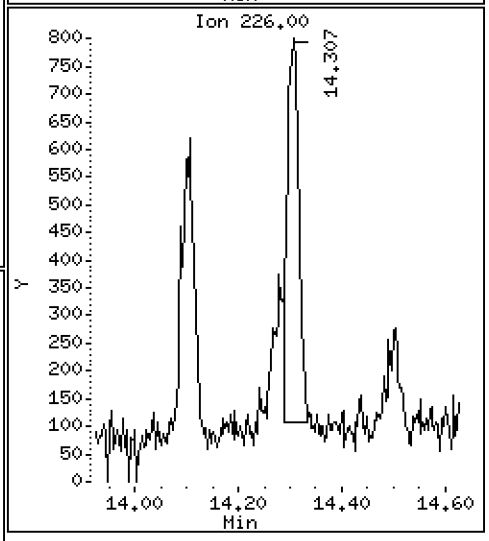
27 Chrysene

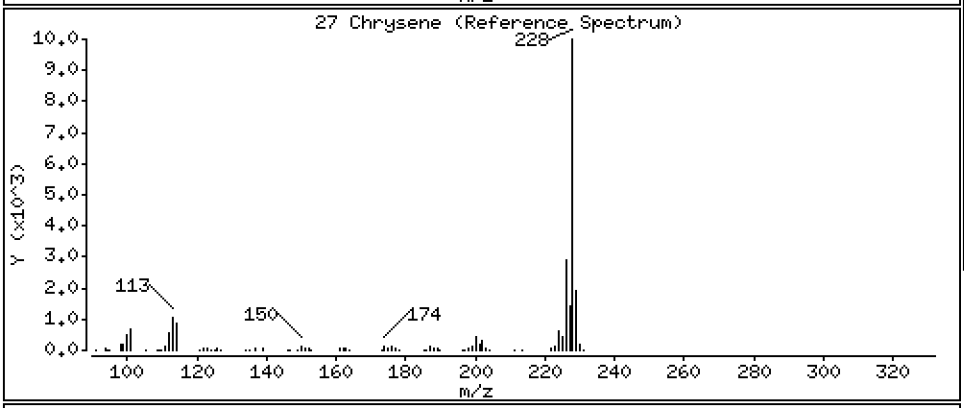
Concentration: 0.3866 ug/mL

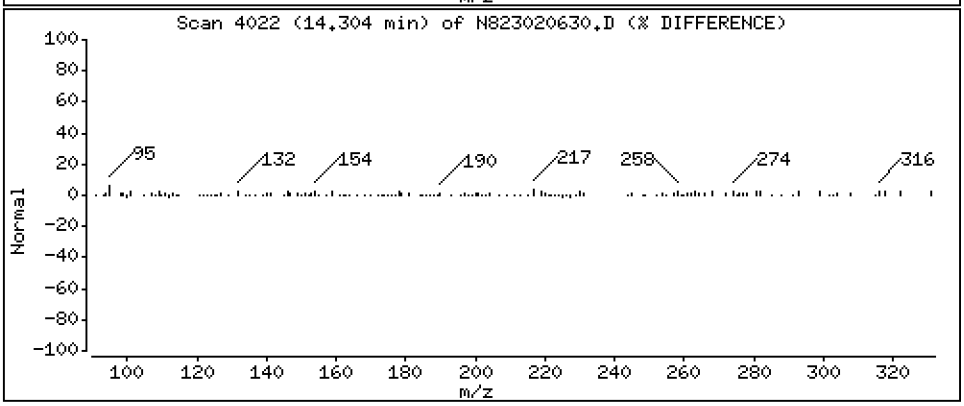












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020630.D

Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

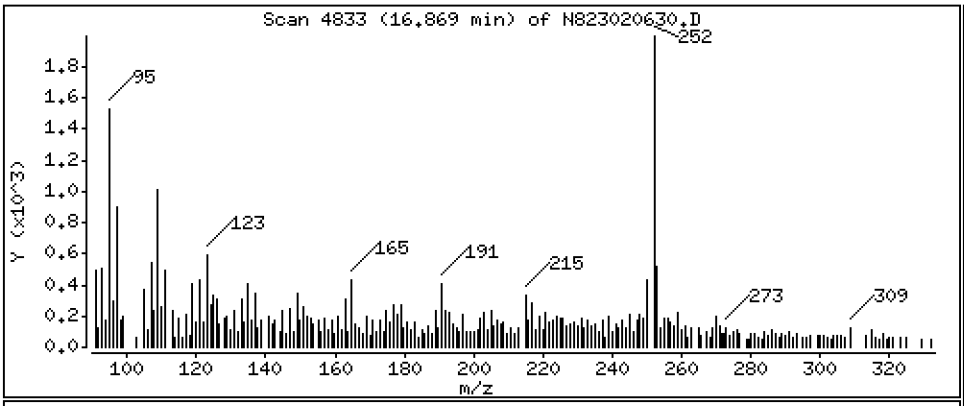
Operator: JZ

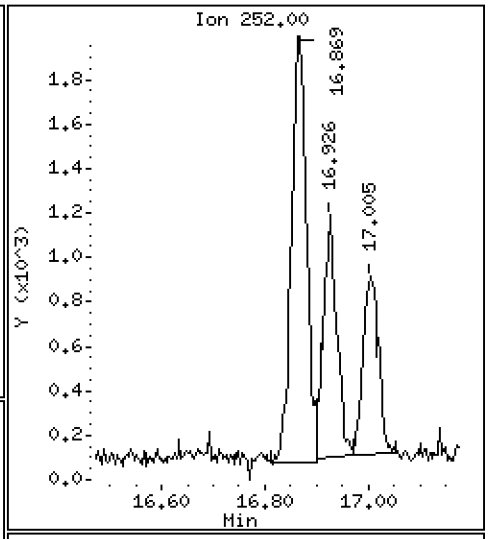
Column phase: Rxi-17sil

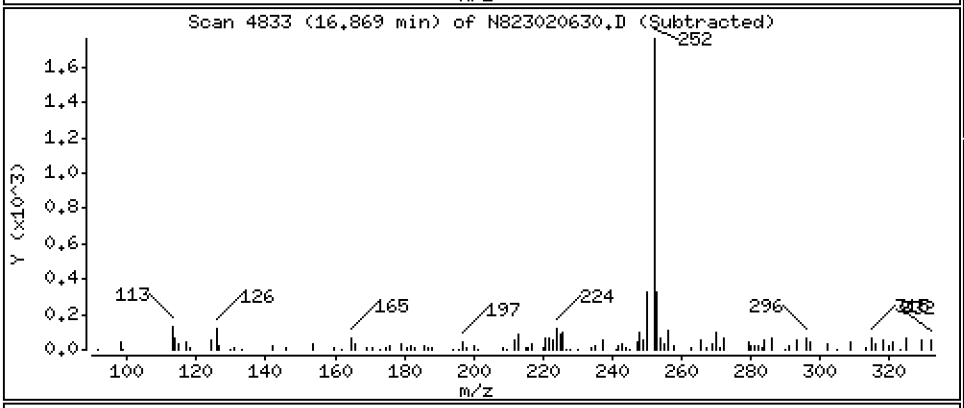
Column diameter: 0.25

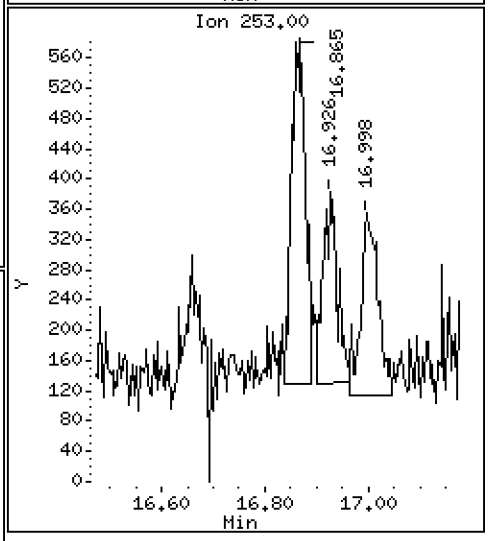
28 Benzo(b)fluoranthene

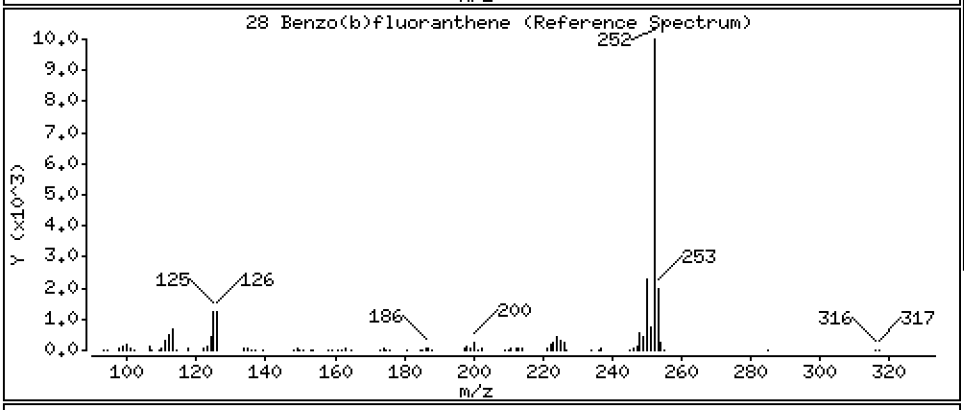
Concentration: 0.3361 ug/mL

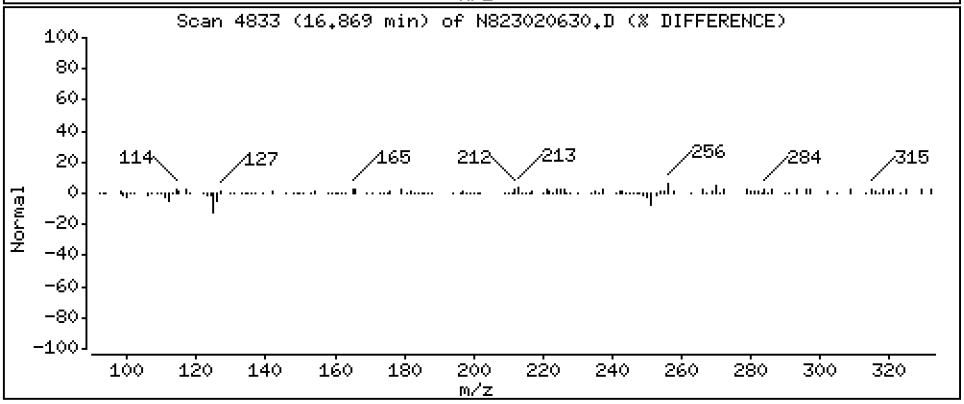












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

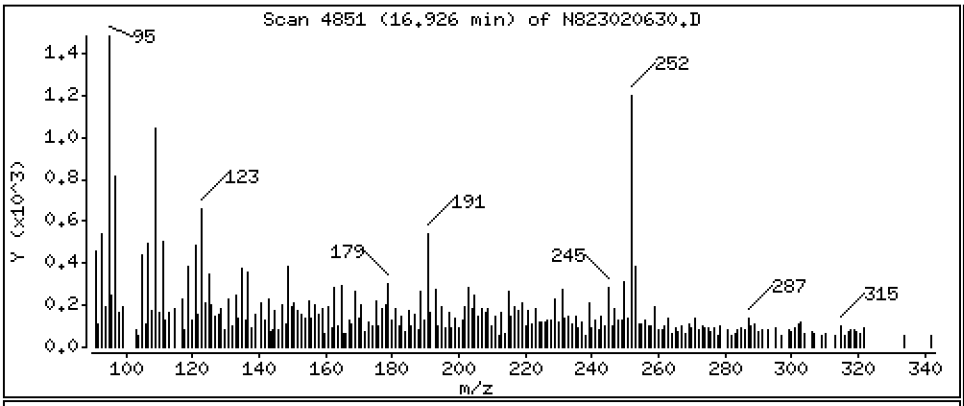
Operator: JZ

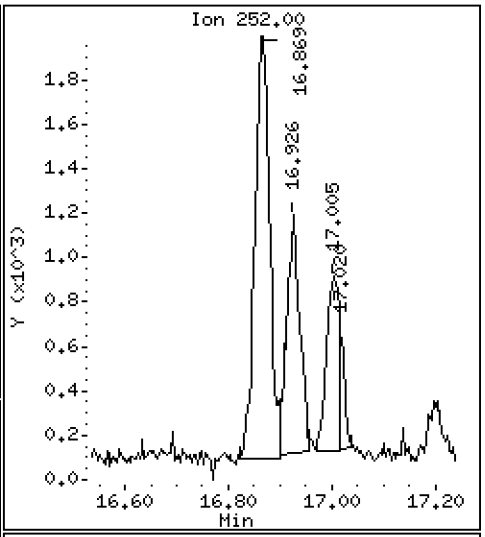
Column phase: Rxi-17sil

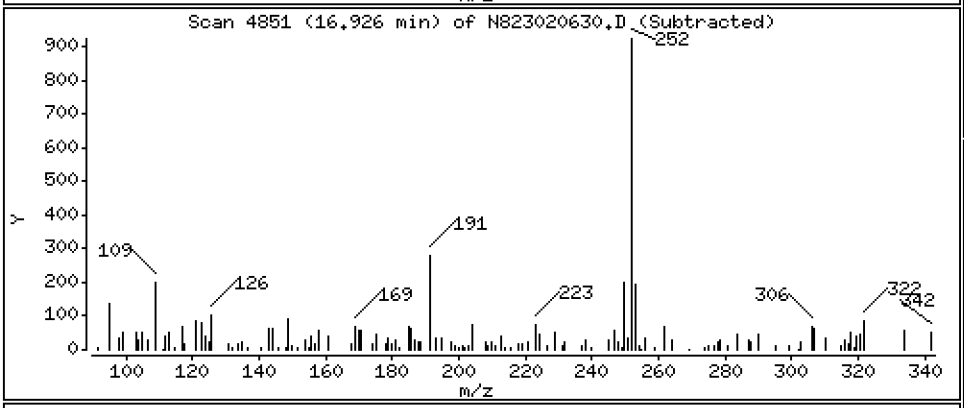
Column diameter: 0.25

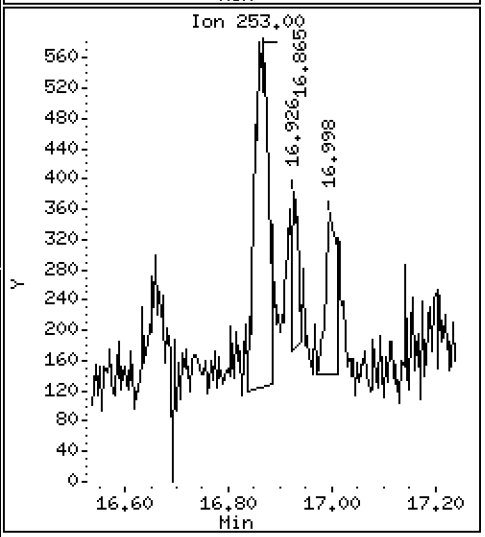
29 Benzo(k)fluoranthene

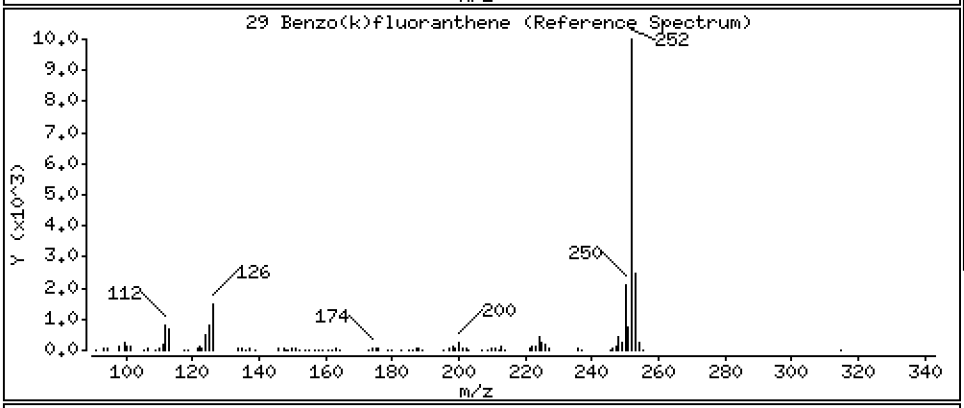
Concentration: 0.1644 ug/mL

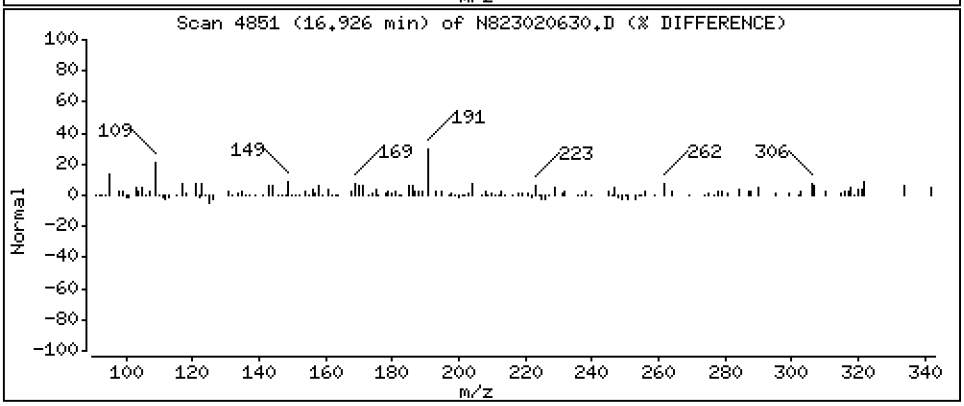












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

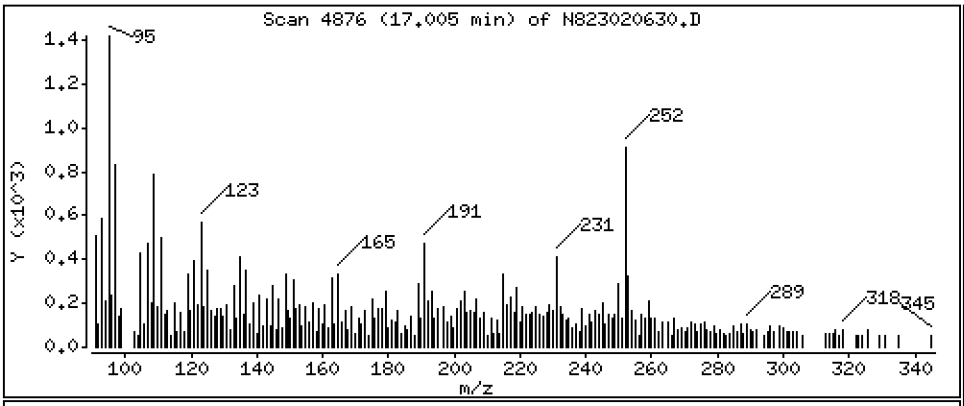
Operator: JZ

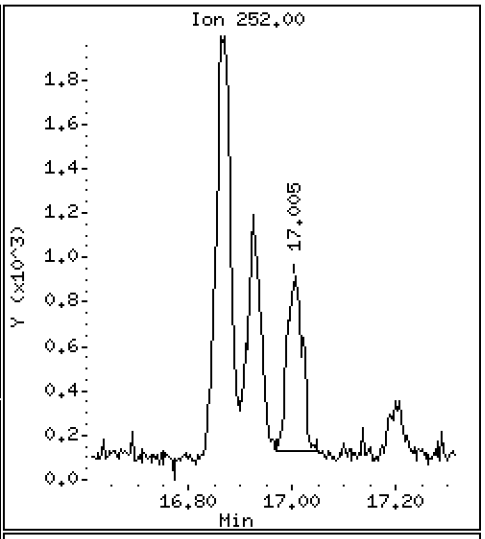
Column phase: Rxi-17sil

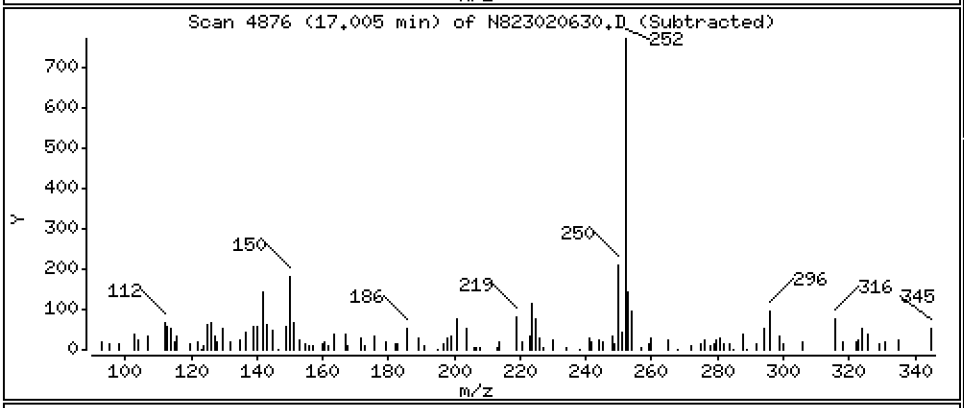
Column diameter: 0.25

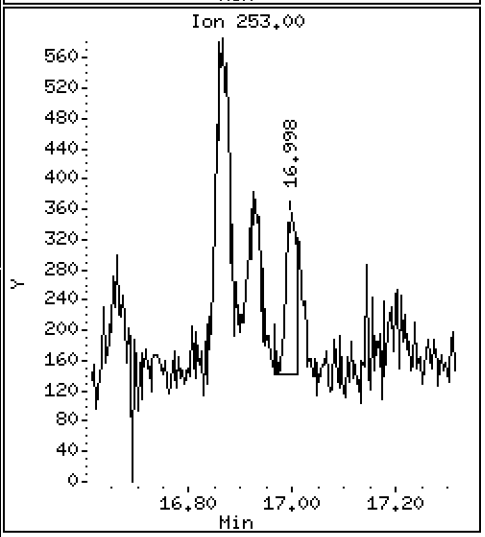
30 Benzo(j)fluoranthene

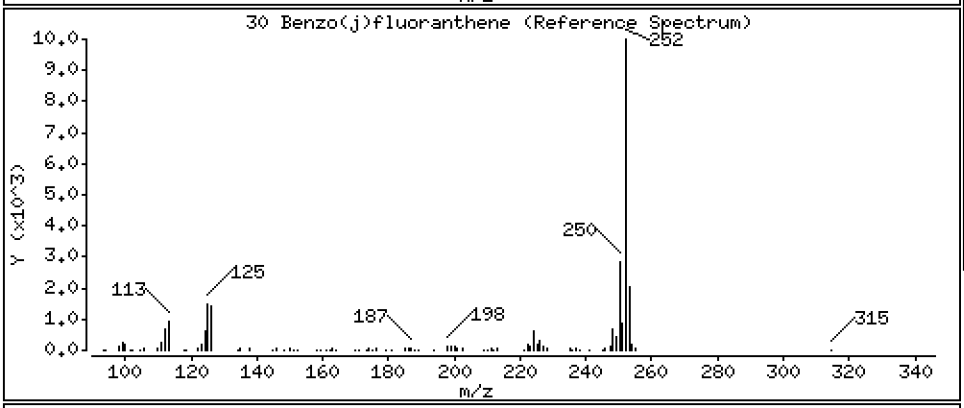
Concentration: 0.1581 ug/mL

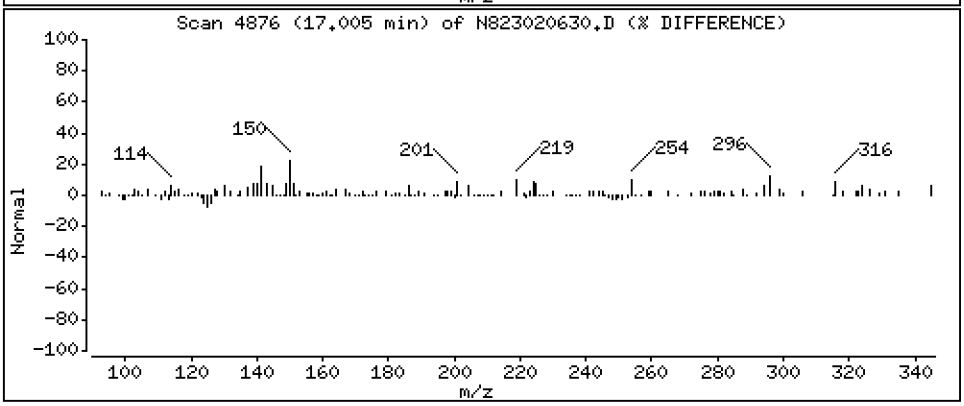












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020630.D

Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

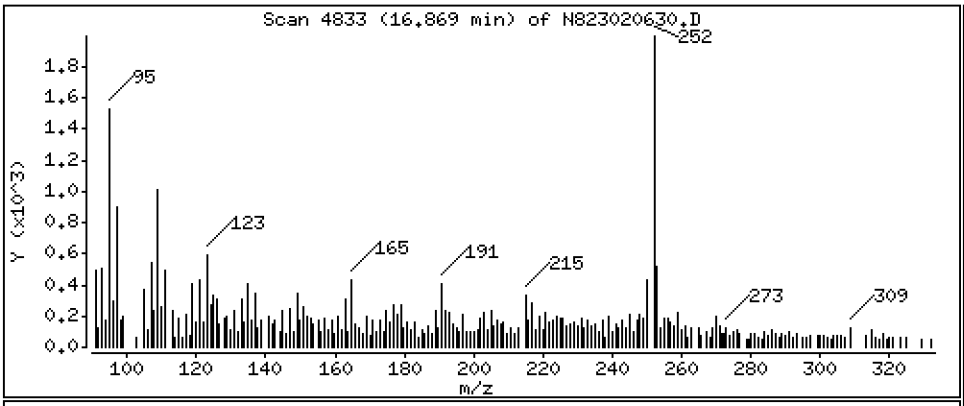
Operator: JZ

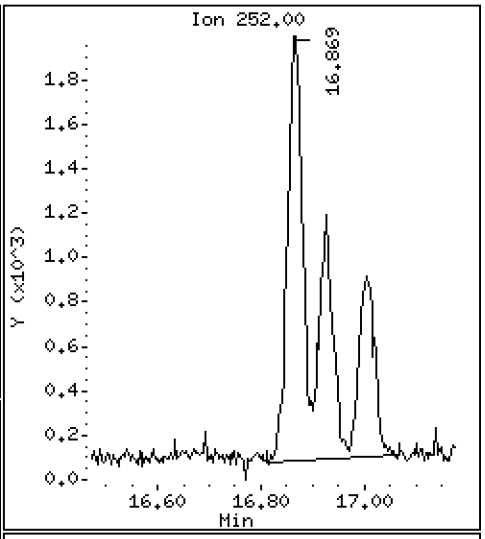
Column phase: Rxi-17sil

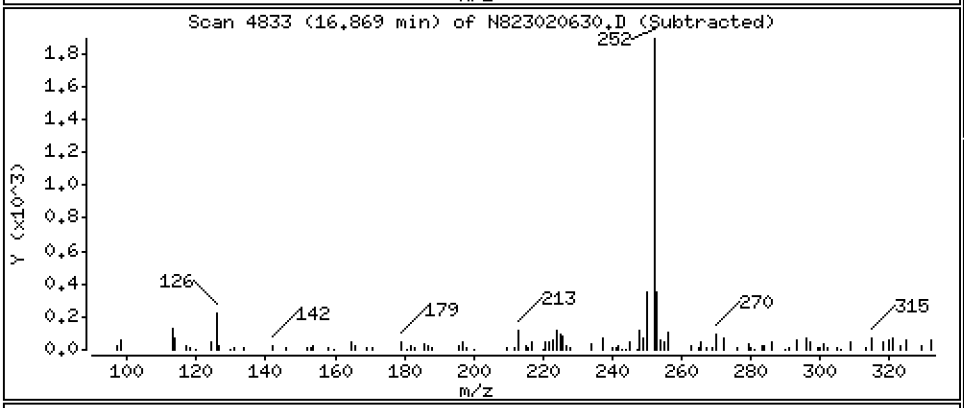
Column diameter: 0.25

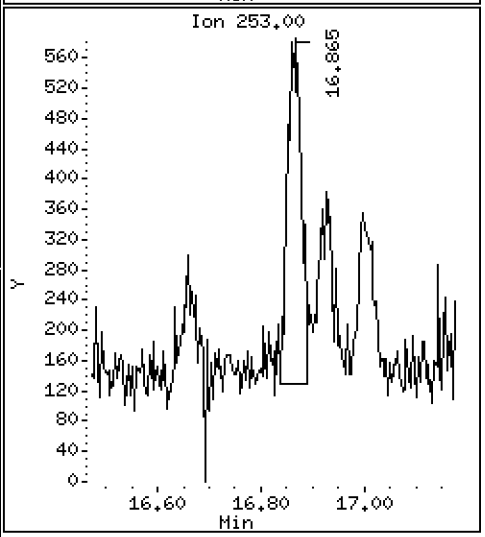
31 Total Benzofluoranthenes

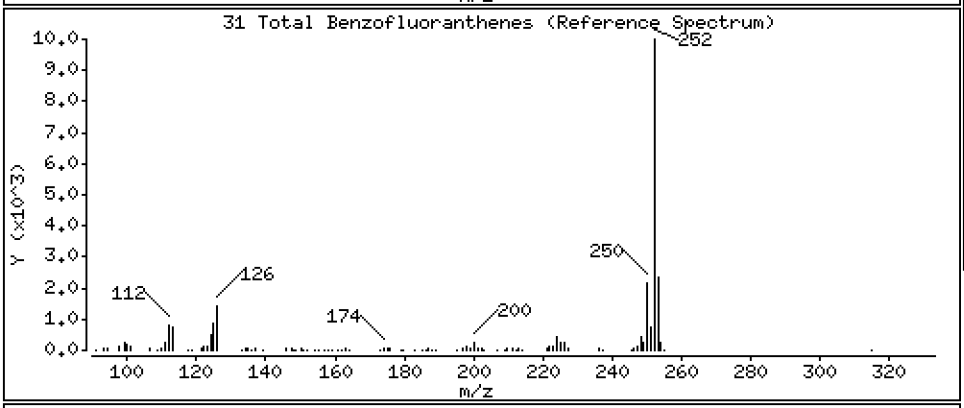
Concentration: 0.6889 ug/mL

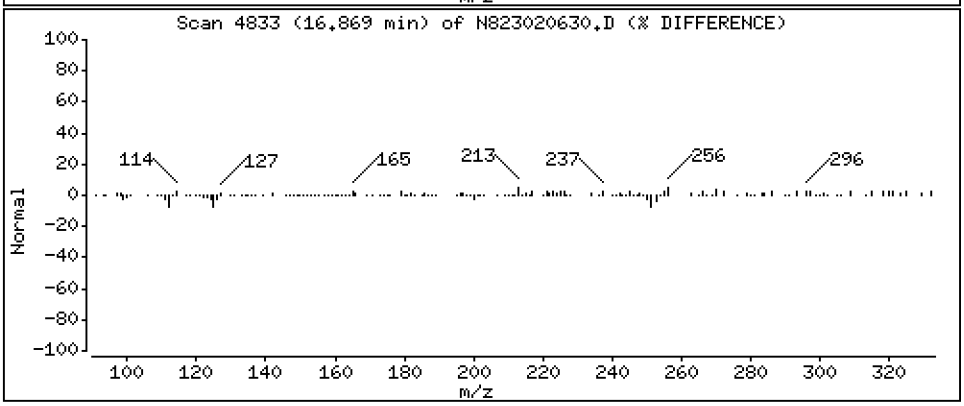












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020630.D

Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

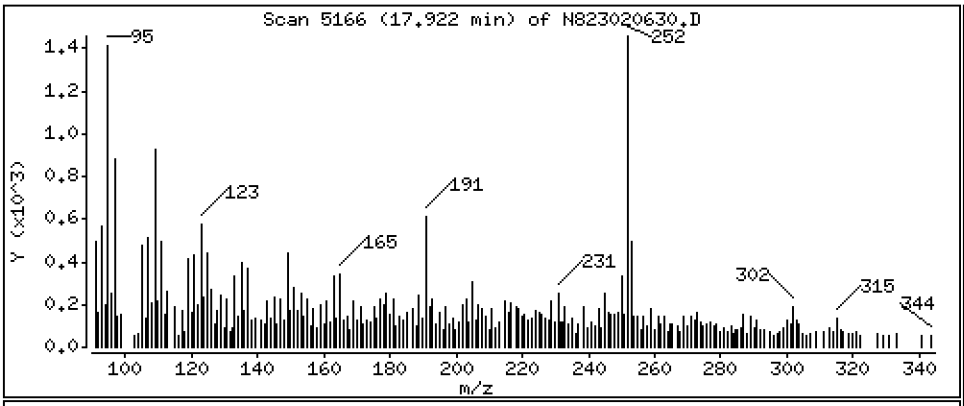
Operator: JZ

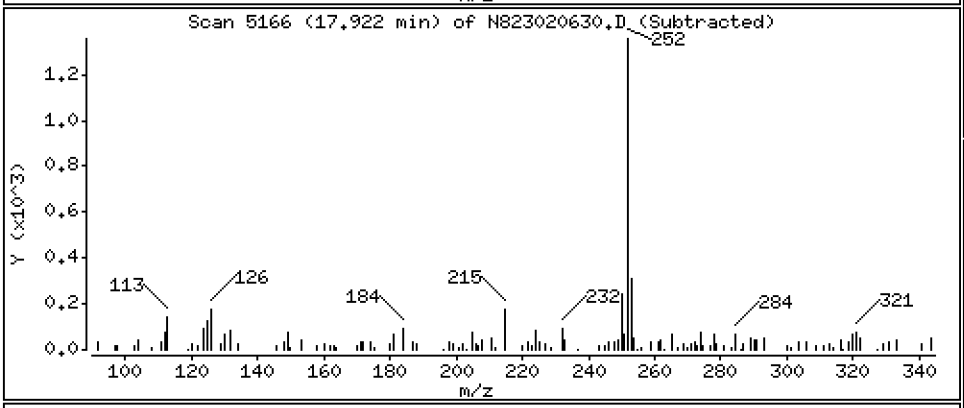
Column phase: Rxi-17sil

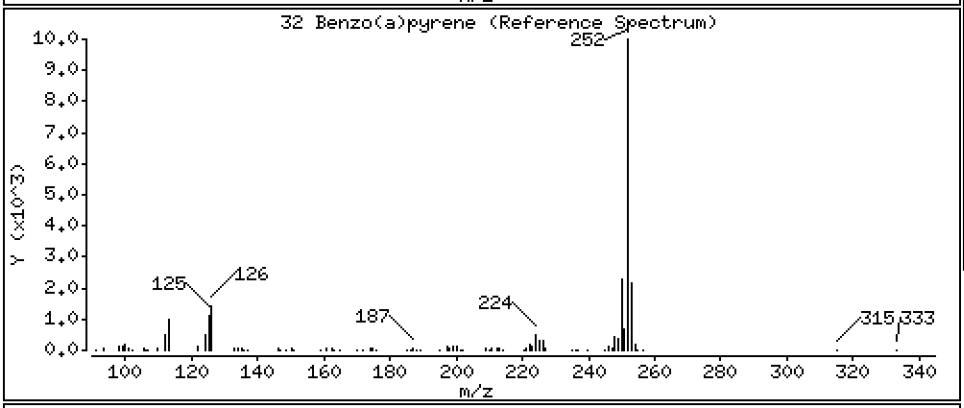
Column diameter: 0.25

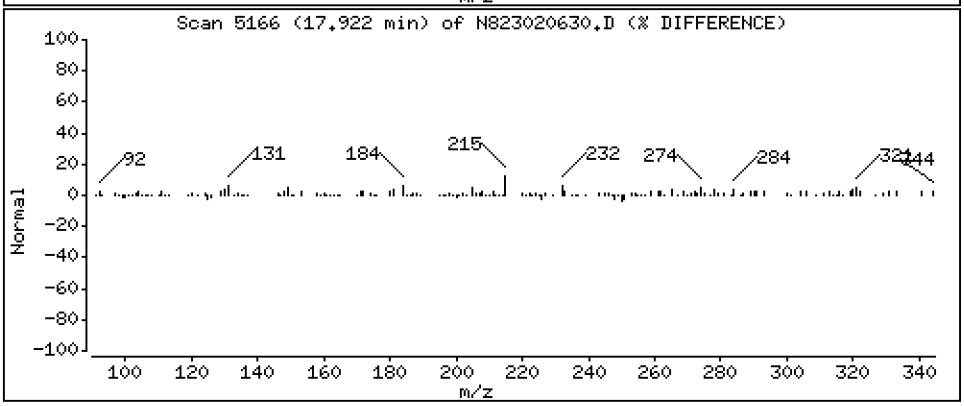
32 Benzo(a)pyrene

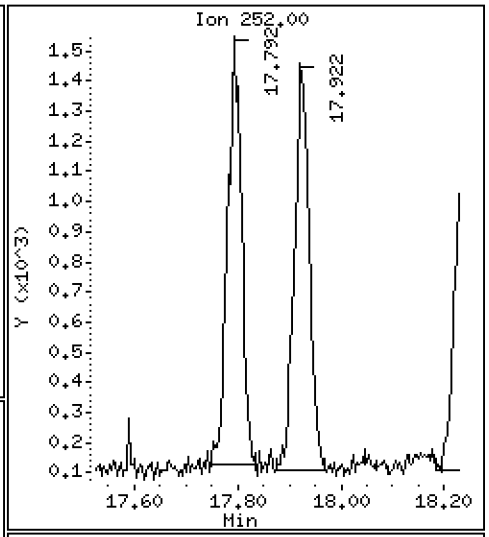
Concentration: 0.2664 ug/mL

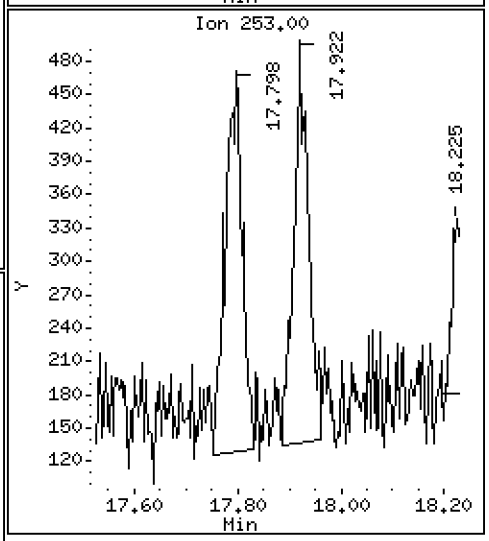












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Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

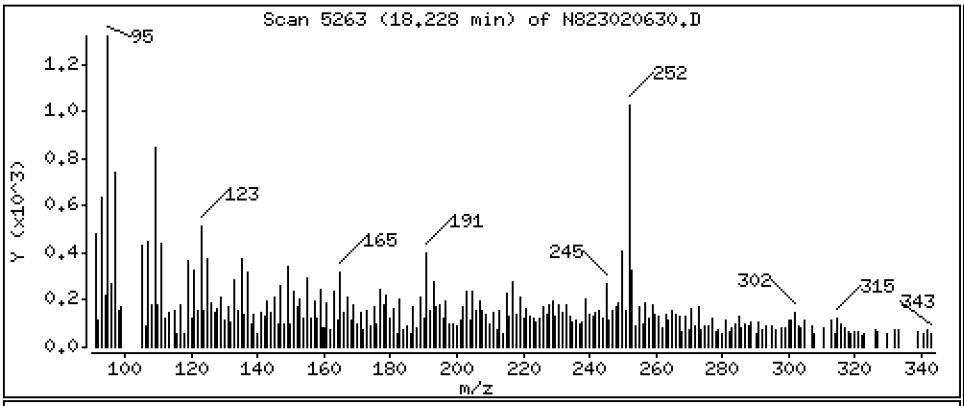
Operator: JZ

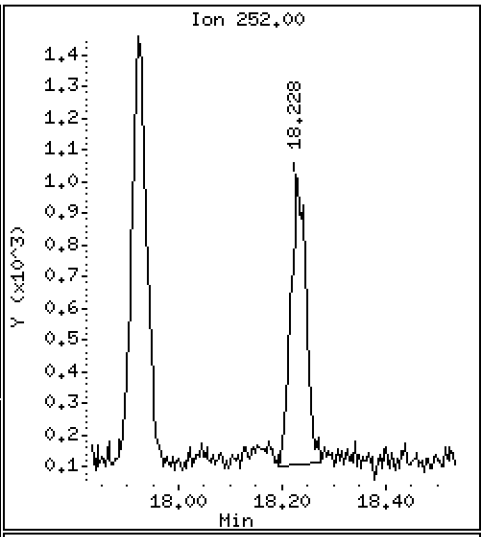
Column phase: Rxi-17sil

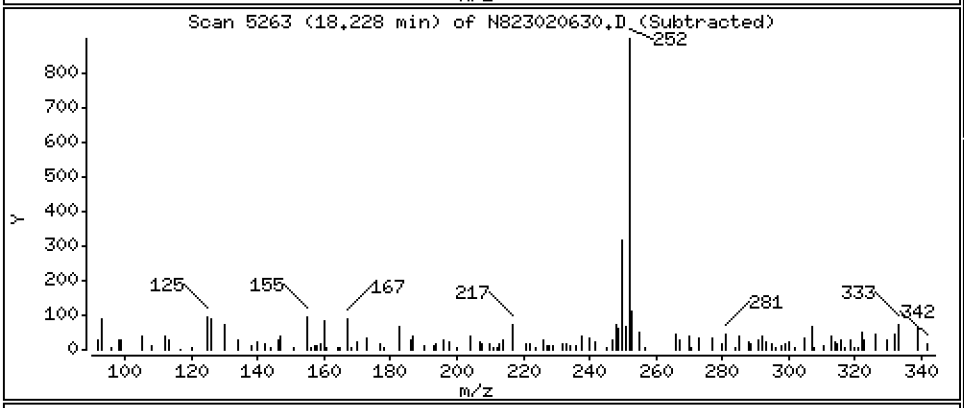
Column diameter: 0.25

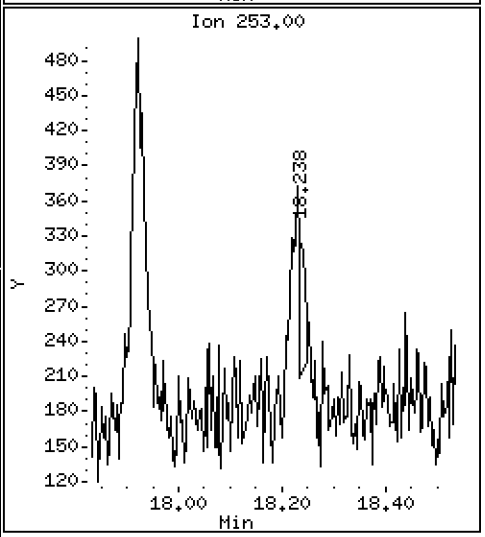
35 Perylene

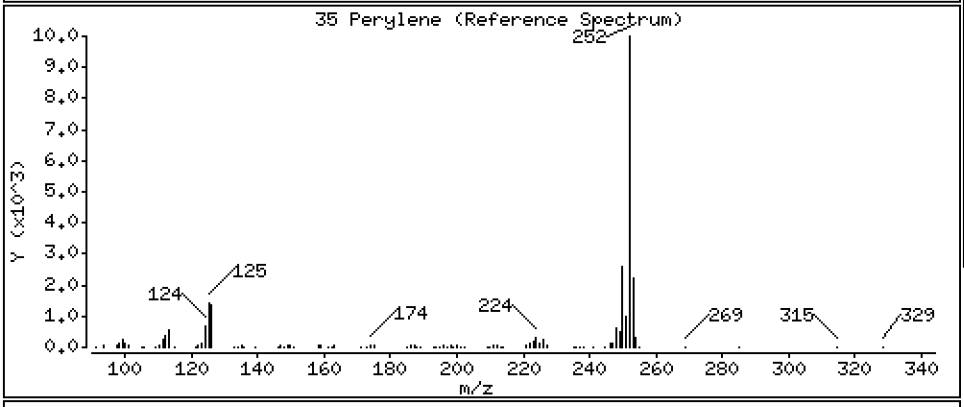
Concentration: 0.1702 ug/mL

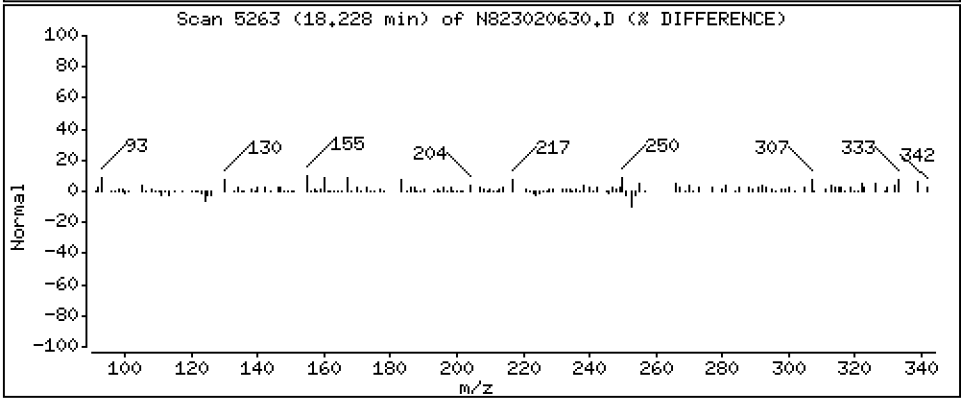












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020630.D

Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

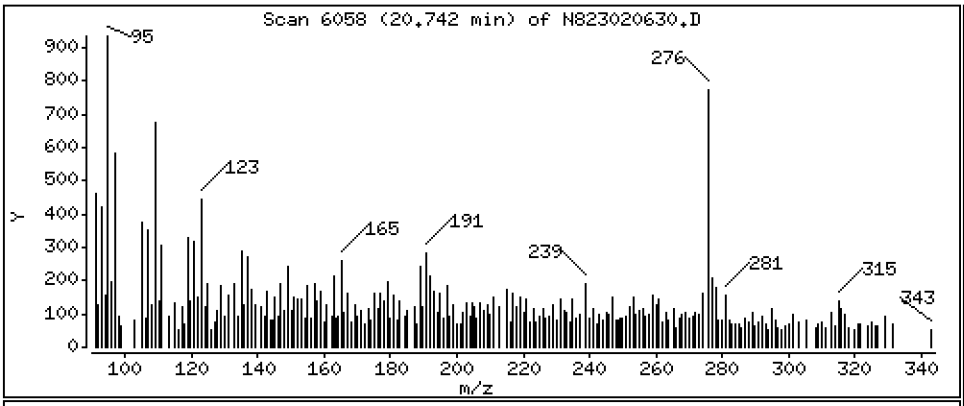
Operator: JZ

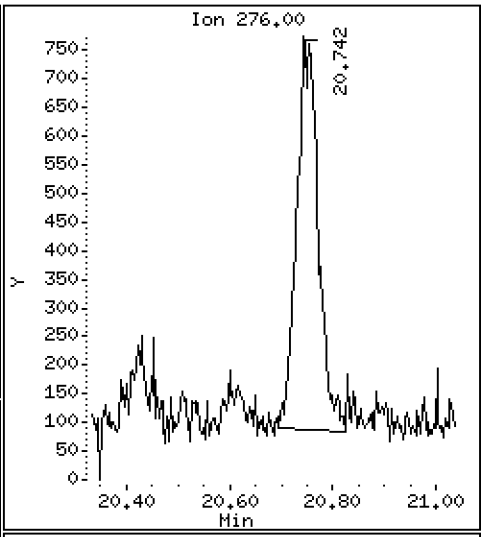
Column phase: Rxi-17sil

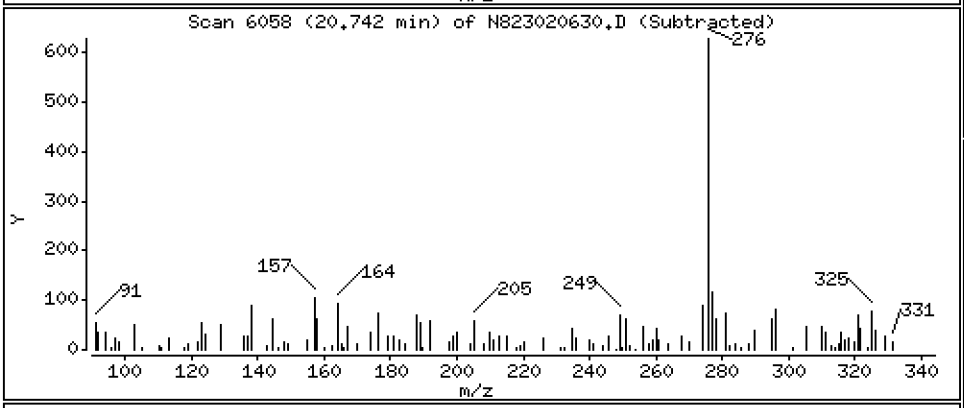
Column diameter: 0.25

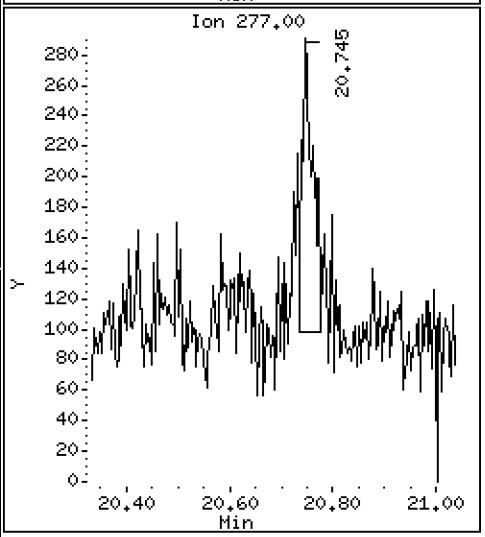
37 Indeno(1,2,3-cd)pyrene

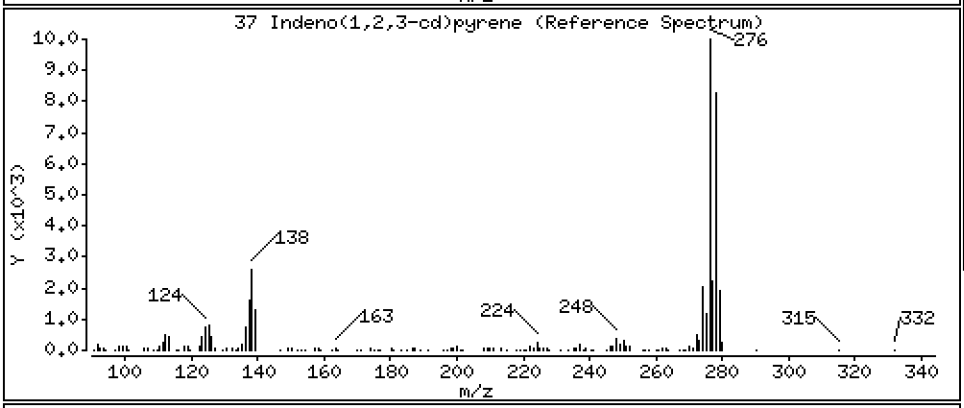
Concentration: 0.1725 ug/mL

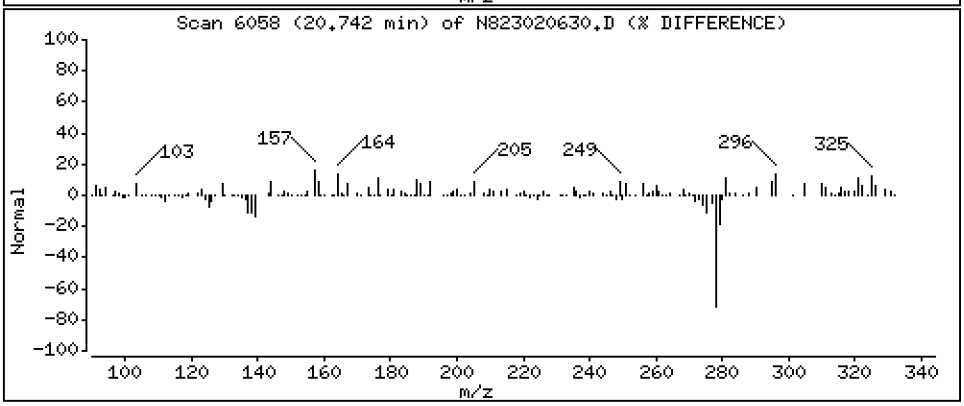












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020630.D

Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

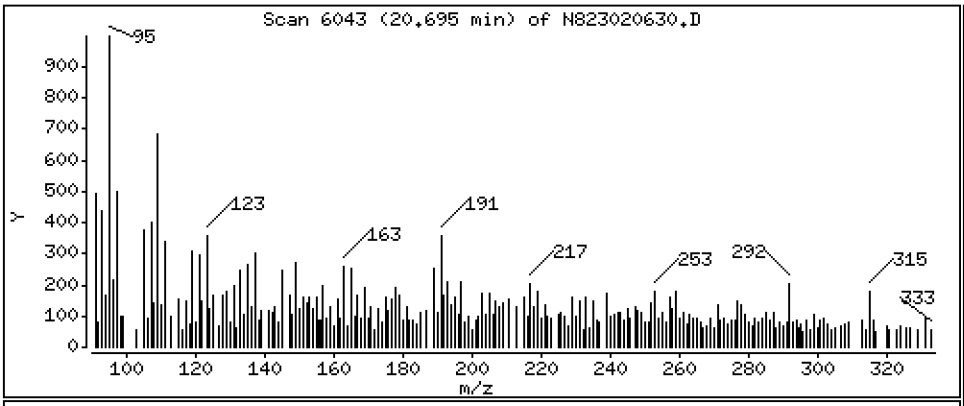
Operator: JZ

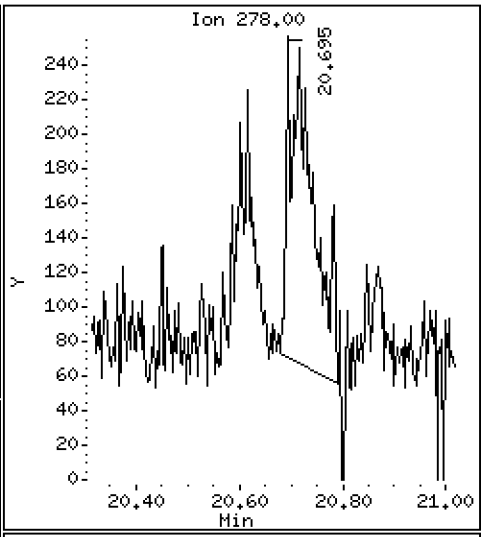
Column phase: Rxi-17sil

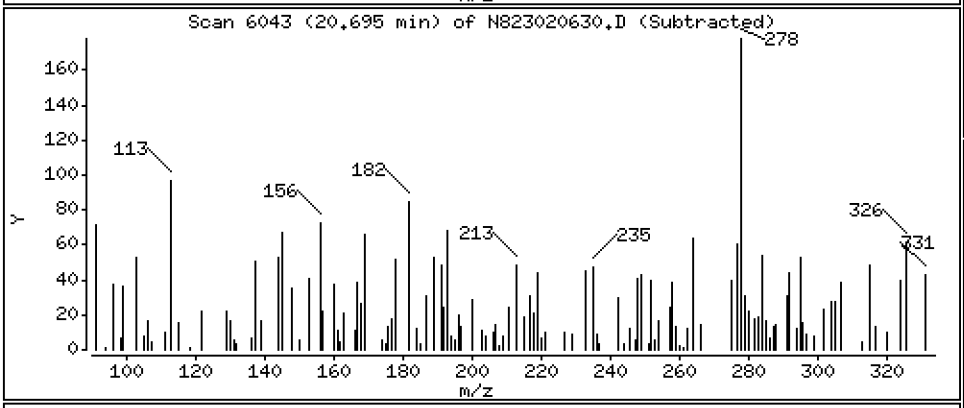
Column diameter: 0.25

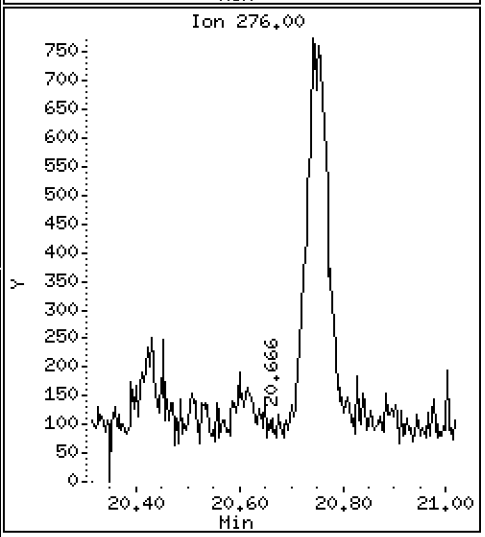
38 Dibenzo(a,h)anthracene

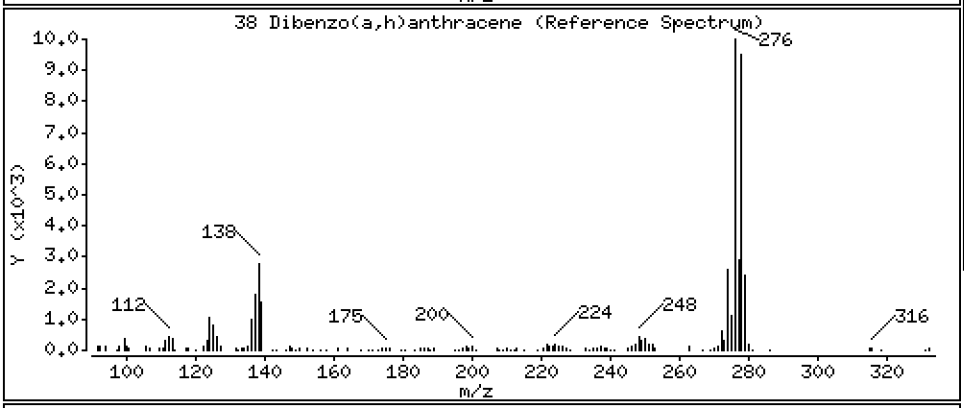
Concentration: 0.05864 ug/mL

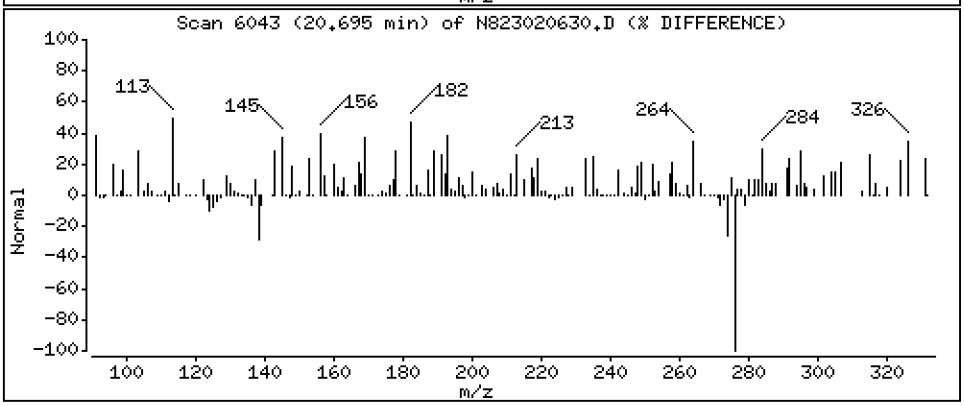












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020630.D

Date : 07-FEB-2023 01:49

Client ID:

Instrument: nt8.i

Sample Info: 23A0313-12

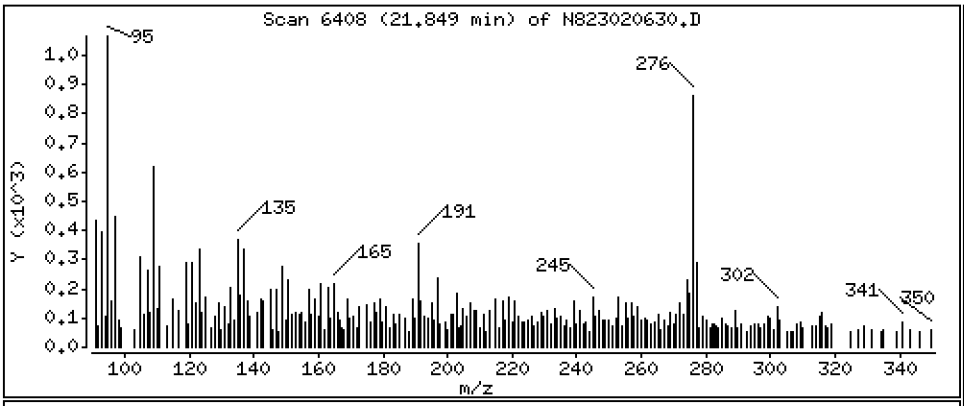
Operator: JZ

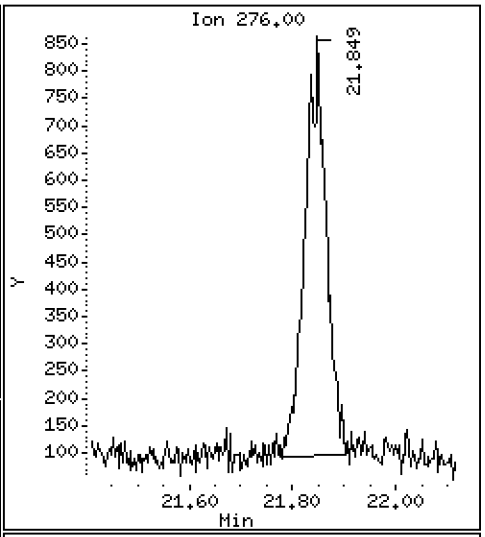
Column phase: Rxi-17sil

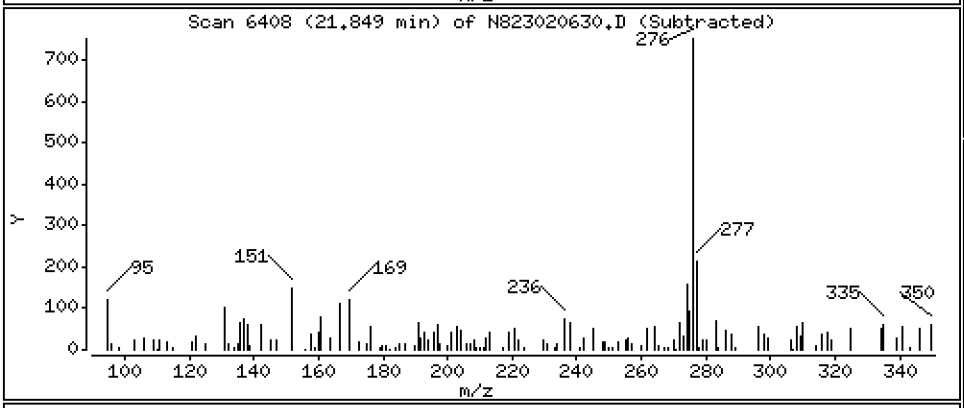
Column diameter: 0.25

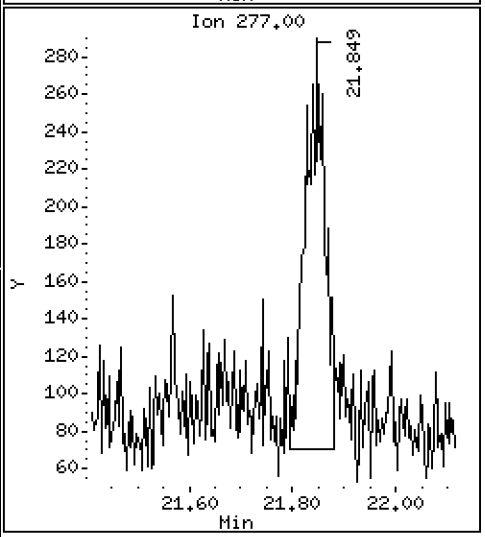
39 Benzo(g,h,i)perylene

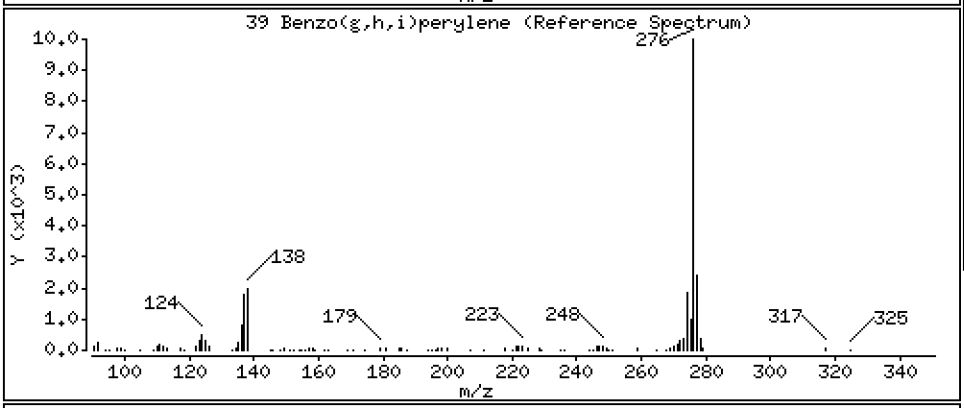
Concentration: 0.2087 ug/mL

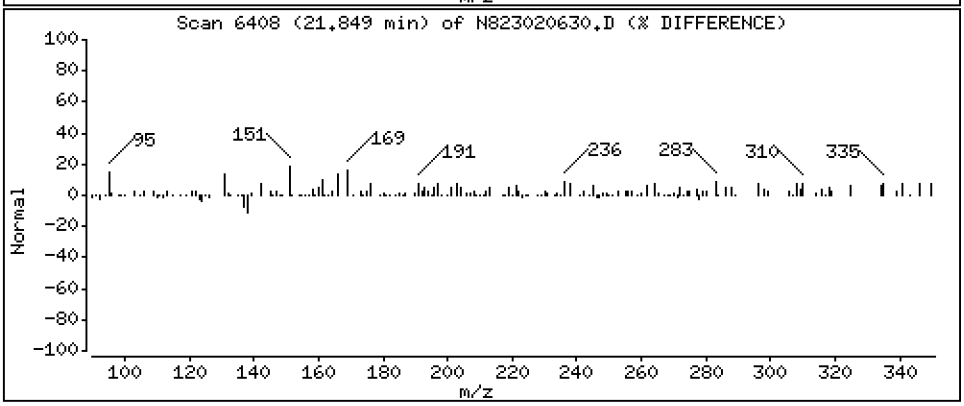












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230206A.b\N823020630.D
Lab Smp Id: 23A0313-12
Inj Date : 07-FEB-2023 01:49
Operator : JZ Inst ID: nt8.i
Smp Info : 23A0313-12
Misc Info : 23-
Comment : 1ul Injection
Method : \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Meth Date : 07-Feb-2023 13:04 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PNAXMDL.sub
Target Version: 4.14
Processing Host: JIANQING-202105

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
*	1 Naphthalene-d8	136	4.884	4.900	(1.000)	58298	2.00000	
	2 Naphthalene	128	4.913	4.928	(1.006)	1349	0.04977	0.04977(M)
$	3 2-Methylnaphthalene-d10	152	5.624	5.634	(1.151)	47001	2.95616	2.956
	4 2-Methylnaphthalene	141	5.668	5.681	(1.161)	648	0.04346	0.04346(M)
	5 1-methylnaphthalene	141	5.868	5.880	(1.201)	311	0.02055	0.02055
	9 Acenaphthylene	152	7.079	7.082	(0.985)	1099	0.04116	0.04116(M)
*	10 Acenaphthene-d10	164	7.186	7.189	(1.000)	35361	2.00000	
	11 Acenaphthene	153	7.234	7.240	(1.007)	627	0.03505	0.03505
	12 Dibenzofuran	168	7.389	7.392	(1.028)	576	0.02120	0.02120
	14 Fluorene	166	7.872	7.869	(1.095)	772	0.03658	0.03658(M)
*	15 Phenanthrene-d10	188	9.235	9.232	(1.000)	61613	2.00000	
	16 Phenanthrene	178	9.270	9.267	(1.004)	5808	0.19298	0.1930
	17 Anthracene	178	9.311	9.308	(1.008)	1562	0.05713	0.05713
	19 Carbazole	167	9.830	9.823	(1.064)	777	0.03100	0.03100
	22 Fluoranthene	202	11.066	11.050	(1.198)	14494	0.44242	0.4424
$	21 Fluoranthene-d10	212	11.028	11.009	(1.194)	84284	3.10057	3.101
	23 Pyrene	202	11.597	11.569	(0.815)	16833	1.13392	1.134
	24 Benzo(a)anthracene	228	14.105	14.070	(0.991)	3395	0.25232	0.2523
*	25 Chrysene-d12	240	14.231	14.202	(1.000)	23944	2.00000	
	27 Chrysene	228	14.304	14.275	(1.005)	5538	0.38663	0.3866(M)
	28 Benzo(b)fluoranthene	252	16.868	16.824	(0.929)	3893	0.33610	0.3361
	29 Benzo(k)fluoranthene	252	16.925	16.887	(0.932)	1865	0.16438	0.1644
	30 Benzo(j)fluoranthene	252	17.004	16.963	(0.936)	1615	0.15812	0.1581(M)
	31 Total Benzofluoranthenes	252	16.868	16.824	(0.929)	7557	0.68890	0.6889(M)
	32 Benzo(a)pyrene	252	17.921	17.877	(0.987)	2715	0.26636	0.2664
*	33 Perylene-d12	264	18.158	18.107	(1.000)	19888	2.00000	
	35 Perylene	252	18.228	18.183	(1.004)	1862	0.17023	0.1702(M)
$	36 Dibenzo(a,h)anthracene-d14	292	20.615	20.549	(1.135)	29185	3.74525	3.745(M)
	37 Indeno(1,2,3-cd)pyrene	276	20.742	20.684	(1.142)	2003	0.17249	0.1725(M)
	38 Dibenzo(a,h)anthracene	278	20.694	20.666	(1.140)	586	0.05864	0.05864(M)
	39 Benzo(g,h,i)perylene	276	21.848	21.763	(1.203)	2196	0.20873	0.2087(M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823020630.D
Lab Smp Id: 23A0313-12
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 06-FEB-2023
Calibration Time: 15:15
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44336	22168	88672	58298	31.49
10 Acenaphthene-d10	26127	13064	52254	35361	35.34
15 Phenanthrene-d10	47424	23712	94848	61613	29.92
25 Chrysene-d12	36794	18397	73588	23944	-34.92
33 Perylene-d12	36636	18318	73272	19888	-45.71

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.90	4.40	5.40	4.88	-0.32
10 Acenaphthene-d10	7.19	6.69	7.69	7.19	-0.04
15 Phenanthrene-d10	9.23	8.73	9.73	9.24	0.04
25 Chrysene-d12	14.20	13.70	14.70	14.23	0.20
33 Perylene-d12	18.11	17.61	18.61	18.16	0.28

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823020630.D

Lab ID: 23A0313-12
nt8.i, 20230206A.b\FSIMPNA230119.m,   07-FEB-2023 01:49

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

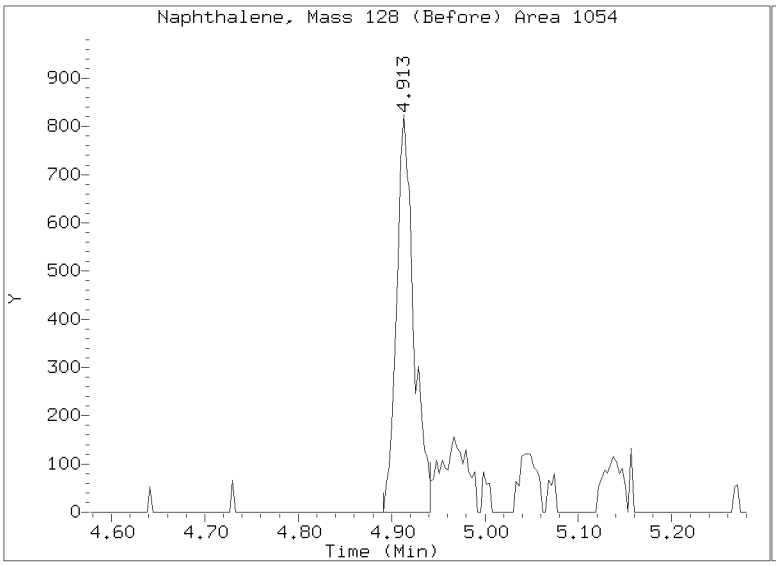
No RRT check performed

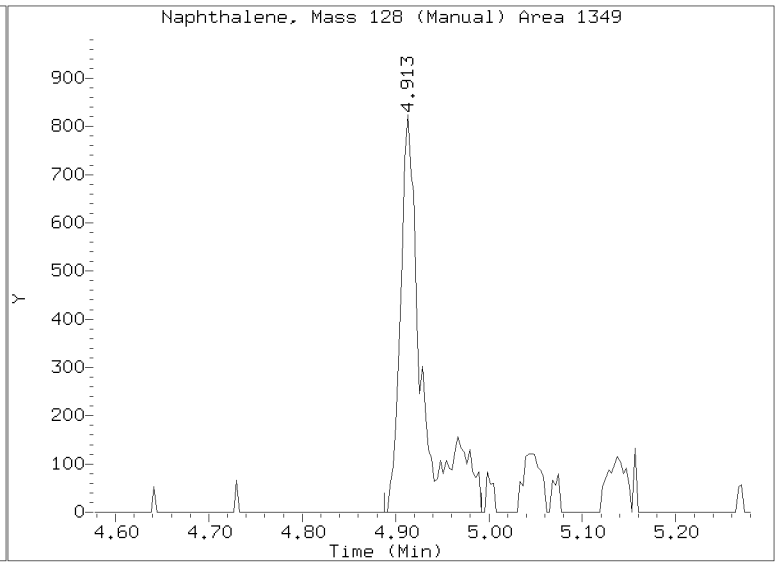
On Column LOD for nt8.i, 20230206A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

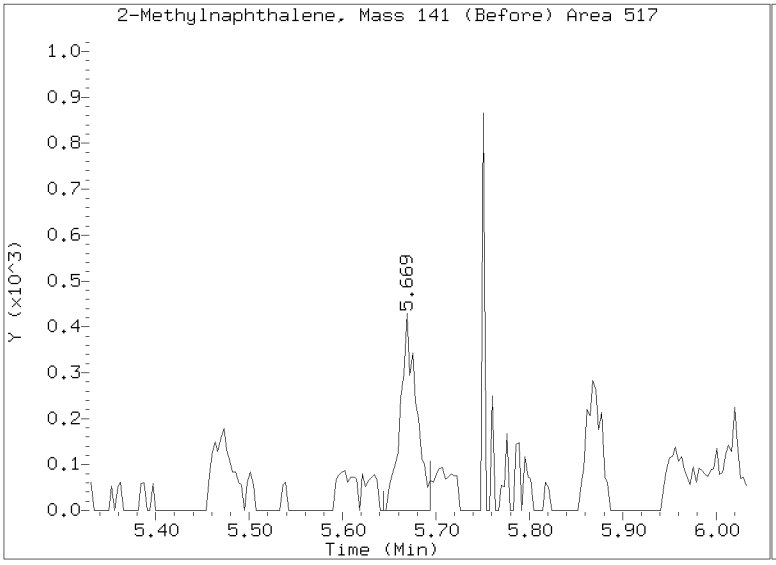
* Only compounds listed in the work order have been verified by the analyst *

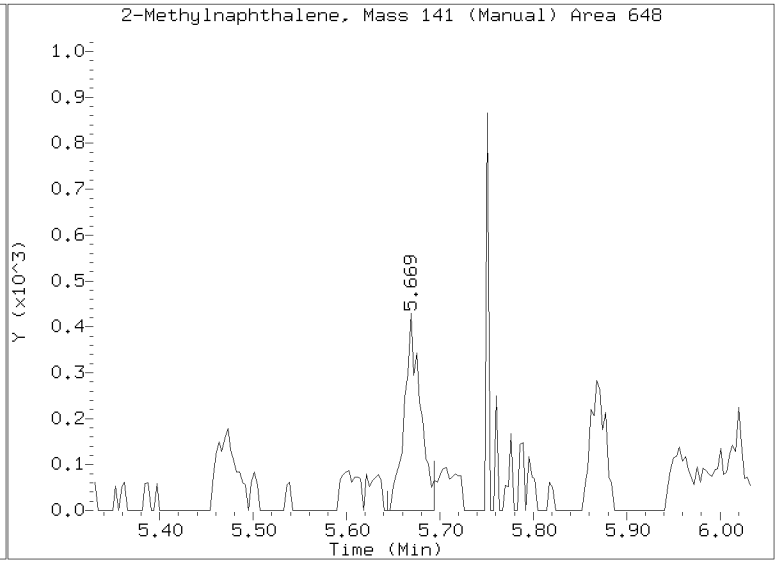
Quant Ion Manual Peak Adjustment Report

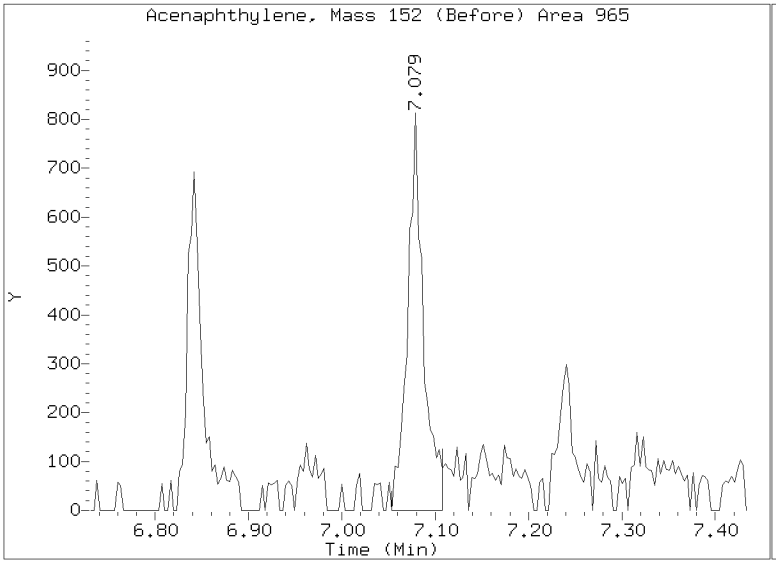
Datafile: //target/share/chem3/nt8.i/20230206A.b/N823020630.D
Injection Date: 07-FEB-2023 01:49
Lab ID:23A0313-12 Client ID:
Report Date: 02/07/2023 19:31

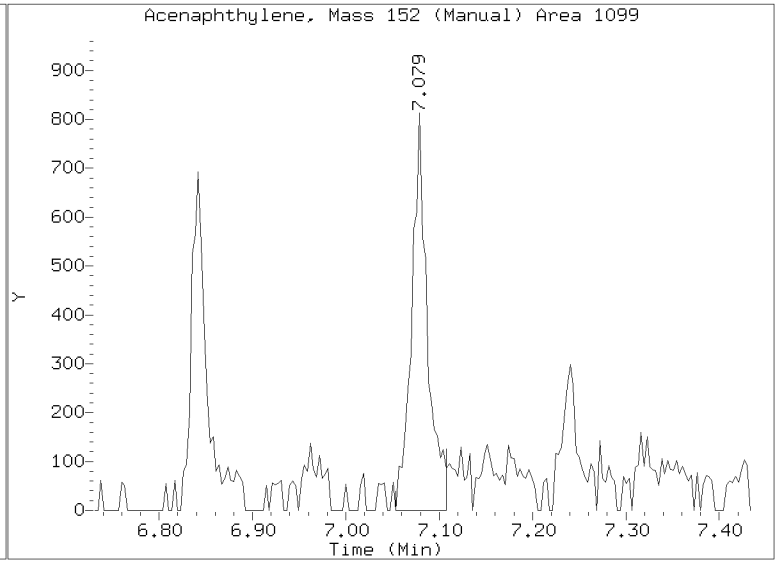












Quant Ion Manual Peak Adjustment Report

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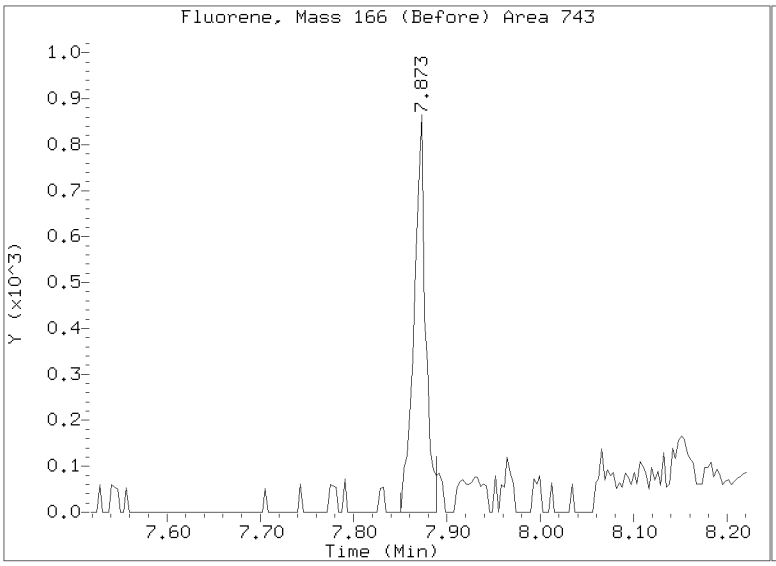
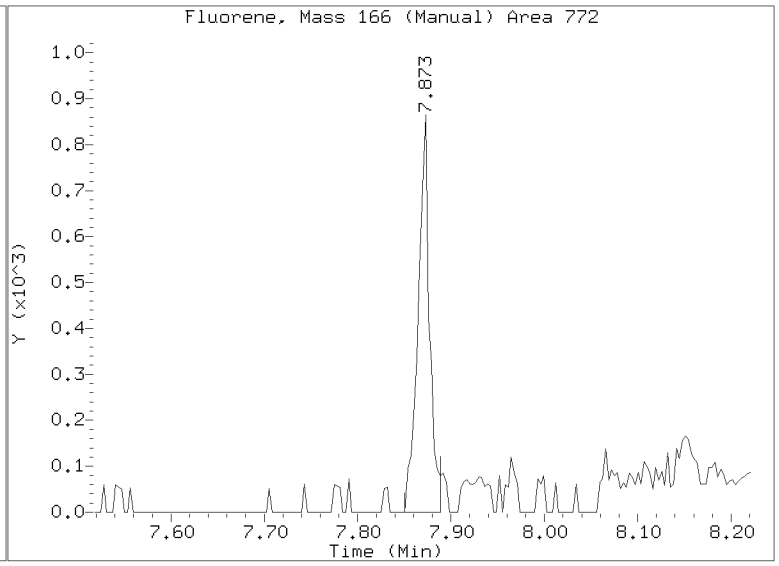
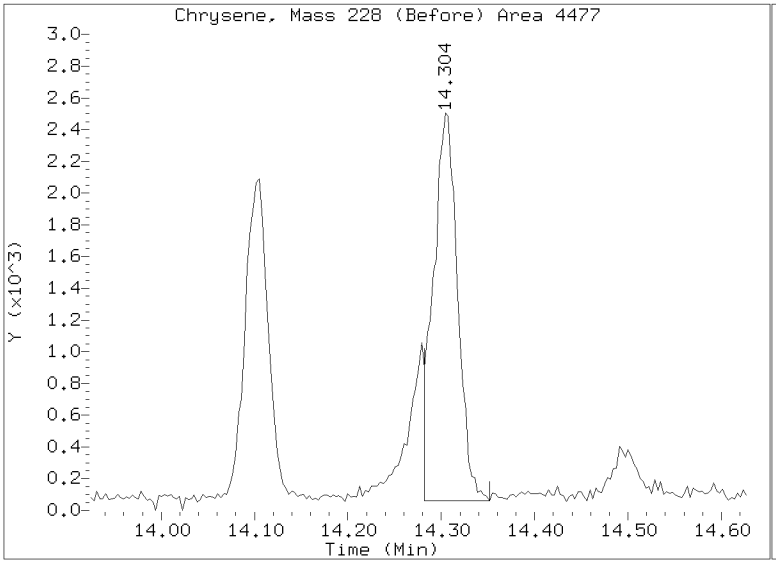
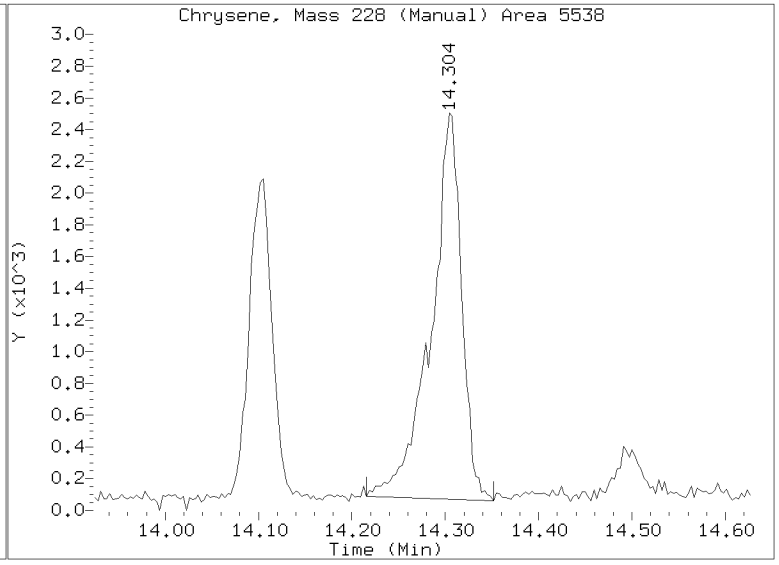
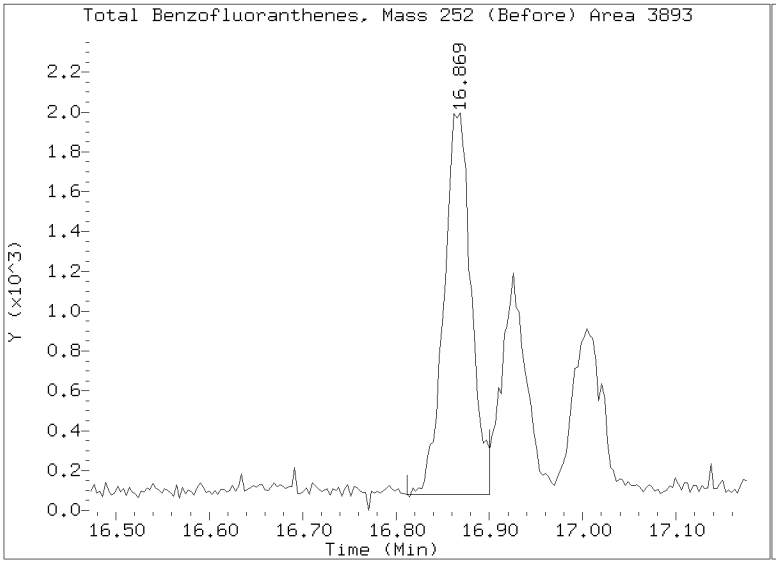
Lab ID:23A0313-12 Client ID:
Report Date: 02/07/2023 19:31

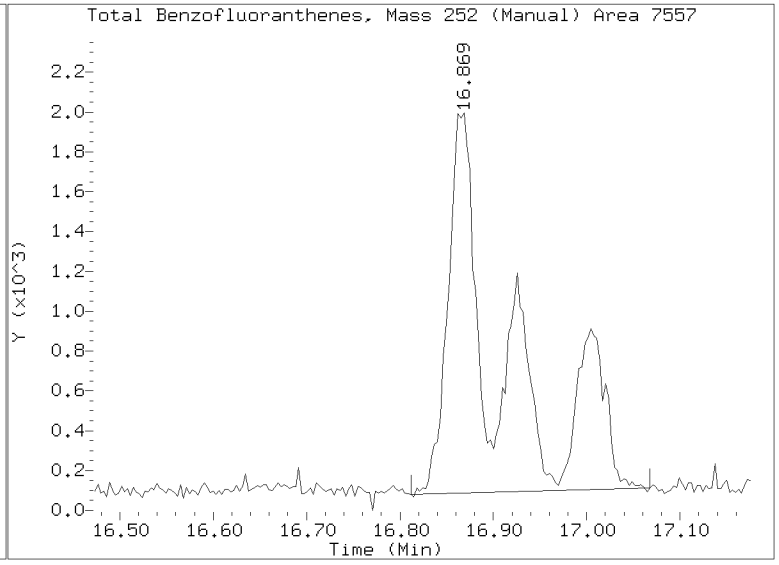












Quant Ion Manual Peak Adjustment Report

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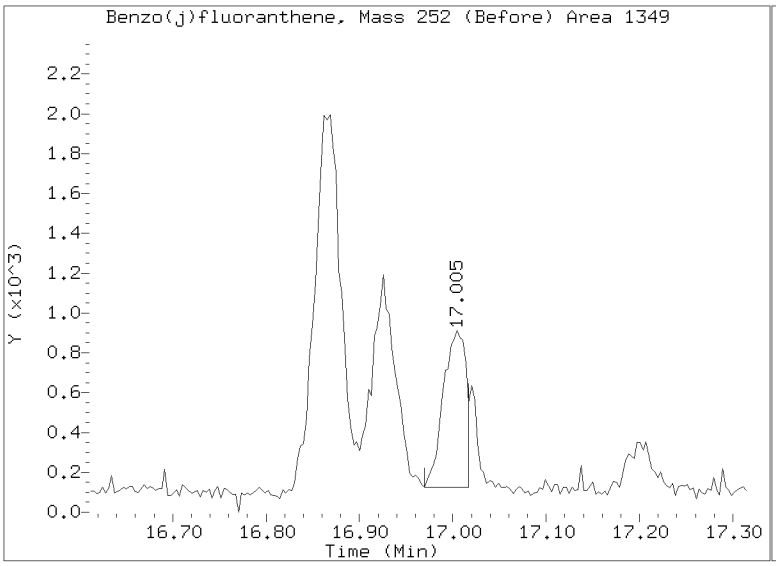
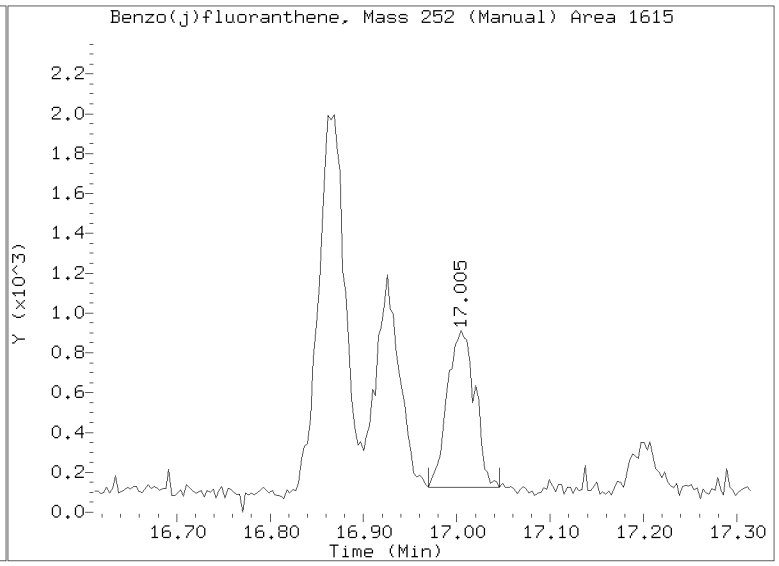
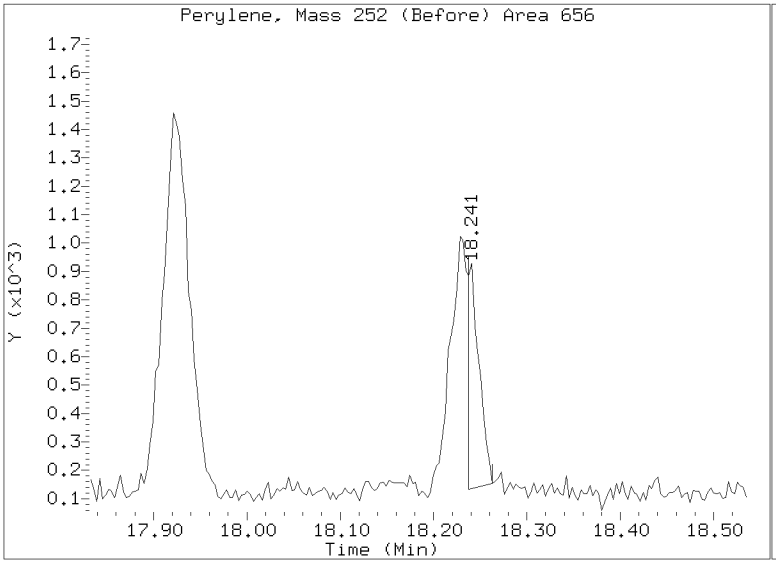
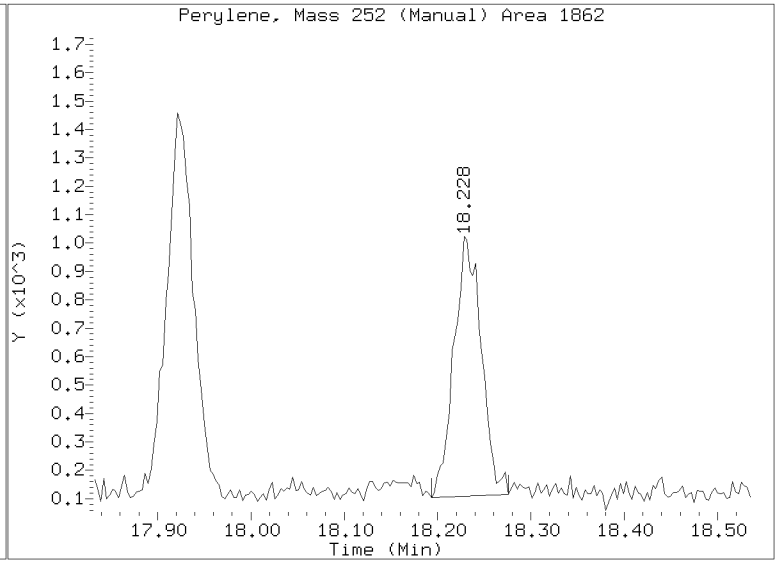
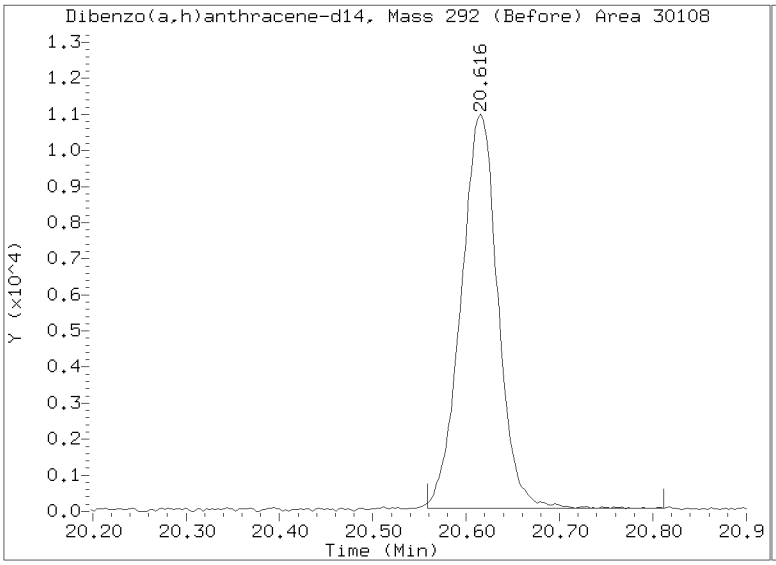
Report Date: 02/07/2023 19:31

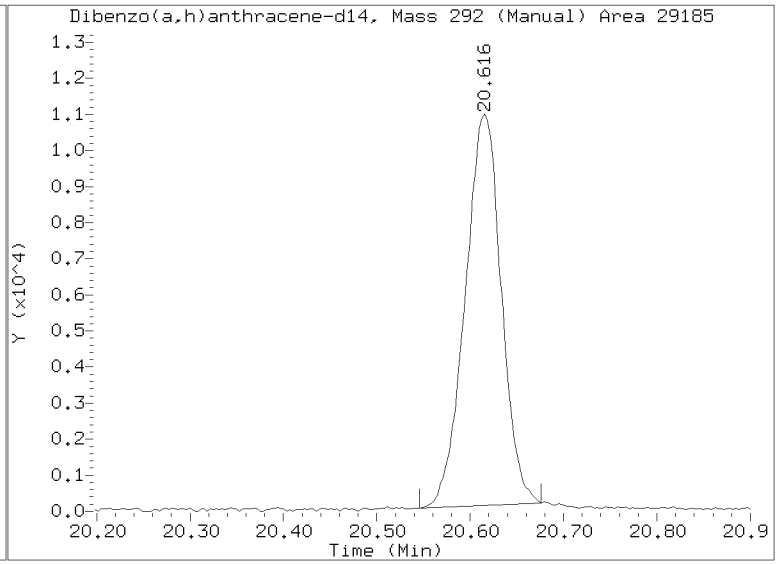












Quant Ion Manual Peak Adjustment Report

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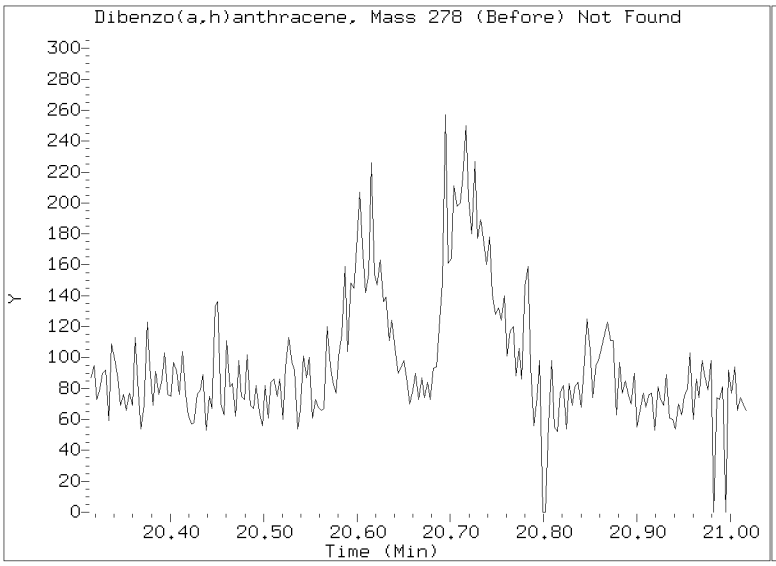
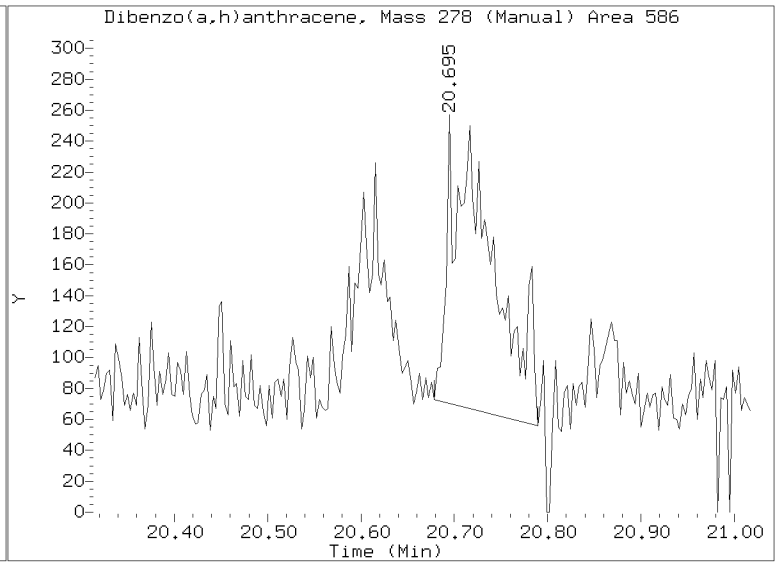
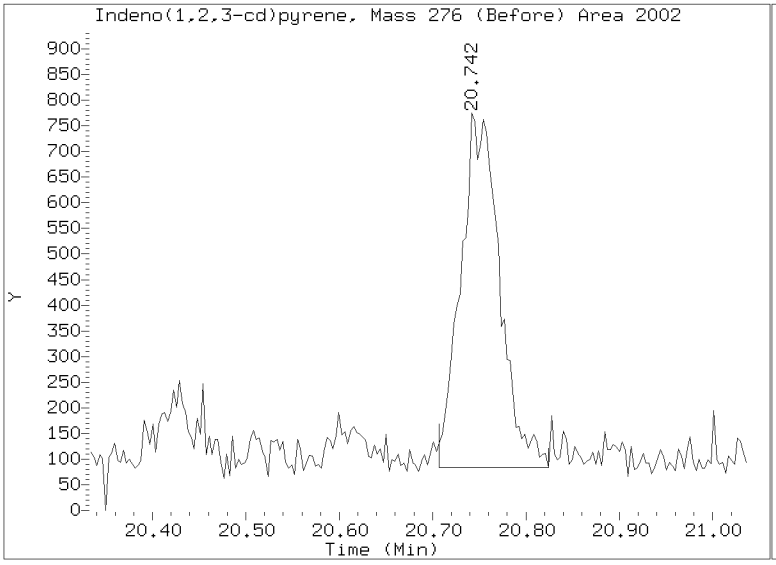
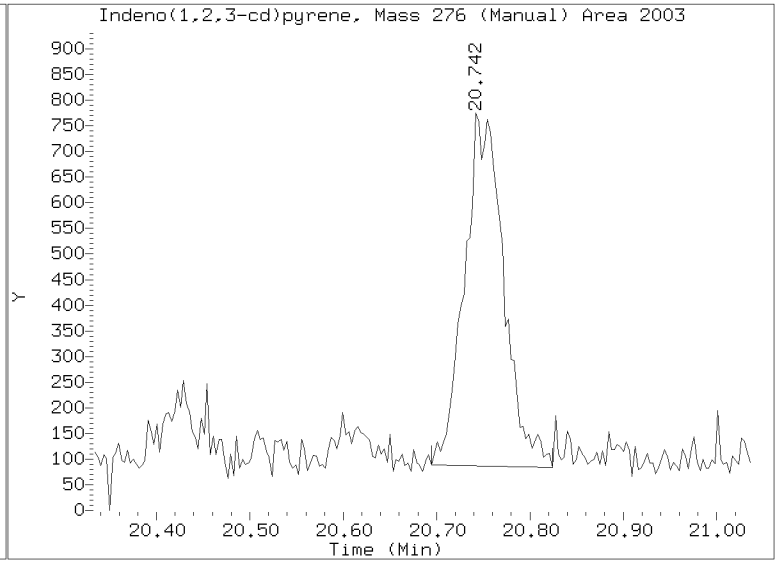
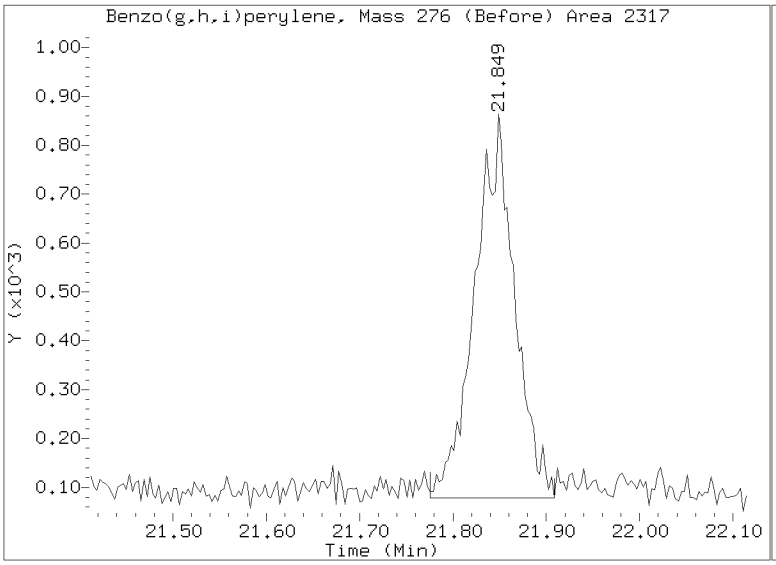
Lab ID:23A0313-12 Client ID:
Report Date: 02/07/2023 19:31

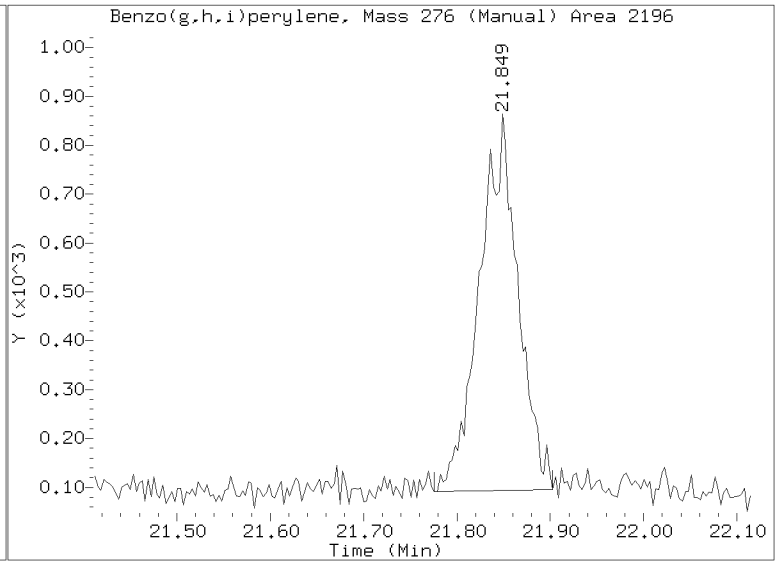












Analytical Resources, LLC
Analytical Chemists and Consultants

LDW23-SC1159

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

SIM SVOC Organics (Dual scan list)

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-13 A	SDG:	23A0313
Sampled:	01/16/23 14:26	Prepared:	02/02/23 13:06	File ID:	NT1003052322S.D
% Solids:	84.73	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/06/23 02:40
Batch:	BLA0685	Sequence:	SLC0440	Initial/Final:	11.8 g Wet / 1 mL
Instrument:	NT10	Column:	ZB-5MSi	Calibration:	GC00032
Cleanups:	GPC				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	2.3	J	0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	0.8	J	0.7	5.0
100-51-6	Benzyl Alcohol	1	19.5	J	2.5	20.0
65-85-0	Benzoic acid	1	22.0	J	13.4	100
105-67-9	2,4-Dimethylphenol	1	20.0	U	2.2	20.0
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	4.6	J	1.3	5.0
87-86-5	Pentachlorophenol	1	4.4	J	2.1	20.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	750.14	620	82.7	27 - 120	
p-Terphenyl-d14	500.09	802	160	37 - 120	*

Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523225.D

Date : 06-MAR-2023 02:40

Client ID:

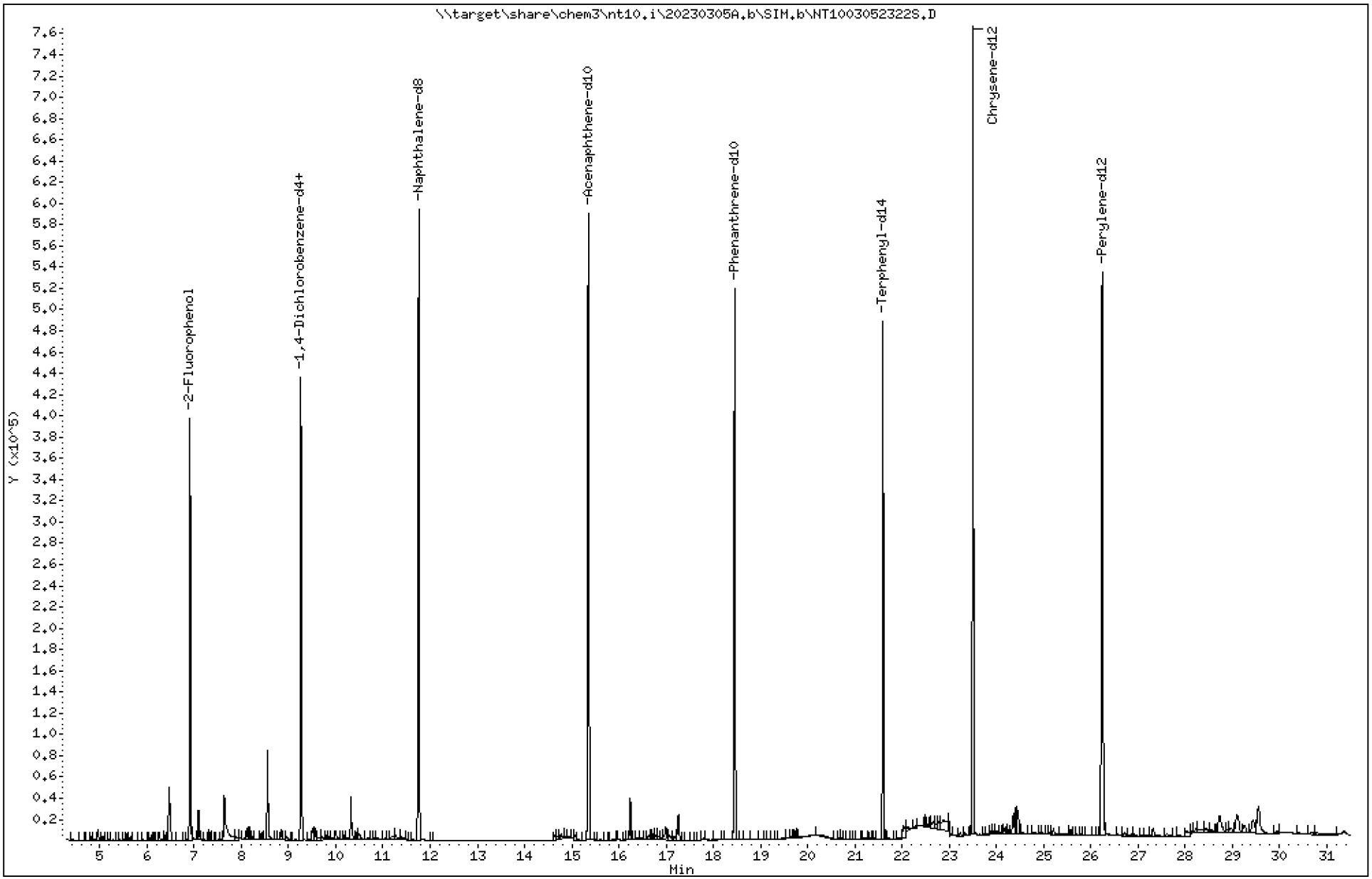
Sample Info: 23A0313-13

Instrument: nt10.i

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

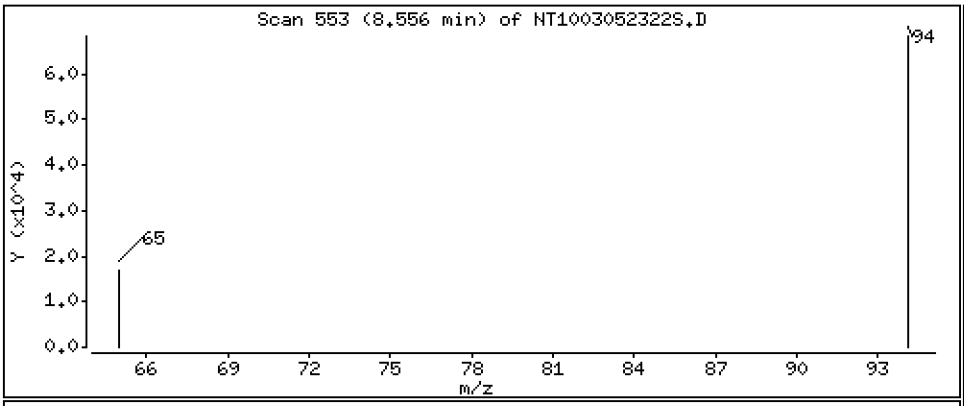
Operator: YZ

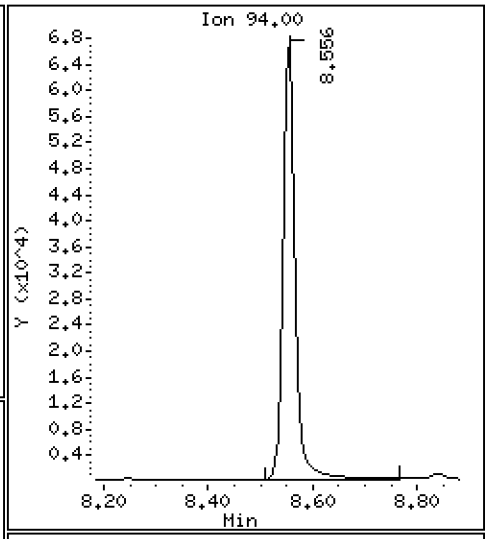
Column phase: ZB-5msi

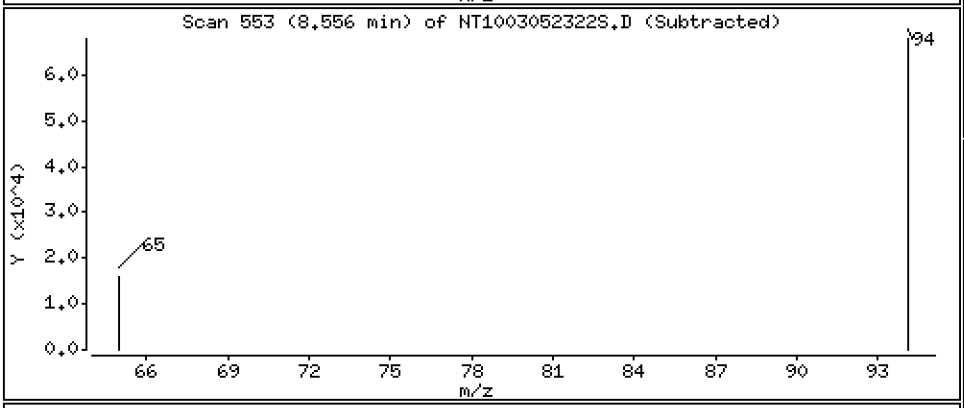
Column diameter: 0.25

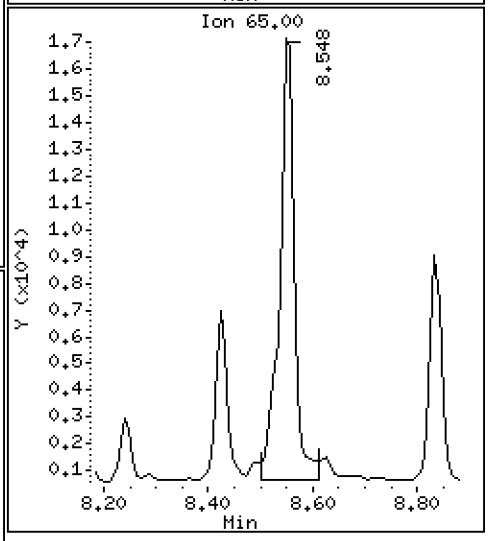
3 Phenol

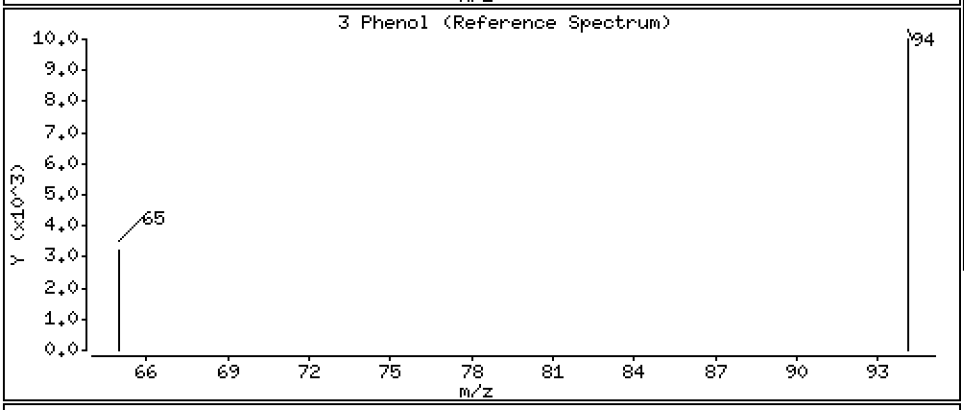
Concentration: 1.045 ug/mL

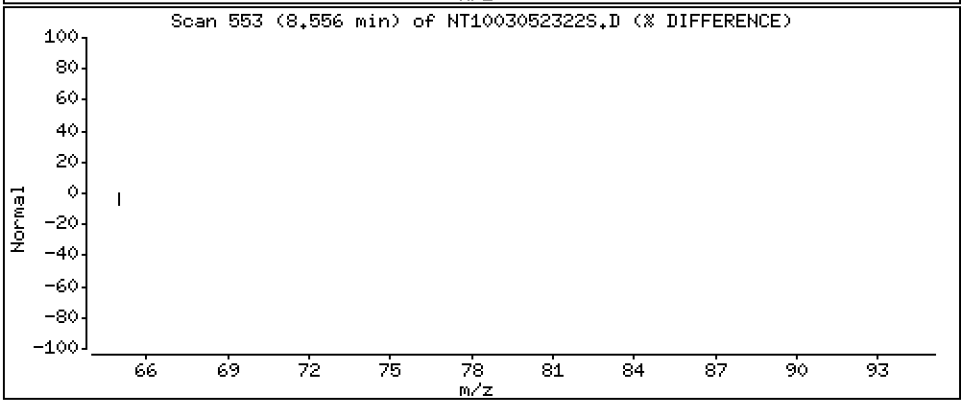












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

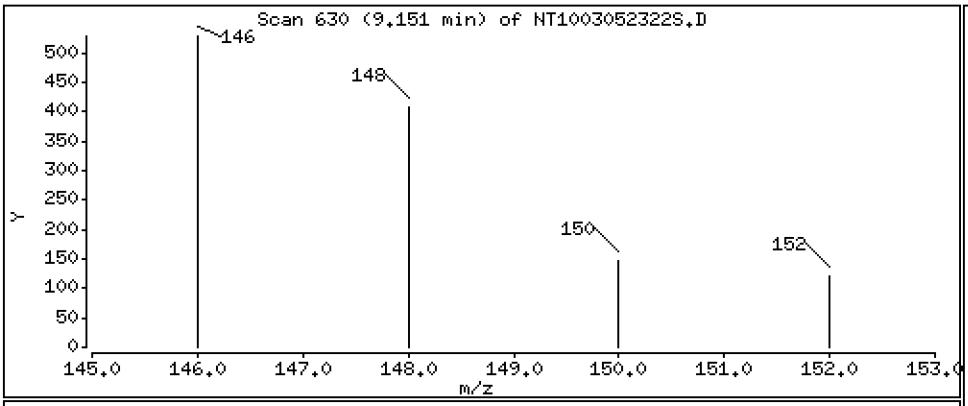
Operator: YZ

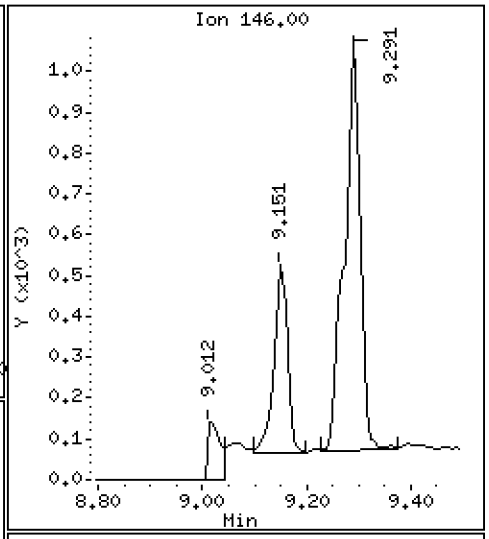
Column phase: ZB-5msi

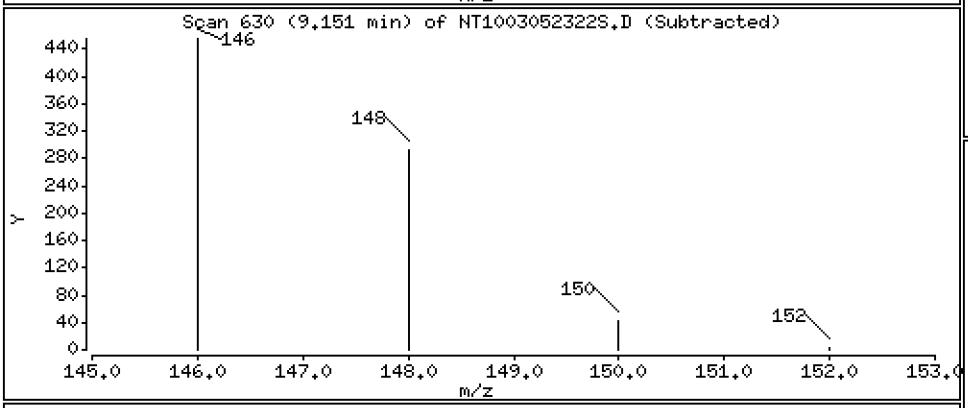
Column diameter: 0.25

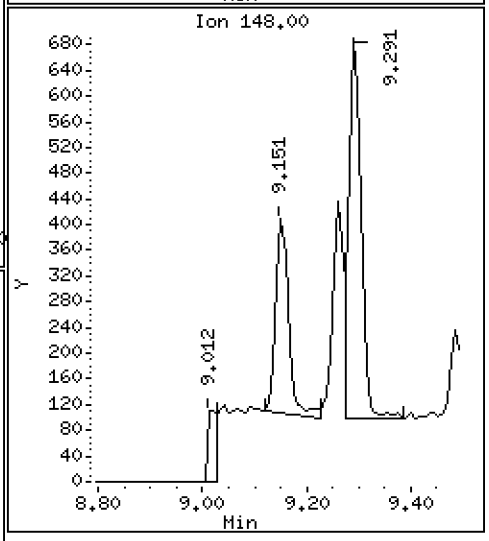
7 1,3-Dichlorobenzene

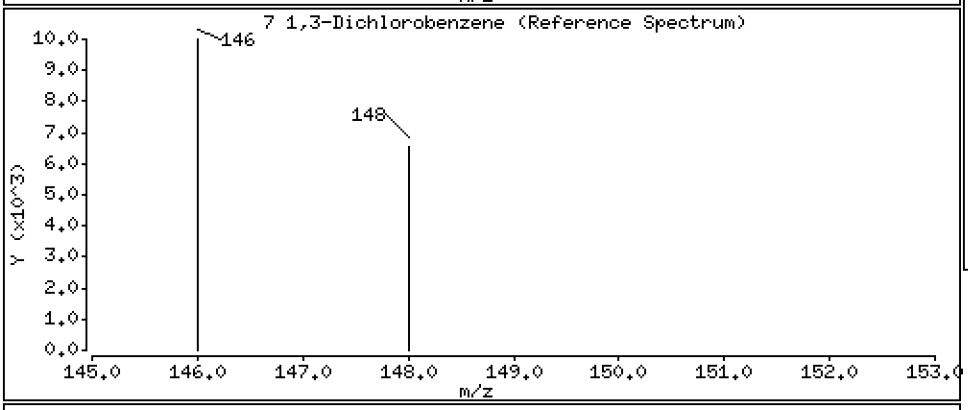
Concentration: 0.008271 ug/mL

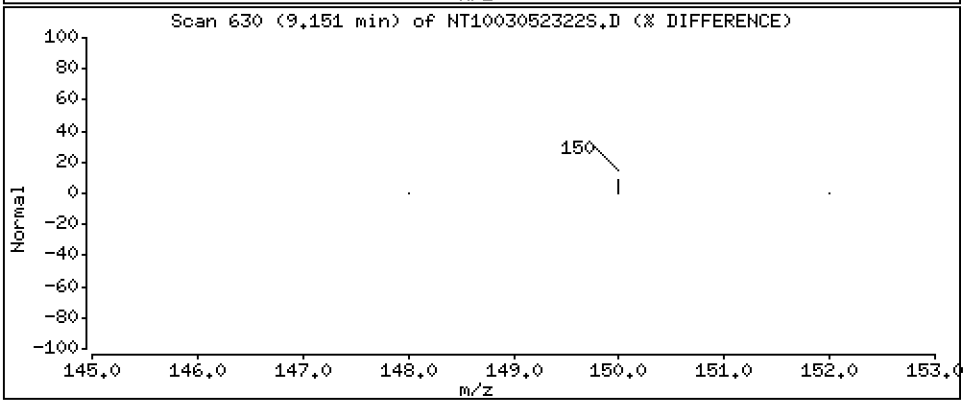












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523225.D

Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

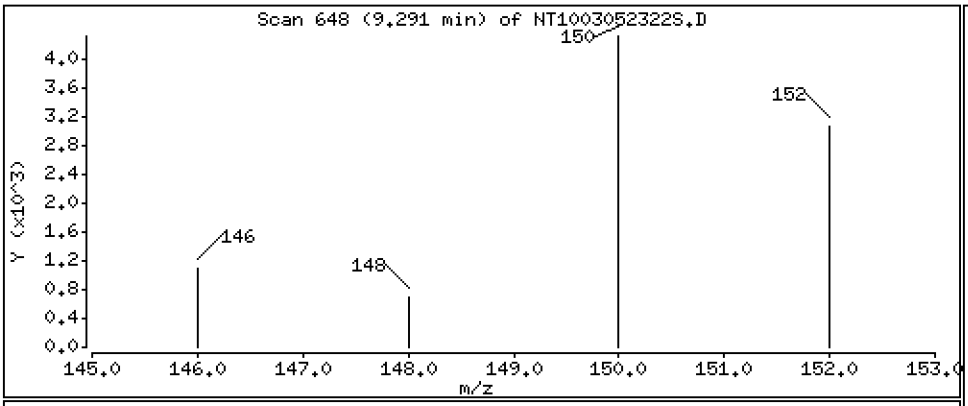
Operator: YZ

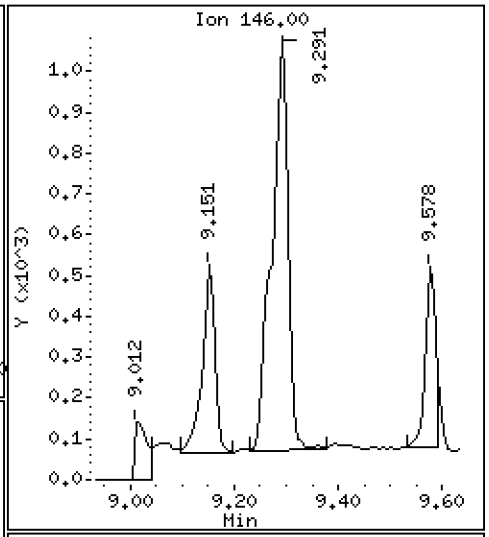
Column phase: ZB-5msi

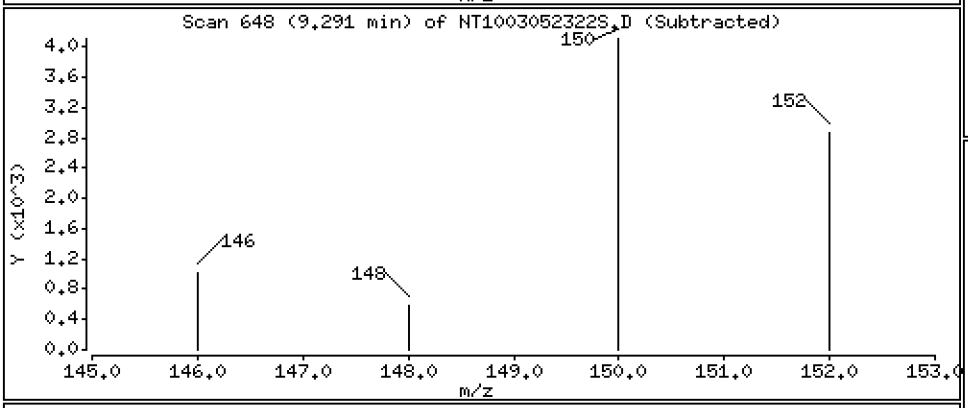
Column diameter: 0.25

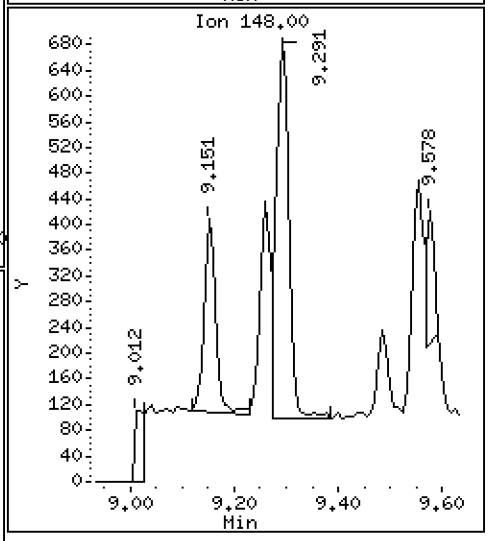
9 1,4-Dichlorobenzene

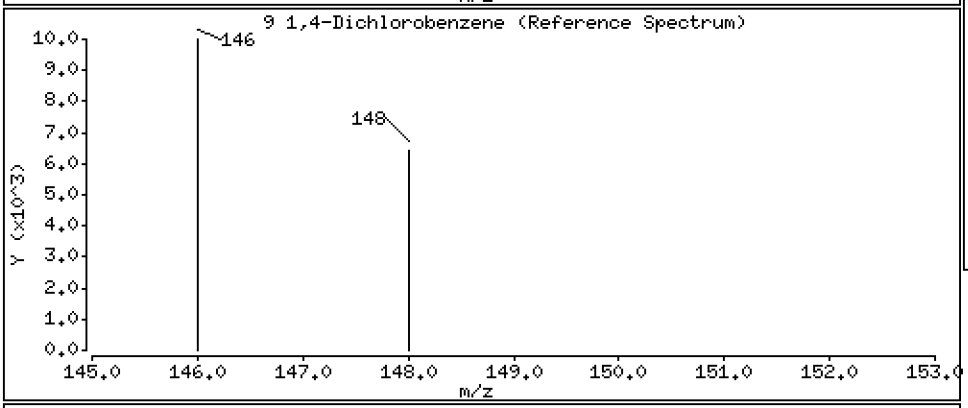
Concentration: 0.02321 ug/mL

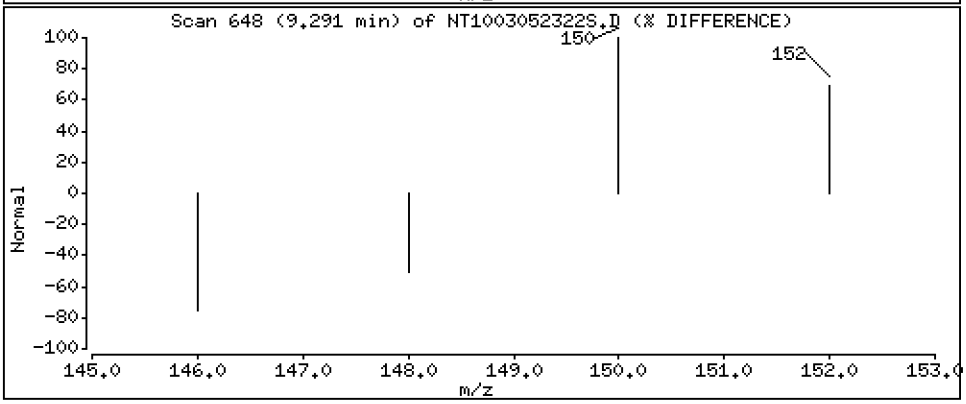












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523225.D

Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

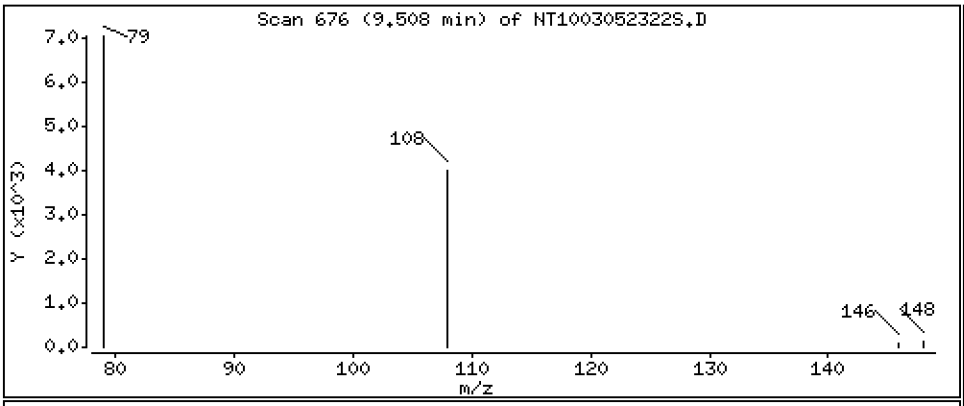
Operator: YZ

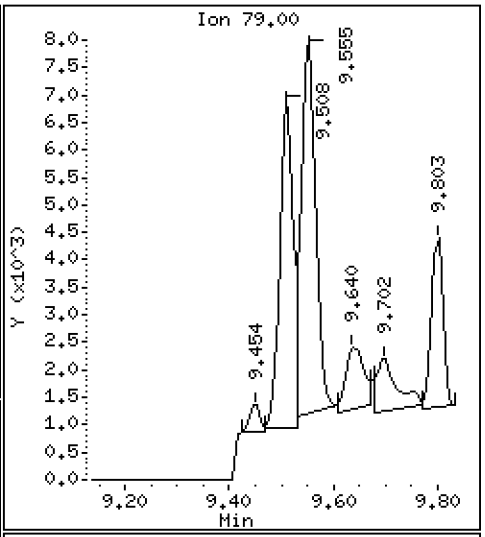
Column phase: ZB-5msi

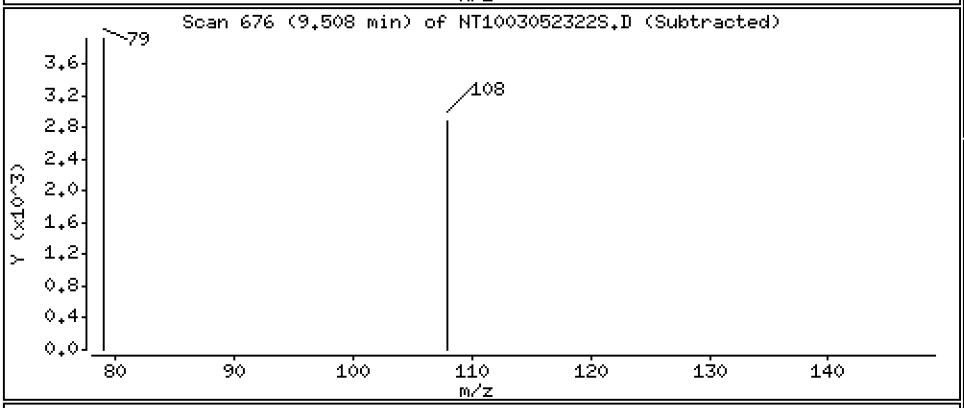
Column diameter: 0.25

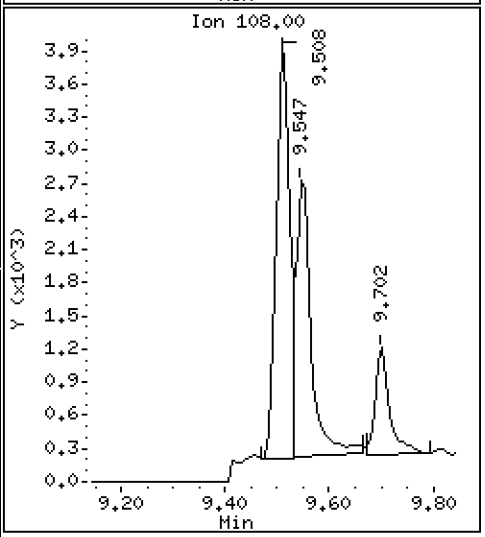
11 Benzyl alcohol

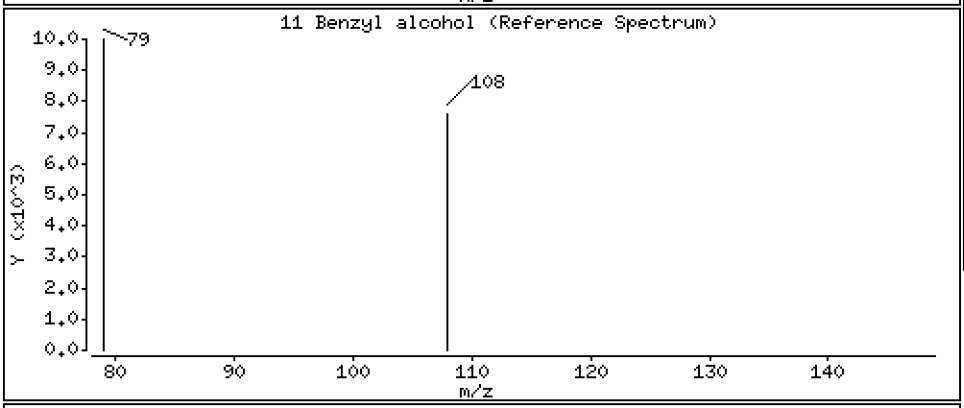
Concentration: 0.1947 ug/mL

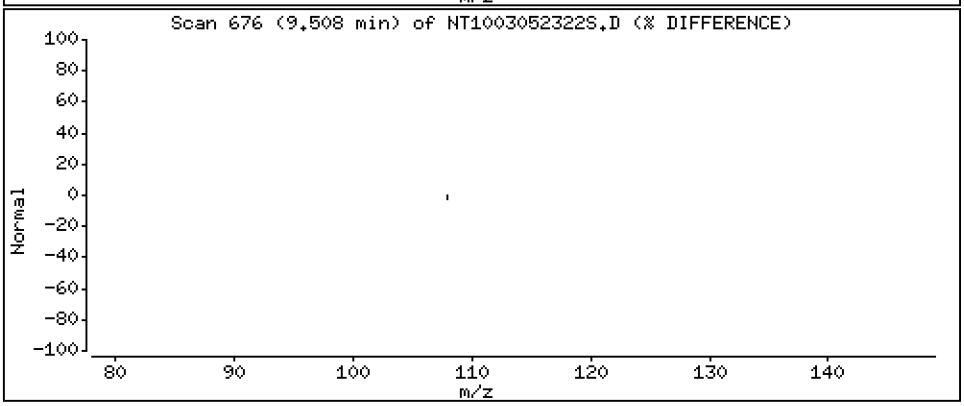












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523225.D

Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

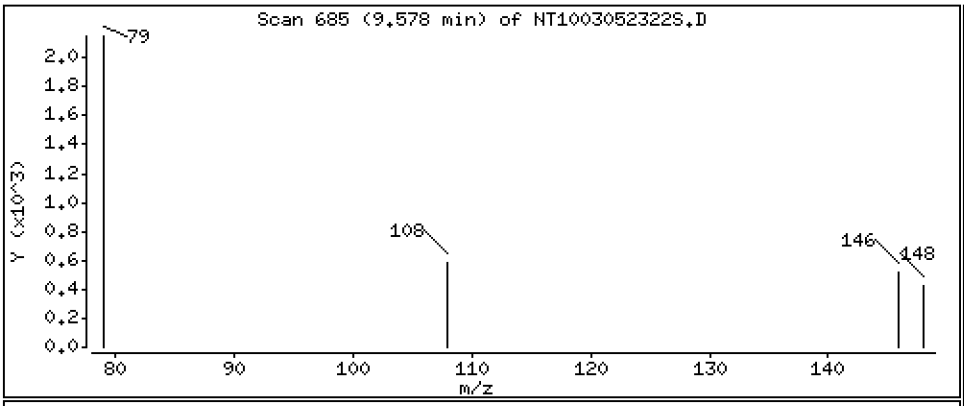
Operator: YZ

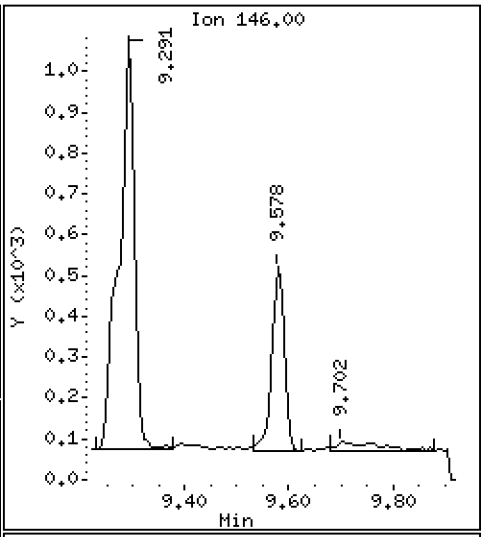
Column phase: ZB-5msi

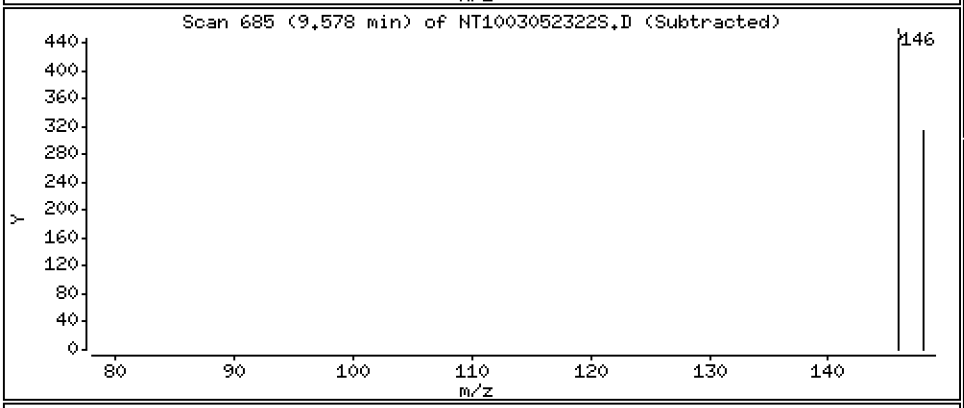
Column diameter: 0.25

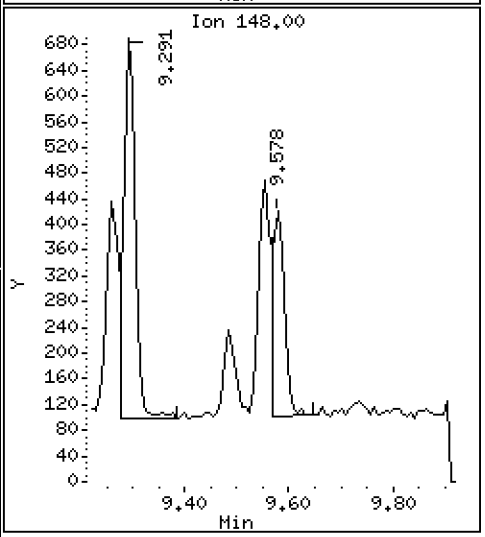
12 1,2-Dichlorobenzene

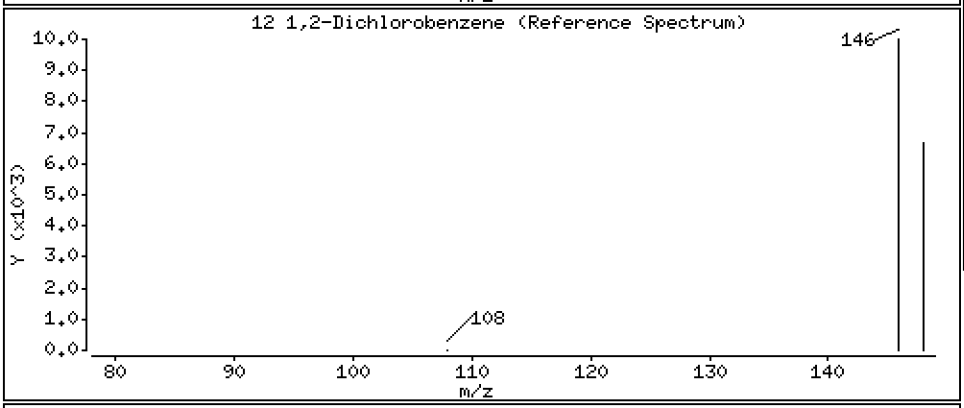
Concentration: 0.008245 ug/mL

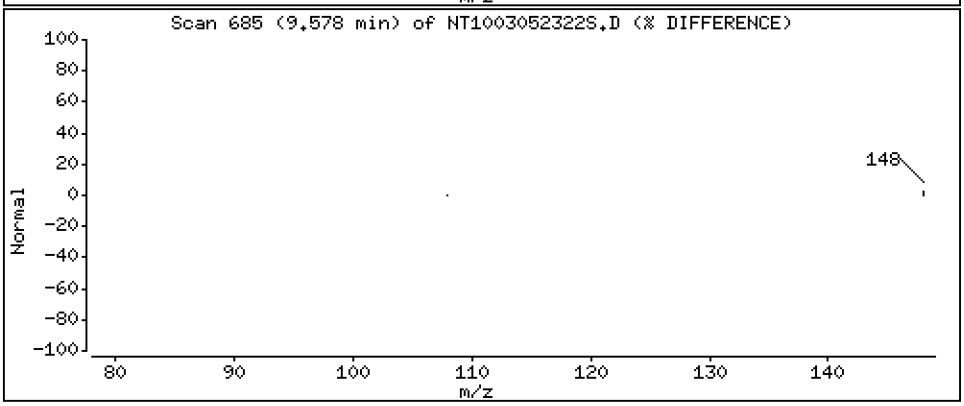












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

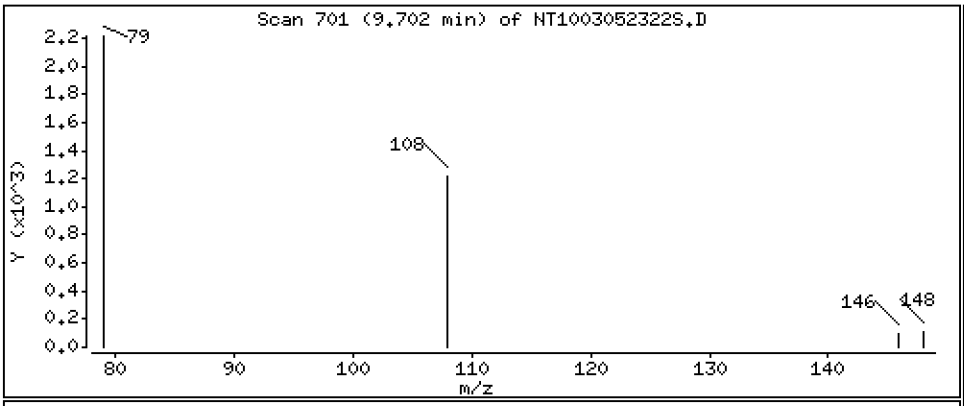
Operator: YZ

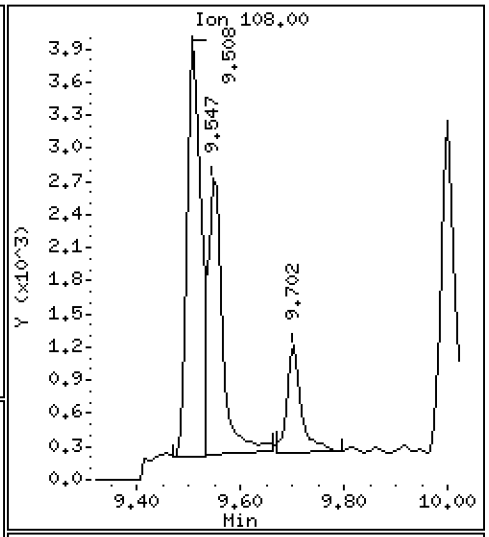
Column phase: ZB-5msi

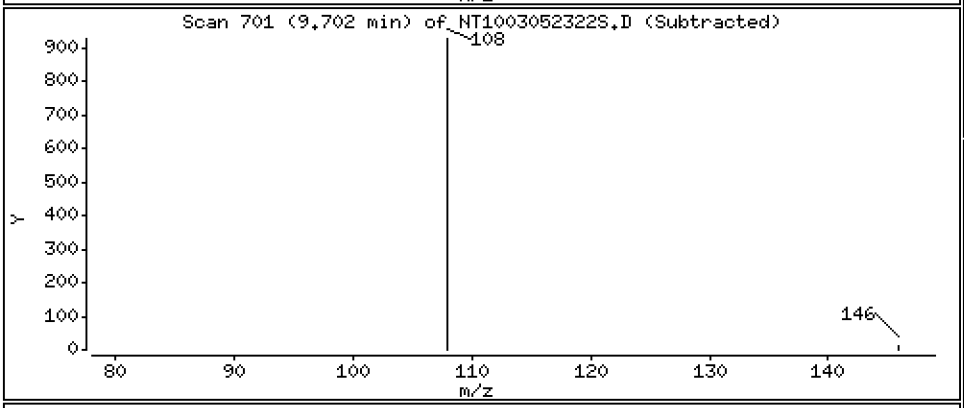
Column diameter: 0.25

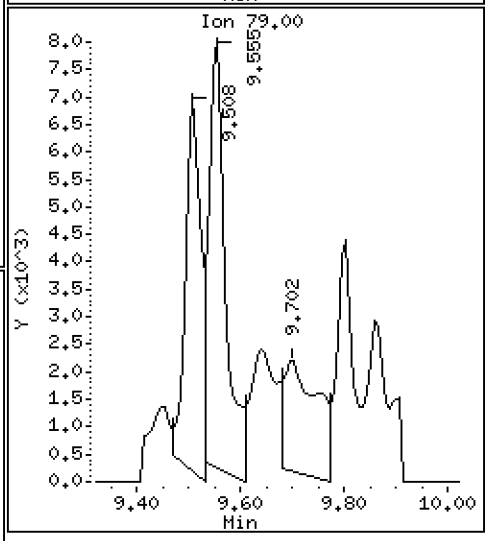
13 2-Methylphenol

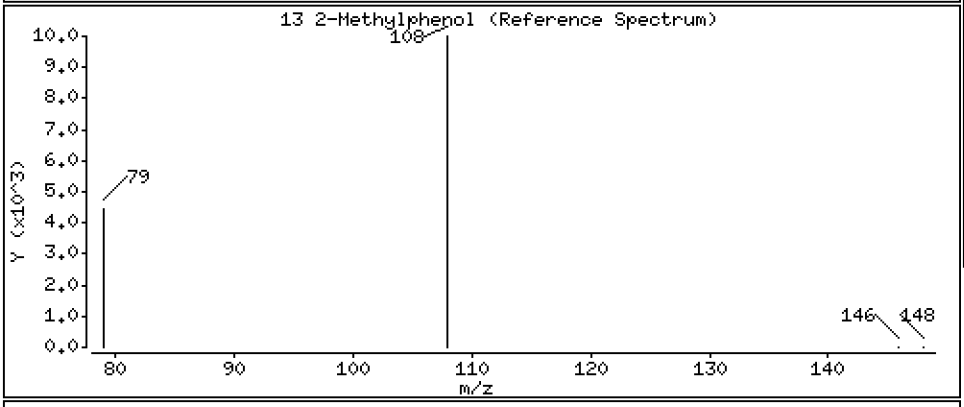
Concentration: 0.03030 ug/mL

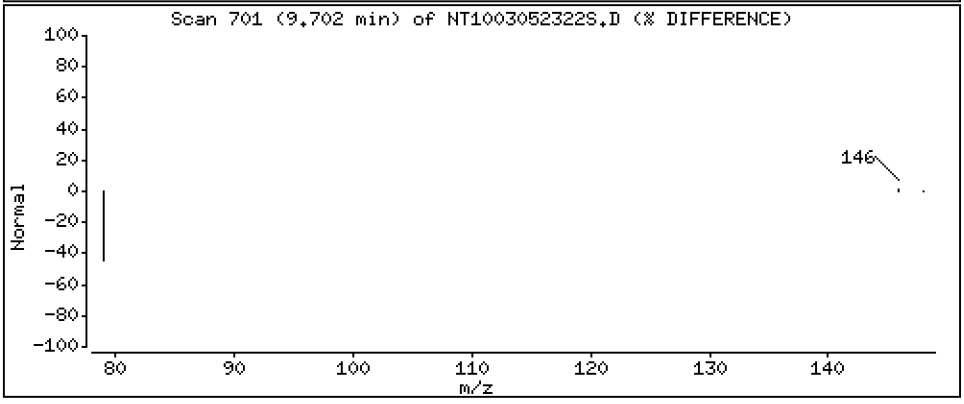












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523225.D

Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

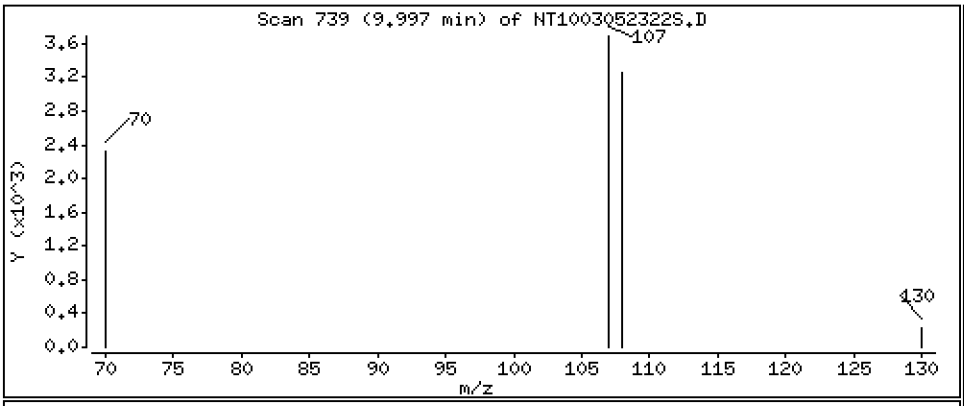
Operator: YZ

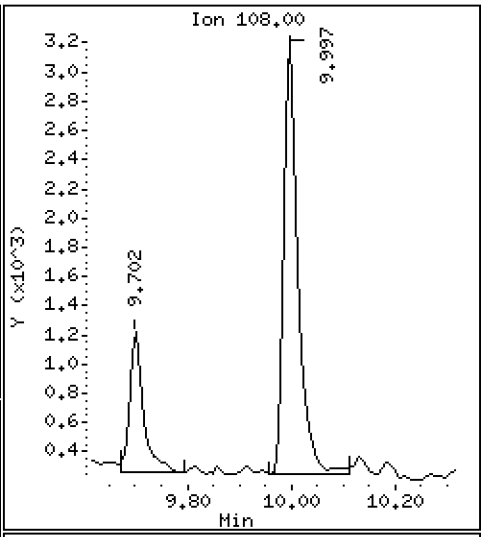
Column phase: ZB-5msi

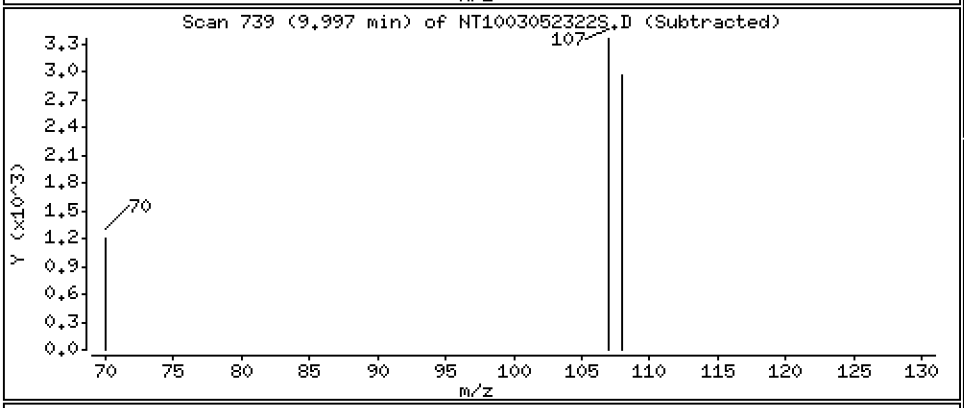
Column diameter: 0.25

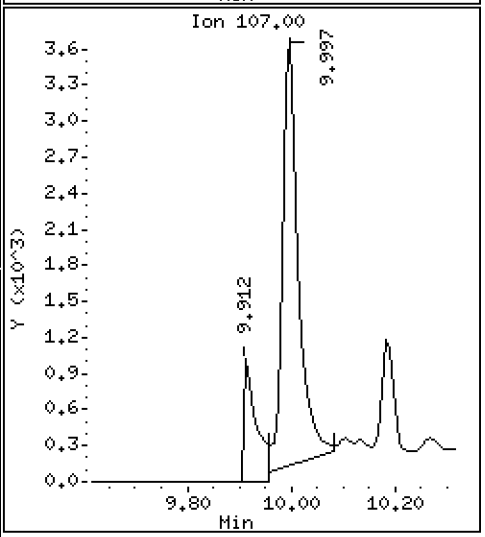
15 4-Methylphenol

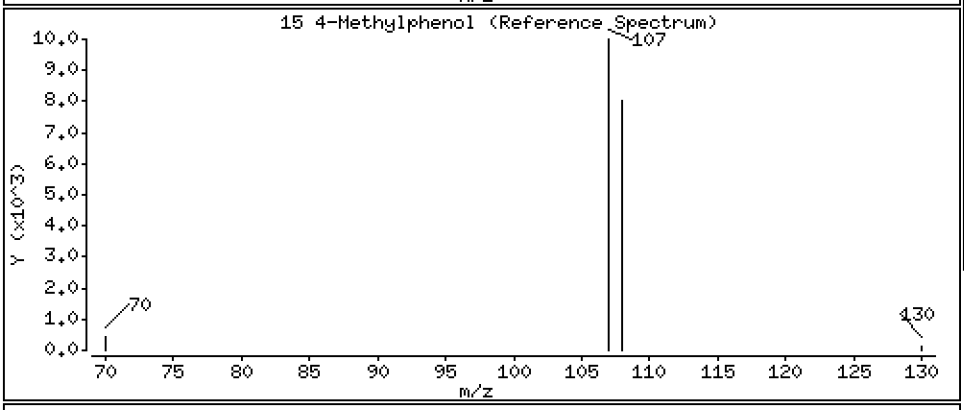
Concentration: 0.08820 ug/mL

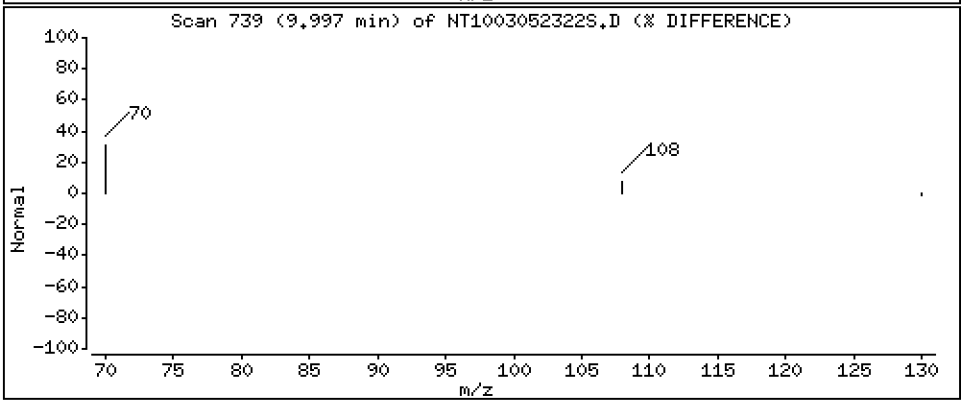












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523225.D

Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

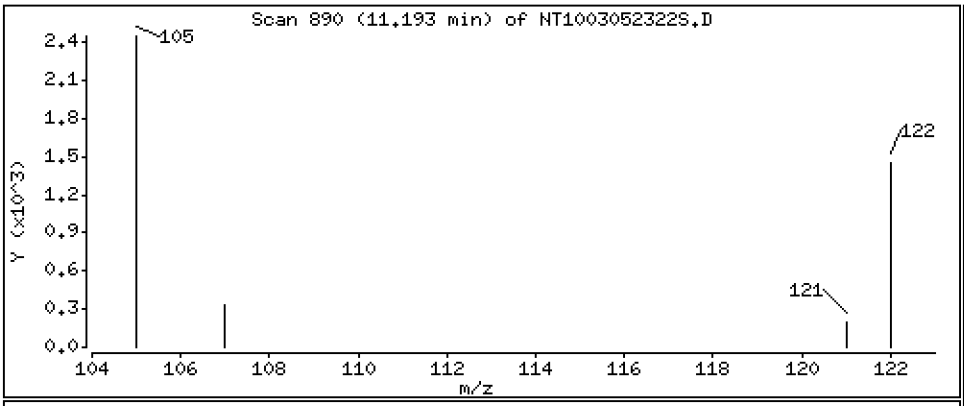
Operator: YZ

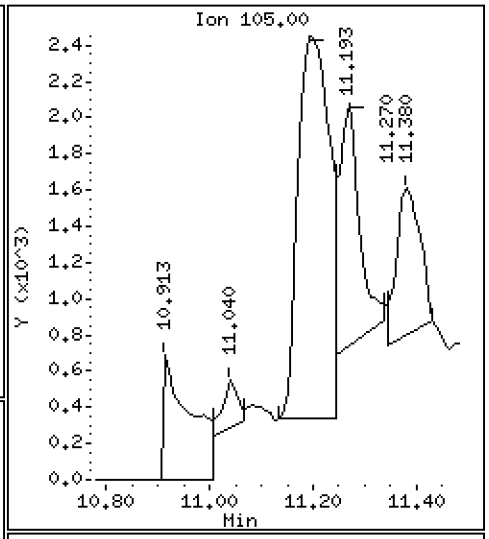
Column phase: ZB-5msi

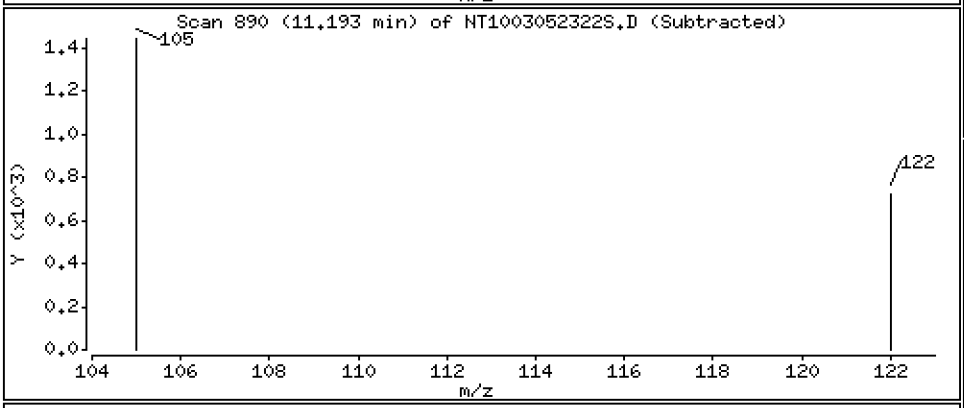
Column diameter: 0.25

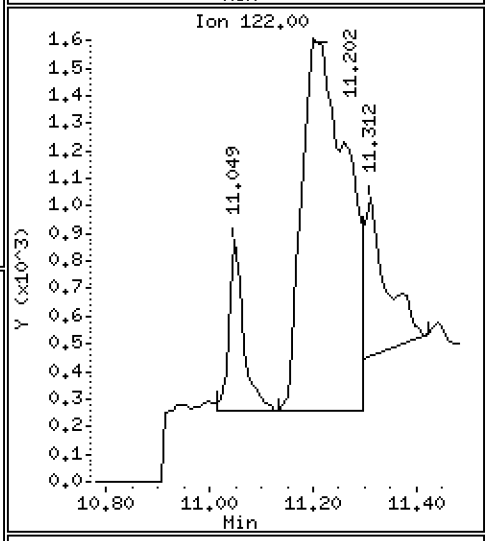
24 Benzoic acid

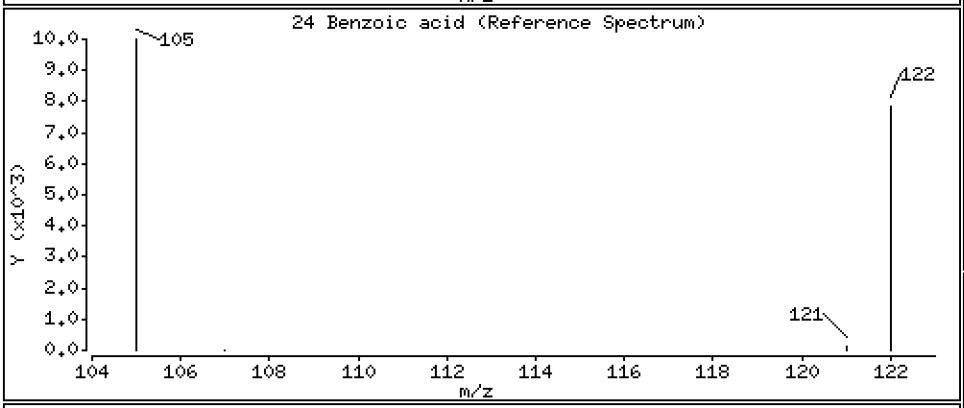
Concentration: 0.2202 ug/mL

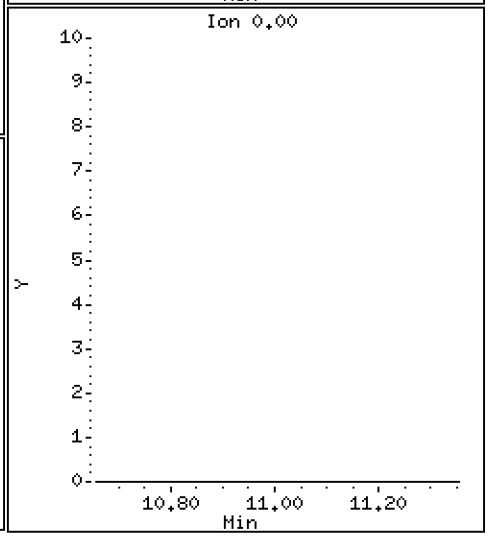


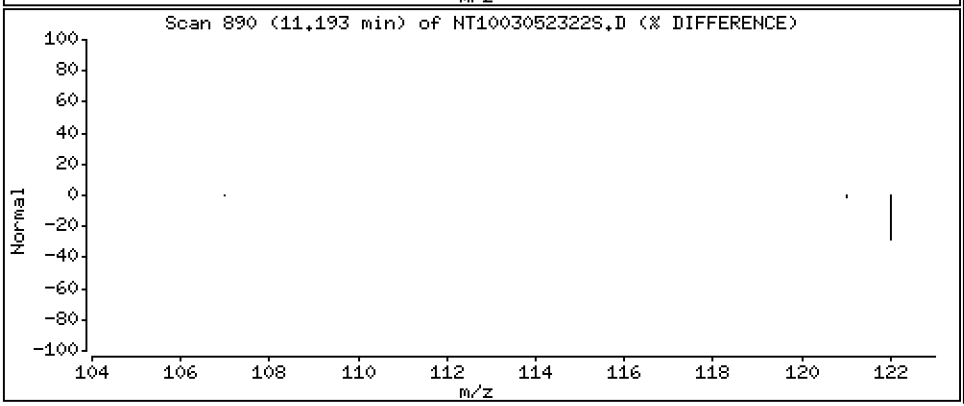












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

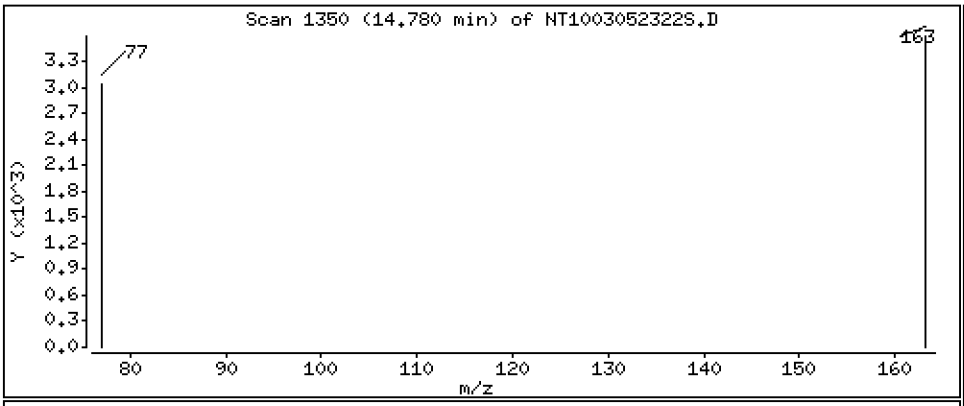
Operator: YZ

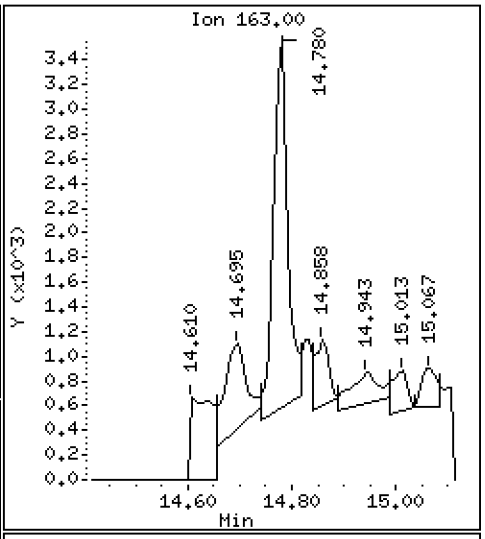
Column phase: ZB-5msi

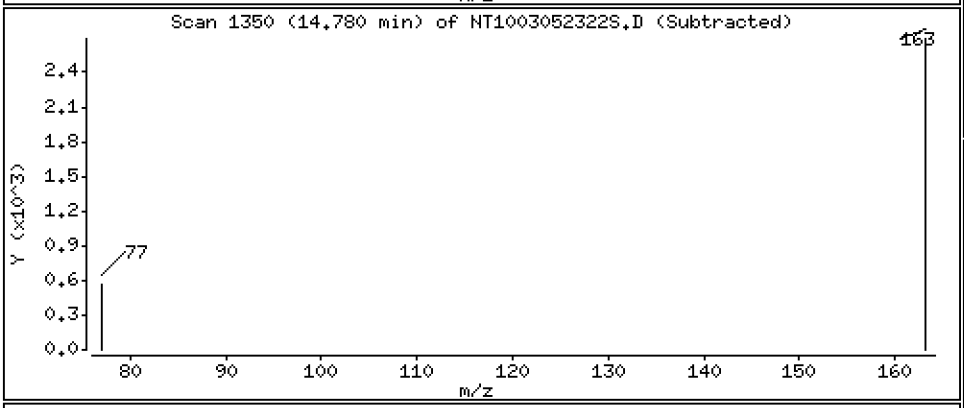
Column diameter: 0.25

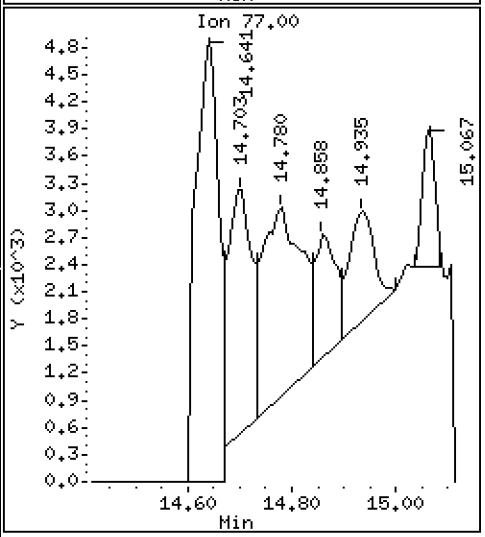
39 Dimethylphthalate

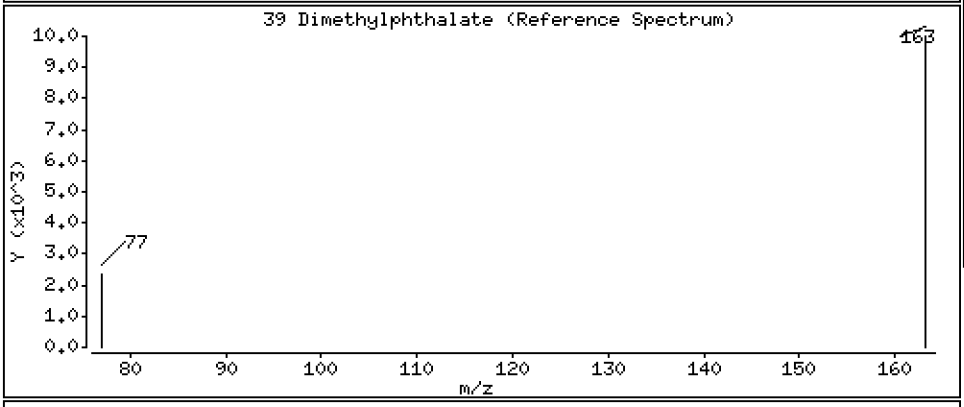
Concentration: 0.03958 ug/mL

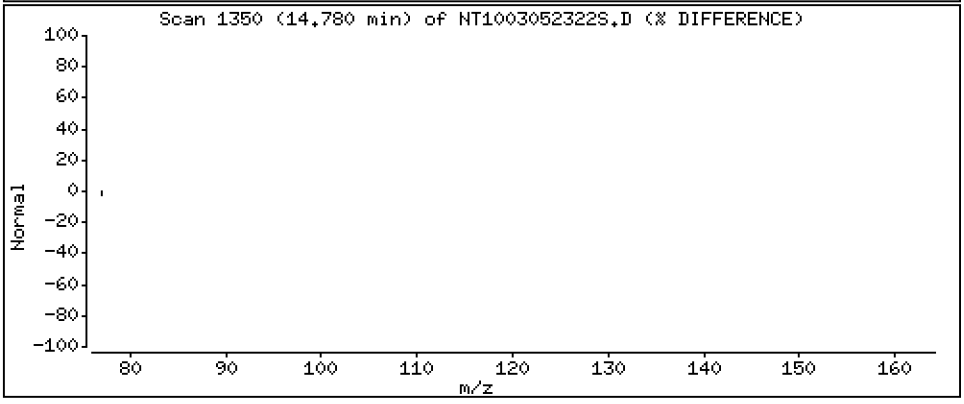












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

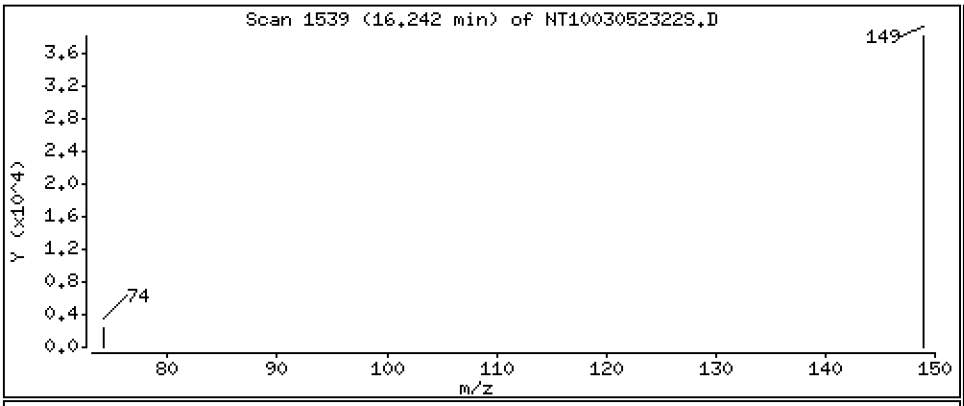
Operator: YZ

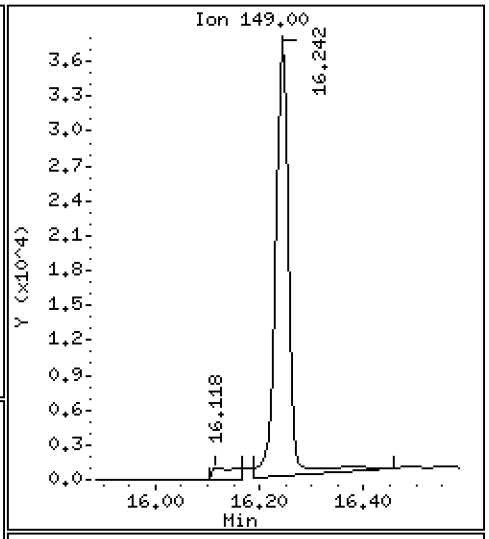
Column phase: ZB-5msi

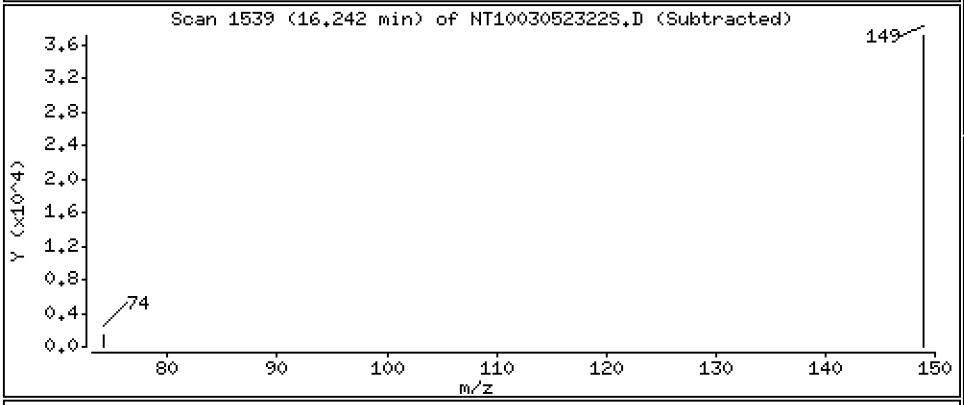
Column diameter: 0.25

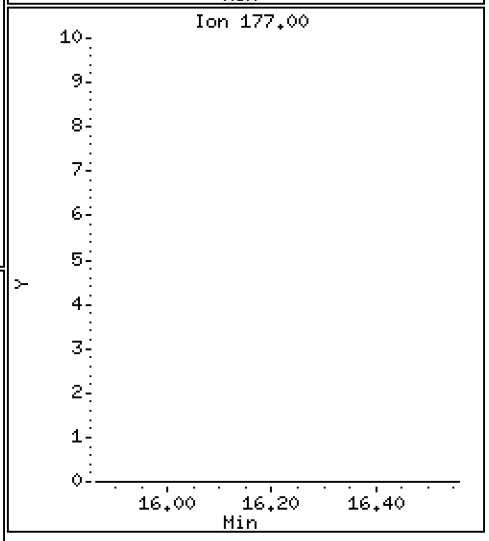
50 Diethylphthalate

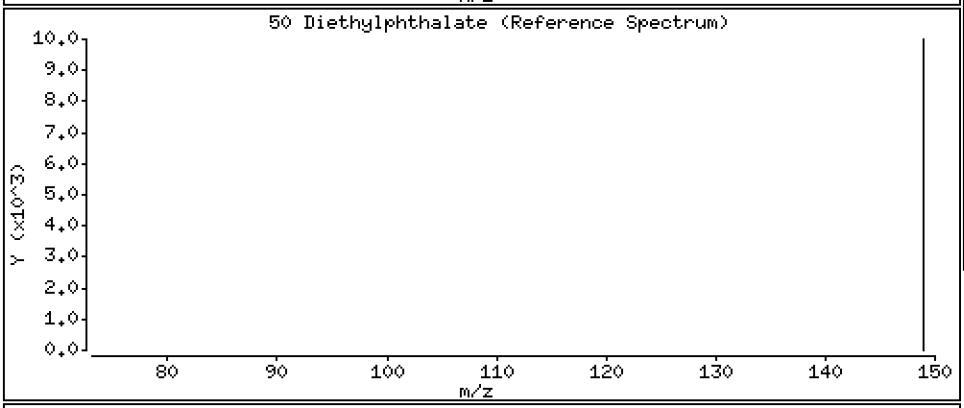
Concentration: 0.4672 ug/mL

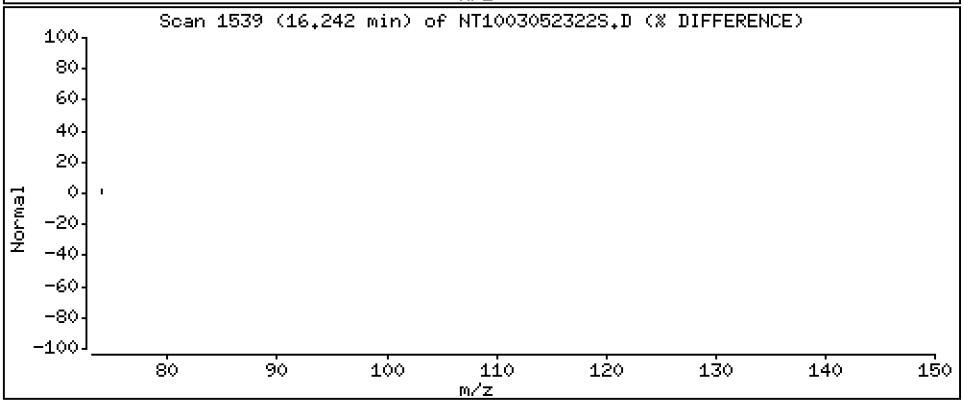












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

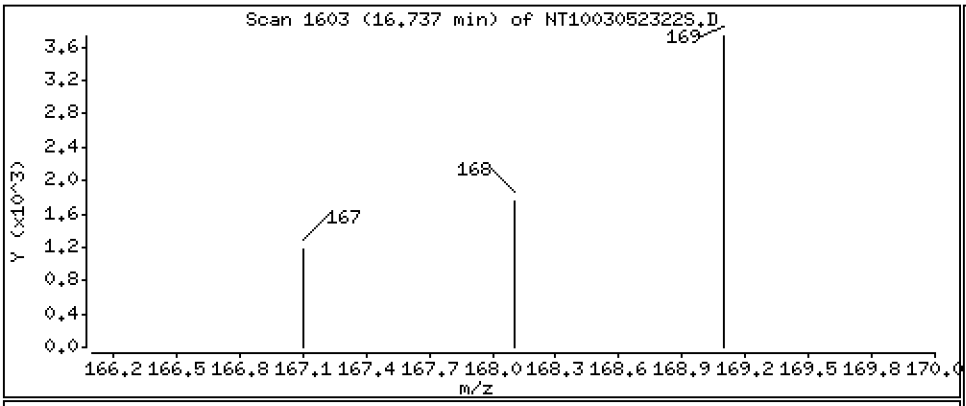
Operator: YZ

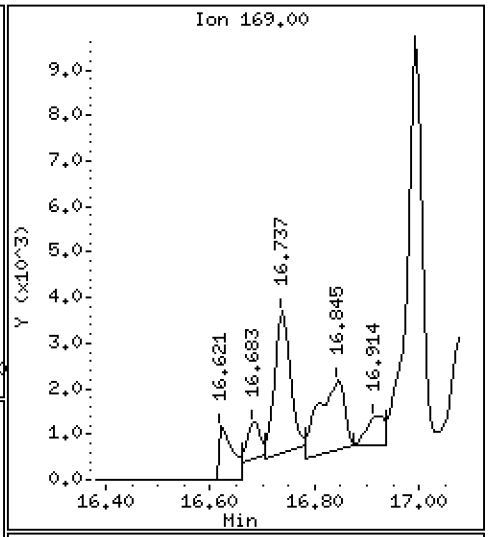
Column phase: ZB-5msi

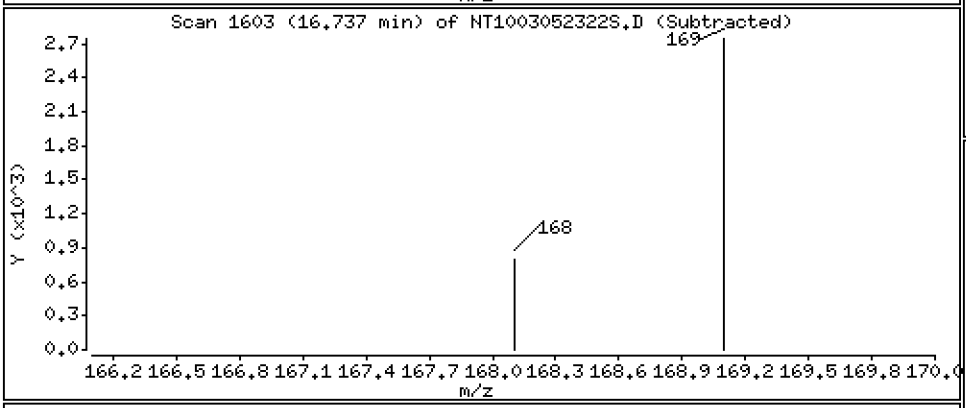
Column diameter: 0.25

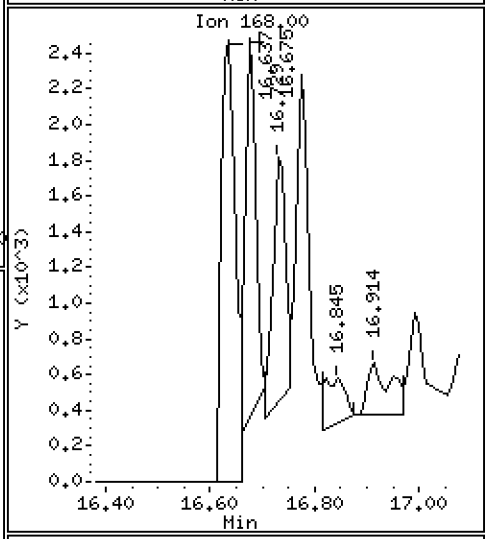
54 N-Nitrosodiphenylamine

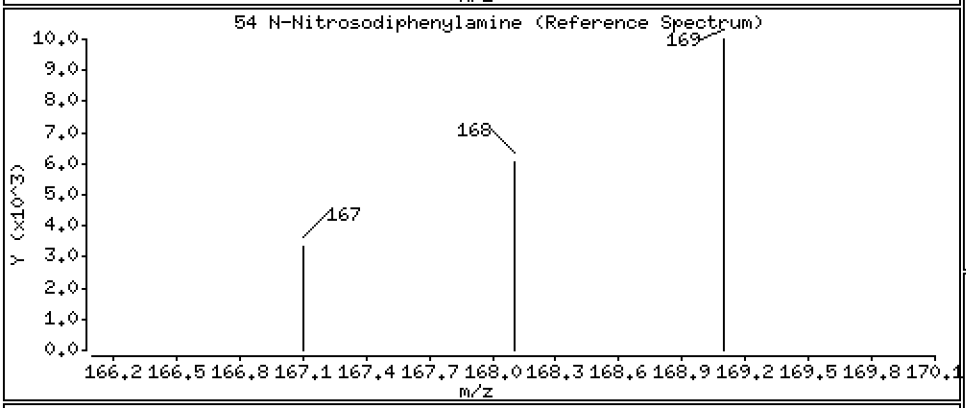
Concentration: 0.04619 ug/mL

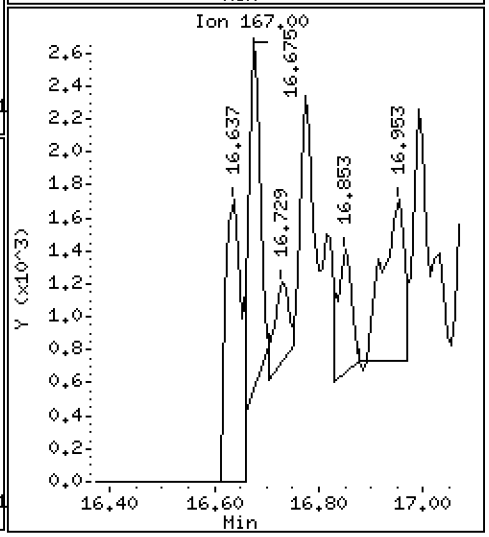


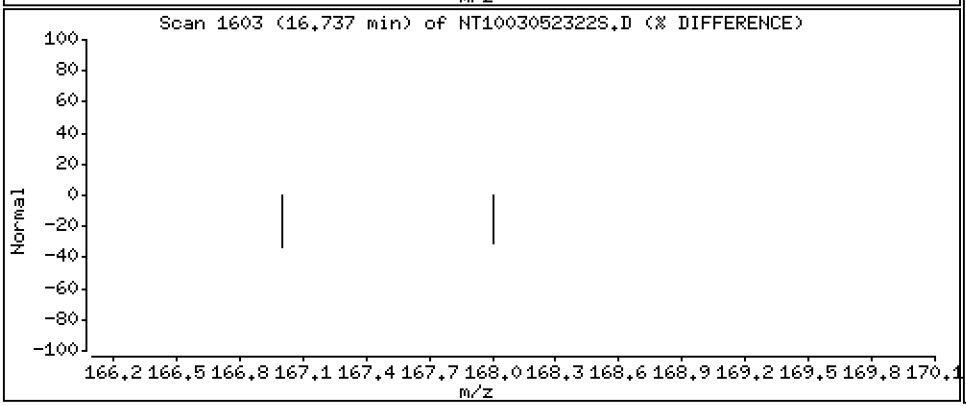












Date : 06-MAR-2023 02:40

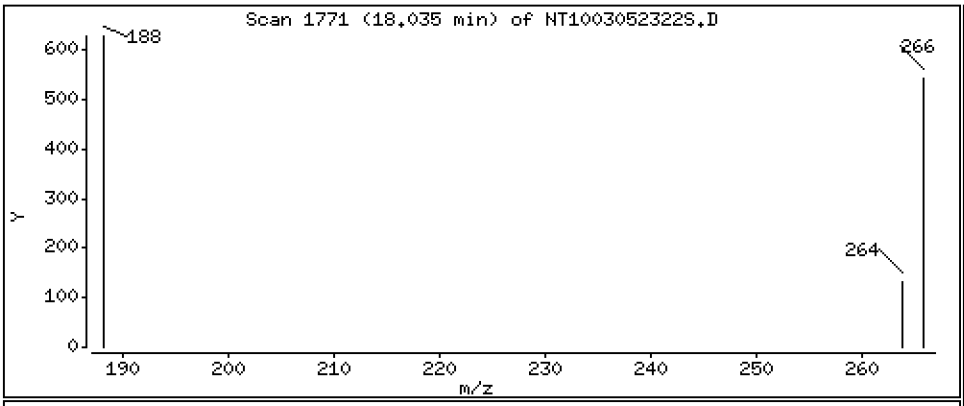
Client ID: Instrument: nt10.i

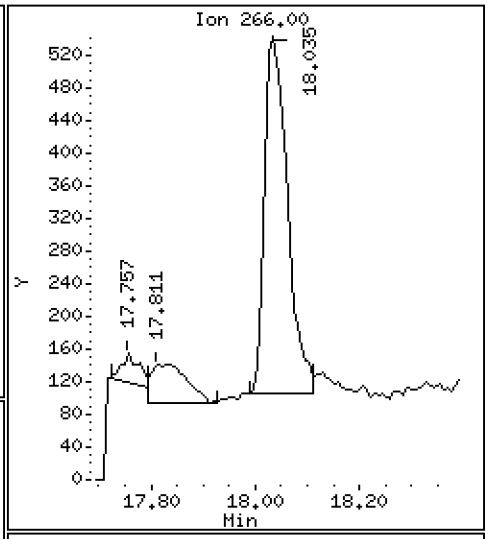
Sample Info: 23A0313-13

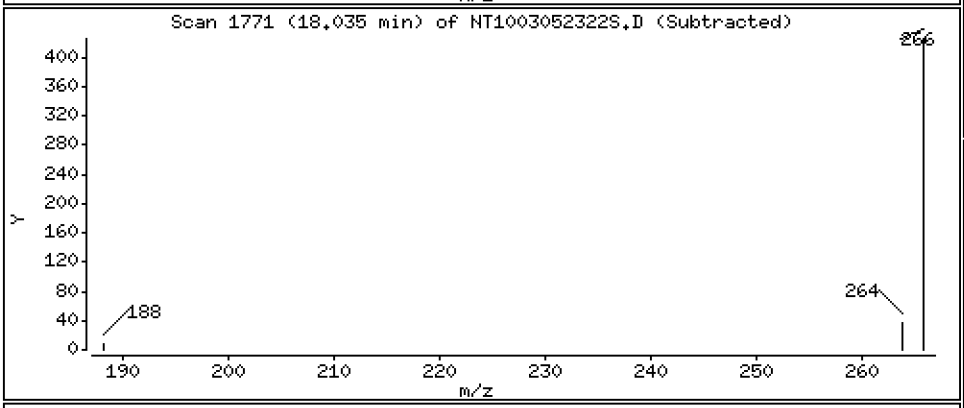
Operator: YZ

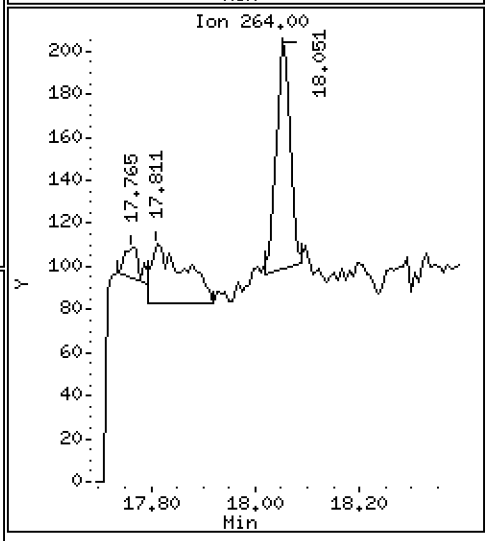
Column phase: ZB-5msi Column diameter: 0.25

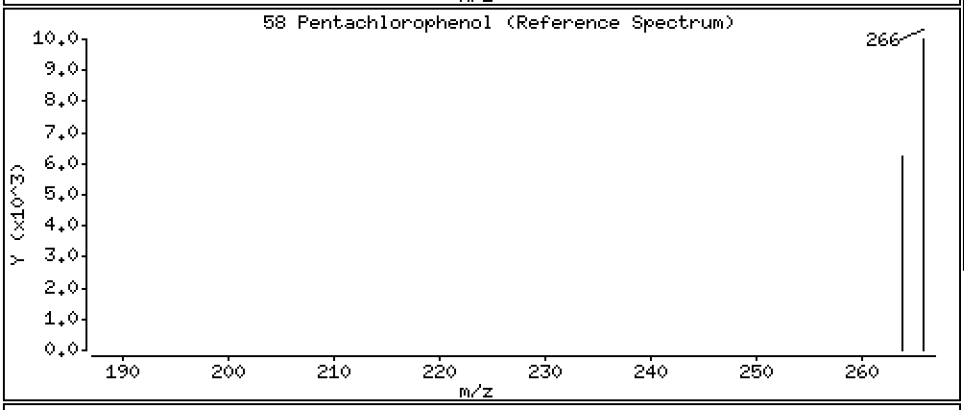
58 Pentachlorophenol Concentration: 0.04410 ug/mL

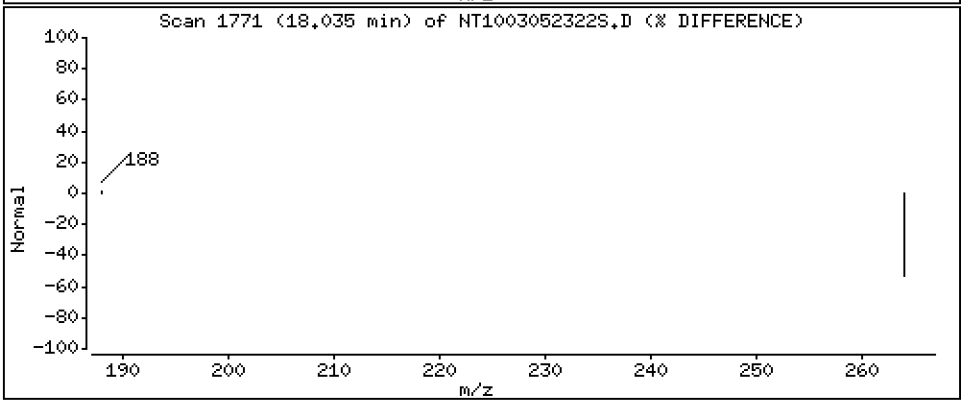












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

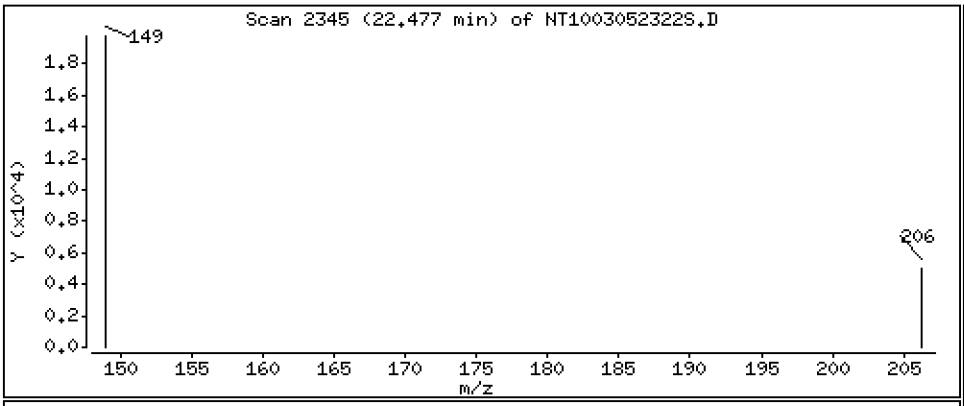
Operator: YZ

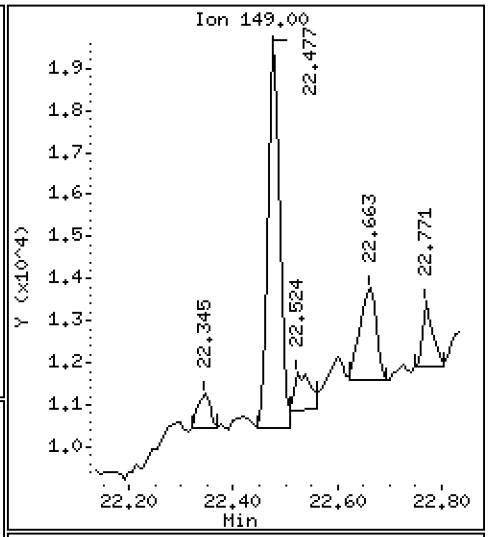
Column phase: ZB-5msi

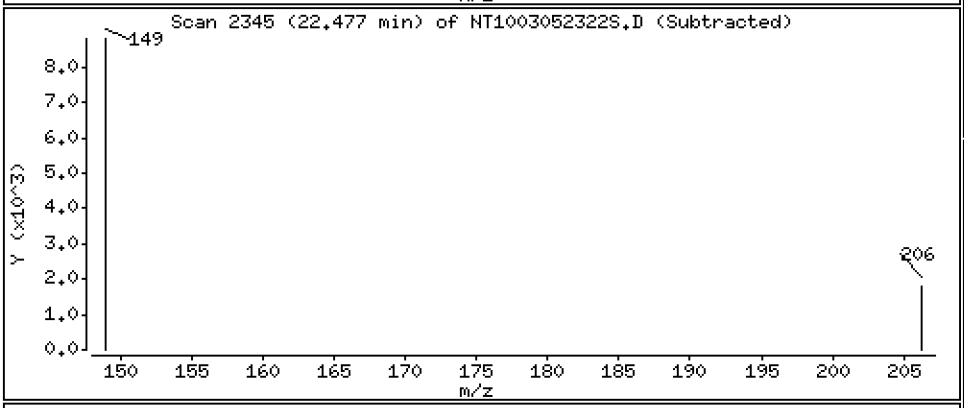
Column diameter: 0.25

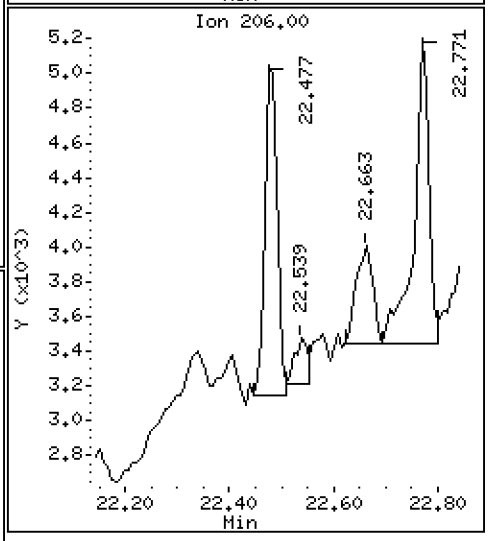
67 Butylbenzylphthalate

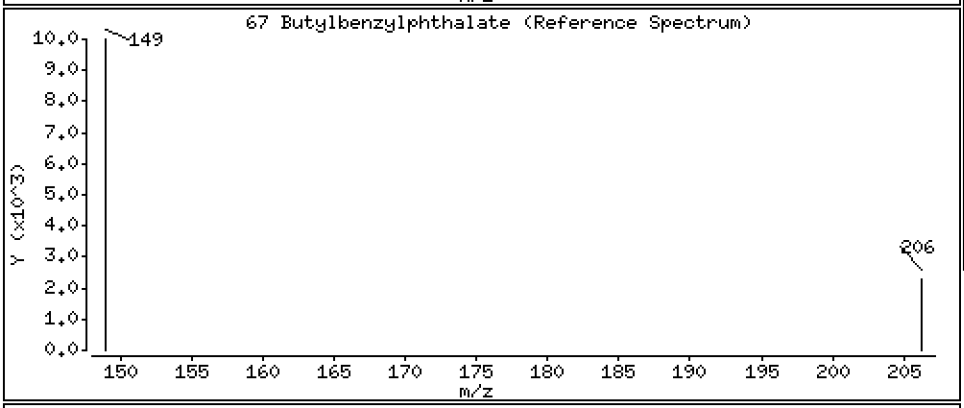
Concentration: 0.09146 ug/mL

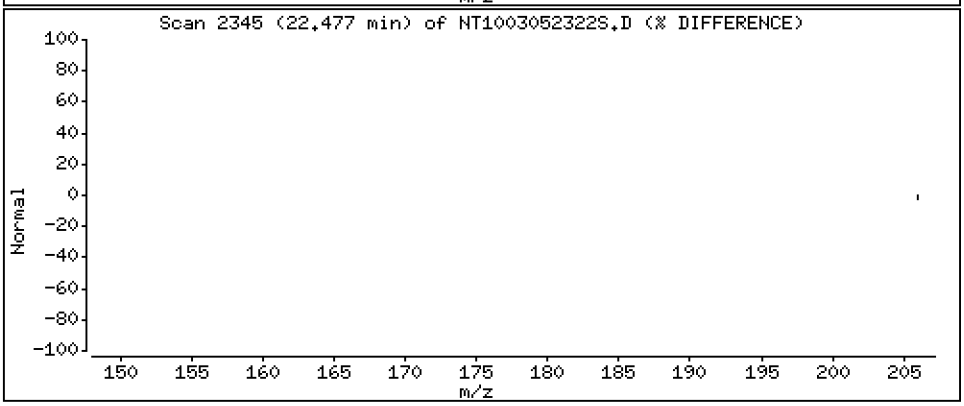












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Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

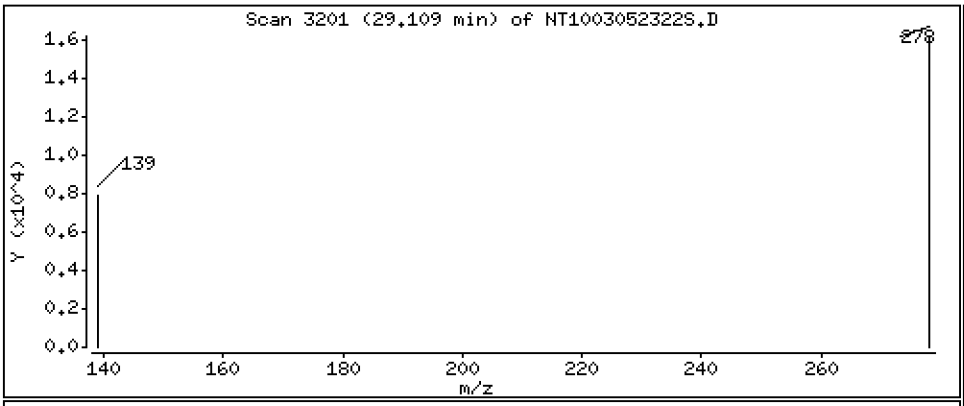
Operator: YZ

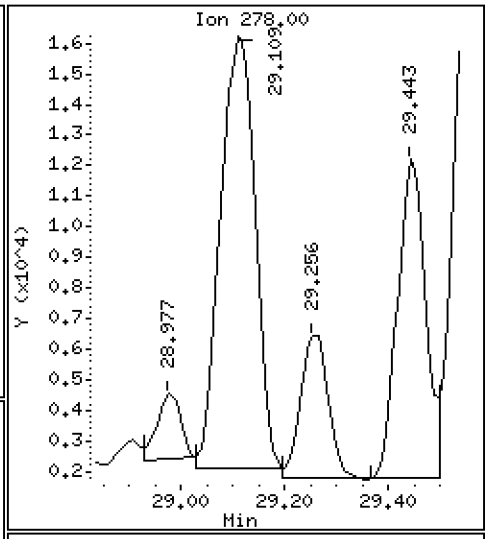
Column phase: ZB-5msi

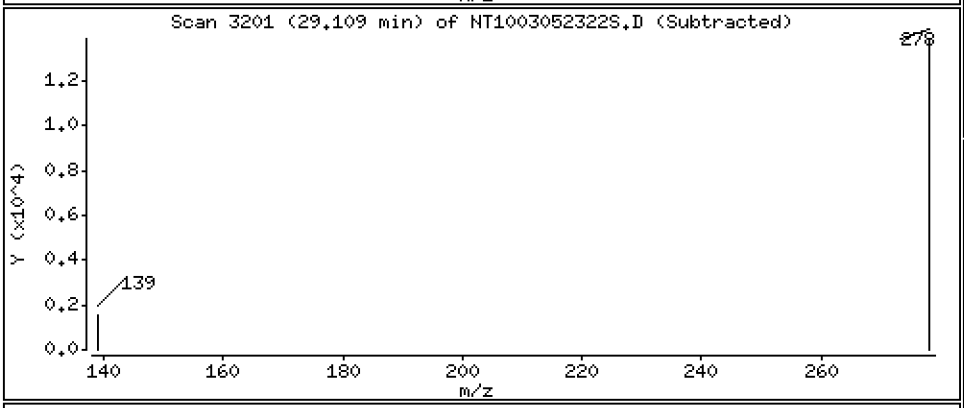
Column diameter: 0.25

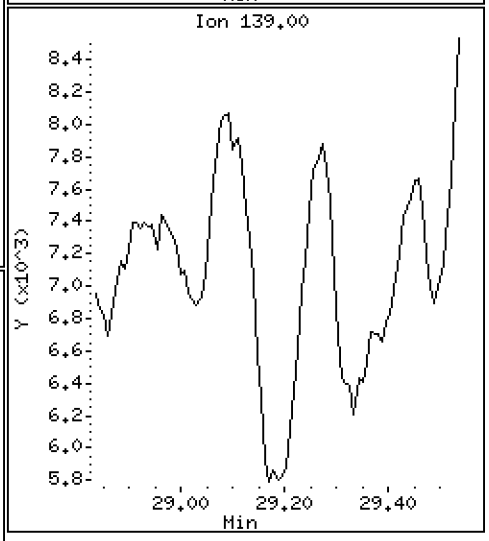
79 Dibenzo(a,h)anthracene

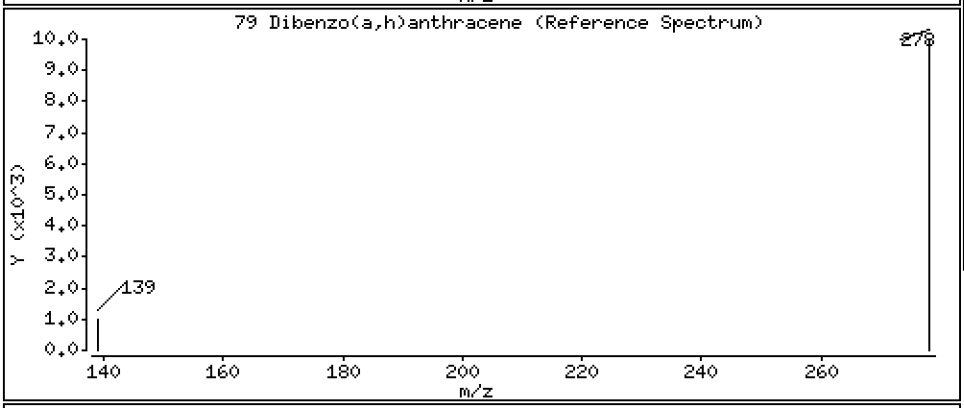
Concentration: 0.2744 ug/mL

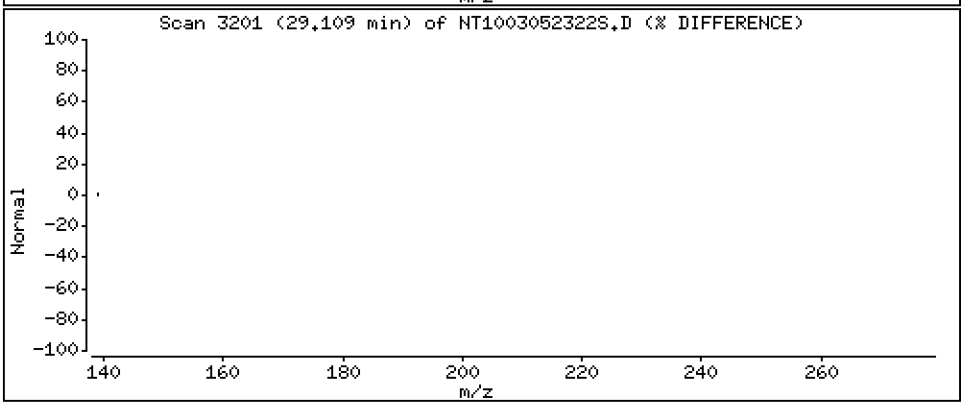












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523225.D

Date : 06-MAR-2023 02:40

Client ID:

Instrument: nt10.i

Sample Info: 23A0313-13

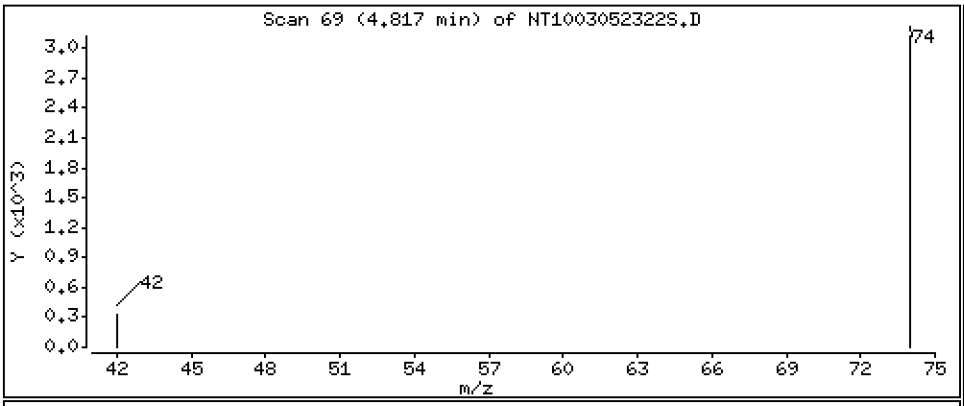
Operator: YZ

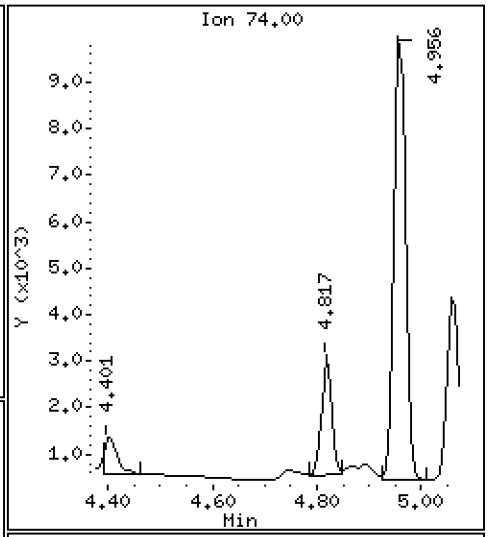
Column phase: ZB-5msi

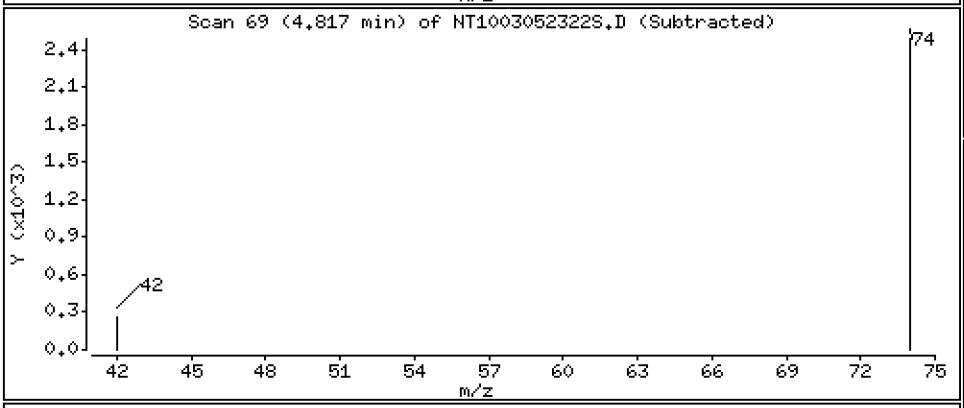
Column diameter: 0.25

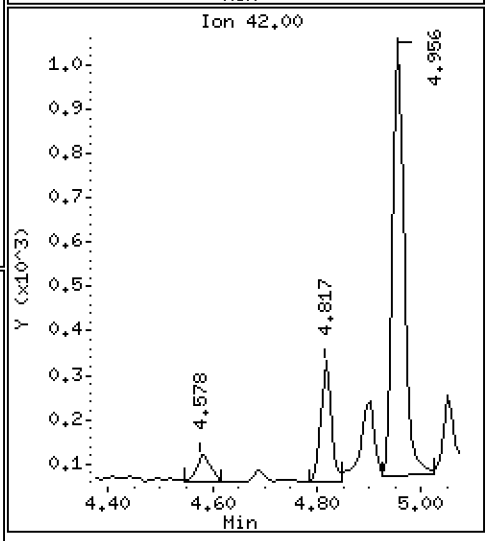
90 N-Nitrosodimethylamine

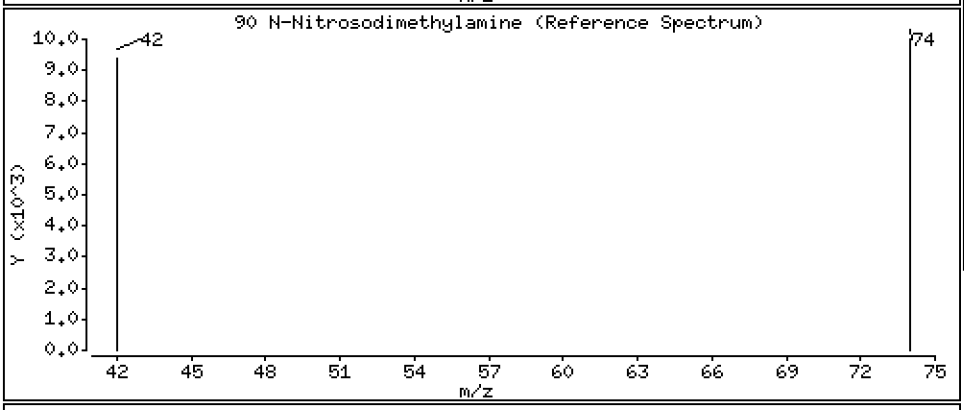
Concentration: 0.07868 ug/mL

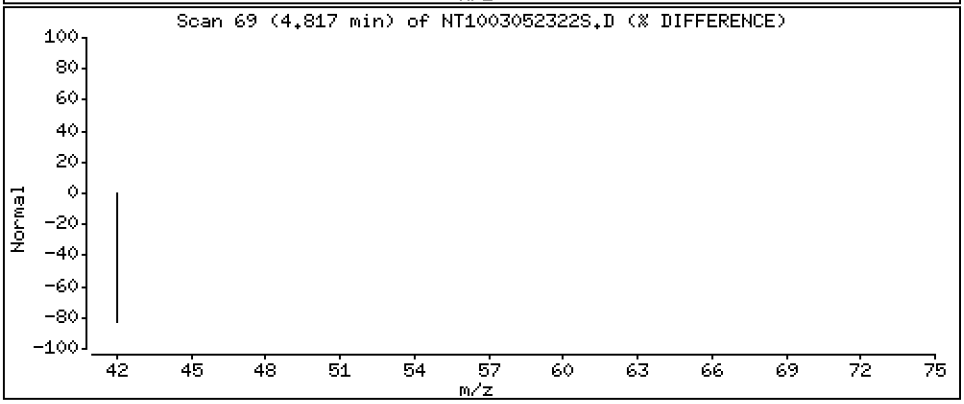












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052322S.D
Lab Smp Id: 23A0313-13
Inj Date : 06-MAR-2023 02:40
Operator : YZ Inst ID: nt10.i
Smp Info : 23A0313-13
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:18 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

							CONCENTRATIONS	
		QUANT SIG					ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
$	1 2-Fluorophenol	112	6.910	6.902	(0.746)	446871	6.19902	6.199(R)
	3 Phenol	94	8.556	8.532	(0.924)	111678	1.04498	1.045
	7 1,3-Dichlorobenzene	146	9.151	9.143	(0.988)	774	0.00827	0.008271
*	8 1,4-Dichlorobenzene-d4	152	9.259	9.252	(1.000)	252500	4.00000	
	9 1,4-Dichlorobenzene	146	9.290	9.283	(1.003)	2112	0.02321	0.02321
	11 Benzyl alcohol	79	9.508	9.484	(1.027)	11502	0.19473	0.1947(H)
	12 1,2-Dichlorobenzene	146	9.578	9.570	(1.034)	721	0.00824	0.008245
	13 2-Methylphenol	108	9.702	9.671	(1.048)	1937	0.03030	0.03030
	15 4-Methylphenol	108	9.997	9.966	(1.080)	5867	0.08820	0.08820
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	24 Benzoic acid	105	11.193	11.133	(0.952)	9209	0.22021	0.2202
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	11.754	11.731	(1.000)	898205	4.00000	
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	39 Dimethylphthalate	163	14.780	14.764	(0.963)	5574	0.03958	0.03958
*	42 Acenaphthene-d10	162	15.352	15.337	(1.000)	443491	4.00000	
	50 Diethylphthalate	149	16.242	16.234	(1.058)	62042	0.46719	0.4672
	54 N-Nitrosodiphenylamine	169	16.736	16.729	(0.907)	6766	0.04619	0.04619
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	18.035	18.042	(0.977)	1323	0.04410	0.04410
*	59 Phenanthrene-d10	188	18.460	18.453	(1.000)	905195	4.00000	
$	66 Terphenyl-d14	244	21.594	21.594	(0.919)	590619	8.01542	8.015(R)
	67 Butylbenzylphthalate	149	22.477	22.484	(0.956)	14069	0.09146	0.09146
*	69 Chrysene-d12	240	23.506	23.514	(1.000)	911194	4.00000	
*	77 Perylene-d12	264	26.247	26.270	(1.000)	1029784	4.00000	
	79 Dibenzo(a,h)anthracene	278	29.108	29.186	(1.109)	65692	0.27444	0.2744(H)
	90 N-Nitrosodimethylamine	74	4.817	4.724	(0.520)	3358	0.07868	0.07868

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052322S.D
Lab Smp Id: 23A0313-13
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 22:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	293840	146920	587680	252500	-14.07
27 Naphthalene-d8	1032639	516320	2065278	898205	-13.02
42 Acenaphthene-d10	502349	251175	1004698	443491	-11.72
59 Phenanthrene-d10	975997	487999	1951994	905195	-7.25
69 Chrysene-d12	978544	489272	1957088	911194	-6.88
77 Perylene-d12	1201606	600803	2403212	1029784	-14.30

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.26	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.75	0.20
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.10
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.51	23.01	24.01	23.51	-0.03
77 Perylene-d12	26.27	25.77	26.77	26.25	-0.09

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052322S.D

Lab ID: 23A0313-13
nt10.i, 20230305A.b\SIM.b\SIMABN2.m,   06-MAR-2023 02:40

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.520	0.511	0.0096	N-Nitrosodimethylamine

RRT check based on Ccal File: SIM.b/NT1003052315S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

PREPARATION BATCH SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Batch: BLA0683
Batch Matrix: Solid
Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1114	23A0313-03	N823020628.D	02/01/23 11:29	
LDW23-IT1120	23A0313-04	N823020629.D	02/01/23 11:29	
LDW23-IT1148	23A0313-12	N823020630.D	02/01/23 11:29	
Blank	BLA0683-BLK1	N823020608.D	02/01/23 11:29	
LCS	BLA0683-BS1	N823020609.D	02/01/23 11:29	
LCS Dup	BLA0683-BSD1	N823020610.D	02/01/23 11:29	
Reference	BLA0683-SRM1	N823020611.D	02/01/23 11:29	

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0683

Prepared using: EPA 3546 (Microwave)

8270E-SIM PAH (0.1ug/L or 5ug/kg) in Solid (Version:AOC4 cPAH)

WO Comments

23A0207: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0249: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0295: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Analysis: 8270E-SIM PAH (0.1ug/L or 5ug/kg)

Lab Number & Container	% Solids	Initial (g) Target Dry: 10 (Wet)	Actual	(REQ/Opt) GPC C/U (1:1) 1 (2) 3	(REQ/Opt) Sulfur C/U (1:1) Y/N (Transfer Rinse)	(REQ/Opt) Silica Gel C/U (1:1) Y/N	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
23A0207-01 A	78.4	(12.75)	12.78	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0207-02 A	78.6	(12.72)	12.77	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0207-03 A	80.0	(12.50)	12.50	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0207-04 A	73.6	(13.59)	13.60	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0207-05 A	71.3	(14.02)	14.07	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0207-06 A	79.0	(12.67)	12.69	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0207-07 A	78.8	(12.70)	12.75	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0207-08 A	72.8	(13.73)	13.79	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0207-09 A	73.0	(13.70)	13.78	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0207-15 A	77.8	(12.86)	12.88	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0207-16 A	62.7	(15.95)	15.98	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0207-17 A	63.2	(15.82)	15.83	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0249-07 A	74.7	(13.38)	13.40	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0295-08 A	78.0	(12.82)	12.82	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0313-03 A	62.7	(15.95)	15.97	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0313-04 A	69.6	(14.38)	14.39	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0313-12 A	50.0	(19.98)	19.99	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0326-08 A	75.5	(13.24)	13.27	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
23A0326-09 A	61.9	(16.15)	16.15	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	

Batch QC

Lab Number	% Solids	Initial (g) Target Dry: 10 (Wet)	Actual	(REQ/Opt) GPC C/U (1:1) 1 (2) 3	(REQ/Opt) Sulfur C/U (1:1) Y/N (Transfer Rinse)	(REQ/Opt) Silica Gel C/U (1:1) Y/N	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BLA0683-BLK1	100.0	(10.00)	10.00	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
BLA0683-BS1	100.0	(10.00)	10.00	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
BLA0683-BSD1	100.0	(10.00)	10.00	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	
BLA0683-MS1	80.0	(12.50)	12.50	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	Use 23A0207-03
BLA0683-MSD1	80.0	(12.50)	12.50	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	Use 23A0207-03

SRM IS ON 3RD PAGE!!!!!!

Printed: 1/28/2023 11:58:35AM

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0683

Prepared using: EPA 3546 (Microwave)

8270E-SIM PAH (0.1ug/L or 5ug/kg) in Solid (Version:AOC4 cPAH)

WO Comments

23A0207: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0249: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0295: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Steps

Microwave
1 (2) 3
CT 2/1/23
Analyst/Date

Pre-GPC KD 100°C (No Exchange)
(0) 1 2 3 (4) (5) 6
CD 2/2/23
Analyst/Date

Pre GPC TurboVap
1 2 3 (4)
TWC 2/2/23
Analyst/Date

GPC
1 (2) 3
TWC 2/2/23
Analyst/Date

Post-GPC KD 80°C Hexane Exchange 2 x 20 mL 100°C
(0) 1 (2) (3) (4) (5) 6
TWC 2/4/23
Analyst/Date

Pre-Cleanup TurboVap
1 2 (3) (4)
CD 2/4/23
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Microwave Analyst: CT/MS Date: 02/01/23	
Pre-Deactivated Glass Wool	L000252
Anhydrous Sodium Sulfate	L000759
1:1 Methylene Chloride/Acetone	L000281
Methylene Chloride	L000808
Pre GPC KD Analyst: CD Date: 2/2/23	
Methylene Chloride	L000808
Hexane	K011373
GPC Filter Prep Analyst: TWC Date: 2/2/23	
Methylene Chloride	L000808
GPC Analyst: TWC Date: 2/2/23	
Methylene Chloride	L000803
GPC Calibration File	CLA0166
Post GPC KD Analyst: TWC Date: 2/4/23	
Methylene Chloride	L000808
Hexane	K011373
Vialing Analyst: CD Date: 2/6/23	
Hexane	K011373
Methylene Chloride	K000808
Silica Gel (SPE) darts	L001084

Surrogates & Spike Standards Used

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Surrogate	B K009860 (V)	100µL		
15/75µg/mL	Exp Date: 9/28/2023		CT	MS
Spike	15 K009081 (V)	200µL		
15/75µg/mL	Exp Date: 8/4/2023		CT	MS

MANUALLY ENTER EXPIRATION DATES!

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0683

Prepared using: EPA 3546 (Microwave)

8270E-SIM PAH (0.1ug/L or 5ug/kg) in Solid (Version:AOC4 cPAH)

WO Comments

23A0207: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0249: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0295: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

BLA0683-SRM1	100.0	~~(10.00)~~ (5.00) 5.00 +1g DI WATER	(1:1) Y / N	(1:1) Y / N	(1:1) Y / N	0.5	0.5	Use L000097

02/01/23
Client ID verified By — Date

2/6/23
Preparation Reviewed By — Date

02/01/23 11:29
Extraction Date and Time

Printed: 1/28/2023 11:58:35AM

3060F

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0683

Prepared using: EPA 3546 (Microwave)

8270E-SIM PAH (0.1ug/L or 5ug/kg) in Solid (Version:AOC4 cPAH)

Matrix: Solid **Date Prepared:** 02/01/23 **Balance ID:** B14646261 4 **Set Up By:** CTO 1/28/23

WO Comments

23A0207: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0249: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
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<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
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<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

The following standards may be missing from this batch!

Designator	Description
QLS 4	QLS 4

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0683

Prepared using: EPA 3546 (Microwave)

8270E-SIM PAH (0.1ug/L or 5ug/kg) in Solid (Version:AOC4 cPAH)

WO Comments

23A0207: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0249: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0295: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Post-Cleanup TurboVap

1 2 3 4

CP 1/6/23

Analyst/Date

Sodium Sulfite	N/A
Tetrabutylammonium hydrogensulfate (TBAS)	N/A

Vialing

CP 1/6/23

Analyst/Date

Printed: 1/28/2023 11:58:35AM

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Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0683

Prepared using: EPA 3546 (Microwave)

8270E-SIM PAH (0.1ug/L or 5ug/kg) in Solid (Version:AOC4 cPAH)

WO Comments

23A0207: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0249: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0295: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add DCM ONLY to the vessels (until solvent is 3 inches above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 10-15 min in Refridgerator 05. Re-homogenize while cool. 7. Decant DCM into Erlenmeyer flask with a funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using 1:1 DCM/ACE. 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM. 11. If GPC is Req add 10mL Hexane and KD to 5mL at 100°C (NO EXCHANGE) 12. If GPC is NOT Req = KD to 5mL at 100°C. Exchange to Hexane (2X with 10mL) to 5mL at 100°C. 13. TurboVap. 14. If no GPC then Sulfur clean is REQUIRED. 15. Sulfur clean = Hexane transfer rinse. 16. Silica Clean-up Any Color=REQ (All or none). 17. TurboVap 18. Vial in DCM. A. Need Total Solids Y [N] B. Archive/Freeze [Y] N	

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Organic Extractions Laboratory Analyst Notes

Extraction Parameter: SIM Extraction Batch: BLA0683

Total Solids Batch: BLA0589 Work Order(s): 23A0207

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☒ No Anomalies (standard soil/wet sediment/sand/gravel)= 207-6,7,	DP 1/25/23
☒ Standing Water Decanted (Not shared)= 207-1,2,3,4,5,9,10,12,13,15,11	DP 1/25/23
☐ Standing Water Homogenized (Shared samples)=	
☒ Clay/Clumps (Difficult to homogenize)= 207-8	DP 1/25/23
☒ Rocks (%+size)? 30% ¼" - ½" = 207-3,9,100,12,14 60% ½" - ½" = 207-15	DP 1/25/23
☒ Organics (Leaves/sticks/grass)= 207-10,16	DP 1/25/23
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☒ Previously Frozen =	CTO 1/26/23
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

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Organic Extractions Laboratory Analyst Notes

Extraction Parameter: SIM Extraction Batch DLA0683

Total Solids Batch: BLA0590 Work Order(s): 23A0249

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☒ No Anomalies (standard soil/wet sediment/sand/gravel)= 02-11	CR 1/26/23
☒ Standing Water Decanted (Not shared)= 03-06, 08, 10	CR 1/26/23
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☒ Previously Frozen = 02-11	CR 1/26/23
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☒ Share Samples Y (N)	CR 1/26/23
☒ Multiple Jars Y (N)	CR 1/26/23
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

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Organic Extractions Laboratory Analyst Notes

Extraction Parameter: SIM Extraction Batch: BLA0683

Total Solids Batch: BLA0590 Work Order(s): 23A0295

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☒ No Anomalies (standard soil/wet sediment/sand/gravel)= 01-10	CR 1/26/23
☒ Standing Water Decanted (Not shared)= 01, 02, 04, 06, 07	CR 1/26/23
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☒ Previously Frozen = 01-10	CR 1/26/23
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☒ Share Samples Y / (N)	CR 1/26/23
☒ Multiple Jars Y / (N)	CR 1/26/23
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

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Organic Extractions Laboratory Analyst Notes

Extraction Parameter: SIM Extraction Batch: BLA0683

Total Solids Batch: BLA1019 Work Order(s): 23A0313

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
[X] No Anomalies (standard soil/wet sediment/sand/gravel)= 2, 11	NJ 01/27/23
[X] Standing Water Decanted (Not shared)= #1, #2, #5=11, 13. 1/27/23	NJ 01/27/23
[ ] Standing Water Homogenized (Shared samples)=	
[ ] Clay/Clumps (Difficult to homogenize)=	
[ ] Rocks (%+size)?	
[ ] Organics (Leaves/sticks/grass)=	
[X] Oily, obvious fuel/sulfur odors= sulfur odor=#1, #2, #5—11, 13 #3, #4. Included	NJ 01/27/23
[ ] Received in 32oz jar(s)=Homogenized in Pyrex dish=	
[ ] Previously Frozen =	
[ ] Other (Details)=	
Aqueous:	
[ ] No Anomalies	
[ ] Turbid/Color=	
[ ] Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
[ ] Emulsions (%)=	
[ ] Oily, obvious fuel/sulfur odors=	
[ ] Other (Details)=	
[ ] Received in 1.0L Bottle(s)=No Bottle Rinse=	
[ ] Other Notes/Comments= (Note problems, concerns, corrective actions).	
[X] Share Samples Y / N	NJ 01/27/23
[X] Multiple Jars Y / N	NJ 01/27/23
[ ] Sample Pre-Screens indicate analyte activity=	
[ ] Sample weights/volumes reduced based on Pre-Screen=	

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Organic Extractions Laboratory Analyst Notes

Extraction Parameter: SIM Extraction Batch BLA0683

Total Solids Batch: BLA0320 Work Order(s): 23A0326

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
[X] No Anomalies (standard soil/wet sediment/sand/gravel)= ϕ7, ϕ8.	NJ ϕ 1/27/23
[X] Standing Water Decanted (Not shared)= ϕ1 – 12	NJ ϕ 1/27/23
[ ] Standing Water Homogenized (Shared samples)=	
[ ] Clay/Clumps (Difficult to homogenize)=	
[ ] Rocks (%+size)?	
[ ] Organics (Leaves/sticks/grass)=	
[X] Oily, obvious fuel/sulfur odors= ϕ1 – ϕ6, ϕ9 – 12.	NJ ϕ 1/27/23
[ ] Received in 32oz jar(s)=Homogenized in Pyrex dish=	
[ ] Previously Frozen =	
[ ] Other (Details)=	
Aqueous:	
[ ] No Anomalies	
[ ] Turbid/Color=	
[ ] Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
[ ] Emulsions (%)=	
[ ] Oily, obvious fuel/sulfur odors=	
[ ] Other (Details)=	
[ ] Received in 1.0L Bottle(s)=No Bottle Rinse=	
[ ] Other Notes/Comments= (Note problems, concerns, corrective actions).	
[X] Share Samples Y / N	
[X] Multiple Jars Y / N	NJ ϕ 1/27/23
[ ] Sample Pre-Screens indicate analyte activity=	NJ ϕ 1/27/23
[ ] Sample weights/volumes reduced based on Pre-Screen=	

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BLA0683 23A0207/249/295/313/326 ~~PSDDA SVOC~~

Date:2023-02-02,8:21:39 PM
Data File:c:\n2000\data\gpc2\020223\GPC2-0000
Method File:E:\GPC2_InHouse.mtd

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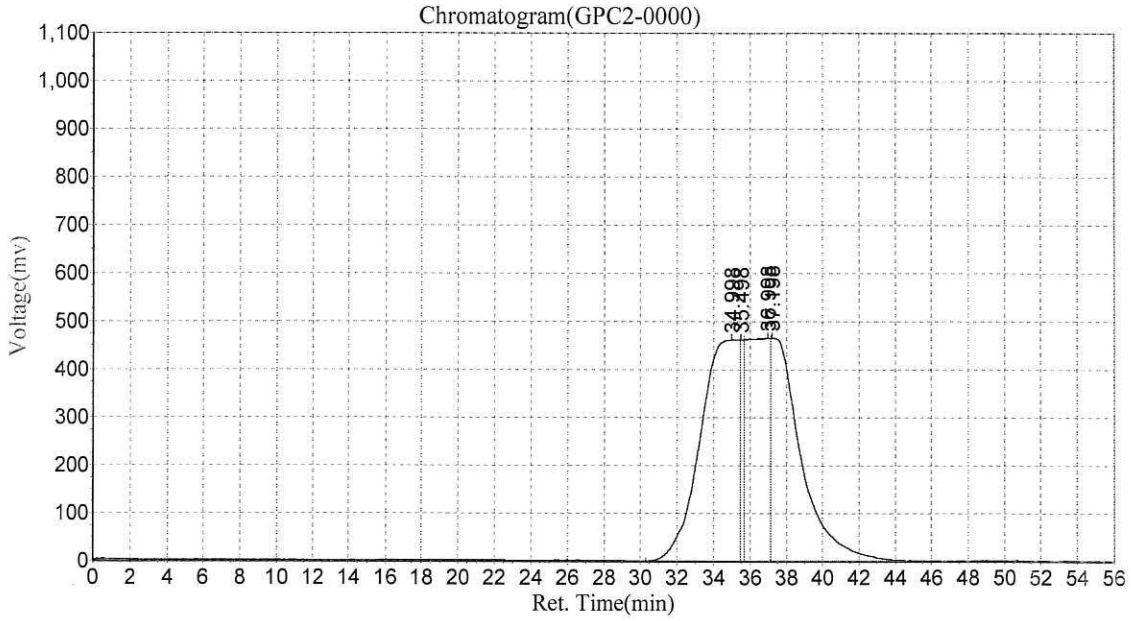
Date/Time2023-02-02,8:21:39 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		34.998	462779.906	67250400.000	40.3226
2		35.498	462383.969	5546438.500	3.3256
3		36.998	465204.125	40820080.000	24.4753
4		37.198	465312.156	53164016.000	31.8766
Total			1855680.156	166780934.500	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 ~~PSDDA SVOC~~

Date:2023-02-02,9:19:24 PM
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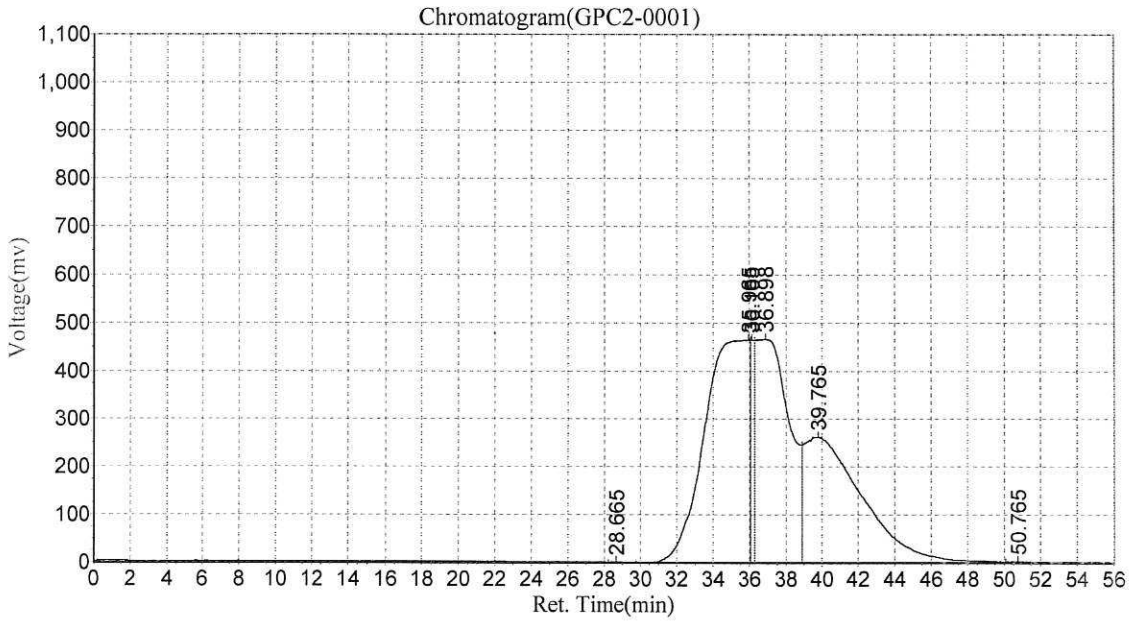
Date/Time2023-02-02,9:19:24 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		28.665	1929.831	106790.094	0.0523
2		35.965	466271.906	80026520.000	39.1944
3		36.165	466463.031	5595818.500	2.7406
4		36.898	467998.438	59461916.000	29.1225
5		39.765	263151.000	58778816.000	28.7879
6		50.765	2365.027	208814.094	0.1023
Total			1668179.233	204178674.688	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 ~~PSDDA SVOC~~

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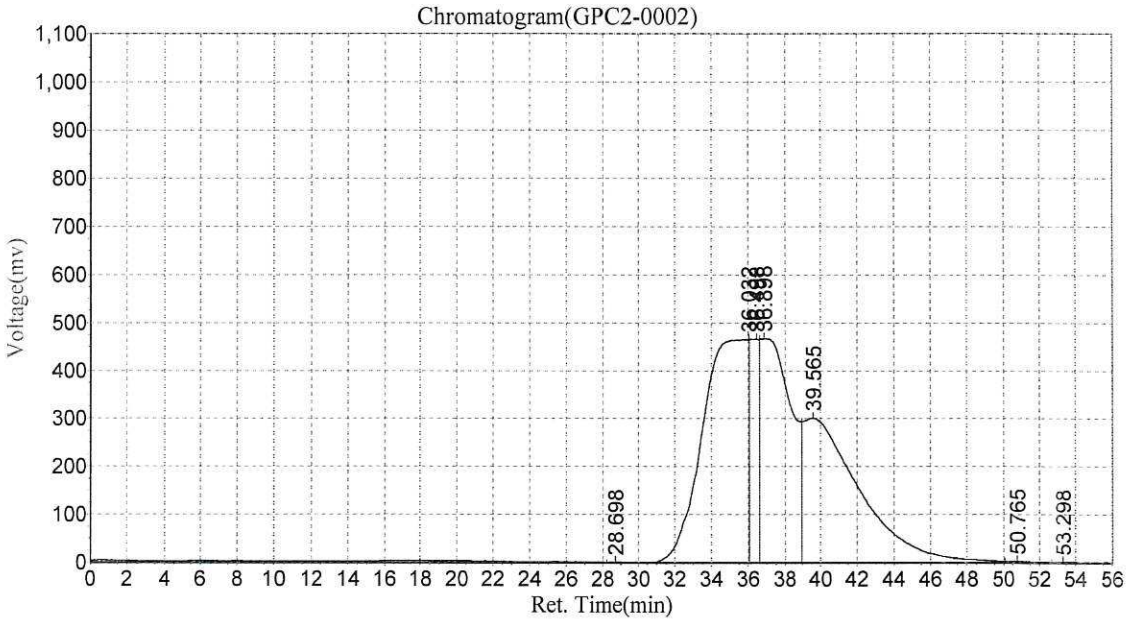
Analyst£ºTWC
Date/Time2023-02-02,10:17:06 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		28.698	2463.859	143297.484	0.0663
2		36.032	467350.656	80045688.000	37.0349
3		36.498	468077.344	14966868.000	6.9247
4		36.898	469001.656	55208184.000	25.5433
5		39.565	301660.969	65301040.000	30.2129
6		50.765	3672.394	355260.875	0.1644
7		53.298	1939.964	115634.453	0.0535
Total			1714166.841	216135972.813	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

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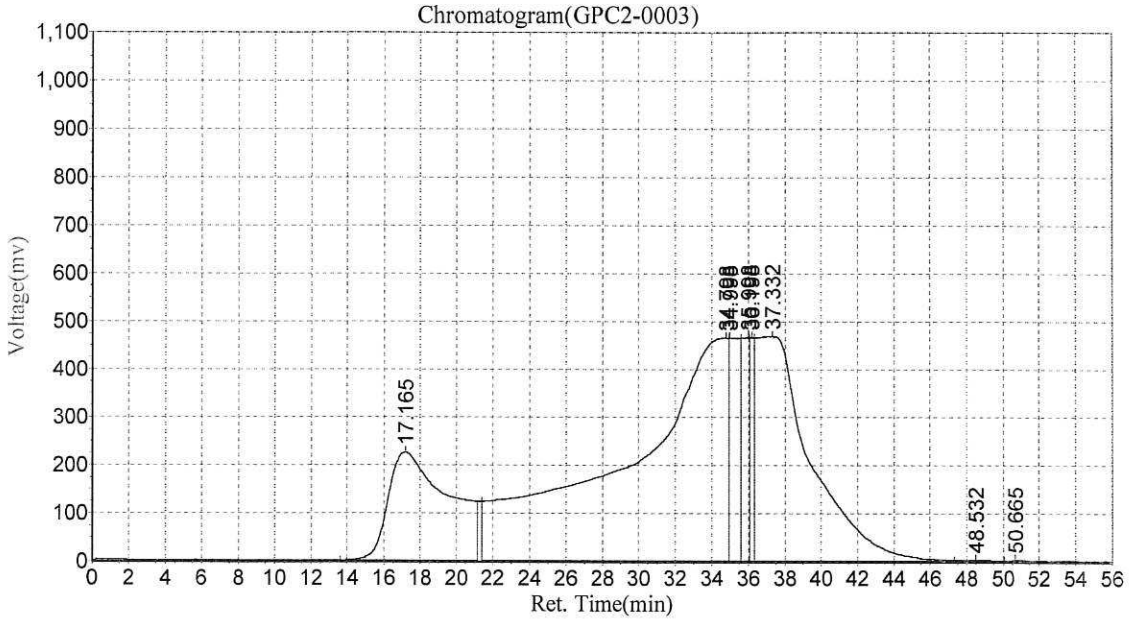

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.165	224601.266	51653576.000	14.0564
2		34.798	464461.281	179650384.000	48.8879
3		34.998	464240.656	18550414.000	5.0481
4		35.998	464909.531	13004145.000	3.5388
5		36.198	465242.906	7439951.000	2.0246
6		37.332	467331.688	96709328.000	26.3173
7		48.532	2622.546	321109.906	0.0874
8		50.665	2085.188	145165.078	0.0395
Total			2555495.063	367474072.984	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 ~~PSDDA SVOC~~

Date:2023-02-03,12:12:31 AM
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Method File:E:\GPC2_InHouse.mtd

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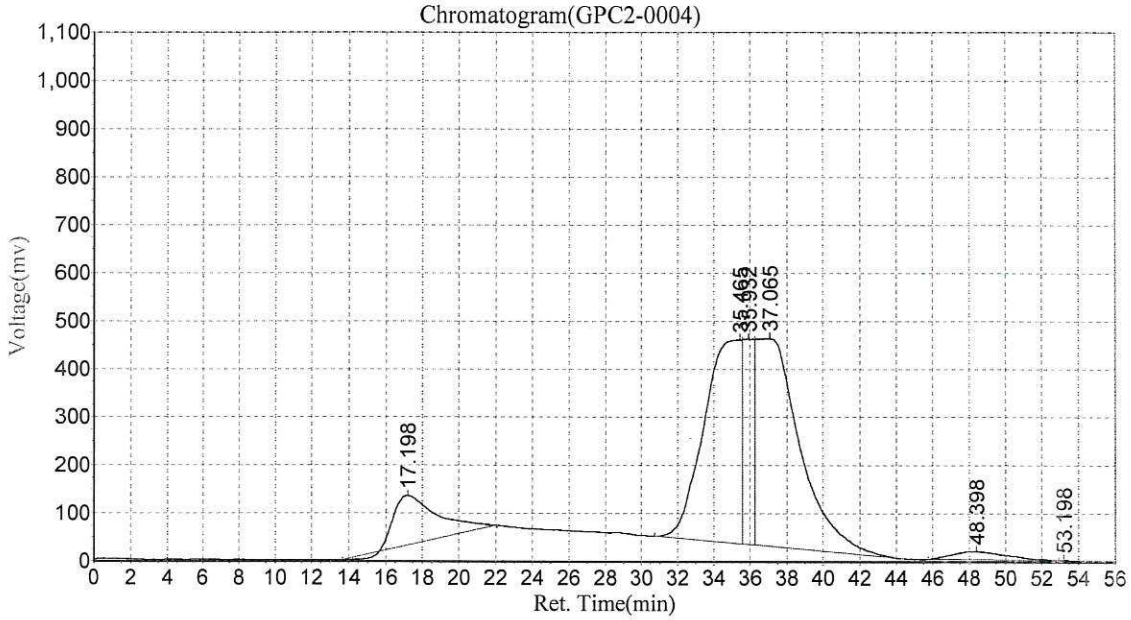

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.198	103859.641	16772050.000	9.9215
2		35.465	423849.281	59973016.000	35.4772
3		35.932	427541.000	17072136.000	10.0991
4		37.065	432420.375	71367624.000	42.2177
5		48.398	17561.232	3733371.000	2.2085
6		53.198	2032.452	128595.063	0.0761
Total			1407263.981	169046792.063	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

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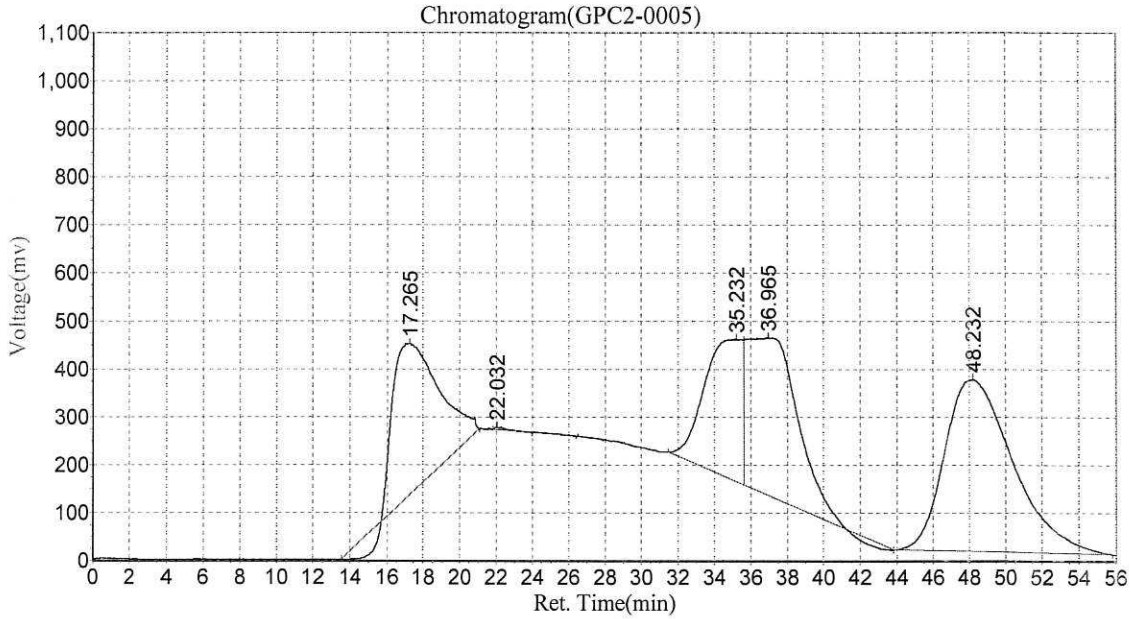

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.265	314913.031	52300416.000	20.8043
2		22.032	5661.474	282365.594	0.1123
3		35.232	297091.719	41670928.000	16.5760
4		36.965	328802.625	62632340.000	24.9142
5		48.232	358413.219	94506504.000	37.5932
Total			1304882.067	251392553.594	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

Date:2023-02-03,2:08:00 AM
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Analyst£ºTWC
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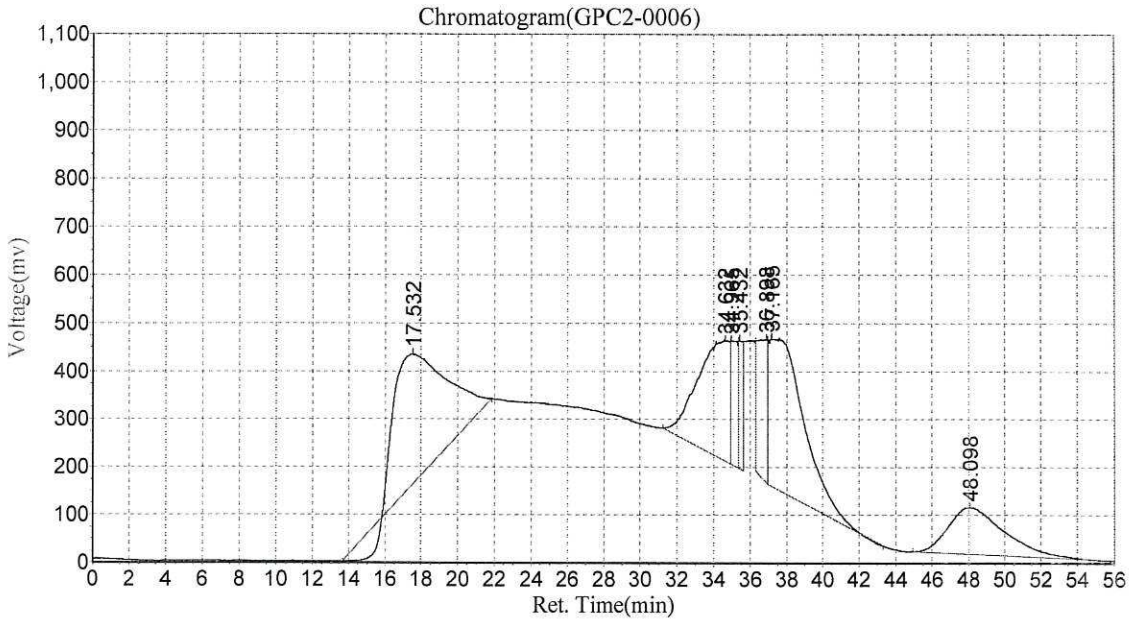

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.532	271902.906	49996660.000	30.1162
2		34.632	251321.703	28982862.000	17.4582
3		34.965	257266.750	7278267.500	4.3842
4		35.432	269060.219	4297007.000	2.5884
5		36.898	299770.844	11729887.000	7.0657
6		37.165	307776.688	42546676.000	25.6286
7		48.098	97117.070	21181228.000	12.7588
Total			1754216.180	166012587.500	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

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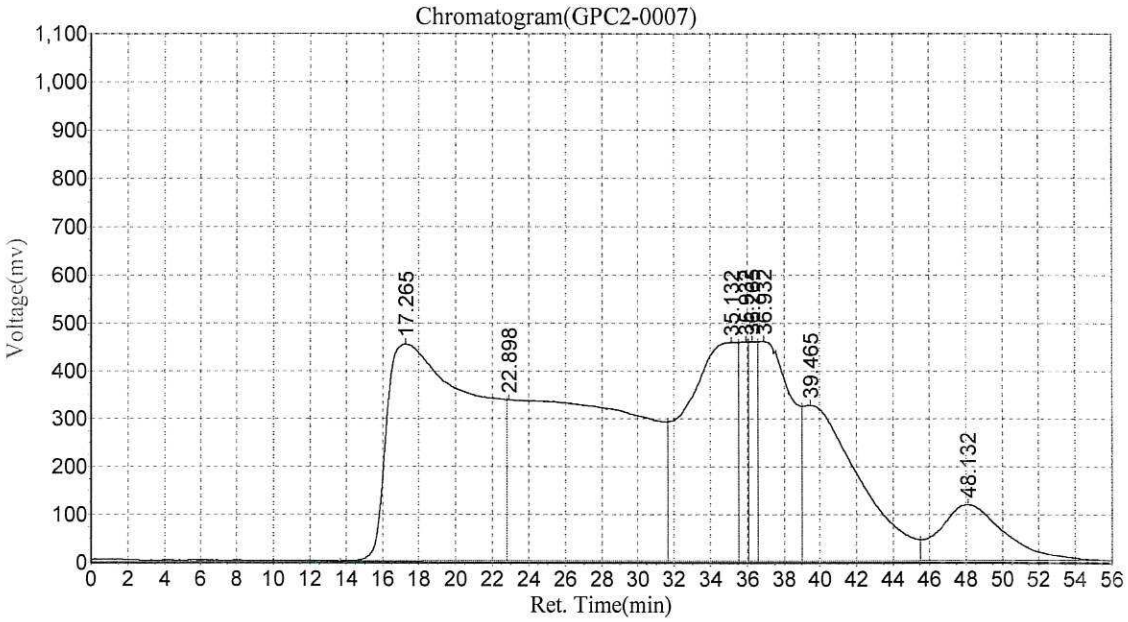

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.265	452407.938	156356352.000	26.0695
2		22.898	336108.969	169868304.000	28.3224
3		35.132	455910.875	89104992.000	14.8566
4		35.932	456753.531	14604799.000	2.4351
5		36.265	457339.969	14630709.000	2.4394
6		36.932	457927.844	57260720.000	9.5472
7		39.465	324297.594	69352872.000	11.5633
8		48.132	116227.008	28588052.000	4.7665
Total			3056973.727	599766800.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 ~~PSDDA~~ SVOC

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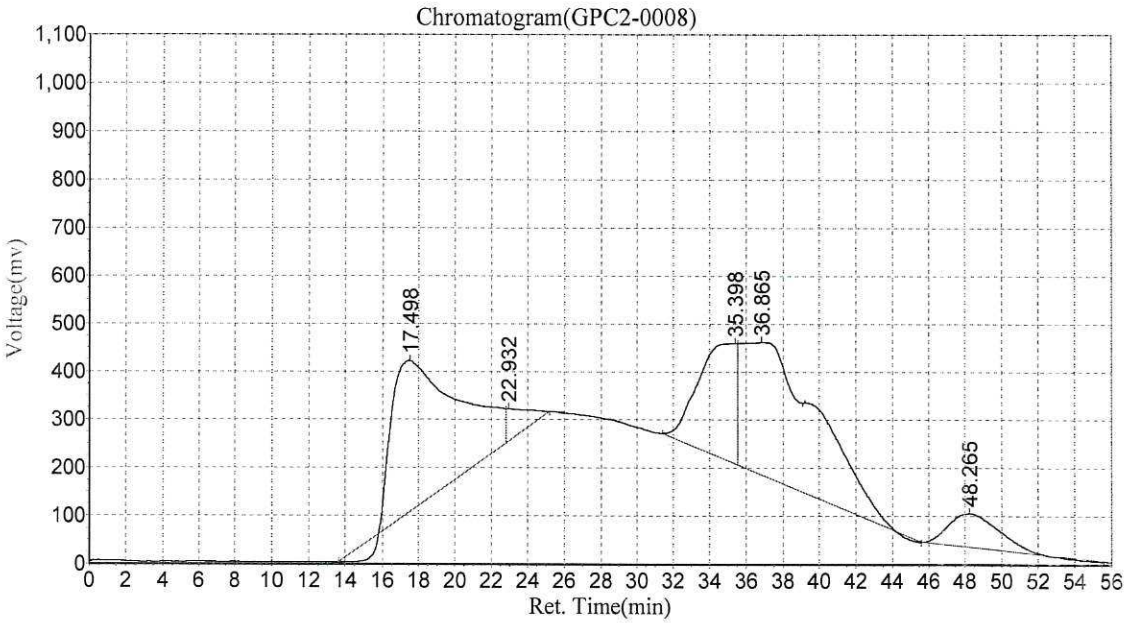

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.498	314550.094	74786392.000	35.3328
2		22.932	67745.508	5143057.500	2.4298
3		35.398	251036.063	34348928.000	16.2282
4		36.865	277122.625	83870256.000	39.6245
5		48.265	70504.664	13513937.000	6.3847
Total			980958.953	211662570.500	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

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Method File:E:\GPC2_InHouse.mtd

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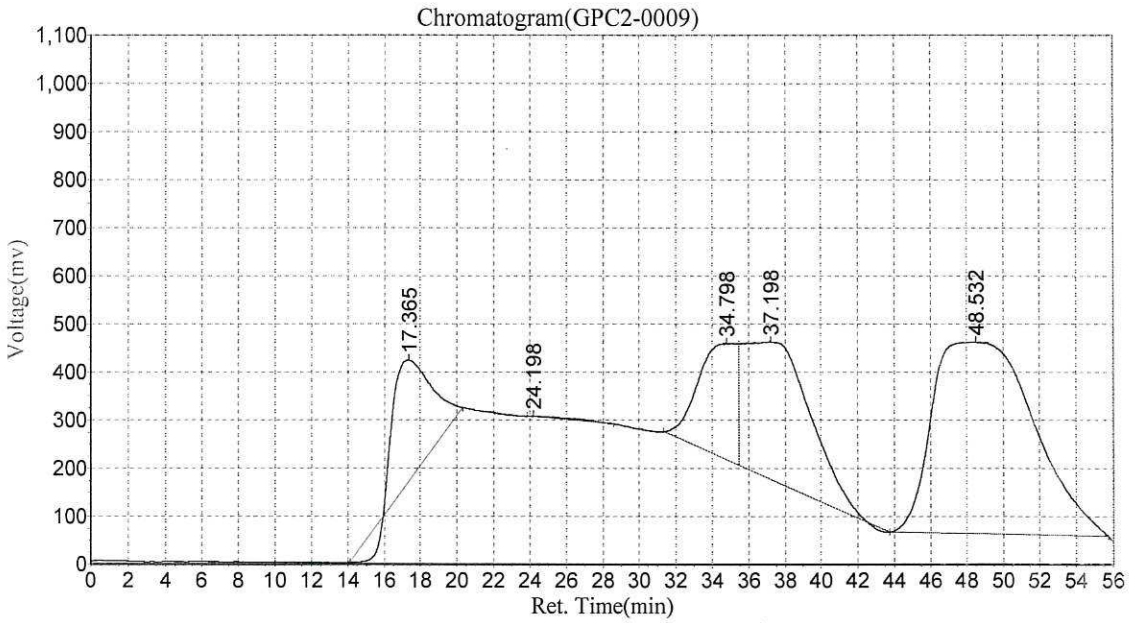

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.365	253076.938	34035368.000	11.4757
2		24.198	1548.352	551275.625	0.1859
3		34.798	241417.547	34753688.000	11.7179
4		37.198	285579.594	73586008.000	24.8110
5		48.532	396909.406	153659616.000	51.8095
Total			1178531.837	296585955.625	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

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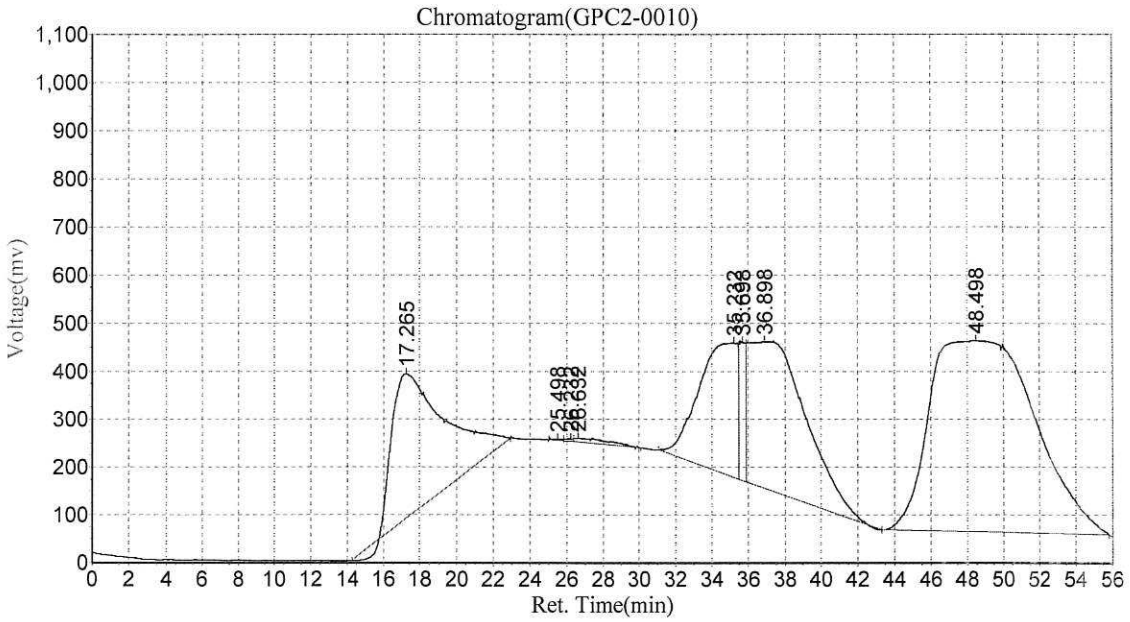

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.265	301585.656	58040020.000	17.2727
2		25.498	4945.564	211897.125	0.0631
3		26.232	7706.532	228023.844	0.0679
4		26.632	9703.787	1523924.250	0.4535
5		35.232	279869.375	40176824.000	11.9566
6		35.698	288066.219	6885327.500	2.0491
7		36.898	305517.188	67790240.000	20.1744
8		48.498	398102.656	161164608.000	47.9627
Total			1595496.977	336020864.719	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

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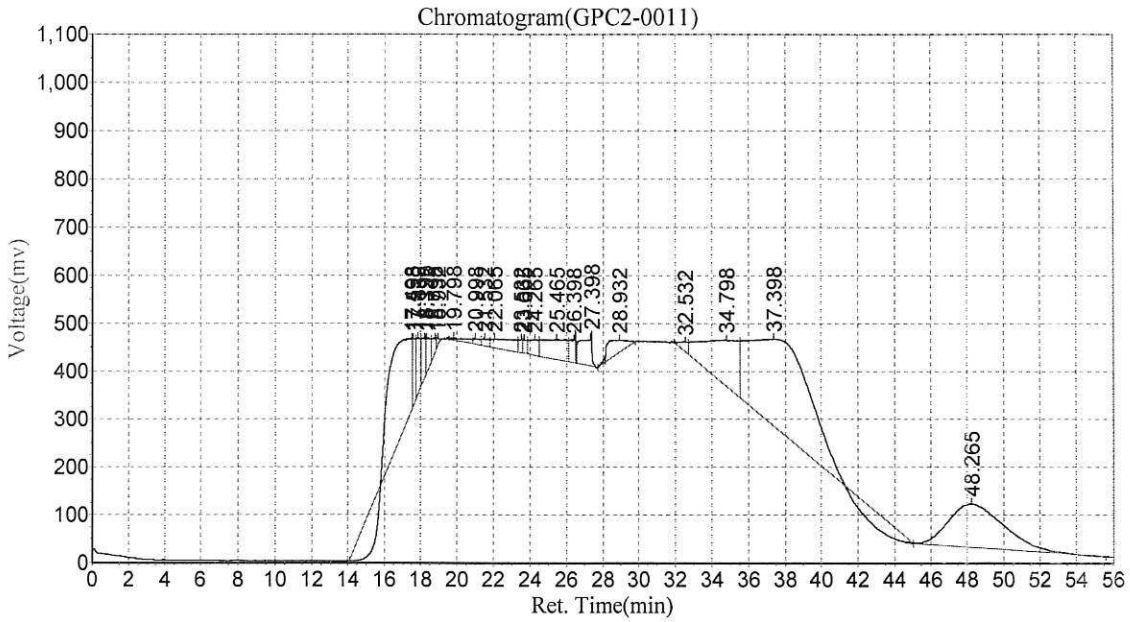

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.498	150156.766	12097292.000	11.4156
2		17.598	140476.156	1645478.500	1.5527
3		17.832	119357.398	2056264.875	1.9404
4		18.198	85322.492	1252242.750	1.1817
5		18.332	72737.344	1161352.625	1.0959
6		18.798	29226.830	654541.313	0.6177
7		18.932	17179.684	163270.047	0.1541
8		19.798	4424.072	503451.313	0.4751
9		20.998	11694.288	334645.313	0.3158
10		21.532	15486.384	427853.938	0.4037
11		22.065	19205.479	2003156.625	1.8903
12		23.532	28287.742	438005.344	0.4133
13		23.665	28841.768	461408.500	0.4354
14		24.265	33595.375	1295721.375	1.2227
15		25.465	42509.590	3904855.500	3.6848
16		26.398	49051.758	1208008.375	1.1399
17		27.398	60342.438	2605926.000	2.4591
18		28.932	29036.000	2720518.500	2.5672
19		32.532	20221.428	634607.125	0.5988
20		34.798	96254.375	12312502.000	11.6186
21		37.398	181448.219	39008568.000	36.8102

22		48.265	90207.734	19082378.000	18.0070
Total			1325063.318	105972048.016	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

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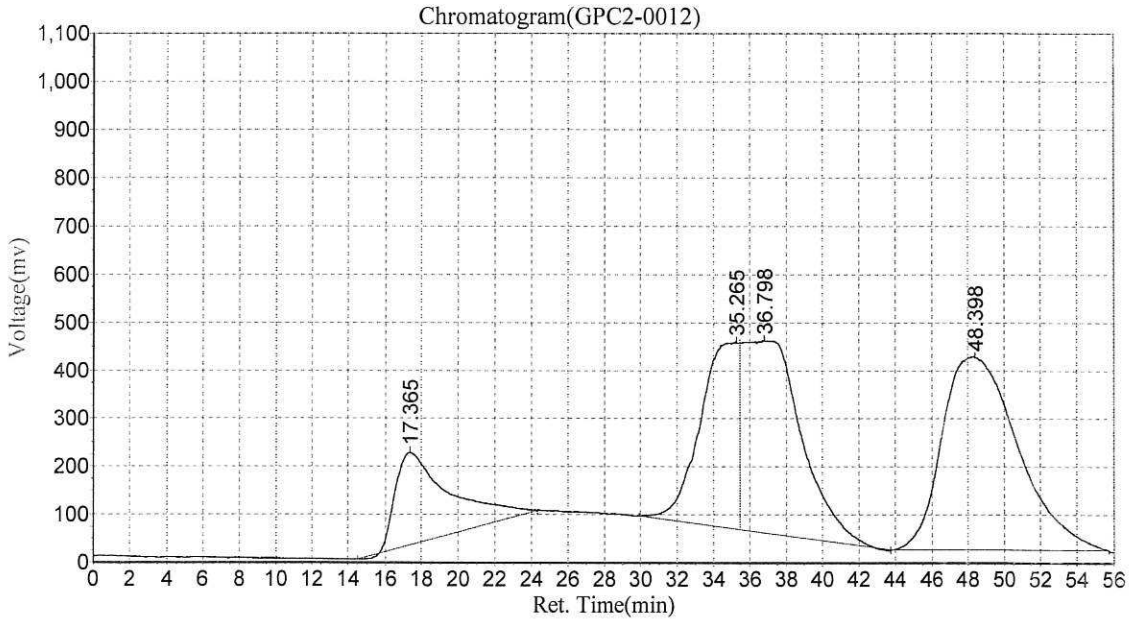

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.365	192764.609	39357356.000	12.9566
2		35.265	389684.469	56802572.000	18.6996
3		36.798	400426.688	90046592.000	29.6436
4		48.398	402658.625	117557240.000	38.7002
Total			1385534.391	303763760.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 ~~PSDDA SVOC~~

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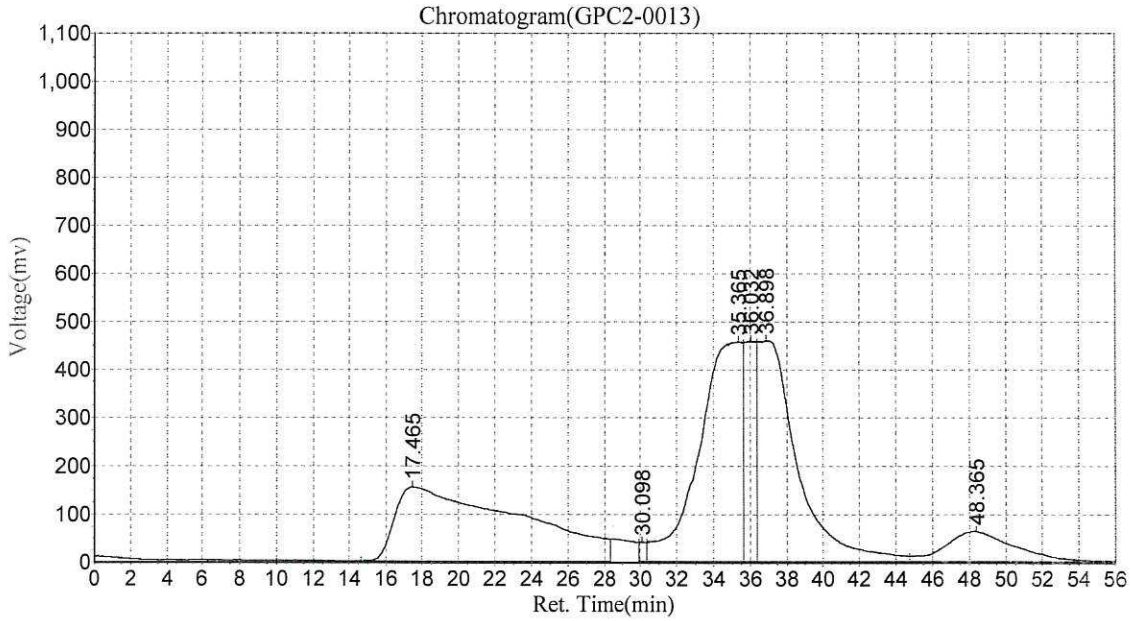

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.465	154916.563	73637648.000	29.1653
2		30.098	39966.410	1115042.750	0.4416
3		35.365	454919.375	73257320.000	29.0147
4		36.032	456558.688	20031644.000	7.9338
5		36.898	457025.906	68557808.000	27.1534
6		48.365	61729.695	15884059.000	6.2911
Total			1625116.637	252483521.750	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

PNA

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

Date:2023-02-03,9:49:39 AM
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Method File:E:\GPC2_InHouse.mtd

Analyst£°TWC
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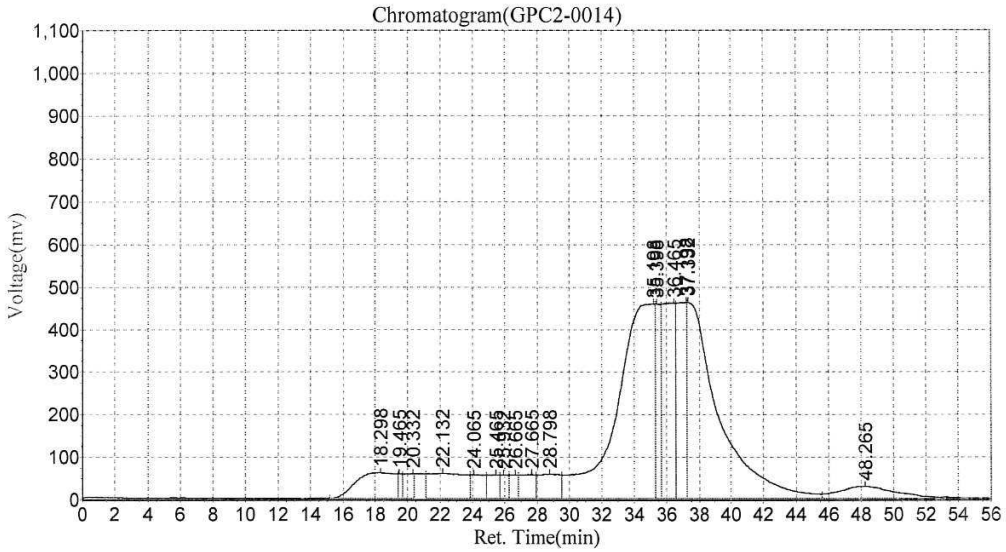

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		18.298	60048.105	9976911.000	4.1927
2		19.465	57496.121	1032012.313	0.4337
3		20.332	57767.902	2407162.250	1.0116
4		22.132	58504.297	9364249.000	3.9353
5		24.065	55681.348	3322191.000	1.3961
6		25.465	55570.766	2872310.500	1.2071
7		25.932	55568.574	1768891.500	0.7434
8		26.665	55674.695	1995675.875	0.8387
9		27.665	56416.137	3564821.250	1.4981
10		28.798	57244.238	5422950.500	2.2790
11		35.198	457051.875	73606272.000	30.9327
12		35.398	457298.344	9130736.000	3.8371
13		36.465	459425.625	25671926.000	10.7885
14		37.198	460735.750	18402272.000	7.7335
15		37.332	460656.406	62422432.000	26.2327
16		48.265	27794.424	6995441.500	2.9398
Total			2892934.607	237956254.688	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.

2023-02-03 **Analytical Resources, Inc.** c.

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

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Analyst£°TWC
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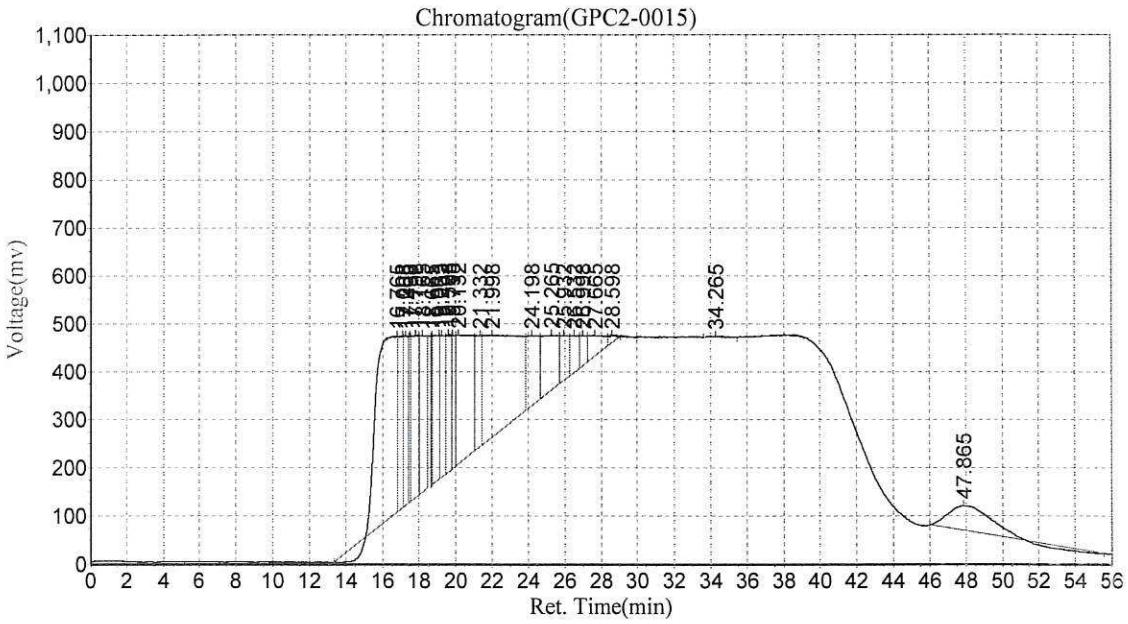

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		16.765	366755.031	27846530.000	16.6186
2		17.098	357504.188	6483723.000	3.8694
3		17.265	353105.281	6336659.500	3.7817
4		17.498	345865.625	2076042.250	1.2390
5		17.798	337955.188	10126274.000	6.0433
6		18.165	326858.969	8421210.000	5.0257
7		18.665	311410.250	1864343.500	1.1126
8		19.065	300170.656	7288757.000	4.3499
9		19.232	295165.750	5279274.500	3.1506
10		19.598	284403.531	5684591.500	3.3925
11		19.798	279446.250	3864737.750	2.3064
12		20.132	268987.438	16419343.000	9.7990
13		21.332	232315.672	5617237.500	3.3523
14		21.998	212943.031	27656592.000	16.5053
15		24.198	146117.797	6902572.000	4.1194
16		25.265	115453.578	7447817.000	4.4448
17		25.932	94808.930	2958746.250	1.7658
18		26.532	76900.055	2443072.500	1.4580
19		26.998	62582.703	1717754.750	1.0251
20		27.665	43160.063	2543189.000	1.5178
21		28.598	15553.361	426100.313	0.2543

22		34.265	1755.064	112754.148	0.0673
23		47.865	51972.305	8044898.500	4.8011
Total			4881190.714	167562219.961	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 ~~PSDDA SVOC~~

Date:2023-02-03,11:45:05 AM
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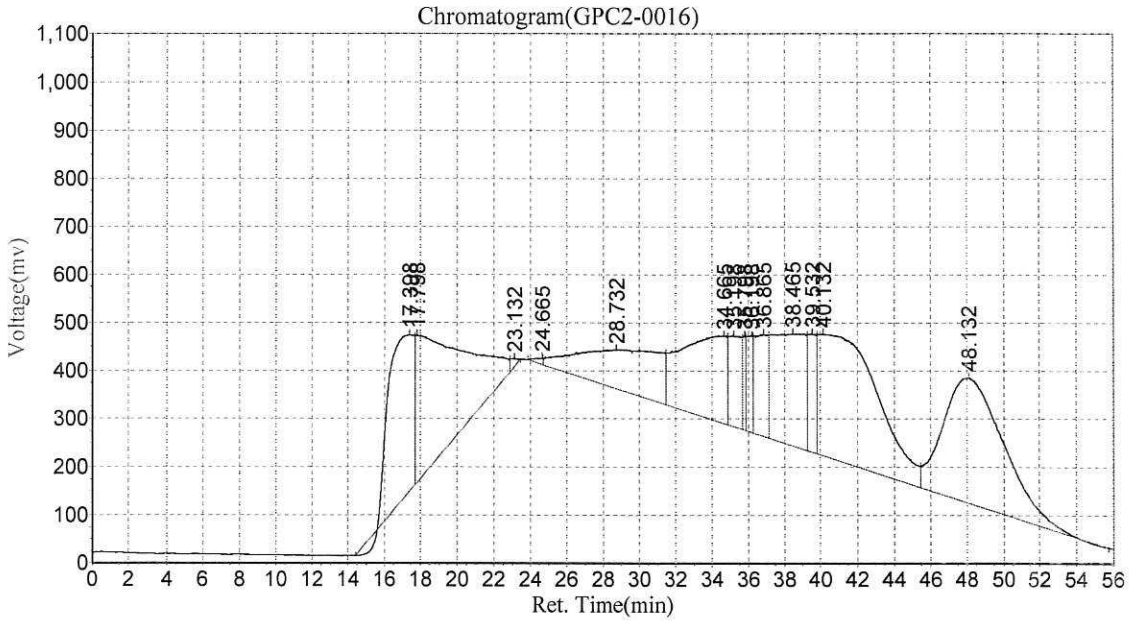


Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.398	324336.125	32039514.000	9.9187
2		17.798	305546.000	50962064.000	15.7767
3		23.132	16512.959	516093.500	0.1598
4		24.665	12271.665	353445.594	0.1094
5		28.732	79824.297	26664902.000	8.2549
6		34.665	181378.484	30154842.000	9.3353
7		35.198	187763.922	8999736.000	2.7861
8		35.798	194910.672	2327127.500	0.7204
9		36.198	199988.500	4749149.500	1.4702
10		36.865	211014.563	10773333.000	3.3352
11		38.465	231982.891	29139394.000	9.0209
12		39.532	244471.781	7808018.500	2.4172
13		40.132	251630.516	58841484.000	18.2160
14		48.132	257314.172	59691644.000	18.4792
Total			2698946.546	323020747.594	100.000

Ingredient Table

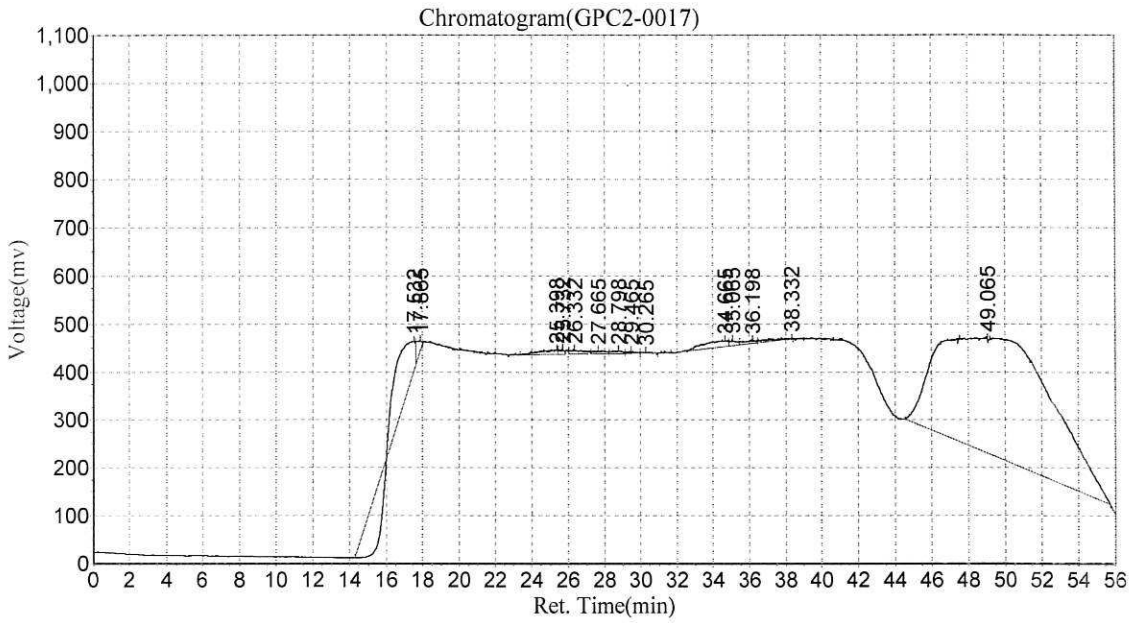
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2						
3						

4	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

Date:2023-02-03,12:42:48 PM
Data File:c:\n2000\data\gpc2\020223\GPC2-0017
Method File:E:\GPC2_InHouse.mtd

Analyst£°TWC
Date/Time2023-02-03,12:42:48 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.532	62962.734	2069155.875	1.8043
2		17.865	23356.572	640010.125	0.5581
3		25.398	9312.584	698289.563	0.6089
4		25.732	9808.682	208419.906	0.1817
5		26.332	8977.257	440951.313	0.3845
6		27.665	6698.646	345836.688	0.3016
7		28.798	5973.177	269666.188	0.2352
8		29.465	4193.372	166344.641	0.1451
9		30.265	2563.805	106823.953	0.0932
10		34.665	13693.869	1498502.000	1.3067
11		35.065	12427.252	388743.188	0.3390
12		36.198	8756.669	483430.156	0.4216
13		38.332	4223.042	692287.750	0.6037
14		49.065	238951.469	106668840.000	93.0165
Total			411899.131	114677301.344	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2						
3						

4	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

Date:2023-02-03,1:40:30 PM
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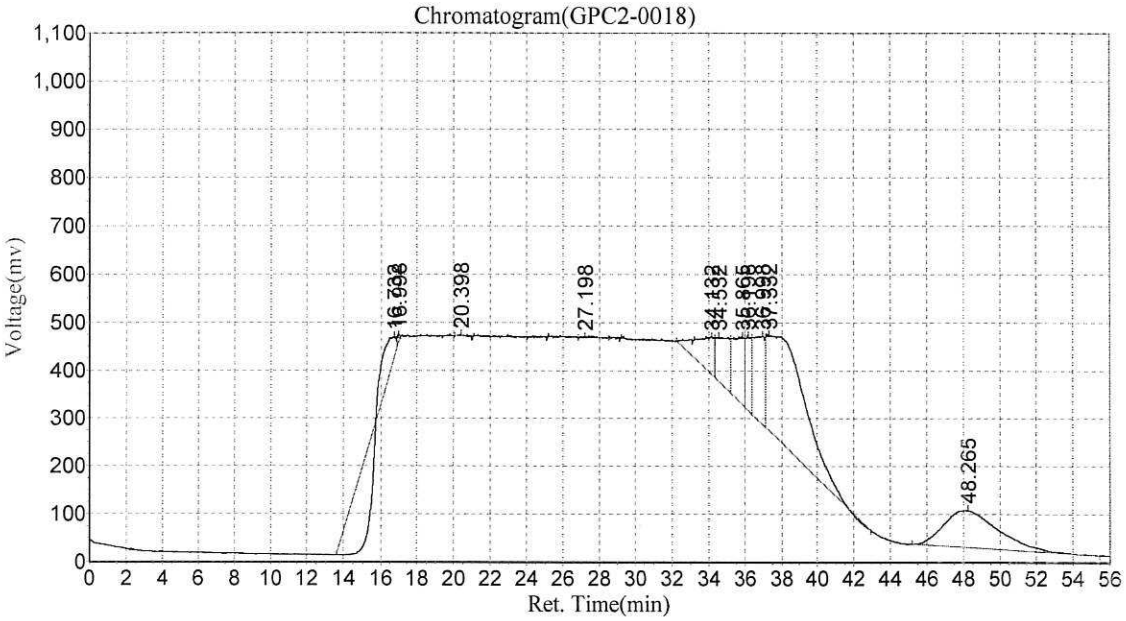
Method File:E:\GPC2_InHouse.mtd

Analyst£ºTWC
Date/Time2023-02-03,1:40:30 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		16.732	45919.352	8523812.000	10.0726
2		16.998	15925.276	155252.969	0.1835
3		20.398	3516.694	143889.734	0.1700
4		27.198	2094.000	163273.594	0.1929
5		34.132	76292.023	5178846.500	6.1199
6		34.532	90319.391	5111082.000	6.0398
7		35.865	139968.266	6171932.000	7.2934
8		36.198	153349.234	3645020.000	4.3073
9		36.998	183074.953	7632789.500	9.0197
10		37.332	197526.922	31824870.000	37.6077
11		48.265	77143.633	16072590.000	18.9931
Total			985129.744	84623358.297	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

Date:2023-02-03,2:38:13 PM
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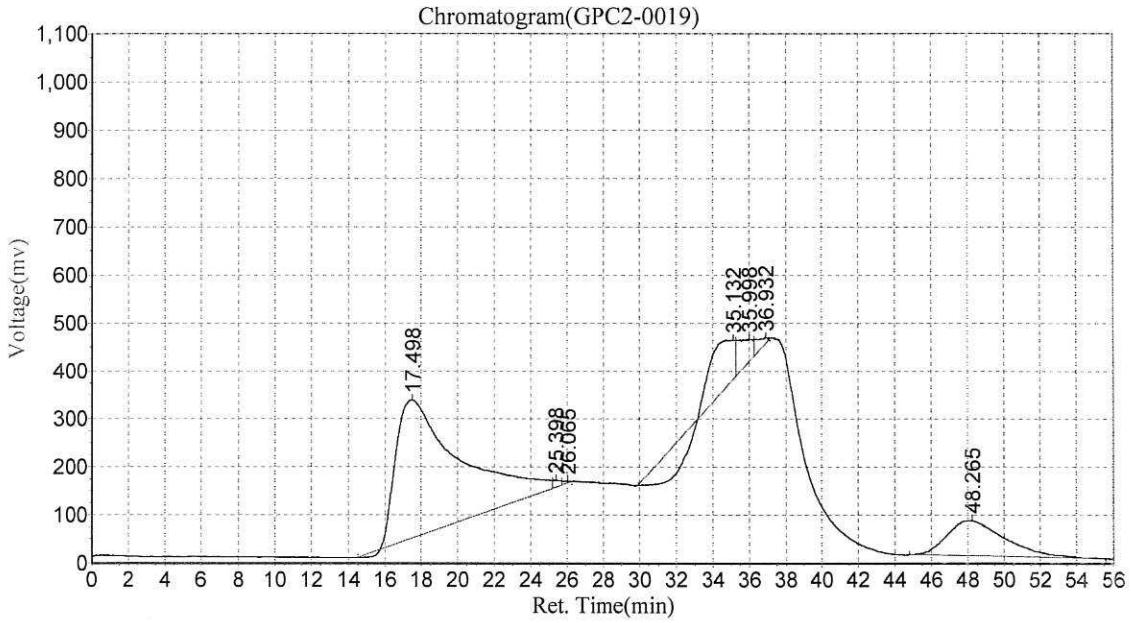
Method File:E:\GPC2_InHouse.mtd

Analyst£°TWC
Date/Time2023-02-03,2:38:14 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.498	288790.219	69298784.000	74.3576
2		25.398	14576.957	418597.844	0.4492
3		26.065	3898.218	139971.906	0.1502
4		35.132	82011.219	2749233.500	2.9499
5		35.998	46565.590	3319897.250	3.5622
6		36.932	9886.218	931136.250	0.9991
7		48.265	73244.594	16339092.000	17.5318
Total			518973.014	93196712.750	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 ~~PSDDA SVOC~~

Date:2023-02-03,3:35:55 PM
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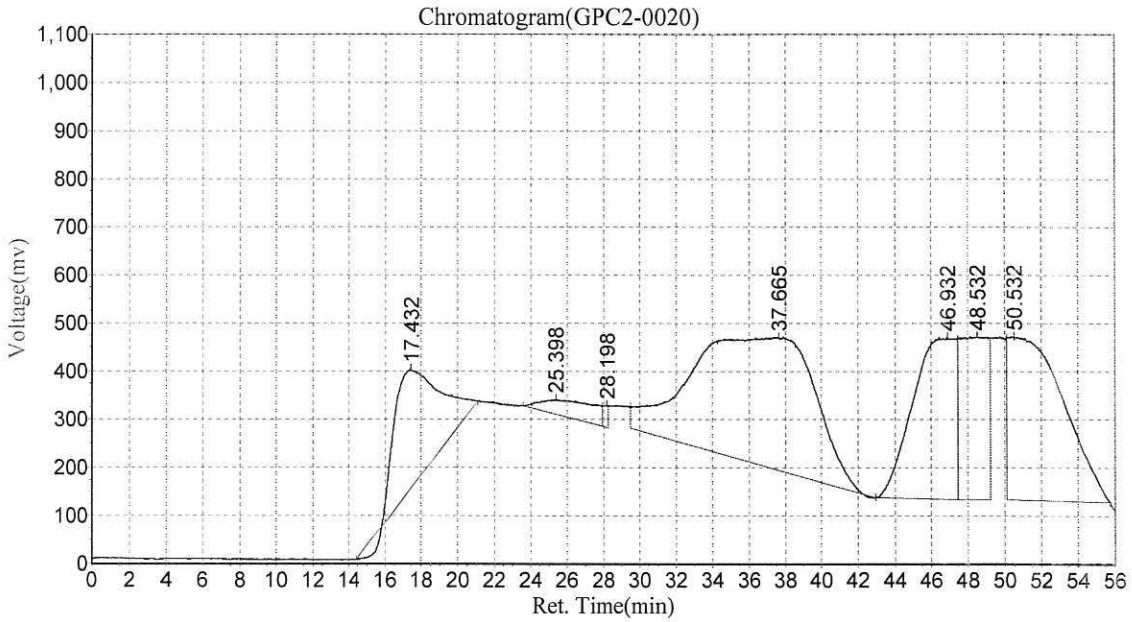
Analyst£ºTWC
Date/Time2023-02-03,3:35:56 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.432	246907.359	39977740.000	11.8431
2		25.398	29472.152	7166949.000	2.1232
3		28.198	45714.168	888203.500	0.2631
4		37.665	280352.594	130623968.000	38.6964
5		46.932	331494.438	54702460.000	16.2052
6		48.532	334813.813	34697888.000	10.2790
7		50.532	335731.531	69504168.000	20.5901
Total			1604486.055	337561376.500	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

Date:2023-02-03,4:33:38 PM
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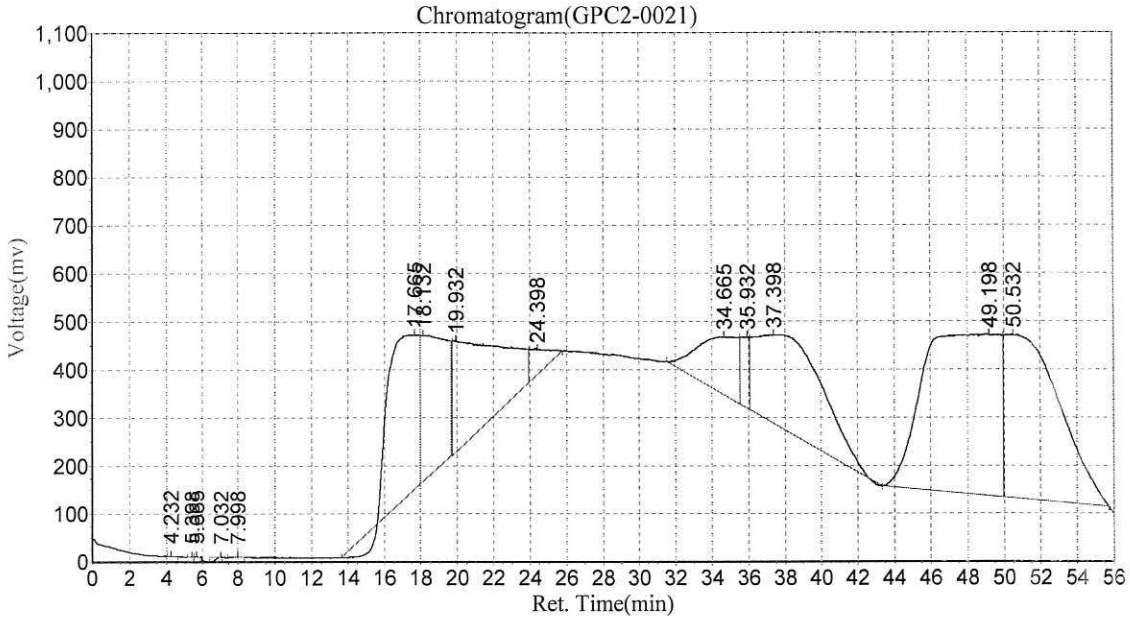
Method File:E:\GPC2_InHouse.mtd

Analyst£°TWC
Date/Time2023-02-03,4:33:39 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		4.232	2923.735	102155.758	0.0296
2		5.398	6411.877	126159.086	0.0365
3		5.665	7692.510	166386.672	0.0481
4		7.032	6402.068	143318.547	0.0415
5		7.998	2383.118	145098.828	0.0420
6		17.665	320849.281	37015128.000	10.7086
7		18.132	303389.031	27385254.000	7.9227
8		19.932	228741.828	38189688.000	11.0484
9		24.398	53874.801	3971512.250	1.1490
10		34.665	119432.836	17935770.000	5.1889
11		35.932	147077.063	4601548.500	1.3312
12		37.398	182894.750	50871432.000	14.7173
13		49.198	332663.313	95740272.000	27.6980
14		50.532	336072.063	69263712.000	20.0383
Total			2050808.273	345657435.641	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2						
3						

2023-02-03

Analytical Resources, Inc.

4	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

Date:2023-02-03,5:31:19 PM
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Method File:E:\GPC2_InHouse.mtd

Analyst£°TWC
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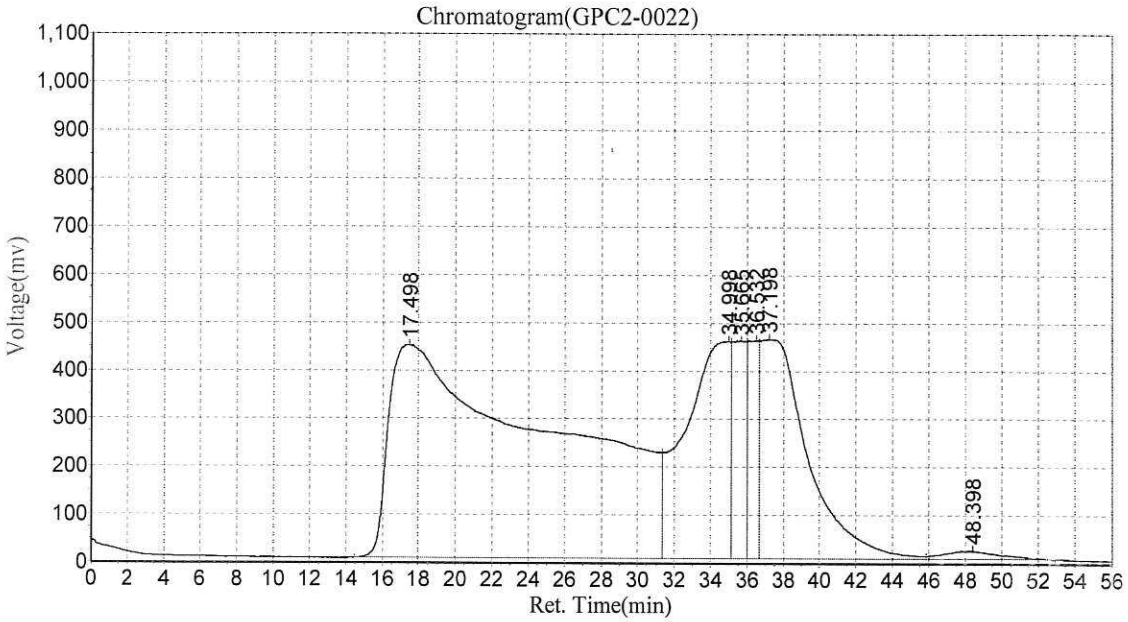

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.498	443615.781	273805472.000	57.0171
2		34.998	453027.906	77459216.000	16.1301
3		35.665	453917.656	23558834.000	4.9059
4		36.532	454958.625	18174318.000	3.7846
5		37.198	457432.375	83429976.000	17.3734
6		48.398	16758.920	3788306.750	0.7889
Total			2279711.264	480216122.750	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

Date:2023-02-03,6:29:02 PM
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Method File:E:\GPC2_InHouse.mtd

Analyst£°TWC
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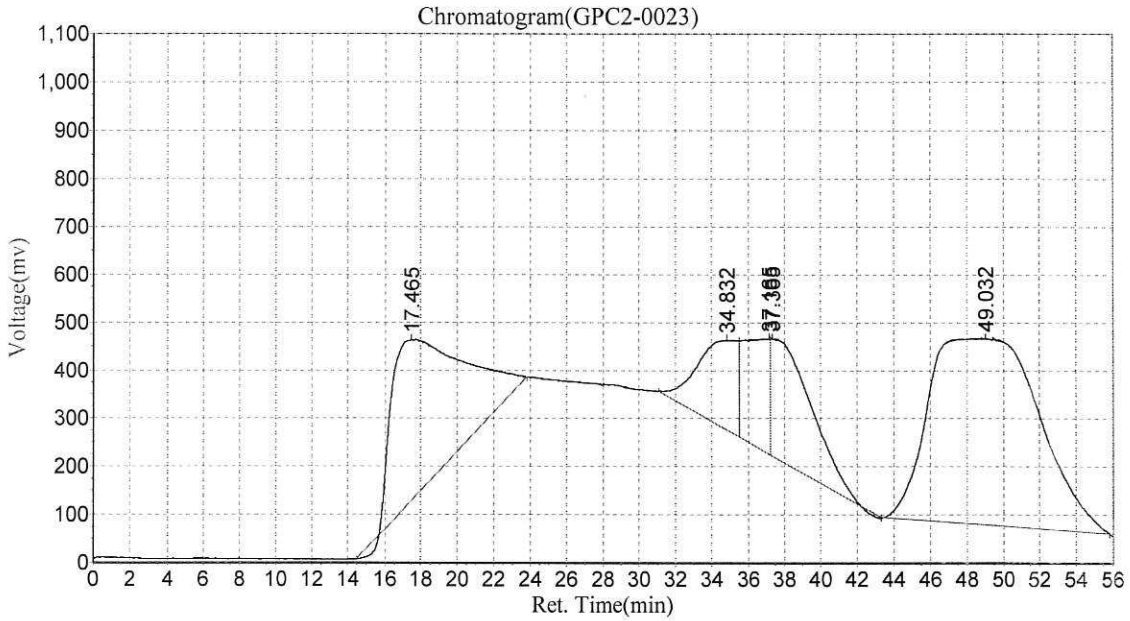

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.465	337520.375	88754104.000	25.9983
2		34.832	186786.047	27407800.000	8.0284
3		37.165	240168.063	23002038.000	6.7379
4		37.365	245067.641	39192672.000	11.4805
5		49.032	387579.313	163027232.000	47.7548
Total			1397121.438	341383846.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

-09 PNA

BLA0683 23A0207/249/295/313/326 PSDDA SVOC

Date:2023-02-03,7:26:44 PM
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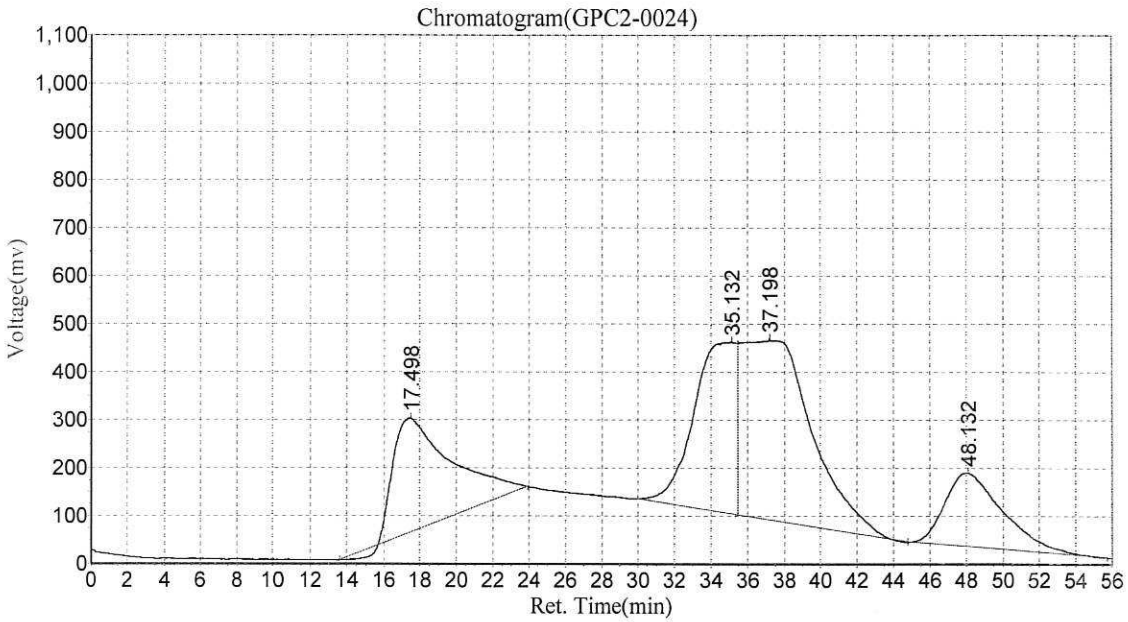
Method File:E:\GPC2_InHouse.mtd

Analyst£ºTWC
Date/Time2023-02-03,7:26:45 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.498	237727.203	51635180.000	21.2819
2		35.132	357614.375	56225404.000	23.1738
3		37.198	373828.469	100445344.000	41.3994
4		48.132	153996.641	34318940.000	14.1449
Total			1123166.688	242624868.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

PREPARATION BATCH SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Batch: BLA0685 Batch Matrix: Solid
Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1016A	23A0313-08	NT1003052313S.D	02/02/23 13:06	
LDW23-SC1011A	23A0313-09	NT1003052319S.D	02/02/23 13:06	
LDW23-SC1006A	23A0313-10	NT1003052320S.D	02/02/23 13:06	
LDW23-SC1012B	23A0313-11	NT1003052321S.D	02/02/23 13:06	
LDW23-SC1159	23A0313-13	NT1003052322S.D	02/02/23 13:06	
Blank	BLA0685-BLK2	NT1003052307S.D	02/02/23 13:06	
LCS	BLA0685-BS2	NT1003052308S.D	02/02/23 13:06	
LCS Dup	BLA0685-BSD2	NT1003052309S.D	02/02/23 13:06	
LDW23-SC1159	BLA0685-MS2	NT1003052310S.D	02/02/23 13:06	
LDW23-SC1159	BLA0685-MSD2	NT1003052311S.D	02/02/23 13:06	
Reference	BLA0685-SRM2	NT1003052312S.D	02/02/23 13:06	

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0685

Prepared using: EPA 3546 (Microwave)

8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf) in Solid (Version:AOC4 List)

Matrix: Solid Date Prepared: 2/2/23 Balance ID: B139298002 Set Up By: CTO 1/28/23

WO Comments

23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

The following standards may be missing from this batch!

Designator	Description
39	Benzidine Spike
QLS 14	QLS Spike (Freezer)

Analysis: 8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf)

Lab Number & Container	% Solids	Initial (g) Target Dry: 10 (Wet) Actual	(REQ) GPC C/U (1:1) 1 2 3	Water Wash 1mL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
23A0313-08 A	56.1	(17.84) 17.95	(1:1)	1mL	1	0.5	
23A0313-09 A	52.3	(19.11) 19.42	(1:1)	1mL	1	0.5	
23A0313-10 A	54.1	(18.48) 18.53	(1:1)	1mL	1	0.5	
23A0313-11 A	58.7	(17.05) 17.95	(1:1)	1mL	1	0.5	
23A0313-13 A	84.7	(11.80) 11.80	(1:1)	1mL	1	0.5	
23A0326-01 A	59.0	(16.96) 17.67	(1:1)	1mL	1	0.5	
23A0326-02 A	57.3	(17.46) 17.56	(1:1)	1mL	1	0.5	
23A0326-04 A	51.6	(19.37) 19.39	(1:1)	1mL	1	0.5	
23A0326-05 A	54.6	(18.30) 18.67	(1:1)	1mL	1	0.5	
23A0326-10 A	54.6	(18.31) 18.88	(1:1)	1mL	1	0.5	
23A0326-11 A	52.6	(19.02) 19.80	(1:1)	1mL	1	0.5	
23A0326-12 A	51.4	(19.45) 20.14	(1:1)	1mL	1	0.5	

Batch QC

Lab Number	% Solids	Initial (g) Target Dry: 10 (Wet) Actual	(REQ) GPC C/U (1:1) 1 2 3	Water Wash 1mL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BLA0685-BLK1	100.0	(10.00) 10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLA0685-BS1	100.0	(10.00) 10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLA0685-BSD1	100.0	(10.00) 10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLA0685-MS1	84.7	(11.80) 11.80	(1:1)	1mL	1	0.5	Use 23A0313-13
BLA0685-MSD1	84.7	(11.80) 11.80	(1:1)	1mL	1	0.5	Use 23A0313-13
BLA0685-SRM1	100.0	~~(10.00)~~ (1.00) 1.00 +1g DI WATER	(1:1)	1mL	1	0.5	Use K003477

CR 2/2/23
Client ID verified By Date

LJ 2/15/23
Preparation Reviewed By Date

02/02/23 13:06
Extraction Date and Time

Printed: 1/28/2023 12:10:43PM

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0685

Prepared using: EPA 3546 (Microwave)

8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf) in Solid (Version:AOC4 List)

WO Comments

23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Steps	Reagents Used	
Microwave 1 2 3 CR 2/2/23 Analyst/Date	**Station/Reagent**	**Standard ID**
	Microwave **Analyst:** CR **Date:** 2/2/23	
	Anhydrous Sodium Sulfate	L0000759
	1:1 Methylene Chloride/Acetone	L0002891
	Methylene Chloride	L0003808
	Pre-Deactivated Glass Wool	L0000252
Pre-GPC KD 100°C Exchange to Hexane (add 10 mL to KD) 0 2 4 5 6 LD/AW 2-10 Analyst/Date	**Pre GPC KD** **Analyst:** LD/AW **Date:** 2-10-23	
	Pre-Deactivated Glass Wool	
	Anhydrous Sodium Sulfate	
	Methylene Chloride	L0000000
	Hexane	VH011477
TurboVap **Pre GPC** 1 2 3 4 5 NKS 2/12/23 Analyst/Date	**GPC Filter Prep** **Analyst:** NKS **Date:** 2/12/23	
Post GPC KD 80-85°C 1 0 2 4 5 6 LD 2-15 Analyst/Date	Methylene Chloride	L0000808
	GPC **Analyst:** ZH/AR/RB **Date:** 2/13/23	
	Methylene Chloride	~~L0000000~~ LD 2-15
	GPC Calibration File	CLA0166
TurboVap 1 2 3 4 5 LJ 2/15/23 Analyst/Date	**Post GPC KD** **Analyst:** LD **Date:** 2-15-23	
	Methylene Chloride	L0000808
Water Wash LJ 2/15/23 Analyst/Date	**Vialing** **Analyst:** LJ **Date:** 2/15/23	
	Methylene Chloride	L0000808

Surrogates & Spike Standards Used

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Surrogate 100/150µg/mL	**A** K010466 Exp Date: 5/9/23	50µL	CR	MT
Full List Spike (Freezer) 100µg/mL	**7** K011369 (V) Exp K011297 Date: 8/31/23	50µL	CR	MT
Base Spike 200µg/mL	**56** K011369 (V) Exp K003759 Date: 4/19/23	50µL	CR	MT
Acid Spike 100/200µg/mL	**38** K011369 (V) Exp K003760 Date: 4/19/23	50µL	CR	MT

MANUALLY ENTER EXPIRATION DATES!

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0685

Prepared using: EPA 3546 (Microwave)

8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf) in Solid (Version:AOC4 List)

WO Comments

23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add DCM ONLY to the vessels (until solvent is 3 inches above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 10-15 min in Refridgerator 05. Re-homogenize while cool. 7. Decant DCM into Erlenmeyer flask with a funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using 1:1 DCM/ACE. 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM. 11. KD: Add 10 mL Hexane directly to extract in the KD. 12. GPC REQUIRED 100°C water bath (CLP) KD to 5mL. 13. Vialers to take 1:5 Split Pre- GPC. 14. (After GPC): KD at 80°C. 15. TurboVap to 1mL in DCM. 16. WATER WASH REQUIRED: 16a. Vial 1mL of all extracts in 2mL amber vials in DCM. 16b. Add ~0.5mL DI water and vortex for ~5 seconds each. 16c. Centrifuge extracts for 5 minutes at 1500-2000rpm. 16d. Transfer and vial 0.5mL to new 2mL amber vials (Avoiding collecting water in syringe and cleaning syringe with Acetone and DCM between each vial). 17. Archive water wahed vials and deliever new vials to GC Department for analysis. A. Need Total Solids Y (N) B. Archive/Freeze (Y) N	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: SVOA Extraction Batch: BLA0685

Total Solids Batch: BLA0919 Work Order(s): 23A0313

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
[X] No Anomalies (standard soil/wet sediment/sand/gravel)= 2.1	VJ 01/27/23
[X] Standing Water Decanted (Not shared)= 01, 02, 05-11, 13 01/27/23	VJ 01/27/23
[ ] Standing Water Homogenized (Shared samples)=	
[ ] Clay/Clumps (Difficult to homogenize)=	
[ ] Rocks (%+size)?	
[ ] Organics (Leaves/sticks/grass)=	
[X] Oily, obvious fuel/sulfur odors= sulfur odor = 01, 02, 05 — 11, 13 included 03, 04.	VJ 01/27/23
[ ] Received in 32oz jar(s)=Homogenized in Pyrex dish=	
[ ] Previously Frozen =	
[ ] Other (Details)=	
Aqueous:	
[ ] No Anomalies	
[ ] Turbid/Color=	
[ ] Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
[ ] Emulsions (%)=	
[ ] Oily, obvious fuel/sulfur odors=	
[ ] Other (Details)=	
[ ] Received in 1.0L Bottle(s)=No Bottle Rinse=	
[X] Other Notes/Comments= (Note problems, concerns, corrective actions).	
pH — 313 09 stopped on GPC over night lost 25 mL of the total 75 mL (around)	NRS 2/1/23
[X] Share Samples Y / N	VJ 01/27/23
[X] Multiple Jars Y / N	VJ 01/27/23
[ ] Sample Pre-Screens indicate analyte activity=	
[ ] Sample weights/volumes reduced based on Pre-Screen=	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: SVOA Extraction Batch: BLA0685

Total Solids Batch: BLA0320 Work Order(s): 23A0313

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☒ No Anomalies (standard soil/wet sediment/sand/gravel)= ϕ7, ϕ8.	NV ϕ1/27/23
☒ Standing Water Decanted (Not shared)= ϕ1 – 12	NV ϕ1/27/23
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☒ Oily, obvious fuel/sulfur odors= ϕ1 – ϕ6, ϕ9 – 12.	NV ϕ1/27/23
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Previously Frozen =	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☒ Share Samples Y / N	NV ϕ1/27/23
☒ Multiple Jars Y / N	NV ϕ1/27/23
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0043	Cleanup Type:	GPC
Cleanup Method:	EPA 3640A GPC Cleanup 1:1	Analysis:	EPA 8270E-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LCS Dup	BLA0683-BSD1	N823020610.D	02/06/2023	
LCS	BLA0683-BS1	N823020609.D	02/06/2023	
Blank	BLA0683-BLK1	N823020608.D	02/06/2023	
LDW23-IT1114	23A0313-03	N823020628.D	02/06/2023	
LDW23-IT1148	23A0313-12	N823020630.D	02/06/2023	
LDW23-IT1120	23A0313-04	N823020629.D	02/06/2023	
Reference	BLA0683-SRM1	N823020611.D	02/06/2023	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0043

Matrix: Solid **Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1** **Check Standard: CLA0166-GPC1** **Printed: 2/6/2023 3:58:25PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0207-01	A	LDW23-IT1088	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-02	A	LDW23-IT1089	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-03	A	LDW23-IT1079	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-04	A	LDW23-IT1080	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-05	A	LDW23-IT1080-FD	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-06	A	LDW23-IT1072	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-07	A	LDW23-IT1081	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-08	A	LDW23-IT1068	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-09	A	LDW23-IT1062	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-15	A	LDW23-IT1078	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-16	A	LDW23-IT1201	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-17	A	LDW23-IT1209	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0249-07	A	LDW23-IT1034	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0295-08	A	LDW23-IT1027	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0313-03	A	LDW23-IT1114	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0313-04	A	LDW23-IT1120	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0313-12	A	LDW23-IT1148	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0326-08	A	LDW23-IT1181	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0326-09	A	LDW23-IT1127	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
BLA0683-BLK1	-	Blank	-	0.5	0.5	-	2/6/2023	CTO	
BLA0683-BS1	-	LCS	-	0.5	0.5	-	2/6/2023	CTO	
BLA0683-BSD1	-	LCS Dup	-	0.5	0.5	-	2/6/2023	CTO	

CLEANUP BENCH SHEET

CLB0043

Matrix: Solid **Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1** **Check Standard: CLA0166-GPC1** **Printed: 2/6/2023 3:58:25PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BLA0683-MS1	-	Matrix Spike	-	0.5	0.5	-	2/6/2023	CTO	
BLA0683-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	2/6/2023	CTO	
BLA0683-SRM1	-	Reference	-	0.5	0.5	-	2/6/2023	CTO	

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0044	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup - uL	Analysis:	EPA 8270E-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1120	23A0313-04	N823020629.D	02/06/2023	
LDW23-IT1148	23A0313-12	N823020630.D	02/06/2023	
Blank	BLA0683-BLK1	N823020608.D	02/06/2023	
LDW23-IT1114	23A0313-03	N823020628.D	02/06/2023	
Reference	BLA0683-SRM1	N823020611.D	02/06/2023	
LCS Dup	BLA0683-BSD1	N823020610.D	02/06/2023	
LCS	BLA0683-BS1	N823020609.D	02/06/2023	

Analytical Resources, LLC
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CLEANUP BENCH SHEET

CLB0044

Matrix: Solid **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup - uL** **Printed: 2/6/2023 3:58:56PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0207-01	A	LDW23-IT1088	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-02	A	LDW23-IT1089	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-03	A	LDW23-IT1079	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-04	A	LDW23-IT1080	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-05	A	LDW23-IT1080-FD	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-06	A	LDW23-IT1072	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-07	A	LDW23-IT1081	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-08	A	LDW23-IT1068	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-09	A	LDW23-IT1062	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-15	A	LDW23-IT1078	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-16	A	LDW23-IT1201	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0207-17	A	LDW23-IT1209	A 02	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0249-07	A	LDW23-IT1034	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0295-08	A	LDW23-IT1027	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0313-03	A	LDW23-IT1114	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0313-04	A	LDW23-IT1120	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0313-12	A	LDW23-IT1148	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0326-08	A	LDW23-IT1181	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
23A0326-09	A	LDW23-IT1127	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg	2/6/2023	CTO	
BLA0683-BLK1	-	Blank	-	0.5	0.5	-	2/6/2023	CTO	
BLA0683-BS1	-	LCS	-	0.5	0.5	-	2/6/2023	CTO	
BLA0683-BSD1	-	LCS Dup	-	0.5	0.5	-	2/6/2023	CTO	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0044

Matrix: Solid **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup - uL** **Printed: 2/6/2023 3:58:56PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BLA0683-MS1	-	Matrix Spike	-	0.5	0.5	-	2/6/2023	CTO	
BLA0683-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	2/6/2023	CTO	
BLA0683-SRM1	-	Reference	-	0.5	0.5	-	2/6/2023	CTO	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0136	Cleanup Type:	GPC
Cleanup Method:	EPA 3640A GPC Cleanup 1:1	Analysis:	EPA 8270E-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Matrix Spike Dup	BLA0685-MSD2	NT1003052311S.D	02/15/2023	
Matrix Spike	BLA0685-MS2	NT1003052310S.D	02/15/2023	
LCS Dup	BLA0685-BSD2	NT1003052309S.D	02/15/2023	
LCS	BLA0685-BS2	NT1003052308S.D	02/15/2023	
Blank	BLA0685-BLK2	NT1003052307S.D	02/15/2023	
LDW23-SC1006A	23A0313-10	NT1003052320S.D	02/15/2023	
Reference	BLA0685-SRM2	NT1003052312S.D	02/15/2023	
LDW23-SC1011A	23A0313-09	NT1003052319S.D	02/15/2023	
LDW23-SC1159	23A0313-13	NT1003052322S.D	02/15/2023	
LDW23-SC1016A	23A0313-08	NT1003052313S.D	02/15/2023	
LDW23-SC1012B	23A0313-11	NT1003052321S.D	02/15/2023	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0136

Matrix: Solid **Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1** **Check Standard: CLA0166-GPC1** **Printed: 2/15/2023 2:29:55PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0313-08	A	LDW23-SC1016A	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0313-08	A	LDW23-SC1016A	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0313-09	A	LDW23-SC1011A	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0313-09	A	LDW23-SC1011A	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0313-10	A	LDW23-SC1006A	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0313-10	A	LDW23-SC1006A	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0313-11	A	LDW23-SC1012B	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0313-11	A	LDW23-SC1012B	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0313-13	A	LDW23-SC1159	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0313-13	A	LDW23-SC1159	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-01	A	LDW23-SC1028	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0326-01	A	LDW23-SC1028	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-02	A	LDW23-SC1032	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-02	A	LDW23-SC1032	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0326-04	A	LDW23-SC1170A	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0326-04	A	LDW23-SC1170A	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-05	A	LDW23-SC1169C	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0326-05	A	LDW23-SC1169C	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-10	A	LDW23-SC1161	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0326-10	A	LDW23-SC1161	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-11	A	LDW23-SC1155	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
23A0326-11	A	LDW23-SC1155	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0136

Matrix: Solid **Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1** **Check Standard: CLA0166-GPC1** **Printed: 2/15/2023 2:29:55PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0326-12	A	LDW23-SC1162B	A 04	1	1	8270E-SIM Dual Scan SVOC	2/15/2023	LMJ	
23A0326-12	A	LDW23-SC1162B	A 01	1	1	SVOC (20ug/kg solid or 0.2ug/L low H2	2/15/2023	LMJ	
BLA0685-BLK1	-	Blank	-	1	1	-	2/15/2023	LMJ	
BLA0685-BLK2	-	Blank	-	1	1	-	2/15/2023	LMJ	
BLA0685-BS1	-	LCS	-	1	1	-	2/15/2023	LMJ	
BLA0685-BS2	-	LCS	-	1	1	-	2/15/2023	LMJ	
BLA0685-BSD1	-	LCS Dup	-	1	1	-	2/15/2023	LMJ	
BLA0685-BSD2	-	LCS Dup	-	1	1	-	2/15/2023	LMJ	
BLA0685-MS1	-	Matrix Spike	-	1	1	-	2/15/2023	LMJ	
BLA0685-MS2	-	Matrix Spike	-	1	1	-	2/15/2023	LMJ	
BLA0685-MSD1	-	Matrix Spike Dup	-	1	1	-	2/15/2023	LMJ	
BLA0685-MSD2	-	Matrix Spike Dup	-	1	1	-	2/15/2023	LMJ	
BLA0685-SRM1	-	Reference	-	1	1	-	2/15/2023	LMJ	
BLA0685-SRM2	-	Reference	-	1	1	-	2/15/2023	LMJ	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I

METHOD BLANK DATA SHEET

EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	BLA0683-BLK1	File ID:	N823020608.D
Sampled:	N/A	Prepared:	02/01/23 11:29	Analyzed:	02/06/23 15:57
Solids:		Preparation:	EPA 3546 (Microwave)	Initial/Final:	10 g / 0.5 mL
Batch:	BLA0683	Sequence:	SLB0075	Calibration:	GA00050
Instrument:	NT8	Column:	RXI-17Sil ms	Cleanups:	GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
56-55-3	Benzo(a)anthracene	1	5.00	U	0.82	5.00
218-01-9	Chrysene	1	5.00	U	1.05	5.00
205-99-2	Benzo(b)fluoranthene	1	5.00	U	1.37	5.00
207-08-9	Benzo(k)fluoranthene	1	5.00	U	0.76	5.00
50-32-8	Benzo(a)pyrene	1	5.00	U	0.61	5.00
193-39-5	Indeno(1,2,3-cd)pyrene	1	5.00	U	1.05	5.00
53-70-3	Dibenzo(a,h)anthracene	1	5.00	U	0.89	5.00

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	150.00	125	83.2	32 - 120	
Dibenzo[a,h]anthracene-d14	150.00	232	154	21 - 133	*
Fluoranthene-d10	150.00	149	99.4	36 - 134	

Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020608.D

Page 1

Date : 06-FEB-2023 15:57

Client ID:

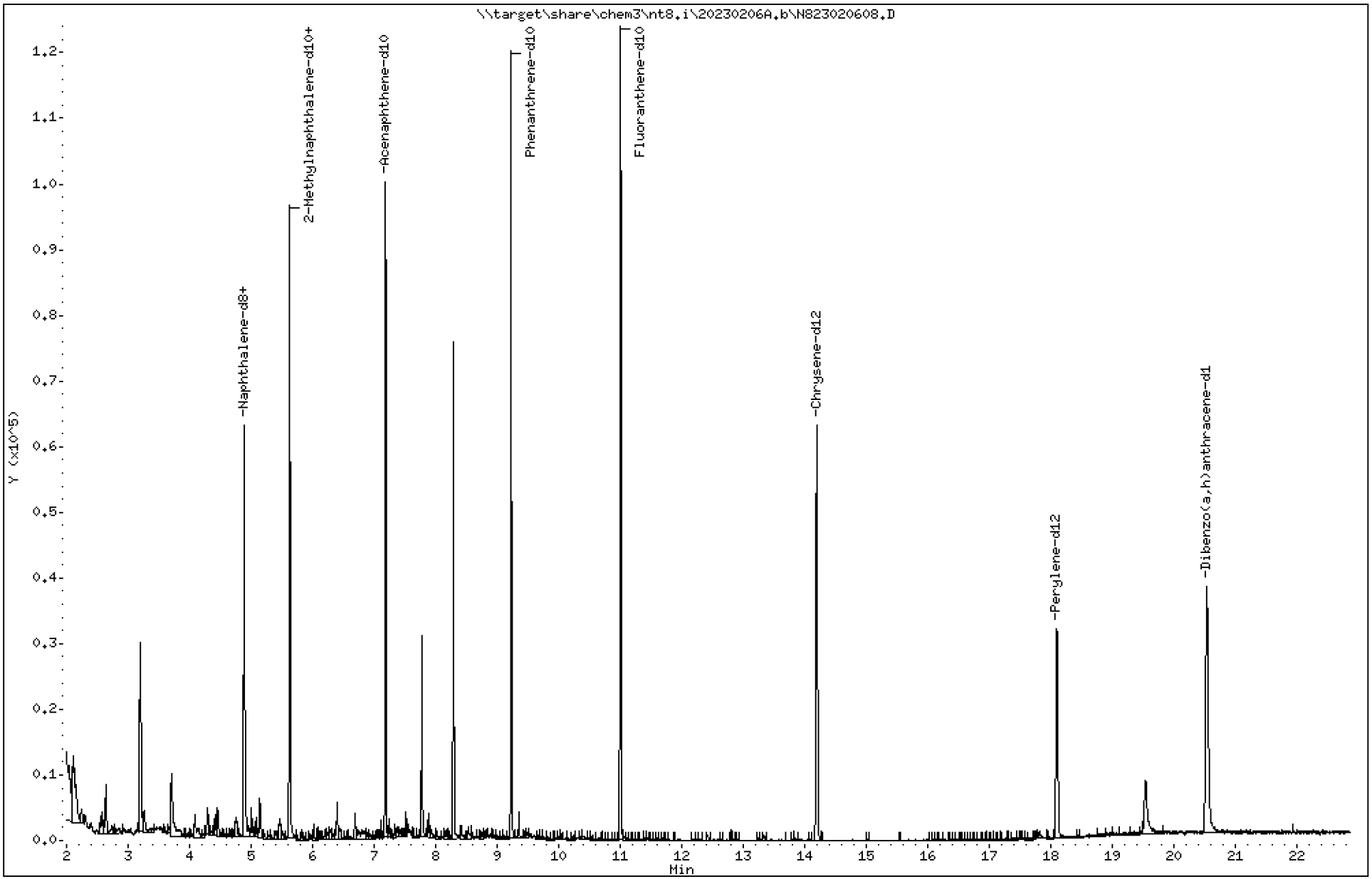
Instrument: nt8.i

Sample Info: BLA0683-BLK1,

Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25



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Date : 06-FEB-2023 15:57

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BLK1,

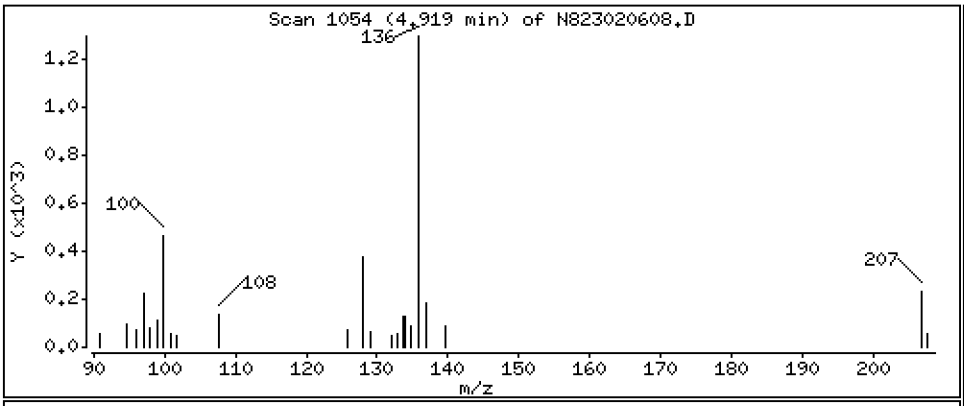
Operator: JZ

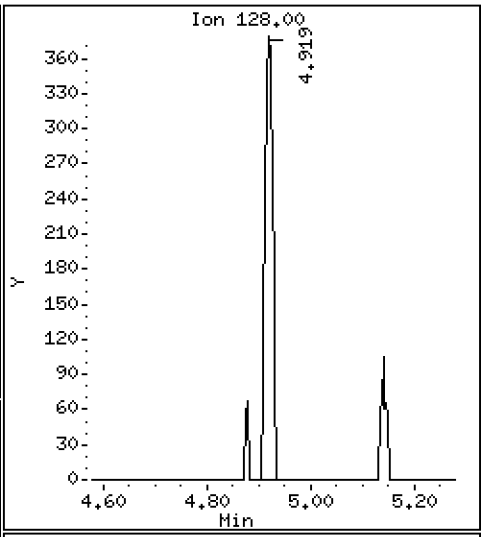
Column phase: Rxi-17sil

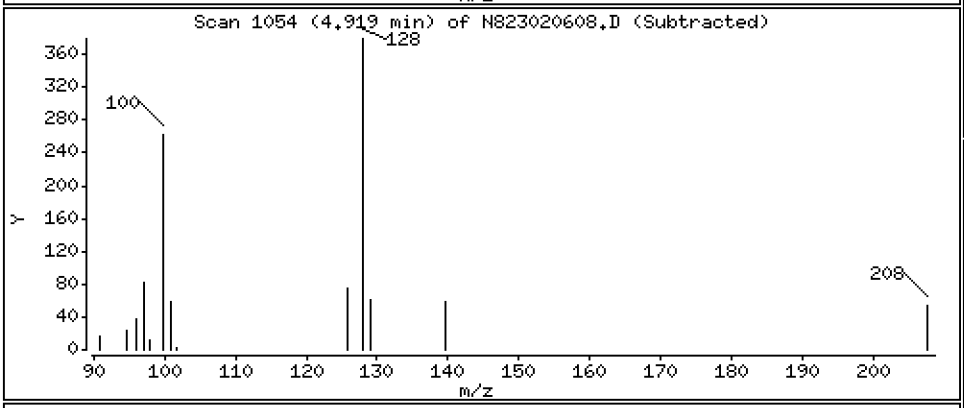
Column diameter: 0.25

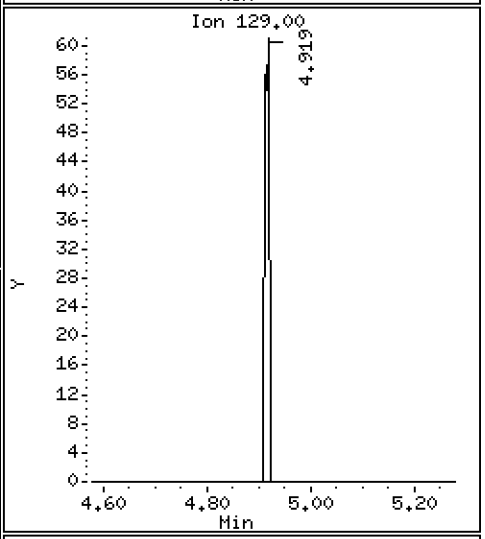
2 Naphthalene

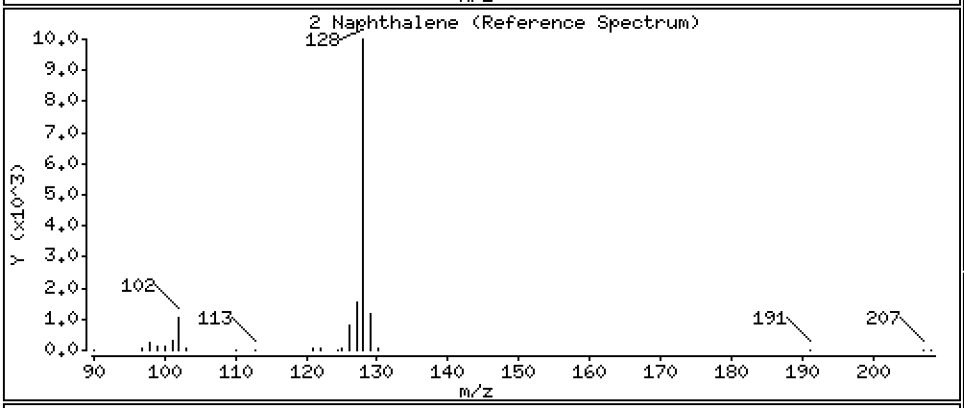
Concentration: 0.01704 ug/mL

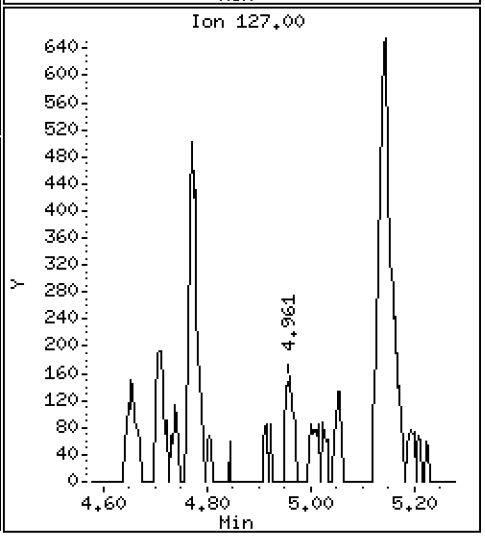


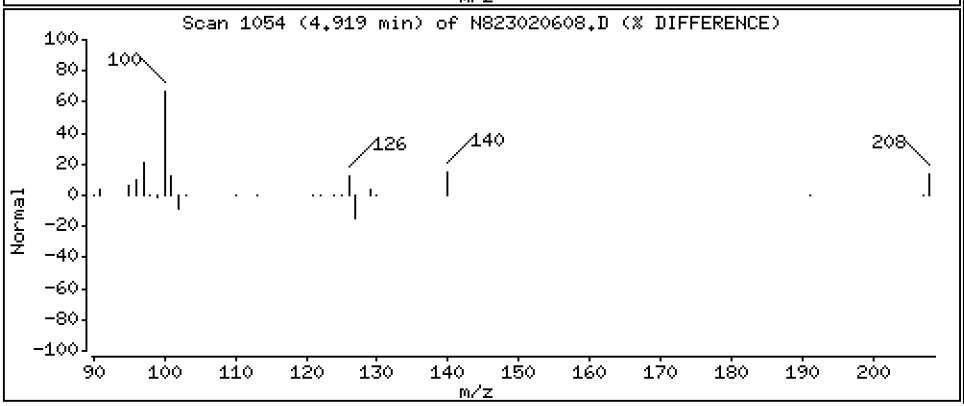












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Date : 06-FEB-2023 15:57

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BLK1,

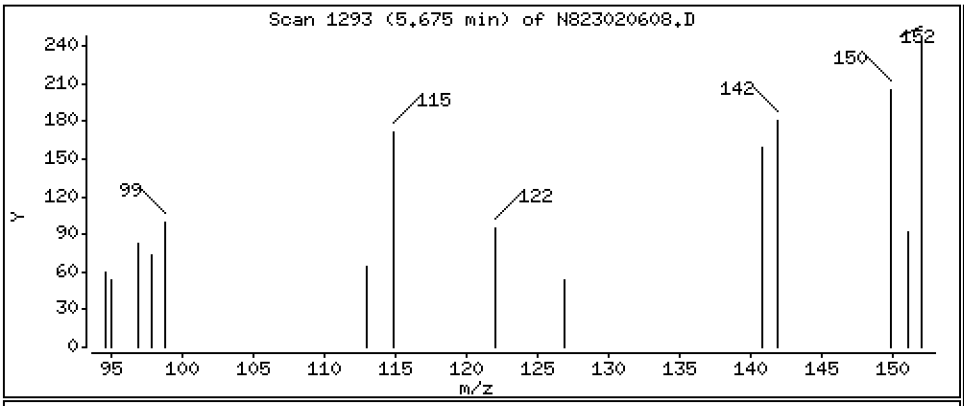
Operator: JZ

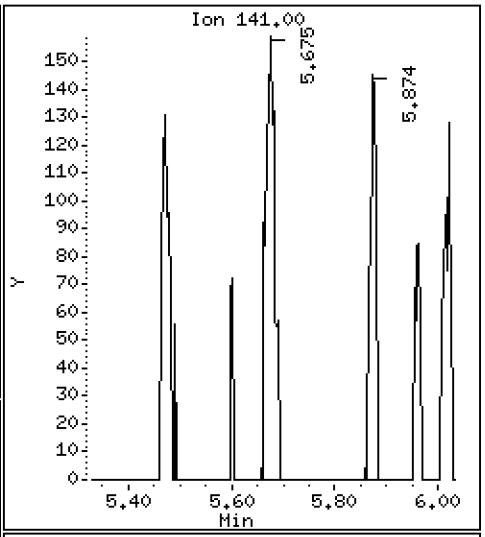
Column phase: Rxi-17sil

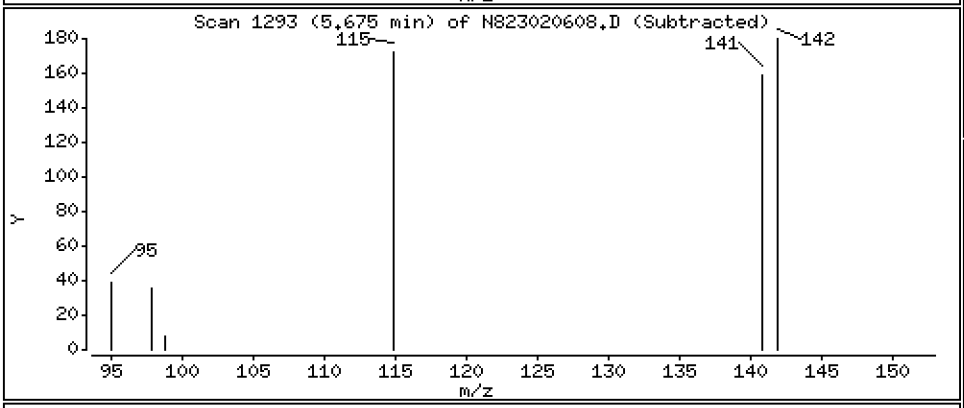
Column diameter: 0.25

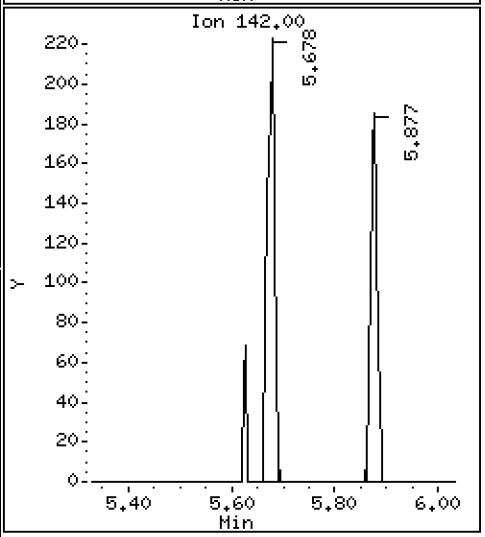
4 2-Methylnaphthalene

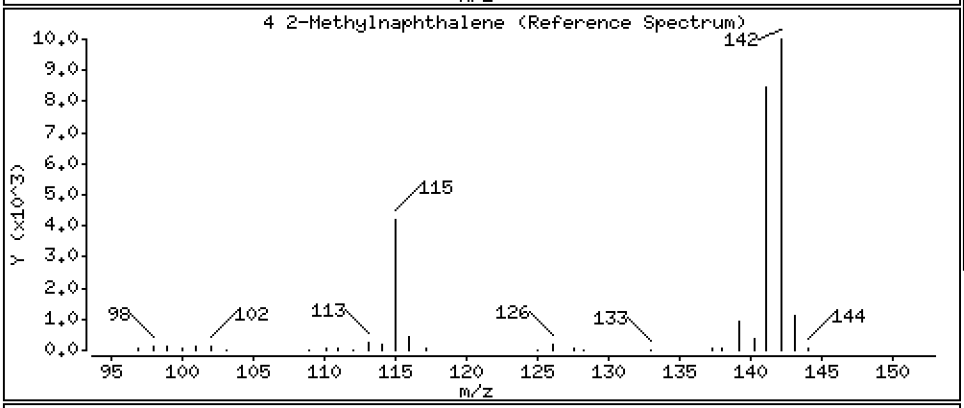
Concentration: 0.01541 ug/mL

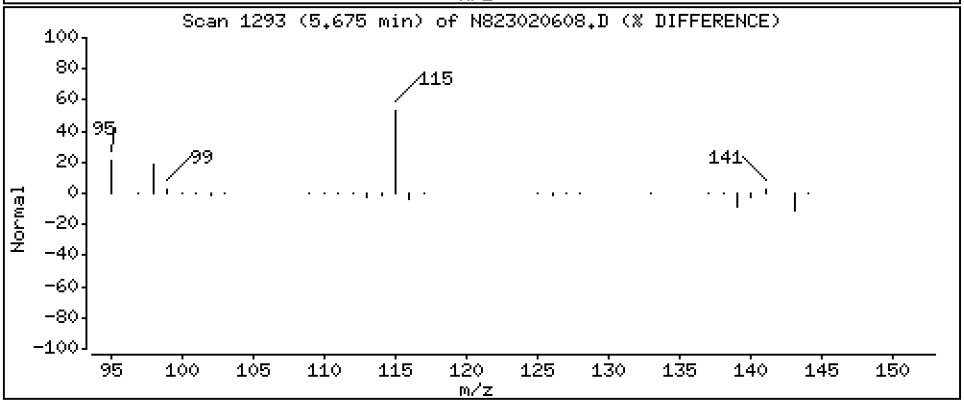












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Date : 06-FEB-2023 15:57

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BLK1,

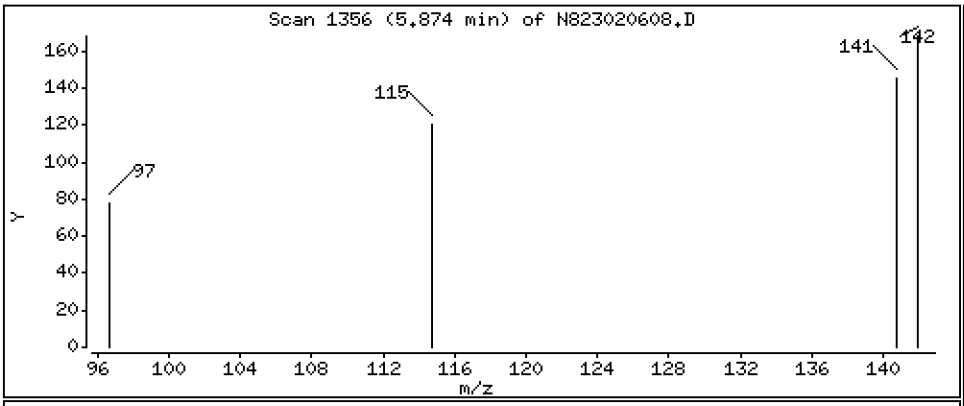
Operator: JZ

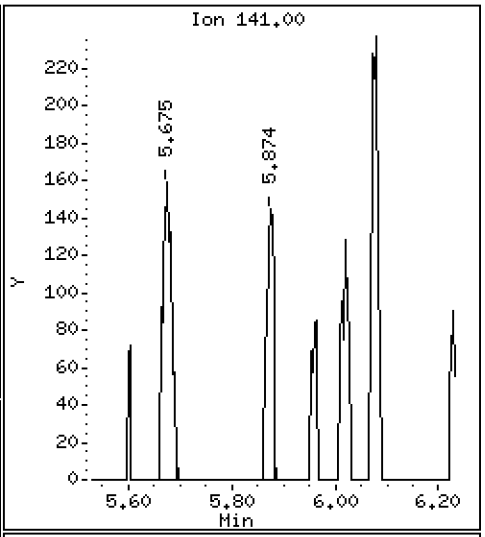
Column phase: Rxi-17sil

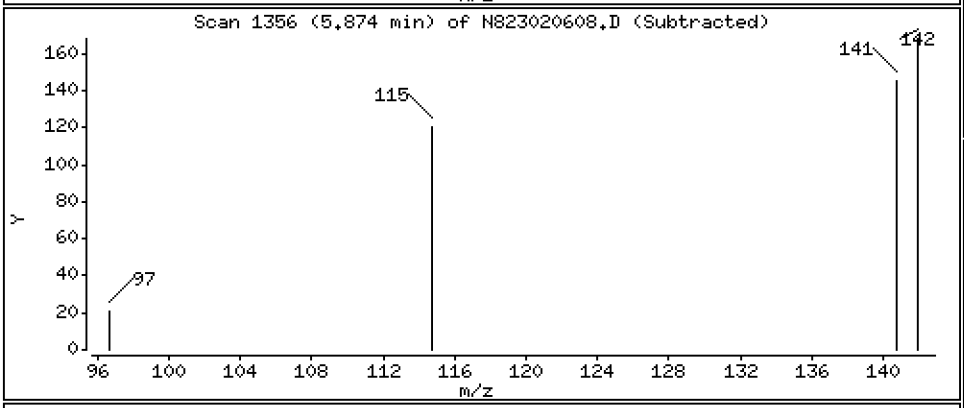
Column diameter: 0.25

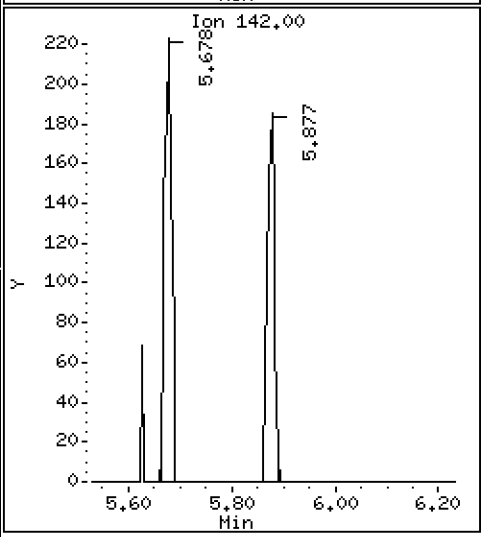
5 1-methylnaphthalene

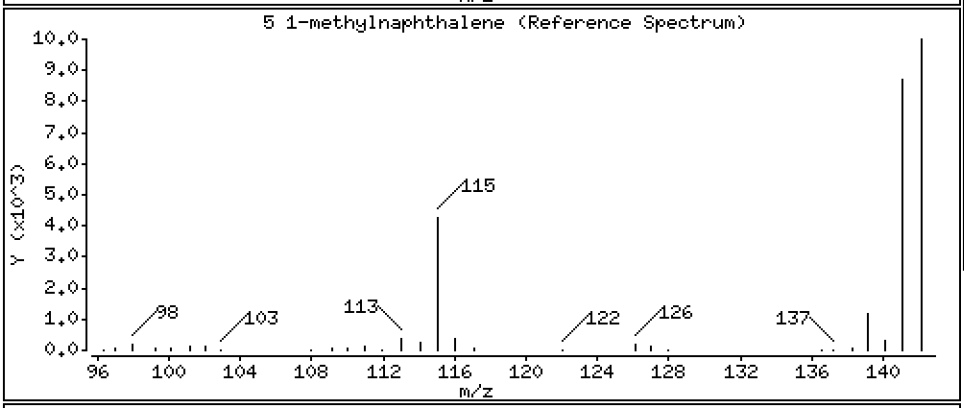
Concentration: 0.009910 ug/mL

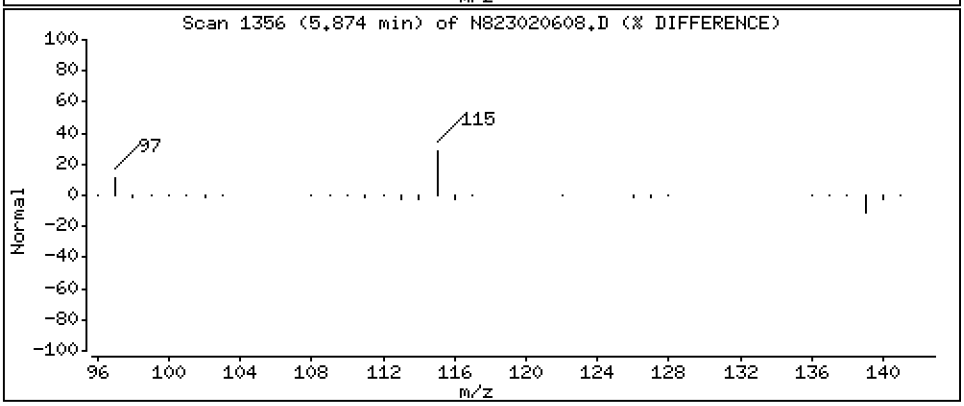












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Date : 06-FEB-2023 15:57

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BLK1,

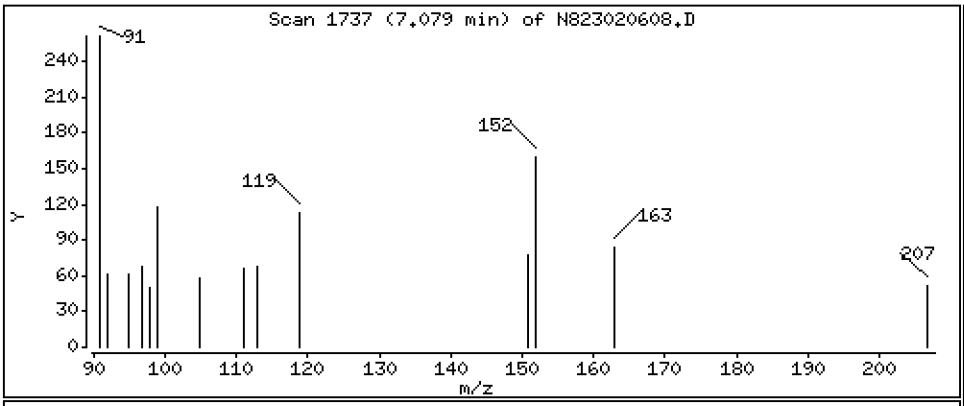
Operator: JZ

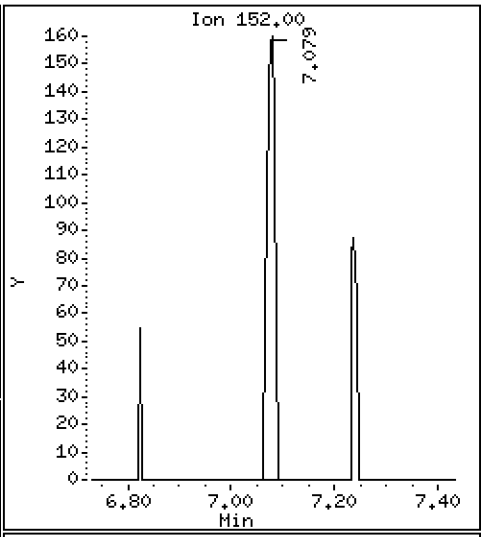
Column phase: Rxi-17sil

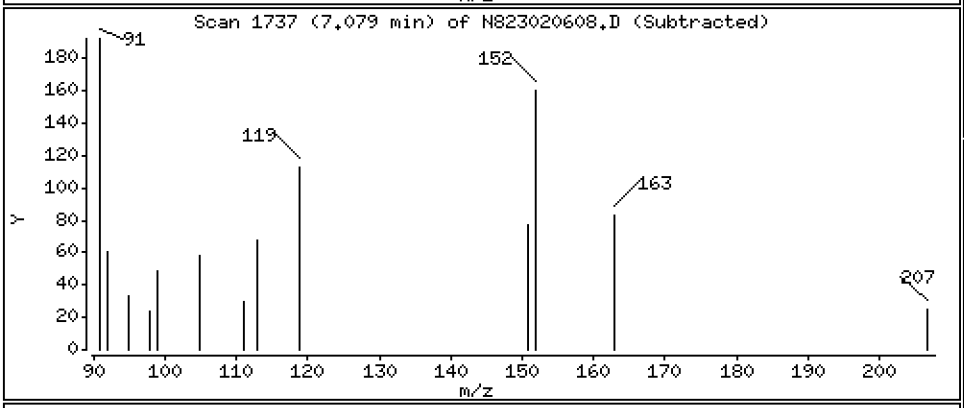
Column diameter: 0.25

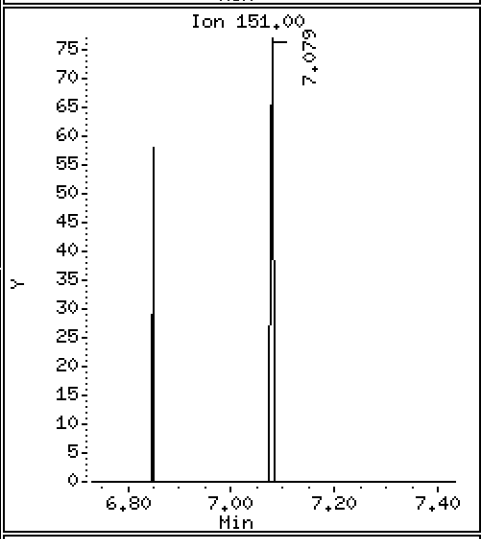
9 Acenaphthylene

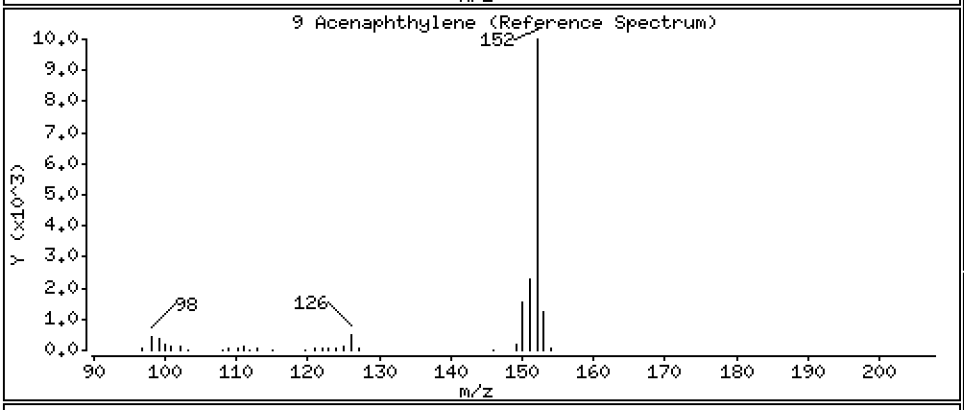
Concentration: 0.008068 ug/mL

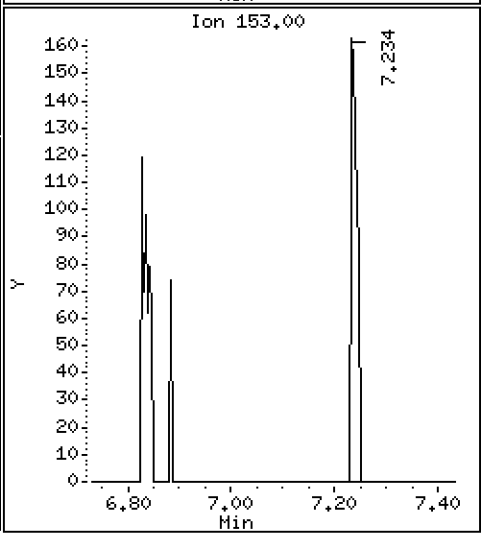


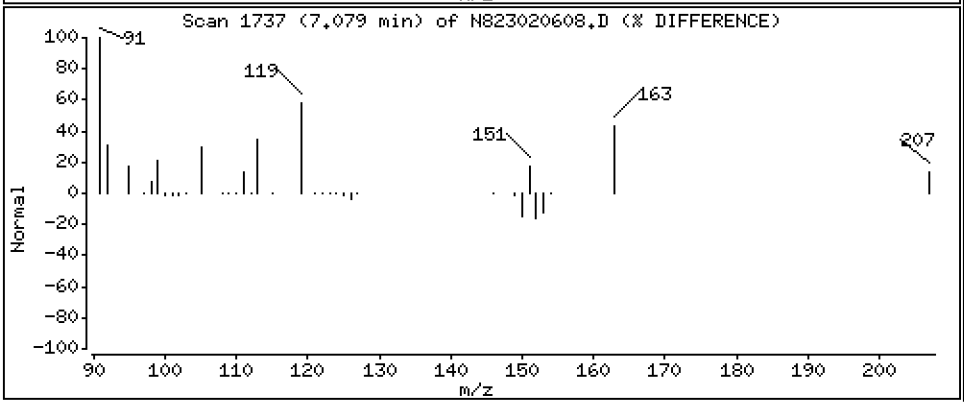












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Date : 06-FEB-2023 15:57

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BLK1,

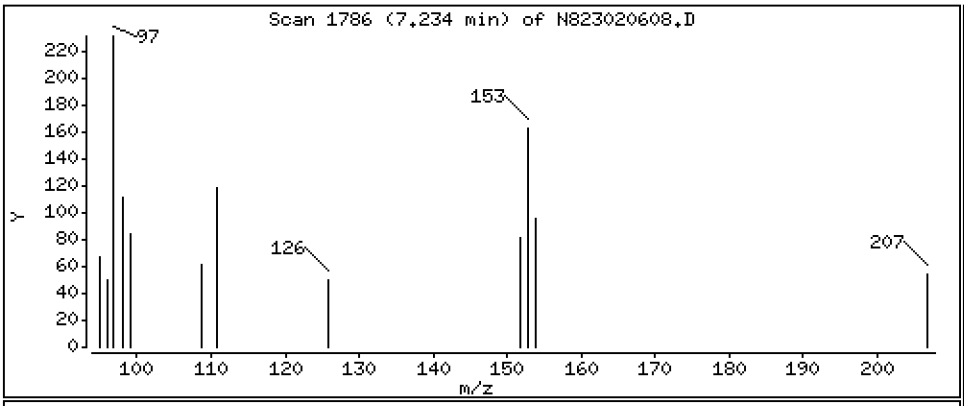
Operator: JZ

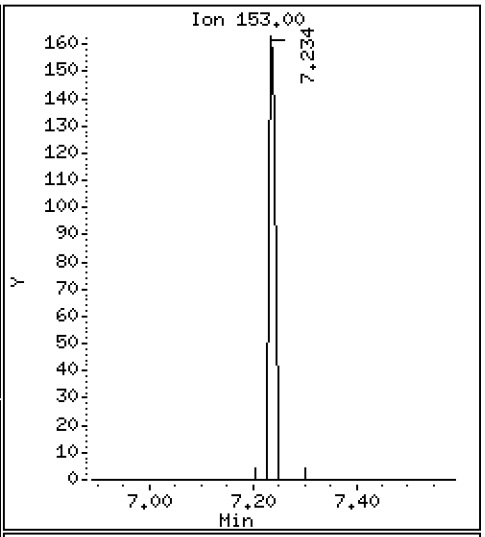
Column phase: Rxi-17sil

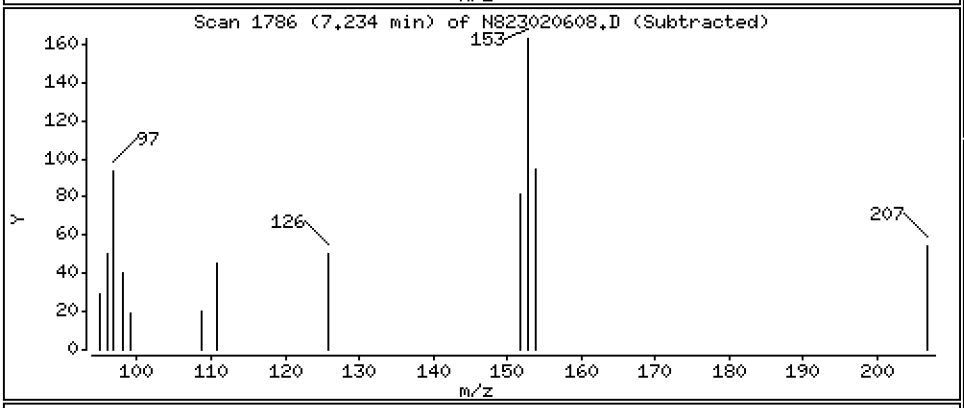
Column diameter: 0.25

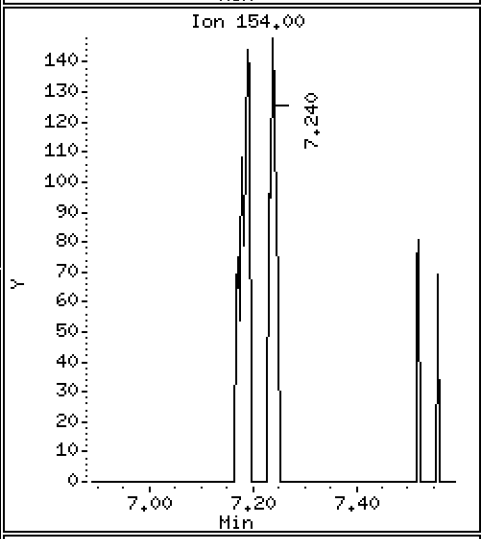
11 Acenaphthene

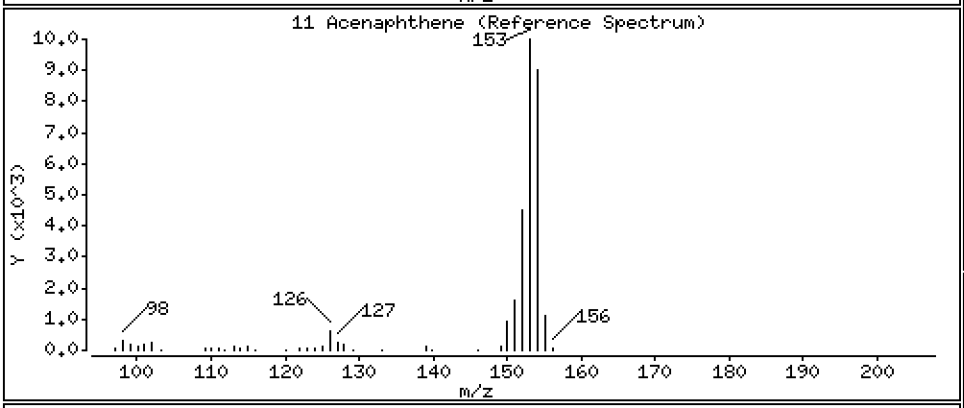
Concentration: 0.009619 ug/mL

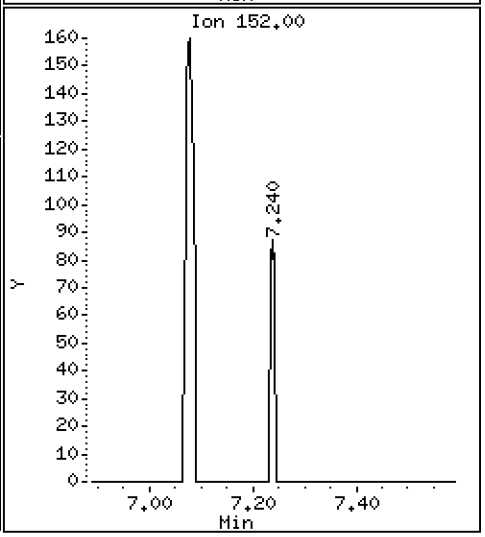


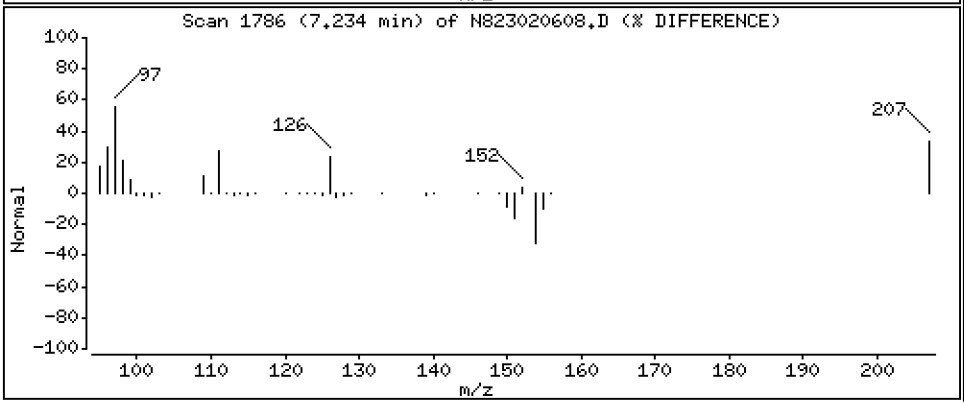












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Date : 06-FEB-2023 15:57

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BLK1,

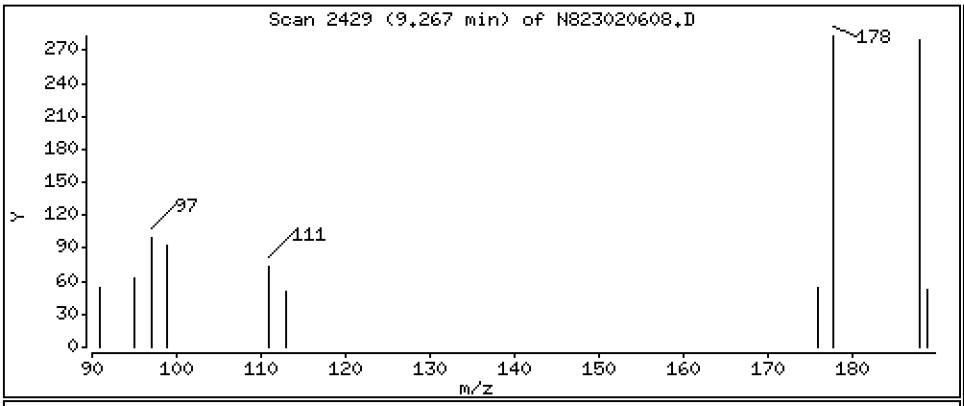
Operator: JZ

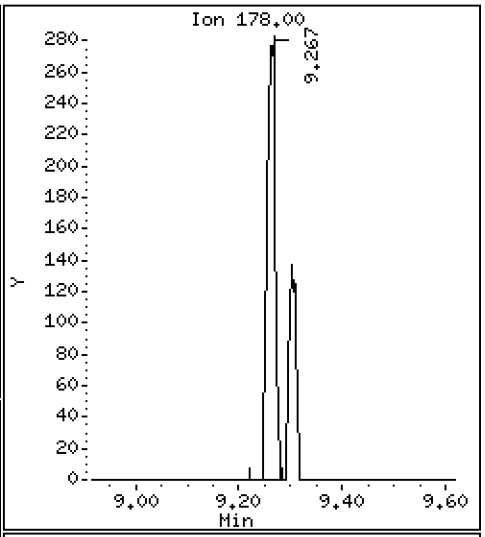
Column phase: Rxi-17sil

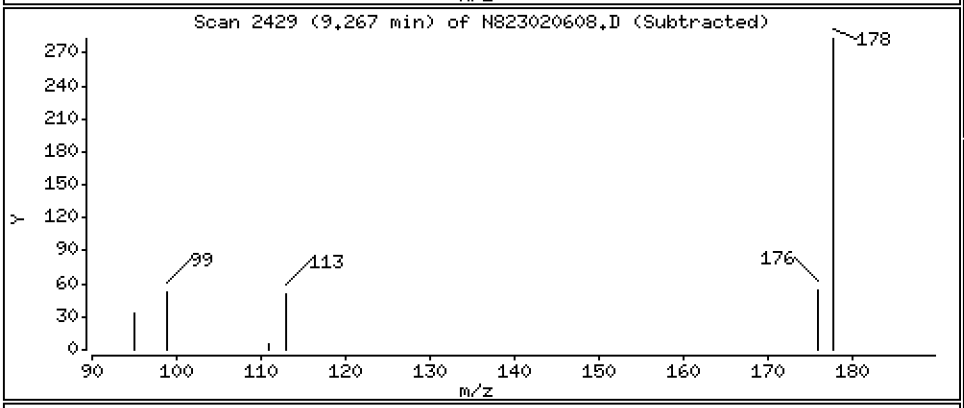
Column diameter: 0.25

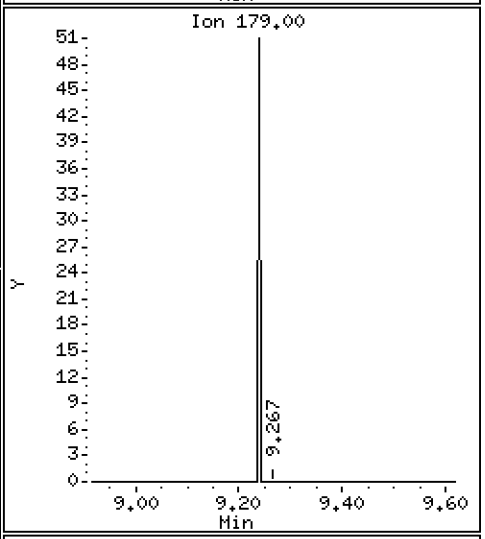
16 Phenanthrene

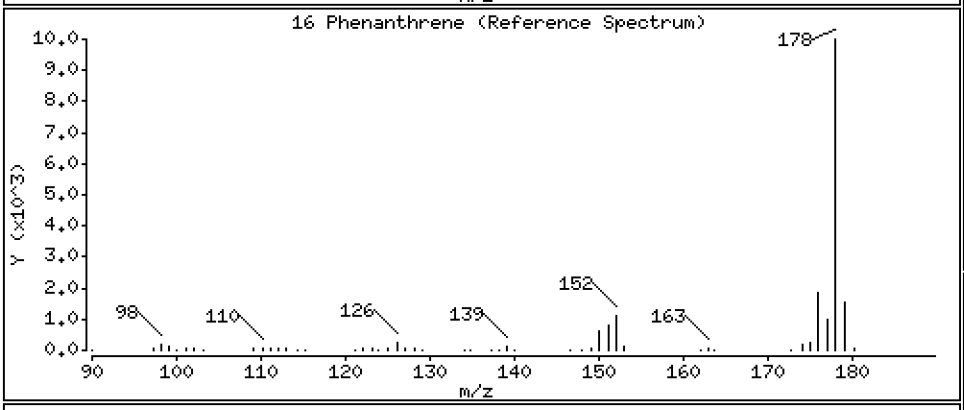
Concentration: 0.01235 ug/mL

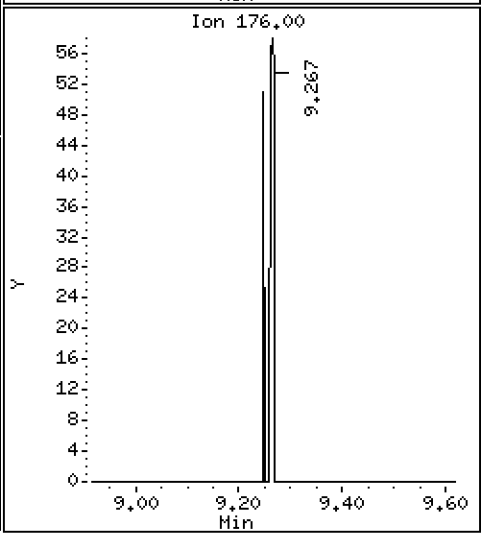


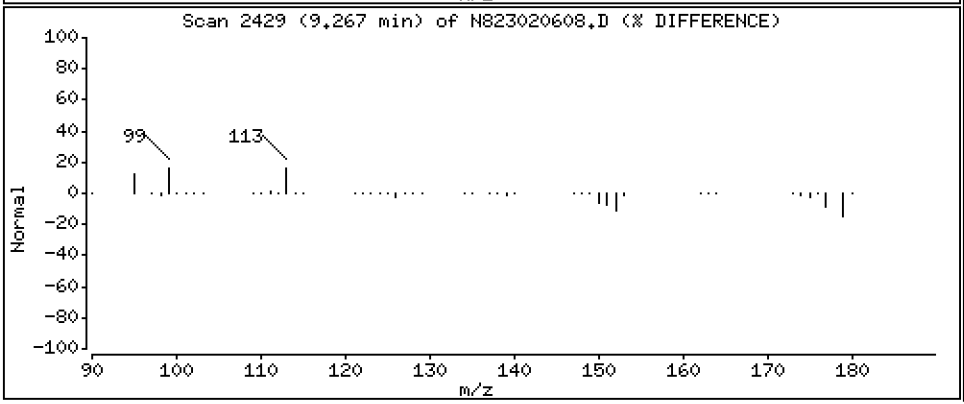












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230206A.b\N823020608.D
Lab Smp Id: BLA0683-BLK1
Inj Date : 06-FEB-2023 15:57
Operator : JZ Inst ID: nt8.i
Smp Info : BLA0683-BLK1,
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Meth Date : 07-Feb-2023 13:04 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PNAXMDL.sub
Target Version: 4.14
Processing Host: JIANQING-202105

							CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
*	1 Naphthalene-d8	136	4.890	4.900	(1.000)	48985	2.00000	
	2 Naphthalene	128	4.919	4.928	(1.006)	388	0.01704	0.01704
$	3 2-Methylnaphthalene-d10	152	5.627	5.634	(1.151)	33328	2.49472	2.495
	4 2-Methylnaphthalene	141	5.675	5.681	(1.160)	193	0.01541	0.01541
	5 1-methylnaphthalene	141	5.874	5.880	(1.201)	126	0.00991	0.009910
	9 Acenaphthylene	152	7.079	7.082	(0.985)	174	0.00807	0.008068
*	10 Acenaphthene-d10	164	7.189	7.189	(1.000)	28561	2.00000	
	11 Acenaphthene	153	7.233	7.240	(1.006)	139	0.00962	0.009619(M)
	12 Dibenzofuran	168	Compound Not Detected.					
	14 Fluorene	166	Compound Not Detected.					
*	15 Phenanthrene-d10	188	9.229	9.232	(1.000)	52393	2.00000	
	16 Phenanthrene	178	9.267	9.267	(1.004)	316	0.01235	0.01235(M)
	17 Anthracene	178	Compound Not Detected.					
	19 Carbazole	167	Compound Not Detected.					
	22 Fluoranthene	202	Compound Not Detected.					
$	21 Fluoranthene-d10	212	11.009	11.009	(1.193)	68900	2.98067	2.981
	23 Pyrene	202	Compound Not Detected.					
	24 Benzo(a)anthracene	228	Compound Not Detected.					
*	25 Chrysene-d12	240	14.196	14.202	(1.000)	40654	2.00000	
	27 Chrysene	228	Compound Not Detected.					
	28 Benzo(b)fluoranthene	252	Compound Not Detected.					
	29 Benzo(k)fluoranthene	252	Compound Not Detected.					
	30 Benzo(j)fluoranthene	252	Compound Not Detected.					
	31 Total Benzofluoranthenes	252	Compound Not Detected.					
	32 Benzo(a)pyrene	252	Compound Not Detected.					
*	33 Perylene-d12	264	18.104	18.107	(1.000)	24723	2.00000	
	35 Perylene	252	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	20.545	20.549	(1.135)	44884	4.63342	4.633
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823020608.D
Lab Smp Id: BLA0683-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 06-FEB-2023
Calibration Time: 15:15
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44336	22168	88672	48985	10.49
10 Acenaphthene-d10	26127	13064	52254	28561	9.32
15 Phenanthrene-d10	47424	23712	94848	52393	10.48
25 Chrysene-d12	36794	18397	73588	40654	10.49
33 Perylene-d12	36636	18318	73272	24723	-32.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.90	4.40	5.40	4.89	-0.19
10 Acenaphthene-d10	7.19	6.69	7.69	7.19	0.00
15 Phenanthrene-d10	9.23	8.73	9.73	9.23	-0.03
25 Chrysene-d12	14.20	13.70	14.70	14.20	-0.04
33 Perylene-d12	18.11	17.61	18.61	18.10	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823020608.D

Lab ID: BLA0683-BLK1
nt8.i, 20230206A.b\FSIMPNA230119.m,   06-FEB-2023 15:57

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

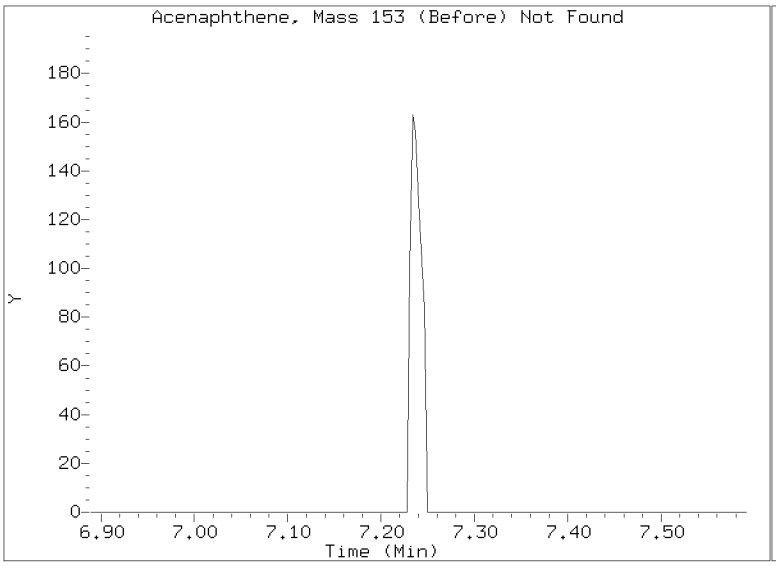
No RRT check performed

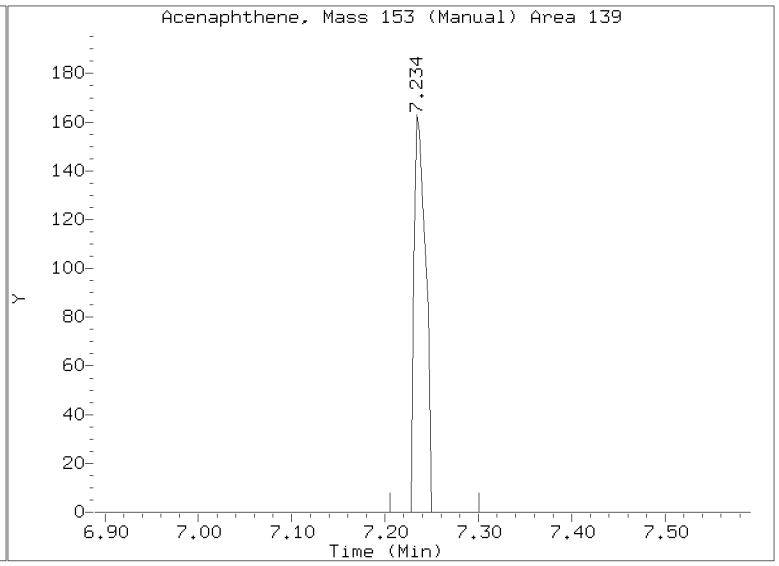
On Column LOD for nt8.i, 20230206A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

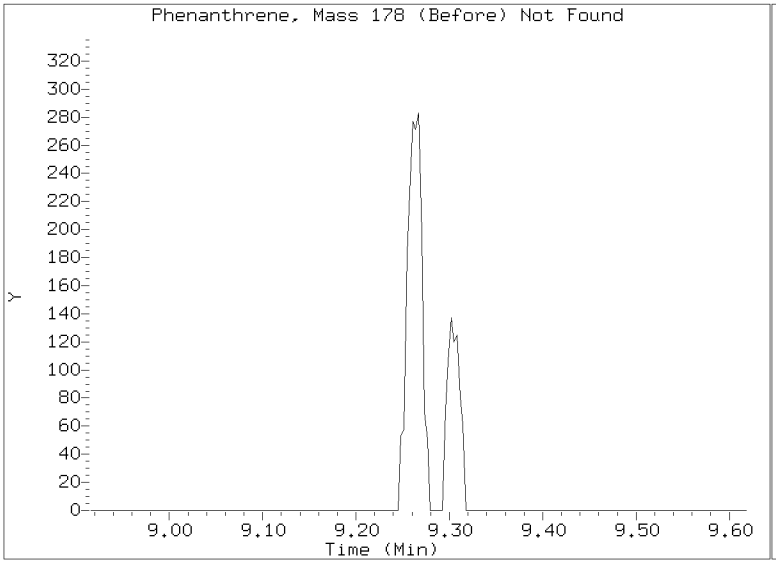
* Only compounds listed in the work order have been verified by the analyst *

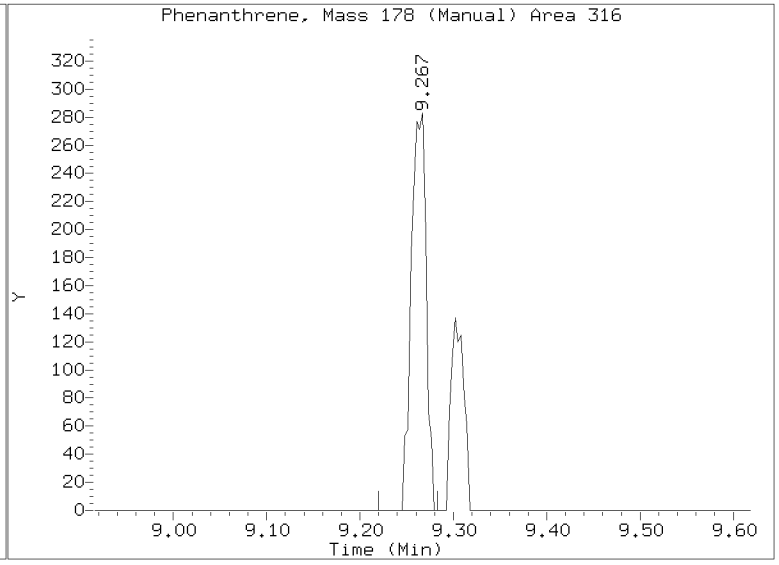
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230206A.b/N823020608.D
Injection Date: 06-FEB-2023 15:57
Lab ID:BLA0683-BLK1 Client ID:
Report Date: 02/07/2023 13:19









Analytical Resources, LLC
Analytical Chemists and Consultants

Form I

METHOD BLANK DATA SHEET

EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	BLA0685-BLK2	File ID:	NT1003052307S.D
Sampled:	N/A	Prepared:	02/02/23 13:06	Analyzed:	03/05/23 17:12
Solids:		Preparation:	EPA 3546 (Microwave)	Initial/Final:	10 g / 1 mL
Batch:	BLA0685	Sequence:	SLC0435	Calibration:	GC00032
Instrument:	NT10	Column:	ZB-5MSi	Cleanups:	GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	0.8	J	0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	5.0	U	0.7	5.0
100-51-6	Benzyl Alcohol	1	17.3	J	2.5	20.0
65-85-0	Benzoic acid	1	100	U	13.4	100
105-67-9	2,4-Dimethylphenol	1	20.0	U	2.2	20.0
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	5.0	U	1.3	5.0
87-86-5	Pentachlorophenol	1	20.0	U	2.1	20.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
2-Fluorophenol	750.00	469	62.5	27 - 120	
p-Terphenyl-d14	500.00	703	141	37 - 120	*

Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523075.D

Date : 05-MAR-2023 17:12

Client ID:

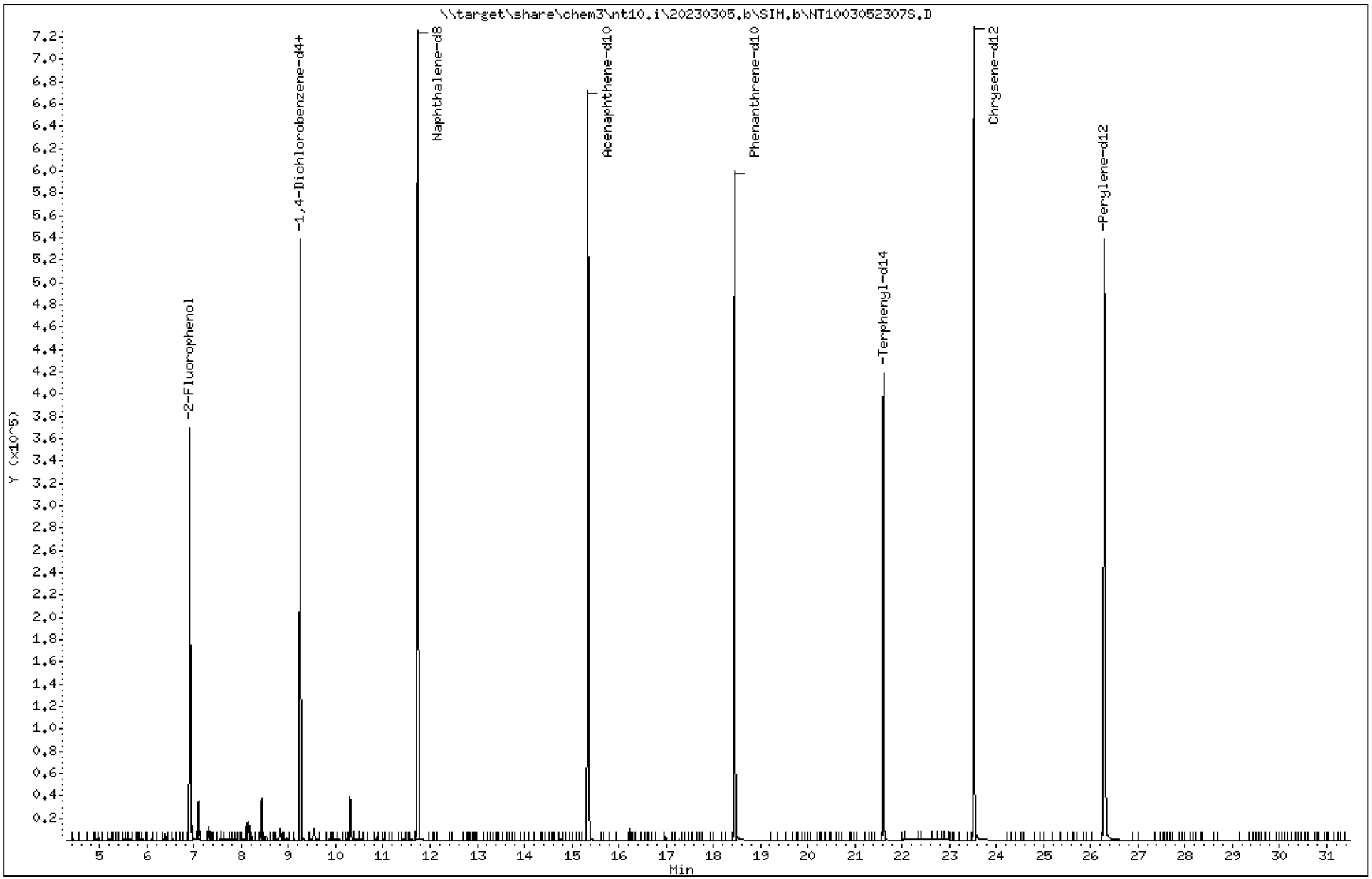
Sample Info: BLA0685-BLK2

Column phase: ZB-5msi

Instrument: nt10.i

Operator: YZ

Column diameter: 0.25



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Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK2

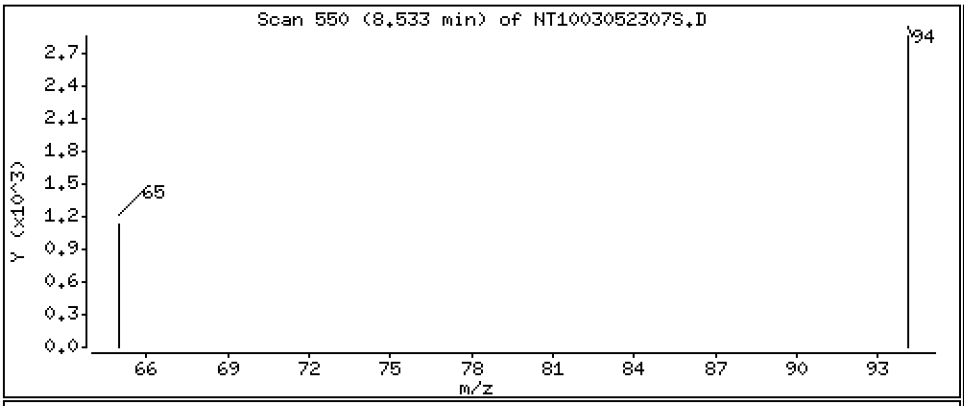
Operator: YZ

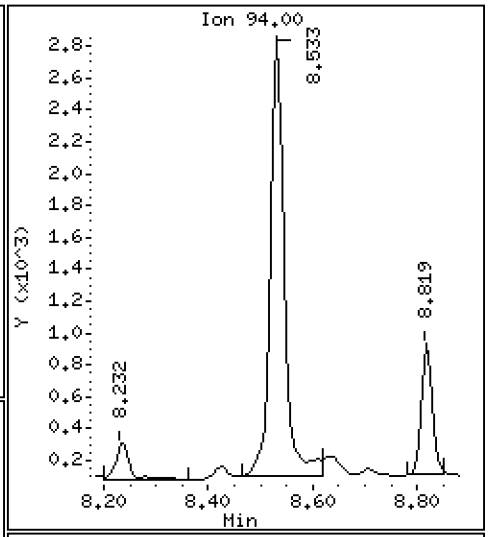
Column phase: ZB-5msi

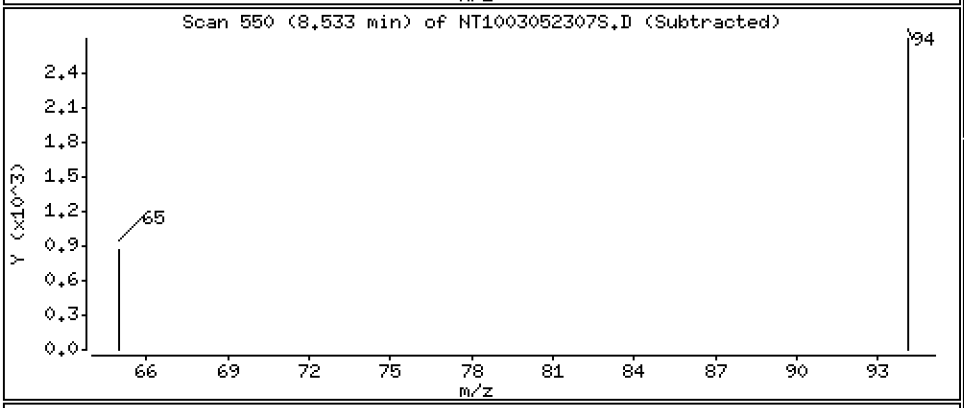
Column diameter: 0.25

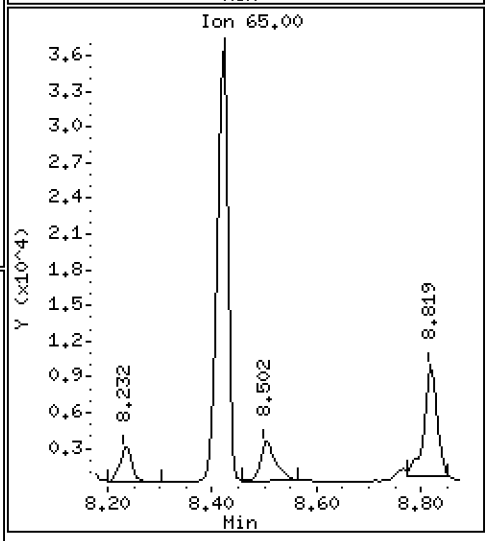
3 Phenol

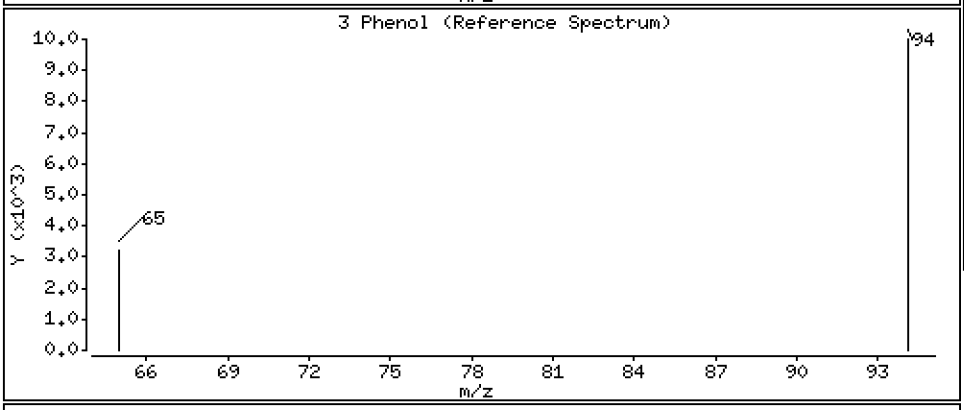
Concentration: 0.03792 ug/mL

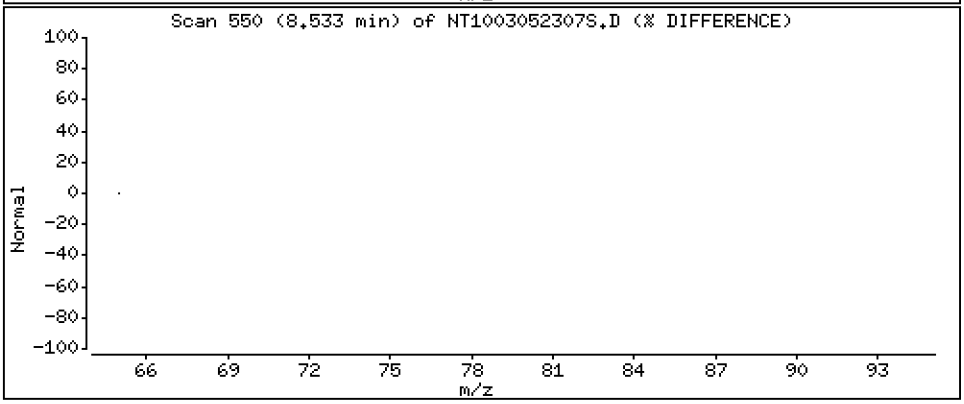












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Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK2

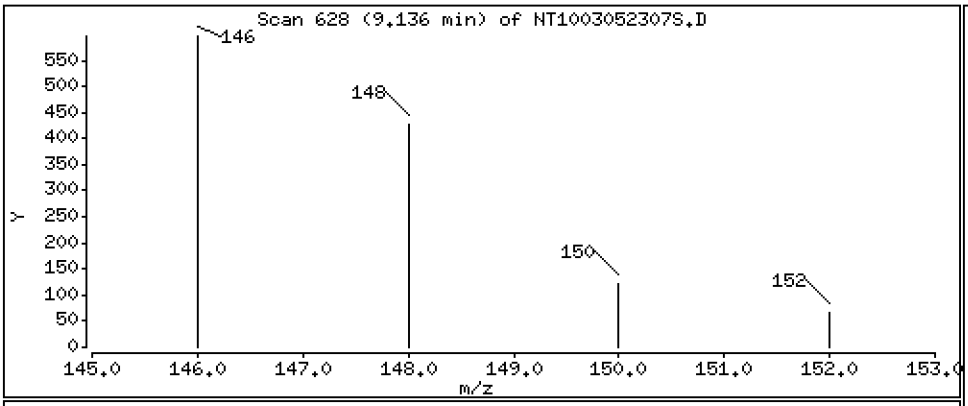
Operator: YZ

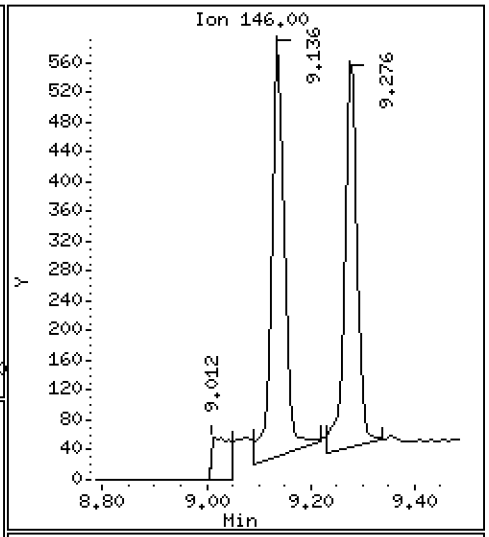
Column phase: ZB-5msi

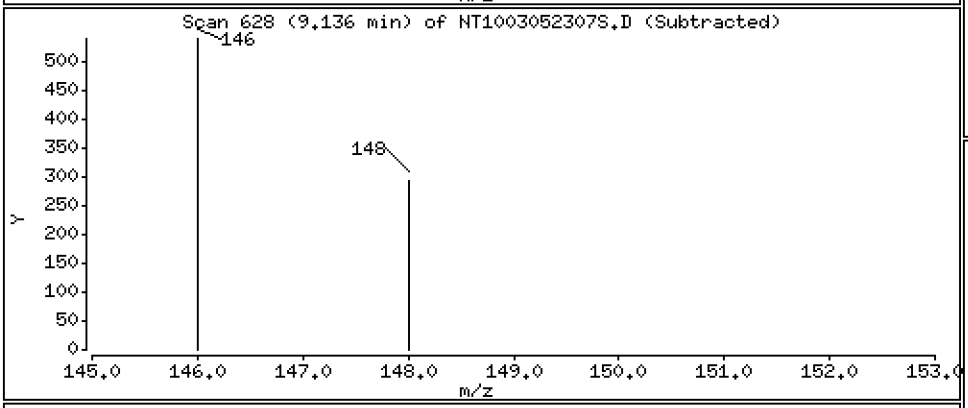
Column diameter: 0.25

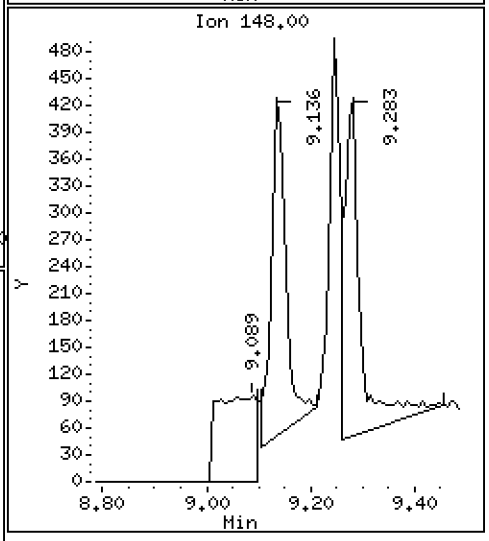
7 1,3-Dichlorobenzene

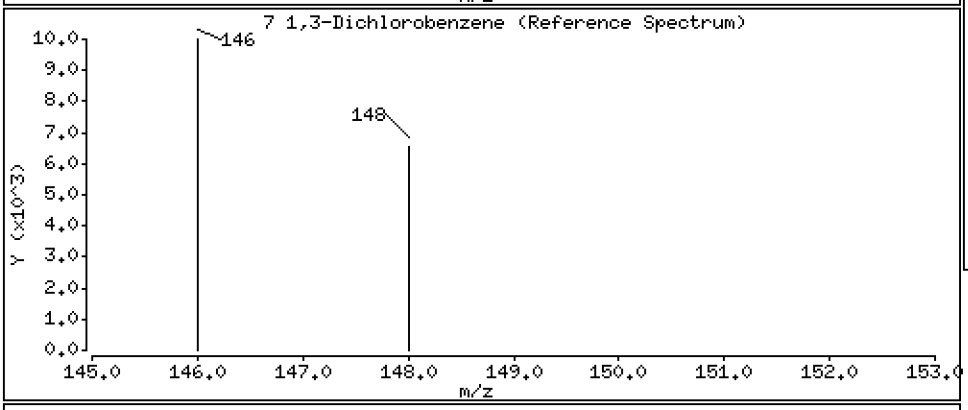
Concentration: 0.008131 ug/mL

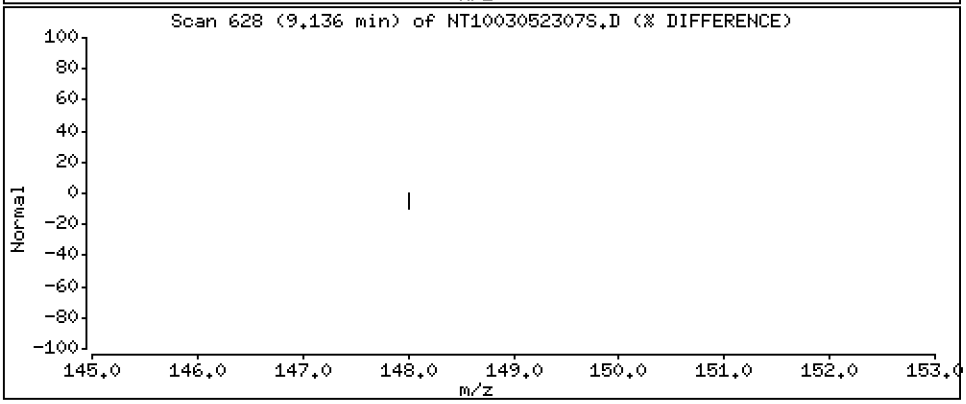












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Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK2

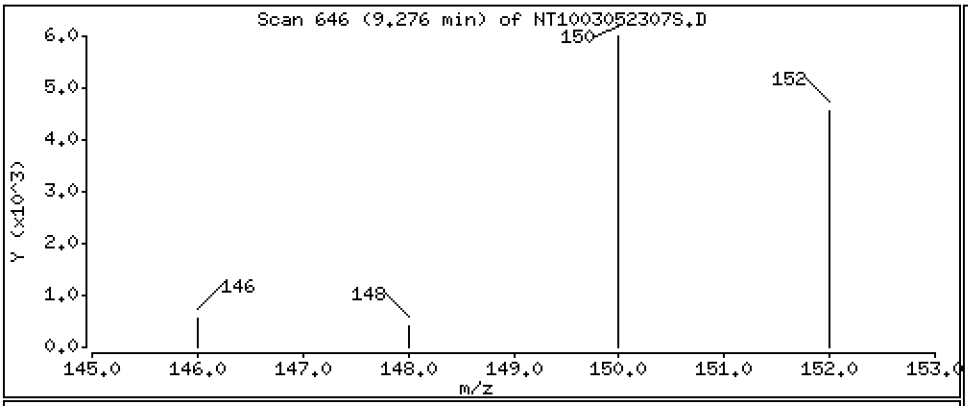
Operator: YZ

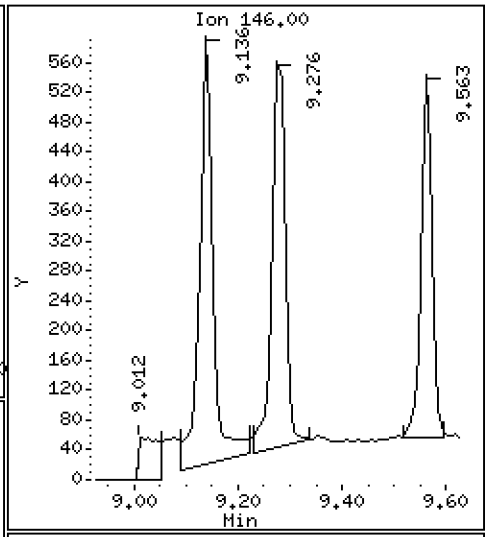
Column phase: ZB-5msi

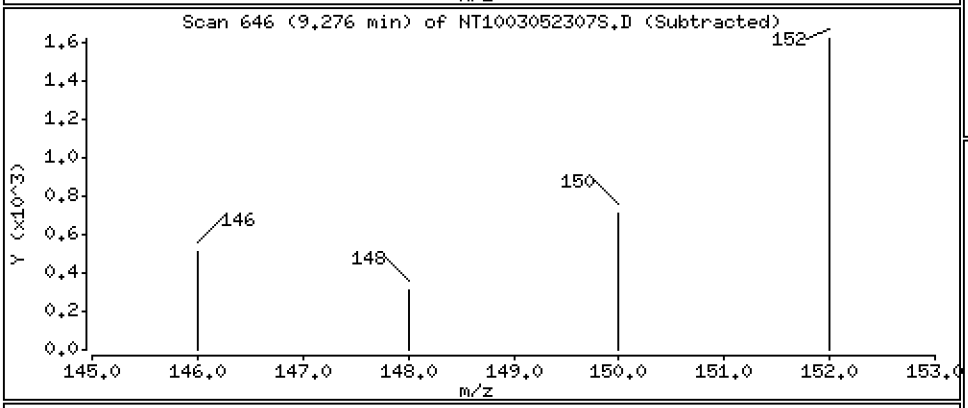
Column diameter: 0.25

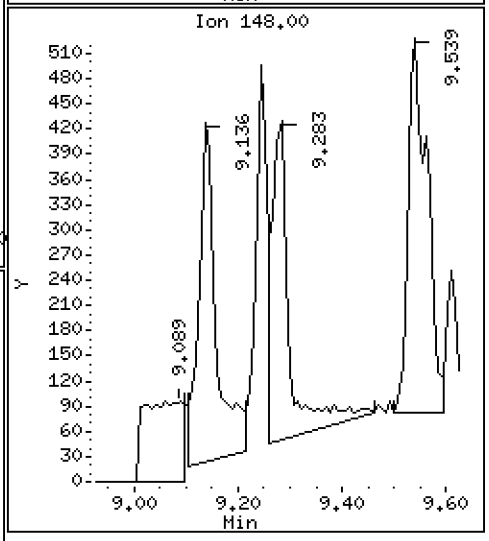
9 1,4-Dichlorobenzene

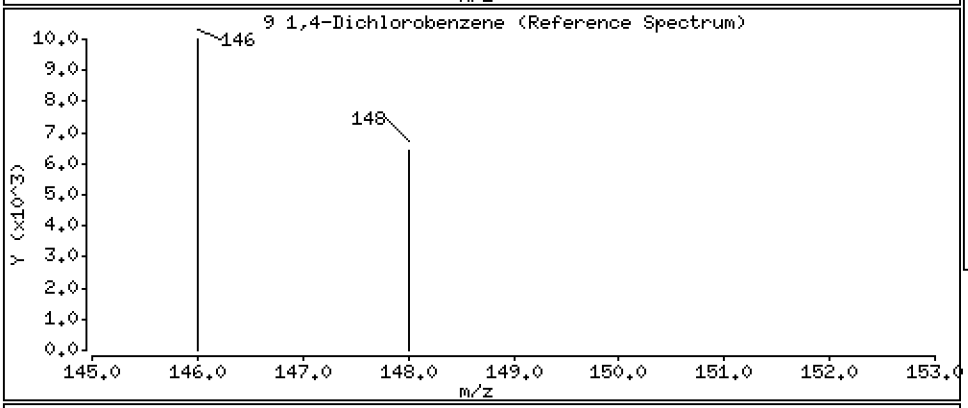
Concentration: 0.007877 ug/mL

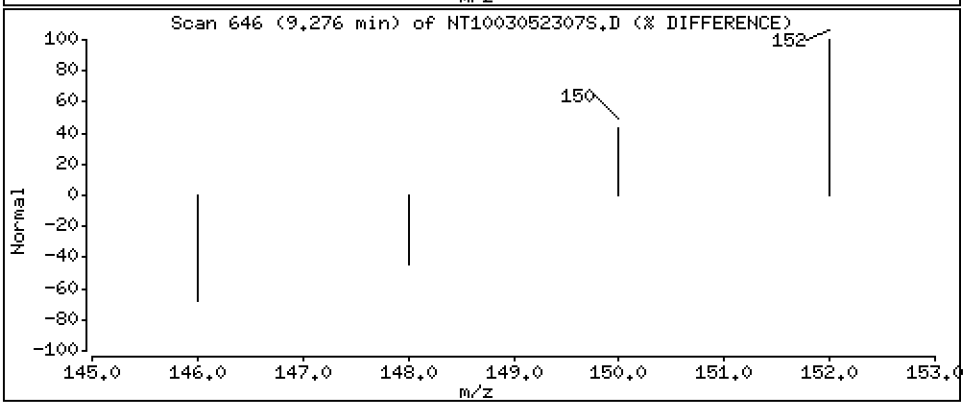












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Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK2

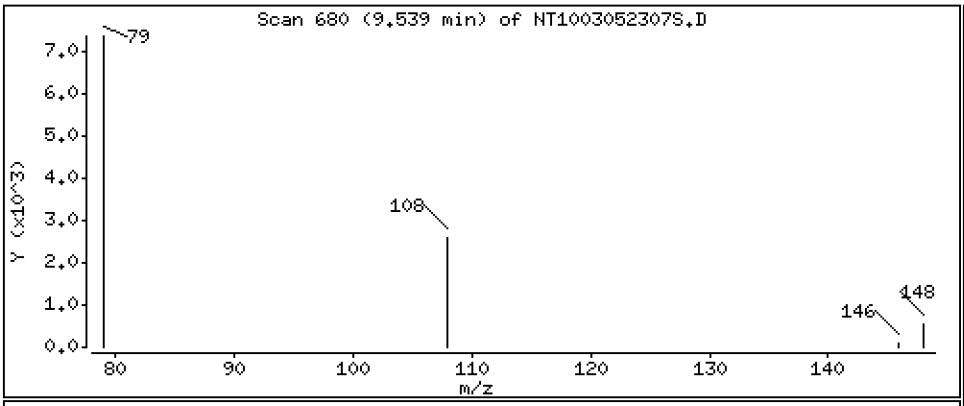
Operator: YZ

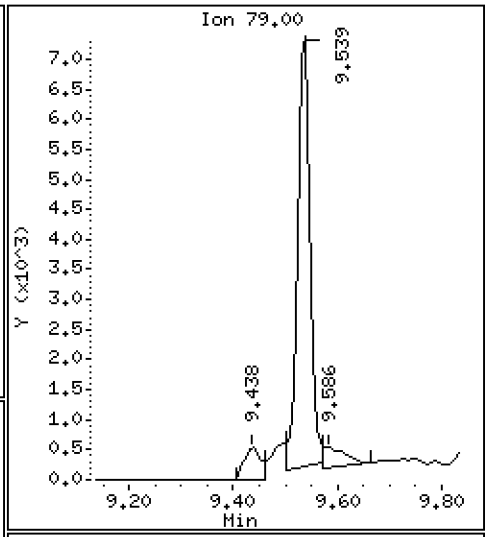
Column phase: ZB-5msi

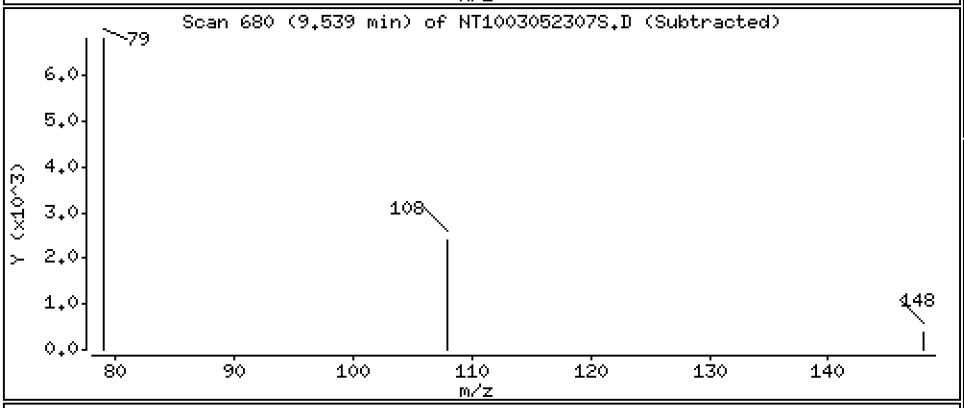
Column diameter: 0.25

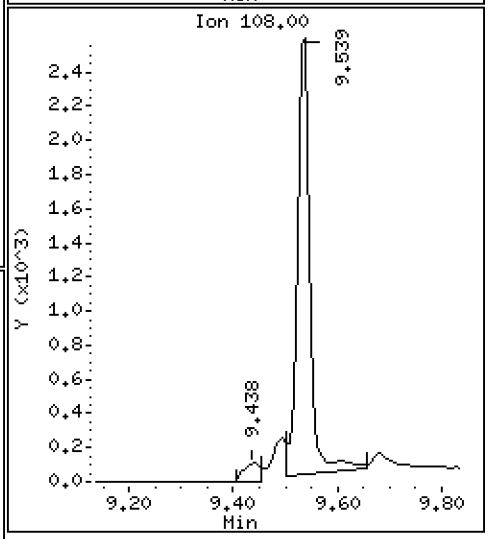
11 Benzyl alcohol

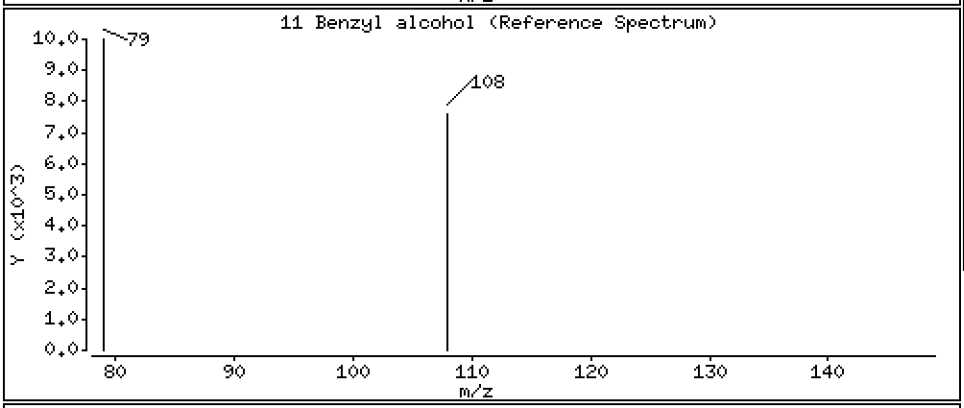
Concentration: 0.1731 ug/mL

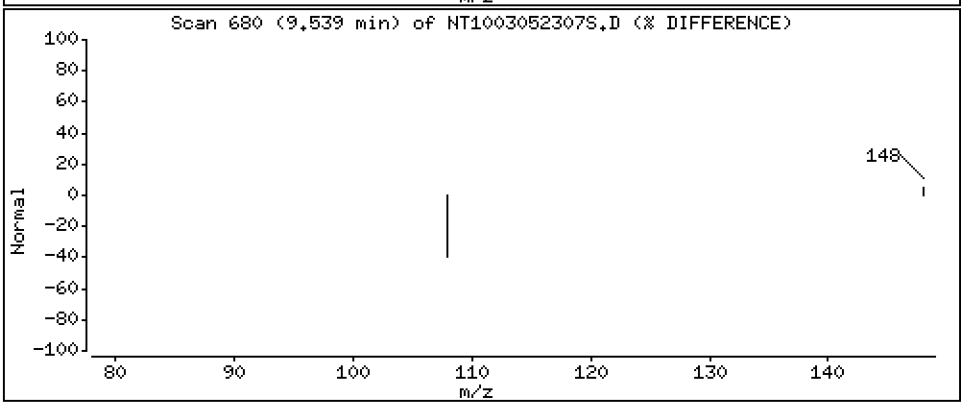












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Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK2

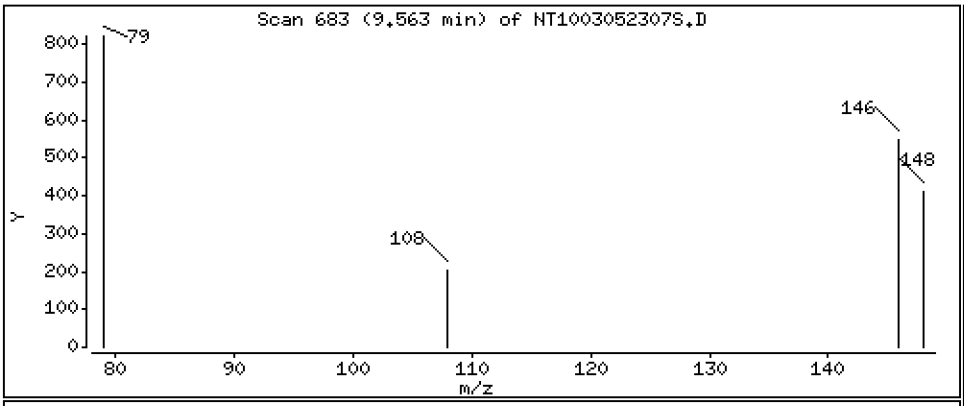
Operator: YZ

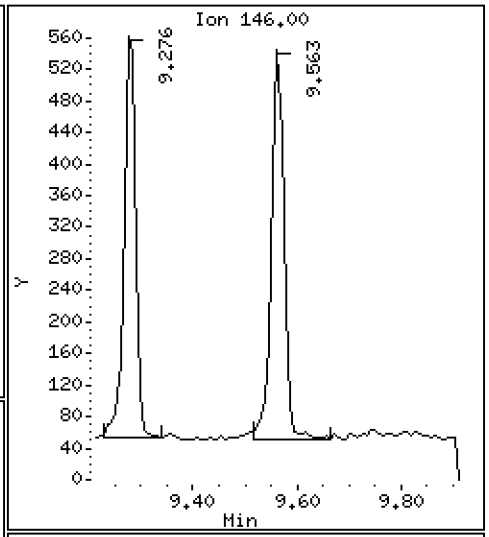
Column phase: ZB-5msi

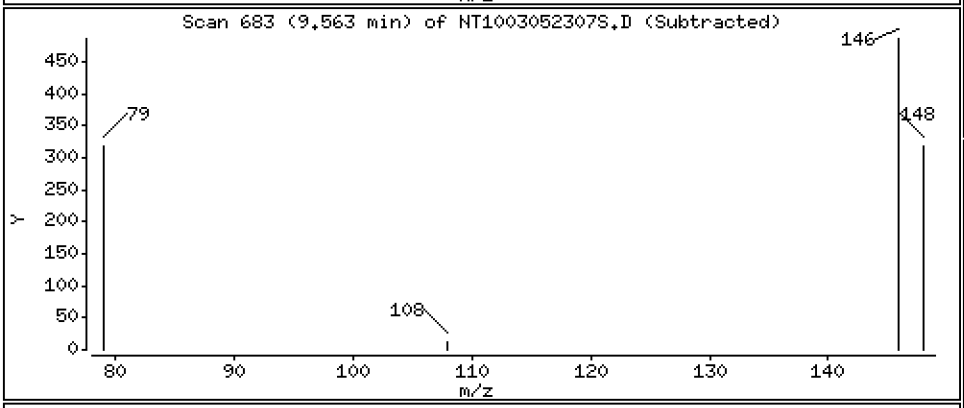
Column diameter: 0.25

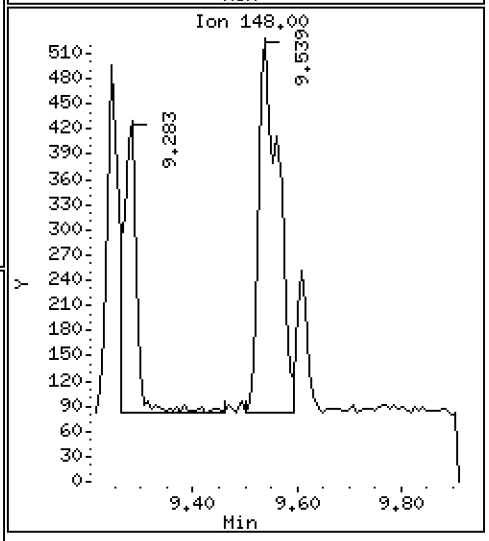
12 1,2-Dichlorobenzene

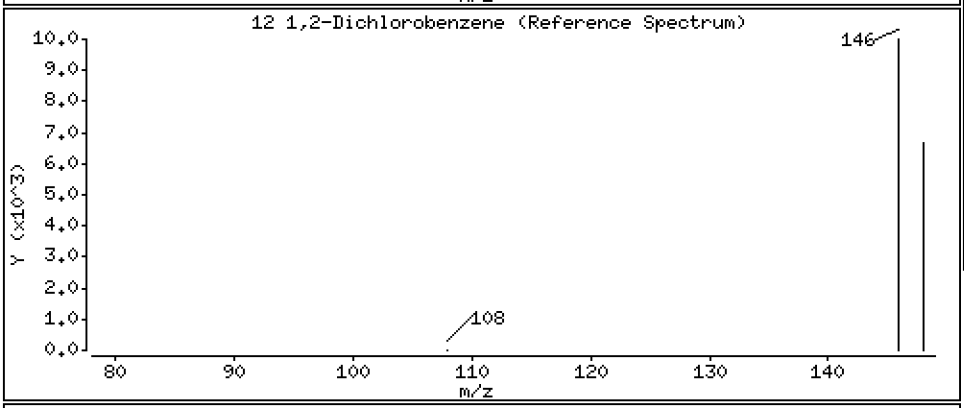
Concentration: 0.007352 ug/mL

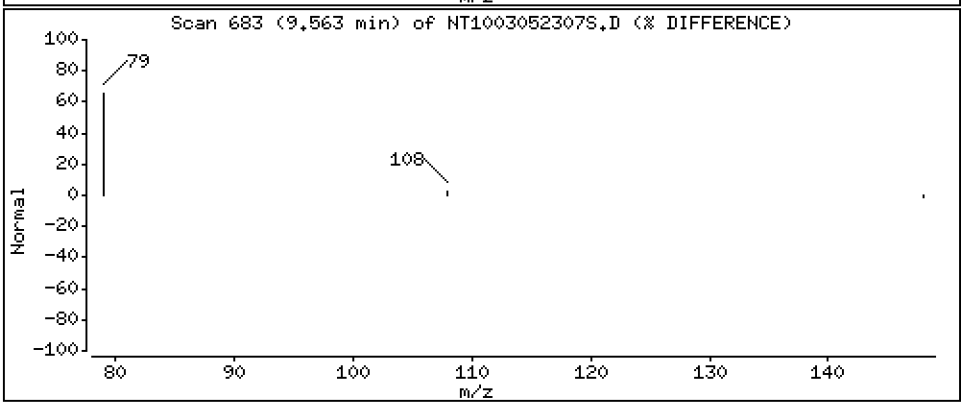












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052307S.D

Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK2

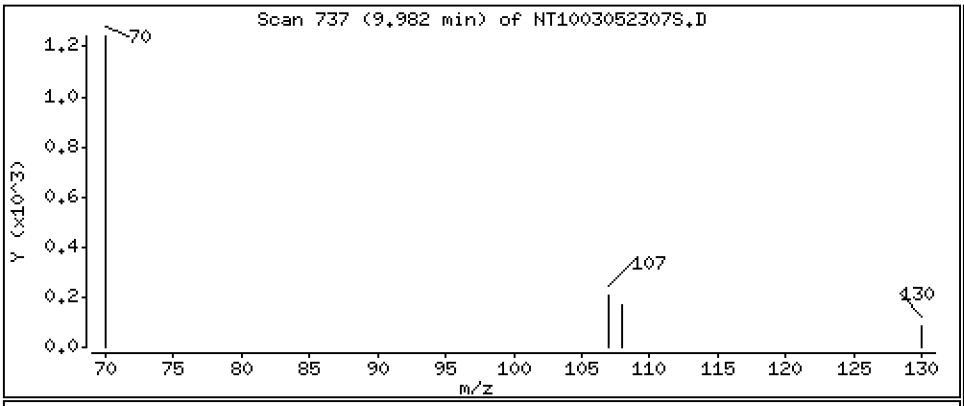
Operator: YZ

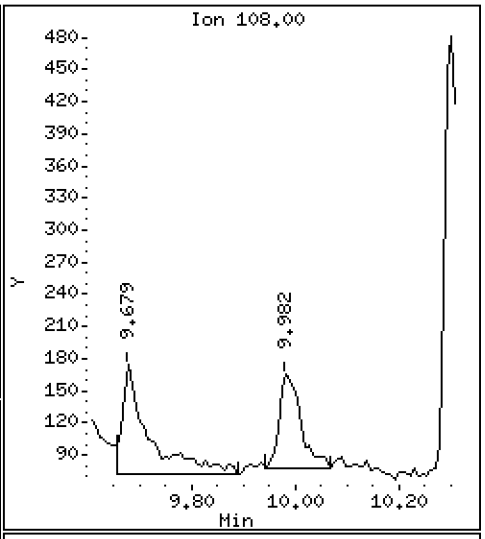
Column phase: ZB-5msi

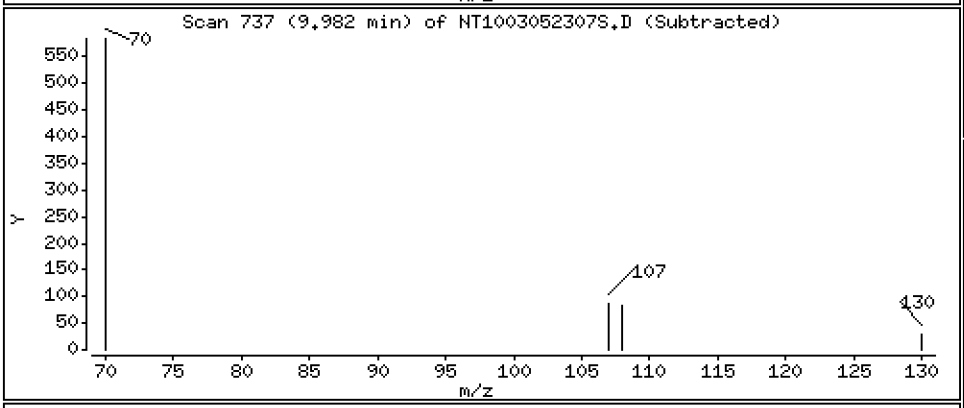
Column diameter: 0.25

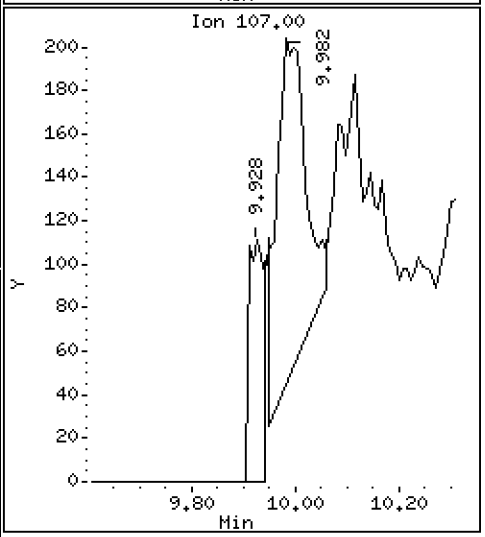
15 4-Methylphenol

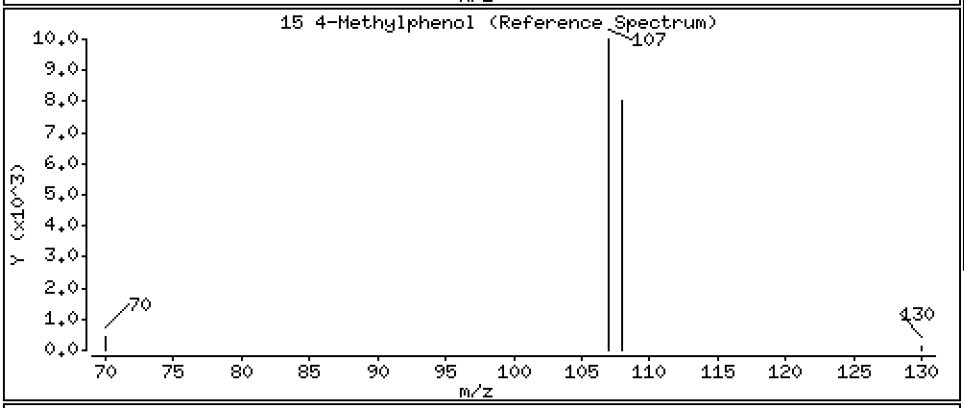
Concentration: 0.003217 ug/mL

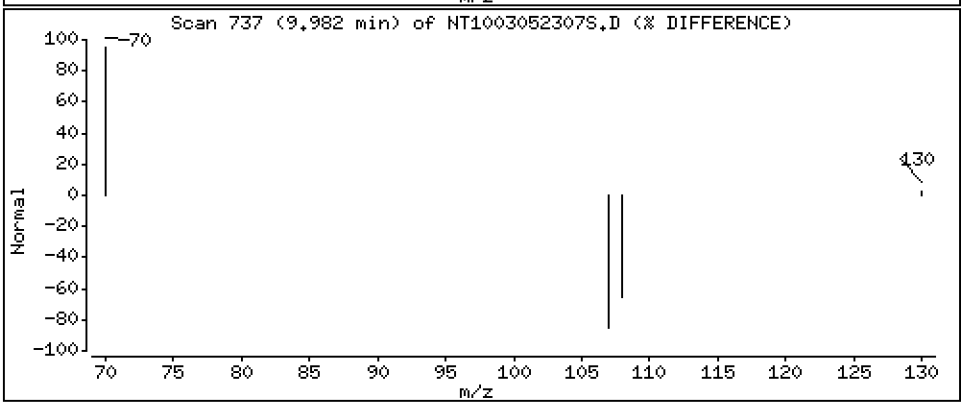












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052307S.D

Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK2

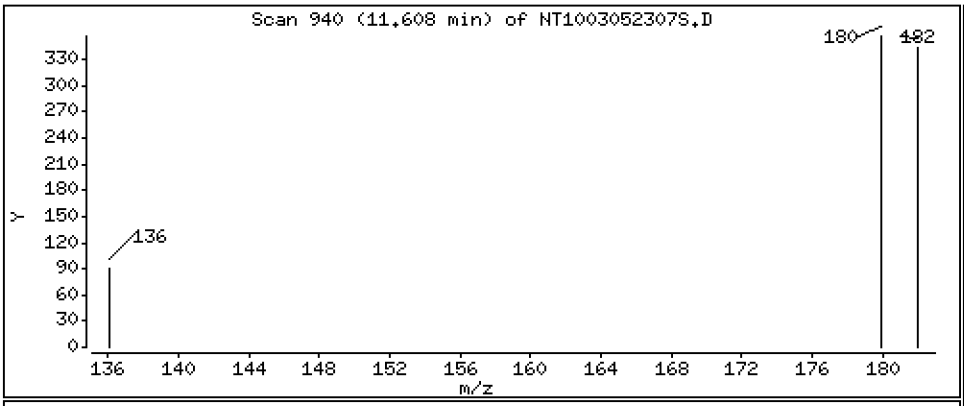
Operator: YZ

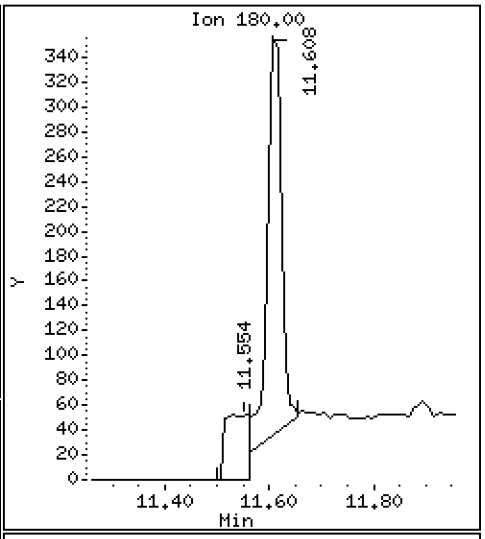
Column phase: ZB-5msi

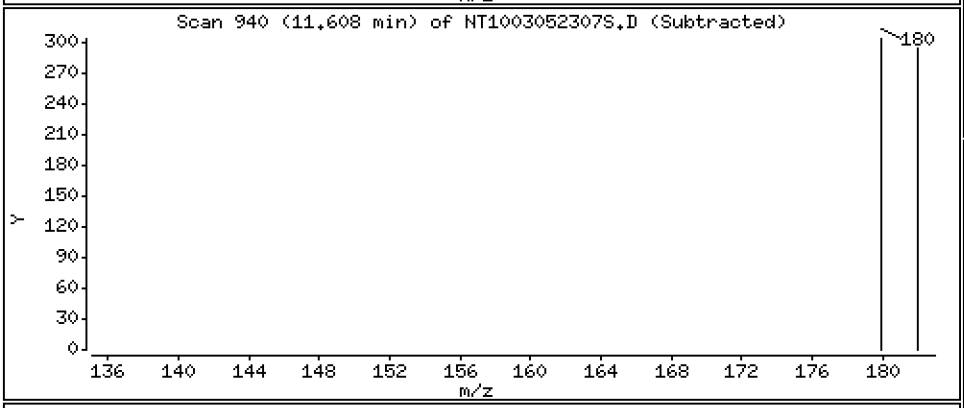
Column diameter: 0.25

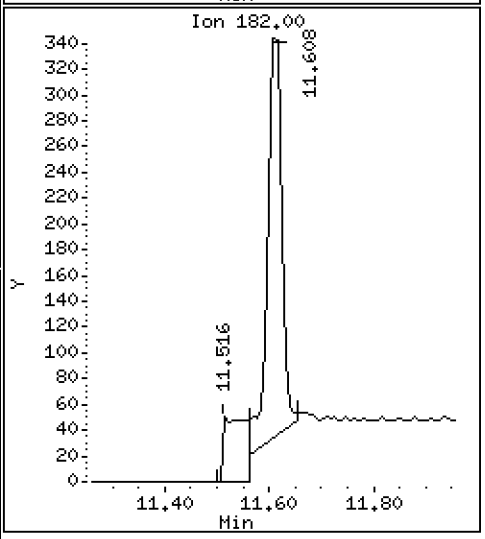
26 1,2,4-Trichlorobenzene

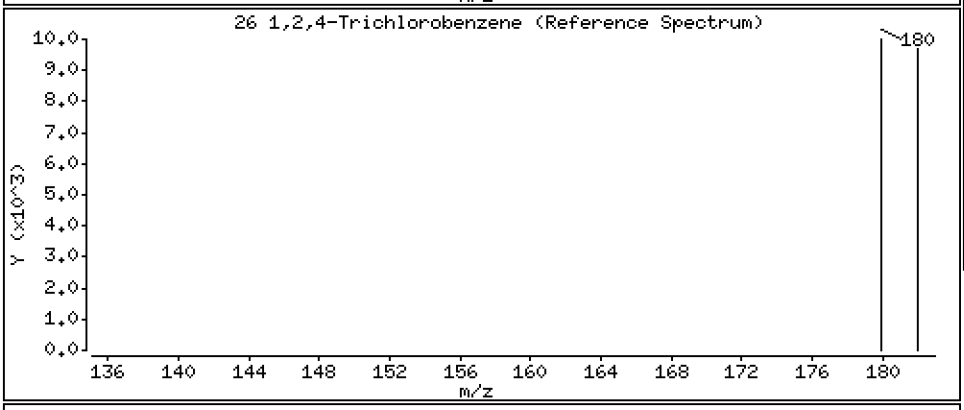
Concentration: 0.007472 ug/mL

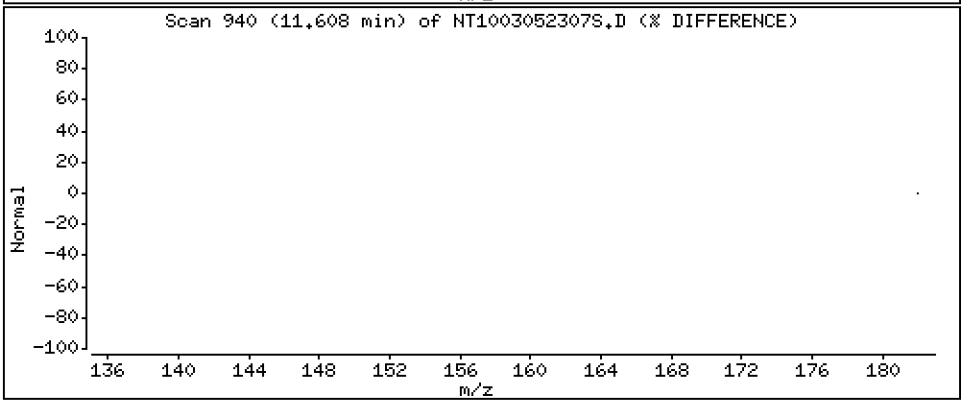












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052307S.D

Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK2

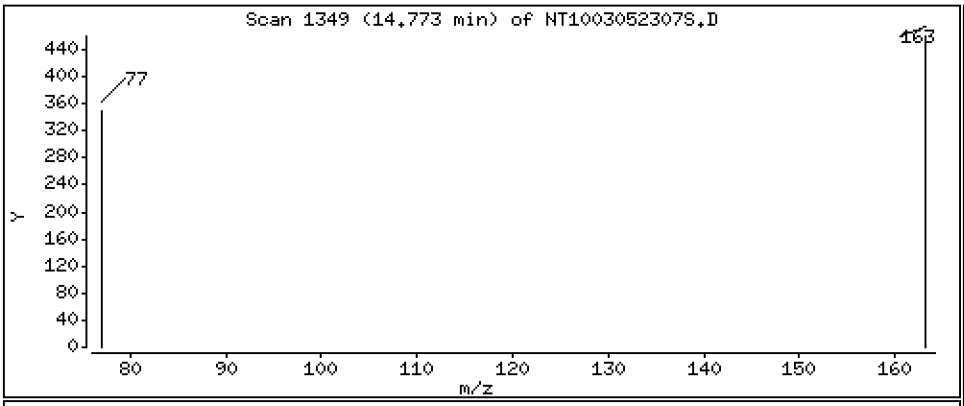
Operator: YZ

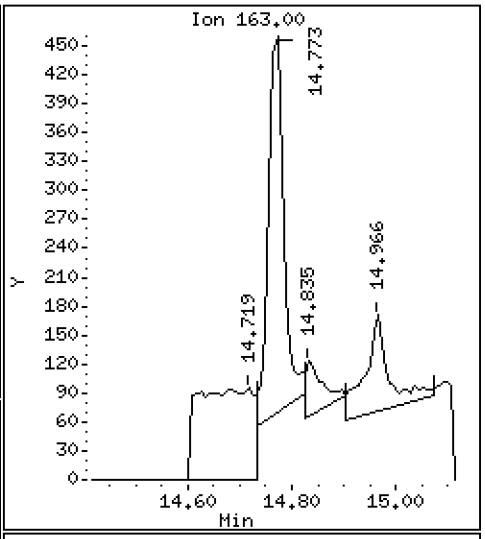
Column phase: ZB-5msi

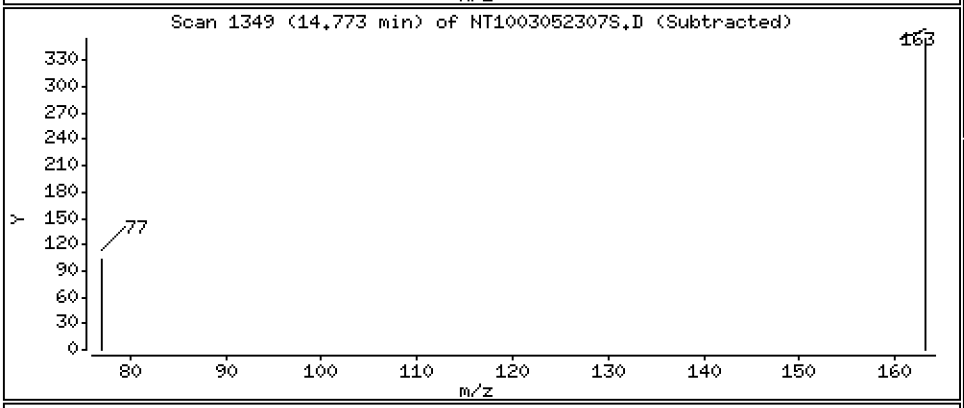
Column diameter: 0.25

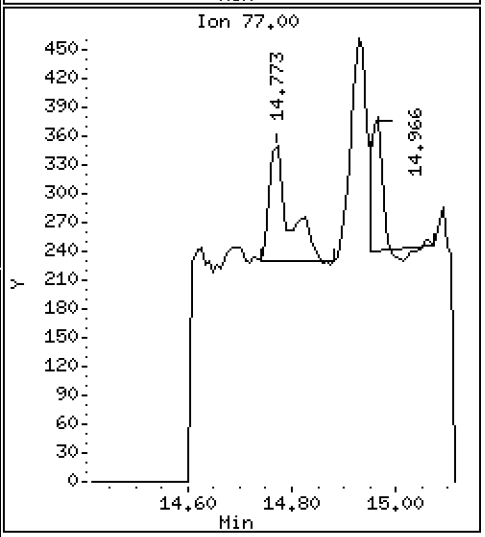
39 Dimethylphthalate

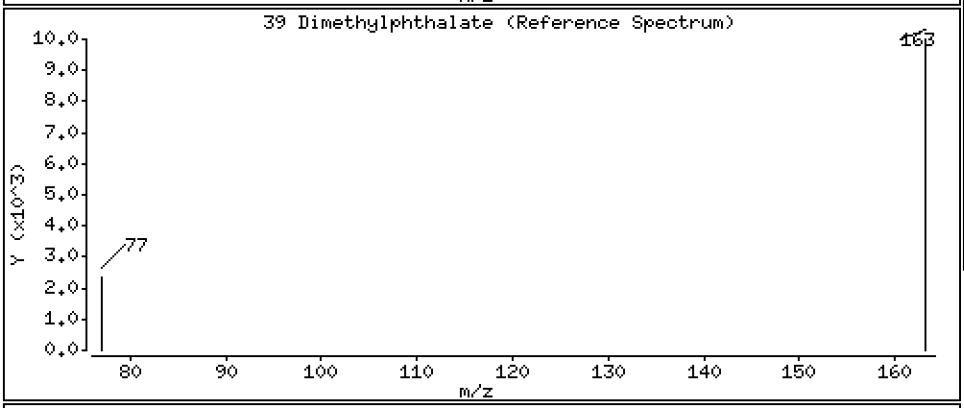
Concentration: 0.004682 ug/mL

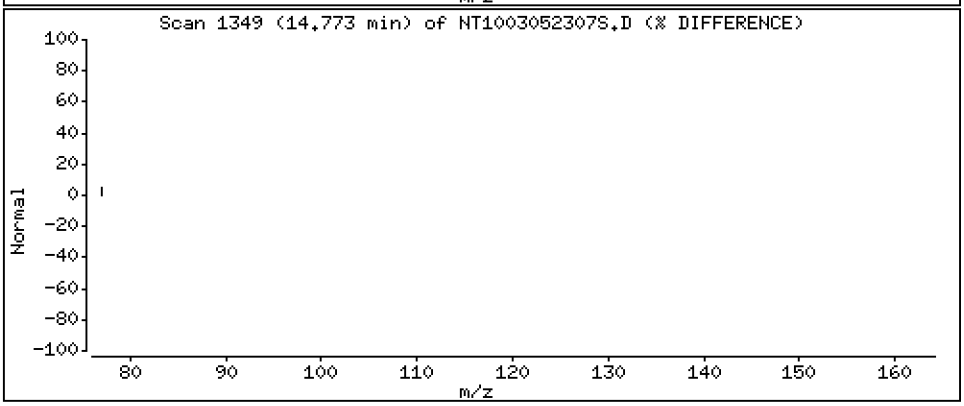












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052307S.D

Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK2

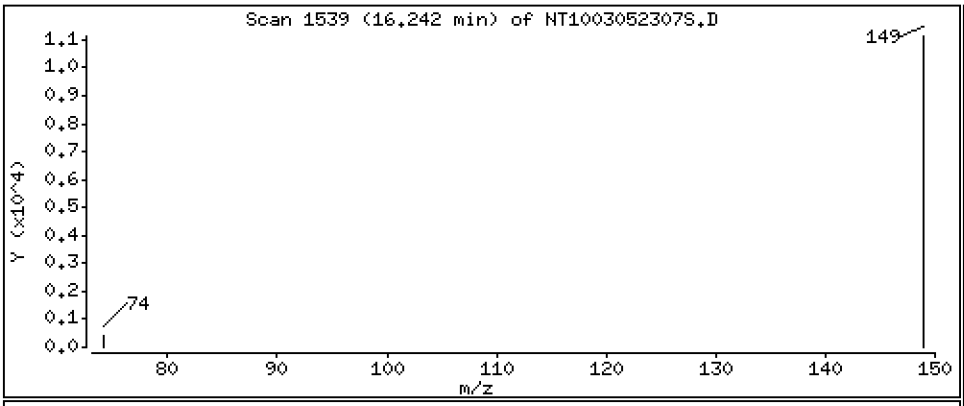
Operator: YZ

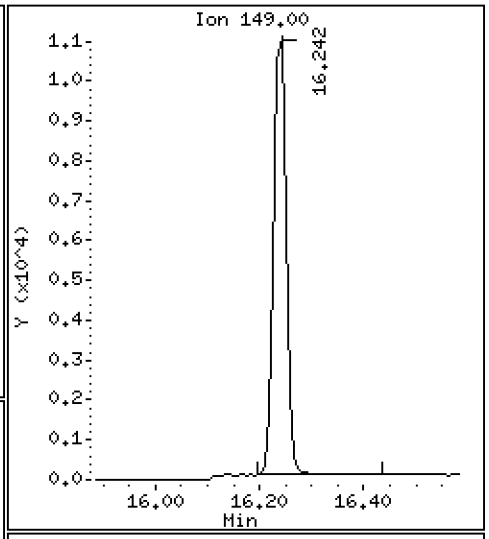
Column phase: ZB-5msi

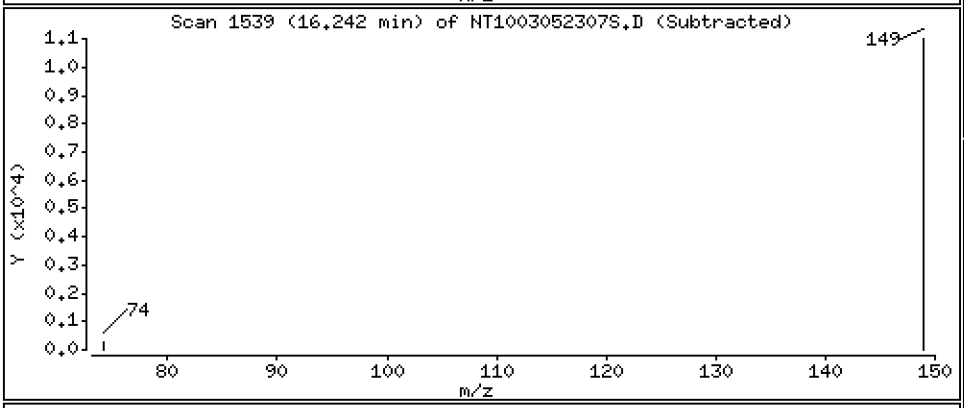
Column diameter: 0.25

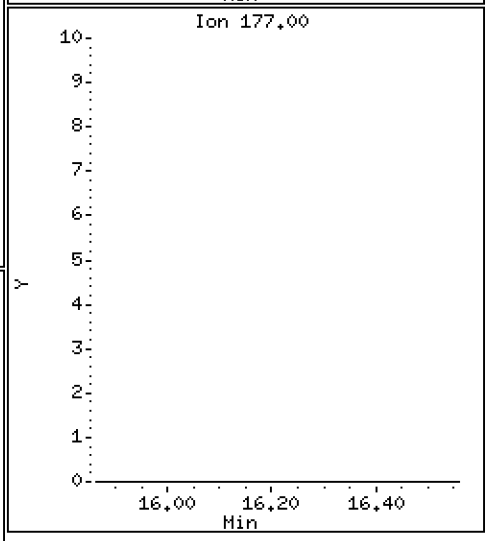
50 Diethylphthalate

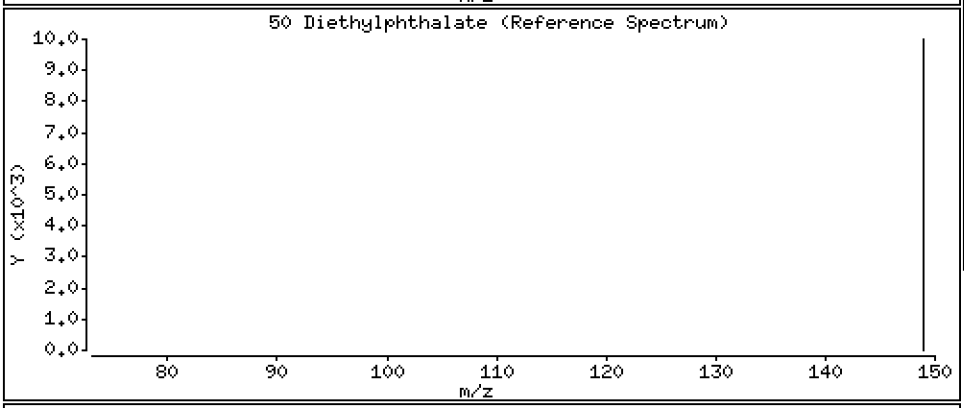
Concentration: 0.1105 ug/mL

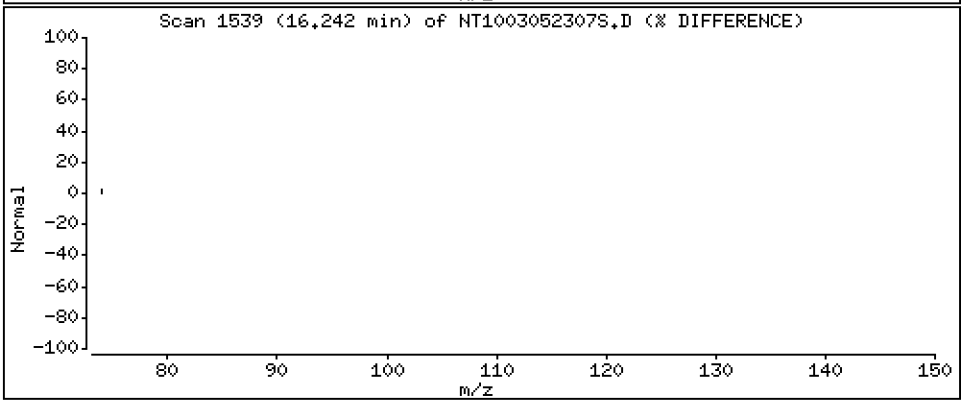












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052307S.D

Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK2

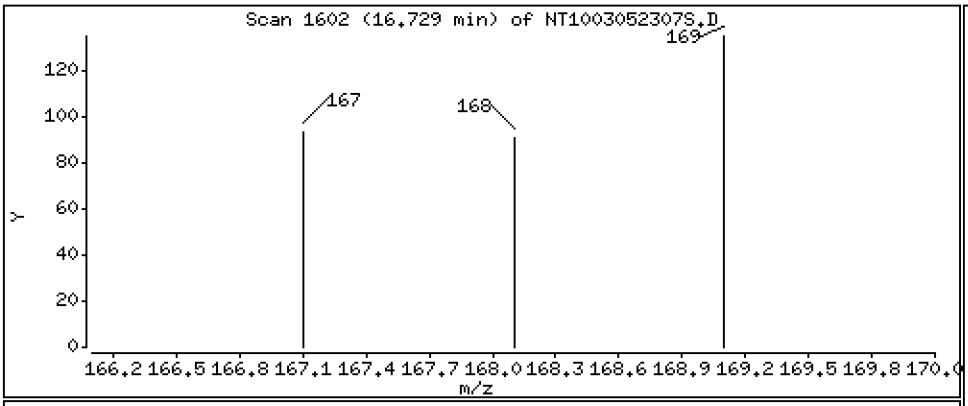
Operator: YZ

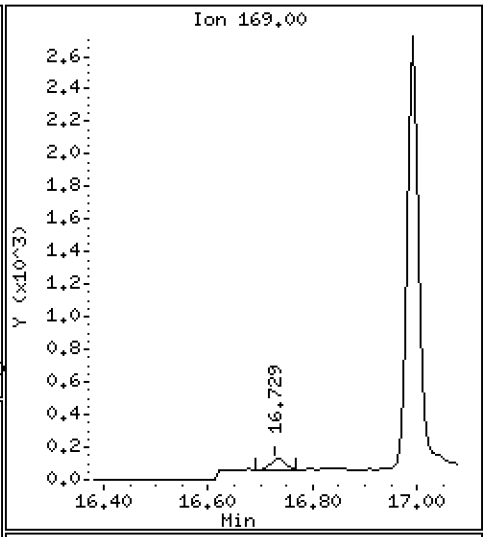
Column phase: ZB-5msi

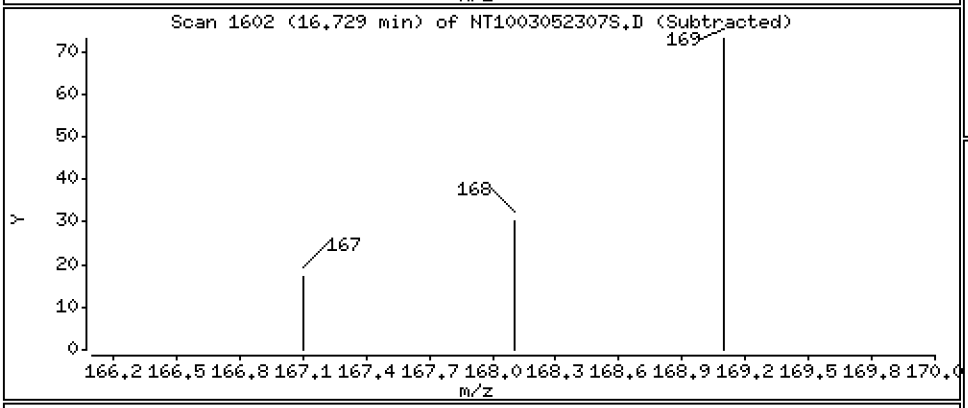
Column diameter: 0.25

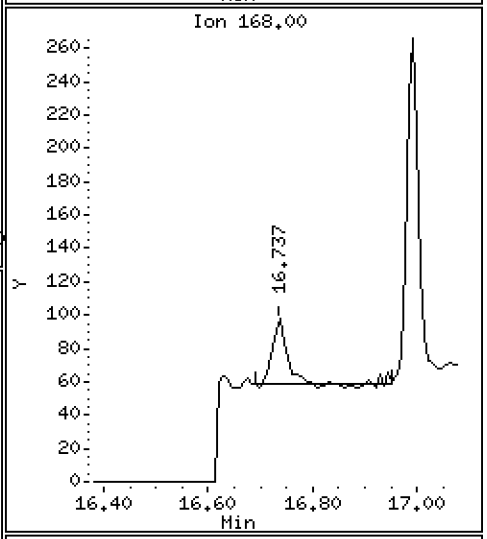
54 N-Nitrosodiphenylamine

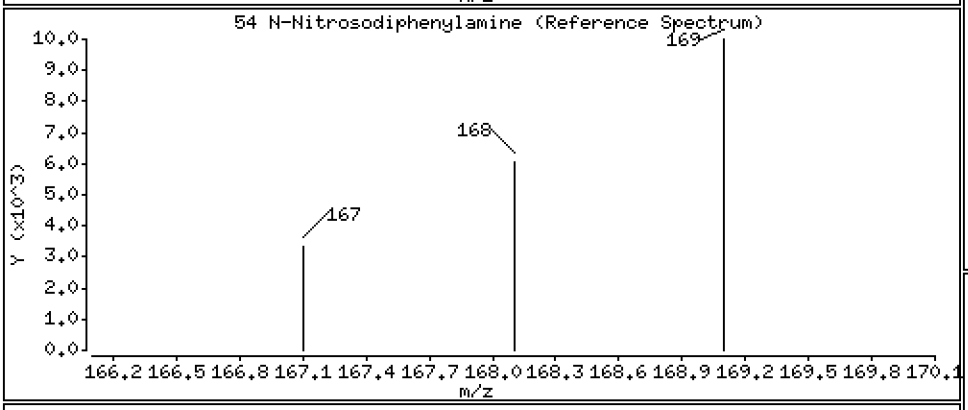
Concentration: 0.0008467 ug/mL

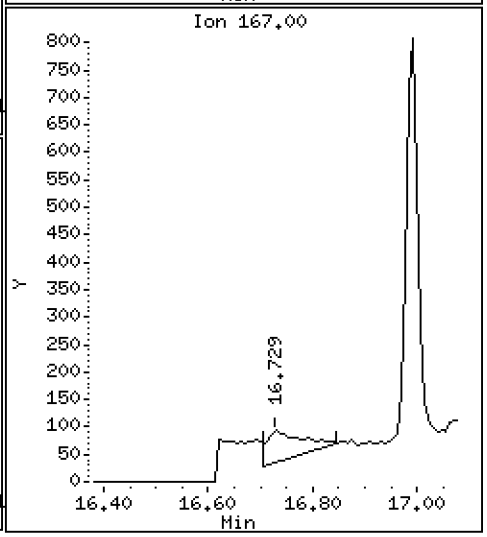


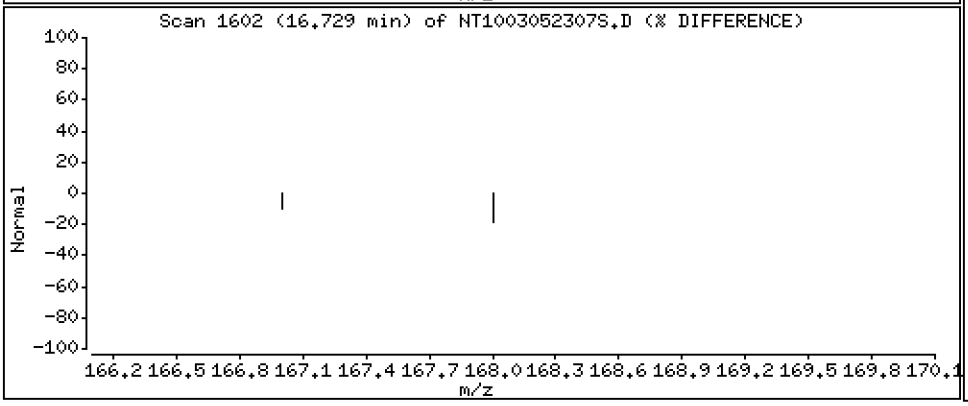












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052307S.D

Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK2

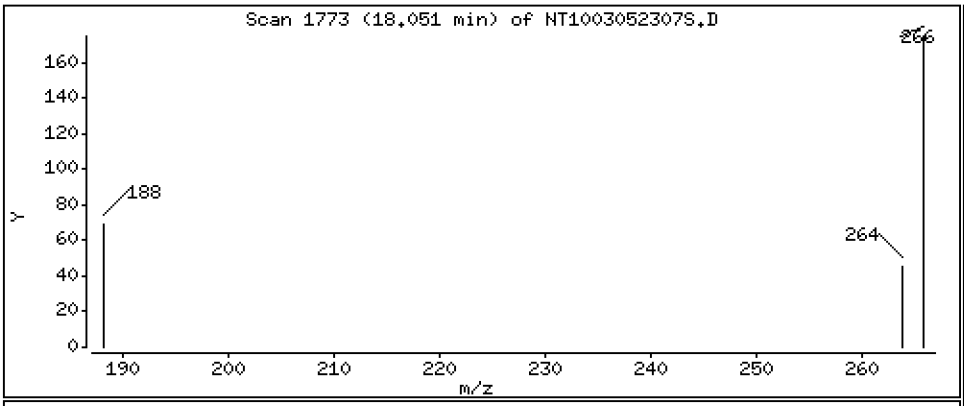
Operator: YZ

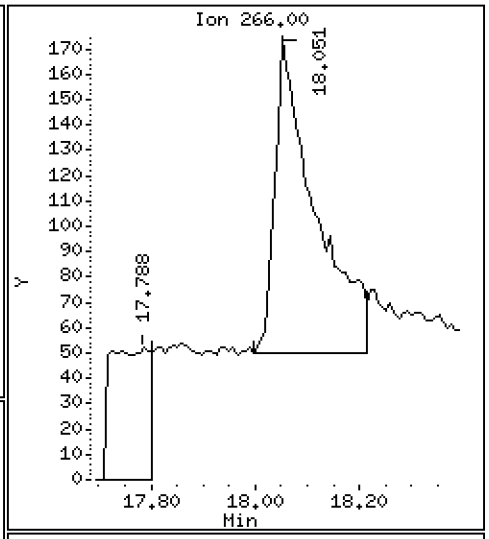
Column phase: ZB-5msi

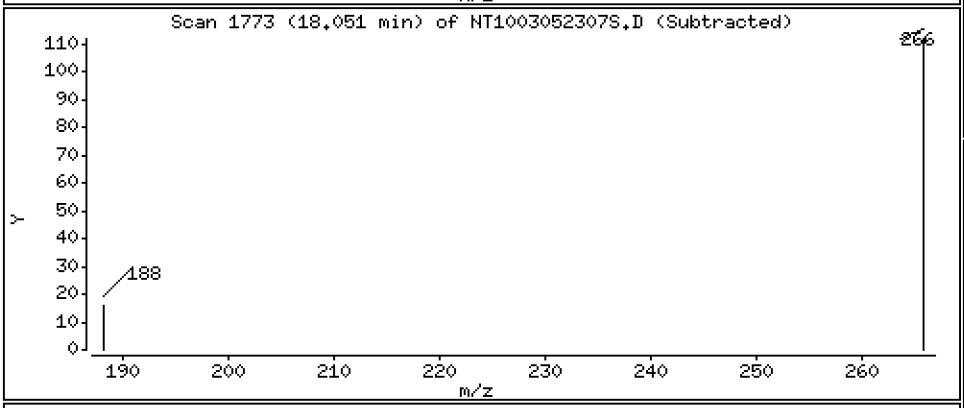
Column diameter: 0.25

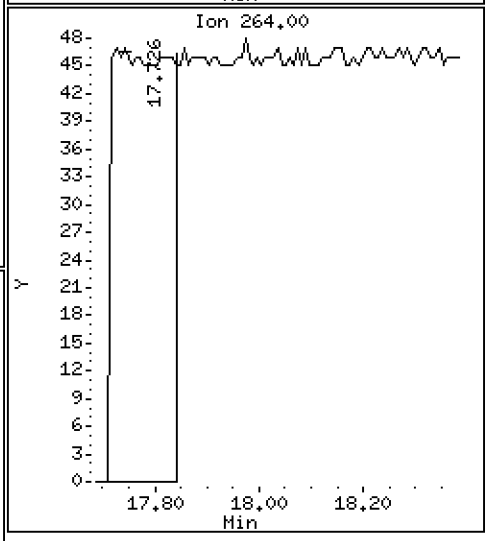
58 Pentachlorophenol

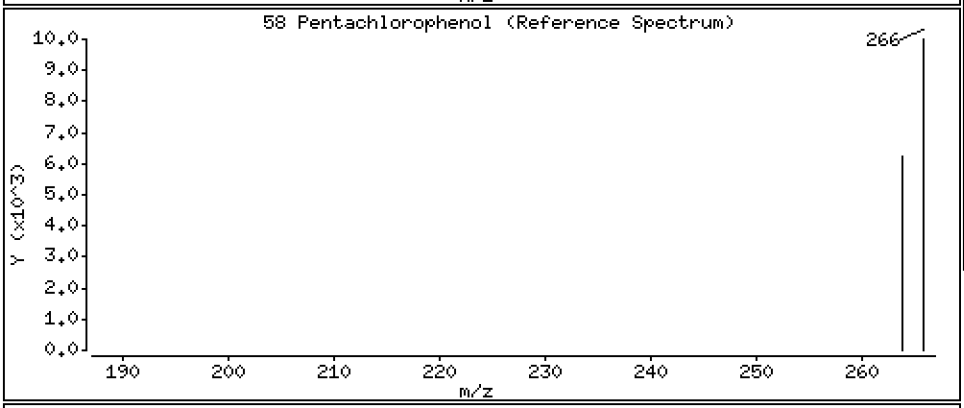
Concentration: 0.01972 ug/mL

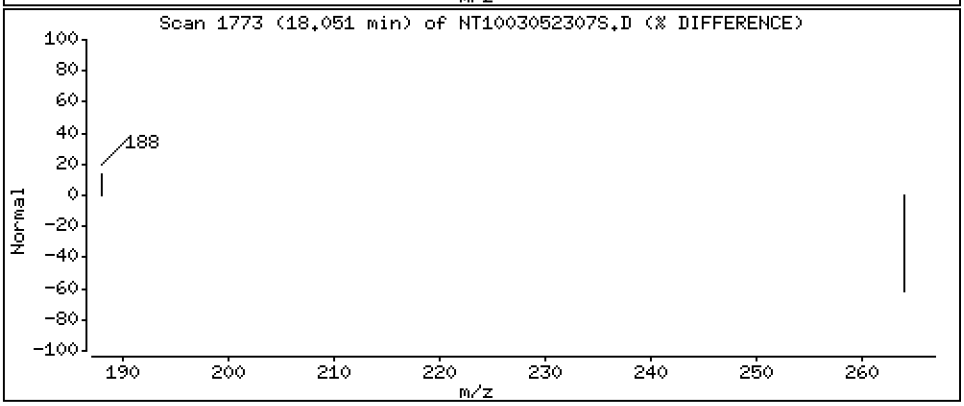












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052307S.D

Date : 05-MAR-2023 17:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BLK2

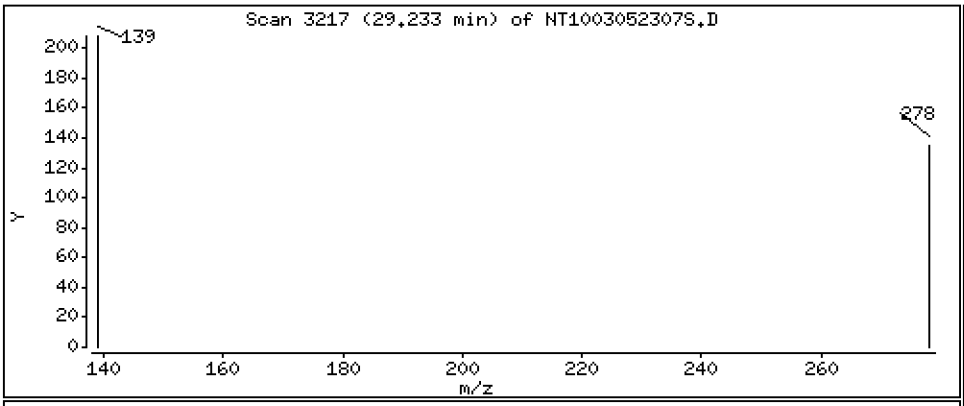
Operator: YZ

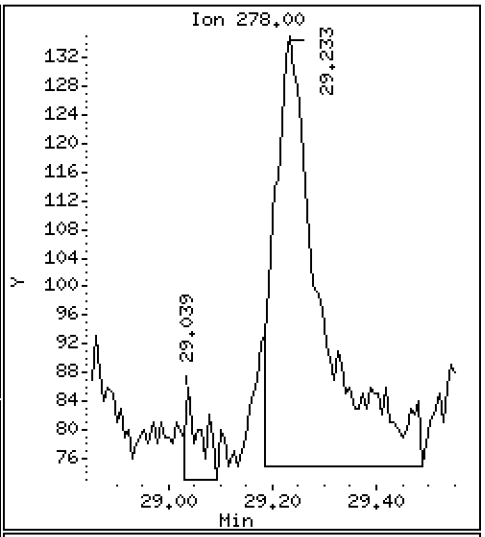
Column phase: ZB-5msi

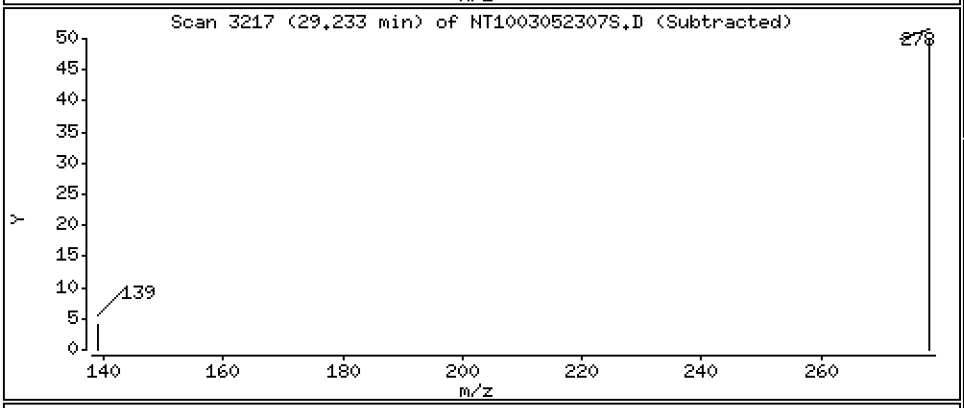
Column diameter: 0.25

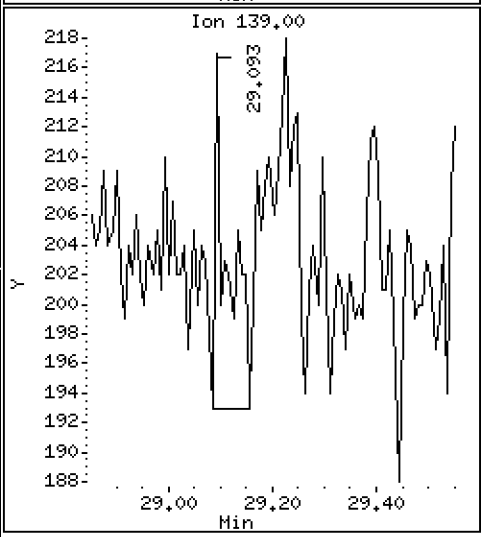
79 Dibenzo(a,h)anthracene

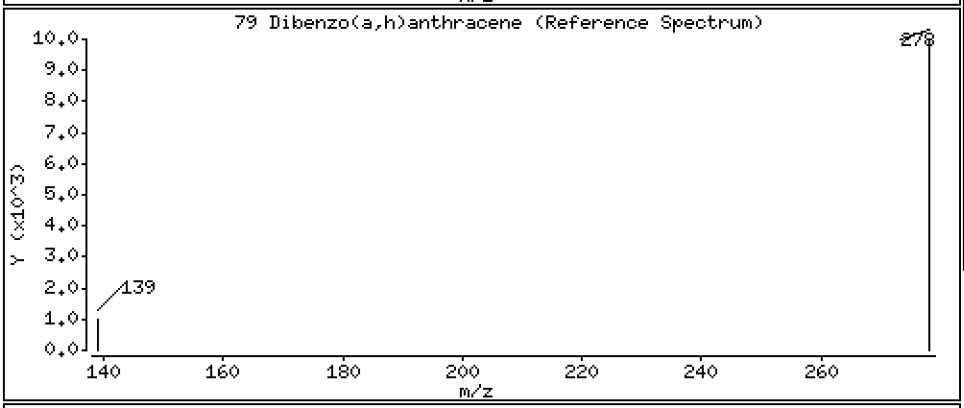
Concentration: 0.001630 ug/mL

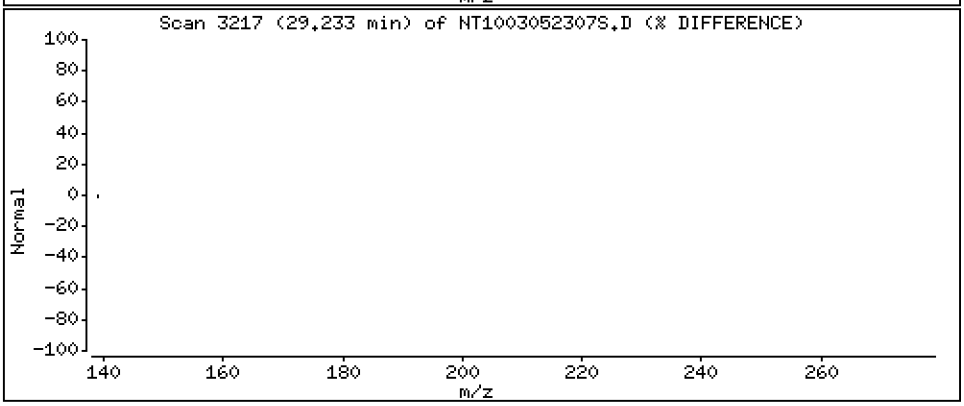












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052307S.D
Lab Smp Id: BLA0685-BLK2
Inj Date : 05-MAR-2023 17:12
Operator : YZ Inst ID: nt10.i
Smp Info : BLA0685-BLK2
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:00 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

							CONCENTRATIONS	
		QUANT SIG					ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
$	1 2-Fluorophenol	112	6.902	6.902	(0.747)	412695	4.68894	4.689(R)
	3 Phenol	94	8.533	8.533	(0.923)	4923	0.03792	0.03792
	7 1,3-Dichlorobenzene	146	9.135	9.136	(0.988)	929	0.00813	0.008131
*	8 1,4-Dichlorobenzene-d4	152	9.244	9.244	(1.000)	308288	4.00000	
	9 1,4-Dichlorobenzene	146	9.275	9.275	(1.003)	875	0.00788	0.007877
	11 Benzyl alcohol	79	9.539	9.485	(1.032)	12482	0.17313	0.1731
	12 1,2-Dichlorobenzene	146	9.562	9.562	(1.034)	785	0.00735	0.007352
	13 2-Methylphenol	108	Compound Not Detected.					
	15 4-Methylphenol	108	9.981	9.958	(1.080)	261	0.00322	0.003217
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	11.608	11.608	(0.989)	584	0.00747	0.007472
*	27 Naphthalene-d8	136	11.731	11.731	(1.000)	1085923	4.00000	
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	39 Dimethylphthalate	163	14.772	14.765	(0.963)	785	0.00468	0.004682
*	42 Acenaphthene-d10	162	15.337	15.337	(1.000)	528064	4.00000	
	50 Diethylphthalate	149	16.242	16.234	(1.059)	17475	0.11052	0.1105(H)
	54 N-Nitrosodiphenylamine	169	16.729	16.729	(0.907)	139	8e-004	0.0008467
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	18.050	18.043	(0.978)	663	0.01972	0.01972
*	59 Phenanthrene-d10	188	18.453	18.453	(1.000)	1014390	4.00000	
$	66 Terphenyl-d14	244	21.609	21.602	(0.919)	525124	7.03131	7.031(R)
	67 Butylbenzylphthalate	149	Compound Not Detected.					
*	69 Chrysene-d12	240	23.522	23.514	(1.000)	923539	4.00000	
*	77 Perylene-d12	264	26.294	26.286	(1.000)	1001440	4.00000	
	79 Dibenzo(a,h)anthracene	278	29.233	29.202	(1.112)	378	0.00163	0.001630
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052307S.D
Lab Smp Id: BLA0685-BLK2
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:40
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	321376	160688	642752	308288	-4.07
27 Naphthalene-d8	1132931	566466	2265862	1085923	-4.15
42 Acenaphthene-d10	561597	280799	1123194	528064	-5.97
59 Phenanthrene-d10	1068222	534111	2136444	1014390	-5.04
69 Chrysene-d12	997572	498786	1995144	923539	-7.42
77 Perylene-d12	1245490	622745	2490980	1001440	-19.59

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.24	-0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.00
42 Acenaphthene-d10	15.34	14.84	15.84	15.34	-0.00
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	-0.00
69 Chrysene-d12	23.51	23.01	24.01	23.52	0.03
77 Perylene-d12	26.29	25.79	26.79	26.29	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052307S.D

Lab ID: BLA0685-BLK2
nt10.i, 20230305.b\SIM.b\SIMABN2.m,   05-MAR-2023 17:12

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.032	1.026	0.0059	Benzyl alcohol

RRT check based on Ccal File: SIM.b/NT1003052303S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

LCS / LCS DUPLICATE RECOVERY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	02/06/23 16:24
Batch:	BLA0683	Laboratory ID:	BLA0683-BS1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	LCS
Initial/Final:	10 g / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Benzo(a)anthracene	300	167		55.7	42 - 120
Chrysene	300	167		55.6	48 - 120
Benzo(b)fluoranthene	300	233		77.7	52 - 137
Benzo(k)fluoranthene	300	222		74.1	37 - 129
Benzo(a)pyrene	300	154		51.4	36 - 120
Indeno(1,2,3-cd)pyrene	300	213		71.0	67 - 132
Dibenzo(a,h)anthracene	300	235		78.4	66 - 139

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Benzo(a)anthracene	300	200		66.8	18.1	30	42 - 120
Chrysene	300	199		66.3	17.6	30	48 - 120
Benzo(b)fluoranthene	300	278		92.7	17.7	30	52 - 137
Benzo(k)fluoranthene	300	265		88.2	17.4	30	37 - 129
Benzo(a)pyrene	300	186		62.1	18.9	30	36 - 120
Indeno(1,2,3-cd)pyrene	300	249		83.1	15.7	30	67 - 132
Dibenzo(a,h)anthracene	300	280		93.2	17.3	30	66 - 139

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

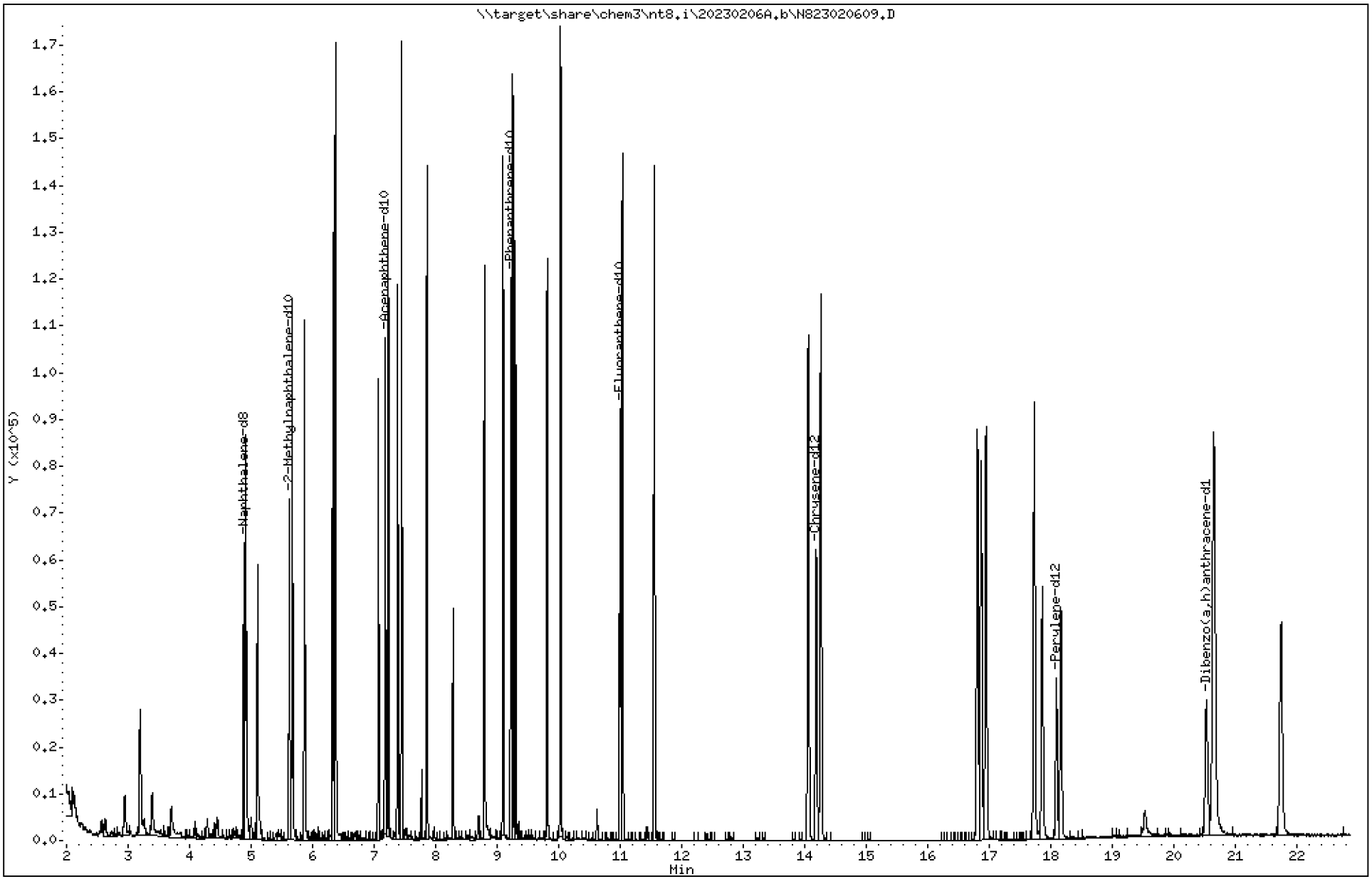
Instrument: nt8.i

Sample Info: BLA0683-BS1,

Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25



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Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

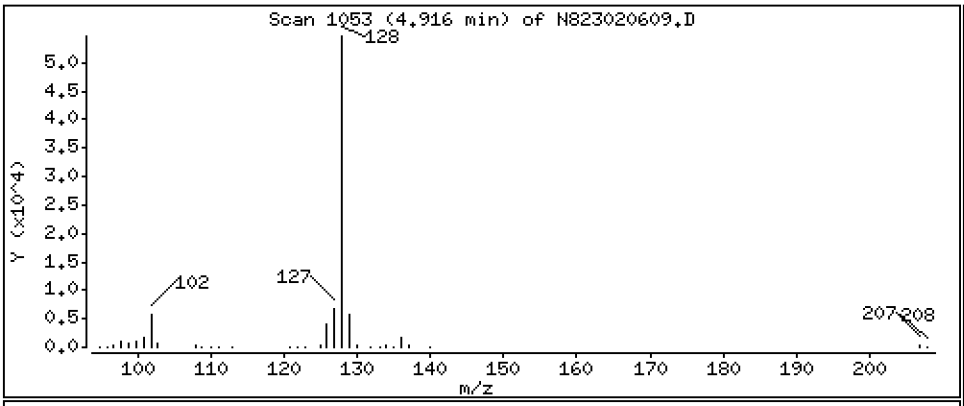
Operator: JZ

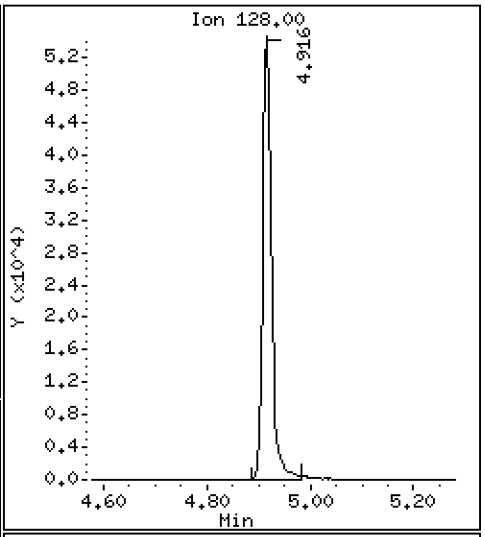
Column phase: Rxi-17sil

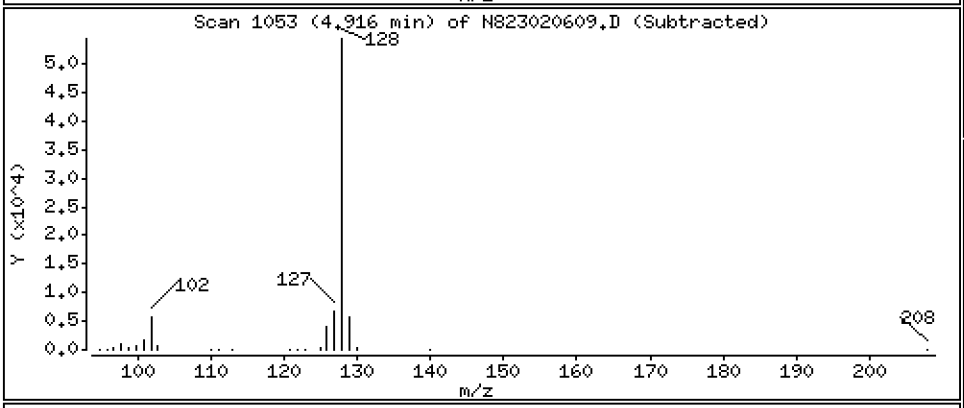
Column diameter: 0.25

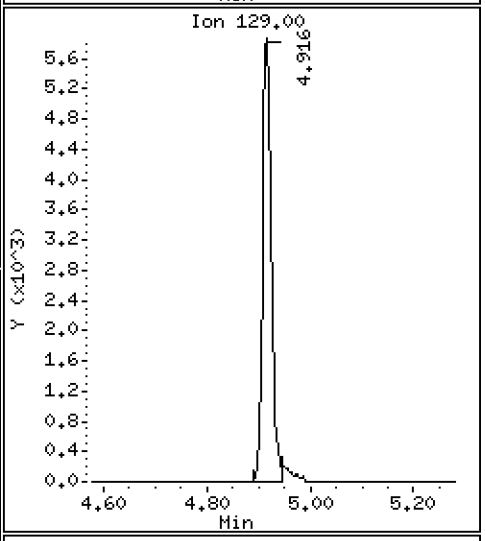
2 Naphthalene

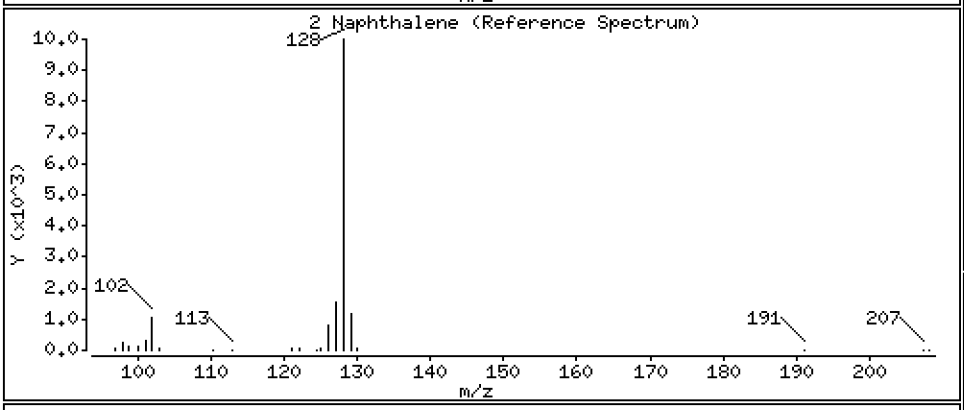
Concentration: 2.731 ug/mL

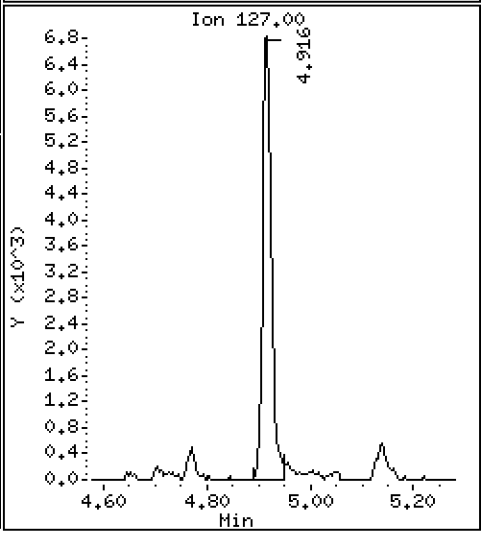


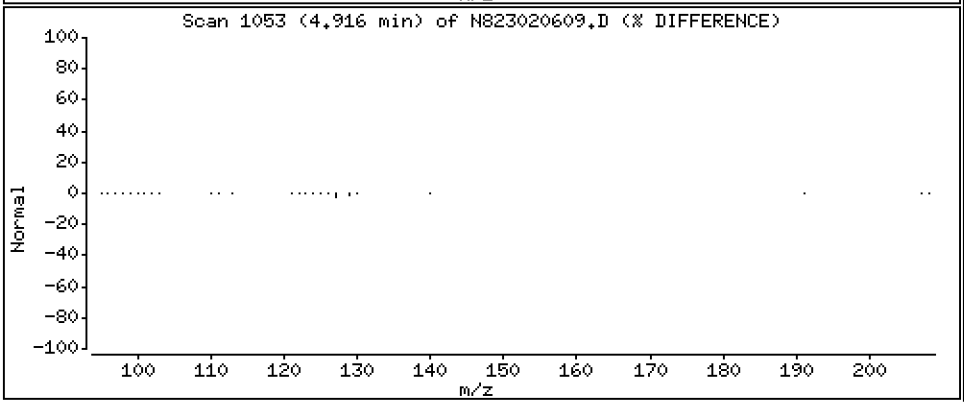












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

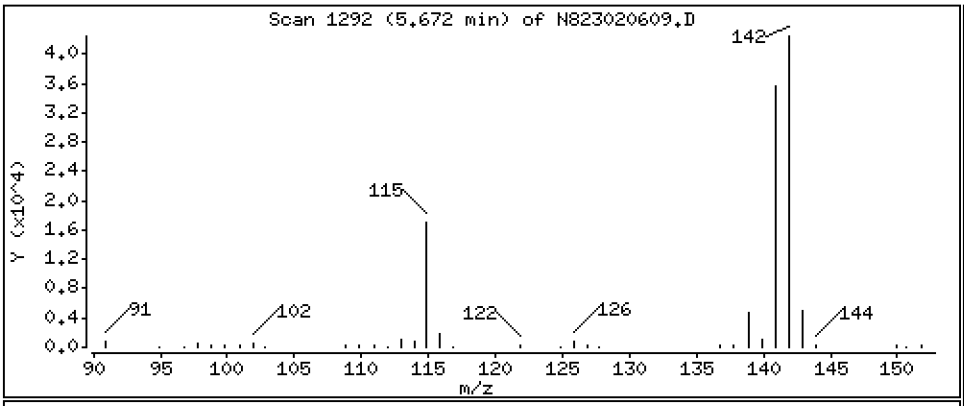
Operator: JZ

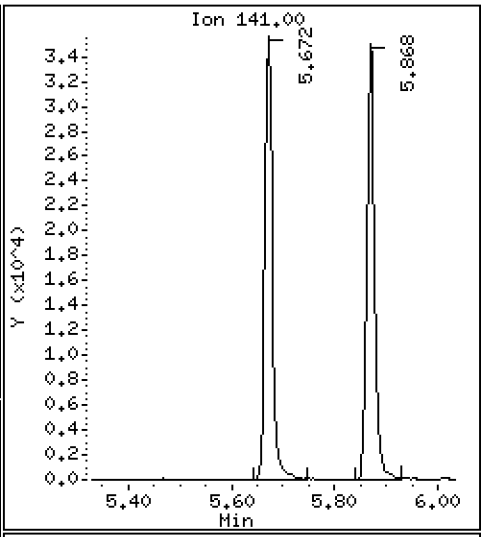
Column phase: Rxi-17sil

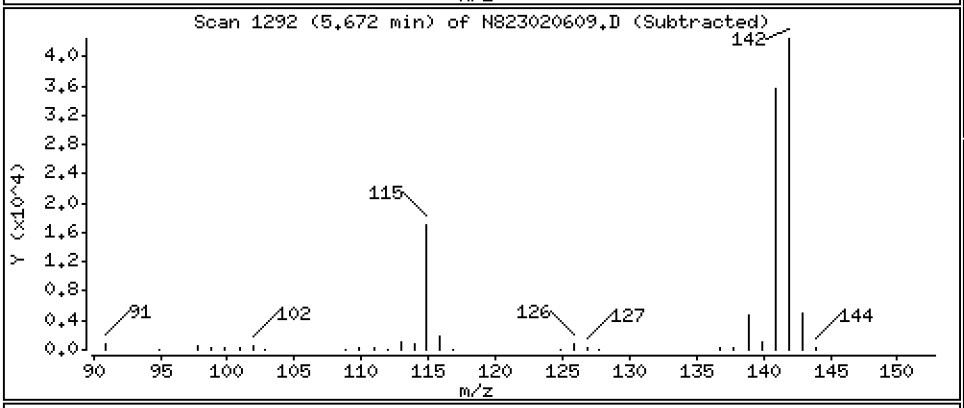
Column diameter: 0.25

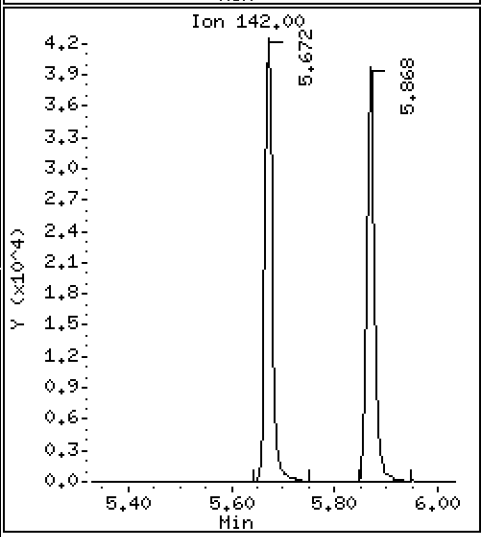
4 2-Methylnaphthalene

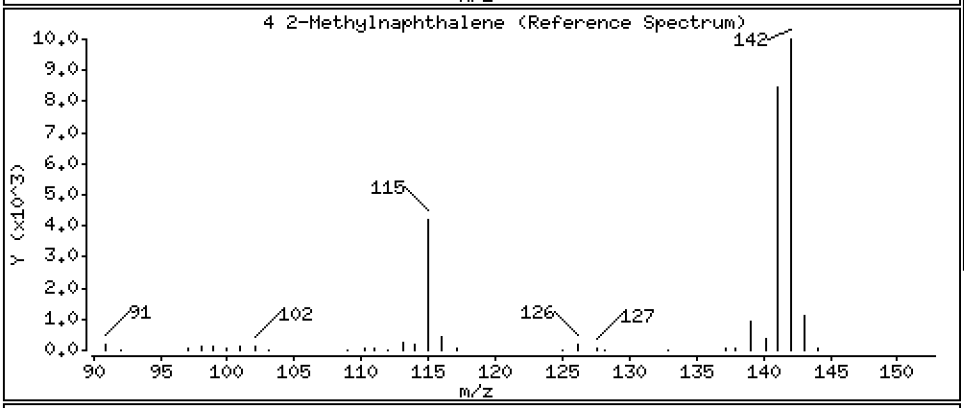
Concentration: 2.825 ug/mL

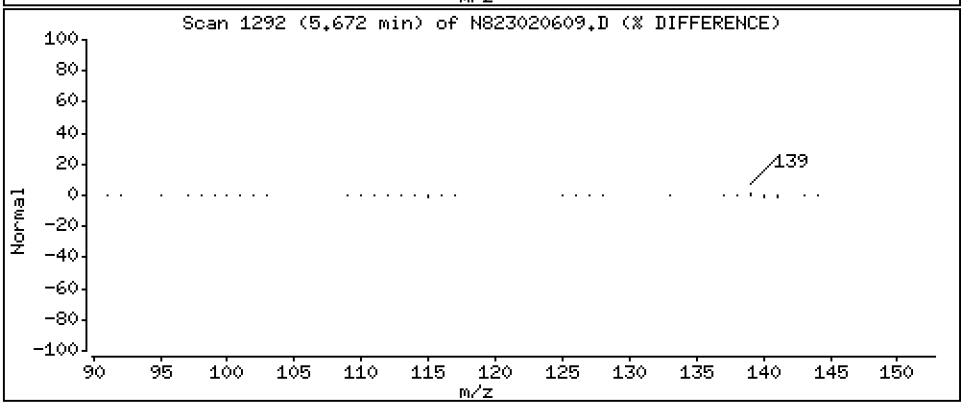












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

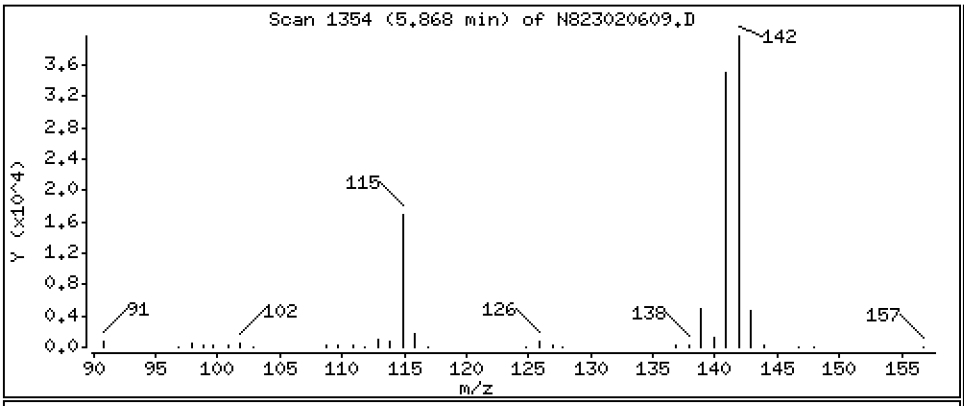
Operator: JZ

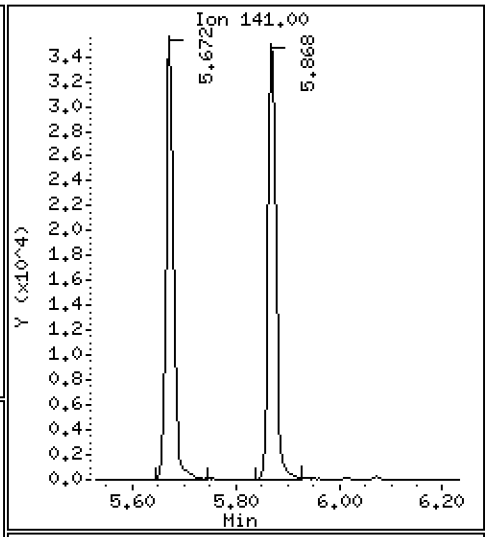
Column phase: Rxi-17sil

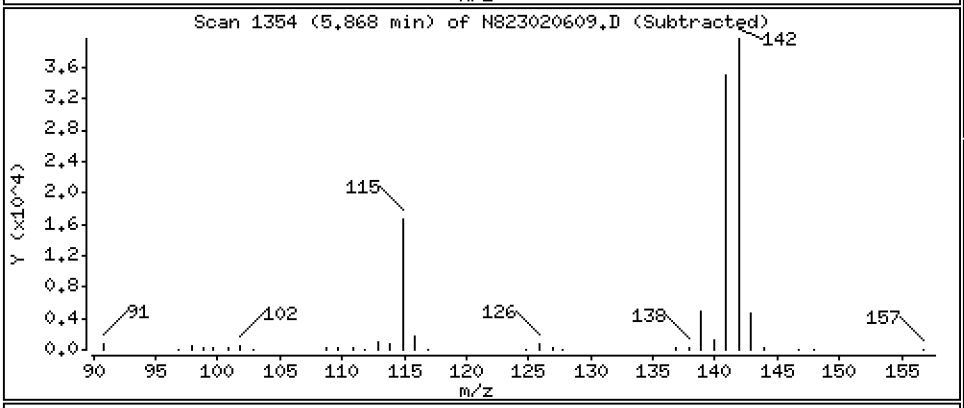
Column diameter: 0.25

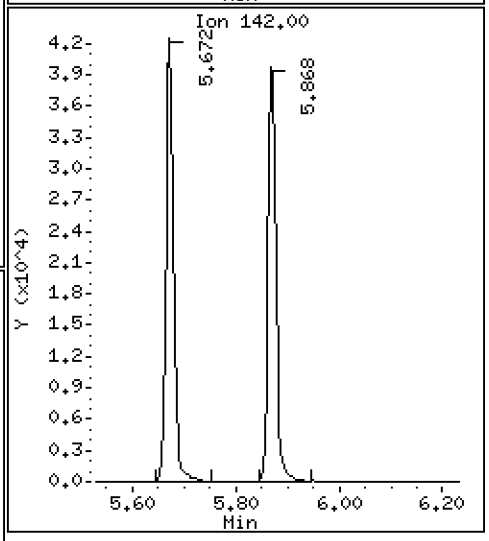
5 1-methylnaphthalene

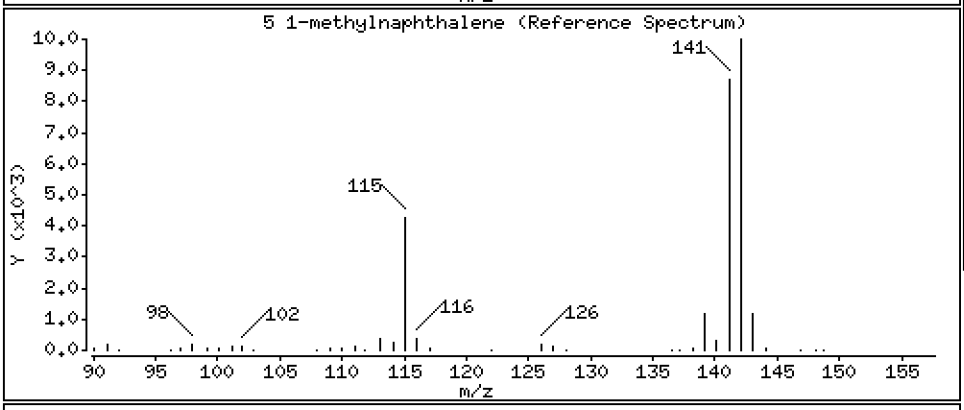
Concentration: 2.796 ug/mL

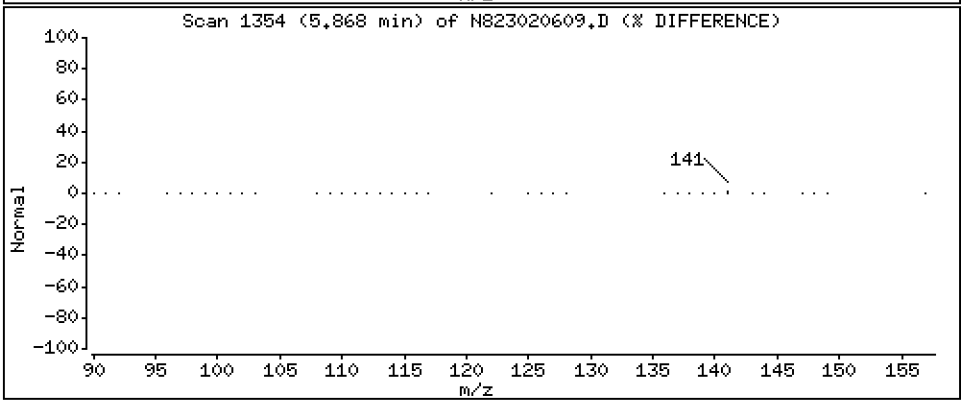












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Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

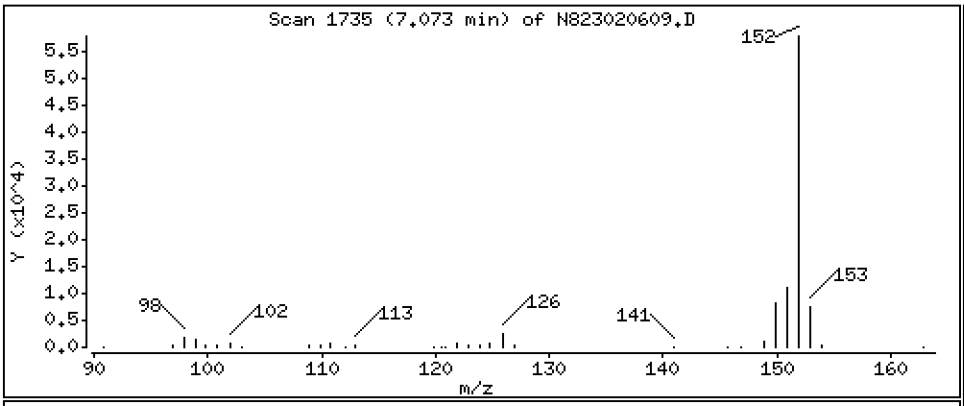
Operator: JZ

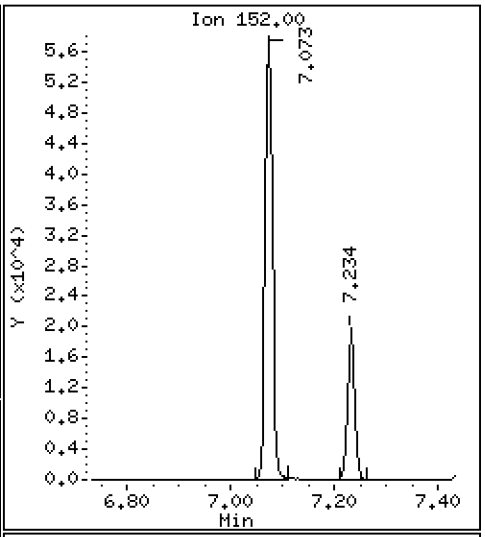
Column phase: Rxi-17sil

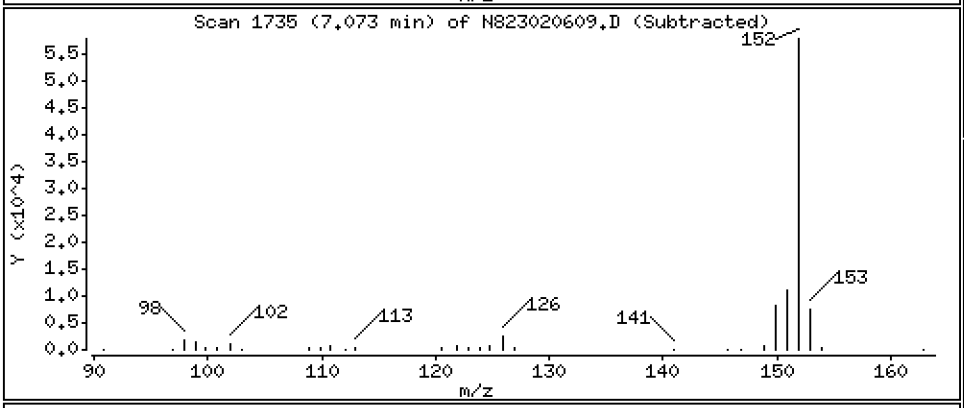
Column diameter: 0.25

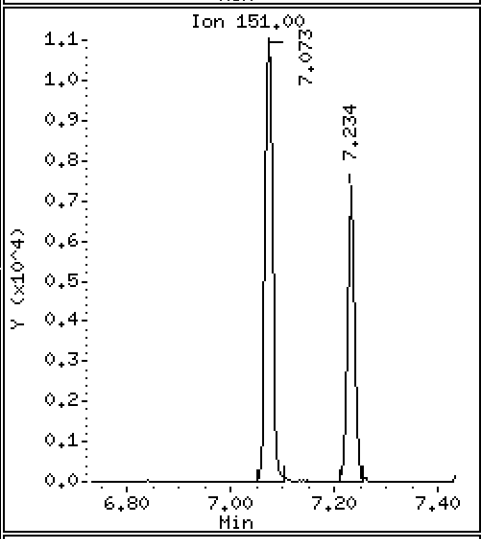
9 Acenaphthylene

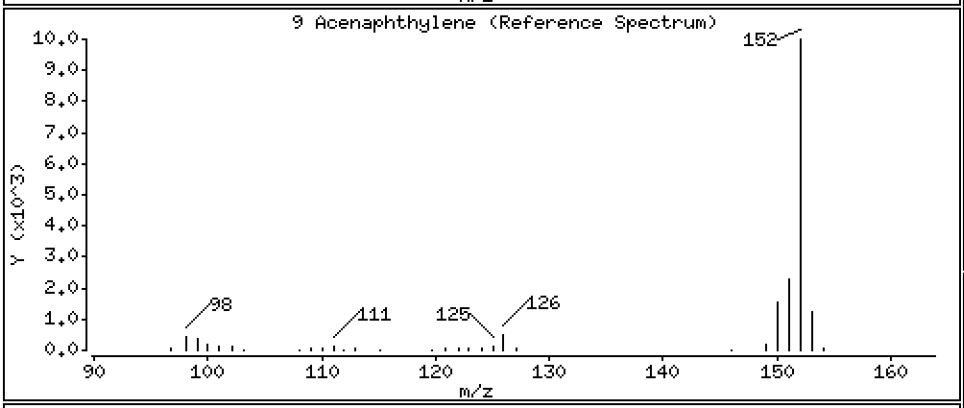
Concentration: 2.446 ug/mL

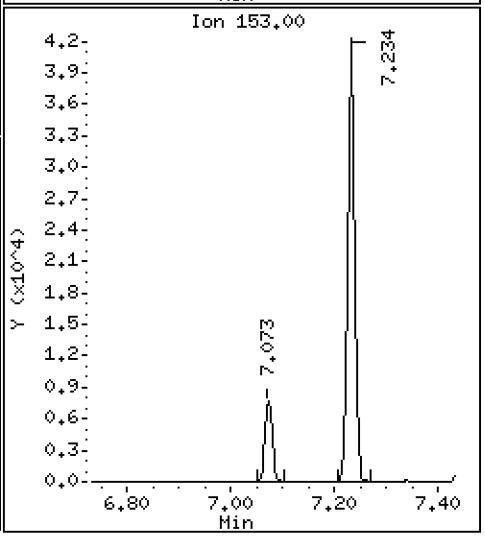


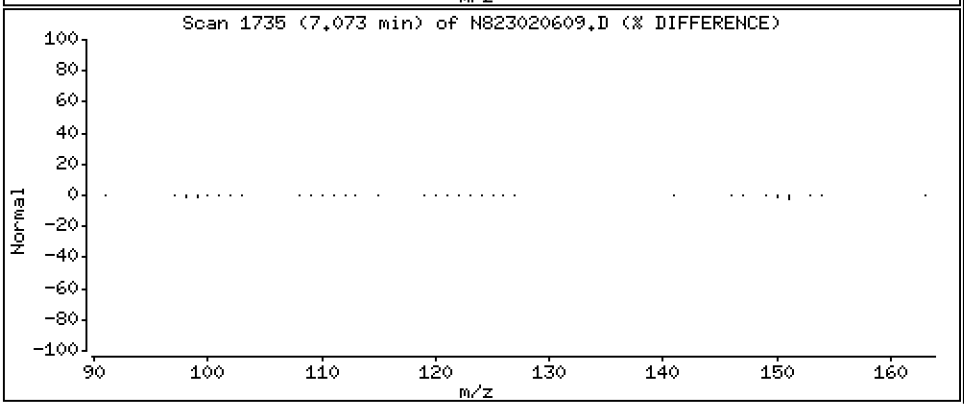












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Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

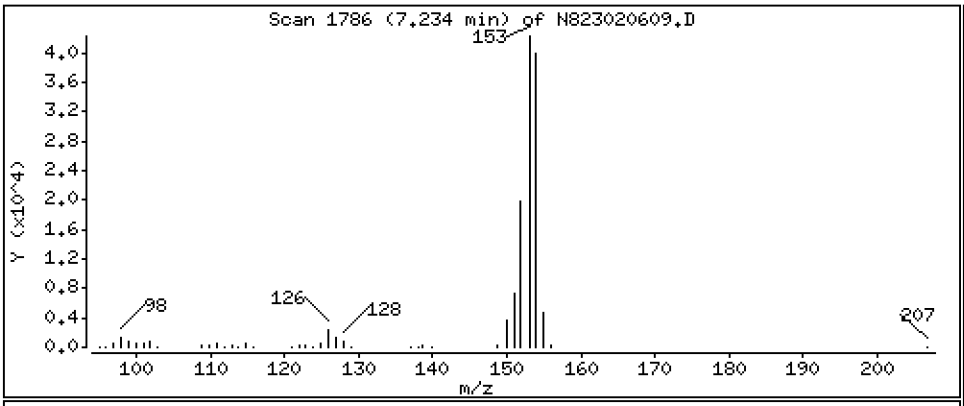
Operator: JZ

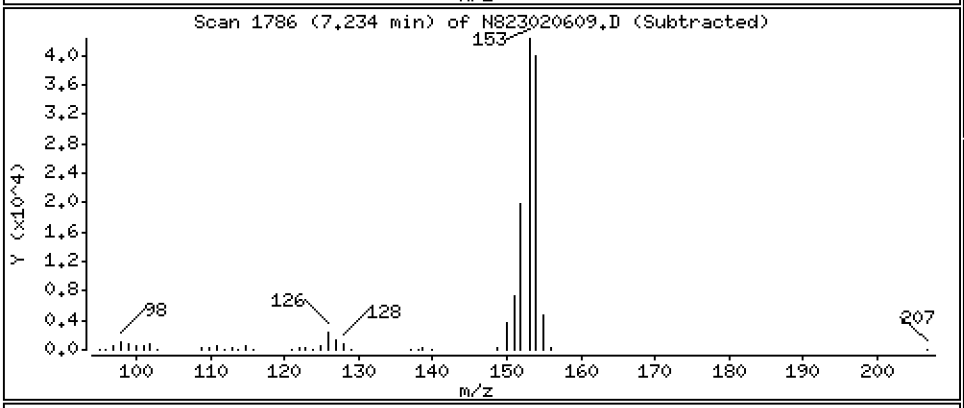
Column phase: Rxi-17sil

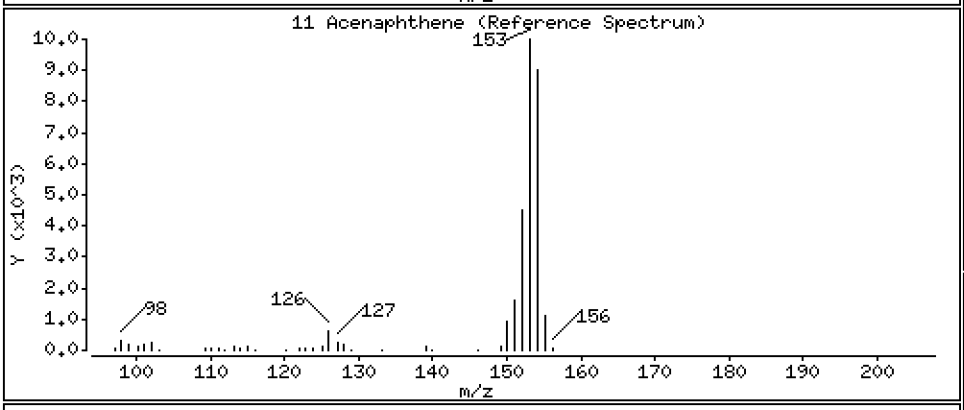
Column diameter: 0.25

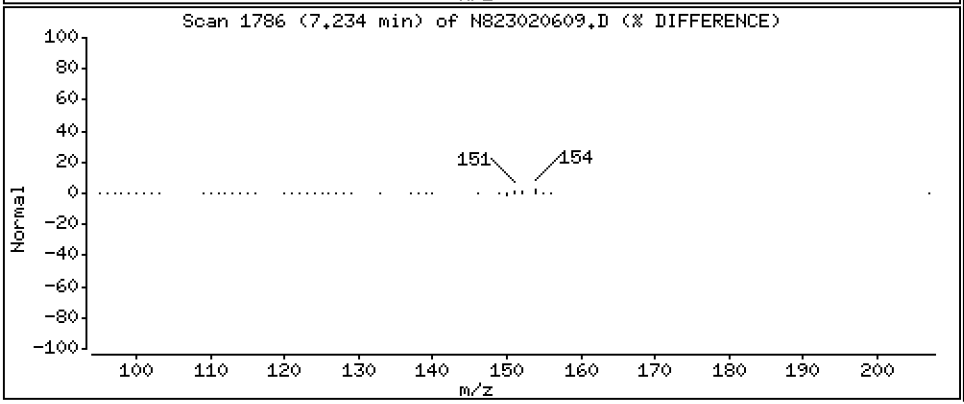
11 Acenaphthene

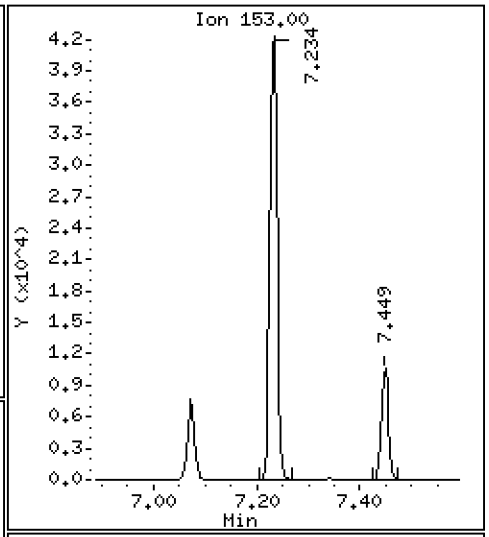
Concentration: 2.690 ug/mL

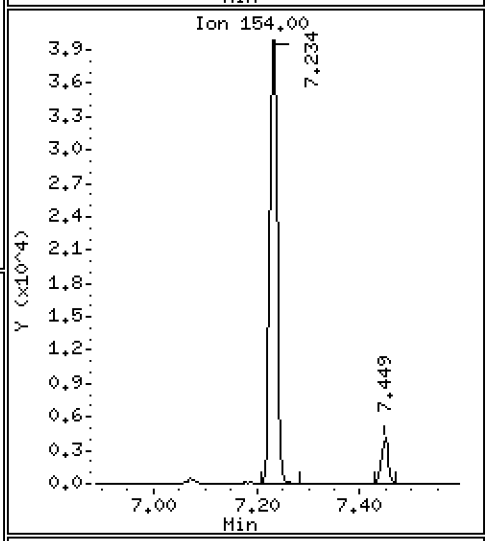


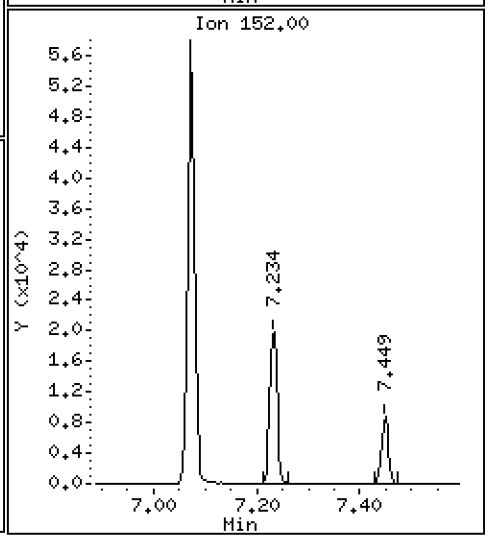












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Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

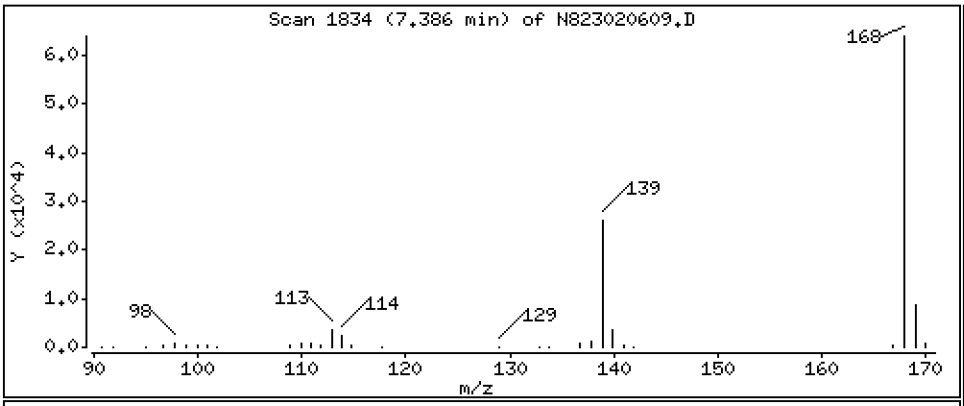
Operator: JZ

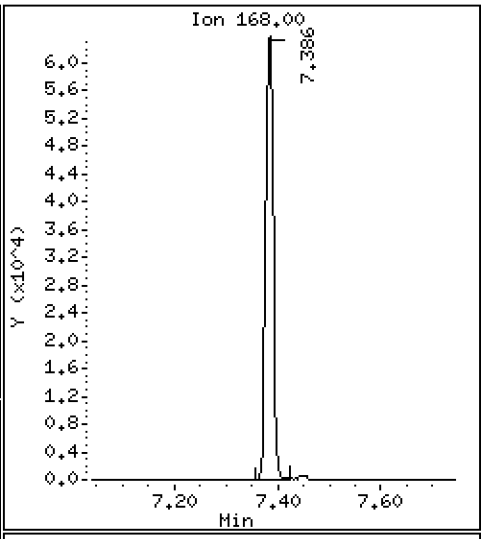
Column phase: Rxi-17sil

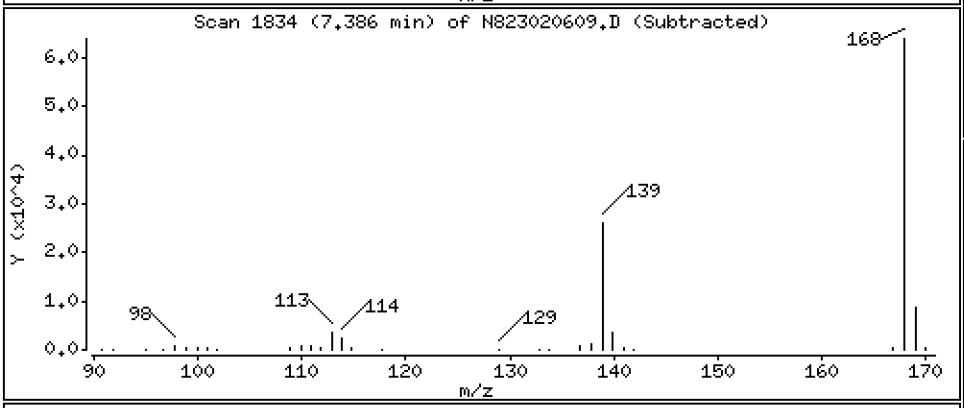
Column diameter: 0.25

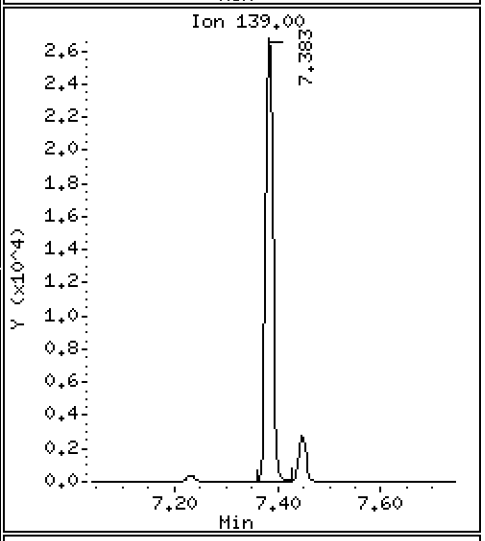
12 Dibenzofuran

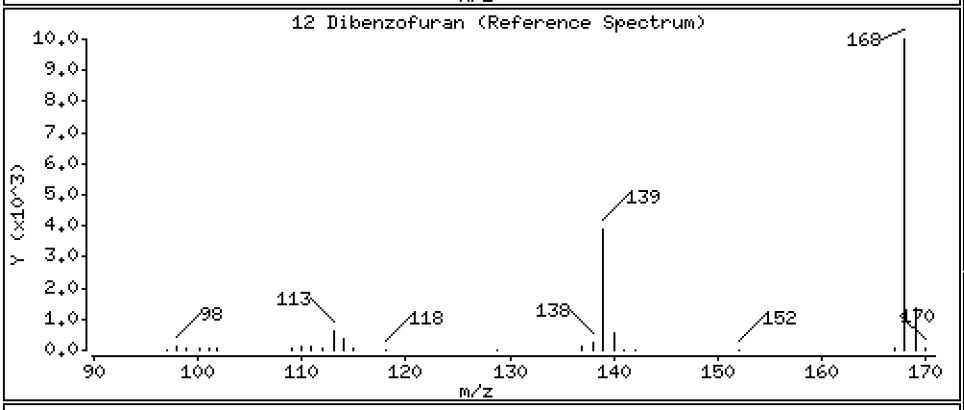
Concentration: 2.696 ug/mL

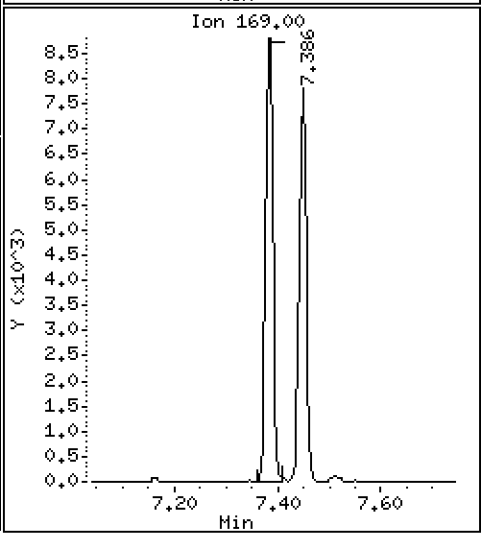


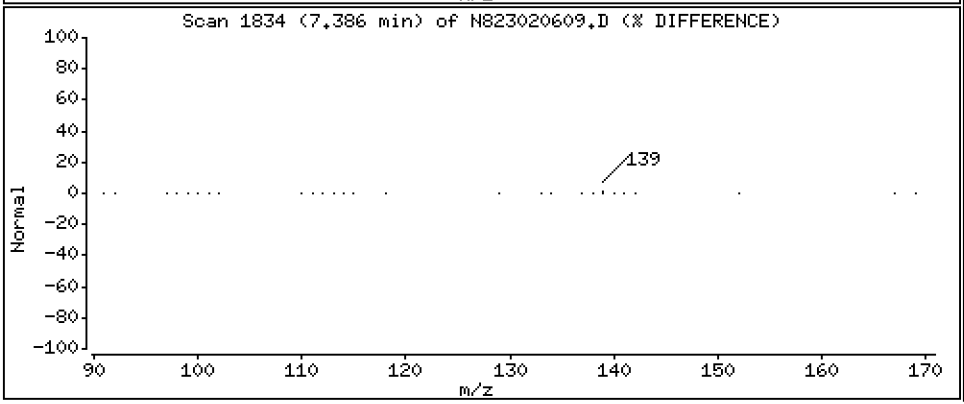












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

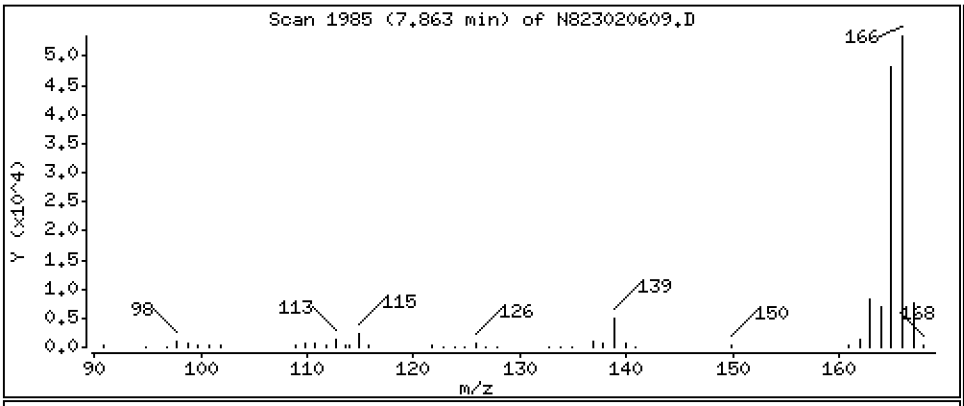
Operator: JZ

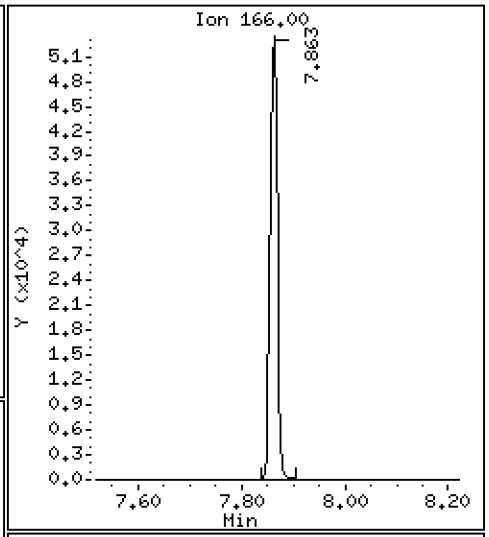
Column phase: Rxi-17sil

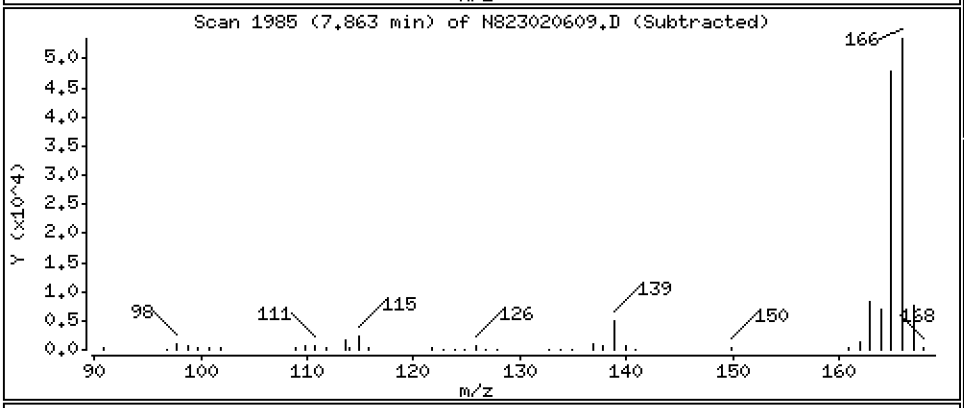
Column diameter: 0.25

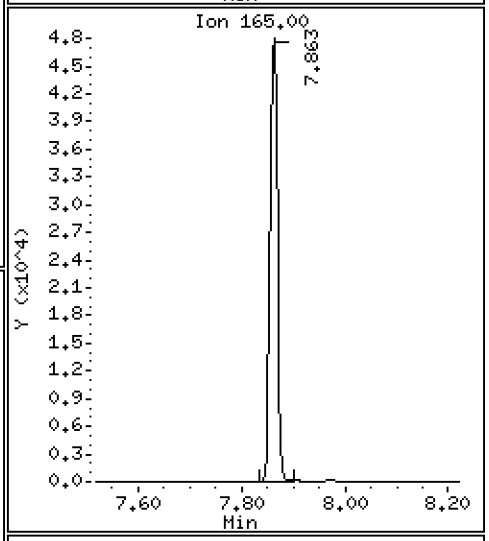
14 Fluorene

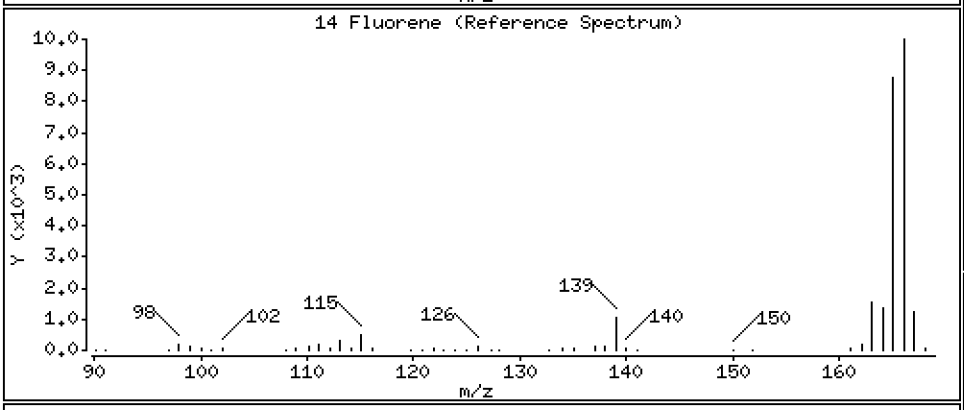
Concentration: 2.828 ug/mL

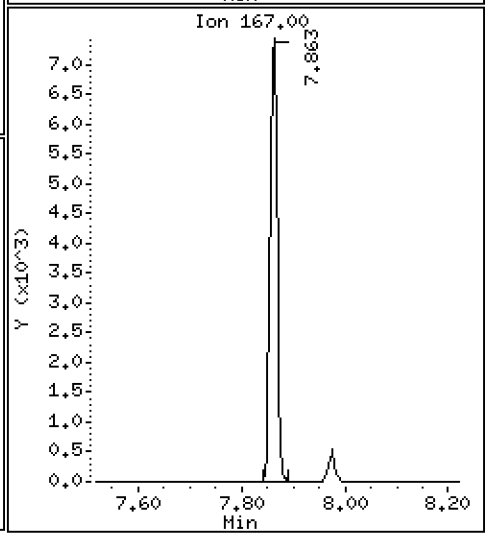


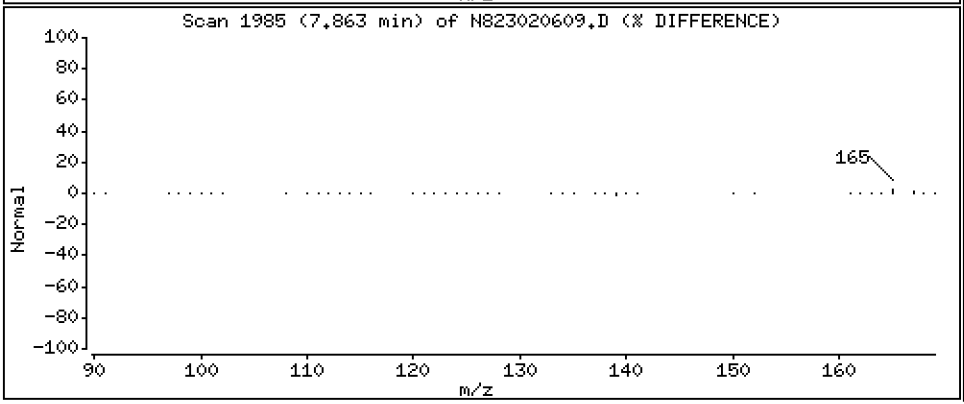












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

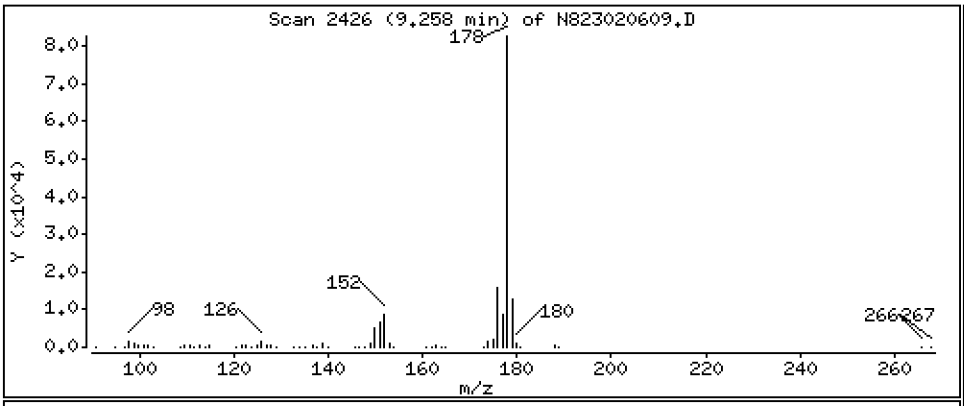
Operator: JZ

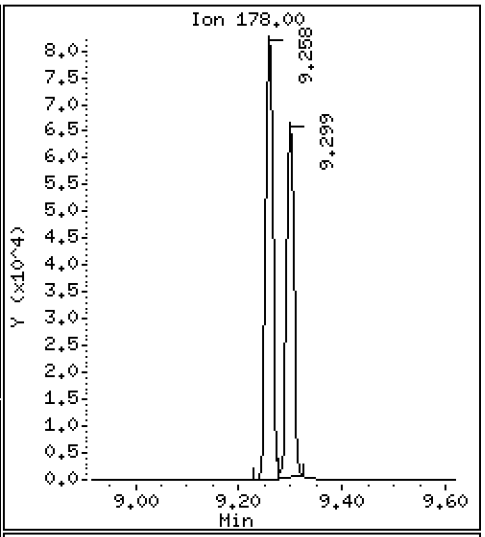
Column phase: Rxi-17sil

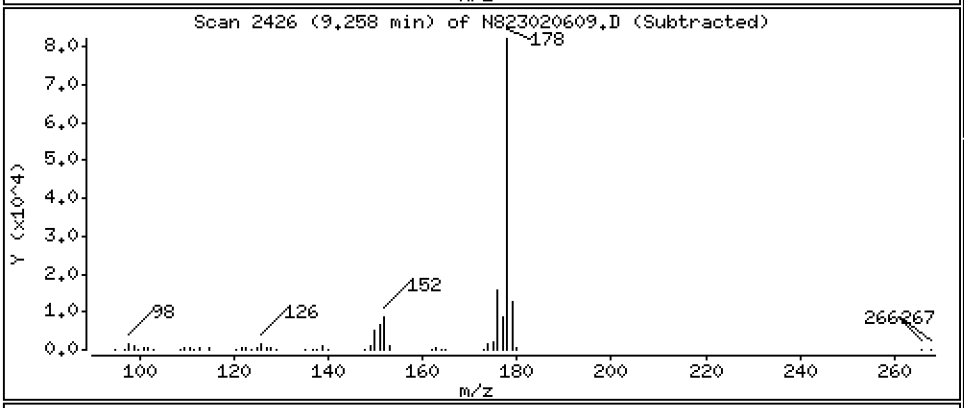
Column diameter: 0.25

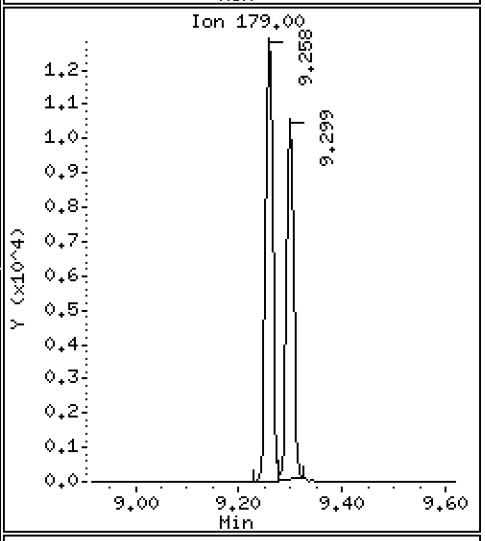
16 Phenanthrene

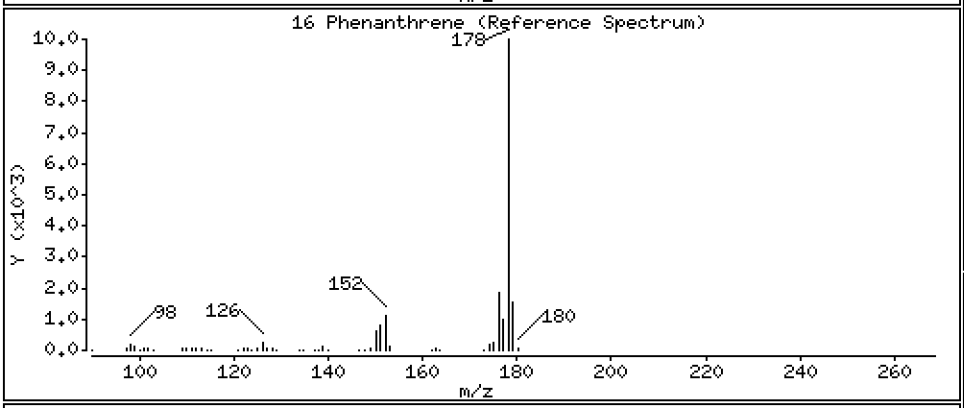
Concentration: 2.914 ug/mL

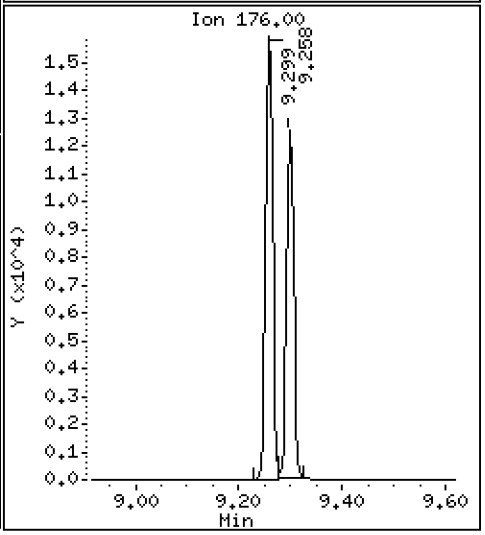


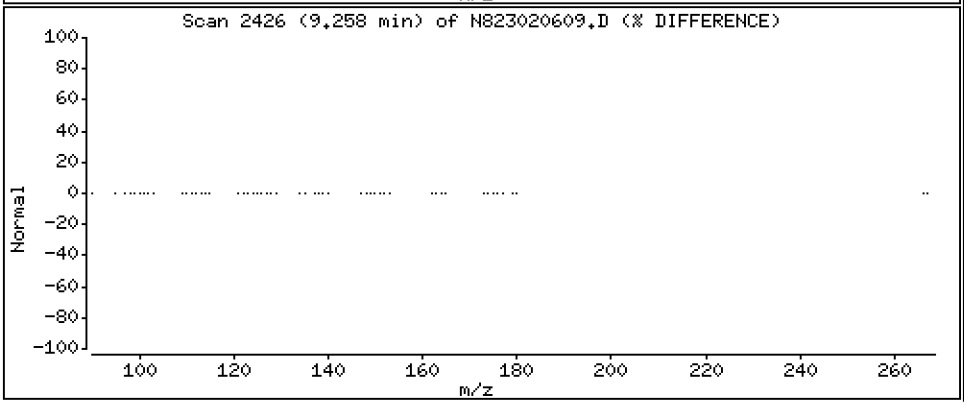












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Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

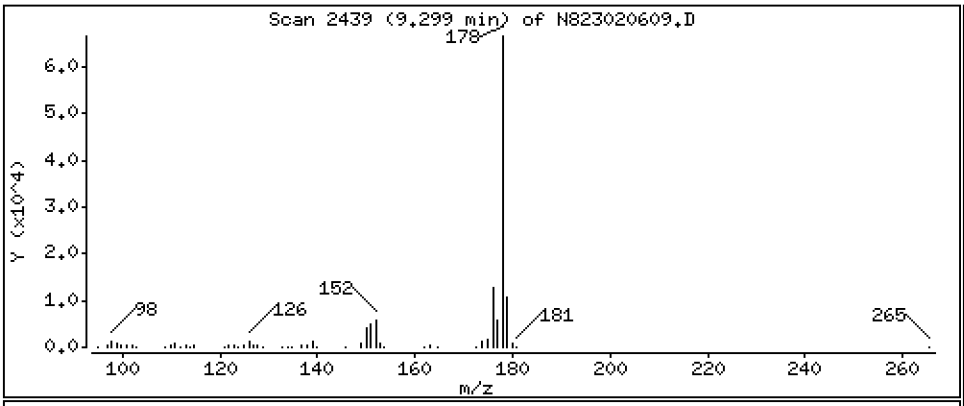
Operator: JZ

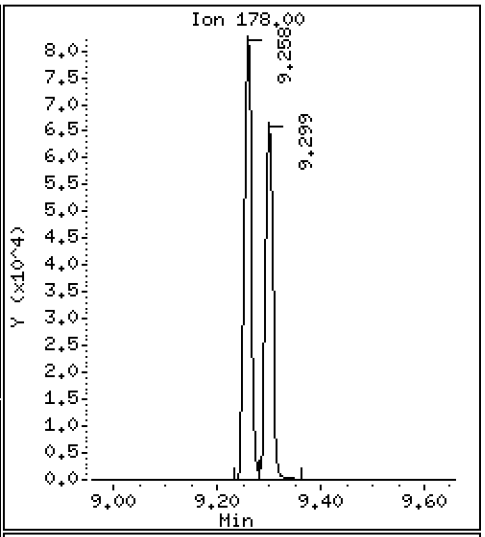
Column phase: Rxi-17sil

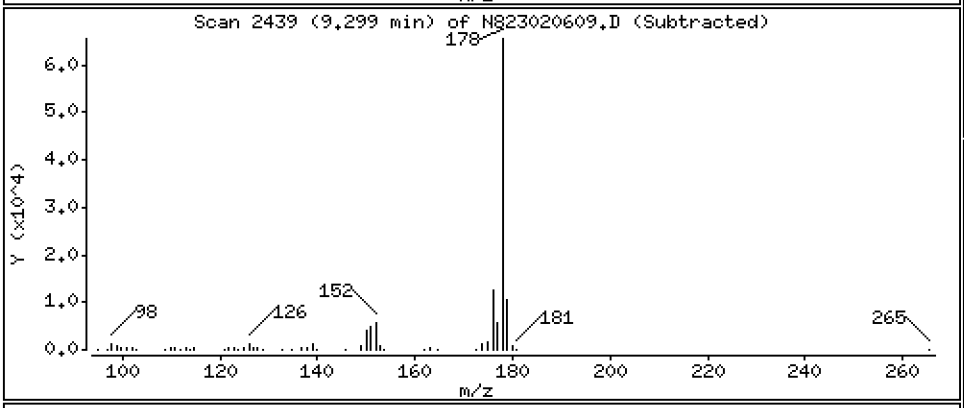
Column diameter: 0.25

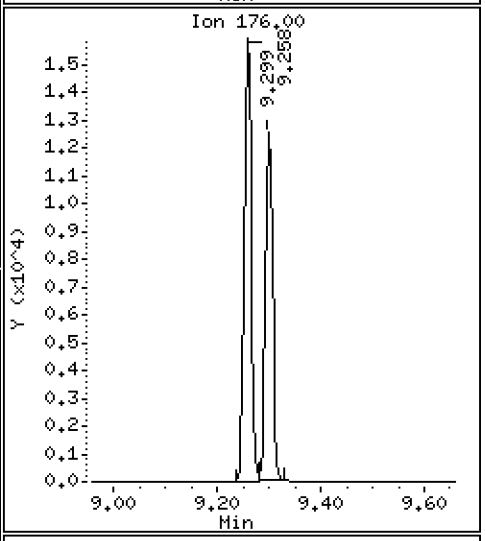
17 Anthracene

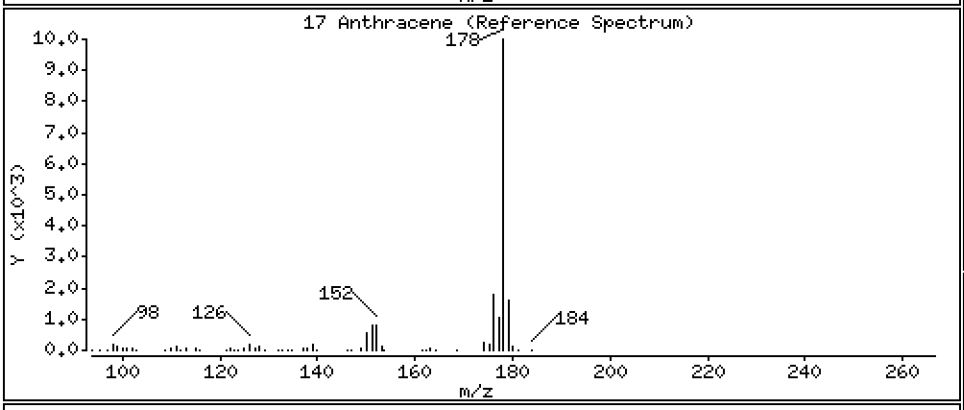
Concentration: 2.654 ug/mL

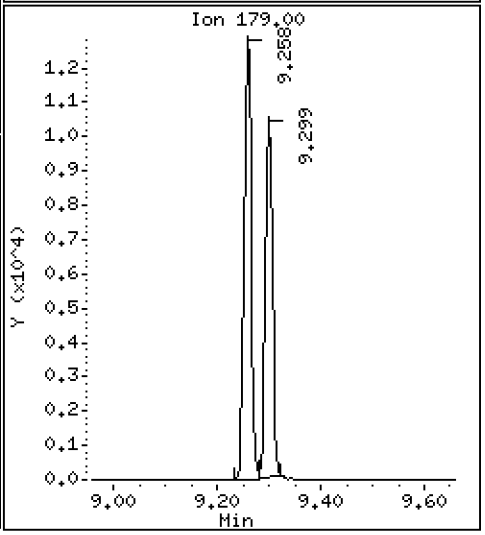


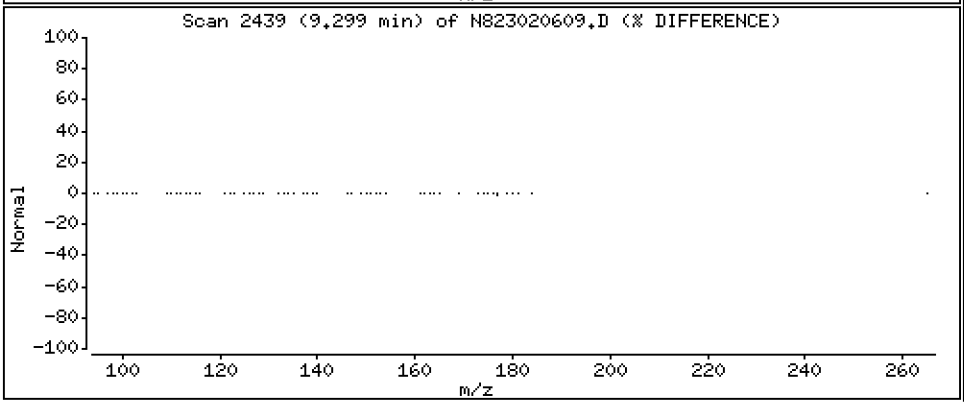












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Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

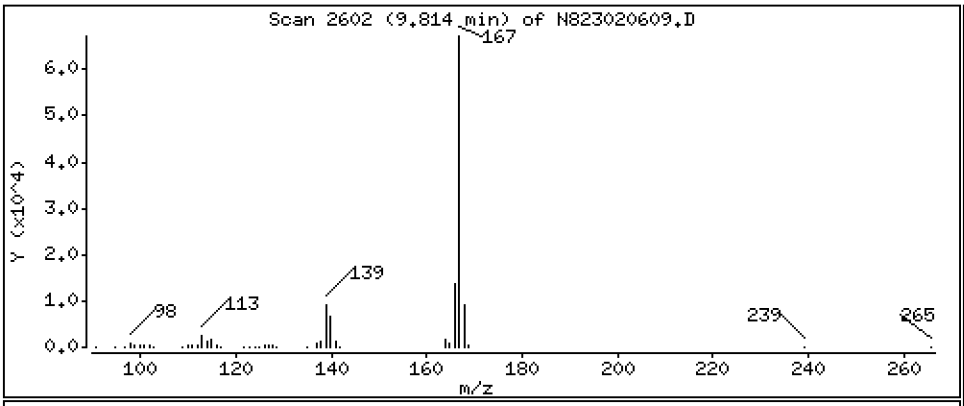
Operator: JZ

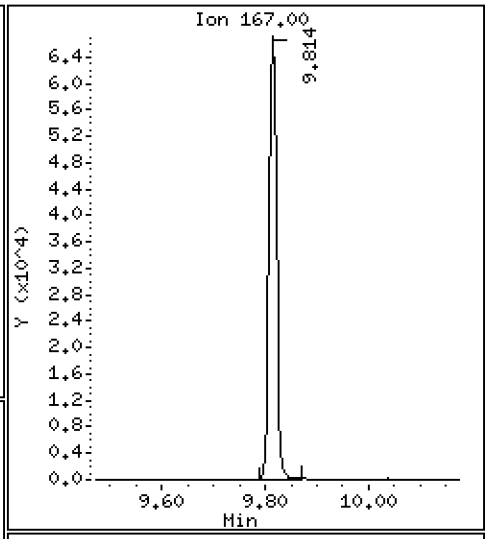
Column phase: Rxi-17sil

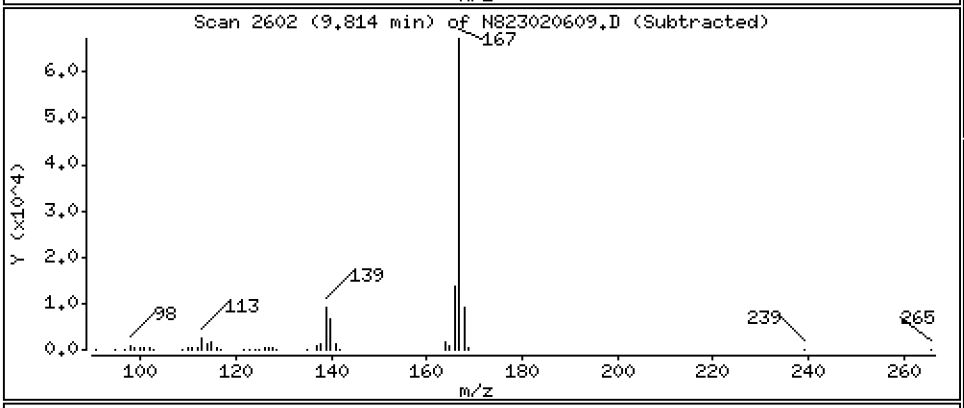
Column diameter: 0.25

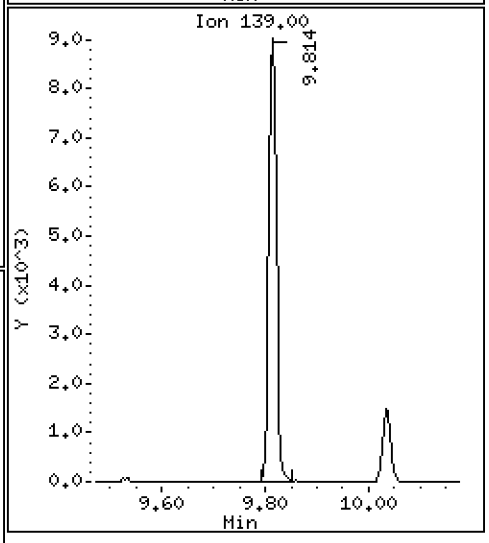
19 Carbazole

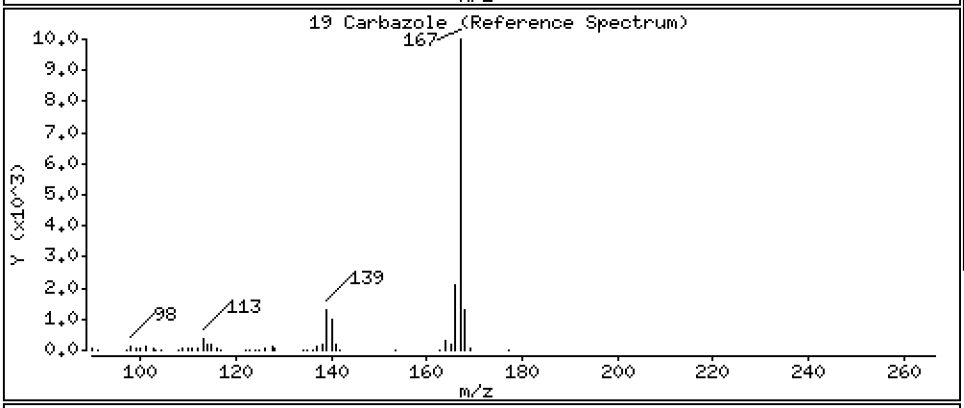
Concentration: 3.038 ug/mL

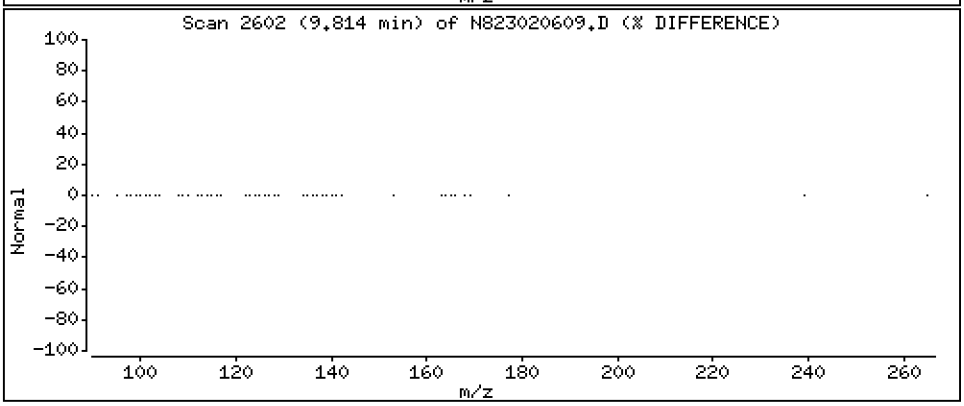












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

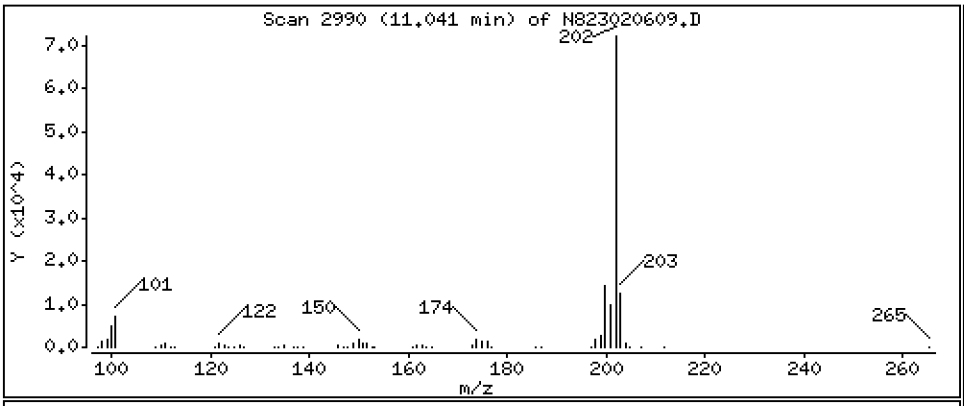
Operator: JZ

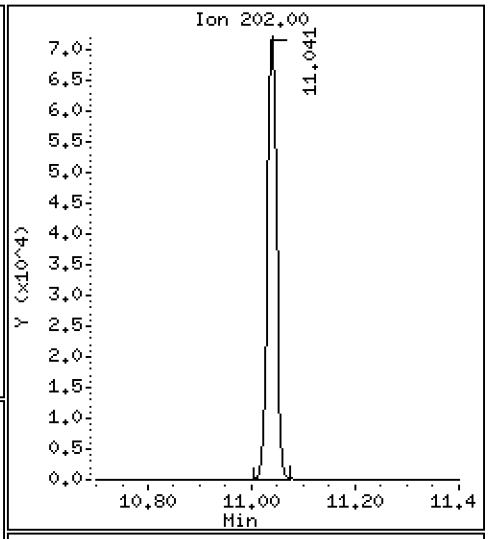
Column phase: Rxi-17sil

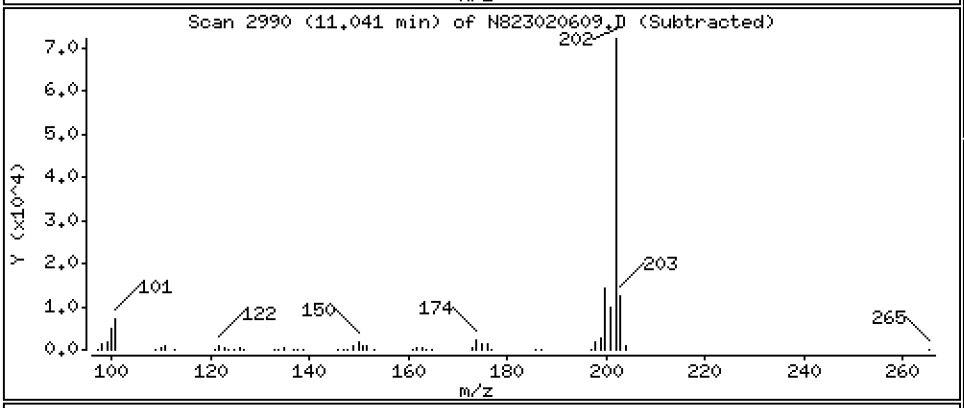
Column diameter: 0.25

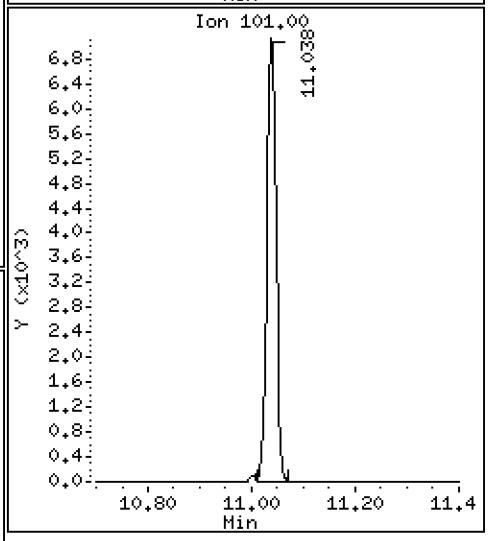
22 Fluoranthene

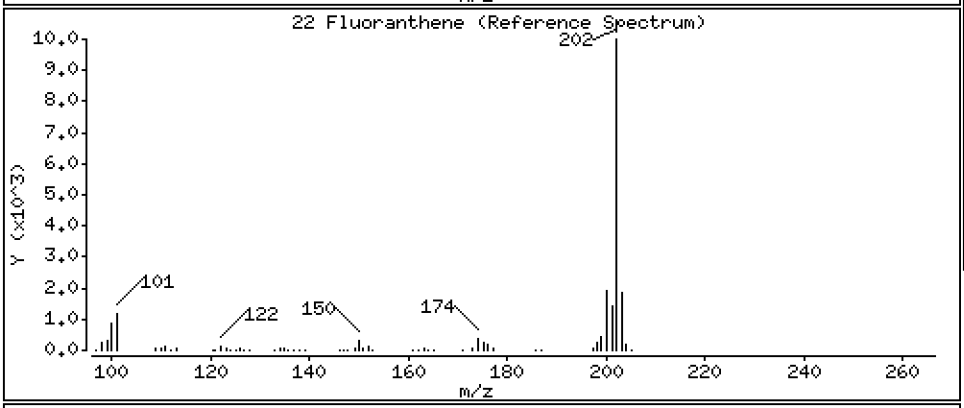
Concentration: 3.073 ug/mL

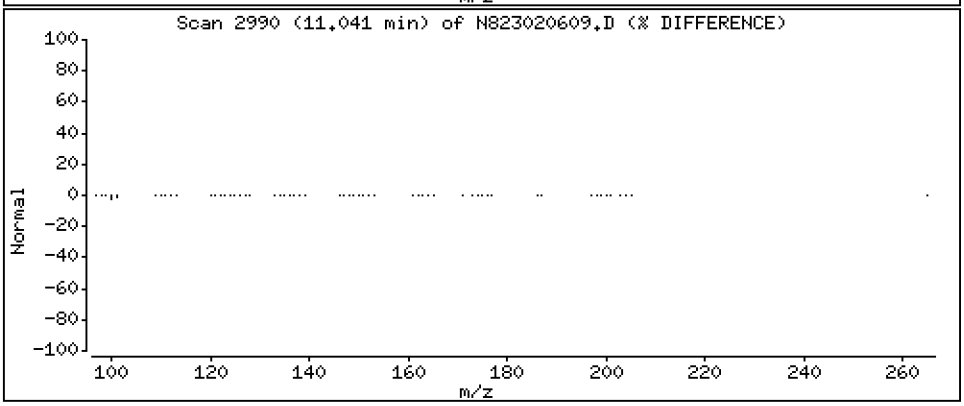












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Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

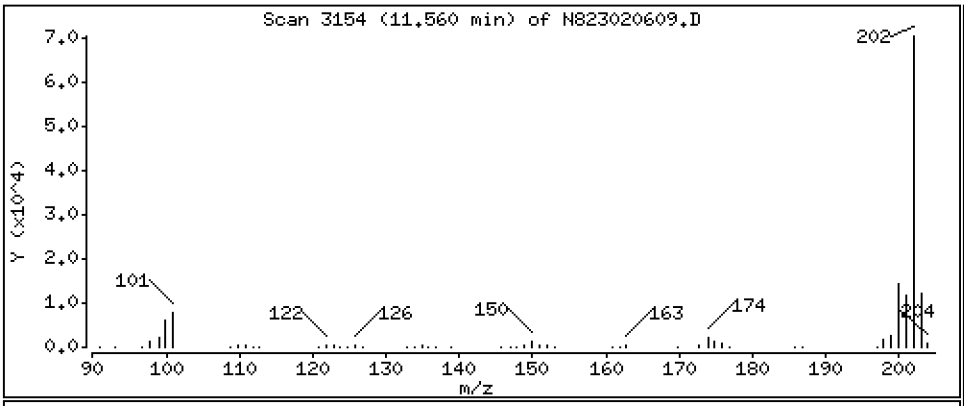
Operator: JZ

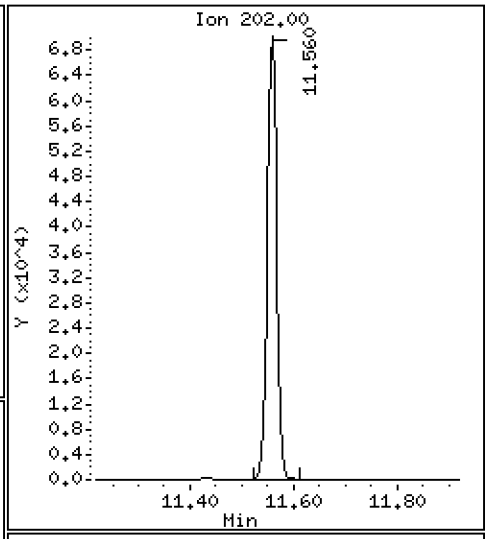
Column phase: Rxi-17sil

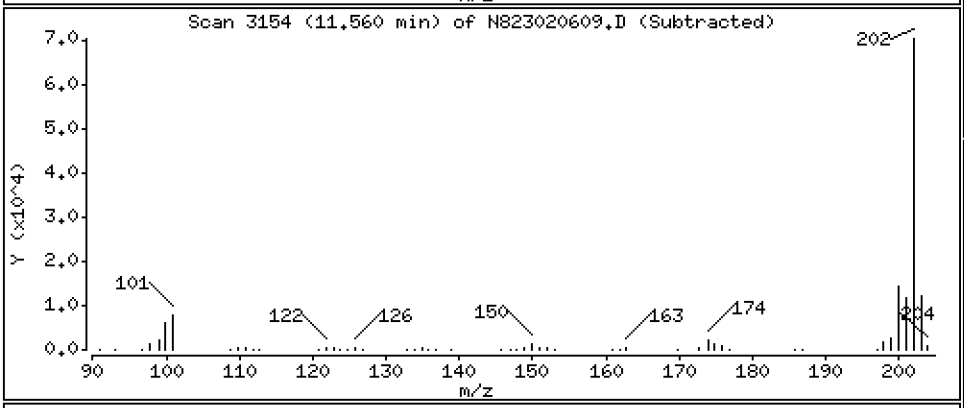
Column diameter: 0.25

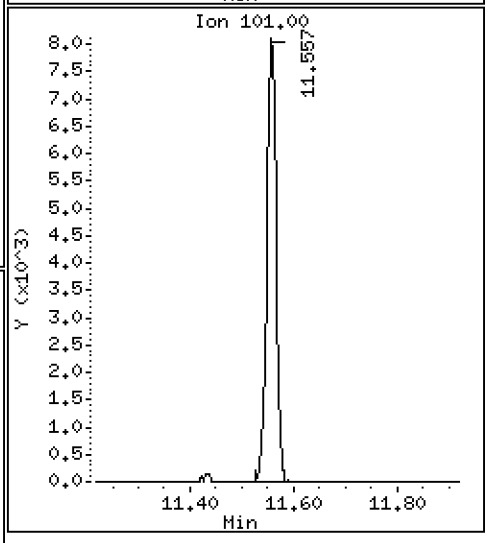
23 Pyrene

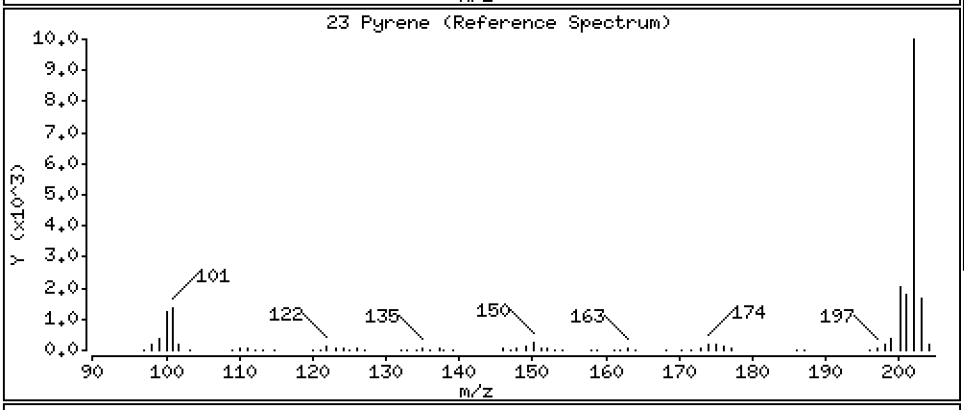
Concentration: 3.566 ug/mL

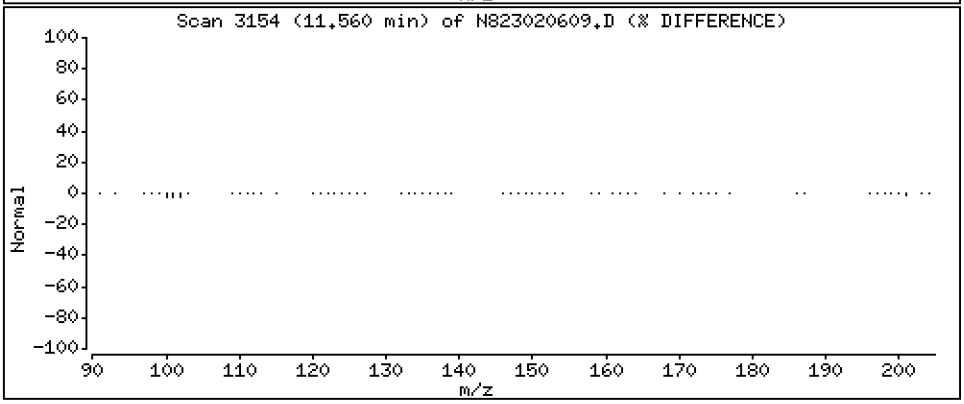












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Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

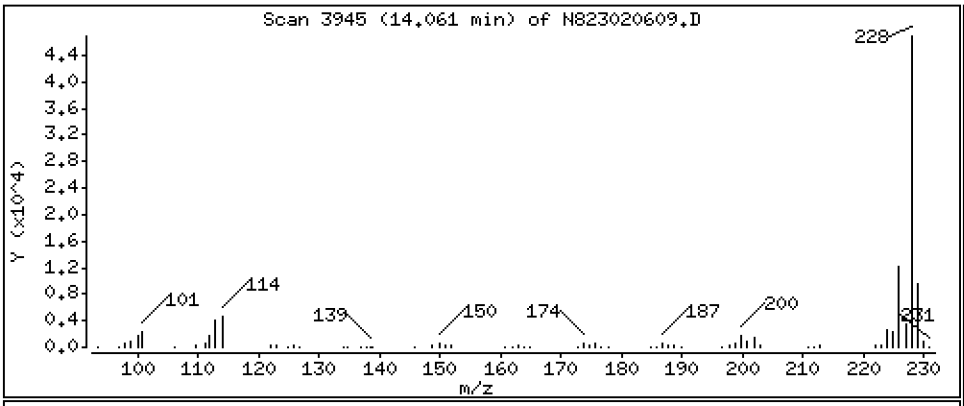
Operator: JZ

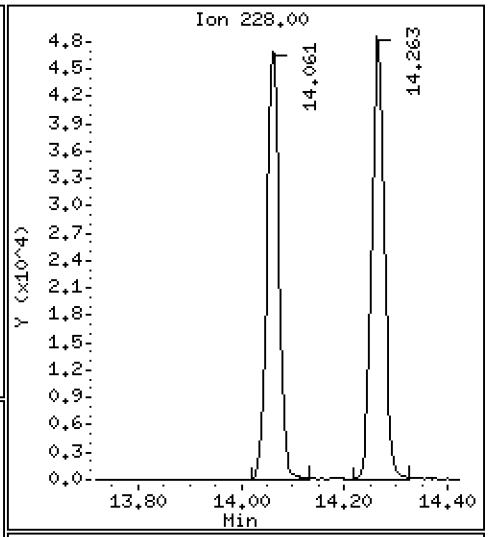
Column phase: Rxi-17sil

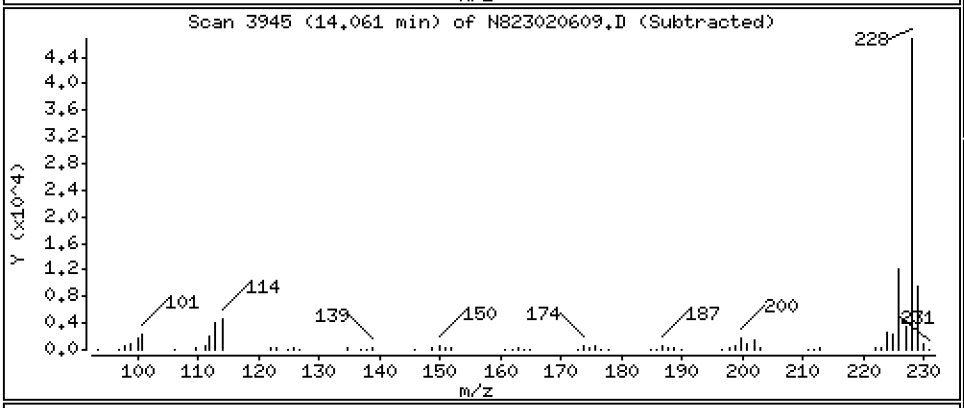
Column diameter: 0.25

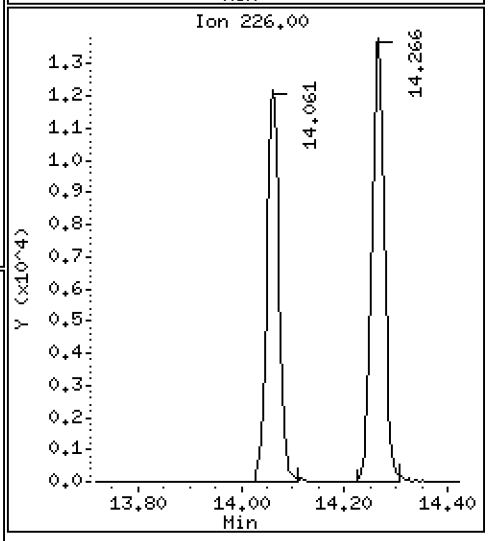
24 Benzo(a)anthracene

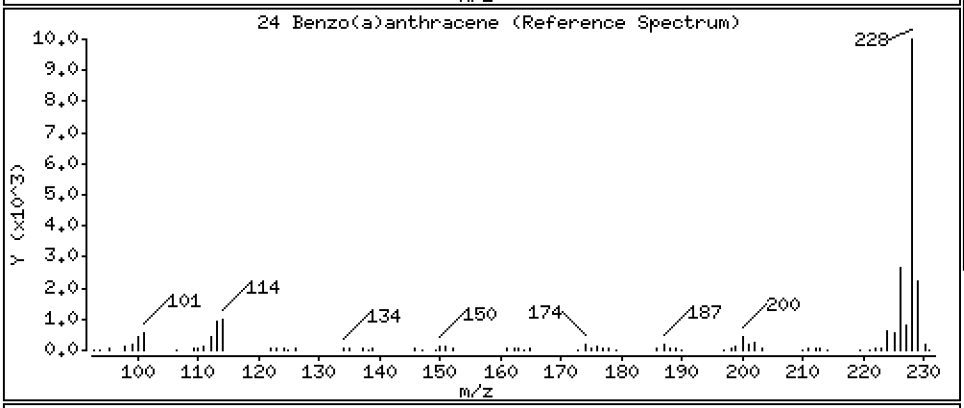
Concentration: 3.343 ug/mL

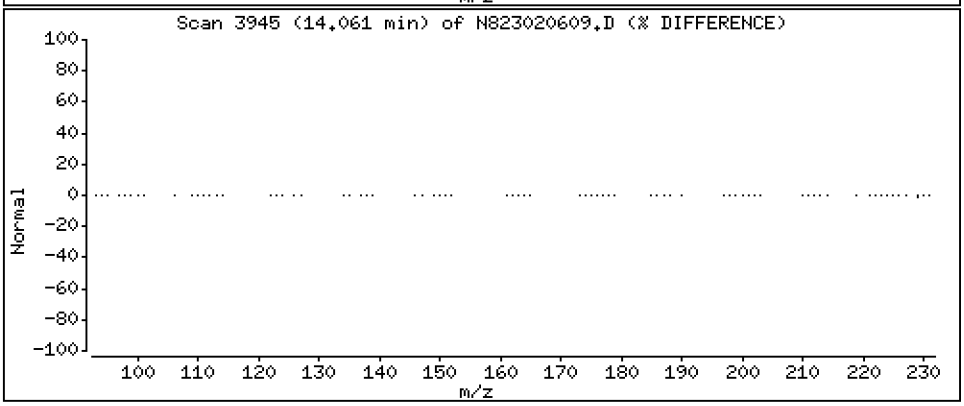












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

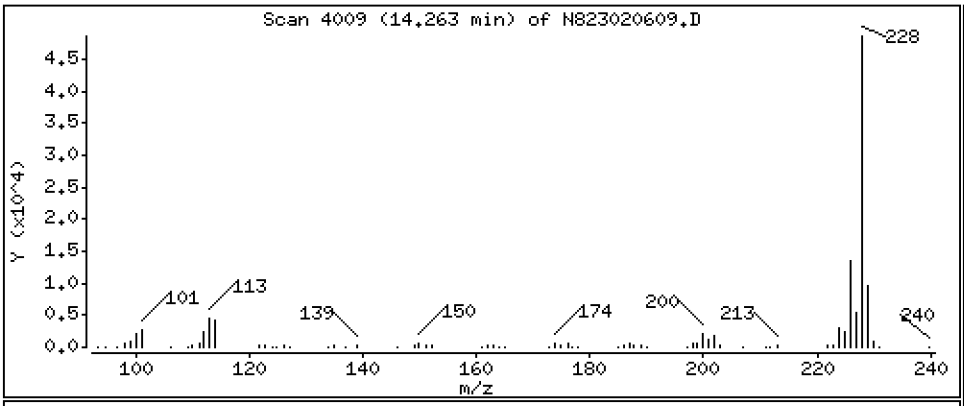
Operator: JZ

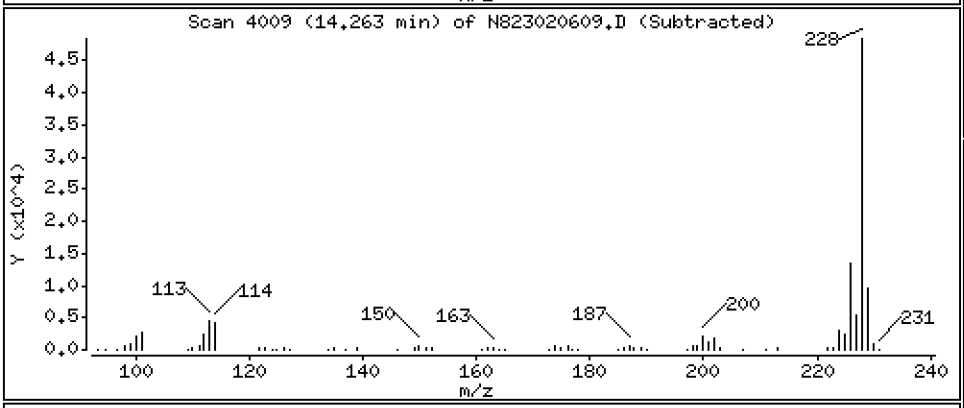
Column phase: Rxi-17sil

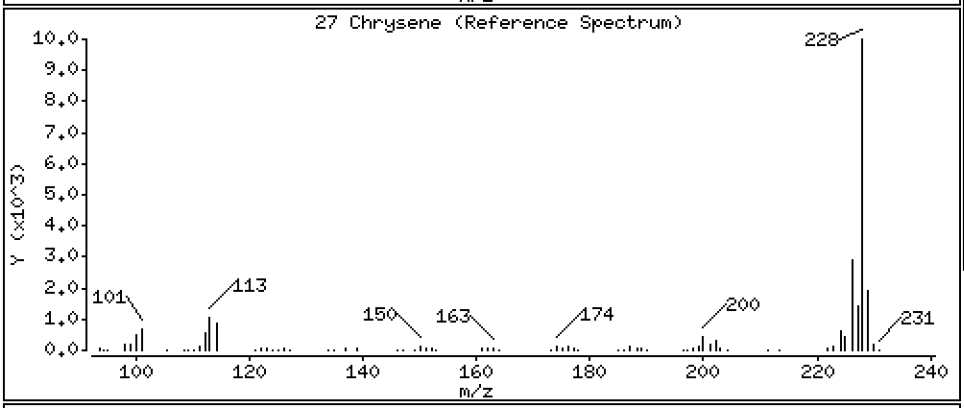
Column diameter: 0.25

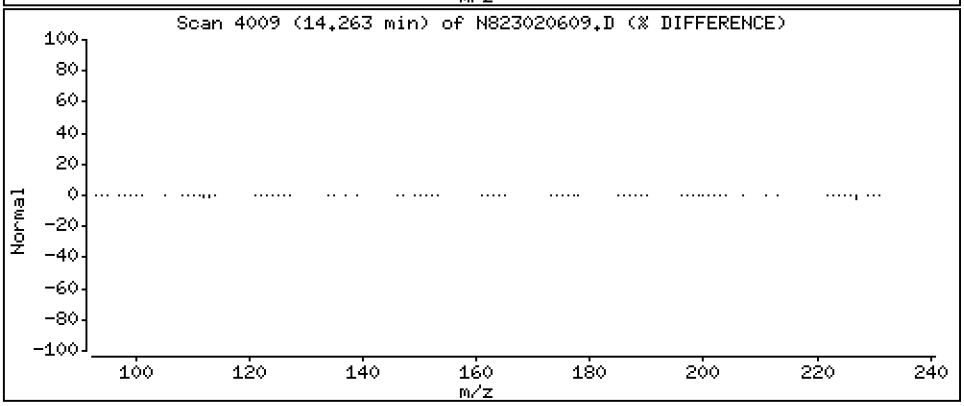
27 Chrysene

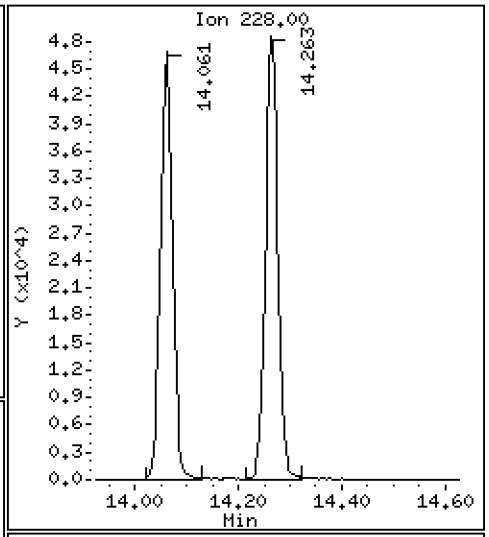
Concentration: 3.335 ug/mL

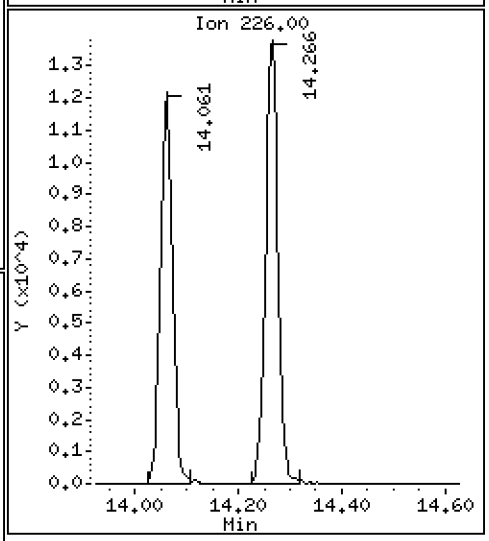












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

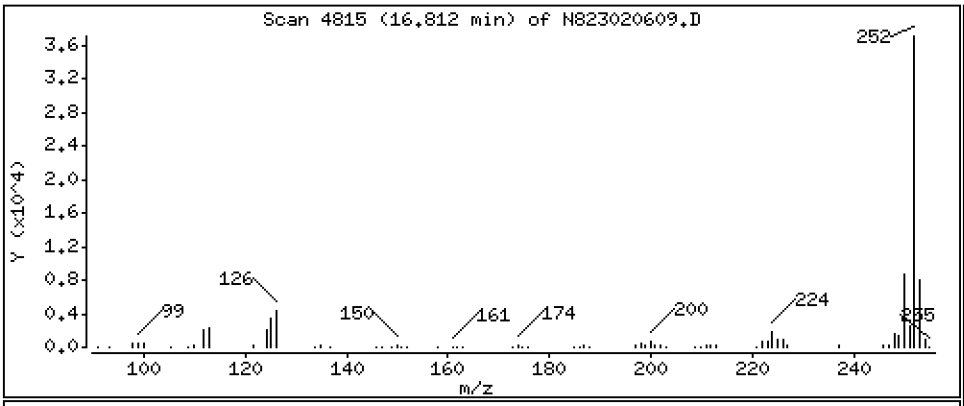
Operator: JZ

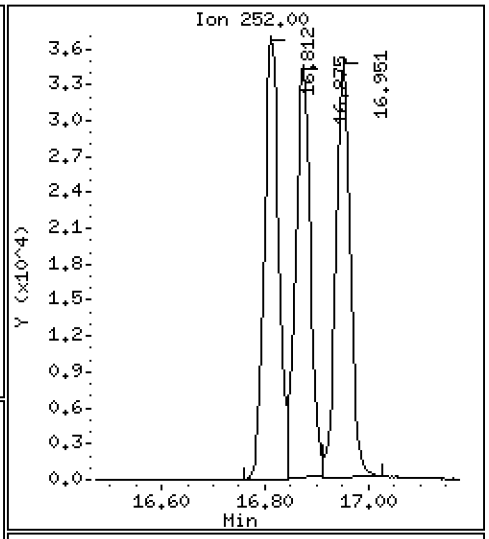
Column phase: Rxi-17sil

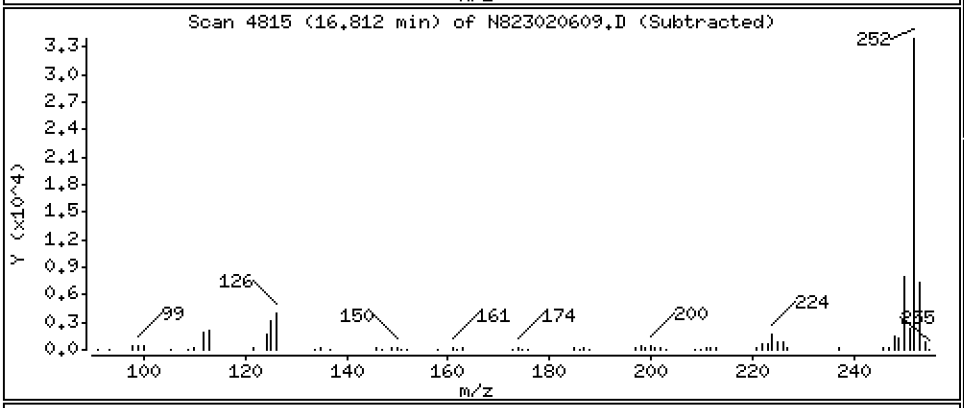
Column diameter: 0.25

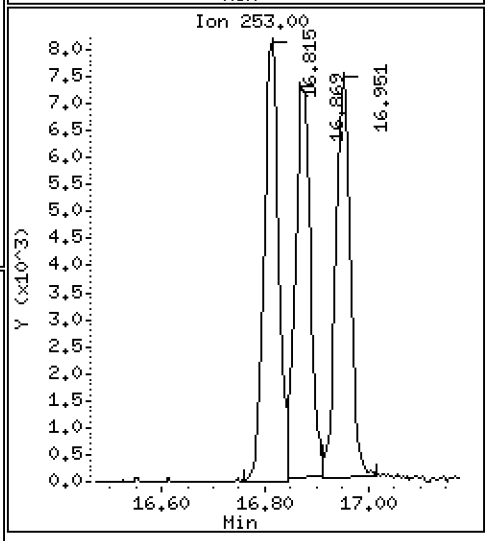
28 Benzo(b)fluoranthene

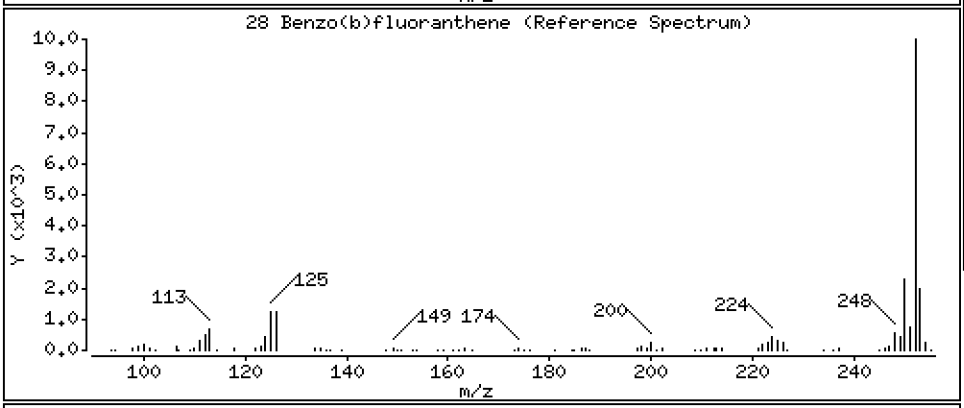
Concentration: 4.661 ug/mL

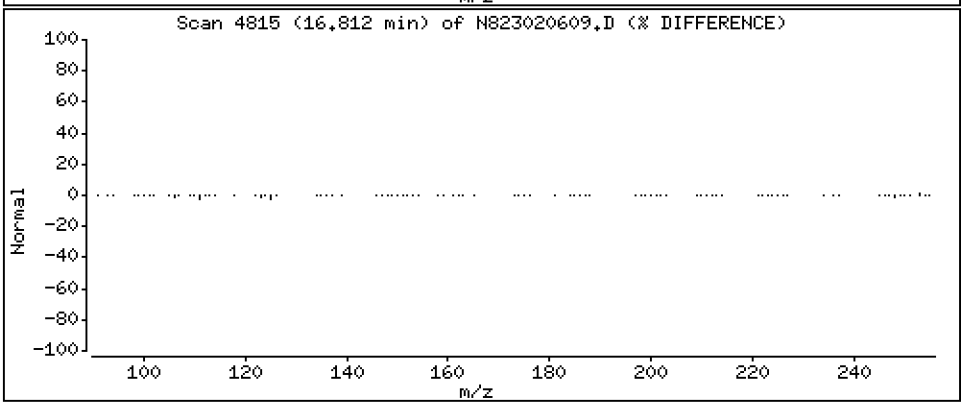












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

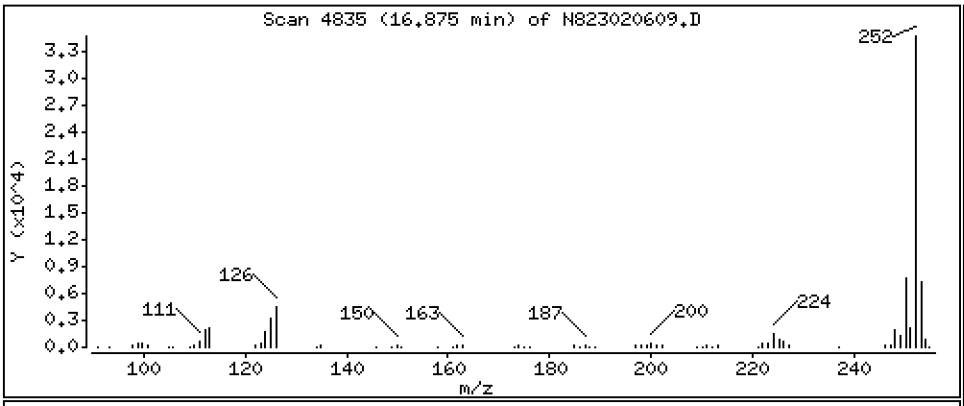
Operator: JZ

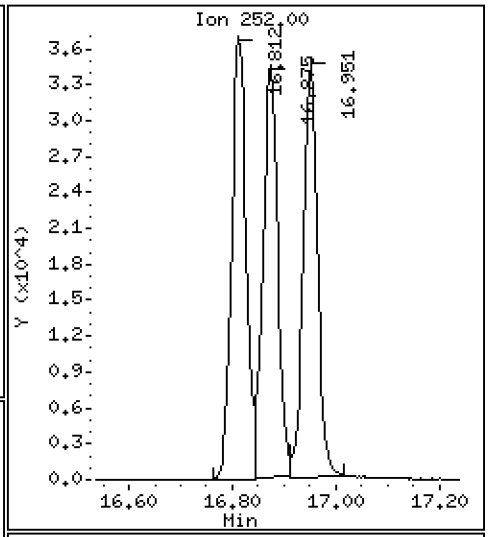
Column phase: Rxi-17sil

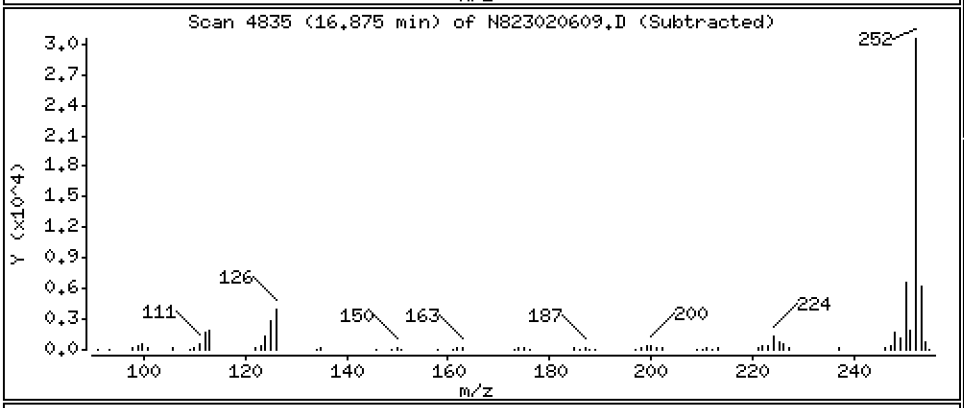
Column diameter: 0.25

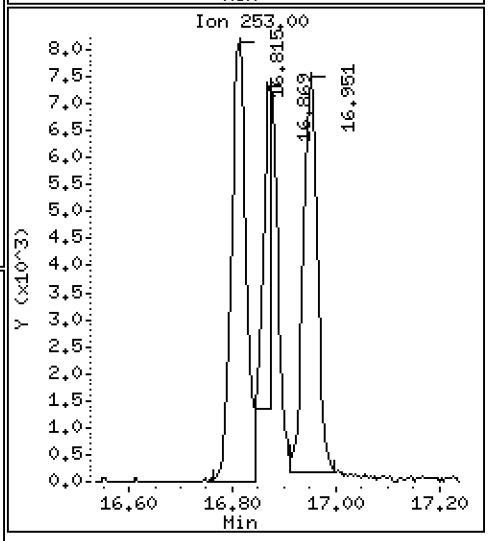
29 Benzo(k)fluoranthene

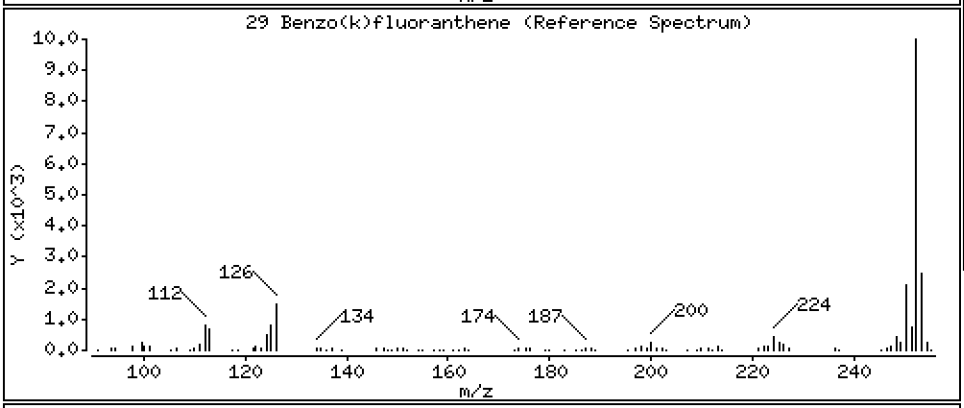
Concentration: 4.445 ug/mL

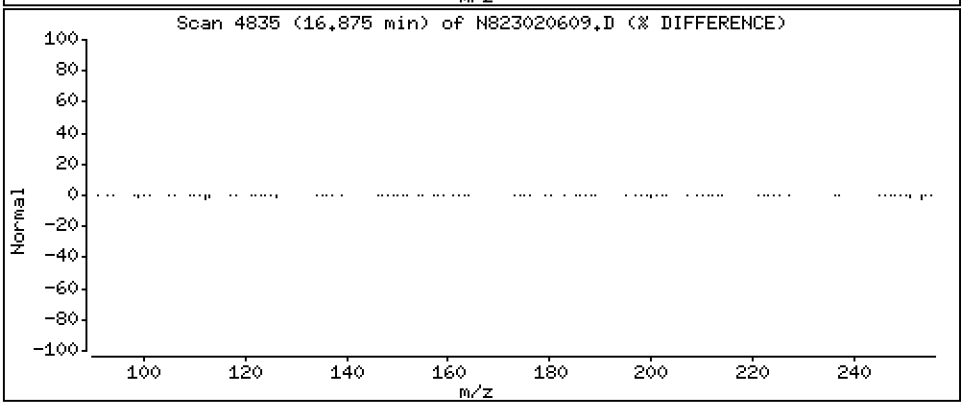












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

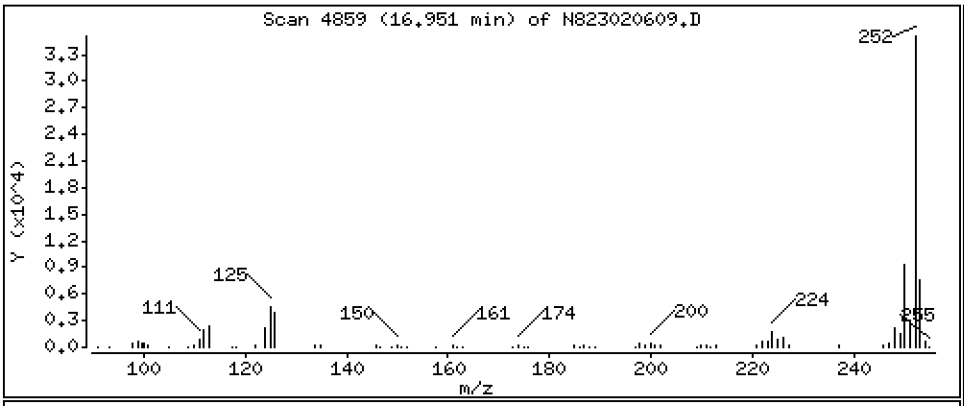
Operator: JZ

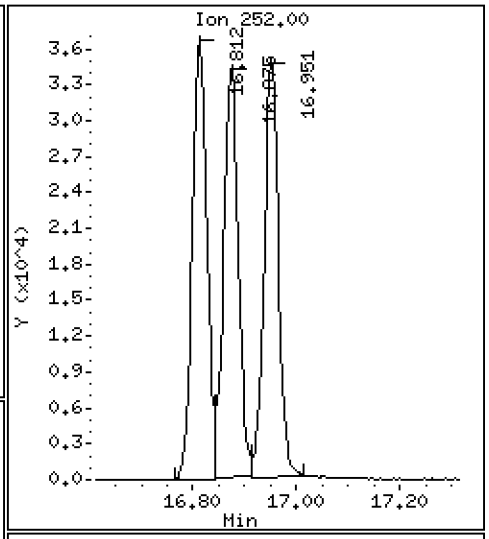
Column phase: Rxi-17sil

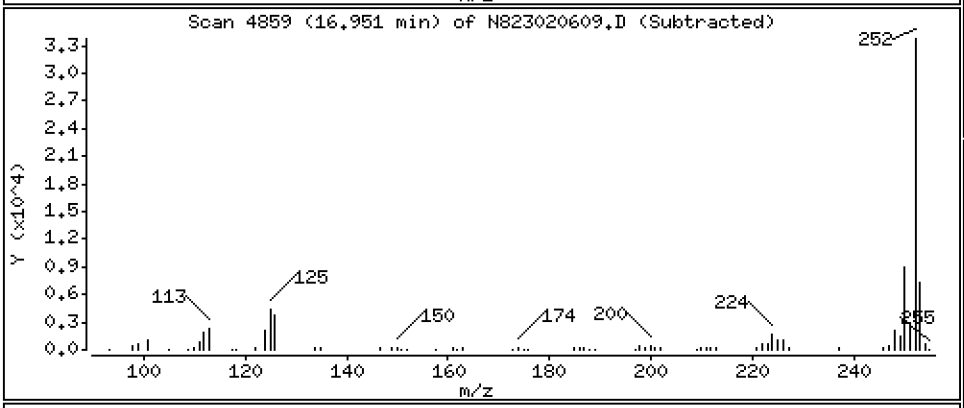
Column diameter: 0.25

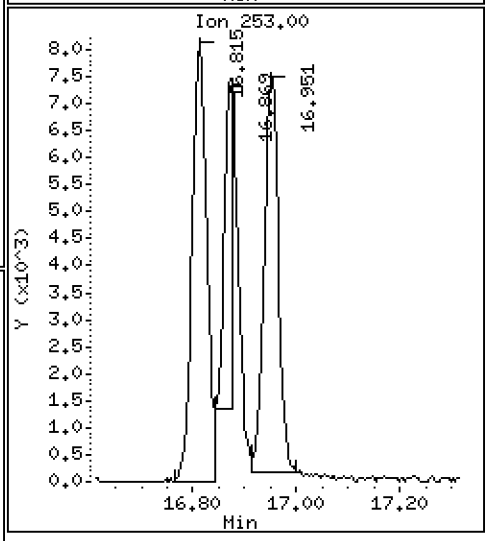
30 Benzo(j)fluoranthene

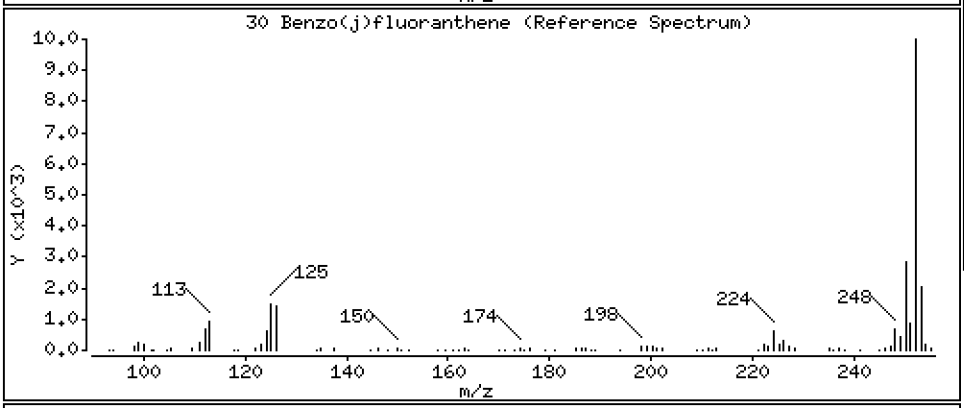
Concentration: 4.826 ug/mL

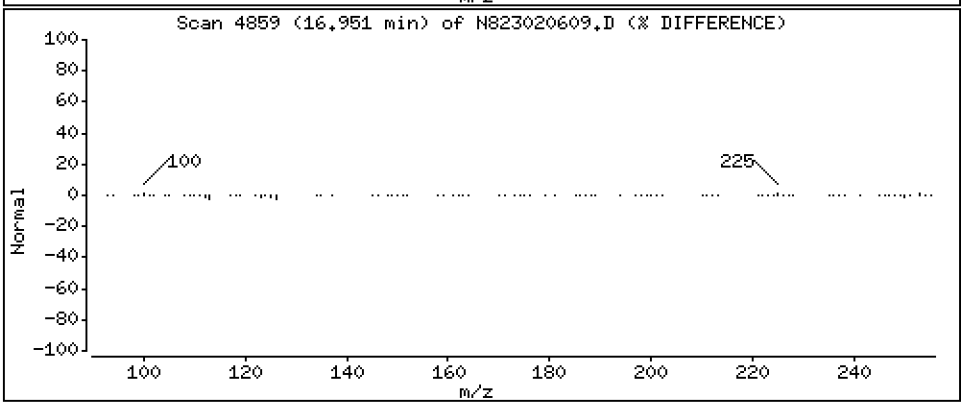












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

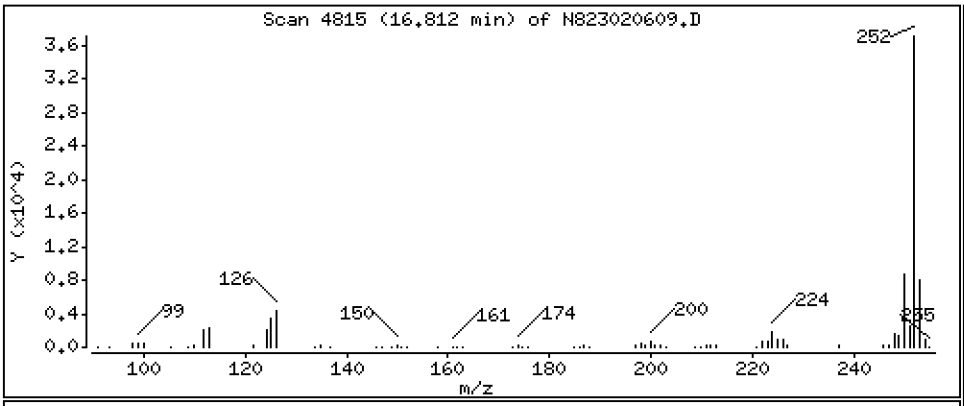
Operator: JZ

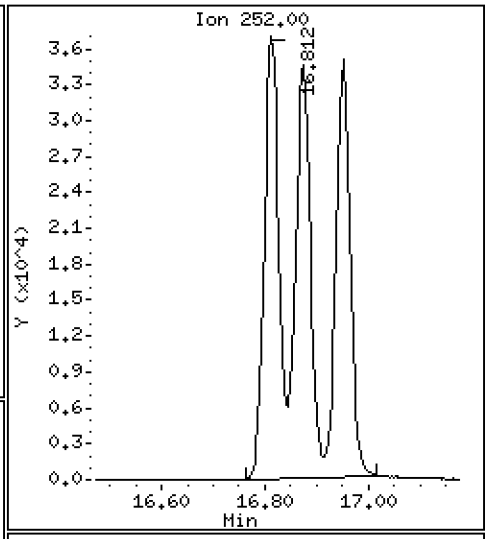
Column phase: Rxi-17sil

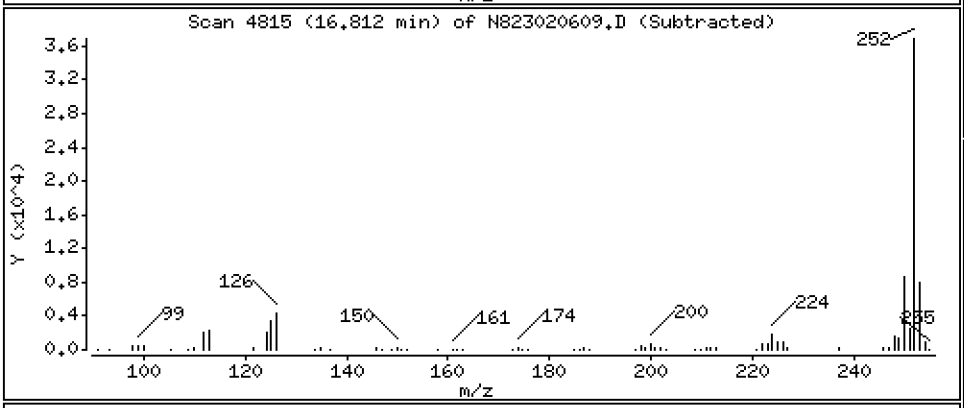
Column diameter: 0.25

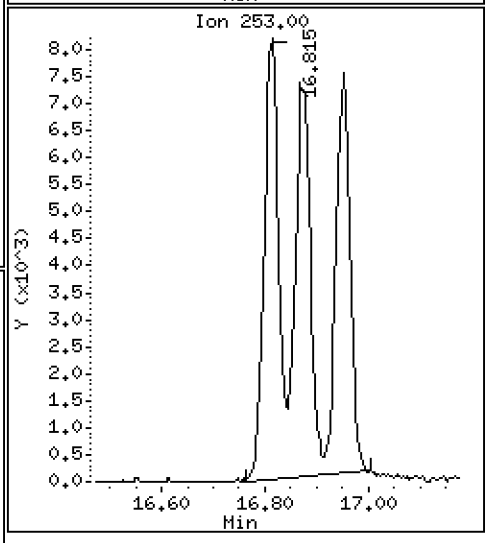
31 Total Benzofluoranthenes

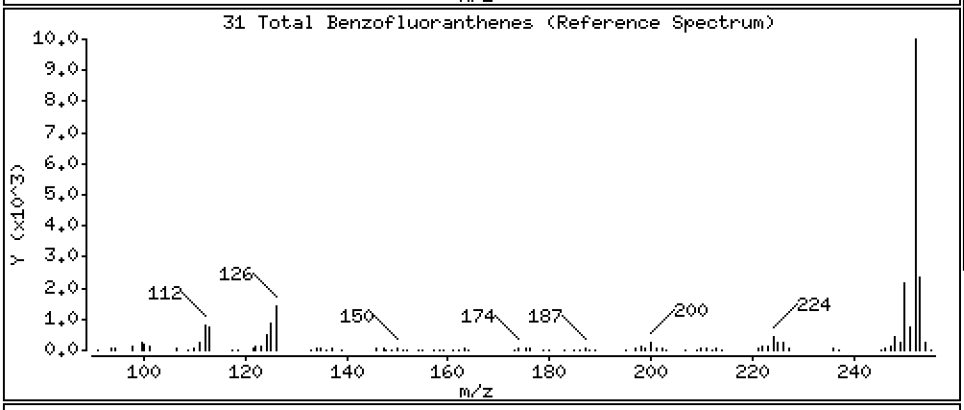
Concentration: 13.91 ug/mL

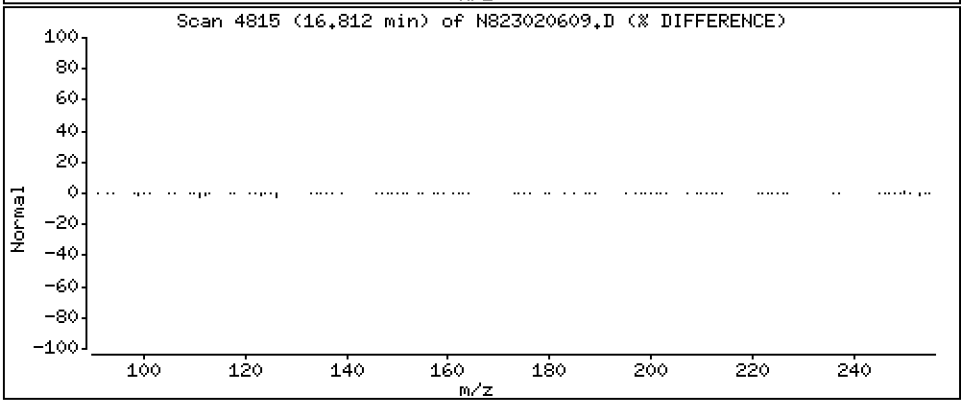












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

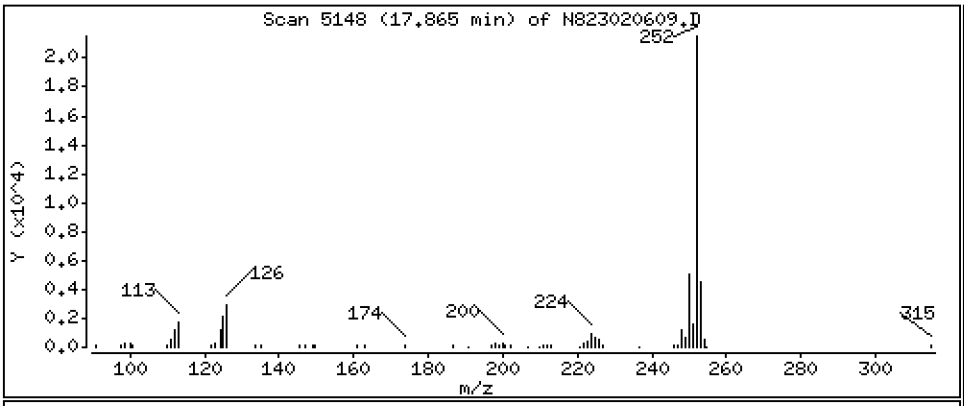
Operator: JZ

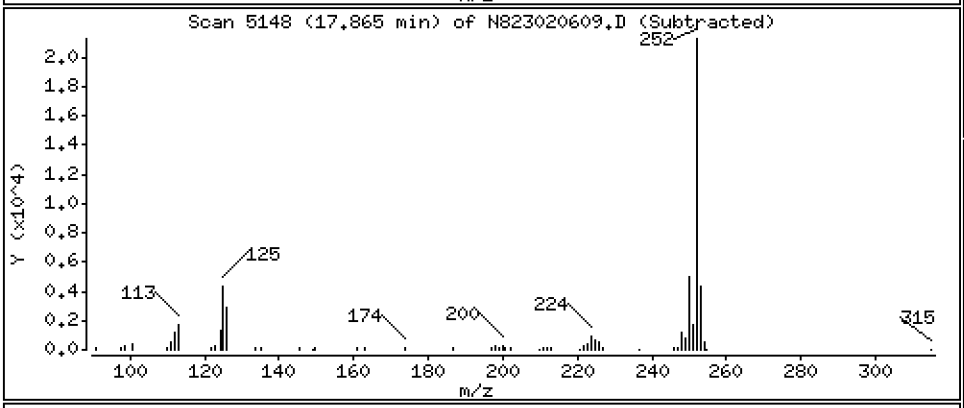
Column phase: Rxi-17sil

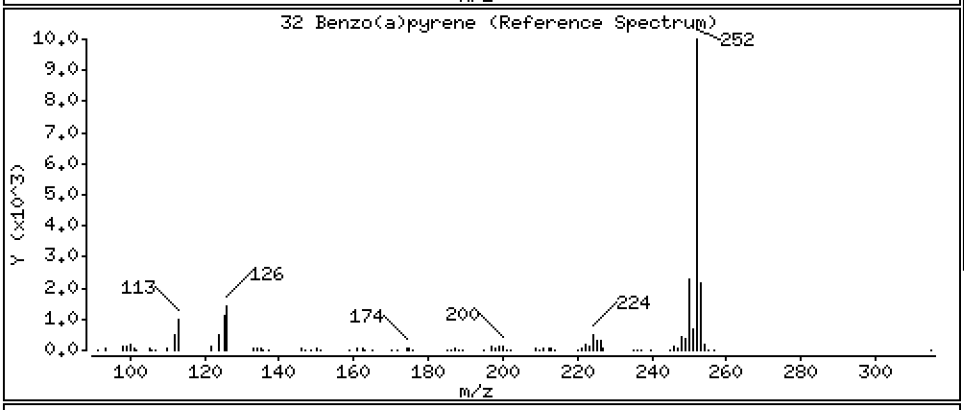
Column diameter: 0.25

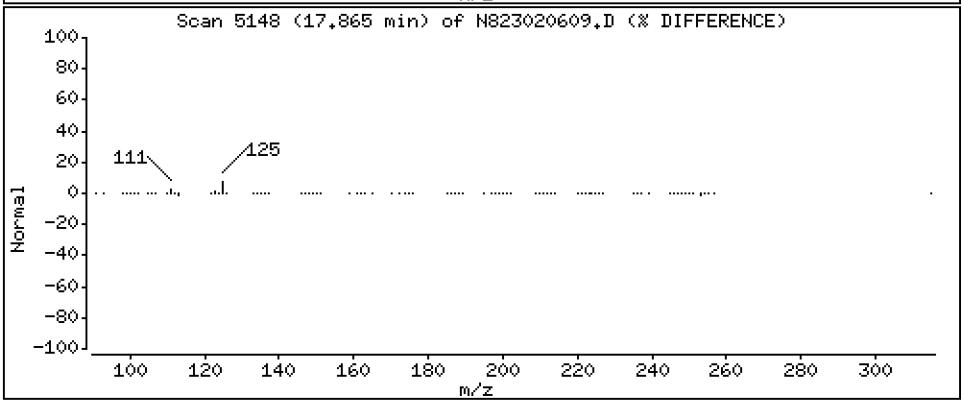
32 Benzo(a)pyrene

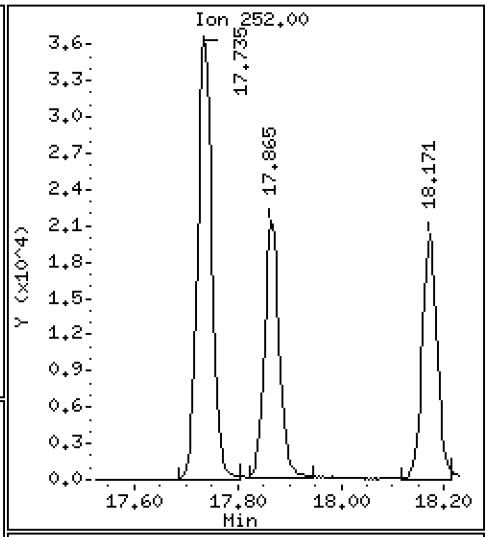
Concentration: 3.084 ug/mL

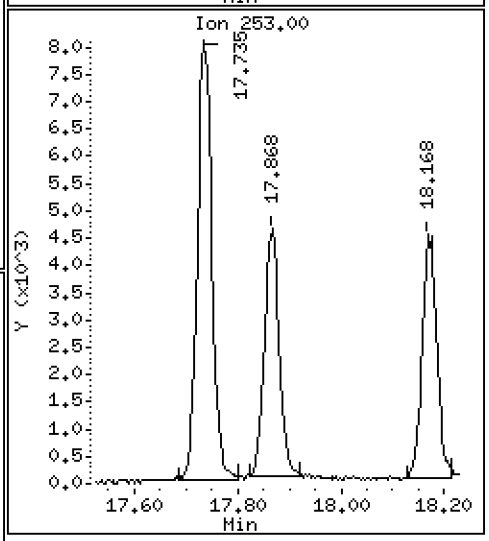












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

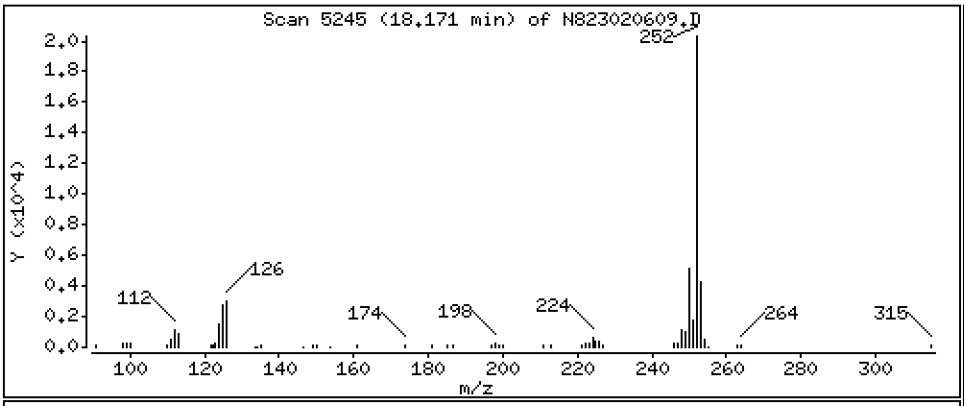
Operator: JZ

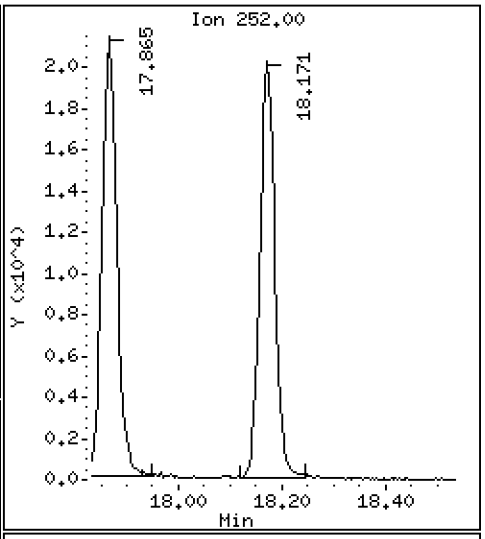
Column phase: Rxi-17sil

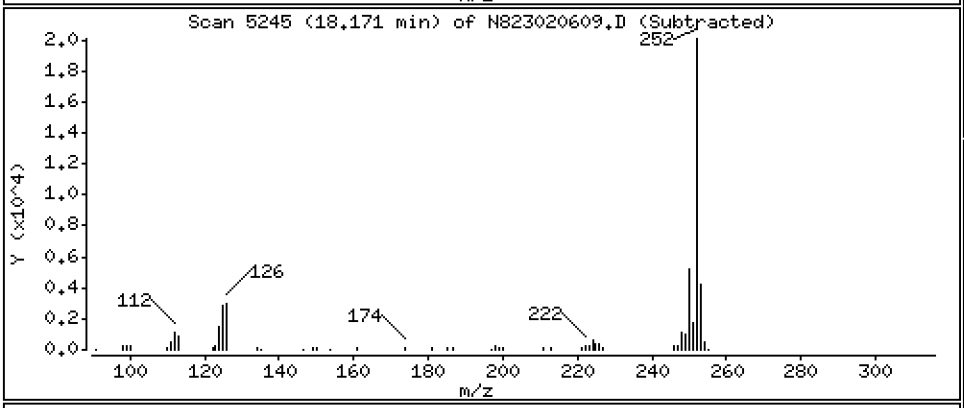
Column diameter: 0.25

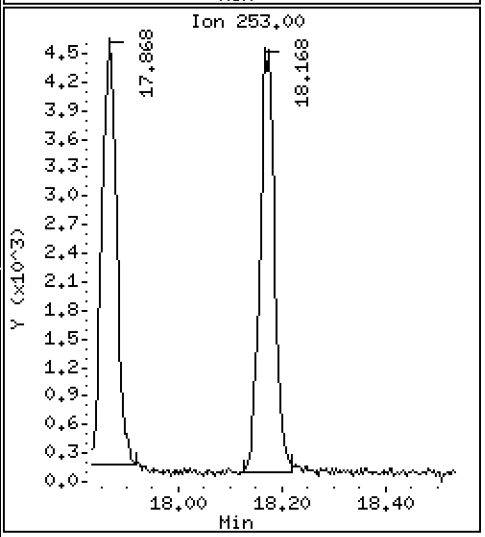
35 Perylene

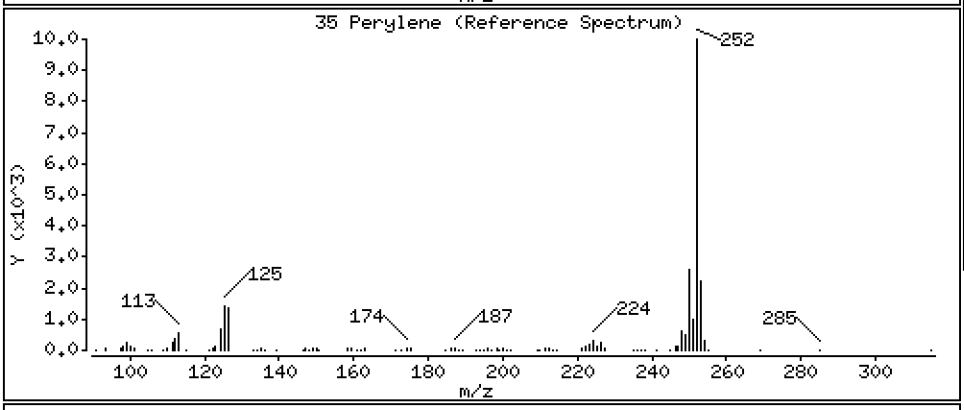
Concentration: 2.727 ug/mL

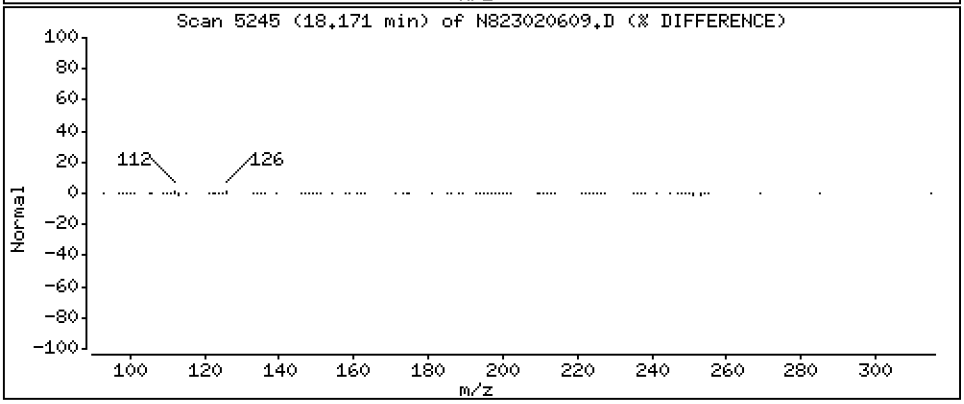












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

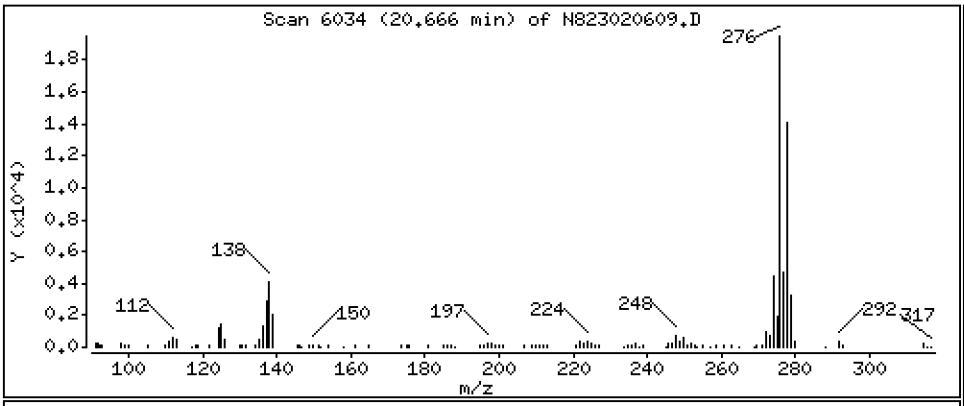
Operator: JZ

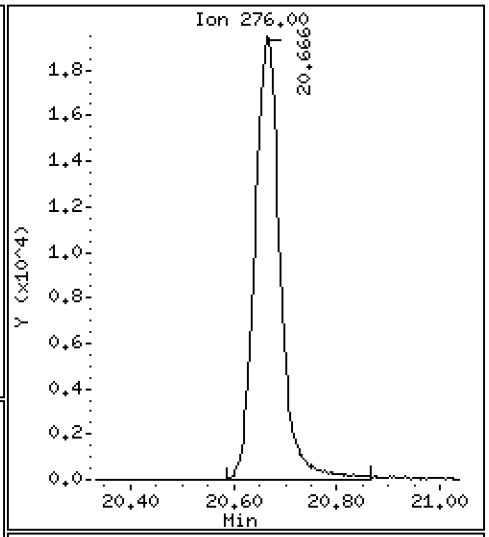
Column phase: Rxi-17sil

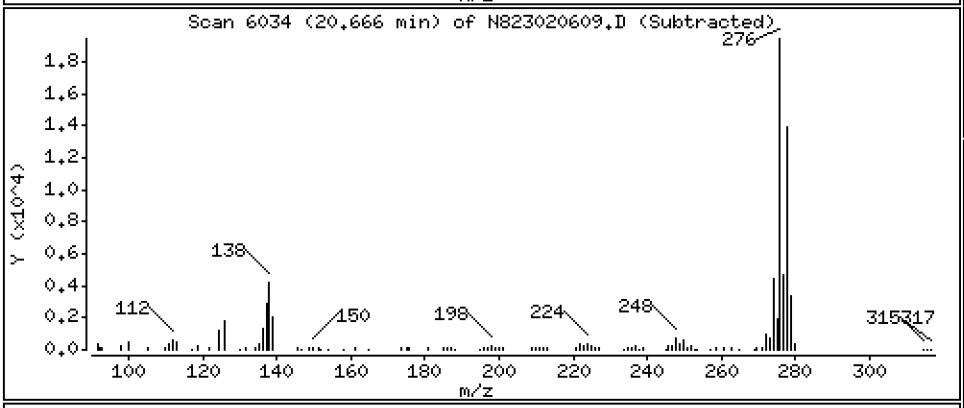
Column diameter: 0.25

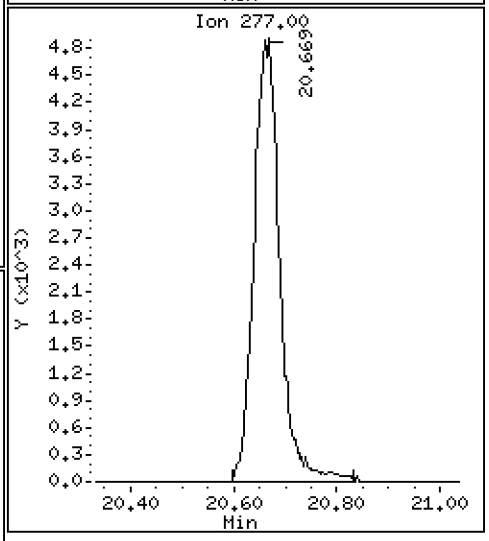
37 Indeno(1,2,3-cd)pyrene

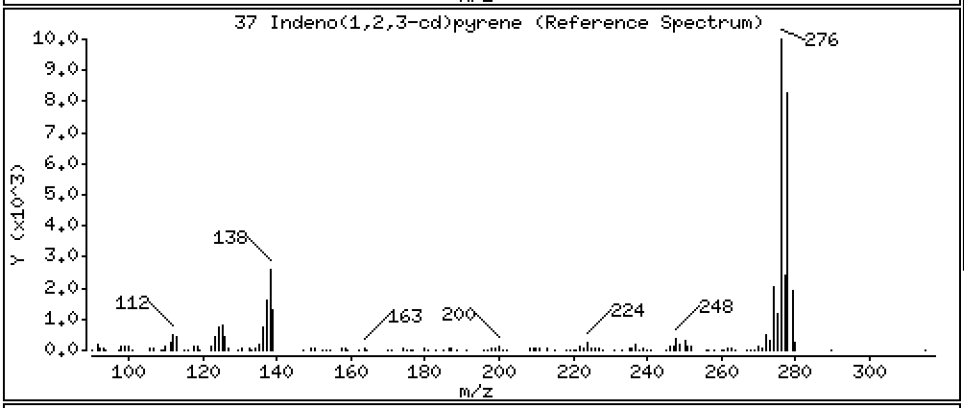
Concentration: 4.258 ug/mL

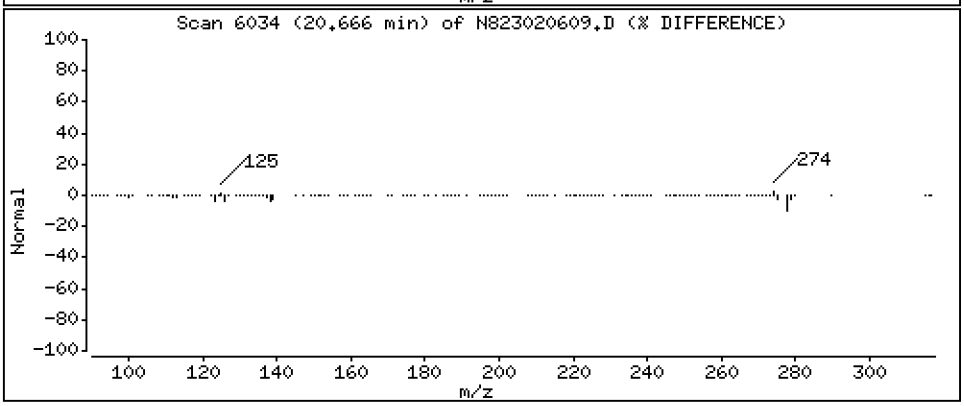












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020609.D

Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

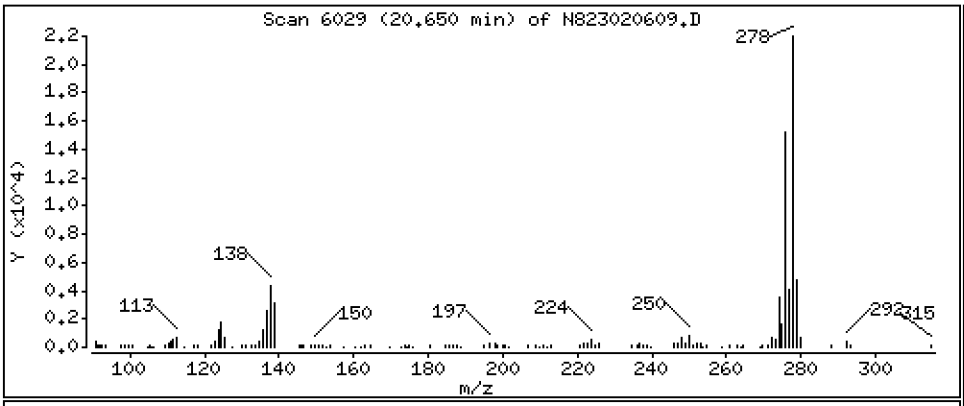
Operator: JZ

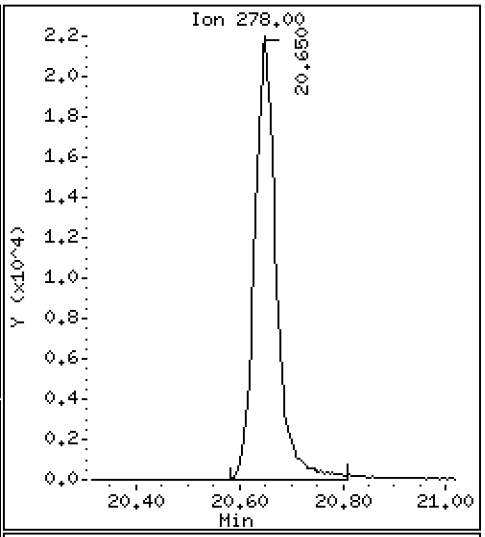
Column phase: Rxi-17sil

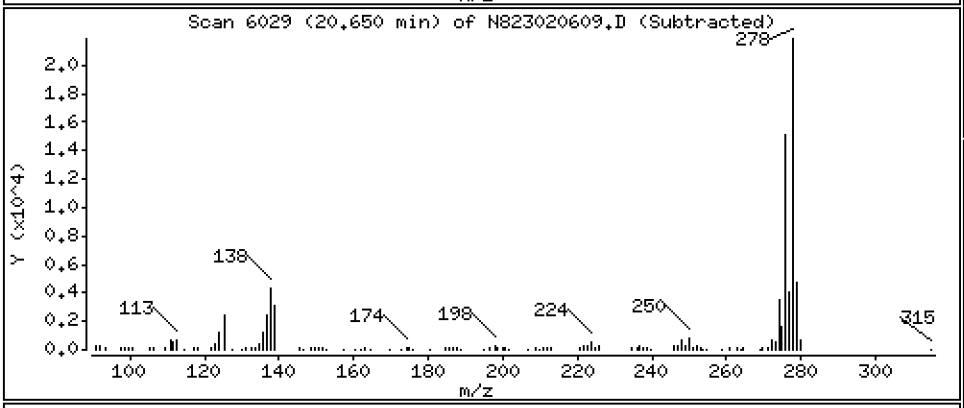
Column diameter: 0.25

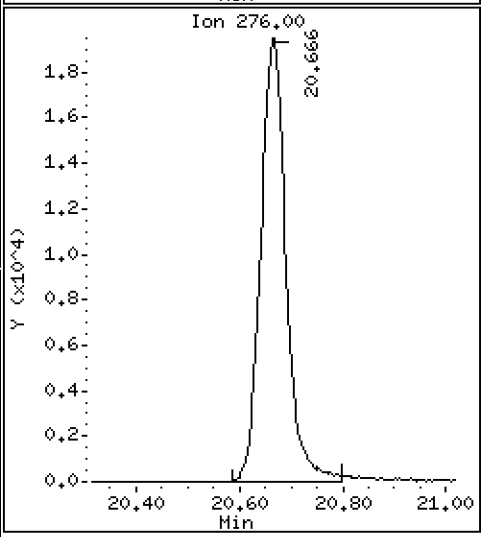
38 Dibenzo(a,h)anthracene

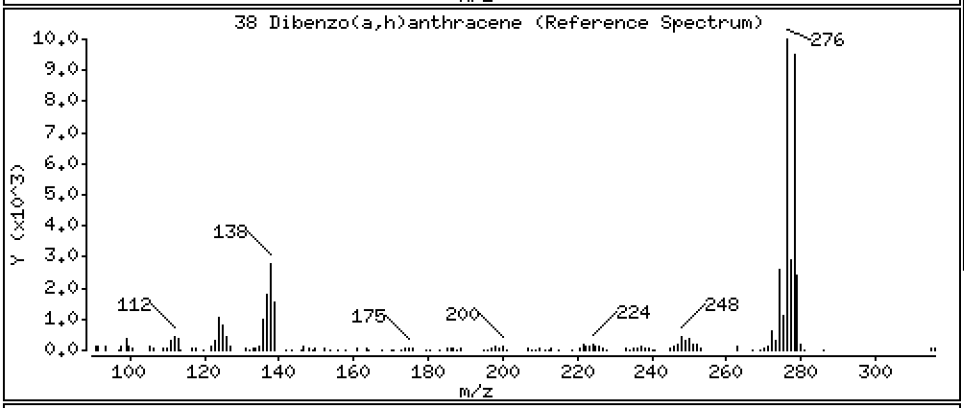
Concentration: 4.702 ug/mL

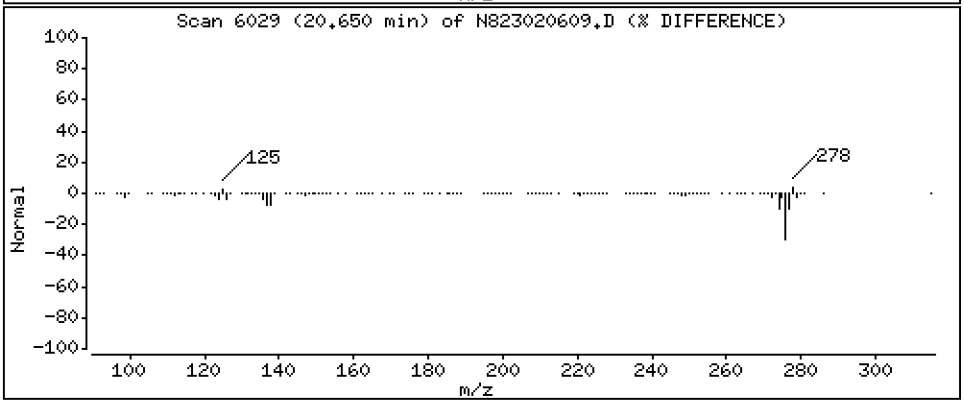












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Date : 06-FEB-2023 16:24

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BS1,

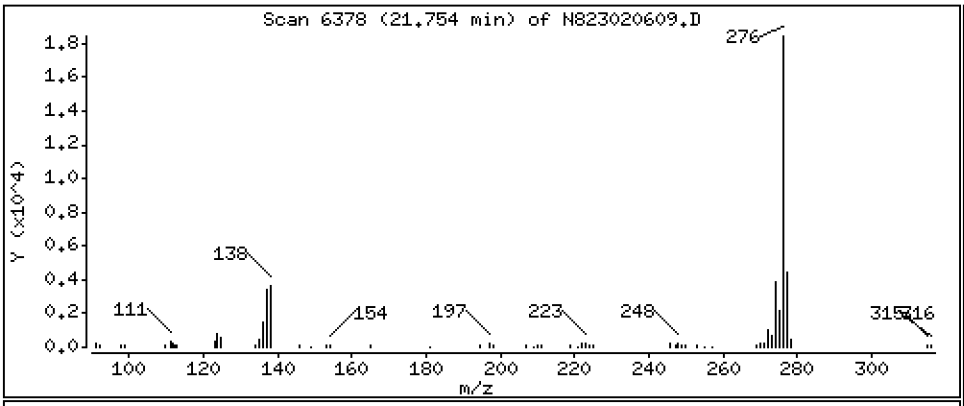
Operator: JZ

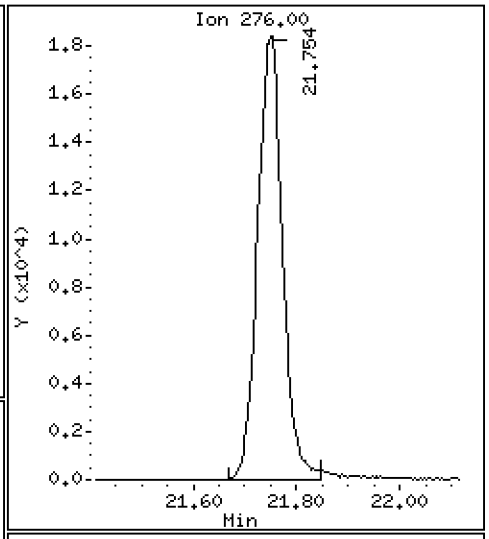
Column phase: Rxi-17sil

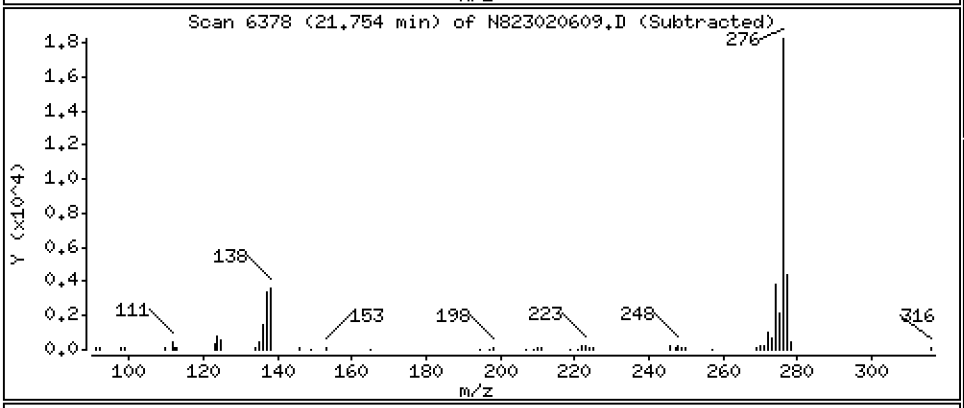
Column diameter: 0.25

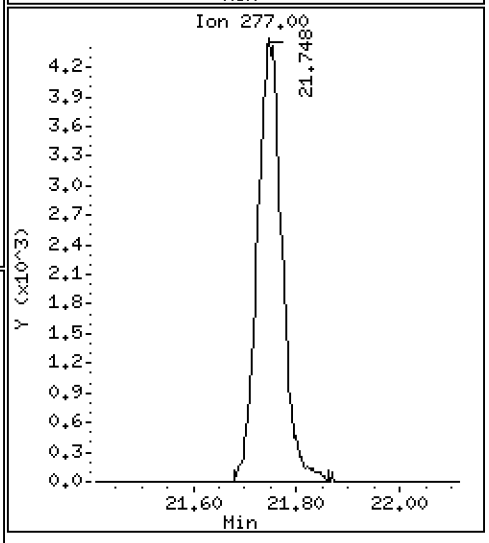
39 Benzo(g,h,i)perylene

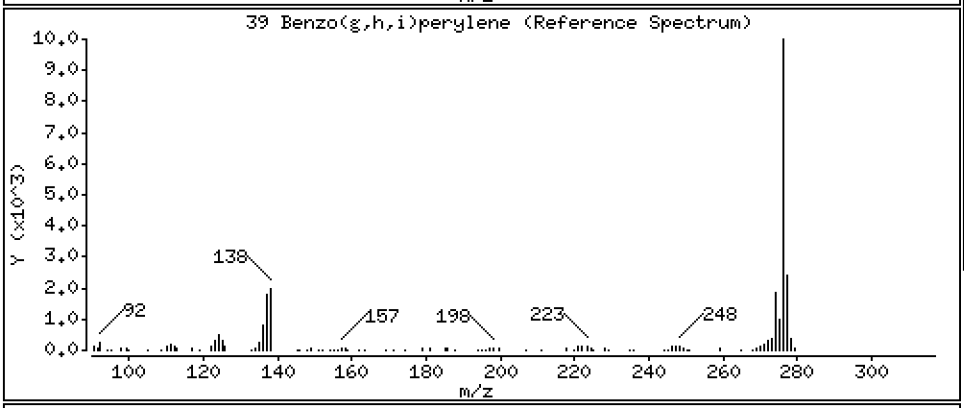
Concentration: 4.340 ug/mL

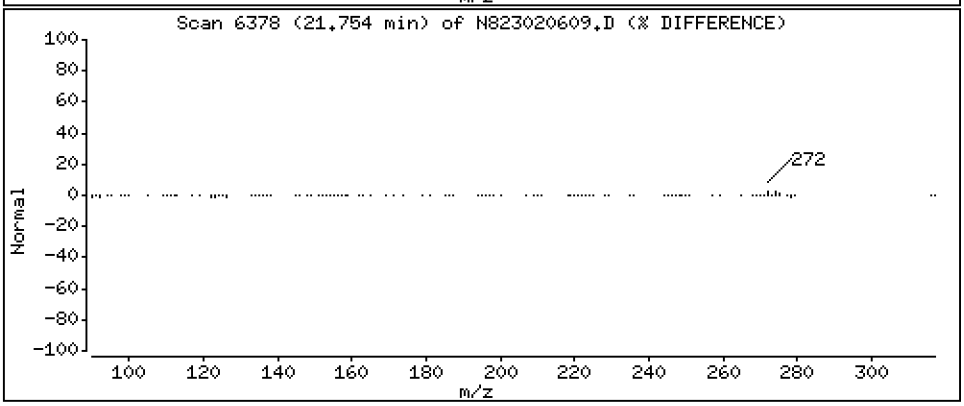












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230206A.b\N823020609.D
Lab Smp Id: BLA0683-BS1
Inj Date : 06-FEB-2023 16:24
Operator : JZ Inst ID: nt8.i
Smp Info : BLA0683-BS1,
Misc Info : 23-
Comment : 1ul Injection
Method : \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Meth Date : 07-Feb-2023 13:04 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PNAXMDL.sub
Target Version: 4.14
Processing Host: JIANQING-202105

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
*	1 Naphthalene-d8	136	4.884	4.900	(1.000)	50596	2.00000	
	2 Naphthalene	128	4.916	4.928	(1.006)	64251	2.73117	2.731
$	3 2-Methylnaphthalene-d10	152	5.624	5.634	(1.151)	26212	1.89959	1.900
	4 2-Methylnaphthalene	141	5.672	5.681	(1.161)	36550	2.82457	2.825
	5 1-methylnaphthalene	141	5.868	5.880	(1.201)	36725	2.79639	2.796
	9 Acenaphthylene	152	7.072	7.082	(0.985)	55125	2.44558	2.446
*	10 Acenaphthene-d10	164	7.183	7.189	(1.000)	29850	2.00000	
	11 Acenaphthene	153	7.234	7.240	(1.007)	40621	2.68963	2.690
	12 Dibenzofuran	168	7.385	7.392	(1.028)	61844	2.69599	2.696
	14 Fluorene	166	7.863	7.869	(1.095)	50388	2.82819	2.828
*	15 Phenanthrene-d10	188	9.222	9.232	(1.000)	54061	2.00000	
	16 Phenanthrene	178	9.257	9.267	(1.004)	76953	2.91404	2.914
	17 Anthracene	178	9.298	9.308	(1.008)	63665	2.65387	2.654
	19 Carbazole	167	9.814	9.823	(1.064)	66808	3.03779	3.038
	22 Fluoranthene	202	11.041	11.050	(1.197)	88334	3.07303	3.073
$	21 Fluoranthene-d10	212	11.000	11.009	(1.193)	52525	2.20217	2.202
	23 Pyrene	202	11.559	11.569	(0.815)	90758	3.56642	3.566
	24 Benzo(a)anthracene	228	14.060	14.070	(0.991)	77098	3.34257	3.343
*	25 Chrysene-d12	240	14.190	14.202	(1.000)	41046	2.00000	
	27 Chrysene	228	14.263	14.275	(1.005)	81897	3.33532	3.335
	28 Benzo(b)fluoranthene	252	16.811	16.824	(0.929)	73568	4.66065	4.661
	29 Benzo(k)fluoranthene	252	16.874	16.887	(0.932)	68729	4.44520	4.445
	30 Benzo(j)fluoranthene	252	16.950	16.963	(0.937)	67176	4.82624	4.826
	31 Total Benzofluoranthenes	252	16.811	16.824	(0.929)	207984	13.9128	13.91(M)
	32 Benzo(a)pyrene	252	17.864	17.877	(0.987)	42834	3.08366	3.084
*	33 Perylene-d12	264	18.098	18.107	(1.000)	27103	2.00000	
	35 Perylene	252	18.171	18.183	(1.004)	40651	2.72714	2.727
$	36 Dibenzo(a,h)anthracene-d14	292	20.536	20.549	(1.135)	36282	3.41653	3.417
	37 Indeno(1,2,3-cd)pyrene	276	20.666	20.684	(1.142)	67386	4.25826	4.258
	38 Dibenzo(a,h)anthracene	278	20.650	20.666	(1.141)	64030	4.70170	4.702
	39 Benzo(g,h,i)perylene	276	21.753	21.763	(1.202)	62220	4.33963	4.340

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823020609.D
Lab Smp Id: BLA0683-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 06-FEB-2023
Calibration Time: 15:15
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44336	22168	88672	50596	14.12
10 Acenaphthene-d10	26127	13064	52254	29850	14.25
15 Phenanthrene-d10	47424	23712	94848	54061	14.00
25 Chrysene-d12	36794	18397	73588	41046	11.56
33 Perylene-d12	36636	18318	73272	27103	-26.02

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.90	4.40	5.40	4.88	-0.32
10 Acenaphthene-d10	7.19	6.69	7.69	7.18	-0.09
15 Phenanthrene-d10	9.23	8.73	9.73	9.22	-0.10
25 Chrysene-d12	14.20	13.70	14.70	14.19	-0.09
33 Perylene-d12	18.11	17.61	18.61	18.10	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823020609.D

Lab ID: BLA0683-BS1
nt8.i, 20230206A.b\FSIMPNA230119.m,   06-FEB-2023 16:24

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

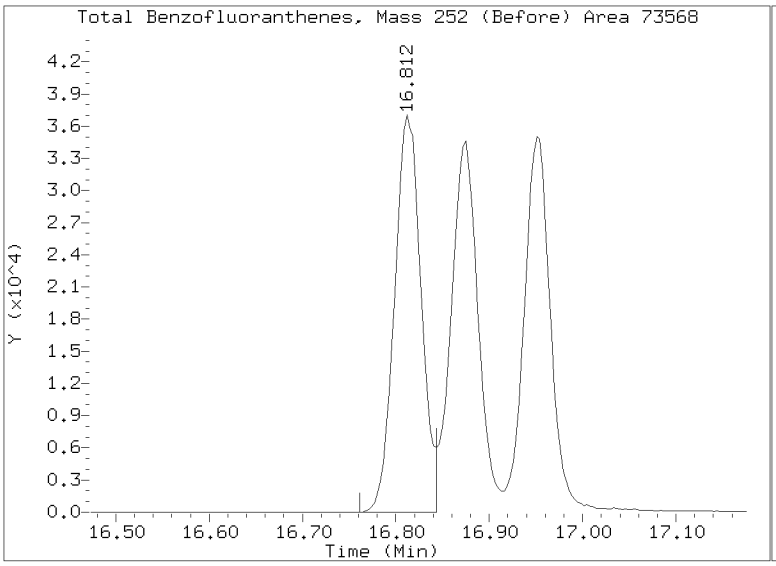
No RRT check performed

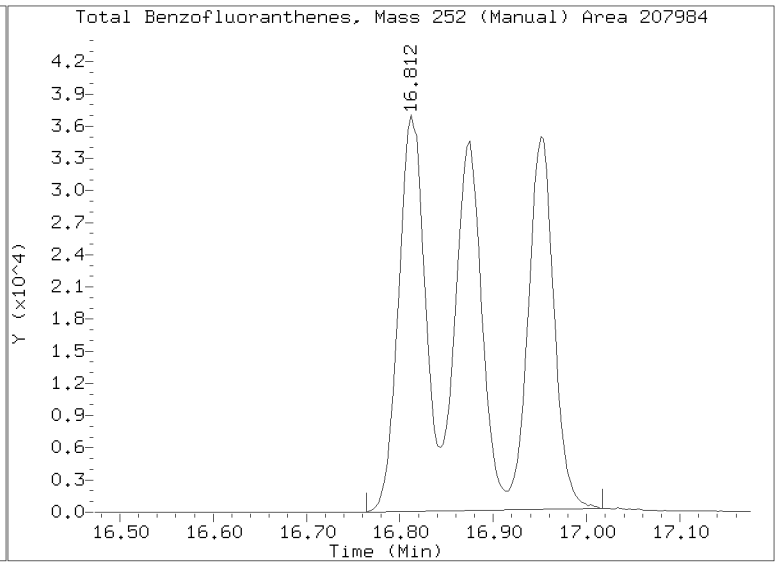
On Column LOD for nt8.i, 20230206A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230206A.b/N823020609.D
Injection Date: 06-FEB-2023 16:24
Lab ID:BLA0683-BS1 Client ID:
Report Date: 02/07/2023 13:19





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Date : 06-FEB-2023 16:51

Client ID:

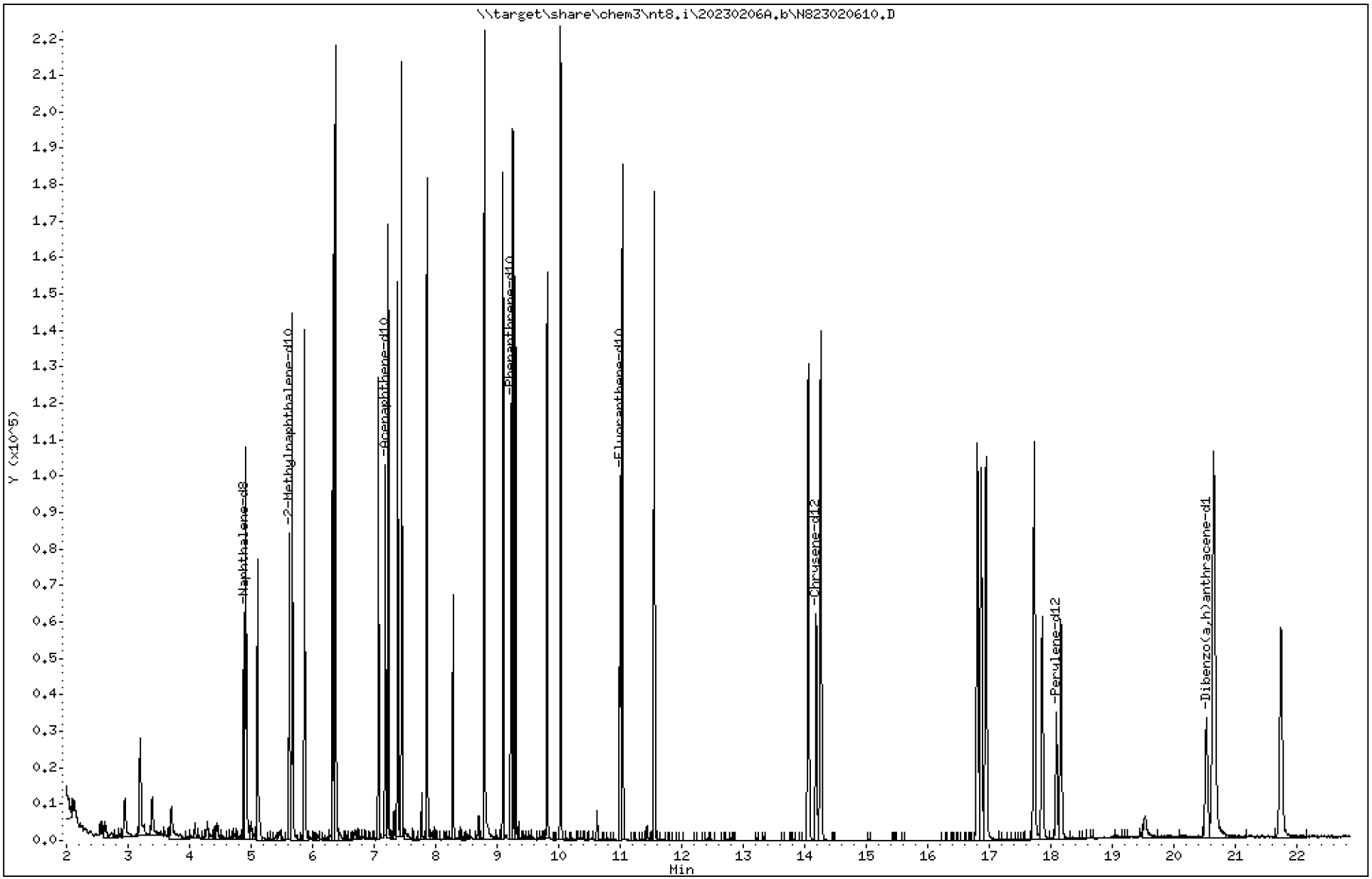
Instrument: nt8.i

Sample Info: BLA0683-BSD1,

Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25



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Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

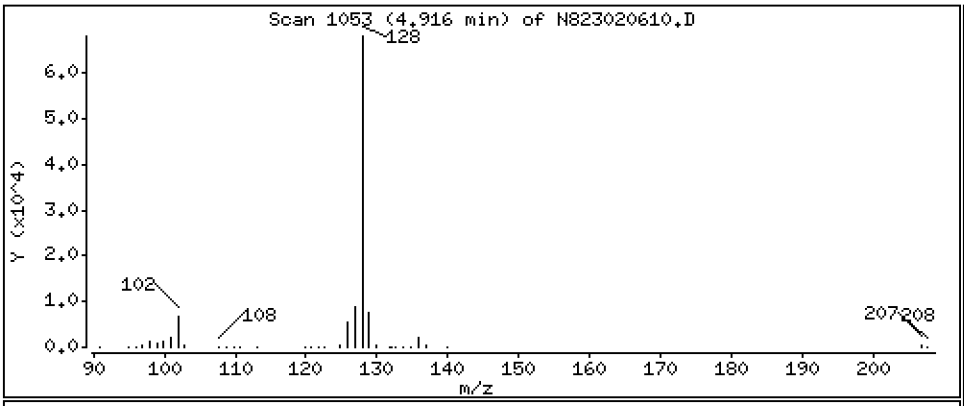
Operator: JZ

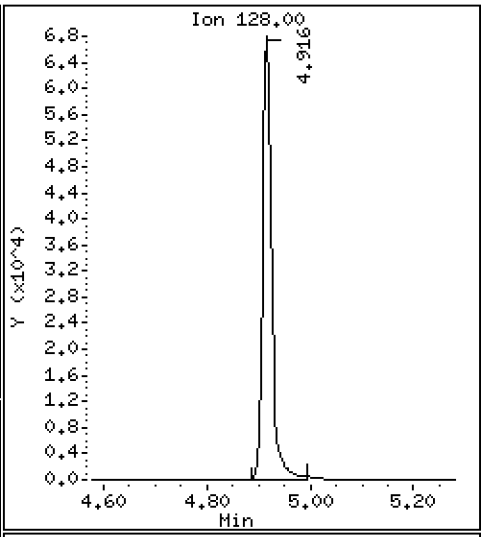
Column phase: Rxi-17sil

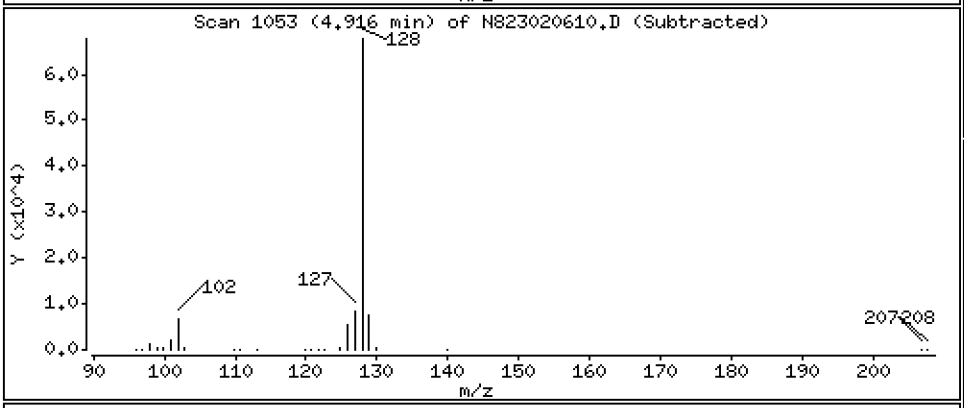
Column diameter: 0.25

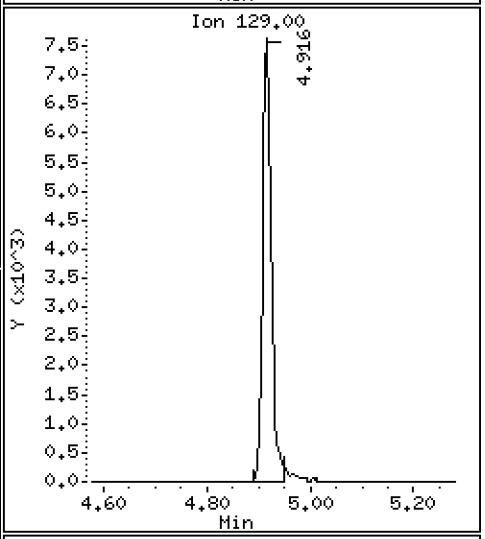
2 Naphthalene

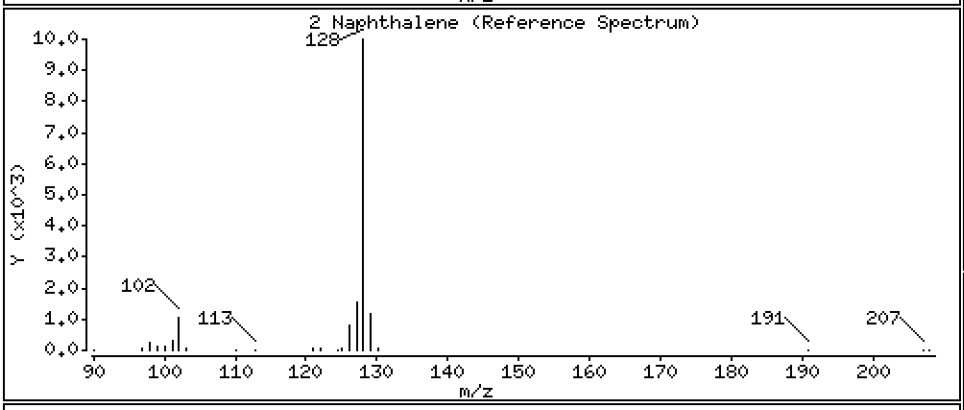
Concentration: 3.398 ug/mL

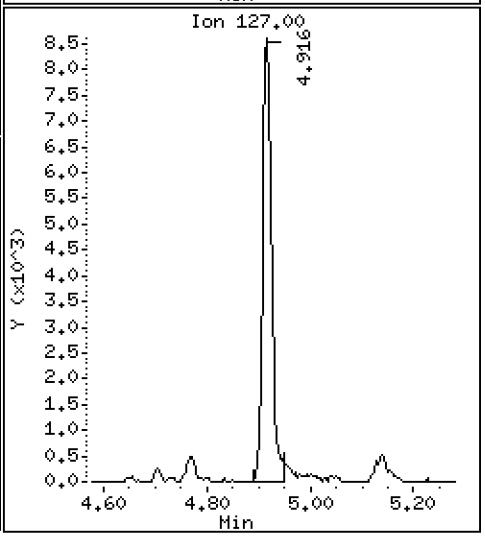


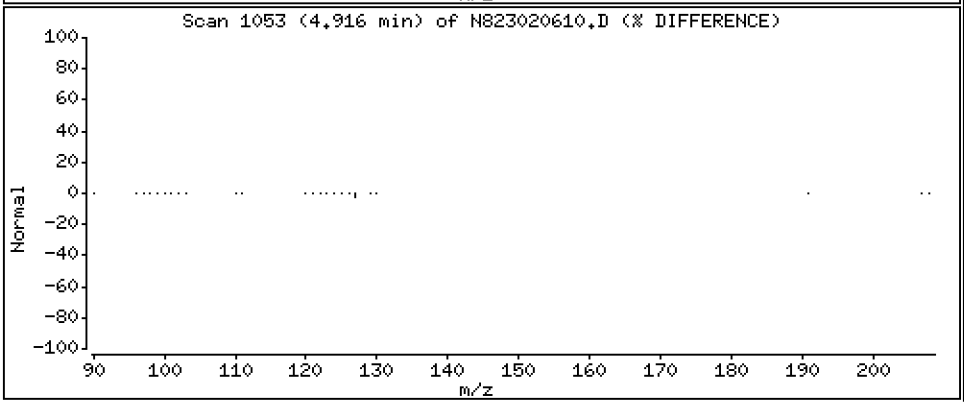












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Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

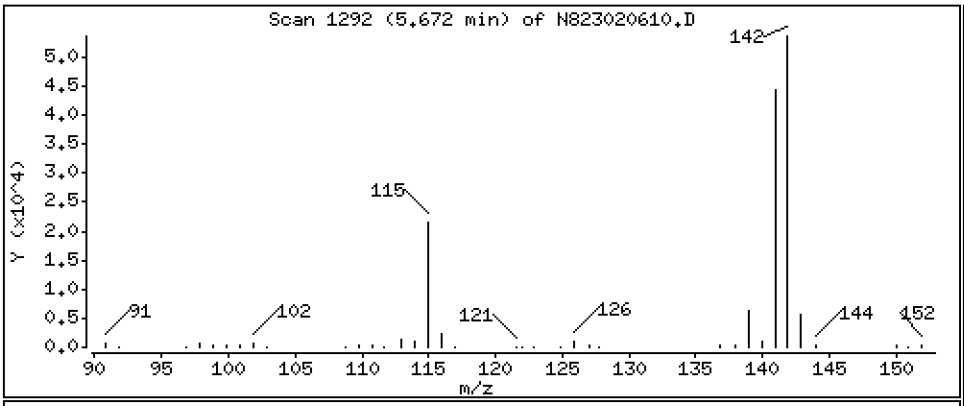
Operator: JZ

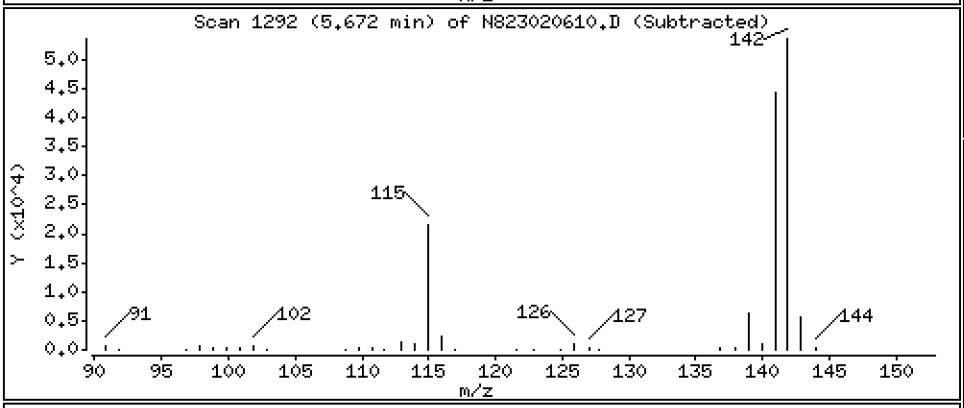
Column phase: Rxi-17sil

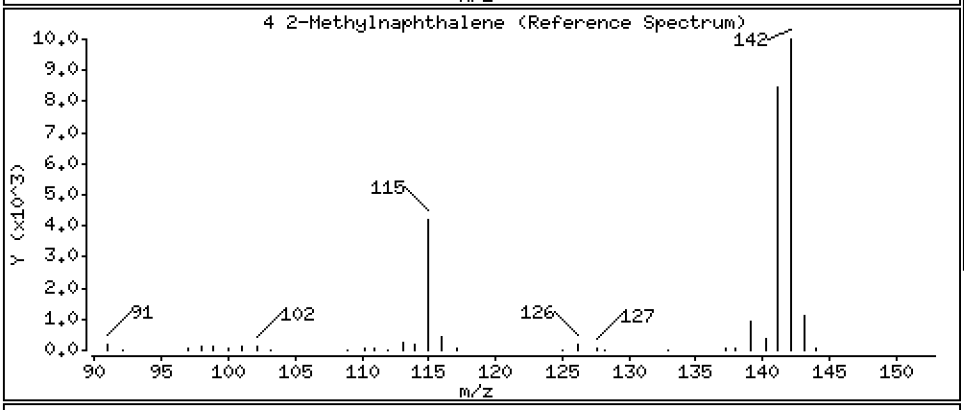
Column diameter: 0.25

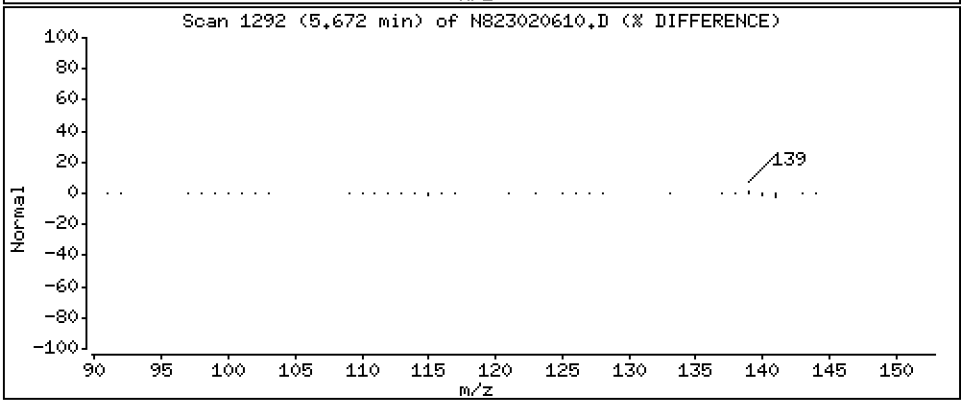
4 2-Methylnaphthalene

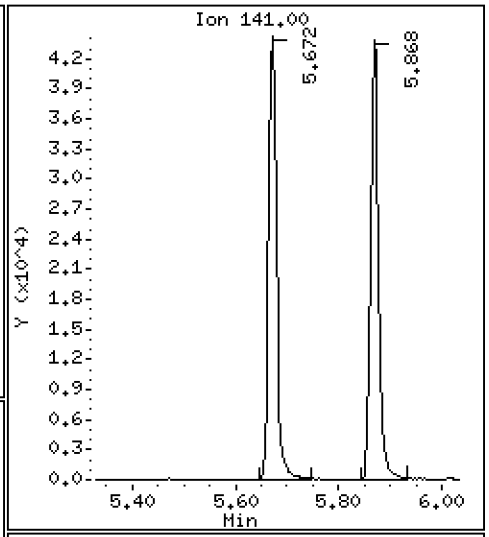
Concentration: 3.501 ug/mL

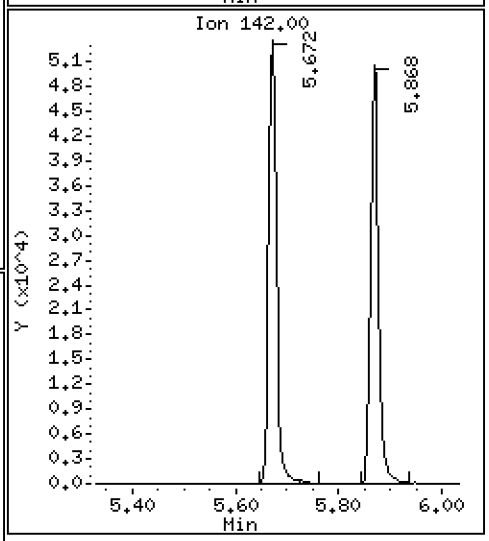












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Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

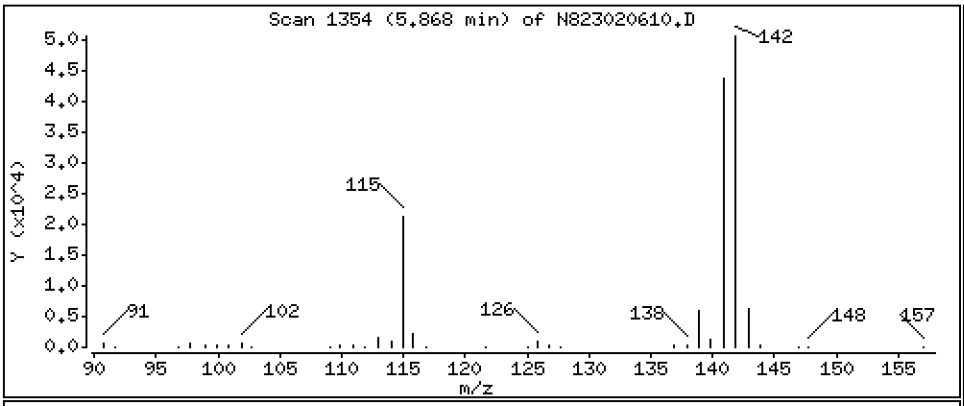
Operator: JZ

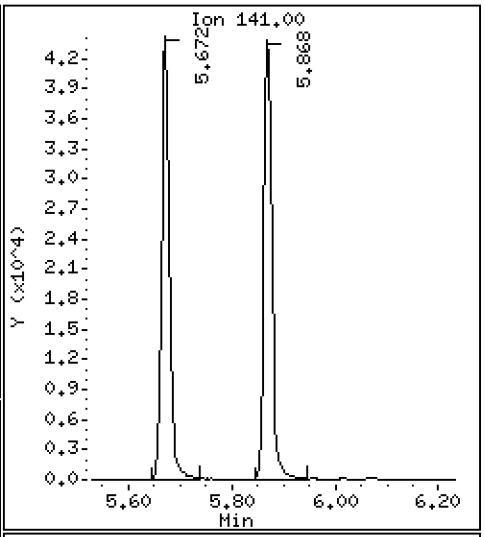
Column phase: Rxi-17sil

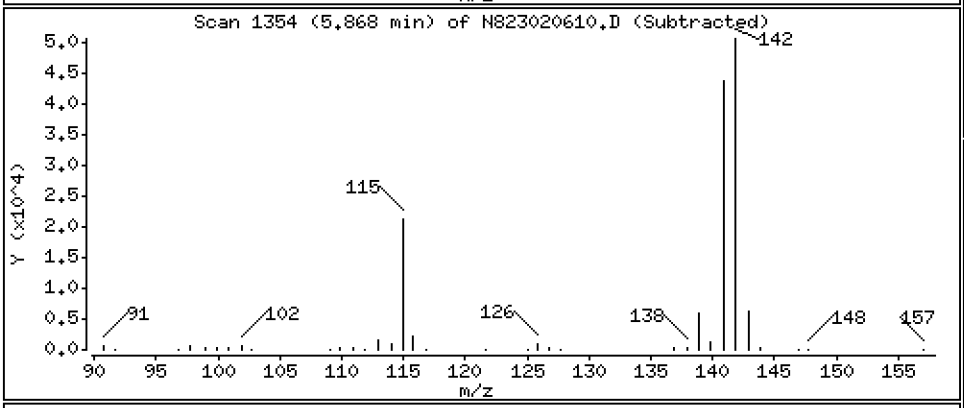
Column diameter: 0.25

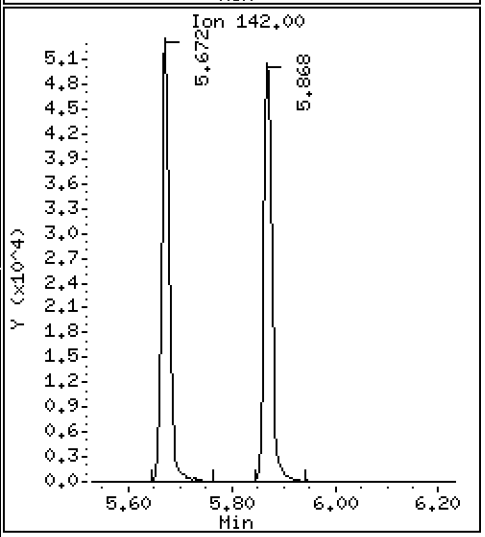
5 1-methylnaphthalene

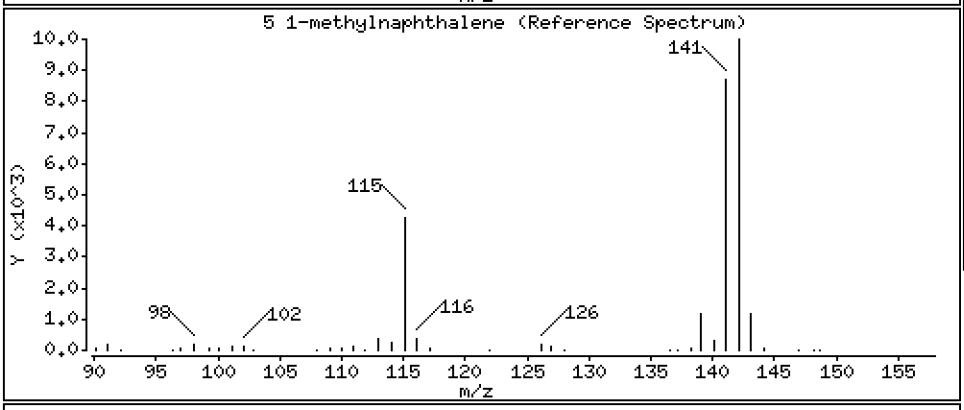
Concentration: 3.468 ug/mL

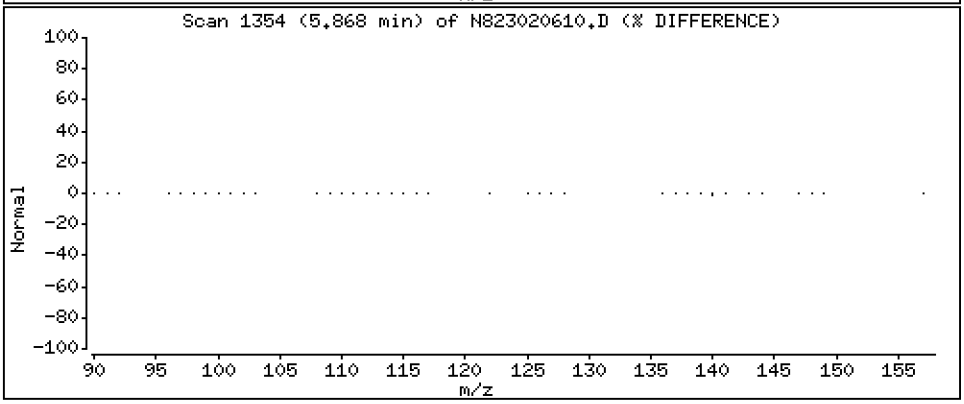












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020610.D

Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

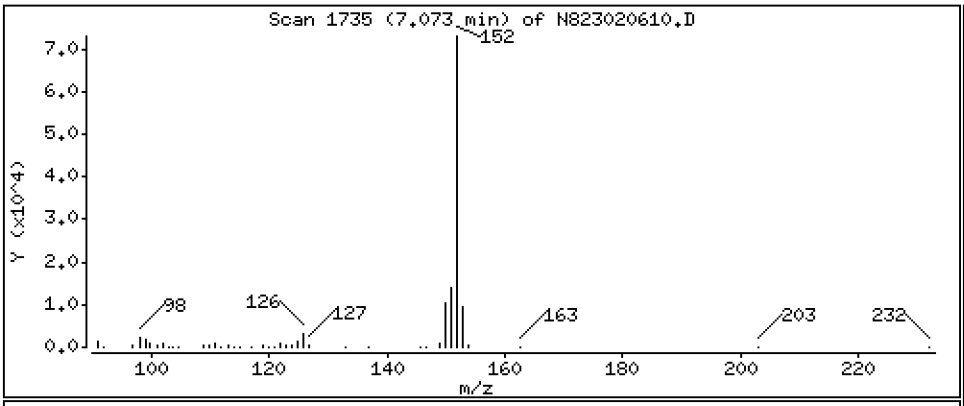
Operator: JZ

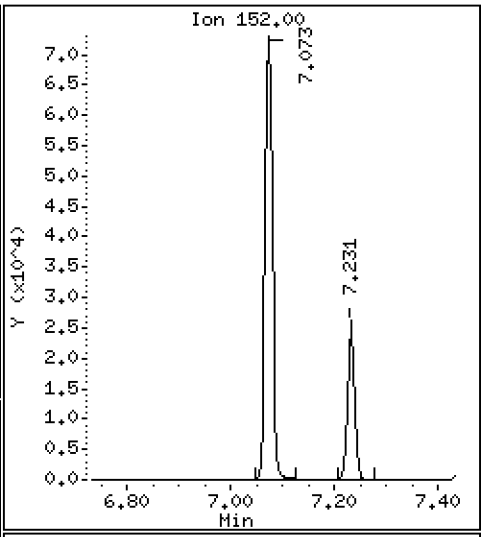
Column phase: Rxi-17sil

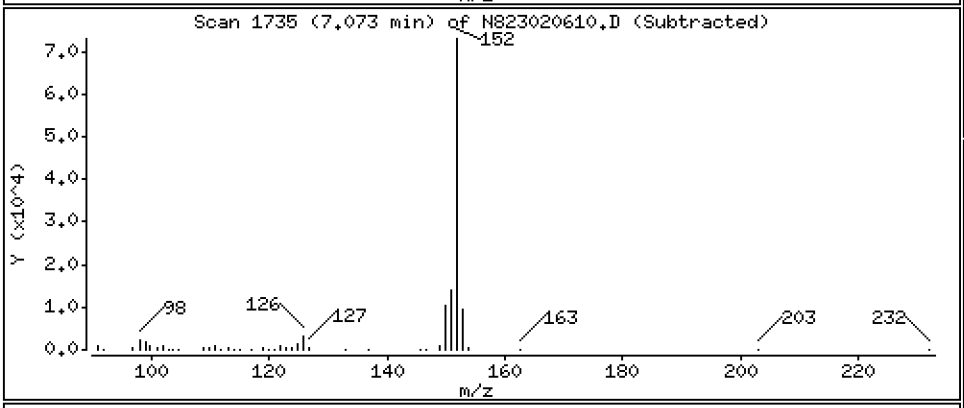
Column diameter: 0.25

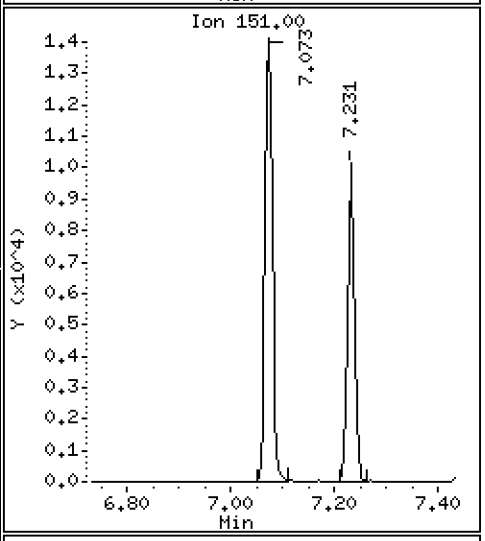
9 Acenaphthylene

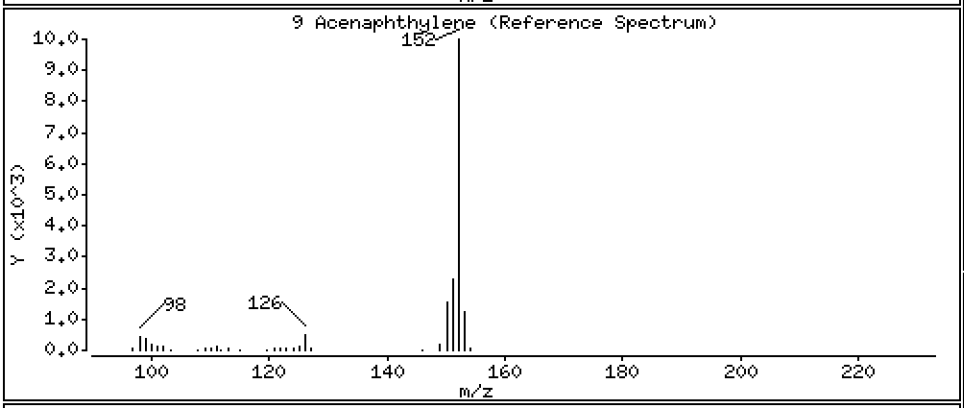
Concentration: 3.121 ug/mL

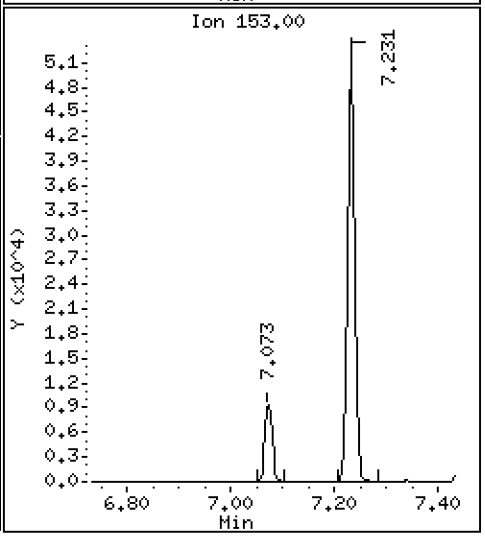


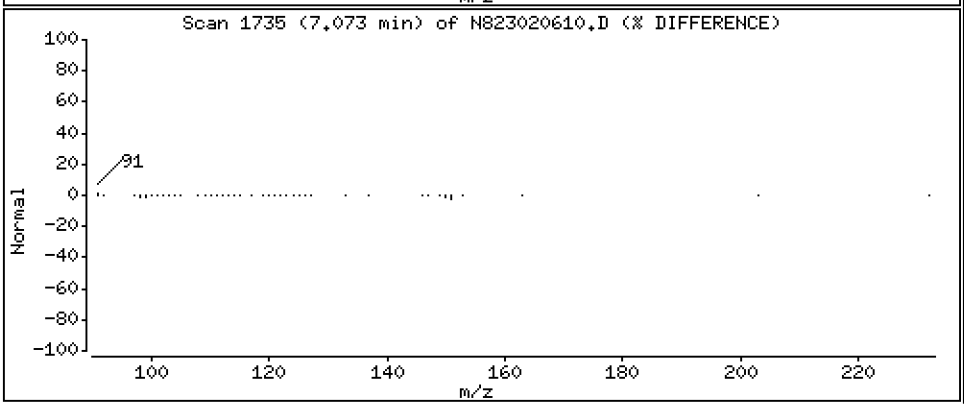












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Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

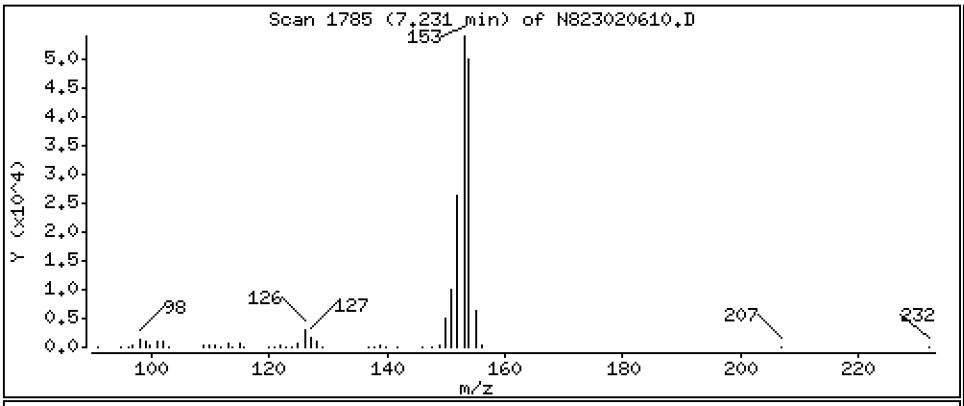
Operator: JZ

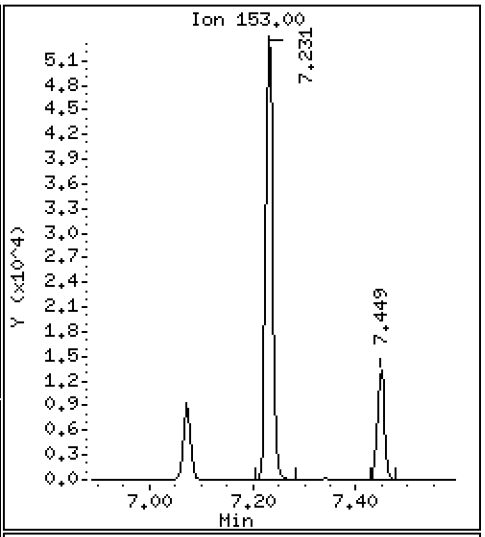
Column phase: Rxi-17sil

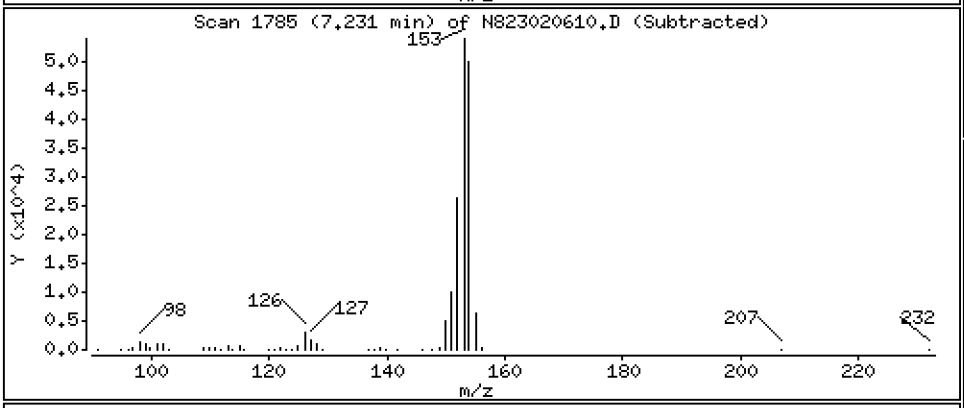
Column diameter: 0.25

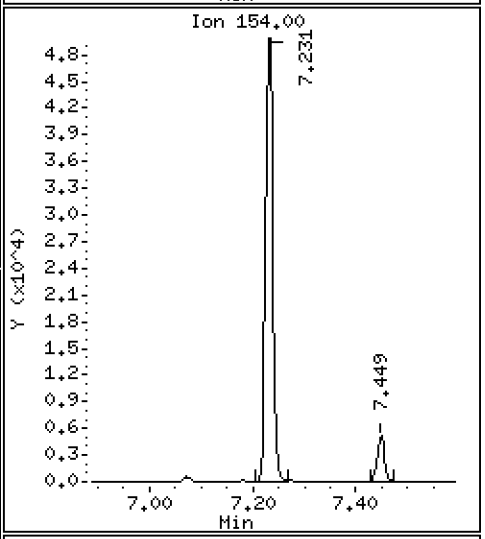
11 Acenaphthene

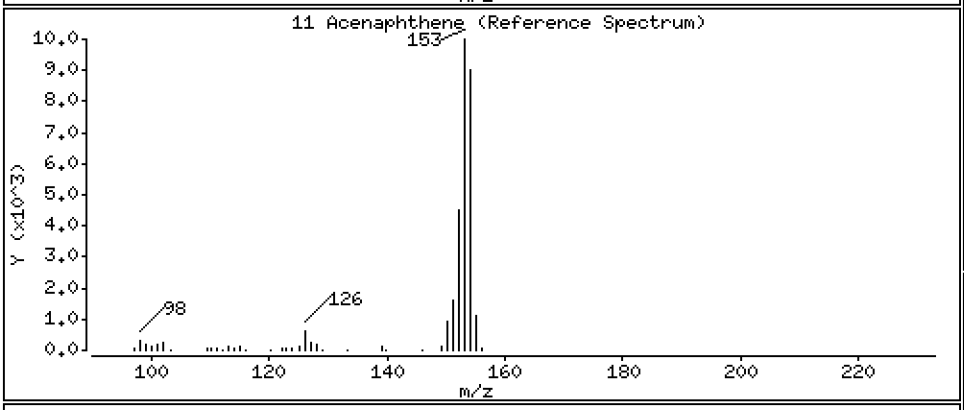
Concentration: 3.432 ug/mL

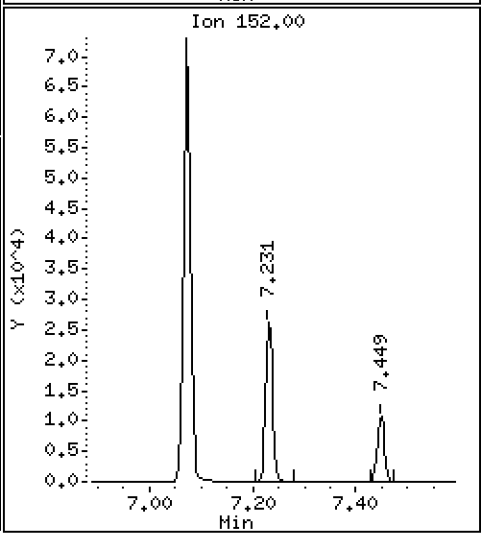


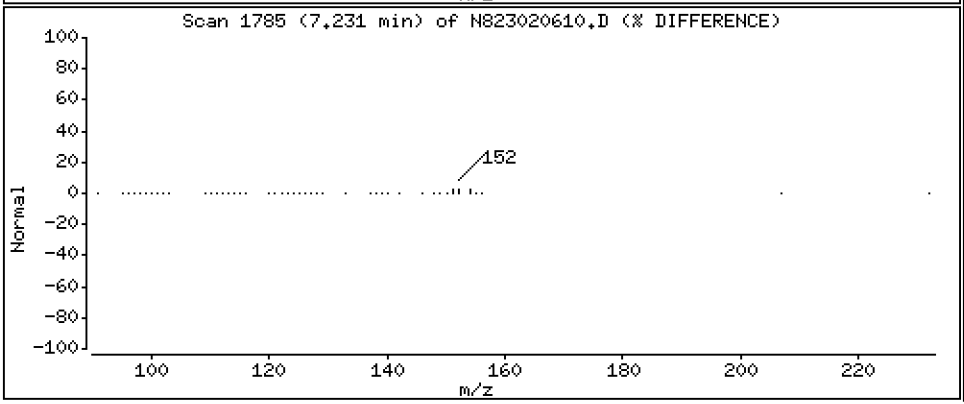












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Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

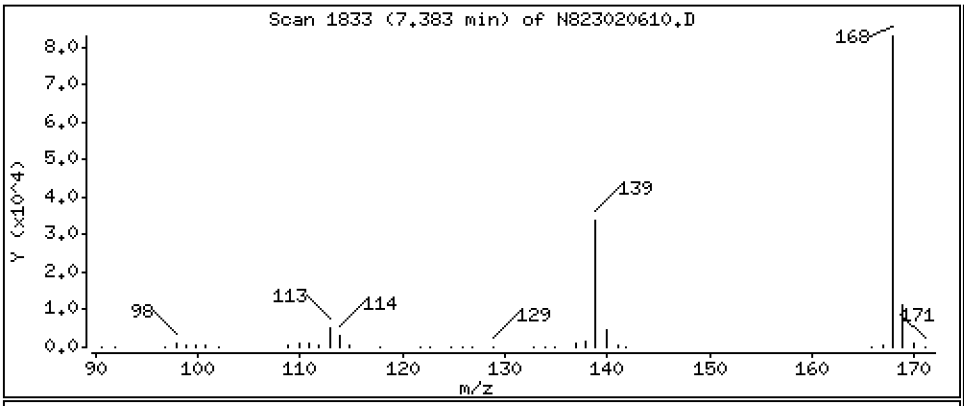
Operator: JZ

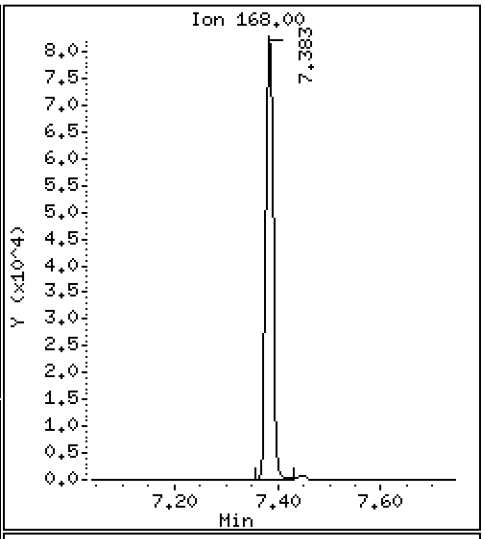
Column phase: Rxi-17sil

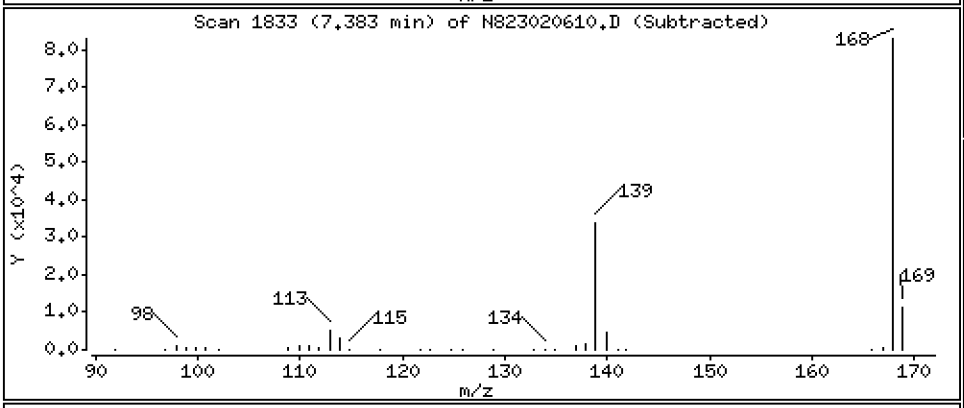
Column diameter: 0.25

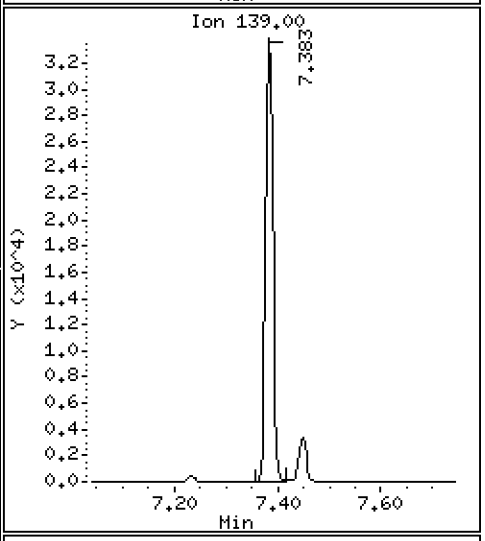
12 Dibenzofuran

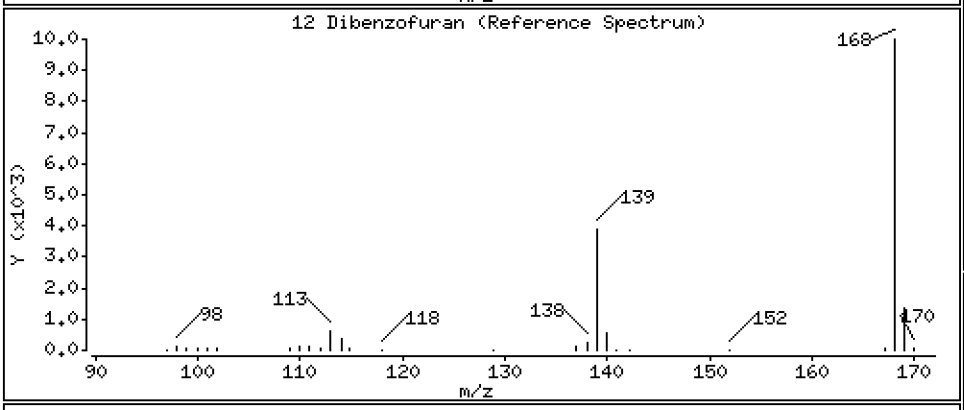
Concentration: 3.432 ug/mL

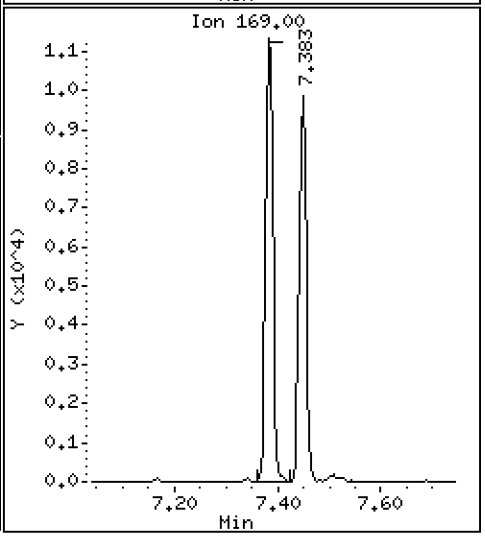


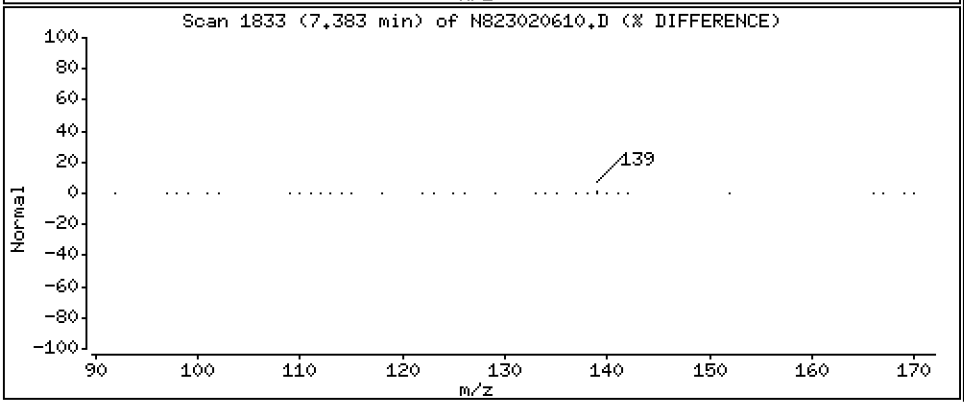












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Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

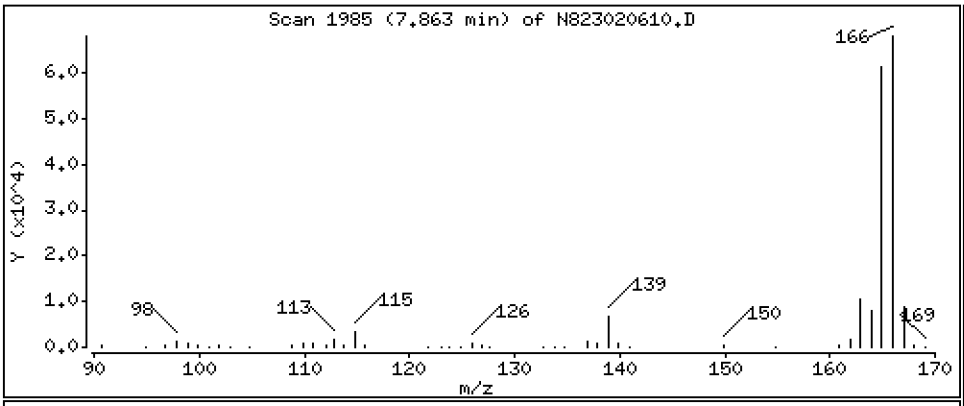
Operator: JZ

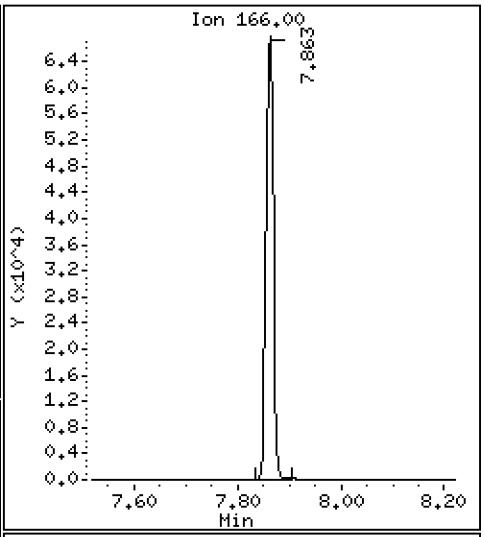
Column phase: Rxi-17sil

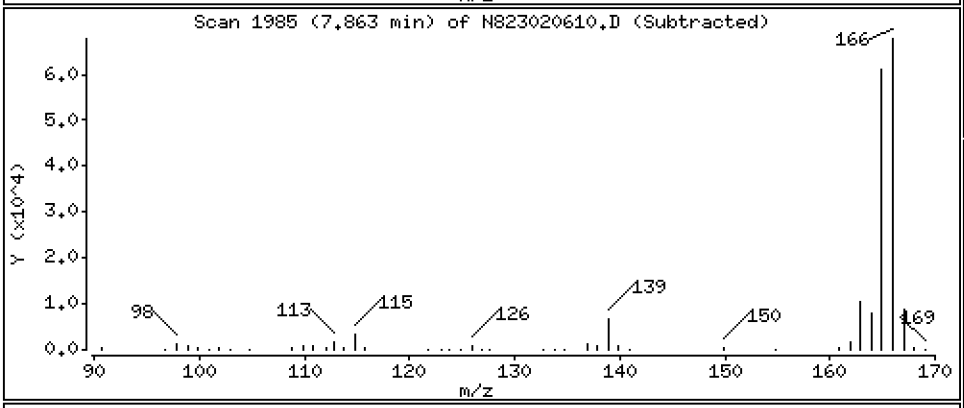
Column diameter: 0.25

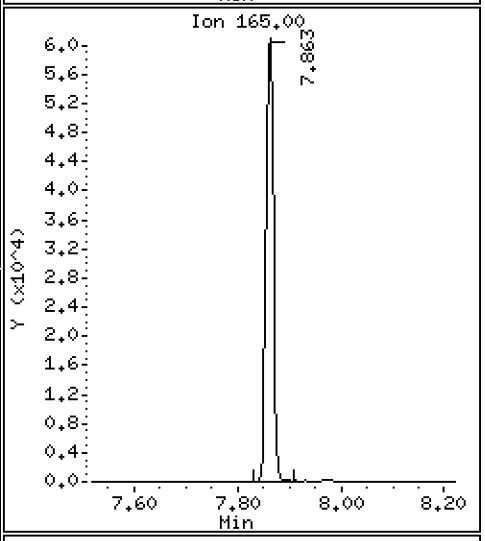
14 Fluorene

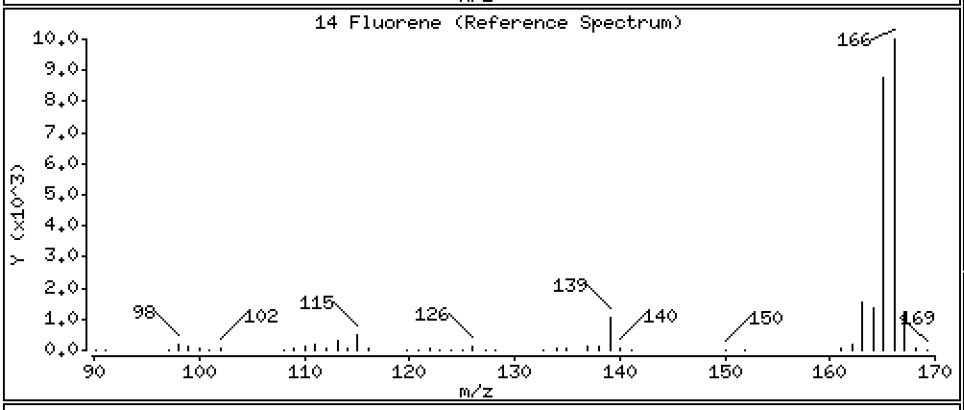
Concentration: 3.602 ug/mL

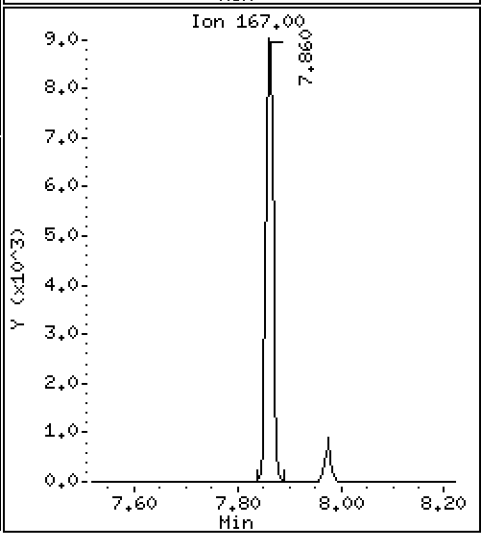


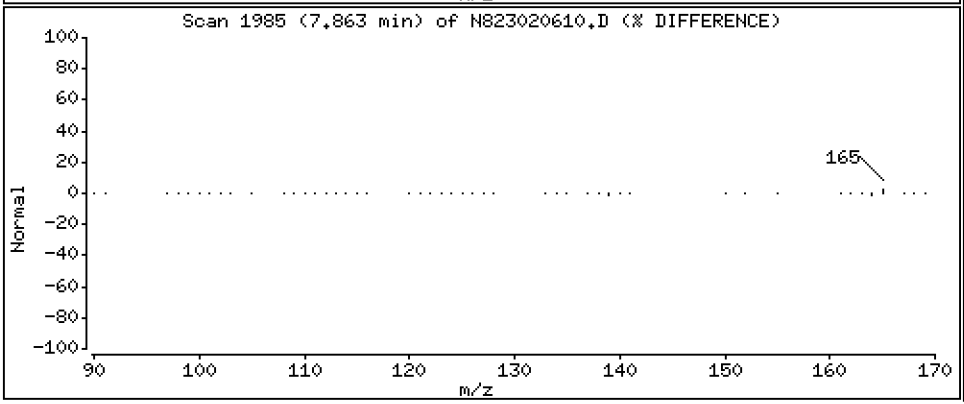












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Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

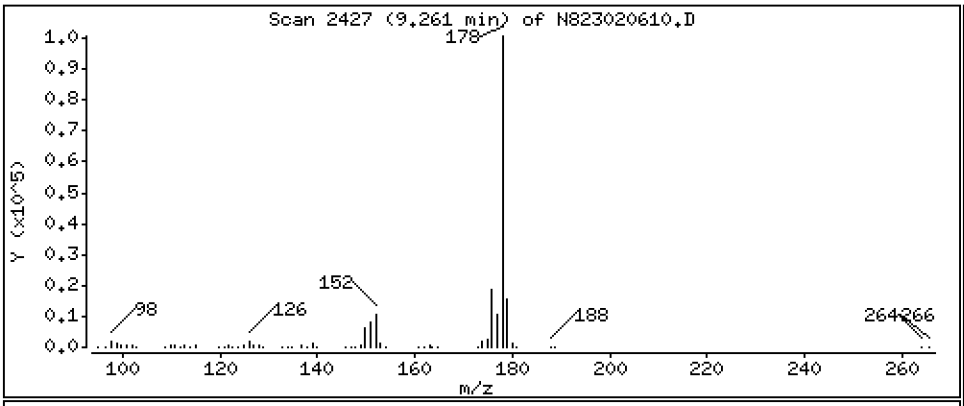
Operator: JZ

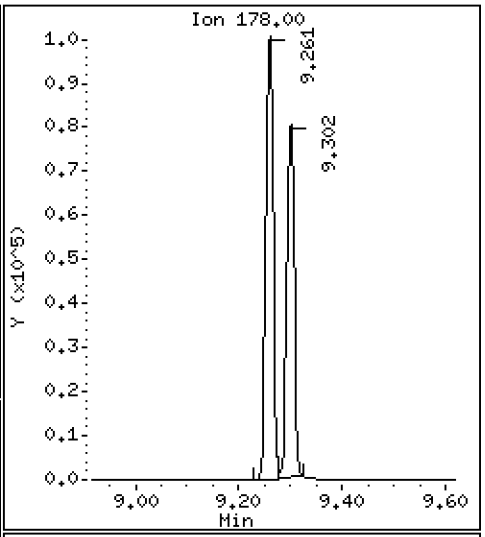
Column phase: Rxi-17sil

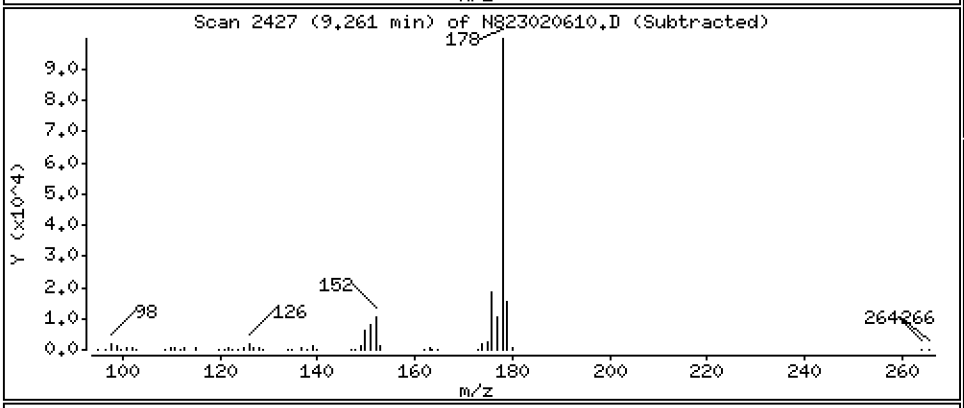
Column diameter: 0.25

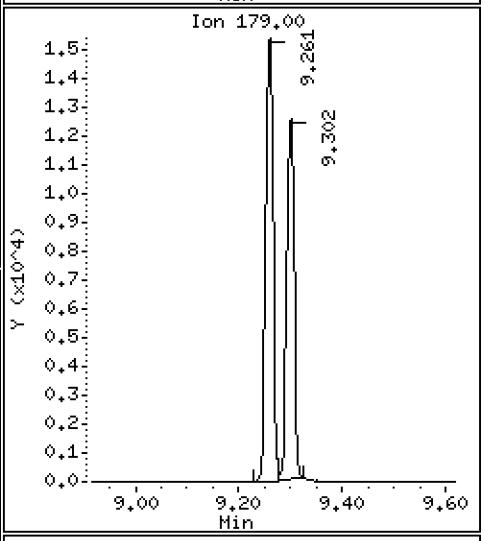
16 Phenanthrene

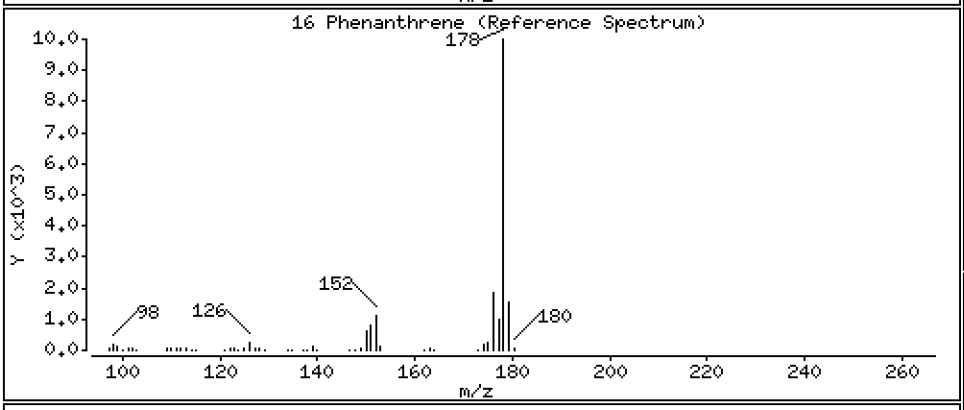
Concentration: 3.573 ug/mL

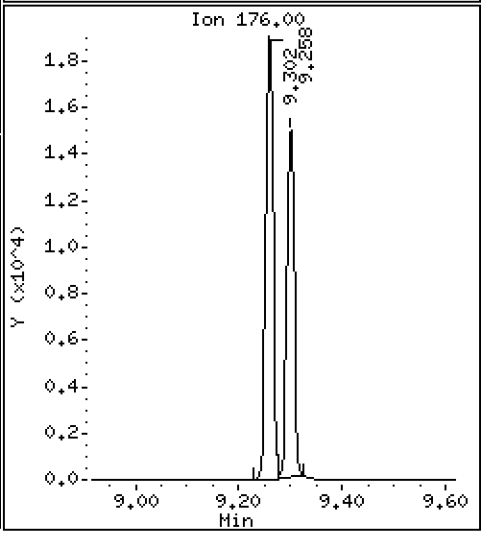


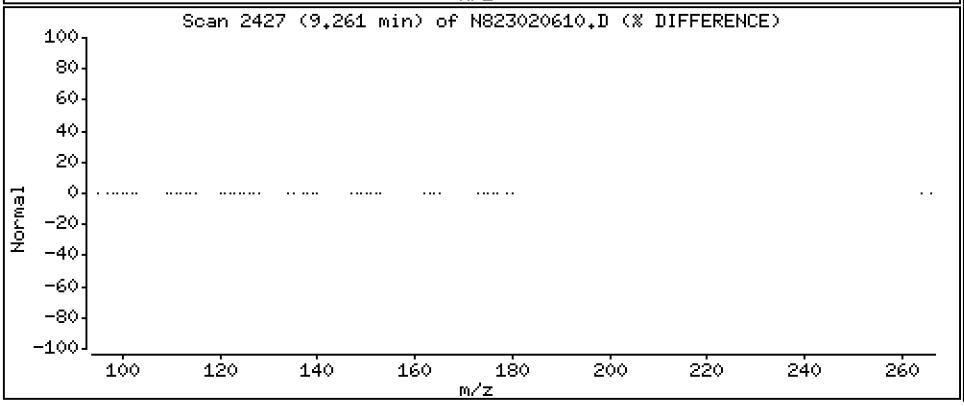












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Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

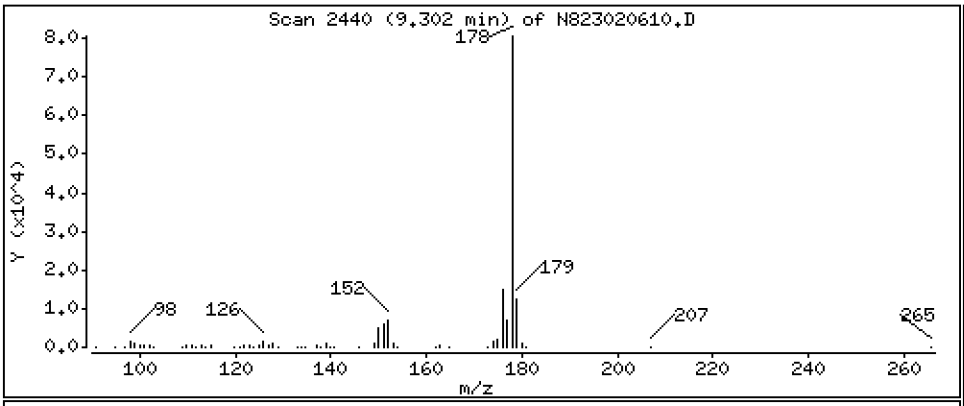
Operator: JZ

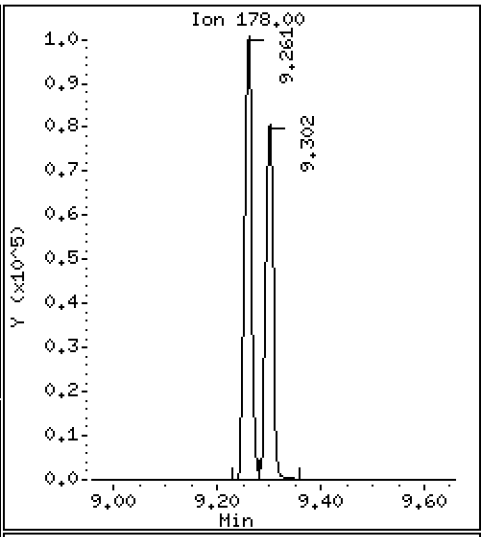
Column phase: Rxi-17sil

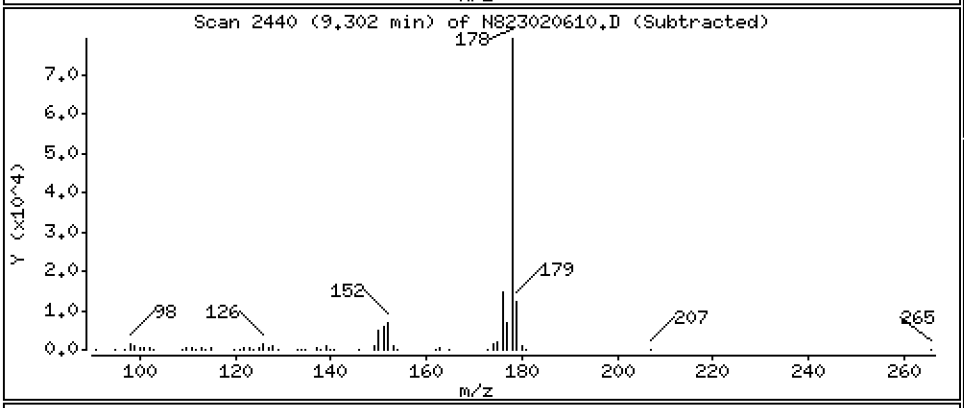
Column diameter: 0.25

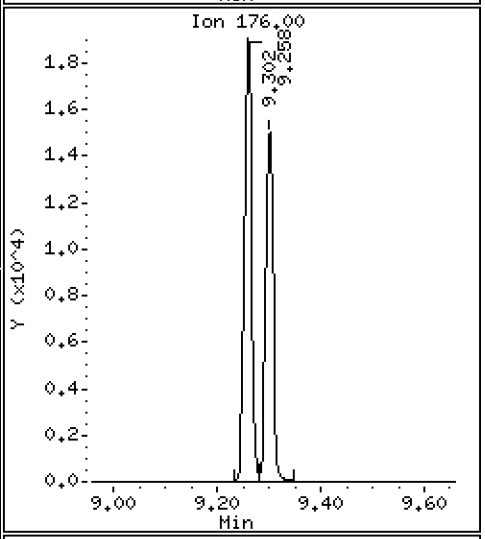
17 Anthracene

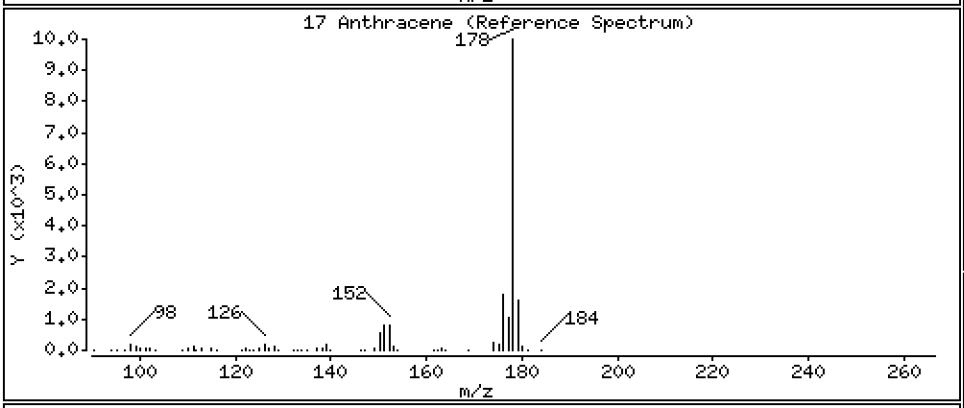
Concentration: 3.237 ug/mL

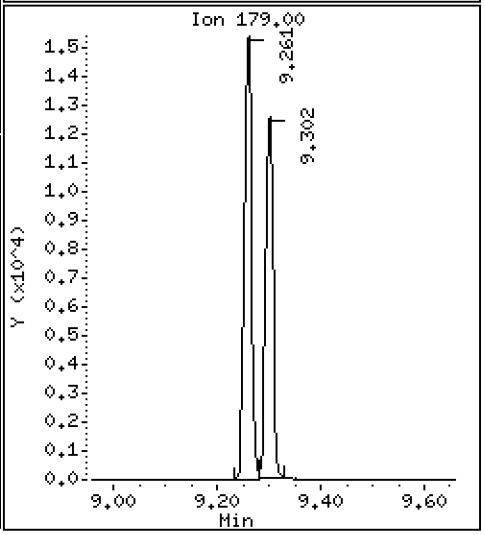


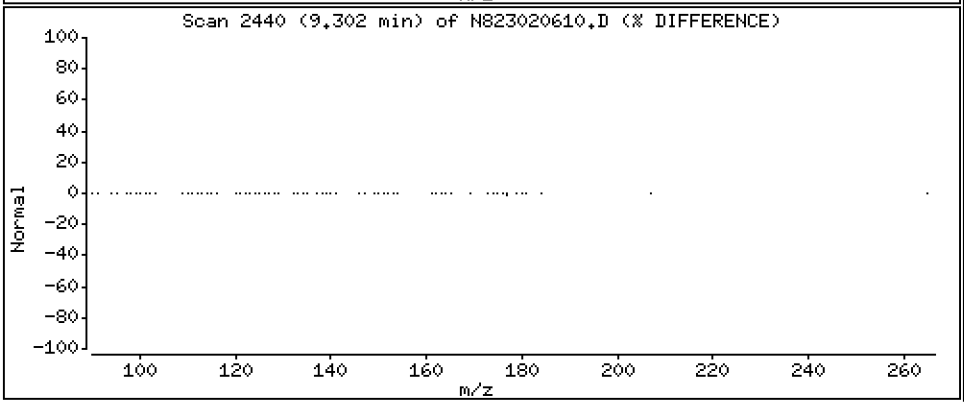












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Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

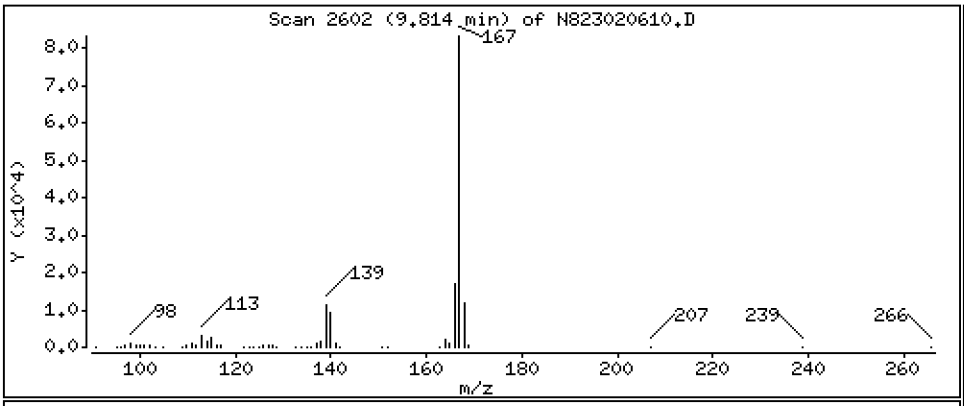
Operator: JZ

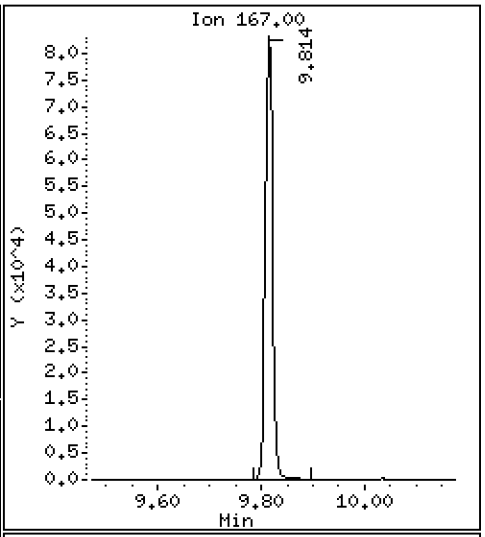
Column phase: Rxi-17sil

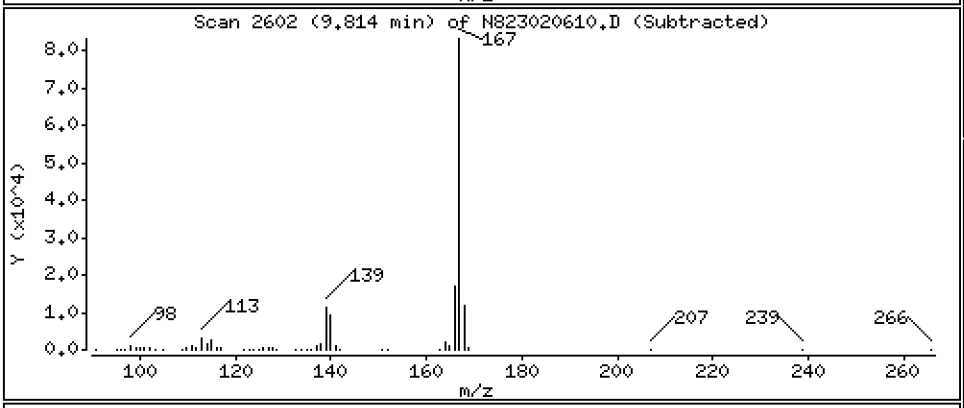
Column diameter: 0.25

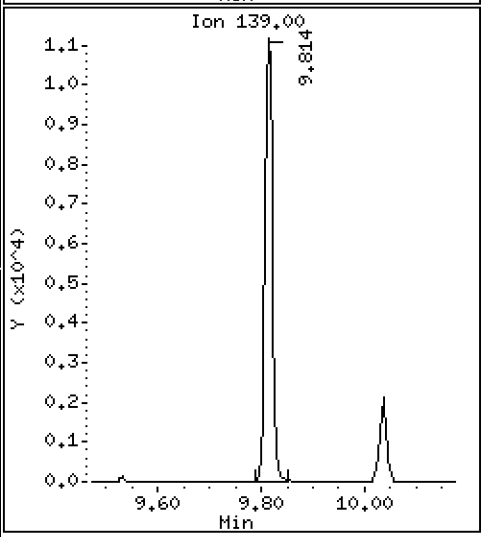
19 Carbazole

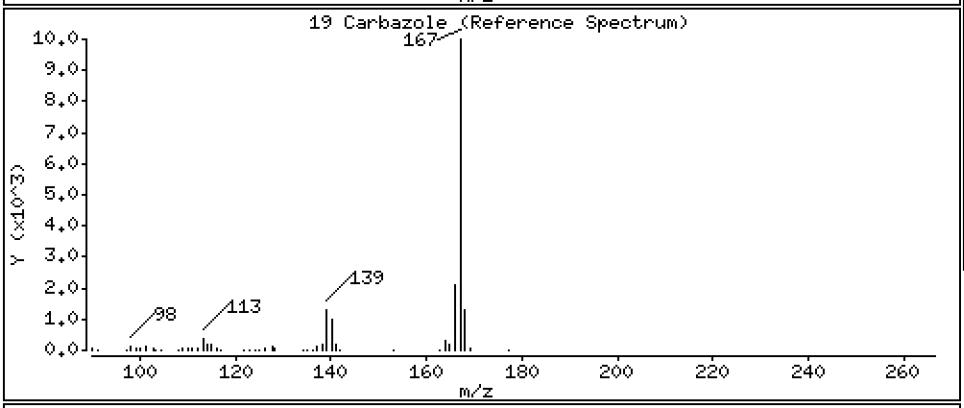
Concentration: 3.739 ug/mL

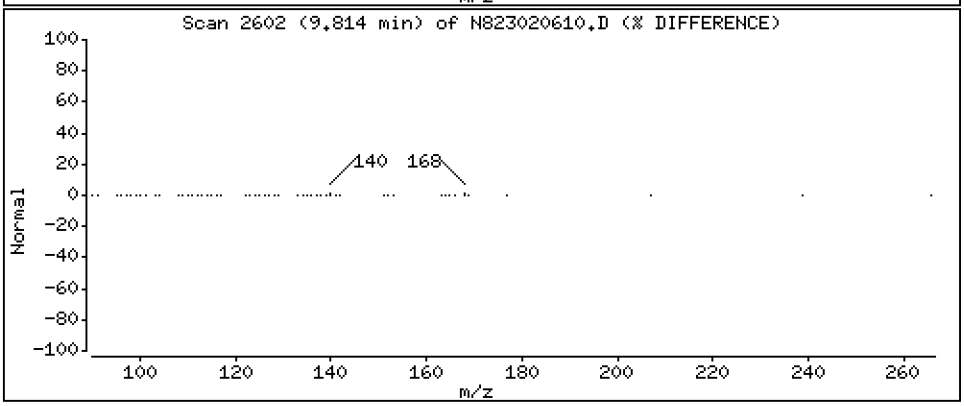












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Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

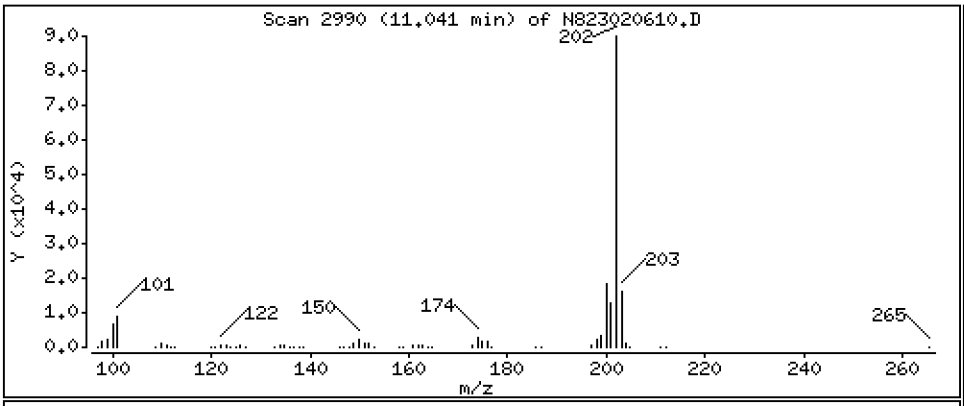
Operator: JZ

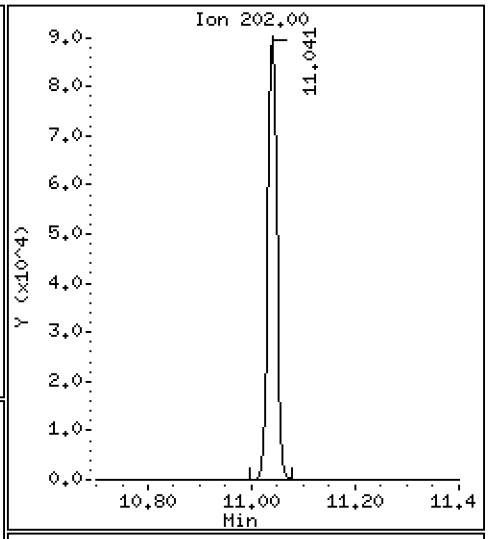
Column phase: Rxi-17sil

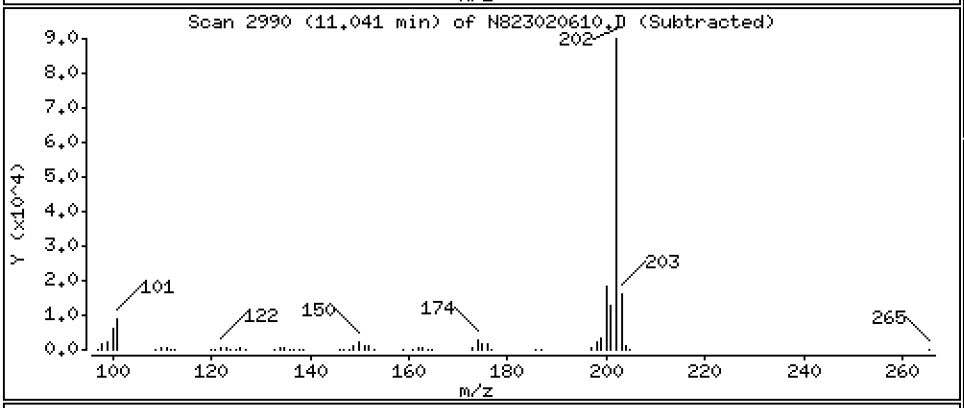
Column diameter: 0.25

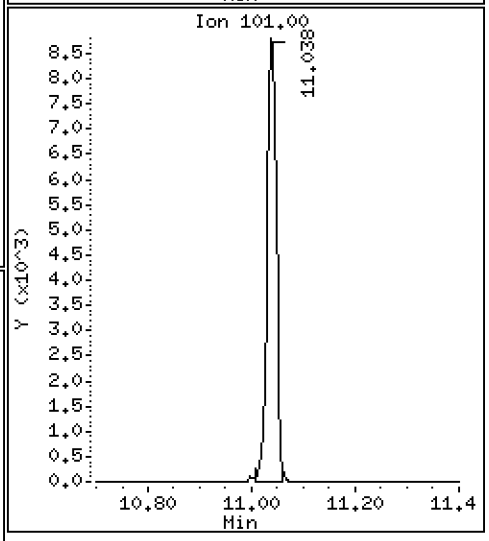
22 Fluoranthene

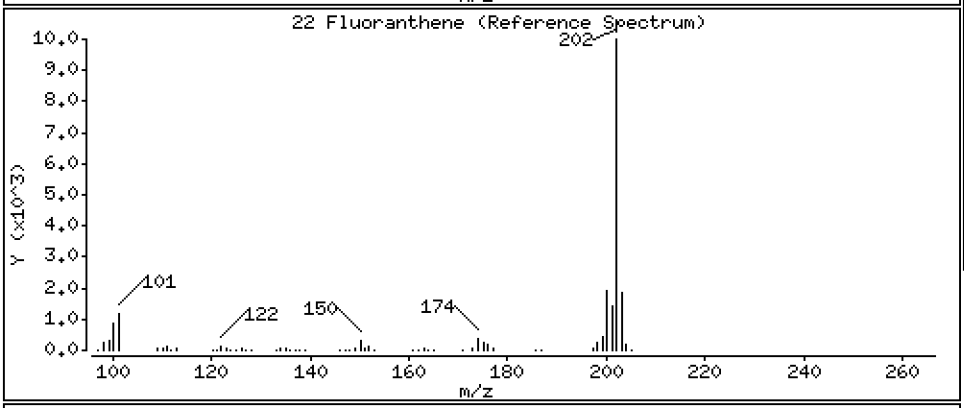
Concentration: 3.715 ug/mL

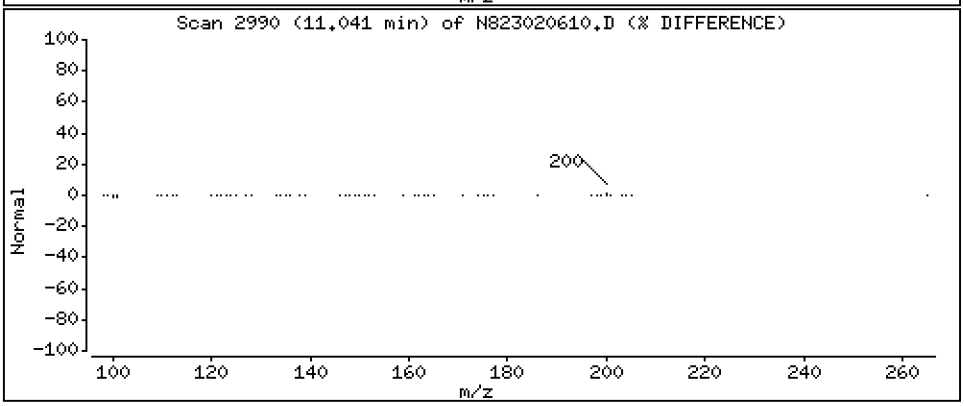












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020610.D

Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

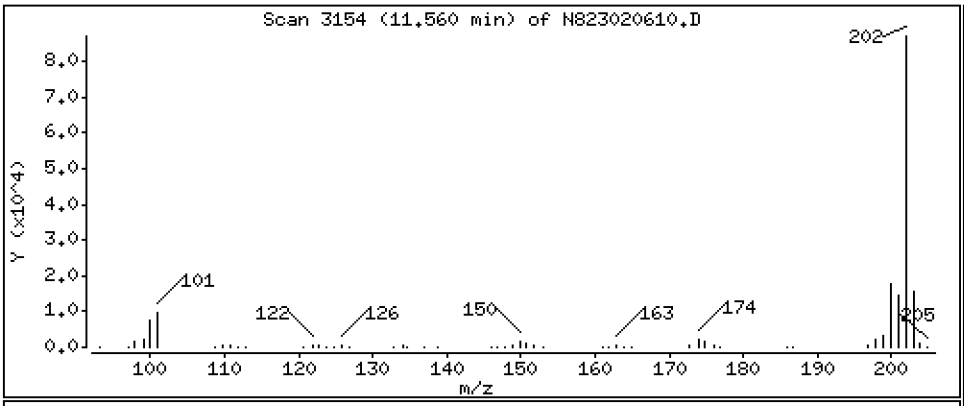
Operator: JZ

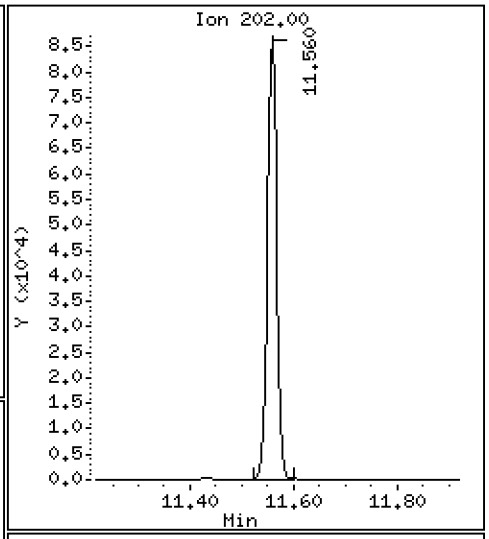
Column phase: Rxi-17sil

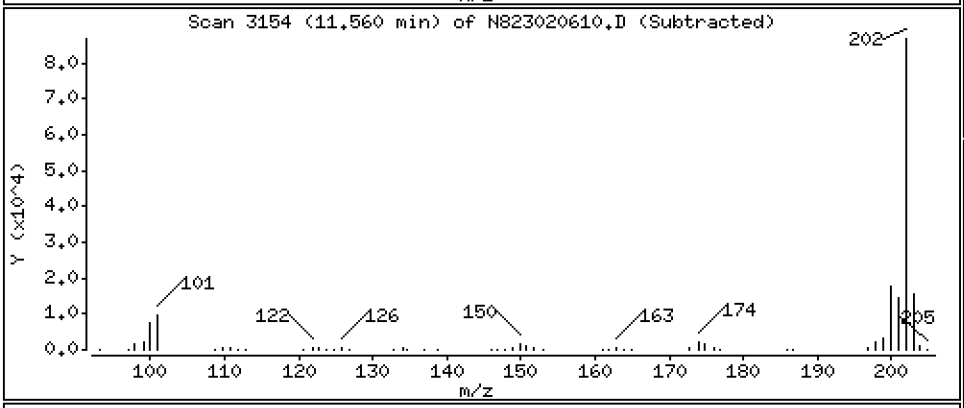
Column diameter: 0.25

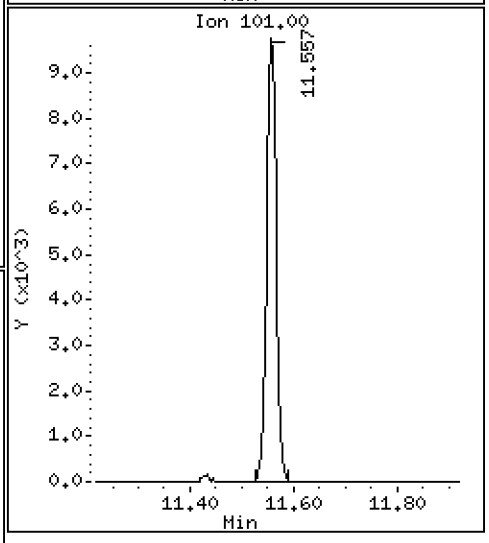
23 Pyrene

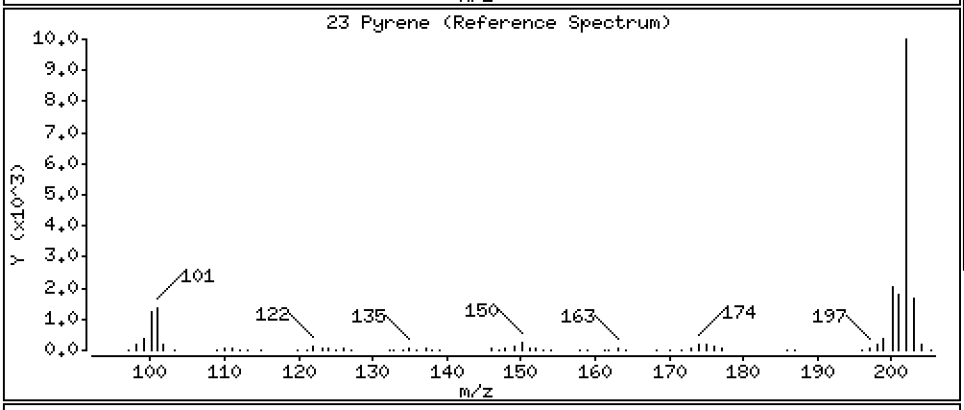
Concentration: 4.283 ug/mL

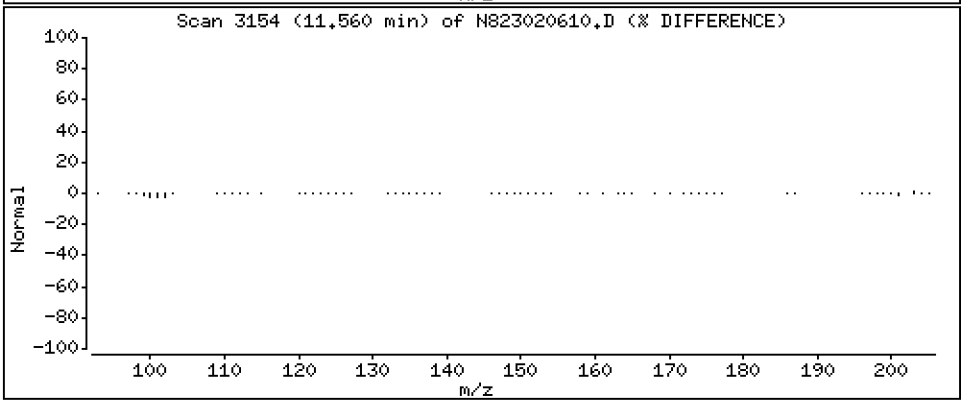












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020610.D

Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

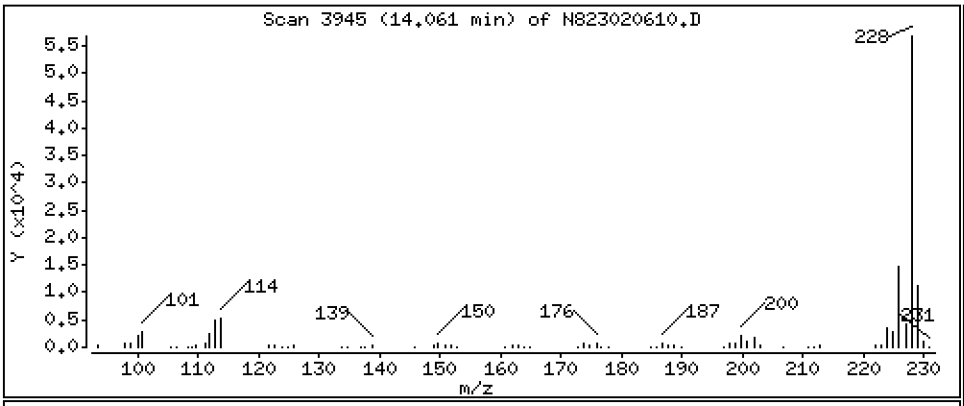
Operator: JZ

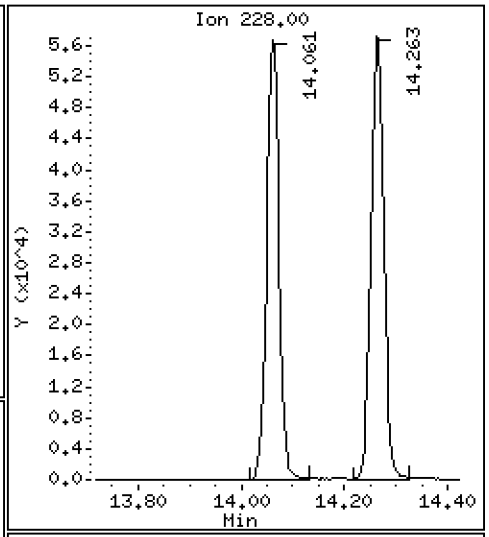
Column phase: Rxi-17sil

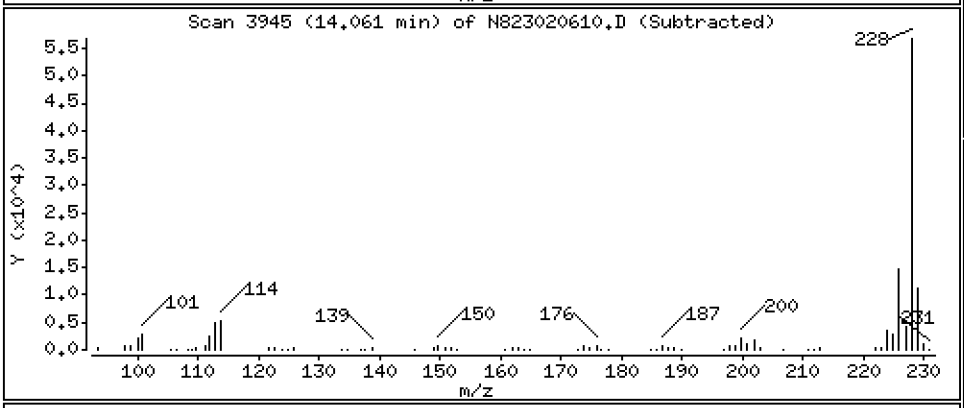
Column diameter: 0.25

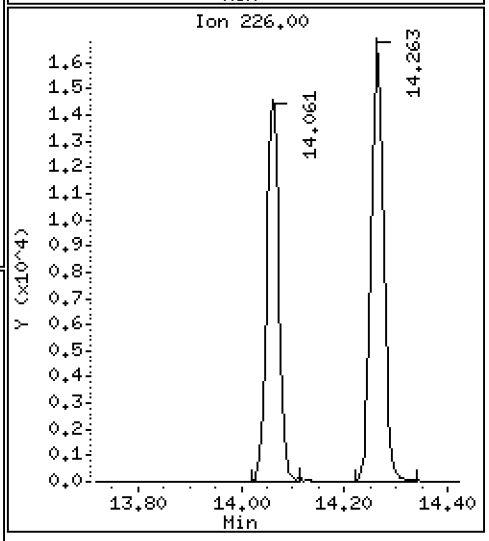
24 Benzo(a)anthracene

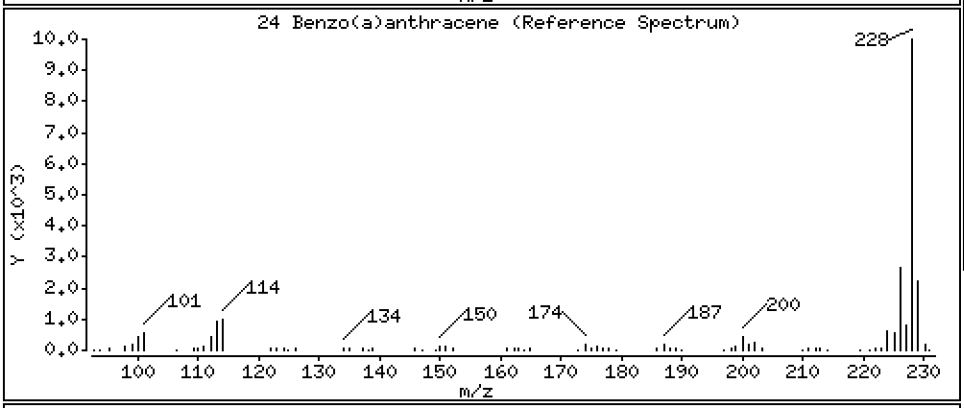
Concentration: 4.009 ug/mL

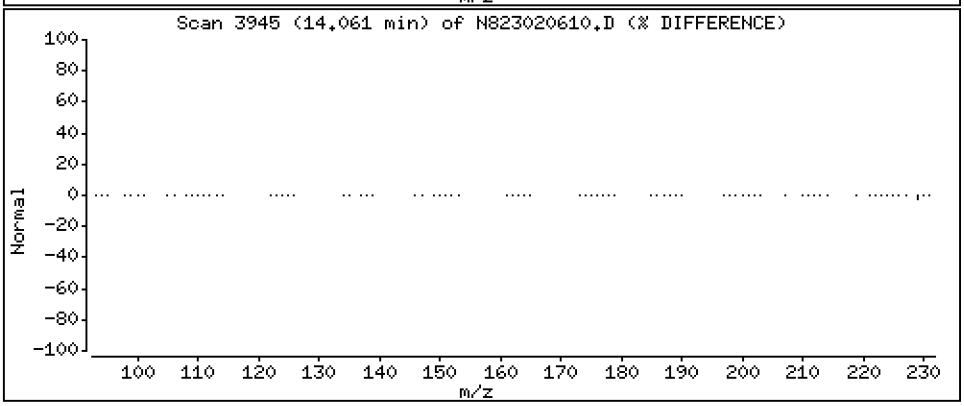












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020610.D

Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

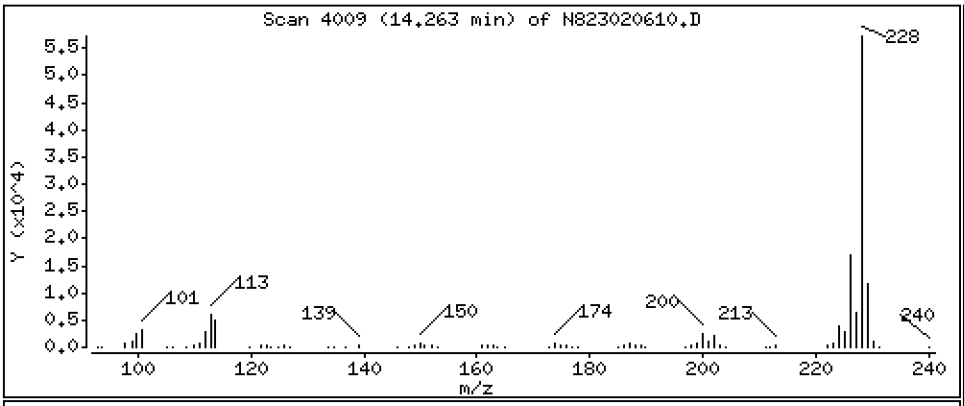
Operator: JZ

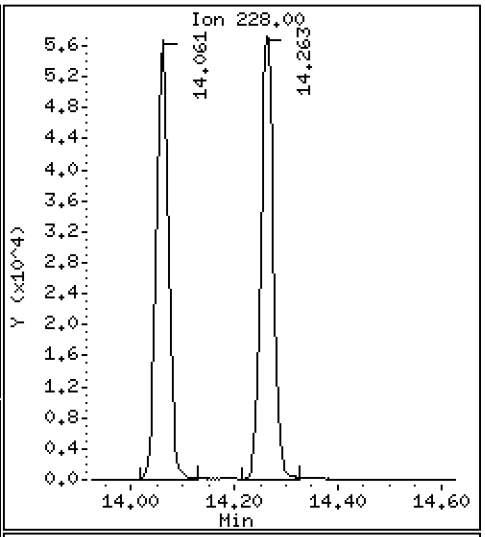
Column phase: Rxi-17sil

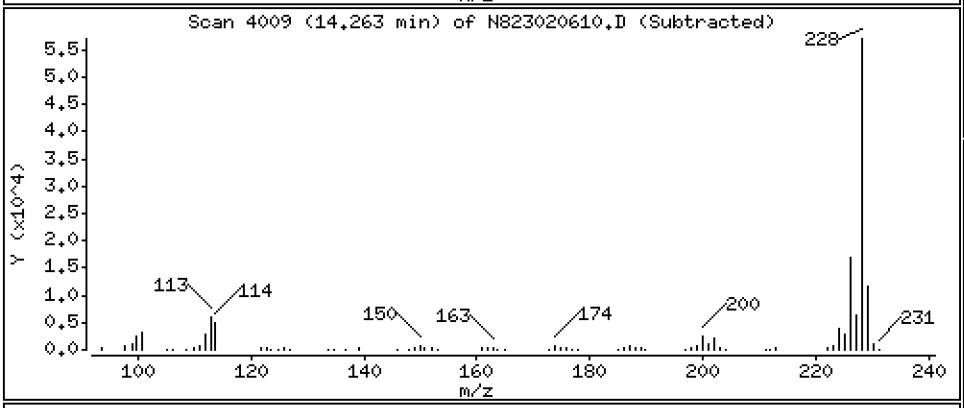
Column diameter: 0.25

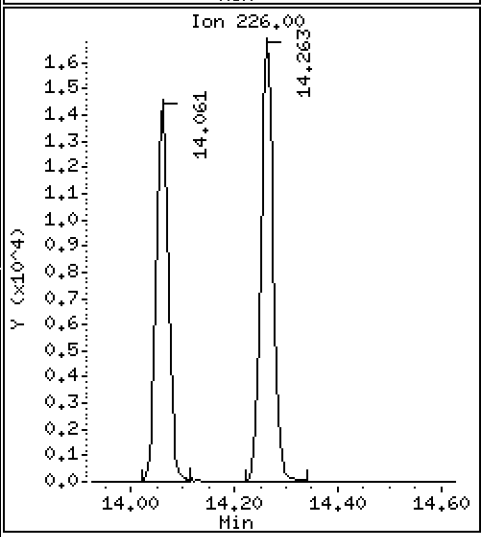
27 Chrysene

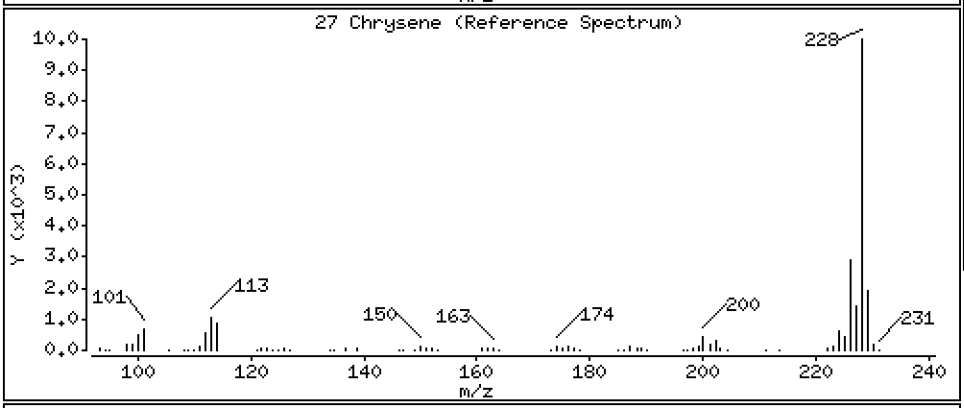
Concentration: 3.980 ug/mL

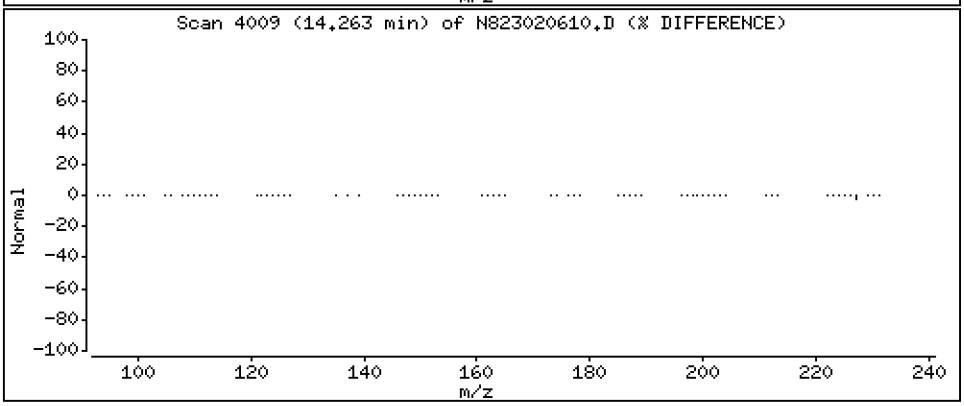












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020610.D

Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

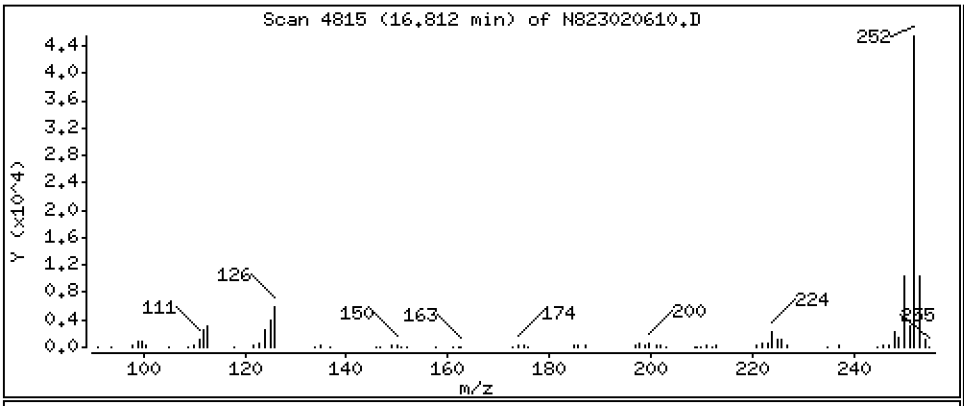
Operator: JZ

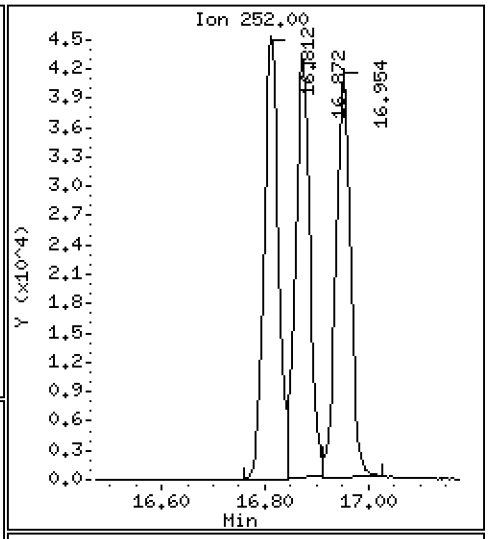
Column phase: Rxi-17sil

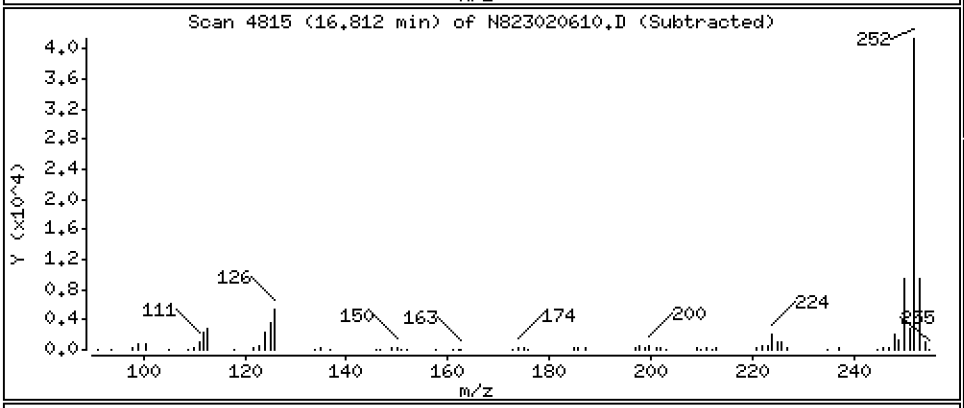
Column diameter: 0.25

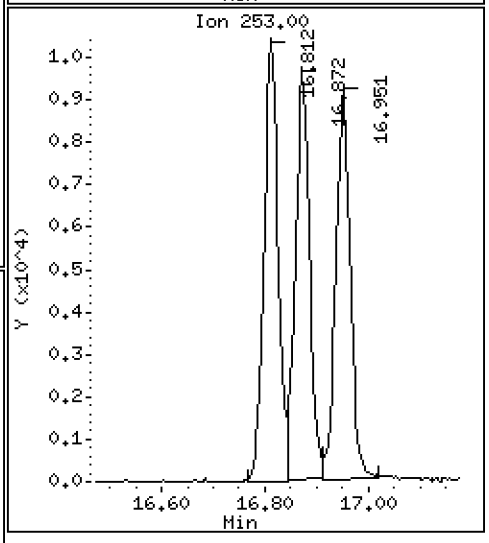
28 Benzo(b)fluoranthene

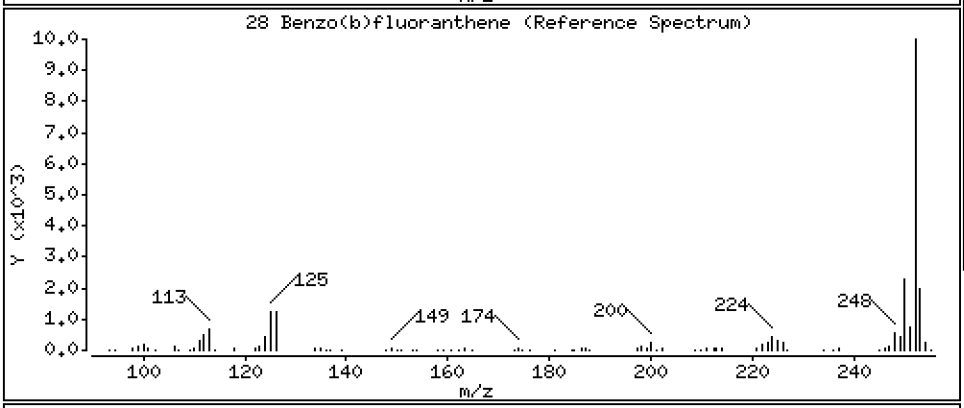
Concentration: 5.565 ug/mL

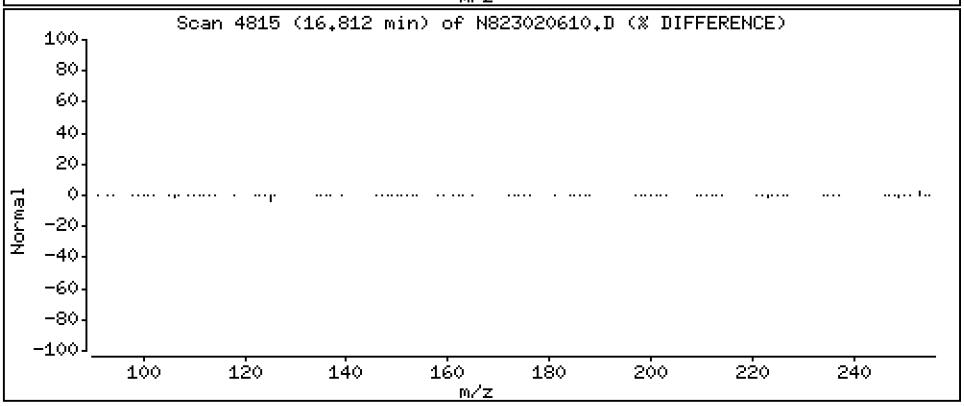












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020610.D

Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

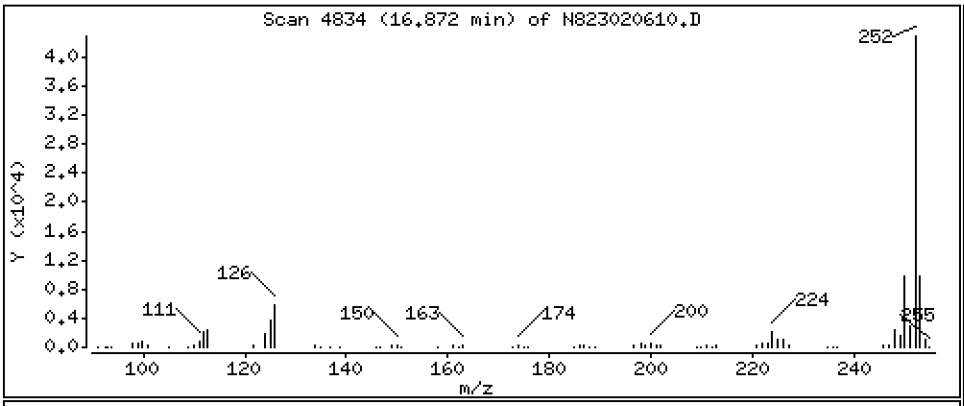
Operator: JZ

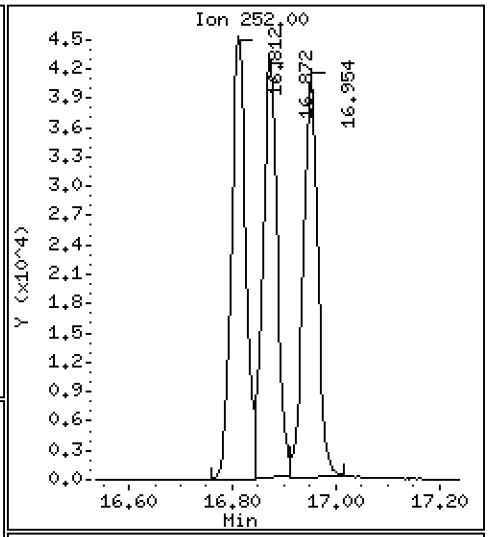
Column phase: Rxi-17sil

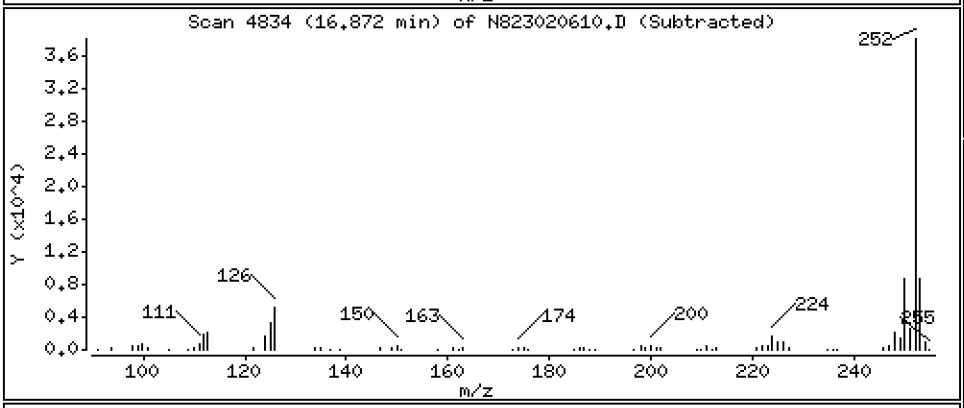
Column diameter: 0.25

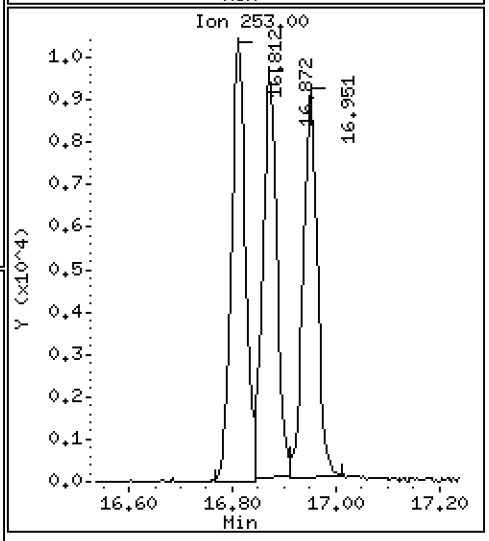
29 Benzo(k)fluoranthene

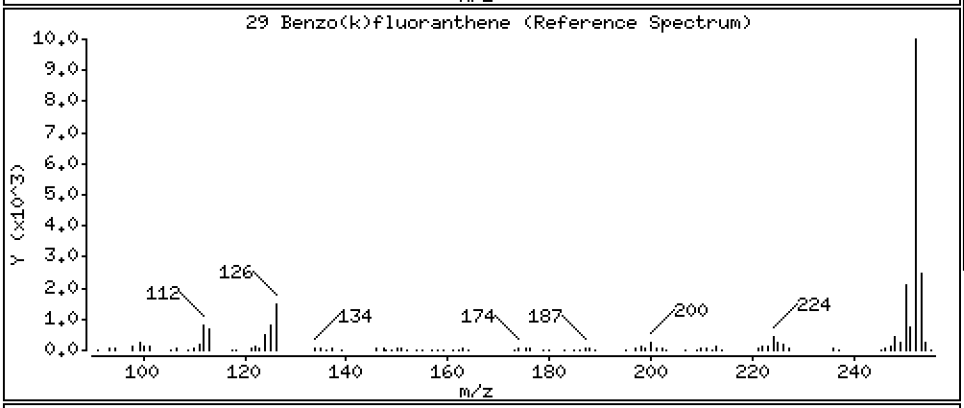
Concentration: 5.294 ug/mL

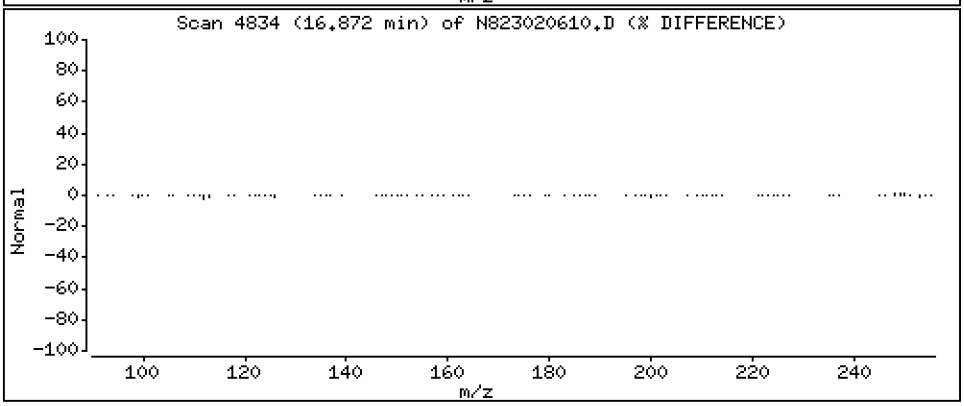












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020610.D

Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

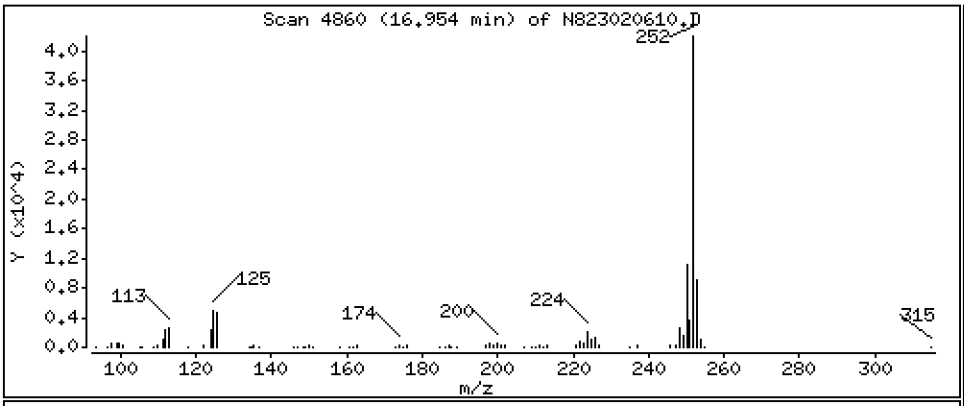
Operator: JZ

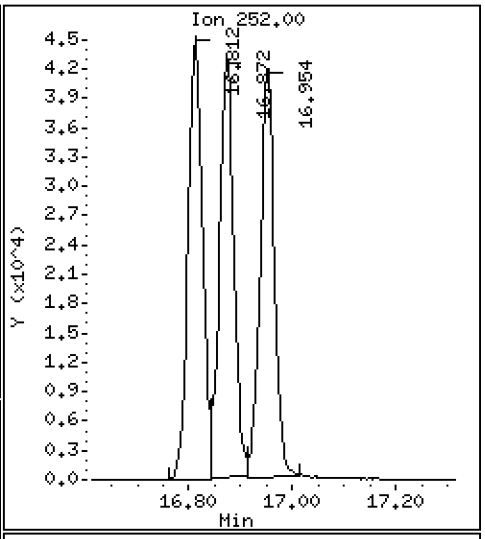
Column phase: Rxi-17sil

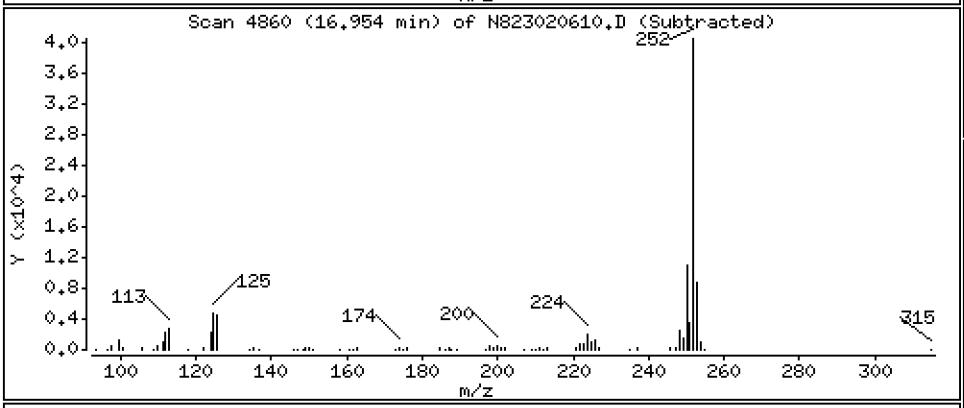
Column diameter: 0.25

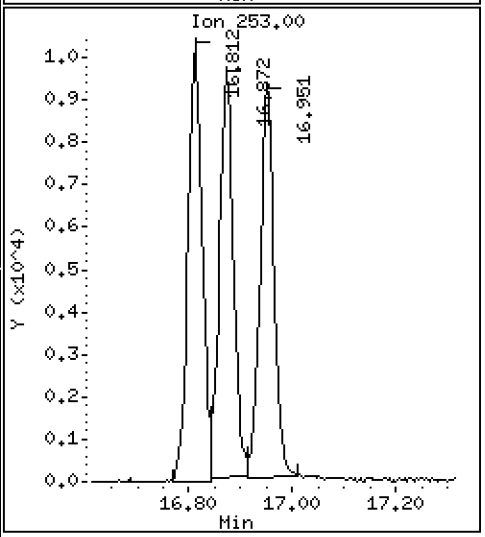
30 Benzo(j)fluoranthene

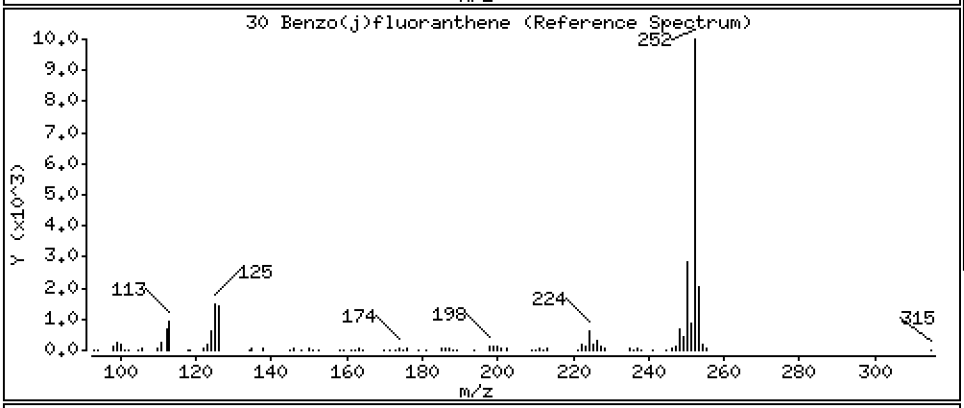
Concentration: 5.699 ug/mL

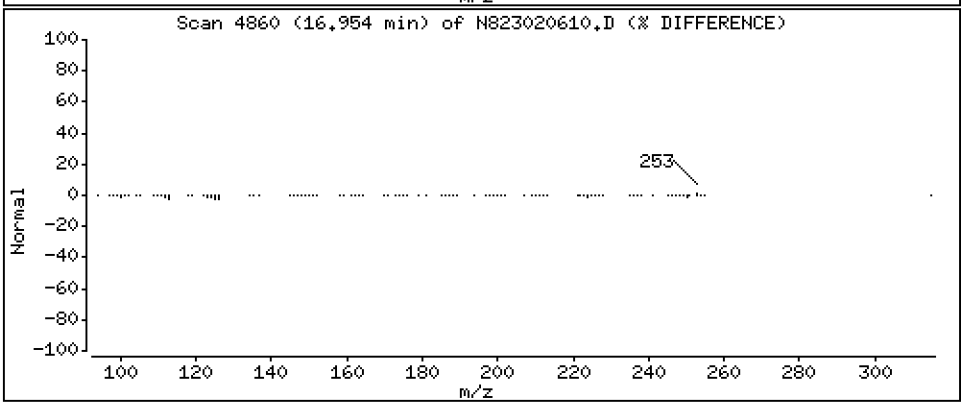












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020610.D

Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

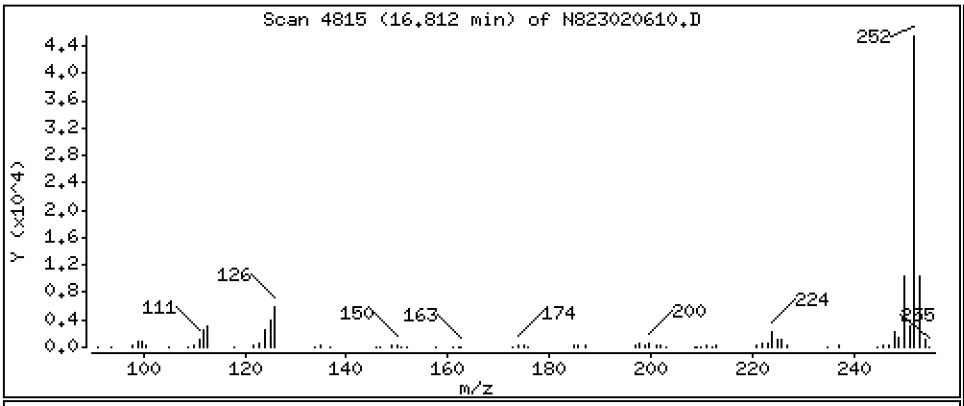
Operator: JZ

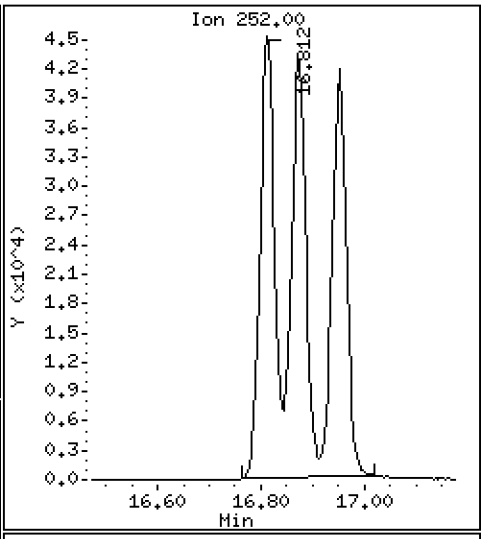
Column phase: Rxi-17sil

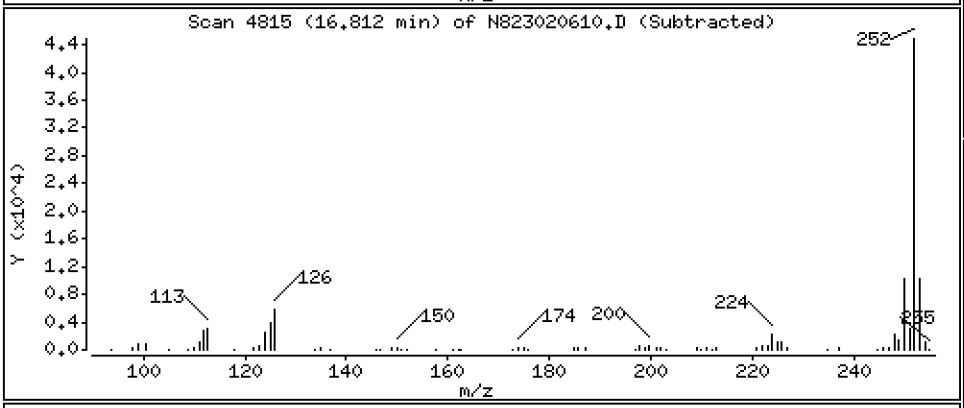
Column diameter: 0.25

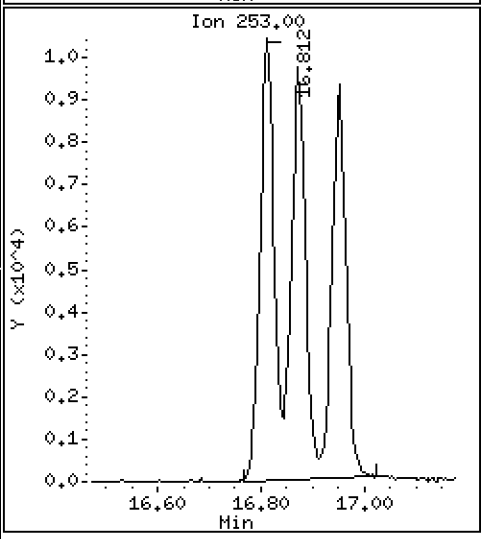
31 Total Benzofluoranthenes

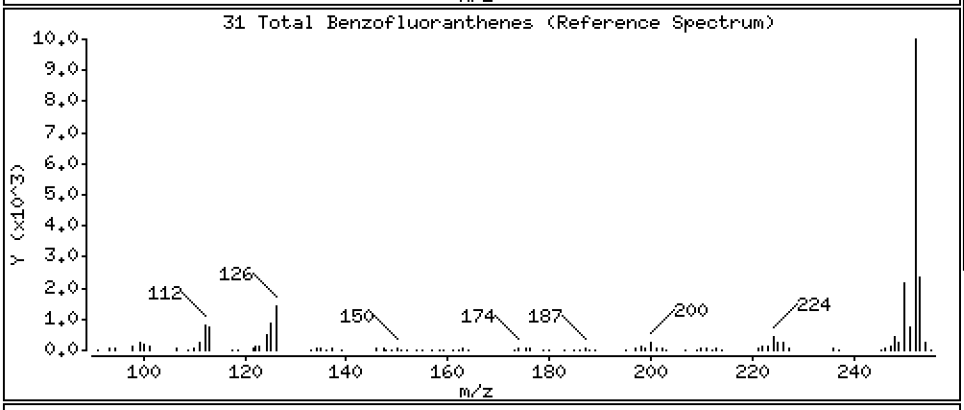
Concentration: 16.54 ug/mL

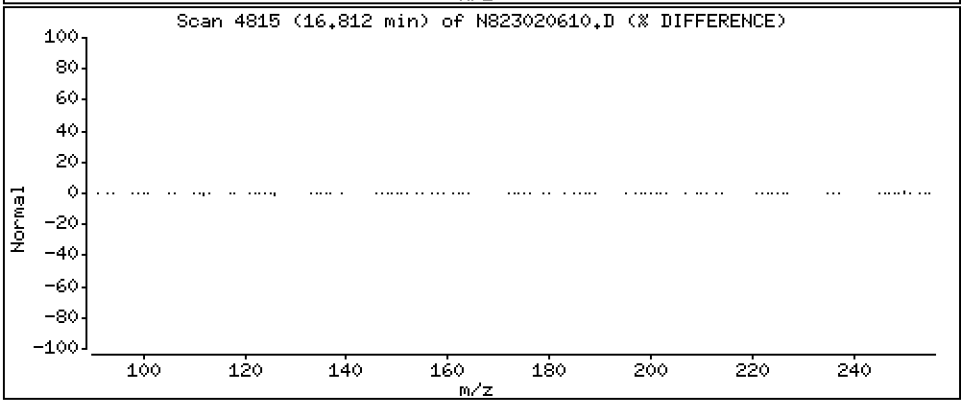












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020610.D

Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

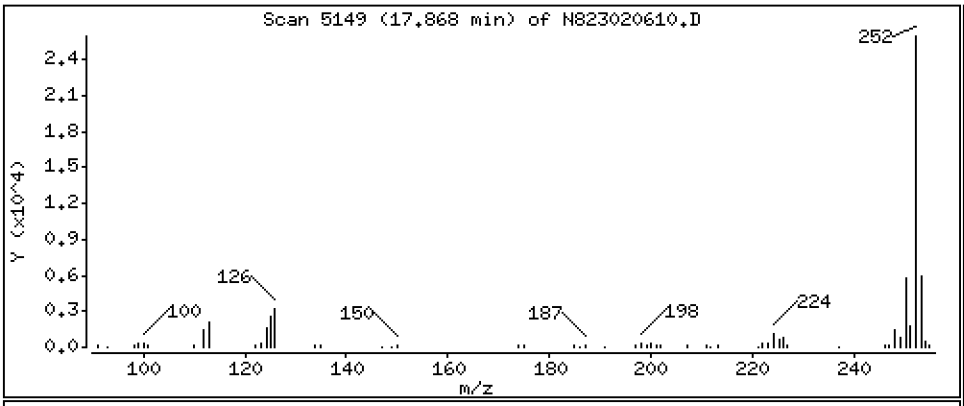
Operator: JZ

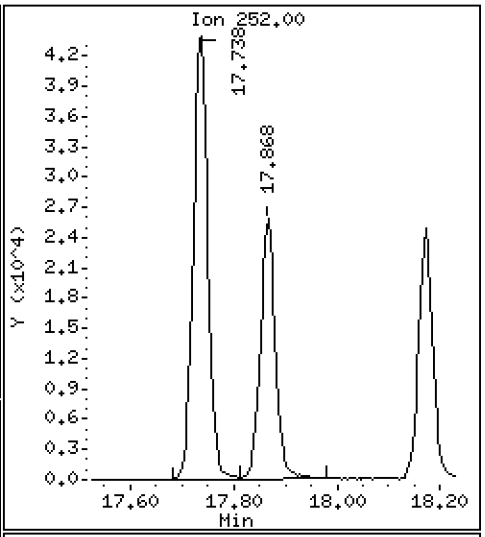
Column phase: Rxi-17sil

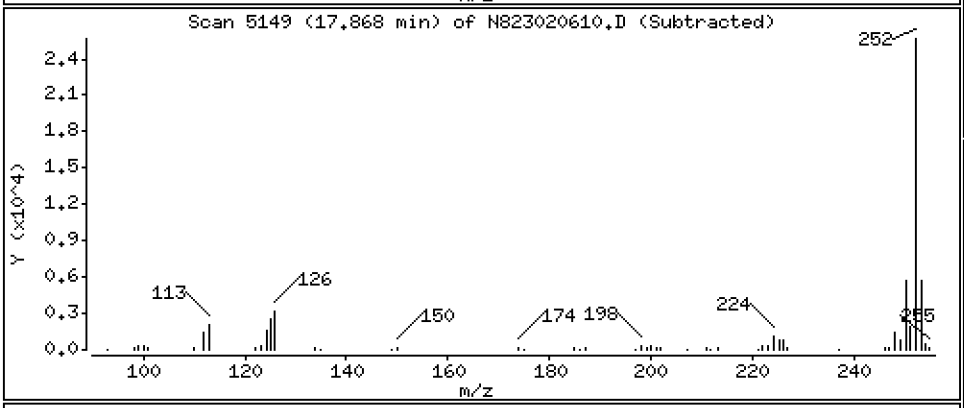
Column diameter: 0.25

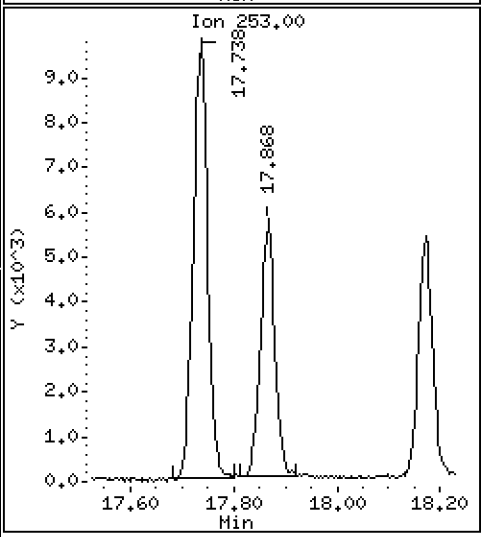
32 Benzo(a)pyrene

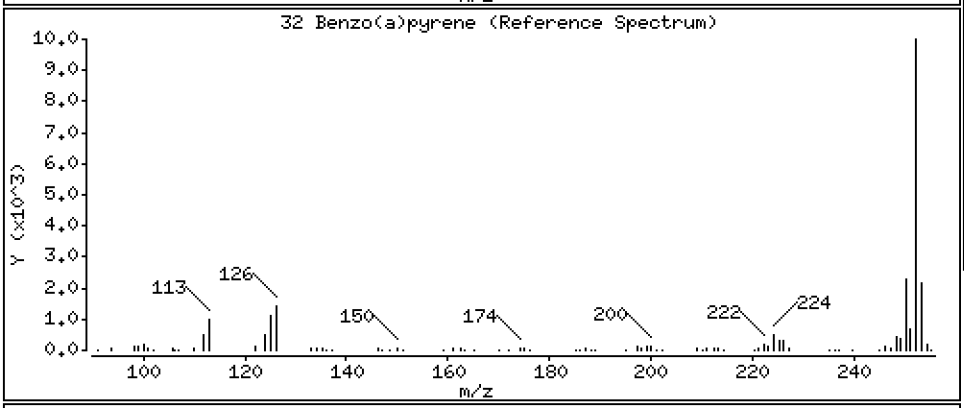
Concentration: 3.726 ug/mL

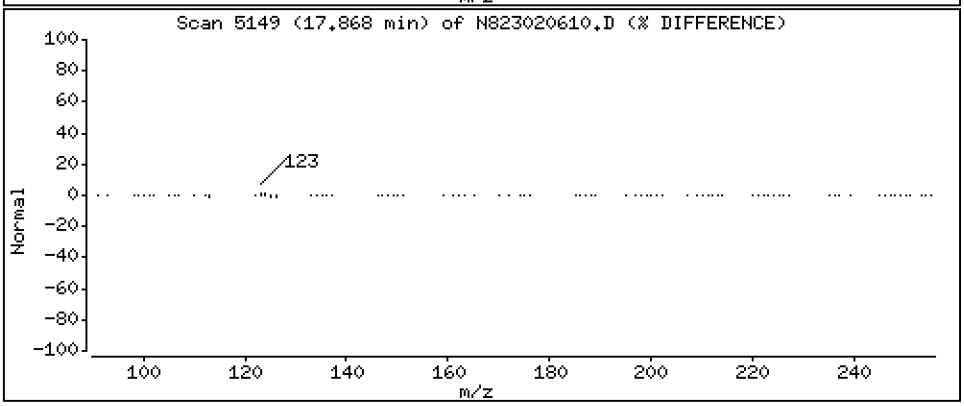












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020610.D

Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

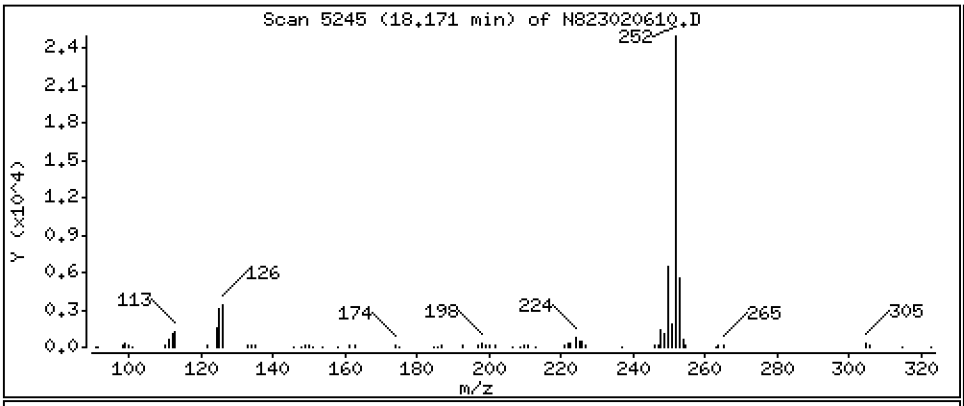
Operator: JZ

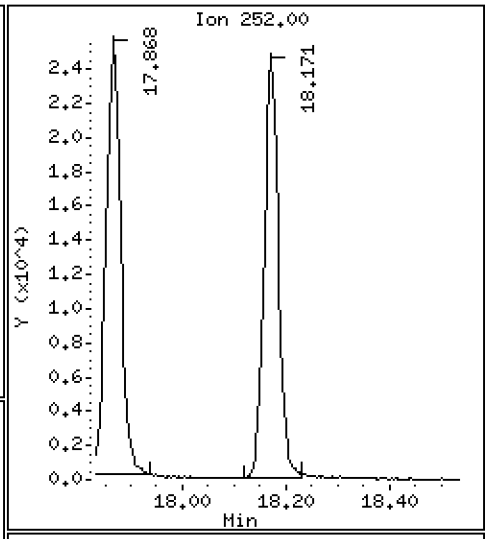
Column phase: Rxi-17sil

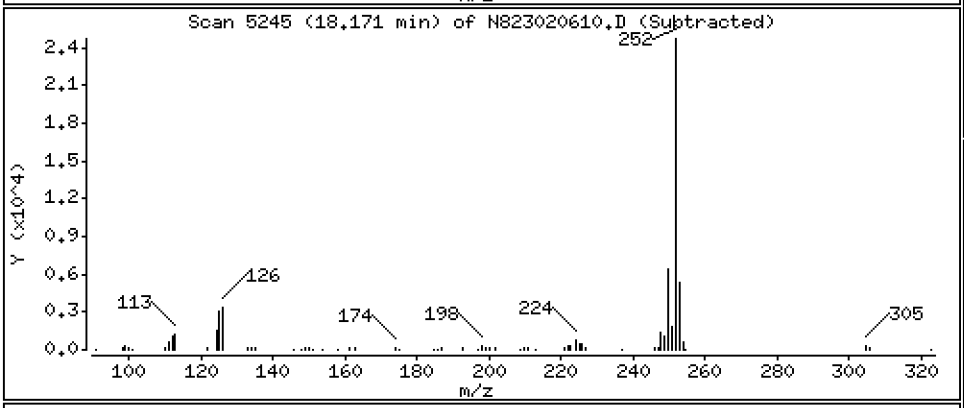
Column diameter: 0.25

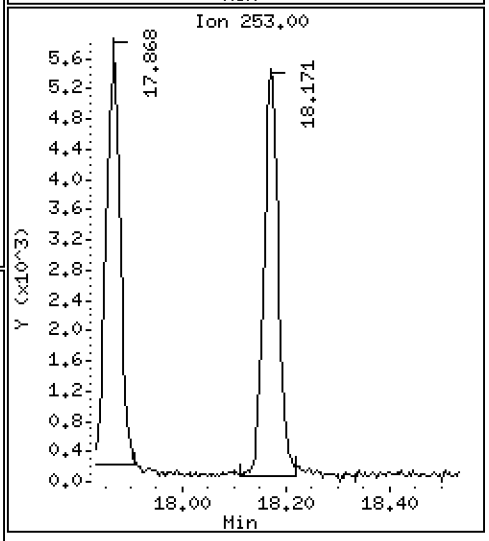
35 Perylene

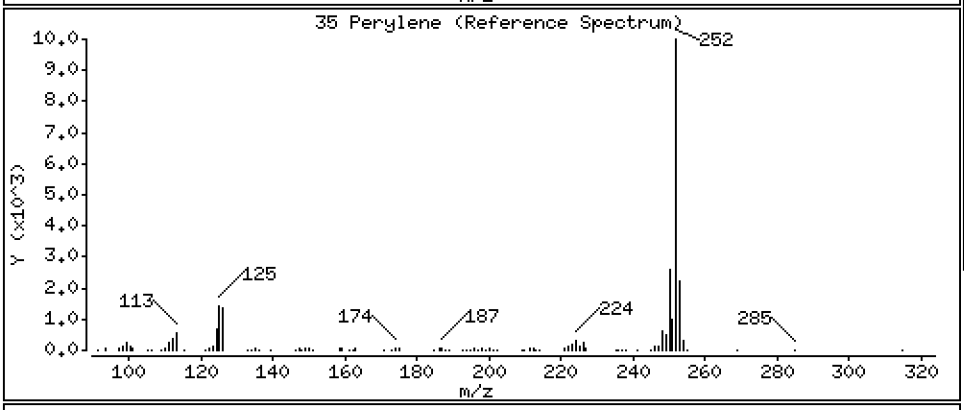
Concentration: 3.115 ug/mL

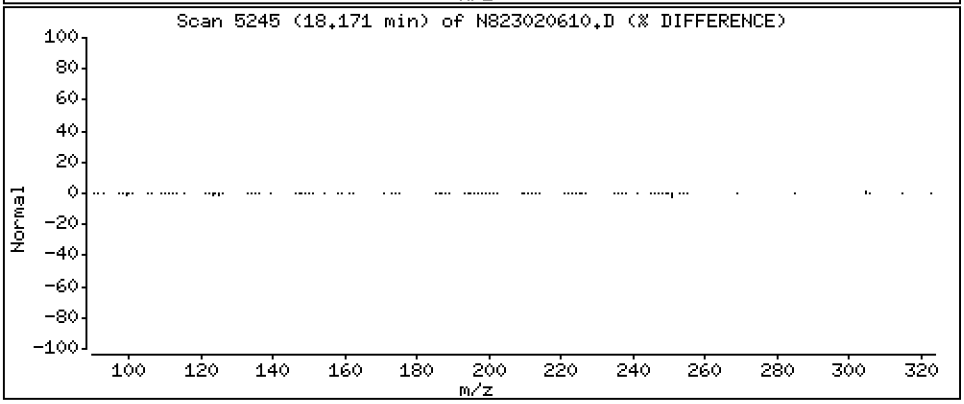












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020610.D

Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

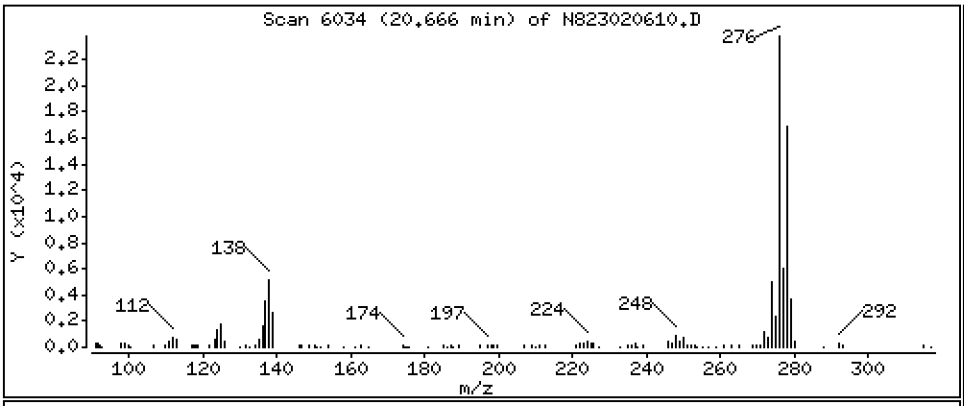
Operator: JZ

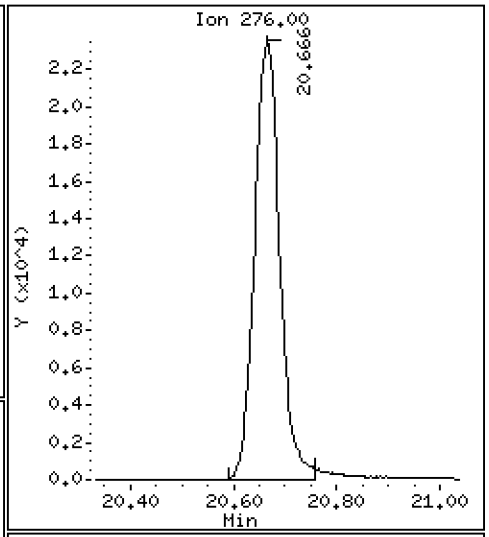
Column phase: Rxi-17sil

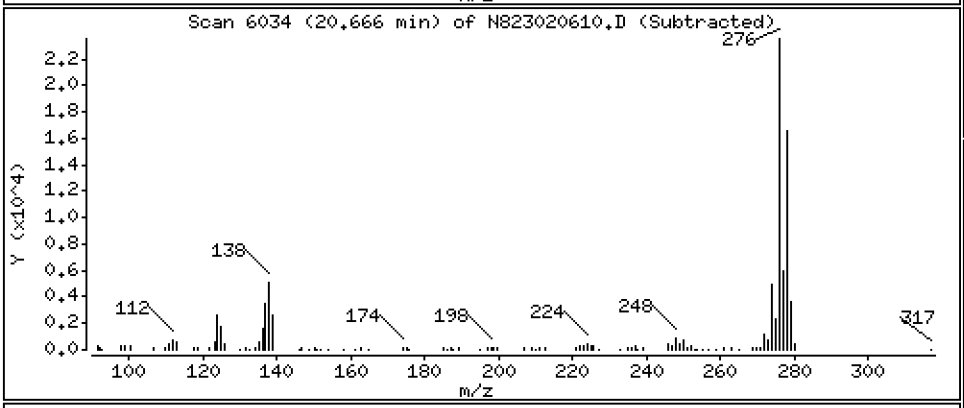
Column diameter: 0.25

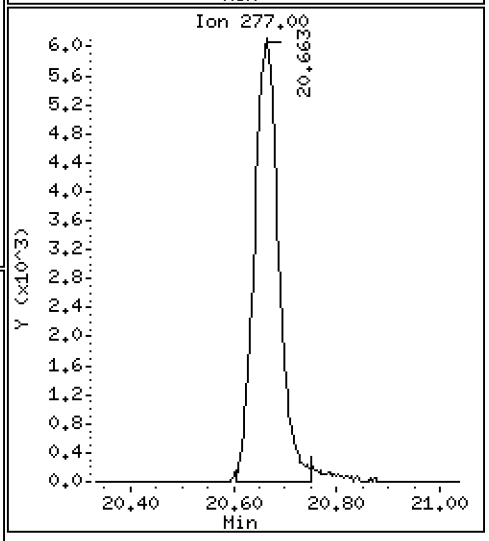
37 Indeno(1,2,3-cd)pyrene

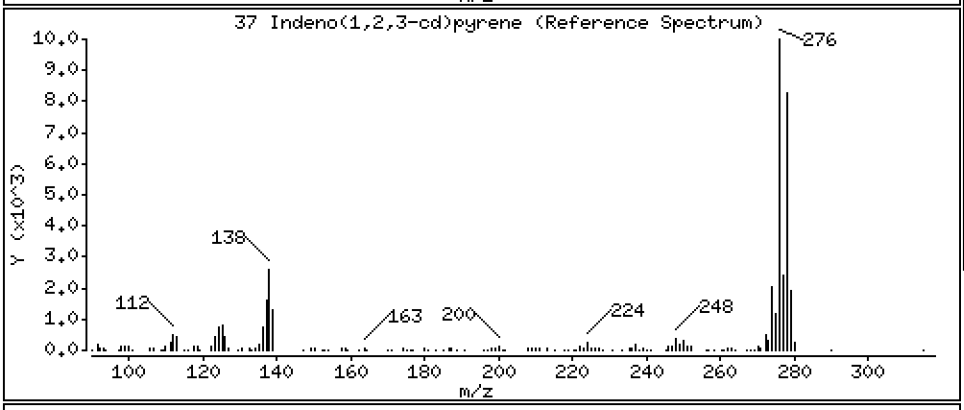
Concentration: 4.985 ug/mL

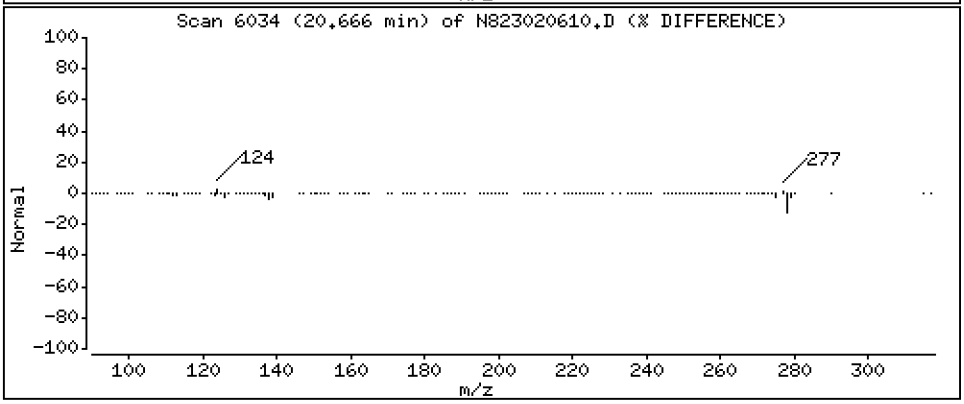












Date : 06-FEB-2023 16:51

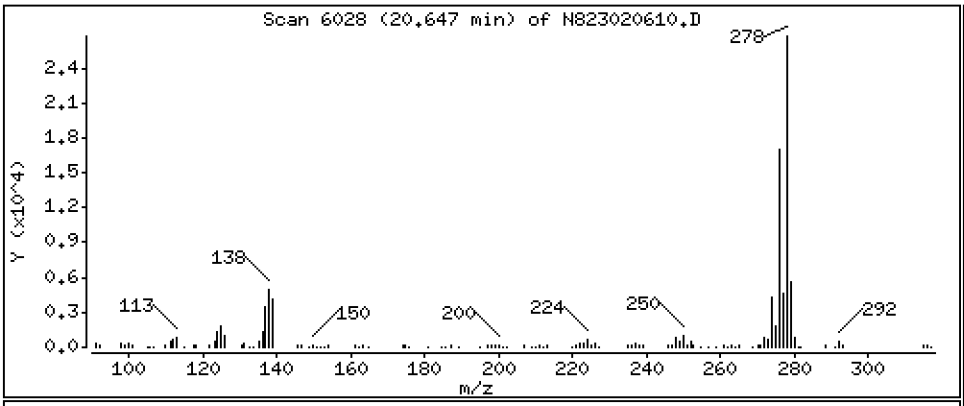
Client ID: Instrument: nt8.i

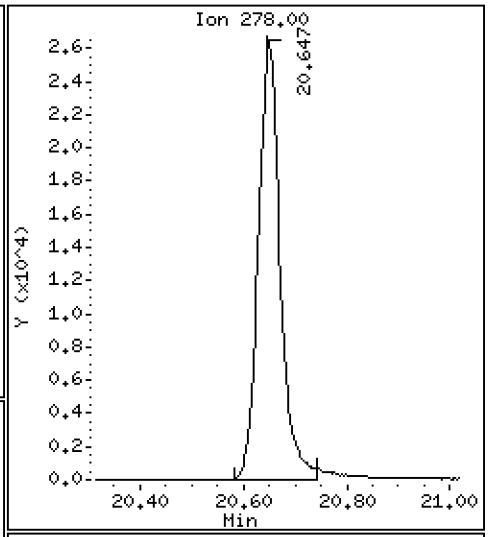
Sample Info: BLA0683-BSD1,

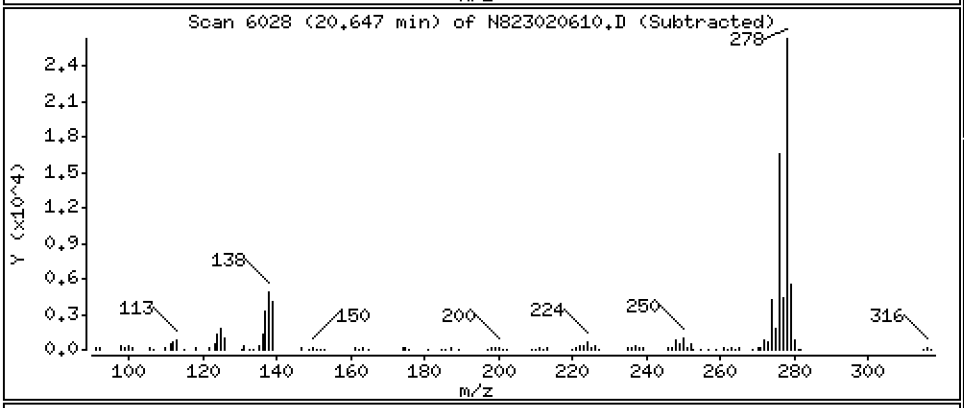
Operator: JZ

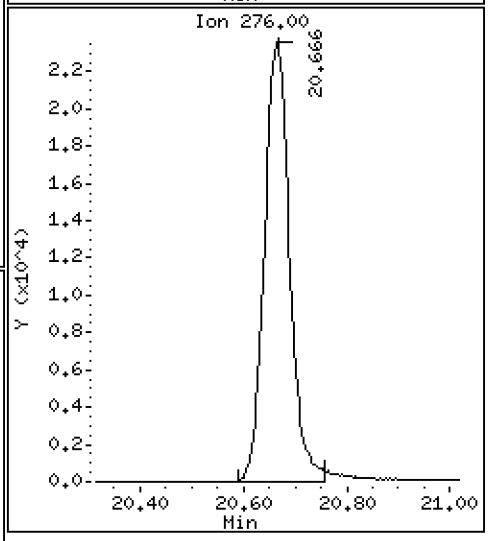
Column phase: Rxi-17sil Column diameter: 0.25

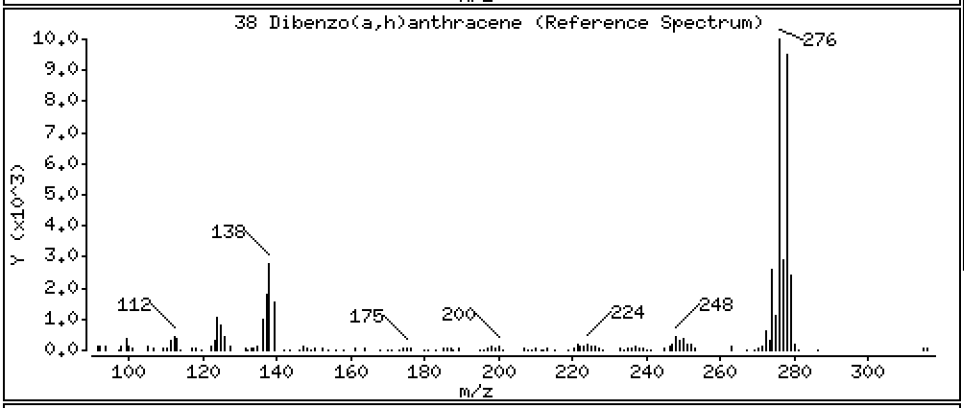
38 Dibenzo(a,h)anthracene Concentration: 5.593 ug/mL

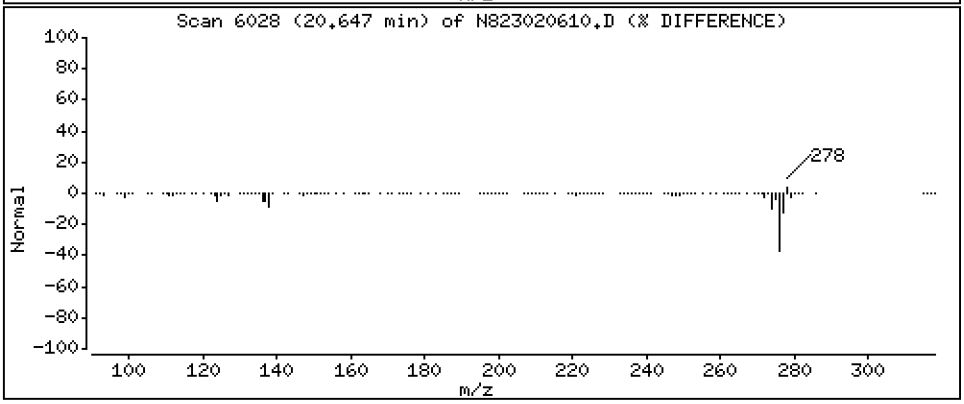












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020610.D

Date : 06-FEB-2023 16:51

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-BSD1,

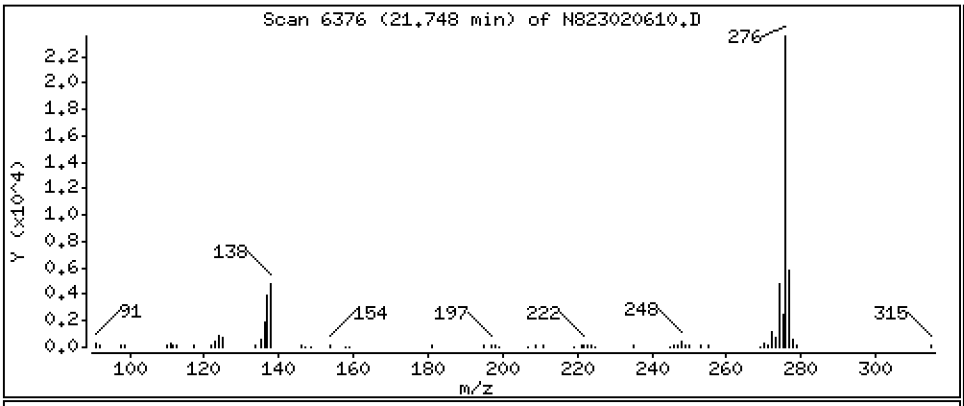
Operator: JZ

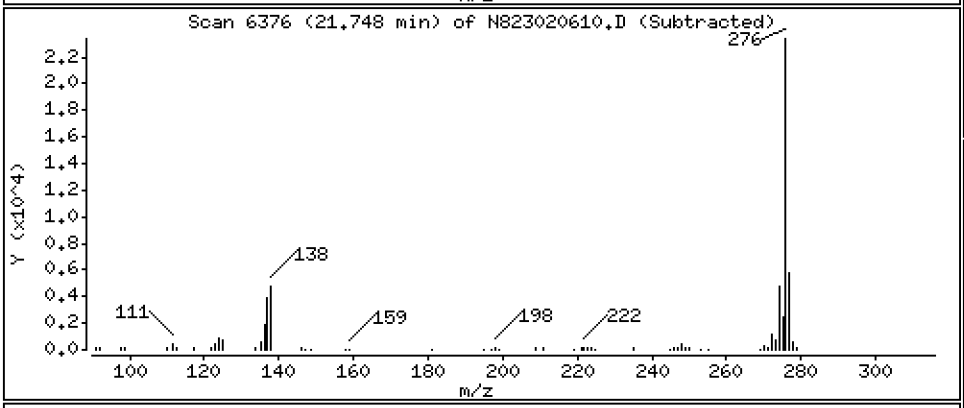
Column phase: Rxi-17sil

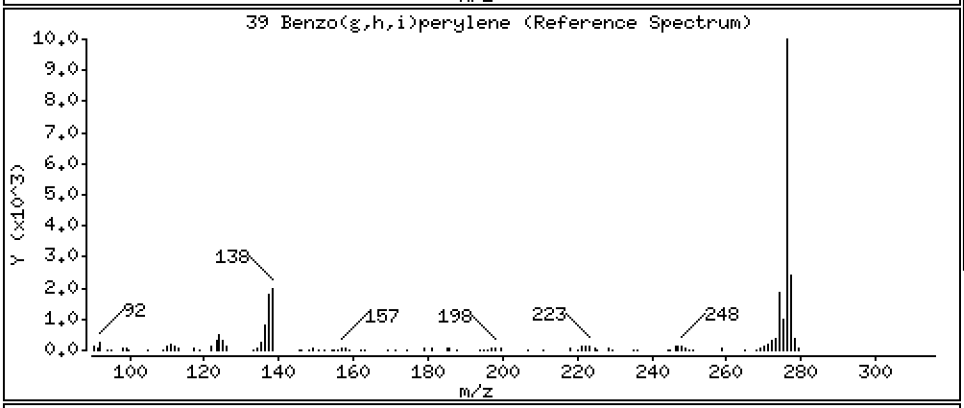
Column diameter: 0.25

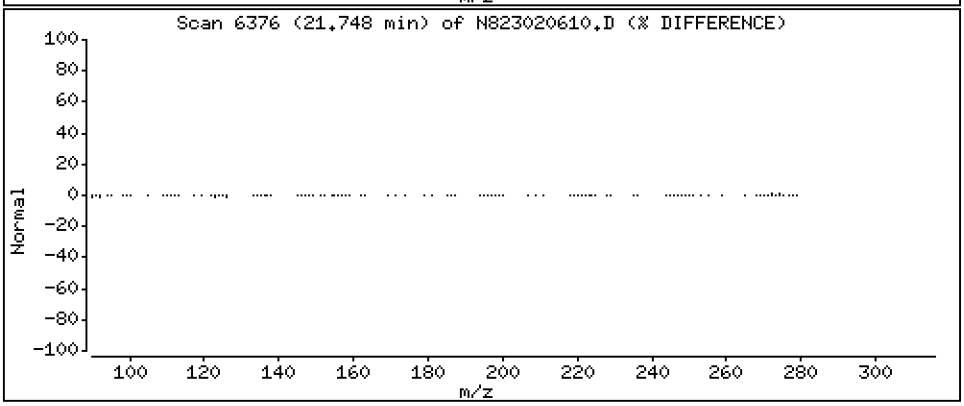
39 Benzo(g,h,i)perylene

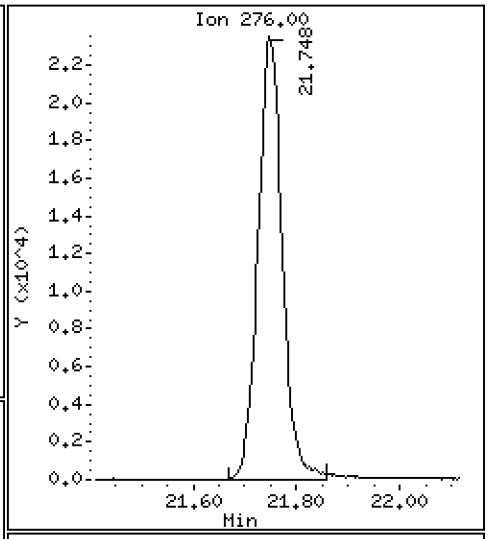
Concentration: 5.263 ug/mL

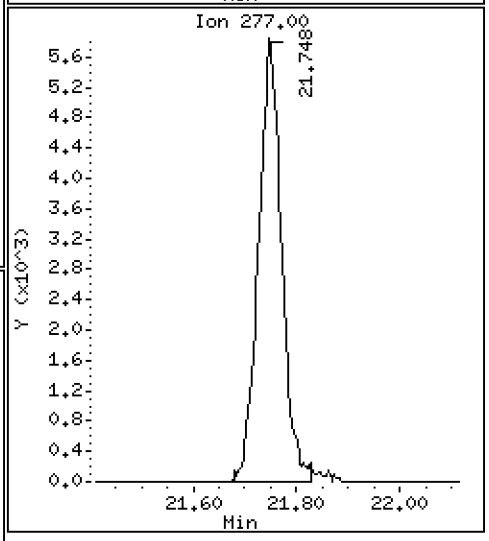












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230206A.b\N823020610.D
Lab Smp Id: BLA0683-BSD1
Inj Date : 06-FEB-2023 16:51
Operator : JZ Inst ID: nt8.i
Smp Info : BLA0683-BSD1,
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Meth Date : 07-Feb-2023 13:04 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PNAXMDL.sub
Target Version: 4.14
Processing Host: JIANQING-202105

								CONCENTRATIONS	
		QUANT SIG						ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
*	1 Naphthalene-d8	136	4.887	4.900	(1.000)	52018		2.00000	
	2 Naphthalene	128	4.916	4.928	(1.006)	82183		3.39792	3.398
$	3 2-Methylnaphthalene-d10	152	5.624	5.634	(1.151)	30576		2.15527	2.155
	4 2-Methylnaphthalene	141	5.672	5.681	(1.160)	46582		3.50143	3.501
	5 1-methylnaphthalene	141	5.868	5.880	(1.201)	46831		3.46842	3.468
	9 Acenaphthylene	152	7.072	7.082	(0.985)	70701		3.12134	3.121
*	10 Acenaphthene-d10	164	7.183	7.189	(1.000)	29996		2.00000	
	11 Acenaphthene	153	7.230	7.240	(1.007)	52081		3.43164	3.432
	12 Dibenzofuran	168	7.382	7.392	(1.028)	79103		3.43158	3.432
	14 Fluorene	166	7.863	7.869	(1.095)	64484		3.60176	3.602
*	15 Phenanthrene-d10	188	9.223	9.232	(1.000)	54697		2.00000	
	16 Phenanthrene	178	9.260	9.267	(1.004)	95476		3.57343	3.573
	17 Anthracene	178	9.302	9.308	(1.009)	78566		3.23694	3.237
	19 Carbazole	167	9.814	9.823	(1.064)	83189		3.73866	3.739
	22 Fluoranthene	202	11.041	11.050	(1.197)	108034		3.71467	3.715
$	21 Fluoranthene-d10	212	11.003	11.009	(1.193)	57921		2.40016	2.400
	23 Pyrene	202	11.559	11.569	(0.815)	110605		4.28330	4.283
	24 Benzo(a)anthracene	228	14.060	14.070	(0.991)	93819		4.00851	4.009
*	25 Chrysene-d12	240	14.187	14.202	(1.000)	41650		2.00000	
	27 Chrysene	228	14.263	14.275	(1.005)	99165		3.98001	3.980
	28 Benzo(b)fluoranthene	252	16.811	16.824	(0.929)	89367		5.56463	5.565
	29 Benzo(k)fluoranthene	252	16.871	16.887	(0.932)	83285		5.29444	5.294
	30 Benzo(j)fluoranthene	252	16.954	16.963	(0.937)	80710		5.69933	5.699
	31 Total Benzofluoranthenes	252	16.811	16.824	(0.929)	251601		16.5424	16.54(M)
	32 Benzo(a)pyrene	252	17.867	17.877	(0.987)	52656		3.72586	3.726
*	33 Perylene-d12	264	18.098	18.107	(1.000)	27575		2.00000	
	35 Perylene	252	18.171	18.183	(1.004)	47243		3.11513	3.115
$	36 Dibenzo(a,h)anthracene-d14	292	20.533	20.549	(1.135)	38676		3.57963	3.580
	37 Indeno(1,2,3-cd)pyrene	276	20.666	20.684	(1.142)	80264		4.98523	4.985
	38 Dibenzo(a,h)anthracene	278	20.647	20.666	(1.141)	77498		5.59324	5.593
	39 Benzo(g,h,i)perylene	276	21.747	21.763	(1.202)	76779		5.26340	5.263

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823020610.D
Lab Smp Id: BLA0683-BSD1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 06-FEB-2023
Calibration Time: 15:15
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44336	22168	88672	52018	17.33
10 Acenaphthene-d10	26127	13064	52254	29996	14.81
15 Phenanthrene-d10	47424	23712	94848	54697	15.34
25 Chrysene-d12	36794	18397	73588	41650	13.20
33 Perylene-d12	36636	18318	73272	27575	-24.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.90	4.40	5.40	4.89	-0.25
10 Acenaphthene-d10	7.19	6.69	7.69	7.18	-0.09
15 Phenanthrene-d10	9.23	8.73	9.73	9.22	-0.10
25 Chrysene-d12	14.20	13.70	14.70	14.19	-0.11
33 Perylene-d12	18.11	17.61	18.61	18.10	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823020610.D

Lab ID: BLA0683-BSD1
nt8.i, 20230206A.b\FSIMPNA230119.m,   06-FEB-2023 16:51

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

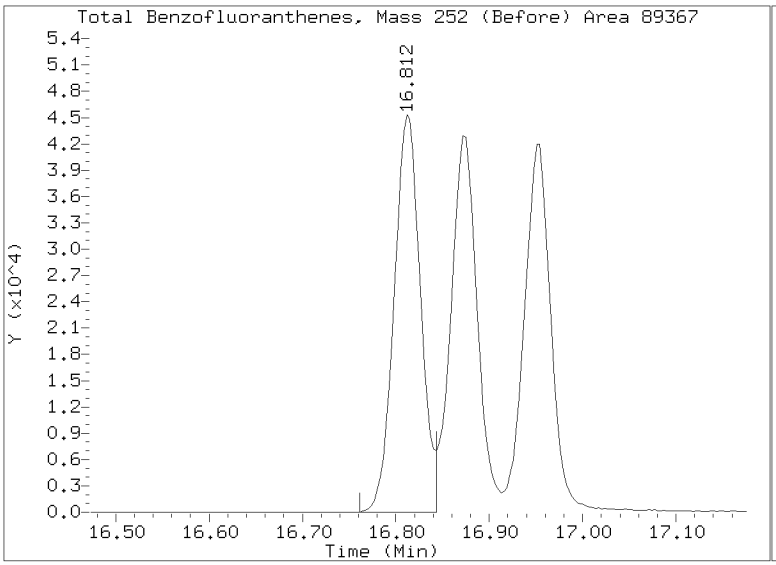
No RRT check performed

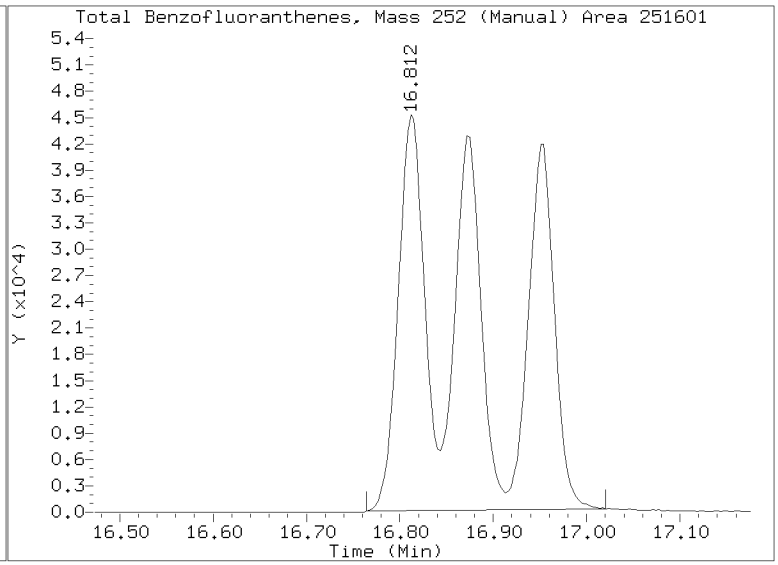
On Column LOD for nt8.i, 20230206A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230206A.b/N823020610.D
Injection Date: 06-FEB-2023 16:51
Lab ID:BLA0683-BSD1 Client ID:
Report Date: 02/07/2023 13:19





LCS / LCS DUPLICATE RECOVERY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	03/05/23 17:50
Batch:	BLA0685	Laboratory ID:	BLA0685-BS2
Preparation:	EPA 3546 (Microwave)	Sequence Name:	LCS
Initial/Final:	10 g / 1 mL		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
1,4-Dichlorobenzene	500	375		75.1	36 - 120
1,2-Dichlorobenzene	500	379		75.8	36 - 120
Benzyl Alcohol	500	429		85.9	25 - 123
Benzoic acid	2300	2550	Q	111	10 - 160
2,4-Dimethylphenol	1300	472		36.3	10 - 120
1,2,4-Trichlorobenzene	500	436		87.1	35 - 120
N-Nitrosodiphenylamine	500	308		61.7	27 - 120
Pentachlorophenol	1300	1030	Q	79.0	26 - 120

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,4-Dichlorobenzene	500	424		84.7	12.1	30	36 - 120
1,2-Dichlorobenzene	500	422		84.5	10.8	30	36 - 120
Benzyl Alcohol	500	481		96.2	11.4	30	25 - 123
Benzoic acid	2300	2120	Q	92.2	18.2	30	10 - 160
2,4-Dimethylphenol	1300	566		43.5	18.2	30	10 - 120
1,2,4-Trichlorobenzene	500	490		98.1	11.8	30	35 - 120
N-Nitrosodiphenylamine	500	344		68.7	10.8	30	27 - 120
Pentachlorophenol	1300	1060	Q	81.2	2.75	30	26 - 120

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523085.D

Date : 05-MAR-2023 17:50

Client ID:

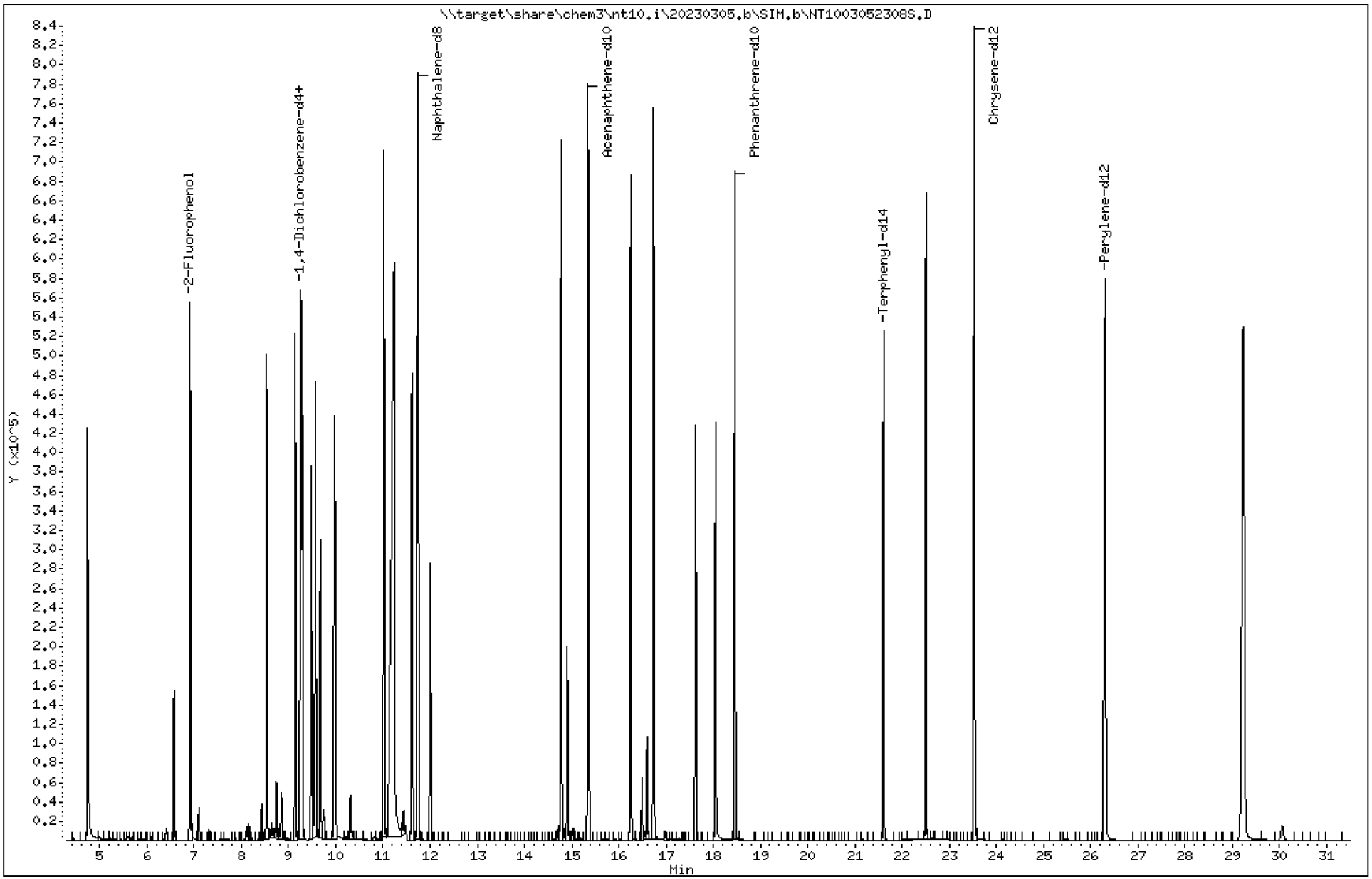
Instrument: nt10.i

Sample Info: BLA0685-BS2

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052308S.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

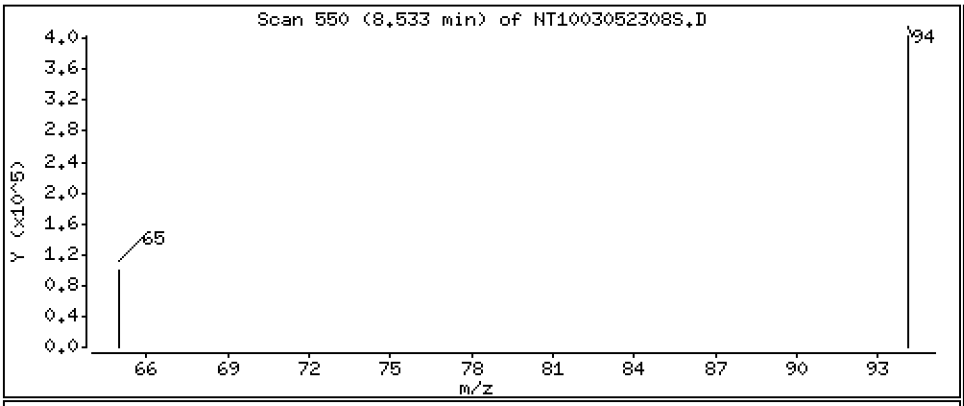
Operator: YZ

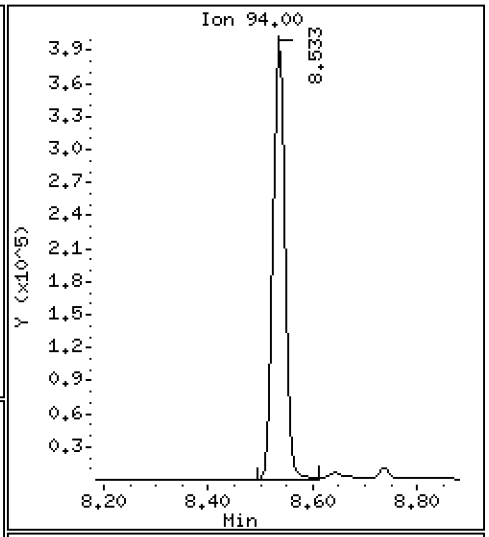
Column phase: ZB-5msi

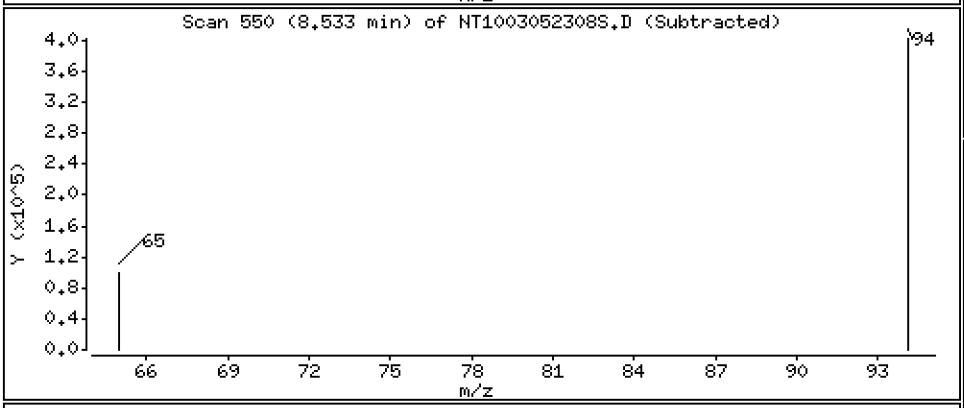
Column diameter: 0.25

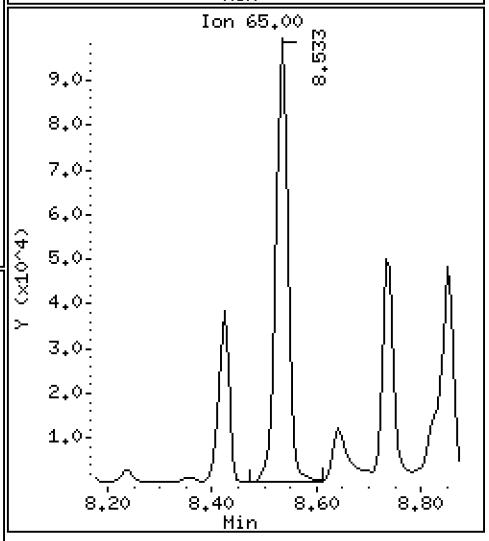
3 Phenol

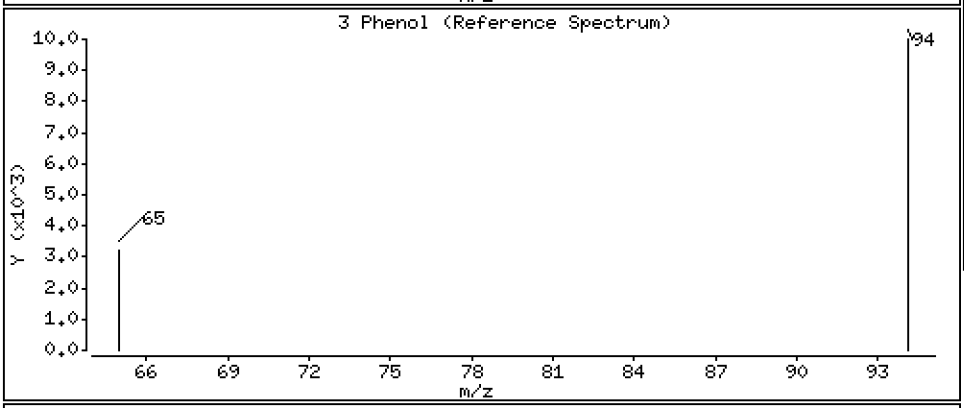
Concentration: 4.158 ug/mL

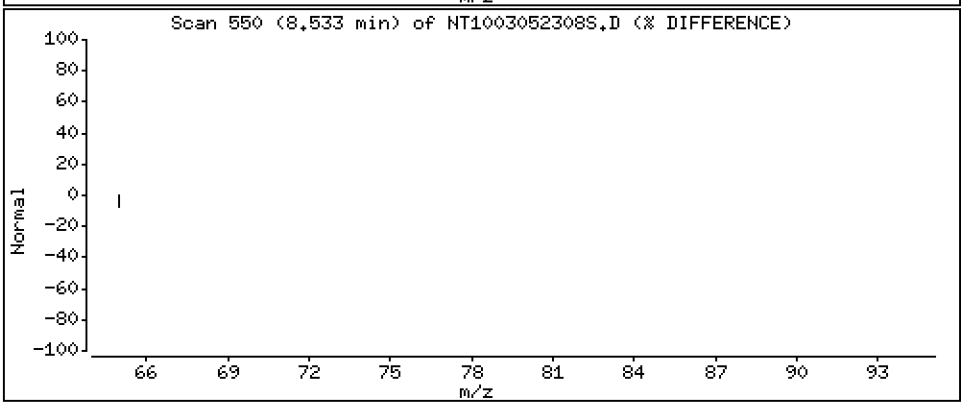












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052308S.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

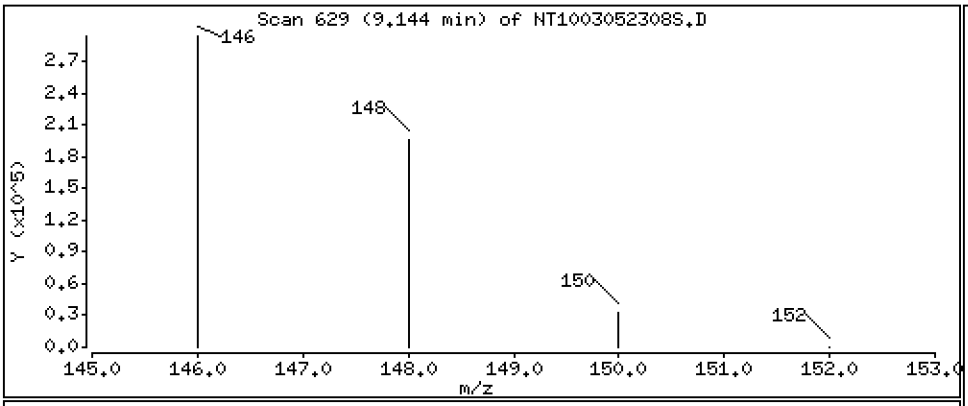
Operator: YZ

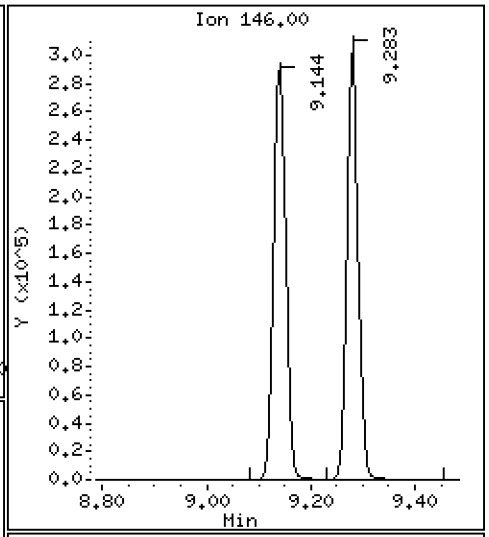
Column phase: ZB-5msi

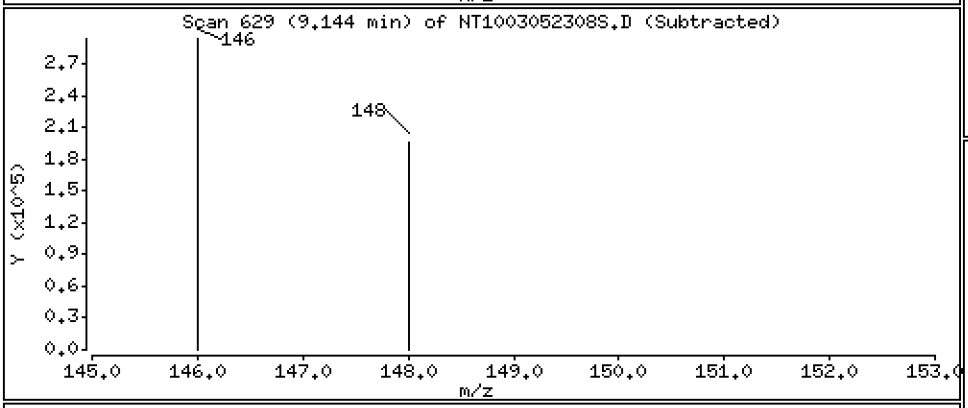
Column diameter: 0.25

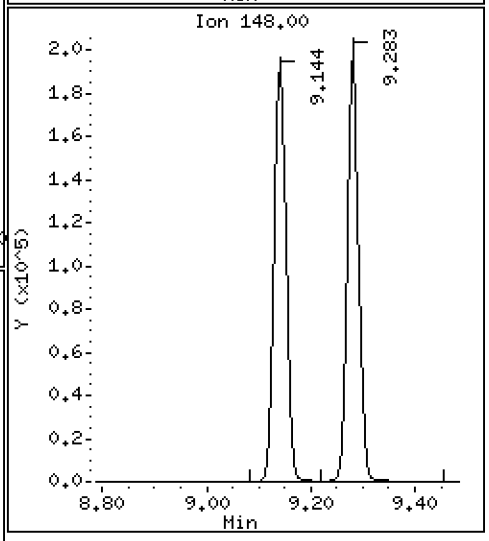
7 1,3-Dichlorobenzene

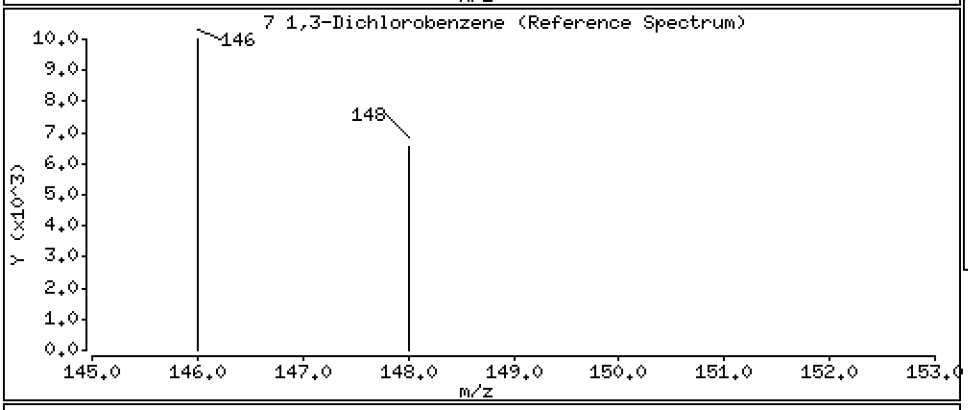
Concentration: 3.649 ug/mL

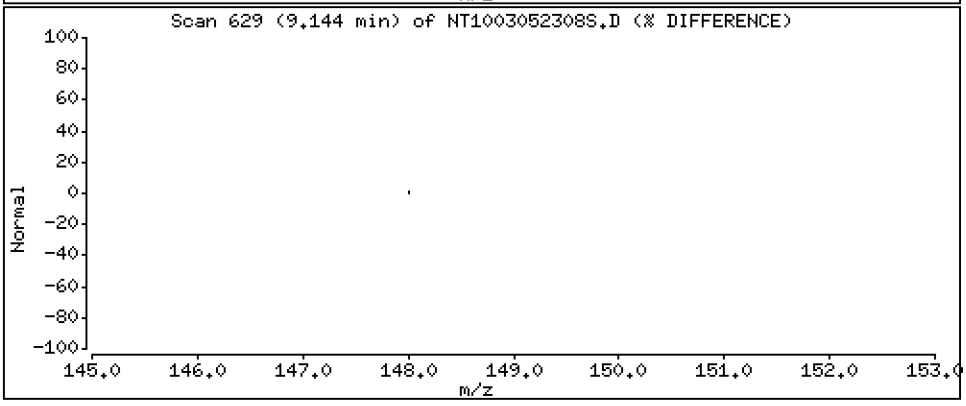












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052308S.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

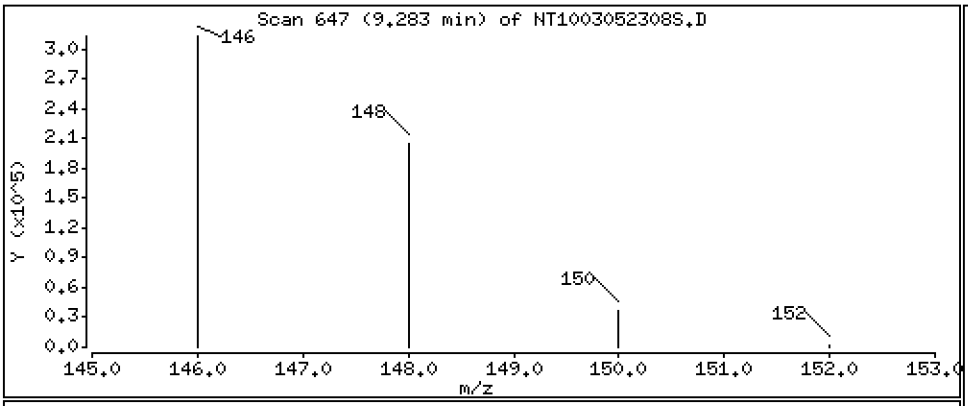
Operator: YZ

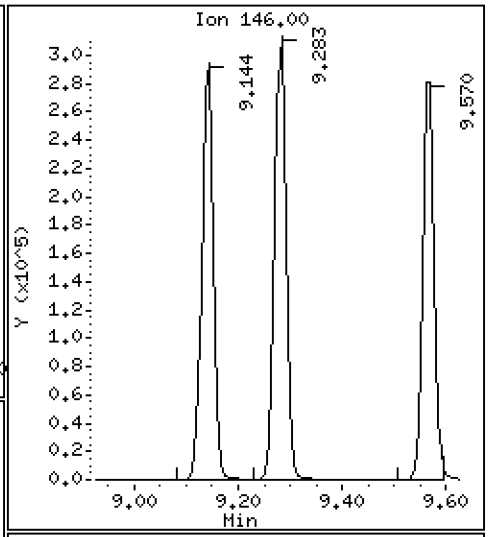
Column phase: ZB-5msi

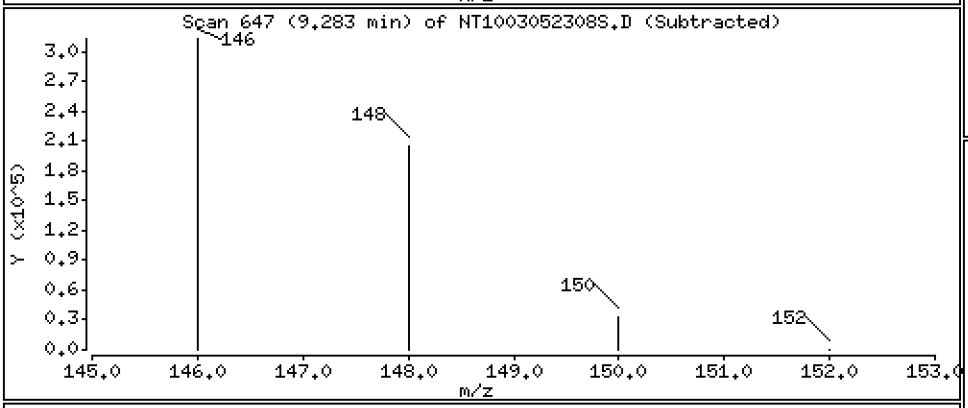
Column diameter: 0.25

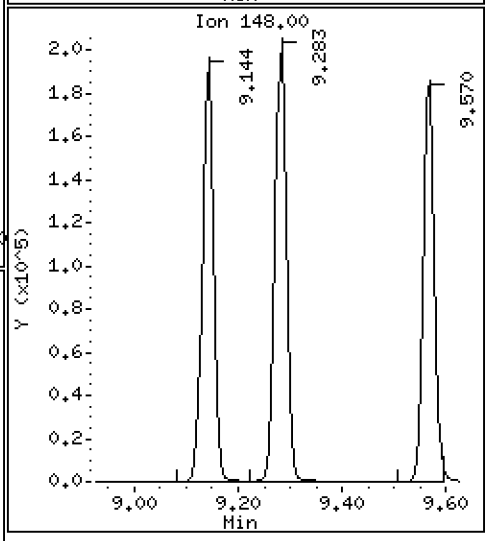
9 1,4-Dichlorobenzene

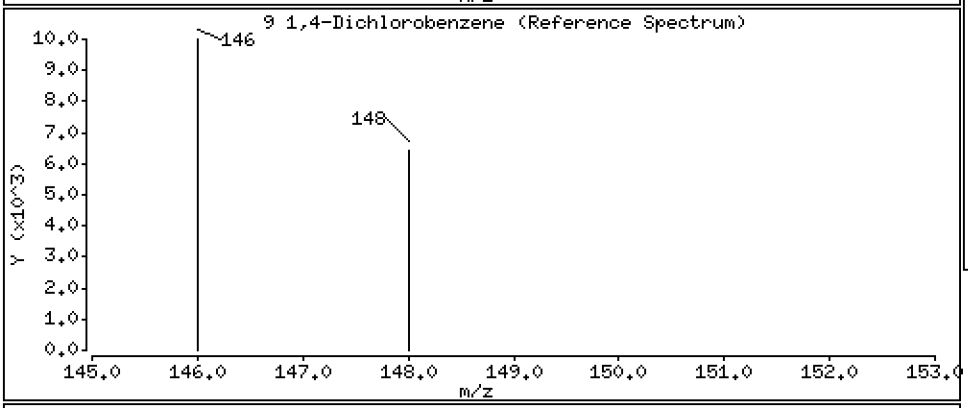
Concentration: 3.755 ug/mL

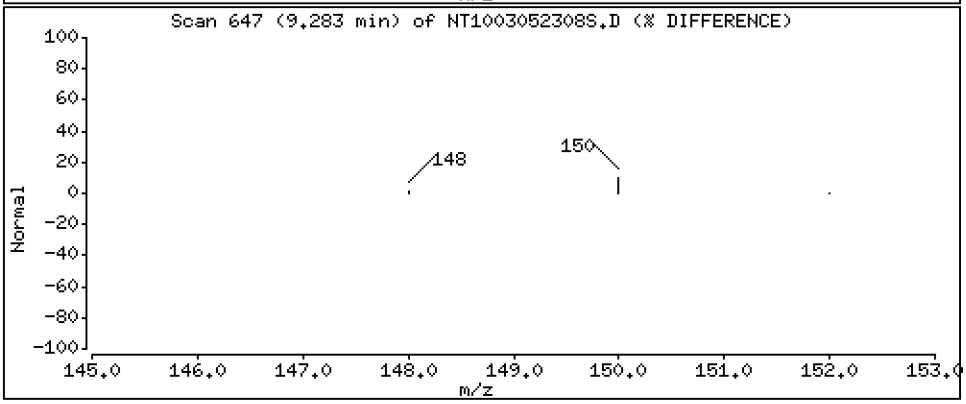












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052308S.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

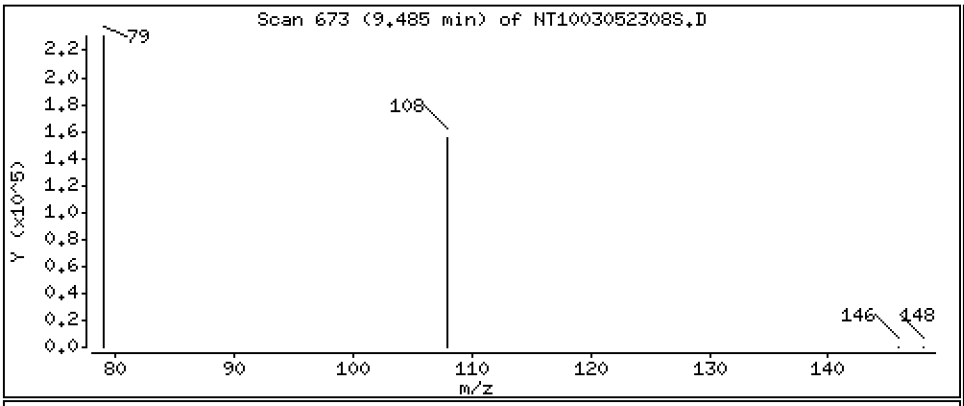
Operator: YZ

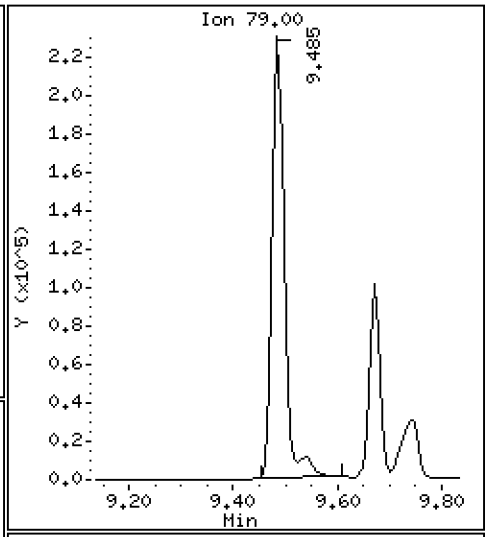
Column phase: ZB-5msi

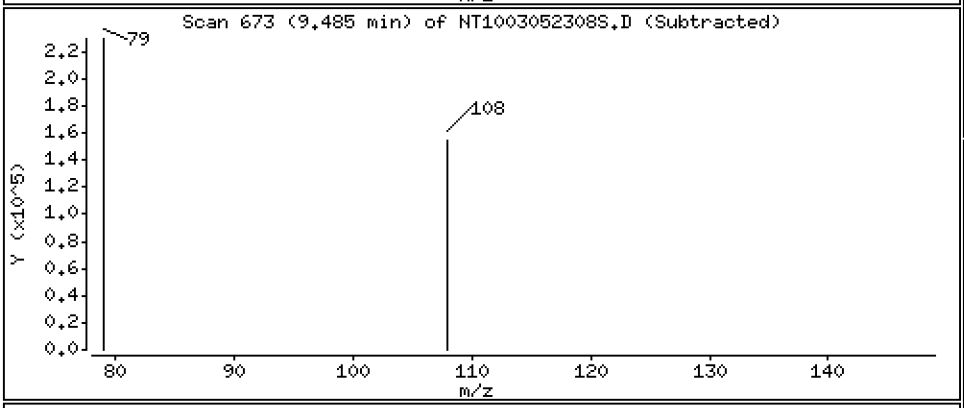
Column diameter: 0.25

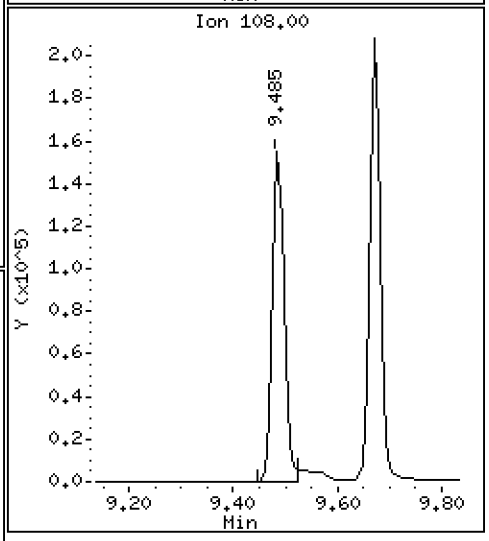
11 Benzyl alcohol

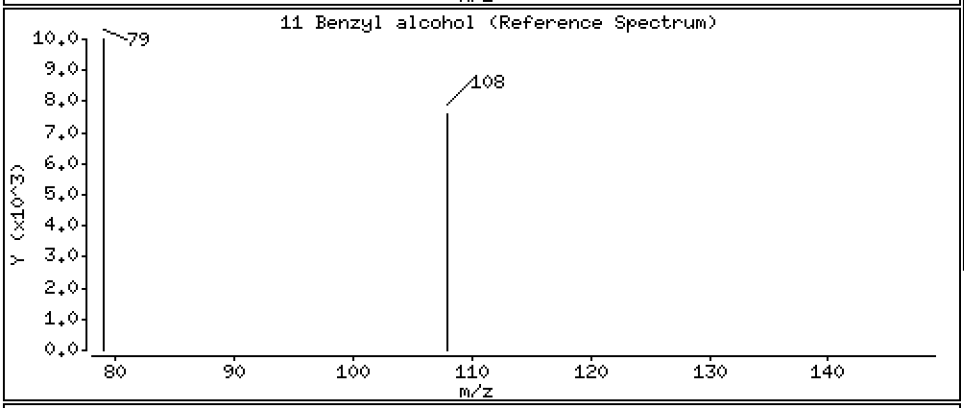
Concentration: 4.294 ug/mL

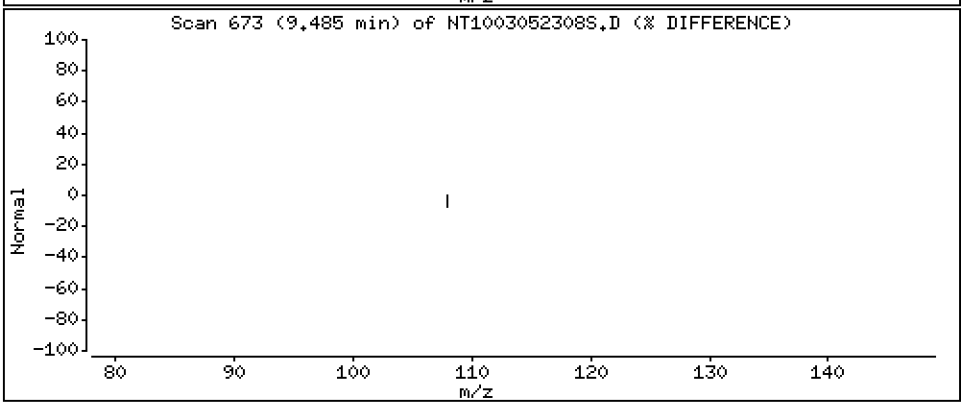












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052308S.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

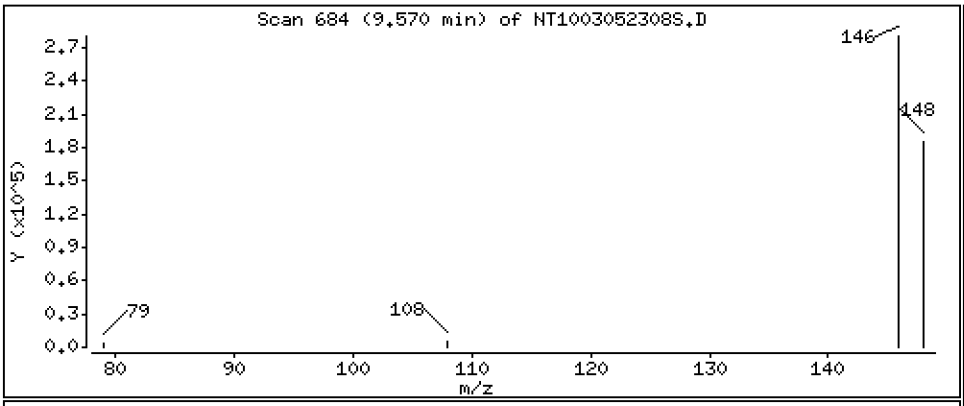
Operator: YZ

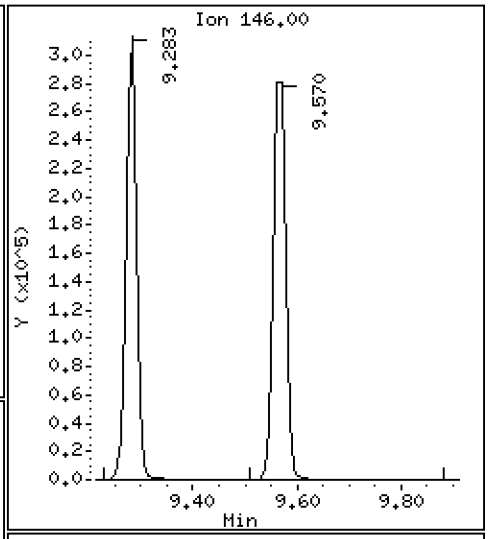
Column phase: ZB-5msi

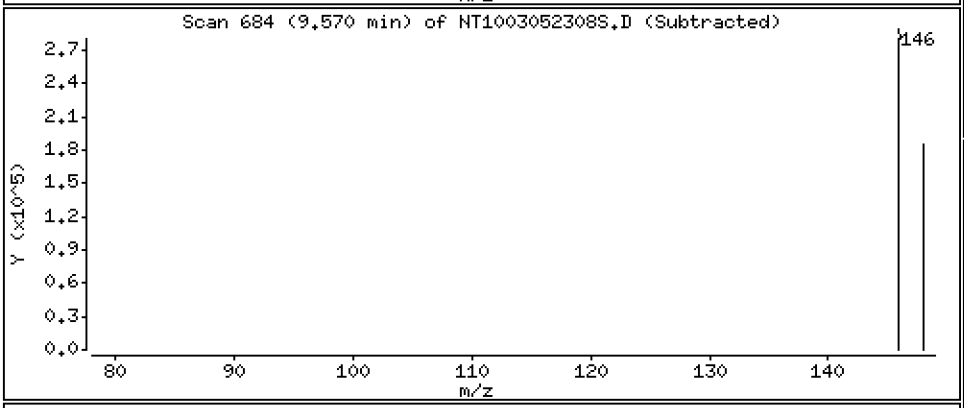
Column diameter: 0.25

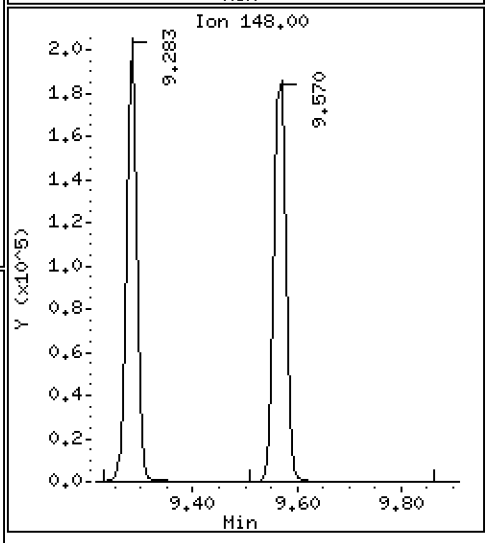
12 1,2-Dichlorobenzene

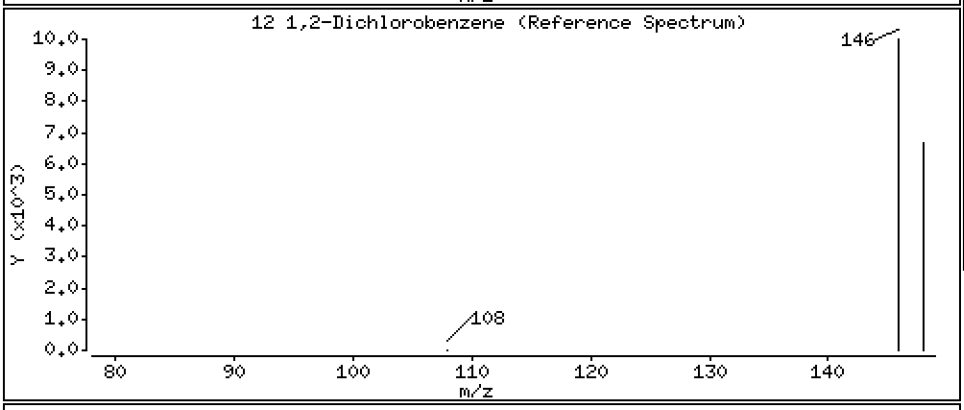
Concentration: 3.790 ug/mL

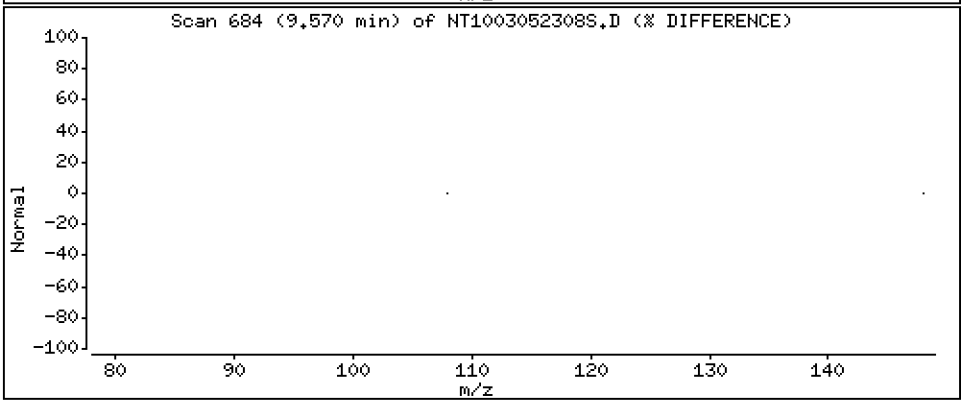












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

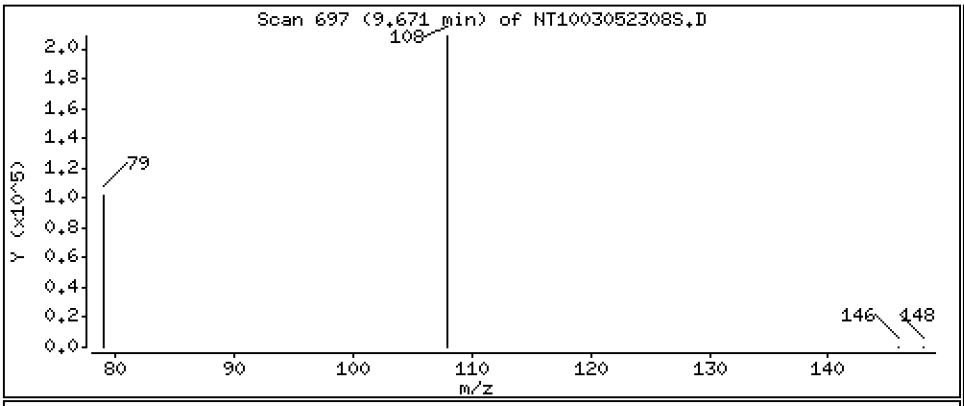
Operator: YZ

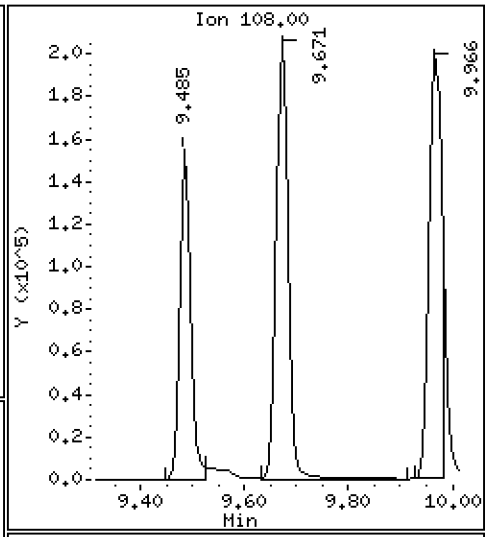
Column phase: ZB-5msi

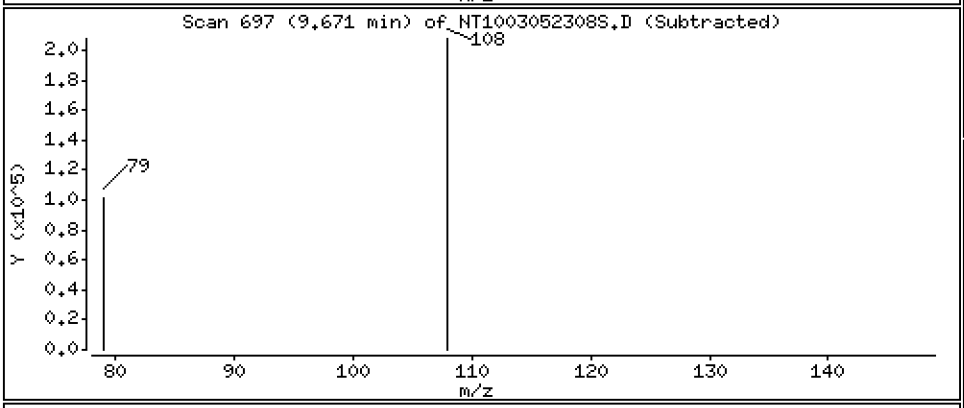
Column diameter: 0.25

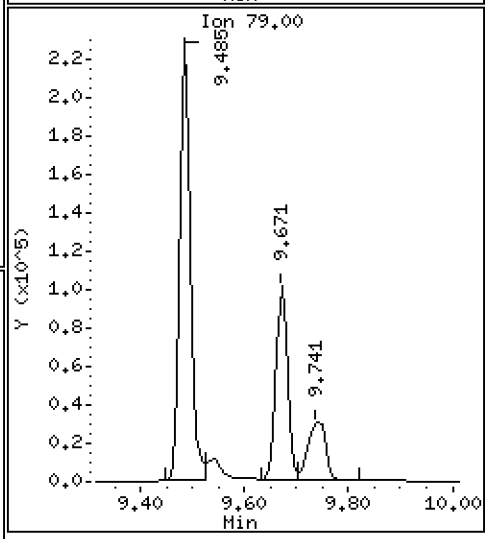
13 2-Methylphenol

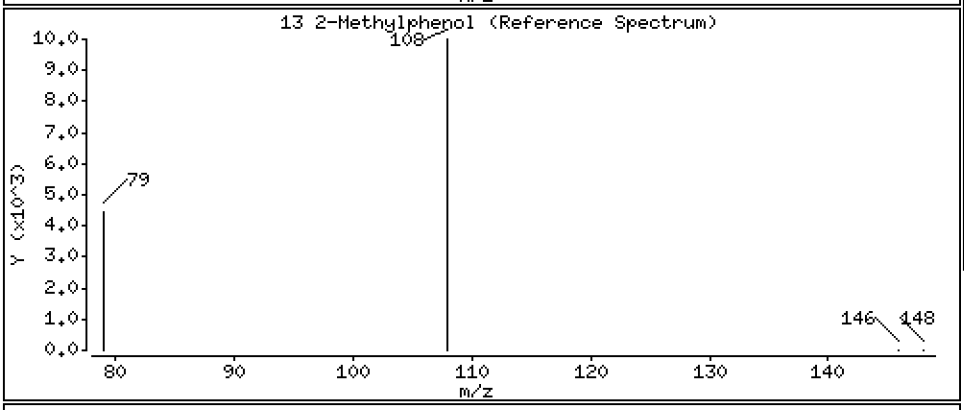
Concentration: 3.577 ug/mL

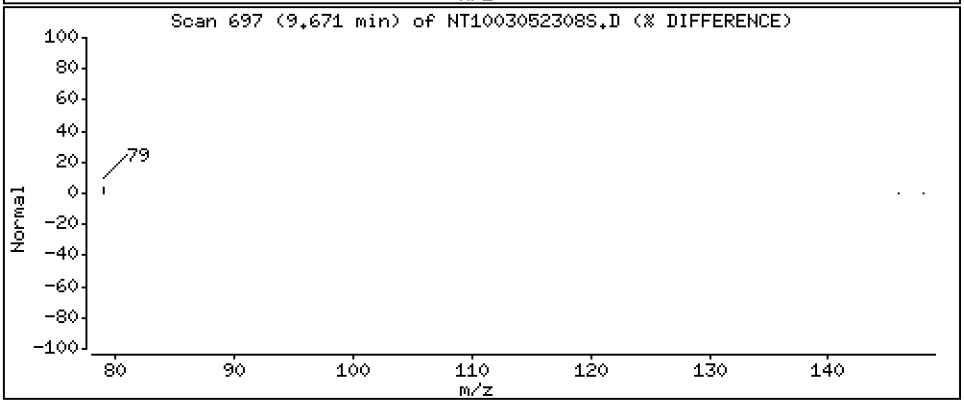












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052308S.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

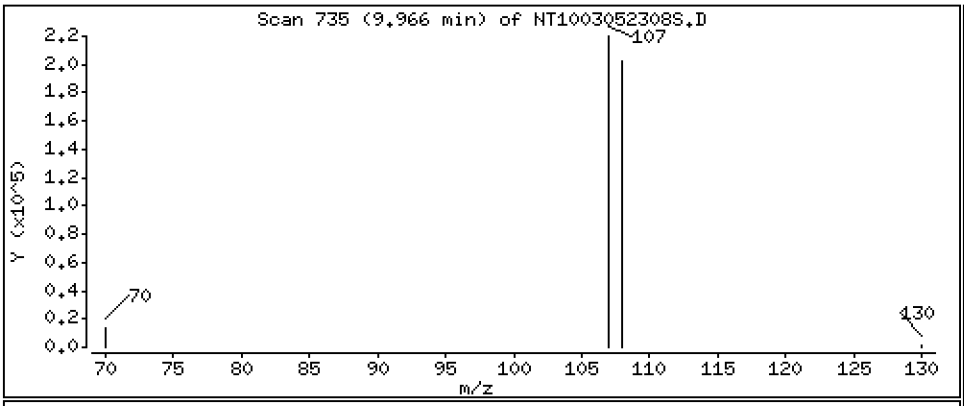
Operator: YZ

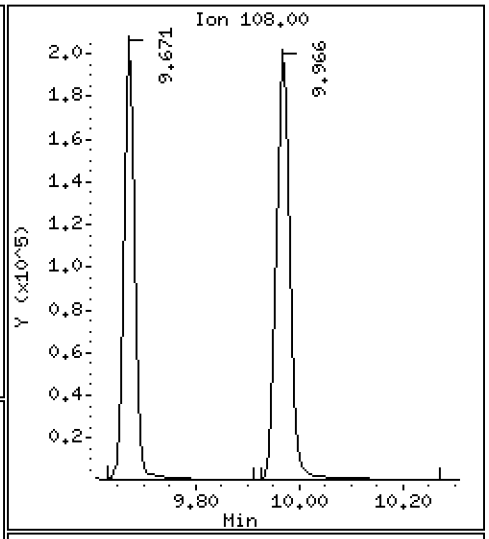
Column phase: ZB-5msi

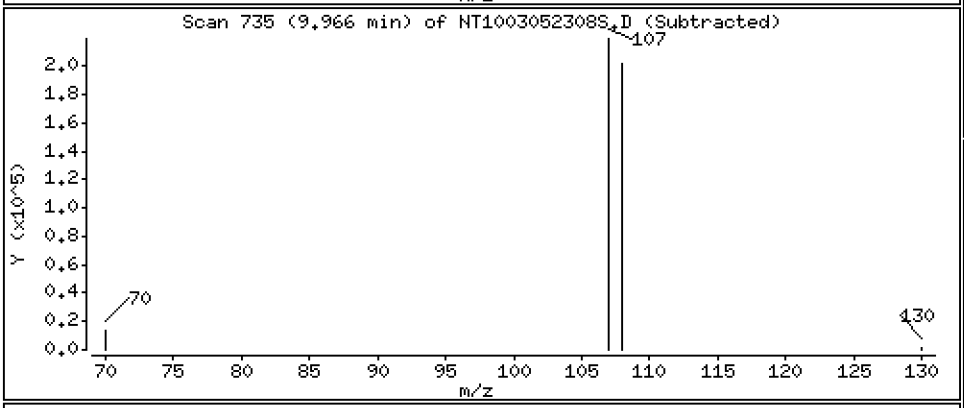
Column diameter: 0.25

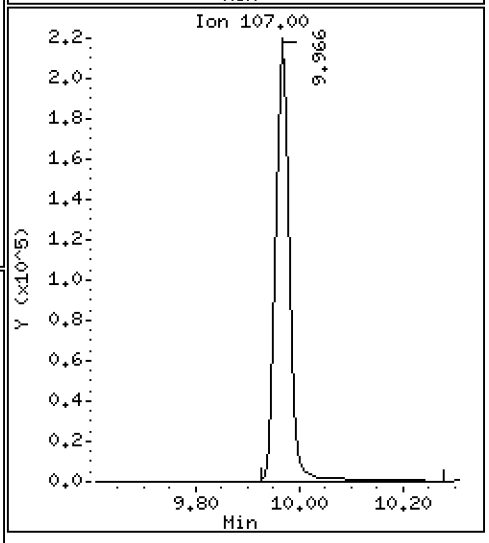
15 4-Methylphenol

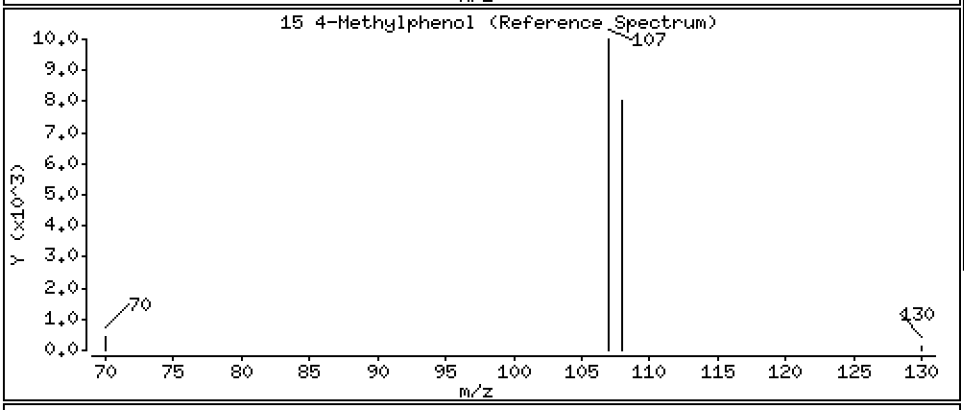
Concentration: 3.947 ug/mL

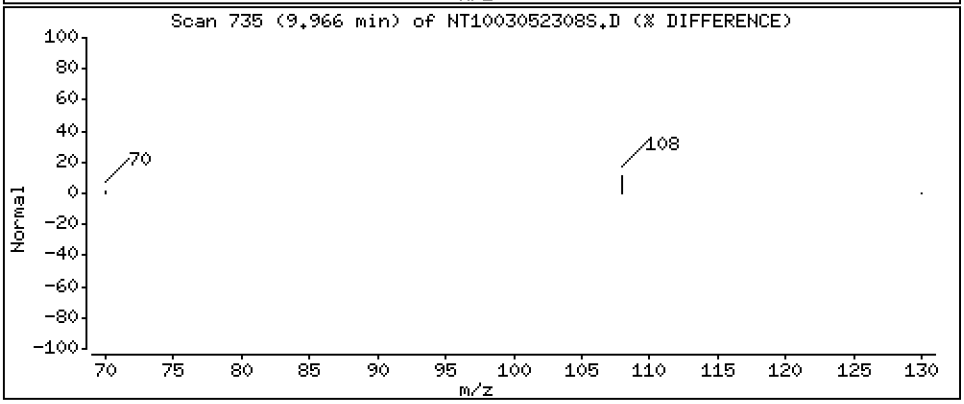












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052308S.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

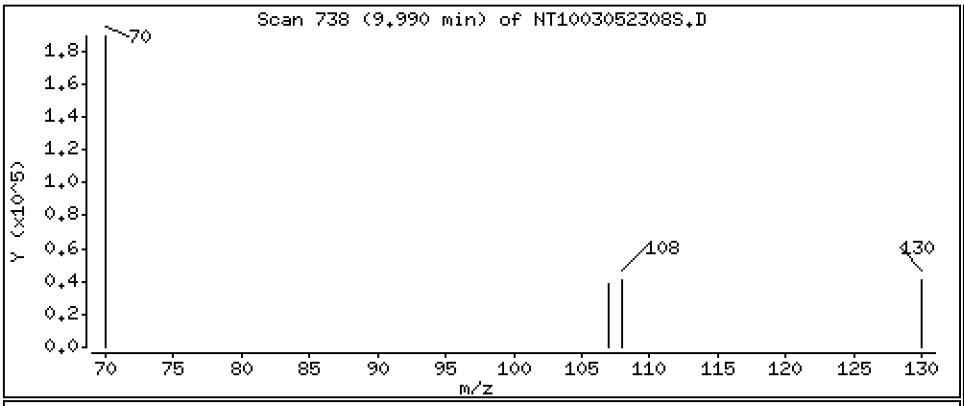
Operator: YZ

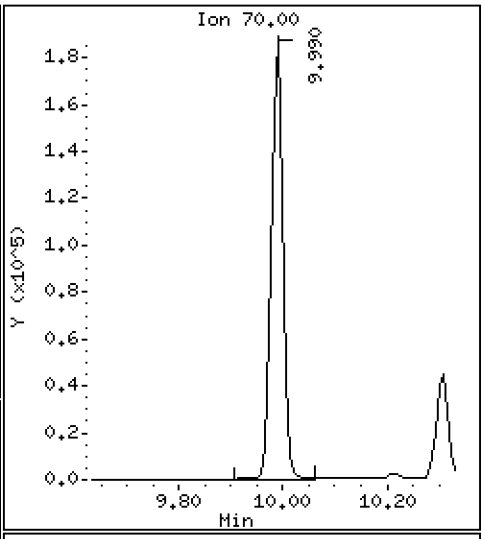
Column phase: ZB-5msi

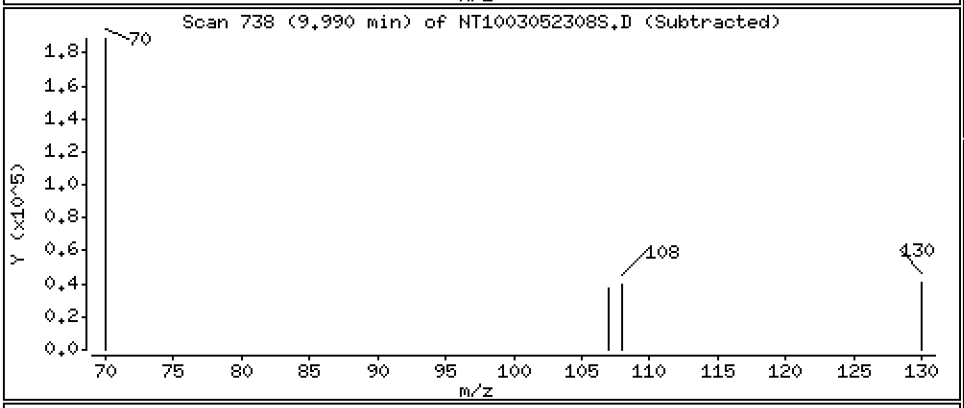
Column diameter: 0.25

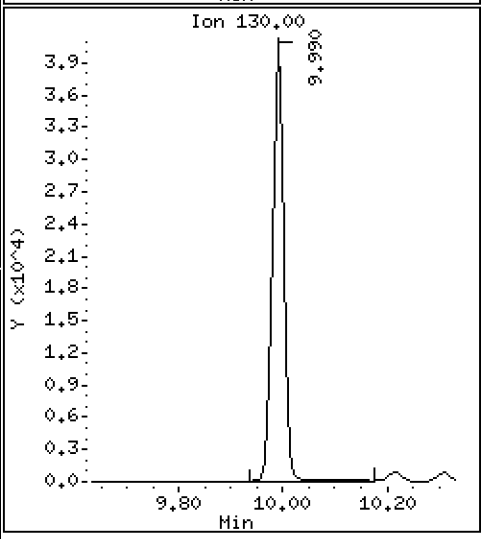
16 N-Nitroso-di-n-propylamine

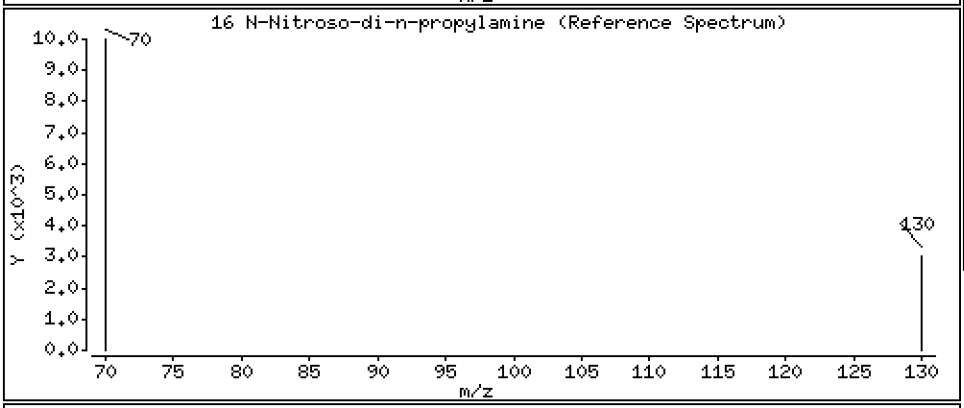
Concentration: 4.436 ug/mL

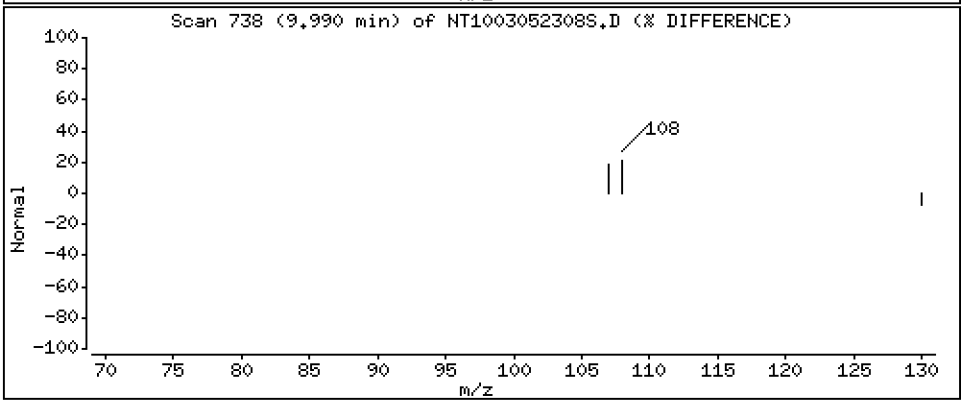












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

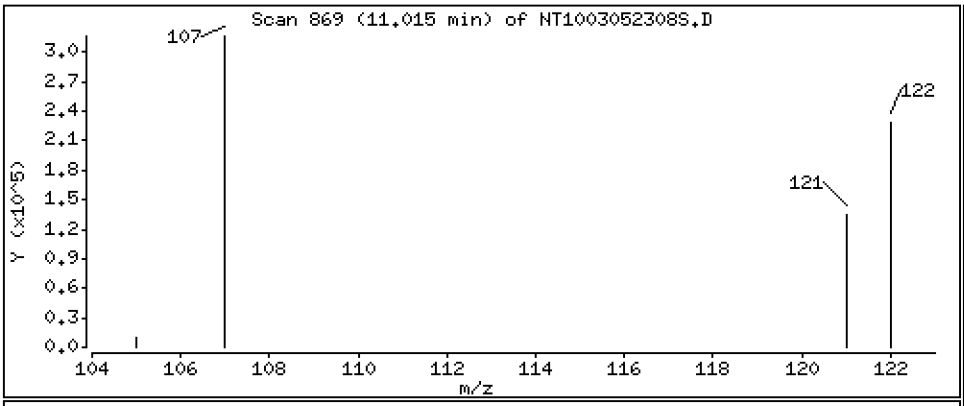
Operator: YZ

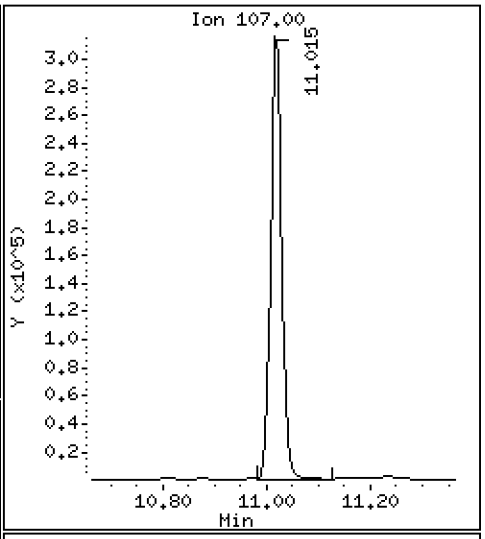
Column phase: ZB-5msi

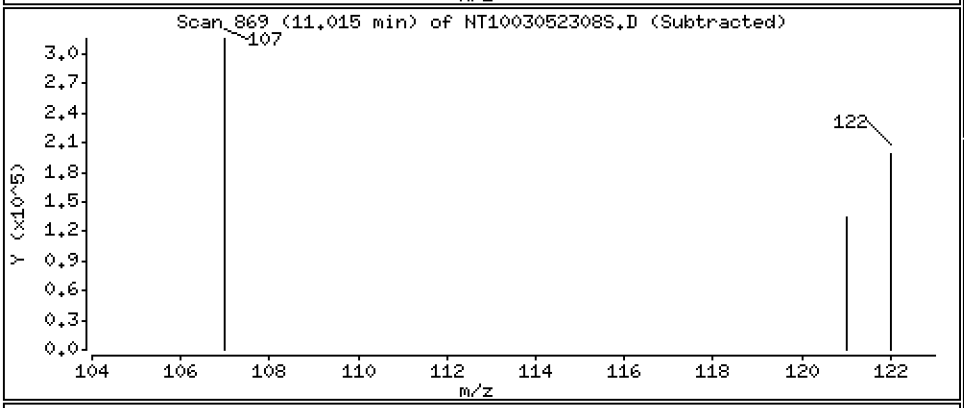
Column diameter: 0.25

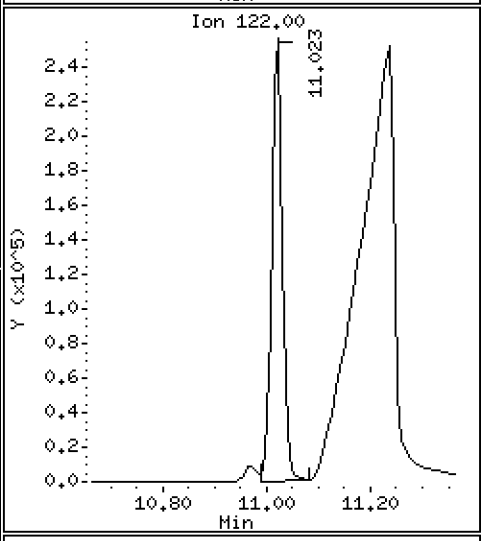
22 2,4-Dimethylphenol

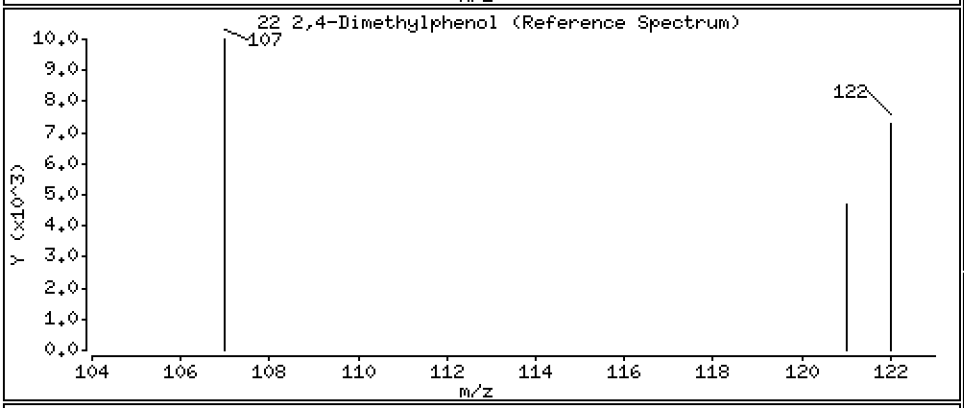
Concentration: 4.717 ug/mL

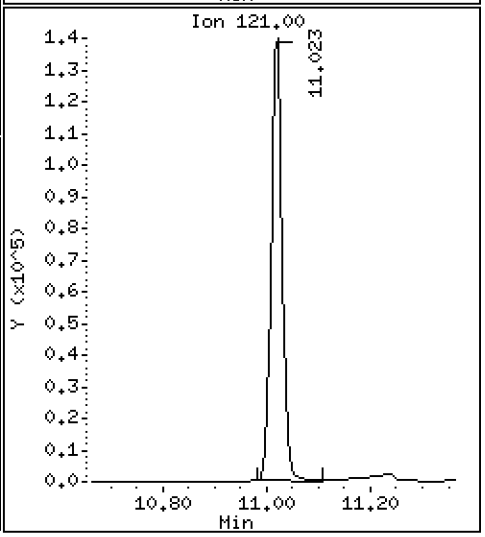


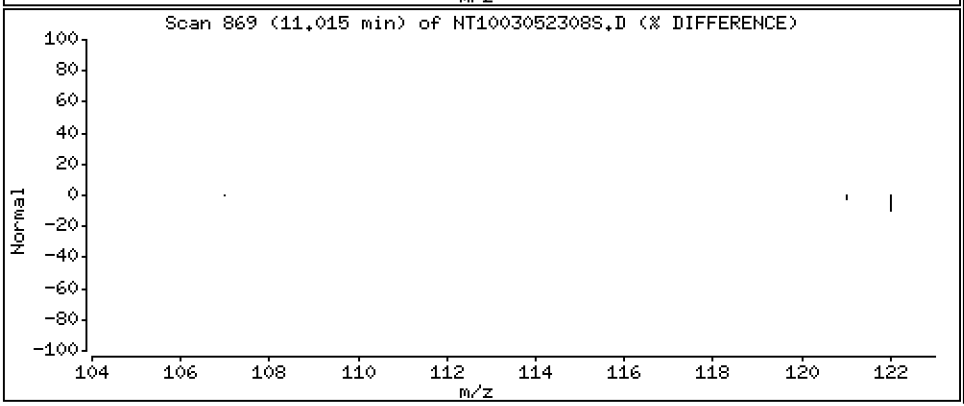












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

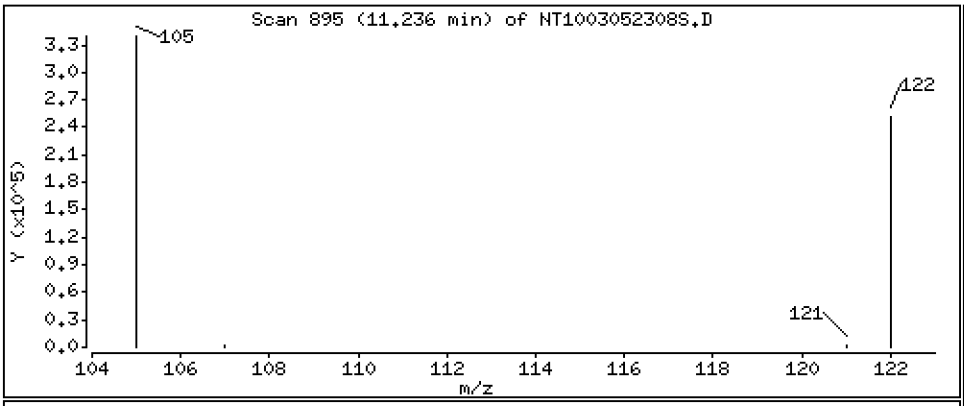
Operator: YZ

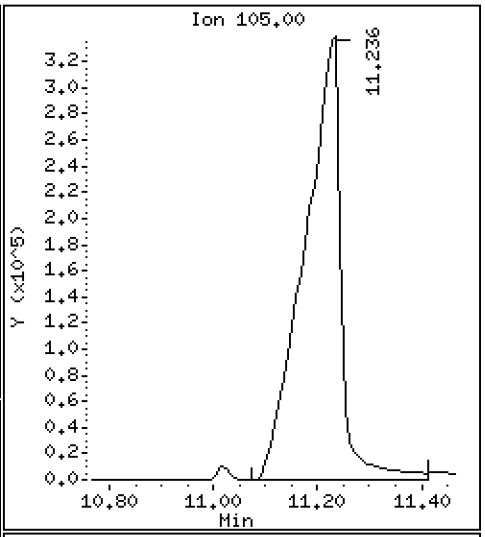
Column phase: ZB-5msi

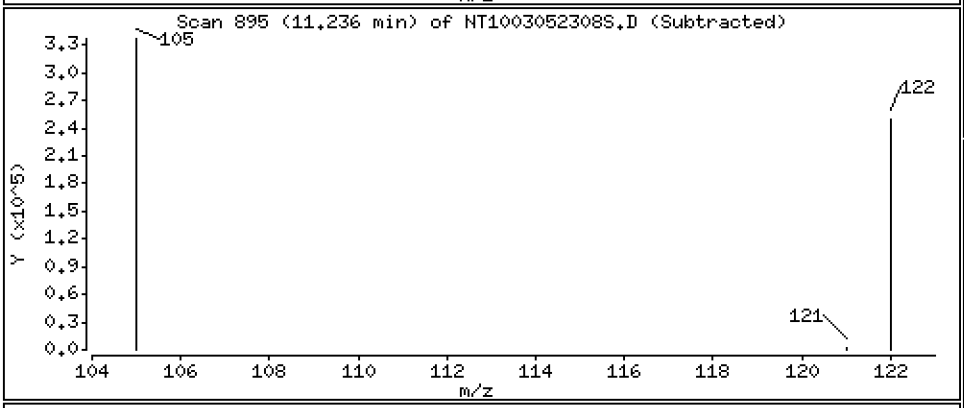
Column diameter: 0.25

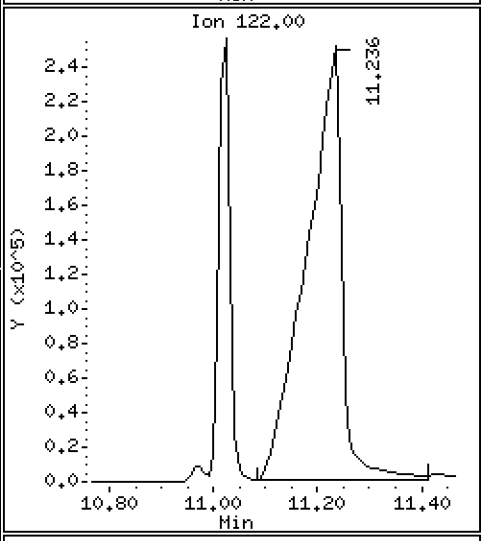
24 Benzoic acid

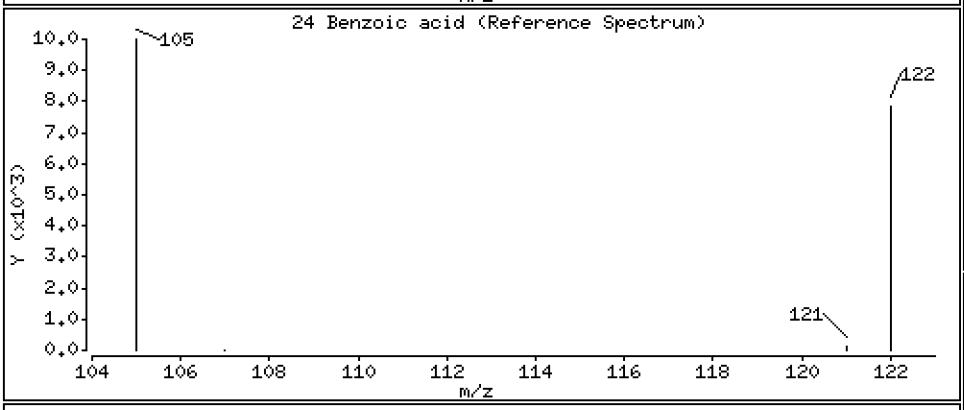
Concentration: 25.46 ug/mL

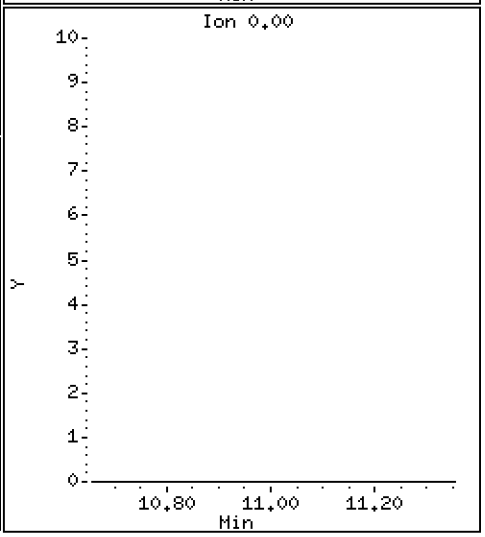


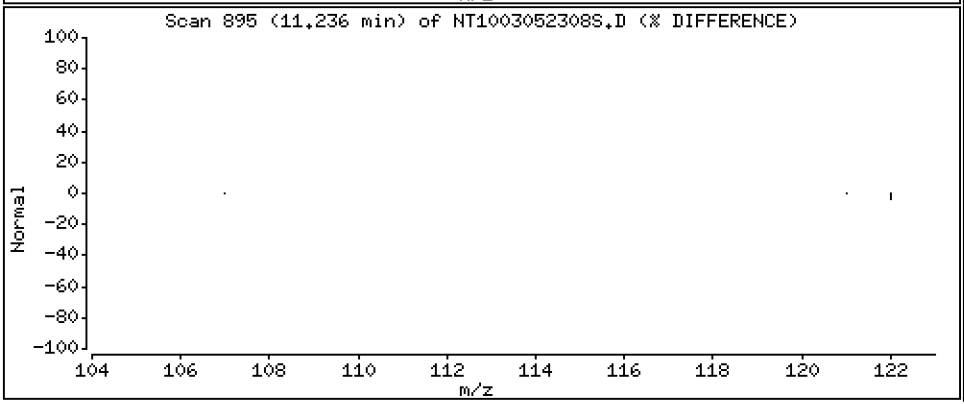












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

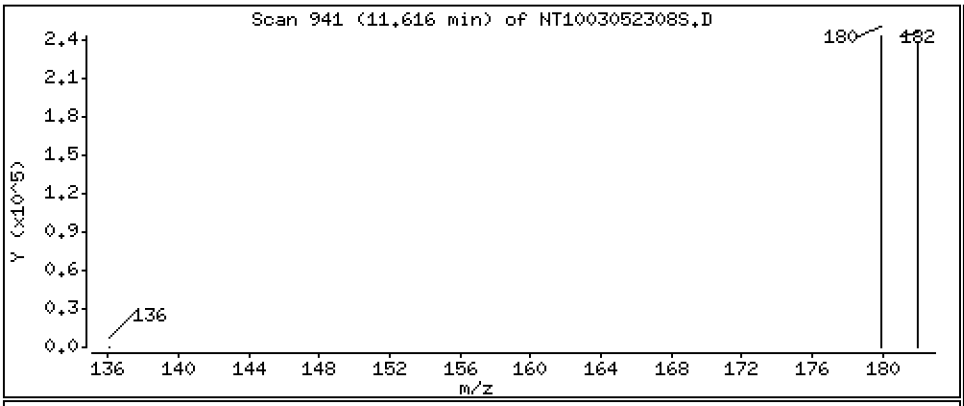
Operator: YZ

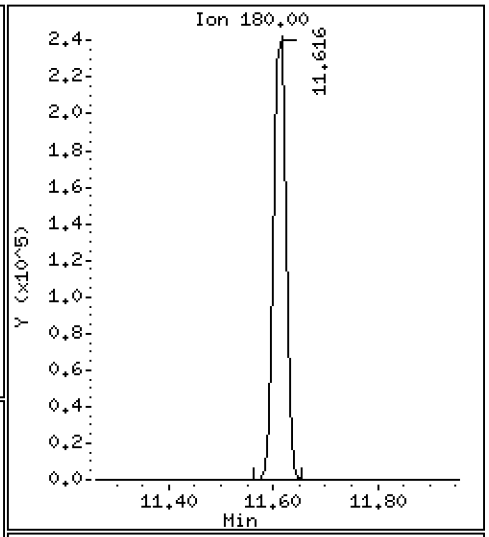
Column phase: ZB-5msi

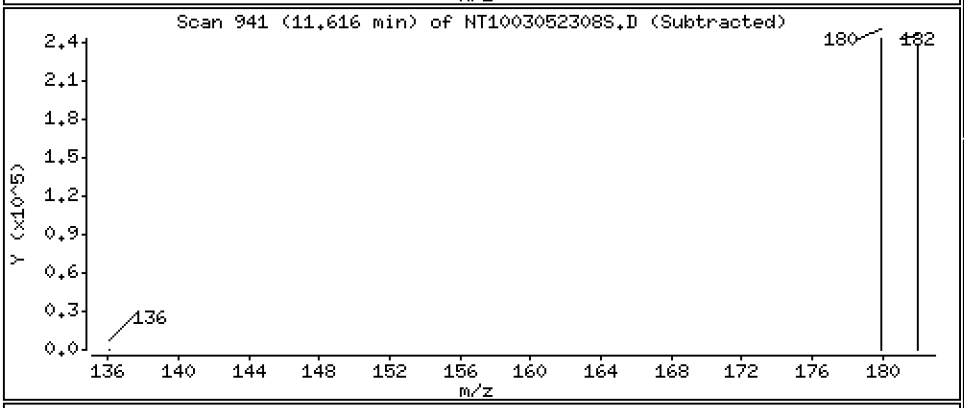
Column diameter: 0.25

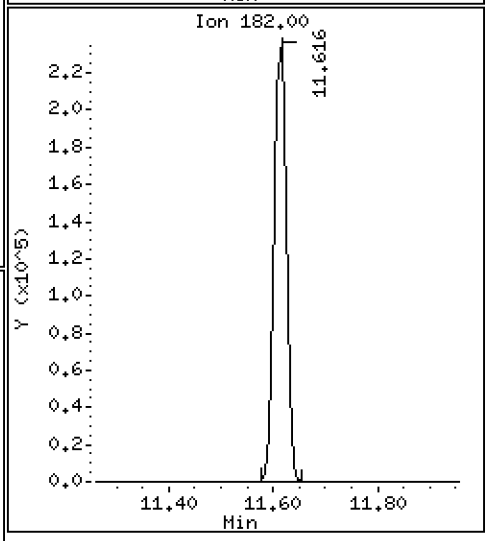
26 1,2,4-Trichlorobenzene

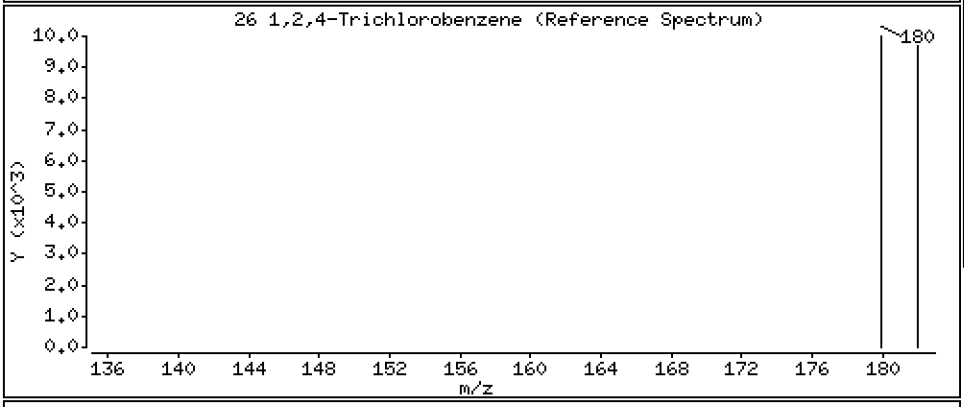
Concentration: 4.357 ug/mL

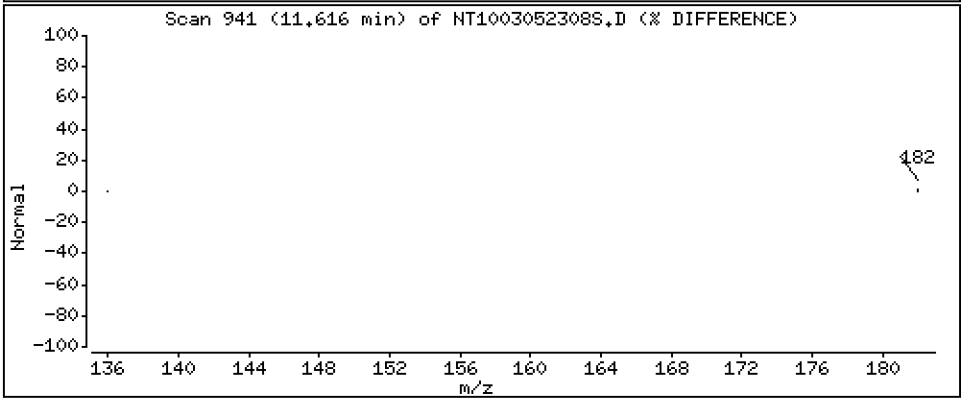












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

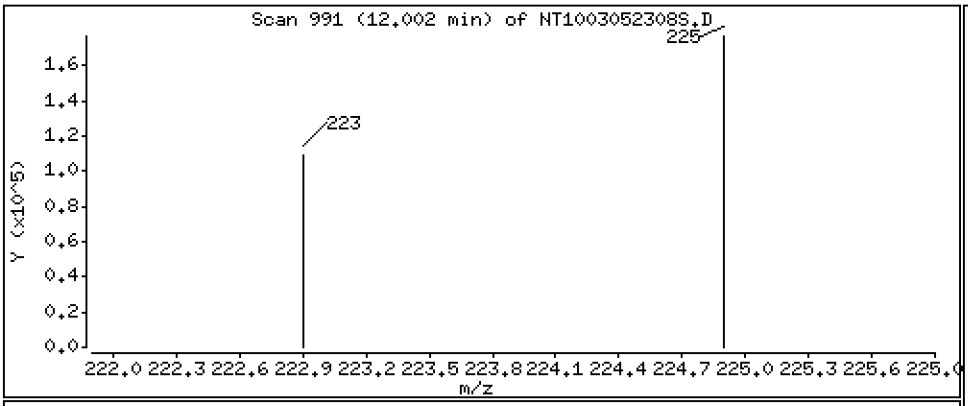
Operator: YZ

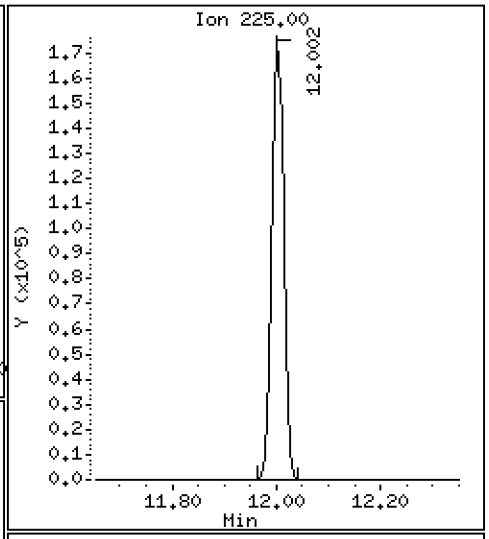
Column phase: ZB-5msi

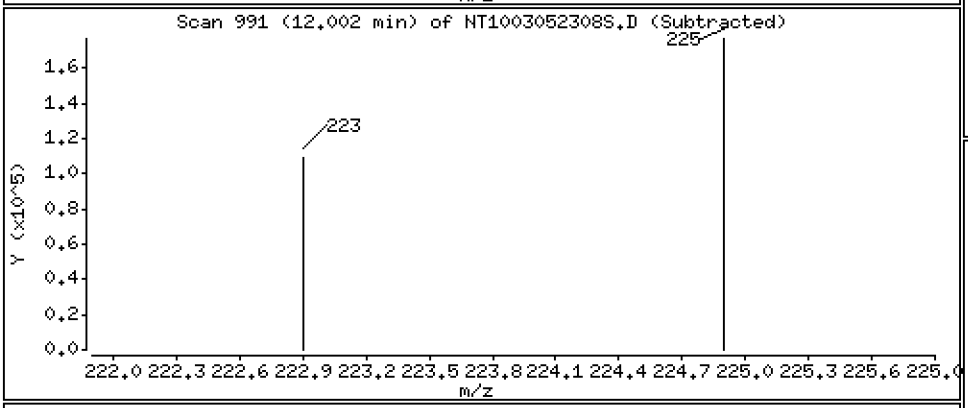
Column diameter: 0.25

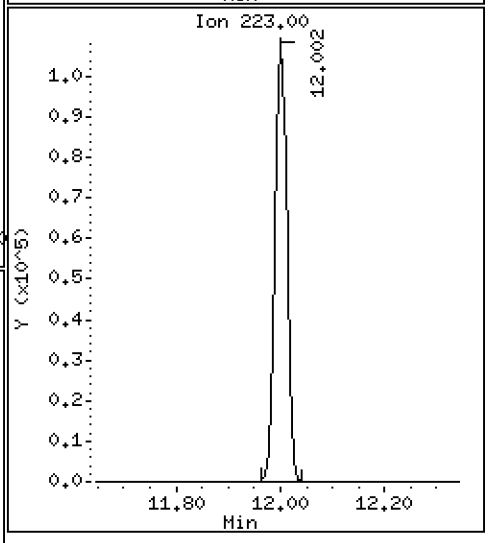
30 Hexachlorobutadiene

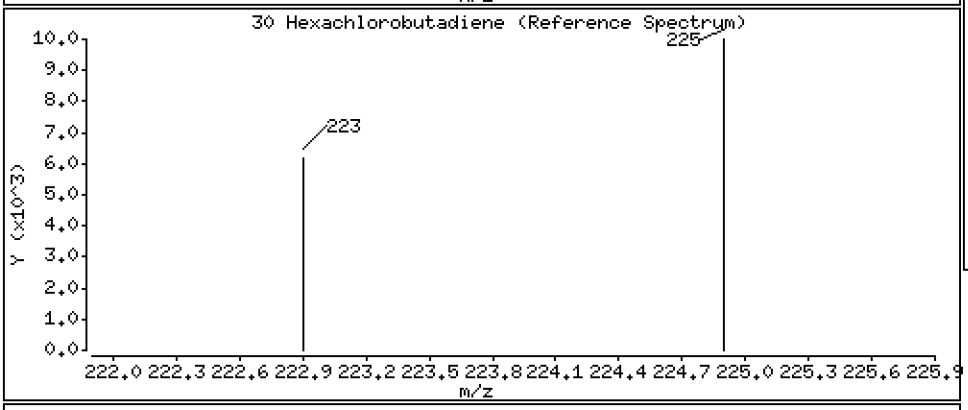
Concentration: 4.234 ug/mL

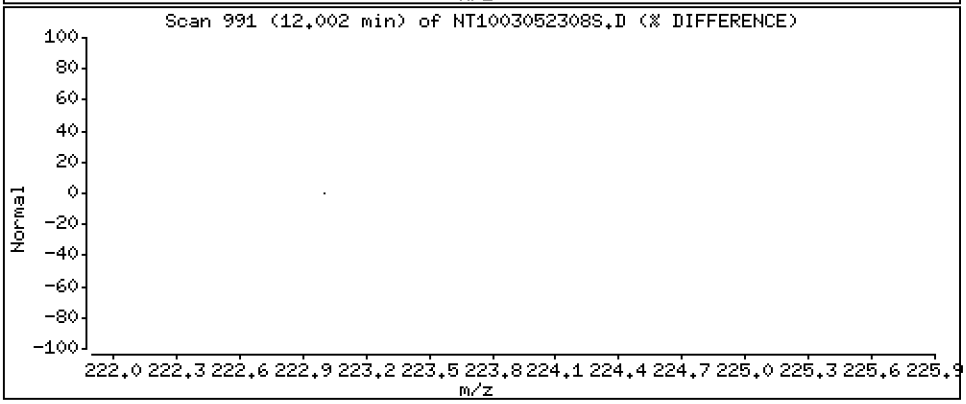












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

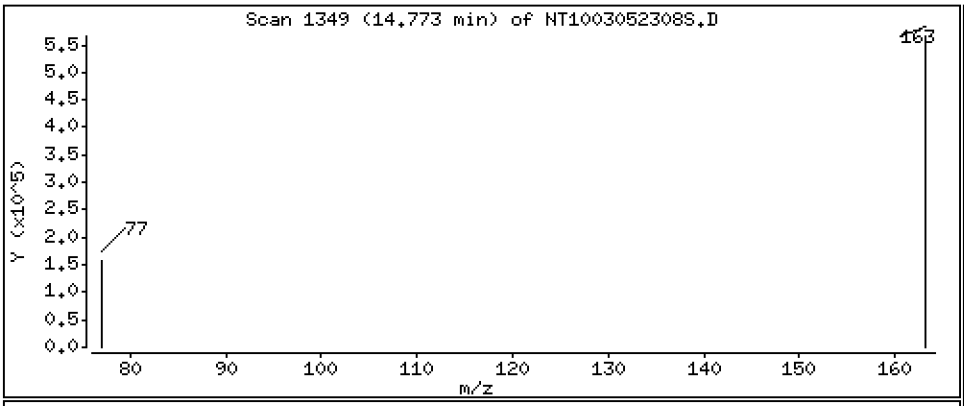
Operator: YZ

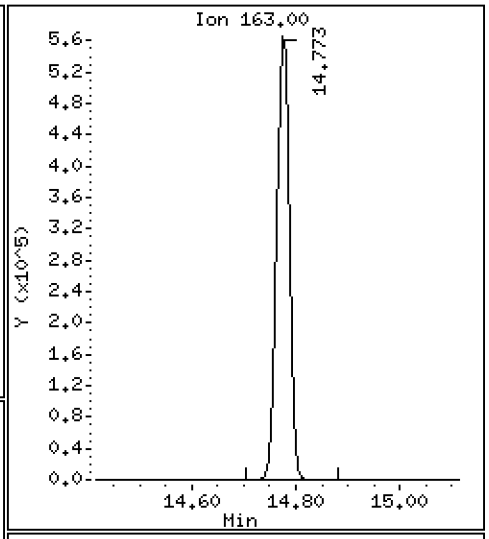
Column phase: ZB-5msi

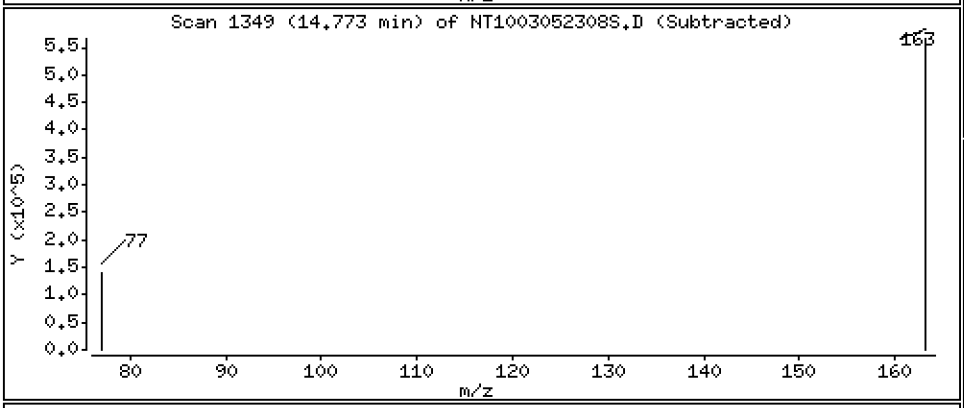
Column diameter: 0.25

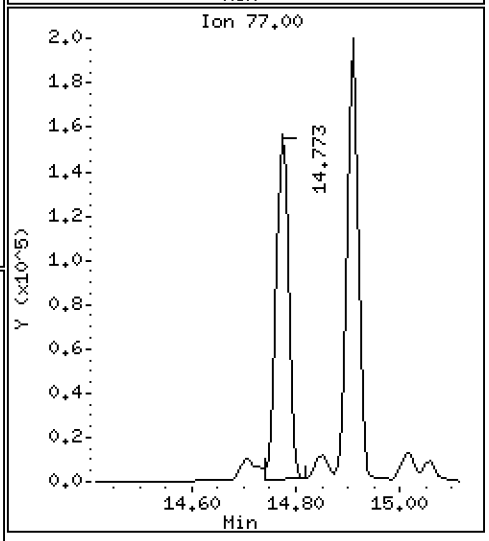
39 Dimethylphthalate

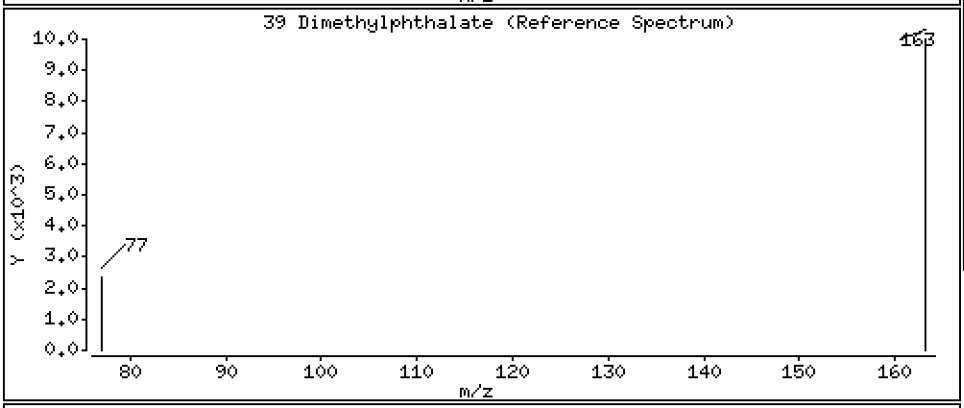
Concentration: 4.919 ug/mL

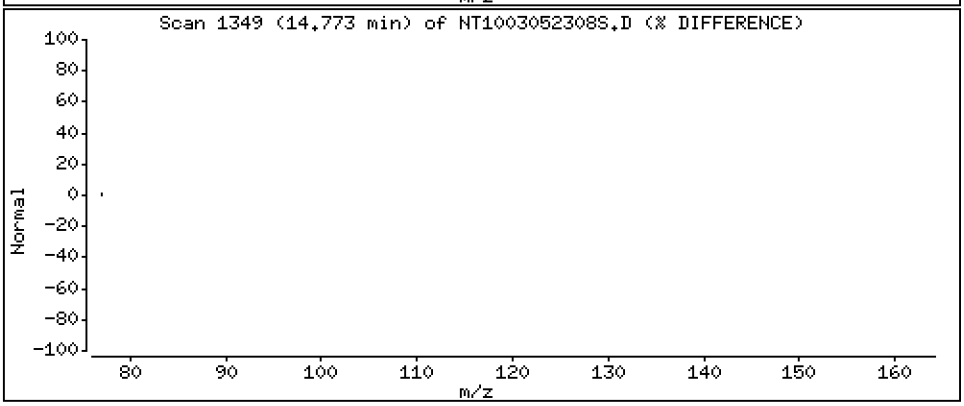












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

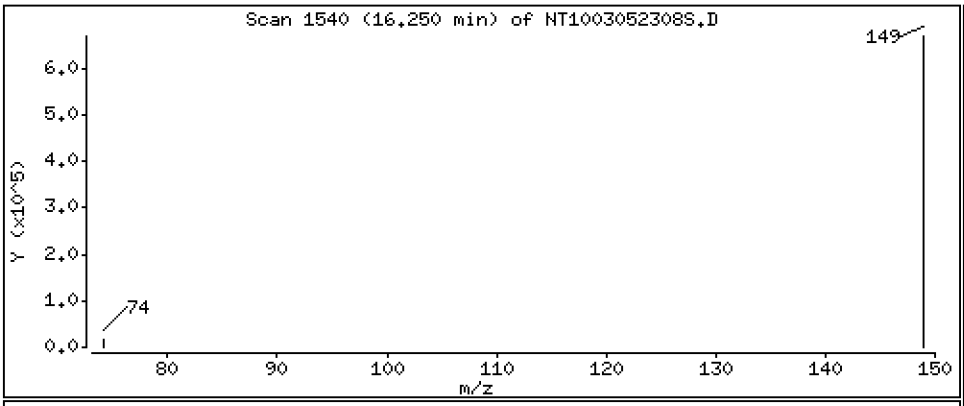
Operator: YZ

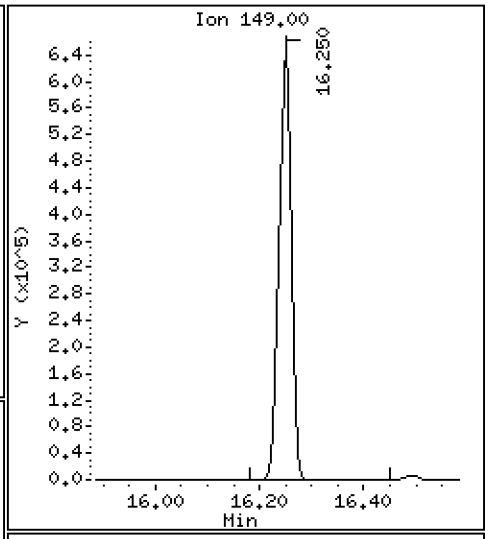
Column phase: ZB-5msi

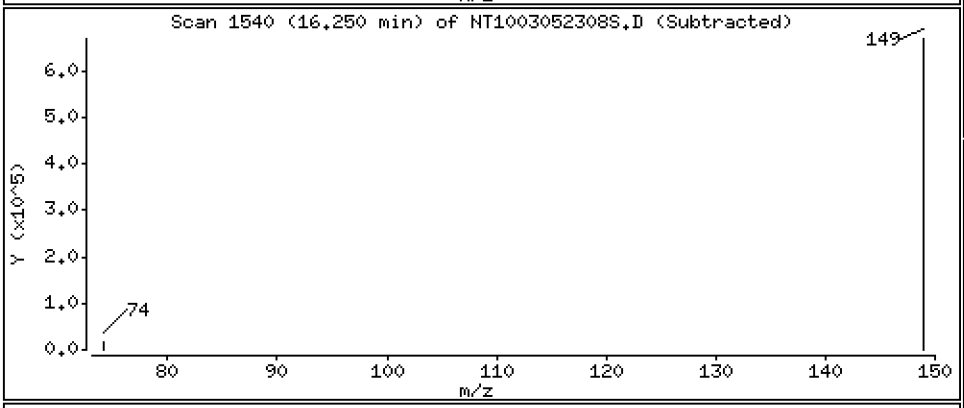
Column diameter: 0.25

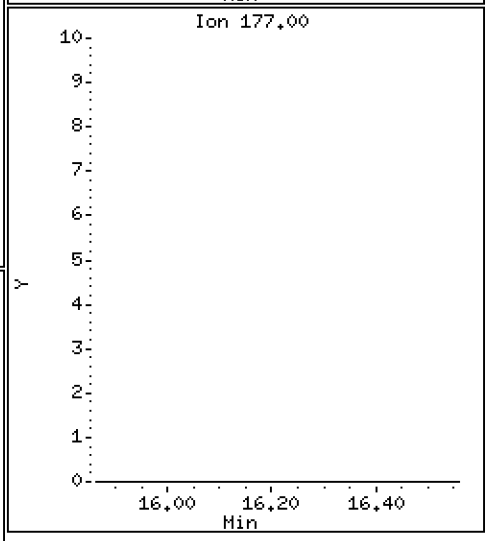
50 Diethylphthalate

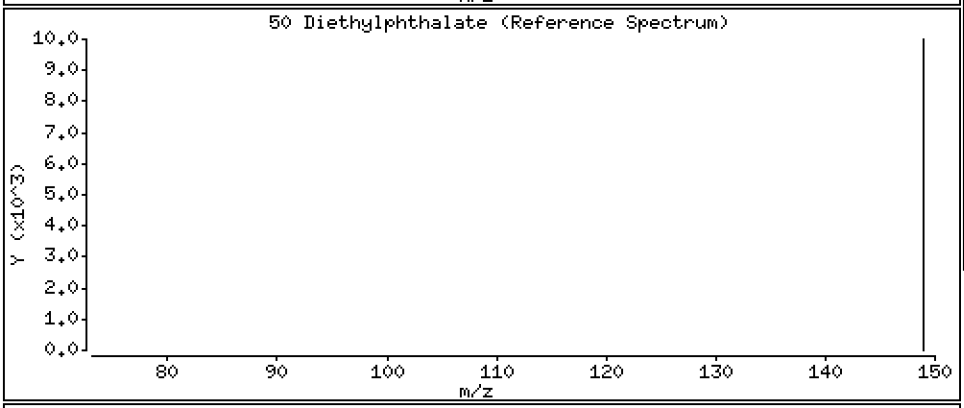
Concentration: 5.905 ug/mL

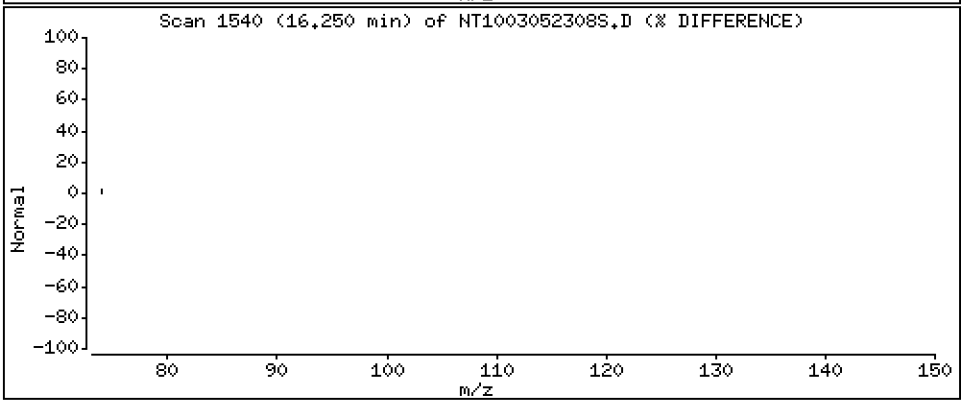












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Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

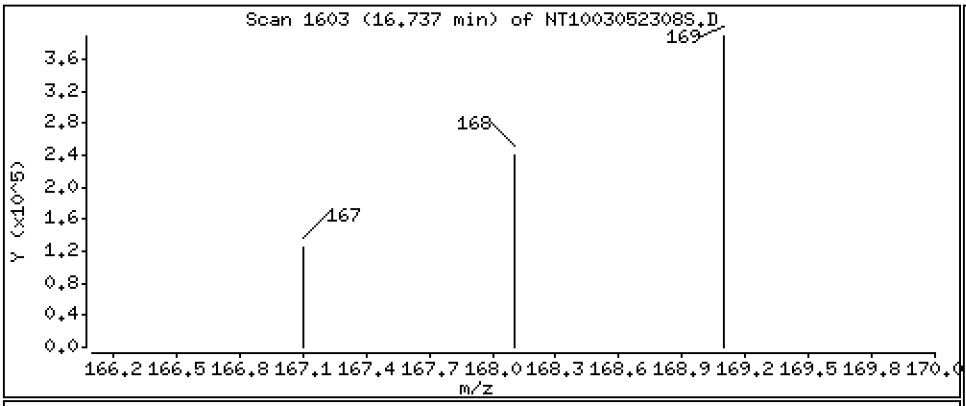
Operator: YZ

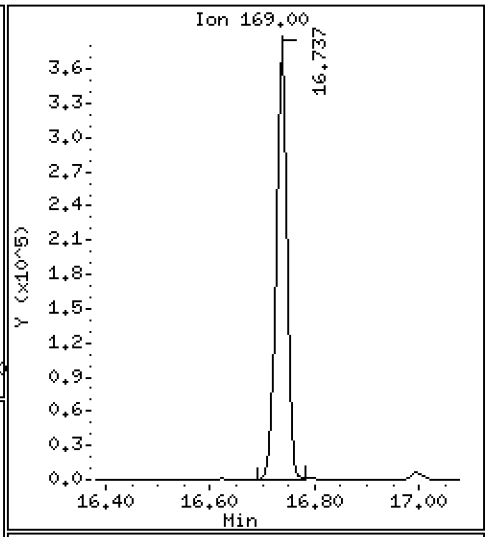
Column phase: ZB-5msi

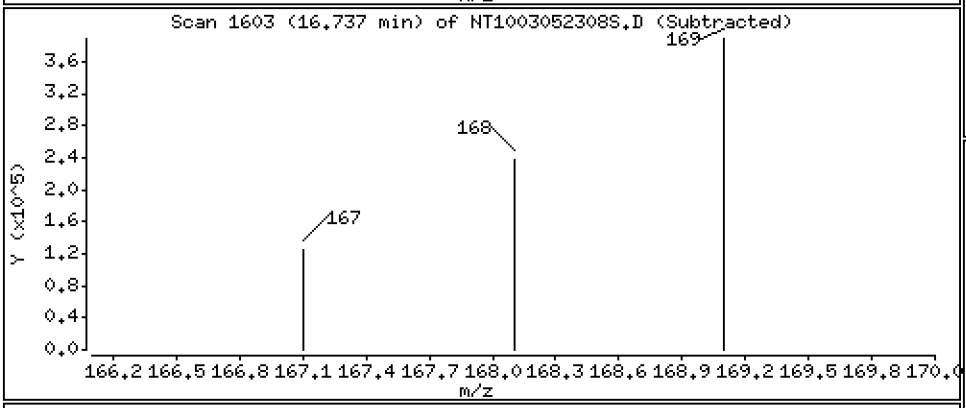
Column diameter: 0.25

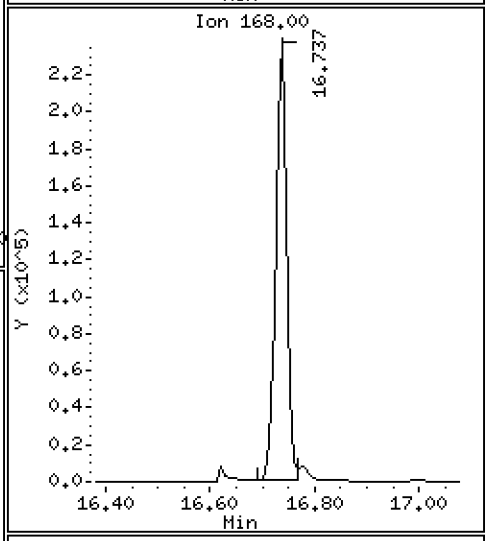
54 N-Nitrosodiphenylamine

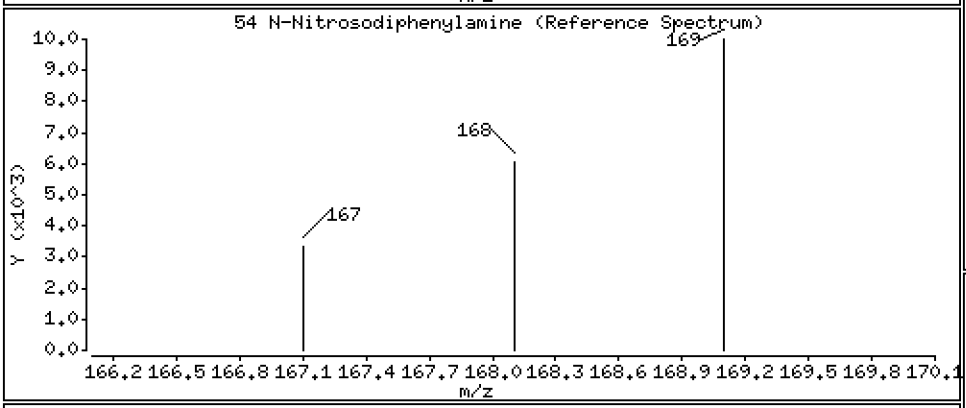
Concentration: 3.084 ug/mL

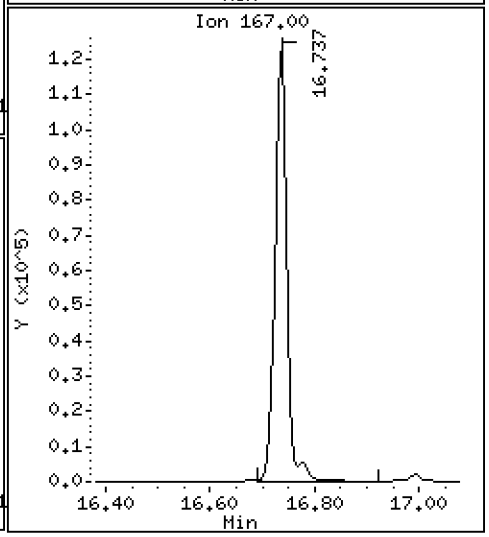


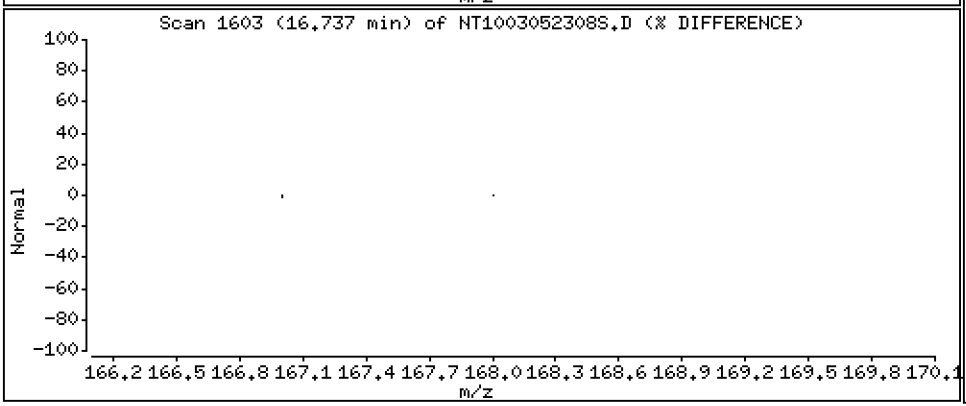












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052308S.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

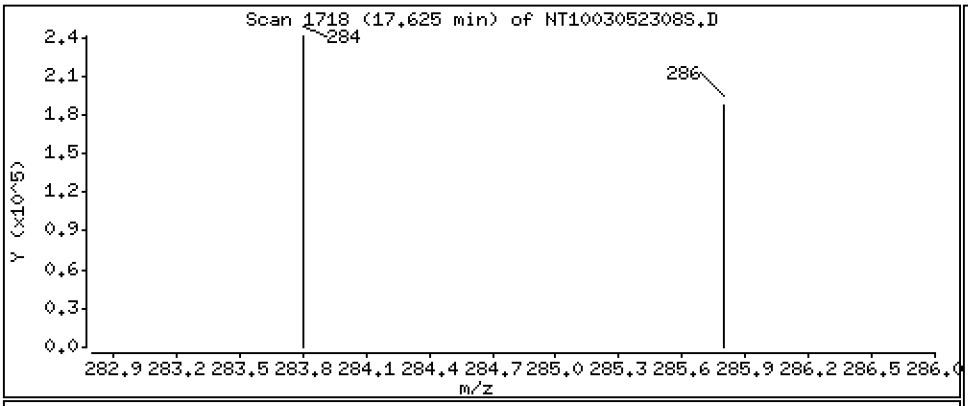
Operator: YZ

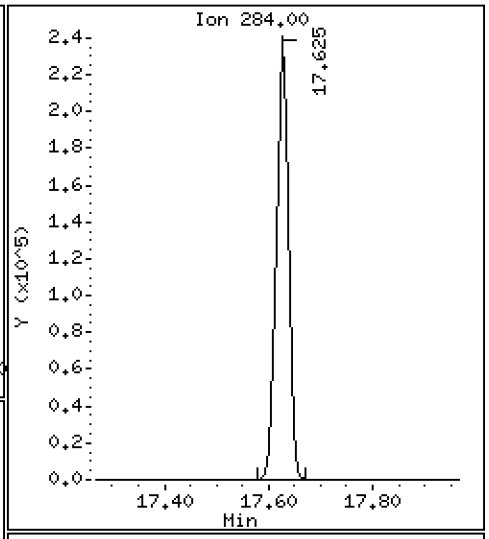
Column phase: ZB-5msi

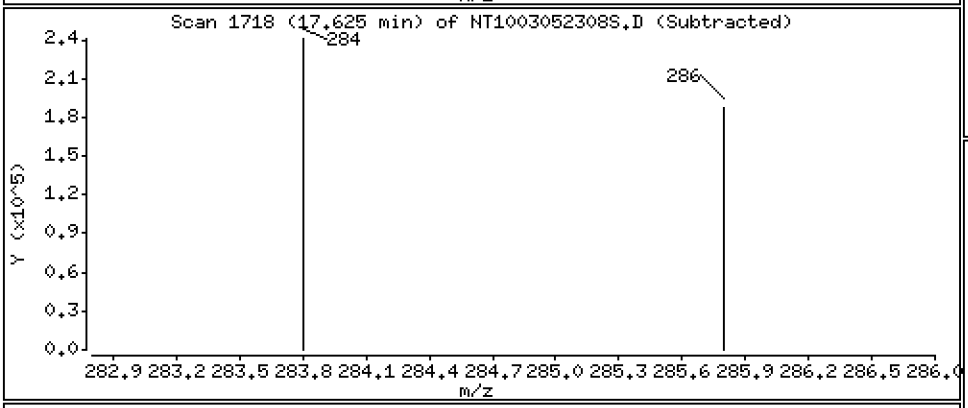
Column diameter: 0.25

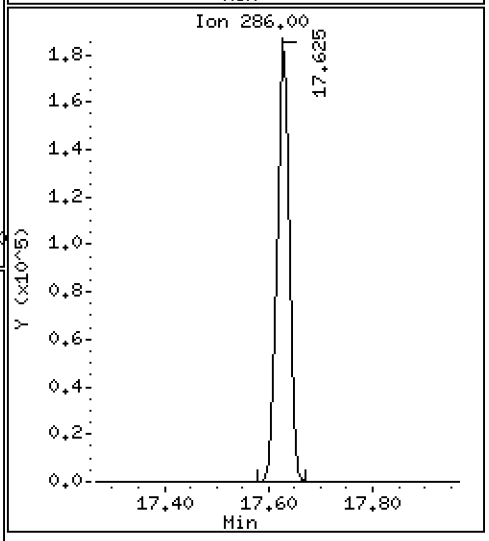
57 Hexachlorobenzene

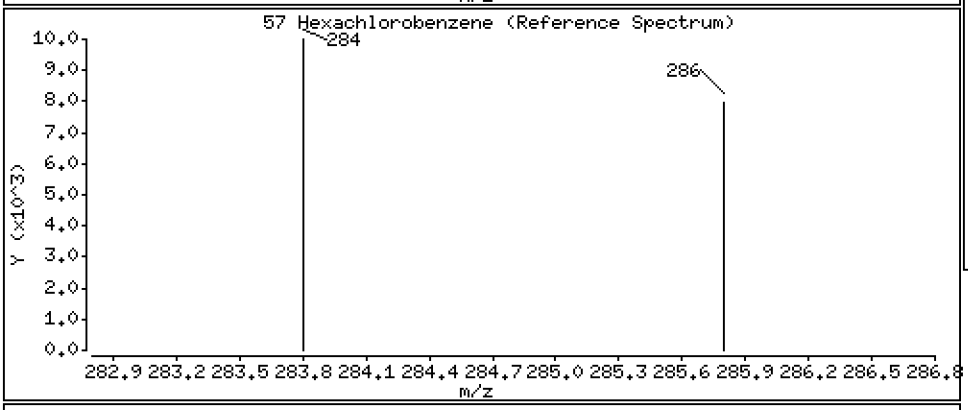
Concentration: 4.487 ug/mL

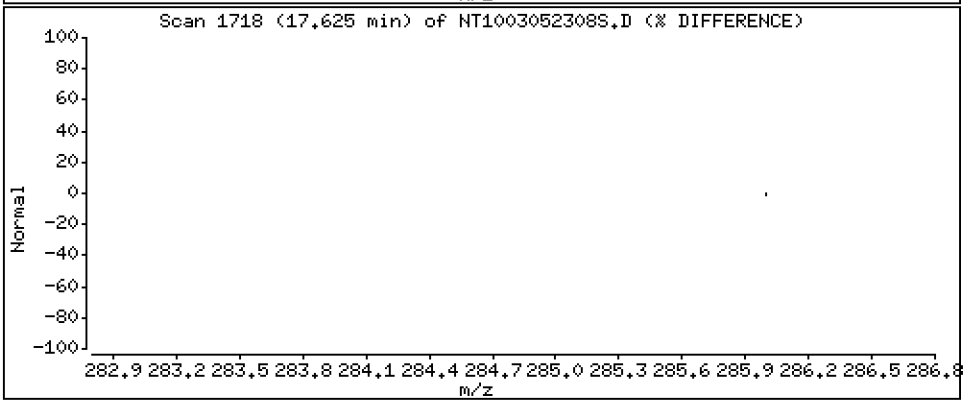












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052308S.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

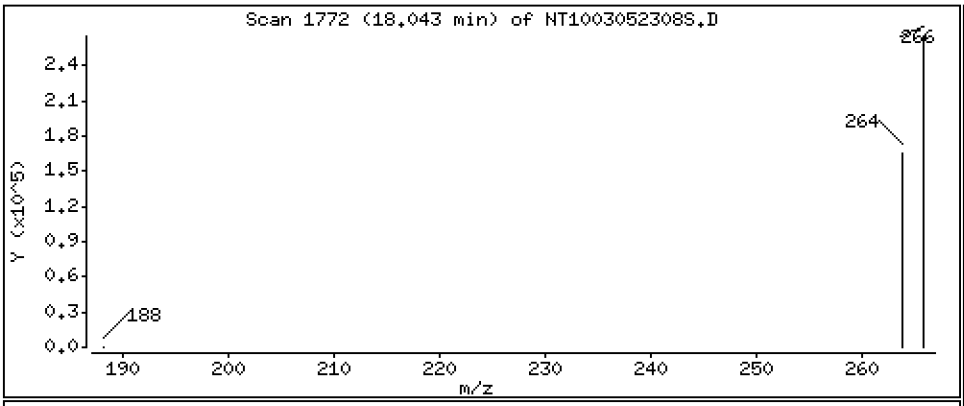
Operator: YZ

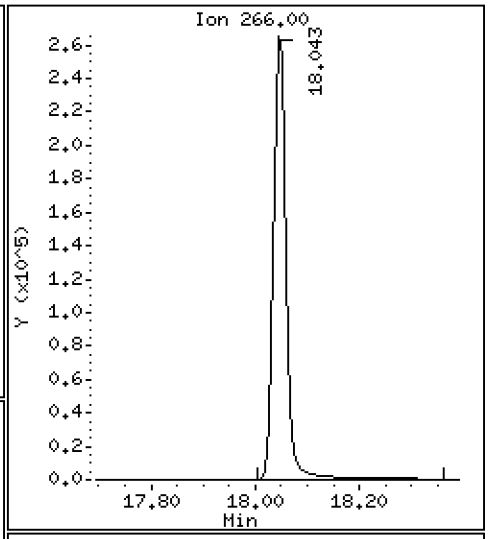
Column phase: ZB-5msi

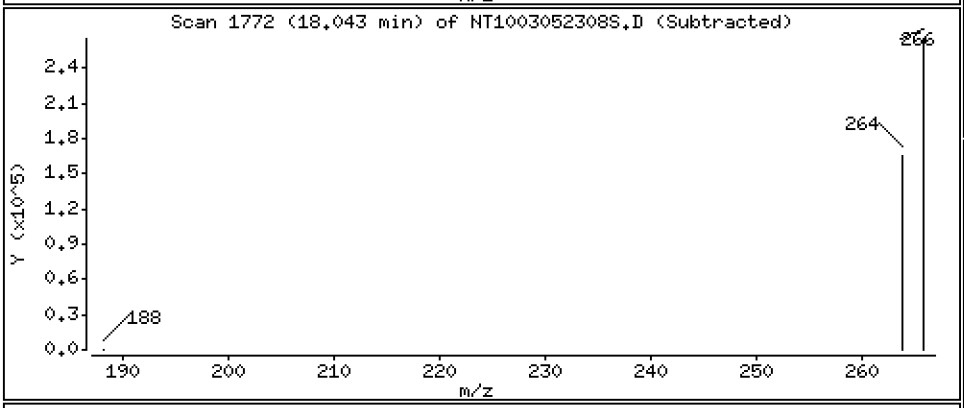
Column diameter: 0.25

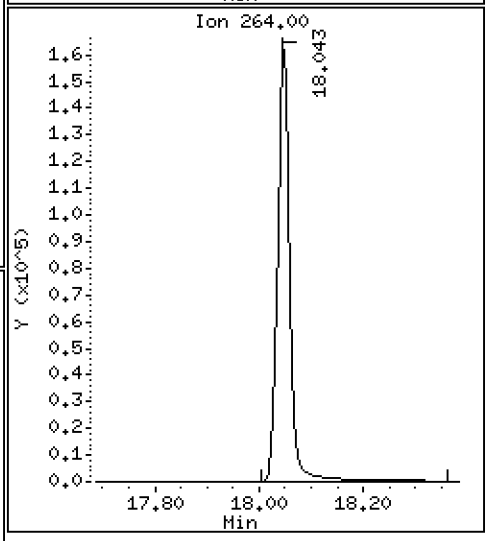
58 Pentachlorophenol

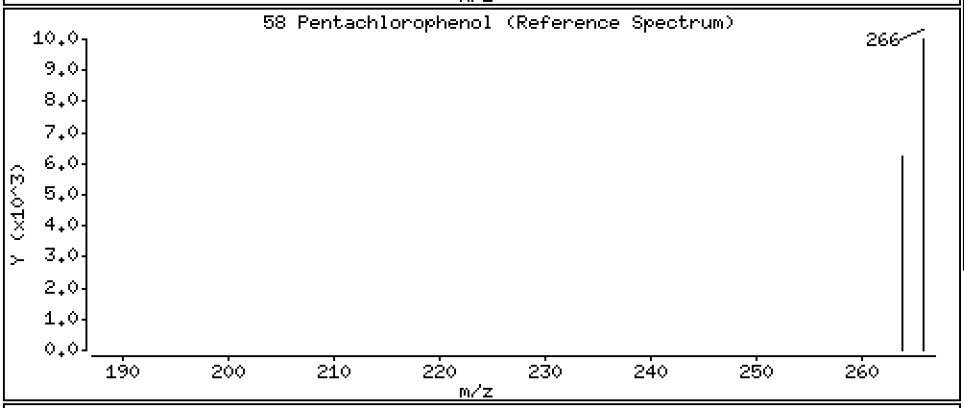
Concentration: 10.27 ug/mL

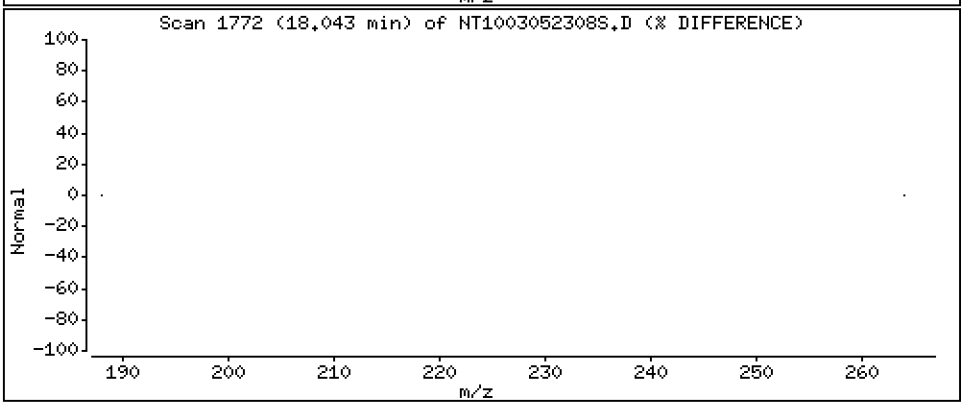












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052308S.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

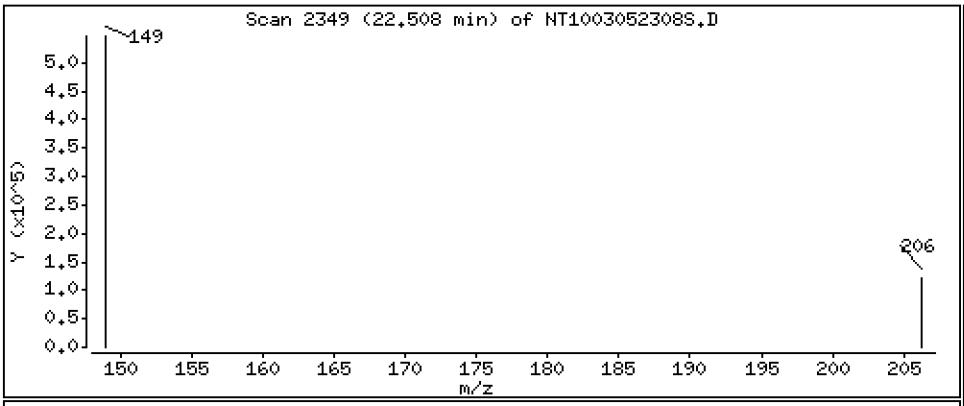
Operator: YZ

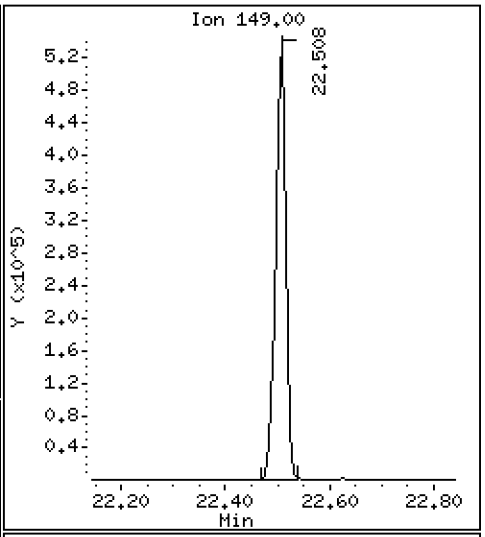
Column phase: ZB-5msi

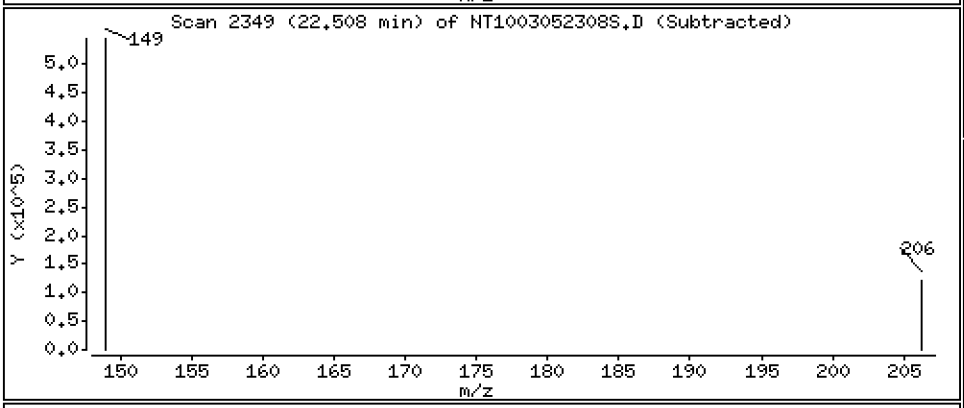
Column diameter: 0.25

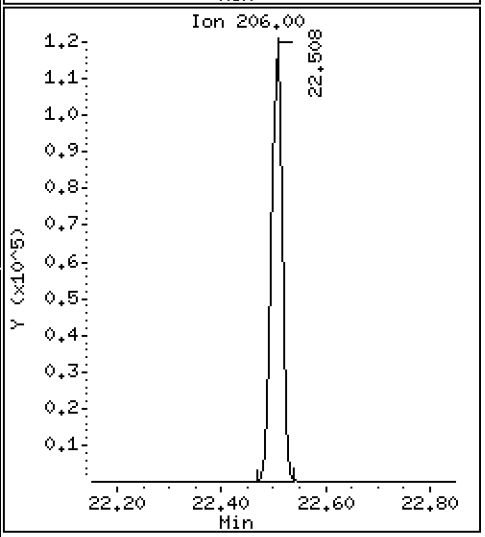
67 Butylbenzylphthalate

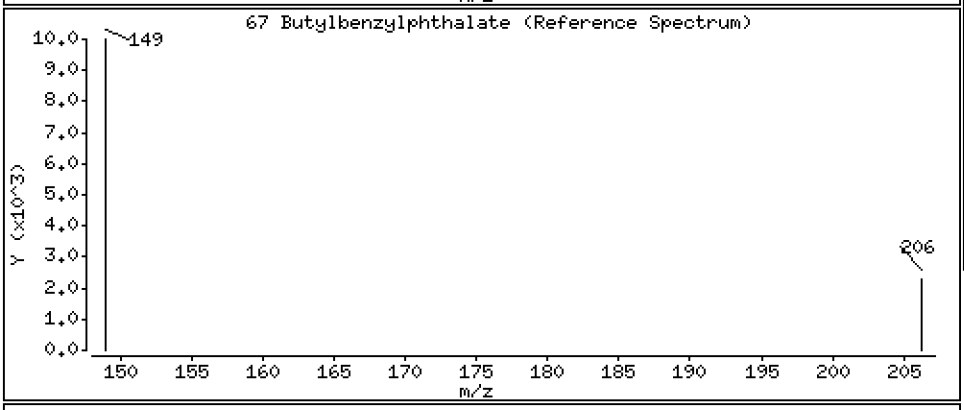
Concentration: 4.210 ug/mL

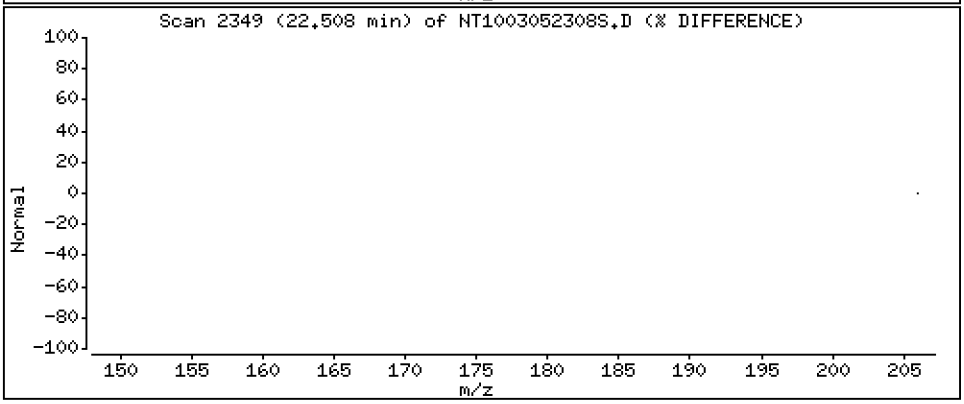












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052308S.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

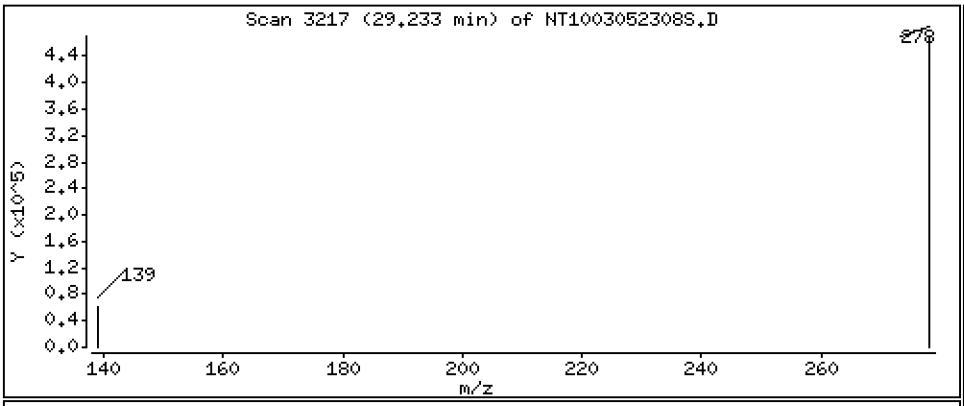
Operator: YZ

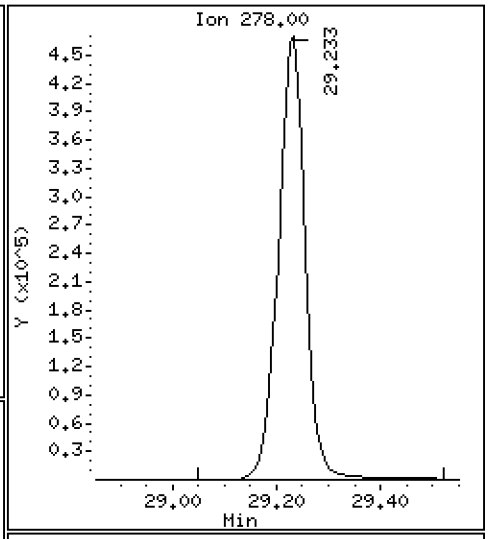
Column phase: ZB-5msi

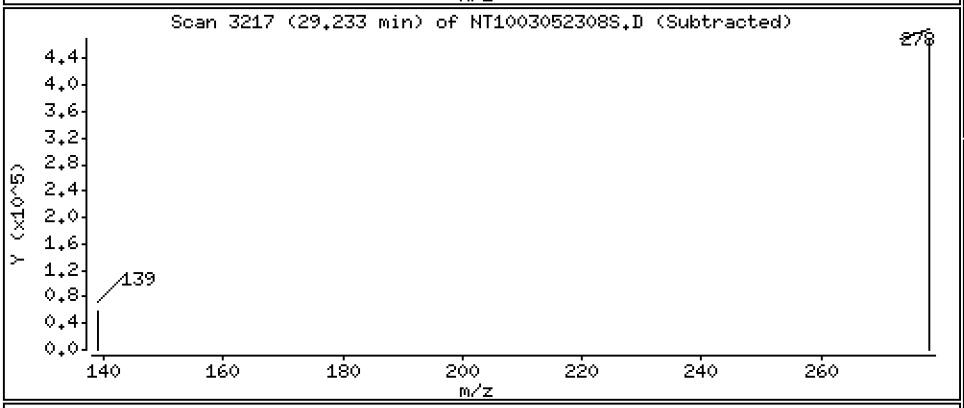
Column diameter: 0.25

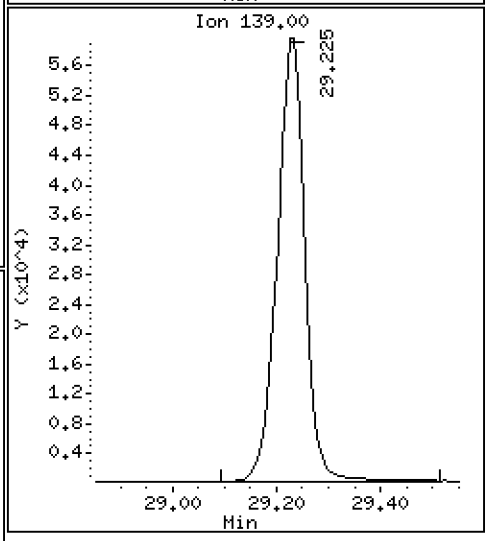
79 Dibenzo(a,h)anthracene

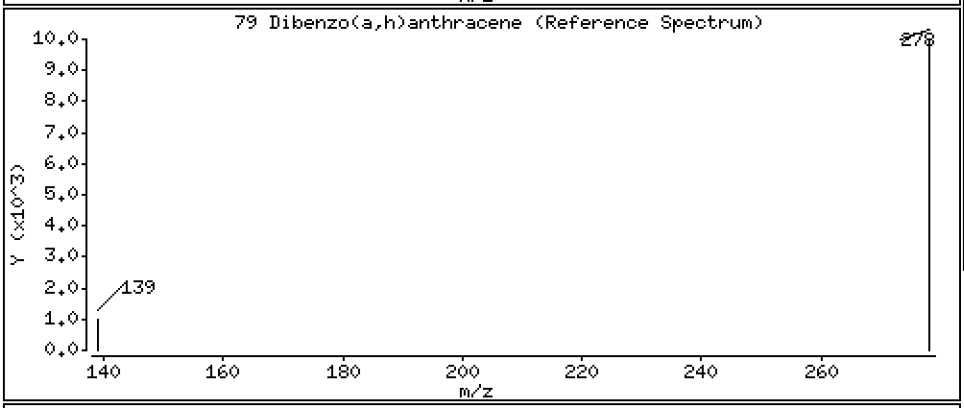
Concentration: 6.007 ug/mL

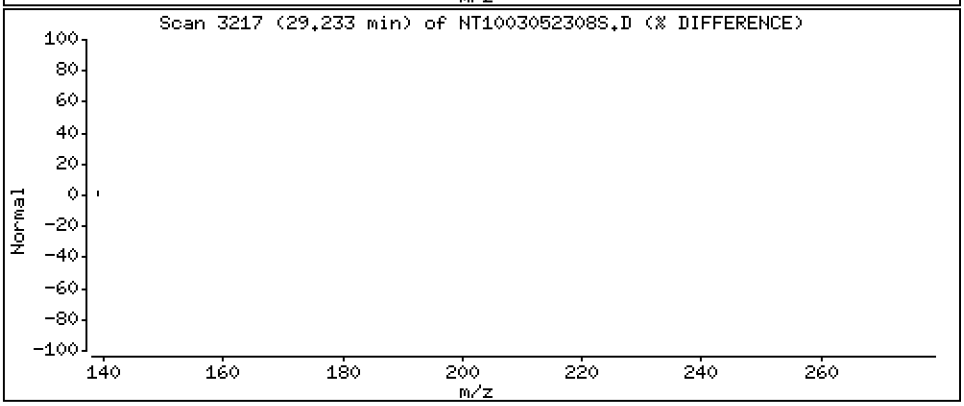












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052308S.D

Date : 05-MAR-2023 17:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BS2

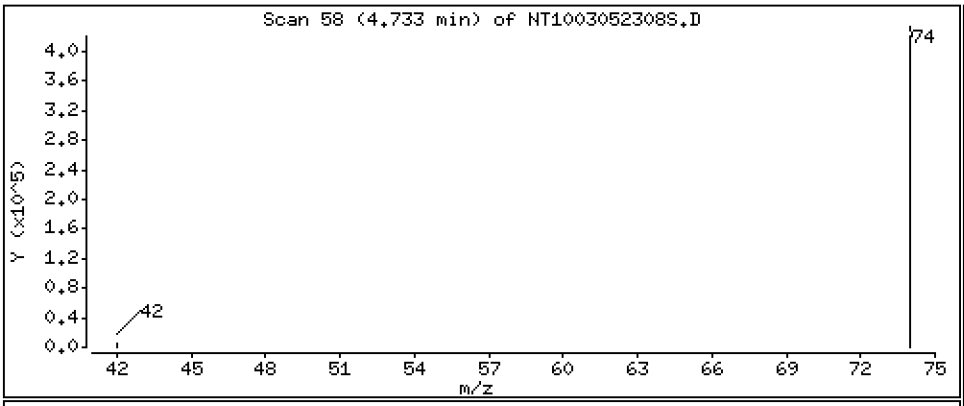
Operator: YZ

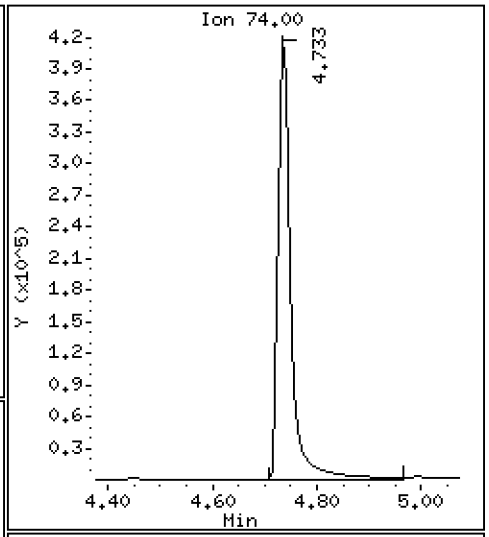
Column phase: ZB-5msi

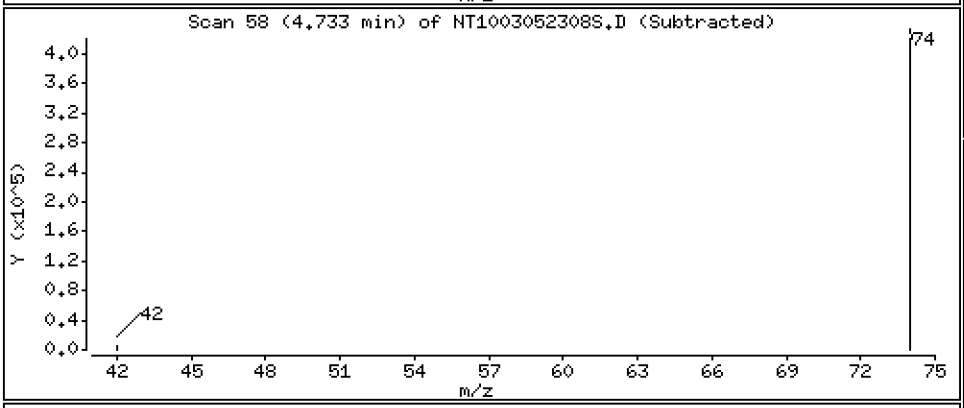
Column diameter: 0.25

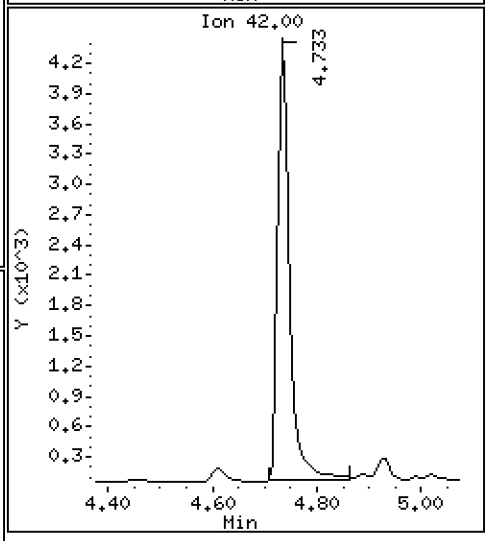
90 N-Nitrosodimethylamine

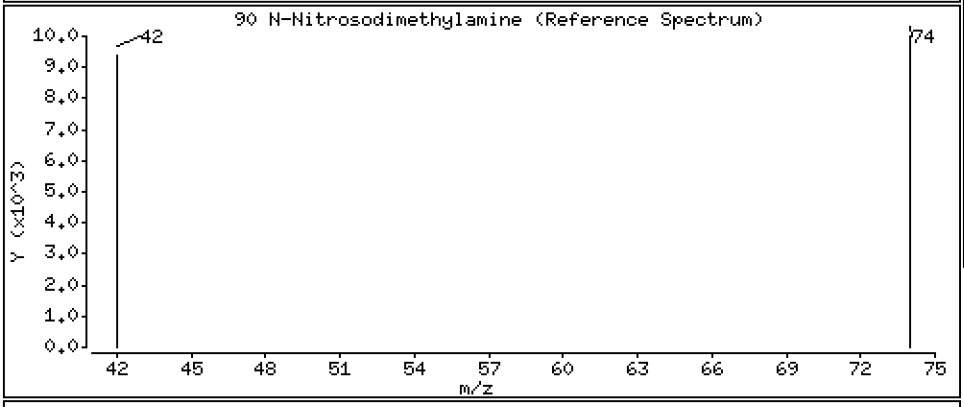
Concentration: 12.04 ug/mL

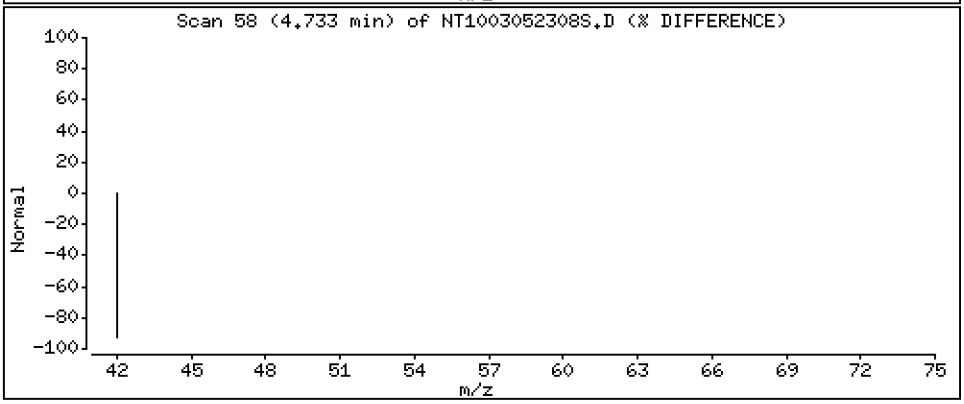












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052308S.D
Lab Smp Id: BLA0685-BS2
Inj Date : 05-MAR-2023 17:50
Operator : YZ Inst ID: nt10.i
Smp Info : BLA0685-BS2
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:00 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

								CONCENTRATIONS	
		QUANT SIG						ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
$	1 2-Fluorophenol	112	6.910	6.902	(0.747)	602302		6.28513	6.285(R)
	3 Phenol	94	8.532	8.533	(0.922)	600533		4.15825	4.158
	7 1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	453958		3.64920	3.649
*	8 1,4-Dichlorobenzene-d4	152	9.252	9.244	(1.000)	335662		4.00000	
	9 1,4-Dichlorobenzene	146	9.283	9.275	(1.003)	454145		3.75488	3.755
	11 Benzyl alcohol	79	9.484	9.485	(1.025)	356776		4.29362	4.294(M)
	12 1,2-Dichlorobenzene	146	9.570	9.562	(1.034)	440579		3.78986	3.790
	13 2-Methylphenol	108	9.671	9.663	(1.045)	313249		3.57656	3.577
	15 4-Methylphenol	108	9.966	9.958	(1.077)	364692		3.94690	3.947
	16 N-Nitroso-di-n-propylamine	70	9.989	9.982	(1.080)	283911		4.43574	4.436
	22 2,4-Dimethylphenol	107	11.014	11.015	(0.938)	487131		4.71731	4.717
	24 Benzoic acid	105	11.235	11.116	(0.957)	1669919		25.4602	25.46
	26 1,2,4-Trichlorobenzene	180	11.615	11.608	(0.989)	376594		4.35653	4.357
*	27 Naphthalene-d8	136	11.739	11.731	(1.000)	1201009		4.00000	
	30 Hexachlorobutadiene	225	12.002	12.002	(1.022)	259703		4.23358	4.234
	39 Dimethylphthalate	163	14.772	14.765	(0.963)	917037		4.91859	4.919
*	42 Acenaphthene-d10	162	15.345	15.337	(1.000)	587178		4.00000	
	50 Diethylphthalate	149	16.249	16.234	(1.059)	1038268		5.90520	5.905(H)
	54 N-Nitrosodiphenylamine	169	16.736	16.729	(0.907)	558128		3.08353	3.084
	57 Hexachlorobenzene	284	17.625	17.617	(0.955)	380111		4.48737	4.487
	58 Pentachlorophenol	266	18.043	18.043	(0.977)	429732		10.2734	10.27
*	59 Phenanthrene-d10	188	18.460	18.453	(1.000)	1118430		4.00000	
$	66 Terphenyl-d14	244	21.609	21.602	(0.918)	610691		7.15699	7.157(R)
	67 Butylbenzylphthalate	149	22.508	22.492	(0.957)	738616		4.20957	4.210
*	69 Chrysene-d12	240	23.530	23.514	(1.000)	1055166		4.00000	
*	77 Perylene-d12	264	26.301	26.286	(1.000)	1125544		4.00000	
	79 Dibenzo(a,h)anthracene	278	29.233	29.202	(1.111)	1726526		6.00728	6.007
	90 N-Nitrosodimethylamine	74	4.732	4.724	(0.512)	683195		12.0418	12.04

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052308S.D
Lab Smp Id: BLA0685-BS2
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:40
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	321376	160688	642752	335662	4.45
27 Naphthalene-d8	1132931	566466	2265862	1201009	6.01
42 Acenaphthene-d10	561597	280799	1123194	587178	4.56
59 Phenanthrene-d10	1068222	534111	2136444	1118430	4.70
69 Chrysene-d12	997572	498786	1995144	1055166	5.77
77 Perylene-d12	1245490	622745	2490980	1125544	-9.63

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.74	0.06
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.51	23.01	24.01	23.53	0.07
77 Perylene-d12	26.29	25.79	26.79	26.30	0.06

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052308S.D

Lab ID: BLA0685-BS2
nt10.i, 20230305.b\SIM.b\SIMABN2.m,   05-MAR-2023 17:50

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.957	0.948	0.0095	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003052303S.D

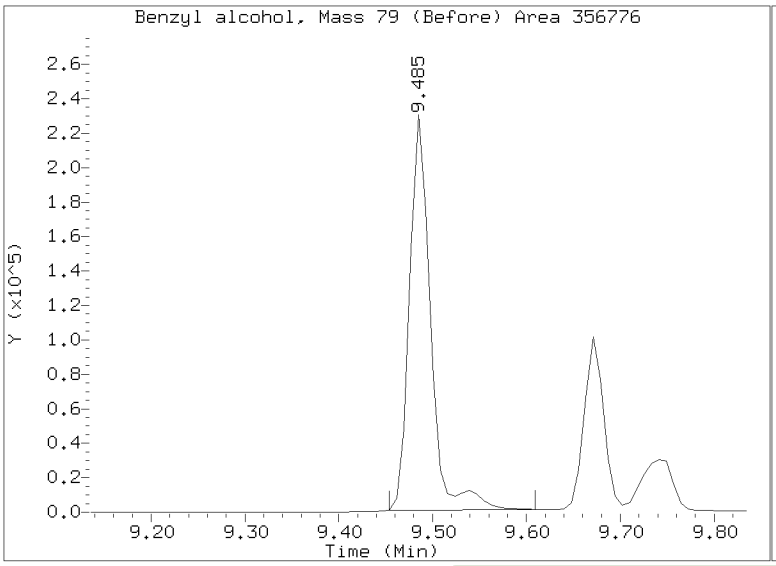
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

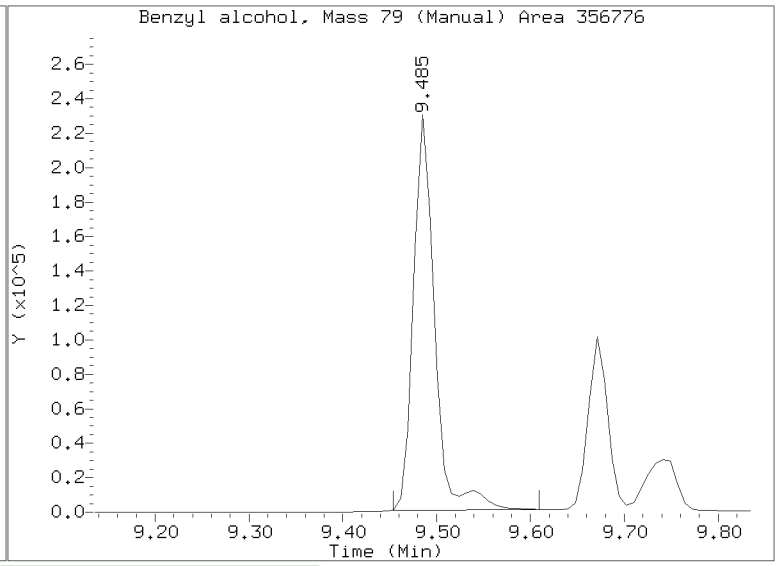
Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305.b/SIM.b/NT1003052308S.D
Injection Date: 05-MAR-2023 17:50
Lab ID:BLA0685-BS2 Client ID:
Report Date: 03/28/2023 11:05





APPROVED

By Deenay Dunmore at 12:03 pm, Mar 28, 2023

Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523095.D

Date : 05-MAR-2023 18:28

Client ID:

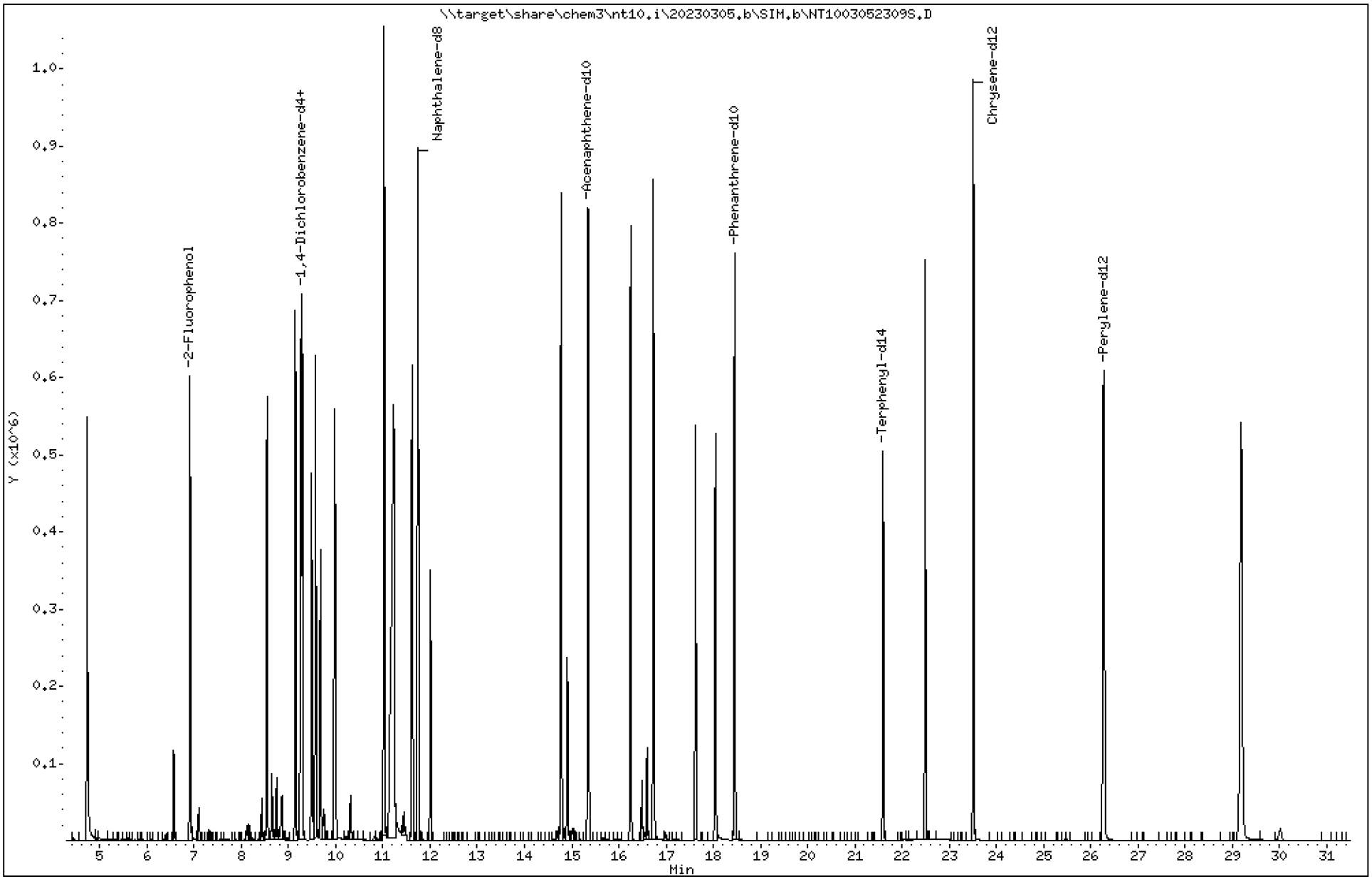
Sample Info: BLA0685-BSD2

Instrument: nt10.i

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

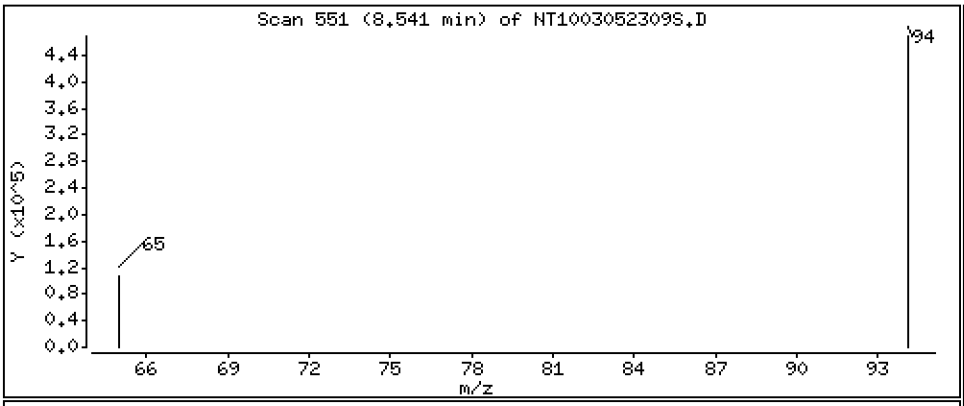
Operator: YZ

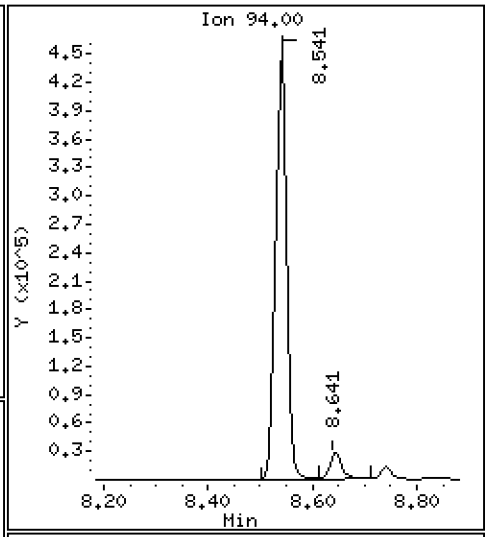
Column phase: ZB-5msi

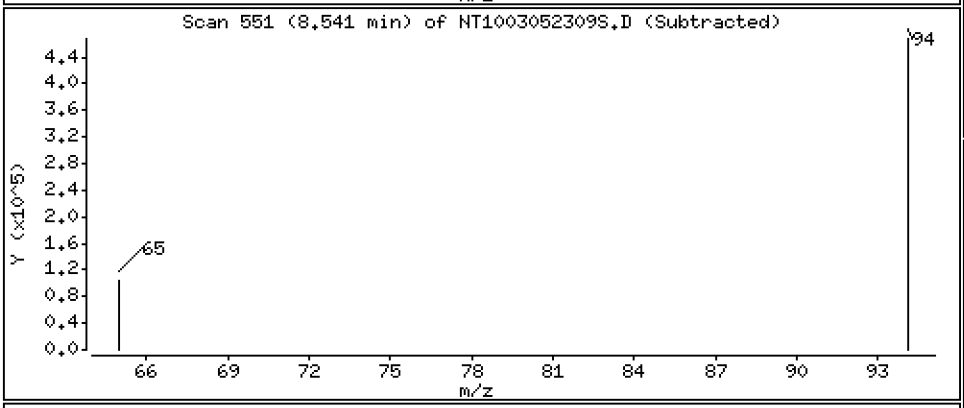
Column diameter: 0.25

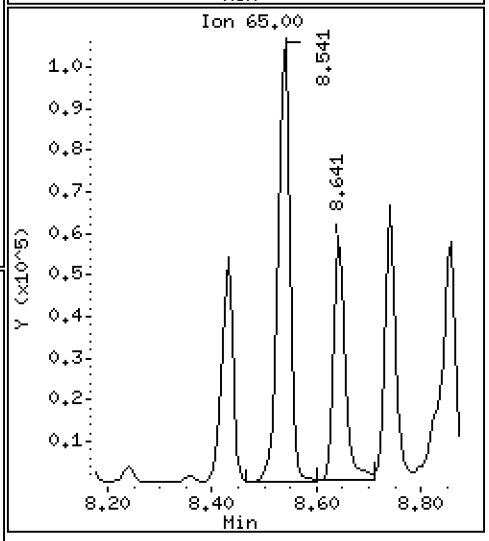
3 Phenol

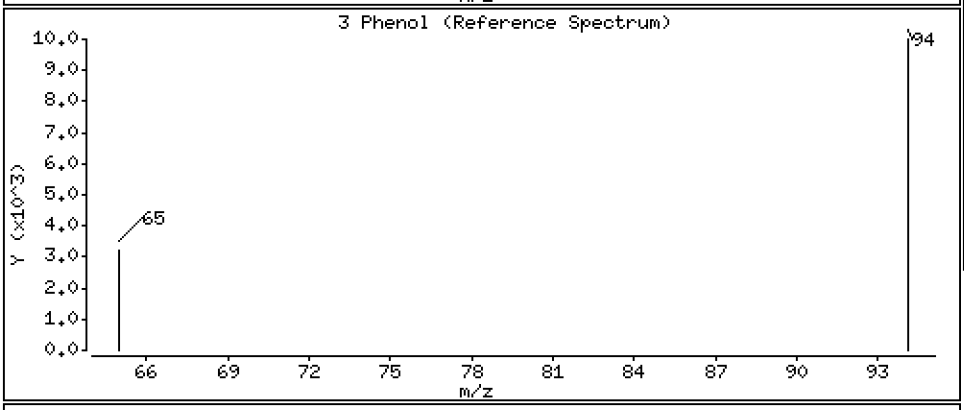
Concentration: 4.039 ug/mL

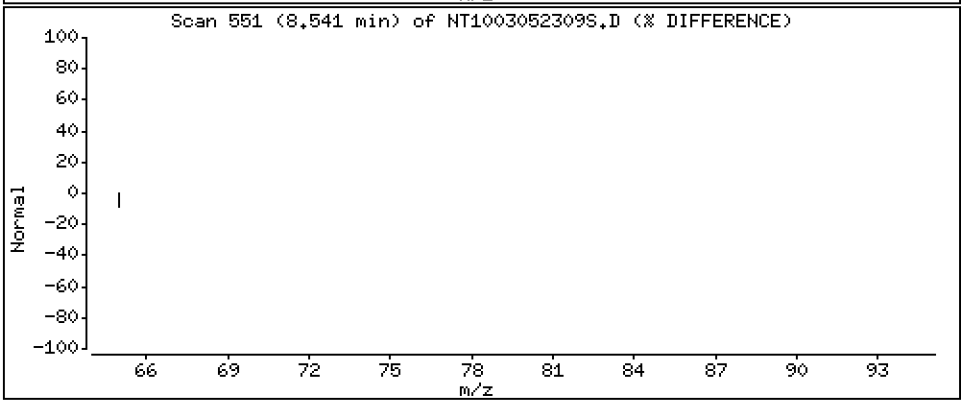












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

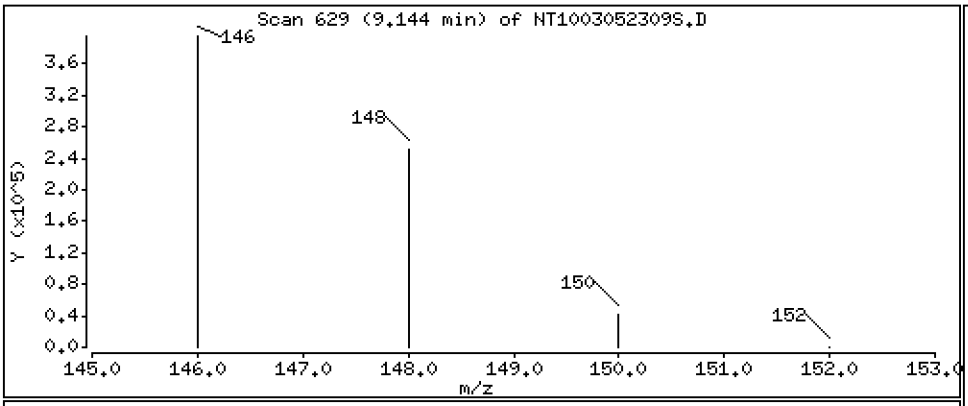
Operator: YZ

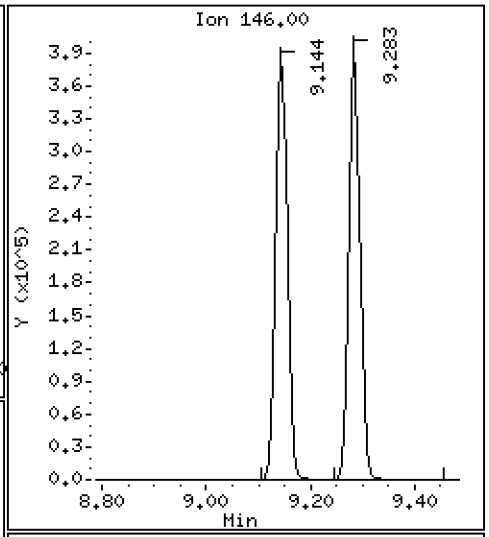
Column phase: ZB-5msi

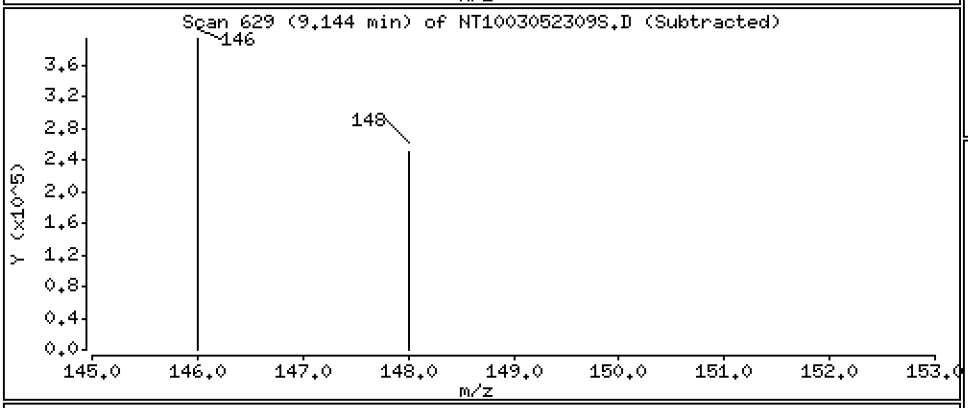
Column diameter: 0.25

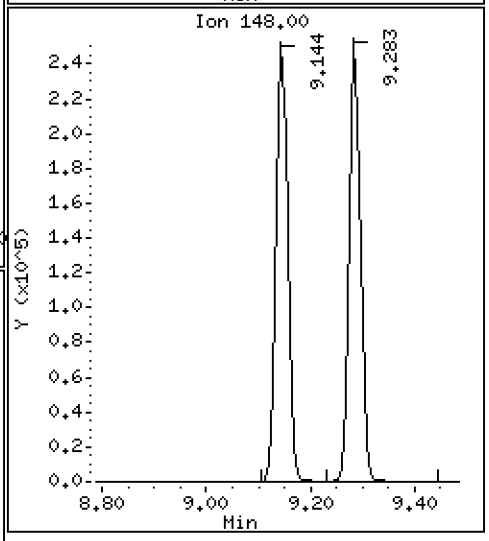
7 1,3-Dichlorobenzene

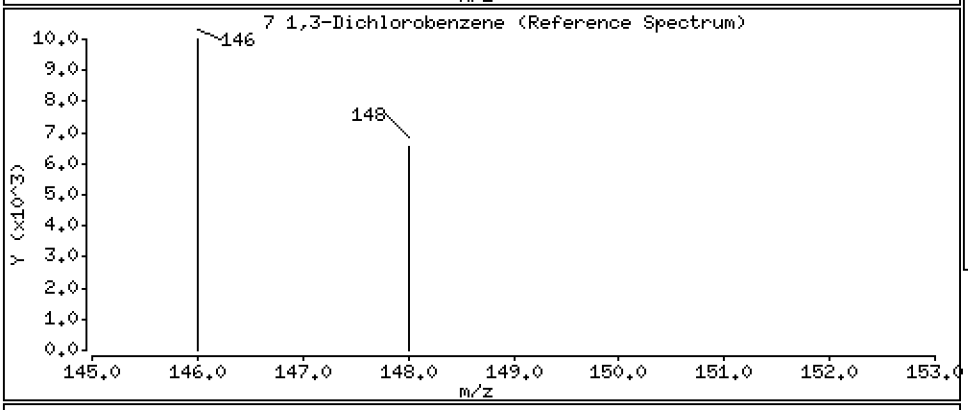
Concentration: 4.118 ug/mL

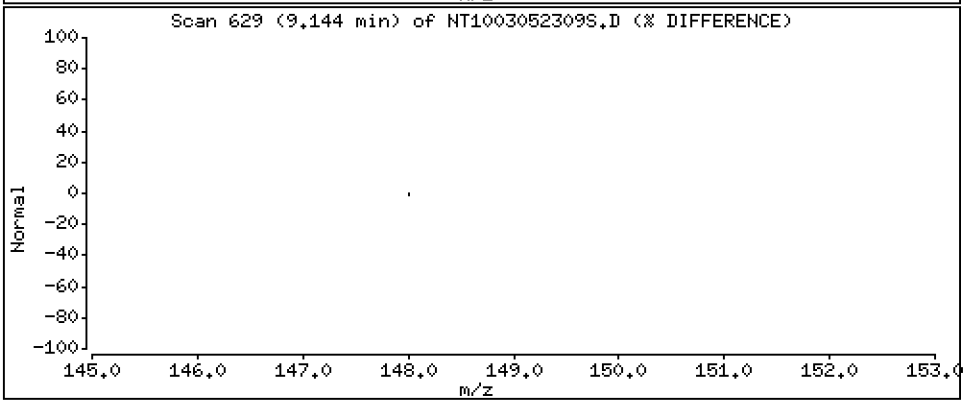












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

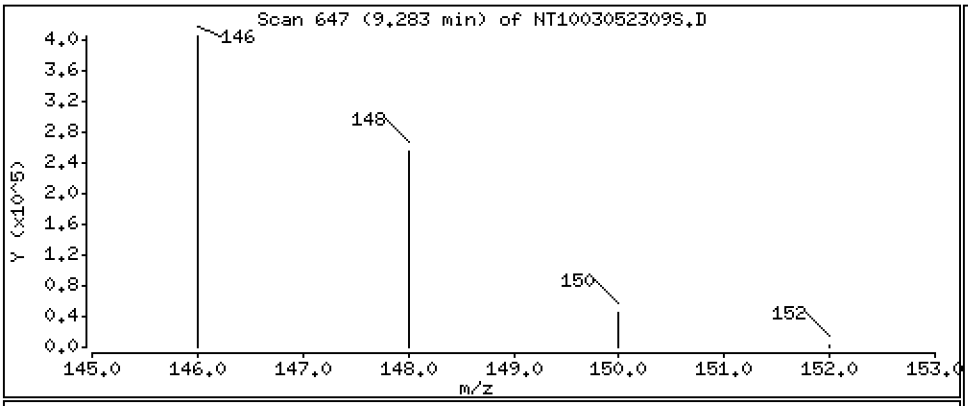
Operator: YZ

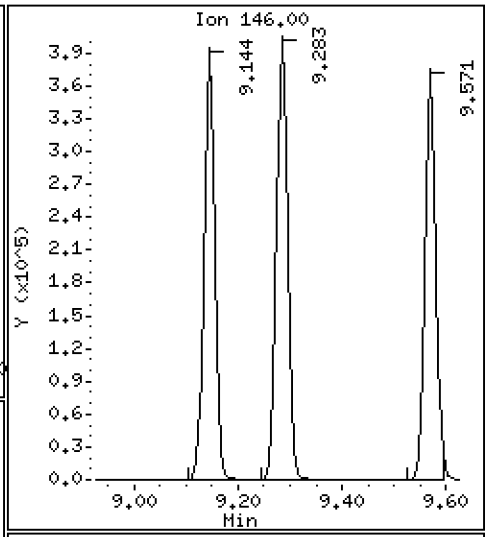
Column phase: ZB-5msi

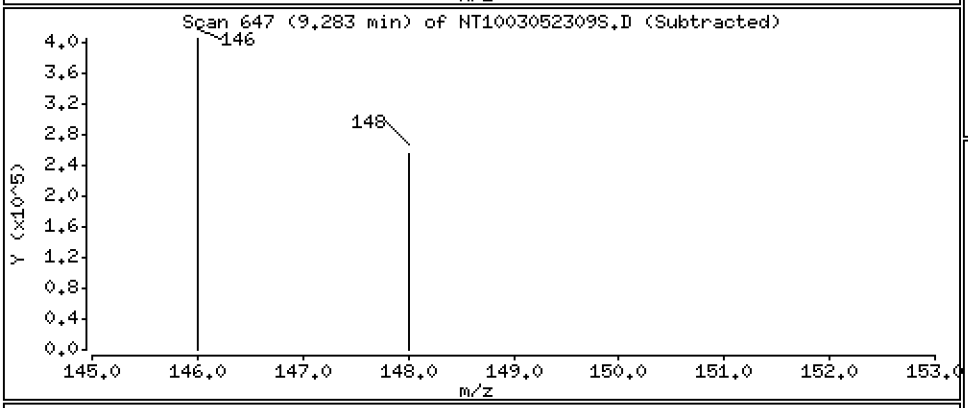
Column diameter: 0.25

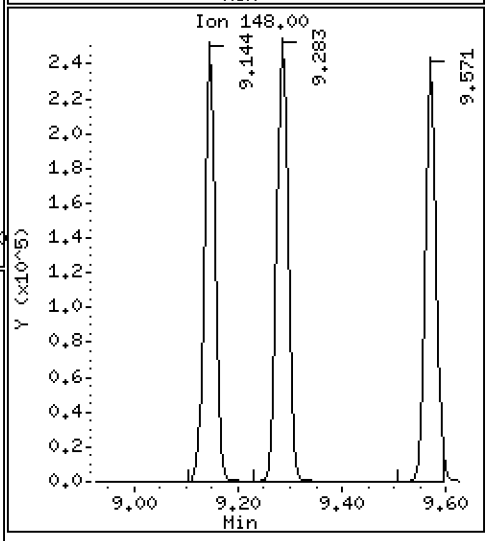
9 1,4-Dichlorobenzene

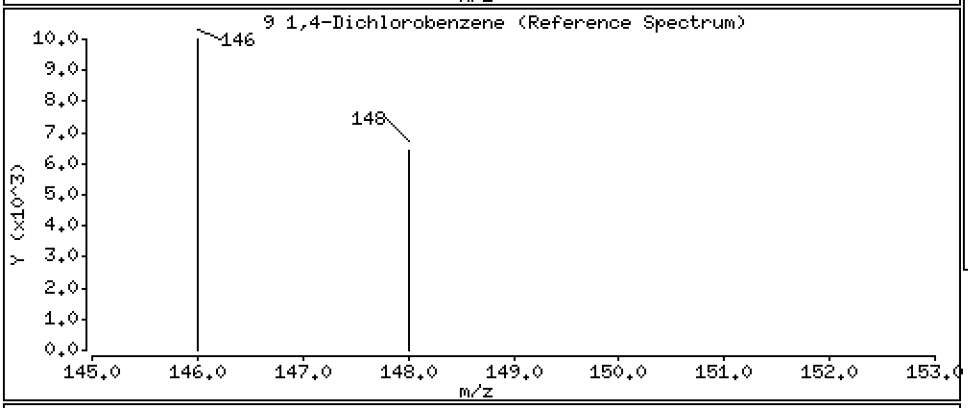
Concentration: 4.236 ug/mL

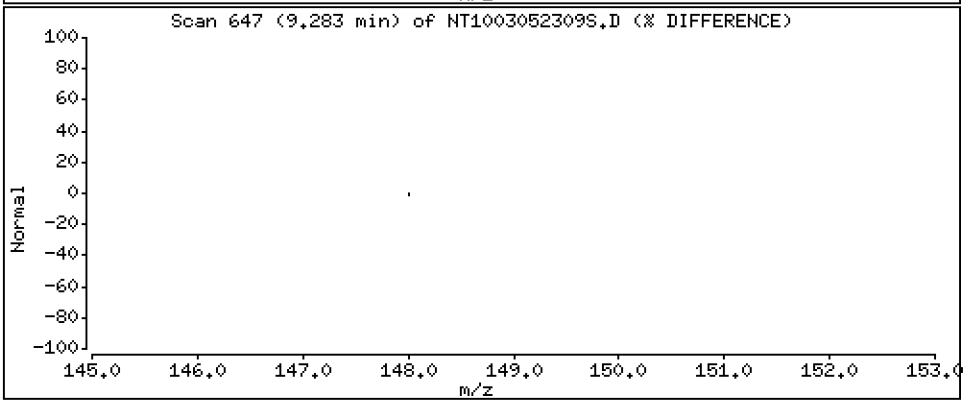












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

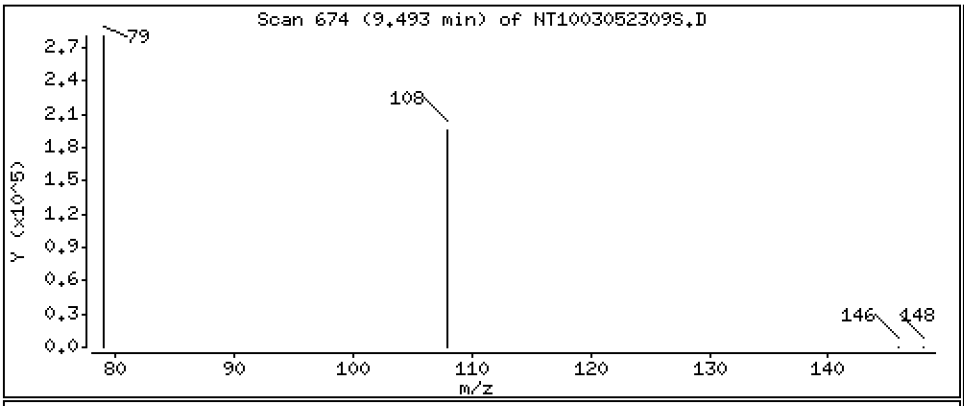
Operator: YZ

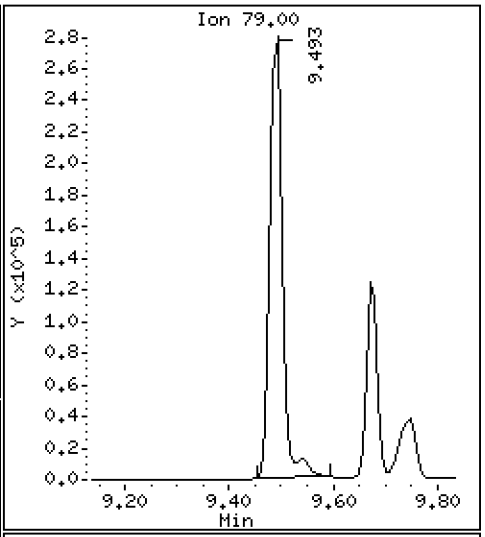
Column phase: ZB-5msi

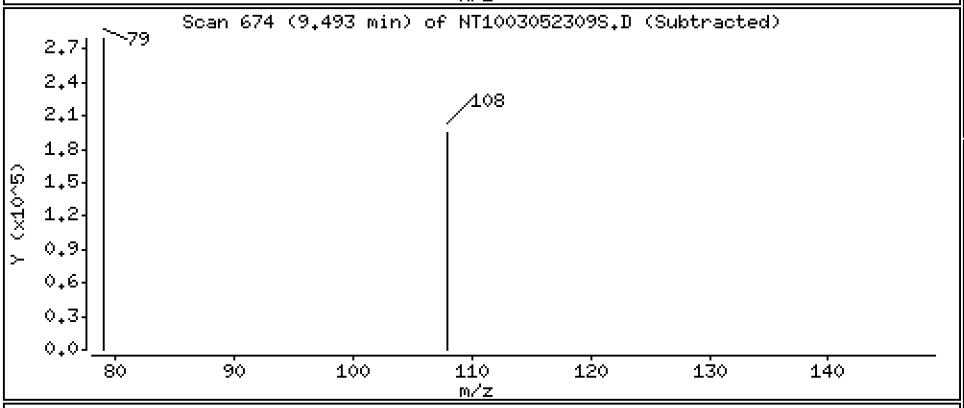
Column diameter: 0.25

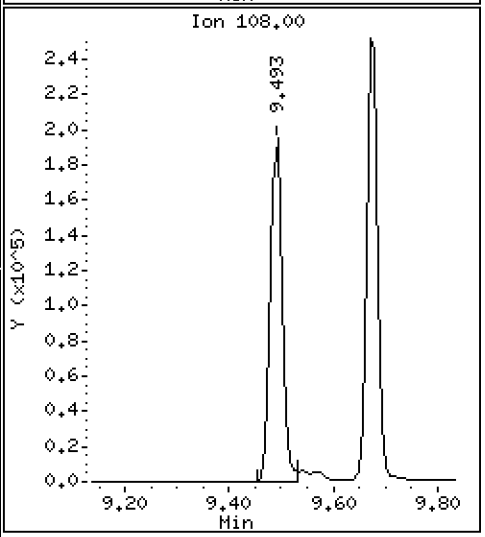
11 Benzyl alcohol

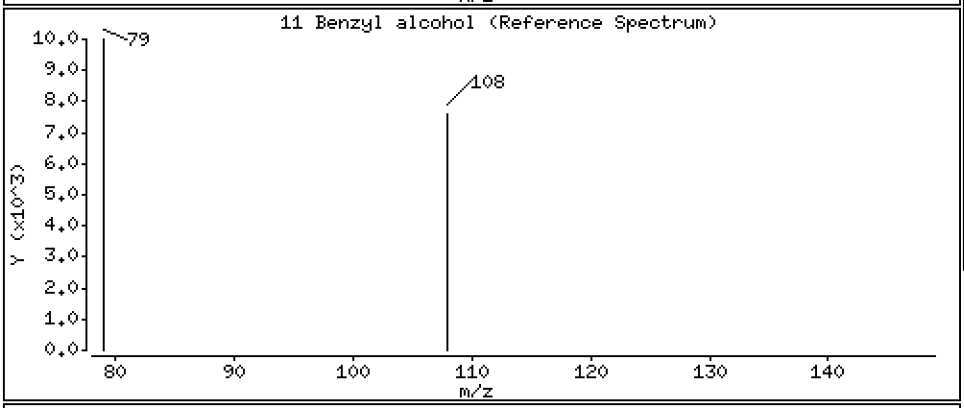
Concentration: 4.812 ug/mL

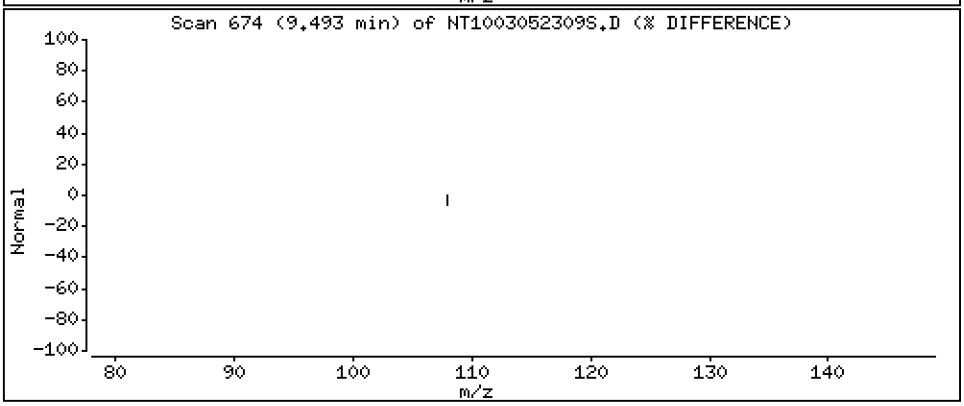












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

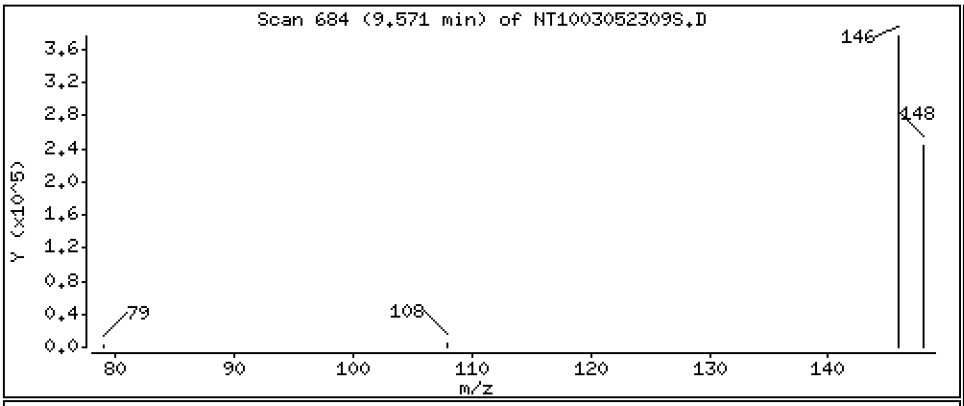
Operator: YZ

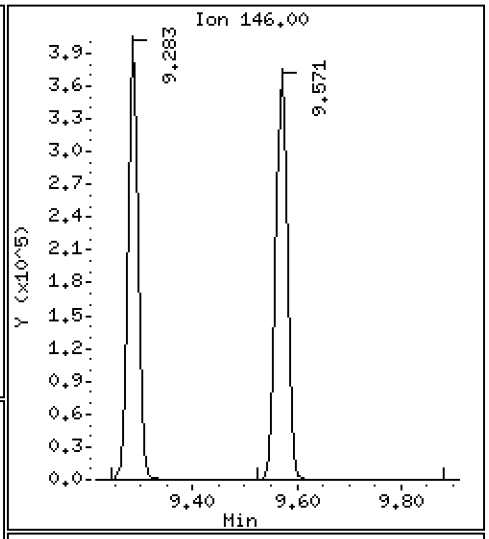
Column phase: ZB-5msi

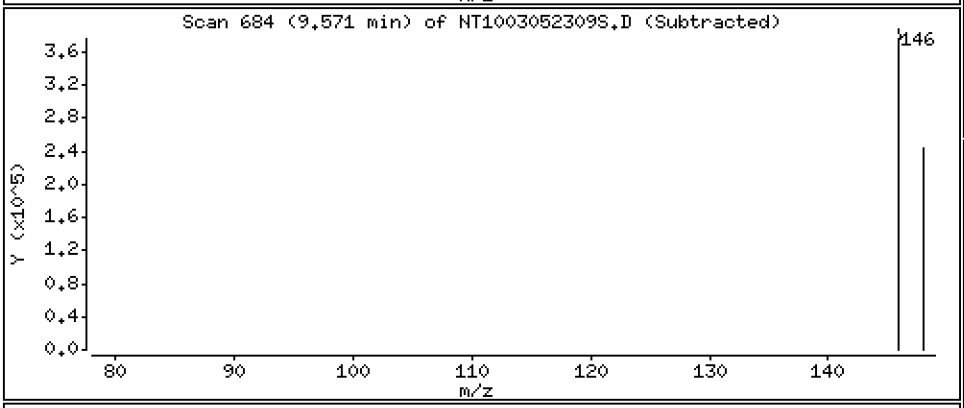
Column diameter: 0.25

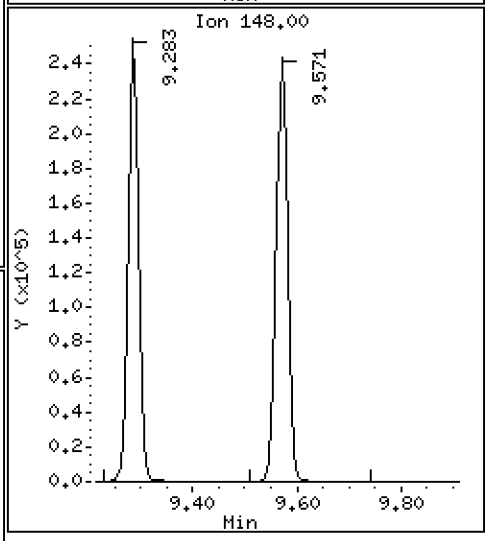
12 1,2-Dichlorobenzene

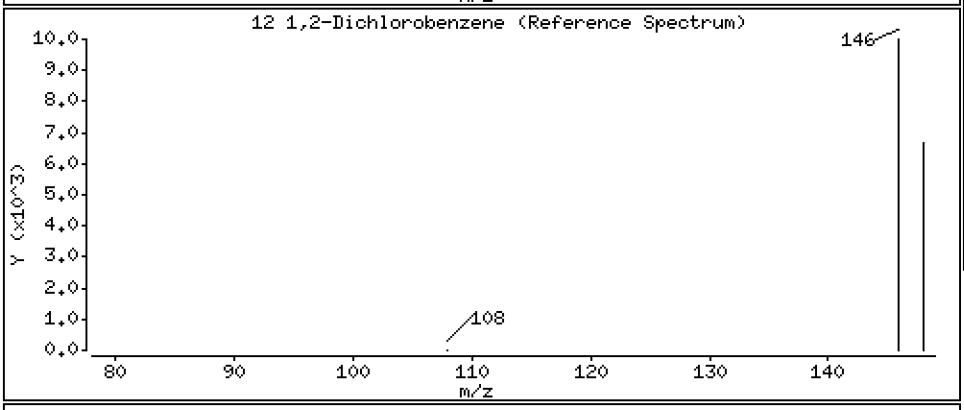
Concentration: 4.223 ug/mL

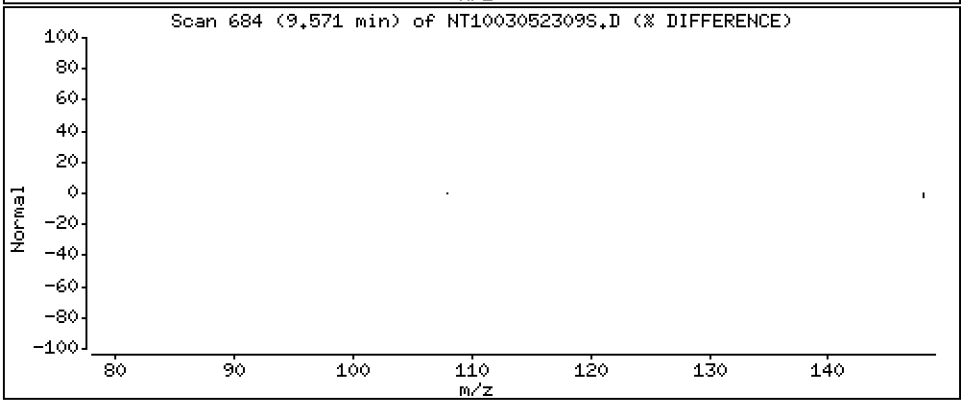












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

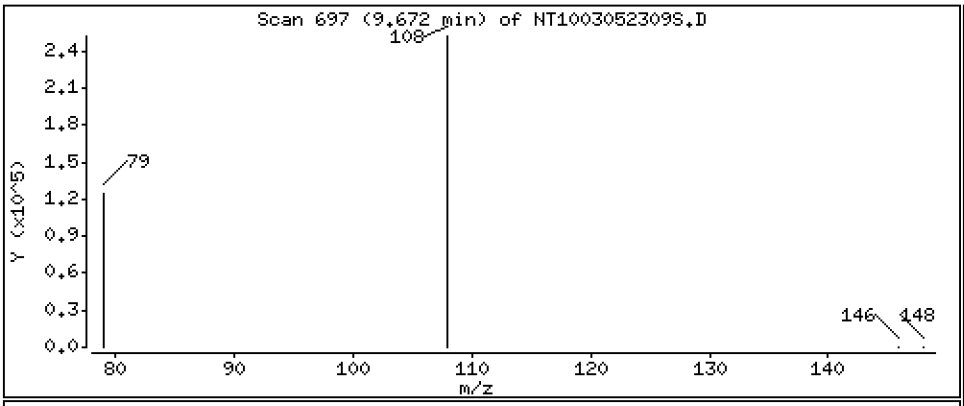
Operator: YZ

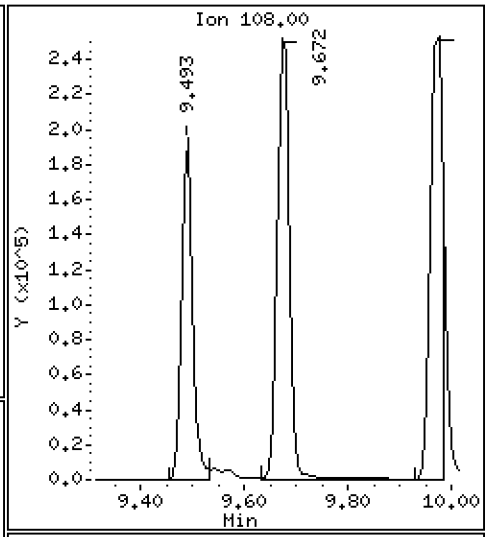
Column phase: ZB-5msi

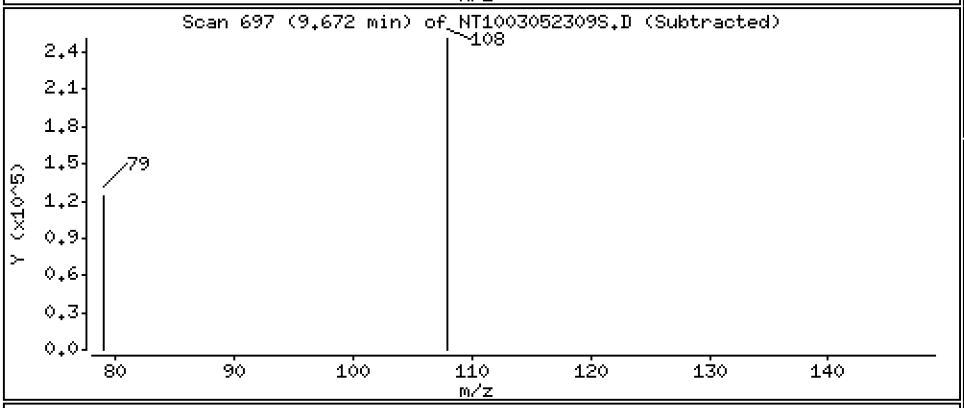
Column diameter: 0.25

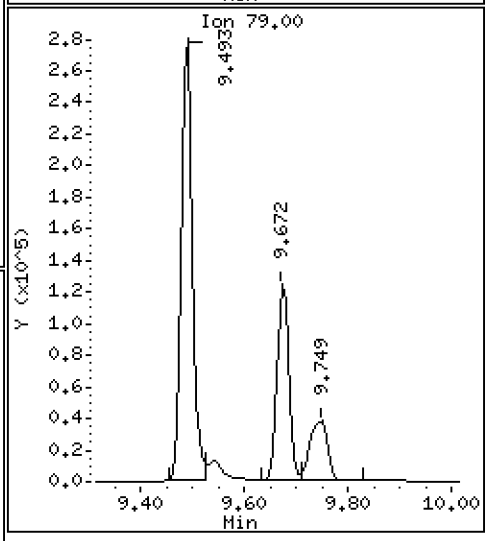
13 2-Methylphenol

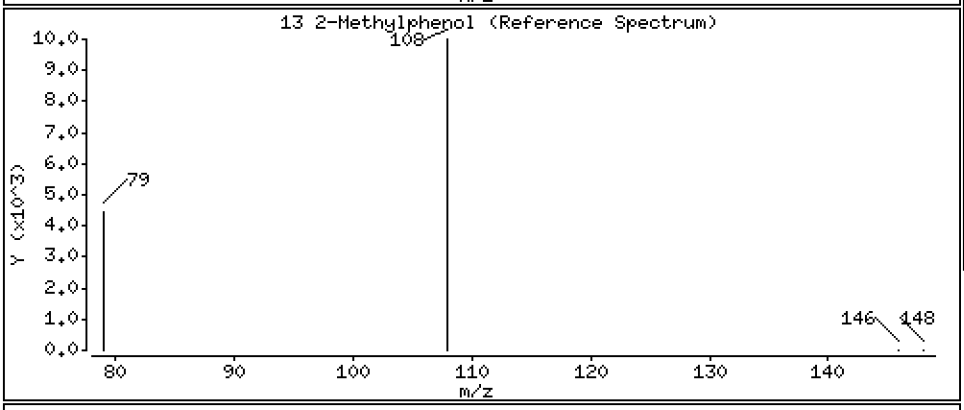
Concentration: 3.947 ug/mL

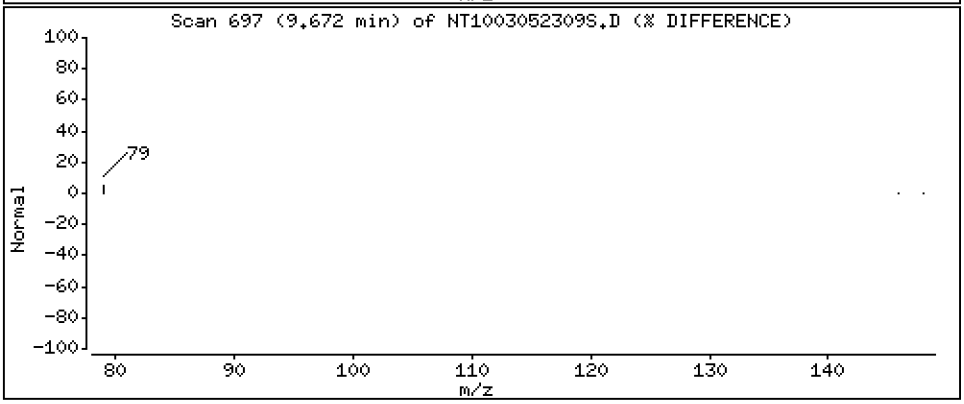












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

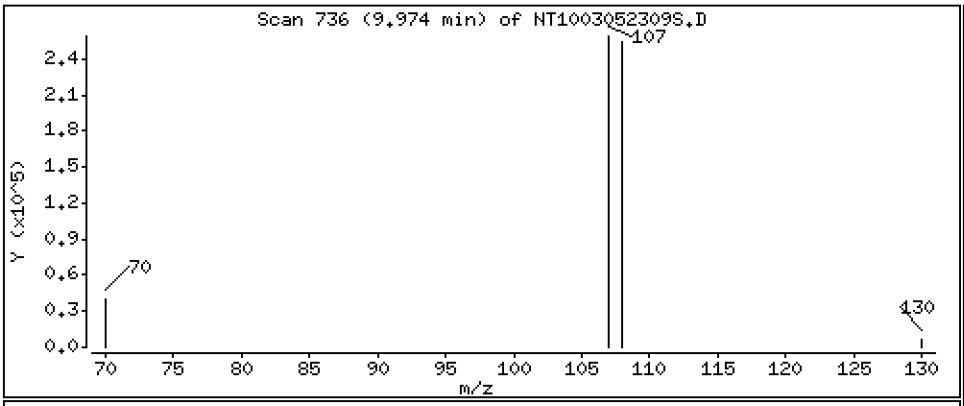
Operator: YZ

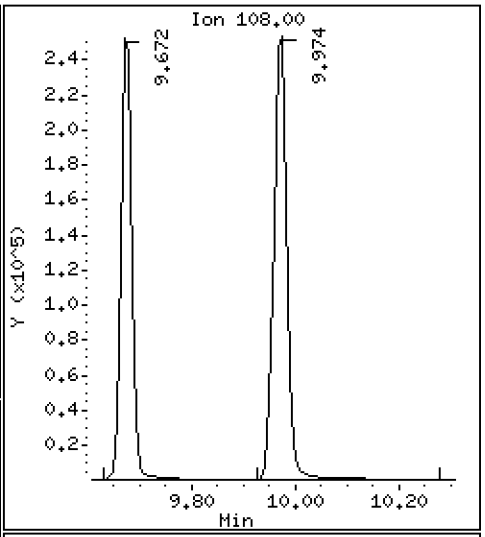
Column phase: ZB-5msi

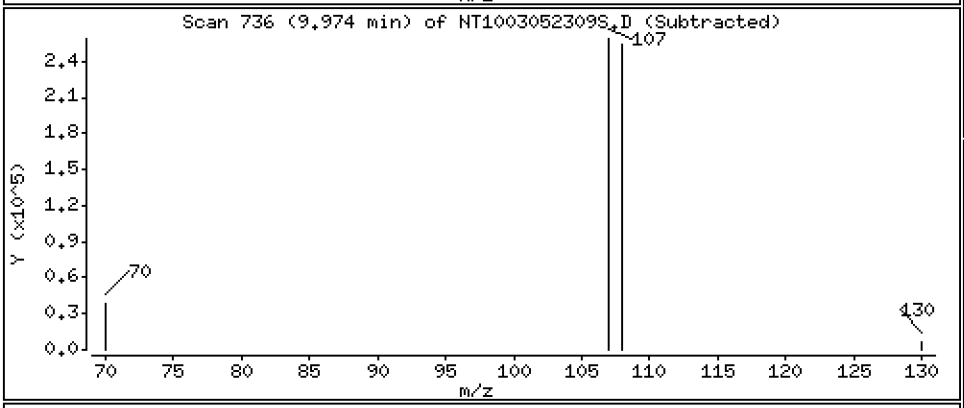
Column diameter: 0.25

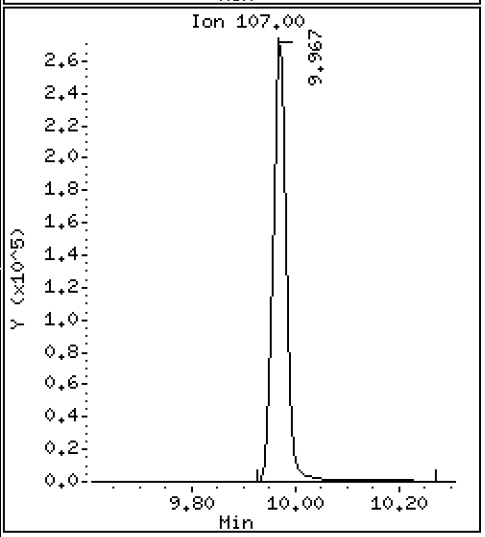
15 4-Methylphenol

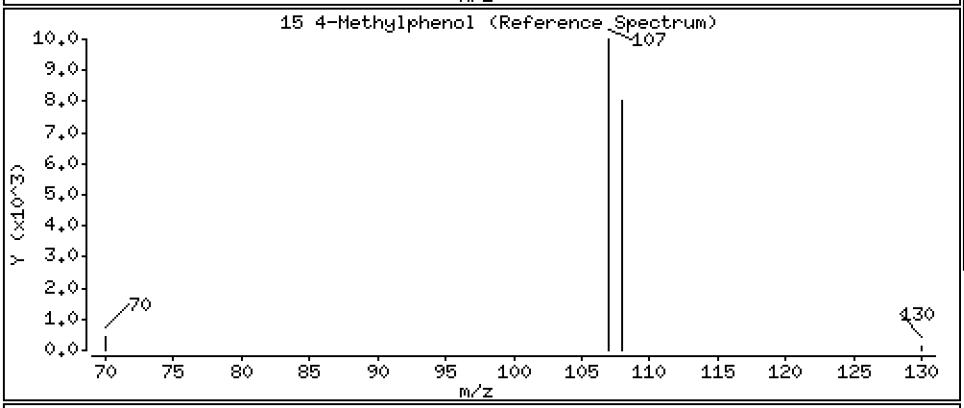
Concentration: 4.343 ug/mL

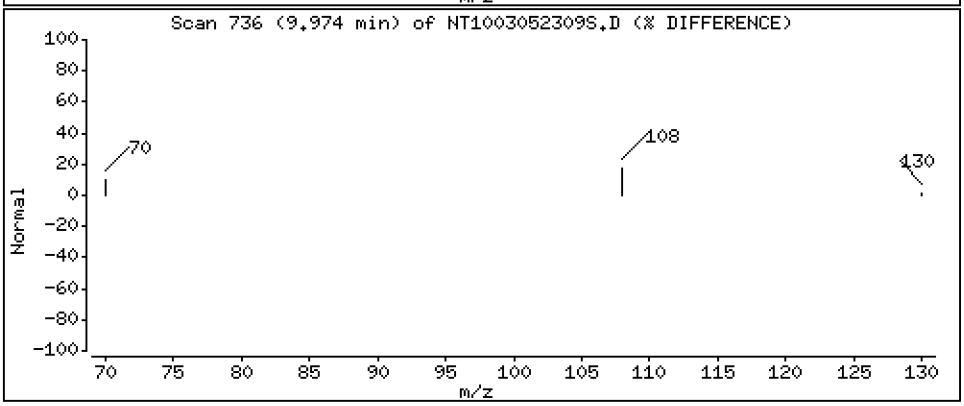












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

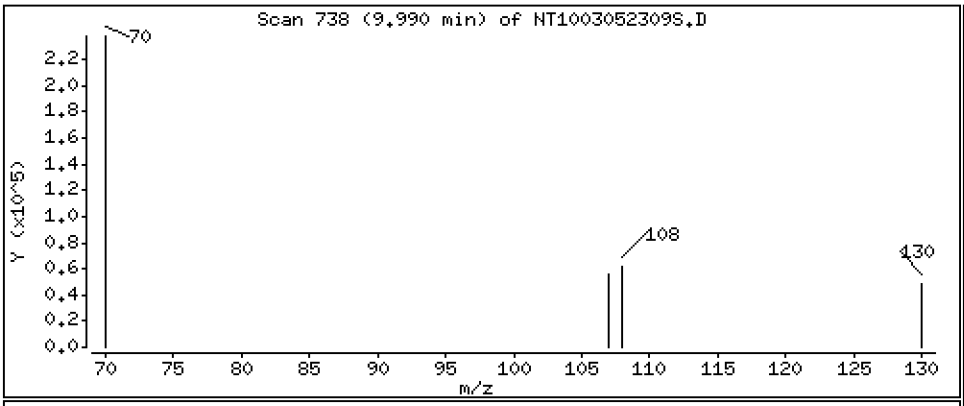
Operator: YZ

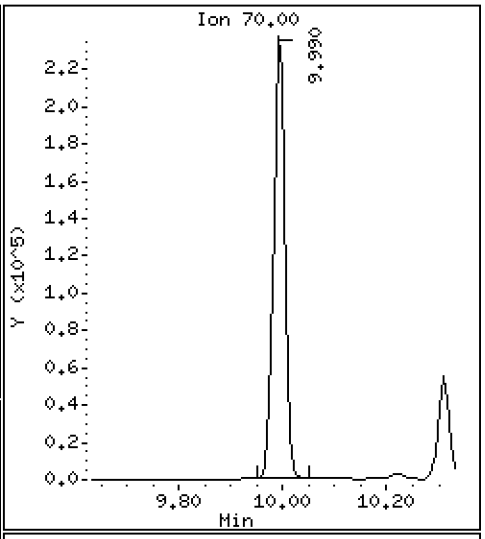
Column phase: ZB-5msi

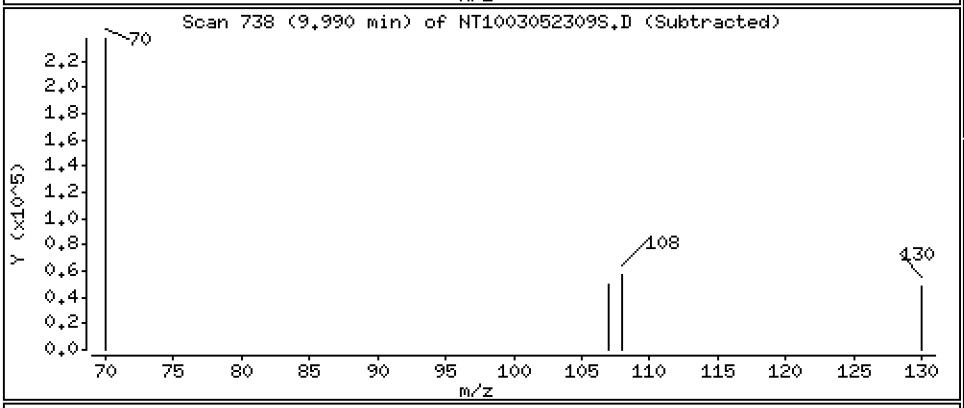
Column diameter: 0.25

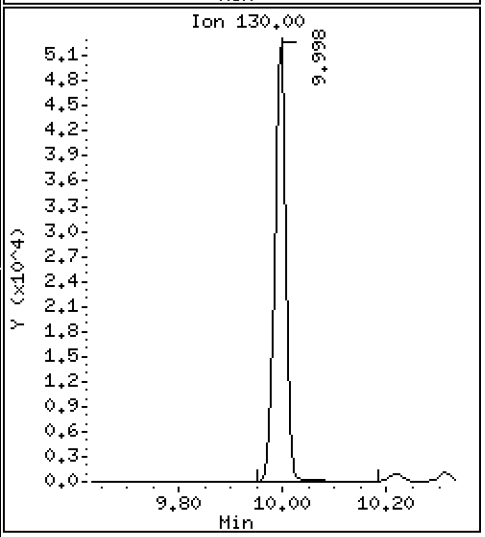
16 N-Nitroso-di-n-propylamine

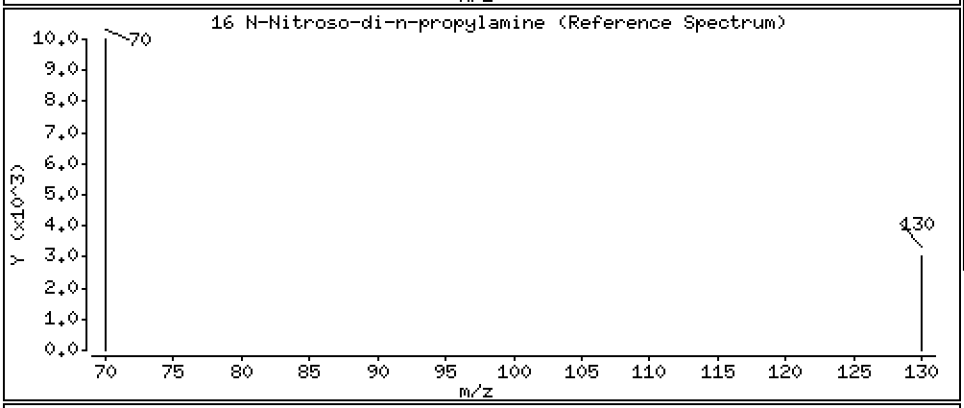
Concentration: 4.981 ug/mL

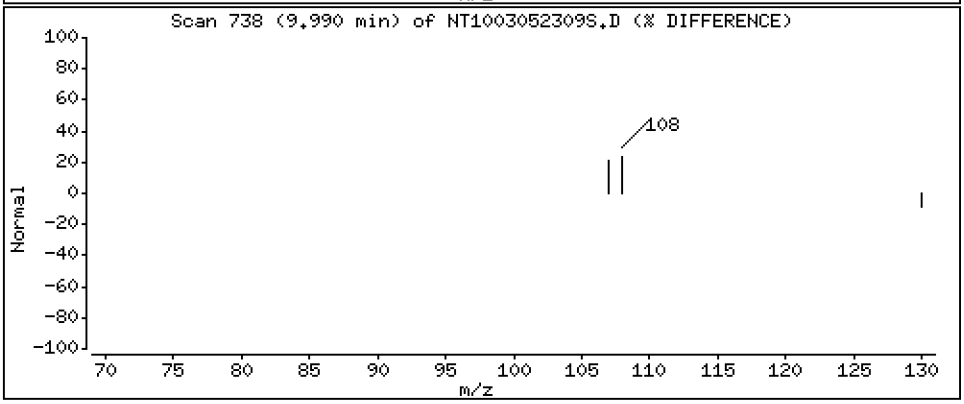












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

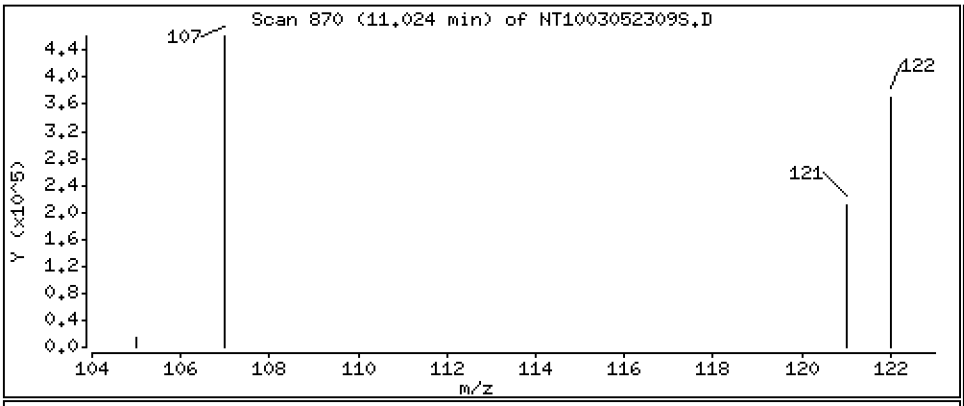
Operator: YZ

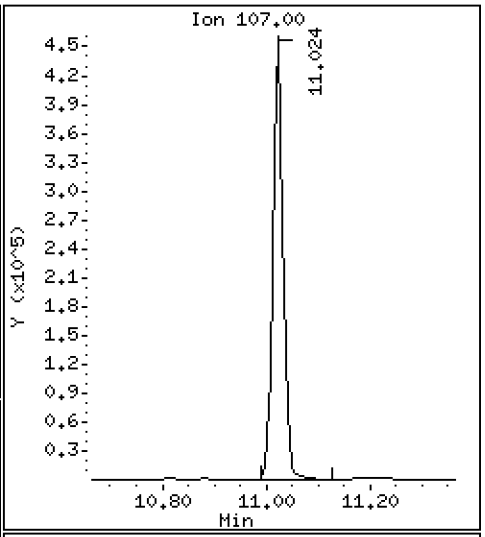
Column phase: ZB-5msi

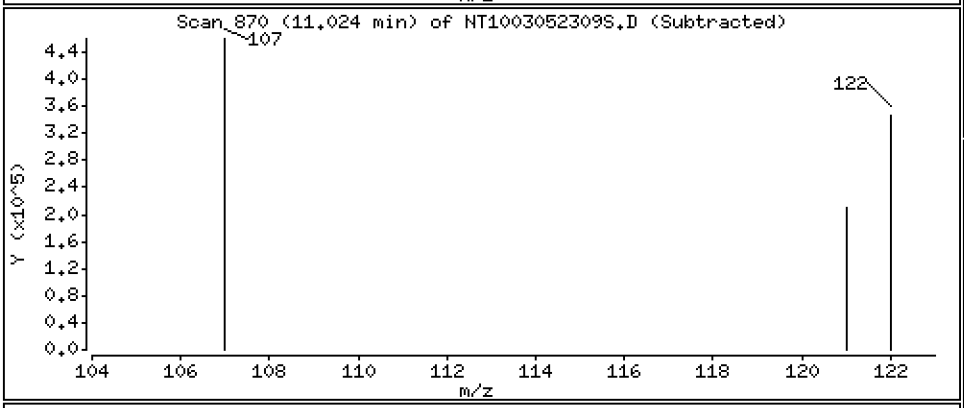
Column diameter: 0.25

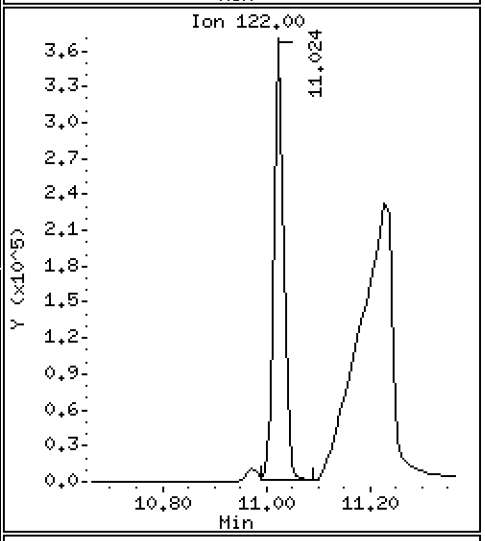
22 2,4-Dimethylphenol

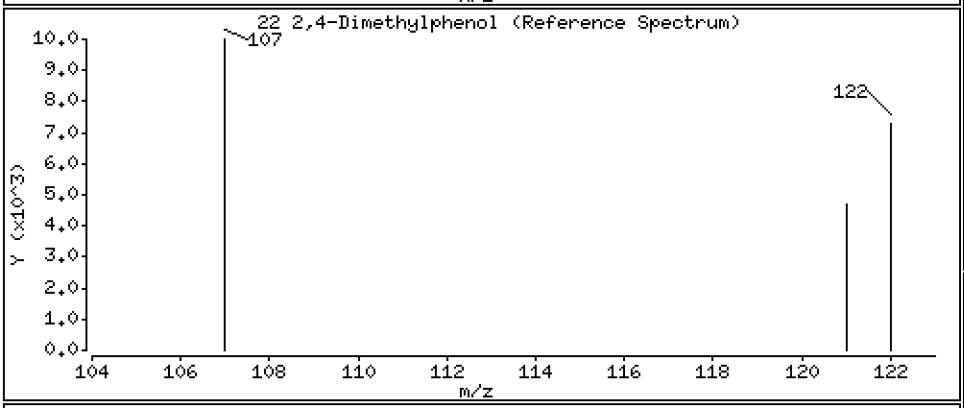
Concentration: 5.660 ug/mL

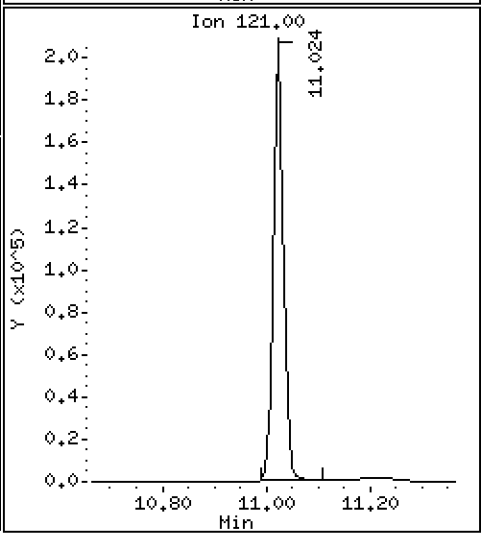


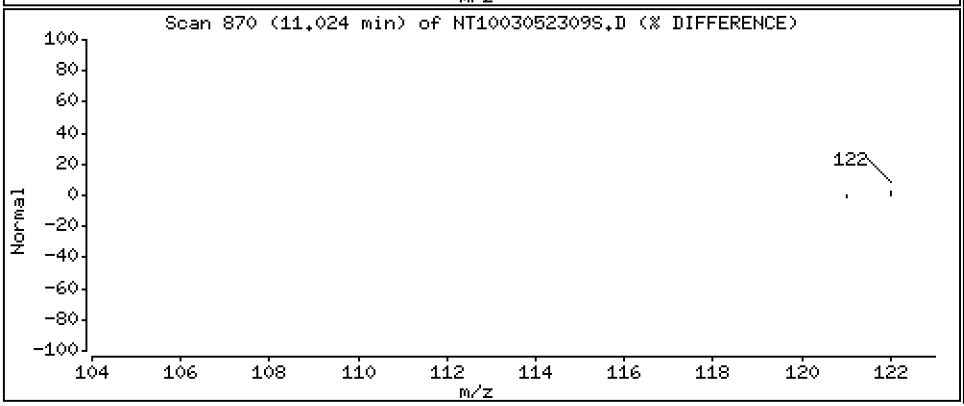












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

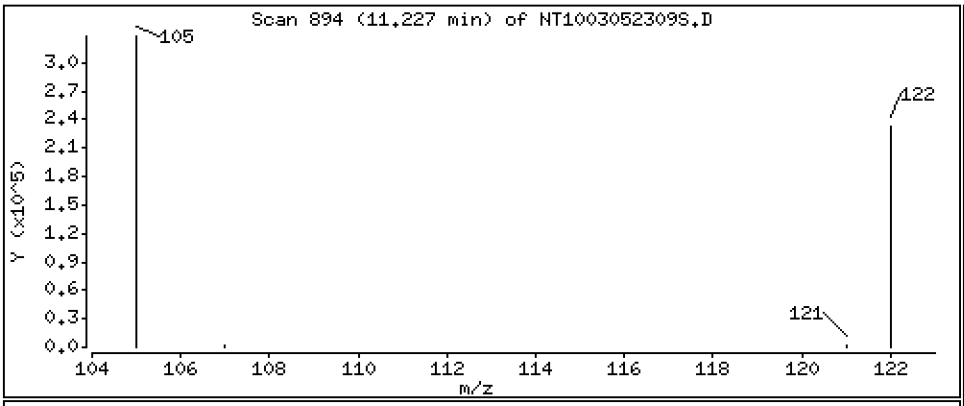
Operator: YZ

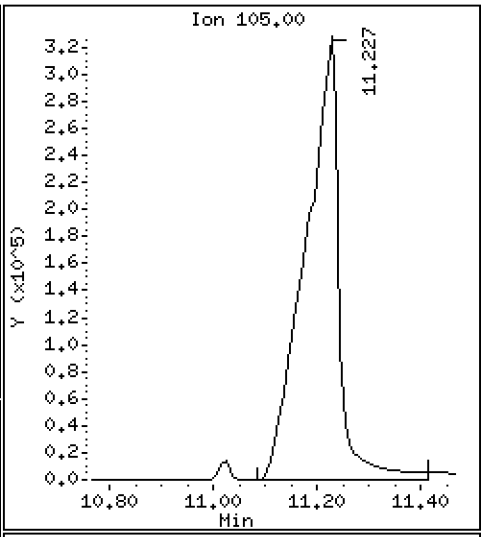
Column phase: ZB-5msi

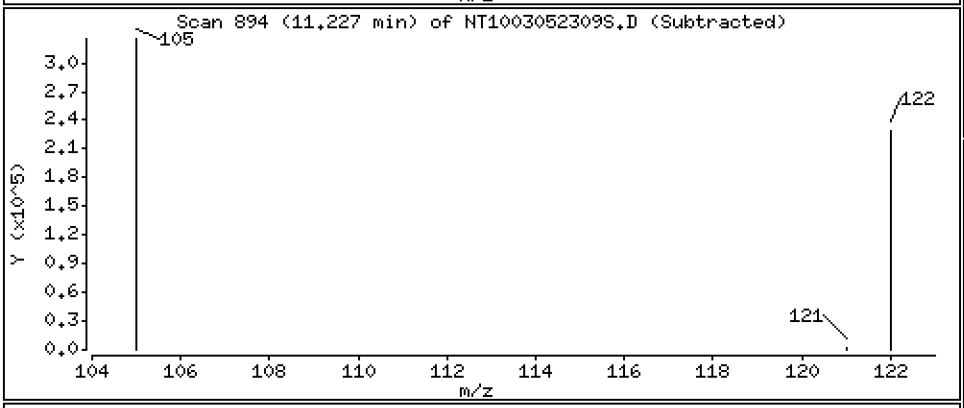
Column diameter: 0.25

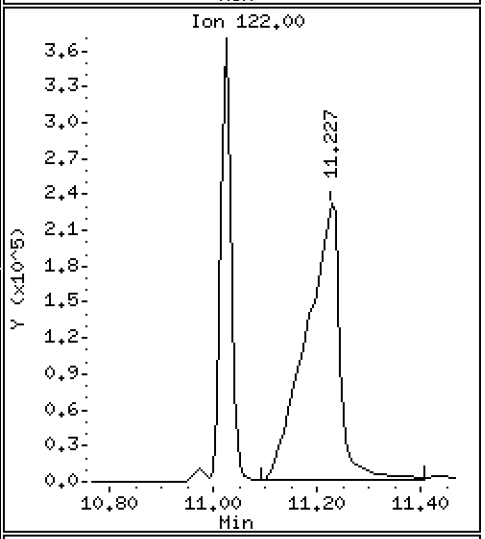
24 Benzoic acid

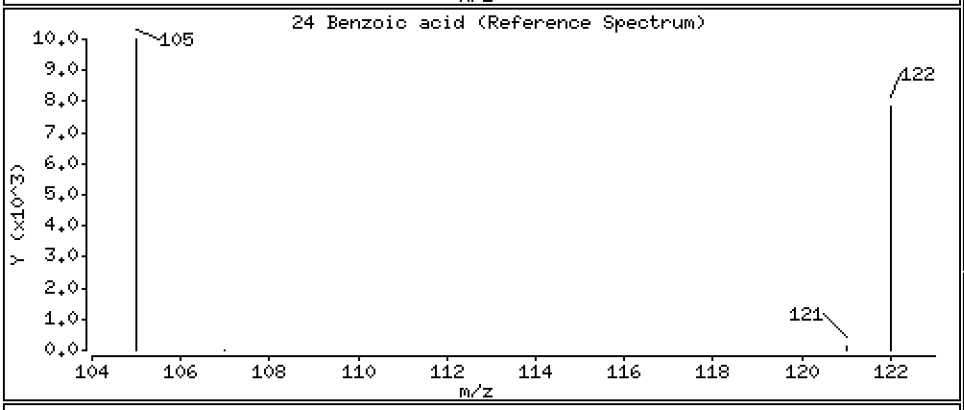
Concentration: 21.21 ug/mL

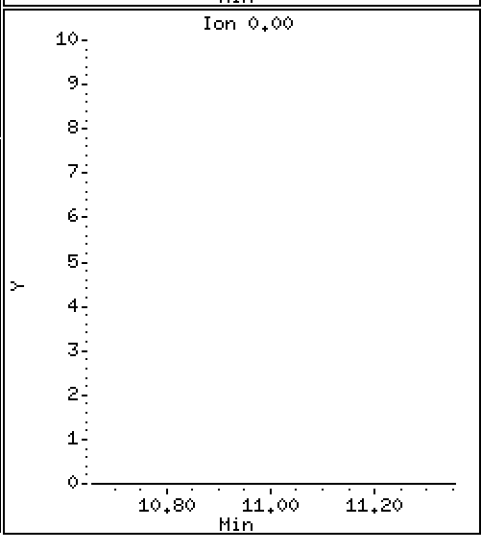


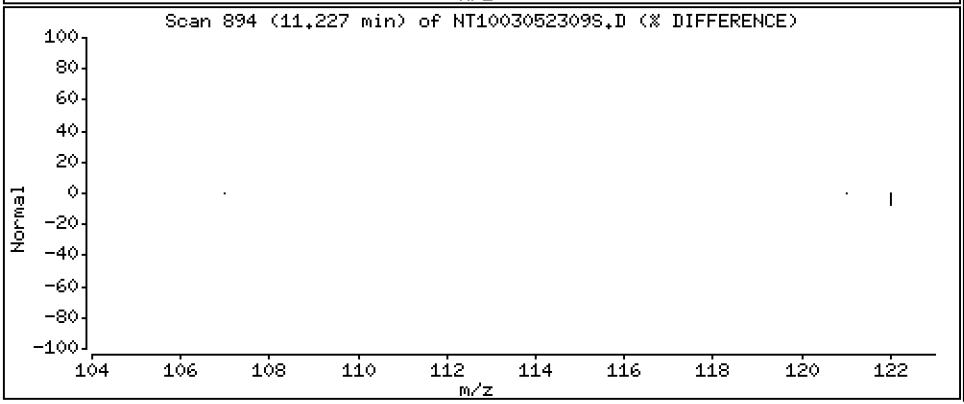












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

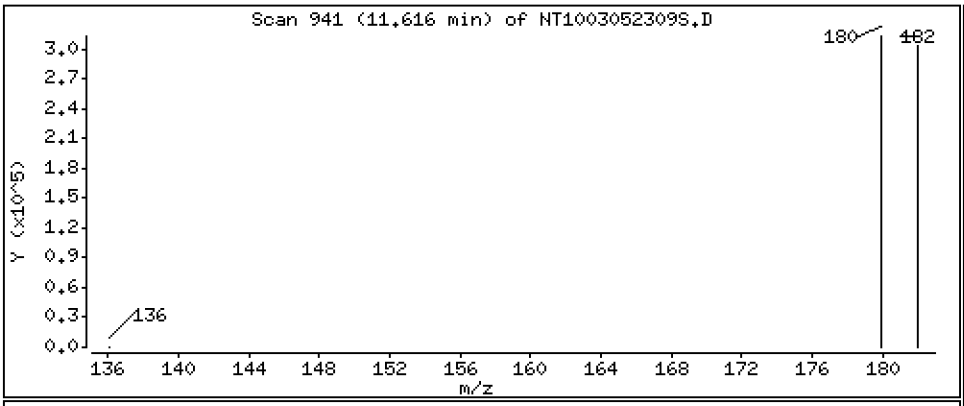
Operator: YZ

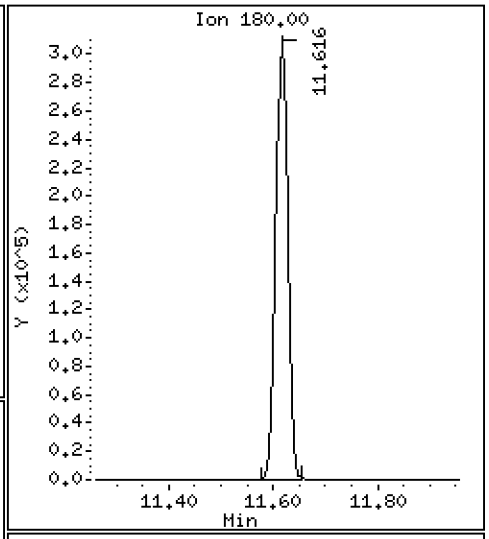
Column phase: ZB-5msi

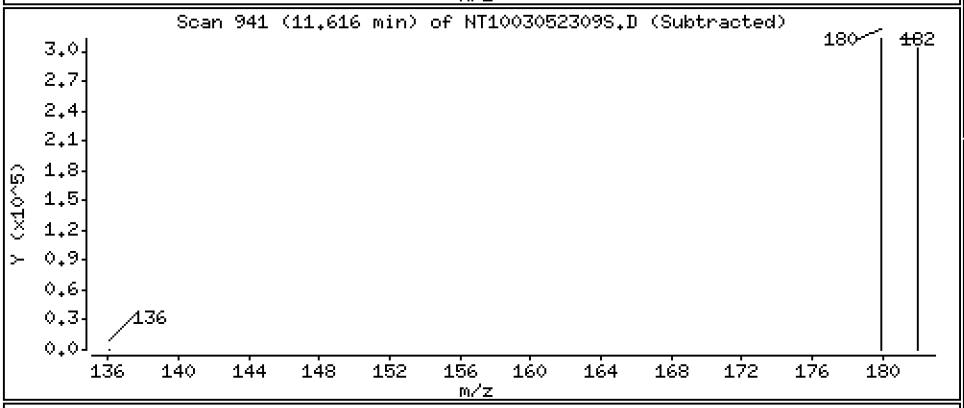
Column diameter: 0.25

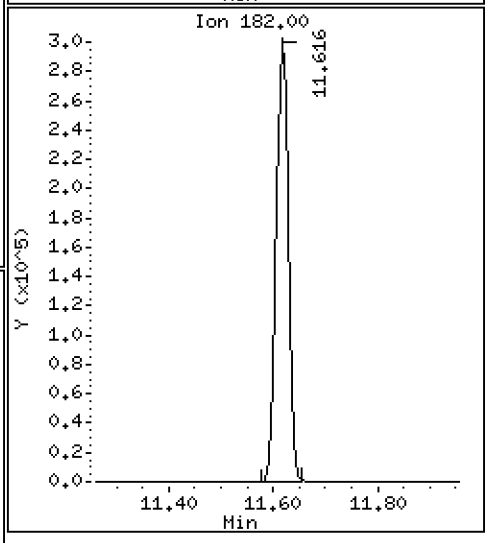
26 1,2,4-Trichlorobenzene

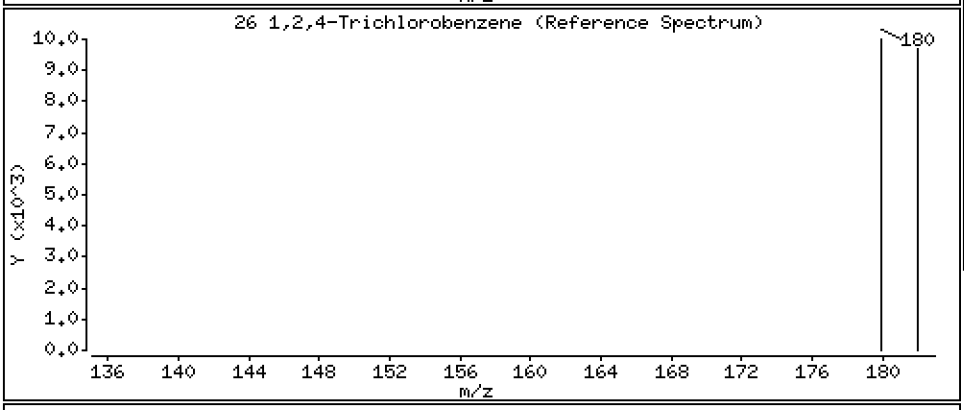
Concentration: 4.904 ug/mL

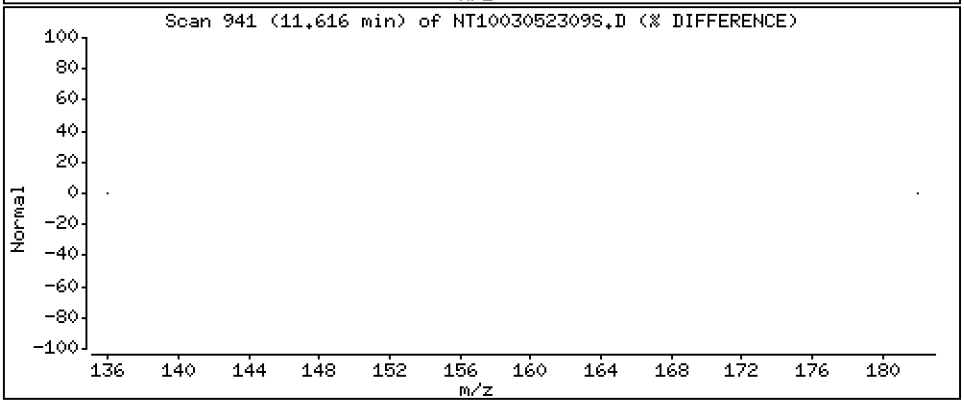












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

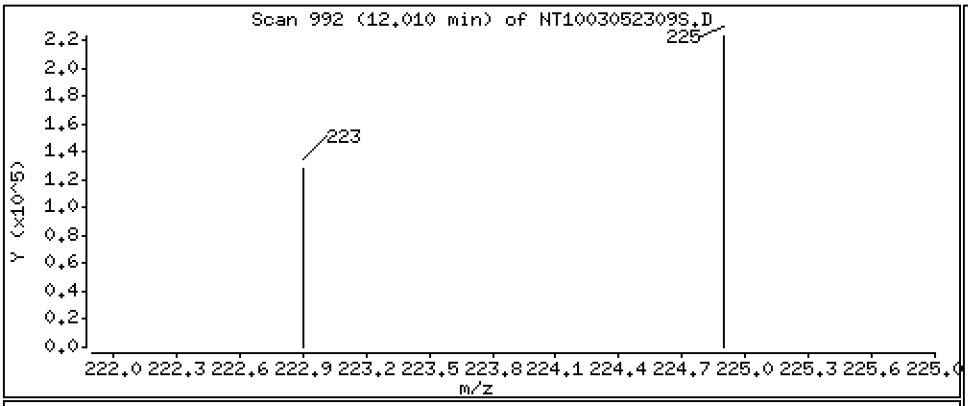
Operator: YZ

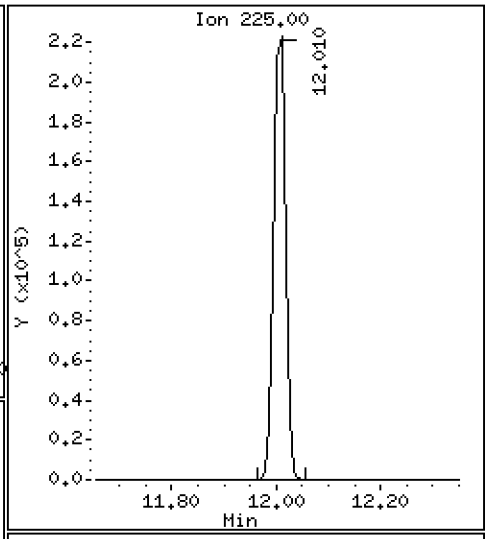
Column phase: ZB-5msi

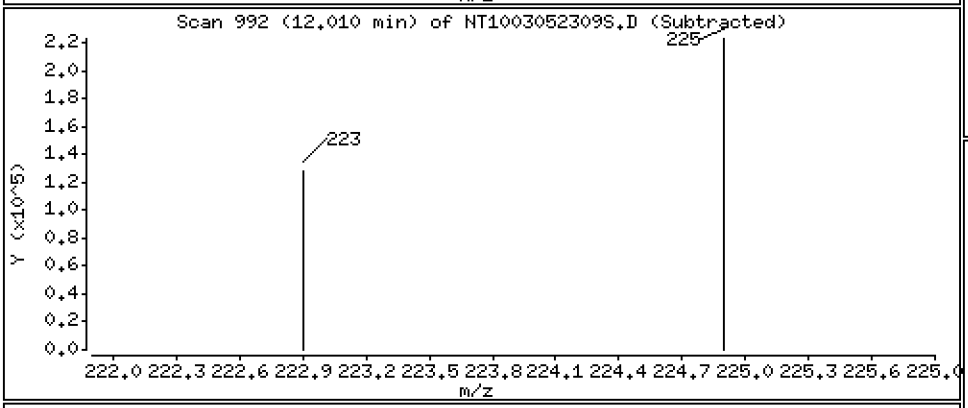
Column diameter: 0.25

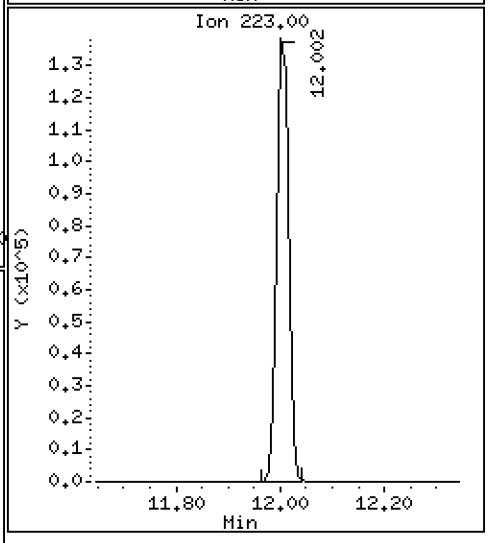
30 Hexachlorobutadiene

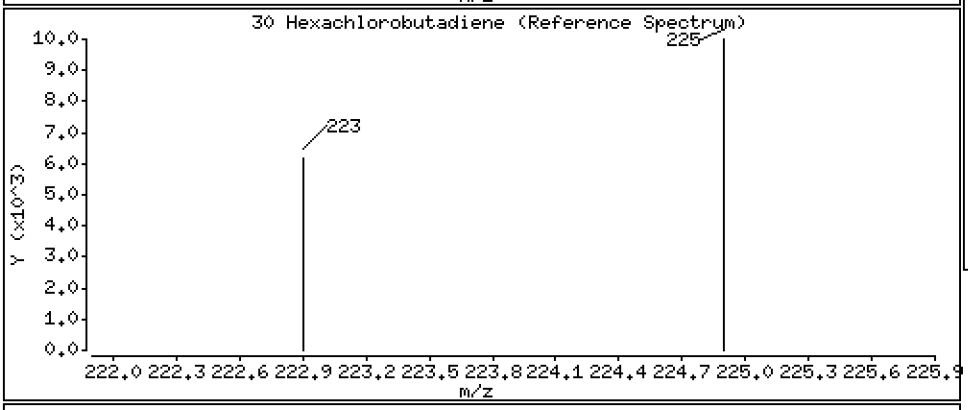
Concentration: 4.892 ug/mL

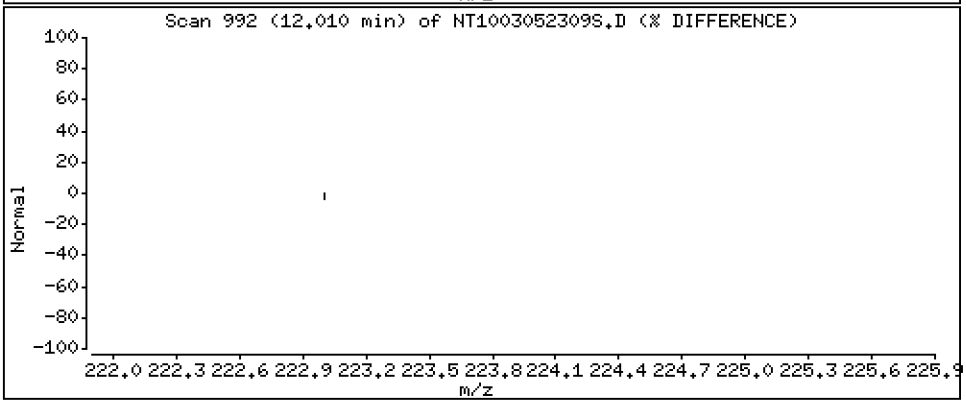












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

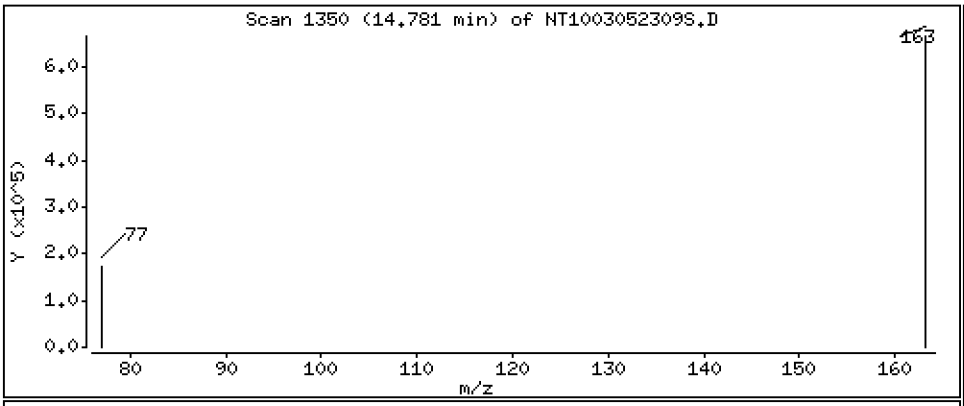
Operator: YZ

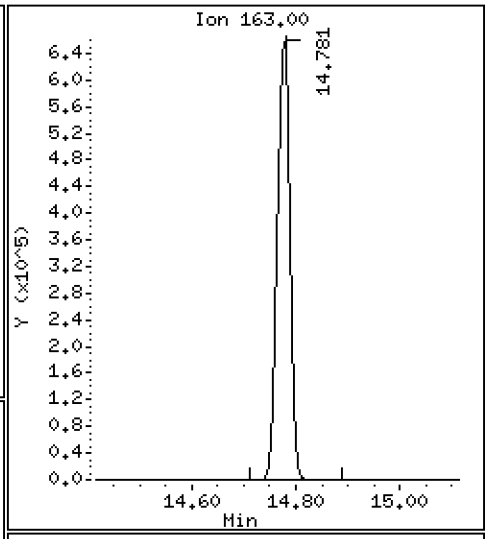
Column phase: ZB-5msi

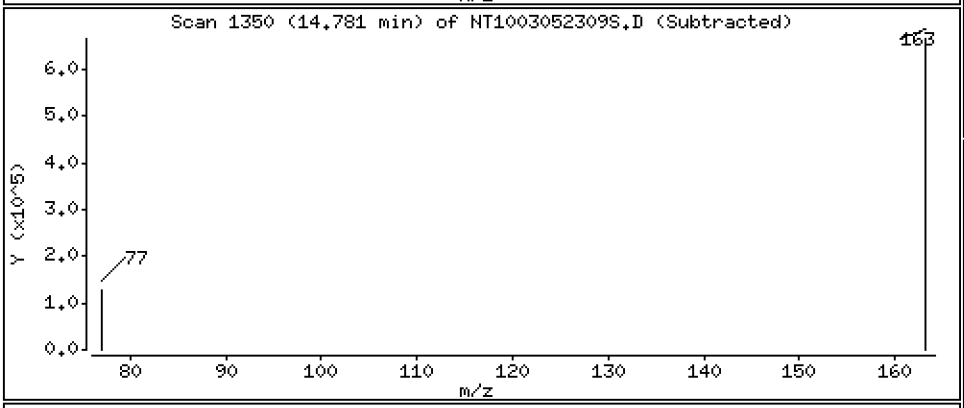
Column diameter: 0.25

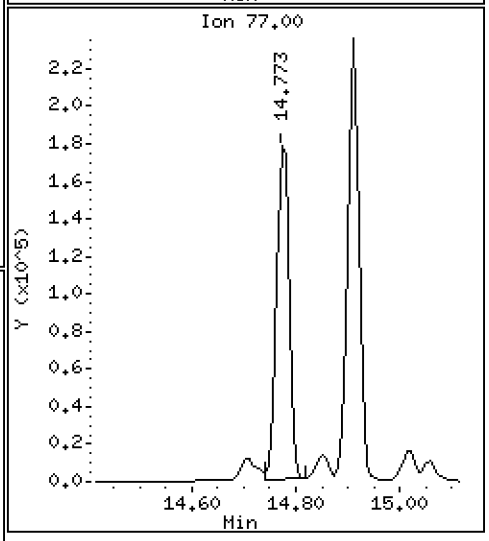
39 Dimethylphthalate

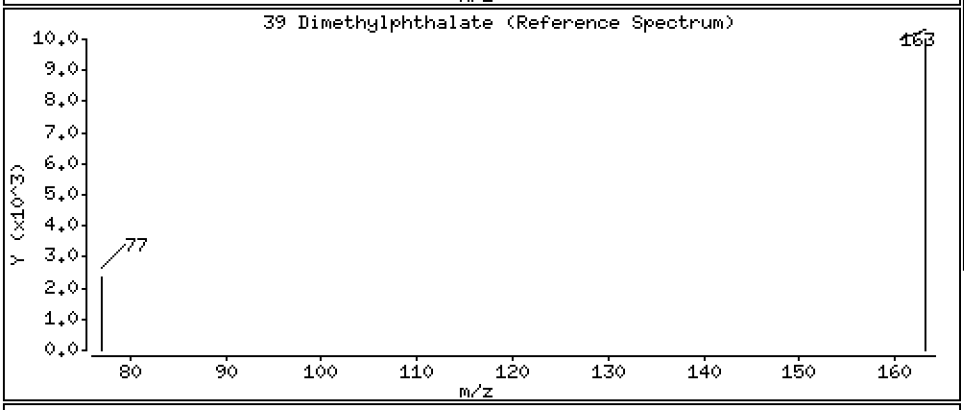
Concentration: 5.090 ug/mL

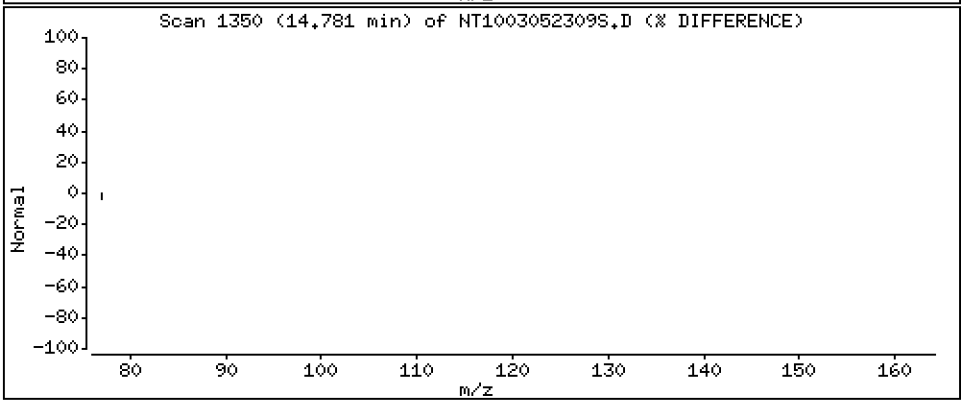












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

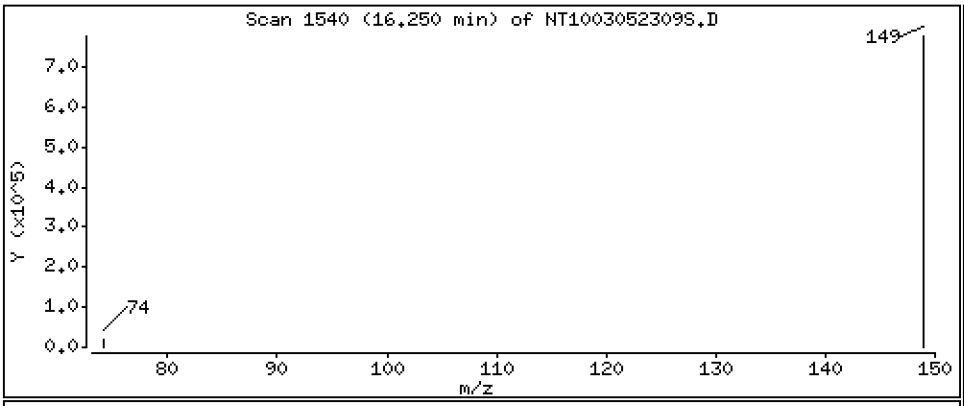
Operator: YZ

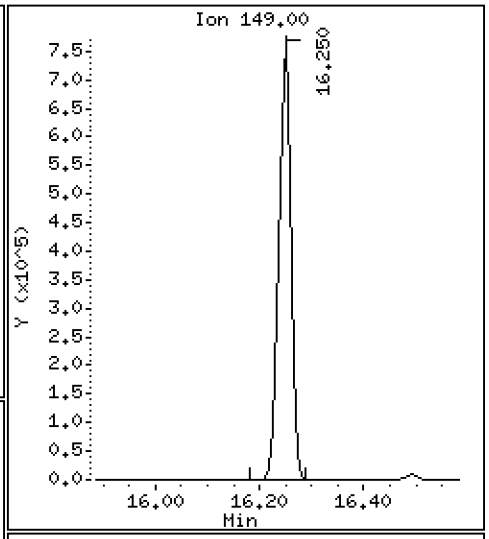
Column phase: ZB-5msi

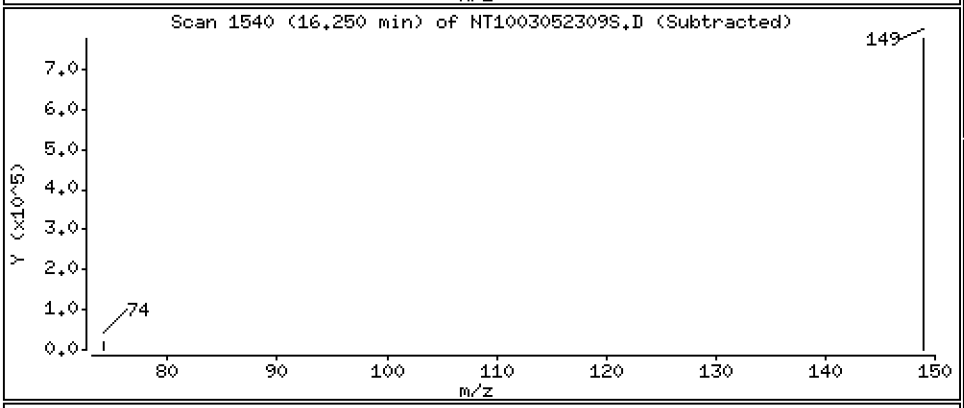
Column diameter: 0.25

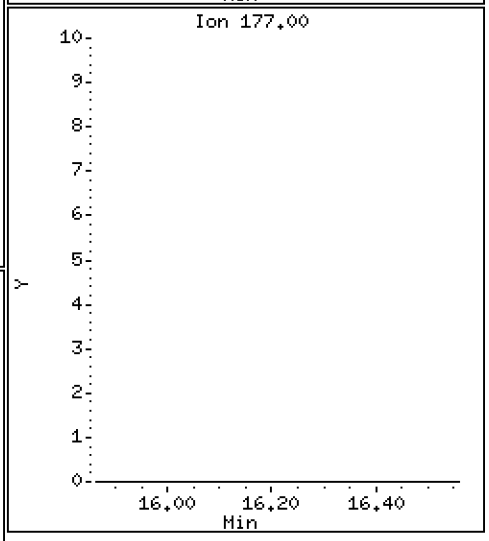
50 Diethylphthalate

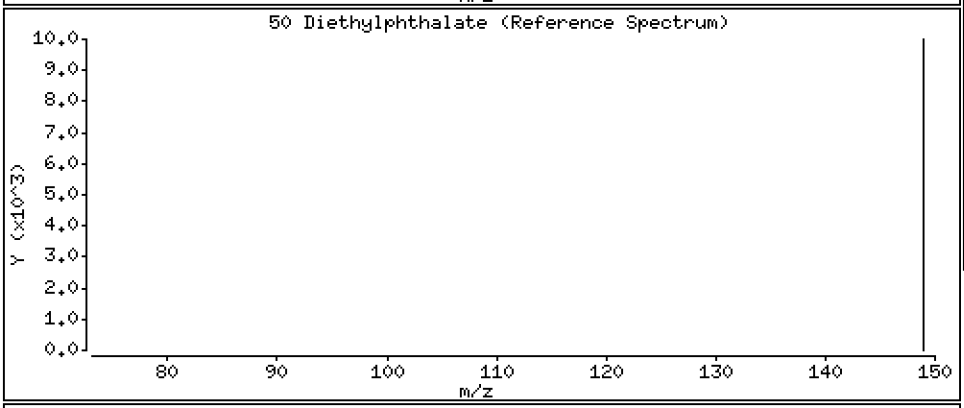
Concentration: 6.023 ug/mL

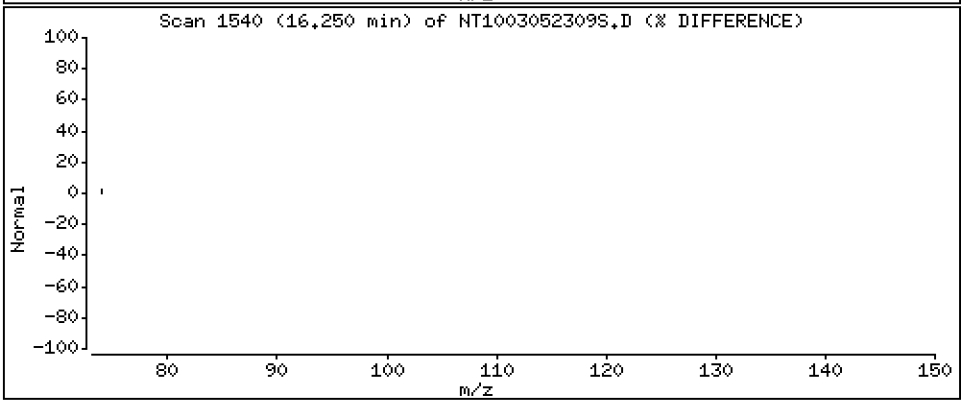












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

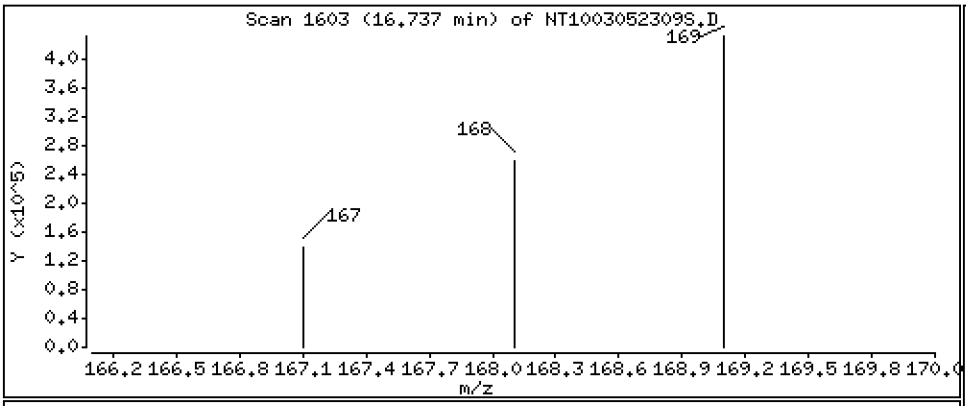
Operator: YZ

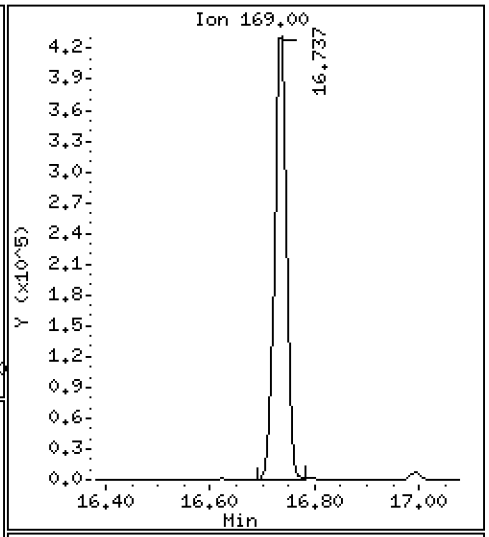
Column phase: ZB-5msi

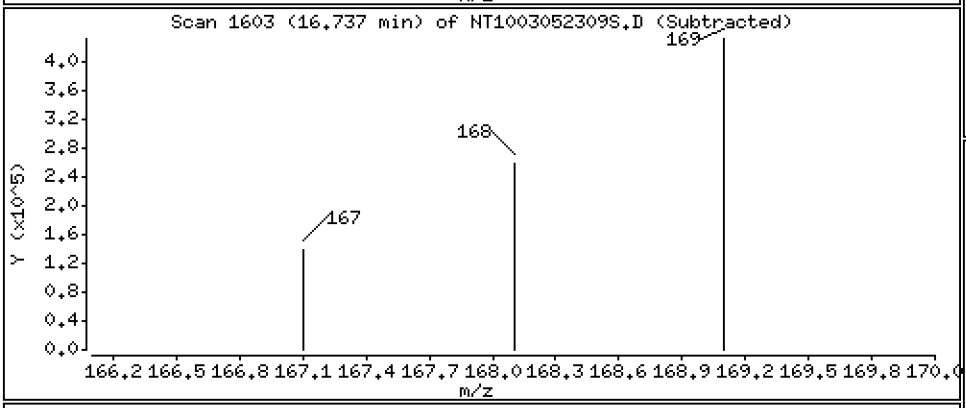
Column diameter: 0.25

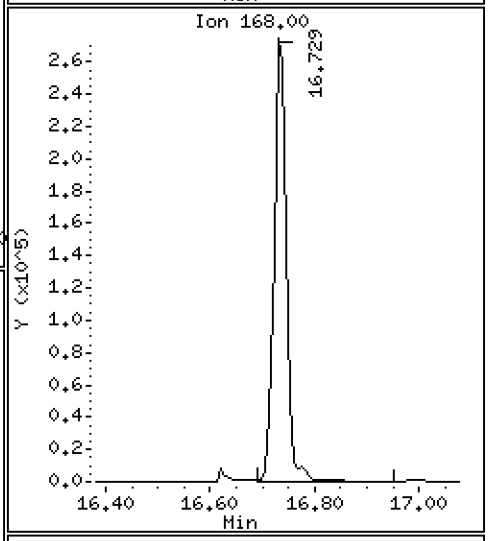
54 N-Nitrosodiphenylamine

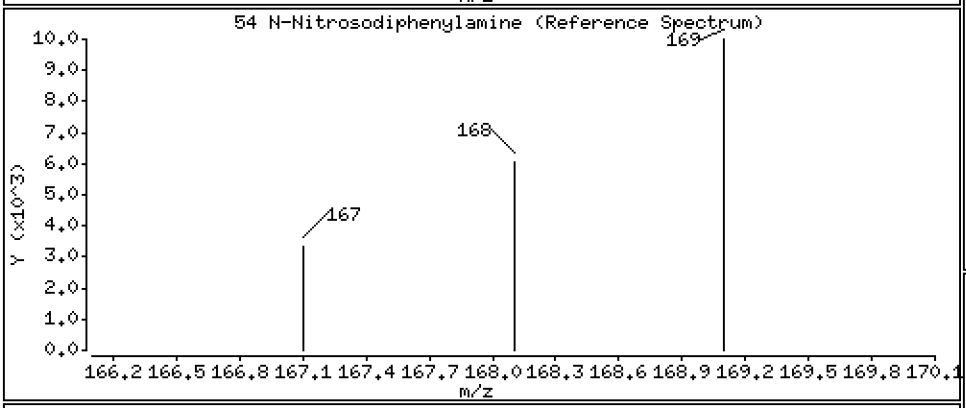
Concentration: 3.436 ug/mL

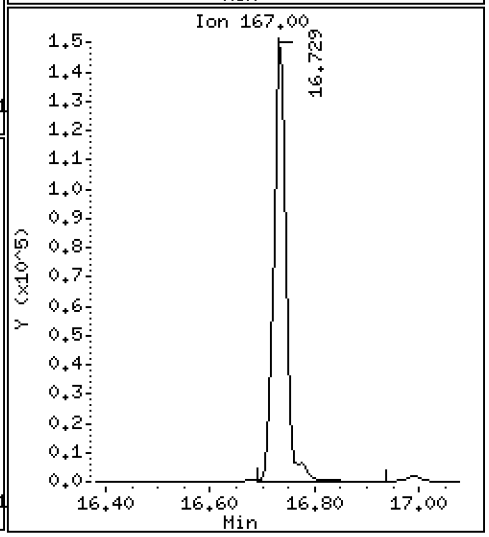


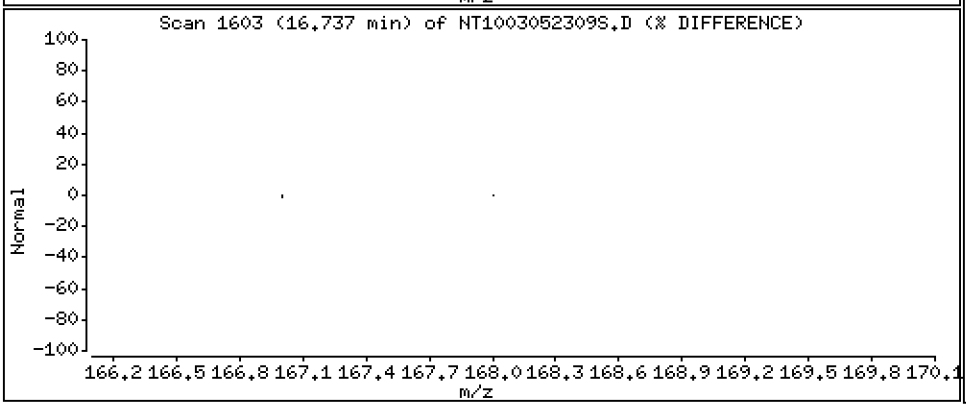












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

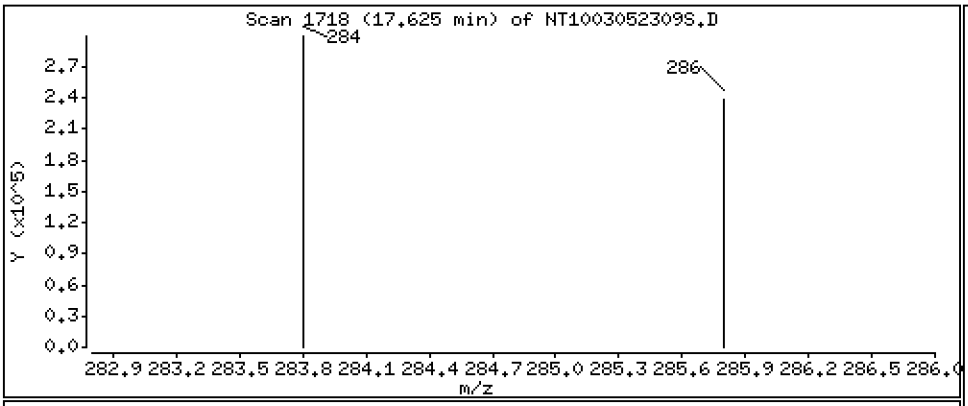
Operator: YZ

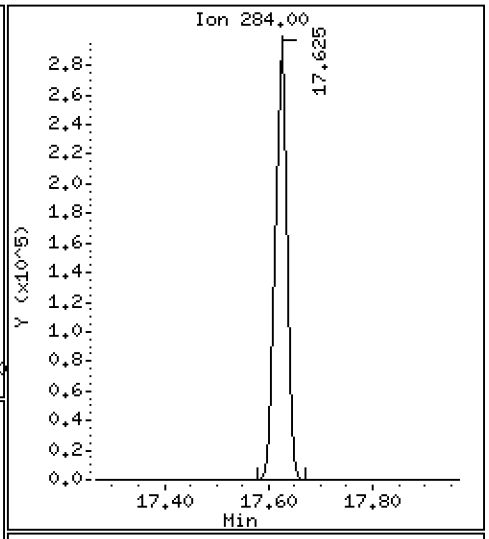
Column phase: ZB-5msi

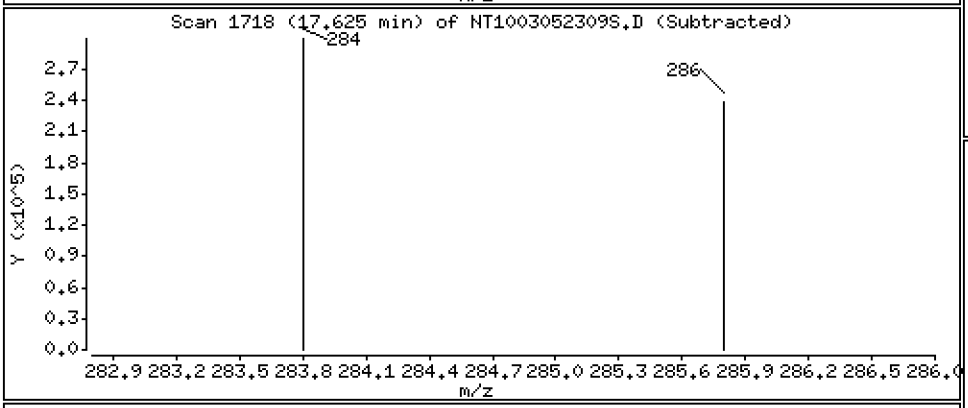
Column diameter: 0.25

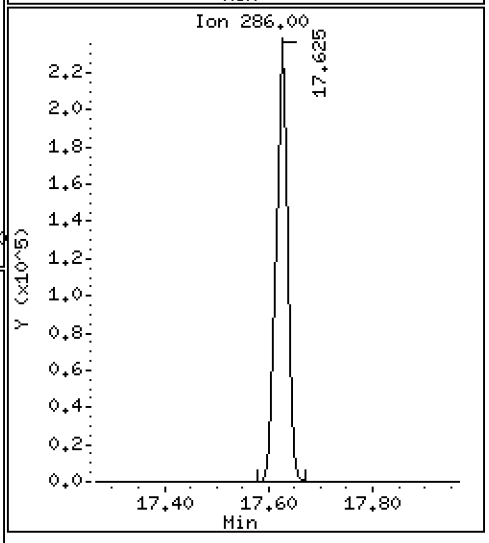
57 Hexachlorobenzene

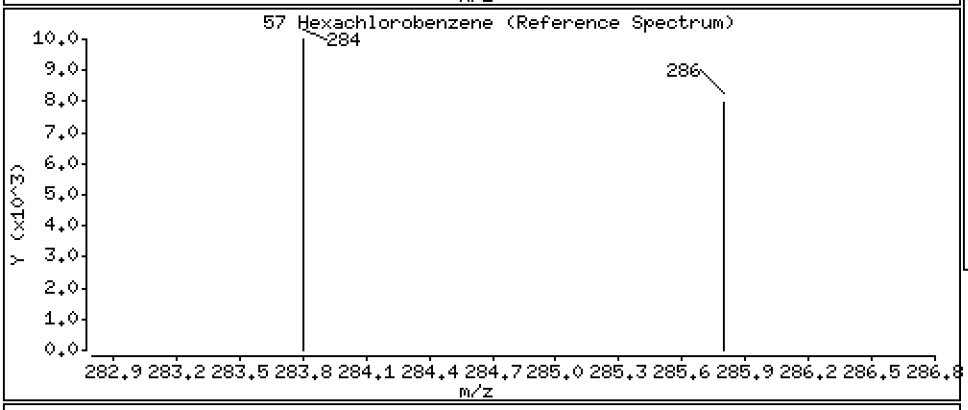
Concentration: 4.738 ug/mL

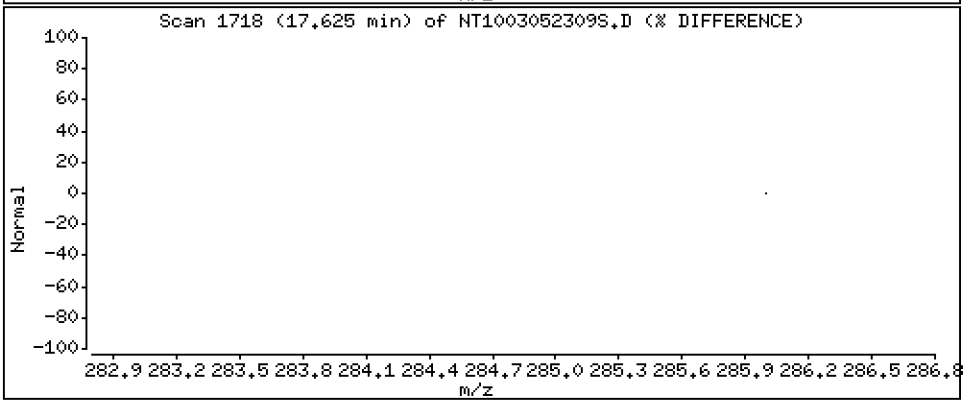












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

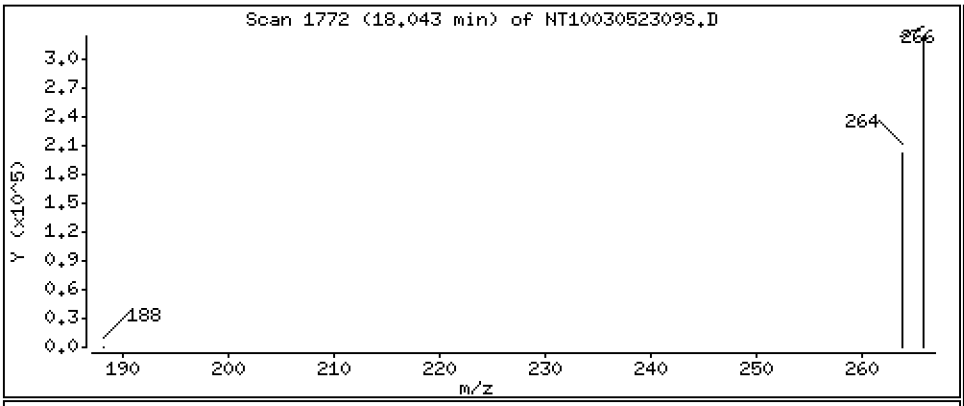
Operator: YZ

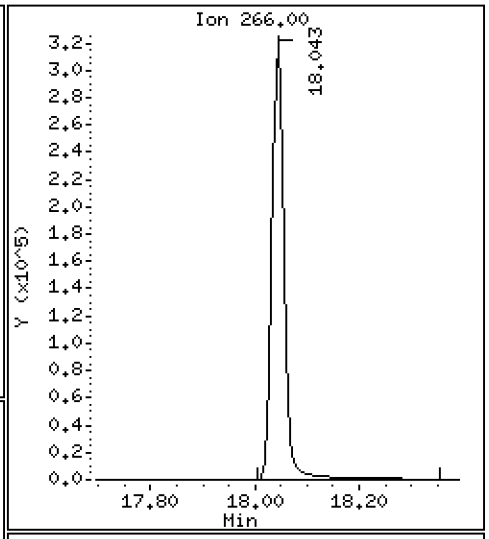
Column phase: ZB-5msi

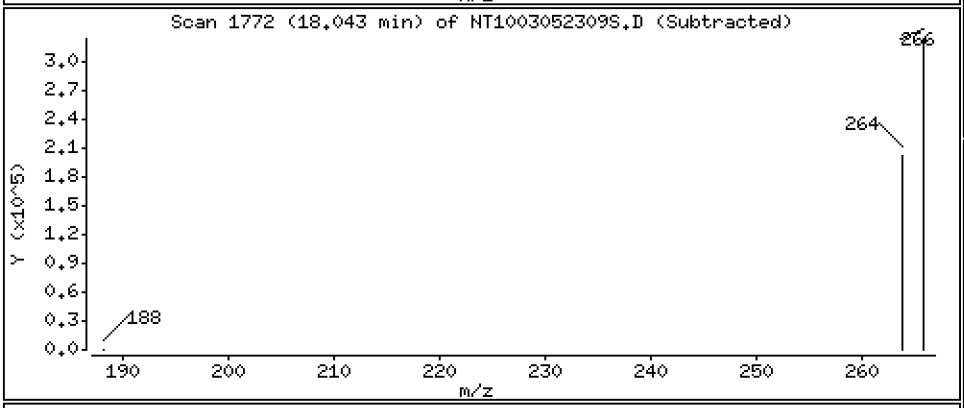
Column diameter: 0.25

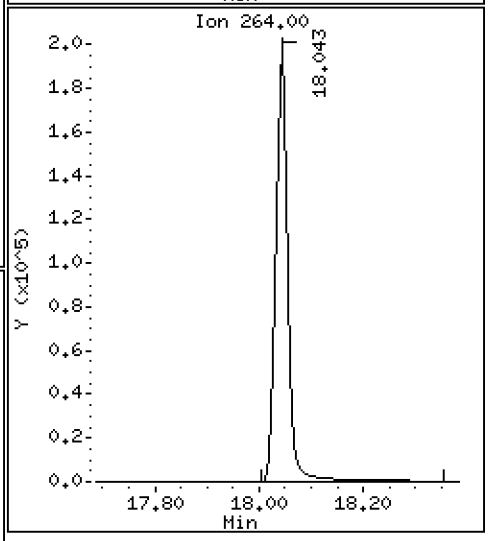
58 Pentachlorophenol

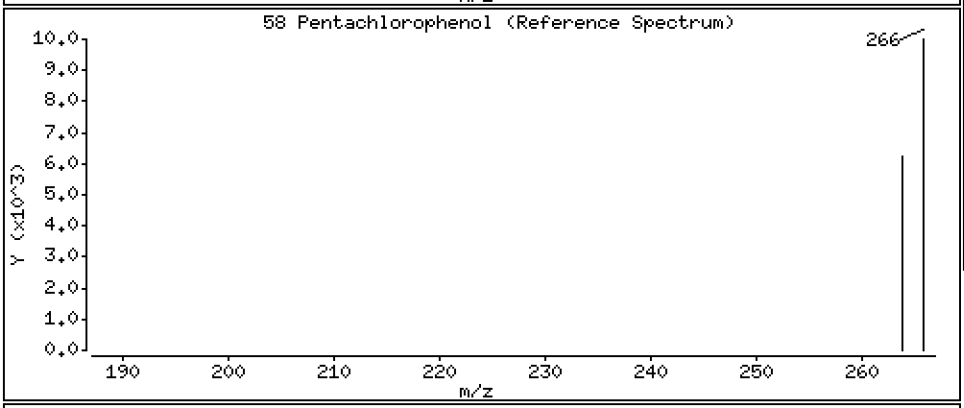
Concentration: 10.56 ug/mL

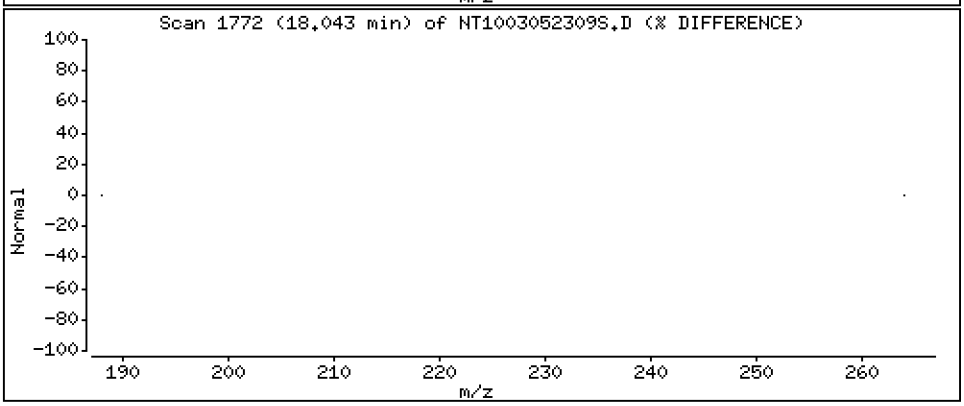












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

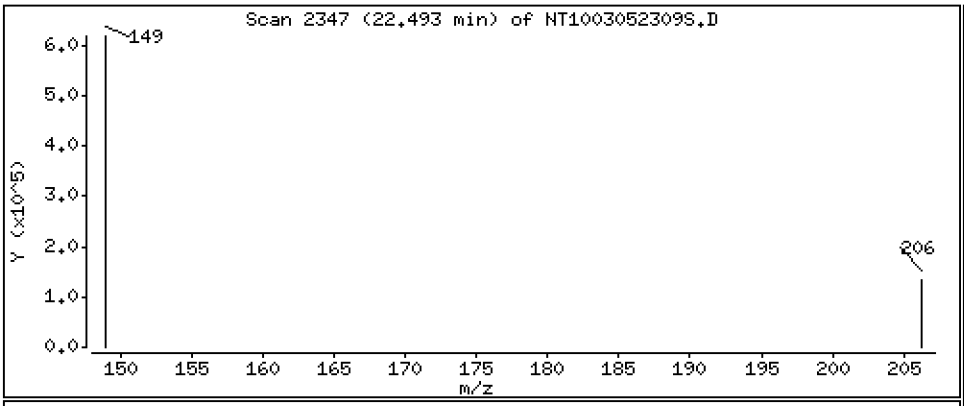
Operator: YZ

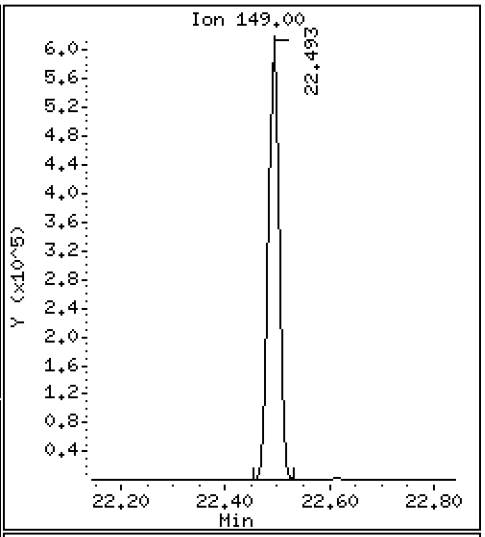
Column phase: ZB-5msi

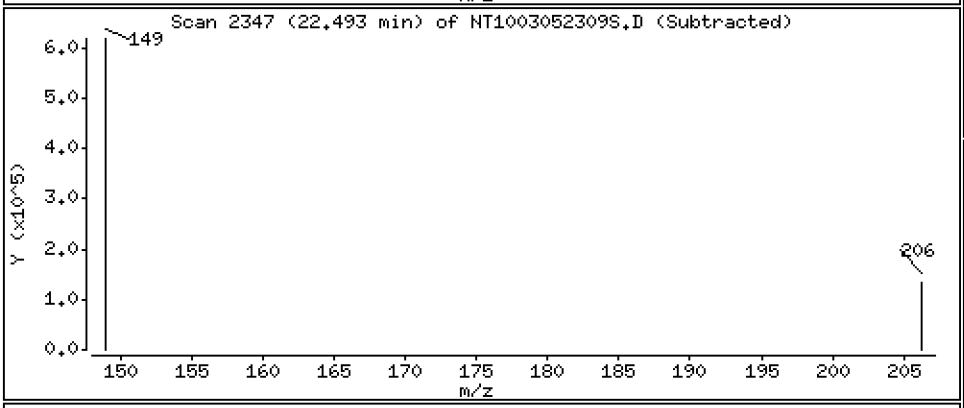
Column diameter: 0.25

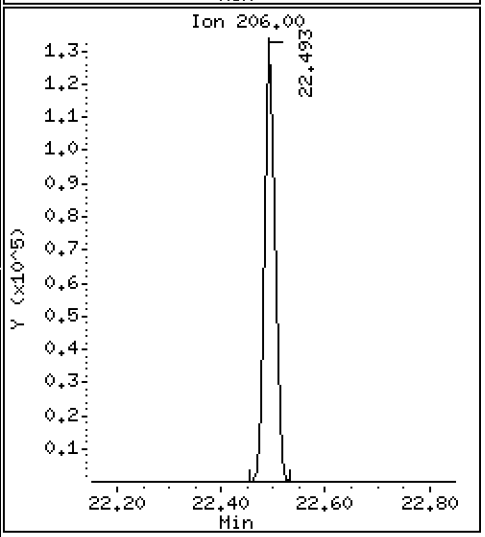
67 Butylbenzylphthalate

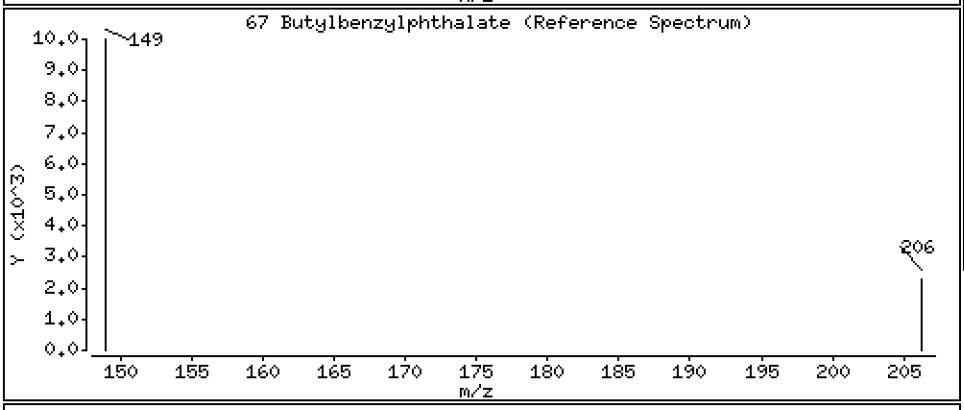
Concentration: 4.225 ug/mL

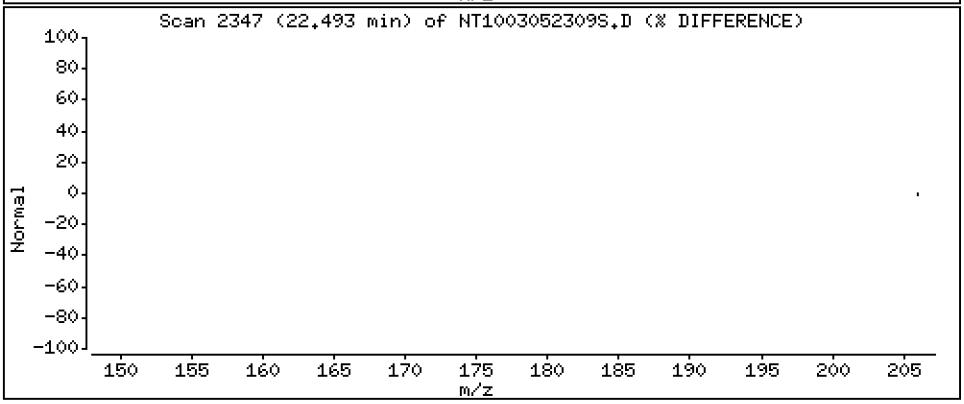












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

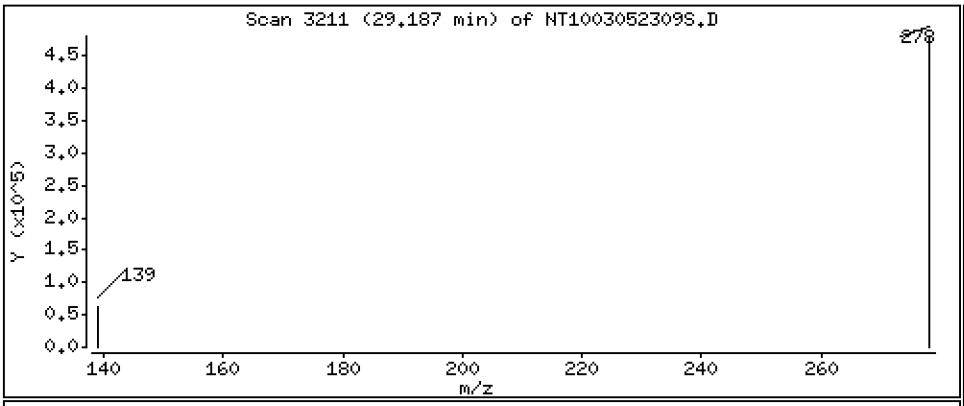
Operator: YZ

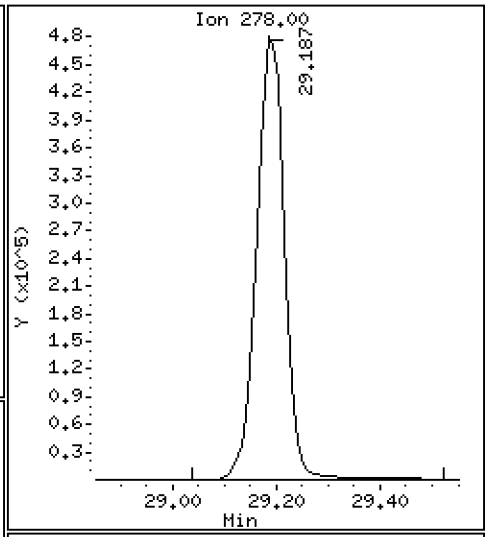
Column phase: ZB-5msi

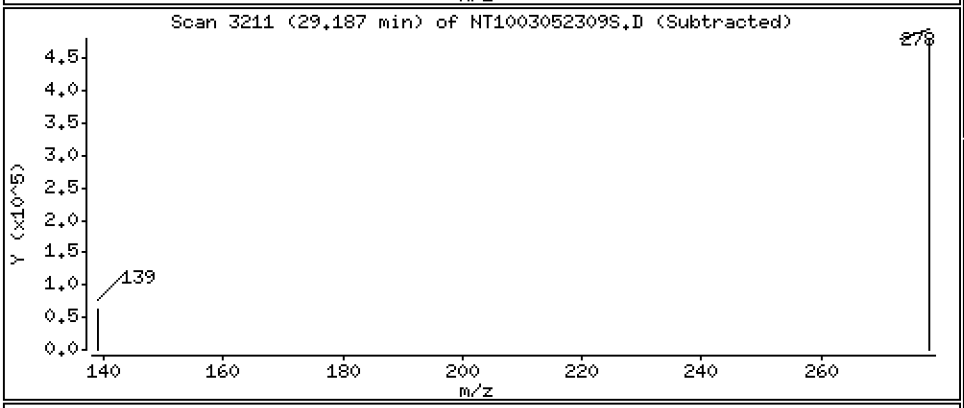
Column diameter: 0.25

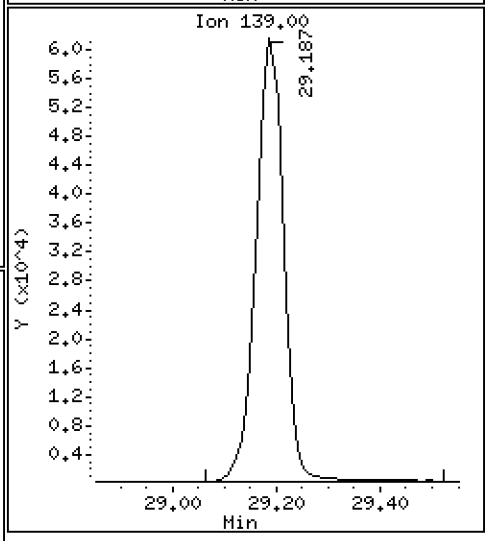
79 Dibenzo(a,h)anthracene

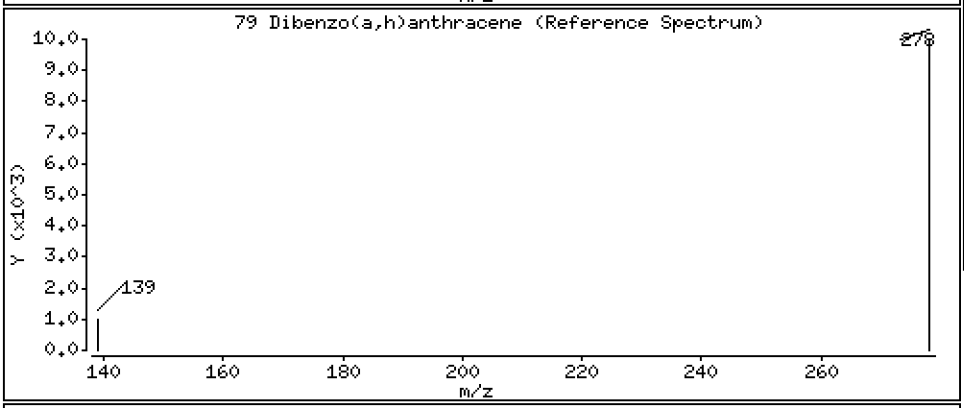
Concentration: 5.931 ug/mL

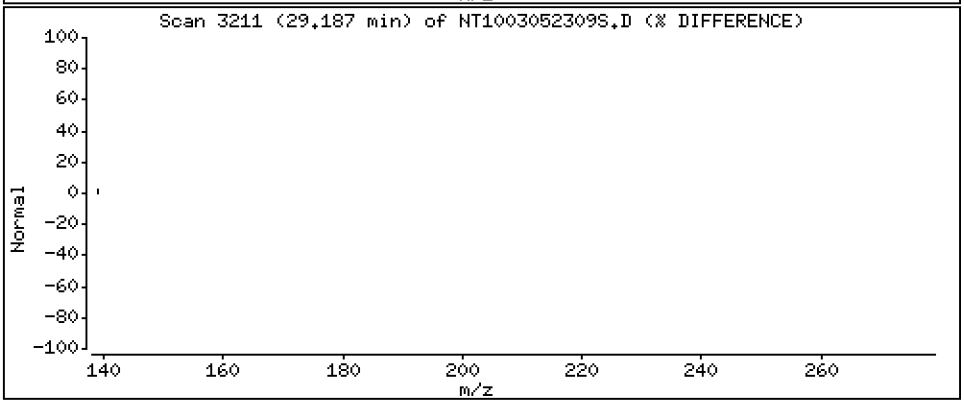












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D

Date : 05-MAR-2023 18:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-BSD2

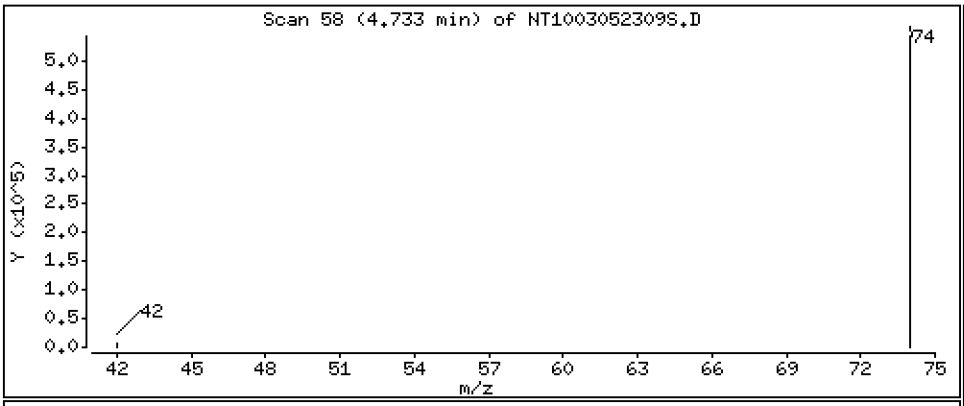
Operator: YZ

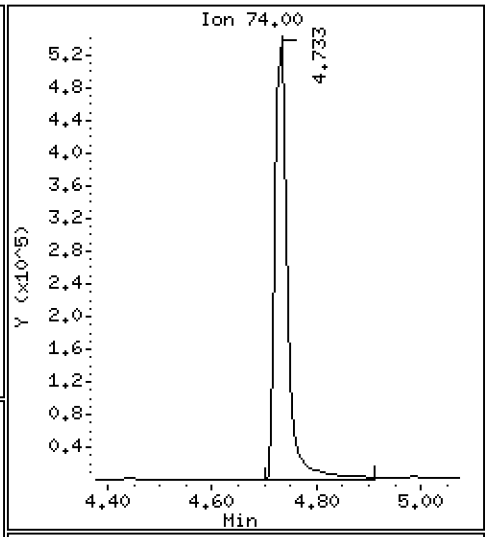
Column phase: ZB-5msi

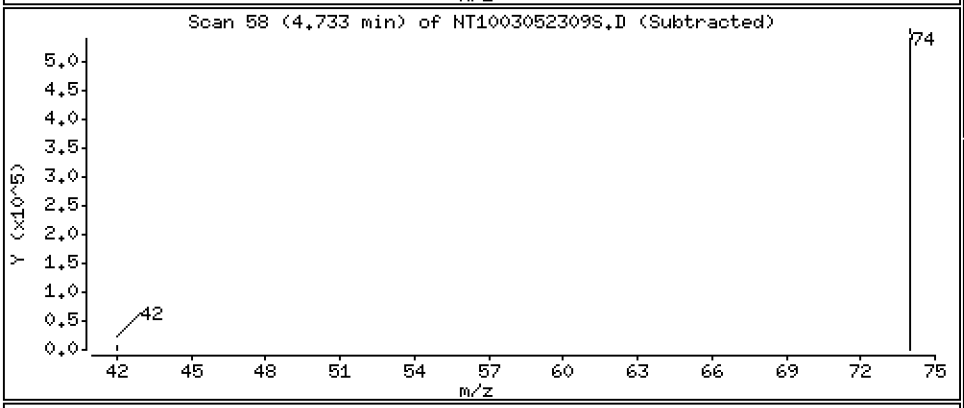
Column diameter: 0.25

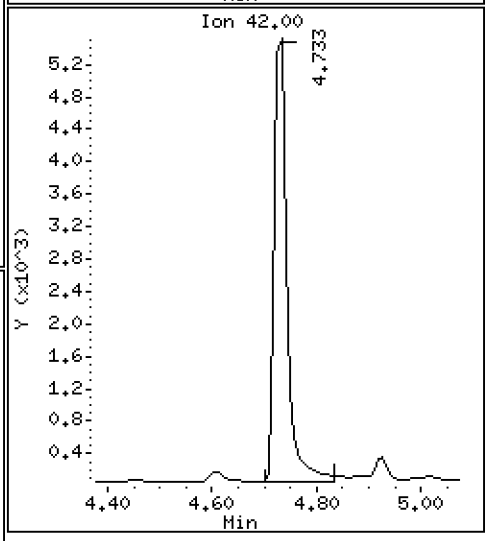
90 N-Nitrosodimethylamine

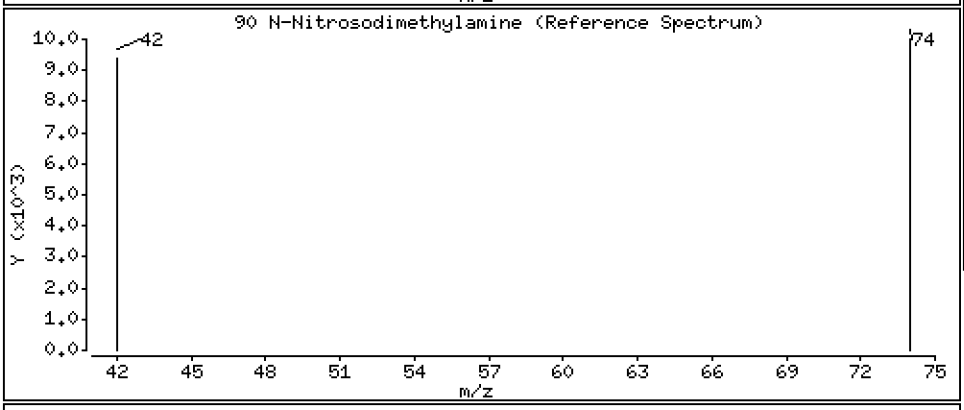
Concentration: 13.51 ug/mL

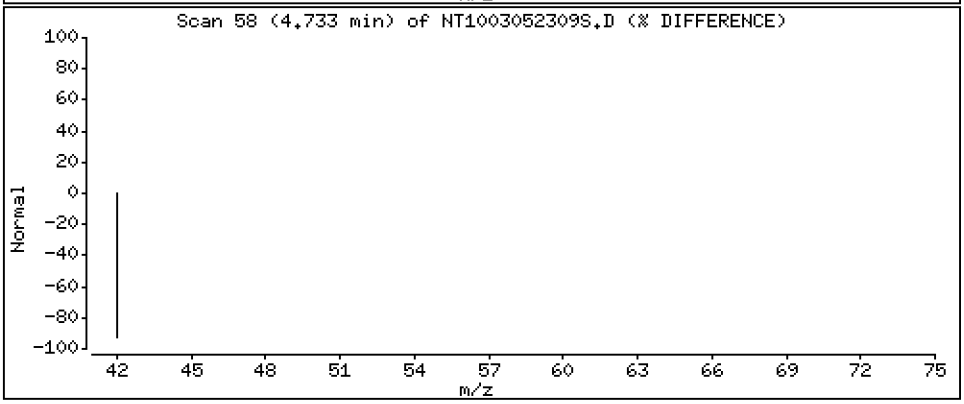












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052309S.D
Lab Smp Id: BLA0685-BSD2
Inj Date : 05-MAR-2023 18:28
Operator : YZ Inst ID: nt10.i
Smp Info : BLA0685-BSD2
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:00 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1	2-Fluorophenol	112	6.910	6.902	(0.747)	669811	6.27890	6.279(R)
	3	Phenol	94	8.540	8.533	(0.923)	648937	4.03912	4.039
	7	1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	570304	4.11831	4.118
*	8	1,4-Dichlorobenzene-d4	152	9.252	9.244	(1.000)	373655	4.00000	
	9	1,4-Dichlorobenzene	146	9.283	9.275	(1.003)	570382	4.23641	4.236
	11	Benzyl alcohol	79	9.492	9.485	(1.026)	448655	4.81205	4.812(M)
	12	1,2-Dichlorobenzene	146	9.570	9.562	(1.034)	546559	4.22345	4.223
	13	2-Methylphenol	108	9.671	9.663	(1.045)	386071	3.94667	3.947
	15	4-Methylphenol	108	9.974	9.958	(1.078)	448931	4.34335	4.343
	16	N-Nitroso-di-n-propylamine	70	9.989	9.982	(1.080)	355682	4.98131	4.981
	22	2,4-Dimethylphenol	107	11.023	11.015	(0.939)	648102	5.65973	5.660
	24	Benzoic acid	105	11.227	11.116	(0.956)	1488416	21.2143	21.21
	26	1,2,4-Trichlorobenzene	180	11.616	11.608	(0.989)	468802	4.90405	4.904
*	27	Naphthalene-d8	136	11.739	11.731	(1.000)	1328154	4.00000	
	30	Hexachlorobutadiene	225	12.009	12.002	(1.023)	331879	4.89225	4.892
	39	Dimethylphthalate	163	14.780	14.765	(0.963)	1067662	5.08997	5.090
*	42	Acenaphthene-d10	162	15.345	15.337	(1.000)	660605	4.00000	
	50	Diethylphthalate	149	16.249	16.234	(1.059)	1191422	6.02308	6.023(H)
	54	N-Nitrosodiphenylamine	169	16.737	16.729	(0.907)	695570	3.43574	3.436
	57	Hexachlorobenzene	284	17.625	17.617	(0.955)	448940	4.73844	4.738
	58	Pentachlorophenol	266	18.043	18.043	(0.978)	496102	10.5596	10.56
*	59	Phenanthrene-d10	188	18.453	18.453	(1.000)	1250960	4.00000	
$	66	Terphenyl-d14	244	21.602	21.602	(0.919)	631663	6.73760	6.738(R)
	67	Butylbenzylphthalate	149	22.492	22.492	(0.957)	814494	4.22514	4.225
*	69	Chrysene-d12	240	23.514	23.514	(1.000)	1159338	4.00000	
*	77	Perylene-d12	264	26.278	26.286	(1.000)	1176555	4.00000	
	79	Dibenzo(a,h)anthracene	278	29.186	29.202	(1.111)	1779227	5.93086	5.931
	90	N-Nitrosodimethylamine	74	4.732	4.724	(0.512)	853555	13.5148	13.51

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052309S.D
Lab Smp Id: BLA0685-BSD2
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:40
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	321376	160688	642752	373655	16.27
27 Naphthalene-d8	1132931	566466	2265862	1328154	17.23
42 Acenaphthene-d10	561597	280799	1123194	660605	17.63
59 Phenanthrene-d10	1068222	534111	2136444	1250960	17.11
69 Chrysene-d12	997572	498786	1995144	1159338	16.22
77 Perylene-d12	1245490	622745	2490980	1176555	-5.53

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.74	0.07
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	0.00
69 Chrysene-d12	23.51	23.01	24.01	23.51	0.00
77 Perylene-d12	26.29	25.79	26.79	26.28	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052309S.D

Lab ID: BLA0685-BSD2
nt10.i, 20230305.b\SIM.b\SIMABN2.m,   05-MAR-2023 18:28

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.956	0.948	0.0088	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003052303S.D

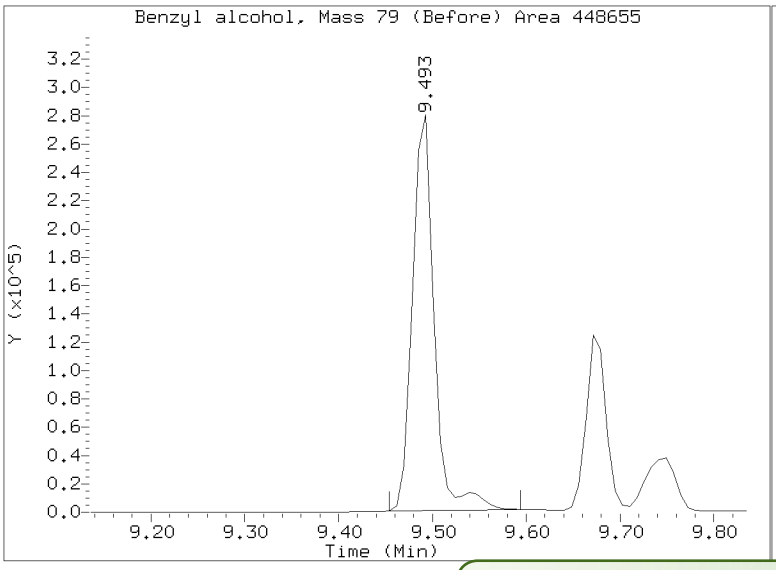
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

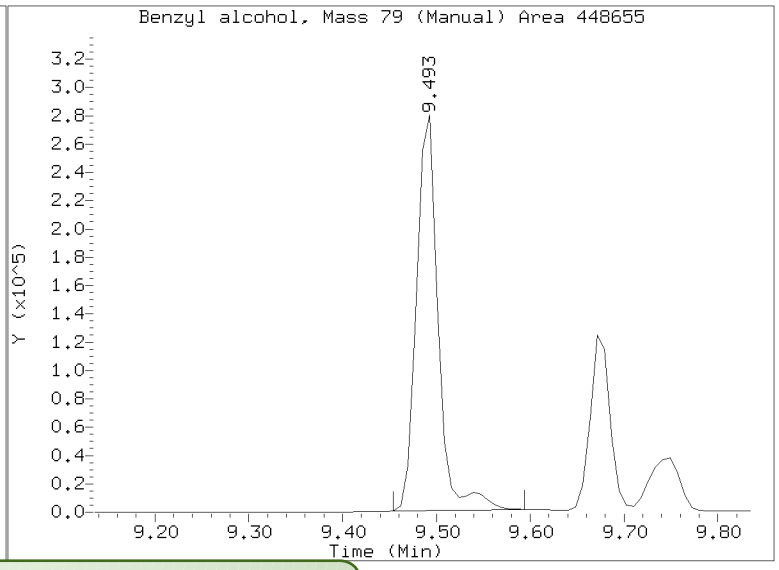
Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305.b/SIM.b/NT1003052309S.D
Injection Date: 05-MAR-2023 18:28
Lab ID:BLA0685-BSD2 Client ID:
Report Date: 03/28/2023 11:05





APPROVED

By Deenay Dunmore at 12:02 pm, Mar 28, 2023

MS / MS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	03/05/23 19:06
Batch:	BLA0685	Laboratory ID:	BLA0685-MS2
Preparation:	EPA 3546 (Microwave)	Sequence Name:	Matrix Spike
Initial/Final:	11.8 g / 1 mL	Source Sample:	LDW23-SC1159

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
1,4-Dichlorobenzene	500	2.3	J	400		79.5	36 - 120
1,2-Dichlorobenzene	500	0.8	J	400		79.9	36 - 120
Benzyl Alcohol	500	19.5	J	445		85.1	25 - 123
Benzoic acid	2300	22.0	J	1710	Q	73.2	10 - 160
2,4-Dimethylphenol	1300	ND	U	411		31.6	10 - 120
1,2,4-Trichlorobenzene	500	ND	U	471		94.1	35 - 120
N-Nitrosodiphenylamine	500	4.6	J	305		60.1	27 - 120
Pentachlorophenol	1300	4.4	J	1170	Q	89.5	26 - 120

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	03/05/23 19:44
Batch:	BLA0685	Laboratory ID:	BLA0685-MSD2
Preparation:	EPA 3546 (Microwave)	Sequence Name:	Matrix Spike Dup
Initial/Final:	11.8 g / 1 mL	Source Sample:	LDW23-SC1159

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,4-Dichlorobenzene	500	354		70.3	12.2	30	36 - 120
1,2-Dichlorobenzene	500	360		71.7	10.7	30	36 - 120
Benzyl Alcohol	500	409		77.9	8.34	30	25 - 123
Benzoic acid	2300	1570	Q	67.3	8.37	30	10 - 160
2,4-Dimethylphenol	1300	370		28.5	10.3	30	10 - 120
1,2,4-Trichlorobenzene	500	439		87.8	6.89	30	35 - 120
N-Nitrosodiphenylamine	500	335		66.0	9.20	30	27 - 120
Pentachlorophenol	1300	1110	Q	85.1	5.03	30	26 - 120

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523105.D

Date : 05-MAR-2023 19:06

Client ID:

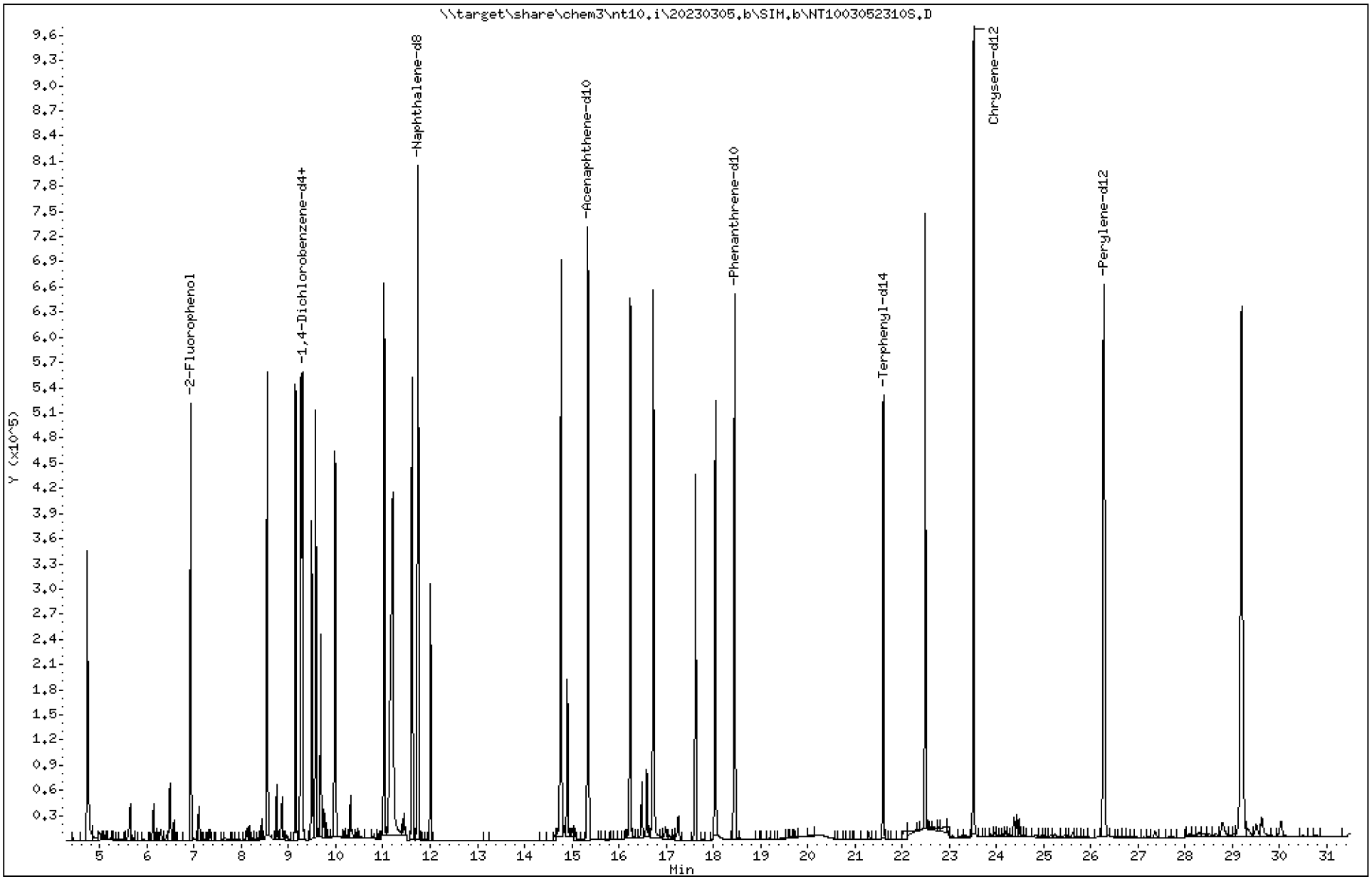
Sample Info: BLA0685-MS2

Instrument: nt10.i

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052310S.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

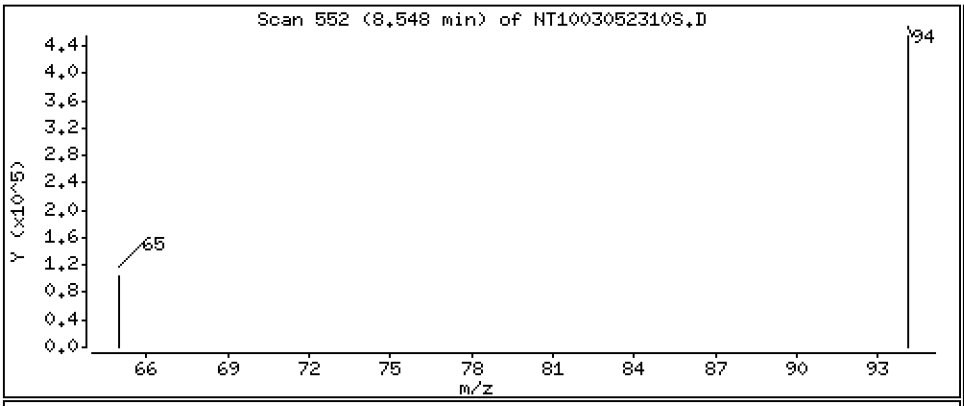
Operator: YZ

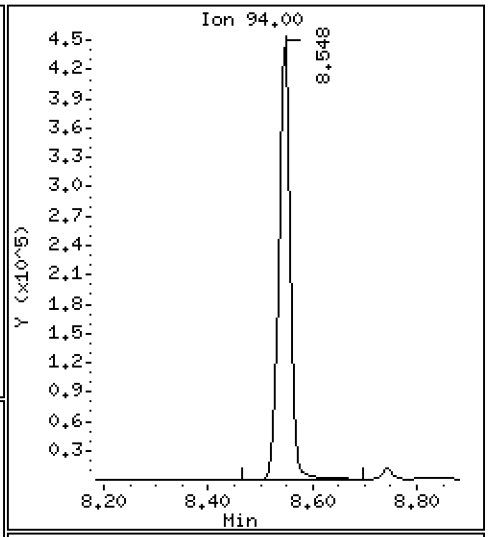
Column phase: ZB-5msi

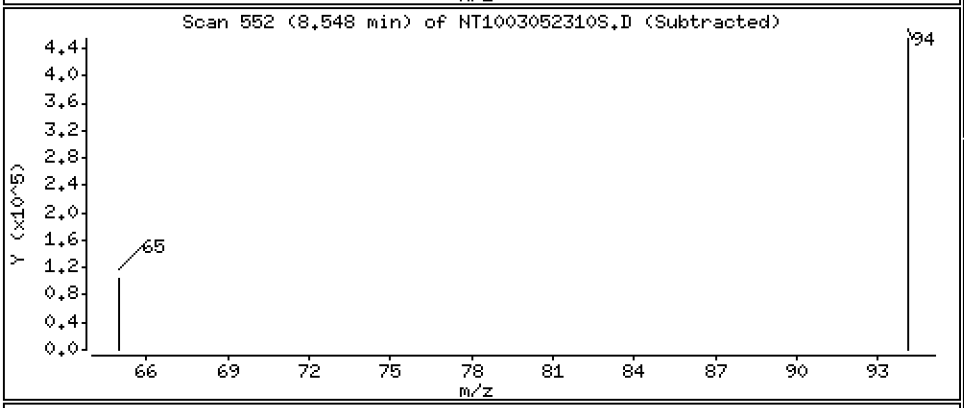
Column diameter: 0.25

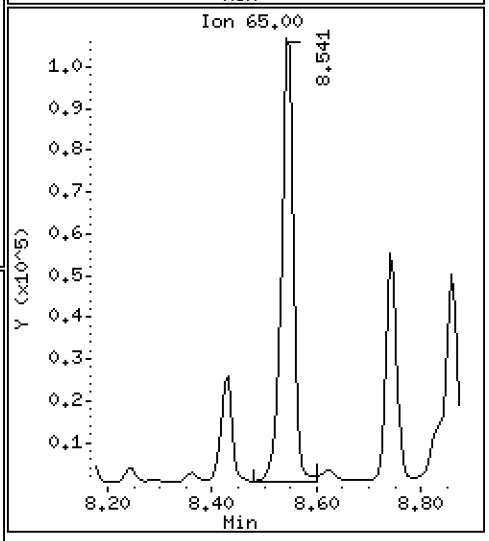
3 Phenol

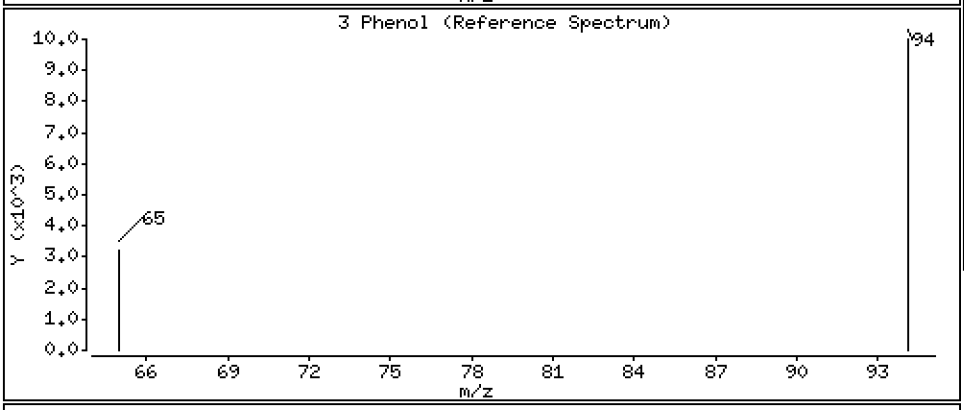
Concentration: 4.740 ug/mL

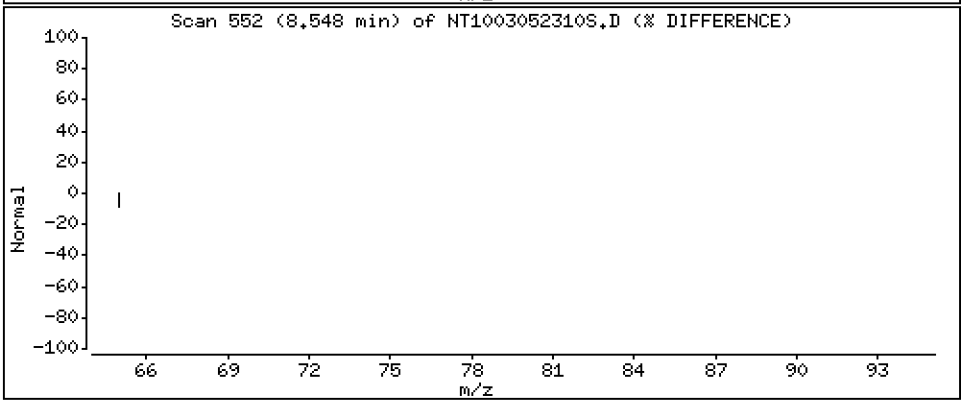












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052310S.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

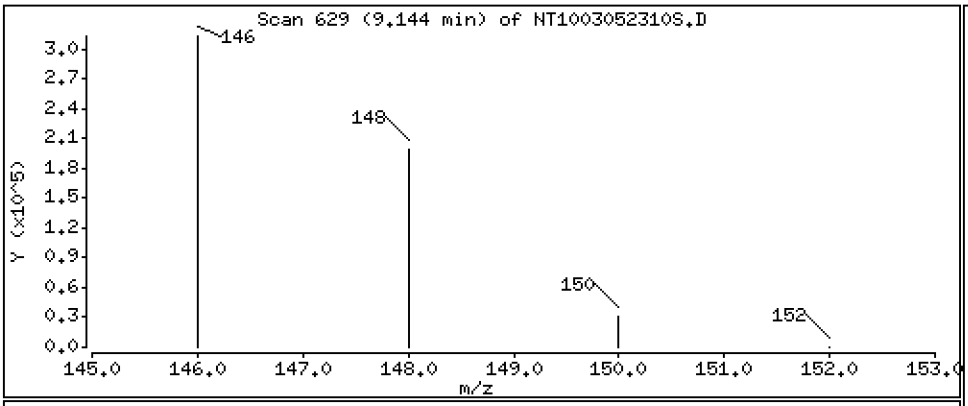
Operator: YZ

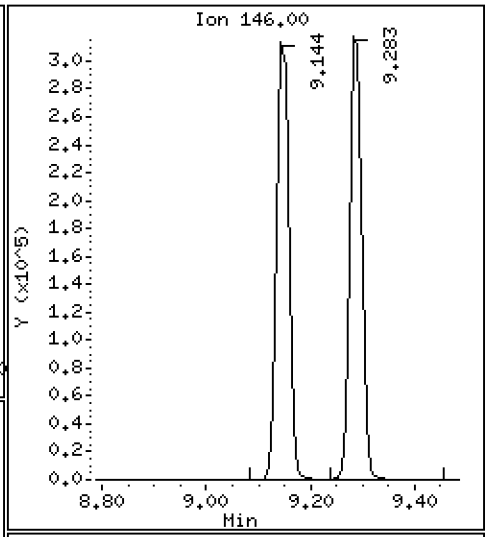
Column phase: ZB-5msi

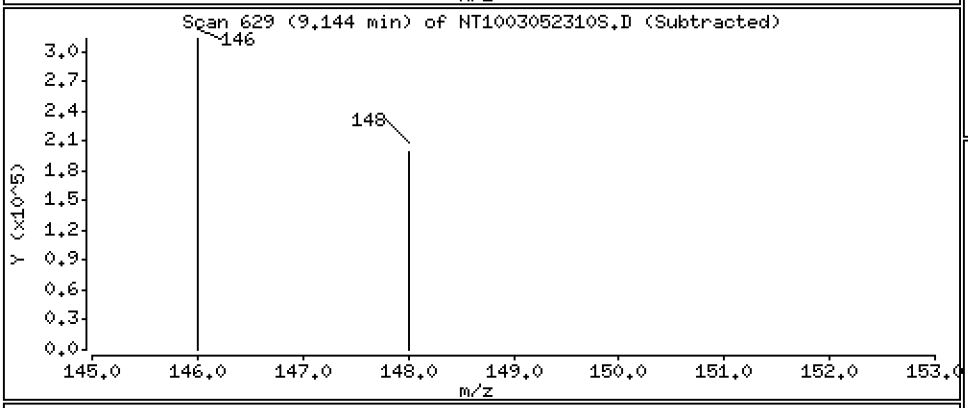
Column diameter: 0.25

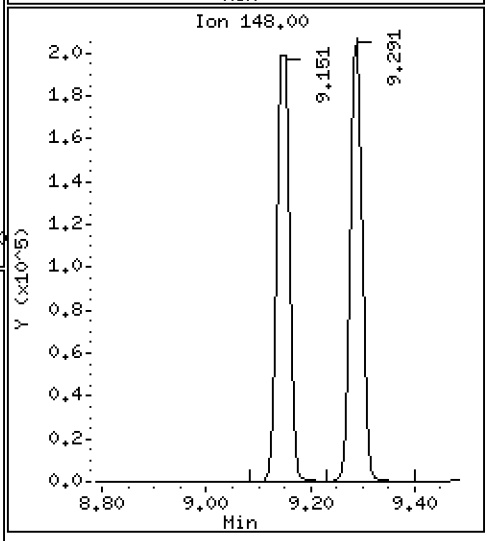
7 1,3-Dichlorobenzene

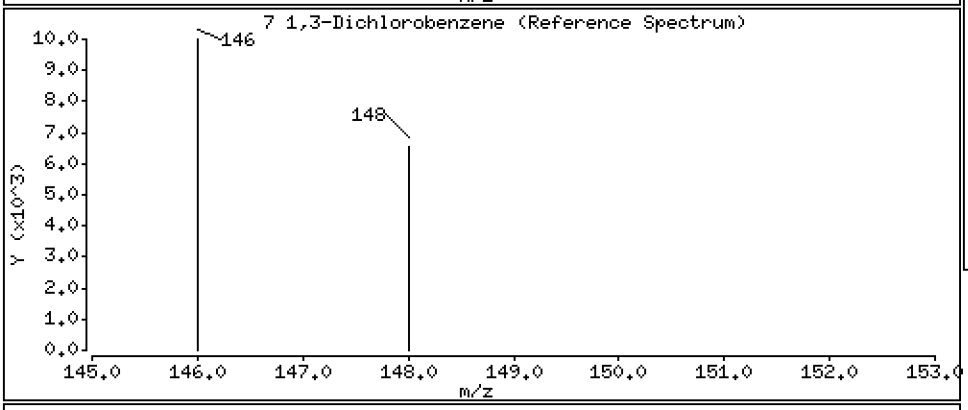
Concentration: 3.891 ug/mL

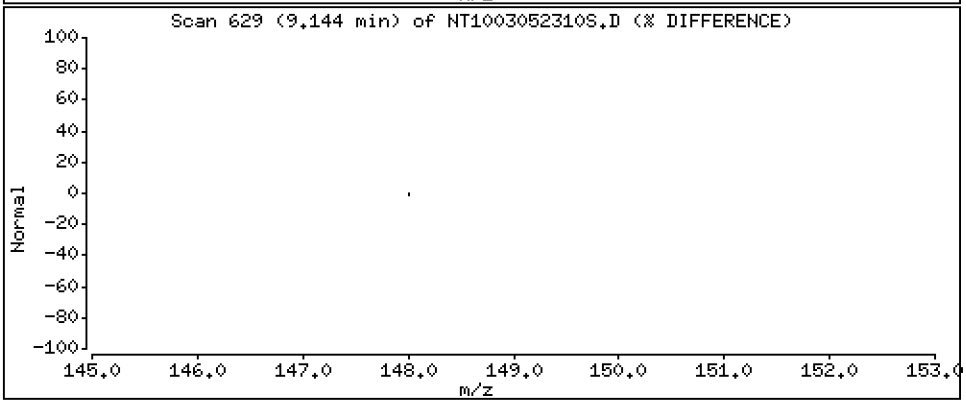












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052310S.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

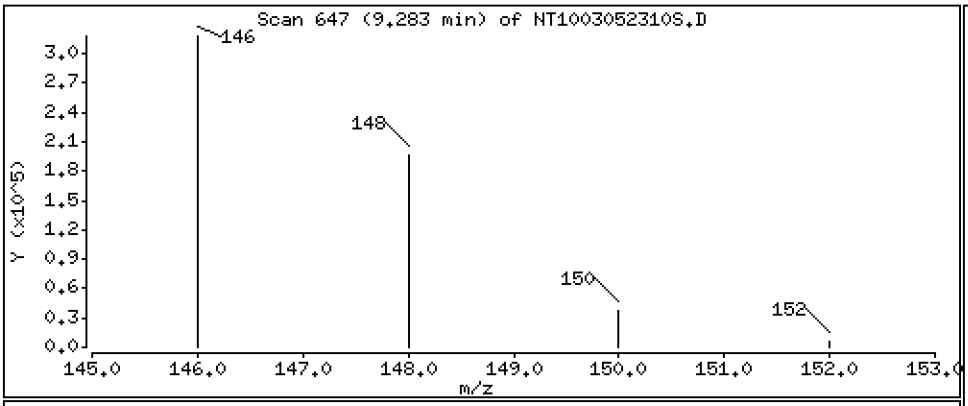
Operator: YZ

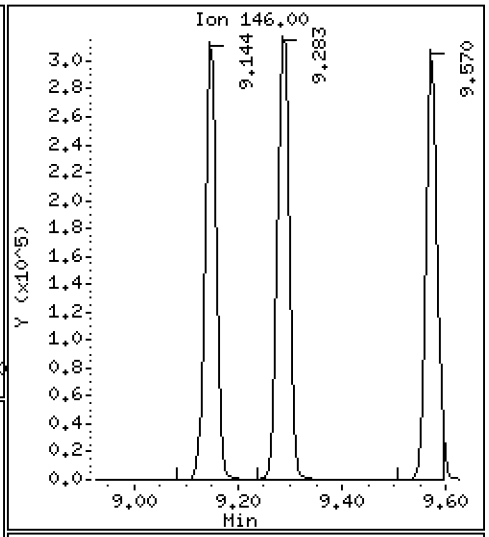
Column phase: ZB-5msi

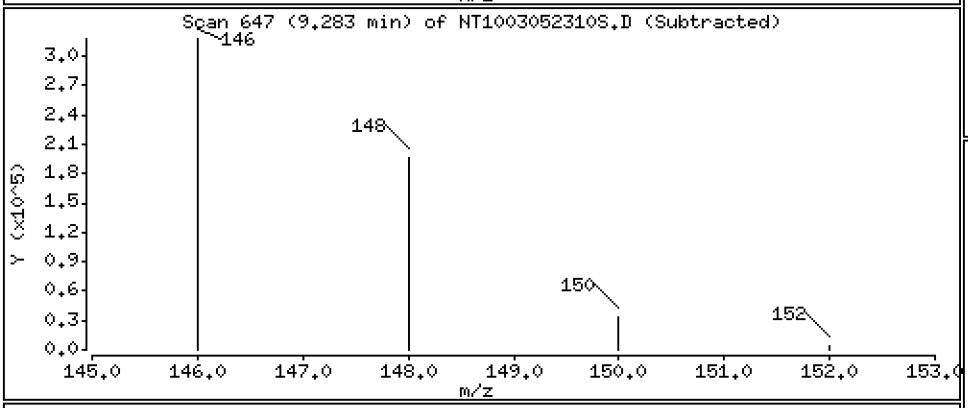
Column diameter: 0.25

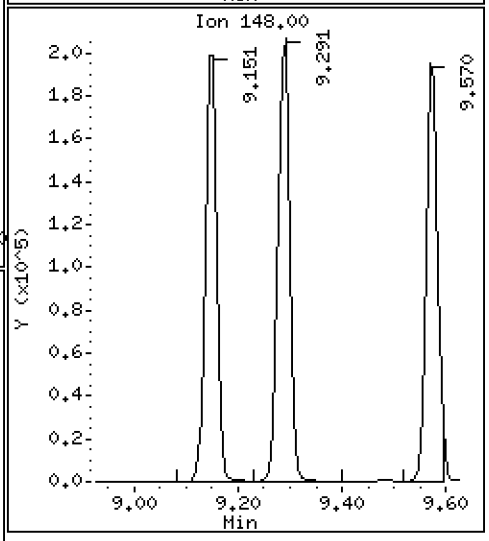
9 1,4-Dichlorobenzene

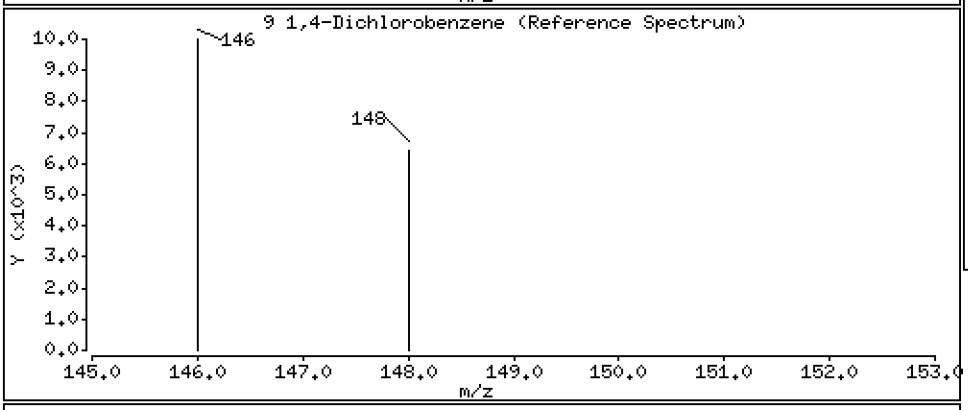
Concentration: 3.998 ug/mL

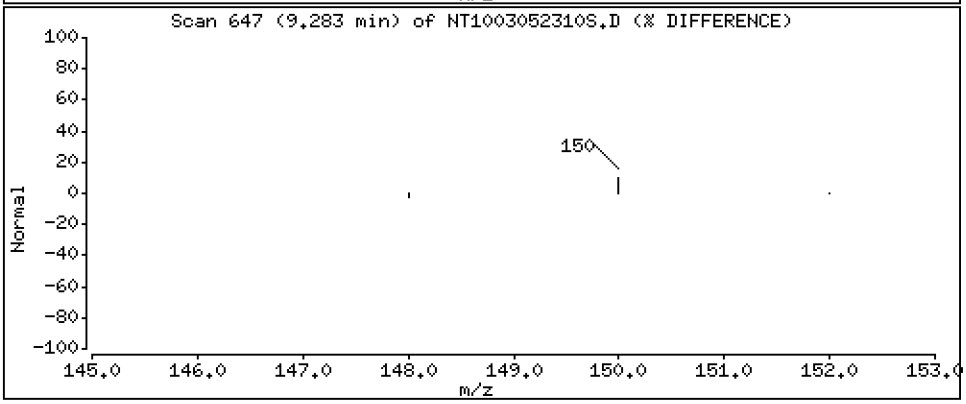












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052310S.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

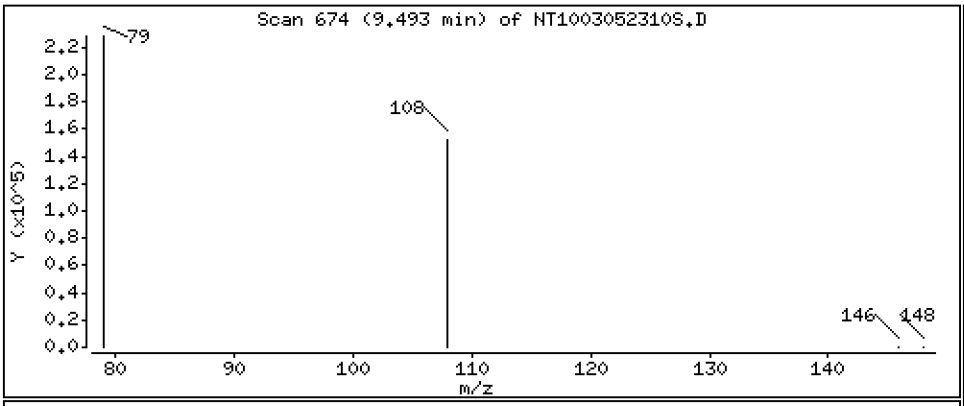
Operator: YZ

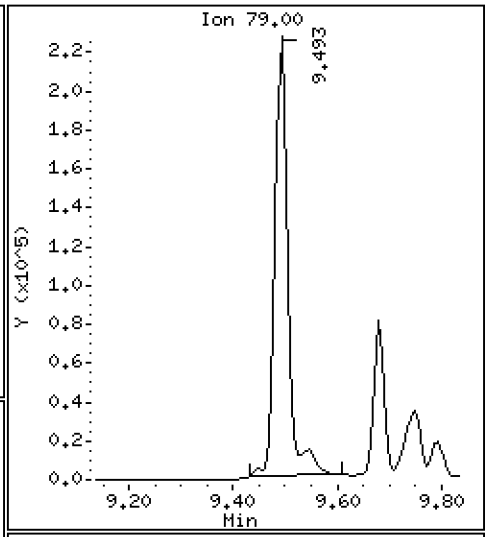
Column phase: ZB-5msi

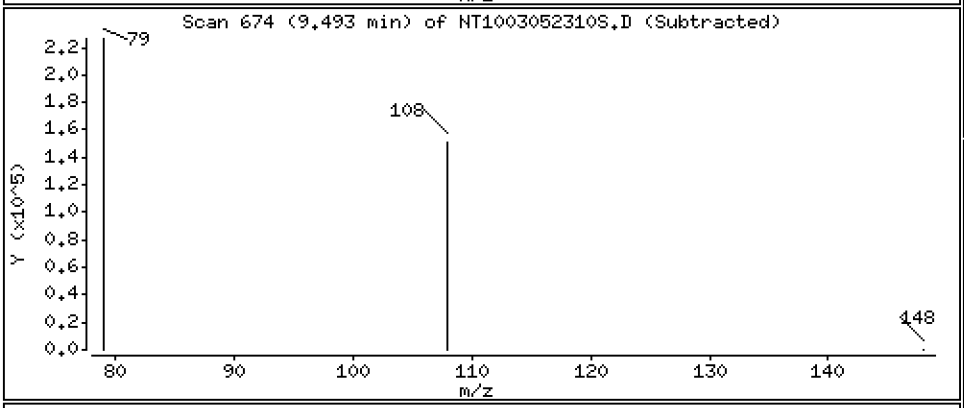
Column diameter: 0.25

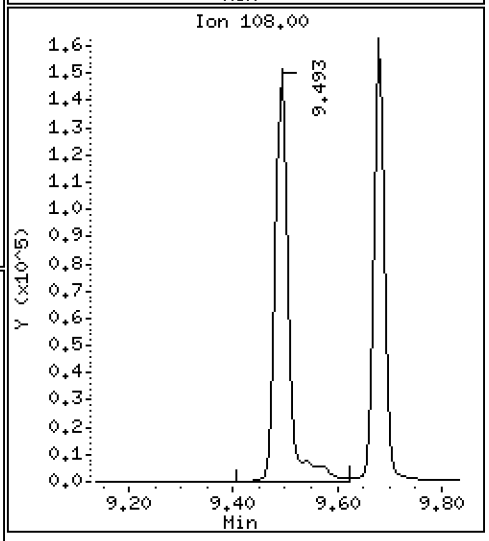
11 Benzyl alcohol

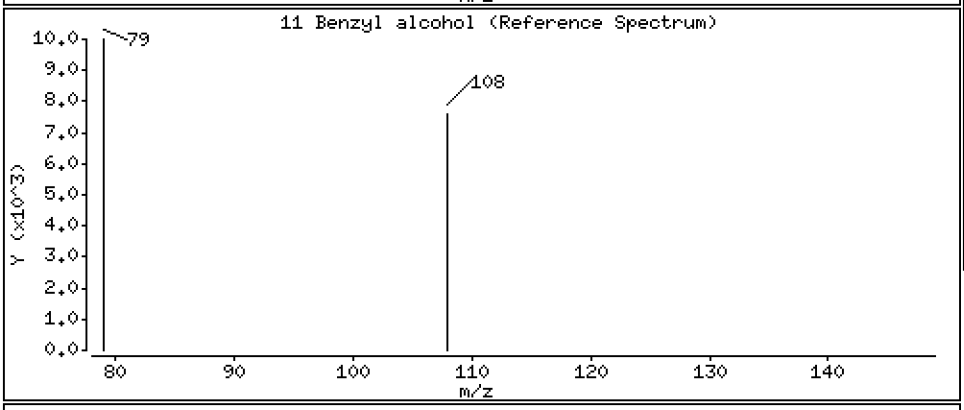
Concentration: 4.448 ug/mL

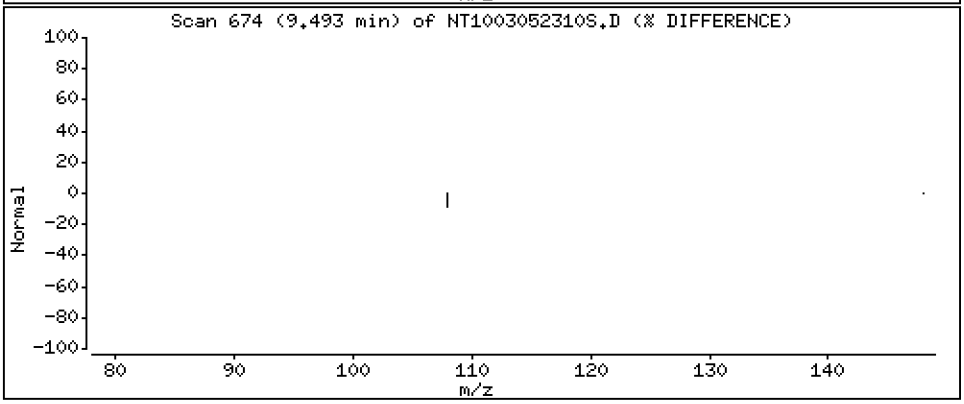












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052310S.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

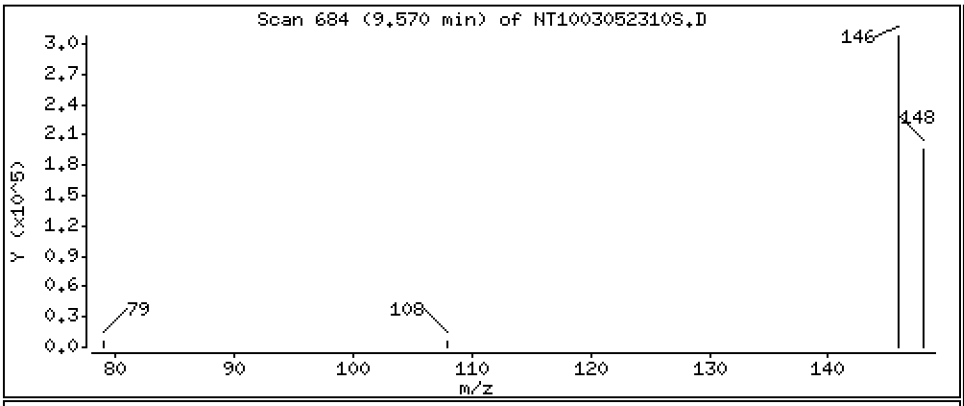
Operator: YZ

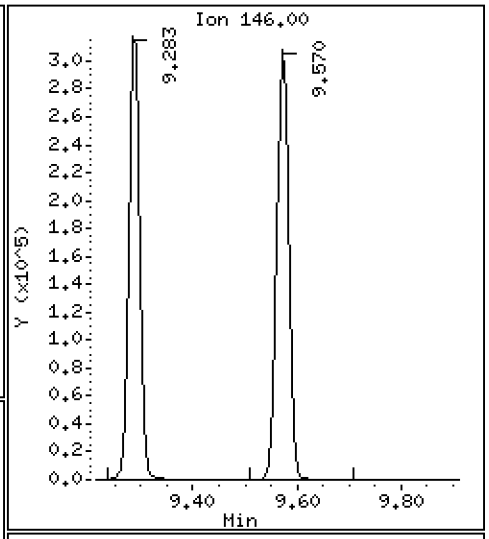
Column phase: ZB-5msi

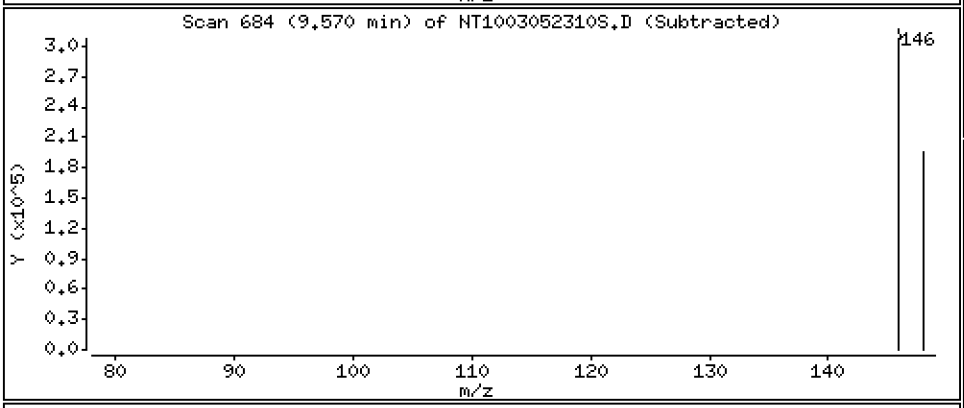
Column diameter: 0.25

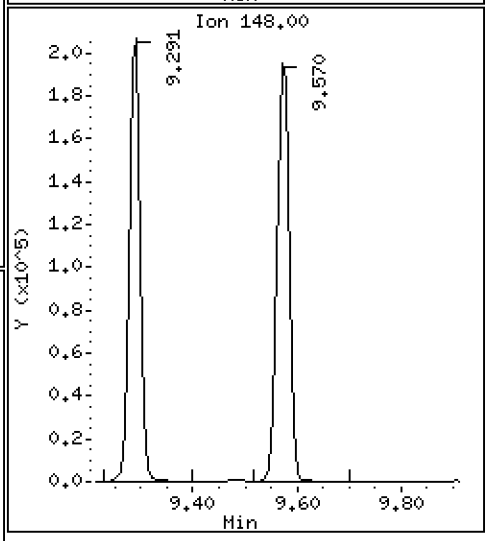
12 1,2-Dichlorobenzene

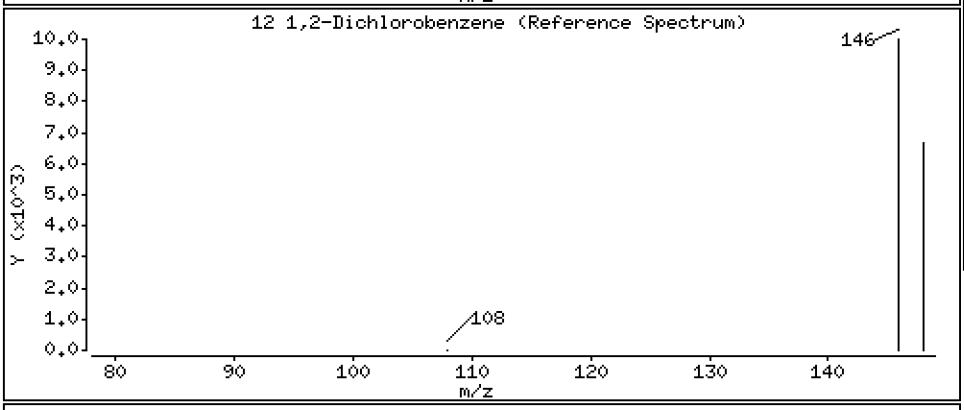
Concentration: 4.001 ug/mL

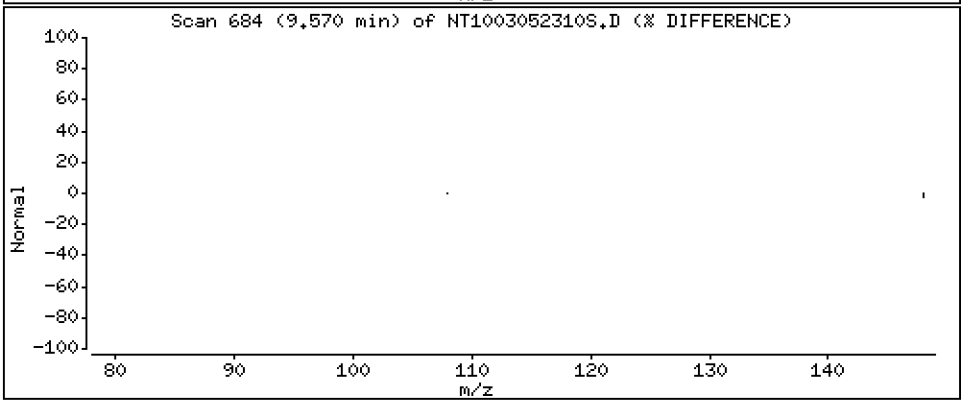












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052310S.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

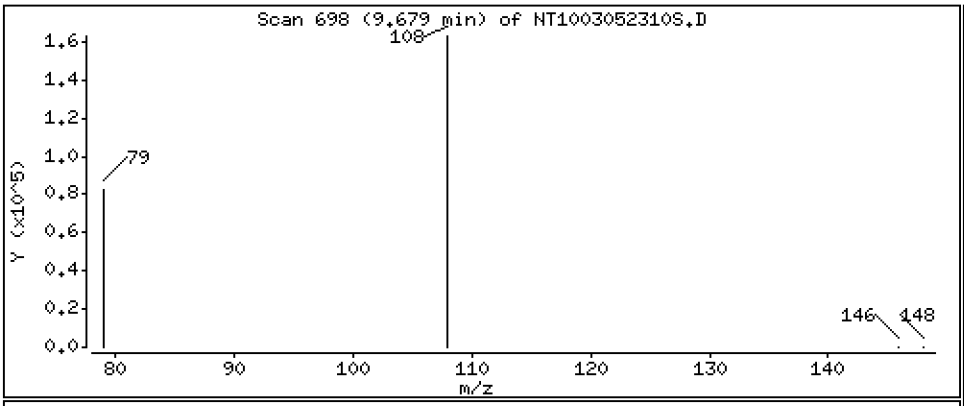
Operator: YZ

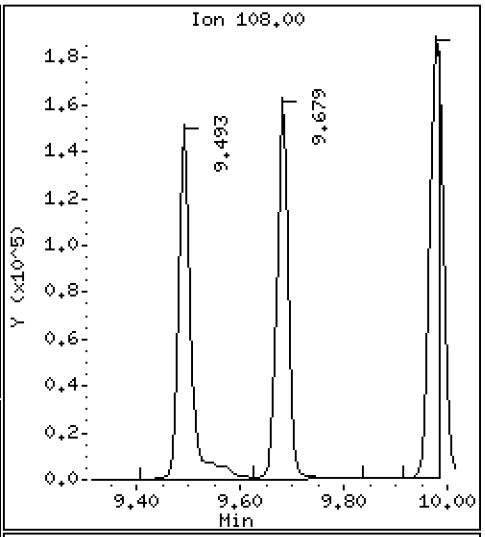
Column phase: ZB-5msi

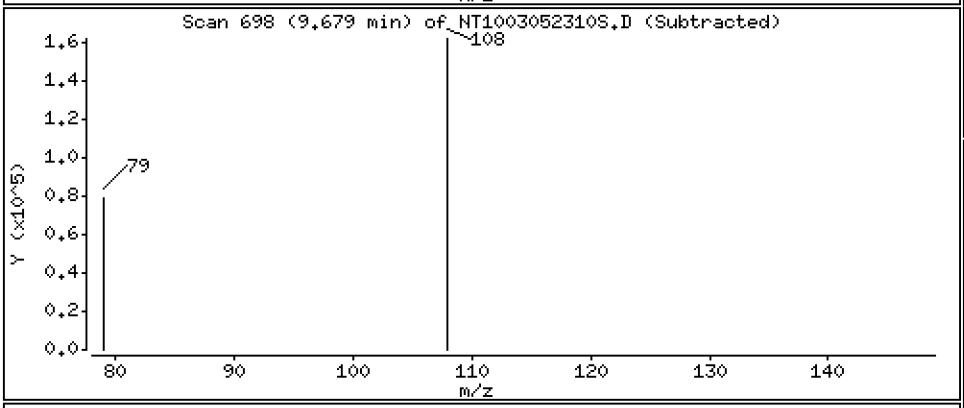
Column diameter: 0.25

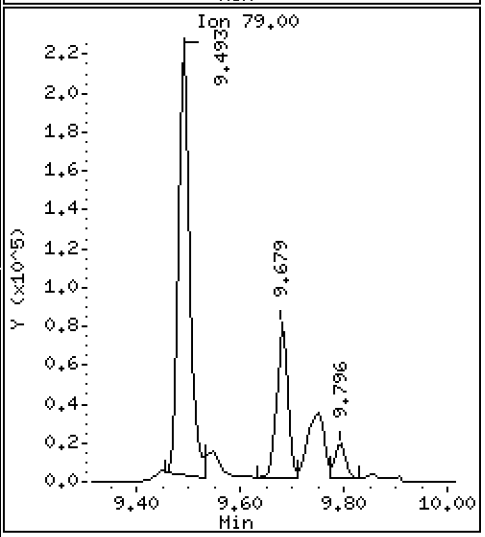
13 2-Methylphenol

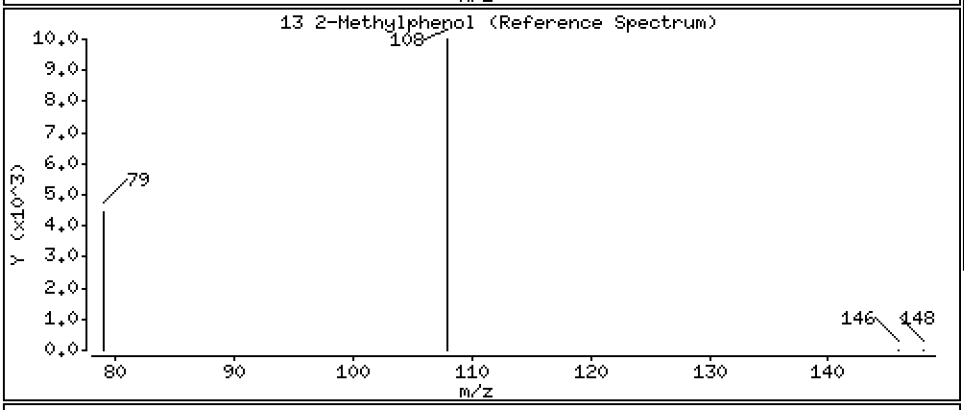
Concentration: 2.782 ug/mL

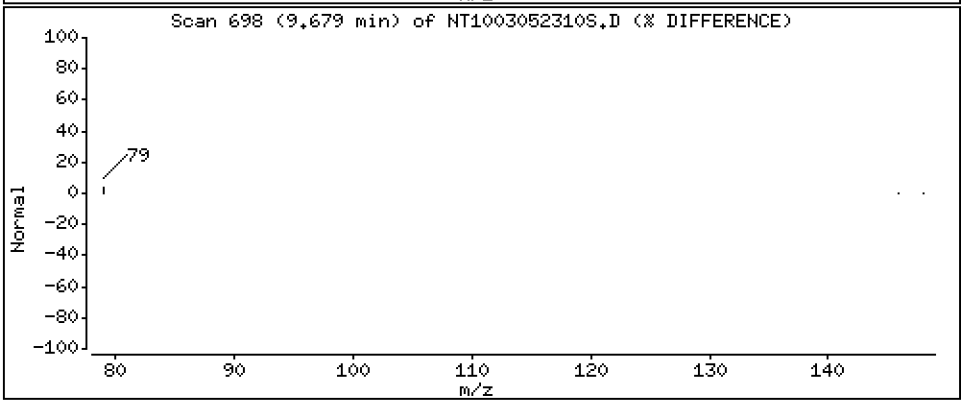












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052310S.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

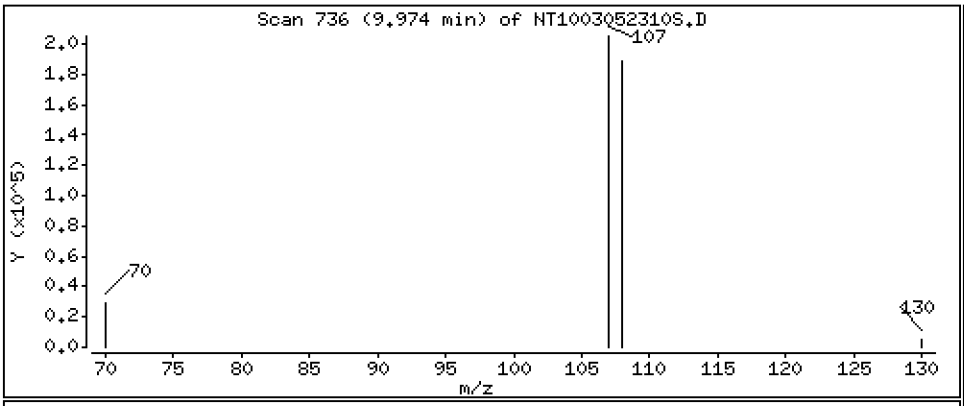
Operator: YZ

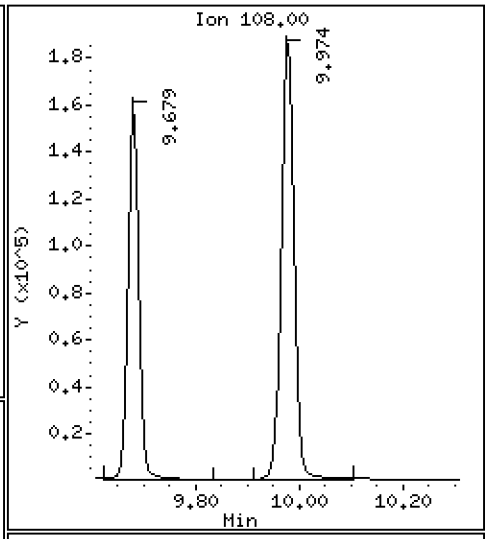
Column phase: ZB-5msi

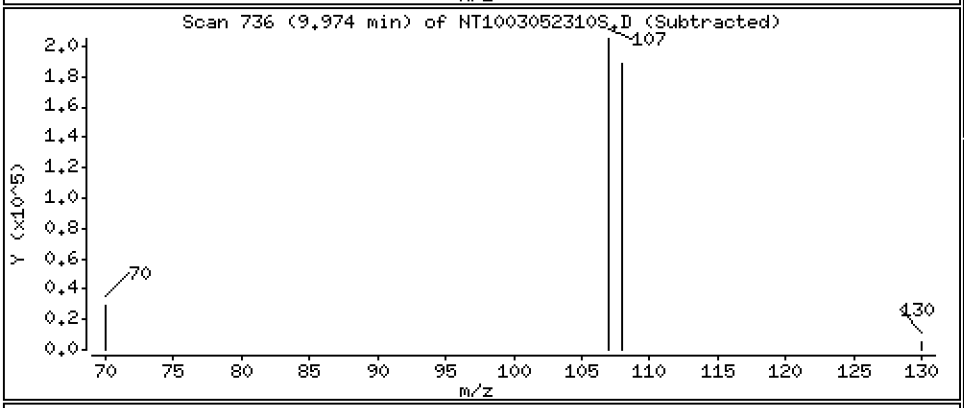
Column diameter: 0.25

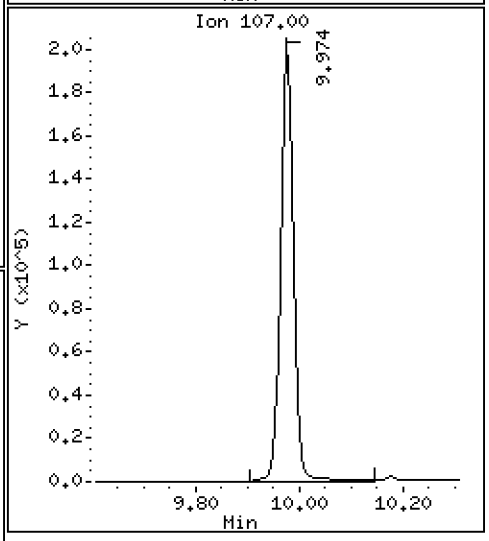
15 4-Methylphenol

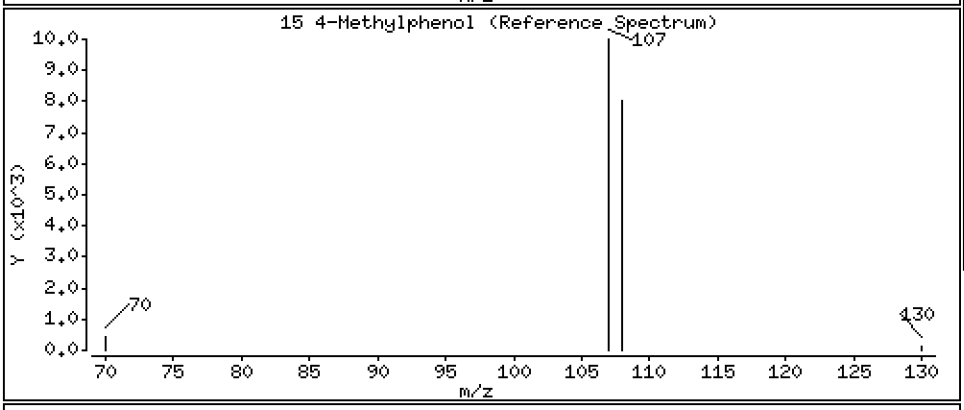
Concentration: 3.586 ug/mL

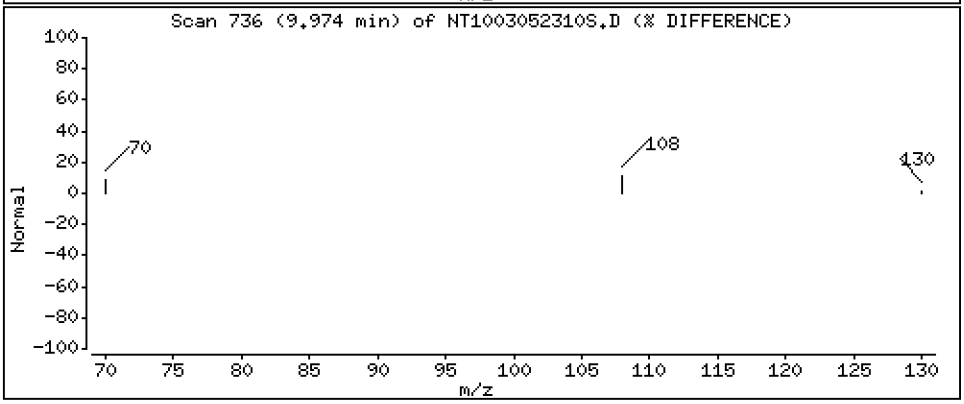












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052310S.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

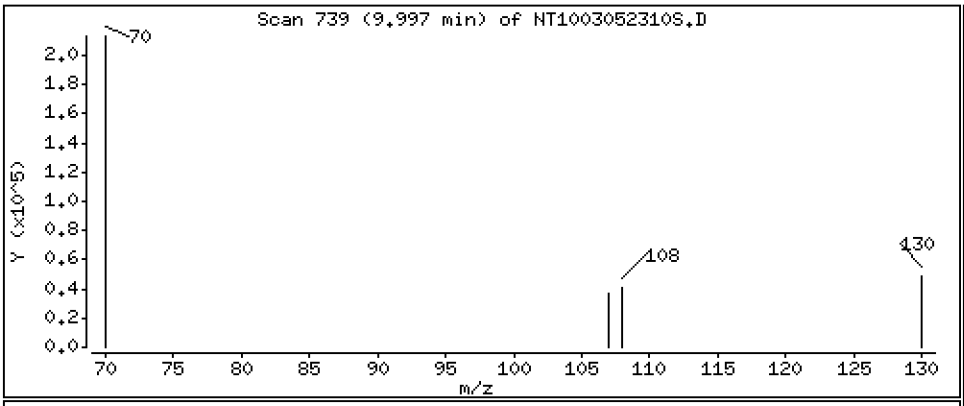
Operator: YZ

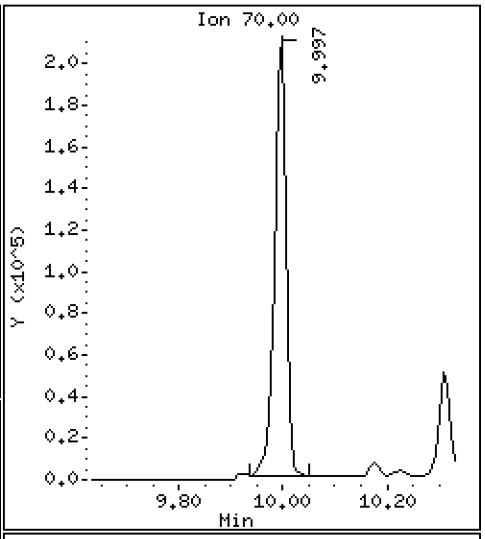
Column phase: ZB-5msi

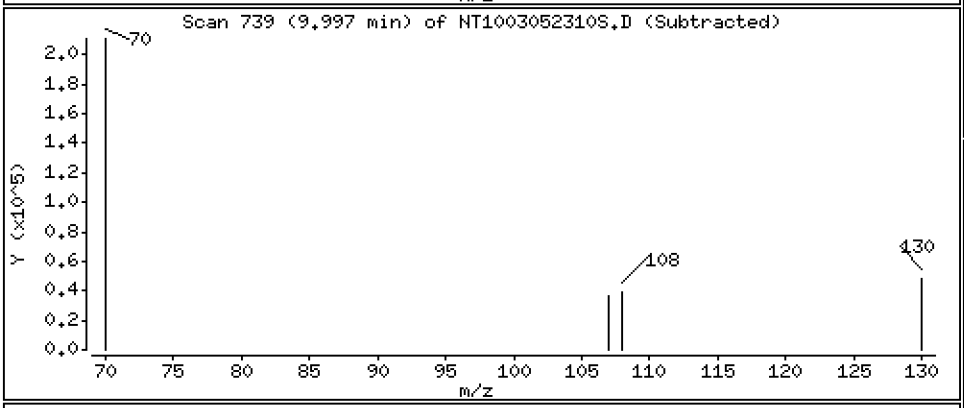
Column diameter: 0.25

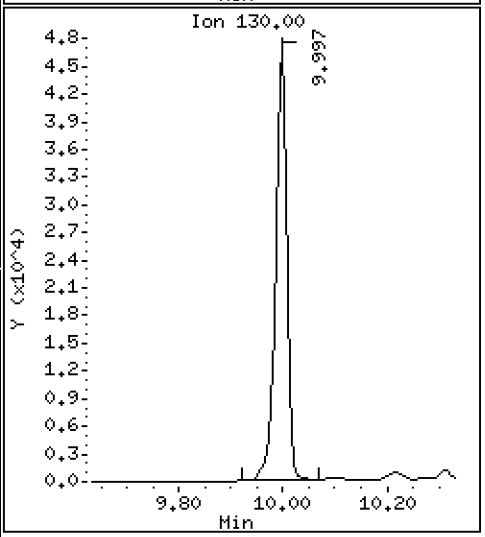
16 N-Nitroso-di-n-propylamine

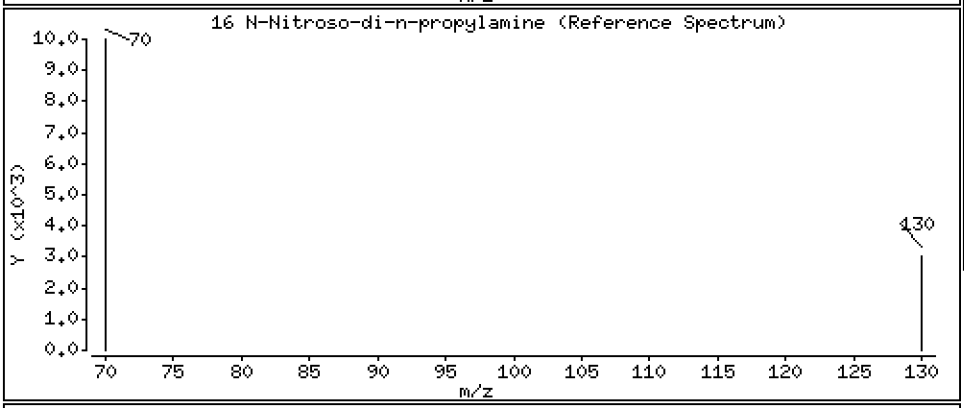
Concentration: 5.070 ug/mL

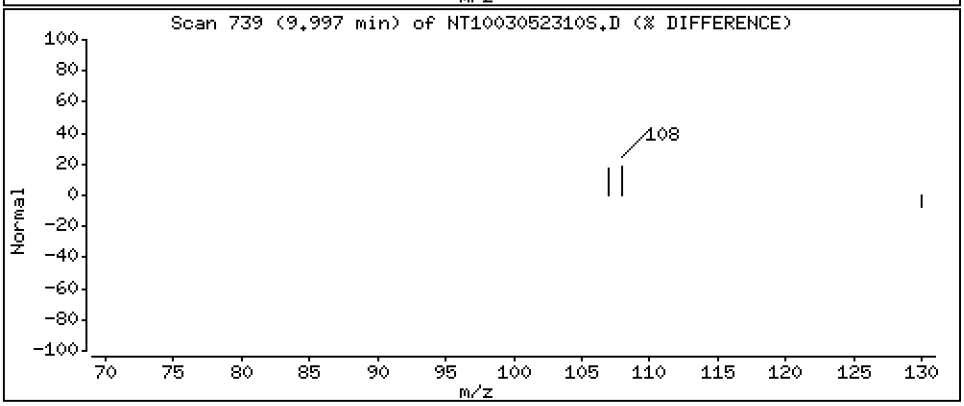












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

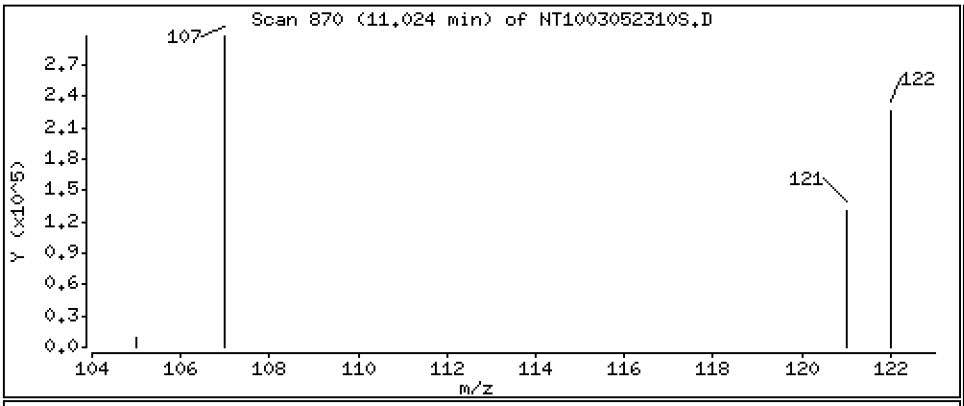
Operator: YZ

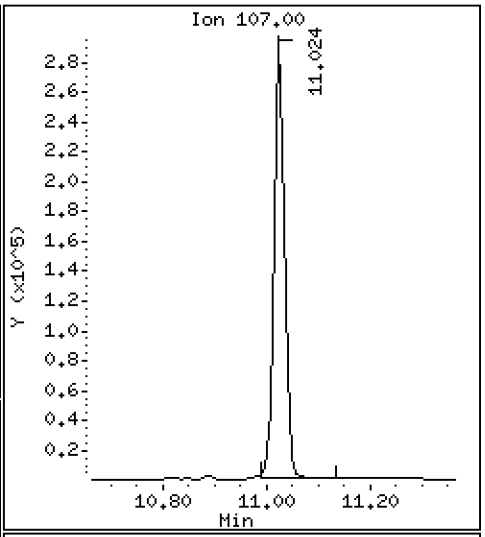
Column phase: ZB-5msi

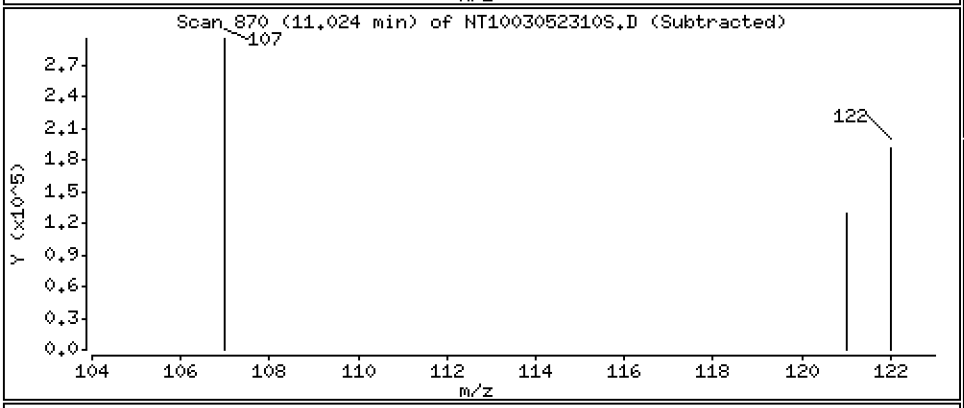
Column diameter: 0.25

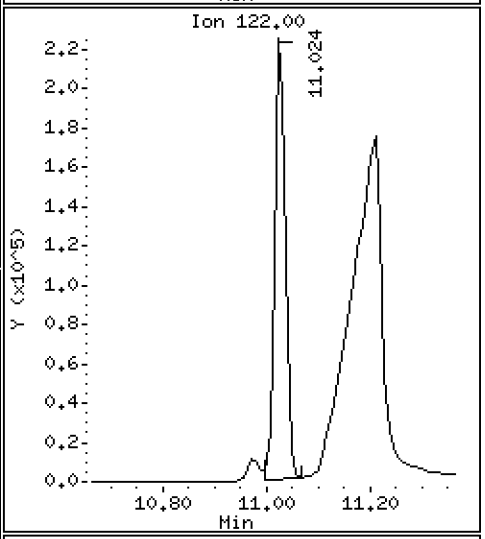
22 2,4-Dimethylphenol

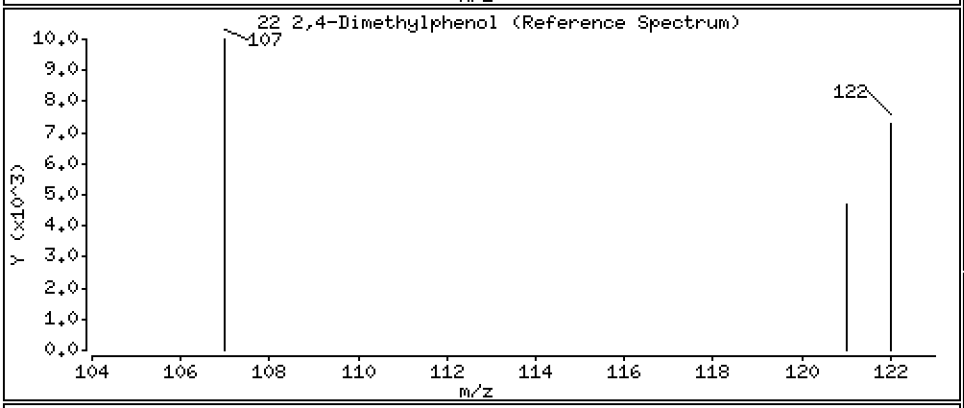
Concentration: 4.104 ug/mL

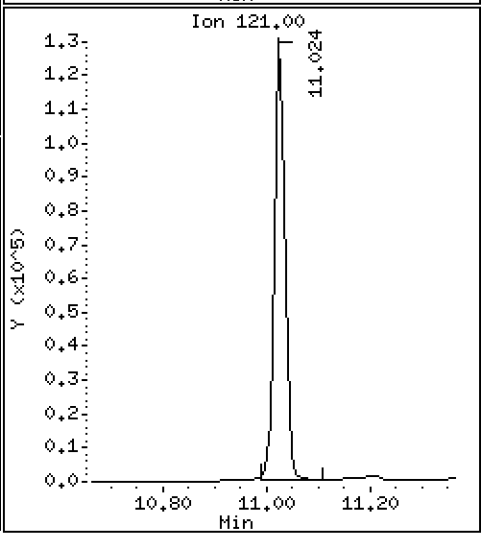


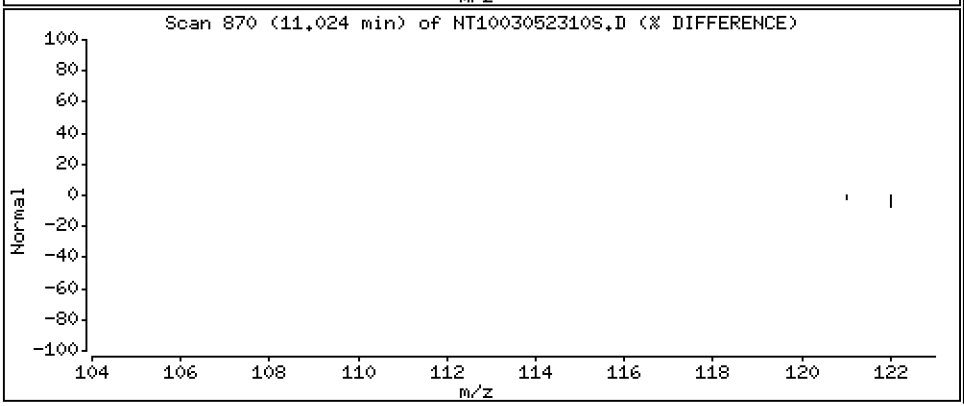












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

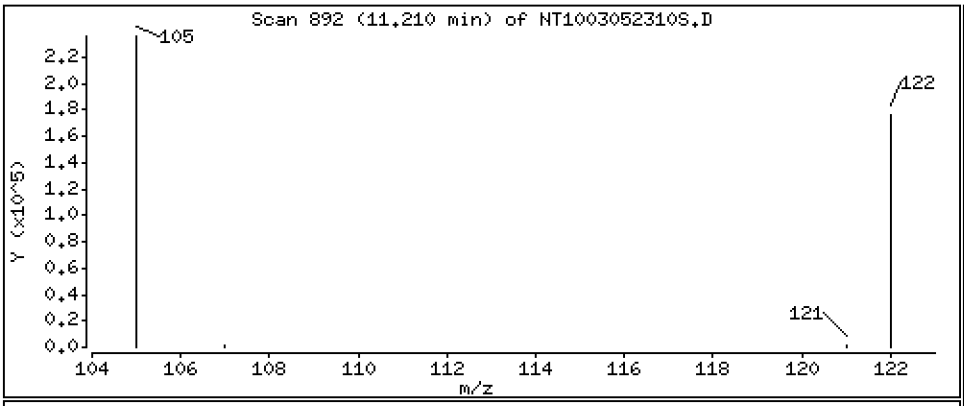
Operator: YZ

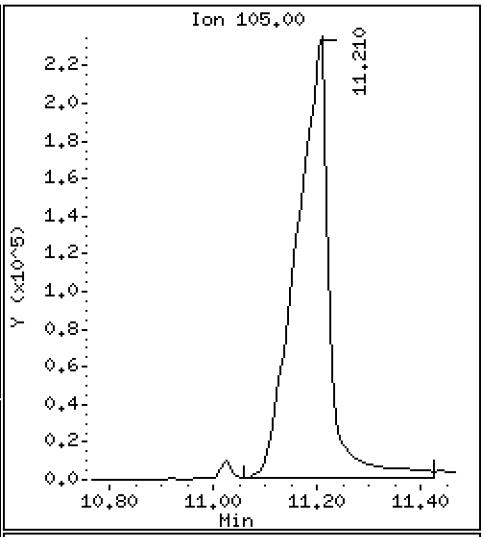
Column phase: ZB-5msi

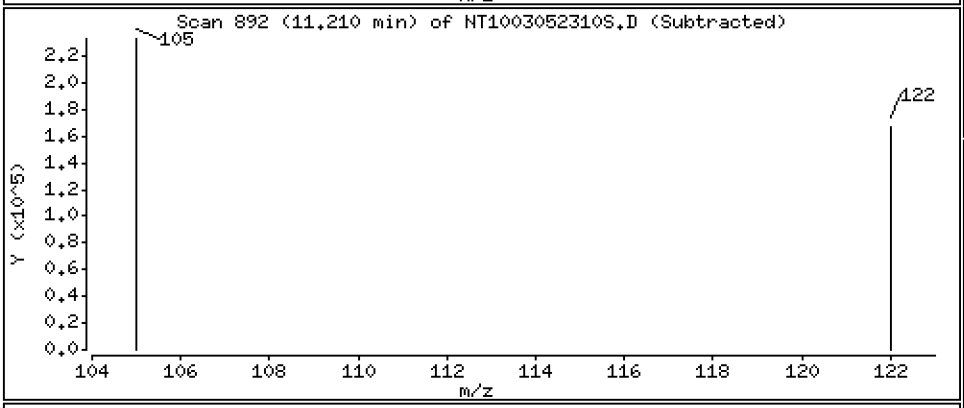
Column diameter: 0.25

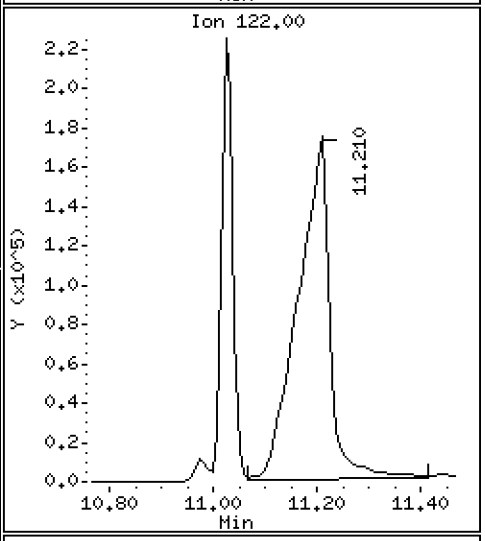
24 Benzoic acid

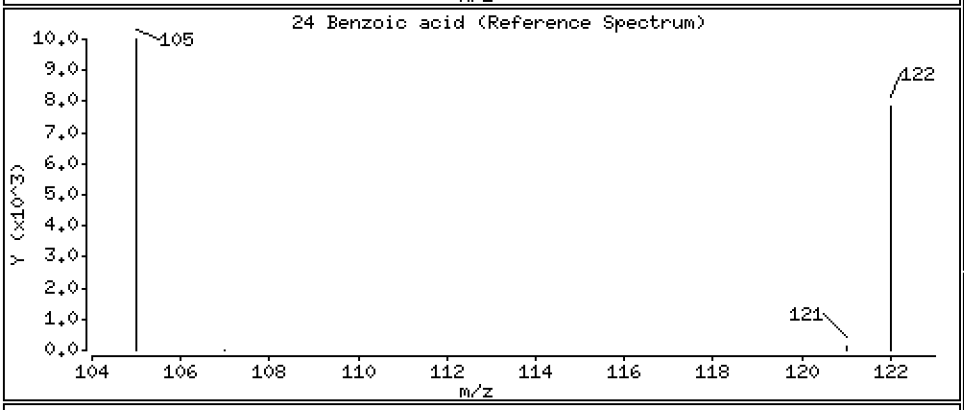
Concentration: 17.07 ug/mL

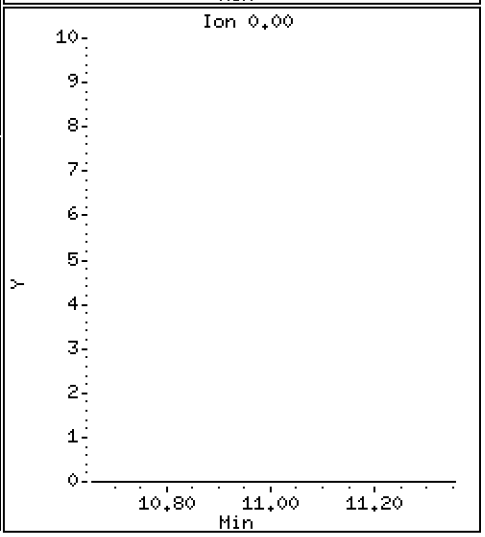


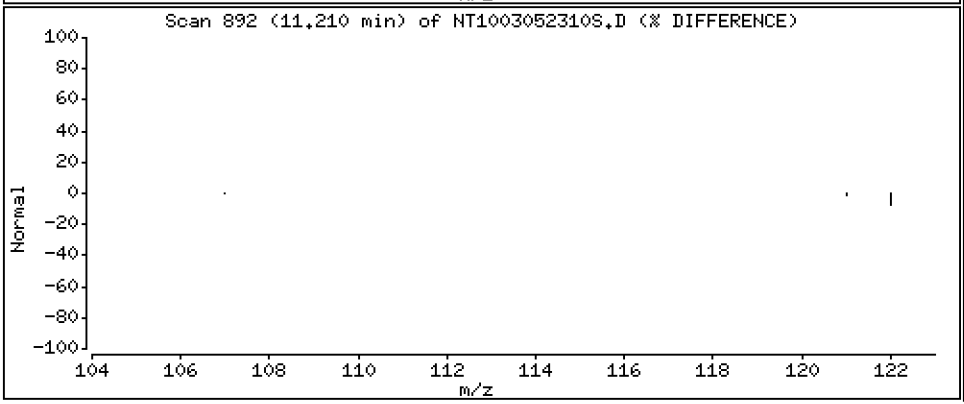












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

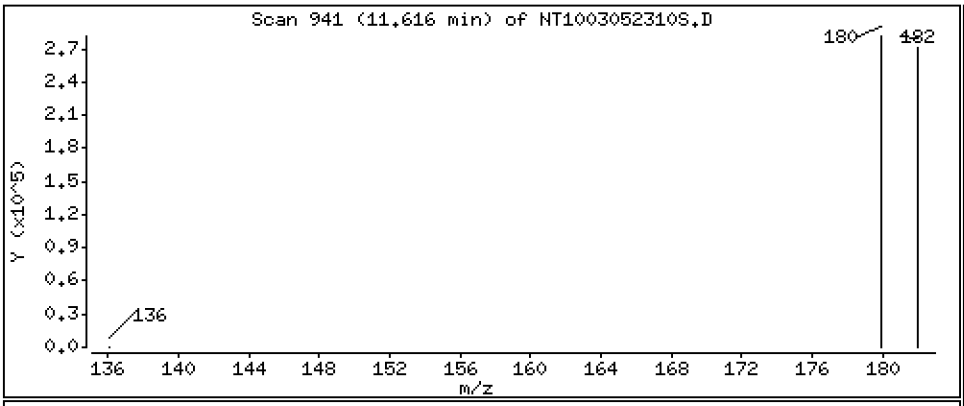
Operator: YZ

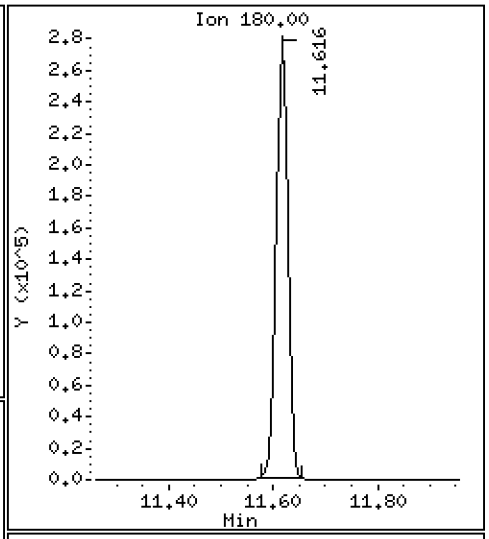
Column phase: ZB-5msi

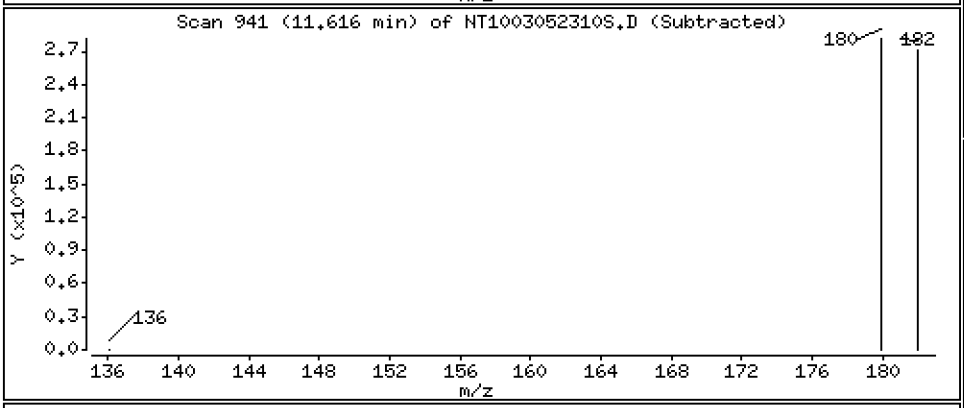
Column diameter: 0.25

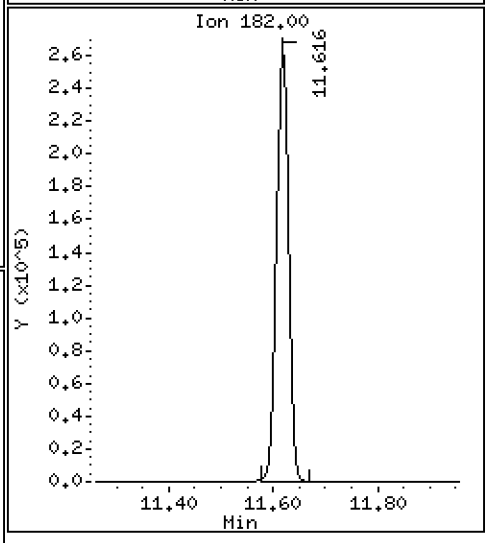
26 1,2,4-Trichlorobenzene

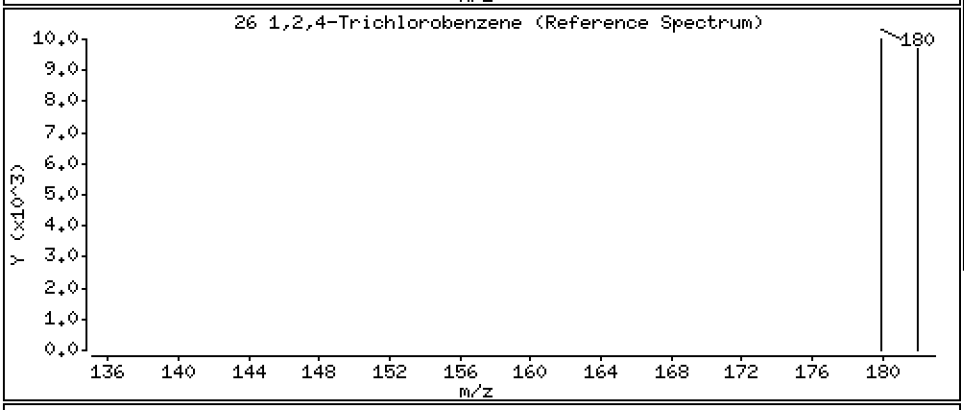
Concentration: 4.705 ug/mL

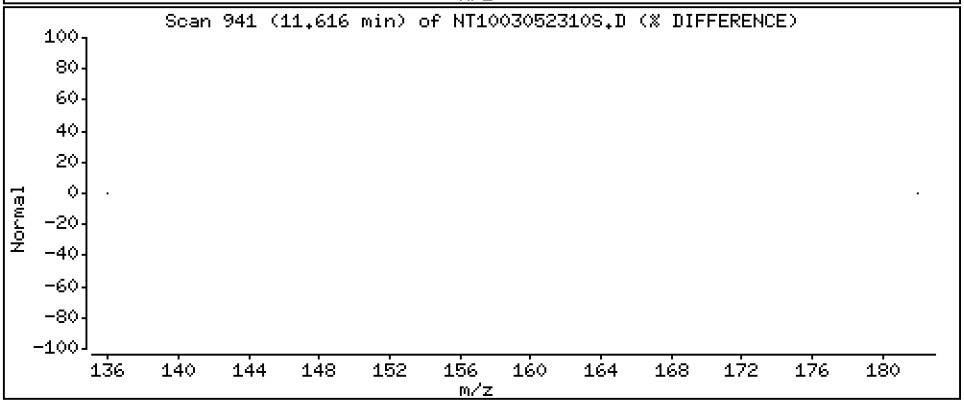












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052310S.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

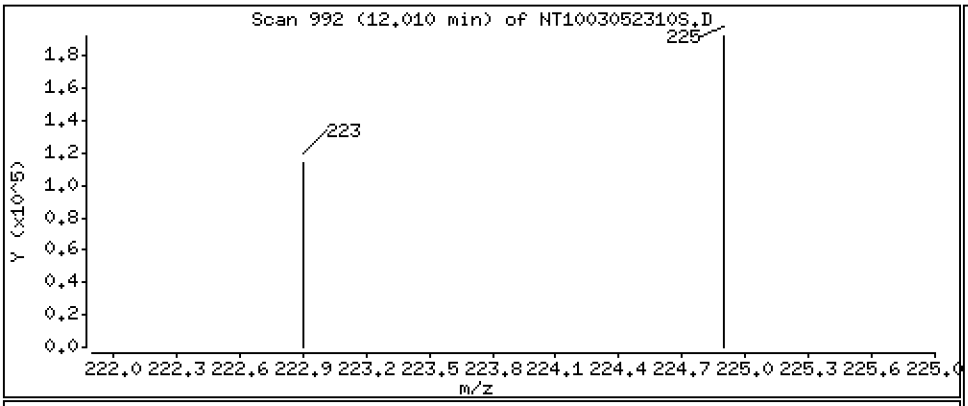
Operator: YZ

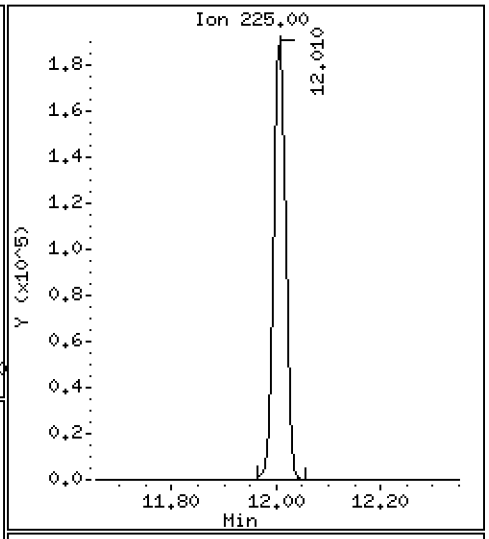
Column phase: ZB-5msi

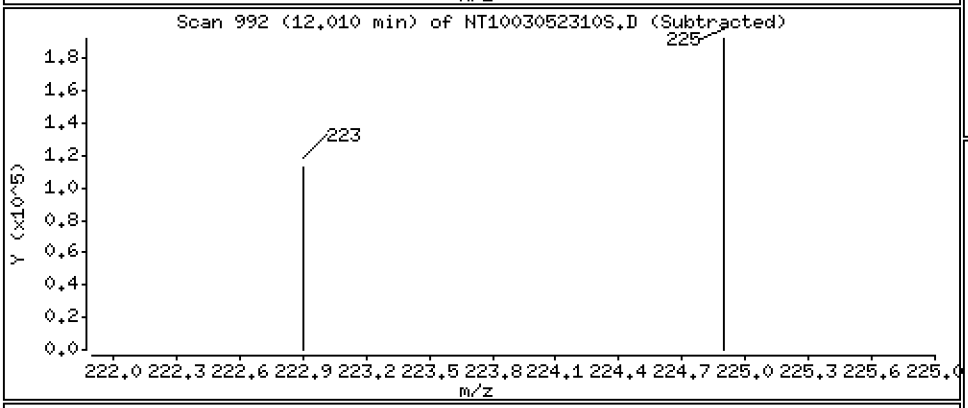
Column diameter: 0.25

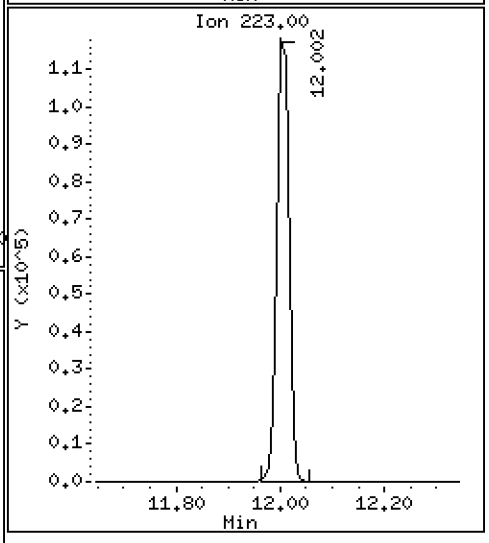
30 Hexachlorobutadiene

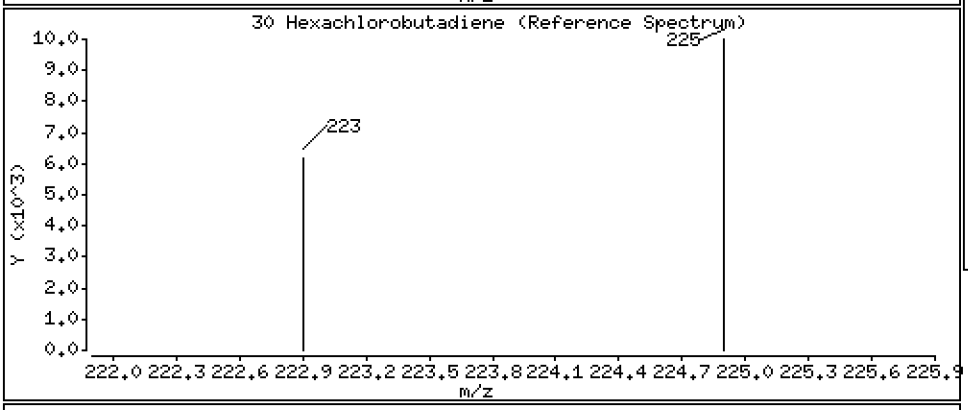
Concentration: 4.677 ug/mL

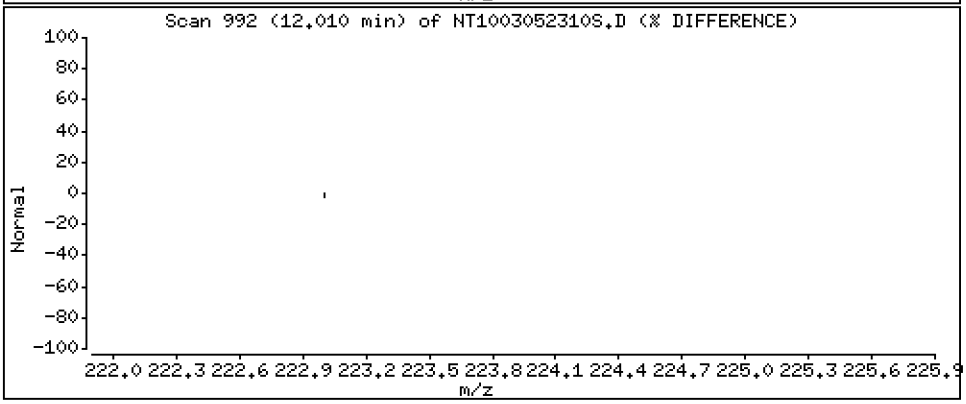












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

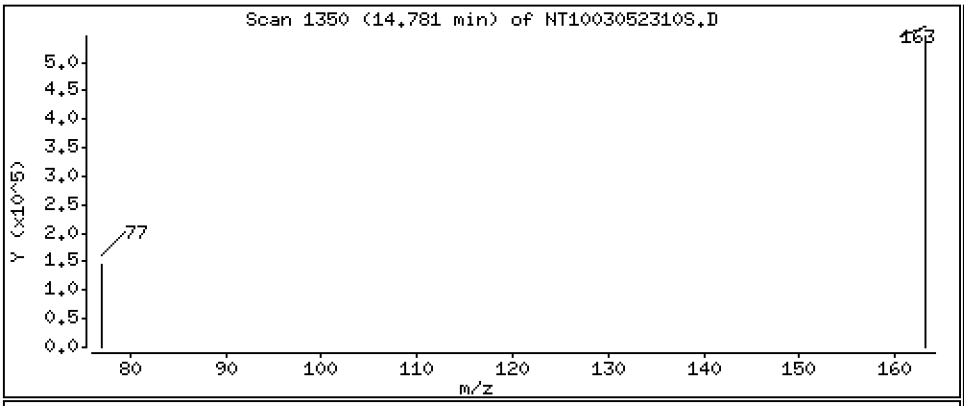
Operator: YZ

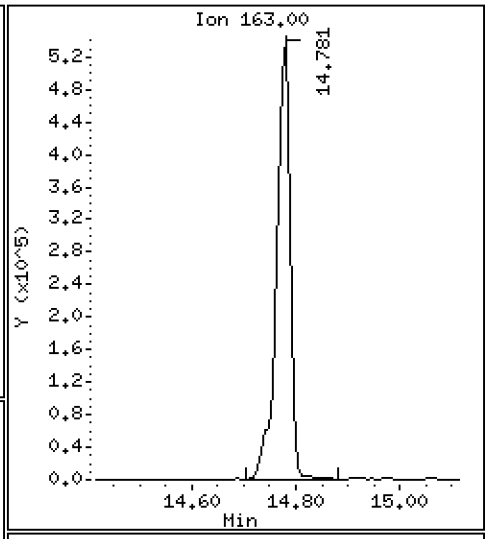
Column phase: ZB-5msi

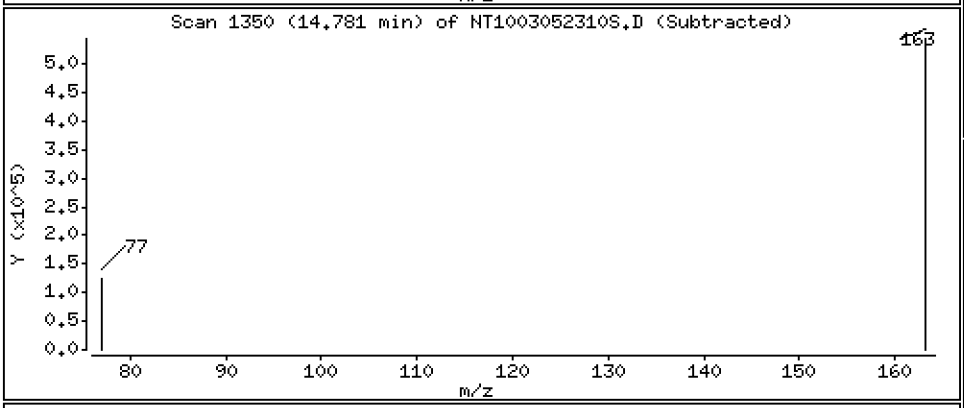
Column diameter: 0.25

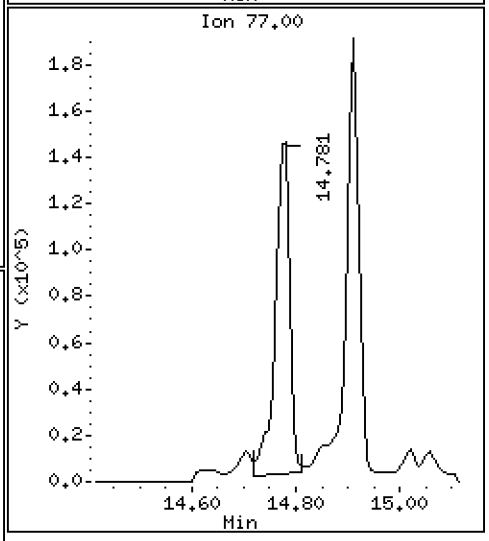
39 Dimethylphthalate

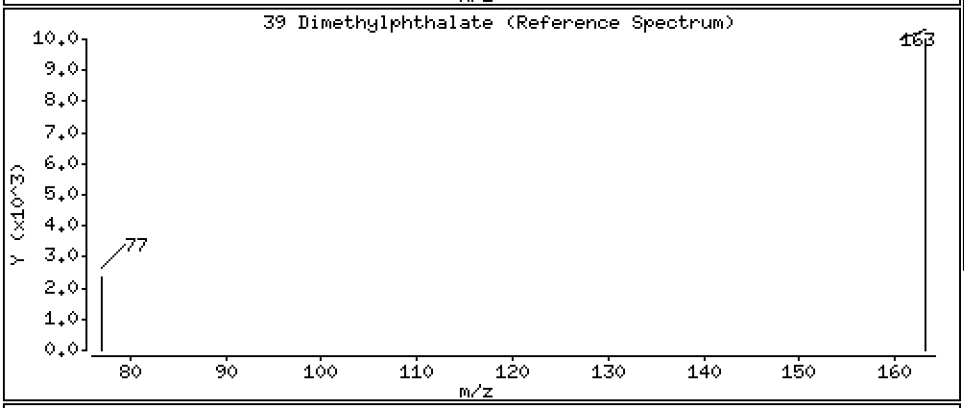
Concentration: 5.020 ug/mL

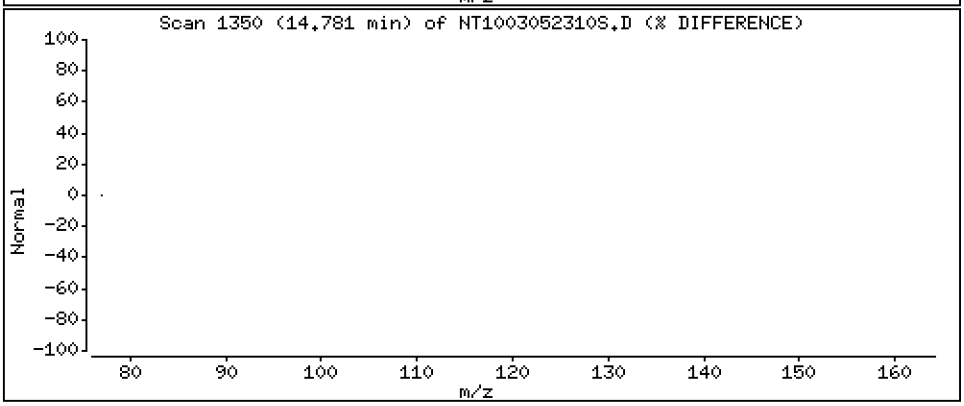












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

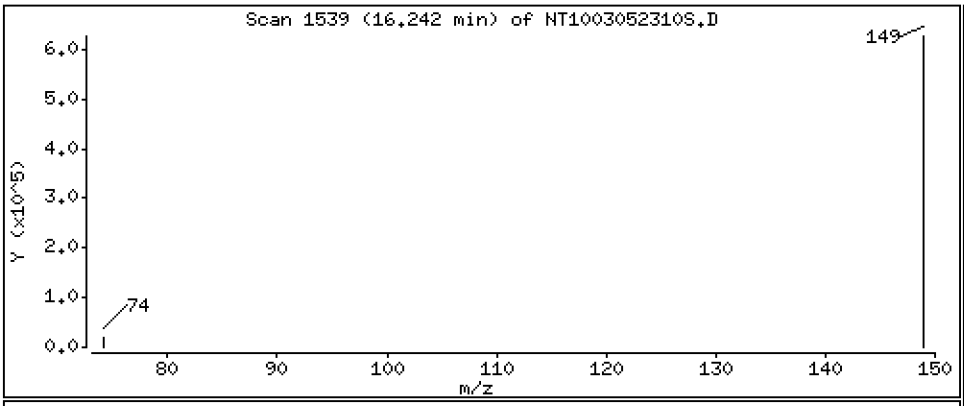
Operator: YZ

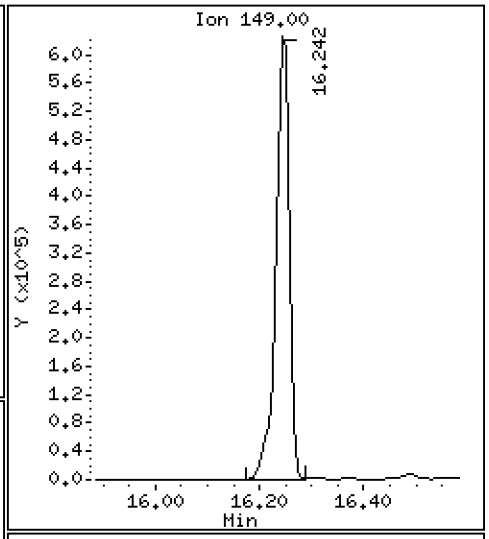
Column phase: ZB-5msi

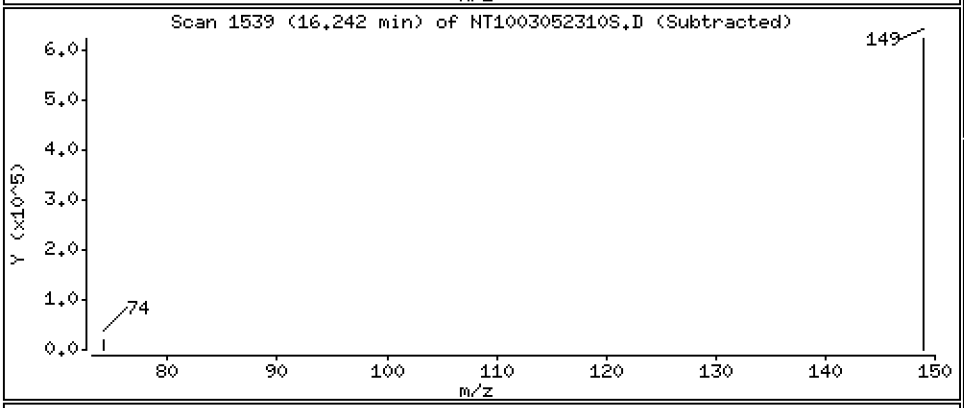
Column diameter: 0.25

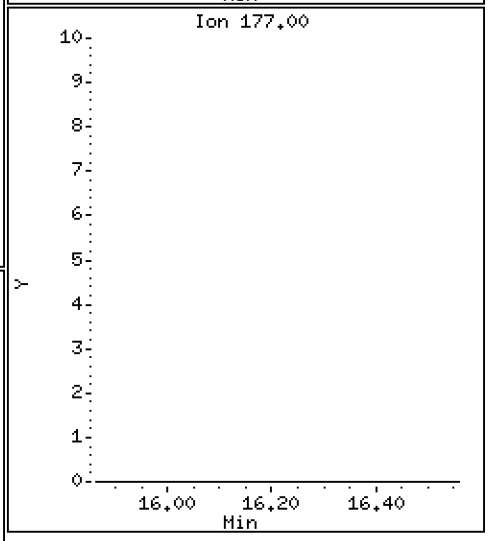
50 Diethylphthalate

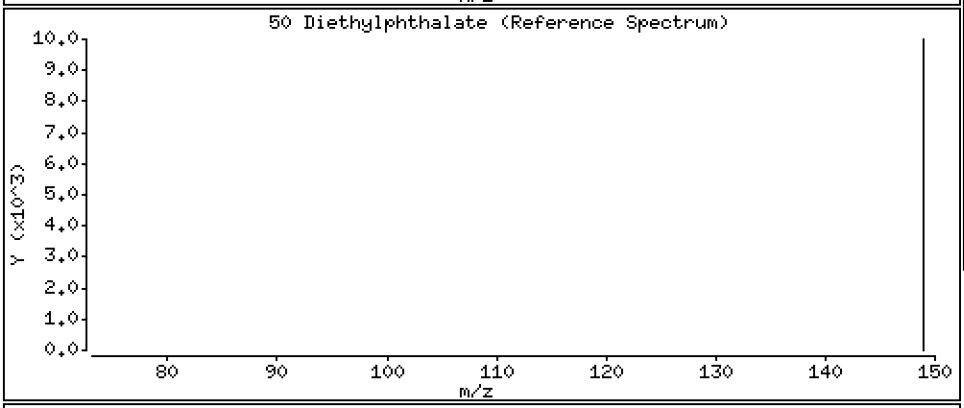
Concentration: 6.019 ug/mL

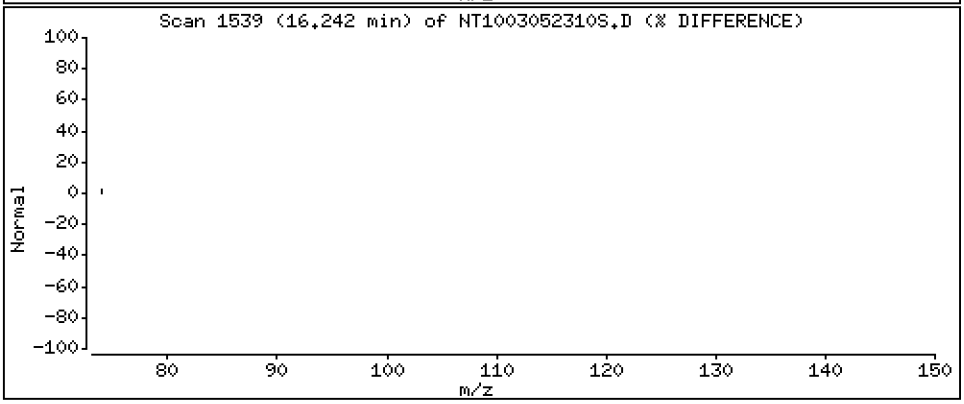












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

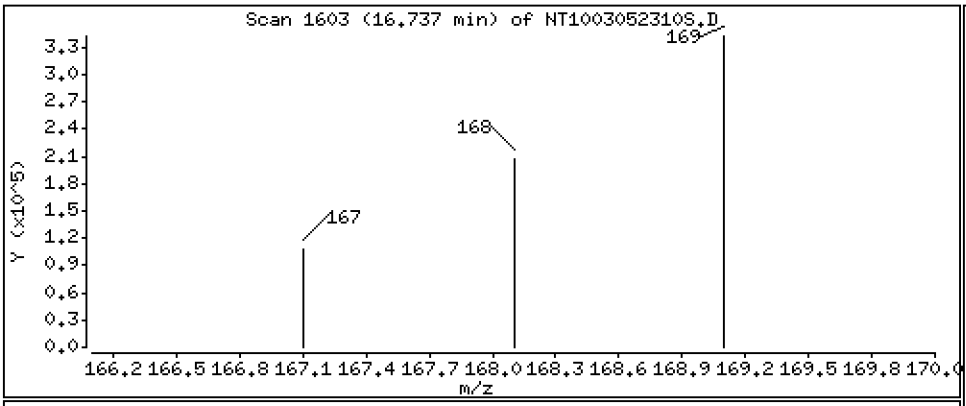
Operator: YZ

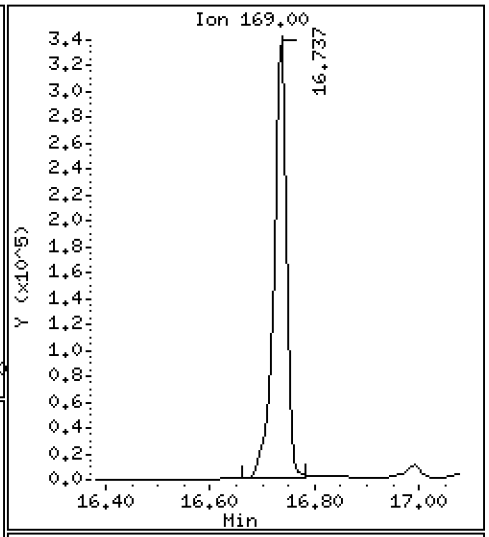
Column phase: ZB-5msi

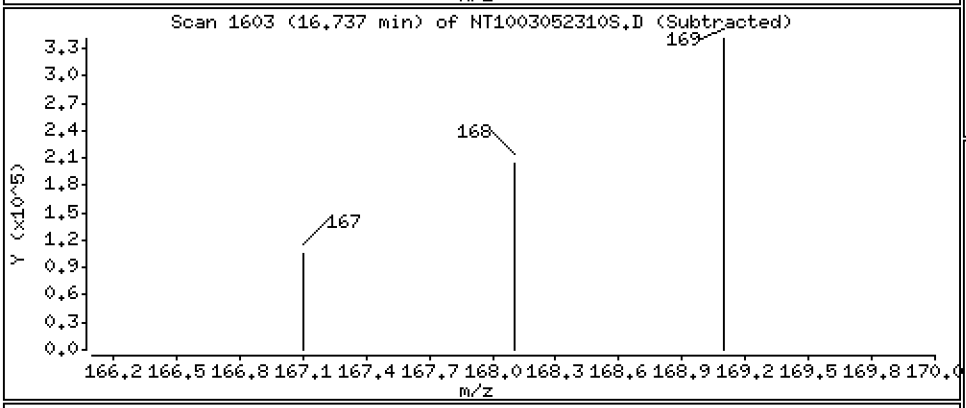
Column diameter: 0.25

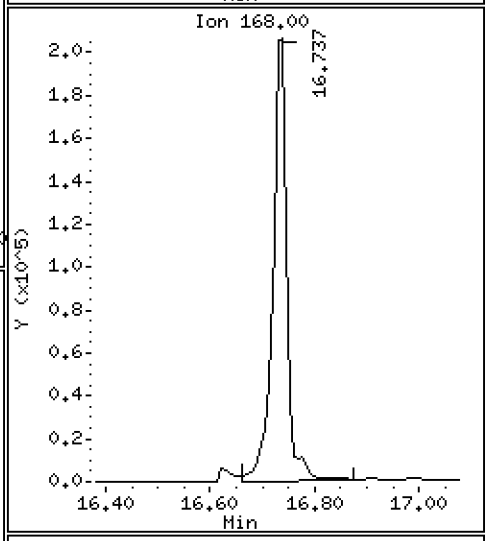
54 N-Nitrosodiphenylamine

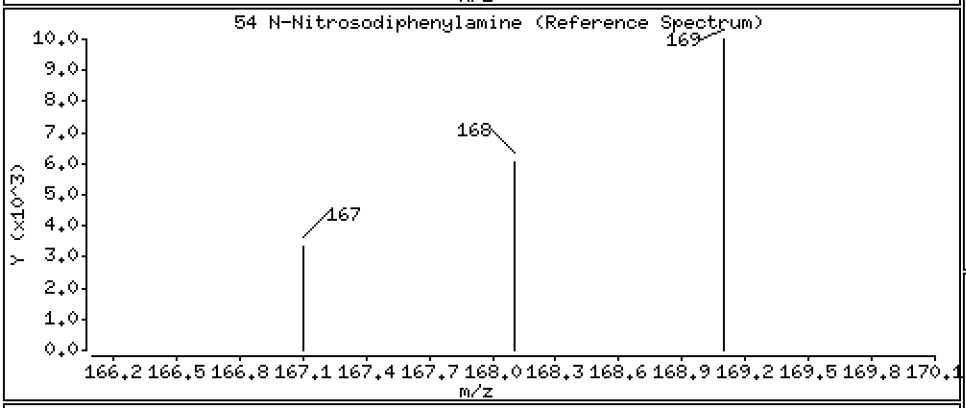
Concentration: 3.051 ug/mL

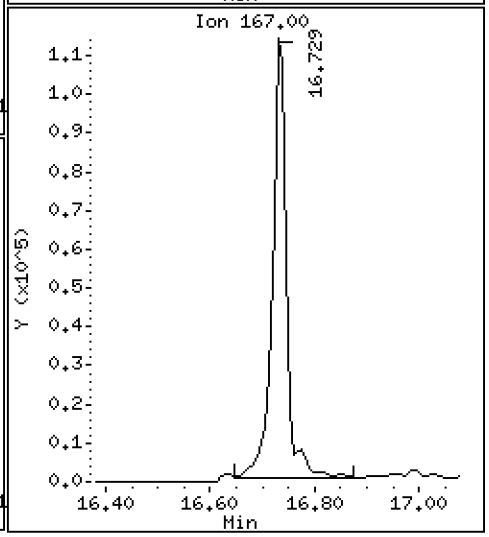


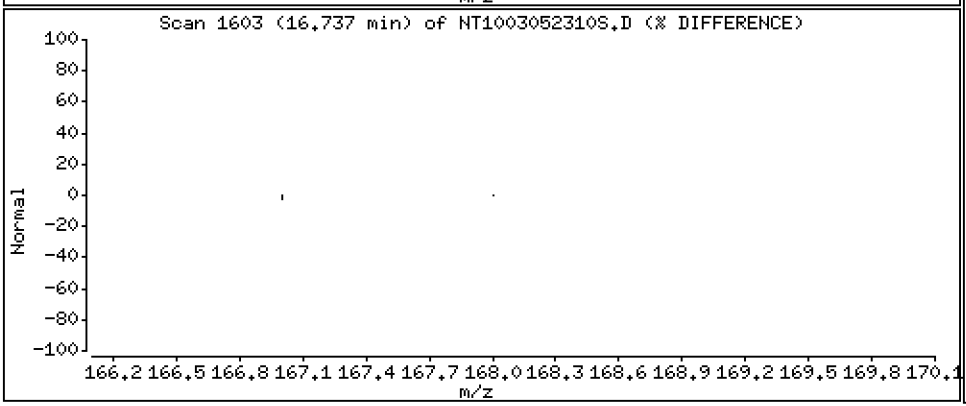












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Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

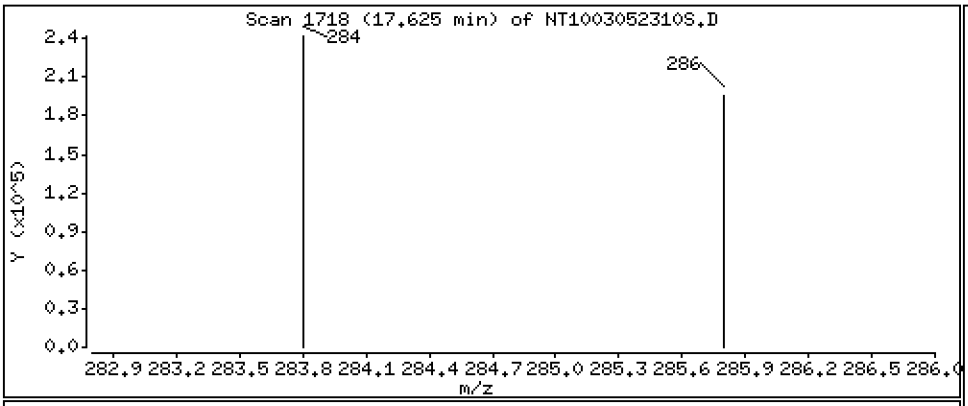
Operator: YZ

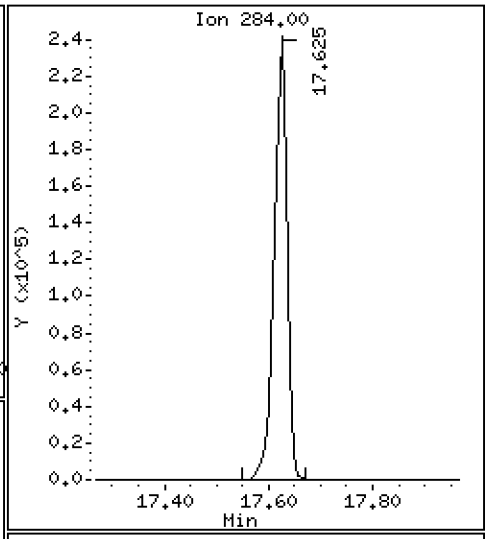
Column phase: ZB-5msi

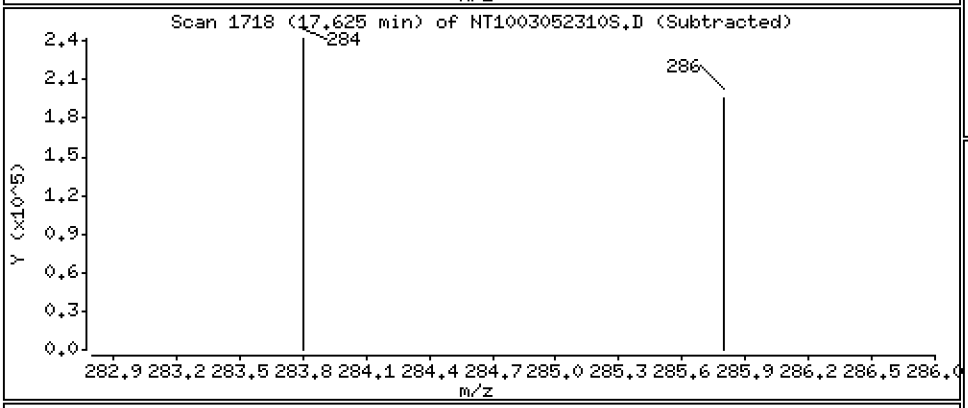
Column diameter: 0.25

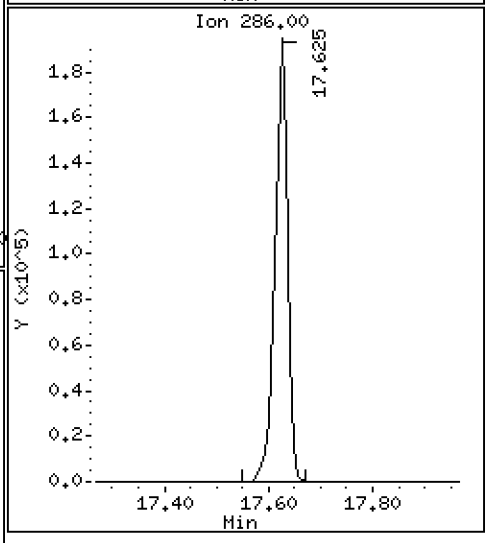
57 Hexachlorobenzene

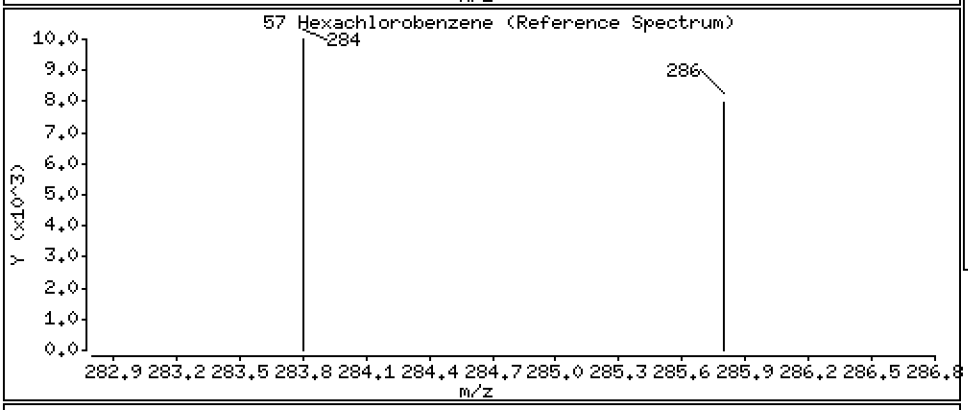
Concentration: 4.526 ug/mL

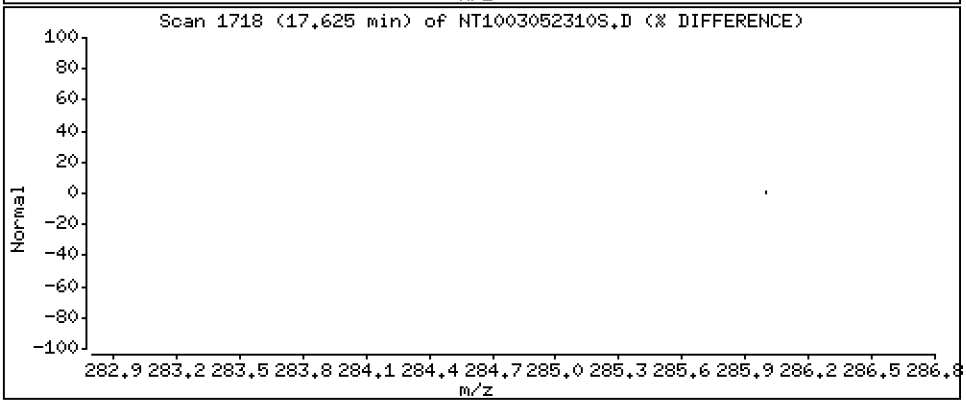












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052310S.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

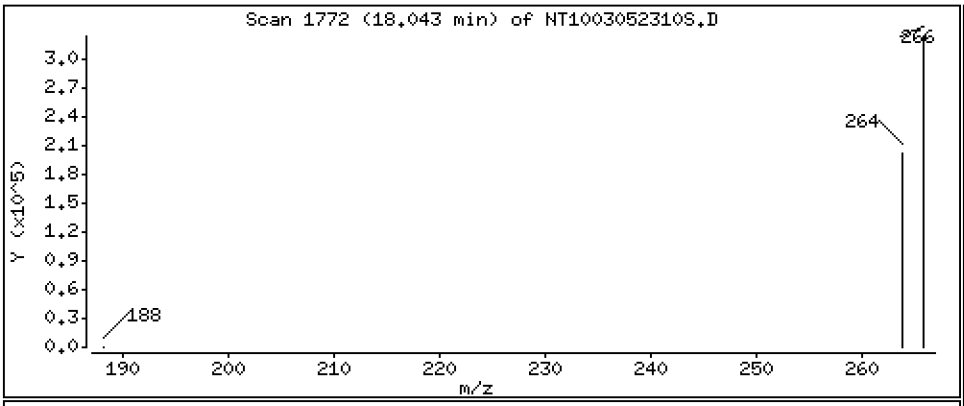
Operator: YZ

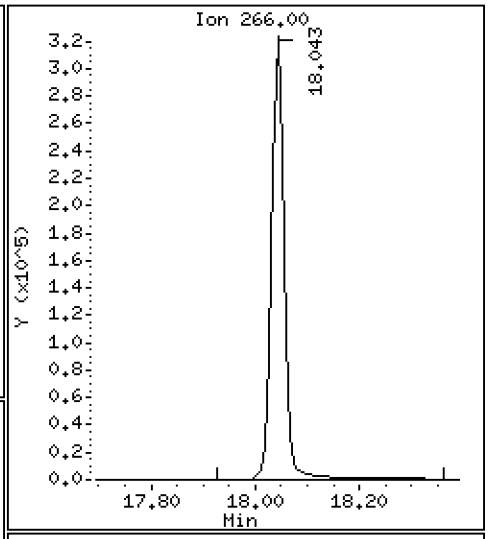
Column phase: ZB-5msi

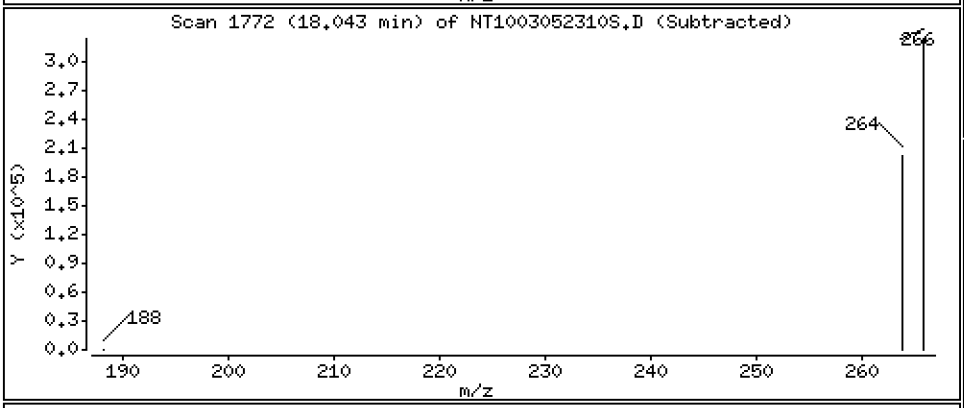
Column diameter: 0.25

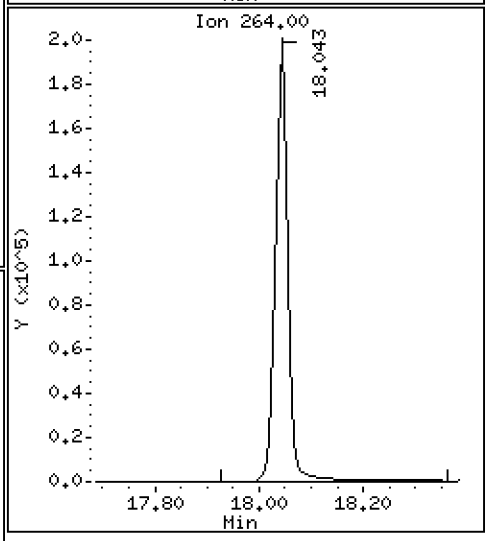
58 Pentachlorophenol

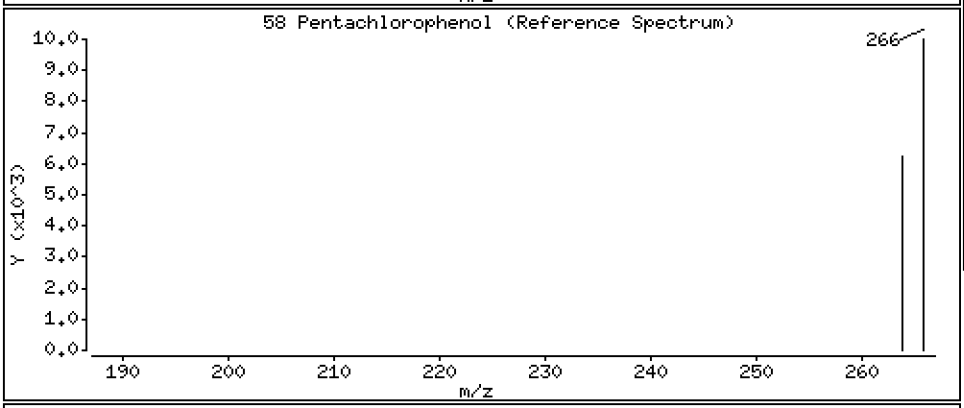
Concentration: 11.68 ug/mL

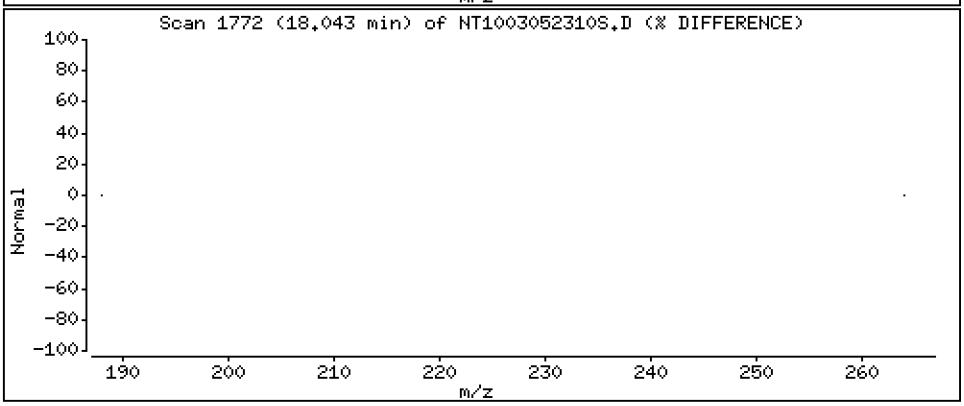












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052310S.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

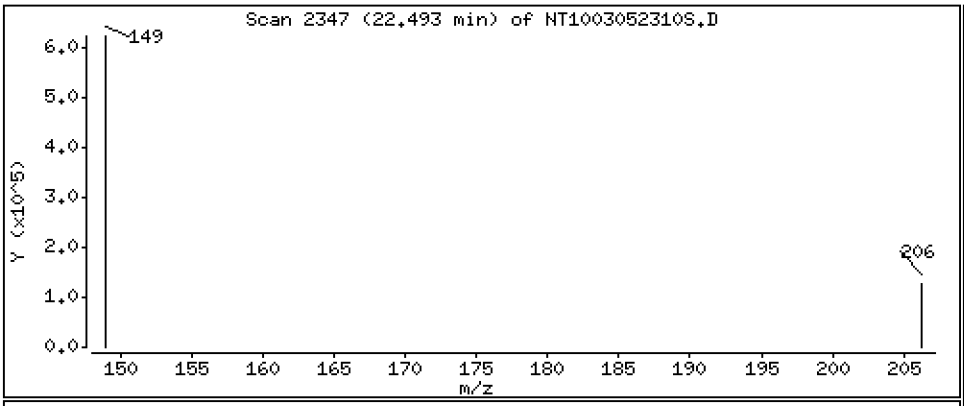
Operator: YZ

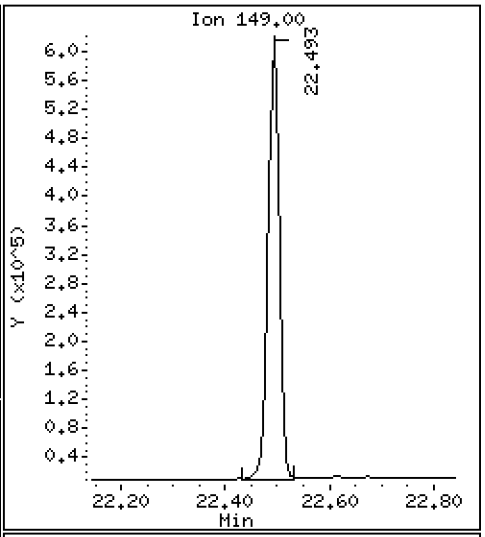
Column phase: ZB-5msi

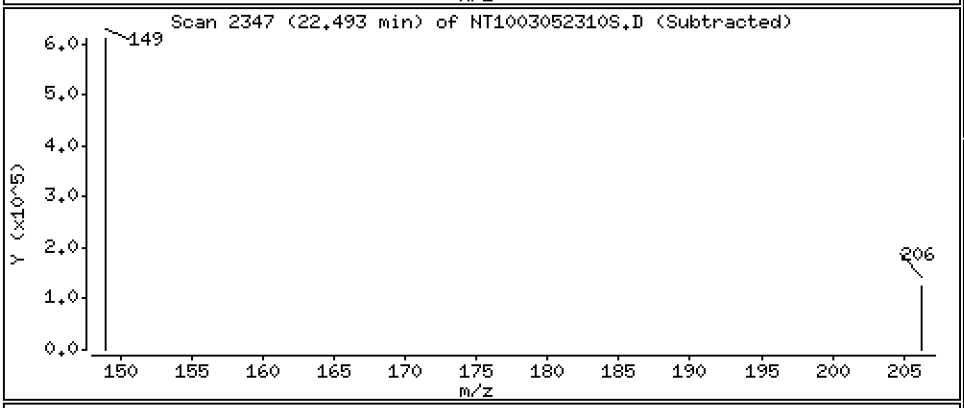
Column diameter: 0.25

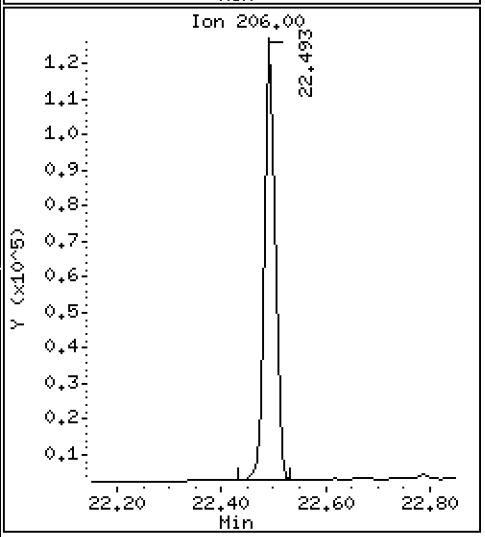
67 Butylbenzylphthalate

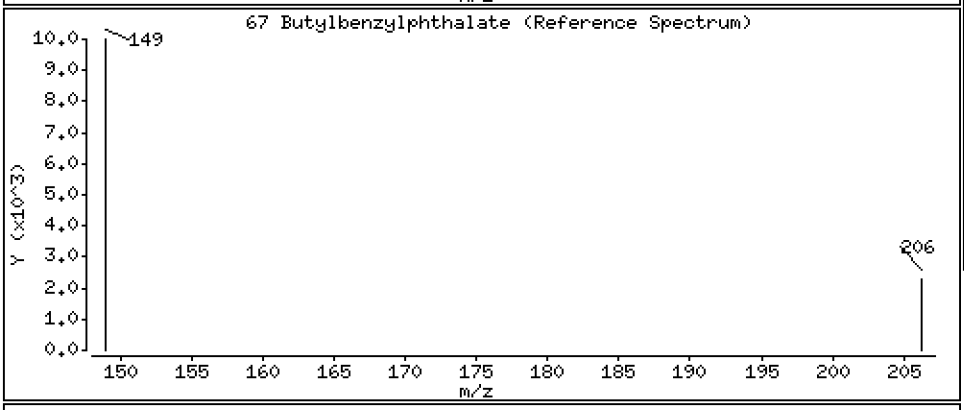
Concentration: 4.152 ug/mL

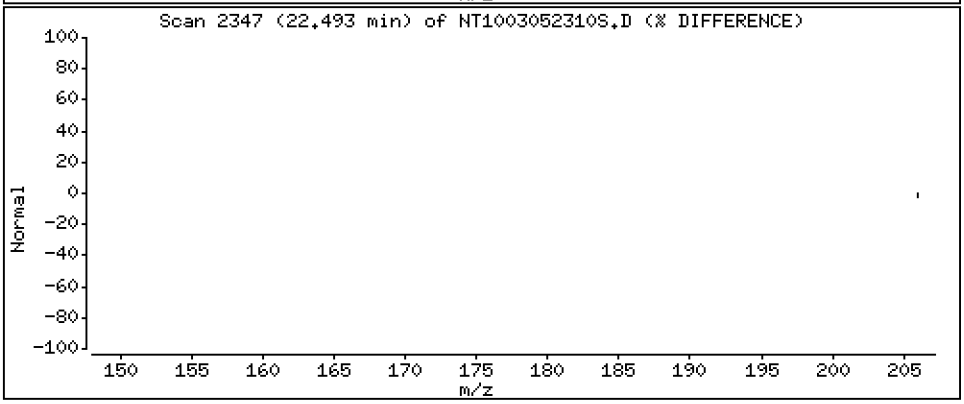












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052310S.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

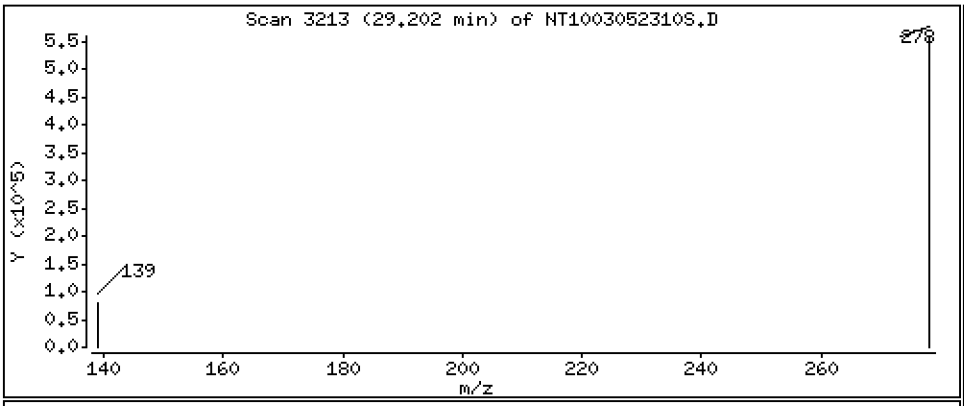
Operator: YZ

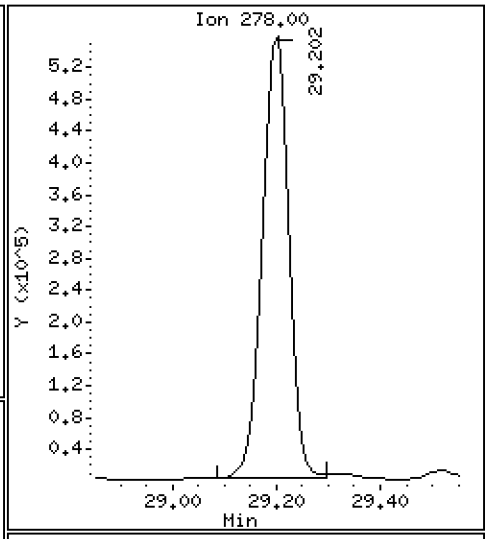
Column phase: ZB-5msi

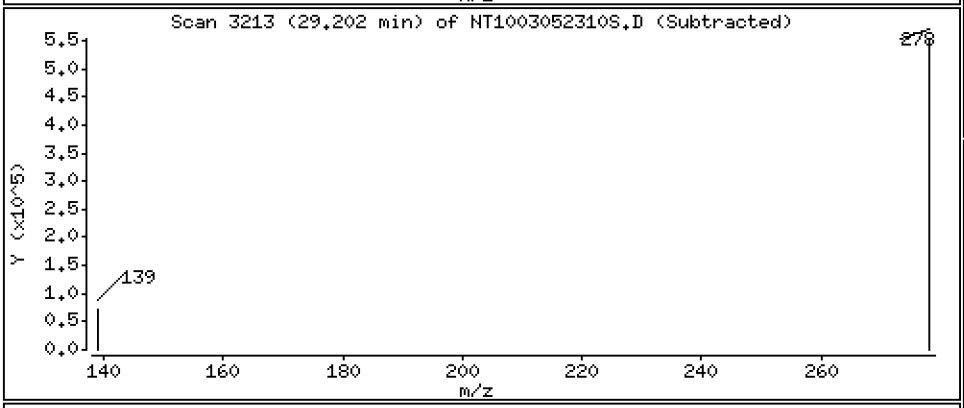
Column diameter: 0.25

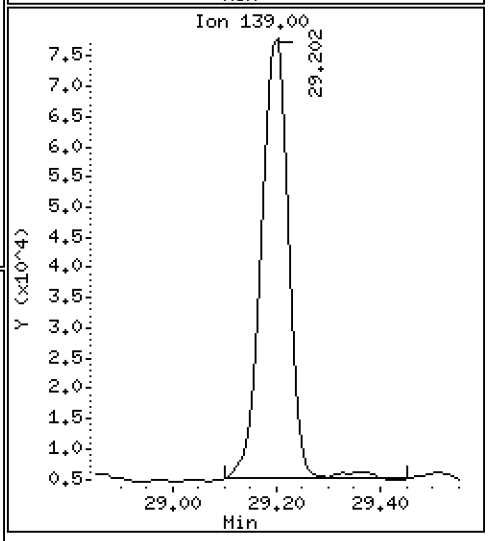
79 Dibenzo(a,h)anthracene

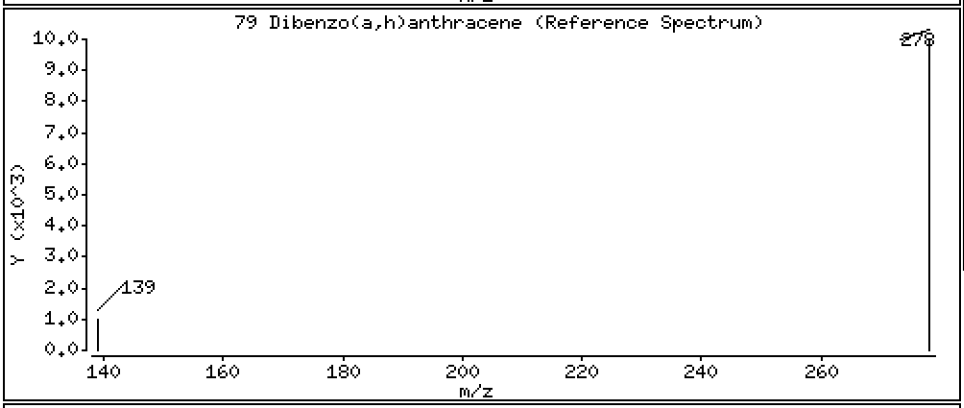
Concentration: 5.755 ug/mL

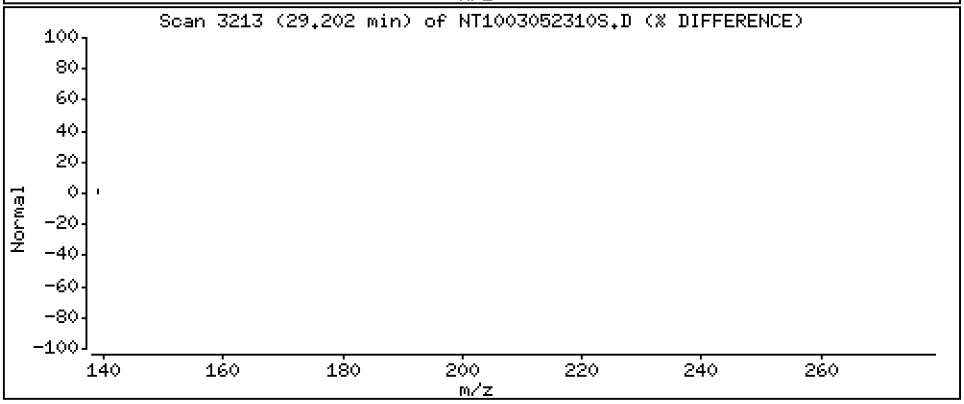












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523105.D

Date : 05-MAR-2023 19:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MS2

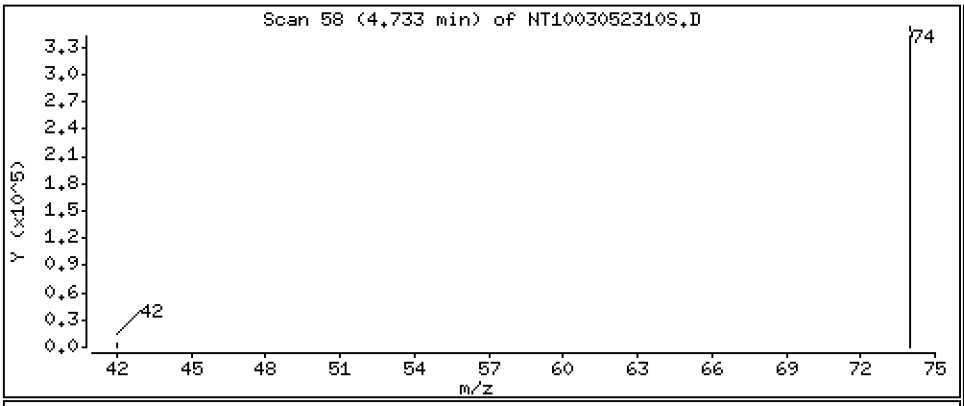
Operator: YZ

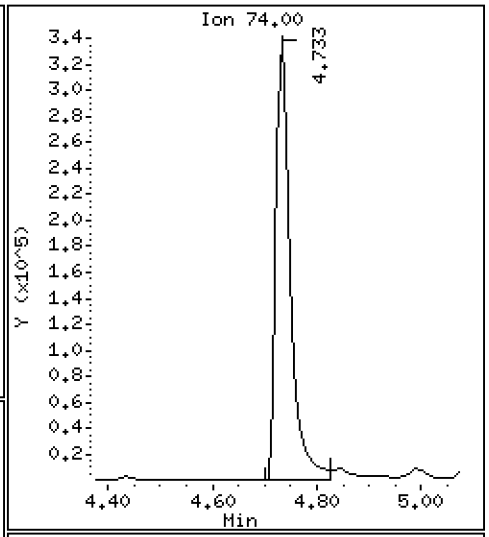
Column phase: ZB-5msi

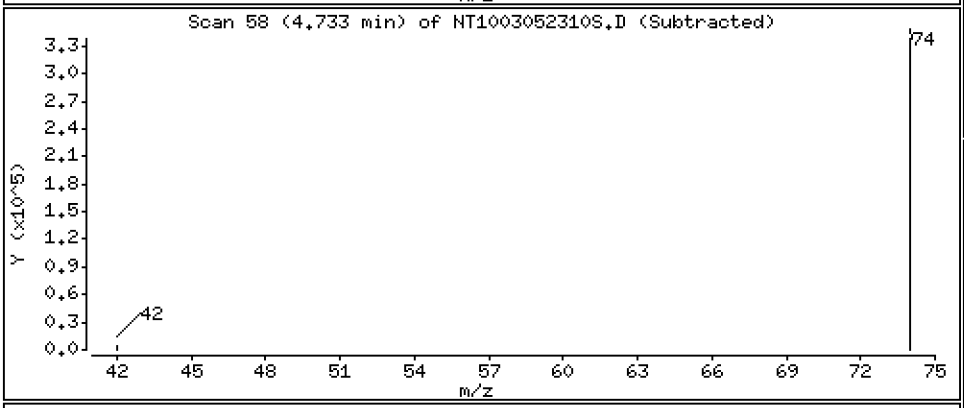
Column diameter: 0.25

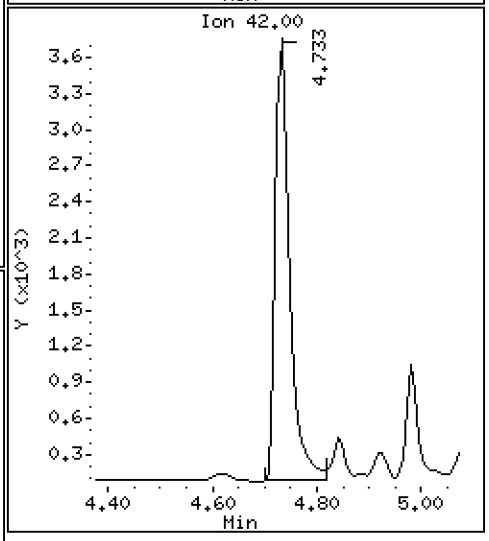
90 N-Nitrosodimethylamine

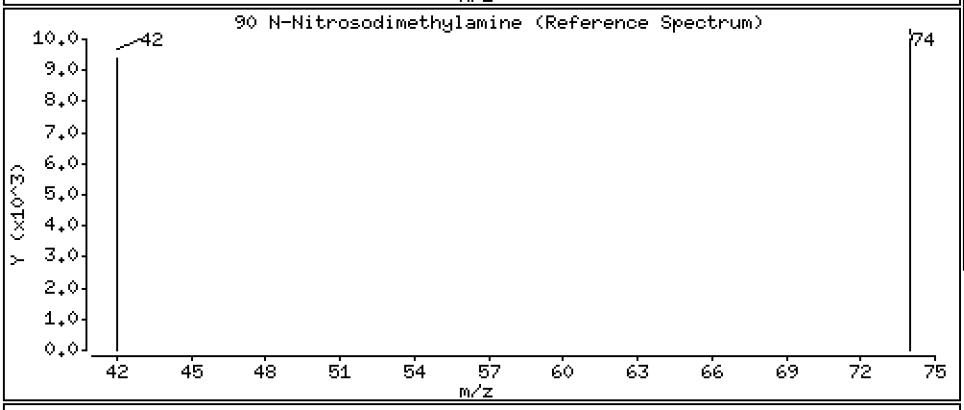
Concentration: 10.91 ug/mL

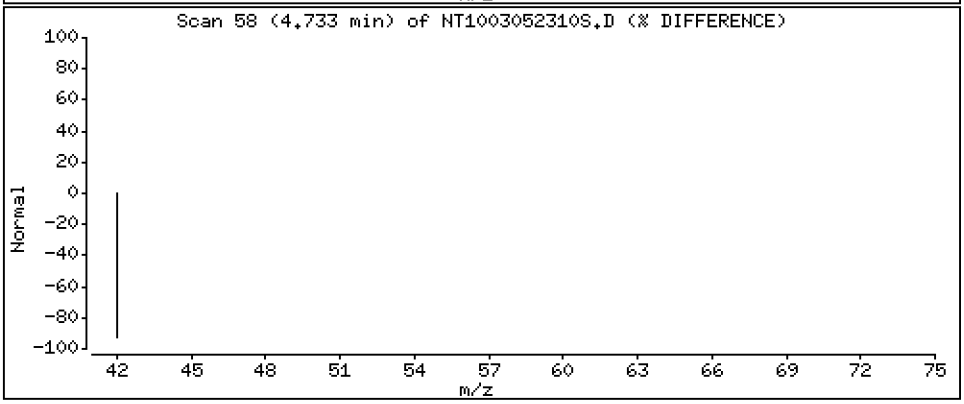












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052310S.D
Lab Smp Id: BLA0685-MS2
Inj Date : 05-MAR-2023 19:06
Operator : YZ Inst ID: nt10.i
Smp Info : BLA0685-MS2
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:00 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
$	1	2-Fluorophenol	112	6.925	6.902	(0.748)	576867	5.97735	5.977(R)
	3	Phenol	94	8.548	8.533	(0.923)	691627	4.74030	4.740
	7	1,3-Dichlorobenzene	146	9.143	9.136	(0.987)	487527	3.89146	3.891
*	8	1,4-Dichlorobenzene-d4	152	9.260	9.244	(1.000)	338041	4.00000	
	9	1,4-Dichlorobenzene	146	9.283	9.275	(1.002)	487024	3.99838	3.998
	11	Benzyl alcohol	79	9.492	9.485	(1.025)	373059	4.44759	4.448(M)
	12	1,2-Dichlorobenzene	146	9.570	9.562	(1.034)	468464	4.00137	4.001
	13	2-Methylphenol	108	9.679	9.663	(1.045)	243687	2.78223	2.782
	15	4-Methylphenol	108	9.974	9.958	(1.077)	332262	3.58625	3.586
	16	N-Nitroso-di-n-propylamine	70	9.997	9.982	(1.080)	327649	5.07037	5.070
	22	2,4-Dimethylphenol	107	11.023	11.015	(0.939)	426183	4.10438	4.104
	24	Benzoic acid	105	11.210	11.116	(0.955)	1059202	17.0661	17.07
	26	1,2,4-Trichlorobenzene	180	11.616	11.608	(0.989)	409669	4.70470	4.705
*	27	Naphthalene-d8	136	11.739	11.731	(1.000)	1209805	4.00000	
	30	Hexachlorobutadiene	225	12.009	12.002	(1.023)	288979	4.67657	4.677
	39	Dimethylphthalate	163	14.780	14.765	(0.963)	946586	5.01985	5.020
*	42	Acenaphthene-d10	162	15.345	15.337	(1.000)	593872	4.00000	
	50	Diethylphthalate	149	16.242	16.234	(1.058)	1070332	6.01895	6.019(H)
	54	N-Nitrosodiphenylamine	169	16.736	16.729	(0.907)	577907	3.05122	3.051
	57	Hexachlorobenzene	284	17.625	17.617	(0.955)	401149	4.52573	4.526
	58	Pentachlorophenol	266	18.043	18.043	(0.977)	521983	11.6782	11.68
*	59	Phenanthrene-d10	188	18.460	18.453	(1.000)	1170327	4.00000	
$	66	Terphenyl-d14	244	21.609	21.602	(0.919)	687384	6.93365	6.934(R)
	67	Butylbenzylphthalate	149	22.492	22.492	(0.956)	846542	4.15175	4.152
*	69	Chrysene-d12	240	23.522	23.514	(1.000)	1225934	4.00000	
*	77	Perylene-d12	264	26.286	26.286	(1.000)	1335320	4.00000	
	79	Dibenzo(a,h)anthracene	278	29.202	29.202	(1.111)	1953050	5.75529	5.755
	90	N-Nitrosodimethylamine	74	4.732	4.724	(0.511)	623533	10.9128	10.91

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052310S.D
Lab Smp Id: BLA0685-MS2
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:40
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	321376	160688	642752	338041	5.19
27 Naphthalene-d8	1132931	566466	2265862	1209805	6.79
42 Acenaphthene-d10	561597	280799	1123194	593872	5.75
59 Phenanthrene-d10	1068222	534111	2136444	1170327	9.56
69 Chrysene-d12	997572	498786	1995144	1225934	22.89
77 Perylene-d12	1245490	622745	2490980	1335320	7.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.26	0.17
27 Naphthalene-d8	11.73	11.23	12.23	11.74	0.07
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.51	23.01	24.01	23.52	0.03
77 Perylene-d12	26.29	25.79	26.79	26.29	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052310S.D

Lab ID: BLA0685-MS2
nt10.i, 20230305.b\SIM.b\SIMABN2.m,   05-MAR-2023 19:06

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.955	0.948	0.0073	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003052303S.D

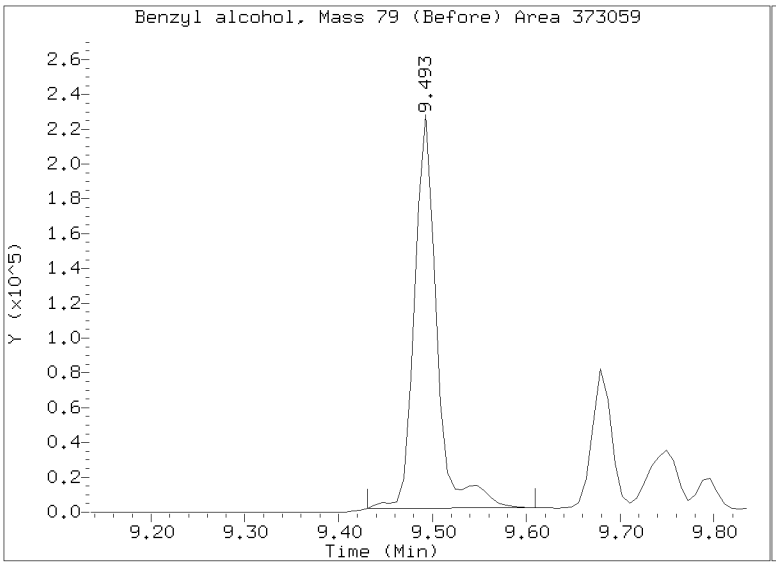
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

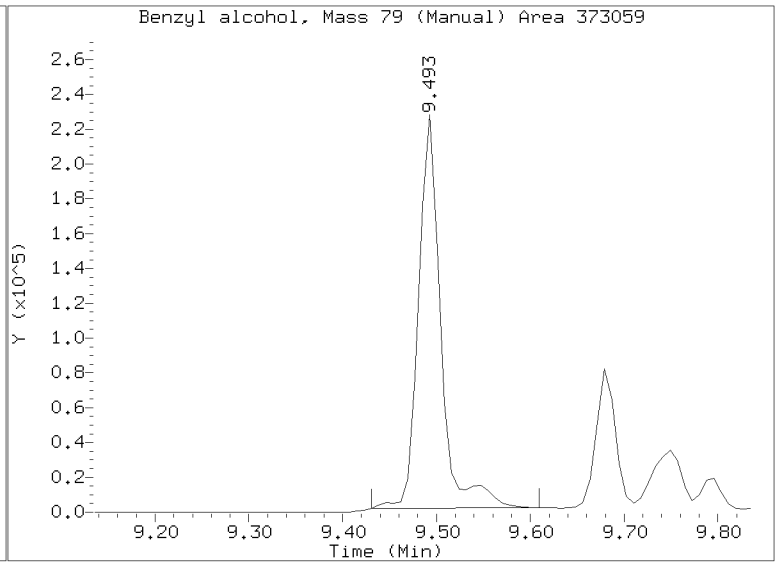
Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305.b/SIM.b/NT1003052310S.D
Injection Date: 05-MAR-2023 19:06
Lab ID:BLA0685-MS2 Client ID:
Report Date: 03/28/2023 11:05





APPROVED

By Deenay Dunmore at 12:02 pm, Mar 28, 2023

Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523115.D

Date : 05-MAR-2023 19:44

Client ID:

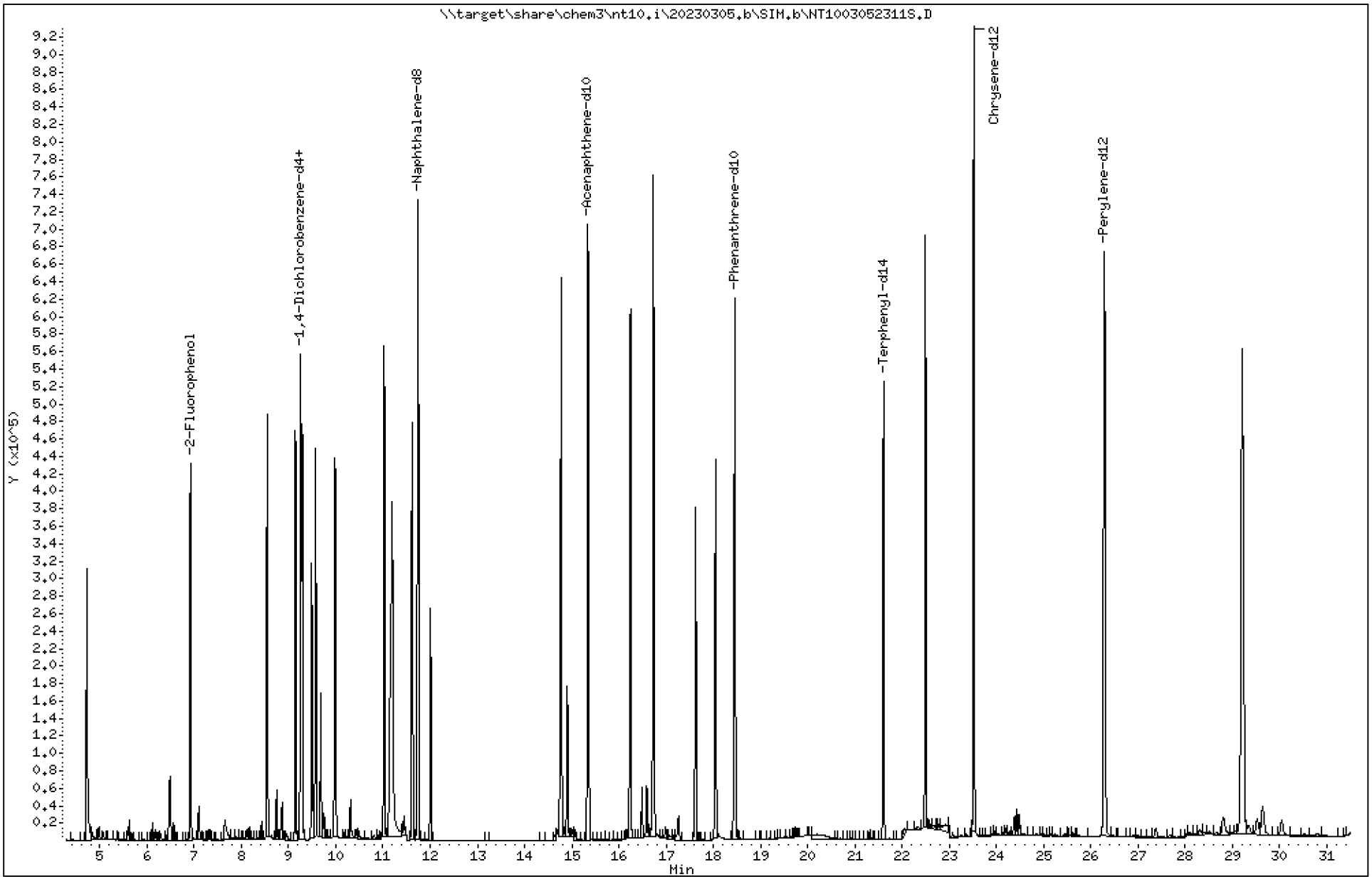
Sample Info: BLA0685-MSD2

Instrument: nt10.i

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

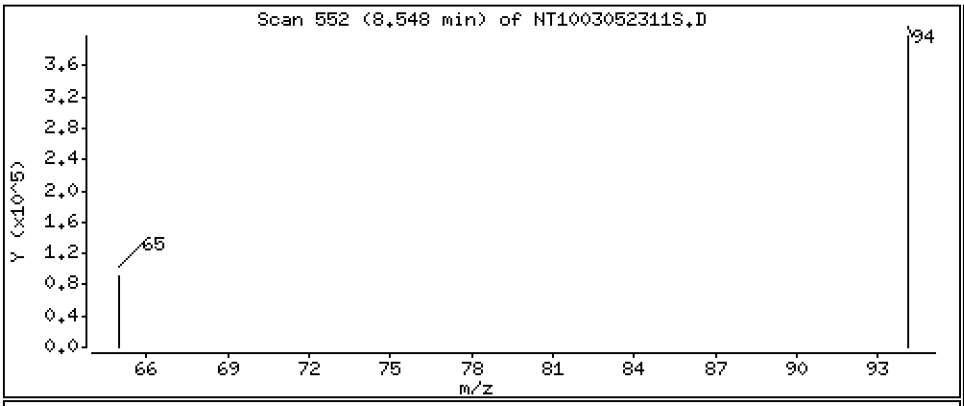
Operator: YZ

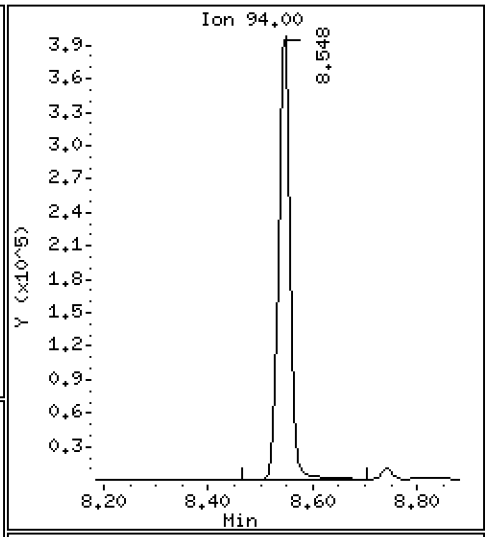
Column phase: ZB-5msi

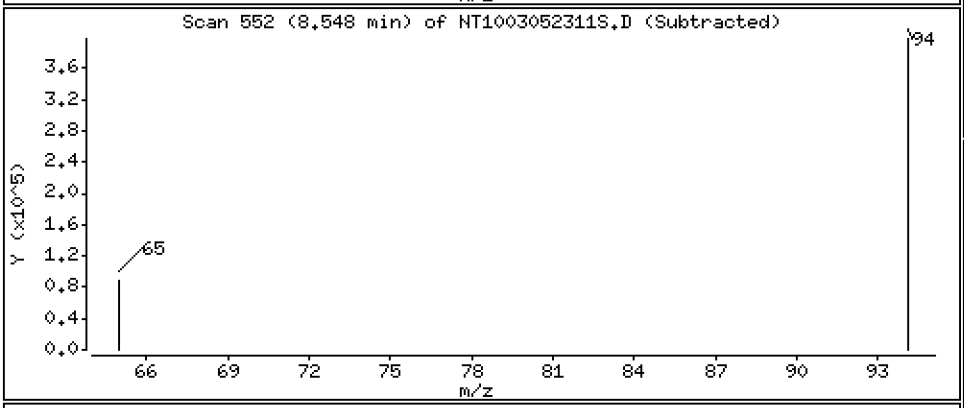
Column diameter: 0.25

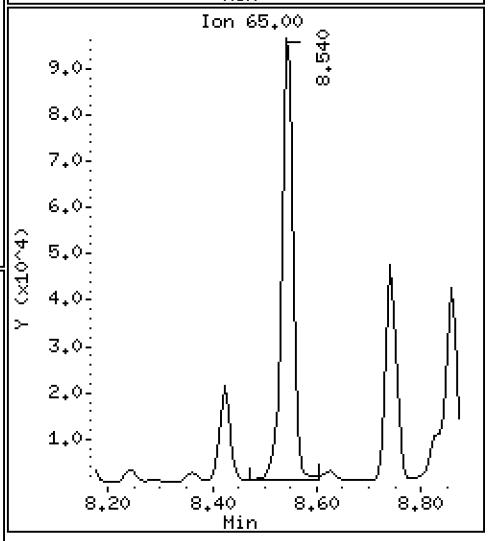
3 Phenol

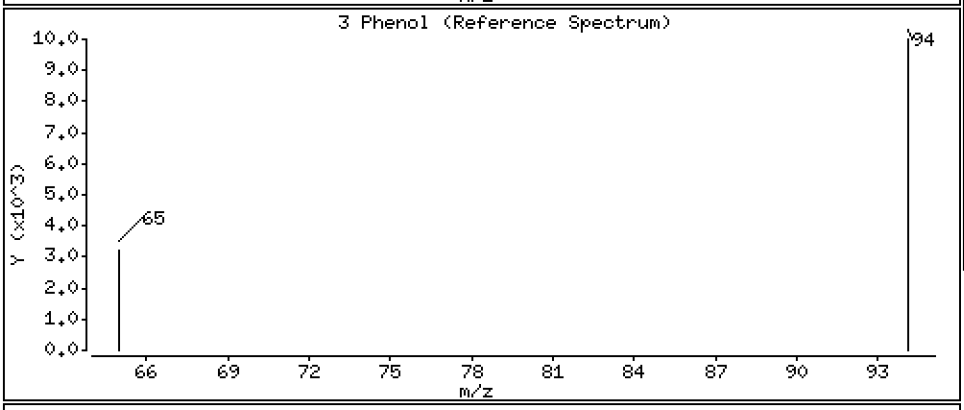
Concentration: 4.450 ug/mL

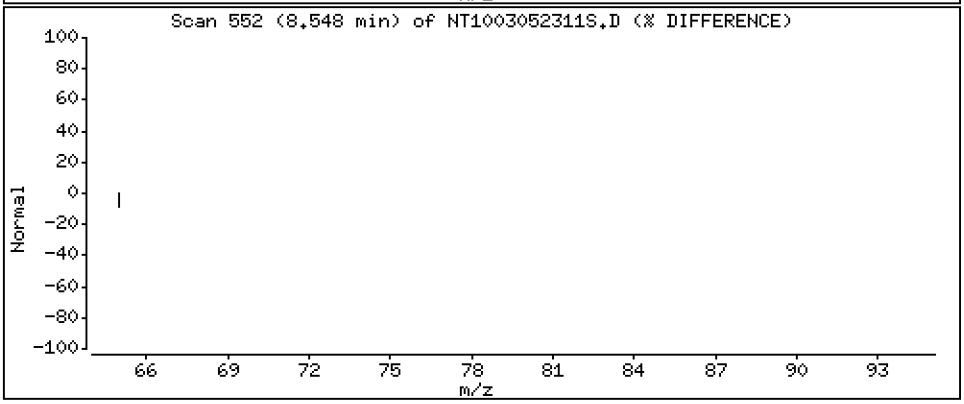












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

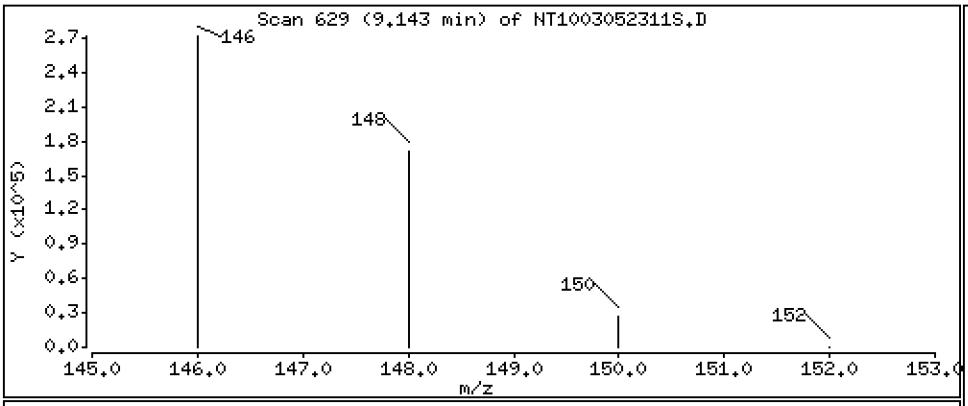
Operator: YZ

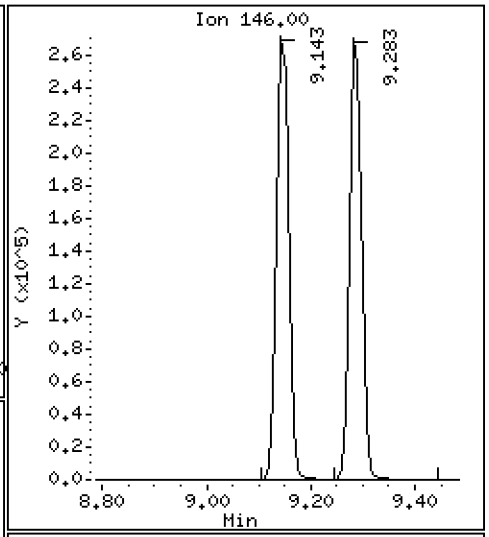
Column phase: ZB-5msi

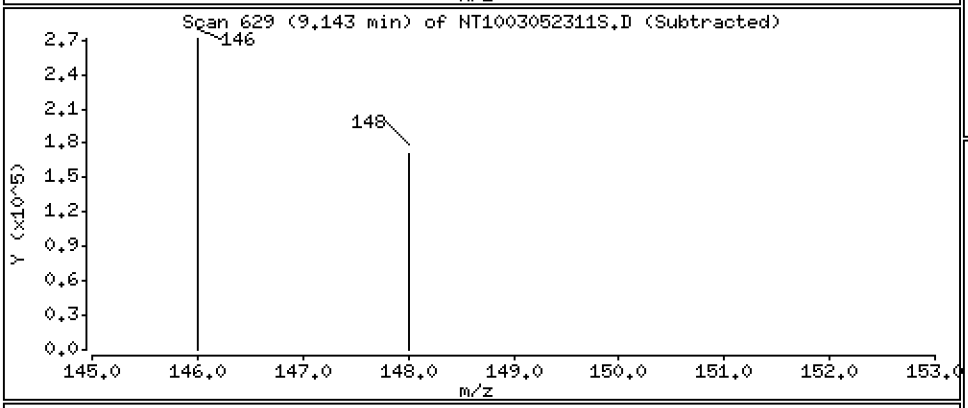
Column diameter: 0.25

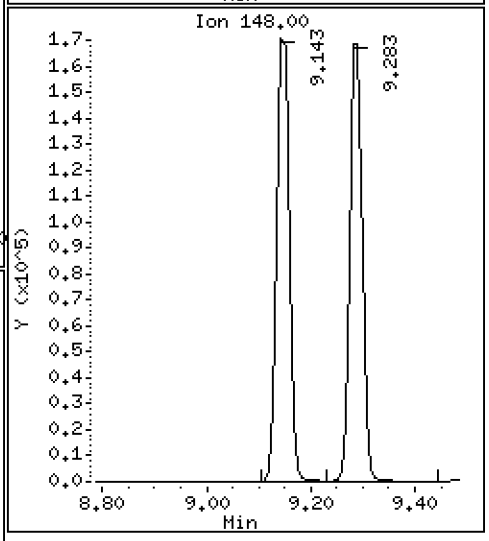
7 1,3-Dichlorobenzene

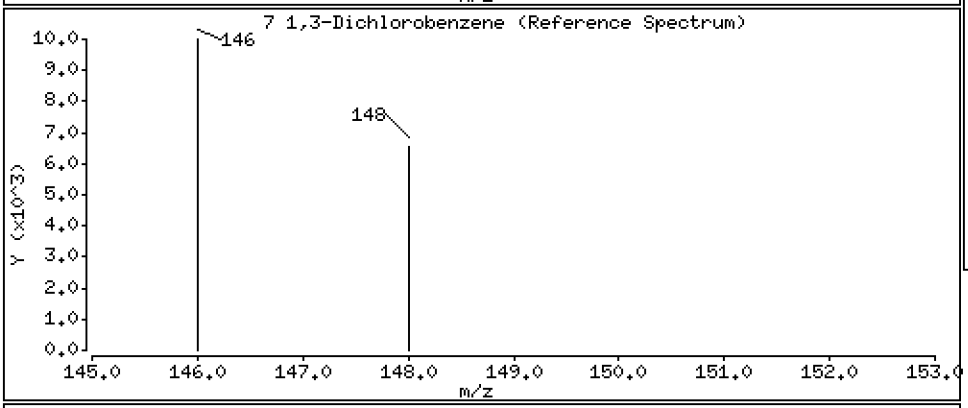
Concentration: 3.478 ug/mL

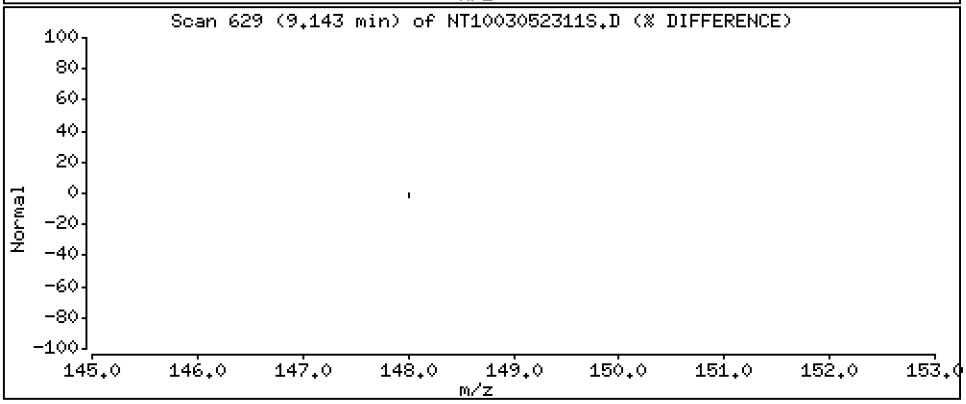












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

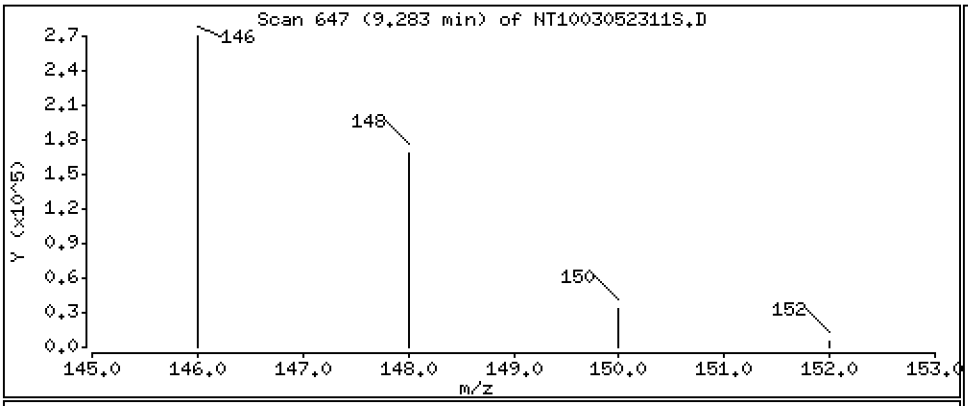
Operator: YZ

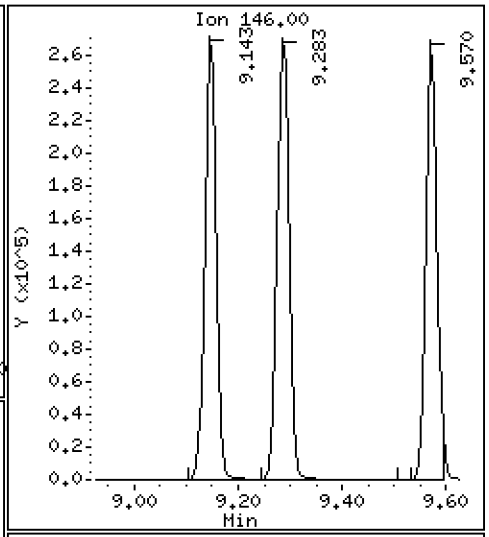
Column phase: ZB-5msi

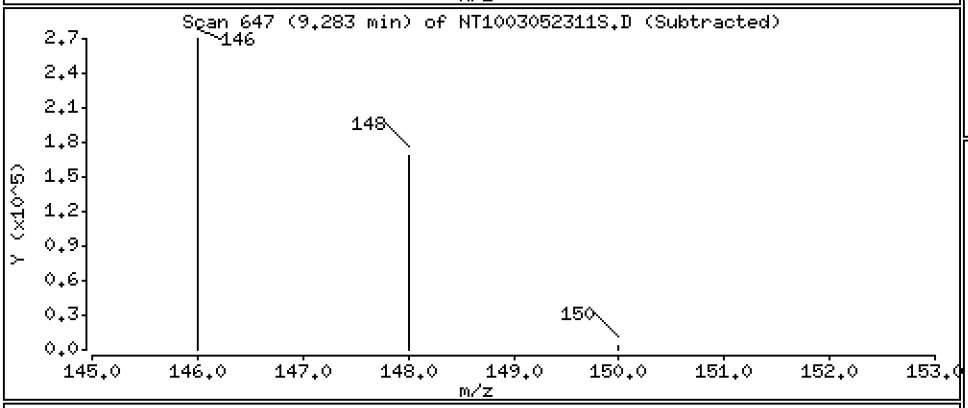
Column diameter: 0.25

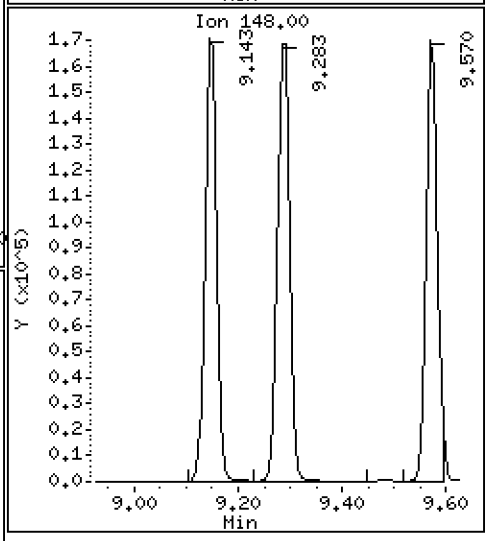
9 1,4-Dichlorobenzene

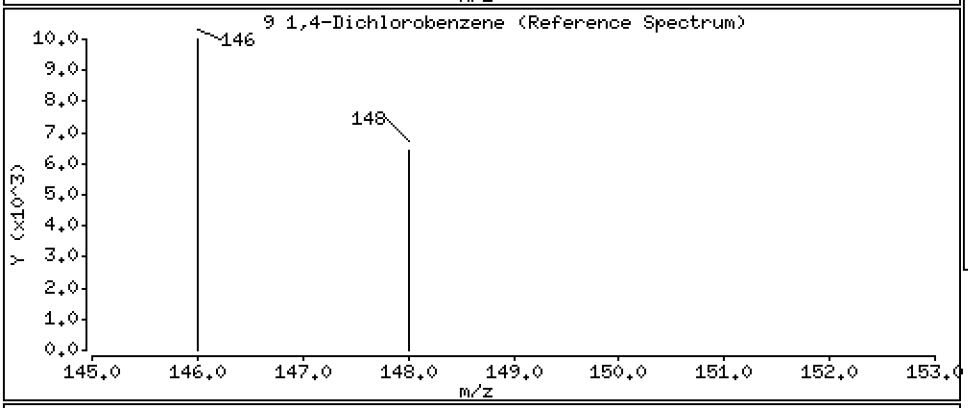
Concentration: 3.538 ug/mL

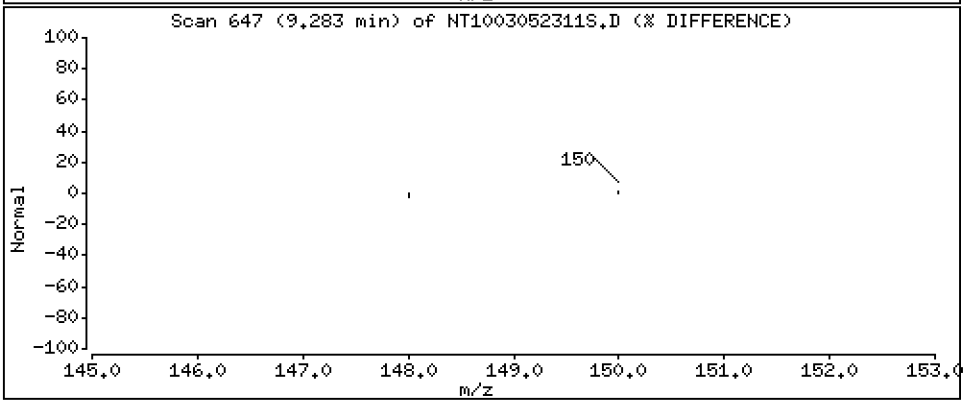












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

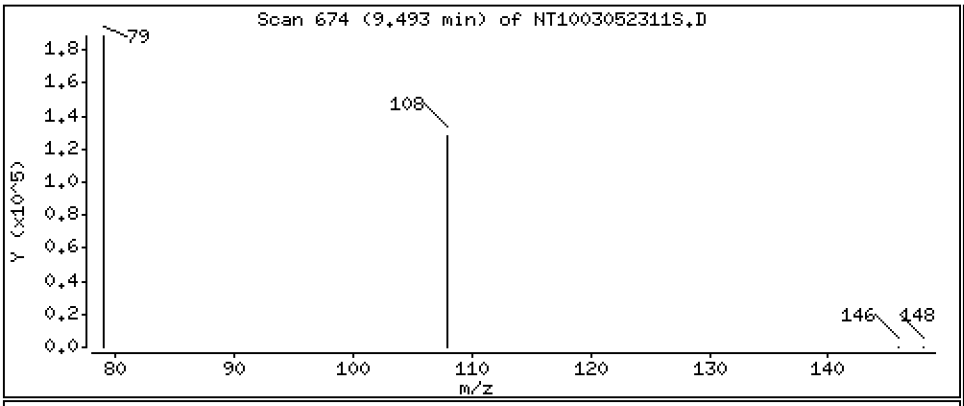
Operator: YZ

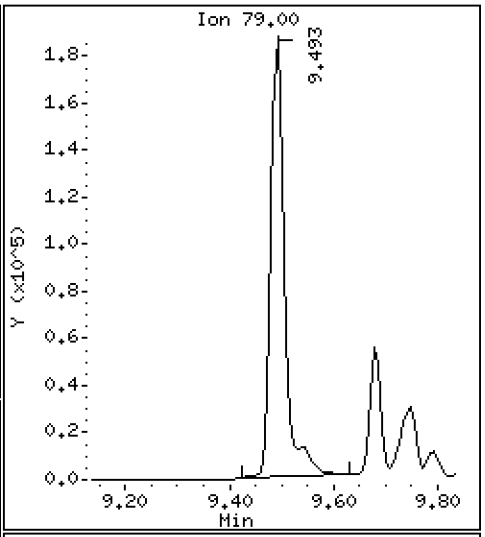
Column phase: ZB-5msi

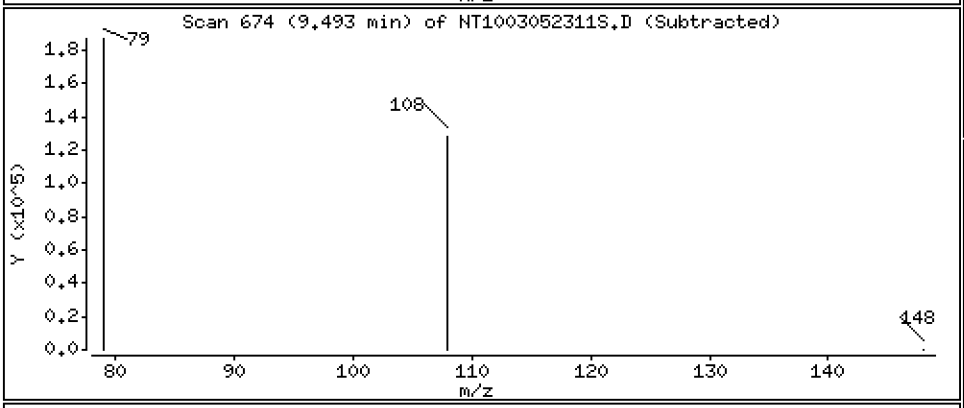
Column diameter: 0.25

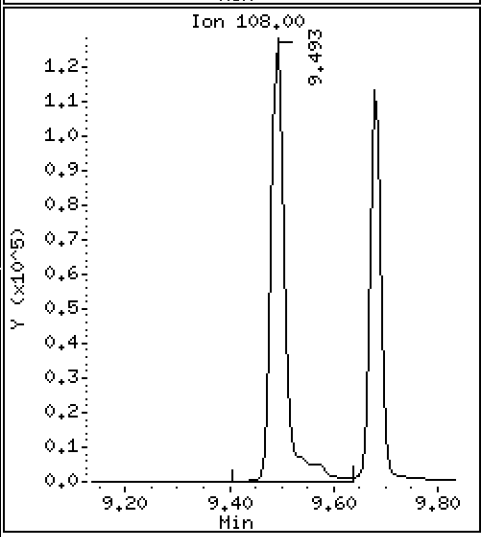
11 Benzyl alcohol

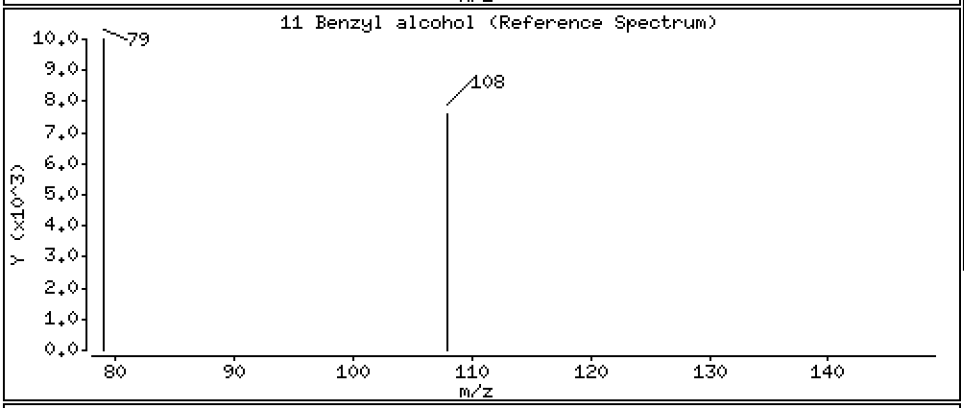
Concentration: 4.091 ug/mL

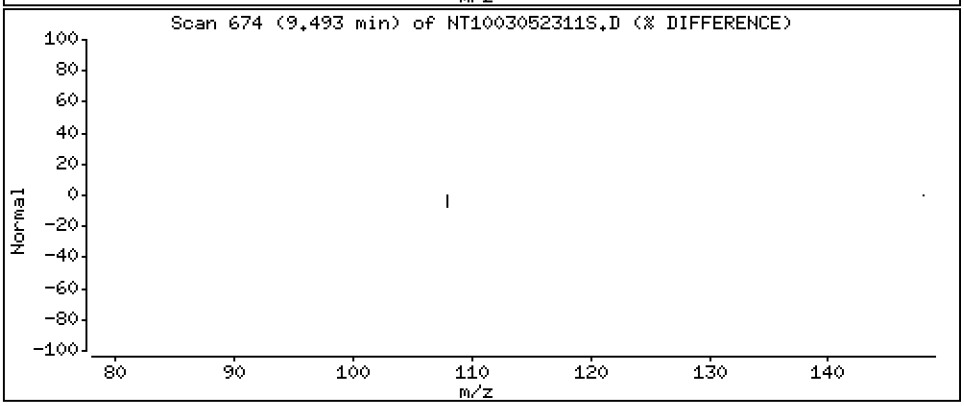












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

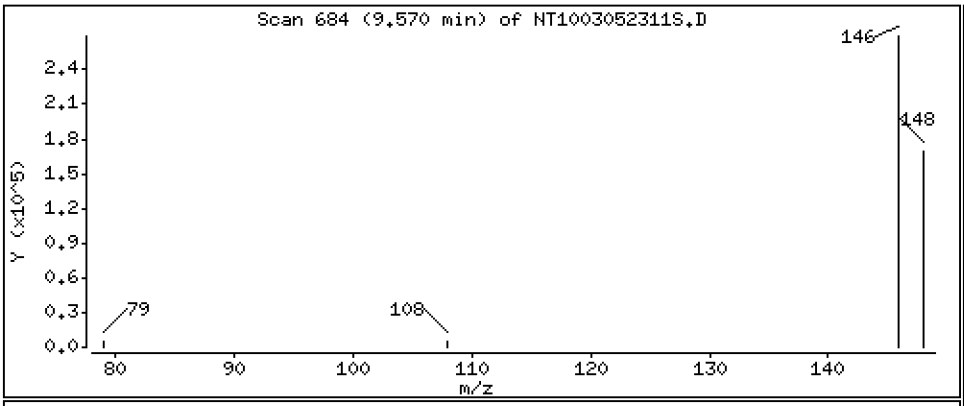
Operator: YZ

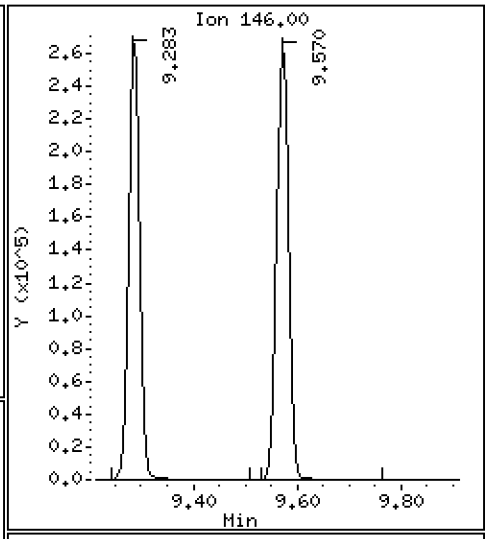
Column phase: ZB-5msi

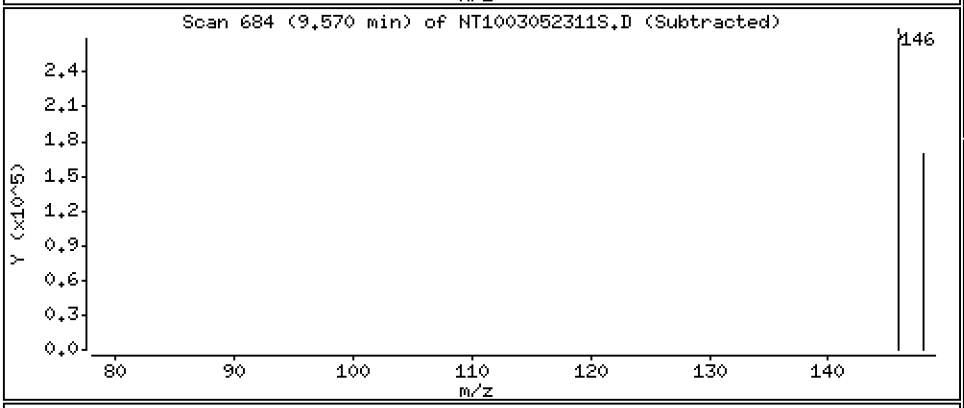
Column diameter: 0.25

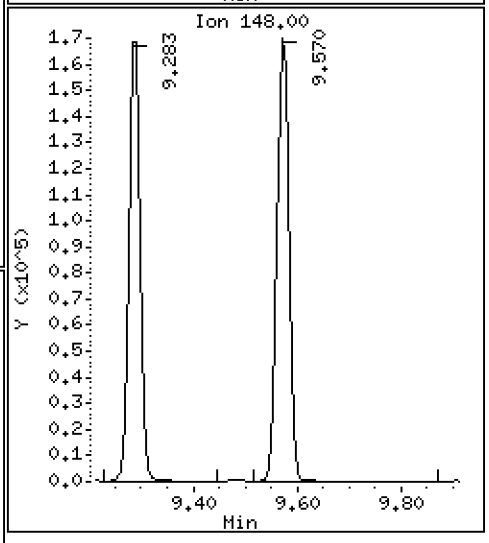
12 1,2-Dichlorobenzene

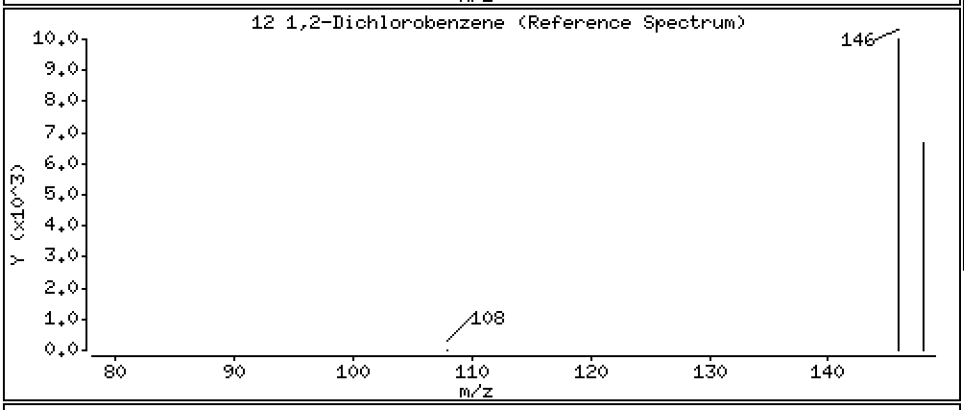
Concentration: 3.595 ug/mL

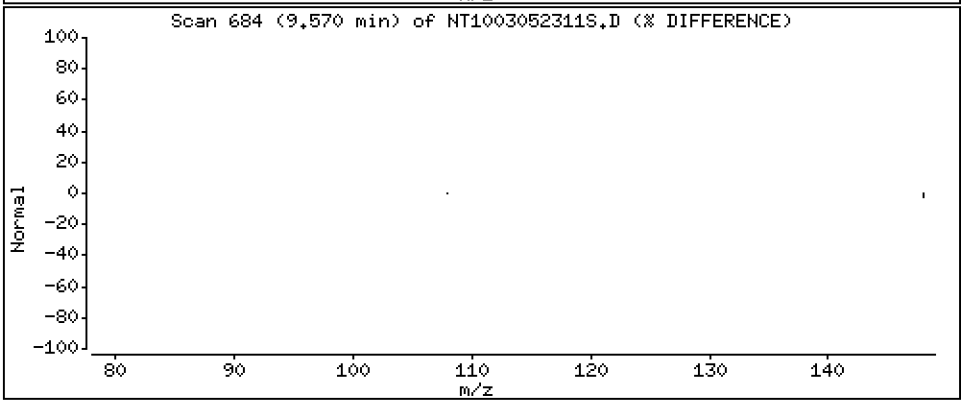












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

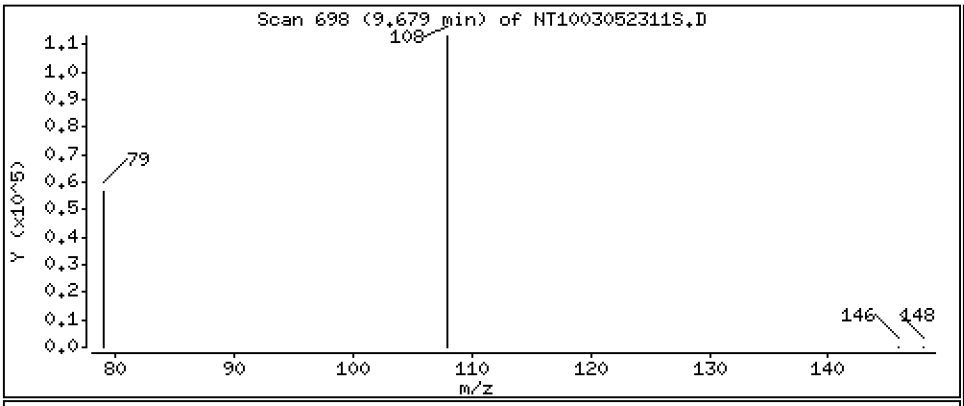
Operator: YZ

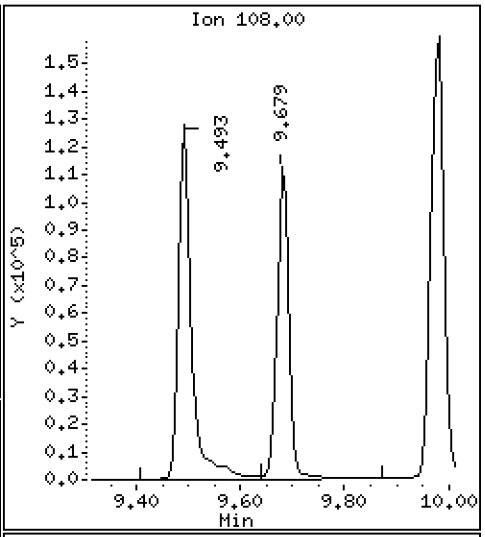
Column phase: ZB-5msi

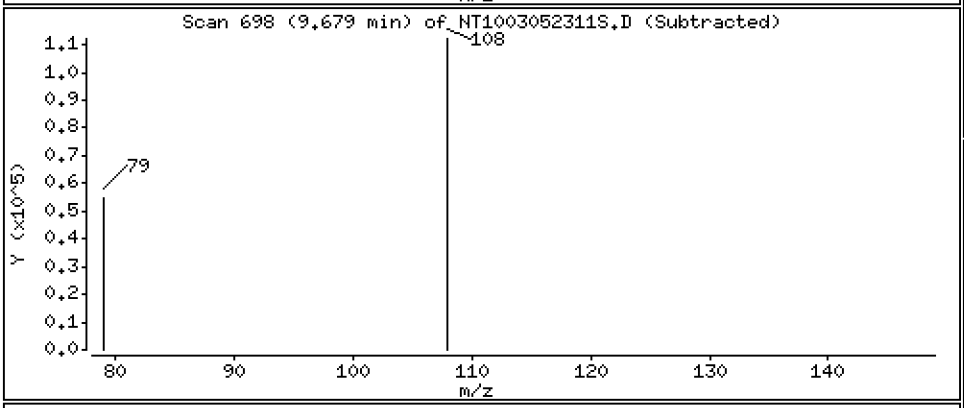
Column diameter: 0.25

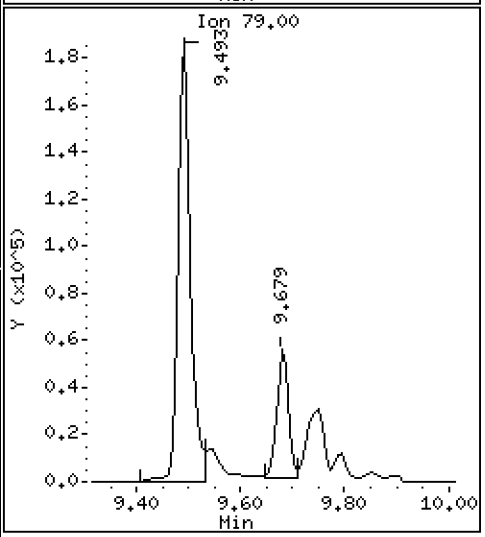
13 2-Methylphenol

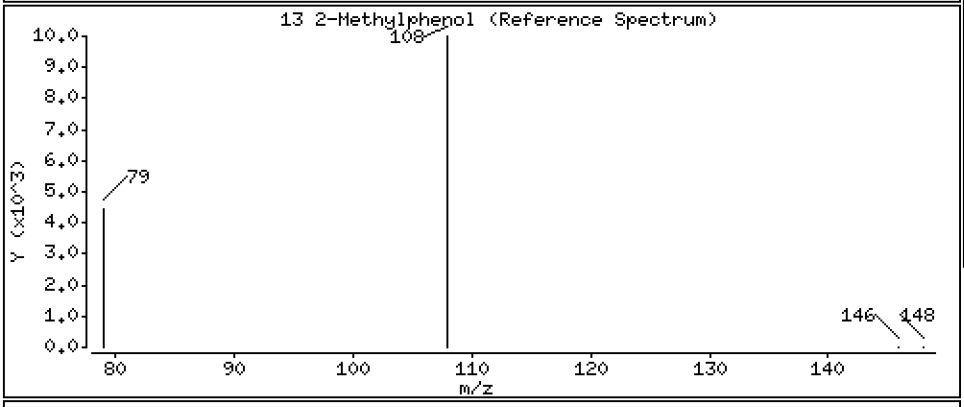
Concentration: 2.113 ug/mL

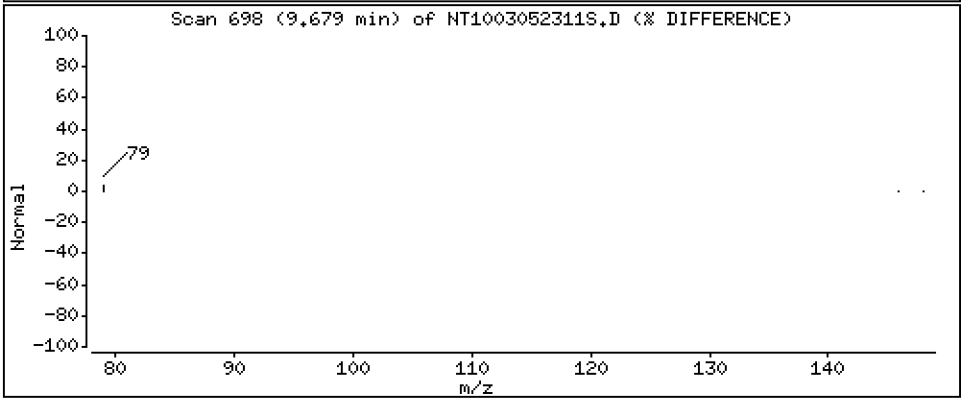












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

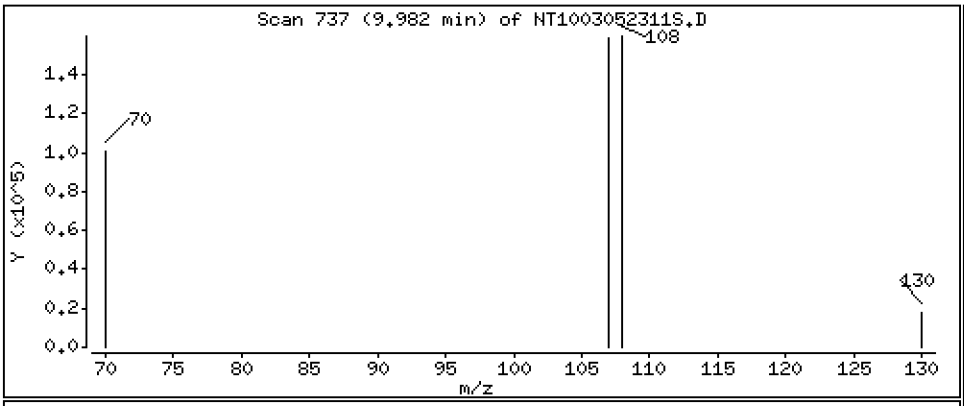
Operator: YZ

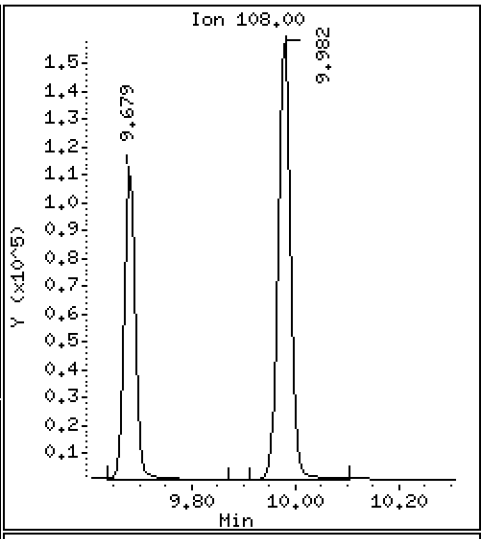
Column phase: ZB-5msi

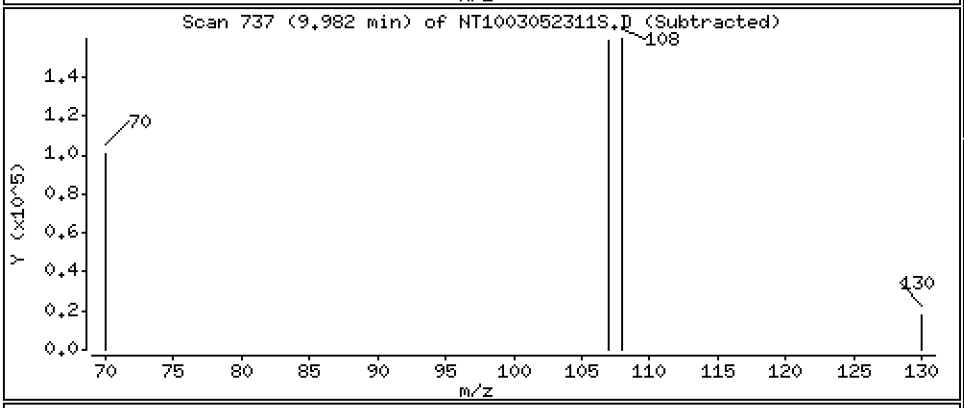
Column diameter: 0.25

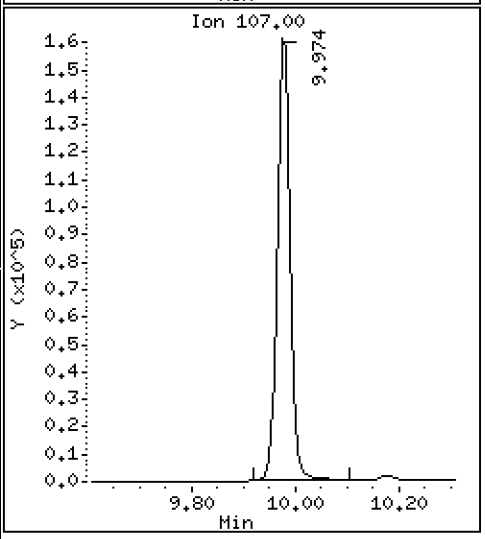
15 4-Methylphenol

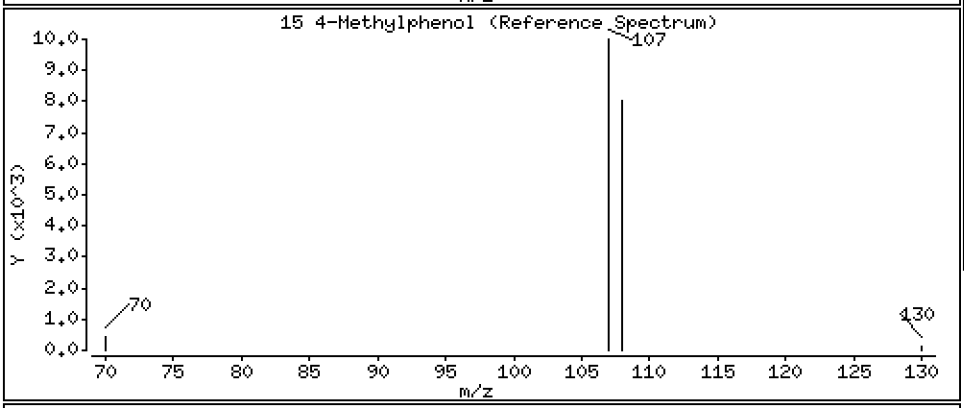
Concentration: 3.094 ug/mL

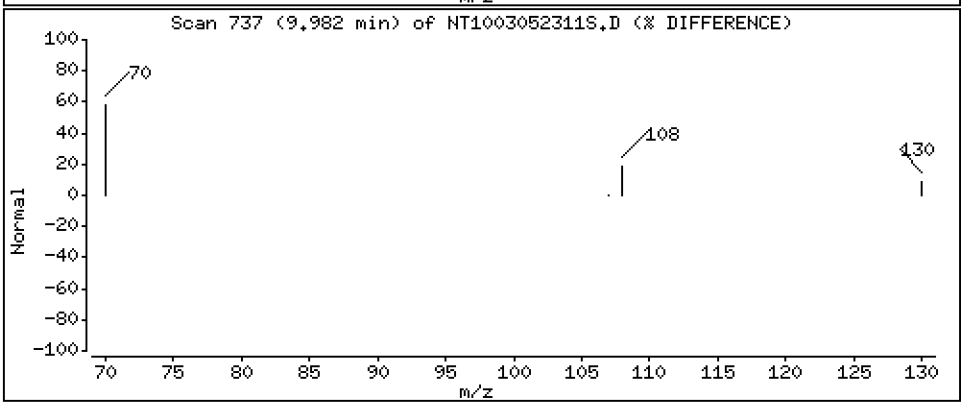












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

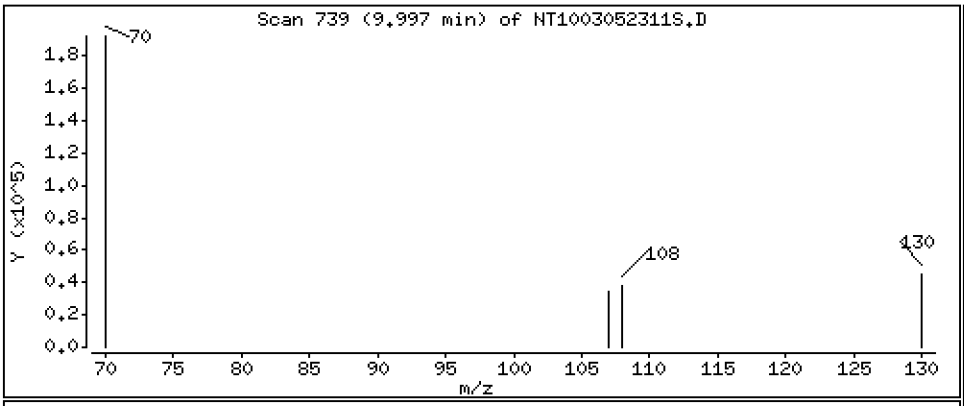
Operator: YZ

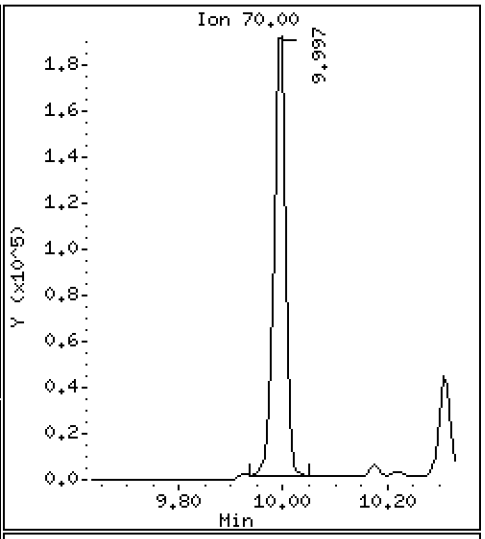
Column phase: ZB-5msi

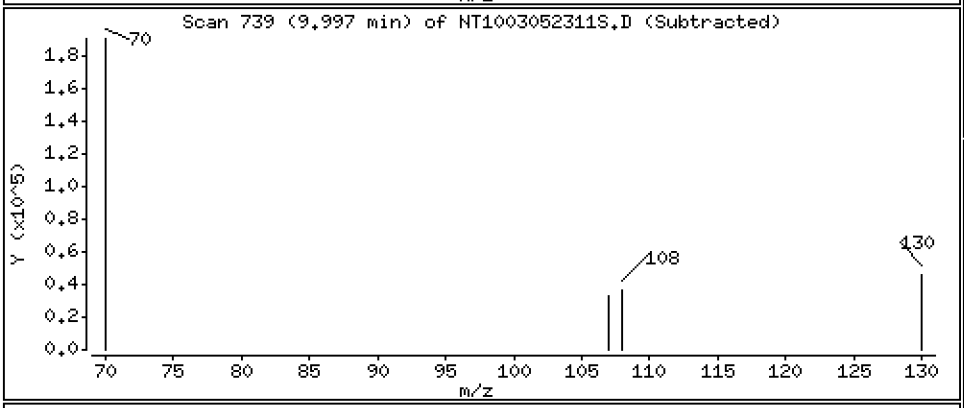
Column diameter: 0.25

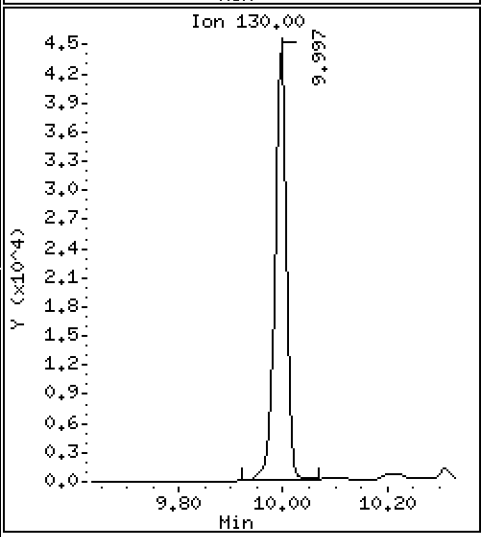
16 N-Nitroso-di-n-propylamine

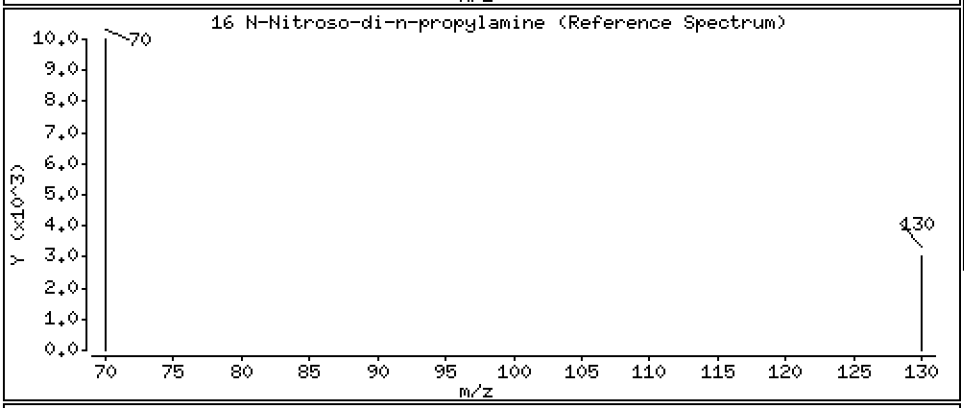
Concentration: 4.890 ug/mL

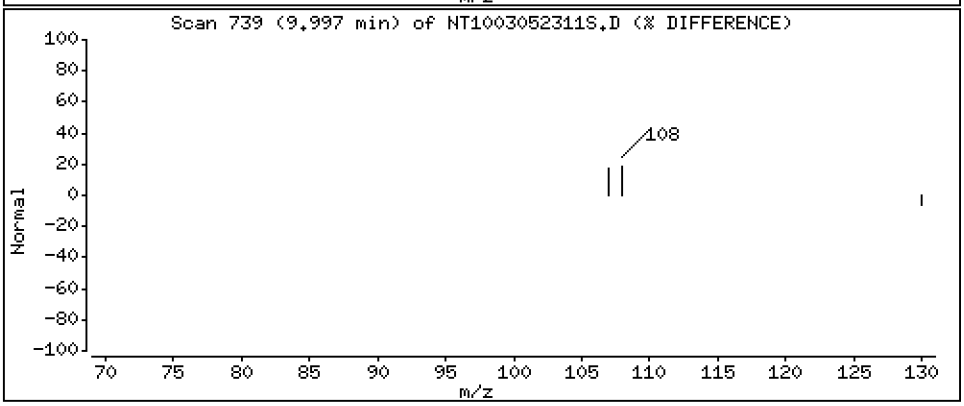












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523115.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

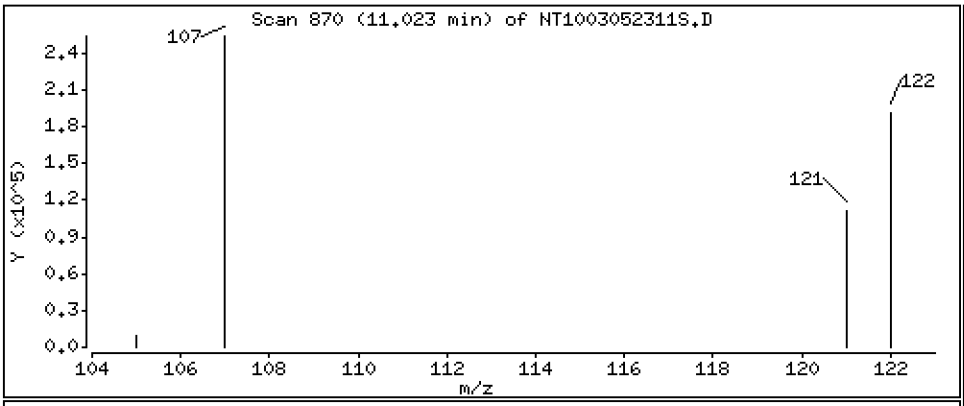
Operator: YZ

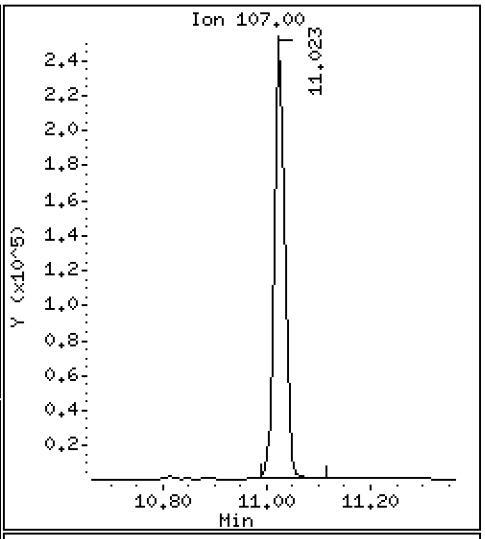
Column phase: ZB-5msi

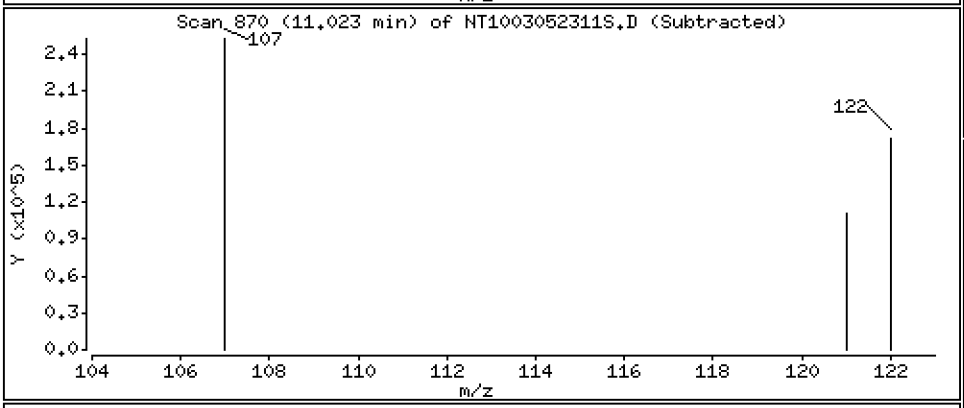
Column diameter: 0.25

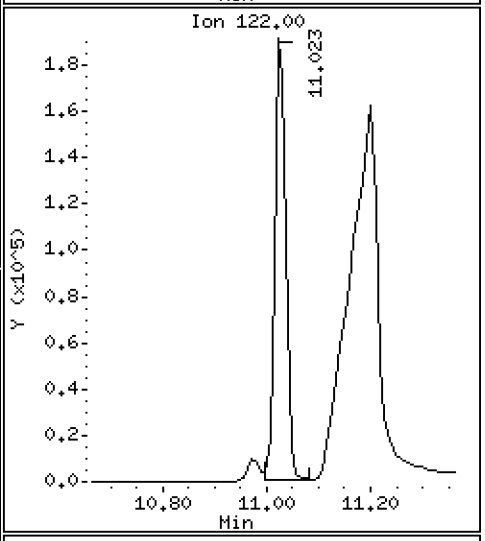
22 2,4-Dimethylphenol

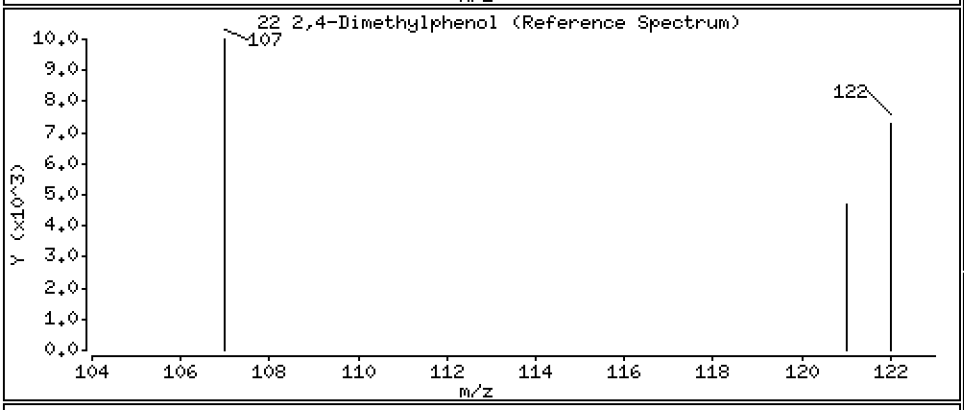
Concentration: 3.703 ug/mL

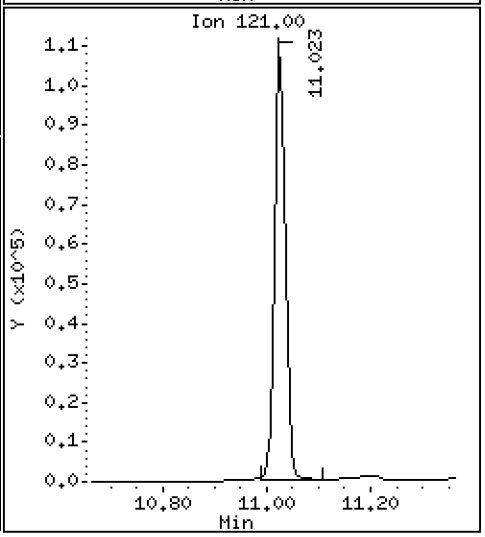


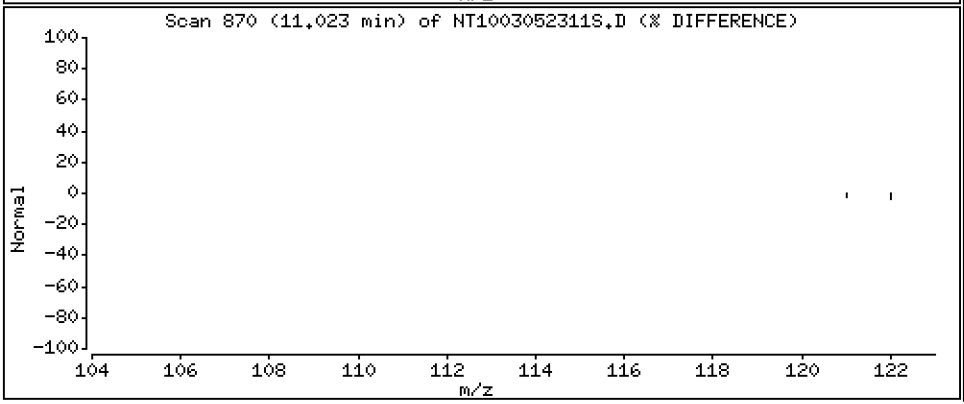












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523115.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

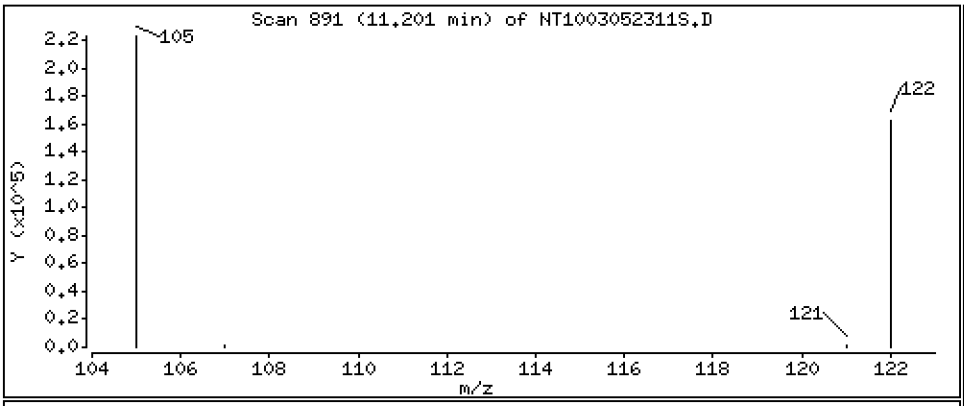
Operator: YZ

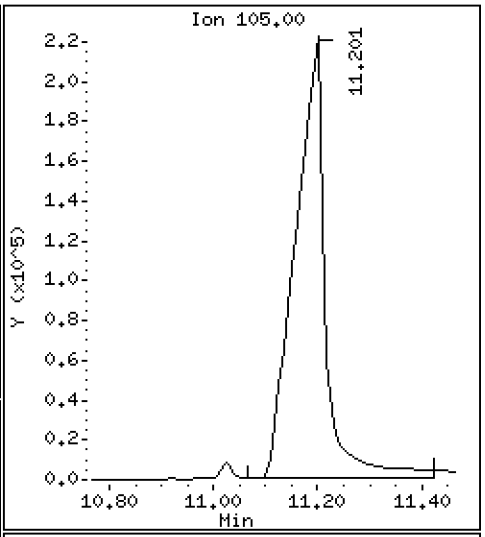
Column phase: ZB-5msi

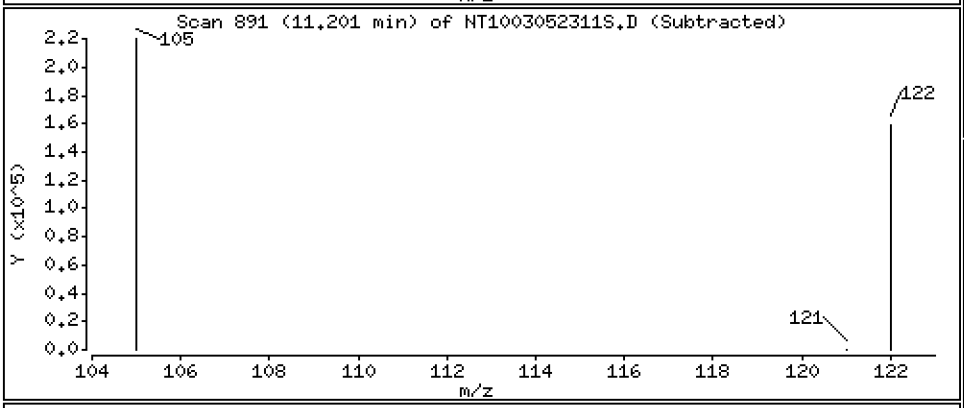
Column diameter: 0.25

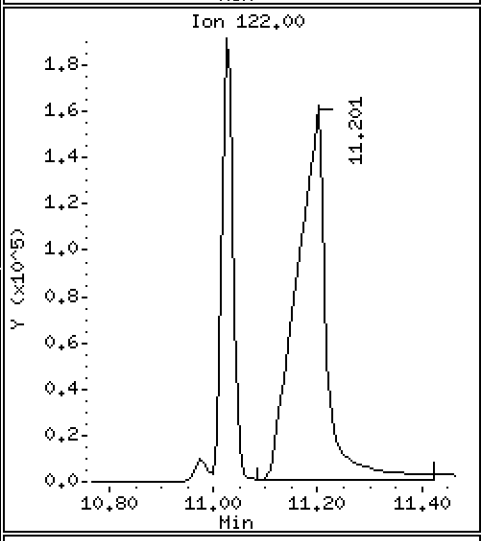
24 Benzoic acid

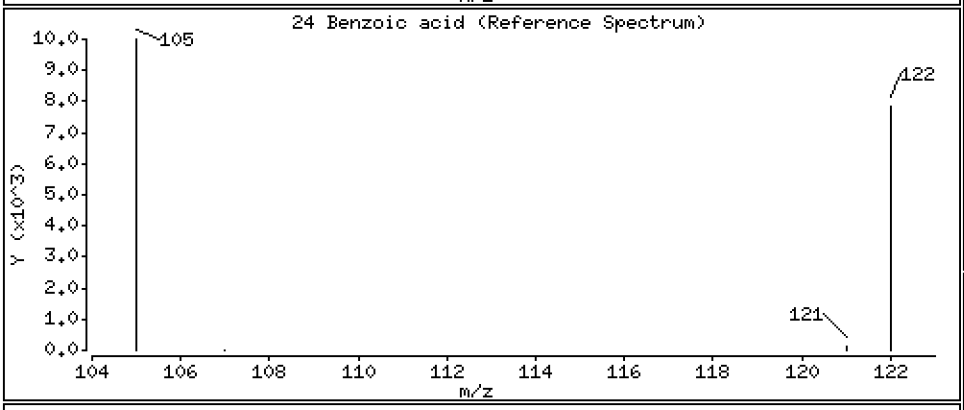
Concentration: 15.69 ug/mL

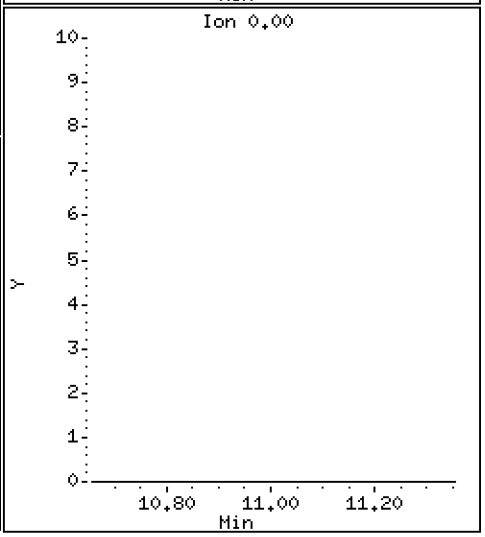


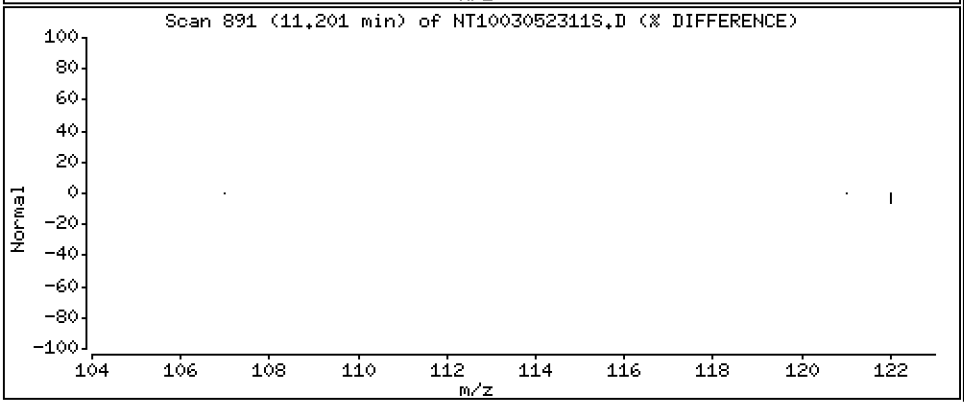












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

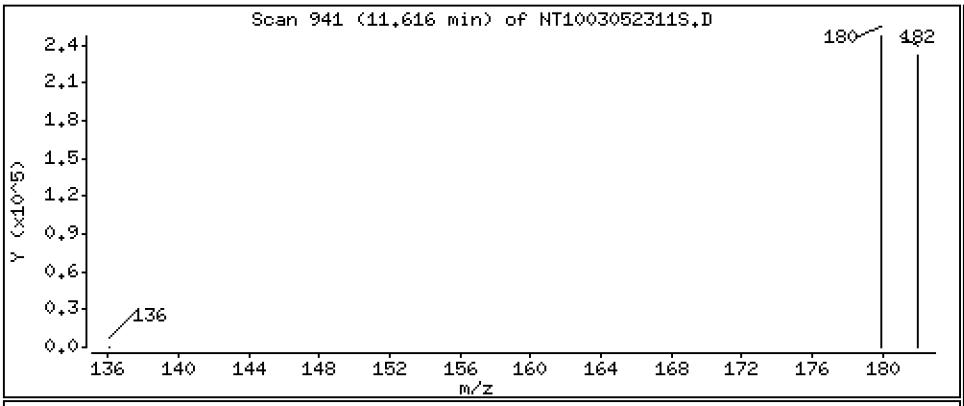
Operator: YZ

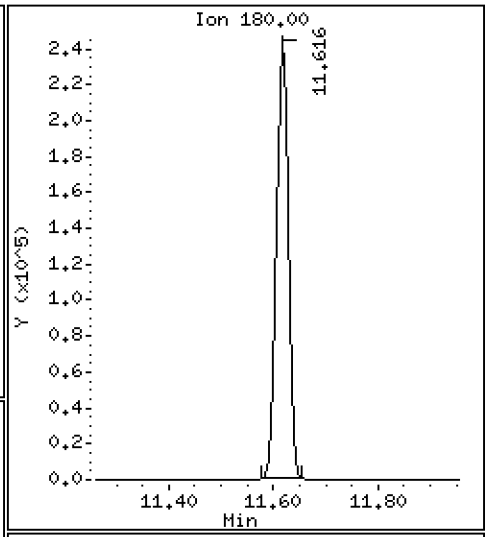
Column phase: ZB-5msi

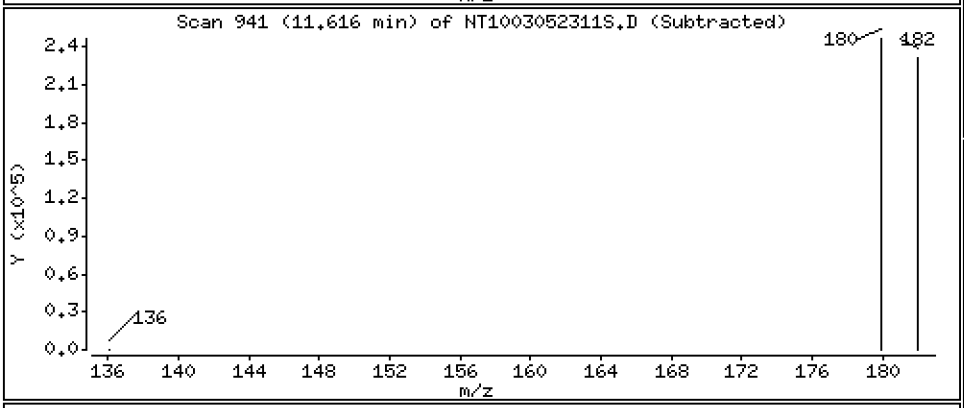
Column diameter: 0.25

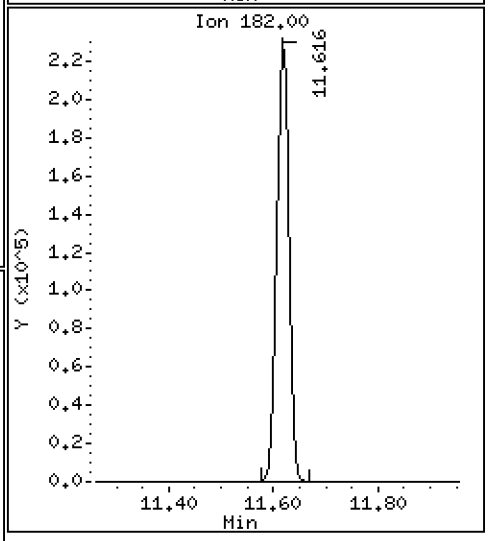
26 1,2,4-Trichlorobenzene

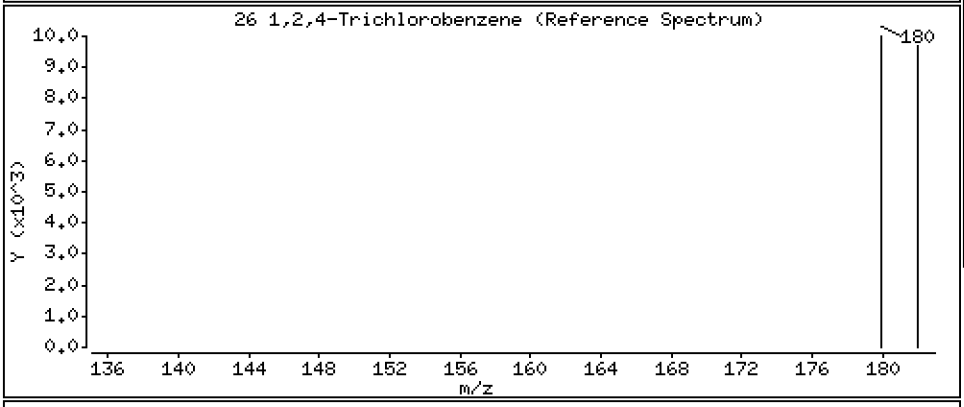
Concentration: 4.391 ug/mL

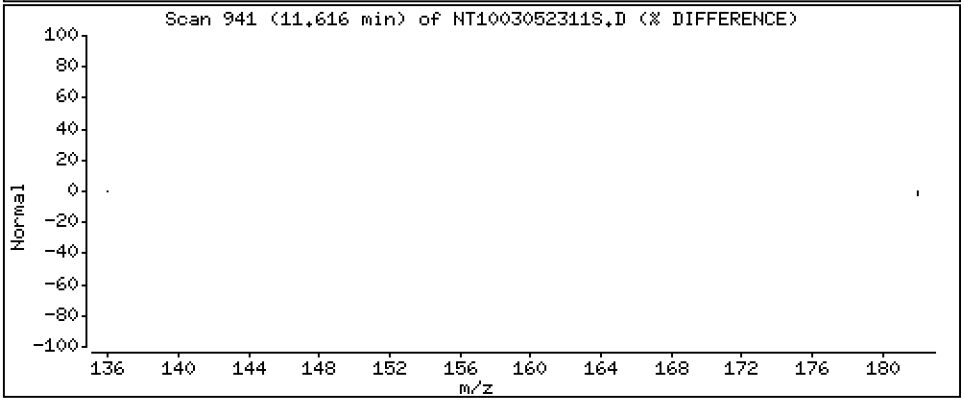












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523115.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

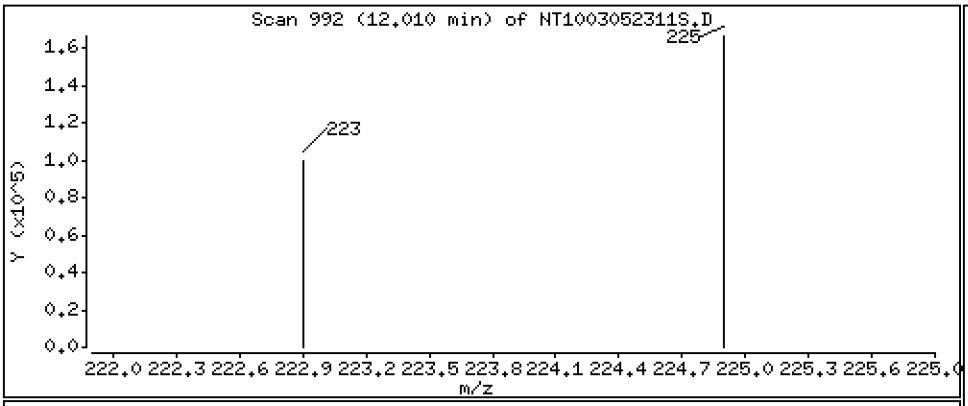
Operator: YZ

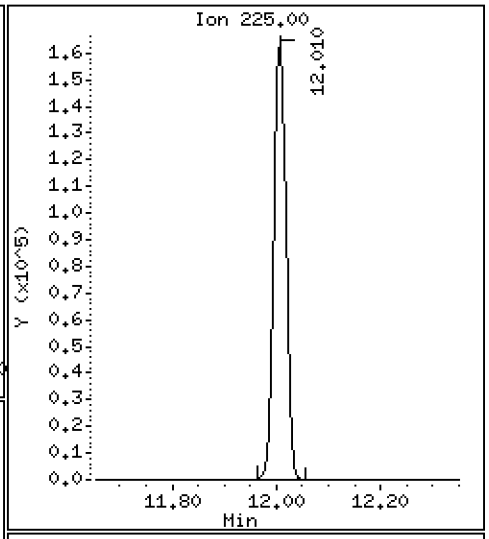
Column phase: ZB-5msi

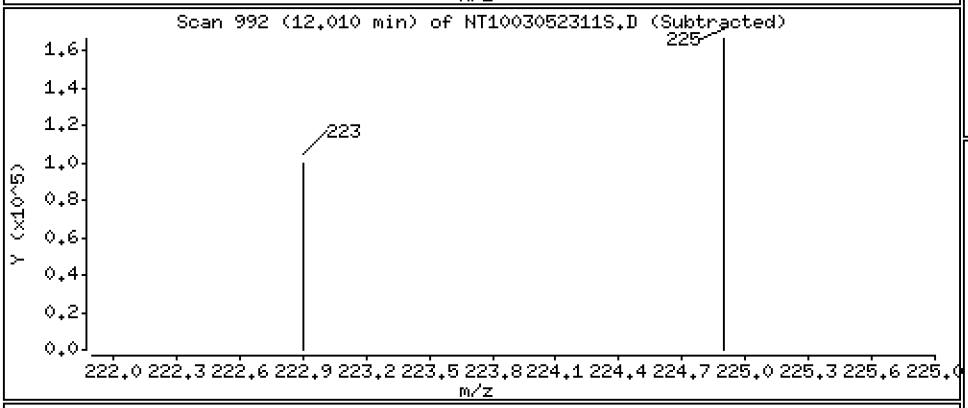
Column diameter: 0.25

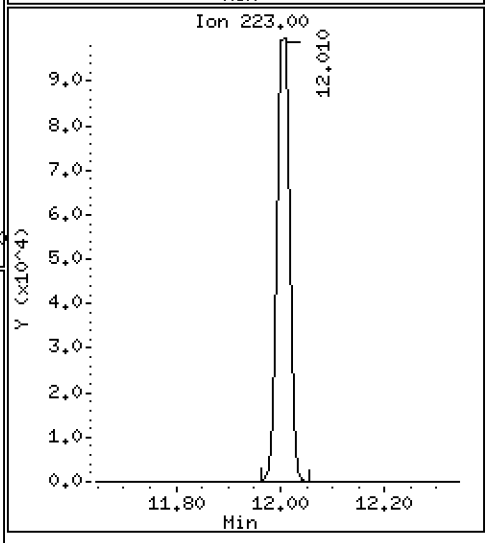
30 Hexachlorobutadiene

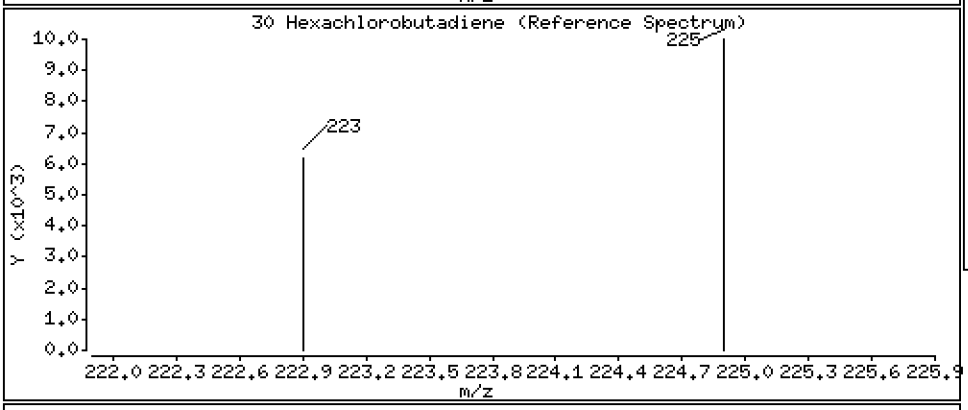
Concentration: 4.312 ug/mL

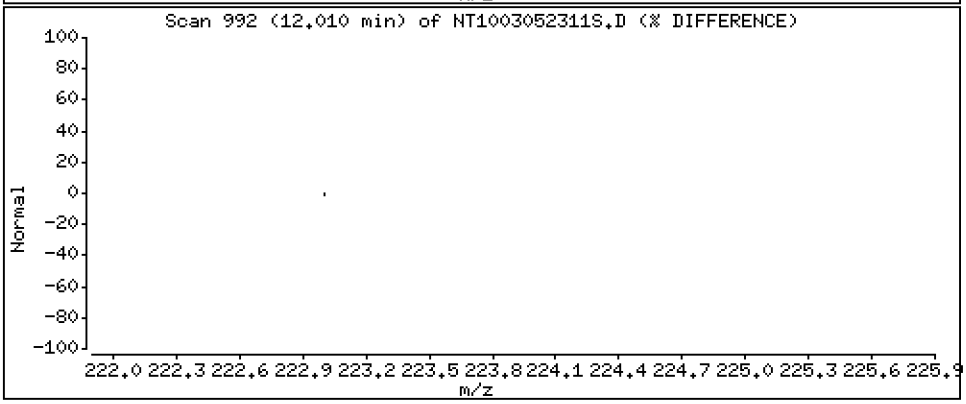












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

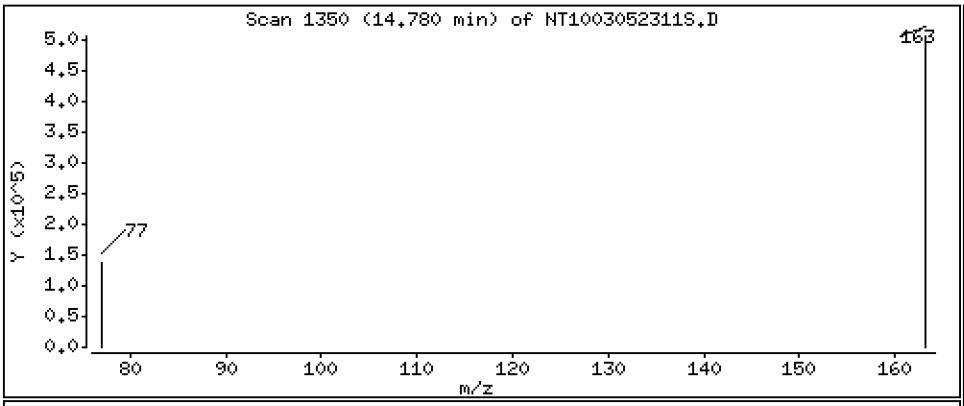
Operator: YZ

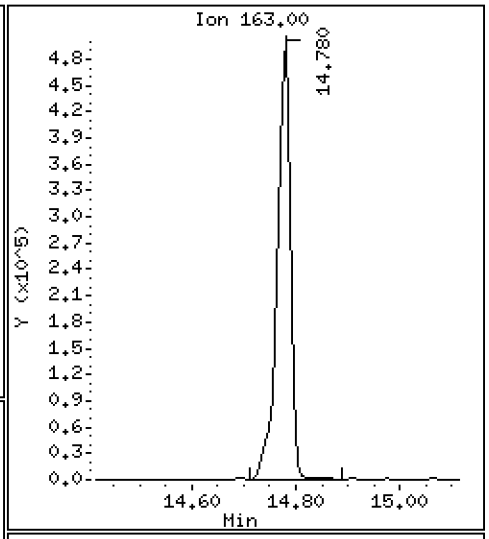
Column phase: ZB-5msi

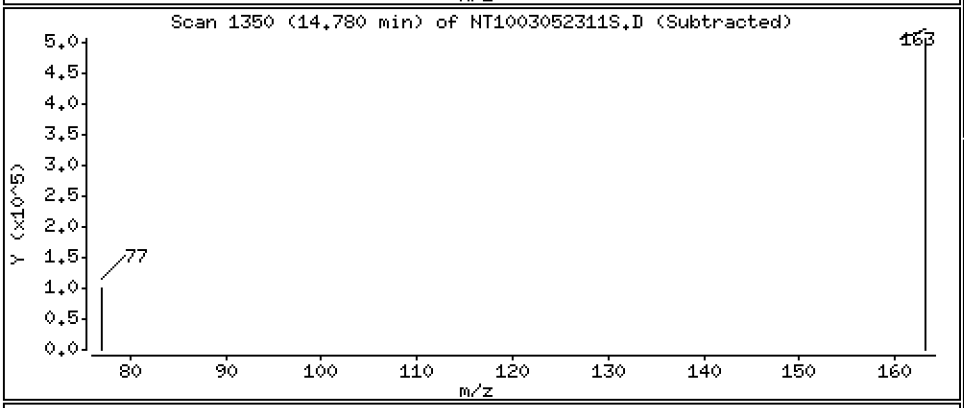
Column diameter: 0.25

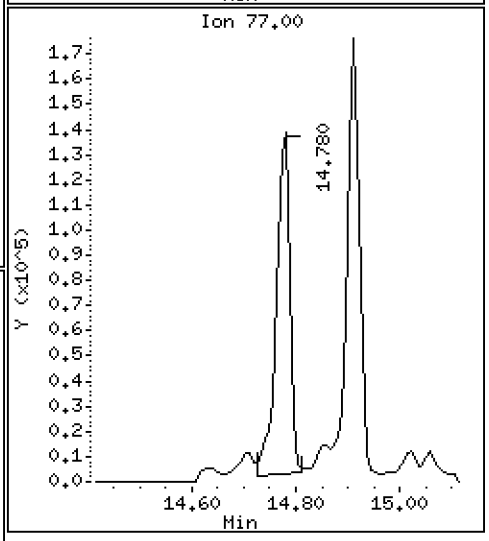
39 Dimethylphthalate

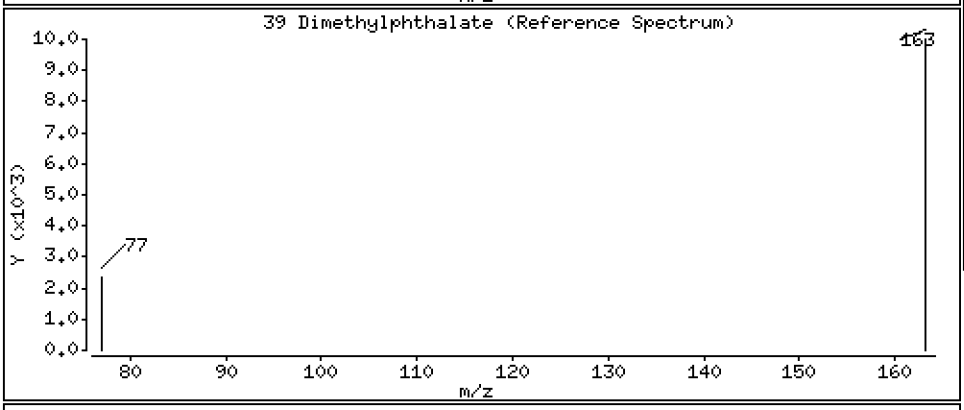
Concentration: 4.742 ug/mL

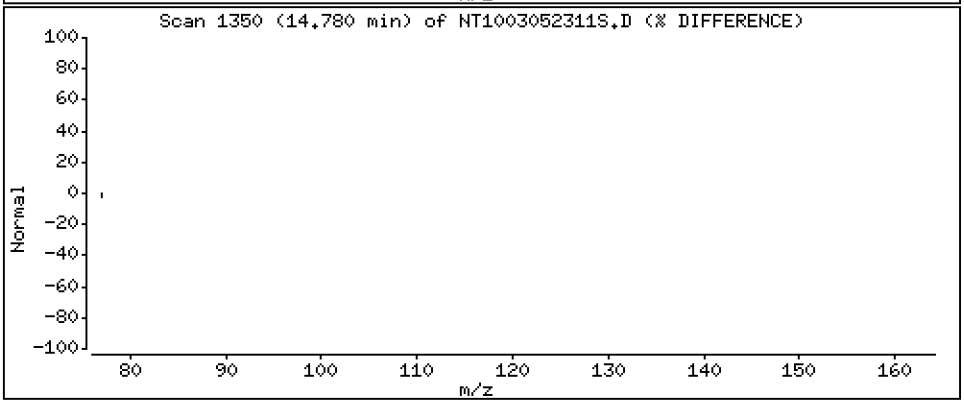












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

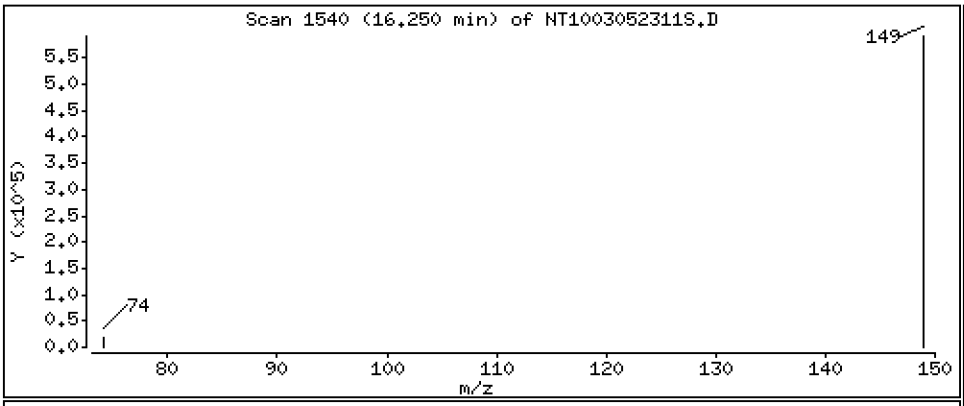
Operator: YZ

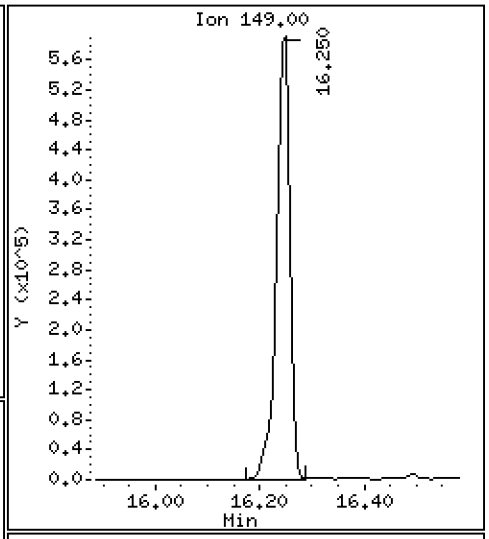
Column phase: ZB-5msi

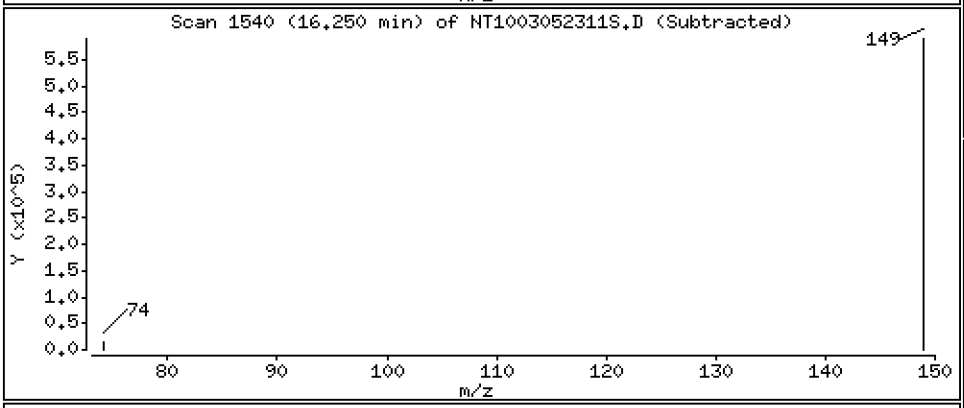
Column diameter: 0.25

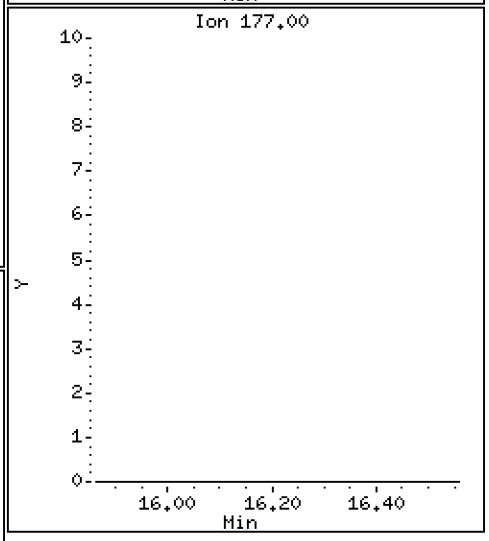
50 Diethylphthalate

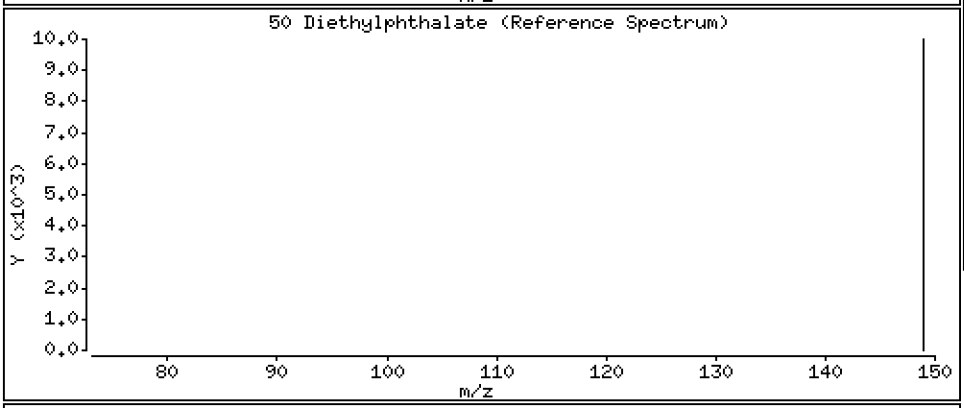
Concentration: 5.961 ug/mL

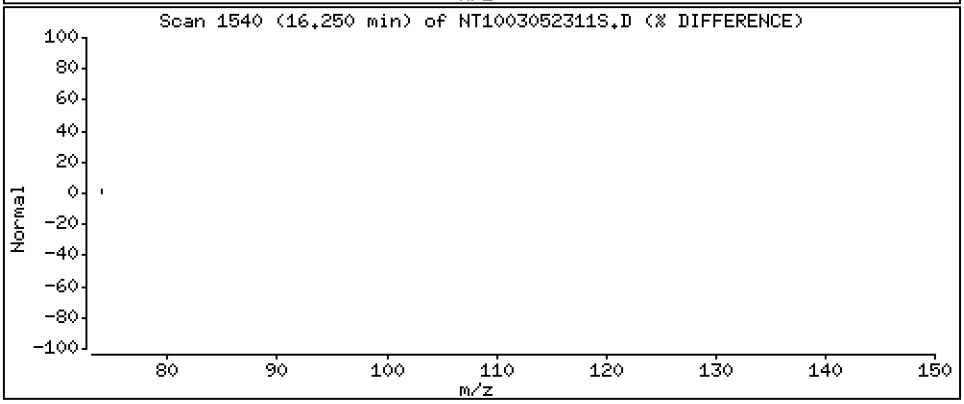












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

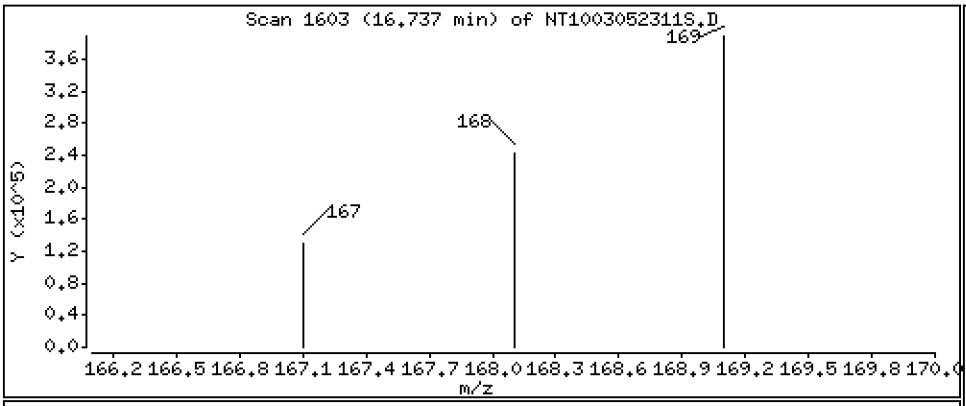
Operator: YZ

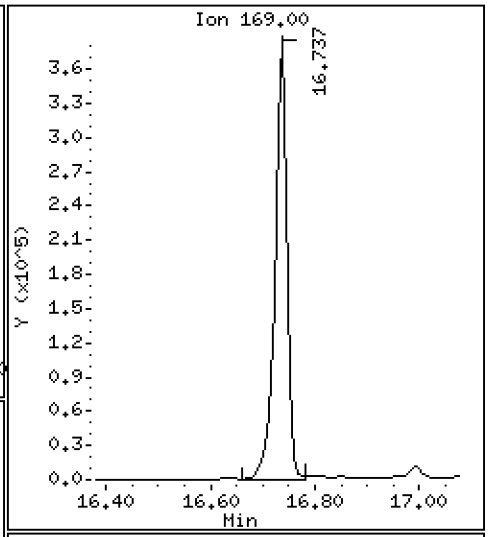
Column phase: ZB-5msi

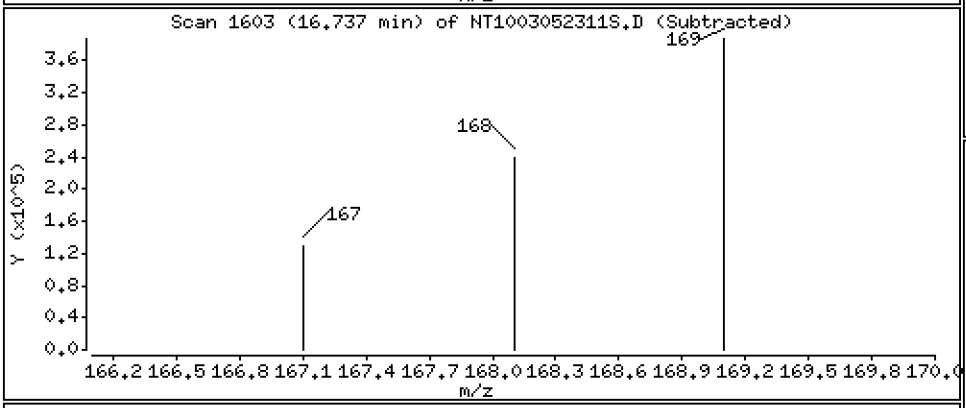
Column diameter: 0.25

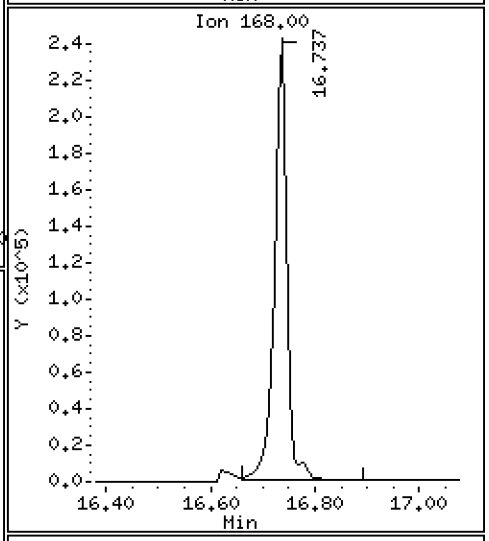
54 N-Nitrosodiphenylamine

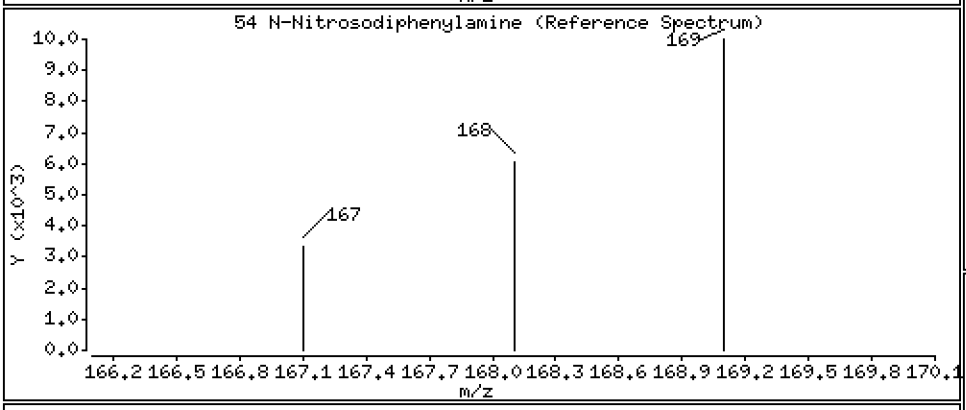
Concentration: 3.345 ug/mL

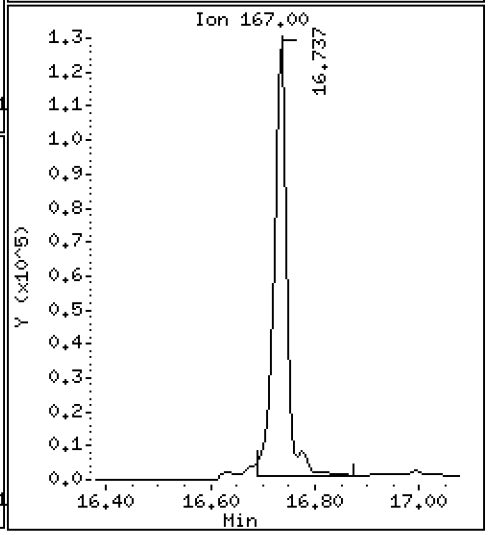


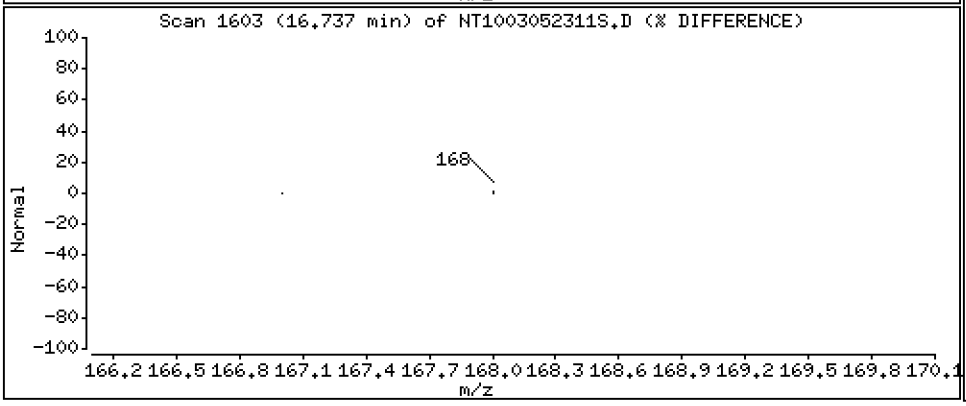












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Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

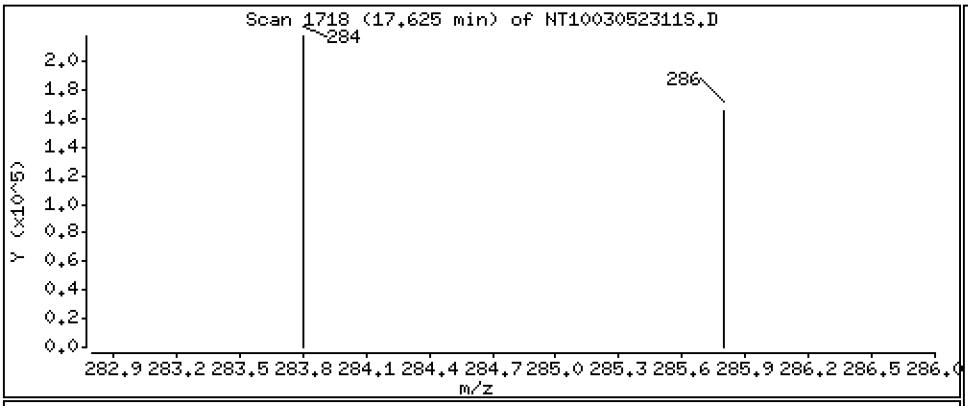
Operator: YZ

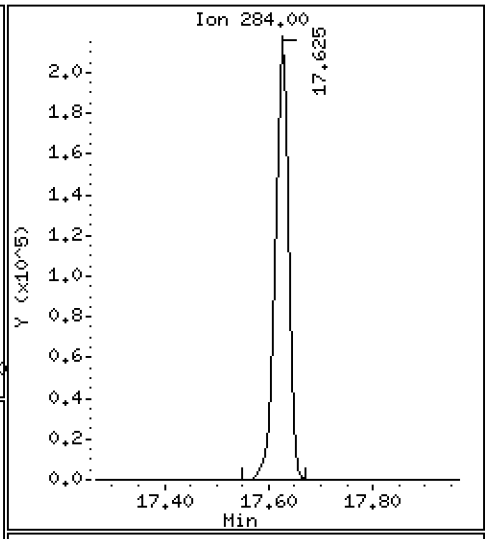
Column phase: ZB-5msi

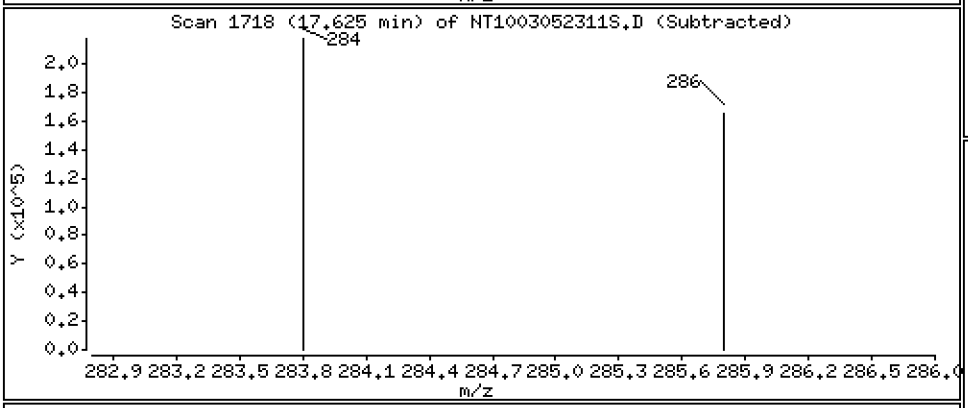
Column diameter: 0.25

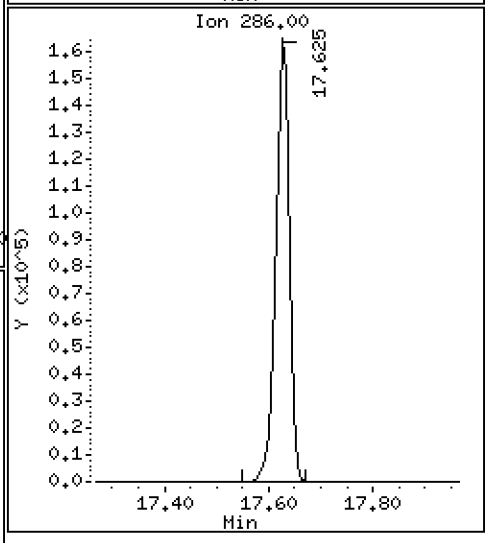
57 Hexachlorobenzene

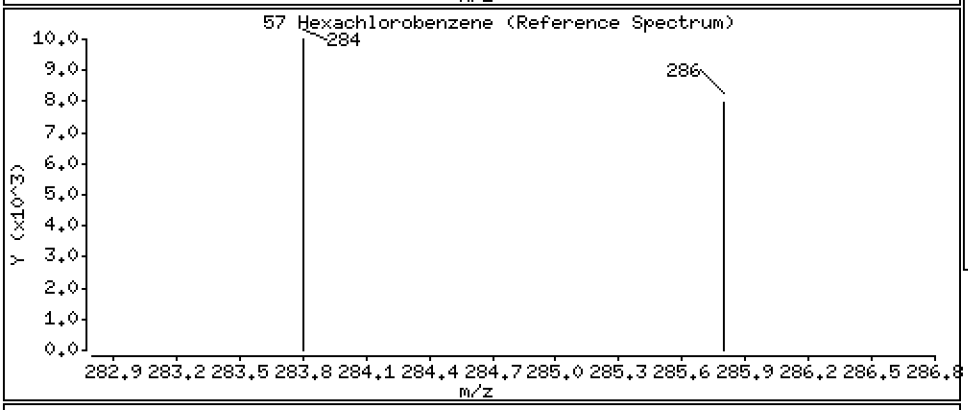
Concentration: 4.371 ug/mL

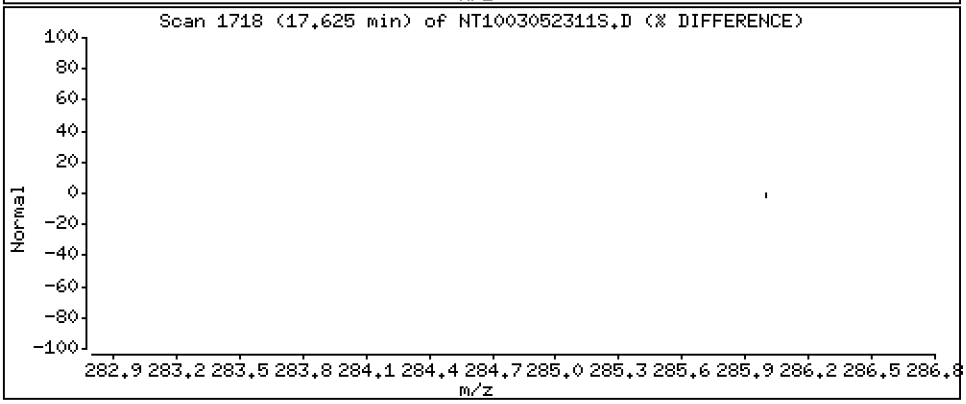












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

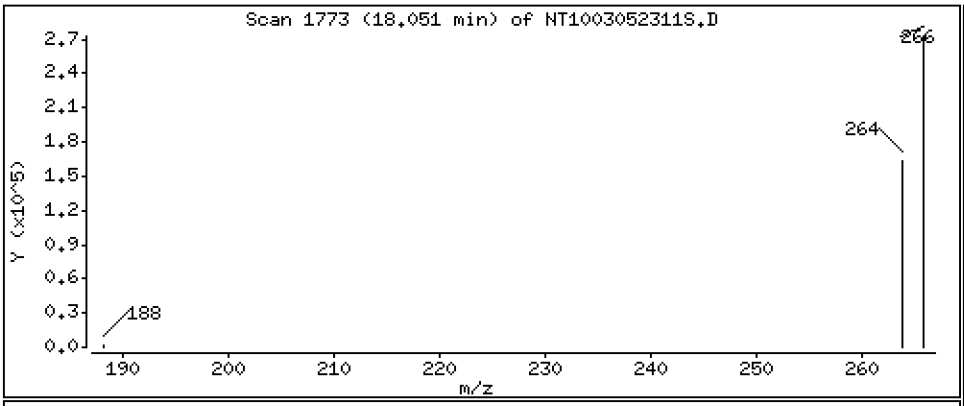
Operator: YZ

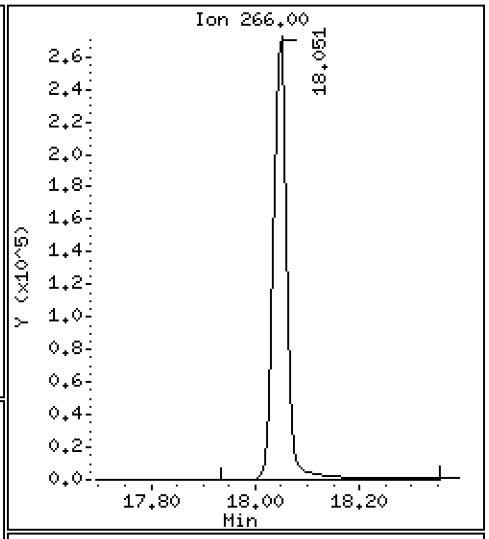
Column phase: ZB-5msi

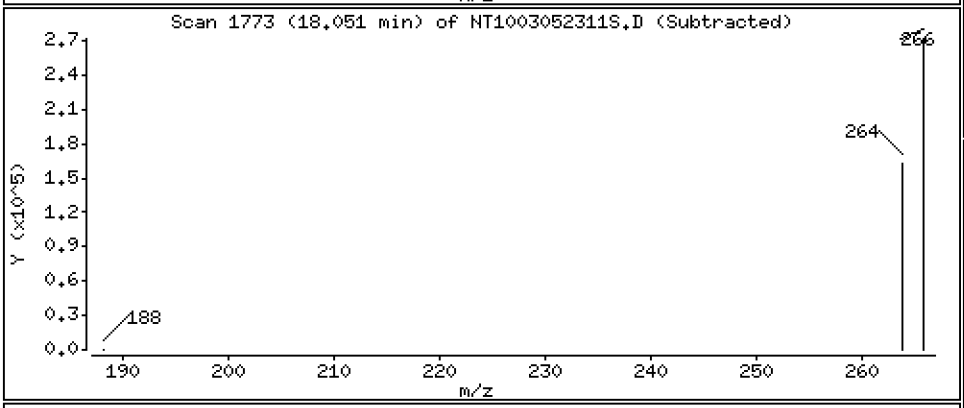
Column diameter: 0.25

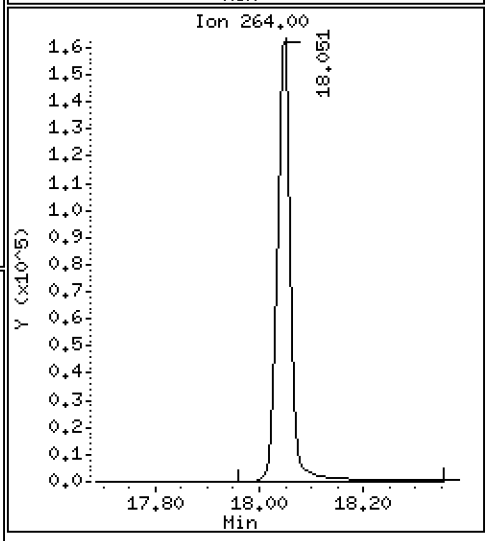
58 Pentachlorophenol

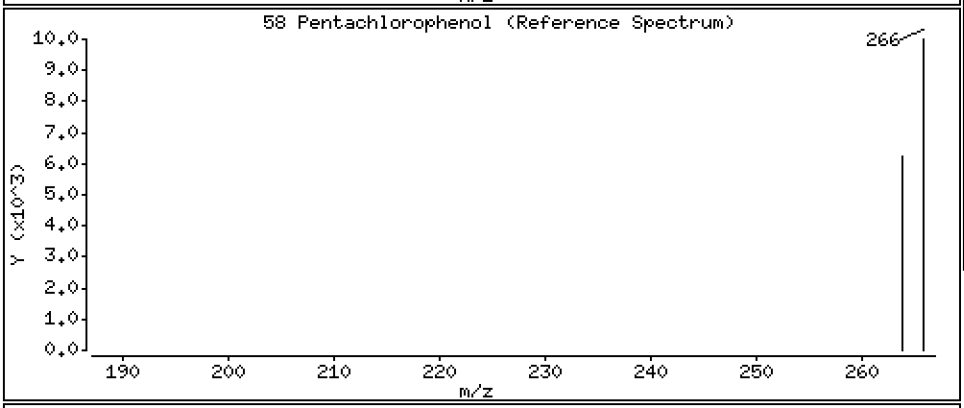
Concentration: 11.11 ug/mL

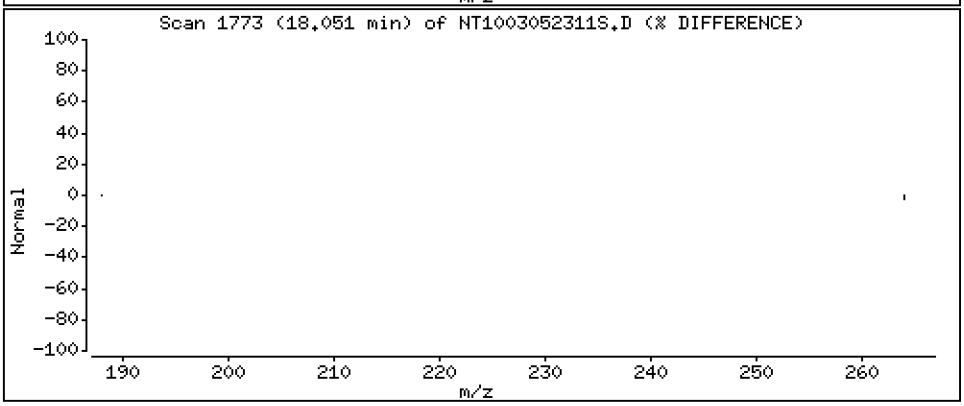












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

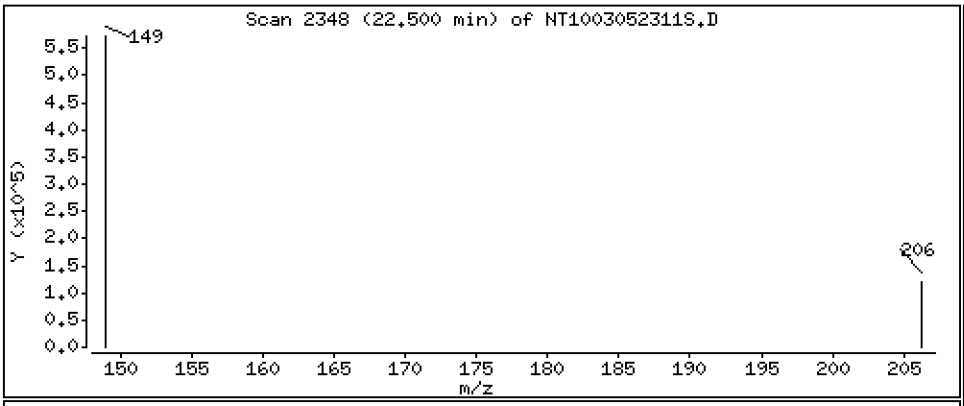
Operator: YZ

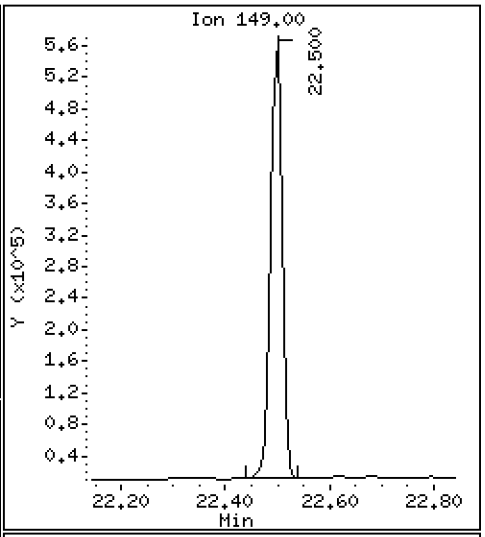
Column phase: ZB-5msi

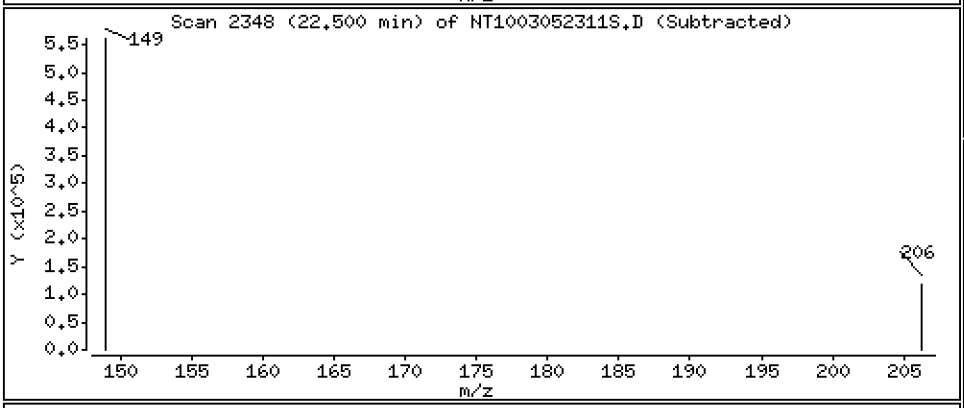
Column diameter: 0.25

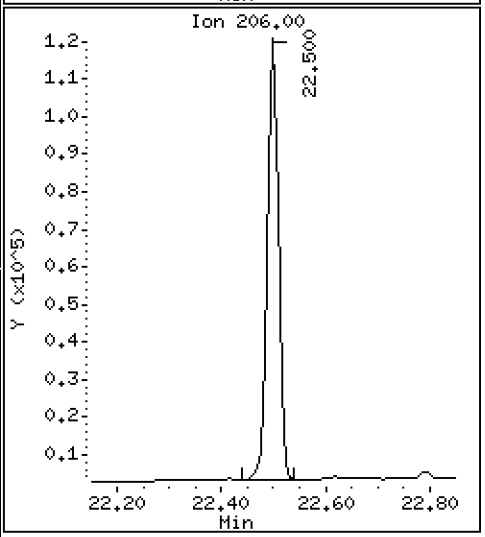
67 Butylbenzylphthalate

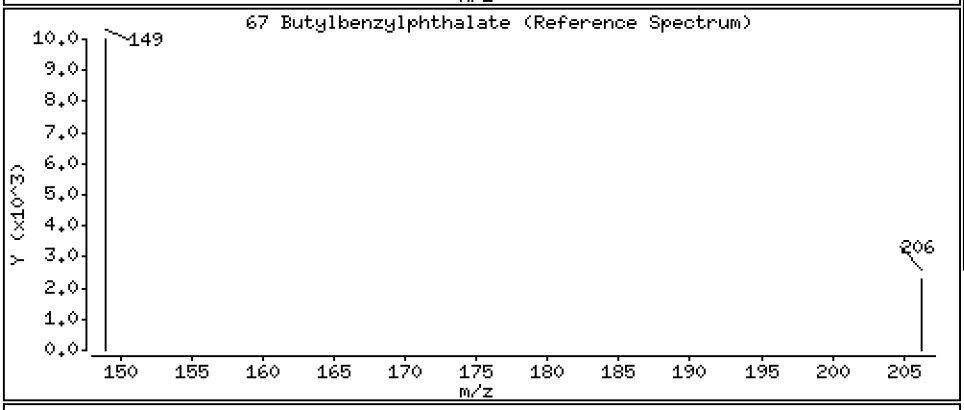
Concentration: 4.133 ug/mL

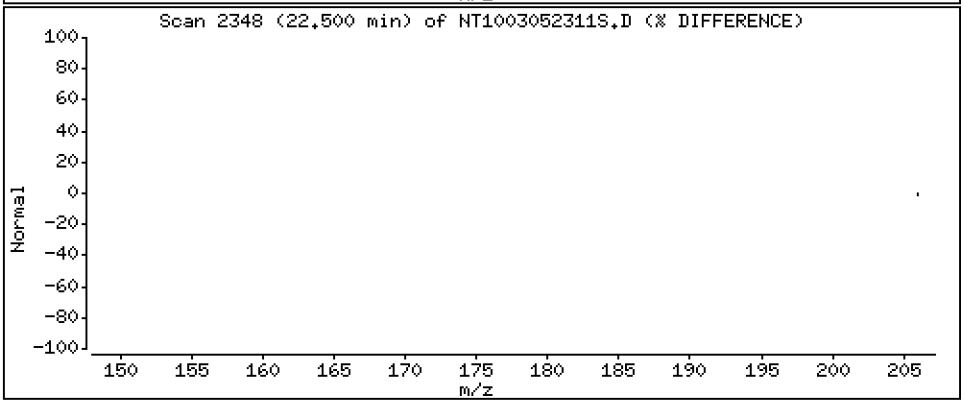












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

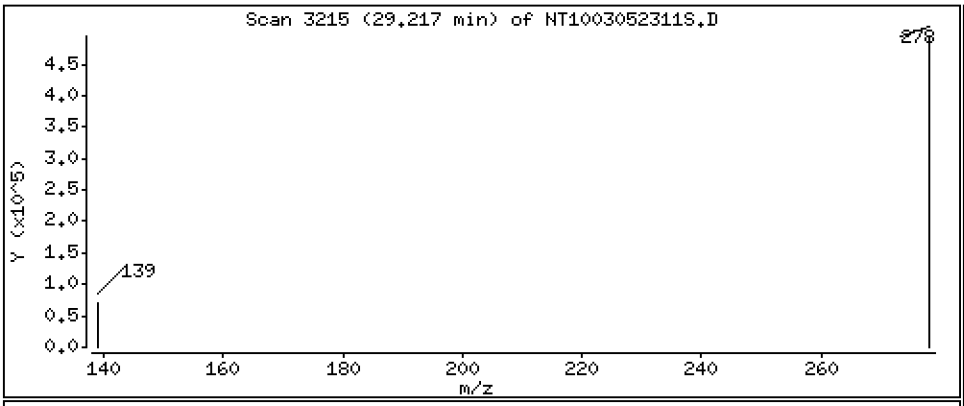
Operator: YZ

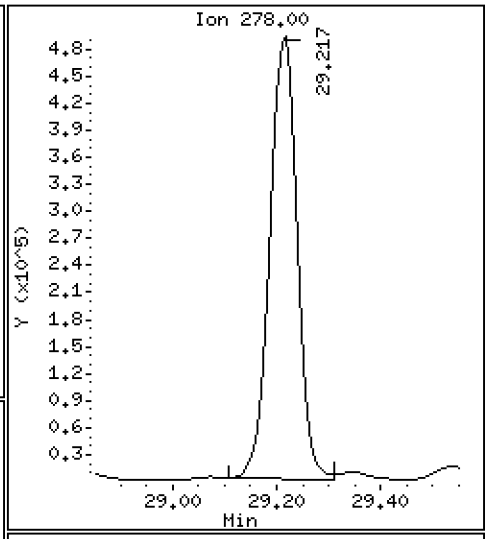
Column phase: ZB-5msi

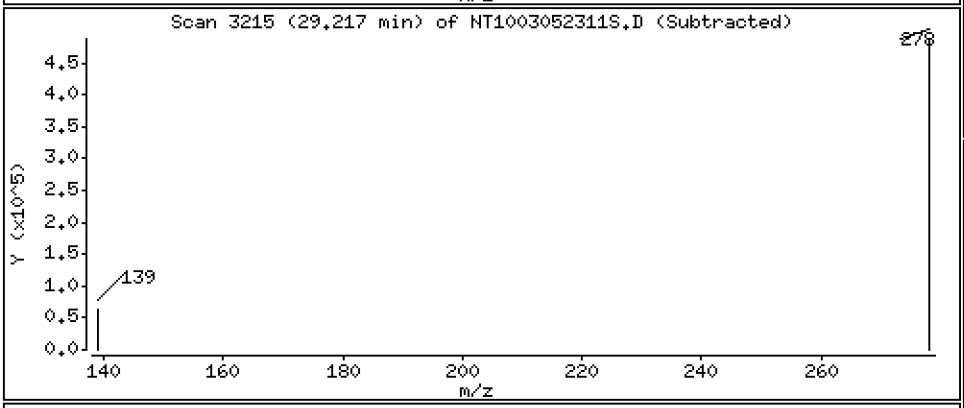
Column diameter: 0.25

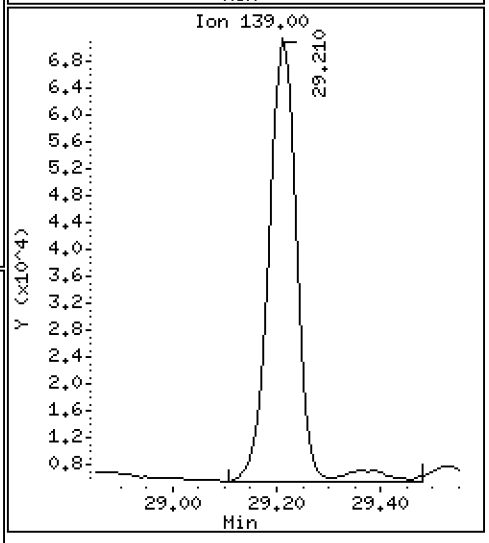
79 Dibenzo(a,h)anthracene

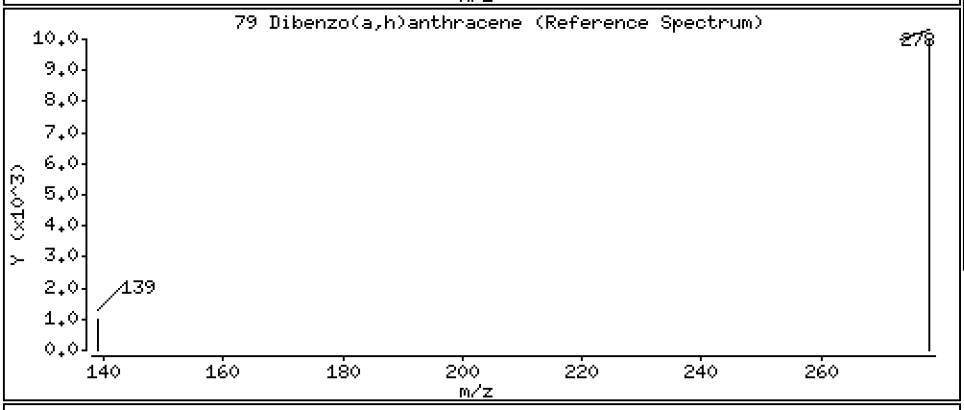
Concentration: 5.581 ug/mL

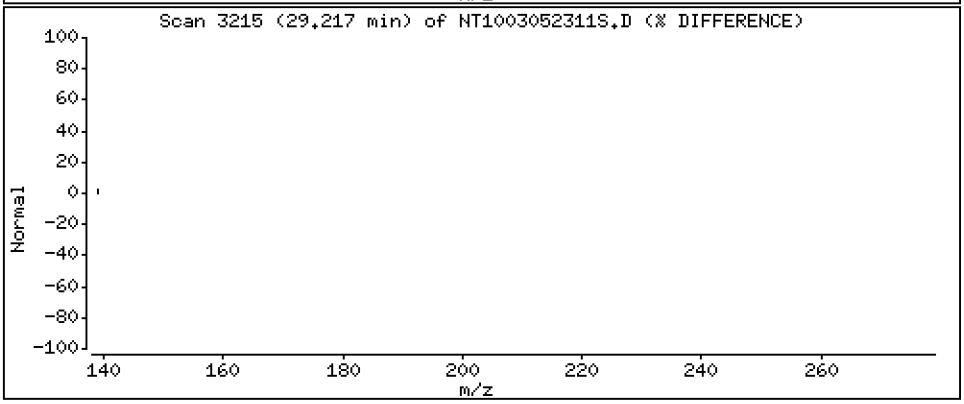












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523115.D

Date : 05-MAR-2023 19:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-MSD2

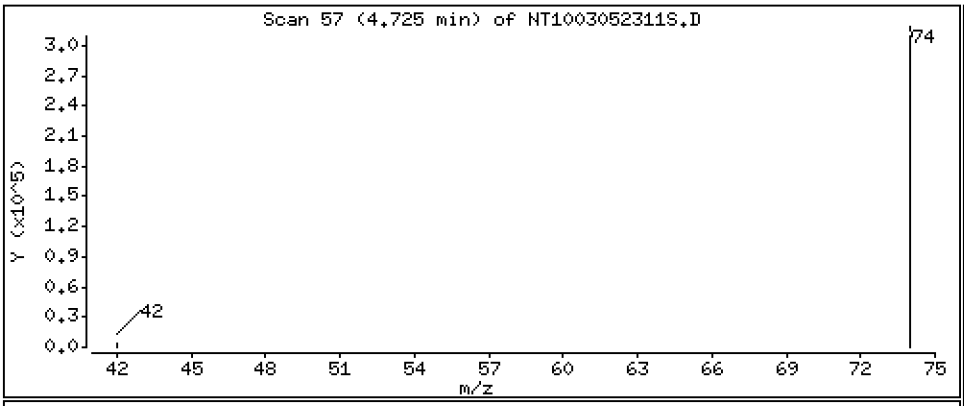
Operator: YZ

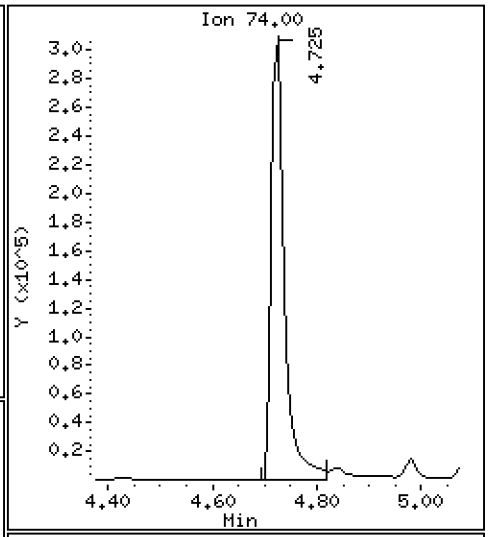
Column phase: ZB-5msi

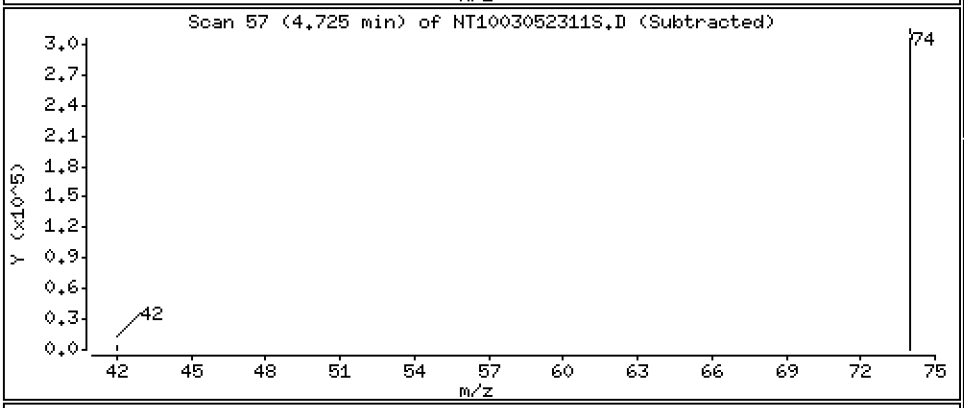
Column diameter: 0.25

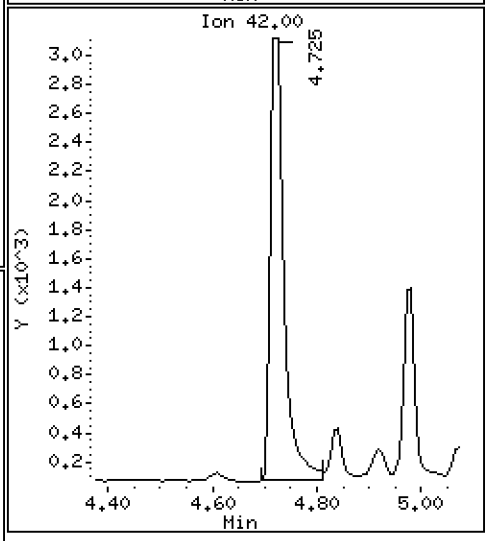
90 N-Nitrosodimethylamine

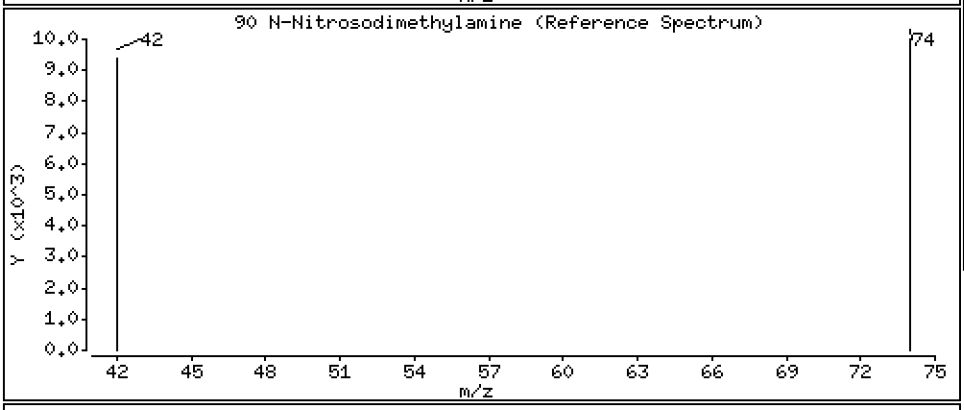
Concentration: 9.314 ug/mL

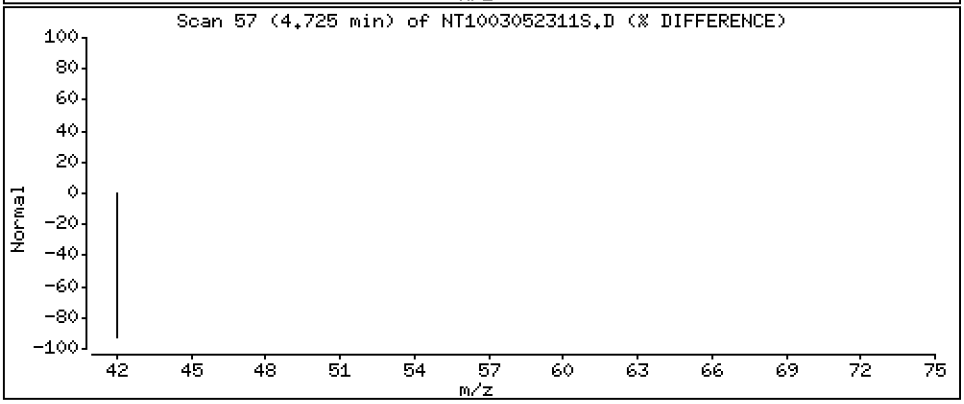












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052311S.D
Lab Smp Id: BLA0685-MSD2
Inj Date : 05-MAR-2023 19:44
Operator : YZ Inst ID: nt10.i
Smp Info : BLA0685-MSD2
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:00 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.917	6.902	(0.748)	480849	5.19305	5.193(R)
	3 Phenol	94	8.548	8.533	(0.924)	621949	4.44996	4.450
	7 1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	418059	3.47803	3.478
*	8 1,4-Dichlorobenzene-d4	152	9.251	9.244	(1.000)	324331	4.00000	
	9 1,4-Dichlorobenzene	146	9.283	9.275	(1.003)	413449	3.53783	3.538
	11 Benzyl alcohol	79	9.492	9.485	(1.026)	327503	4.09144	4.091(M)
	12 1,2-Dichlorobenzene	146	9.570	9.562	(1.034)	403864	3.59541	3.595
	13 2-Methylphenol	108	9.678	9.663	(1.046)	176532	2.11293	2.113
	15 4-Methylphenol	108	9.981	9.958	(1.079)	273463	3.09447	3.094
	16 N-Nitroso-di-n-propylamine	70	9.997	9.982	(1.081)	302980	4.89029	4.890
	22 2,4-Dimethylphenol	107	11.023	11.015	(0.939)	364693	3.70302	3.703
	24 Benzoic acid	105	11.201	11.116	(0.954)	916567	15.6945	15.69
	26 1,2,4-Trichlorobenzene	180	11.615	11.608	(0.989)	363100	4.39136	4.391
*	27 Naphthalene-d8	136	11.739	11.731	(1.000)	1148792	4.00000	
	30 Hexachlorobutadiene	225	12.009	12.002	(1.023)	253011	4.31196	4.312
	39 Dimethylphthalate	163	14.780	14.765	(0.963)	852900	4.74200	4.742
*	42 Acenaphthene-d10	162	15.345	15.337	(1.000)	566447	4.00000	
	50 Diethylphthalate	149	16.249	16.234	(1.059)	1011056	5.96089	5.961(H)
	54 N-Nitrosodiphenylamine	169	16.736	16.729	(0.907)	613146	3.34530	3.345
	57 Hexachlorobenzene	284	17.624	17.617	(0.955)	374948	4.37130	4.371
	58 Pentachlorophenol	266	18.050	18.043	(0.978)	476165	11.1051	11.11
*	59 Phenanthrene-d10	188	18.460	18.453	(1.000)	1132534	4.00000	
$	66 Terphenyl-d14	244	21.609	21.602	(0.919)	679705	7.21554	7.216(R)
	67 Butylbenzylphthalate	149	22.500	22.492	(0.957)	800883	4.13342	4.133
*	69 Chrysene-d12	240	23.522	23.514	(1.000)	1164880	4.00000	
*	77 Perylene-d12	264	26.293	26.286	(1.000)	1261918	4.00000	
	79 Dibenzo(a,h)anthracene	278	29.217	29.202	(1.111)	1783863	5.58067	5.581
	90 N-Nitrosodimethylamine	74	4.724	4.724	(0.511)	510607	9.31422	9.314

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052311S.D
Lab Smp Id: BLA0685-MSD2
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:40
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	321376	160688	642752	324331	0.92
27 Naphthalene-d8	1132931	566466	2265862	1148792	1.40
42 Acenaphthene-d10	561597	280799	1123194	566447	0.86
59 Phenanthrene-d10	1068222	534111	2136444	1132534	6.02
69 Chrysene-d12	997572	498786	1995144	1164880	16.77
77 Perylene-d12	1245490	622745	2490980	1261918	1.32

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.74	0.06
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.51	23.01	24.01	23.52	0.03
77 Perylene-d12	26.29	25.79	26.79	26.29	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052311S.D

Lab ID: BLA0685-MSD2
nt10.i, 20230305.b\SIM.b\SIMABN2.m,   05-MAR-2023 19:44

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.954	0.948	0.0066	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003052303S.D

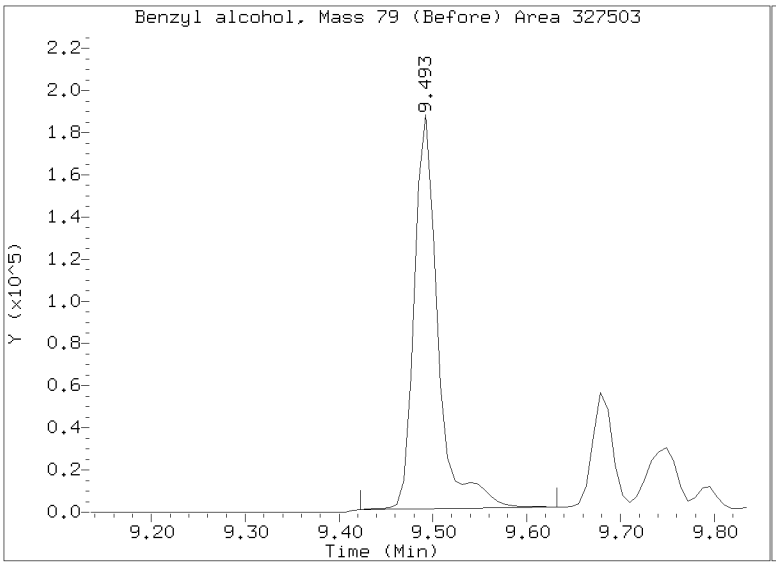
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

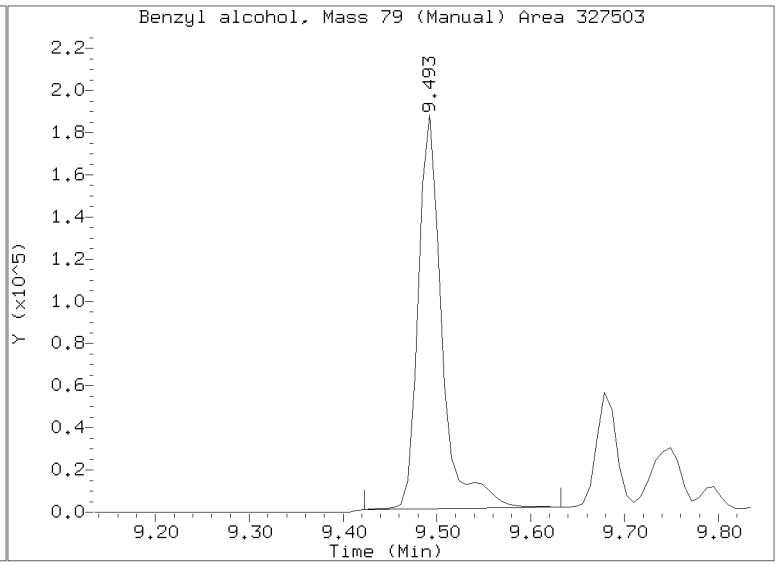
Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305.b/SIM.b/NT1003052311S.D
Injection Date: 05-MAR-2023 19:44
Lab ID:BLA0685-MSD2 Client ID:
Report Date: 03/28/2023 11:05





APPROVED

By Deenay Dunmore at 12:02 pm, Mar 28, 2023

STANDARD REFERENCE MATERIAL RECOVERY

EPA 8270E-SIM

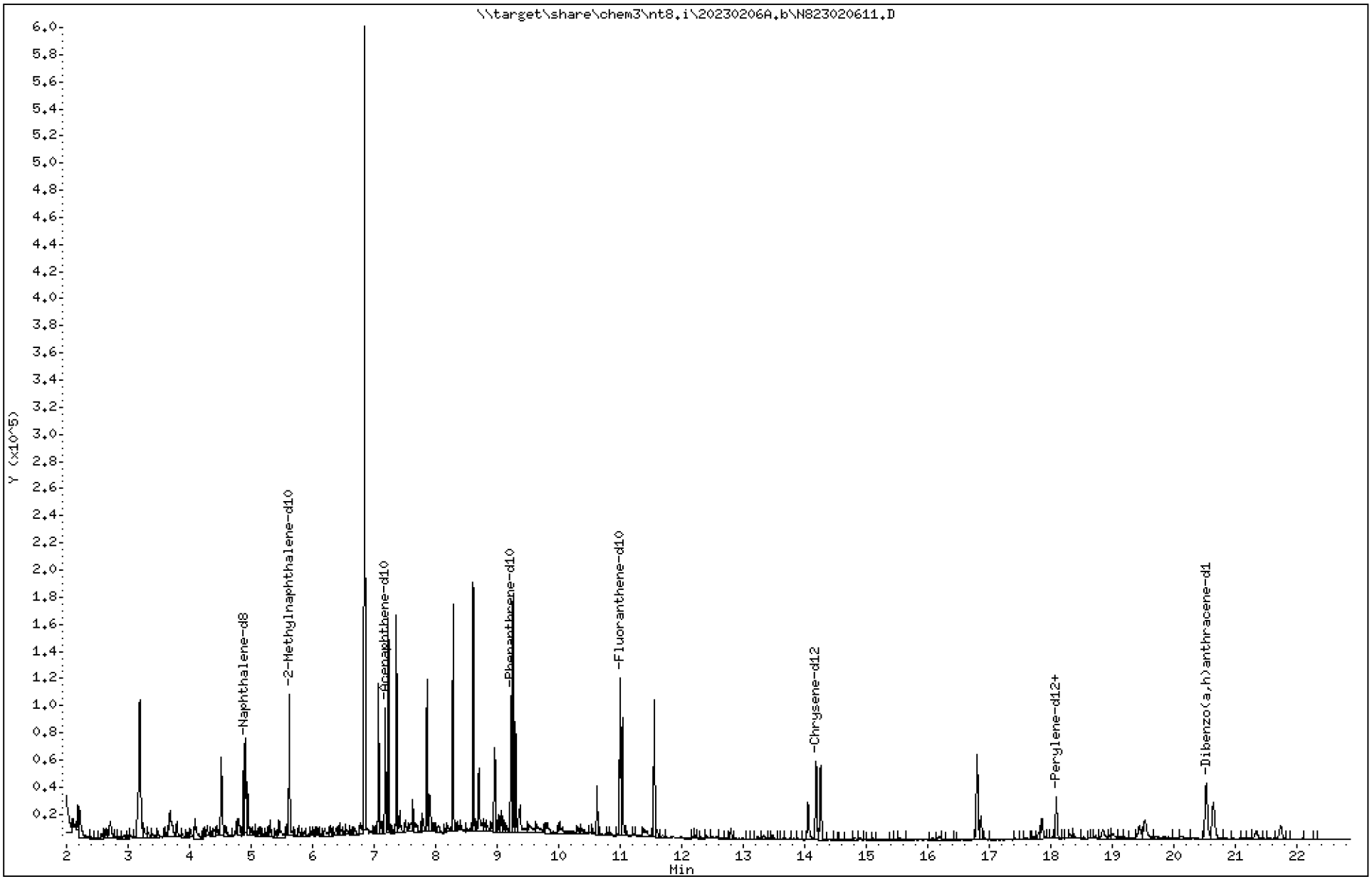
Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Laboratory ID: BLA0683-SRM1
Batch: BLA0683
Initial/Final: 5 g / 0.5 mL
Preparation: EPA 3546 (Microwave)
Analyzed: 02/06/2023 17:18
Standard ID: L000097
Expires: 10/31/2025
Standard Lot#: SQC017 (LRAD3953)
Description: SQC017-40G PAHs by HPLC40g

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Benzo(a)anthracene	110.00	88.7	1.65	10.0		80.6	26 - 174
Chrysene	231.00	176	2.11	10.0		76.3	43 - 156
Benzo(b)fluoranthene	318.00	383	2.74	10.0		120	0 - 211
Benzo(k)fluoranthene	95.100	109	1.52	10.0		114	0 - 226
Benzo(a)pyrene	159.00	109	1.23	10.0		68.8	0 - 206
Indeno(1,2,3-cd)pyrene	119.00	106	2.10	10.0		88.7	44 - 155
Dibenzo(a,h)anthracene	220.00	226	1.78	10.0		103	45 - 155

* Values outside of QC limits

Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020611.D
Date : 06-FEB-2023 17:18
Client ID:
Sample Info: BLA0683-SRM1,

Instrument: nt8.i
Operator: JZ
Column phase: Rxi-17sil
Column diameter: 0.25



Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020611.D

Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

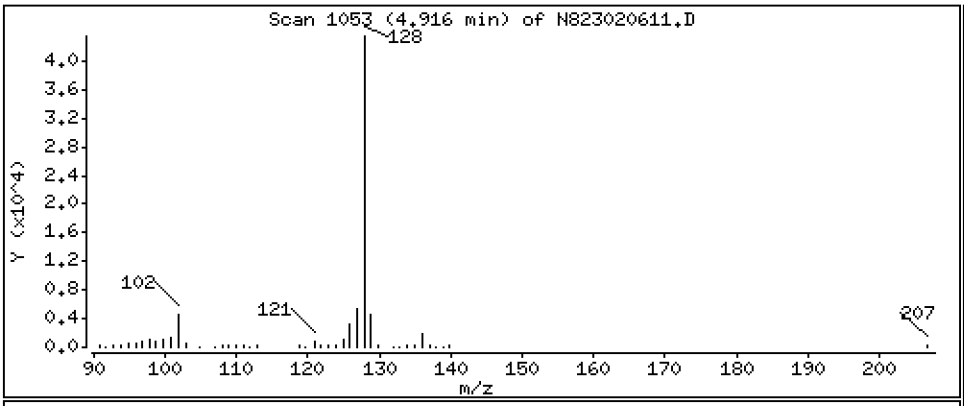
Operator: JZ

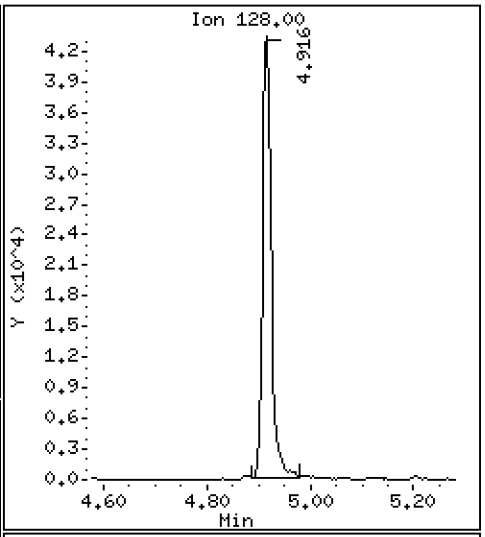
Column phase: Rxi-17sil

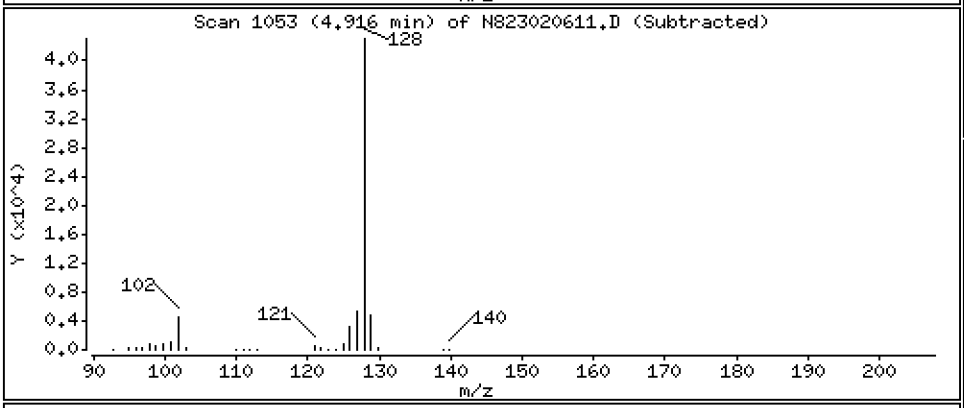
Column diameter: 0.25

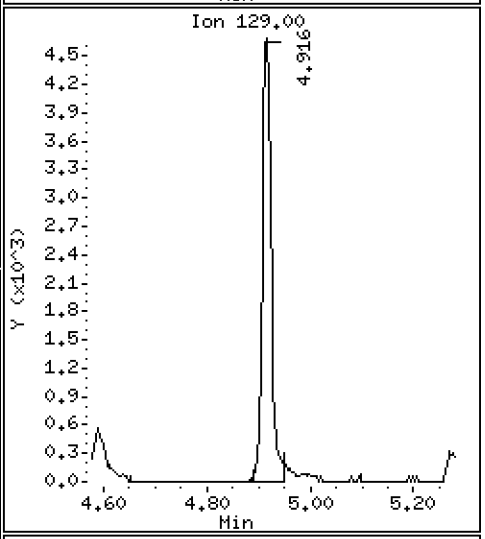
2 Naphthalene

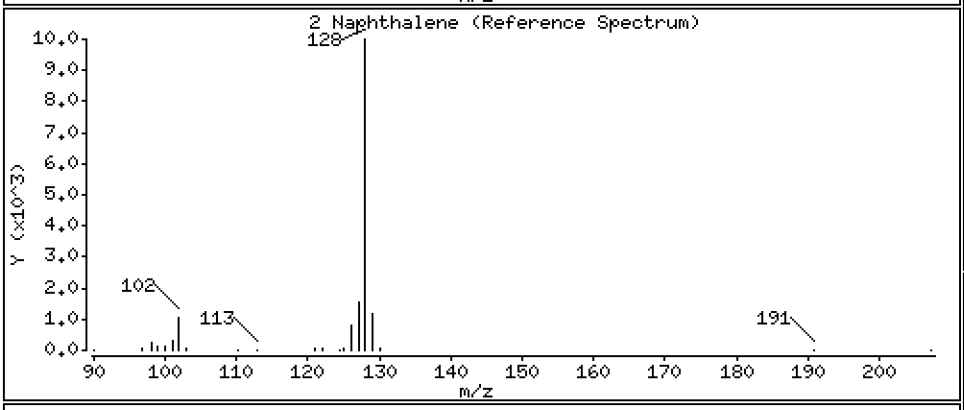
Concentration: 2.317 ug/mL

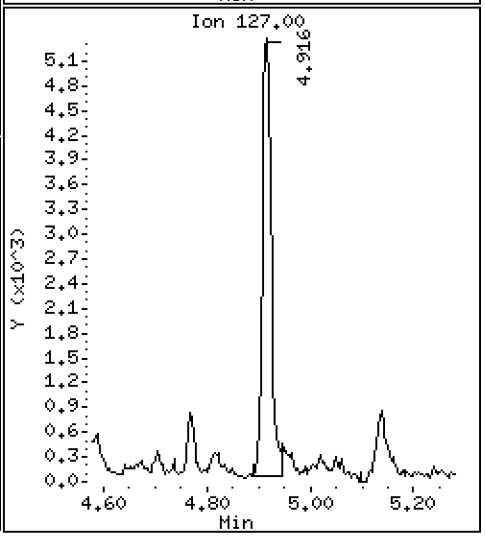


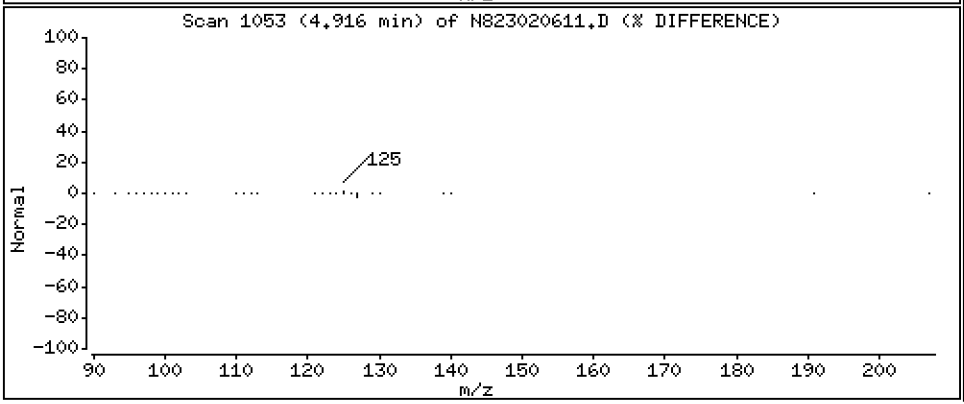












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Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

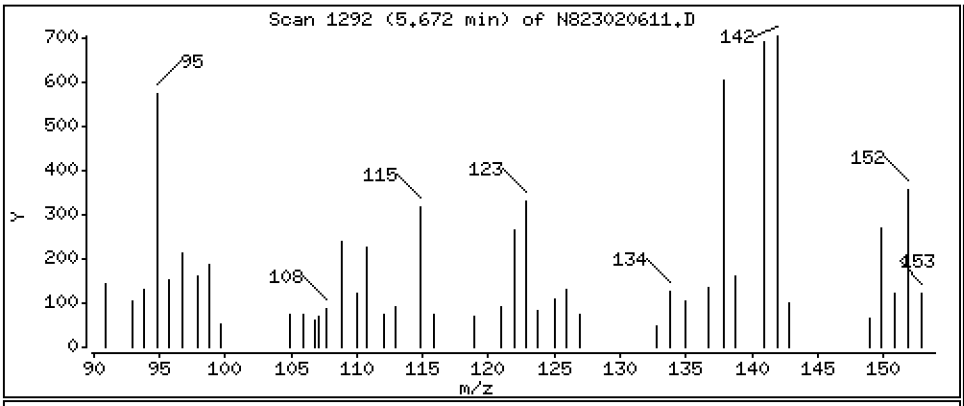
Operator: JZ

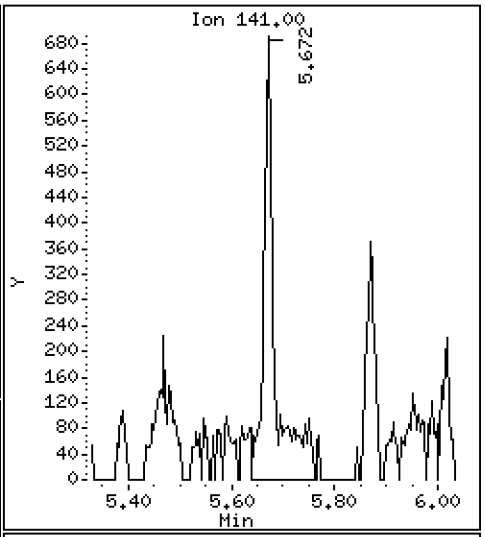
Column phase: Rxi-17sil

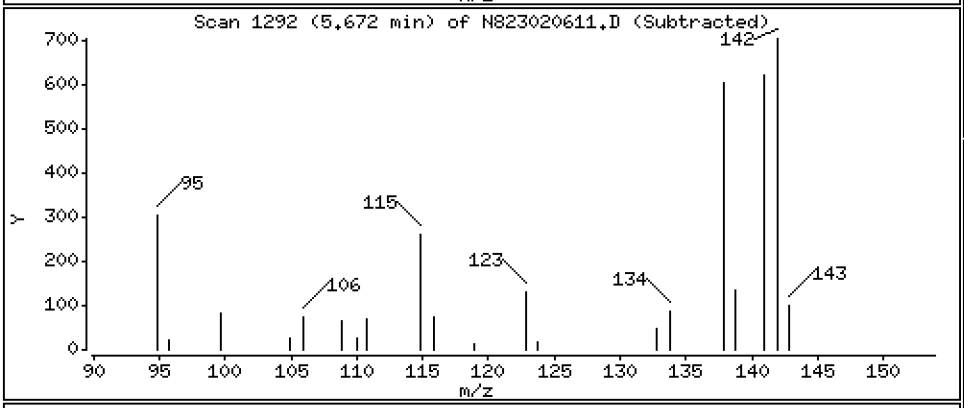
Column diameter: 0.25

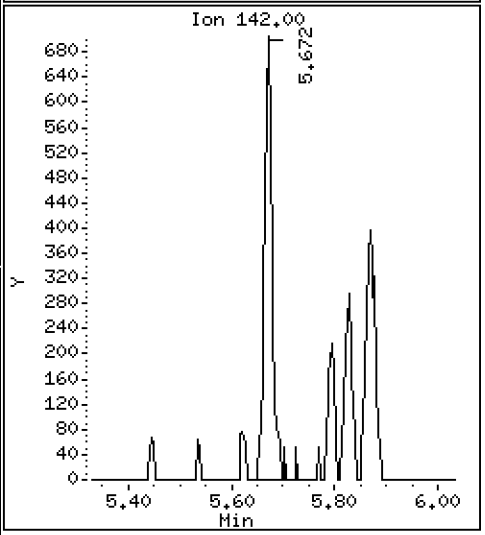
4 2-Methylnaphthalene

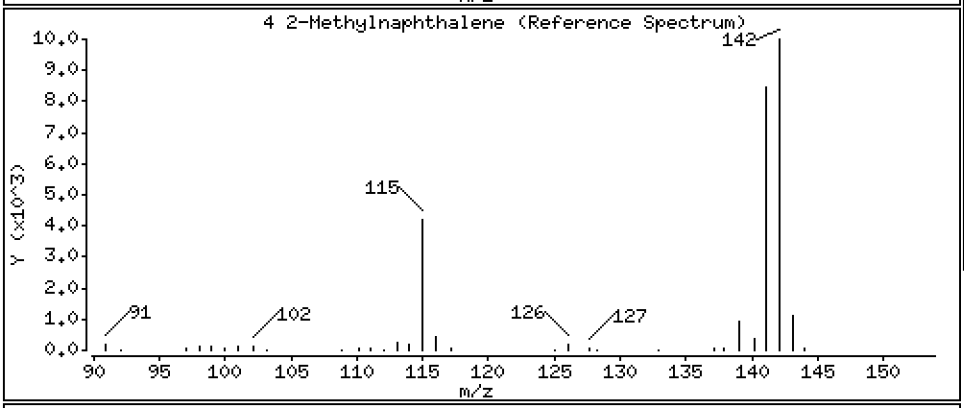
Concentration: 0.08433 ug/mL

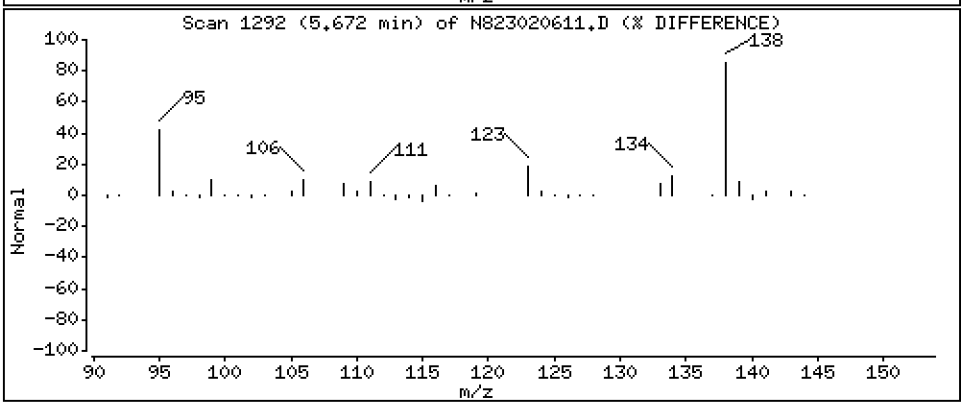












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Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

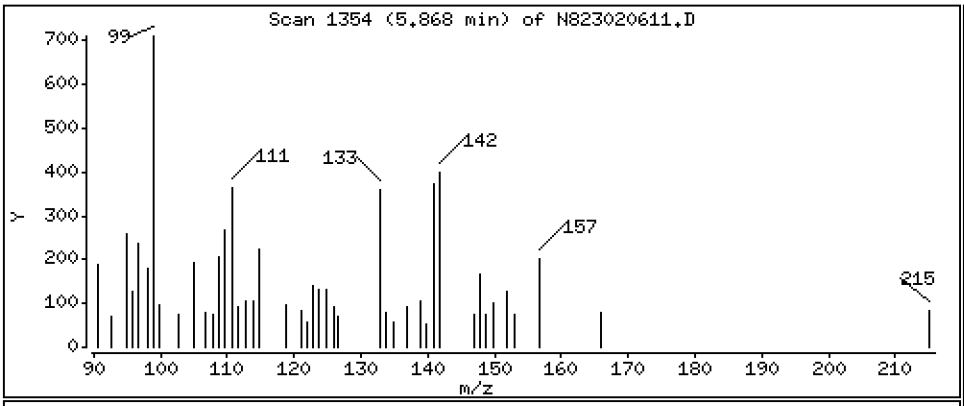
Operator: JZ

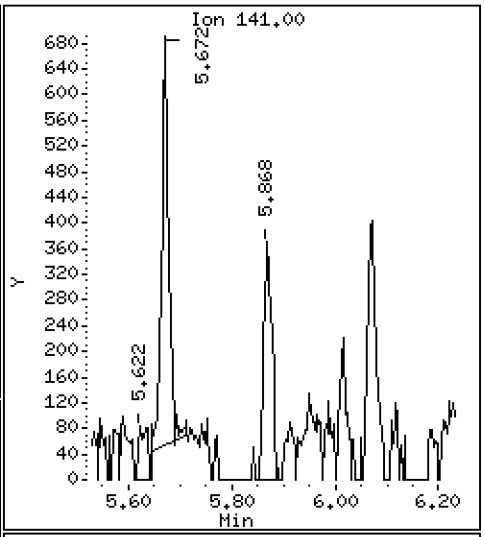
Column phase: Rxi-17sil

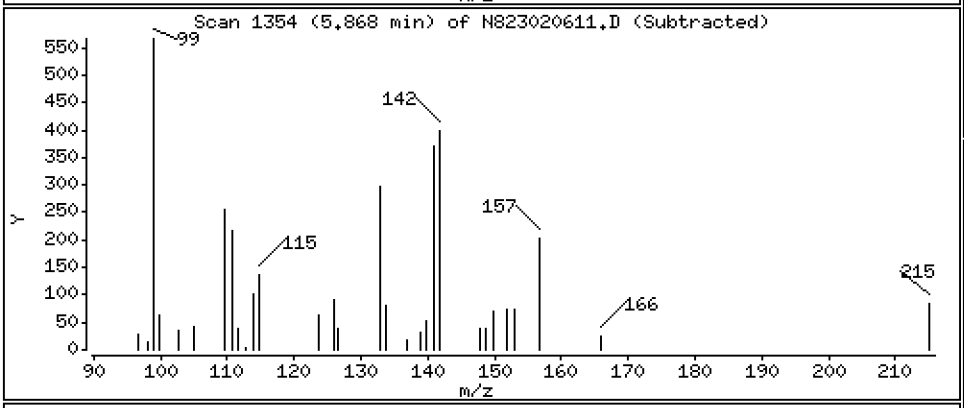
Column diameter: 0.25

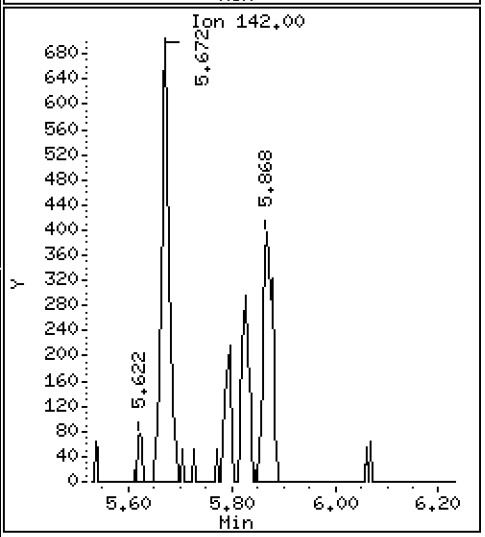
5 1-methylnaphthalene

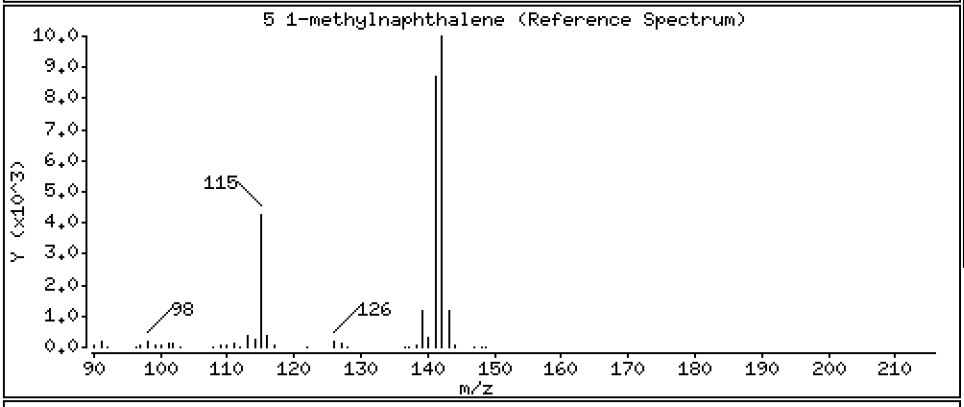
Concentration: 0.03258 ug/mL

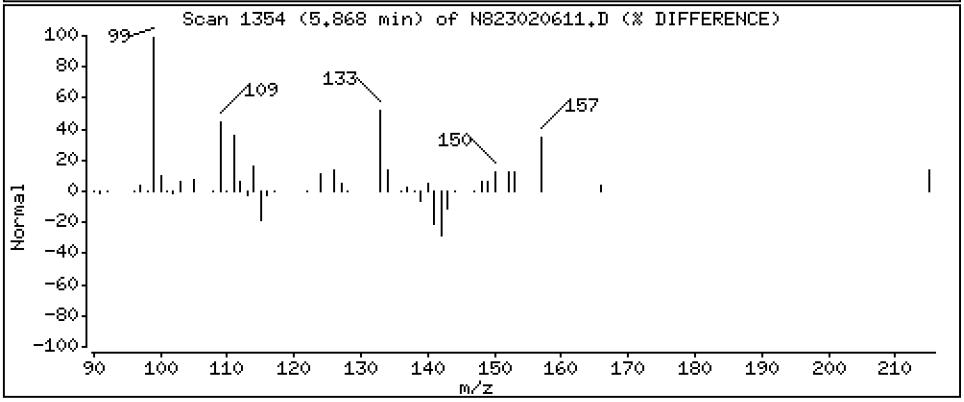












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Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

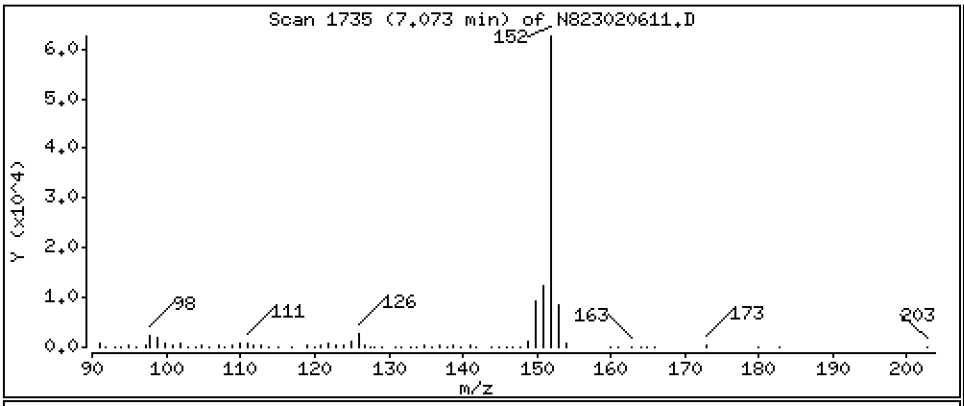
Operator: JZ

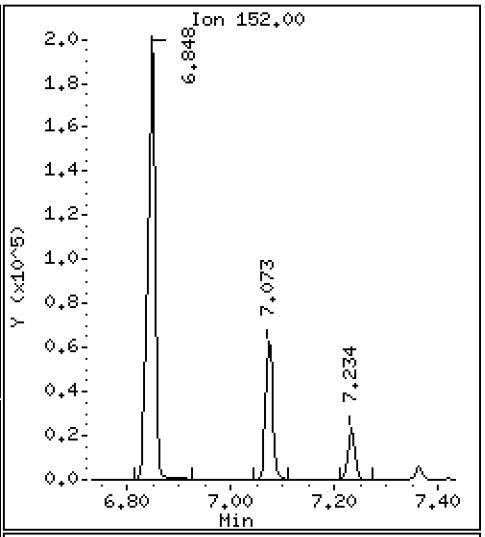
Column phase: Rxi-17sil

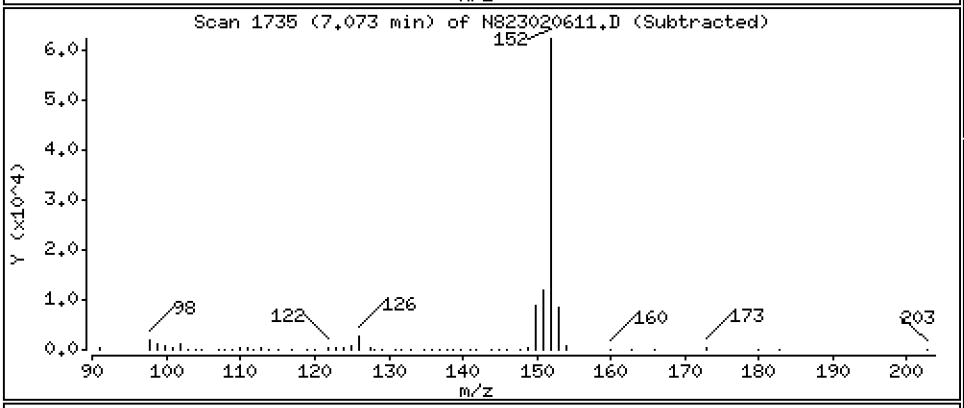
Column diameter: 0.25

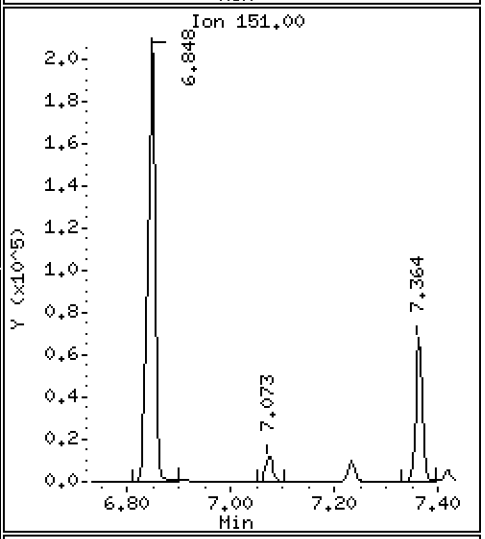
9 Acenaphthylene

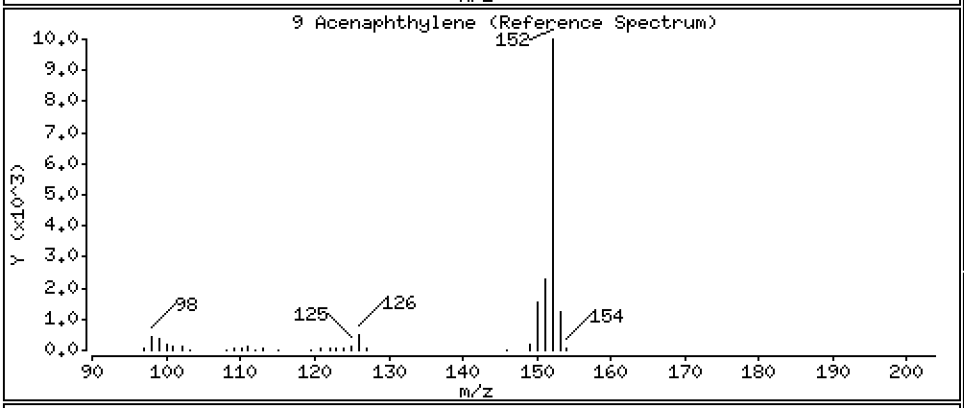
Concentration: 3.068 ug/mL

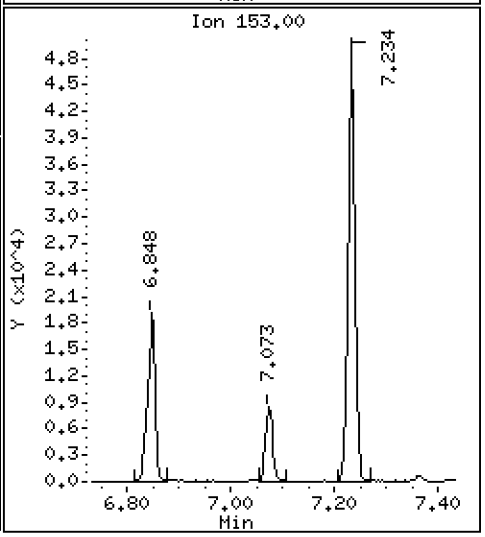


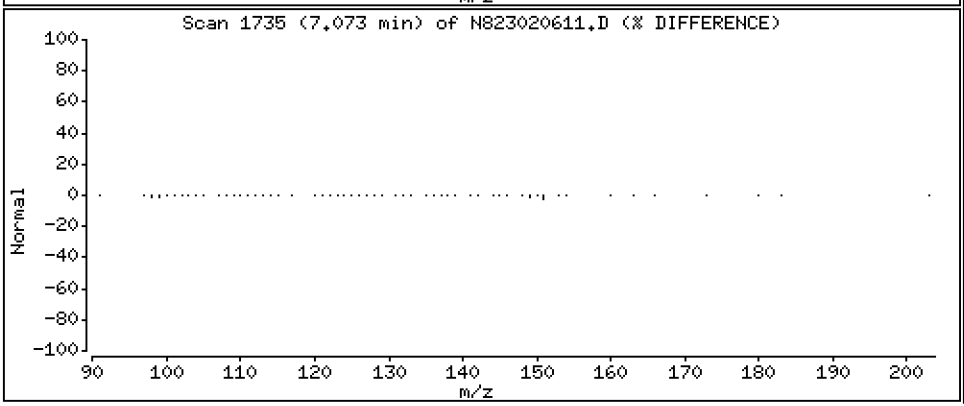












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Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

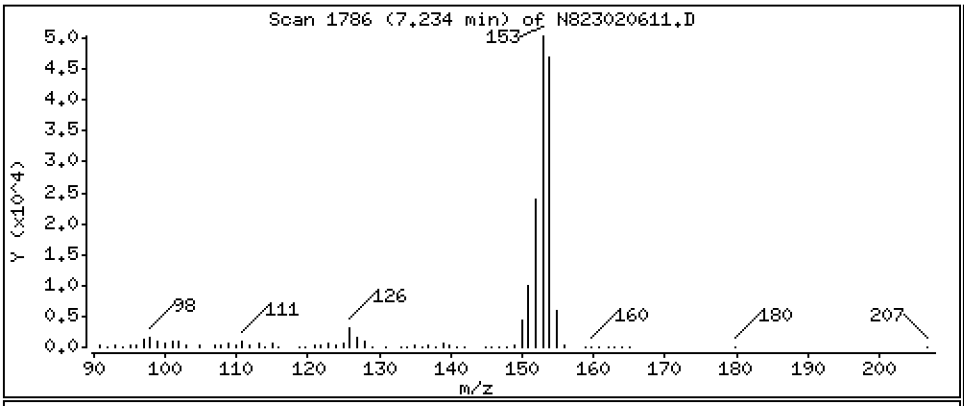
Operator: JZ

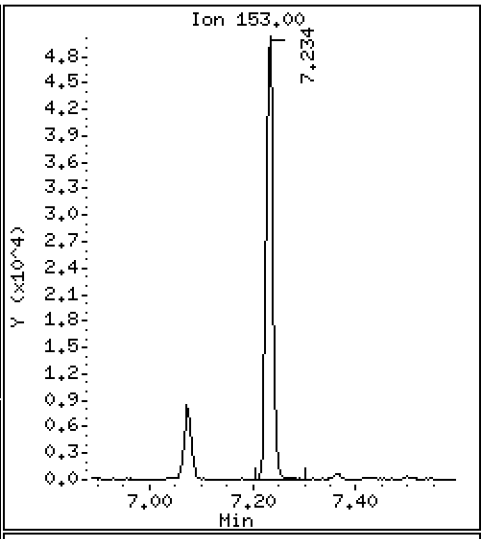
Column phase: Rxi-17sil

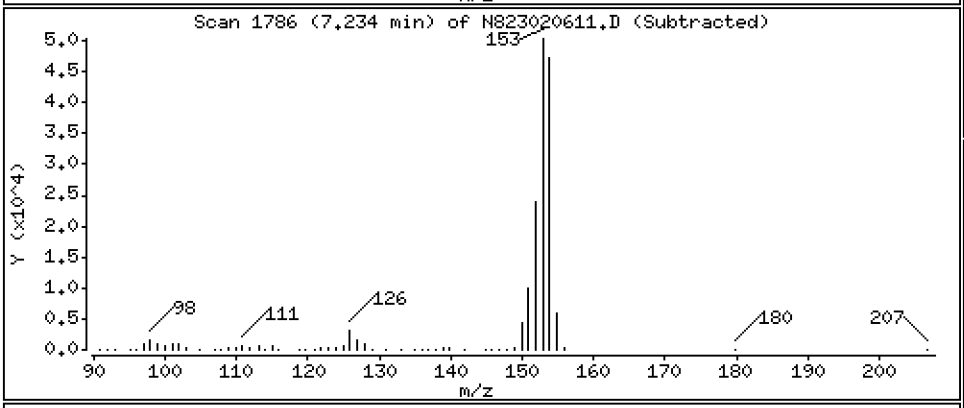
Column diameter: 0.25

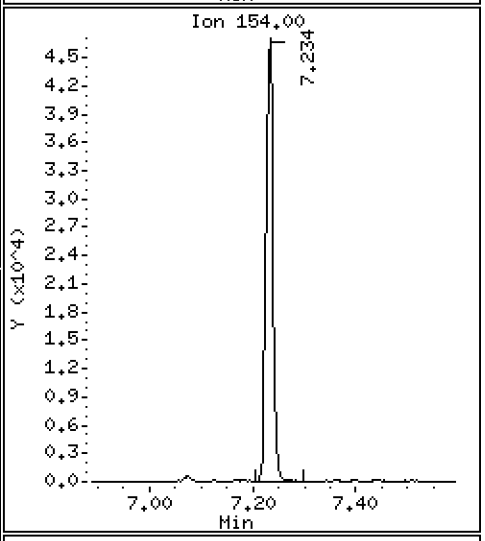
11 Acenaphthene

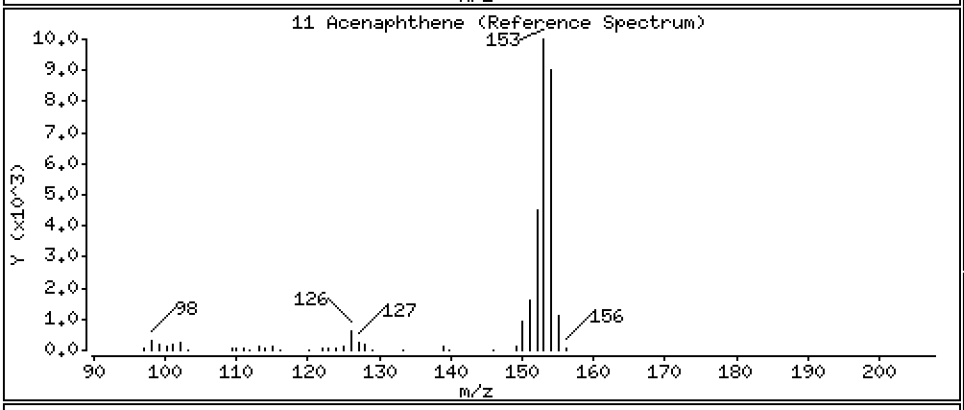
Concentration: 3.505 ug/mL

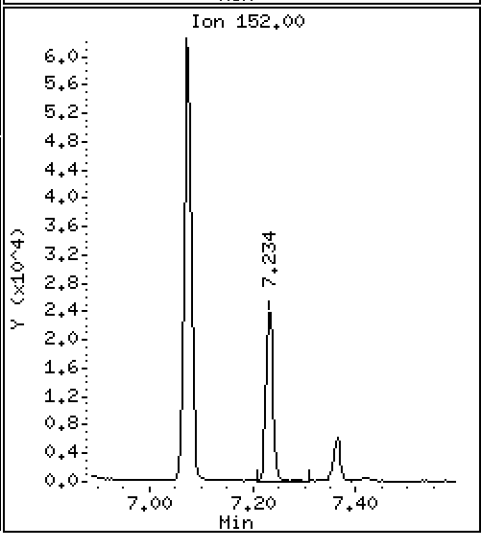


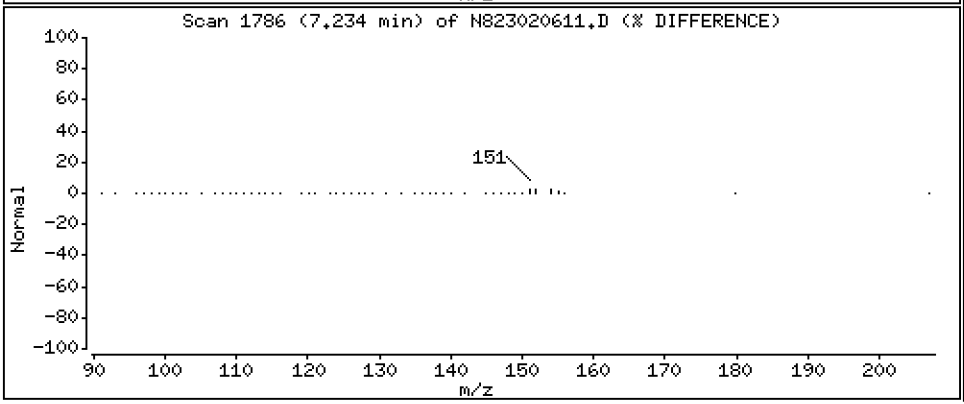












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Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

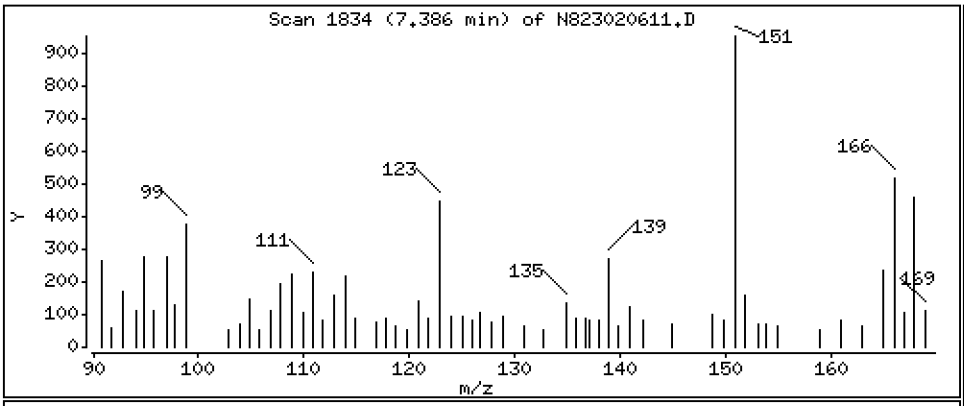
Operator: JZ

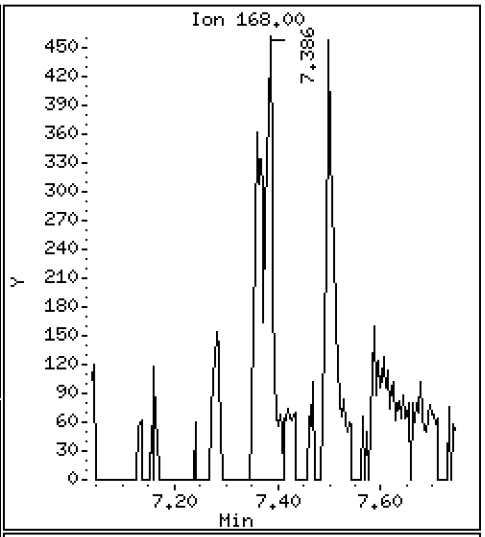
Column phase: Rxi-17sil

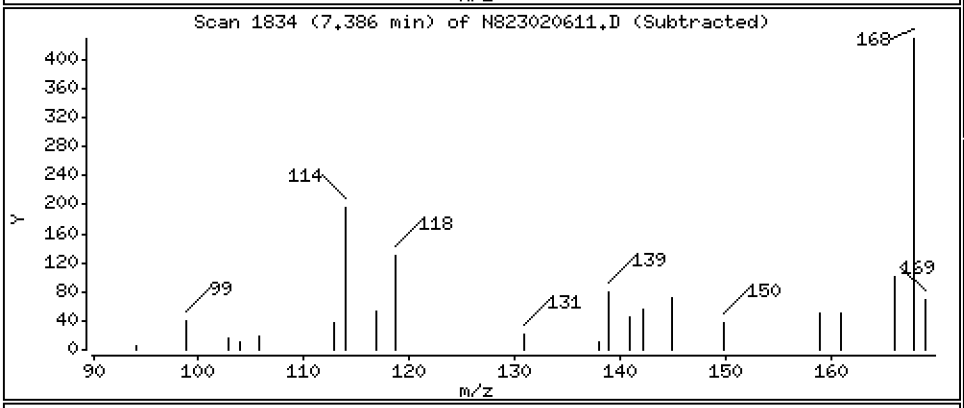
Column diameter: 0.25

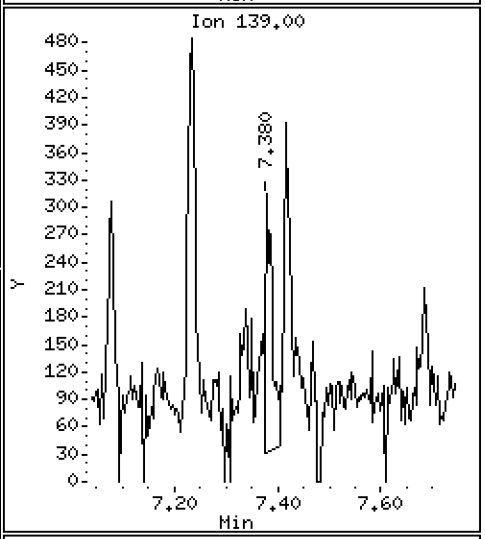
12 Dibenzofuran

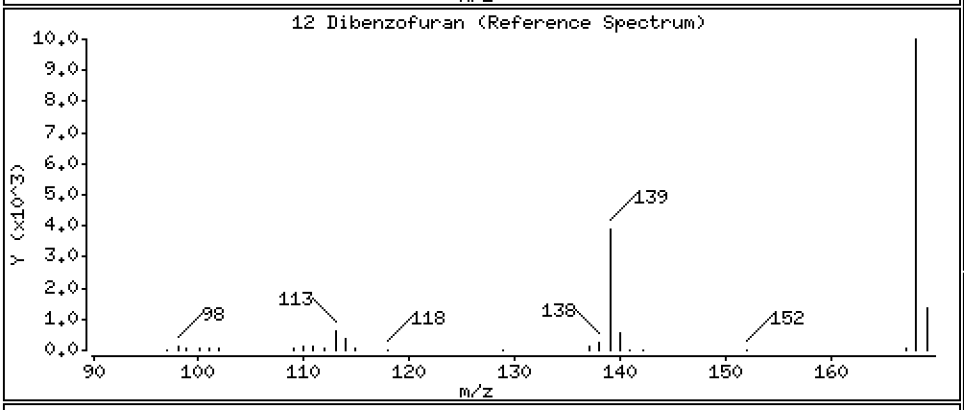
Concentration: 0.04013 ug/mL

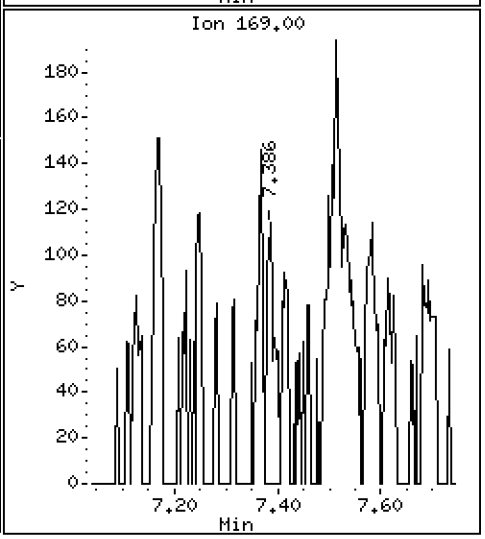


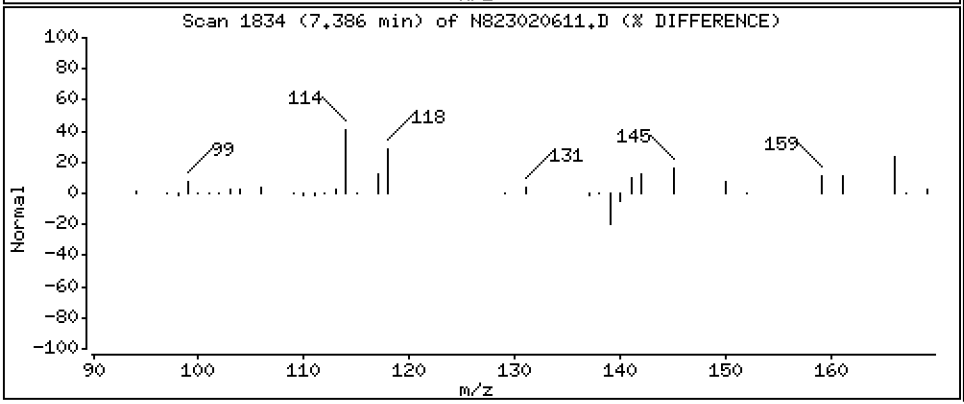












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Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

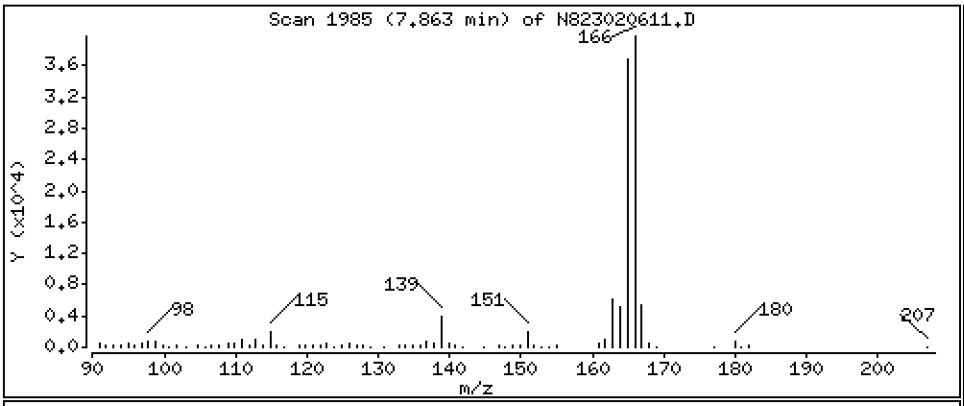
Operator: JZ

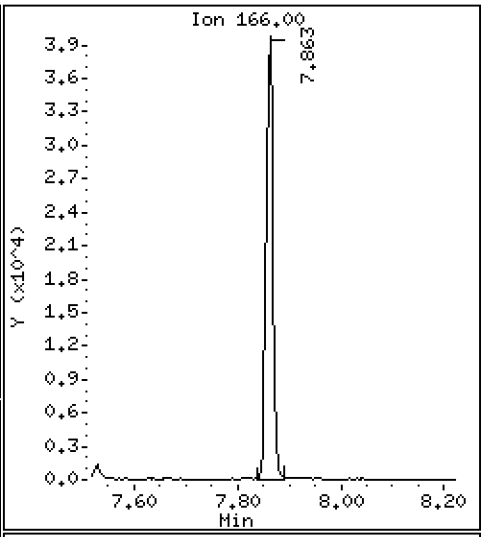
Column phase: Rxi-17sil

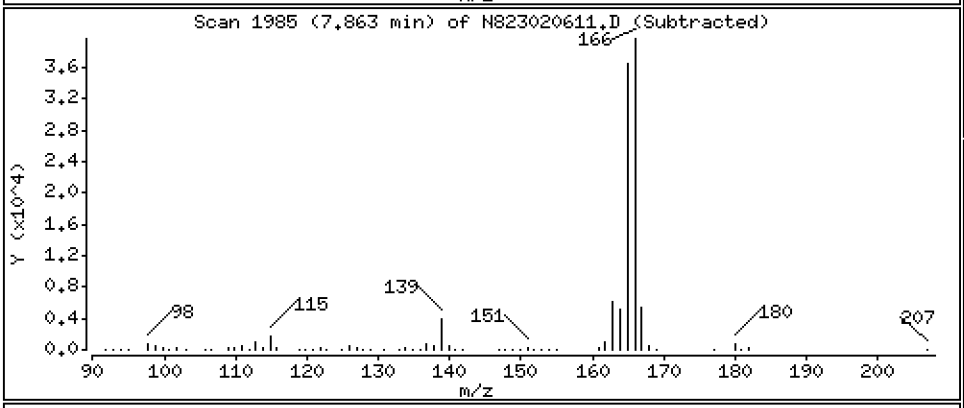
Column diameter: 0.25

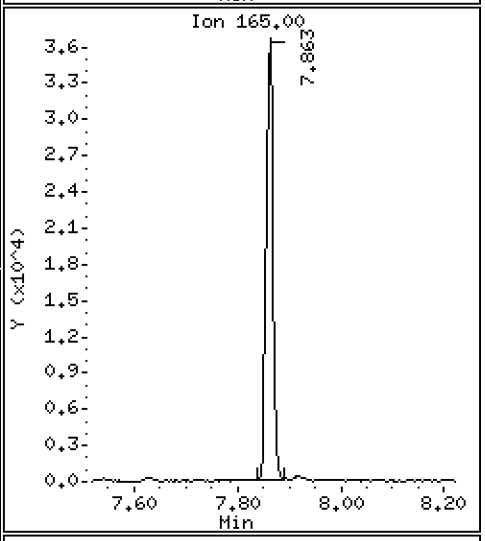
14 Fluorene

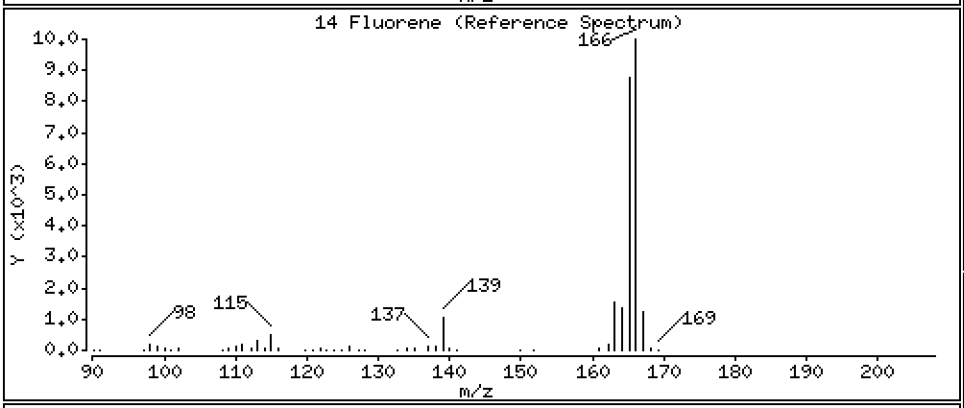
Concentration: 2.306 ug/mL

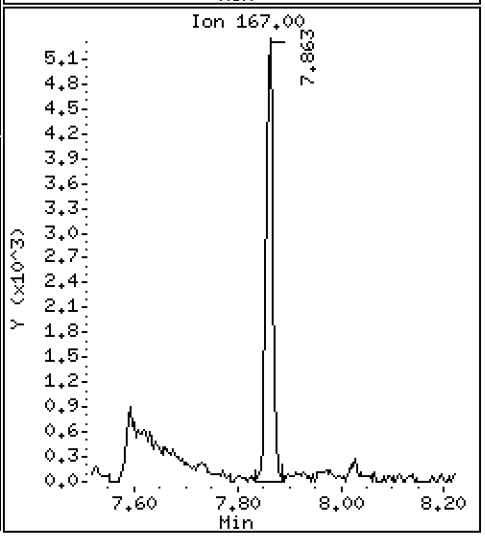


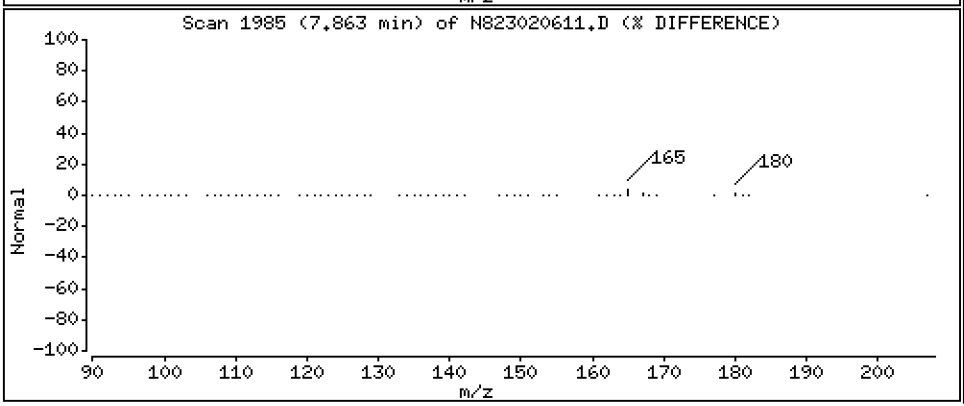












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Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

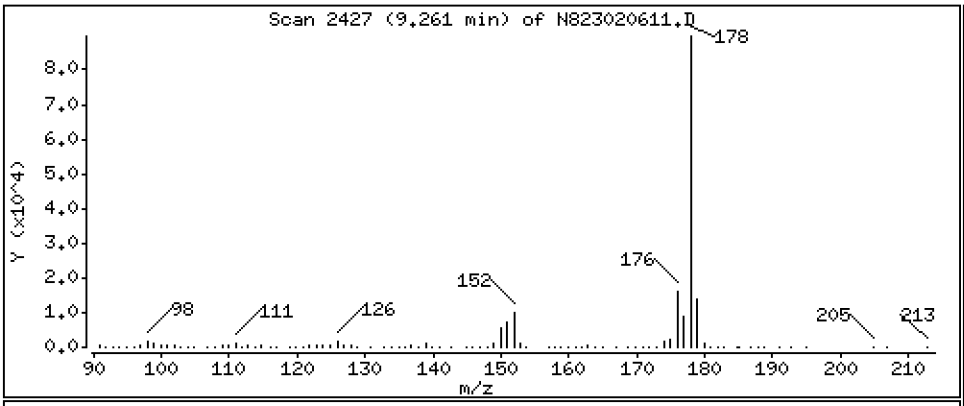
Operator: JZ

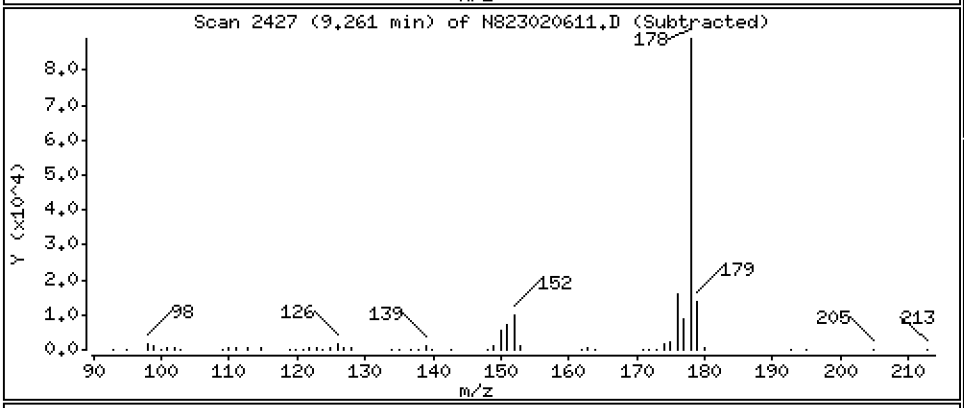
Column phase: Rxi-17sil

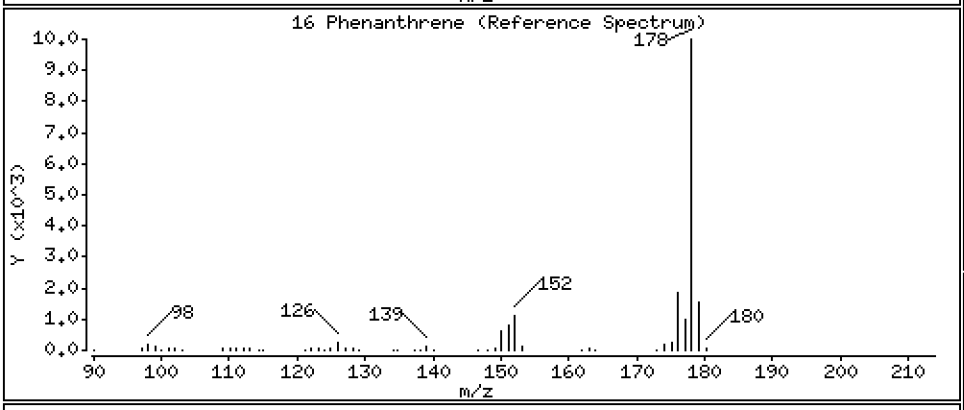
Column diameter: 0.25

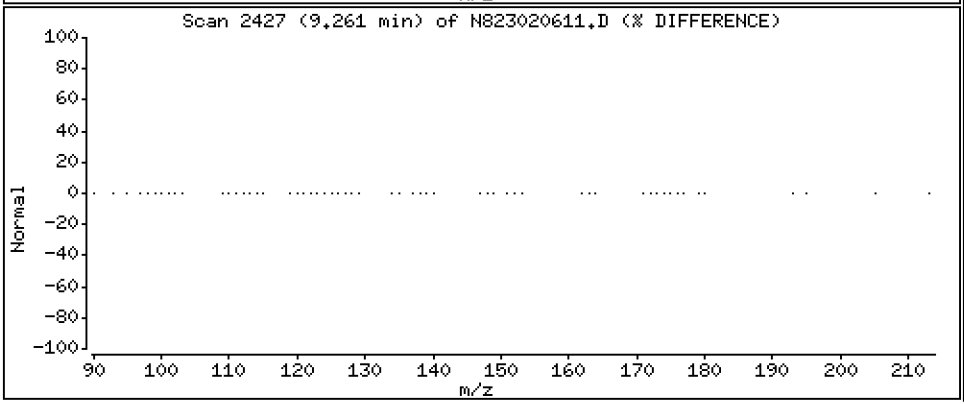
16 Phenanthrene

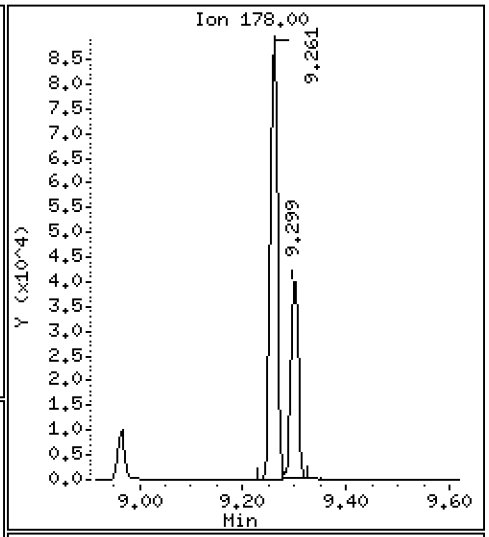
Concentration: 3.781 ug/mL

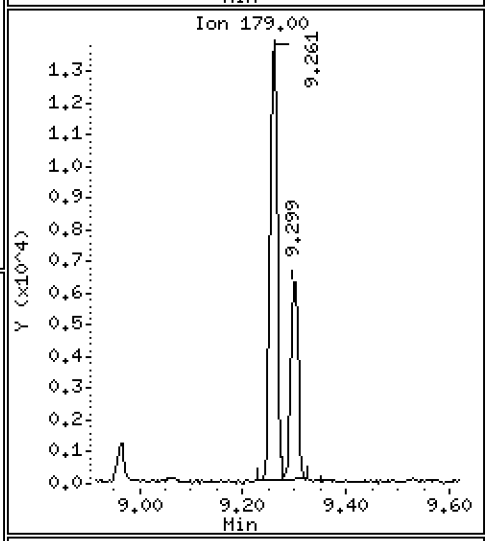


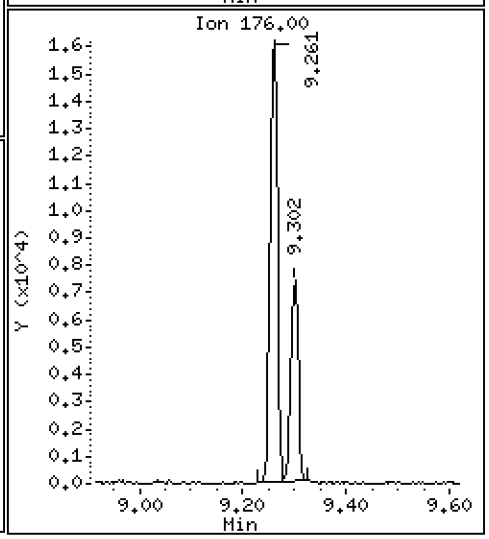












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020611.D

Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

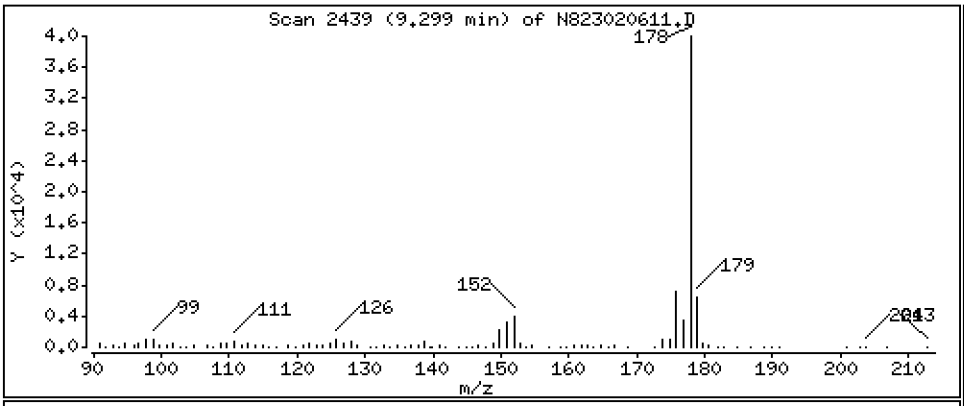
Operator: JZ

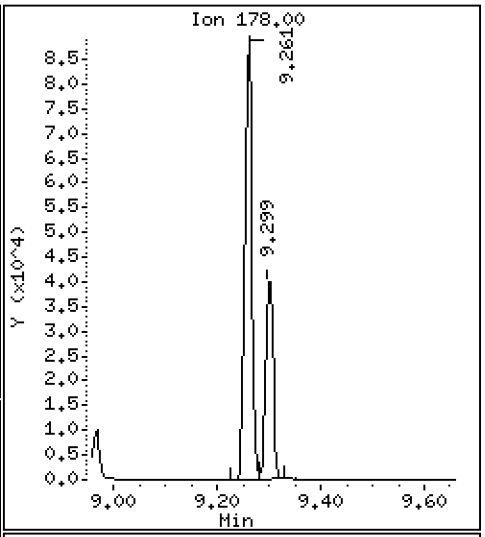
Column phase: Rxi-17sil

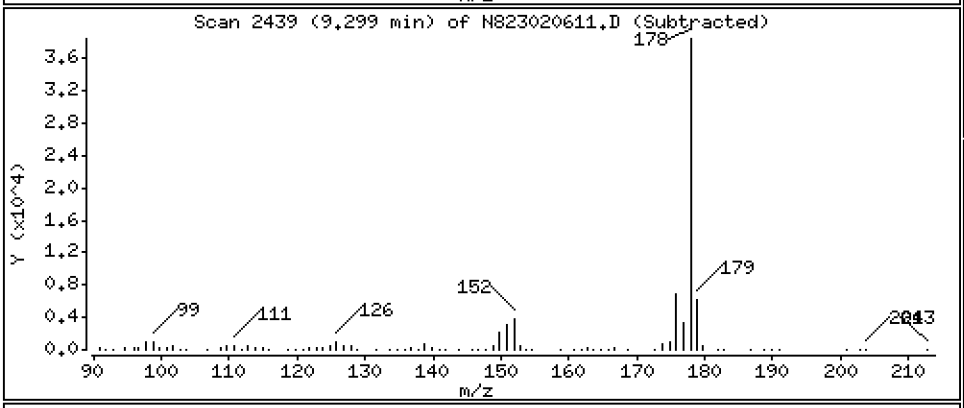
Column diameter: 0.25

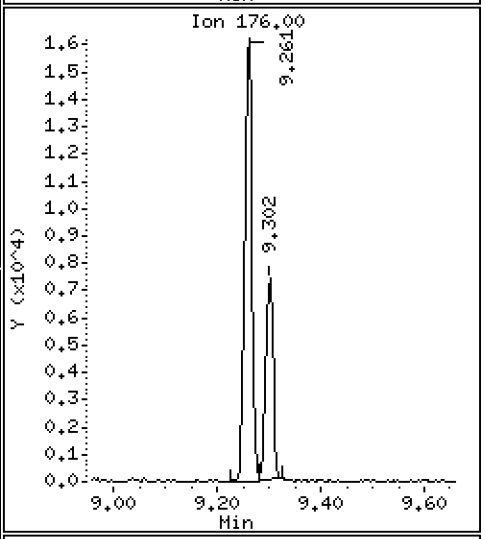
17 Anthracene

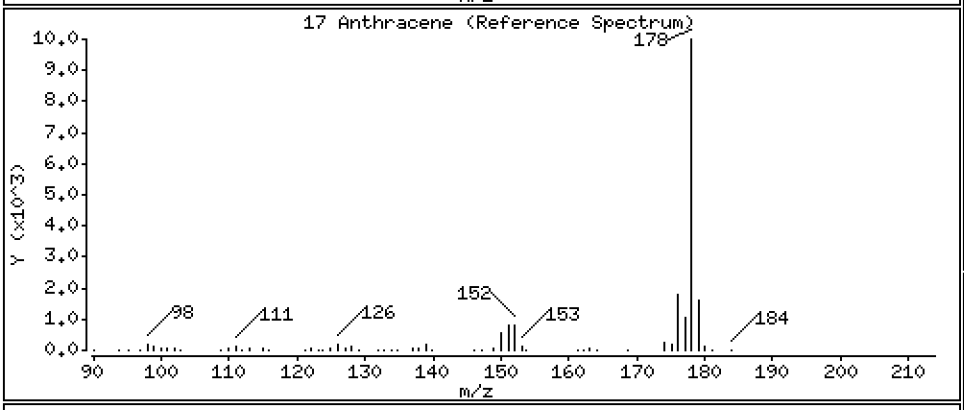
Concentration: 1.932 ug/mL

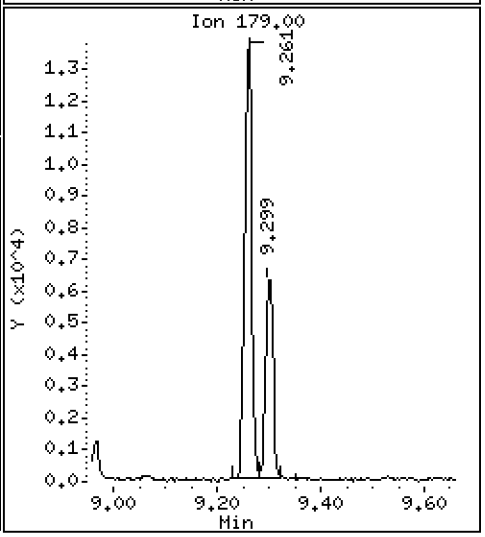


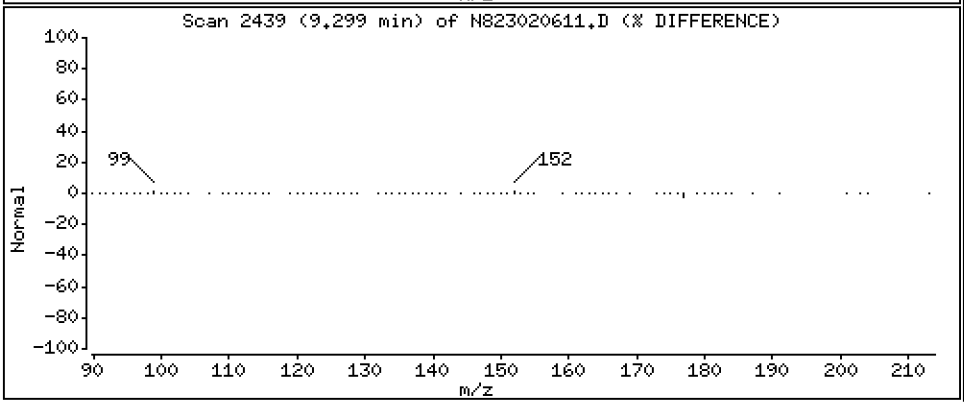












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Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

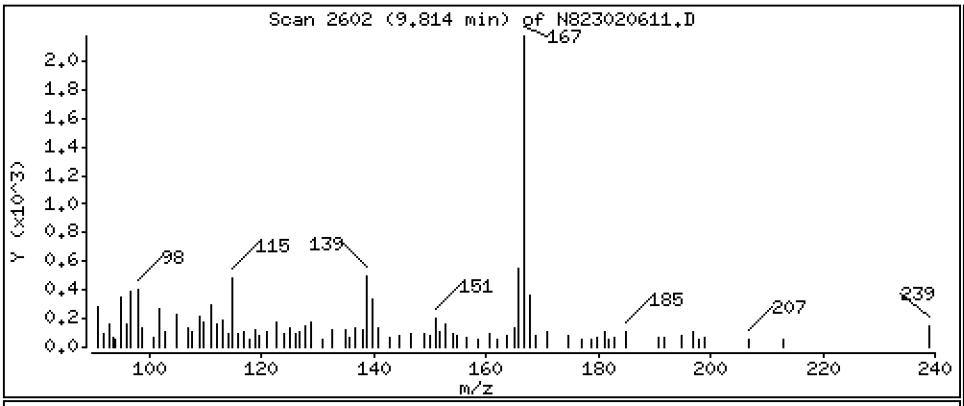
Operator: JZ

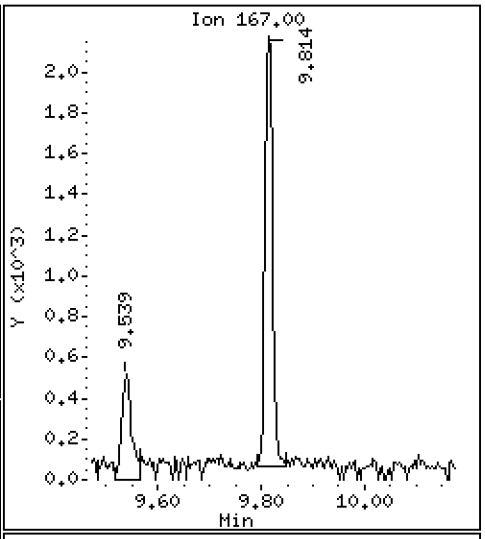
Column phase: Rxi-17sil

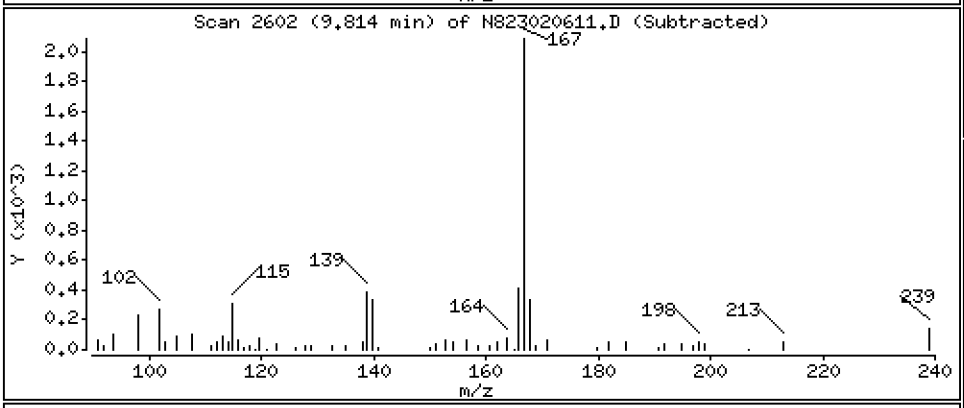
Column diameter: 0.25

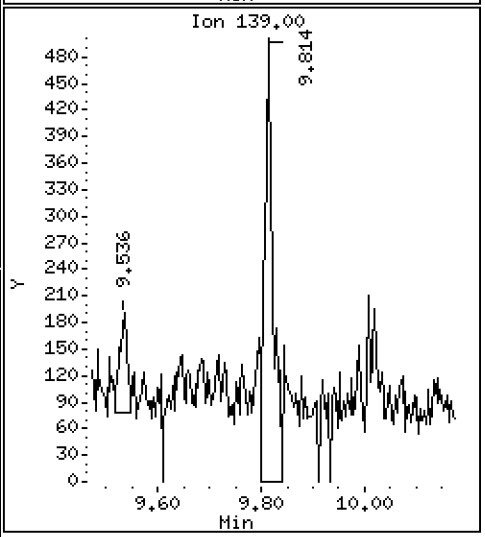
19 Carbazole

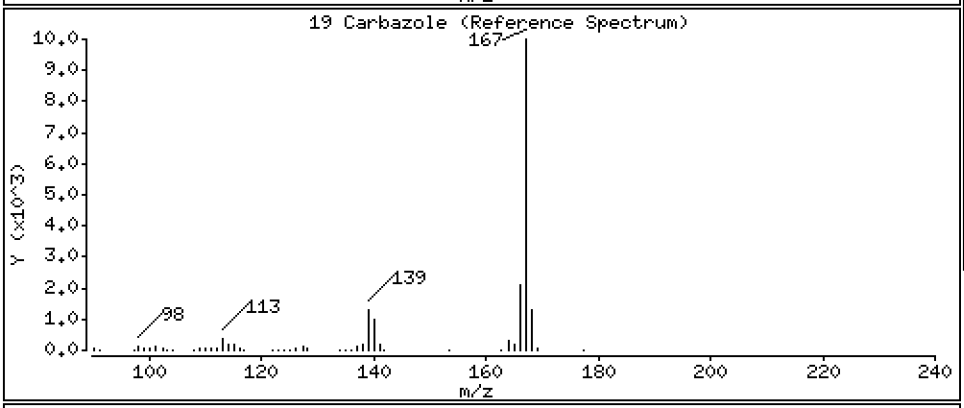
Concentration: 0.1191 ug/mL

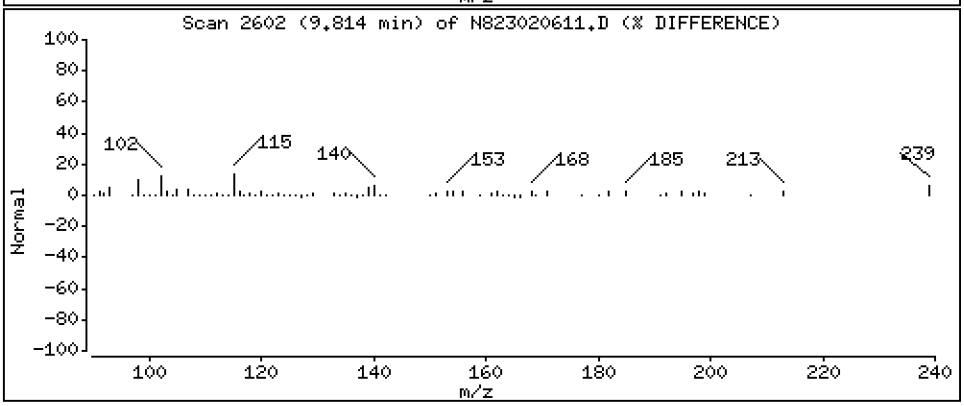












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020611.D

Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

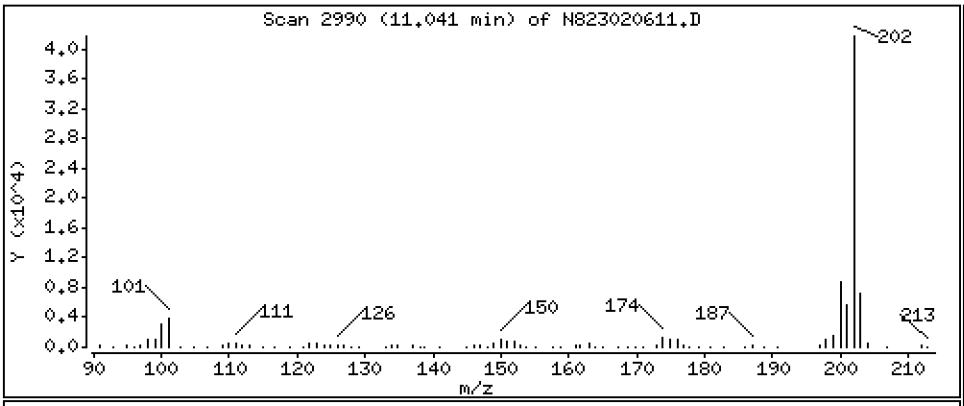
Operator: JZ

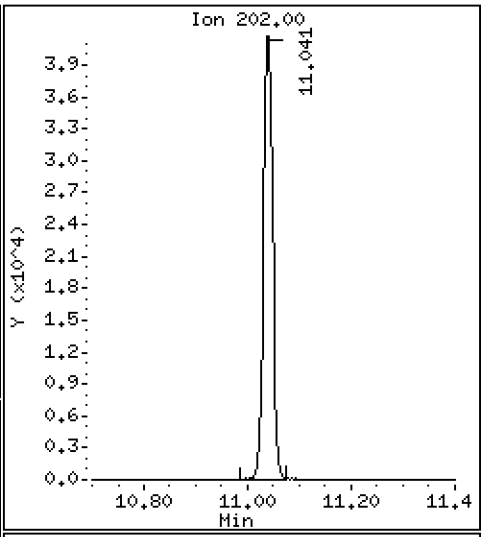
Column phase: Rxi-17sil

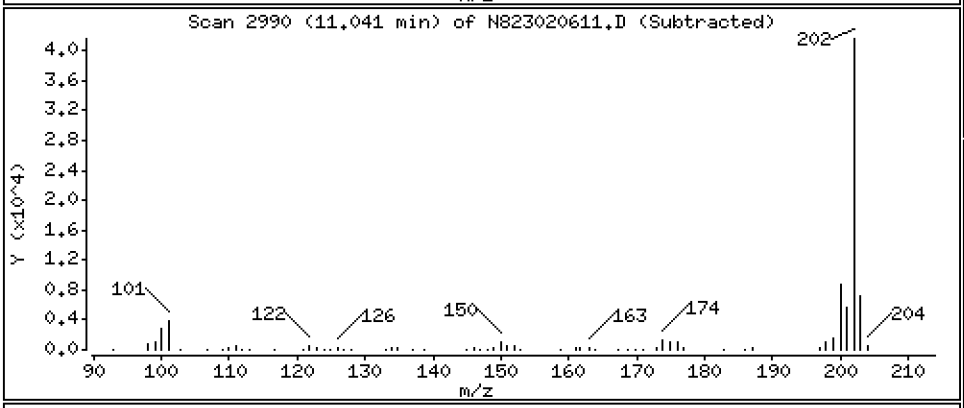
Column diameter: 0.25

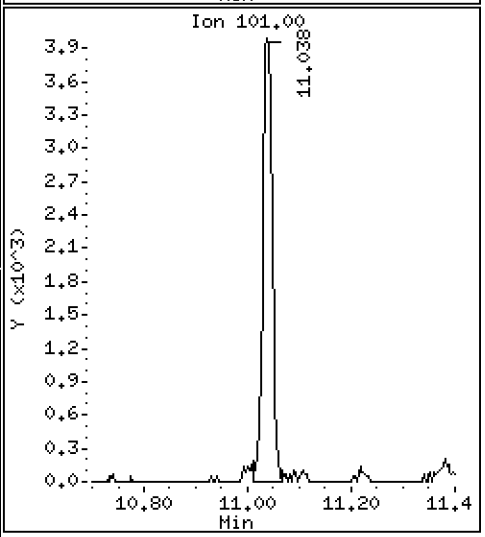
22 Fluoranthene

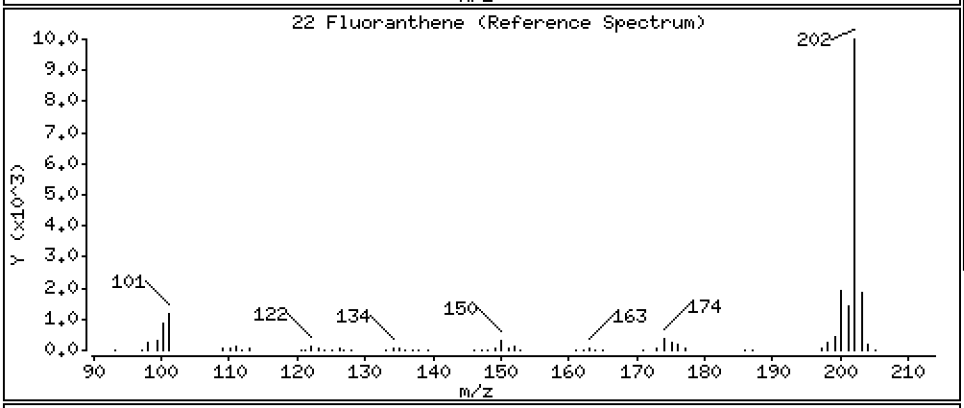
Concentration: 2.131 ug/mL

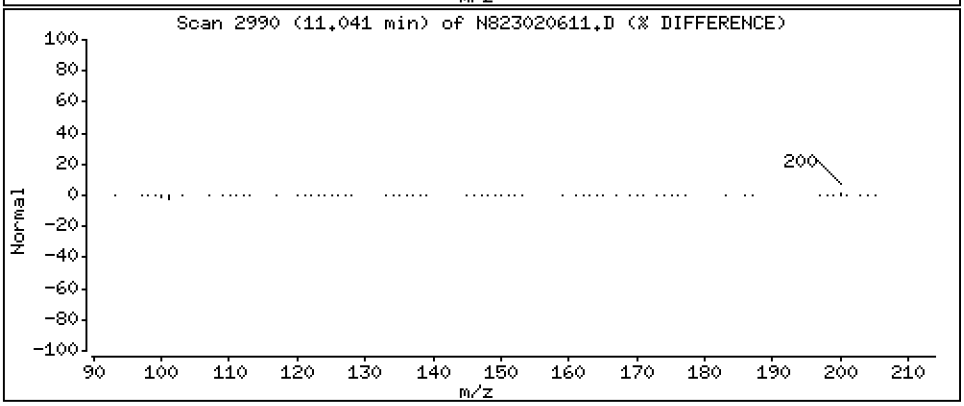












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020611.D

Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

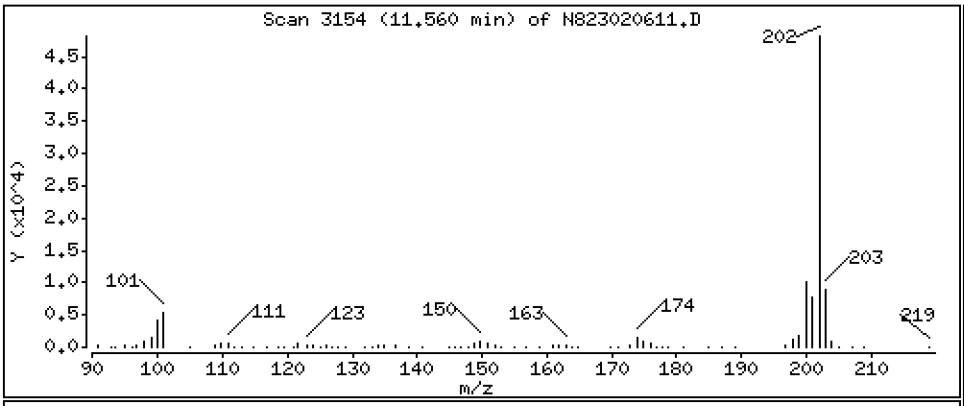
Operator: JZ

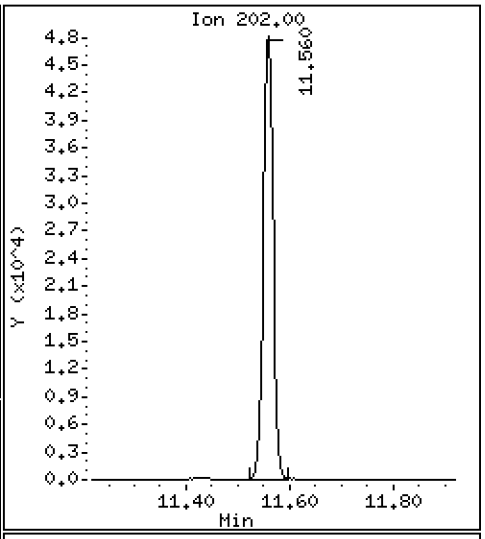
Column phase: Rxi-17sil

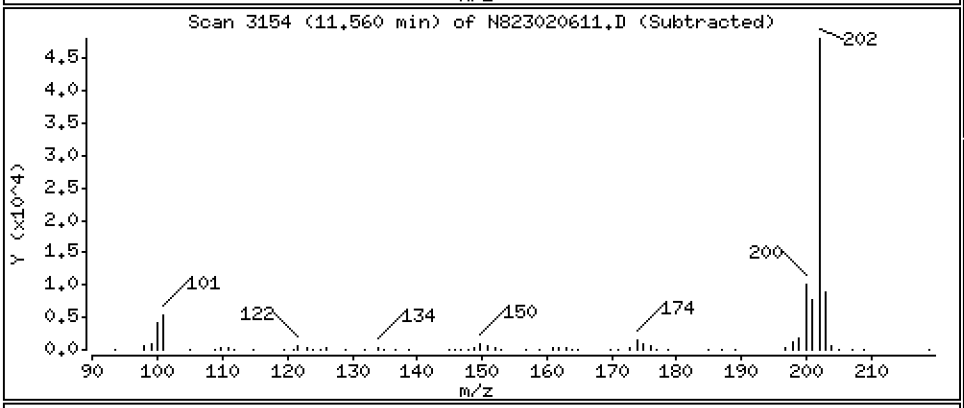
Column diameter: 0.25

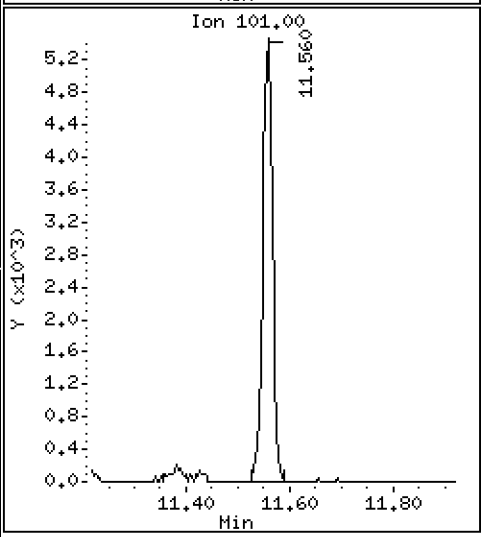
23 Pyrene

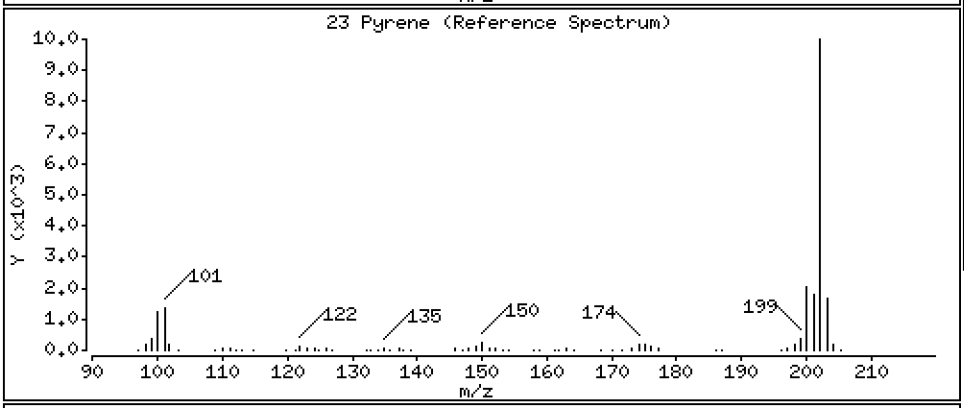
Concentration: 2.777 ug/mL

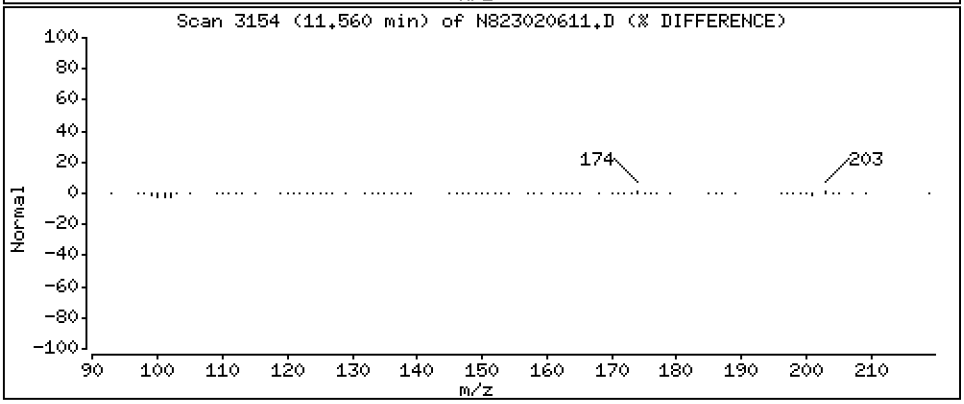












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020611.D

Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

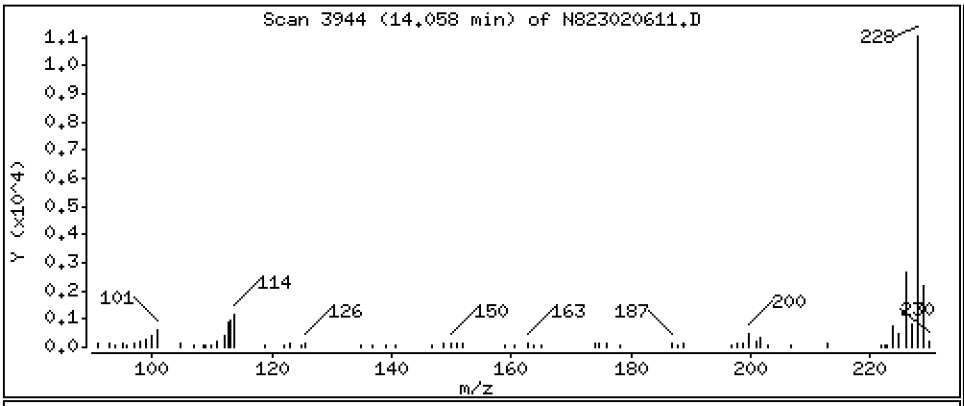
Operator: JZ

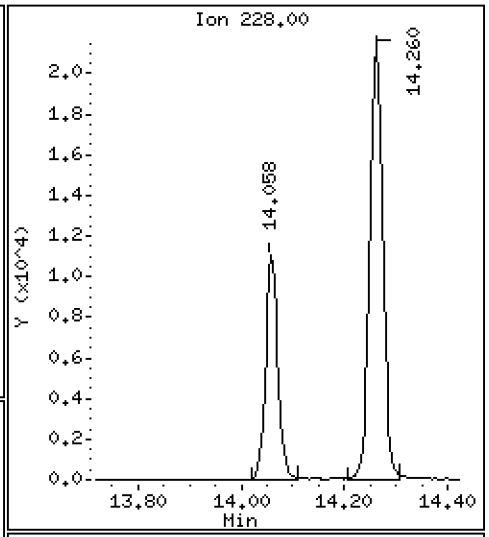
Column phase: Rxi-17sil

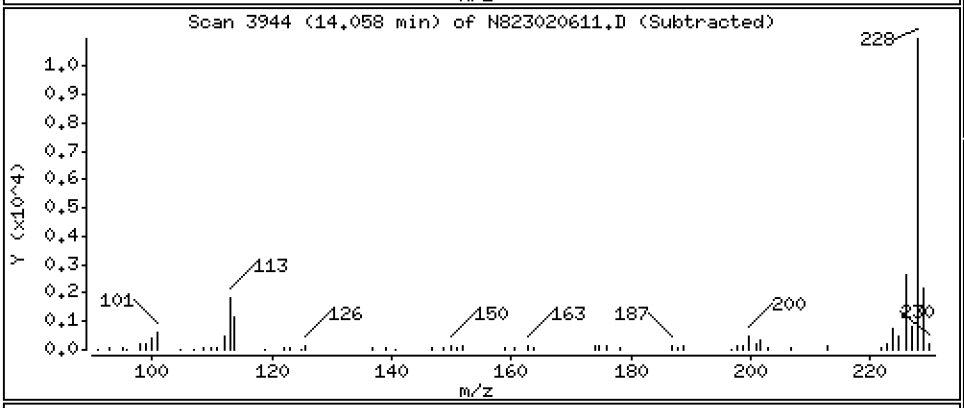
Column diameter: 0.25

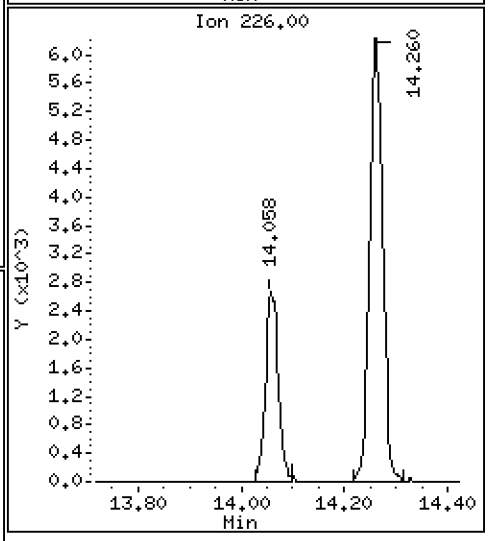
24 Benzo(a)anthracene

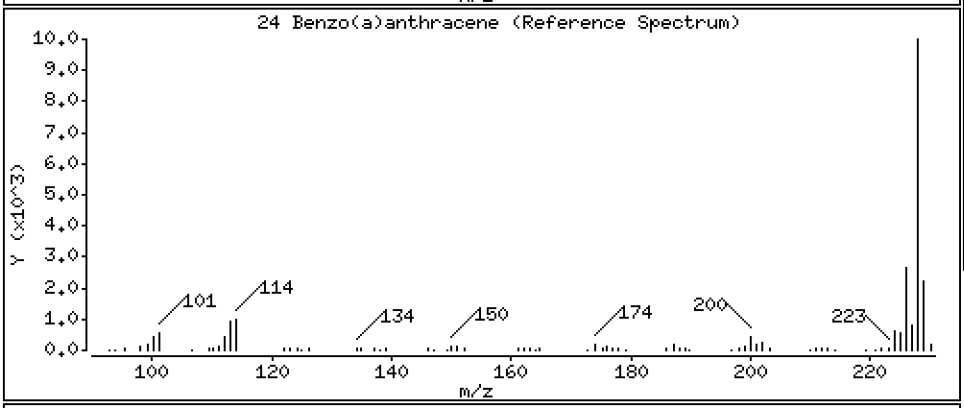
Concentration: 0.8869 ug/mL

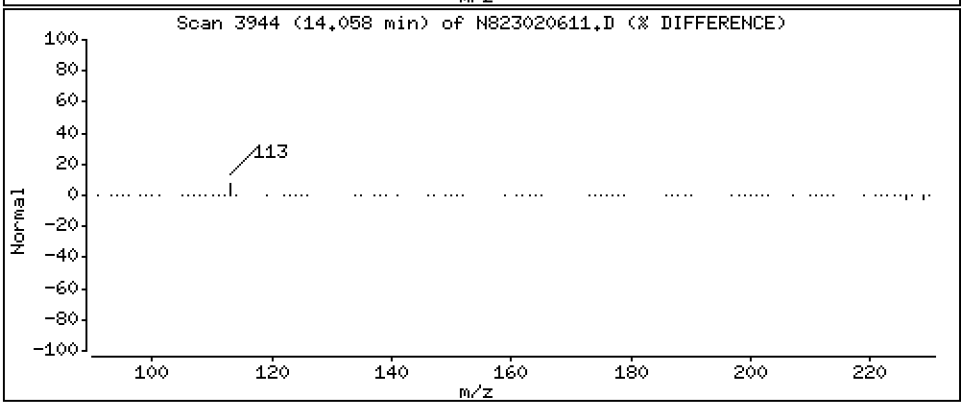












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020611.D

Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

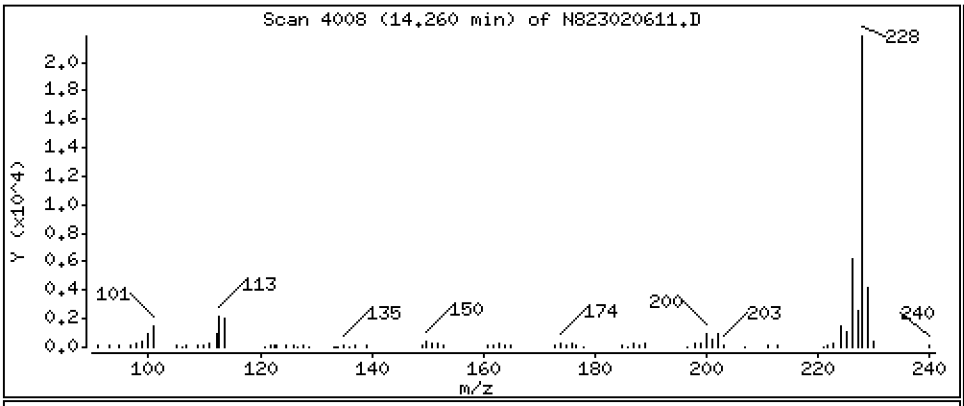
Operator: JZ

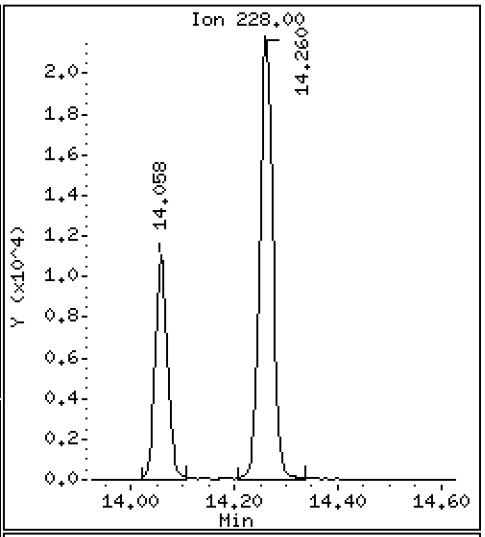
Column phase: Rxi-17sil

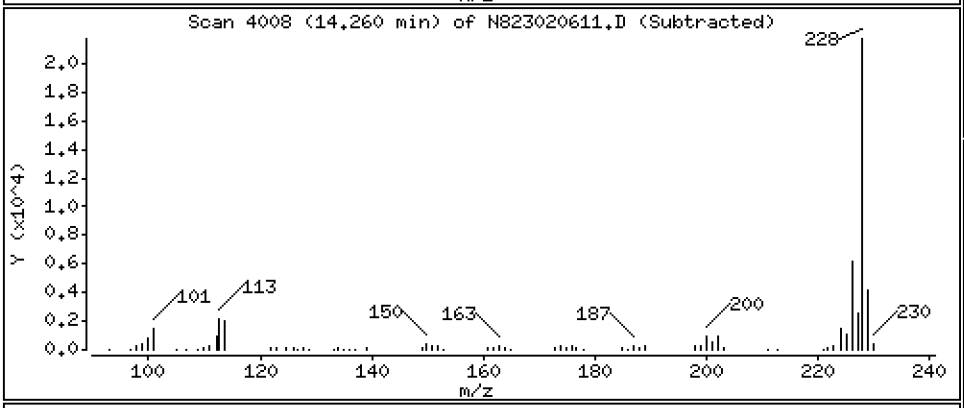
Column diameter: 0.25

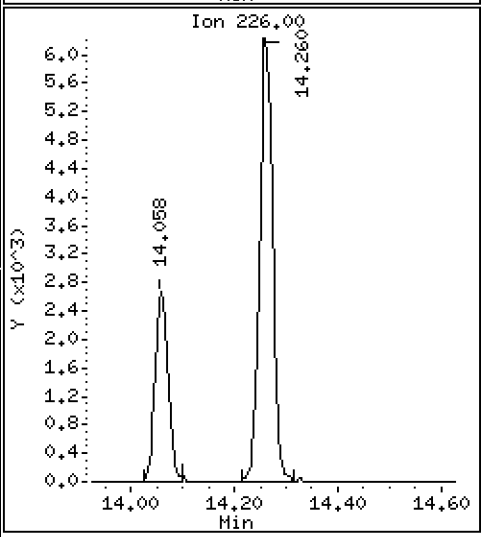
27 Chrysene

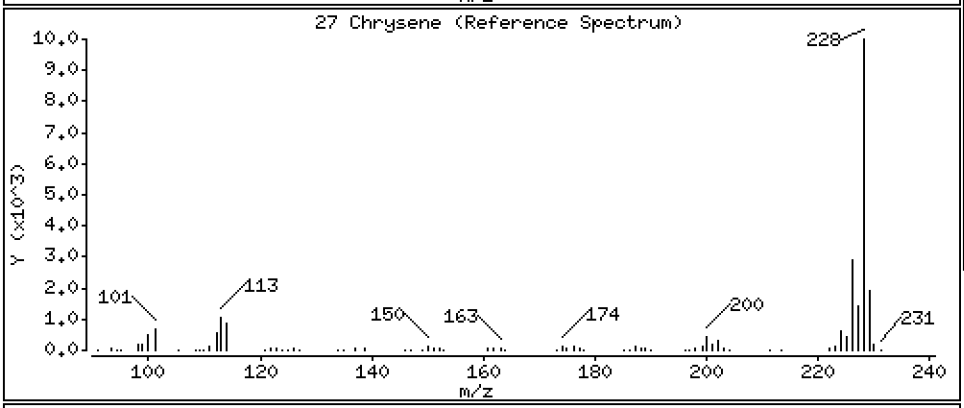
Concentration: 1.762 ug/mL

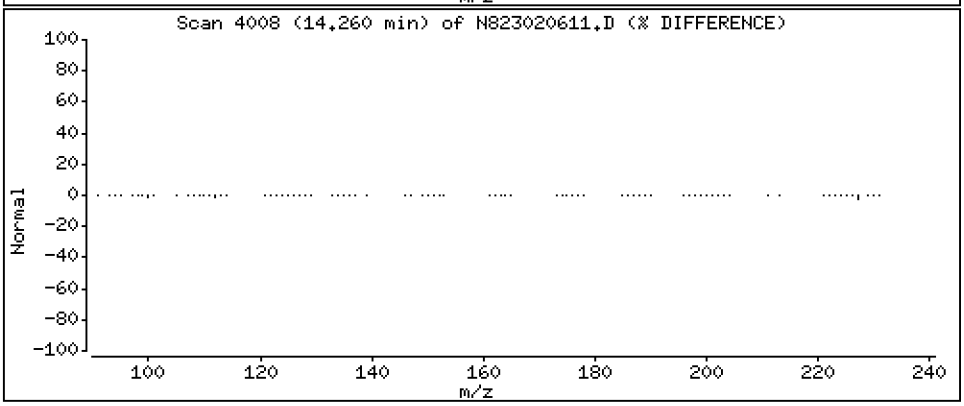












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020611.D

Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

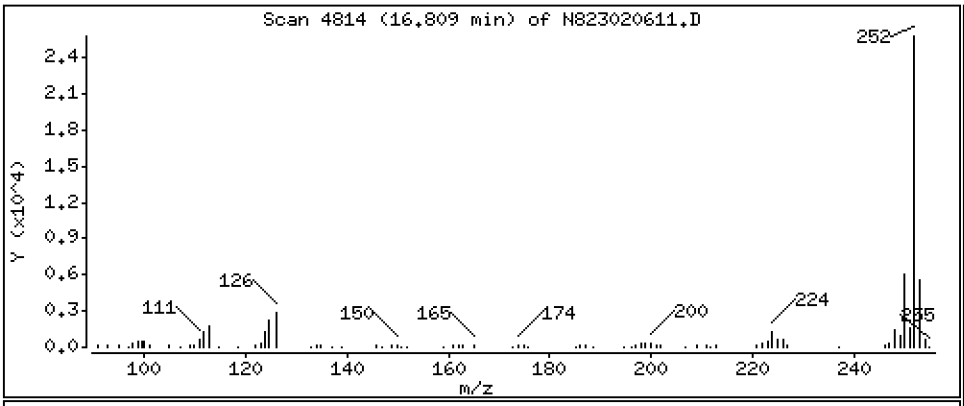
Operator: JZ

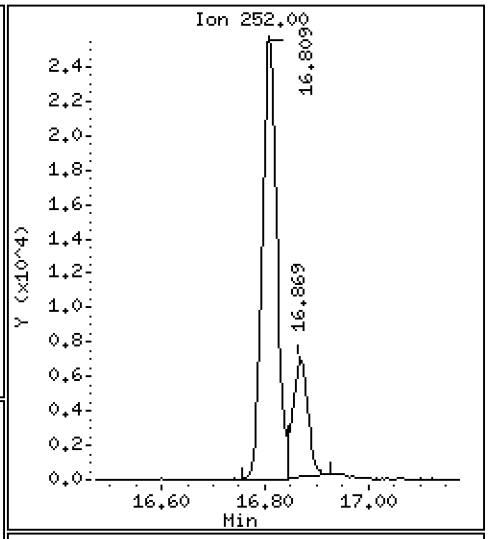
Column phase: Rxi-17sil

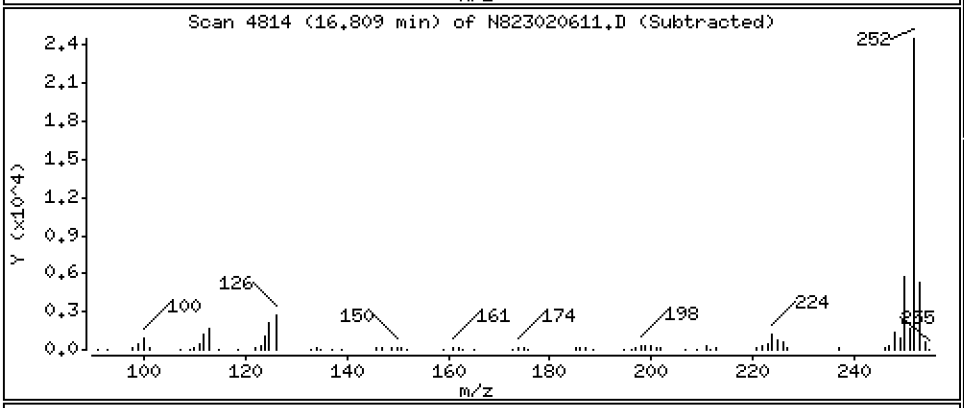
Column diameter: 0.25

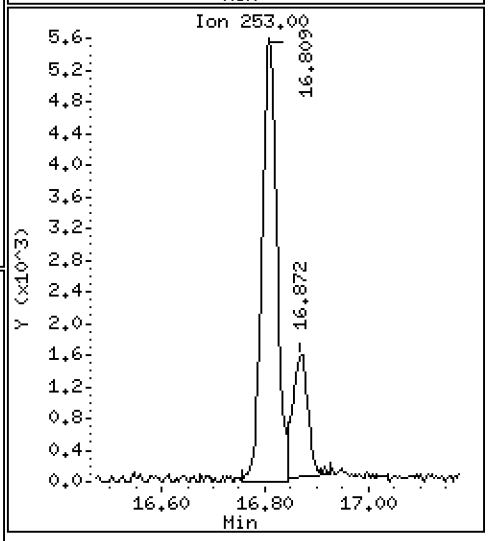
28 Benzo(b)fluoranthene

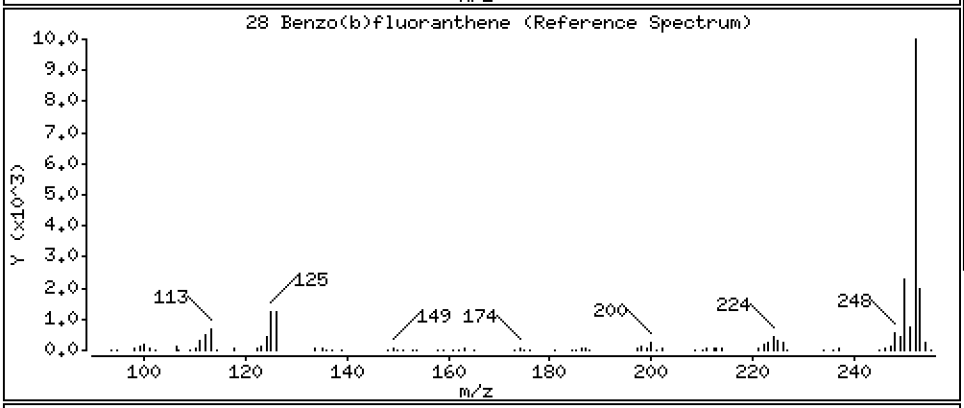
Concentration: 3.832 ug/mL

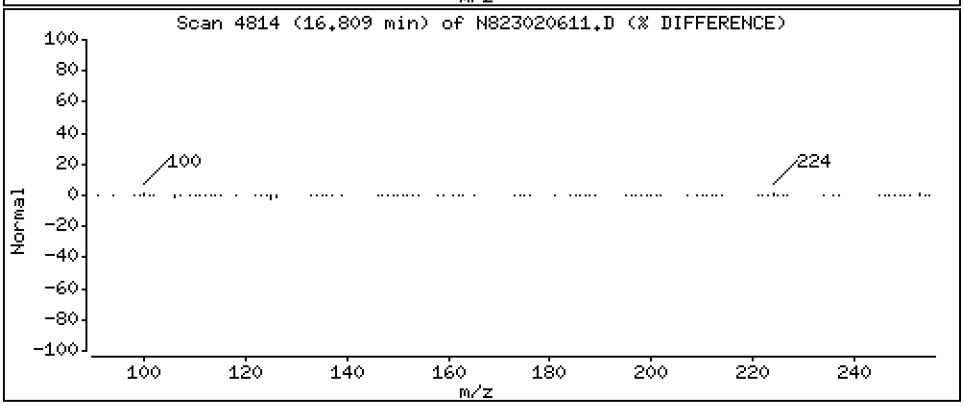












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020611.D

Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

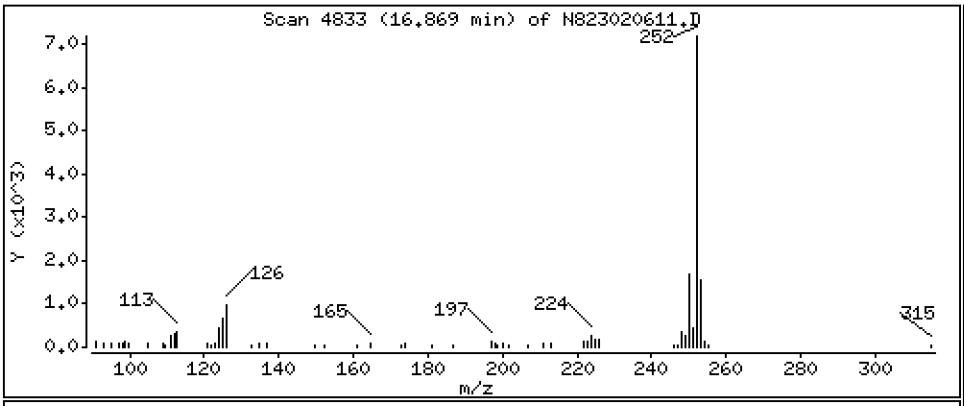
Operator: JZ

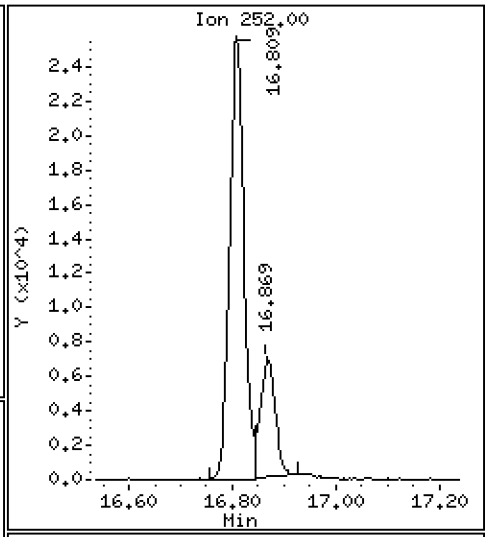
Column phase: Rxi-17sil

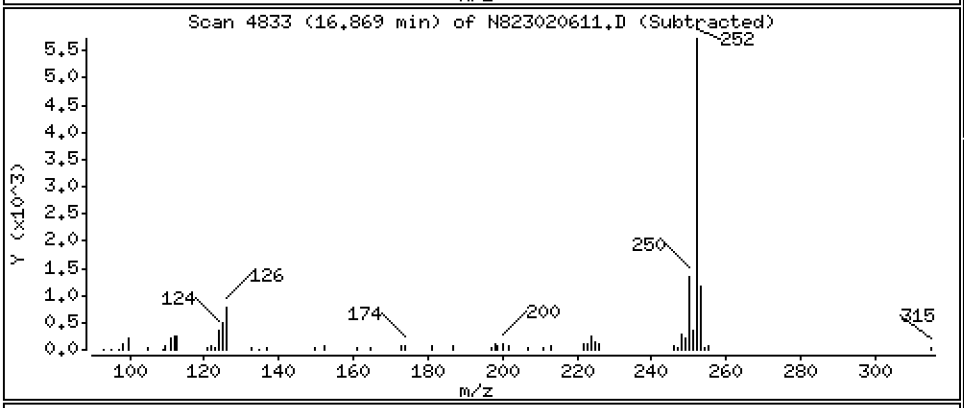
Column diameter: 0.25

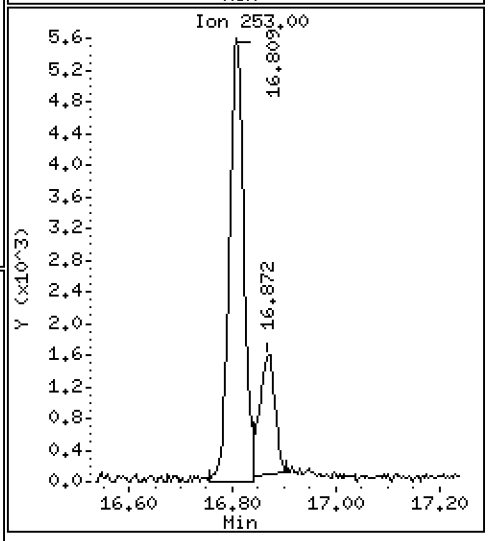
29 Benzo(k)fluoranthene

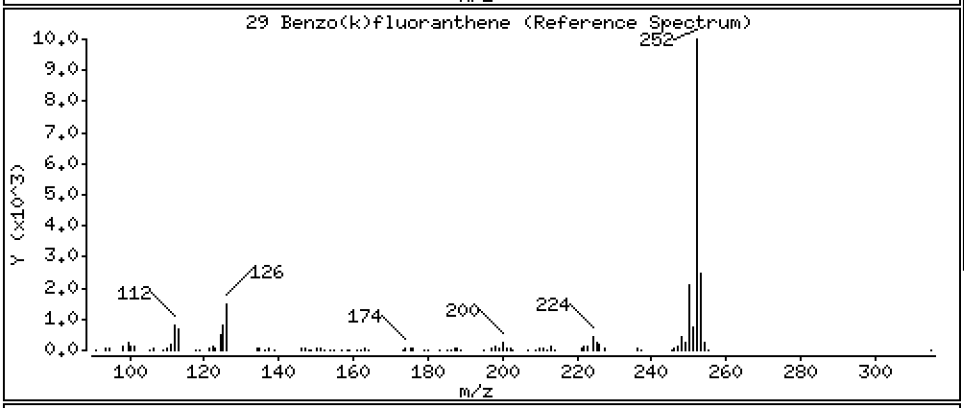
Concentration: 1.085 ug/mL

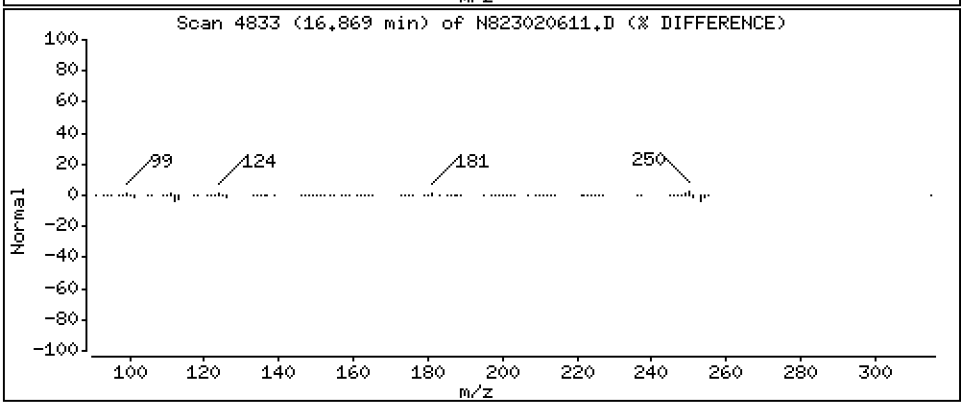












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020611.D

Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

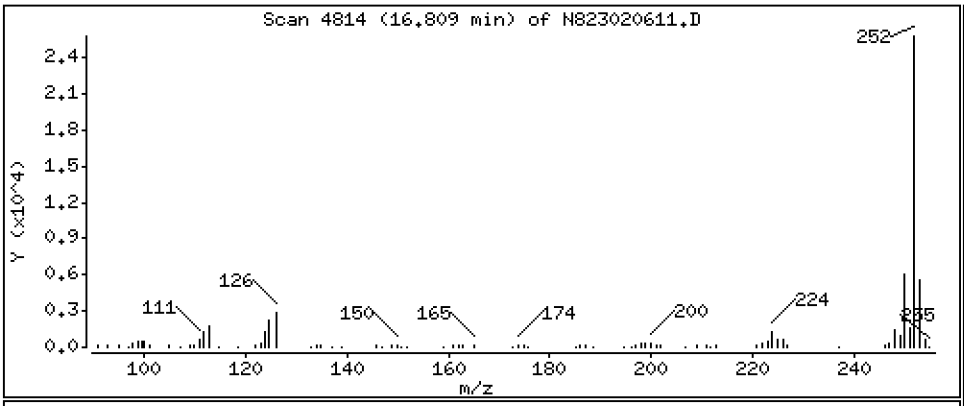
Operator: JZ

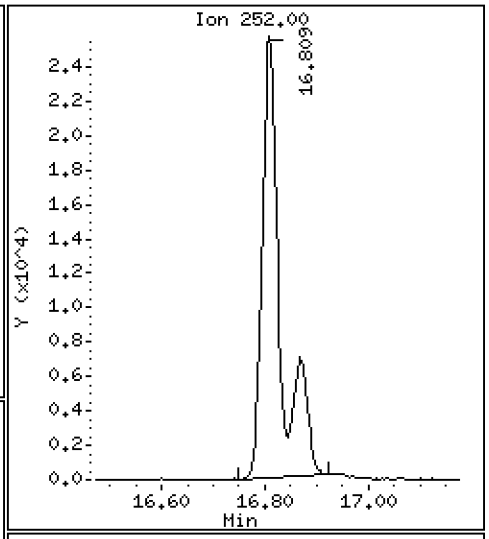
Column phase: Rxi-17sil

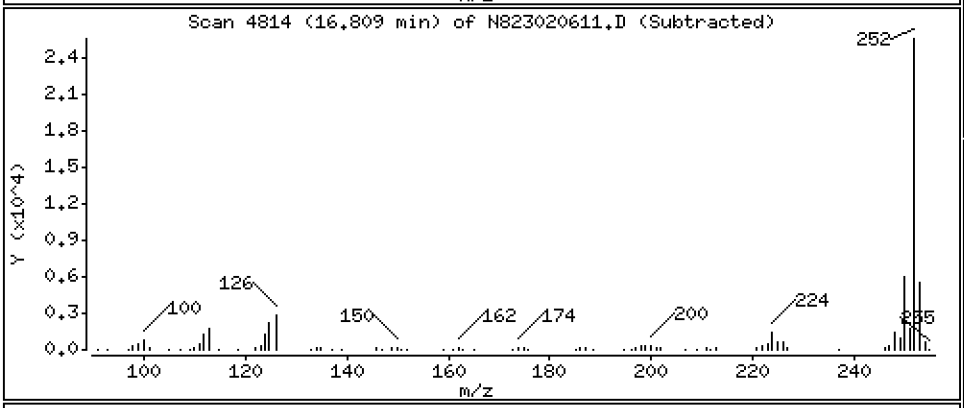
Column diameter: 0.25

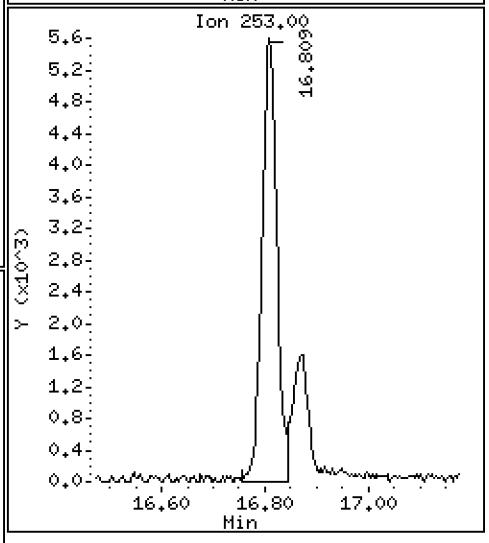
31 Total Benzofluoranthenes

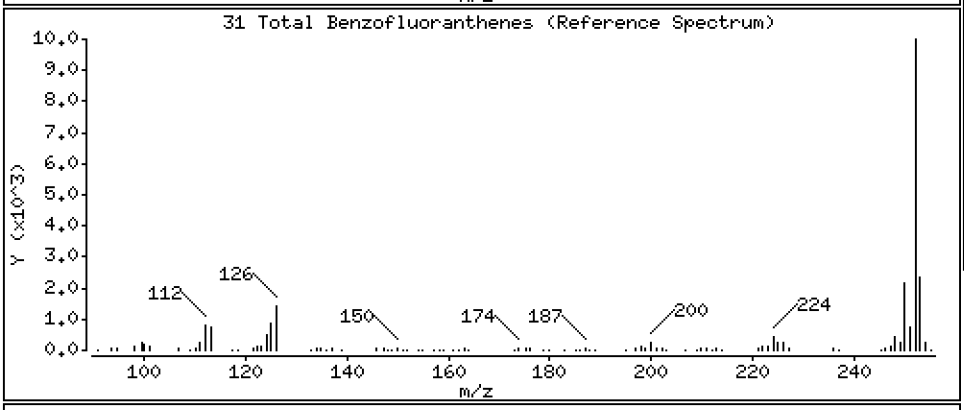
Concentration: 5.092 ug/mL

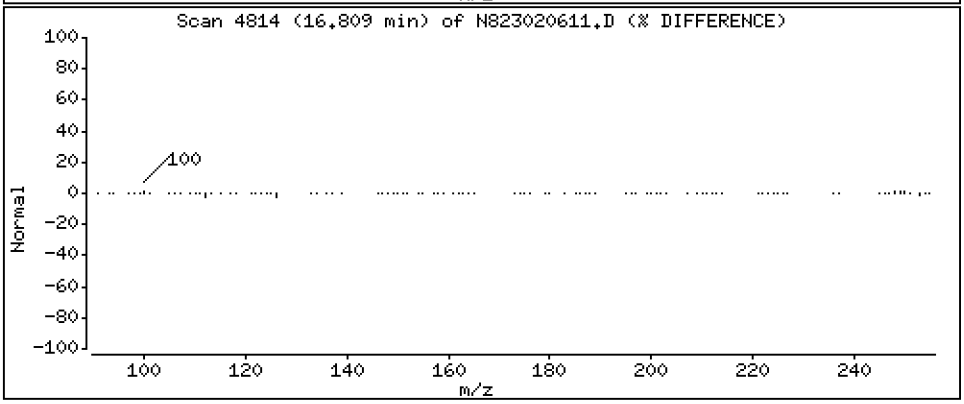












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020611.D

Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

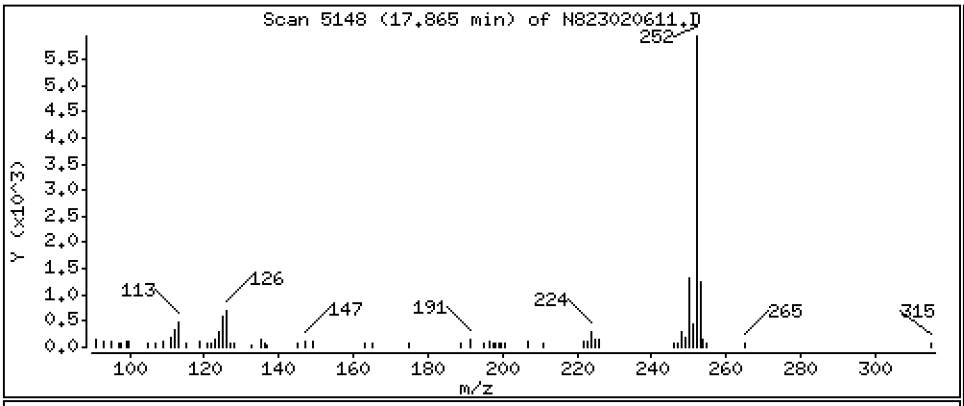
Operator: JZ

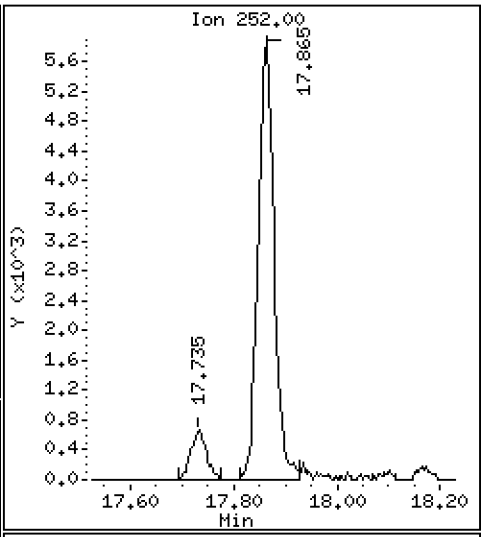
Column phase: Rxi-17sil

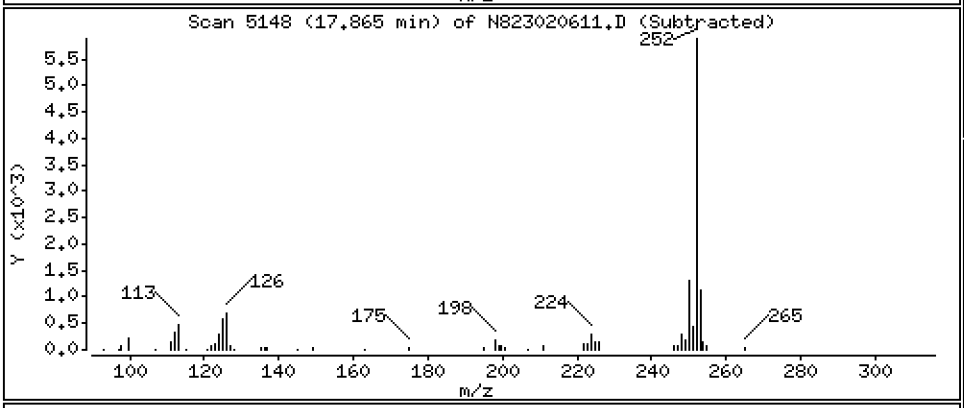
Column diameter: 0.25

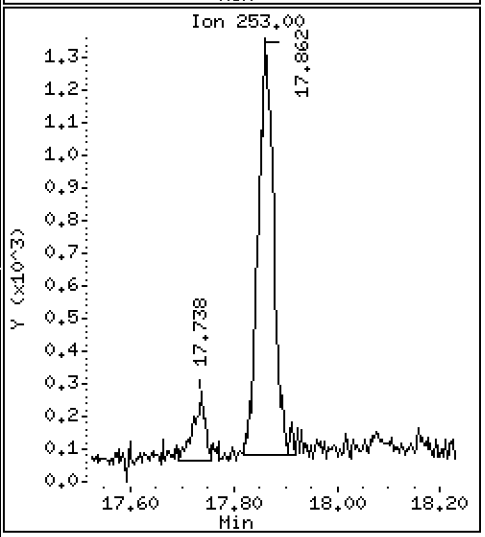
32 Benzo(a)pyrene

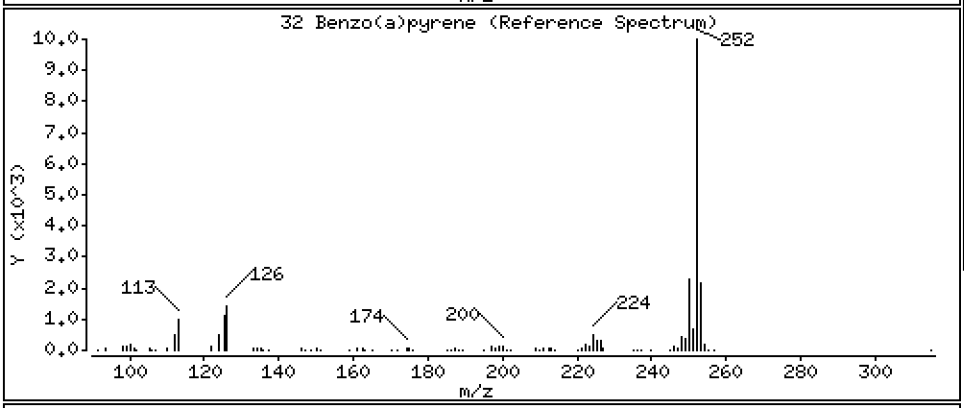
Concentration: 1.094 ug/mL

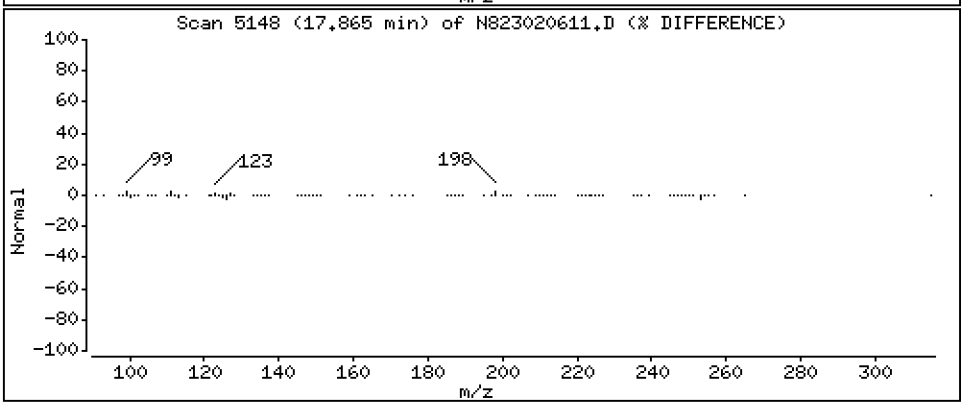












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020611.D

Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

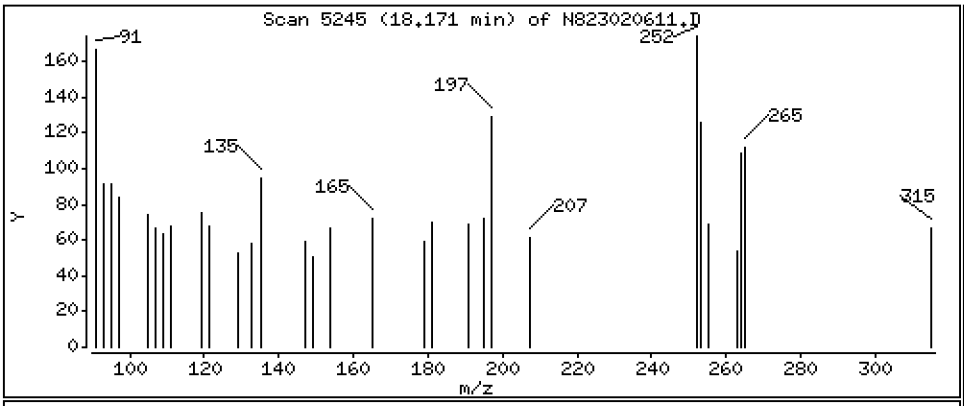
Operator: JZ

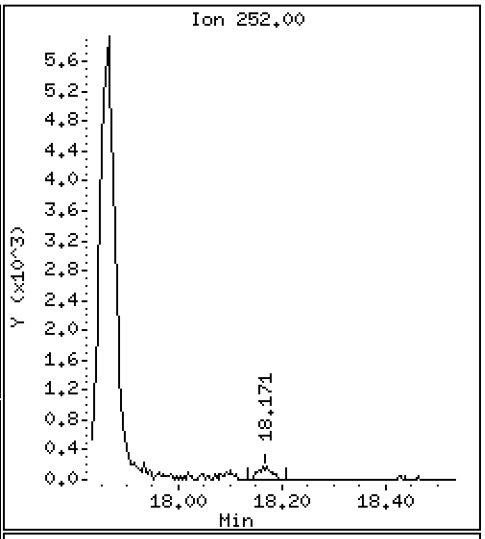
Column phase: Rxi-17sil

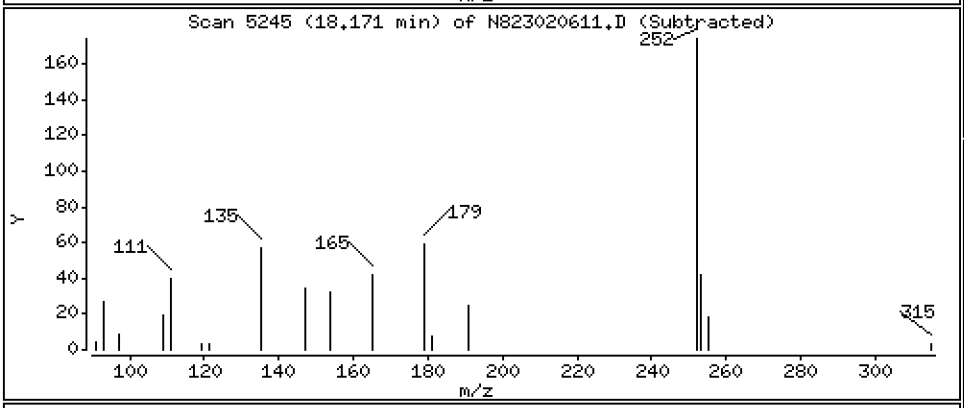
Column diameter: 0.25

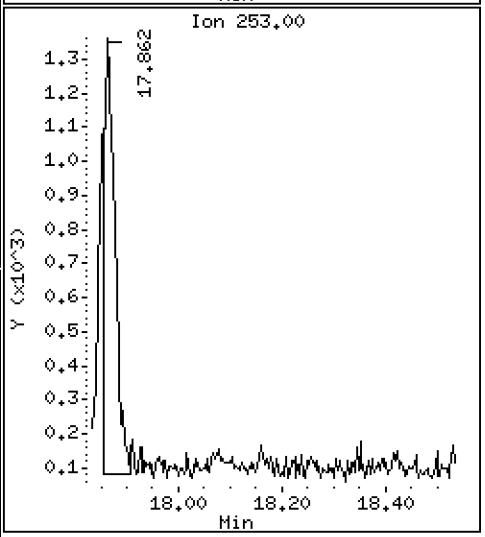
35 Perylene

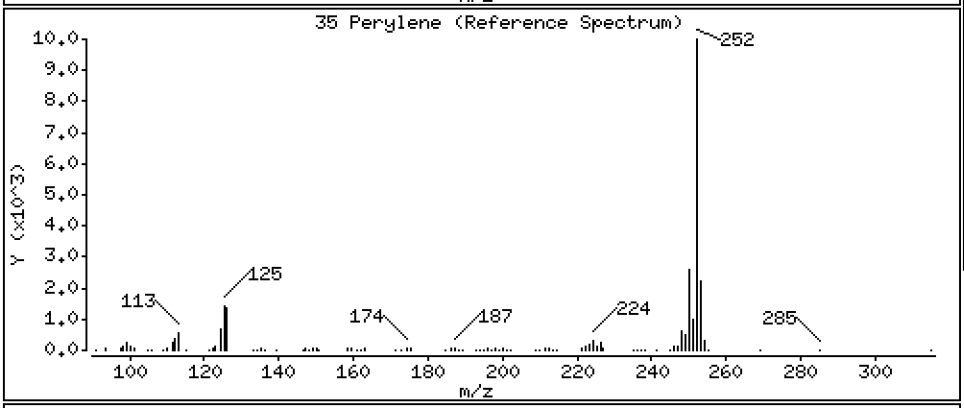
Concentration: 0.02446 ug/mL

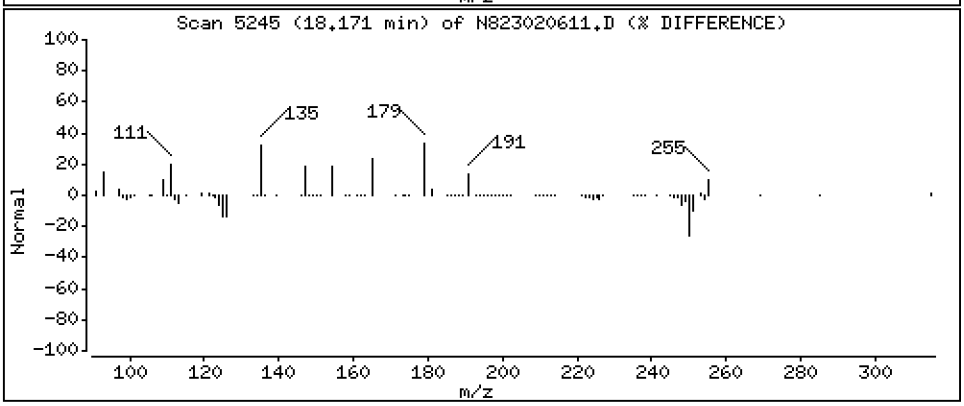












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Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

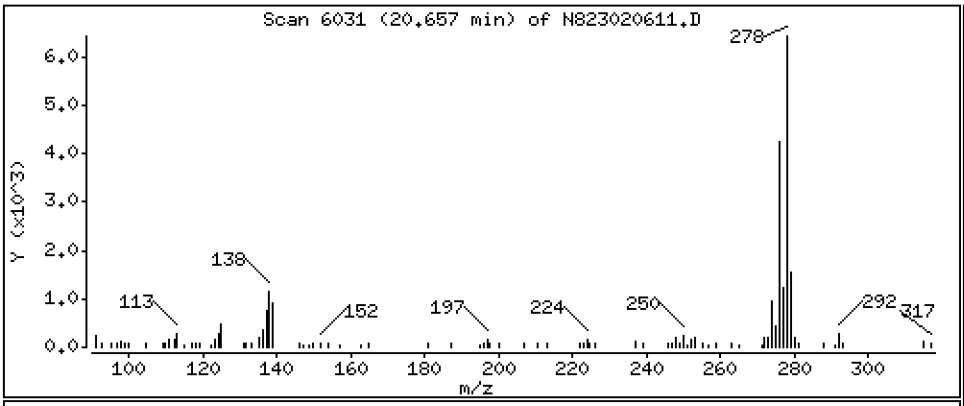
Operator: JZ

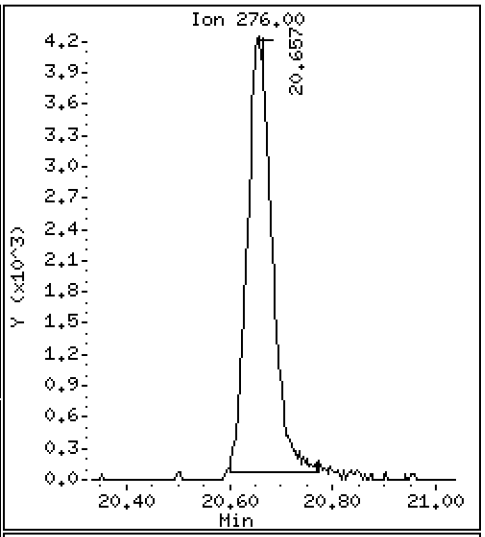
Column phase: Rxi-17sil

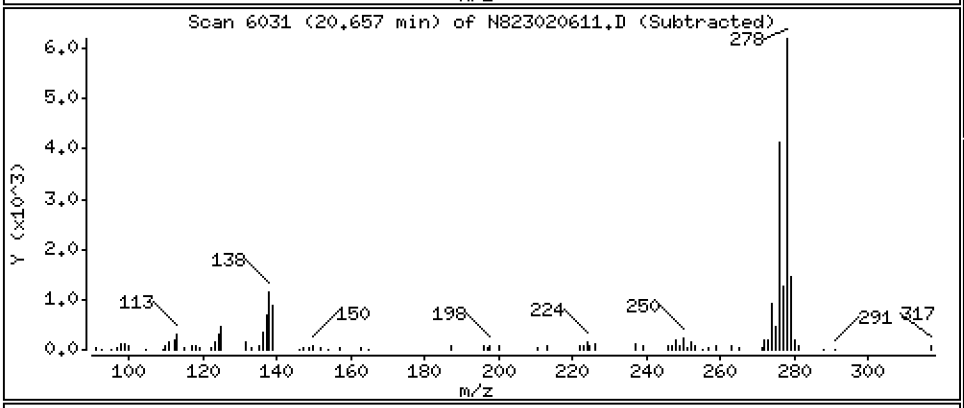
Column diameter: 0.25

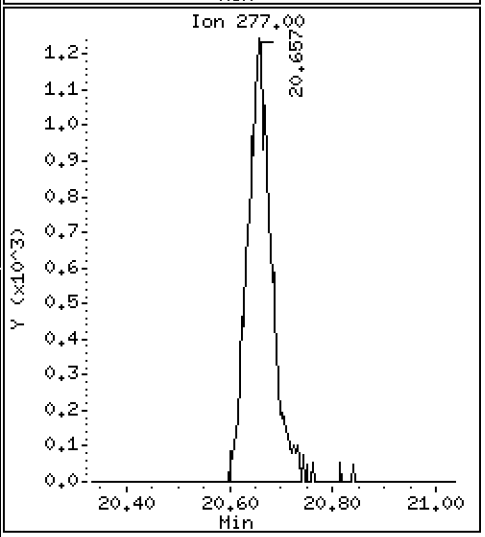
37 Indeno(1,2,3-cd)pyrene

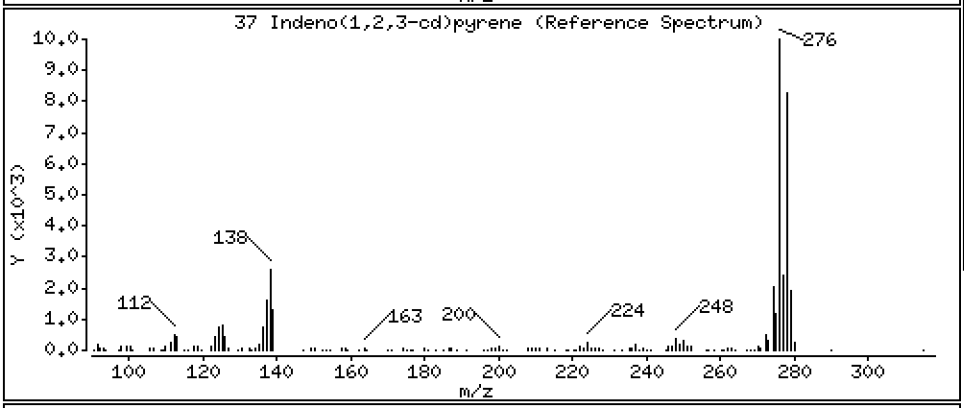
Concentration: 1.056 ug/mL

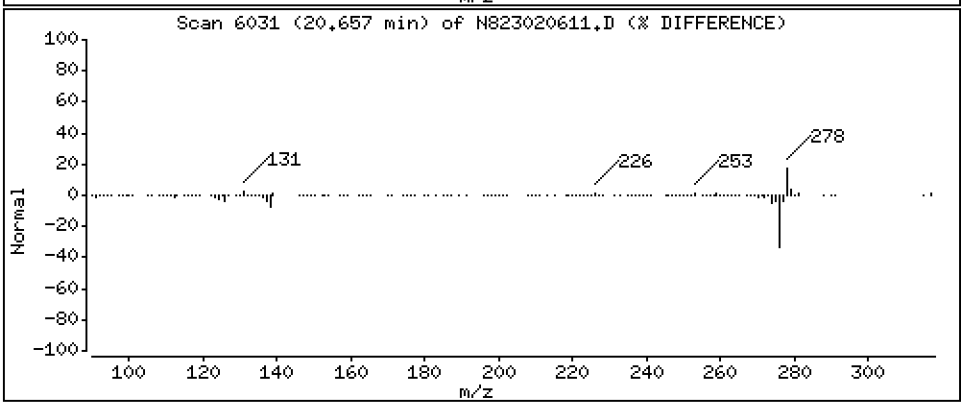












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Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

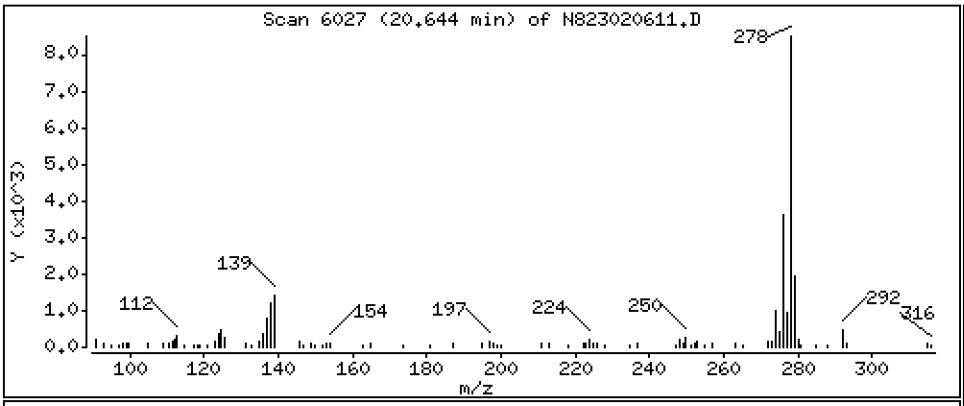
Operator: JZ

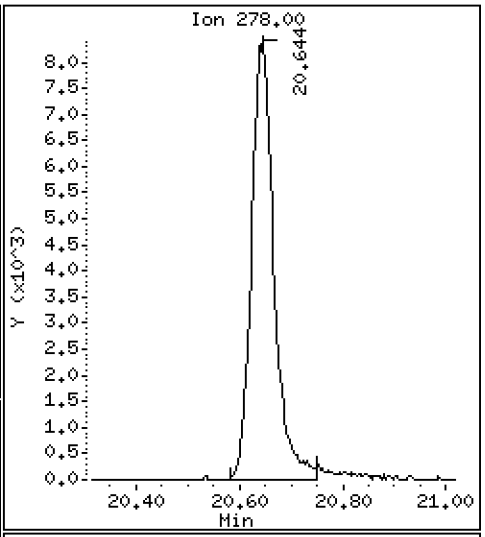
Column phase: Rxi-17sil

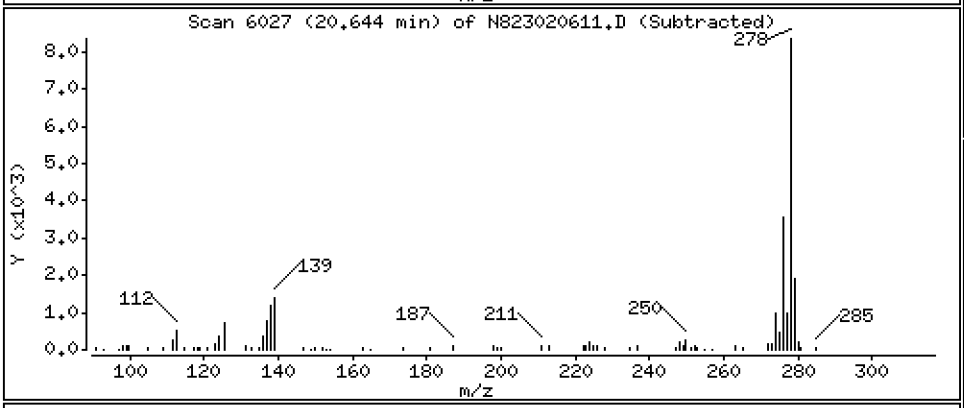
Column diameter: 0.25

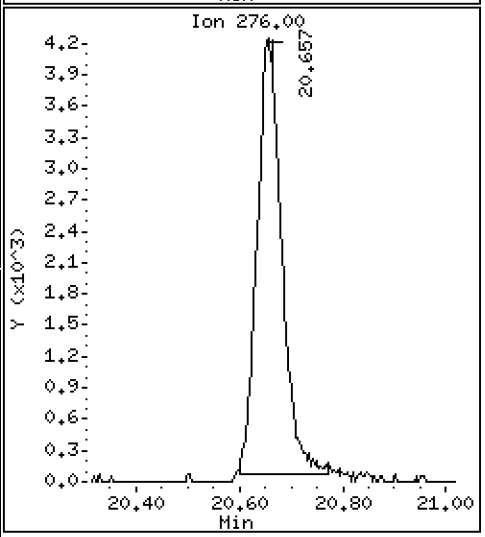
38 Dibenzo(a,h)anthracene

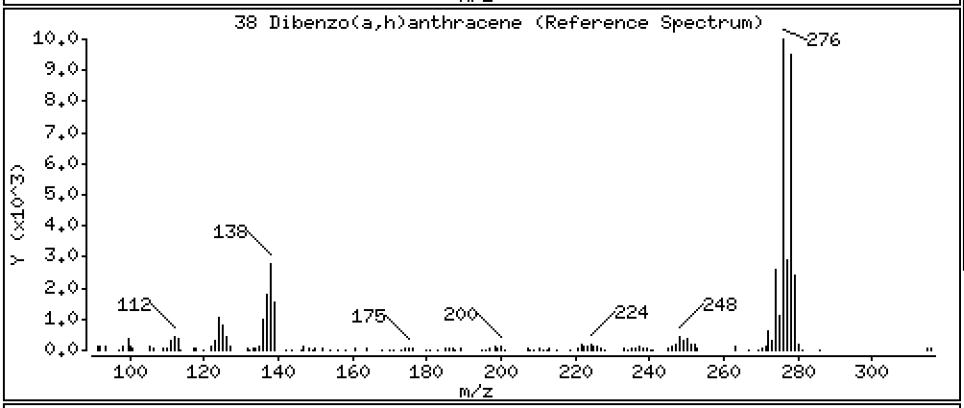
Concentration: 2.259 ug/mL

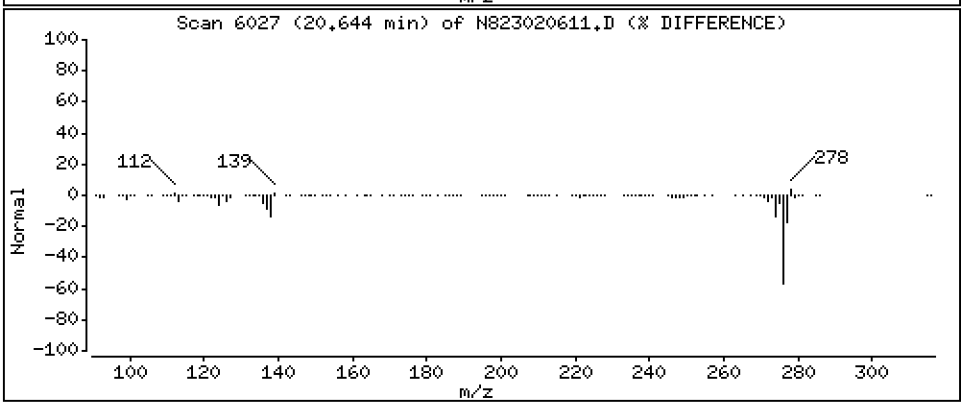












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Date : 06-FEB-2023 17:18

Client ID:

Instrument: nt8.i

Sample Info: BLA0683-SRM1,

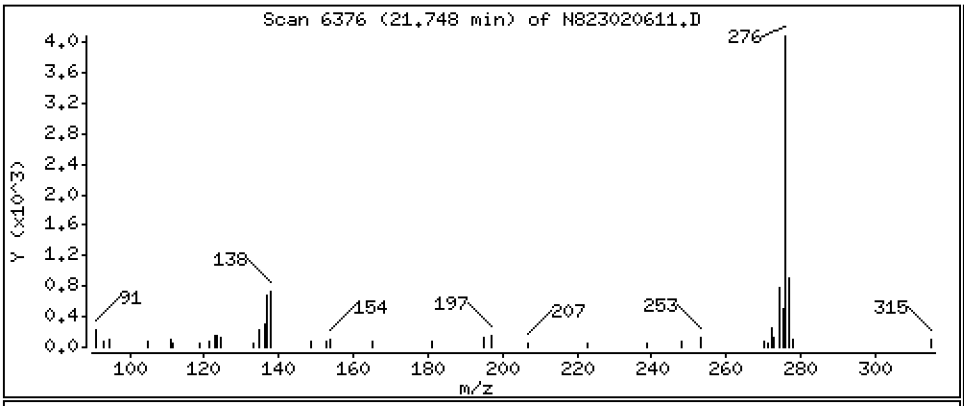
Operator: JZ

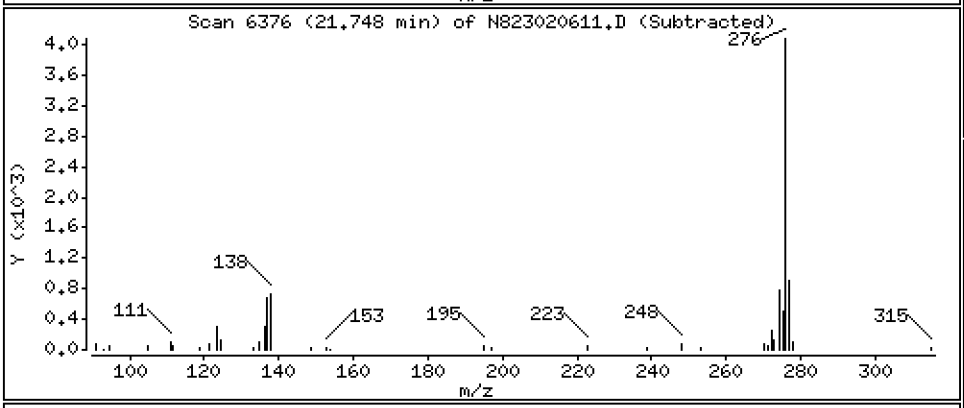
Column phase: Rxi-17sil

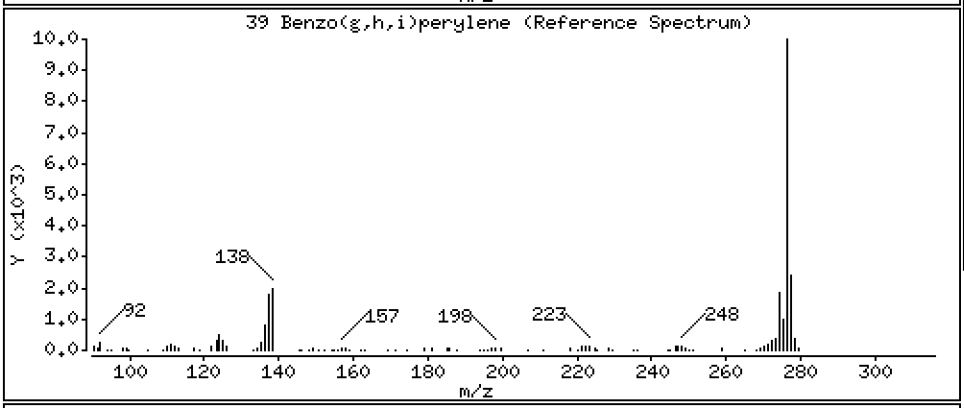
Column diameter: 0.25

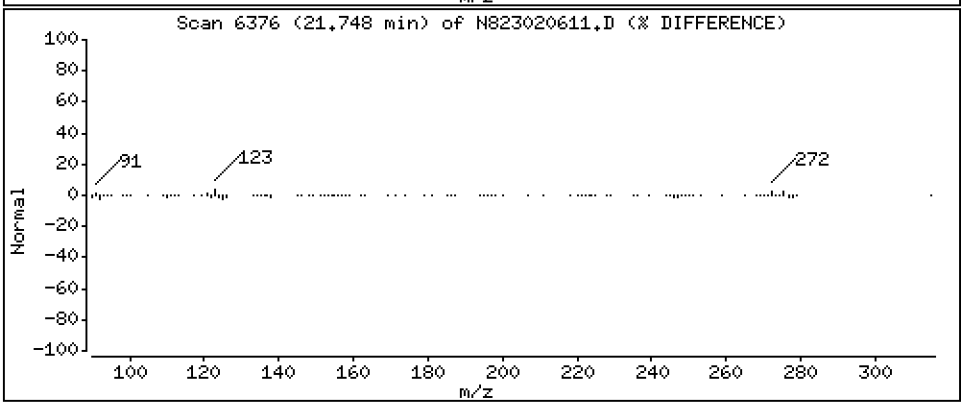
39 Benzo(g,h,i)perylene

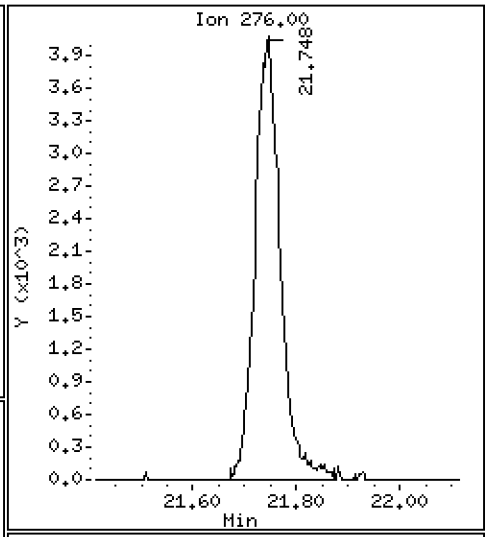
Concentration: 1.173 ug/mL

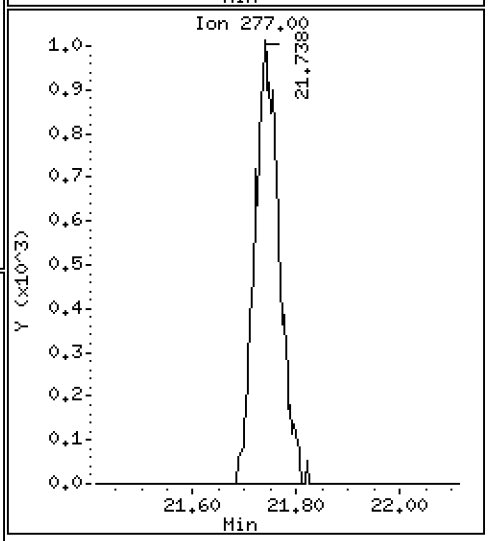












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230206A.b\N823020611.D
Lab Smp Id: BLA0683-SRM1
Inj Date : 06-FEB-2023 17:18
Operator : JZ Inst ID: nt8.i
Smp Info : BLA0683-SRM1,
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Meth Date : 07-Feb-2023 13:04 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PNAXMDL.sub
Target Version: 4.14
Processing Host: JIANQING-202105

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
*	1 Naphthalene-d8	136	4.884	4.900	(1.000)	47898	2.00000	
	2 Naphthalene	128	4.916	4.928	(1.006)	51592	2.31660	2.317
$	3 2-Methylnaphthalene-d10	152	5.624	5.634	(1.151)	37554	2.87484	2.875
	4 2-Methylnaphthalene	141	5.672	5.681	(1.161)	1033	0.08433	0.08433(M)
	5 1-methylnaphthalene	141	5.868	5.880	(1.201)	405	0.03258	0.03258
	9 Acenaphthylene	152	7.072	7.082	(0.985)	61602	3.06777	3.068
*	10 Acenaphthene-d10	164	7.183	7.189	(1.000)	26592	2.00000	
	11 Acenaphthene	153	7.234	7.240	(1.007)	47159	3.50509	3.505
	12 Dibenzofuran	168	7.385	7.392	(1.028)	820	0.04013	0.04013(M)
	14 Fluorene	166	7.863	7.869	(1.095)	36596	2.30573	2.306
*	15 Phenanthrene-d10	188	9.223	9.232	(1.000)	44776	2.00000	
	16 Phenanthrene	178	9.261	9.267	(1.004)	82696	3.78089	3.781
	17 Anthracene	178	9.298	9.308	(1.008)	38382	1.93173	1.932
	19 Carbazole	167	9.814	9.823	(1.064)	2170	0.11913	0.1191
	22 Fluoranthene	202	11.041	11.050	(1.197)	50733	2.13092	2.131
$	21 Fluoranthene-d10	212	11.003	11.009	(1.193)	64973	3.28894	3.289
	23 Pyrene	202	11.559	11.569	(0.815)	62928	2.77685	2.777
	24 Benzo(a)anthracene	228	14.057	14.070	(0.991)	18218	0.88695	0.8869
*	25 Chrysene-d12	240	14.190	14.202	(1.000)	36552	2.00000	
	27 Chrysene	228	14.260	14.275	(1.005)	38533	1.76223	1.762
	28 Benzo(b)fluoranthene	252	16.808	16.824	(0.929)	50267	3.83154	3.832
	29 Benzo(k)fluoranthene	252	16.868	16.887	(0.932)	13946	1.08526	1.085
	30 Benzo(j)fluoranthene	252	Compound Not Detected.					
	31 Total Benzofluoranthenes	252	16.808	16.824	(0.929)	63266	5.09198	5.092(M)
	32 Benzo(a)pyrene	252	17.864	17.877	(0.987)	12629	1.09390	1.094
*	33 Perylene-d12	264	18.092	18.107	(1.000)	22526	2.00000	
	35 Perylene	252	18.171	18.183	(1.004)	303	0.02446	0.02446(M)
$	36 Dibenzo(a,h)anthracene-d14	292	20.530	20.549	(1.135)	45685	5.17608	5.176
	37 Indeno(1,2,3-cd)pyrene	276	20.656	20.684	(1.142)	13884	1.05563	1.056
	38 Dibenzo(a,h)anthracene	278	20.644	20.666	(1.141)	25570	2.25910	2.259
	39 Benzo(g,h,i)perylene	276	21.747	21.763	(1.202)	13979	1.17309	1.173

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823020611.D
Lab Smp Id: BLA0683-SRM1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 06-FEB-2023
Calibration Time: 15:15
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44336	22168	88672	47898	8.03
10 Acenaphthene-d10	26127	13064	52254	26592	1.78
15 Phenanthrene-d10	47424	23712	94848	44776	-5.58
25 Chrysene-d12	36794	18397	73588	36552	-0.66
33 Perylene-d12	36636	18318	73272	22526	-38.51

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.90	4.40	5.40	4.88	-0.32
10 Acenaphthene-d10	7.19	6.69	7.69	7.18	-0.08
15 Phenanthrene-d10	9.23	8.73	9.73	9.22	-0.10
25 Chrysene-d12	14.20	13.70	14.70	14.19	-0.09
33 Perylene-d12	18.11	17.61	18.61	18.09	-0.09

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823020611.D

Lab ID: BLA0683-SRM1
nt8.i, 20230206A.b\FSIMPNA230119.m,   06-FEB-2023 17:18

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

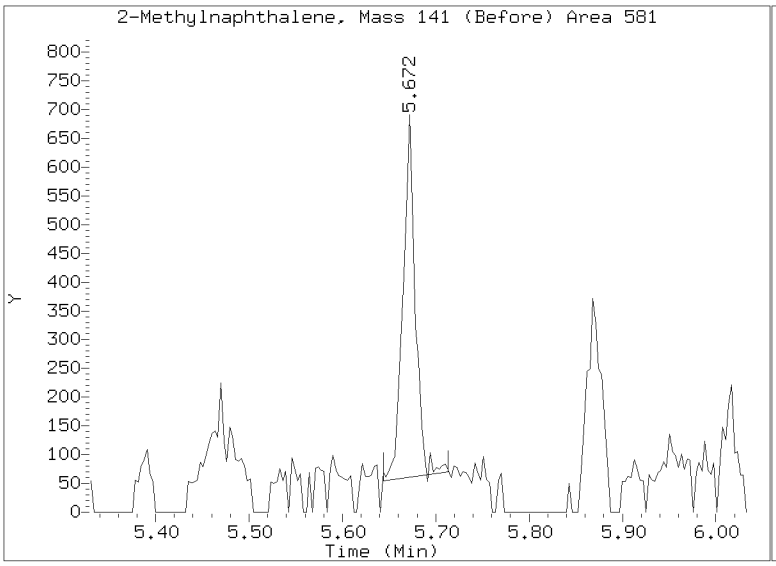
No RRT check performed

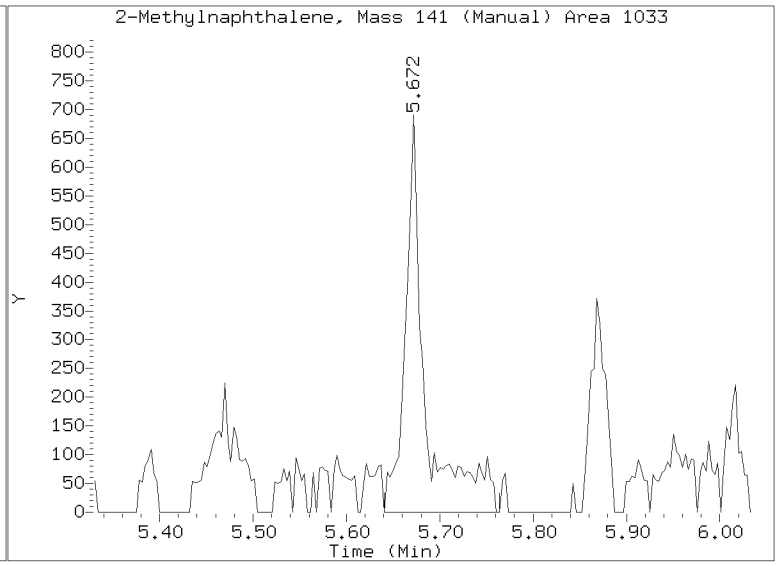
On Column LOD for nt8.i, 20230206A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

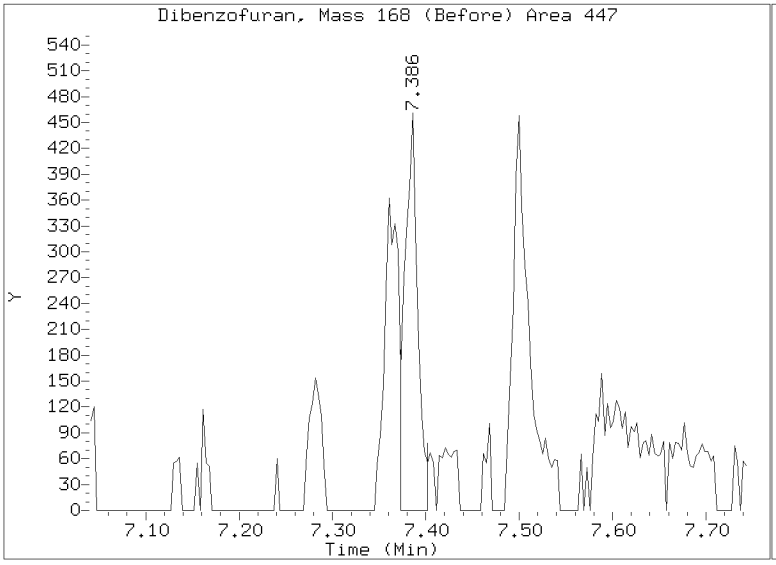
* Only compounds listed in the work order have been verified by the analyst *

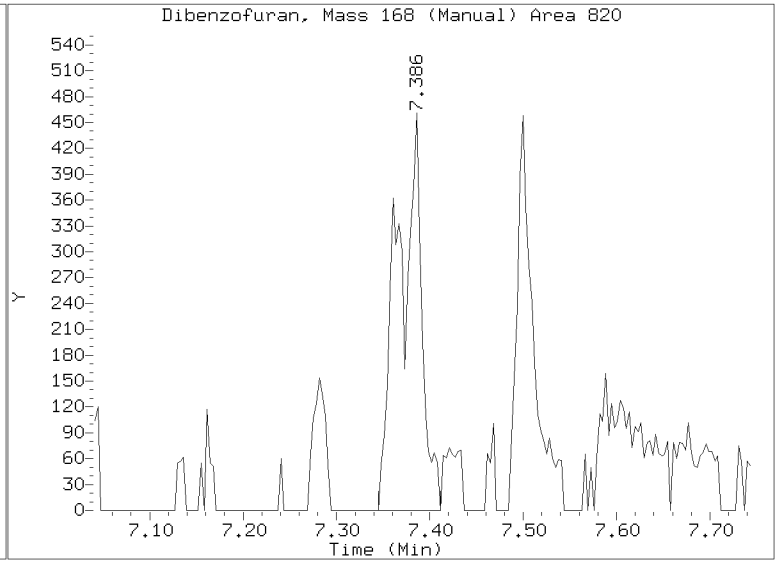
Quant Ion Manual Peak Adjustment Report

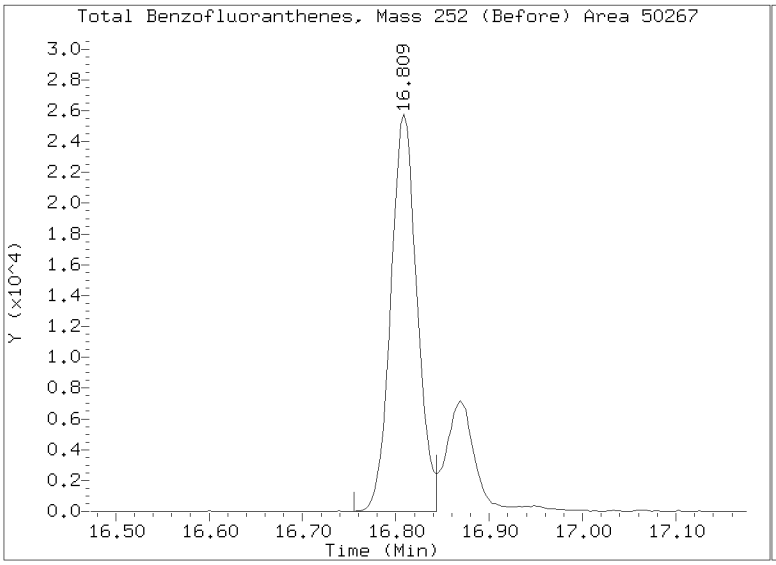
Datafile: //target/share/chem3/nt8.i/20230206A.b/N823020611.D
Injection Date: 06-FEB-2023 17:18
Lab ID:BLA0683-SRM1 Client ID:
Report Date: 02/07/2023 13:19

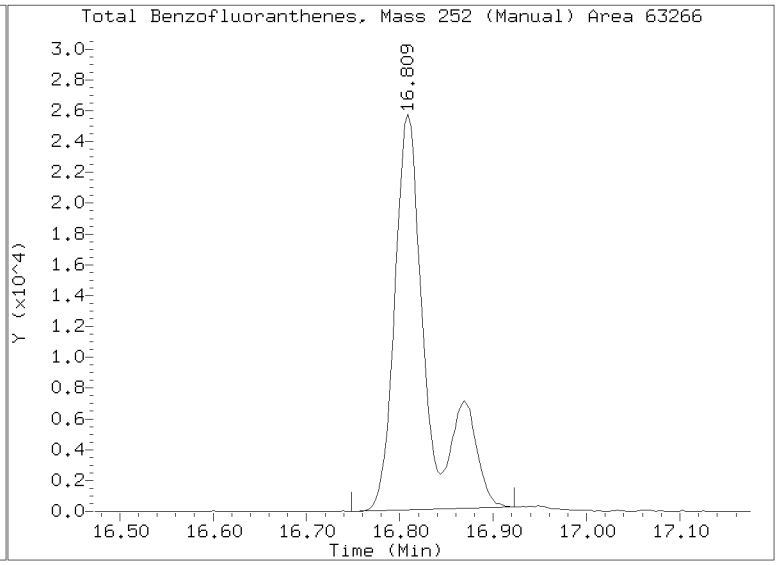












Quant Ion Manual Peak Adjustment Report

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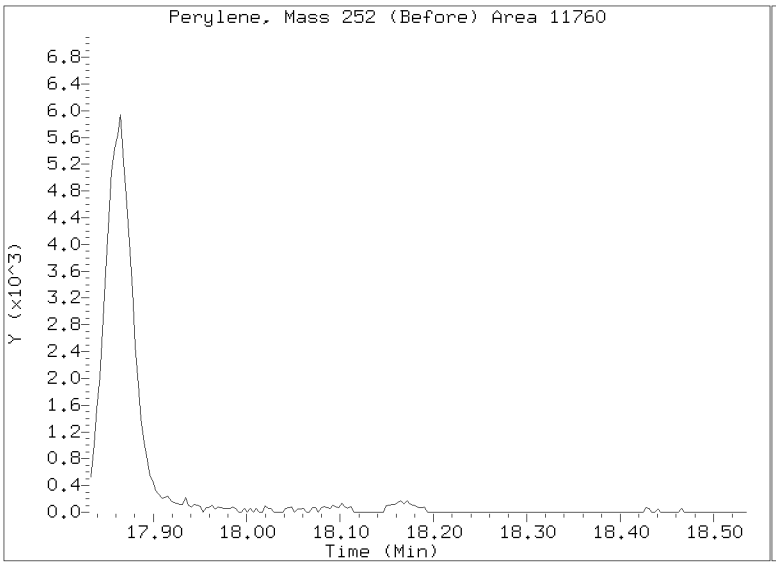
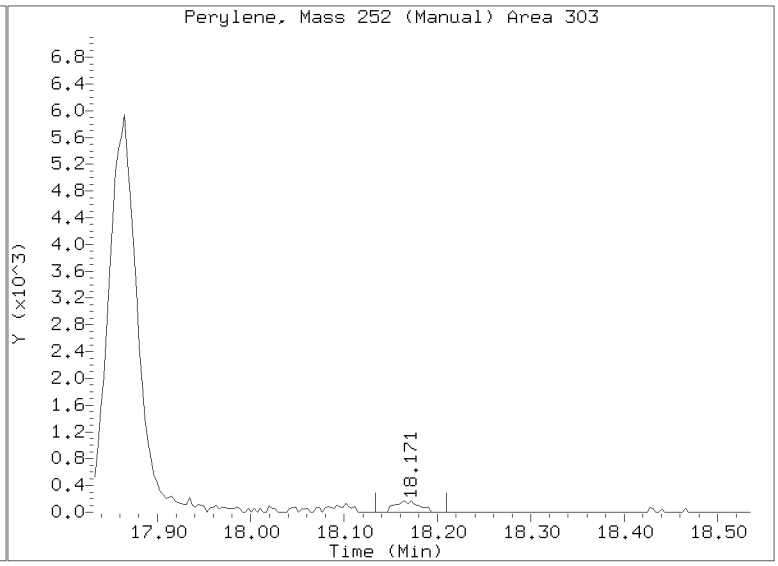
Injection Date: 06-FEB-2023 17:18
Lab ID:BLA0683-SRM1 Client ID:
Report Date: 02/07/2023 13:19





Analytical Resources, LLC
Analytical Chemists and Consultants

STANDARD REFERENCE MATERIAL RECOVERY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Laboratory ID: BLA0685-SRM2
Batch: BLA0685
Initial/Final: 1 g / 1 mL
Preparation: EPA 3546 (Microwave)
Analyzed: 03/05/2023 20:22
Standard ID: K003477
Expires: 01/31/2024
Standard Lot#: CRM 143 (LRAC8918)
Description: CRM 143 BNAs - Sandy Loam

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
2,4-Dimethylphenol	6357.0	512	21.7	200		8.06	0 - 220
1,2,4-Trichlorobenzene	1477.0	953	26.8	50.0		64.5	10 - 193
N-Nitrosodiphenylamine	2854.0	1910	13.1	50.0		66.9	40 - 160
Pentachlorophenol	3411.0	1650	21.3	200	Q	48.3	10 - 206

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523125.D

Page 1

Date : 05-MAR-2023 20:22

Client ID:

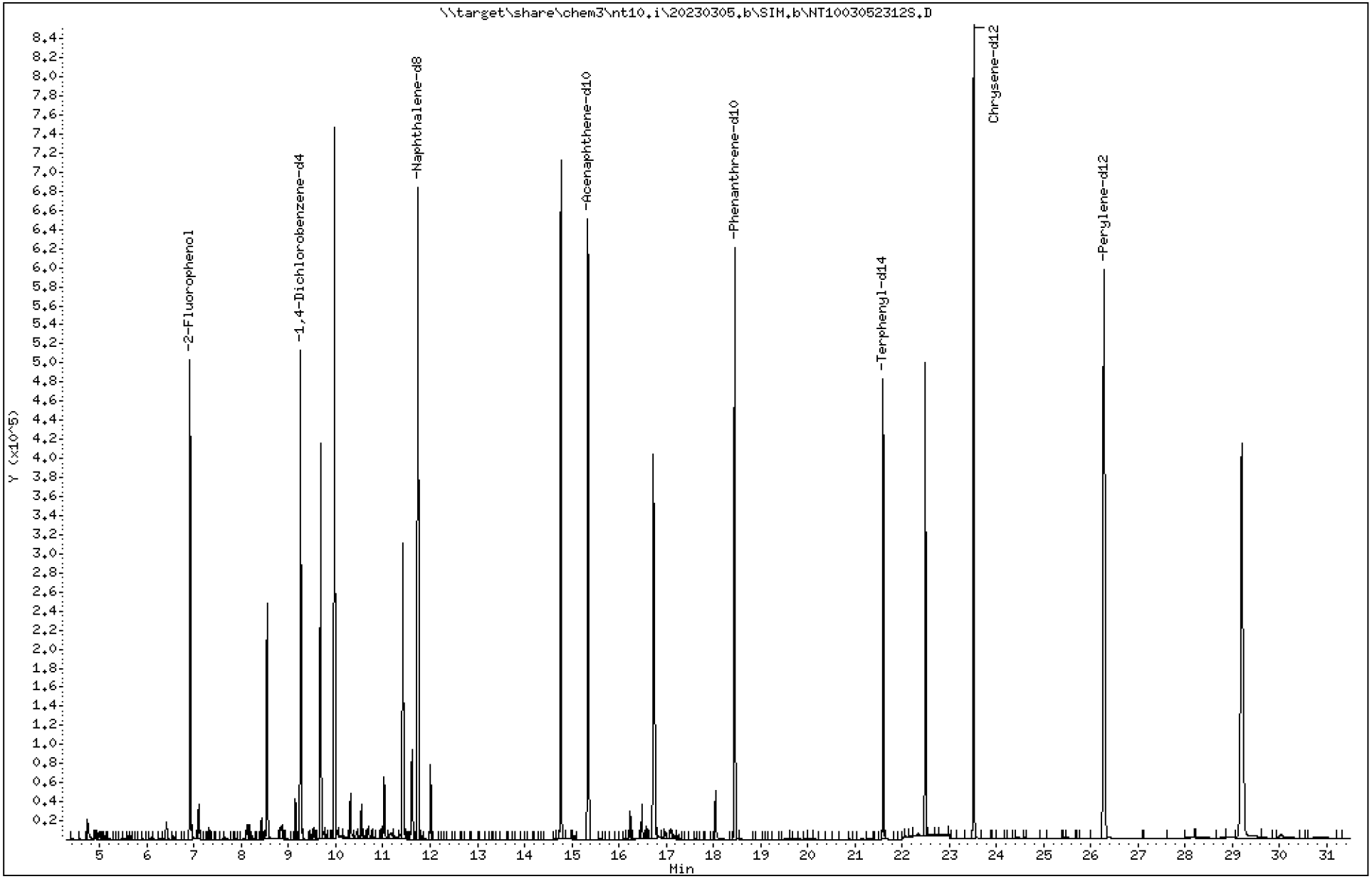
Instrument: nt10.i

Sample Info: BLA0685-SRM2

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

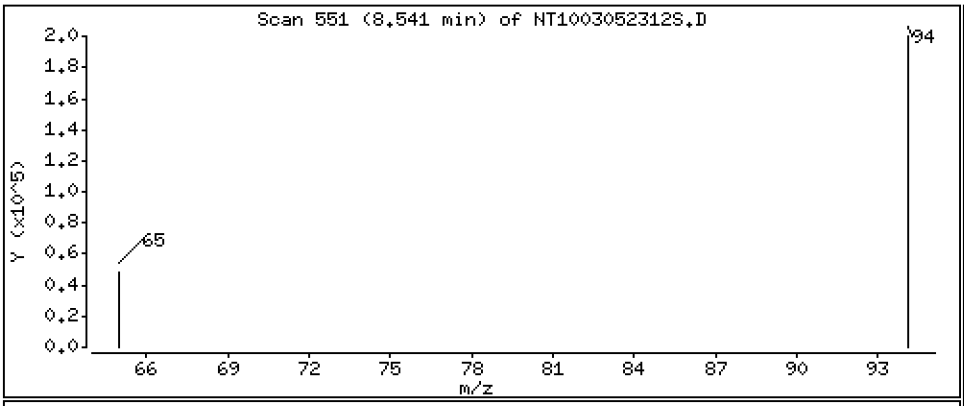
Operator: YZ

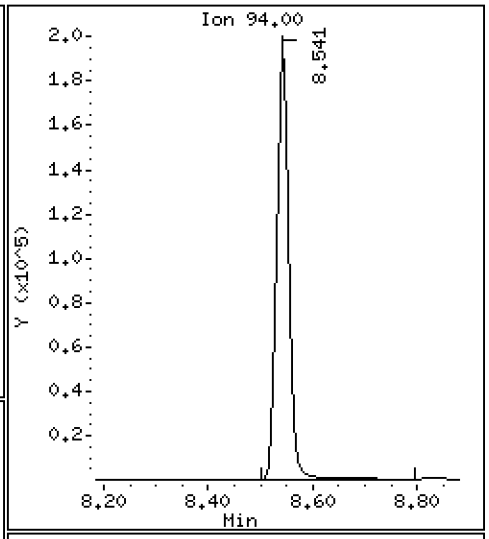
Column phase: ZB-5msi

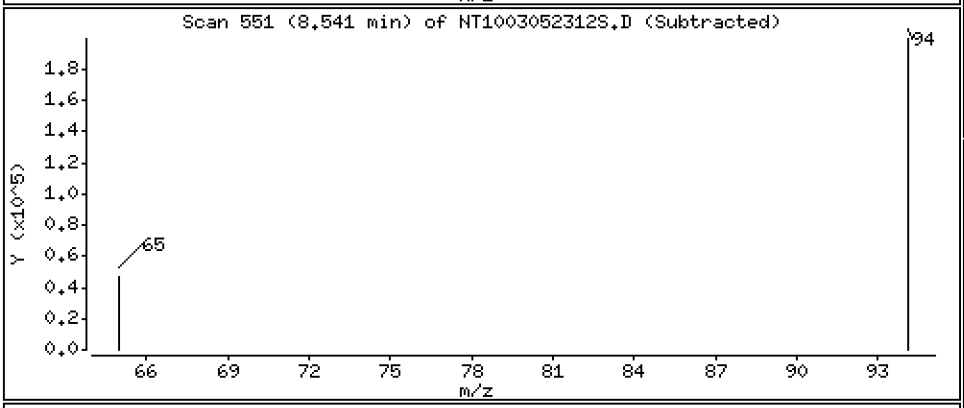
Column diameter: 0.25

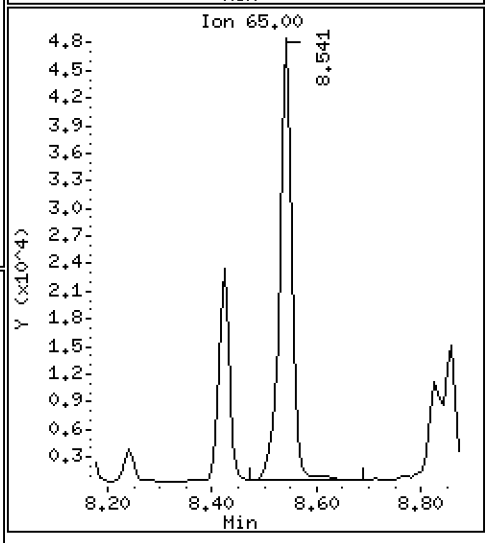
3 Phenol

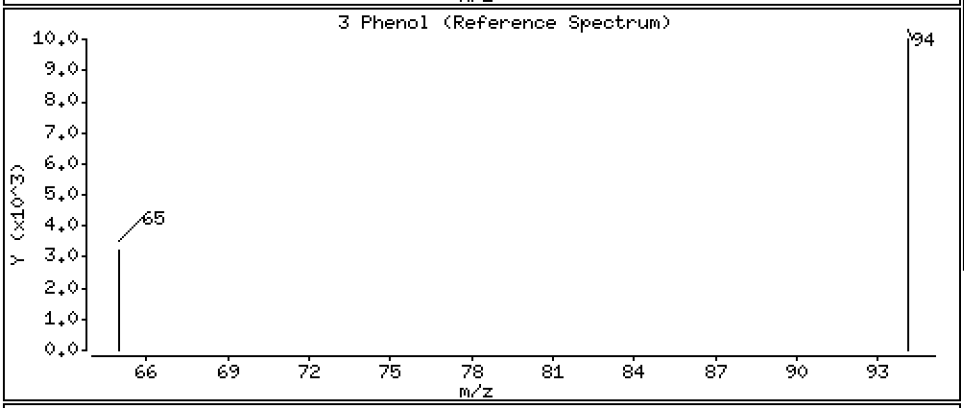
Concentration: 2.511 ug/mL

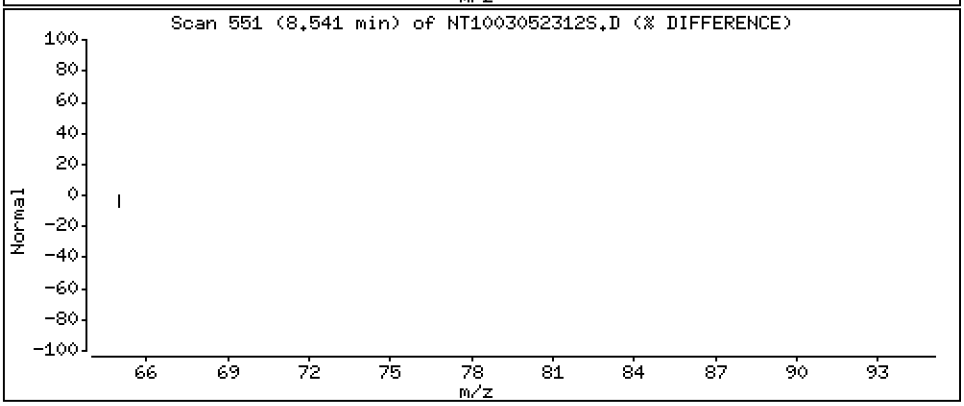












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

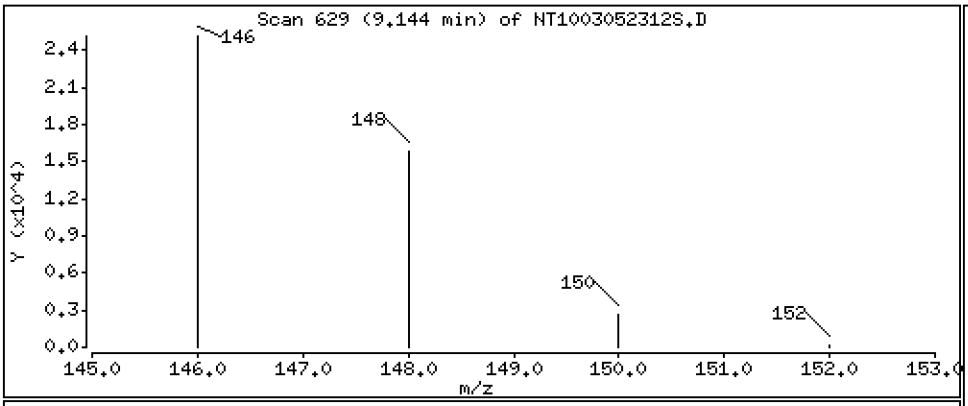
Operator: YZ

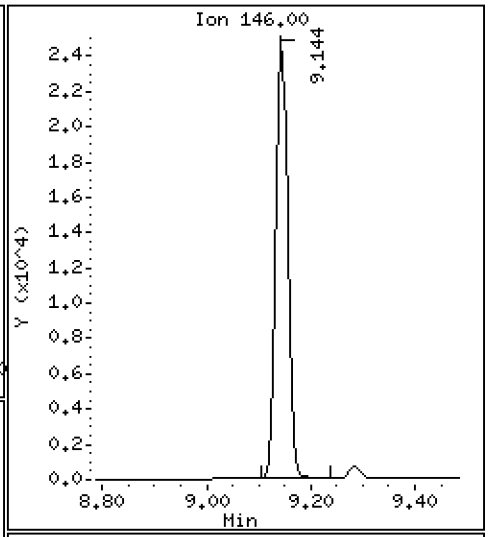
Column phase: ZB-5msi

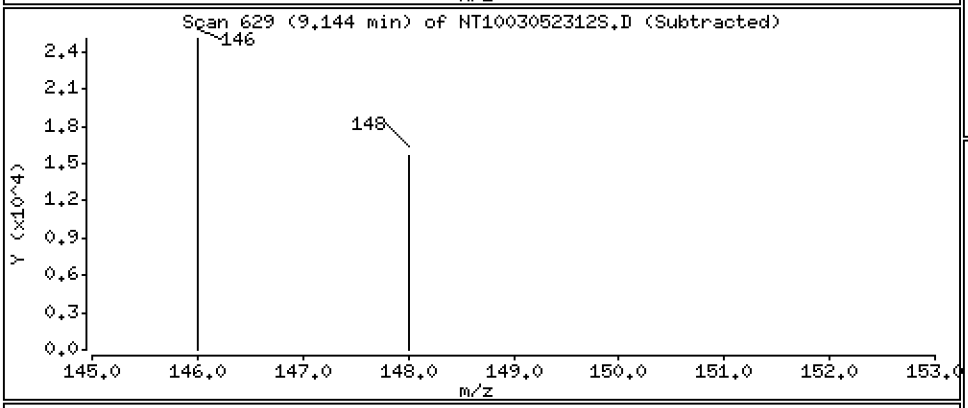
Column diameter: 0.25

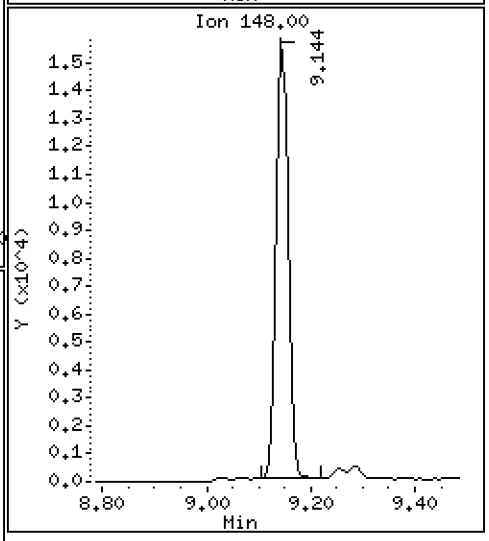
7 1,3-Dichlorobenzene

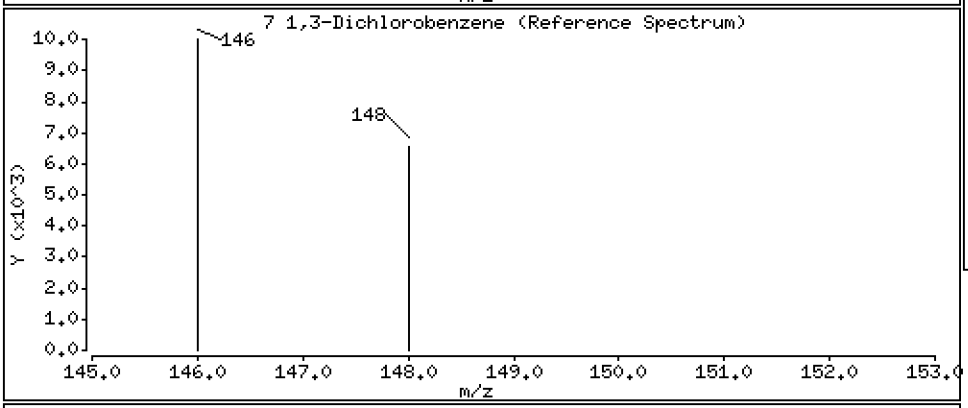
Concentration: 0.3470 ug/mL

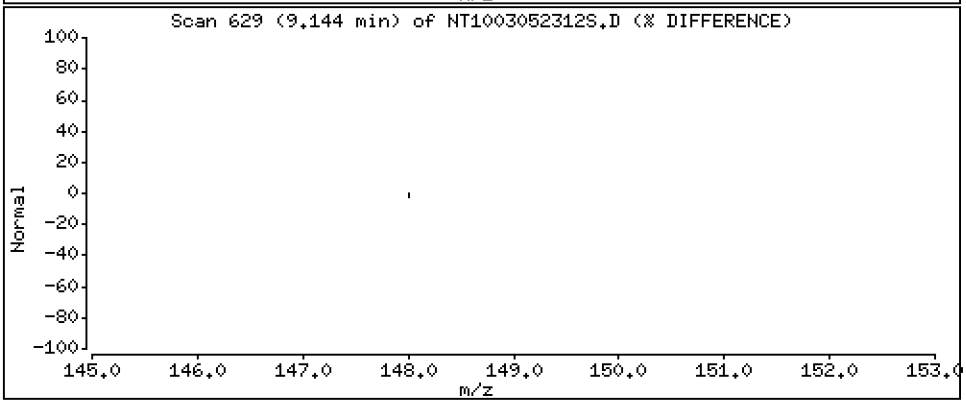












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523125.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

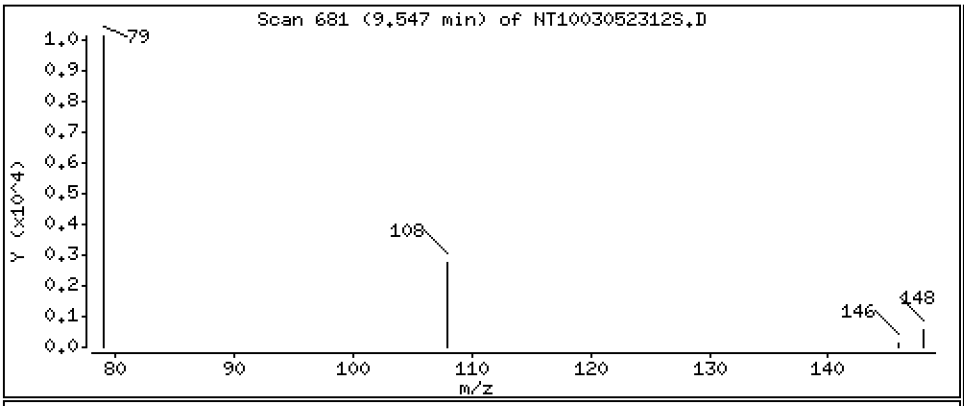
Operator: YZ

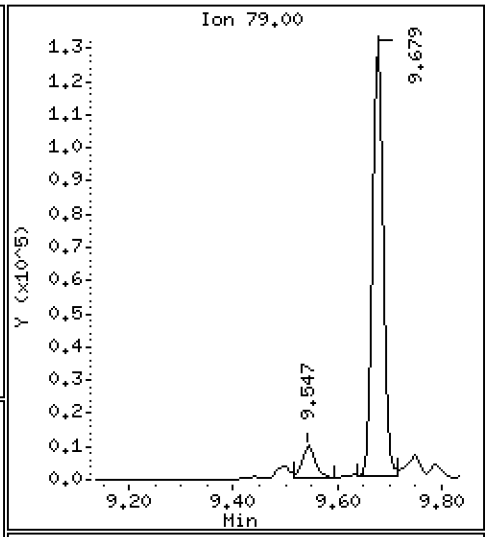
Column phase: ZB-5msi

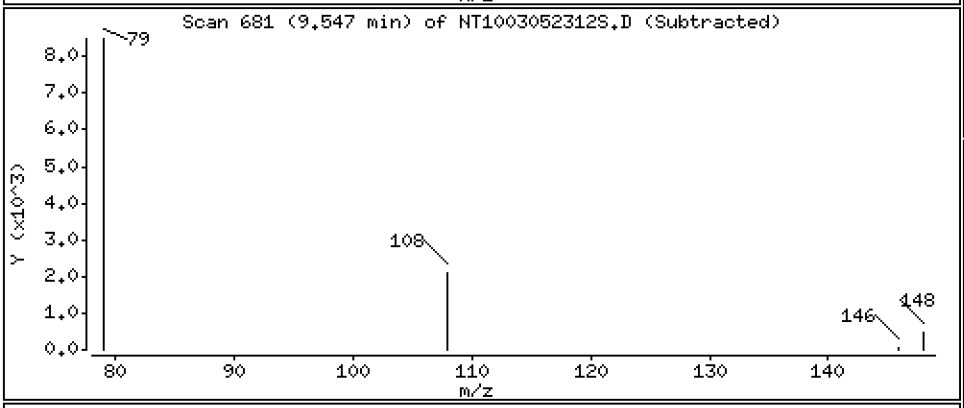
Column diameter: 0.25

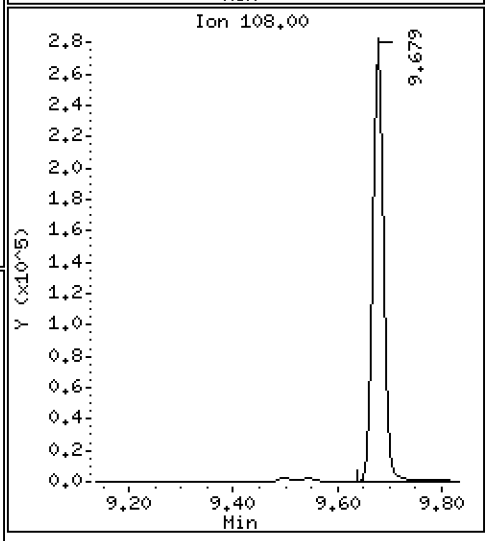
11 Benzyl alcohol

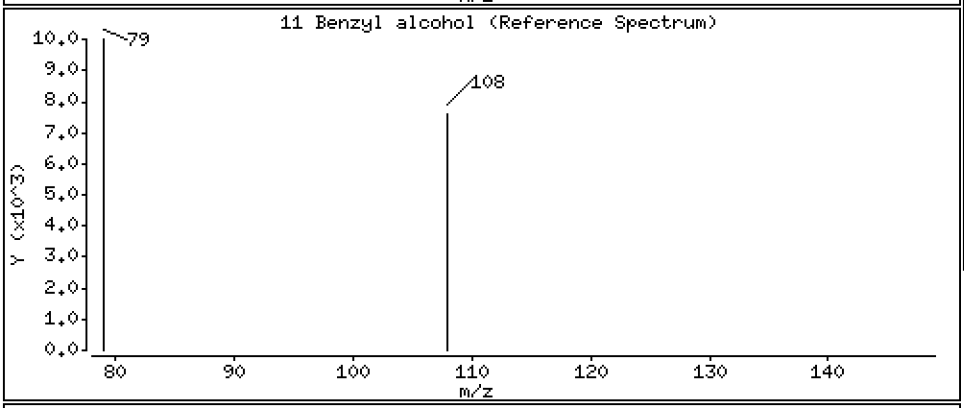
Concentration: 0.2402 ug/mL

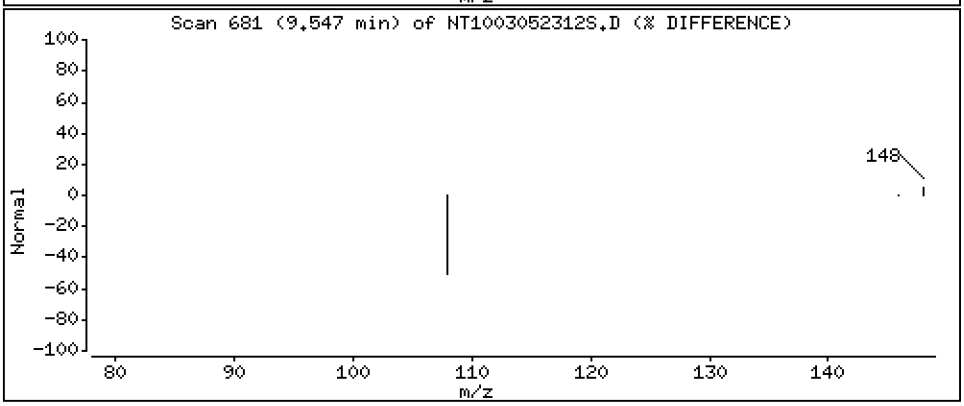












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523125.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

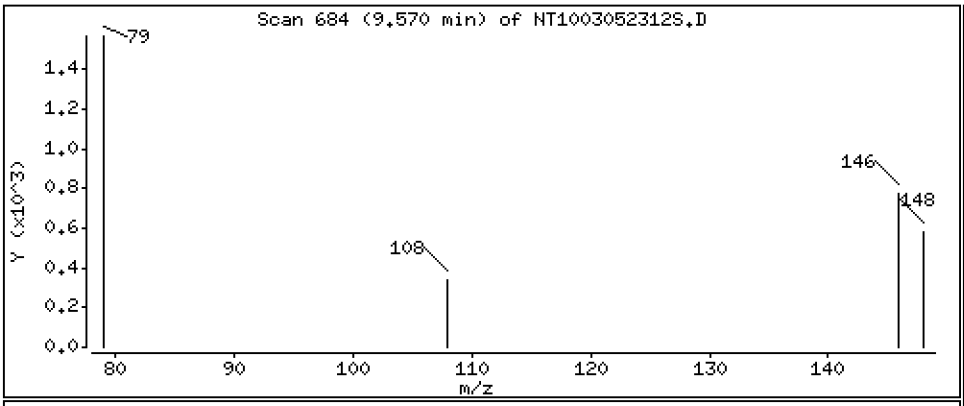
Operator: YZ

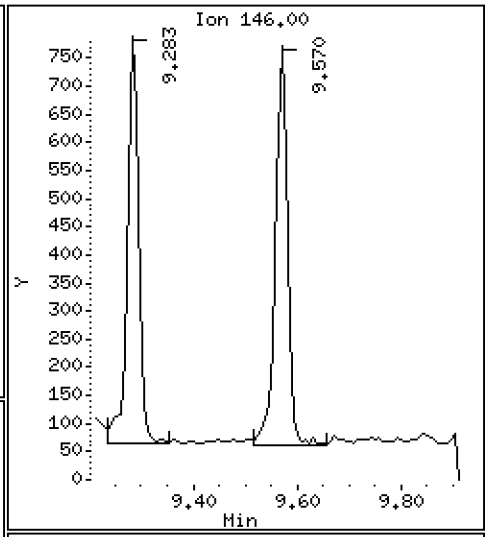
Column phase: ZB-5msi

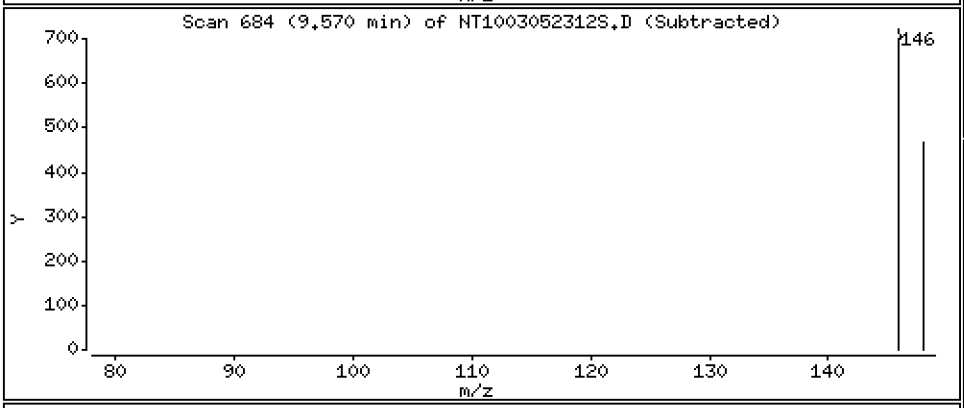
Column diameter: 0.25

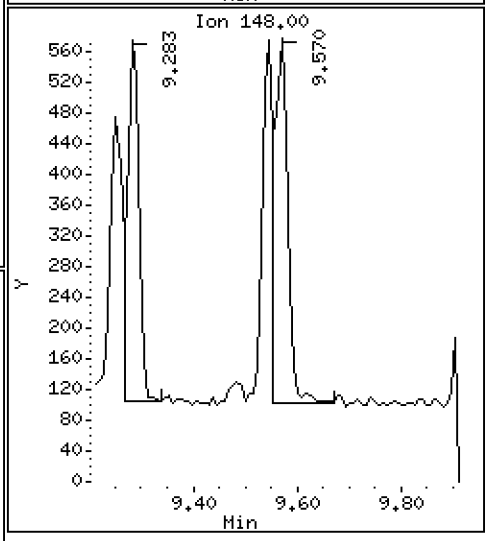
12 1,2-Dichlorobenzene

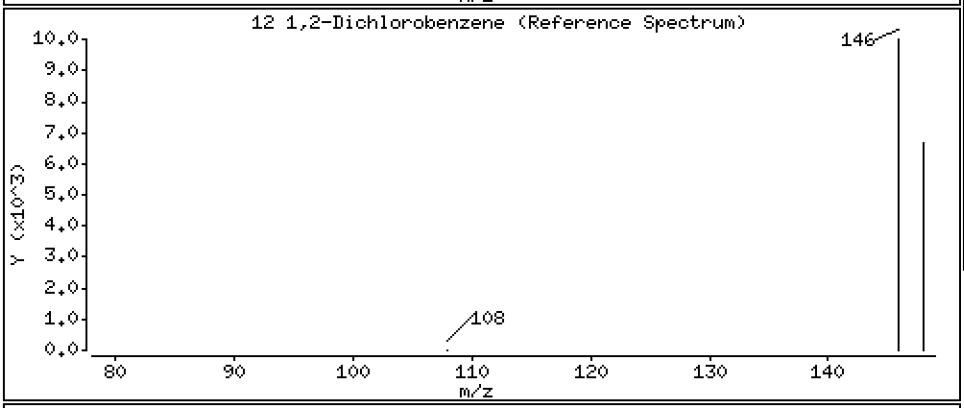
Concentration: 0.01072 ug/mL

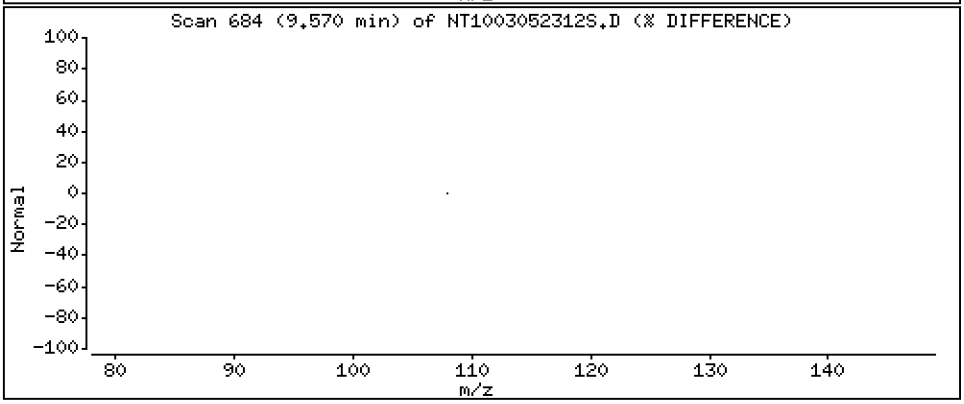












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523125.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

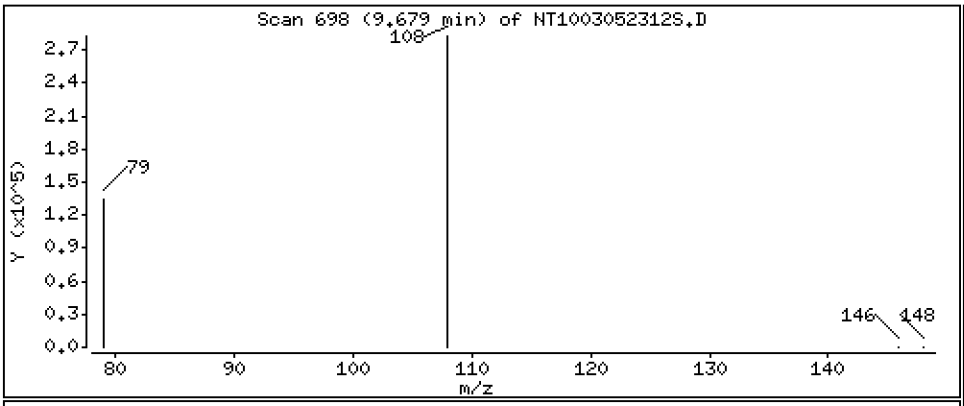
Operator: YZ

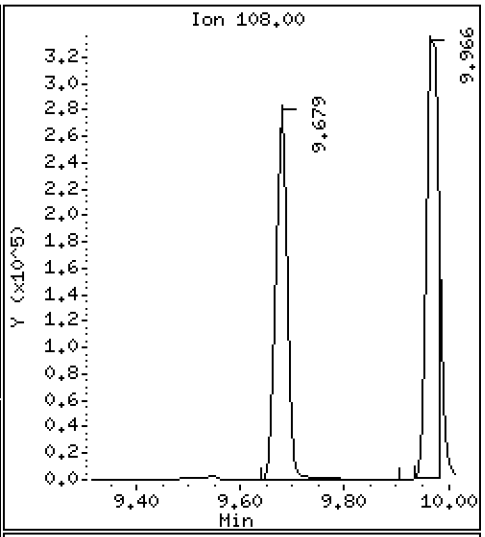
Column phase: ZB-5msi

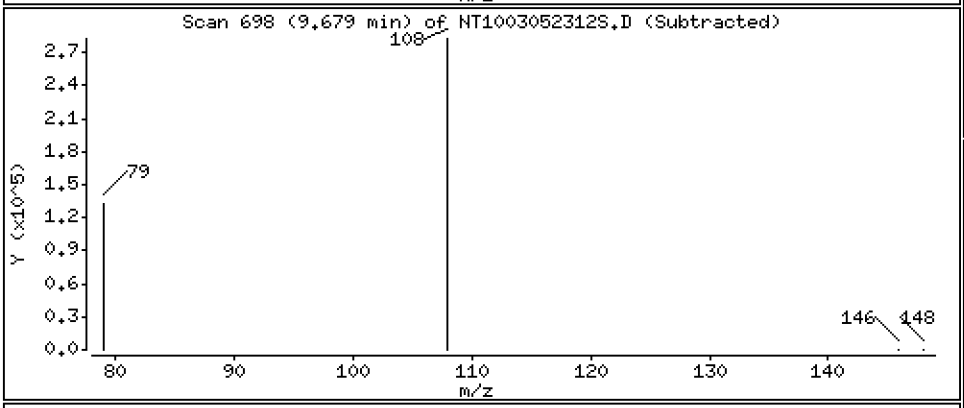
Column diameter: 0.25

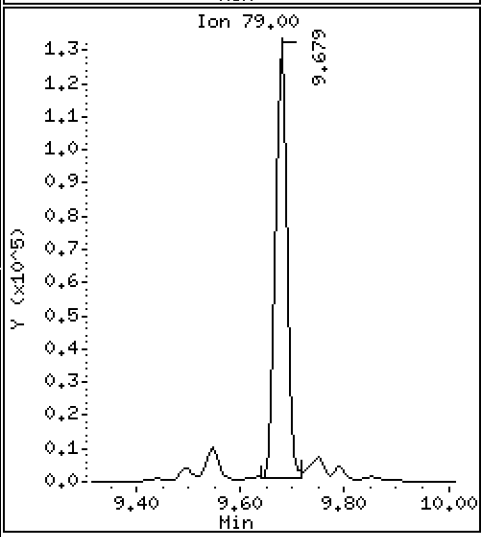
13 2-Methylphenol

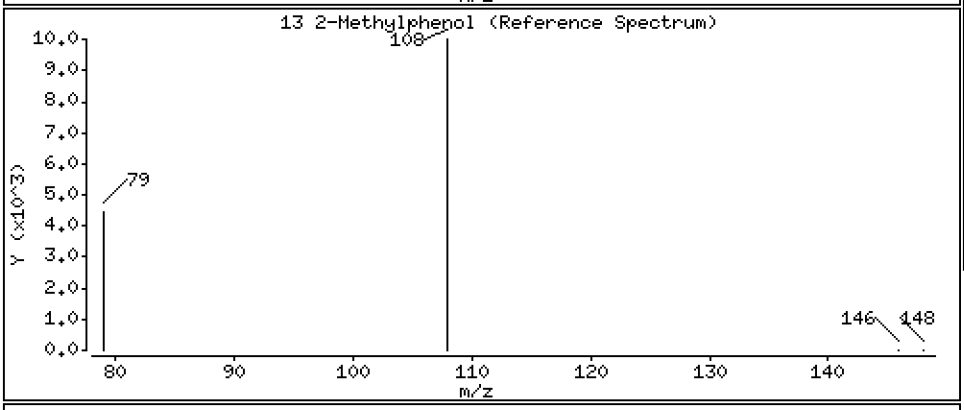
Concentration: 5.463 ug/mL

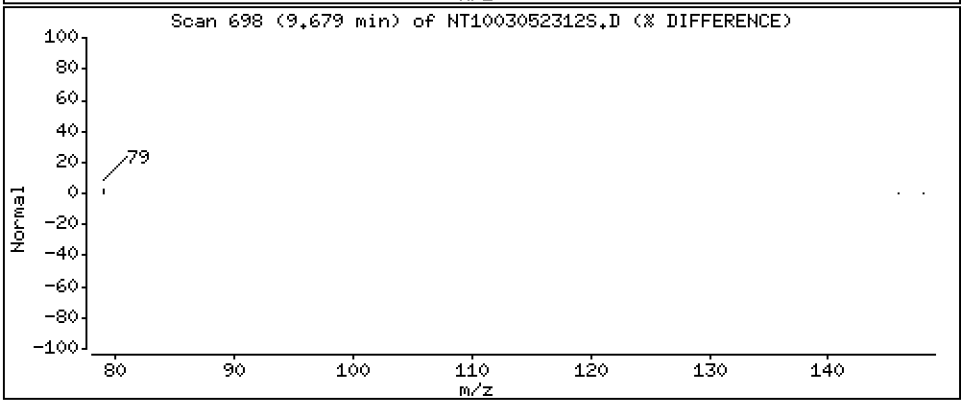












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523125.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

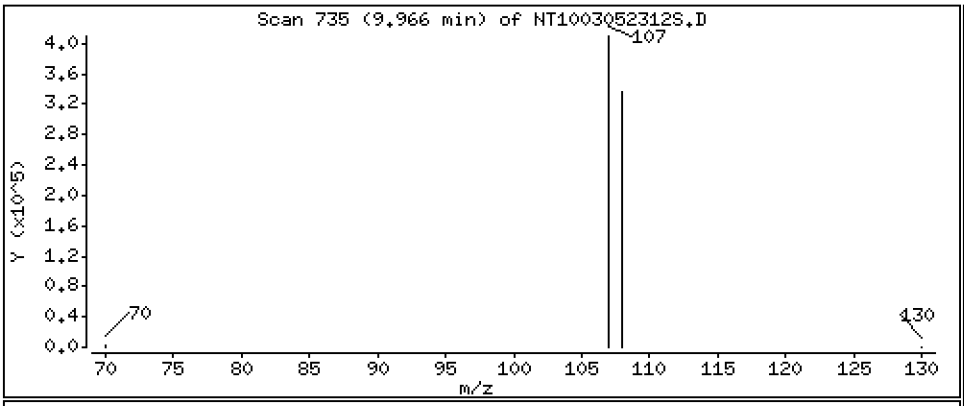
Operator: YZ

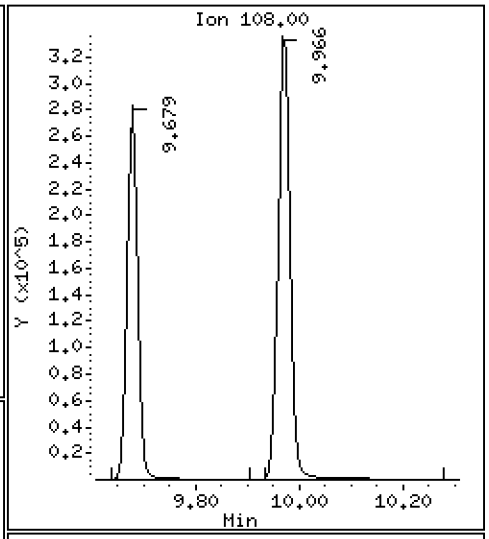
Column phase: ZB-5msi

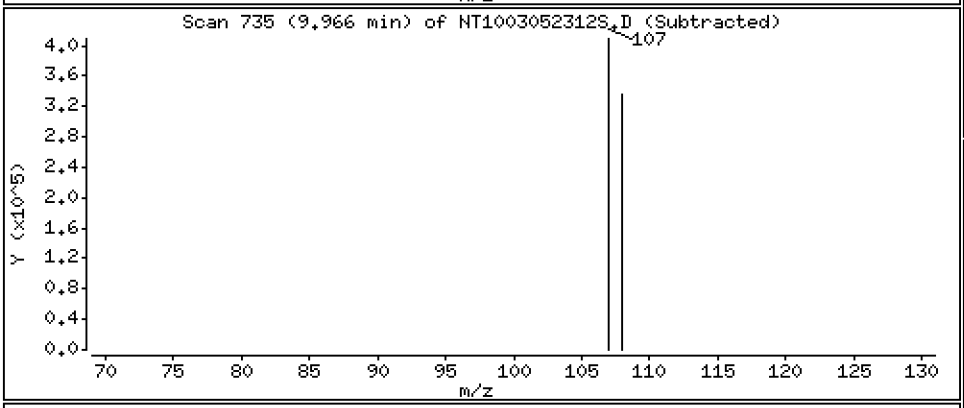
Column diameter: 0.25

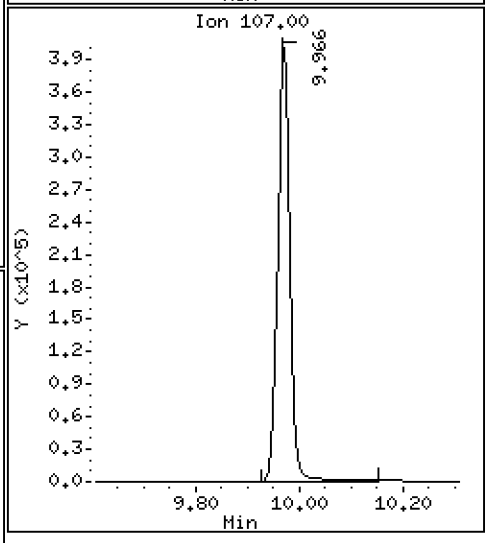
15 4-Methylphenol

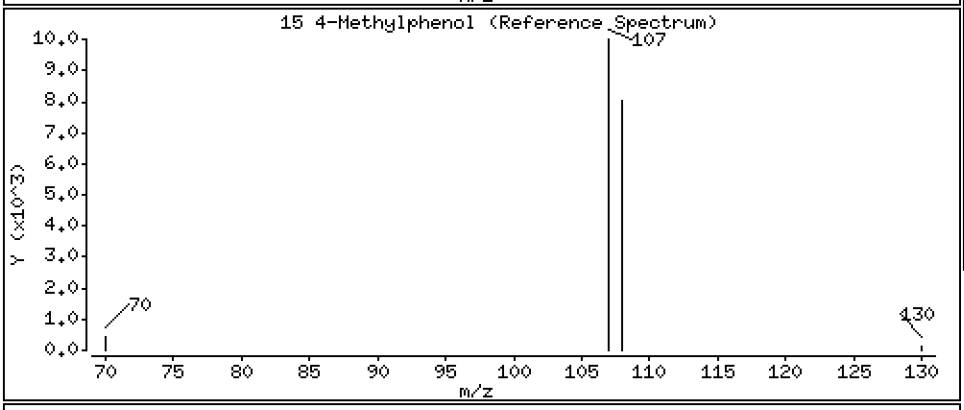
Concentration: 6.603 ug/mL

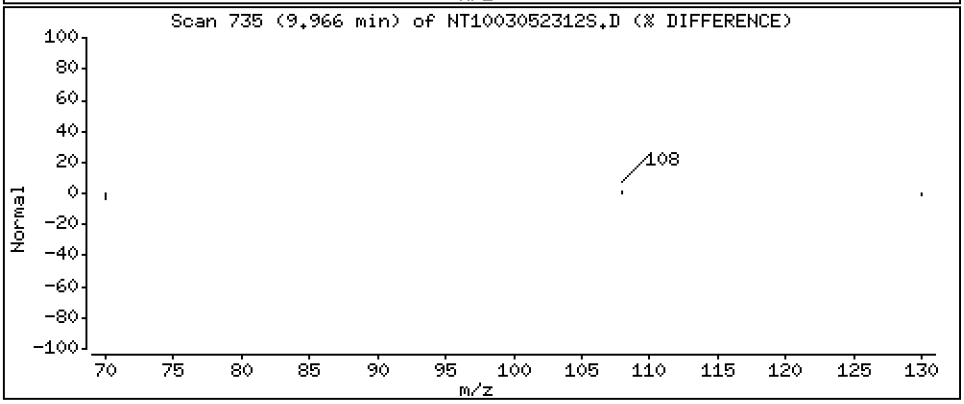












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523125.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

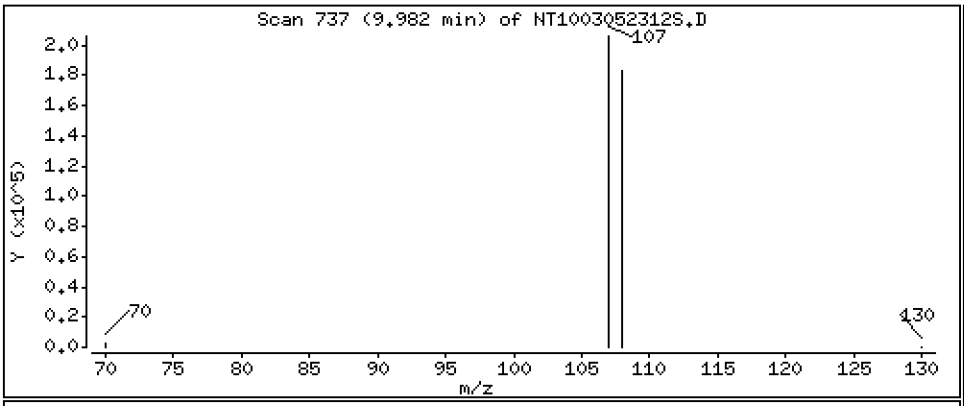
Operator: YZ

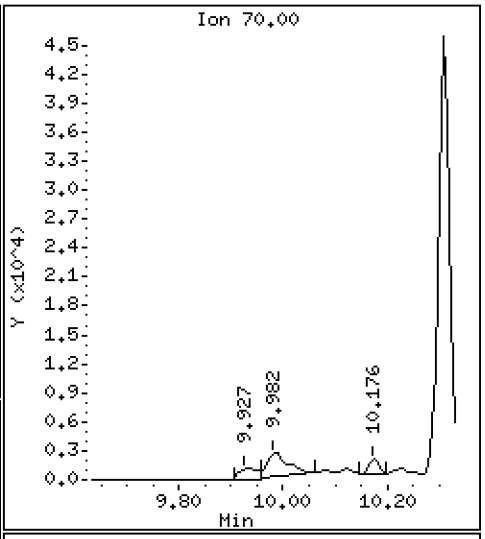
Column phase: ZB-5msi

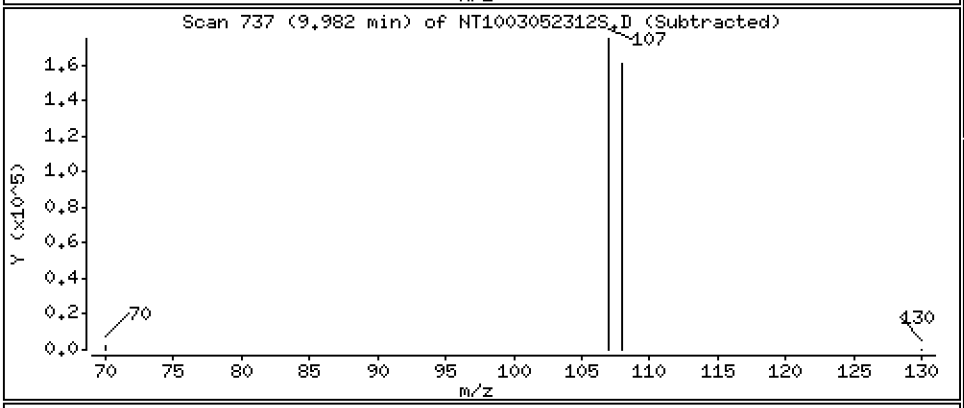
Column diameter: 0.25

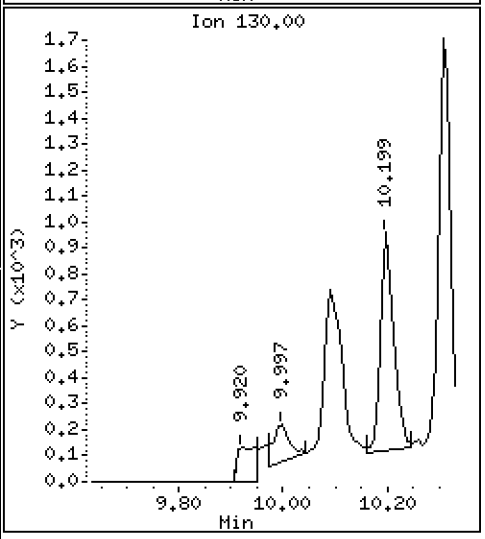
16 N-Nitroso-di-n-propylamine

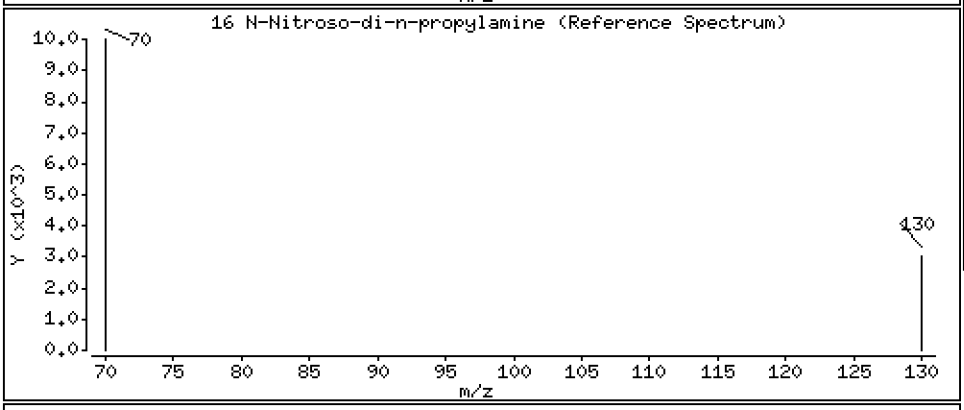
Concentration: 0.1216 ug/mL

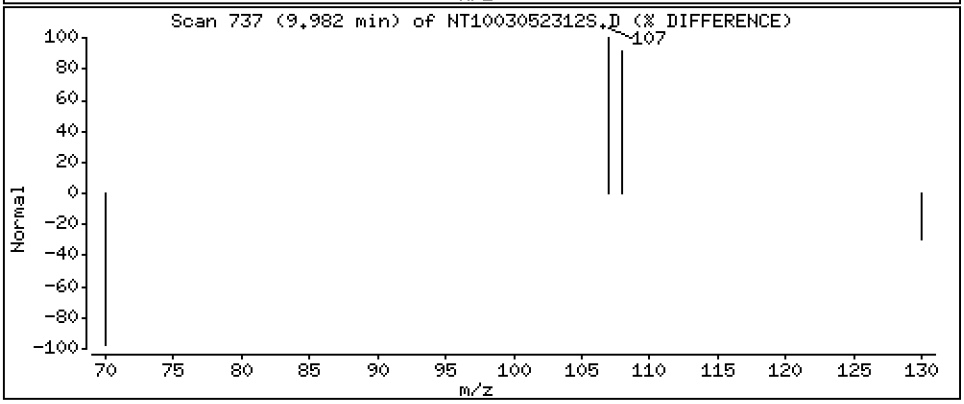












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

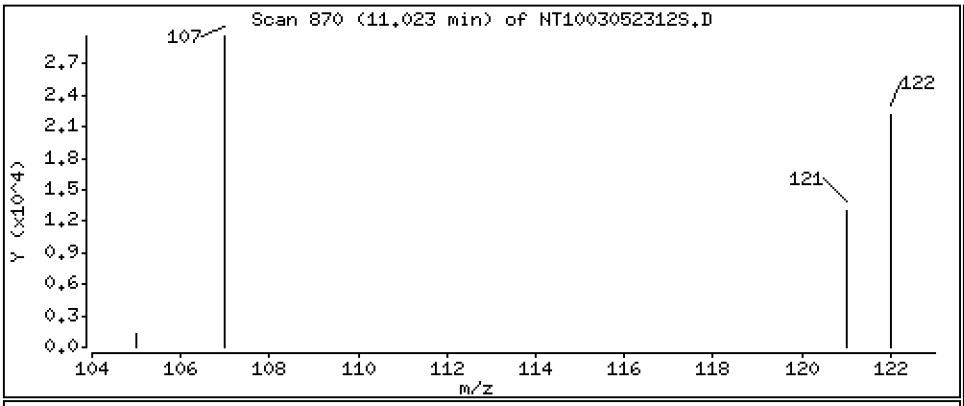
Operator: YZ

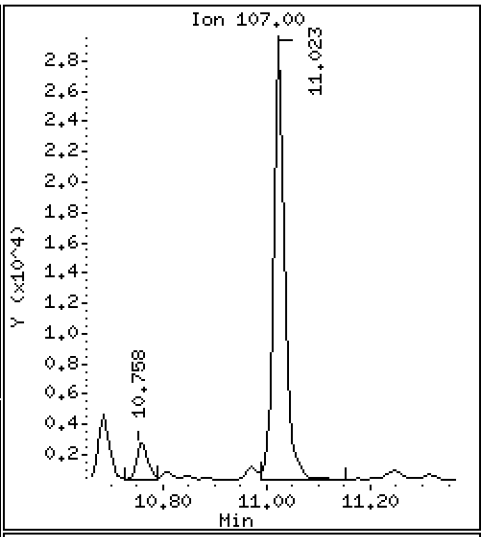
Column phase: ZB-5msi

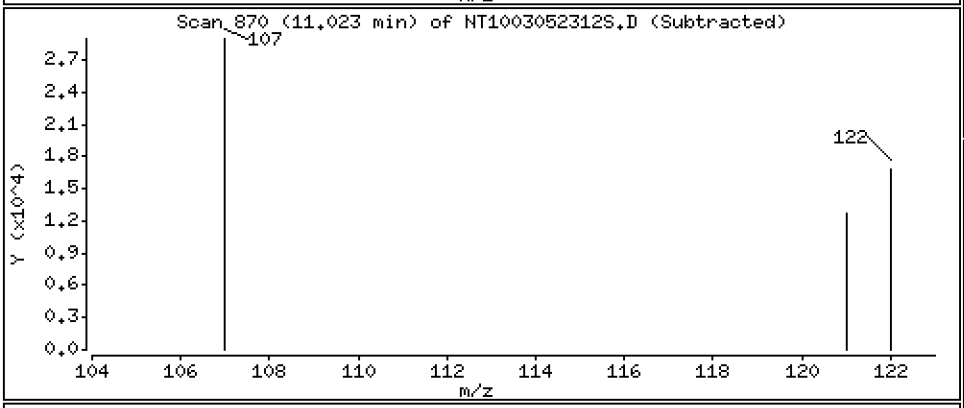
Column diameter: 0.25

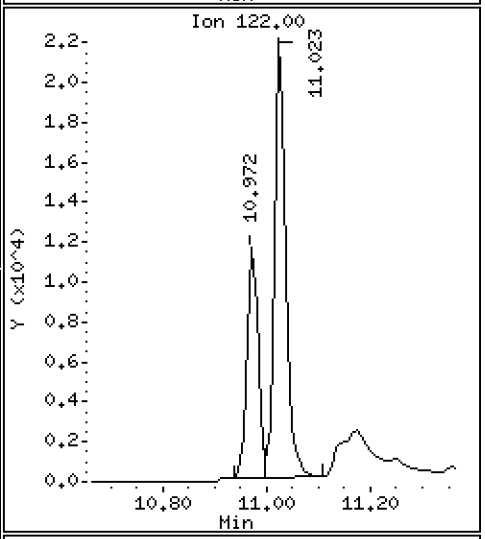
22 2,4-Dimethylphenol

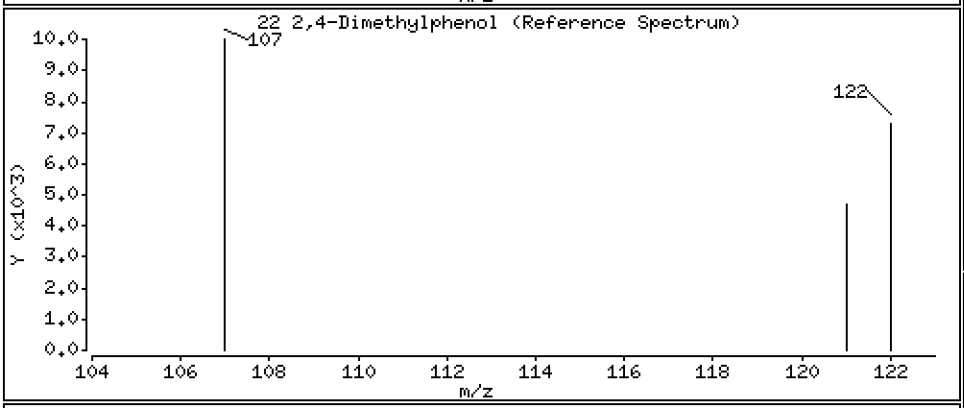
Concentration: 0.5125 ug/mL

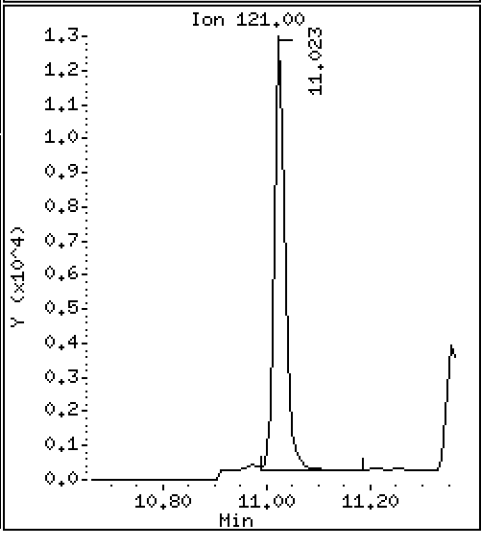


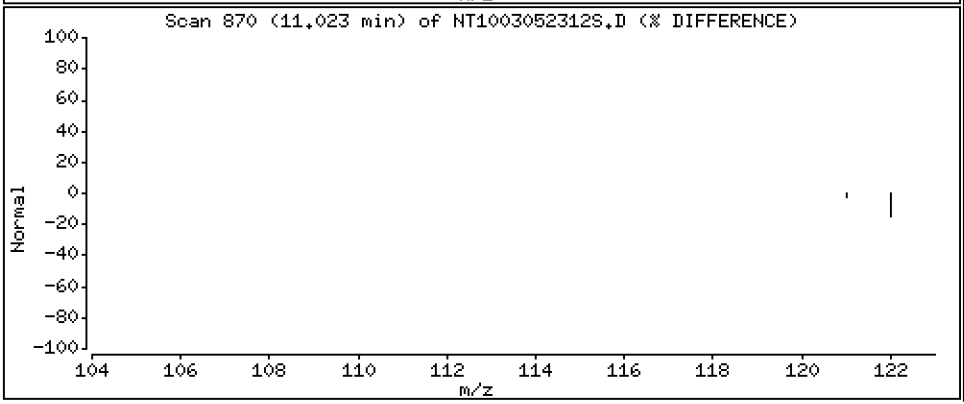












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

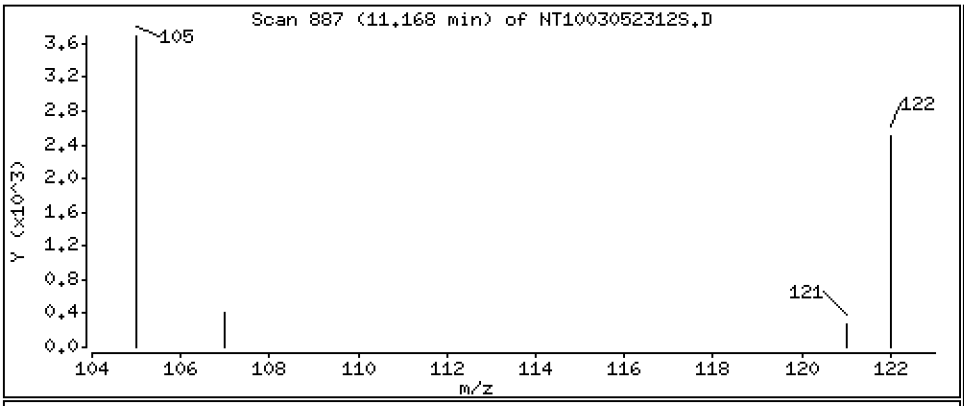
Operator: YZ

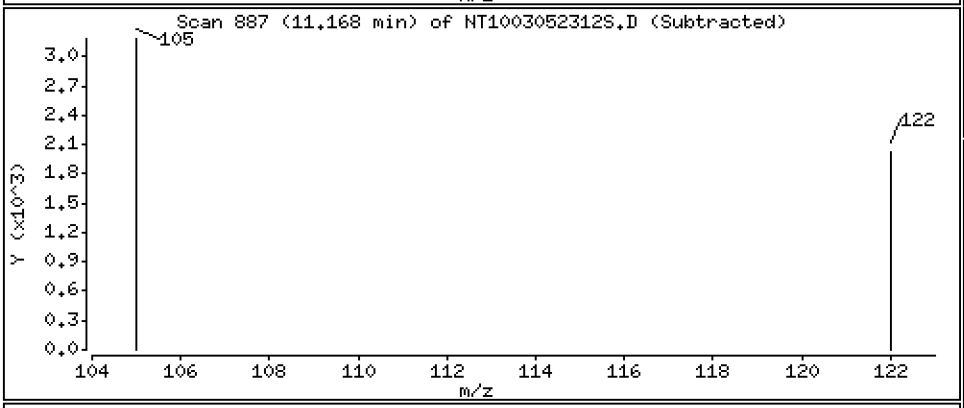
Column phase: ZB-5msi

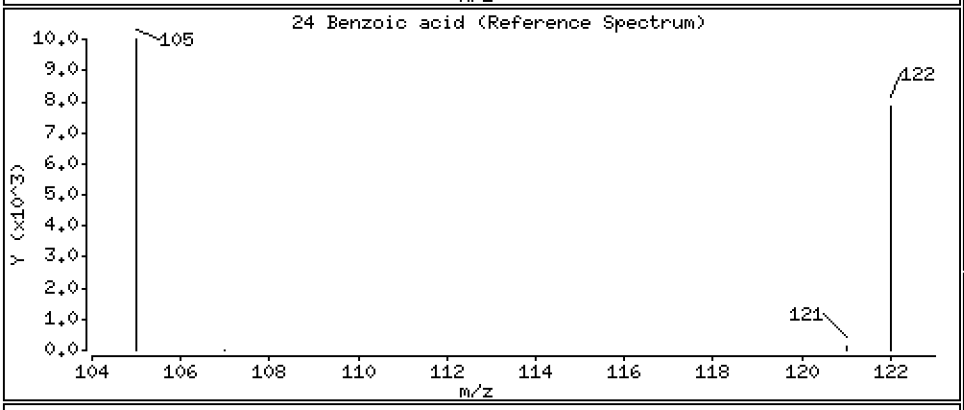
Column diameter: 0.25

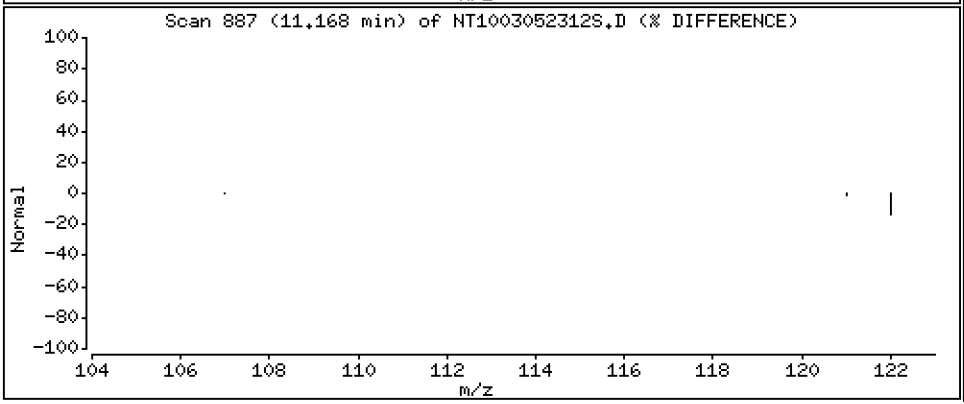
24 Benzoic acid

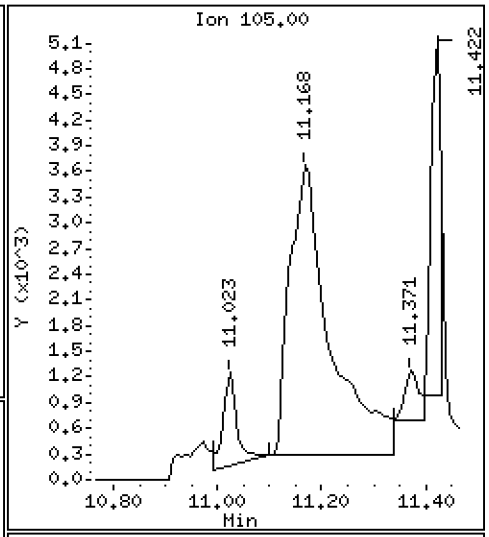
Concentration: 0.3882 ug/mL

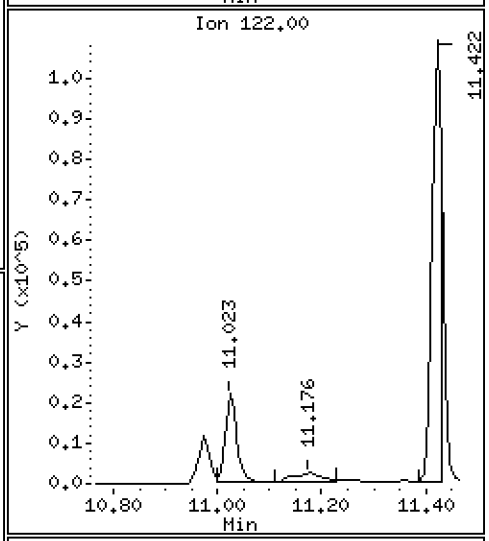


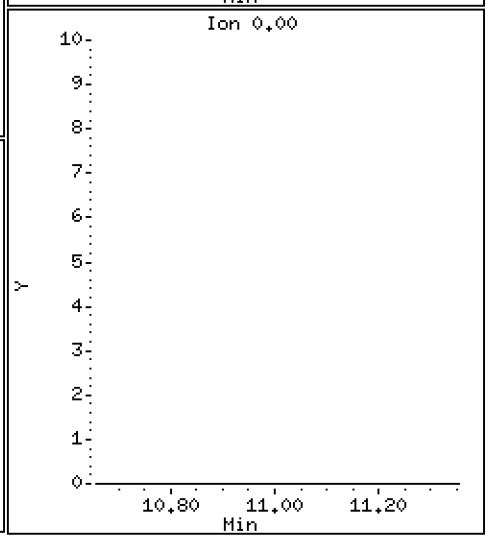












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

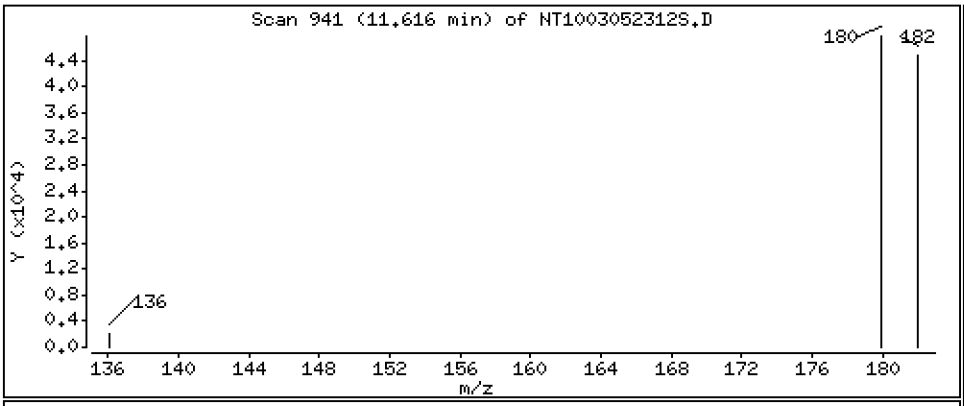
Operator: YZ

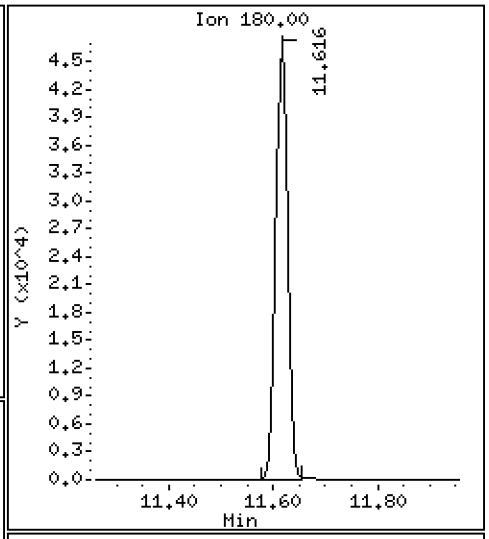
Column phase: ZB-5msi

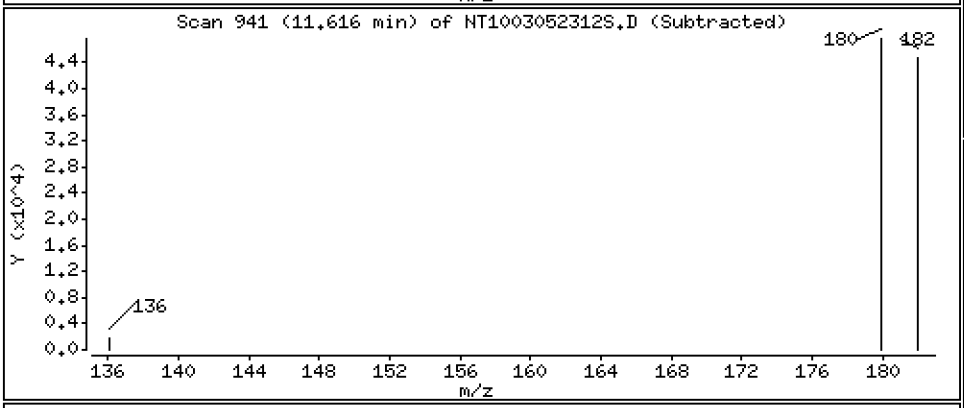
Column diameter: 0.25

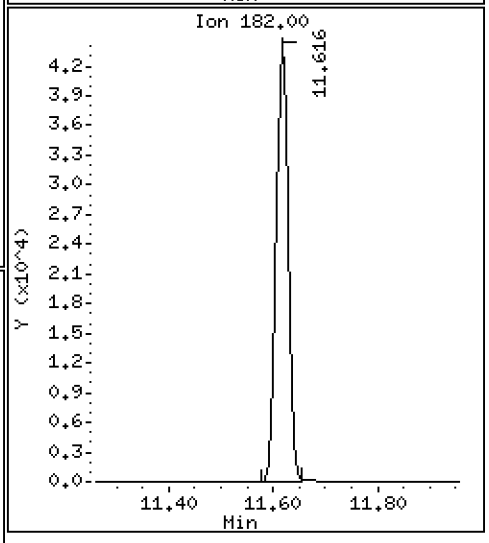
26 1,2,4-Trichlorobenzene

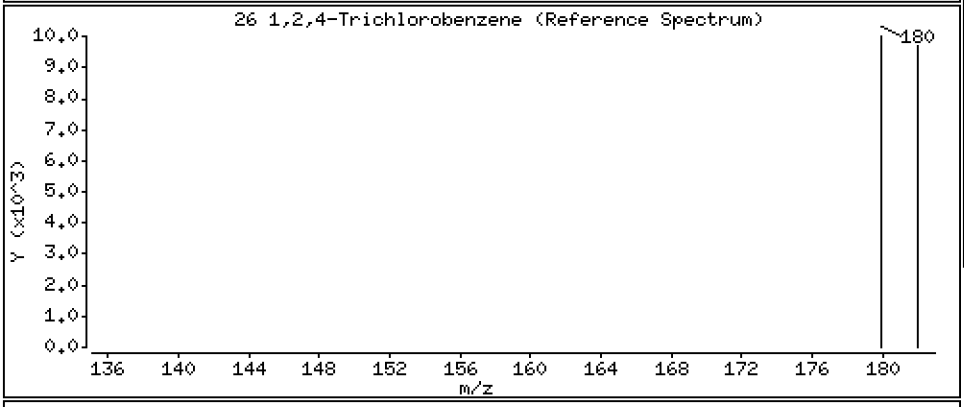
Concentration: 0.9528 ug/mL

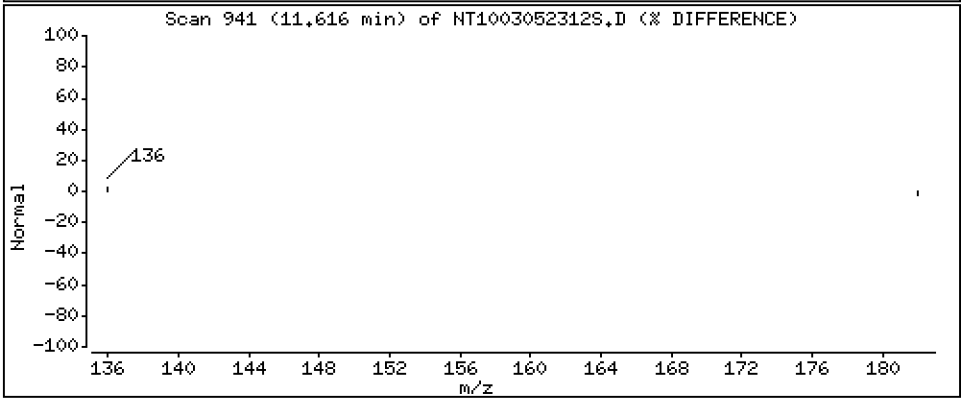












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523125.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

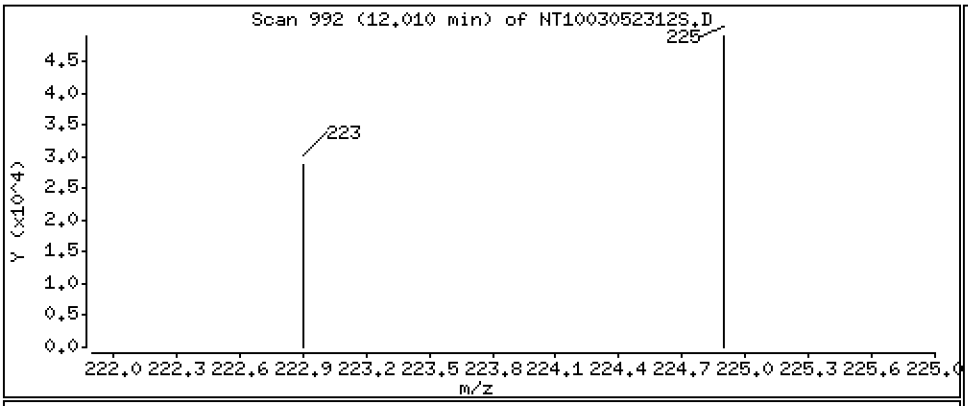
Operator: YZ

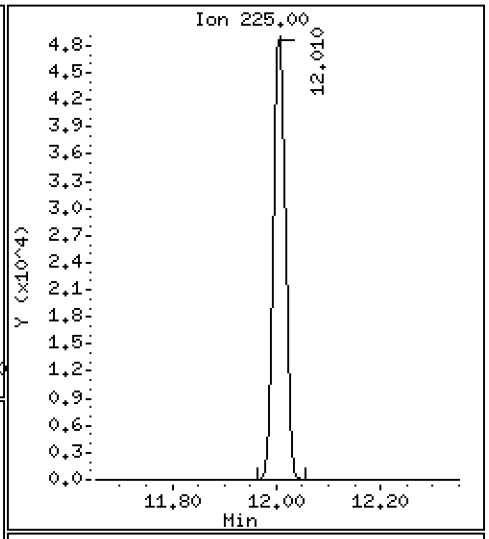
Column phase: ZB-5msi

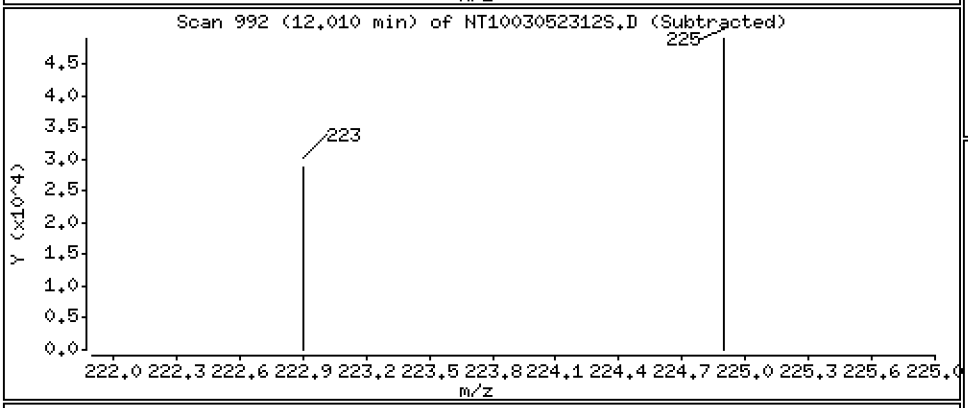
Column diameter: 0.25

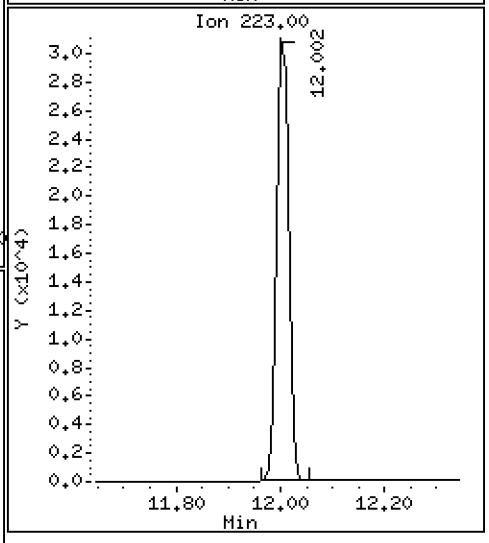
30 Hexachlorobutadiene

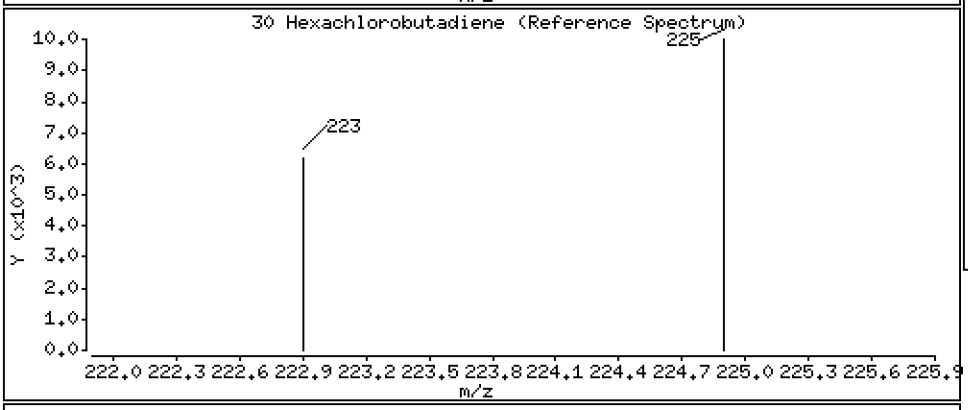
Concentration: 1.427 ug/mL

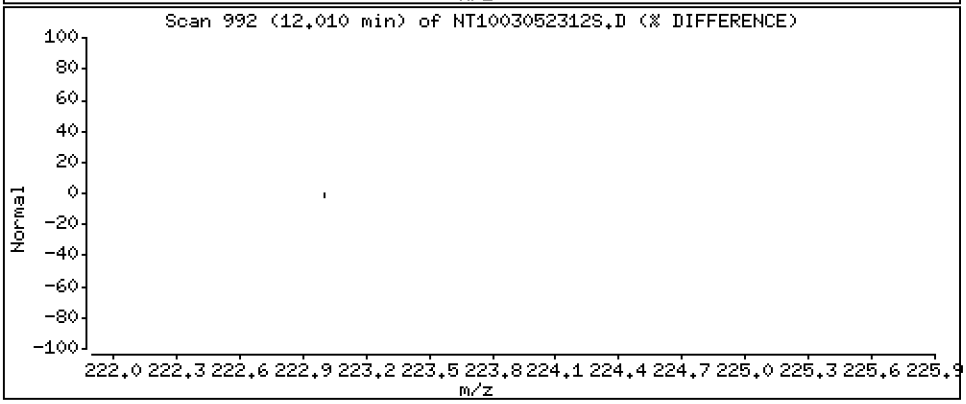












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

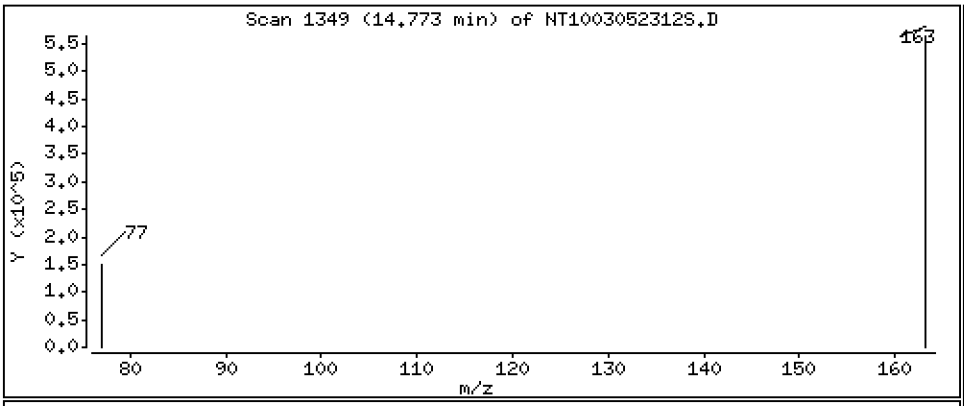
Operator: YZ

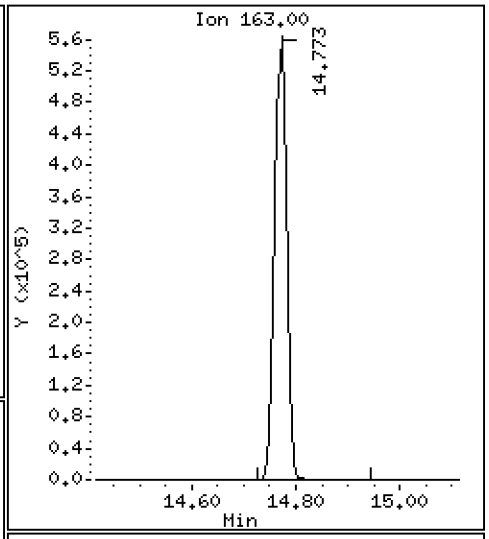
Column phase: ZB-5msi

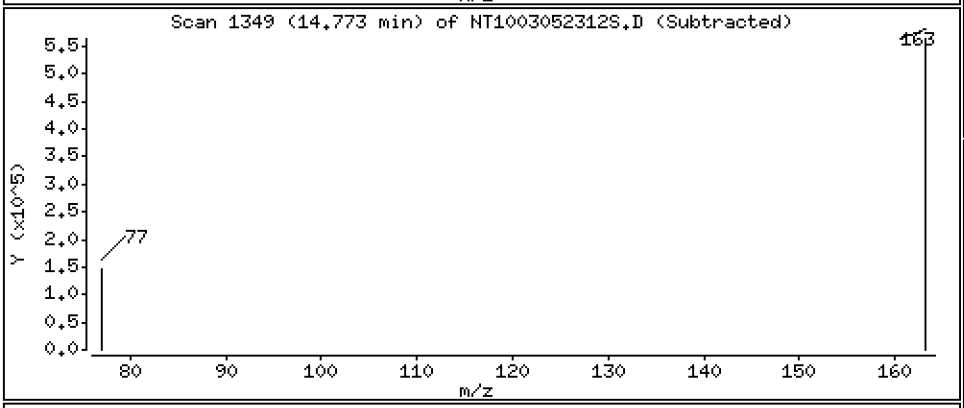
Column diameter: 0.25

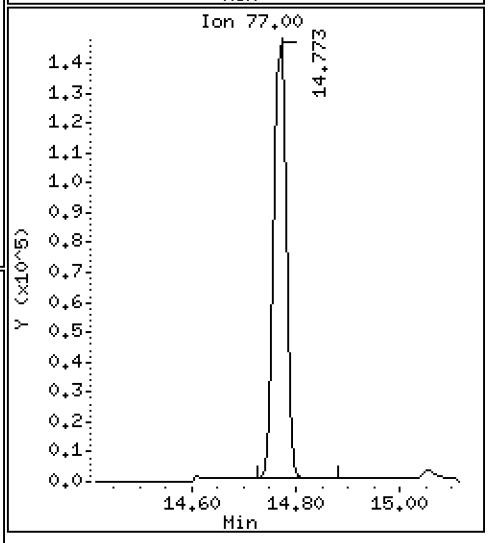
39 Dimethylphthalate

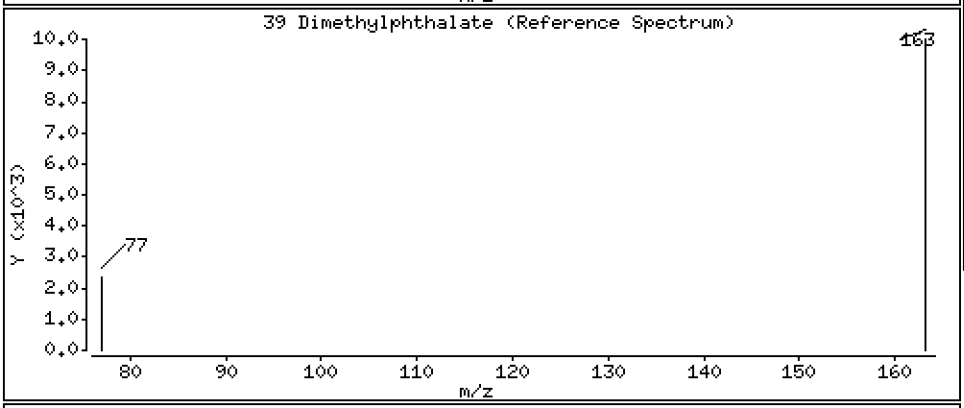
Concentration: 5.280 ug/mL

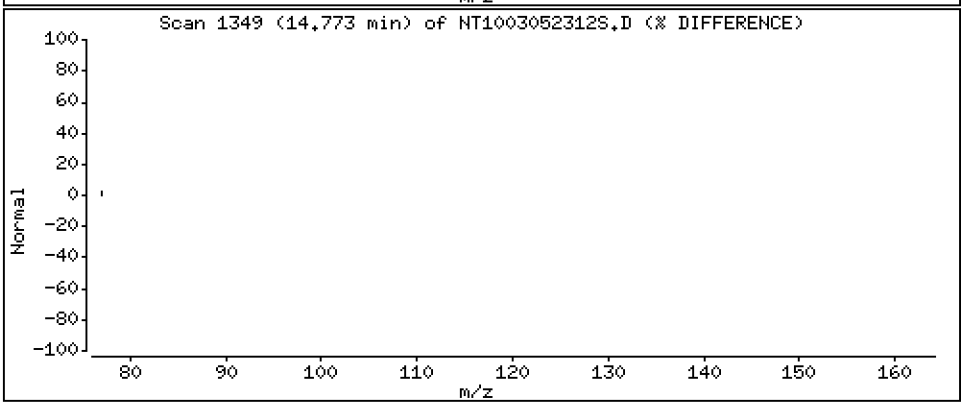












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523125.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

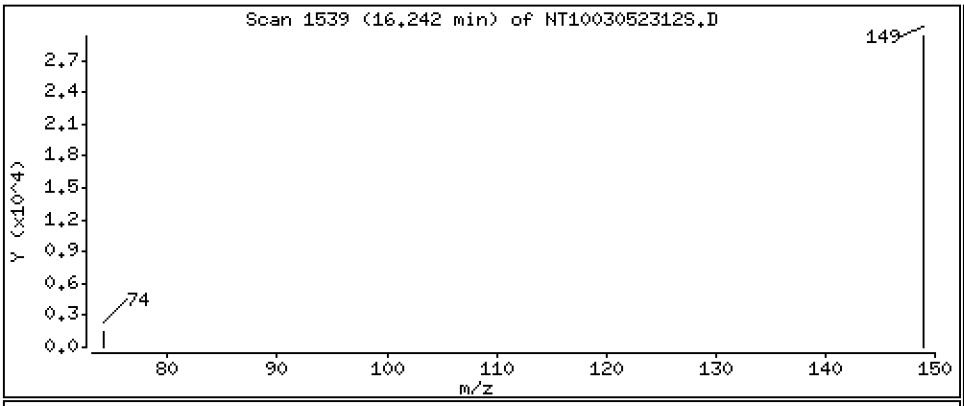
Operator: YZ

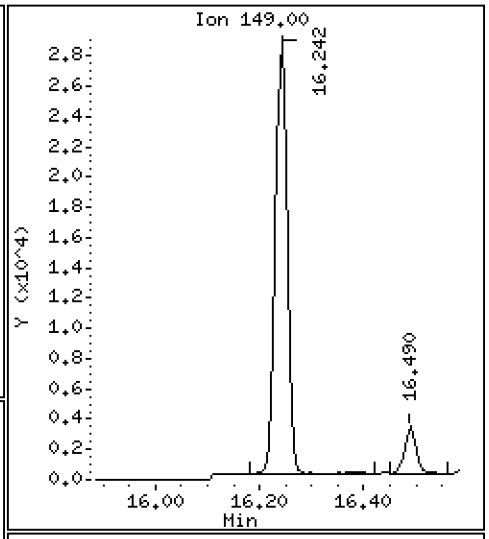
Column phase: ZB-5msi

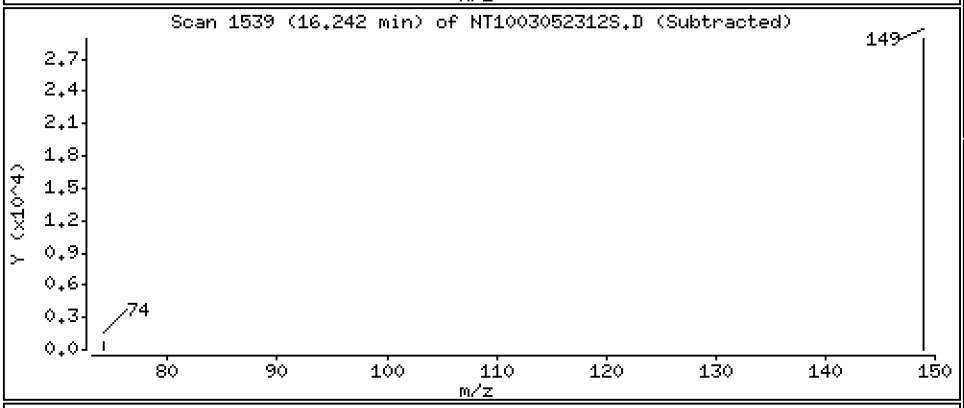
Column diameter: 0.25

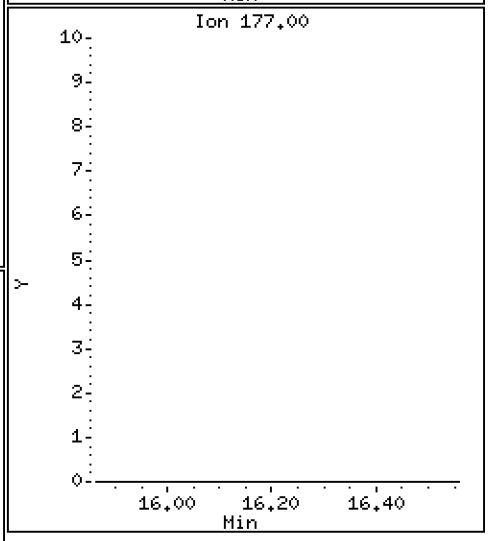
50 Diethylphthalate

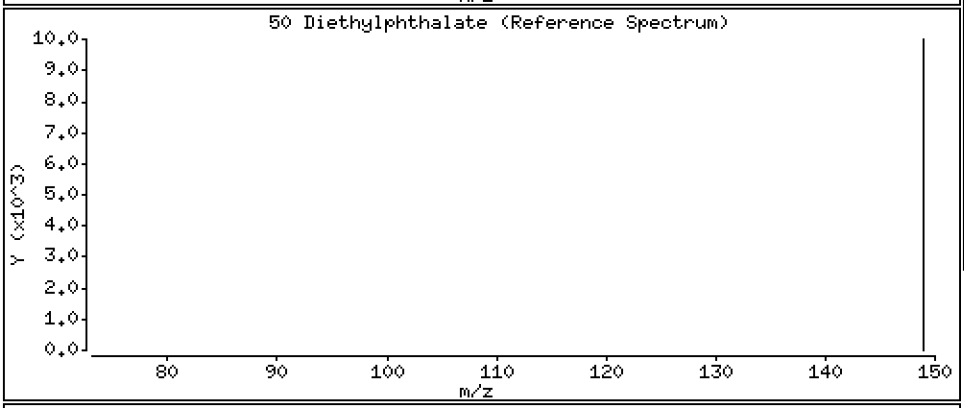
Concentration: 0.2799 ug/mL

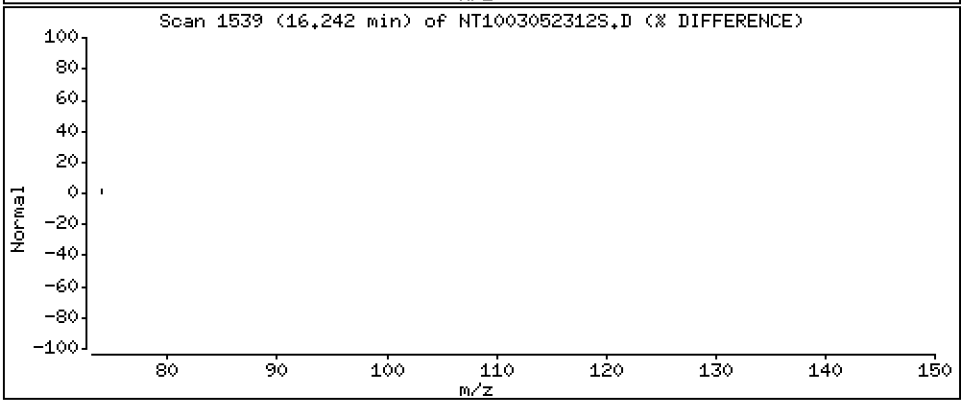












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523125.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

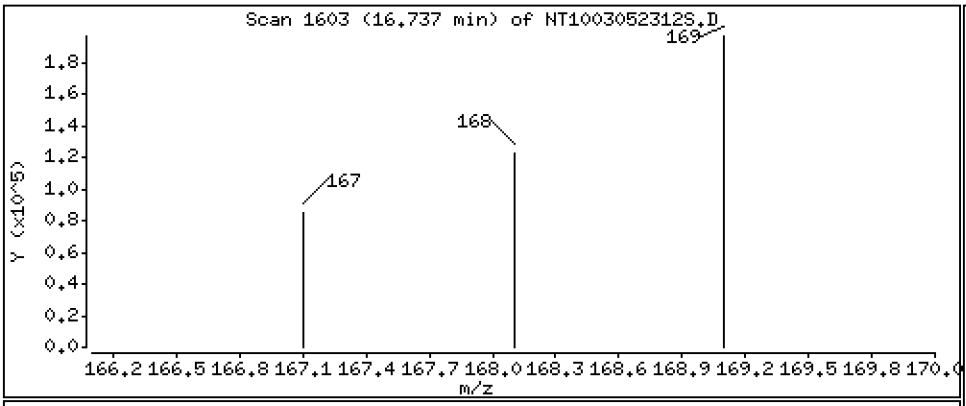
Operator: YZ

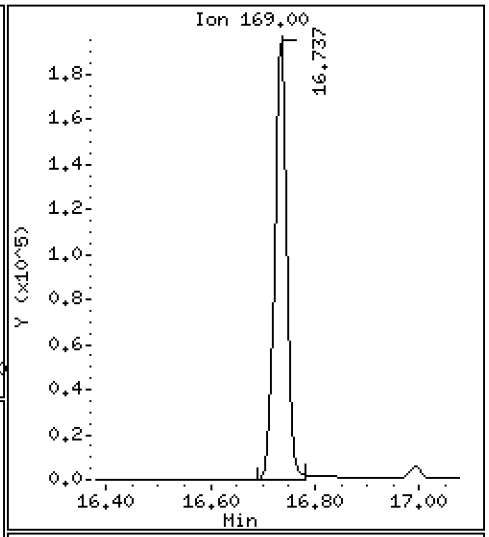
Column phase: ZB-5msi

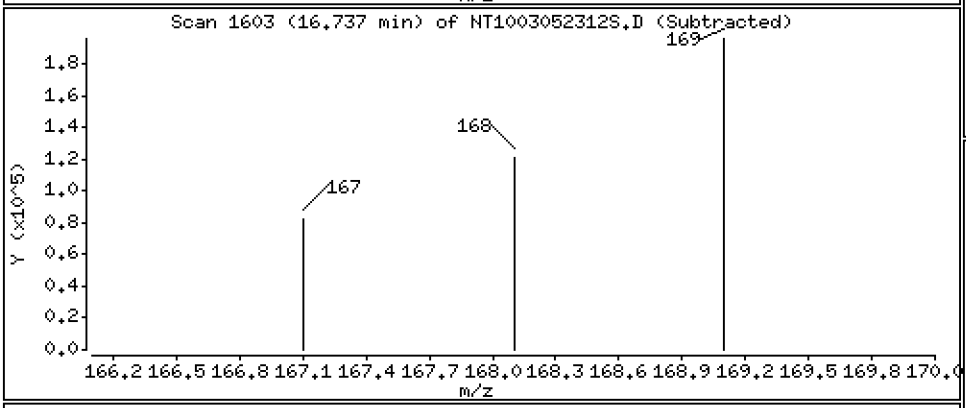
Column diameter: 0.25

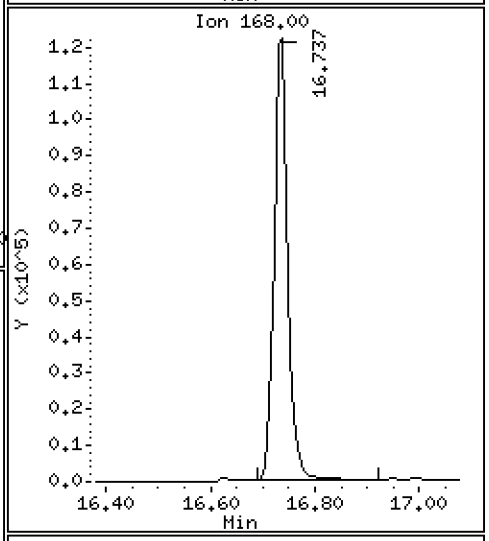
54 N-Nitrosodiphenylamine

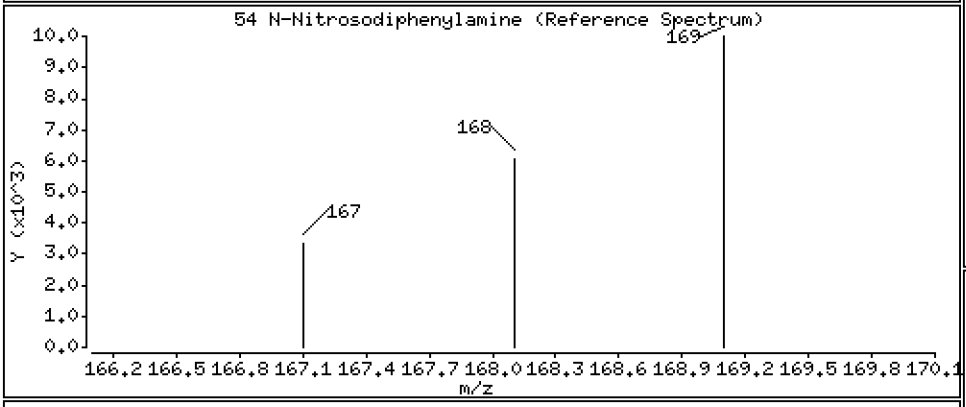
Concentration: 1.908 ug/mL

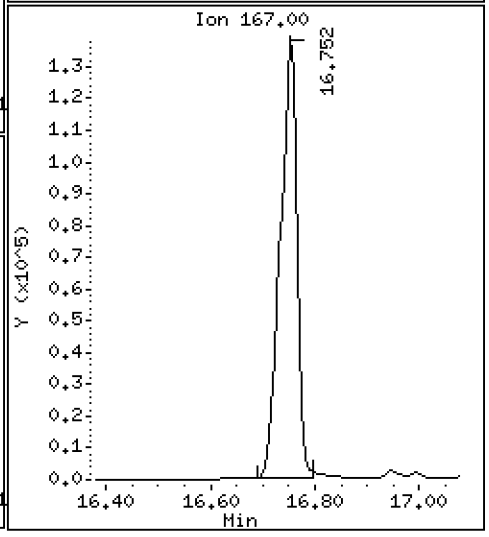


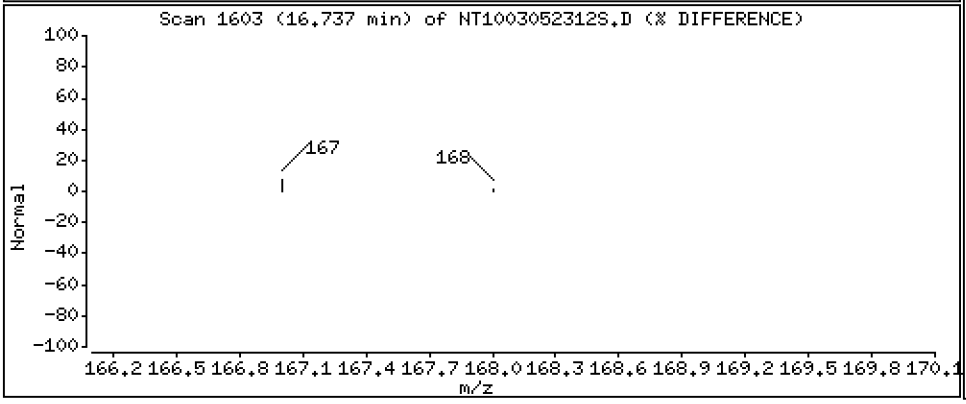












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523125.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

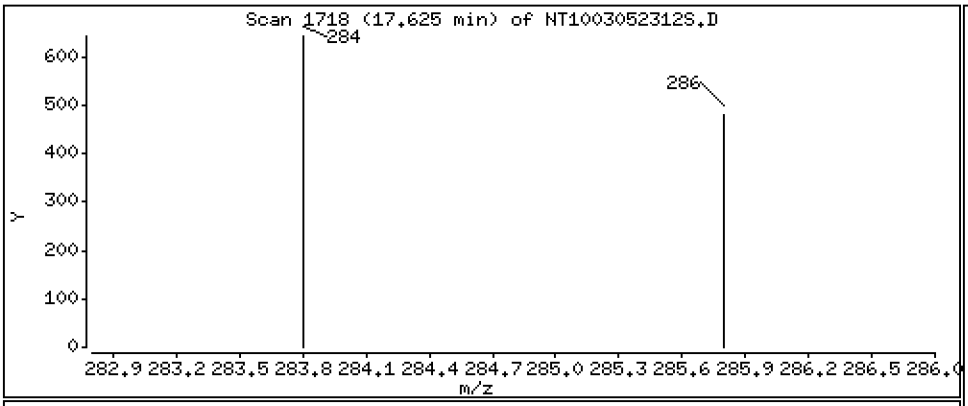
Operator: YZ

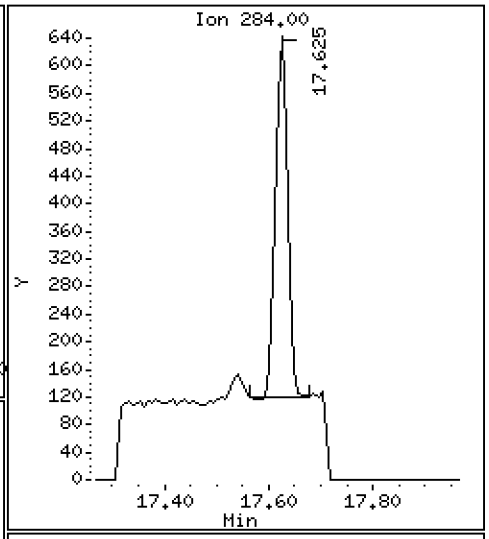
Column phase: ZB-5msi

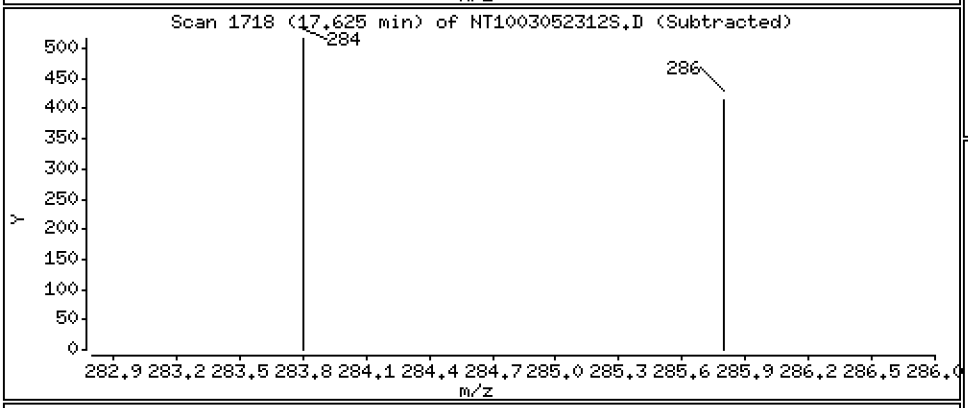
Column diameter: 0.25

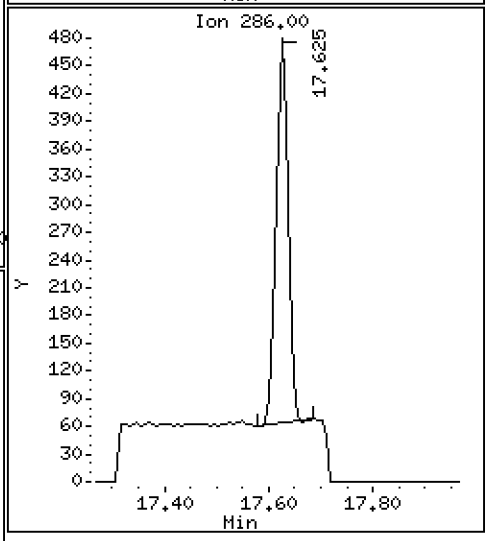
57 Hexachlorobenzene

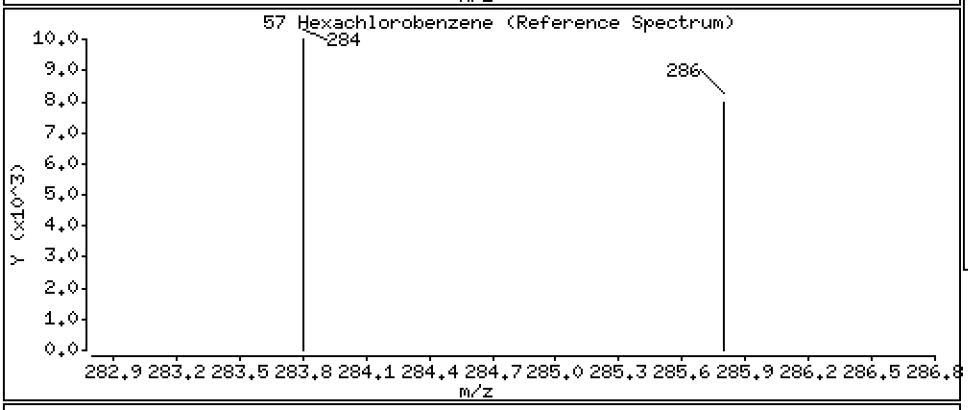
Concentration: 0.01057 ug/mL

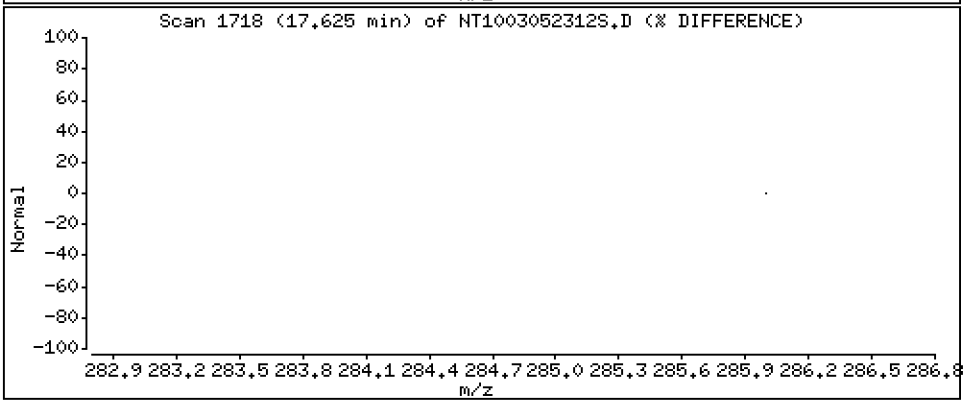












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523125.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

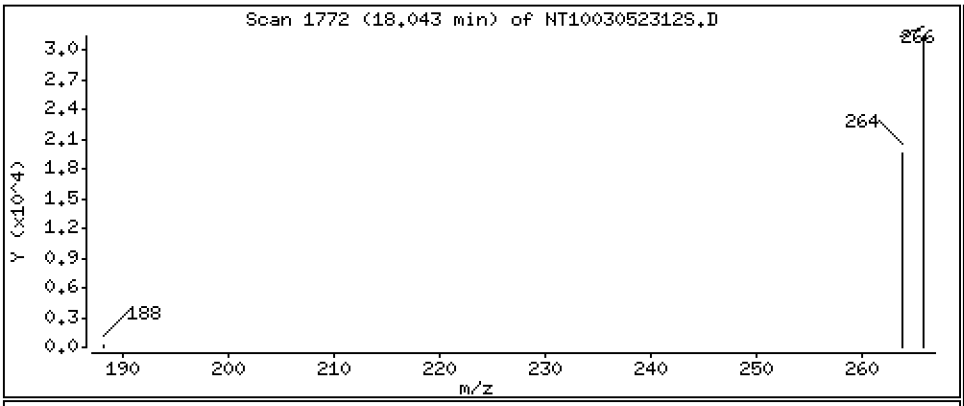
Operator: YZ

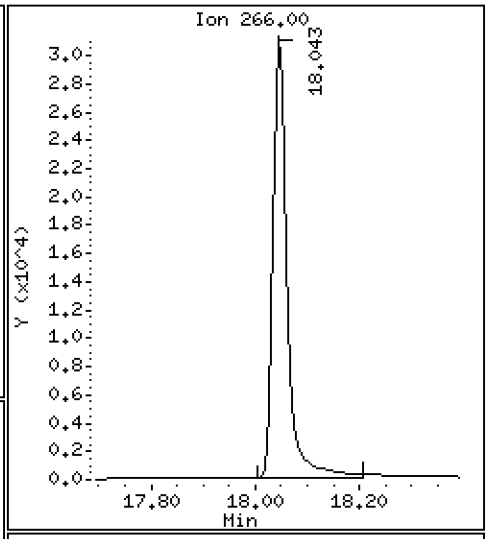
Column phase: ZB-5msi

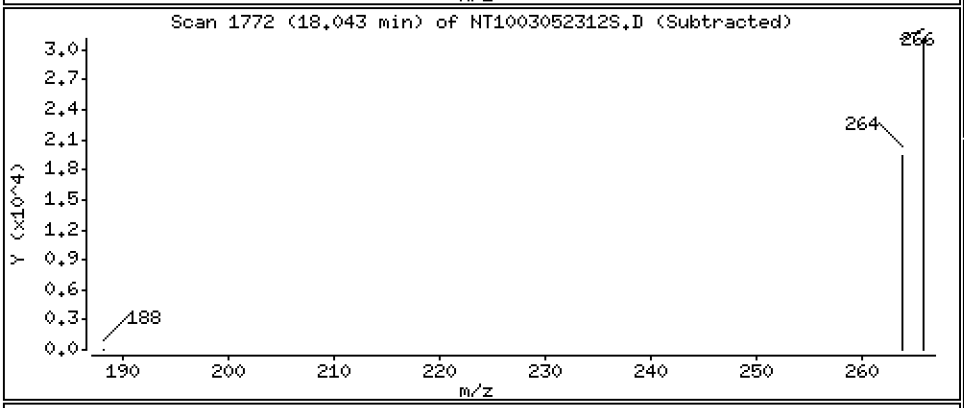
Column diameter: 0.25

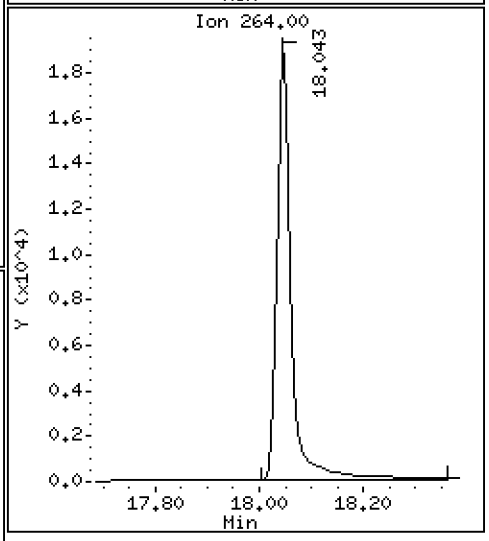
58 Pentachlorophenol

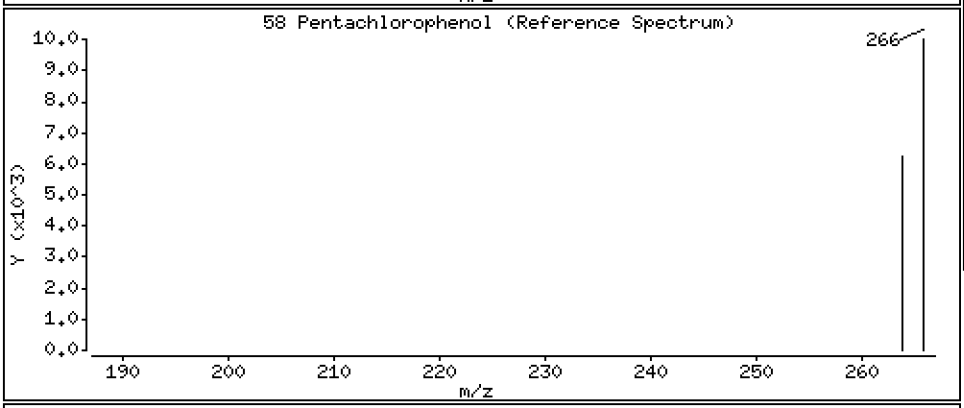
Concentration: 1.647 ug/mL

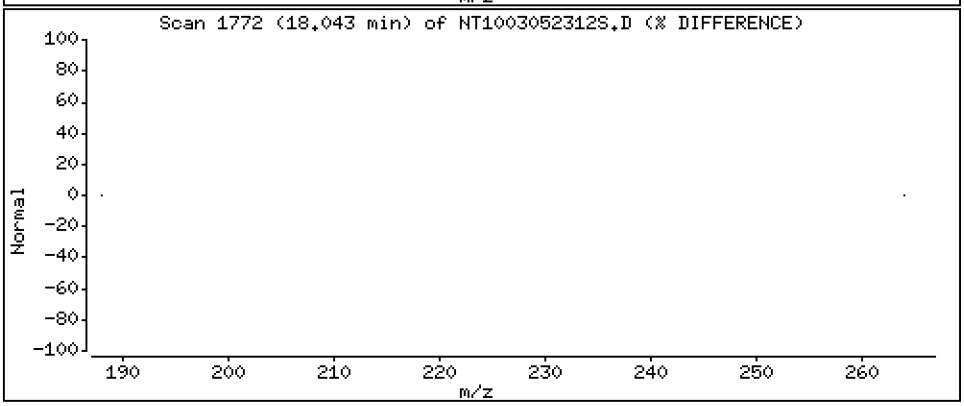












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523125.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

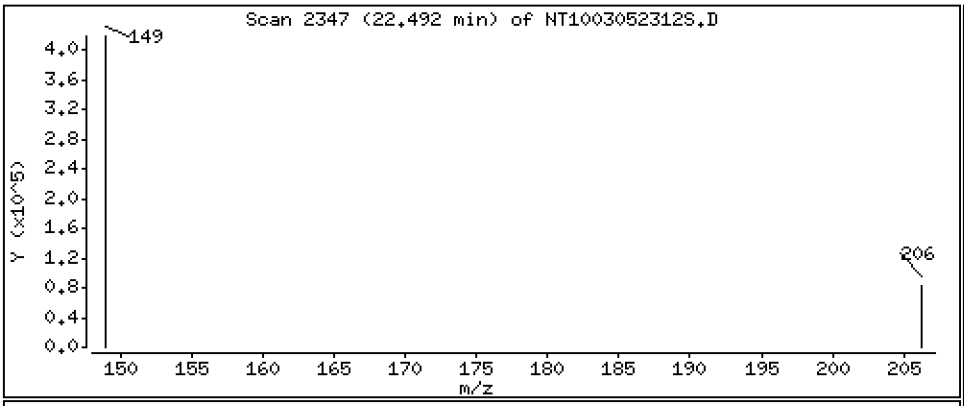
Operator: YZ

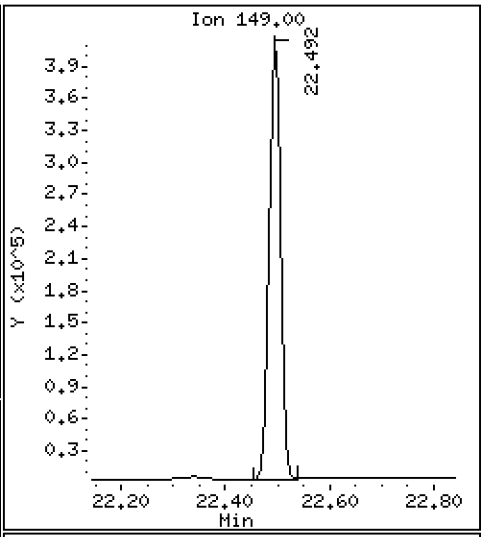
Column phase: ZB-5msi

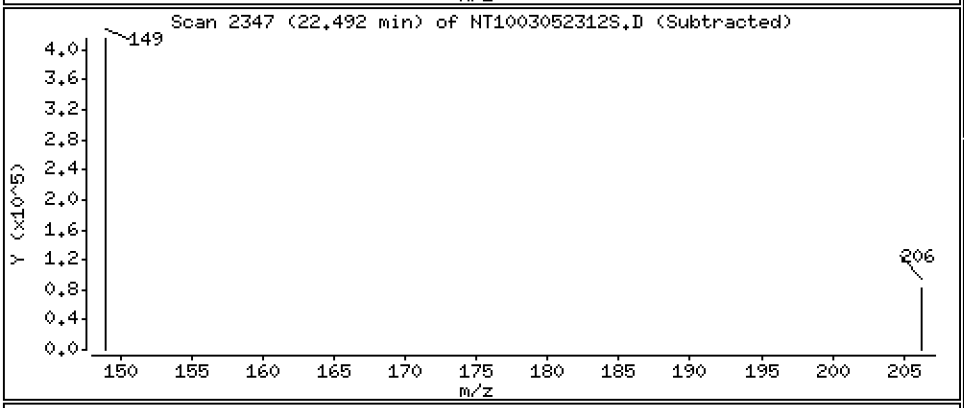
Column diameter: 0.25

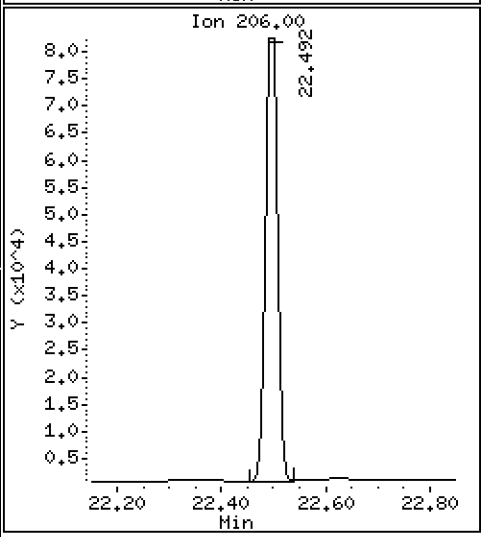
67 Butylbenzylphthalate

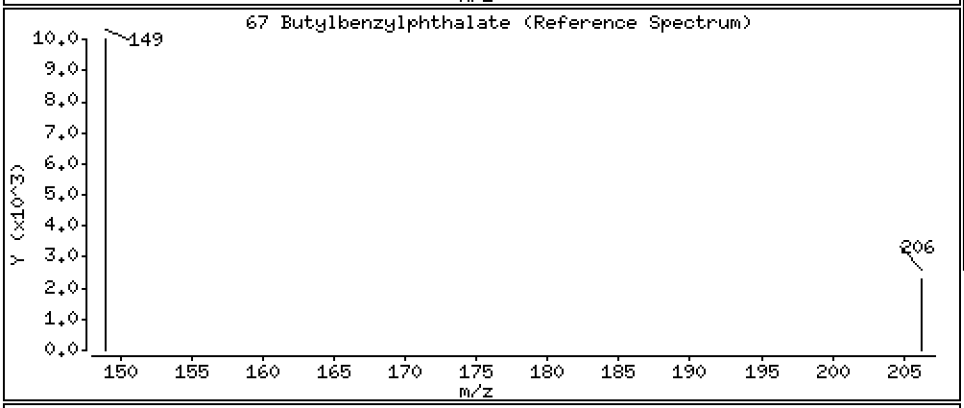
Concentration: 3.475 ug/mL

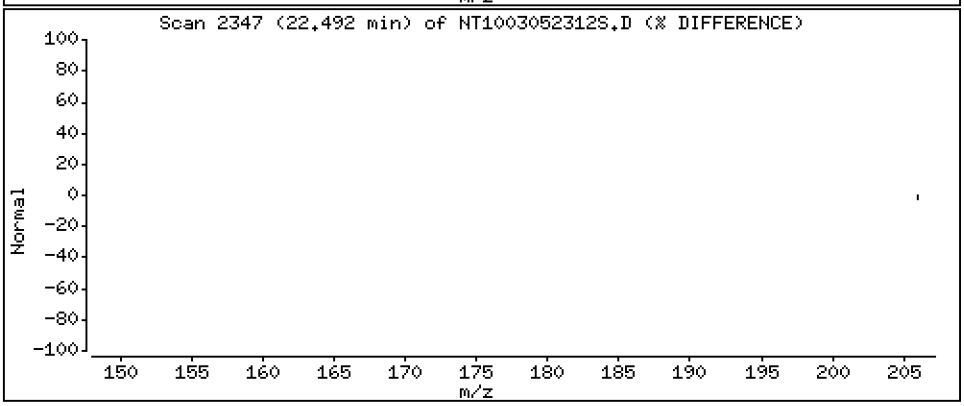












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Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

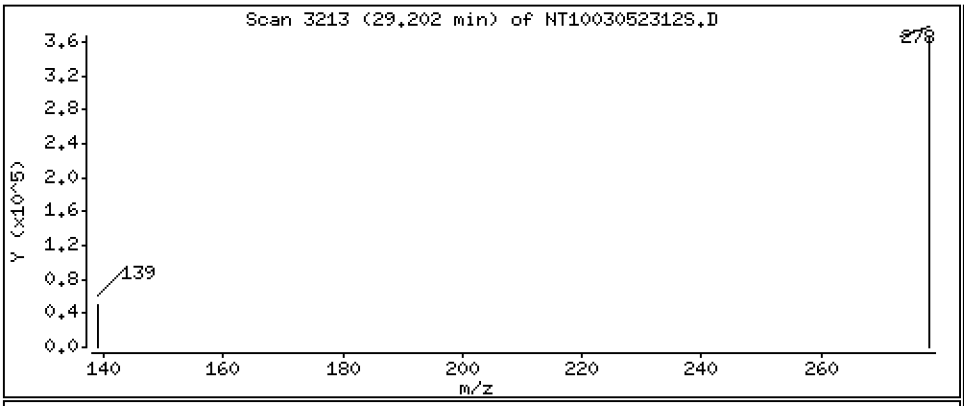
Operator: YZ

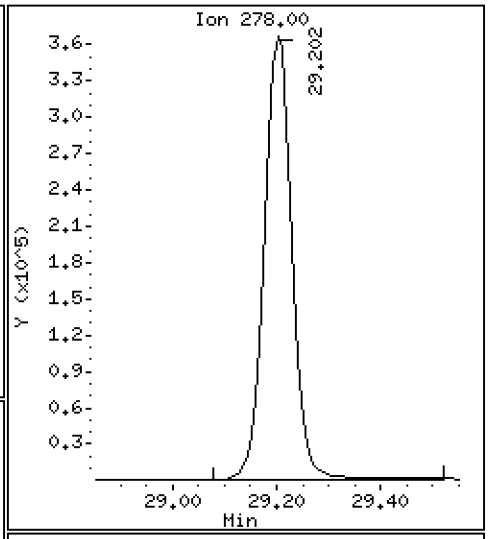
Column phase: ZB-5msi

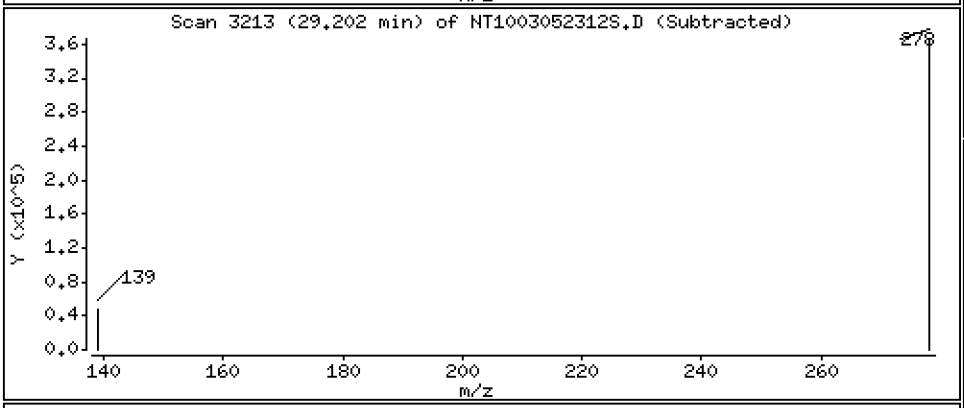
Column diameter: 0.25

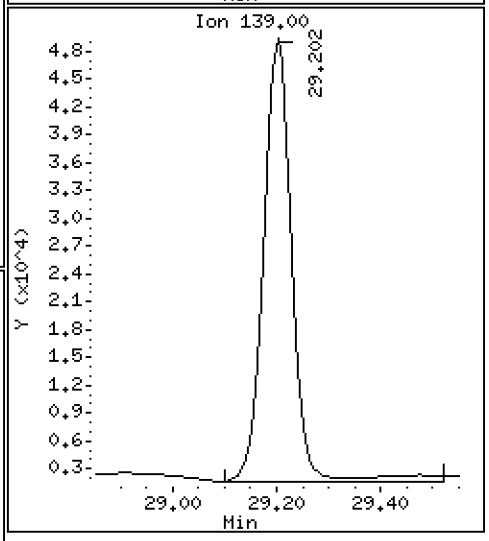
79 Dibenzo(a,h)anthracene

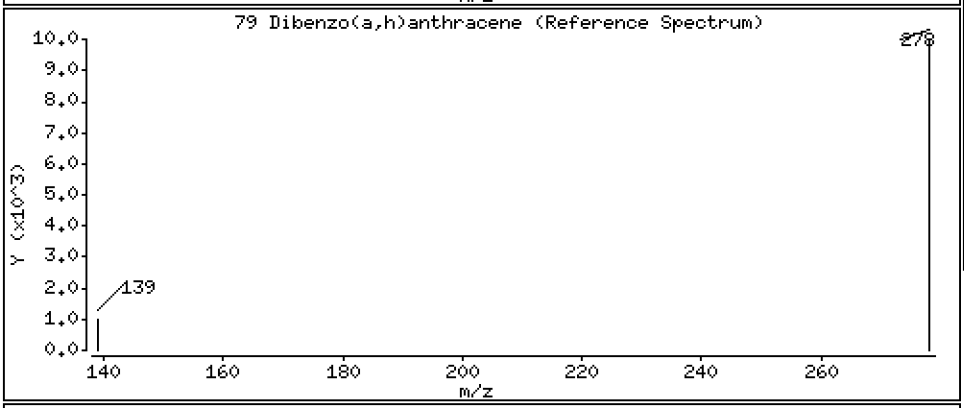
Concentration: 4.721 ug/mL

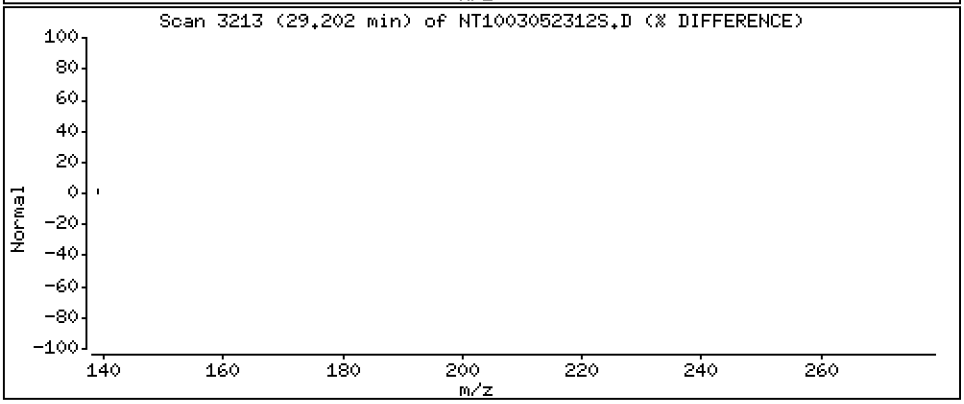












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523125.D

Date : 05-MAR-2023 20:22

Client ID:

Instrument: nt10.i

Sample Info: BLA0685-SRM2

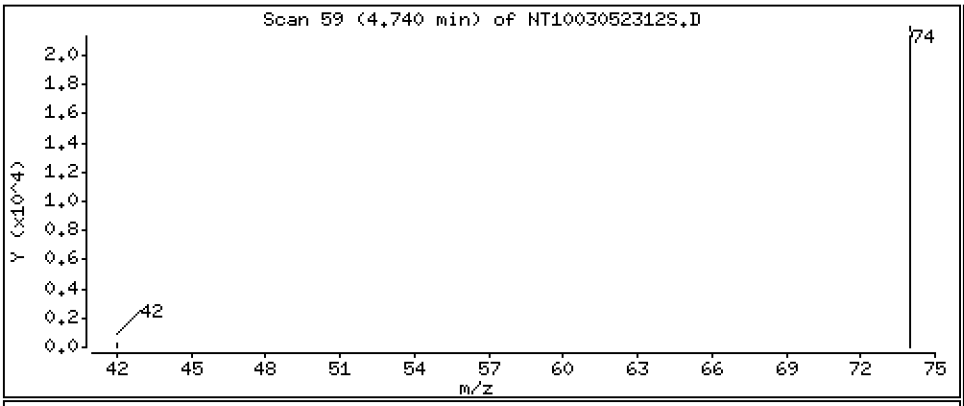
Operator: YZ

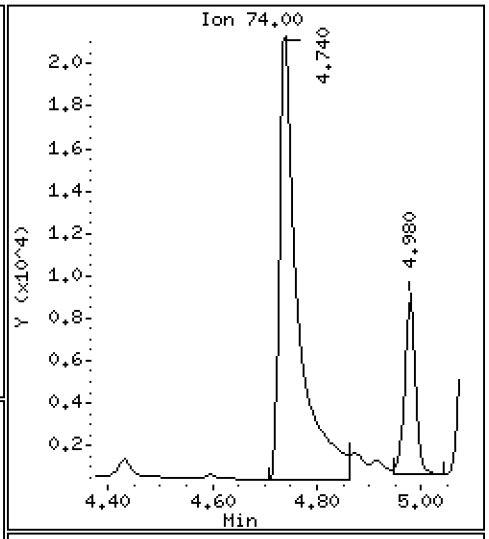
Column phase: ZB-5msi

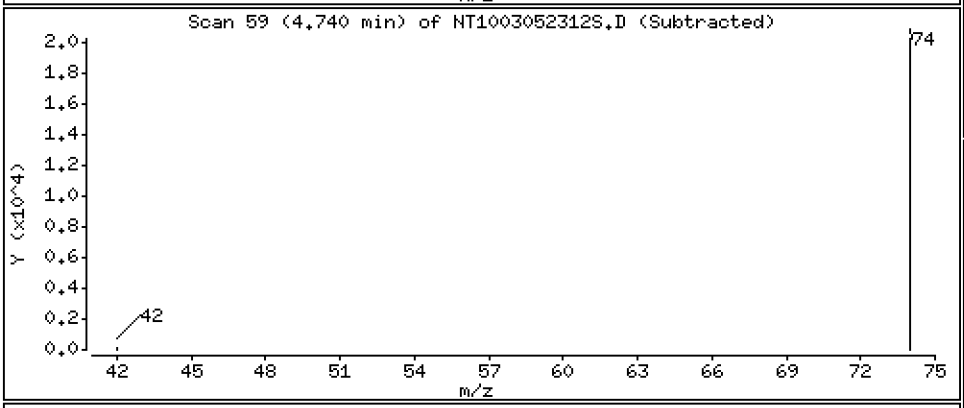
Column diameter: 0.25

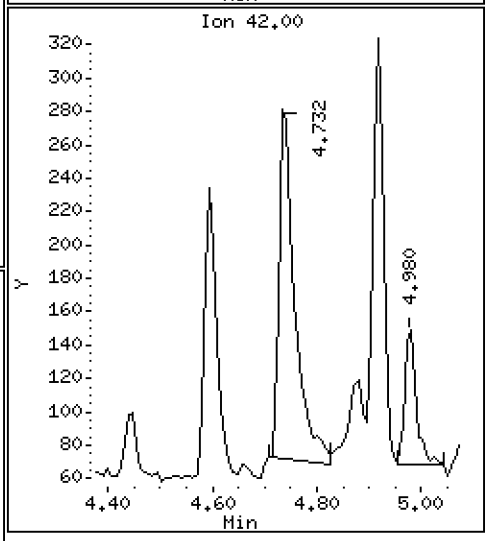
90 N-Nitrosodimethylamine

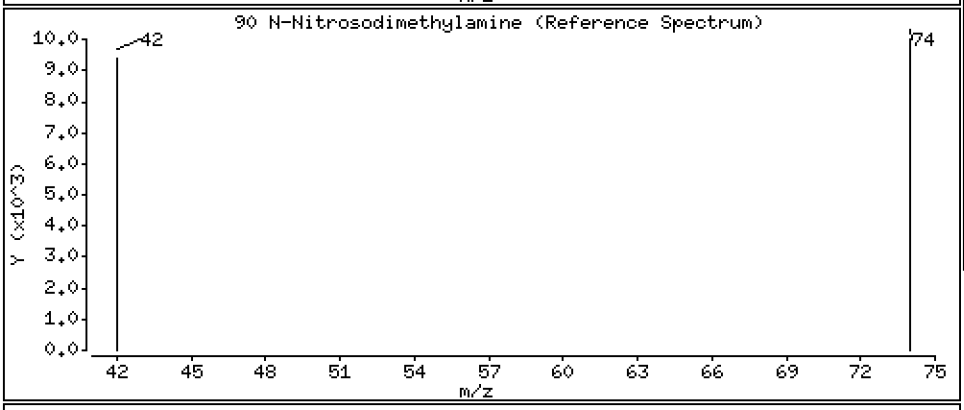
Concentration: 1.081 ug/mL

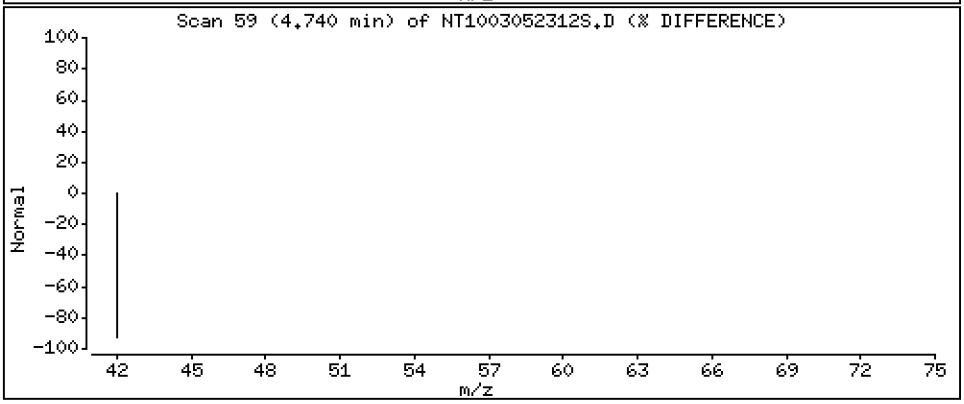












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052312S.D
Lab Smp Id: BLA0685-SRM2
Inj Date : 05-MAR-2023 20:22
Operator : YZ Inst ID: nt10.i
Smp Info : BLA0685-SRM2
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:00 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

							CONCENTRATIONS	
		QUANT SIG					ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
$	1 2-Fluorophenol	112	6.910	6.902	(0.747)	546972	6.57888	6.579(R)
	3 Phenol	94	8.540	8.533	(0.923)	311891	2.51118	2.511
	7 1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	37448	0.34697	0.3470
*	8 1,4-Dichlorobenzene-d4	152	9.252	9.244	(1.000)	291216	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	79	9.546	9.485	(1.032)	16371	0.24018	0.2402
	12 1,2-Dichlorobenzene	146	9.570	9.562	(1.034)	1081	0.01072	0.01072
	13 2-Methylphenol	108	9.678	9.663	(1.046)	422344	5.46272	5.463
	15 4-Methylphenol	108	9.966	9.958	(1.077)	547745	6.60328	6.603
	16 N-Nitroso-di-n-propylamine	70	9.981	9.982	(1.079)	6640	0.12157	0.1216
	22 2,4-Dimethylphenol	107	11.023	11.015	(0.939)	44511	0.51246	0.5125
	24 Benzoic acid	105	11.167	11.116	(0.951)	18496	0.38824	0.3882
	26 1,2,4-Trichlorobenzene	180	11.615	11.608	(0.989)	70111	0.95277	0.9528
*	27 Naphthalene-d8	136	11.739	11.731	(1.000)	1022375	4.00000	
	30 Hexachlorobutadiene	225	12.009	12.002	(1.023)	74530	1.42724	1.427
	39 Dimethylphthalate	163	14.772	14.765	(0.963)	859100	5.27972	5.280
*	42 Acenaphthene-d10	162	15.345	15.337	(1.000)	512455	4.00000	
	50 Diethylphthalate	149	16.241	16.234	(1.058)	42956	0.27994	0.2799(H)
	54 N-Nitrosodiphenylamine	169	16.736	16.729	(0.907)	315589	1.90817	1.908
	57 Hexachlorobenzene	284	17.625	17.617	(0.955)	818	0.01057	0.01057(M)
	58 Pentachlorophenol	266	18.042	18.043	(0.977)	56684	1.64664	1.647
*	59 Phenanthrene-d10	188	18.460	18.453	(1.000)	1021943	4.00000	
$	66 Terphenyl-d14	244	21.602	21.602	(0.918)	563891	6.84217	6.842(R)
	67 Butylbenzylphthalate	149	22.492	22.492	(0.956)	590414	3.47471	3.475
*	69 Chrysene-d12	240	23.522	23.514	(1.000)	1019134	4.00000	
*	77 Perylene-d12	264	26.286	26.286	(1.000)	1141471	4.00000	
	79 Dibenzo(a,h)anthracene	278	29.201	29.202	(1.111)	1343818	4.72068	4.721
	90 N-Nitrosodimethylamine	74	4.740	4.724	(0.512)	53225	1.08131	1.081

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 05-MAR-2023
Lab File ID: NT1003052312S.D Calibration Time: 14:40
Lab Smp Id: BLA0685-SRM2
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	321376	160688	642752	291216	-9.38
27 Naphthalene-d8	1132931	566466	2265862	1022375	-9.76
42 Acenaphthene-d10	561597	280799	1123194	512455	-8.75
59 Phenanthrene-d10	1068222	534111	2136444	1021943	-4.33
69 Chrysene-d12	997572	498786	1995144	1019134	2.16
77 Perylene-d12	1245490	622745	2490980	1141471	-8.35

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.74	0.06
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.46	0.04
69 Chrysene-d12	23.51	23.01	24.01	23.52	0.03
77 Perylene-d12	26.29	25.79	26.79	26.29	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052312S.D

Lab ID: BLA0685-SRM2
nt10.i, 20230305.b\SIM.b\SIMABN2.m,   05-MAR-2023 20:22

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.032	1.026	0.0059	Benzyl alcohol

RRT check based on Ccal File: SIM.b/NT1003052303S.D

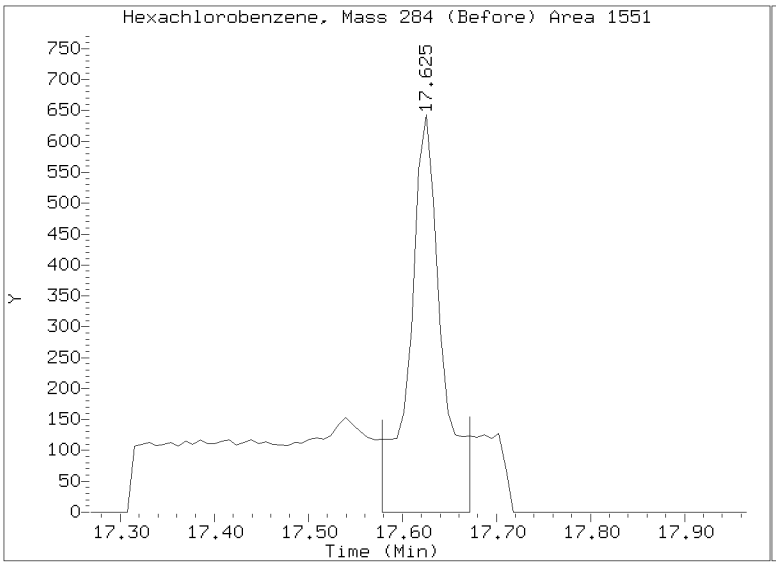
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

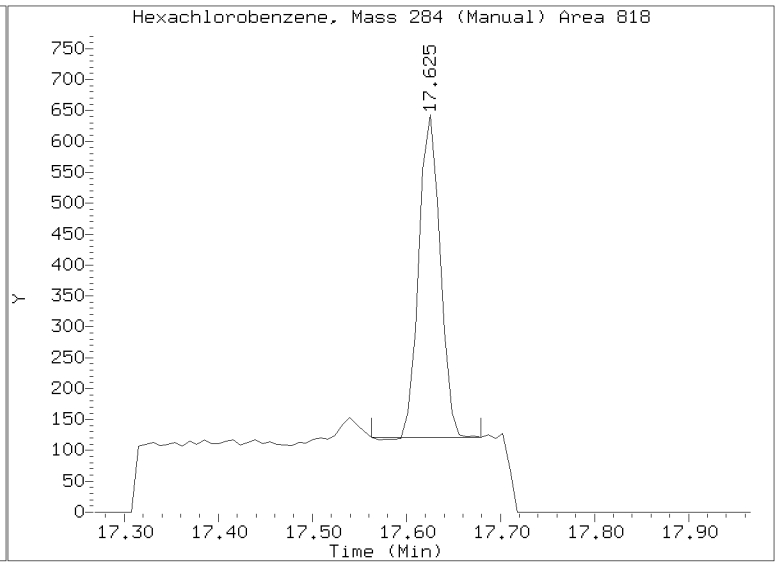
Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305.b/SIM.b/NT1003052312S.D
Injection Date: 05-MAR-2023 20:22
Lab ID:BLA0685-SRM2 Client ID:
Report Date: 03/28/2023 11:05





APPROVED

By Deenay Dunmore at 12:02 pm, Mar 28, 2023

Analytical Resources, LLC
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E-SIM

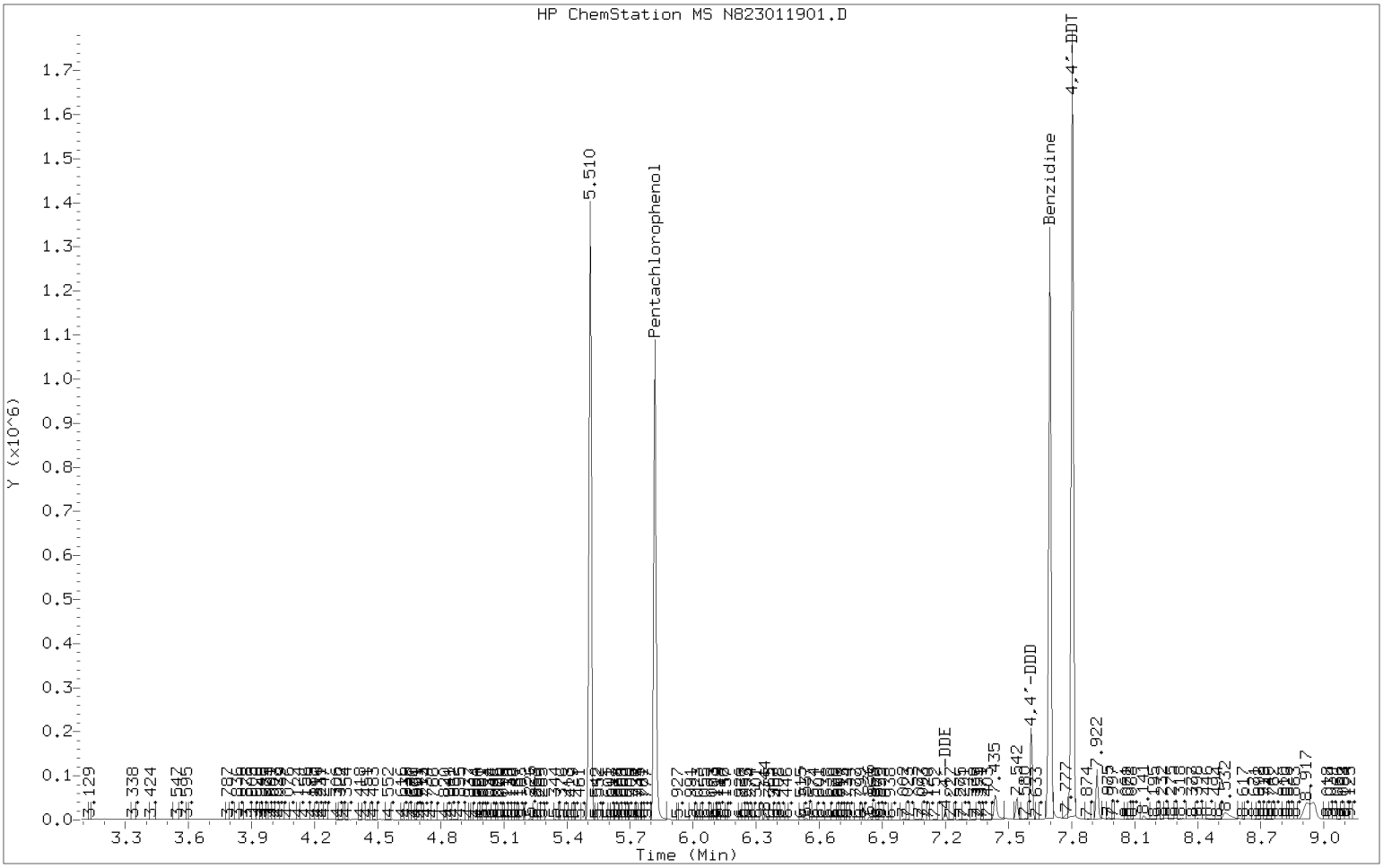
Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Lab File ID:	N823011901.D	Injection Date:	01/19/23
Instrument ID:	NT8	Injection Time:	10:28
Sequence:	SLA0213	Lab Sample ID:	SLA0213-TUN1

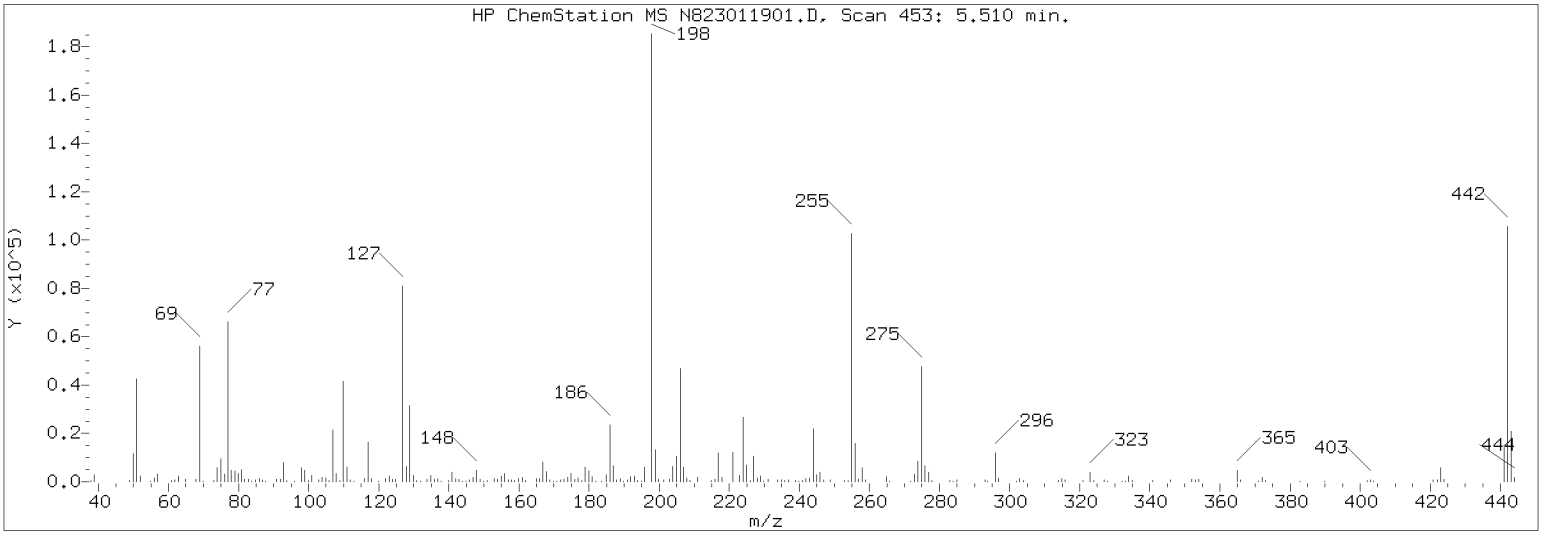
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	1.25	PASS
69	Less than 100% of 198	30.9	PASS
70	Less than 2% of 69	0.208	PASS
197	Less than 2% of 198	0.168	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.89	PASS
365	1 - 100% of 198	2.85	PASS
441	Less than 150% of 443	72.9	PASS
442	1 - 200% of 198	67.9	PASS
443	15 - 24% of 442	19.6	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SLA0213-TUN1	N823011901.D	01/19/2023	10:28
Initial Cal Blank	SLA0213-ICB1	N823011902.D	01/19/2023	10:59
Cal Standard	SLA0213-CAL1	N823011903.D	01/19/2023	11:26
Cal Standard	SLA0213-CAL2	N823011904.D	01/19/2023	11:58
Cal Standard	SLA0213-CAL3	N823011905.D	01/19/2023	12:25
Cal Standard	SLA0213-CAL4	N823011906.D	01/19/2023	12:52
Cal Standard	SLA0213-CAL5	N823011907.D	01/19/2023	13:19
Cal Standard	SLA0213-CAL6	N823011908.D	01/19/2023	13:46
Secondary Cal Check	SLA0213-SCV1	N823011909.D	01/19/2023	14:58

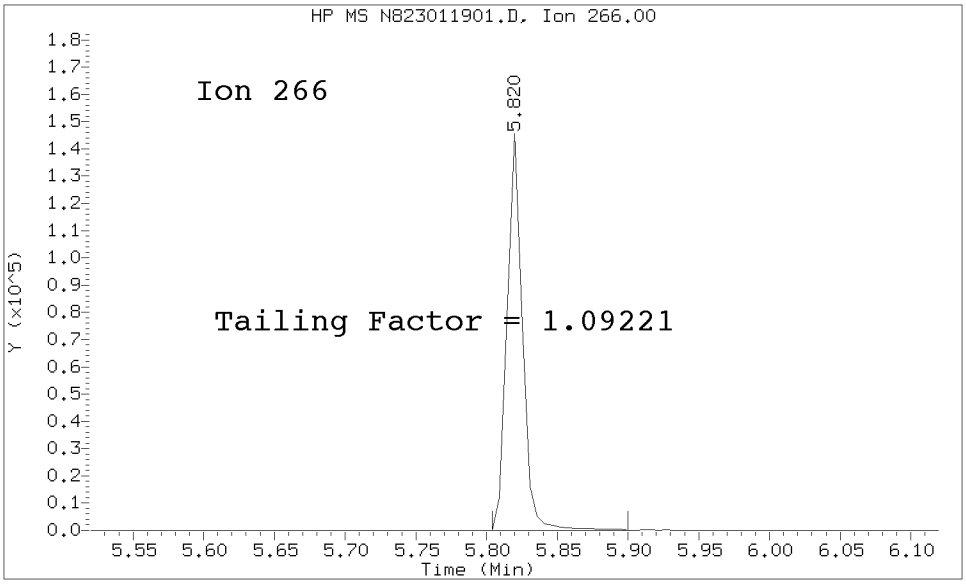
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230119.b/tune.b/N823011901.D/N823011901.D
Method Used: \20230119.b\tune.b\DFTPP.m Inst: nt8
Injection Date: 19-JAN-2023 10:28 Operator: JZ
Sample Info: SLA0213-TUN1 DFTPP230119
Report Date: 01/19/2023 20:14



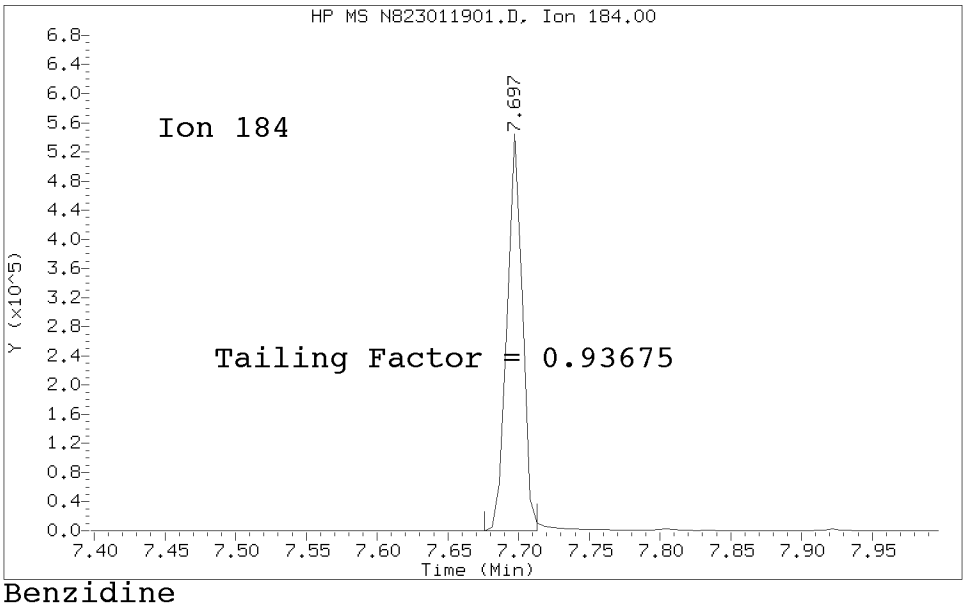


Datafile Analyzed: /20230119.b/tune.b/N823011901.D/N823011901.D
Method Used: \20230119.b\tune.b\DFTPP.m\sw846ddt.m Inst: nt8
Injection Date: 19-JAN-2023 10:28 Operator: JZ
Sample Info: DFTPP230119
Report Date: 01/19/2023 20:14



Pentachlorophenol
==========
Exp. RT = 5.825
Found RT = 5.820

Tail Factor = 1.092 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.703
Found RT = 7.697

Tail Factor = 0.937 Maximum Allowed = 2.0

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	23.71
68	Less than 2.00% of mass 69	0.39 (1.25)
69	Mass 69 relative abundance	30.92
70	Less than 2.00% of mass 69	0.06 (0.21)
127	10.00 - 80.00% of mass 198	44.20
197	Less than 2.00% of mass 198	0.17
199	5.00 - 9.00% of mass 198	6.89
275	10.00 - 60.00% of mass 198	26.96
365	Greater than 1.00% of mass 198	2.85
441	0.01 - 24.00% of mass 442	9.72 (14.32)
442	50.00 - 200.00% of mass 198	67.89
443	15.00 - 24.00% of mass 442	13.33 (19.64)

Data File: N823011901.D
Spectrum: Avg. Scans 452-454 (5.51), Background Scan 448
Location of Maximum: 198.00
Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	424	124.00	727	188.00	466	265.00	1738
39.00	2285	125.00	694	189.00	1088	266.00	231
49.00	389	127.00	59064	190.00	92	272.00	97
50.00	8567	128.00	4618	191.00	538	273.00	2435
51.00	31688	129.00	23208	192.00	1501	274.00	6434
52.00	1694	130.00	1967	193.00	1652	275.00	36032
55.00	89	131.00	387	194.00	339	276.00	4936
56.00	1081	132.00	92	195.00	108	277.00	3133
57.00	2353	134.00	695	196.00	4417	278.00	496
61.00	487	135.00	1887	197.00	224	283.00	243
62.00	511	136.00	770	198.00	133632	284.00	200
63.00	1627	137.00	979	199.00	9210	285.00	536
65.00	865	138.00	101	200.00	711	293.00	678
68.00	518	140.00	220	201.00	653	294.00	83
69.00	41320	141.00	2913	203.00	891	296.00	9364
70.00	86	142.00	931	204.00	4715	297.00	1310
73.00	274	143.00	728	205.00	8070	302.00	96
74.00	4327	144.00	83	206.00	34104	303.00	1146
75.00	6885	145.00	91	207.00	4557	304.00	262
76.00	2362	146.00	508	208.00	1177	314.00	364
77.00	48072	147.00	1540	209.00	387	315.00	1068
78.00	3441	148.00	3391	210.00	236	316.00	588
79.00	3296	149.00	690	211.00	1430	321.00	250
80.00	2464	150.00	90	215.00	376	323.00	3145
81.00	3741	151.00	458	216.00	746	324.00	501
82.00	872	152.00	181	217.00	9085	327.00	540
83.00	845	153.00	893	218.00	1189	328.00	201
84.00	287	154.00	764	221.00	8442	332.00	178
85.00	621	155.00	1756	223.00	2039	333.00	129
86.00	1039	156.00	2503	224.00	19544	334.00	1893
87.00	481	157.00	527	225.00	5122	335.00	518
88.00	91	158.00	516	226.00	502	341.00	275
91.00	866	159.00	410	227.00	8274	346.00	674
92.00	878	160.00	955	228.00	1174	352.00	945
93.00	5816	161.00	1421	229.00	1712	353.00	630
94.00	409	162.00	445	230.00	111	354.00	910
96.00	203	165.00	1085	231.00	685	365.00	3802
98.00	4243	166.00	1023	234.00	538	366.00	580
99.00	3501	167.00	5993	235.00	568	371.00	91
100.00	344	168.00	3082	236.00	394	372.00	1475
101.00	1983	169.00	490	237.00	657	373.00	292
103.00	704	170.00	94	239.00	327	383.00	290
104.00	1275	171.00	194	240.00	187	390.00	177
105.00	1230	172.00	595	241.00	468	402.00	468
106.00	379	173.00	732	242.00	1090	403.00	736
107.00	15826	174.00	1319	243.00	1102	404.00	243
108.00	2447	175.00	2491	244.00	16206	421.00	649
109.00	331	176.00	751	245.00	2245	422.00	226
110.00	30008	177.00	1175	246.00	3000	423.00	4860

111.00	4456	178.00	288	247.00	624	424.00	978
112.00	513	179.00	4561	249.00	587	441.00	12991
113.00	89	180.00	3271	253.00	239	442.00	90720
116.00	935	181.00	1513	254.00	438	443.00	17816
117.00	12513	182.00	106	255.00	76904	444.00	1584
118.00	931	184.00	333	256.00	11699		
120.00	104	185.00	2153	257.00	880		
122.00	1003	186.00	17336	258.00	4539		
123.00	1682	187.00	4916	259.00	746		

Analytical Resources, LLC
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E-SIM

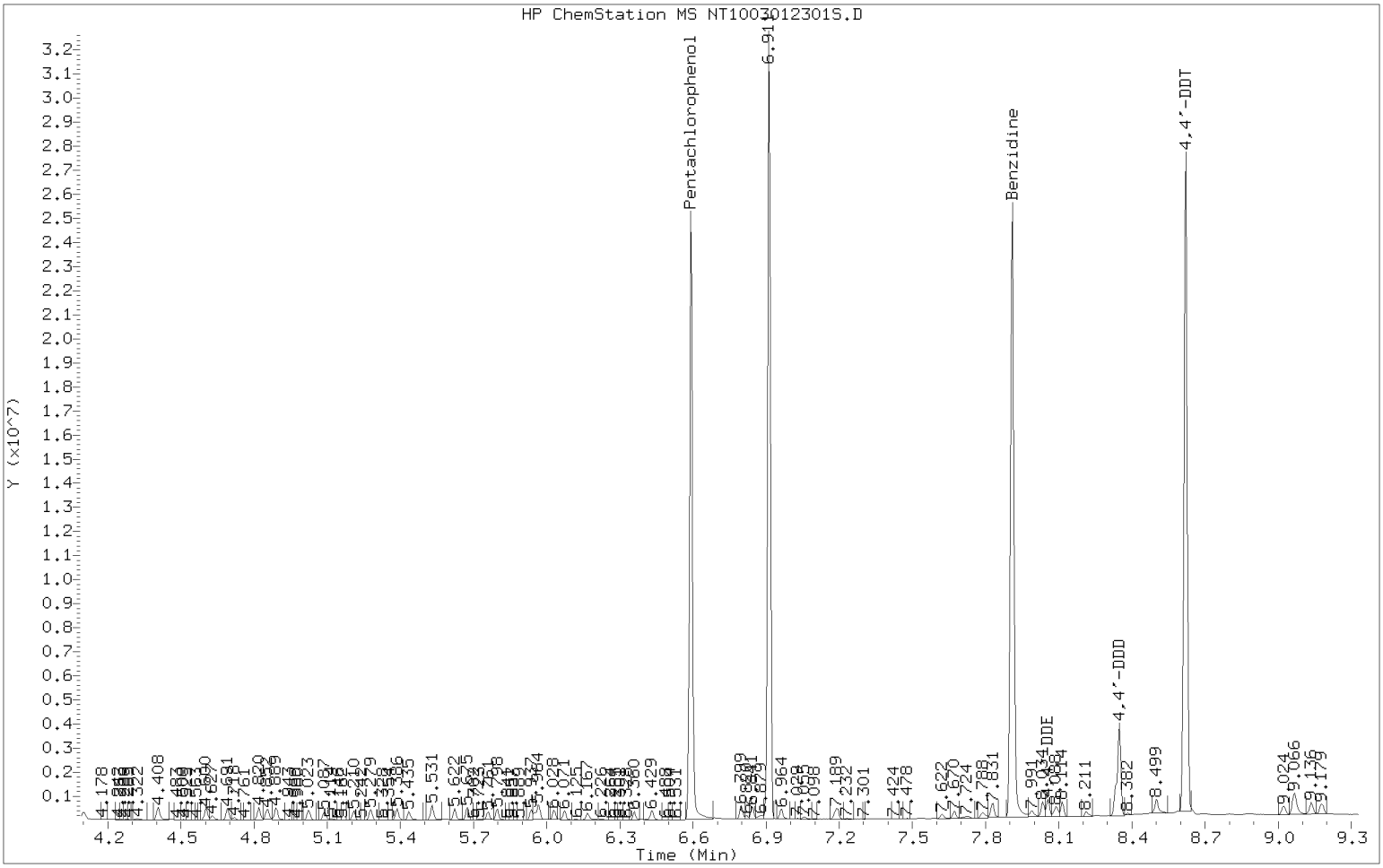
Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Lab File ID:	NT1003012301S.D	Injection Date:	03/01/23
Instrument ID:	NT10	Injection Time:	15:49
Sequence:	SLC0143	Lab Sample ID:	SLC0143-TUN1

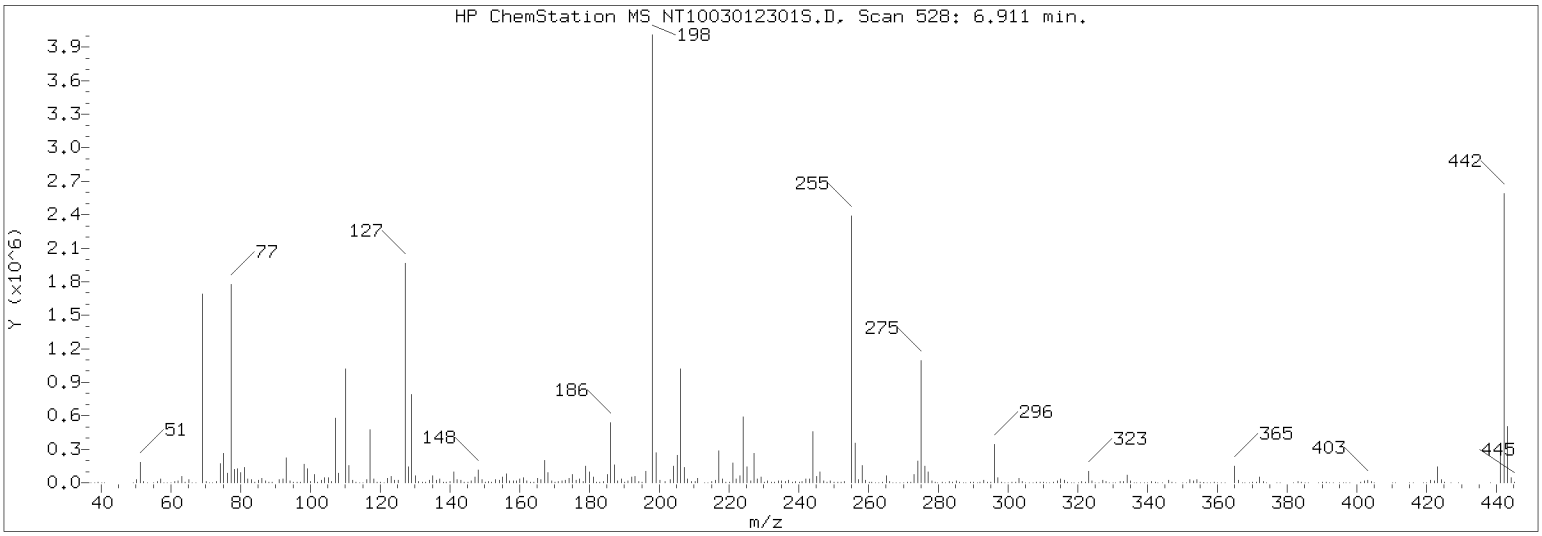
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	0.793	PASS
69	Less than 100% of 198	41.1	PASS
70	Less than 2% of 69	0.366	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.67	PASS
365	1 - 100% of 198	4.33	PASS
441	Less than 150% of 443	73.4	PASS
442	1 - 200% of 198	80.1	PASS
443	15 - 24% of 442	19.1	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Less than 200% of		

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SLC0143-TUN1	NT1003012301S.D	03/01/2023	15:49
Cal Standard	SLC0143-CAL8	NT1003012303S.D	03/01/2023	16:42
Cal Standard	SLC0143-CAL7	NT1003012304S.D	03/01/2023	17:21
Cal Standard	SLC0143-CAL6	NT1003012305S.D	03/01/2023	17:59
Cal Standard	SLC0143-CAL5	NT1003012306S.D	03/01/2023	18:37
Cal Standard	SLC0143-CAL4	NT1003012307S.D	03/01/2023	19:15
Cal Standard	SLC0143-CAL3	NT1003012308S.D	03/01/2023	19:53
Cal Standard	SLC0143-CAL2	NT1003012309S.D	03/01/2023	20:30
Cal Standard	SLC0143-CAL1	NT1003012310S.D	03/01/2023	21:09
Secondary Cal Check	SLC0143-SCV1	NT1003012311S.D	03/01/2023	21:46
Initial Cal Blank	SLC0143-ICB1	NT1003012312S.D	03/01/2023	22:24

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230301.b/SIM.b/NT1003012301S.D/NT1003012301S.D
Method Used: \20230301.b\SIM.b\DFTPP8270E.m Inst: nt10
Injection Date: 01-MAR-2023 15:49 Operator: JGR
Sample Info: SLC0143-TUN1 SLC0143-TUN1
Report Date: 07/05/2023 09:35





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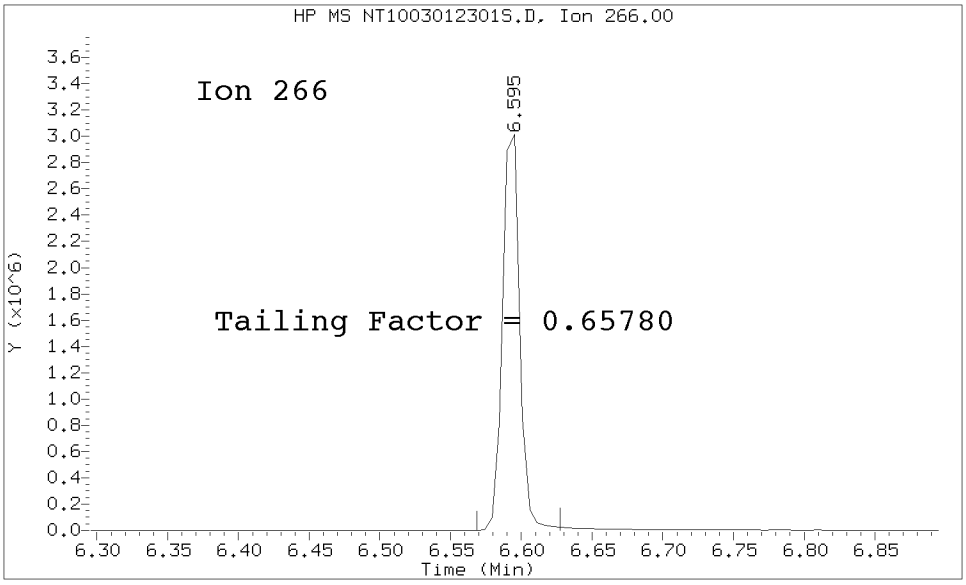
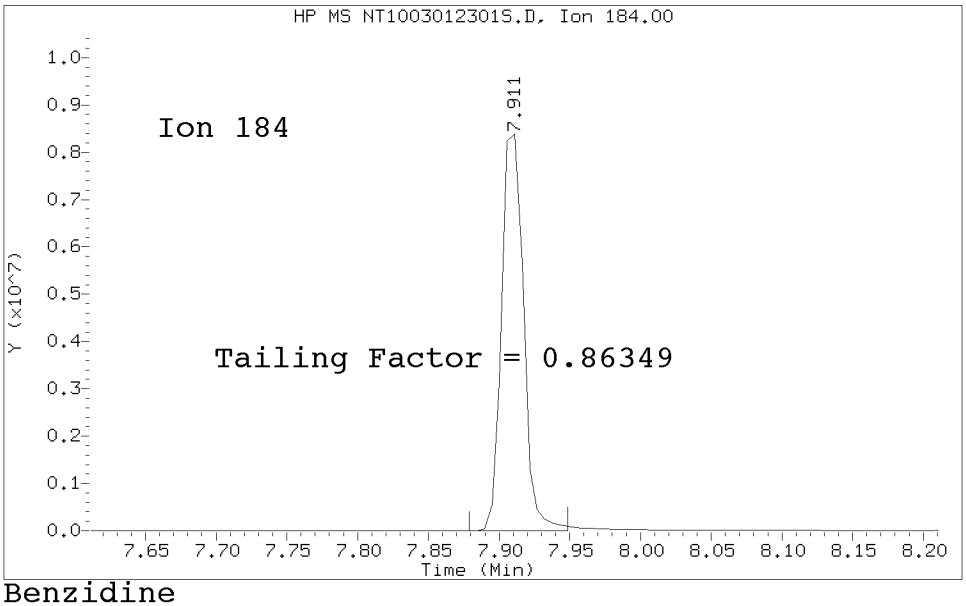
Method Used: \20230301.b\DFTPP8270E.m\sw846ddt.m Inst: nt10
Injection Date: 01-MAR-2023 15:49 Operator: JGR
Sample Info: SEQ-TUN1
Report Date: 07/05/2023 09:35



Pentachlorophenol
==========
Exp. RT = 6.590
Found RT = 6.595

Tail Factor = 0.658 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.911
Found RT = 7.911

Tail Factor = 0.863 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.6578035	2.000	PASS
Benzidine	0.8634886	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	4780124			N/A
4,4-DDE	47256	1.0	20.0	PASS
4,4-DDD	542360	10.2	20.0	PASS
4,4-DDD + DDE	589616	11.0	20.0	PASS

Tuning Sample, nt10.i/20230301.b/SIM.b/NT1003012301S.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.33 (0.79)
69	Mass 69 relative abundance	41.10
70	Less than 2.00% of mass 69	0.15 (0.37)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.67
365	1.00 - 100.00% of mass 198	4.33
441	Less than 150.00% of mass 443	11.23 (73.44)
442	Less than 200.00% of mass 198	80.08
443	15.00 - 24.00% of mass 442	15.30 (19.10)

Data File: NT1003012301S.D
Spectrum: Avg. Scans 527-529 (6.91), Background Scan 522
Location of Maximum: 198.00
Number of points: 369

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	462	140.00	7430	237.00	14976	332.00	6725
38.00	1113	141.00	70248	238.00	2080	333.00	7901
39.00	4743	142.00	22264	239.00	7687	334.00	53800
40.00	108	143.00	15456	240.00	6126	335.00	13827
45.00	84	144.00	4558	241.00	9927	336.00	1422
49.00	890	145.00	3575	242.00	22800	337.00	158
50.00	20560	146.00	12885	243.00	23656	338.00	111
51.00	115400	147.00	37000	244.00	334528	339.00	1435
52.00	5980	148.00	83184	245.00	44200	340.00	1368
53.00	270	151.00	6891	246.00	75208	341.00	9189
55.00	1004	152.00	4801	247.00	14506	342.00	2530
56.00	6893	153.00	21920	248.00	2995	343.00	476
57.00	20032	154.00	16872	249.00	12012	344.00	229
58.00	1173	155.00	39720	250.00	2462	346.00	19040
59.00	381	156.00	58960	251.00	2978	347.00	3868
60.00	603	157.00	10415	252.00	3463	348.00	369
61.00	8555	158.00	12758	253.00	7543	350.00	680
62.00	12181	159.00	10289	254.00	2201	351.00	1509
63.00	36888	160.00	23104	255.00	1779712	352.00	24280
64.00	5850	161.00	32336	256.00	261248	353.00	16313
65.00	19656	162.00	10036	257.00	19960	354.00	23616
66.00	1277	163.00	2211	258.00	115664	355.00	4277
67.00	218	164.00	3370	259.00	18720	356.00	395
68.00	9335	165.00	26672	260.00	3097	357.00	288
69.00	1177088	166.00	21880	261.00	2983	358.00	496
70.00	4303	167.00	140736	262.00	311	359.00	2088
72.00	118	168.00	67144	263.00	1088	360.00	426
73.00	8187	169.00	12299	264.00	2758	361.00	287
74.00	117944	170.00	4307	265.00	46872	362.00	66
75.00	186240	171.00	6152	266.00	6551	363.00	78
76.00	58584	172.00	12323	267.00	641	364.00	312
77.00	1243648	173.00	16696	268.00	1031	365.00	124024
78.00	82568	174.00	30816	269.00	334	366.00	17240
79.00	86720	175.00	56392	270.00	1777	367.00	1640
80.00	67968	176.00	14808	271.00	3758	368.00	51
81.00	95752	177.00	24968	272.00	4667	369.00	81
82.00	22136	178.00	8414	273.00	54184	370.00	2231
83.00	20016	179.00	108176	274.00	145920	371.00	6578
84.00	1703	180.00	69200	275.00	822080	372.00	39896
85.00	15260	181.00	35088	276.00	108424	373.00	10420
86.00	27208	182.00	5707	277.00	76856	374.00	902
87.00	12947	183.00	2410	278.00	12879	377.00	1108
88.00	4317	184.00	9057	281.00	1271	378.00	190
89.00	1969	185.00	53272	282.00	1654	379.00	112
90.00	227	186.00	390848	283.00	8058	382.00	88
91.00	20144	187.00	115736	284.00	6096	383.00	11296
92.00	22872	188.00	12489	285.00	13310	384.00	3498
93.00	159616	189.00	26224	286.00	2664	385.00	1140
94.00	9906	190.00	3820	287.00	301	386.00	187

95.00	2189	191.00	11505	288.00	1049	388.00	81
96.00	5767	192.00	34688	289.00	3146	389.00	105
97.00	2485	193.00	41016	290.00	2684	390.00	4929
98.00	117552	194.00	9131	291.00	1791	391.00	3340
99.00	90792	195.00	3653	292.00	3510	392.00	2390
100.00	7885	196.00	74504	293.00	16520	393.00	475
101.00	52896	198.00	2863616	294.00	4295	395.00	216
102.00	3052	199.00	190976	295.00	4987	396.00	208
103.00	16416	200.00	14335	296.00	267904	397.00	274
104.00	30568	201.00	9948	297.00	37320	398.00	254
105.00	30136	203.00	20560	298.00	2786	401.00	2284
106.00	9766	204.00	107568	299.00	508	402.00	15386
107.00	410176	205.00	182464	300.00	217	403.00	21456
108.00	62280	206.00	743232	301.00	3180	404.00	8460
109.00	6029	207.00	96144	302.00	4702	405.00	1217
110.00	711808	208.00	26352	303.00	29528	408.00	105
111.00	108280	209.00	9347	304.00	7967	410.00	539
112.00	13160	210.00	10562	305.00	1122	411.00	56
113.00	4333	211.00	27120	306.00	358	415.00	1010
114.00	392	212.00	2578	307.00	530	416.00	312
115.00	1356	213.00	2139	308.00	3845	419.00	166
116.00	22112	214.00	764	309.00	2265	420.00	193
117.00	350208	215.00	8027	310.00	3023	421.00	17744
118.00	25424	216.00	16051	311.00	1030	422.00	15463
119.00	2716	217.00	211072	312.00	626	423.00	129392
120.00	4884	218.00	26304	313.00	2222	424.00	25976
121.00	587	219.00	2900	314.00	12766	425.00	2691
122.00	25416	220.00	3351	315.00	29288	426.00	96
123.00	40488	221.00	123968	316.00	15518	427.00	197
124.00	17936	222.00	24608	317.00	2892	429.00	55
125.00	15919	223.00	46856	318.00	260	437.00	78
127.00	1391616	224.00	432000	319.00	629	438.00	106
128.00	102568	225.00	107056	320.00	924	439.00	148
129.00	561152	226.00	10788	321.00	8267	440.00	550
130.00	46696	227.00	195904	322.00	3948	441.00	321664
131.00	8637	228.00	27456	323.00	81096	442.00	2293248
132.00	4190	229.00	39984	324.00	14693	443.00	438016
133.00	1654	230.00	5777	325.00	1371	444.00	39248
134.00	15899	231.00	15009	326.00	1762	445.00	2356
135.00	44024	232.00	3043	327.00	15694	446.00	82
136.00	18272	233.00	3542	328.00	7475	489.00	54
137.00	22936	234.00	12458	329.00	1733		
138.00	5085	235.00	13429	330.00	352		
139.00	2552	236.00	8601	331.00	463		

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00050	Instrument:	NT8
Calibration Date:	01/19/2023	Column (1):	RXI-17Sil ms

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	**RRF**	Conc	RRF	Conc	RRF	Conc	**RRF**	Conc	**RRF**
Naphthalene	0.1	1.051331	0.5	0.8804155	1	0.9140738	2.5	0.9442377	5	0.9059688	10	0.8834817
2-Methylnaphthalene	0.1	0.5583976	0.5	0.483576	1	0.4966087	2.5	0.5321582	5	0.5081776	10	0.490102
1-Methylnaphthalene	0.1	0.567502	0.5	0.4881925	1	0.5073336	2.5	0.5386185	5	0.5123544	10	0.5007901
Acenaphthylene	0.1	1.569275	0.5	1.288567	1	1.419627	2.5	1.612722	5	1.573862	10	1.597505
Acenaphthene	0.1	1.159165	0.5	0.9399536	1	0.9690137	2.5	1.040021	5	0.9826181	10	0.9807186
Dibenzofuran	0.1	1.856131	0.5	1.449189	1	1.468766	2.5	1.539056	5	1.458398	10	1.450275
Fluorene	0.1	1.333774	0.5	1.066627	1	1.134936	2.5	1.226731	5	1.19285	10	1.207426
Phenanthrene	0.1	1.200199	0.5	0.9068737	1	0.925967	2.5	0.9922048	5	0.9288855	10	0.90761
Anthracene	0.1	0.9900686	0.5	0.7891408	1	0.8362482	2.5	0.9415647	5	0.895227	10	0.8727266
Fluoranthene	0.1	1.200966	0.5	0.9720444	1	1.022937	2.5	1.114343	5	1.05358	10	1.016684
Pyrene	0.1	1.416146	0.5	1.066416	1	1.156217	2.5	1.294823	5	1.256828	10	1.249389
Benzo(a)anthracene	0.1	1.200365	0.5	0.9419141	1	1.006861	2.5	1.18718	5	1.184592	10	1.222407
Chrysene	0.1	1.382333	0.5	1.081643	1	1.128342	2.5	1.227241	5	1.185771	10	1.173282
Benzo(b)fluoranthene	0.1	1.335895	0.5	0.9774708	1	1.022944	2.5	1.220494	5	1.192377	10	1.239686
Benzo(k)fluoranthene	0.1	1.327249	0.5	0.9937275	1	1.005899	2.5	1.178993	5	1.164539	10	1.175213
Benzo(j)fluoranthene	0.1	1.092831	0.5	0.9205253	1	0.9228699	2.5	1.084778	5	1.075203	10	1.066465
Benzofluoranthenes, Total	0.3	1.255354	1.5	0.9344954	3	0.9716584	7.5	1.159079	15	1.142352	30	1.155882
Benzo(a)pyrene	0.1	1.139906	0.5	0.8777692	1	0.8951488	2.5	1.077374	5	1.063086	10	1.096879
Indeno(1,2,3-cd)pyrene	0.1	1.208599	0.5	0.995325	1	1.072555	2.5	1.257473	5	1.228578	10	1.24398
Dibenzo(a,h)anthracene	0.1	1.049117	0.5	0.8348251	1	0.8950591	2.5	1.081382	5	1.068557	10	1.100721
Benzo(g,h,i)perylene	0.1	1.162964	0.5	0.9102826	1	0.9409469	2.5	1.106673	5	1.088733	10	1.138469
2-Methylnaphthalene-d10	0.1	0.5857106	0.5	0.4932528	1	0.5345061	2.5	0.5674481	5	0.5504276	10	0.5413545
Dibenzo[a,h]anthracene-d14	0.1	0.580281	0.5	0.5471844	1	0.6076211	2.5	0.7324975	5	0.7420675	10	0.7980029
Fluoranthene-d10	0.1	0.9007247	0.5	0.754546	1	0.8247891	2.5	0.9550254	5	0.9291815	10	0.930087

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00050	Instrument:	NT8
Calibration Date:	01/19/2023	Column (1):	RXI-17Sil ms

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Naphthalene	0.9299181	6.9			RSD (15)	
2-Methylnaphthalene	0.5115033	5.6			RSD (15)	
1-Methylnaphthalene	0.5191318	5.6			RSD (15)	
Acenaphthylene	1.51026	8.5			RSD (15)	
Acenaphthene	1.011915	7.8			RSD (15)	
Dibenzofuran	1.536969	10.4			RSD (15)	
Fluorene	1.193724	7.5			RSD (15)	
Phenanthrene	0.9769567	11.6			RSD (15)	
Anthracene	0.887496	8.1			RSD (15)	
Fluoranthene	1.063426	7.7			RSD (15)	
Pyrene	1.23997	9.6			RSD (15)	
Benzo(a)anthracene	1.123887	10.5			RSD (15)	
Chrysene	1.196435	8.7			RSD (15)	
Benzo(b)fluoranthene	1.164811	11.8			RSD (15)	
Benzo(k)fluoranthene	1.140937	10.9			RSD (15)	
Benzo(j)fluoranthene	1.027112	8.0			RSD (15)	
Benzofluoranthenes, Total	1.103137	11.2			RSD (15)	
Benzo(a)pyrene	1.025027	10.8			RSD (15)	
Indeno(1,2,3-cd)pyrene	1.167752	9.2			RSD (15)	
Dibenzo(a,h)anthracene	1.004944	11.1			RSD (15)	
Benzo(g,h,i)perylene	1.058011	10.0			RSD (15)	
2-Methylnaphthalene-d10	0.5454499	5.8			RSD (15)	
Dibenzo[a,h]anthracene-d14	0.6679424	15.3	0.9971		LCOD (0.99)	
Fluoranthene-d10	0.8823923	8.7			RSD (15)	

Printed: 1/19/2023 8:45:16PM

ANALYSIS SEQUENCE

SLA0213

Instrument: NT8 Element Column ID: J006458
Calibration ID: GA00050

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SLA0213-TUN1	MS Tune	QC		1	K004775			
SLA0213-ICB1	Initial Cal Blank	QC		2		K008540		
SLA0213-CAL1	8270 SIM PNA 0.1	QC		3	L000603	K008540		
SLA0213-CAL2	8270 SIM PNA 0.5	QC		4	L000604	K008540		
SLA0213-CAL3	8270 SIM PNA 1.0	QC		5	L000605	K008540		
SLA0213-CAL4	8270 SIM PNA 2.5	QC		6	L000606	K008540		
SLA0213-CAL5	8270 SIM PNA 5	QC		7	L000607	K008540		
SLA0213-CAL6	8270 SIM PNA 10	QC		8	L000608	K008540		
SLA0213-SCV1	8270 SIM PNA SCV	QC		9	L000686	K008540		

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230119.b

	Time	Filename	LabID	ClientId	DF									
1	1028	N823011901.D	SLA0213-TUN1		1	NO ISTDS FOUND								
2	1059	N823011902.D	SLA0213-ICB1		1	4.92	52082	7.20	30936	9.24	59030	14.22	50944	18.12	47418
3	1126	N823011903.D	SLA0213-CAL1		1	4.91	46132	7.20	27261	9.24	52158	14.20	44953	18.11	41635
4	1158	N823011904.D	SLA0213-CAL2		1	4.91	45056	7.20	26746	9.24	50759	14.21	44658	18.11	42567
5	1225	N823011905.D	SLA0213-CAL3		1	4.91	47180	7.20	28206	9.24	53233	14.20	46493	18.11	44587
6	1252	N823011906.D	SLA0213-CAL4		1	4.91	44704	7.20	26411	9.24	49210	14.20	42994	18.11	40520
7	1319	N823011907.D	SLA0213-CAL5		1	4.91	46542	7.20	27638	9.23	51351	14.20	44781	18.11	42187
8	1346	N823011908.D	SLA0213-CAL6		1	4.91	46070	7.20	26689	9.24	50683	14.21	43880	18.11	40659
9	1458	N823011909.D	SLA0213-SCV1		1	4.91	46346	7.20	27709	9.24	51685	14.21	46582	18.12	41743

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230119.b

ARI Job No.: SLA0 Method: FSIMPNA230119.m Instrument: nt8.i Date: 19-JAN-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1059	N823011902.D	SLA0213-ICB1		1	NO MANUAL INTEGRATION
1126	N823011903.D	SLA0213-CAL1		1	Total Benzofluoranthenes, Dibenzo(a,h)anthracene-d14,
1158	N823011904.D	SLA0213-CAL2		1	Total Benzofluoranthenes, Dibenzo(a,h)anthracene, Dibenzo(a,h)anthracene-d14,
1225	N823011905.D	SLA0213-CAL3		1	Total Benzofluoranthenes,
1252	N823011906.D	SLA0213-CAL4		1	Total Benzofluoranthenes,
1319	N823011907.D	SLA0213-CAL5		1	Total Benzofluoranthenes,
1346	N823011908.D	SLA0213-CAL6		1	Total Benzofluoranthenes,
1458	N823011909.D	SLA0213-SCV1		1	Total Benzofluoranthenes,

Security Status Report

Date: 19-Jan-2023 20:43

N823011901.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011902.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011903.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011904.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011905.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011906.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011907.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011908.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011909.D	Data Locked	jianqing, 19-Jan-2023 20:43

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JAN-2023 11:26
End Cal Date : 19-JAN-2023 13:46
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Last Edit : 19-Jan-2023 20:20 jianqing
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem3\nt8.i\20230119.b\N823011903.D
Level 2: \\target\share\chem3\nt8.i\20230119.b\N823011904.D
Level 3: \\target\share\chem3\nt8.i\20230119.b\N823011905.D
Level 4: \\target\share\chem3\nt8.i\20230119.b\N823011906.D
Level 5: \\target\share\chem3\nt8.i\20230119.b\N823011907.D
Level 6: \\target\share\chem3\nt8.i\20230119.b\N823011908.D

	0.10000	0.50000	1.000	2.500	5.000	10.000	___	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
2 Naphthalene	1.05133	0.88042	0.91407	0.94424	0.90597	0.88348	0.92992	6.865
4 2-Methylnaphthalene	0.55840	0.48358	0.49661	0.53216	0.50818	0.49010	0.51150	5.596
5 1-methylnaphthalene	0.56750	0.48819	0.50733	0.53862	0.51235	0.50079	0.51913	5.582
6 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 Biphenyl	1.53553	1.22381	1.26186	1.35447	1.27381	1.26708	1.31943	8.655
8 2,6-Dimethylnaphthalene	1.00657	0.84902	0.90342	0.98129	0.93327	0.92936	0.93382	5.997
9 Acenaphthylene	1.56927	1.28857	1.41963	1.61272	1.57386	1.59750	1.51026	8.531
11 Acenaphthene	1.15917	0.93995	0.96901	1.04002	0.98262	0.98072	1.01192	7.822
12 Dibenzofuran	1.85613	1.44919	1.46877	1.53906	1.45840	1.45028	1.53697	10.407
13 1,6,7-Trimethylnaphthalene	1.10194	0.88028	0.91555	1.00758	0.95392	0.95592	0.96920	8.030
14 Fluorene	1.33377	1.06663	1.13494	1.22673	1.19285	1.20743	1.19372	7.540
16 Phenanthrene	1.20020	0.90687	0.92597	0.99220	0.92889	0.90761	0.97696	11.644
17 Anthracene	0.99007	0.78914	0.83625	0.94156	0.89523	0.87273	0.88750	8.129
18 Dibenzothiophene	1.00464	0.81097	0.83858	0.91687	0.87432	0.85731	0.88378	7.813
19 Carbazole	0.89689	0.71317	0.75168	0.85950	0.83159	0.82882	0.81361	8.430
20 1-Methylphenanthrene	0.79489	0.62625	0.65095	0.73891	0.70849	0.70462	0.70402	8.607

22 Fluoranthene	1.20097	0.97204	1.02294	1.11434	1.05358	1.01668	1.06343	7.729
23 Pyrene	1.41615	1.06642	1.15622	1.29482	1.25683	1.24939	1.23997	9.648
24 Benzo(a)anthracene	1.20036	0.94191	1.00686	1.18718	1.18459	1.22241	1.12389	10.532
27 Chrysene	1.38233	1.08164	1.12834	1.22724	1.18577	1.17328	1.19644	8.684
28 Benzo(b)fluoranthene	1.33590	0.97747	1.02294	1.22049	1.19238	1.23969	1.16481	11.769
29 Benzo(k)fluoranthene	1.32725	0.99373	1.00590	1.17899	1.16454	1.17521	1.14094	10.933
30 Benzo(j)fluoranthene	1.09283	0.92053	0.92287	1.08478	1.07520	1.06646	1.02711	7.997
31 Total Benzofluoranthenes	1.25535	0.93450	0.97166	1.15908	1.14235	1.15588	1.10314	11.202
32 Benzo(a)pyrene	1.13991	0.87777	0.89515	1.07737	1.06309	1.09688	1.02503	10.785
34 Benzo(e)pyrene	1.38633	1.02276	1.03286	1.18813	1.15641	1.18275	1.16154	11.391
35 Perylene	1.28978	0.96103	0.98751	1.14448	1.10241	1.11455	1.09996	10.771
37 Indeno(1,2,3-cd)pyrene	1.20860	0.99533	1.07255	1.25747	1.22858	1.24398	1.16775	9.225

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JAN-2023 11:26
End Cal Date : 19-JAN-2023 13:46
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Last Edit : 19-Jan-2023 20:20 jianqing
Curve Type : Average

	Compound	0.10000 Level 1	0.50000 Level 2	1.000 Level 3	2.500 Level 4	5.000 Level 5	10.000 Level 6	___ RRF	% RSD
	38 Dibenzo(a,h)anthracene	1.04912	0.83483	0.89506	1.08138	1.06856	1.10072	1.00494	11.083
	39 Benzo(g,h,i)perylene	1.16296	0.91028	0.94095	1.10667	1.08873	1.13847	1.05801	10.032
$	3 2-Methylnaphthalene-d10	0.58571	0.49325	0.53451	0.56745	0.55043	0.54135	0.54545	5.792
$	21 Fluoranthene-d10	0.90072	0.75455	0.82479	0.95503	0.92918	0.93009	0.88239	8.740
$	36 Dibenzo(a,h)anthracene-d14	0.58028	0.54718	0.60762	0.73250	0.74207	+++++	0.64193	13.973

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Batch File: \\target\share\chem3\nt8.i\20230119.b
Inst ID: nt8.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	N823011903	N823011904	N823011905	N823011906	N823011907	N823011908
INJ.DATE:	19-JAN-2023	19-JAN-2023	19-JAN-2023	19-JAN-2023	19-JAN-2023	19-JAN-2023
INJ.TIME:	11:26	11:58	12:25	12:52	13:19	13:46

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 1 Naphthalene-d8	4.907	4.913	4.907	4.907	4.910	4.907	4.907	1.907-7.907	4.908	0.003
2 Naphthalene	4.939	4.942	4.939	4.938	4.938	4.938	4.938	1.938-7.938	4.939	0.001
$ 3 2-Methylnaphthalene-d1	5.644	5.647	5.640	5.640	5.640	5.640	5.640	2.640-8.640	5.642	0.003
4 2-Methylnaphthalene	5.691	5.694	5.688	5.688	5.688	5.688	5.688	2.688-8.688	5.689	0.003
5 1-methylnaphthalene	5.884	5.890	5.887	5.884	5.887	5.887	5.887	2.887-8.887	5.887	0.002
6 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	6.377	3.377-9.377	+++++	+++++
7 Biphenyl	6.346	6.352	6.346	6.345	6.346	6.349	6.349	3.349-9.349	6.347	0.003
8 2,6-Dimethylnaphthalen	6.390	6.396	6.390	6.390	6.390	6.393	6.393	3.393-9.393	6.391	0.003
9 Acenaphthylene	7.086	7.092	7.085	7.085	7.085	7.089	7.089	4.089-10.089	7.087	0.003
* 10 Acenaphthene-d10	7.196	7.199	7.196	7.196	7.196	7.196	7.196	4.196-10.196	7.197	0.001
11 Acenaphthene	7.247	7.250	7.247	7.247	7.247	7.247	7.247	4.247-10.247	7.247	0.001
12 Dibenzofuran	7.395	7.402	7.395	7.395	7.395	7.398	7.398	4.398-10.398	7.397	0.003
13 1,6,7-Trimethylnaphtha	7.462	7.465	7.462	7.462	7.462	7.465	7.465	4.465-10.465	7.463	0.002
14 Fluorene	7.876	7.879	7.876	7.873	7.876	7.876	7.876	4.876-10.876	7.876	0.002
* 15 Phenanthrene-d10	9.236	9.239	9.236	9.236	9.232	9.236	9.236	6.236-12.236	9.236	0.002
16 Phenanthrene	9.270	9.273	9.270	9.270	9.270	9.274	9.274	6.274-12.274	9.271	0.002
17 Anthracene	9.312	9.315	9.312	9.311	9.311	9.315	9.315	6.315-12.315	9.313	0.002

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

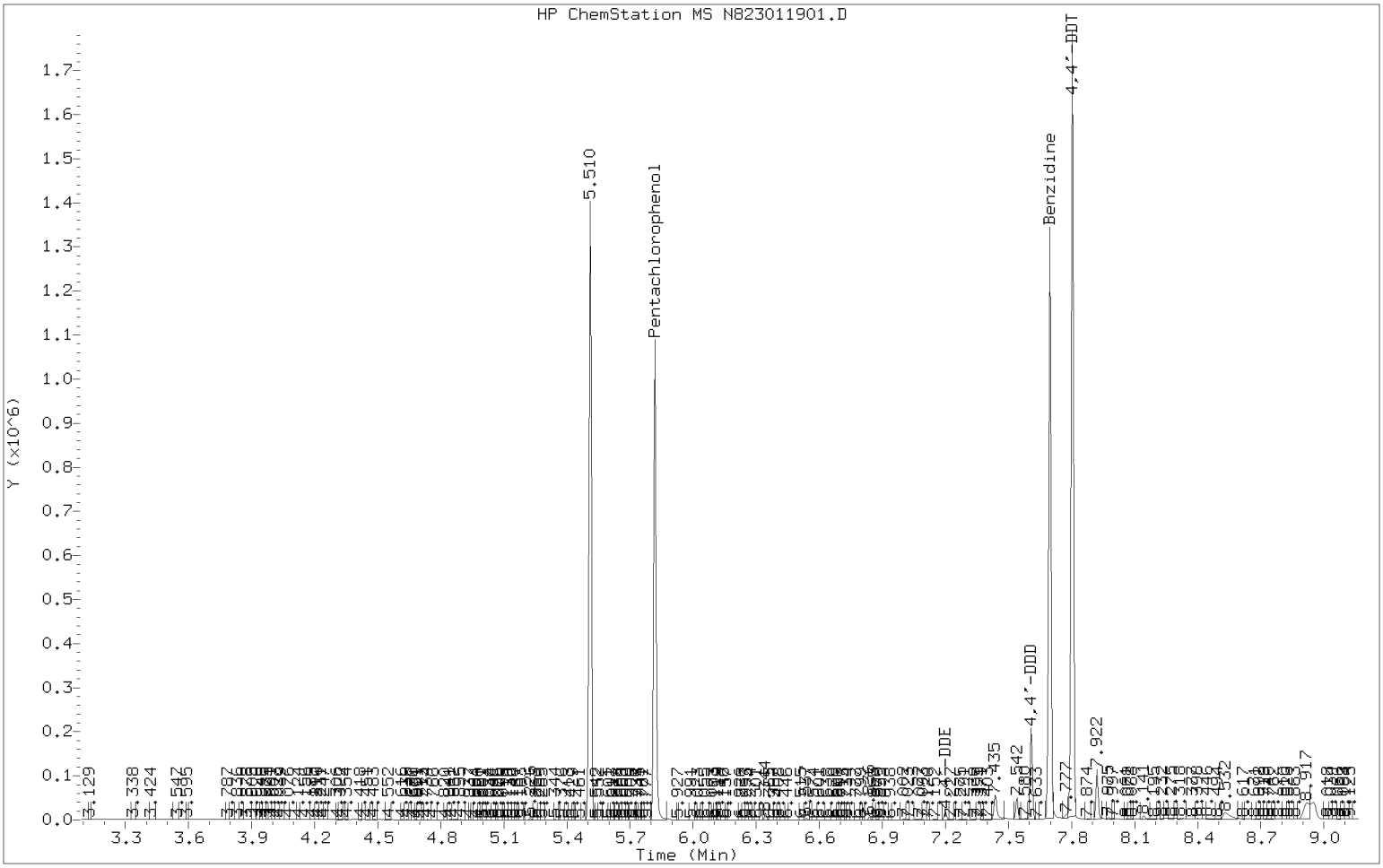
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

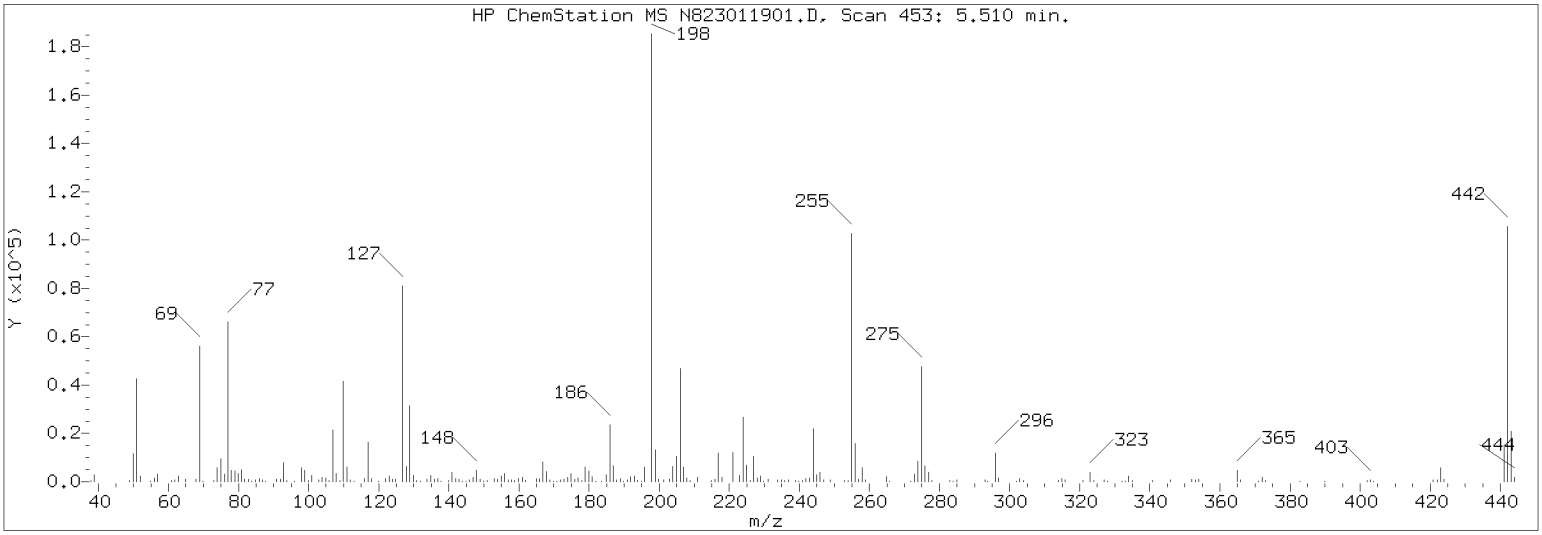
Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Batch File: \\target\share\chem3\nt8.i\20230119.b
Inst ID: nt8.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	18 Dibenzothiophene	9.109	9.112	9.109	9.109	9.109	9.112	9.112	6.112-12.112	9.110	0.002
	19 Carbazole	9.824	9.830	9.824	9.824	9.824	9.827	9.827	6.827-12.827	9.825	0.003
	20 1-Methylphenanthrene	10.048	10.051	10.048	10.048	10.048	10.051	10.051	7.051-13.051	10.049	0.002
$	21 Fluoranthene-d10	11.016	11.019	11.016	11.016	11.016	11.019	11.019	8.019-14.019	11.017	0.002
	22 Fluoranthene	11.054	11.057	11.051	11.054	11.054	11.057	11.057	8.057-14.057	11.054	0.002
	23 Pyrene	11.572	11.575	11.572	11.572	11.572	11.575	11.575	8.575-14.575	11.573	0.002
	24 Benzo(a)anthracene	14.073	14.080	14.077	14.077	14.077	14.080	14.080	11.080-17.080	14.077	0.002
*	25 Chrysene-d12	14.203	14.209	14.203	14.203	14.203	14.206	14.206	11.206-17.206	14.205	0.003
	27 Chrysene	14.276	14.279	14.276	14.279	14.279	14.282	14.282	11.282-17.282	14.278	0.002
	28 Benzo(b)fluoranthene	16.821	16.827	16.824	16.821	16.827	16.834	16.834	13.834-19.834	16.826	0.005
	29 Benzo(k)fluoranthene	16.881	16.887	16.881	16.884	16.888	16.897	16.897	13.897-19.897	16.886	0.006
	30 Benzo(j)fluoranthene	16.960	16.963	16.960	16.963	16.967	16.973	16.973	13.973-19.973	16.964	0.005
	31 Total Benzofluoranthen	16.821	16.827	16.824	16.821	16.827	16.834	16.834	13.834-19.834	16.826	0.005
	32 Benzo(a)pyrene	17.874	17.883	17.877	17.877	17.884	17.890	17.890	14.890-20.890	17.881	0.006
*	33 Perylene-d12	18.111	18.114	18.111	18.111	18.111	18.114	18.114	15.114-21.114	18.112	0.002
	34 Benzo(e)pyrene	17.748	17.754	17.751	17.748	17.751	17.760	17.760	14.760-20.760	17.752	0.005
	35 Perylene	18.184	18.187	18.184	18.184	18.187	18.193	18.193	15.193-21.193	18.187	0.004
$	36 Dibenzo(a,h)anthracene	20.546	20.549	20.549	20.552	20.555	20.565	20.565	17.565-23.565	20.553	0.007
	37 Indeno(1,2,3-cd)pyrene	20.666	20.676	20.672	20.676	20.682	20.691	20.691	17.691-23.691	20.677	0.009
	38 Dibenzo(a,h)anthracene	20.666	20.666	20.657	20.663	20.669	20.685	20.685	17.685-23.685	20.668	0.010
	39 Benzo(g,h,i)perylene	21.757	21.760	21.748	21.757	21.763	21.782	21.782	18.782-24.782	21.761	0.012

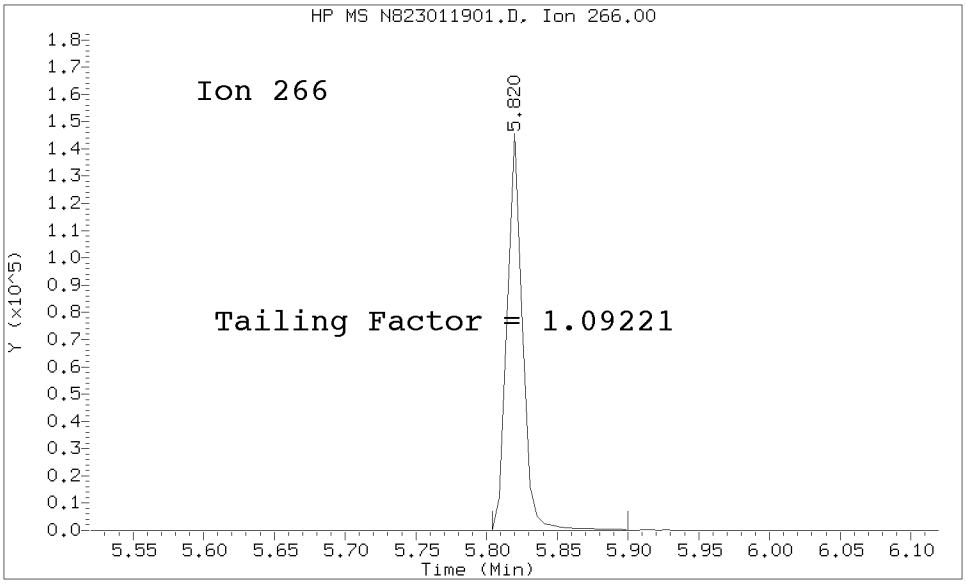
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230119.b/tune.b/N823011901.D/N823011901.D
Method Used: \20230119.b\tune.b\DFTPP.m Inst: nt8
Injection Date: 19-JAN-2023 10:28 Operator: JZ
Sample Info: SLA0213-TUN1 DFTPP230119
Report Date: 01/19/2023 20:14



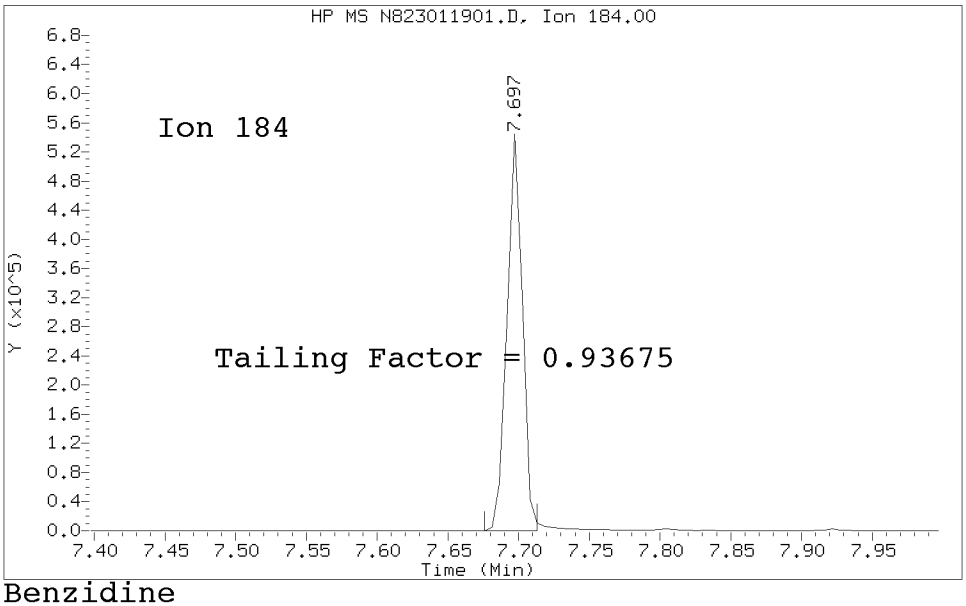


Datafile Analyzed: /20230119.b/tune.b/N823011901.D/N823011901.D
Method Used: \20230119.b\tune.b\DFTPP.m\sw846ddt.m Inst: nt8
Injection Date: 19-JAN-2023 10:28 Operator: JZ
Sample Info: DFTPP230119
Report Date: 01/19/2023 20:14



Pentachlorophenol
==========
Exp. RT = 5.825
Found RT = 5.820

Tail Factor = 1.092 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.703
Found RT = 7.697

Tail Factor = 0.937 Maximum Allowed = 2.0

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	23.71
68	Less than 2.00% of mass 69	0.39 (1.25)
69	Mass 69 relative abundance	30.92
70	Less than 2.00% of mass 69	0.06 (0.21)
127	10.00 - 80.00% of mass 198	44.20
197	Less than 2.00% of mass 198	0.17
199	5.00 - 9.00% of mass 198	6.89
275	10.00 - 60.00% of mass 198	26.96
365	Greater than 1.00% of mass 198	2.85
441	0.01 - 24.00% of mass 442	9.72 (14.32)
442	50.00 - 200.00% of mass 198	67.89
443	15.00 - 24.00% of mass 442	13.33 (19.64)

Data File: N823011901.D
Spectrum: Avg. Scans 452-454 (5.51), Background Scan 448
Location of Maximum: 198.00
Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	424	124.00	727	188.00	466	265.00	1738
39.00	2285	125.00	694	189.00	1088	266.00	231
49.00	389	127.00	59064	190.00	92	272.00	97
50.00	8567	128.00	4618	191.00	538	273.00	2435
51.00	31688	129.00	23208	192.00	1501	274.00	6434
52.00	1694	130.00	1967	193.00	1652	275.00	36032
55.00	89	131.00	387	194.00	339	276.00	4936
56.00	1081	132.00	92	195.00	108	277.00	3133
57.00	2353	134.00	695	196.00	4417	278.00	496
61.00	487	135.00	1887	197.00	224	283.00	243
62.00	511	136.00	770	198.00	133632	284.00	200
63.00	1627	137.00	979	199.00	9210	285.00	536
65.00	865	138.00	101	200.00	711	293.00	678
68.00	518	140.00	220	201.00	653	294.00	83
69.00	41320	141.00	2913	203.00	891	296.00	9364
70.00	86	142.00	931	204.00	4715	297.00	1310
73.00	274	143.00	728	205.00	8070	302.00	96
74.00	4327	144.00	83	206.00	34104	303.00	1146
75.00	6885	145.00	91	207.00	4557	304.00	262
76.00	2362	146.00	508	208.00	1177	314.00	364
77.00	48072	147.00	1540	209.00	387	315.00	1068
78.00	3441	148.00	3391	210.00	236	316.00	588
79.00	3296	149.00	690	211.00	1430	321.00	250
80.00	2464	150.00	90	215.00	376	323.00	3145
81.00	3741	151.00	458	216.00	746	324.00	501
82.00	872	152.00	181	217.00	9085	327.00	540
83.00	845	153.00	893	218.00	1189	328.00	201
84.00	287	154.00	764	221.00	8442	332.00	178
85.00	621	155.00	1756	223.00	2039	333.00	129
86.00	1039	156.00	2503	224.00	19544	334.00	1893
87.00	481	157.00	527	225.00	5122	335.00	518
88.00	91	158.00	516	226.00	502	341.00	275
91.00	866	159.00	410	227.00	8274	346.00	674
92.00	878	160.00	955	228.00	1174	352.00	945
93.00	5816	161.00	1421	229.00	1712	353.00	630
94.00	409	162.00	445	230.00	111	354.00	910
96.00	203	165.00	1085	231.00	685	365.00	3802
98.00	4243	166.00	1023	234.00	538	366.00	580
99.00	3501	167.00	5993	235.00	568	371.00	91
100.00	344	168.00	3082	236.00	394	372.00	1475
101.00	1983	169.00	490	237.00	657	373.00	292
103.00	704	170.00	94	239.00	327	383.00	290
104.00	1275	171.00	194	240.00	187	390.00	177
105.00	1230	172.00	595	241.00	468	402.00	468
106.00	379	173.00	732	242.00	1090	403.00	736
107.00	15826	174.00	1319	243.00	1102	404.00	243
108.00	2447	175.00	2491	244.00	16206	421.00	649
109.00	331	176.00	751	245.00	2245	422.00	226
110.00	30008	177.00	1175	246.00	3000	423.00	4860

111.00	4456	178.00	288	247.00	624	424.00	978
112.00	513	179.00	4561	249.00	587	441.00	12991
113.00	89	180.00	3271	253.00	239	442.00	90720
116.00	935	181.00	1513	254.00	438	443.00	17816
117.00	12513	182.00	106	255.00	76904	444.00	1584
118.00	931	184.00	333	256.00	11699		
120.00	104	185.00	2153	257.00	880		
122.00	1003	186.00	17336	258.00	4539		
123.00	1682	187.00	4916	259.00	746		

Data File: \\target\share\chem3\nt8.i\20230119.b\N823011902.D

Date : 19-JAN-2023 10:59

Client ID:

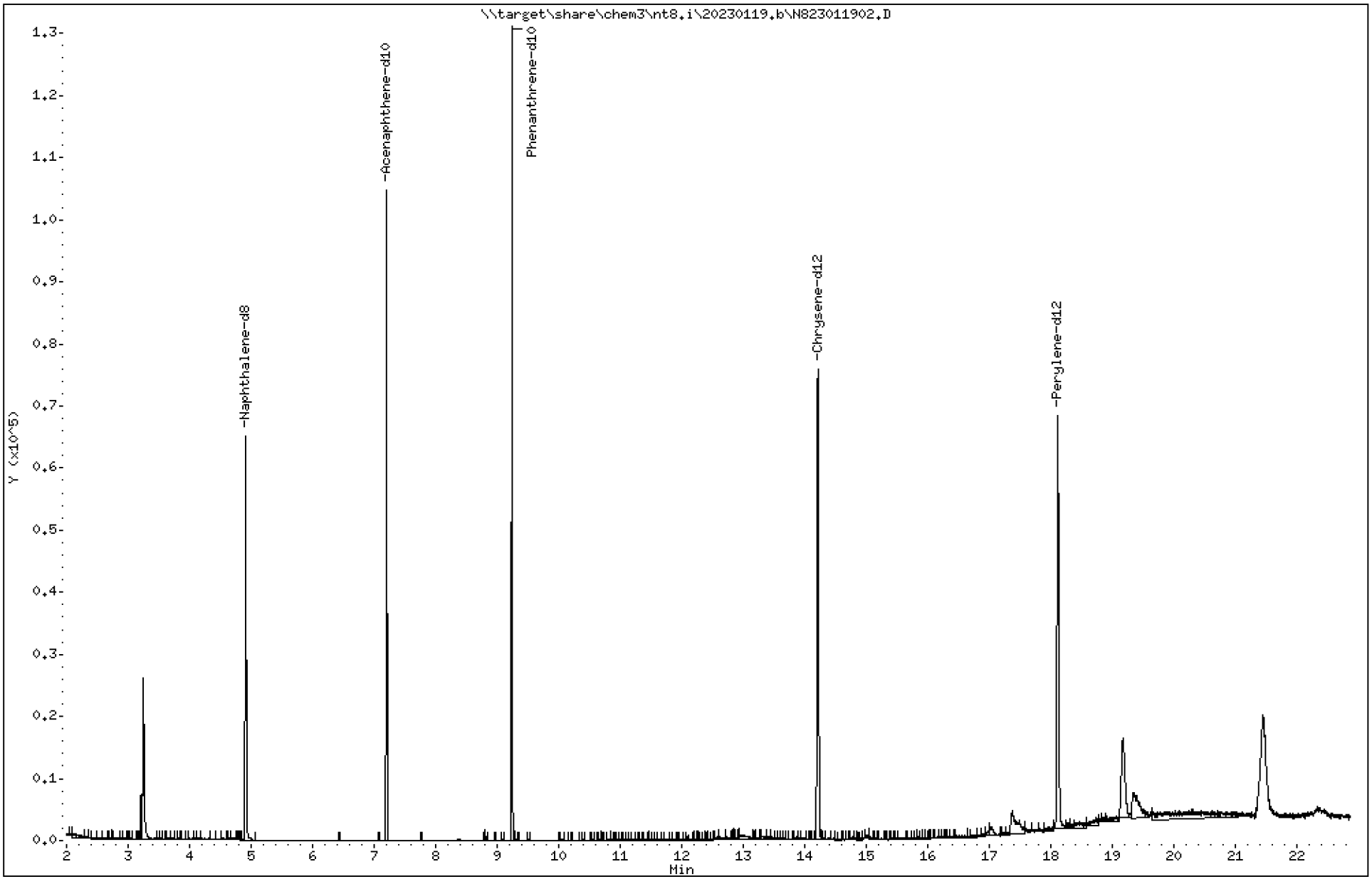
Instrument: nt8.i

Sample Info: ICB230119

Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011902.D
Lab Smp Id: SLA0213-ICB1
Inj Date : 19-JAN-2023 10:59
Operator : JZ Inst ID: nt8.i
Smp Info : ICB230119
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Meth Date : 19-Jan-2023 20:20 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
Target Version: 4.14
Processing Host: JIANQING-202105

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
*	1 Naphthalene-d8	136	4.916	4.906	(1.000)	52082	2.00000	
	2 Naphthalene	128	Compound Not Detected.					
$	3 2-Methylnaphthalene-d10	152	Compound Not Detected.					
	4 2-Methylnaphthalene	141	Compound Not Detected.					
	5 1-methylnaphthalene	141	Compound Not Detected.					
	7 Biphenyl	154	Compound Not Detected.					
	8 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	9 Acenaphthylene	152	Compound Not Detected.					
*	10 Acenaphthene-d10	164	7.202	7.196	(1.000)	30936	2.00000	
	11 Acenaphthene	153	Compound Not Detected.					
	12 Dibenzofuran	168	Compound Not Detected.					
	13 1,6,7-Trimethylnaphthalene	170	Compound Not Detected.					
	14 Fluorene	166	Compound Not Detected.					
	18 Dibenzothiophene	184	Compound Not Detected.					
*	15 Phenanthrene-d10	188	9.241	9.235	(1.000)	59030	2.00000	
	16 Phenanthrene	178	Compound Not Detected.					
	17 Anthracene	178	Compound Not Detected.					
	19 Carbazole	167	Compound Not Detected.					
	20 1-Methylphenanthrene	192	Compound Not Detected.					
	22 Fluoranthene	202	Compound Not Detected.					
$	21 Fluoranthene-d10	212	Compound Not Detected.					
	23 Pyrene	202	Compound Not Detected.					
	24 Benzo(a)anthracene	228	Compound Not Detected.					
*	25 Chrysene-d12	240	14.215	14.202	(1.000)	50944	2.00000	
	27 Chrysene	228	Compound Not Detected.					
	28 Benzo(b)fluoranthene	252	Compound Not Detected.					
	29 Benzo(k)fluoranthene	252	Compound Not Detected.					
	30 Benzo(j)fluoranthene	252	Compound Not Detected.					
	31 Total Benzofluoranthenes	252	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					
	32 Benzo(a)pyrene	252	Compound Not Detected.					
*	33 Perylene-d12	264	18.120	18.111	(1.000)	47418	2.00000	
	35 Perylene	252	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
$ 36 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823011902.D
Lab Smp Id: SLA0213-ICB1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 19-JAN-2023
Calibration Time: 12:52
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44704	22352	89408	52082	16.50
10 Acenaphthene-d10	26411	13206	52822	30936	17.13
15 Phenanthrene-d10	49210	24605	98420	59030	19.96
25 Chrysene-d12	42994	21497	85988	50944	18.49
33 Perylene-d12	40520	20260	81040	47418	17.02

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.91	4.41	5.41	4.92	0.19
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.09
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.07
25 Chrysene-d12	14.20	13.70	14.70	14.22	0.09
33 Perylene-d12	18.11	17.61	18.61	18.12	0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011902.D

Lab ID: SLA0213-ICB1
nt8.i, 20230119.b\FSIMPNA230119.m,   19-JAN-2023 10:59

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

No RRT check performed

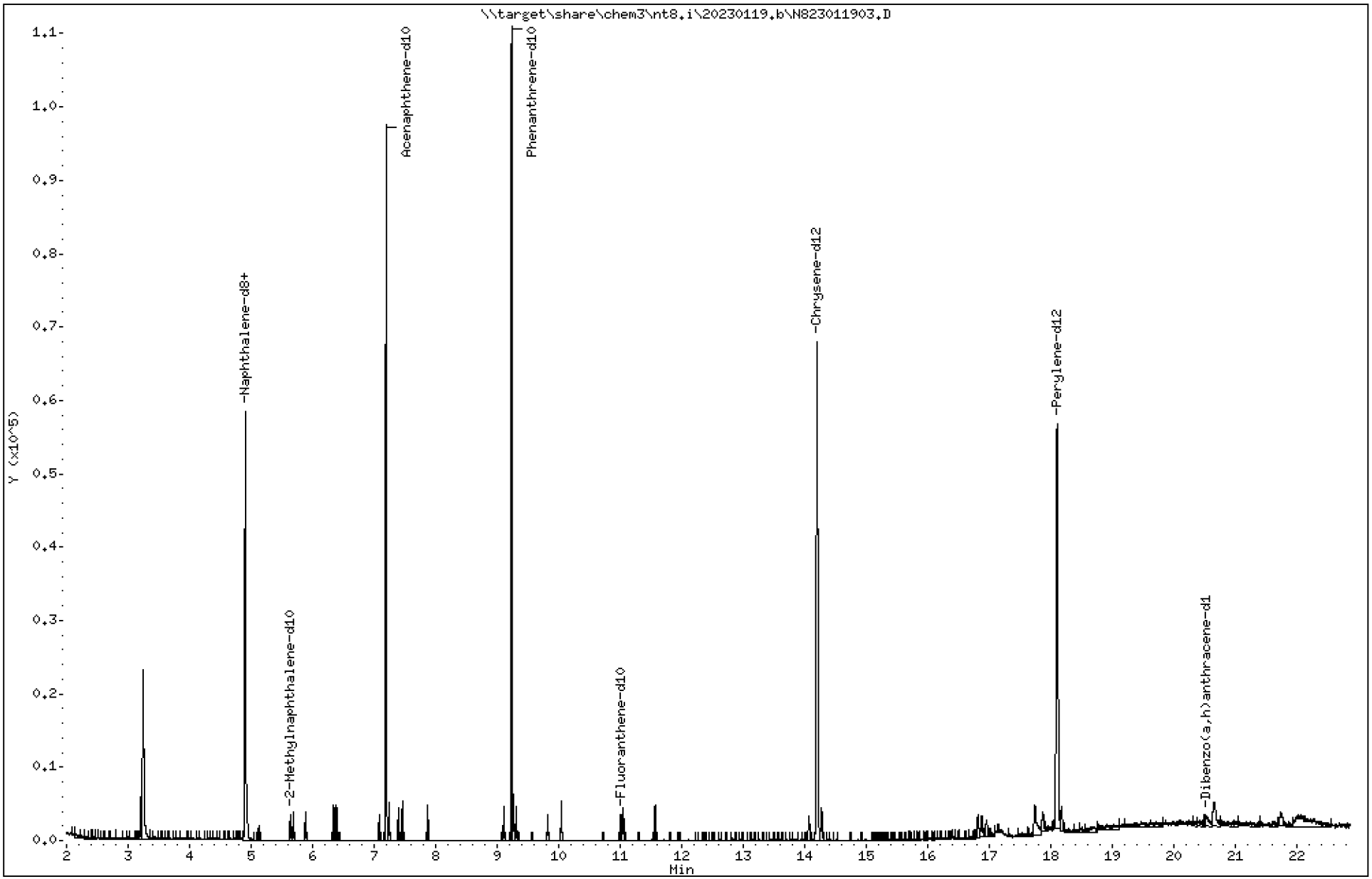
On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt8.i\20230119.b\N823011903.D
Date : 19-JAN-2023 11:26
Client ID:
Sample Info: IC01230119,

Instrument: nt8.i
Operator: JZ
Column diameter: 0.25

Column phase: Rxi-17sil



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011903.D
Lab Smp Id: SLA0213-CAL1
Inj Date : 19-JAN-2023 11:26
Operator : JZ Inst ID: nt8.i
Smp Info : IC01230119,
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Meth Date : 19-Jan-2023 20:10 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
Target Version: 4.14
Processing Host: JIANQING-202105

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	1 Naphthalene-d8	136	4.906	4.906	(1.000)	46132	2.00000	
	2 Naphthalene	128	4.938	4.938	(1.006)	2425	0.10000	0.1131
$	3 2-Methylnaphthalene-d10	152	5.643	5.640	(1.150)	1351	0.10000	0.1074
	4 2-Methylnaphthalene	141	5.691	5.687	(1.160)	1288	0.10000	0.1092
	5 1-methylnaphthalene	141	5.883	5.887	(1.199)	1309	0.10000	0.1093
	7 Biphenyl	154	6.345	6.348	(0.882)	2093	0.10000	0.1164
	8 2,6-Dimethylnaphthalene	156	6.389	6.392	(0.888)	1372	0.10000	0.1078
	9 Acenaphthylene	152	7.085	7.088	(0.985)	2139	0.10000	0.1039
*	10 Acenaphthene-d10	164	7.196	7.196	(1.000)	27261	2.00000	
	11 Acenaphthene	153	7.246	7.246	(1.007)	1580	0.10000	0.1146
	12 Dibenzofuran	168	7.395	7.398	(1.028)	2530	0.10000	0.1208
	13 1,6,7-Trimethylnaphthalene	170	7.461	7.464	(1.037)	1502	0.10000	0.1137
	14 Fluorene	166	7.876	7.875	(1.094)	1818	0.10000	0.1117
	18 Dibenzothiophene	184	9.109	9.112	(0.986)	2620	0.10000	0.1137
*	15 Phenanthrene-d10	188	9.235	9.235	(1.000)	52158	2.00000	
	16 Phenanthrene	178	9.270	9.273	(1.004)	3130	0.10000	0.1229
	17 Anthracene	178	9.311	9.314	(1.008)	2582	0.10000	0.1116
	19 Carbazole	167	9.823	9.826	(1.064)	2339	0.10000	0.1102
	20 1-Methylphenanthrene	192	10.048	10.051	(1.088)	2073	0.10000	0.1129
	22 Fluoranthene	202	11.053	11.056	(1.197)	3132	0.10000	0.1129
$	21 Fluoranthene-d10	212	11.015	11.018	(1.193)	2349	0.10000	0.1021
	23 Pyrene	202	11.572	11.575	(0.815)	3183	0.10000	0.1142
	24 Benzo(a)anthracene	228	14.073	14.079	(0.991)	2698	0.10000	0.1068
*	25 Chrysene-d12	240	14.203	14.206	(1.000)	44953	2.00000	
	27 Chrysene	228	14.275	14.282	(1.005)	3107	0.10000	0.1155
	28 Benzo(b)fluoranthene	252	16.821	16.833	(0.929)	2781	0.10000	0.1147
	29 Benzo(k)fluoranthene	252	16.881	16.897	(0.932)	2763	0.10000	0.1163
	30 Benzo(j)fluoranthene	252	16.960	16.972	(0.936)	2275	0.10000	0.1064
	31 Total Benzofluoranthenes	252	16.821	16.833	(0.929)	7840	0.30000	0.3414(M)
	34 Benzo(e)pyrene	252	17.747	17.760	(0.980)	2886	0.10000	0.1194
	32 Benzo(a)pyrene	252	17.874	17.889	(0.987)	2373	0.10000	0.1112
*	33 Perylene-d12	264	18.111	18.114	(1.000)	41635	2.00000	
	35 Perylene	252	18.184	18.193	(1.004)	2685	0.10000	0.1173

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$ 36 Dibenzo(a,h)anthracene-d14	292	20.546	20.565	(1.134)	1208	0.10000	0.09040(M)
37 Indeno(1,2,3-cd)pyrene	276	20.666	20.691	(1.141)	2516	0.10000	0.1035
38 Dibenzo(a,h)anthracene	278	20.666	20.685	(1.141)	2184	0.10000	0.1044
39 Benzo(g,h,i)perylene	276	21.757	21.782	(1.201)	2421	0.10000	0.1099

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823011903.D
Lab Smp Id: SLA0213-CAL1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 19-JAN-2023
Calibration Time: 12:52
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44704	22352	89408	46132	3.19
10 Acenaphthene-d10	26411	13206	52822	27261	3.22
15 Phenanthrene-d10	49210	24605	98420	52158	5.99
25 Chrysene-d12	42994	21497	85988	44953	4.56
33 Perylene-d12	40520	20260	81040	41635	2.75

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.00
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.00
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.00
25 Chrysene-d12	14.20	13.70	14.70	14.20	0.00
33 Perylene-d12	18.11	17.61	18.61	18.11	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011903.D

Lab ID: SLA0213-CAL1
nt8.i, 20230119.b\FSIMPNA230119.m,   19-JAN-2023 11:26

RT	CO-ELUTION COMPOUNDS
20.666	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
20.666	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Quant Method: ICAL

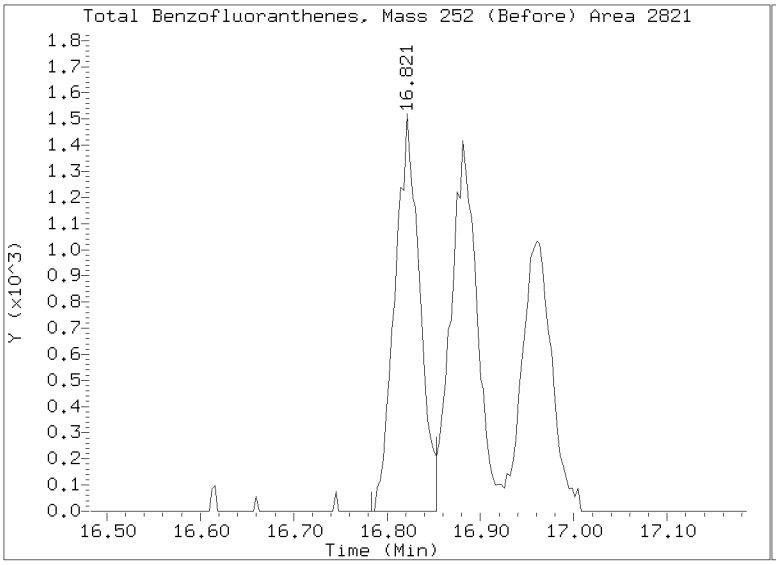
No RRT check performed

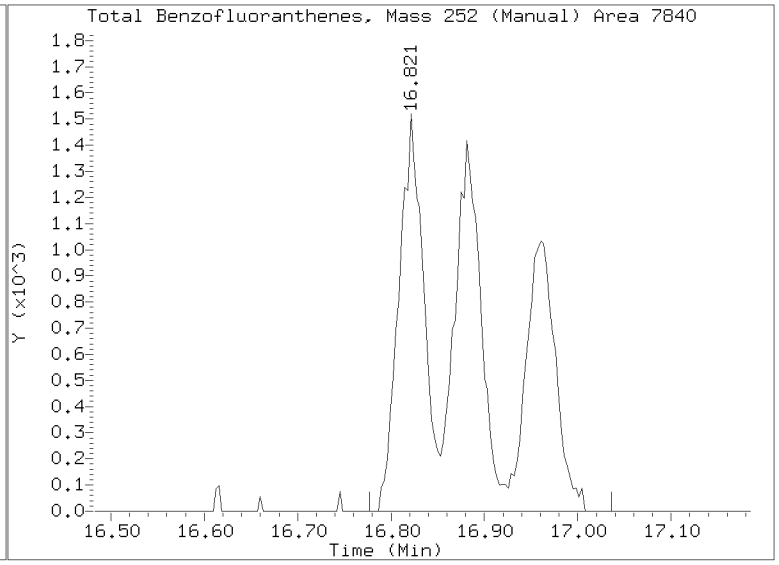
On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

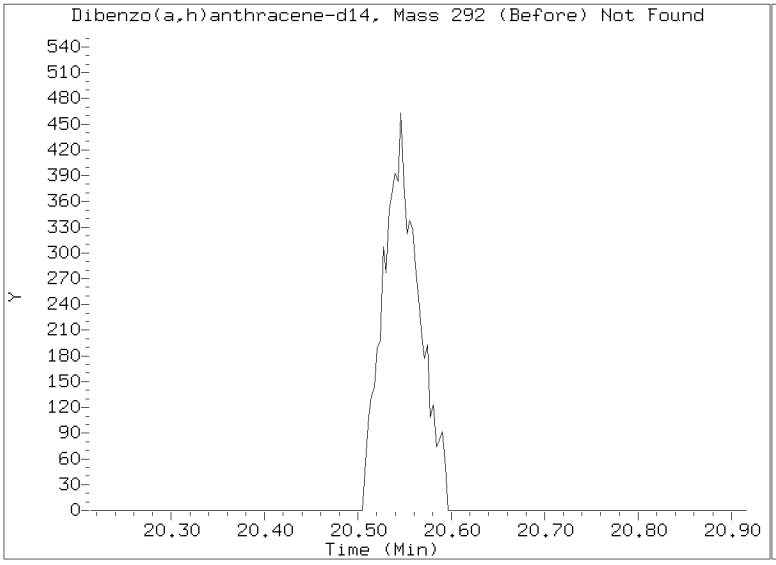
* Only compounds listed in the work order have been verified by the analyst *

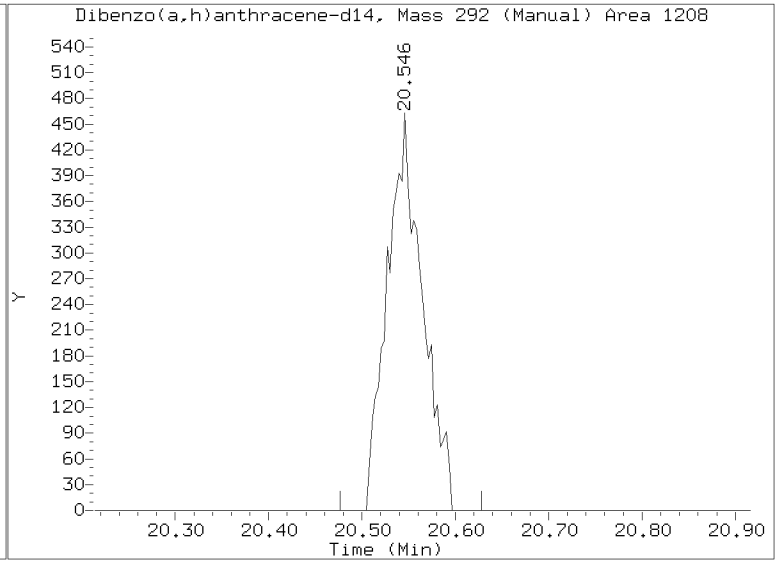
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011903.D
Injection Date: 19-JAN-2023 11:26
Lab ID:SLA0213-CAL1 Client ID:
Report Date: 01/19/2023 20:12





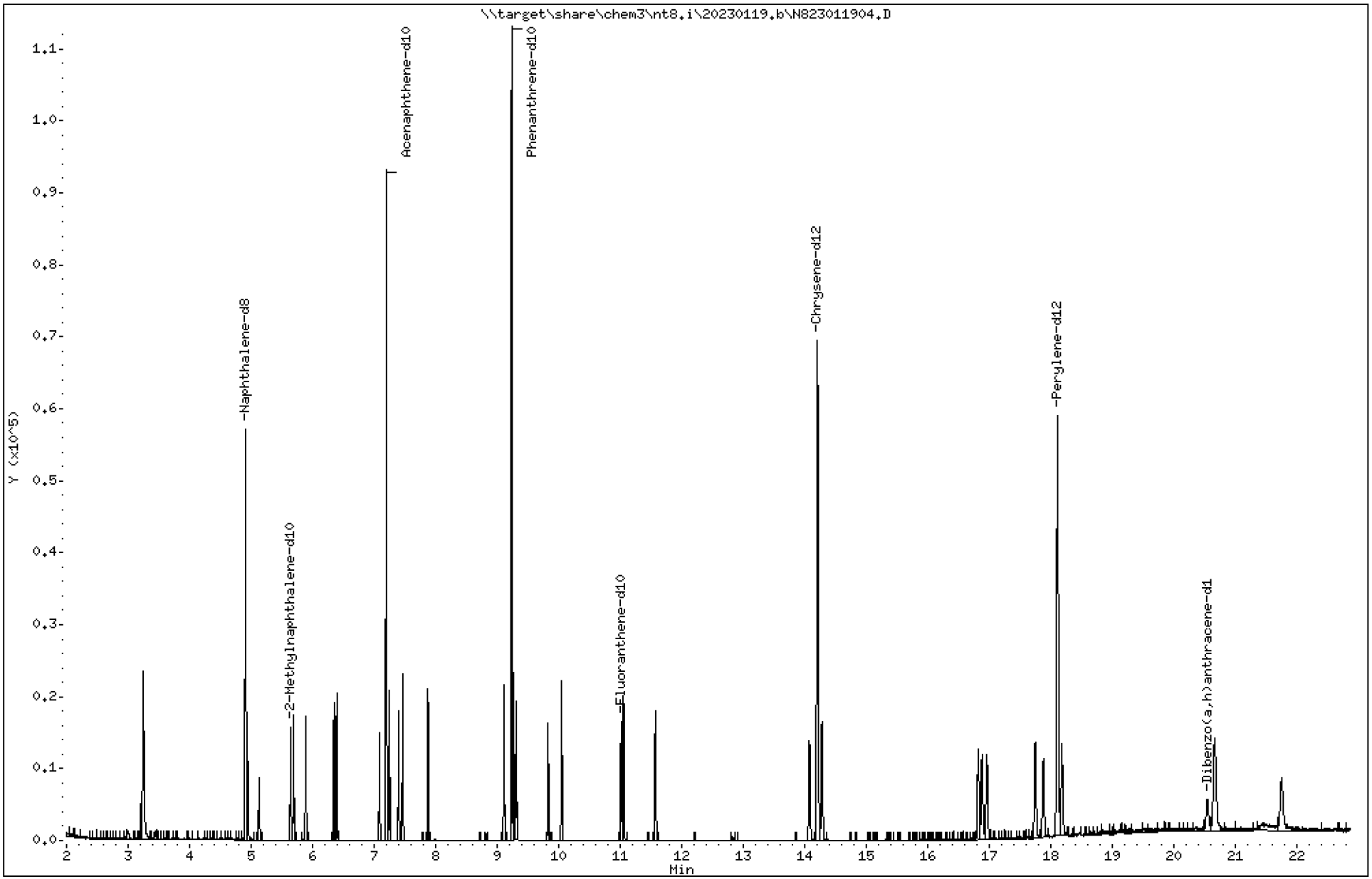




Data File: \\target\share\chem3\nt8.i\20230119.b\N823011904.D
Date : 19-JAN-2023 11:58
Client ID:
Sample Info: IC05230119,

Instrument: nt8.i
Operator: JZ
Column diameter: 0.25

Column phase: Rxi-17sil



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011904.D
Lab Smp Id: SLA0213-CAL2
Inj Date : 19-JAN-2023 11:58
Operator : JZ Inst ID: nt8.i
Smp Info : IC05230119,
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Meth Date : 19-Jan-2023 20:10 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
Target Version: 4.14
Processing Host: JIANQING-202105

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	1	Naphthalene-d8	136	4.913	4.906	(1.000)	45056	2.00000	
	2	Naphthalene	128	4.941	4.938	(1.006)	9917	0.50000	0.4734
$	3	2-Methylnaphthalene-d10	152	5.646	5.640	(1.149)	5556	0.50000	0.4522
	4	2-Methylnaphthalene	141	5.694	5.687	(1.159)	5447	0.50000	0.4727
	5	1-methylnaphthalene	141	5.890	5.887	(1.199)	5499	0.50000	0.4702
	7	Biphenyl	154	6.351	6.348	(0.882)	8183	0.50000	0.4638
	8	2,6-Dimethylnaphthalene	156	6.396	6.392	(0.888)	5677	0.50000	0.4546
	9	Acenaphthylene	152	7.091	7.088	(0.985)	8616	0.50000	0.4266
*	10	Acenaphthene-d10	164	7.199	7.196	(1.000)	26746	2.00000	
	11	Acenaphthene	153	7.249	7.246	(1.007)	6285	0.50000	0.4644
	12	Dibenzofuran	168	7.401	7.398	(1.028)	9690	0.50000	0.4714
	13	1,6,7-Trimethylnaphthalene	170	7.464	7.464	(1.037)	5886	0.50000	0.4541
	14	Fluorene	166	7.879	7.875	(1.094)	7132	0.50000	0.4468
	18	Dibenzothiophene	184	9.112	9.112	(0.986)	10291	0.50000	0.4588
*	15	Phenanthrene-d10	188	9.238	9.235	(1.000)	50759	2.00000	
	16	Phenanthrene	178	9.273	9.273	(1.004)	11508	0.50000	0.4641
	17	Anthracene	178	9.314	9.314	(1.008)	10014	0.50000	0.4446
	19	Carbazole	167	9.829	9.826	(1.064)	9050	0.50000	0.4383
	20	1-Methylphenanthrene	192	10.051	10.051	(1.088)	7947	0.50000	0.4448
	22	Fluoranthene	202	11.056	11.056	(1.197)	12335	0.50000	0.4570
$	21	Fluoranthene-d10	212	11.018	11.018	(1.193)	9575	0.50000	0.4276
	23	Pyrene	202	11.575	11.575	(0.815)	11906	0.50000	0.4300
	24	Benzo(a)anthracene	228	14.079	14.079	(0.991)	10516	0.50000	0.4190
*	25	Chrysene-d12	240	14.209	14.206	(1.000)	44658	2.00000	
	27	Chrysene	228	14.278	14.282	(1.005)	12076	0.50000	0.4520
	28	Benzo(b)fluoranthene	252	16.827	16.833	(0.929)	10402	0.50000	0.4196
	29	Benzo(k)fluoranthene	252	16.887	16.897	(0.932)	10575	0.50000	0.4355
	30	Benzo(j)fluoranthene	252	16.963	16.972	(0.936)	9796	0.50000	0.4481
	31	Total Benzofluoranthenes	252	16.827	16.833	(0.929)	29834	1.50000	1.271(M)
	34	Benzo(e)pyrene	252	17.753	17.760	(0.980)	10884	0.50000	0.4403
	32	Benzo(a)pyrene	252	17.883	17.889	(0.987)	9341	0.50000	0.4282
*	33	Perylene-d12	264	18.114	18.114	(1.000)	42567	2.00000	
	35	Perylene	252	18.187	18.193	(1.004)	10227	0.50000	0.4368

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$ 36 Dibenzo(a,h)anthracene-d14	292	20.549	20.565	(1.134)	5823	0.50000	0.4262(M)
37 Indeno(1,2,3-cd)pyrene	276	20.675	20.691	(1.141)	10592	0.50000	0.4262
38 Dibenzo(a,h)anthracene	278	20.666	20.685	(1.141)	8884	0.50000	0.4154(M)
39 Benzo(g,h,i)perylene	276	21.760	21.782	(1.201)	9687	0.50000	0.4302

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823011904.D
Lab Smp Id: SLA0213-CAL2
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 19-JAN-2023
Calibration Time: 12:52
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44704	22352	89408	45056	0.79
10 Acenaphthene-d10	26411	13206	52822	26746	1.27
15 Phenanthrene-d10	49210	24605	98420	50759	3.15
25 Chrysene-d12	42994	21497	85988	44658	3.87
33 Perylene-d12	40520	20260	81040	42567	5.05

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.13
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.03
25 Chrysene-d12	14.20	13.70	14.70	14.21	0.04
33 Perylene-d12	18.11	17.61	18.61	18.11	0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011904.D

Lab ID: SLA0213-CAL2
nt8.i, 20230119.b\FSIMPNA230119.m,   19-JAN-2023 11:58

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

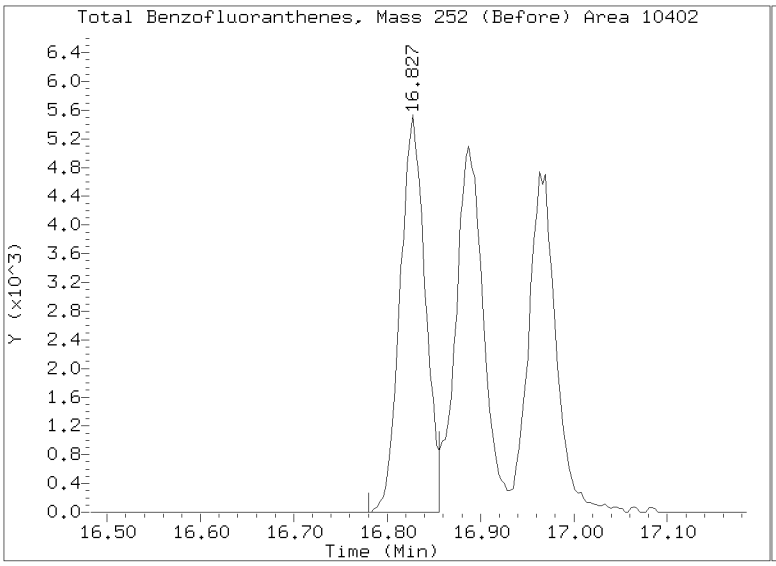
No RRT check performed

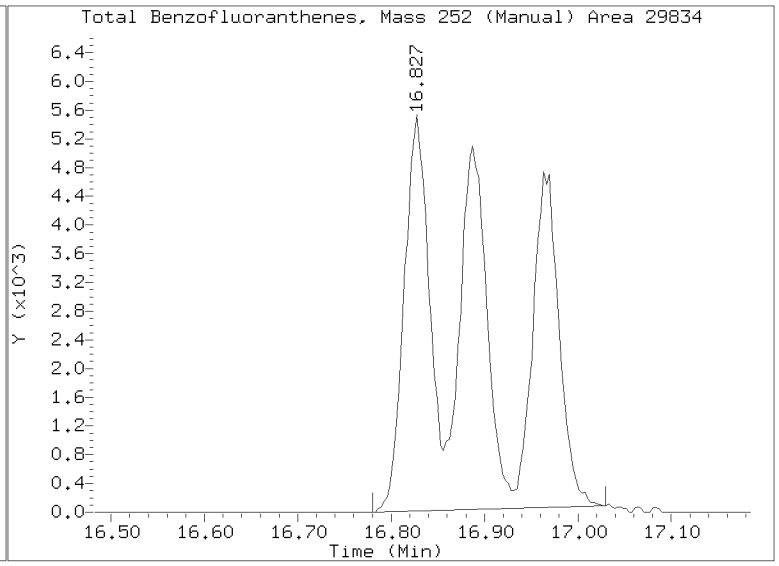
On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

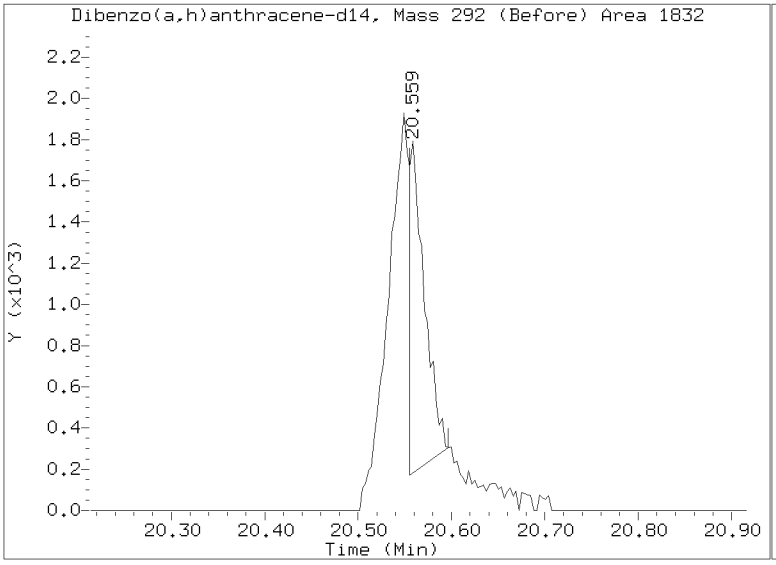
* Only compounds listed in the work order have been verified by the analyst *

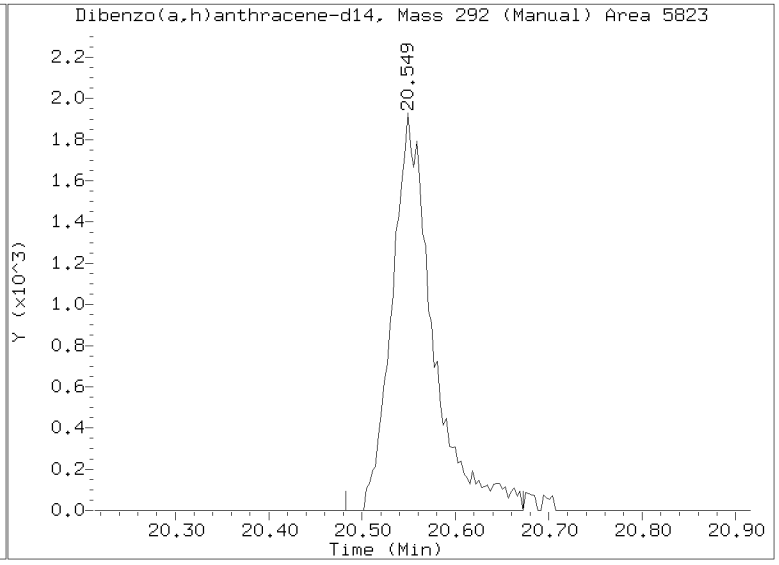
Quant Ion Manual Peak Adjustment Report

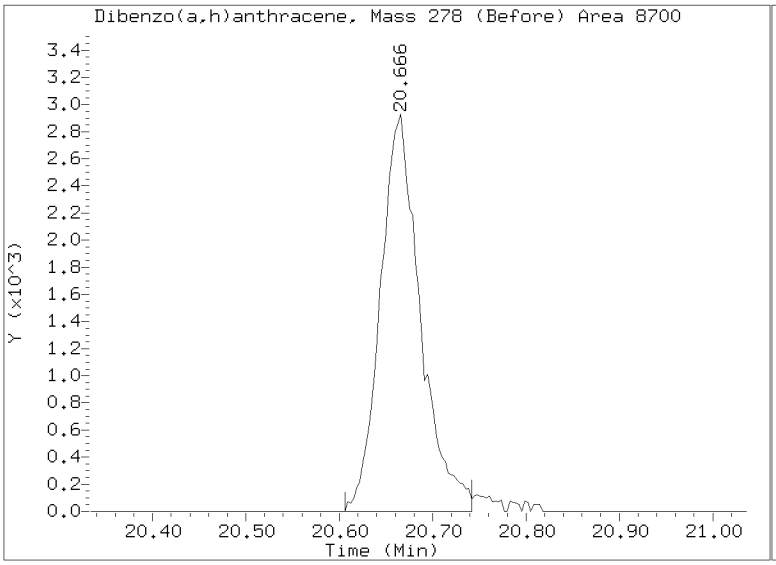
Datafile: //target/share/chem3/nt8.i/20230119.b/N823011904.D
Injection Date: 19-JAN-2023 11:58
Lab ID:SLA0213-CAL2 Client ID:
Report Date: 01/19/2023 20:12

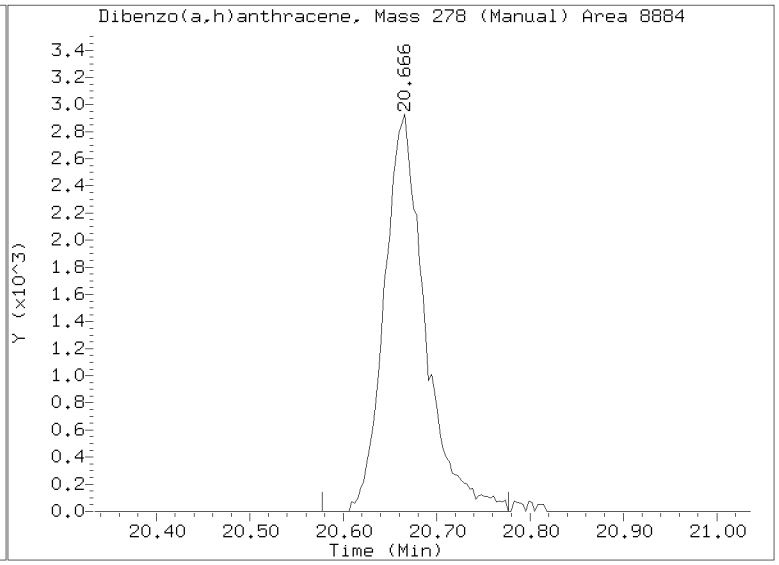








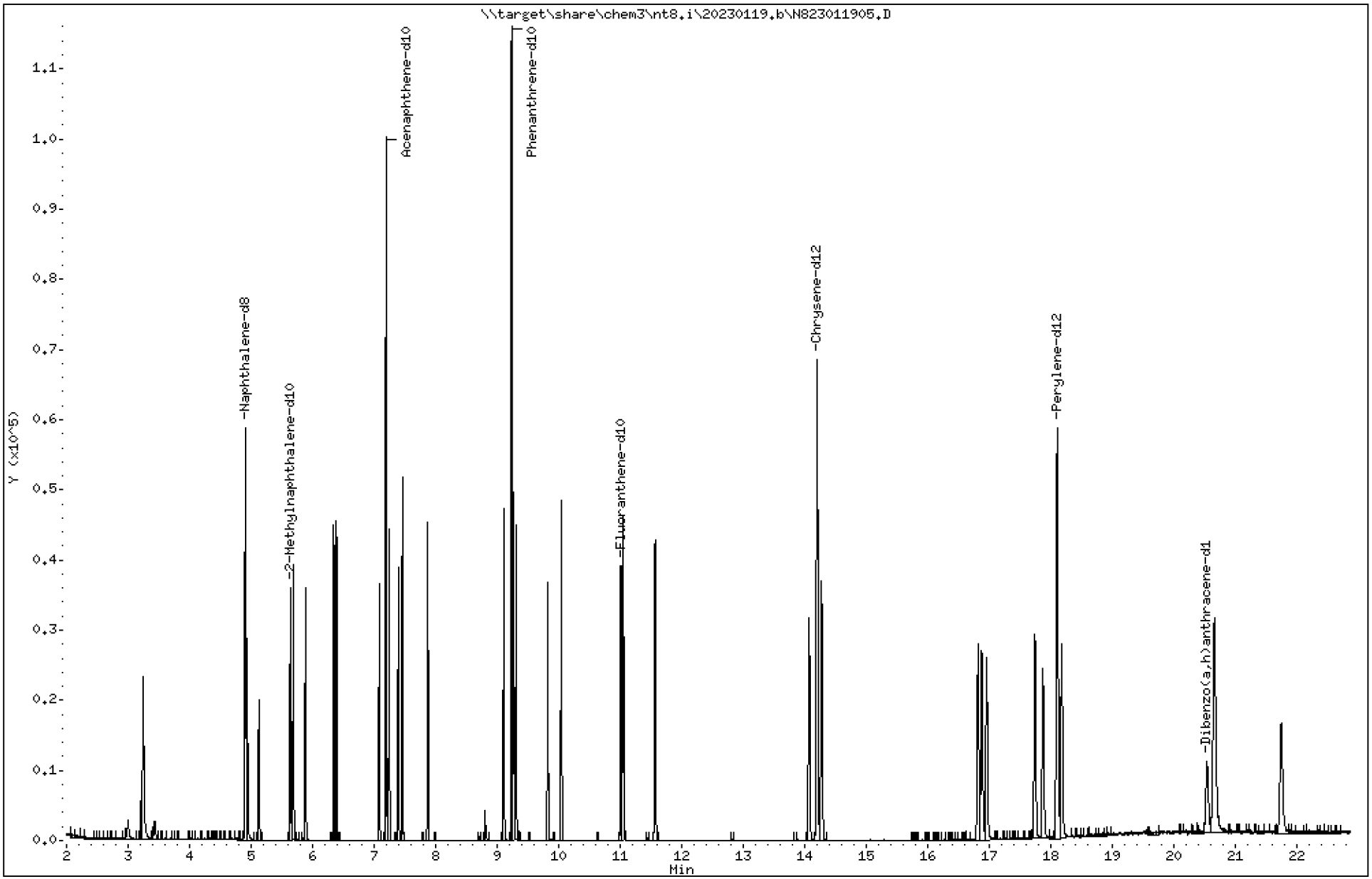




Data File: \\target\share\chem3\nt8.i\20230119.b\N823011905.D
Date : 19-JAN-2023 12:25
Client ID:
Sample Info: IC1230119,

Instrument: nt8.i
Operator: JZ
Column diameter: 0.25

Column phase: Rxi-17sil



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011905.D
Lab Smp Id: SLA0213-CAL3
Inj Date : 19-JAN-2023 12:25
Operator : JZ Inst ID: nt8.i
Smp Info : IC1230119,
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Meth Date : 19-Jan-2023 20:10 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
Target Version: 4.14
Processing Host: JIANQING-202105

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	1 Naphthalene-d8	136	4.906	4.906	(1.000)	47180	2.00000	
	2 Naphthalene	128	4.938	4.938	(1.006)	21563	1.00000	0.9830
$	3 2-Methylnaphthalene-d10	152	5.640	5.640	(1.150)	12609	1.00000	0.9799
	4 2-Methylnaphthalene	141	5.687	5.687	(1.159)	11715	1.00000	0.9709
	5 1-methylnaphthalene	141	5.887	5.887	(1.200)	11968	1.00000	0.9773
	7 Biphenyl	154	6.345	6.348	(0.882)	17796	1.00000	0.9564
	8 2,6-Dimethylnaphthalene	156	6.389	6.392	(0.888)	12741	1.00000	0.9674
	9 Acenaphthylene	152	7.085	7.088	(0.985)	20021	1.00000	0.9400
*	10 Acenaphthene-d10	164	7.196	7.196	(1.000)	28206	2.00000	
	11 Acenaphthene	153	7.246	7.246	(1.007)	13666	1.00000	0.9576
	12 Dibenzofuran	168	7.395	7.398	(1.028)	20714	1.00000	0.9556
	13 1,6,7-Trimethylnaphthalene	170	7.461	7.464	(1.037)	12912	1.00000	0.9446
	14 Fluorene	166	7.875	7.875	(1.094)	16006	1.00000	0.9508
	18 Dibenzothiophene	184	9.109	9.112	(0.986)	22320	1.00000	0.9489
*	15 Phenanthrene-d10	188	9.235	9.235	(1.000)	53233	2.00000	
	16 Phenanthrene	178	9.270	9.273	(1.004)	24646	1.00000	0.9478
	17 Anthracene	178	9.311	9.314	(1.008)	22258	1.00000	0.9423
	19 Carbazole	167	9.823	9.826	(1.064)	20007	1.00000	0.9239
	20 1-Methylphenanthrene	192	10.048	10.051	(1.088)	17326	1.00000	0.9246
	22 Fluoranthene	202	11.050	11.056	(1.197)	27227	1.00000	0.9619
$	21 Fluoranthene-d10	212	11.015	11.018	(1.193)	21953	1.00000	0.9347
	23 Pyrene	202	11.572	11.575	(0.815)	26878	1.00000	0.9325
	24 Benzo(a)anthracene	228	14.076	14.079	(0.991)	23406	1.00000	0.8959
*	25 Chrysene-d12	240	14.203	14.206	(1.000)	46493	2.00000	
	27 Chrysene	228	14.275	14.282	(1.005)	26230	1.00000	0.9431
	28 Benzo(b)fluoranthene	252	16.824	16.833	(0.929)	22805	1.00000	0.8782
	29 Benzo(k)fluoranthene	252	16.881	16.897	(0.932)	22425	1.00000	0.8816
	30 Benzo(j)fluoranthene	252	16.960	16.972	(0.936)	20574	1.00000	0.8985
	31 Total Benzofluoranthenes	252	16.824	16.833	(0.929)	64985	3.00000	2.642(M)
	34 Benzo(e)pyrene	252	17.750	17.760	(0.980)	23026	1.00000	0.8892
	32 Benzo(a)pyrene	252	17.877	17.889	(0.987)	19956	1.00000	0.8733
*	33 Perylene-d12	264	18.111	18.114	(1.000)	44587	2.00000	
	35 Perylene	252	18.184	18.193	(1.004)	22015	1.00000	0.8978

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$ 36 Dibenzo(a,h)anthracene-d14	292	20.549	20.565	(1.135)	13546	1.00000	0.9466
37 Indeno(1,2,3-cd)pyrene	276	20.672	20.691	(1.141)	23911	1.00000	0.9185
38 Dibenzo(a,h)anthracene	278	20.656	20.685	(1.141)	19954	1.00000	0.8907
39 Benzo(g,h,i)perylene	276	21.747	21.782	(1.201)	20977	1.00000	0.8894

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823011905.D
Lab Smp Id: SLA0213-CAL3
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 19-JAN-2023
Calibration Time: 12:52
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44704	22352	89408	47180	5.54
10 Acenaphthene-d10	26411	13206	52822	28206	6.80
15 Phenanthrene-d10	49210	24605	98420	53233	8.18
25 Chrysene-d12	42994	21497	85988	46493	8.14
33 Perylene-d12	40520	20260	81040	44587	10.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.00
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.00
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.00
25 Chrysene-d12	14.20	13.70	14.70	14.20	0.00
33 Perylene-d12	18.11	17.61	18.61	18.11	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011905.D

Lab ID: SLA0213-CAL3
nt8.i, 20230119.b\FSIMPNA230119.m,   19-JAN-2023 12:25

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

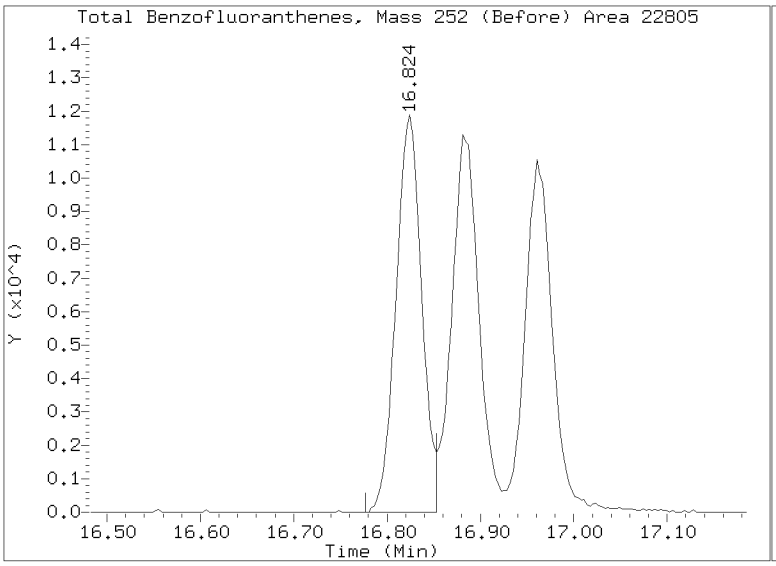
No RRT check performed

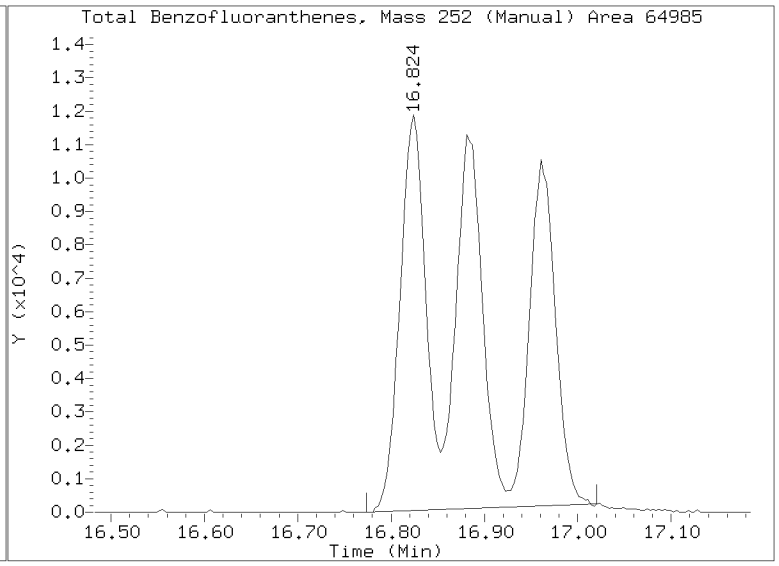
On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011905.D
Injection Date: 19-JAN-2023 12:25
Lab ID:SLA0213-CAL3 Client ID:
Report Date: 01/19/2023 20:12





Data File: \\target\share\chem3\nt8.i\20230119.b\N823011906.D

Page 1

Date : 19-JAN-2023 12:52

Client ID:

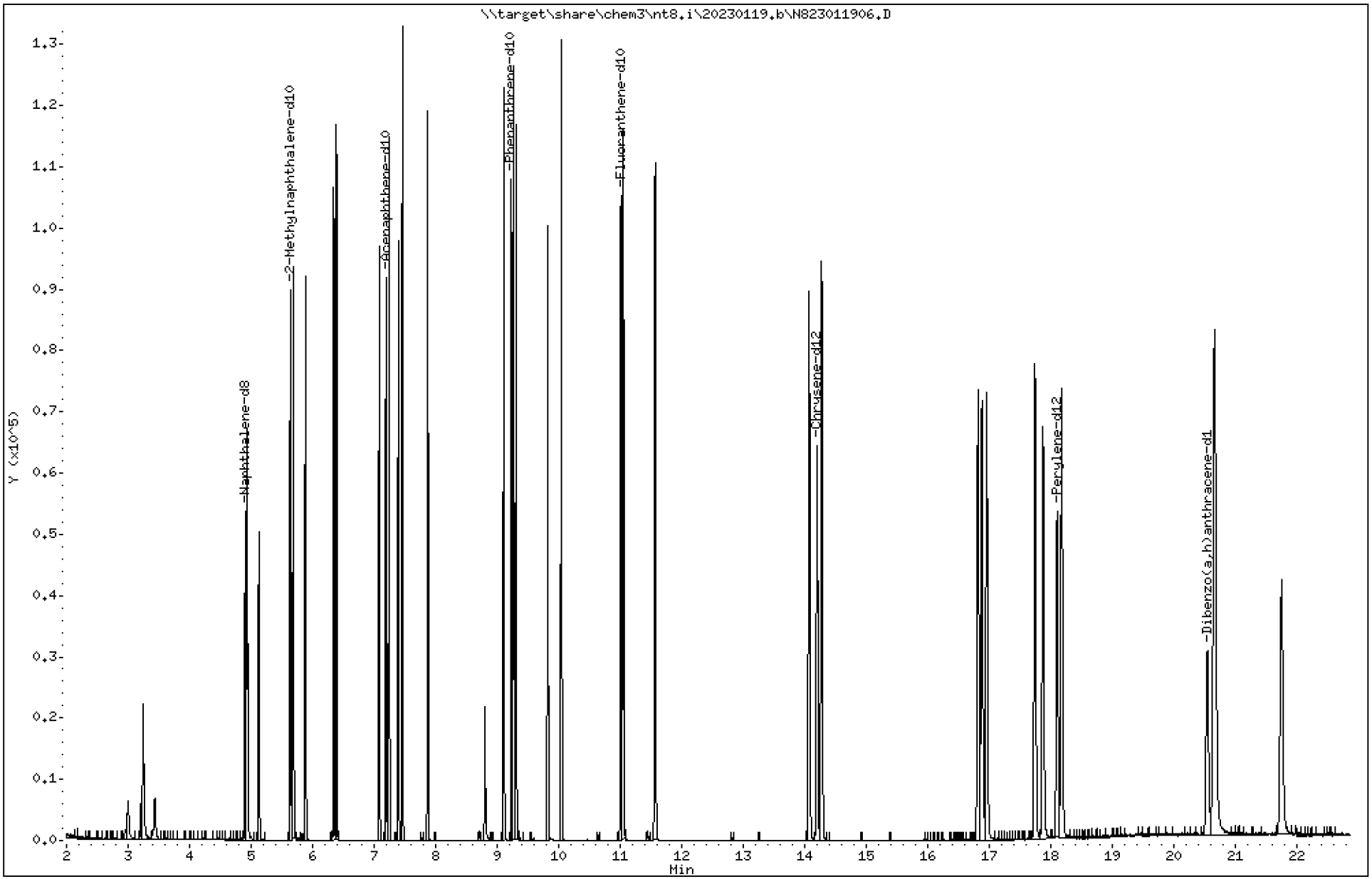
Instrument: nt8.i

Sample Info: IC25230119,

Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011906.D
Lab Smp Id: SLA0213-CAL4
Inj Date : 19-JAN-2023 12:52
Operator : JZ Inst ID: nt8.i
Smp Info : IC25230119,
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Meth Date : 19-Jan-2023 20:10 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
Target Version: 4.14
Processing Host: JIANQING-202105

							AMOUNTS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	1 Naphthalene-d8	136	4.906	4.906	(1.000)	44704	2.00000	
	2 Naphthalene	128	4.938	4.938	(1.006)	52764	2.50000	2.538
$	3 2-Methylnaphthalene-d10	152	5.640	5.640	(1.150)	31709	2.50000	2.601
	4 2-Methylnaphthalene	141	5.687	5.687	(1.159)	29737	2.50000	2.601
	5 1-methylnaphthalene	141	5.883	5.887	(1.199)	30098	2.50000	2.594
	7 Biphenyl	154	6.345	6.348	(0.882)	44716	2.50000	2.566
	8 2,6-Dimethylnaphthalene	156	6.389	6.392	(0.888)	32396	2.50000	2.627
	9 Acenaphthylene	152	7.085	7.088	(0.985)	53242	2.50000	2.670
*	10 Acenaphthene-d10	164	7.196	7.196	(1.000)	26411	2.00000	
	11 Acenaphthene	153	7.246	7.246	(1.007)	34335	2.50000	2.569
	12 Dibenzofuran	168	7.395	7.398	(1.028)	50810	2.50000	2.503
	13 1,6,7-Trimethylnaphthalene	170	7.461	7.464	(1.037)	33264	2.50000	2.599
	14 Fluorene	166	7.872	7.875	(1.094)	40499	2.50000	2.569
	18 Dibenzothiophene	184	9.109	9.112	(0.986)	56399	2.50000	2.594
*	15 Phenanthrene-d10	188	9.235	9.235	(1.000)	49210	2.00000	
	16 Phenanthrene	178	9.270	9.273	(1.004)	61033	2.50000	2.539
	17 Anthracene	178	9.311	9.314	(1.008)	57918	2.50000	2.652
	19 Carbazole	167	9.823	9.826	(1.064)	52870	2.50000	2.641
	20 1-Methylphenanthrene	192	10.048	10.051	(1.088)	45452	2.50000	2.624
	22 Fluoranthene	202	11.053	11.056	(1.197)	68546	2.50000	2.620
$	21 Fluoranthene-d10	212	11.015	11.018	(1.193)	58746	2.50000	2.706
	23 Pyrene	202	11.572	11.575	(0.815)	69587	2.50000	2.611
	24 Benzo(a)anthracene	228	14.076	14.079	(0.991)	63802	2.50000	2.641
*	25 Chrysene-d12	240	14.202	14.206	(1.000)	42994	2.00000	
	27 Chrysene	228	14.278	14.282	(1.005)	65955	2.50000	2.564
	28 Benzo(b)fluoranthene	252	16.821	16.833	(0.929)	61818	2.50000	2.620
	29 Benzo(k)fluoranthene	252	16.884	16.897	(0.932)	59716	2.50000	2.583
	30 Benzo(j)fluoranthene	252	16.963	16.972	(0.937)	54944	2.50000	2.640
	31 Total Benzofluoranthenes	252	16.821	16.833	(0.929)	176122	7.50000	7.880(M)
	34 Benzo(e)pyrene	252	17.747	17.760	(0.980)	60179	2.50000	2.557
	32 Benzo(a)pyrene	252	17.877	17.889	(0.987)	54569	2.50000	2.628
*	33 Perylene-d12	264	18.111	18.114	(1.000)	40520	2.00000	
	35 Perylene	252	18.183	18.193	(1.004)	57968	2.50000	2.601

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$ 36 Dibenzo(a,h)anthracene-d14	292	20.552	20.565	(1.135)	37101	2.50000	2.853
37 Indeno(1,2,3-cd)pyrene	276	20.675	20.691	(1.142)	63691	2.50000	2.692
38 Dibenzo(a,h)anthracene	278	20.662	20.685	(1.141)	54772	2.50000	2.690
39 Benzo(g,h,i)perylene	276	21.756	21.782	(1.201)	56053	2.50000	2.615

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823011906.D
Lab Smp Id: SLA0213-CAL4
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 19-JAN-2023
Calibration Time: 12:52
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44704	22352	89408	44704	0.00
10 Acenaphthene-d10	26411	13206	52822	26411	0.00
15 Phenanthrene-d10	49210	24605	98420	49210	0.00
25 Chrysene-d12	42994	21497	85988	42994	0.00
33 Perylene-d12	40520	20260	81040	40520	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.00
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.00
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.00
25 Chrysene-d12	14.20	13.70	14.70	14.20	0.00
33 Perylene-d12	18.11	17.61	18.61	18.11	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011906.D

Lab ID: SLA0213-CAL4
nt8.i, 20230119.b\FSIMPNA230119.m,   19-JAN-2023 12:52

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

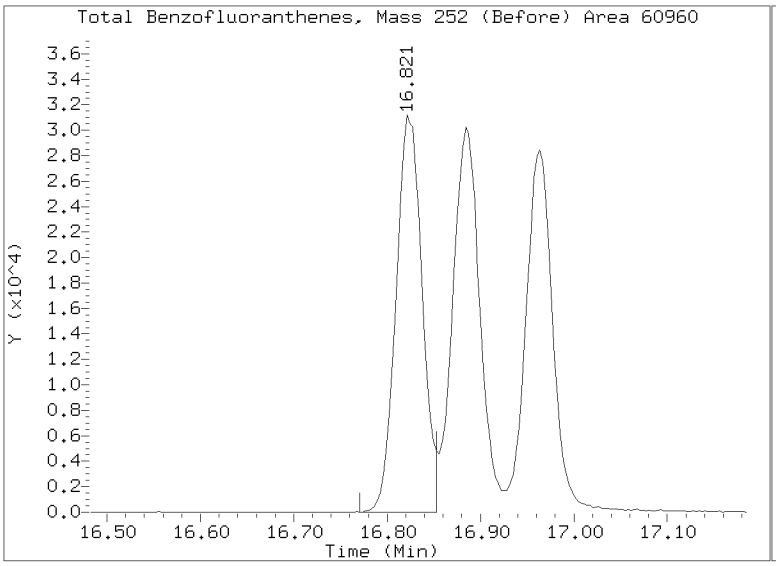
No RRT check performed

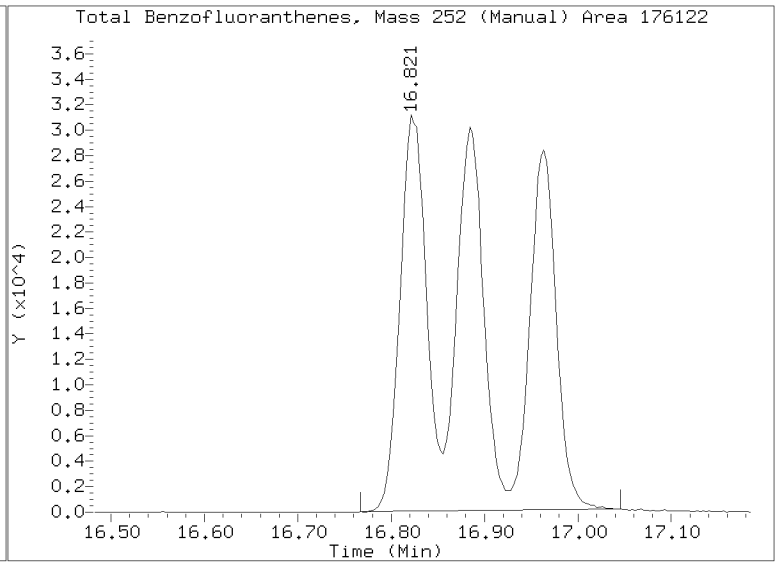
On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011906.D
Injection Date: 19-JAN-2023 12:52
Lab ID:SLA0213-CAL4 Client ID:
Report Date: 01/19/2023 20:12

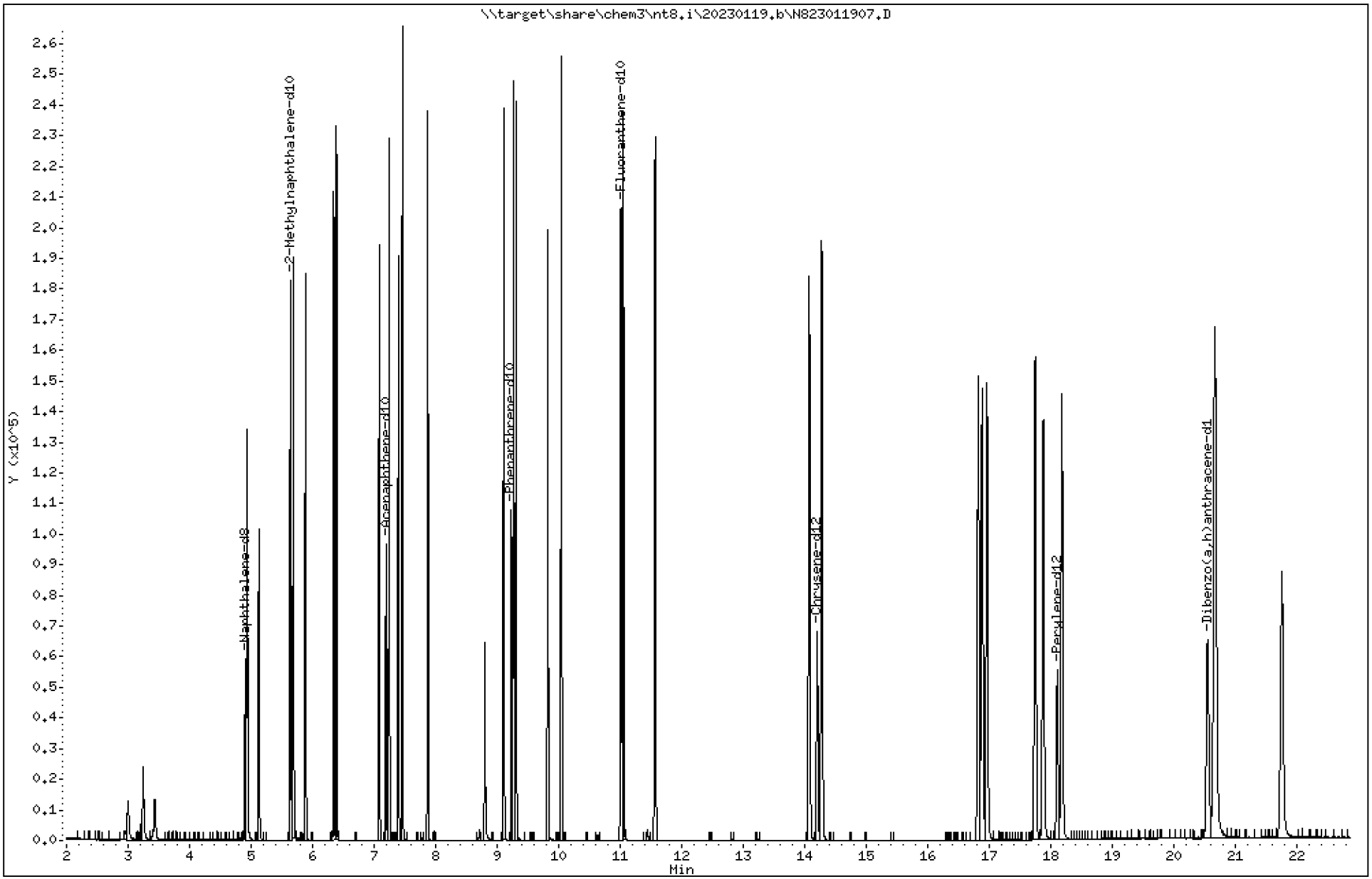




Data File: \\target\share\chem3\nt8.i\20230119.b\N823011907.D
Date : 19-JAN-2023 13:19
Client ID:
Sample Info: IC5230119,

Instrument: nt8.i
Operator: JZ
Column diameter: 0.25

Column phase: Rxi-17sil



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011907.D
Lab Smp Id: SLA0213-CAL5
Inj Date : 19-JAN-2023 13:19
Operator : JZ Inst ID: nt8.i
Smp Info : IC5230119,
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Meth Date : 19-Jan-2023 20:10 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
Target Version: 4.14
Processing Host: JIANQING-202105

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	1 Naphthalene-d8	136	4.909	4.906	(1.000)	46542	2.00000	
	2 Naphthalene	128	4.938	4.938	(1.006)	105414	5.00000	4.871
$	3 2-Methylnaphthalene-d10	152	5.640	5.640	(1.149)	64045	5.00000	5.046
	4 2-Methylnaphthalene	141	5.687	5.687	(1.158)	59129	5.00000	4.967
	5 1-methylnaphthalene	141	5.887	5.887	(1.199)	59615	5.00000	4.935
	7 Biphenyl	154	6.345	6.348	(0.882)	88014	5.00000	4.827
	8 2,6-Dimethylnaphthalene	156	6.389	6.392	(0.888)	64484	5.00000	4.997
	9 Acenaphthylene	152	7.085	7.088	(0.985)	108746	5.00000	5.211
*	10 Acenaphthene-d10	164	7.196	7.196	(1.000)	27638	2.00000	
	11 Acenaphthene	153	7.246	7.246	(1.007)	67894	5.00000	4.855
	12 Dibenzofuran	168	7.395	7.398	(1.028)	100768	5.00000	4.744
	13 1,6,7-Trimethylnaphthalene	170	7.461	7.464	(1.037)	65911	5.00000	4.921
	14 Fluorene	166	7.875	7.875	(1.094)	82420	5.00000	4.996
	18 Dibenzothiophene	184	9.109	9.112	(0.987)	112243	5.00000	4.946
*	15 Phenanthrene-d10	188	9.232	9.235	(1.000)	51351	2.00000	
	16 Phenanthrene	178	9.270	9.273	(1.004)	119248	5.00000	4.754
	17 Anthracene	178	9.311	9.314	(1.009)	114927	5.00000	5.044
	19 Carbazole	167	9.823	9.826	(1.064)	106758	5.00000	5.111
	20 1-Methylphenanthrene	192	10.048	10.051	(1.088)	90954	5.00000	5.032
	22 Fluoranthene	202	11.053	11.056	(1.197)	135256	5.00000	4.954
$	21 Fluoranthene-d10	212	11.015	11.018	(1.193)	119286	5.00000	5.265
	23 Pyrene	202	11.572	11.575	(0.815)	140705	5.00000	5.068
	24 Benzo(a)anthracene	228	14.076	14.079	(0.991)	132618	5.00000	5.270
*	25 Chrysene-d12	240	14.203	14.206	(1.000)	44781	2.00000	
	27 Chrysene	228	14.278	14.282	(1.005)	132750	5.00000	4.955
	28 Benzo(b)fluoranthene	252	16.827	16.833	(0.929)	125757	5.00000	5.118
	29 Benzo(k)fluoranthene	252	16.887	16.897	(0.932)	122821	5.00000	5.103
	30 Benzo(j)fluoranthene	252	16.966	16.972	(0.937)	113399	5.00000	5.234
	31 Total Benzofluoranthenes	252	16.827	16.833	(0.929)	361443	15.0000	15.53(M)
	34 Benzo(e)pyrene	252	17.750	17.760	(0.980)	121964	5.00000	4.978
	32 Benzo(a)pyrene	252	17.883	17.889	(0.987)	112121	5.00000	5.186
*	33 Perylene-d12	264	18.111	18.114	(1.000)	42187	2.00000	
	35 Perylene	252	18.187	18.193	(1.004)	116268	5.00000	5.011

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$ 36 Dibenzo(a,h)anthracene-d14	292	20.555	20.565	(1.135)	78264	5.00000	5.780
37 Indeno(1,2,3-cd)pyrene	276	20.681	20.691	(1.142)	129575	5.00000	5.260
38 Dibenzo(a,h)anthracene	278	20.669	20.685	(1.141)	112698	5.00000	5.317
39 Benzo(g,h,i)perylene	276	21.763	21.782	(1.202)	114826	5.00000	5.145

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823011907.D
Lab Smp Id: SLA0213-CAL5
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 19-JAN-2023
Calibration Time: 12:52
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44704	22352	89408	46542	4.11
10 Acenaphthene-d10	26411	13206	52822	27638	4.65
15 Phenanthrene-d10	49210	24605	98420	51351	4.35
25 Chrysene-d12	42994	21497	85988	44781	4.16
33 Perylene-d12	40520	20260	81040	42187	4.11

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.06
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.00
15 Phenanthrene-d10	9.24	8.74	9.74	9.23	-0.03
25 Chrysene-d12	14.20	13.70	14.70	14.20	0.00
33 Perylene-d12	18.11	17.61	18.61	18.11	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011907.D

Lab ID: SLA0213-CAL5
nt8.i, 20230119.b\FSIMPNA230119.m,   19-JAN-2023 13:19

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

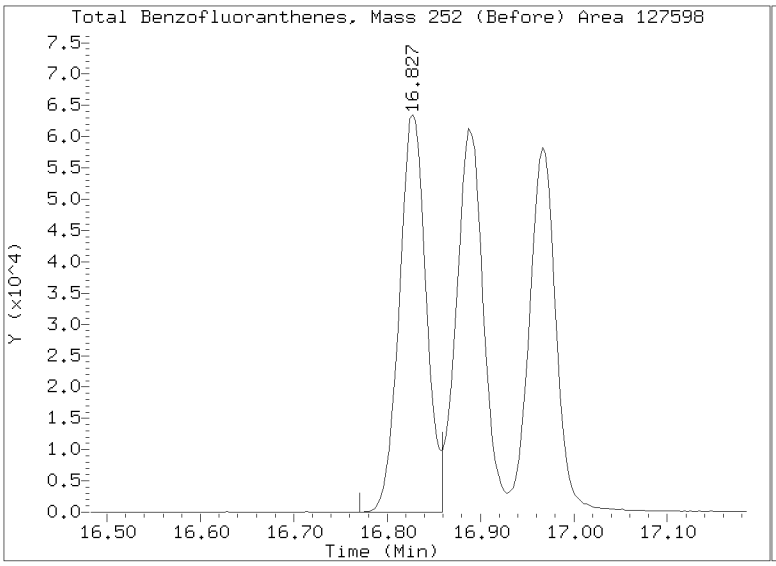
No RRT check performed

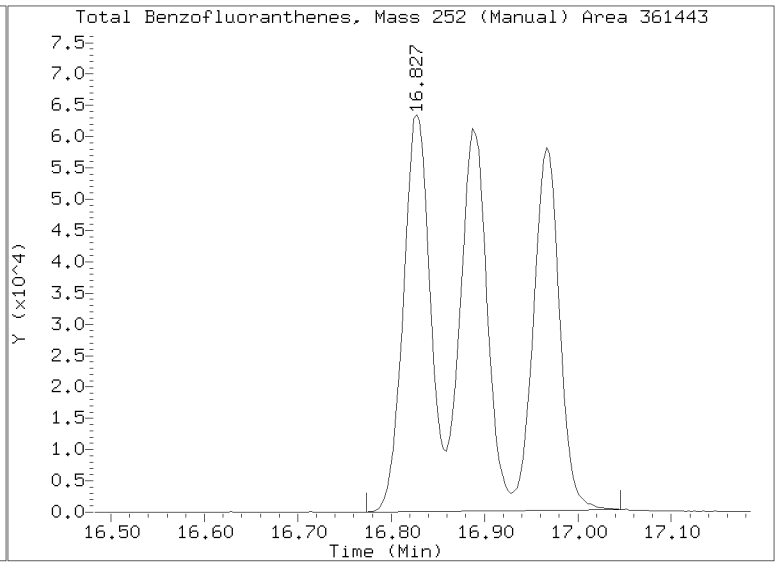
On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

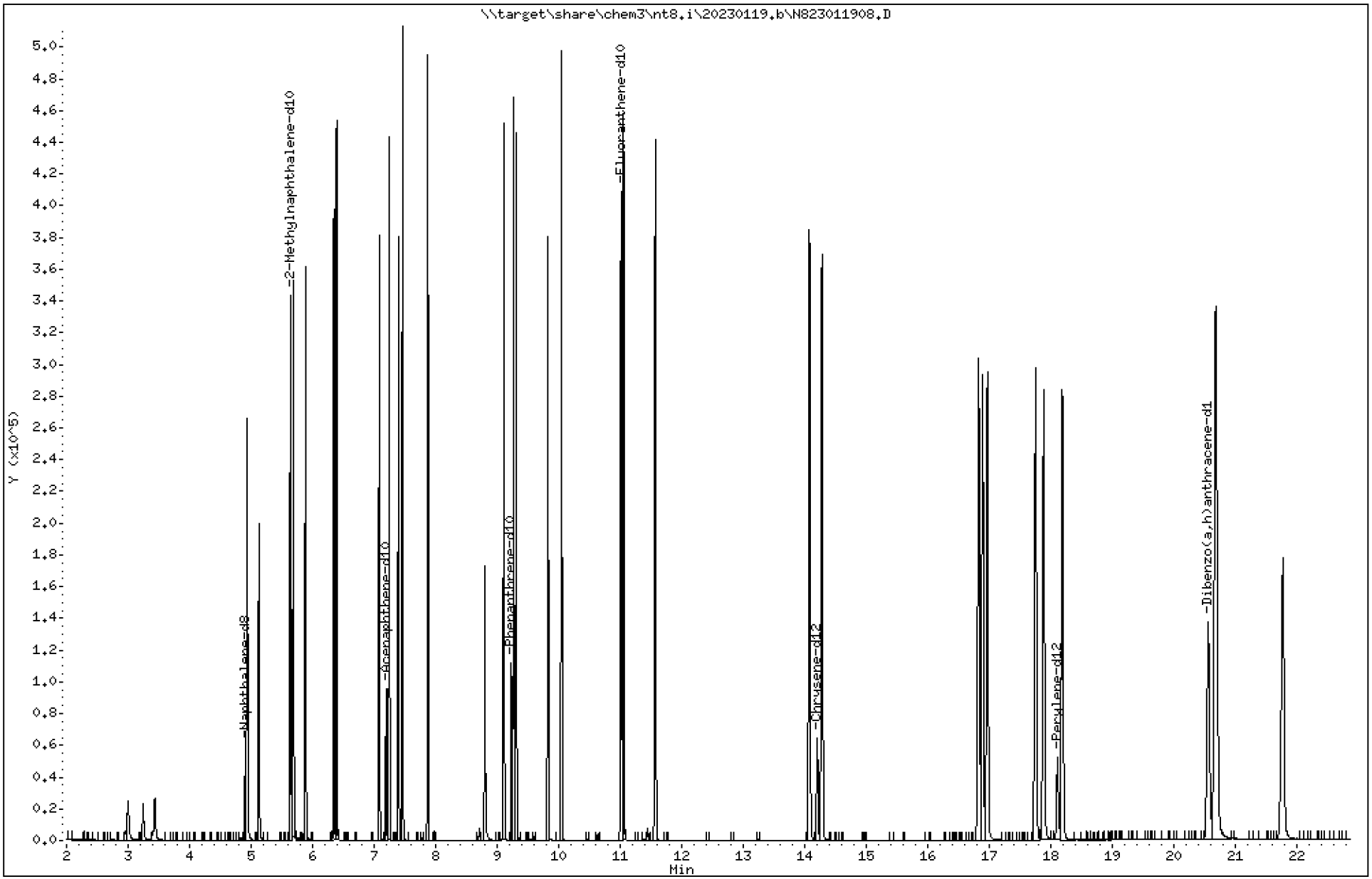
Datafile: //target/share/chem3/nt8.i/20230119.b/N823011907.D
Injection Date: 19-JAN-2023 13:19
Lab ID:SLA0213-CAL5 Client ID:
Report Date: 01/19/2023 20:12





Data File: \\target\share\chem3\nt8.i\20230119.b\N823011908.D
Date : 19-JAN-2023 13:46
Client ID:
Sample Info: IC10230119,

Instrument: nt8.i
Operator: JZ
Column phase: Rxi-17sil
Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011908.D
Lab Smp Id: SLA0213-CAL6
Inj Date : 19-JAN-2023 13:46
Operator : JZ Inst ID: nt8.i
Smp Info : IC10230119,
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Meth Date : 19-Jan-2023 20:10 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
Target Version: 4.14
Processing Host: JIANQING-202105

							AMOUNTS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	1 Naphthalene-d8	136	4.906	4.906	(1.000)	46070	2.00000	
	2 Naphthalene	128	4.938	4.938	(1.006)	203510	10.0000	9.501
$	3 2-Methylnaphthalene-d10	152	5.640	5.640	(1.149)	124701	10.0000	9.925
	4 2-Methylnaphthalene	141	5.687	5.687	(1.159)	112895	10.0000	9.582
	5 1-methylnaphthalene	141	5.887	5.887	(1.200)	115357	10.0000	9.647
	7 Biphenyl	154	6.348	6.348	(0.882)	169086	10.0000	9.603
	8 2,6-Dimethylnaphthalene	156	6.392	6.392	(0.888)	124019	10.0000	9.952
	9 Acenaphthylene	152	7.088	7.088	(0.985)	213179	10.0000	10.58
*	10 Acenaphthene-d10	164	7.196	7.196	(1.000)	26689	2.00000	
	11 Acenaphthene	153	7.246	7.246	(1.007)	130872	10.0000	9.692
	12 Dibenzofuran	168	7.398	7.398	(1.028)	193532	10.0000	9.436
	13 1,6,7-Trimethylnaphthalene	170	7.464	7.464	(1.037)	127563	10.0000	9.863
	14 Fluorene	166	7.875	7.875	(1.094)	161125	10.0000	10.11
	18 Dibenzothiophene	184	9.112	9.112	(0.987)	217256	10.0000	9.701
*	15 Phenanthrene-d10	188	9.235	9.235	(1.000)	50683	2.00000	
	16 Phenanthrene	178	9.273	9.273	(1.004)	230002	10.0000	9.290
	17 Anthracene	178	9.314	9.314	(1.009)	221162	10.0000	9.834
	19 Carbazole	167	9.826	9.826	(1.064)	210036	10.0000	10.19
	20 1-Methylphenanthrene	192	10.051	10.051	(1.088)	178561	10.0000	10.01
	22 Fluoranthene	202	11.056	11.056	(1.197)	257643	10.0000	9.560
$	21 Fluoranthene-d10	212	11.018	11.018	(1.193)	235698	10.0000	10.54
	23 Pyrene	202	11.575	11.575	(0.815)	274116	10.0000	10.08
	24 Benzo(a)anthracene	228	14.079	14.079	(0.991)	268196	10.0000	10.88
*	25 Chrysene-d12	240	14.206	14.206	(1.000)	43880	2.00000	
	27 Chrysene	228	14.282	14.282	(1.005)	257418	10.0000	9.806
	28 Benzo(b)fluoranthene	252	16.833	16.833	(0.929)	252022	10.0000	10.64
	29 Benzo(k)fluoranthene	252	16.897	16.897	(0.933)	238915	10.0000	10.30
	30 Benzo(j)fluoranthene	252	16.972	16.972	(0.937)	216807	10.0000	10.38
	31 Total Benzofluoranthenes	252	16.833	16.833	(0.929)	704955	30.0000	31.43(M)
	34 Benzo(e)pyrene	252	17.760	17.760	(0.980)	240447	10.0000	10.18
	32 Benzo(a)pyrene	252	17.889	17.889	(0.988)	222990	10.0000	10.70
*	33 Perylene-d12	264	18.114	18.114	(1.000)	40659	2.00000	
	35 Perylene	252	18.193	18.193	(1.004)	226582	10.0000	10.13

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$ 36 Dibenzo(a,h)anthracene-d14	292	20.564	20.565	(1.135)	162230	10.0000	12.43
37 Indeno(1,2,3-cd)pyrene	276	20.691	20.691	(1.142)	252895	10.0000	10.65
38 Dibenzo(a,h)anthracene	278	20.685	20.685	(1.142)	223771	10.0000	10.95
39 Benzo(g,h,i)perylene	276	21.782	21.782	(1.202)	231445	10.0000	10.76

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823011908.D
Lab Smp Id: SLA0213-CAL6
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 19-JAN-2023
Calibration Time: 12:52
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44704	22352	89408	46070	3.06
10 Acenaphthene-d10	26411	13206	52822	26689	1.05
15 Phenanthrene-d10	49210	24605	98420	50683	2.99
25 Chrysene-d12	42994	21497	85988	43880	2.06
33 Perylene-d12	40520	20260	81040	40659	0.34

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.00
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.00
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.00
25 Chrysene-d12	14.20	13.70	14.70	14.21	0.02
33 Perylene-d12	18.11	17.61	18.61	18.11	0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011908.D

Lab ID: SLA0213-CAL6
nt8.i, 20230119.b\FSIMPNA230119.m,   19-JAN-2023 13:46

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

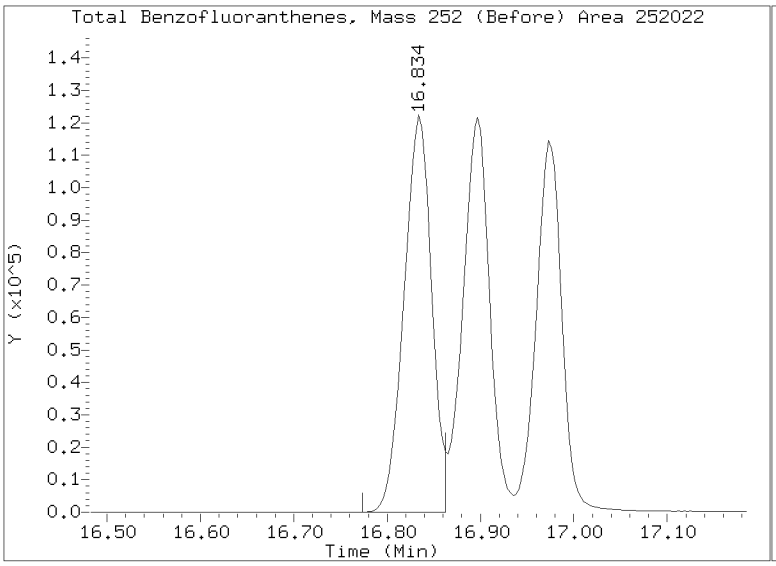
No RRT check performed

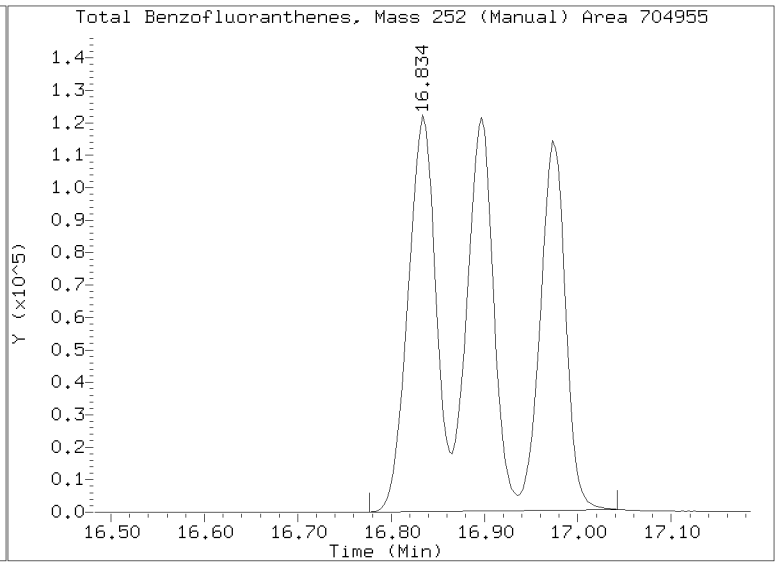
On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011908.D
Injection Date: 19-JAN-2023 13:46
Lab ID:SLA0213-CAL6 Client ID:
Report Date: 01/19/2023 20:12





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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

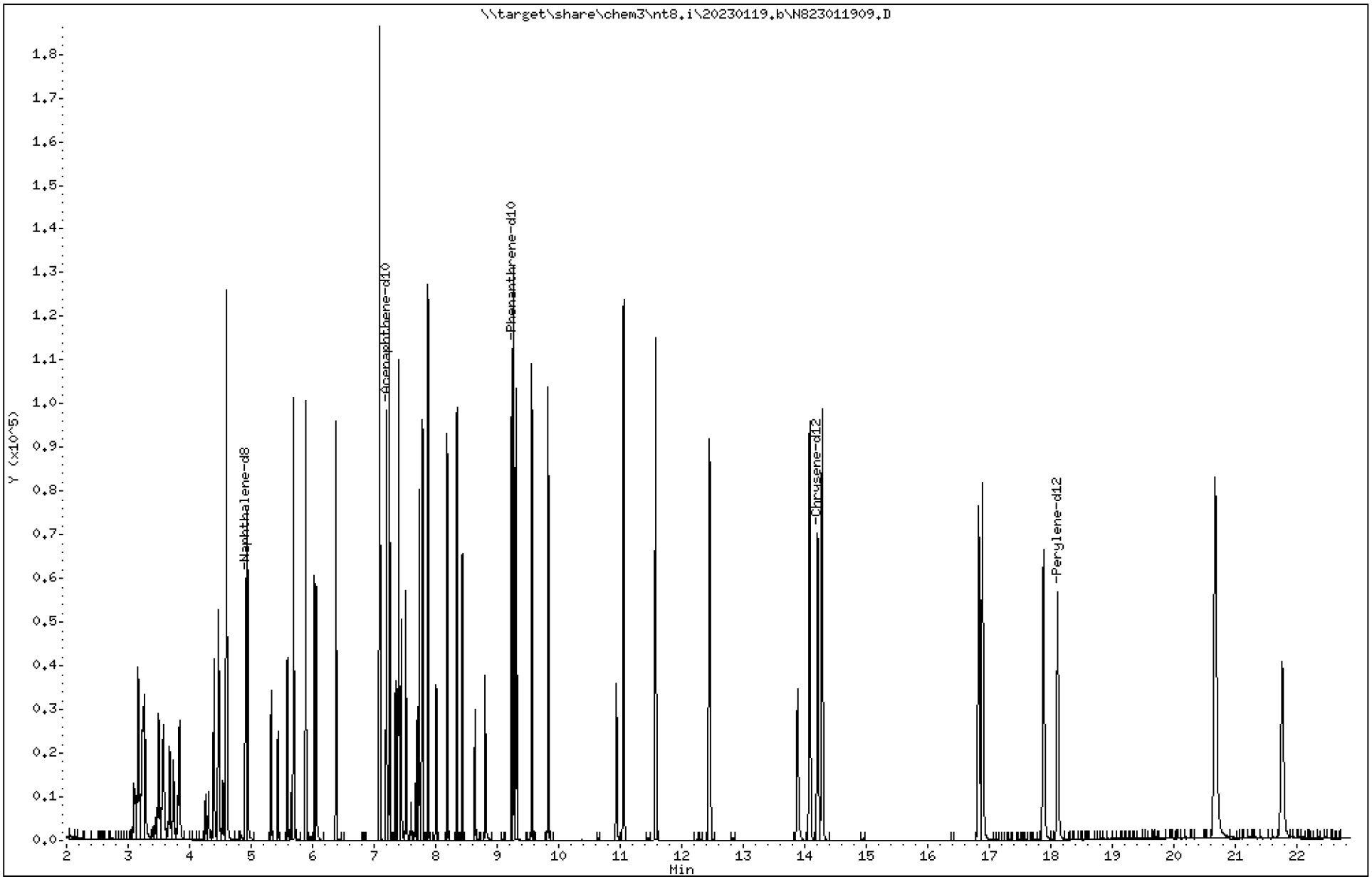
Sample Info: SCV230119

Volume Injected (uL): 1.0

Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25



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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

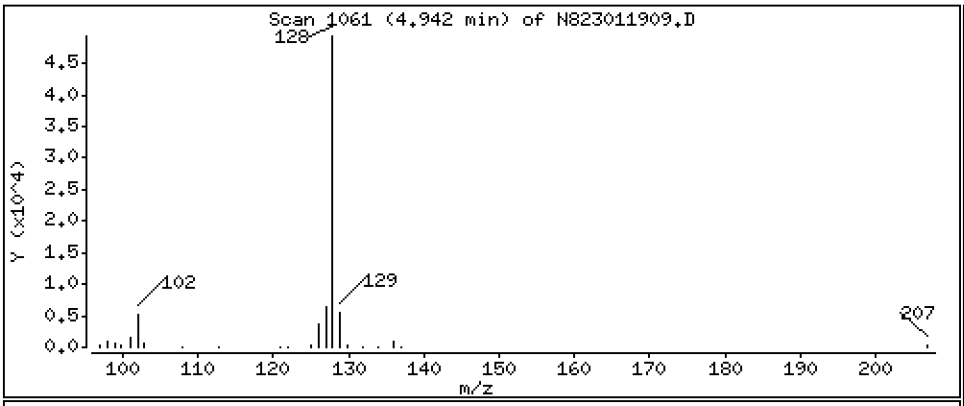
Operator: JZ

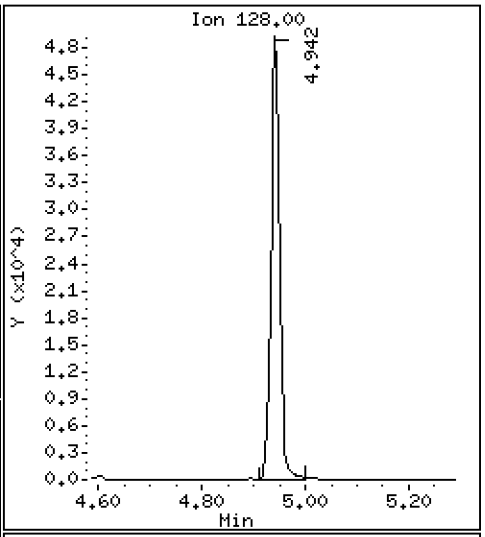
Column phase: Rxi-17sil

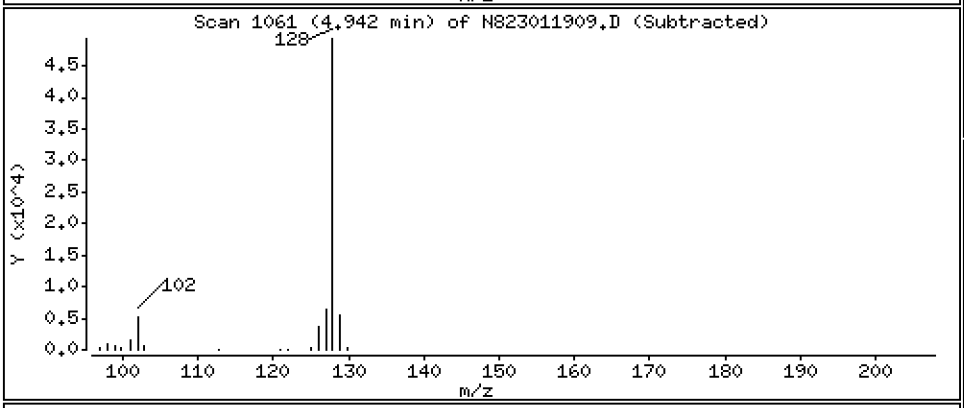
Column diameter: 0.25

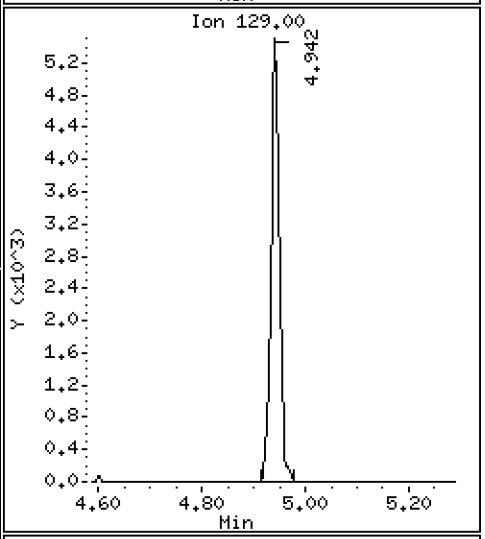
2 Naphthalene

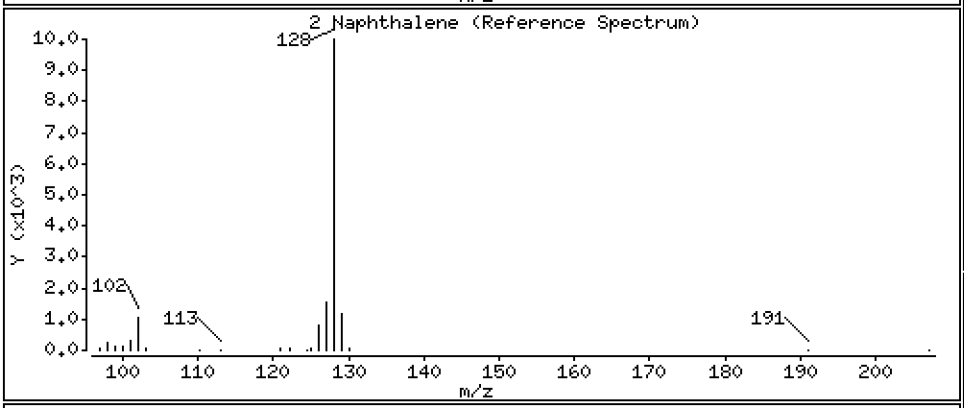
Concentration: 2.626 ug/L

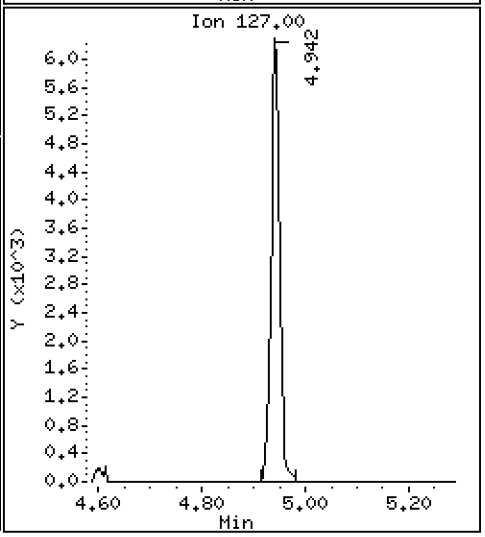


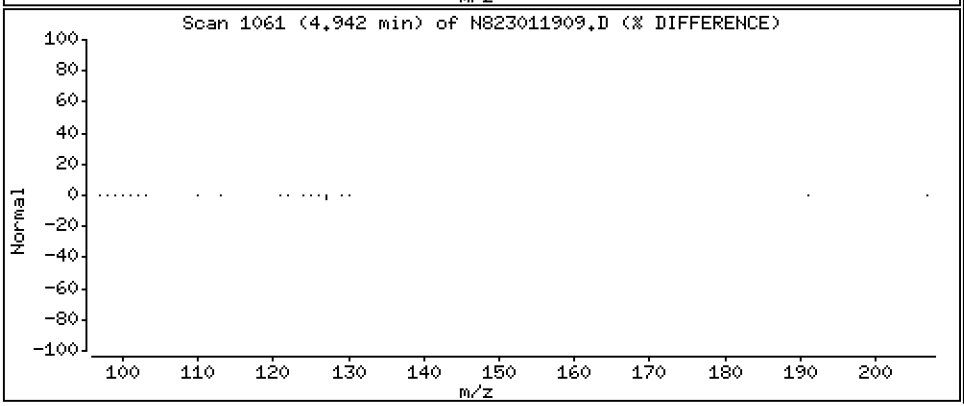












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

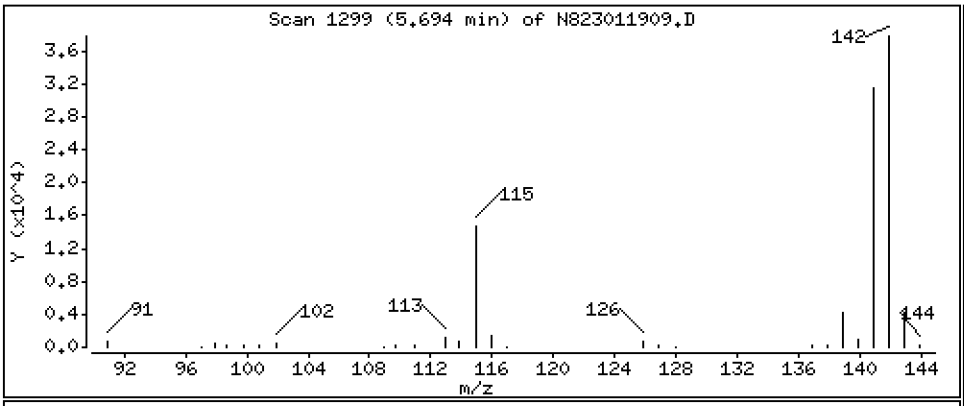
Operator: JZ

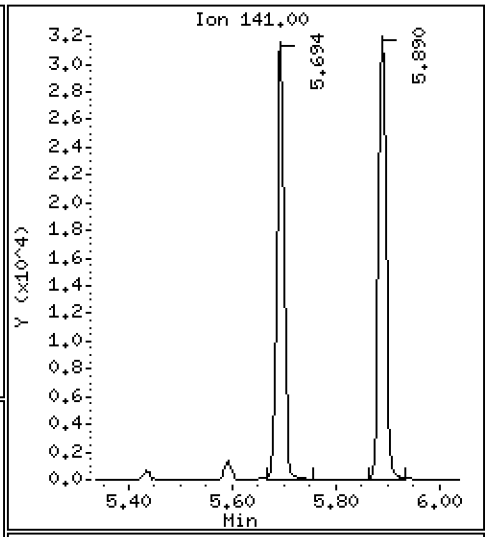
Column phase: Rxi-17sil

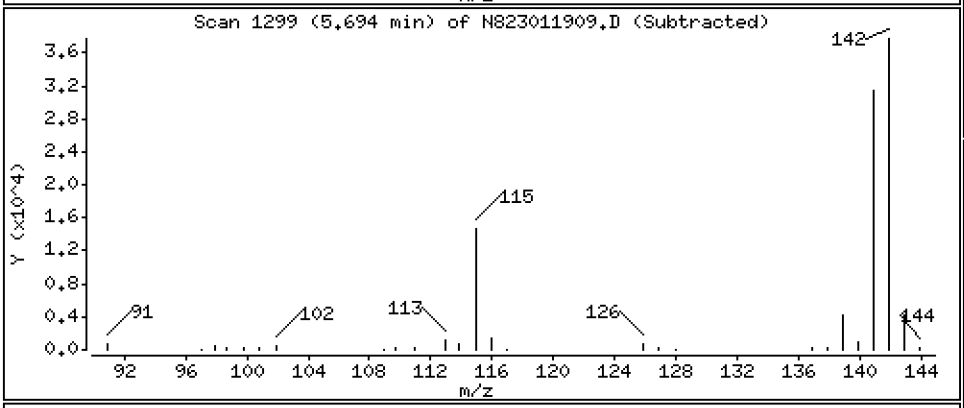
Column diameter: 0.25

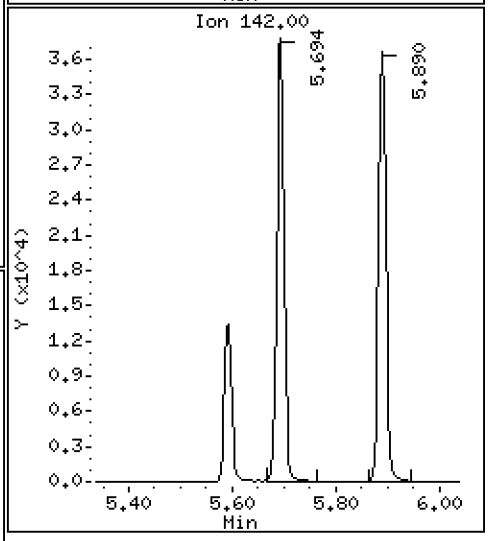
4 2-Methylnaphthalene

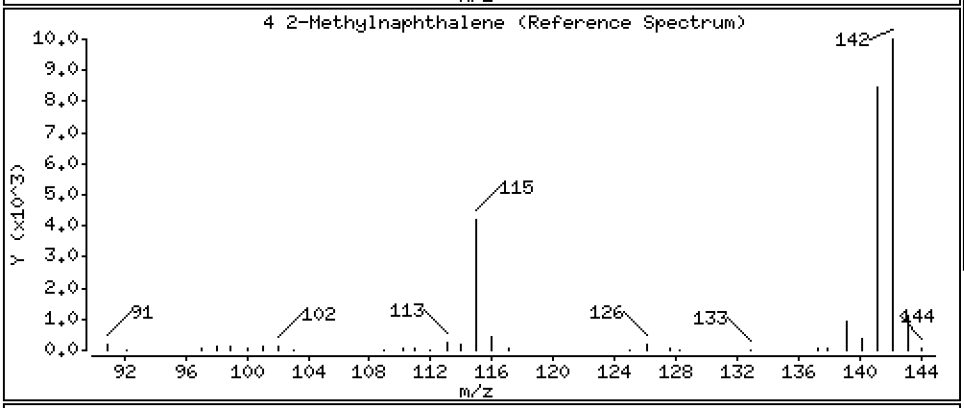
Concentration: 2.670 ug/L

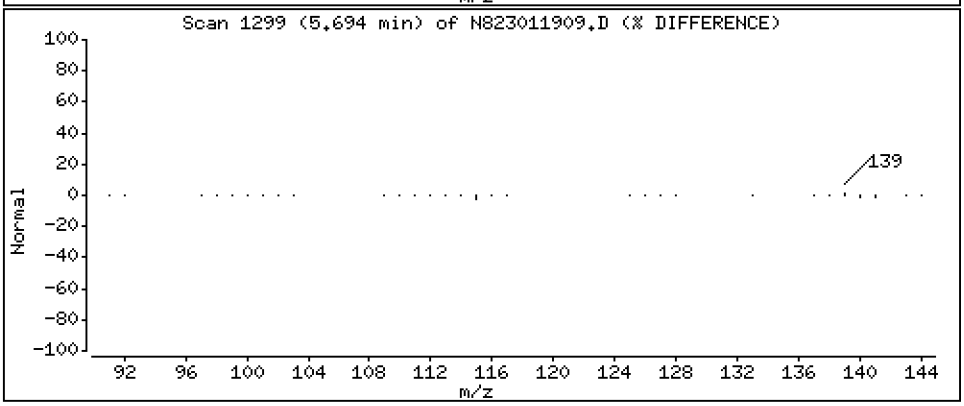












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

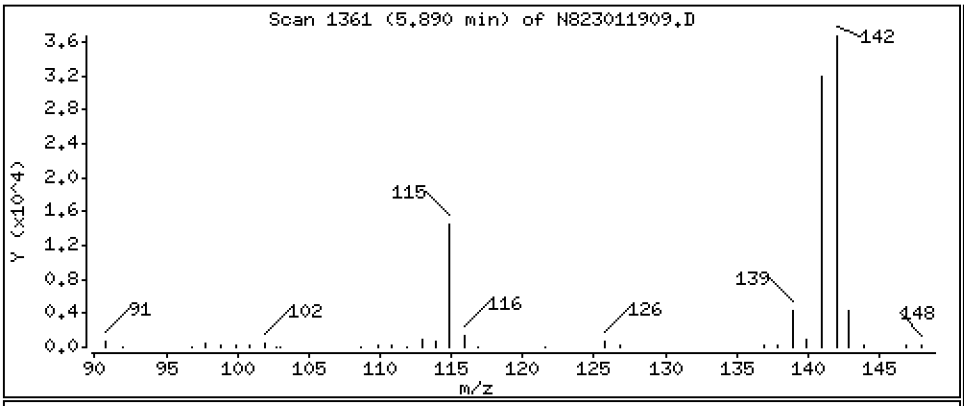
Operator: JZ

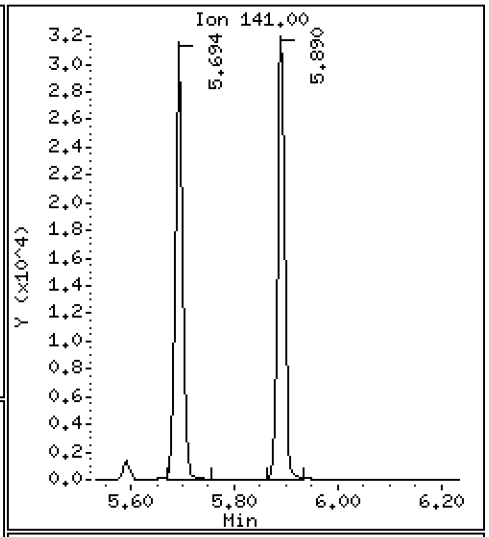
Column phase: Rxi-17sil

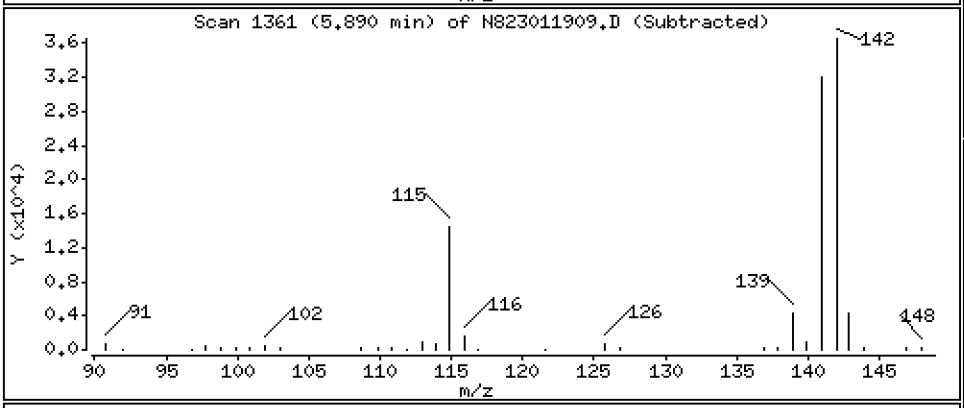
Column diameter: 0.25

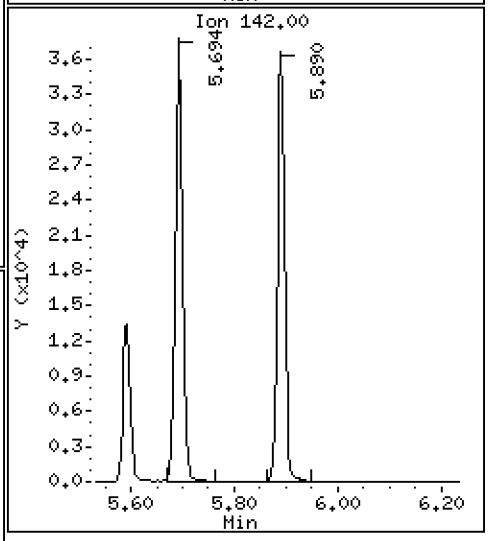
5 1-methylnaphthalene

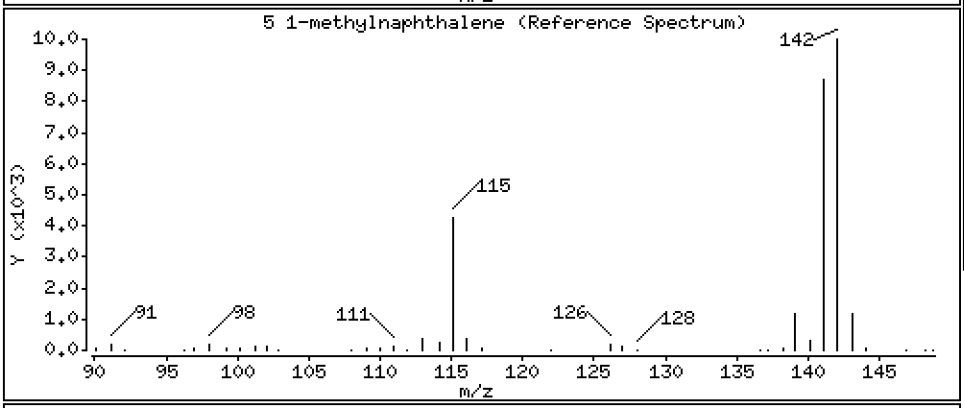
Concentration: 2.649 ug/L

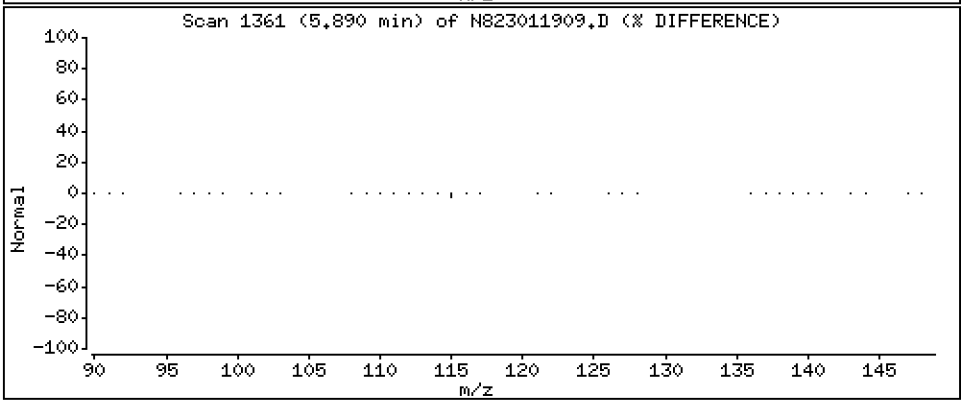












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

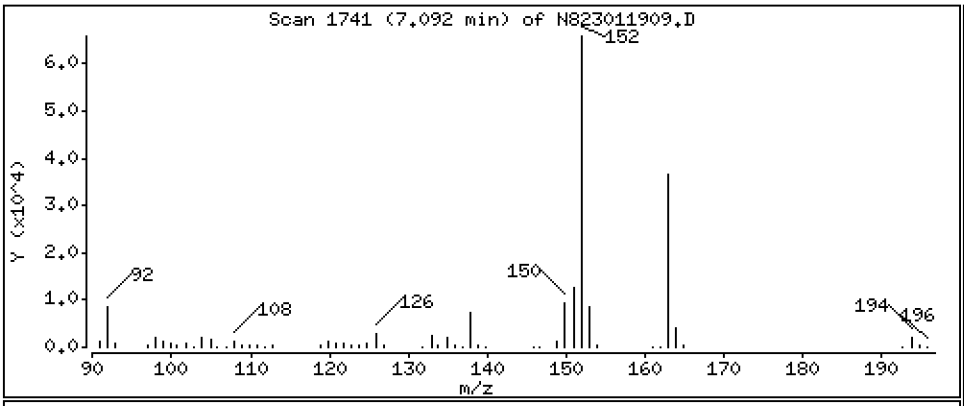
Operator: JZ

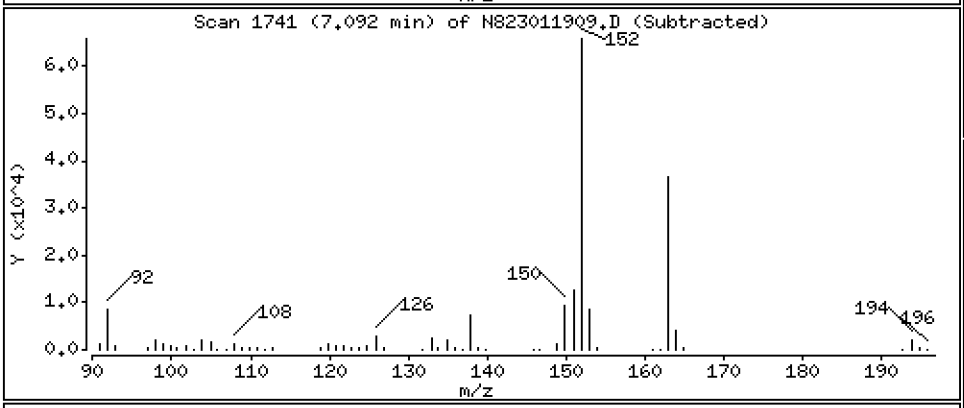
Column phase: Rxi-17sil

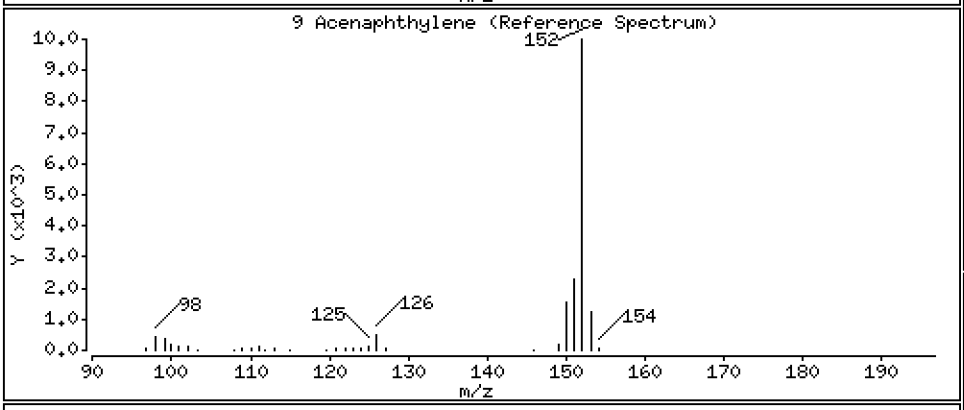
Column diameter: 0.25

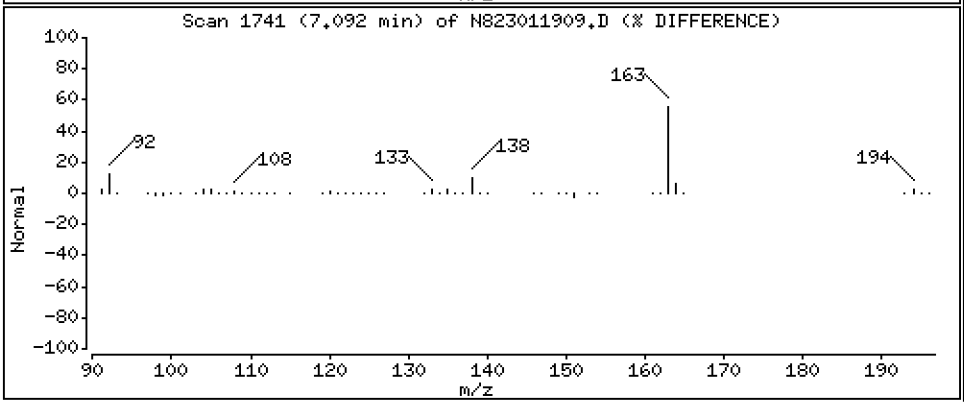
9 Acenaphthylene

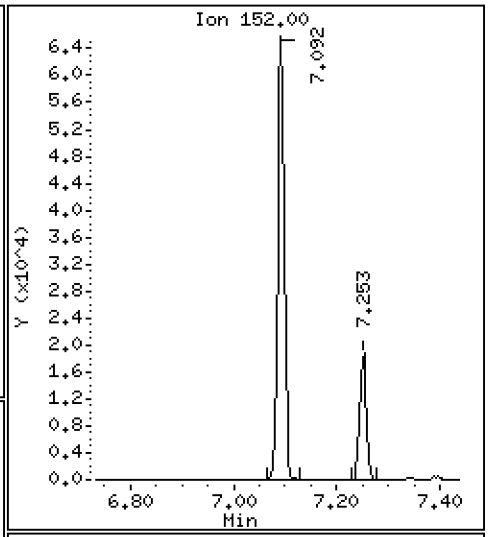
Concentration: 2.821 ug/L

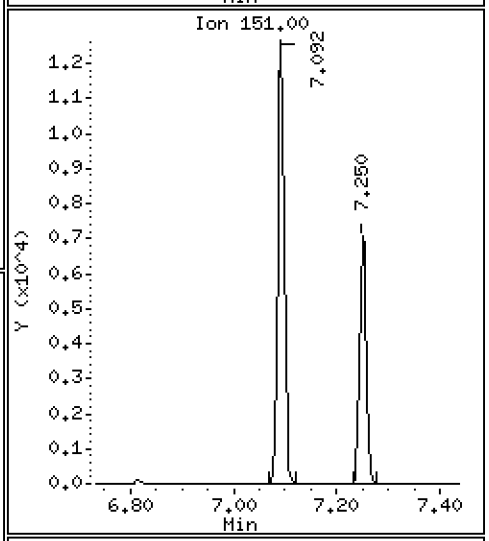


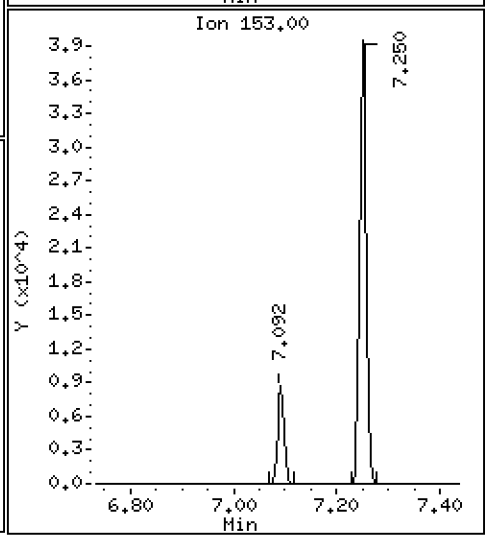












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

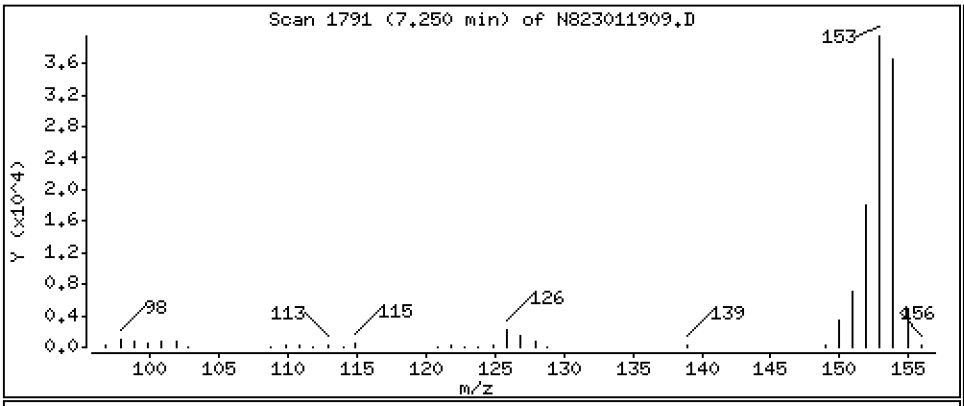
Operator: JZ

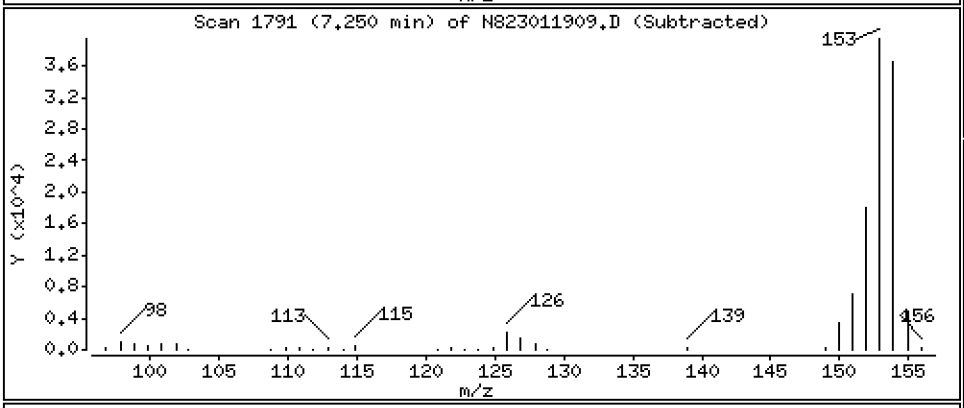
Column phase: Rxi-17sil

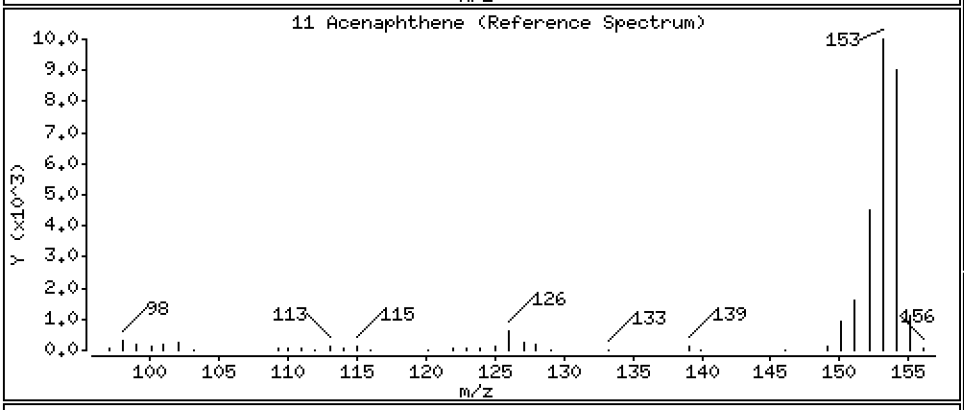
Column diameter: 0.25

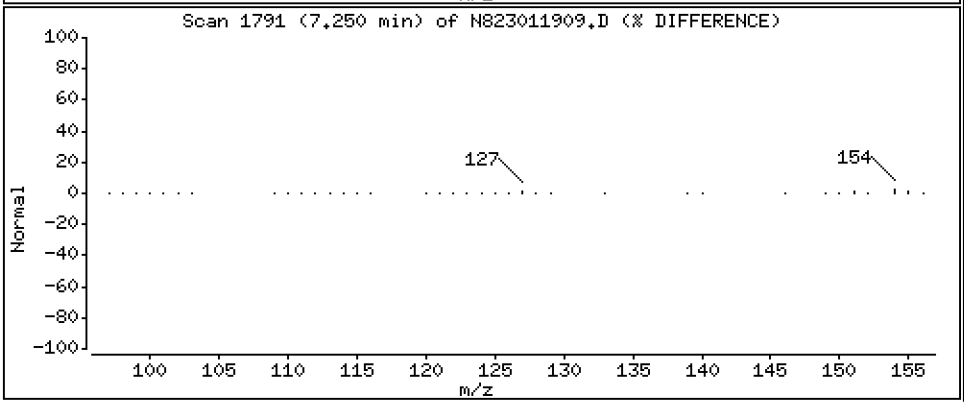
11 Acenaphthene

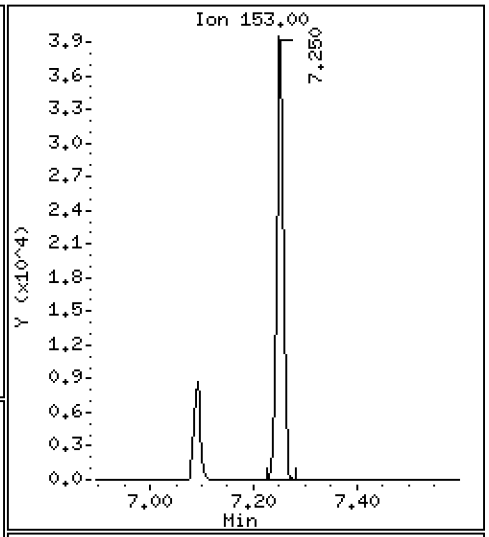
Concentration: 2.600 ug/L

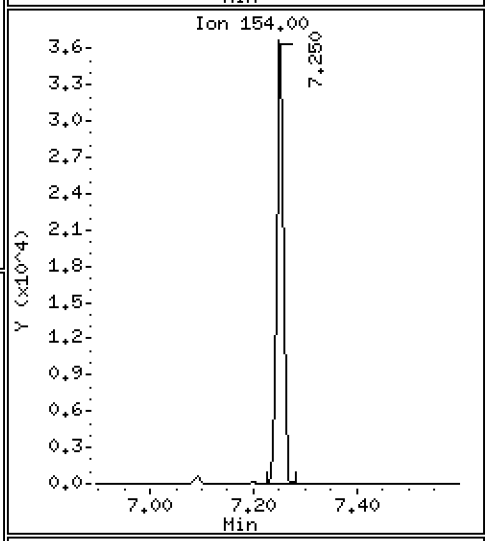


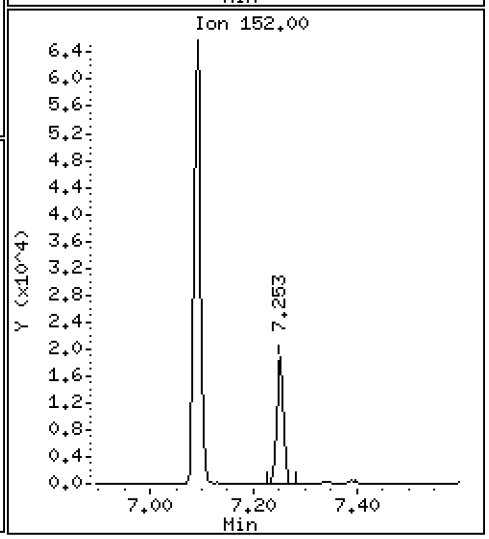












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

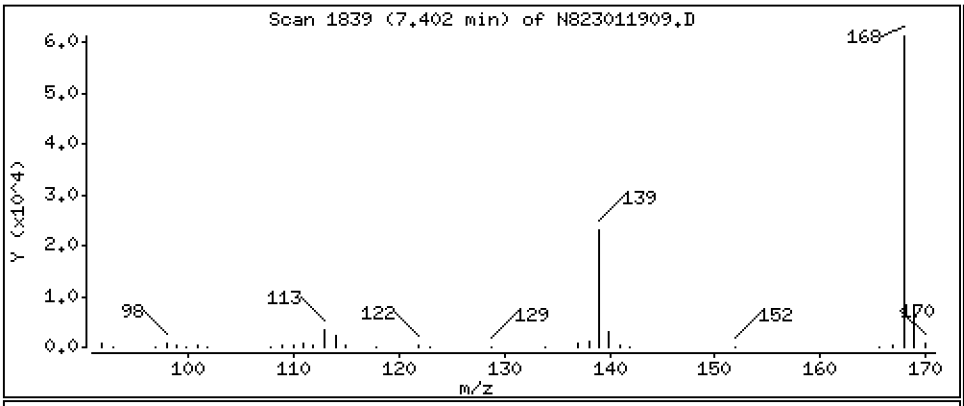
Operator: JZ

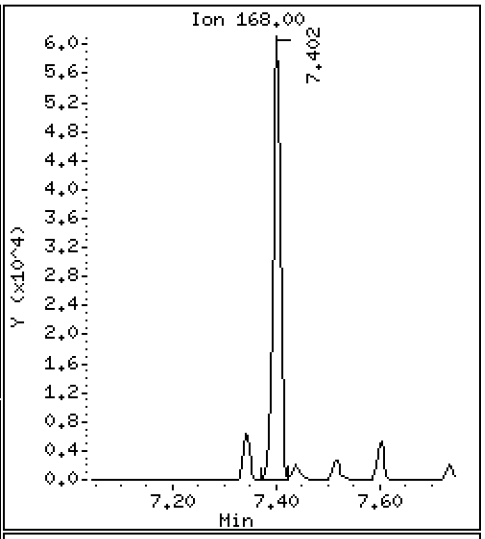
Column phase: Rxi-17sil

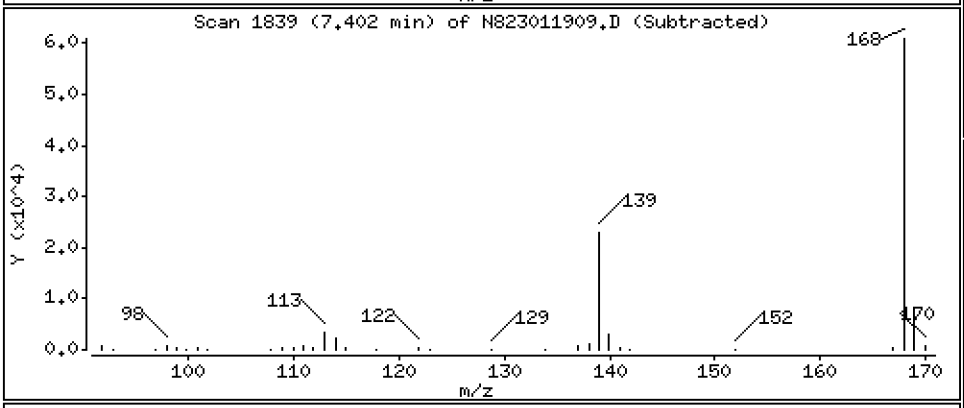
Column diameter: 0.25

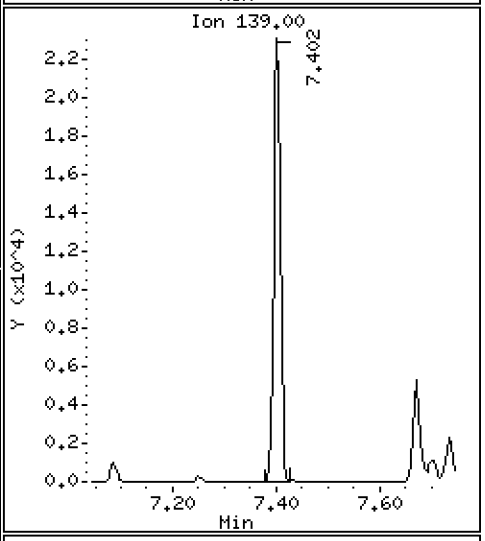
12 Dibenzofuran

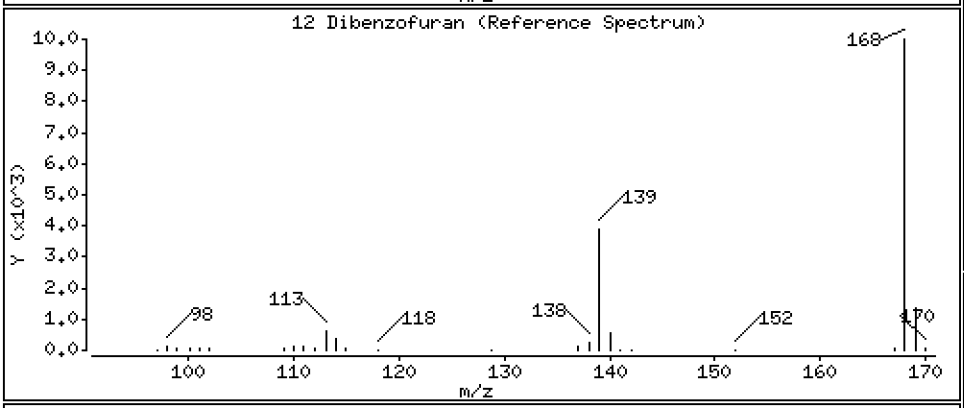
Concentration: 2.860 ug/L

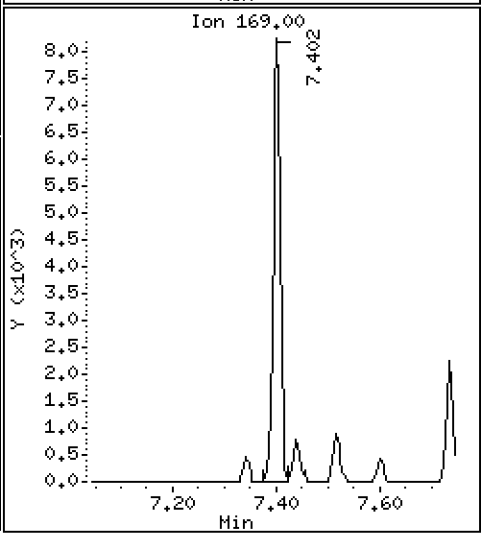


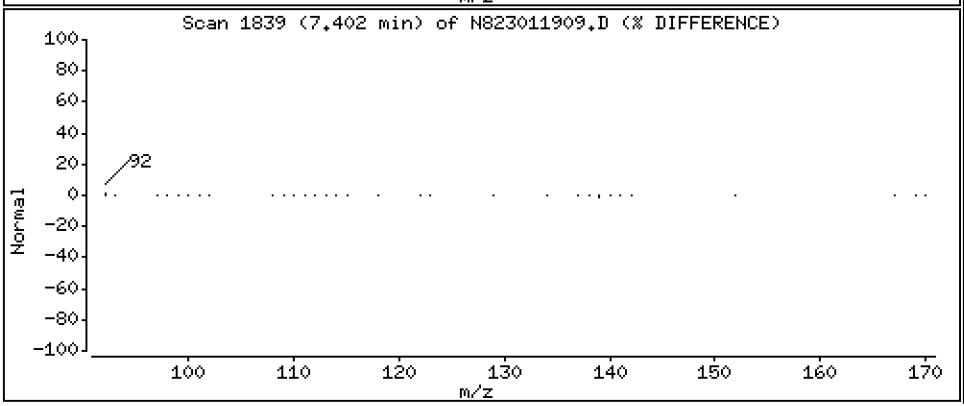












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

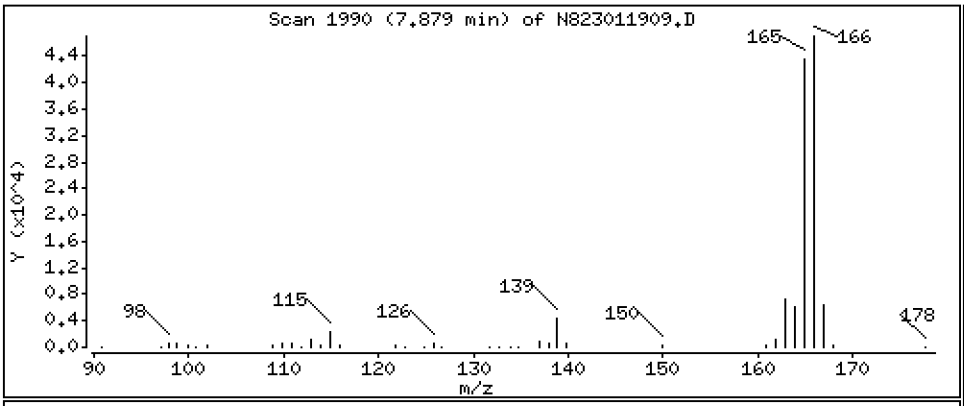
Operator: JZ

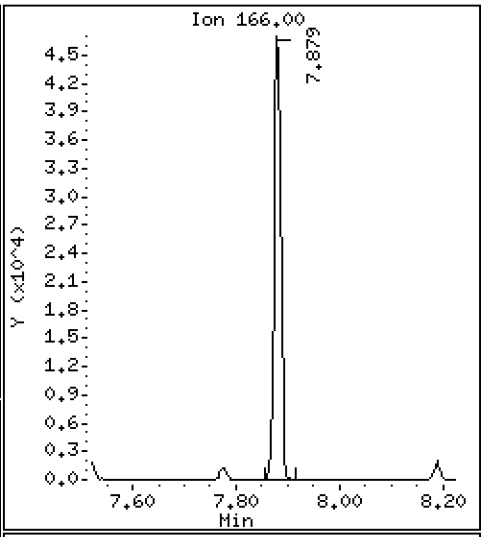
Column phase: Rxi-17sil

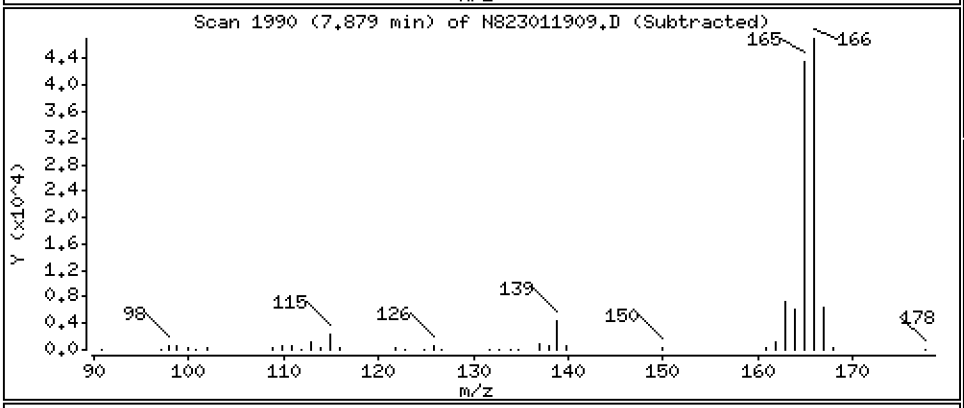
Column diameter: 0.25

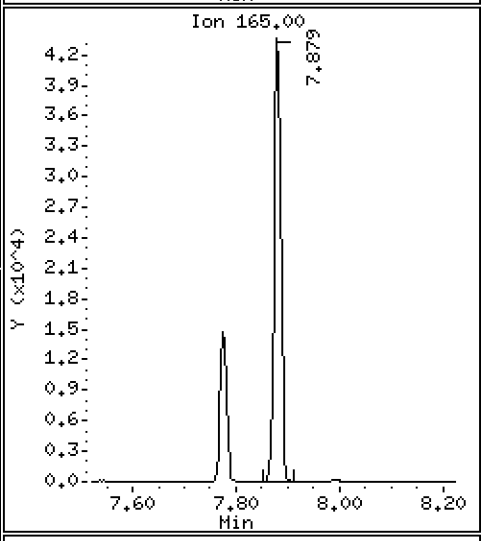
14 Fluorene

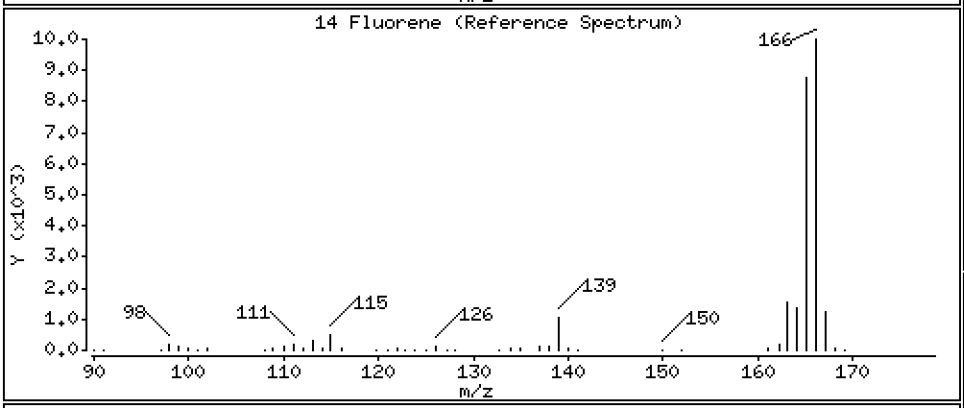
Concentration: 2.631 ug/L

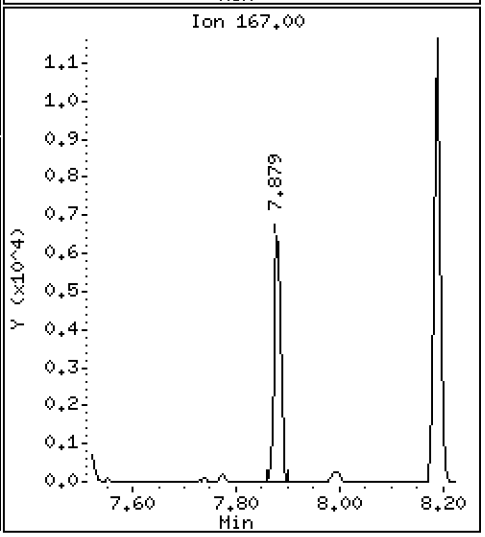


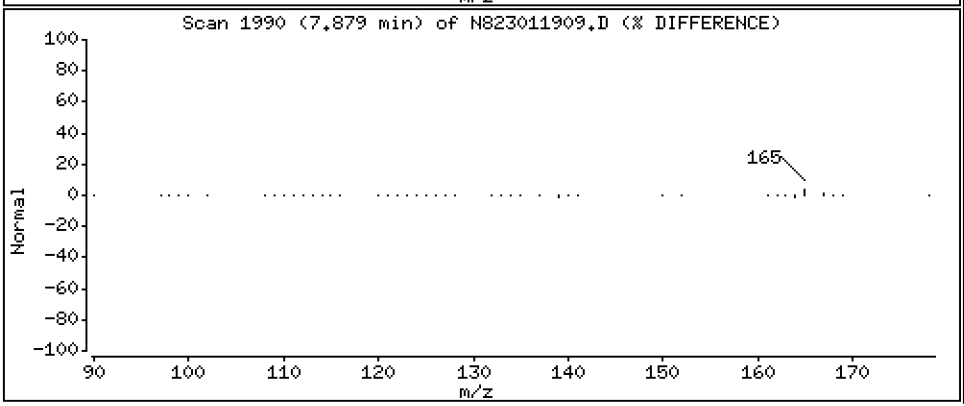












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

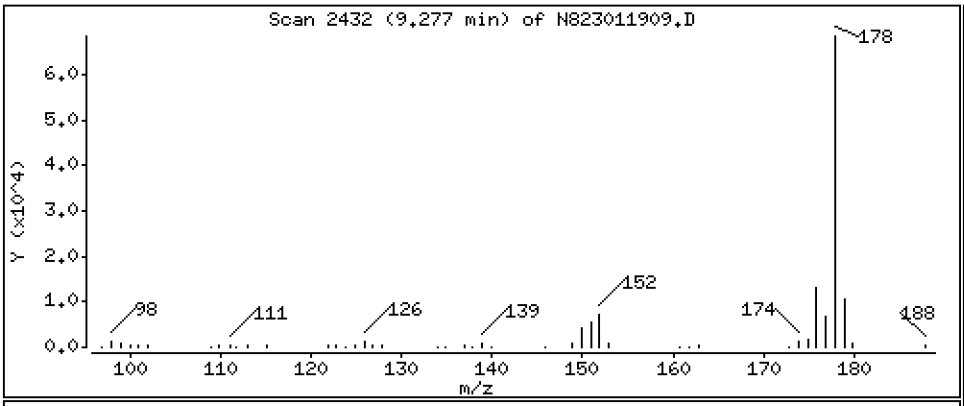
Operator: JZ

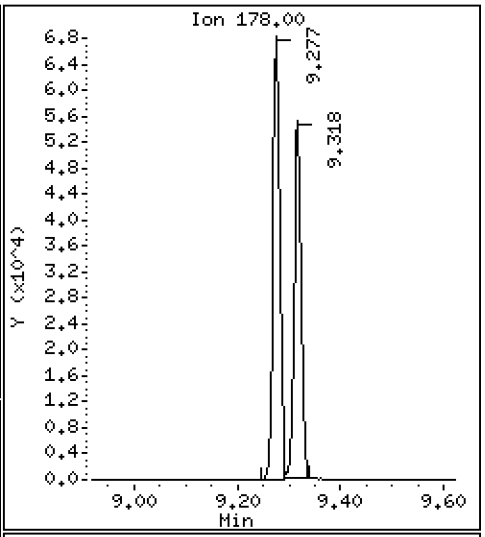
Column phase: Rxi-17sil

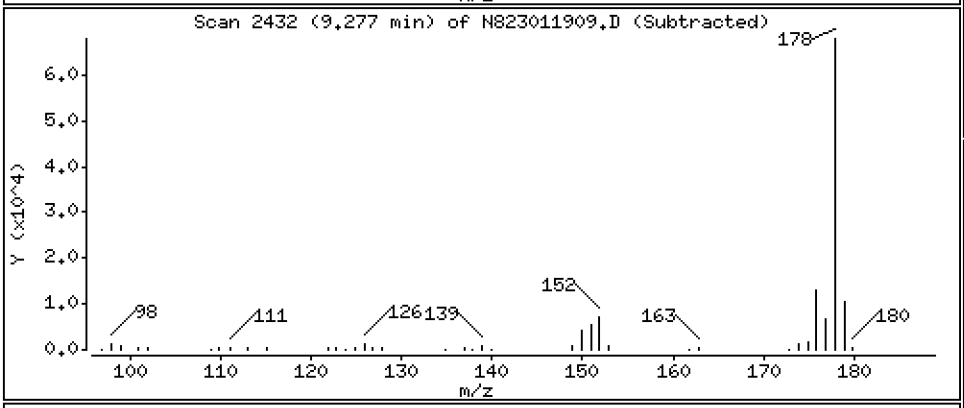
Column diameter: 0.25

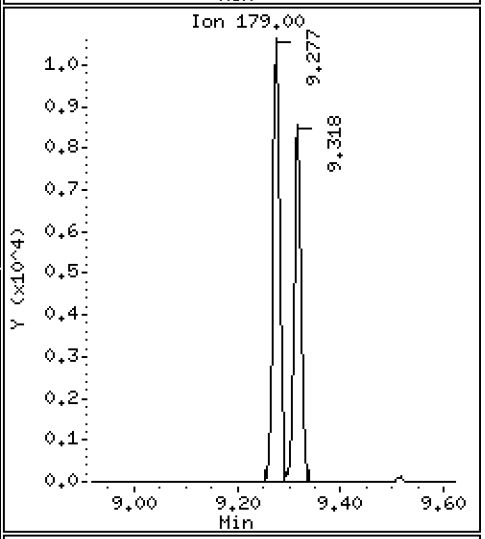
16 Phenanthrene

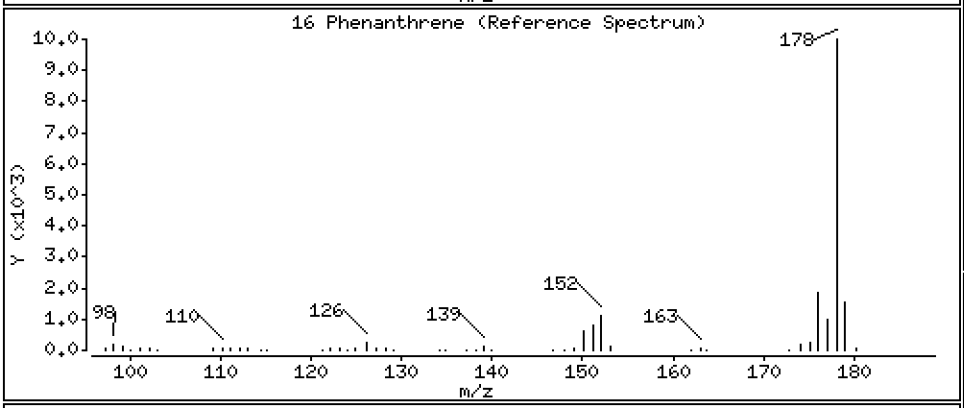
Concentration: 2.448 ug/L

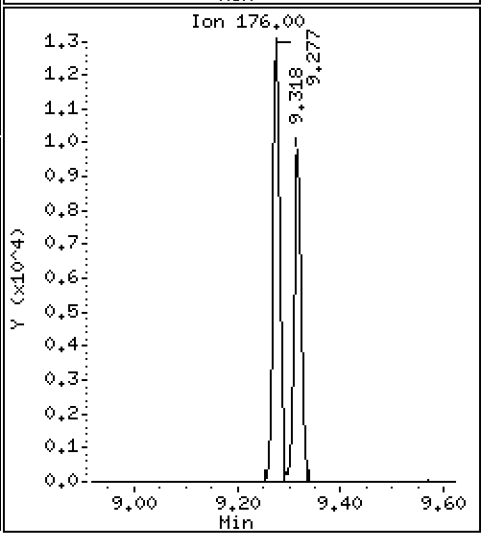


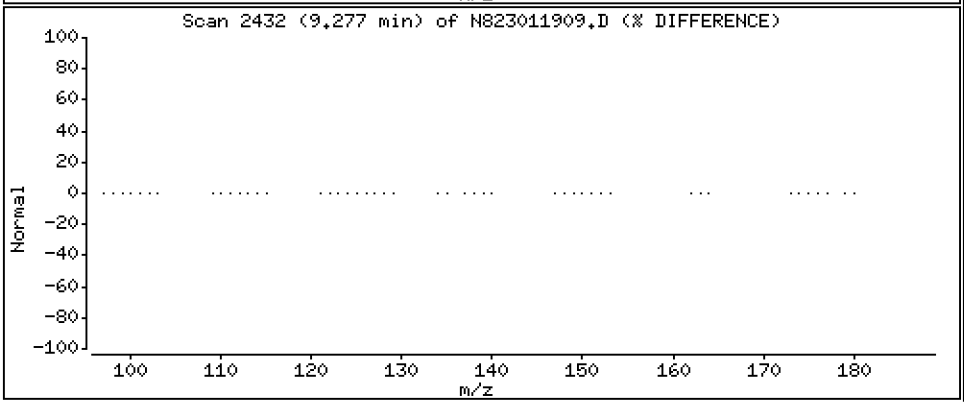












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

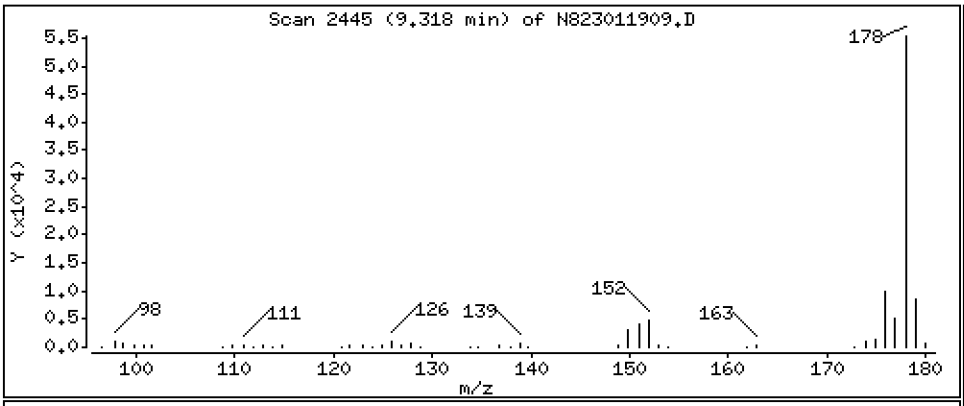
Operator: JZ

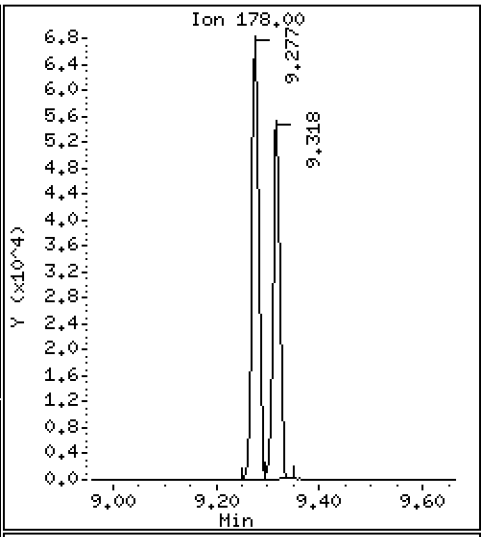
Column phase: Rxi-17sil

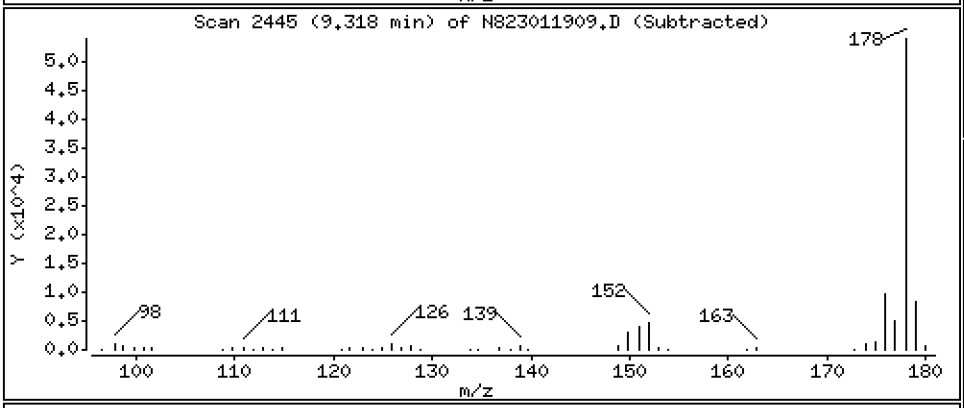
Column diameter: 0.25

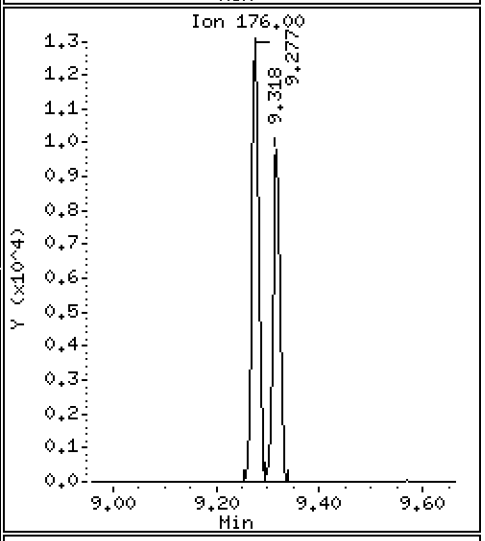
17 Anthracene

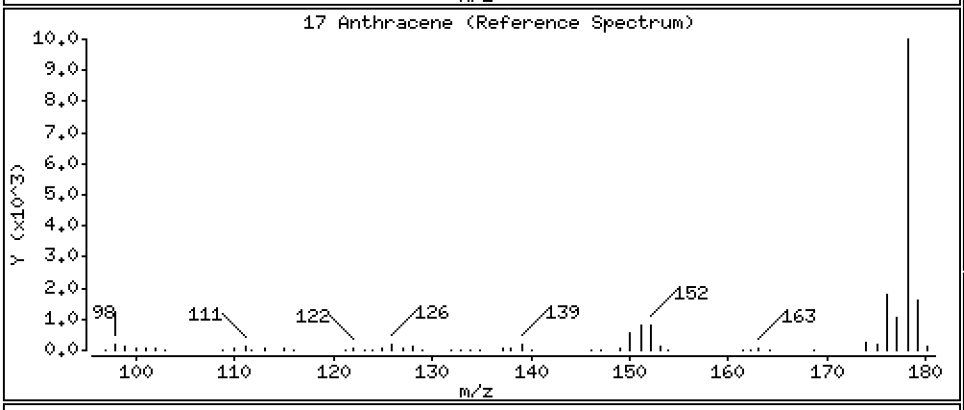
Concentration: 2.270 ug/L

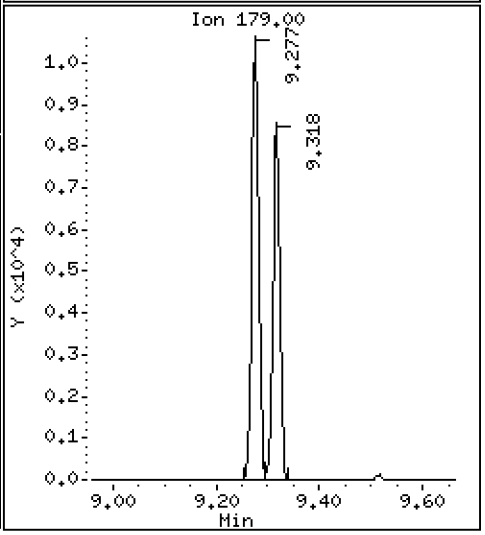


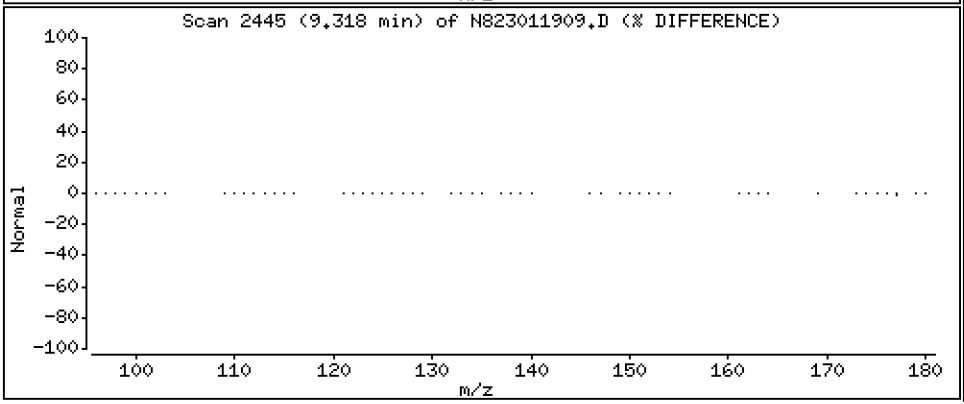












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

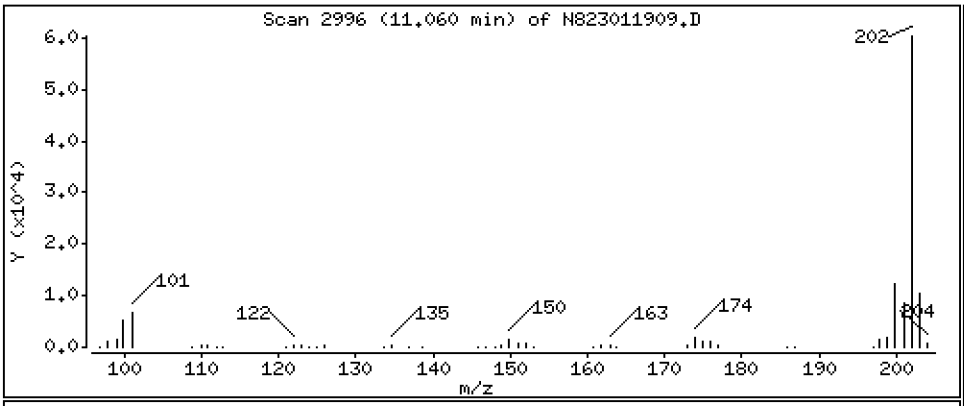
Operator: JZ

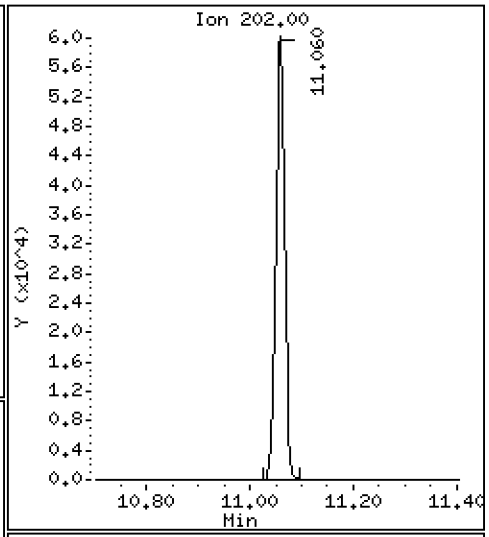
Column phase: Rxi-17sil

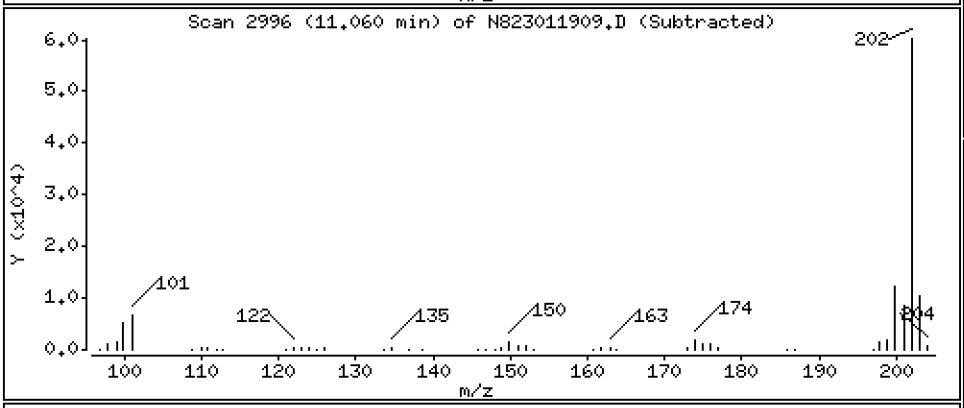
Column diameter: 0.25

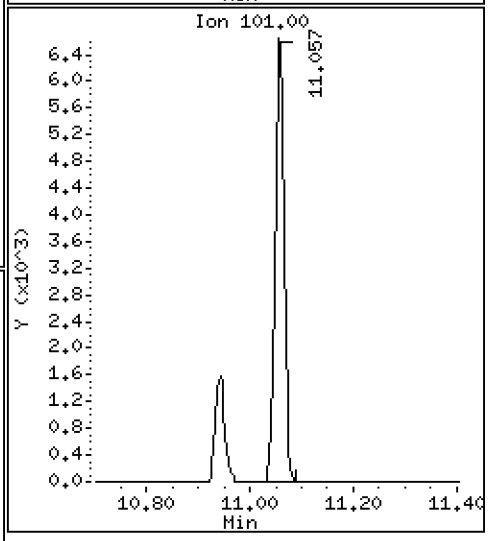
22 Fluoranthene

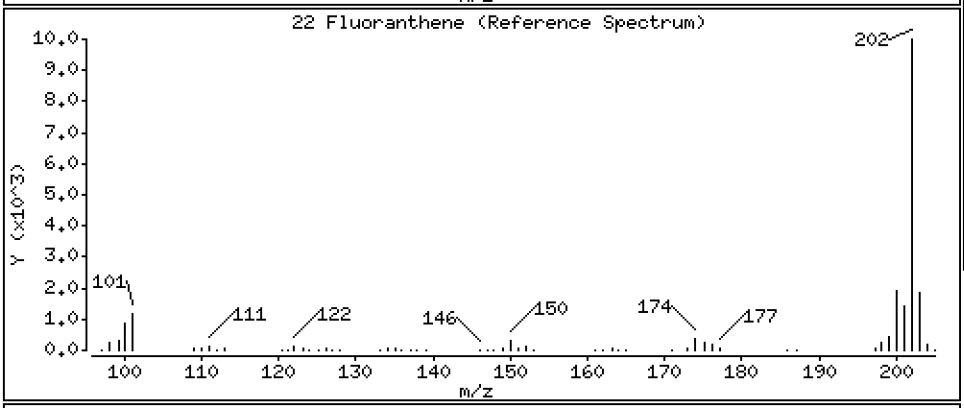
Concentration: 2.653 ug/L

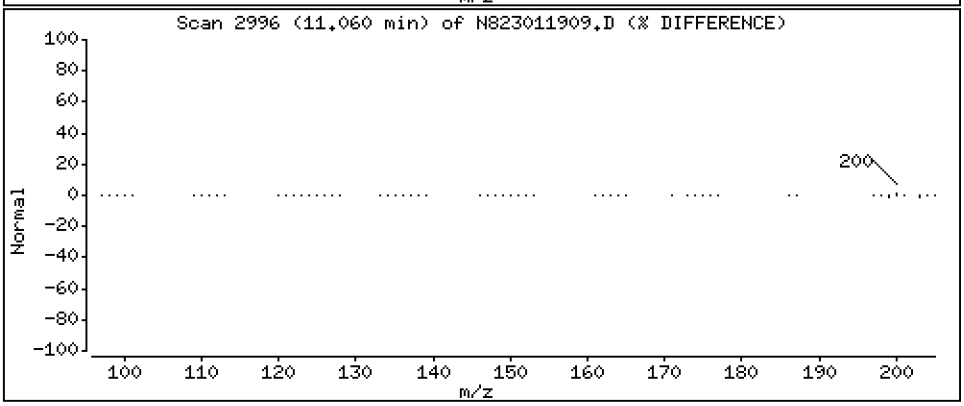












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

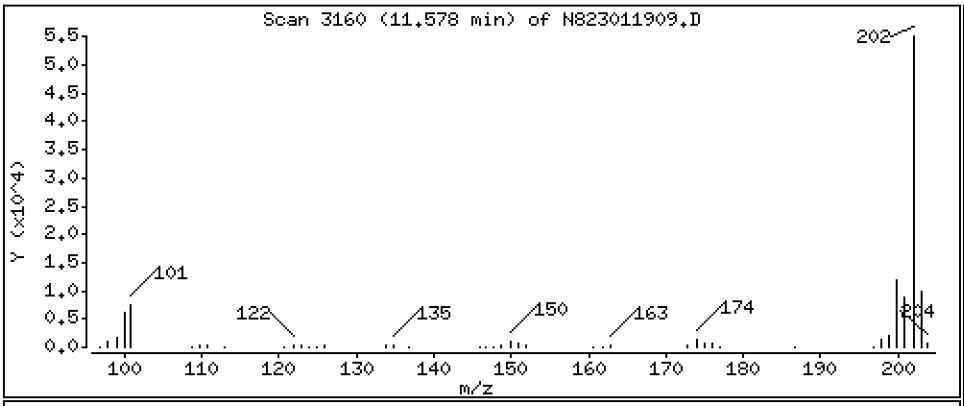
Operator: JZ

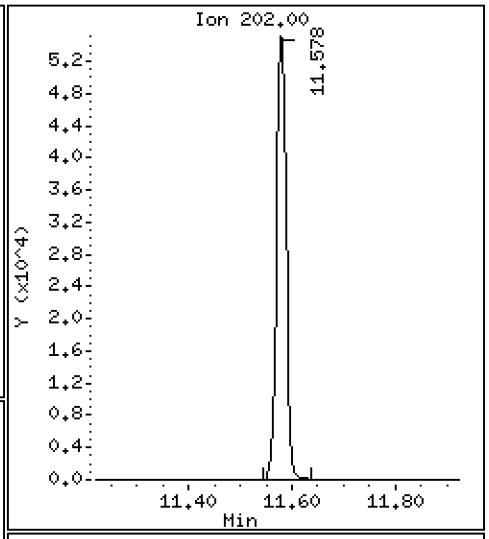
Column phase: Rxi-17sil

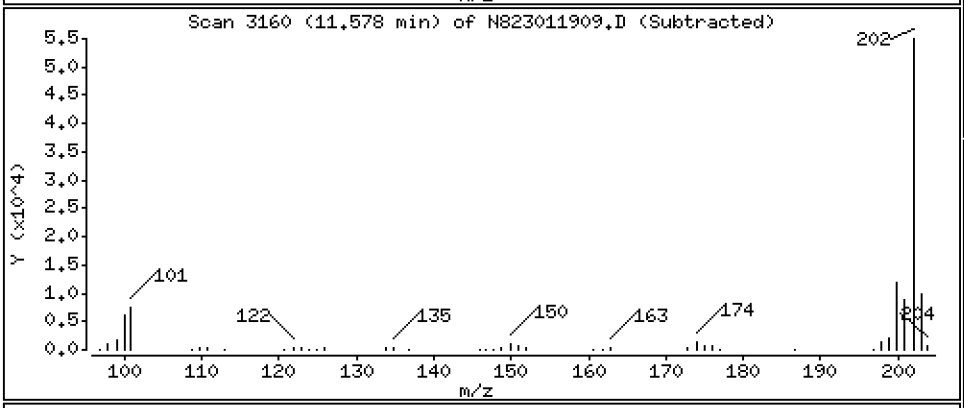
Column diameter: 0.25

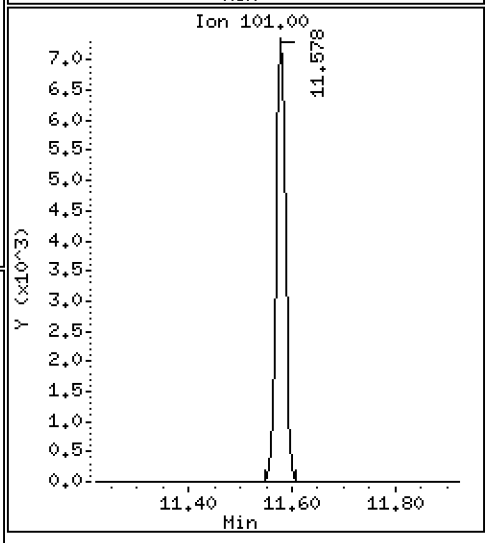
23 Pyrene

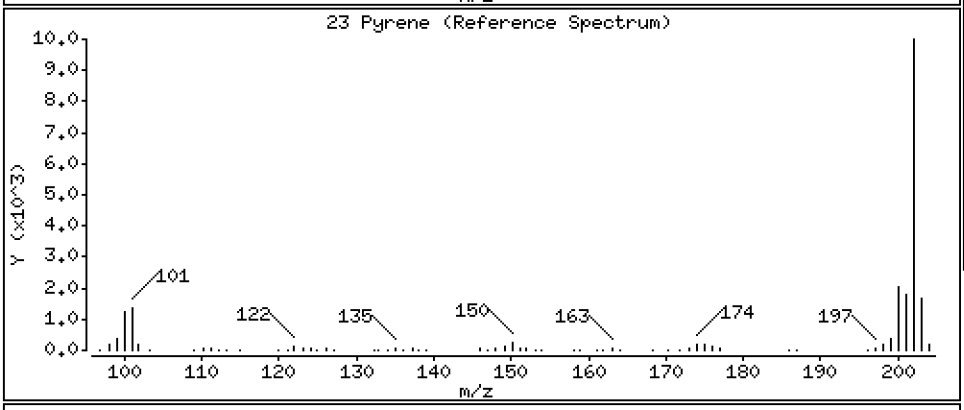
Concentration: 2.462 ug/L

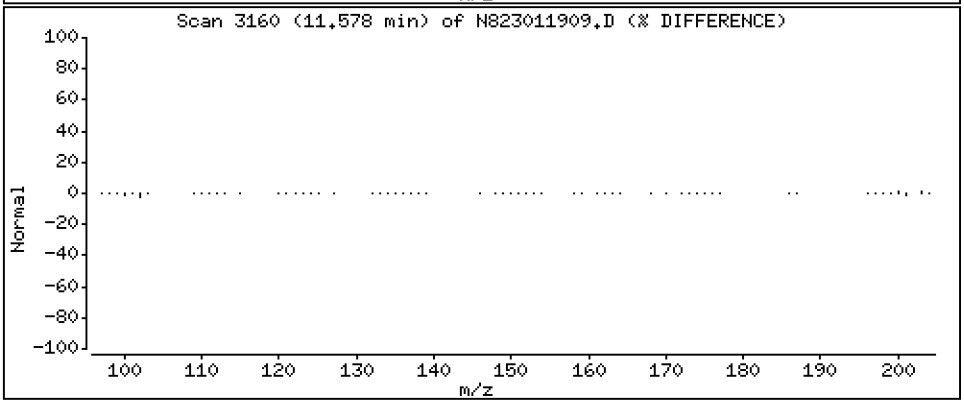












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

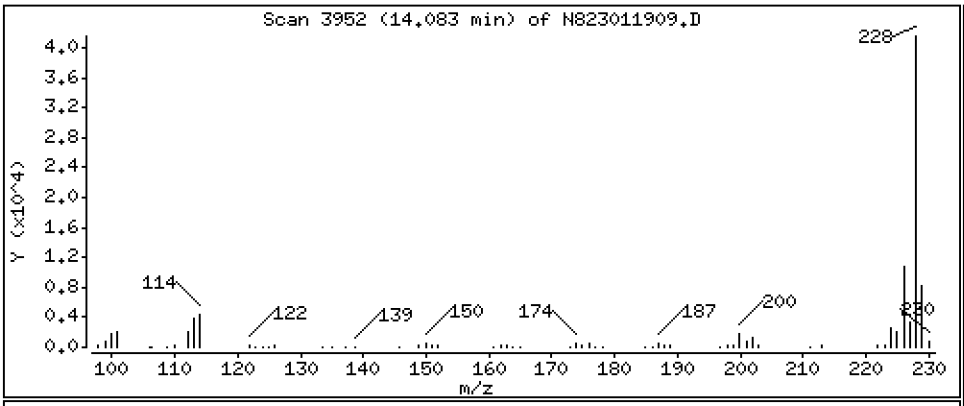
Operator: JZ

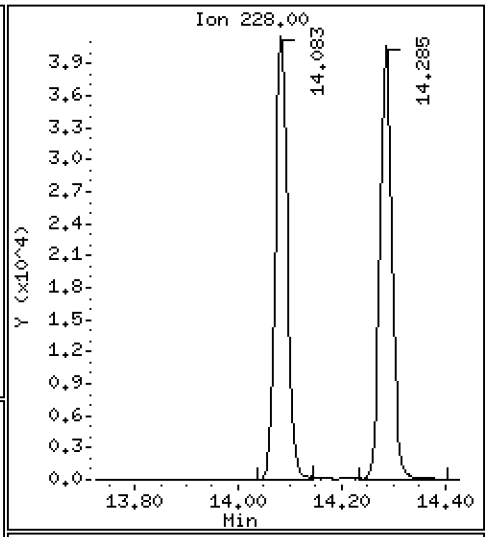
Column phase: Rxi-17sil

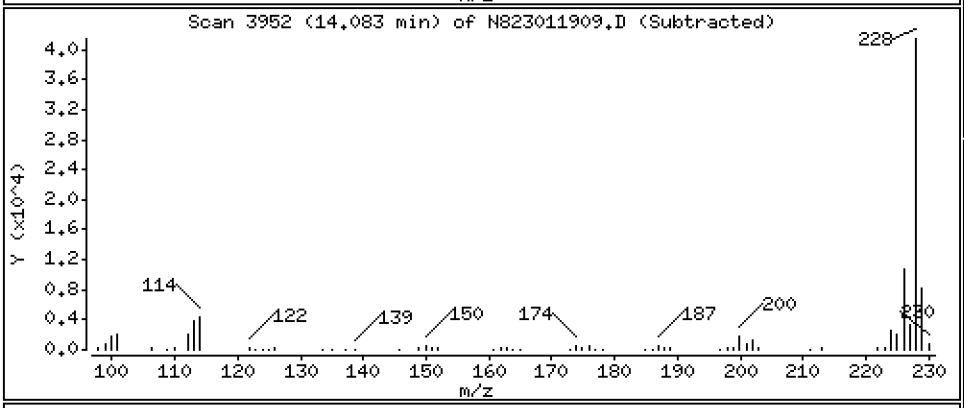
Column diameter: 0.25

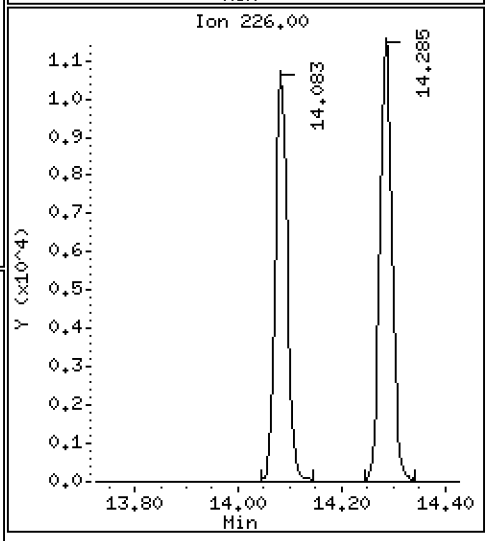
24 Benzo(a)anthracene

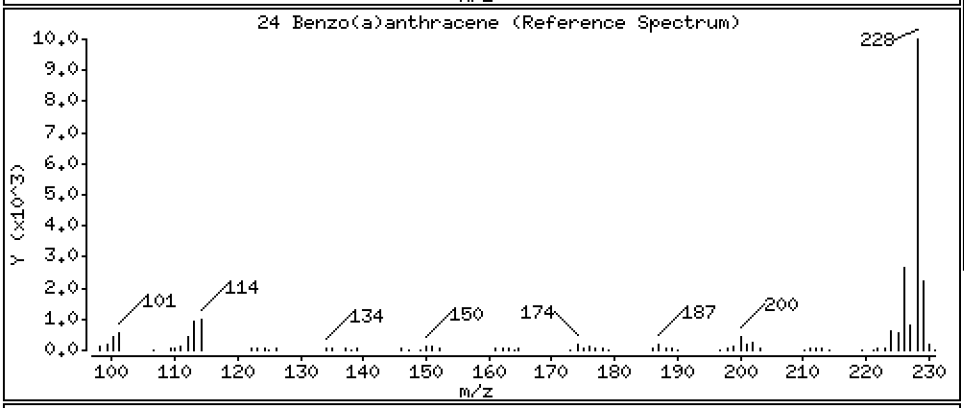
Concentration: 2.587 ug/L

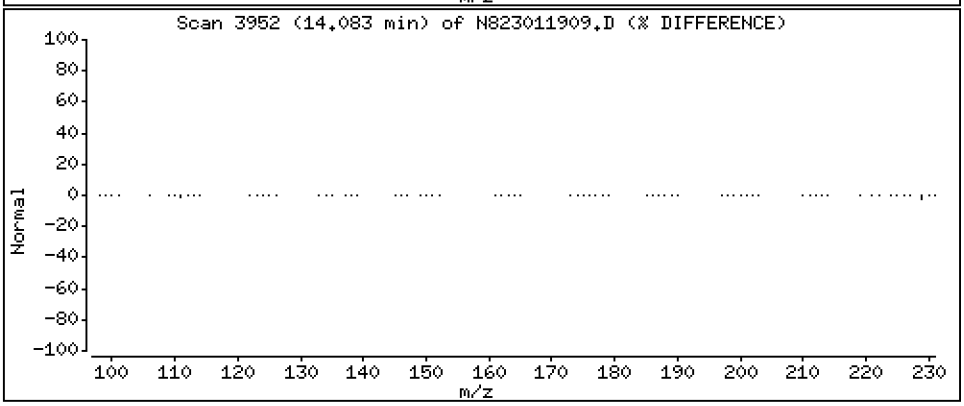












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

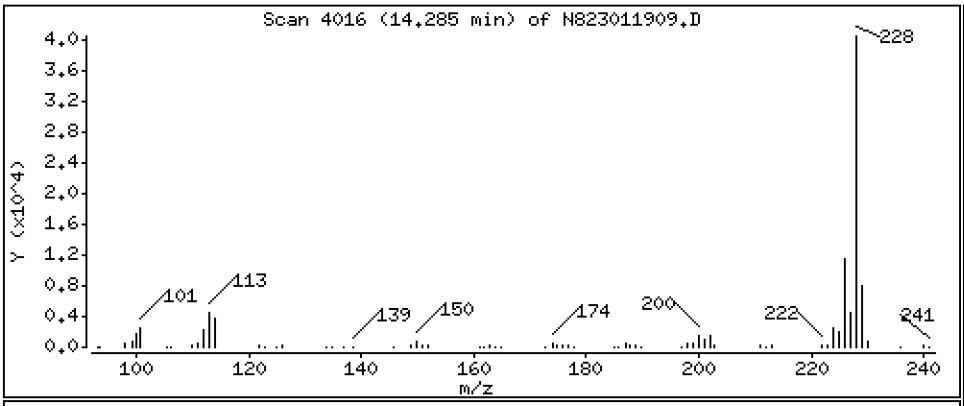
Operator: JZ

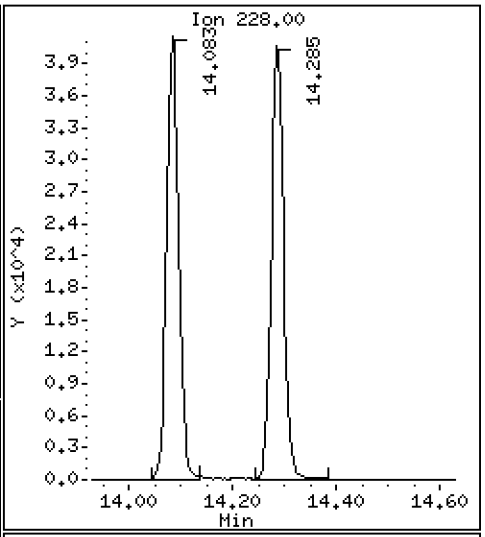
Column phase: Rxi-17sil

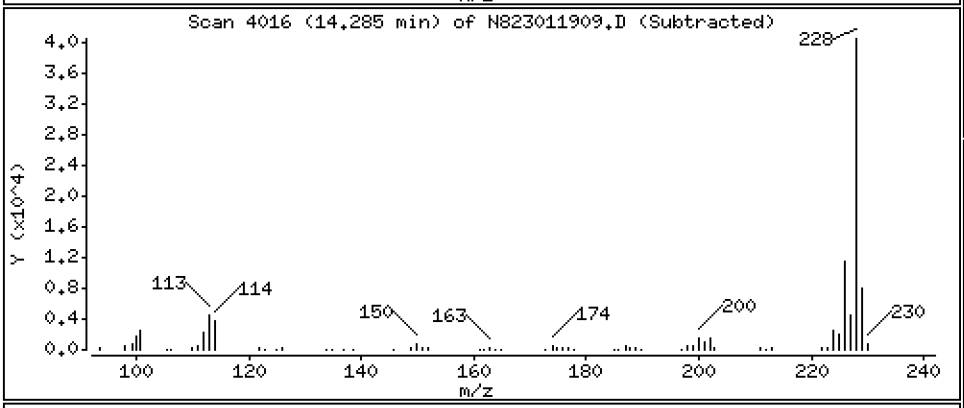
Column diameter: 0.25

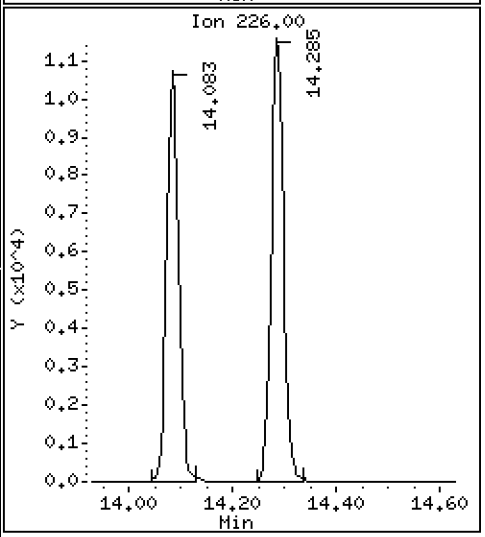
27 Chrysene

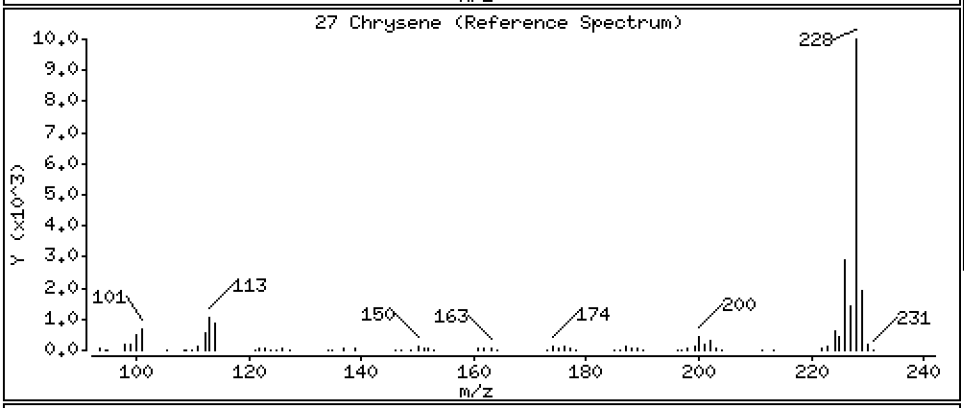
Concentration: 2.400 ug/L

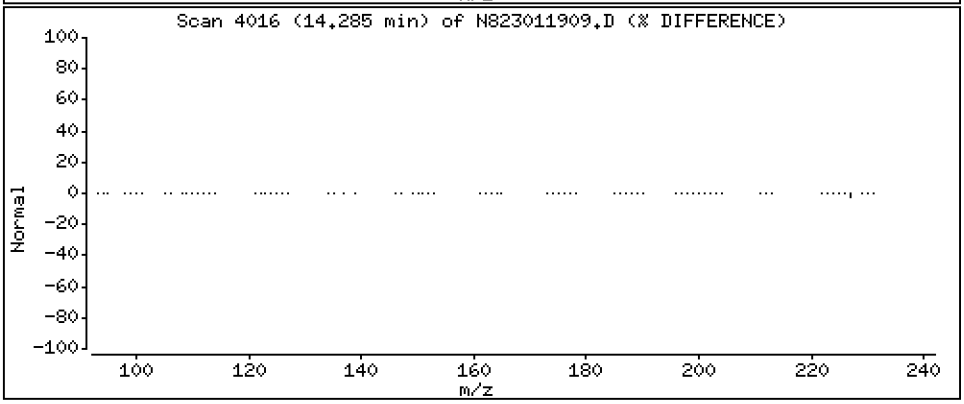












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

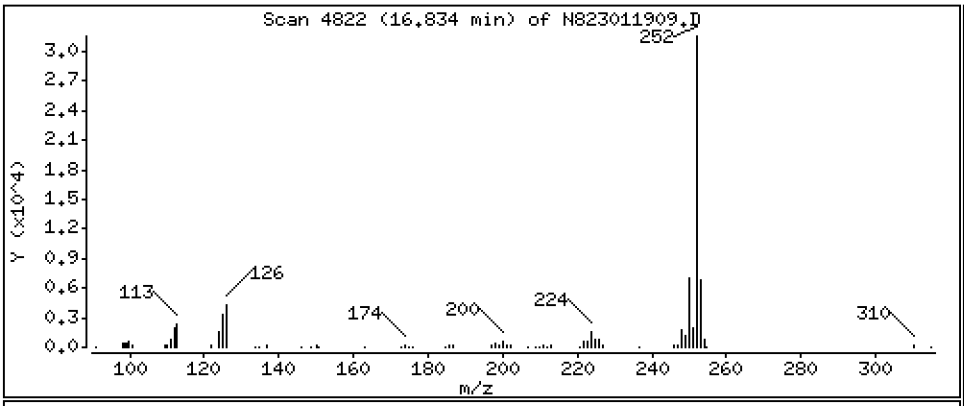
Operator: JZ

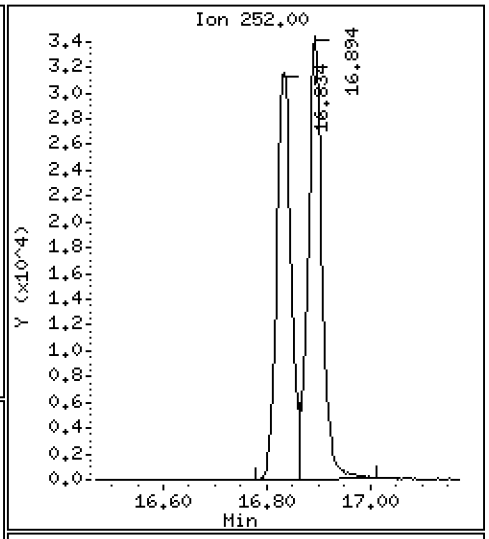
Column phase: Rxi-17sil

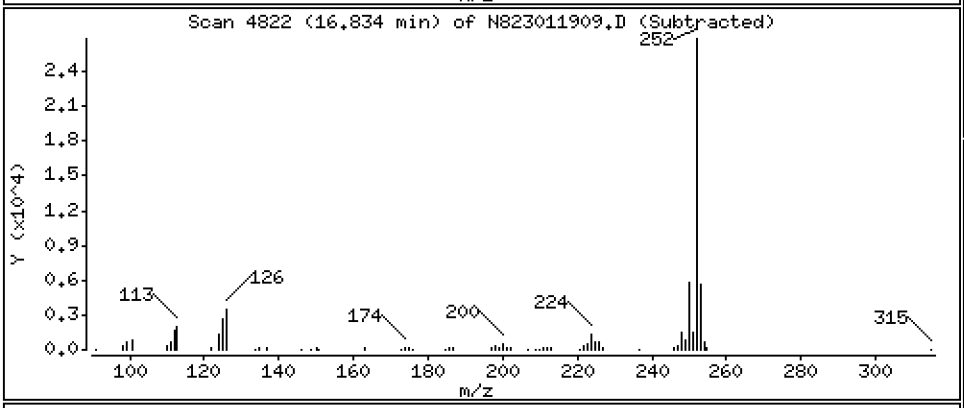
Column diameter: 0.25

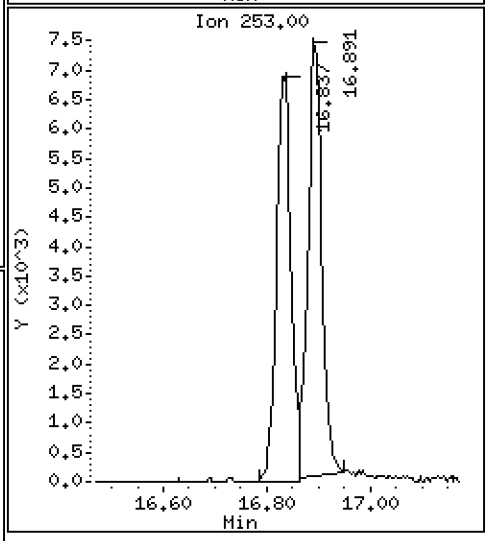
28 Benzo(b)fluoranthene

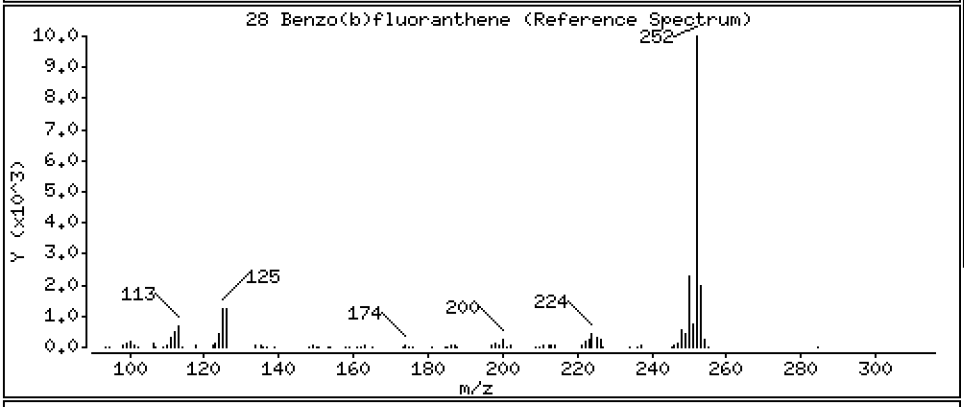
Concentration: 2.507 ug/L

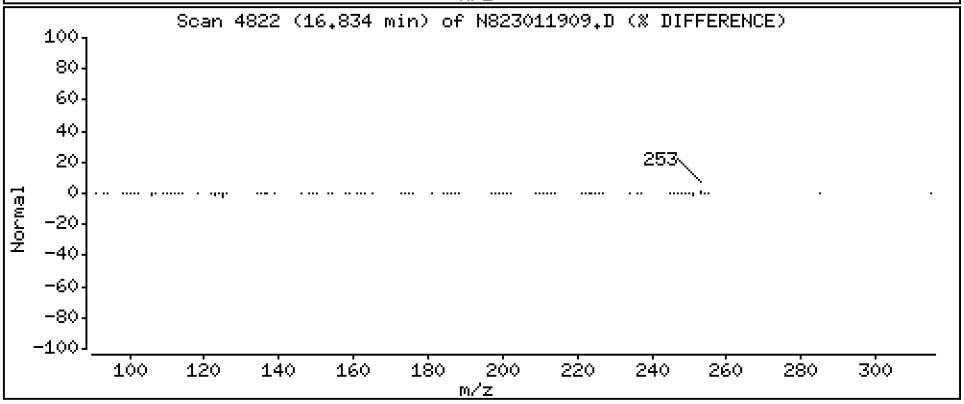












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

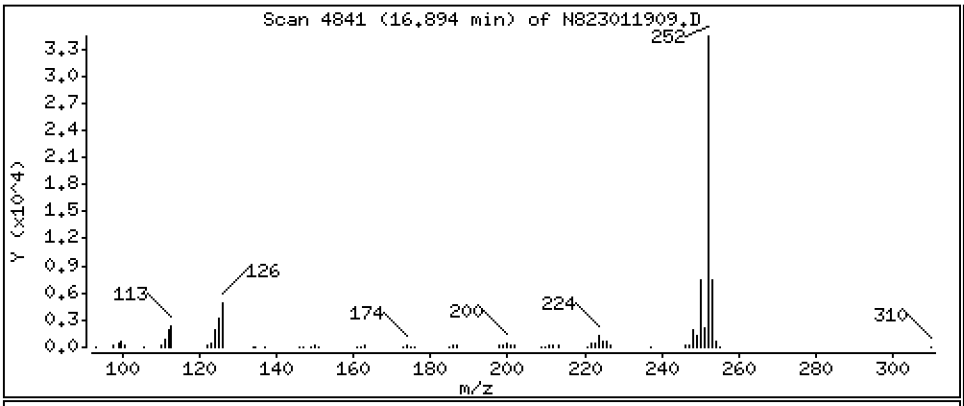
Operator: JZ

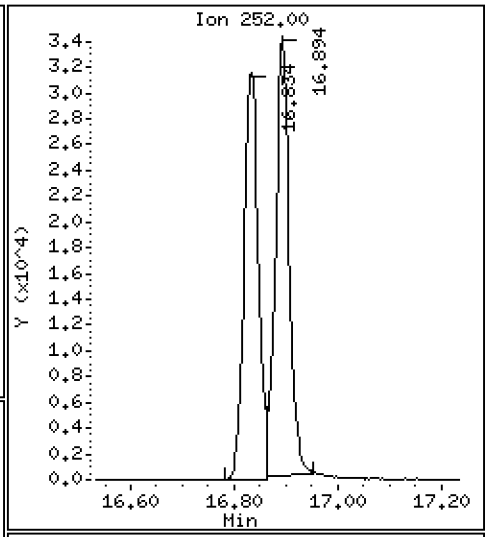
Column phase: Rxi-17sil

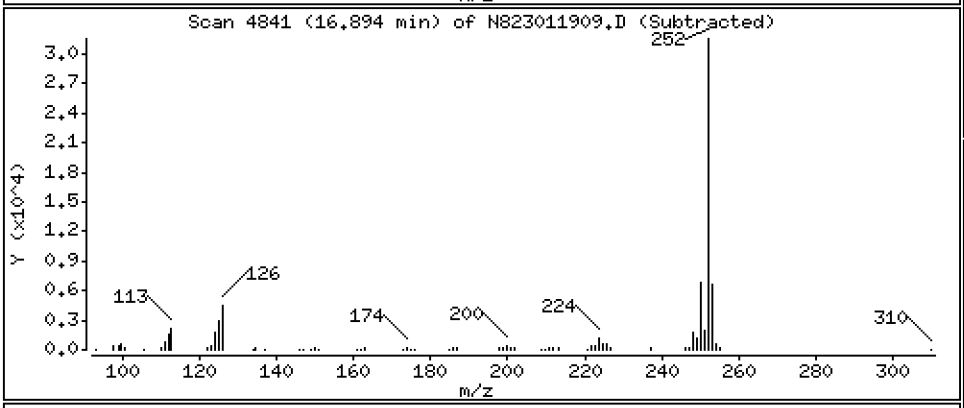
Column diameter: 0.25

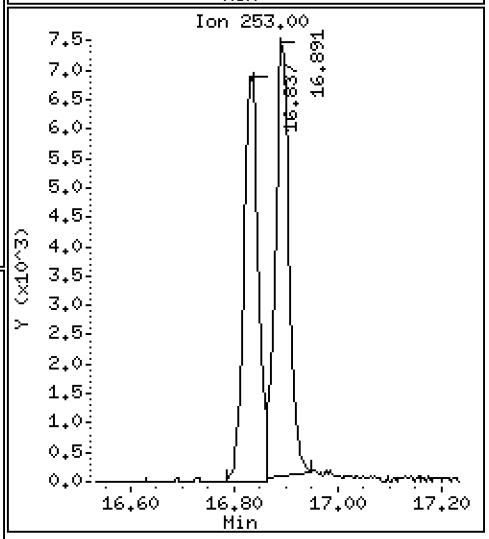
29 Benzo(k)fluoranthene

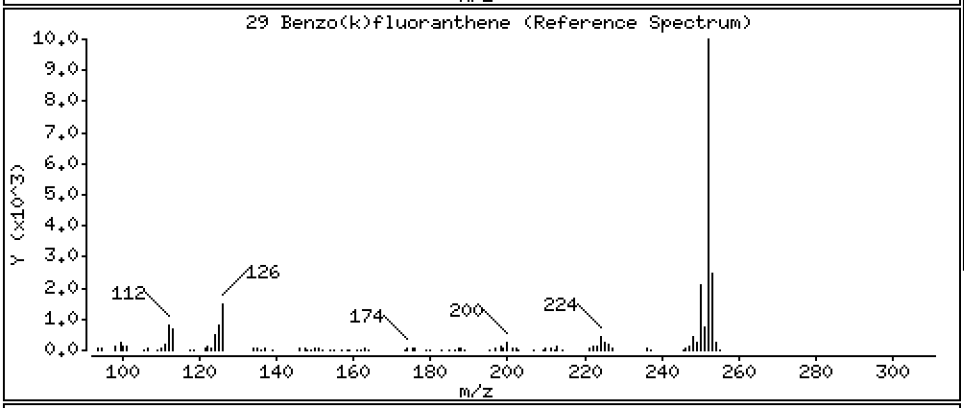
Concentration: 2.656 ug/L

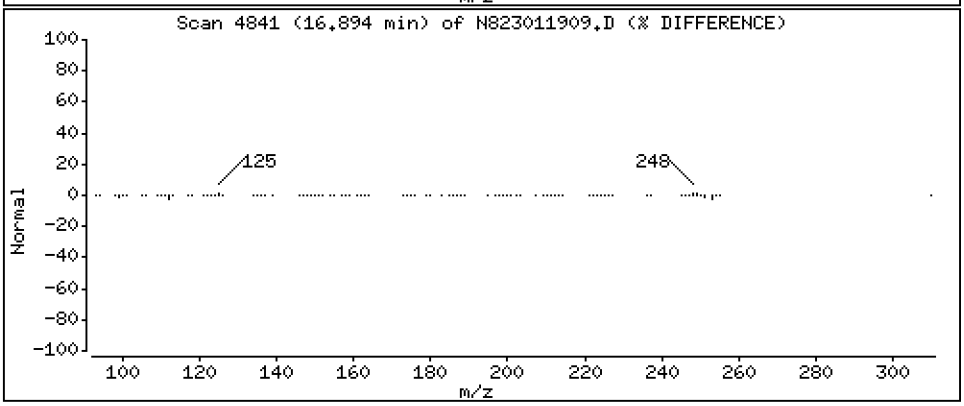












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

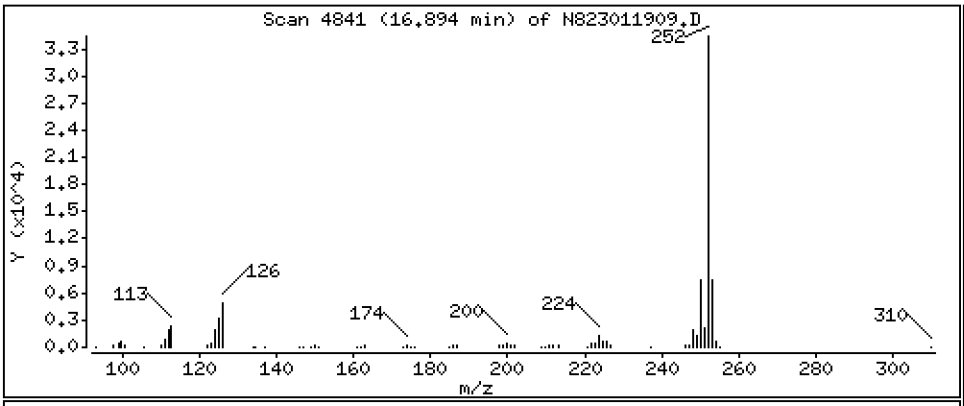
Operator: JZ

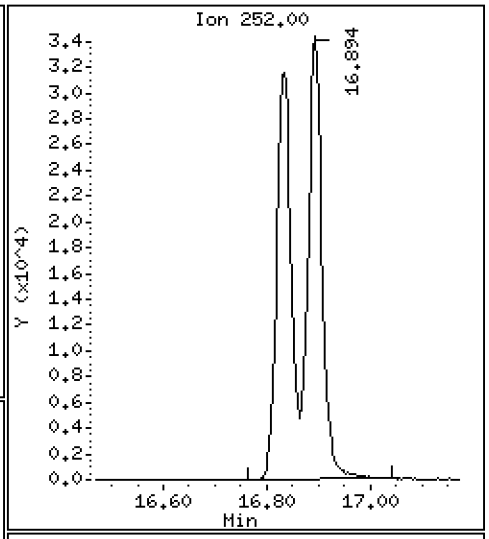
Column phase: Rxi-17sil

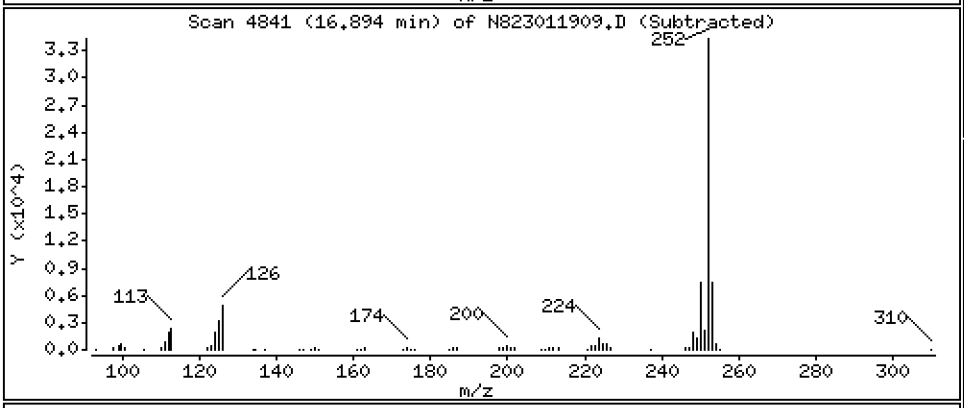
Column diameter: 0.25

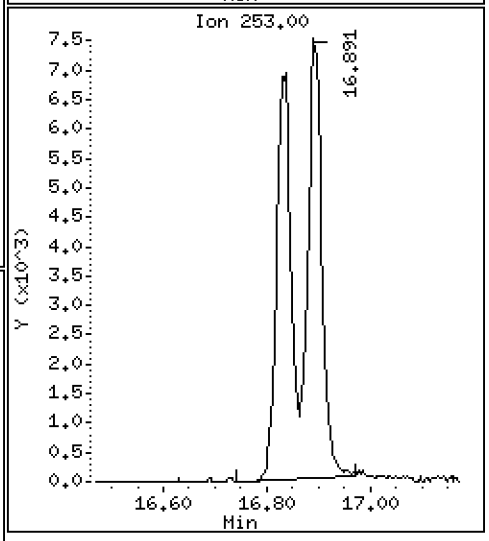
31 Total Benzofluoranthenes

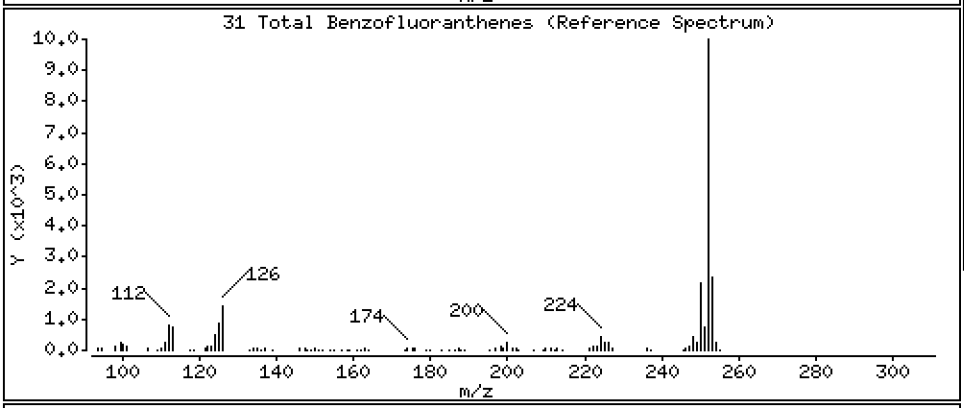
Concentration: 5.480 ug/L

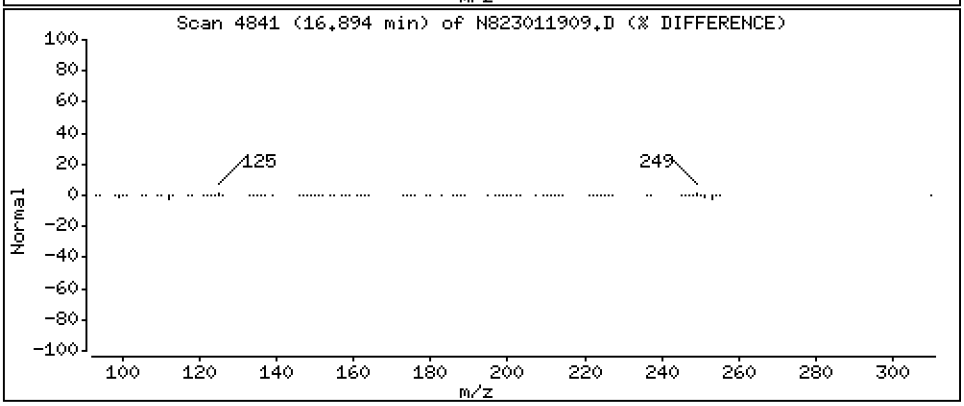












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

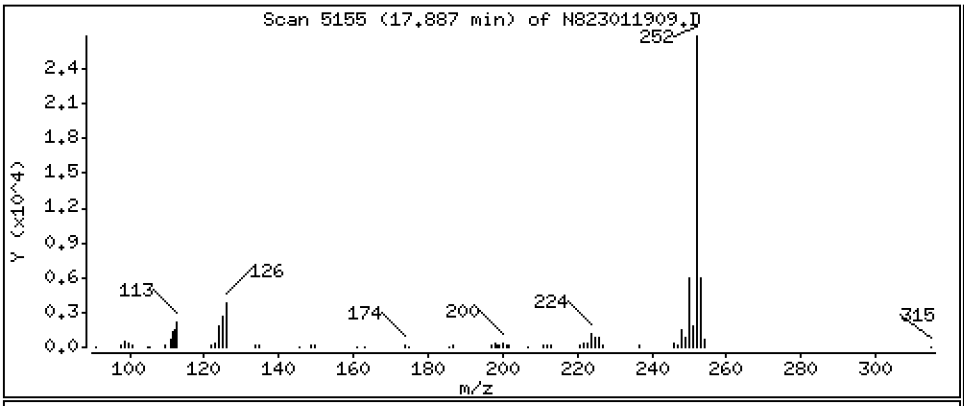
Operator: JZ

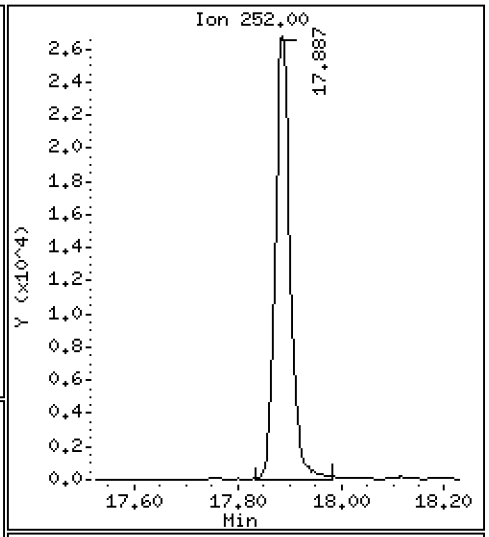
Column phase: Rxi-17sil

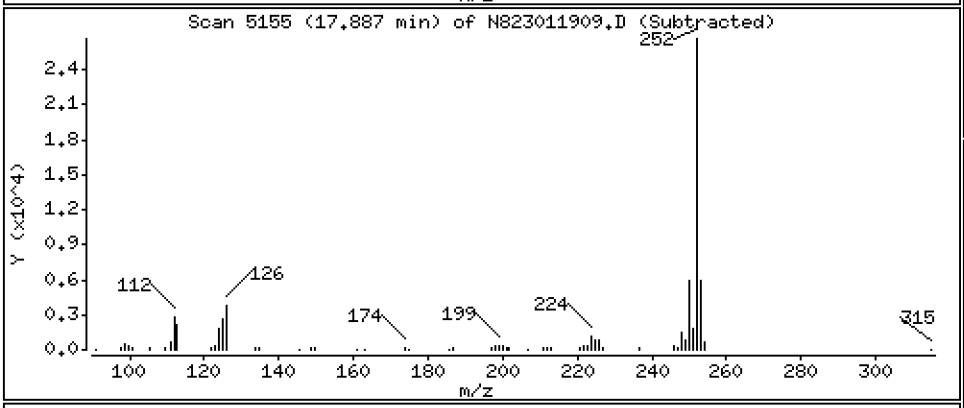
Column diameter: 0.25

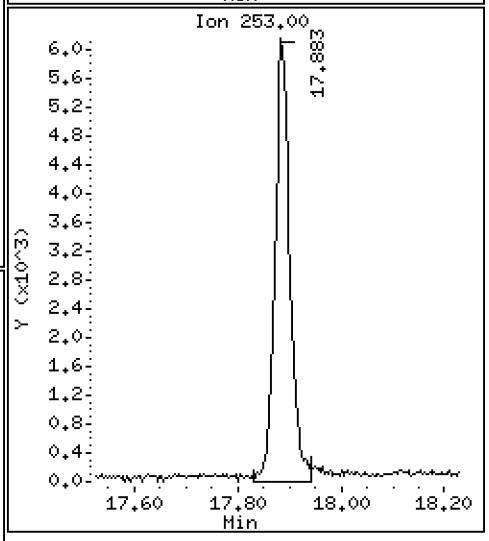
32 Benzo(a)pyrene

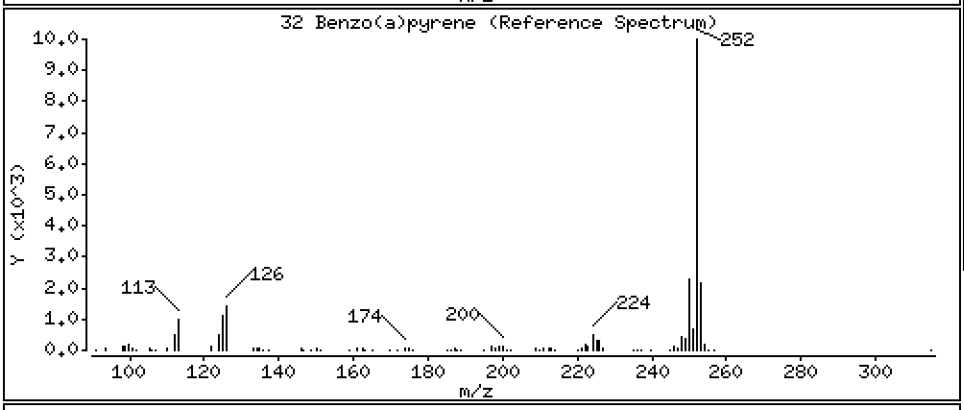
Concentration: 2.572 ug/L

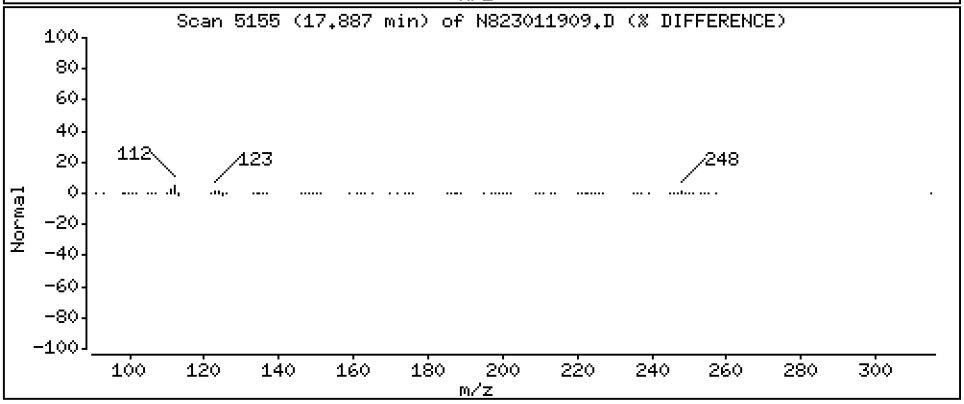












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

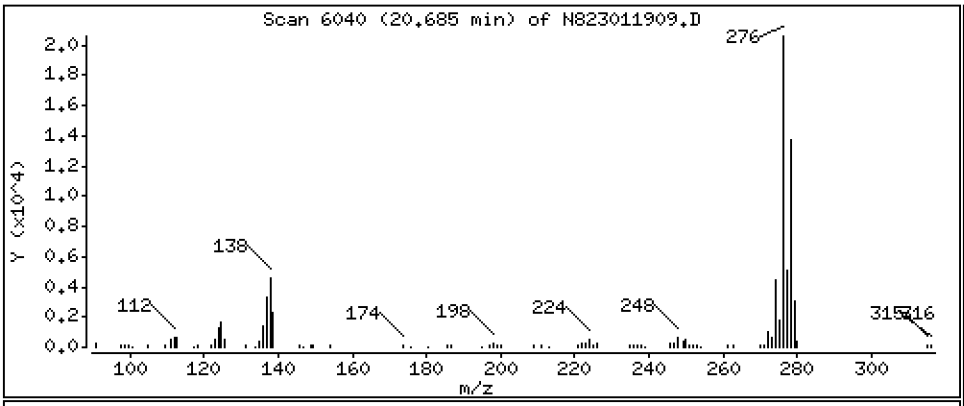
Operator: JZ

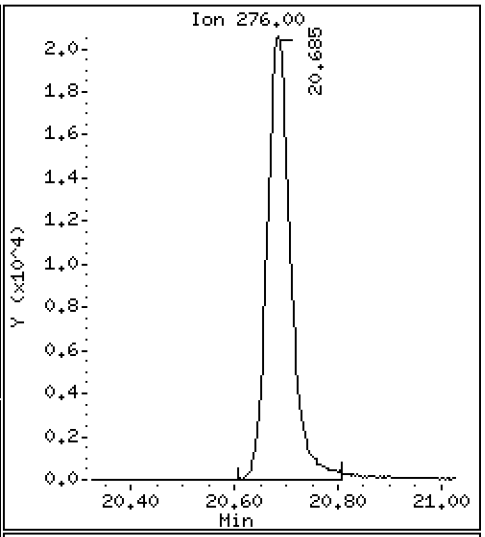
Column phase: Rxi-17sil

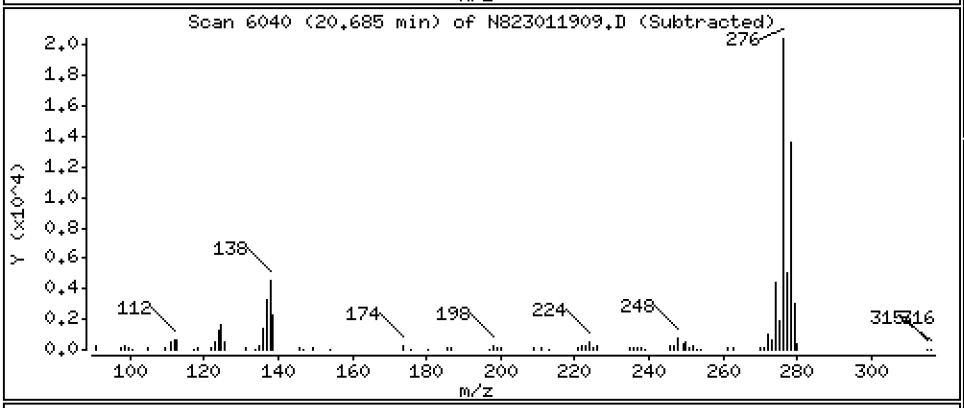
Column diameter: 0.25

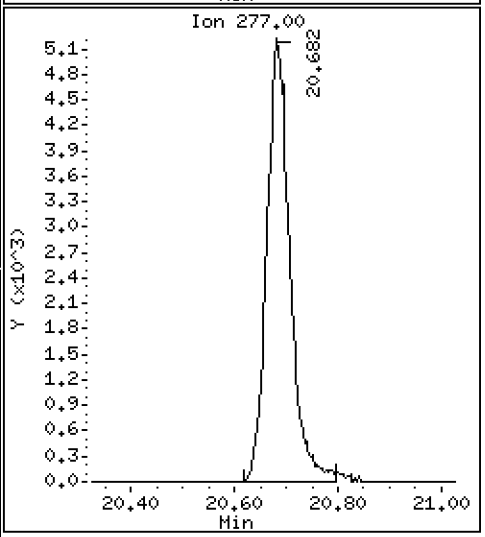
37 Indeno(1,2,3-cd)pyrene

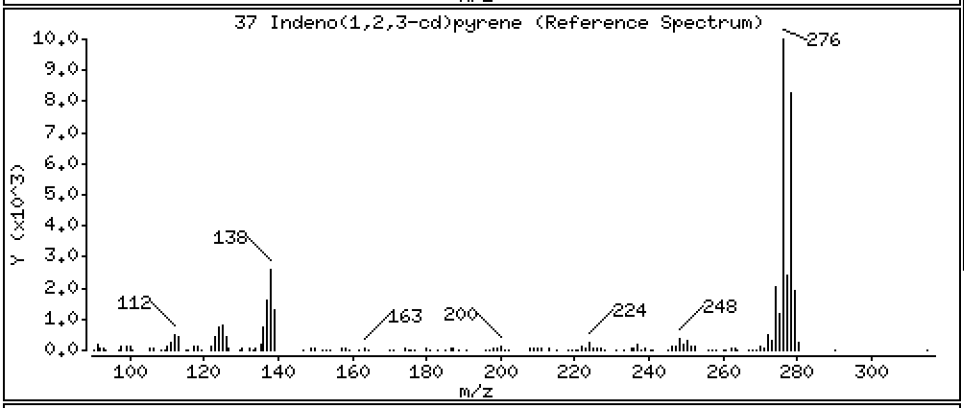
Concentration: 2.689 ug/L

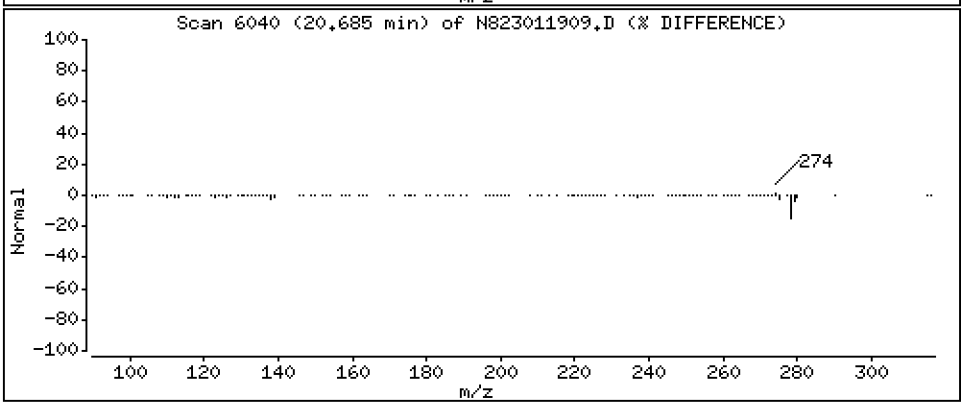












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

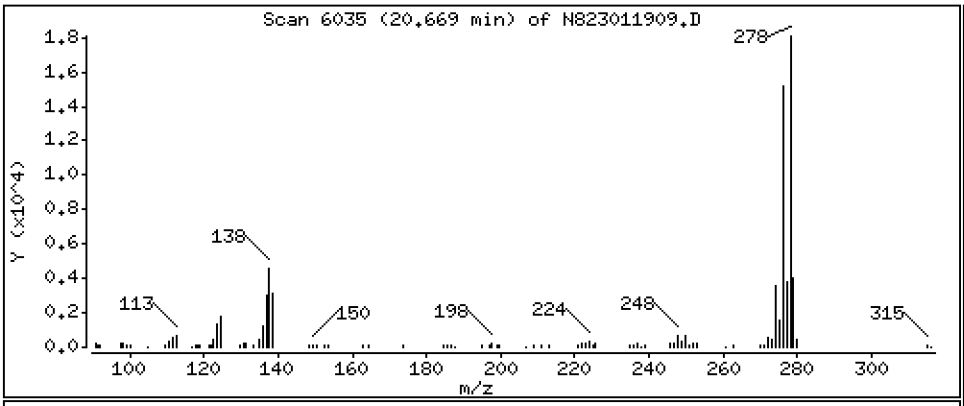
Operator: JZ

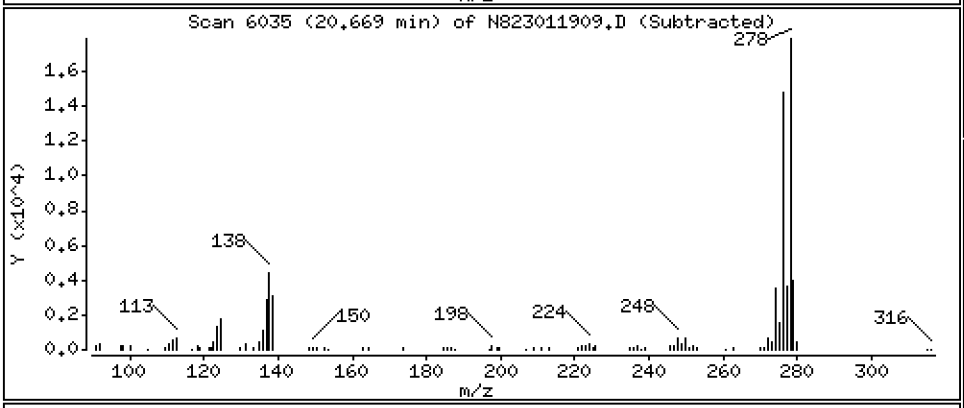
Column phase: Rxi-17sil

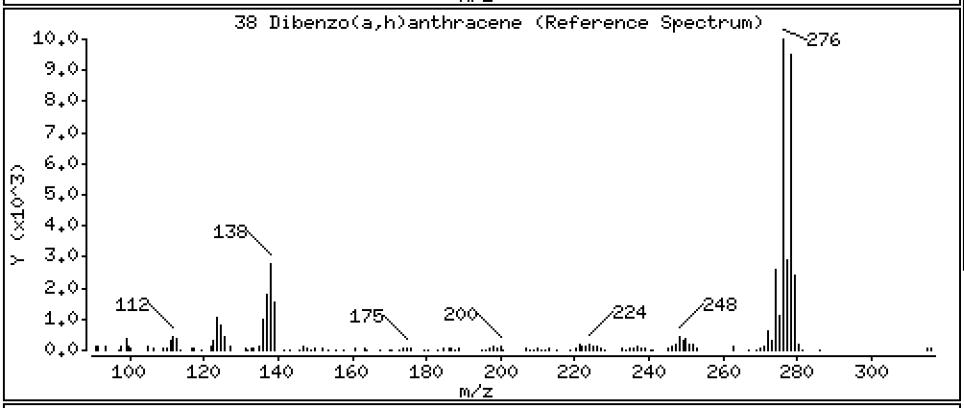
Column diameter: 0.25

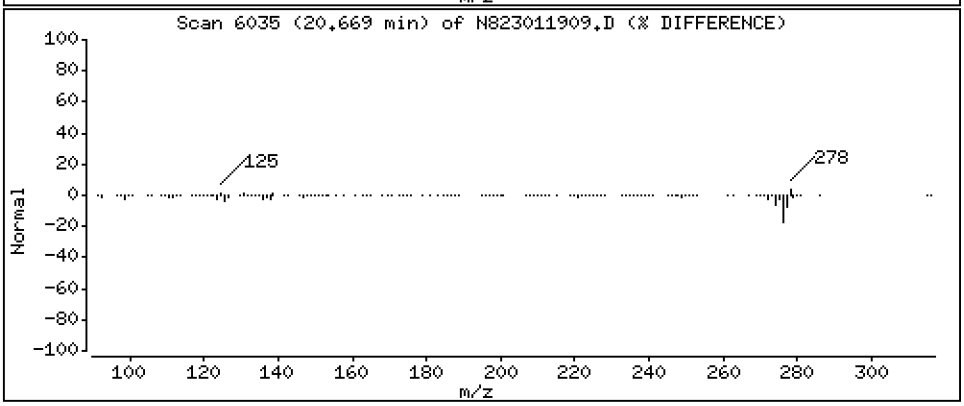
38 Dibenzo(a,h)anthracene

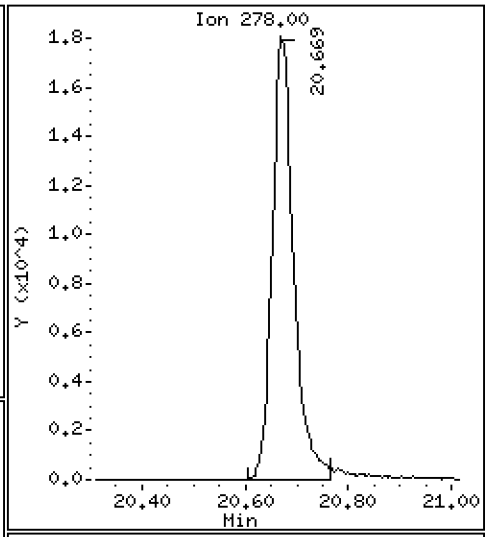
Concentration: 2.493 ug/L

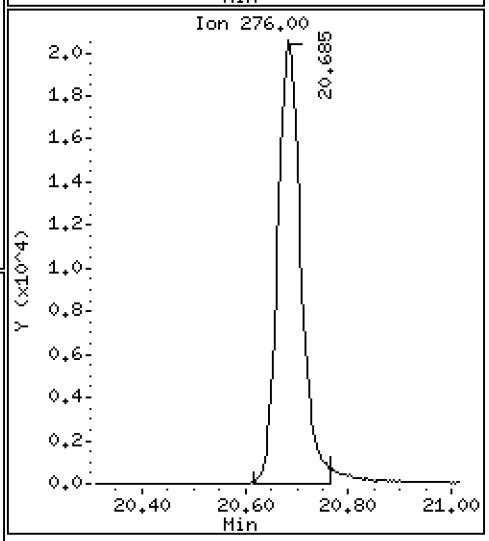












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

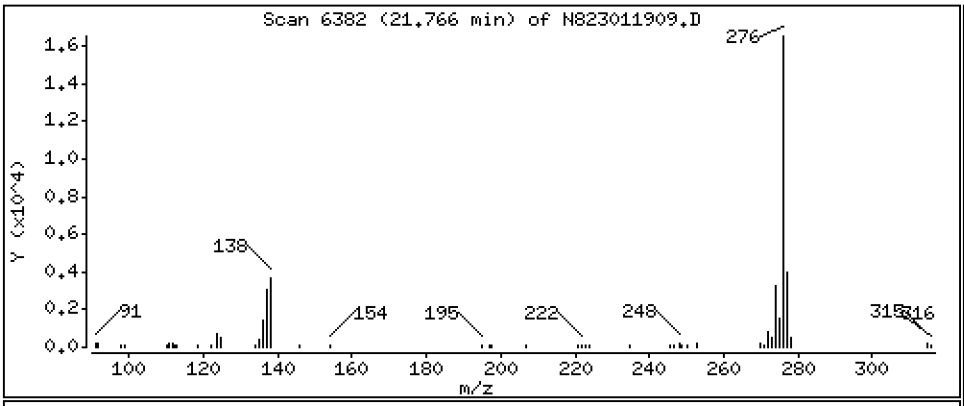
Operator: JZ

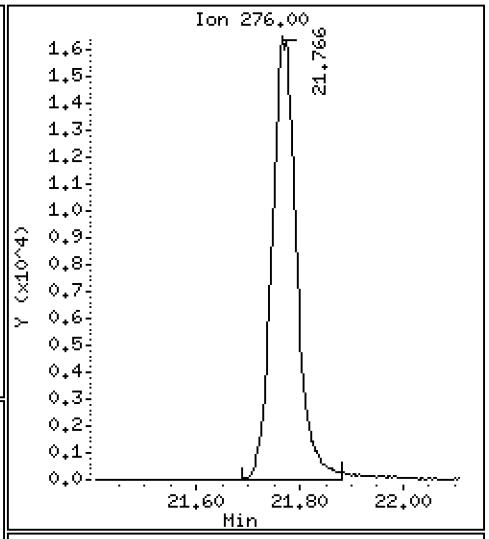
Column phase: Rxi-17sil

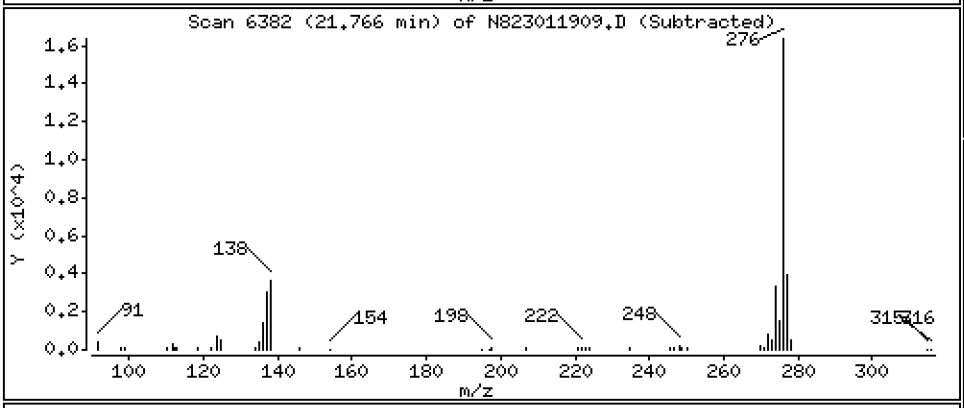
Column diameter: 0.25

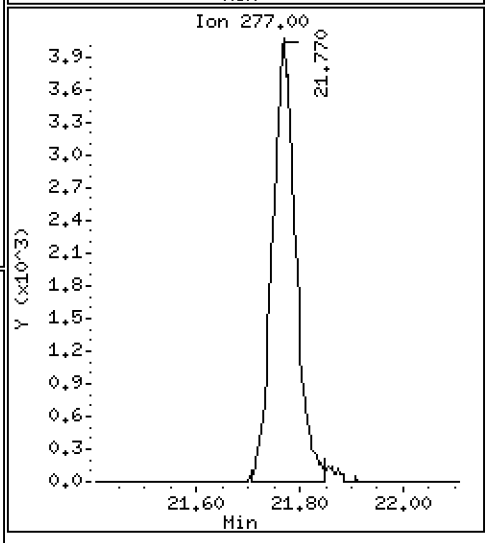
39 Benzo(g,h,i)perylene

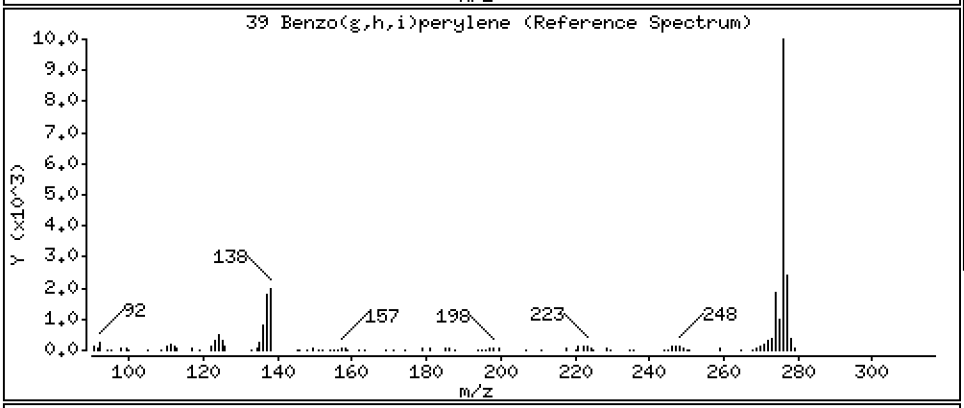
Concentration: 2.483 ug/L

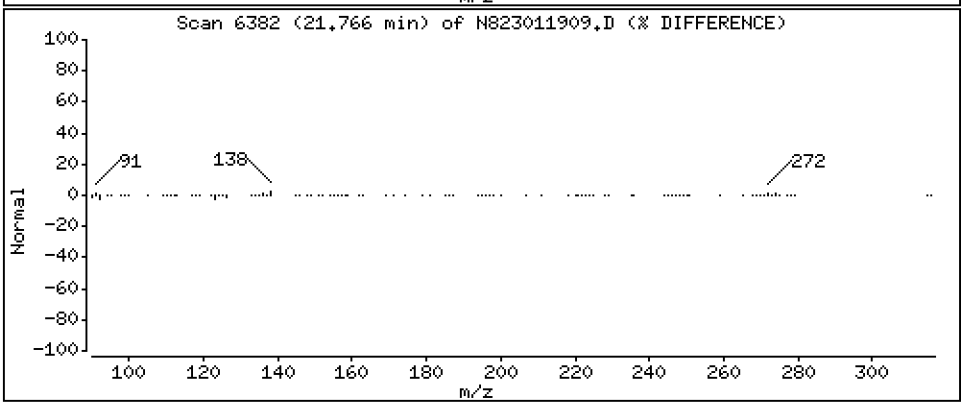












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011909.D
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Inj Date : 19-JAN-2023 14:58
Operator : JZ Inst ID: nt8.i
Smp Info : SCV230119
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Meth Date : 19-Jan-2023 20:20 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnascv.sub
Target Version: 4.14
Processing Host: JIANQING-202105

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
*	1 Naphthalene-d8	136	4.913	4.906	(1.000)	46346	2.00000	
	2 Naphthalene	128	4.941	4.938	(1.006)	56587	2.62597	2.626
$	3 2-Methylnaphthalene-d10	152	Compound Not Detected.					
	4 2-Methylnaphthalene	141	5.694	5.687	(1.159)	31650	2.67019	2.670
	5 1-methylnaphthalene	141	5.890	5.883	(1.199)	31873	2.64949	2.649
	9 Acenaphthylene	152	7.091	7.085	(0.985)	59018	2.82060	2.821
*	10 Acenaphthene-d10	164	7.202	7.196	(1.000)	27709	2.00000	
	11 Acenaphthene	153	7.249	7.246	(1.007)	36454	2.60022	2.600
	12 Dibenzofuran	168	7.401	7.395	(1.028)	60898	2.85987	2.860
	14 Fluorene	166	7.878	7.872	(1.094)	43507	2.63066	2.631
*	15 Phenanthrene-d10	188	9.238	9.235	(1.000)	51685	2.00000	
	16 Phenanthrene	178	9.276	9.270	(1.004)	61815	2.44841	2.448
	17 Anthracene	178	9.317	9.311	(1.009)	52064	2.27006	2.270
	22 Fluoranthene	202	11.059	11.053	(1.197)	72902	2.65276	2.653
$	21 Fluoranthene-d10	212	Compound Not Detected.					
	23 Pyrene	202	11.578	11.572	(0.815)	71115	2.46242	2.462
	24 Benzo(a)anthracene	228	14.082	14.076	(0.991)	67725	2.58725	2.587
*	25 Chrysene-d12	240	14.212	14.202	(1.000)	46582	2.00000	
	27 Chrysene	228	14.285	14.278	(1.005)	66872	2.39976	2.400
	28 Benzo(b)fluoranthene	252	16.833	16.821	(0.929)	60946	2.50689	2.507
	29 Benzo(k)fluoranthene	252	16.893	16.884	(0.932)	63249	2.65606	2.656
	31 Total Benzofluoranthenes	252	16.893	16.821	(0.932)	126178	5.48025	5.480(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	32 Benzo(a)pyrene	252	17.886	17.877	(0.987)	55026	2.57205	2.572
*	33 Perylene-d12	264	18.117	18.111	(1.000)	41743	2.00000	
	37 Indeno(1,2,3-cd)pyrene	276	20.684	20.675	(1.142)	65545	2.68928	2.689
$	36 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
	38 Dibenzo(a,h)anthracene	278	20.669	20.662	(1.141)	52293	2.49315	2.493
	39 Benzo(g,h,i)perylene	276	21.766	21.756	(1.201)	54821	2.48258	2.483
	35 Perylene	252	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823011909.D
Lab Smp Id: SLA0213-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 19-JAN-2023
Calibration Time: 12:52
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44704	22352	89408	46346	3.67
10 Acenaphthene-d10	26411	13206	52822	27709	4.91
15 Phenanthrene-d10	49210	24605	98420	51685	5.03
25 Chrysene-d12	42994	21497	85988	46582	8.35
33 Perylene-d12	40520	20260	81040	41743	3.02

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.13
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.09
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.03
25 Chrysene-d12	14.20	13.70	14.70	14.21	0.07
33 Perylene-d12	18.11	17.61	18.61	18.12	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011909.D

Lab ID: SLA0213-SCV1
nt8.i, 20230119.b\FSIMPNA230119.m,   19-JAN-2023 14:58

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

No RRT check performed

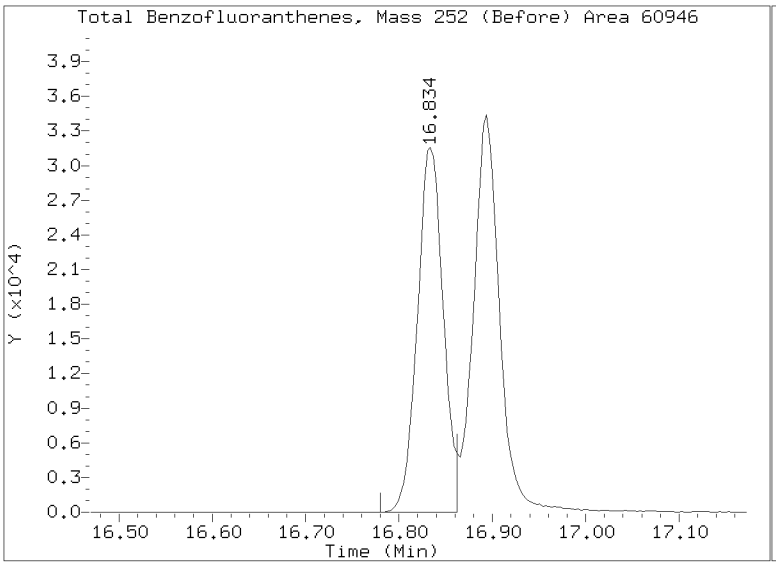
On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, pnascv.sub = 0.0500

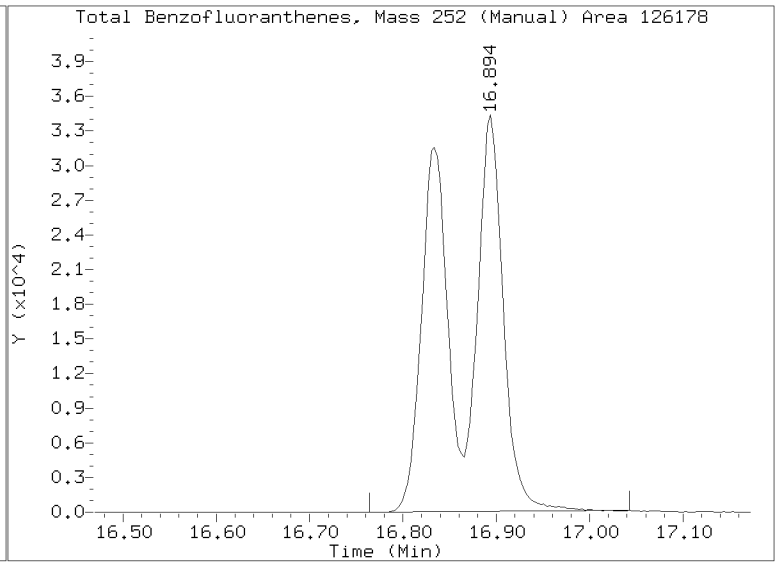
Exception: Benzo(b)fluoranthene 0.0300
Exception: Benzo(k)fluoranthene 0.0300
Exception: Total Benzofluoranthenes 0.0300
Exception: Fluoranthene-d10 (Surr) 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011909.D
Injection Date: 19-JAN-2023 14:58
Lab ID:SLA0213-SCV1 Client ID:
Report Date: 01/19/2023 20:27





INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00032	Instrument:	NT10
Calibration Date:	03/01/2023	Column (1):	ZB-5MSi

Calibration Comments: DS
VTS: added third PDF for raw tune data 07/05/23

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	**RRF**	Conc	RRF	Conc	RRF	Conc	**RRF**	Conc	**RRF**
1,4-Dichlorobenzene	0.05	1.509234	0.1	1.475802	0.2	1.433728	0.5	1.463954	1	1.407538	2.5	1.403914
1,2-Dichlorobenzene	0.05	1.433632	0.1	1.404559	0.2	1.361924	0.5	1.41	1	1.363267	2.5	1.366655
Benzyl Alcohol	0.05	0.2980883	0.1	0.4078131	0.2	0.6563487	0.5	0.7516883	1	0.8131324	2.5	0.9577245
Benzoic acid					0.8	3.369162E-02	2	6.431557E-02	4	0.1113925	10	0.1735407
2,4-Dimethylphenol	0.1	0.1951669	0.2	0.2260486	0.4	0.2540649	1	0.3054349	2	0.3273273	5	0.3475379
1,2,4-Trichlorobenzene	0.05	0.2888686	0.1	0.2867934	0.2	0.282521	0.5	0.2946068	1	0.2833685	2.5	0.2832806
N-Nitrosodiphenylamine	0.05	0.524197	0.1	0.5824673	0.2	0.622888	0.5	0.6812778	1	0.6451821	2.5	0.6870282
Pentachlorophenol			0.2	2.689676E-02	0.4	3.579405E-02	1	0.0582107	2	8.194985E-02	5	0.1253843
2-Fluorophenol	0.075	1.021853	0.15	1.055547	0.3	1.088445	0.75	1.178357	1.5	1.175199	3.75	1.215826
p-Terphenyl-d14	0.05	0.2668155	0.1	0.2858166	0.2	0.2844553	0.5	0.3178566	1	0.3330721	2.5	0.3637872

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00032	Instrument:	NT10
Calibration Date:	03/01/2023	Column (1):	ZB-5MSi

Calibration Comments: DS
VTS: added third PDF for raw tune data 07/05/23

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
1,4-Dichlorobenzene	5	1.398394	10	1.437899								
1,2-Dichlorobenzene	5	1.363348	10	1.379386								
Benzyl Alcohol	5	1.015627	10	1.093596								
Benzoic acid	20	0.2213574	40	0.2543998								
2,4-Dimethylphenol	10	0.3499605	20	0.3606322								
1,2,4-Trichlorobenzene	5	0.2885383	10	0.2952467								
N-Nitrosodiphenylamine	5	0.7094703	10	0.726266								
Pentachlorophenol	10	0.1569964	20	0.1804073								
2-Fluorophenol	7.5	1.182888	15	1.217708								
p-Terphenyl-d14	5	0.3763732	10	0.3595608								

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00032	Instrument:	NT10
Calibration Date:	03/01/2023	Column (1):	ZB-5MSi

Calibration Comments: DS
VTS: added third PDF for raw tune data 07/05/23

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
1,4-Dichlorobenzene	1.441308	2.7			RSD (15)	
1,2-Dichlorobenzene	1.385346	2.0			RSD (15)	
Benzyl Alcohol	0.7492523	37.9		0.9995	QCOD (0.99)	
Benzoic acid	0.1431163	61.4		0.9938	QCOD (0.99)	
2,4-Dimethylphenol	0.2957717	21.2		0.9999	QCOD (0.99)	
1,2,4-Trichlorobenzene	0.287903	1.7			RSD (15)	
N-Nitrosodiphenylamine	0.6473471	10.6			RSD (15)	
Pentachlorophenol	9.509134E-02	63.3		0.9953	QCOD (0.99)	
2-Fluorophenol	1.141978	6.6			RSD (15)	
p-Terphenyl-d14	0.3234672	12.8			RSD (15)	

ANALYSIS SEQUENCE

SLC0143

Instrument: NT10
Calibration ID: UNASSIGNED

Printed: 3/10/2023 10:34:45AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLC0143-CAL1	QC		1		K011453	K010831		
SLC0143-CAL2	QC		2		K011452	K010831		
SLC0143-CAL3	QC		3		K011105	K010831		
SLC0143-CAL4	QC		4		K011106	K010831		
SLC0143-CAL5	QC		5		K011107	K010831		
SLC0143-CAL6	QC		6		K011108	K010831		
SLC0143-CAL7	QC		7		K011109	K010831		
SLC0143-CAL8	QC		8		K011110	K010831		
SLC0143-ICB1	QC		9		K005156	K010831		
SLC0143-SCV1	QC		10		K010066	K010831		

Samples Loaded By Date

Data Processed By Date

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230301.b\SIM.b

	Time	Filename	LabID	ClientId	DF											
1	1642	NT1003012303S.D	SEQ-CAL8		1	9.25	358478	11.72	1302515	15.31	720687	18.40	1243145	23.42	1161833	26.11	1054384
2	1721	NT1003012304S.D	SEQ-CAL7		1	9.25	354441	11.72	1288295	15.31	739997	18.40	1248235	23.41	1079945	26.11	1086769
3	1759	NT1003012305S.D	SEQ-CAL6		1	9.24	334269	11.72	1202042	15.31	670352	18.40	1124281	23.41	948691	26.11	1004445
4	1837	NT1003012306S.D	SEQ-CAL5		1	9.24	320125	11.72	1136019	15.31	636993	18.40	1093620	23.41	1000300	26.10	1058448
5	1915	NT1003012307S.D	SEQ-CAL4		1	9.24	333617	11.72	1170292	15.31	639612	18.40	1094919	23.42	1048196	26.11	1117593
6	1953	NT1003012308S.D	SEQ-CAL3		1	9.25	314467	11.72	1088698	15.31	568154	18.40	979213	23.42	963807	26.11	1037909
7	2030	NT1003012309S.D	SEQ-CAL2		1	9.24	305434	11.72	1048978	15.31	536796	18.40	924275	23.42	947041	26.11	1060218
8	2109	NT1003012310S.D	SEQ-CAL1		1	9.25	370360	11.72	1262304	15.31	638059	18.40	1124768	23.42	1114478	26.11	1276260
9	2146	NT1003012311S.D	SEQ-SCV1		1	9.25	303734	11.72	1147551	15.31	645730	18.40	1151000	23.42	1297466	26.11	1394899
10	2224	NT1003012312S.D	SEQ-IBL1		1	9.25	515340	11.72	1787704	15.31	879316	18.40	1572306	23.42	1486349	26.11	1674195

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230301.b\SIM.b

ARI Job No.: SEQ- Method: SIM.b\SIMABN2.m Instrument: nt10.i Date: 01-MAR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1642	NT1003012303S.D	SEQ-CAL8		1	NO MANUAL INTEGRATION
1721	NT1003012304S.D	SEQ-CAL7		1	NO MANUAL INTEGRATION
1759	NT1003012305S.D	SEQ-CAL6		1	NO MANUAL INTEGRATION
1837	NT1003012306S.D	SEQ-CAL5		1	Pentachlorophenol,
1915	NT1003012307S.D	SEQ-CAL4		1	Pentachlorophenol,
1953	NT1003012308S.D	SEQ-CAL3		1	NO MANUAL INTEGRATION
2030	NT1003012309S.D	SEQ-CAL2		1	Benzyl alcohol, Benzoic acid,
2109	NT1003012310S.D	SEQ-CAL1		1	Benzyl alcohol, 2-Methylphenol, 4-Methylphenol, N-Nitroso-di-n-propylamine, N-Nitrosodiphenylamine, Hexachlorobenzene,
2146	NT1003012311S.D	SEQ-SCV1		1	NO MANUAL INTEGRATION
2224	NT1003012312S.D	SEQ-IBL1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 10-Mar-2023 11:02

NT1003012303S.D	Data Locked	yev, 10-
NT1003012304S.D	Data Locked	yev, 10-
NT1003012305S.D	Data Locked	yev, 10-
NT1003012306S.D	Data Locked	yev, 10-
NT1003012307S.D	Data Locked	yev, 10-
NT1003012308S.D	Data Locked	yev, 10-
NT1003012309S.D	Data Locked	yev, 10-
NT1003012310S.D	Data Locked	yev, 10-
NT1003012311S.D	Data Locked	yev, 10-
NT1003012312S.D	Data Locked	yev, 10-

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230301.b\SIM.b
Inst ID: nt10.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08
FILENAME:	NT1003012303S	NT1003012304S	NT1003012305S	NT1003012306S	NT1003012307S	NT1003012308S	NT1003012309S	NT1003012310S
INJ.DATE:	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023
INJ.TIME:	16:42	17:21	17:59	18:37	19:15	19:53	20:30	21:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	6.902	6.902	6.895	6.895	6.895	6.902	6.903	6.902	6.902	6.402-7.402	6.900	0.004
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.580	33.080-34.080	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.873	30.373-31.373	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.300	30.800-31.800	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.300	30.800-31.800	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.496	14.996-15.996	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.428	19.928-20.928	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.471	19.971-20.971	+++++	+++++
137 NewCpnd_131	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.828	7.328-8.328	+++++	+++++
* 134 Di-n-octylphthalate-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.768	23.268-24.268	+++++	+++++
133 Butylatedhydroxytoluen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.190	13.690-14.690	+++++	+++++
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.262	30.762-31.762	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.954	29.454-30.454	+++++	+++++
146 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.752	23.252-24.252	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.717	27.217-28.217	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.566	20.066-21.066	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.796	19.296-20.296	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230301.b\SIM.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.349	22.849-23.849	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.474	21.974-22.974	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.191	10.691-11.691	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.779	17.279-18.279	+++++	+++++
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.310	15.810-16.810	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.707	17.207-18.207	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.921	8.421-9.421	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.736	3.236-4.236	+++++	+++++
$ 145 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.914	2.414-3.414	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.148	19.648-20.648	+++++	+++++
120 2,3,4,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.588	15.088-16.088	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.587	38.087-39.087	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.382	19.882-20.882	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.734	18.234-19.234	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.987	16.487-17.487	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.204	14.704-15.704	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.540	14.040-15.040	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.586	21.086-22.086	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.692	17.192-18.192	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.268	15.768-16.768	+++++	+++++
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.055	17.555-18.555	+++++	+++++
109 3,4,5-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.228	16.728-17.728	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230301.b\SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.517	16.017-17.017	+++++	+++++
	107 4,5-Dichloro-2-Methoxy	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.803	14.303-15.303	+++++	+++++
	106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.843	11.343-12.343	+++++	+++++
	105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.927	12.427-13.427	+++++	+++++
$	2 Phenol-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.235	7.735-8.735	+++++	+++++
	3 Phenol	8.525	8.517	8.517	8.518	8.518	8.525	8.525	8.533	8.533	8.033-9.033	8.522	0.006
	4 Bis(2-Chloroethyl)ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.397	7.897-8.897	+++++	+++++
$	5 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.490	7.990-8.990	+++++	+++++
	6 2-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.521	8.021-9.021	+++++	+++++
	7 1,3-Dichlorobenzene	9.143	9.143	9.136	9.136	9.136	9.143	9.144	9.136	9.136	8.636-9.636	9.140	0.004
*	8 1,4-Dichlorobenzene-d4	9.252	9.252	9.244	9.245	9.245	9.252	9.245	9.252	9.252	8.752-9.752	9.248	0.004
	9 1,4-Dichlorobenzene	9.283	9.283	9.275	9.276	9.276	9.275	9.276	9.275	9.275	8.775-9.775	9.277	0.003
$	10 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.230	8.730-9.730	+++++	+++++
	11 Benzyl alcohol	9.477	9.477	9.469	9.477	9.477	9.485	9.485	9.508	9.508	9.008-10.008	9.482	0.012
	12 1,2-Dichlorobenzene	9.562	9.562	9.562	9.563	9.563	9.562	9.563	9.563	9.563	9.063-10.063	9.562	0.000
	13 2-Methylphenol	9.656	9.655	9.656	9.656	9.656	9.663	9.664	9.671	9.671	9.171-10.171	9.660	0.006
	14 2,2'-oxybis(1-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.413	8.913-9.913	+++++	+++++
	15 4-Methylphenol	9.943	9.943	9.943	9.943	9.951	9.950	9.959	9.966	9.966	9.466-10.466	9.950	0.009
	16 N-Nitroso-di-n-propyla	9.982	9.982	9.974	9.974	9.974	9.974	9.974	9.982	9.982	9.482-10.482	9.977	0.004
	17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.809	9.309-10.309	+++++	+++++
$	18 Nitrobenzene-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.917	9.417-10.417	+++++	+++++
	19 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.948	9.448-10.448	+++++	+++++
	20 Isophorone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.399	9.899-10.899	+++++	+++++
	21 2-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.575	10.075-11.075	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230301.b\SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	22 2,4-Dimethylphenol	11.006	10.998	10.998	10.998	10.998	10.998	11.007	11.006	11.006	10.506-11.506	11.001	0.004
	23 Bis(2-Chloroethoxy)met	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.830	10.330-11.330	+++++	+++++
	24 Benzoic acid	11.218	11.159	11.108	11.074	11.058	11.074	11.007	+++++	11.007	10.507-11.507	11.100	0.070
	25 2,4-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.033	10.533-11.533	+++++	+++++
	26 1,2,4-Trichlorobenzene	11.600	11.600	11.600	11.601	11.601	11.600	11.601	11.600	11.600	11.100-12.100	11.600	0.000
*	27 Naphthalene-d8	11.724	11.724	11.724	11.724	11.724	11.724	11.724	11.724	11.724	11.224-12.224	11.724	0.000
	28 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.326	10.826-11.826	+++++	+++++
	29 4-Chloroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.457	10.957-11.957	+++++	+++++
	30 Hexachlorobutadiene	11.994	11.994	11.994	11.994	11.994	11.994	11.994	11.994	11.994	11.494-12.494	11.994	0.000
	31 4-Chloro-3-methylpheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.432	11.932-12.932	+++++	+++++
	32 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.710	12.210-13.210	+++++	+++++
	33 Hexachlorocyclopentadi	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.182	12.682-13.682	+++++	+++++
	34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.330	12.830-13.830	+++++	+++++
	35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.415	12.915-13.915	+++++	+++++
$	36 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.484	12.984-13.984	+++++	+++++
	37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.686	13.186-14.186	+++++	+++++
	38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.941	13.441-14.441	+++++	+++++
	39 Dimethylphthalate	14.749	14.741	14.741	14.742	14.742	14.741	14.742	14.749	14.749	14.249-15.249	14.744	0.004
	40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.545	14.045-15.045	+++++	+++++
	41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.506	14.006-15.006	+++++	+++++
*	42 Acenaphthene-d10	15.314	15.314	15.314	15.314	15.314	15.314	15.314	15.314	15.314	14.814-15.814	15.314	0.000
	43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.785	14.285-15.285	+++++	+++++
	44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.924	14.424-15.424	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

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Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.001	14.501-15.501	+++++	+++++
	46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.248	14.748-15.748	+++++	+++++
	47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.171	14.671-15.671	+++++	+++++
	48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.302	14.802-15.802	+++++	+++++
	49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.952	15.452-16.452	+++++	+++++
	50 Diethylphthalate	16.219	16.211	16.203	16.203	16.203	16.203	16.211	16.211	16.211	15.711-16.711	16.208	0.006
	51 4-Chlorophenyl-phenyle	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.952	15.452-16.452	+++++	+++++
	52 4-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.037	15.537-16.537	+++++	+++++
	53 4,6-Dinitro-2-methylph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.145	15.645-16.645	+++++	+++++
	54 N-Nitrosodiphenylamine	16.698	16.690	16.690	16.691	16.691	16.698	16.698	16.706	16.706	16.206-17.206	16.695	0.006
$	55 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.477	15.977-16.977	+++++	+++++
	56 4-Bromophenyl-phenylet	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.939	16.439-17.439	+++++	+++++
	57 Hexachlorobenzene	17.578	17.578	17.578	17.579	17.579	17.578	17.579	17.579	17.579	17.079-18.079	17.579	0.000
	58 Pentachlorophenol	17.989	17.981	17.989	17.989	17.989	17.996	18.004	18.012	18.012	17.512-18.512	17.994	0.010
*	59 Phenanthrene-d10	18.399	18.399	18.399	18.399	18.399	18.399	18.399	18.399	18.399	17.899-18.899	18.399	0.000
	60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.899	17.399-18.399	+++++	+++++
	61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.991	17.491-18.491	+++++	+++++
	62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.324	17.824-18.824	+++++	+++++
	63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.152	18.652-19.652	+++++	+++++
	64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.289	19.789-20.789	+++++	+++++
	65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.715	20.215-21.215	+++++	+++++
$	66 Terphenyl-d14	21.524	21.524	21.524	21.525	21.525	21.524	21.525	21.532	21.532	21.032-22.032	21.526	0.003
	67 Butylbenzylphthalate	22.407	22.407	22.407	22.407	22.415	22.415	22.407	22.415	22.415	21.915-22.915	22.410	0.004
	68 Benzo(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.875	22.375-23.375	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230301.b\SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	69 Chrysene-d12	23.421	23.414	23.414	23.414	23.422	23.421	23.422	23.422	23.422	22.922-23.922	23.419	0.004
	70 3,3'-Dichlorobenzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.844	22.344-23.344	+++++	+++++
	71 Chrysene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.952	22.452-23.452	+++++	+++++
	72 bis(2-Ethylhexyl)phtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.007	22.507-23.507	+++++	+++++
	73 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.990	23.490-24.490	+++++	+++++
	74 Benzo(b)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.687	24.187-25.187	+++++	+++++
	75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.725	24.225-25.225	+++++	+++++
	76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.283	24.783-25.783	+++++	+++++
*	77 Perylene-d12	26.108	26.108	26.108	26.101	26.108	26.108	26.108	26.108	26.108	25.608-26.608	26.107	0.003
	78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.794	27.294-28.294	+++++	+++++
	79 Dibenzo(a,h)anthracene	28.930	28.914	28.914	28.915	28.930	28.938	28.946	28.946	28.946	28.446-29.446	28.929	0.013
	80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.494	27.994-28.994	+++++	+++++
$	85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.238	16.738-17.738	+++++	+++++
$	86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.316	28.816-29.816	+++++	+++++
$	87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.007	25.507-26.507	+++++	+++++
$	88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	44.609	44.109-45.109	+++++	+++++
$	89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.085	15.585-16.585	+++++	+++++
	90 N-Nitrosodimethylamine	4.732	4.724	4.717	4.725	4.725	4.740	4.740	4.756	4.756	4.256-5.256	4.732	0.012
	91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.305	7.805-8.805	+++++	+++++
	92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.615	21.115-22.115	+++++	+++++
	93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.529	20.029-21.029	+++++	+++++
$	95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.686	17.186-18.186	+++++	+++++
	96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.540	14.040-15.040	+++++	+++++
	97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.957	26.457-27.457	+++++	+++++

ARI Labs, Inc.
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Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.609	19.109-20.109	+++++	+++++
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.438	24.938-25.938	+++++	+++++
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.384	25.884-26.884	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.881	43.381-44.381	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	45.573	45.073-46.073	+++++	+++++
103 Pyridine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.535	4.035-5.035	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Calibration File Names:
Level 1: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012310S.D
Level 2: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012309S.D
Level 3: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012308S.D
Level 4: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012307S.D
Level 5: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012306S.D
Level 6: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012305S.D
Level 7: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012304S.D
Level 8: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012303S.D

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
142 1,2-Dibromo-3-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
135 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
136 2,3,4,5-tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
137 NewCpnd_131	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
133 Butylatedhydroxytoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
132 3,6-Dimethylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Compound	0.0500000 Level 1 / 5.0000 Level 7	0.1000000 Level 2 / 10.0000 Level 8	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
131 1-Methylphenanthrene	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
146 Benzo(j)fluoranthene	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
130 Dibenzothiophene	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
129 1-Methylfluorene	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
128 N-Hexadecane	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
127 2-Isopropylnaphthalene	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
126 N-Tetradecane	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000

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Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Compound	0.0500000 Level 1 / 5.0000 Level 7	0.1000000 Level 2 / 10.0000 Level 8	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
144 alpha-Terpineol	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
125 Safrole	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
124 3,4-Dimethylphenol	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
123 Acetophenone	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
122 Furfuraldehyde	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
143 1,4-Dioxane	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
121 Quinoline	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1 / 5.0000 Level 7	0.1000000 Level 2 / 10.0000 Level 8	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
120 2,3,4,6-Tetrachlorophenol	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
119 7,12-Dimethylbenz(a)anthracen	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
118 Triphenyl Phosphate	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
117 Butyl Diphenyl Phosphate	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
116 Dibutyl Phenyl Phosphate	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
115 Tributyl Phosphate	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
114 Beta-Pinene	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
113 Diphenyl Oxide	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
112 Biphenyl	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
111 Azobenzene (1,2-DP-Hydrazine)	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
110 Tetrachloroguaiacol	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
109 3,4,5-Trichloroguaiacol	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
108 4,5,6-Trichloroguaiacol	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
107 4,5-Dichloro-2-Methoxyphenol	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
3 Phenol	3599	8264	19568	61458	128497	360891					
	767247	1593896					QUAD	0.000e+000	0.59382	-0.00714	0.99994
4 Bis(2-Chloroethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
6 2-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
7 1,3-Dichlorobenzene	1.56799	1.52570	1.49198	1.51309	1.44269	1.43612					
	1.43451	1.44742					AVRG		1.48244		3.36989
9 1,4-Dichlorobenzene	1.50923	1.47580	1.43373	1.46395	1.40754	1.40391					
	1.39839	1.43790					AVRG		1.44131		2.72097

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
11 Benzyl alcohol	1380	3114	10320	31347	65076	200086					
	449975	980075					QUAD	0.000e+000	1.07135	-0.05783	0.99978
12 1,2-Dichlorobenzene	1.43363	1.40456	1.36192	1.41000	1.36327	1.36665					
	1.36335	1.37939					AVRG		1.38535		1.96993
13 2-Methylphenol	1789	4548	11161	35755	75957	215648					
	472415	995533					QUAD	0.000e+000	0.98781	-0.03181	0.99992
14 2,2'-oxybis(1-Chloropropane)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
15 4-Methylphenol	2062	3746	9608	34768	75243	225735					
	500092	1071975					QUAD	0.000e+000	0.94989	-0.03839	0.99982
16 N-Nitroso-di-n-propylamine	1965	4218	10242	27908	57866	160503					
	338518	699099					QUAD	0.000e+000	1.33351	-0.02653	0.99995
17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
19 Nitrobenzene	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
20 Isophorone	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
21 2-Nitrophenol	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
22 2,4-Dimethylphenol	6159	11856	27660	89362	185925	522194					
	1127131	2348644					QUAD	0.000e+000	2.94692	-0.09695	0.99996
23 Bis(2-Chloroethoxy)methane	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
24 Benzoic acid	#####	#####	7336	37634	126544	521508					
	1425868	3313595					QUAD	0.000e+000	5.37547	-0.57371	0.99759
25 2,4-Dichlorophenol	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
26 1,2,4-Trichlorobenzene	0.28887	0.28679	0.28252	0.29461	0.28337	0.28328					
	0.28854	0.29525					AVRG		0.28790		1.72341
28 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
29 4-Chloroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
30 Hexachlorobutadiene	0.21833	0.20386	0.19805	0.20413	0.19707	0.19656					
	0.20447	0.21198					AVRG		0.20431		3.73354
31 4-Chloro-3-methylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
32 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
33 Hexachlorocyclopentadiene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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	5.0000 Level 7	10.0000 Level 8									
34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
39 Dimethylphthalate	1.17306	1.13674	1.17700	1.32015	1.33033	1.34291					
	1.32177	1.35881					AVRG		1.27010		7.15698
40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
50 Diethylphthalate	1.10372	1.06260	1.10882	1.22577	1.23779	1.26204					
	1.26512	1.31611					AVRG		1.19775		7.73514
51 4-Chlorophenyl-phenylether	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
52 4-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
53 4,6-Dinitro-2-methylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
54 N-Nitrosodiphenylamine	0.52420	0.58247	0.62289	0.68128	0.64518	0.68703					
	0.70947	0.72627					AVRG		0.64735		10.57293
56 4-Bromophenyl-phenylether	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
57 Hexachlorobenzene	0.29659	0.29809	0.29705	0.31056	0.29828	0.29945					
	0.31009	0.31346					AVRG		0.30295		2.34116

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	5.0000 Level 7	10.0000 Level 8									
58 Pentachlorophenol	+++++	1243	3505	15934	44811	176209					
	489921	1121362					QUAD	0.000e+000	7.54611	-2.24262	0.99782
60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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	5.0000 Level 7	10.0000 Level 8									
67 Butylbenzylphthalate	4671	8617	19744	65574	144786	387221					
	915766	1888709					QUAD	0.000e+000	1.48043	0.03284	0.99960
68 Benzo(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
70 3,3'-Dichlorobenzidine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
71 Chrysene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
72 bis(2-Ethylhexyl)phthalate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
73 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
74 Benzo(b)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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	5.0000 Level 7	10.0000 Level 8									
75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
79 Dibenzo(a,h)anthracene	10824	20472	39856	120142	236566	599679					
	1371633	2937326					QUAD	0.000e+000	1.07973	-0.06563	0.99996
80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
90 N-Nitrosodimethylamine	0.58127	0.59640	0.65358	0.68722	0.70407	0.73905					
	0.71236	0.73487					AVRG		0.67610		8.92506
91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
101 Cholesterol	*****	*****	*****	*****	*****	*****					
	*****	*****					AVRG		0.000e+000		0.000e+000
102 beta-Sitosterol	*****	*****	*****	*****	*****	*****					
	*****	*****					AVRG		0.000e+000		0.000e+000
103 Pyridine	*****	*****	*****	*****	*****	*****					
	*****	*****					AVRG		0.000e+000		0.000e+000
$ 1 2-Fluorophenol	1.02185	1.05555	1.08844	1.17836	1.17520	1.21583					
	1.18289	1.21771					AVRG		1.14198		6.62406
$ 145 d8-1,4-Dioxane	*****	*****	*****	*****	*****	*****					
	*****	*****					AVRG		0.000e+000		0.000e+000
$ 2 Phenol-d5	*****	*****	*****	*****	*****	*****					
	*****	*****					AVRG		0.000e+000		0.000e+000
$ 5 2-Chlorophenol-d4	*****	*****	*****	*****	*****	*****					
	*****	*****					AVRG		0.000e+000		0.000e+000

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INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Compound	0.0500000 Level 1 / 5.0000 Level 7	0.1000000 Level 2 / 10.0000 Level 8	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 10 1,2-Dichlorobenzene-d4	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
$ 18 Nitrobenzene-d5	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
$ 36 2-Fluorobiphenyl	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
$ 55 2,4,6-Tribromophenol	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
$ 66 Terphenyl-d14	0.26682 / 0.37637	0.28582 / 0.35956	0.28446	0.31786	0.33307	0.36379	AVRG		0.32347		12.80012
$ 85 p-Cresol-d4	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
$ 86 Anthracene-d10	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223033.D

Page 1

Date : 02-MAR-2023 14:13

Client ID:

Instrument: nt10.i

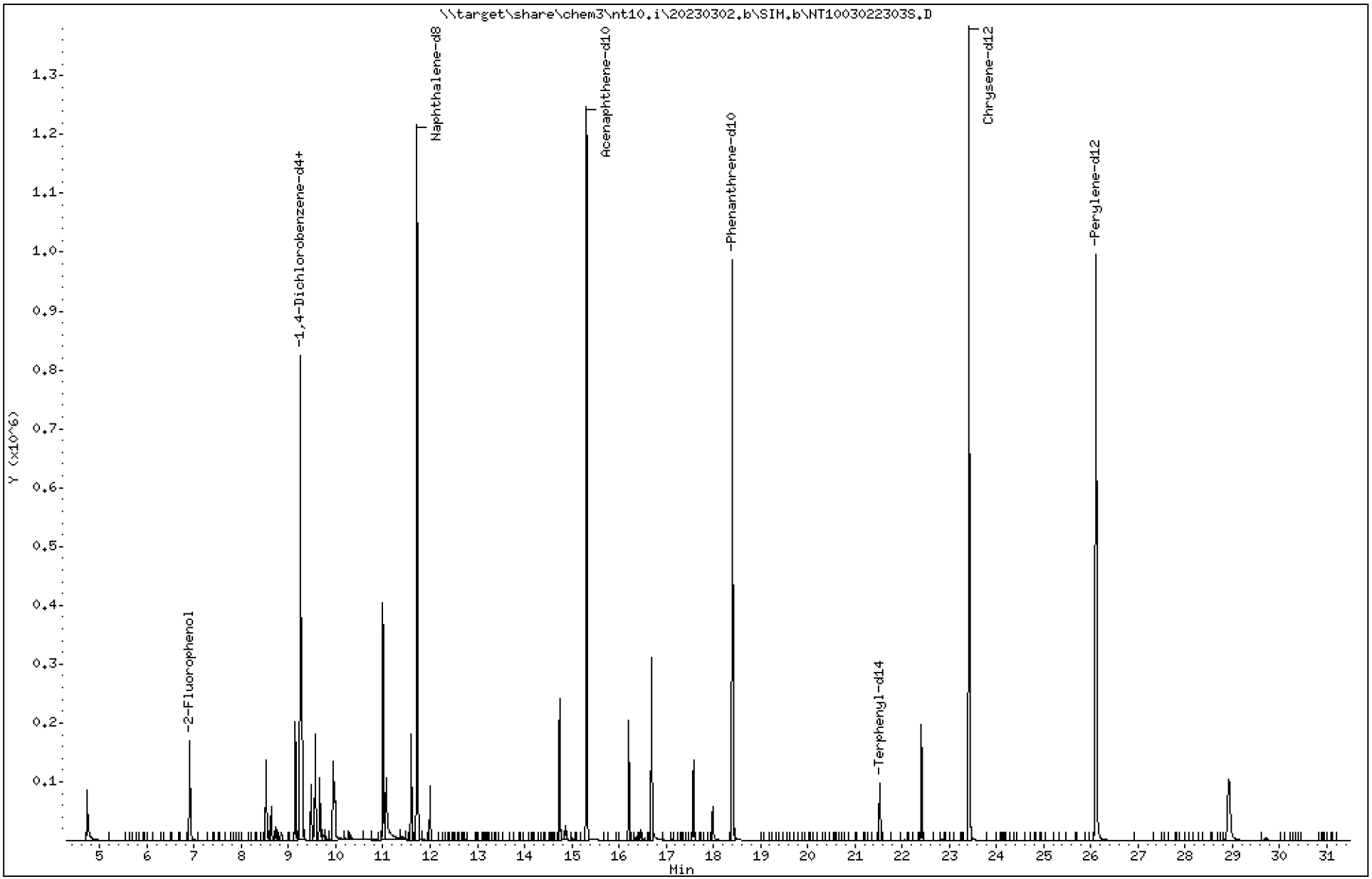
Sample Info: SEQ-ICVSIM

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022303S.D
Lab Smp Id: SEQ-ICVSIM
Inj Date : 02-MAR-2023 14:13 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-ICVSIM
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:01 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.902	6.902	(0.746)	226474	1.50000	1.608
	3 Phenol	94	8.517	8.517	(0.921)	198101	1.00000	0.9490
	7 1,3-Dichlorobenzene	146	9.143	9.143	(0.988)	182702	1.00000	0.9991
*	8 1,4-Dichlorobenzene-d4	152	9.251	9.251	(1.000)	493417	4.00000	
	9 1,4-Dichlorobenzene	146	9.282	9.282	(1.003)	176275	1.00000	0.9915
	11 Benzyl alcohol	79	9.476	9.476	(1.024)	102049	1.00000	0.8764
	12 1,2-Dichlorobenzene	146	9.562	9.562	(1.034)	172200	1.00000	1.008
	13 2-Methylphenol	108	9.655	9.655	(1.044)	122736	1.00000	0.9750
	15 4-Methylphenol	108	9.942	9.942	(1.075)	121561	1.00000	0.9268
	16 N-Nitroso-di-n-propylamine	70	9.981	9.981	(1.079)	89772	1.00000	0.9670
	22 2,4-Dimethylphenol	107	10.997	10.997	(0.938)	279299	2.00000	1.841
	24 Benzoic acid	105	11.074	11.074	(0.945)	162548	4.00000	1.945
	26 1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	127996	1.00000	0.9996
*	27 Naphthalene-d8	136	11.723	11.723	(1.000)	1779056	4.00000	
	30 Hexachlorobutadiene	225	11.994	11.994	(1.023)	84635	1.00000	0.9314
	39 Dimethylphthalate	163	14.741	14.741	(0.963)	301592	1.00000	0.9950
*	42 Acenaphthene-d10	162	15.314	15.314	(1.000)	954569	4.00000	
	50 Diethylphthalate	149	16.203	16.203	(1.058)	287740	1.00000	1.007
	54 N-Nitrosodiphenylamine	169	16.690	16.690	(0.907)	256566	1.00000	0.9931
	57 Hexachlorobenzene	284	17.578	17.578	(0.955)	119208	1.00000	0.9860

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	58 Pentachlorophenol	266	17.988	17.988	(0.977)	71995	2.00000	1.343
*	59 Phenanthrene-d10	188	18.406	18.406	(1.000)	1596290	4.00000	
$	66 Terphenyl-d14	244	21.532	21.532	(0.919)	125655	1.00000	0.9422
	67 Butylbenzylphthalate	149	22.414	22.414	(0.957)	198566	1.00000	0.7149
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	1649110	4.00000	
*	77 Perylene-d12	264	26.115	26.115	(1.000)	1901958	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.929	28.929	(1.108)	380310	1.00000	0.8531
	90 N-Nitrosodimethylamine	74	4.732	4.732	(0.511)	187791	2.00000	2.252

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAR-2023
Lab File ID: NT1003022303S.D Calibration Time: 18:37
Lab Smp Id: SEQ-ICVSIM
Analysis Type: SV Level: LOW
Quant Type: ISTD Sample Type: AIR
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	493417	246709	986834	493417	0.00
27 Naphthalene-d8	1779056	889528	3558112	1779056	0.00
42 Acenaphthene-d10	954569	477285	1909138	954569	0.00
59 Phenanthrene-d10	1596290	798145	3192580	1596290	0.00
69 Chrysene-d12	1649110	824555	3298220	1649110	0.00
77 Perylene-d12	1901958	950979	3803916	1901958	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.41	17.91	18.91	18.41	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
77 Perylene-d12	26.12	25.62	26.62	26.12	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003022303S.D

Lab ID: SEQ-ICVSIM
nt10.i, 20230302.b\SIM.b\SIMABN2.m,   02-MAR-2023 14:13

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230302.b\SIM.b

Instrument: nt10.i Date: 02-MAR-2023 Method: SIM.b\SIMABN2.m

INITIAL CAL: 01-MAR-2023

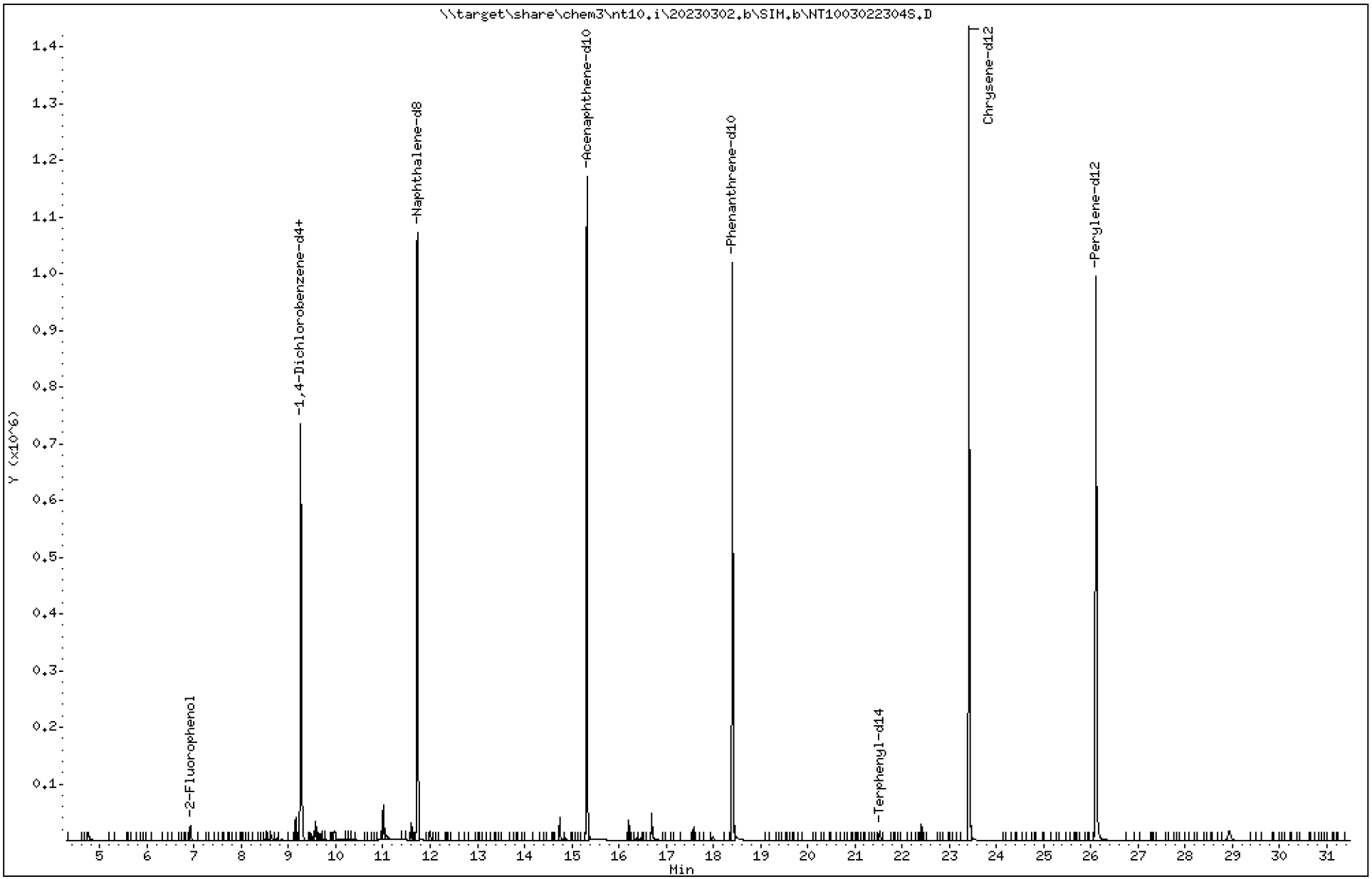
Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: NT1003022303S.D 02-MAR-2023 14:13

Compound	%D
Benzoic acid	-51.4
Pentachlorophenol	-32.8
Butylbenzylphthalate	-28.5

Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223045.D
Date : 02-MAR-2023 16:17
Client ID:
Sample Info: SEQ-LCV200
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: JGR
Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

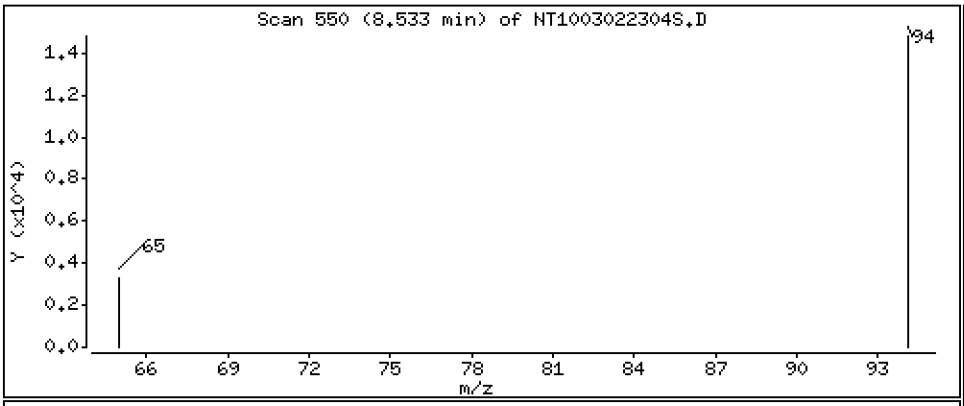
Operator: JGR

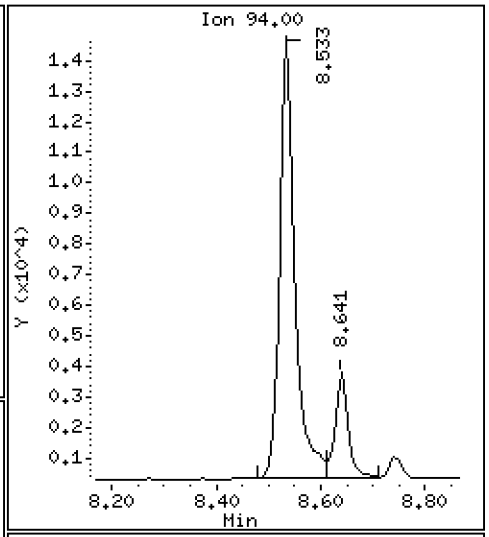
Column phase: ZB-5msi

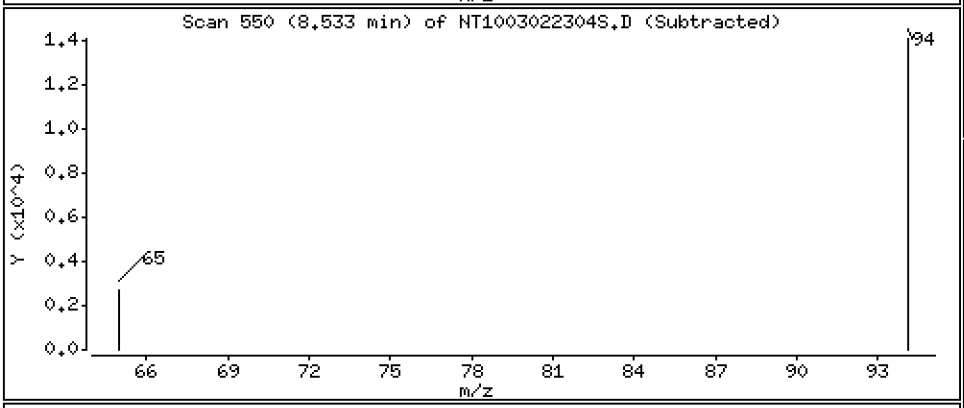
Column diameter: 0.25

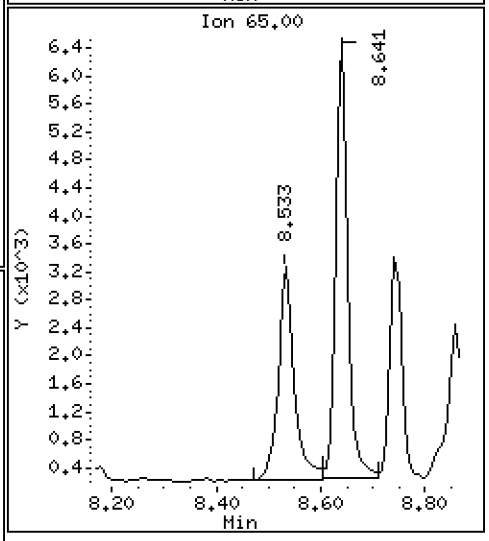
3 Phenol

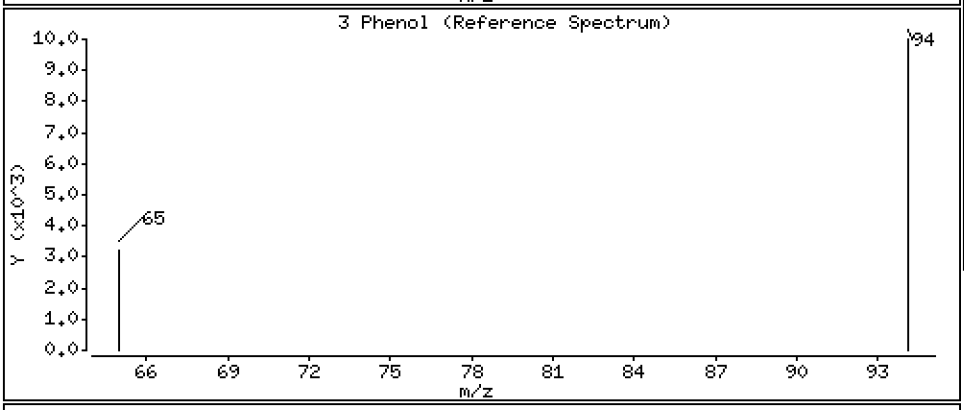
Concentration: 0.1516 ug/L

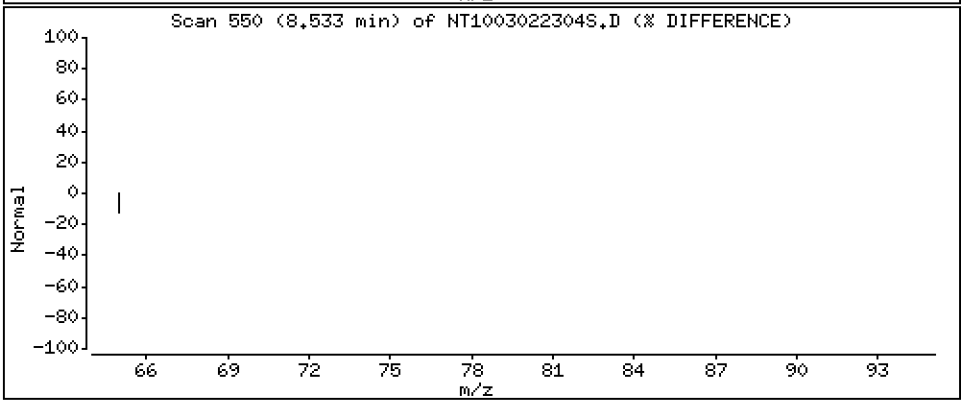












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Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

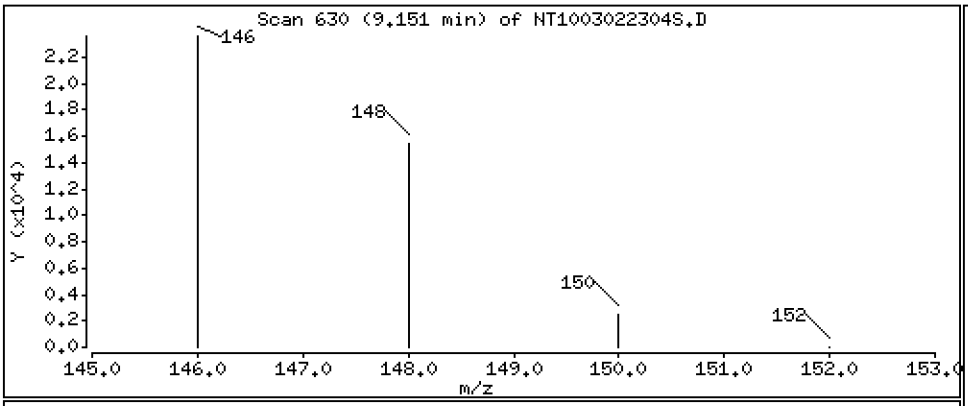
Operator: JGR

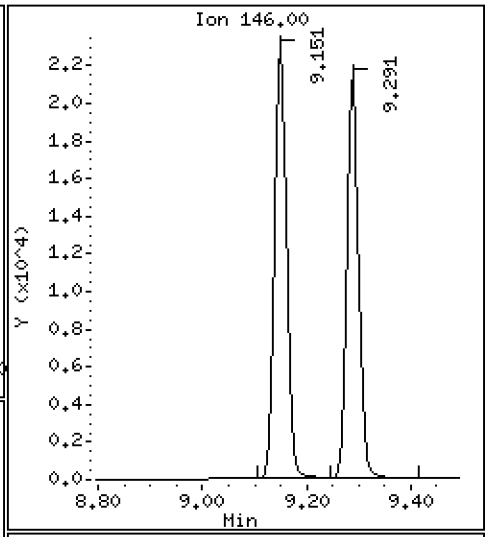
Column phase: ZB-5msi

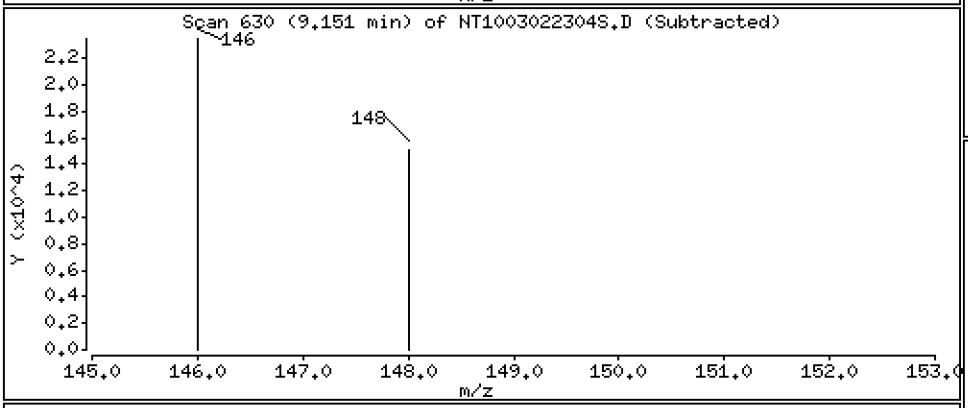
Column diameter: 0.25

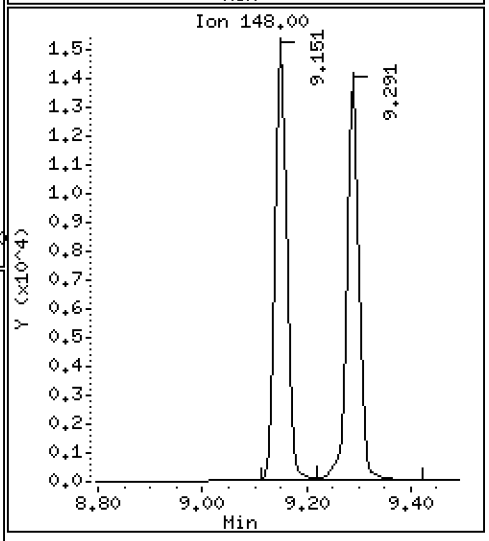
7 1,3-Dichlorobenzene

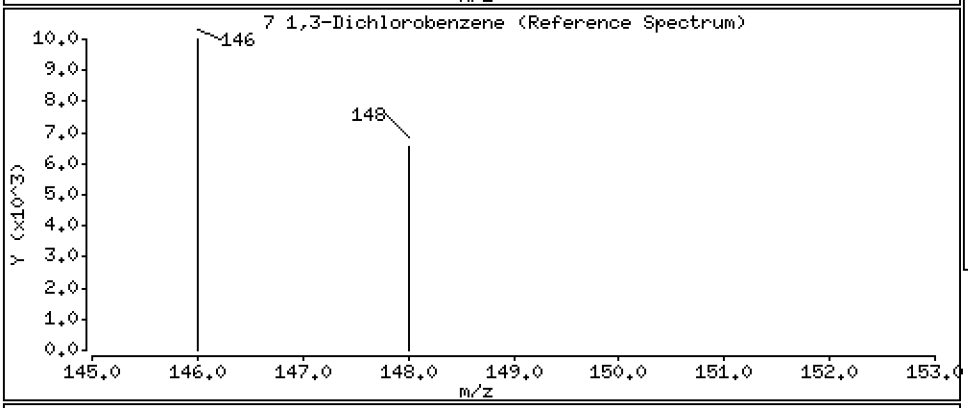
Concentration: 0.2034 ug/L

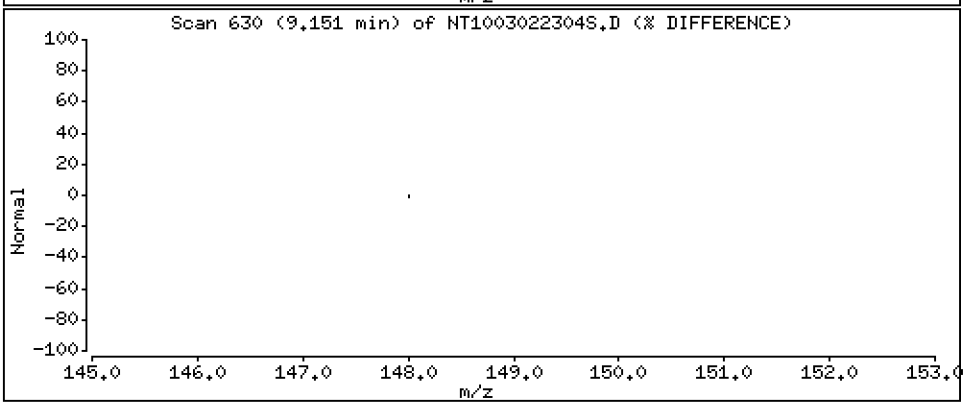












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

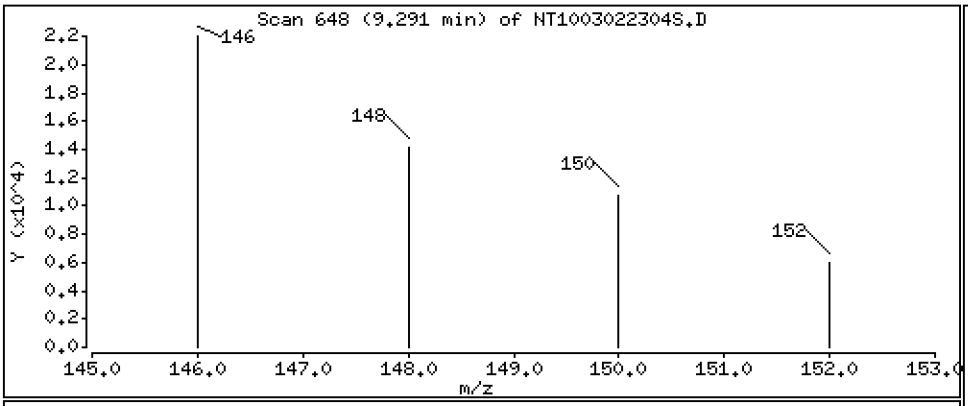
Operator: JGR

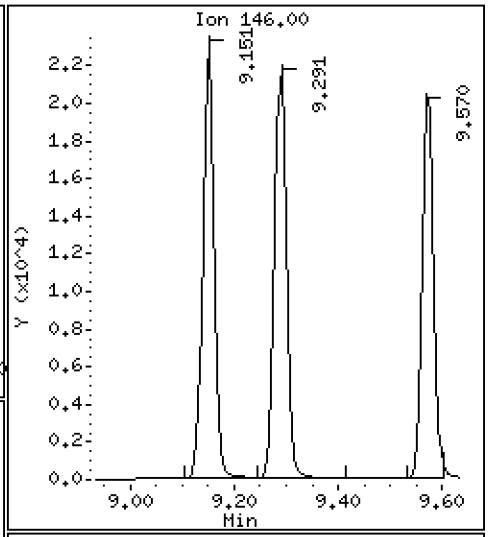
Column phase: ZB-5msi

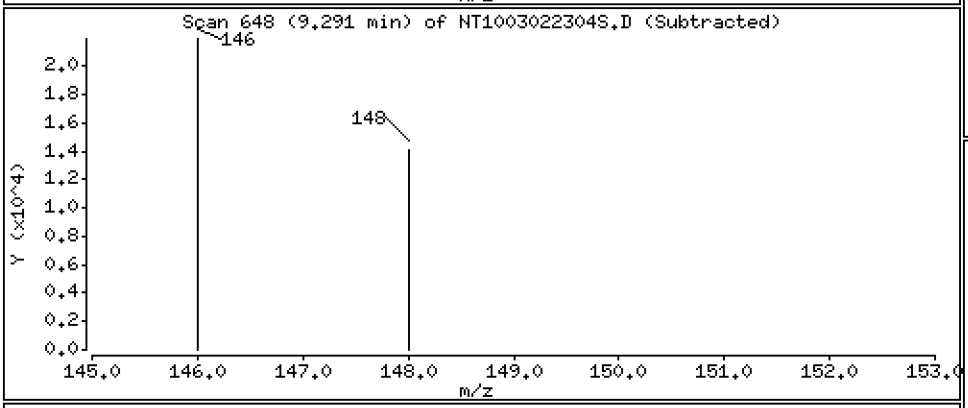
Column diameter: 0.25

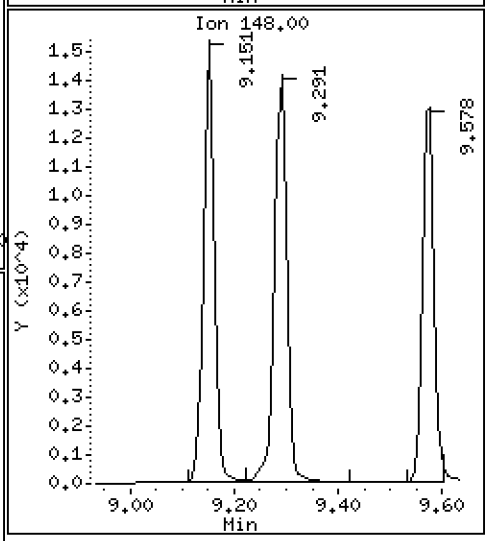
9 1,4-Dichlorobenzene

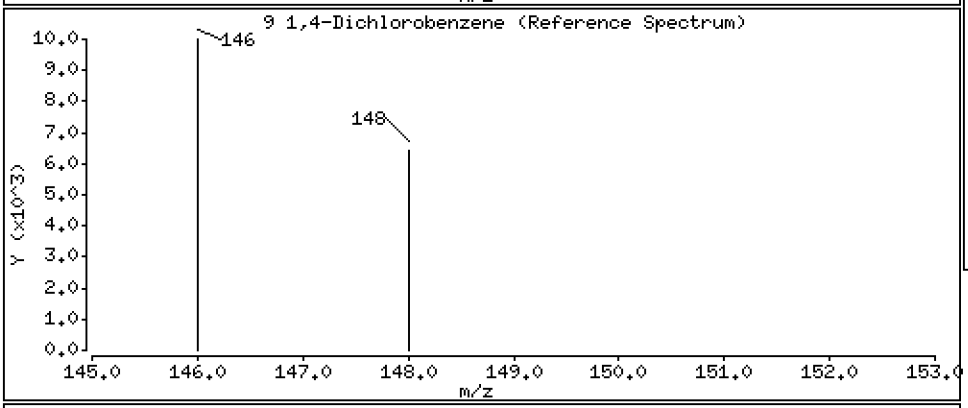
Concentration: 0.1998 ug/L

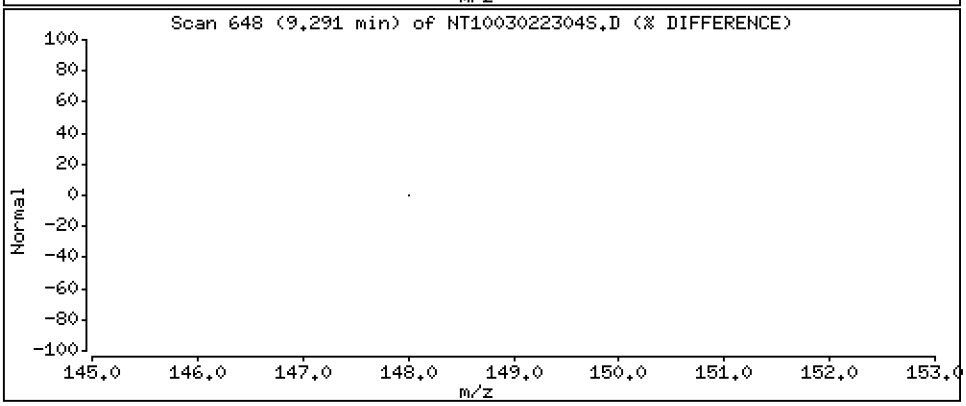












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

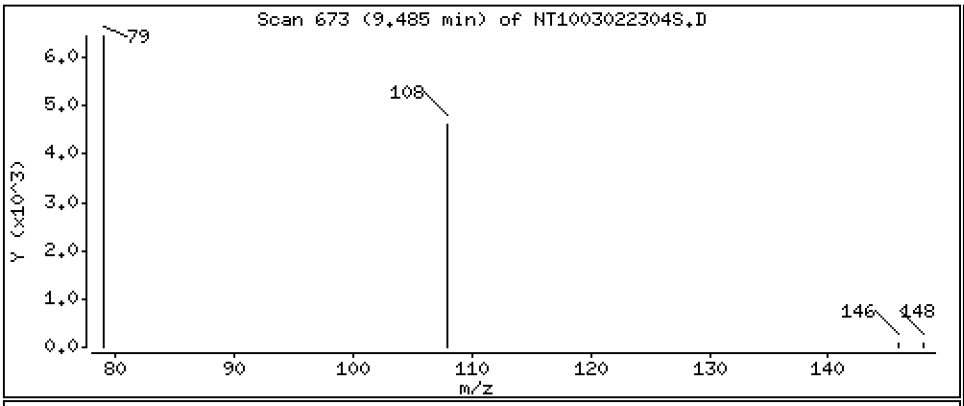
Operator: JGR

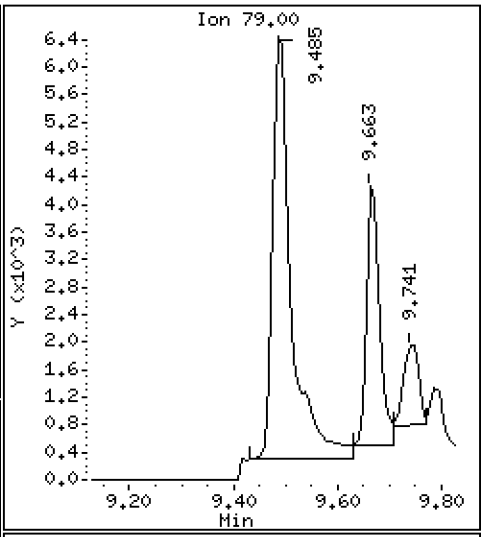
Column phase: ZB-5msi

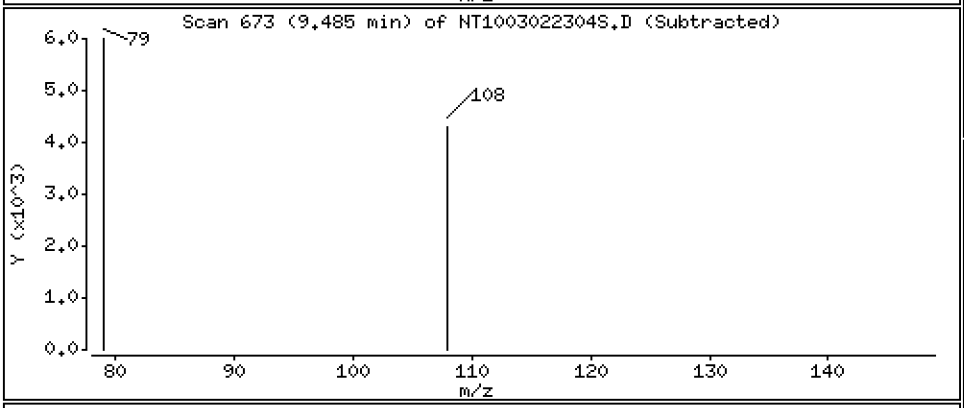
Column diameter: 0.25

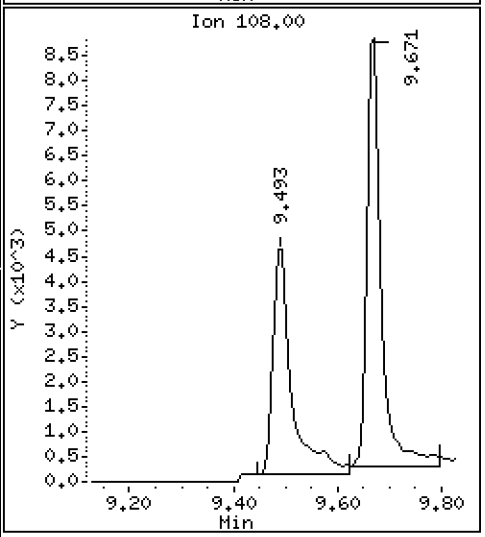
11 Benzyl alcohol

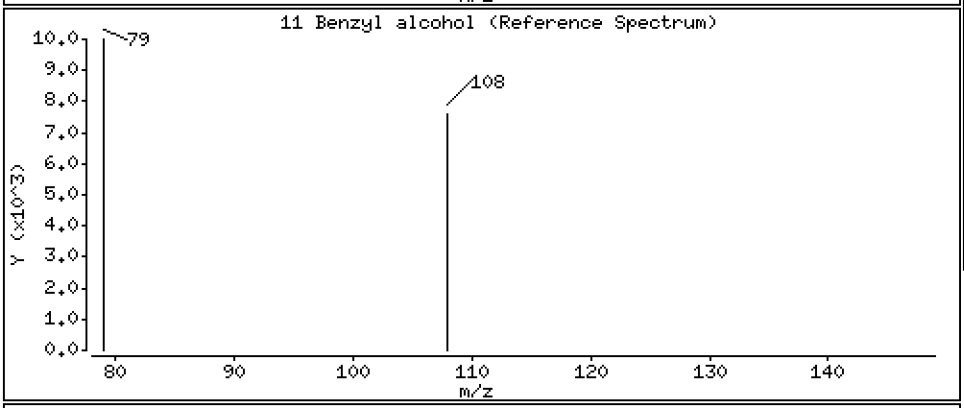
Concentration: 0.1392 ug/L

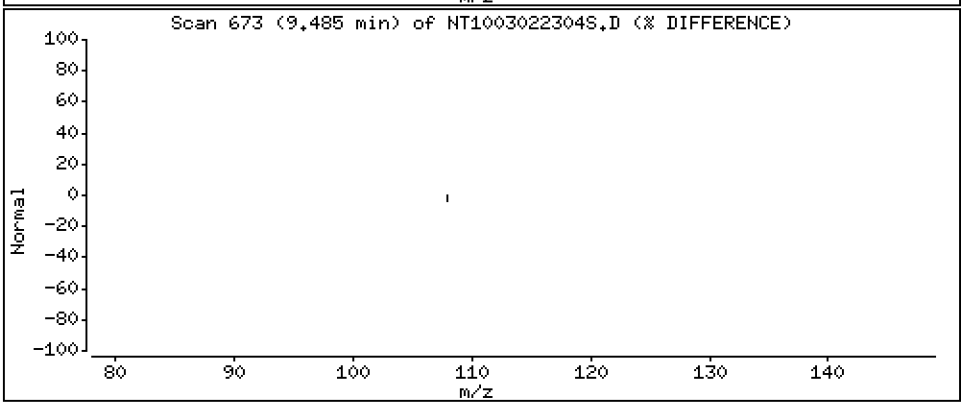












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

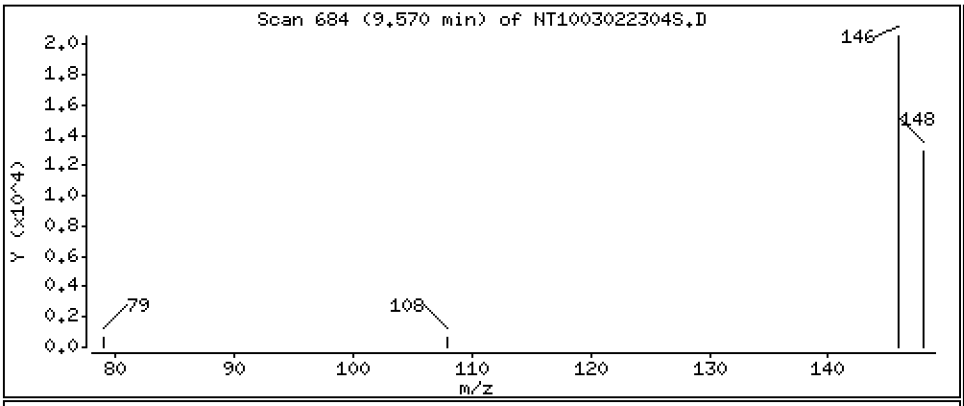
Operator: JGR

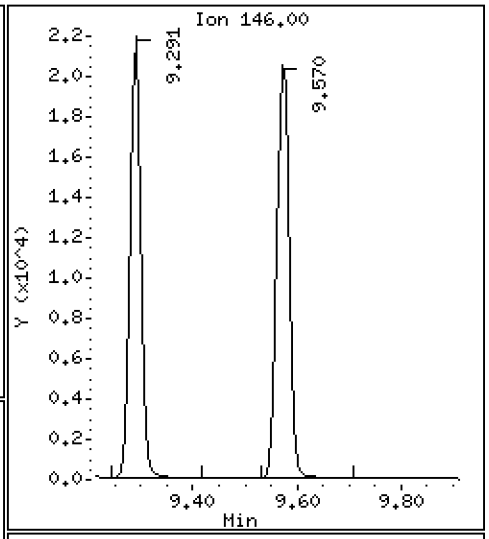
Column phase: ZB-5msi

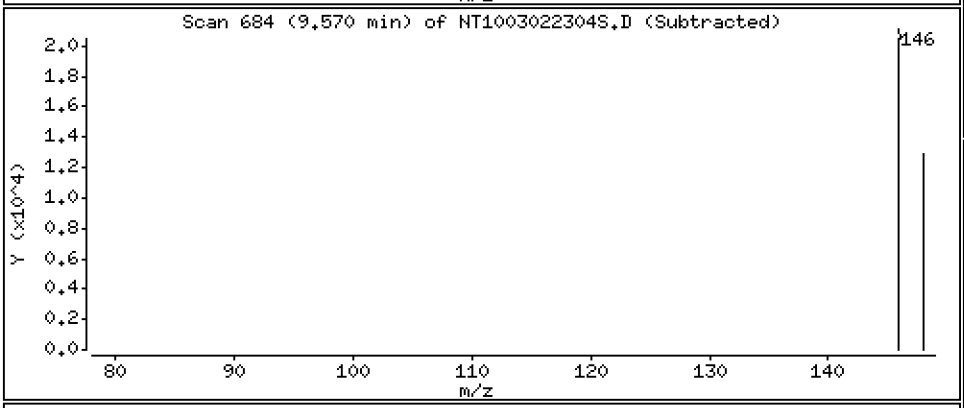
Column diameter: 0.25

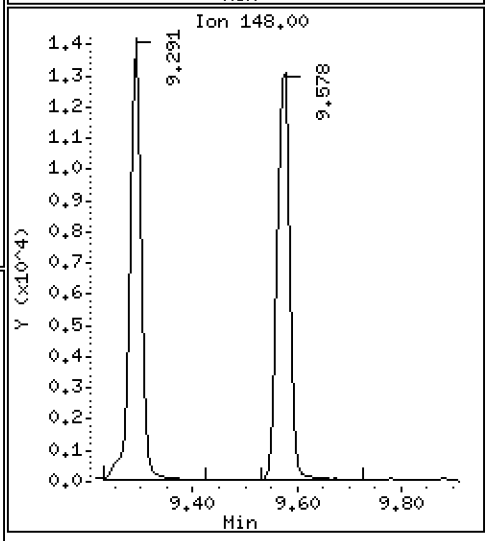
12 1,2-Dichlorobenzene

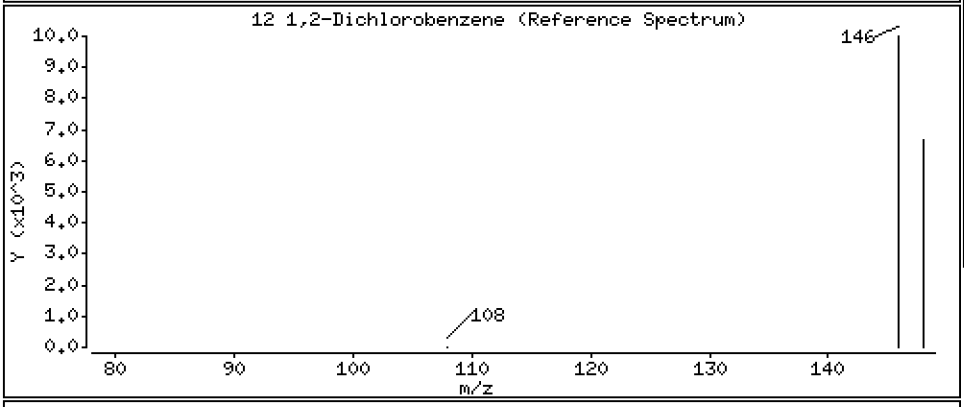
Concentration: 0.2027 ug/L

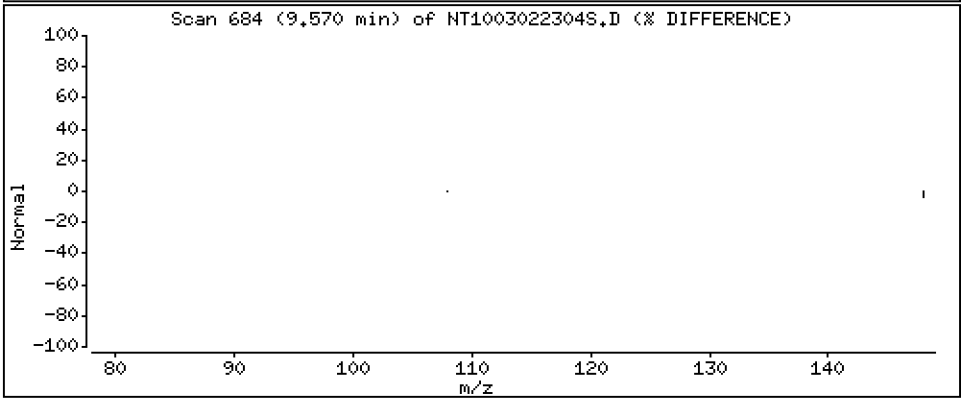












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

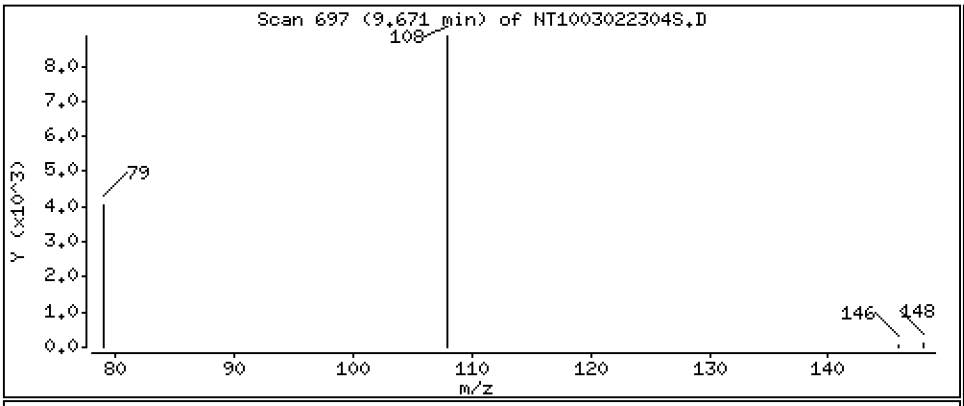
Operator: JGR

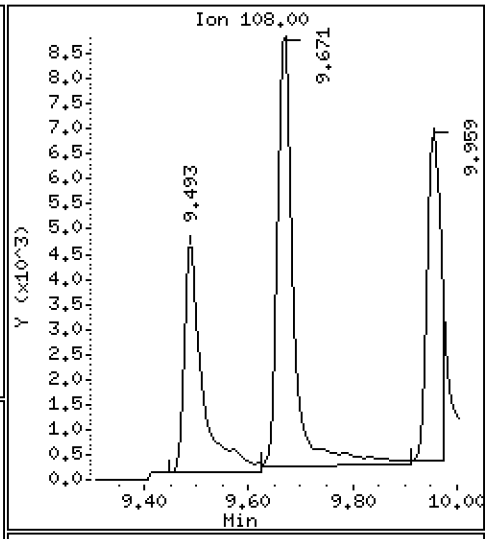
Column phase: ZB-5msi

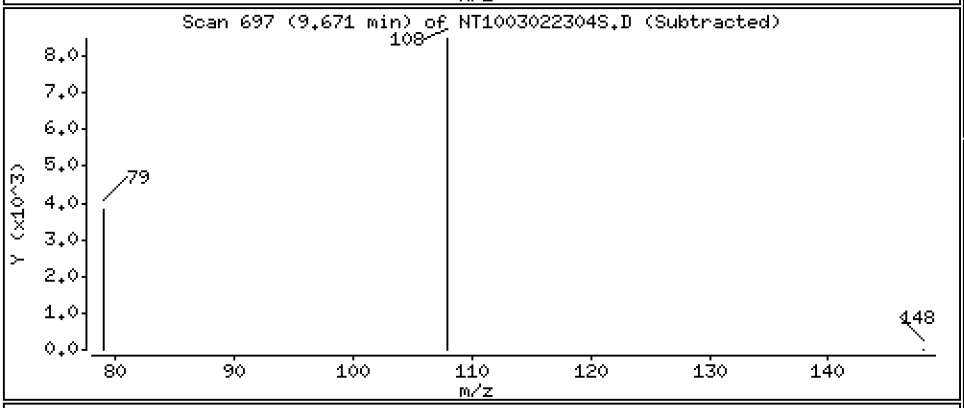
Column diameter: 0.25

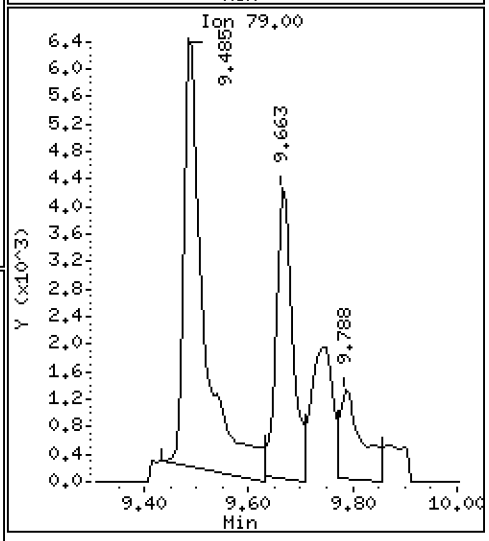
13 2-Methylphenol

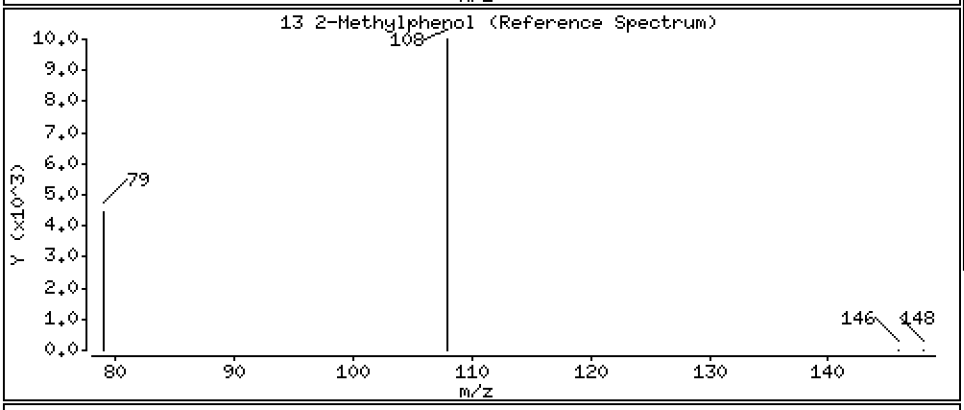
Concentration: 0.1561 ug/L

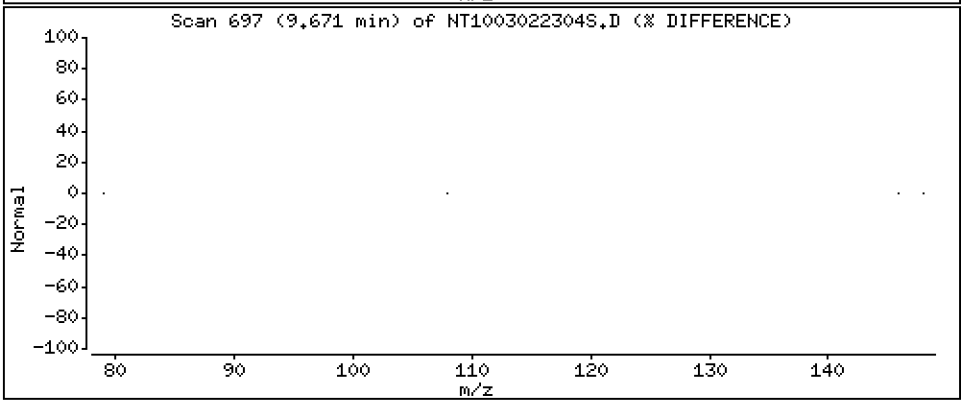












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

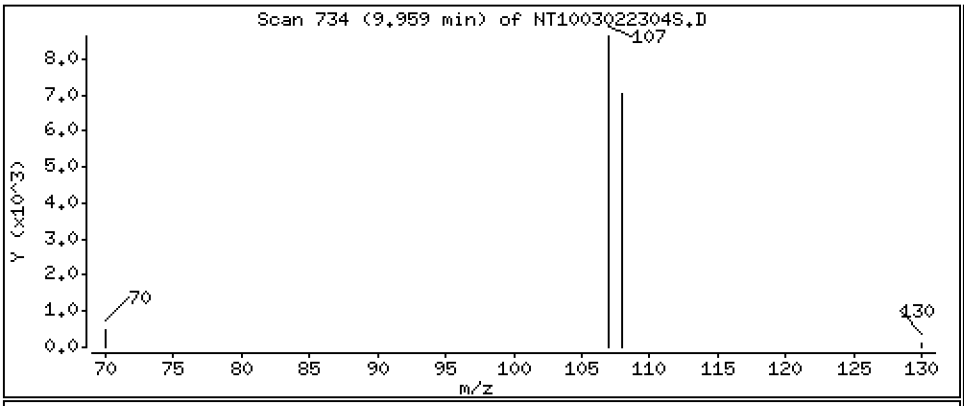
Operator: JGR

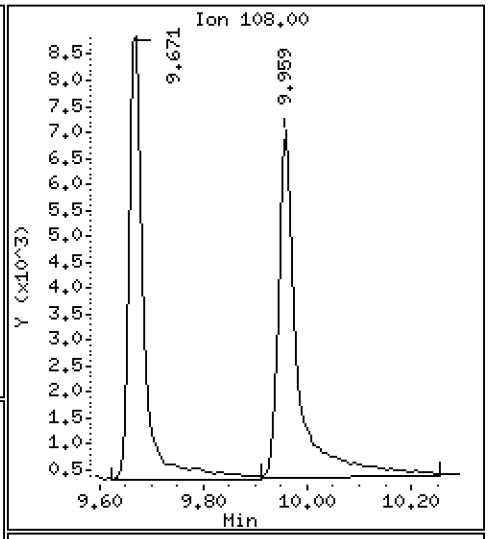
Column phase: ZB-5msi

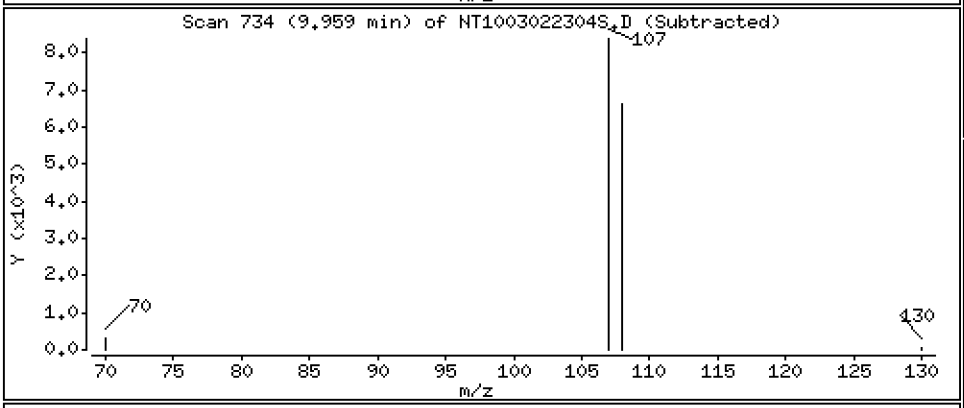
Column diameter: 0.25

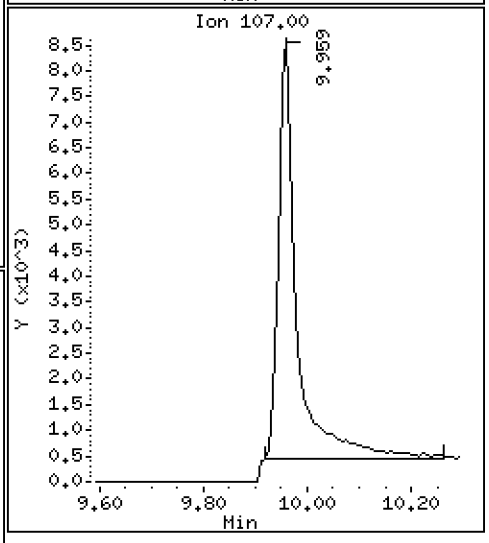
15 4-Methylphenol

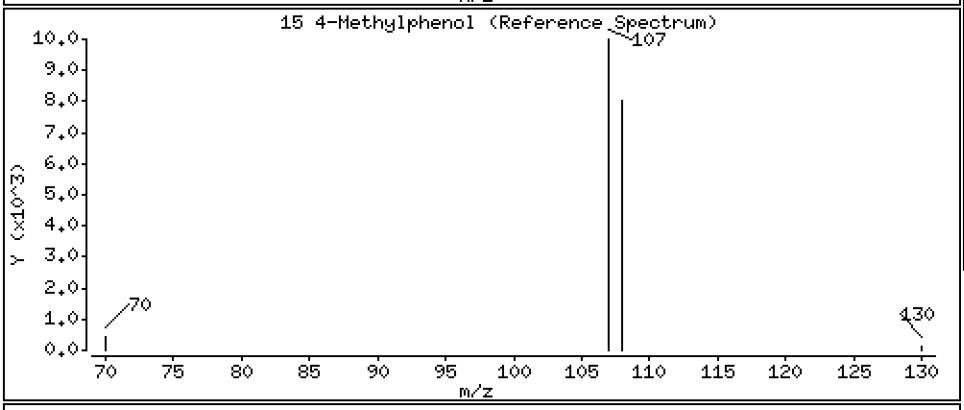
Concentration: 0.1404 ug/L

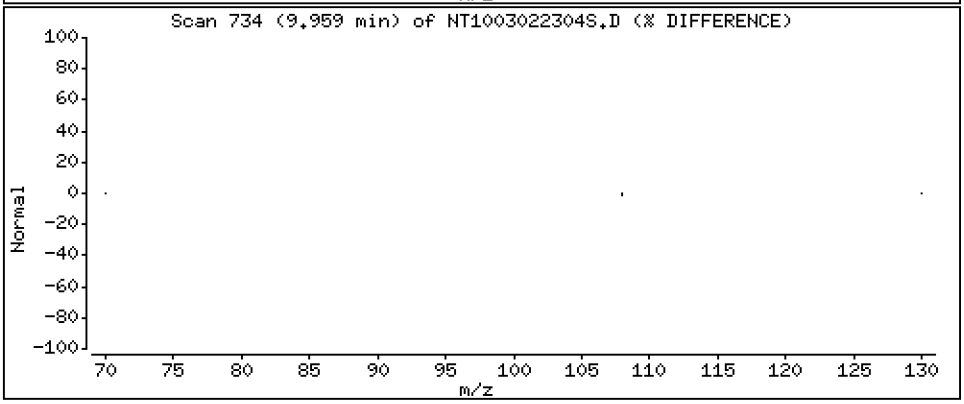












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

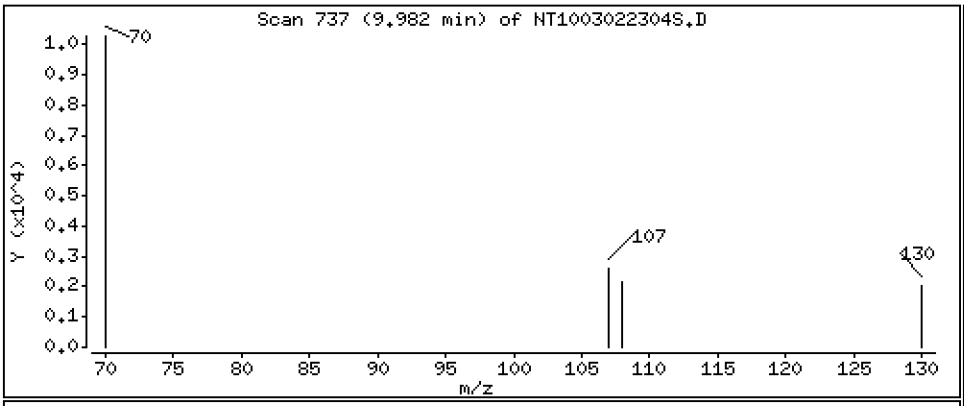
Operator: JGR

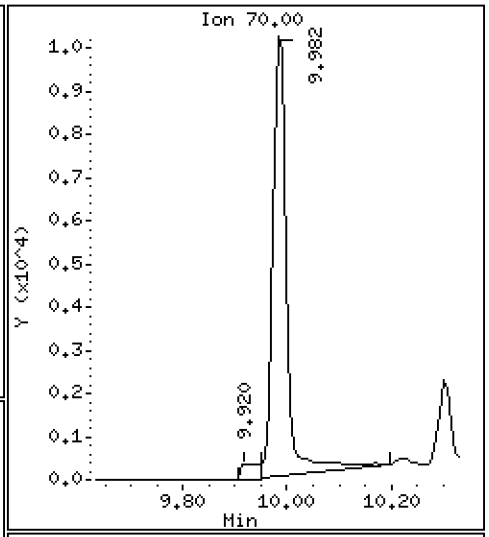
Column phase: ZB-5msi

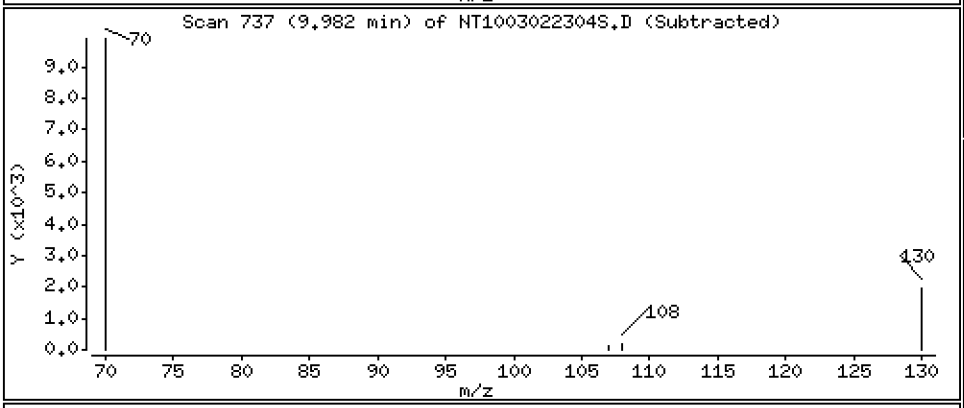
Column diameter: 0.25

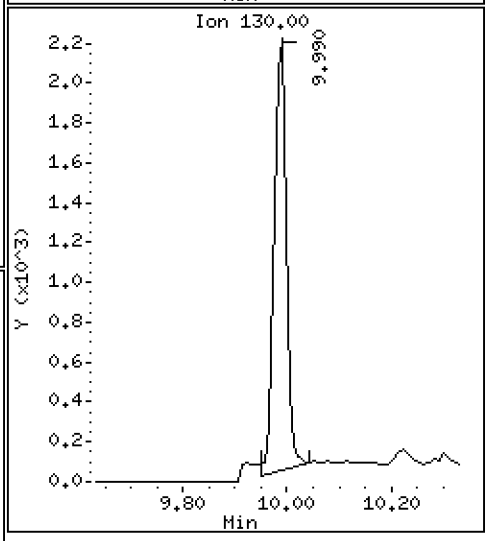
16 N-Nitroso-di-n-propylamine

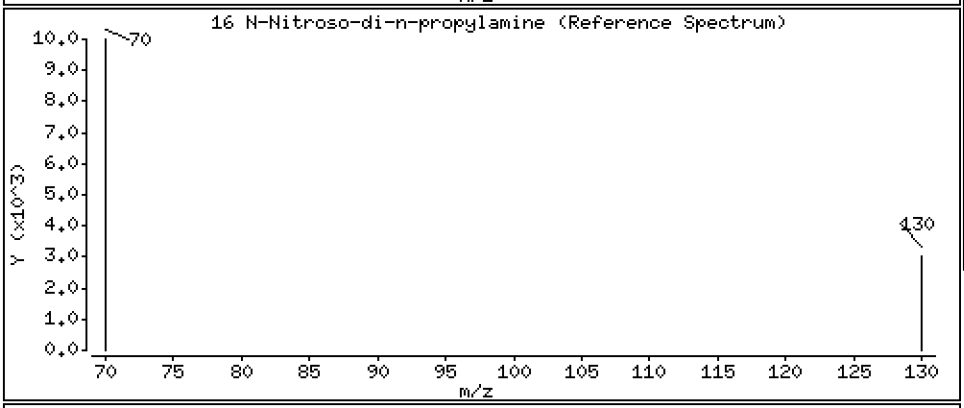
Concentration: 0.2077 ug/L

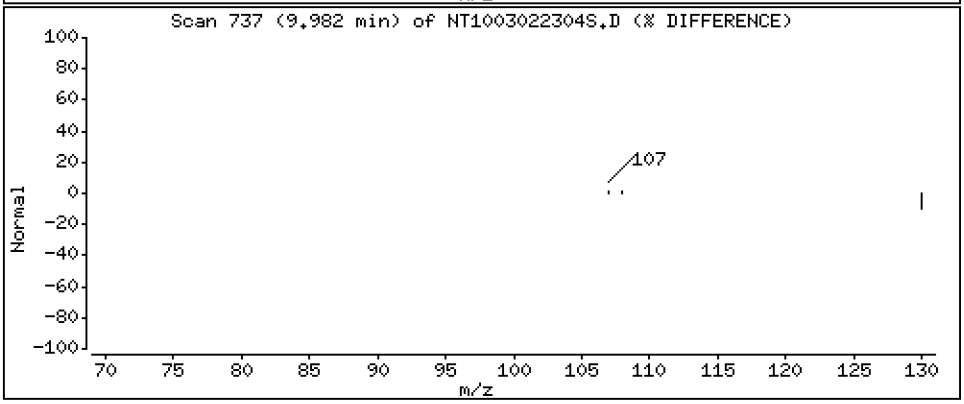












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Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

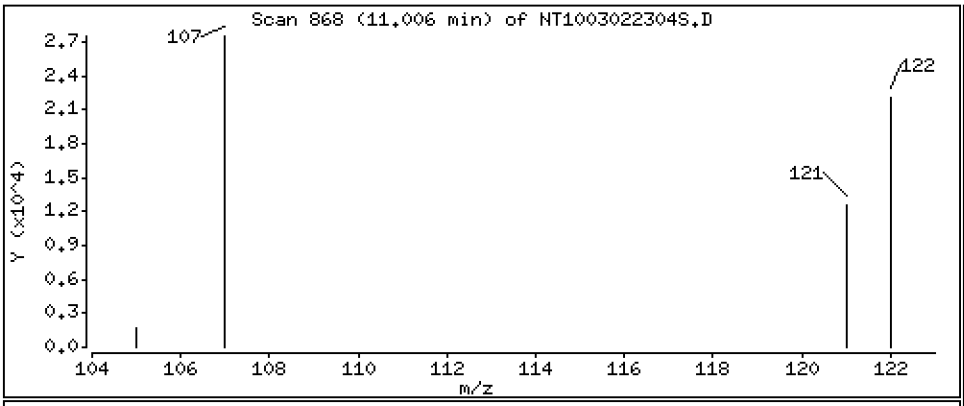
Operator: JGR

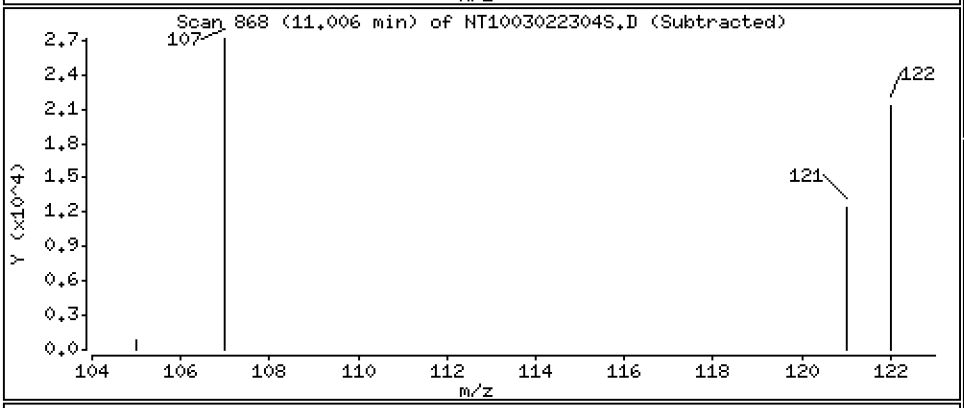
Column phase: ZB-5msi

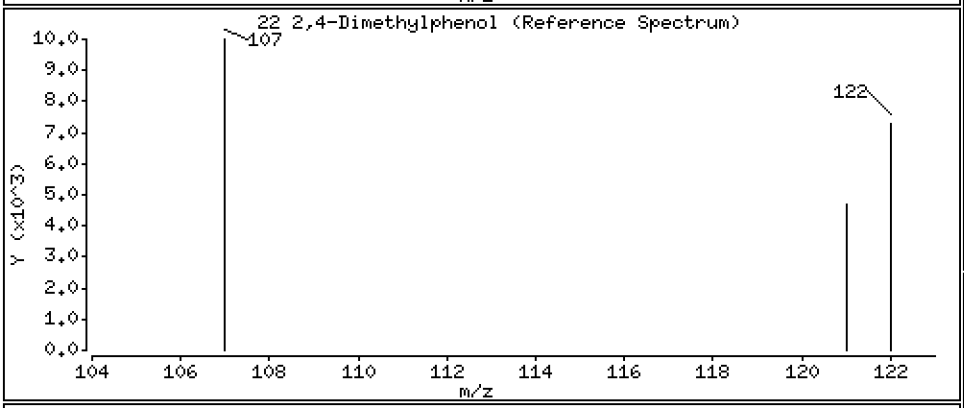
Column diameter: 0.25

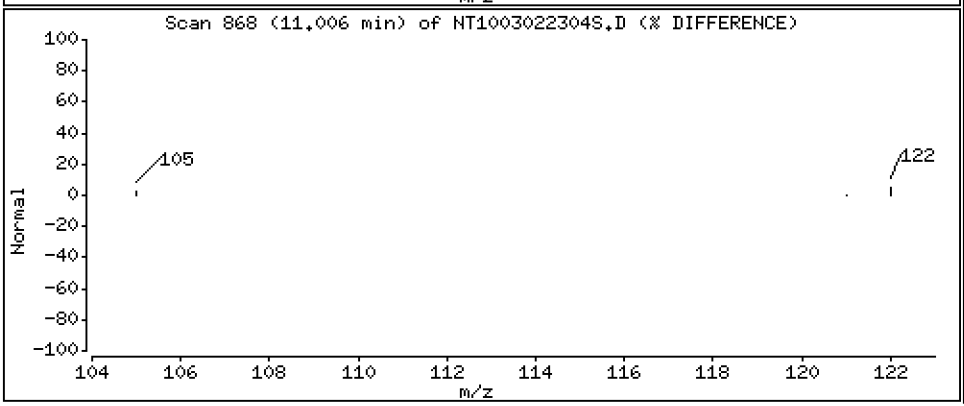
22 2,4-Dimethylphenol

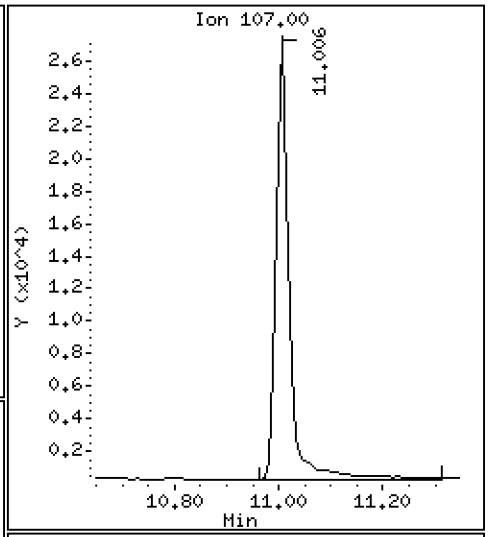
Concentration: 0.3273 ug/L

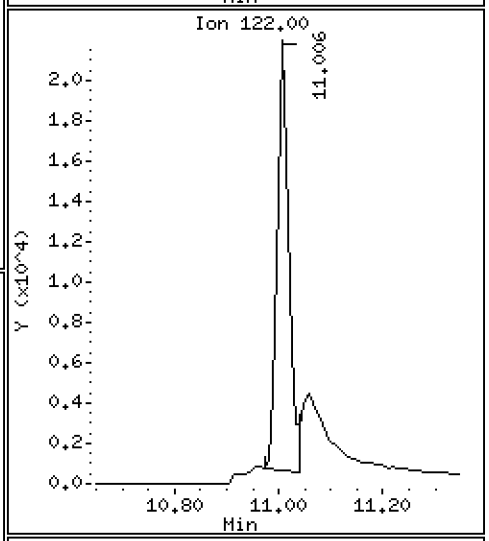


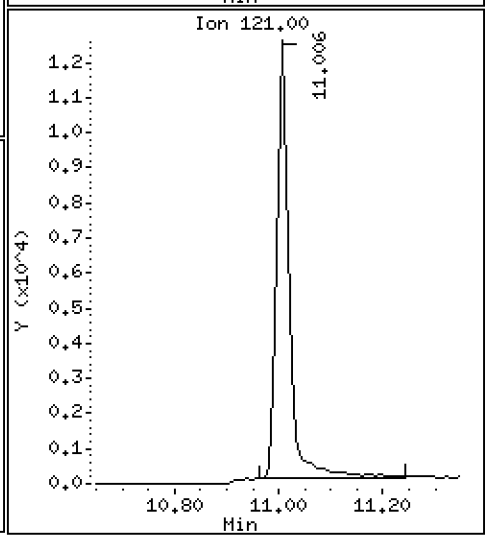












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Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

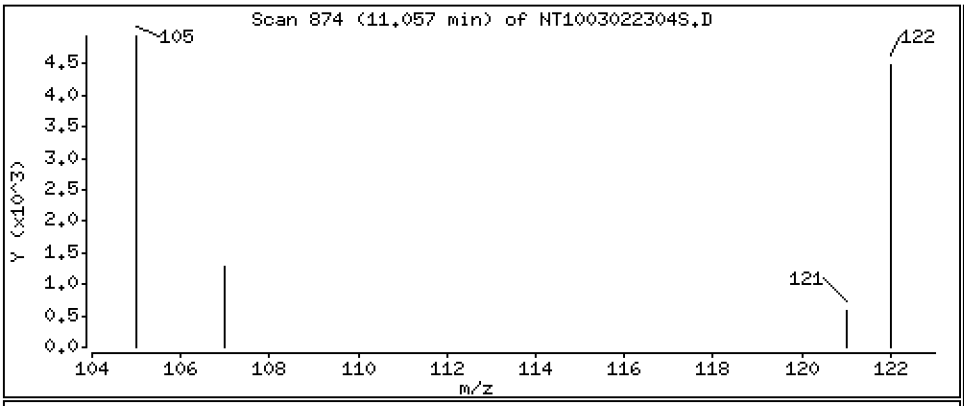
Operator: JGR

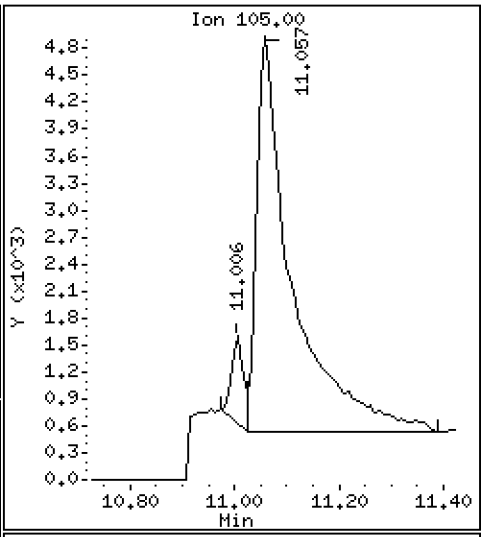
Column phase: ZB-5msi

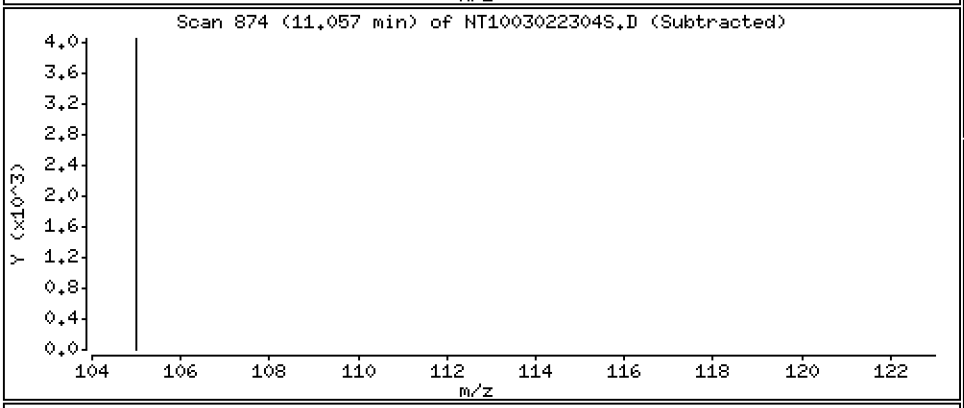
Column diameter: 0.25

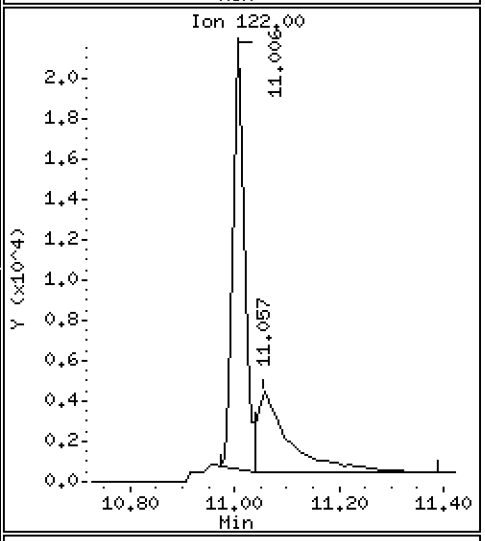
24 Benzoic acid

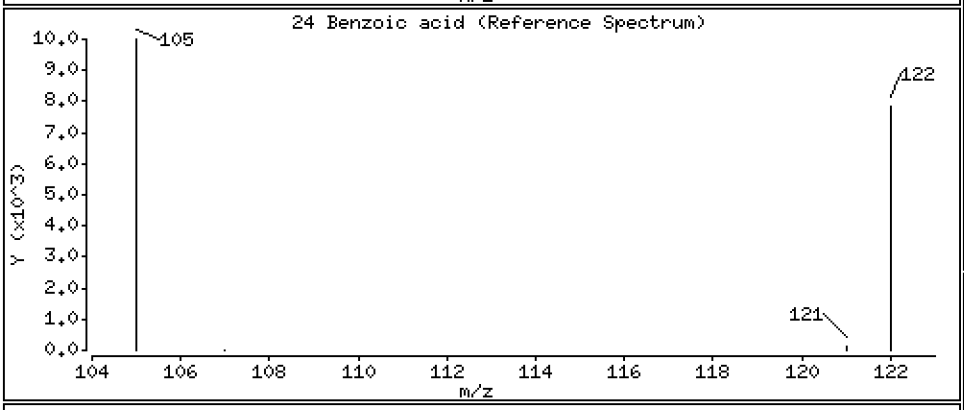
Concentration: 0.2670 ug/L

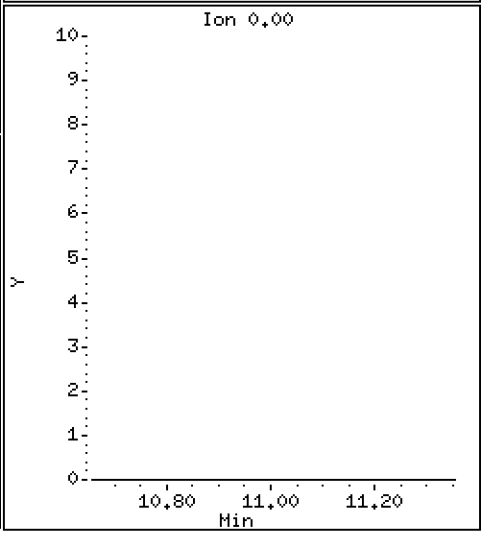


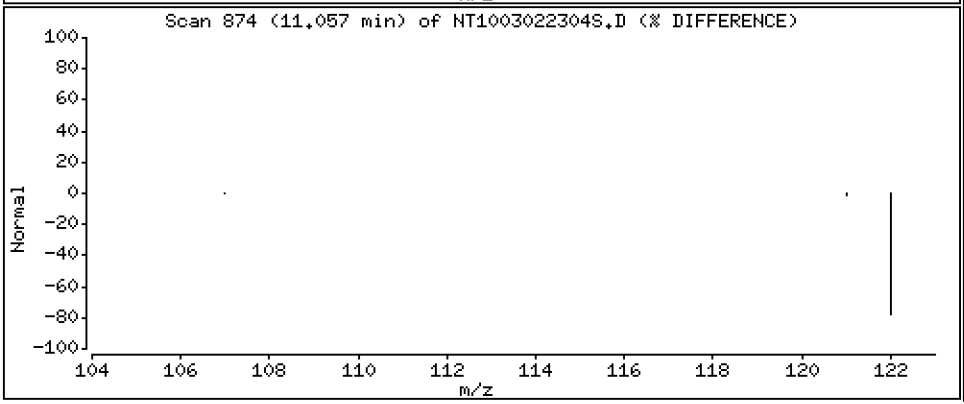












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

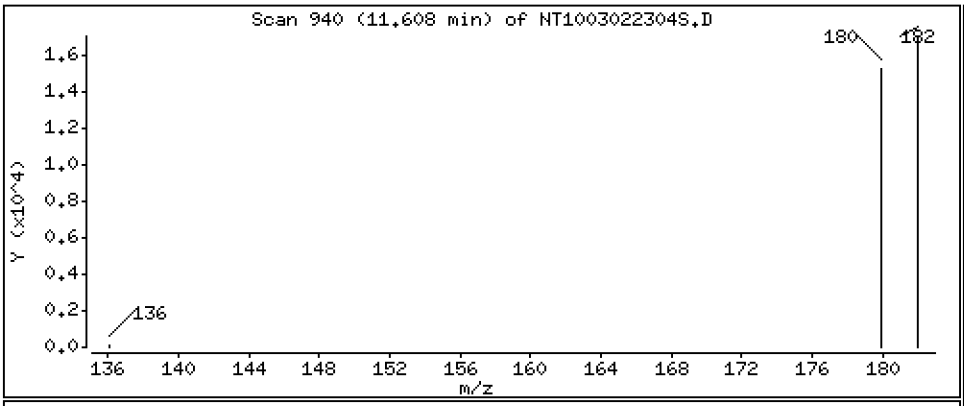
Operator: JGR

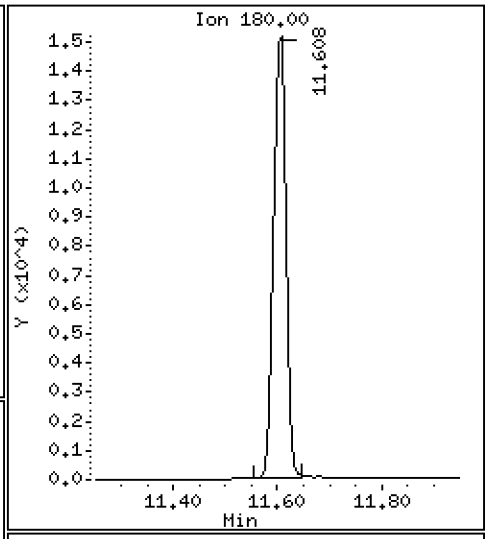
Column phase: ZB-5msi

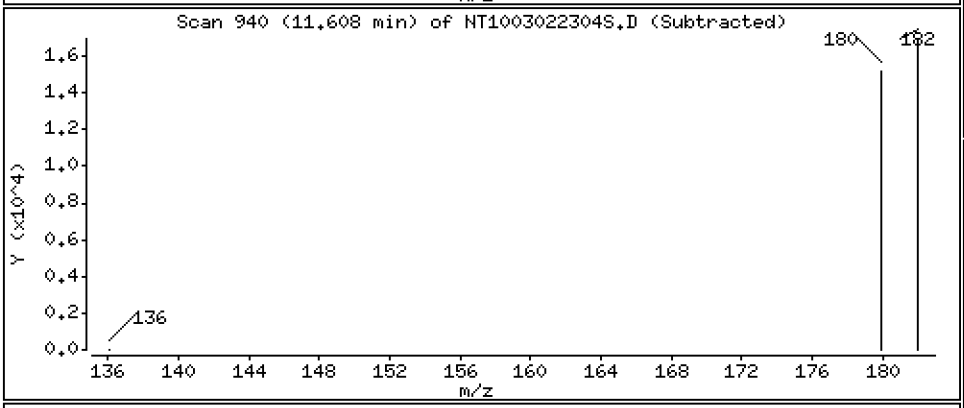
Column diameter: 0.25

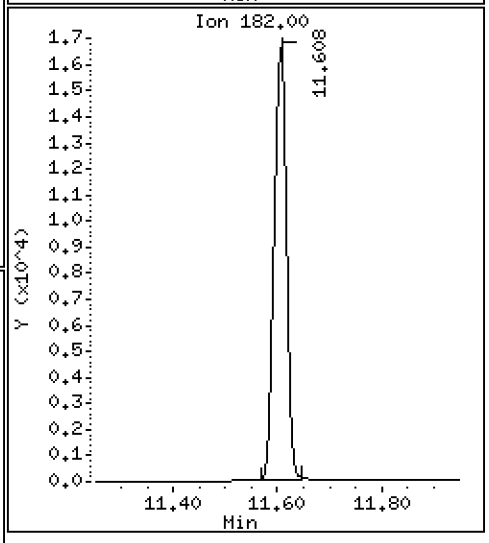
26 1,2,4-Trichlorobenzene

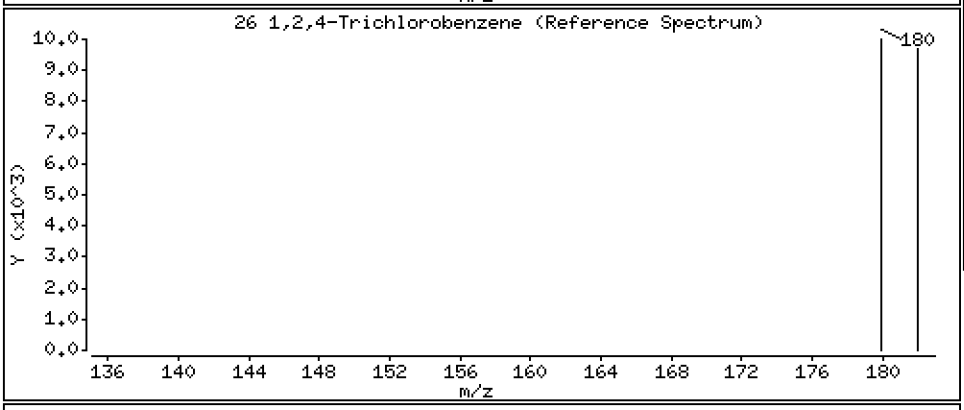
Concentration: 0.1965 ug/L

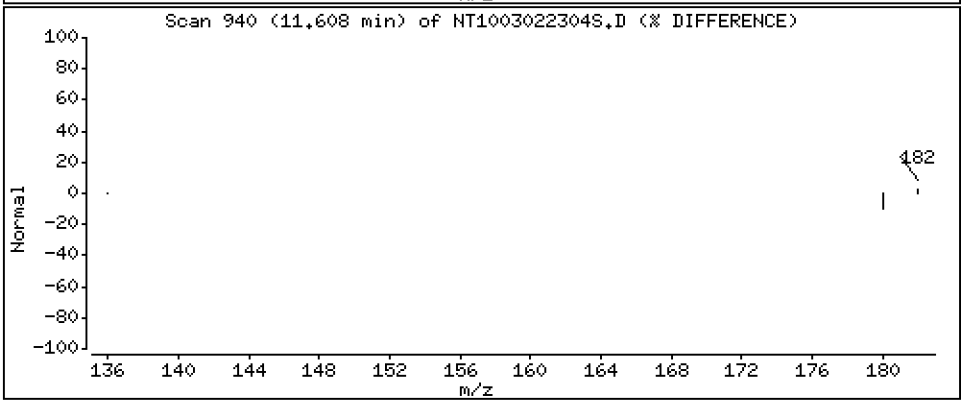












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

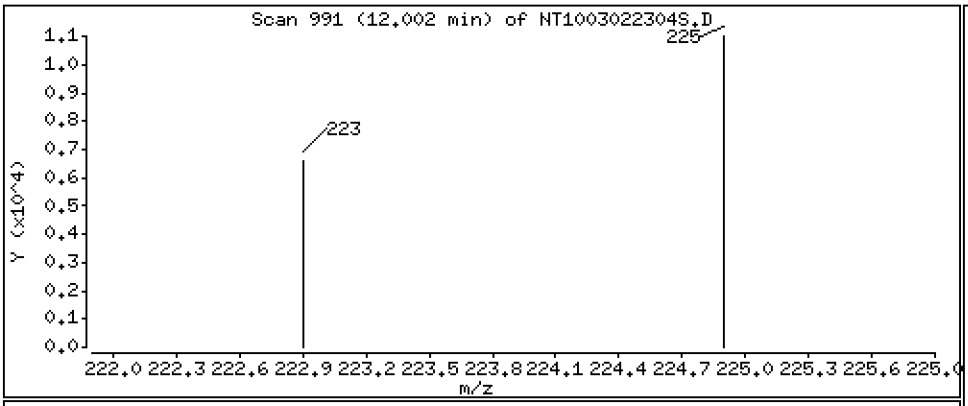
Operator: JGR

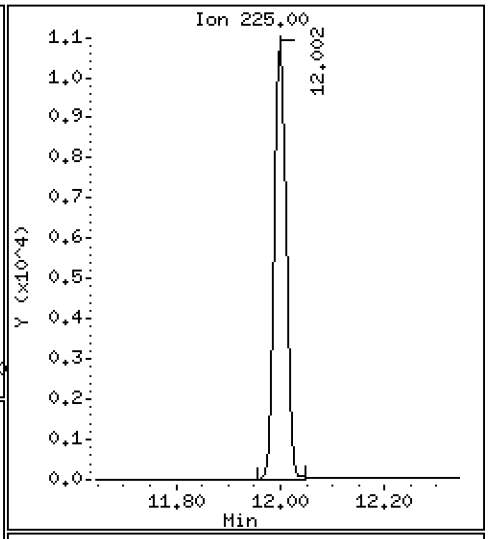
Column phase: ZB-5msi

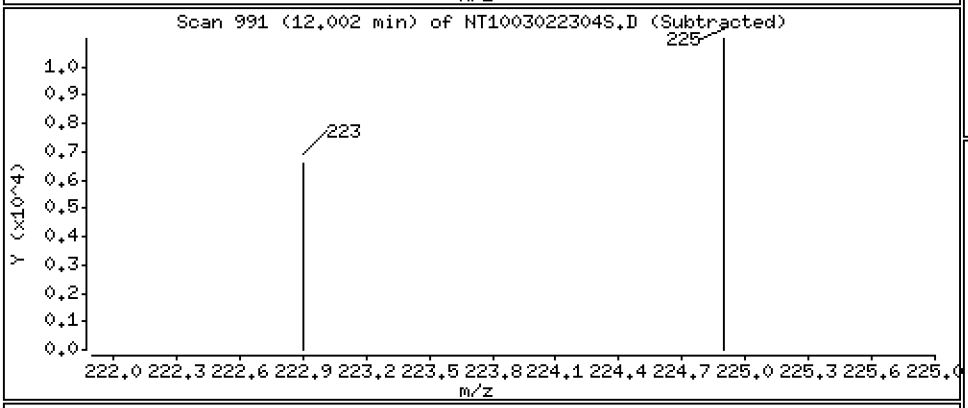
Column diameter: 0.25

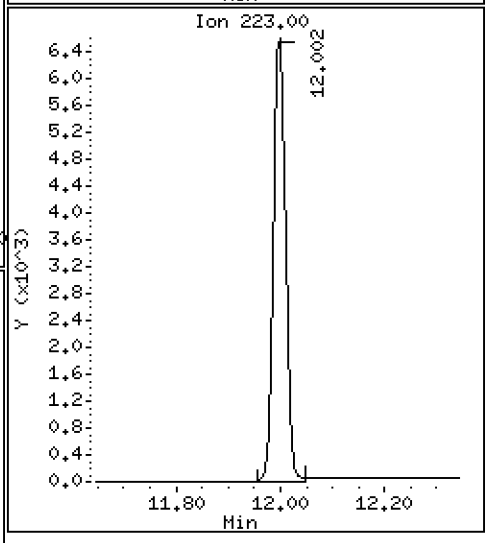
30 Hexachlorobutadiene

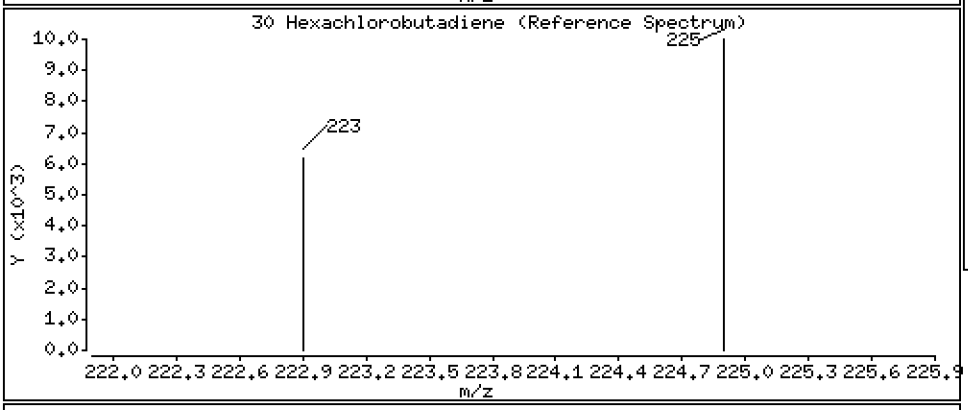
Concentration: 0.1890 ug/L

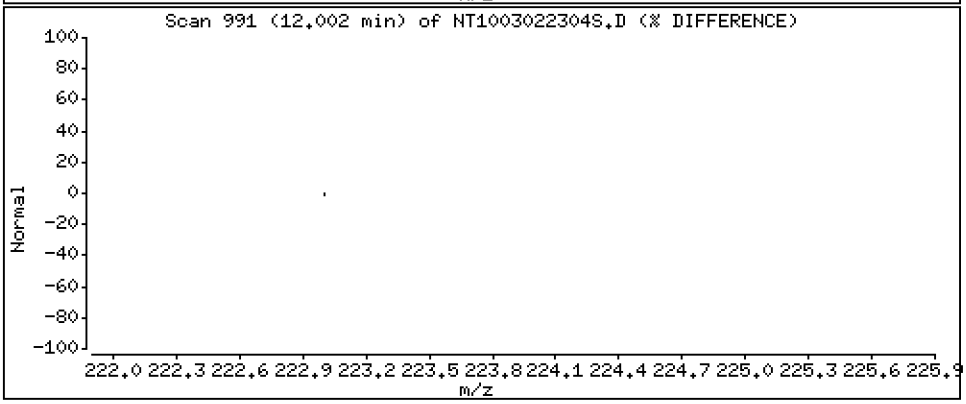












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

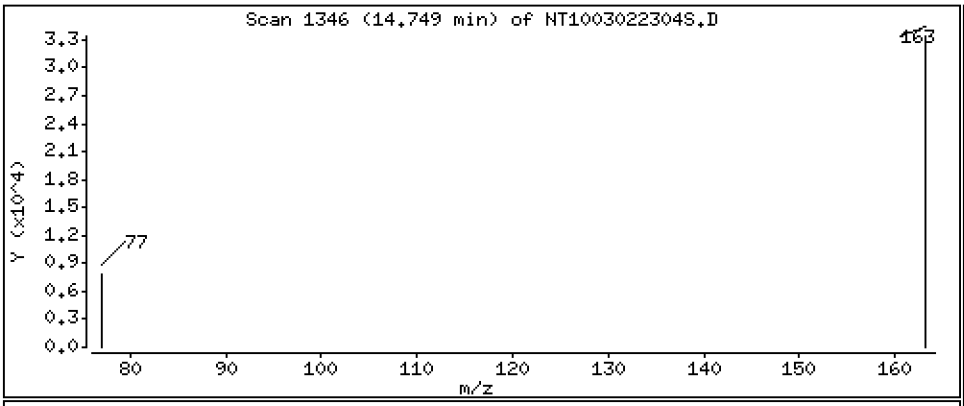
Operator: JGR

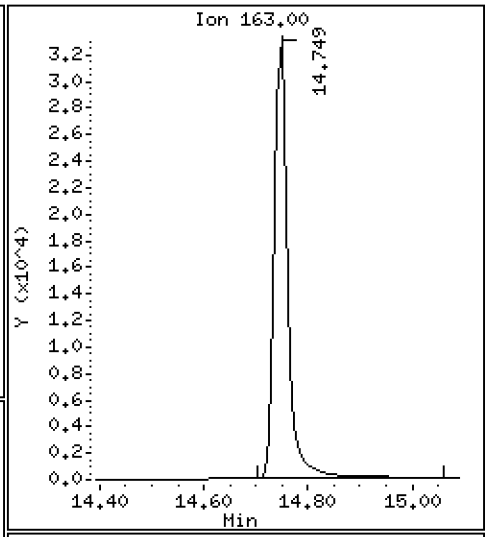
Column phase: ZB-5msi

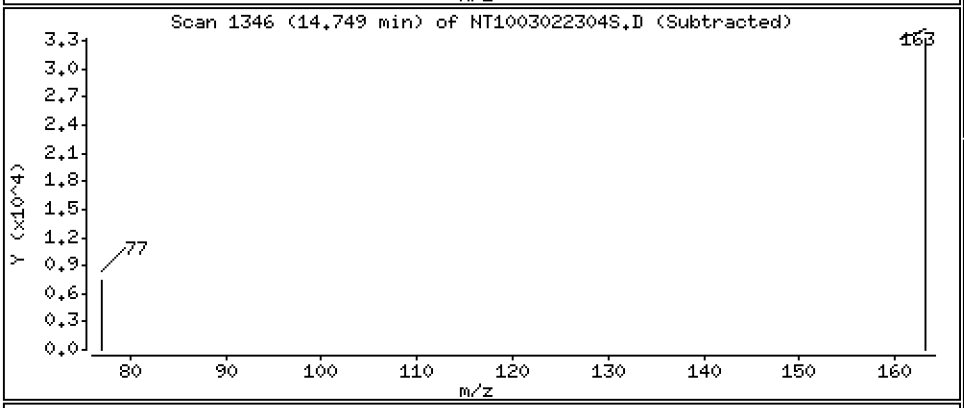
Column diameter: 0.25

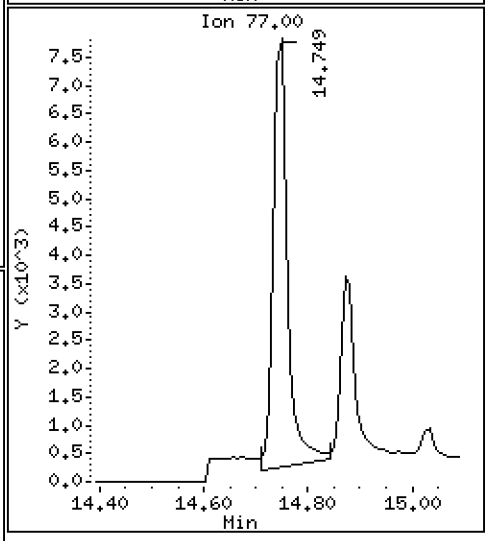
39 Dimethylphthalate

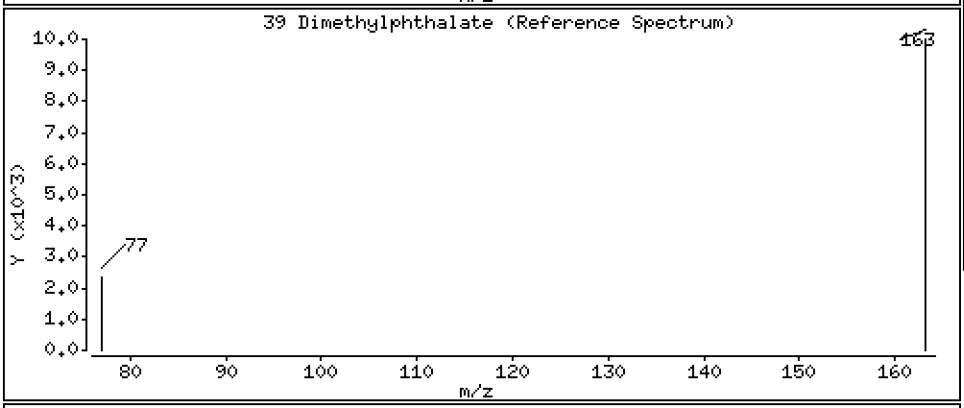
Concentration: 0.1960 ug/L

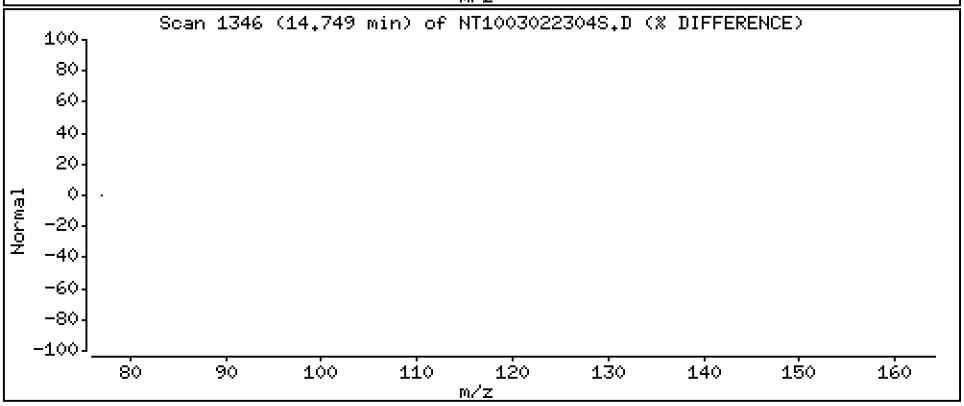












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

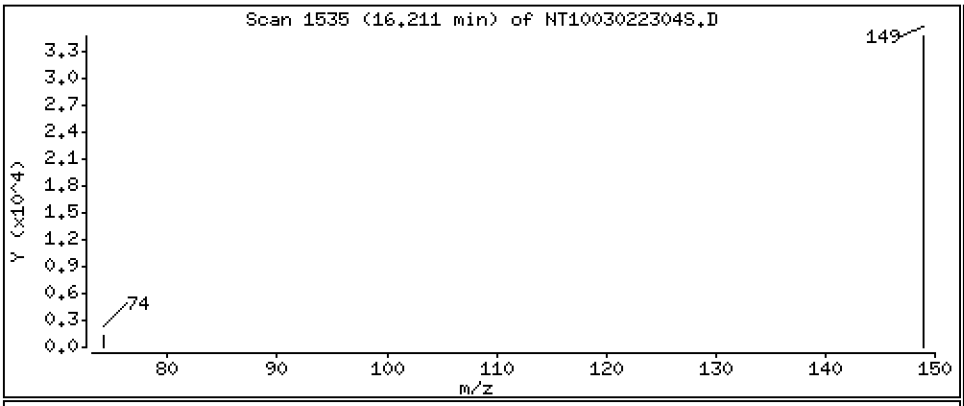
Operator: JGR

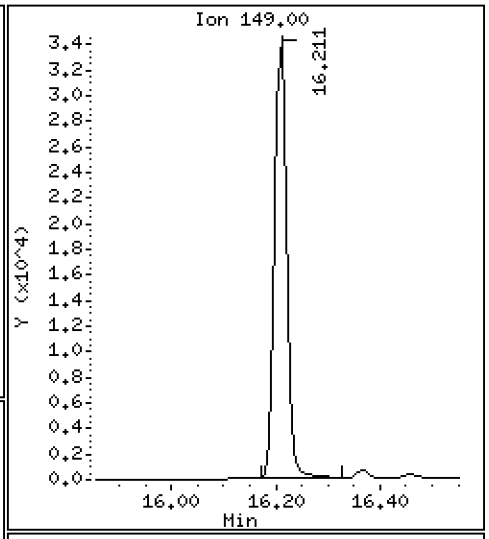
Column phase: ZB-5msi

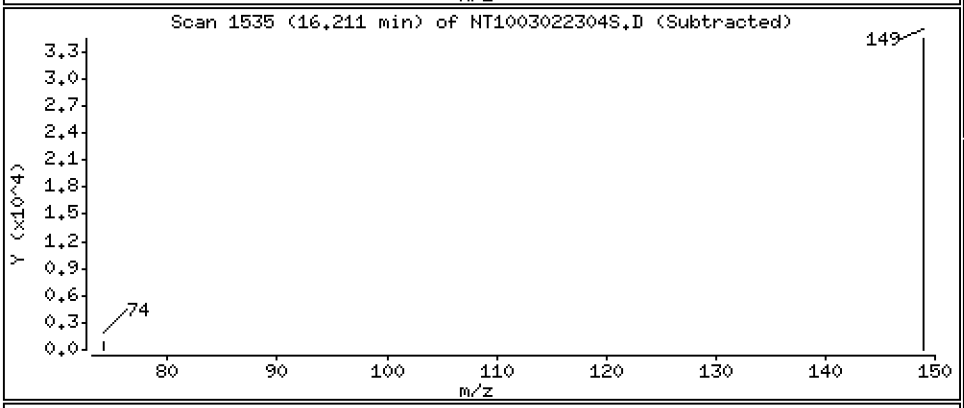
Column diameter: 0.25

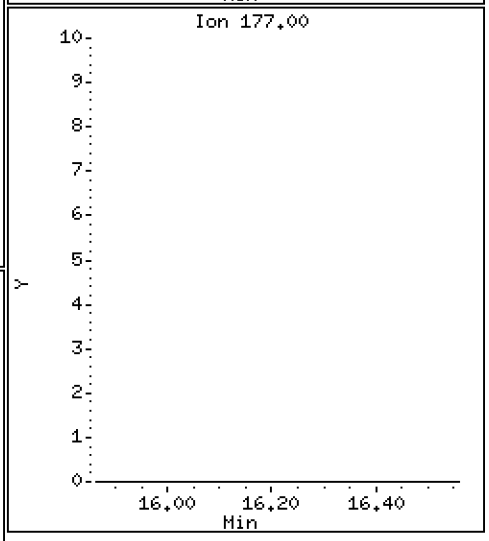
50 Diethylphthalate

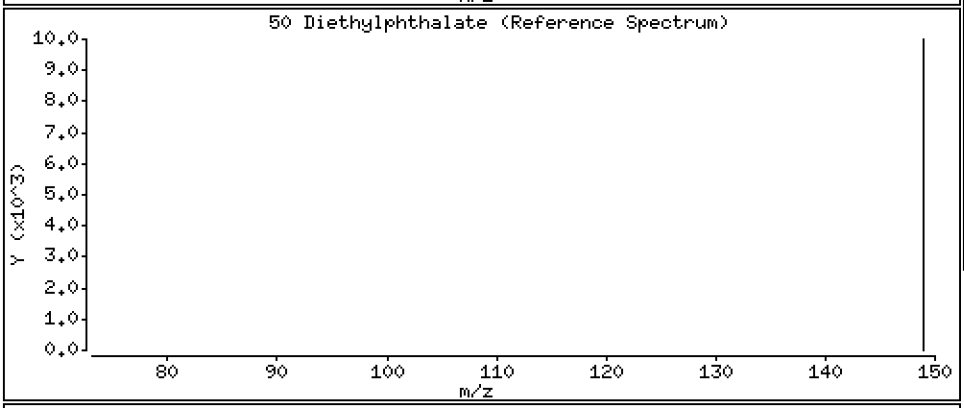
Concentration: 0.1894 ug/L

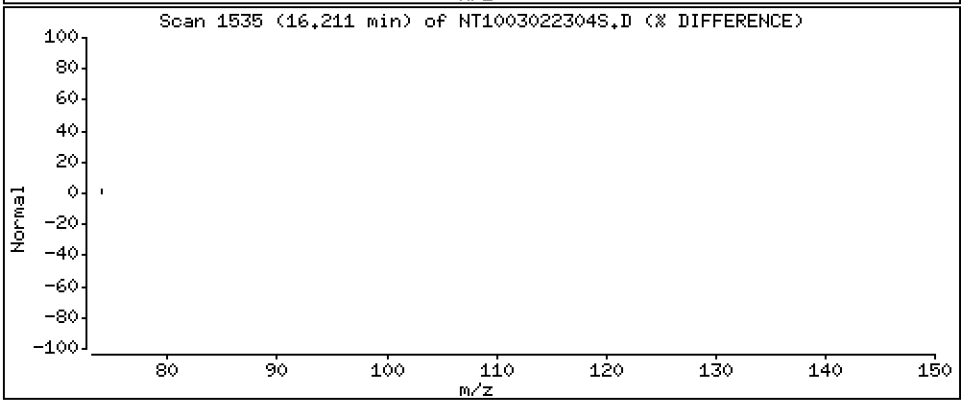












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

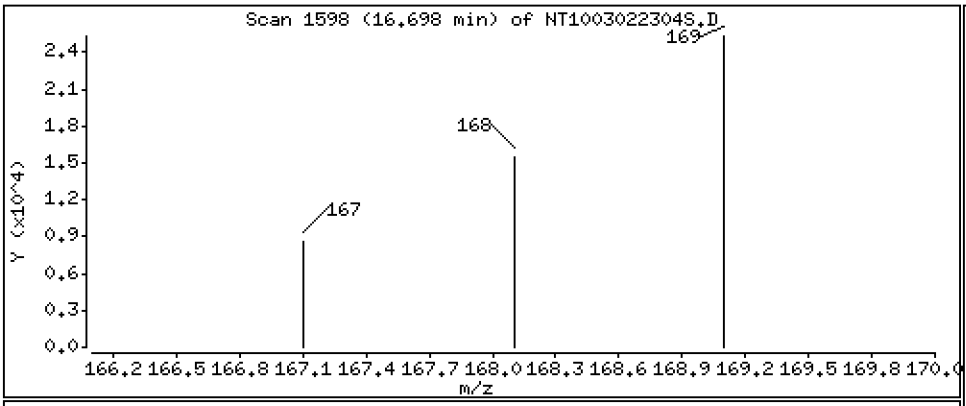
Operator: JGR

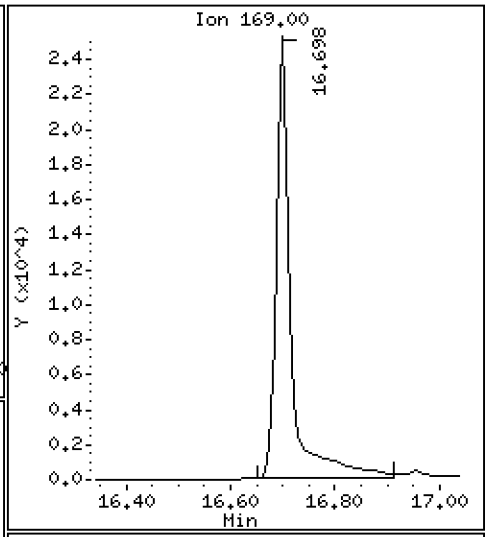
Column phase: ZB-5msi

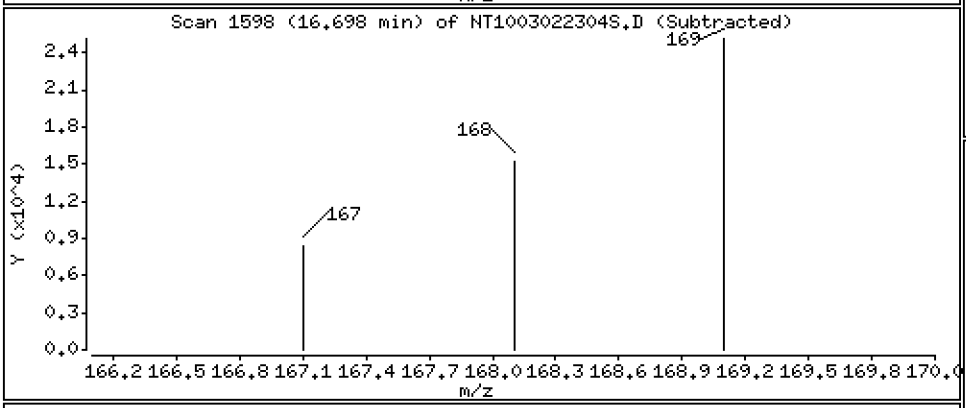
Column diameter: 0.25

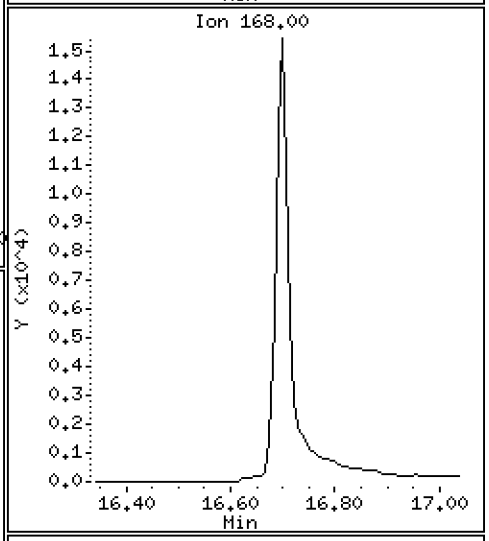
54 N-Nitrosodiphenylamine

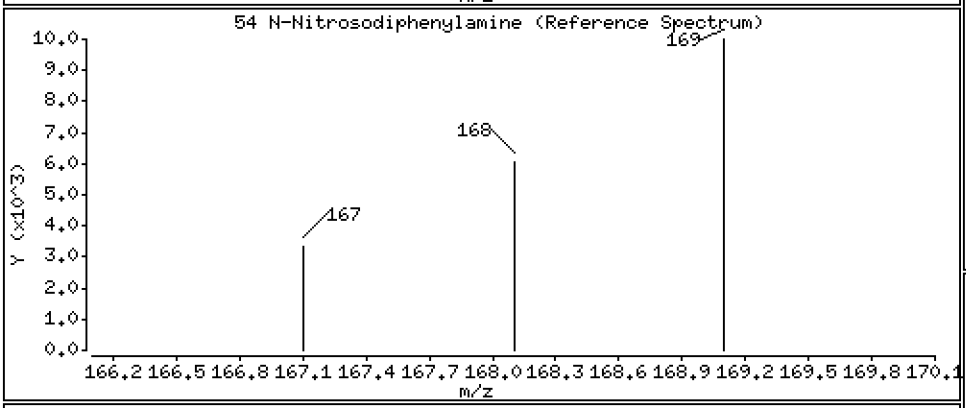
Concentration: 0.1900 ug/L

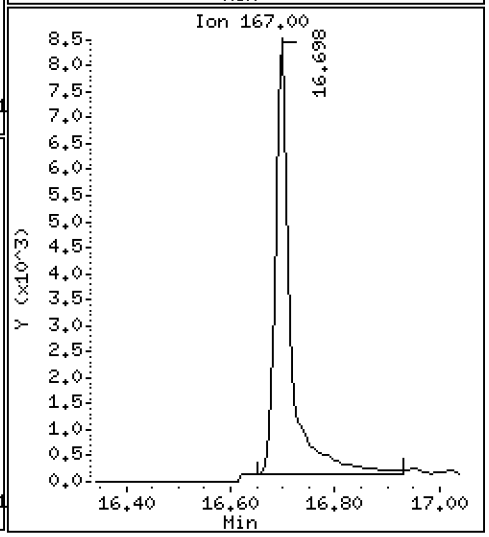


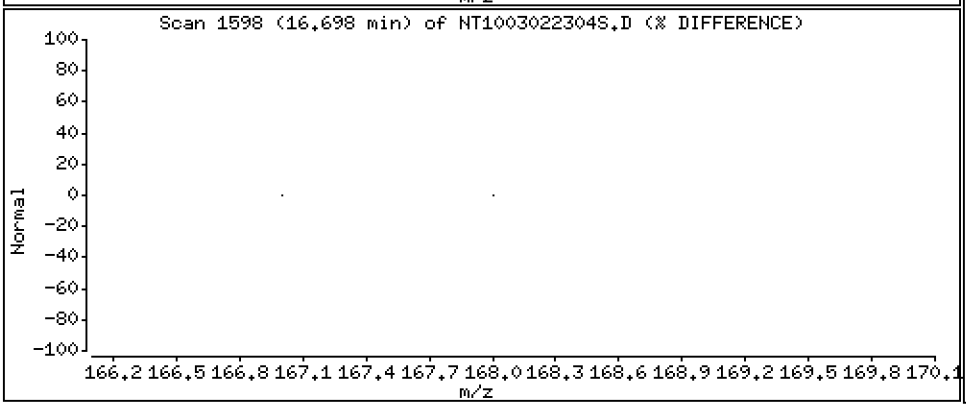












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Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

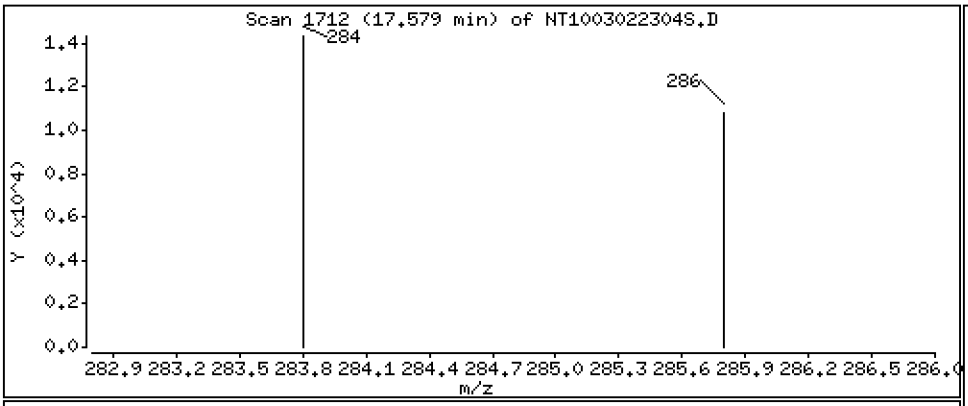
Operator: JGR

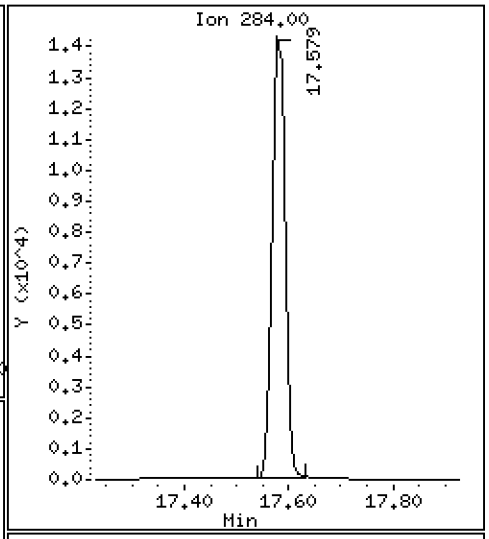
Column phase: ZB-5msi

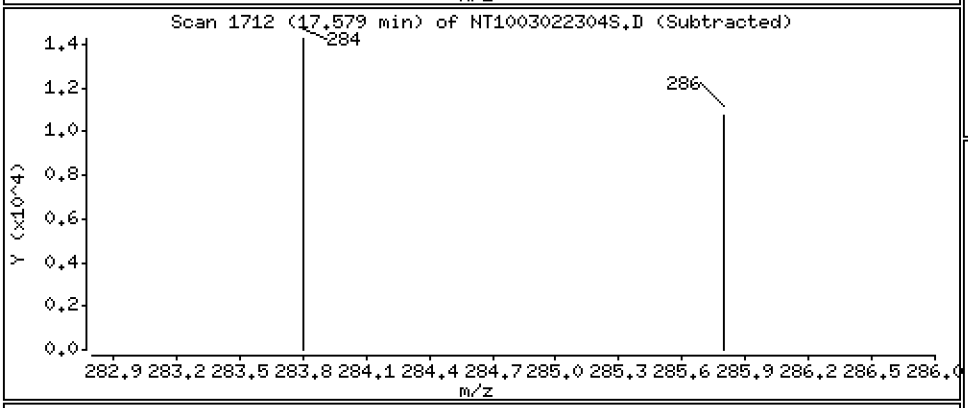
Column diameter: 0.25

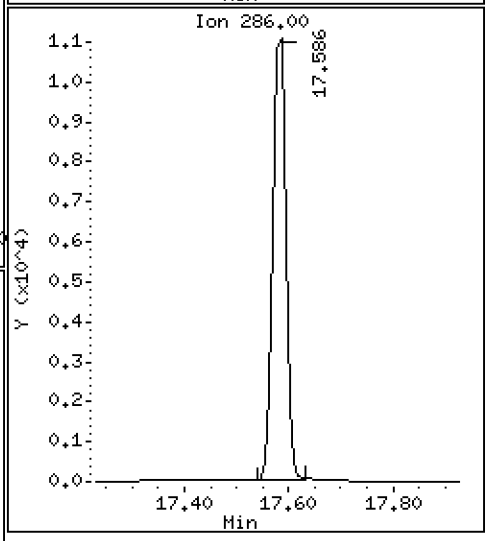
57 Hexachlorobenzene

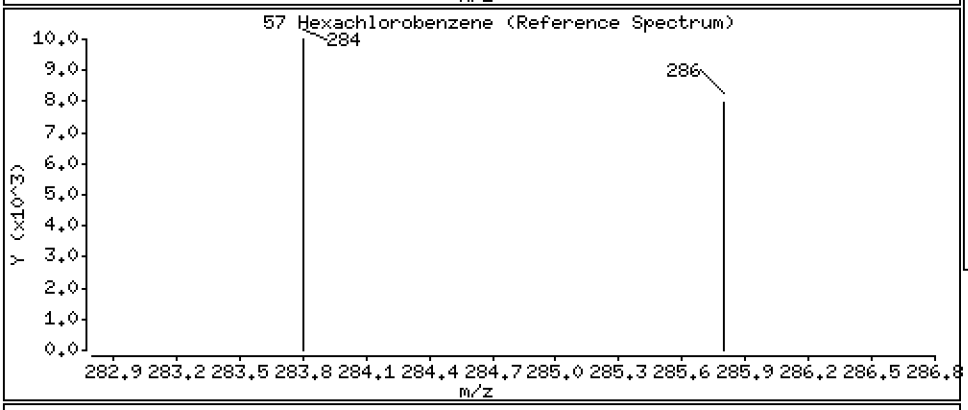
Concentration: 0.1915 ug/L

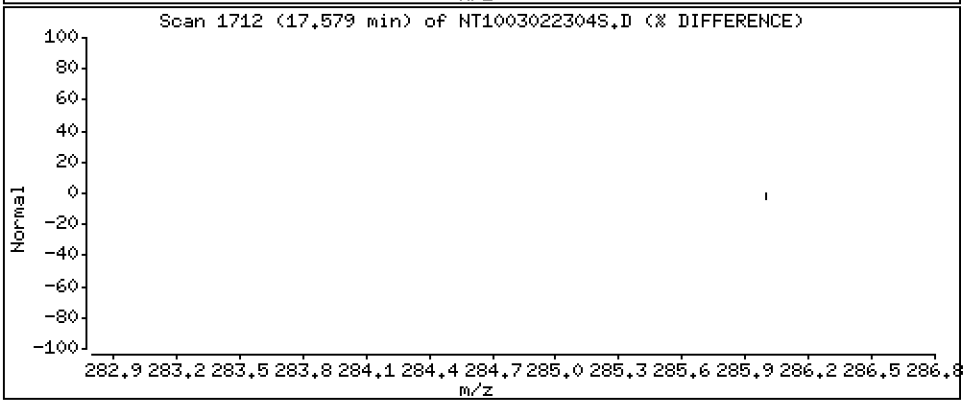












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

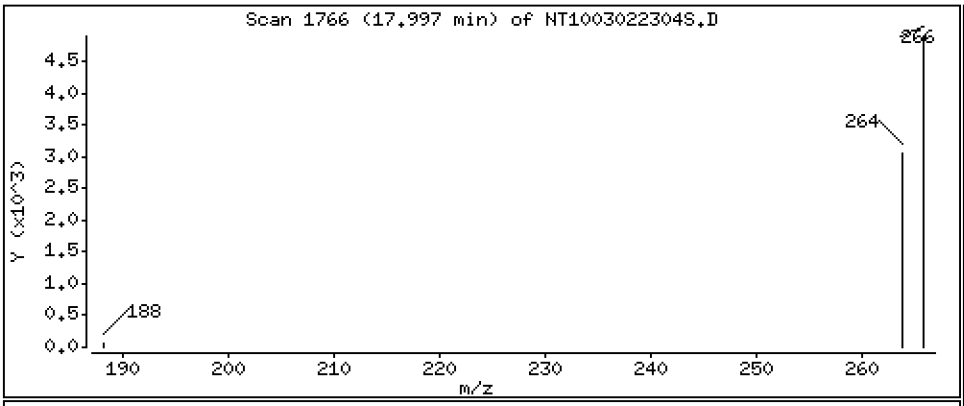
Operator: JGR

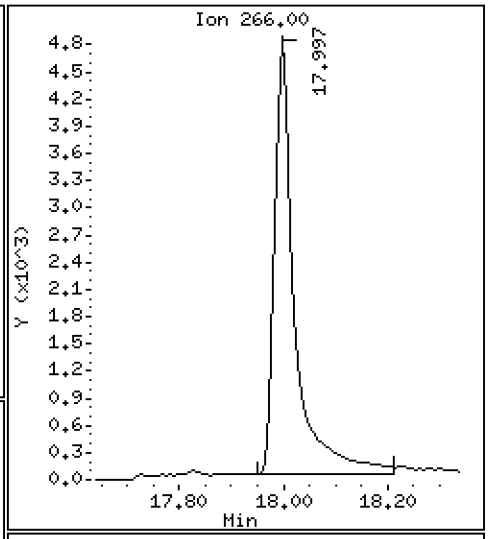
Column phase: ZB-5msi

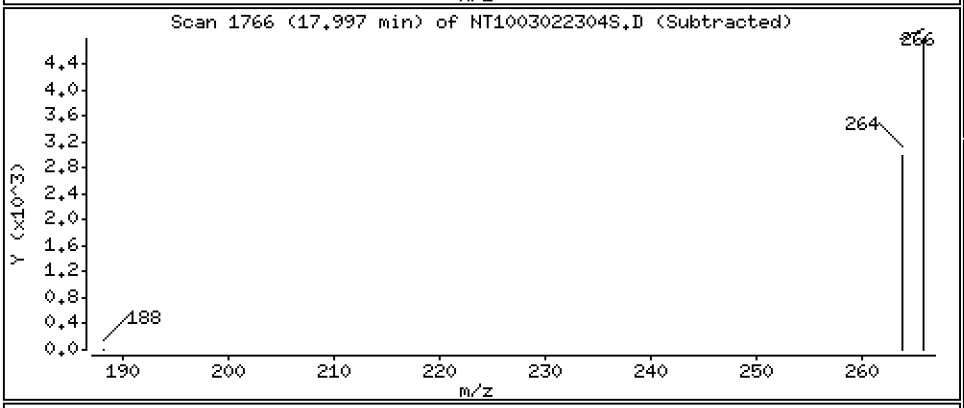
Column diameter: 0.25

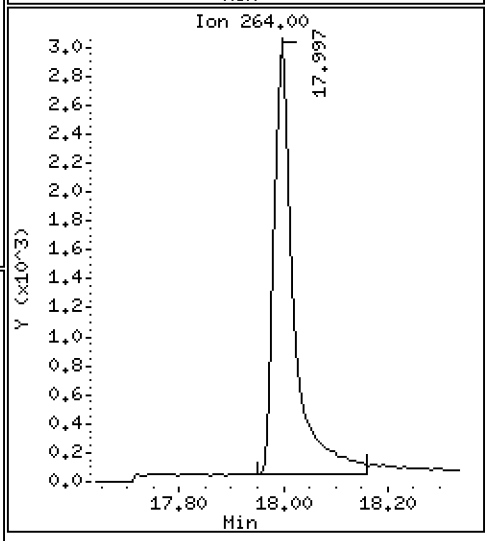
58 Pentachlorophenol

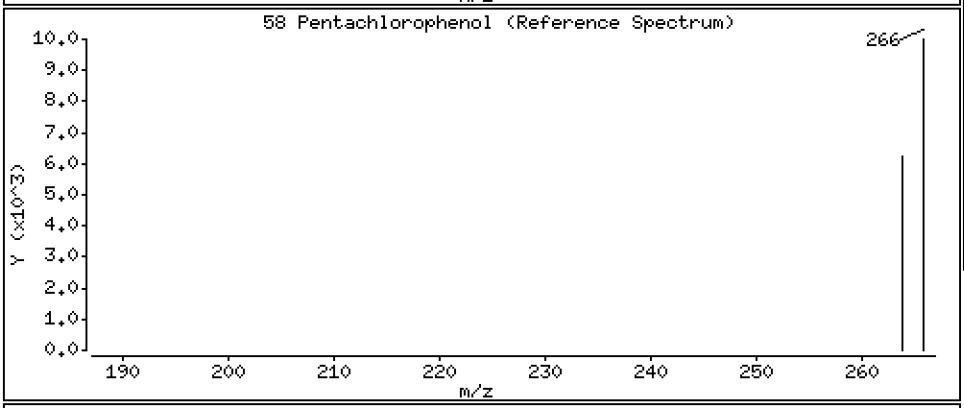
Concentration: 0.2411 ug/L

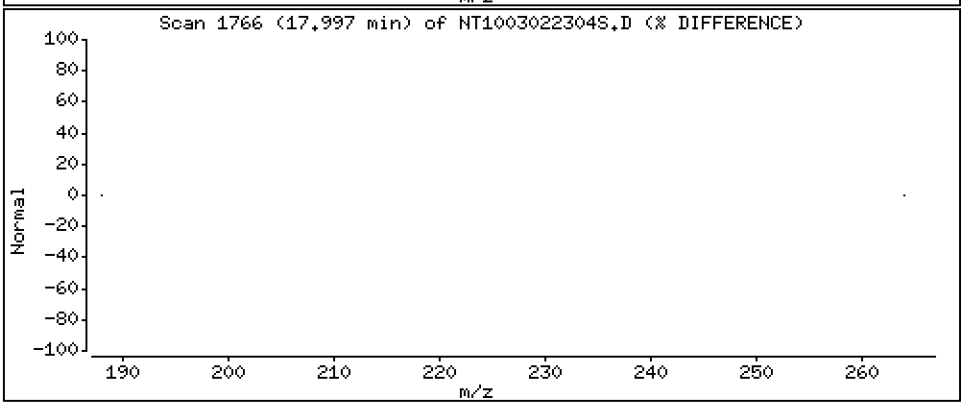












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

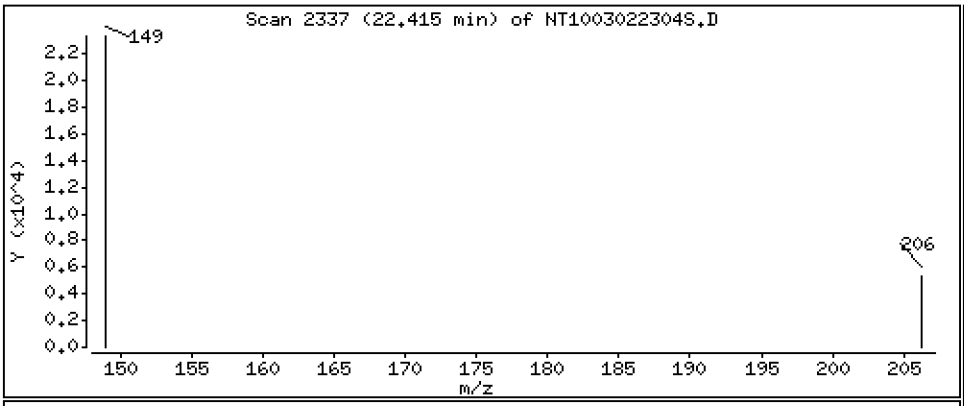
Operator: JGR

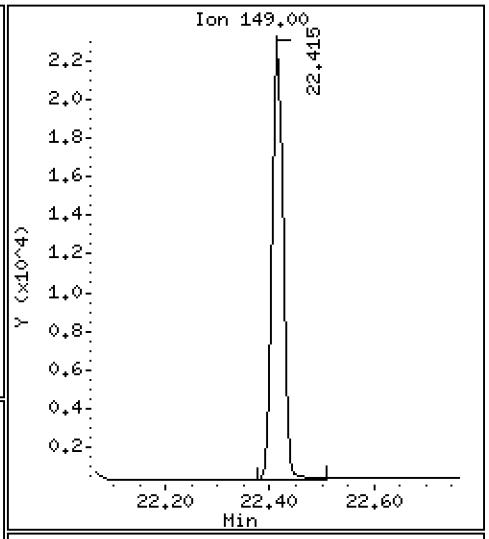
Column phase: ZB-5msi

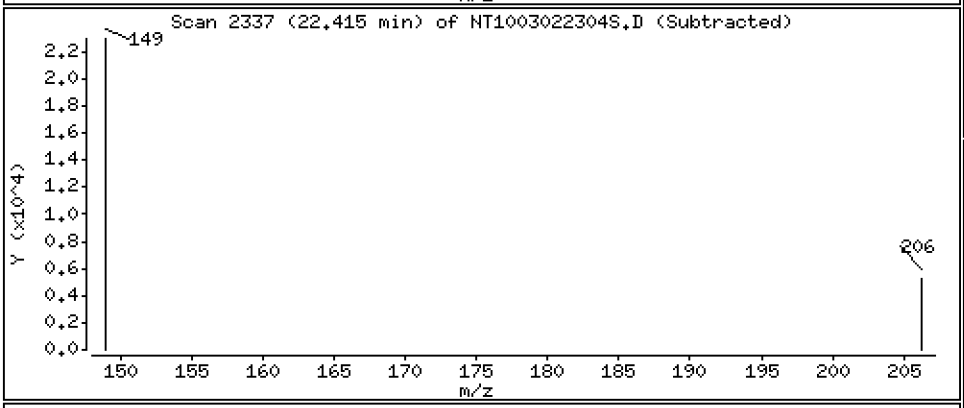
Column diameter: 0.25

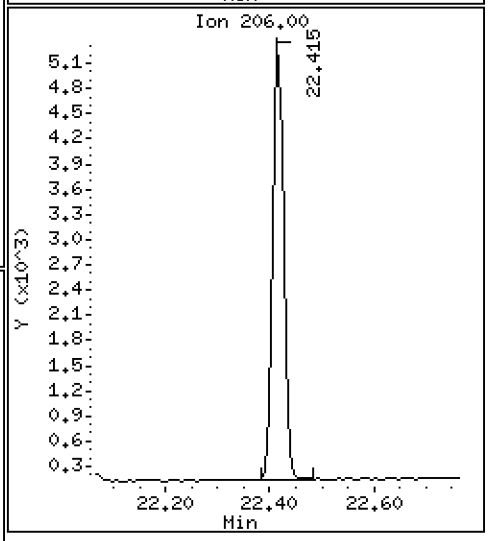
67 Butylbenzylphthalate

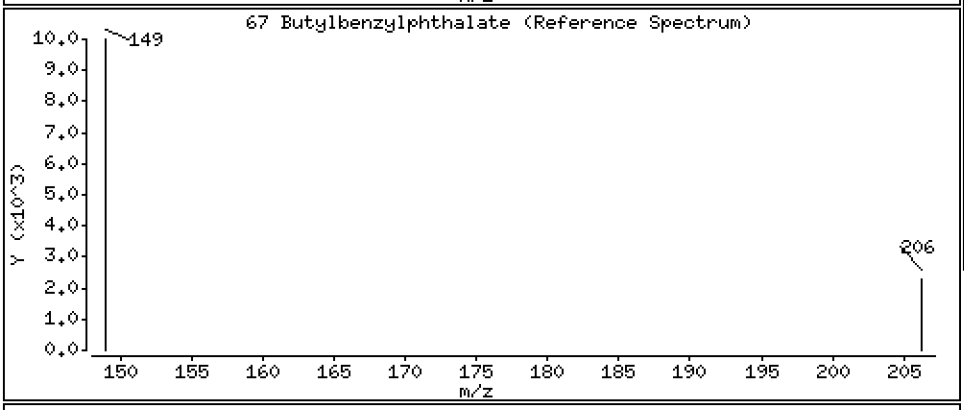
Concentration: 0.1126 ug/L

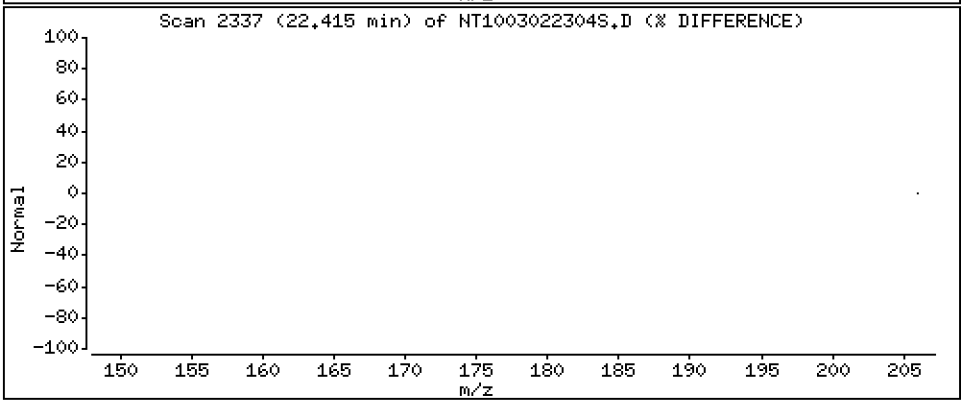












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

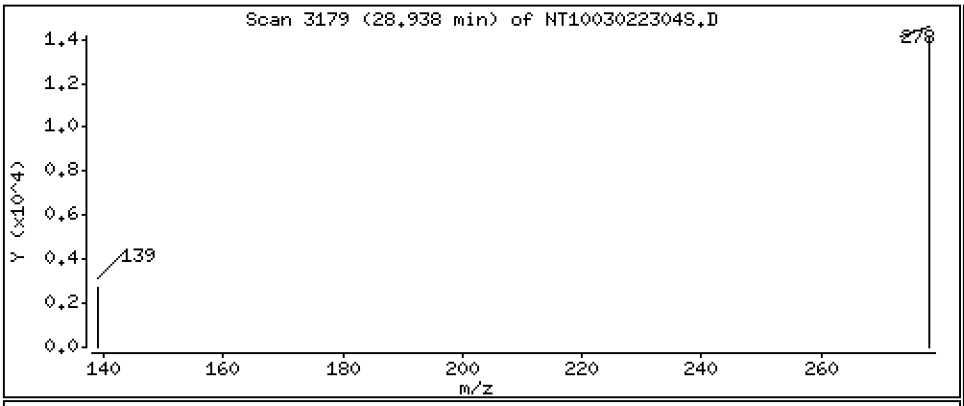
Operator: JGR

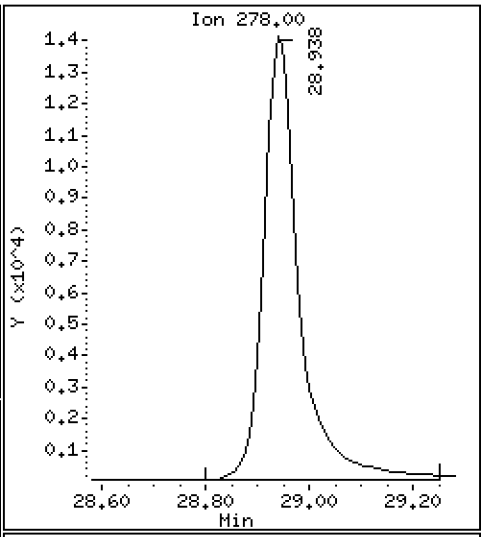
Column phase: ZB-5msi

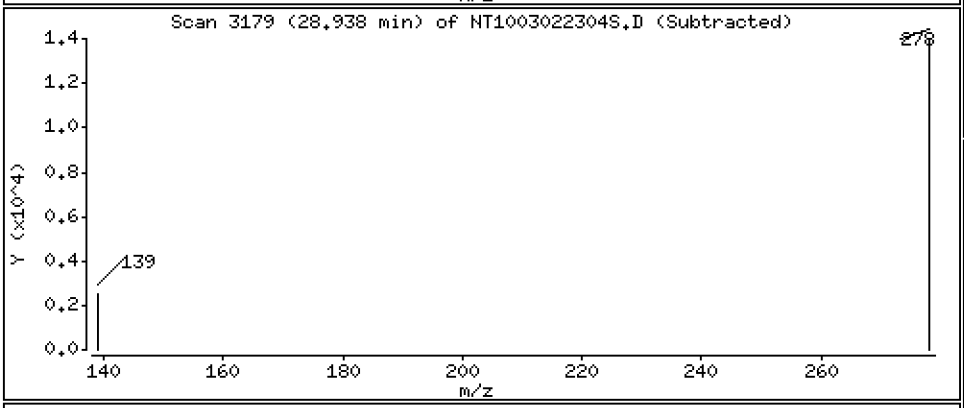
Column diameter: 0.25

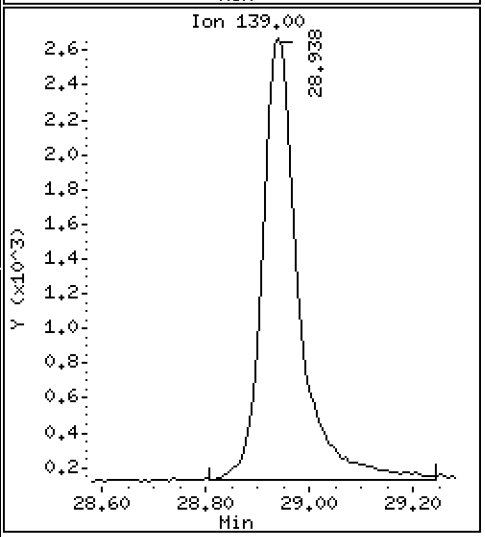
79 Dibenzo(a,h)anthracene

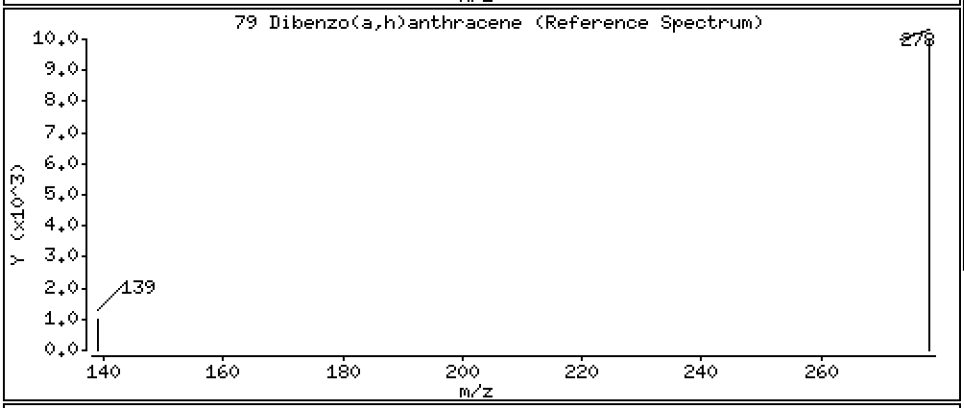
Concentration: 0.1592 ug/L

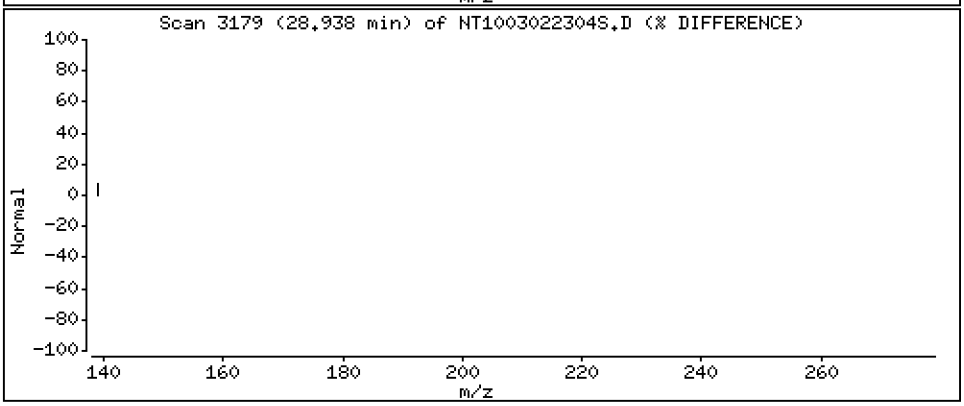












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D

Date : 02-MAR-2023 16:17

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV200

Volume Injected (uL): 1.0

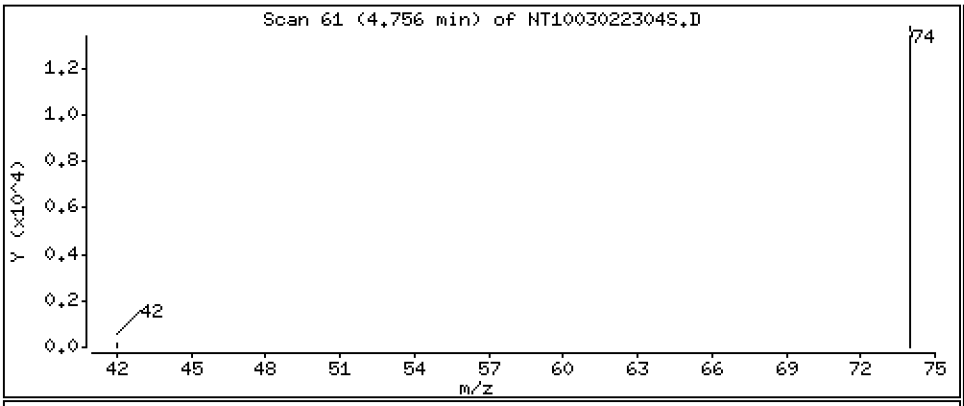
Operator: JGR

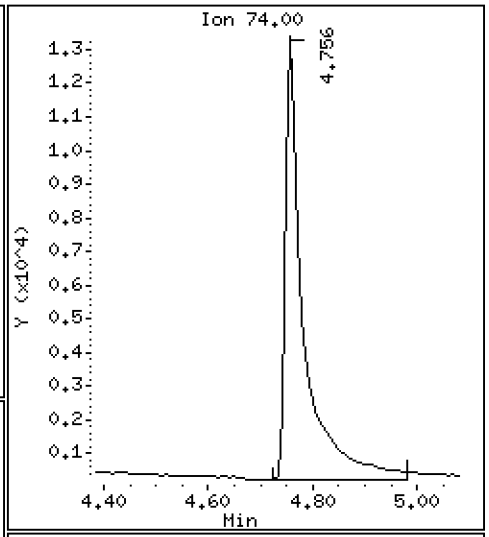
Column phase: ZB-5msi

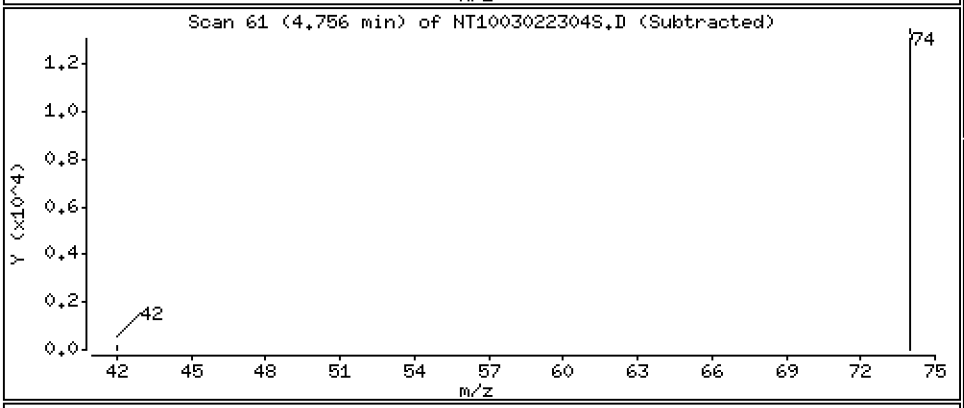
Column diameter: 0.25

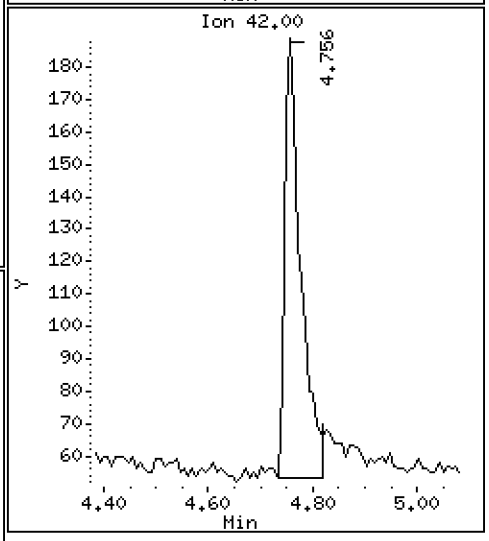
90 N-Nitrosodimethylamine

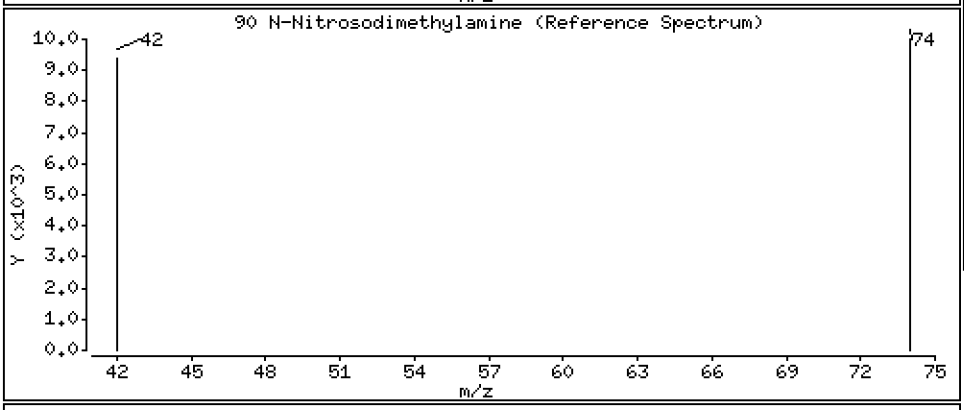
Concentration: 0.4218 ug/L

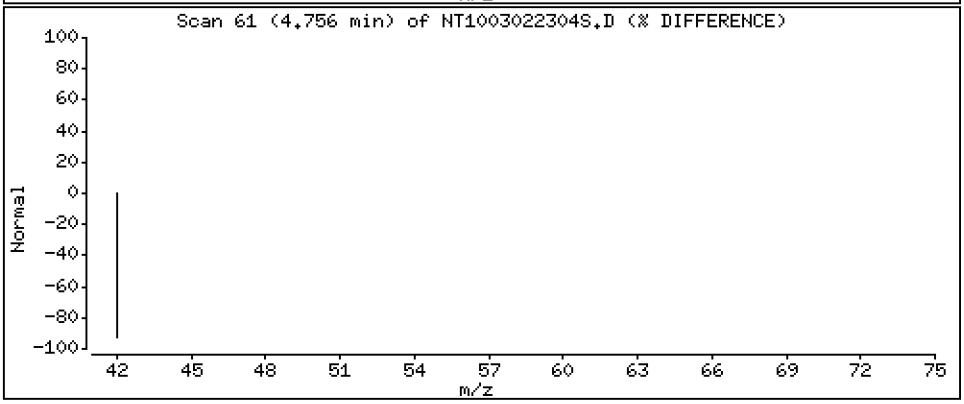












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022304S.D
Lab Smp Id: SEQ-LCV200
Inj Date : 02-MAR-2023 16:17 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-LCV200
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:01 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$	1 2-Fluorophenol	112	6.917	6.902	(0.747)	37782	0.28489	0.2849(R)
	3 Phenol	94	8.532	8.517	(0.921)	29661	0.15155	0.1516
	7 1,3-Dichlorobenzene	146	9.151	9.143	(0.988)	35012	0.20337	0.2034
*	8 1,4-Dichlorobenzene-d4	152	9.259	9.251	(1.000)	464527	4.00000	
	9 1,4-Dichlorobenzene	146	9.290	9.282	(1.003)	33436	0.19976	0.1998
	11 Benzyl alcohol	79	9.484	9.476	(1.024)	15113	0.13918	0.1392
	12 1,2-Dichlorobenzene	146	9.570	9.562	(1.034)	32614	0.20272	0.2027
	13 2-Methylphenol	108	9.671	9.655	(1.044)	18381	0.15615	0.1561
	15 4-Methylphenol	108	9.958	9.942	(1.075)	17186	0.14036	0.1404
	16 N-Nitroso-di-n-propylamine	70	9.981	9.981	(1.078)	18106	0.20774	0.2077
	22 2,4-Dimethylphenol	107	11.006	10.997	(0.938)	46903	0.32731	0.3273
	24 Benzoic acid	105	11.057	11.074	(0.943)	20985	0.26701	0.2670
	26 1,2,4-Trichlorobenzene	180	11.608	11.600	(0.989)	23866	0.19648	0.1965
*	27 Naphthalene-d8	136	11.731	11.723	(1.000)	1687615	4.00000	
	30 Hexachlorobutadiene	225	12.001	11.994	(1.023)	16292	0.18901	0.1890
	39 Dimethylphthalate	163	14.749	14.741	(0.963)	56888	0.19600	0.1960
*	42 Acenaphthene-d10	162	15.321	15.314	(1.000)	914095	4.00000	
	50 Diethylphthalate	149	16.211	16.203	(1.058)	51849	0.18943	0.1894
	54 N-Nitrosodiphenylamine	169	16.698	16.690	(0.907)	49282	0.19003	0.1900
	57 Hexachlorobenzene	284	17.578	17.578	(0.955)	23243	0.19151	0.1915

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	17.996	17.988	(0.978)	12831	0.24111	0.2411
*	59 Phenanthrene-d10	188	18.406	18.406	(1.000)	1602467	4.00000	
$	66 Terphenyl-d14	244	21.532	21.532	(0.919)	23197	0.17600	0.1760(R)
	67 Butylbenzylphthalate	149	22.415	22.414	(0.957)	30986	0.11263	0.1126
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	1629844	4.00000	
*	77 Perylene-d12	264	26.115	26.115	(1.000)	1824689	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.937	28.929	(1.108)	67394	0.15916	0.1592
	90 N-Nitrosodimethylamine	74	4.755	4.732	(0.514)	33119	0.42181	0.4218

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003022304S.D
Lab Smp Id: SEQ-LCV200
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 02-MAR-2023
Calibration Time: 14:13
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	493417	246709	986834	464527	-5.86
27 Naphthalene-d8	1779056	889528	3558112	1687615	-5.14
42 Acenaphthene-d10	954569	477285	1909138	914095	-4.24
59 Phenanthrene-d10	1596290	798145	3192580	1602467	0.39
69 Chrysene-d12	1649110	824555	3298220	1629844	-1.17
77 Perylene-d12	1901958	950979	3803916	1824689	-4.06

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.26	0.09
27 Naphthalene-d8	11.72	11.22	12.22	11.73	0.07
42 Acenaphthene-d10	15.31	14.81	15.81	15.32	0.05
59 Phenanthrene-d10	18.41	17.91	18.91	18.41	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
77 Perylene-d12	26.12	25.62	26.62	26.12	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003022304S.D

Lab ID: SEQ-LCV200
nt10.i, 20230302.b\SIM.b\SIMABN2.m,   02-MAR-2023 16:17

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: SIM.b/NT1003022303S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223058.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

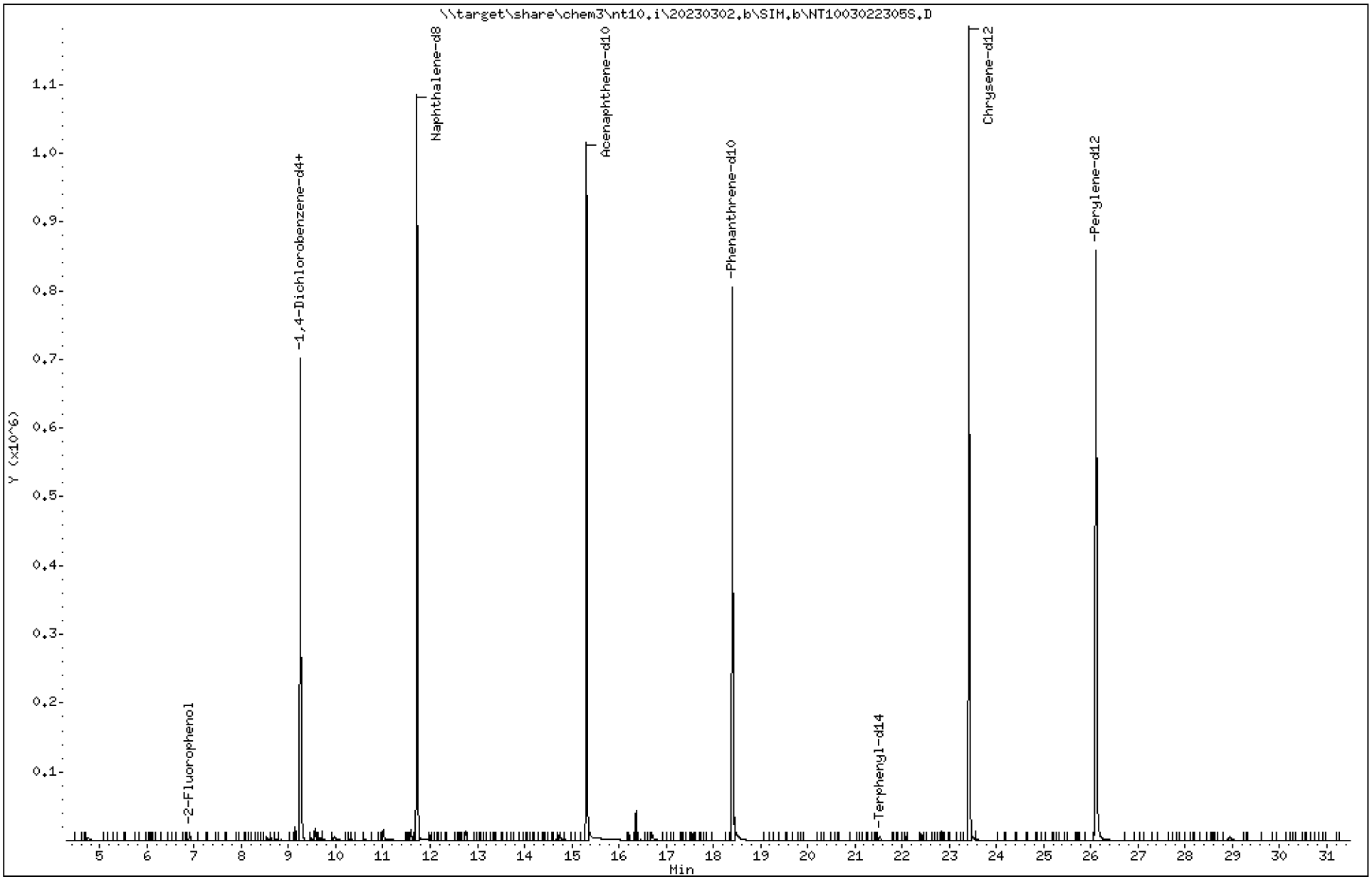
Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

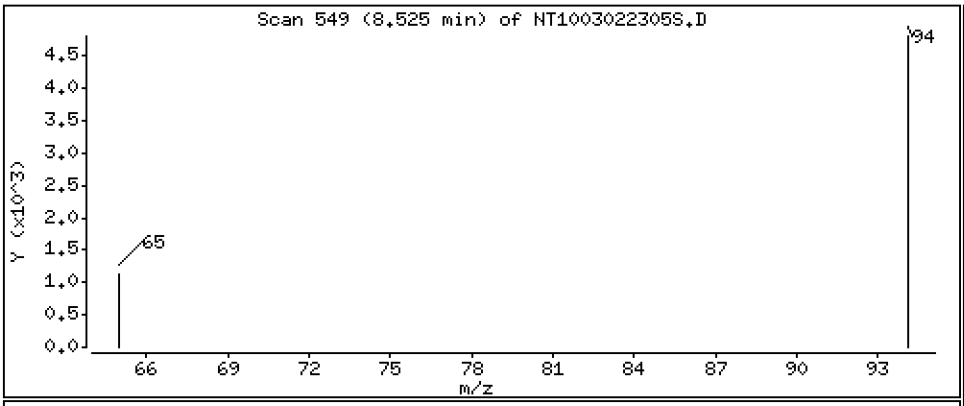
Operator: JGR

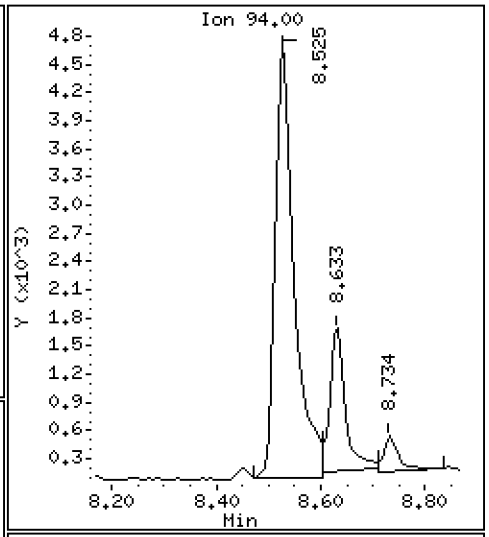
Column phase: ZB-5msi

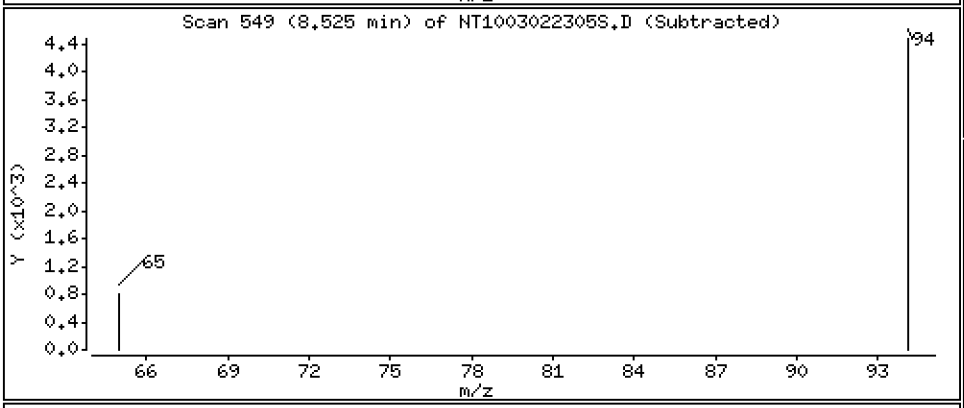
Column diameter: 0.25

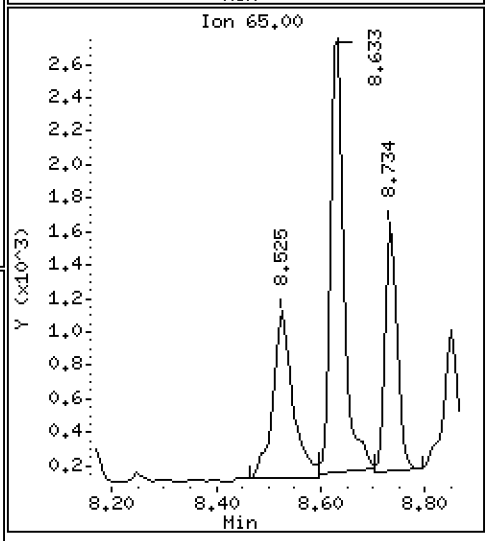
3 Phenol

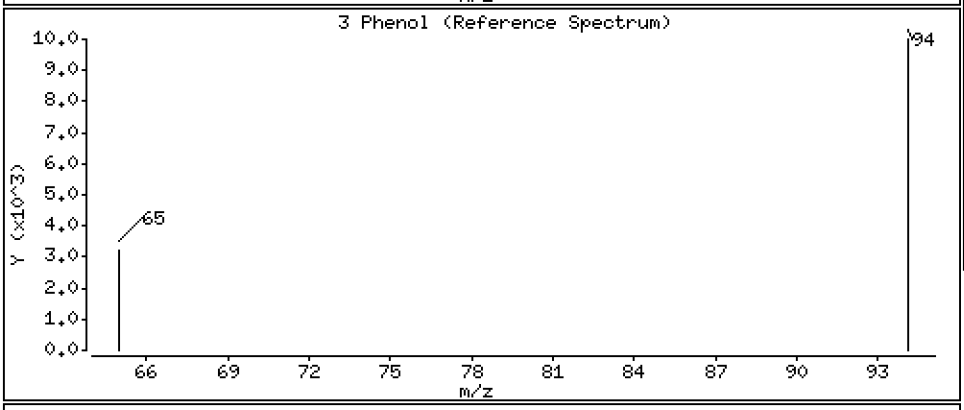
Concentration: 0.06121 ug/L

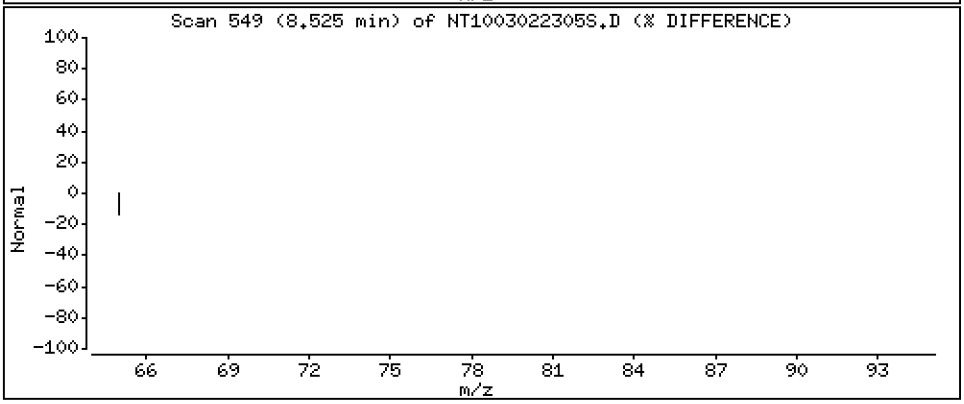












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

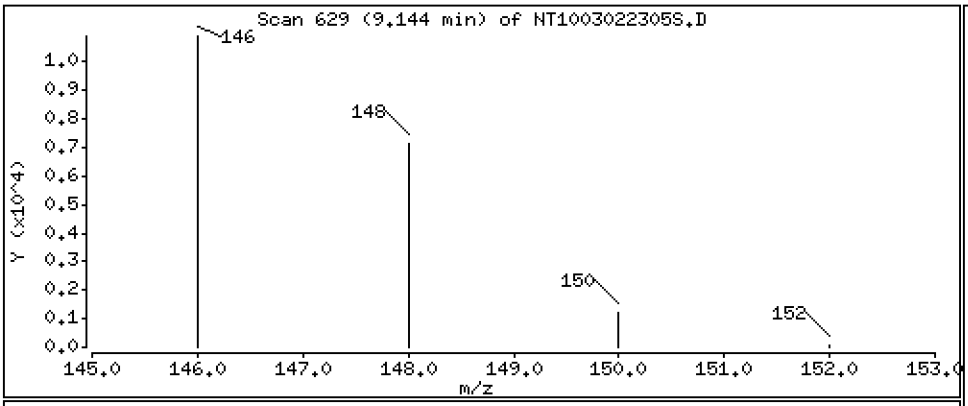
Operator: JGR

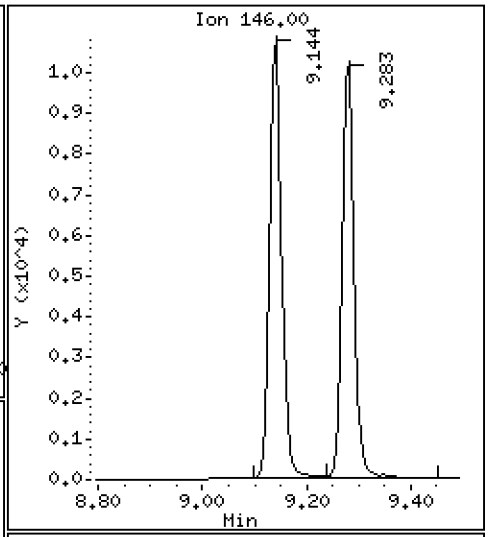
Column phase: ZB-5msi

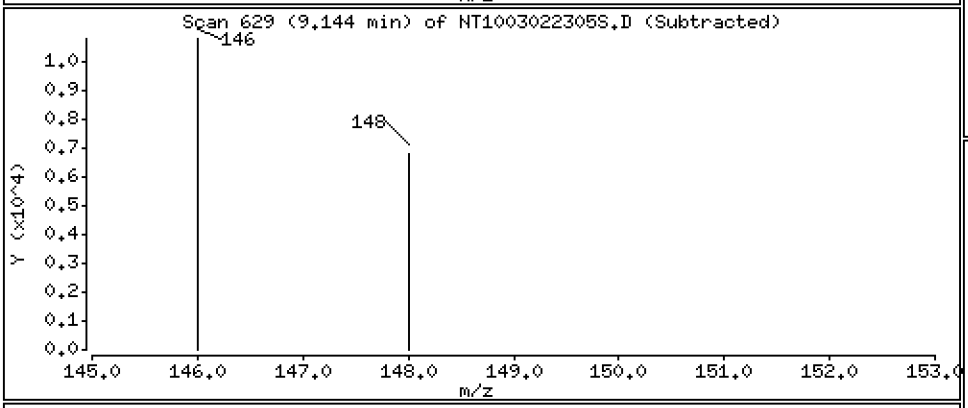
Column diameter: 0.25

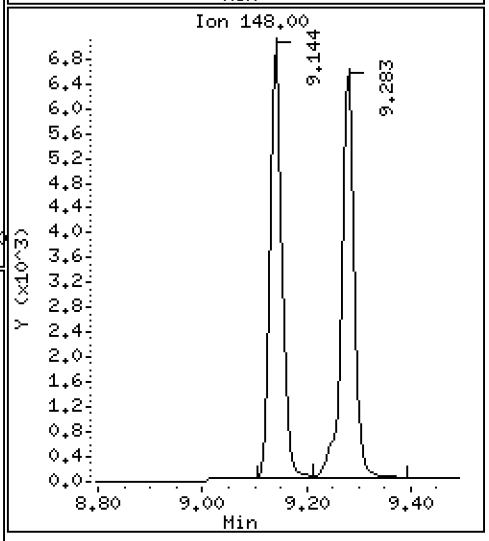
7 1,3-Dichlorobenzene

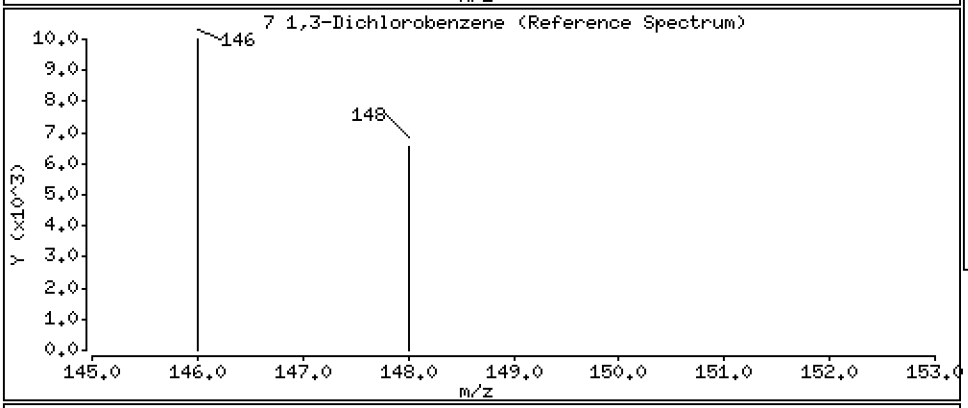
Concentration: 0.1034 ug/L

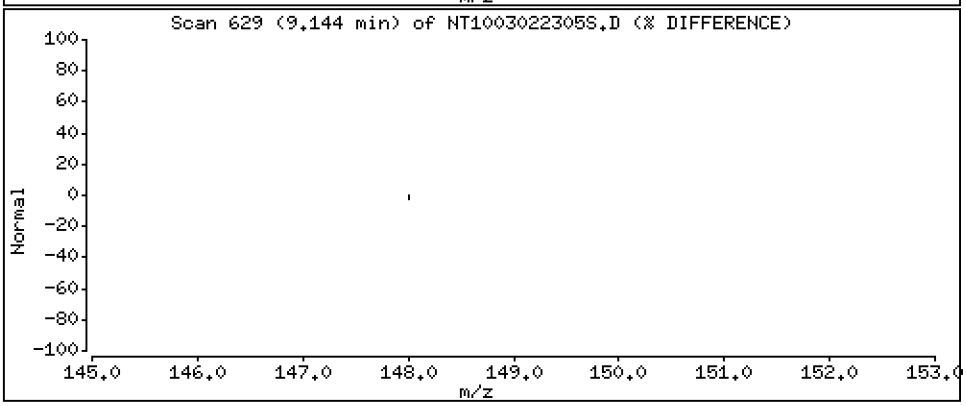












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

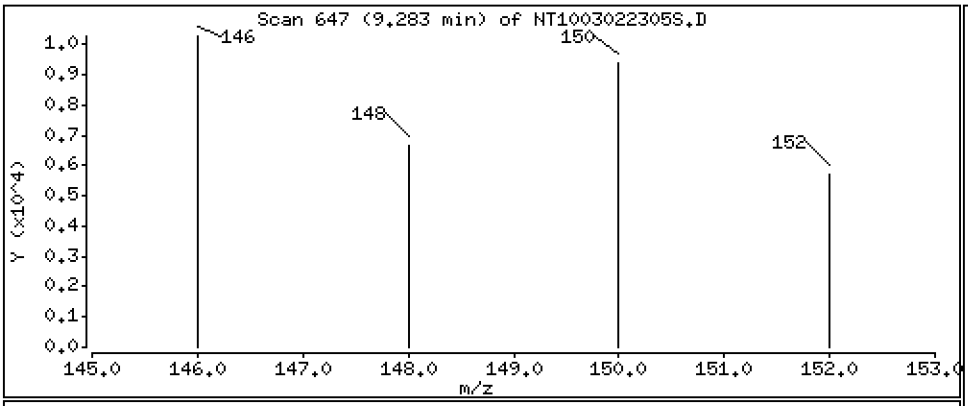
Operator: JGR

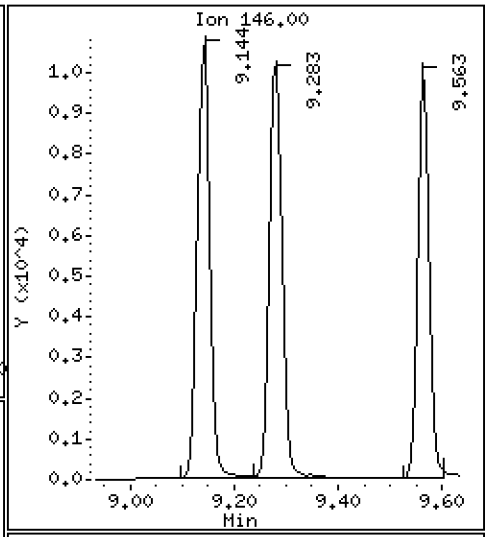
Column phase: ZB-5msi

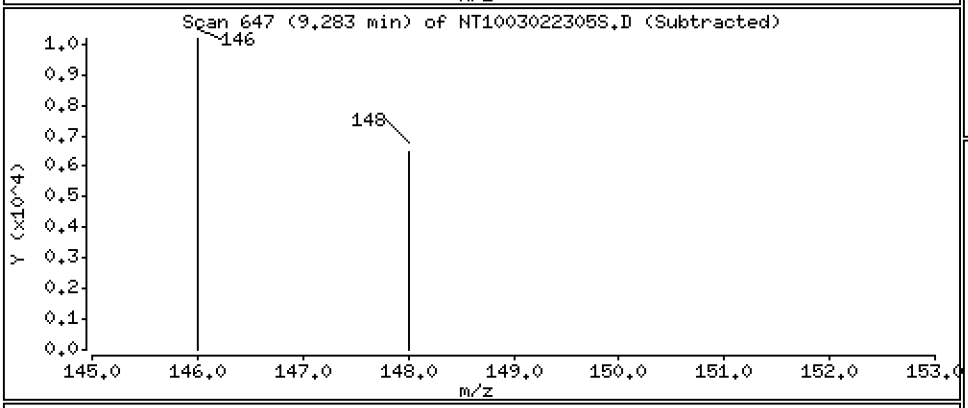
Column diameter: 0.25

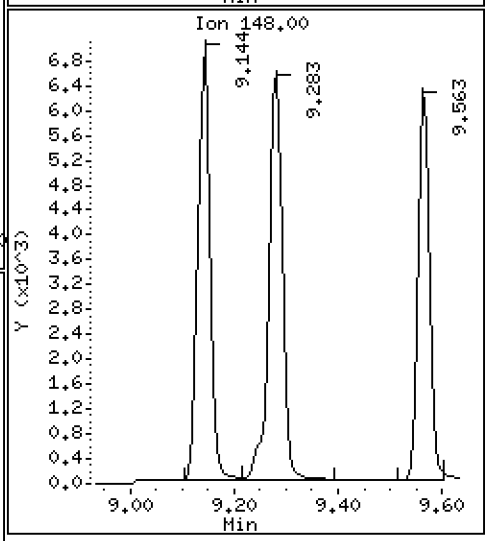
9 1,4-Dichlorobenzene

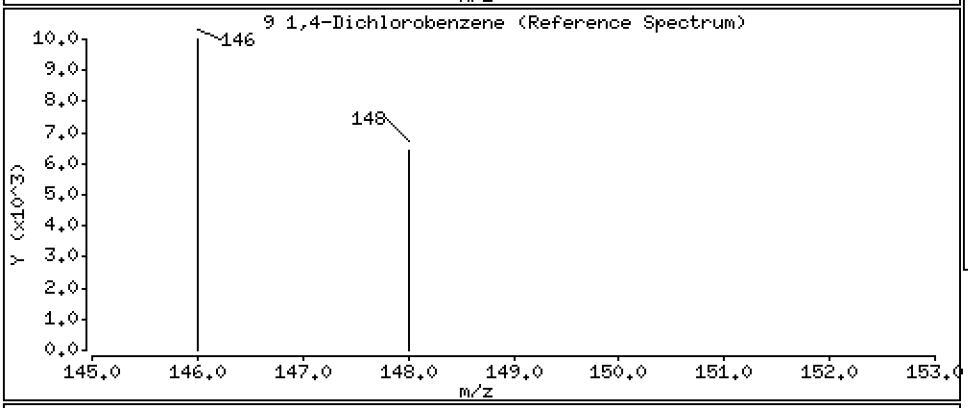
Concentration: 0.1031 ug/L

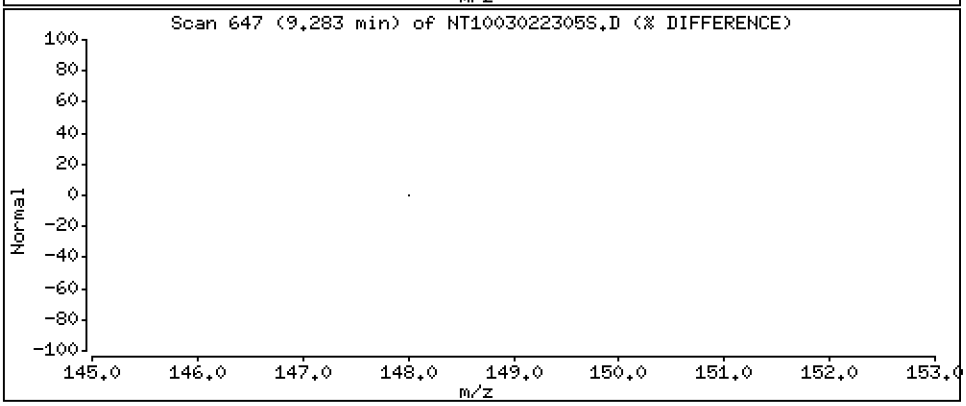












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

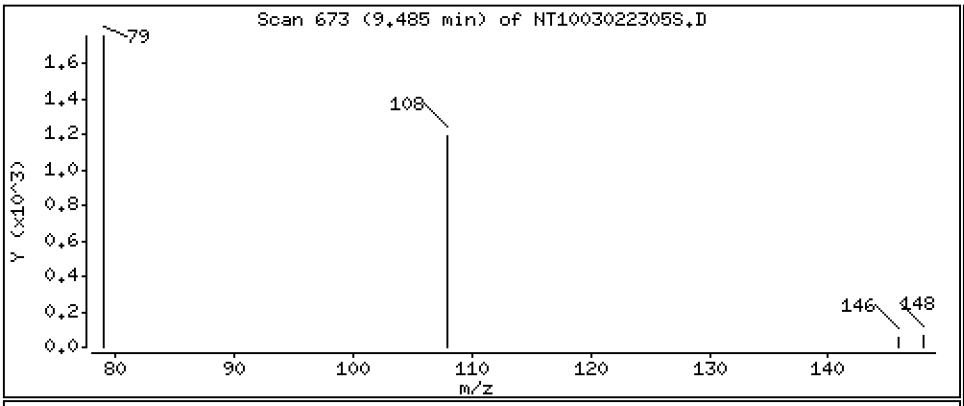
Operator: JGR

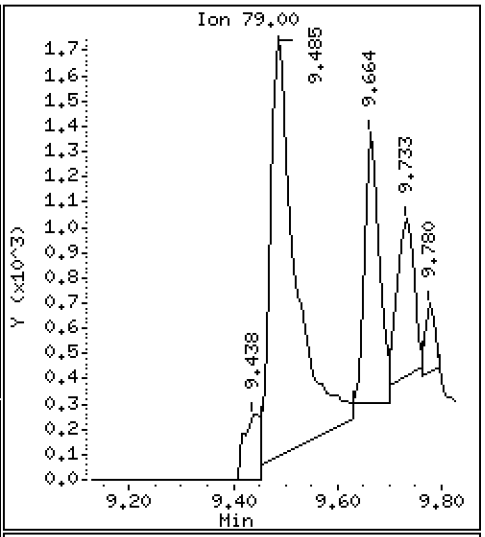
Column phase: ZB-5msi

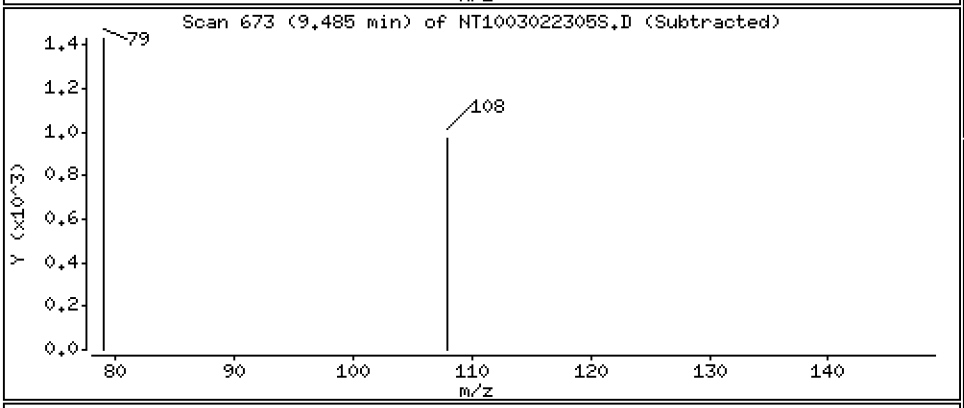
Column diameter: 0.25

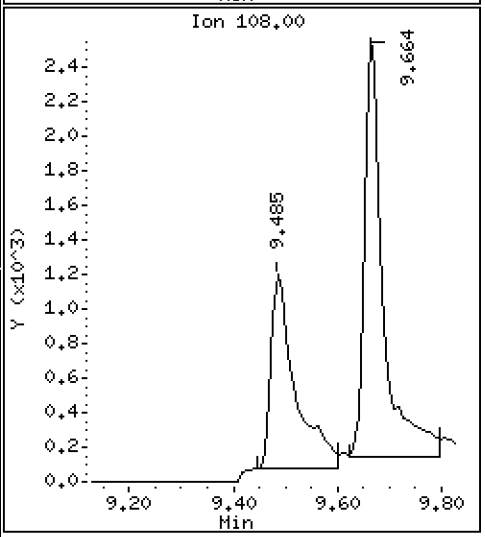
11 Benzyl alcohol

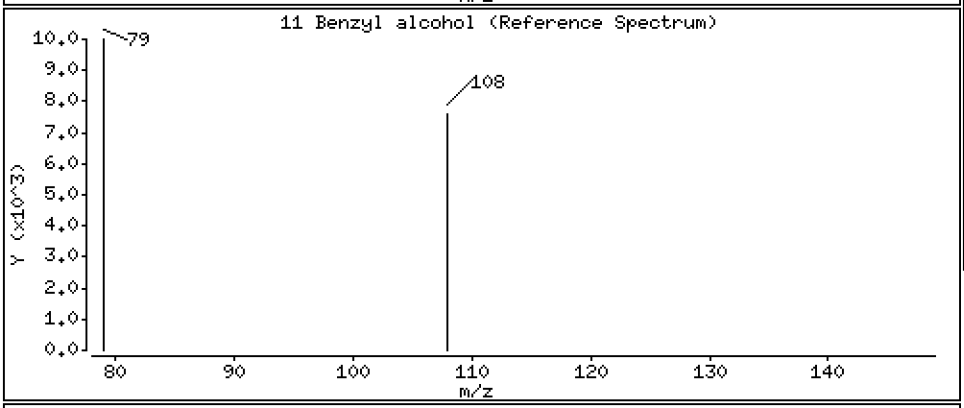
Concentration: 0.05313 ug/L

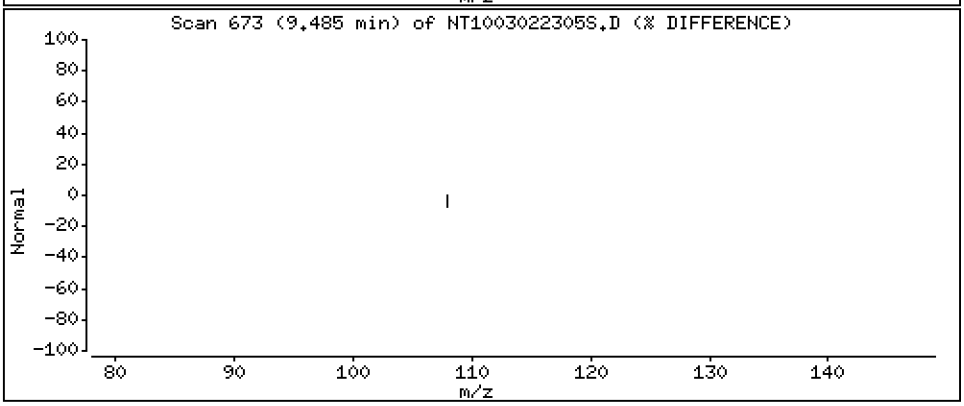












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

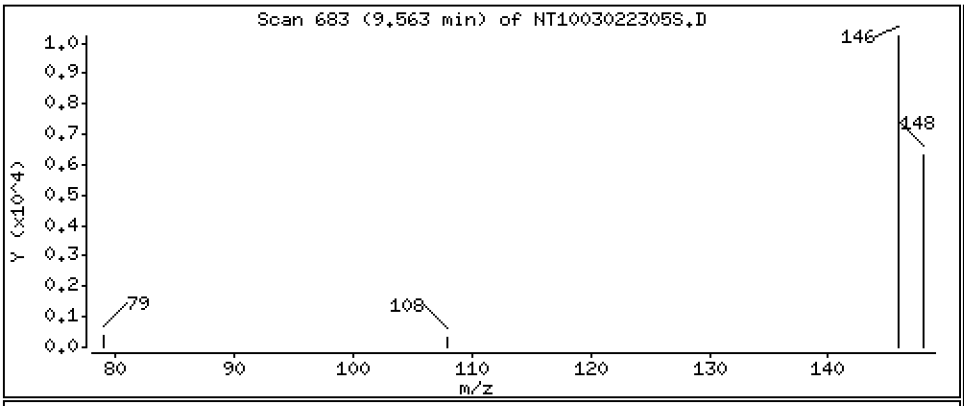
Operator: JGR

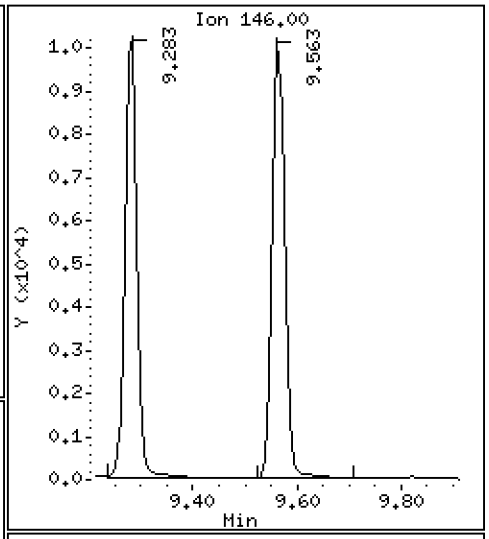
Column phase: ZB-5msi

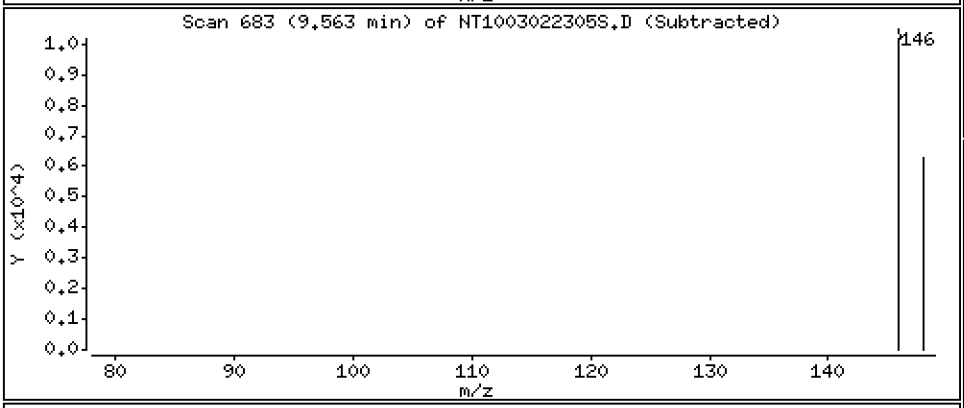
Column diameter: 0.25

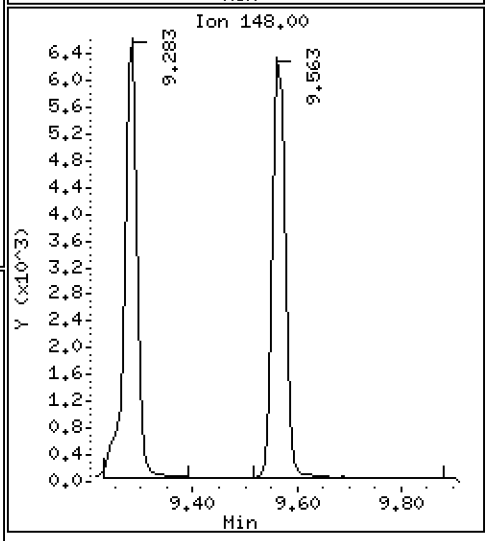
12 1,2-Dichlorobenzene

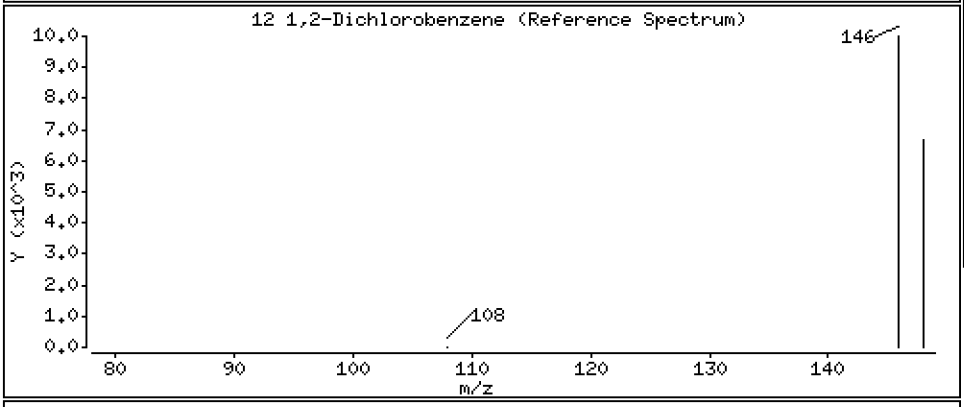
Concentration: 0.1026 ug/L

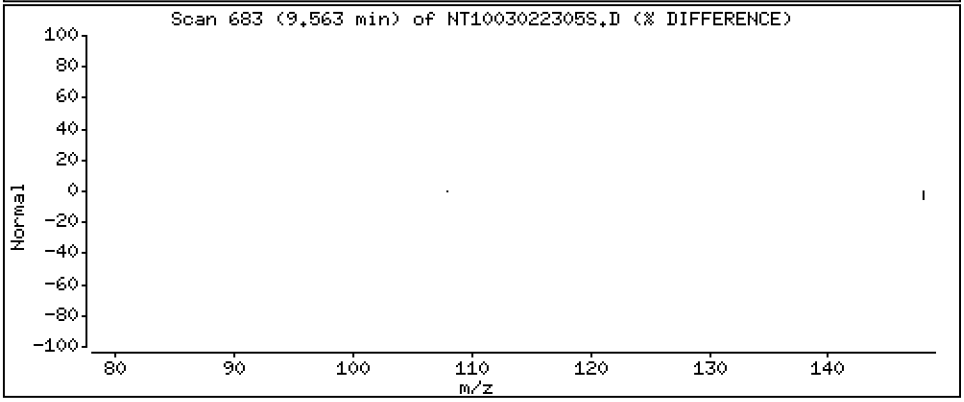












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

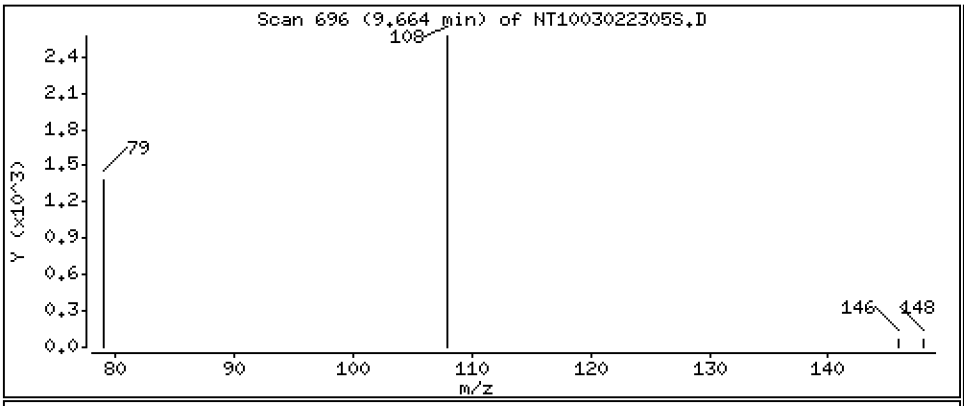
Operator: JGR

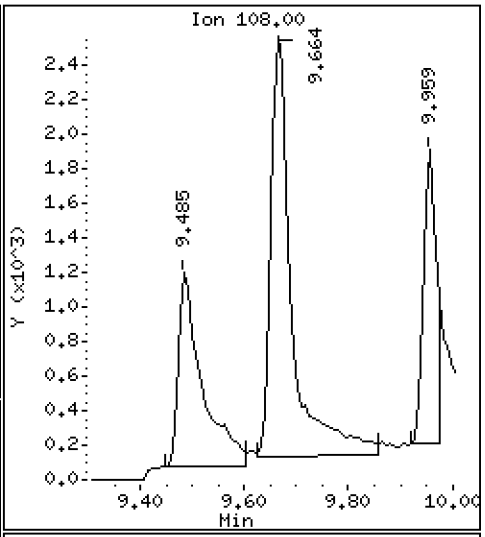
Column phase: ZB-5msi

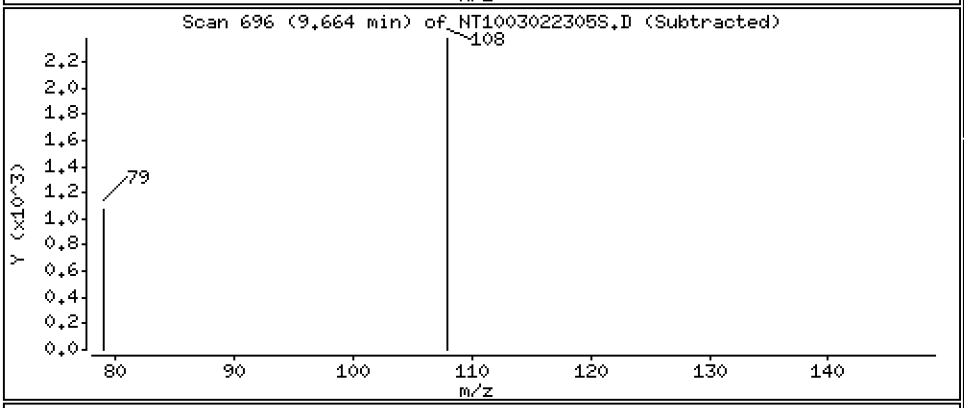
Column diameter: 0.25

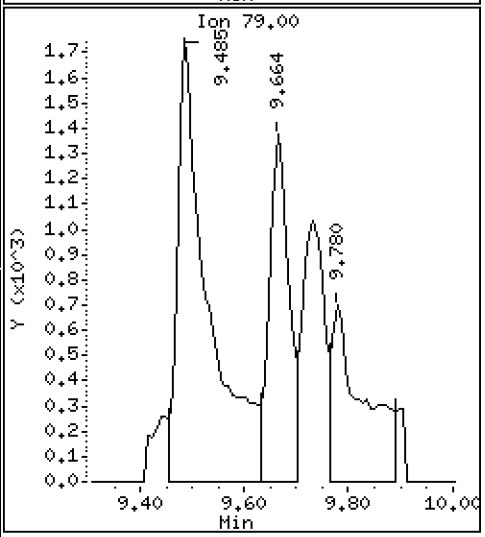
13 2-Methylphenol

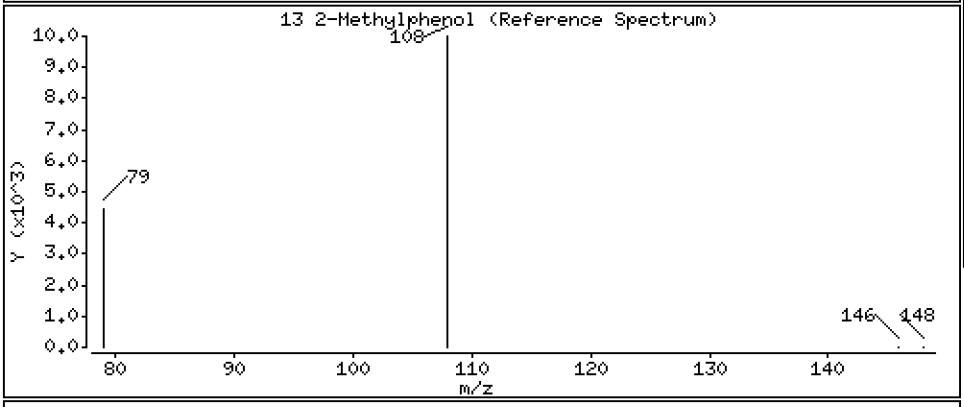
Concentration: 0.05859 ug/L

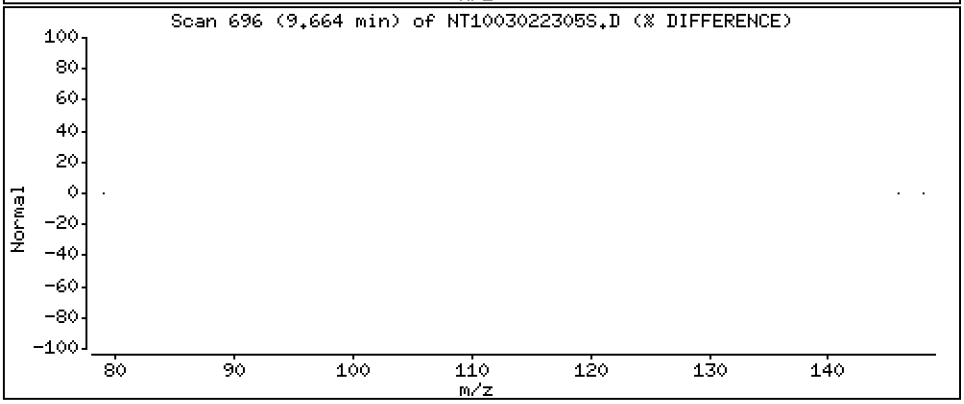












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

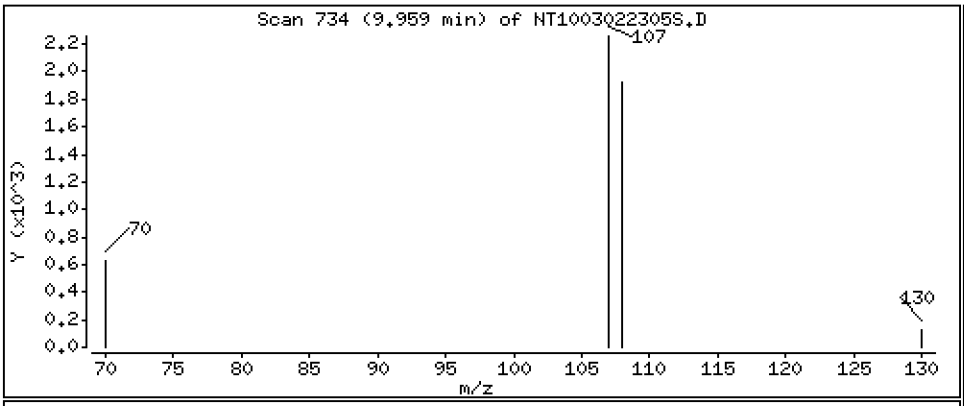
Operator: JGR

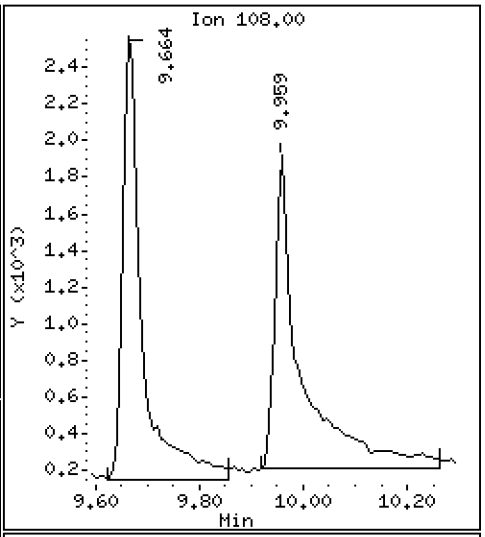
Column phase: ZB-5msi

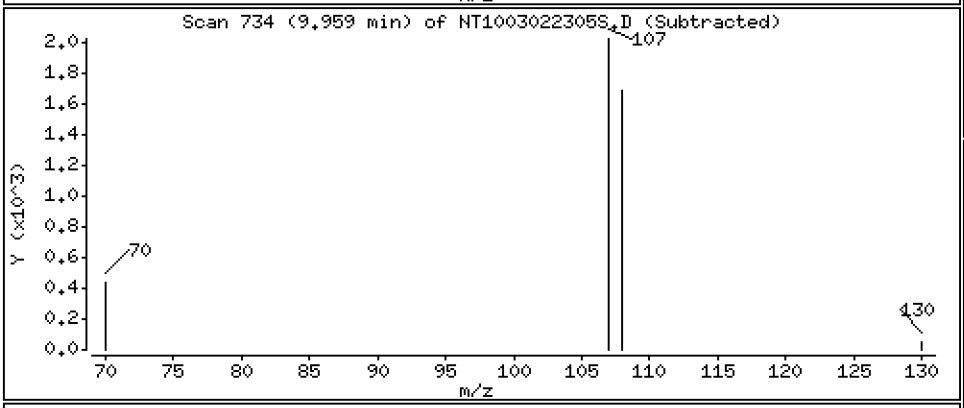
Column diameter: 0.25

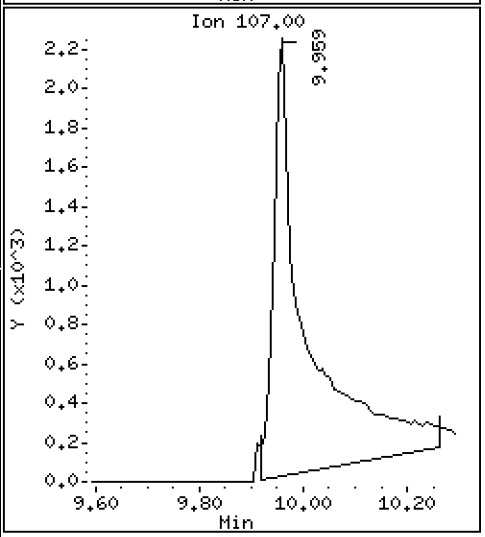
15 4-Methylphenol

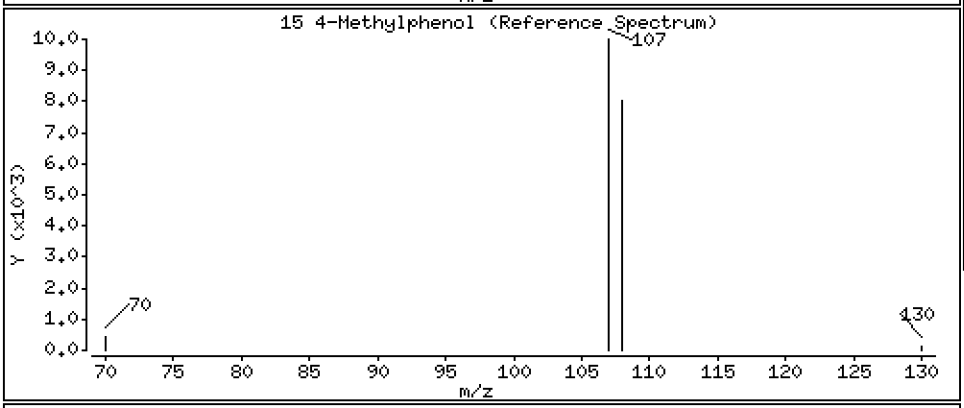
Concentration: 0.05077 ug/L

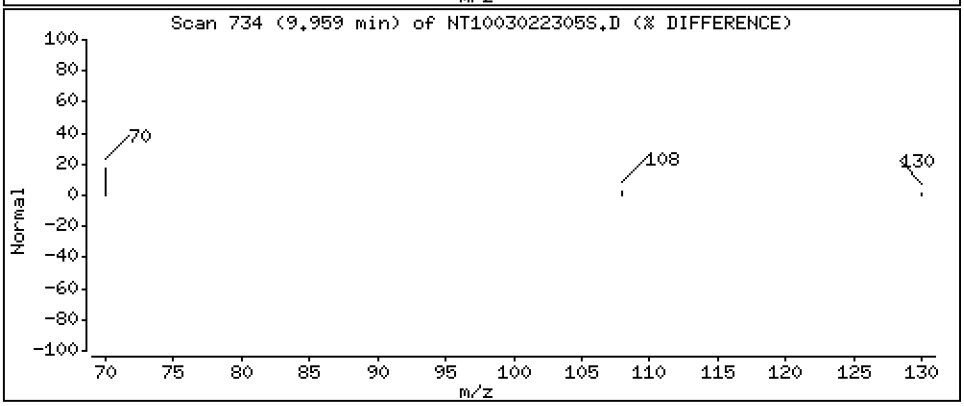












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

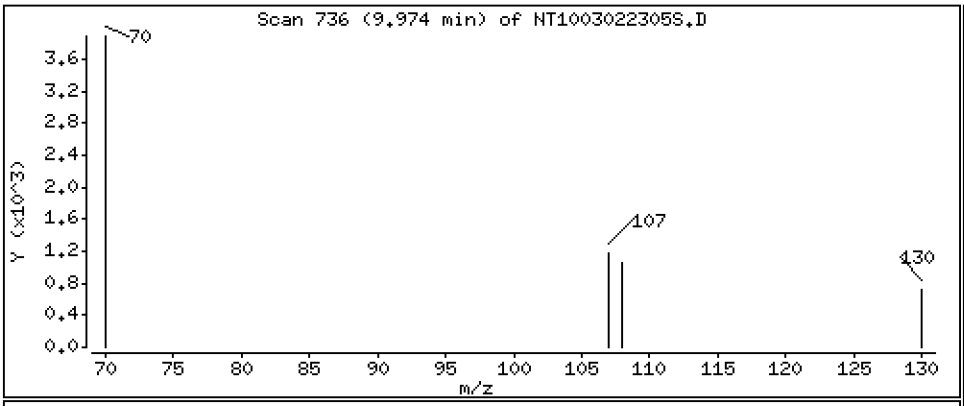
Operator: JGR

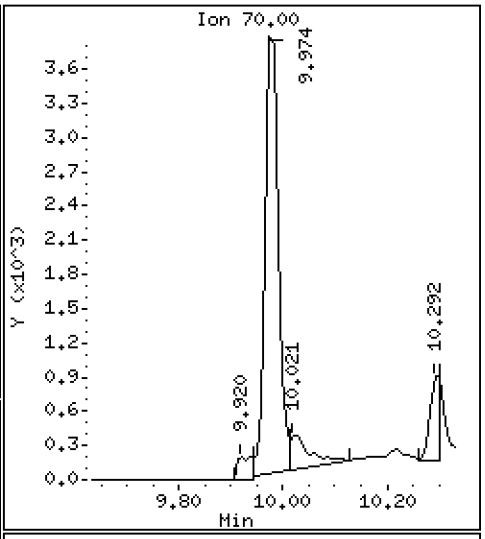
Column phase: ZB-5msi

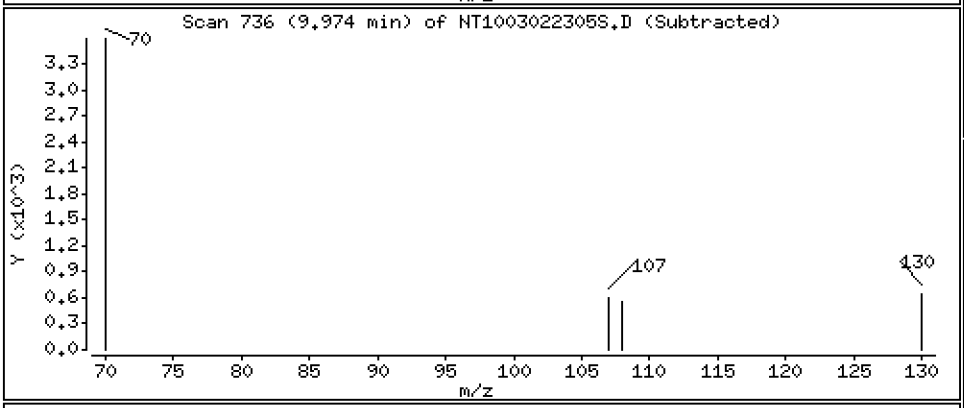
Column diameter: 0.25

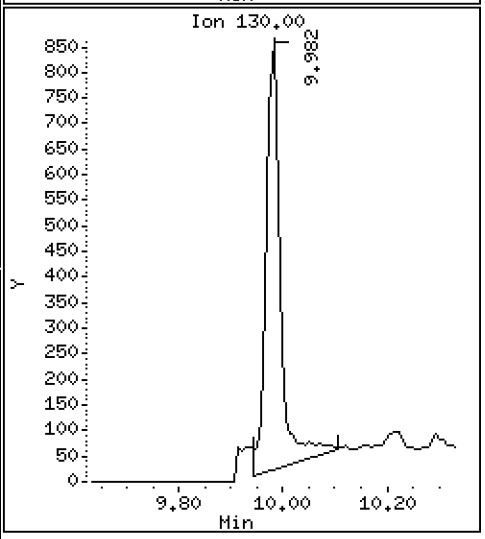
16 N-Nitroso-di-n-propylamine

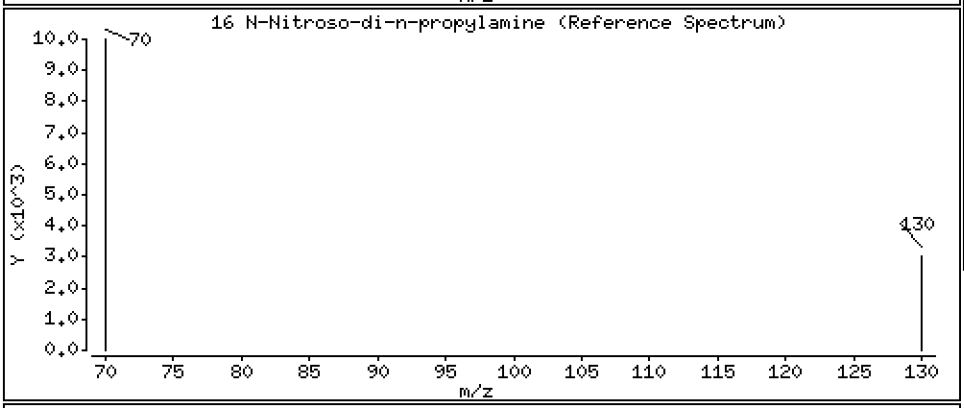
Concentration: 0.07785 ug/L

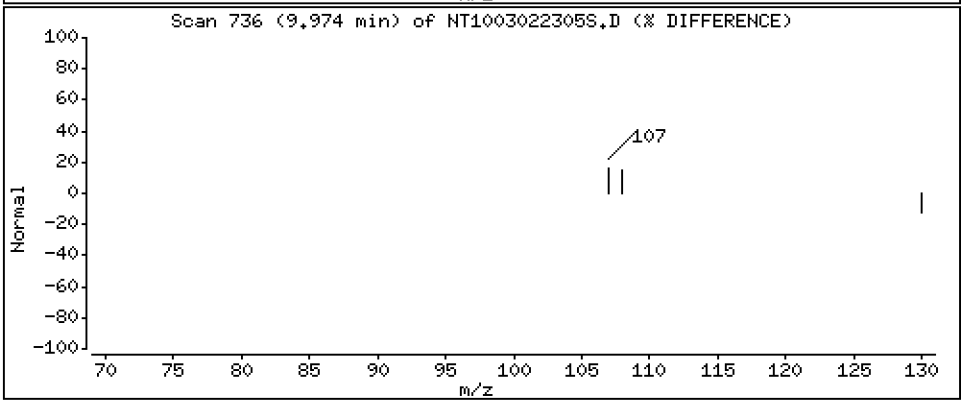












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Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

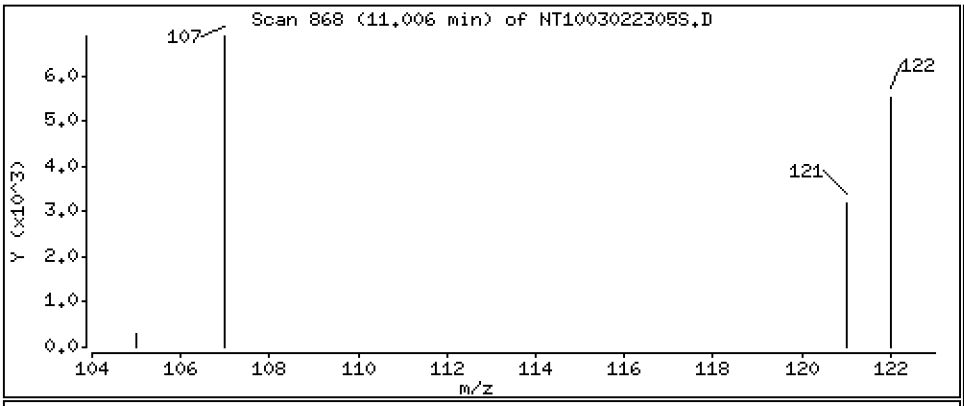
Operator: JGR

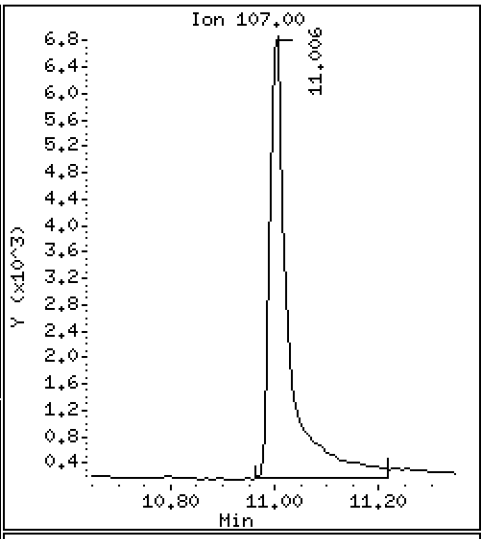
Column phase: ZB-5msi

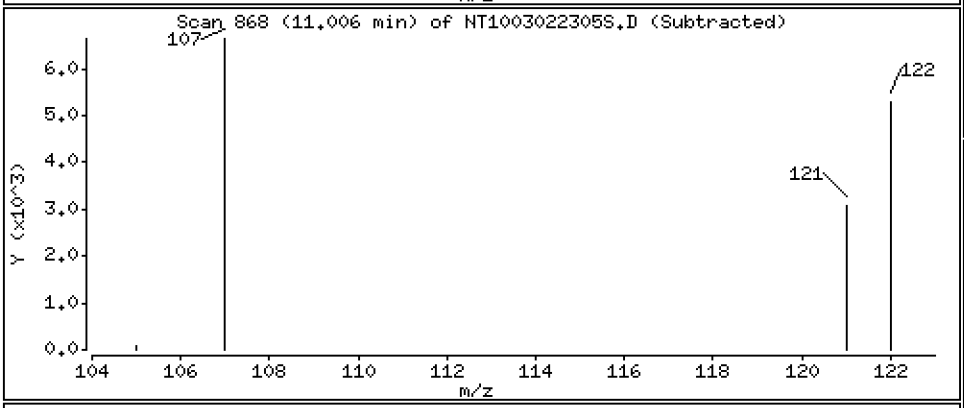
Column diameter: 0.25

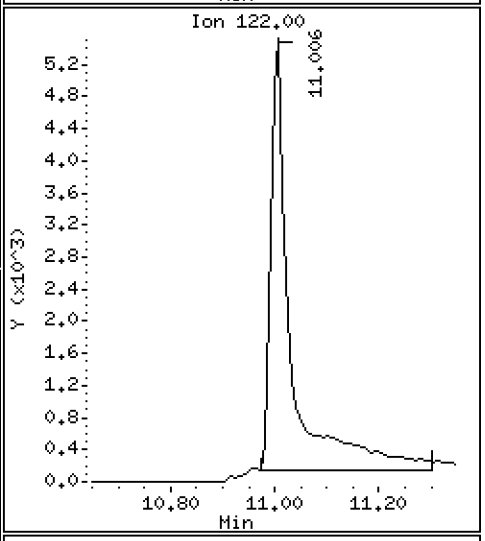
22 2,4-Dimethylphenol

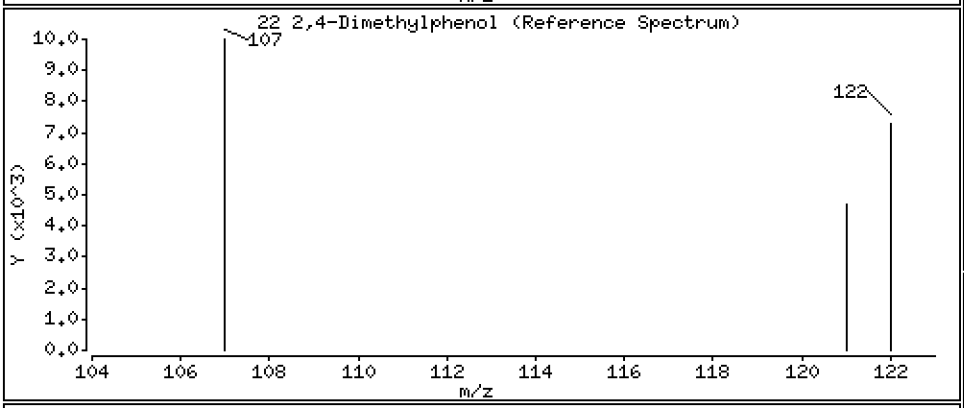
Concentration: 0.1242 ug/L

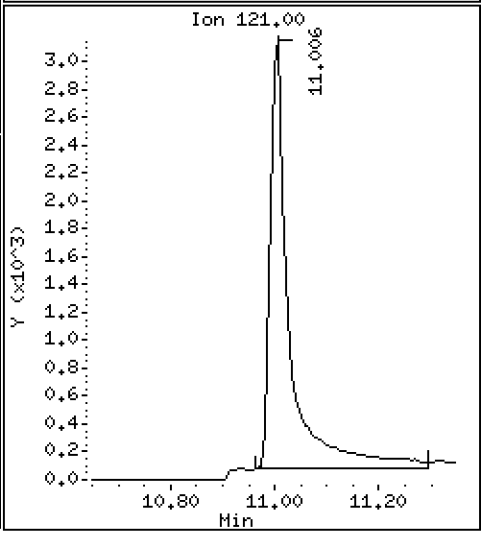


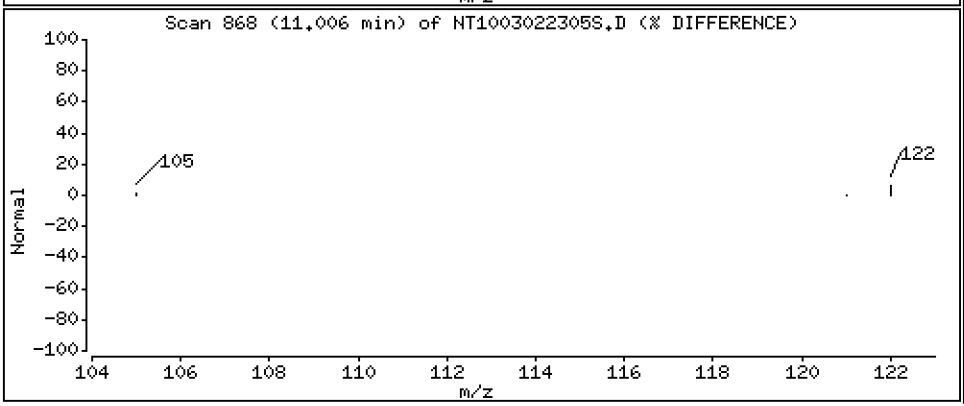












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Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

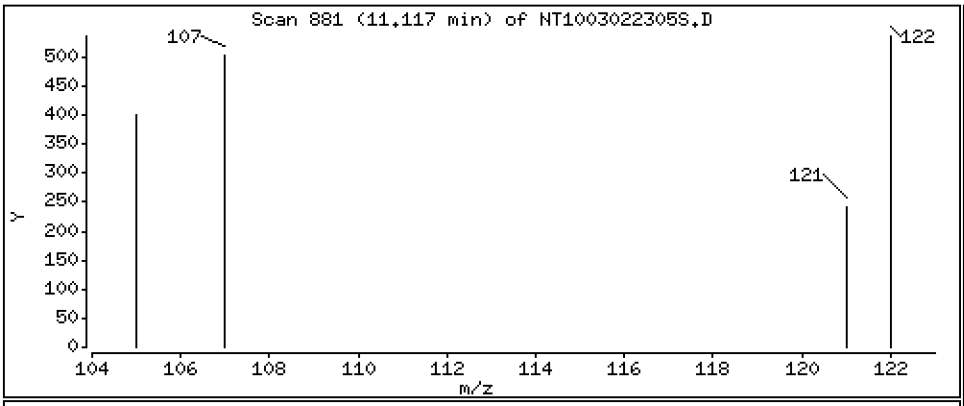
Operator: JGR

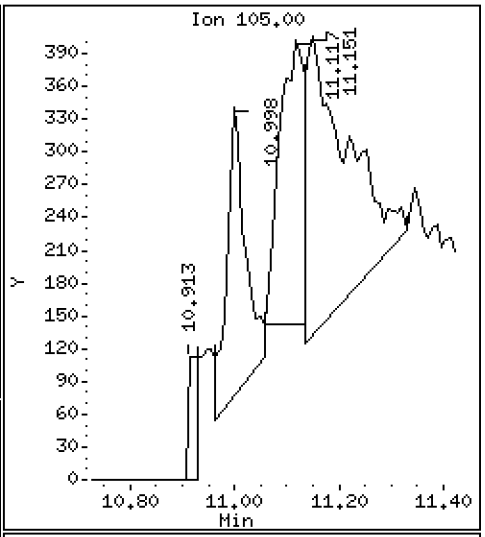
Column phase: ZB-5msi

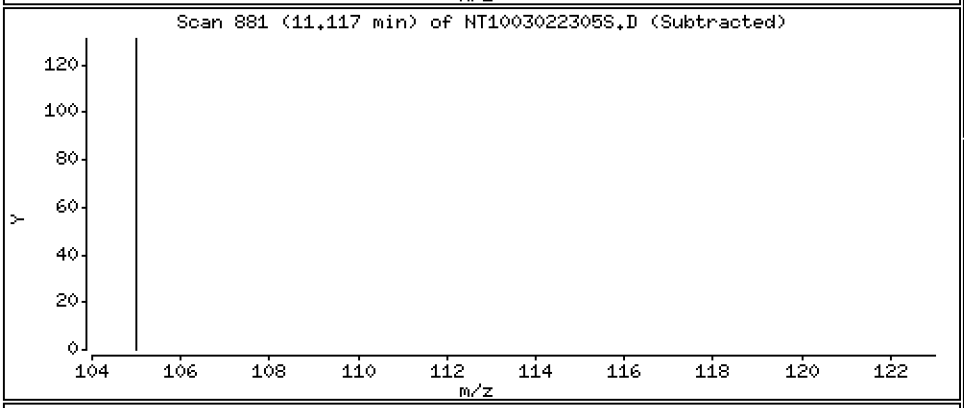
Column diameter: 0.25

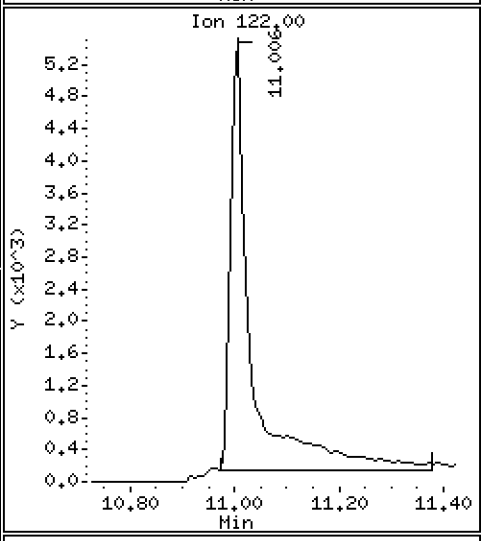
24 Benzoic acid

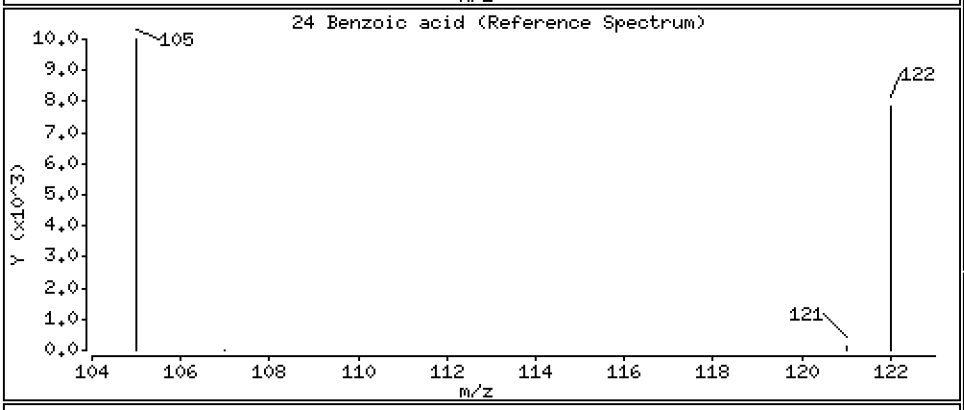
Concentration: 0.01144 ug/L

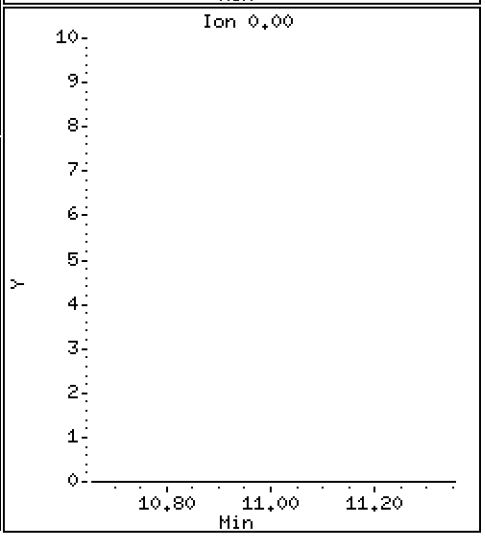


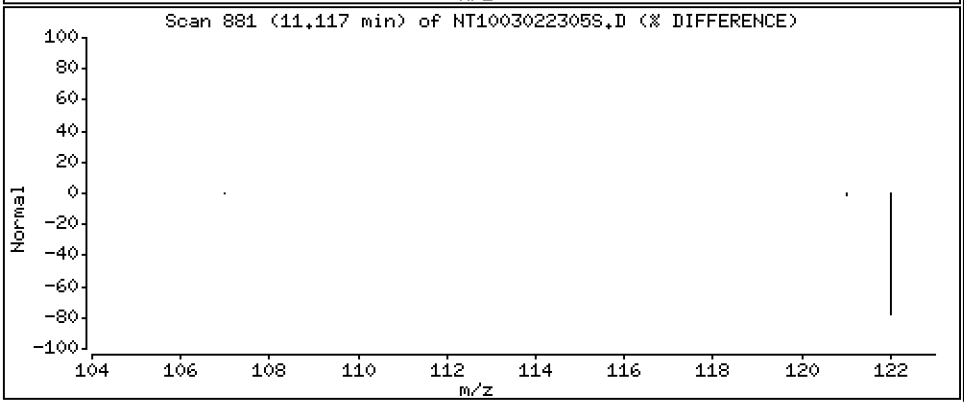












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

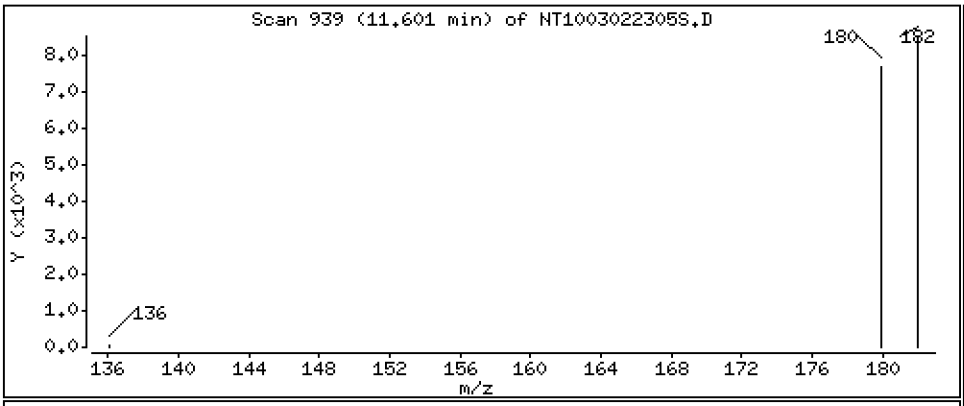
Operator: JGR

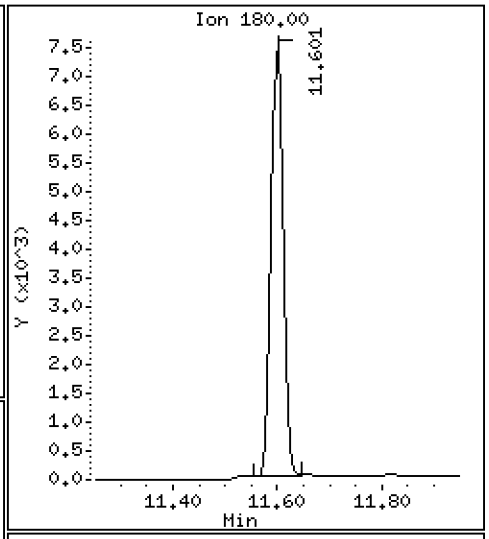
Column phase: ZB-5msi

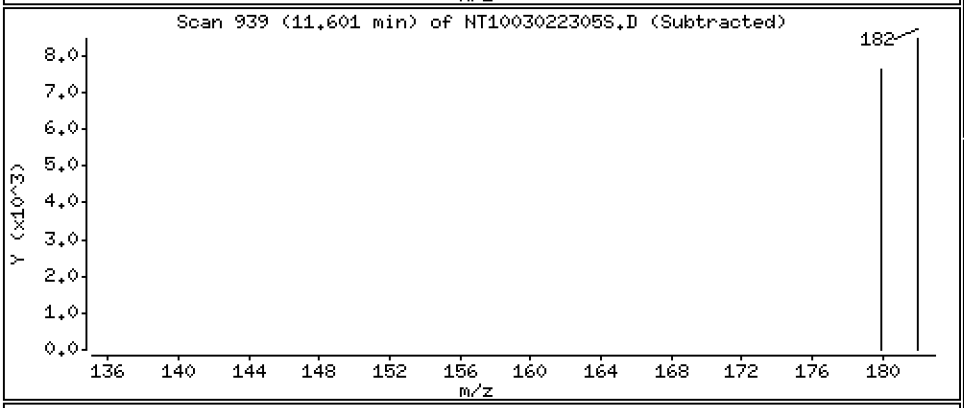
Column diameter: 0.25

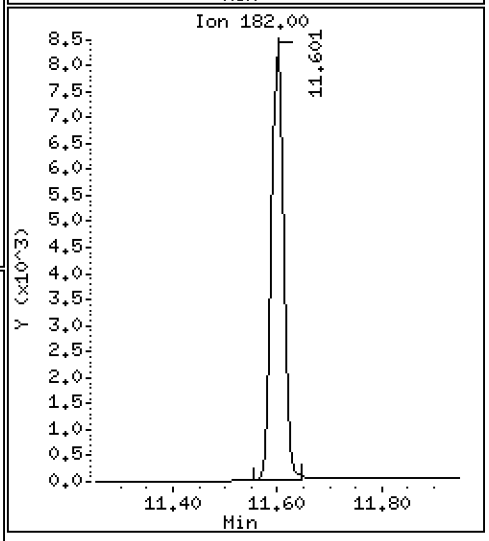
26 1,2,4-Trichlorobenzene

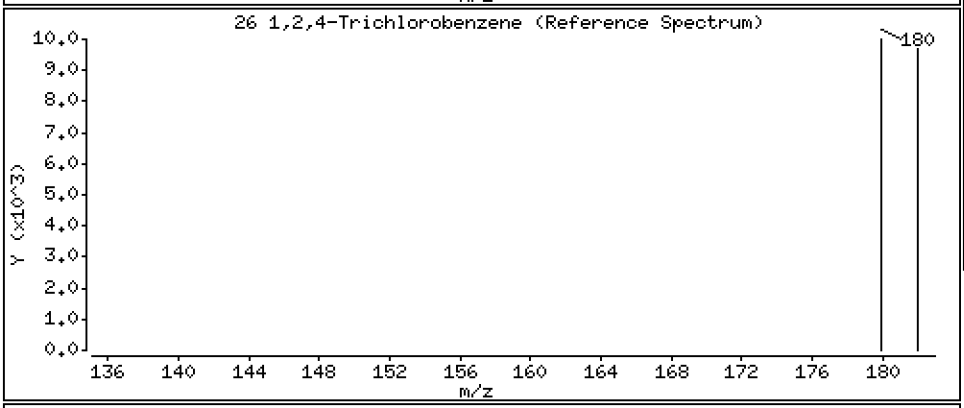
Concentration: 0.09977 ug/L

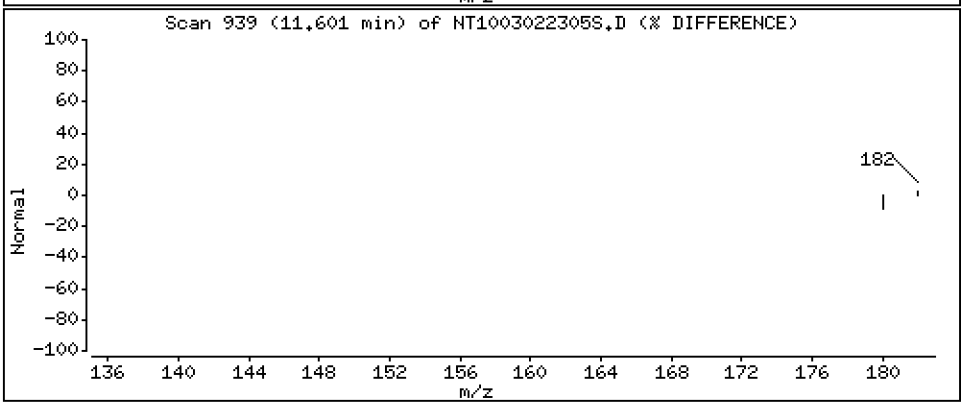












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

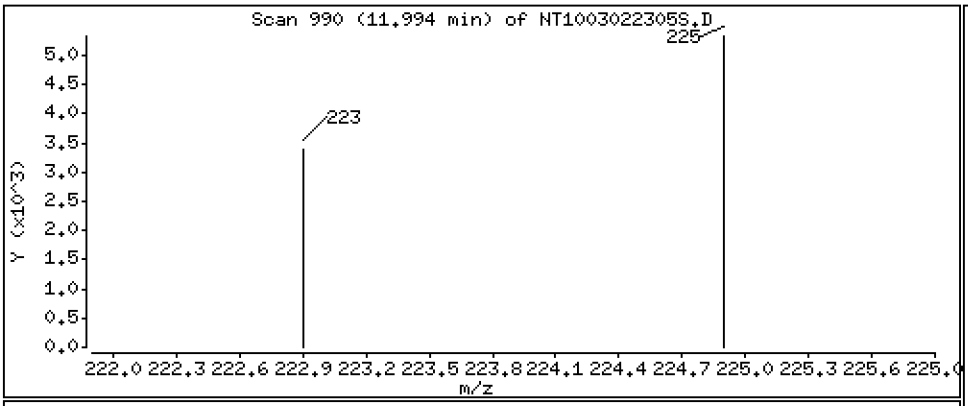
Operator: JGR

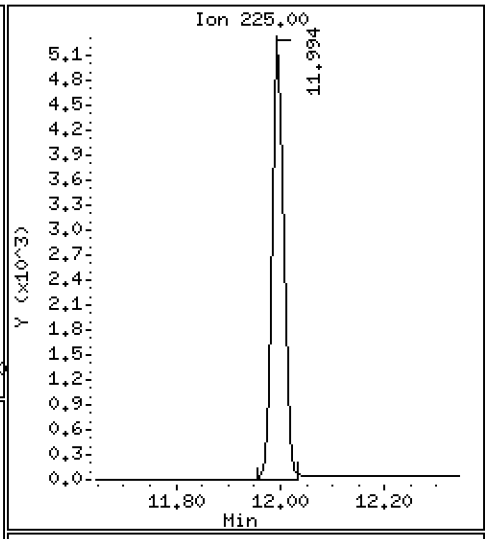
Column phase: ZB-5msi

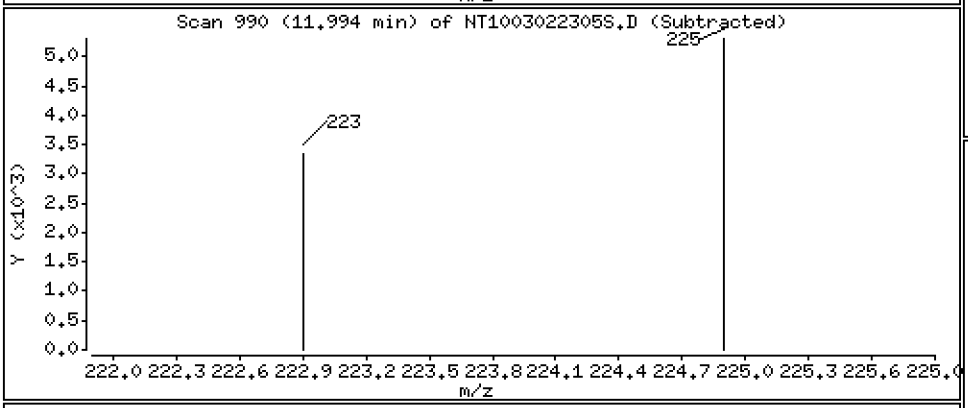
Column diameter: 0.25

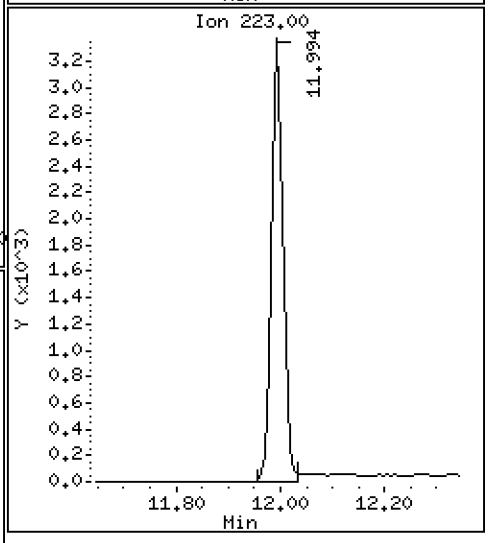
30 Hexachlorobutadiene

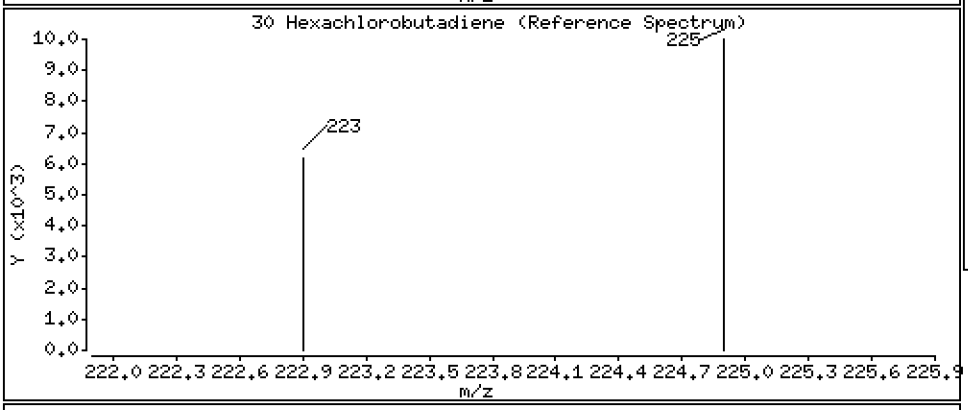
Concentration: 0.09705 ug/L

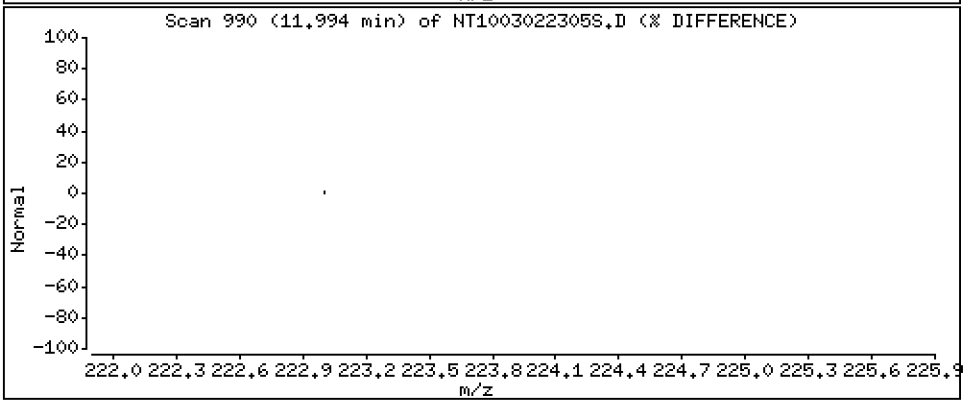












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

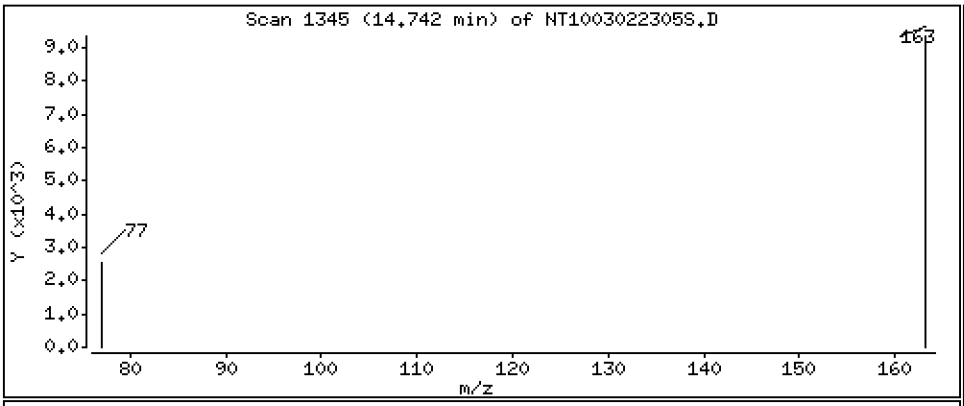
Operator: JGR

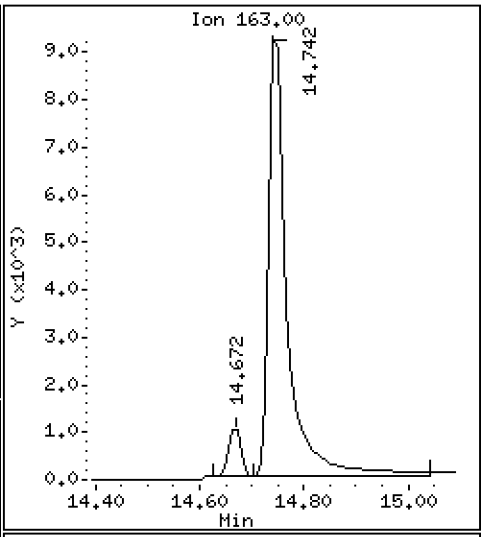
Column phase: ZB-5msi

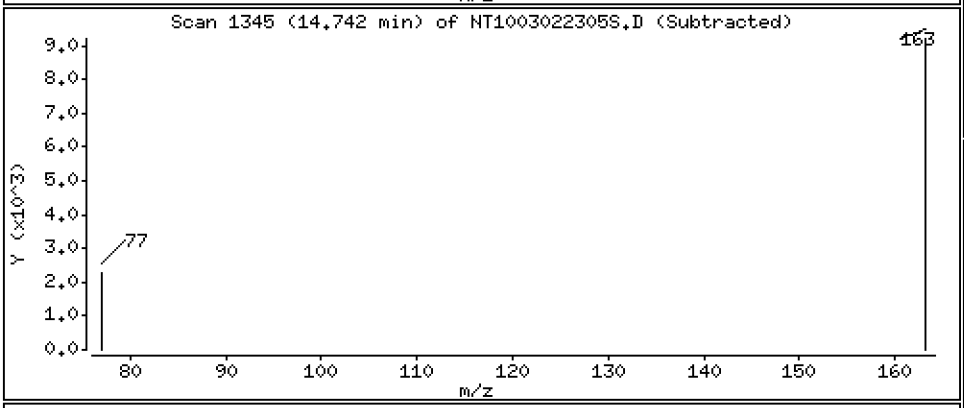
Column diameter: 0.25

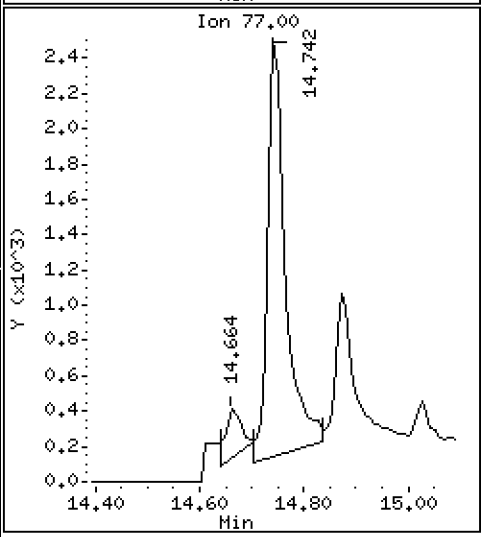
39 Dimethylphthalate

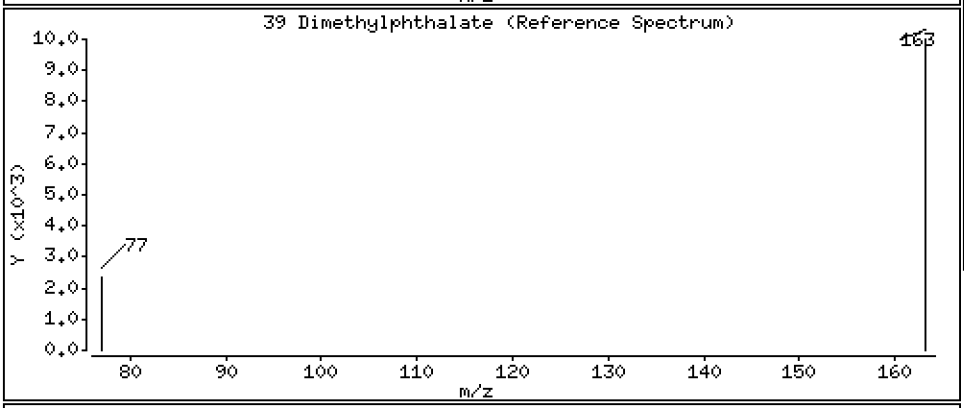
Concentration: 0.08456 ug/L

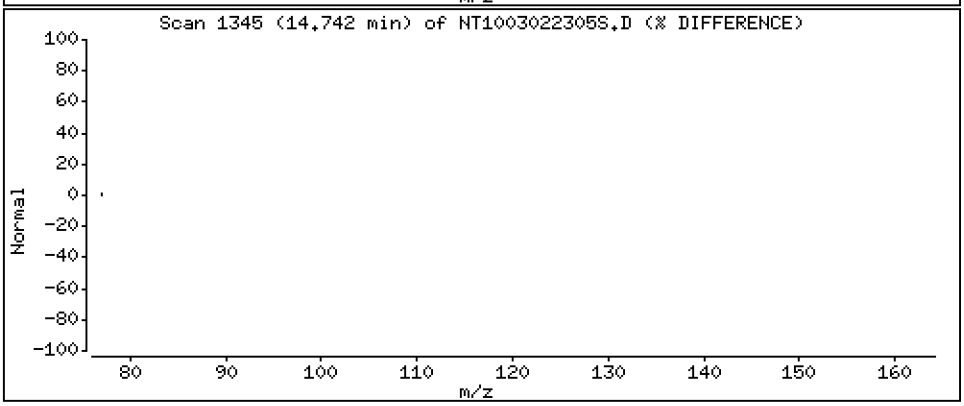












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

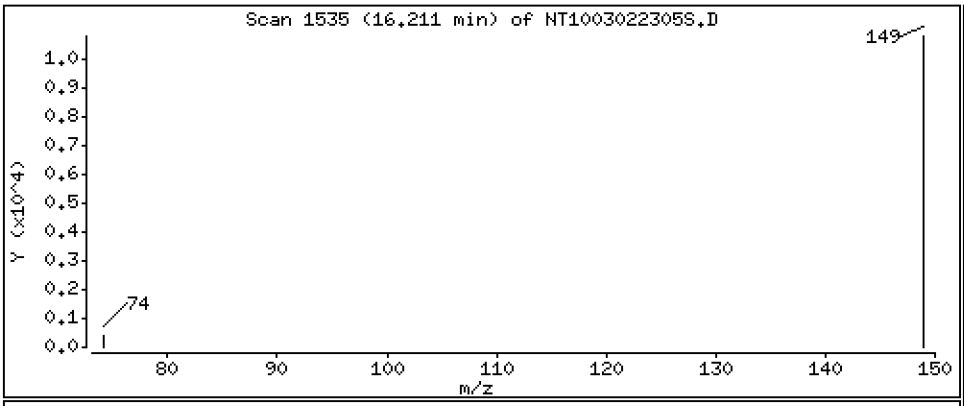
Operator: JGR

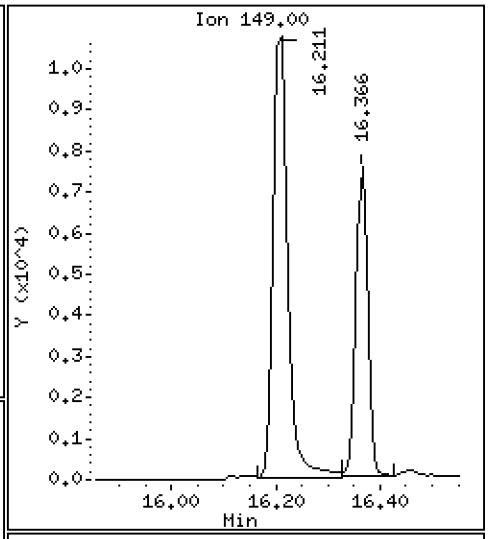
Column phase: ZB-5msi

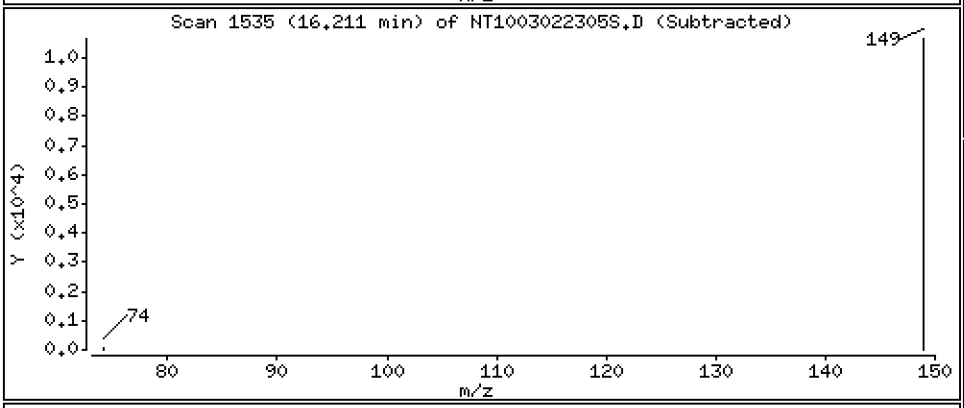
Column diameter: 0.25

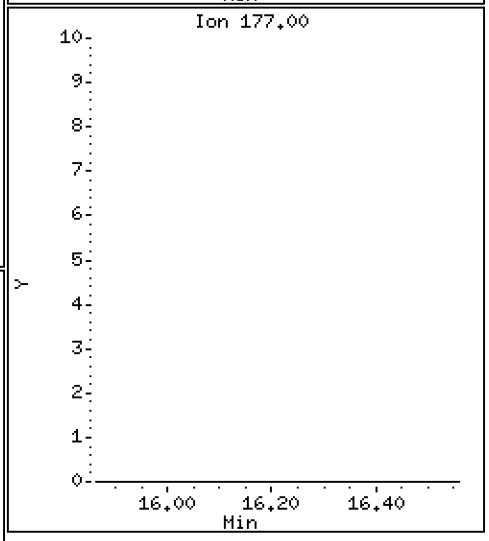
50 Diethylphthalate

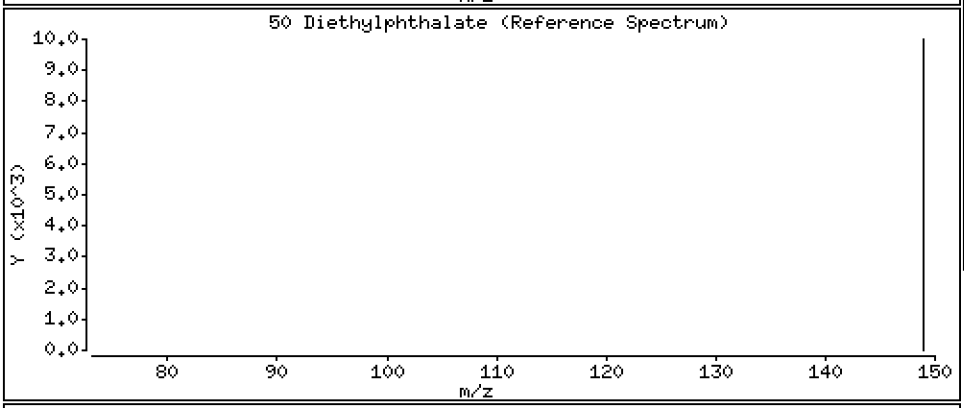
Concentration: 0.08088 ug/L

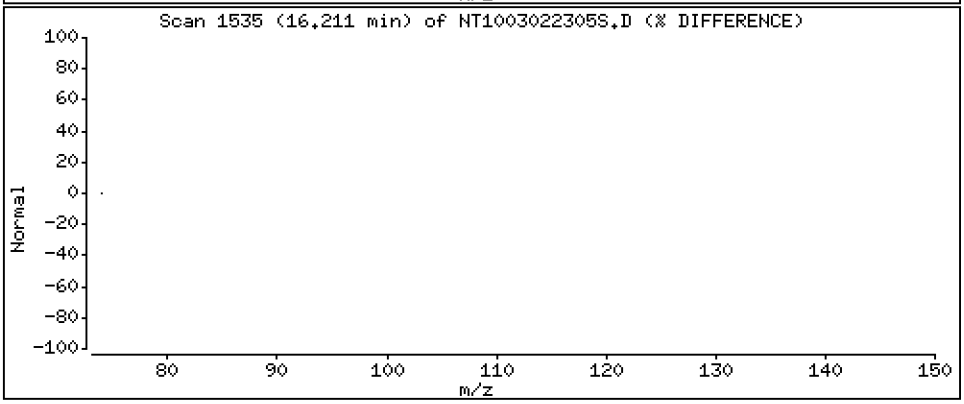












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Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

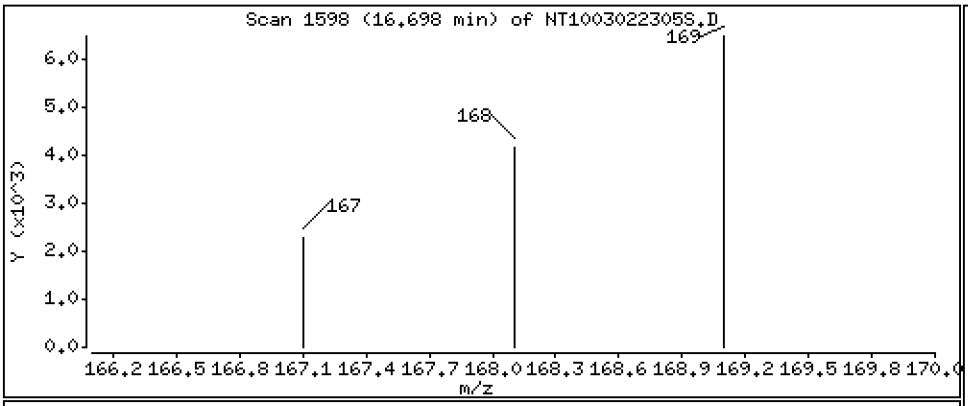
Operator: JGR

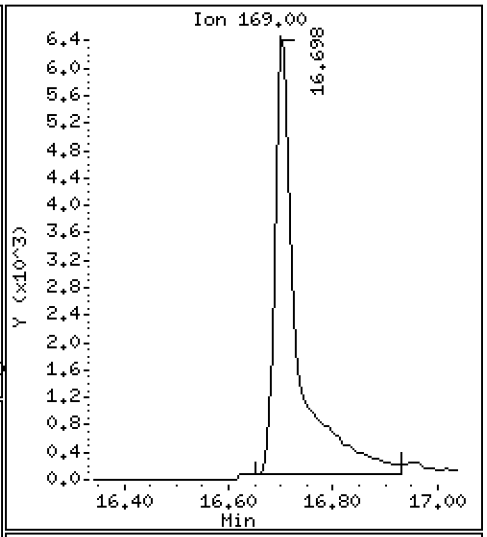
Column phase: ZB-5msi

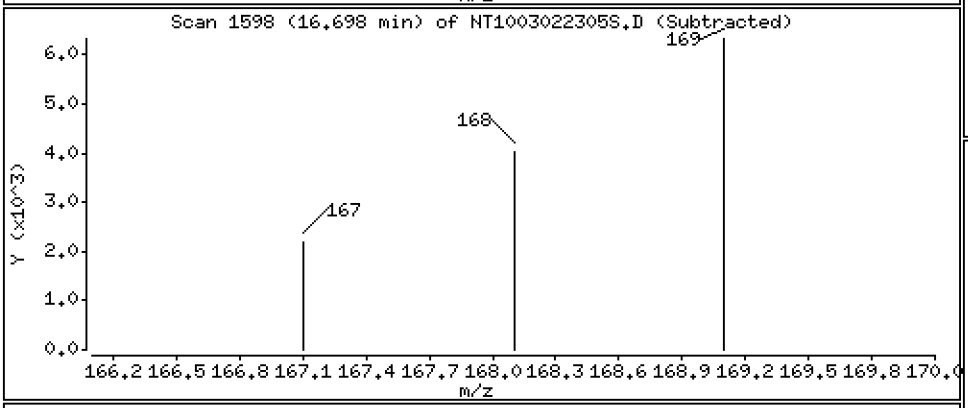
Column diameter: 0.25

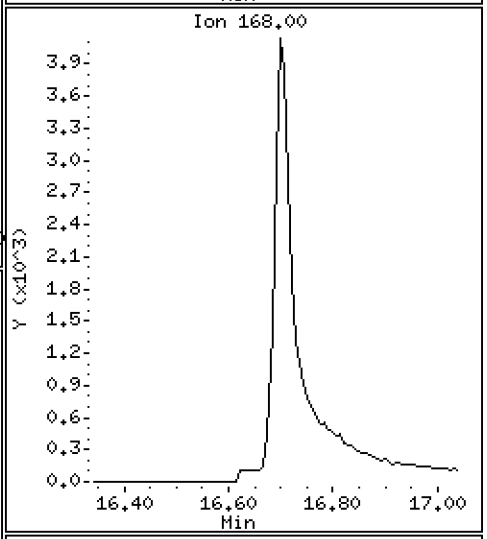
54 N-Nitrosodiphenylamine

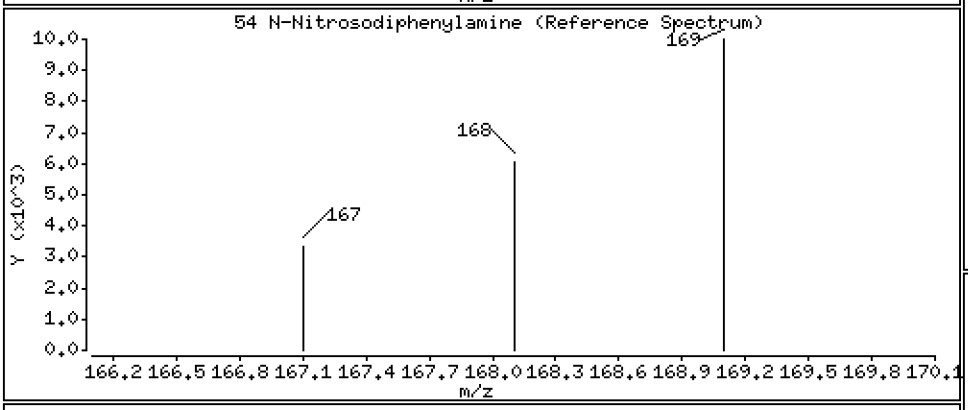
Concentration: 0.08415 ug/L

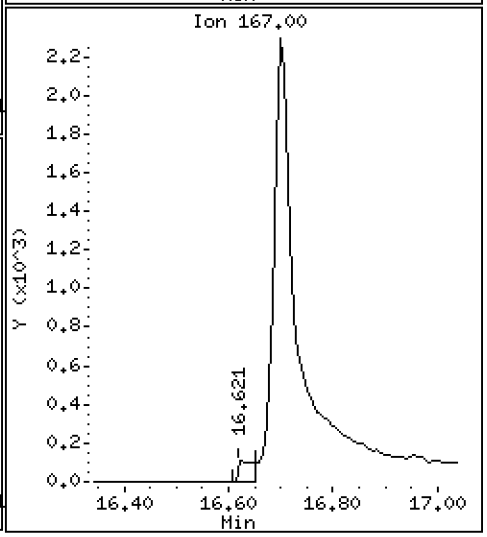


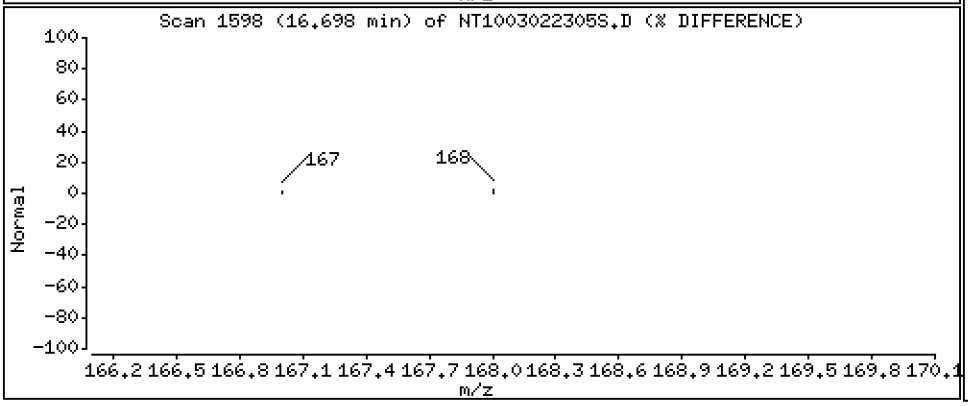












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Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

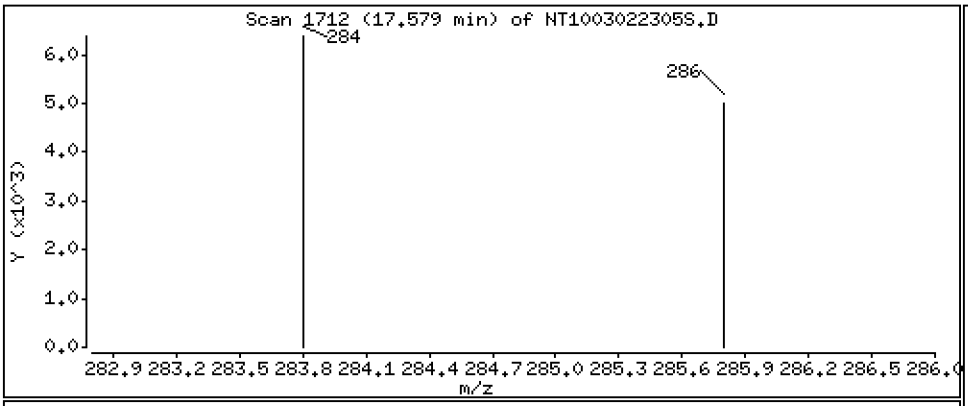
Operator: JGR

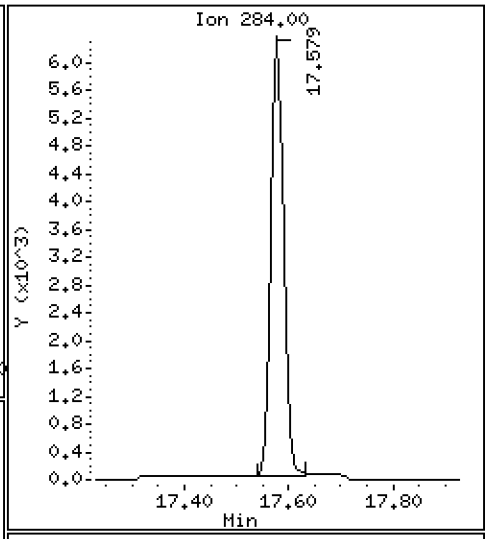
Column phase: ZB-5msi

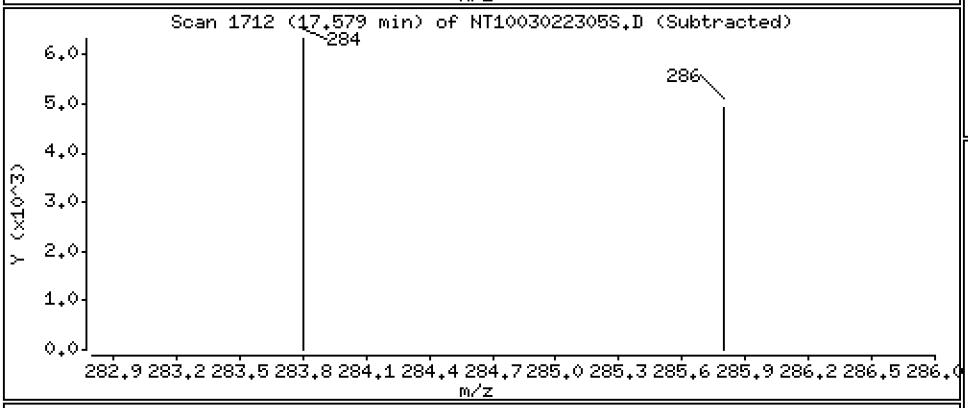
Column diameter: 0.25

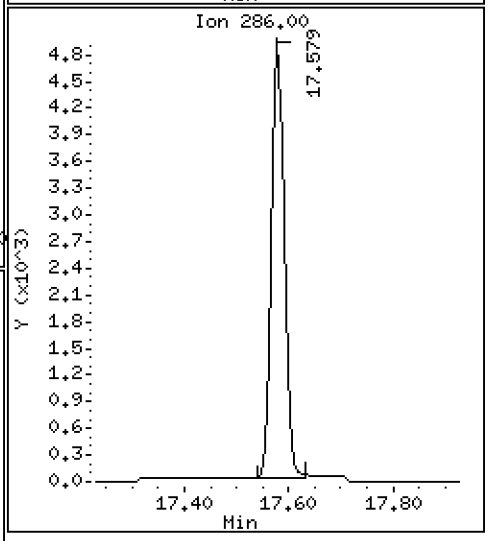
57 Hexachlorobenzene

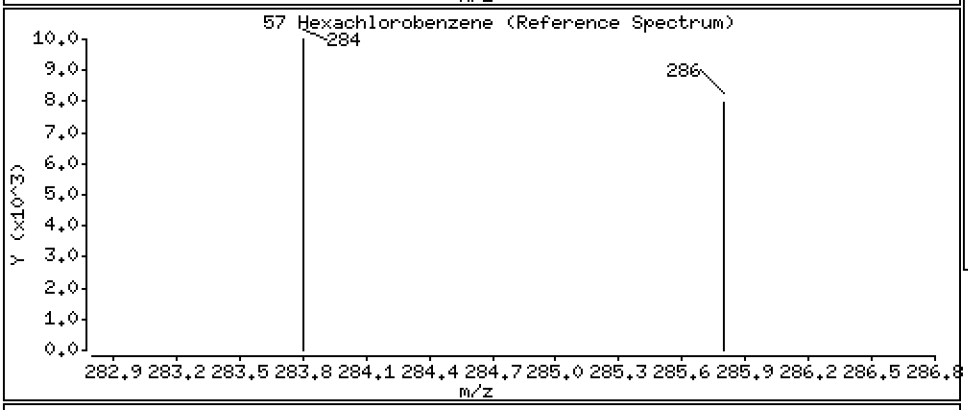
Concentration: 0.09423 ug/L

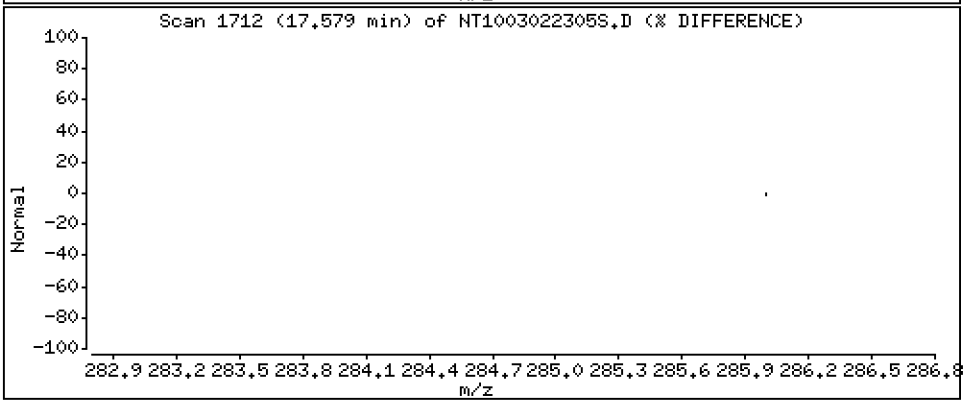












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

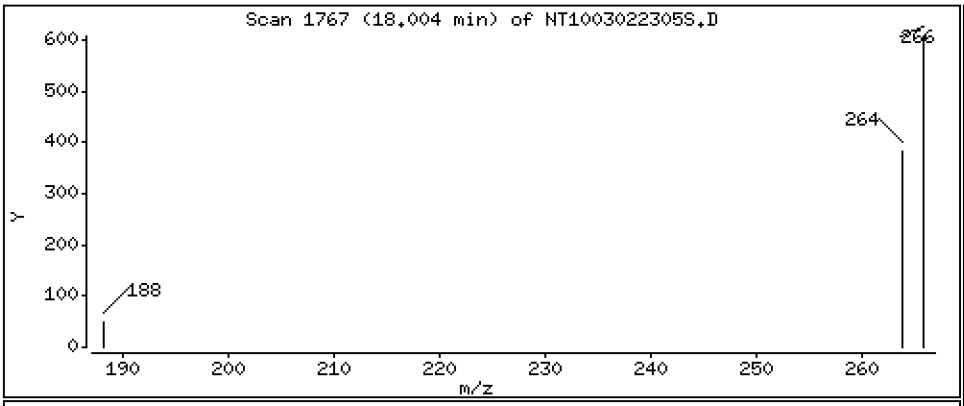
Operator: JGR

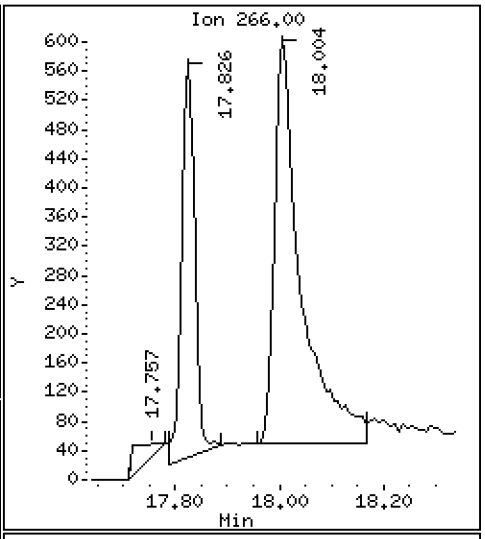
Column phase: ZB-5msi

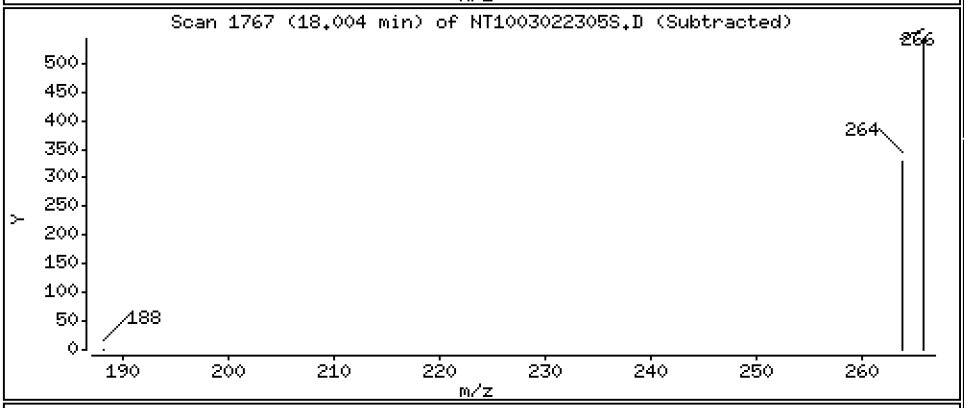
Column diameter: 0.25

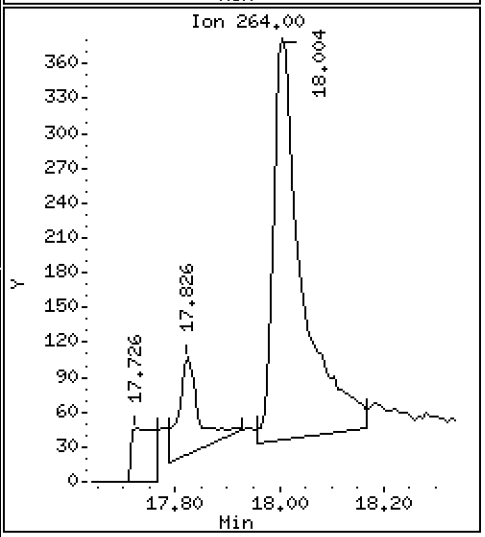
58 Pentachlorophenol

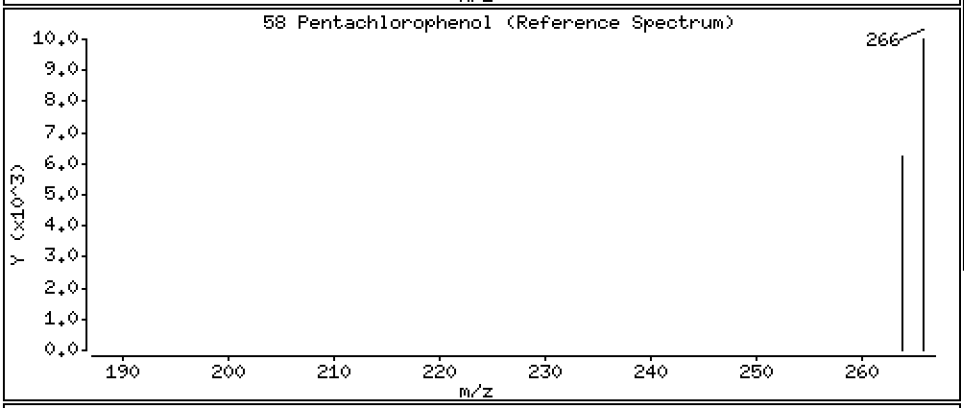
Concentration: 0.04209 ug/L

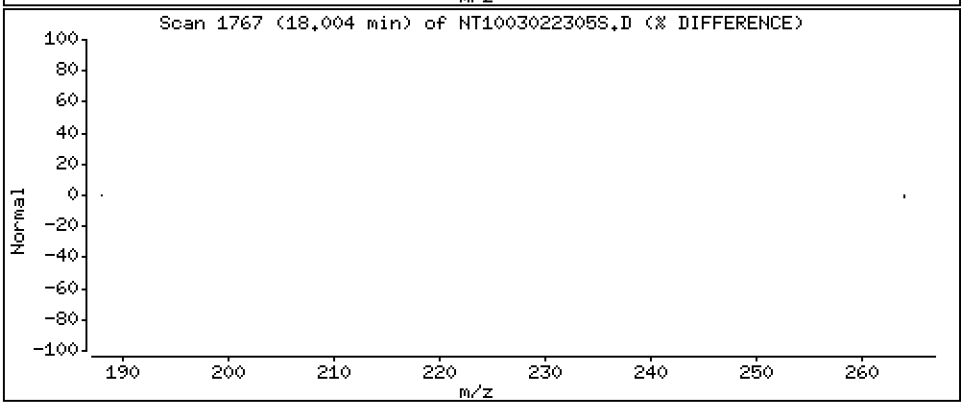












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

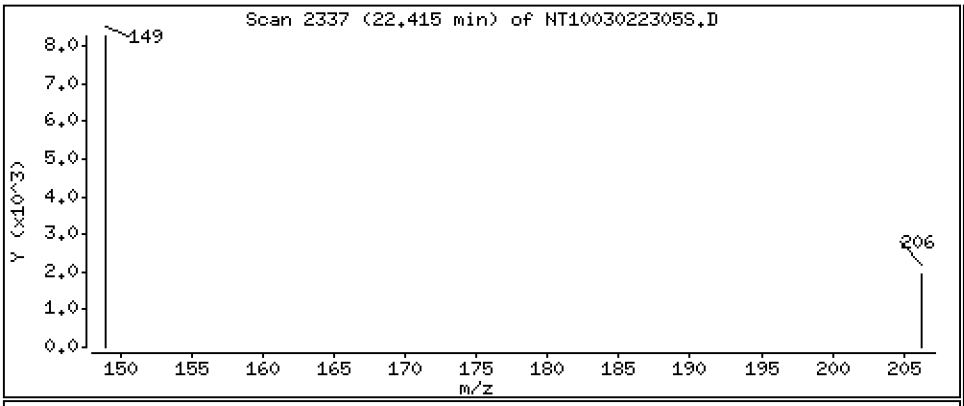
Operator: JGR

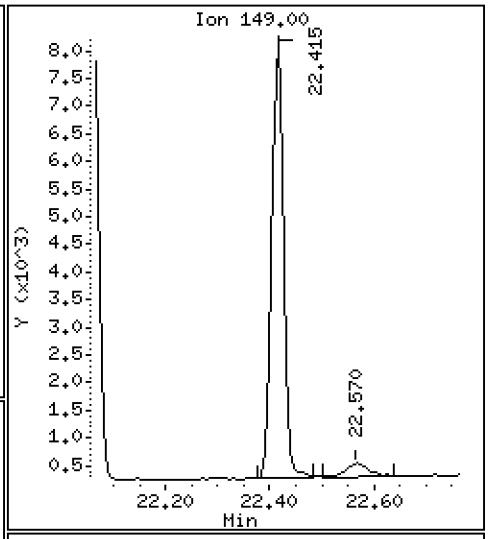
Column phase: ZB-5msi

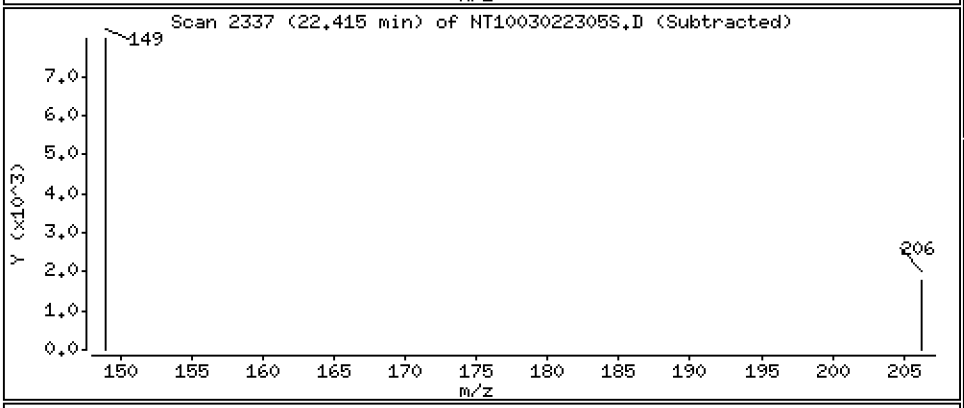
Column diameter: 0.25

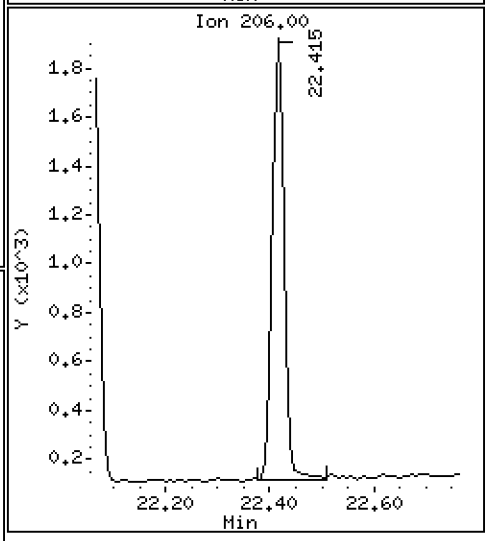
67 Butylbenzylphthalate

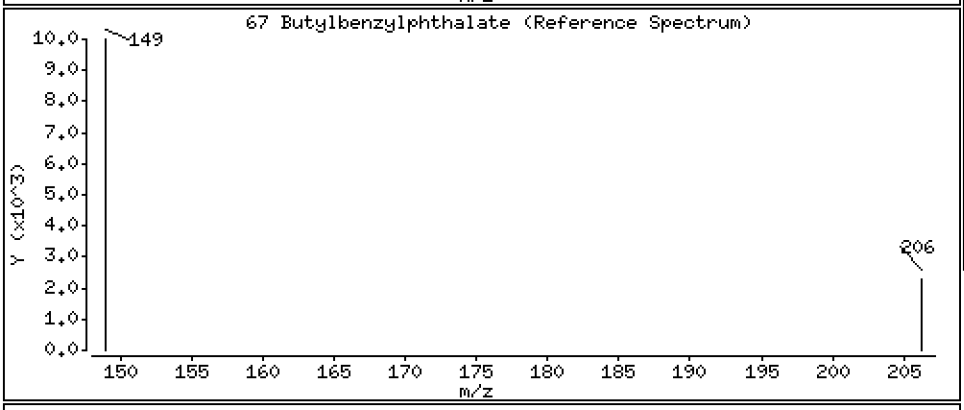
Concentration: 0.04745 ug/L

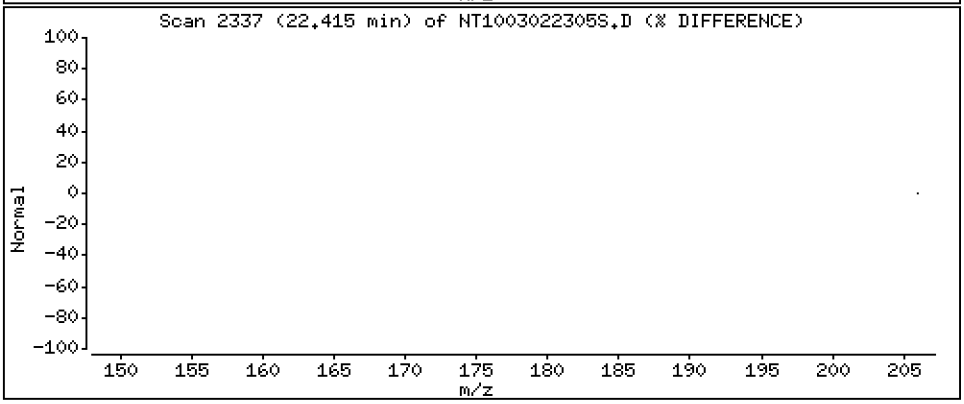












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

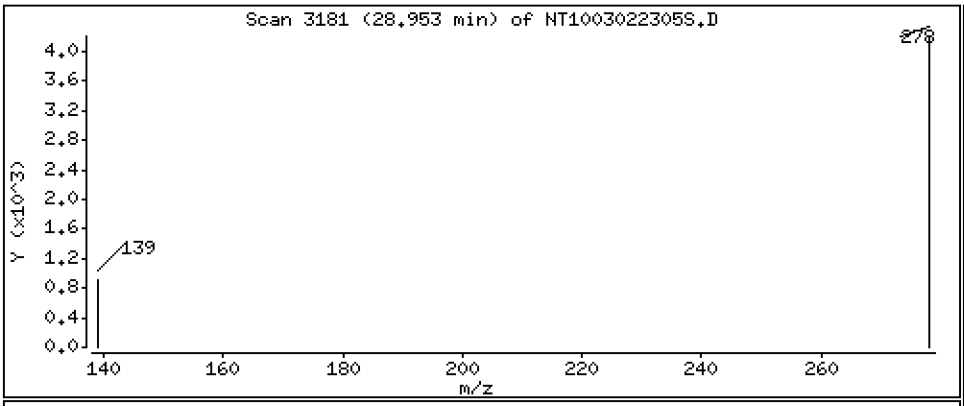
Operator: JGR

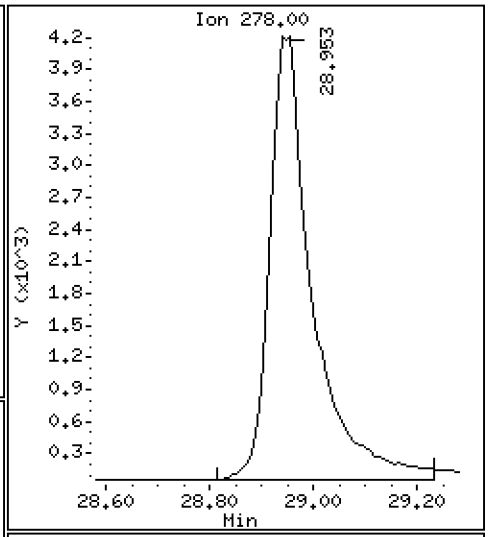
Column phase: ZB-5msi

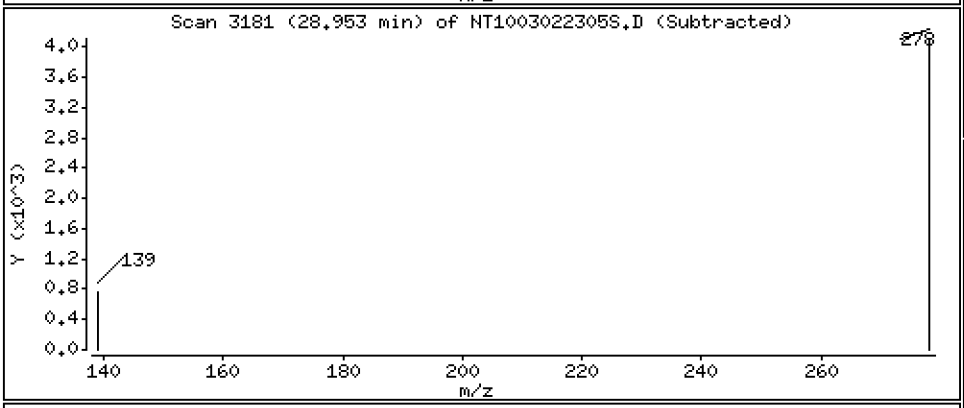
Column diameter: 0.25

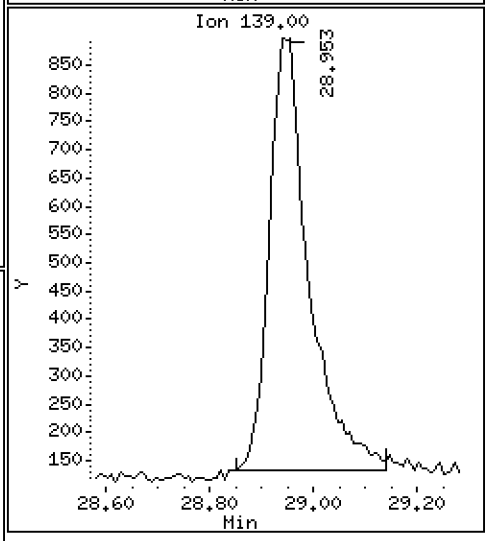
79 Dibenzo(a,h)anthracene

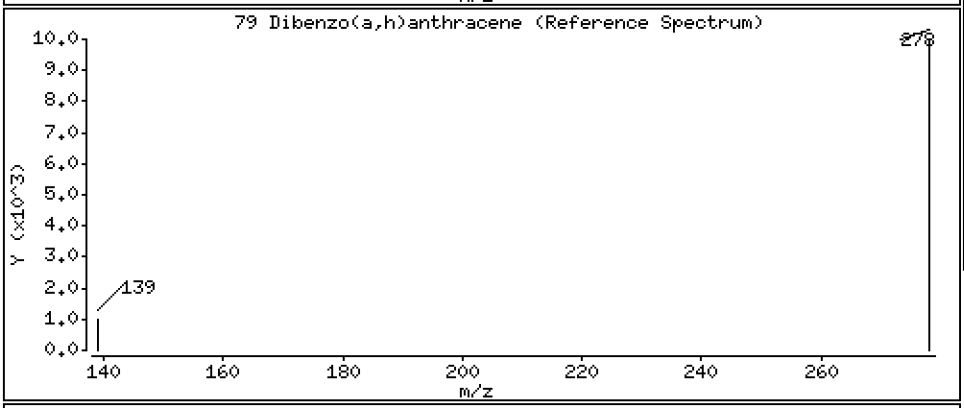
Concentration: 0.05927 ug/L

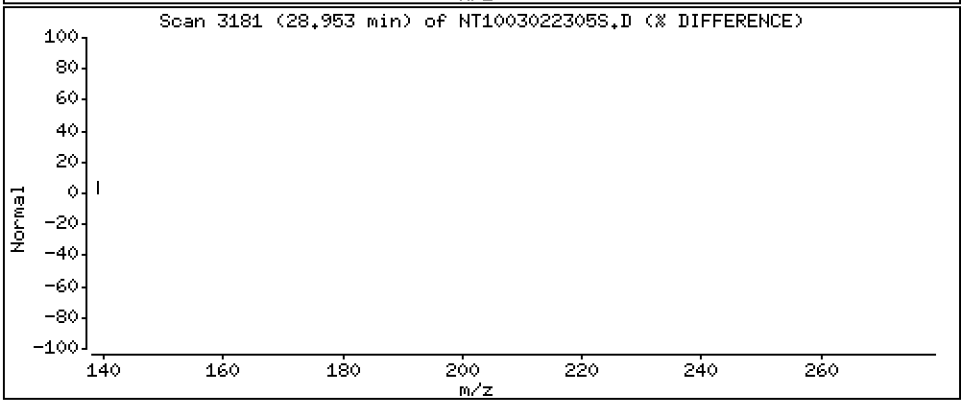












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D

Date : 02-MAR-2023 16:56

Client ID:

Instrument: nt10.i

Sample Info: SEQ-LCV100

Volume Injected (uL): 1.0

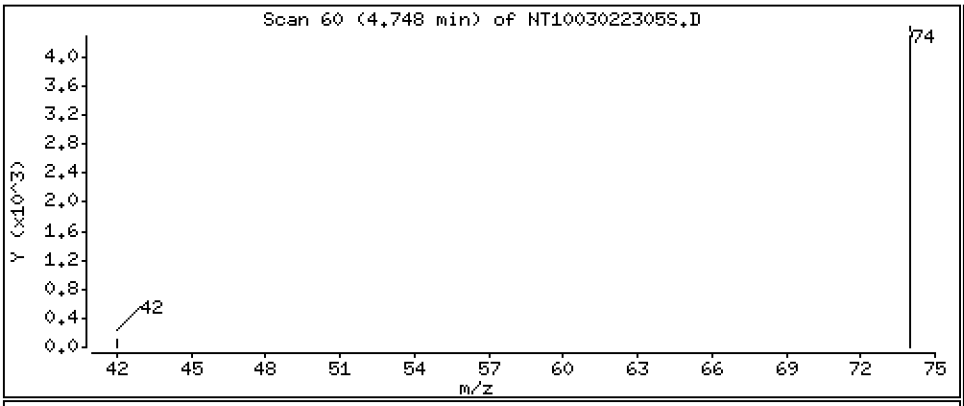
Operator: JGR

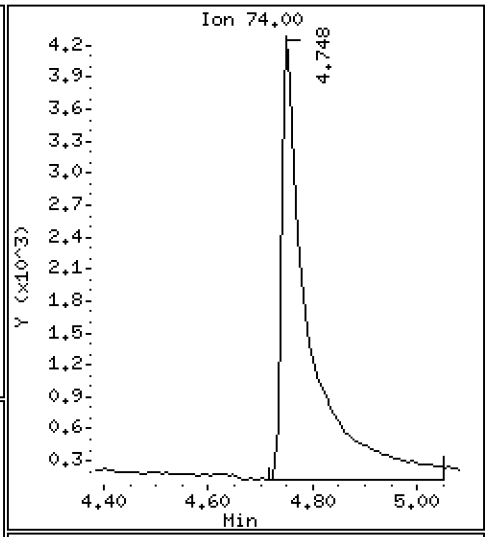
Column phase: ZB-5msi

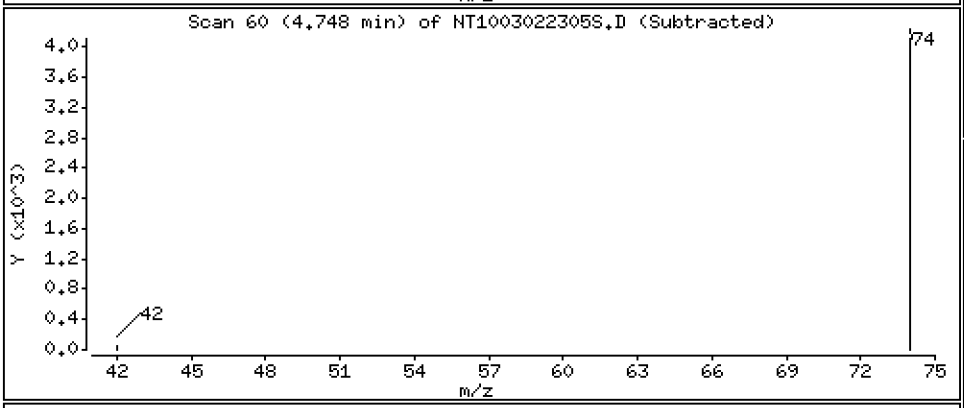
Column diameter: 0.25

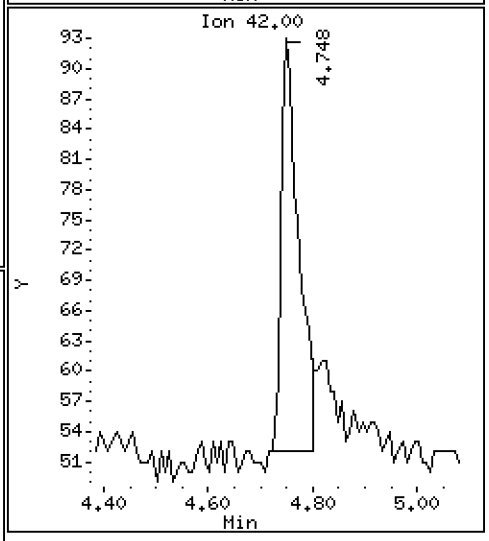
90 N-Nitrosodimethylamine

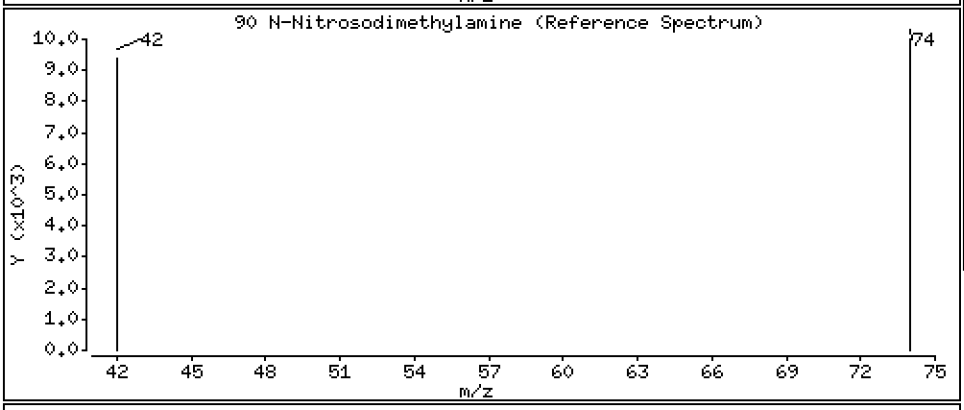
Concentration: 0.2020 ug/L

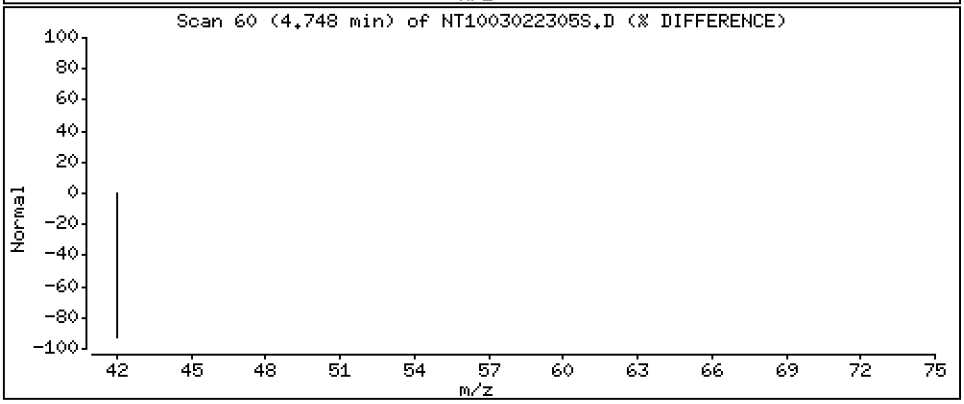












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022305S.D
Lab Smp Id: SEQ-LCV100
Inj Date : 02-MAR-2023 16:56 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-LCV100
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:01 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.902	6.902	(0.746)	16841	0.13125	0.1313(R)
3	Phenol	94	8.525	8.517	(0.921)	11585	0.06121	0.06121
7	1,3-Dichlorobenzene	146	9.143	9.143	(0.988)	17226	0.10342	0.1034
* 8	1,4-Dichlorobenzene-d4	152	9.252	9.251	(1.000)	449433	4.00000	
9	1,4-Dichlorobenzene	146	9.283	9.282	(1.003)	16689	0.10305	0.1031
11	Benzyl alcohol	79	9.485	9.476	(1.025)	5576	0.05313	0.05313
12	1,2-Dichlorobenzene	146	9.562	9.562	(1.034)	15971	0.10261	0.1026
13	2-Methylphenol	108	9.663	9.655	(1.044)	6667	0.05859	0.05859
15	4-Methylphenol	108	9.958	9.942	(1.076)	6008	0.05077	0.05077
16	N-Nitroso-di-n-propylamine	70	9.974	9.981	(1.078)	6561	0.07785	0.07785
22	2,4-Dimethylphenol	107	11.006	10.997	(0.939)	16823	0.12421	0.1242
24	Benzoic acid	105	11.116	11.074	(0.948)	849	0.01144	0.01144
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	11460	0.09977	0.09977
* 27	Naphthalene-d8	136	11.724	11.723	(1.000)	1595952	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	7911	0.09705	0.09705
39	Dimethylphthalate	163	14.741	14.741	(0.963)	22082	0.08456	0.08456
* 42	Acenaphthene-d10	162	15.314	15.314	(1.000)	822385	4.00000	
50	Diethylphthalate	149	16.211	16.203	(1.059)	19916	0.08088	0.08088
54	N-Nitrosodiphenylamine	169	16.698	16.690	(0.907)	19183	0.08415	0.08415
57	Hexachlorobenzene	284	17.578	17.578	(0.955)	10053	0.09423	0.09423

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	18.004	17.988	(0.978)	1965	0.04209	0.04209
*	59 Phenanthrene-d10	188	18.406	18.406	(1.000)	1408565	4.00000	
$	66 Terphenyl-d14	244	21.532	21.532	(0.919)	9829	0.08388	0.08388(R)
	67 Butylbenzylphthalate	149	22.415	22.414	(0.957)	11608	0.04745	0.04745
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	1449074	4.00000	
*	77 Perylene-d12	264	26.116	26.115	(1.000)	1721904	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.953	28.929	(1.109)	23649	0.05927	0.05927
	90 N-Nitrosodimethylamine	74	4.748	4.732	(0.513)	15343	0.20197	0.2020

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003022305S.D
Lab Smp Id: SEQ-LCV100
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 02-MAR-2023
Calibration Time: 14:13
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	493417	246709	986834	449433	-8.91
27 Naphthalene-d8	1779056	889528	3558112	1595952	-10.29
42 Acenaphthene-d10	954569	477285	1909138	822385	-13.85
59 Phenanthrene-d10	1596290	798145	3192580	1408565	-11.76
69 Chrysene-d12	1649110	824555	3298220	1449074	-12.13
77 Perylene-d12	1901958	950979	3803916	1721904	-9.47

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.41	17.91	18.91	18.41	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
77 Perylene-d12	26.12	25.62	26.62	26.12	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003022305S.D

Lab ID: SEQ-LCV100
nt10.i, 20230302.b\SIM.b\SIMABN2.m,   02-MAR-2023 16:56

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: SIM.b/NT1003022303S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223306S.D

Page 1

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

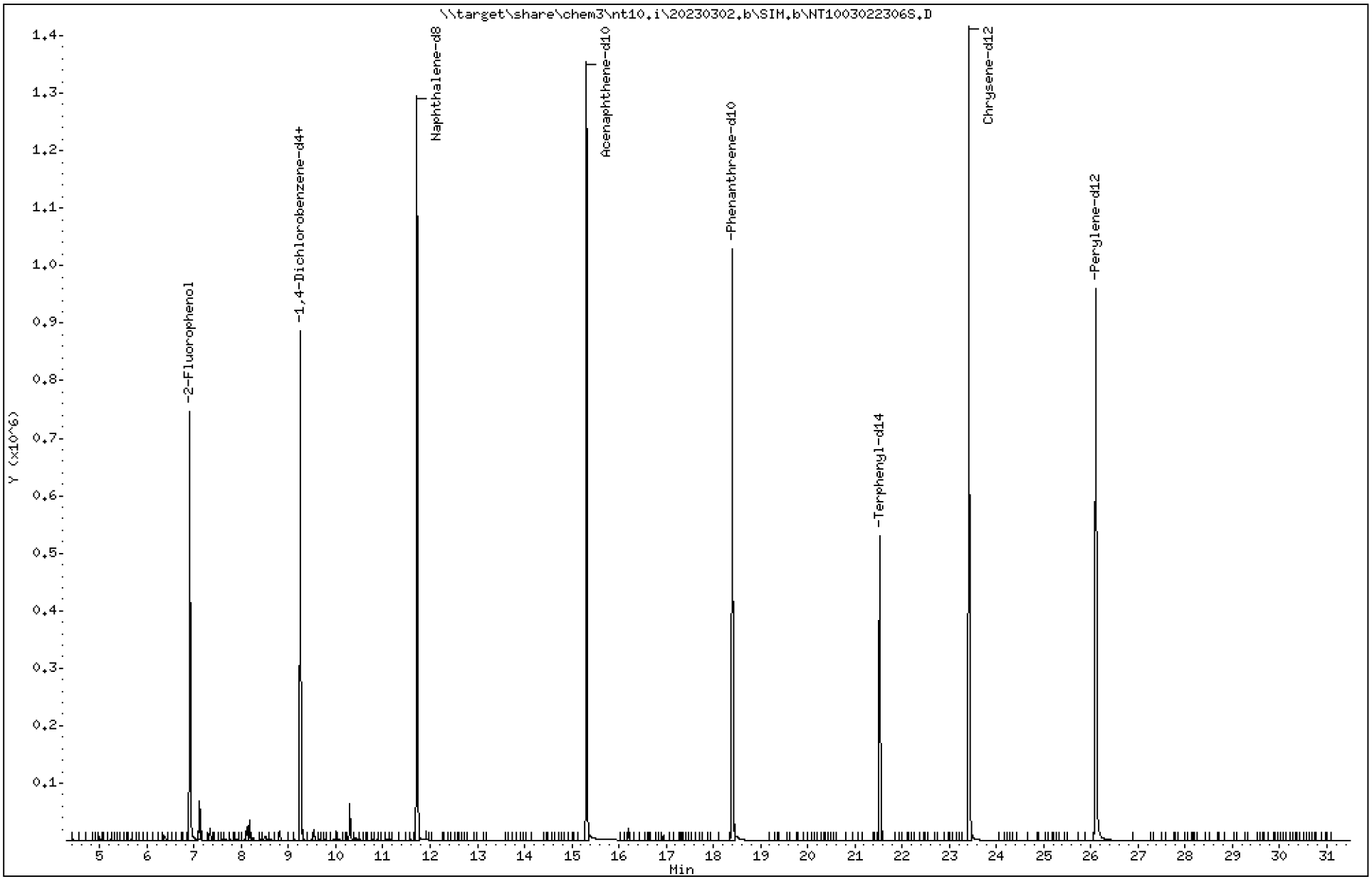
Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

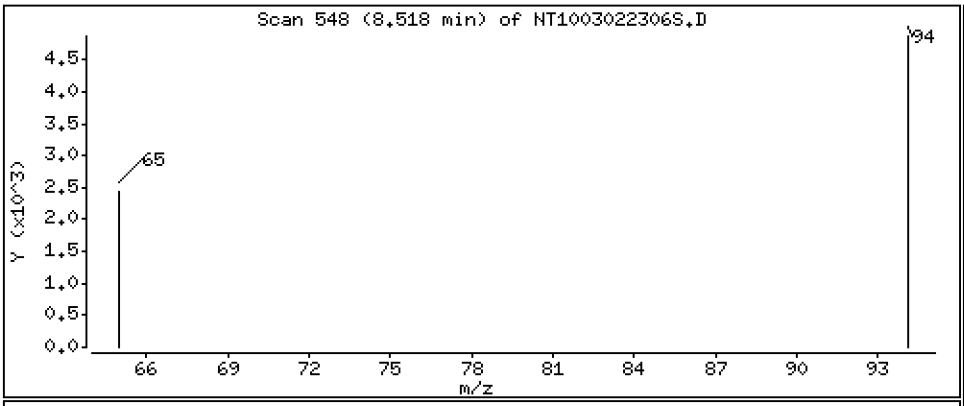
Operator: JGR

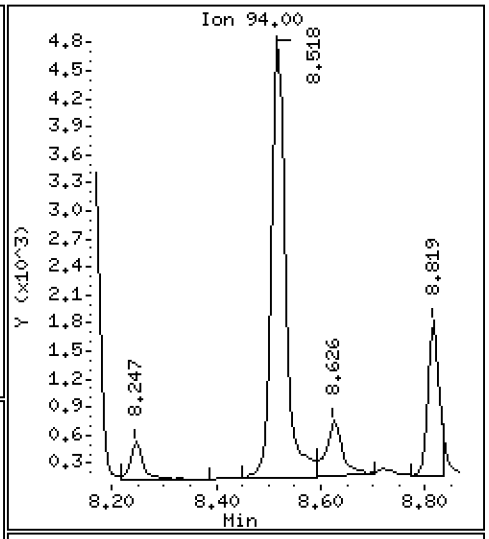
Column phase: ZB-5msi

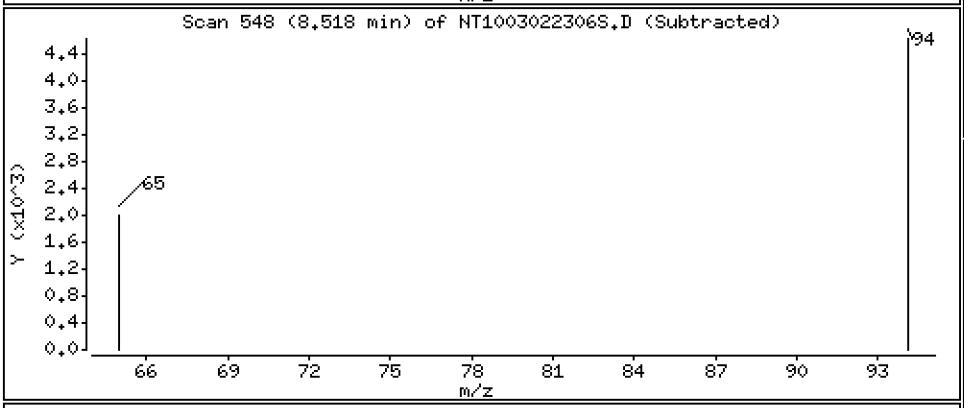
Column diameter: 0.25

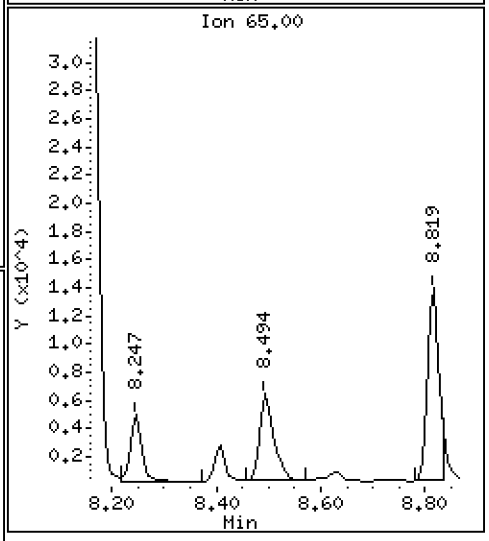
3 Phenol

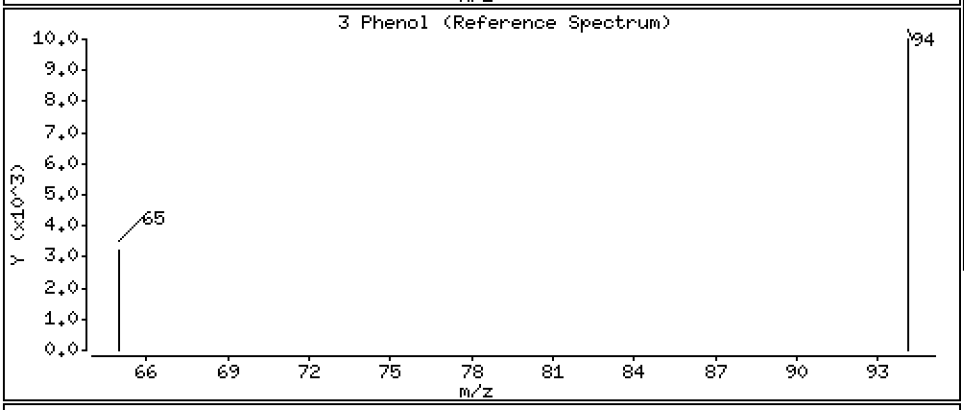
Concentration: 0.03723 ug/L

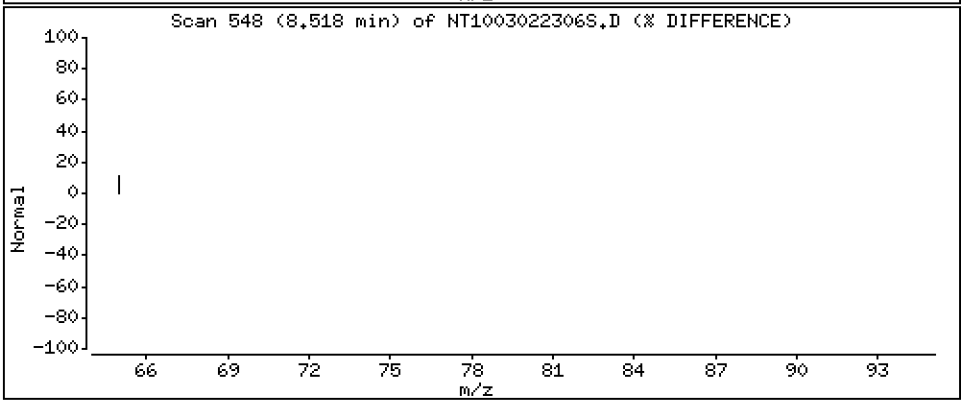












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

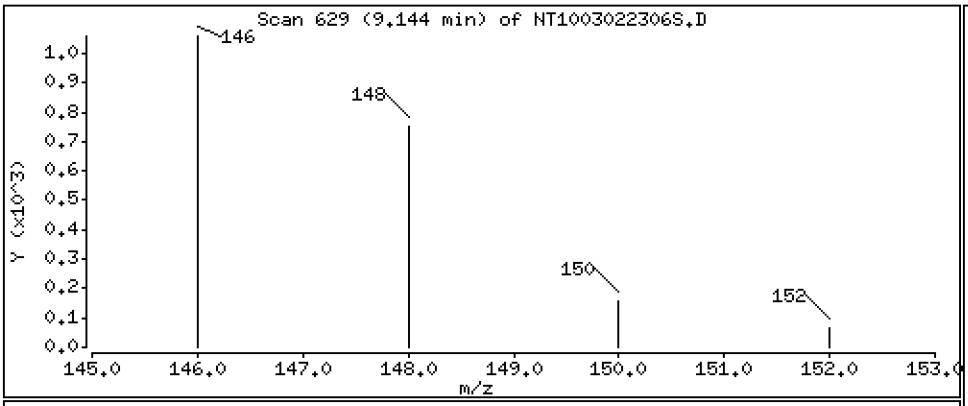
Operator: JGR

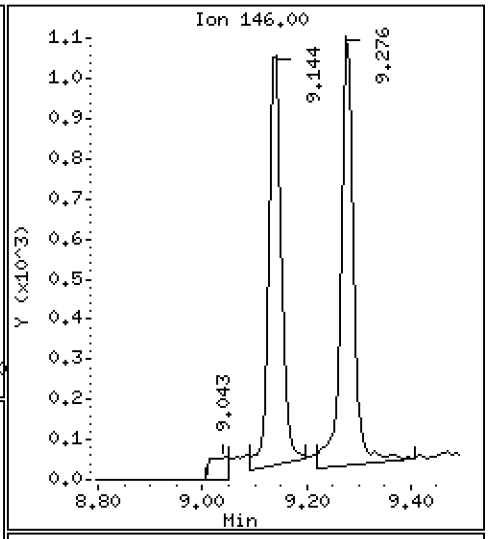
Column phase: ZB-5msi

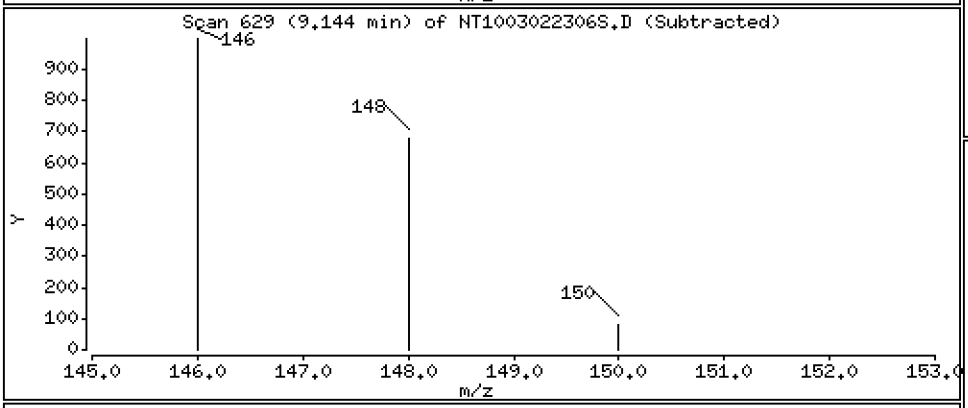
Column diameter: 0.25

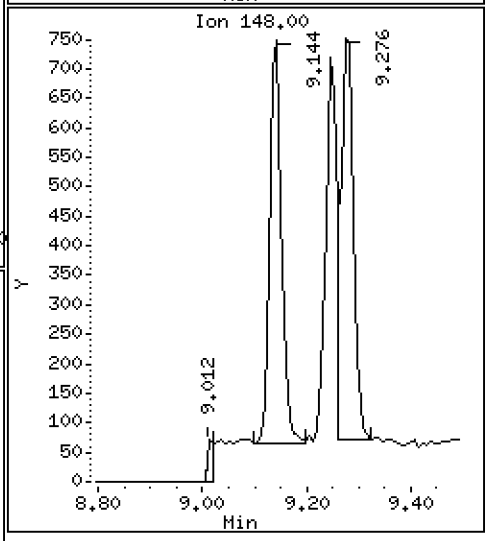
7 1,3-Dichlorobenzene

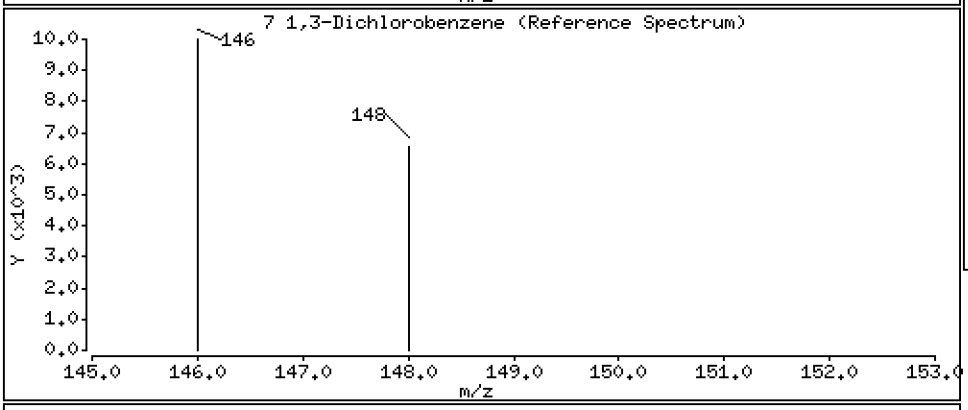
Concentration: 0.008781 ug/L

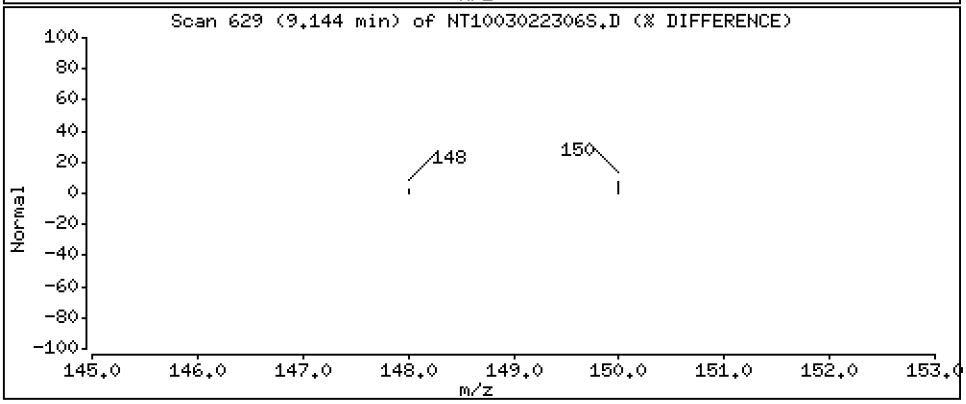












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

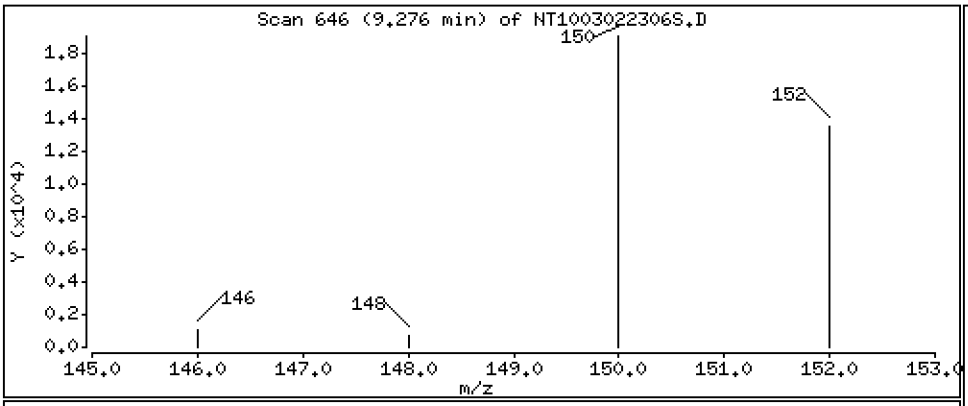
Operator: JGR

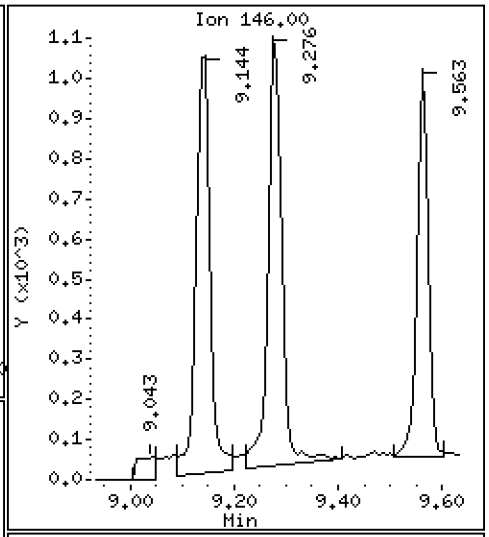
Column phase: ZB-5msi

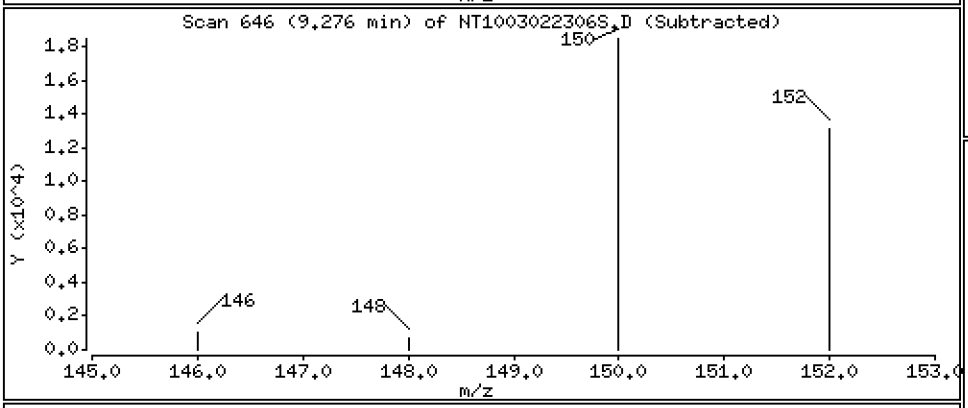
Column diameter: 0.25

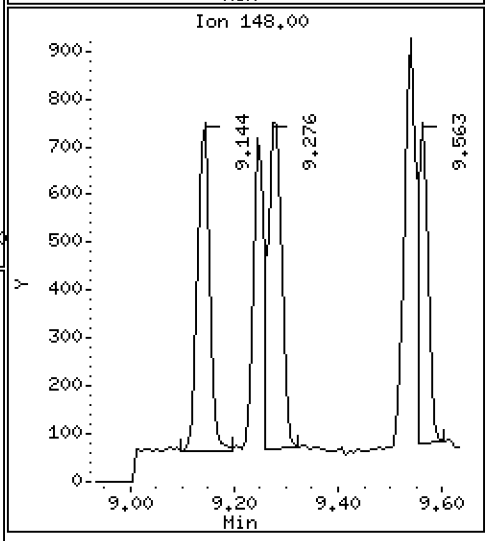
9 1,4-Dichlorobenzene

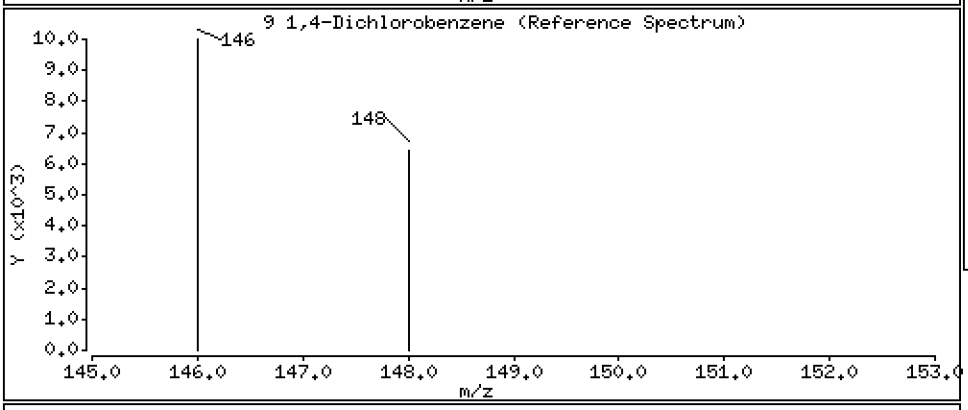
Concentration: 0.009746 ug/L

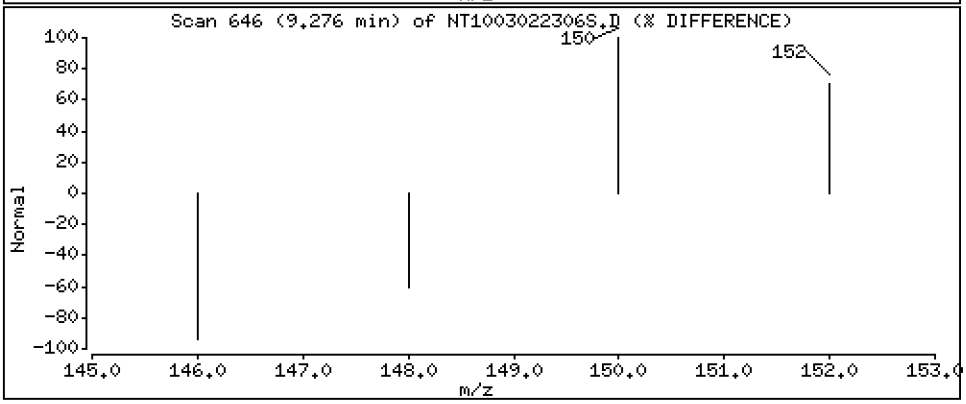












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

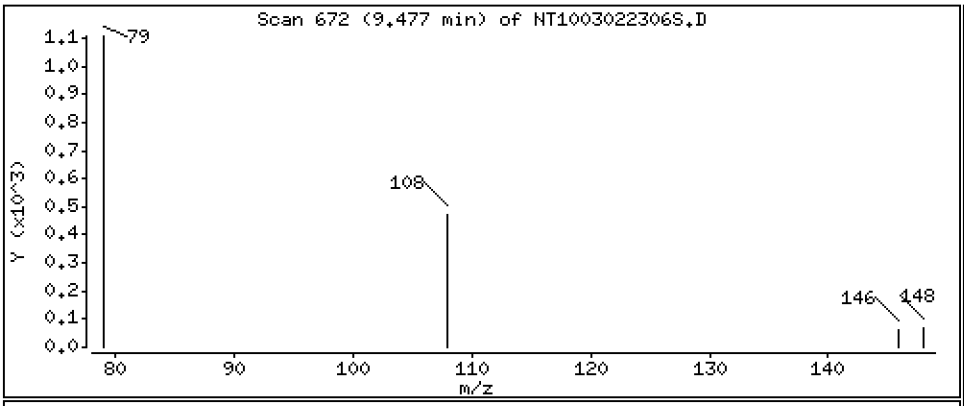
Operator: JGR

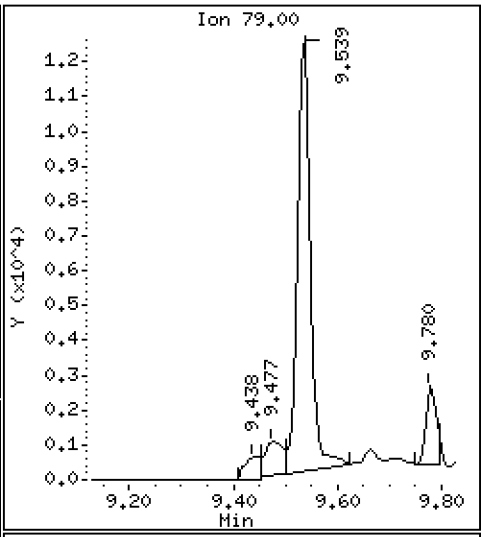
Column phase: ZB-5msi

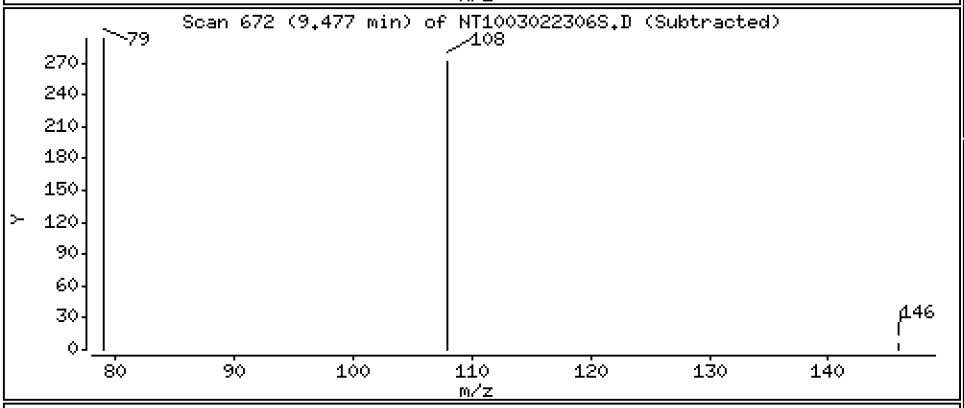
Column diameter: 0.25

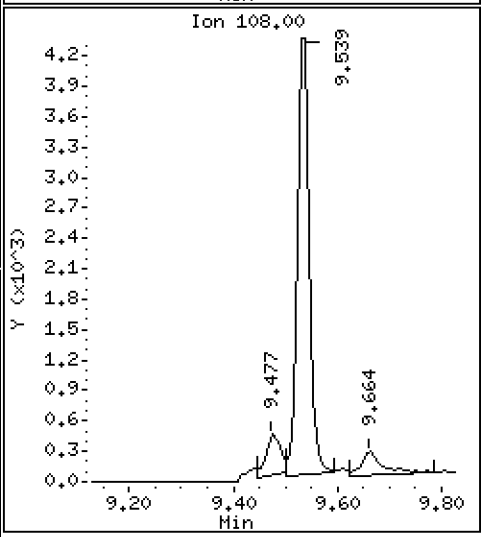
11 Benzyl alcohol

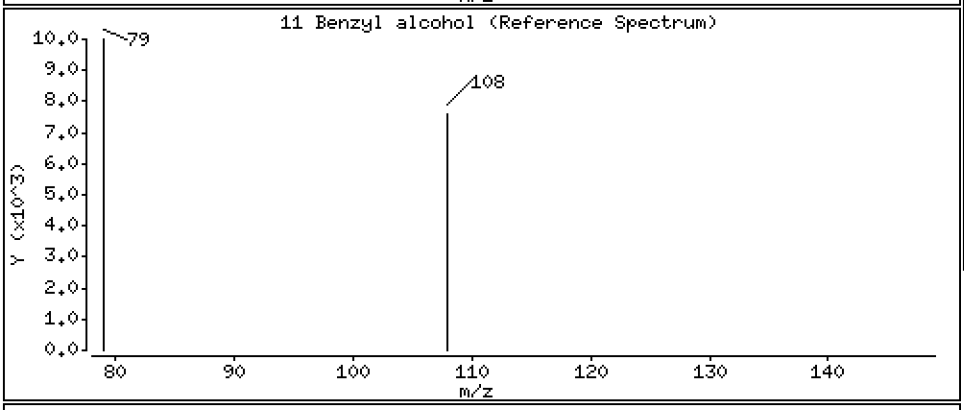
Concentration: 0.01992 ug/L

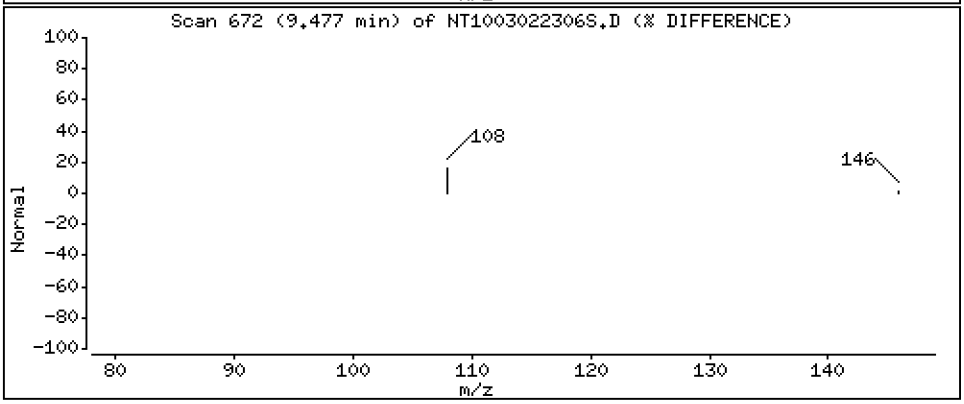












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

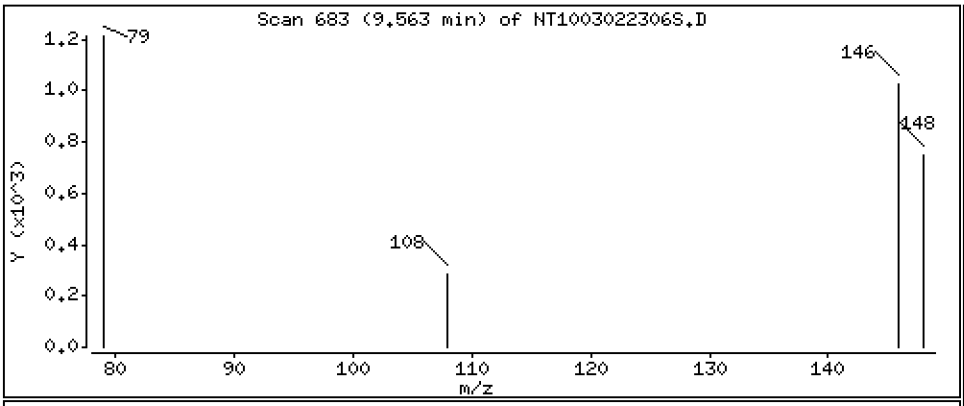
Operator: JGR

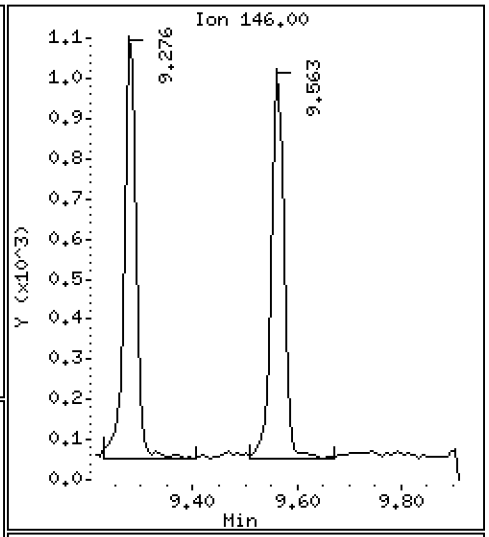
Column phase: ZB-5msi

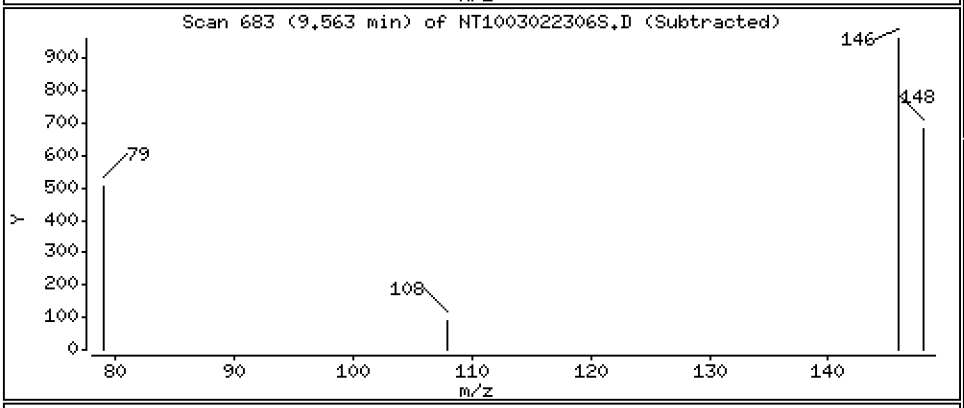
Column diameter: 0.25

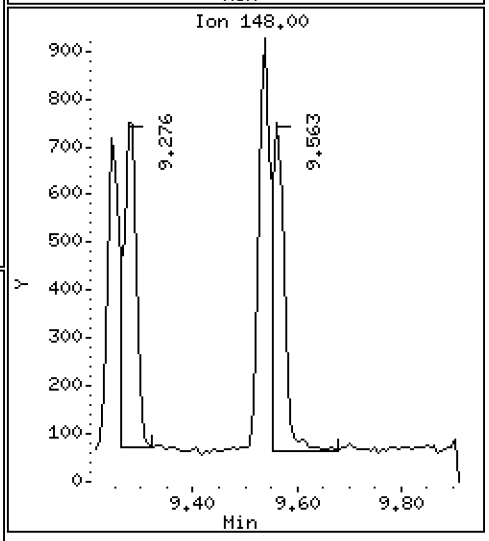
12 1,2-Dichlorobenzene

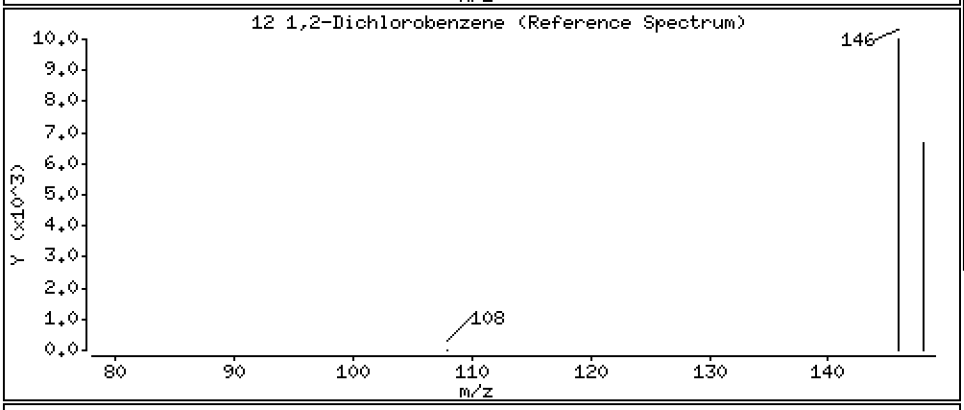
Concentration: 0.008196 ug/L

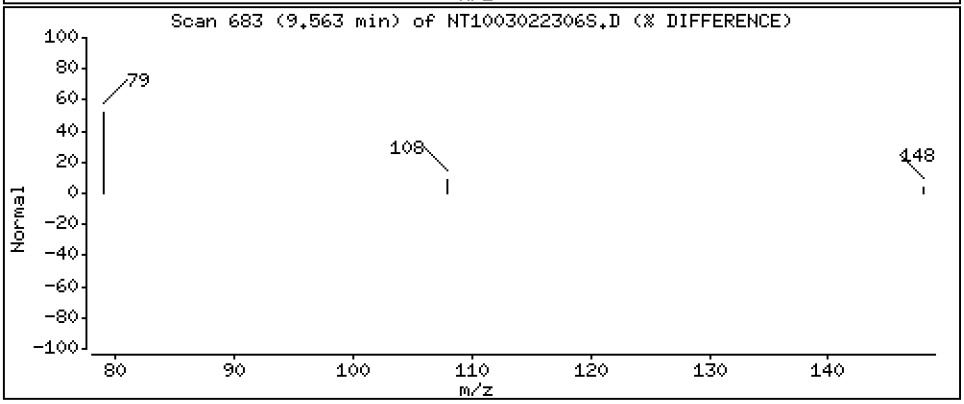












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

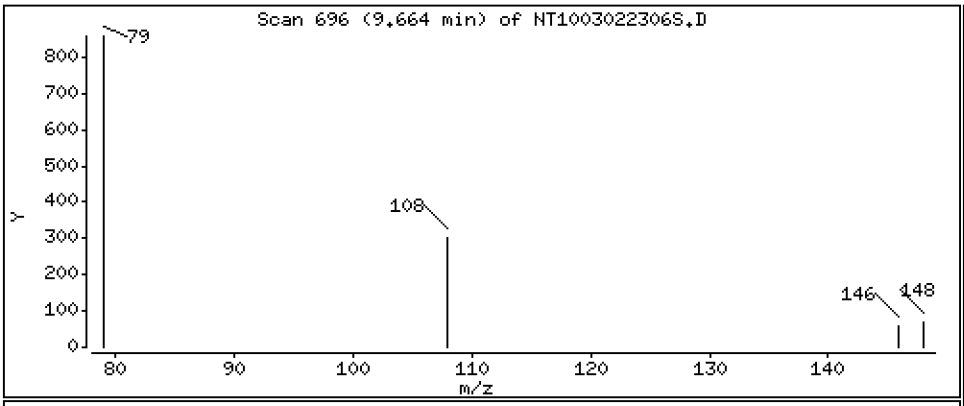
Operator: JGR

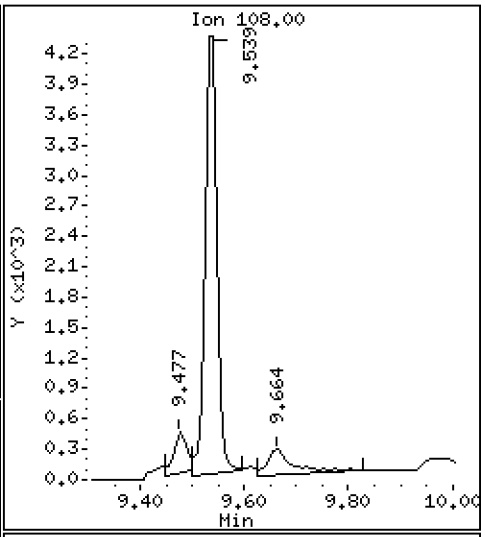
Column phase: ZB-5msi

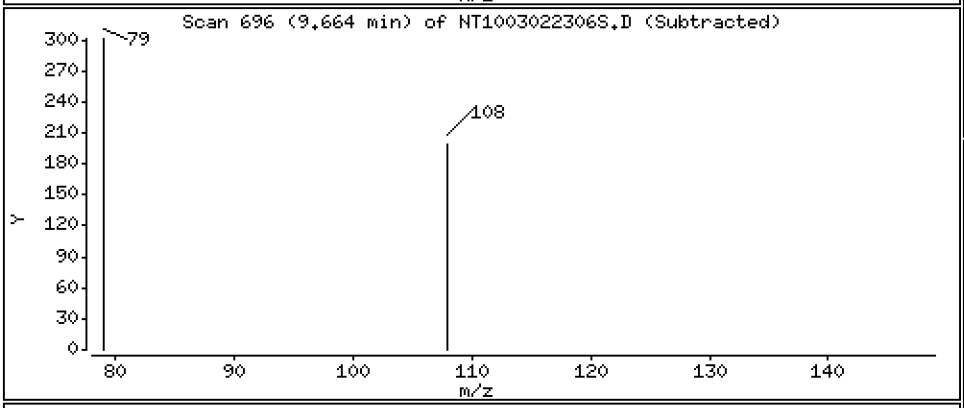
Column diameter: 0.25

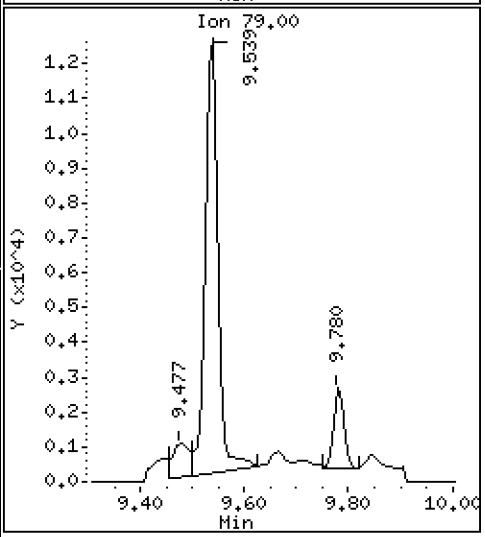
13 2-Methylphenol

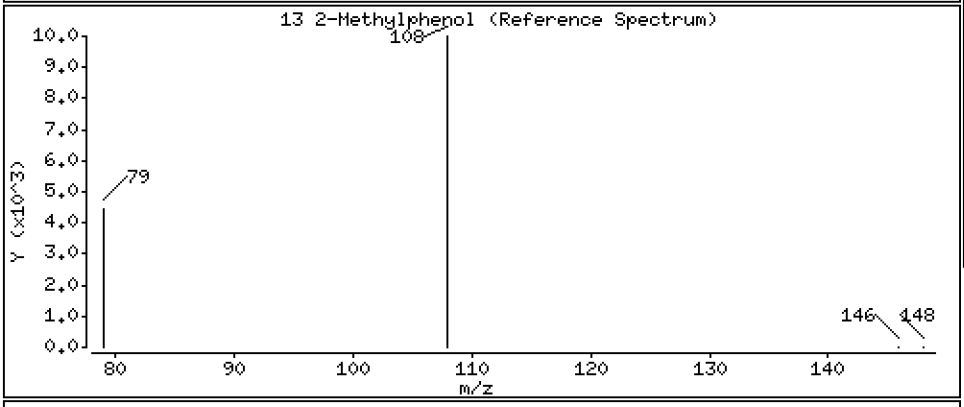
Concentration: 0.005974 ug/L

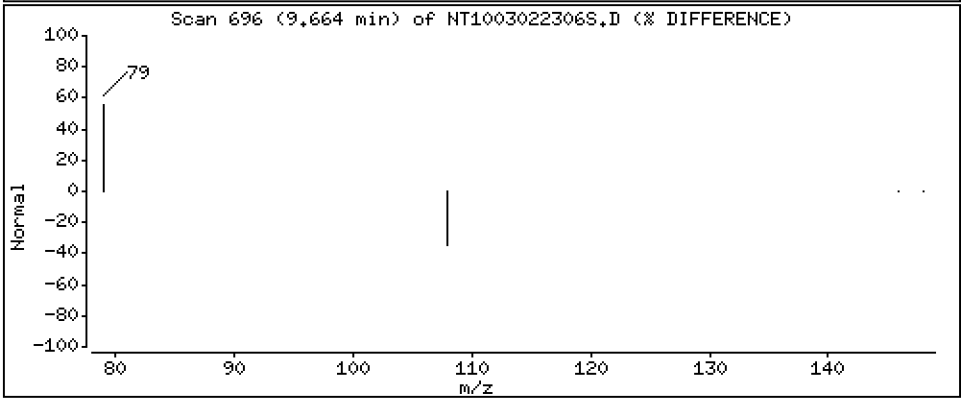












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

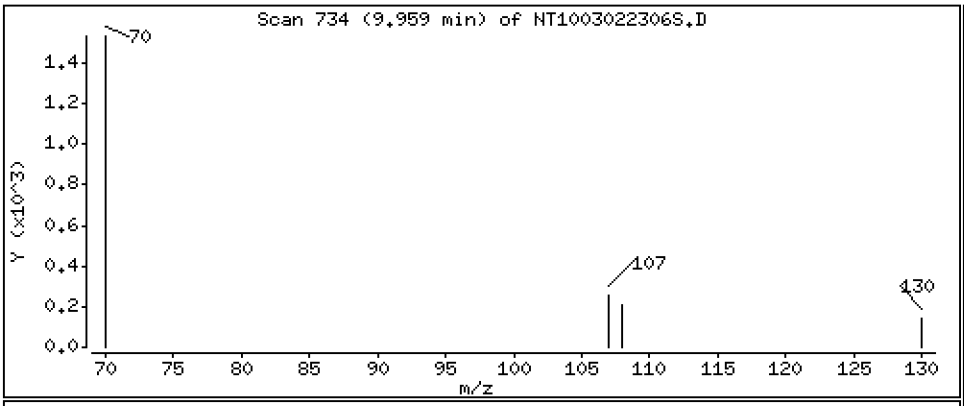
Operator: JGR

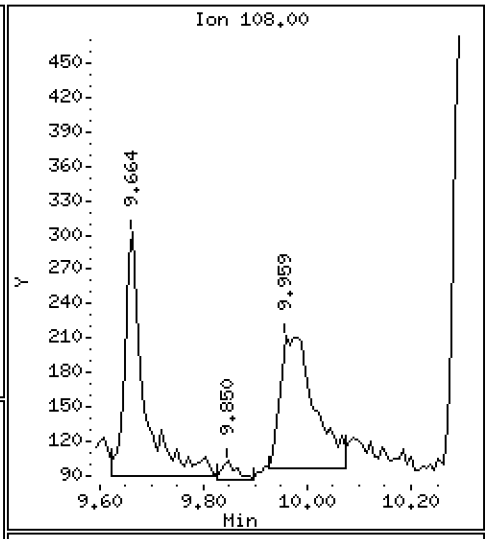
Column phase: ZB-5msi

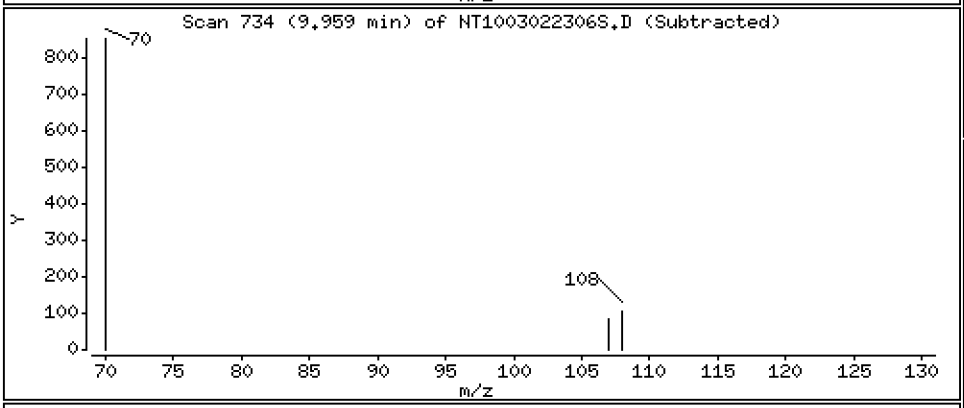
Column diameter: 0.25

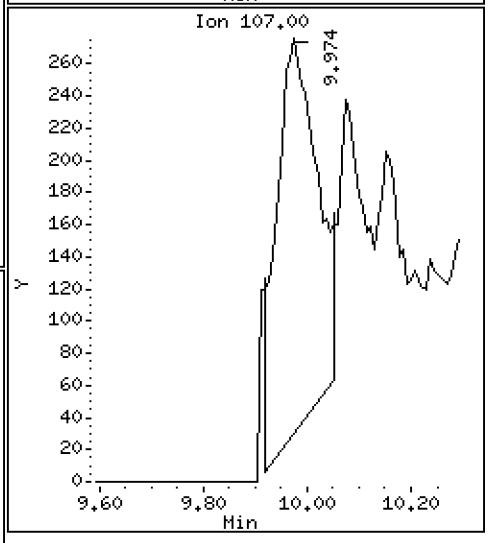
15 4-Methylphenol

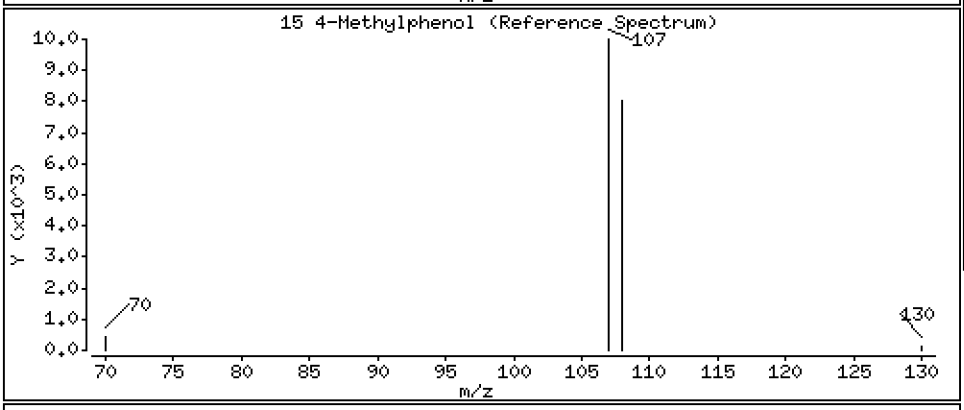
Concentration: 0.003753 ug/L

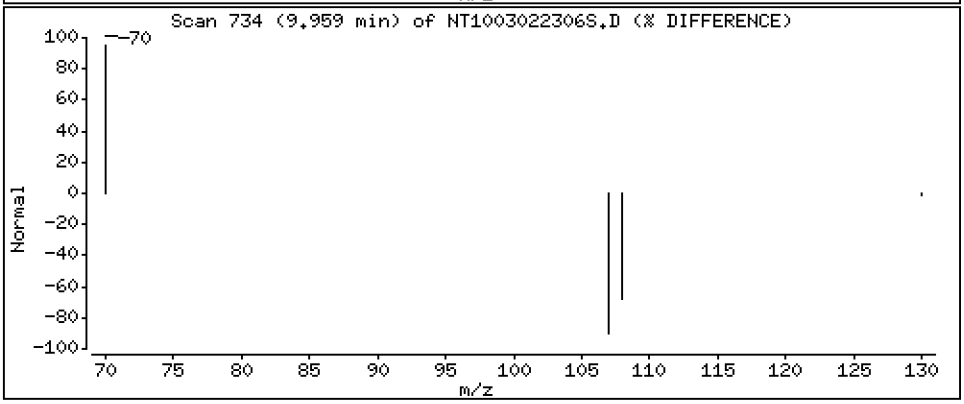












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223065.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

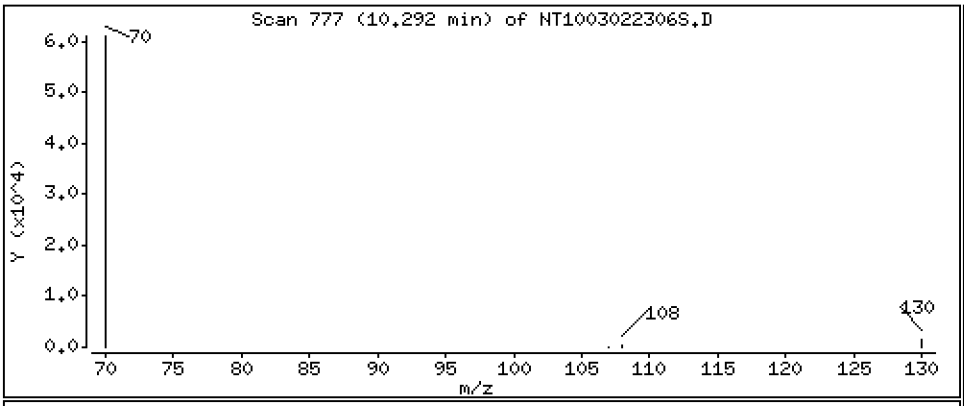
Operator: JGR

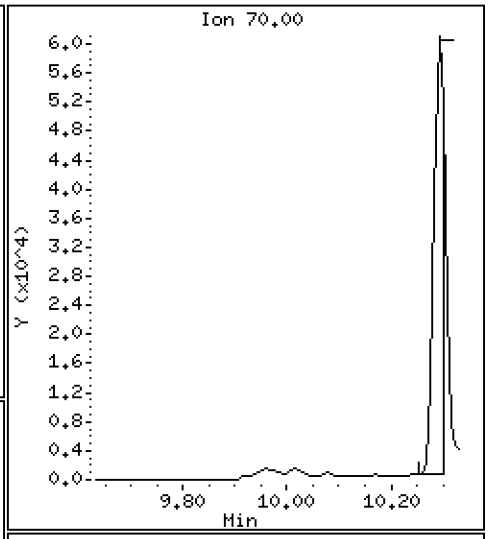
Column phase: ZB-5msi

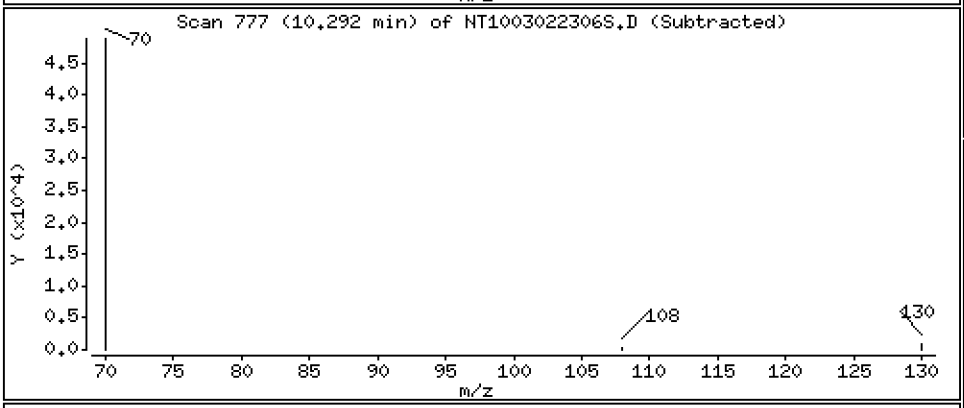
Column diameter: 0.25

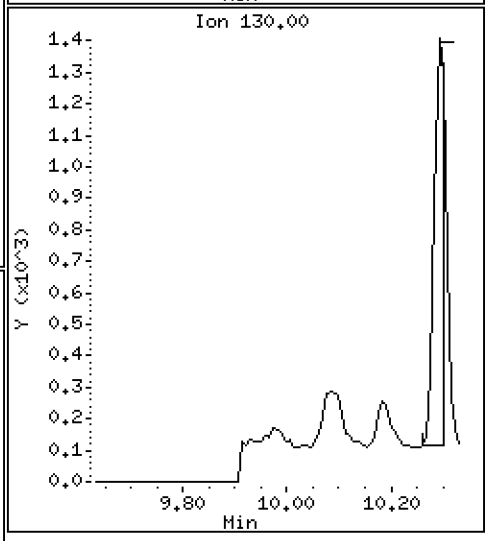
16 N-Nitroso-di-n-propylamine

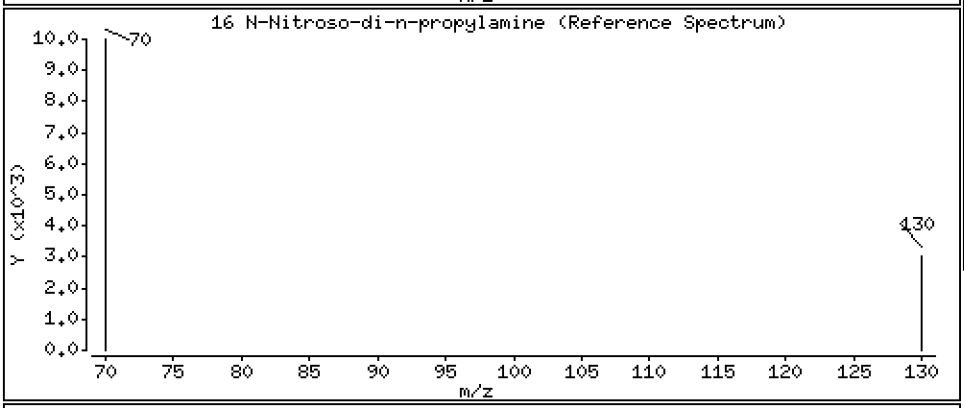
Concentration: 0.7468 ug/L

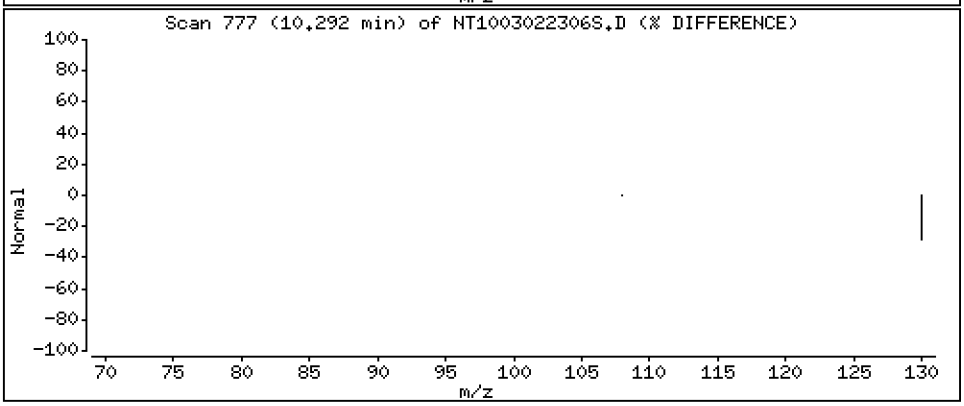












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Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

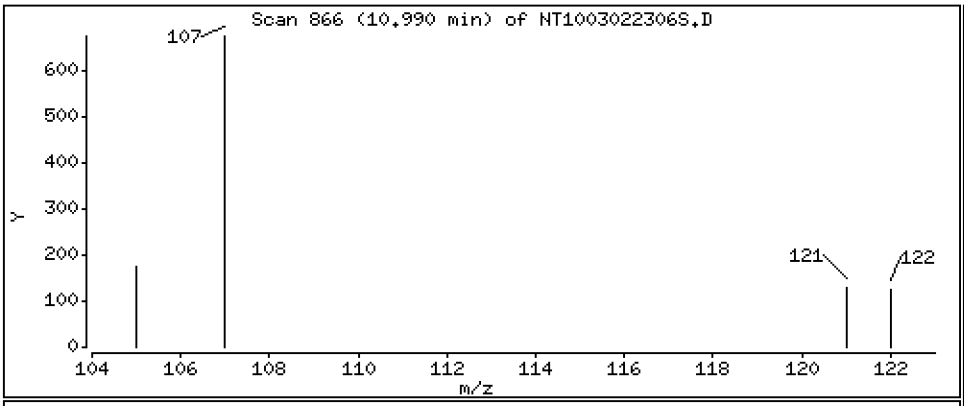
Operator: JGR

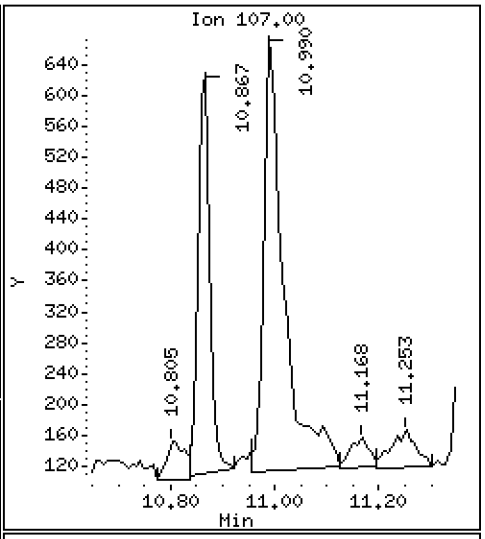
Column phase: ZB-5msi

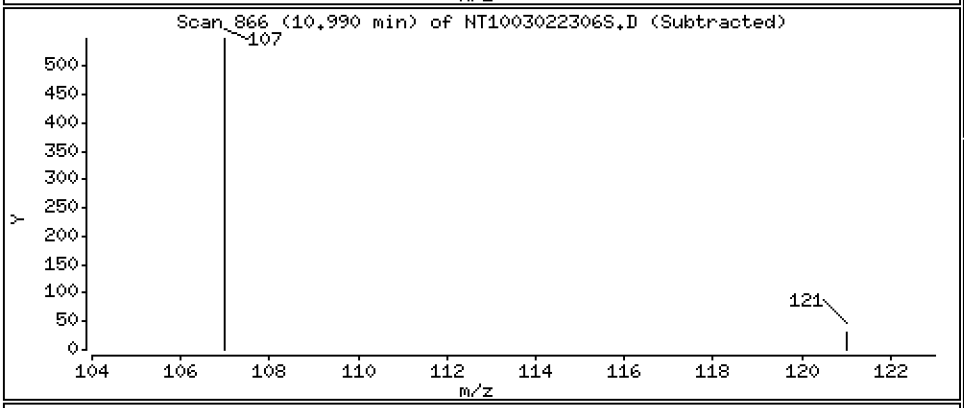
Column diameter: 0.25

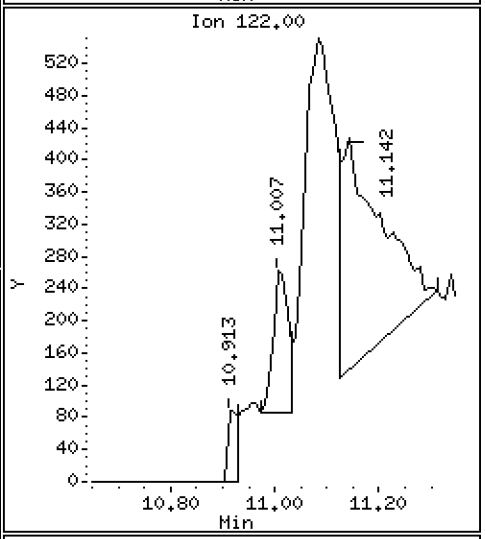
22 2,4-Dimethylphenol

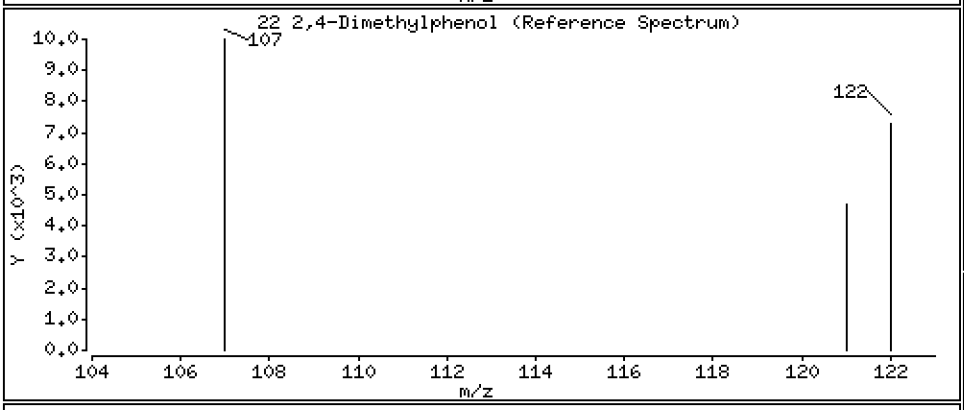
Concentration: 0.008969 ug/L

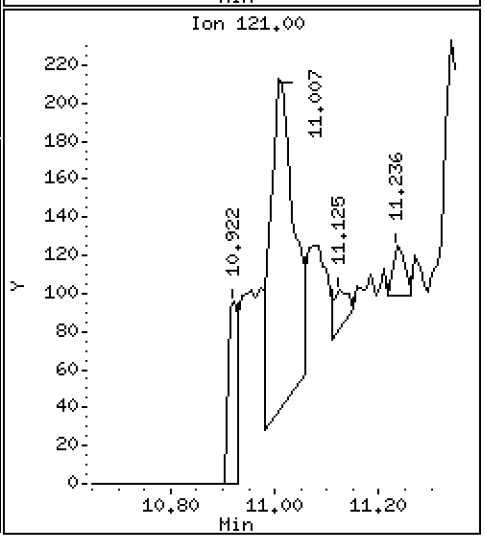


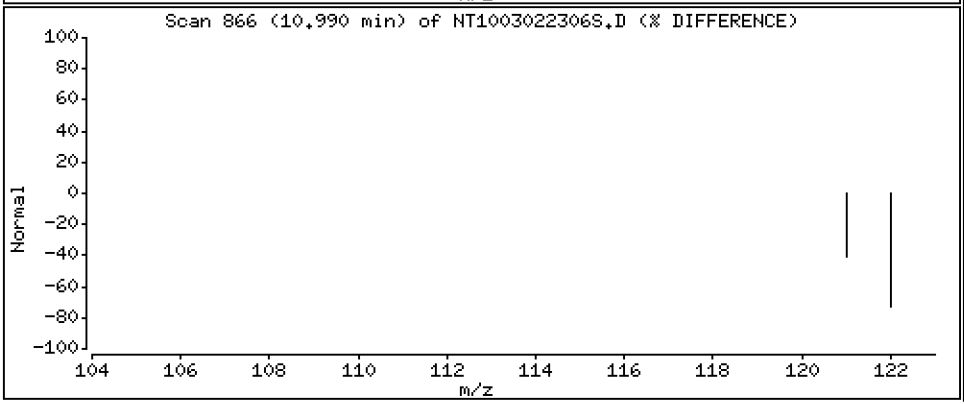












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Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

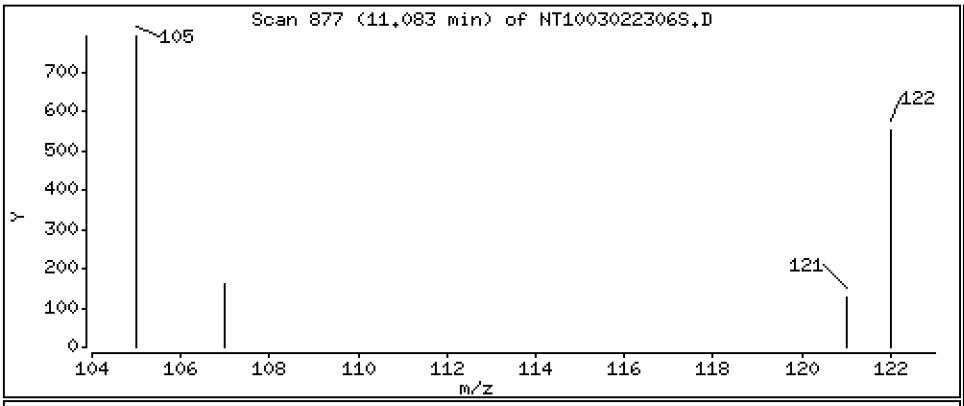
Operator: JGR

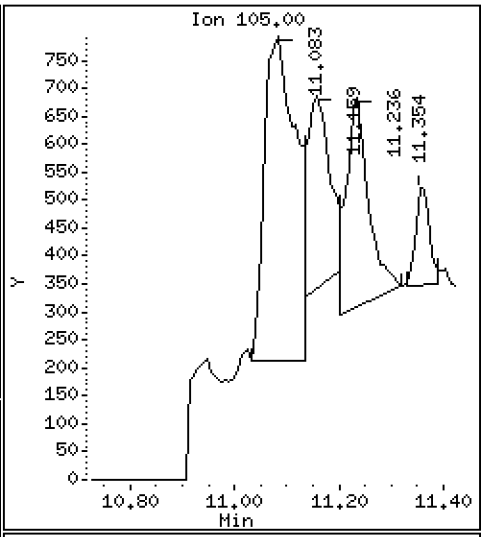
Column phase: ZB-5msi

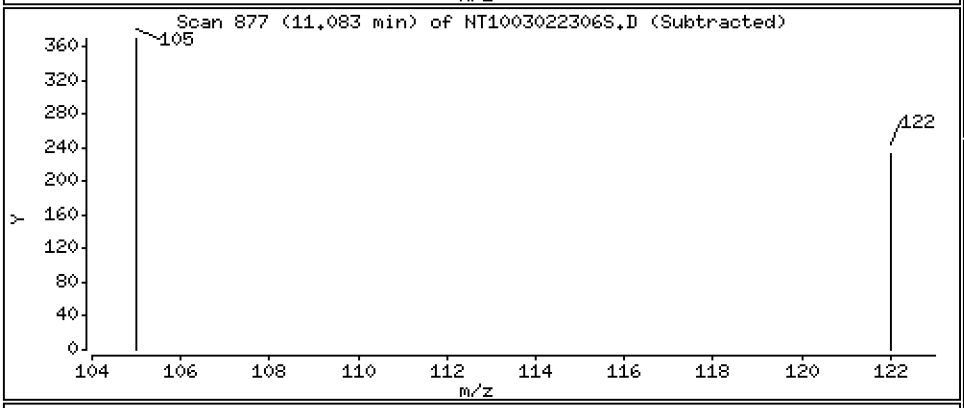
Column diameter: 0.25

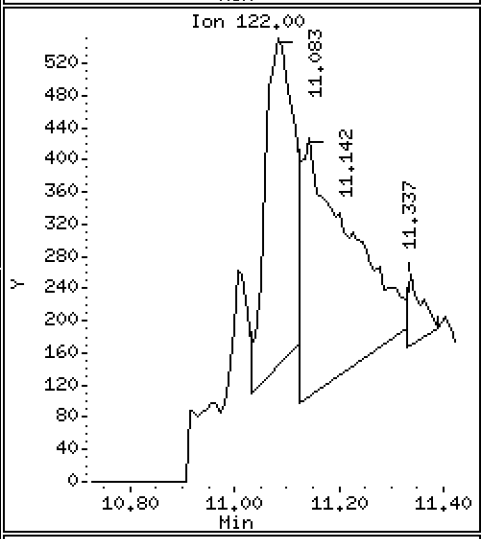
24 Benzoic acid

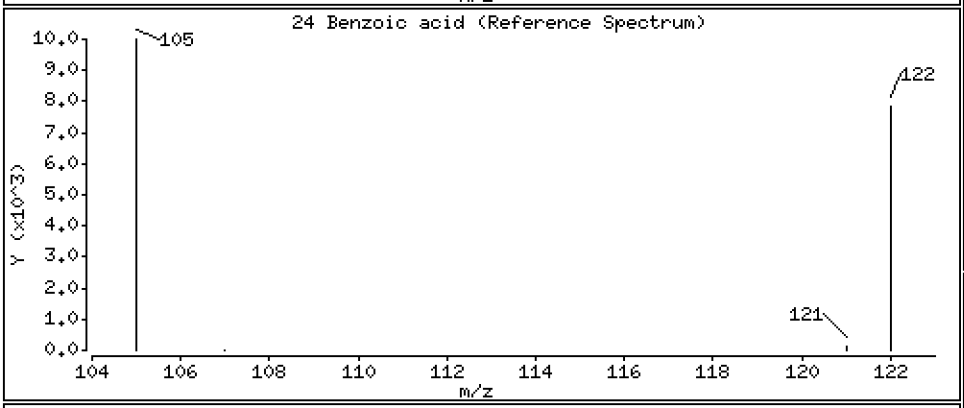
Concentration: 0.02740 ug/L

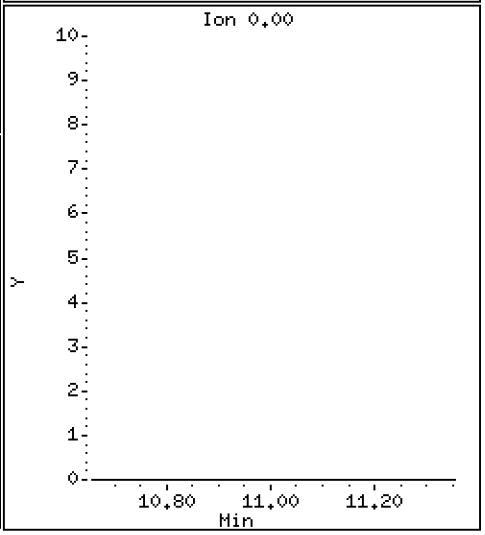


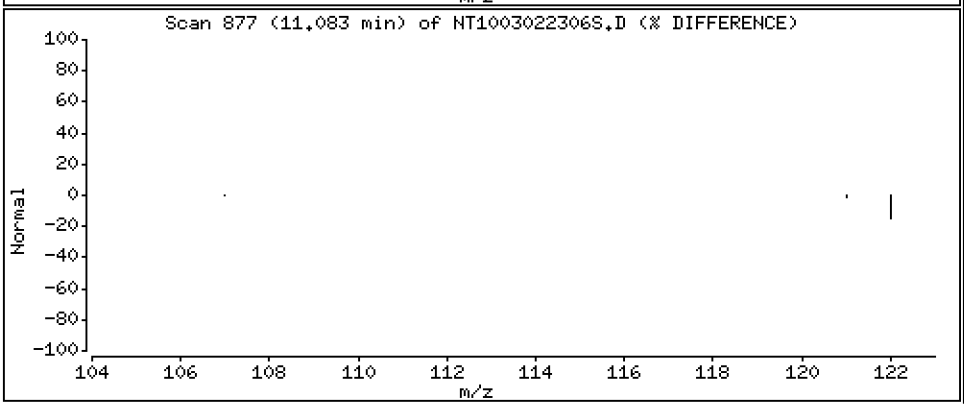












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223065.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

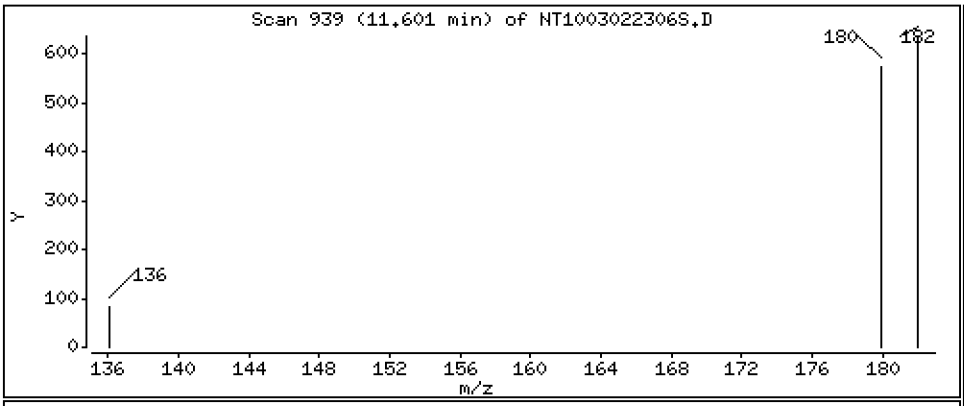
Operator: JGR

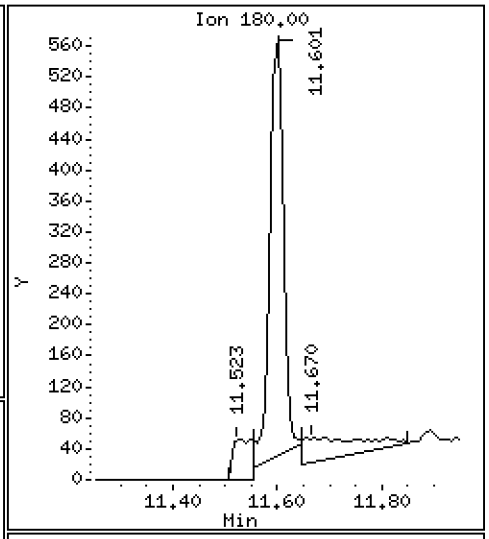
Column phase: ZB-5msi

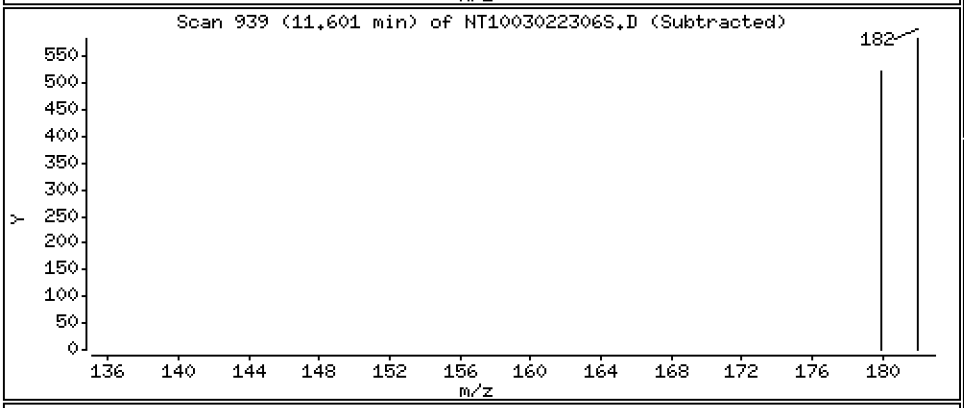
Column diameter: 0.25

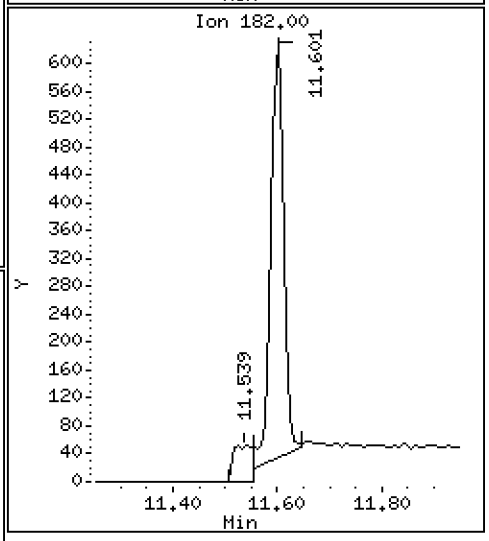
26 1,2,4-Trichlorobenzene

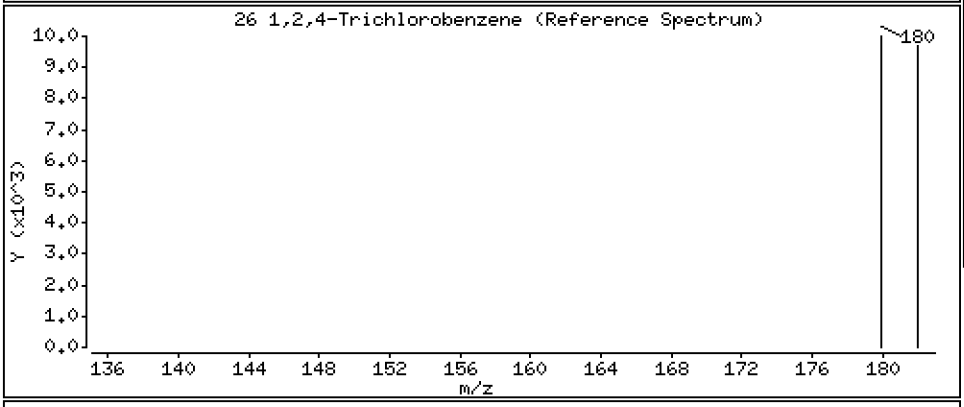
Concentration: 0.006579 ug/L

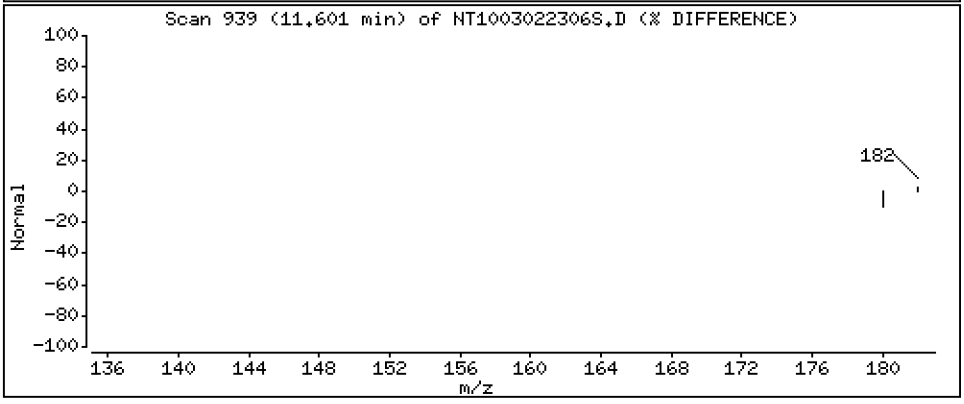












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

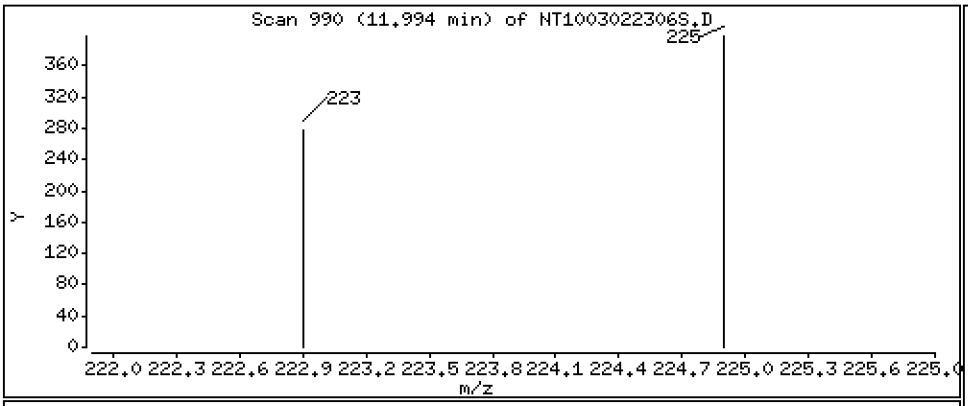
Operator: JGR

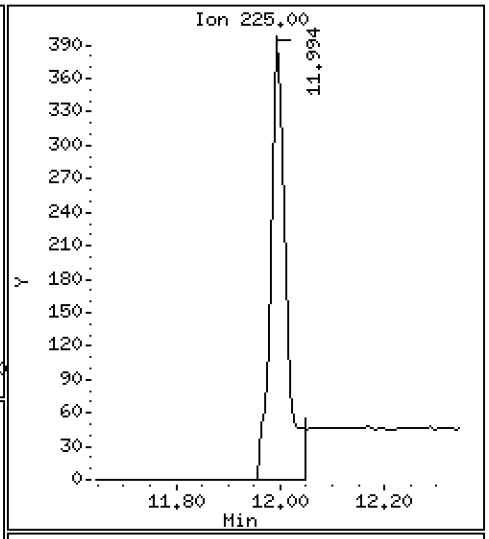
Column phase: ZB-5msi

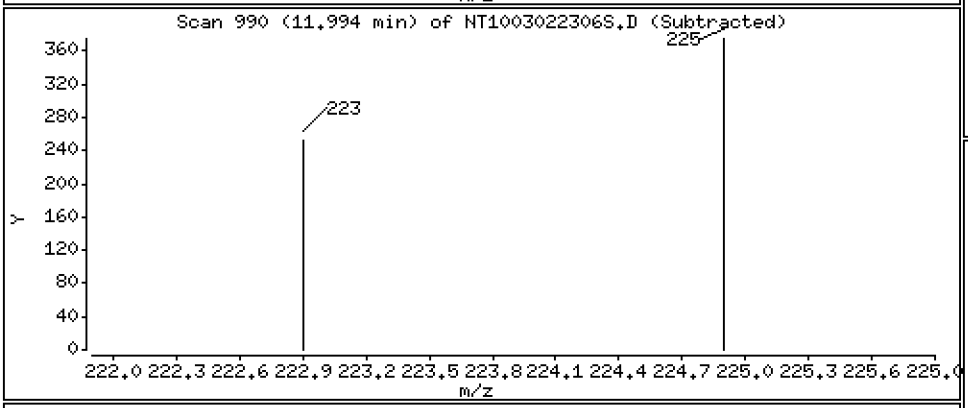
Column diameter: 0.25

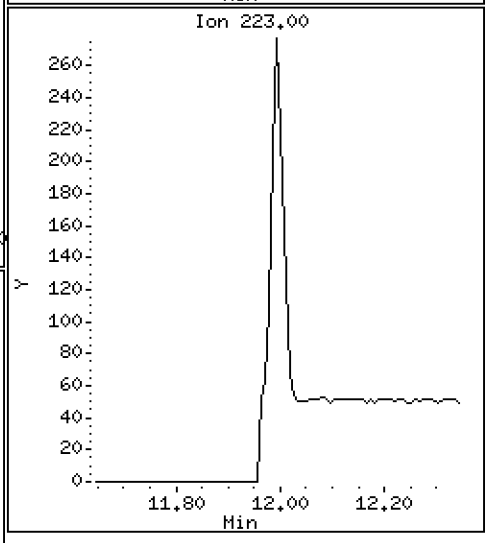
30 Hexachlorobutadiene

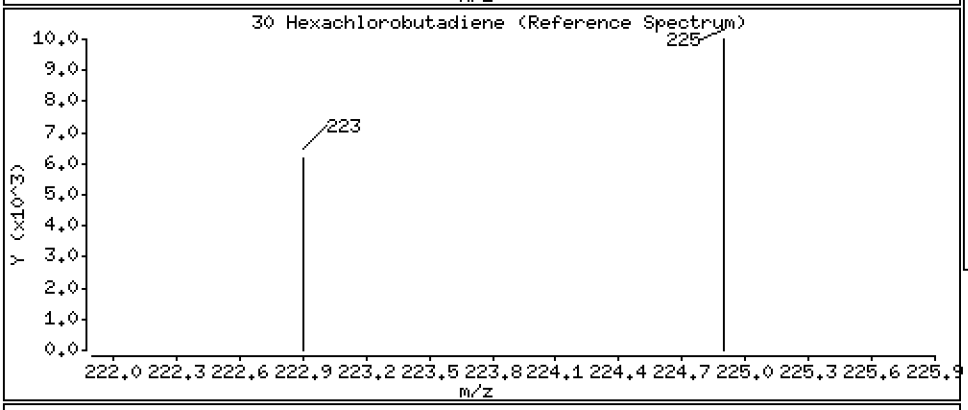
Concentration: 0.007847 ug/L

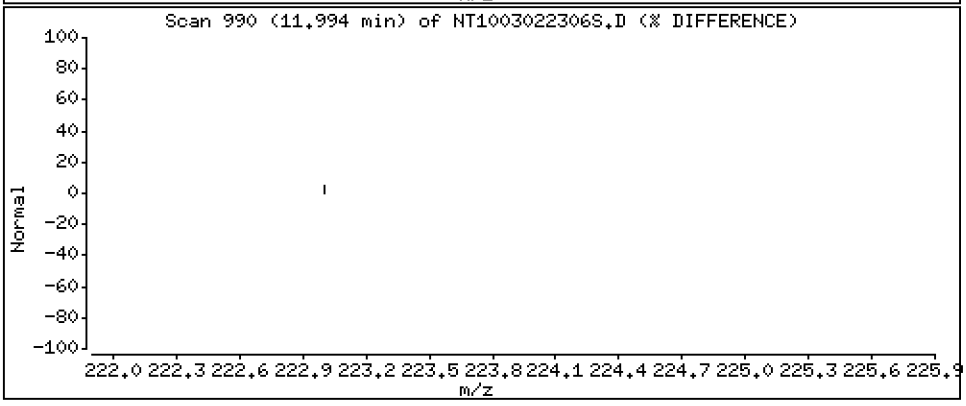












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

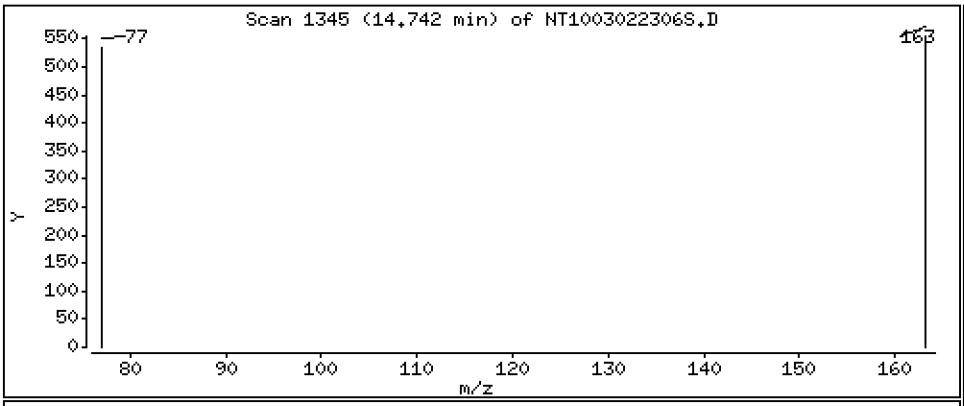
Operator: JGR

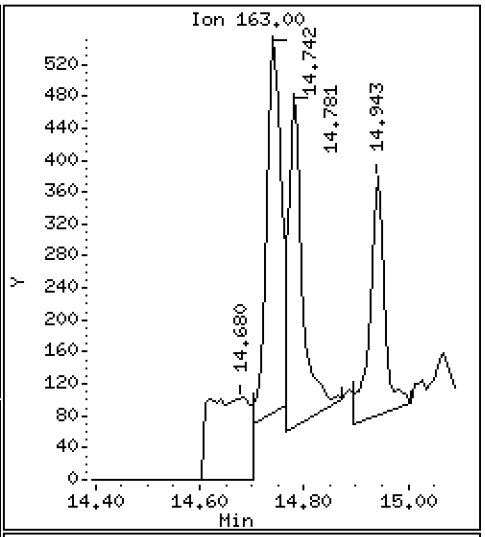
Column phase: ZB-5msi

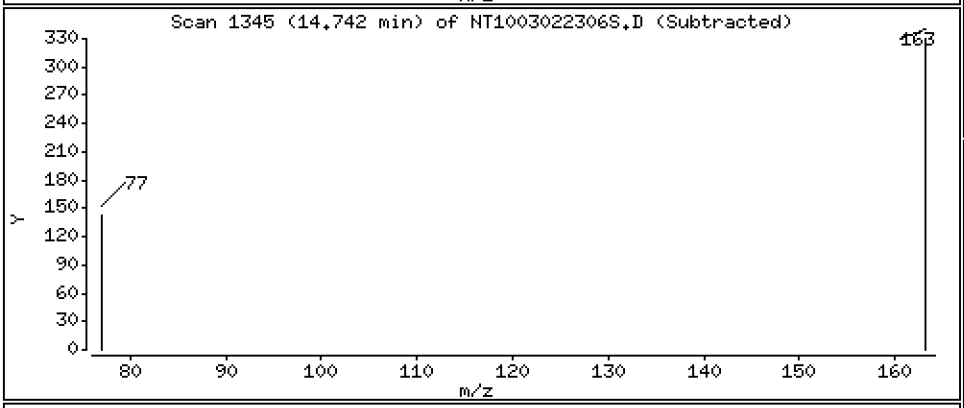
Column diameter: 0.25

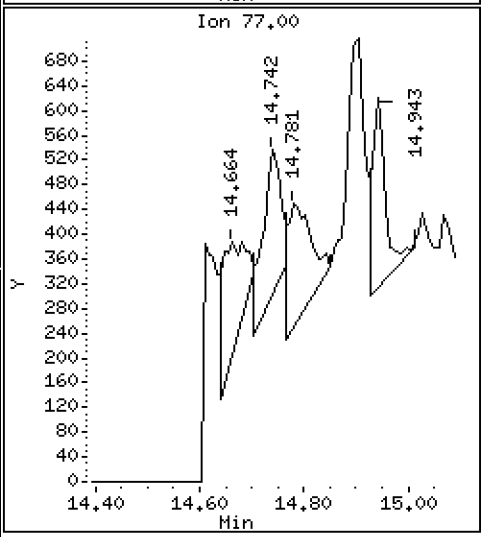
39 Dimethylphthalate

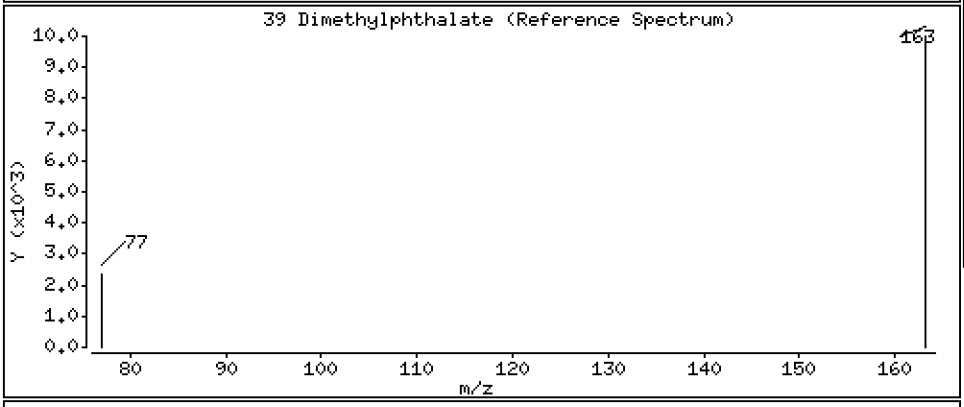
Concentration: 0.002775 ug/L

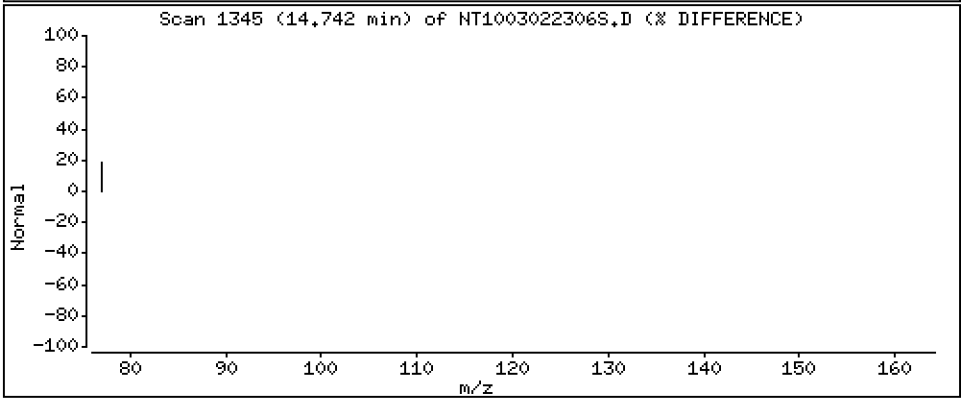












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

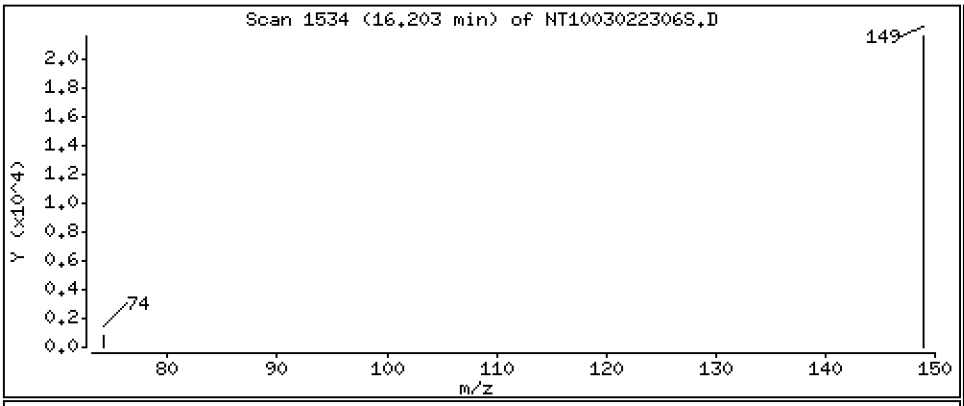
Operator: JGR

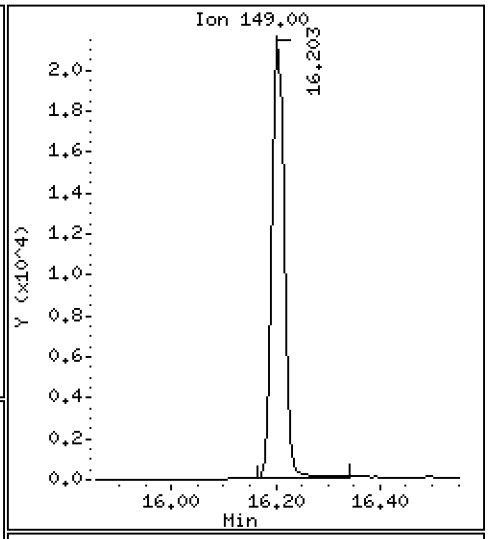
Column phase: ZB-5msi

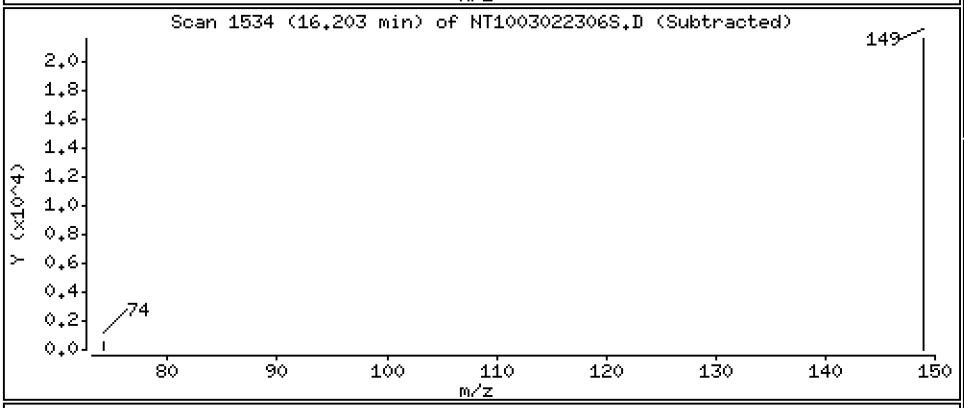
Column diameter: 0.25

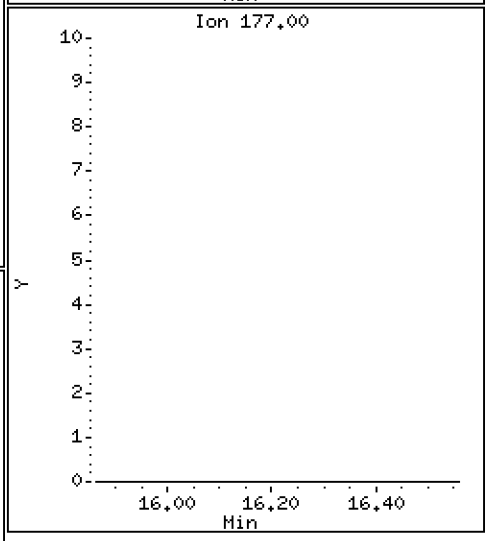
50 Diethylphthalate

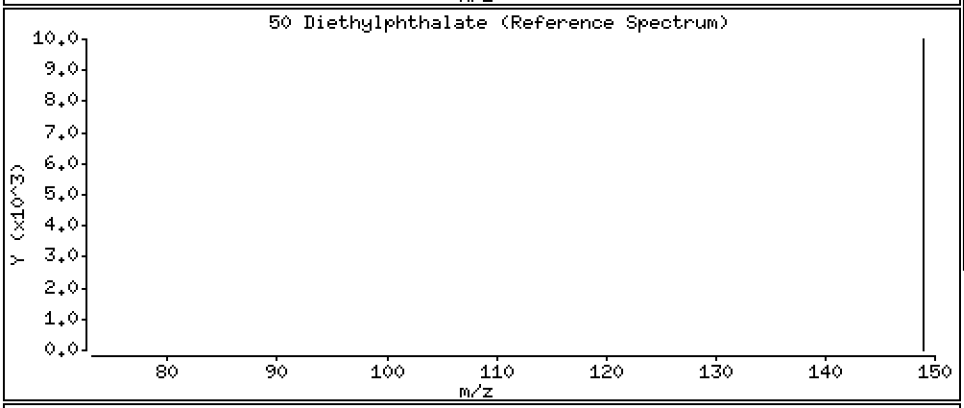
Concentration: 0.1080 ug/L

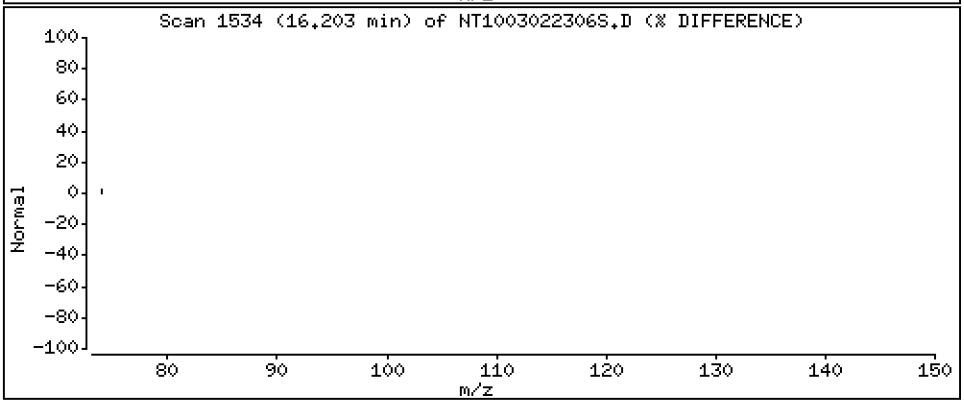












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

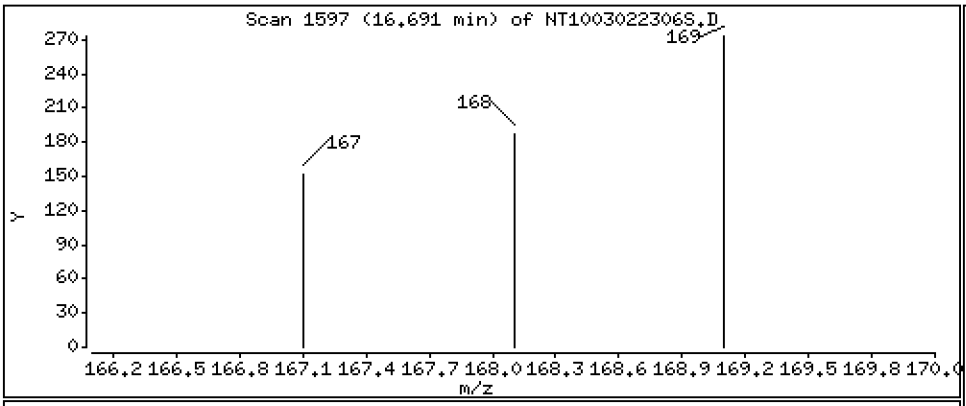
Operator: JGR

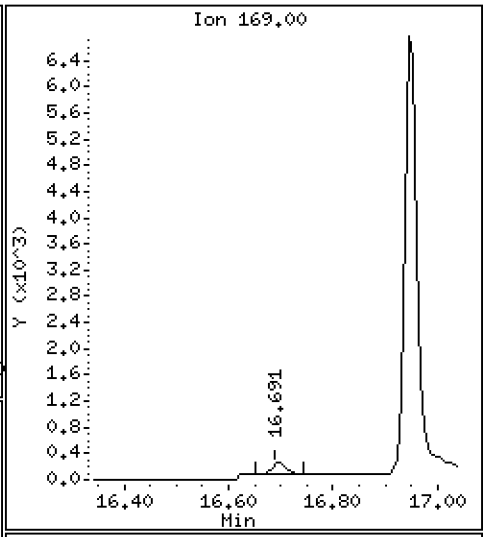
Column phase: ZB-5msi

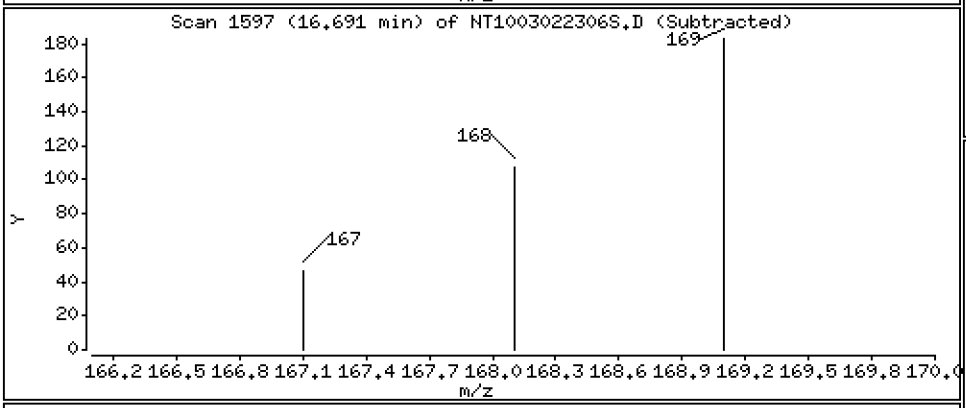
Column diameter: 0.25

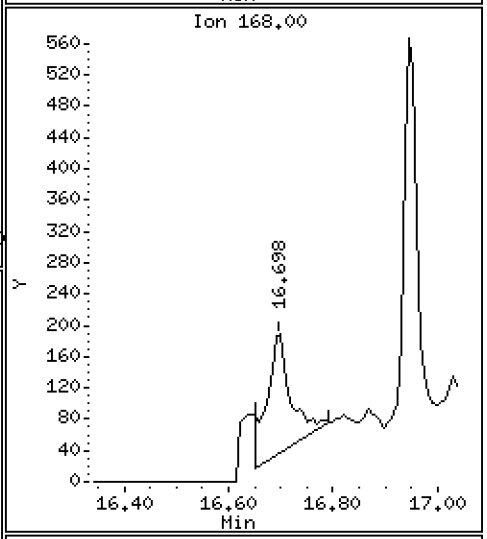
54 N-Nitrosodiphenylamine

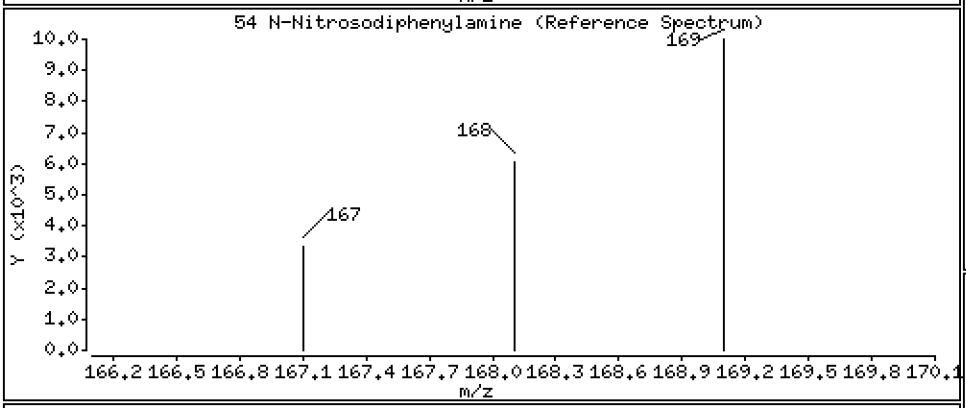
Concentration: 0.001198 ug/L

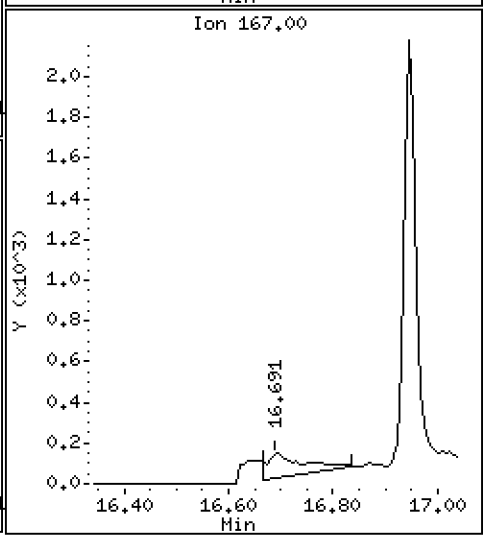


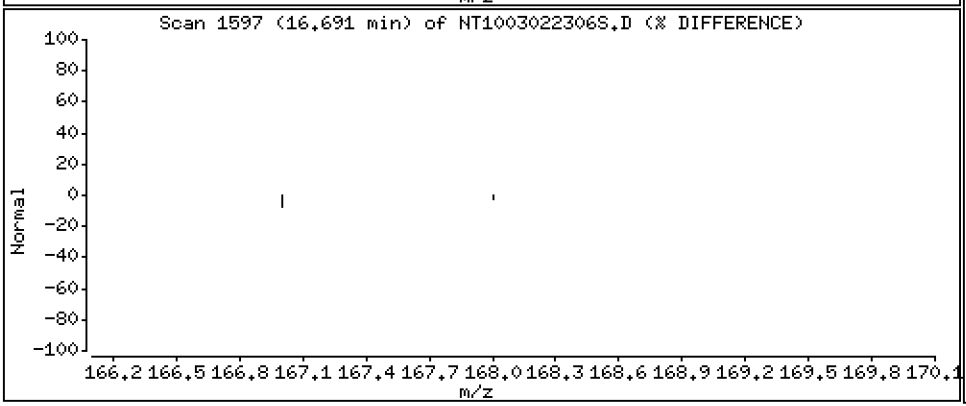












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Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

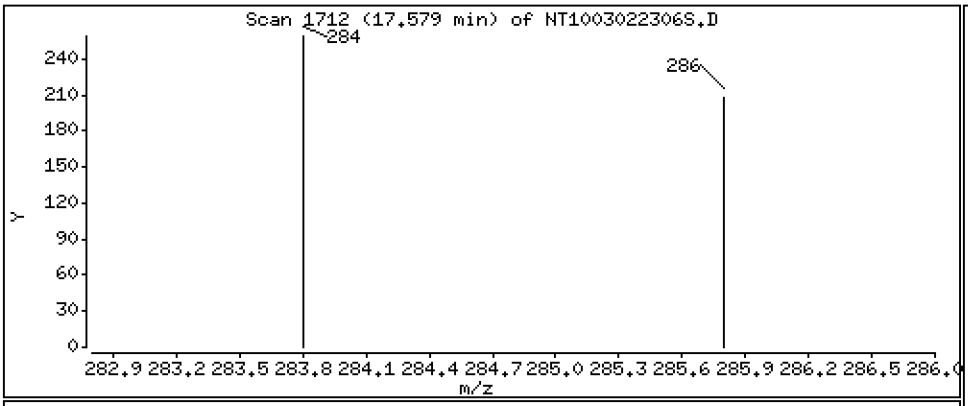
Operator: JGR

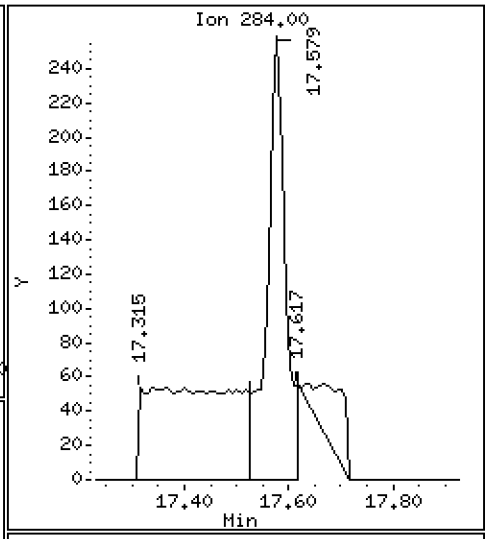
Column phase: ZB-5msi

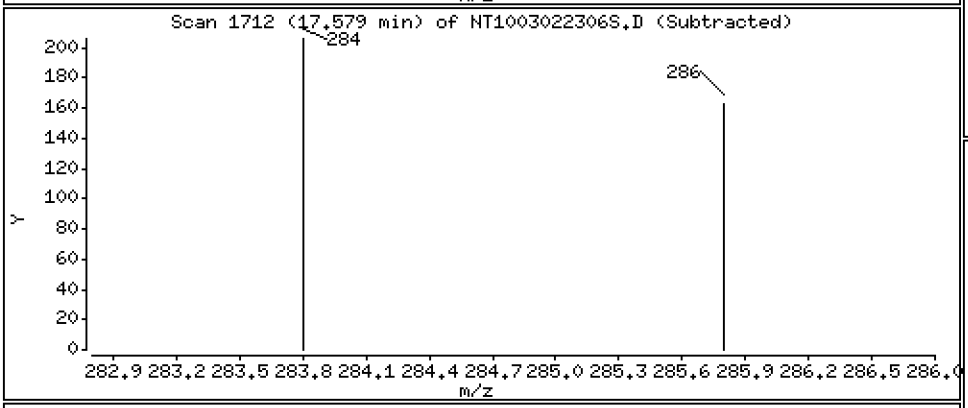
Column diameter: 0.25

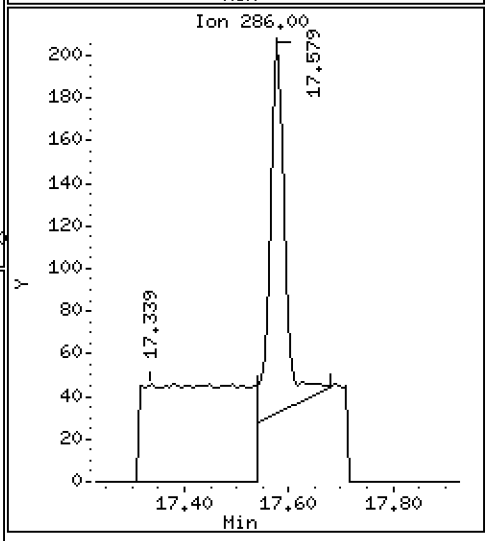
57 Hexachlorobenzene

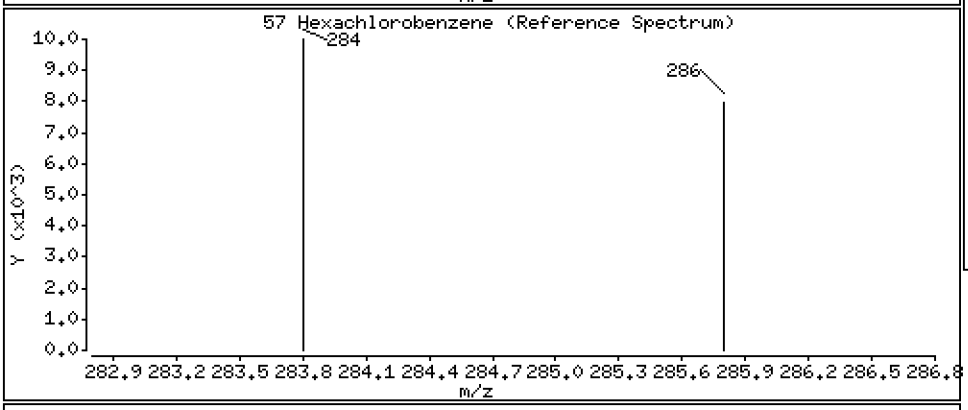
Concentration: 0.004555 ug/L

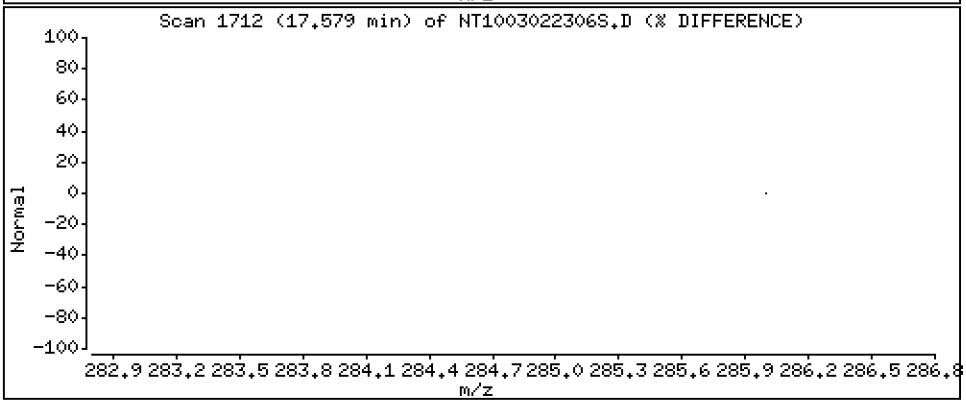












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

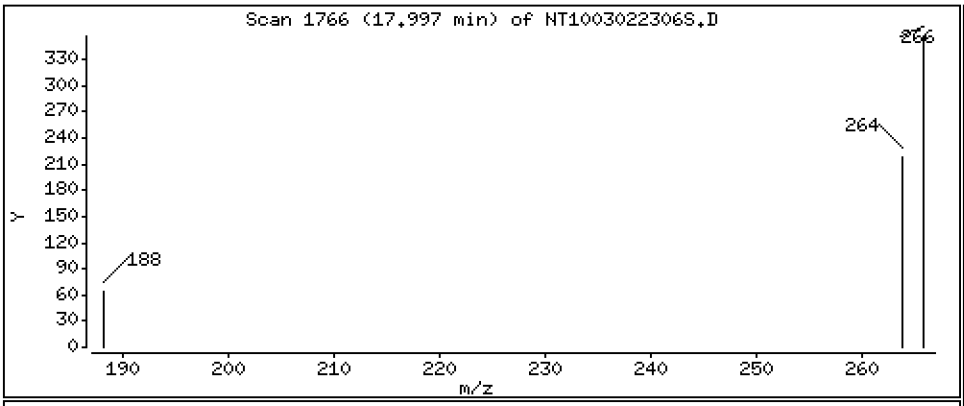
Operator: JGR

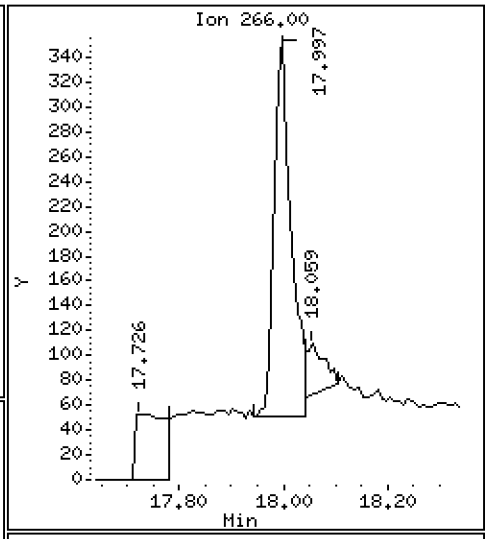
Column phase: ZB-5msi

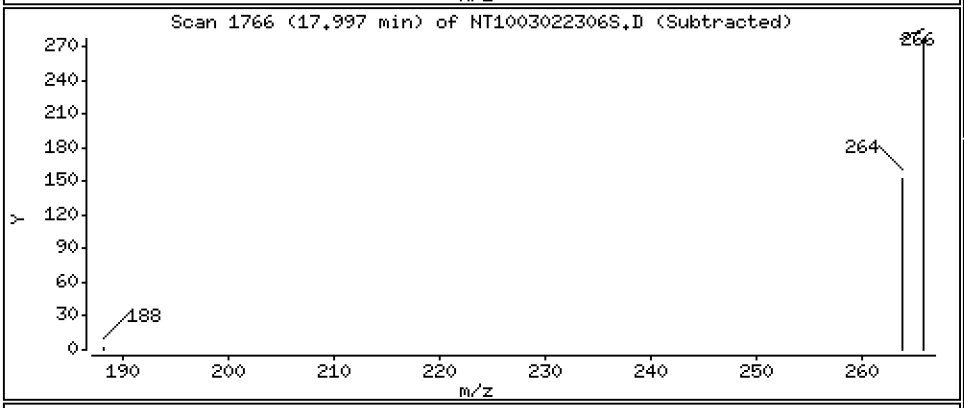
Column diameter: 0.25

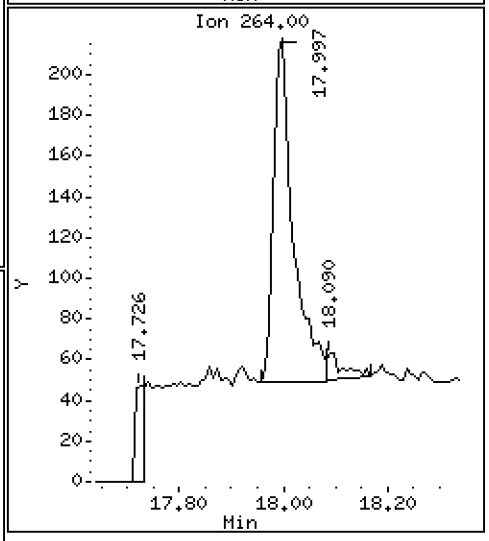
58 Pentachlorophenol

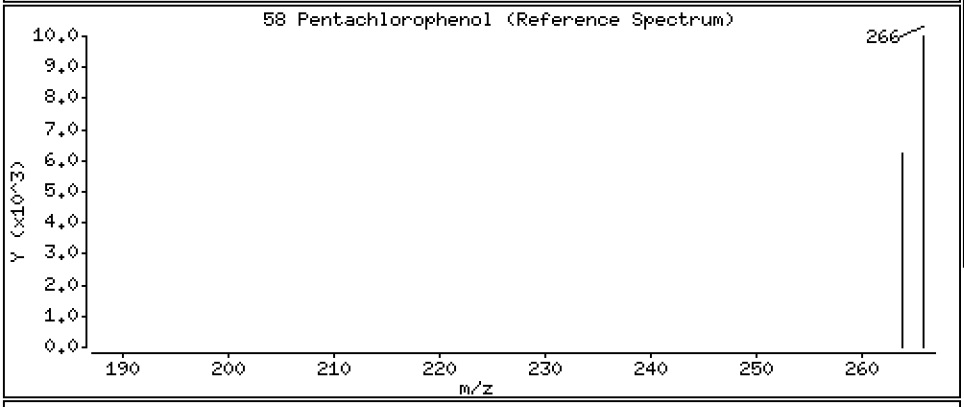
Concentration: 0.01137 ug/L

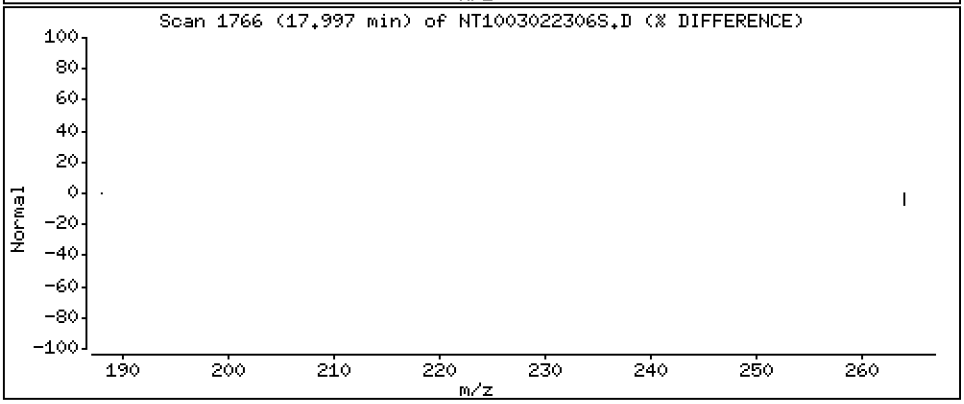












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

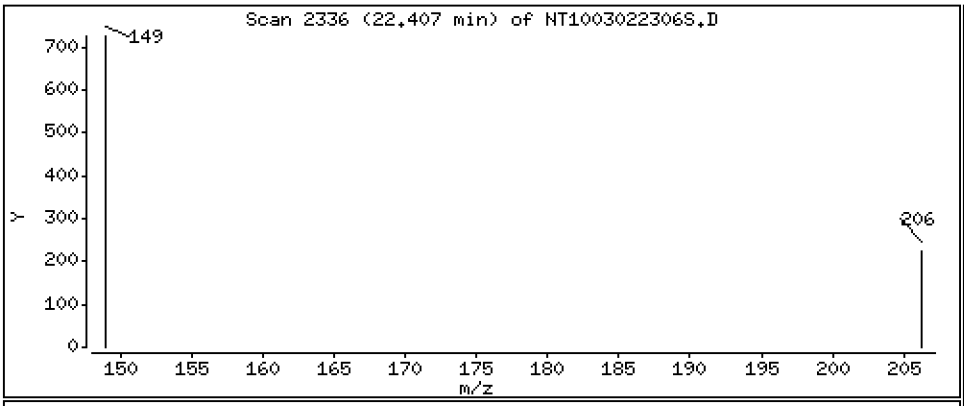
Operator: JGR

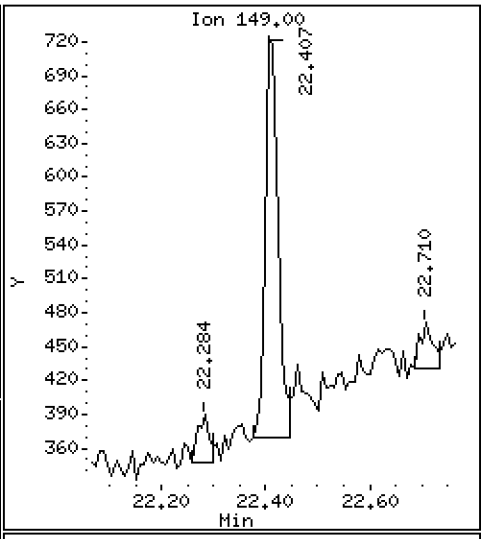
Column phase: ZB-5msi

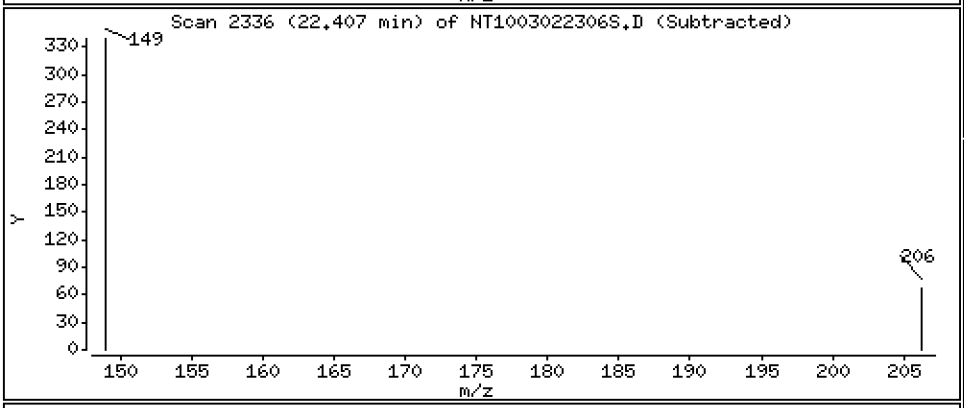
Column diameter: 0.25

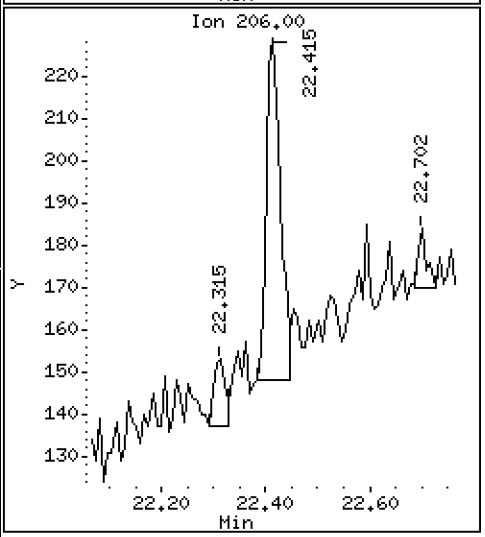
67 Butylbenzylphthalate

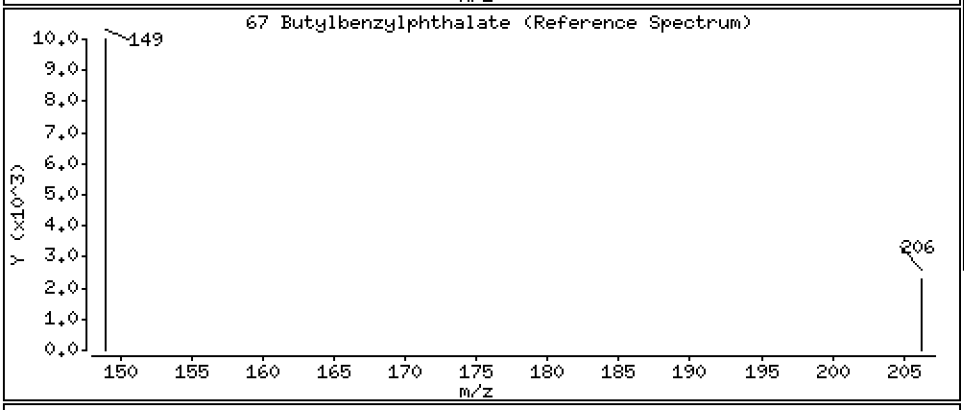
Concentration: 0.001877 ug/L

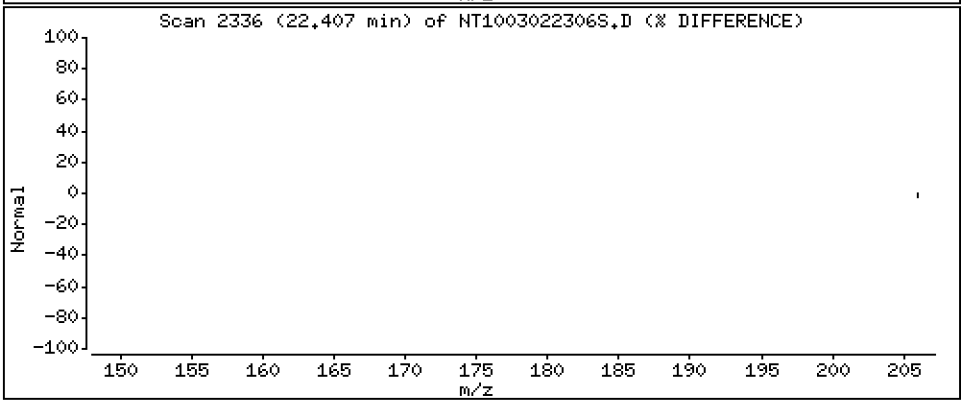












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Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

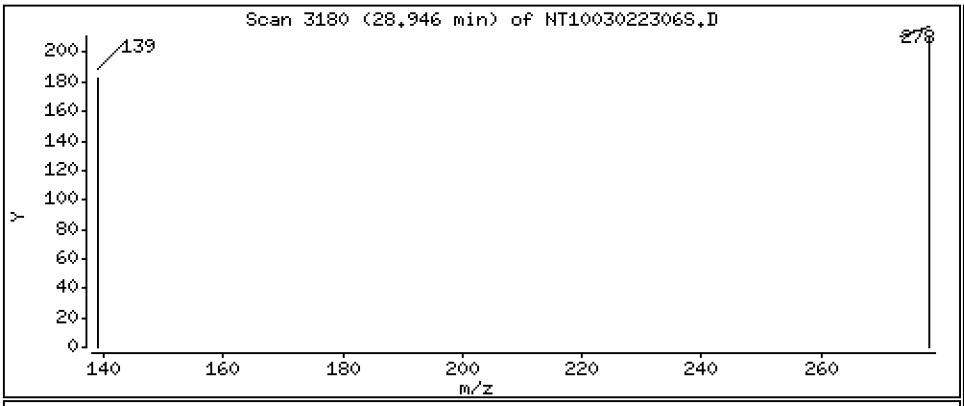
Operator: JGR

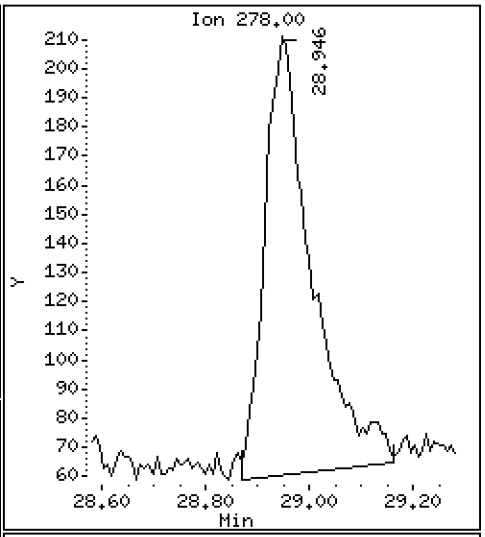
Column phase: ZB-5msi

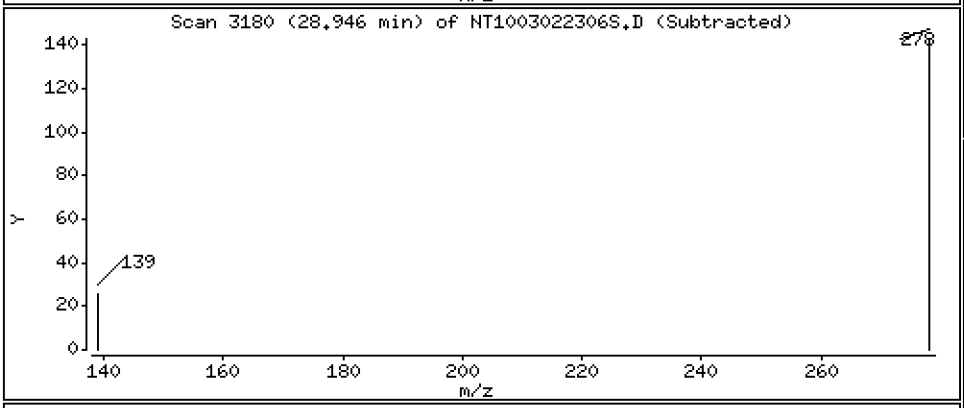
Column diameter: 0.25

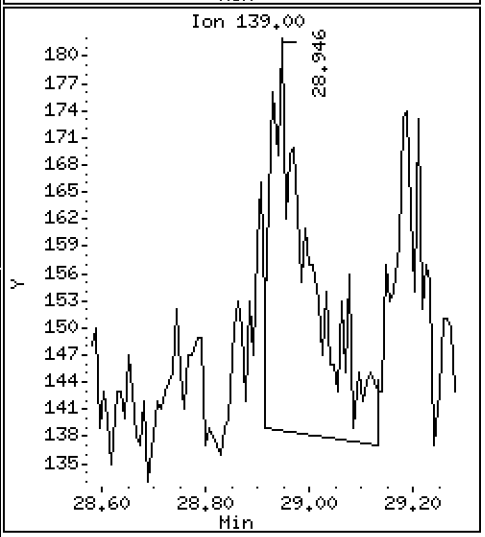
79 Dibenzo(a,h)anthracene

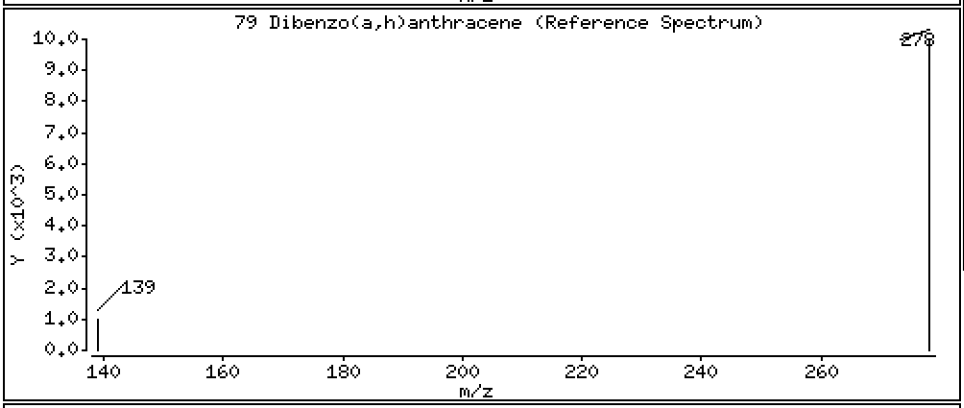
Concentration: 0.002137 ug/L

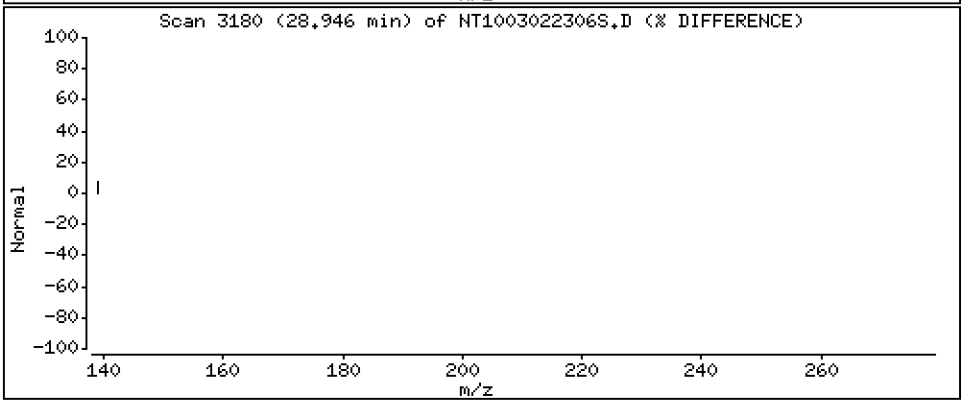












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D

Date : 02-MAR-2023 17:34

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BLK1

Volume Injected (uL): 1.0

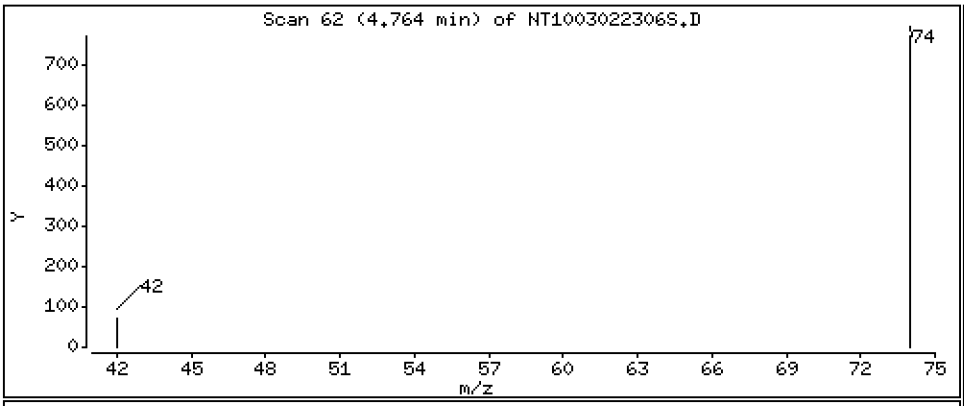
Operator: JGR

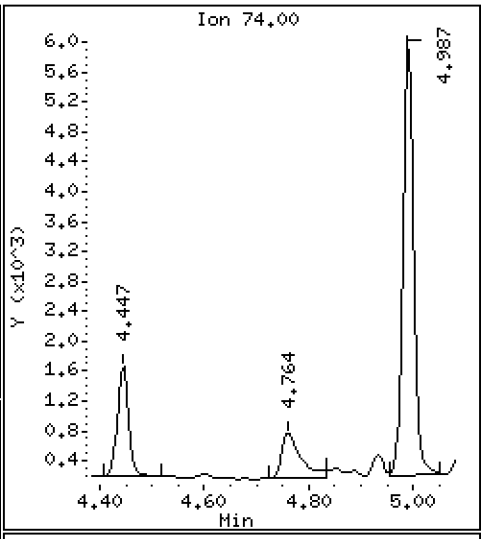
Column phase: ZB-5msi

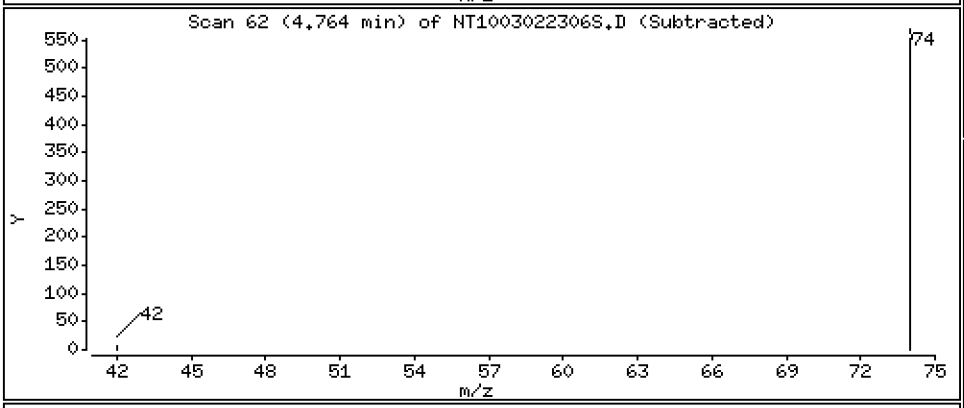
Column diameter: 0.25

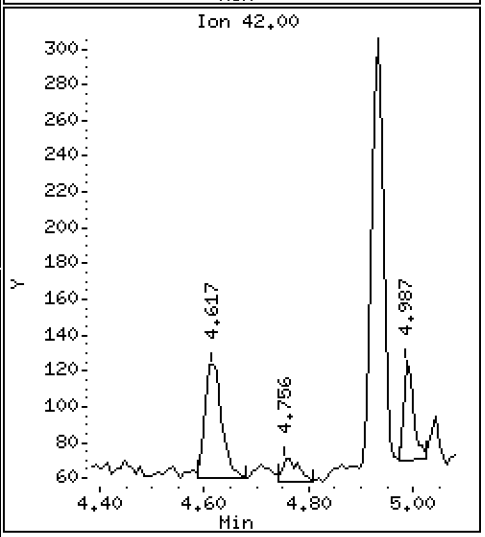
90 N-Nitrosodimethylamine

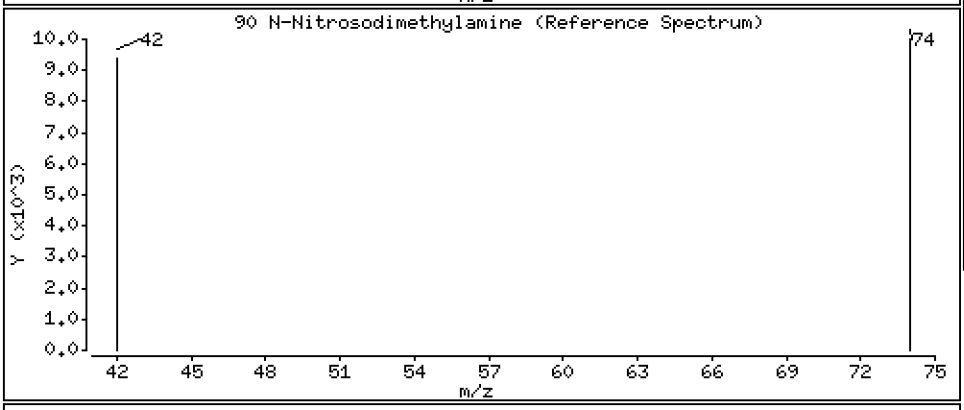
Concentration: 0.01729 ug/L

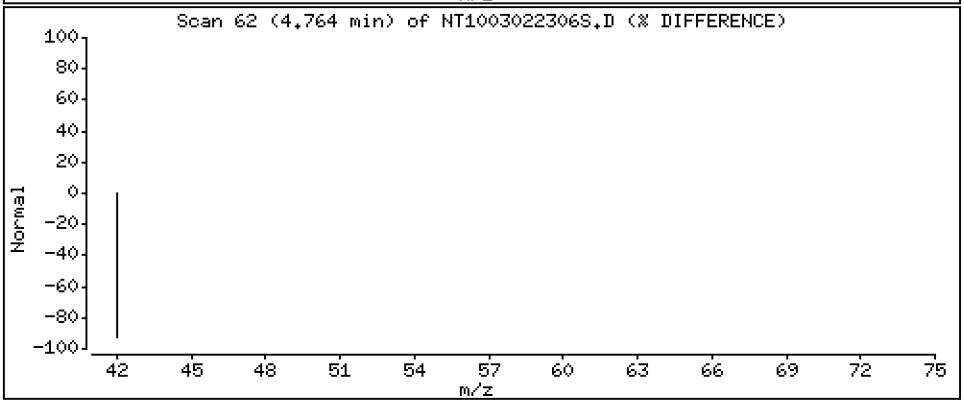












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022306S.D
Lab Smp Id: BLA0624-BLK1
Inj Date : 02-MAR-2023 17:34 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : BLA0624-BLK1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:01 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.902	6.902	(0.747)	862738	5.55899	5.559(R)
3	Phenol	94	8.517	8.517	(0.921)	8521	0.03723	0.03723
7	1,3-Dichlorobenzene	146	9.143	9.143	(0.989)	1769	0.00878	0.008781
* 8	1,4-Dichlorobenzene-d4	152	9.244	9.251	(1.000)	543607	4.00000	
9	1,4-Dichlorobenzene	146	9.275	9.282	(1.003)	1909	0.00975	0.009746
11	Benzyl alcohol	79	9.477	9.476	(1.025)	2528	0.01992	0.01992
12	1,2-Dichlorobenzene	146	9.562	9.562	(1.034)	1543	0.00820	0.008196
13	2-Methylphenol	108	9.663	9.655	(1.045)	822	0.00597	0.005974
15	4-Methylphenol	108	9.958	9.942	(1.077)	537	0.00375	0.003753
16	N-Nitroso-di-n-propylamine	70	10.292	9.981	(1.113)	76325	0.74683	0.7468
22	2,4-Dimethylphenol	107	10.989	10.997	(0.937)	1496	0.00897	0.008969
24	Benzoic acid	105	11.082	11.074	(0.945)	2506	0.02740	0.02740
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	931	0.00658	0.006579
* 27	Naphthalene-d8	136	11.724	11.723	(1.000)	1966158	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	788	0.00785	0.007847
39	Dimethylphthalate	163	14.741	14.741	(0.963)	906	0.00277	0.002775
* 42	Acenaphthene-d10	162	15.314	15.314	(1.000)	1028261	4.00000	
50	Diethylphthalate	149	16.203	16.203	(1.058)	33257	0.10801	0.1080
54	N-Nitrosodiphenylamine	169	16.690	16.690	(0.907)	354	0.00120	0.001198
57	Hexachlorobenzene	284	17.578	17.578	(0.955)	630	0.00455	0.004555

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	17.996	17.988	(0.978)	688	0.01137	0.01137
*	59 Phenanthrene-d10	188	18.406	18.406	(1.000)	1826191	4.00000	
$	66 Terphenyl-d14	244	21.532	21.532	(0.919)	684314	4.58447	4.584(R)
	67 Butylbenzylphthalate	149	22.407	22.414	(0.957)	585	0.00188	0.001877
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	1845847	4.00000	
*	77 Perylene-d12	264	26.108	26.115	(1.000)	1929666	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.945	28.929	(1.109)	955	0.00214	0.002137
	90 N-Nitrosodimethylamine	74	4.763	4.732	(0.515)	1589	0.01729	0.01729

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003022306S.D
Lab Smp Id: BLA0624-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 02-MAR-2023
Calibration Time: 14:13
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	493417	246709	986834	543607	10.17
27 Naphthalene-d8	1779056	889528	3558112	1966158	10.52
42 Acenaphthene-d10	954569	477285	1909138	1028261	7.72
59 Phenanthrene-d10	1596290	798145	3192580	1826191	14.40
69 Chrysene-d12	1649110	824555	3298220	1845847	11.93
77 Perylene-d12	1901958	950979	3803916	1929666	1.46

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.24	-0.08
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.41	17.91	18.91	18.41	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
77 Perylene-d12	26.12	25.62	26.62	26.11	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003022306S.D

Lab ID: BLA0624-BLK1
nt10.i, 20230302.b\SIM.b\SIMABN2.m,   02-MAR-2023 17:34

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.113	1.079	0.0345	N-Nitroso-di-n-propylamine

RRT check based on Ccal File: SIM.b/NT1003022303S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223075.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

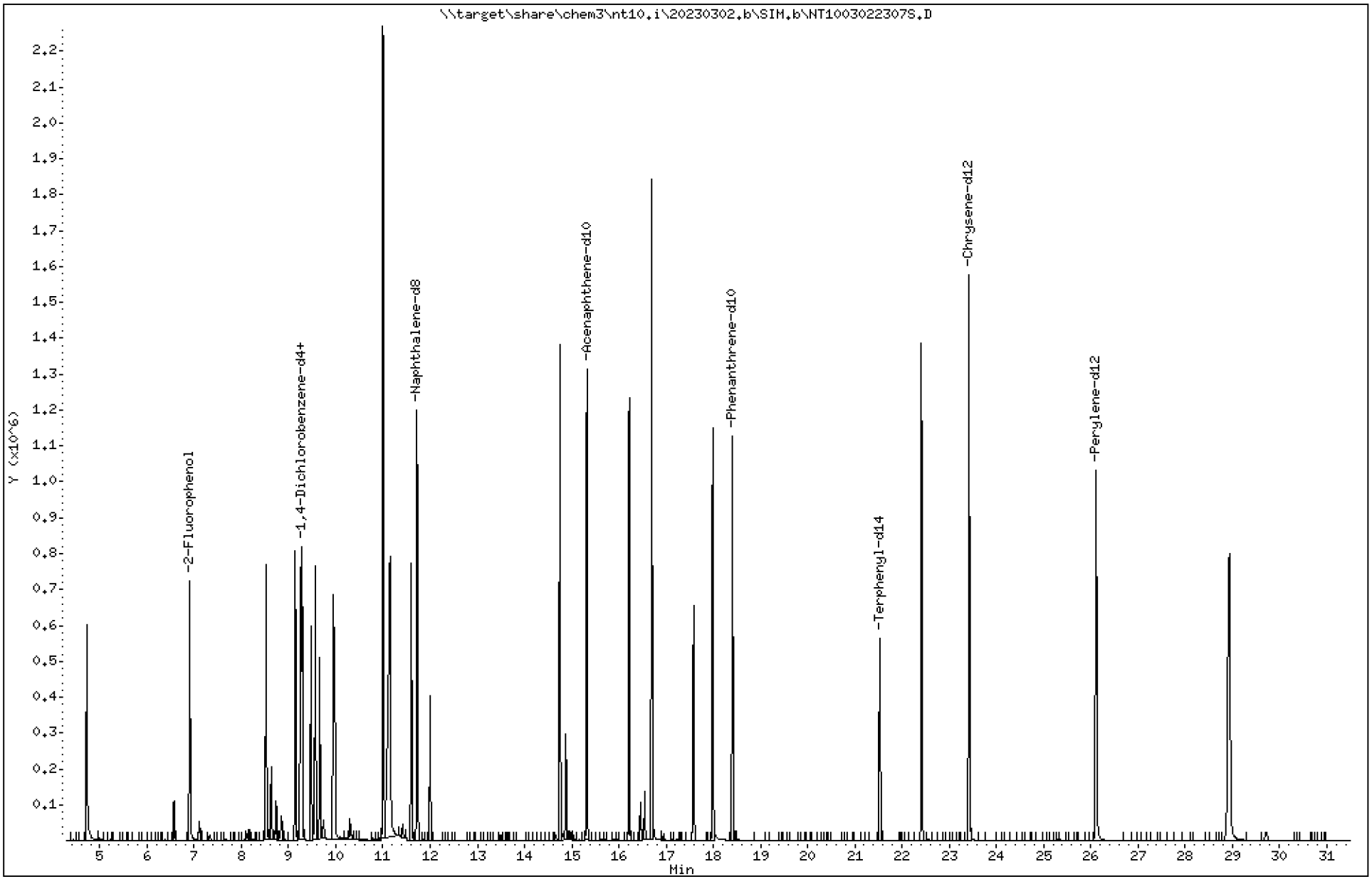
Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022307S.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

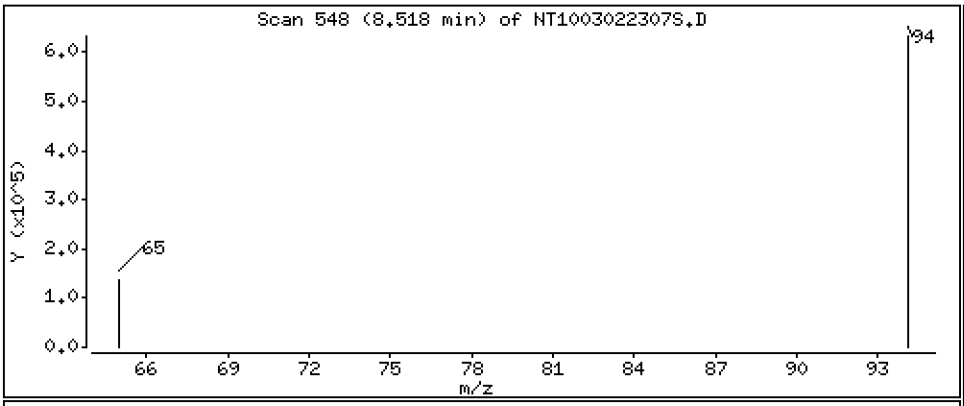
Operator: JGR

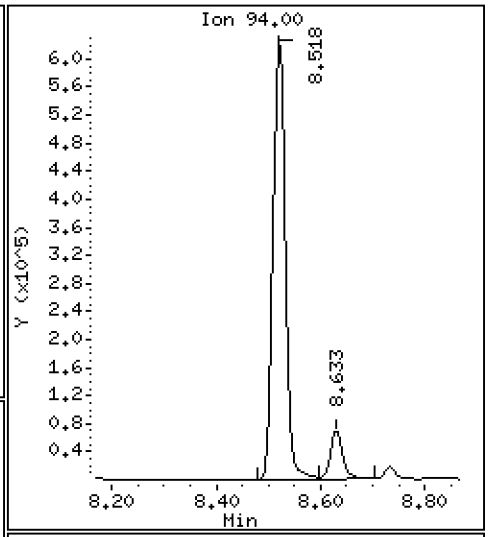
Column phase: ZB-5msi

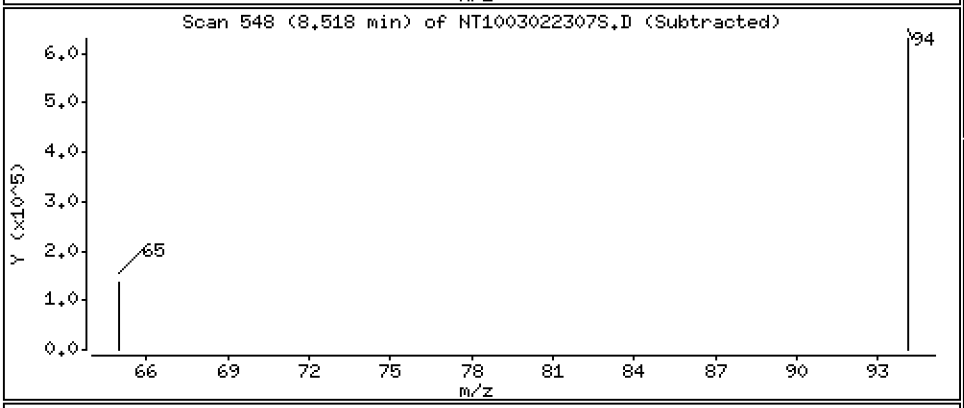
Column diameter: 0.25

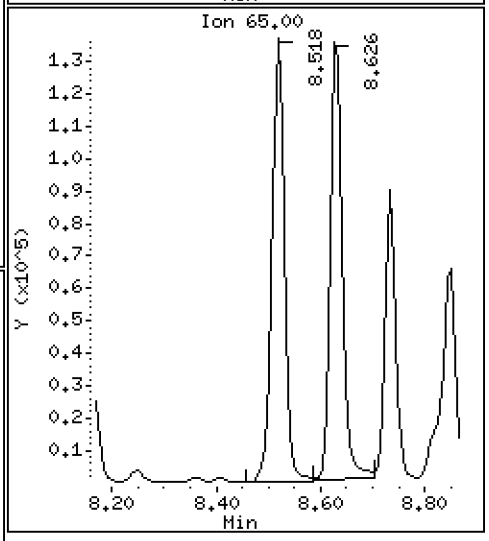
3 Phenol

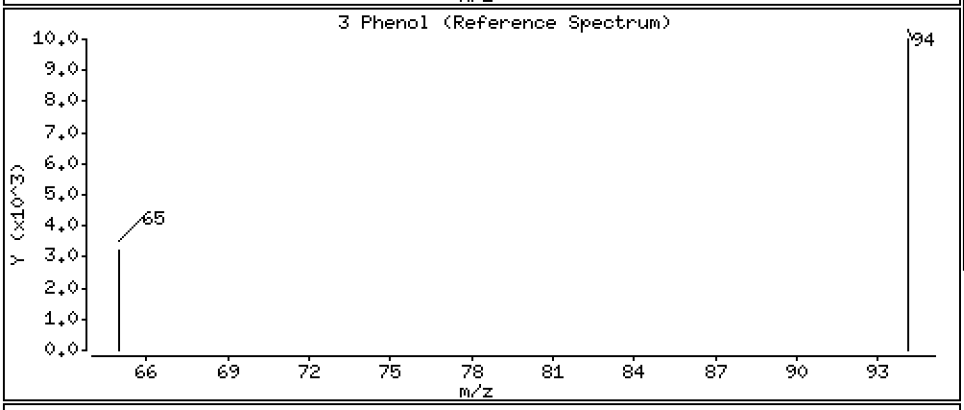
Concentration: 4.985 ug/L

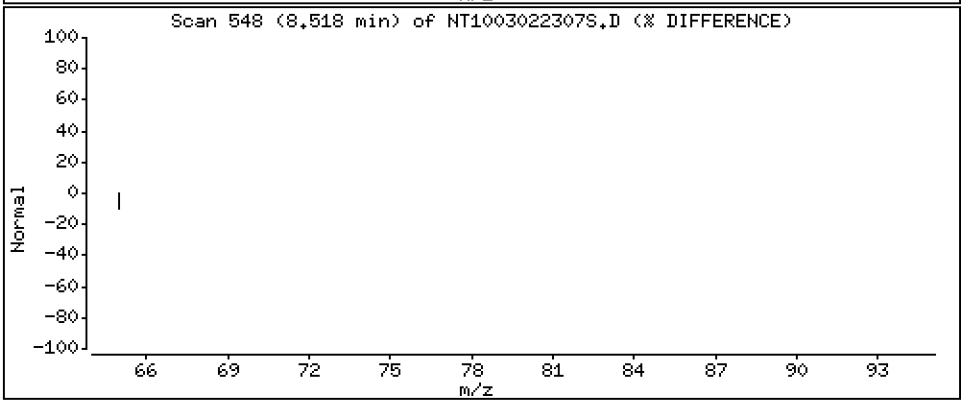












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022307S.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

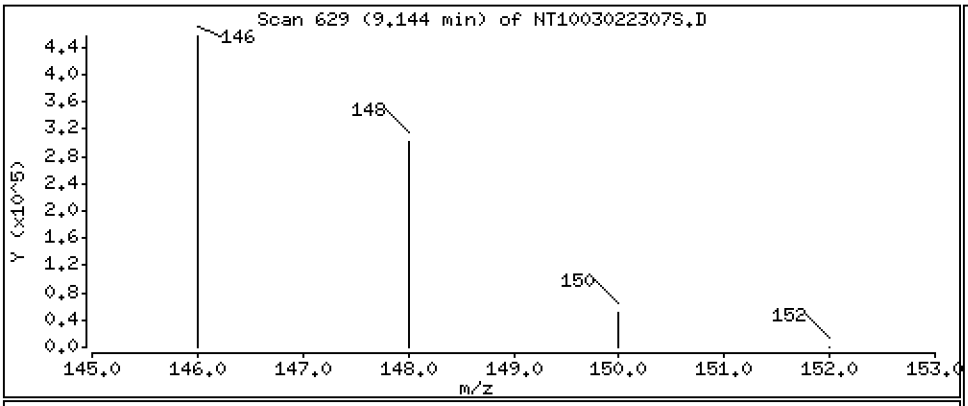
Operator: JGR

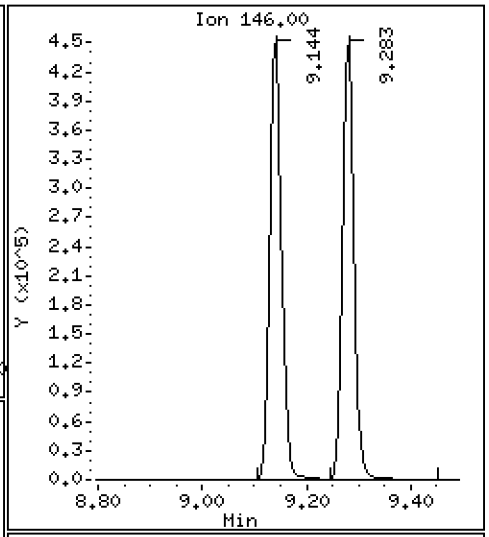
Column phase: ZB-5msi

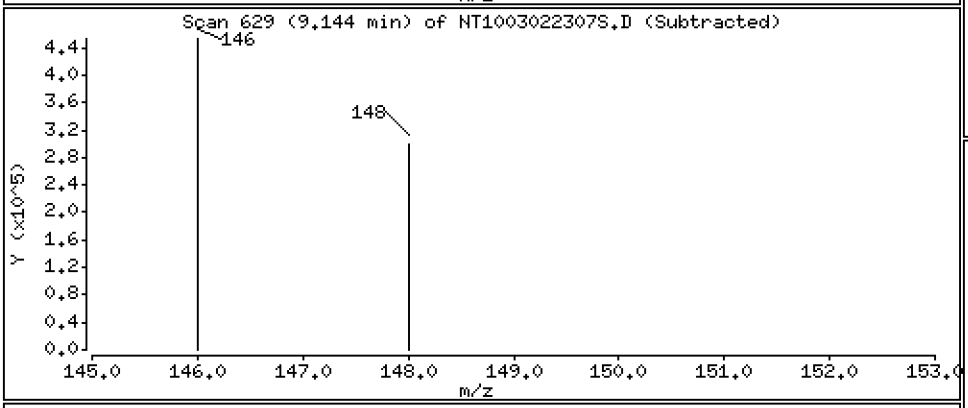
Column diameter: 0.25

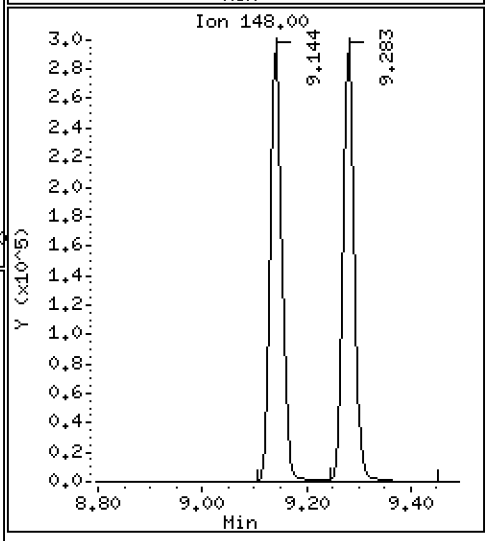
7 1,3-Dichlorobenzene

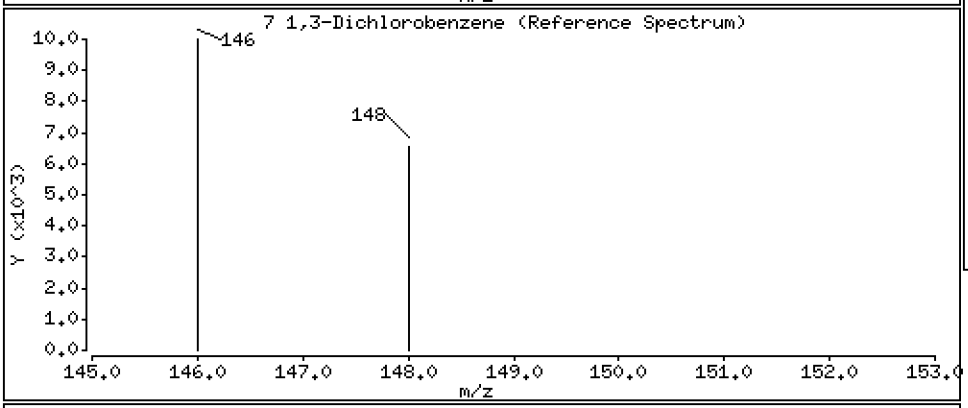
Concentration: 4.235 ug/L

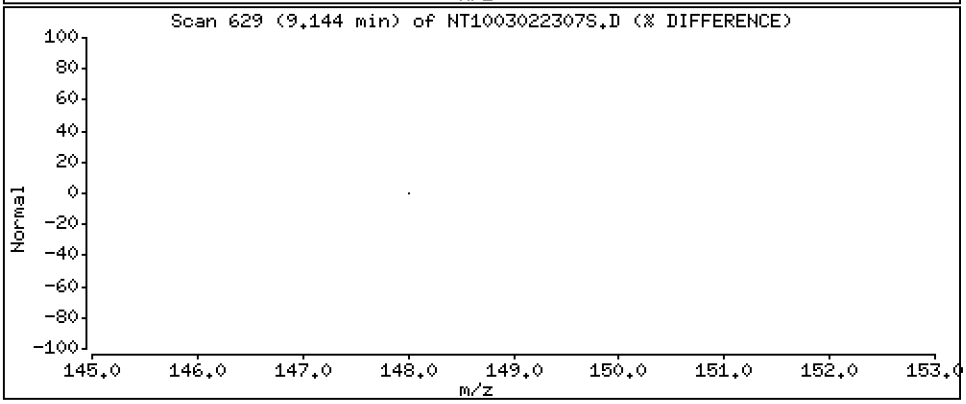












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022307S.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

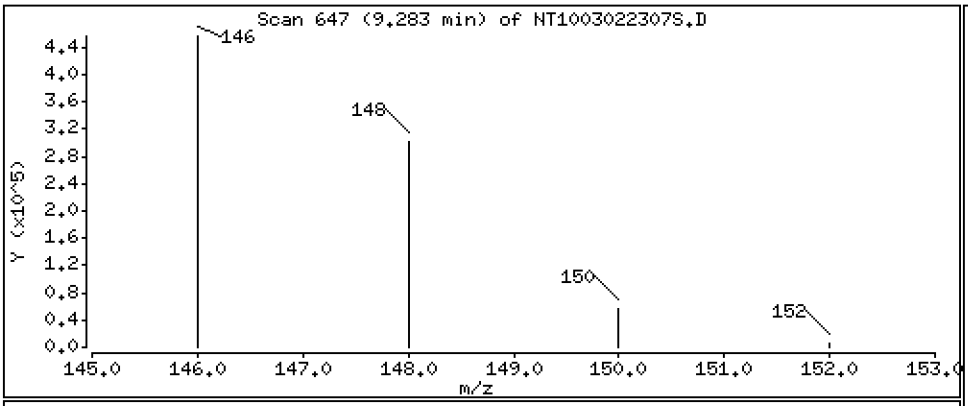
Operator: JGR

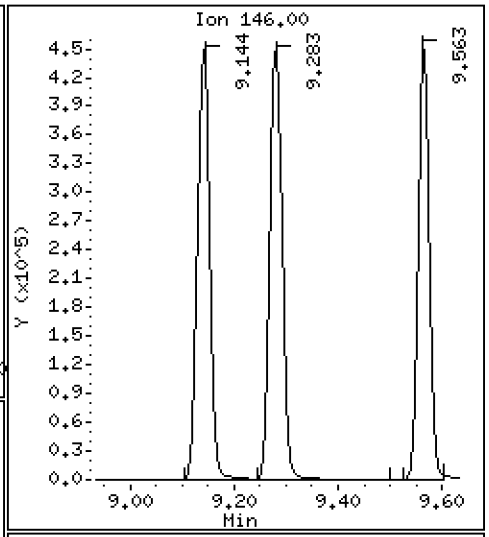
Column phase: ZB-5msi

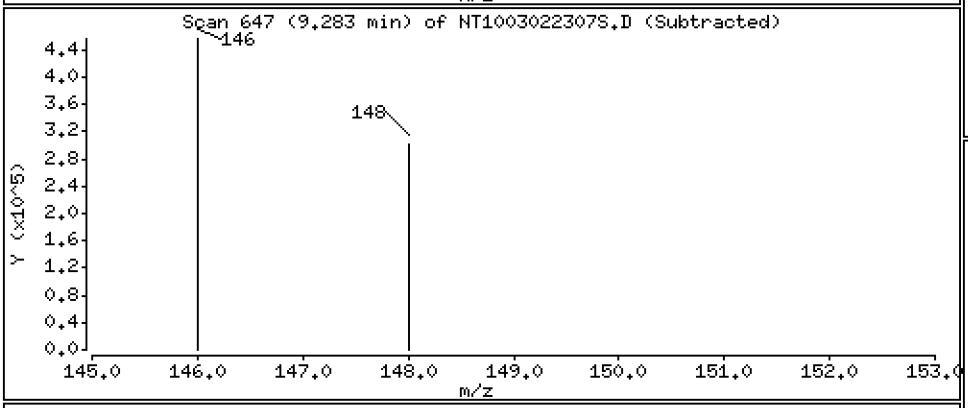
Column diameter: 0.25

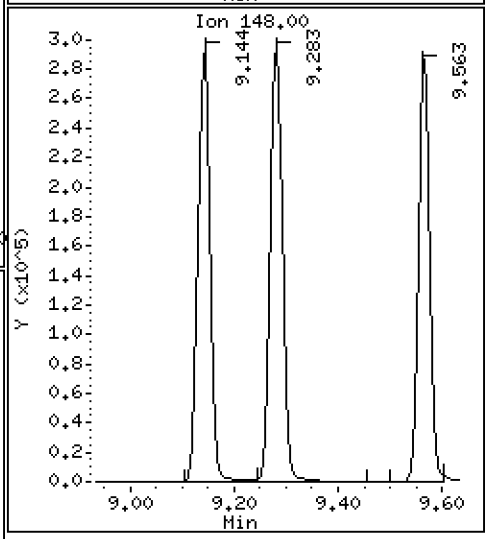
9 1,4-Dichlorobenzene

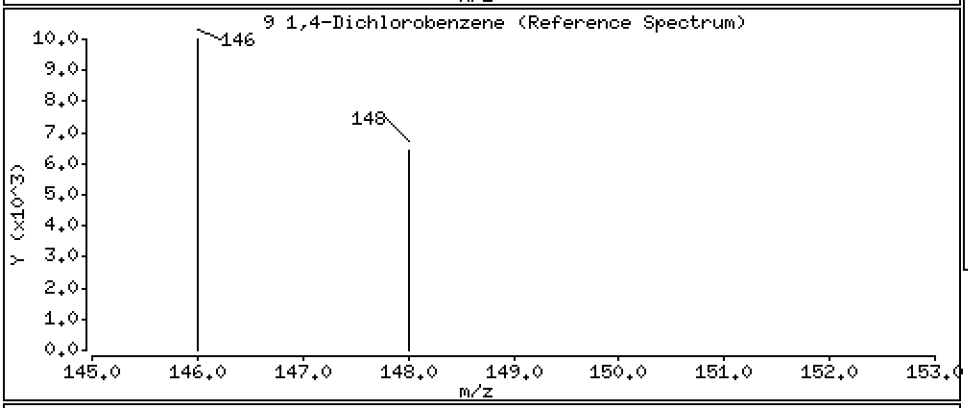
Concentration: 4.398 ug/L

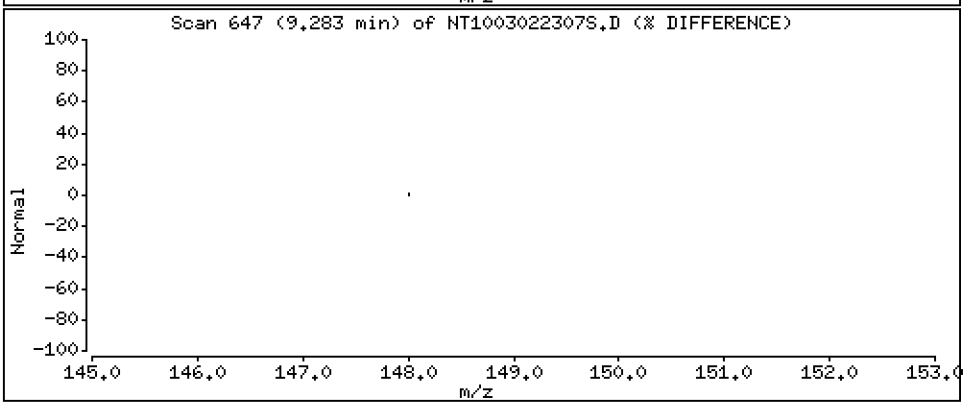












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022307S.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

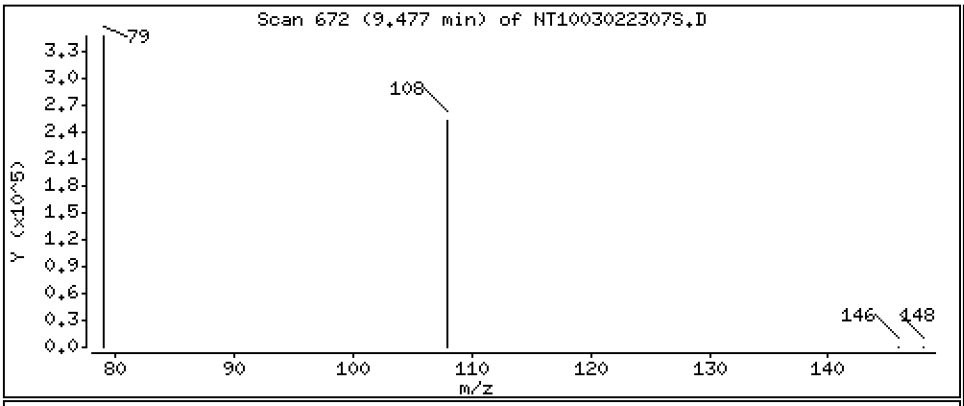
Operator: JGR

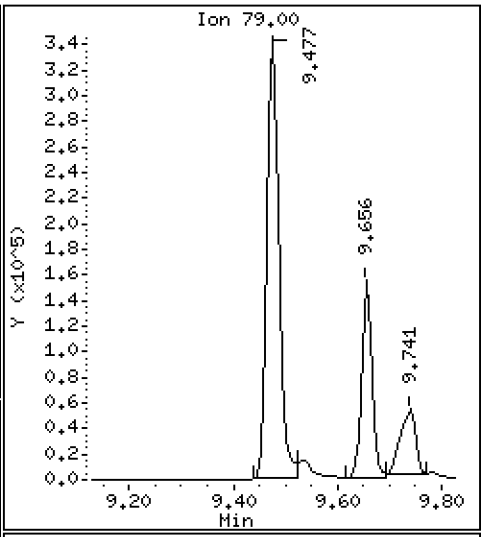
Column phase: ZB-5msi

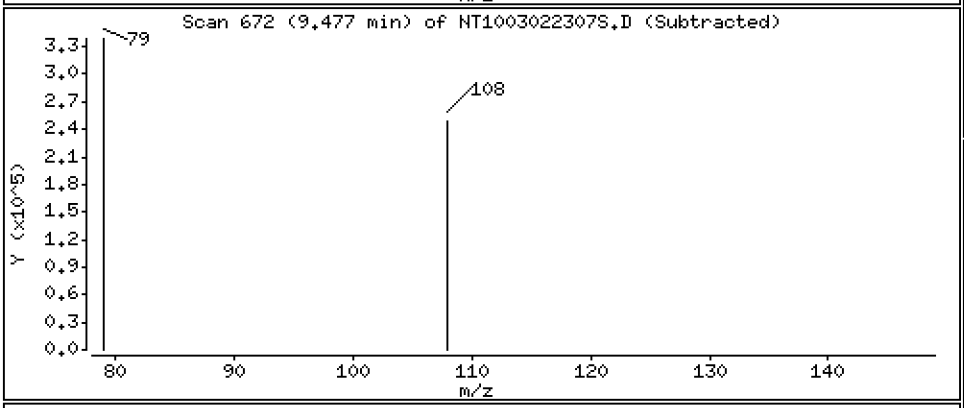
Column diameter: 0.25

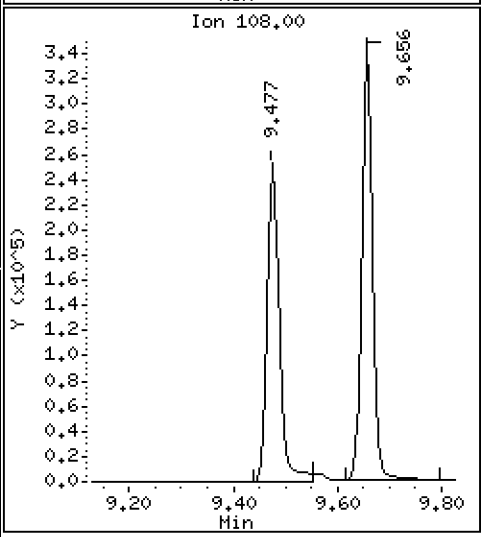
11 Benzyl alcohol

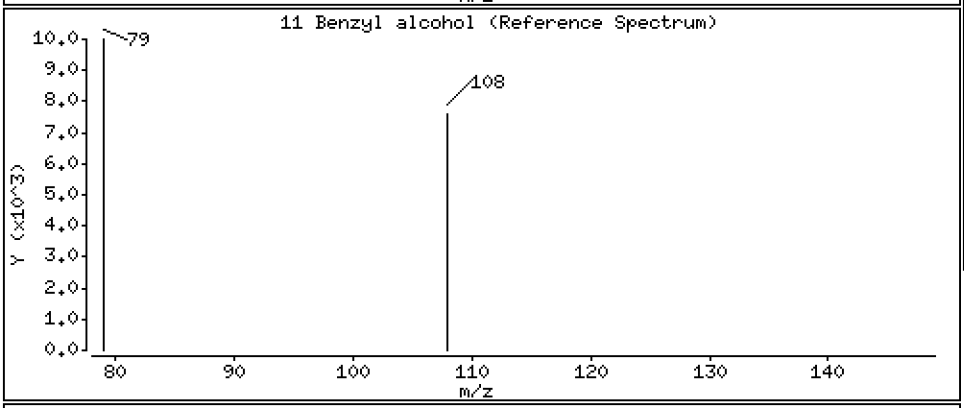
Concentration: 4.665 ug/L

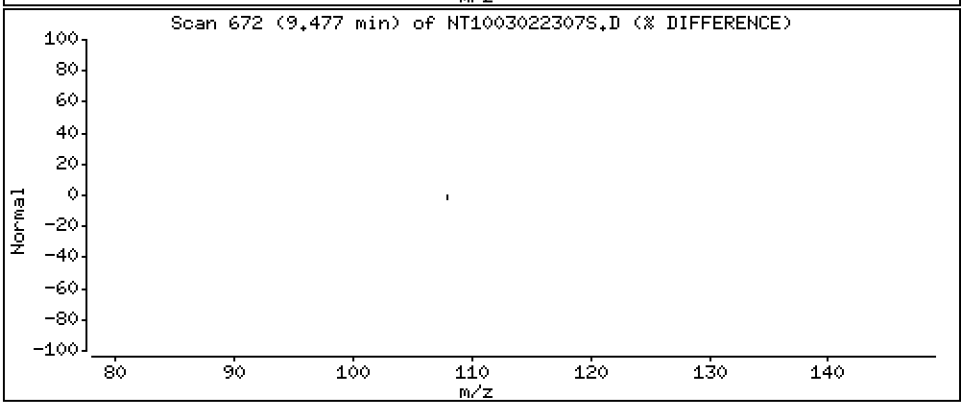












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022307S.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

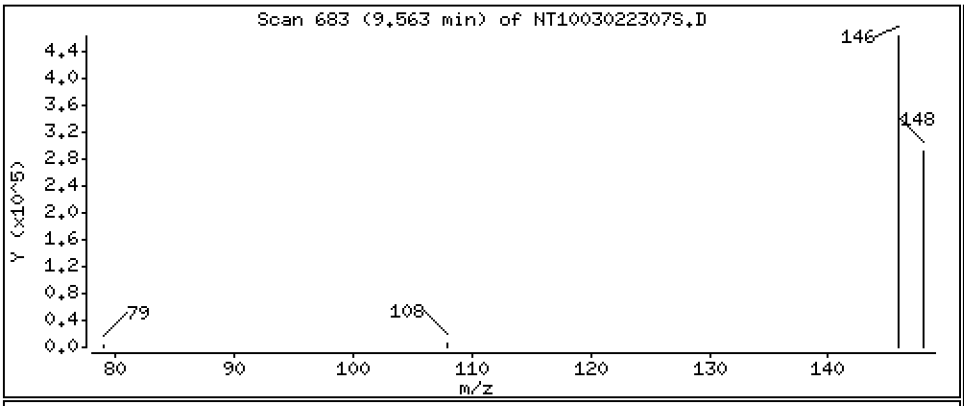
Operator: JGR

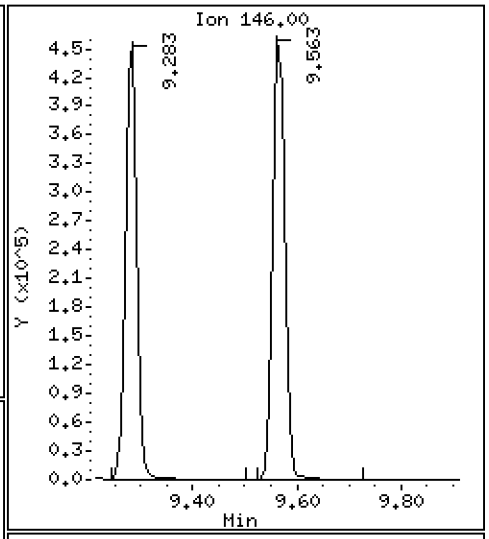
Column phase: ZB-5msi

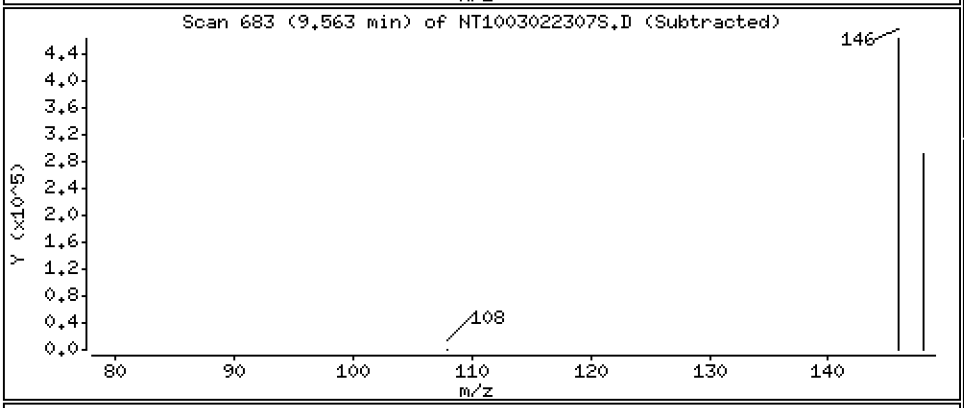
Column diameter: 0.25

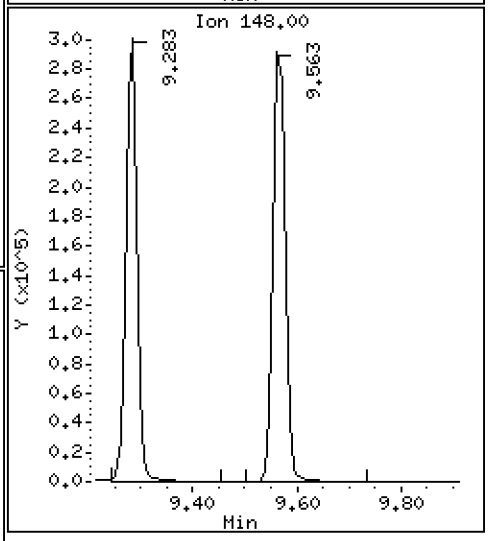
12 1,2-Dichlorobenzene

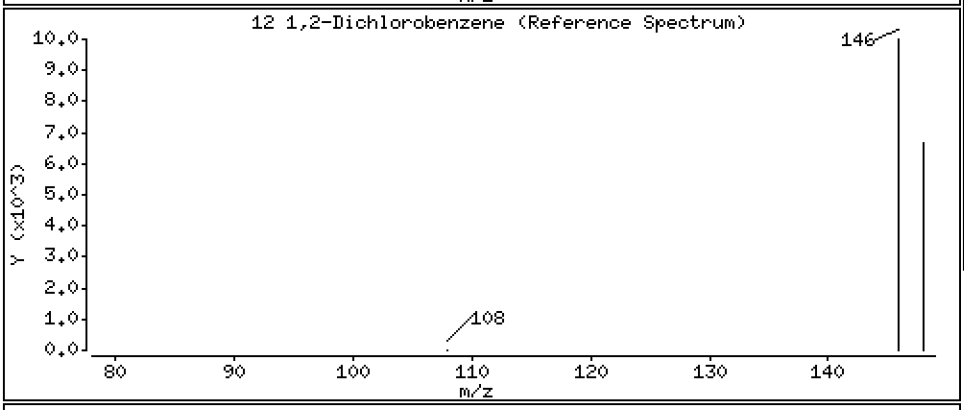
Concentration: 4.495 ug/L

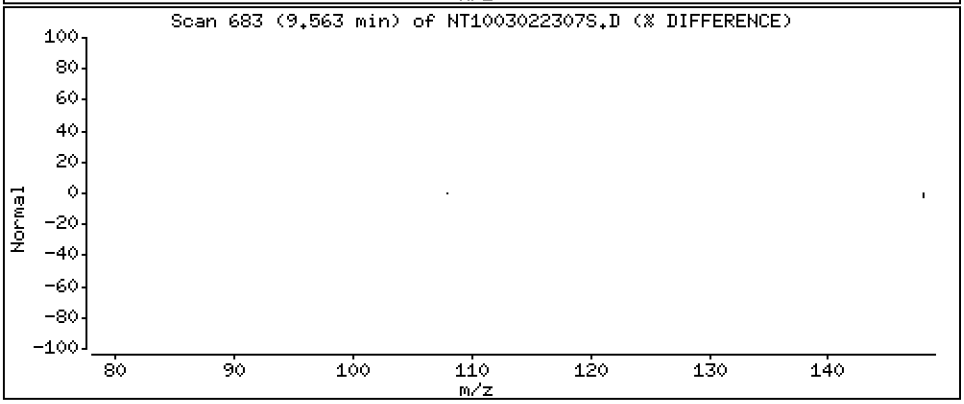












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223075.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

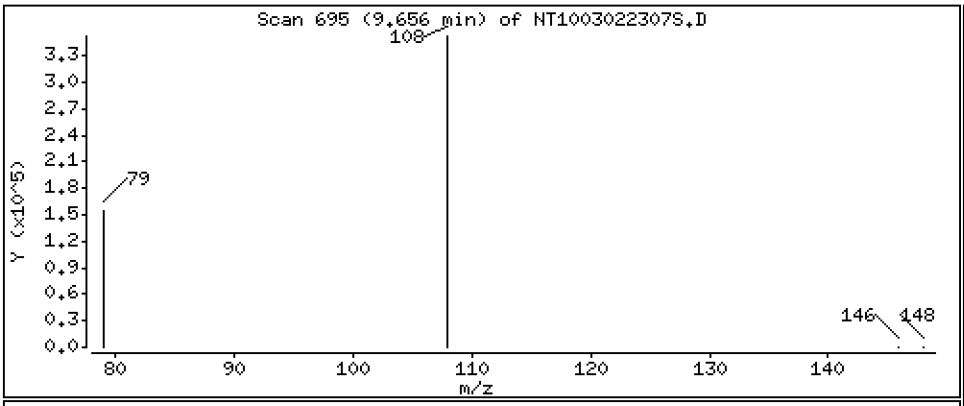
Operator: JGR

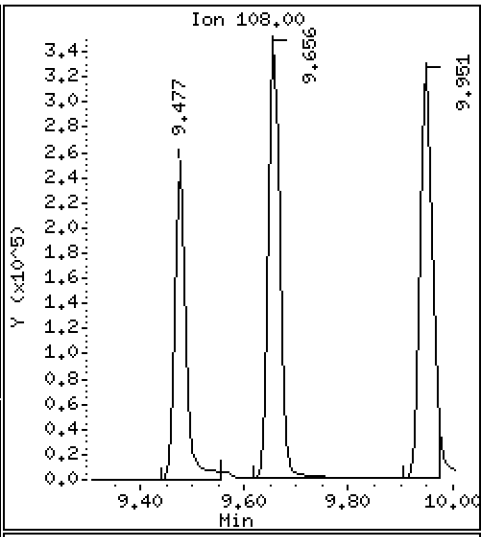
Column phase: ZB-5msi

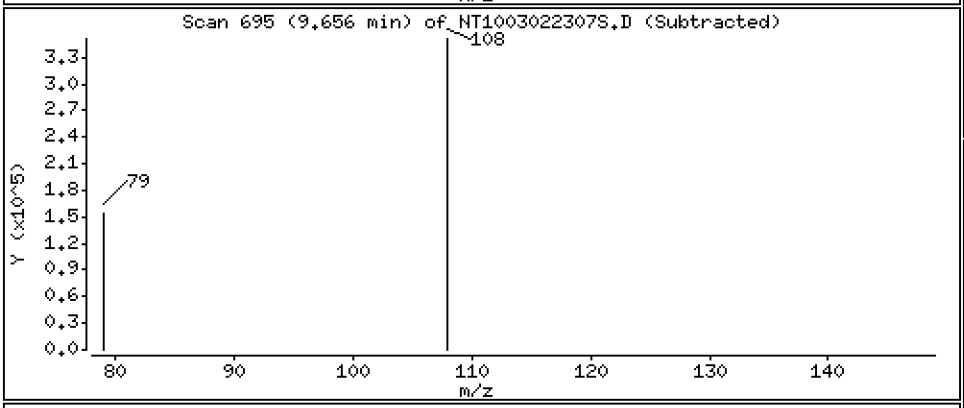
Column diameter: 0.25

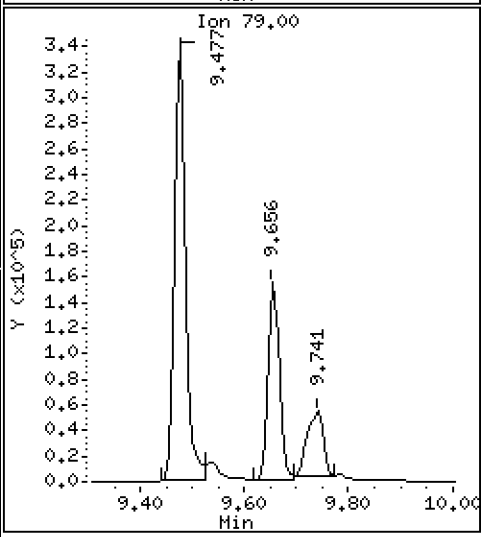
13 2-Methylphenol

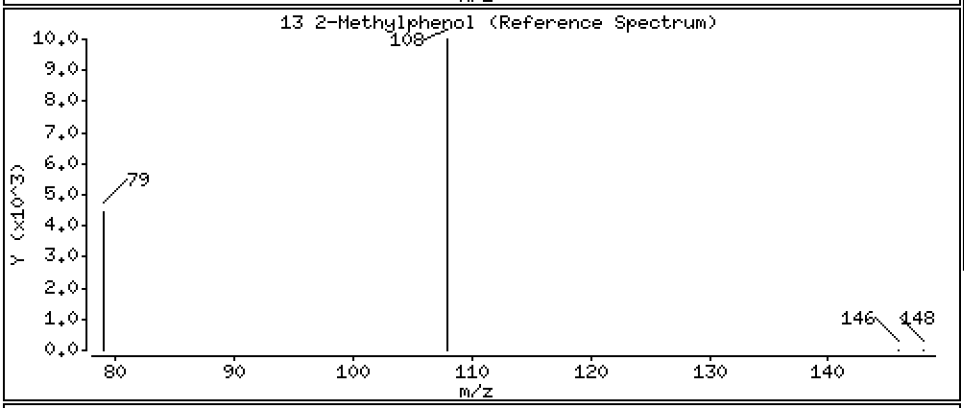
Concentration: 4.274 ug/L

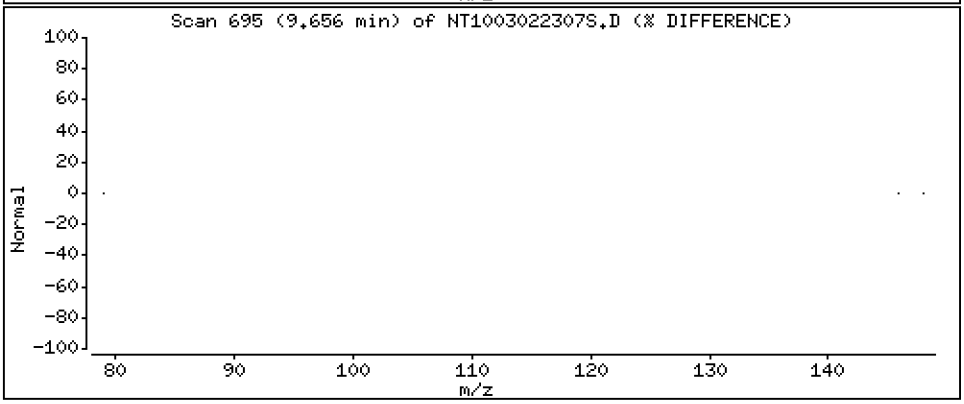












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022307S.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

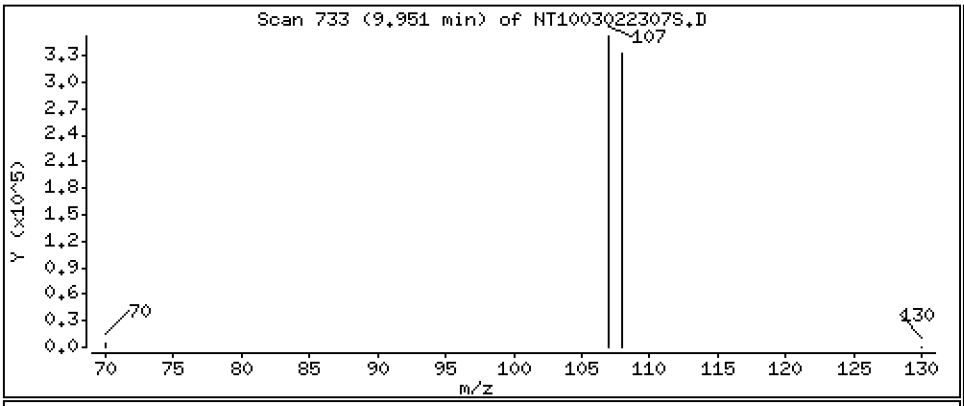
Operator: JGR

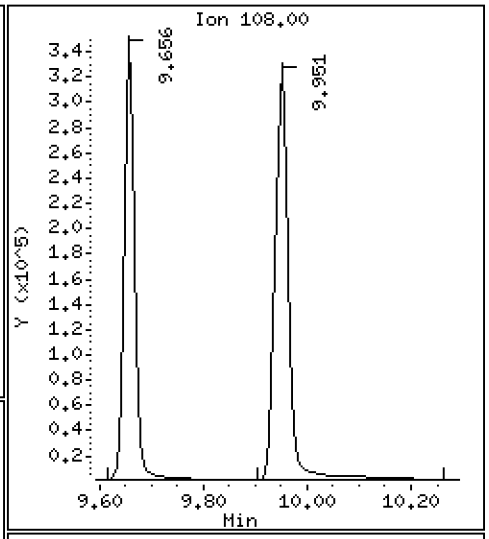
Column phase: ZB-5msi

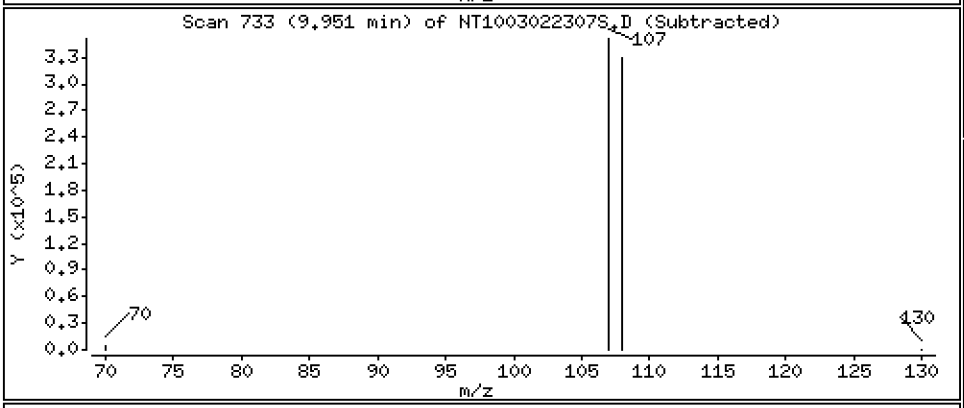
Column diameter: 0.25

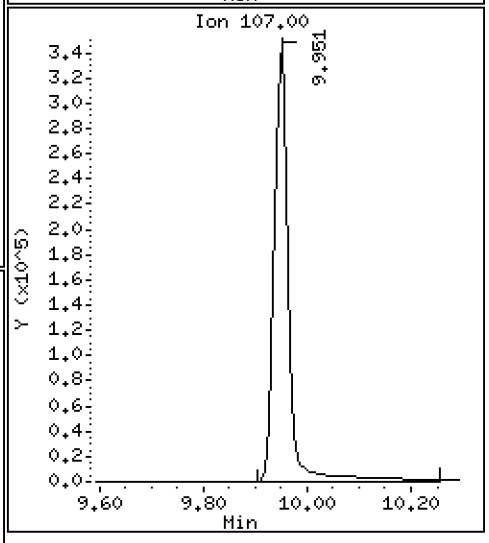
15 4-Methylphenol

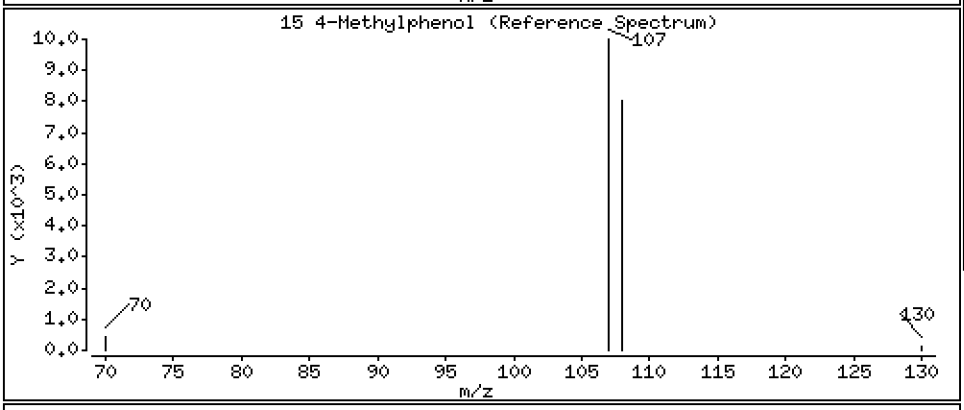
Concentration: 4.613 ug/L

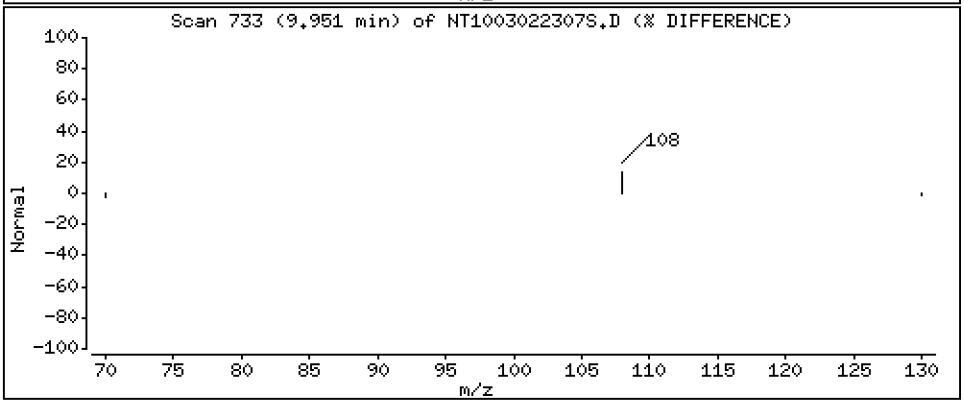












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Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

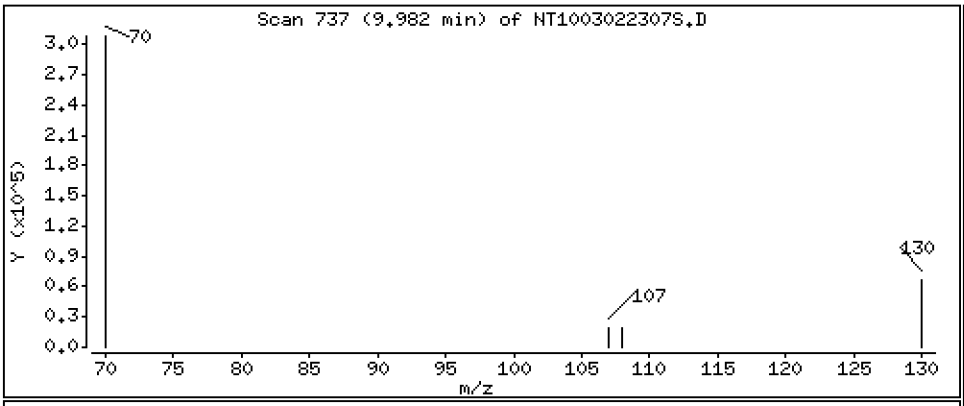
Operator: JGR

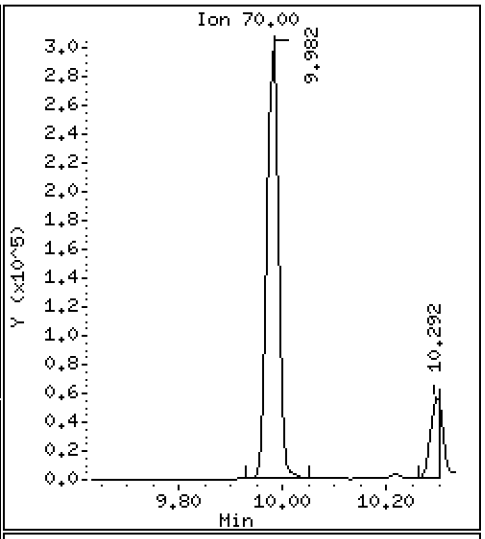
Column phase: ZB-5msi

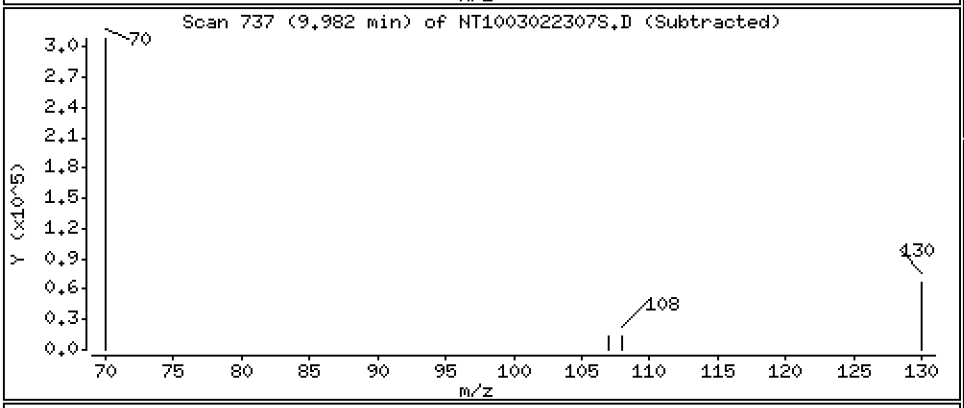
Column diameter: 0.25

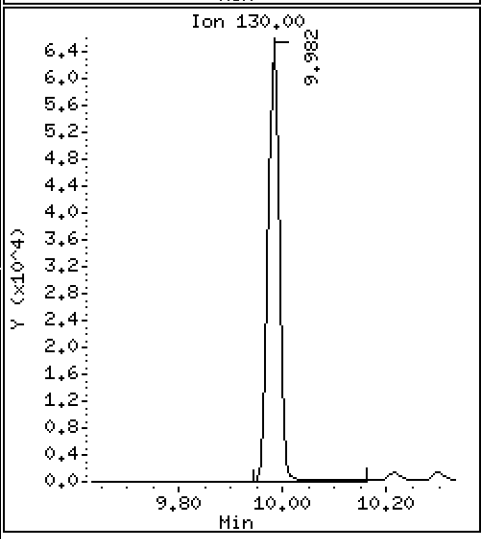
16 N-Nitroso-di-n-propylamine

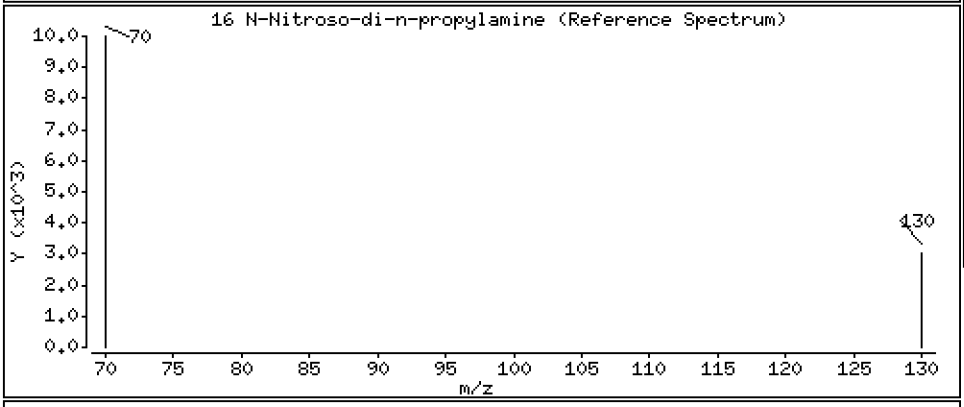
Concentration: 5.077 ug/L

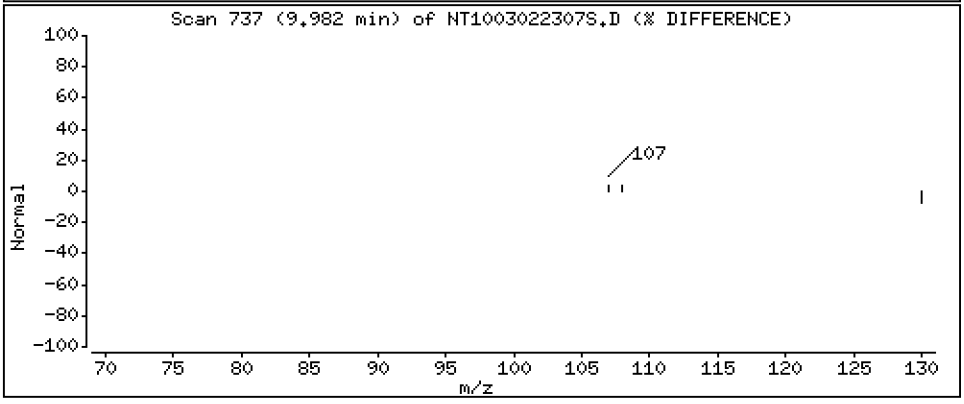












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223075.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

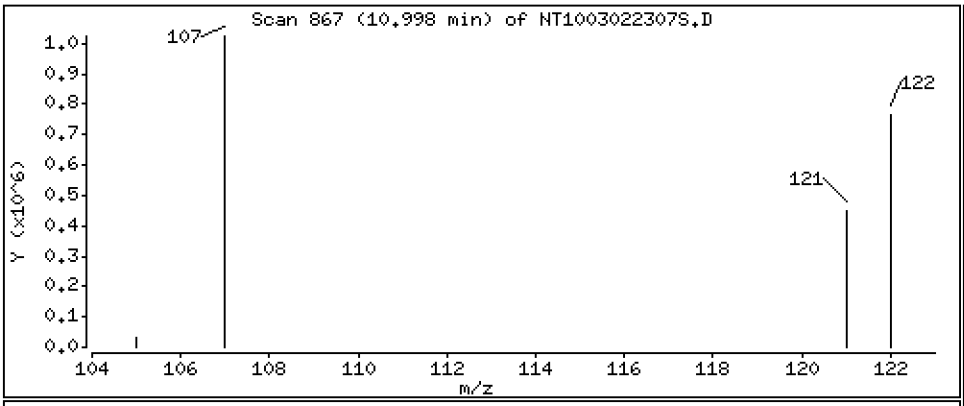
Operator: JGR

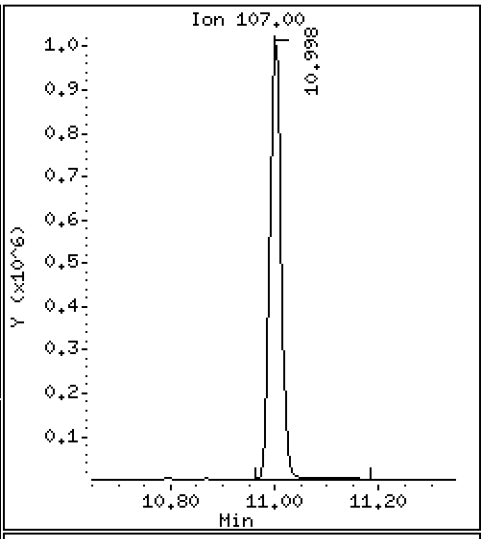
Column phase: ZB-5msi

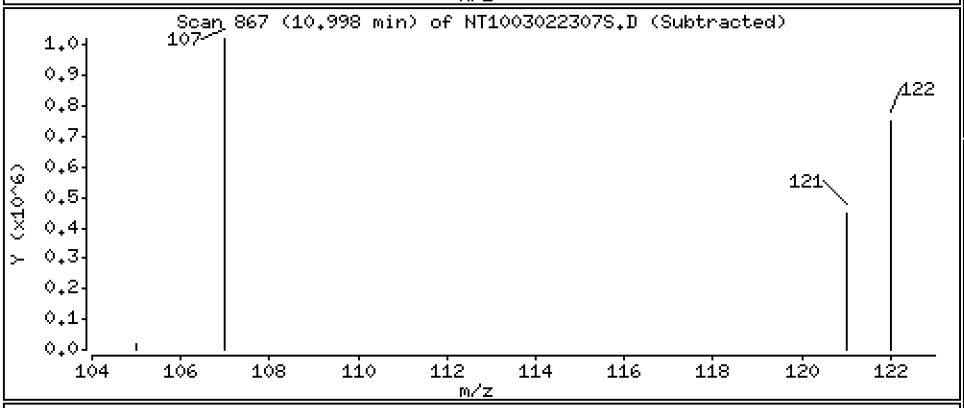
Column diameter: 0.25

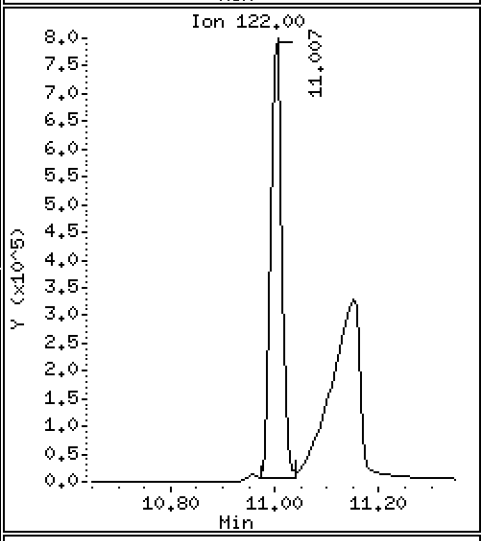
22 2,4-Dimethylphenol

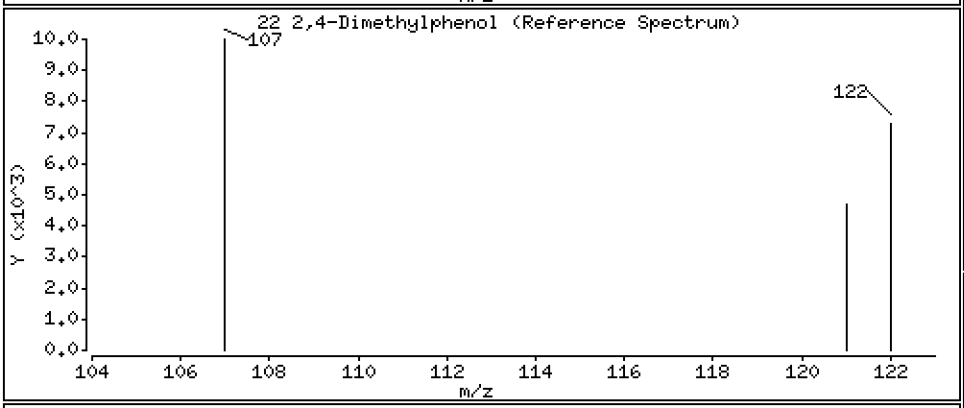
Concentration: 10.10 ug/L

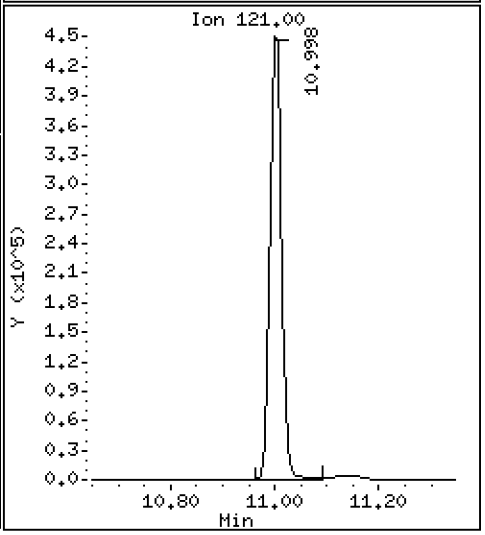


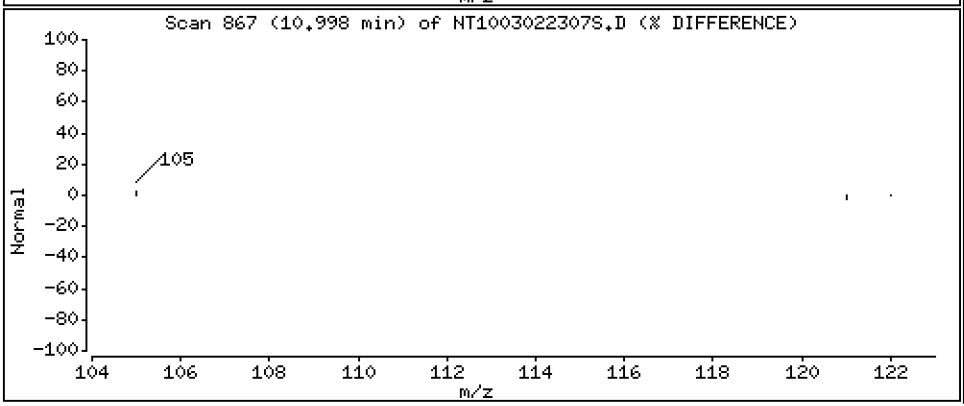












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223075.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

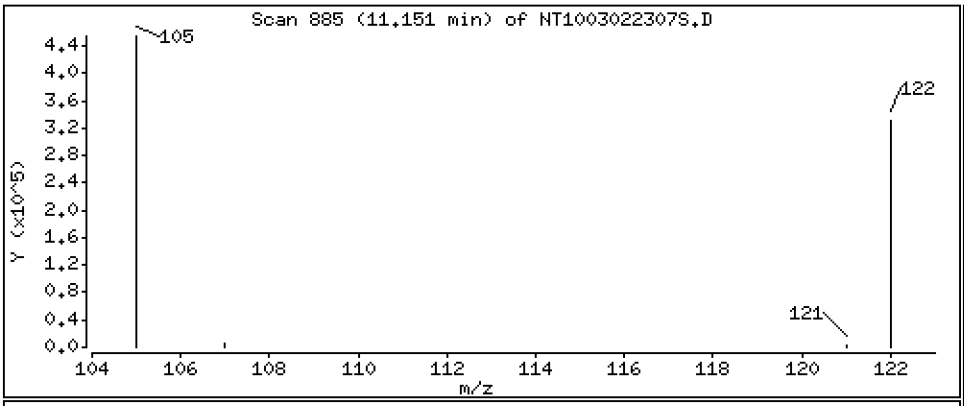
Operator: JGR

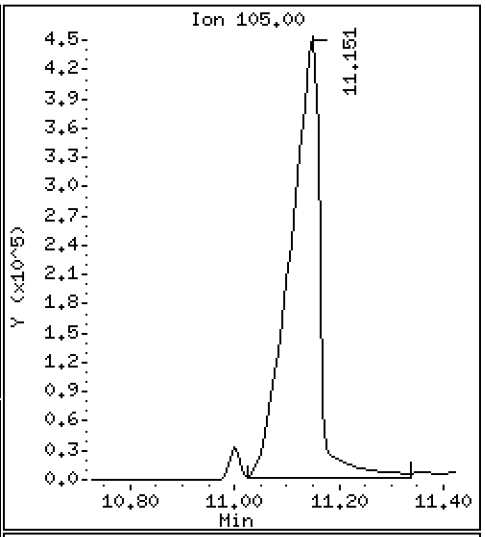
Column phase: ZB-5msi

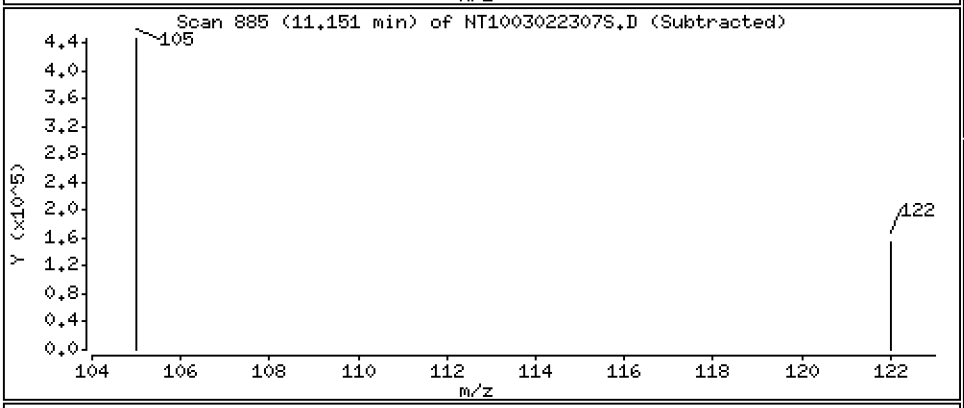
Column diameter: 0.25

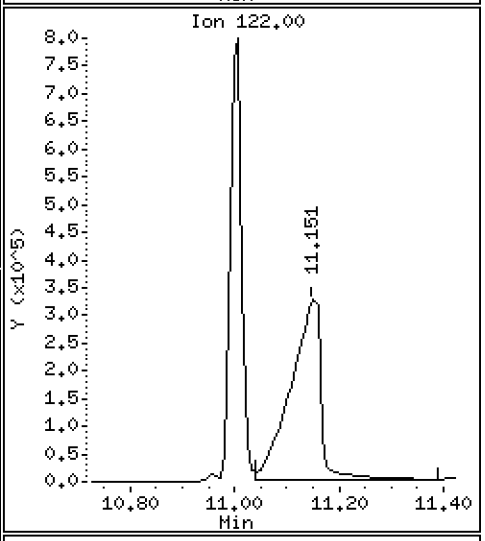
24 Benzoic acid

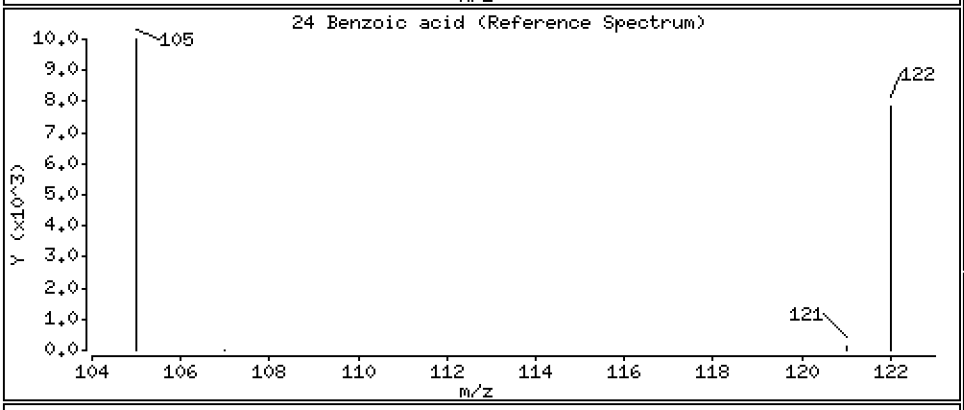
Concentration: 19.64 ug/L

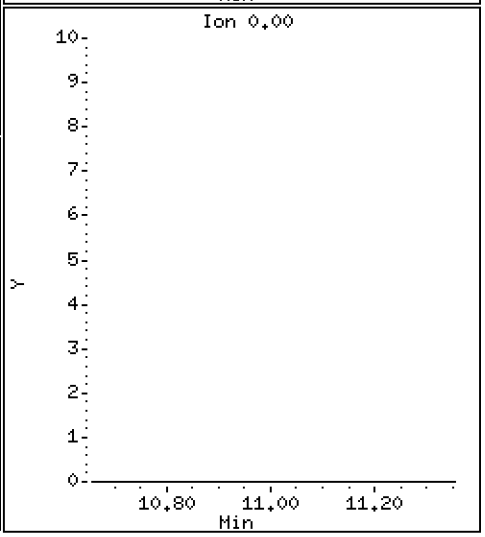


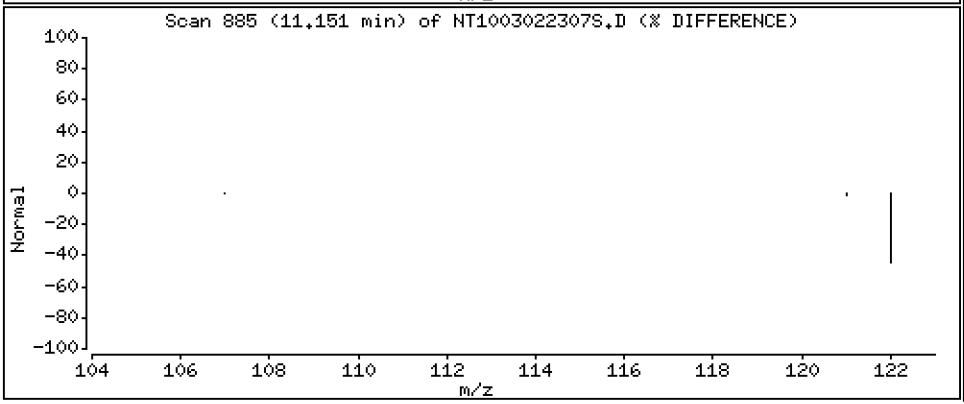












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223075.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

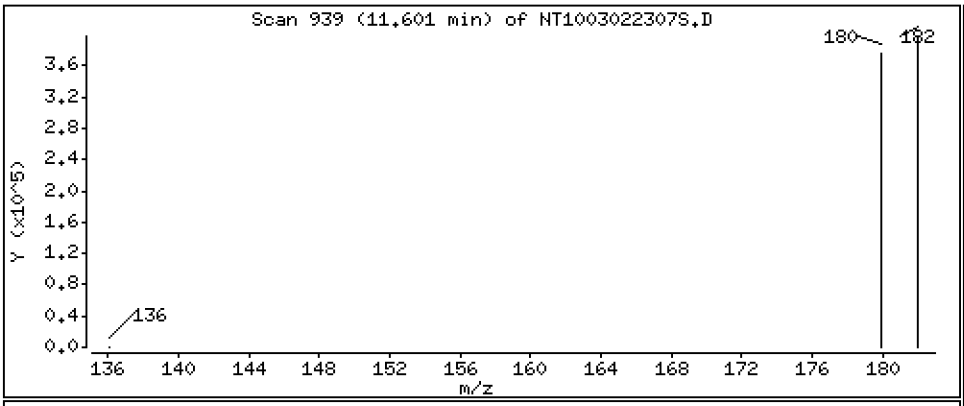
Operator: JGR

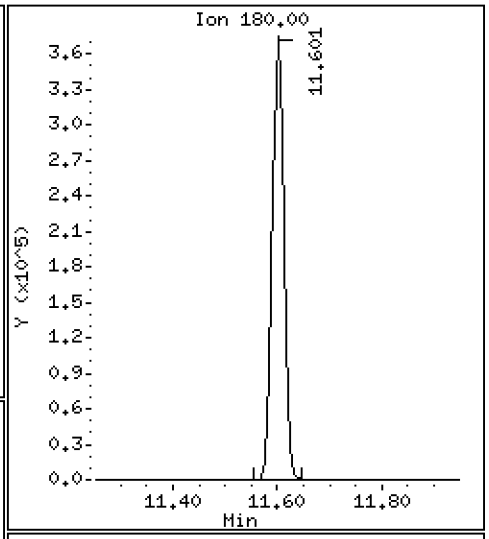
Column phase: ZB-5msi

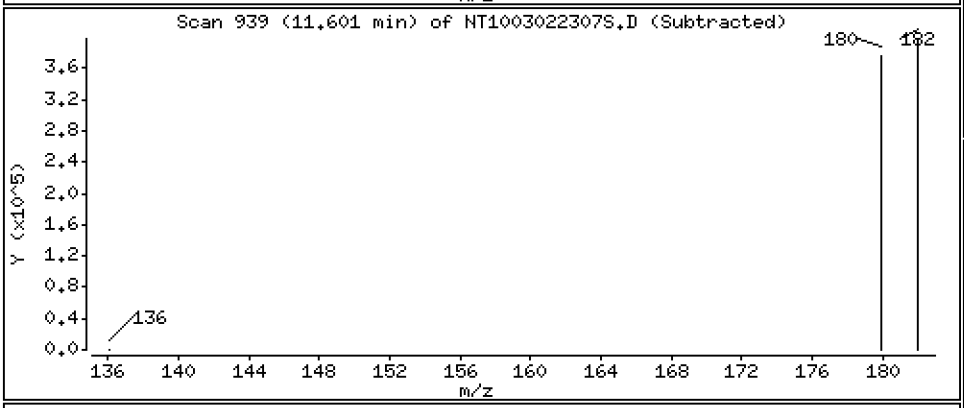
Column diameter: 0.25

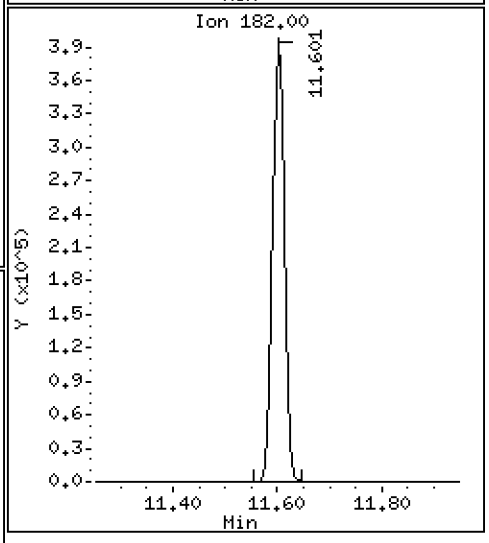
26 1,2,4-Trichlorobenzene

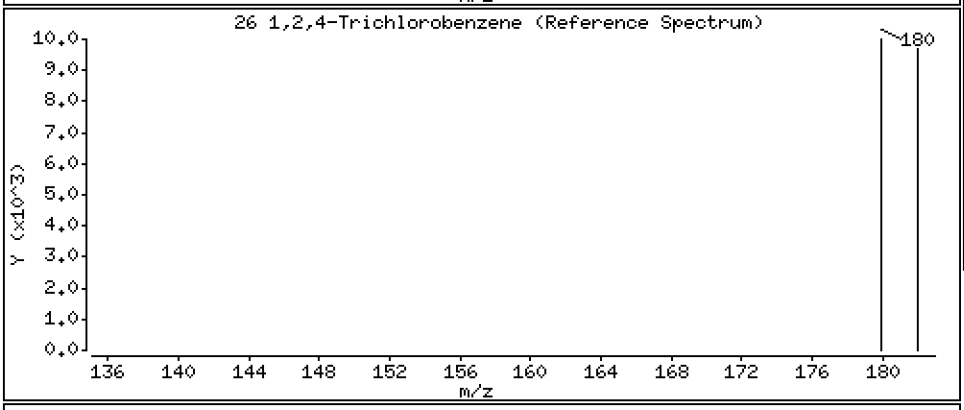
Concentration: 4.348 ug/L

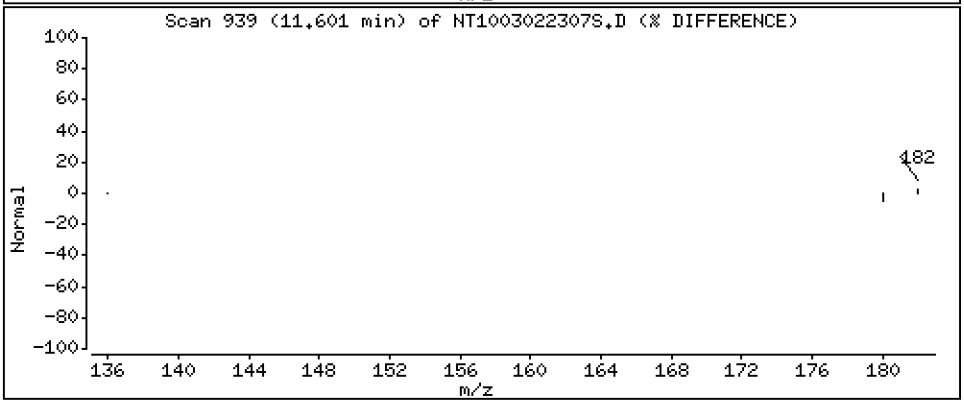












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223075.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

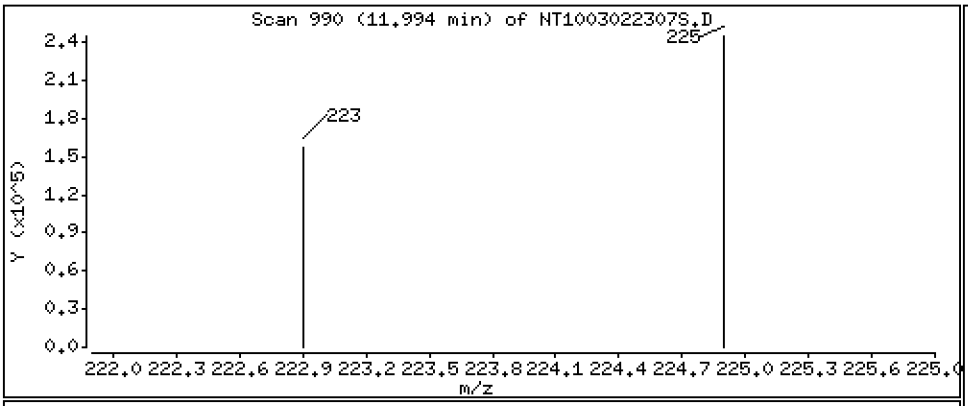
Operator: JGR

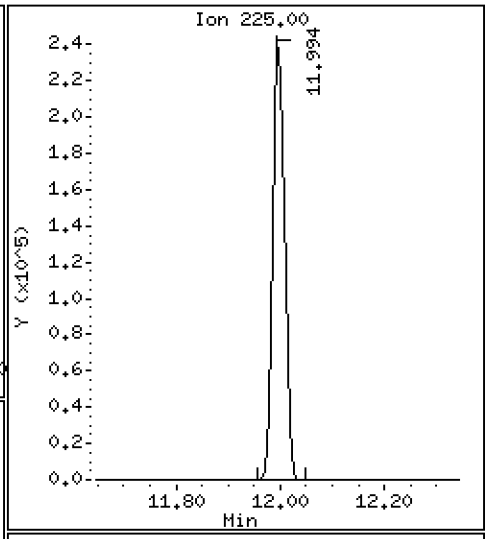
Column phase: ZB-5msi

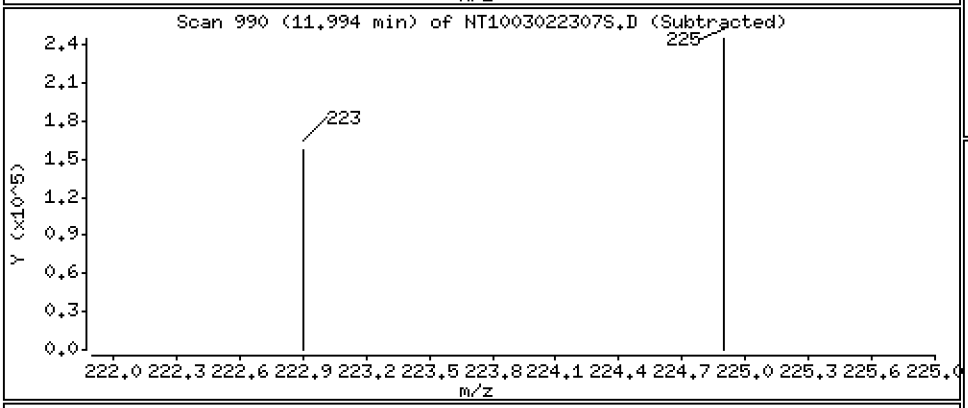
Column diameter: 0.25

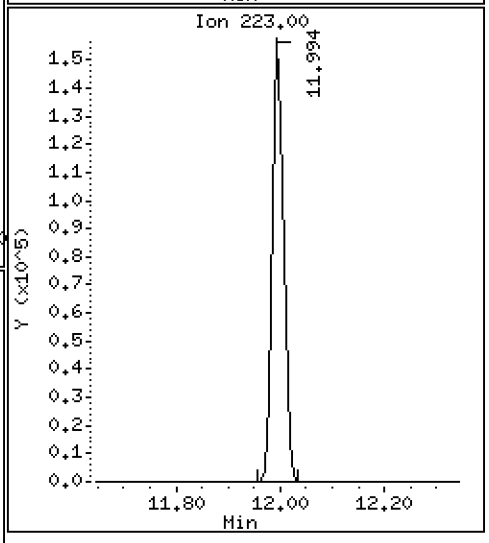
30 Hexachlorobutadiene

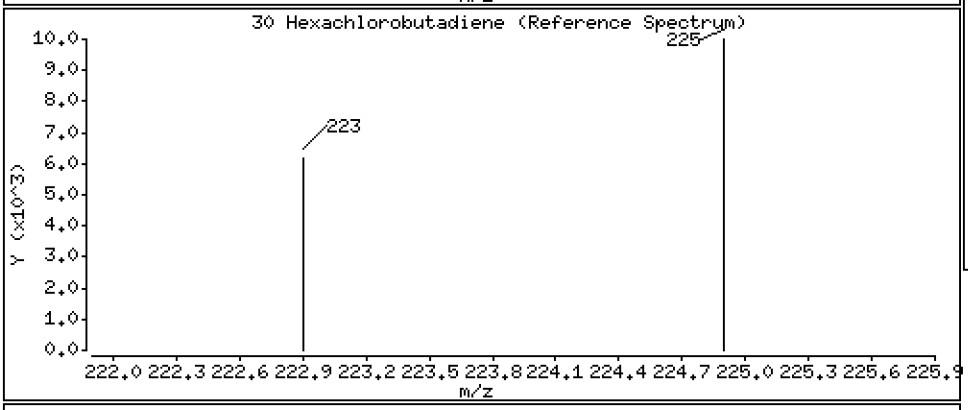
Concentration: 4.117 ug/L

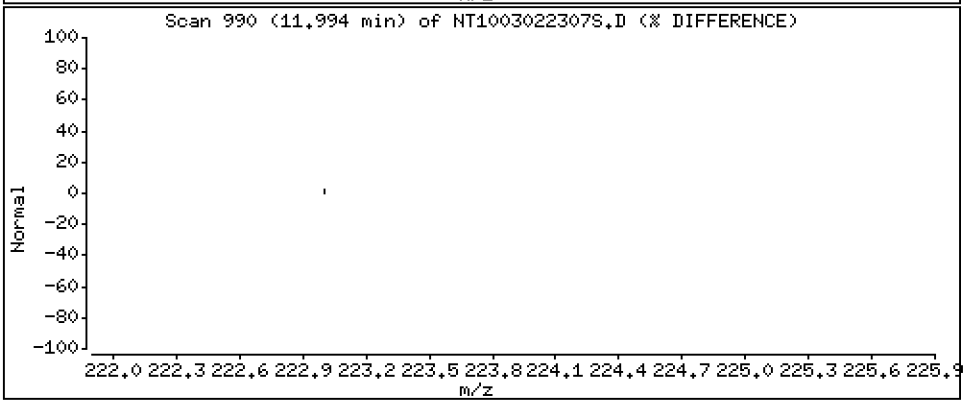












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022307S.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

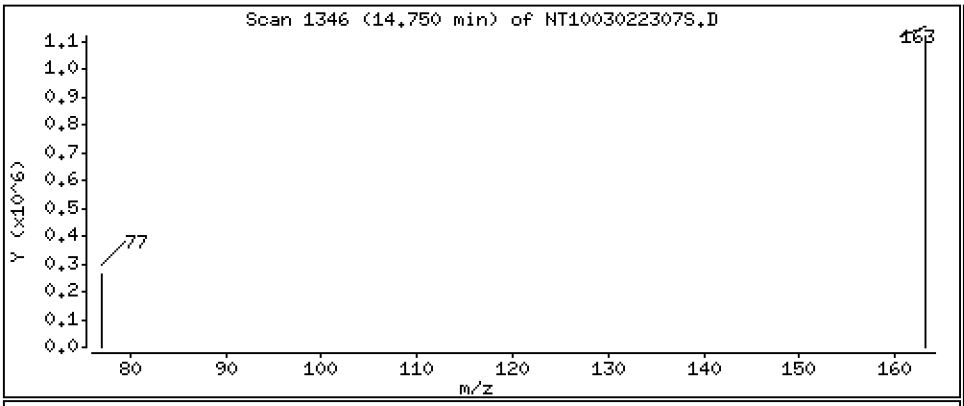
Operator: JGR

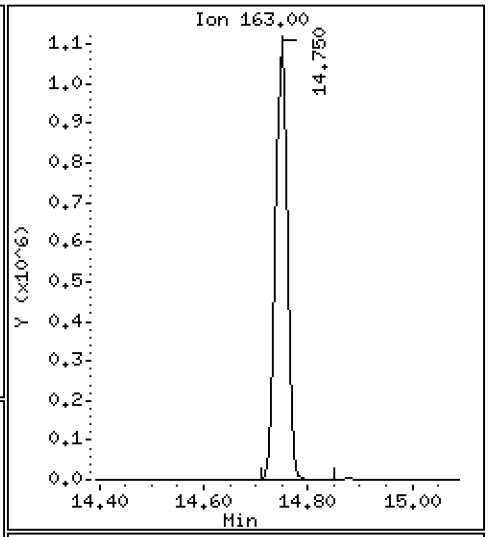
Column phase: ZB-5msi

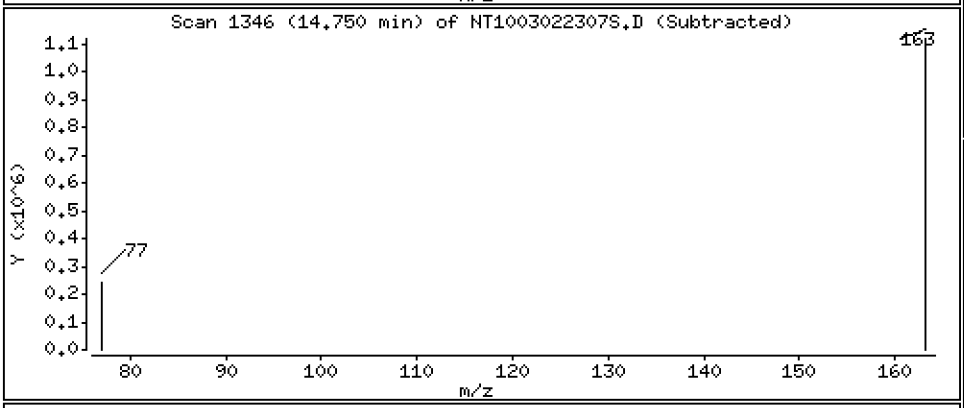
Column diameter: 0.25

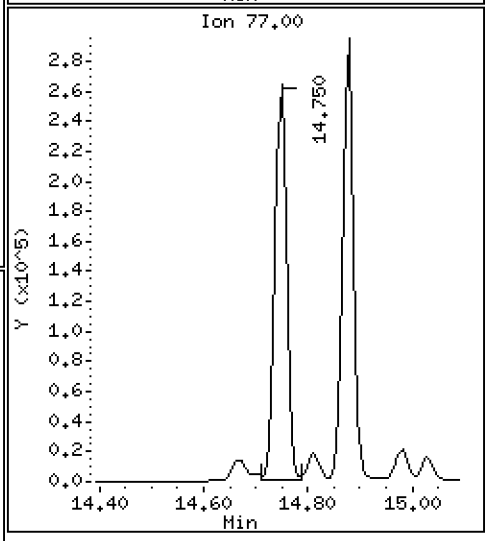
39 Dimethylphthalate

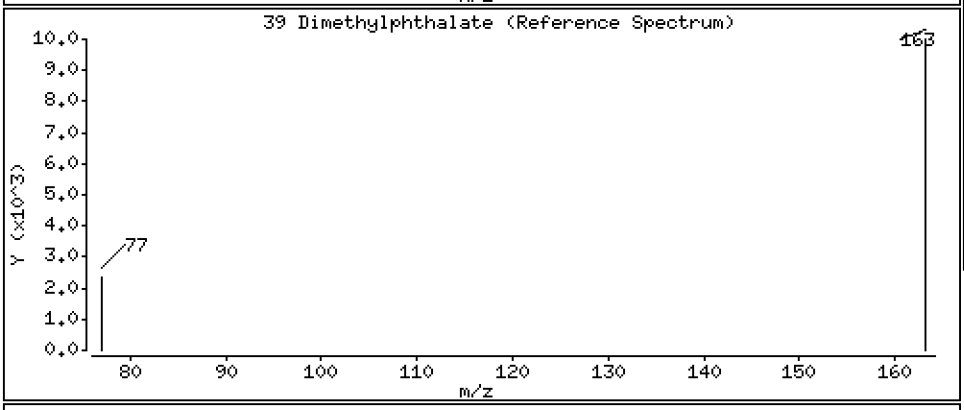
Concentration: 5.444 ug/L

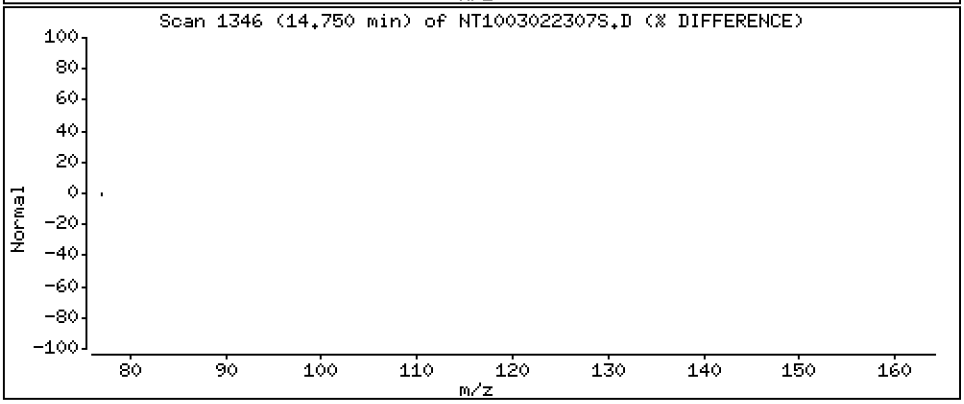












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022307S.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

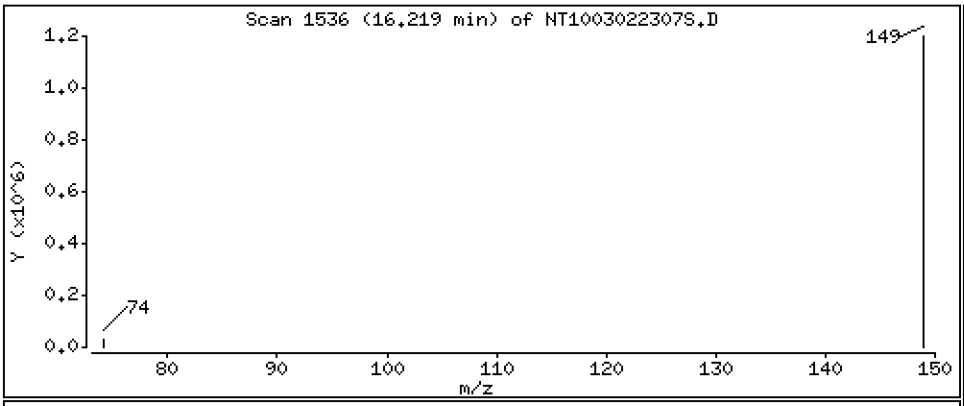
Operator: JGR

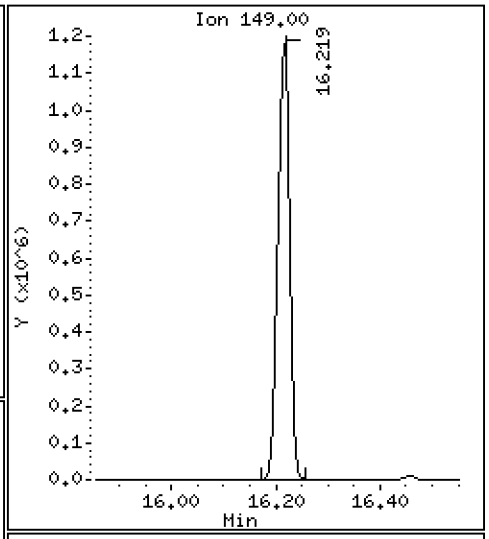
Column phase: ZB-5msi

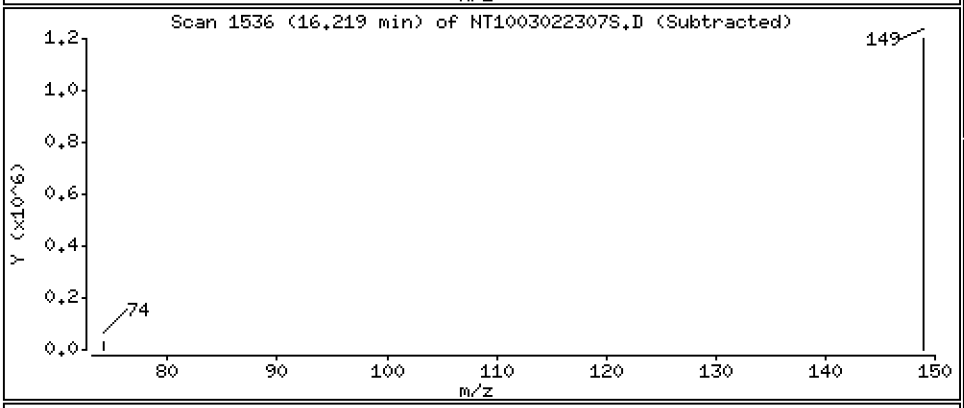
Column diameter: 0.25

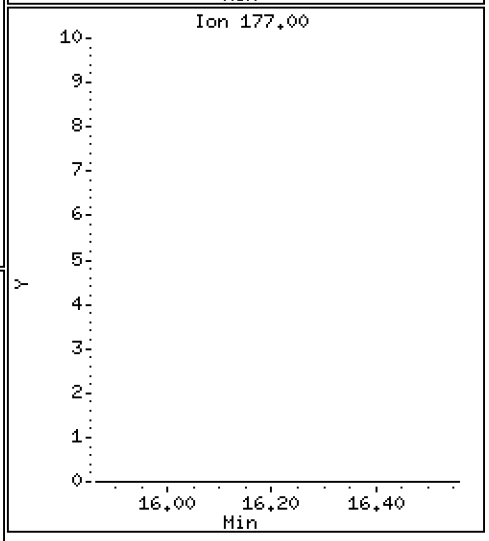
50 Diethylphthalate

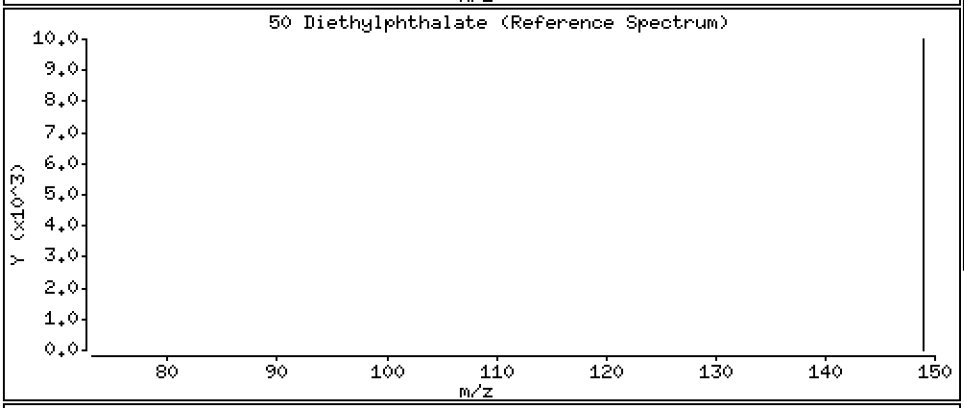
Concentration: 6.291 ug/L

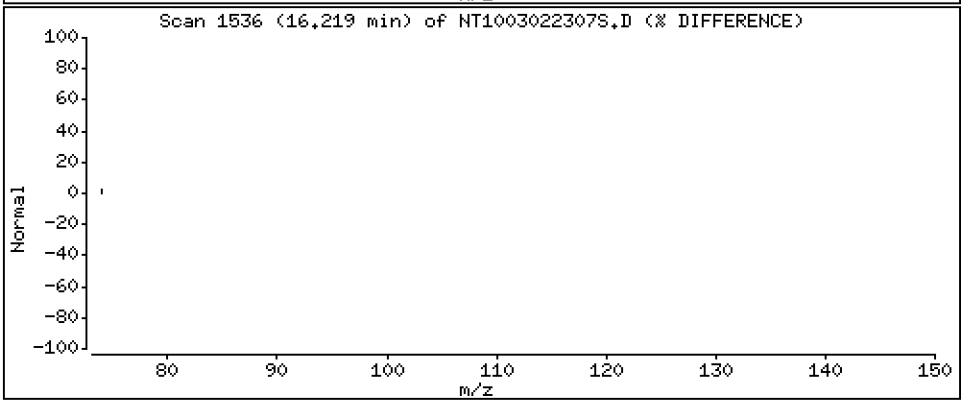












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022307S.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

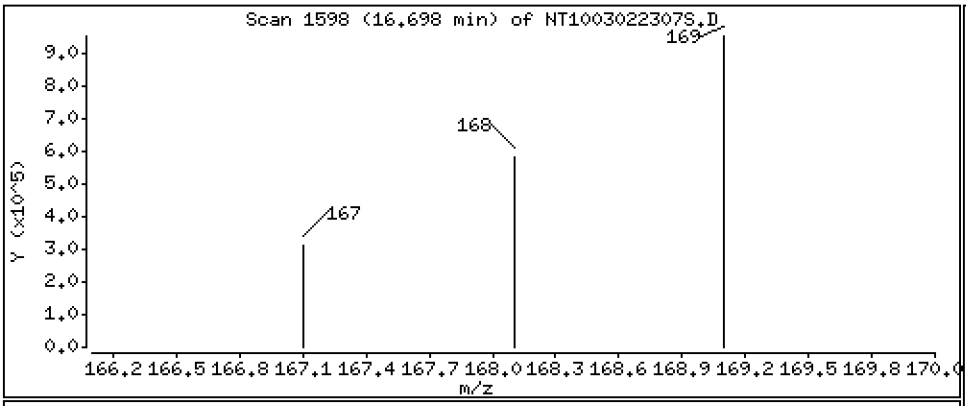
Operator: JGR

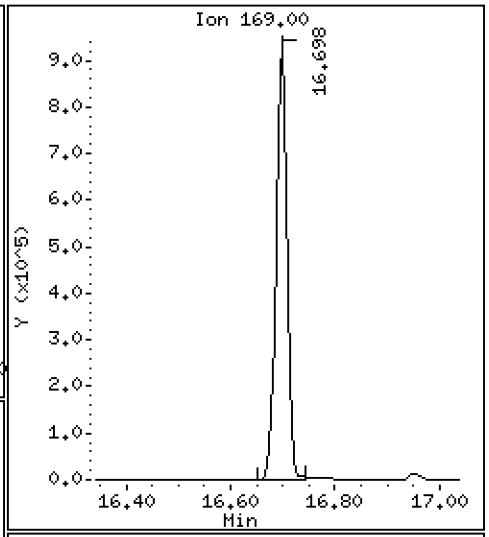
Column phase: ZB-5msi

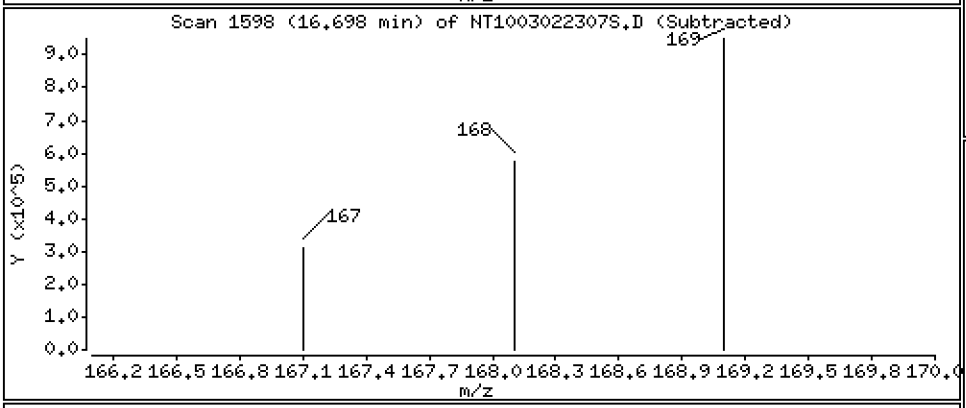
Column diameter: 0.25

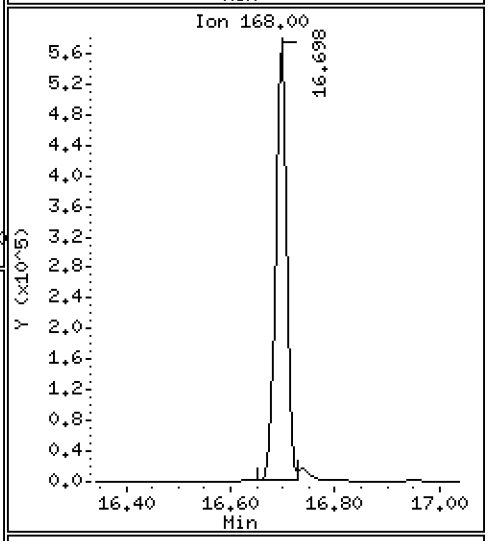
54 N-Nitrosodiphenylamine

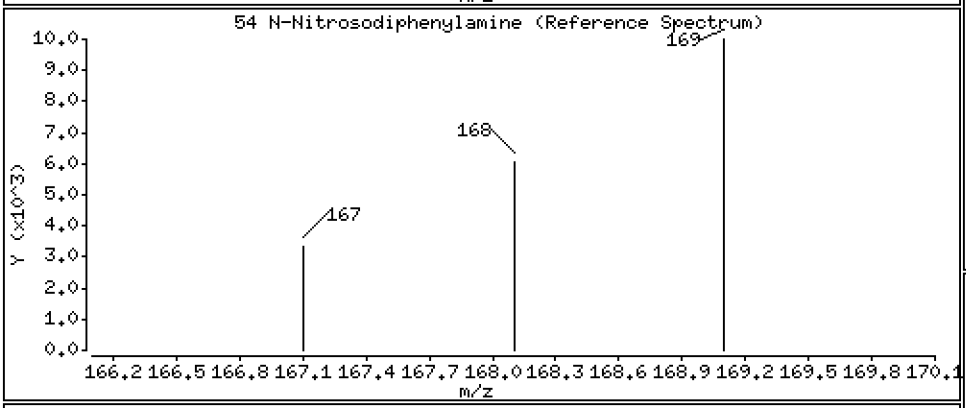
Concentration: 4.947 ug/L

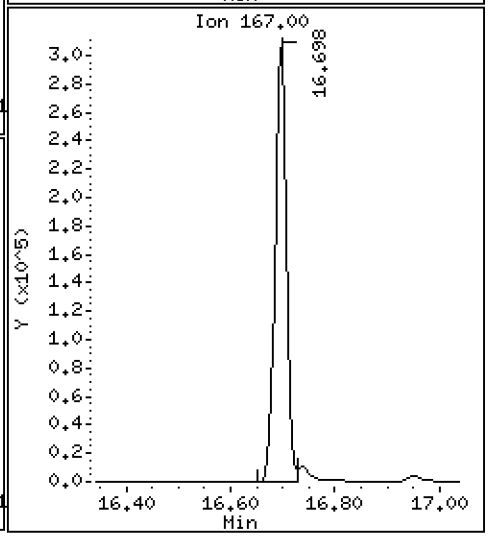


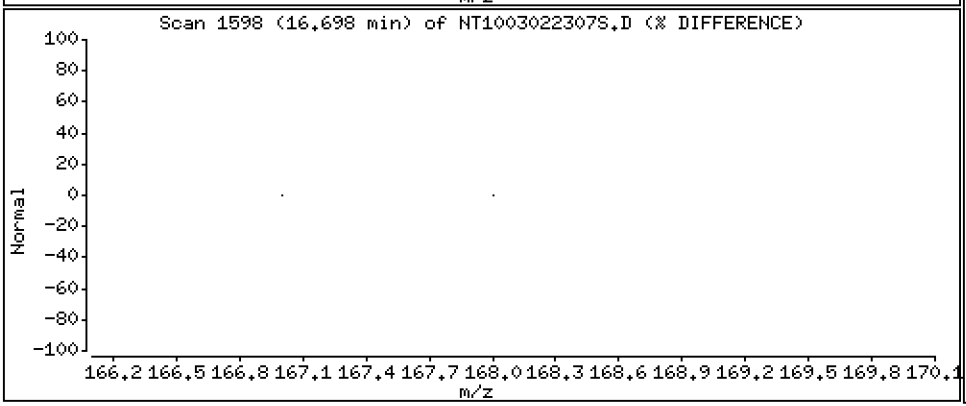












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Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

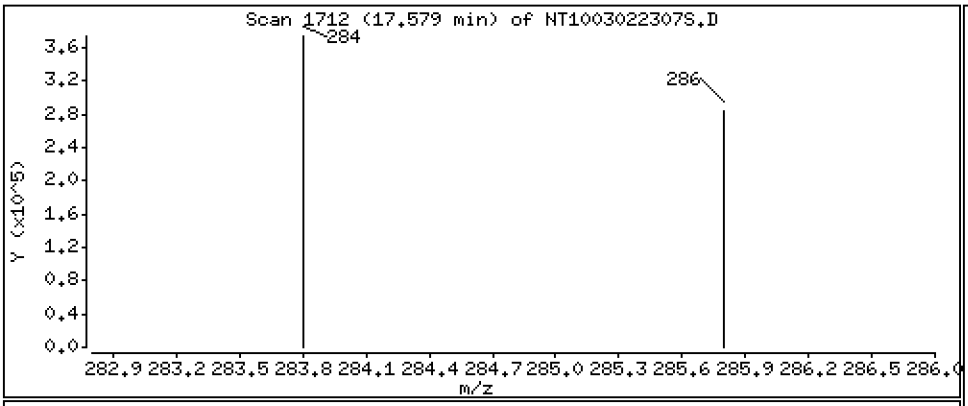
Operator: JGR

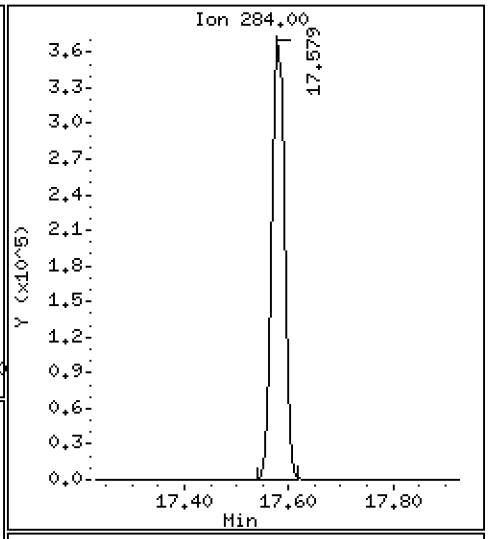
Column phase: ZB-5msi

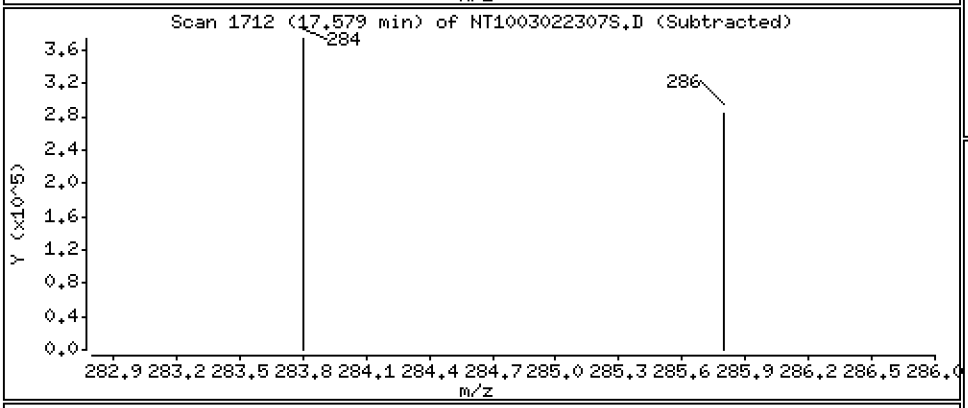
Column diameter: 0.25

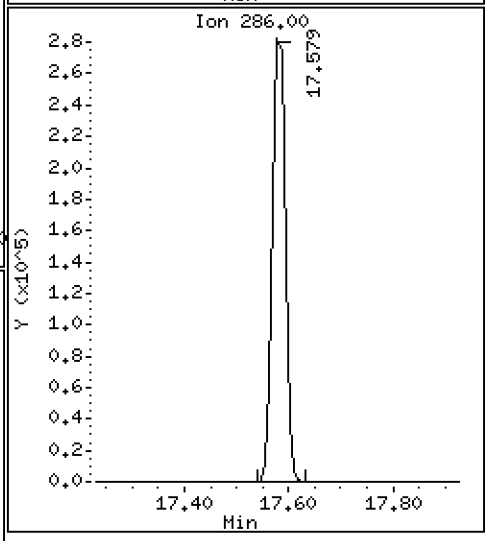
57 Hexachlorobenzene

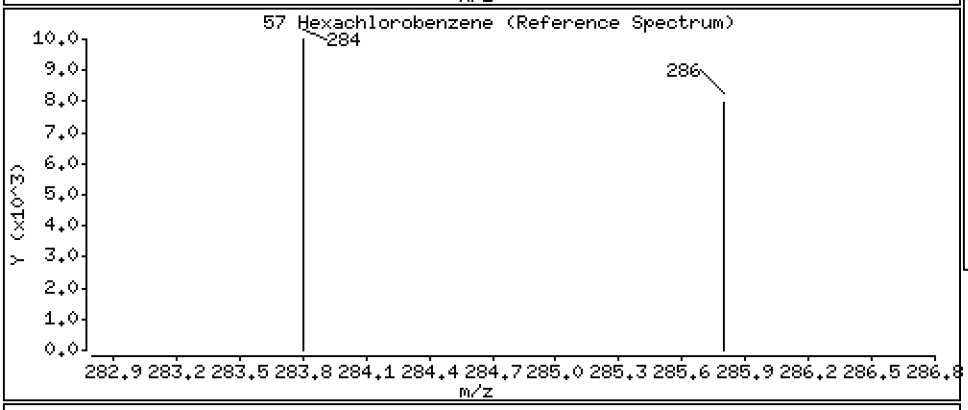
Concentration: 4.546 ug/L

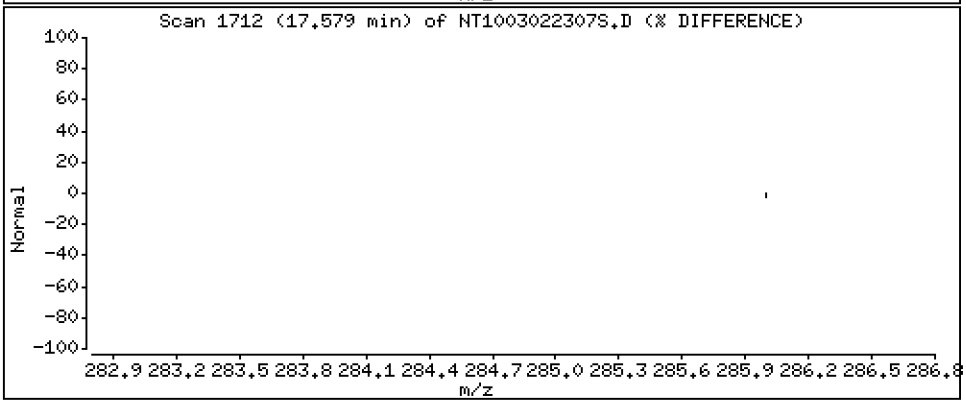












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022307S.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

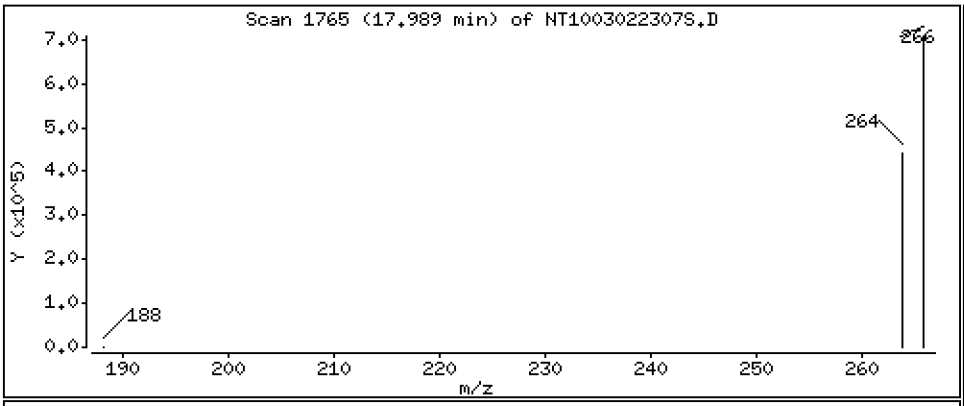
Operator: JGR

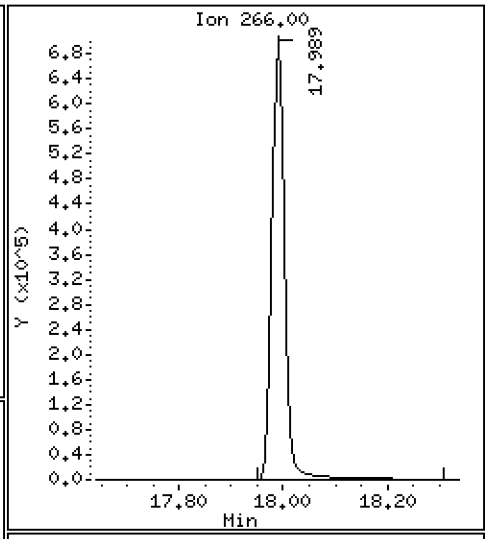
Column phase: ZB-5msi

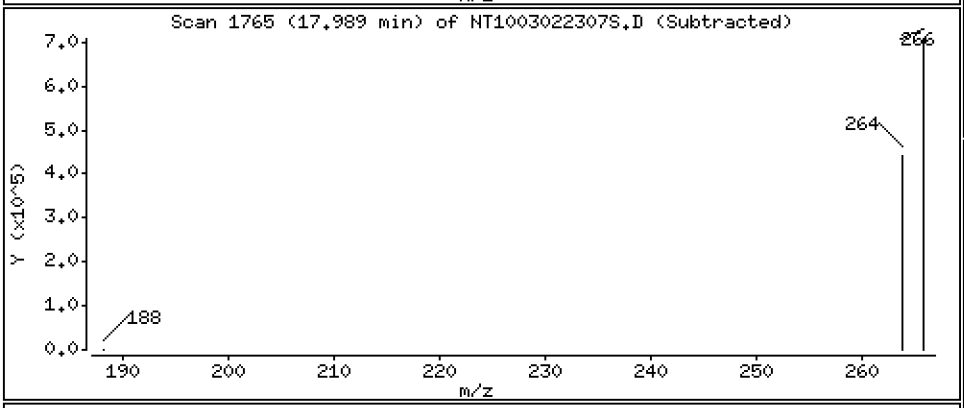
Column diameter: 0.25

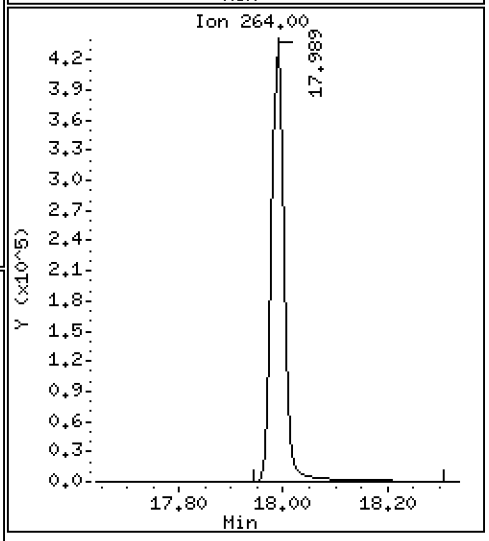
58 Pentachlorophenol

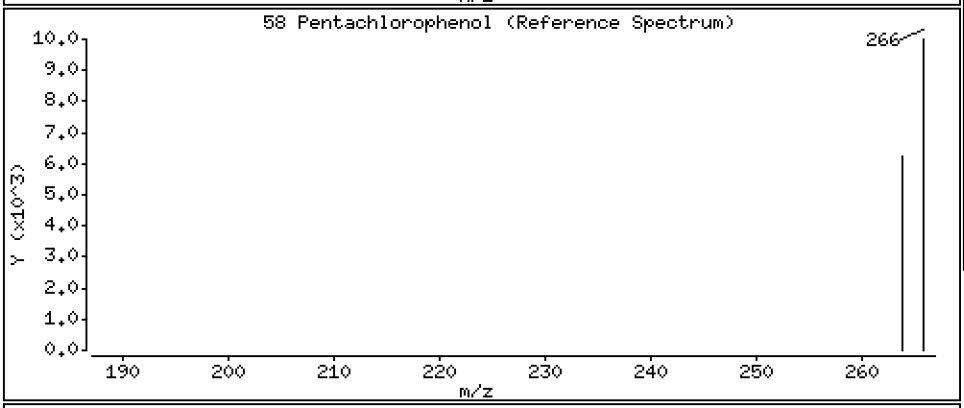
Concentration: 16.03 ug/L

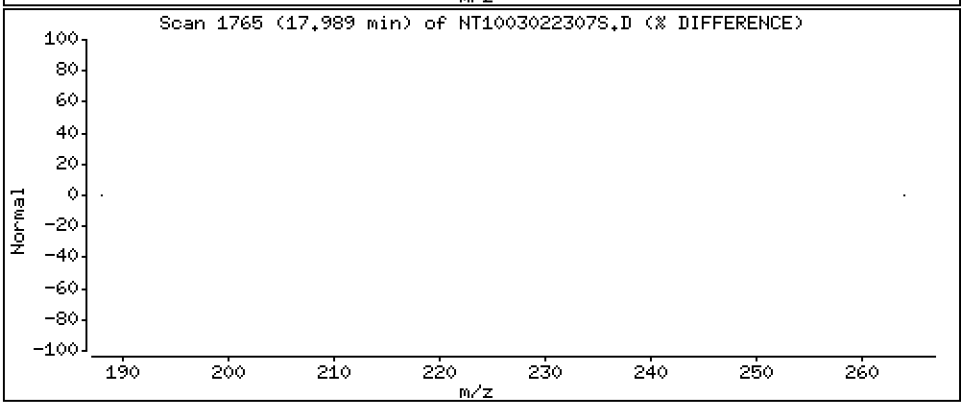












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022307S.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

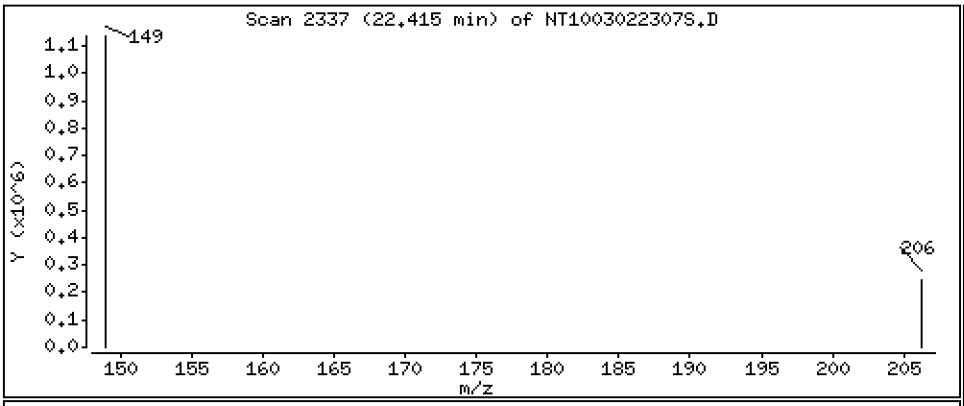
Operator: JGR

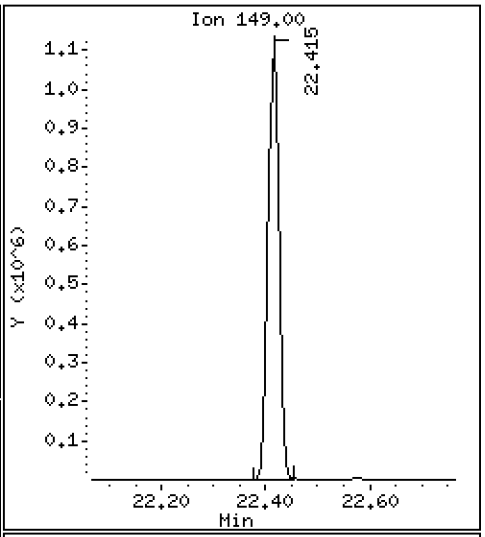
Column phase: ZB-5msi

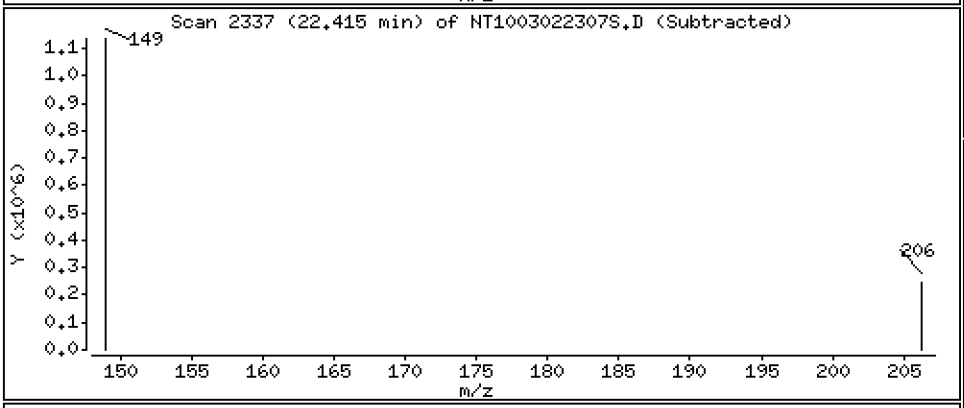
Column diameter: 0.25

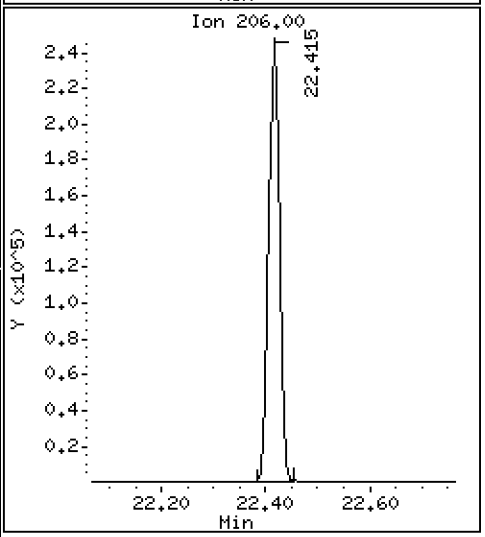
67 Butylbenzylphthalate

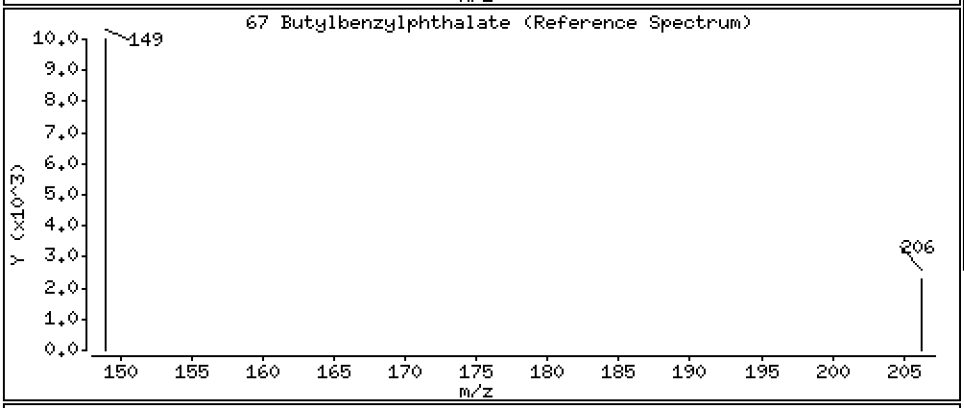
Concentration: 4.813 ug/L

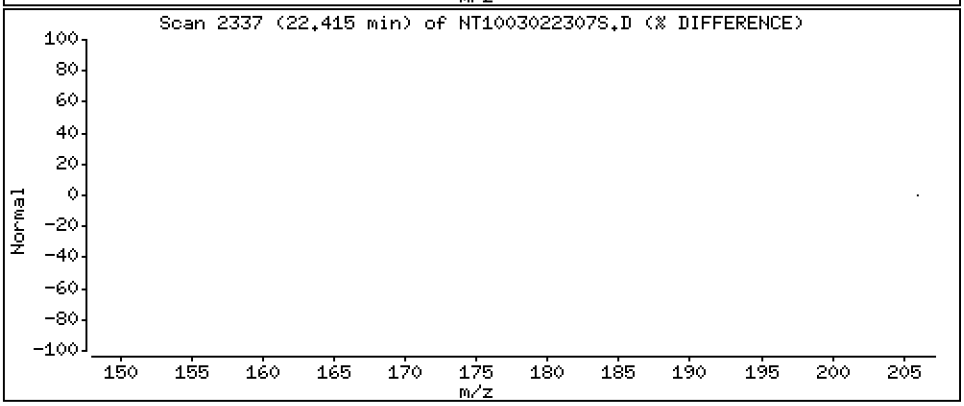












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022307S.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

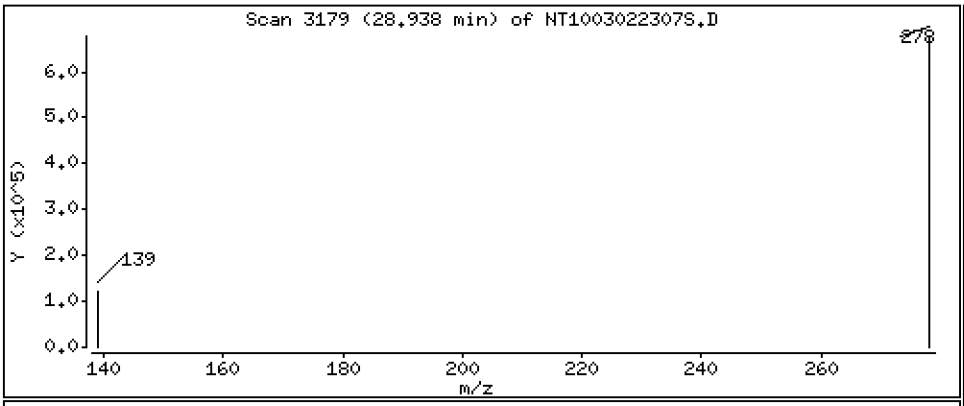
Operator: JGR

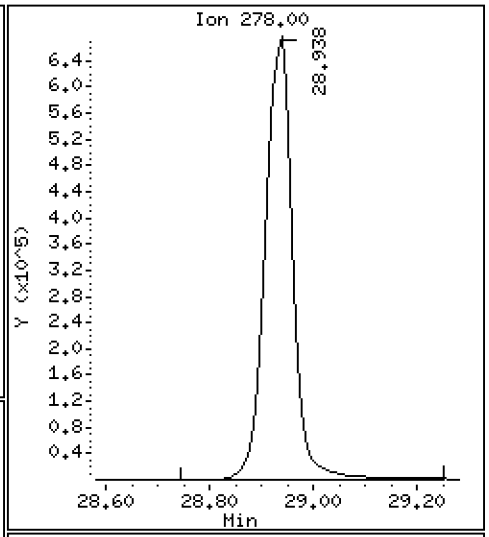
Column phase: ZB-5msi

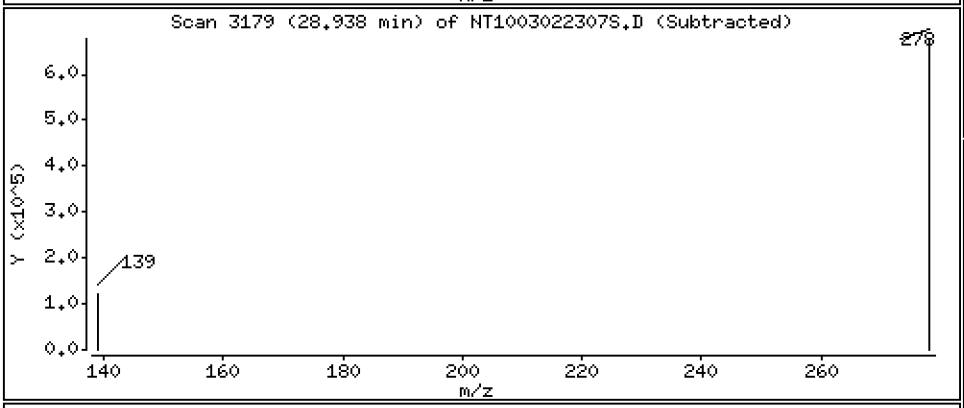
Column diameter: 0.25

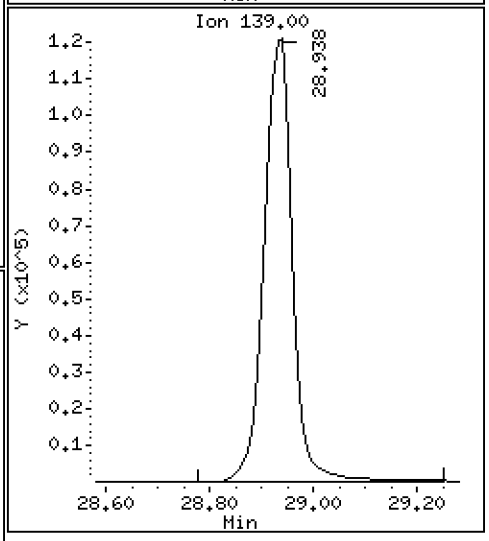
79 Dibenzo(a,h)anthracene

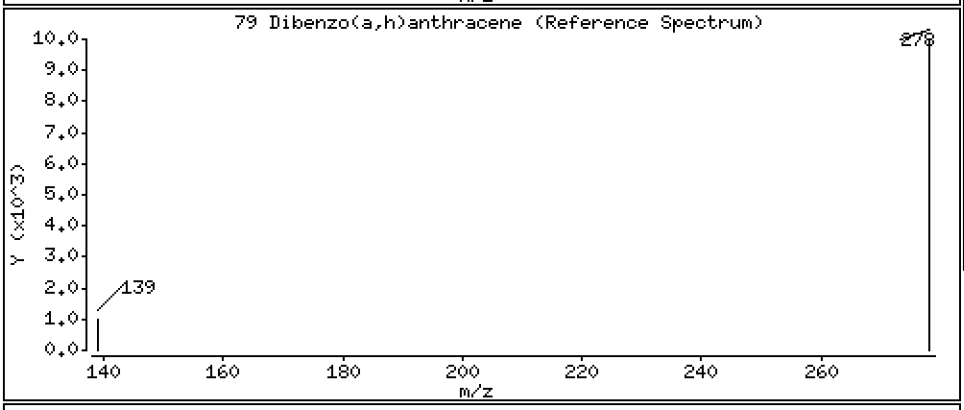
Concentration: 5.147 ug/L

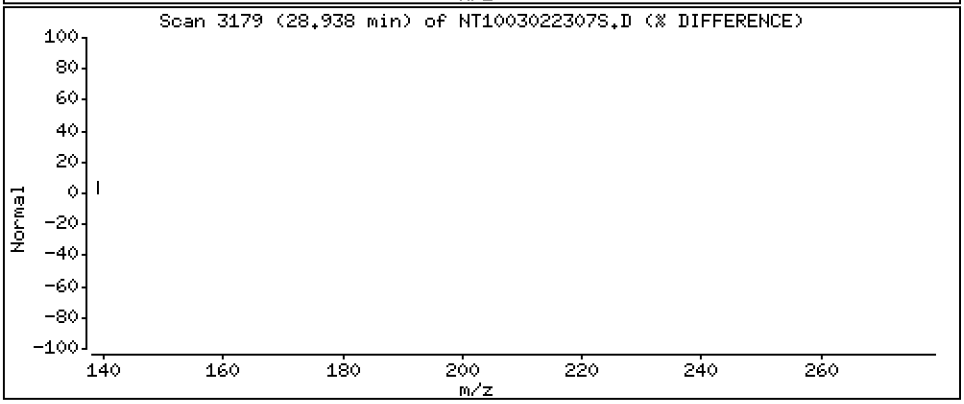












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223075.D

Date : 02-MAR-2023 18:12

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BS1

Volume Injected (uL): 1.0

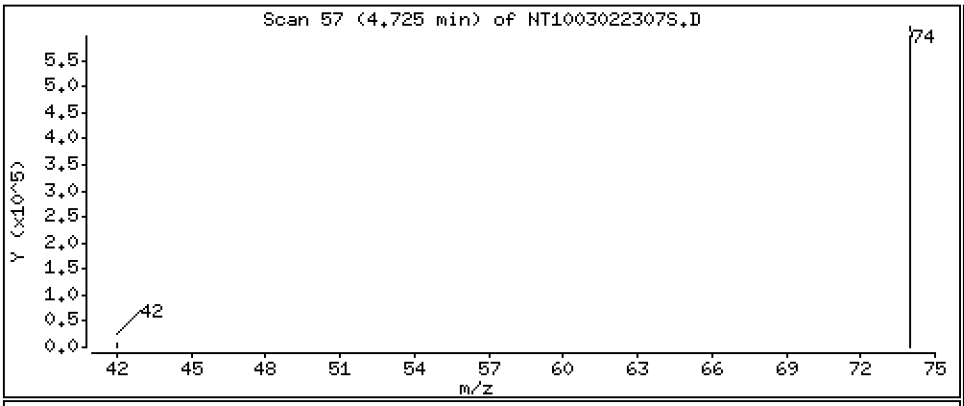
Operator: JGR

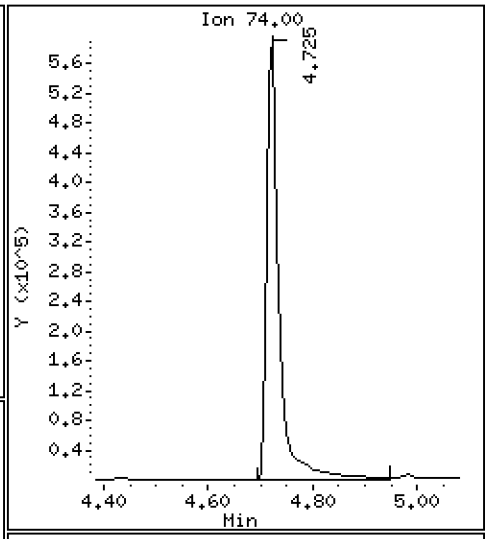
Column phase: ZB-5msi

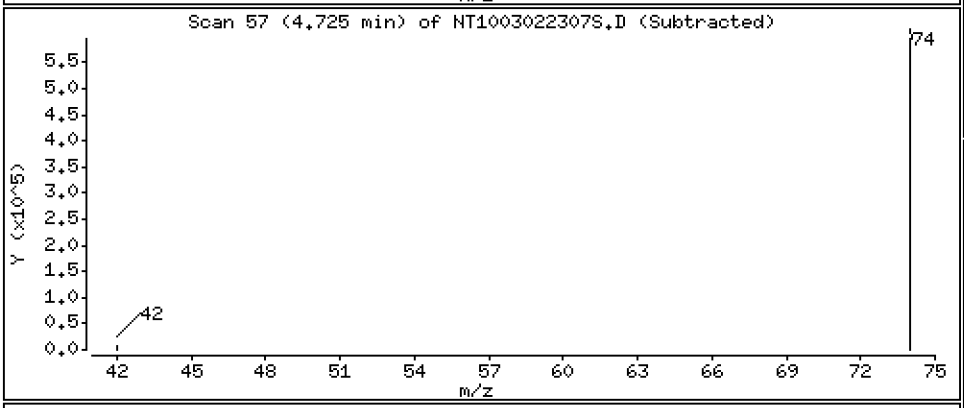
Column diameter: 0.25

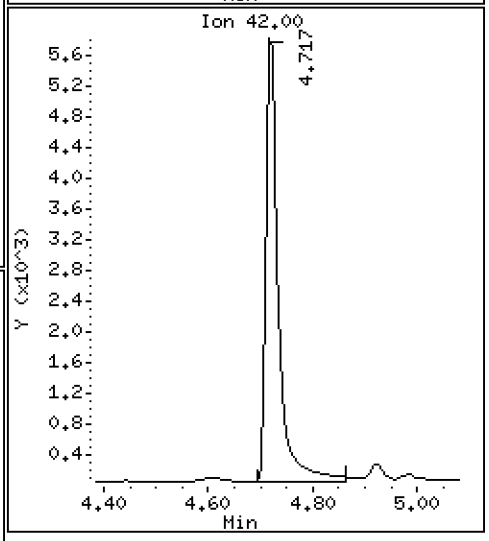
90 N-Nitrosodimethylamine

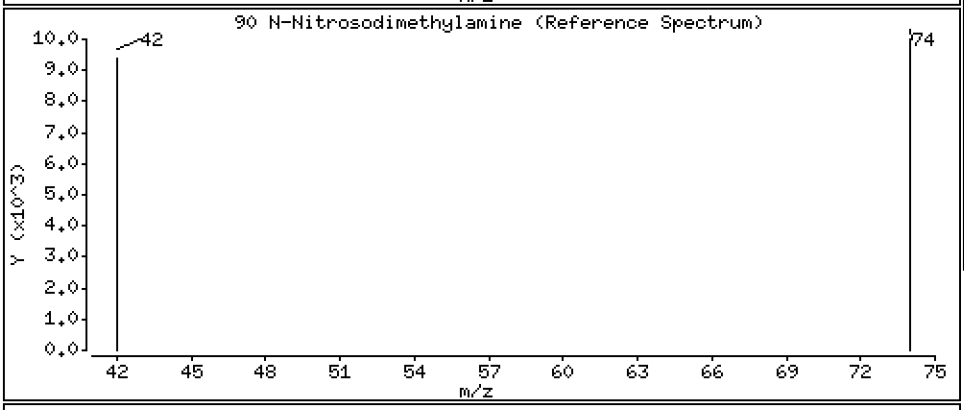
Concentration: 12.80 ug/L

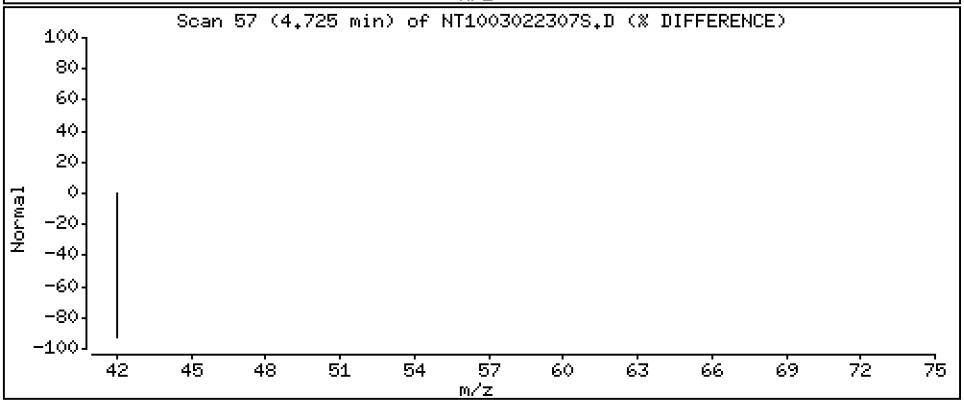












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022307S.D
Lab Smp Id: BLA0624-BS1
Inj Date : 02-MAR-2023 18:12 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : BLA0624-BS1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 14:53 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.902	6.902	(0.746)	841468	6.52398	6.524(R)
3	Phenol	94	8.517	8.517	(0.921)	973358	4.98503	4.985
7	1,3-Dichlorobenzene	146	9.143	9.143	(0.988)	709028	4.23468	4.235
* 8	1,4-Dichlorobenzene-d4	152	9.252	9.251	(1.000)	451780	4.00000	
9	1,4-Dichlorobenzene	146	9.283	9.282	(1.003)	715977	4.39820	4.398
11	Benzyl alcohol	79	9.477	9.476	(1.024)	524736	4.66536	4.665
12	1,2-Dichlorobenzene	146	9.562	9.562	(1.034)	703267	4.49464	4.495
13	2-Methylphenol	108	9.655	9.655	(1.044)	506956	4.27355	4.274
15	4-Methylphenol	108	9.950	9.942	(1.076)	578416	4.61288	4.613
16	N-Nitroso-di-n-propylamine	70	9.982	9.981	(1.079)	438478	5.07702	5.077
22	2,4-Dimethylphenol	107	10.998	10.997	(0.938)	1539522	10.1032	10.10
24	Benzoic acid	105	11.150	11.074	(0.951)	1789304	19.6444	19.64
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	545737	4.34752	4.348
* 27	Naphthalene-d8	136	11.724	11.723	(1.000)	1744036	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	366703	4.11657	4.117
39	Dimethylphthalate	163	14.749	14.741	(0.963)	1632680	5.44413	5.444
* 42	Acenaphthene-d10	162	15.322	15.314	(1.000)	944486	4.00000	
50	Diethylphthalate	149	16.218	16.203	(1.059)	1779087	6.29067	6.291
54	N-Nitrosodiphenylamine	169	16.698	16.690	(0.907)	1377595	4.94651	4.947
57	Hexachlorobenzene	284	17.578	17.578	(0.955)	592498	4.54603	4.546

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	17.989	17.988	(0.977)	1137031	16.0277	16.03
*	59 Phenanthrene-d10	188	18.406	18.406	(1.000)	1720859	4.00000	
$	66 Terphenyl-d14	244	21.532	21.532	(0.919)	698523	4.50842	4.508(R)
	67 Butylbenzylphthalate	149	22.415	22.414	(0.957)	1529993	4.81256	4.813
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	1915960	4.00000	
*	77 Perylene-d12	264	26.116	26.115	(1.000)	1919174	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.938	28.929	(1.108)	2482091	5.14660	5.147
	90 N-Nitrosodimethylamine	74	4.724	4.732	(0.511)	977355	12.7989	12.80

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003022307S.D
Lab Smp Id: BLA0624-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 02-MAR-2023
Calibration Time: 14:13
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	493417	246709	986834	451780	-8.44
27 Naphthalene-d8	1779056	889528	3558112	1744036	-1.97
42 Acenaphthene-d10	954569	477285	1909138	944486	-1.06
59 Phenanthrene-d10	1596290	798145	3192580	1720859	7.80
69 Chrysene-d12	1649110	824555	3298220	1915960	16.18
77 Perylene-d12	1901958	950979	3803916	1919174	0.91

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.32	0.05
59 Phenanthrene-d10	18.41	17.91	18.91	18.41	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
77 Perylene-d12	26.12	25.62	26.62	26.12	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003022307S.D

Lab ID: BLA0624-BS1
nt10.i, 20230302.b\SIM.b\SIMABN2.m,   02-MAR-2023 18:12

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.951	0.945	0.0065	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003022303S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223085.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

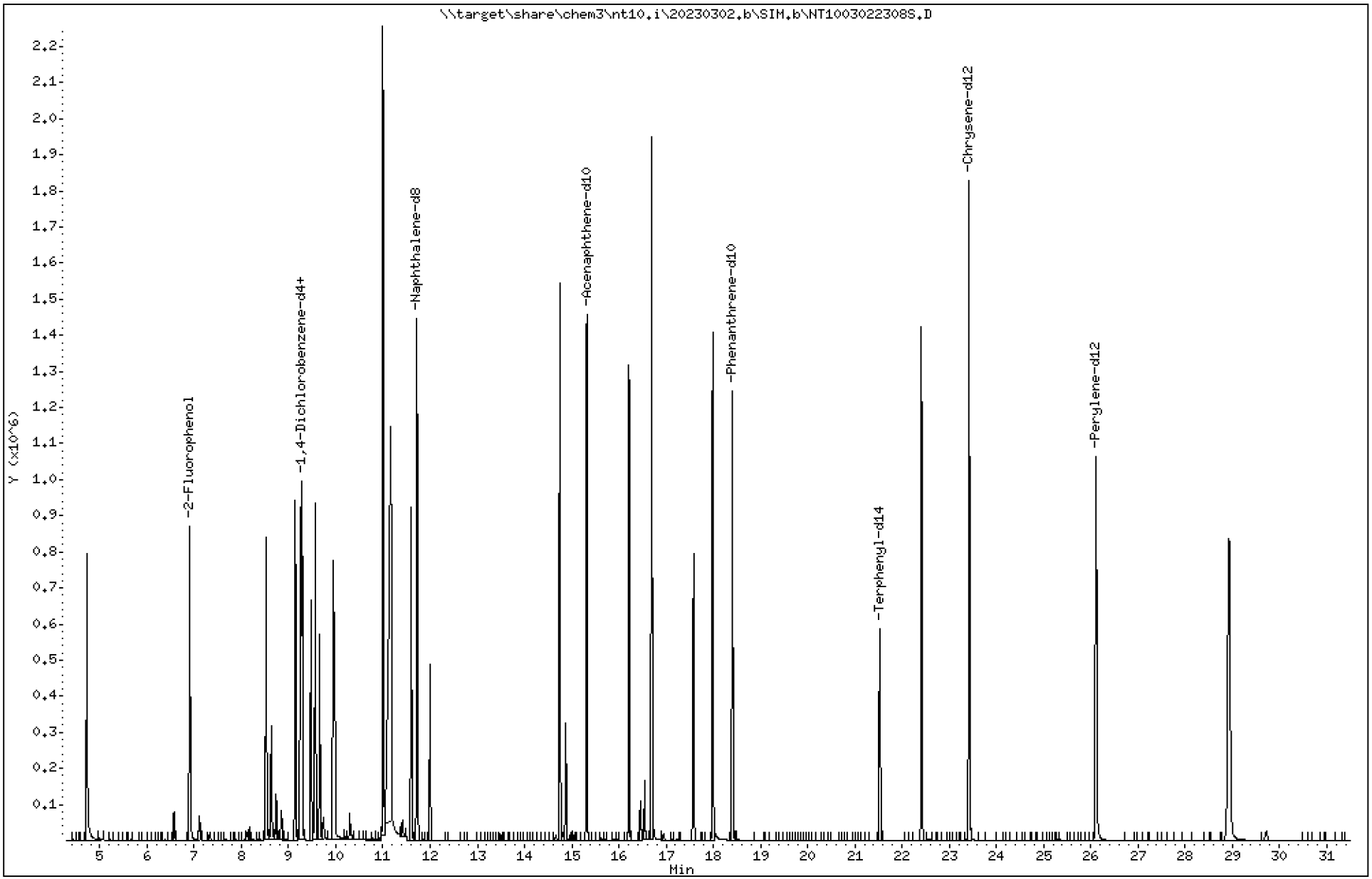
Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

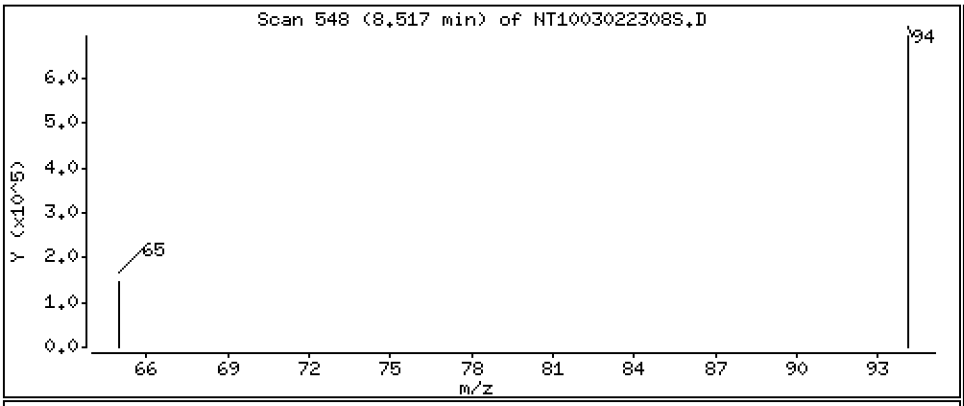
Operator: JGR

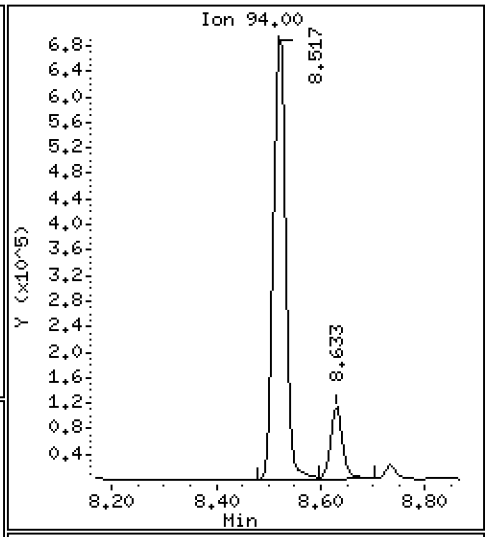
Column phase: ZB-5msi

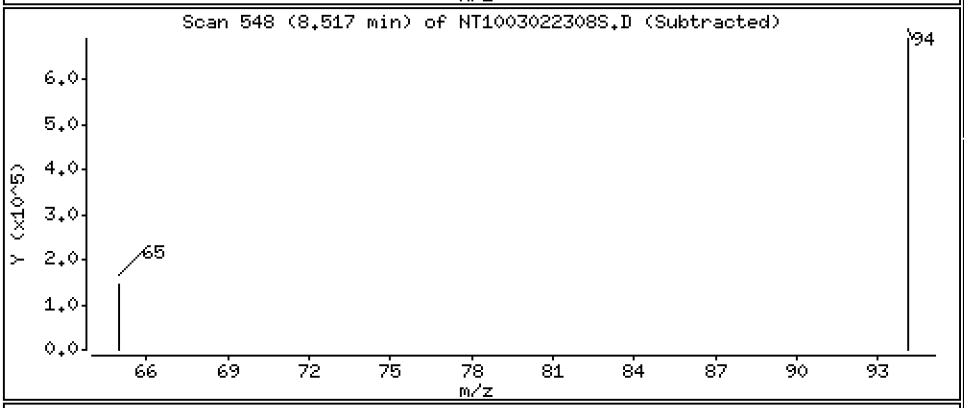
Column diameter: 0.25

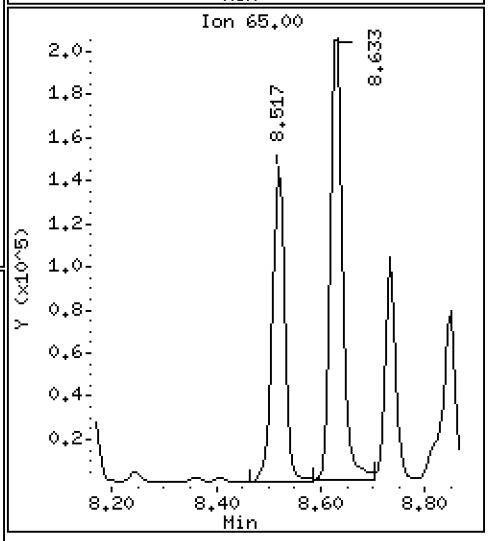
3 Phenol

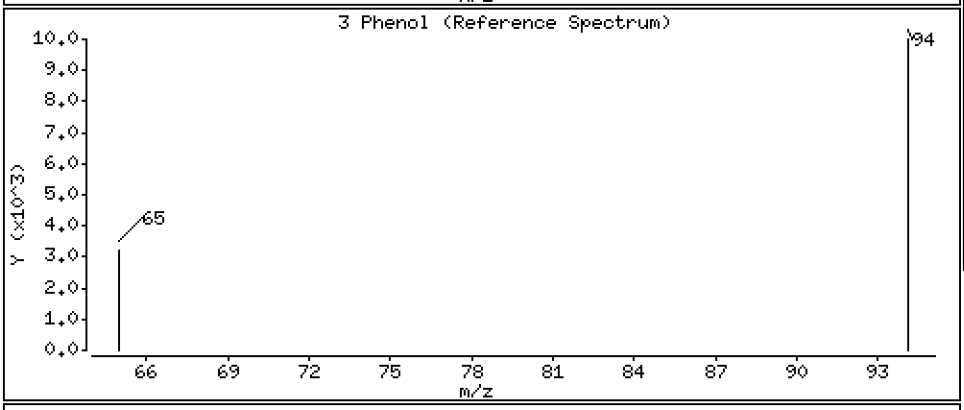
Concentration: 4.489 ug/L

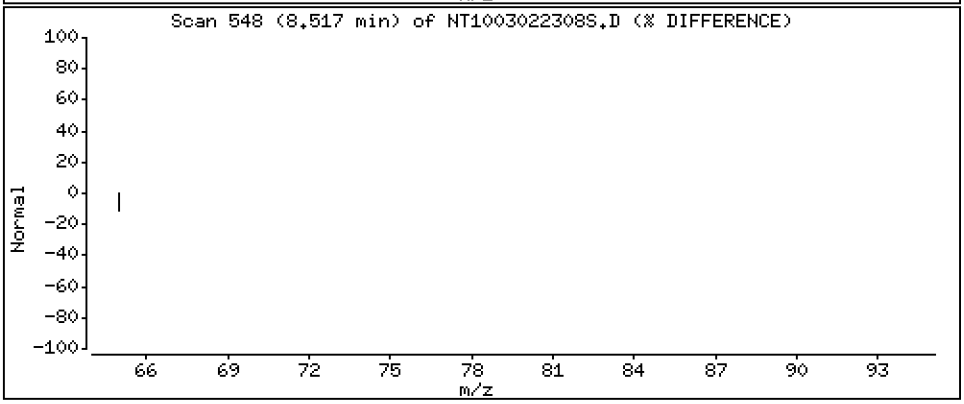












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

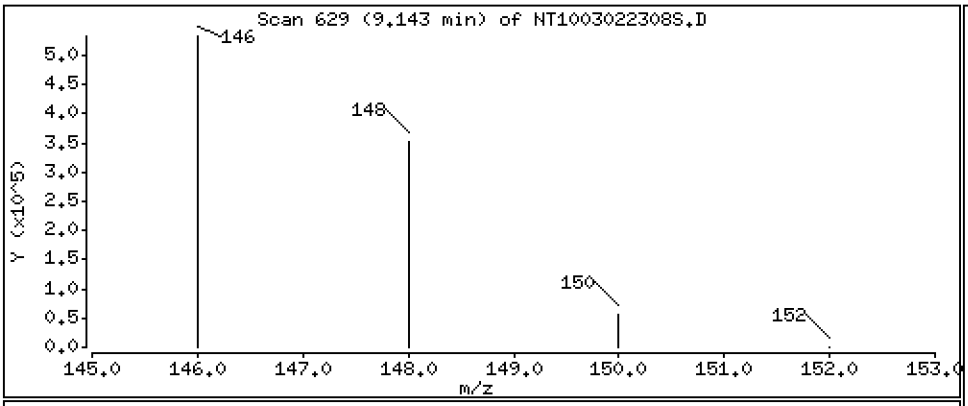
Operator: JGR

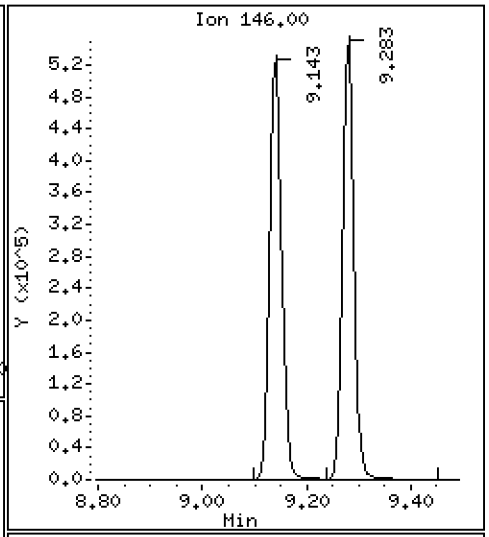
Column phase: ZB-5msi

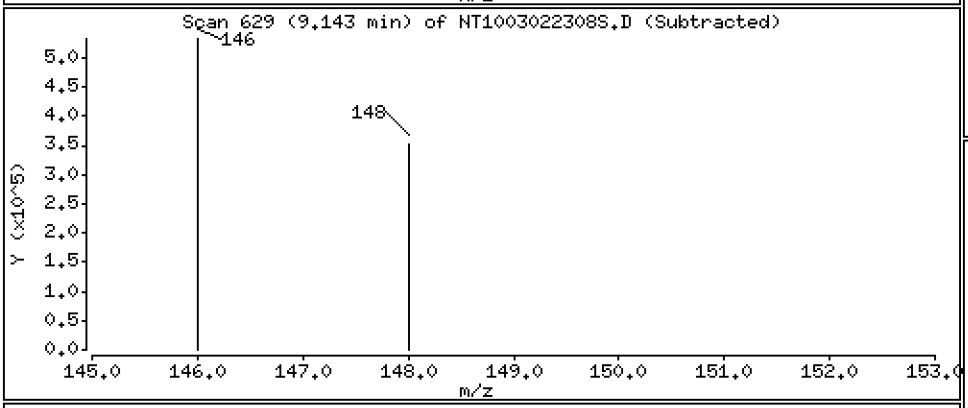
Column diameter: 0.25

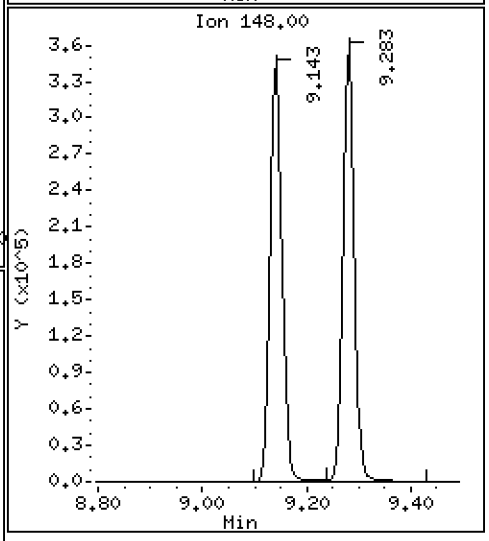
7 1,3-Dichlorobenzene

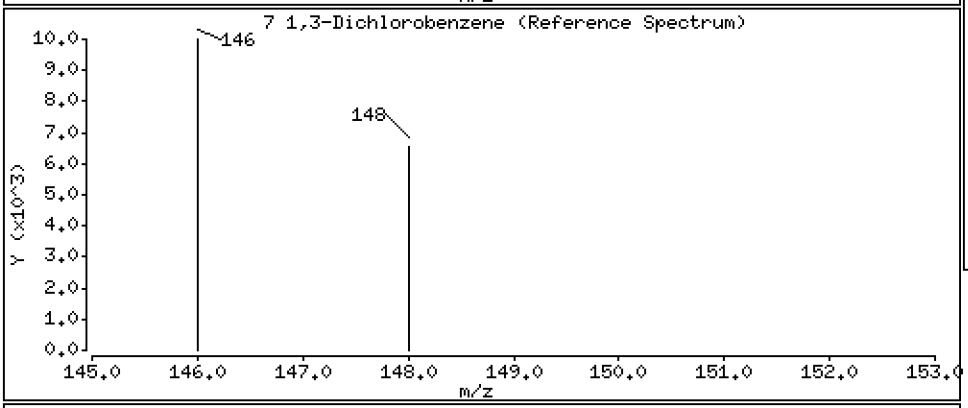
Concentration: 4.111 ug/L

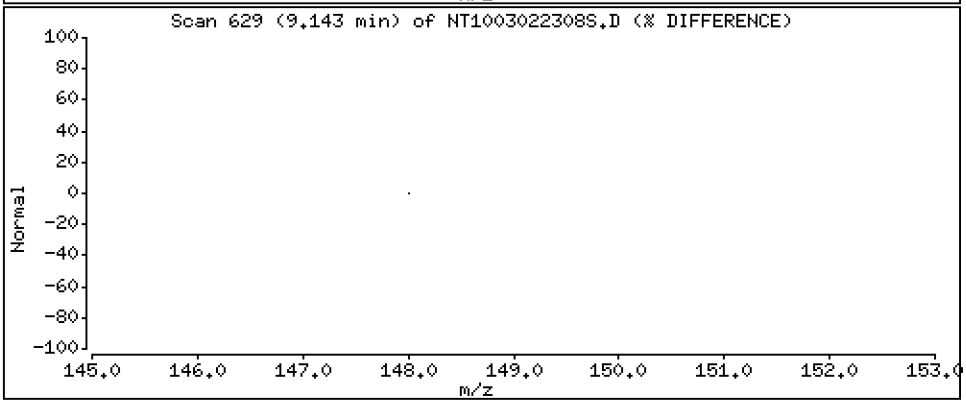












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

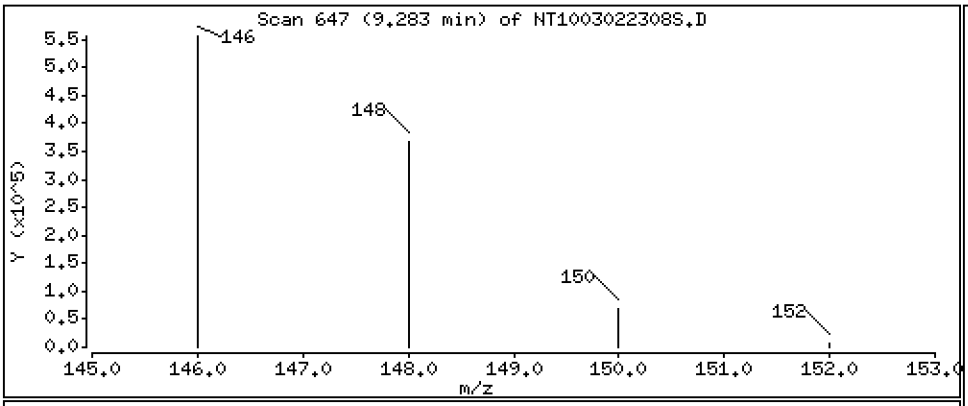
Operator: JGR

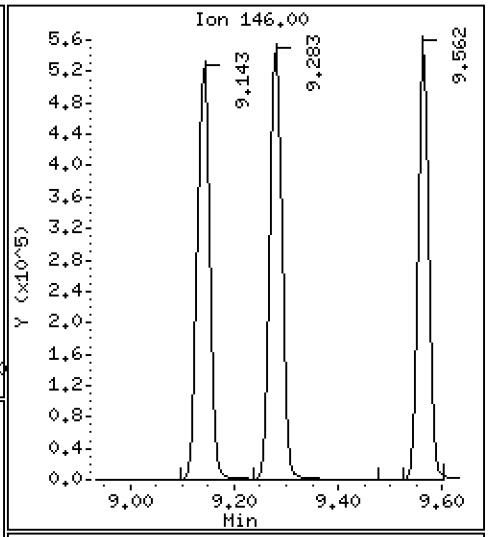
Column phase: ZB-5msi

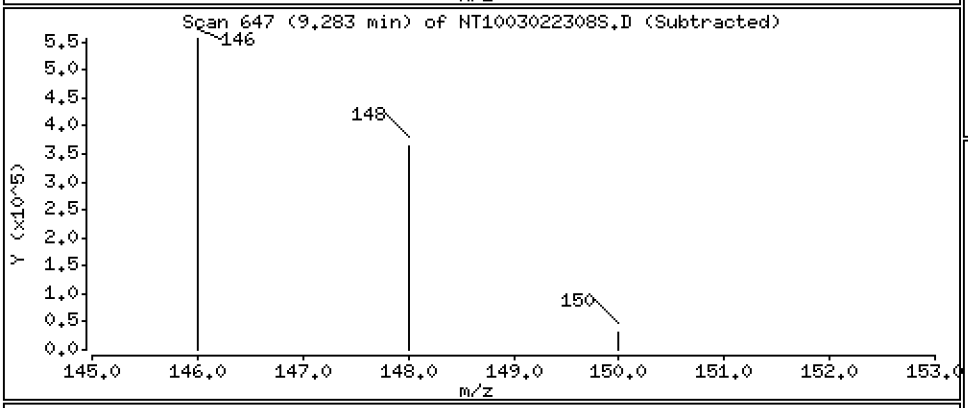
Column diameter: 0.25

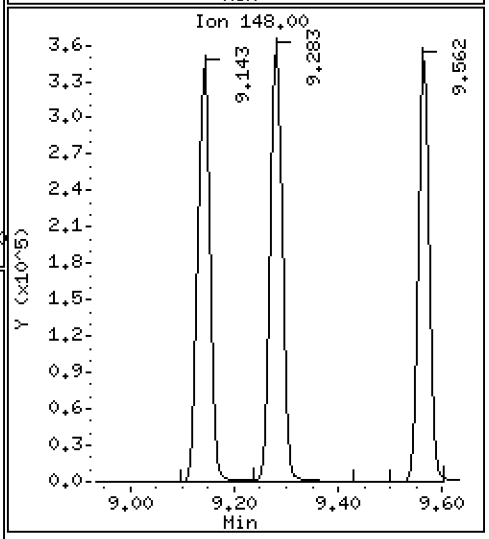
9 1,4-Dichlorobenzene

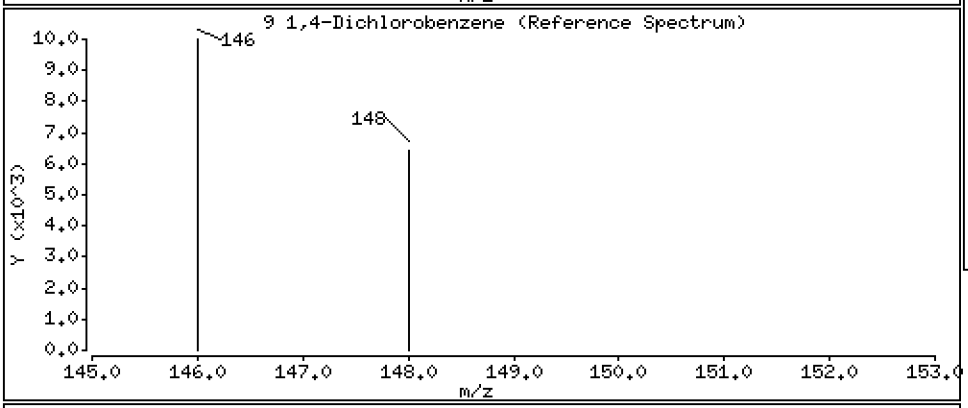
Concentration: 4.264 ug/L

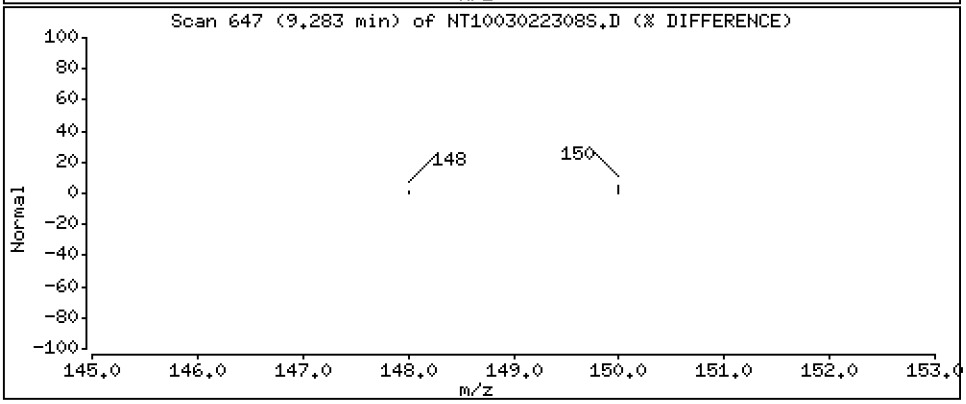












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

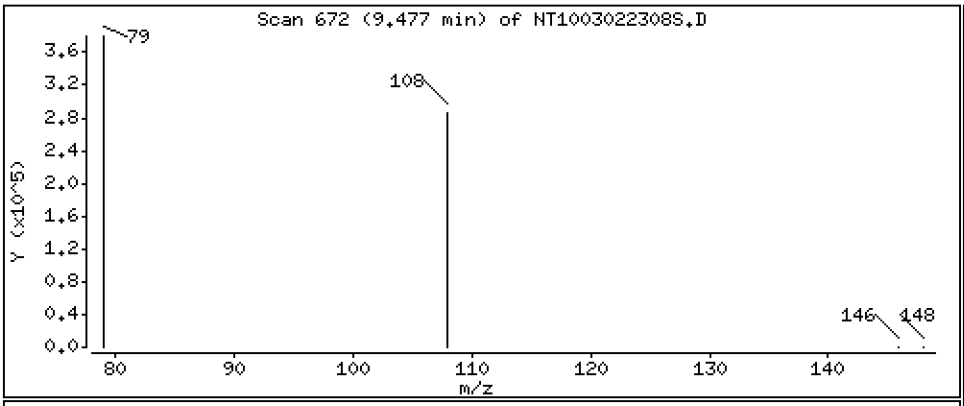
Operator: JGR

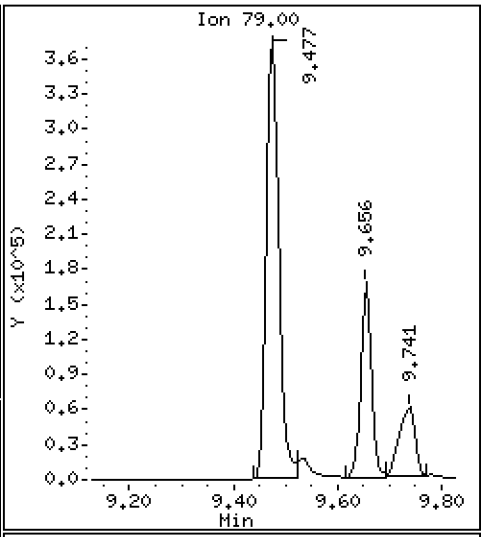
Column phase: ZB-5msi

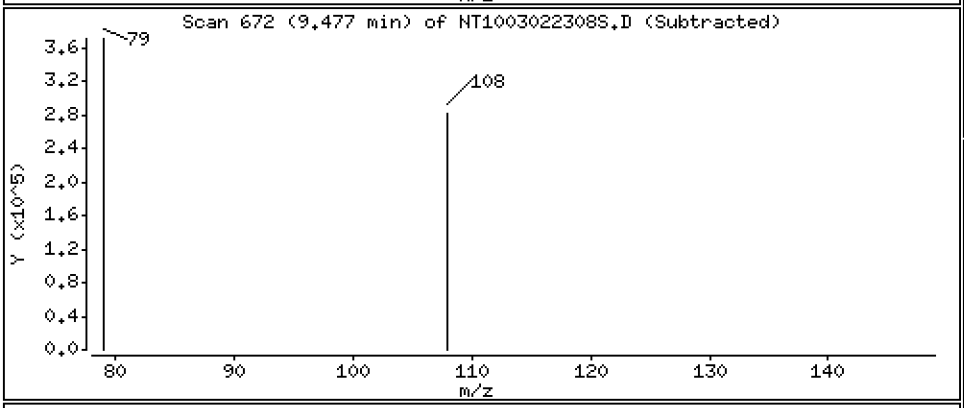
Column diameter: 0.25

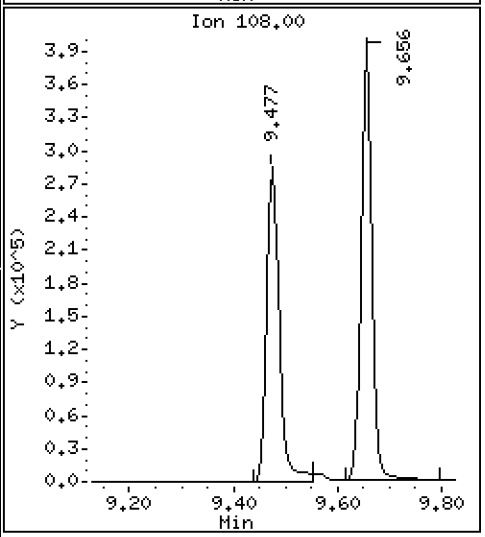
11 Benzyl alcohol

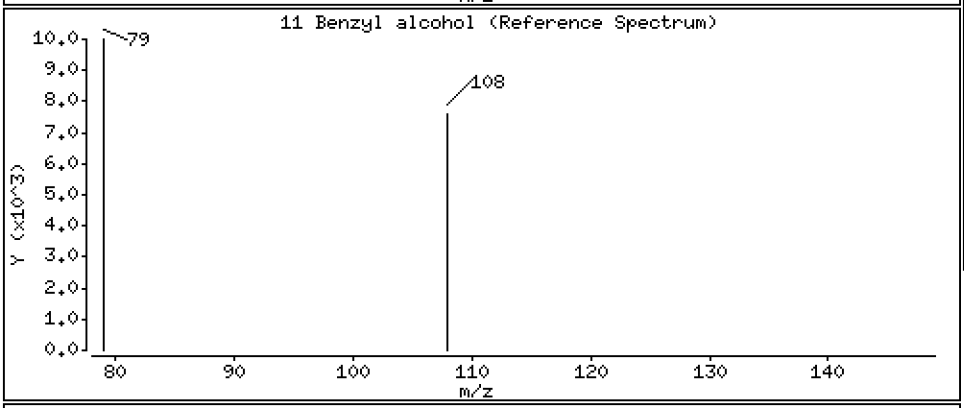
Concentration: 4.344 ug/L

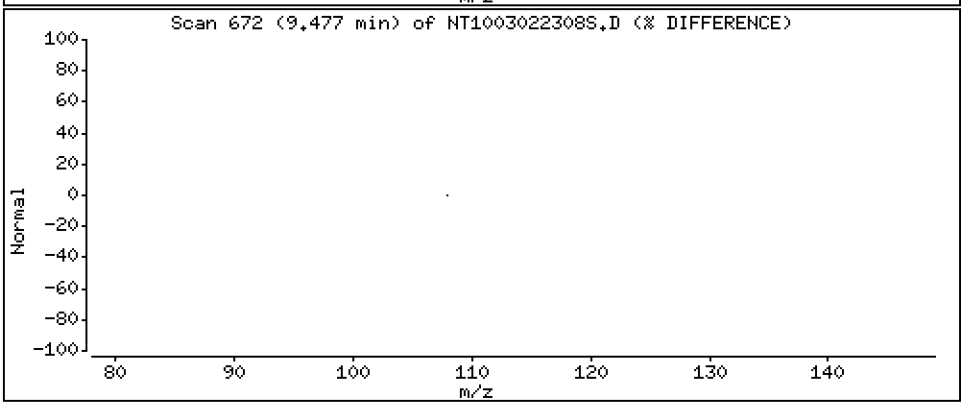












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

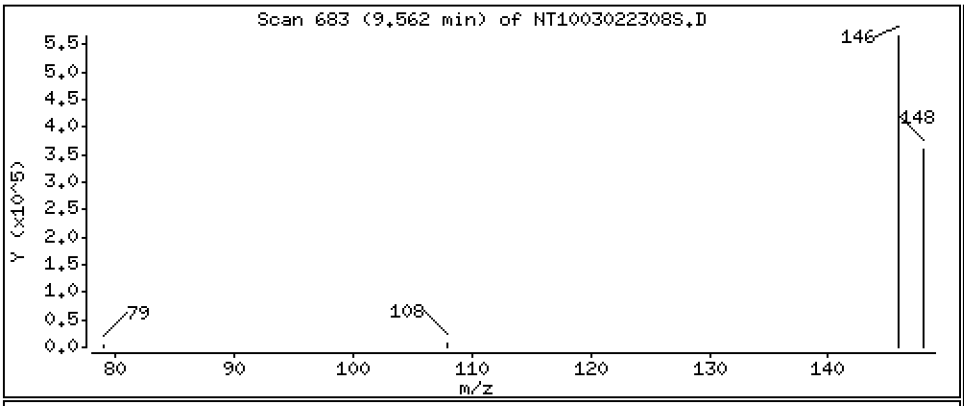
Operator: JGR

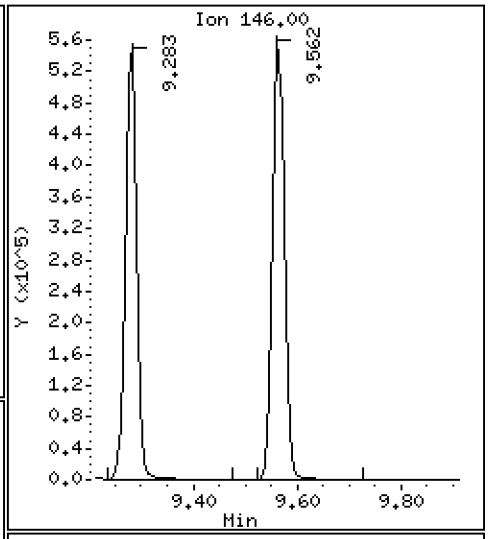
Column phase: ZB-5msi

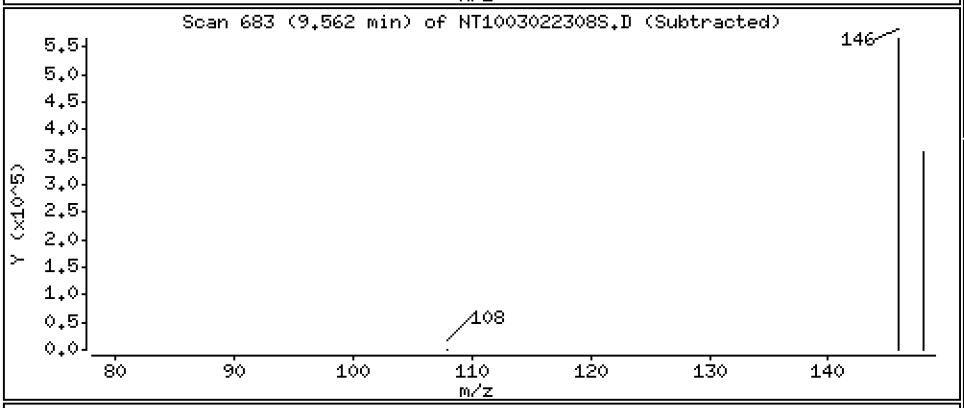
Column diameter: 0.25

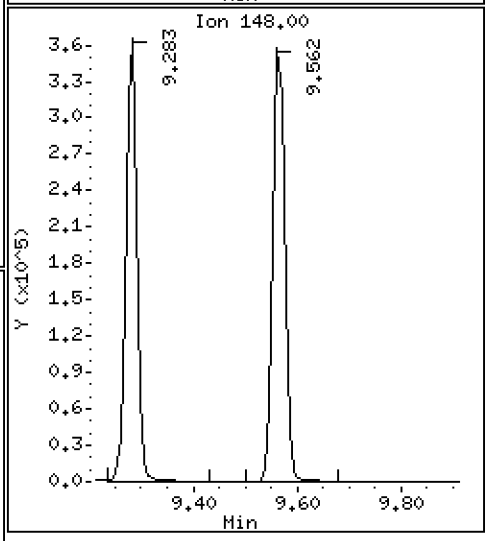
12 1,2-Dichlorobenzene

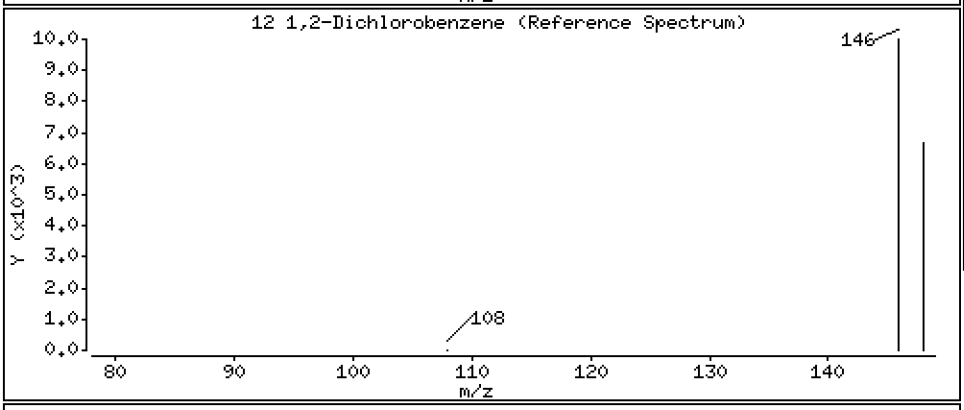
Concentration: 4.325 ug/L

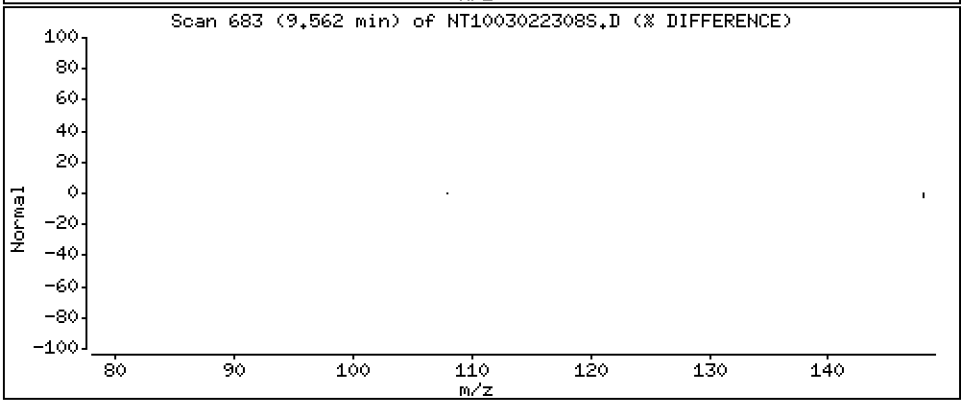












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

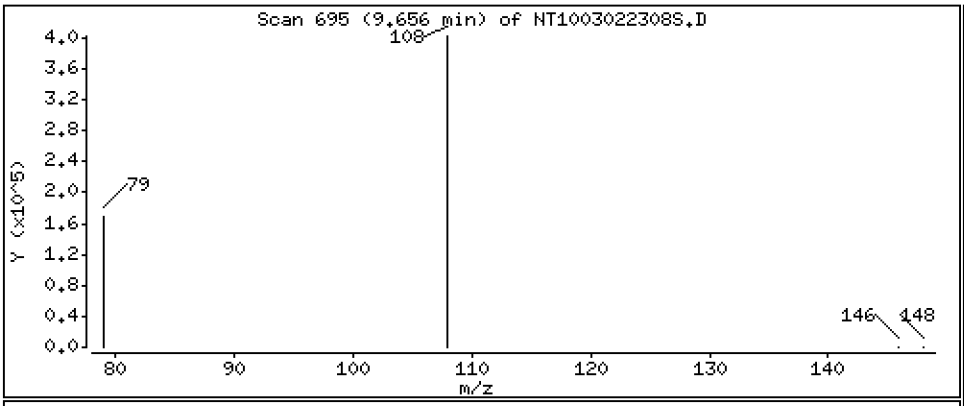
Operator: JGR

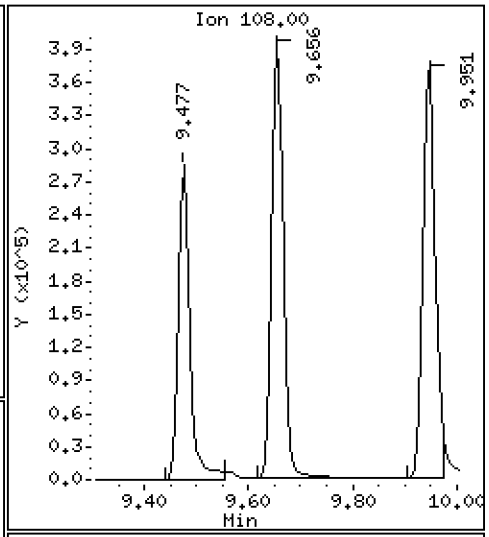
Column phase: ZB-5msi

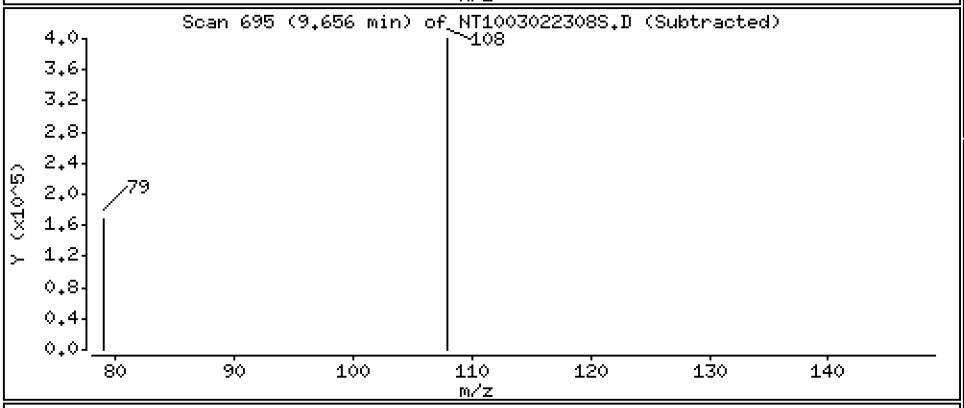
Column diameter: 0.25

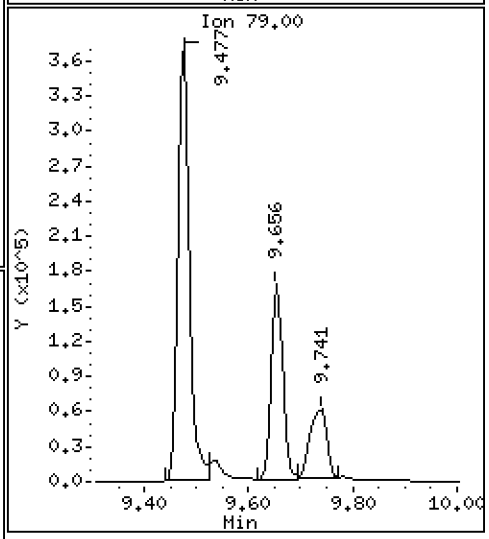
13 2-Methylphenol

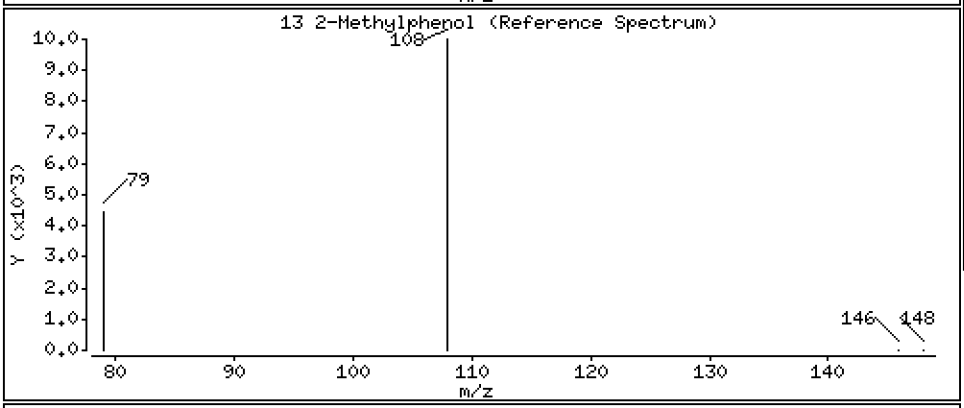
Concentration: 3.955 ug/L

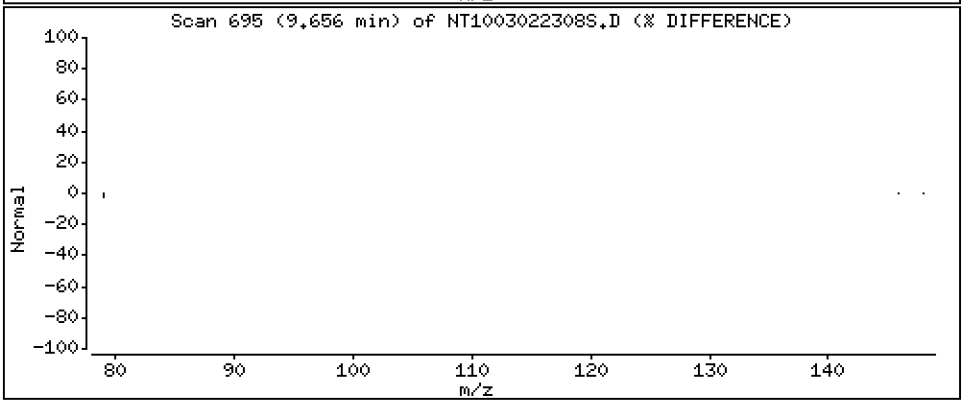












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

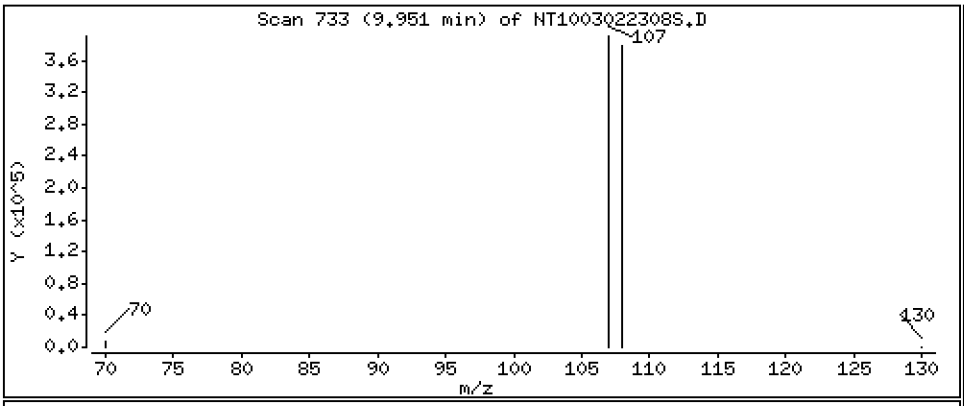
Operator: JGR

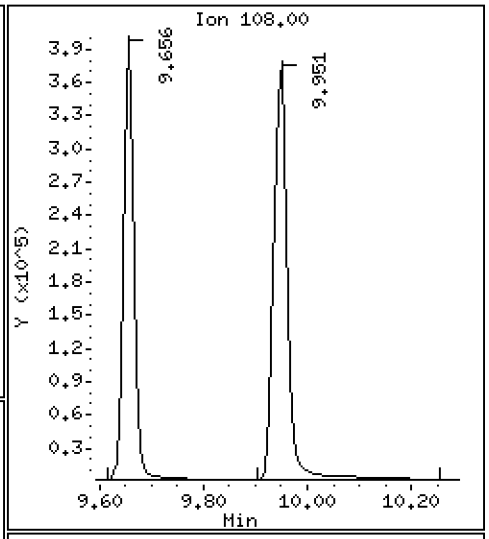
Column phase: ZB-5msi

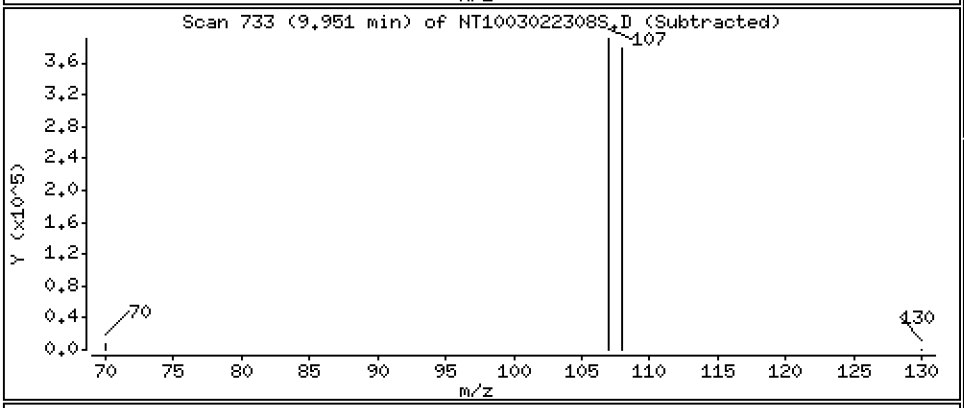
Column diameter: 0.25

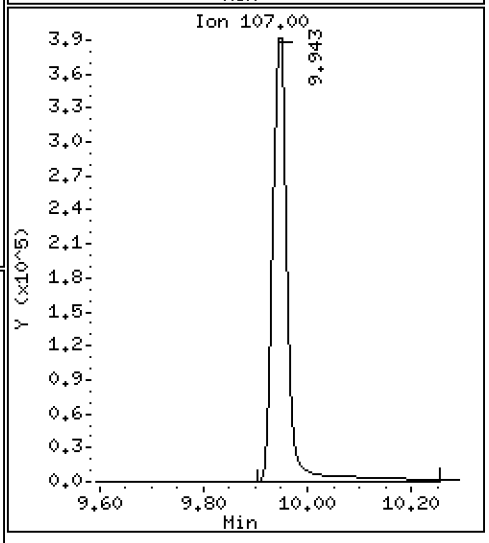
15 4-Methylphenol

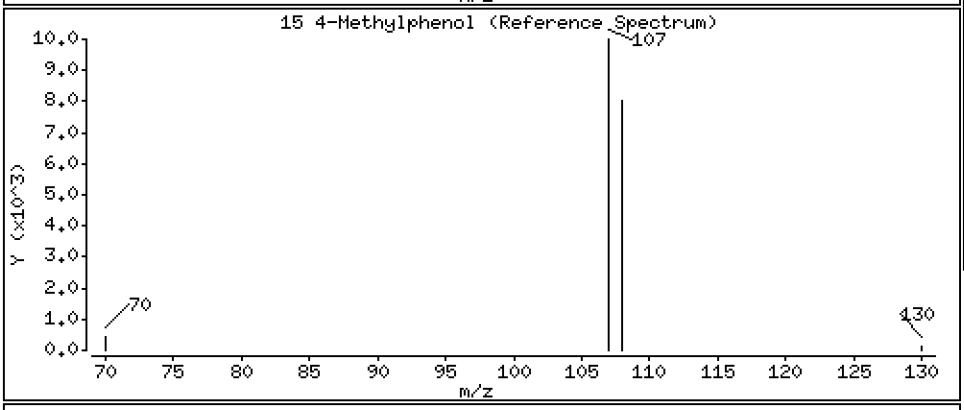
Concentration: 4.325 ug/L

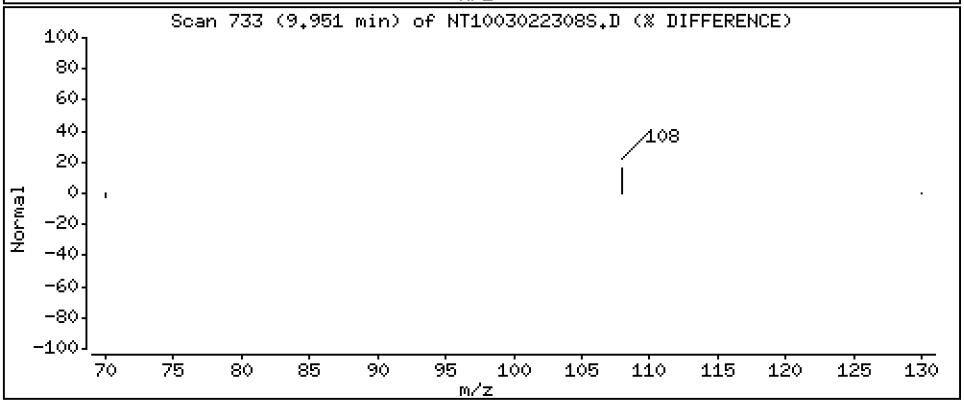












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

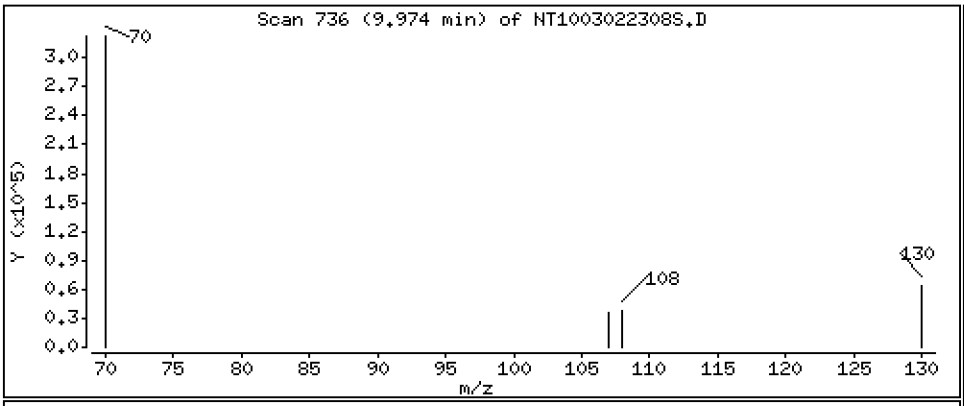
Operator: JGR

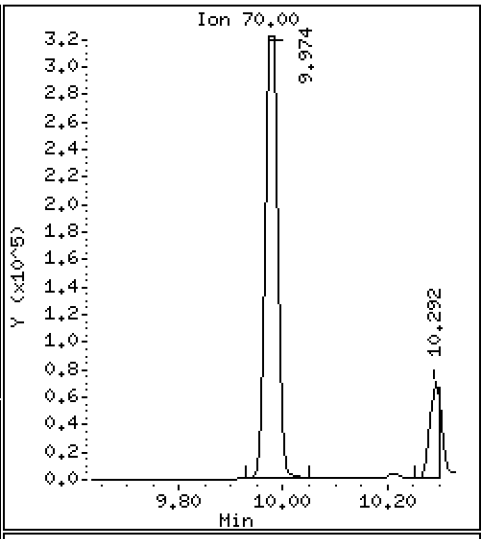
Column phase: ZB-5msi

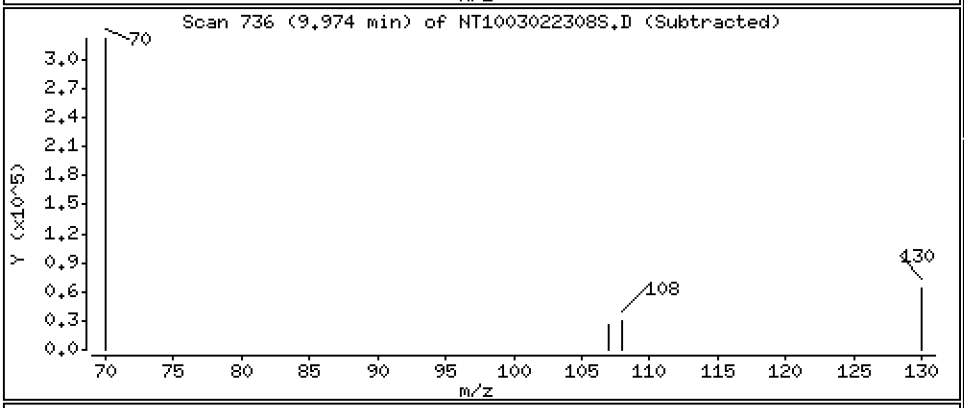
Column diameter: 0.25

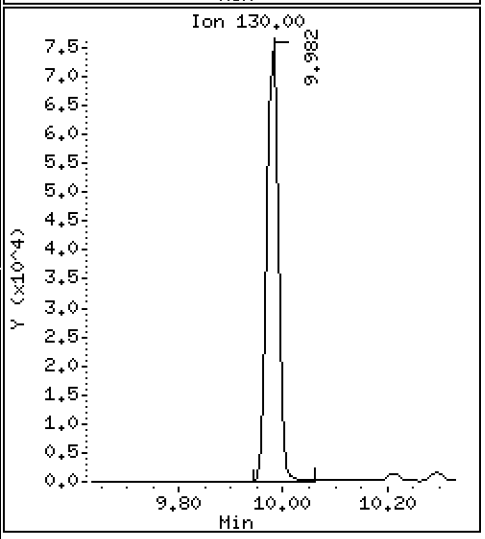
16 N-Nitroso-di-n-propylamine

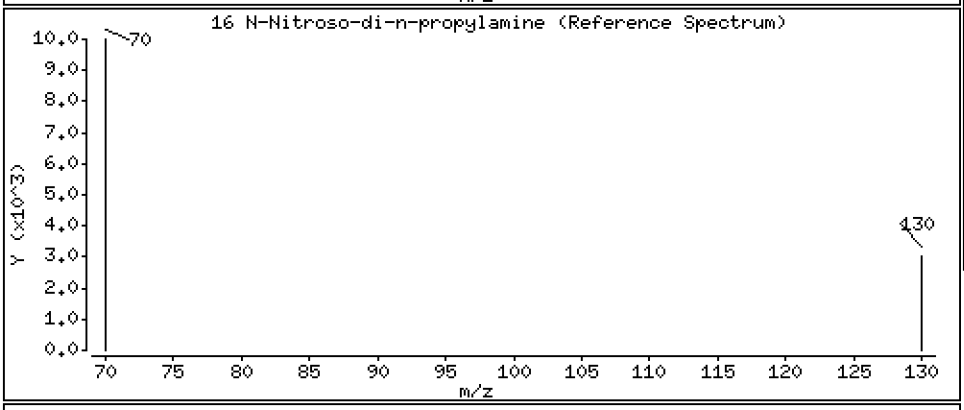
Concentration: 4.657 ug/L

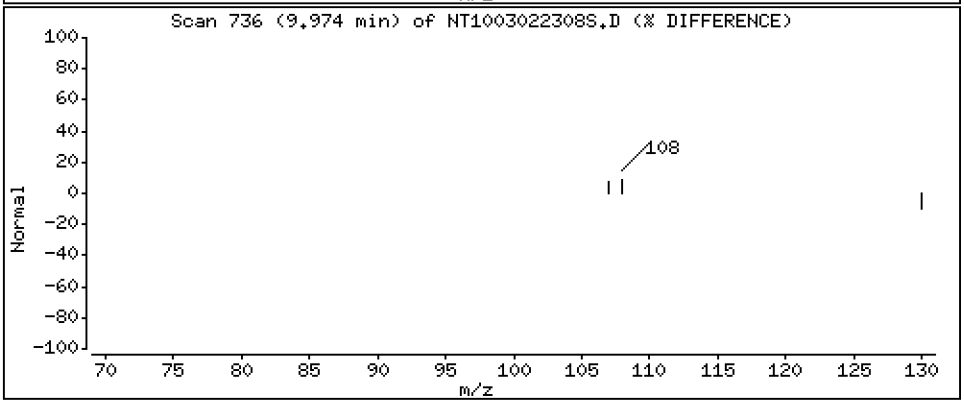












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223085.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

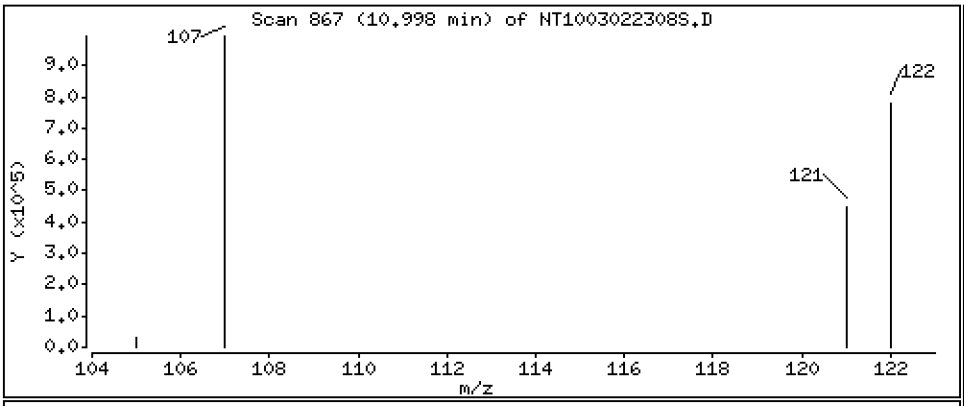
Operator: JGR

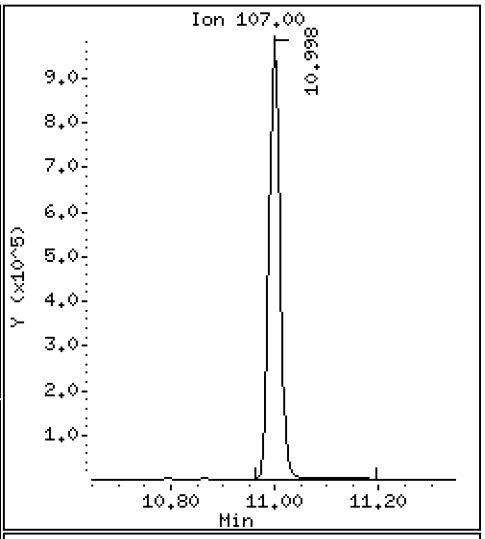
Column phase: ZB-5msi

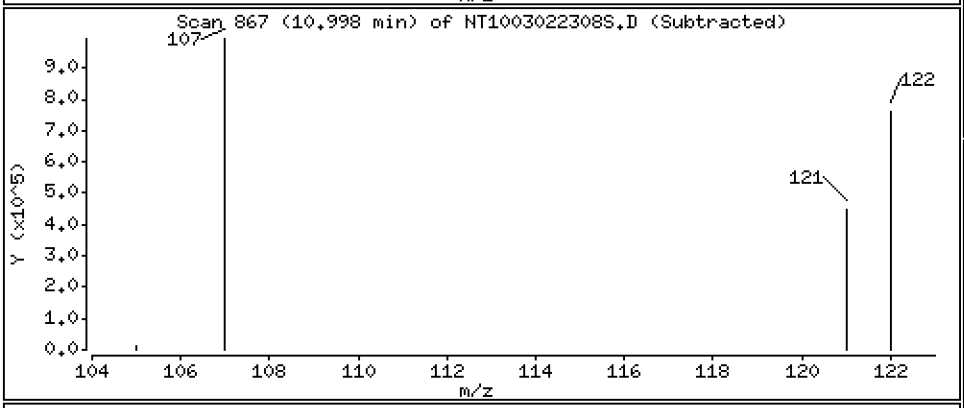
Column diameter: 0.25

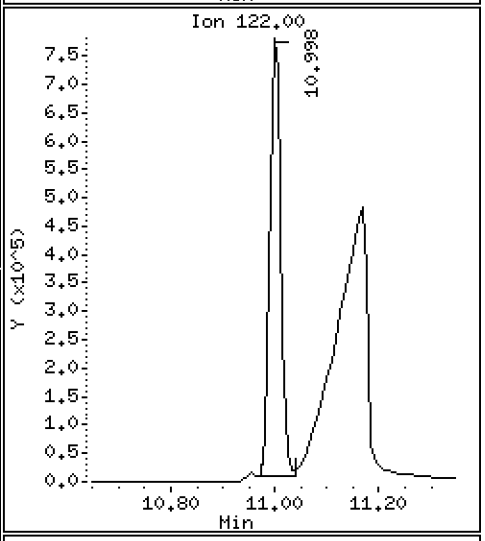
22 2,4-Dimethylphenol

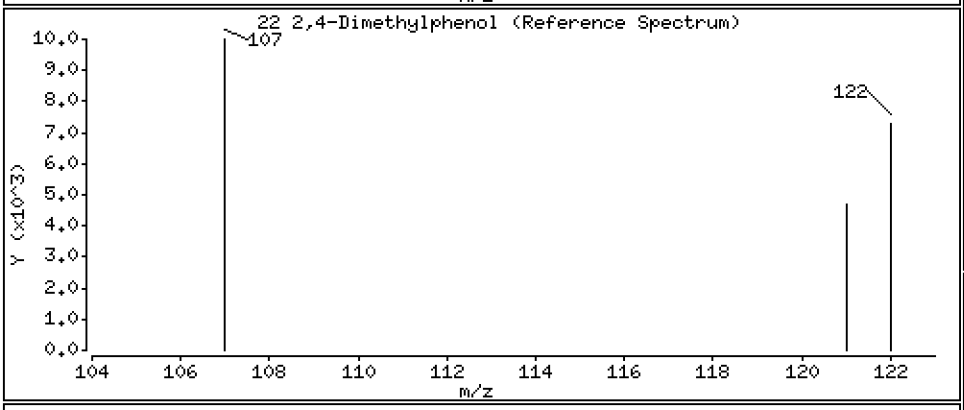
Concentration: 7.978 ug/L

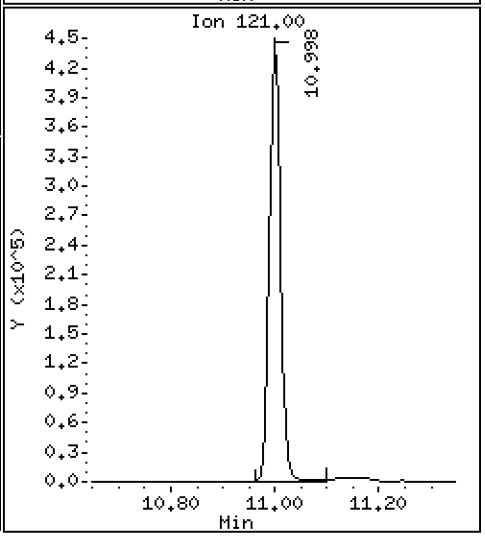


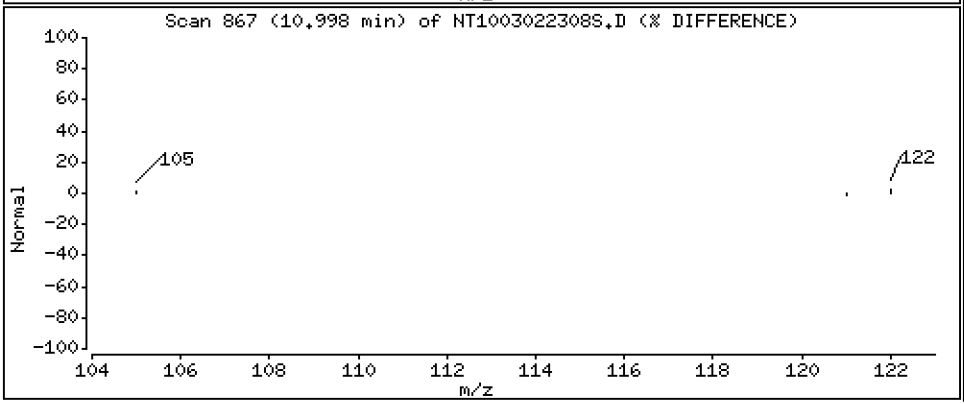












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223085.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

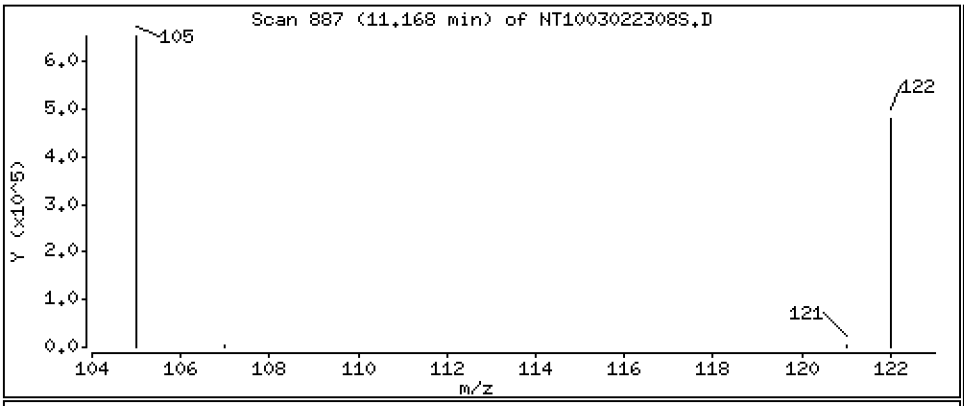
Operator: JGR

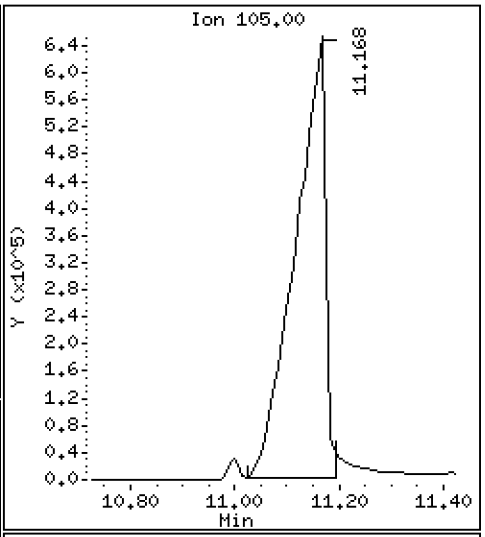
Column phase: ZB-5msi

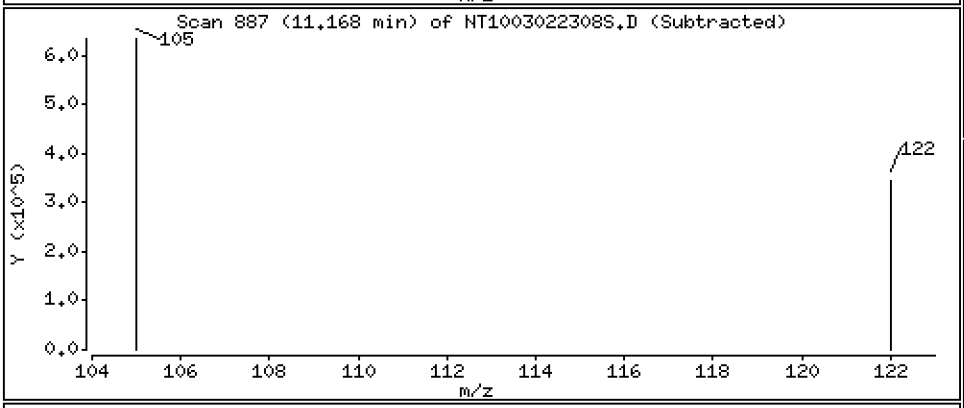
Column diameter: 0.25

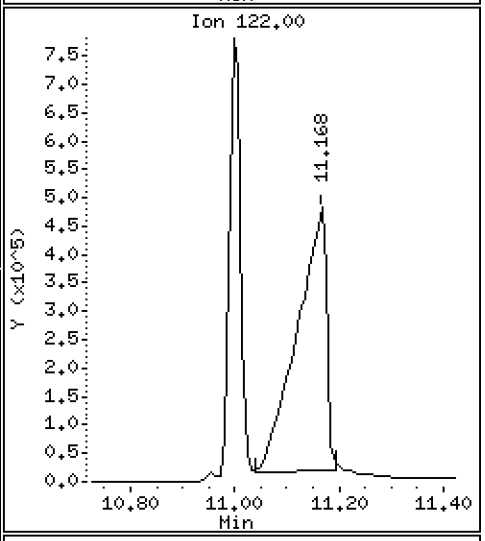
24 Benzoic acid

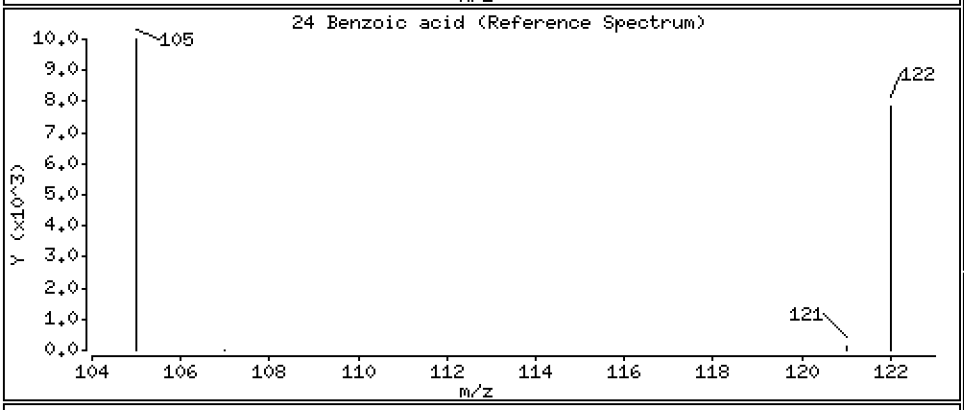
Concentration: 23.46 ug/L

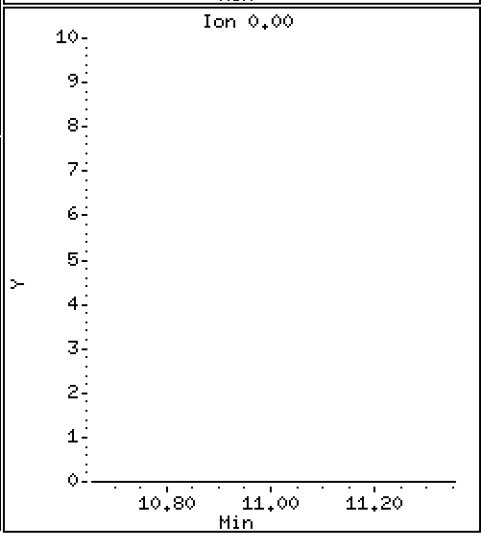


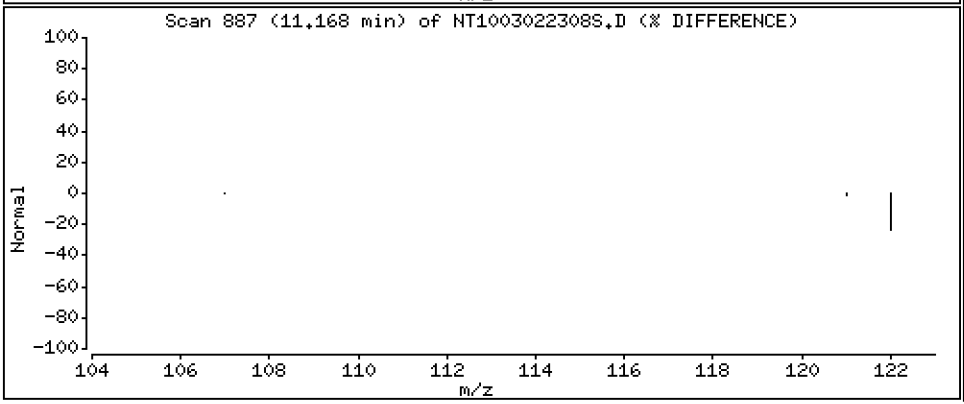












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223085.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

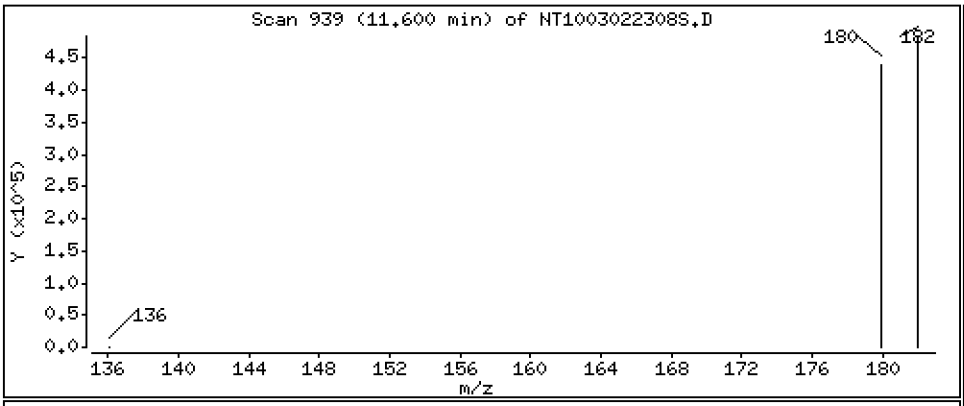
Operator: JGR

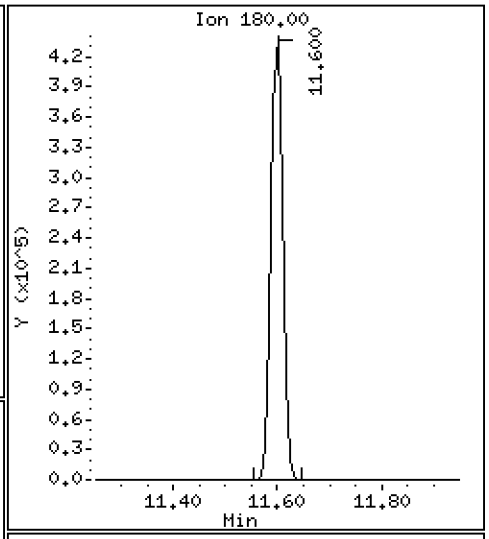
Column phase: ZB-5msi

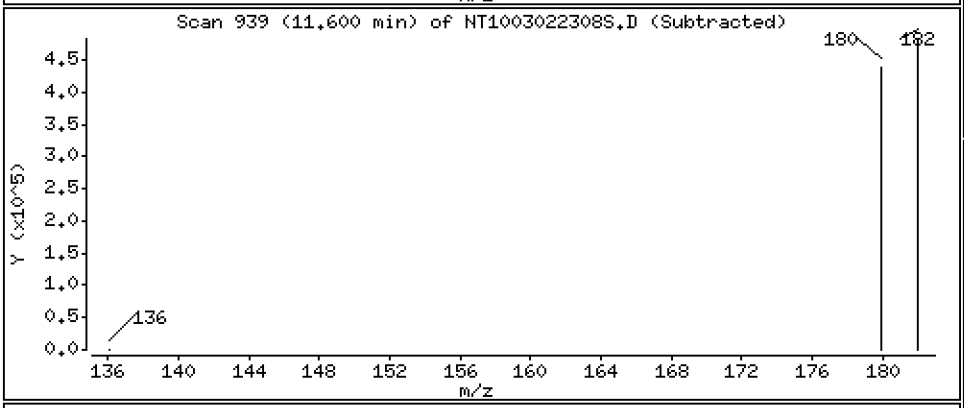
Column diameter: 0.25

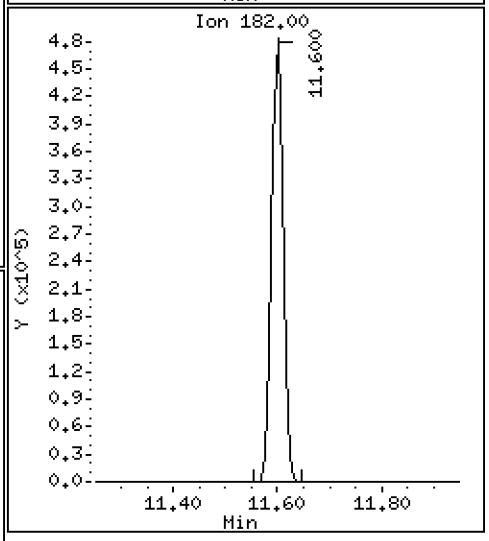
26 1,2,4-Trichlorobenzene

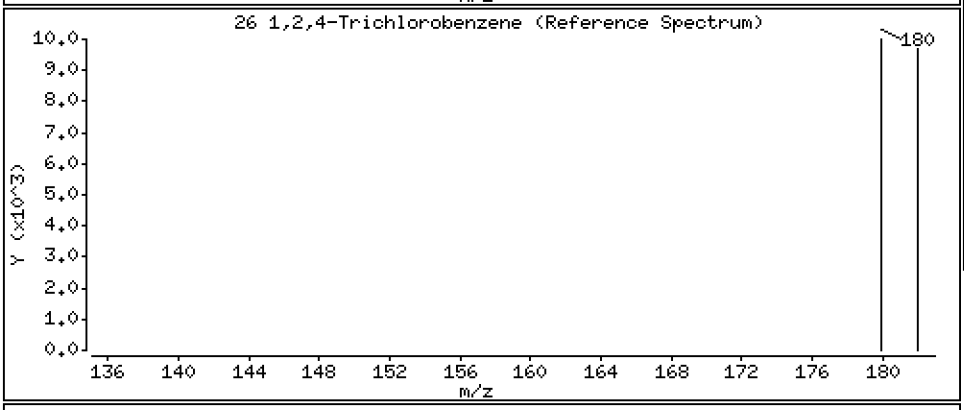
Concentration: 4.336 ug/L

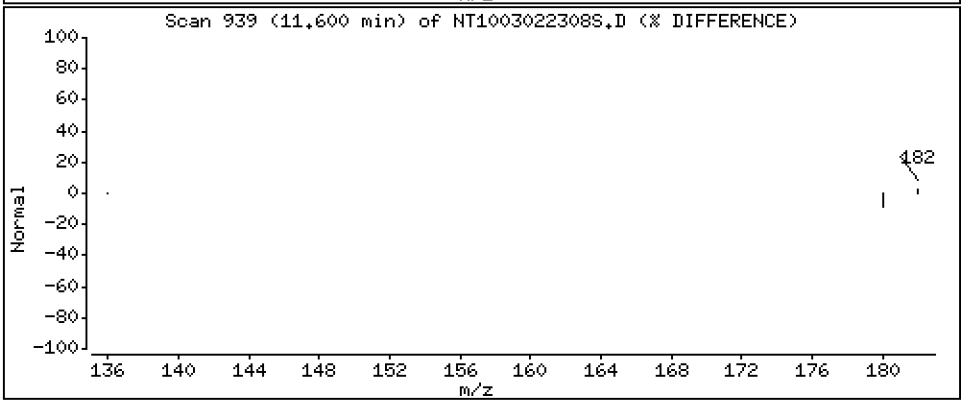












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

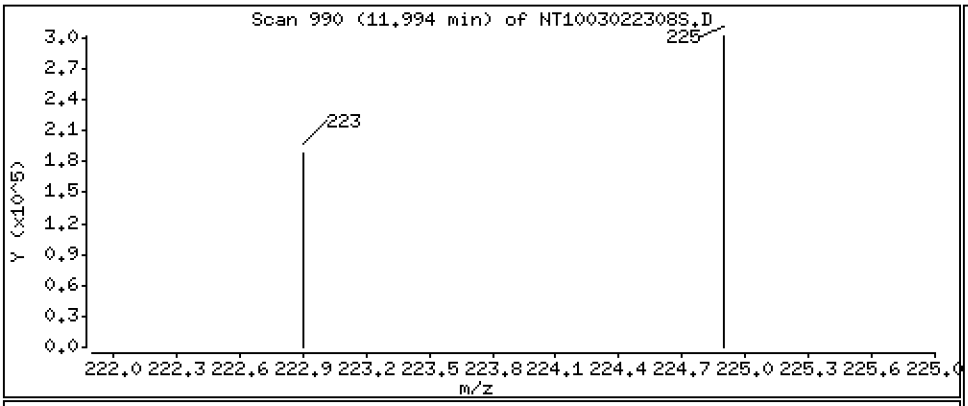
Operator: JGR

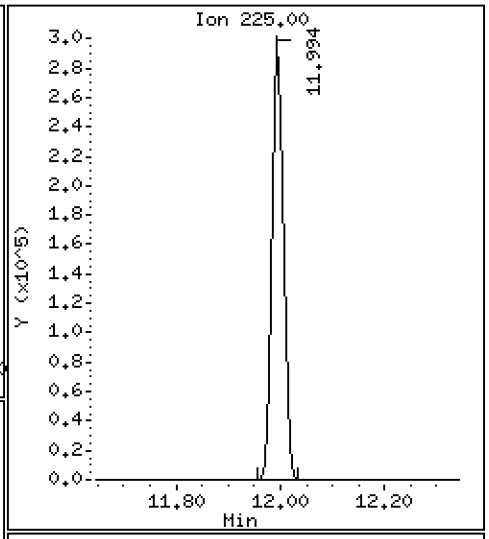
Column phase: ZB-5msi

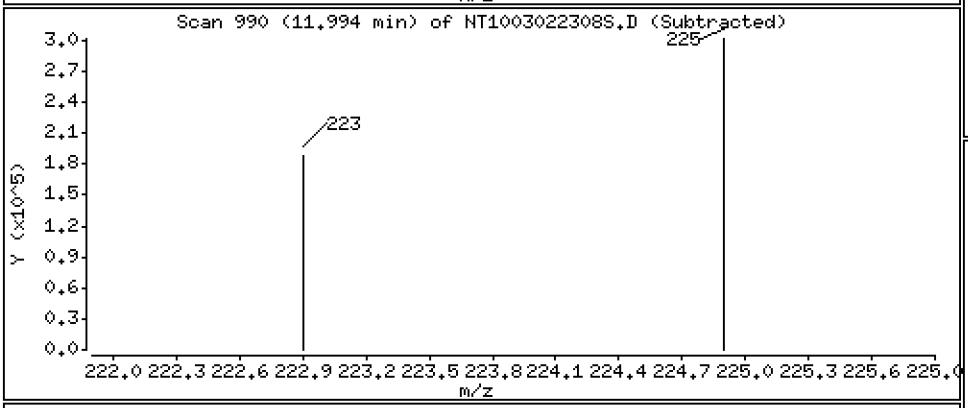
Column diameter: 0.25

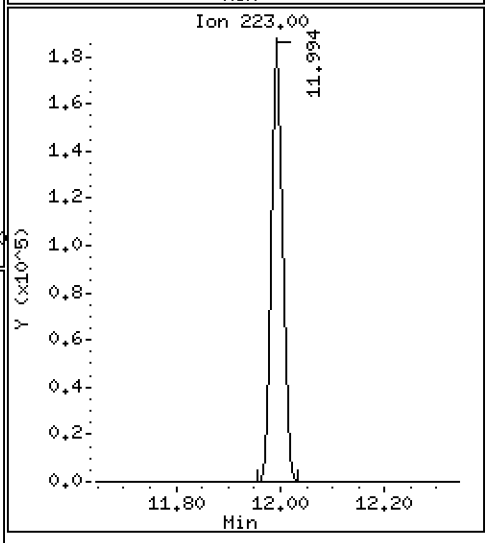
30 Hexachlorobutadiene

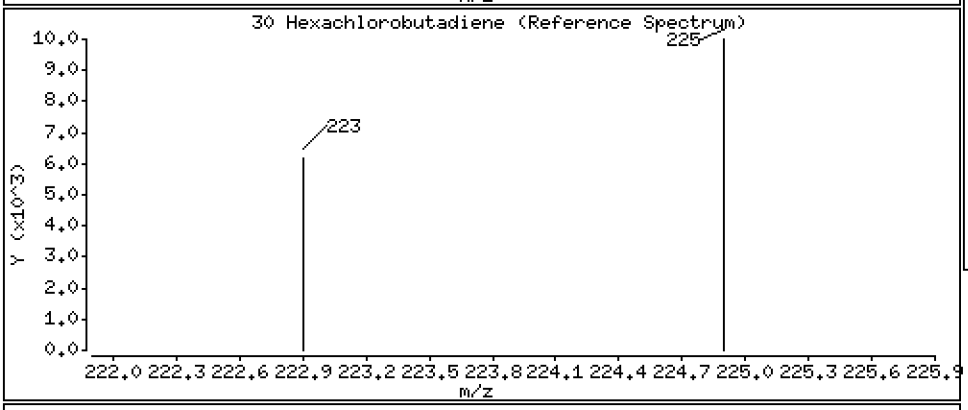
Concentration: 4.139 ug/L

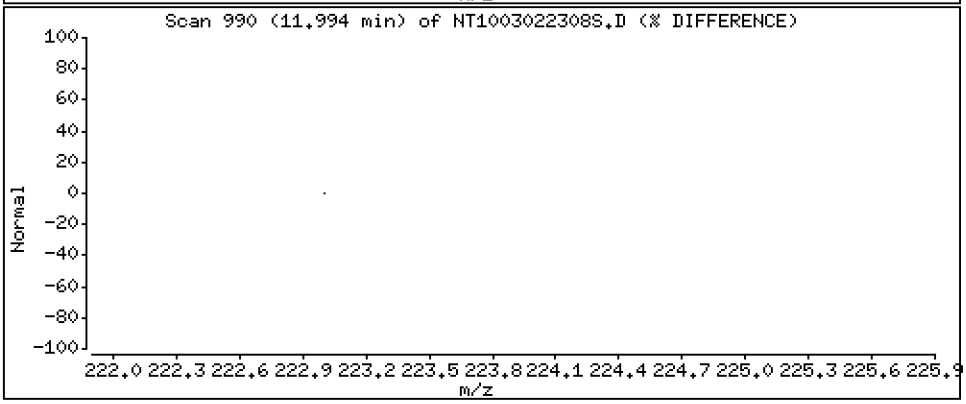












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

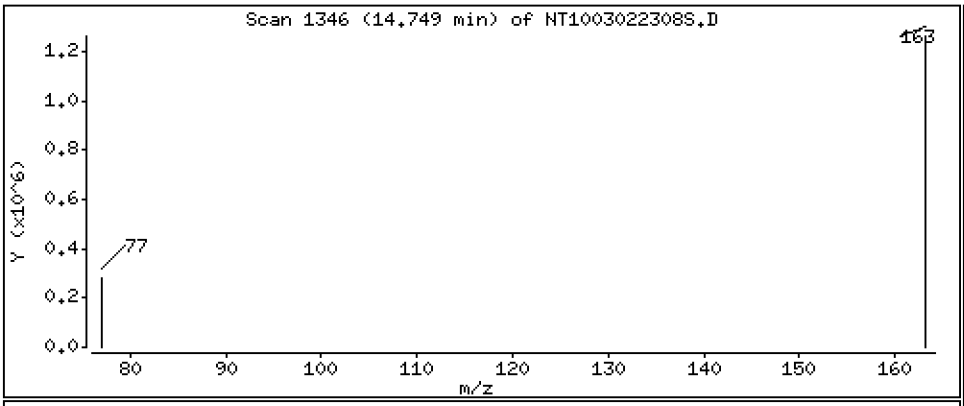
Operator: JGR

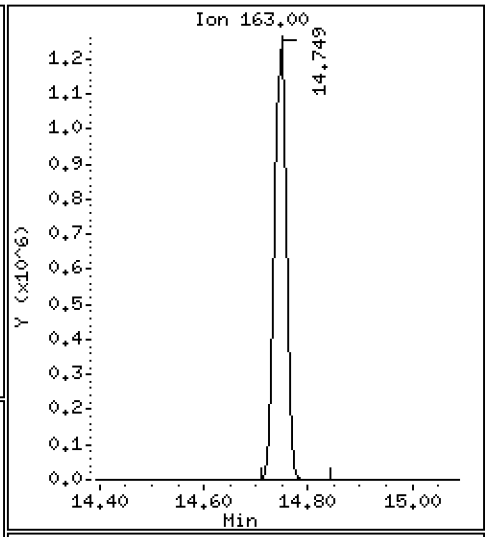
Column phase: ZB-5msi

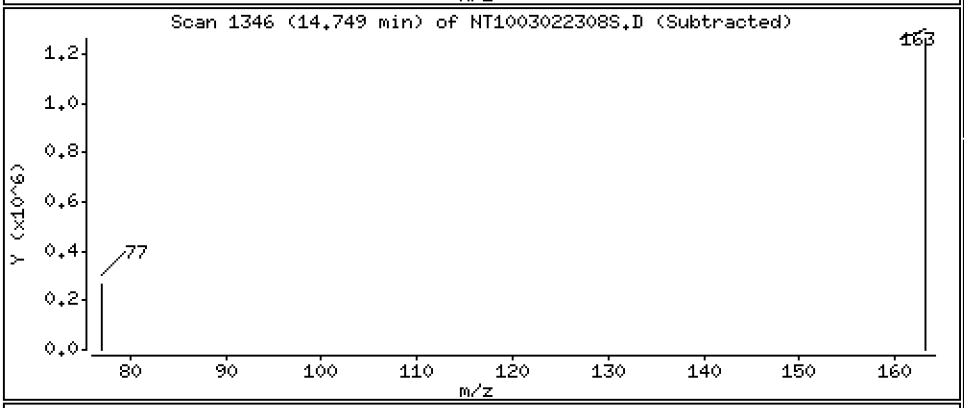
Column diameter: 0.25

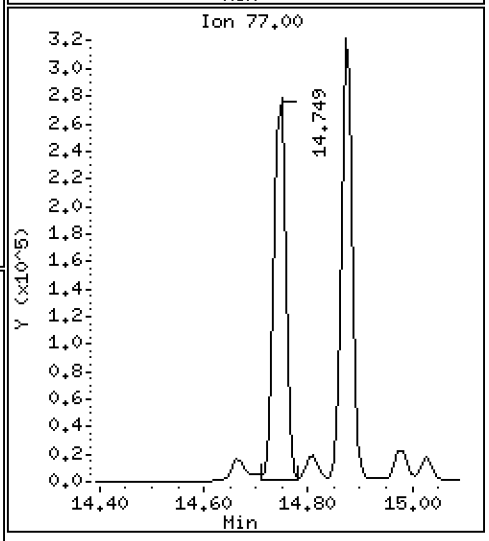
39 Dimethylphthalate

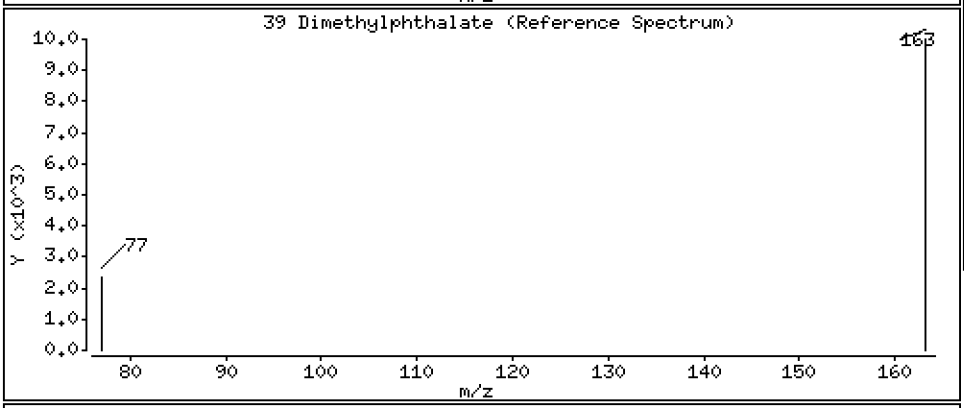
Concentration: 5.228 ug/L

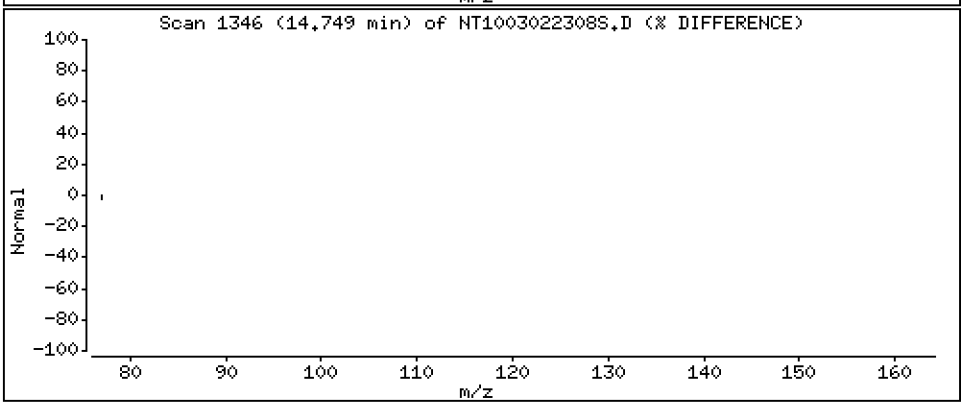












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

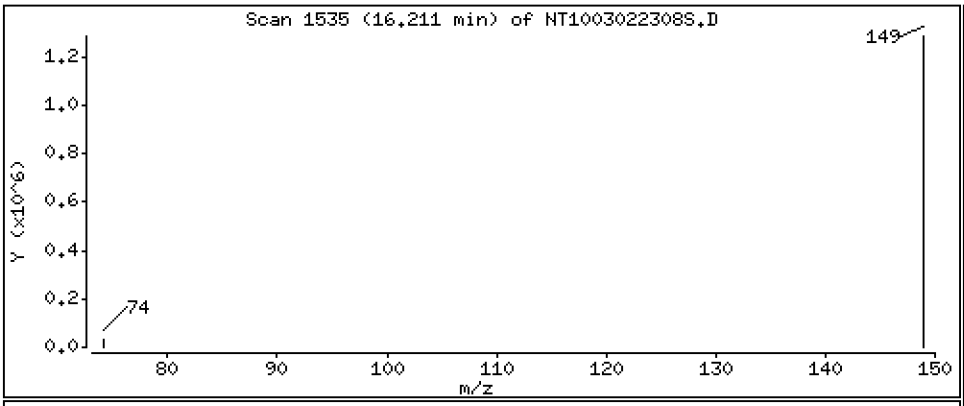
Operator: JGR

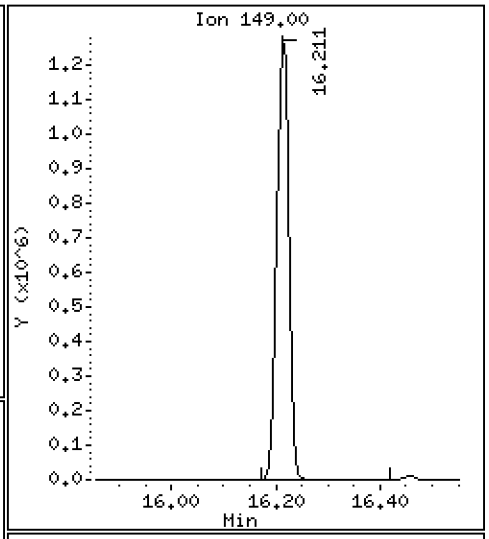
Column phase: ZB-5msi

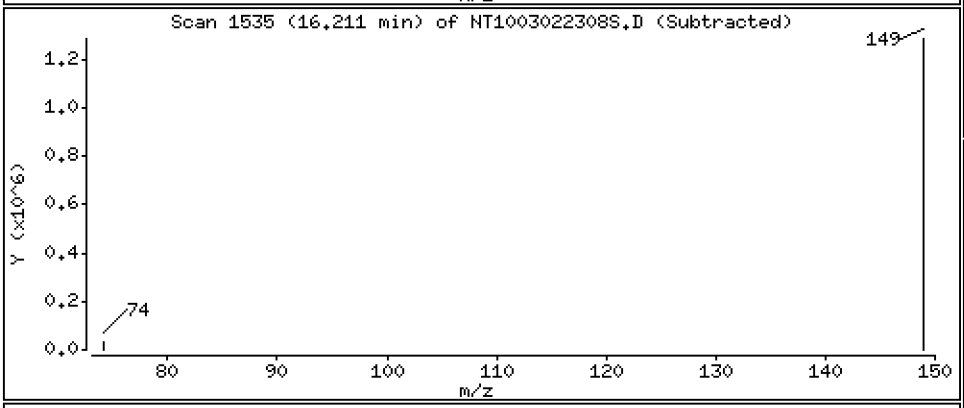
Column diameter: 0.25

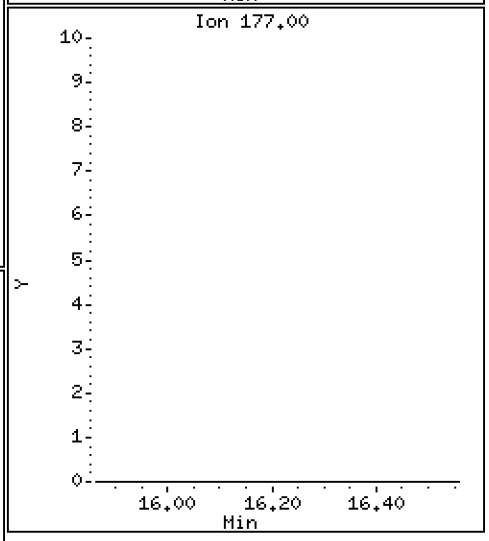
50 Diethylphthalate

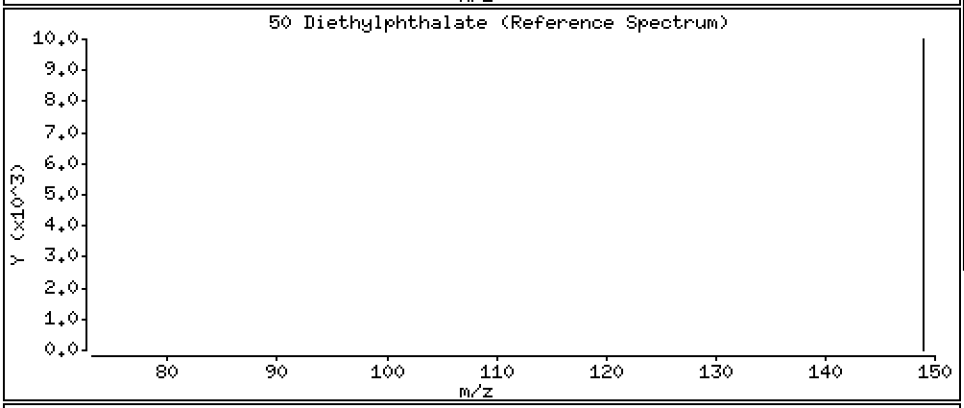
Concentration: 5.823 ug/L

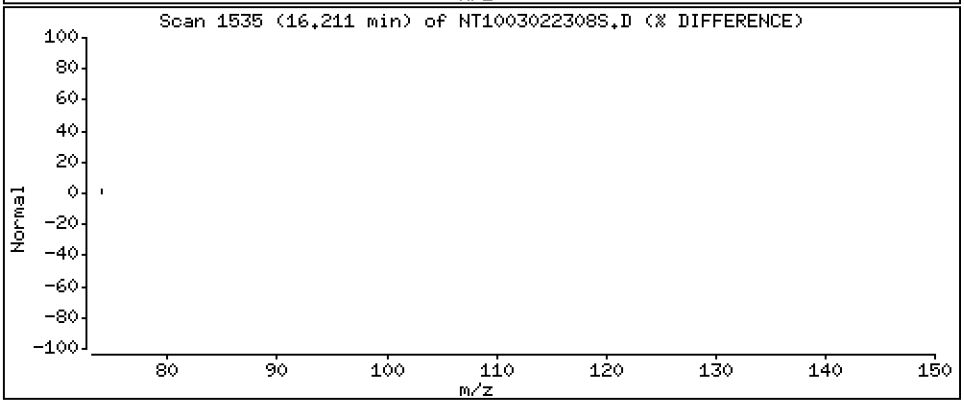












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

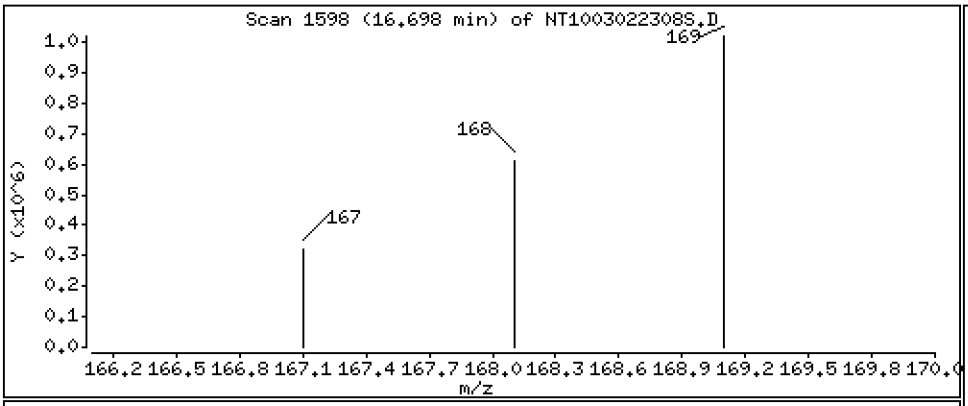
Operator: JGR

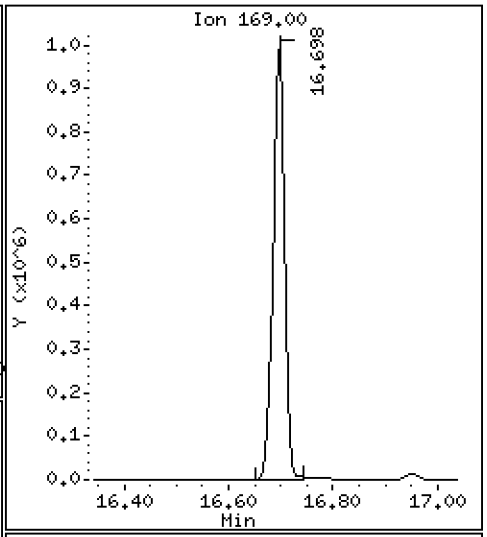
Column phase: ZB-5msi

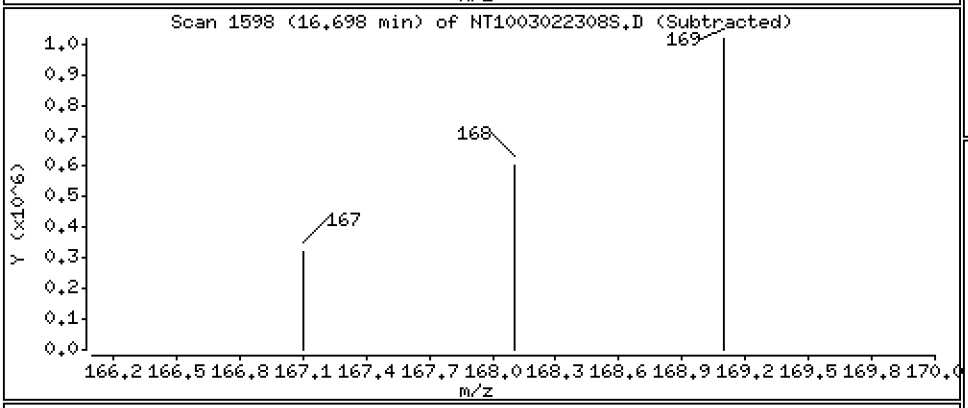
Column diameter: 0.25

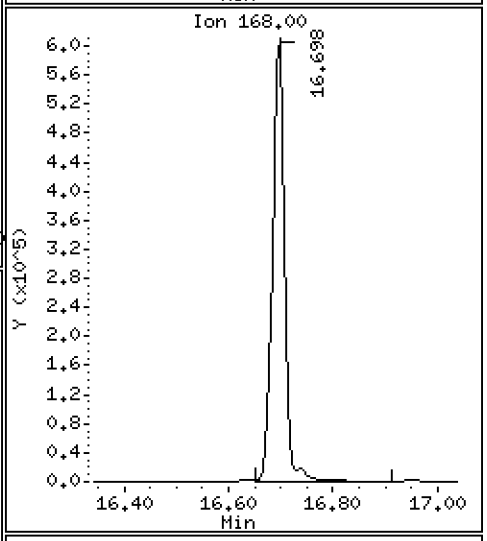
54 N-Nitrosodiphenylamine

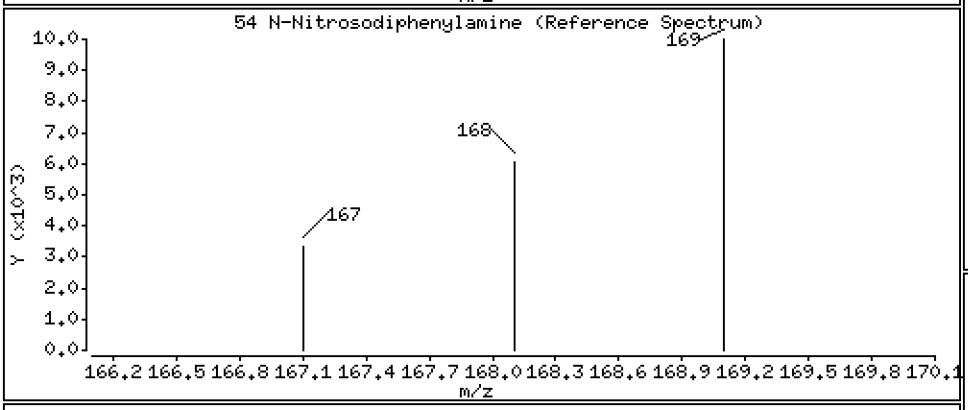
Concentration: 4.761 ug/L

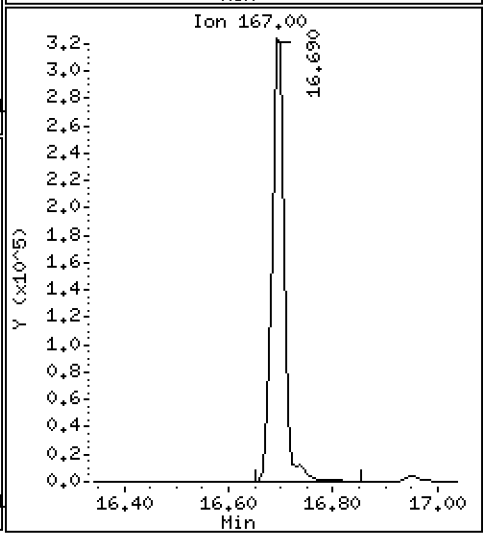


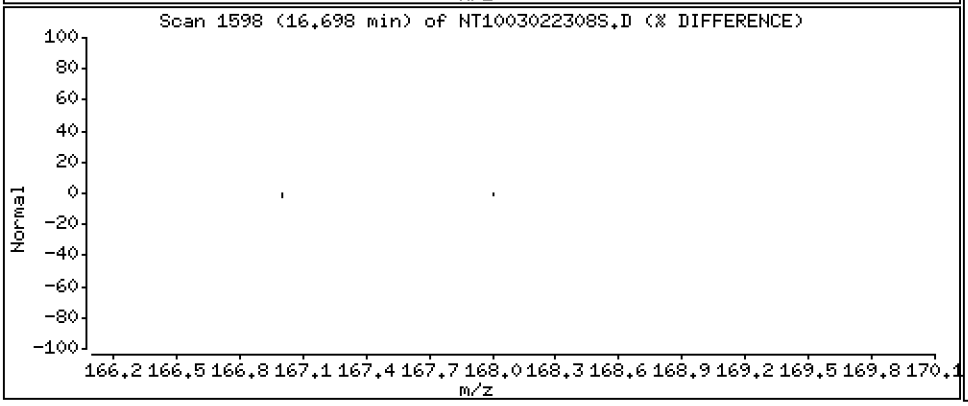












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

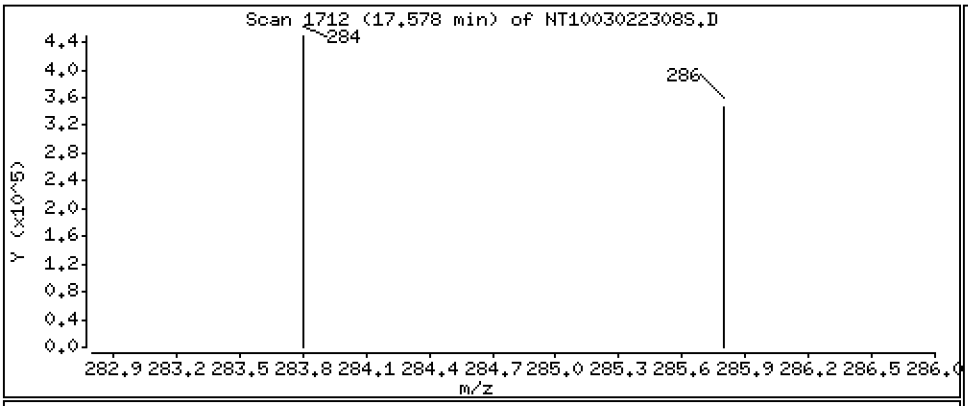
Operator: JGR

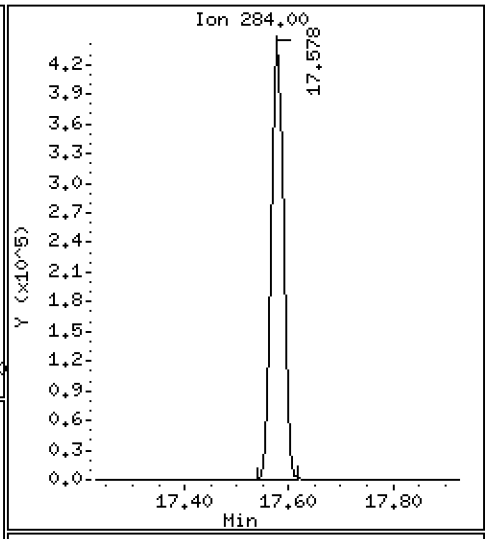
Column phase: ZB-5msi

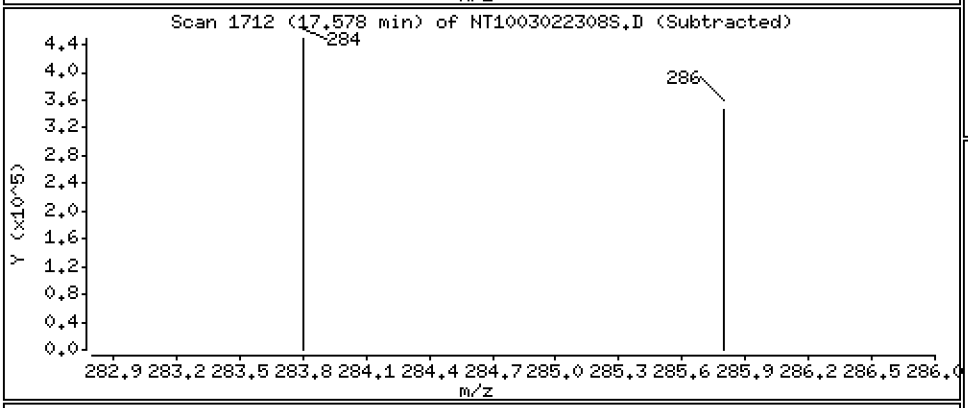
Column diameter: 0.25

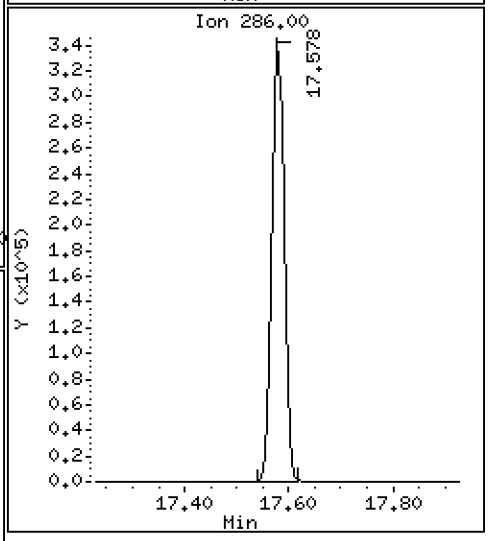
57 Hexachlorobenzene

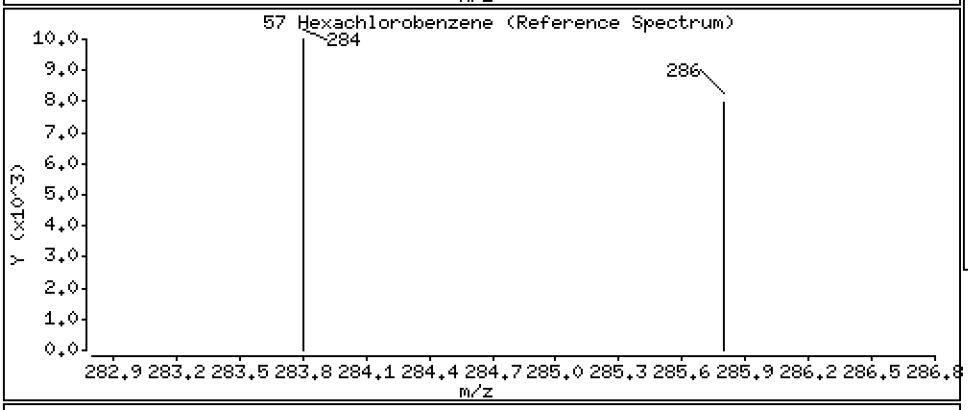
Concentration: 4.467 ug/L

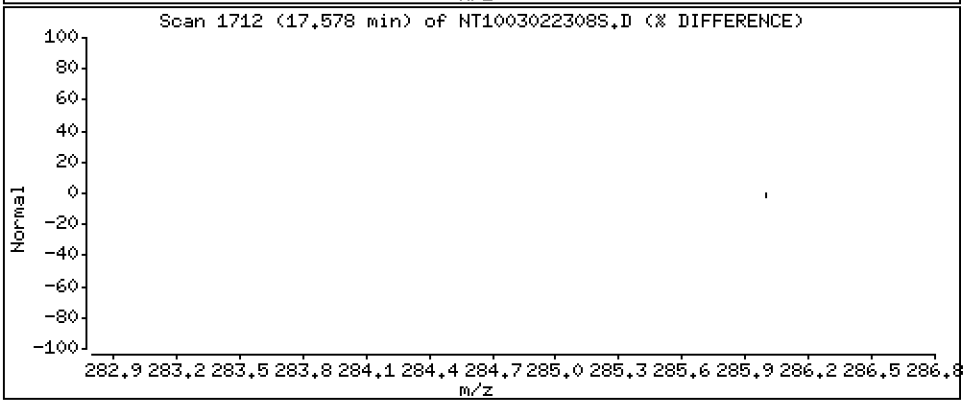












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

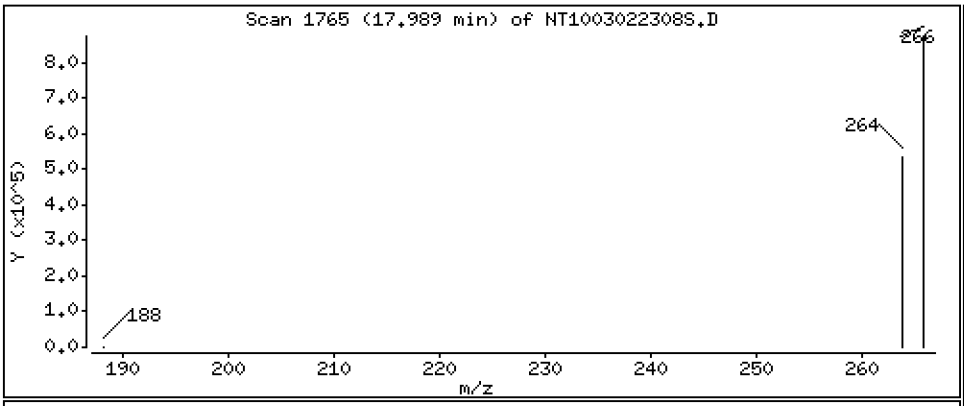
Operator: JGR

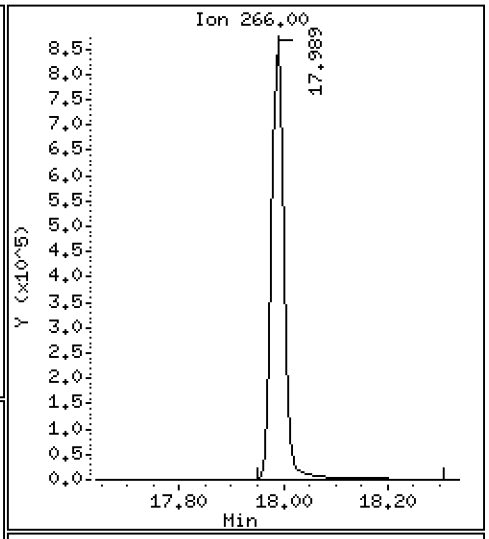
Column phase: ZB-5msi

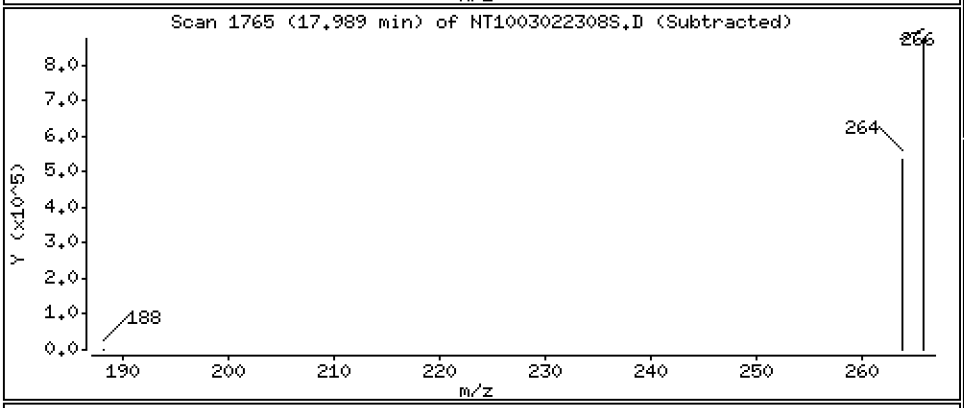
Column diameter: 0.25

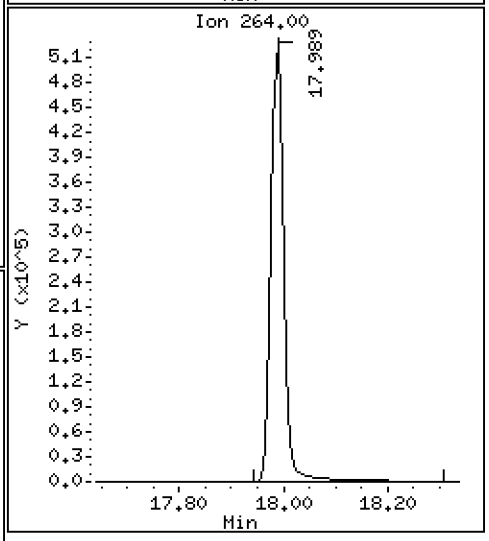
58 Pentachlorophenol

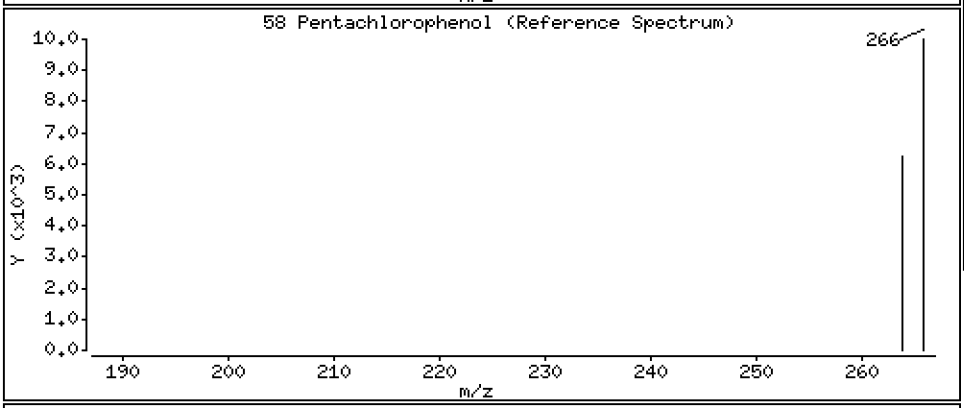
Concentration: 16.54 ug/L

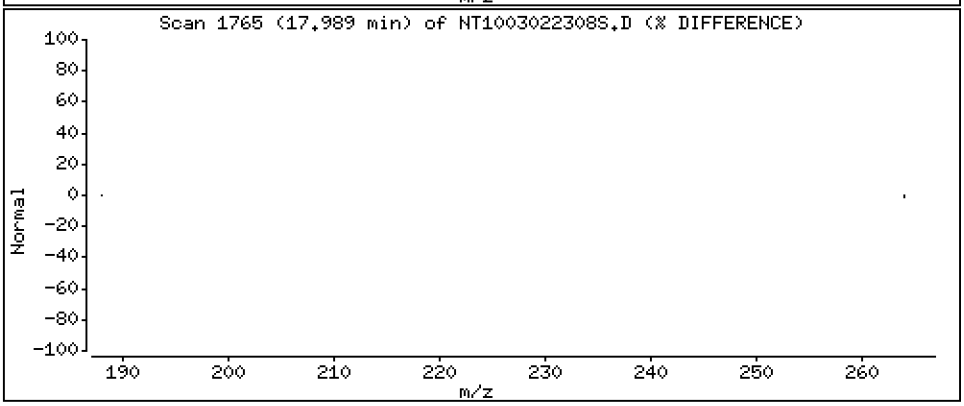












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

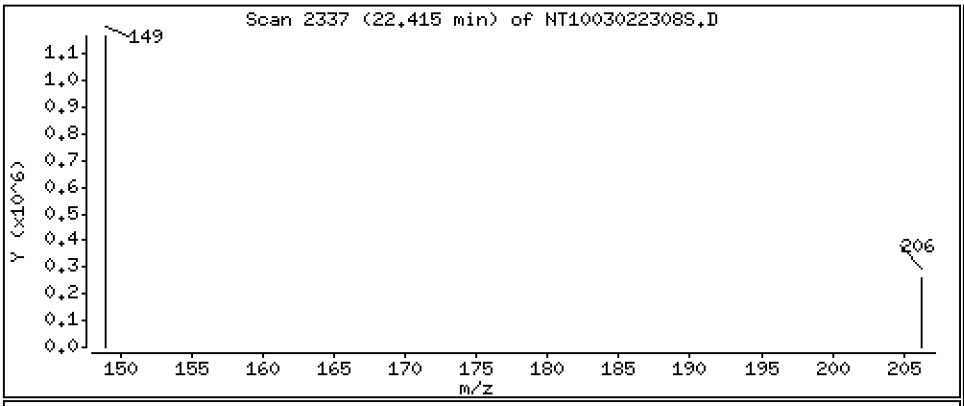
Operator: JGR

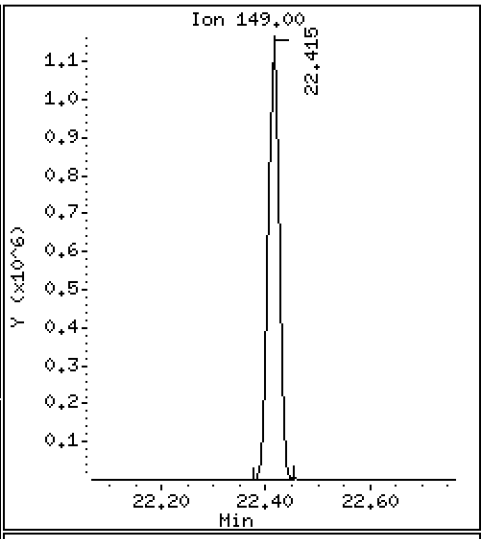
Column phase: ZB-5msi

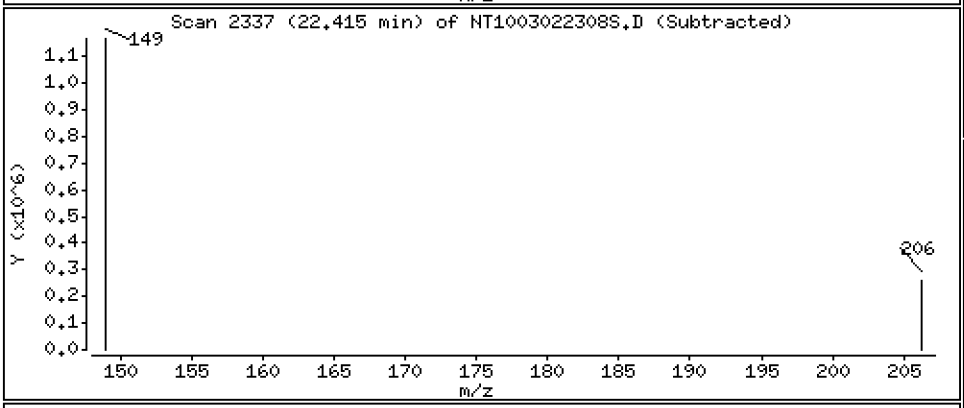
Column diameter: 0.25

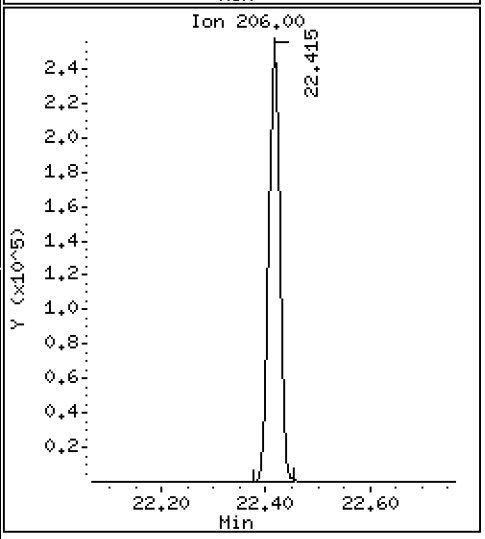
67 Butylbenzylphthalate

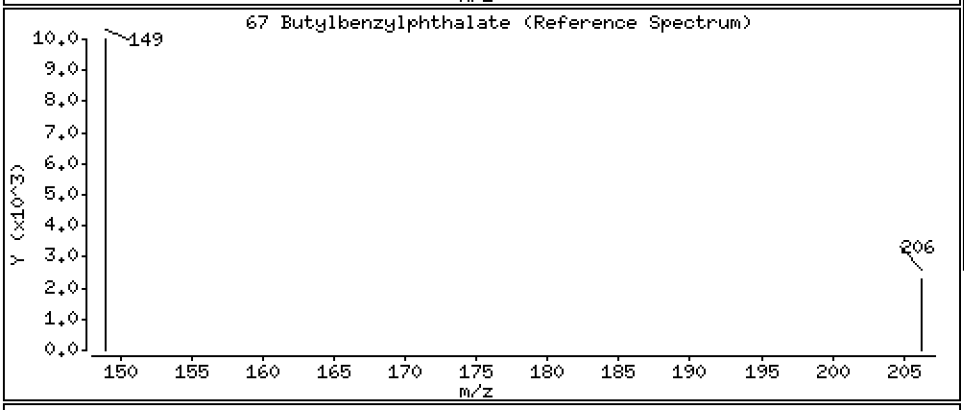
Concentration: 4.368 ug/L

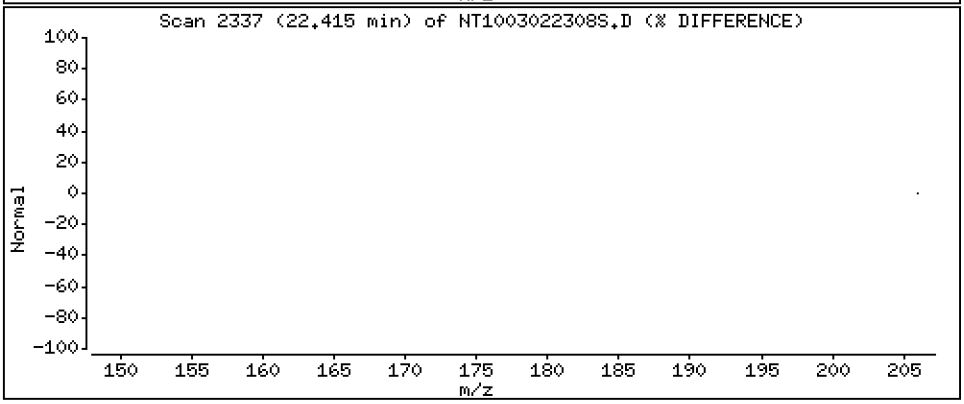












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

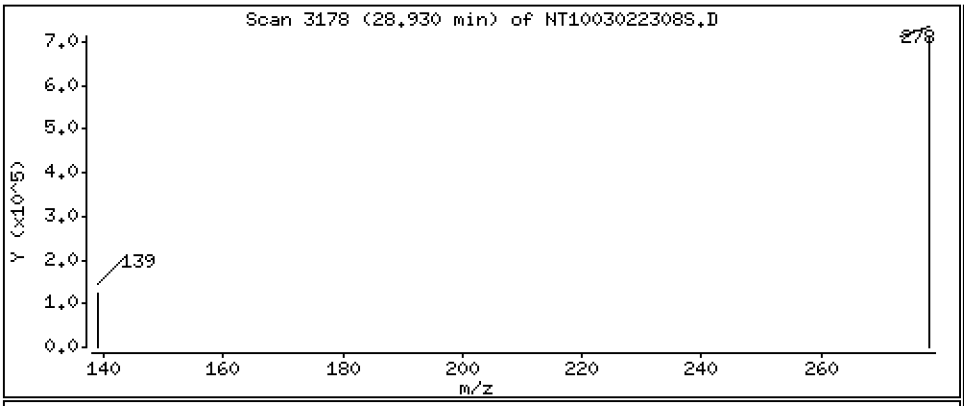
Operator: JGR

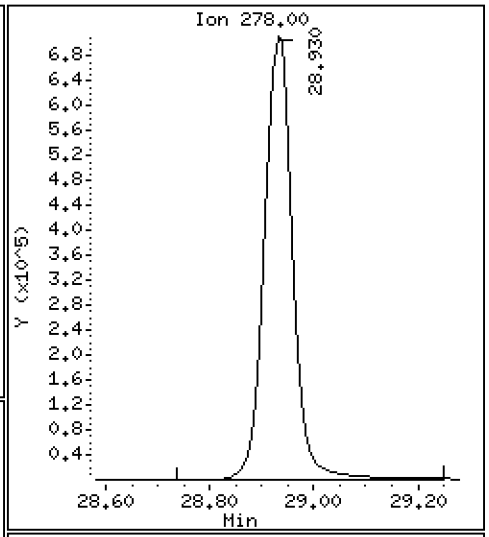
Column phase: ZB-5msi

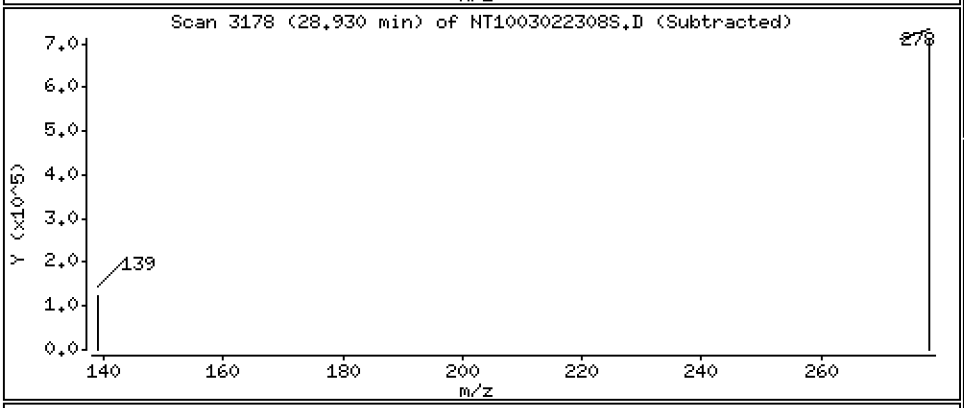
Column diameter: 0.25

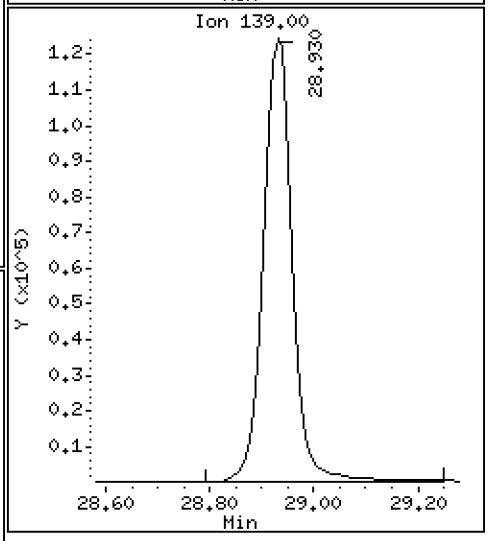
79 Dibenzo(a,h)anthracene

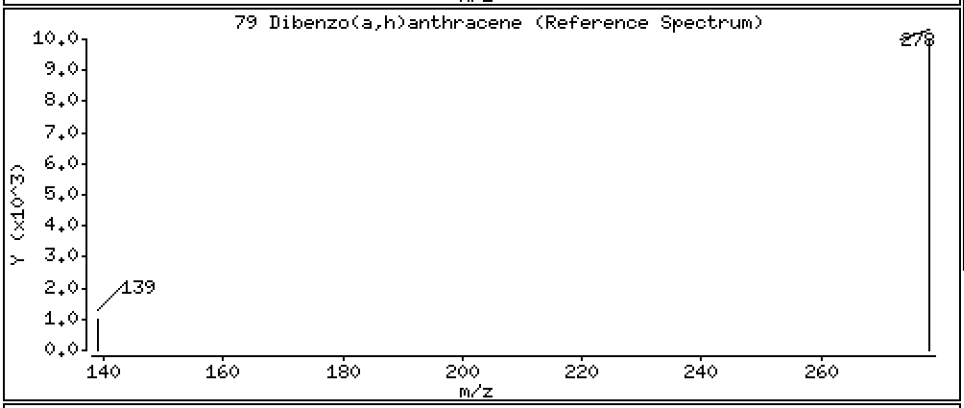
Concentration: 4.962 ug/L

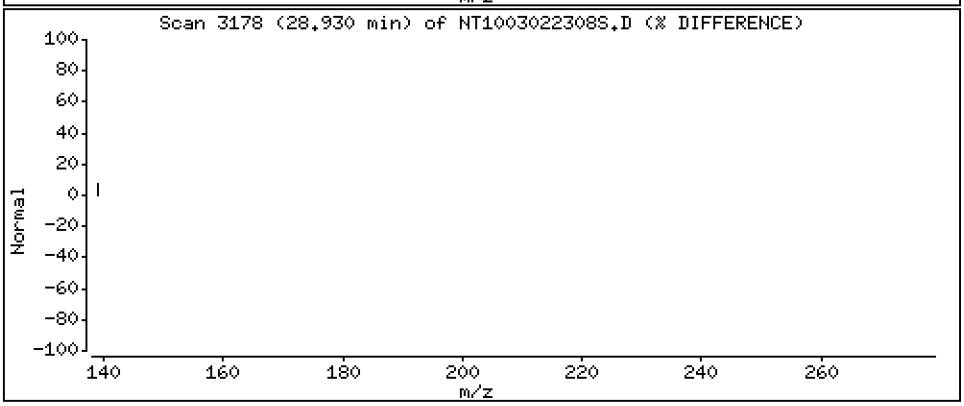












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D

Date : 02-MAR-2023 18:50

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-BSD1

Volume Injected (uL): 1.0

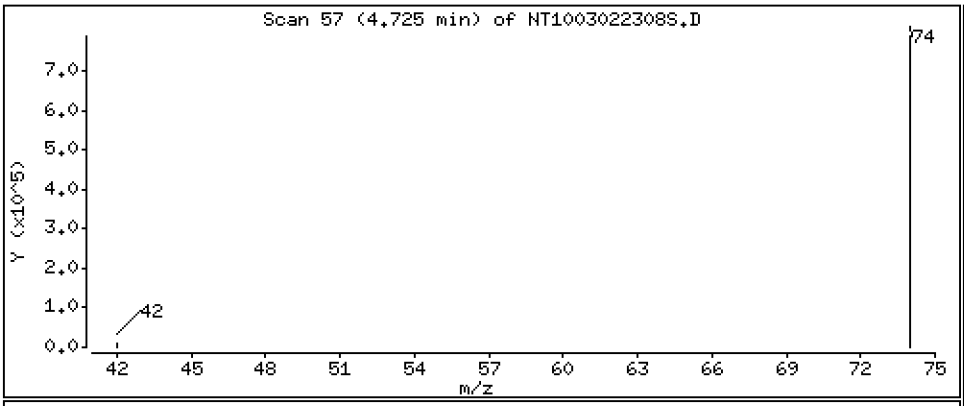
Operator: JGR

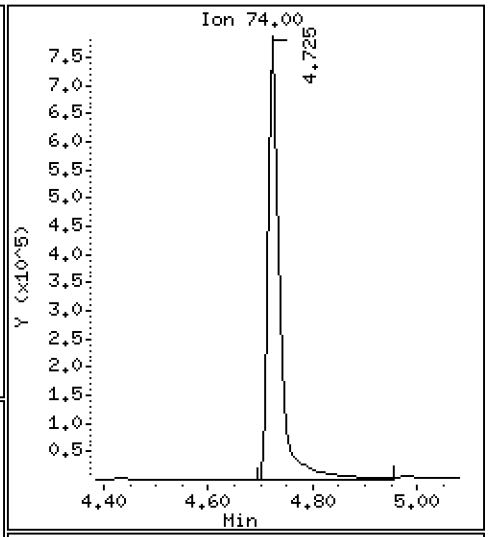
Column phase: ZB-5msi

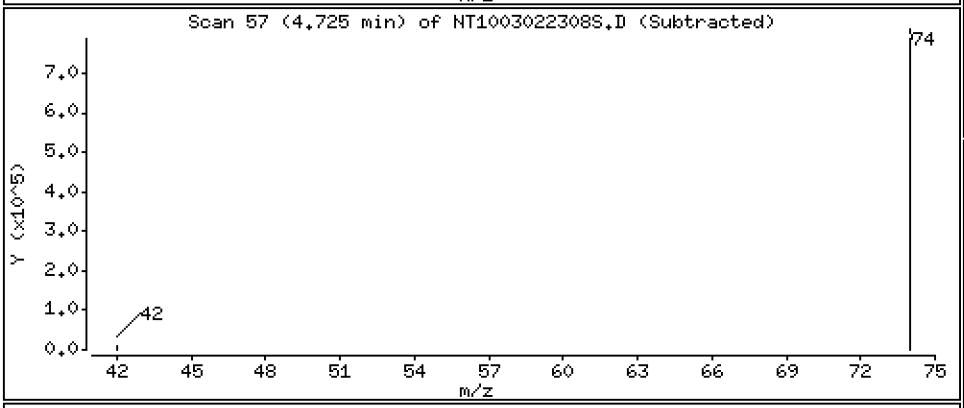
Column diameter: 0.25

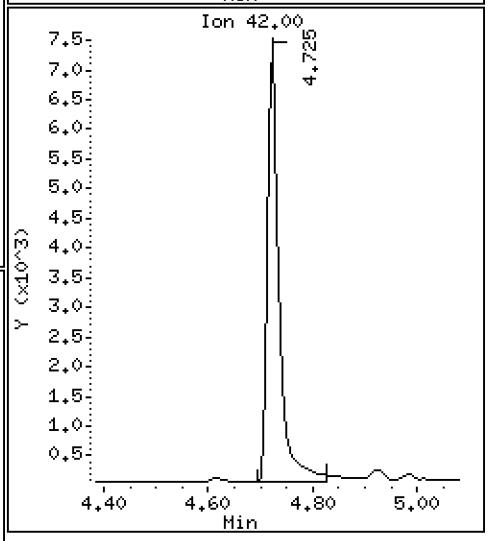
90 N-Nitrosodimethylamine

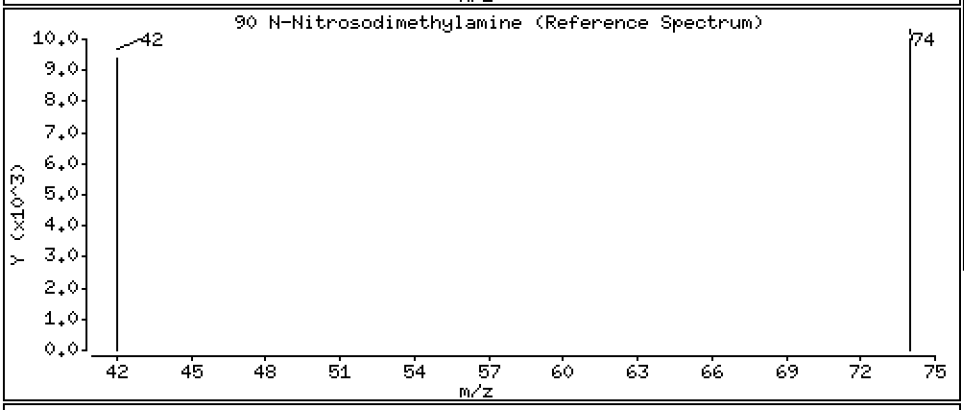
Concentration: 12.83 ug/L

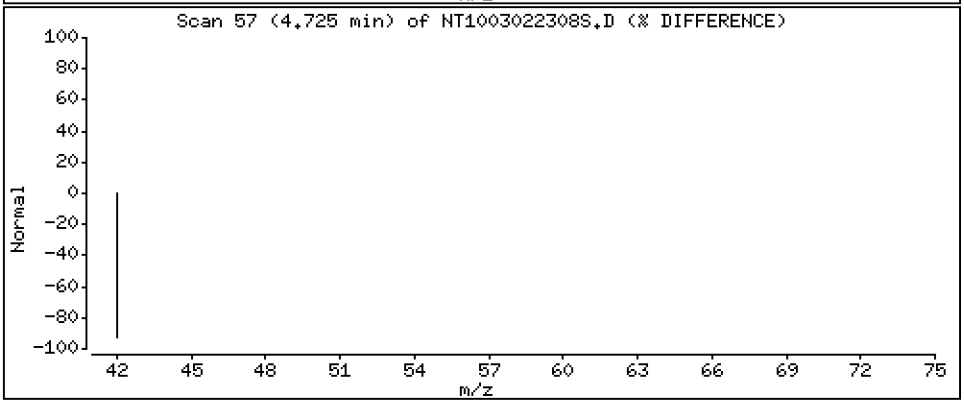












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022308S.D
Lab Smp Id: BLA0624-BSD1
Inj Date : 02-MAR-2023 18:50 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : BLA0624-BSD1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 14:53 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.902	6.902	(0.746)	1057332	6.60791	6.608(R)
3	Phenol	94	8.517	8.517	(0.921)	1084422	4.48897	4.489
7	1,3-Dichlorobenzene	146	9.143	9.143	(0.988)	853967	4.11127	4.111
* 8	1,4-Dichlorobenzene-d4	152	9.252	9.251	(1.000)	560466	4.00000	
9	1,4-Dichlorobenzene	146	9.283	9.282	(1.003)	861054	4.26368	4.264
11	Benzyl alcohol	79	9.477	9.476	(1.024)	603180	4.34406	4.344
12	1,2-Dichlorobenzene	146	9.562	9.562	(1.034)	839585	4.32531	4.325
13	2-Methylphenol	108	9.655	9.655	(1.044)	580325	3.95480	3.955
15	4-Methylphenol	108	9.950	9.942	(1.076)	670458	4.32548	4.325
16	N-Nitroso-di-n-propylamine	70	9.973	9.981	(1.078)	498084	4.65653	4.657
22	2,4-Dimethylphenol	107	10.997	10.997	(0.938)	1444074	7.97792	7.978
24	Benzoic acid	105	11.167	11.074	(0.953)	2629143	23.4639	23.46
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	650704	4.33589	4.336
* 27	Naphthalene-d8	136	11.723	11.723	(1.000)	2085063	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	440778	4.13883	4.139
39	Dimethylphthalate	163	14.749	14.741	(0.963)	1848286	5.22825	5.228
* 42	Acenaphthene-d10	162	15.314	15.314	(1.000)	1113362	4.00000	
50	Diethylphthalate	149	16.210	16.203	(1.059)	1941262	5.82295	5.823
54	N-Nitrosodiphenylamine	169	16.698	16.690	(0.907)	1541071	4.76088	4.761
57	Hexachlorobenzene	284	17.578	17.578	(0.955)	676633	4.46668	4.467

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	17.988	17.988	(0.977)	1378551	16.5427	16.54
*	59 Phenanthrene-d10	188	18.406	18.406	(1.000)	2000131	4.00000	
$	66 Terphenyl-d14	244	21.532	21.532	(0.919)	763988	4.35620	4.356(R)
	67 Butylbenzylphthalate	149	22.414	22.414	(0.957)	1574214	4.36757	4.368
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	2168746	4.00000	
*	77 Perylene-d12	264	26.115	26.115	(1.000)	2165910	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.929	28.929	(1.108)	2691548	4.96165	4.962
	90 N-Nitrosodimethylamine	74	4.724	4.732	(0.511)	1215136	12.8270	12.83

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003022308S.D
Lab Smp Id: BLA0624-BSD1
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 02-MAR-2023
Calibration Time: 14:13
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	493417	246709	986834	560466	13.59
27 Naphthalene-d8	1779056	889528	3558112	2085063	17.20
42 Acenaphthene-d10	954569	477285	1909138	1113362	16.64
59 Phenanthrene-d10	1596290	798145	3192580	2000131	25.30
69 Chrysene-d12	1649110	824555	3298220	2168746	31.51
77 Perylene-d12	1901958	950979	3803916	2165910	13.88

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.41	17.91	18.91	18.41	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.42	0.00
77 Perylene-d12	26.12	25.62	26.62	26.12	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003022308S.D

Lab ID: BLA0624-BSD1
nt10.i, 20230302.b\SIM.b\SIMABN2.m,   02-MAR-2023 18:50

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.953	0.945	0.0080	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003022303S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223095.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

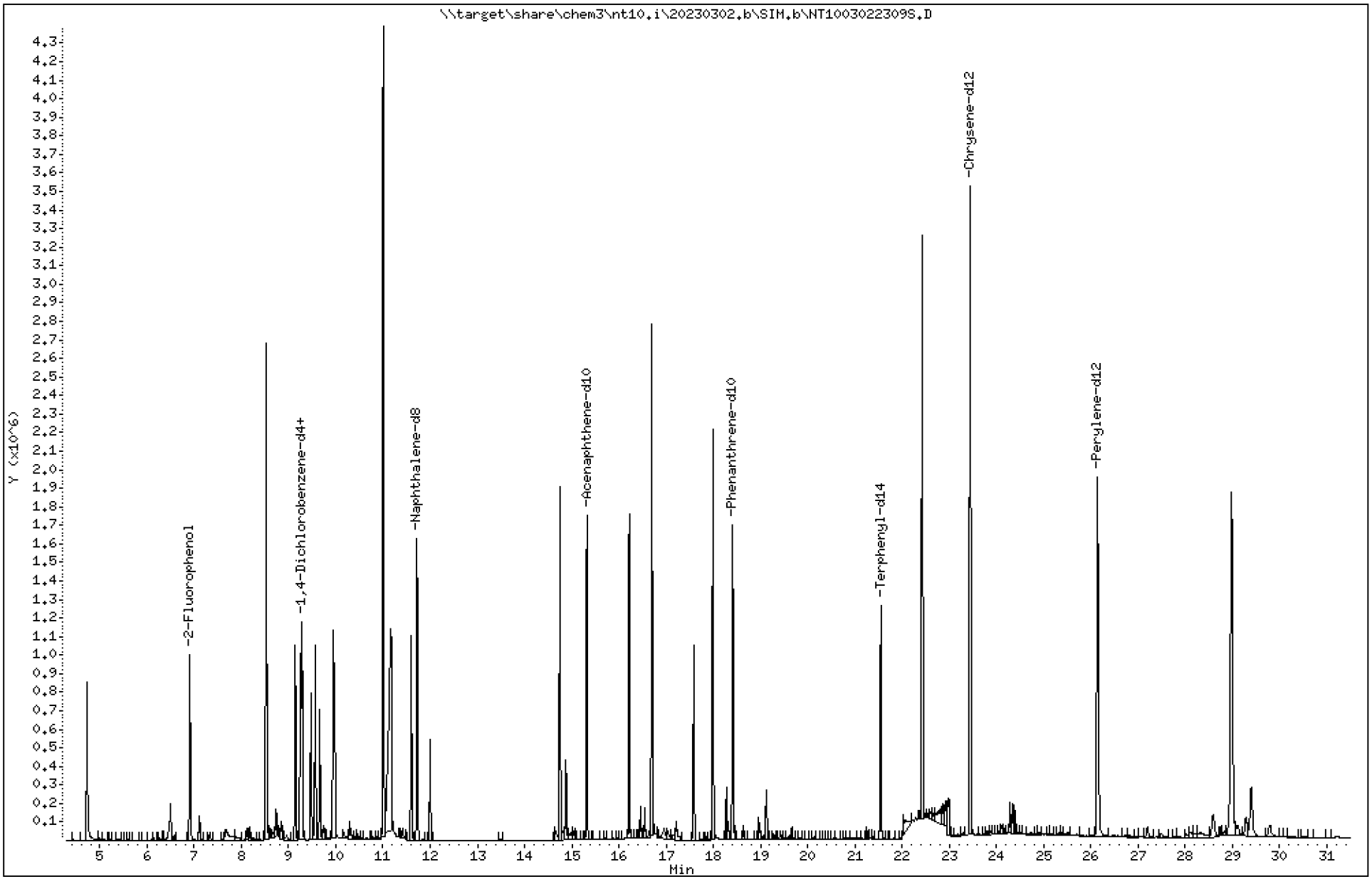
Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

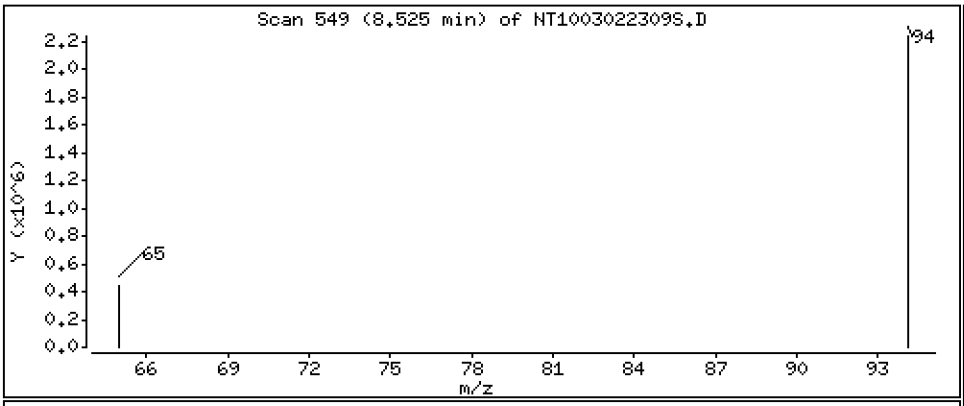
Operator: JGR

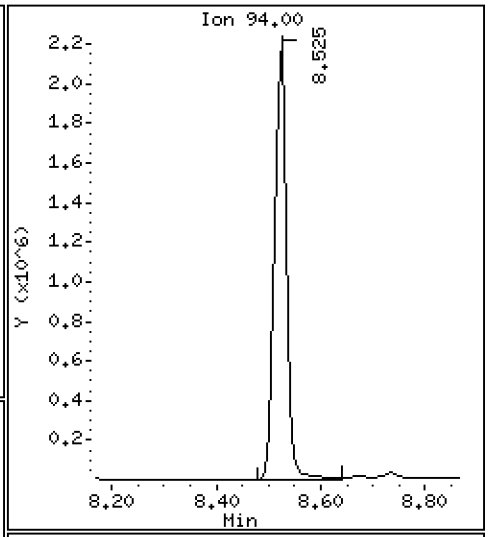
Column phase: ZB-5msi

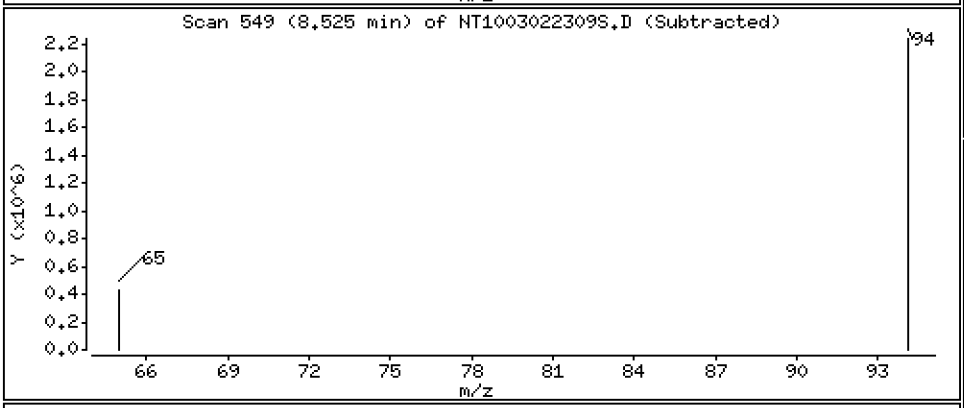
Column diameter: 0.25

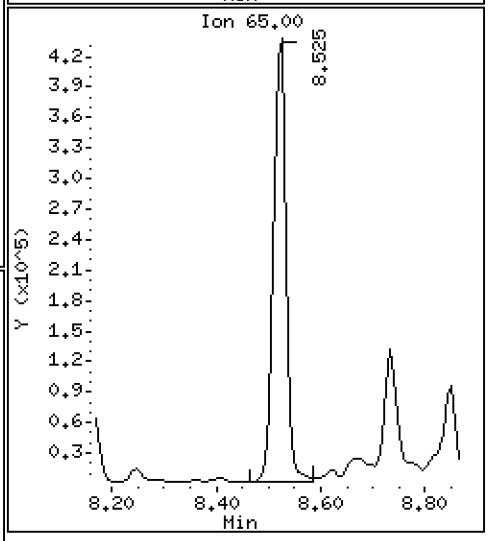
3 Phenol

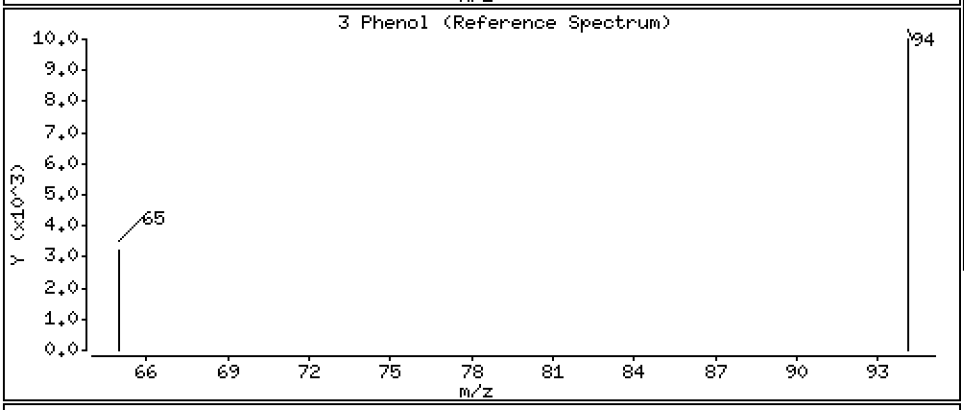
Concentration: 11.73 ug/L

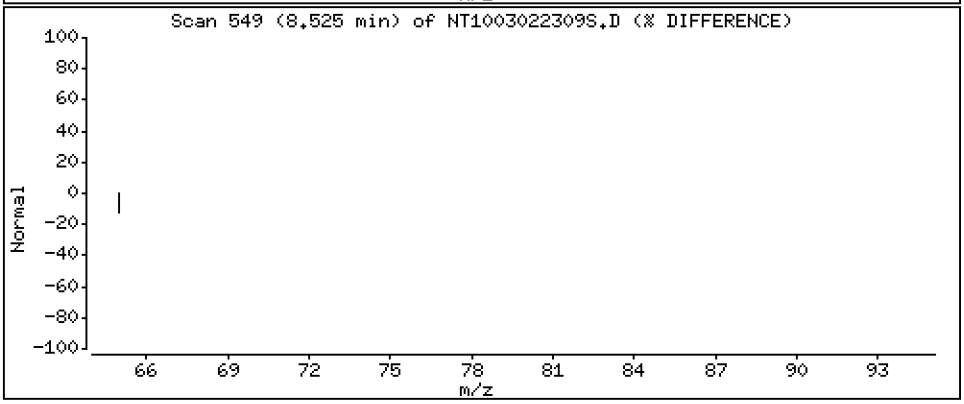












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

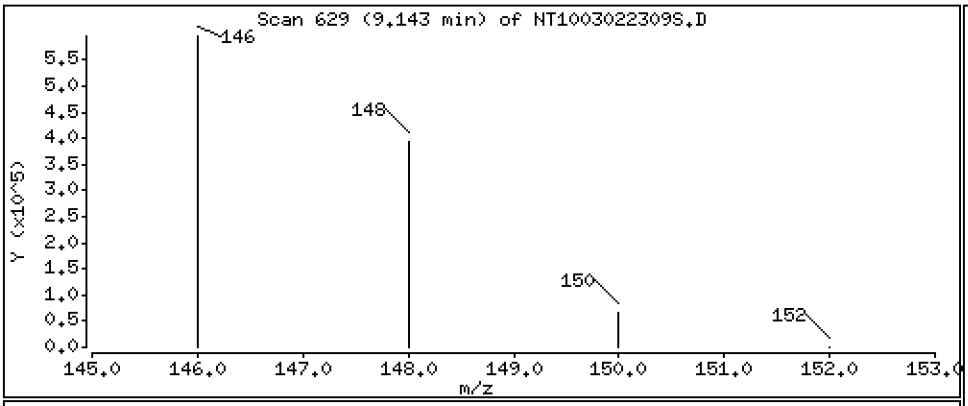
Operator: JGR

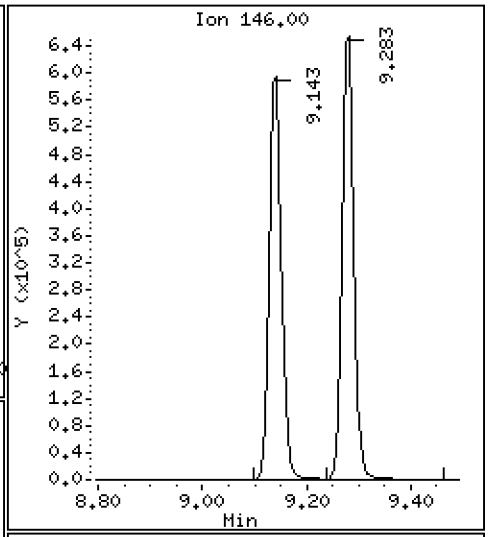
Column phase: ZB-5msi

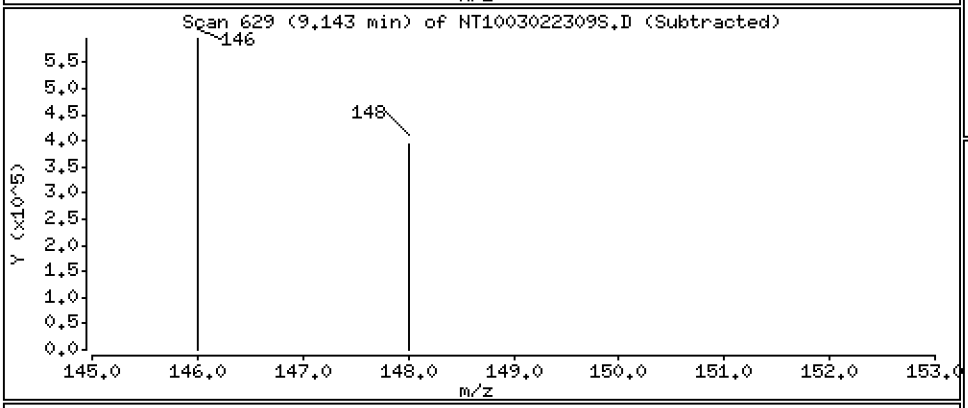
Column diameter: 0.25

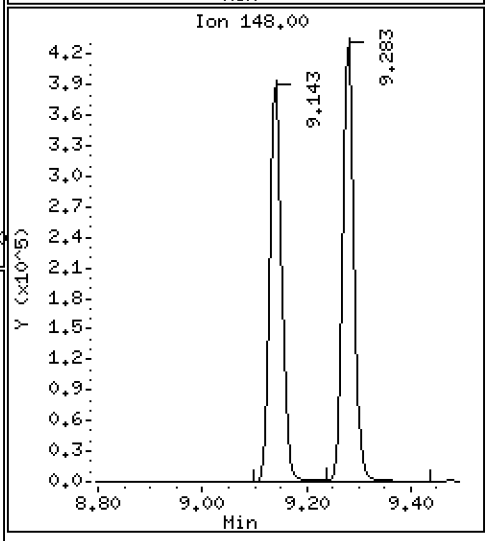
7 1,3-Dichlorobenzene

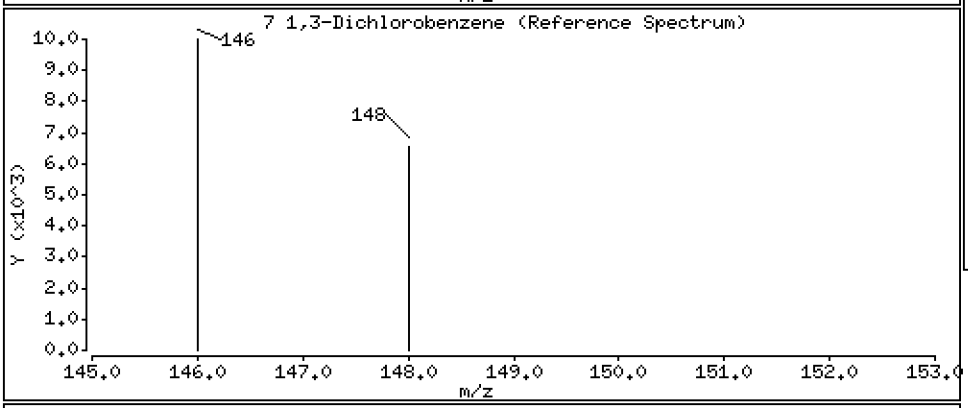
Concentration: 4.069 ug/L

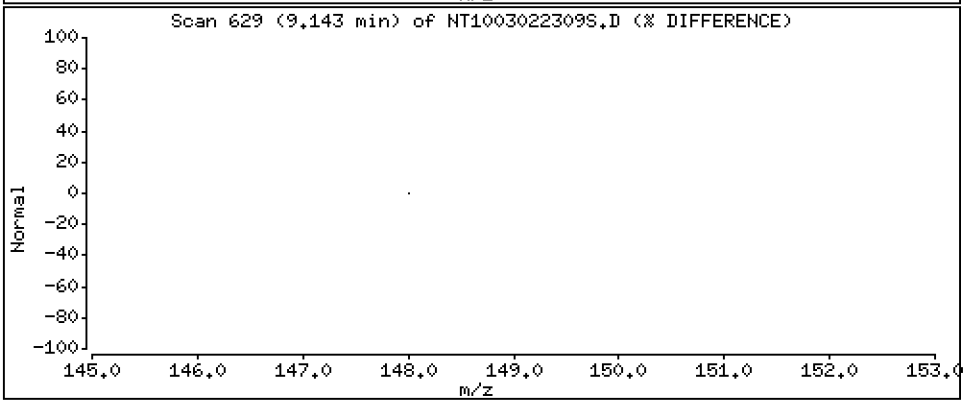












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

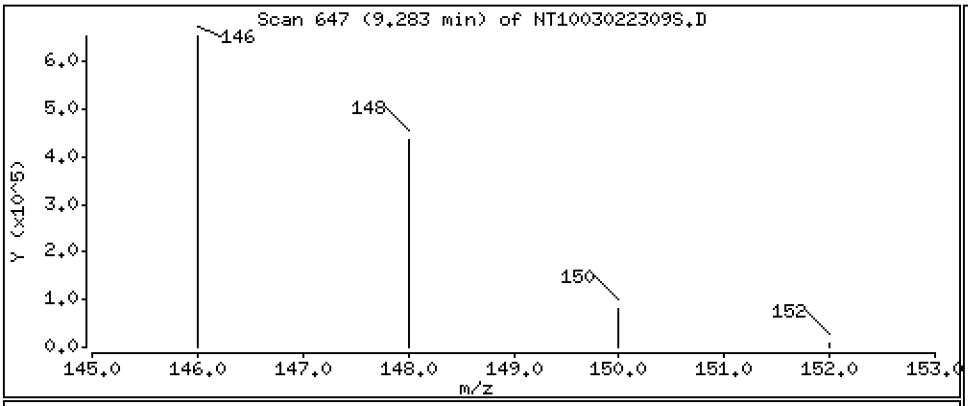
Operator: JGR

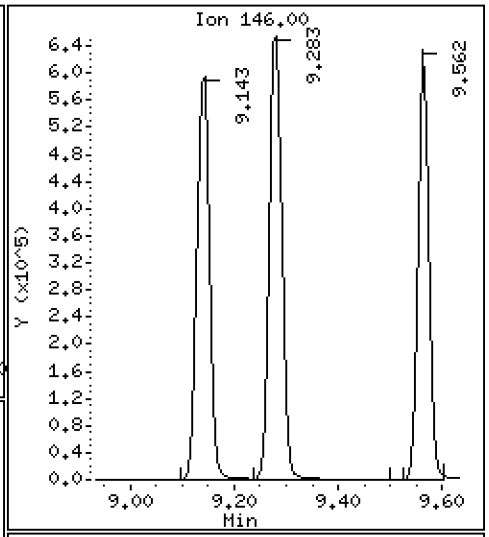
Column phase: ZB-5msi

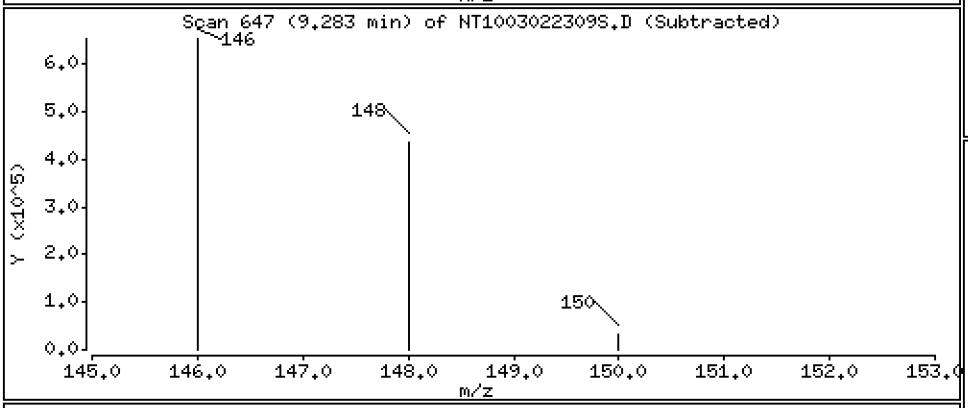
Column diameter: 0.25

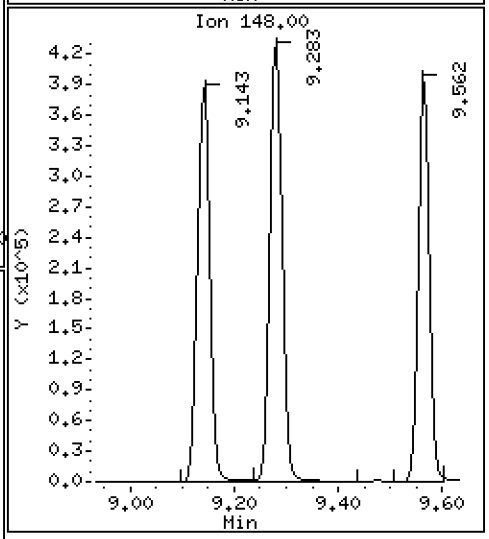
9 1,4-Dichlorobenzene

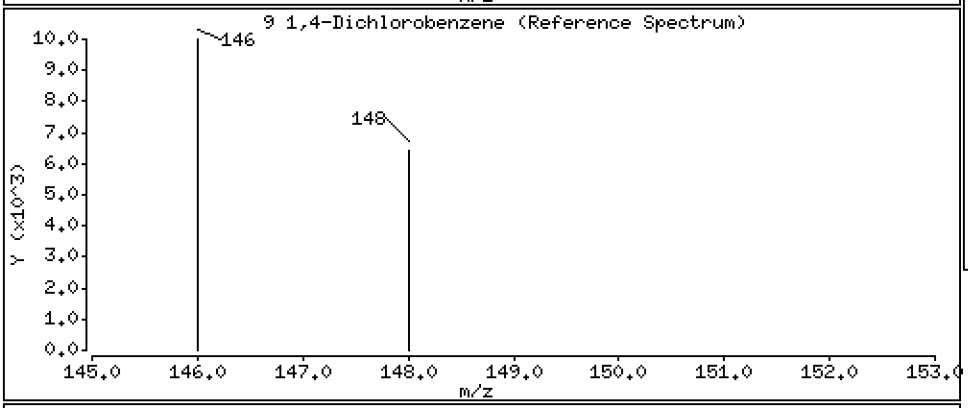
Concentration: 4.544 ug/L

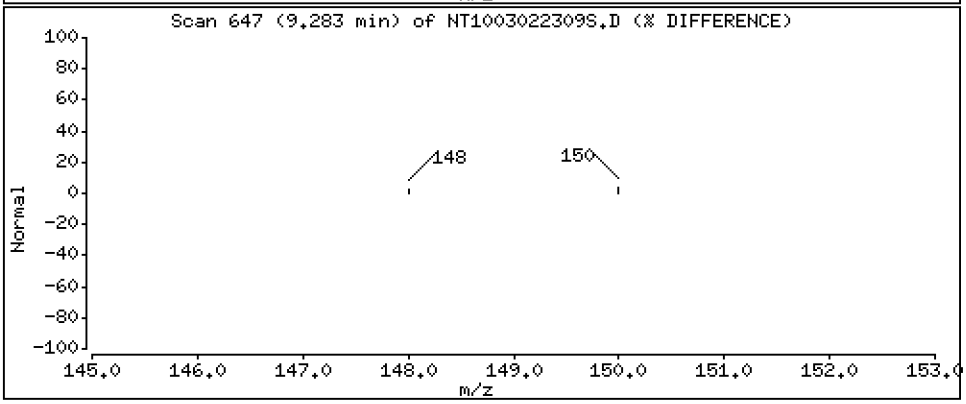












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

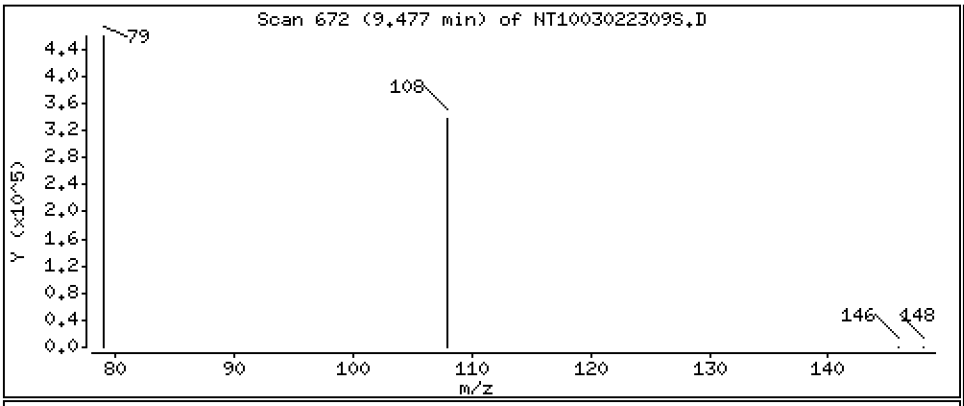
Operator: JGR

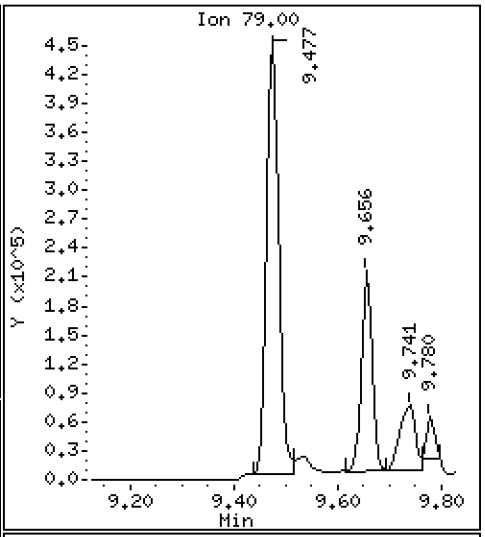
Column phase: ZB-5msi

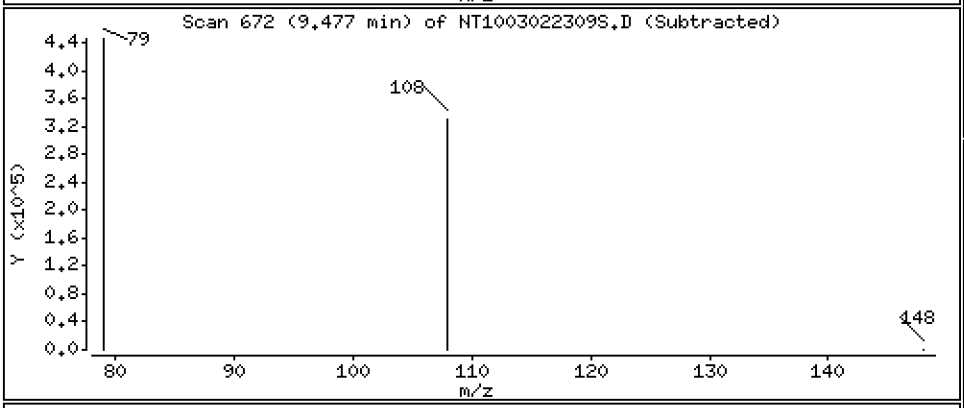
Column diameter: 0.25

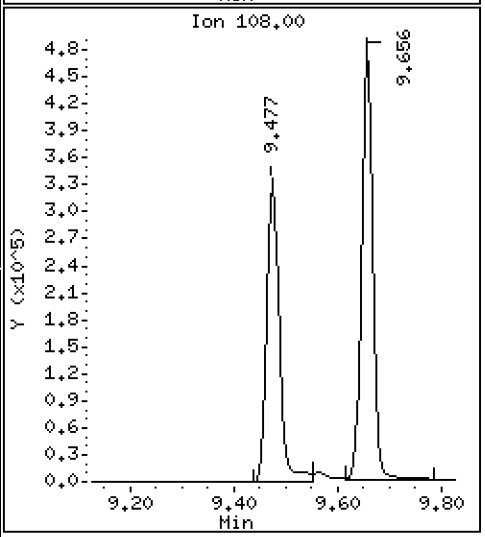
11 Benzyl alcohol

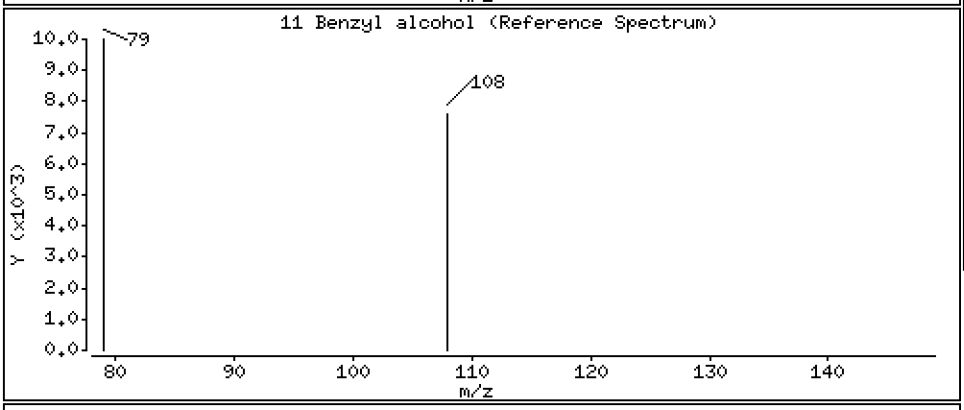
Concentration: 4.336 ug/L

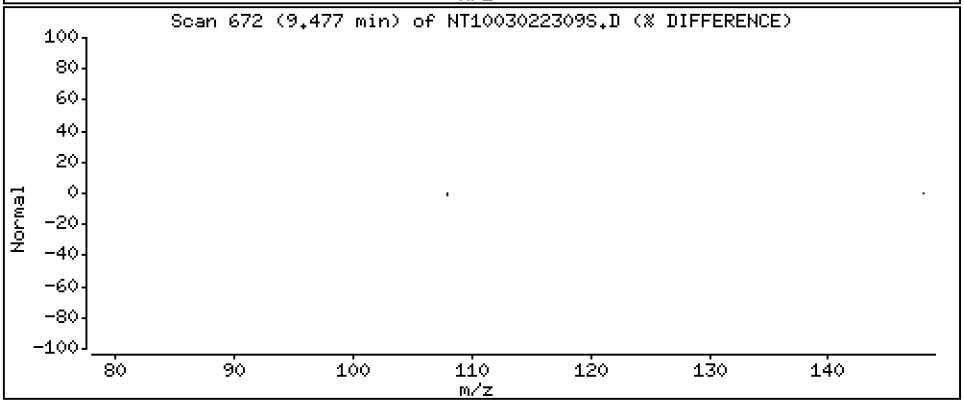












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

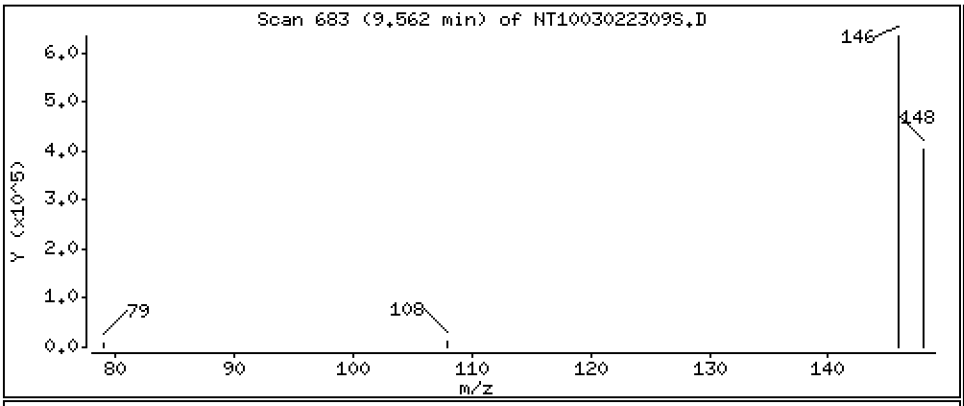
Operator: JGR

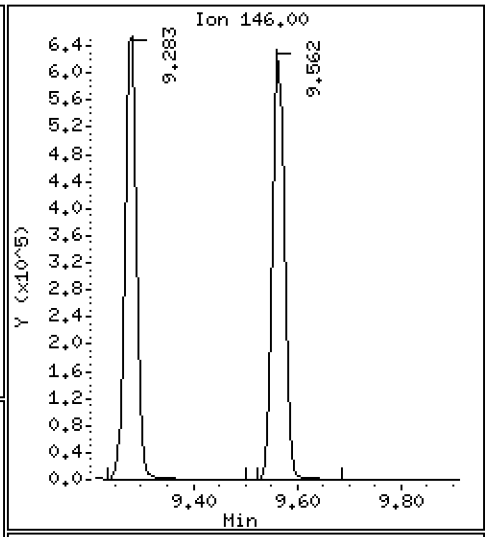
Column phase: ZB-5msi

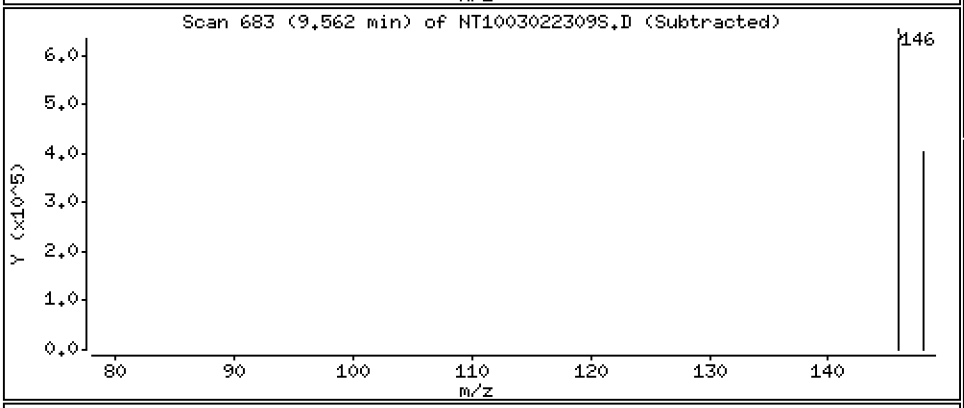
Column diameter: 0.25

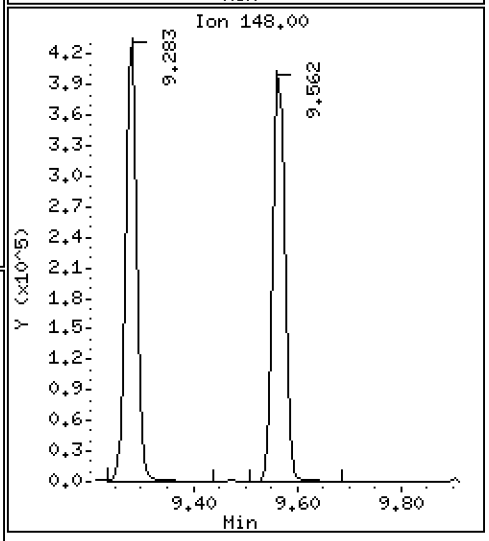
12 1,2-Dichlorobenzene

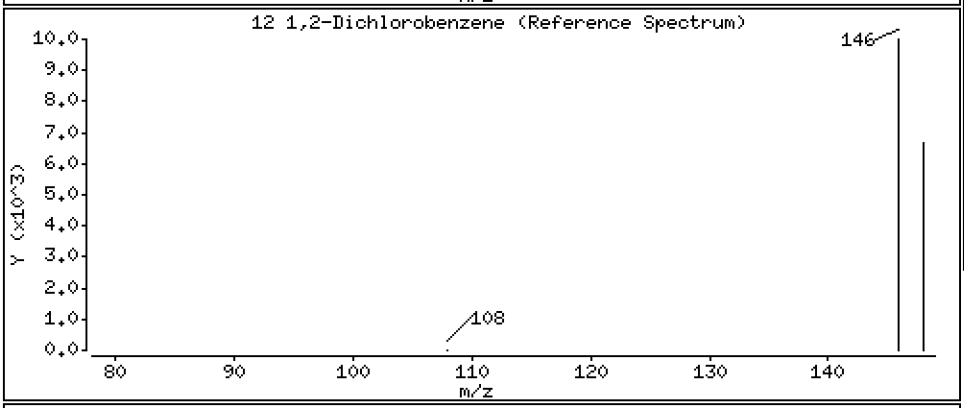
Concentration: 4.285 ug/L

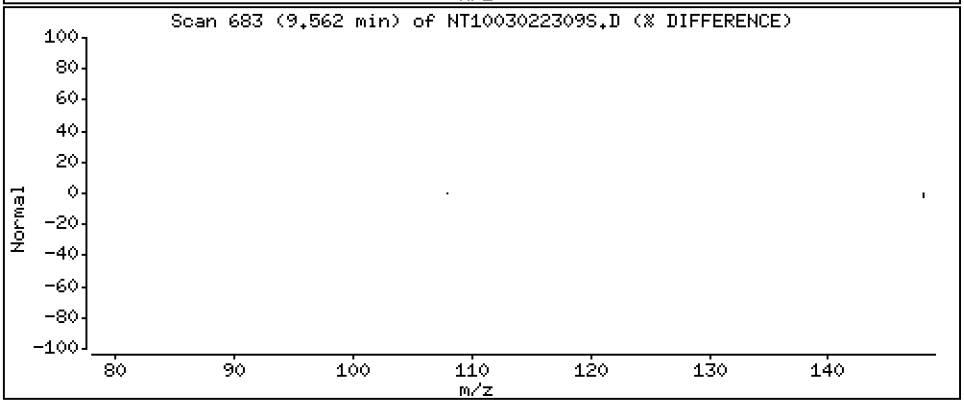












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

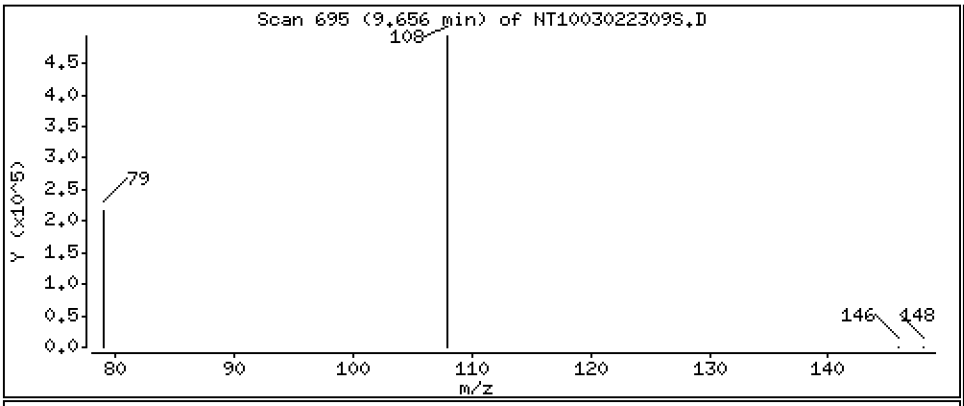
Operator: JGR

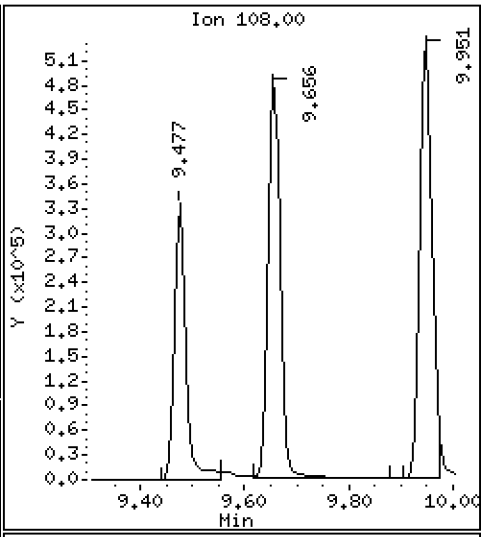
Column phase: ZB-5msi

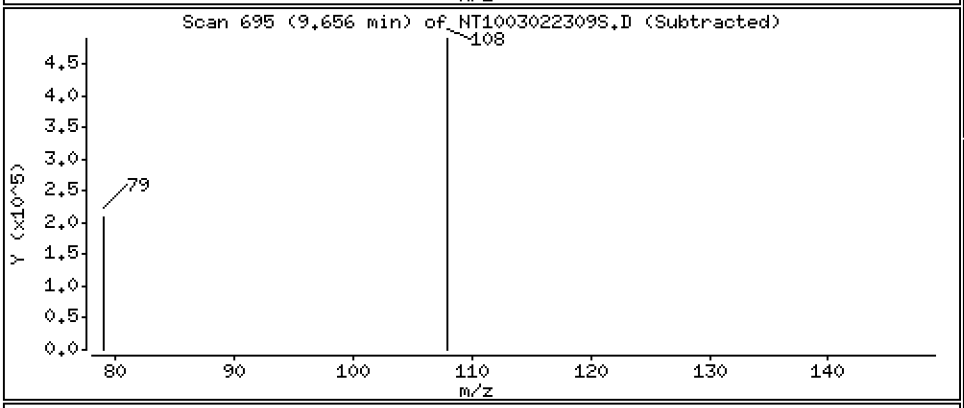
Column diameter: 0.25

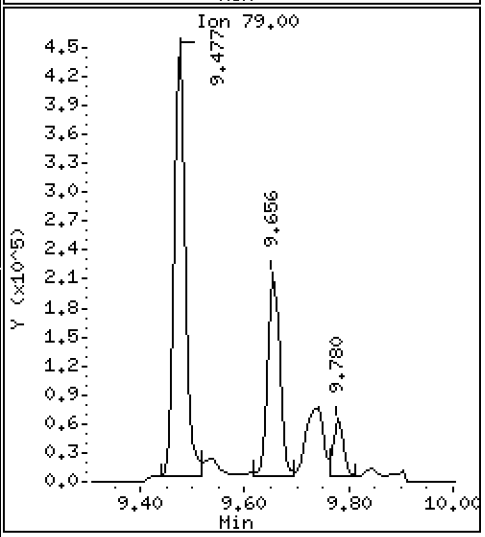
13 2-Methylphenol

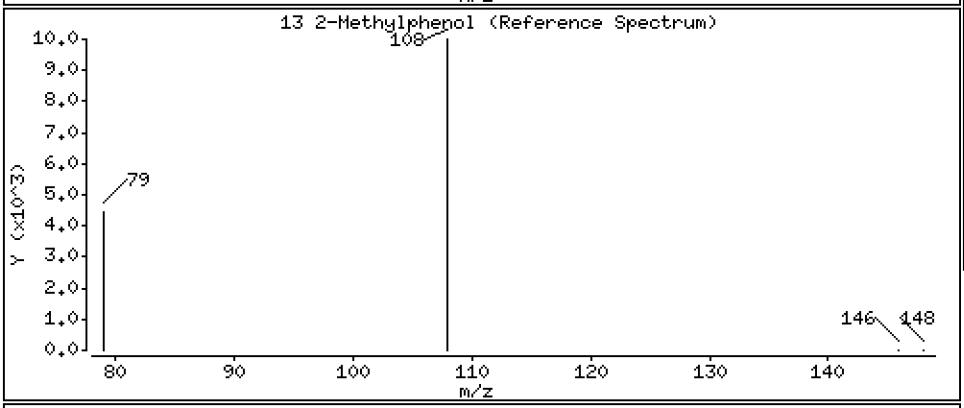
Concentration: 4.357 ug/L

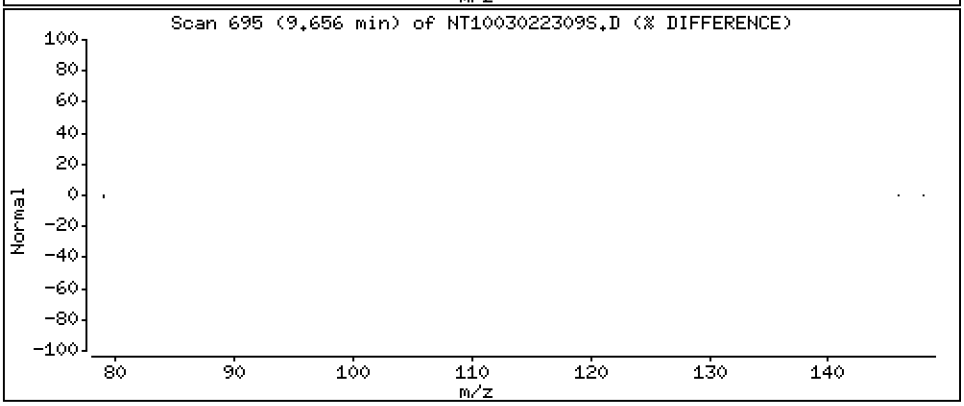












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

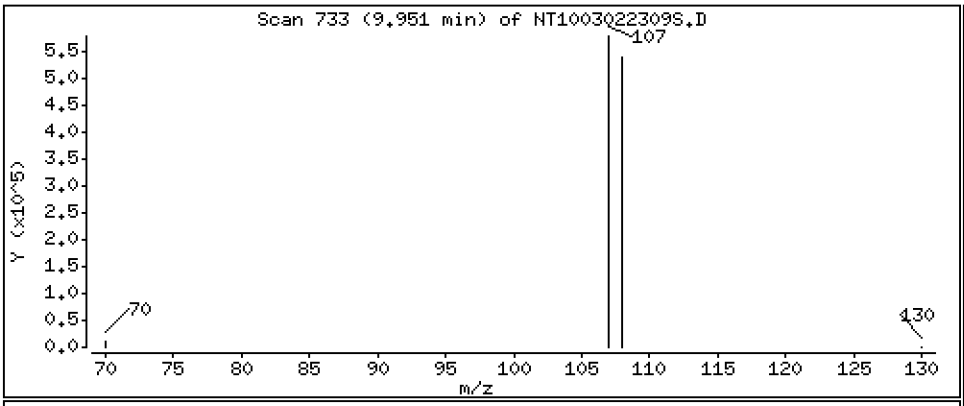
Operator: JGR

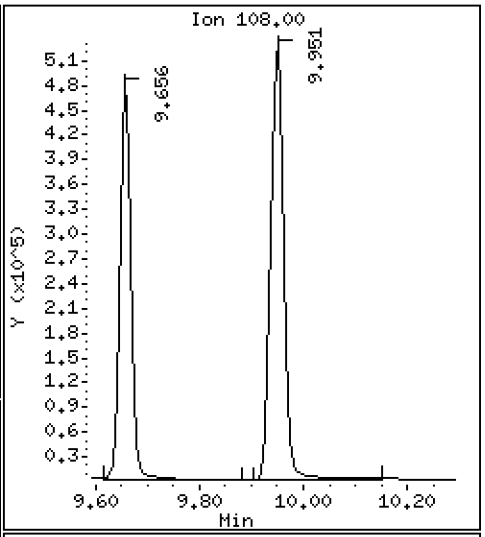
Column phase: ZB-5msi

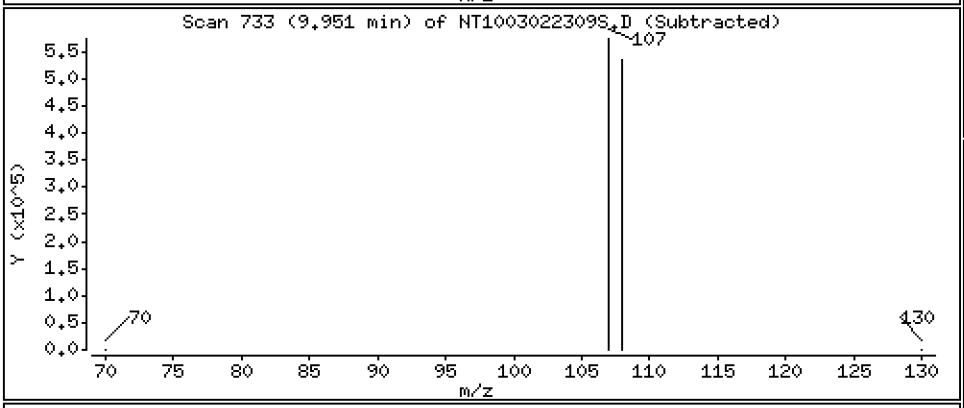
Column diameter: 0.25

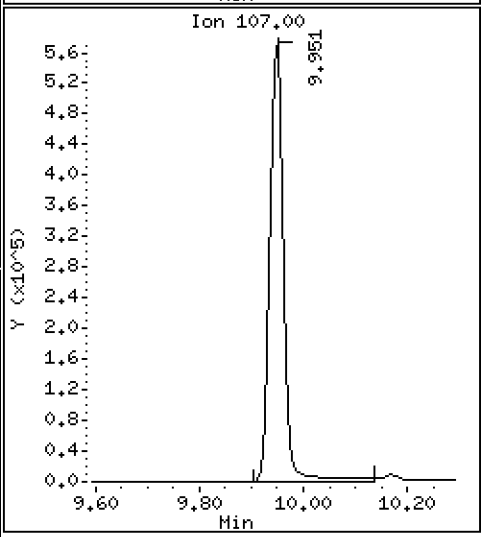
15 4-Methylphenol

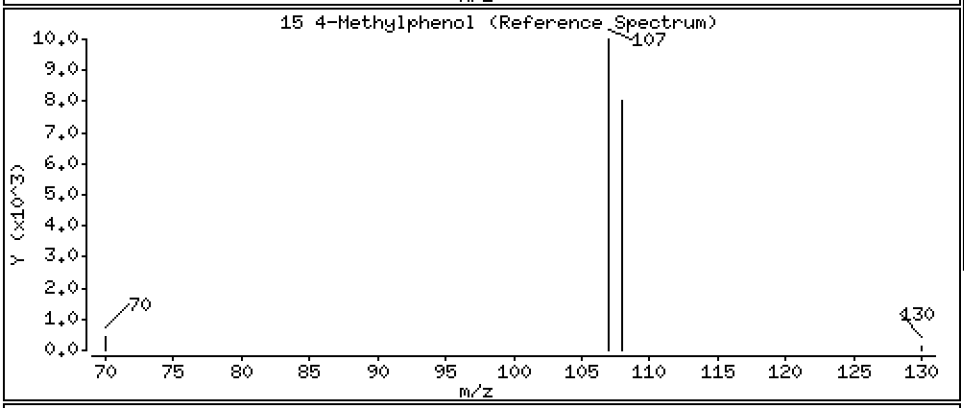
Concentration: 5.039 ug/L

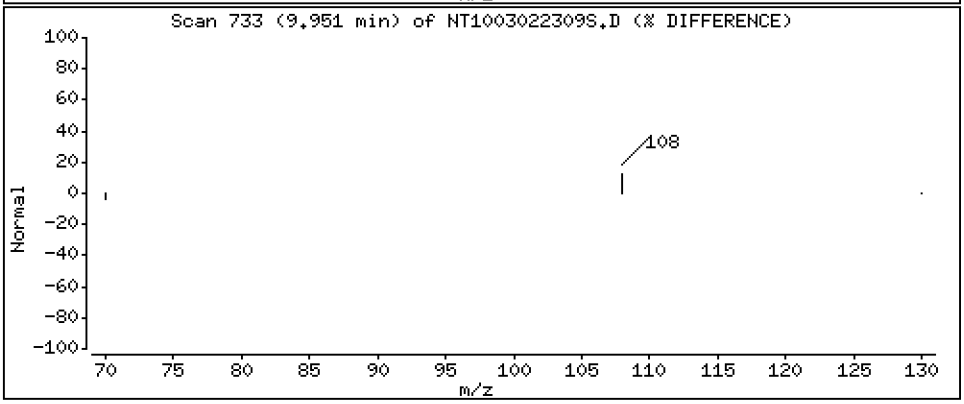












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

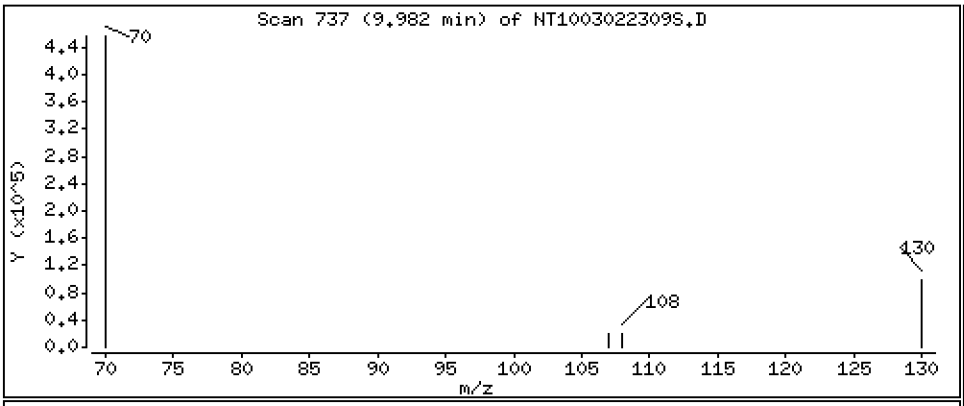
Operator: JGR

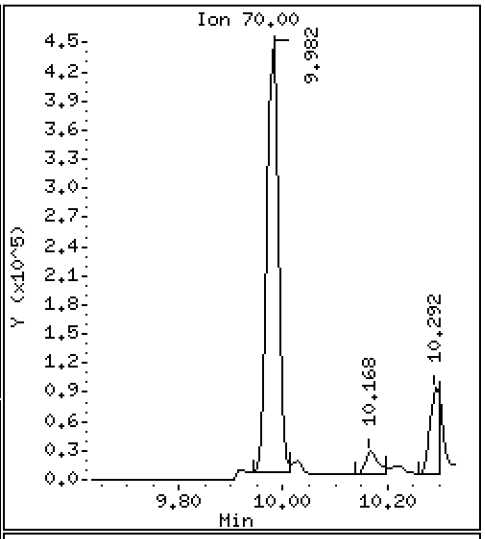
Column phase: ZB-5msi

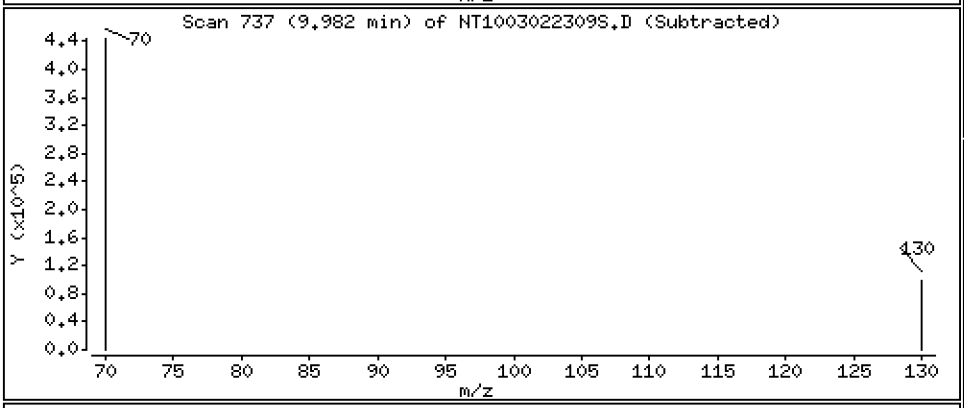
Column diameter: 0.25

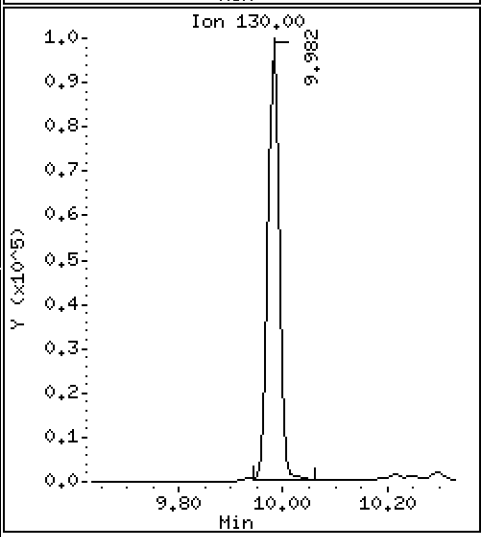
16 N-Nitroso-di-n-propylamine

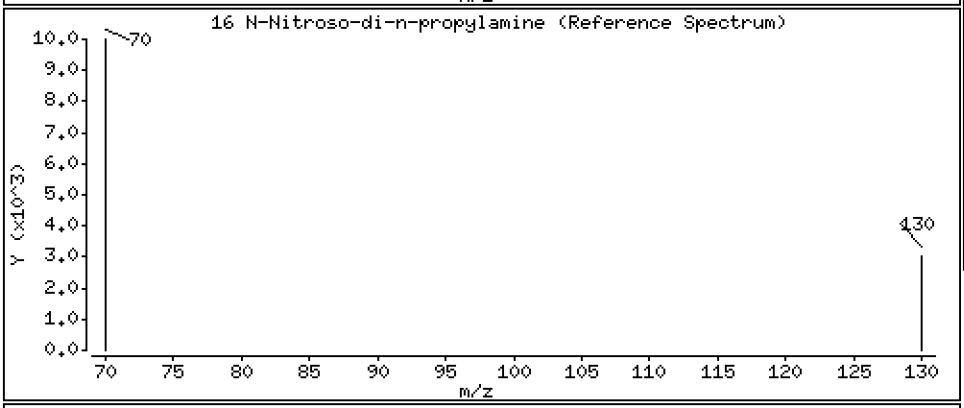
Concentration: 5.166 ug/L

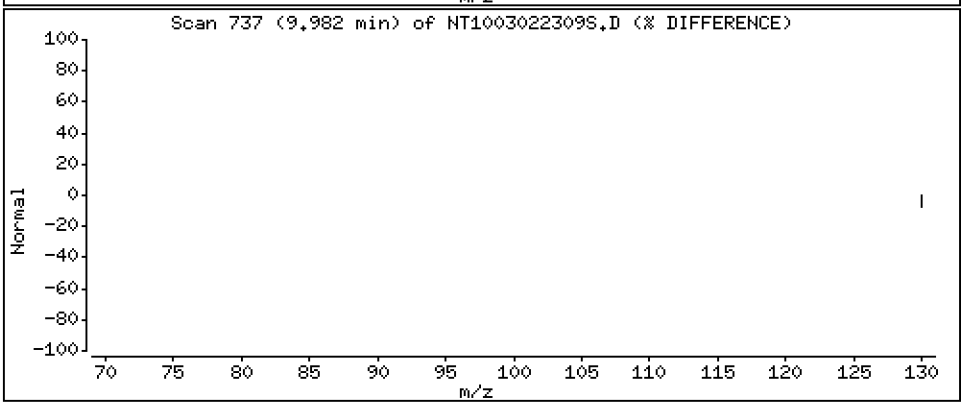












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223095.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

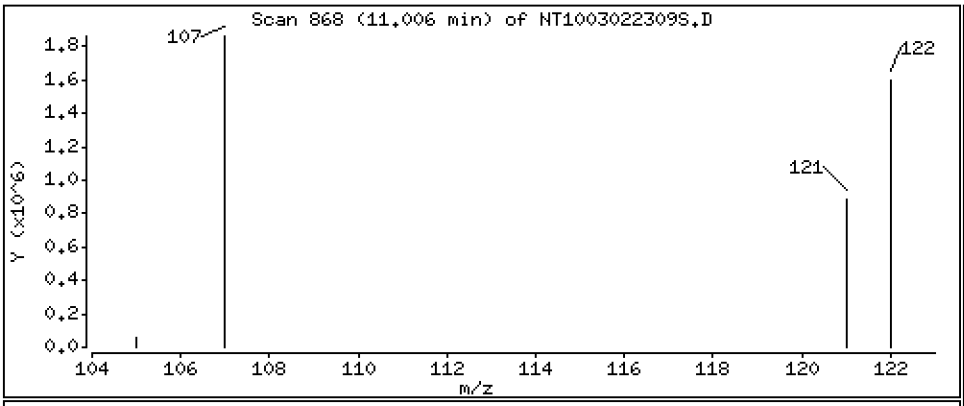
Operator: JGR

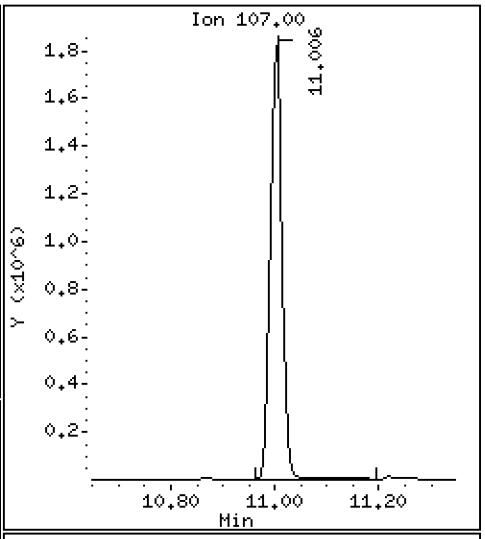
Column phase: ZB-5msi

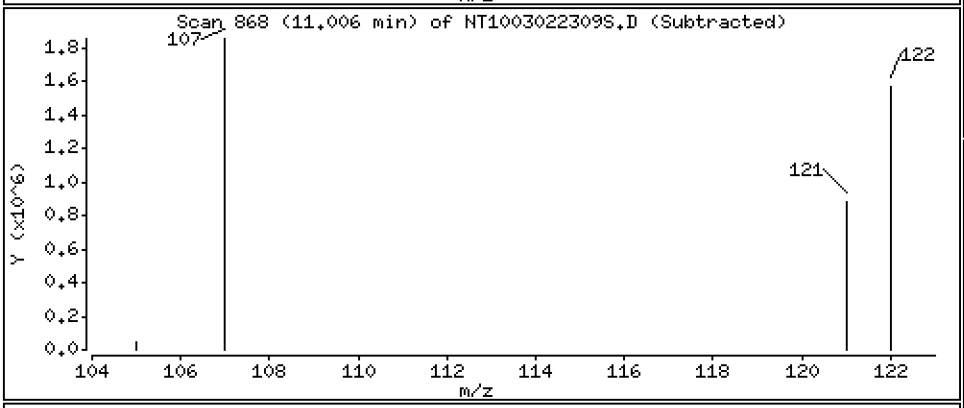
Column diameter: 0.25

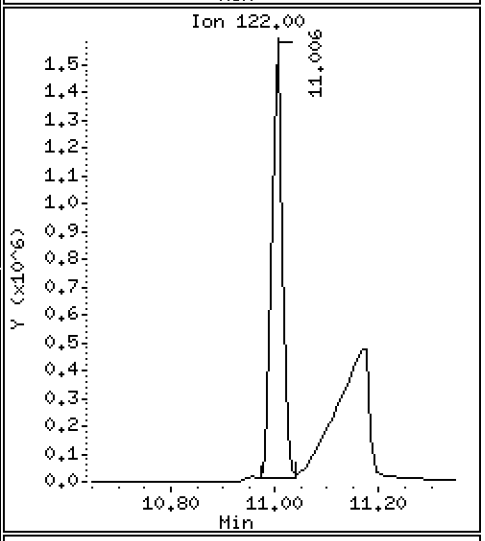
22 2,4-Dimethylphenol

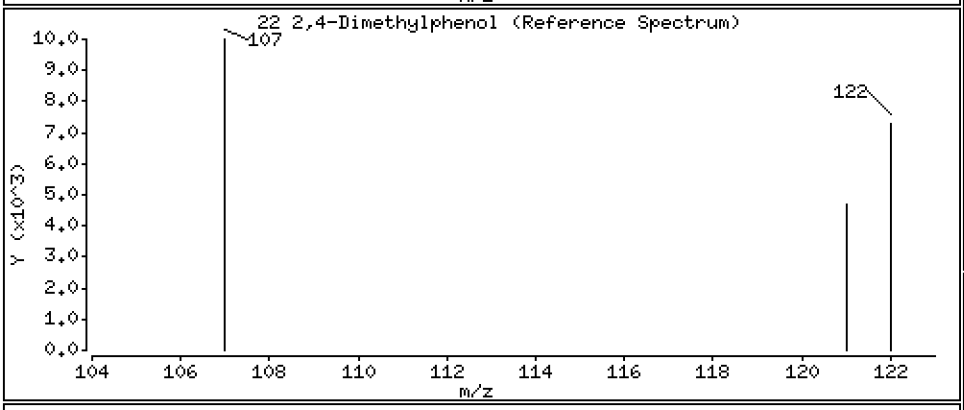
Concentration: 13.69 ug/L

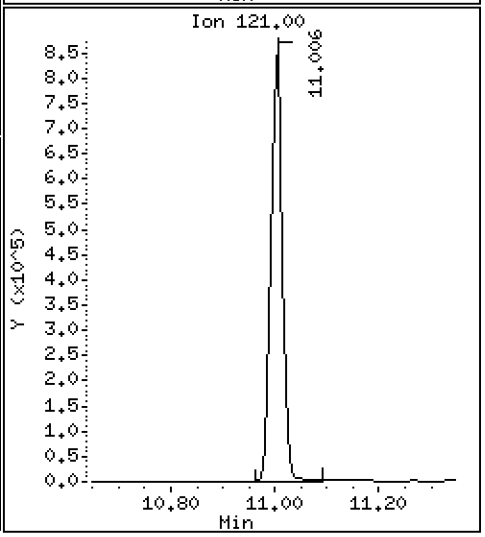


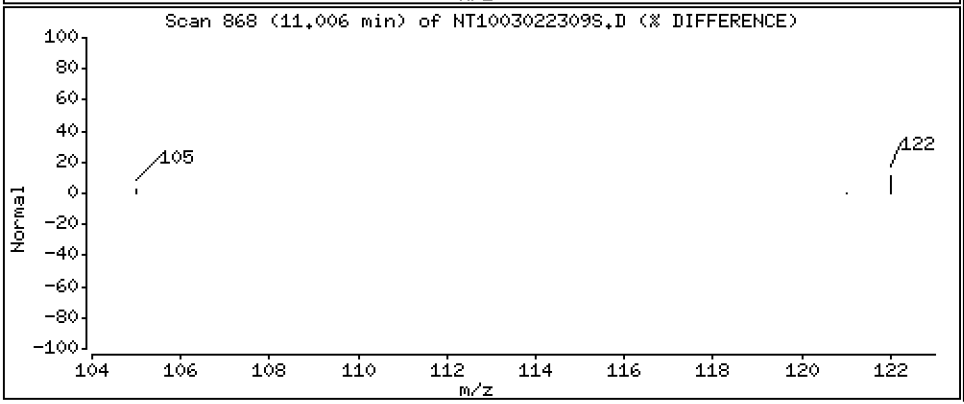












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Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

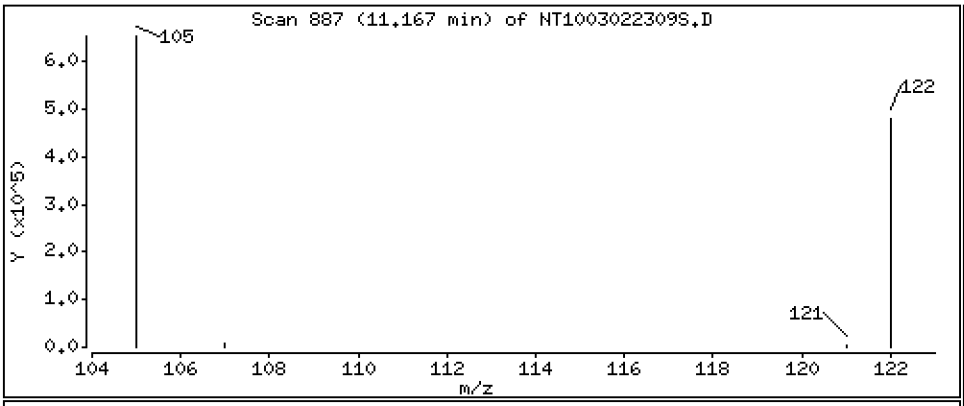
Operator: JGR

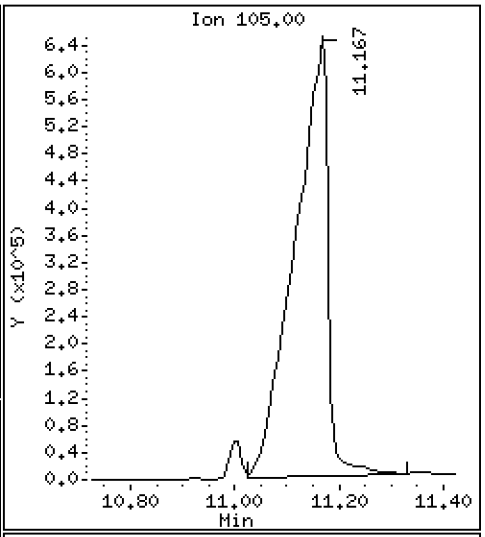
Column phase: ZB-5msi

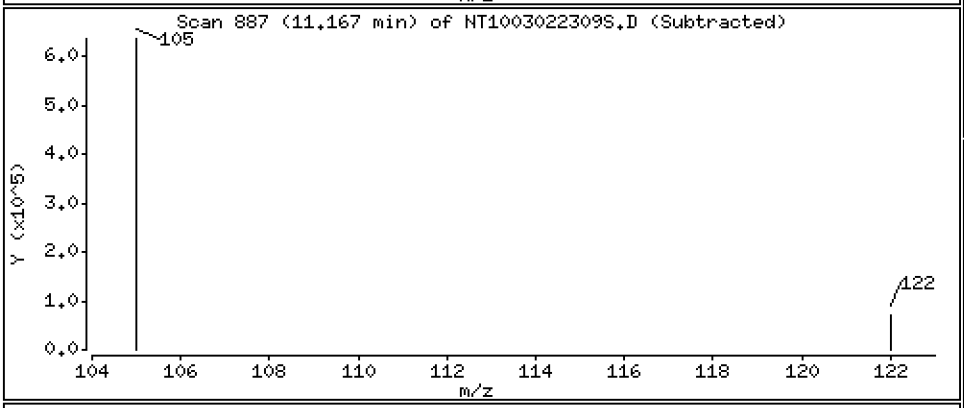
Column diameter: 0.25

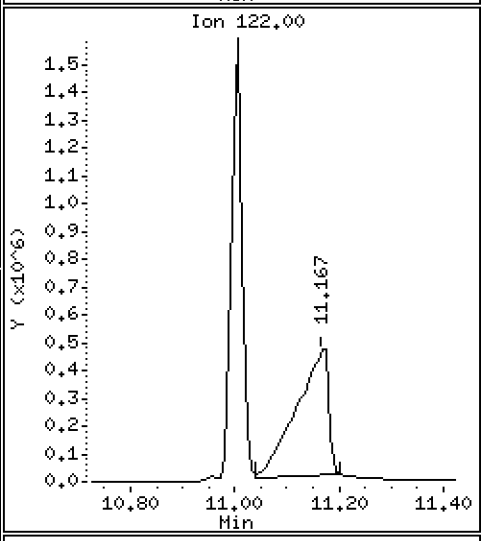
24 Benzoic acid

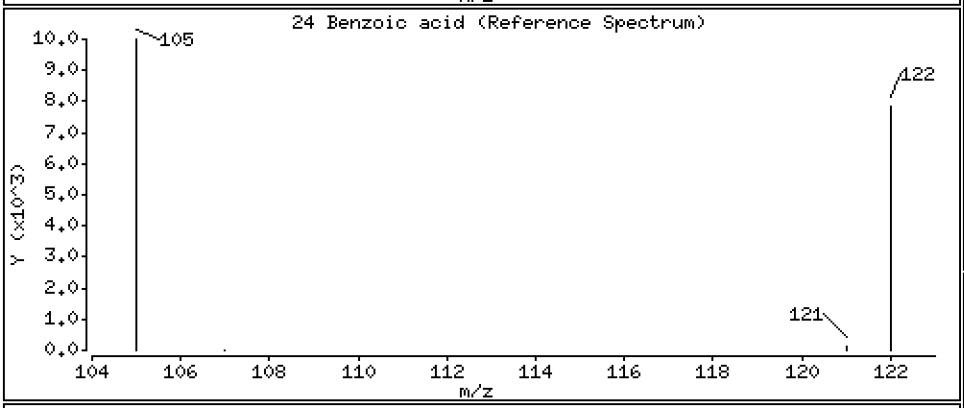
Concentration: 22.88 ug/L

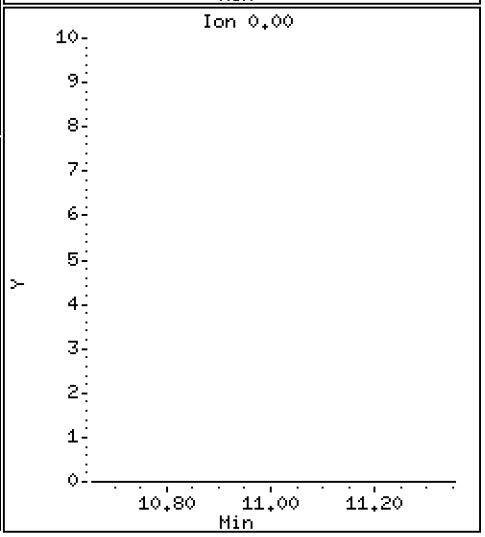


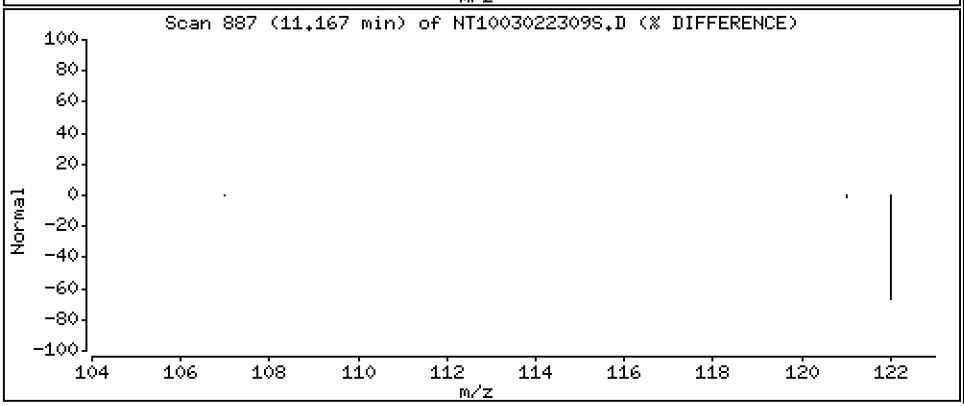












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

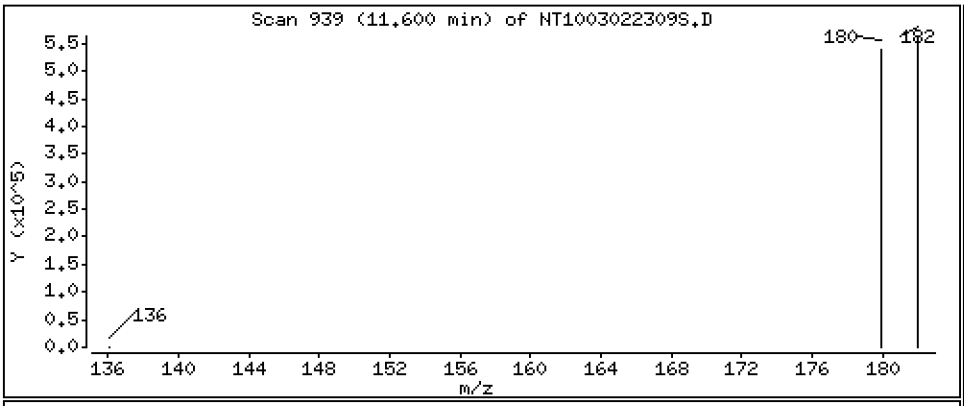
Operator: JGR

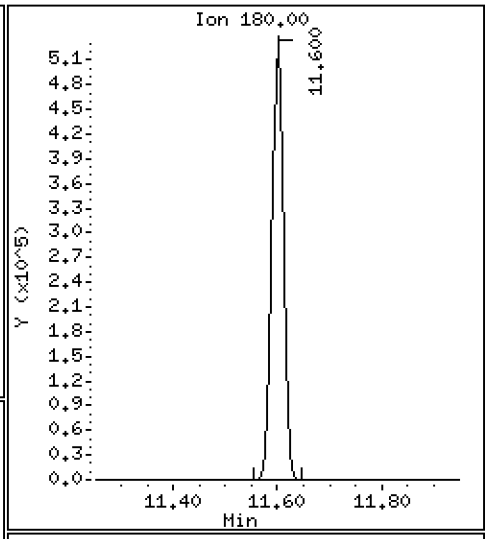
Column phase: ZB-5msi

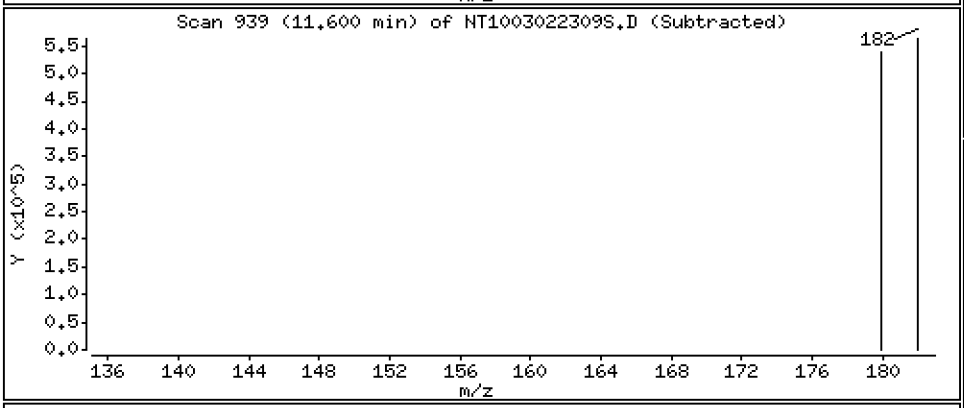
Column diameter: 0.25

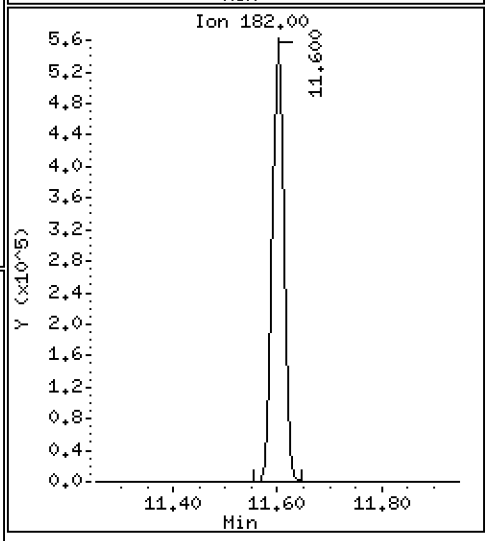
26 1,2,4-Trichlorobenzene

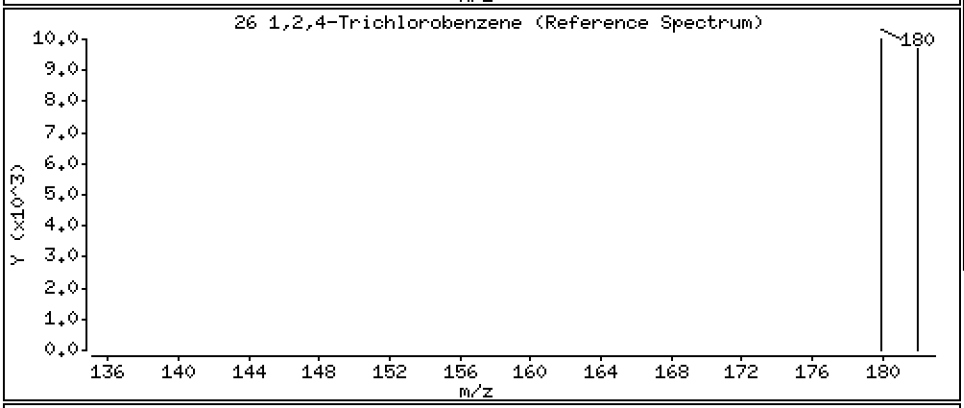
Concentration: 4.511 ug/L

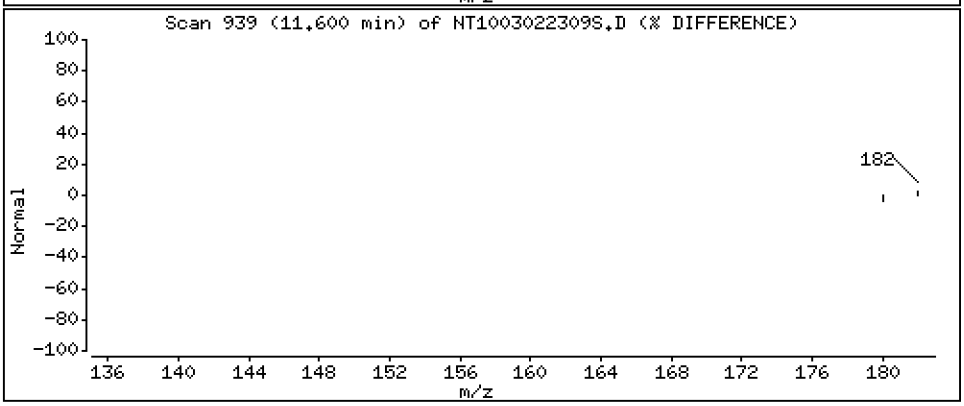












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

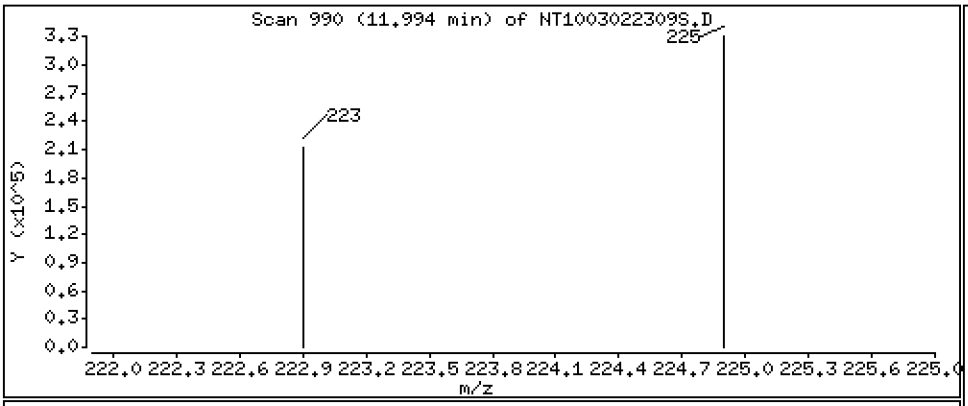
Operator: JGR

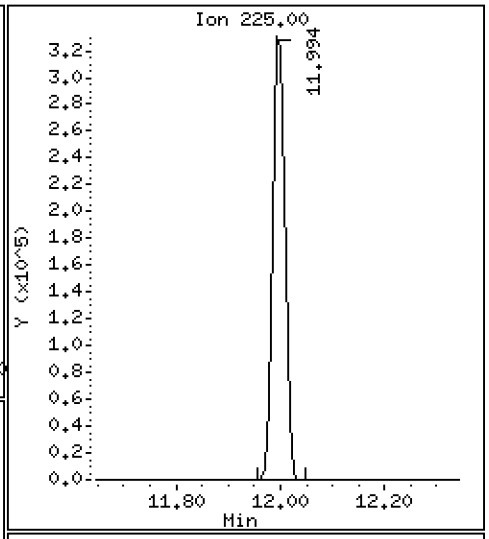
Column phase: ZB-5msi

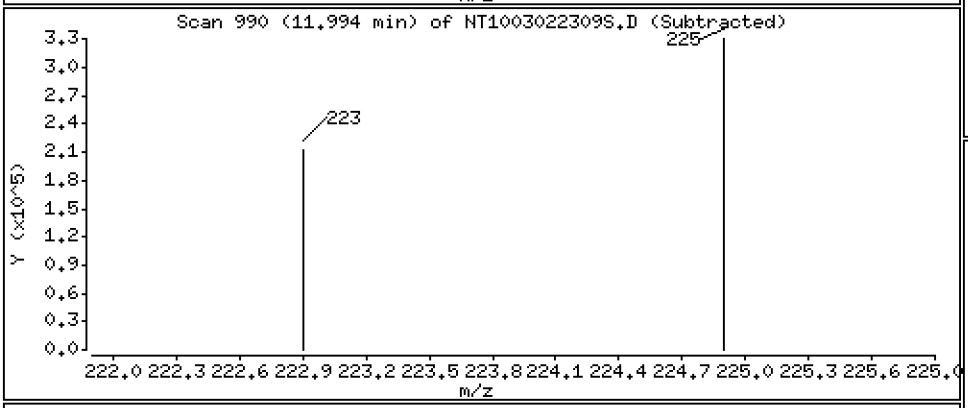
Column diameter: 0.25

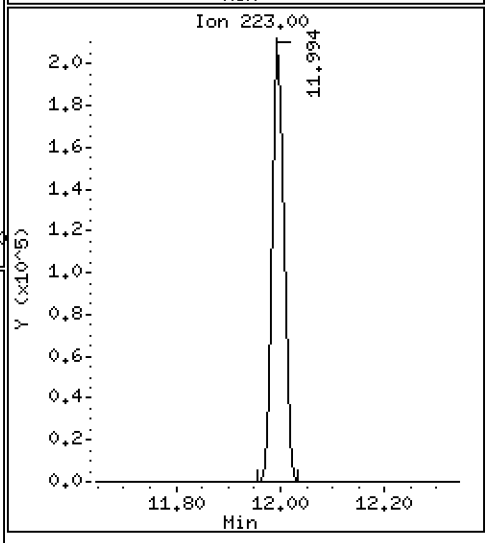
30 Hexachlorobutadiene

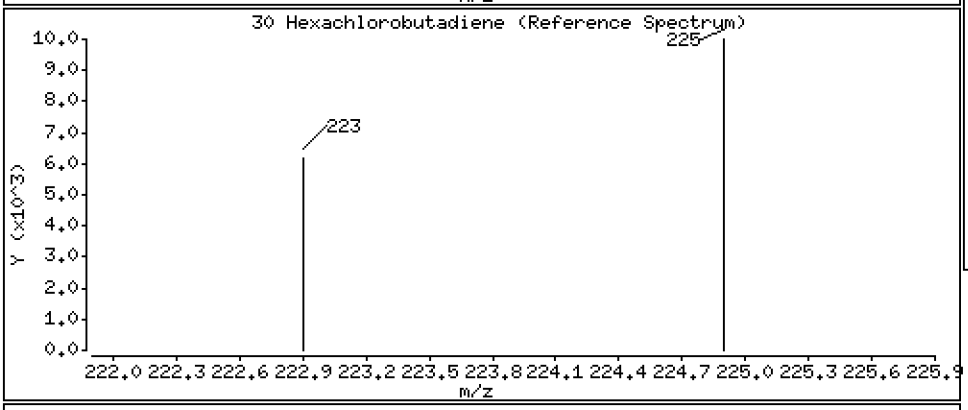
Concentration: 4.276 ug/L

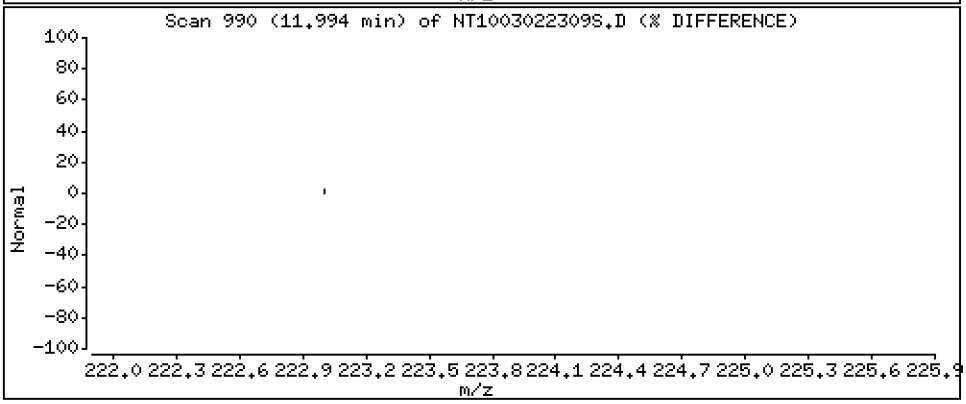












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

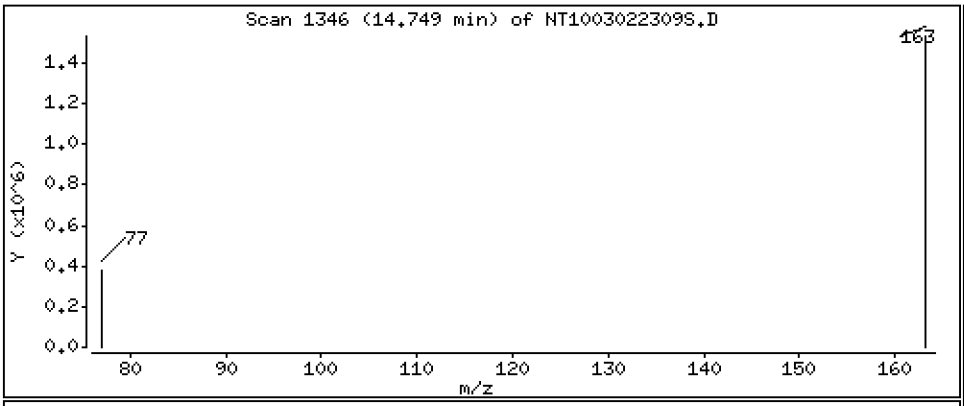
Operator: JGR

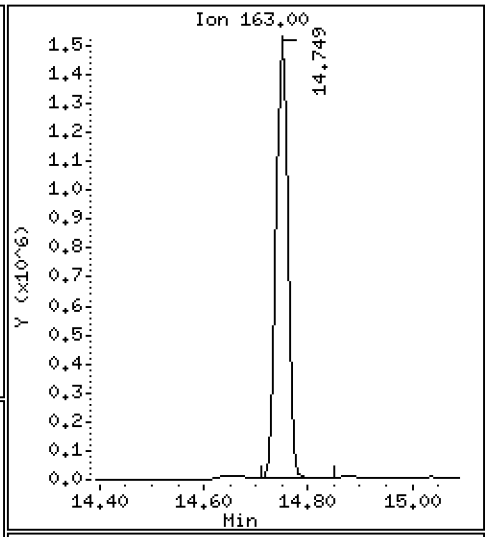
Column phase: ZB-5msi

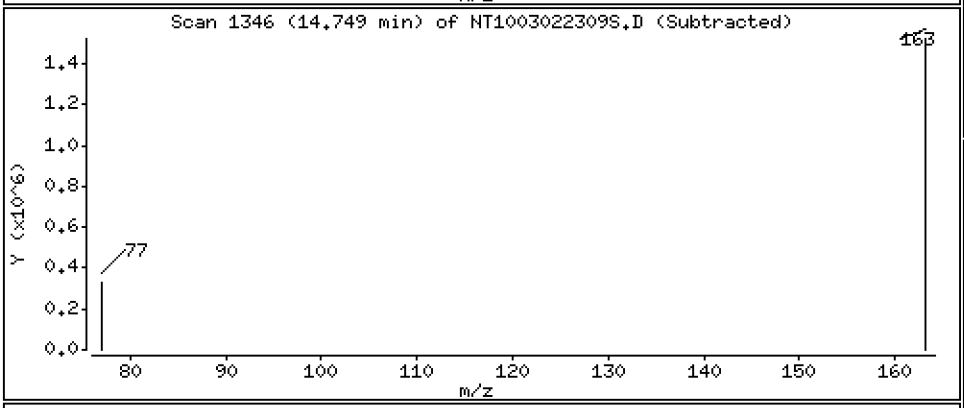
Column diameter: 0.25

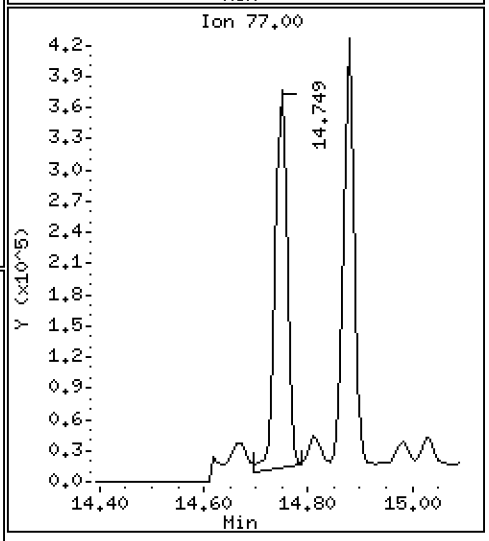
39 Dimethylphthalate

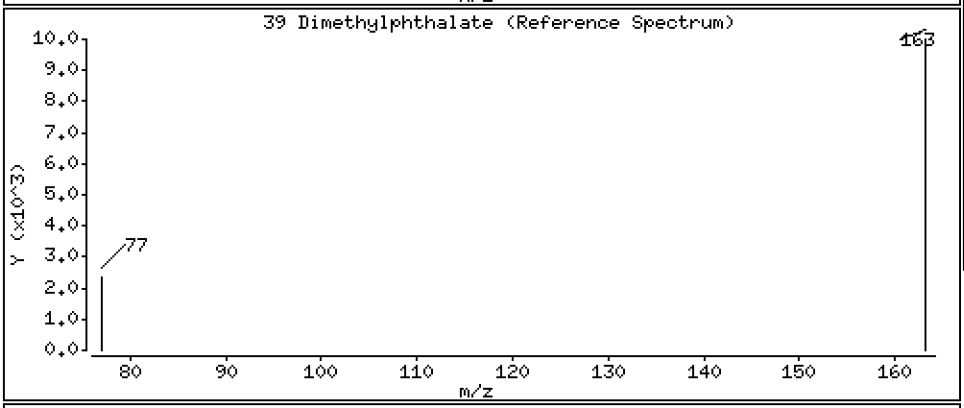
Concentration: 5.604 ug/L

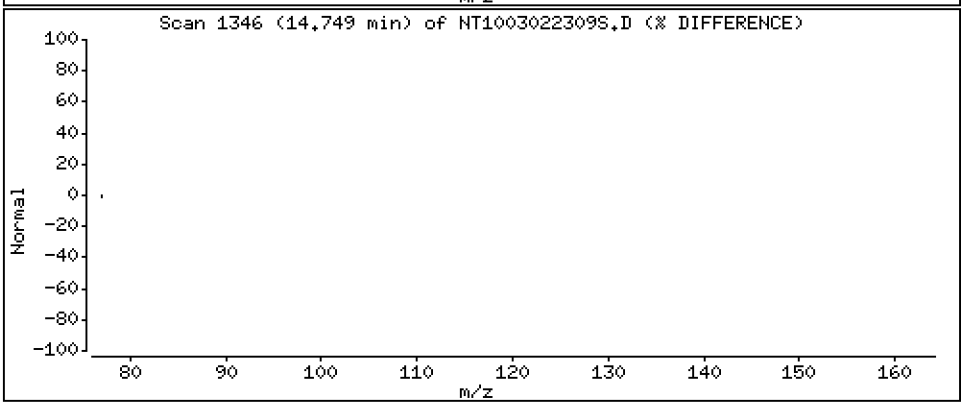












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Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

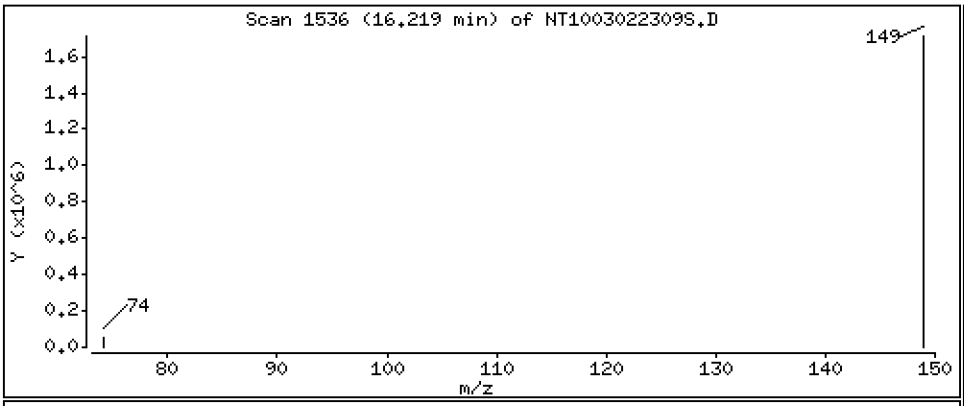
Operator: JGR

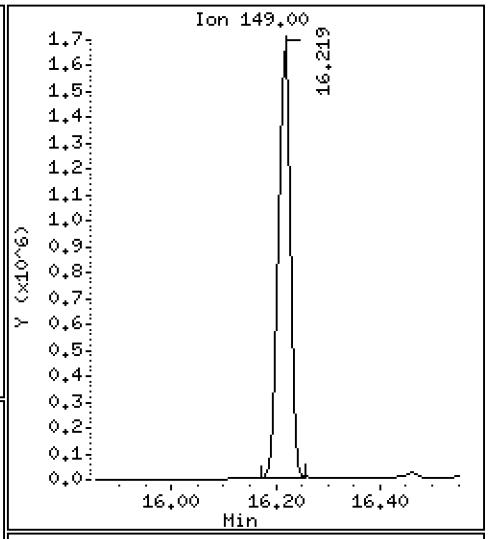
Column phase: ZB-5msi

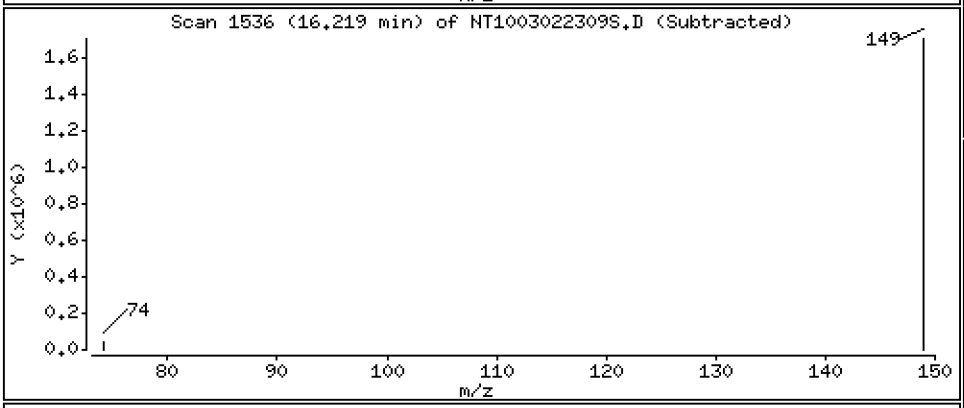
Column diameter: 0.25

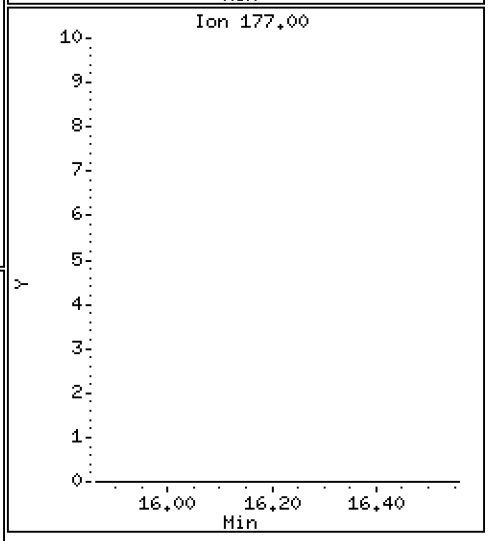
50 Diethylphthalate

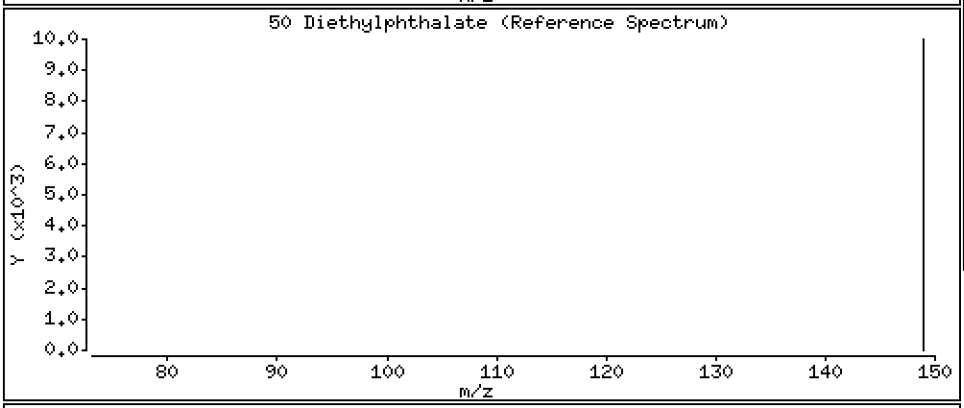
Concentration: 6.811 ug/L

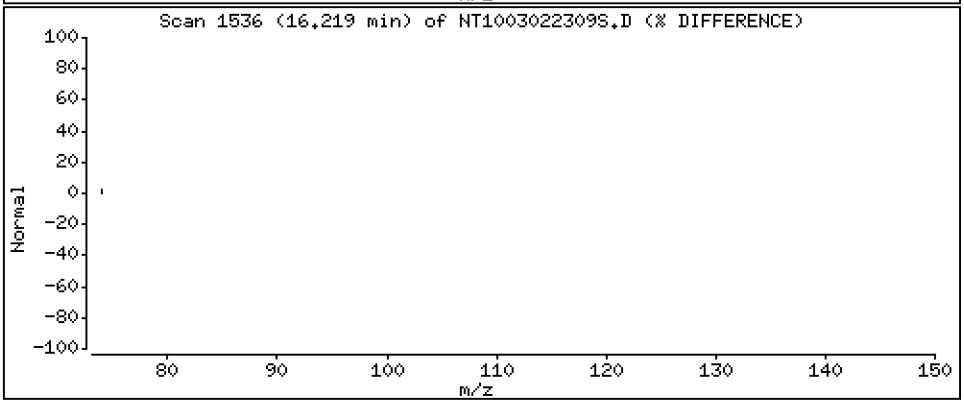












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Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

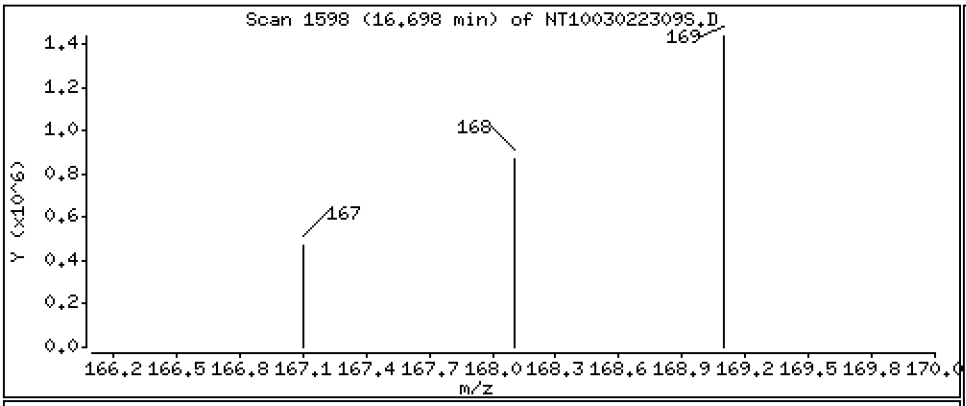
Operator: JGR

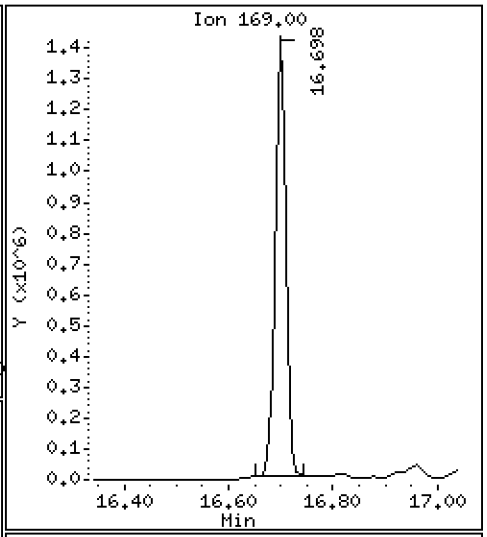
Column phase: ZB-5msi

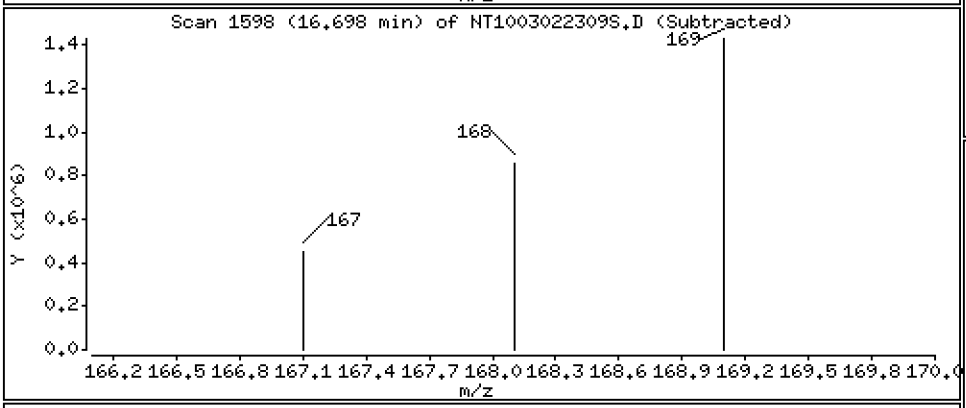
Column diameter: 0.25

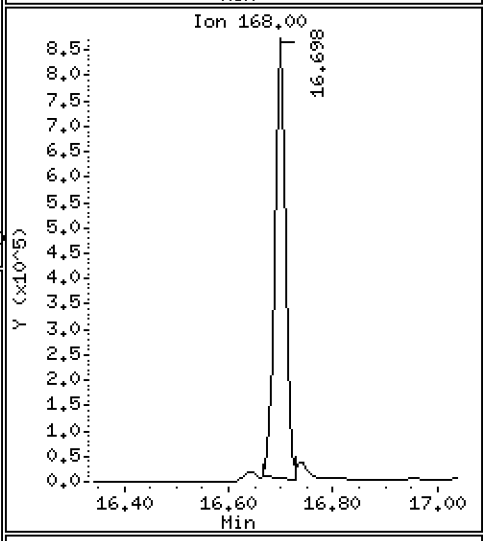
54 N-Nitrosodiphenylamine

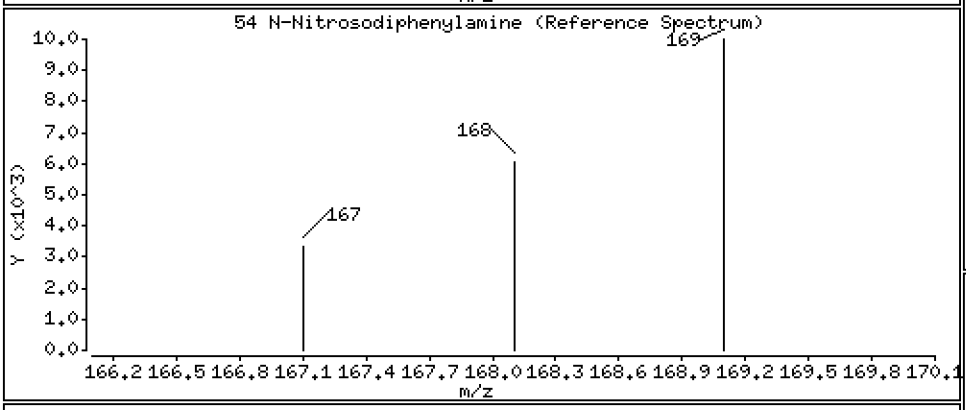
Concentration: 4.515 ug/L

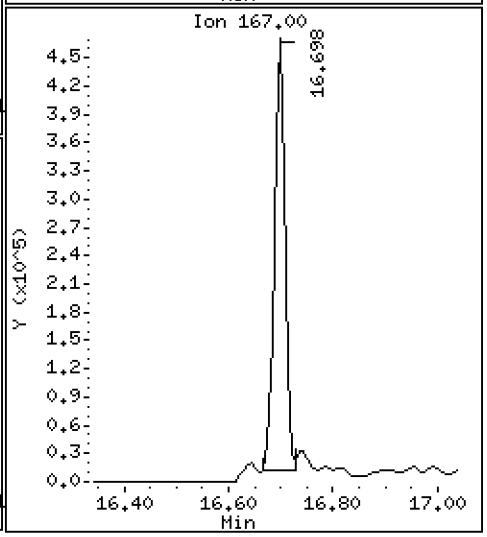


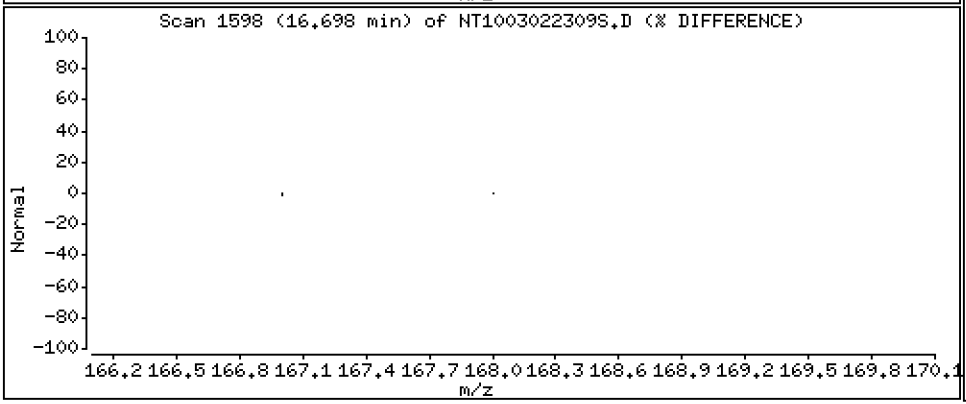












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Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

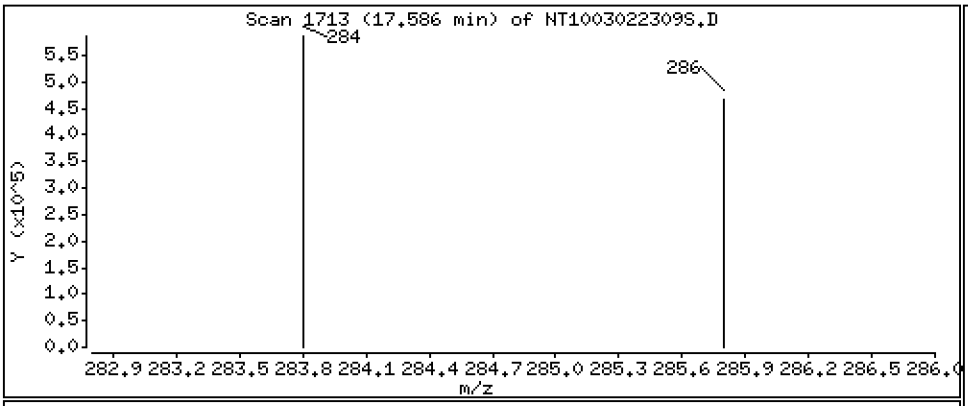
Operator: JGR

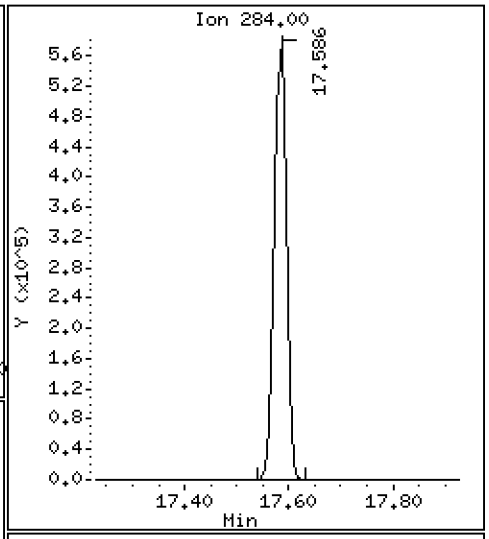
Column phase: ZB-5msi

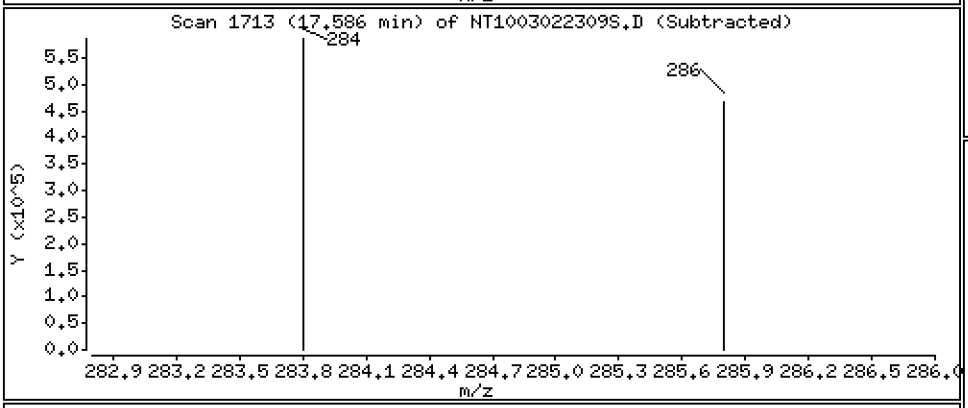
Column diameter: 0.25

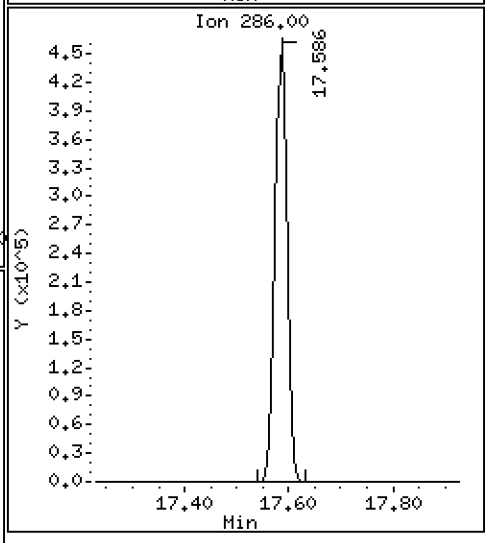
57 Hexachlorobenzene

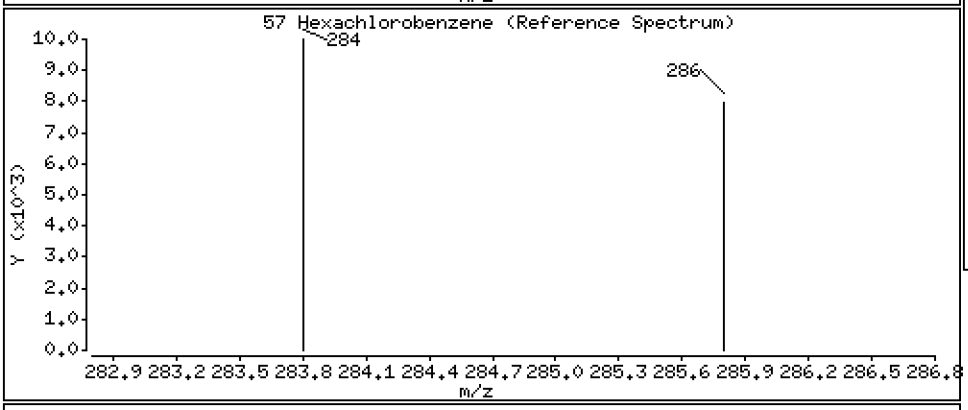
Concentration: 4.208 ug/L

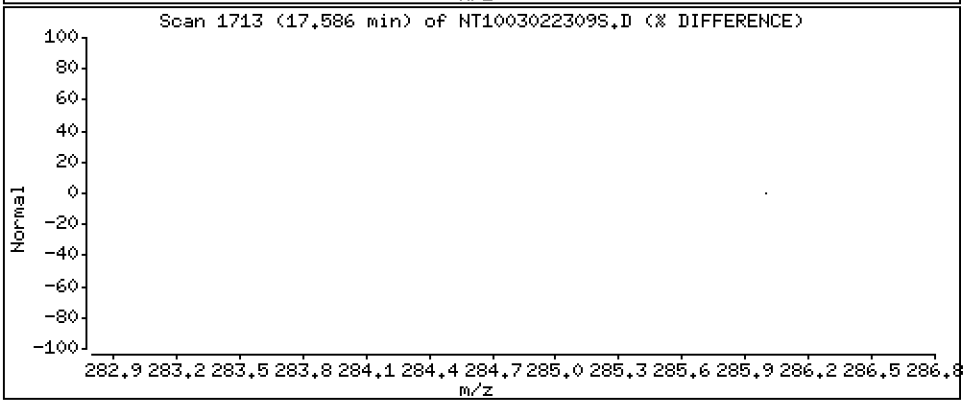












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

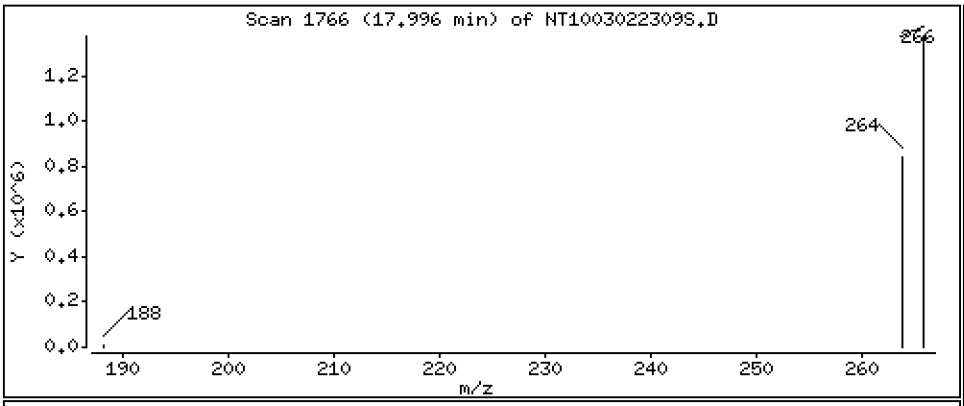
Operator: JGR

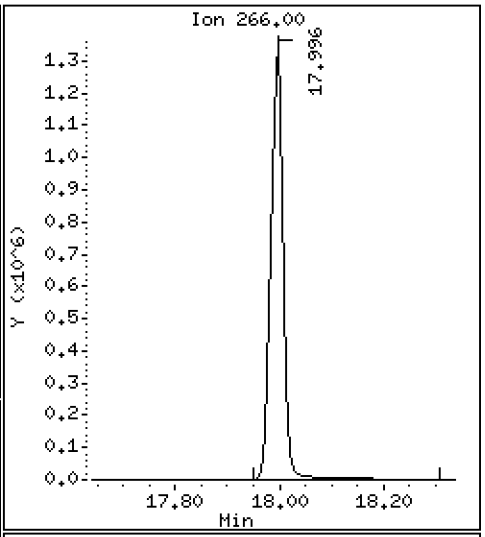
Column phase: ZB-5msi

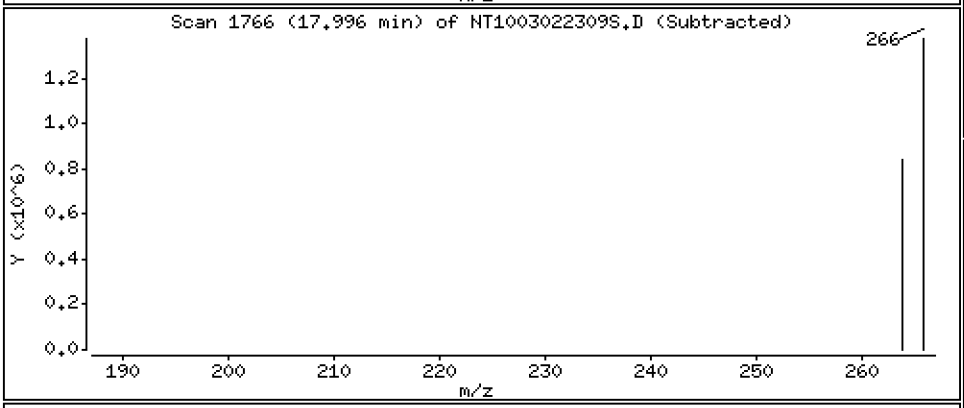
Column diameter: 0.25

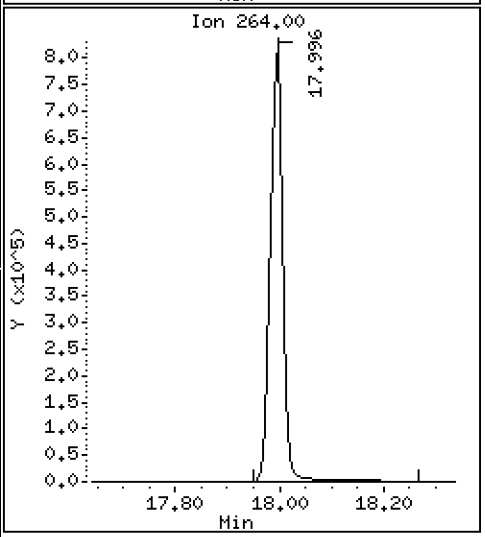
58 Pentachlorophenol

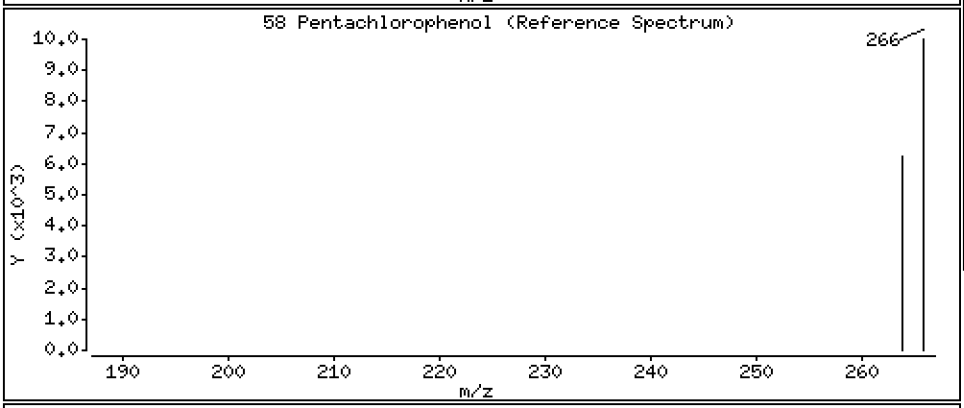
Concentration: 17.86 ug/L

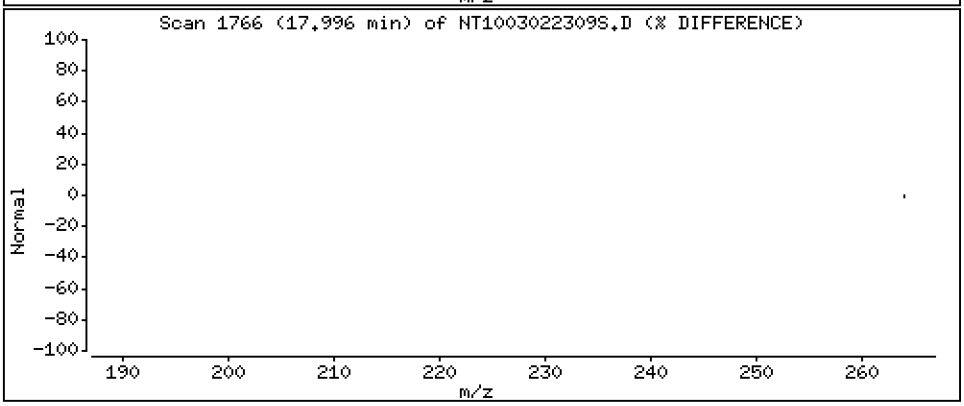












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

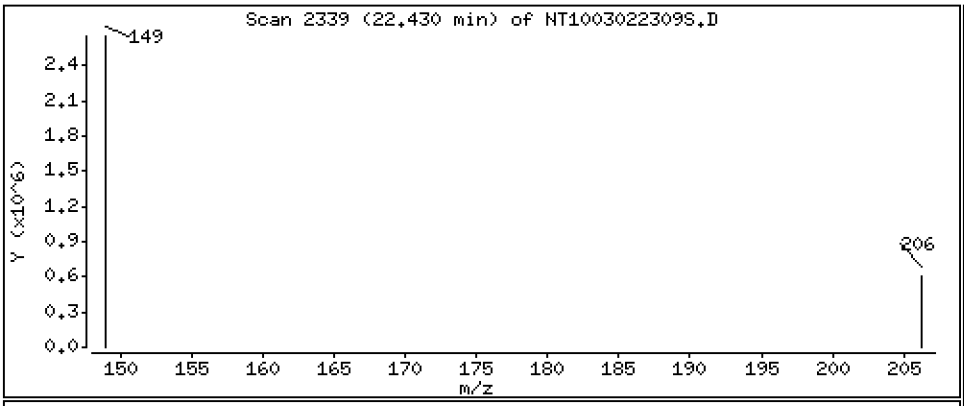
Operator: JGR

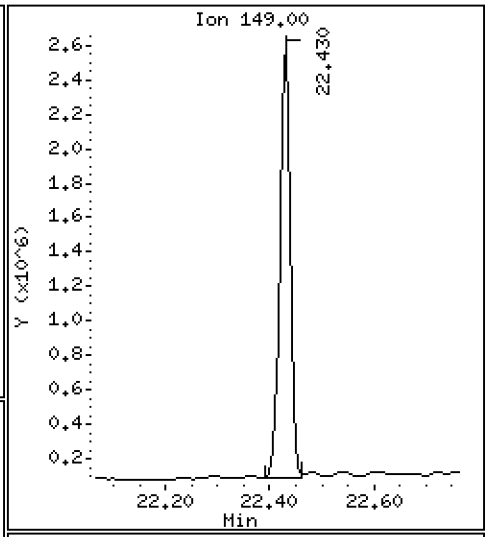
Column phase: ZB-5msi

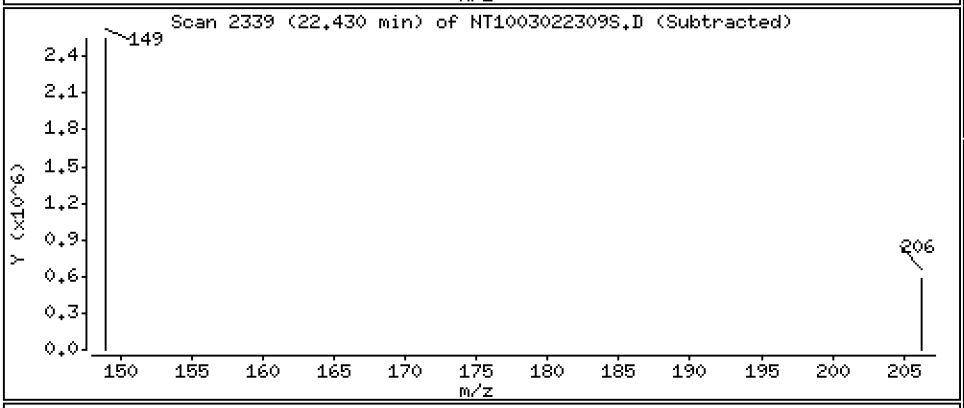
Column diameter: 0.25

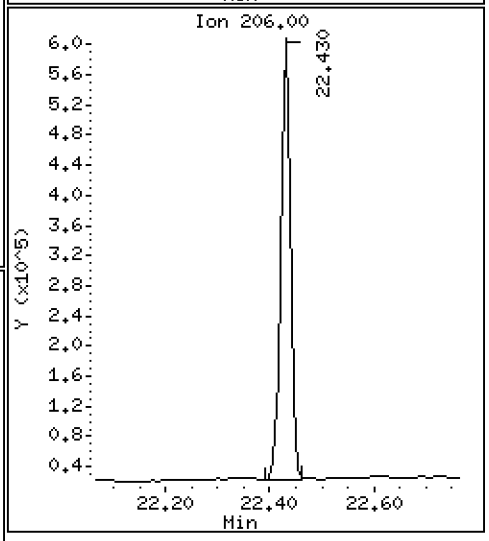
67 Butylbenzylphthalate

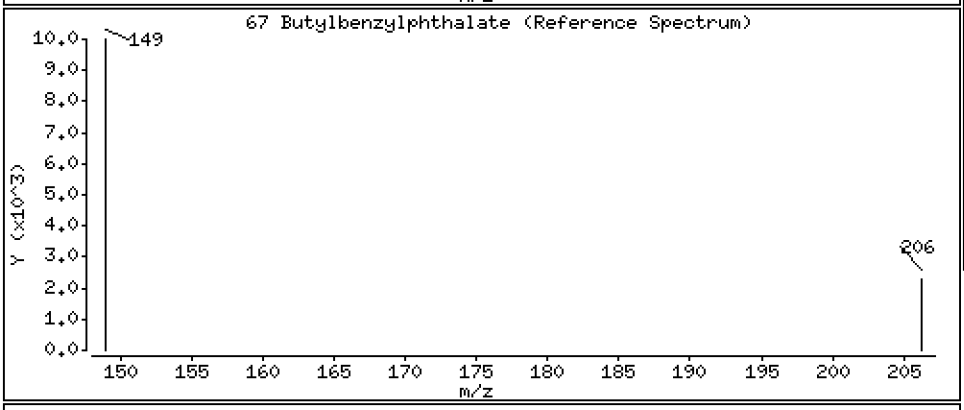
Concentration: 5.046 ug/L

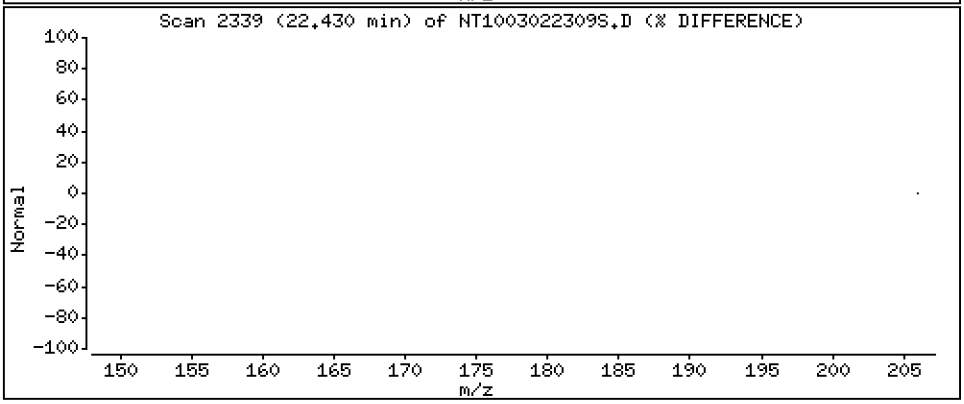












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

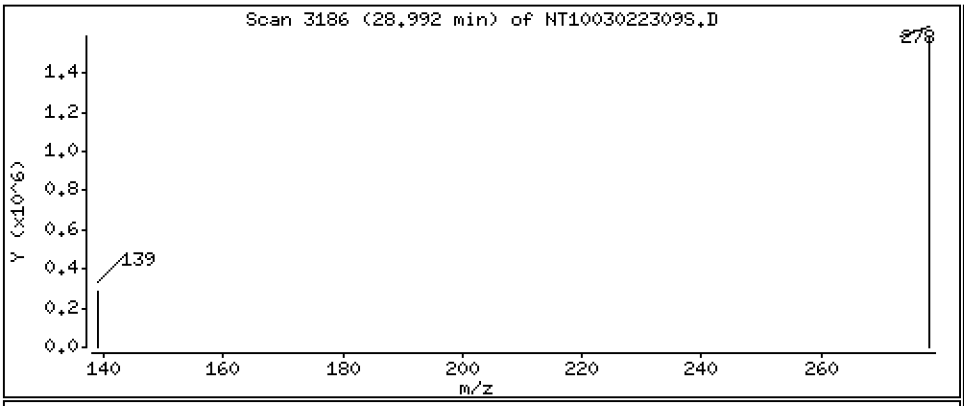
Operator: JGR

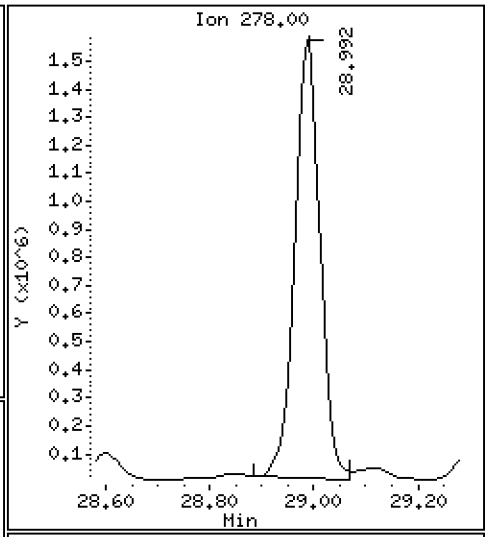
Column phase: ZB-5msi

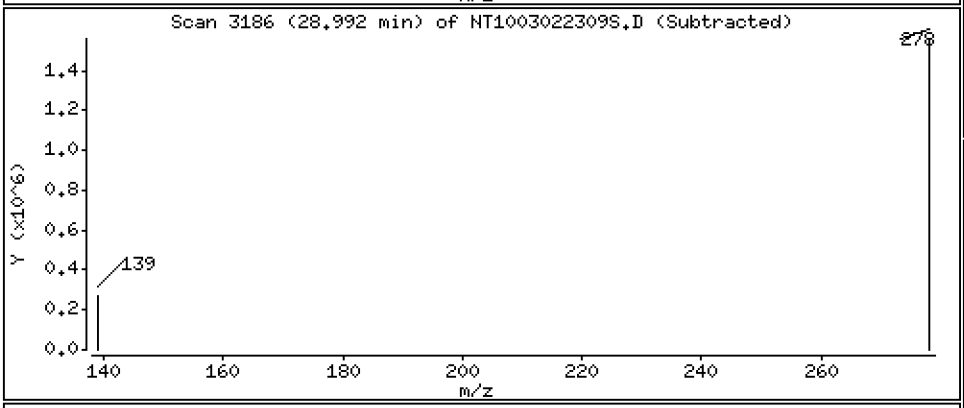
Column diameter: 0.25

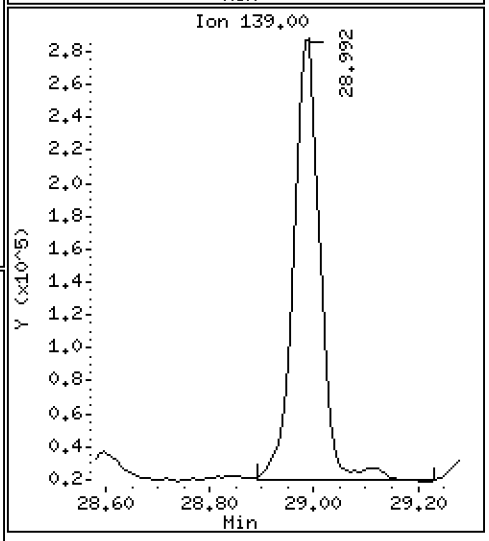
79 Dibenzo(a,h)anthracene

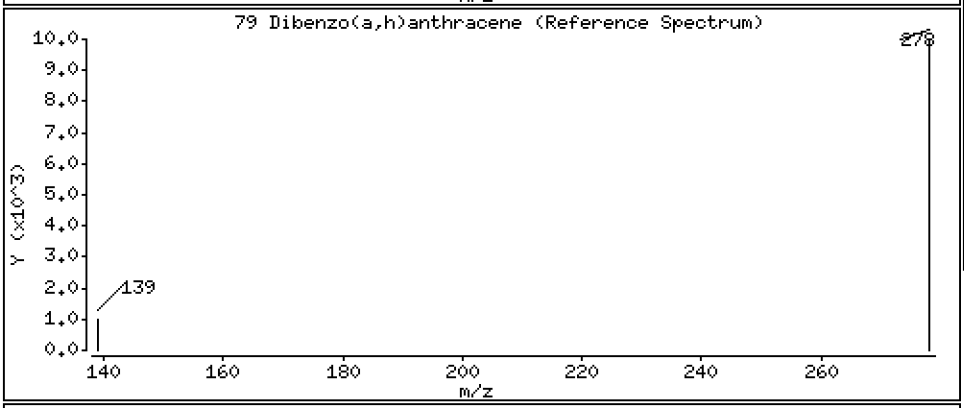
Concentration: 5.564 ug/L

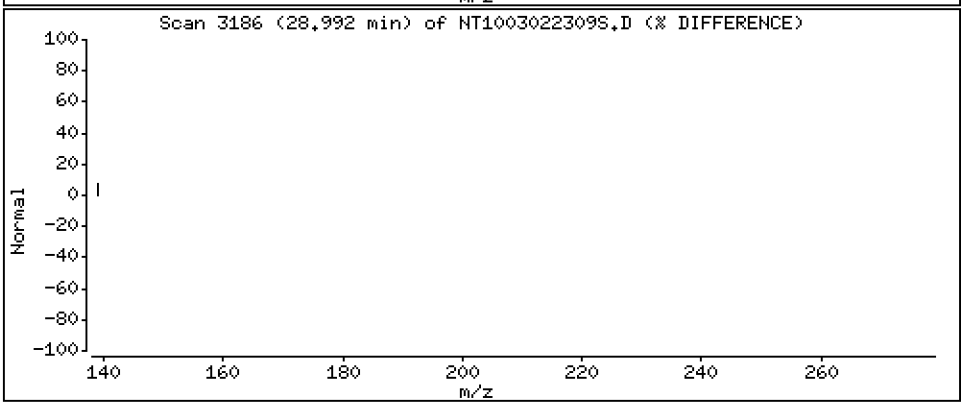












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D

Date : 02-MAR-2023 19:28

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MS1

Volume Injected (uL): 1.0

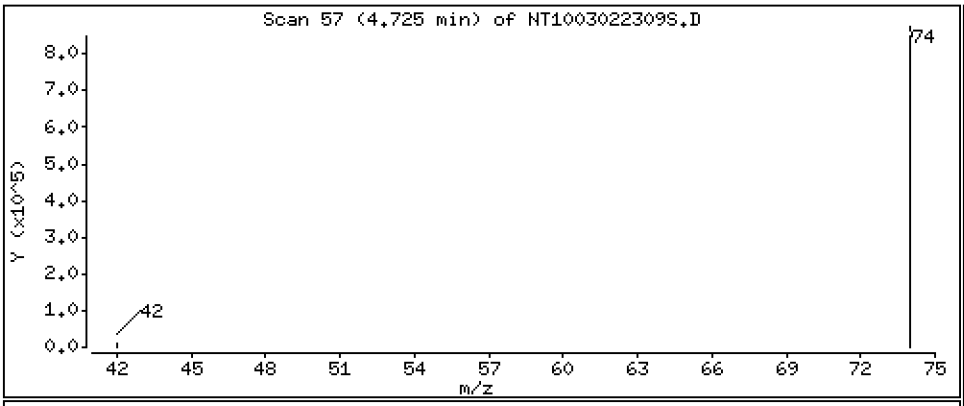
Operator: JGR

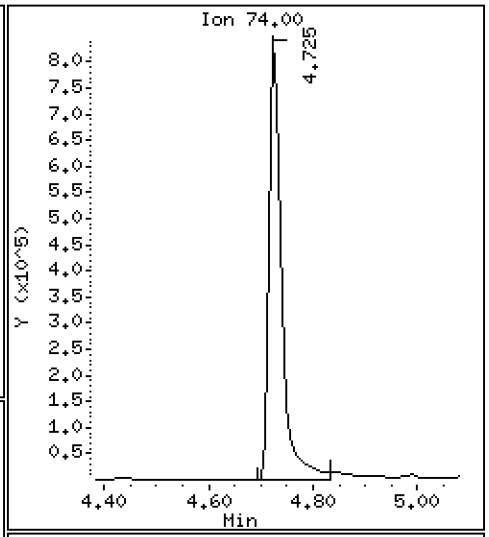
Column phase: ZB-5msi

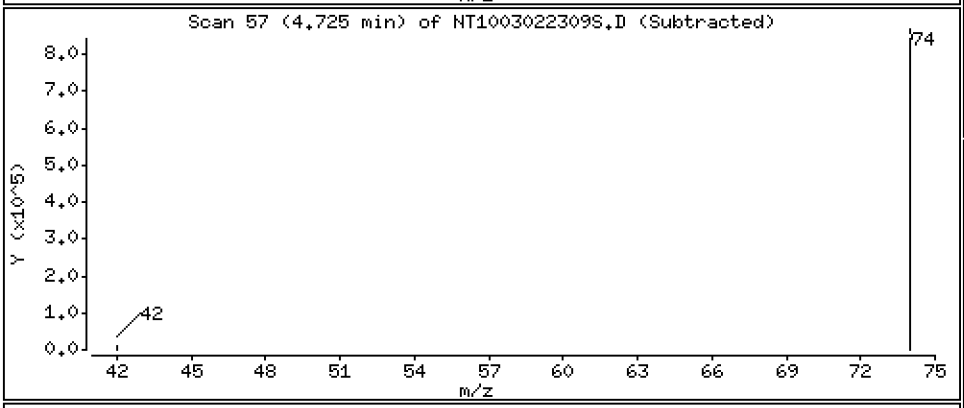
Column diameter: 0.25

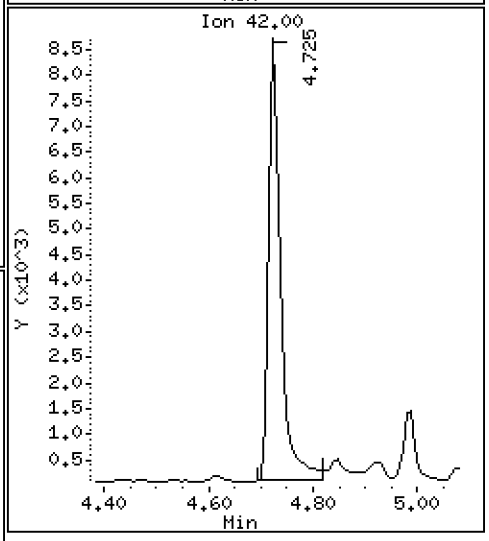
90 N-Nitrosodimethylamine

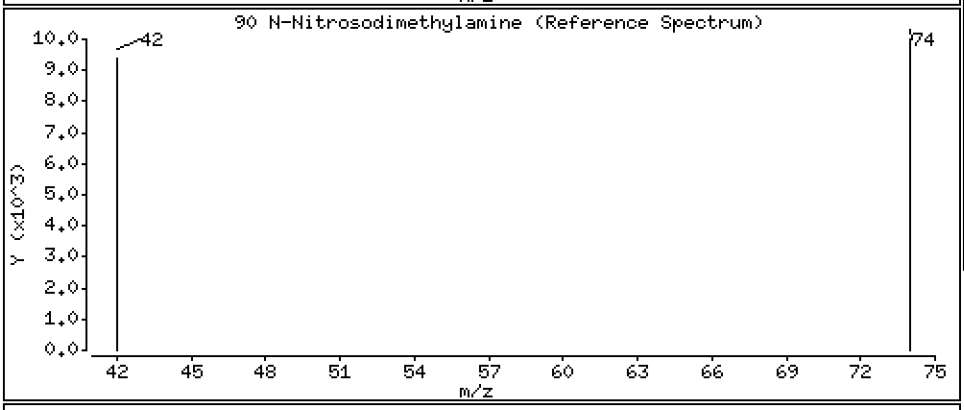
Concentration: 12.55 ug/L

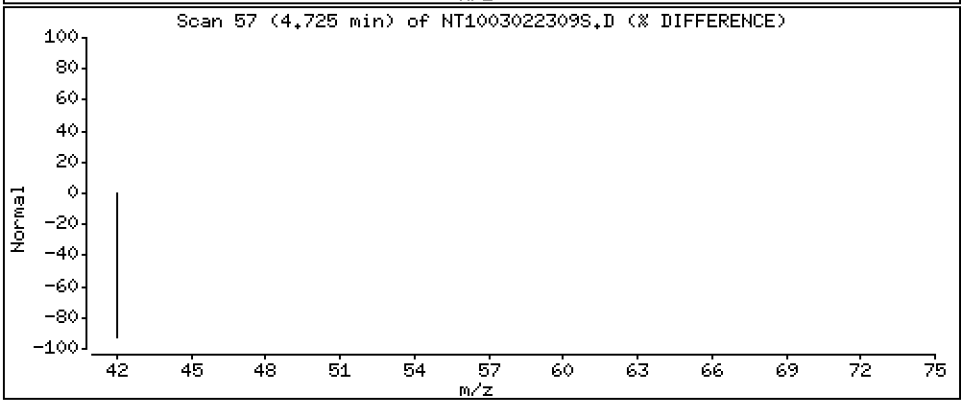












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022309S.D
Lab Smp Id: BLA0624-MS1
Inj Date : 02-MAR-2023 19:28 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : BLA0624-MS1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 14:53 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.902	6.902	(0.746)	1194756	6.49831	6.498(R)
3	Phenol	94	8.524	8.517	(0.921)	3395493	11.7302	11.73
7	1,3-Dichlorobenzene	146	9.143	9.143	(0.988)	971170	4.06910	4.069
* 8	1,4-Dichlorobenzene-d4	152	9.251	9.251	(1.000)	643993	4.00000	
9	1,4-Dichlorobenzene	146	9.283	9.282	(1.003)	1054529	4.54444	4.544
11	Benzyl alcohol	79	9.476	9.476	(1.024)	691784	4.33648	4.336
12	1,2-Dichlorobenzene	146	9.562	9.562	(1.034)	955792	4.28533	4.285
13	2-Methylphenol	108	9.655	9.655	(1.044)	737264	4.35670	4.357
15	4-Methylphenol	108	9.950	9.942	(1.076)	905455	5.03862	5.039
16	N-Nitroso-di-n-propylamine	70	9.981	9.981	(1.079)	636272	5.16650	5.166
22	2,4-Dimethylphenol	107	11.006	10.997	(0.939)	2870668	13.6862	13.69
24	Benzoic acid	105	11.167	11.074	(0.953)	2905227	22.8756	22.88
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	770771	4.51064	4.511
* 27	Naphthalene-d8	136	11.723	11.723	(1.000)	2374110	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	518561	4.27638	4.276
39	Dimethylphthalate	163	14.749	14.741	(0.963)	2238742	5.60374	5.604
* 42	Acenaphthene-d10	162	15.321	15.314	(1.000)	1258198	4.00000	
50	Diethylphthalate	149	16.218	16.203	(1.059)	2566058	6.81103	6.811
54	N-Nitrosodiphenylamine	169	16.698	16.690	(0.907)	2048541	4.51502	4.515
57	Hexachlorobenzene	284	17.586	17.578	(0.955)	893428	4.20768	4.208

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	17.996	17.988	(0.977)	2148596	17.8641	17.86
*	59 Phenanthrene-d10	188	18.414	18.406	(1.000)	2803544	4.00000	
$	66 Terphenyl-d14	244	21.547	21.532	(0.919)	1562782	4.56601	4.566(R)
	67 Butylbenzylphthalate	149	22.430	22.414	(0.957)	3541090	5.04637	5.046
*	69 Chrysene-d12	240	23.444	23.421	(1.000)	4232445	4.00000	
*	77 Perylene-d12	264	26.146	26.115	(1.000)	3782979	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.992	28.929	(1.109)	5329678	5.56366	5.564
	90 N-Nitrosodimethylamine	74	4.724	4.732	(0.511)	1366021	12.5494	12.55

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Report Date: 08-Mar-2023 14:53

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003022309S.D
Lab Smp Id: BLA0624-MS1
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 02-MAR-2023
Calibration Time: 14:13
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT				
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF	
8 1,4-Dichlorobenze	493417	246709	986834	643993	30.52	
27 Naphthalene-d8	1779056	889528	3558112	2374110	33.45	
42 Acenaphthene-d10	954569	477285	1909138	1258198	31.81	
59 Phenanthrene-d10	1596290	798145	3192580	2803544	75.63	
69 Chrysene-d12	1649110	824555	3298220	4232445	156.65	<-
77 Perylene-d12	1901958	950979	3803916	3782979	98.90	

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.32	0.05
59 Phenanthrene-d10	18.41	17.91	18.91	18.41	0.04
69 Chrysene-d12	23.42	22.92	23.92	23.44	0.10
77 Perylene-d12	26.12	25.62	26.62	26.15	0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003022309S.D

Lab ID: BLA0624-MS1
nt10.i, 20230302.b\SIM.b\SIMABN2.m,   02-MAR-2023 19:28

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.953	0.945	0.0080	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003022303S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223105.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

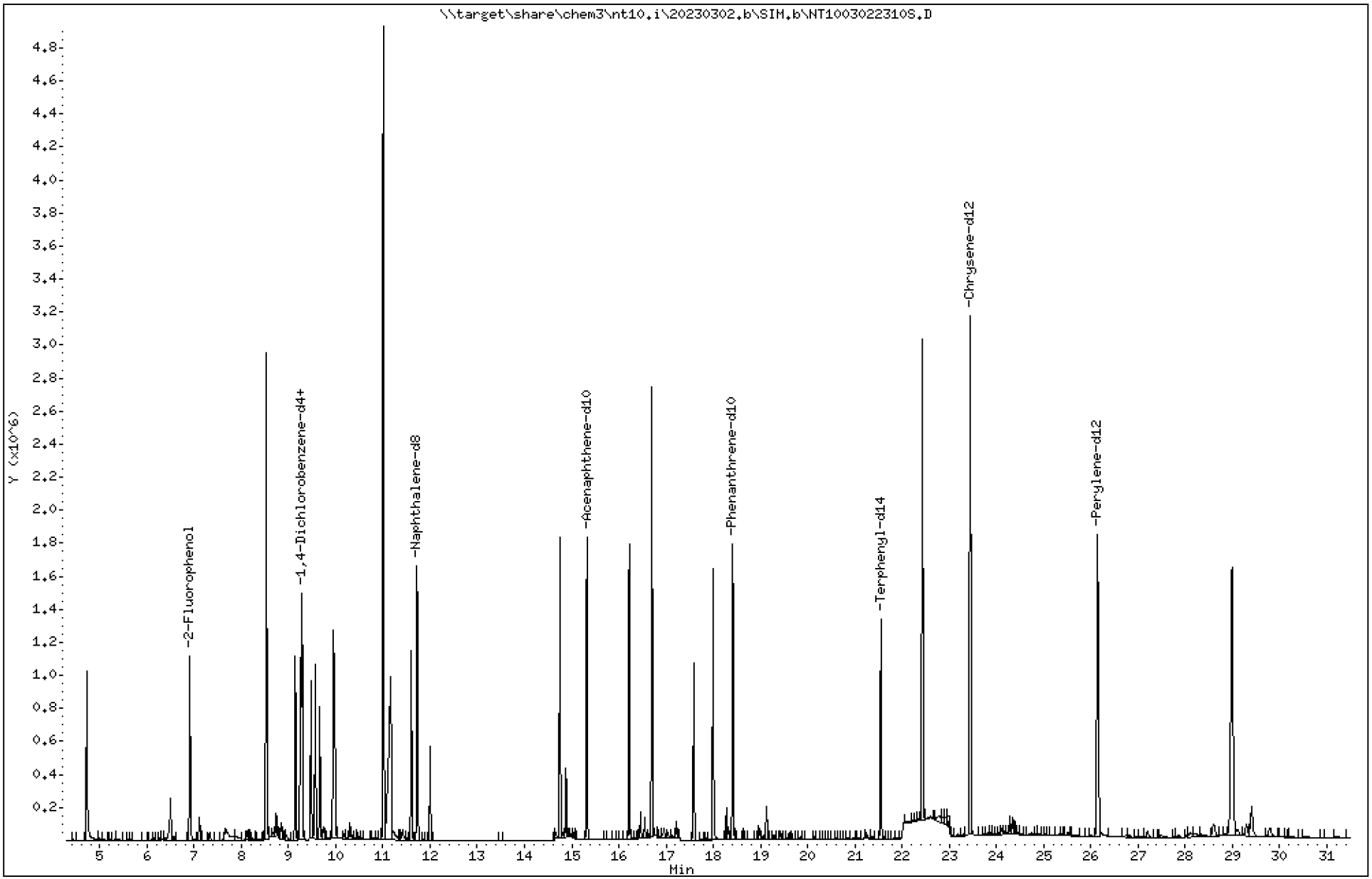
Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223105.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

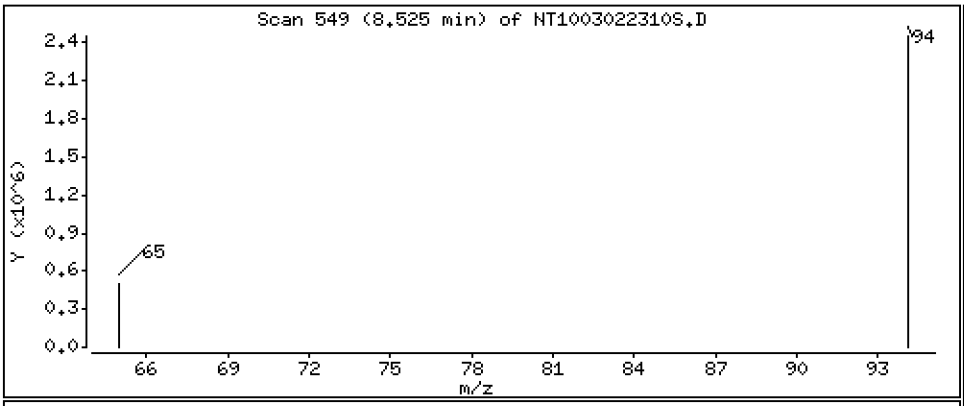
Operator: JGR

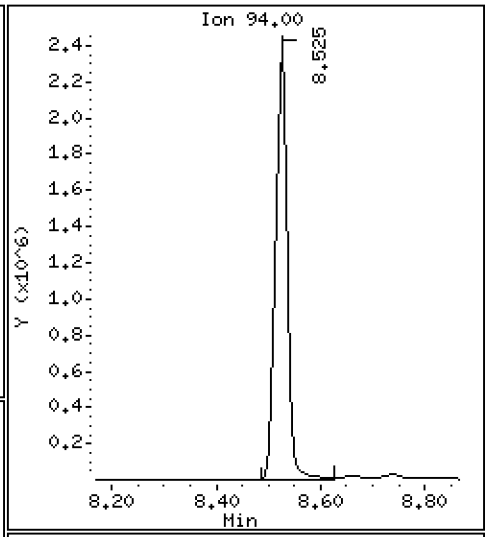
Column phase: ZB-5msi

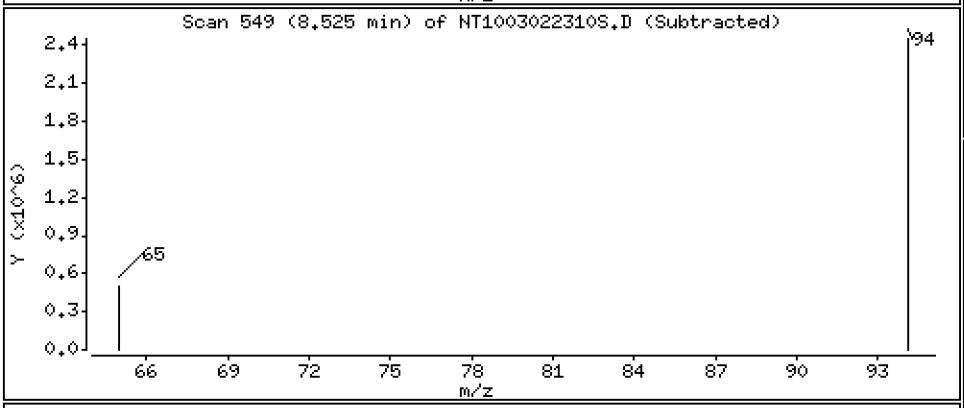
Column diameter: 0.25

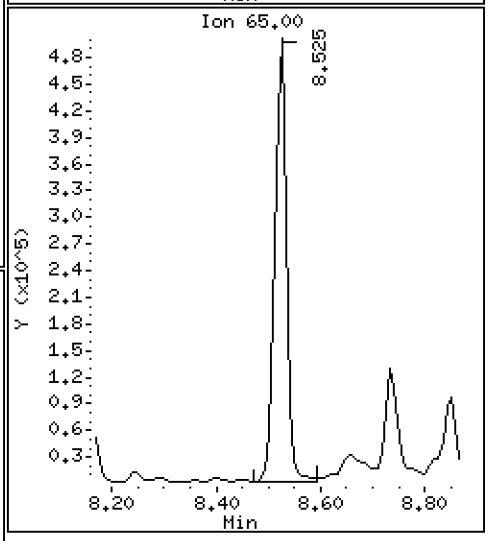
3 Phenol

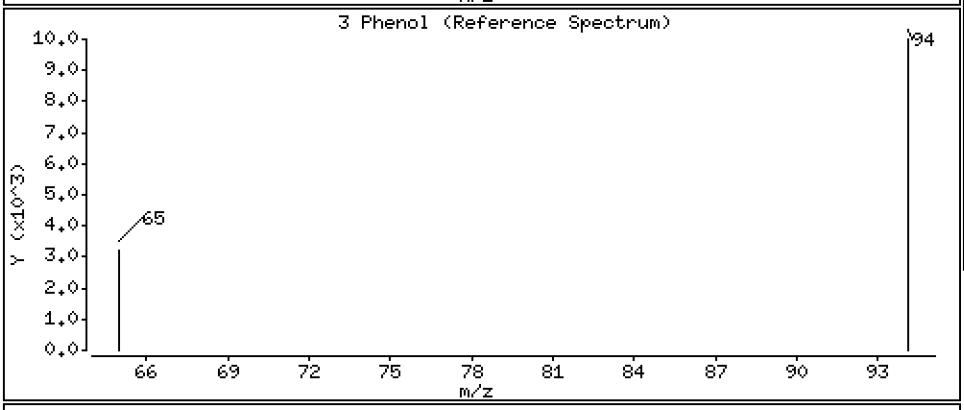
Concentration: 11.96 ug/L

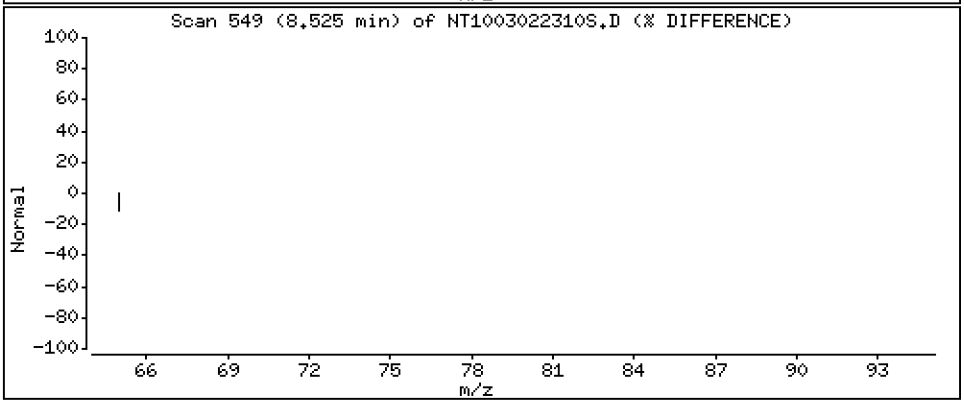












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223105.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

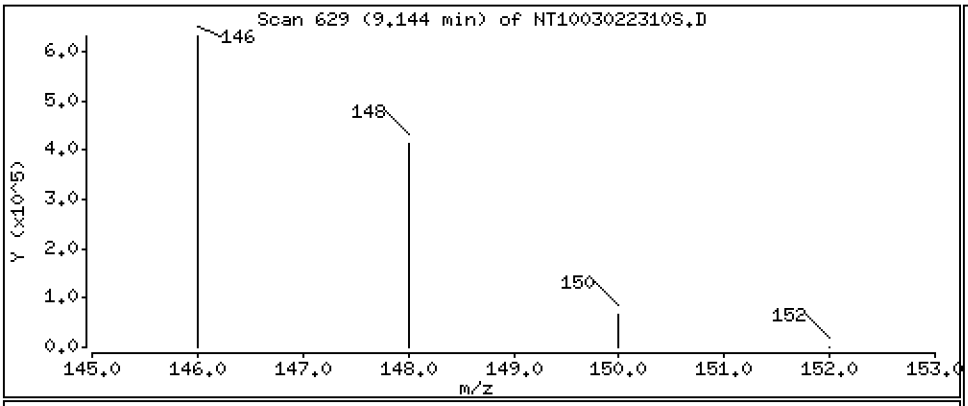
Operator: JGR

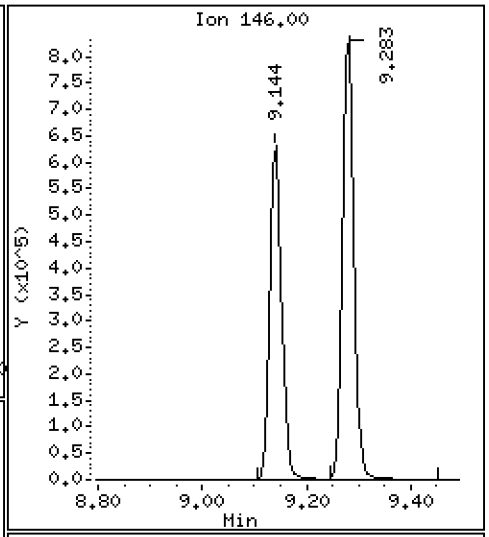
Column phase: ZB-5msi

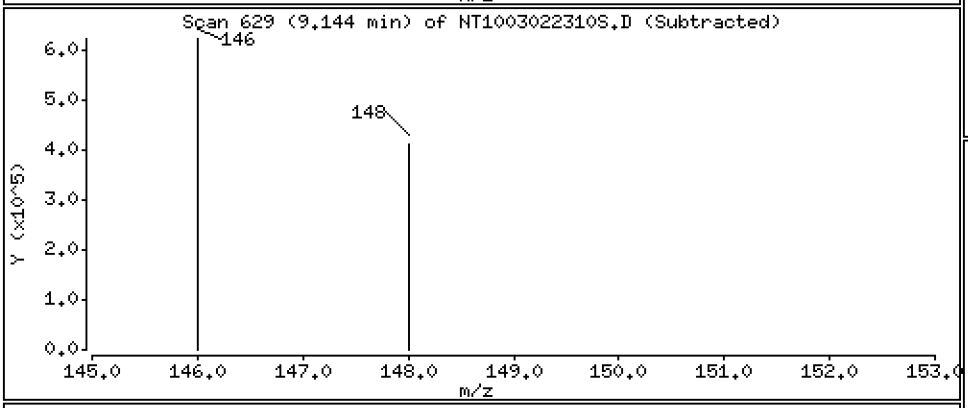
Column diameter: 0.25

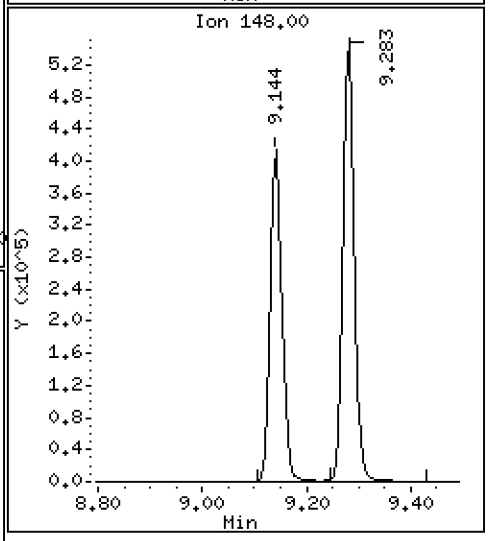
7 1,3-Dichlorobenzene

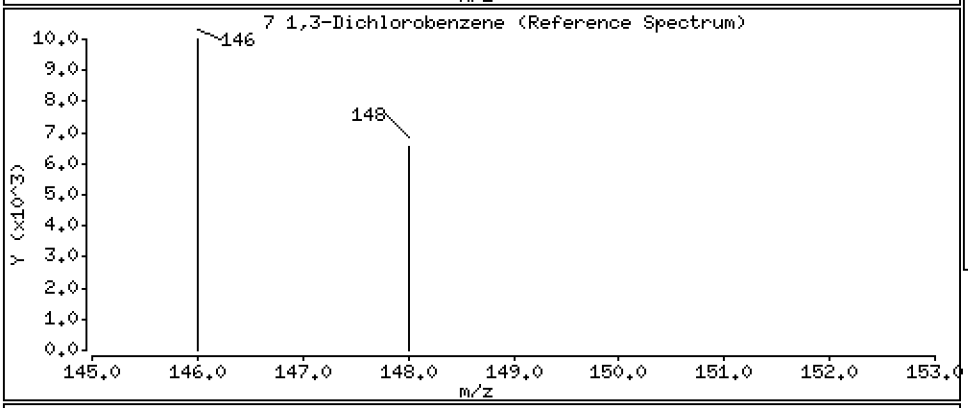
Concentration: 4.012 ug/L

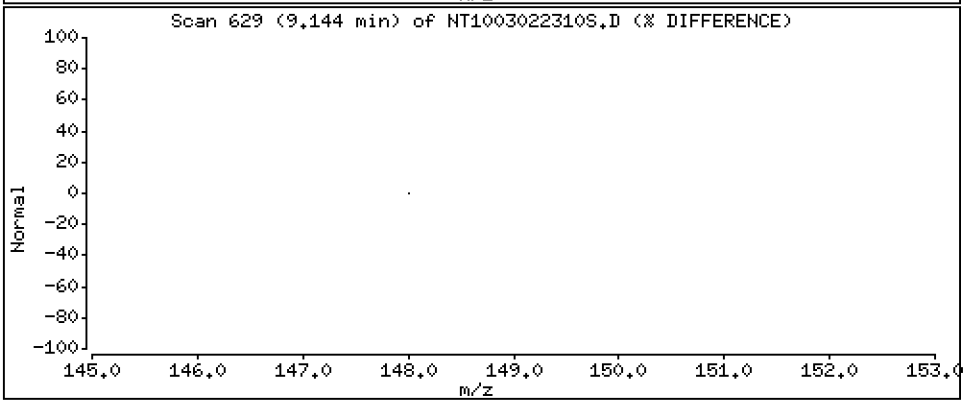












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223105.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

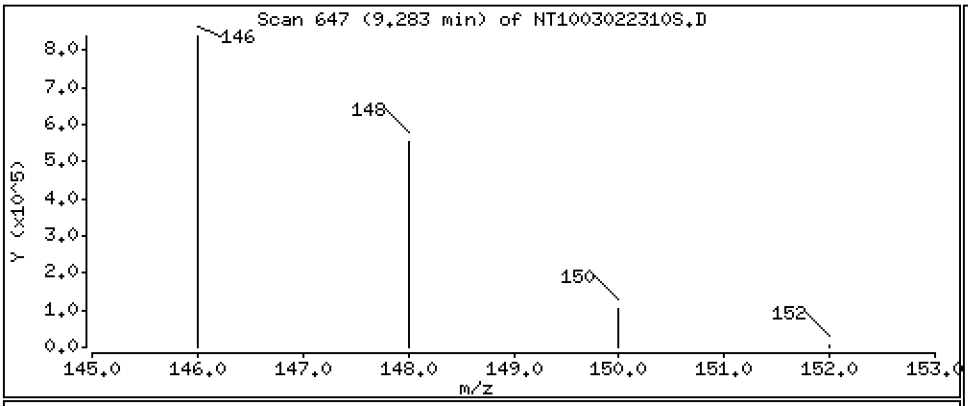
Operator: JGR

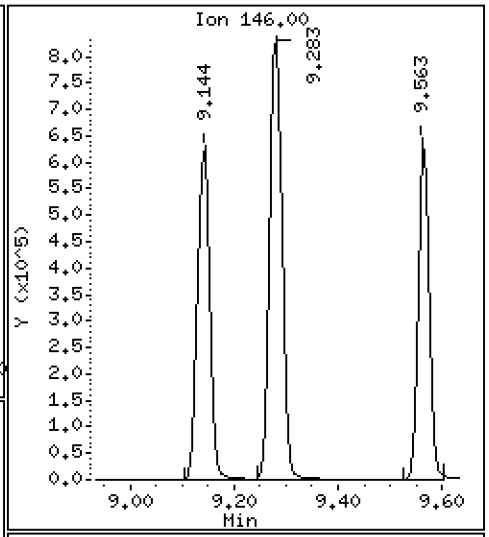
Column phase: ZB-5msi

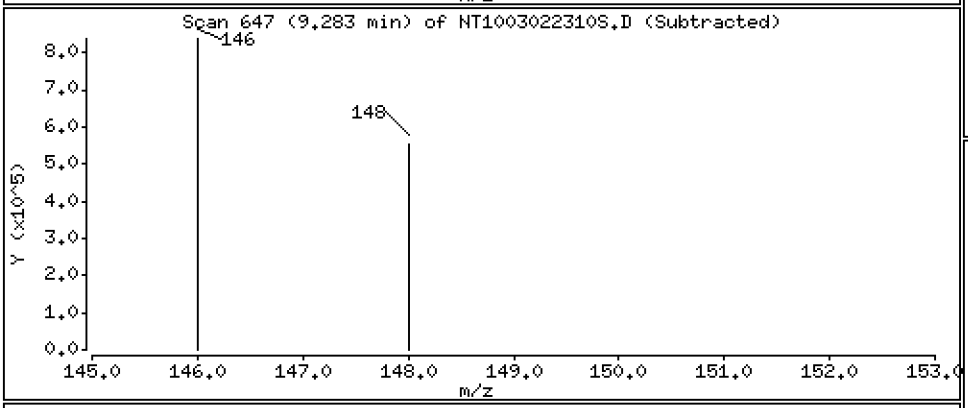
Column diameter: 0.25

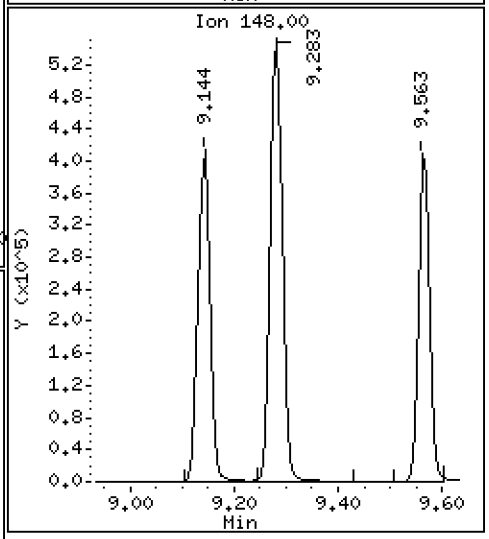
9 1,4-Dichlorobenzene

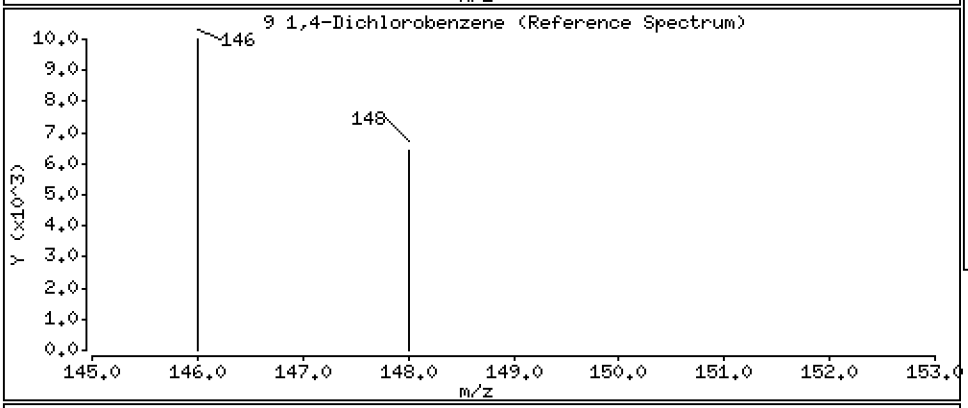
Concentration: 5.473 ug/L

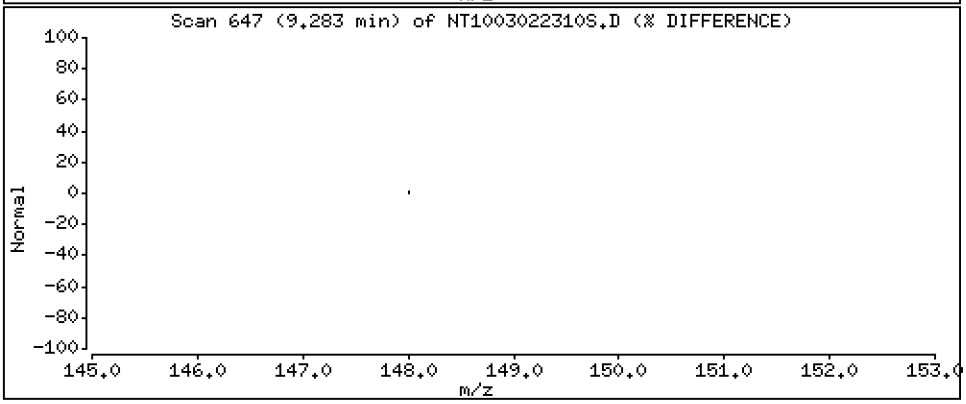












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223105.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

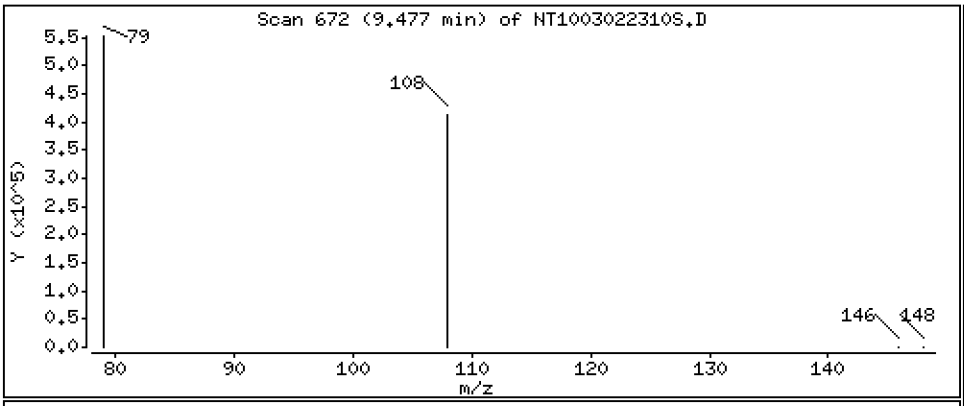
Operator: JGR

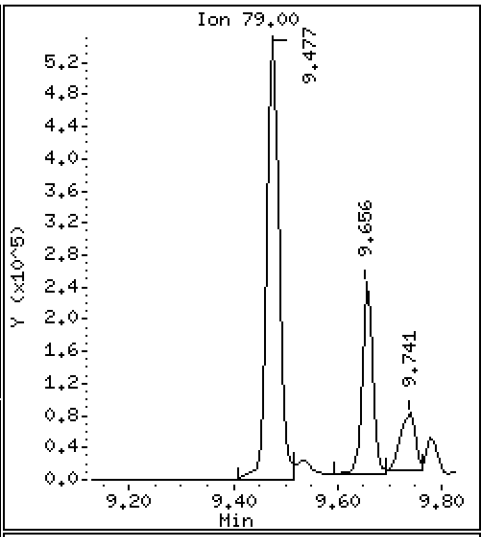
Column phase: ZB-5msi

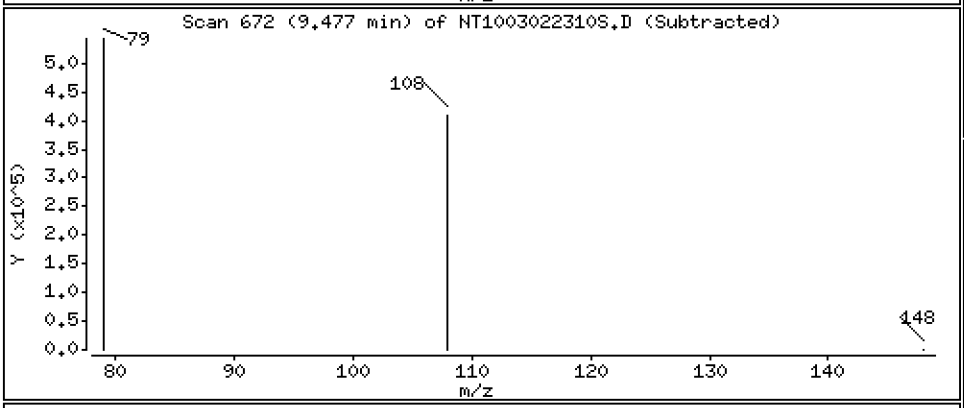
Column diameter: 0.25

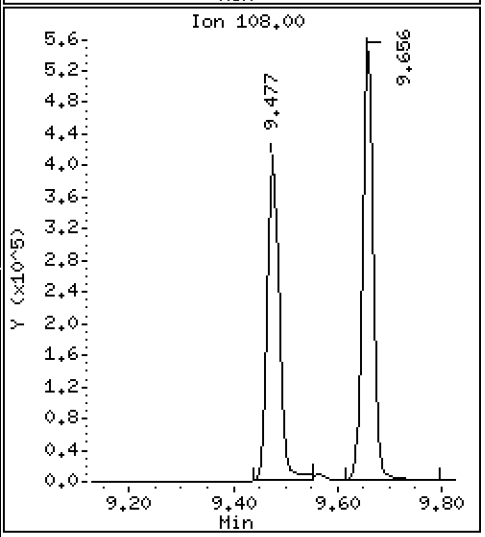
11 Benzyl alcohol

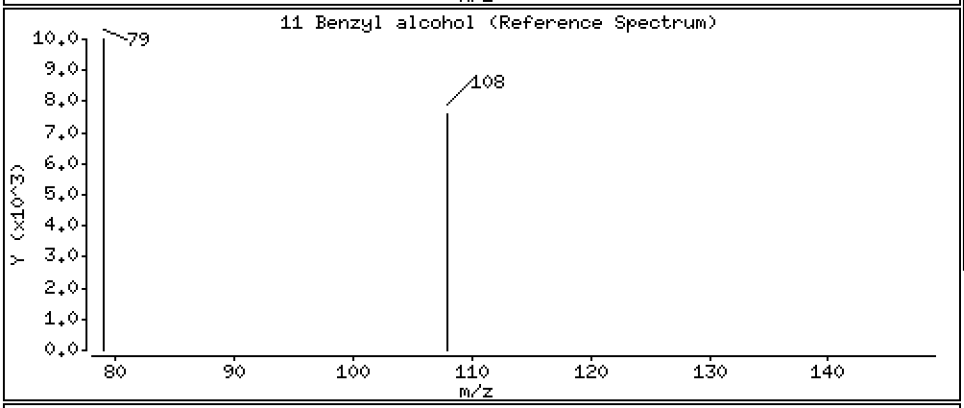
Concentration: 5.125 ug/L

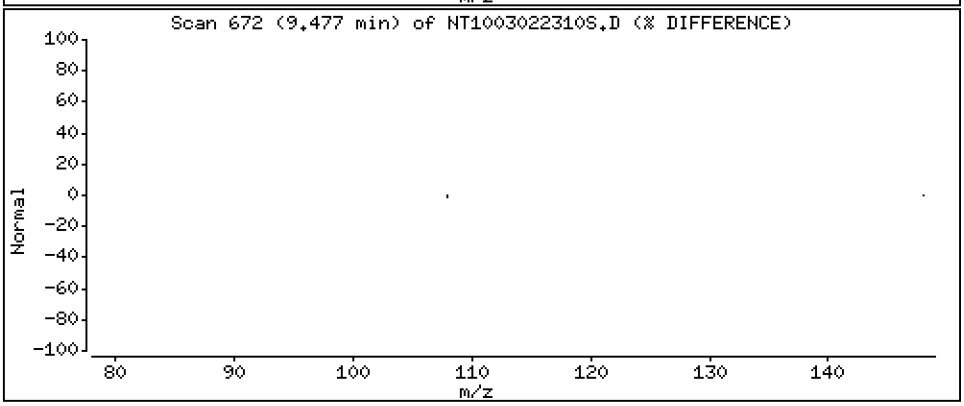












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223105.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

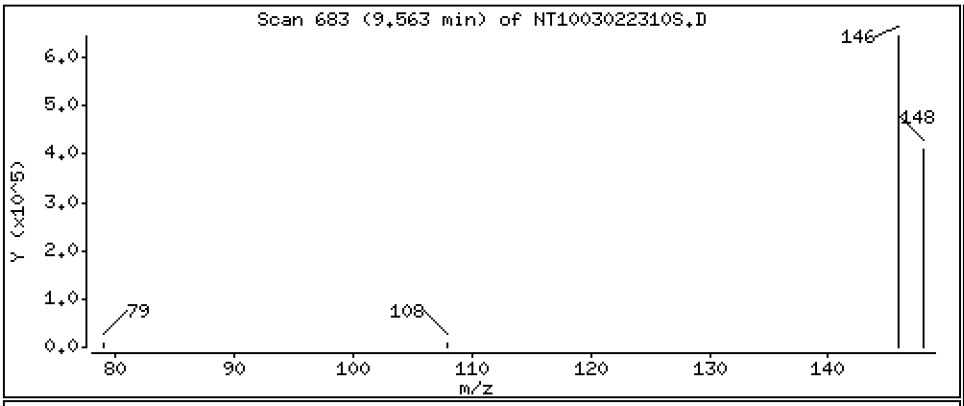
Operator: JGR

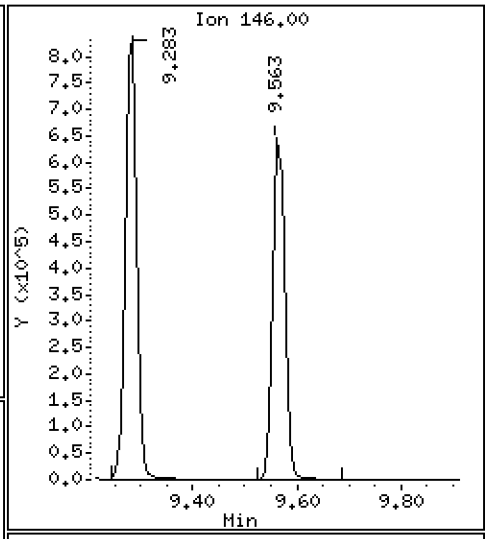
Column phase: ZB-5msi

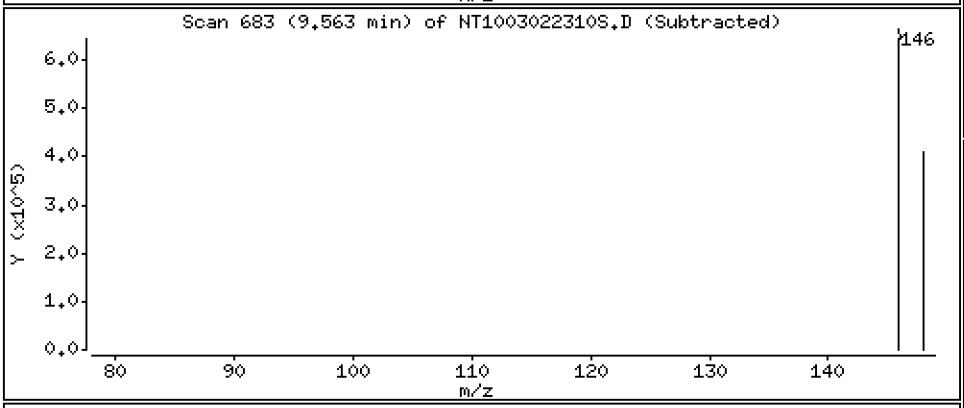
Column diameter: 0.25

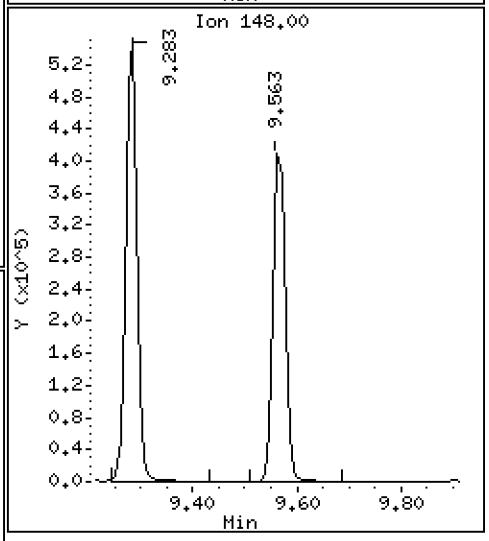
12 1,2-Dichlorobenzene

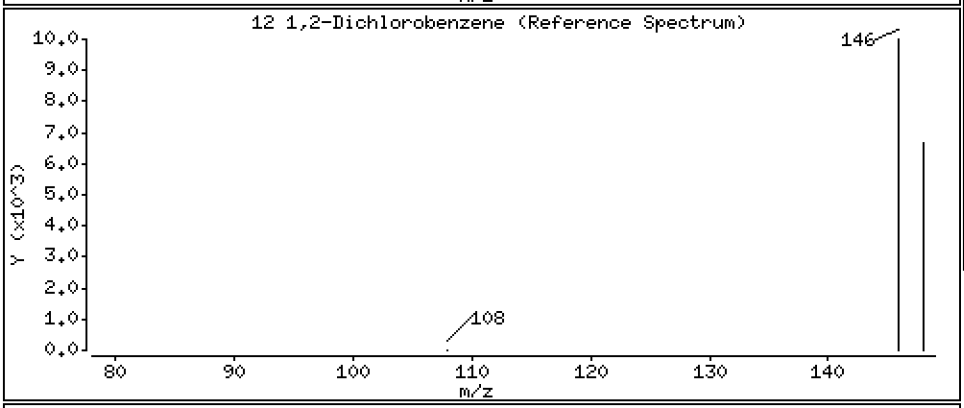
Concentration: 4.221 ug/L

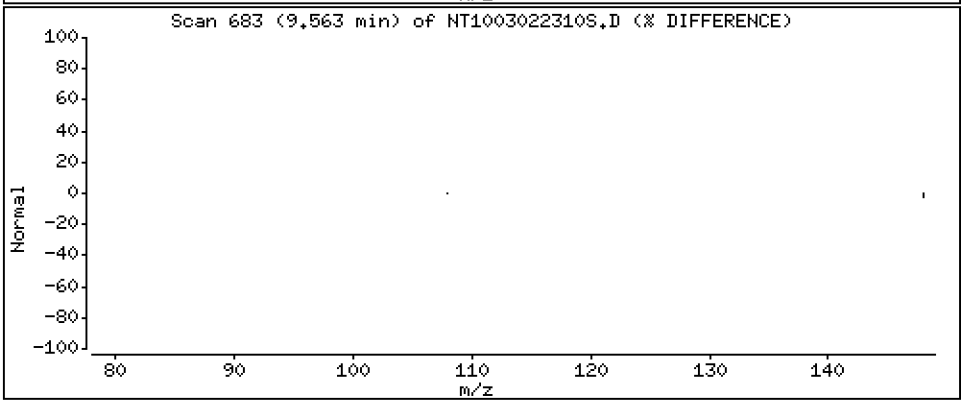












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223105.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

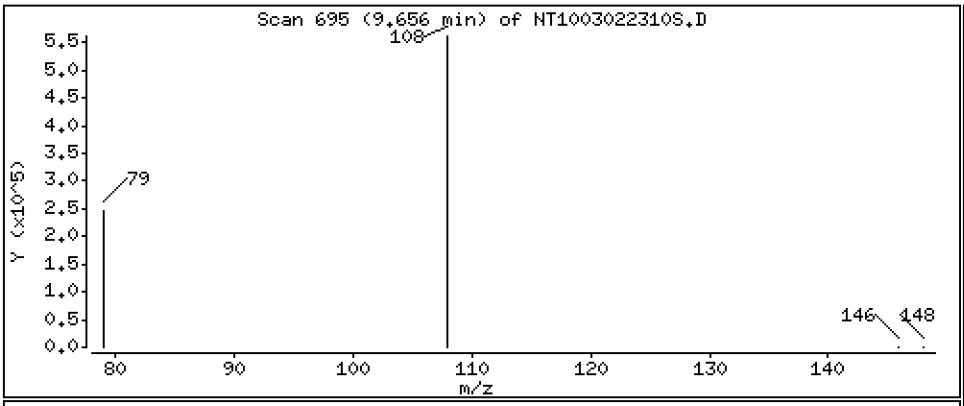
Operator: JGR

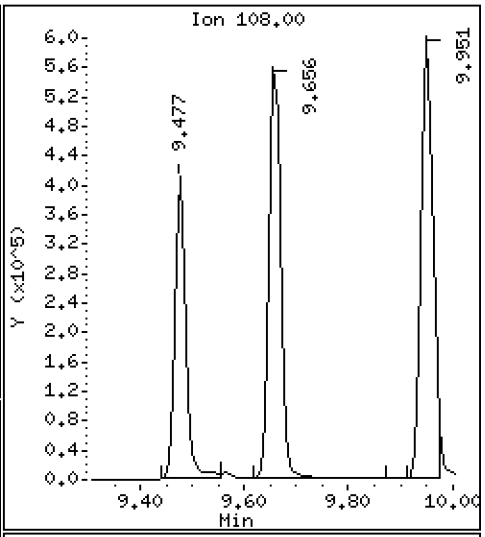
Column phase: ZB-5msi

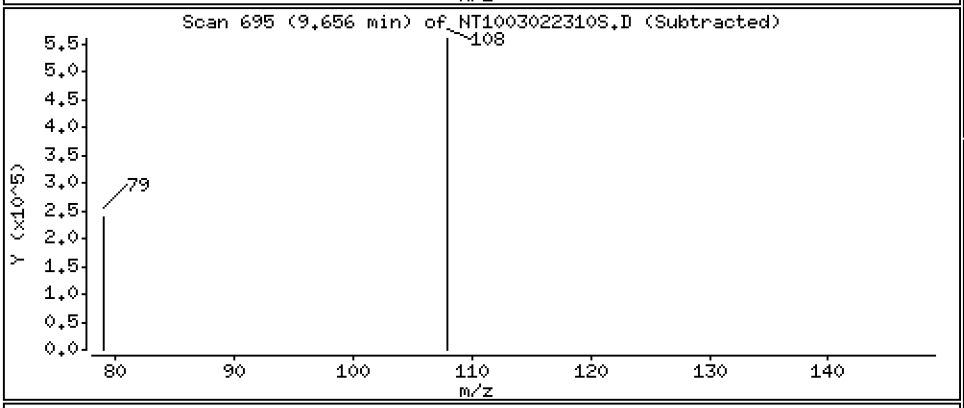
Column diameter: 0.25

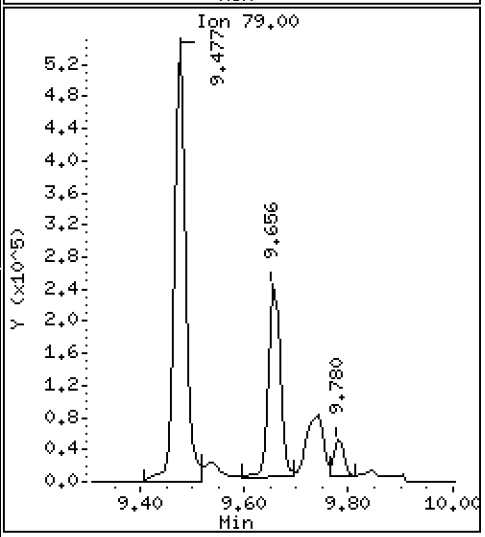
13 2-Methylphenol

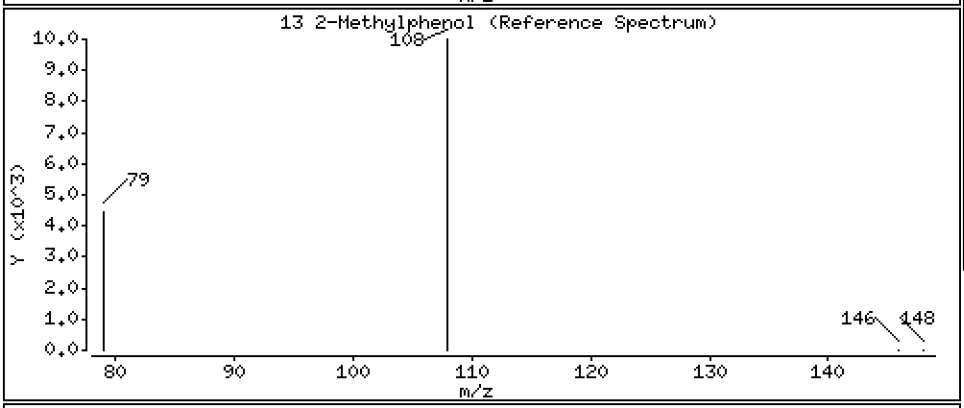
Concentration: 4.648 ug/L

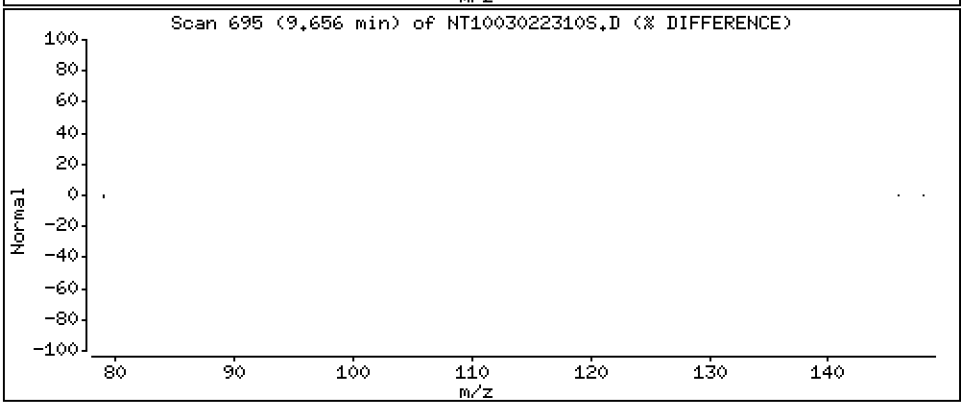












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Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

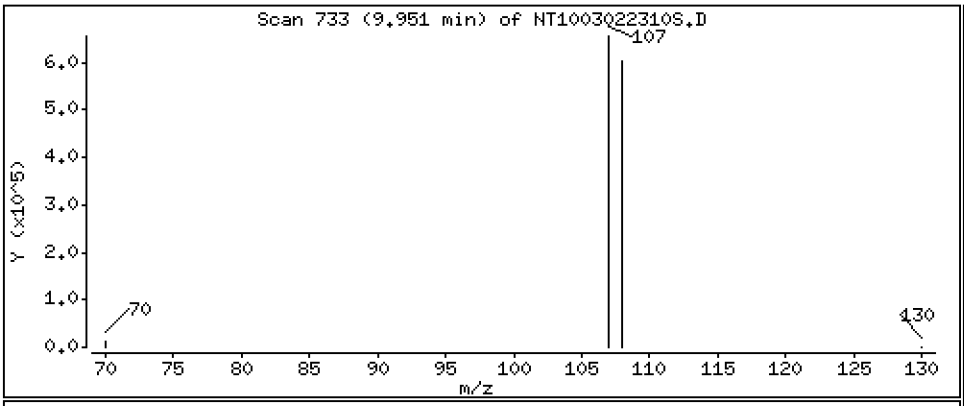
Operator: JGR

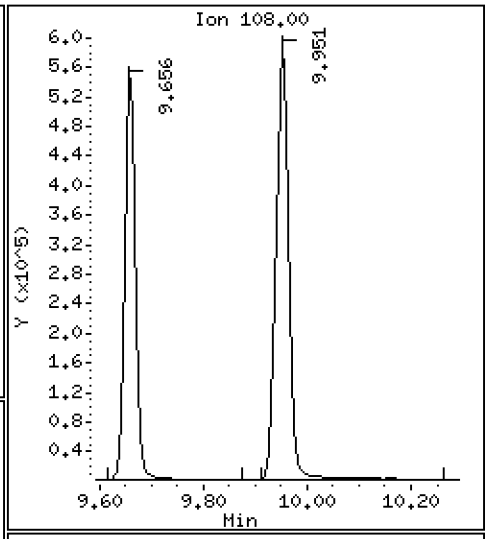
Column phase: ZB-5msi

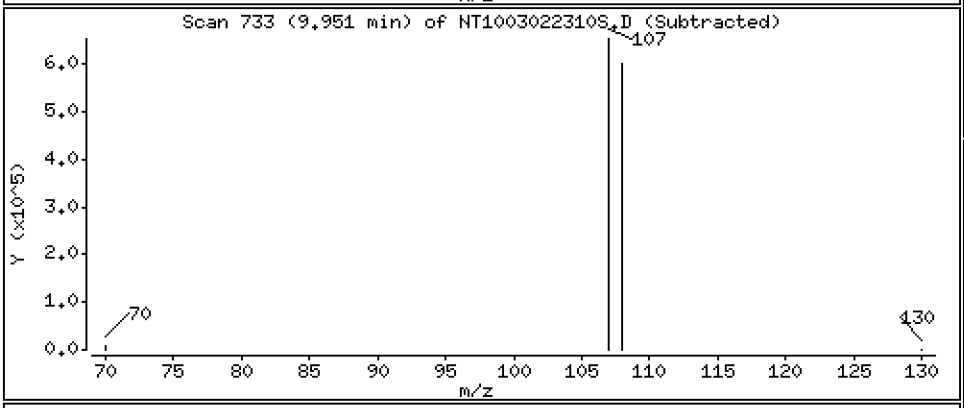
Column diameter: 0.25

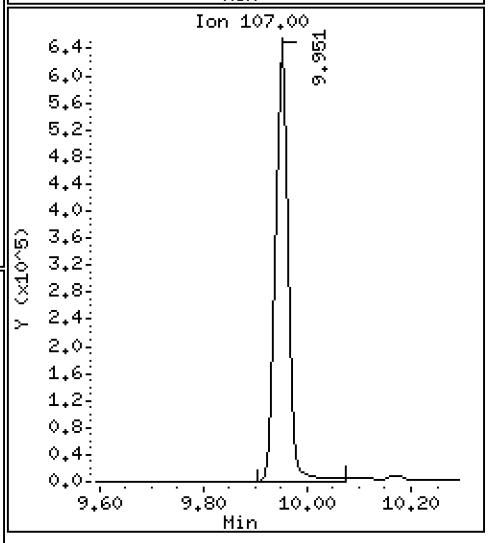
15 4-Methylphenol

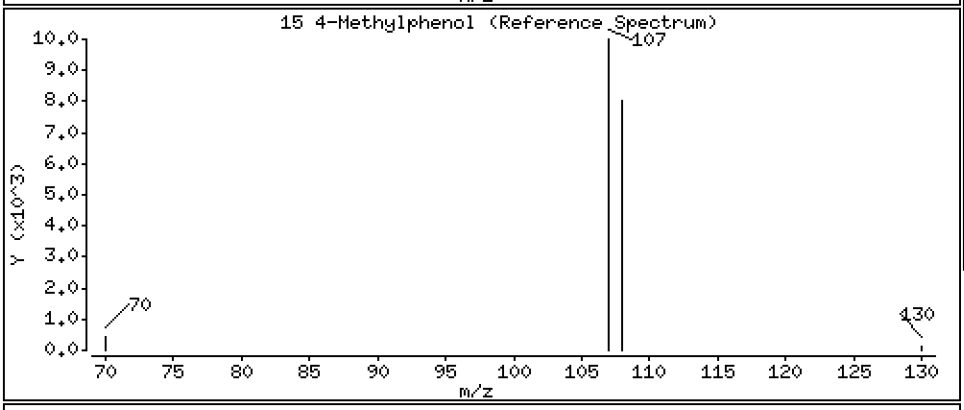
Concentration: 5.249 ug/L

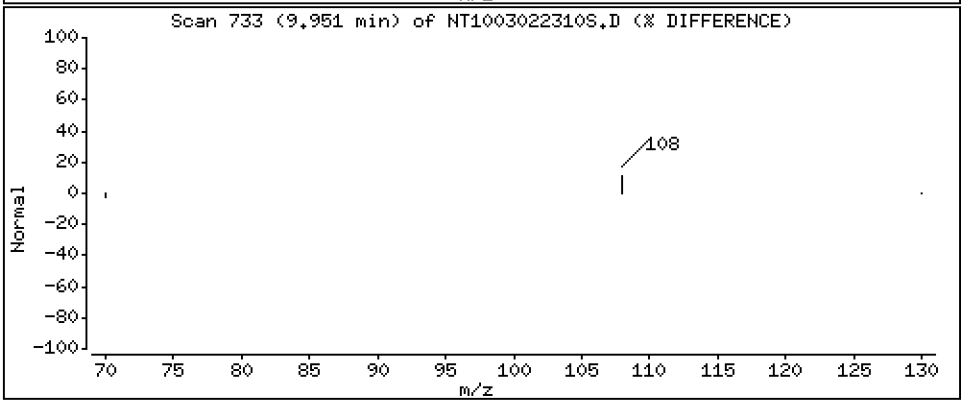












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Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

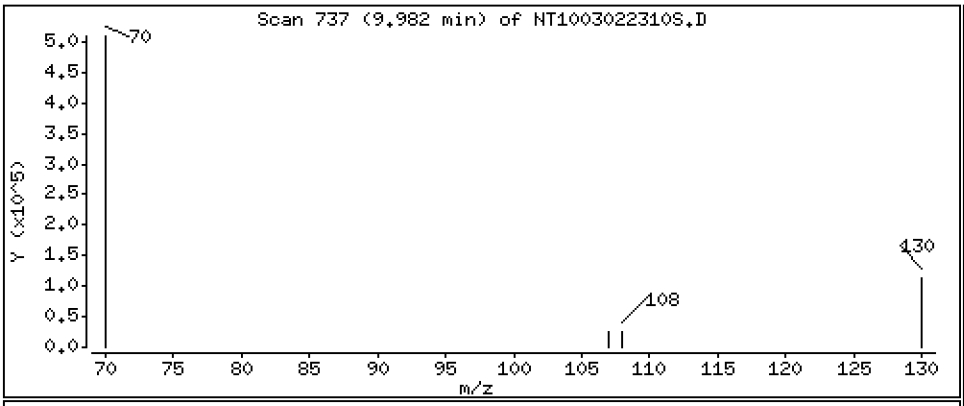
Operator: JGR

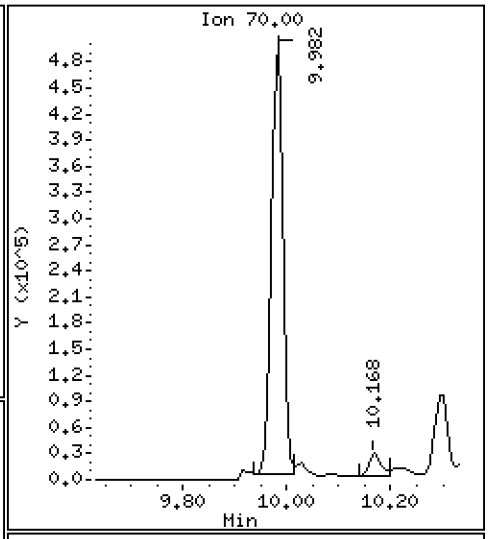
Column phase: ZB-5msi

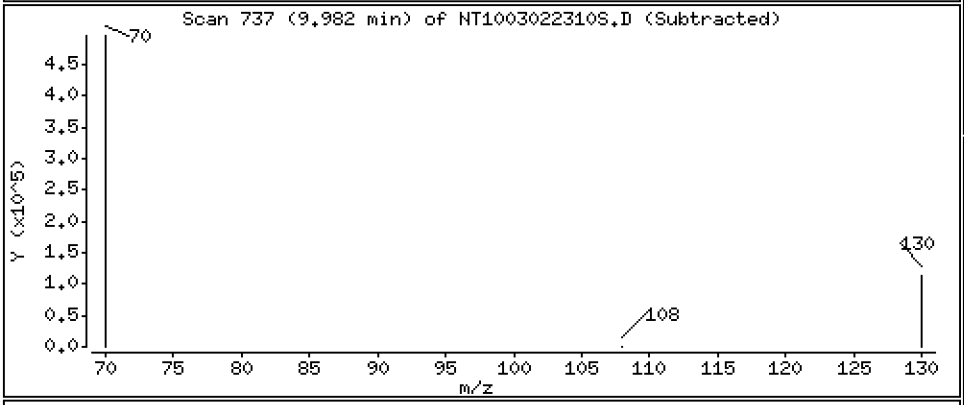
Column diameter: 0.25

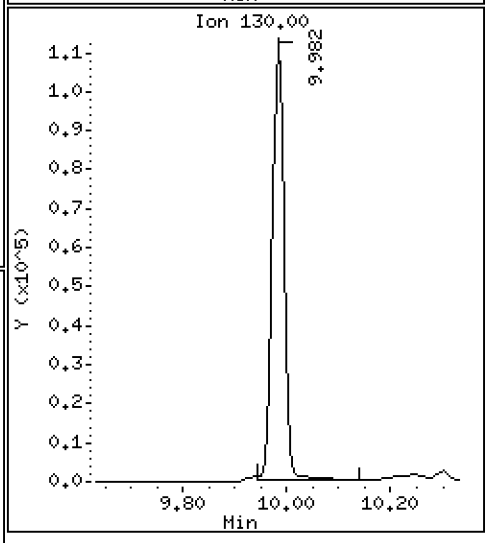
16 N-Nitroso-di-n-propylamine

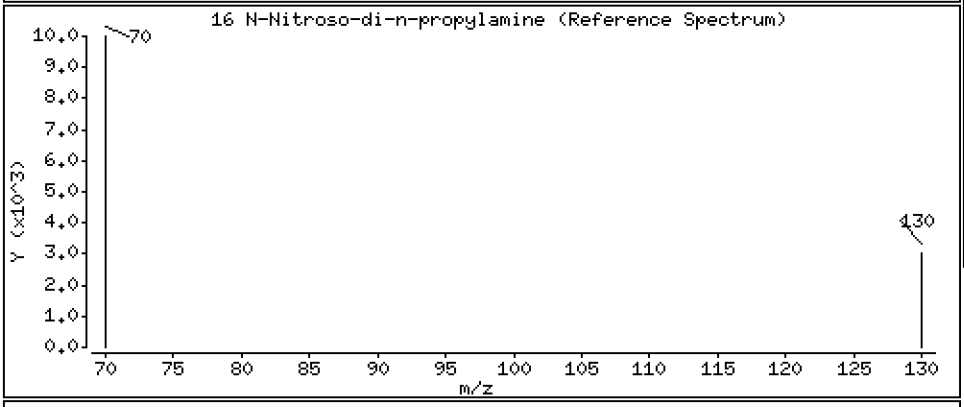
Concentration: 5.488 ug/L

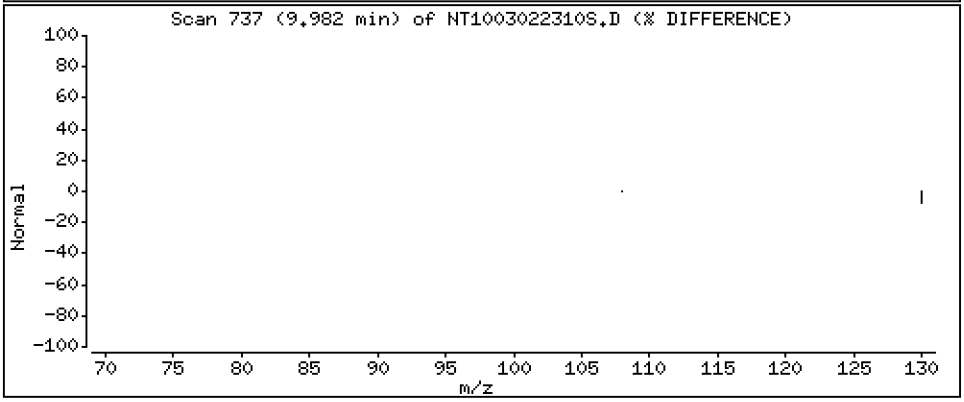












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Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

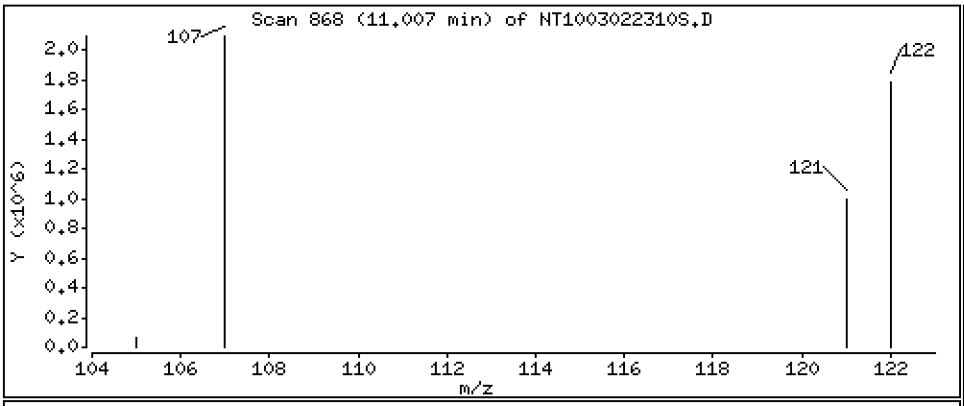
Operator: JGR

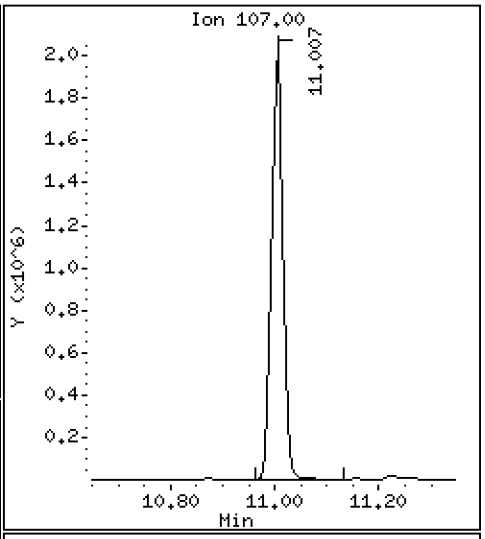
Column phase: ZB-5msi

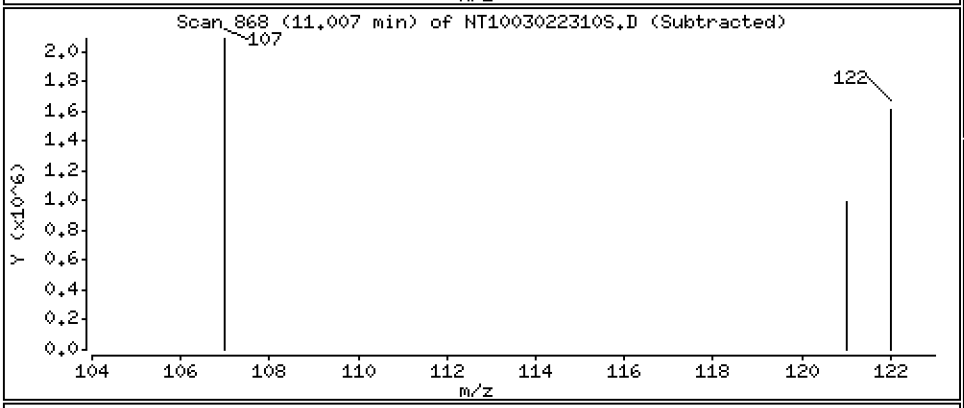
Column diameter: 0.25

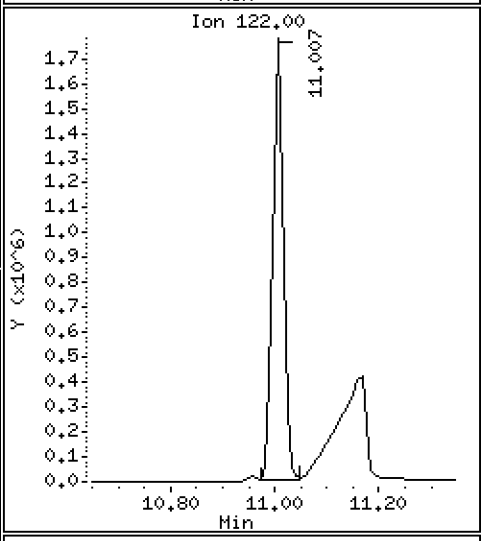
22 2,4-Dimethylphenol

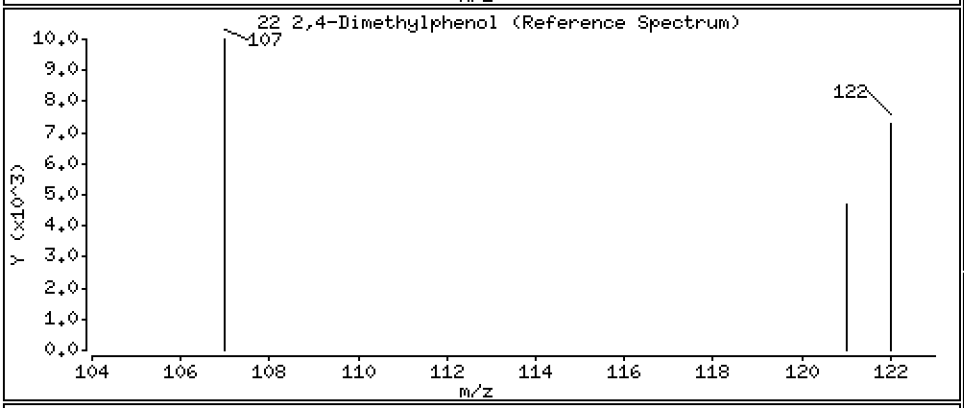
Concentration: 14.05 ug/L

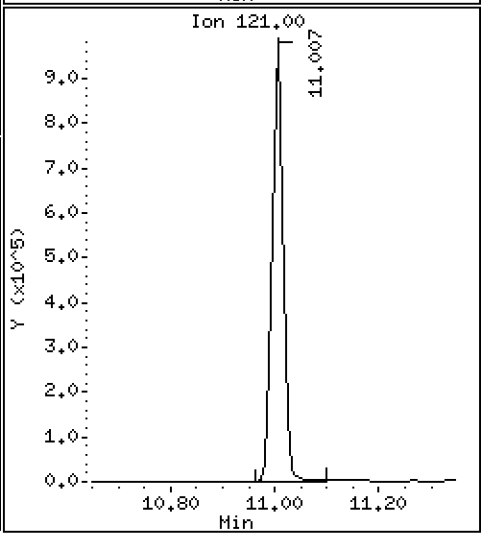


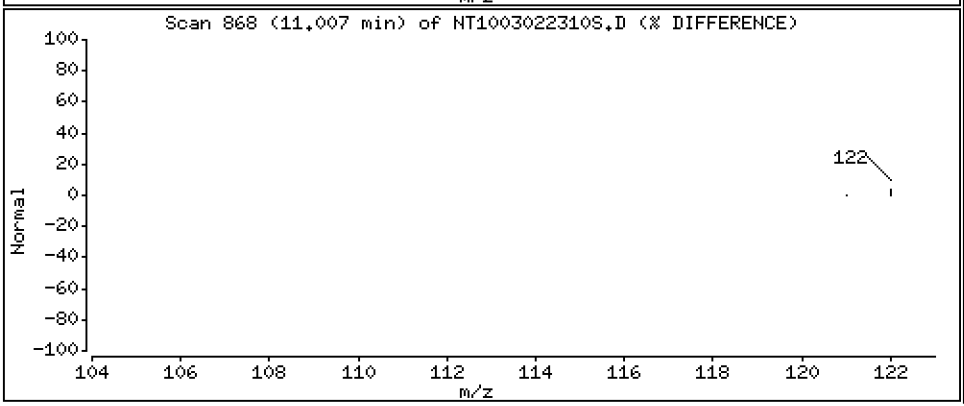












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Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

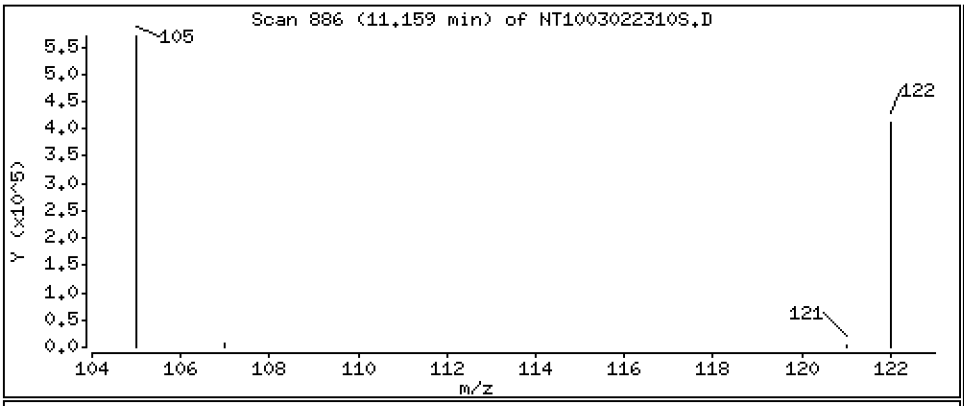
Operator: JGR

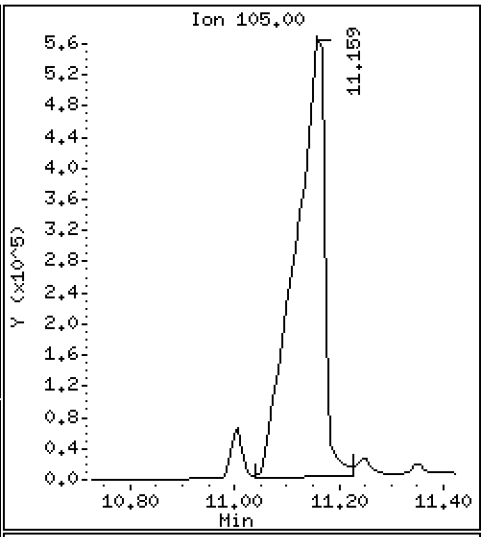
Column phase: ZB-5msi

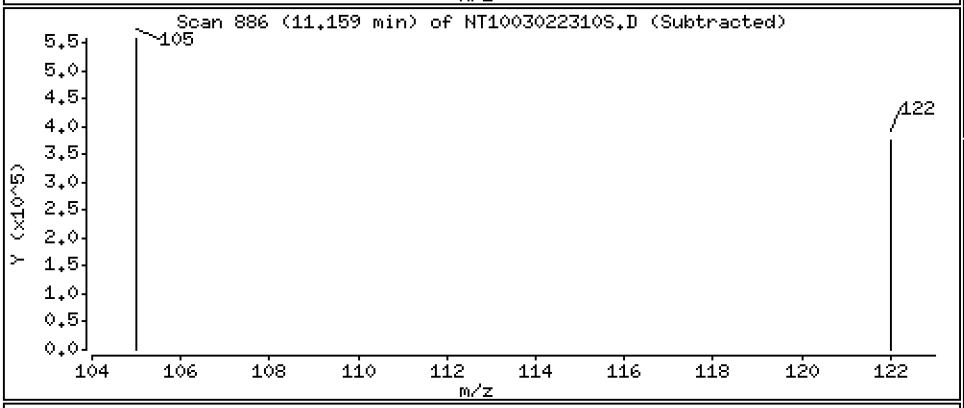
Column diameter: 0.25

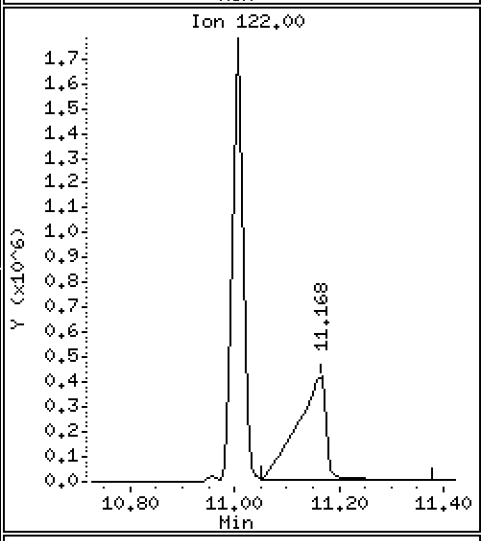
24 Benzoic acid

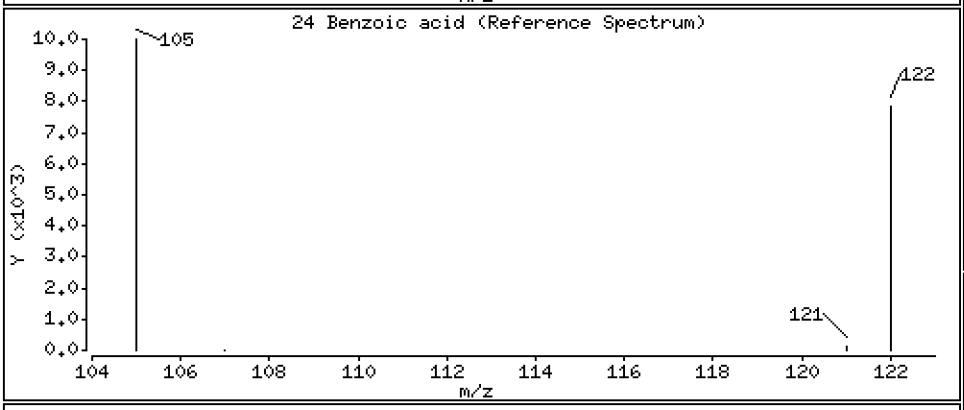
Concentration: 17.46 ug/L

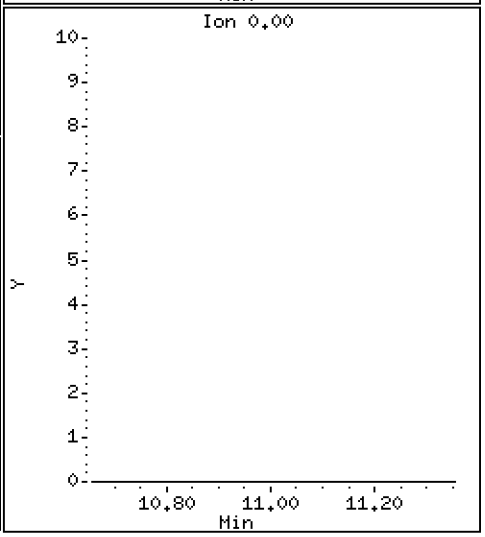


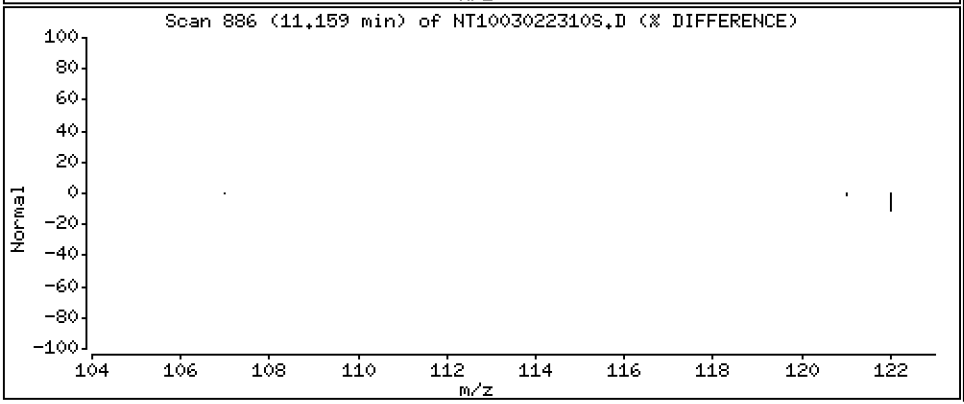












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022310S.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

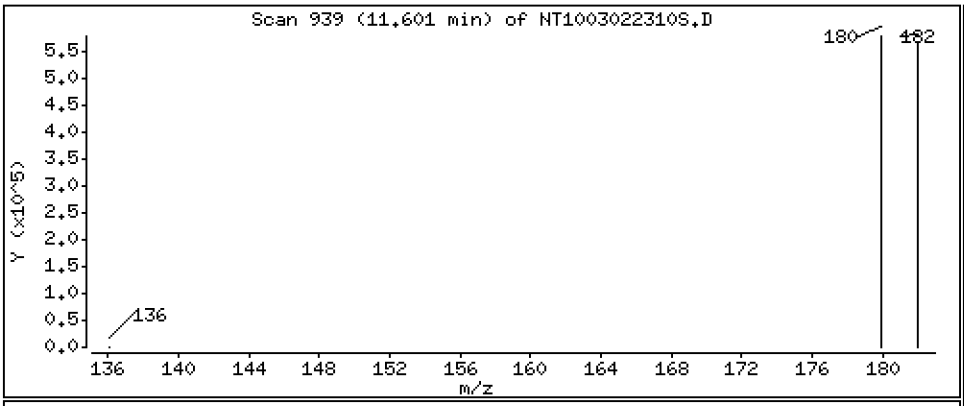
Operator: JGR

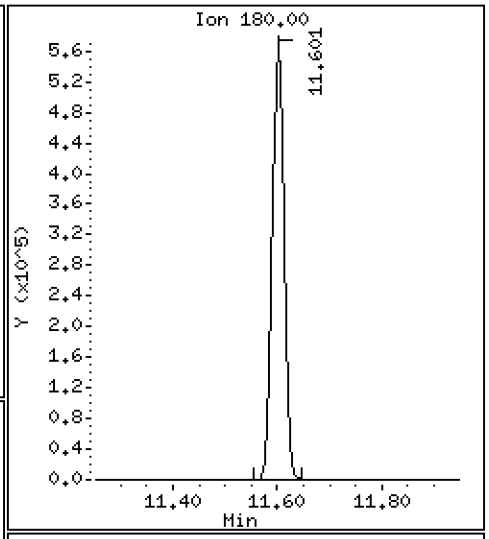
Column phase: ZB-5msi

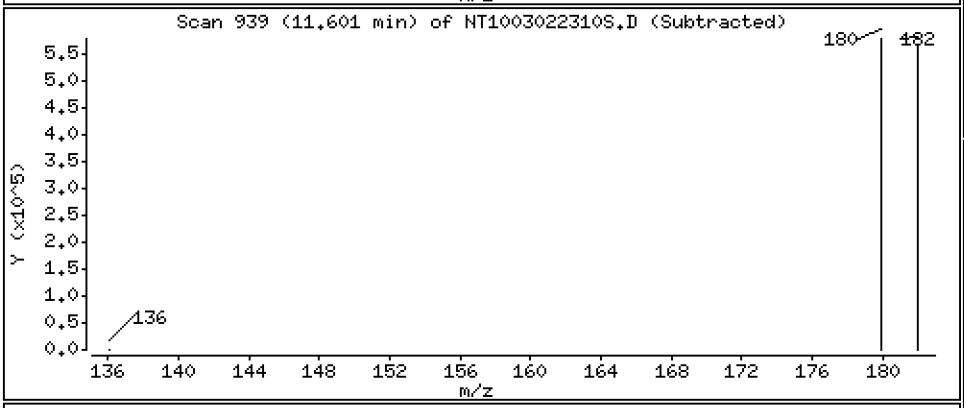
Column diameter: 0.25

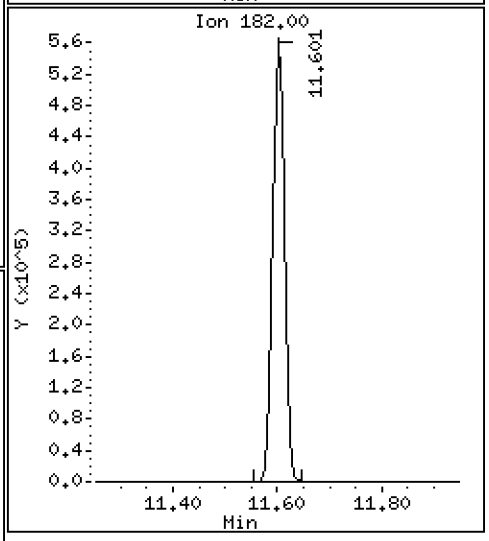
26 1,2,4-Trichlorobenzene

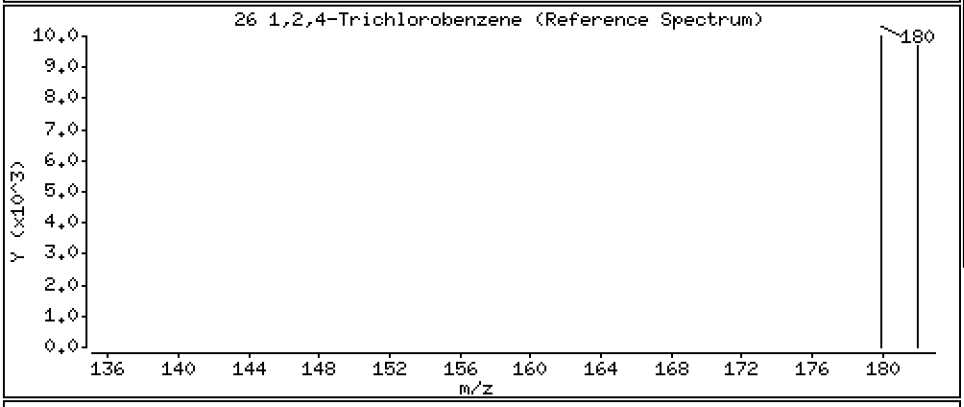
Concentration: 4.715 ug/L

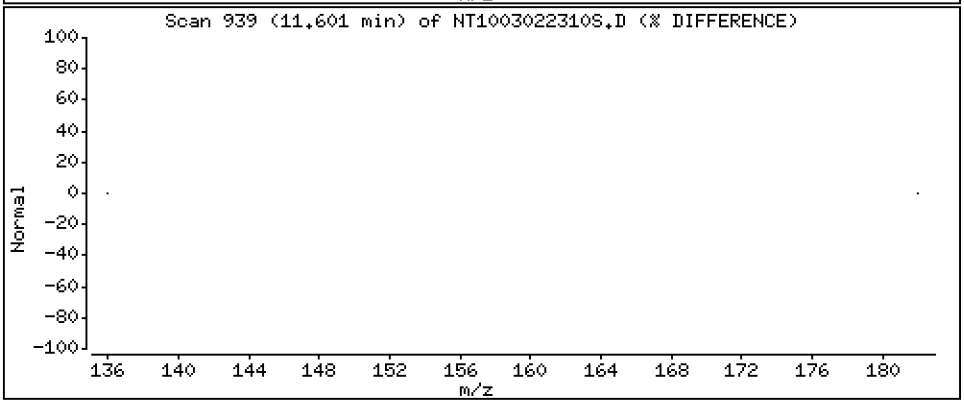












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022310S.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

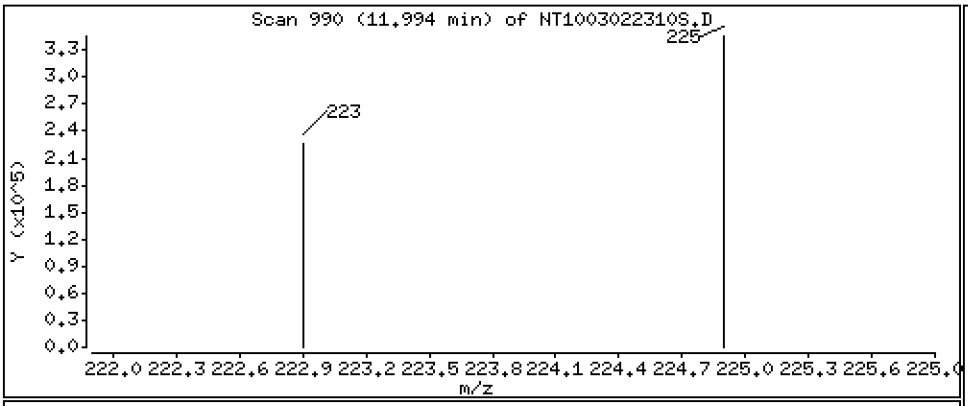
Operator: JGR

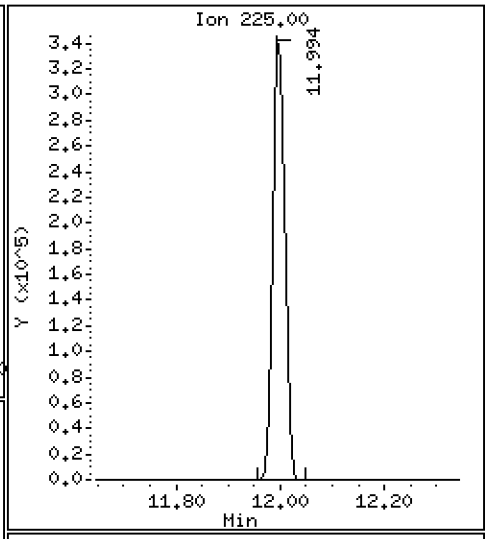
Column phase: ZB-5msi

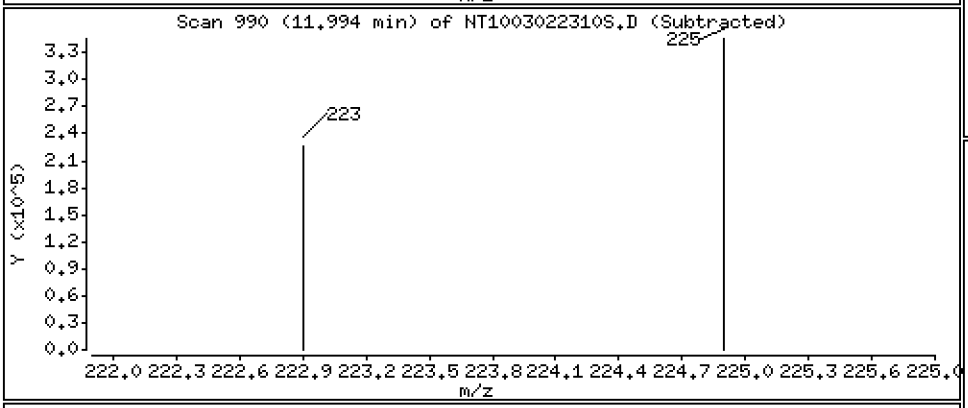
Column diameter: 0.25

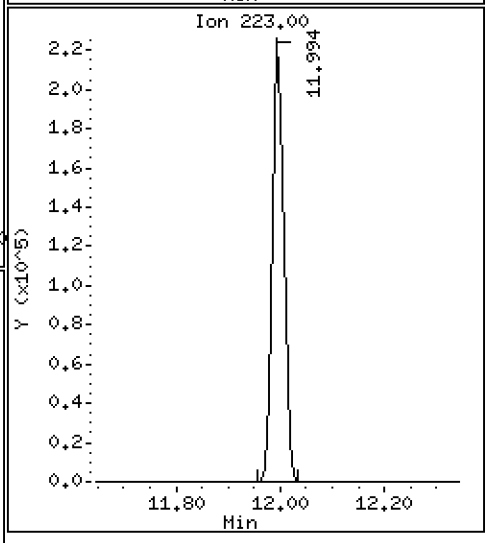
30 Hexachlorobutadiene

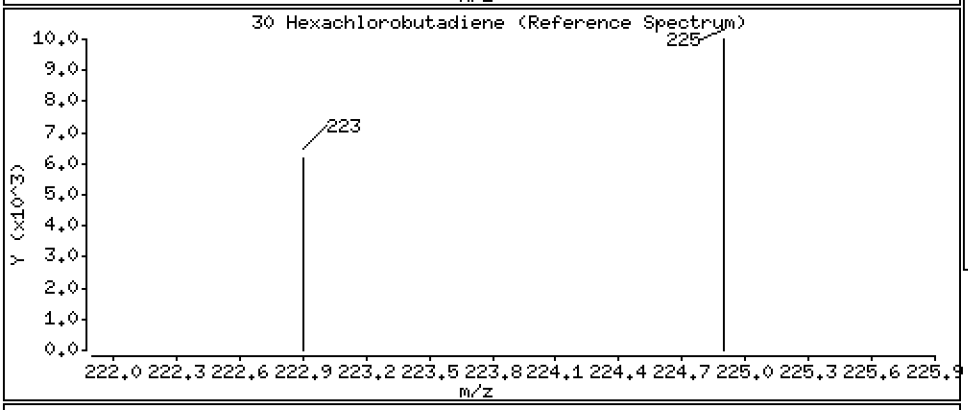
Concentration: 4.167 ug/L

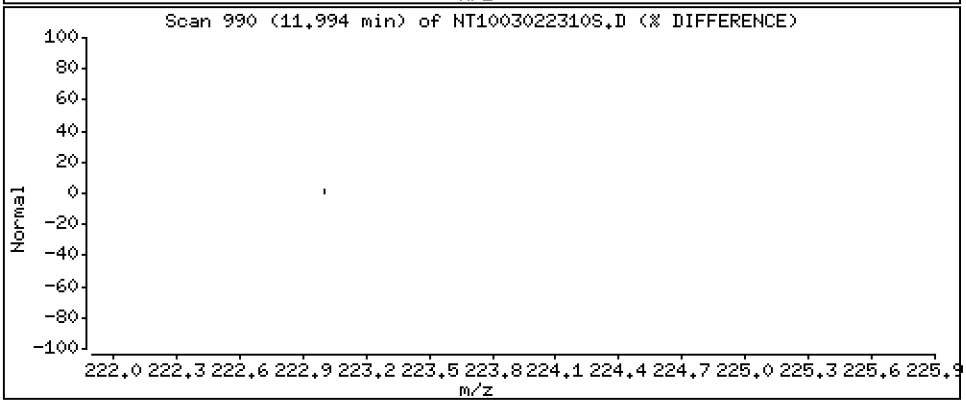












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022310S.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

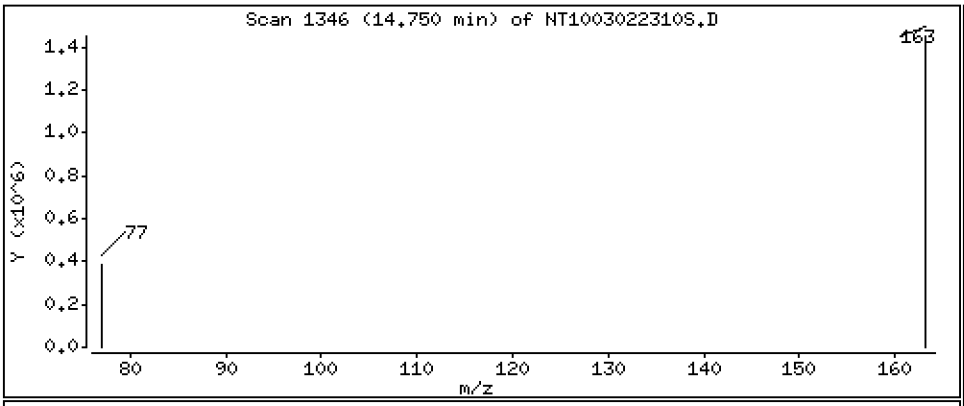
Operator: JGR

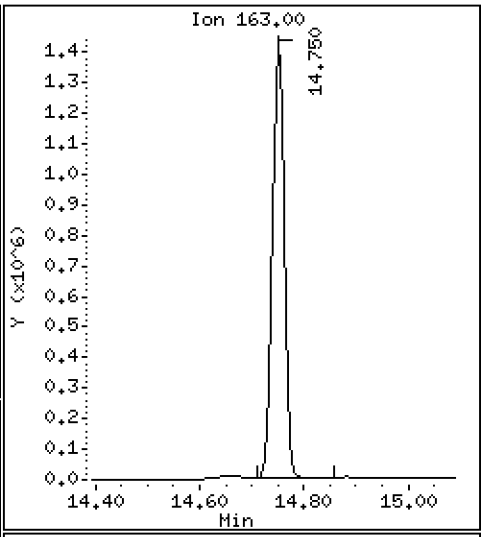
Column phase: ZB-5msi

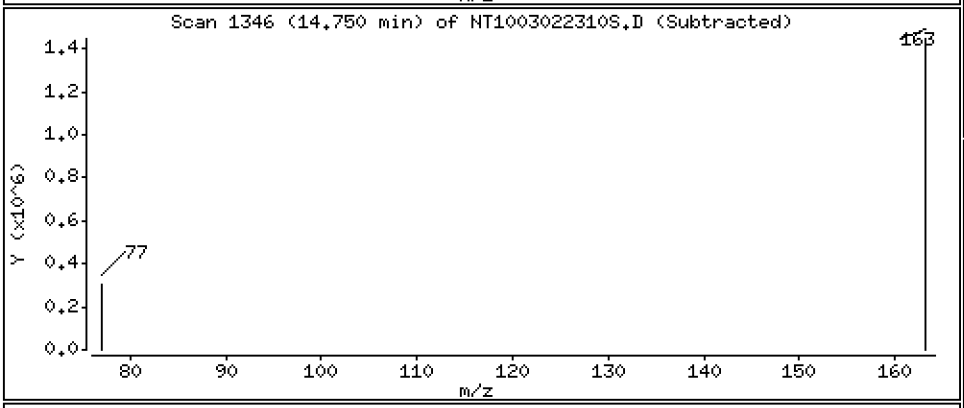
Column diameter: 0.25

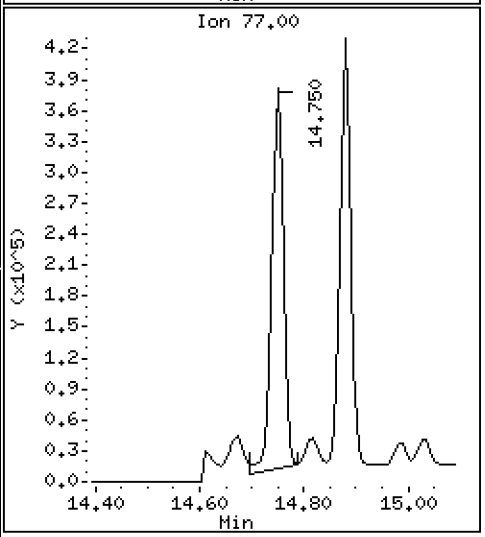
39 Dimethylphthalate

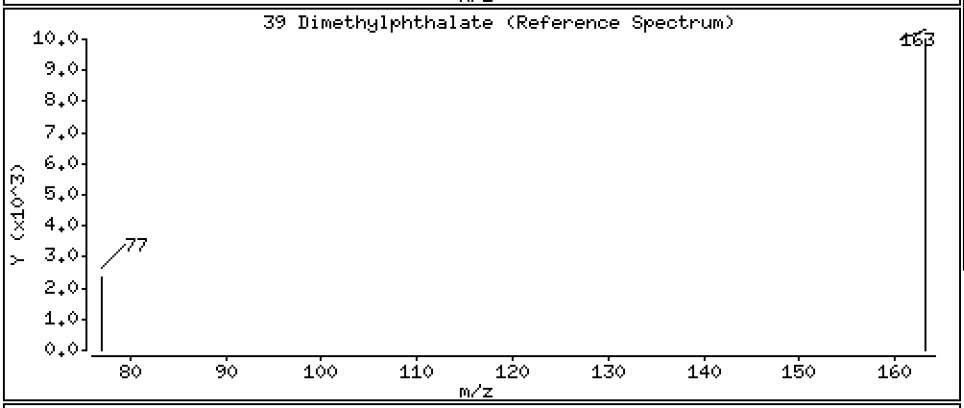
Concentration: 5.158 ug/L

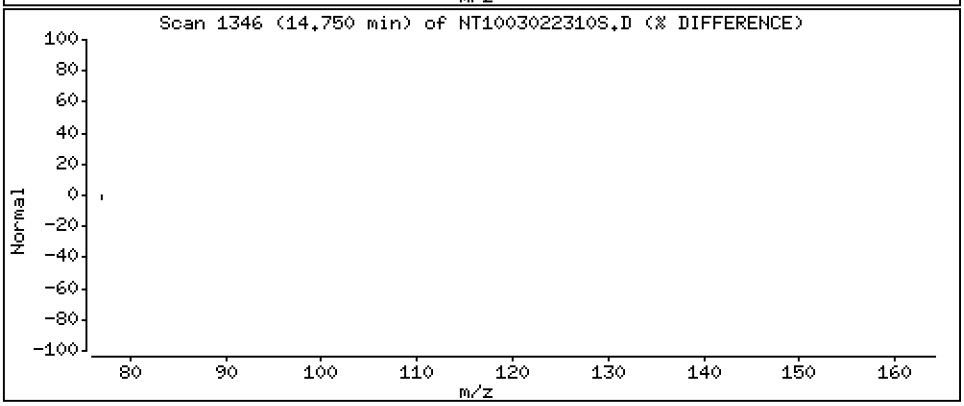












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022310S.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

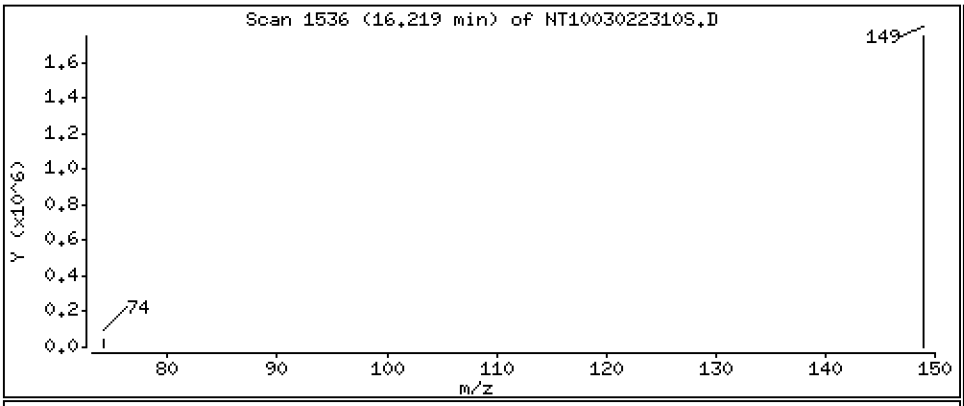
Operator: JGR

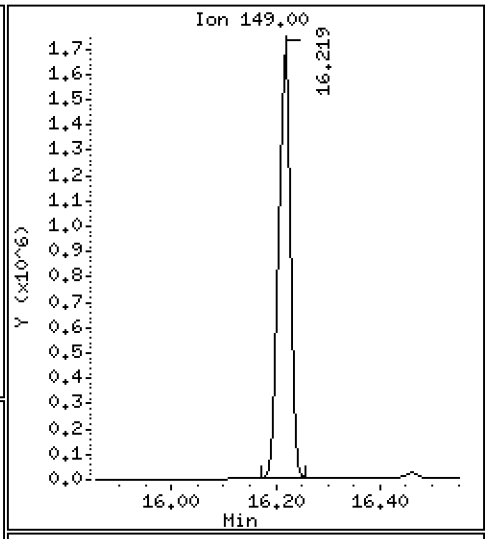
Column phase: ZB-5msi

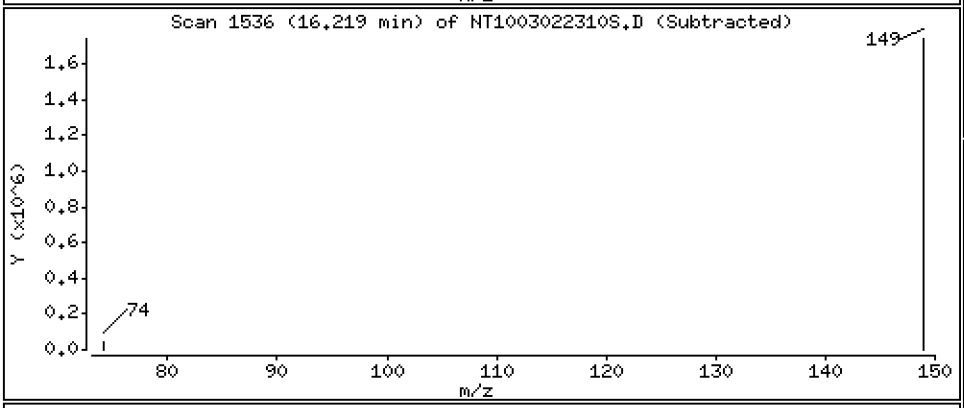
Column diameter: 0.25

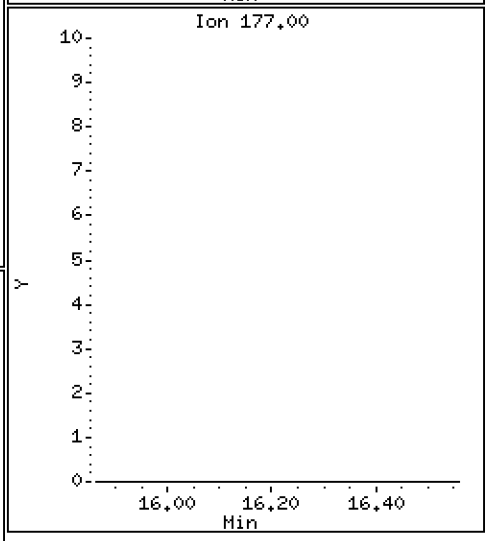
50 Diethylphthalate

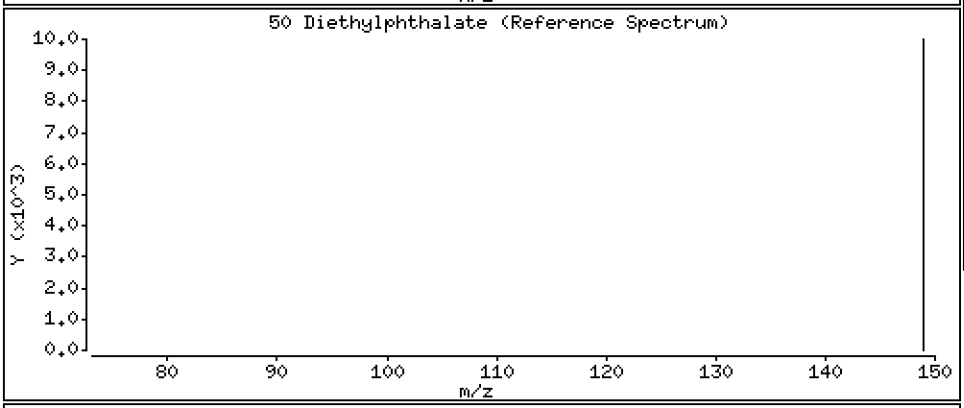
Concentration: 6.664 ug/L

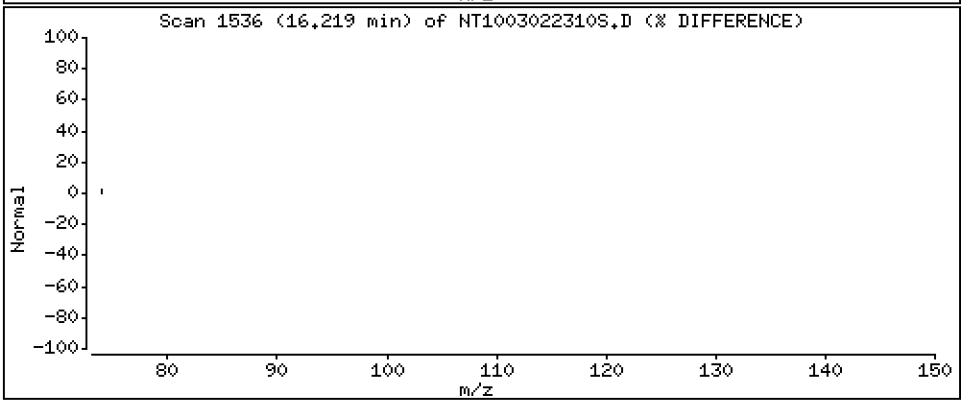












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022310S.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

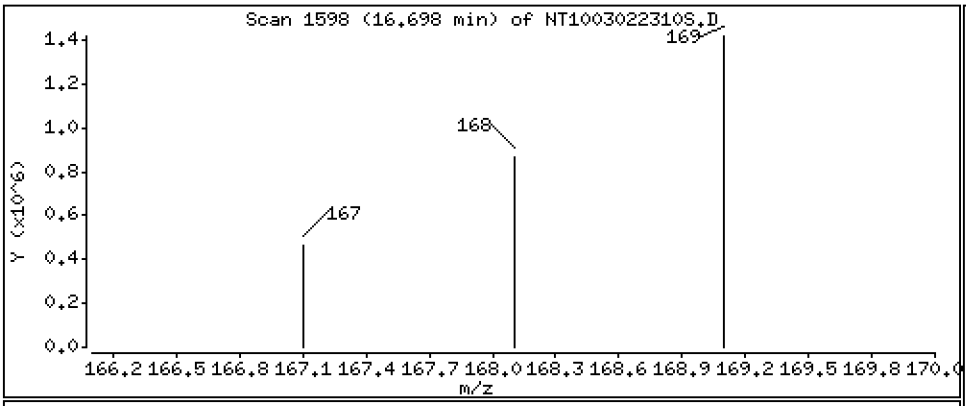
Operator: JGR

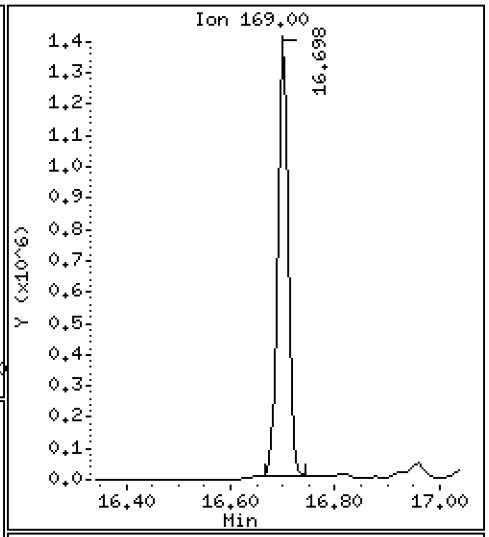
Column phase: ZB-5msi

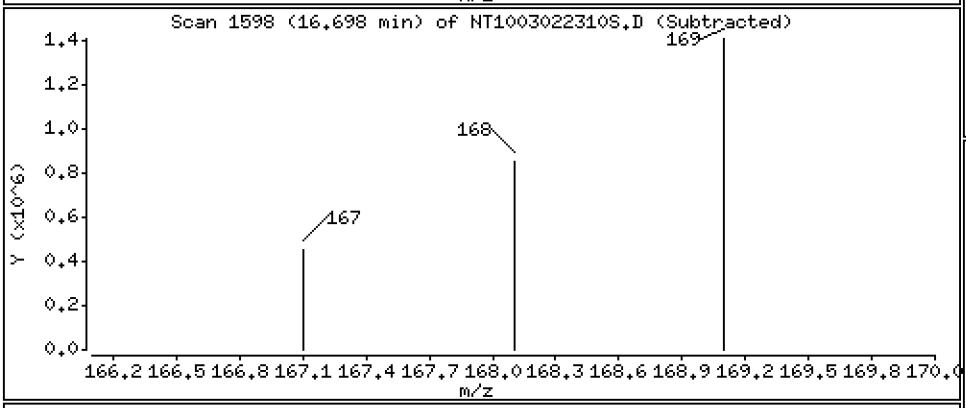
Column diameter: 0.25

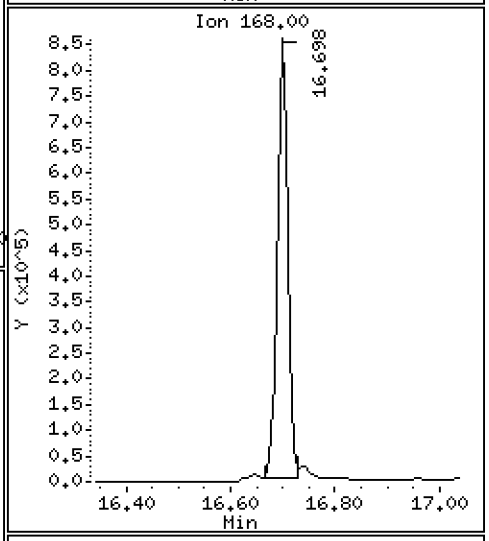
54 N-Nitrosodiphenylamine

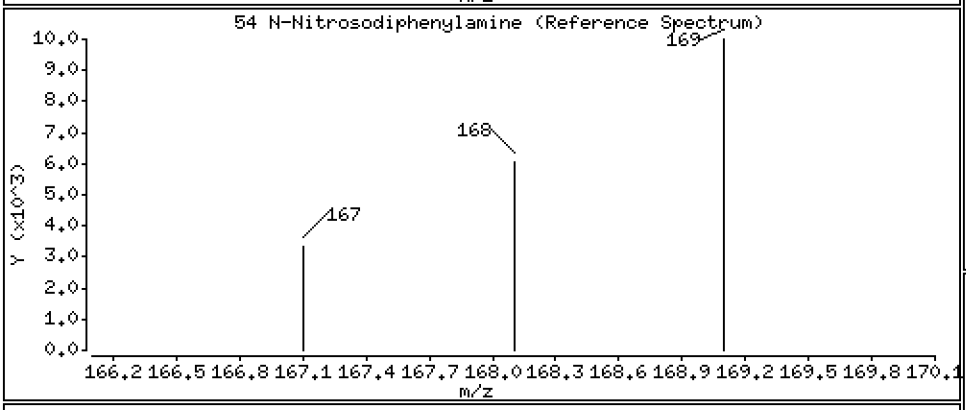
Concentration: 4.209 ug/L

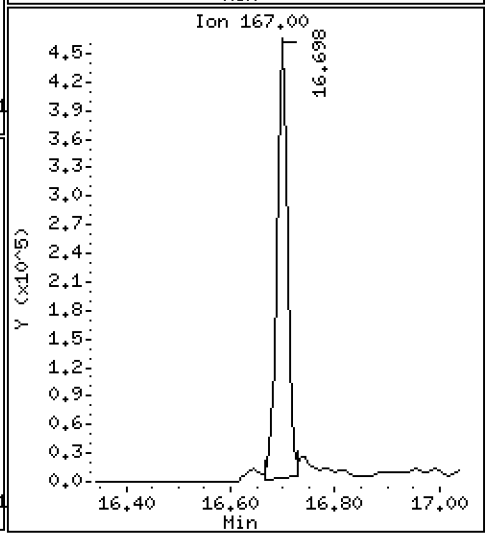


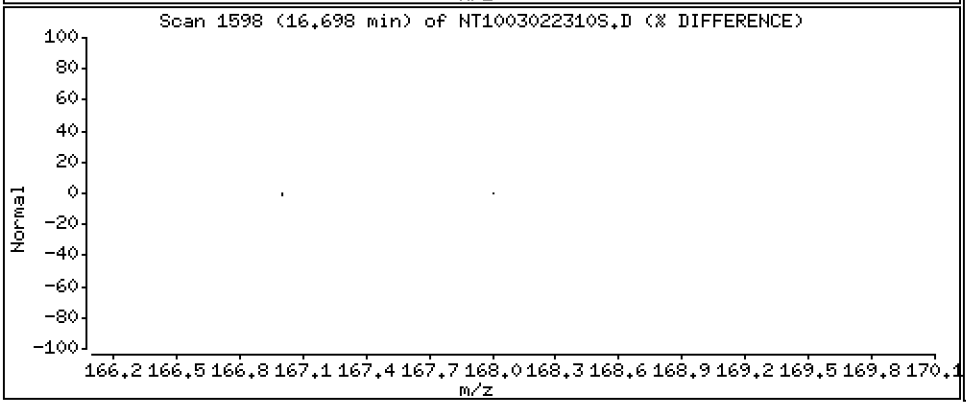












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Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

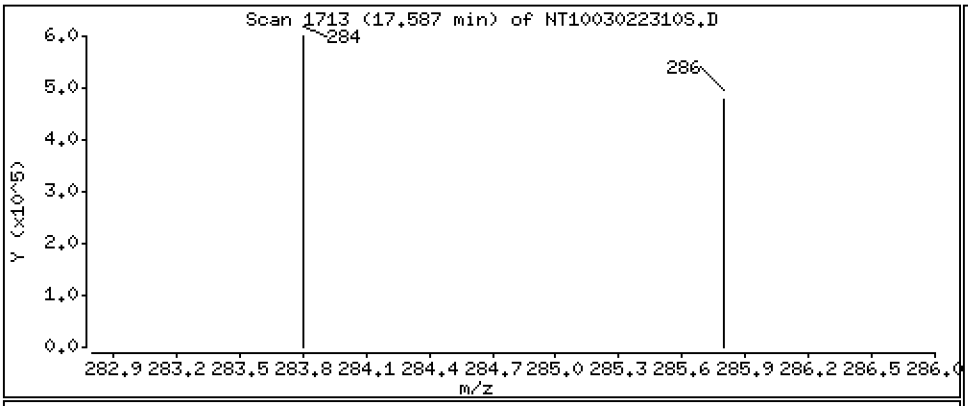
Operator: JGR

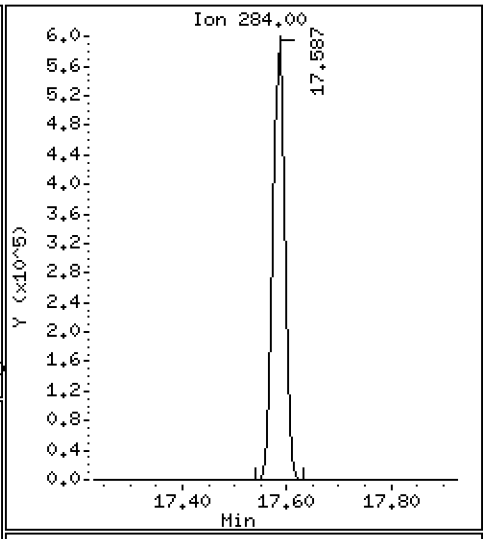
Column phase: ZB-5msi

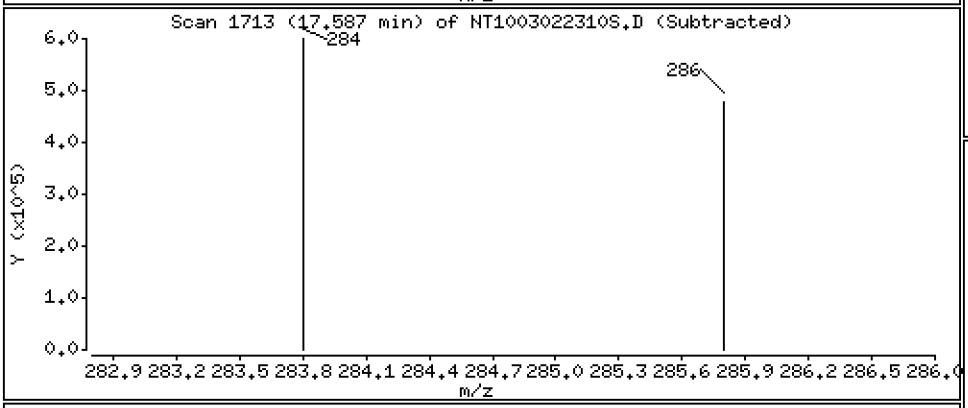
Column diameter: 0.25

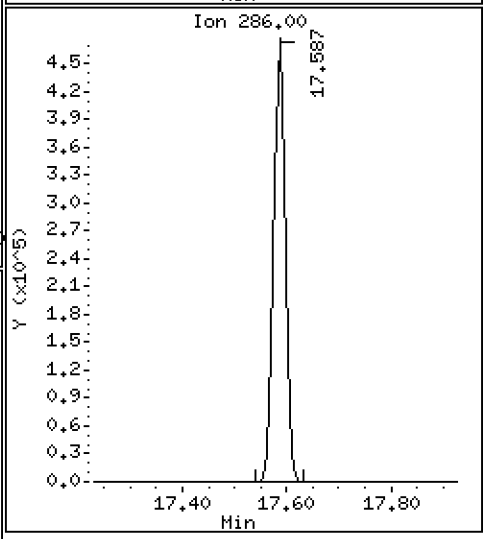
57 Hexachlorobenzene

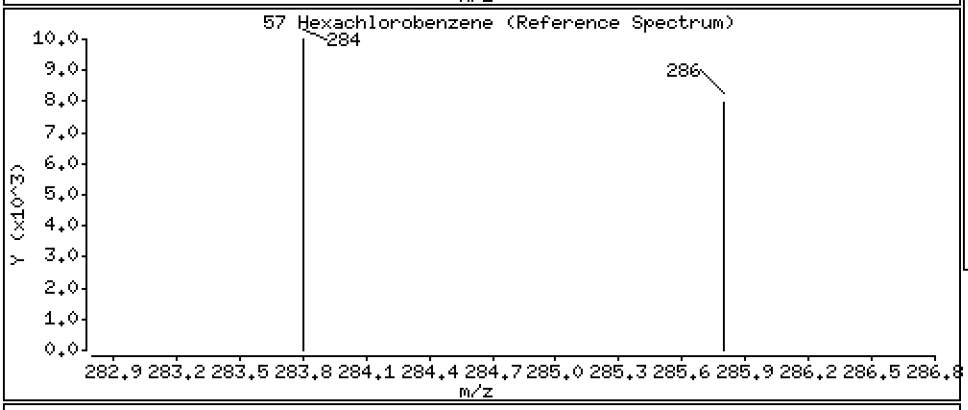
Concentration: 4.007 ug/L

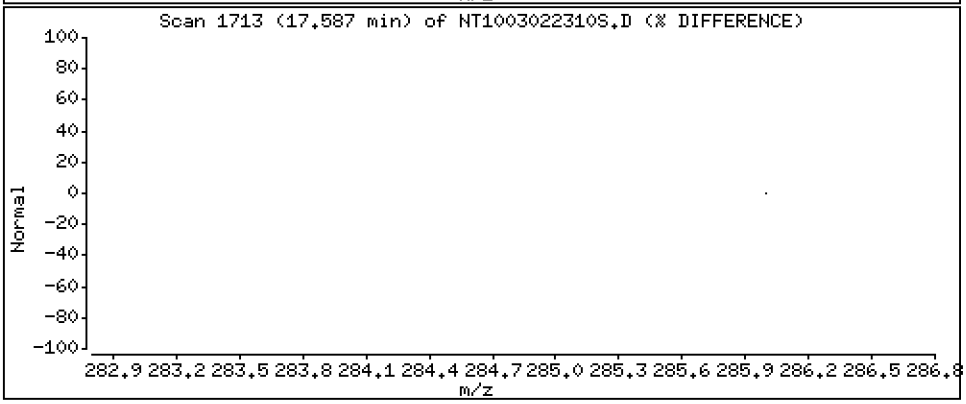












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022310S.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

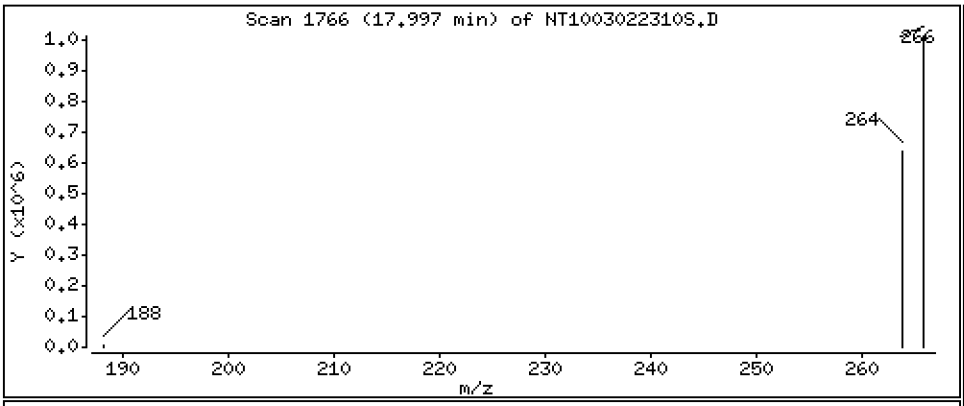
Operator: JGR

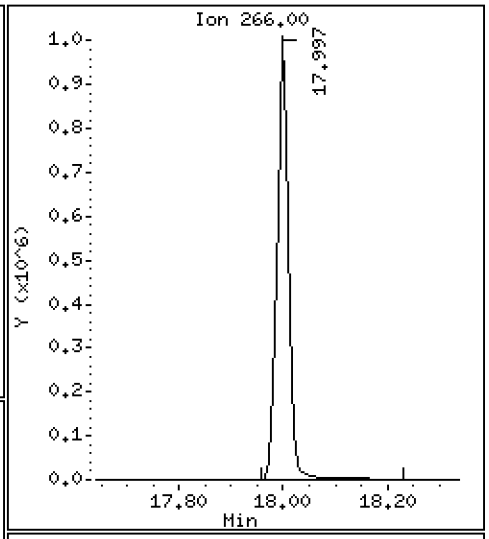
Column phase: ZB-5msi

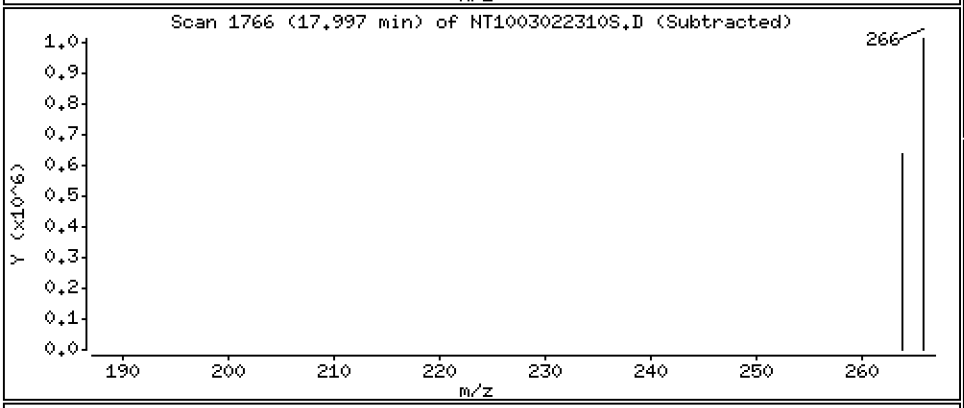
Column diameter: 0.25

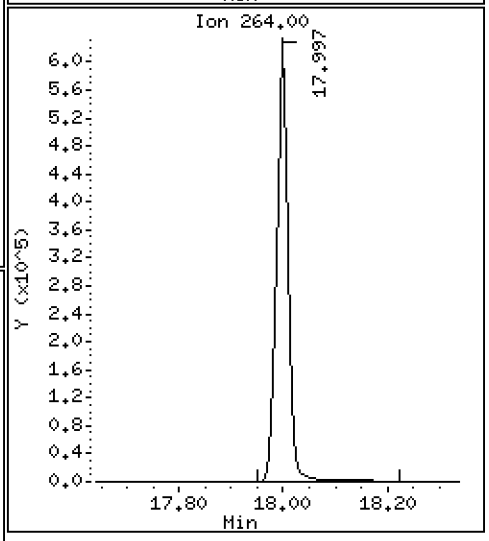
58 Pentachlorophenol

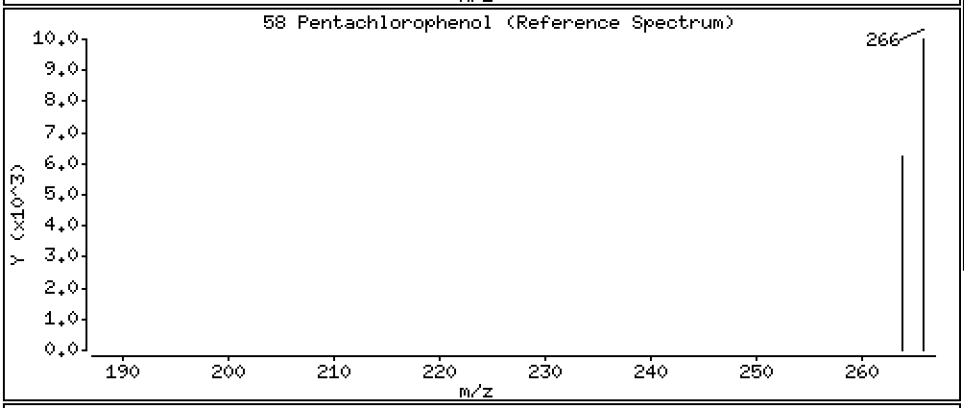
Concentration: 13.27 ug/L

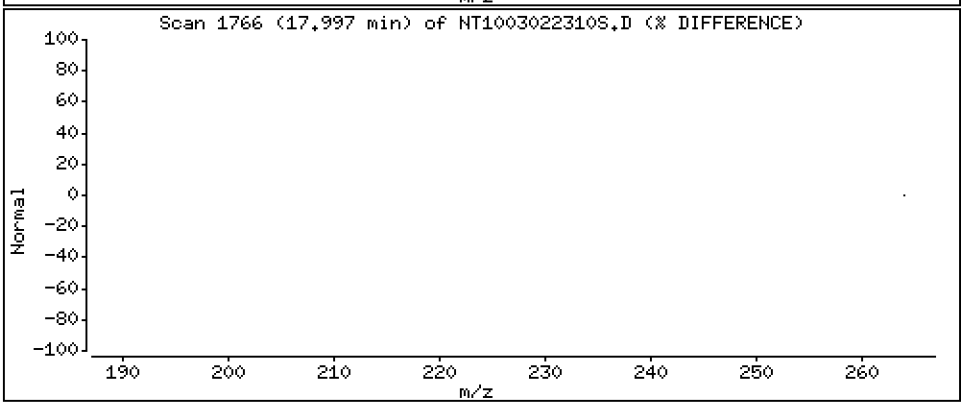












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223105.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

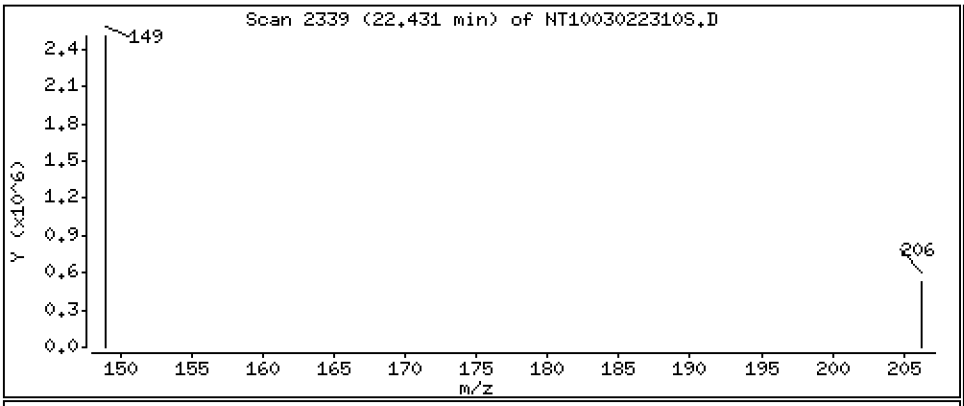
Operator: JGR

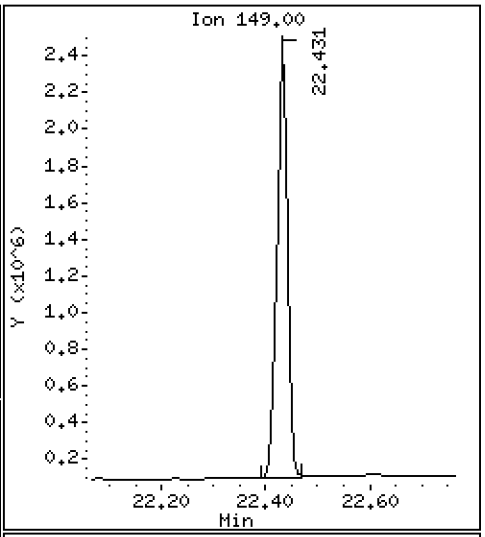
Column phase: ZB-5msi

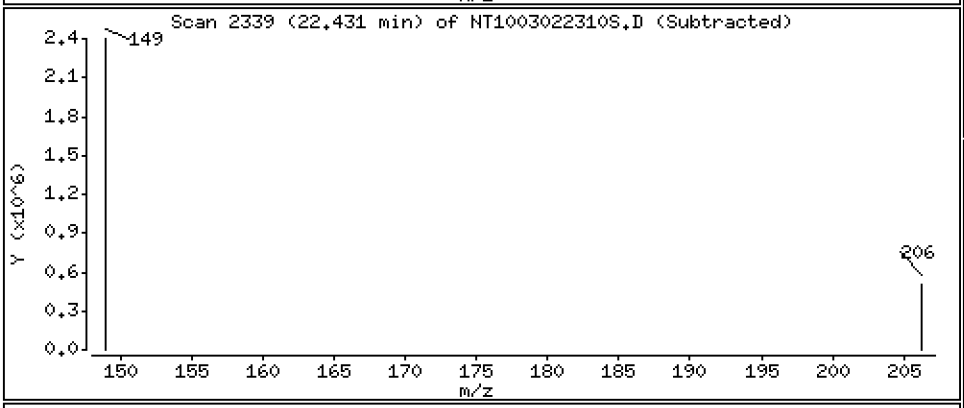
Column diameter: 0.25

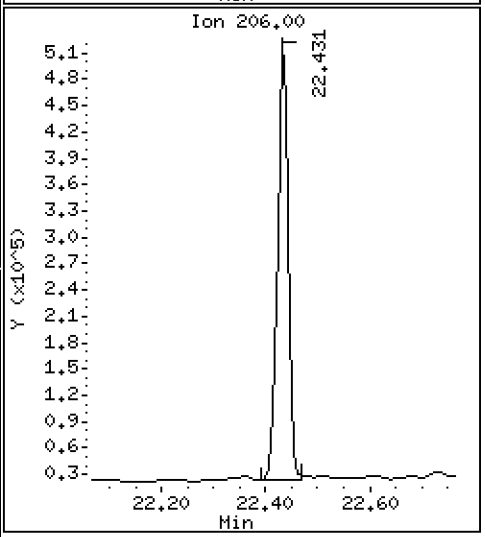
67 Butylbenzylphthalate

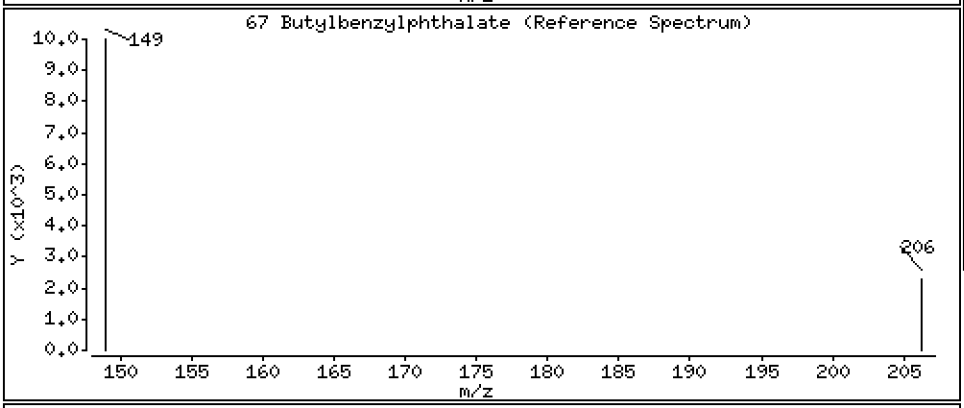
Concentration: 4.838 ug/L

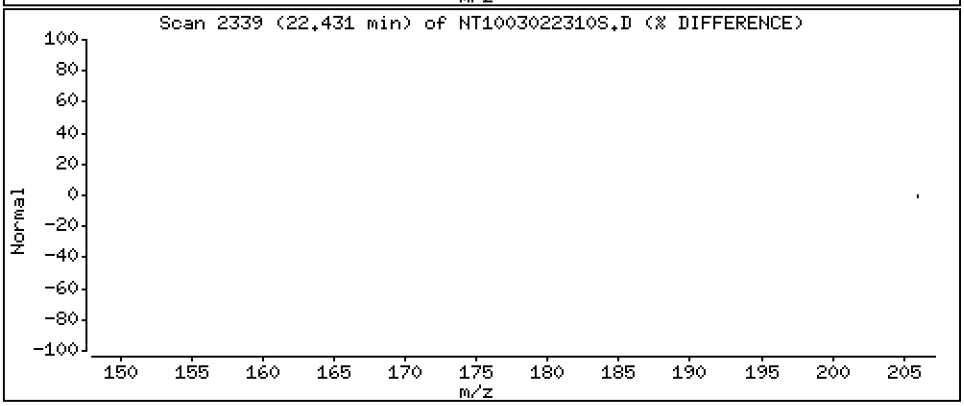












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022310S.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

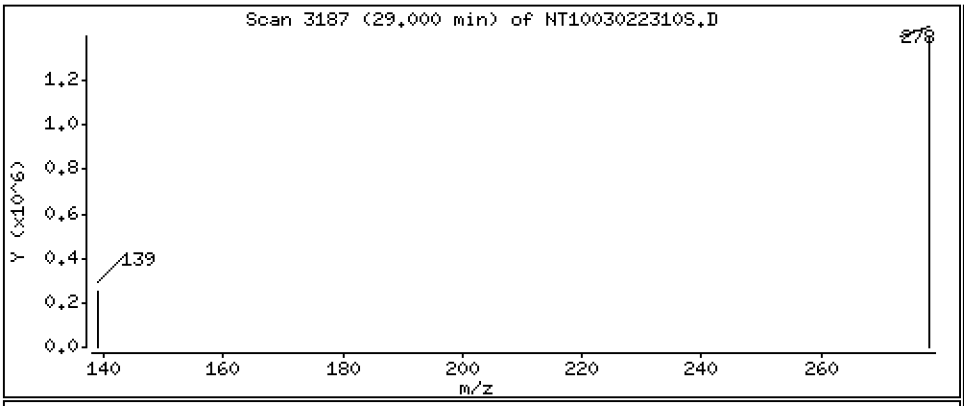
Operator: JGR

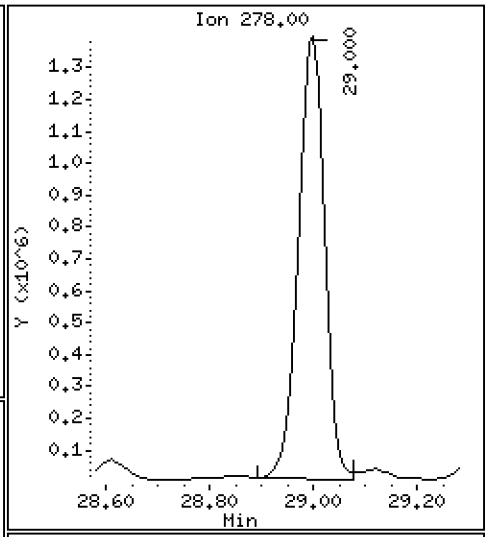
Column phase: ZB-5msi

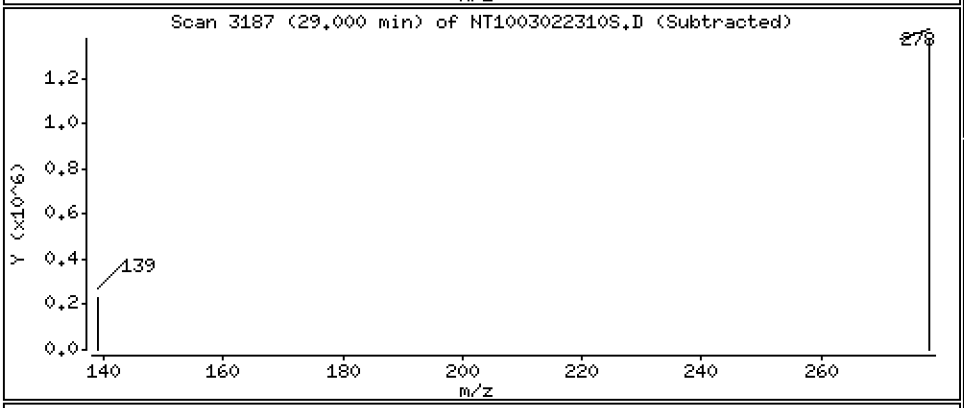
Column diameter: 0.25

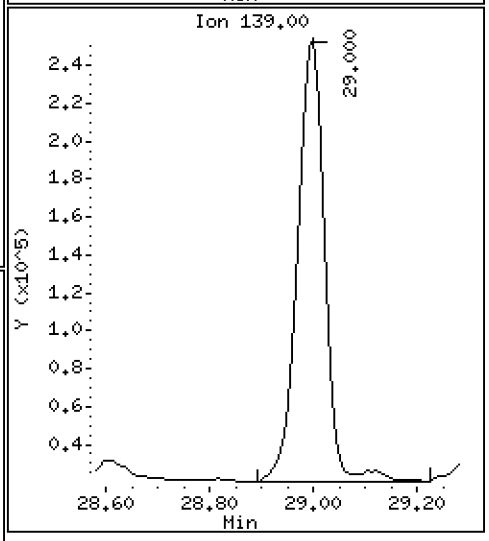
79 Dibenzo(a,h)anthracene

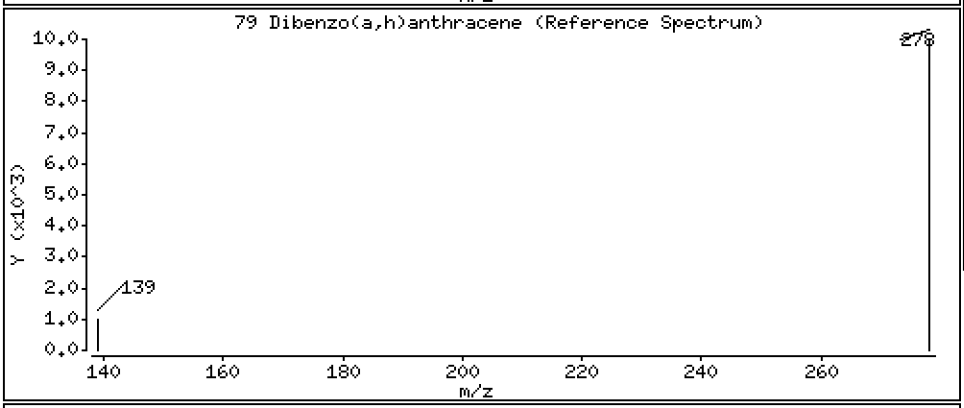
Concentration: 5.293 ug/L

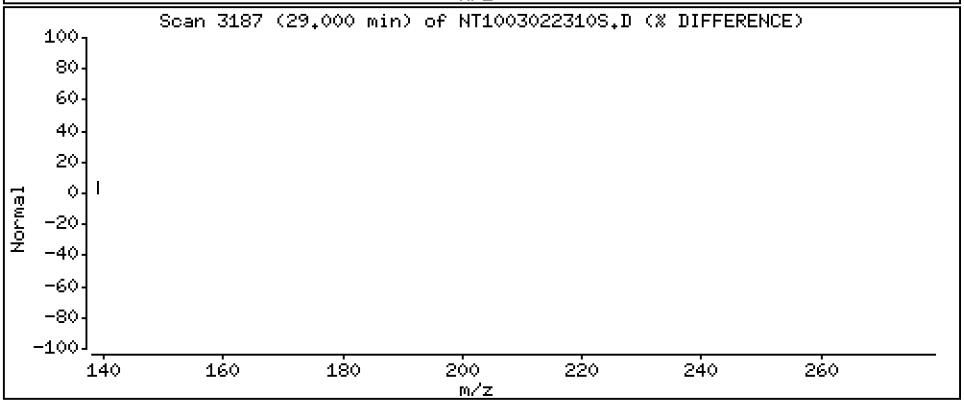












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223105.D

Date : 02-MAR-2023 20:06

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-MSD1

Volume Injected (uL): 1.0

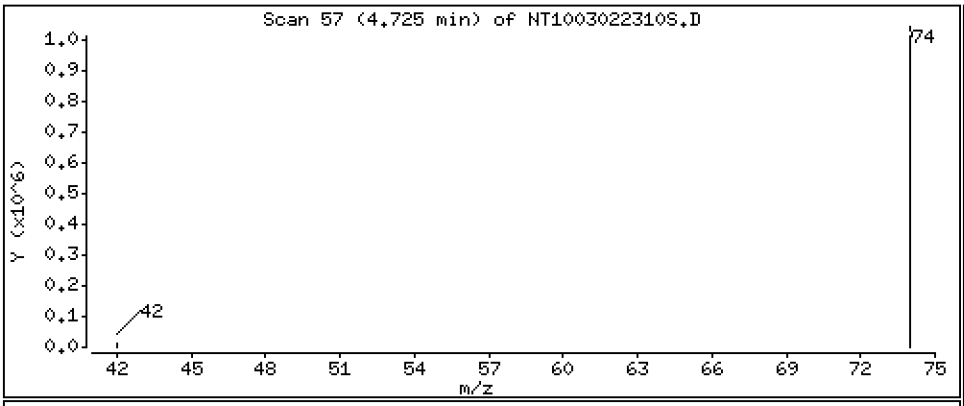
Operator: JGR

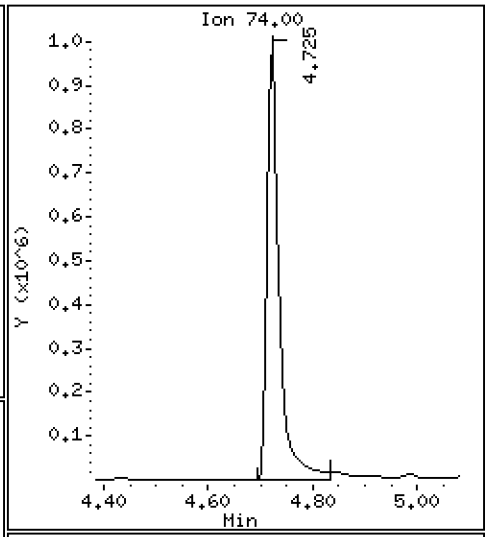
Column phase: ZB-5msi

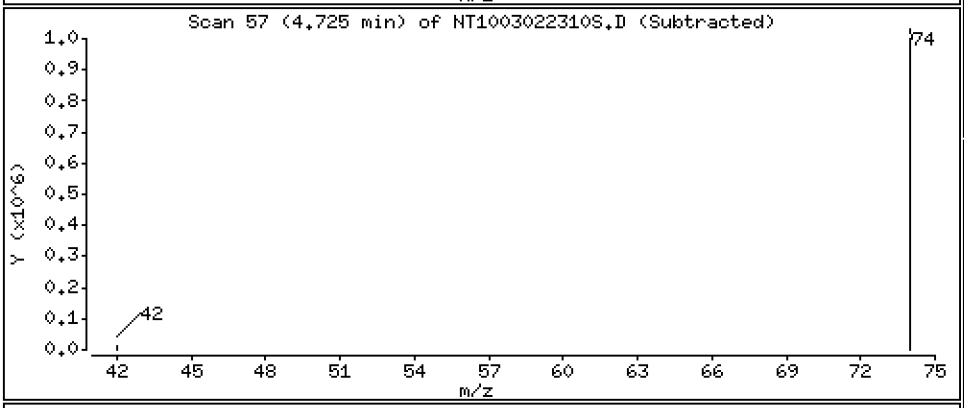
Column diameter: 0.25

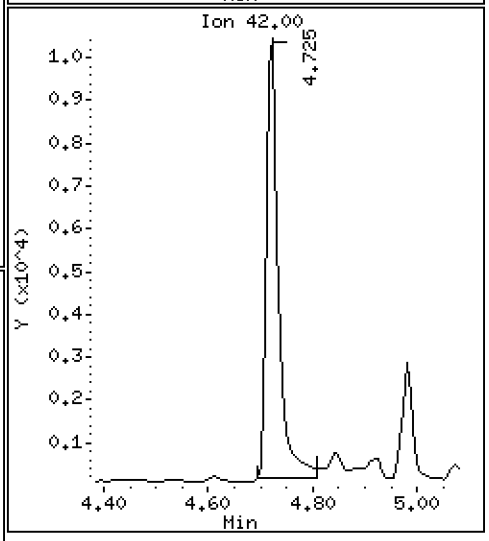
90 N-Nitrosodimethylamine

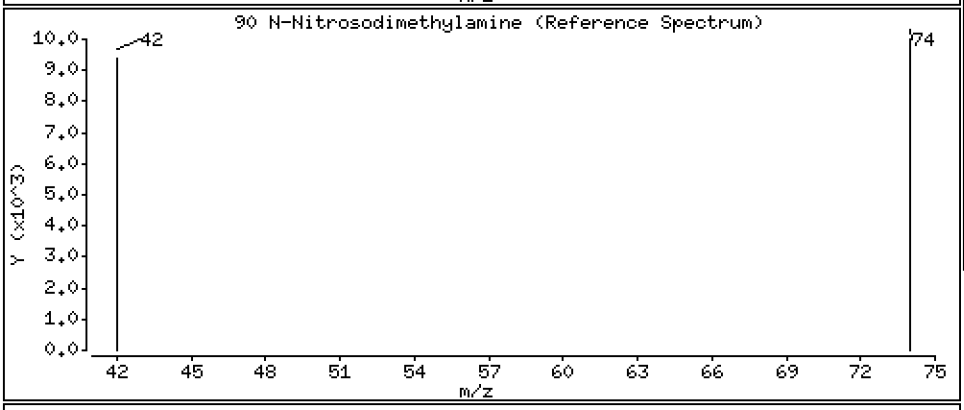
Concentration: 14.17 ug/L

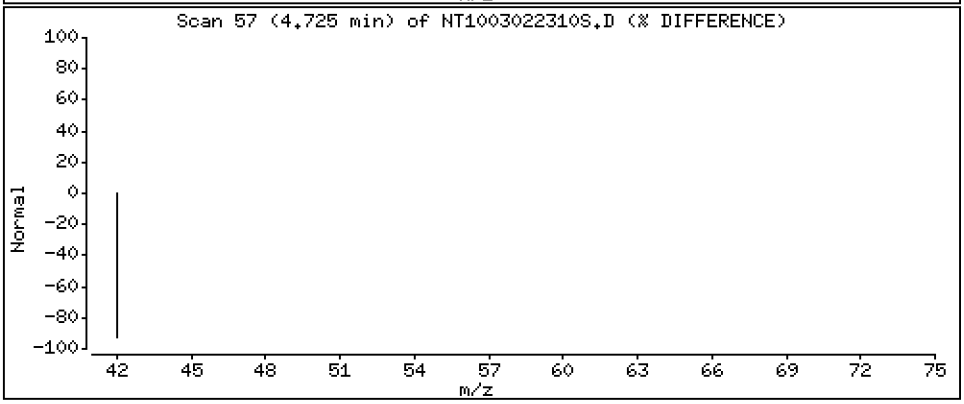












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022310S.D
Lab Smp Id: BLA0624-MSD1
Inj Date : 02-MAR-2023 20:06 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : BLA0624-MSD1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 14:53 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.902	6.902	(0.746)	1303007	6.78798	6.788(R)
3	Phenol	94	8.525	8.517	(0.921)	3620864	11.9635	11.96
7	1,3-Dichlorobenzene	146	9.143	9.143	(0.988)	999770	4.01213	4.012
* 8	1,4-Dichlorobenzene-d4	152	9.252	9.251	(1.000)	672370	4.00000	
9	1,4-Dichlorobenzene	146	9.283	9.282	(1.003)	1326016	5.47323	5.473
11	Benzyl alcohol	79	9.477	9.476	(1.024)	864065	5.12515	5.125
12	1,2-Dichlorobenzene	146	9.562	9.562	(1.034)	982974	4.22119	4.221
13	2-Methylphenol	108	9.655	9.655	(1.044)	823389	4.64786	4.648
15	4-Methylphenol	108	9.950	9.942	(1.076)	987540	5.24932	5.249
16	N-Nitroso-di-n-propylamine	70	9.982	9.981	(1.079)	706552	5.48803	5.488
22	2,4-Dimethylphenol	107	11.006	10.997	(0.939)	3078888	14.0520	14.05
24	Benzoic acid	105	11.159	11.074	(0.952)	2224613	17.4589	17.46
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	840738	4.71541	4.715
* 27	Naphthalene-d8	136	11.724	11.723	(1.000)	2477168	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	527257	4.16719	4.167
39	Dimethylphthalate	163	14.749	14.741	(0.963)	2110389	5.15817	5.158
* 42	Acenaphthene-d10	162	15.322	15.314	(1.000)	1288517	4.00000	
50	Diethylphthalate	149	16.218	16.203	(1.059)	2571336	6.66444	6.664
54	N-Nitrosodiphenylamine	169	16.698	16.690	(0.907)	1987335	4.20939	4.209
57	Hexachlorobenzene	284	17.586	17.578	(0.955)	885306	4.00690	4.007

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	17.996	17.988	(0.977)	1516520	13.2670	13.27
*	59 Phenanthrene-d10	188	18.414	18.406	(1.000)	2917258	4.00000	
$	66 Terphenyl-d14	244	21.548	21.532	(0.919)	1626926	4.94335	4.943(R)
	67 Butylbenzylphthalate	149	22.430	22.414	(0.957)	3266796	4.83792	4.838
*	69 Chrysene-d12	240	23.445	23.421	(1.000)	4069829	4.00000	
*	77 Perylene-d12	264	26.147	26.115	(1.000)	3624176	4.00000	
	79 Dibenzo(a,h)anthracene	278	29.000	28.929	(1.109)	4833039	5.29265	5.293
	90 N-Nitrosodimethylamine	74	4.725	4.732	(0.511)	1610808	14.1737	14.17

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Report Date: 08-Mar-2023 14:53

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003022310S.D
Lab Smp Id: BLA0624-MSD1
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 02-MAR-2023
Calibration Time: 14:13
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	493417	246709	986834	672370	36.27
27 Naphthalene-d8	1779056	889528	3558112	2477168	39.24
42 Acenaphthene-d10	954569	477285	1909138	1288517	34.98
59 Phenanthrene-d10	1596290	798145	3192580	2917258	82.75
69 Chrysene-d12	1649110	824555	3298220	4069829	146.79 <-
77 Perylene-d12	1901958	950979	3803916	3624176	90.55

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.32	0.05
59 Phenanthrene-d10	18.41	17.91	18.91	18.41	0.04
69 Chrysene-d12	23.42	22.92	23.92	23.45	0.10
77 Perylene-d12	26.12	25.62	26.62	26.15	0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003022310S.D

Lab ID: BLA0624-MSD1
nt10.i, 20230302.b\SIM.b\SIMABN2.m,   02-MAR-2023 20:06

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.952	0.945	0.0072	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003022303S.D

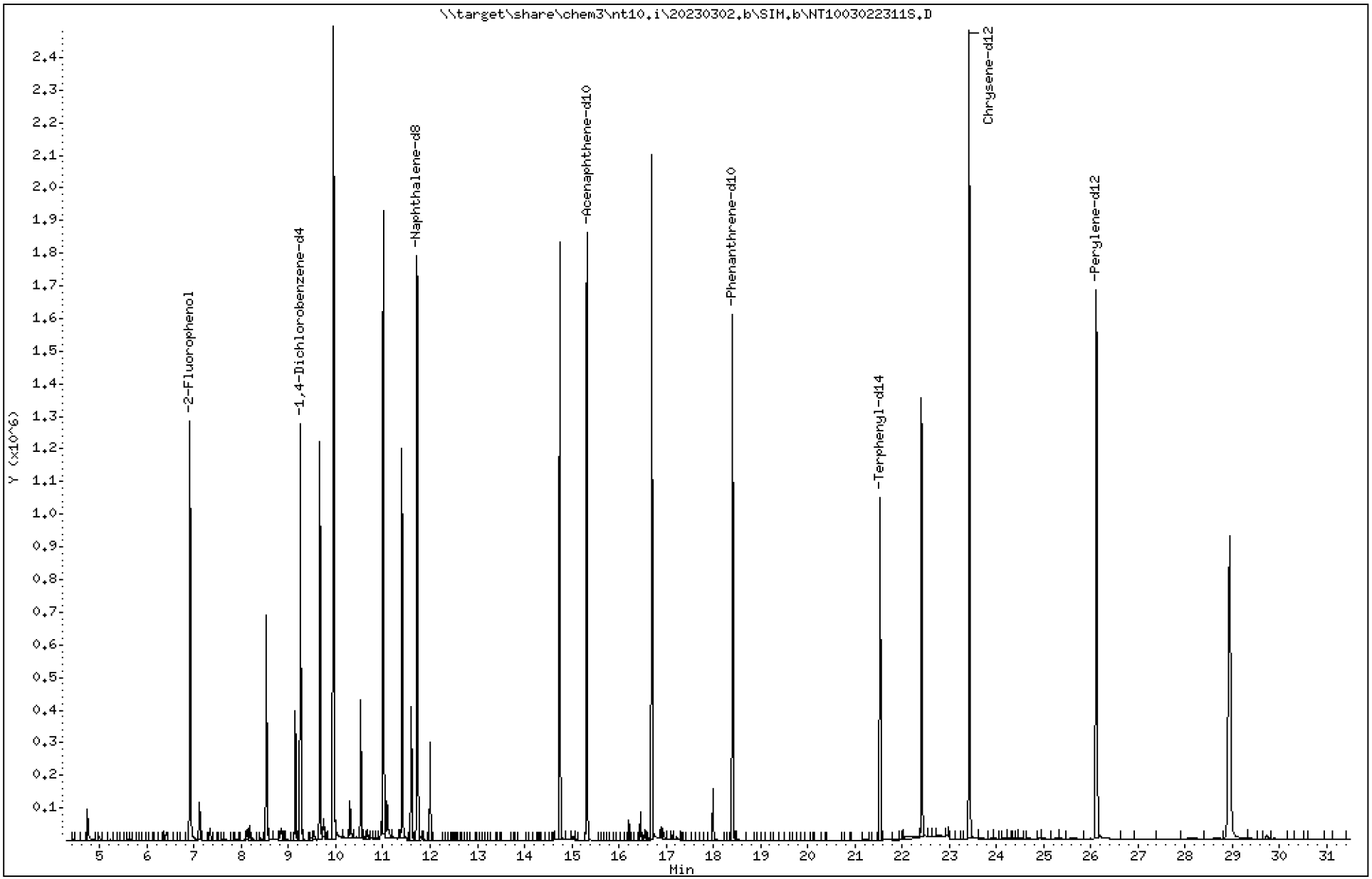
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D
Date : 02-MAR-2023 20:44
Client ID:
Sample Info: BLA0624-SRM1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: JGR
Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022311S.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

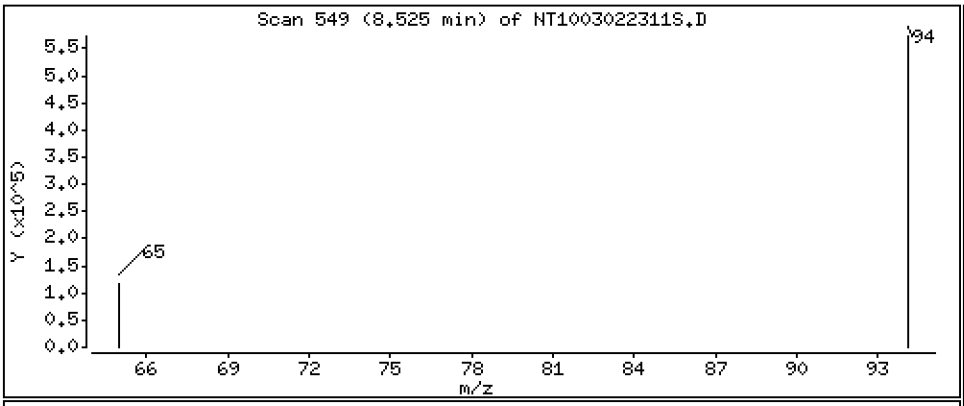
Operator: JGR

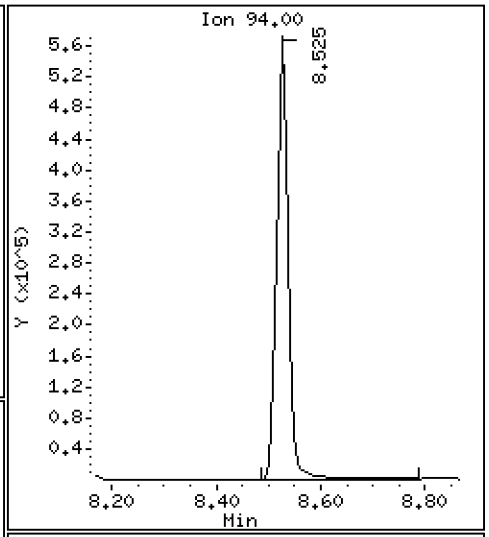
Column phase: ZB-5msi

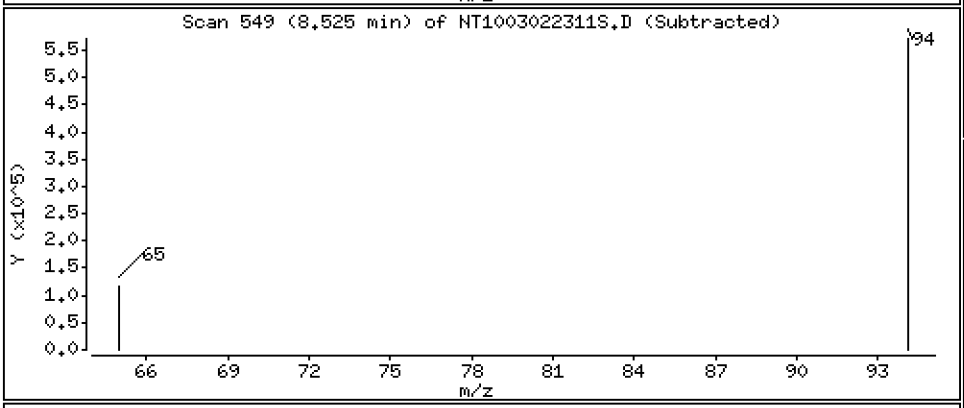
Column diameter: 0.25

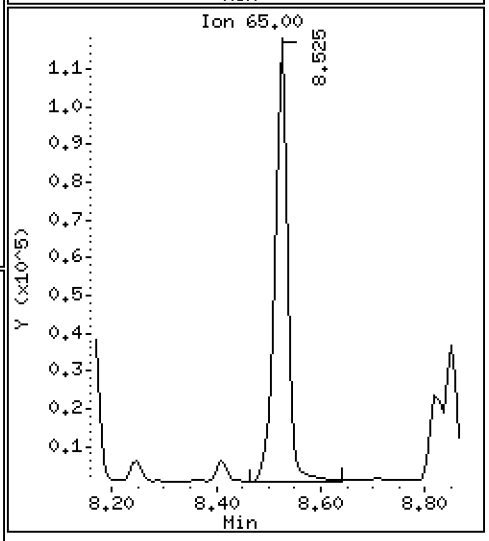
3 Phenol

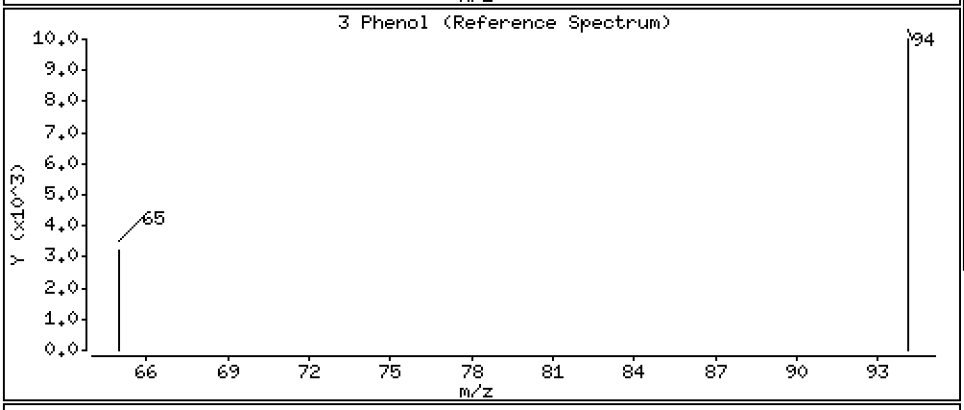
Concentration: 2.644 ug/L

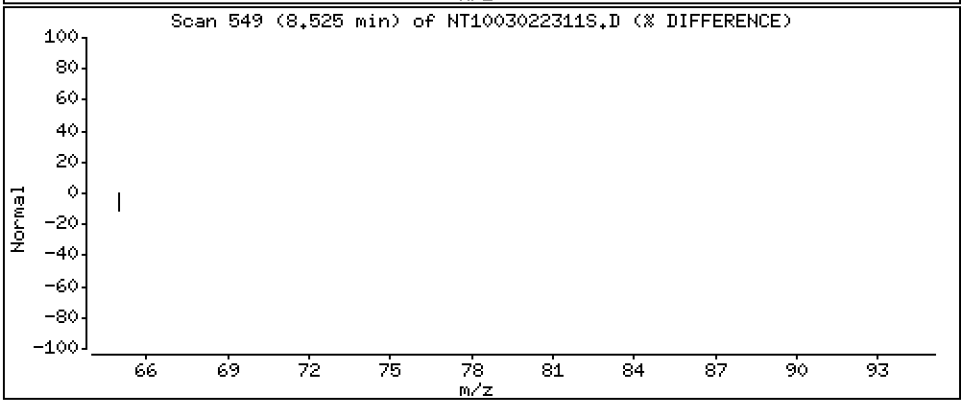












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

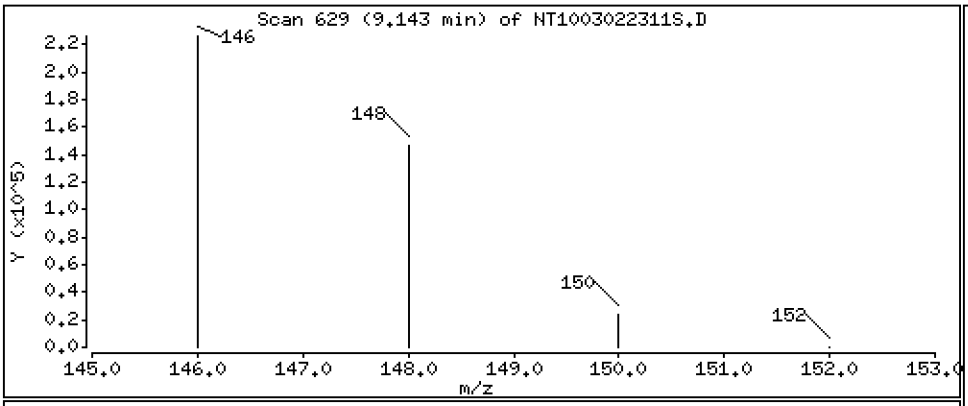
Operator: JGR

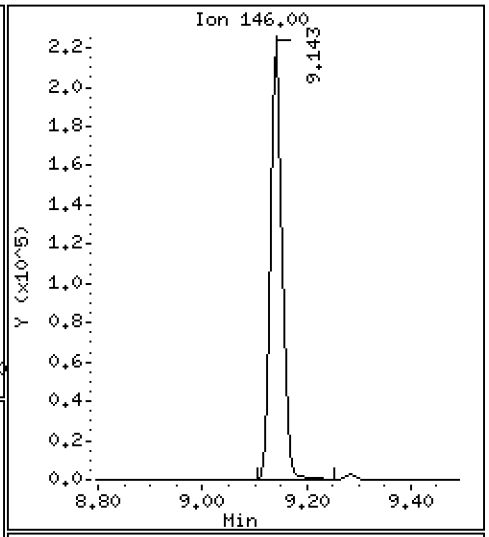
Column phase: ZB-5msi

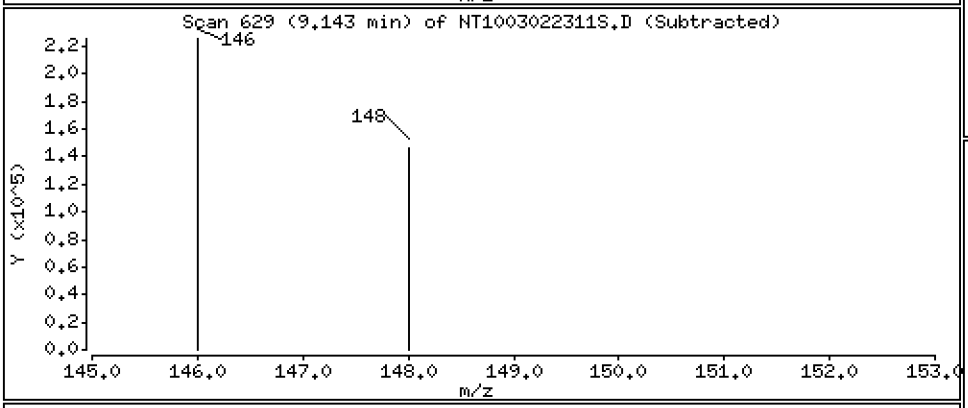
Column diameter: 0.25

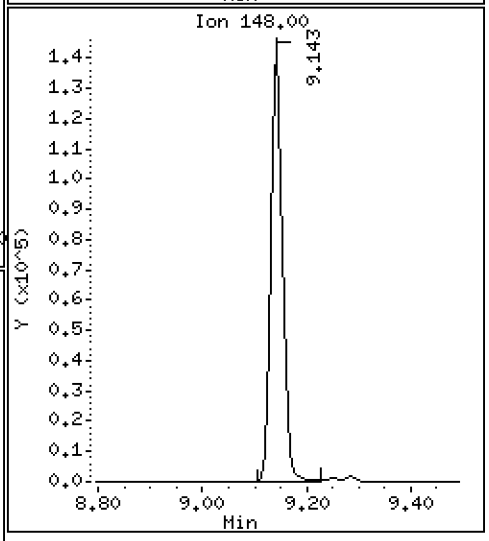
7 1,3-Dichlorobenzene

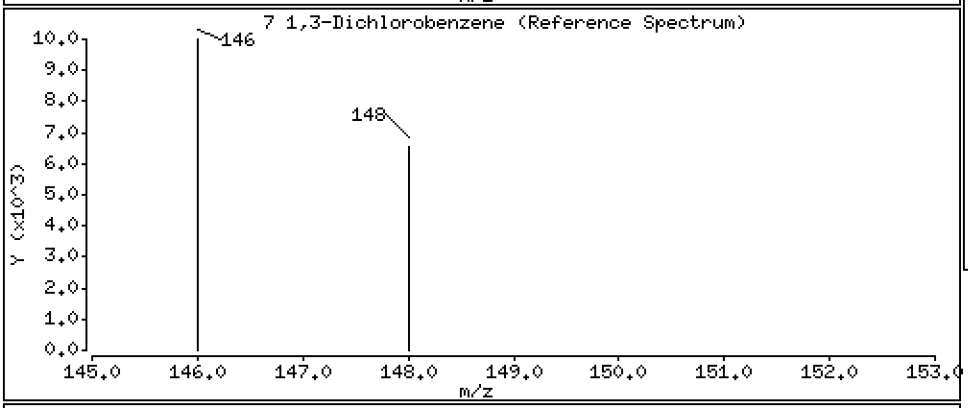
Concentration: 1.193 ug/L

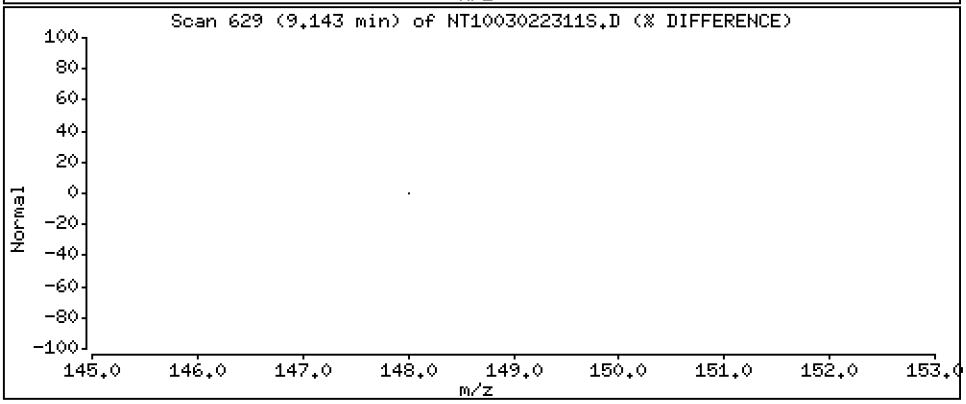












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

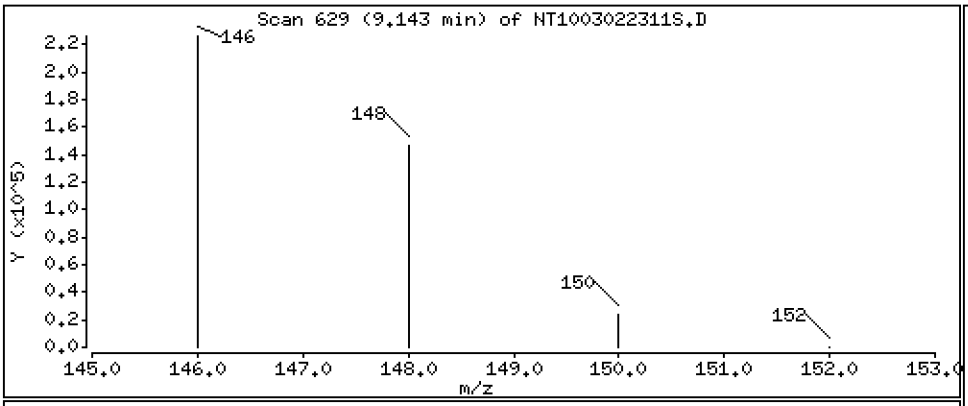
Operator: JGR

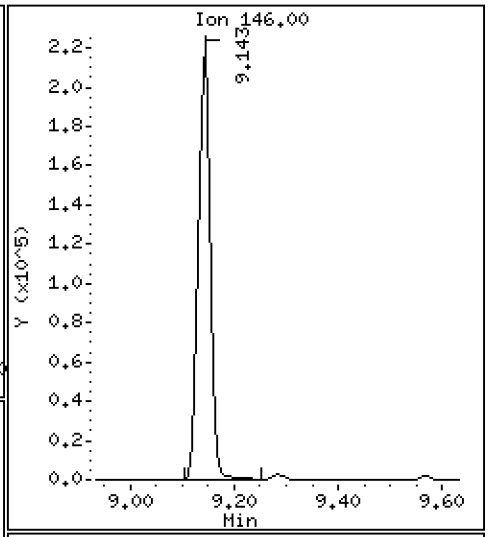
Column phase: ZB-5msi

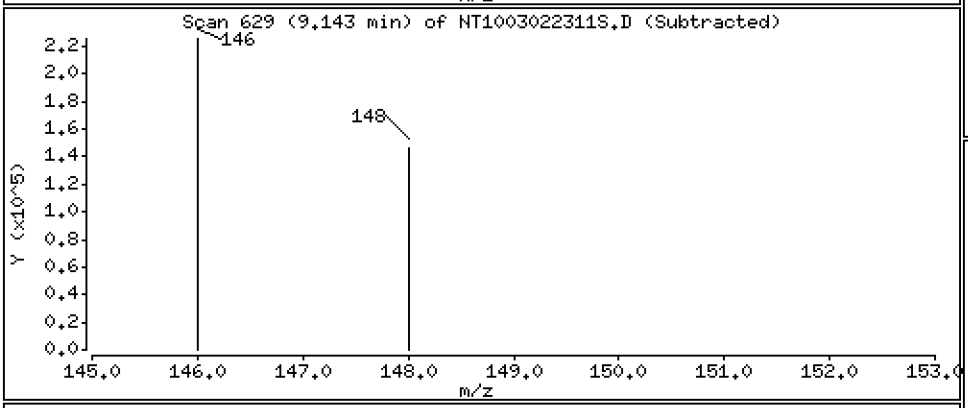
Column diameter: 0.25

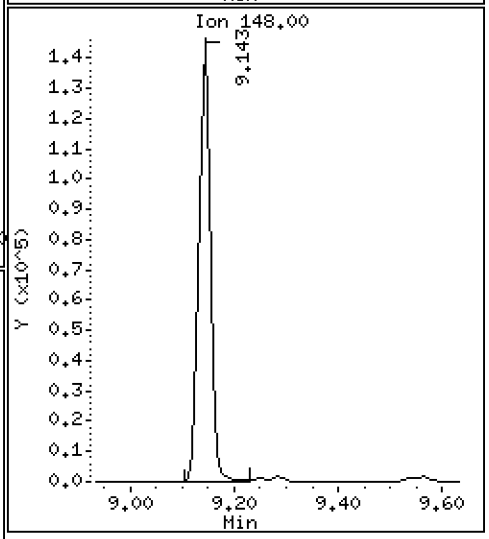
9 1,4-Dichlorobenzene

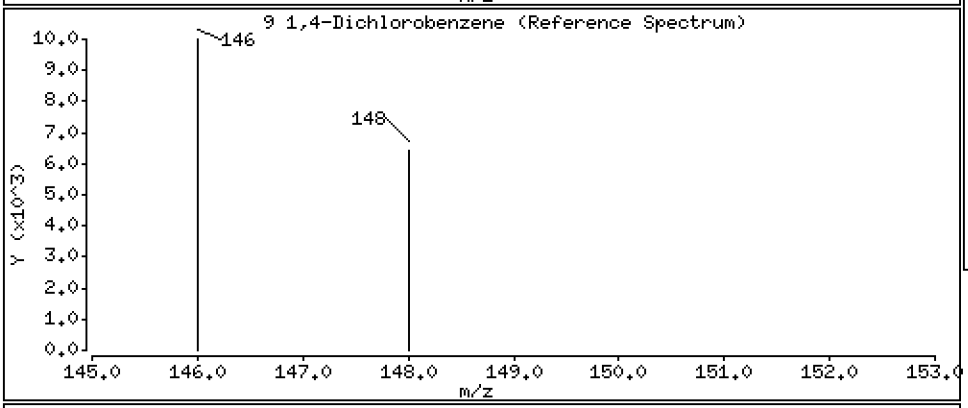
Concentration: 1.227 ug/L

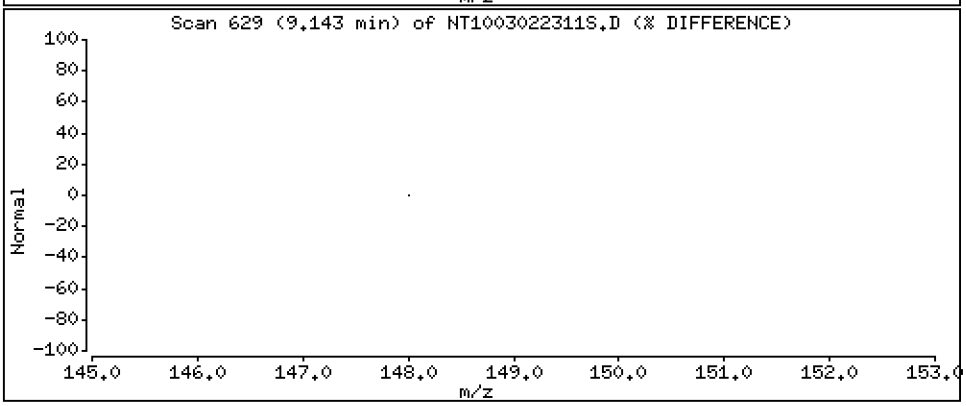












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

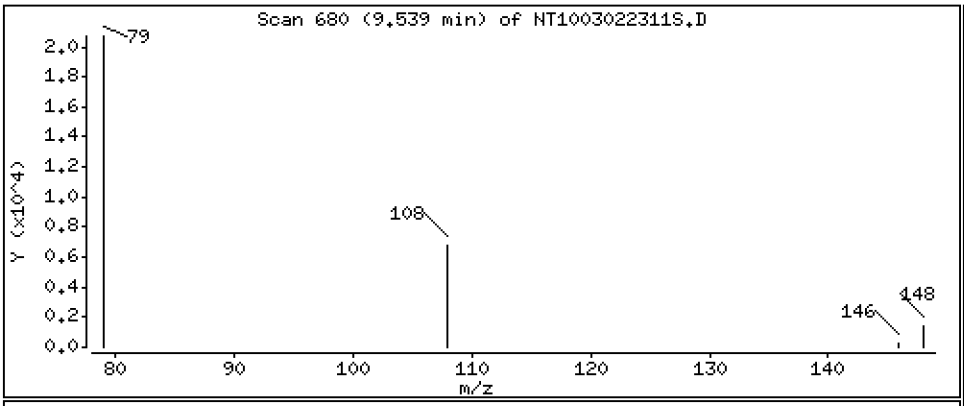
Operator: JGR

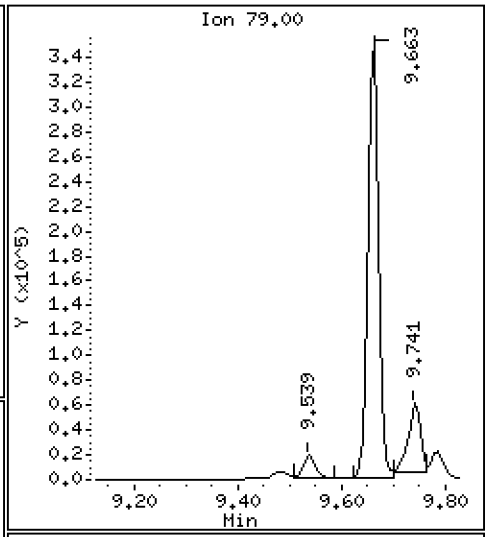
Column phase: ZB-5msi

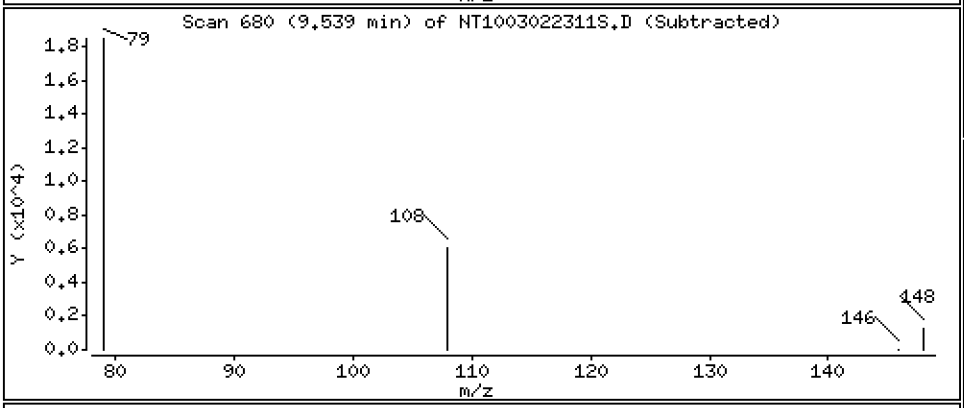
Column diameter: 0.25

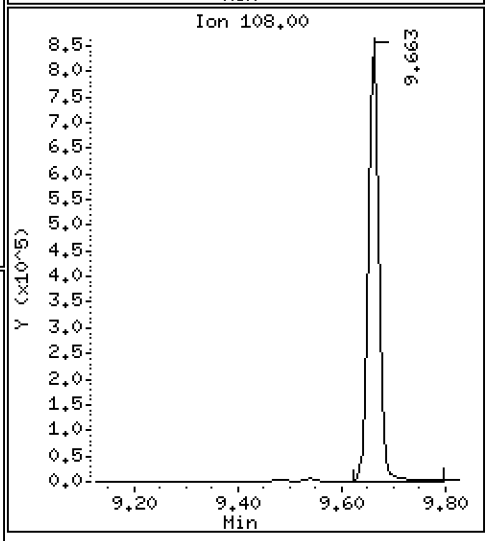
11 Benzyl alcohol

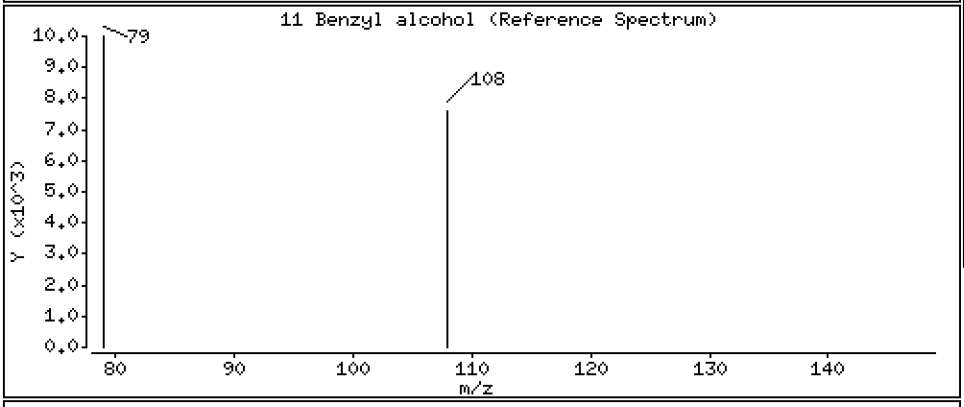
Concentration: 0.1750 ug/L

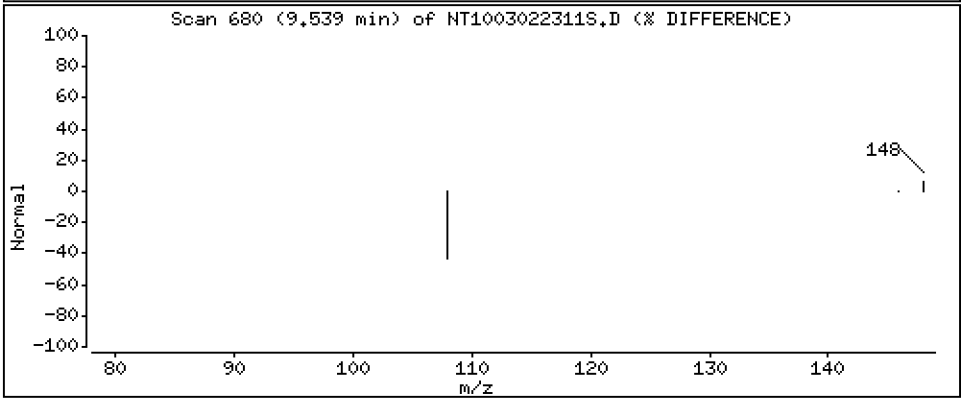












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

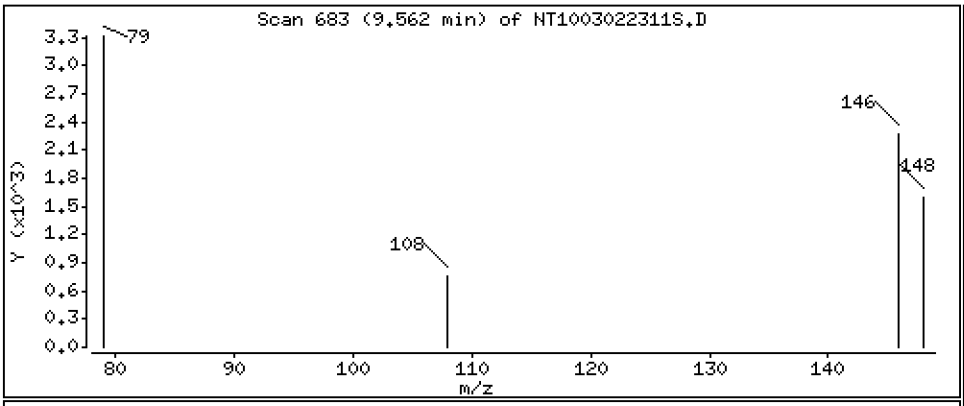
Operator: JGR

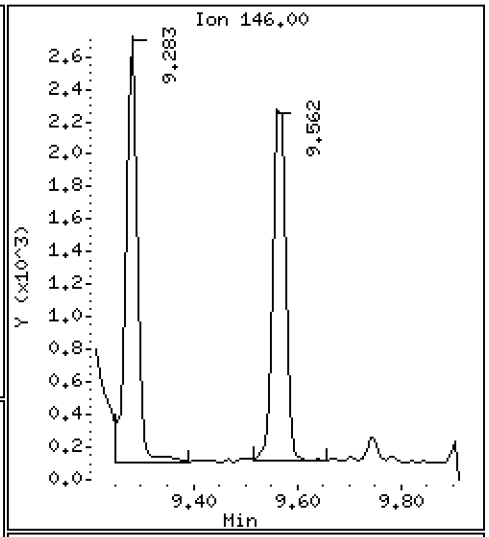
Column phase: ZB-5msi

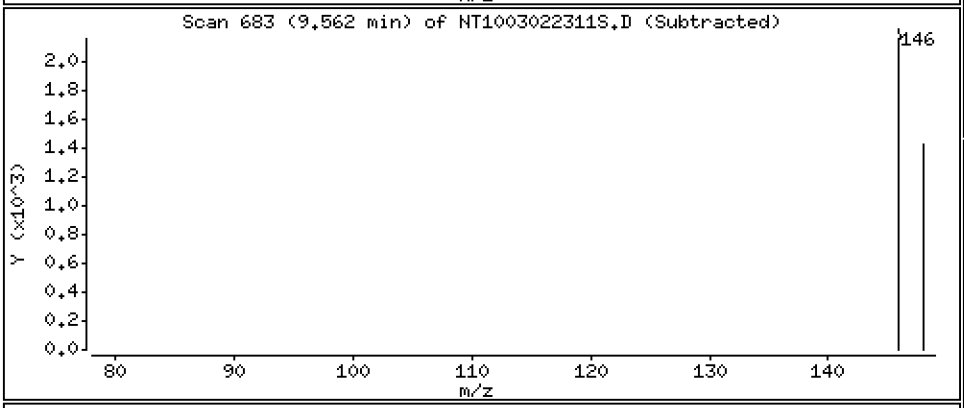
Column diameter: 0.25

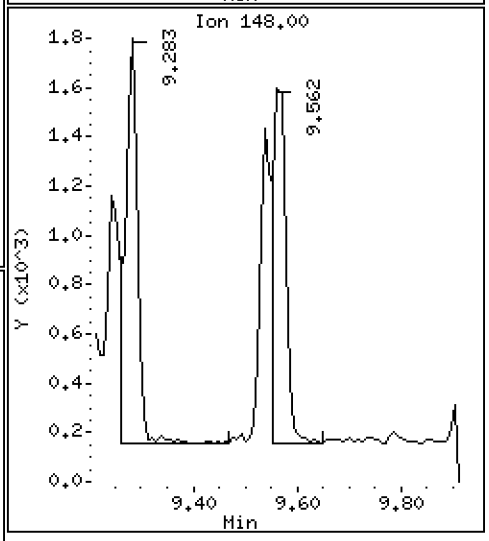
12 1,2-Dichlorobenzene

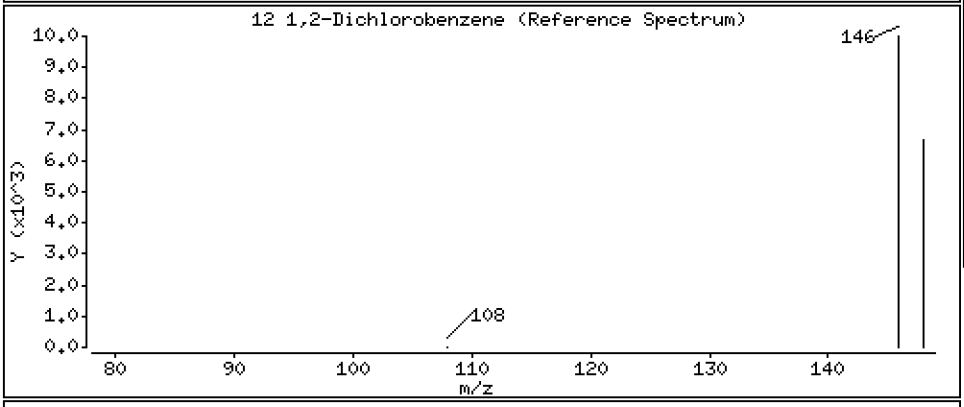
Concentration: 0.01329 ug/L

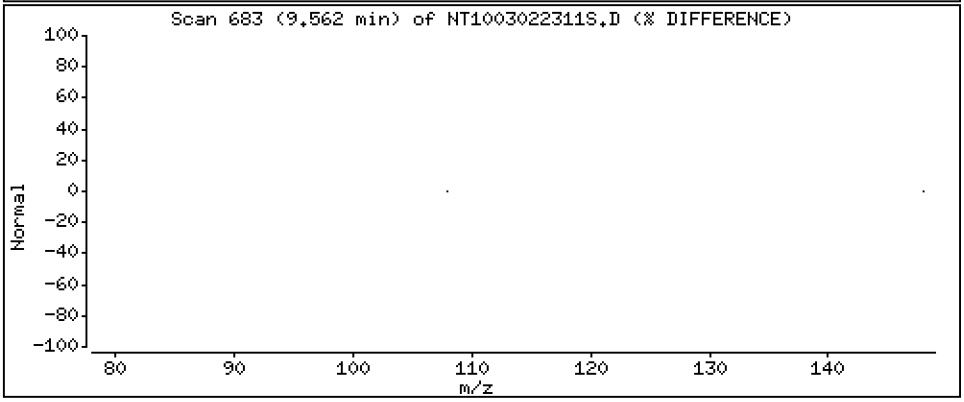












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

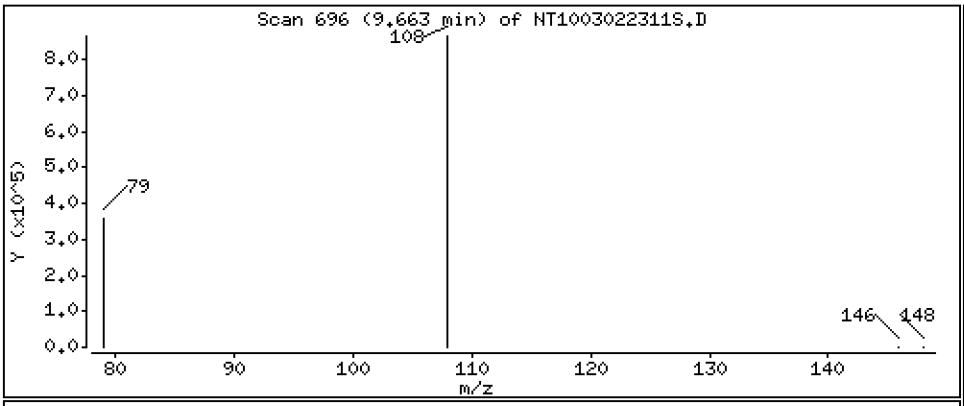
Operator: JGR

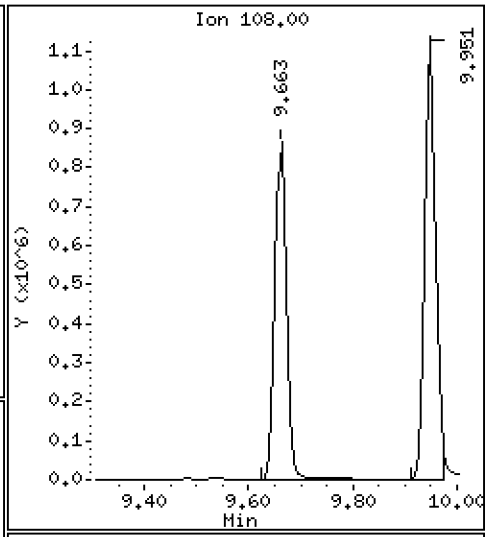
Column phase: ZB-5msi

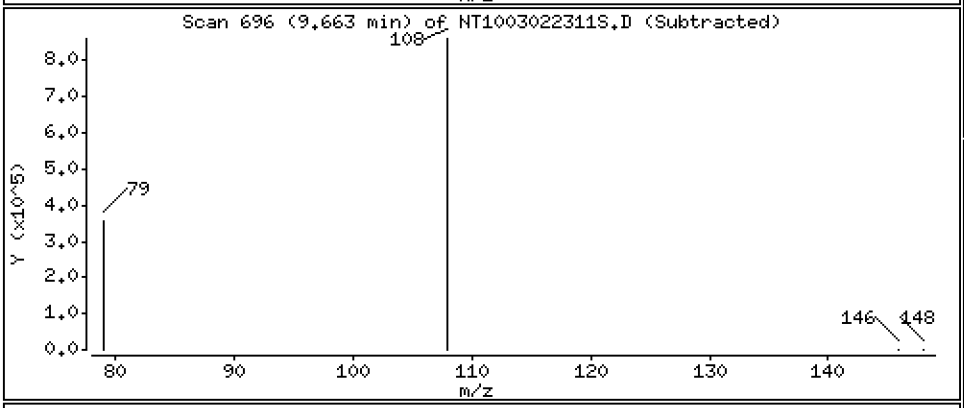
Column diameter: 0.25

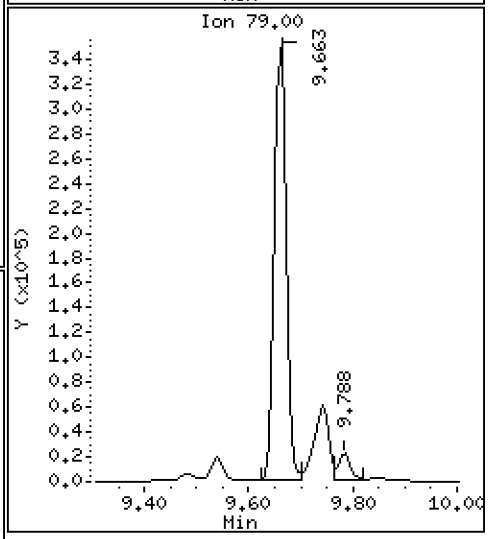
13 2-Methylphenol

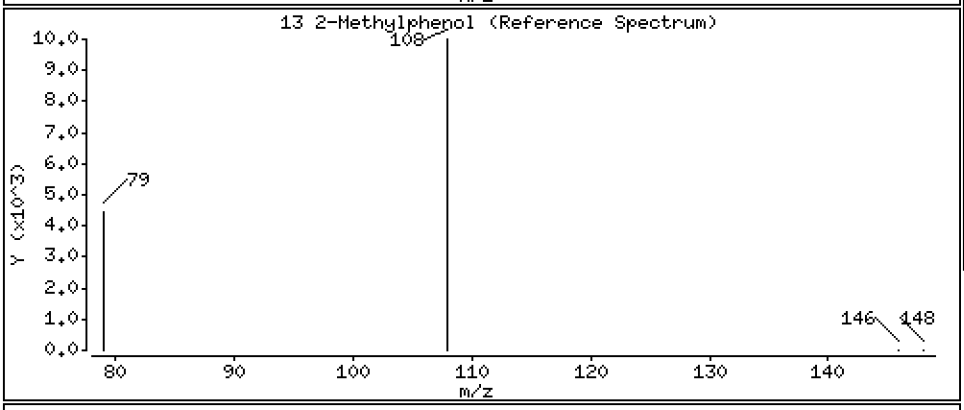
Concentration: 6.239 ug/L

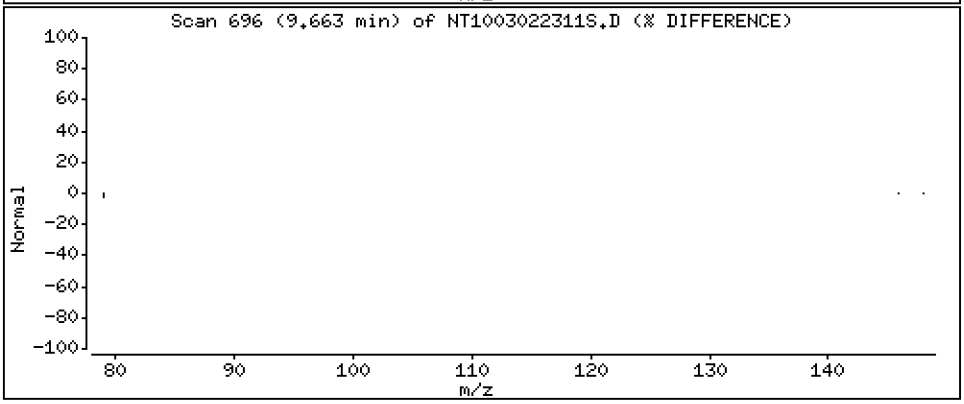












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

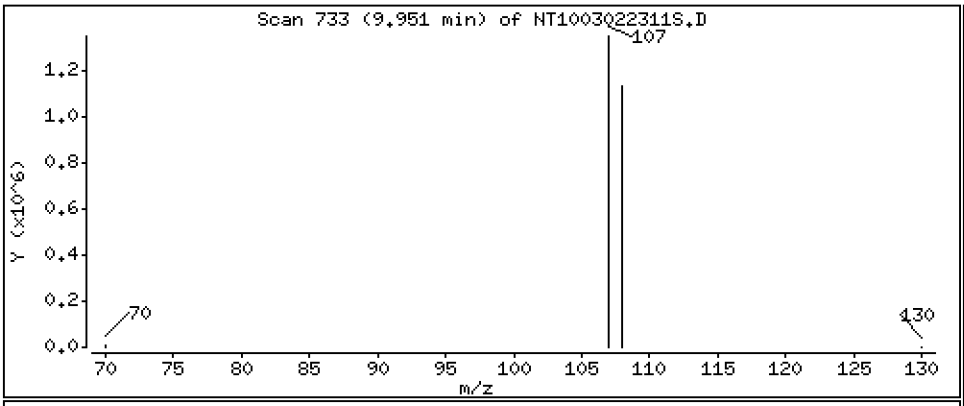
Operator: JGR

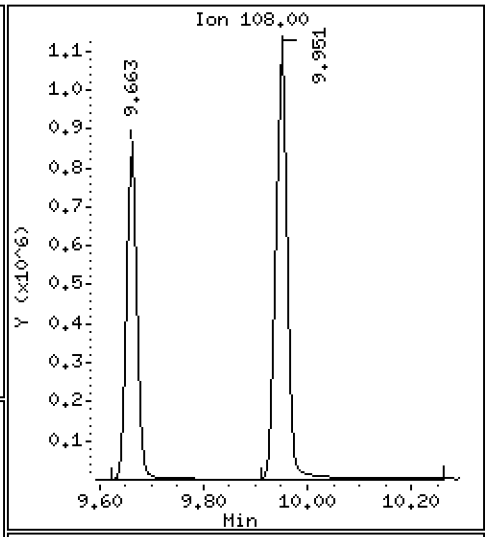
Column phase: ZB-5msi

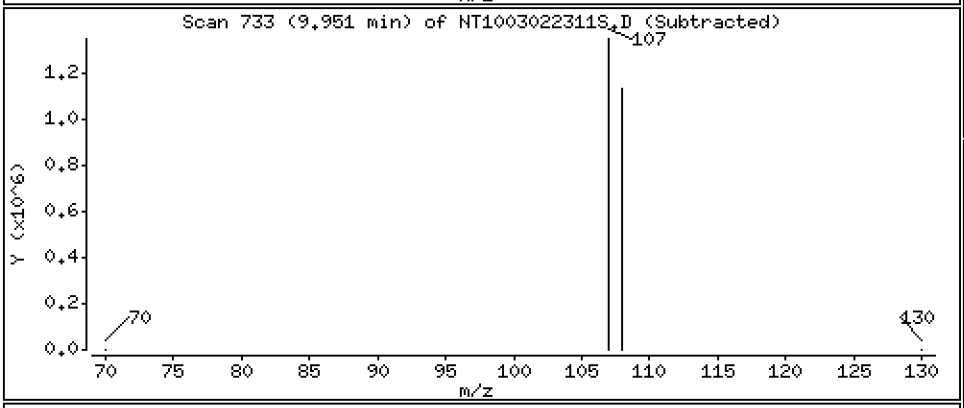
Column diameter: 0.25

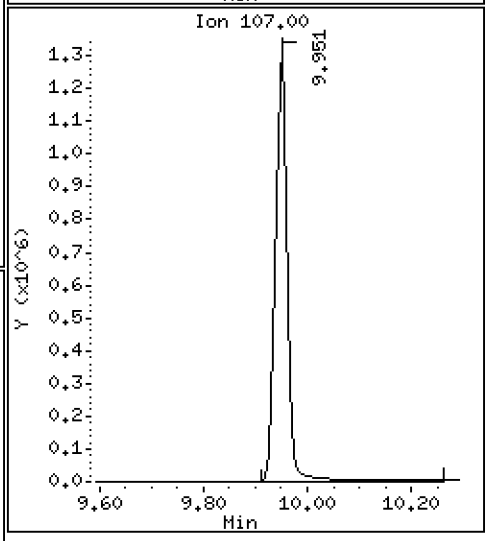
15 4-Methylphenol

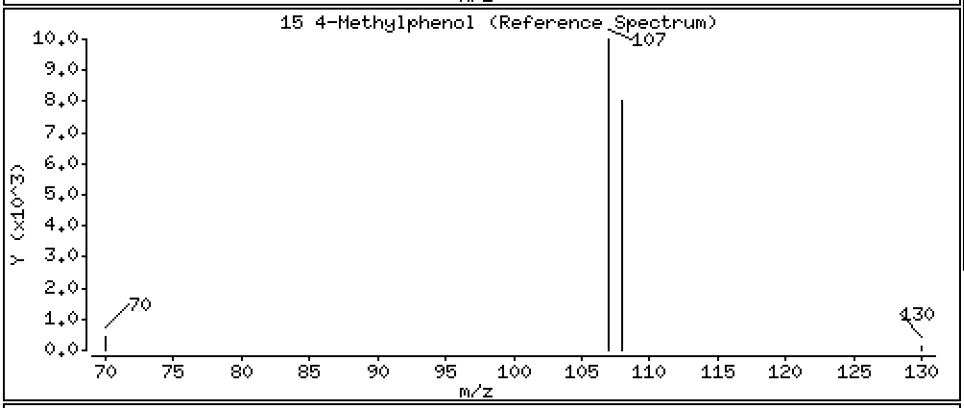
Concentration: 7.586 ug/L

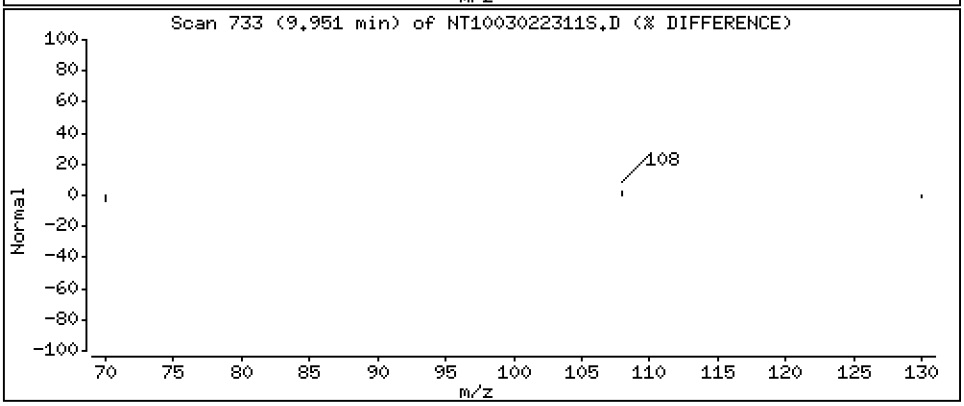












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Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

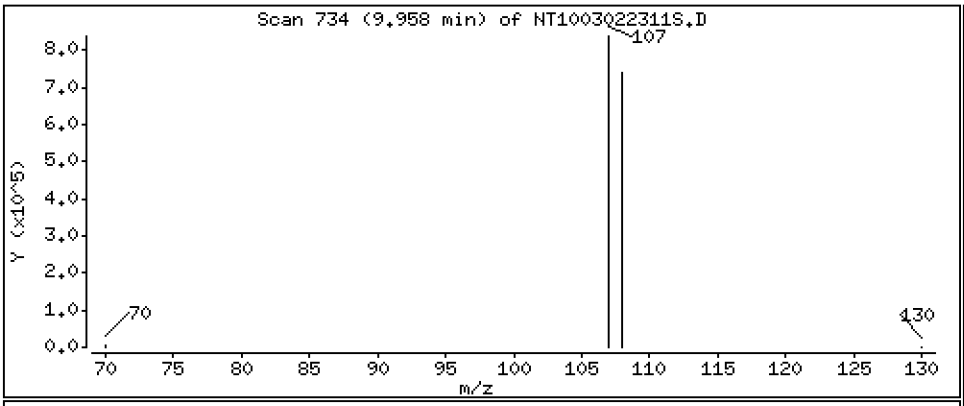
Operator: JGR

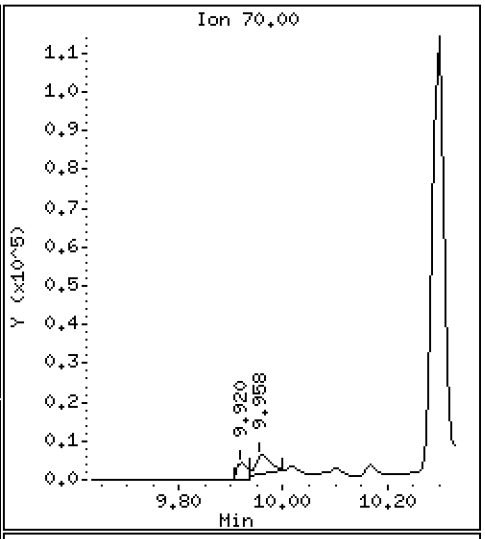
Column phase: ZB-5msi

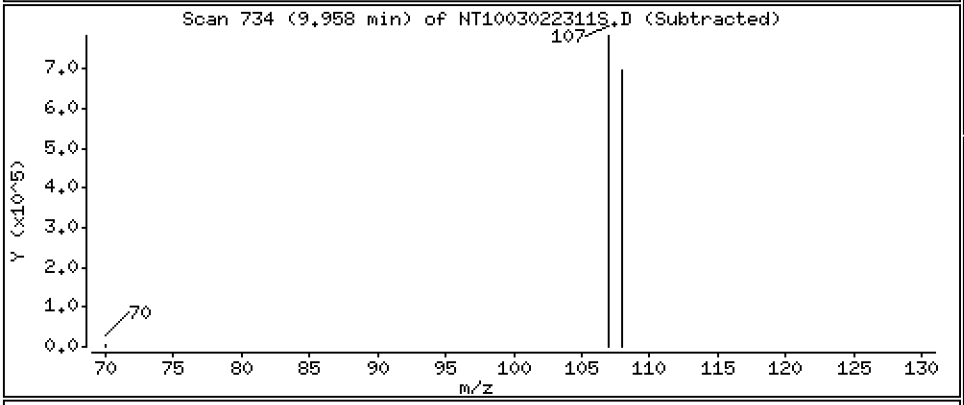
Column diameter: 0.25

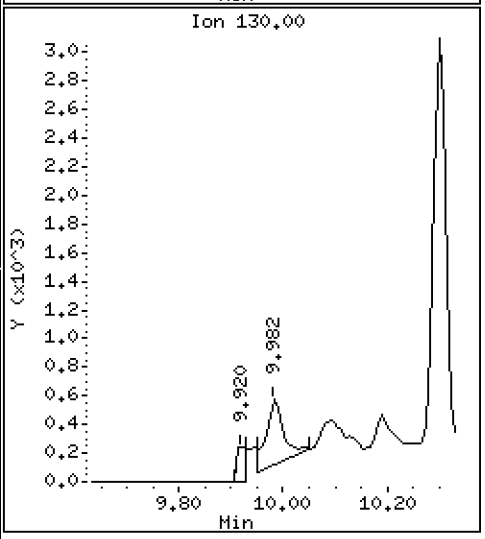
16 N-Nitroso-di-n-propylamine

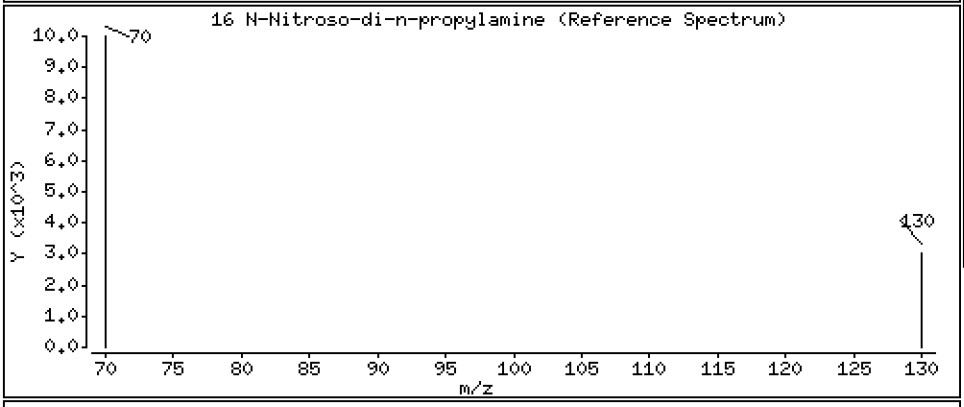
Concentration: 0.07196 ug/L

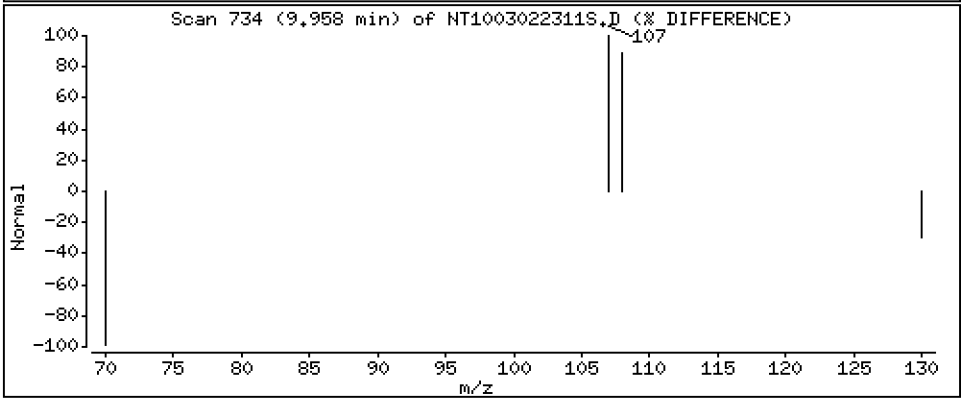












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

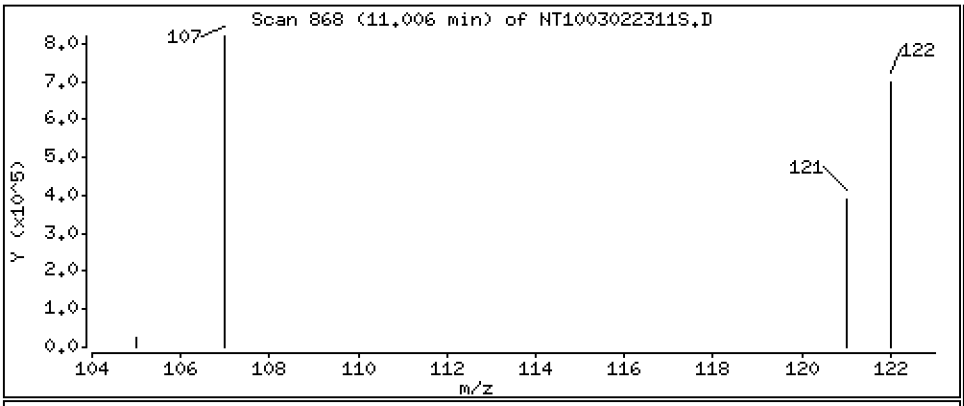
Operator: JGR

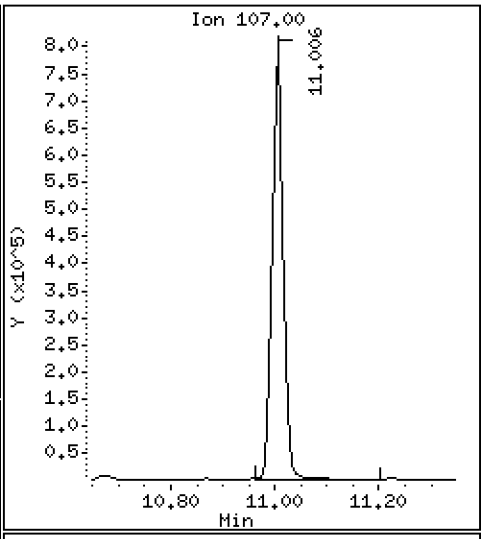
Column phase: ZB-5msi

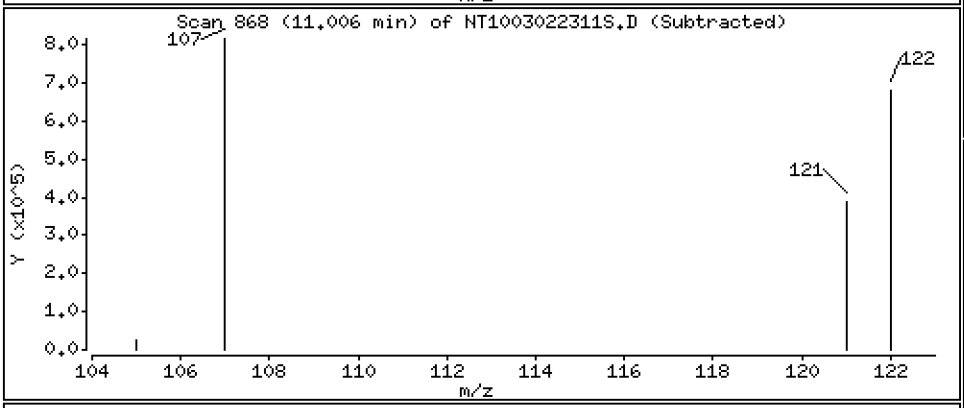
Column diameter: 0.25

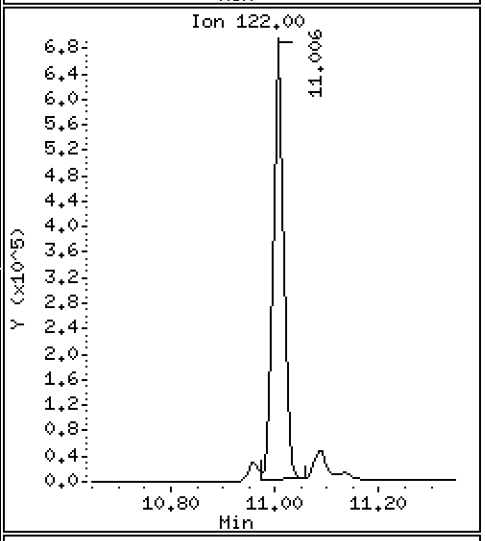
22 2,4-Dimethylphenol

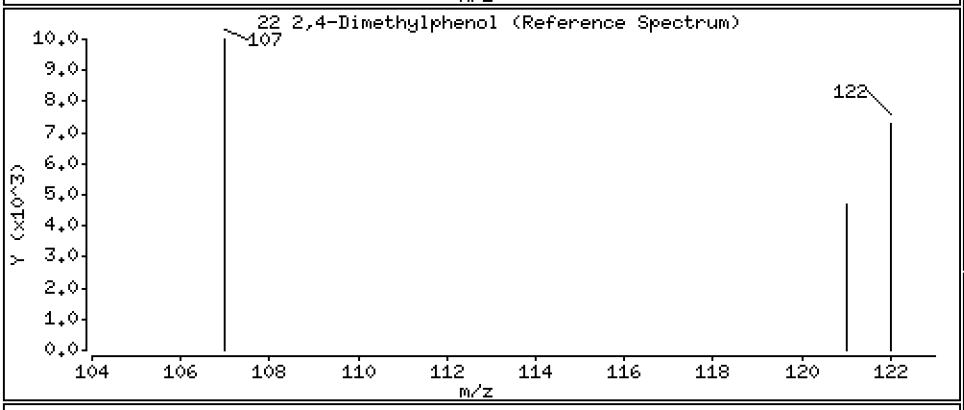
Concentration: 4.847 ug/L

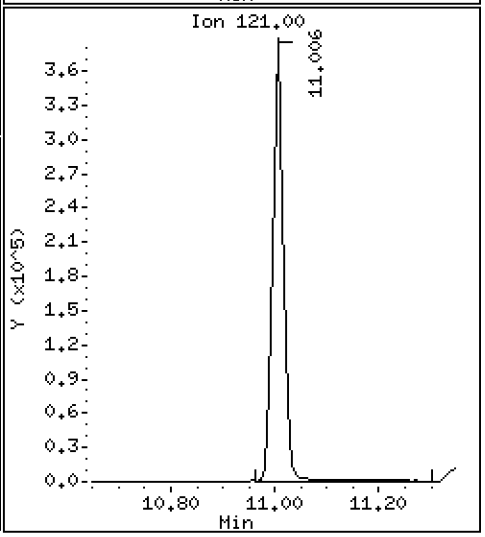


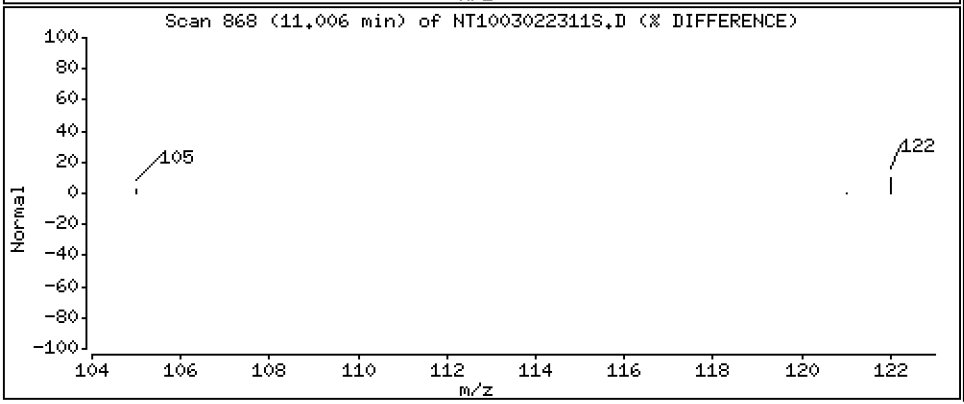












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

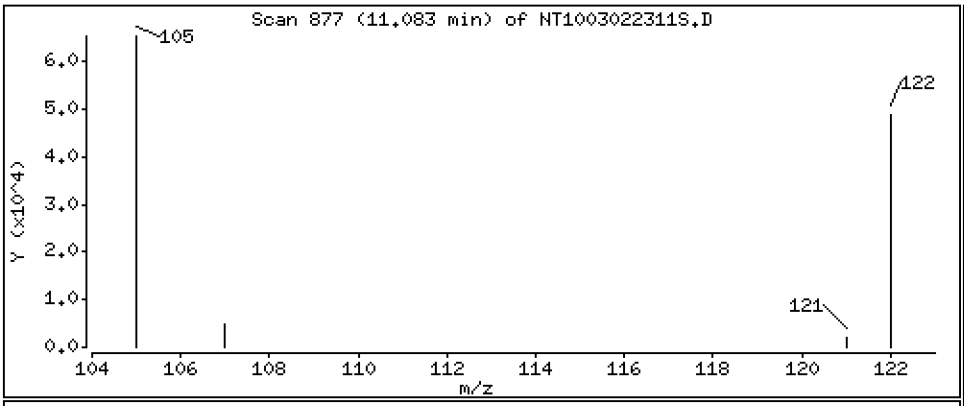
Operator: JGR

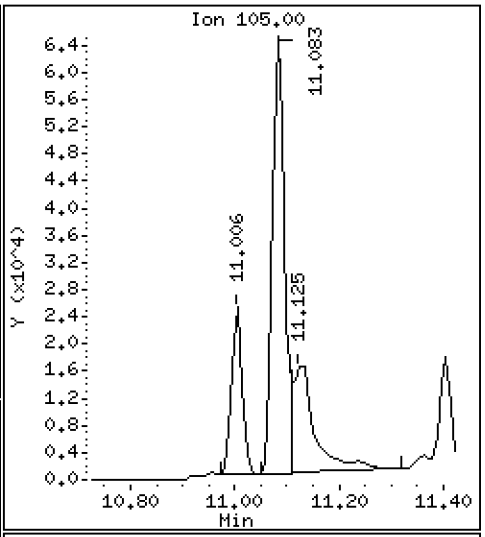
Column phase: ZB-5msi

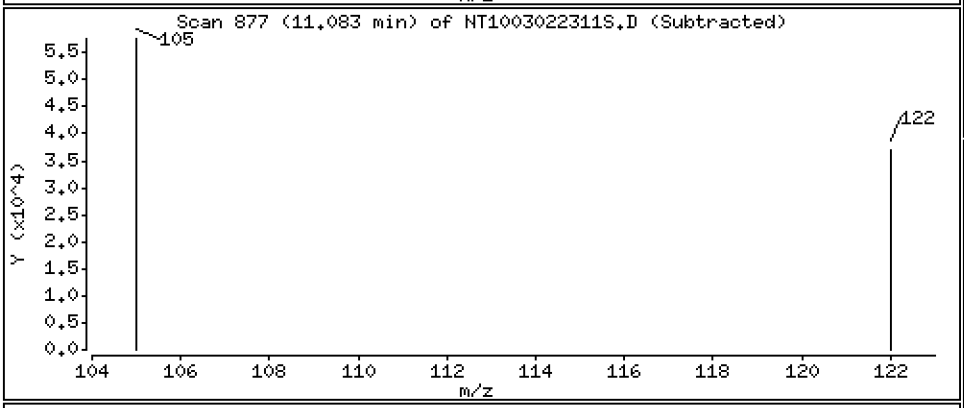
Column diameter: 0.25

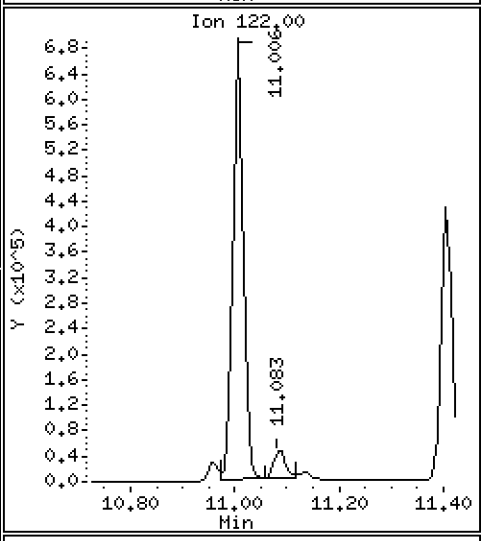
24 Benzoic acid

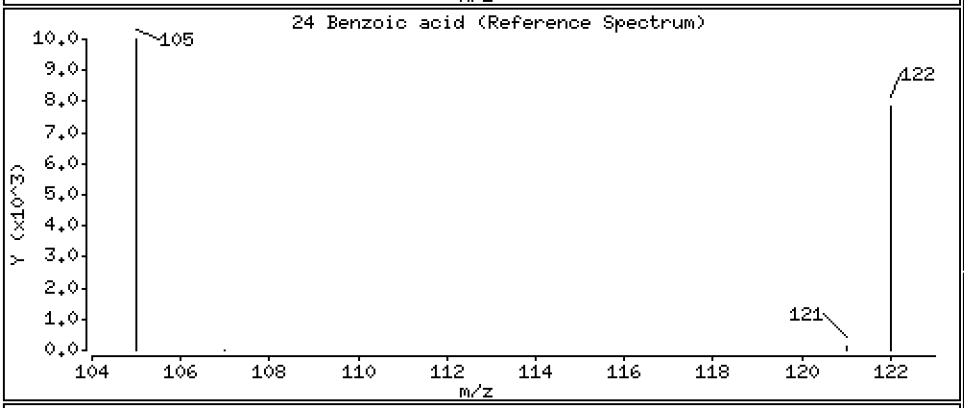
Concentration: 0.8166 ug/L

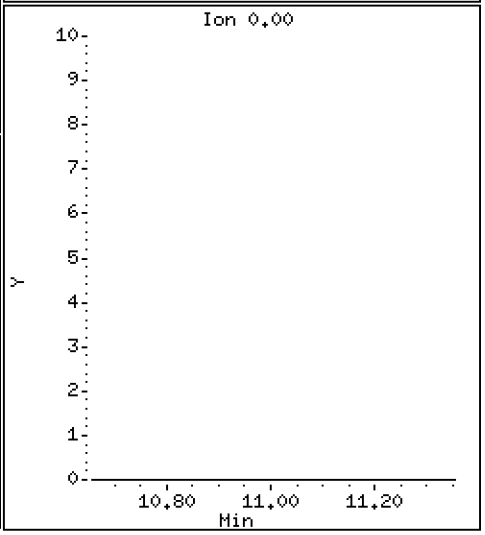


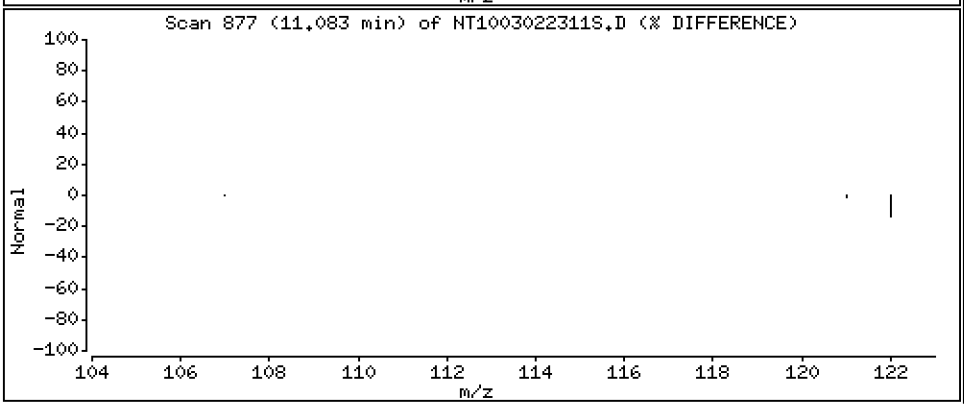












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

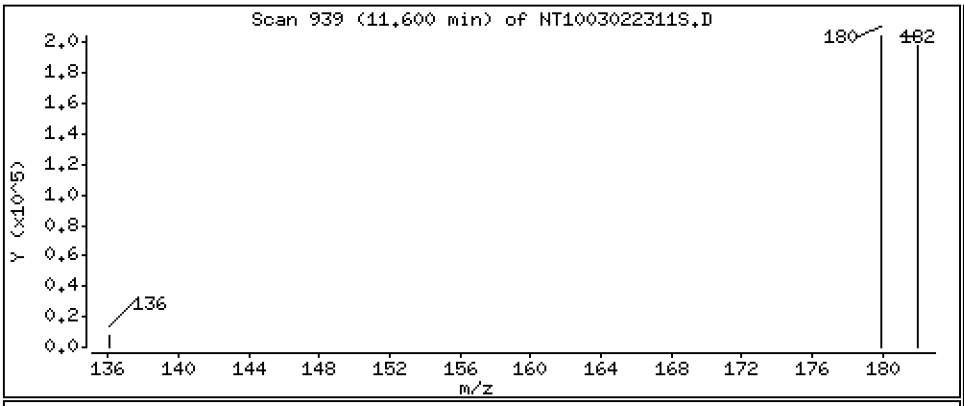
Operator: JGR

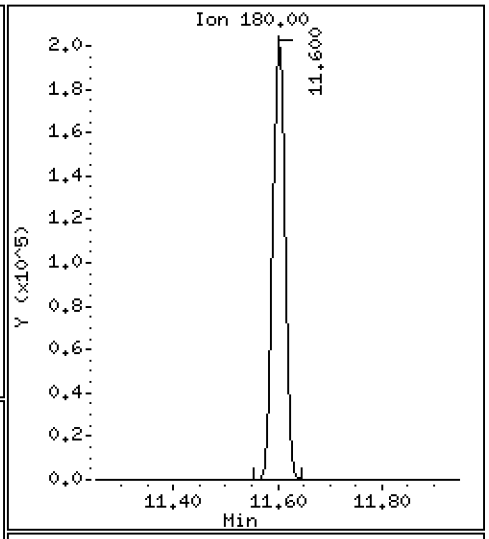
Column phase: ZB-5msi

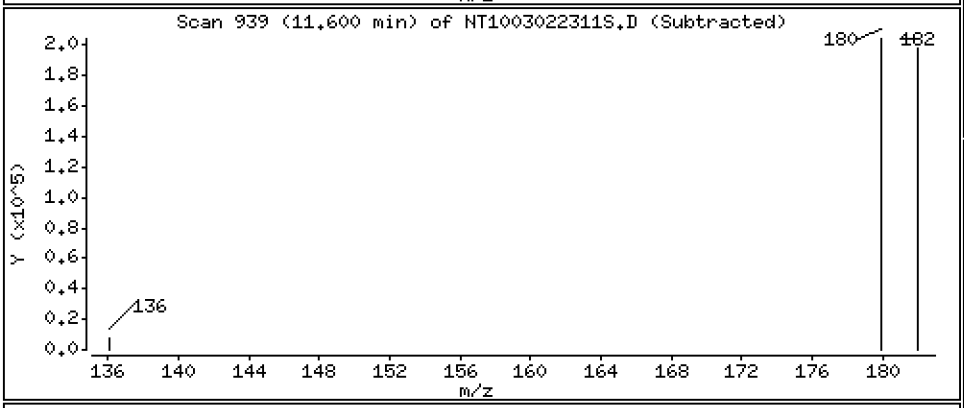
Column diameter: 0.25

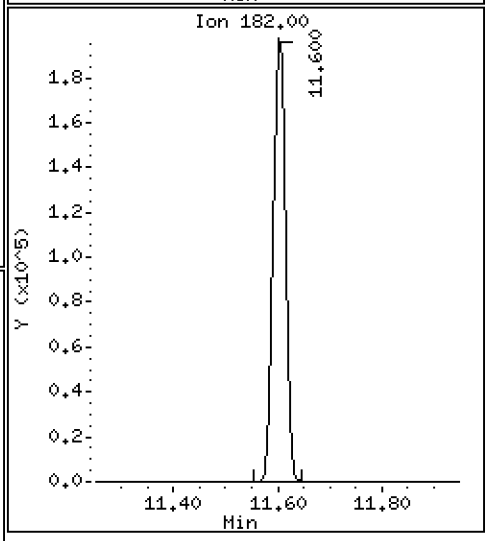
26 1,2,4-Trichlorobenzene

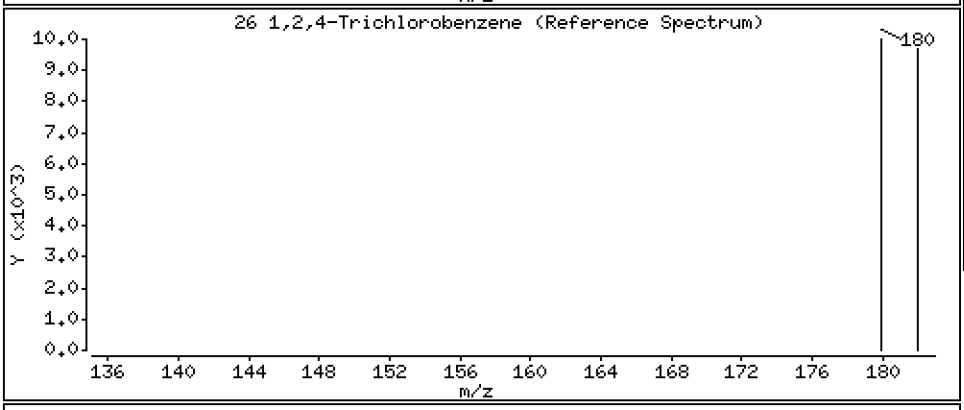
Concentration: 1.552 ug/L

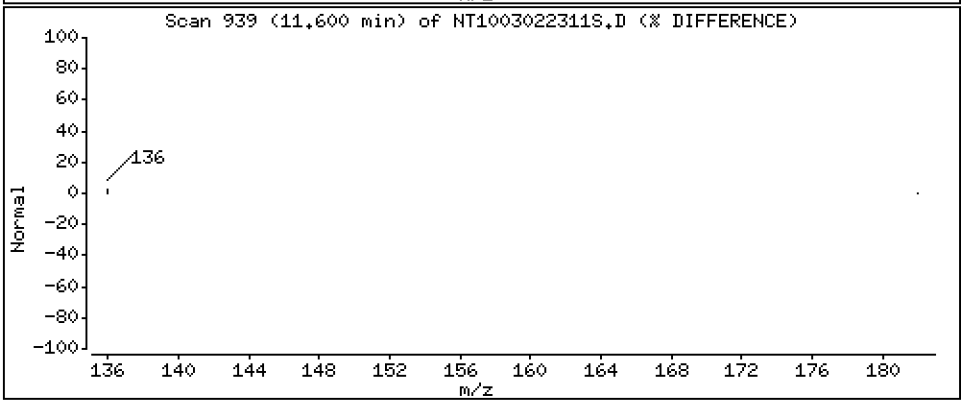












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

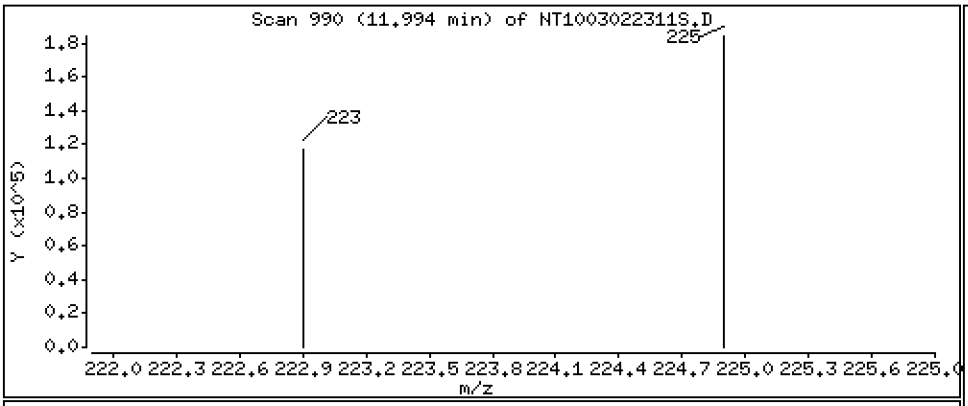
Operator: JGR

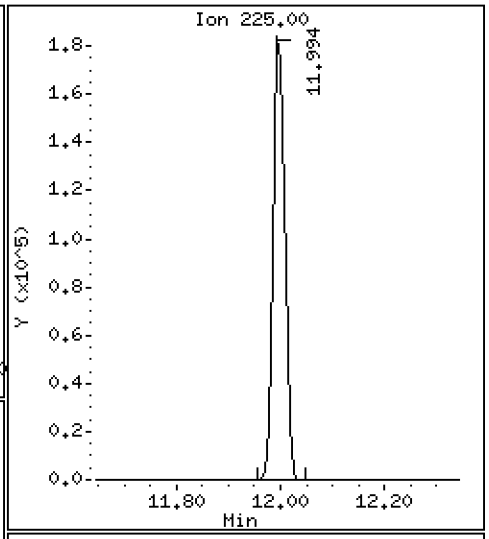
Column phase: ZB-5msi

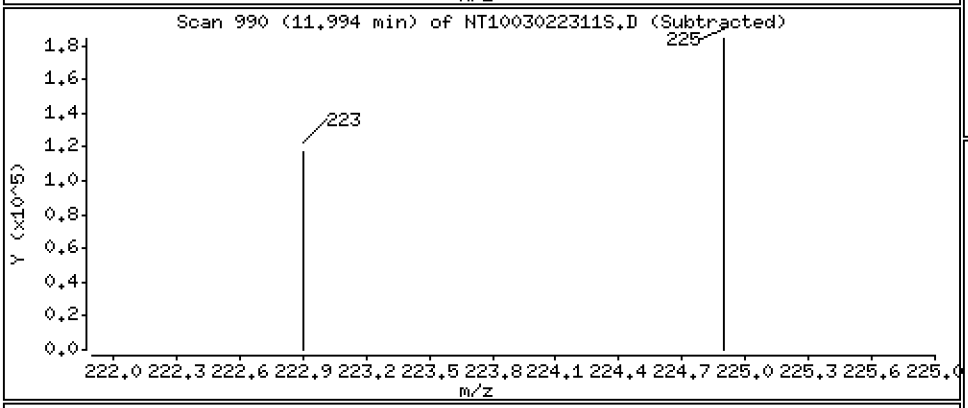
Column diameter: 0.25

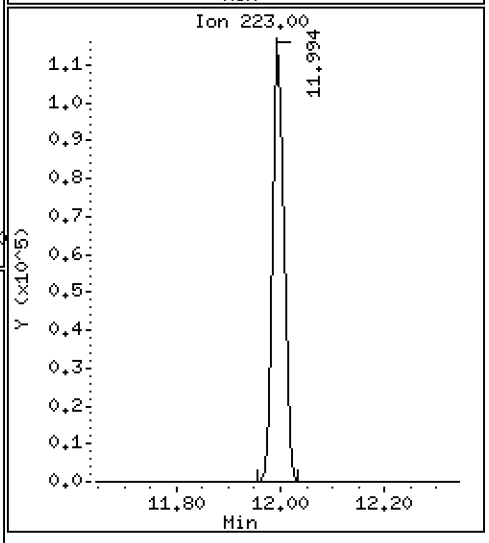
30 Hexachlorobutadiene

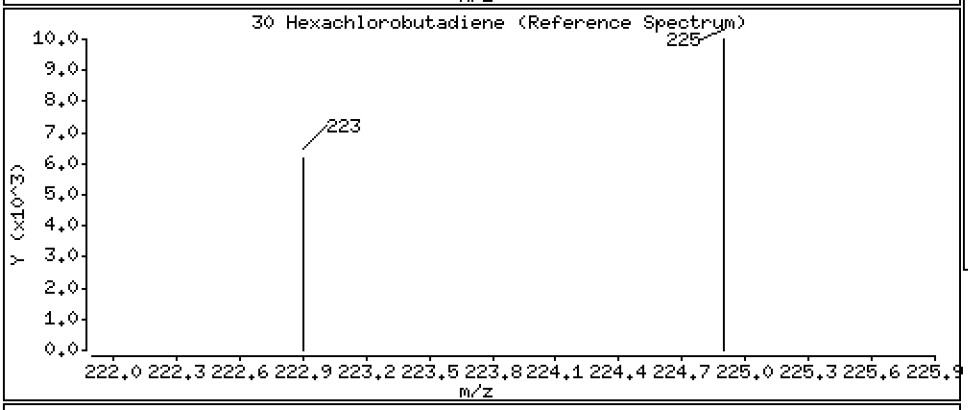
Concentration: 1.926 ug/L

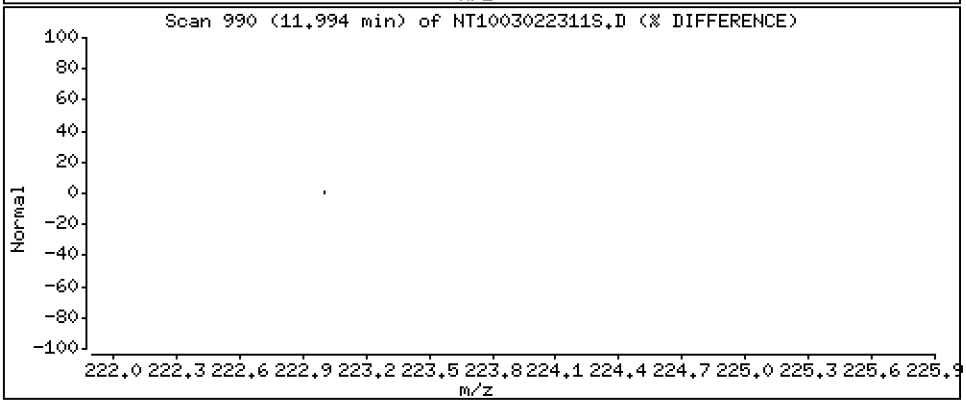












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

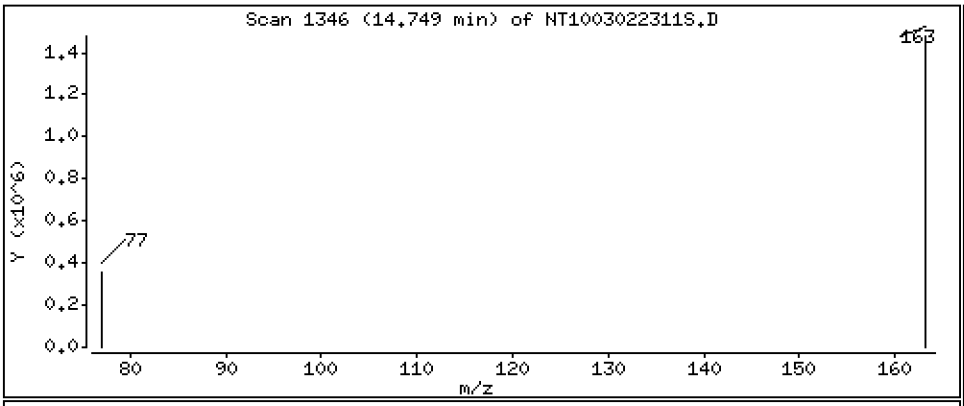
Operator: JGR

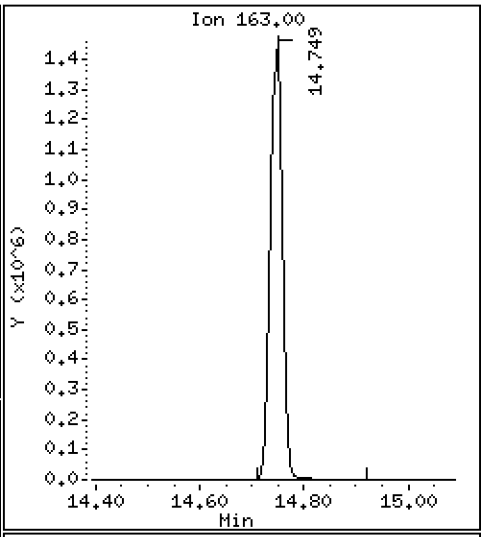
Column phase: ZB-5msi

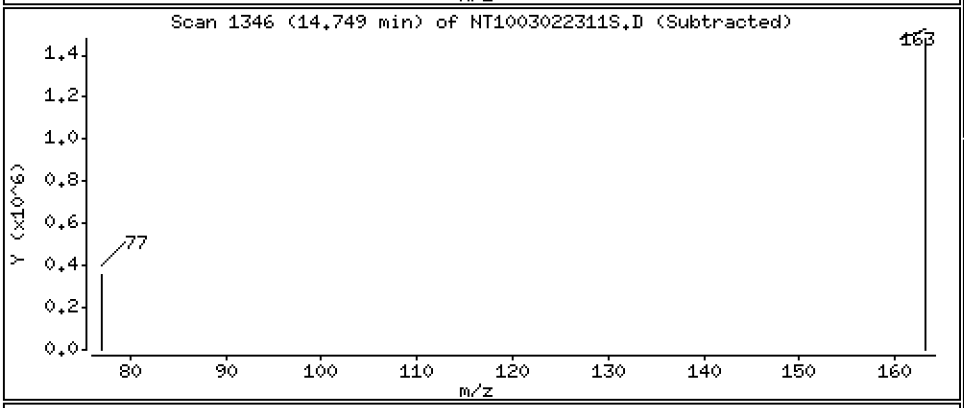
Column diameter: 0.25

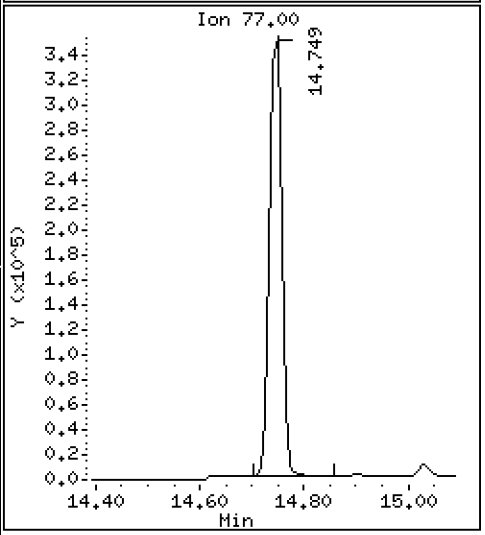
39 Dimethylphthalate

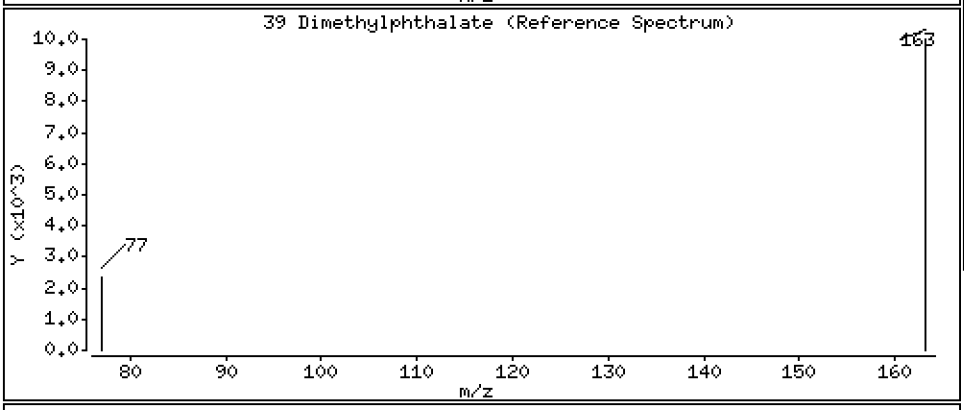
Concentration: 4.992 ug/L

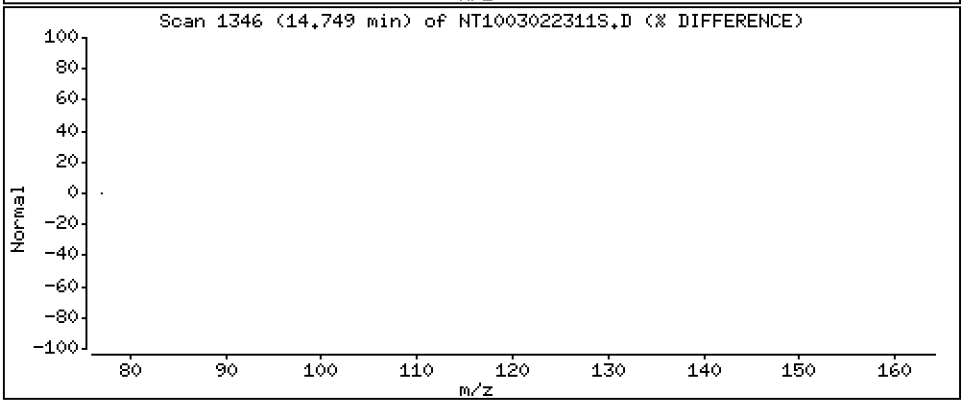












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Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

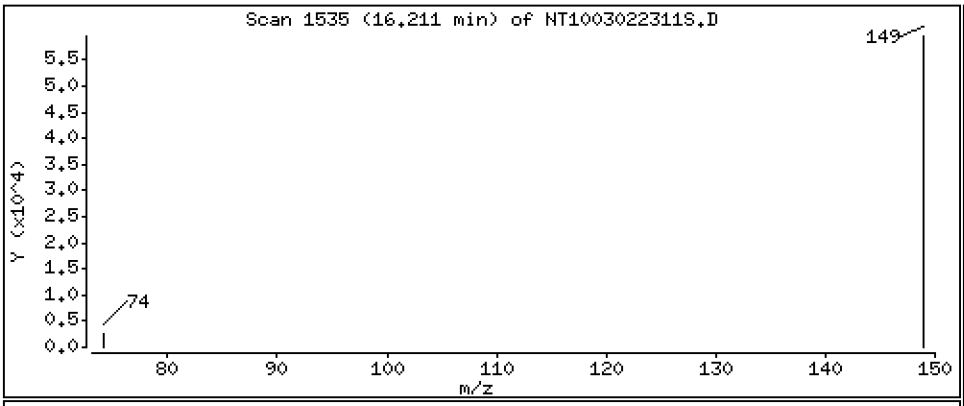
Operator: JGR

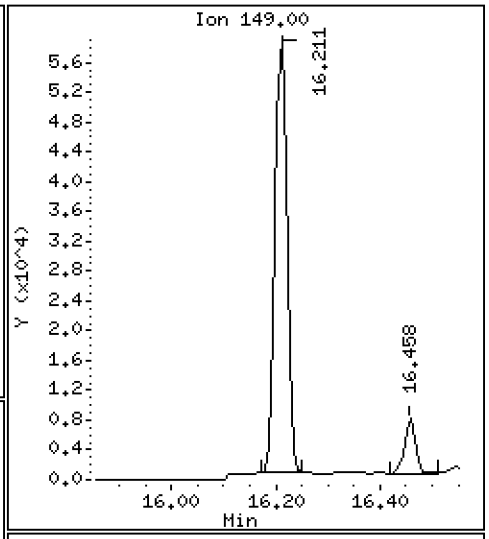
Column phase: ZB-5msi

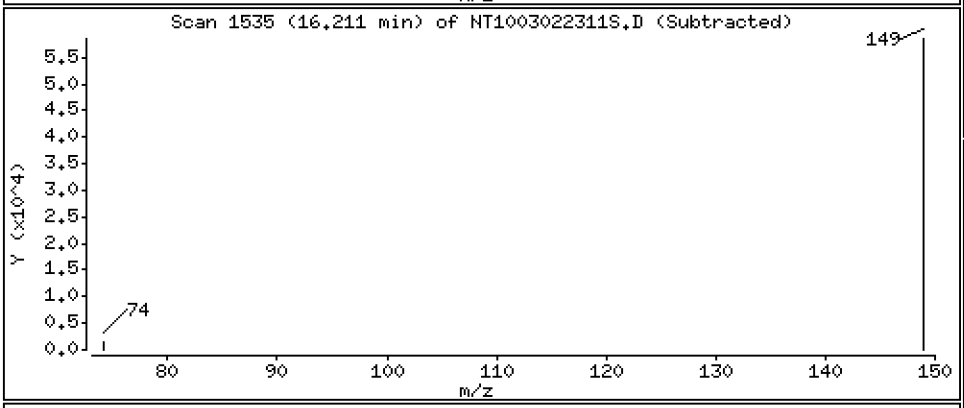
Column diameter: 0.25

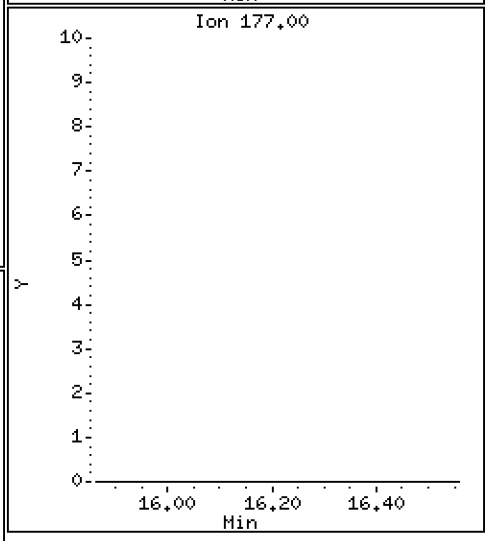
50 Diethylphthalate

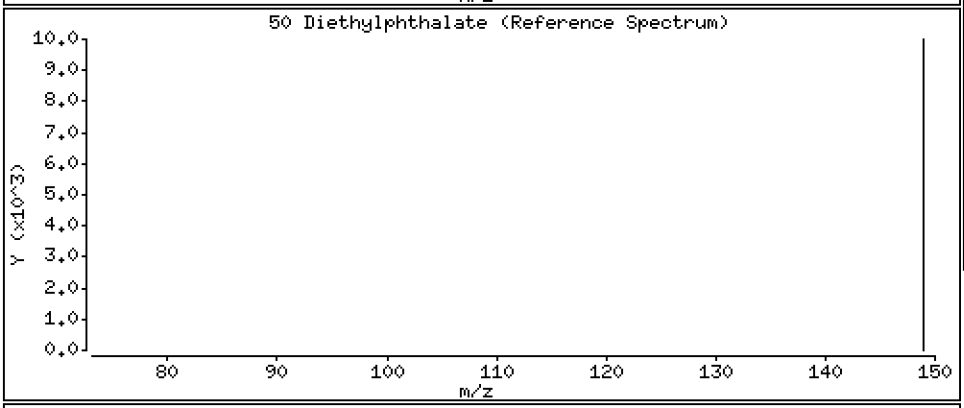
Concentration: 0.2121 ug/L

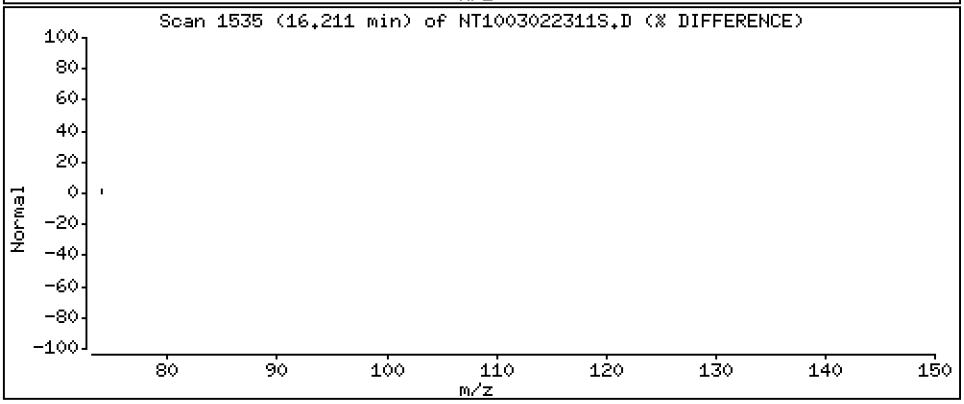












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Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

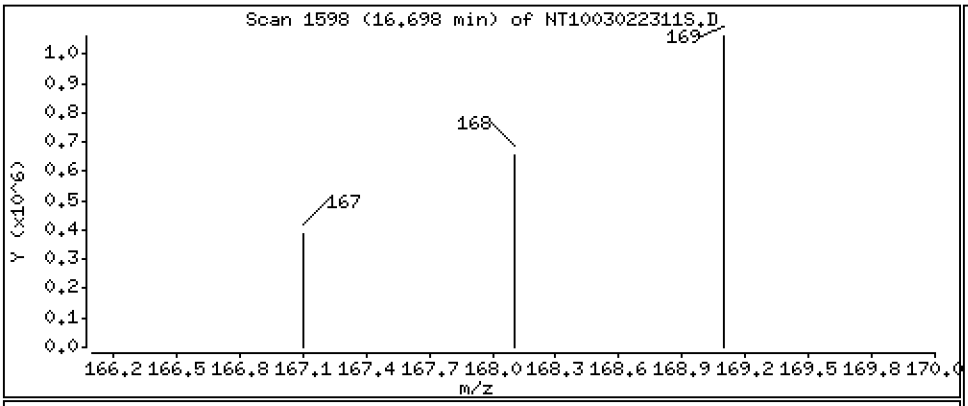
Operator: JGR

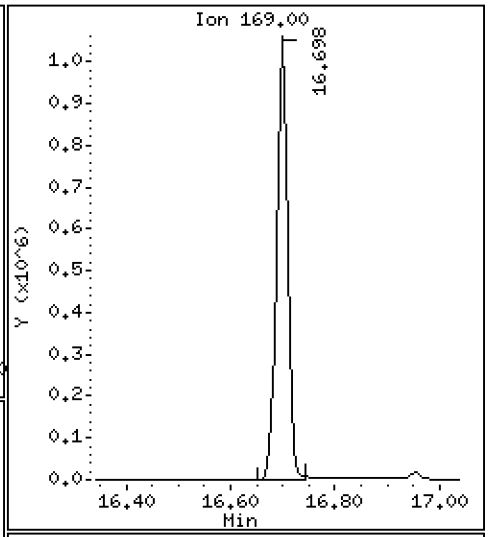
Column phase: ZB-5msi

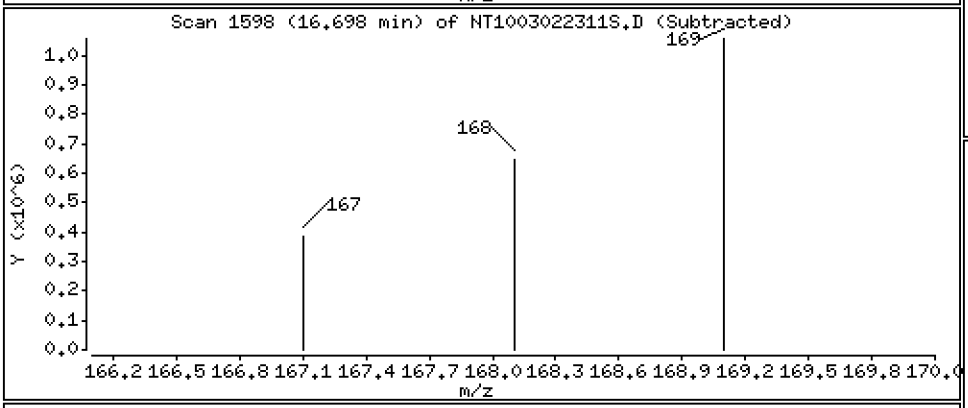
Column diameter: 0.25

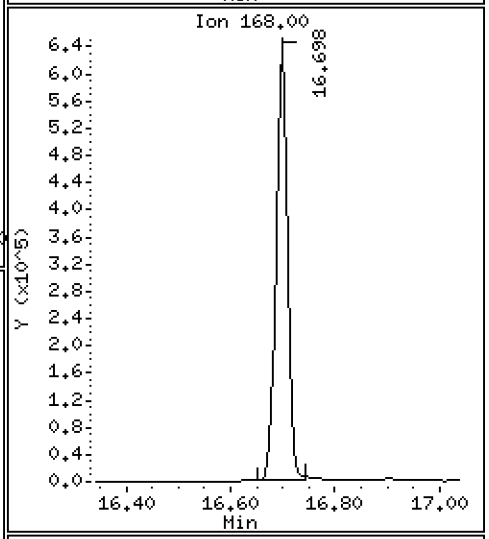
54 N-Nitrosodiphenylamine

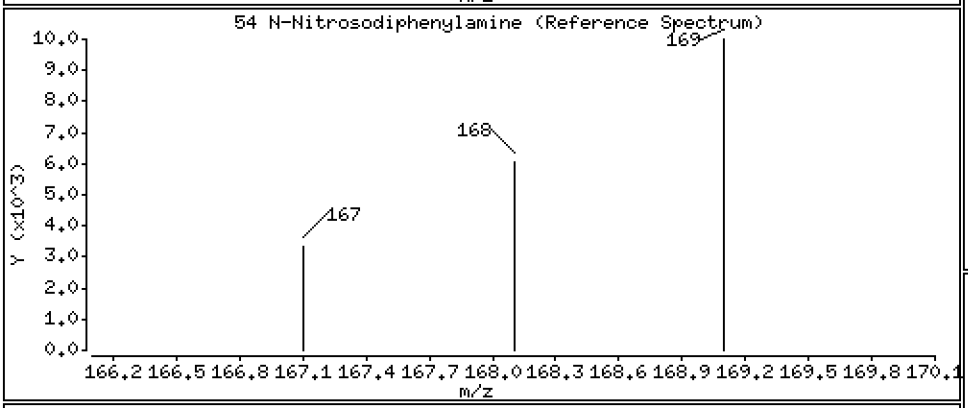
Concentration: 3.756 ug/L

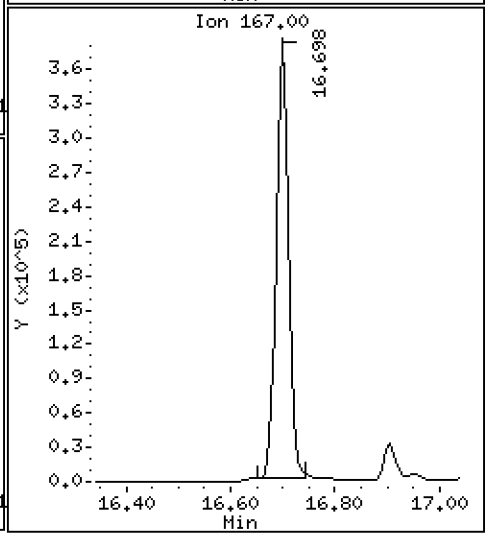


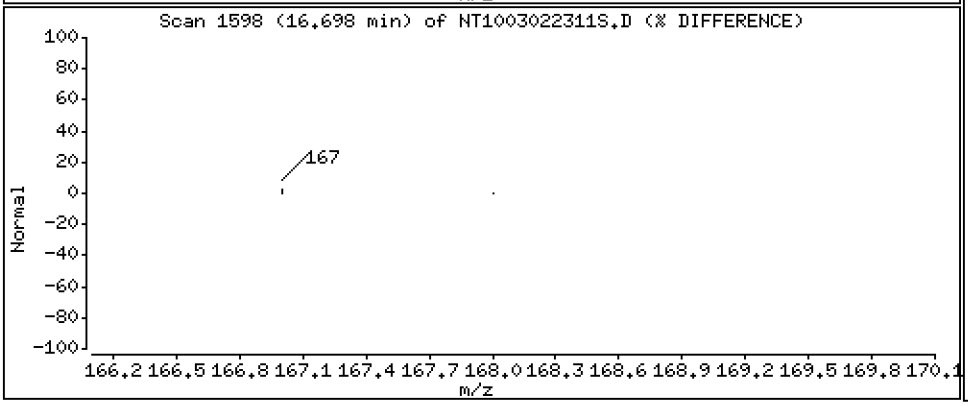












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Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

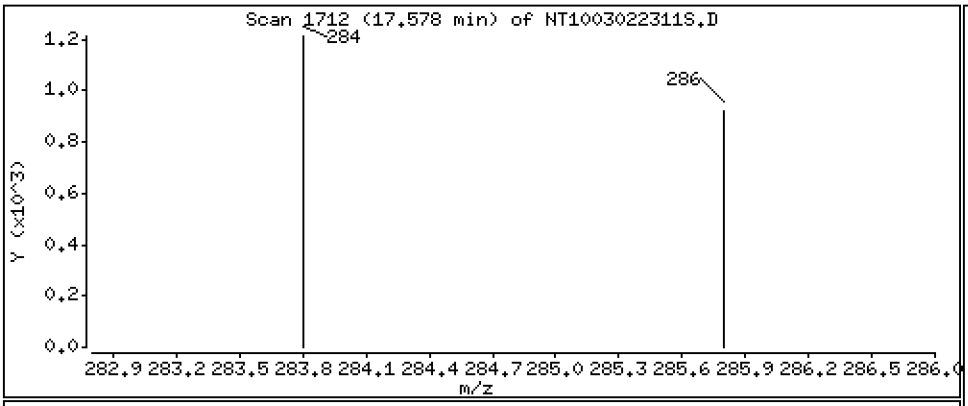
Operator: JGR

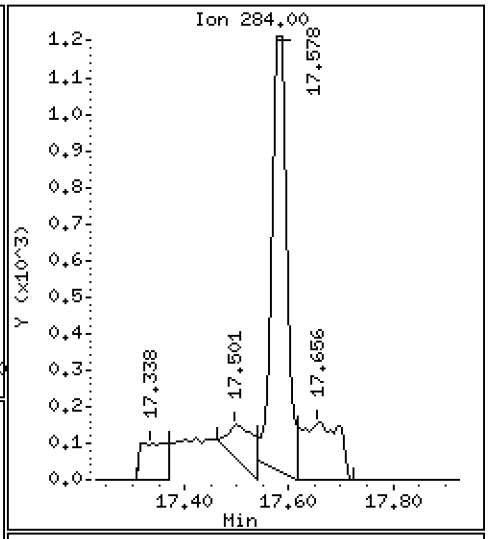
Column phase: ZB-5msi

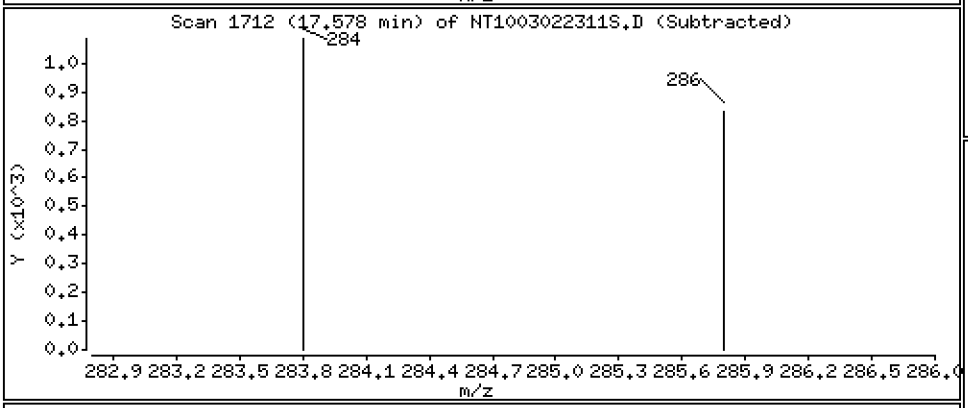
Column diameter: 0.25

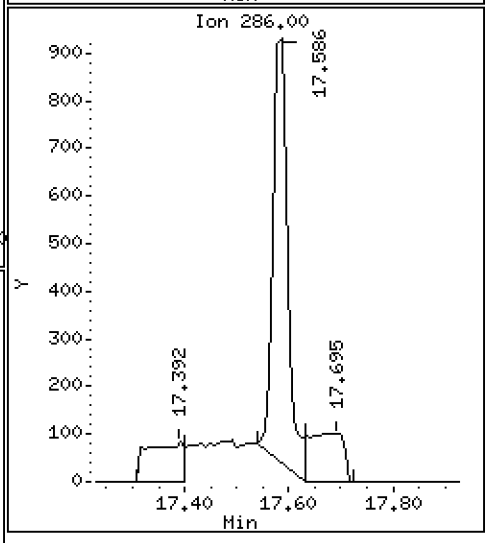
57 Hexachlorobenzene

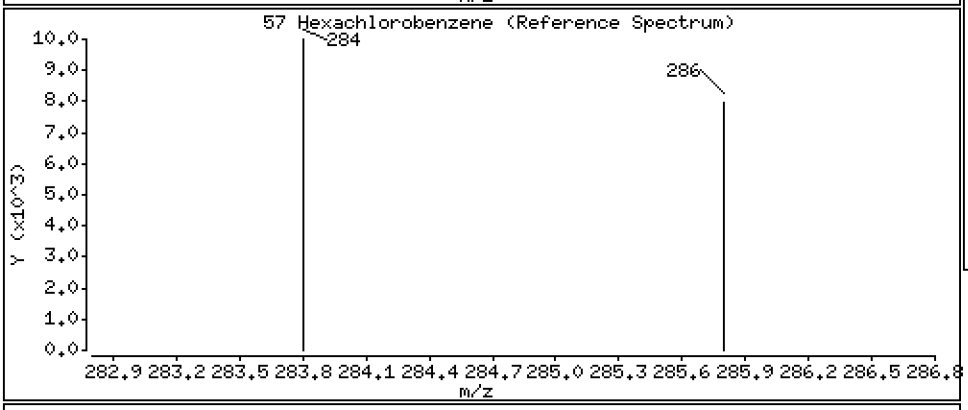
Concentration: 0.01174 ug/L

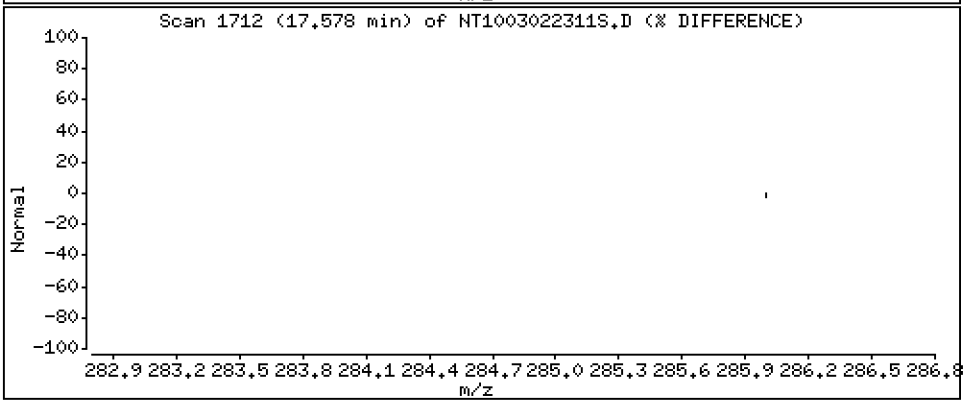












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

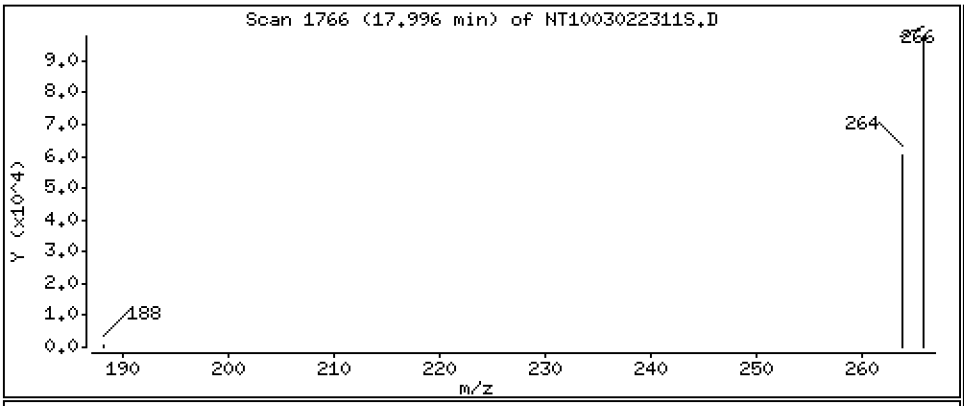
Operator: JGR

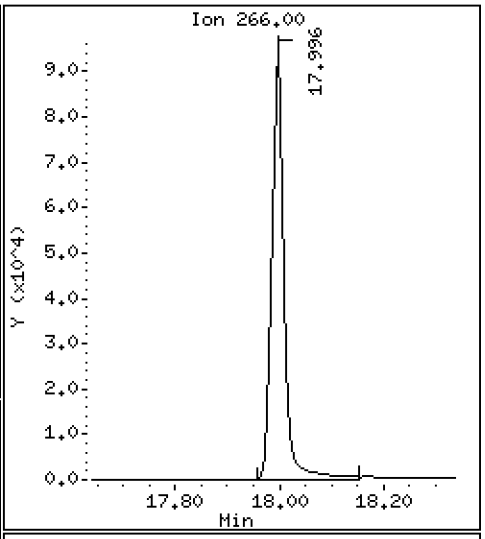
Column phase: ZB-5msi

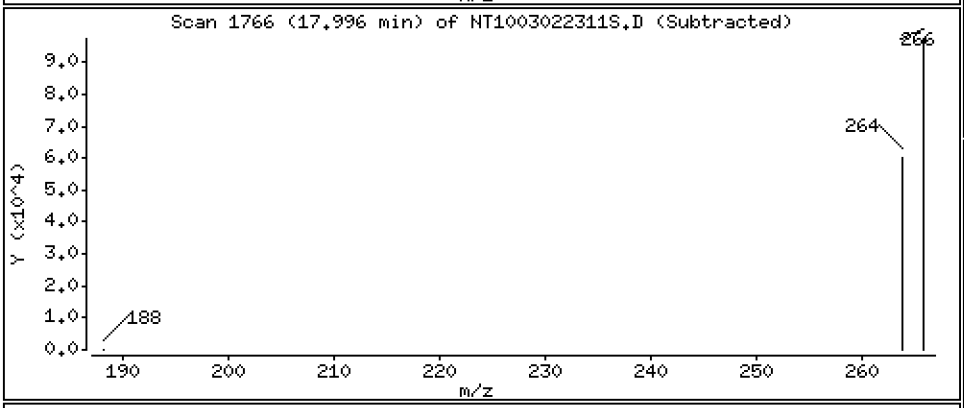
Column diameter: 0.25

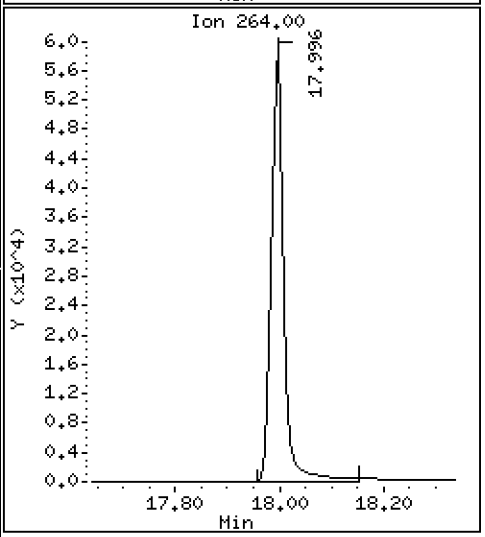
58 Pentachlorophenol

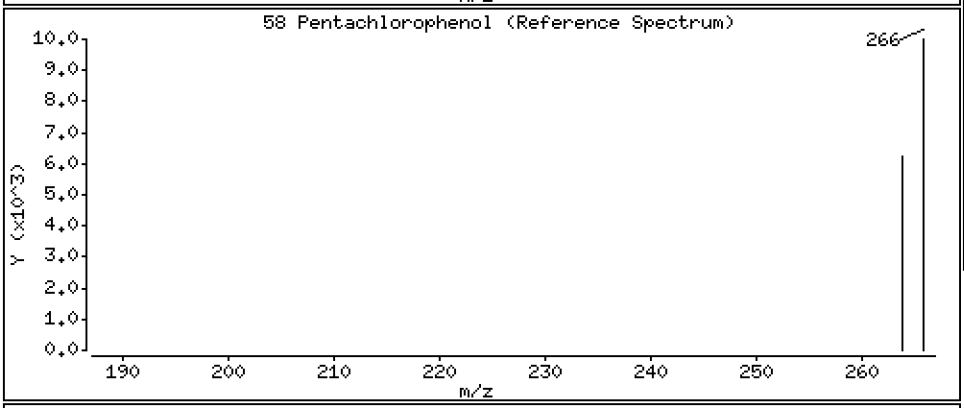
Concentration: 1.698 ug/L

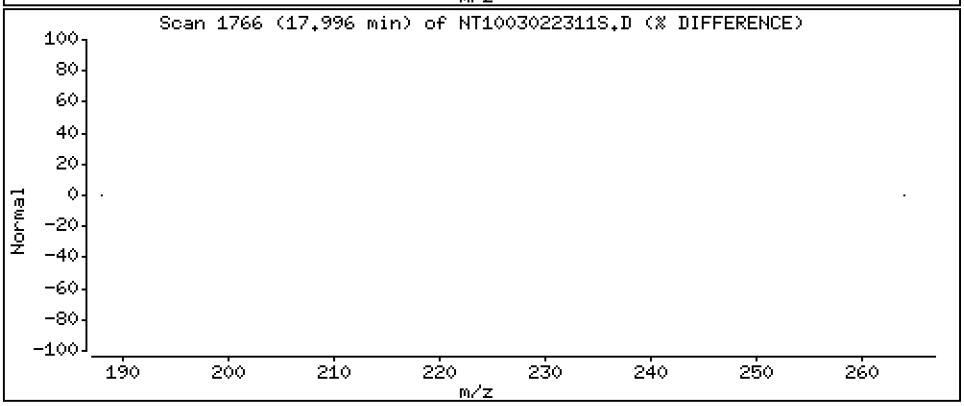












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

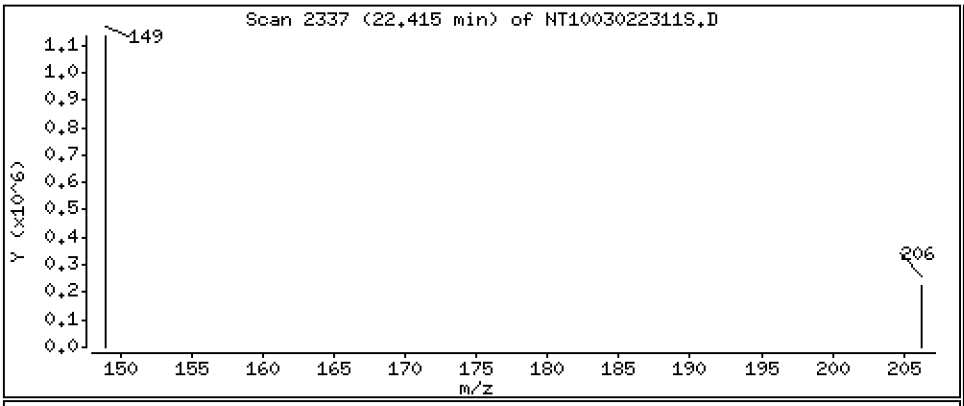
Operator: JGR

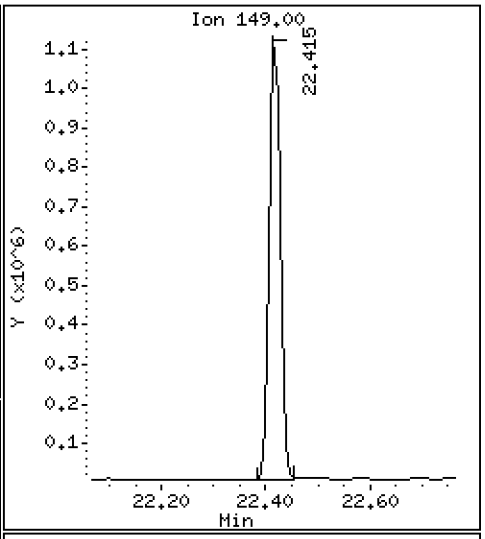
Column phase: ZB-5msi

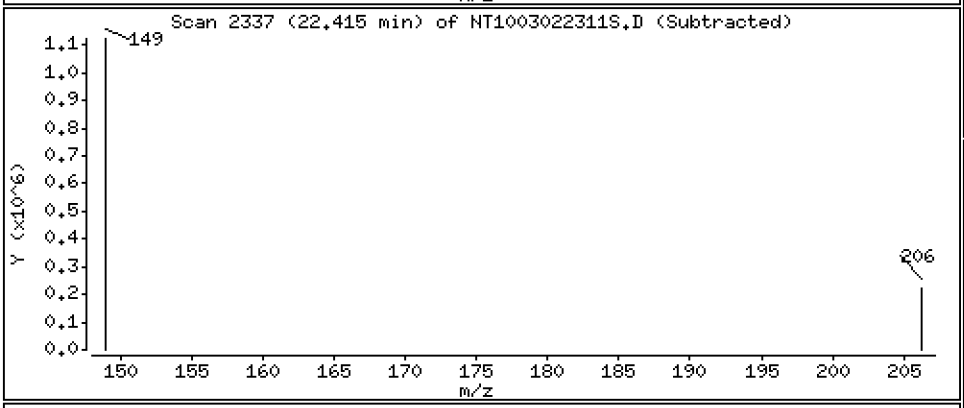
Column diameter: 0.25

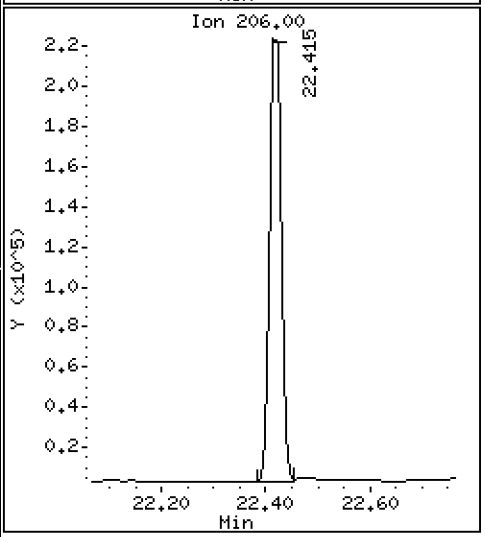
67 Butylbenzylphthalate

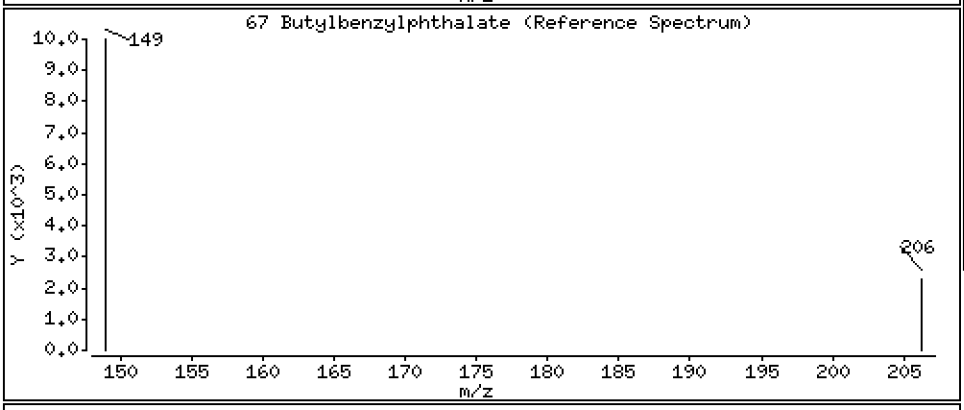
Concentration: 3.112 ug/L

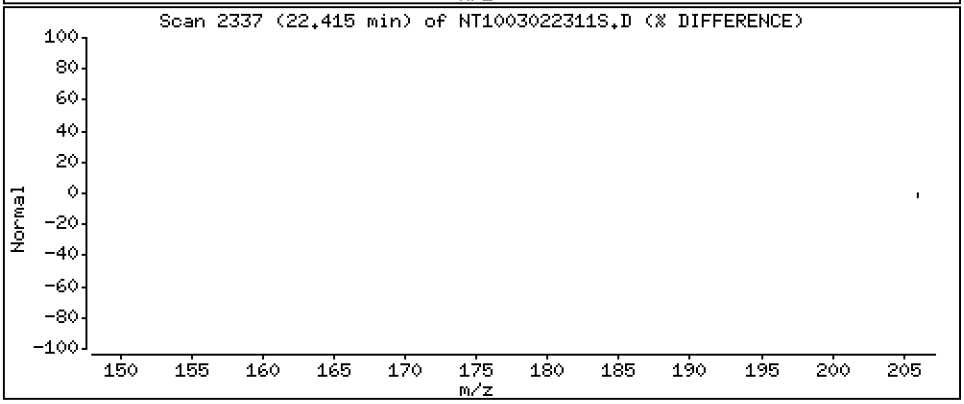












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022311S.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

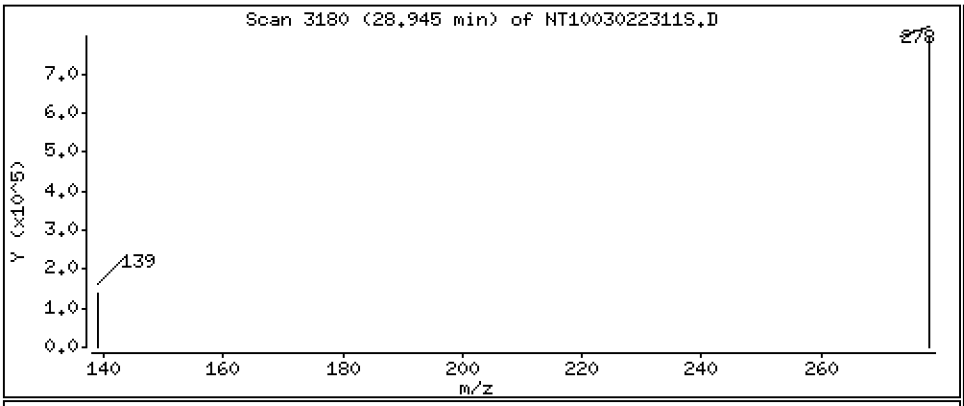
Operator: JGR

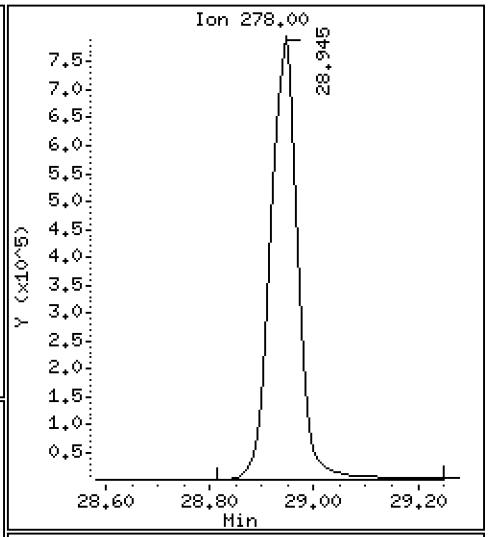
Column phase: ZB-5msi

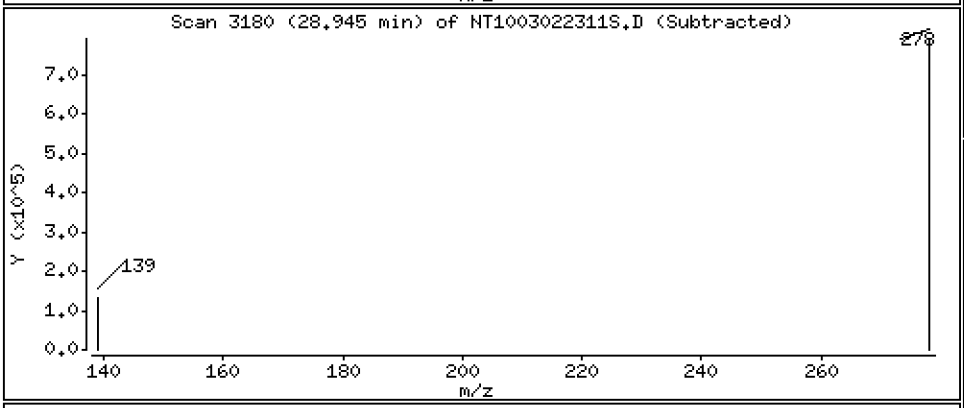
Column diameter: 0.25

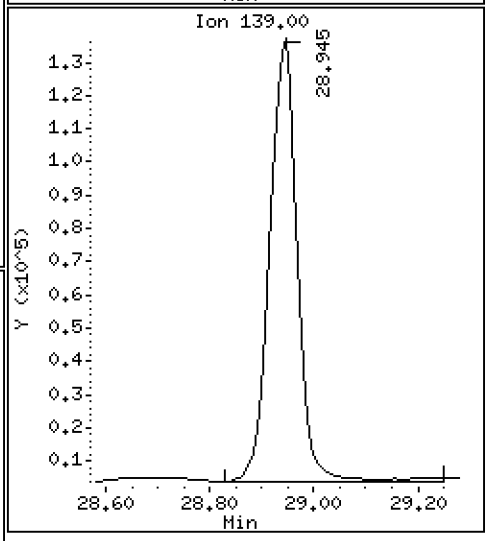
79 Dibenzo(a,h)anthracene

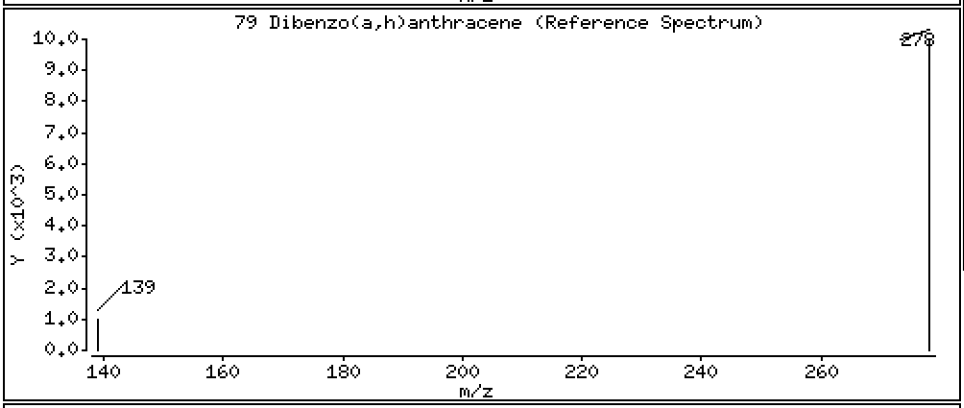
Concentration: 3.753 ug/L

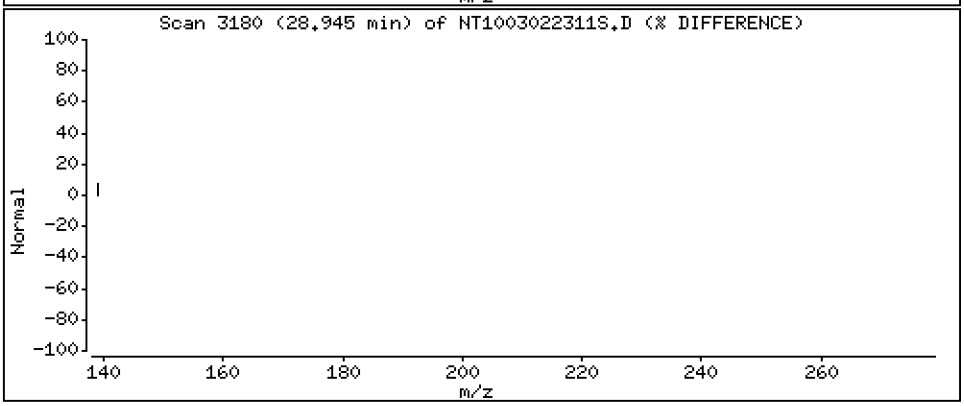












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223115.D

Date : 02-MAR-2023 20:44

Client ID:

Instrument: nt10.i

Sample Info: BLA0624-SRM1

Volume Injected (uL): 1.0

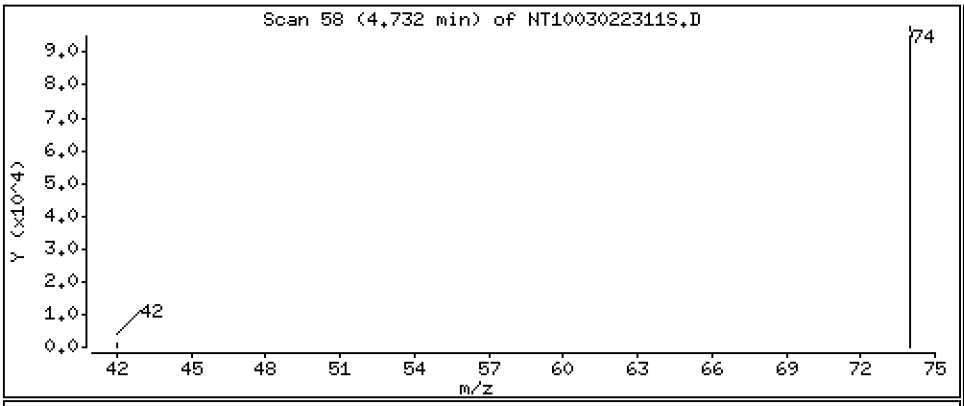
Operator: JGR

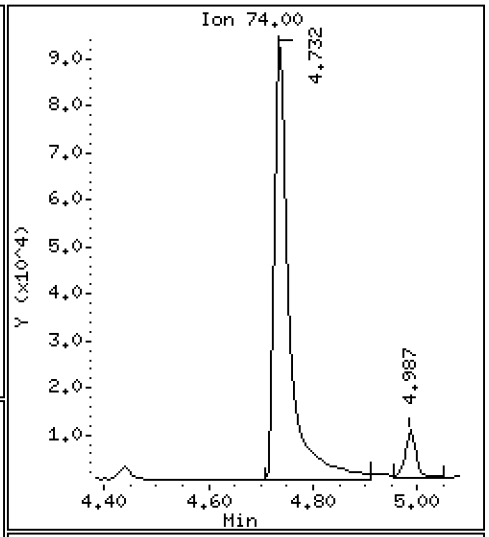
Column phase: ZB-5msi

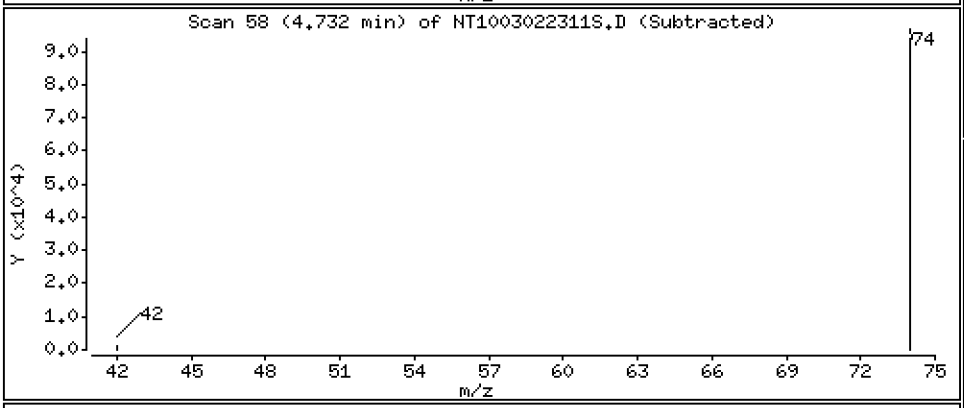
Column diameter: 0.25

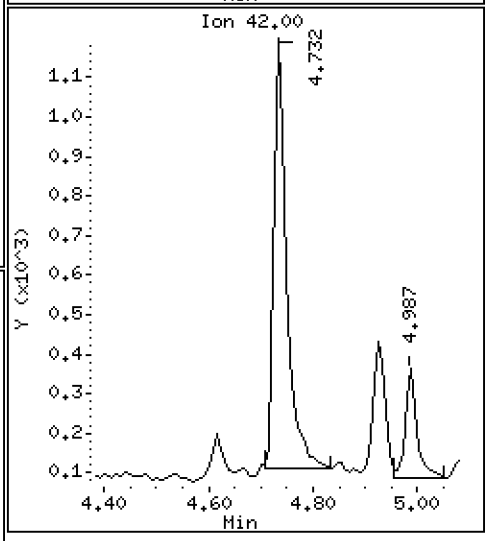
90 N-Nitrosodimethylamine

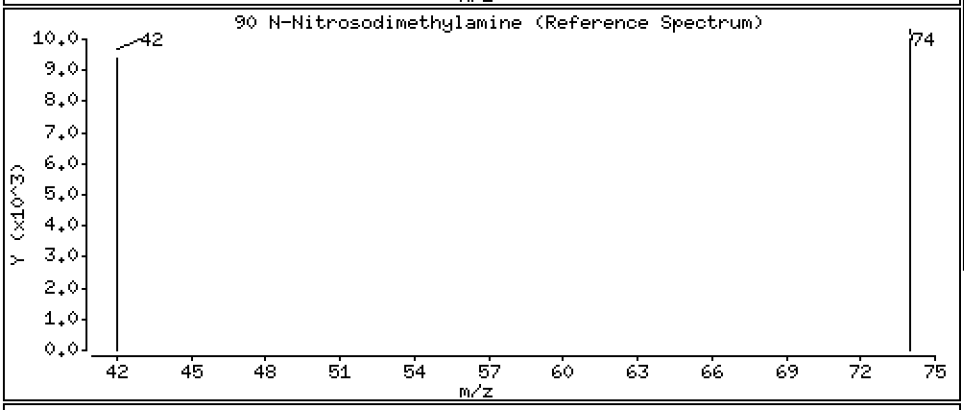
Concentration: 1.399 ug/L

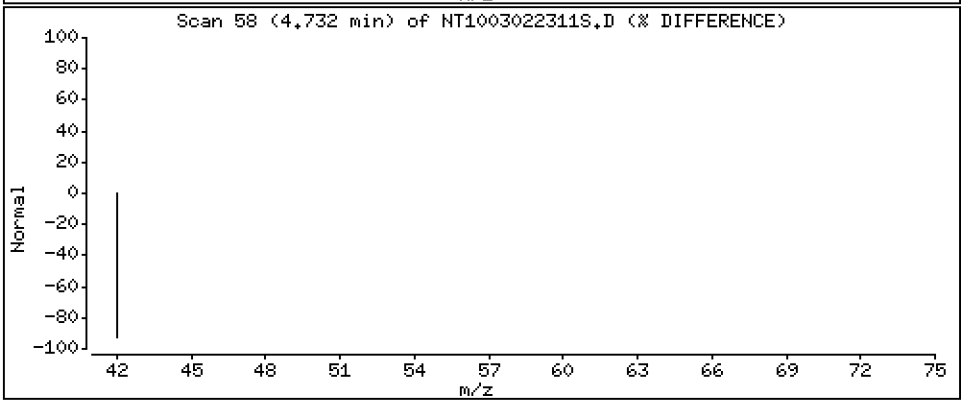












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022311S.D
Lab Smp Id: BLA0624-SRM1
Inj Date : 02-MAR-2023 20:44 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : BLA0624-SRM1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 14:53 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.910	6.902	(0.747)	1575203	7.19270	7.193(R)
3	Phenol	94	8.524	8.517	(0.921)	865603	2.64398	2.644
7	1,3-Dichlorobenzene	146	9.143	9.143	(0.988)	339074	1.19270	1.193
* 8	1,4-Dichlorobenzene-d4	152	9.251	9.251	(1.000)	767091	4.00000	
9	1,4-Dichlorobenzene	146	9.143	9.282	(0.988)	339074	1.22674	1.227
11	Benzyl alcohol	79	9.539	9.476	(1.031)	31398	0.17502	0.1750
12	1,2-Dichlorobenzene	146	9.562	9.562	(1.034)	3530	0.01329	0.01329
13	2-Methylphenol	108	9.663	9.655	(1.044)	1279955	6.23865	6.239
15	4-Methylphenol	108	9.950	9.942	(1.076)	1680277	7.58593	7.586
16	N-Nitroso-di-n-propylamine	70	9.958	9.981	(1.076)	10352	0.07196	0.07196
22	2,4-Dimethylphenol	107	11.006	10.997	(0.939)	1162291	4.84672	4.847
24	Benzoic acid	105	11.082	11.074	(0.945)	106321	0.81663	0.8166
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	311359	1.55159	1.552
* 27	Naphthalene-d8	136	11.723	11.723	(1.000)	2788036	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	274250	1.92586	1.926
39	Dimethylphthalate	163	14.749	14.741	(0.963)	2190768	4.99232	4.992
* 42	Acenaphthene-d10	162	15.321	15.314	(1.000)	1382029	4.00000	
50	Diethylphthalate	149	16.210	16.203	(1.058)	87777	0.21211	0.2121
54	N-Nitrosodiphenylamine	169	16.698	16.690	(0.907)	1584342	3.75576	3.756
57	Hexachlorobenzene	284	17.578	17.578	(0.955)	2318	0.01174	0.01174

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	17.996	17.988	(0.978)	149186	1.69819	1.698
*	59 Phenanthrene-d10	188	18.406	18.406	(1.000)	2606597	4.00000	
$	66 Terphenyl-d14	244	21.532	21.532	(0.919)	1234616	5.14744	5.147(R)
	67 Butylbenzylphthalate	149	22.414	22.414	(0.957)	1540899	3.11192	3.112
*	69 Chrysene-d12	240	23.429	23.421	(1.000)	2965995	4.00000	
*	77 Perylene-d12	264	26.123	26.115	(1.000)	3162675	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.945	28.929	(1.108)	2910766	3.75254	3.753
	90 N-Nitrosodimethylamine	74	4.732	4.732	(0.511)	181438	1.39936	1.399

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003022311S.D
Lab Smp Id: BLA0624-SRM1
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 02-MAR-2023
Calibration Time: 14:13
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	493417	246709	986834	767091	55.47
27 Naphthalene-d8	1779056	889528	3558112	2788036	56.71
42 Acenaphthene-d10	954569	477285	1909138	1382029	44.78
59 Phenanthrene-d10	1596290	798145	3192580	2606597	63.29
69 Chrysene-d12	1649110	824555	3298220	2965995	79.85
77 Perylene-d12	1901958	950979	3803916	3162675	66.29

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.32	0.05
59 Phenanthrene-d10	18.41	17.91	18.91	18.41	0.00
69 Chrysene-d12	23.42	22.92	23.92	23.43	0.03
77 Perylene-d12	26.12	25.62	26.62	26.12	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003022311S.D

Lab ID: BLA0624-SRM1
nt10.i, 20230302.b\SIM.b\SIMABN2.m,   02-MAR-2023 20:44

RT	CO-ELUTION COMPOUNDS
9.143	1,4-Dichlorobenzene and 1,3-Dichlorobenzene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.988	1.003	-0.0151	1,4-Dichlorobenzene
1.031	1.024	0.0067	Benzyl alcohol

RRT check based on Ccal File: SIM.b/NT1003022303S.D

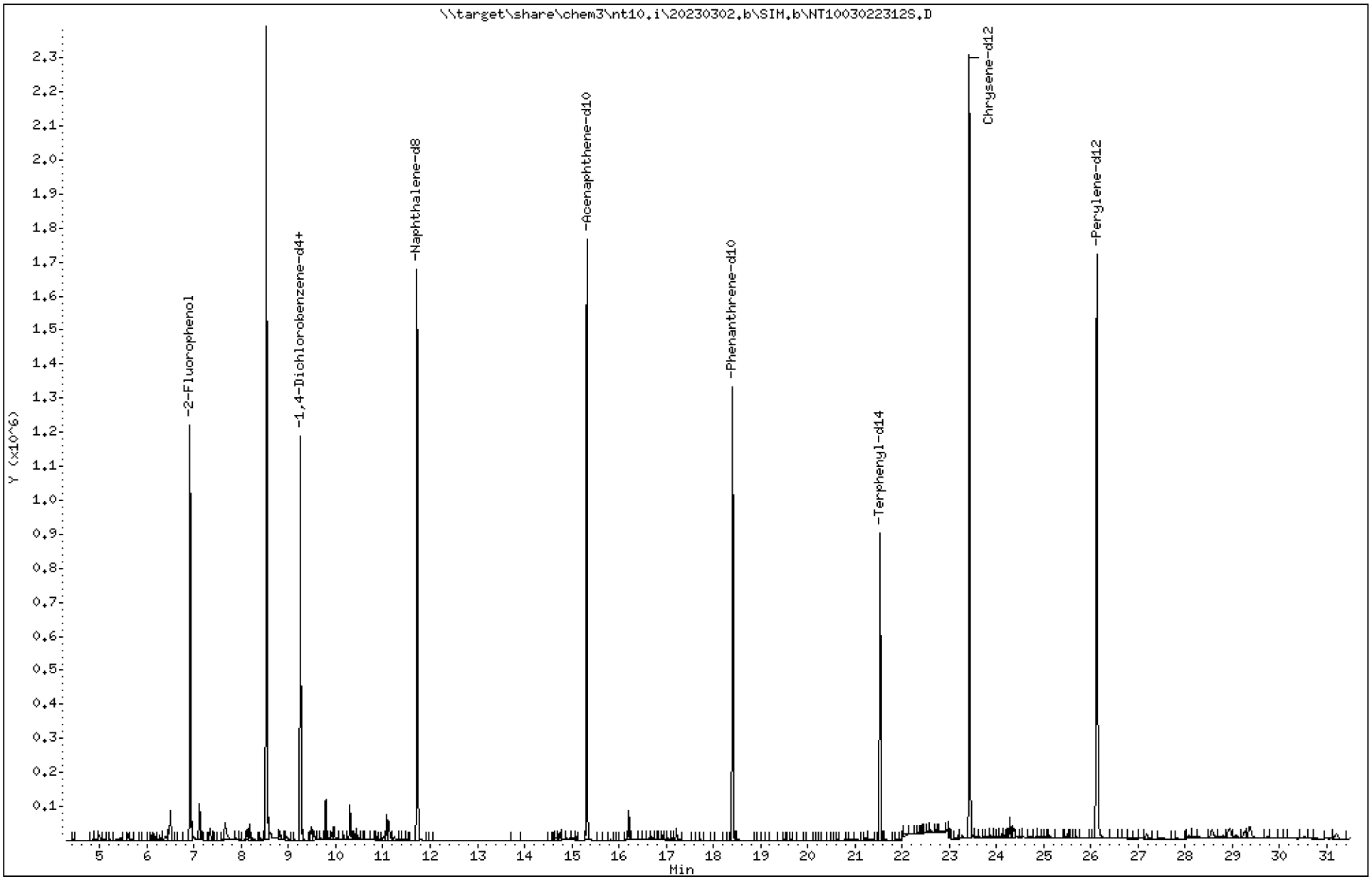
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223128.D
Date : 02-MAR-2023 21:22
Client ID:
Sample Info: 23A0206-01
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: JGR
Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

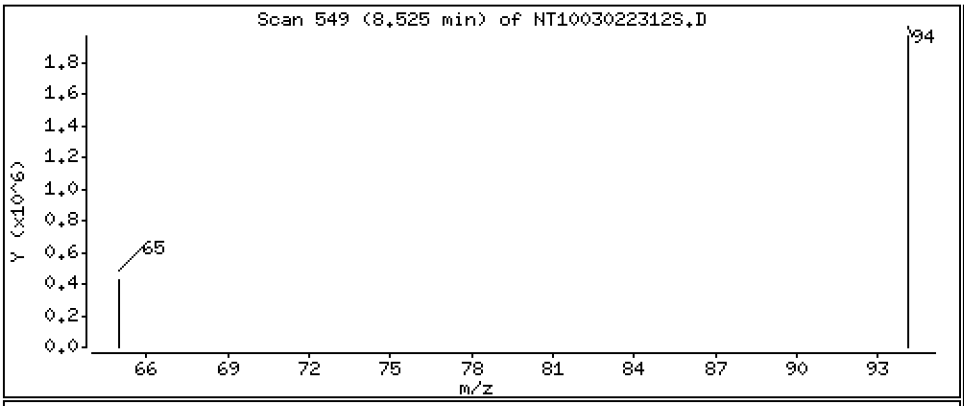
Operator: JGR

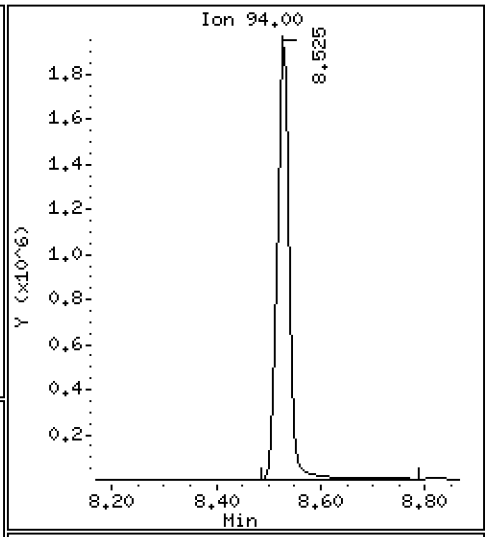
Column phase: ZB-5msi

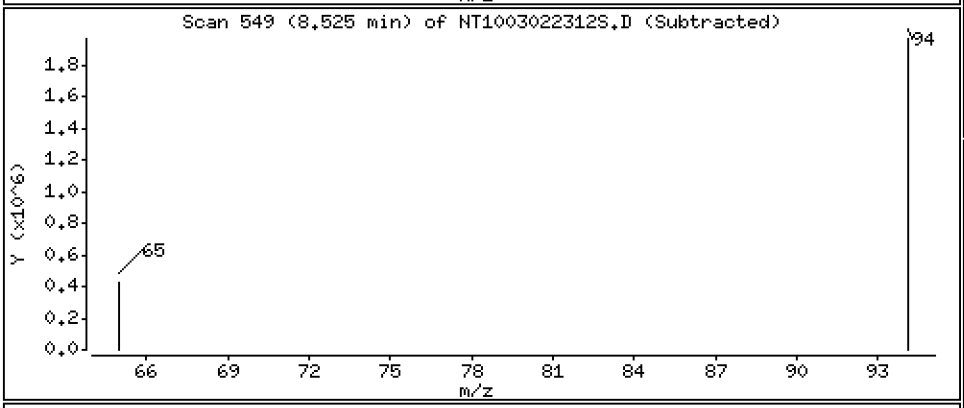
Column diameter: 0.25

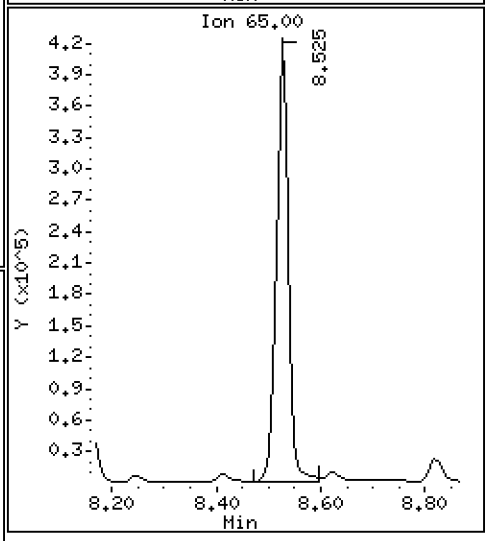
3 Phenol

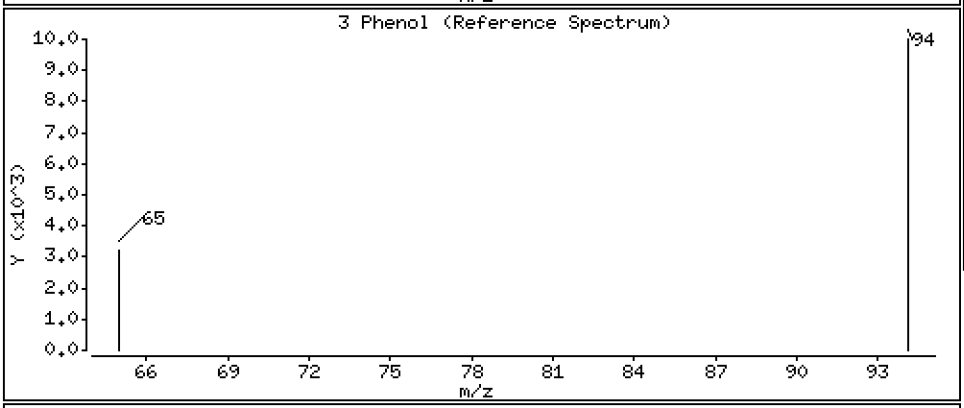
Concentration: 9.783 ug/L

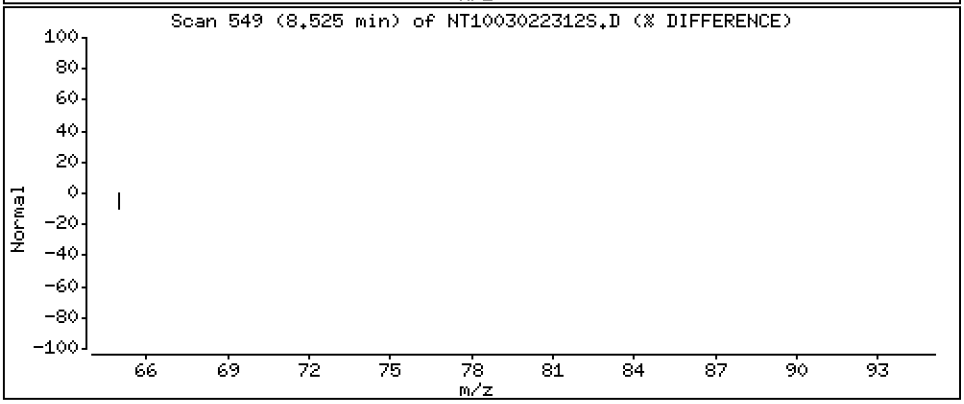












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

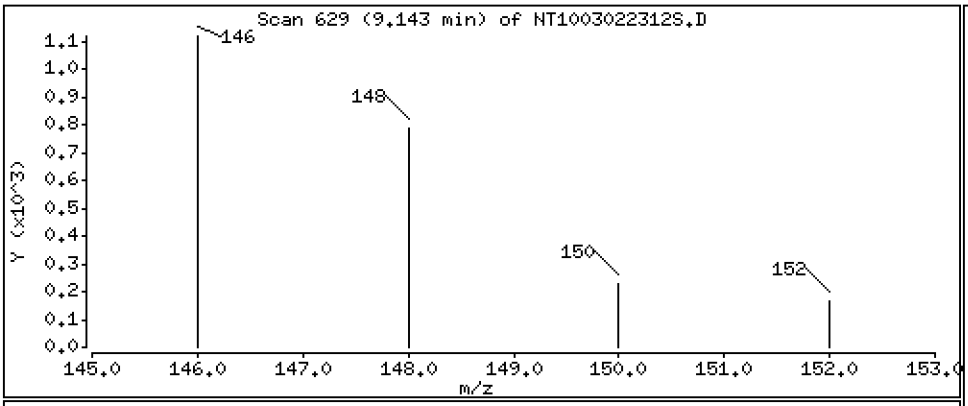
Operator: JGR

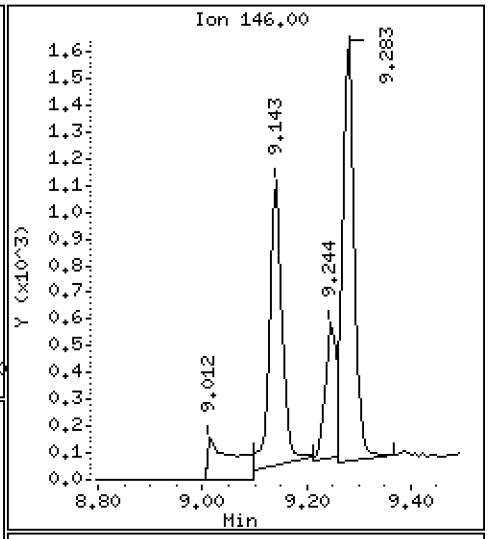
Column phase: ZB-5msi

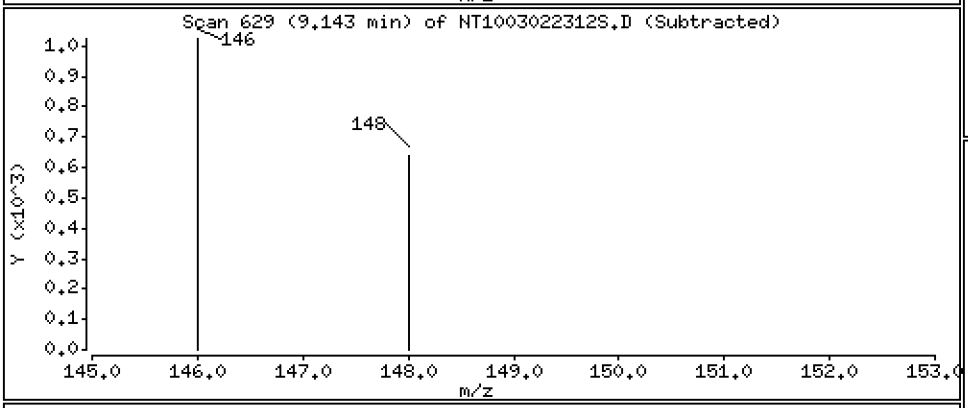
Column diameter: 0.25

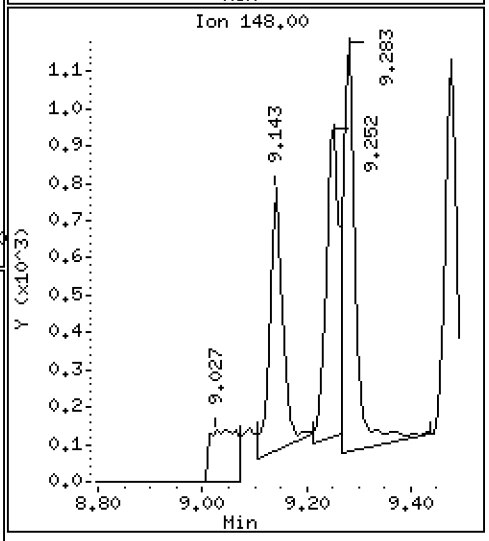
7 1,3-Dichlorobenzene

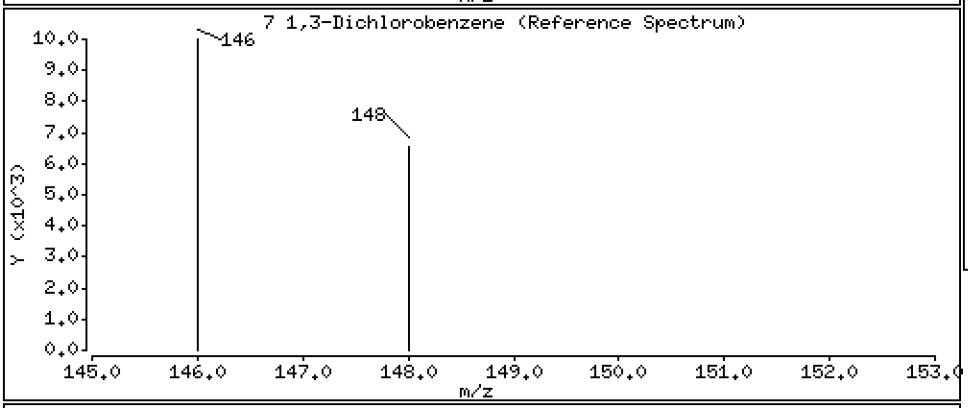
Concentration: 0.006583 ug/L

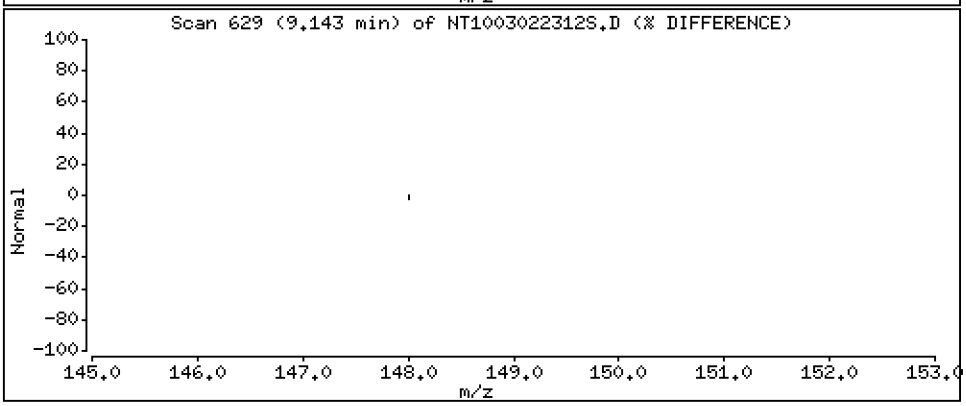












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

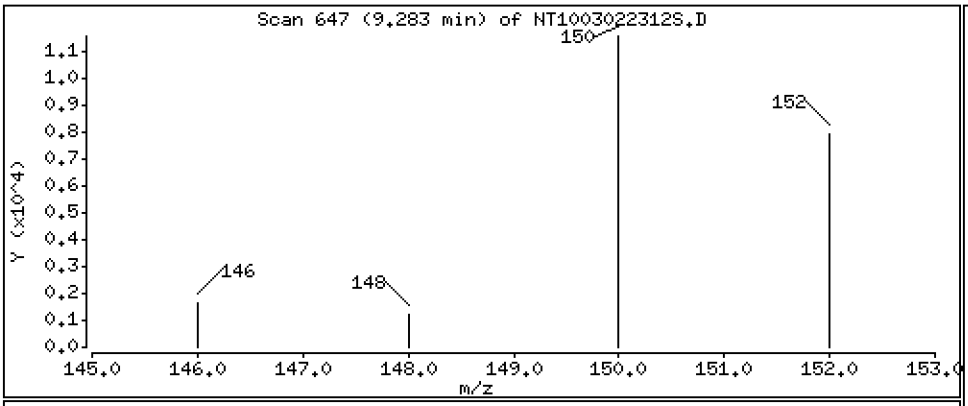
Operator: JGR

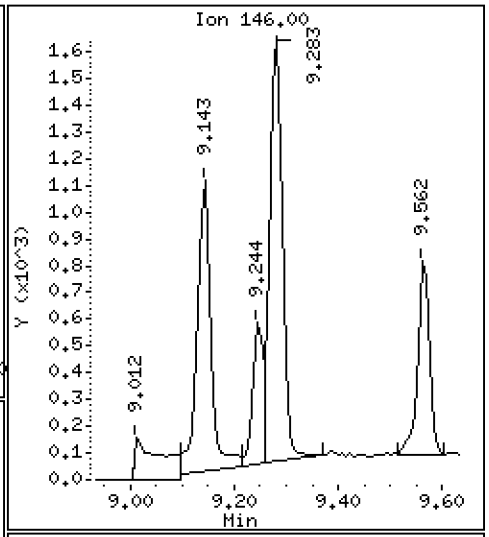
Column phase: ZB-5msi

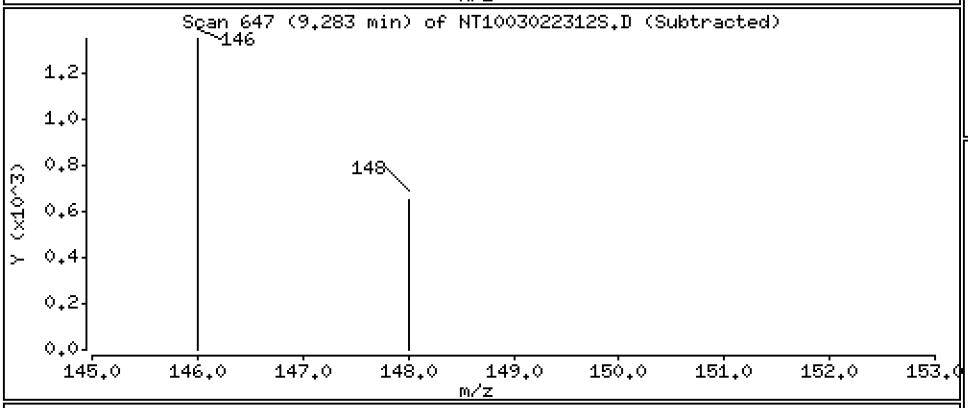
Column diameter: 0.25

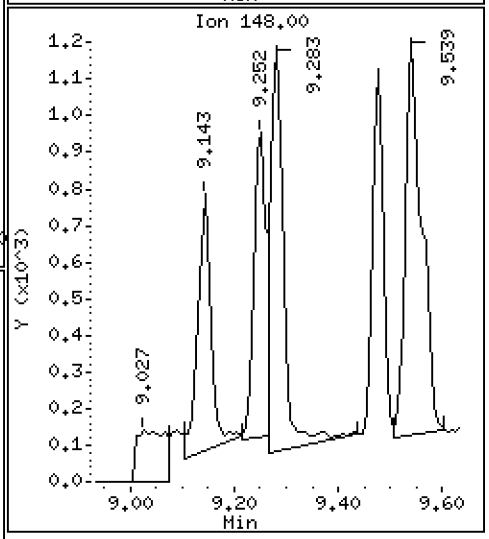
9 1,4-Dichlorobenzene

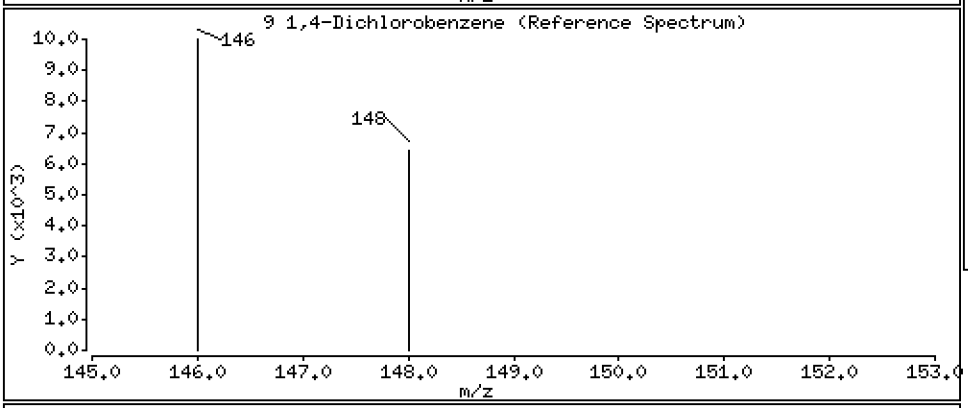
Concentration: 0.009987 ug/L

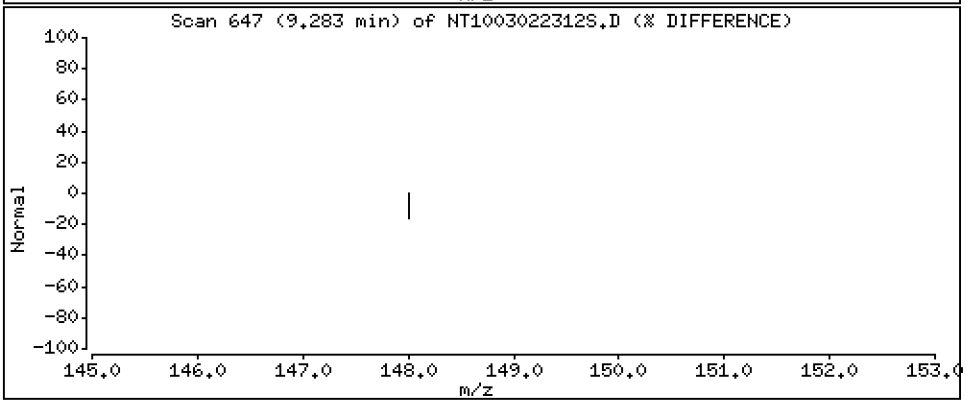












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

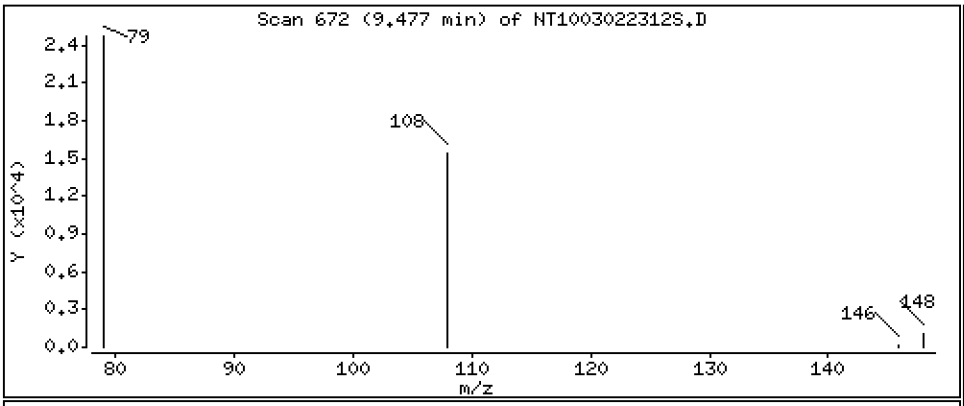
Operator: JGR

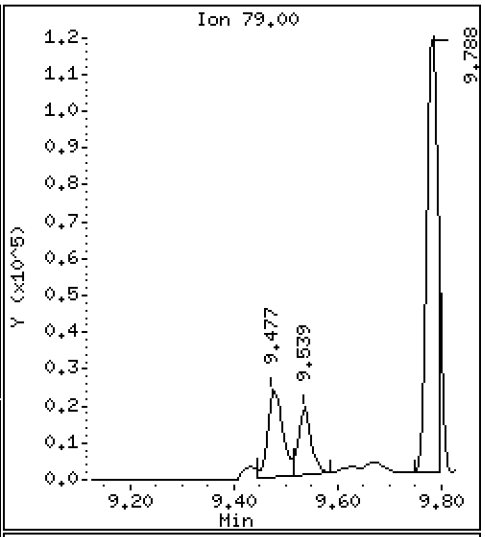
Column phase: ZB-5msi

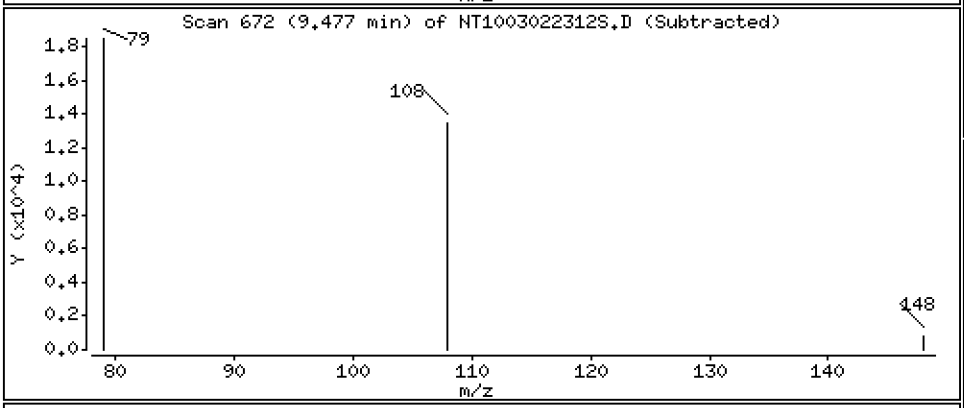
Column diameter: 0.25

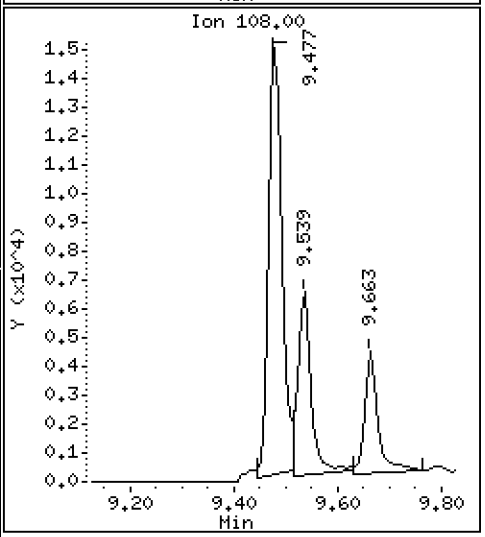
11 Benzyl alcohol

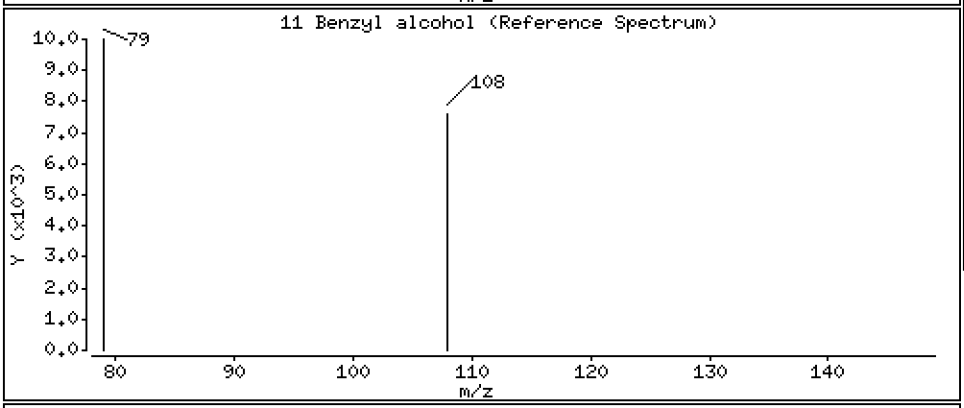
Concentration: 0.2733 ug/L

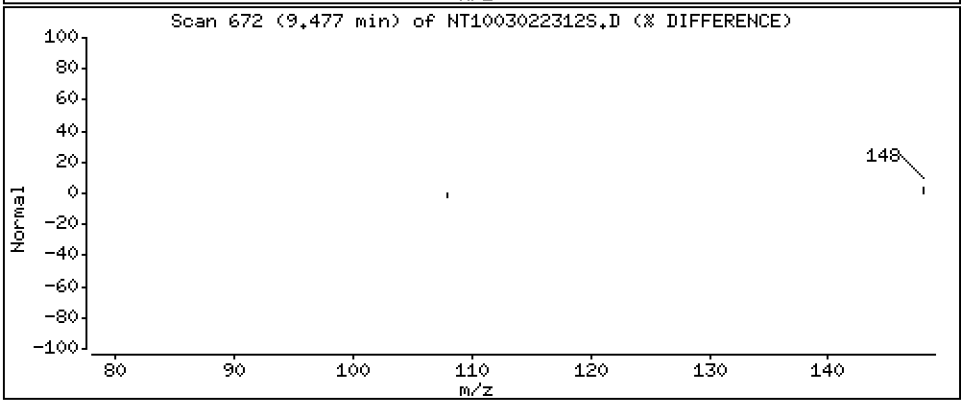












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

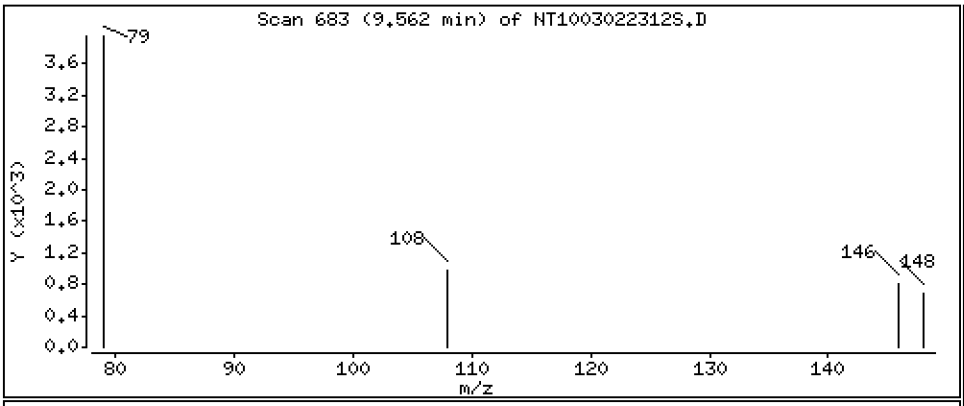
Operator: JGR

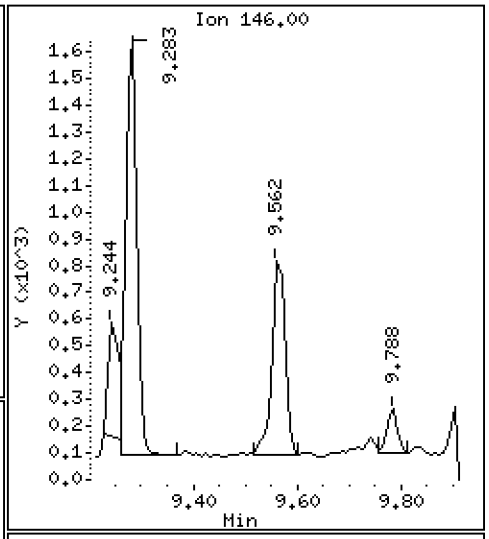
Column phase: ZB-5msi

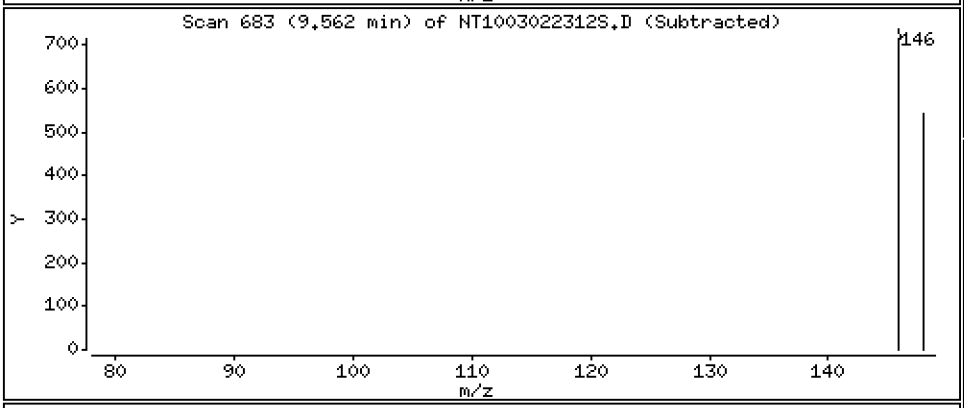
Column diameter: 0.25

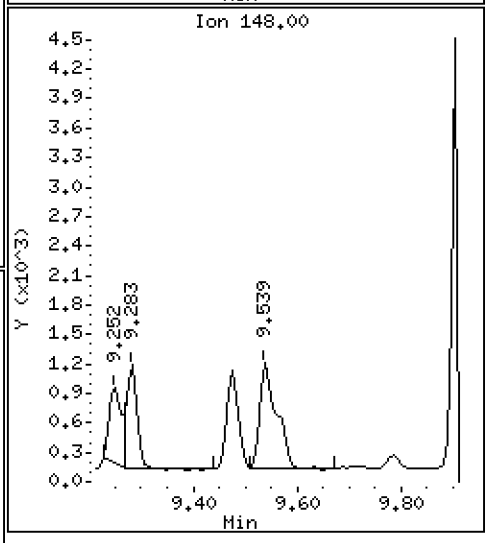
12 1,2-Dichlorobenzene

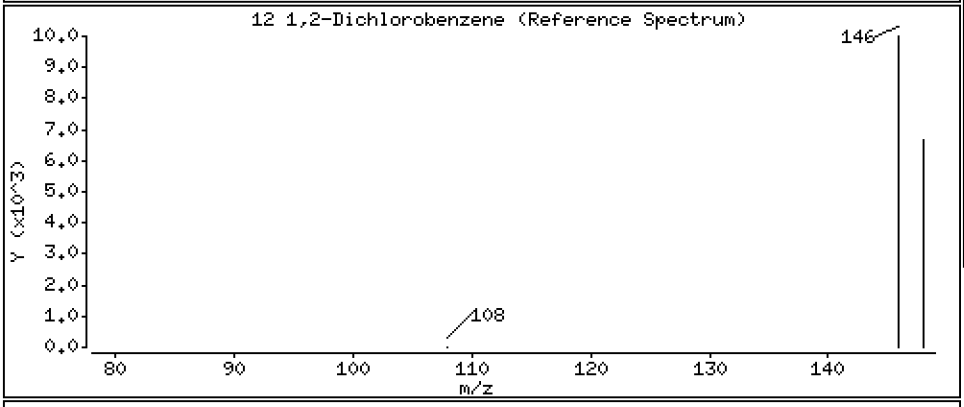
Concentration: 0.004811 ug/L

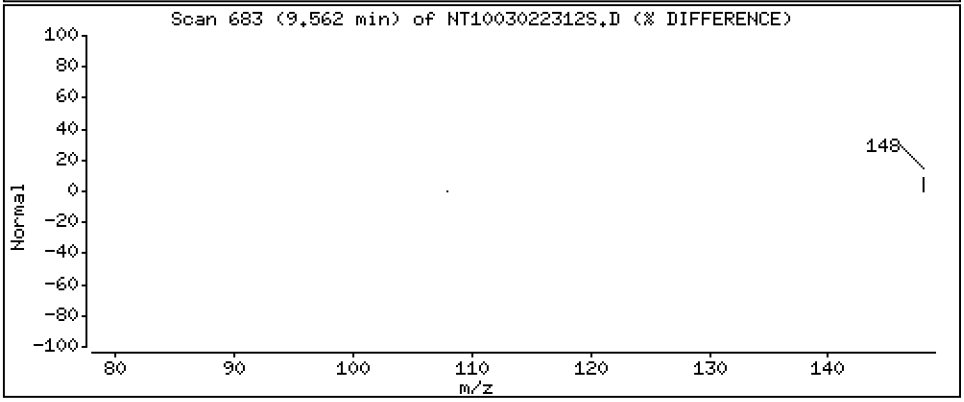












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

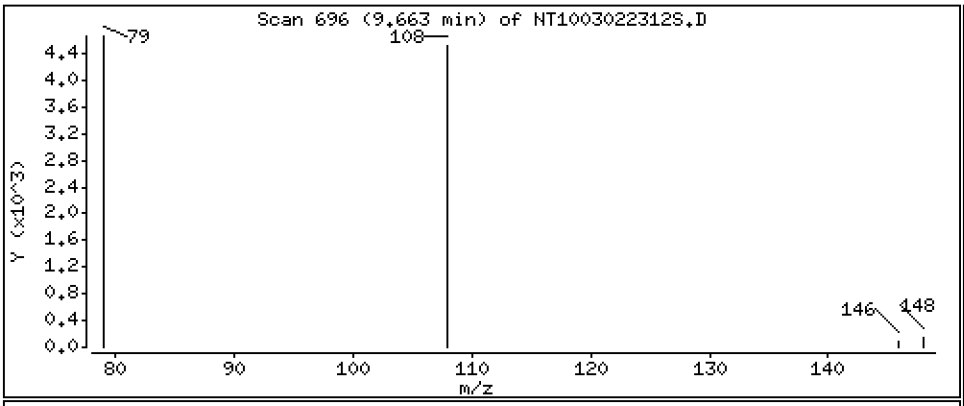
Operator: JGR

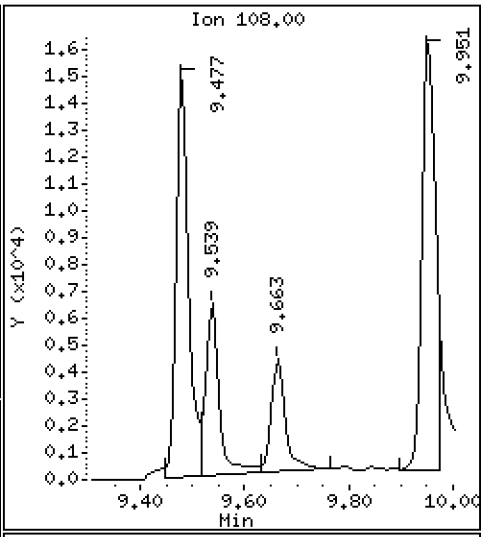
Column phase: ZB-5msi

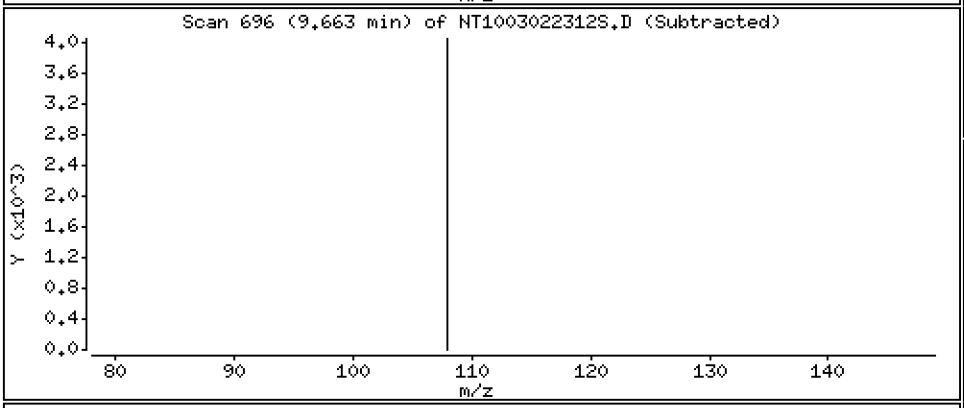
Column diameter: 0.25

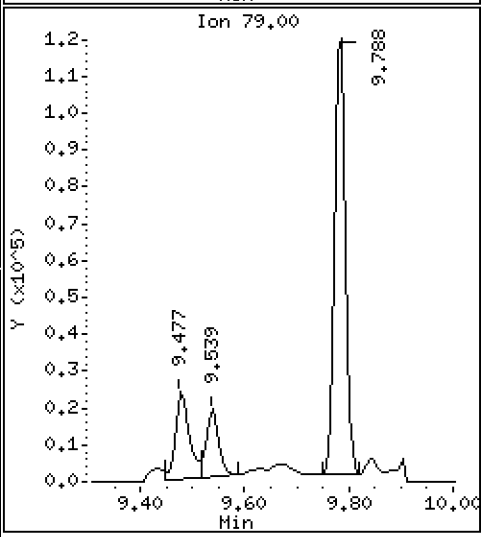
13 2-Methylphenol

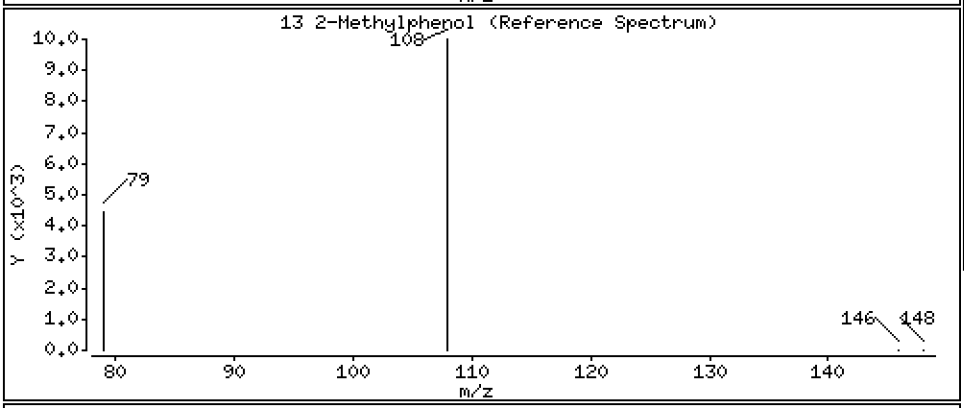
Concentration: 0.04254 ug/L

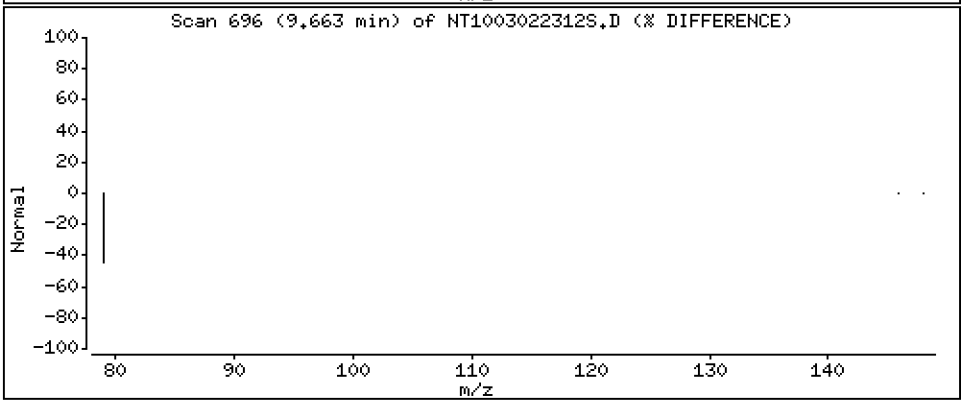












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

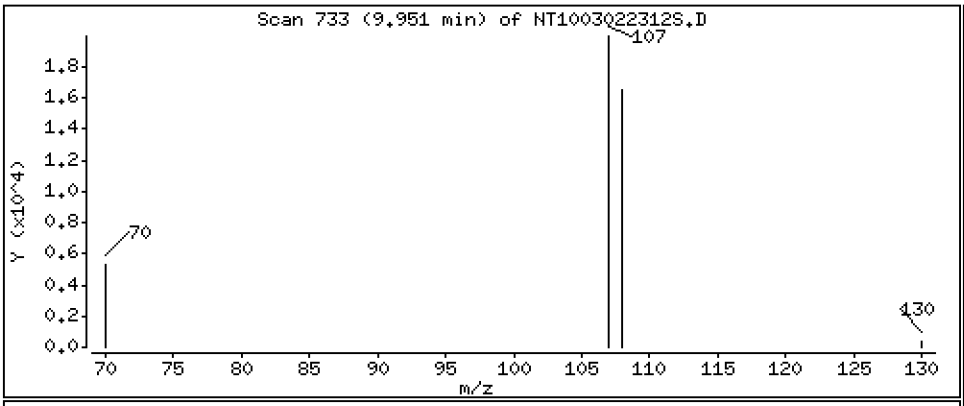
Operator: JGR

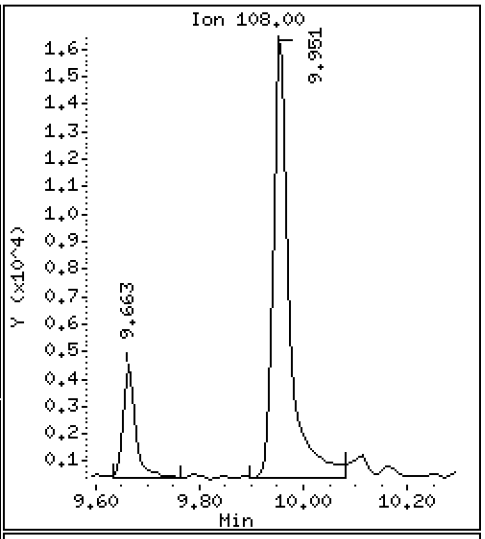
Column phase: ZB-5msi

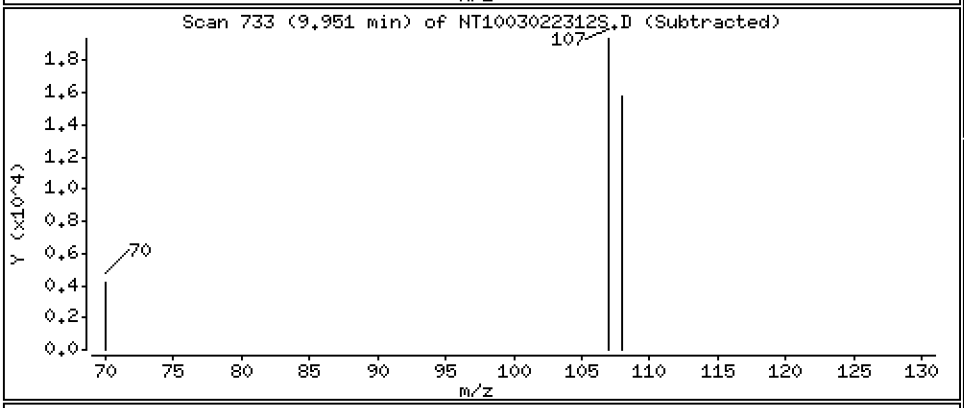
Column diameter: 0.25

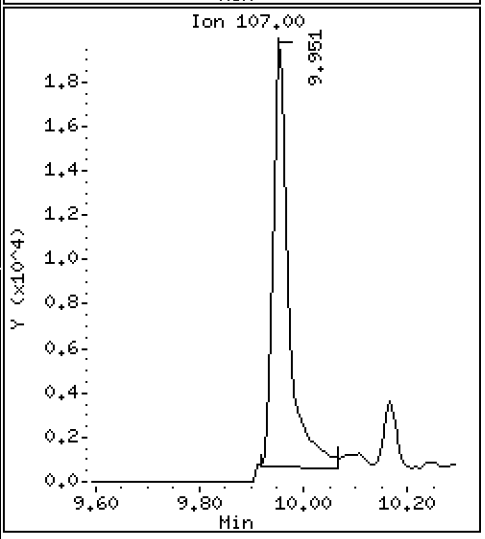
15 4-Methylphenol

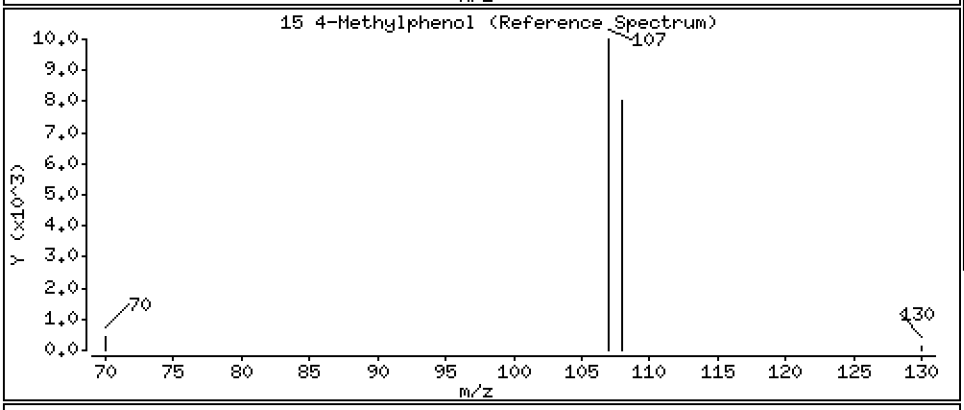
Concentration: 0.1843 ug/L

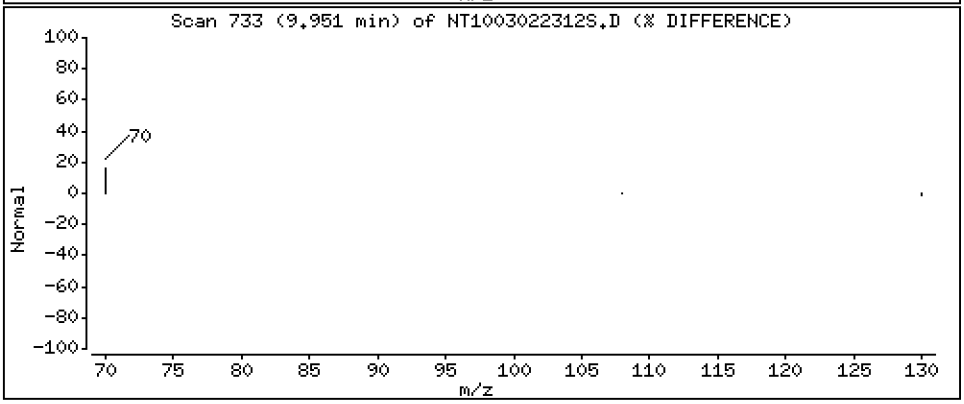












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

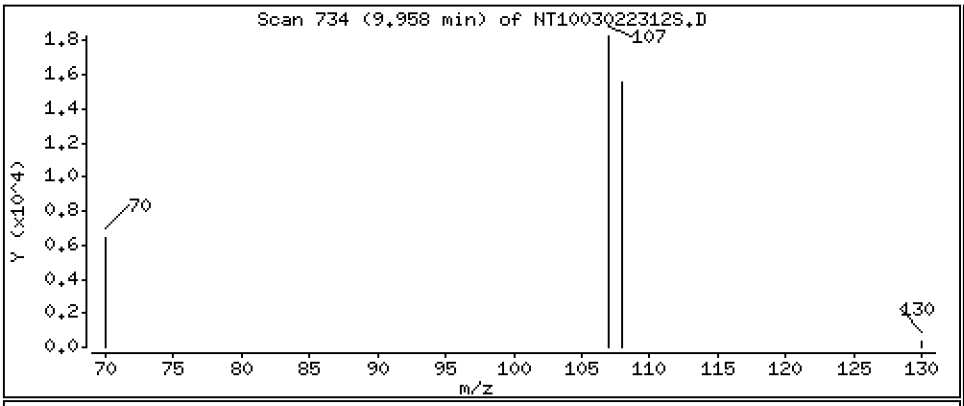
Operator: JGR

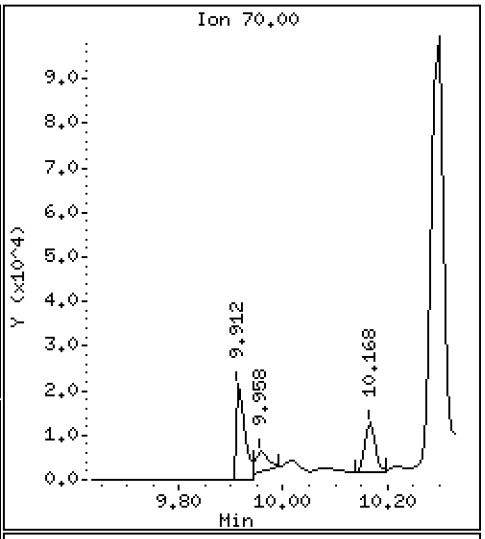
Column phase: ZB-5msi

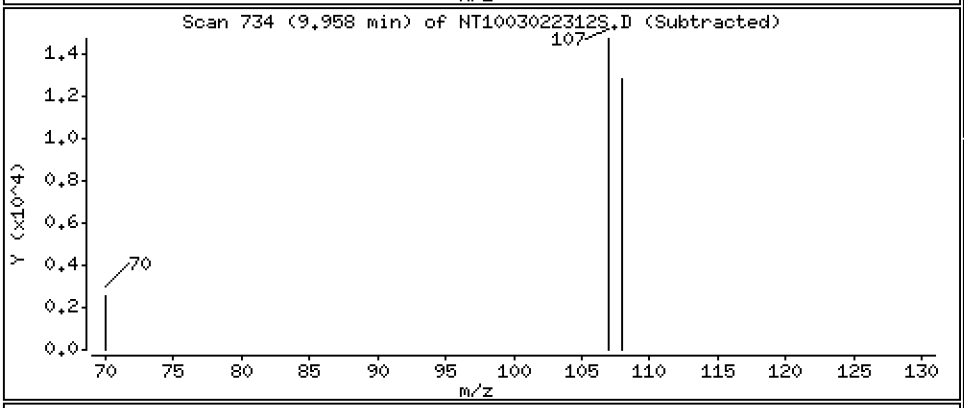
Column diameter: 0.25

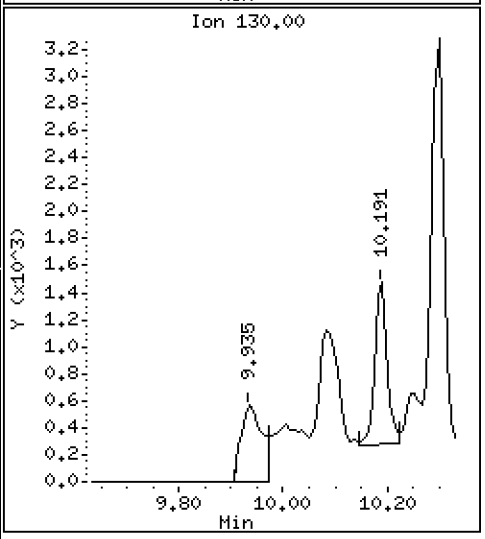
16 N-Nitroso-di-n-propylamine

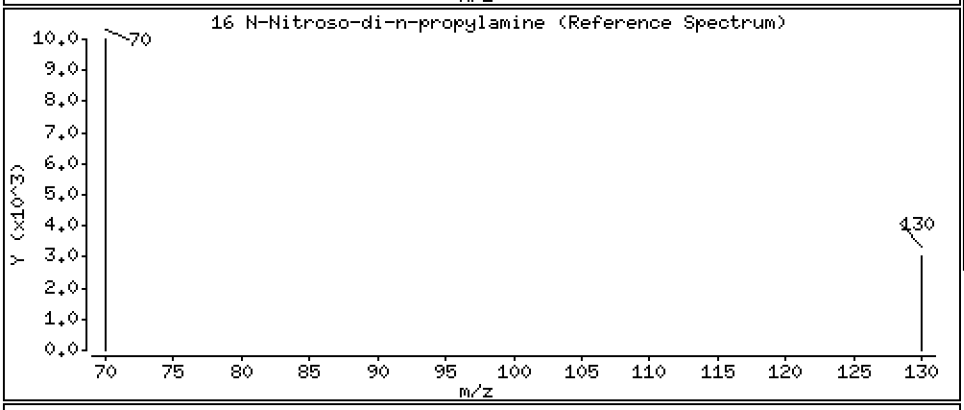
Concentration: 0.05906 ug/L

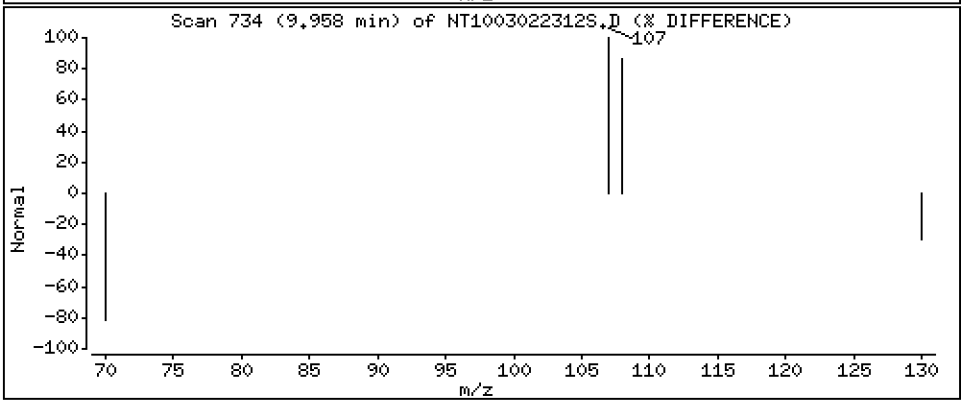












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

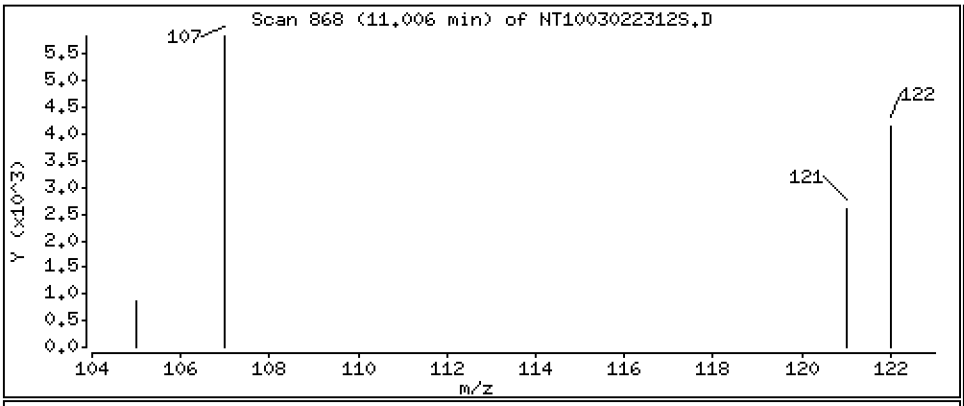
Operator: JGR

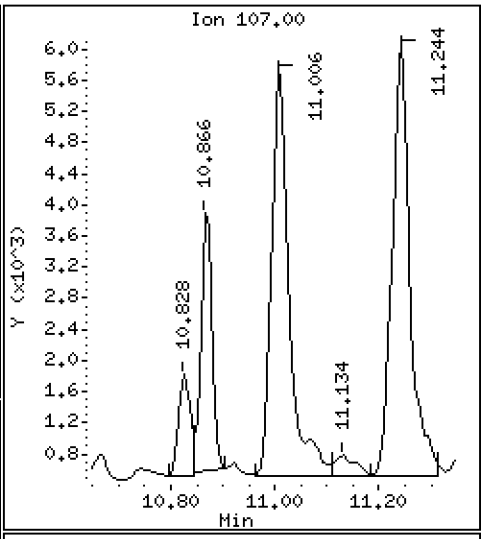
Column phase: ZB-5msi

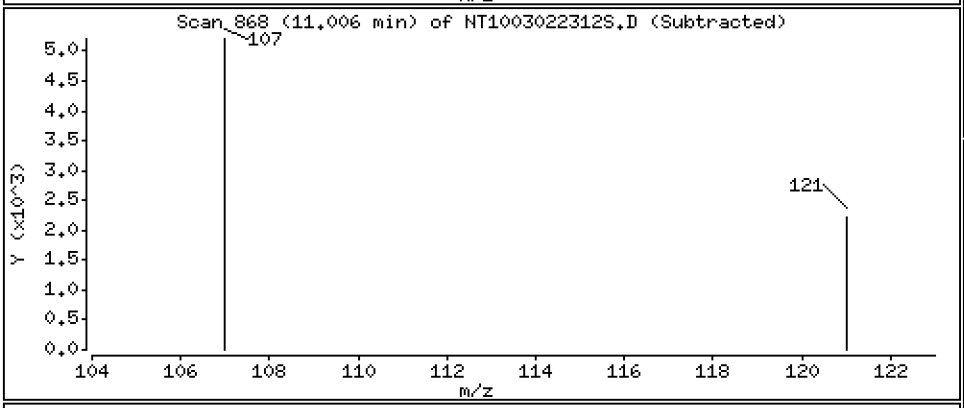
Column diameter: 0.25

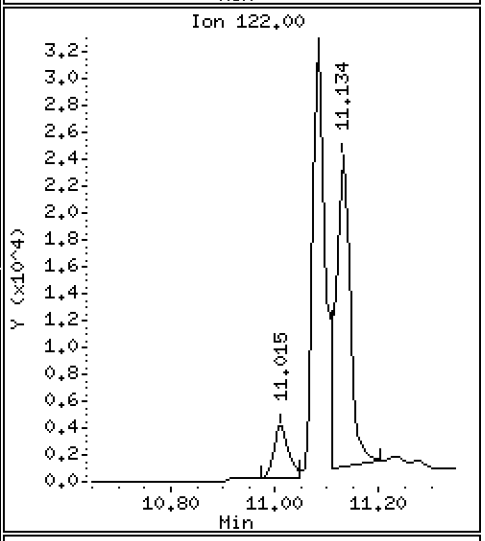
22 2,4-Dimethylphenol

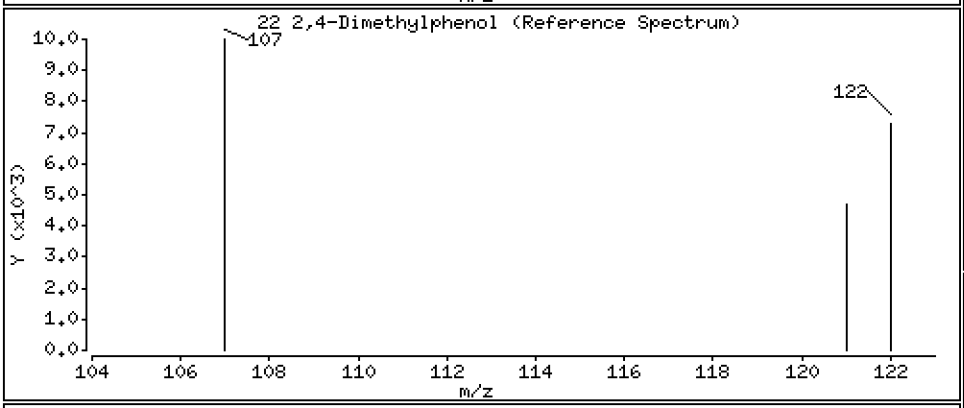
Concentration: 0.05672 ug/L

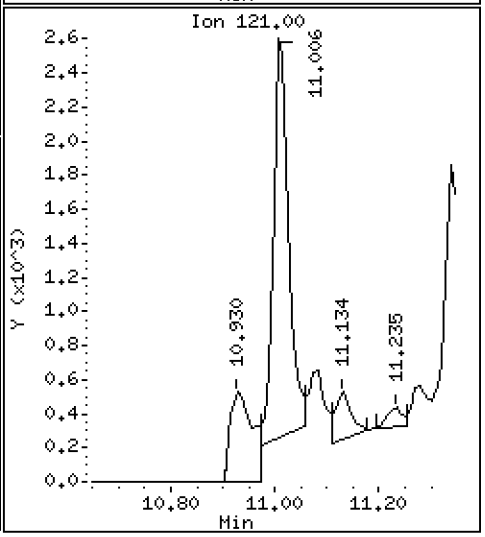


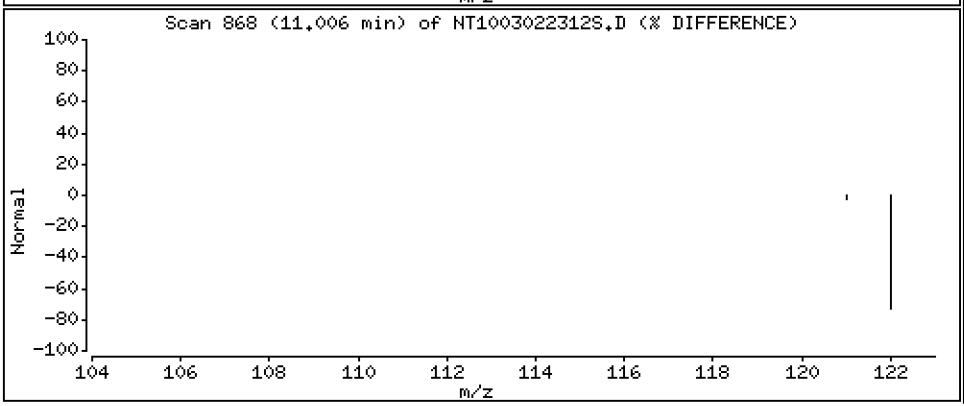












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

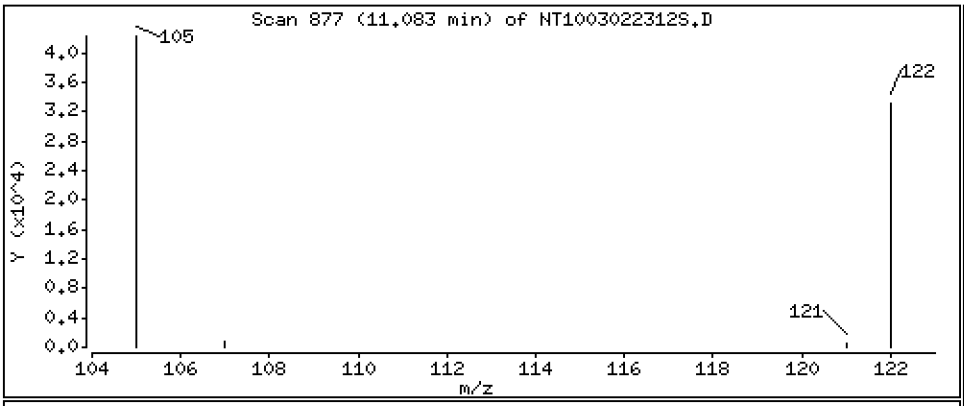
Operator: JGR

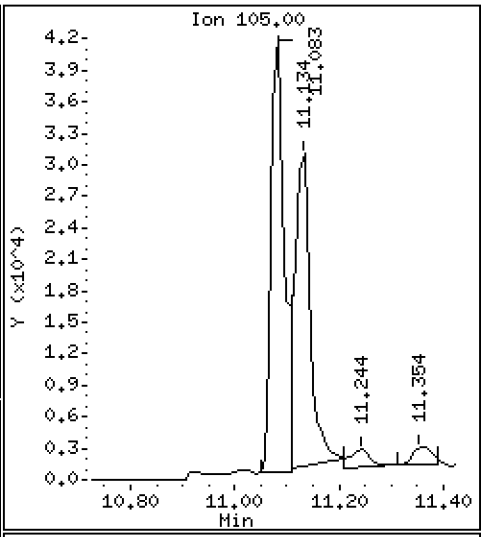
Column phase: ZB-5msi

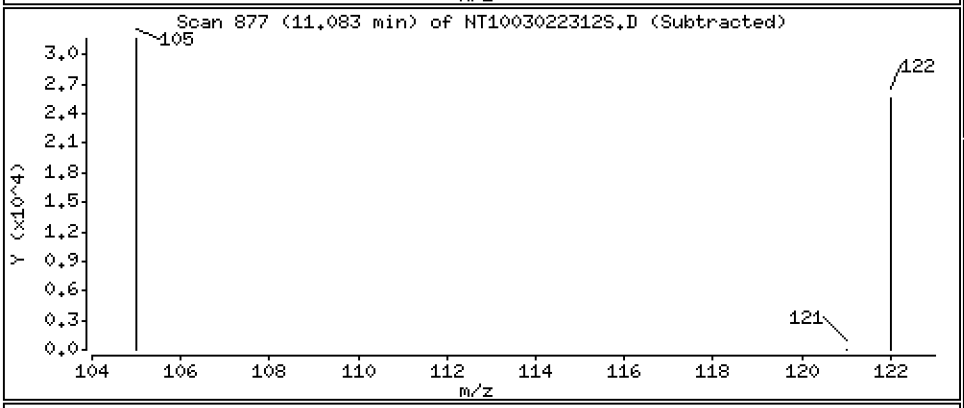
Column diameter: 0.25

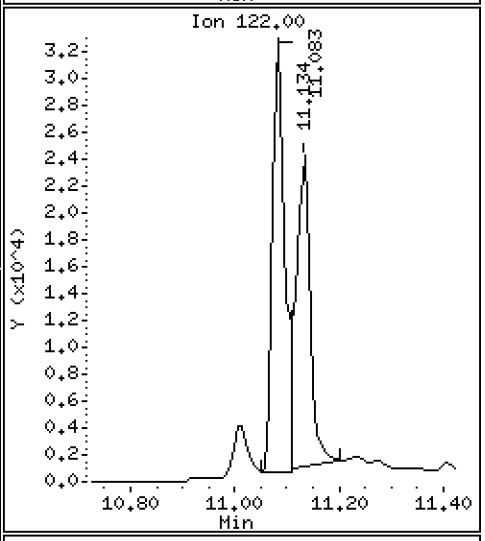
24 Benzoic acid

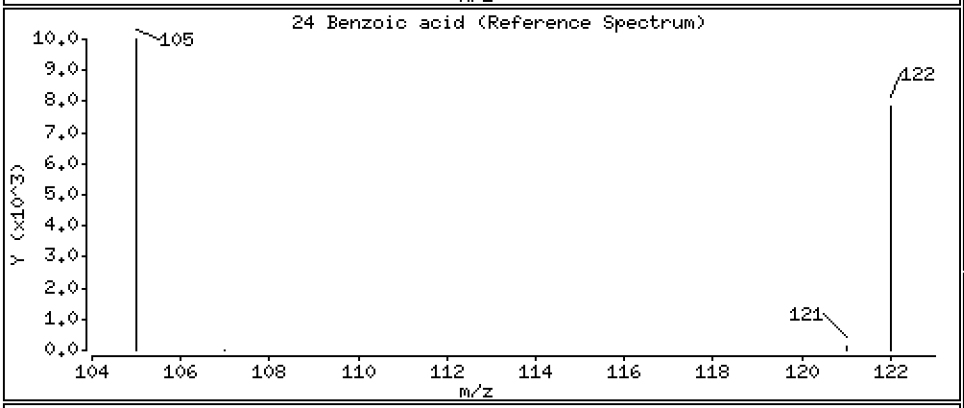
Concentration: 0.6311 ug/L

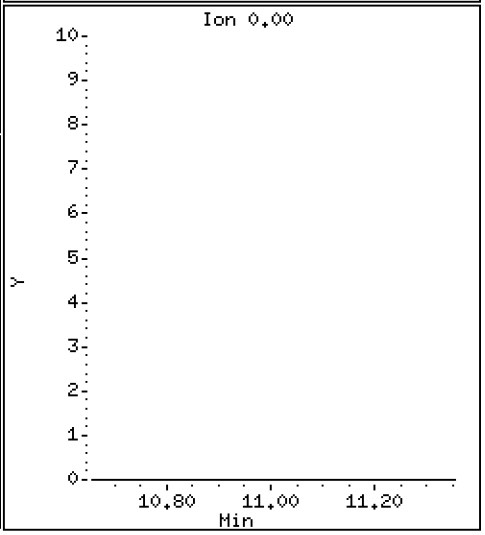


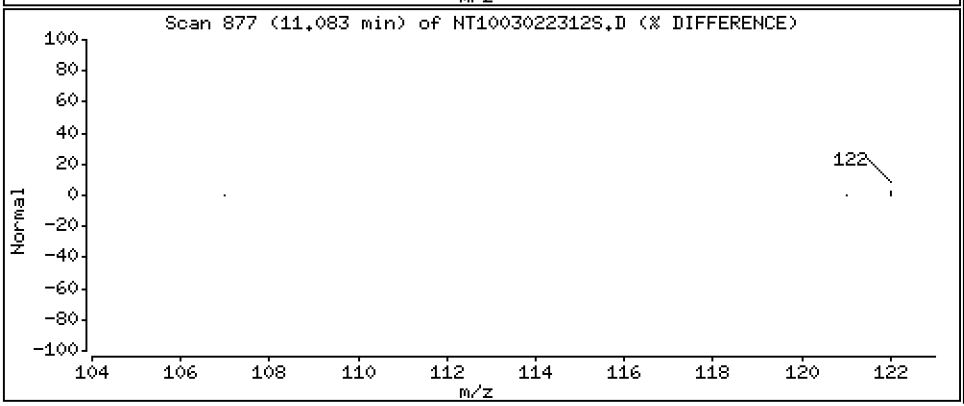












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

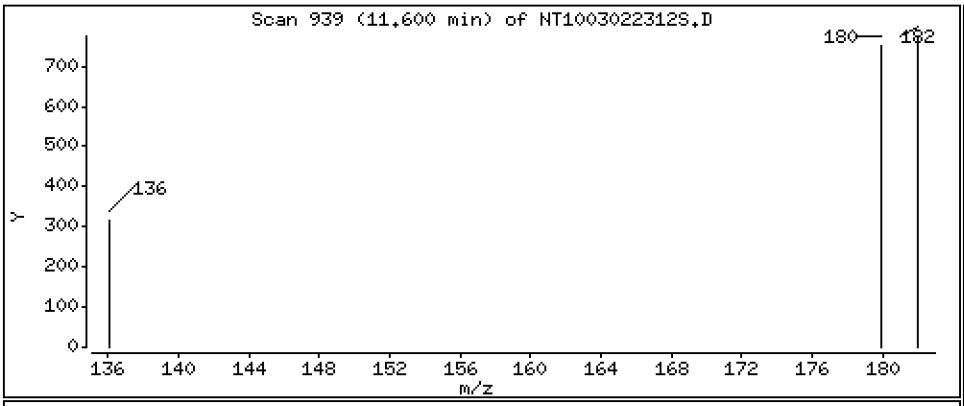
Operator: JGR

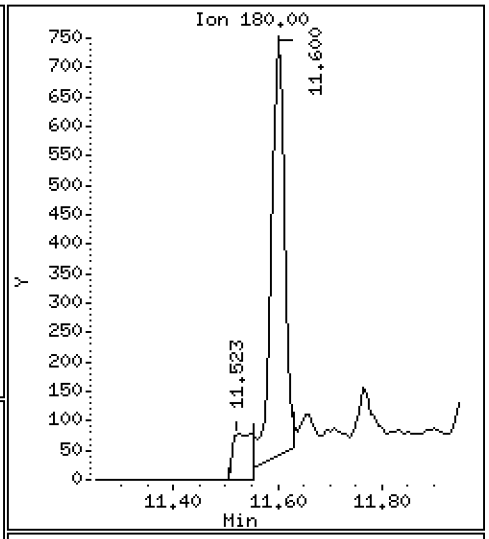
Column phase: ZB-5msi

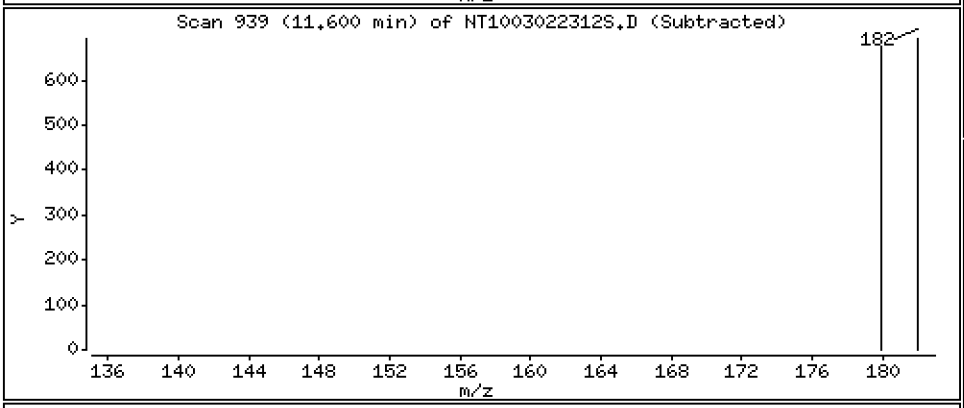
Column diameter: 0.25

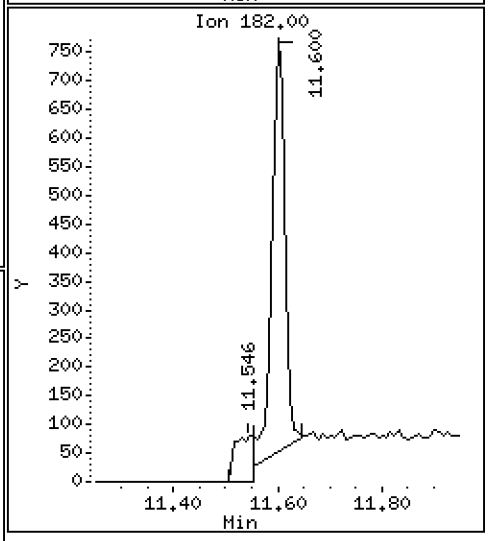
26 1,2,4-Trichlorobenzene

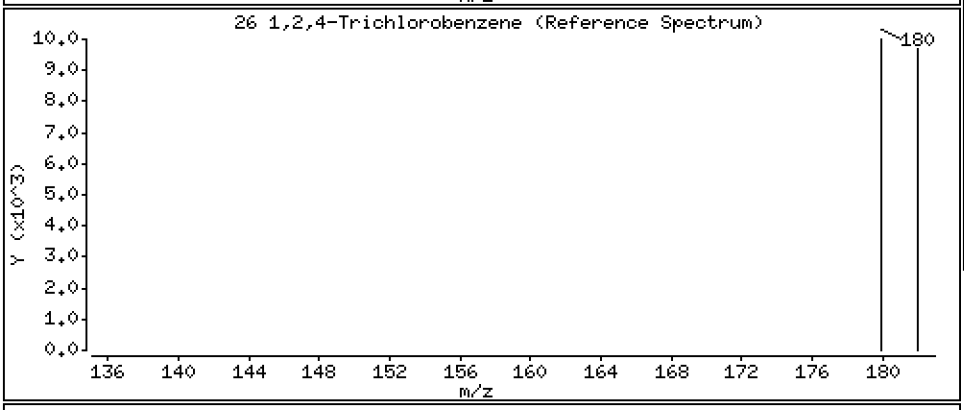
Concentration: 0.006590 ug/L

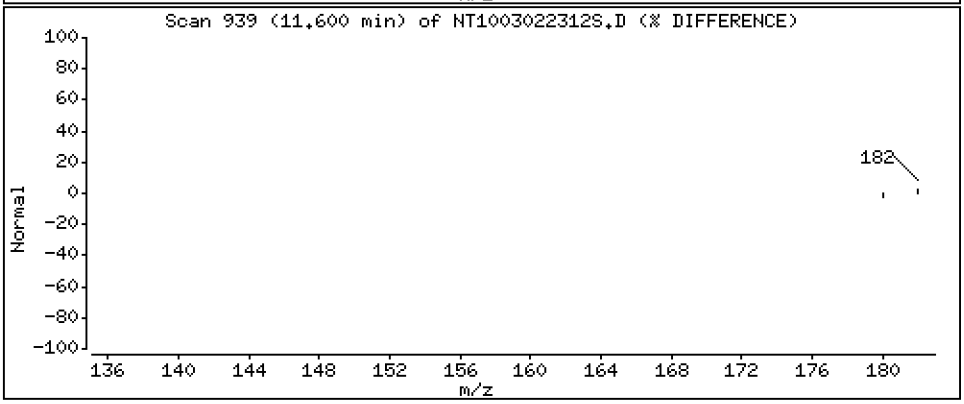












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

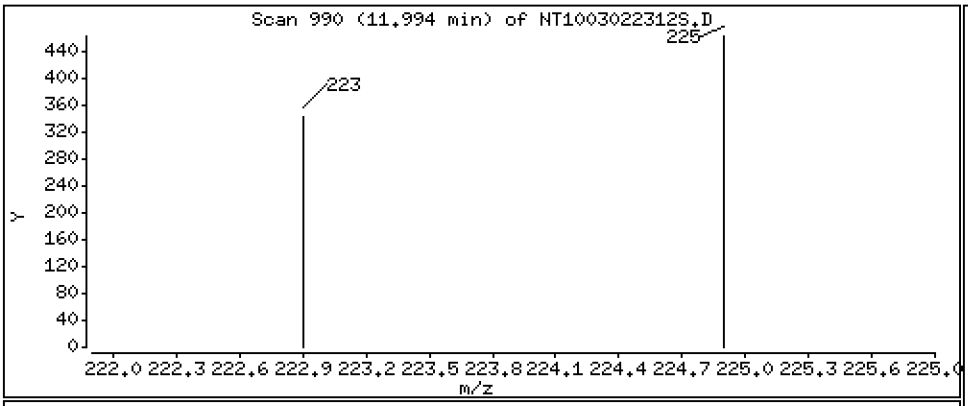
Operator: JGR

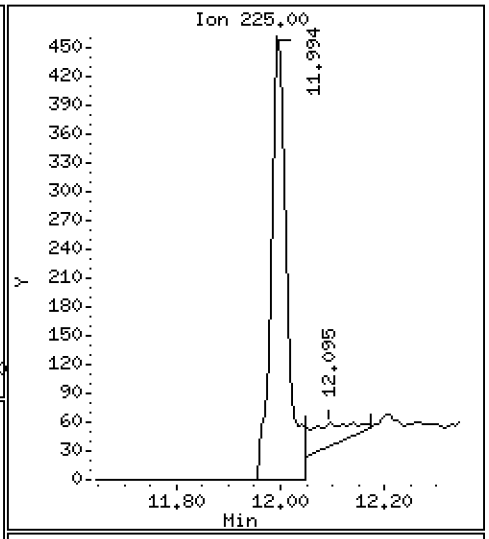
Column phase: ZB-5msi

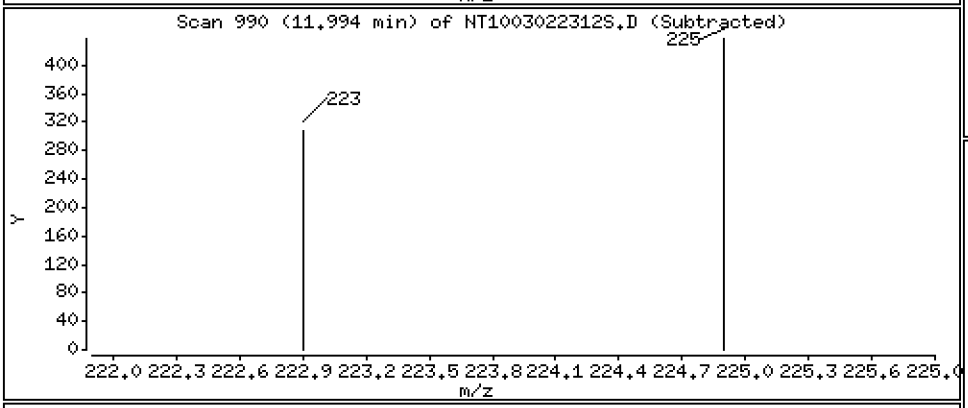
Column diameter: 0.25

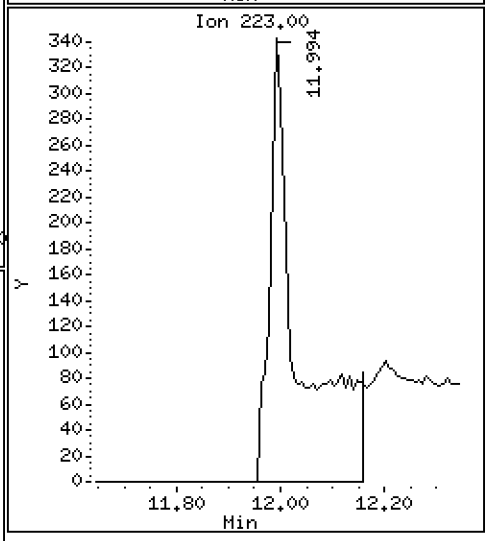
30 Hexachlorobutadiene

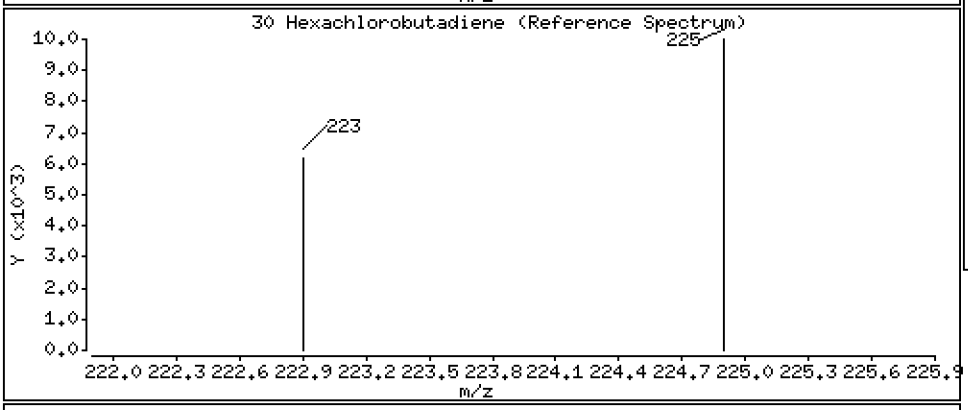
Concentration: 0.007303 ug/L

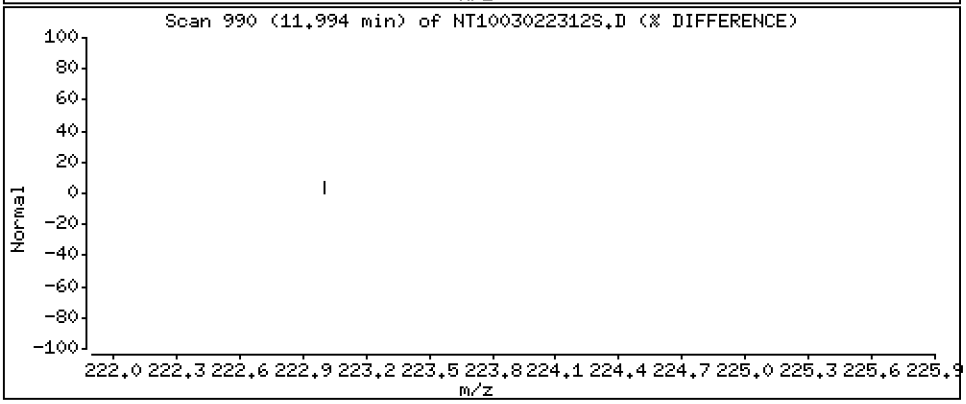












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

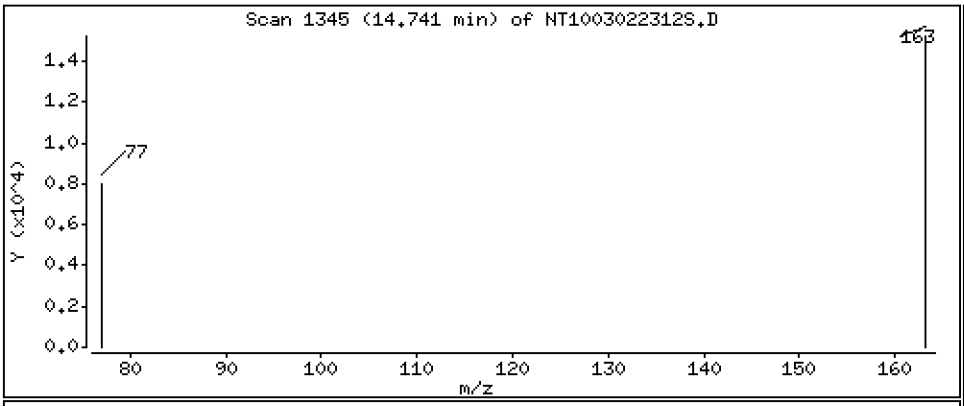
Operator: JGR

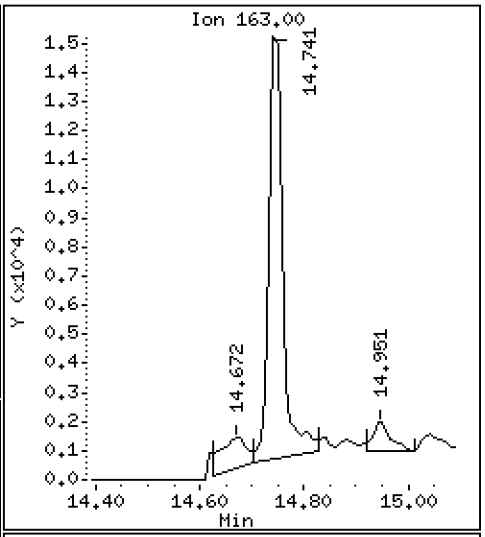
Column phase: ZB-5msi

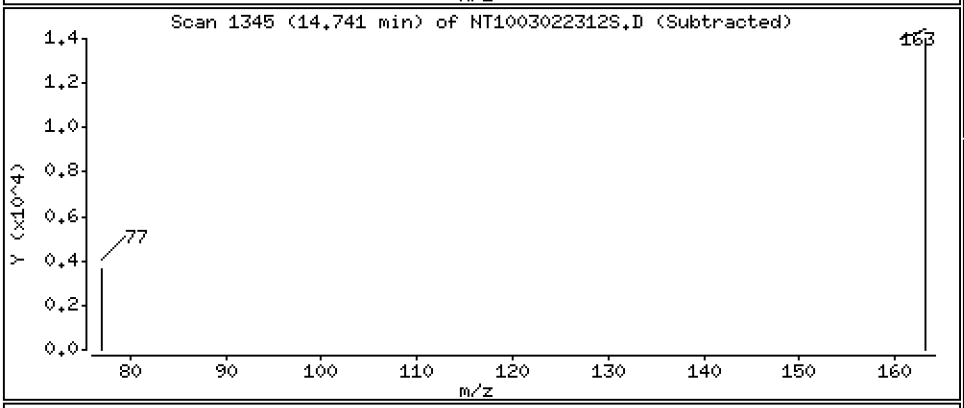
Column diameter: 0.25

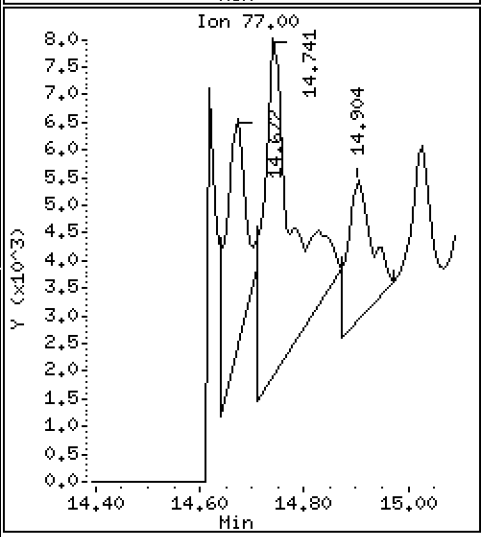
39 Dimethylphthalate

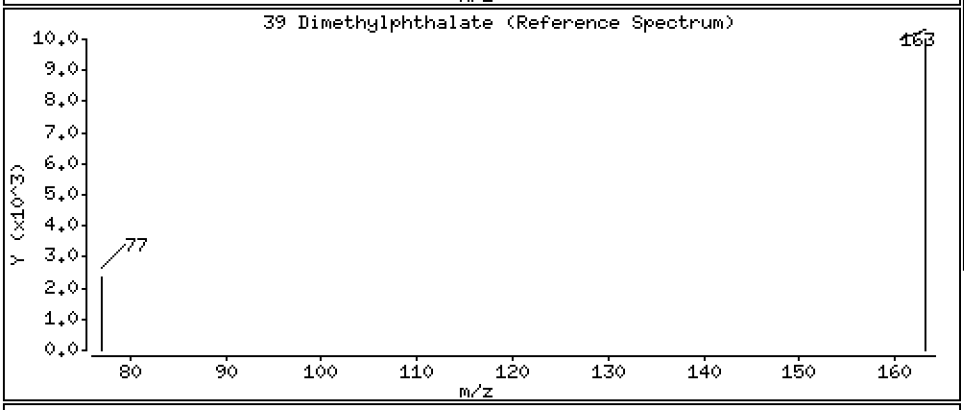
Concentration: 0.06597 ug/L

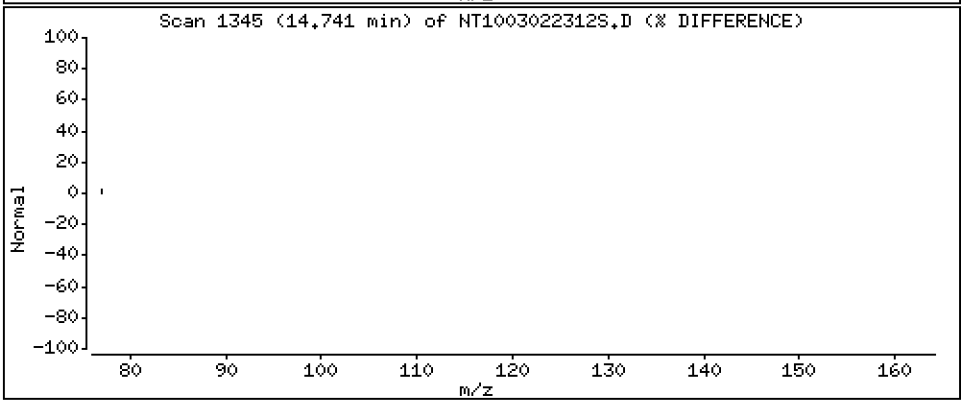












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

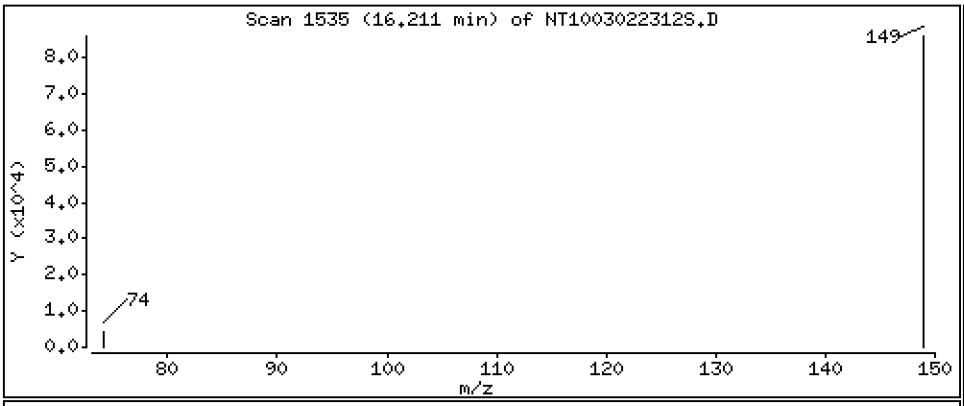
Operator: JGR

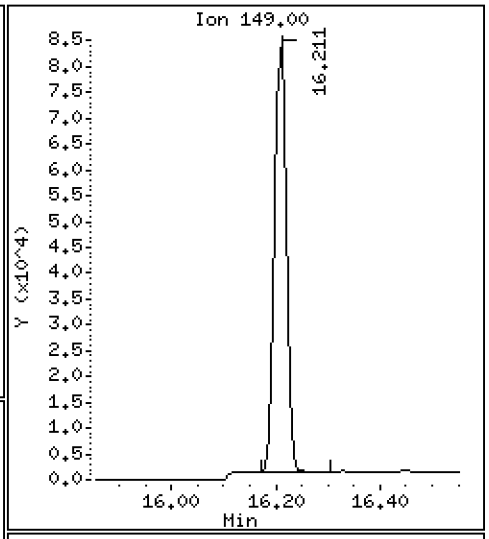
Column phase: ZB-5msi

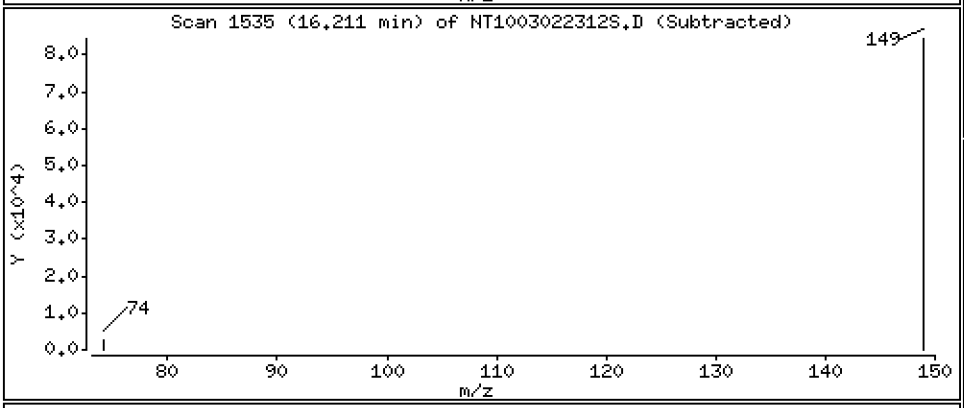
Column diameter: 0.25

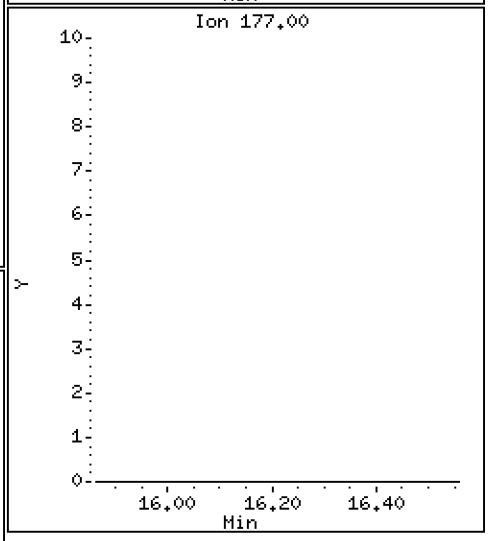
50 Diethylphthalate

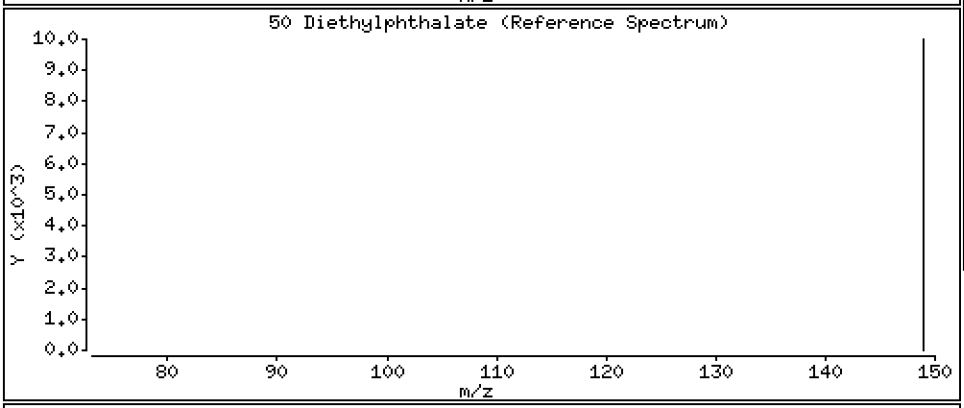
Concentration: 0.3326 ug/L

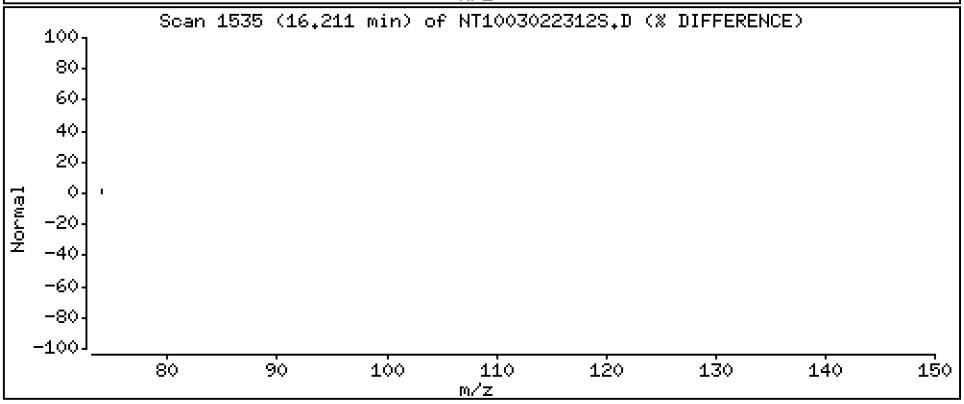












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

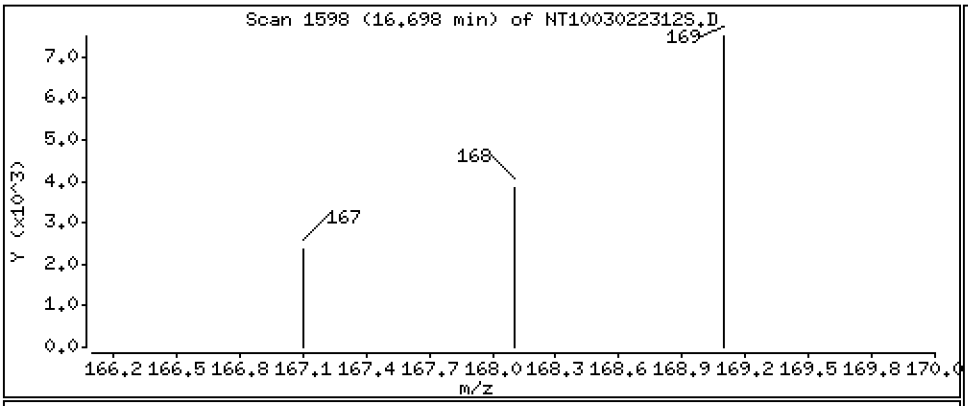
Operator: JGR

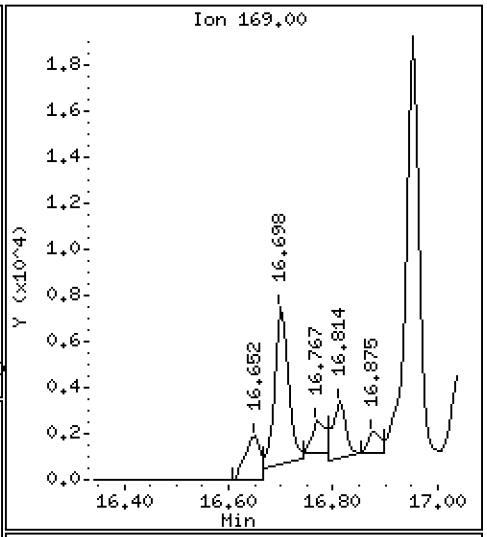
Column phase: ZB-5msi

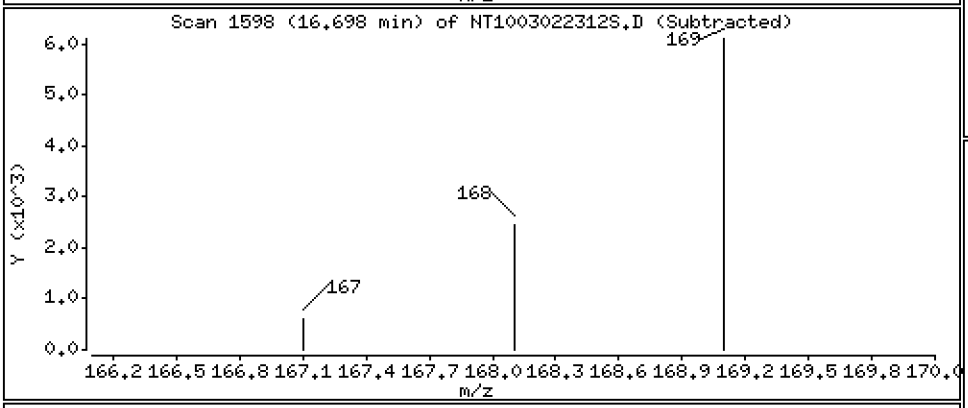
Column diameter: 0.25

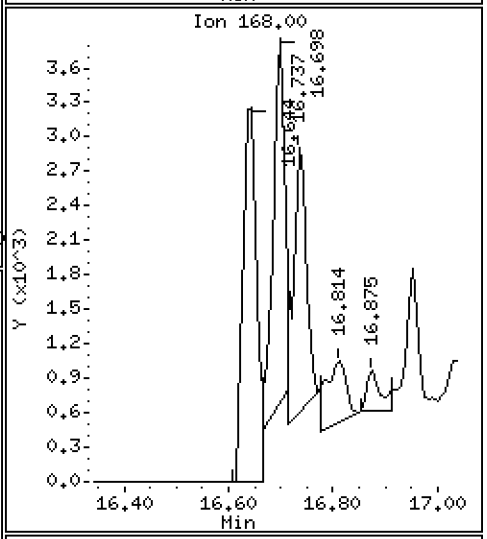
54 N-Nitrosodiphenylamine

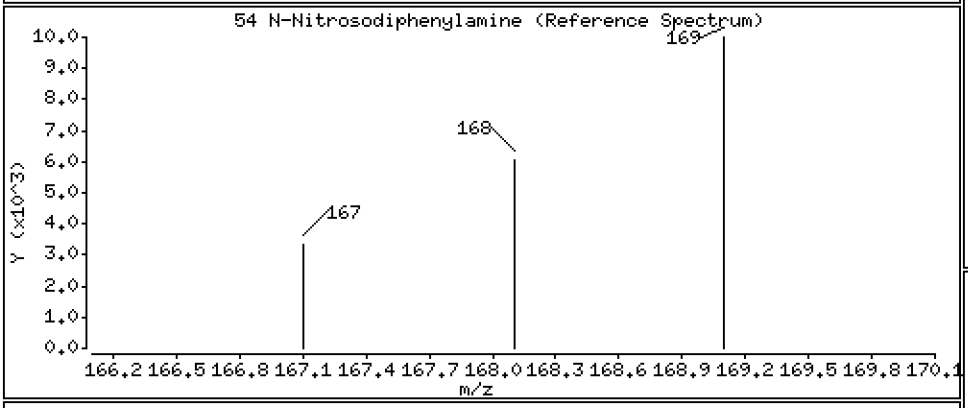
Concentration: 0.03481 ug/L

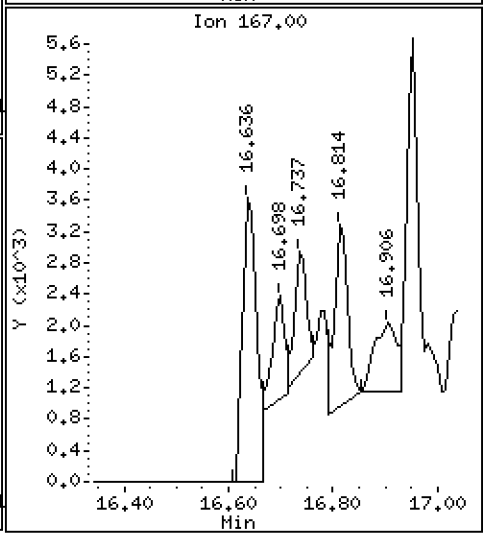


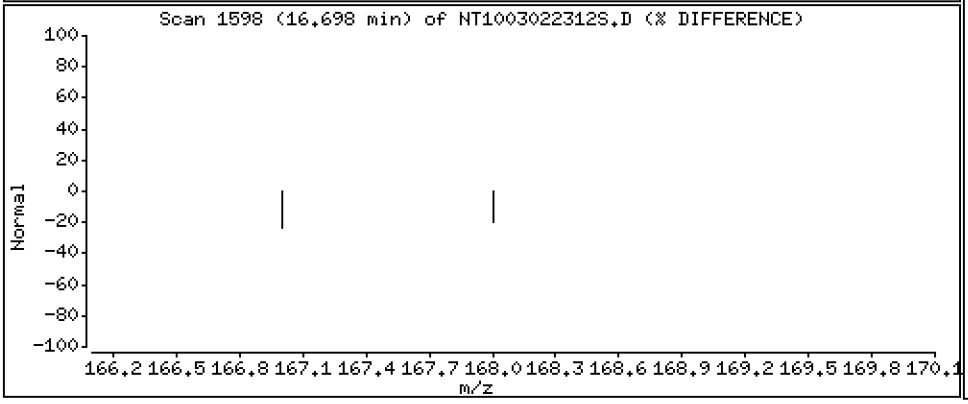












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

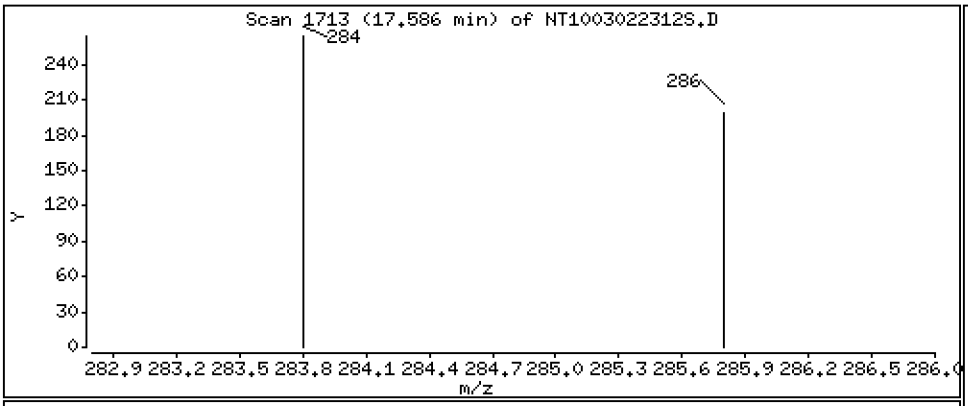
Operator: JGR

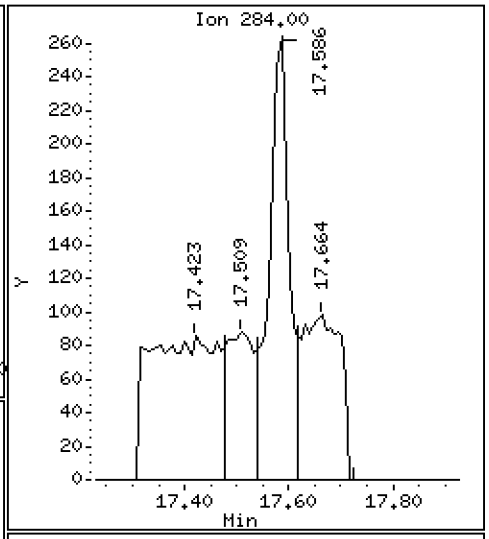
Column phase: ZB-5msi

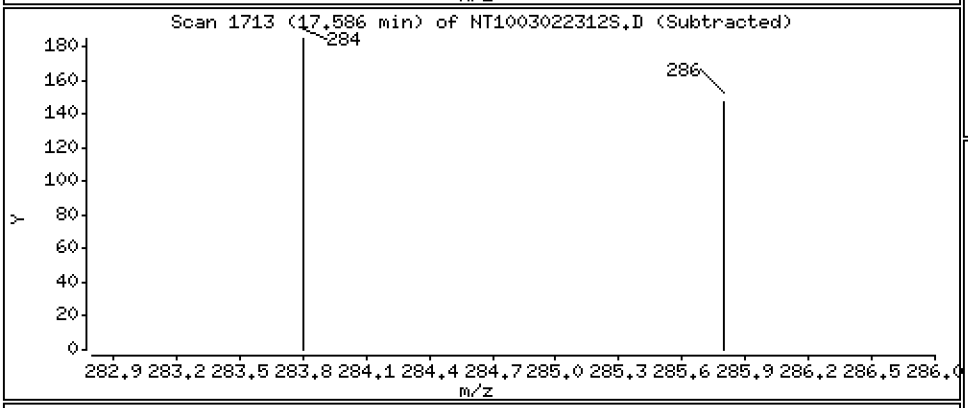
Column diameter: 0.25

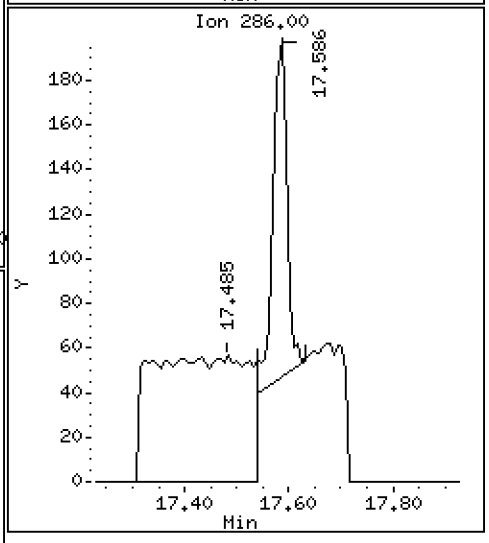
57 Hexachlorobenzene

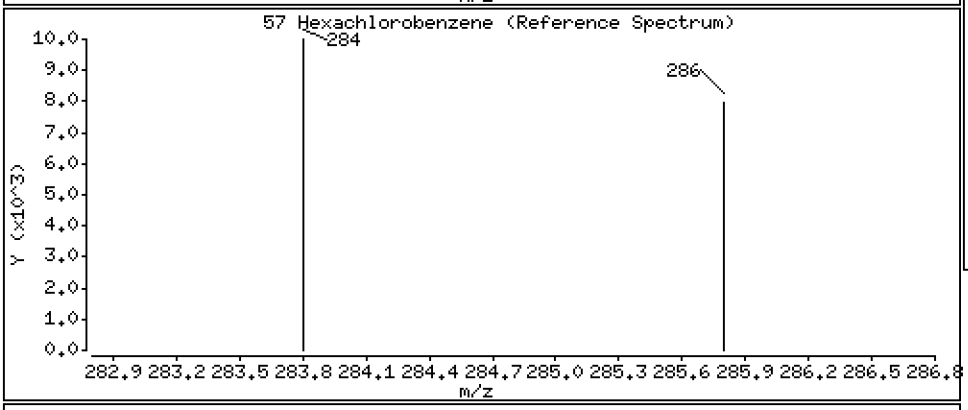
Concentration: 0.004138 ug/L

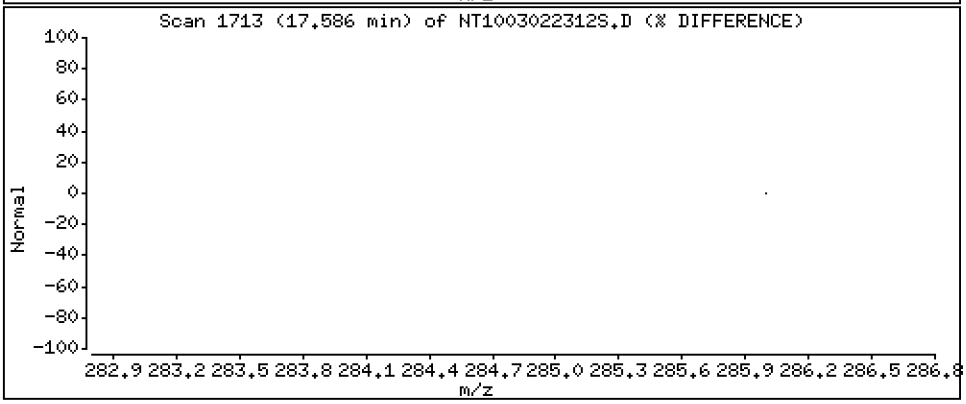












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

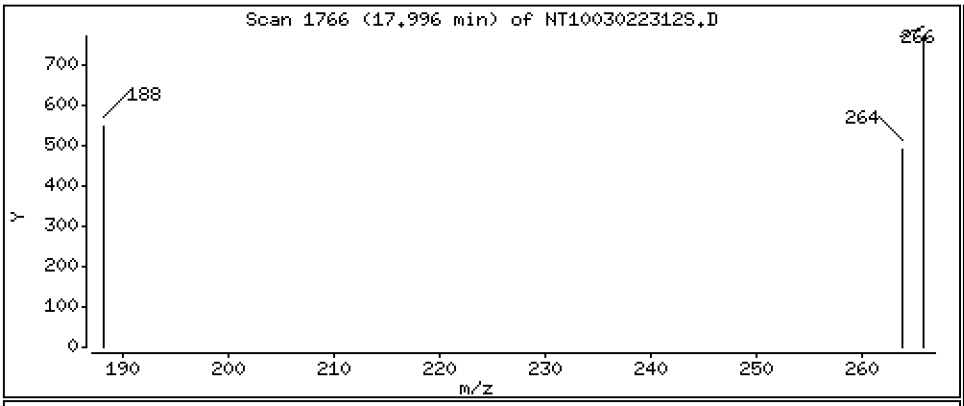
Operator: JGR

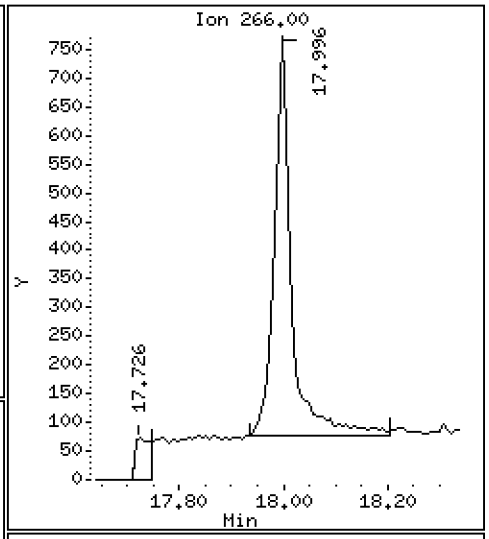
Column phase: ZB-5msi

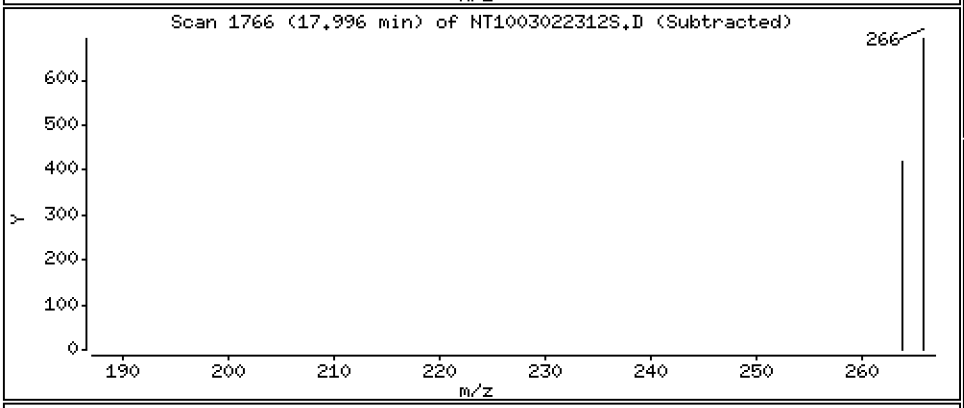
Column diameter: 0.25

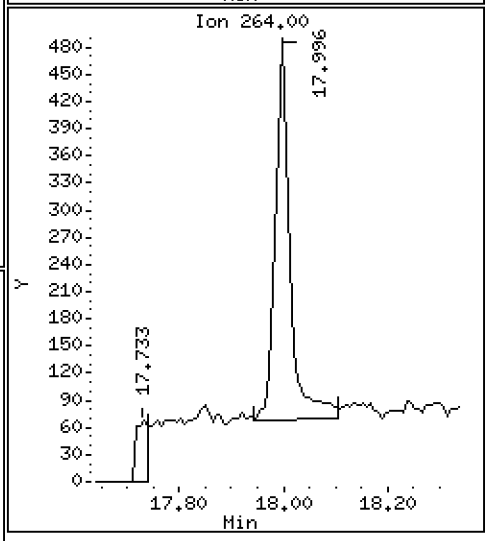
58 Pentachlorophenol

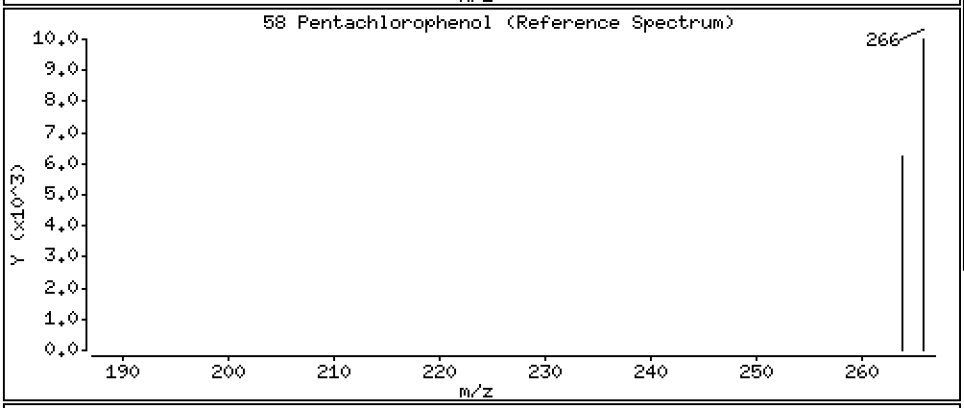
Concentration: 0.02110 ug/L

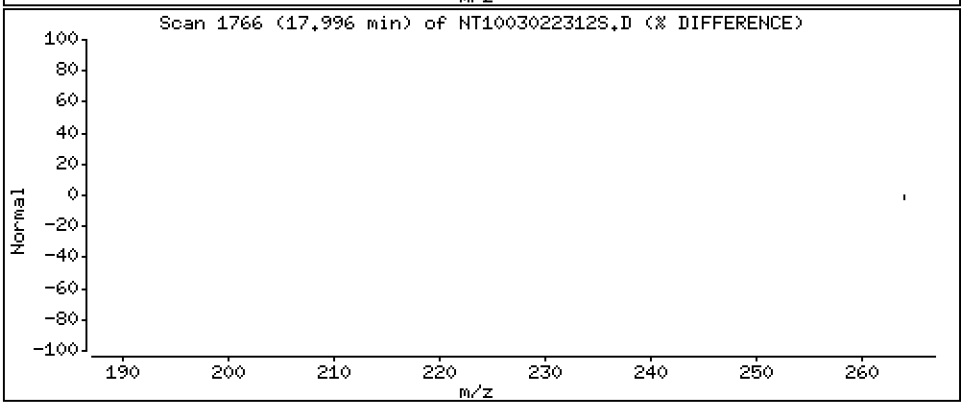












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

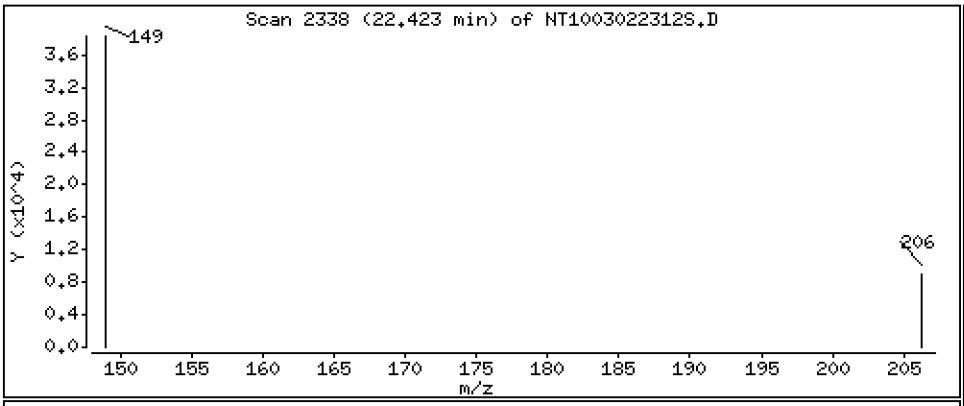
Operator: JGR

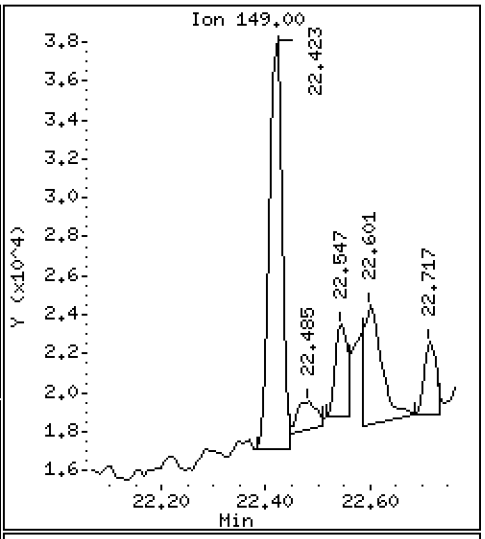
Column phase: ZB-5msi

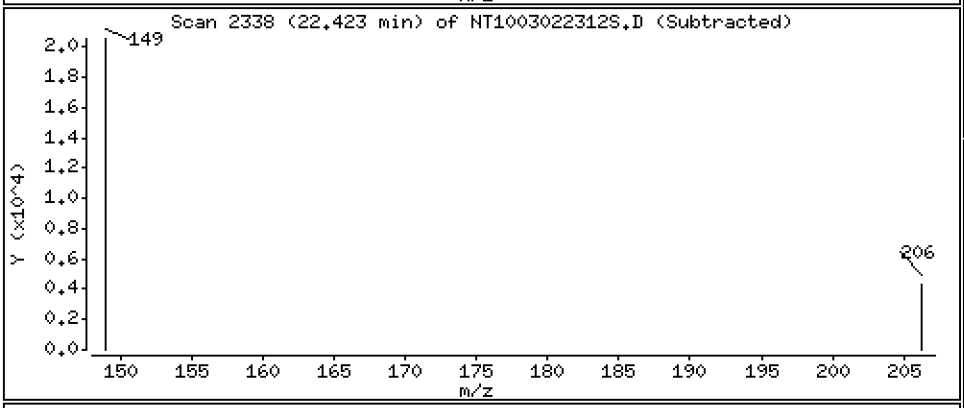
Column diameter: 0.25

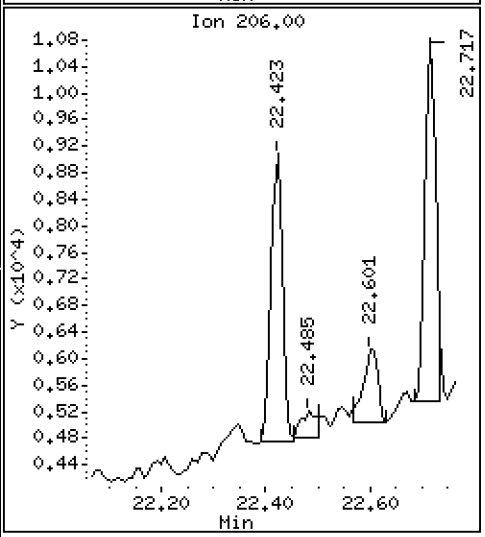
67 Butylbenzylphthalate

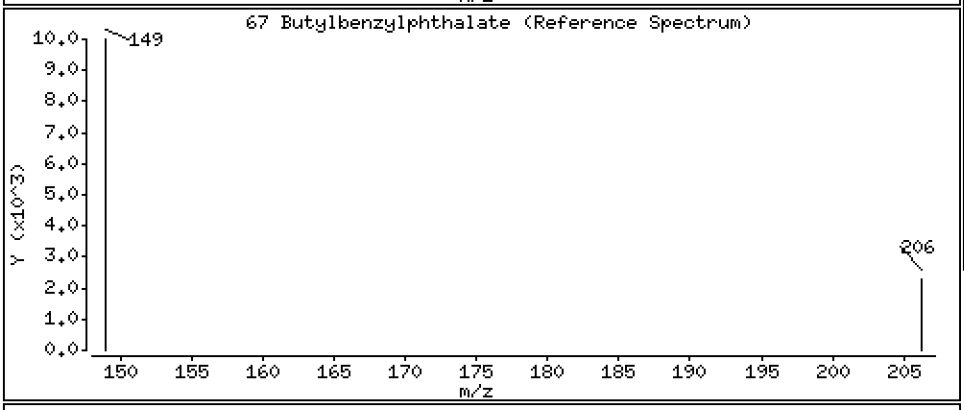
Concentration: 0.07165 ug/L

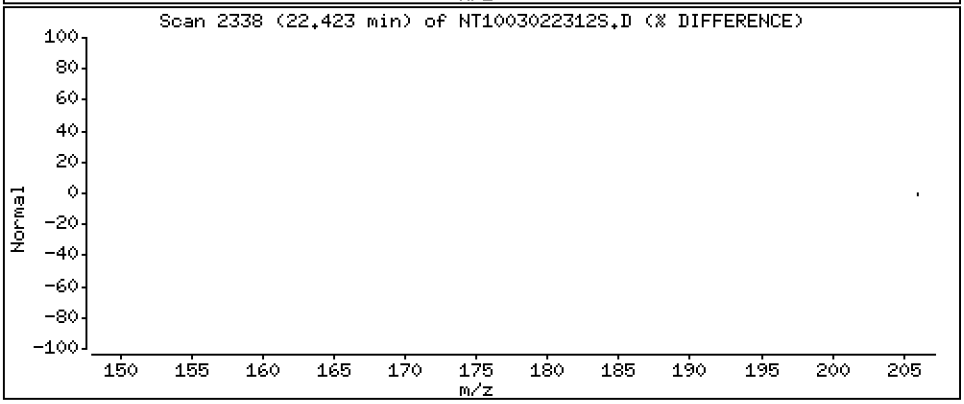












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

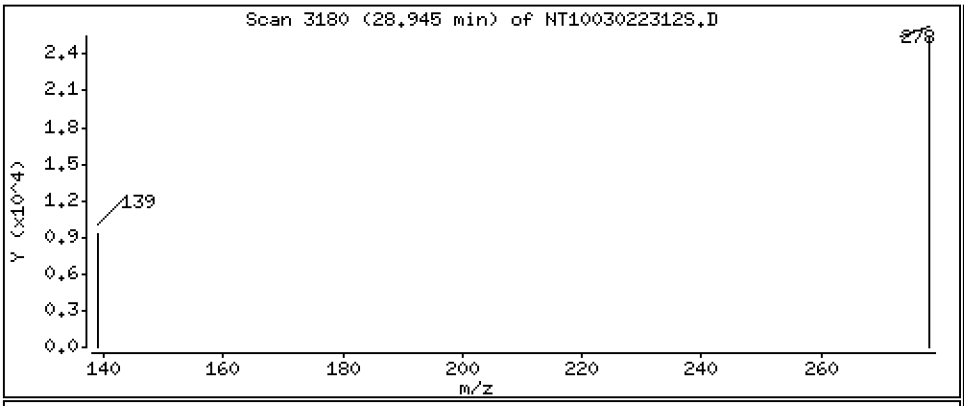
Operator: JGR

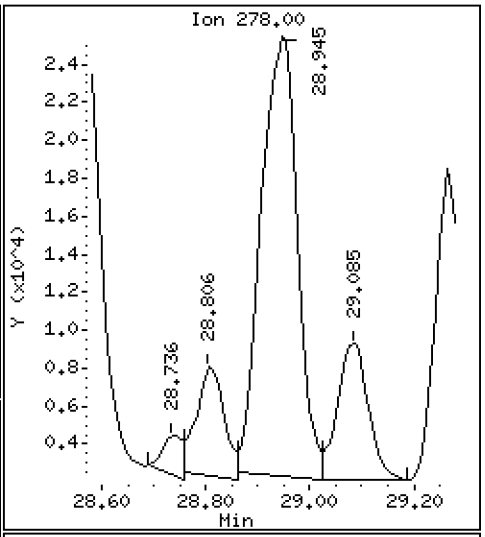
Column phase: ZB-5msi

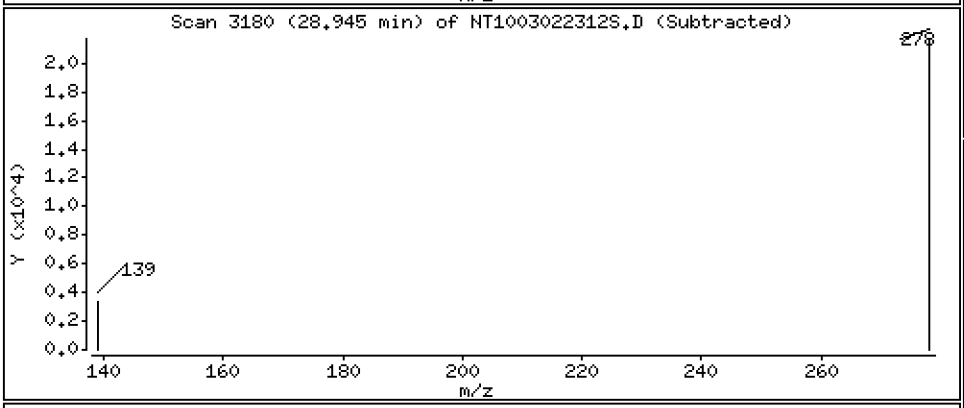
Column diameter: 0.25

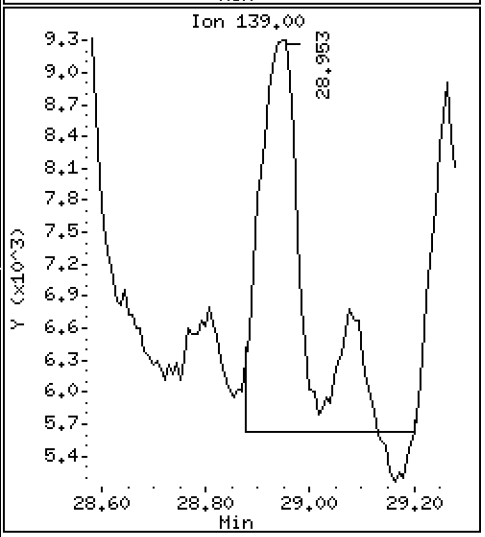
79 Dibenzo(a,h)anthracene

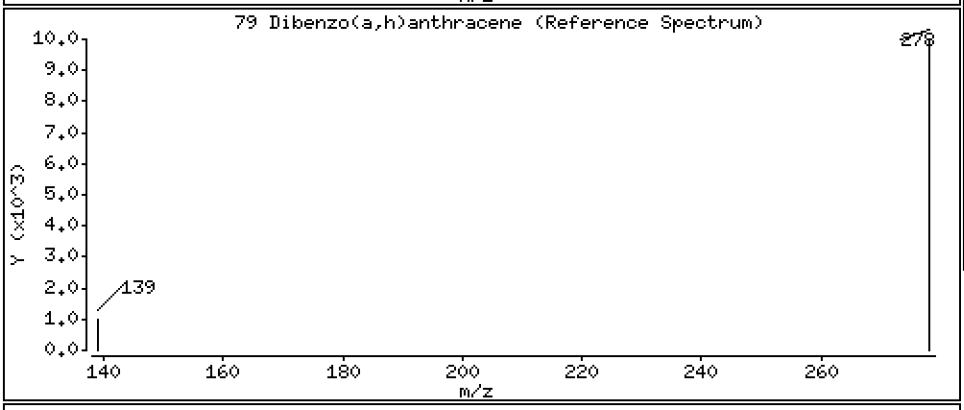
Concentration: 0.1597 ug/L

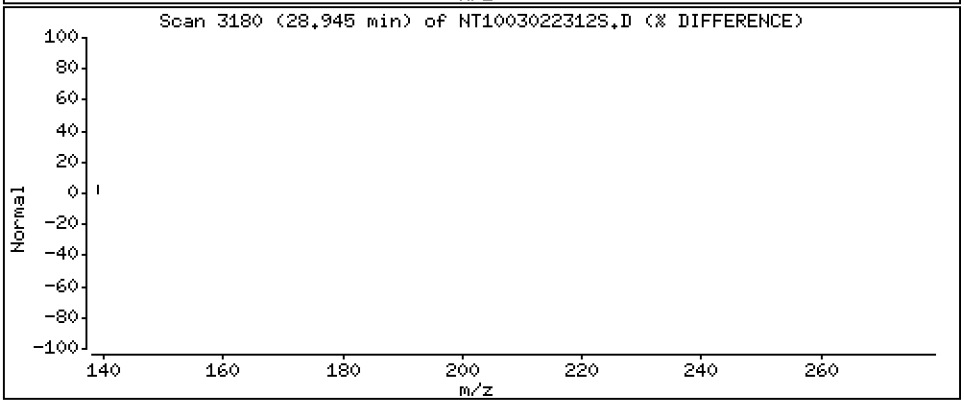












Data File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT10030223125.D

Date : 02-MAR-2023 21:22

Client ID:

Instrument: nt10.i

Sample Info: 23A0206-01

Volume Injected (uL): 1.0

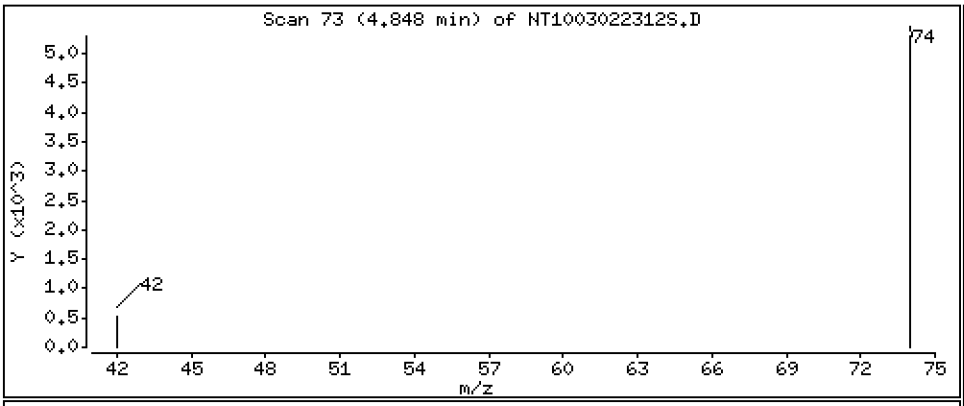
Operator: JGR

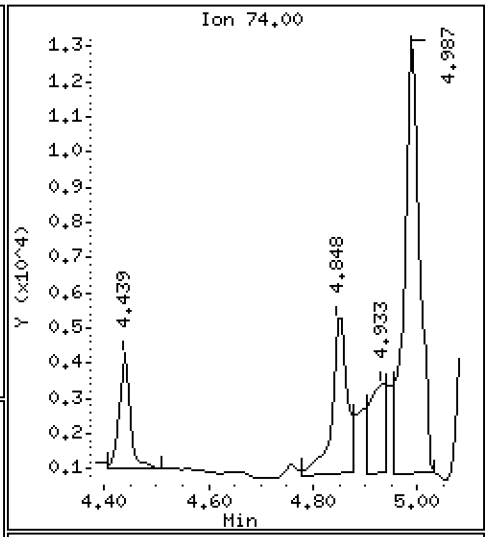
Column phase: ZB-5msi

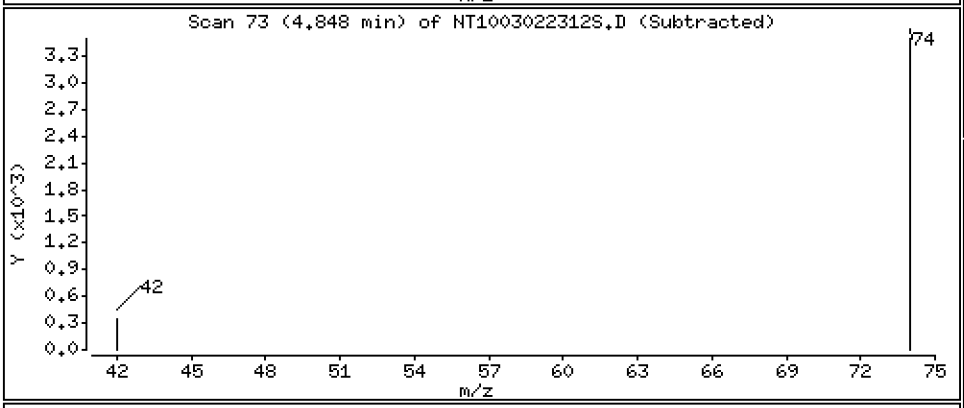
Column diameter: 0.25

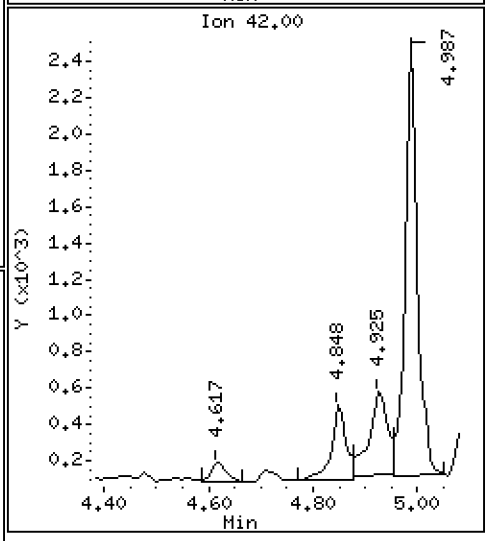
90 N-Nitrosodimethylamine

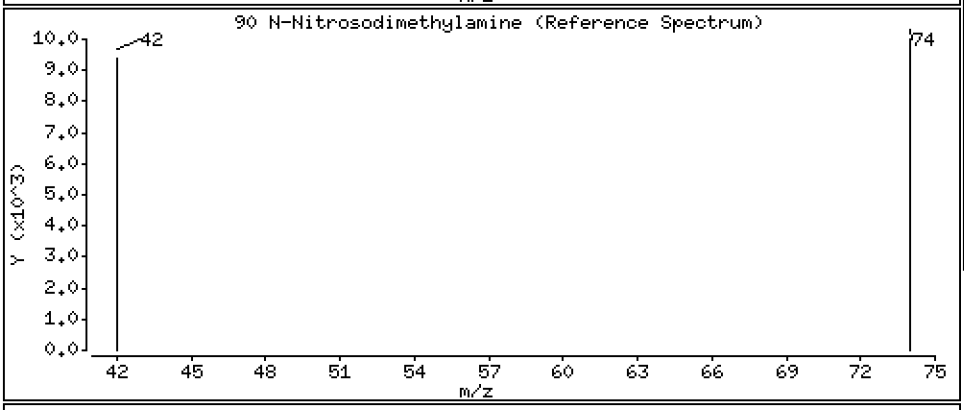
Concentration: 0.07999 ug/L

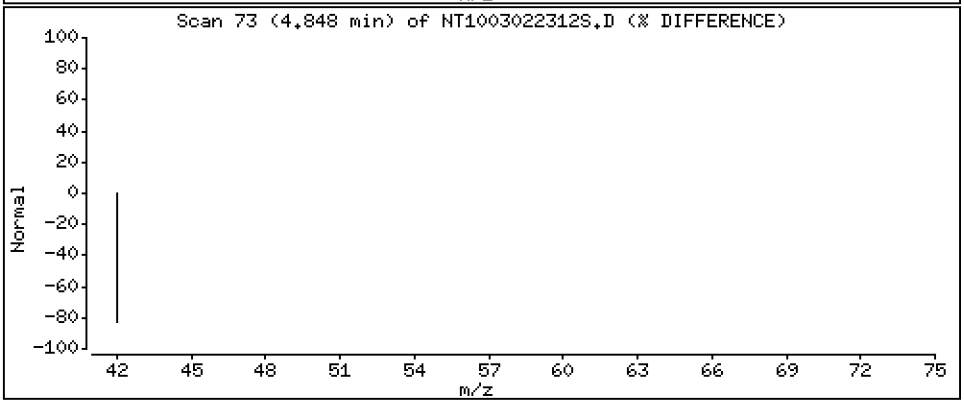












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230302.b\SIM.b\NT1003022312S.D
Lab Smp Id: 23A0206-01
Inj Date : 02-MAR-2023 21:22 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : 23A0206-01
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 14:53 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.910	6.902	(0.747)	1411998	6.85580	6.856(R)
3	Phenol	94	8.524	8.517	(0.921)	3134940	9.78296	9.783
7	1,3-Dichlorobenzene	146	9.143	9.143	(0.988)	1760	0.00658	0.006583
* 8	1,4-Dichlorobenzene-d4	152	9.251	9.251	(1.000)	721403	4.00000	
9	1,4-Dichlorobenzene	146	9.283	9.282	(1.003)	2596	0.00999	0.009987
11	Benzyl alcohol	79	9.476	9.476	(1.024)	46173	0.27334	0.2733
12	1,2-Dichlorobenzene	146	9.562	9.562	(1.034)	1202	0.00481	0.004811
13	2-Methylphenol	108	9.663	9.655	(1.044)	7769	0.04254	0.04254
15	4-Methylphenol	108	9.950	9.942	(1.076)	35061	0.18430	0.1843
16	N-Nitroso-di-n-propylamine	70	9.958	9.981	(1.076)	7989	0.05906	0.05906
22	2,4-Dimethylphenol	107	11.006	10.997	(0.939)	12257	0.05672	0.05672
24	Benzoic acid	105	11.082	11.074	(0.945)	74985	0.63106	0.6311
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	1208	0.00659	0.006590
* 27	Naphthalene-d8	136	11.723	11.723	(1.000)	2546921	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	950	0.00730	0.007303
39	Dimethylphthalate	163	14.741	14.741	(0.962)	25956	0.06597	0.06597
* 42	Acenaphthene-d10	162	15.321	15.314	(1.000)	1239070	4.00000	
50	Diethylphthalate	149	16.210	16.203	(1.058)	123384	0.33255	0.3326
54	N-Nitrosodiphenylamine	169	16.698	16.690	(0.907)	12763	0.03481	0.03481
57	Hexachlorobenzene	284	17.586	17.578	(0.955)	710	0.00414	0.004138

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	17.996	17.988	(0.977)	1584	0.02110	0.02110
*	59 Phenanthrene-d10	188	18.414	18.406	(1.000)	2265720	4.00000	
$	66 Terphenyl-d14	244	21.532	21.532	(0.919)	1103320	4.89149	4.891(R)
	67 Butylbenzylphthalate	149	22.422	22.414	(0.957)	33739	0.07165	0.07165
*	69 Chrysene-d12	240	23.429	23.421	(1.000)	2789268	4.00000	
*	77 Perylene-d12	264	26.131	26.115	(1.000)	3057877	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.945	28.929	(1.108)	113304	0.15967	0.1597
	90 N-Nitrosodimethylamine	74	4.848	4.732	(0.524)	9754	0.07999	0.07999

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003022312S.D
Lab Smp Id: 23A0206-01
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230302.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 02-MAR-2023
Calibration Time: 14:13
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	493417	246709	986834	721403	46.21
27 Naphthalene-d8	1779056	889528	3558112	2546921	43.16
42 Acenaphthene-d10	954569	477285	1909138	1239070	29.80
59 Phenanthrene-d10	1596290	798145	3192580	2265720	41.94
69 Chrysene-d12	1649110	824555	3298220	2789268	69.14
77 Perylene-d12	1901958	950979	3803916	3057877	60.78

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.25	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.32	0.05
59 Phenanthrene-d10	18.41	17.91	18.91	18.41	0.04
69 Chrysene-d12	23.42	22.92	23.92	23.43	0.03
77 Perylene-d12	26.12	25.62	26.62	26.13	0.06

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003022312S.D

Lab ID: 23A0206-01
nt10.i, 20230302.b\SIM.b\SIMABN2.m,   02-MAR-2023 21:22

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.524	0.511	0.0125	N-Nitrosodimethylamine

RRT check based on Ccal File: SIM.b/NT1003022303S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

ANALYSIS SEQUENCE

SLC0143

Instrument: NT10
Calibration ID: UNASSIGNED

Printed: 3/10/2023 10:34:45AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLC0143-CAL1	QC		1		K011453	K010831		
SLC0143-CAL2	QC		2		K011452	K010831		
SLC0143-CAL3	QC		3		K011105	K010831		
SLC0143-CAL4	QC		4		K011106	K010831		
SLC0143-CAL5	QC		5		K011107	K010831		
SLC0143-CAL6	QC		6		K011108	K010831		
SLC0143-CAL7	QC		7		K011109	K010831		
SLC0143-CAL8	QC		8		K011110	K010831		
SLC0143-ICB1	QC		9		K005156	K010831		
SLC0143-SCV1	QC		10		K010066	K010831		

Samples Loaded By Date

Data Processed By Date

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230301.b\SIM.b

	Time	Filename	LabID	ClientId	DF											
1	1642	NT1003012303S.D	SEQ-CAL8		1	9.25	358478	11.72	1302515	15.31	720687	18.40	1243145	23.42	1161833	26.11	1054384
2	1721	NT1003012304S.D	SEQ-CAL7		1	9.25	354441	11.72	1288295	15.31	739997	18.40	1248235	23.41	1079945	26.11	1086769
3	1759	NT1003012305S.D	SEQ-CAL6		1	9.24	334269	11.72	1202042	15.31	670352	18.40	1124281	23.41	948691	26.11	1004445
4	1837	NT1003012306S.D	SEQ-CAL5		1	9.24	320125	11.72	1136019	15.31	636993	18.40	1093620	23.41	1000300	26.10	1058448
5	1915	NT1003012307S.D	SEQ-CAL4		1	9.24	333617	11.72	1170292	15.31	639612	18.40	1094919	23.42	1048196	26.11	1117593
6	1953	NT1003012308S.D	SEQ-CAL3		1	9.25	314467	11.72	1088698	15.31	568154	18.40	979213	23.42	963807	26.11	1037909
7	2030	NT1003012309S.D	SEQ-CAL2		1	9.24	305434	11.72	1048978	15.31	536796	18.40	924275	23.42	947041	26.11	1060218
8	2109	NT1003012310S.D	SEQ-CAL1		1	9.25	370360	11.72	1262304	15.31	638059	18.40	1124768	23.42	1114478	26.11	1276260
9	2146	NT1003012311S.D	SEQ-SCV1		1	9.25	303734	11.72	1147551	15.31	645730	18.40	1151000	23.42	1297466	26.11	1394899
10	2224	NT1003012312S.D	SEQ-IBL1		1	9.25	515340	11.72	1787704	15.31	879316	18.40	1572306	23.42	1486349	26.11	1674195

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230301.b\SIM.b

ARI Job No.: SEQ- Method: SIM.b\SIMABN2.m Instrument: nt10.i Date: 01-MAR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1642	NT1003012303S.D	SEQ-CAL8		1	NO MANUAL INTEGRATION
1721	NT1003012304S.D	SEQ-CAL7		1	NO MANUAL INTEGRATION
1759	NT1003012305S.D	SEQ-CAL6		1	NO MANUAL INTEGRATION
1837	NT1003012306S.D	SEQ-CAL5		1	Pentachlorophenol,
1915	NT1003012307S.D	SEQ-CAL4		1	Pentachlorophenol,
1953	NT1003012308S.D	SEQ-CAL3		1	NO MANUAL INTEGRATION
2030	NT1003012309S.D	SEQ-CAL2		1	Benzyl alcohol, Benzoic acid,
2109	NT1003012310S.D	SEQ-CAL1		1	Benzyl alcohol, 2-Methylphenol, 4-Methylphenol, N-Nitroso-di-n-propylamine, N-Nitrosodiphenylamine, Hexachlorobenzene,
2146	NT1003012311S.D	SEQ-SCV1		1	NO MANUAL INTEGRATION
2224	NT1003012312S.D	SEQ-IBL1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 10-Mar-2023 11:02

NT1003012303S.D	Data Locked	yev, 10-
NT1003012304S.D	Data Locked	yev, 10-
NT1003012305S.D	Data Locked	yev, 10-
NT1003012306S.D	Data Locked	yev, 10-
NT1003012307S.D	Data Locked	yev, 10-
NT1003012308S.D	Data Locked	yev, 10-
NT1003012309S.D	Data Locked	yev, 10-
NT1003012310S.D	Data Locked	yev, 10-
NT1003012311S.D	Data Locked	yev, 10-
NT1003012312S.D	Data Locked	yev, 10-

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230301.b\SIM.b
Inst ID: nt10.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08
FILENAME:	NT1003012303S	NT1003012304S	NT1003012305S	NT1003012306S	NT1003012307S	NT1003012308S	NT1003012309S	NT1003012310S
INJ.DATE:	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023	01-MAR-2023
INJ.TIME:	16:42	17:21	17:59	18:37	19:15	19:53	20:30	21:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	6.902	6.902	6.895	6.895	6.895	6.902	6.903	6.902	6.902	6.402-7.402	6.900	0.004
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.580	33.080-34.080	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.873	30.373-31.373	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.300	30.800-31.800	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.300	30.800-31.800	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.496	14.996-15.996	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.428	19.928-20.928	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.471	19.971-20.971	+++++	+++++
137 NewCpnd_131	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.828	7.328-8.328	+++++	+++++
* 134 Di-n-octylphthalate-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.768	23.268-24.268	+++++	+++++
133 Butylatedhydroxytoluen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.190	13.690-14.690	+++++	+++++
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.262	30.762-31.762	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.954	29.454-30.454	+++++	+++++
146 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.752	23.252-24.252	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.717	27.217-28.217	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.566	20.066-21.066	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.796	19.296-20.296	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230301.b\SIM.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.349	22.849-23.849	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.474	21.974-22.974	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.191	10.691-11.691	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.779	17.279-18.279	+++++	+++++
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.310	15.810-16.810	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.707	17.207-18.207	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.921	8.421-9.421	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.736	3.236-4.236	+++++	+++++
$ 145 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.914	2.414-3.414	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.148	19.648-20.648	+++++	+++++
120 2,3,4,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.588	15.088-16.088	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.587	38.087-39.087	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.382	19.882-20.882	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.734	18.234-19.234	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.987	16.487-17.487	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.204	14.704-15.704	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.540	14.040-15.040	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.586	21.086-22.086	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.692	17.192-18.192	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.268	15.768-16.768	+++++	+++++
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.055	17.555-18.555	+++++	+++++
109 3,4,5-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.228	16.728-17.728	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230301.b\SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.517	16.017-17.017	+++++	+++++
	107 4,5-Dichloro-2-Methoxy	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.803	14.303-15.303	+++++	+++++
	106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.843	11.343-12.343	+++++	+++++
	105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.927	12.427-13.427	+++++	+++++
$	2 Phenol-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.235	7.735-8.735	+++++	+++++
	3 Phenol	8.525	8.517	8.517	8.518	8.518	8.525	8.525	8.533	8.533	8.033-9.033	8.522	0.006
	4 Bis(2-Chloroethyl)ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.397	7.897-8.897	+++++	+++++
$	5 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.490	7.990-8.990	+++++	+++++
	6 2-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.521	8.021-9.021	+++++	+++++
	7 1,3-Dichlorobenzene	9.143	9.143	9.136	9.136	9.136	9.143	9.144	9.136	9.136	8.636-9.636	9.140	0.004
*	8 1,4-Dichlorobenzene-d4	9.252	9.252	9.244	9.245	9.245	9.252	9.245	9.252	9.252	8.752-9.752	9.248	0.004
	9 1,4-Dichlorobenzene	9.283	9.283	9.275	9.276	9.276	9.275	9.276	9.275	9.275	8.775-9.775	9.277	0.003
$	10 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.230	8.730-9.730	+++++	+++++
	11 Benzyl alcohol	9.477	9.477	9.469	9.477	9.477	9.485	9.485	9.508	9.508	9.008-10.008	9.482	0.012
	12 1,2-Dichlorobenzene	9.562	9.562	9.562	9.563	9.563	9.562	9.563	9.563	9.563	9.063-10.063	9.562	0.000
	13 2-Methylphenol	9.656	9.655	9.656	9.656	9.656	9.663	9.664	9.671	9.671	9.171-10.171	9.660	0.006
	14 2,2'-oxybis(1-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.413	8.913-9.913	+++++	+++++
	15 4-Methylphenol	9.943	9.943	9.943	9.943	9.951	9.950	9.959	9.966	9.966	9.466-10.466	9.950	0.009
	16 N-Nitroso-di-n-propyla	9.982	9.982	9.974	9.974	9.974	9.974	9.974	9.982	9.982	9.482-10.482	9.977	0.004
	17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.809	9.309-10.309	+++++	+++++
$	18 Nitrobenzene-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.917	9.417-10.417	+++++	+++++
	19 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.948	9.448-10.448	+++++	+++++
	20 Isophorone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.399	9.899-10.899	+++++	+++++
	21 2-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.575	10.075-11.075	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

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Batch File: \\target\share\chem3\nt10.i\20230301.b\SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	22 2,4-Dimethylphenol	11.006	10.998	10.998	10.998	10.998	10.998	11.007	11.006	11.006	10.506-11.506	11.001	0.004
	23 Bis(2-Chloroethoxy)met	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.830	10.330-11.330	+++++	+++++
	24 Benzoic acid	11.218	11.159	11.108	11.074	11.058	11.074	11.007	+++++	11.007	10.507-11.507	11.100	0.070
	25 2,4-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.033	10.533-11.533	+++++	+++++
	26 1,2,4-Trichlorobenzene	11.600	11.600	11.600	11.601	11.601	11.600	11.601	11.600	11.600	11.100-12.100	11.600	0.000
*	27 Naphthalene-d8	11.724	11.724	11.724	11.724	11.724	11.724	11.724	11.724	11.724	11.224-12.224	11.724	0.000
	28 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.326	10.826-11.826	+++++	+++++
	29 4-Chloroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.457	10.957-11.957	+++++	+++++
	30 Hexachlorobutadiene	11.994	11.994	11.994	11.994	11.994	11.994	11.994	11.994	11.994	11.494-12.494	11.994	0.000
	31 4-Chloro-3-methylpheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.432	11.932-12.932	+++++	+++++
	32 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.710	12.210-13.210	+++++	+++++
	33 Hexachlorocyclopentadi	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.182	12.682-13.682	+++++	+++++
	34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.330	12.830-13.830	+++++	+++++
	35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.415	12.915-13.915	+++++	+++++
$	36 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.484	12.984-13.984	+++++	+++++
	37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.686	13.186-14.186	+++++	+++++
	38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.941	13.441-14.441	+++++	+++++
	39 Dimethylphthalate	14.749	14.741	14.741	14.742	14.742	14.741	14.742	14.749	14.749	14.249-15.249	14.744	0.004
	40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.545	14.045-15.045	+++++	+++++
	41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.506	14.006-15.006	+++++	+++++
*	42 Acenaphthene-d10	15.314	15.314	15.314	15.314	15.314	15.314	15.314	15.314	15.314	14.814-15.814	15.314	0.000
	43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.785	14.285-15.285	+++++	+++++
	44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.924	14.424-15.424	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230301.b\SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.001	14.501-15.501	+++++	+++++
	46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.248	14.748-15.748	+++++	+++++
	47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.171	14.671-15.671	+++++	+++++
	48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.302	14.802-15.802	+++++	+++++
	49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.952	15.452-16.452	+++++	+++++
	50 Diethylphthalate	16.219	16.211	16.203	16.203	16.203	16.203	16.211	16.211	16.211	15.711-16.711	16.208	0.006
	51 4-Chlorophenyl-phenyle	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.952	15.452-16.452	+++++	+++++
	52 4-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.037	15.537-16.537	+++++	+++++
	53 4,6-Dinitro-2-methylph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.145	15.645-16.645	+++++	+++++
	54 N-Nitrosodiphenylamine	16.698	16.690	16.690	16.691	16.691	16.698	16.698	16.706	16.706	16.206-17.206	16.695	0.006
$	55 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.477	15.977-16.977	+++++	+++++
	56 4-Bromophenyl-phenylet	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.939	16.439-17.439	+++++	+++++
	57 Hexachlorobenzene	17.578	17.578	17.578	17.579	17.579	17.578	17.579	17.579	17.579	17.079-18.079	17.579	0.000
	58 Pentachlorophenol	17.989	17.981	17.989	17.989	17.989	17.996	18.004	18.012	18.012	17.512-18.512	17.994	0.010
*	59 Phenanthrene-d10	18.399	18.399	18.399	18.399	18.399	18.399	18.399	18.399	18.399	17.899-18.899	18.399	0.000
	60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.899	17.399-18.399	+++++	+++++
	61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.991	17.491-18.491	+++++	+++++
	62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.324	17.824-18.824	+++++	+++++
	63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.152	18.652-19.652	+++++	+++++
	64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.289	19.789-20.789	+++++	+++++
	65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.715	20.215-21.215	+++++	+++++
$	66 Terphenyl-d14	21.524	21.524	21.524	21.525	21.525	21.524	21.525	21.532	21.532	21.032-22.032	21.526	0.003
	67 Butylbenzylphthalate	22.407	22.407	22.407	22.407	22.415	22.415	22.407	22.415	22.415	21.915-22.915	22.410	0.004
	68 Benzo(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.875	22.375-23.375	+++++	+++++

ARI Labs, Inc.
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Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	69 Chrysene-d12	23.421	23.414	23.414	23.414	23.422	23.421	23.422	23.422	23.422	22.922-23.922	23.419	0.004
	70 3,3'-Dichlorobenzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.844	22.344-23.344	+++++	+++++
	71 Chrysene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.952	22.452-23.452	+++++	+++++
	72 bis(2-Ethylhexyl)phtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.007	22.507-23.507	+++++	+++++
	73 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.990	23.490-24.490	+++++	+++++
	74 Benzo(b)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.687	24.187-25.187	+++++	+++++
	75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.725	24.225-25.225	+++++	+++++
	76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.283	24.783-25.783	+++++	+++++
*	77 Perylene-d12	26.108	26.108	26.108	26.101	26.108	26.108	26.108	26.108	26.108	25.608-26.608	26.107	0.003
	78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.794	27.294-28.294	+++++	+++++
	79 Dibenzo(a,h)anthracene	28.930	28.914	28.914	28.915	28.930	28.938	28.946	28.946	28.946	28.446-29.446	28.929	0.013
	80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.494	27.994-28.994	+++++	+++++
$	85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.238	16.738-17.738	+++++	+++++
$	86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.316	28.816-29.816	+++++	+++++
$	87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.007	25.507-26.507	+++++	+++++
$	88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	44.609	44.109-45.109	+++++	+++++
$	89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.085	15.585-16.585	+++++	+++++
	90 N-Nitrosodimethylamine	4.732	4.724	4.717	4.725	4.725	4.740	4.740	4.756	4.756	4.256-5.256	4.732	0.012
	91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.305	7.805-8.805	+++++	+++++
	92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.615	21.115-22.115	+++++	+++++
	93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.529	20.029-21.029	+++++	+++++
$	95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.686	17.186-18.186	+++++	+++++
	96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.540	14.040-15.040	+++++	+++++
	97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.957	26.457-27.457	+++++	+++++

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Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.609	19.109-20.109	+++++	+++++
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.438	24.938-25.938	+++++	+++++
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.384	25.884-26.884	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.881	43.381-44.381	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	45.573	45.073-46.073	+++++	+++++
103 Pyridine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.535	4.035-5.035	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Calibration File Names:
Level 1: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012310S.D
Level 2: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012309S.D
Level 3: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012308S.D
Level 4: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012307S.D
Level 5: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012306S.D
Level 6: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012305S.D
Level 7: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012304S.D
Level 8: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012303S.D

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
142 1,2-Dibromo-3-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
135 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
136 2,3,4,5-tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
137 NewCpnd_131	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
133 Butylatedhydroxytoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
132 3,6-Dimethylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
146 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1 / 5.0000 Level 7	0.1000000 Level 2 / 10.0000 Level 8	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
144 alpha-Terpineol	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
125 Safrole	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
124 3,4-Dimethylphenol	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
123 Acetophenone	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
122 Furfuraldehyde	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
143 1,4-Dioxane	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
121 Quinoline	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
120 2,3,4,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
111 Azobenzene (1,2-DP-Hydrazine)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
107 4,5-Dichloro-2-Methoxyphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
3 Phenol	3599	8264	19568	61458	128497	360891					
	767247	1593896					QUAD	0.000e+000	0.59382	-0.00714	0.99994
4 Bis(2-Chloroethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
6 2-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
7 1,3-Dichlorobenzene	1.56799	1.52570	1.49198	1.51309	1.44269	1.43612					
	1.43451	1.44742					AVRG		1.48244		3.36989
9 1,4-Dichlorobenzene	1.50923	1.47580	1.43373	1.46395	1.40754	1.40391					
	1.39839	1.43790					AVRG		1.44131		2.72097

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
11 Benzyl alcohol	1380	3114	10320	31347	65076	200086					
	449975	980075					QUAD	0.000e+000	1.07135	-0.05783	0.99978
12 1,2-Dichlorobenzene	1.43363	1.40456	1.36192	1.41000	1.36327	1.36665					
	1.36335	1.37939					AVRG		1.38535		1.96993
13 2-Methylphenol	1789	4548	11161	35755	75957	215648					
	472415	995533					QUAD	0.000e+000	0.98781	-0.03181	0.99992
14 2,2'-oxybis(1-Chloropropane)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
15 4-Methylphenol	2062	3746	9608	34768	75243	225735					
	500092	1071975					QUAD	0.000e+000	0.94989	-0.03839	0.99982
16 N-Nitroso-di-n-propylamine	1965	4218	10242	27908	57866	160503					
	338518	699099					QUAD	0.000e+000	1.33351	-0.02653	0.99995
17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
19 Nitrobenzene	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
20 Isophorone	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
21 2-Nitrophenol	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
22 2,4-Dimethylphenol	6159	11856	27660	89362	185925	522194					
	1127131	2348644					QUAD	0.000e+000	2.94692	-0.09695	0.99996
23 Bis(2-Chloroethoxy)methane	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000
24 Benzoic acid	#####	#####	7336	37634	126544	521508					
	1425868	3313595					QUAD	0.000e+000	5.37547	-0.57371	0.99759
25 2,4-Dichlorophenol	#####	#####	#####	#####	#####	#####					
	#####	#####					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
26 1,2,4-Trichlorobenzene	0.28887	0.28679	0.28252	0.29461	0.28337	0.28328					
	0.28854	0.29525					AVRG		0.28790		1.72341
28 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
29 4-Chloroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
30 Hexachlorobutadiene	0.21833	0.20386	0.19805	0.20413	0.19707	0.19656					
	0.20447	0.21198					AVRG		0.20431		3.73354
31 4-Chloro-3-methylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
32 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
33 Hexachlorocyclopentadiene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
39 Dimethylphthalate	1.17306	1.13674	1.17700	1.32015	1.33033	1.34291					
	1.32177	1.35881					AVRG		1.27010		7.15698
40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
50 Diethylphthalate	1.10372	1.06260	1.10882	1.22577	1.23779	1.26204					
	1.26512	1.31611					AVRG		1.19775		7.73514
51 4-Chlorophenyl-phenylether	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
52 4-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
53 4,6-Dinitro-2-methylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
54 N-Nitrosodiphenylamine	0.52420	0.58247	0.62289	0.68128	0.64518	0.68703					
	0.70947	0.72627					AVRG		0.64735		10.57293
56 4-Bromophenyl-phenylether	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
57 Hexachlorobenzene	0.29659	0.29809	0.29705	0.31056	0.29828	0.29945					
	0.31009	0.31346					AVRG		0.30295		2.34116

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Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
58 Pentachlorophenol	+++++	1243	3505	15934	44811	176209					
	489921	1121362					QUAD	0.000e+000	7.54611	-2.24262	0.99782
60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
67 Butylbenzylphthalate	4671	8617	19744	65574	144786	387221					
	915766	1888709					QUAD	0.000e+000	1.48043	0.03284	0.99960
68 Benzo(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
70 3,3'-Dichlorobenzidine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
71 Chrysene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
72 bis(2-Ethylhexyl)phthalate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
73 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
74 Benzo(b)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
79 Dibenzo(a,h)anthracene	10824	20472	39856	120142	236566	599679					
	1371633	2937326					QUAD	0.000e+000	1.07973	-0.06563	0.99996
80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
90 N-Nitrosodimethylamine	0.58127	0.59640	0.65358	0.68722	0.70407	0.73905					
	0.71236	0.73487					AVRG		0.67610		8.92506
91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
101 Cholesterol	*****	*****	*****	*****	*****	*****					
	*****	*****					AVRG		0.000e+000		0.000e+000
102 beta-Sitosterol	*****	*****	*****	*****	*****	*****					
	*****	*****					AVRG		0.000e+000		0.000e+000
103 Pyridine	*****	*****	*****	*****	*****	*****					
	*****	*****					AVRG		0.000e+000		0.000e+000
$ 1 2-Fluorophenol	1.02185	1.05555	1.08844	1.17836	1.17520	1.21583					
	1.18289	1.21771					AVRG		1.14198		6.62406
$ 145 d8-1,4-Dioxane	*****	*****	*****	*****	*****	*****					
	*****	*****					AVRG		0.000e+000		0.000e+000
$ 2 Phenol-d5	*****	*****	*****	*****	*****	*****					
	*****	*****					AVRG		0.000e+000		0.000e+000
$ 5 2-Chlorophenol-d4	*****	*****	*****	*****	*****	*****					
	*****	*****					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
$ 10 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
$ 18 Nitrobenzene-d5	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
$ 36 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
$ 55 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
$ 66 Terphenyl-d14	0.26682	0.28582	0.28446	0.31786	0.33307	0.36379					
	0.37637	0.35956					AVRG		0.32347		12.80012
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2000000 Level 3	0.5000000 Level 4	1.0000 Level 5	2.5000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7	10.0000 Level 8									
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2023 16:42
End Cal Date : 01-MAR-2023 21:09
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Last Edit : 08-Mar-2023 14:14 yev

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123035.D

Date : 01-MAR-2023 16:42

Client ID:

Instrument: nt10.i

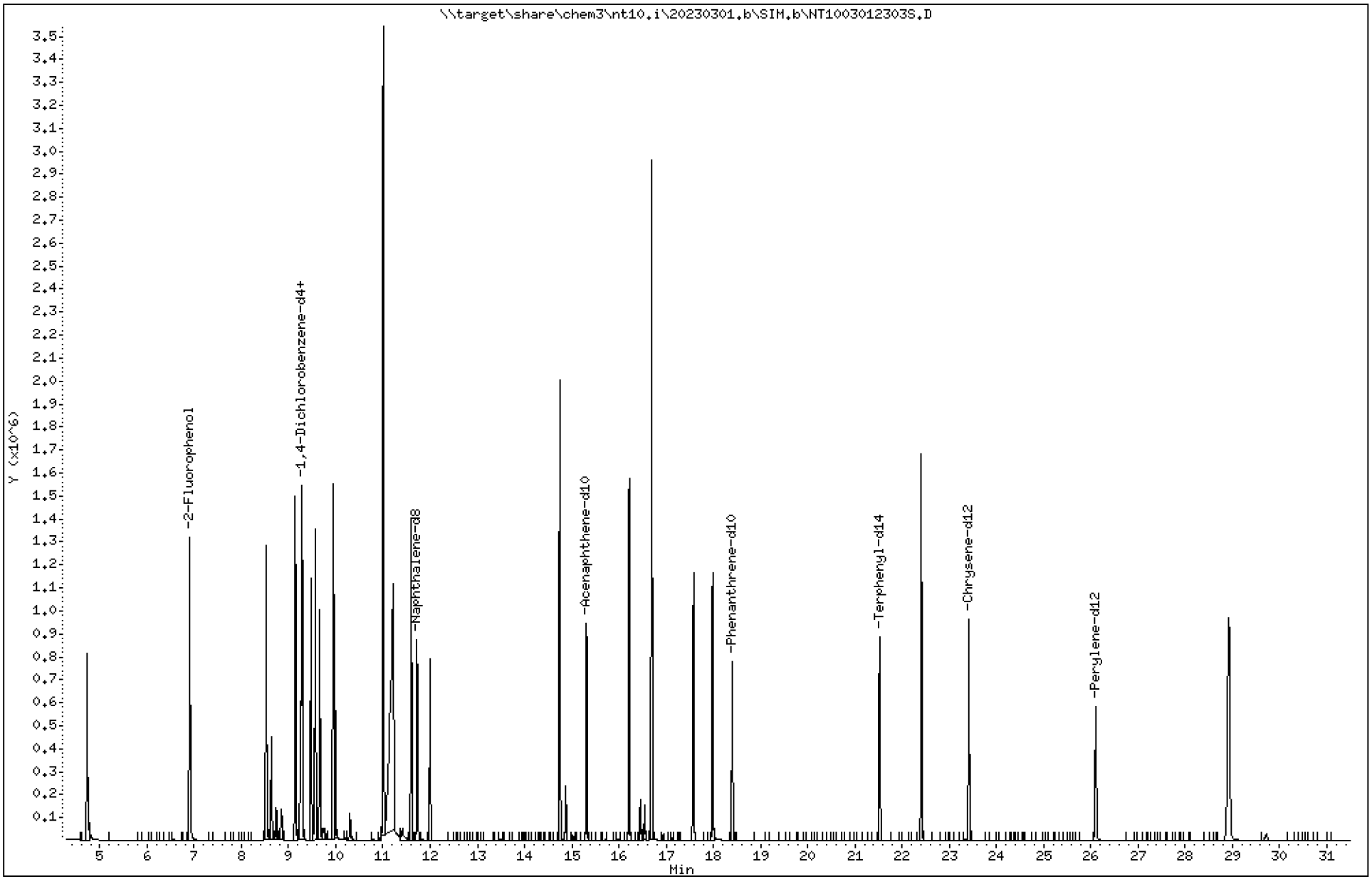
Sample Info: SEQ-CAL8

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012303S.D
Lab Smp Id: SLC0143-CAL8
Inj Date : 01-MAR-2023 16:42 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-CAL8
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:10 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 3 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$ 1	2-Fluorophenol	112	6.902	6.902	(0.746)	1636956	15.0000	15.99
3	Phenol	94	8.524	8.532	(0.921)	1593896	10.0000	9.997
7	1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	1297168	10.0000	9.764
* 8	1,4-Dichlorobenzene-d4	152	9.251	9.252	(1.000)	358478	4.00000	
9	1,4-Dichlorobenzene	146	9.282	9.275	(1.003)	1288638	10.0000	9.976(H)
11	Benzyl alcohol	79	9.476	9.508	(1.024)	980075	10.0000	9.987
12	1,2-Dichlorobenzene	146	9.562	9.563	(1.034)	1236199	10.0000	9.957(H)
13	2-Methylphenol	108	9.655	9.671	(1.044)	995533	10.0000	9.992(H)
15	4-Methylphenol	108	9.942	9.966	(1.075)	1071975	10.0000	9.989
16	N-Nitroso-di-n-propylamine	70	9.981	9.982	(1.079)	699099	10.0000	9.999
22	2,4-Dimethylphenol	107	11.006	11.006	(0.939)	2348644	20.0000	19.99
24	Benzoic acid	105	11.218	11.007	(0.957)	3313595	40.0000	39.85
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	961408	10.0000	10.26
* 27	Naphthalene-d8	136	11.723	11.723	(1.000)	1302515	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	690276	10.0000	10.38
39	Dimethylphthalate	163	14.749	14.749	(0.963)	2448191	10.0000	10.70
* 42	Acenaphthene-d10	162	15.314	15.314	(1.000)	720687	4.00000	
50	Diethylphthalate	149	16.218	16.211	(1.059)	2371265	10.0000	10.99
54	N-Nitrosodiphenylamine	169	16.698	16.705	(0.908)	2257135	10.0000	11.22
57	Hexachlorobenzene	284	17.578	17.579	(0.955)	974187	10.0000	10.35

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	58 Pentachlorophenol	266	17.988	18.012	(0.978)	1121362	20.0000	19.93
*	59 Phenanthrene-d10	188	18.398	18.398	(1.000)	1243145	4.00000	
$	66 Terphenyl-d14	244	21.524	21.532	(0.919)	1044374	10.0000	11.12
	67 Butylbenzylphthalate	149	22.407	22.415	(0.957)	1888709	10.0000	9.974
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	1161833	4.00000	
*	77 Perylene-d12	264	26.108	26.108	(1.000)	1054384	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.929	28.946	(1.108)	2937326	10.0000	9.994
	90 N-Nitrosodimethylamine	74	4.732	4.755	(0.511)	1317165	20.0000	21.74

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAR-2023
Lab File ID: NT1003012303S.D Calibration Time: 18:37
Lab Smp Id: SLC0143-CAL8
Analysis Type: SV Level: LOW
Quant Type: ISTD Sample Type: AIR
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	320125	160063	640250	358478	11.98
27 Naphthalene-d8	1136019	568010	2272038	1302515	14.66
42 Acenaphthene-d10	636993	318497	1273986	720687	13.14
59 Phenanthrene-d10	1093620	546810	2187240	1243145	13.67
69 Chrysene-d12	1000300	500150	2000600	1161833	16.15
77 Perylene-d12	1058448	529224	2116896	1054384	-0.38

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.72	11.22	12.22	11.72	-0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	-0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	-0.00
69 Chrysene-d12	23.41	22.91	23.91	23.42	0.03
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012303S.D

Lab ID: SLC0143-CAL8
nt10.i, 20230301.b\SIM.b\SIMABN2.m,   01-MAR-2023 16:42

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.957	0.000	0.9569	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003012310S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123045.D

Date : 01-MAR-2023 17:21

Client ID:

Instrument: nt10.i

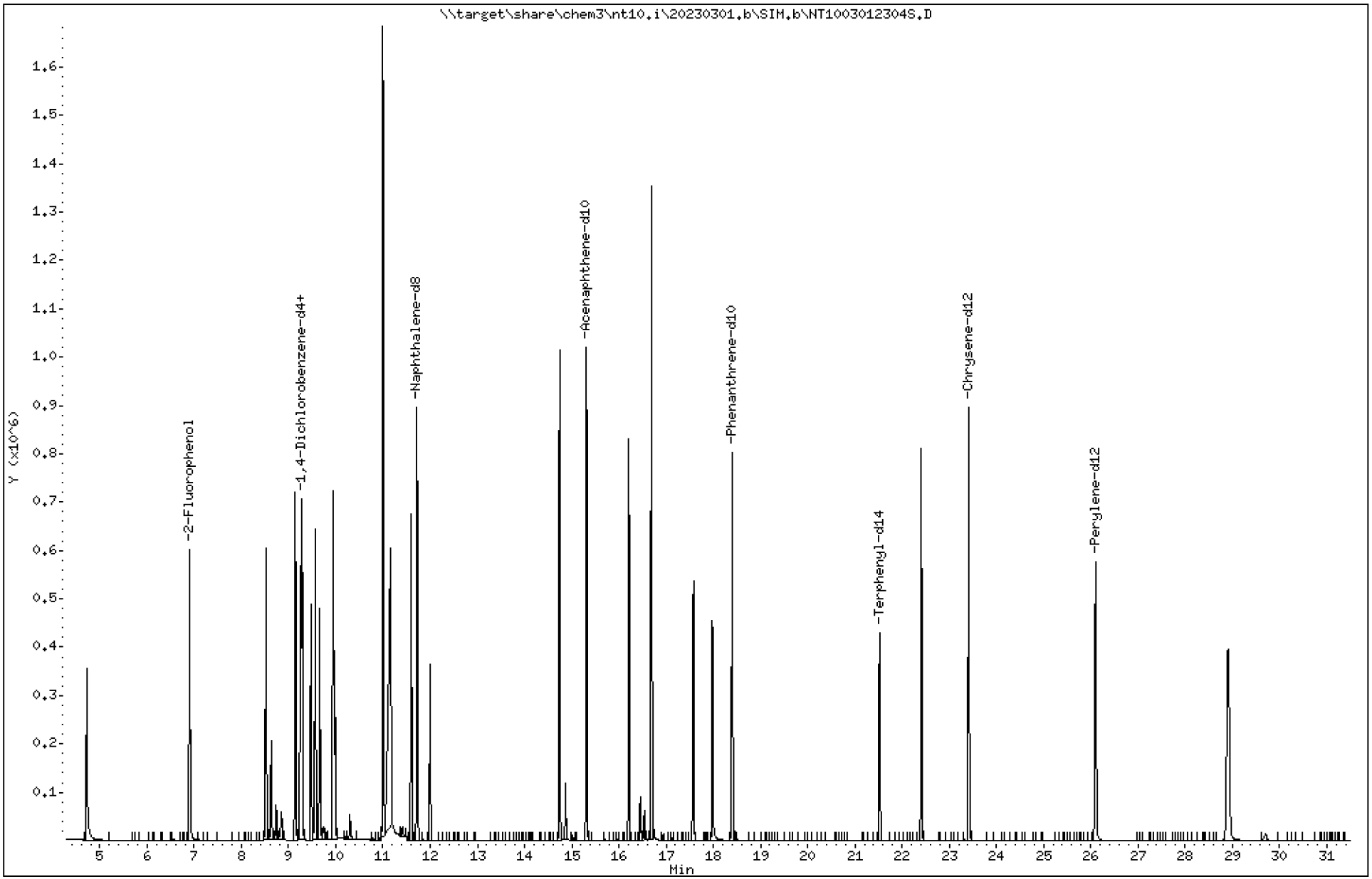
Sample Info: SEQ-CAL7

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012304S.D
Lab Smp Id: SLC0143-CAL7
Inj Date : 01-MAR-2023 17:21 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-CAL7
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:10 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 4 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$ 1	2-Fluorophenol	112	6.902	6.902	(0.746)	786120	7.50000	7.769
3	Phenol	94	8.517	8.532	(0.921)	767247	5.00000	5.008
7	1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	635562	5.00000	4.838
* 8	1,4-Dichlorobenzene-d4	152	9.251	9.252	(1.000)	354441	4.00000	
9	1,4-Dichlorobenzene	146	9.282	9.275	(1.003)	619560	5.00000	4.851
11	Benzyl alcohol	79	9.476	9.508	(1.024)	449975	5.00000	5.068
12	1,2-Dichlorobenzene	146	9.562	9.563	(1.034)	604033	5.00000	4.921
13	2-Methylphenol	108	9.655	9.671	(1.044)	472415	5.00000	5.040
15	4-Methylphenol	108	9.942	9.966	(1.075)	500092	5.00000	5.055
16	N-Nitroso-di-n-propylamine	70	9.981	9.982	(1.079)	338518	5.00000	4.998
22	2,4-Dimethylphenol	107	10.997	11.006	(0.938)	1127131	10.0000	10.02
24	Benzoic acid	105	11.158	11.007	(0.952)	1425868	20.0000	20.99
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	464653	5.00000	5.011
* 27	Naphthalene-d8	136	11.723	11.723	(1.000)	1288295	4.00000	
30	Hexachlorobutadiene	225	11.993	11.994	(1.023)	329266	5.00000	5.004
39	Dimethylphthalate	163	14.741	14.749	(0.963)	1222634	5.00000	5.203
* 42	Acenaphthene-d10	162	15.313	15.314	(1.000)	739997	4.00000	
50	Diethylphthalate	149	16.210	16.211	(1.059)	1170231	5.00000	5.281
54	N-Nitrosodiphenylamine	169	16.690	16.705	(0.907)	1106982	5.00000	5.480
57	Hexachlorobenzene	284	17.578	17.579	(0.955)	483835	5.00000	5.118

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	58 Pentachlorophenol	266	17.980	18.012	(0.977)	489921	10.0000	10.47
*	59 Phenanthrene-d10	188	18.398	18.398	(1.000)	1248235	4.00000	
$	66 Terphenyl-d14	244	21.524	21.532	(0.919)	508078	5.00000	5.818
	67 Butylbenzylphthalate	149	22.407	22.415	(0.957)	915766	5.00000	5.116
*	69 Chrysene-d12	240	23.413	23.421	(1.000)	1079945	4.00000	
*	77 Perylene-d12	264	26.107	26.108	(1.000)	1086769	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.914	28.946	(1.107)	1371633	5.00000	5.033
	90 N-Nitrosodimethylamine	74	4.724	4.755	(0.511)	631222	10.0000	10.54

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012304S.D
Lab Smp Id: SLC0143-CAL7
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 18:37
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	320125	160063	640250	354441	10.72
27 Naphthalene-d8	1136019	568010	2272038	1288295	13.40
42 Acenaphthene-d10	636993	318497	1273986	739997	16.17
59 Phenanthrene-d10	1093620	546810	2187240	1248235	14.14
69 Chrysene-d12	1000300	500150	2000600	1079945	7.96
77 Perylene-d12	1058448	529224	2116896	1086769	2.68

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.72	11.22	12.22	11.72	-0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	-0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	-0.00
69 Chrysene-d12	23.41	22.91	23.91	23.41	-0.00
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012304S.D

Lab ID: SLC0143-CAL7
nt10.i, 20230301.b\SIM.b\SIMABN2.m,   01-MAR-2023 17:21

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.952	0.000	0.9518	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003012310S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123058.D

Page 1

Date : 01-MAR-2023 17:59

Client ID:

Instrument: nt10.i

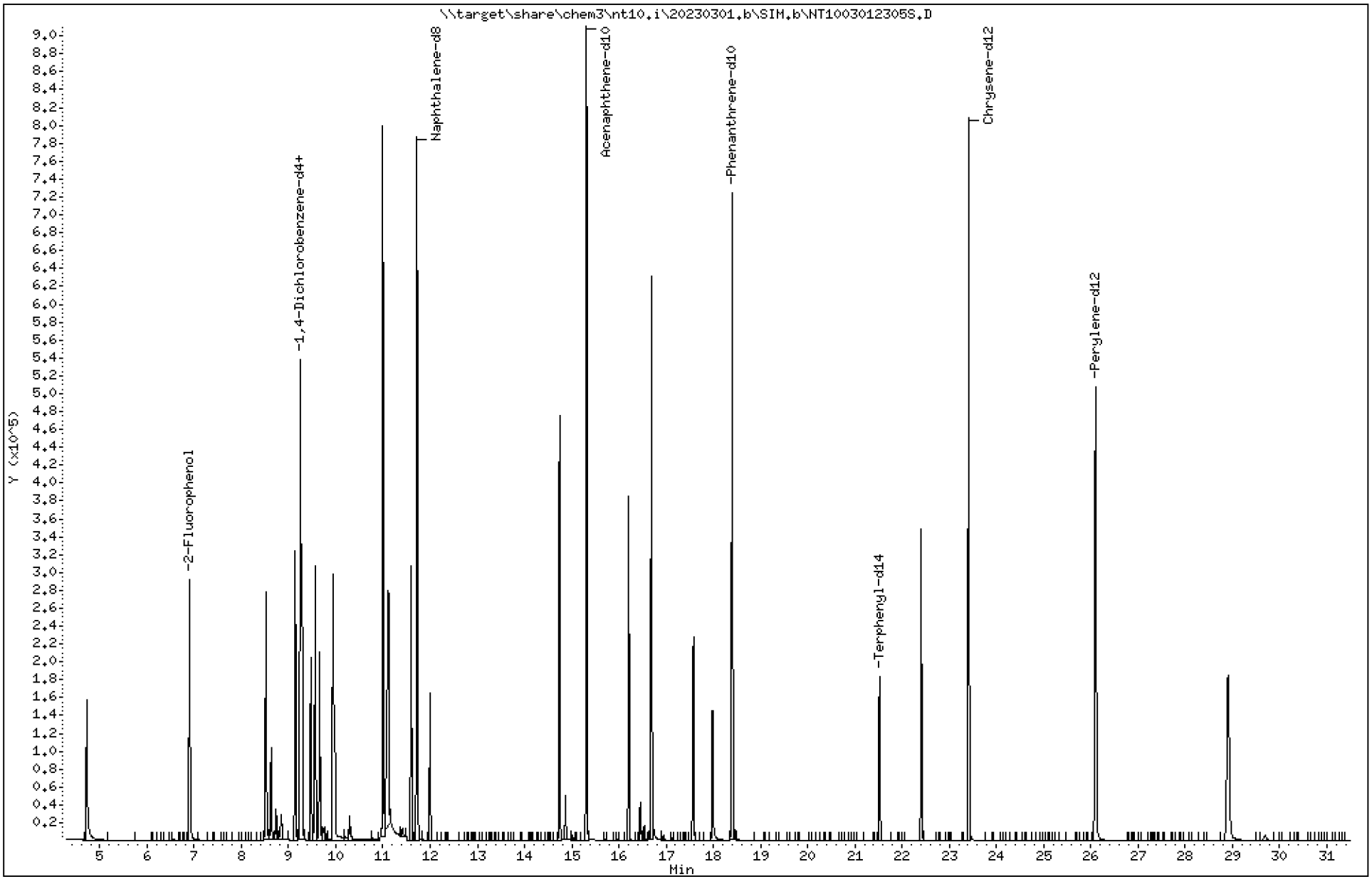
Sample Info: SEQ-CAL6

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012305S.D
Lab Smp Id: SLC0143-CAL6
Inj Date : 01-MAR-2023 17:59 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-CAL6
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:10 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 5 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$ 1	2-Fluorophenol	112	6.894	6.902	(0.746)	381012	3.75000	3.992
3	Phenol	94	8.517	8.532	(0.921)	360891	2.50000	2.531
7	1,3-Dichlorobenzene	146	9.135	9.136	(0.988)	300032	2.50000	2.422
* 8	1,4-Dichlorobenzene-d4	152	9.244	9.252	(1.000)	334269	4.00000	
9	1,4-Dichlorobenzene	146	9.275	9.275	(1.003)	293303	2.50000	2.435
11	Benzyl alcohol	79	9.469	9.508	(1.024)	200086	2.50000	2.482
12	1,2-Dichlorobenzene	146	9.562	9.563	(1.034)	285519	2.50000	2.466
13	2-Methylphenol	108	9.655	9.671	(1.044)	215648	2.50000	2.496
15	4-Methylphenol	108	9.942	9.966	(1.076)	225735	2.50000	2.496
16	N-Nitroso-di-n-propylamine	70	9.973	9.982	(1.079)	160503	2.50000	2.537
22	2,4-Dimethylphenol	107	10.997	11.006	(0.938)	522194	5.00000	5.048
24	Benzoic acid	105	11.108	11.007	(0.947)	521508	10.0000	8.897
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	212822	2.50000	2.460
* 27	Naphthalene-d8	136	11.723	11.723	(1.000)	1202042	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	147673	2.50000	2.405
39	Dimethylphthalate	163	14.741	14.749	(0.963)	562639	2.50000	2.643
* 42	Acenaphthene-d10	162	15.314	15.314	(1.000)	670352	4.00000	
50	Diethylphthalate	149	16.203	16.211	(1.058)	528755	2.50000	2.634
54	N-Nitrosodiphenylamine	169	16.690	16.705	(0.907)	482758	2.50000	2.653
57	Hexachlorobenzene	284	17.578	17.579	(0.955)	210419	2.50000	2.471

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
58	Pentachlorophenol	266	17.988	18.012	(0.978)	176209	5.00000	4.510
* 59	Phenanthrene-d10	188	18.398	18.398	(1.000)	1124281	4.00000	
$ 66	Terphenyl-d14	244	21.524	21.532	(0.919)	215701	2.50000	2.812
67	Butylbenzylphthalate	149	22.407	22.415	(0.957)	387221	2.50000	2.439
* 69	Chrysene-d12	240	23.413	23.421	(1.000)	948691	4.00000	
* 77	Perylene-d12	264	26.108	26.108	(1.000)	1004445	4.00000	
79	Dibenzo(a,h)anthracene	278	28.914	28.946	(1.107)	599679	2.50000	2.485
90	N-Nitrosodimethylamine	74	4.716	4.755	(0.510)	308802	5.00000	5.466

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012305S.D
Lab Smp Id: SLC0143-CAL6
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 18:37
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	320125	160063	640250	334269	4.42
27 Naphthalene-d8	1136019	568010	2272038	1202042	5.81
42 Acenaphthene-d10	636993	318497	1273986	670352	5.24
59 Phenanthrene-d10	1093620	546810	2187240	1124281	2.80
69 Chrysene-d12	1000300	500150	2000600	948691	-5.16
77 Perylene-d12	1058448	529224	2116896	1004445	-5.10

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.24	-0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	-0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	-0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	-0.00
69 Chrysene-d12	23.41	22.91	23.91	23.41	-0.00
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012305S.D

Lab ID: SLC0143-CAL6
nt10.i, 20230301.b\SIM.b\SIMABN2.m,   01-MAR-2023 17:59

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.947	0.000	0.9475	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003012310S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123065.D

Page 1

Date : 01-MAR-2023 18:37

Client ID:

Instrument: nt10.i

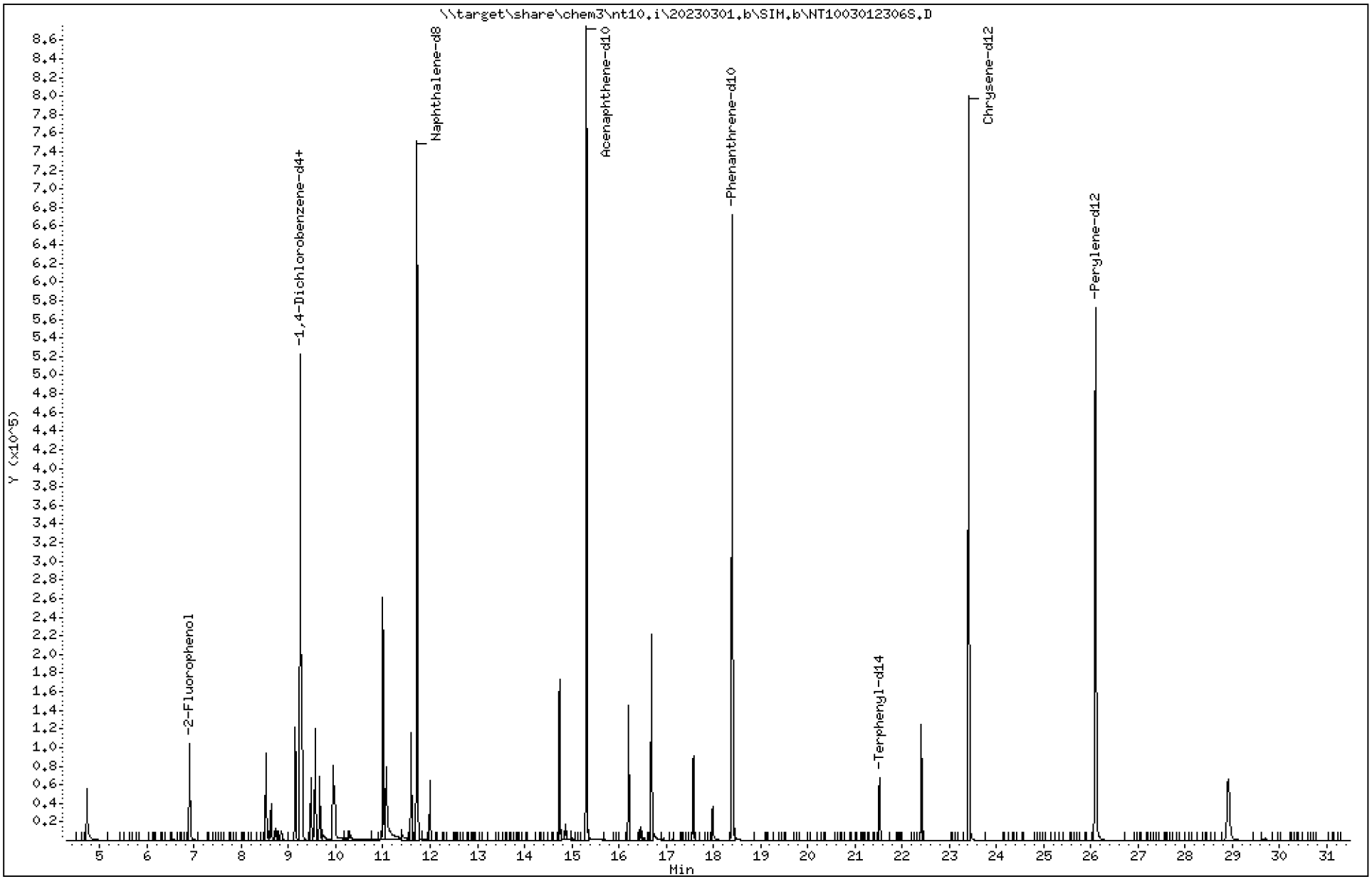
Sample Info: SEQ-CAL5

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012306S.D
Lab Smp Id: SLC0143-CAL5
Inj Date : 01-MAR-2023 18:37 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-CAL5
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:10 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.894	6.902	(0.746)	141079	1.50000	1.544
	3 Phenol	94	8.517	8.532	(0.921)	128497	1.00000	0.9488
	7 1,3-Dichlorobenzene	146	9.135	9.136	(0.988)	115460	1.00000	0.9732
*	8 1,4-Dichlorobenzene-d4	152	9.244	9.252	(1.000)	320125	4.00000	
	9 1,4-Dichlorobenzene	146	9.275	9.275	(1.003)	112647	1.00000	0.9766
	11 Benzyl alcohol	79	9.477	9.508	(1.025)	65076	1.00000	0.8616
	12 1,2-Dichlorobenzene	146	9.562	9.563	(1.034)	109104	1.00000	0.9841
	13 2-Methylphenol	108	9.655	9.671	(1.044)	75957	1.00000	0.9304
	15 4-Methylphenol	108	9.943	9.966	(1.076)	75243	1.00000	0.8846
	16 N-Nitroso-di-n-propylamine	70	9.974	9.982	(1.079)	57866	1.00000	0.9607
	22 2,4-Dimethylphenol	107	10.998	11.006	(0.938)	185925	2.00000	1.919
	24 Benzoic acid	105	11.074	11.007	(0.945)	126544	4.00000	2.367
	26 1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	80478	1.00000	0.9842
*	27 Naphthalene-d8	136	11.724	11.723	(1.000)	1136019	4.00000	
	30 Hexachlorobutadiene	225	11.994	11.994	(1.023)	55969	1.00000	0.9646
	39 Dimethylphthalate	163	14.741	14.749	(0.963)	211852	1.00000	1.047
*	42 Acenaphthene-d10	162	15.314	15.314	(1.000)	636993	4.00000	
	50 Diethylphthalate	149	16.203	16.211	(1.058)	197116	1.00000	1.033
	54 N-Nitrosodiphenylamine	169	16.690	16.705	(0.907)	176396	1.00000	0.9967
	57 Hexachlorobenzene	284	17.578	17.579	(0.955)	81552	1.00000	0.9846

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
58	Pentachlorophenol	266	17.988	18.012	(0.978)	44811	2.00000	1.222(M)
* 59	Phenanthrene-d10	188	18.399	18.398	(1.000)	1093620	4.00000	
$ 66	Terphenyl-d14	244	21.524	21.532	(0.919)	83293	1.00000	1.030
67	Butylbenzylphthalate	149	22.407	22.415	(0.957)	144786	1.00000	0.8599
* 69	Chrysene-d12	240	23.414	23.421	(1.000)	1000300	4.00000	
* 77	Perylene-d12	264	26.100	26.108	(1.000)	1058448	4.00000	
79	Dibenzo(a,h)anthracene	278	28.914	28.946	(1.108)	236566	1.00000	0.9522
90	N-Nitrosodimethylamine	74	4.724	4.755	(0.511)	112695	2.00000	2.083

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012306S.D
Lab Smp Id: SLC0143-CAL5
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 18:37
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	320125	160063	640250	320125	0.00
27 Naphthalene-d8	1136019	568010	2272038	1136019	0.00
42 Acenaphthene-d10	636993	318497	1273986	636993	0.00
59 Phenanthrene-d10	1093620	546810	2187240	1093620	0.00
69 Chrysene-d12	1000300	500150	2000600	1000300	0.00
77 Perylene-d12	1058448	529224	2116896	1058448	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.24	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.41	22.91	23.91	23.41	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012306S.D

Lab ID: SLC0143-CAL5
nt10.i, 20230301.b\SIM.b\SIMABN2.m,   01-MAR-2023 18:37

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.945	0.000	0.9446	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003012310S.D

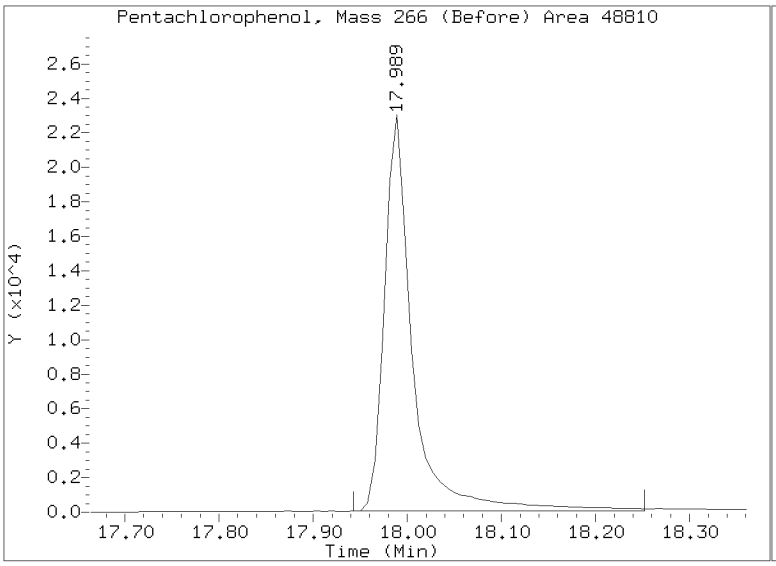
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

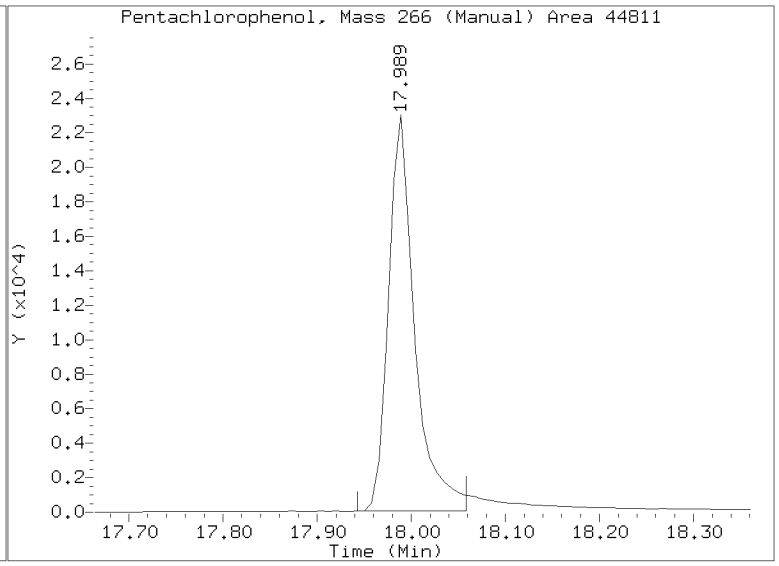
Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230301.b/SIM.b/NT1003012306S.D
Injection Date: 01-MAR-2023 18:37
Lab ID:SLC0143-CAL5 Client ID:
Report Date: 03/10/2023 10:37





Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123075.D

Page 1

Date : 01-MAR-2023 19:15

Client ID:

Instrument: nt10.i

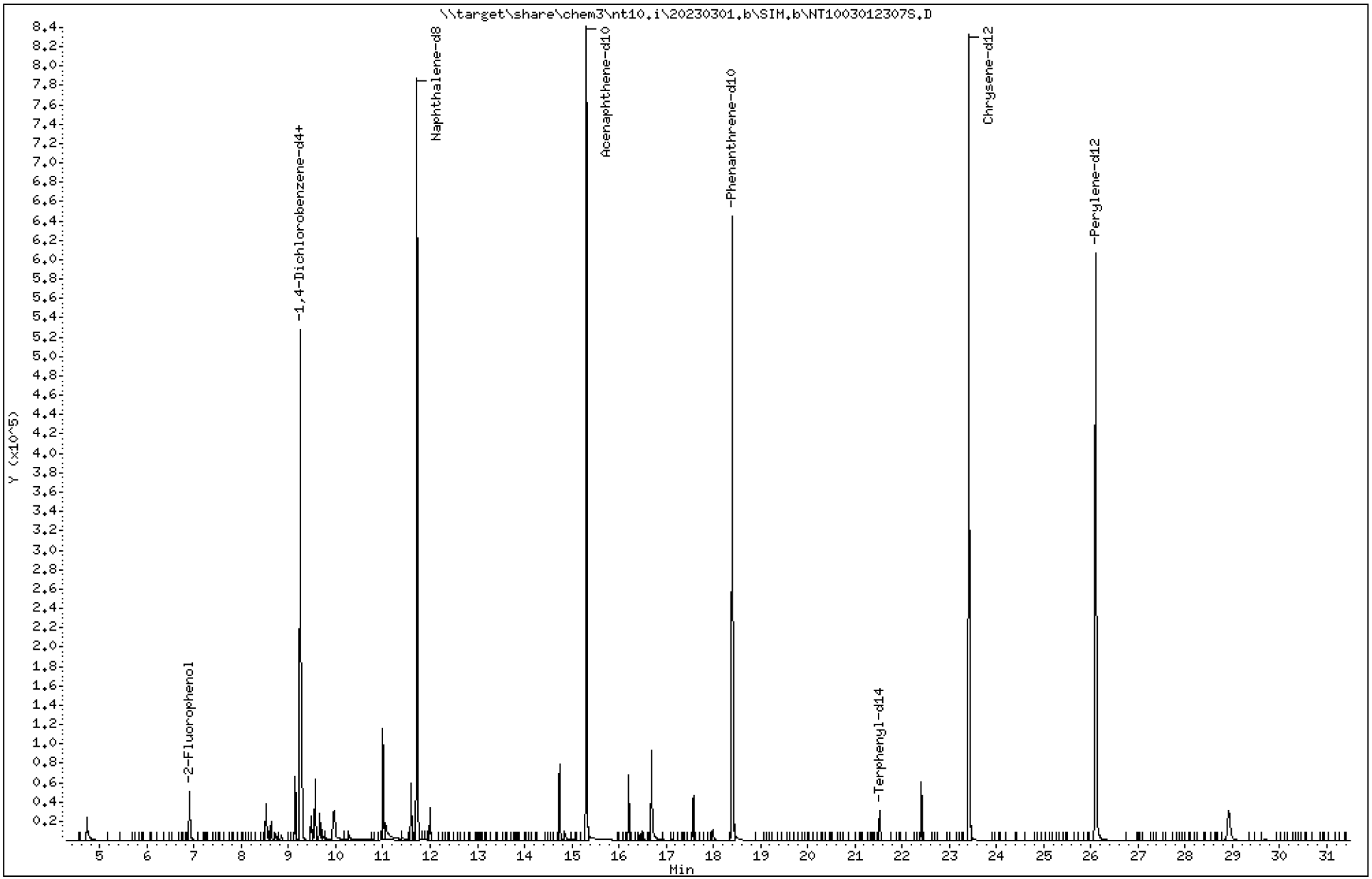
Sample Info: SEQ-CAL4

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012307S.D
Lab Smp Id: SLC0143-CAL4
Inj Date : 01-MAR-2023 19:15 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-CAL4
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:10 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 7 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.894	6.902	(0.746)	73710	0.75000	0.7739
	3 Phenol	94	8.517	8.532	(0.921)	61458	0.50000	0.4366
	7 1,3-Dichlorobenzene	146	9.136	9.136	(0.988)	63099	0.50000	0.5103
*	8 1,4-Dichlorobenzene-d4	152	9.244	9.252	(1.000)	333617	4.00000	
	9 1,4-Dichlorobenzene	146	9.275	9.275	(1.003)	61050	0.50000	0.5079
	11 Benzyl alcohol	79	9.477	9.508	(1.025)	31347	0.50000	0.4006
	12 1,2-Dichlorobenzene	146	9.562	9.563	(1.034)	58800	0.50000	0.5089
	13 2-Methylphenol	108	9.655	9.671	(1.044)	35755	0.50000	0.4220
	15 4-Methylphenol	108	9.950	9.966	(1.076)	34768	0.50000	0.3943
	16 N-Nitroso-di-n-propylamine	70	9.974	9.982	(1.079)	27908	0.50000	0.4455
	22 2,4-Dimethylphenol	107	10.998	11.006	(0.938)	89362	1.00000	0.8978
	24 Benzoic acid	105	11.057	11.007	(0.943)	37634	2.00000	0.6891
	26 1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	43097	0.50000	0.5116
*	27 Naphthalene-d8	136	11.724	11.723	(1.000)	1170292	4.00000	
	30 Hexachlorobutadiene	225	11.994	11.994	(1.023)	29862	0.50000	0.4996
	39 Dimethylphthalate	163	14.741	14.749	(0.963)	105548	0.50000	0.5197
*	42 Acenaphthene-d10	162	15.314	15.314	(1.000)	639612	4.00000	
	50 Diethylphthalate	149	16.203	16.211	(1.058)	98002	0.50000	0.5117
	54 N-Nitrosodiphenylamine	169	16.690	16.705	(0.907)	93243	0.50000	0.5262
	57 Hexachlorobenzene	284	17.578	17.579	(0.955)	42505	0.50000	0.5126

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
58	Pentachlorophenol	266	17.989	18.012	(0.978)	15934	1.00000	0.4374(M)
* 59	Phenanthrene-d10	188	18.399	18.398	(1.000)	1094919	4.00000	
$ 66	Terphenyl-d14	244	21.524	21.532	(0.919)	41647	0.50000	0.4913
67	Butylbenzylphthalate	149	22.415	22.415	(0.957)	65574	0.50000	0.3710
* 69	Chrysene-d12	240	23.421	23.421	(1.000)	1048196	4.00000	
* 77	Perylene-d12	264	26.108	26.108	(1.000)	1117593	4.00000	
79	Dibenzo(a,h)anthracene	278	28.930	28.946	(1.108)	120142	0.50000	0.4613
90	N-Nitrosodimethylamine	74	4.724	4.755	(0.511)	57317	1.00000	1.016

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAR-2023
Lab File ID: NT1003012307S.D Calibration Time: 18:37
Lab Smp Id: SLC0143-CAL4
Analysis Type: SV Level: LOW
Quant Type: ISTD Sample Type: AIR
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	320125	160063	640250	333617	4.21
27 Naphthalene-d8	1136019	568010	2272038	1170292	3.02
42 Acenaphthene-d10	636993	318497	1273986	639612	0.41
59 Phenanthrene-d10	1093620	546810	2187240	1094919	0.12
69 Chrysene-d12	1000300	500150	2000600	1048196	4.79
77 Perylene-d12	1058448	529224	2116896	1117593	5.59

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.24	0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.41	22.91	23.91	23.42	0.03
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012307S.D

Lab ID: SLC0143-CAL4
nt10.i, 20230301.b\SIM.b\SIMABN2.m,   01-MAR-2023 19:15

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.943	0.000	0.9431	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003012310S.D

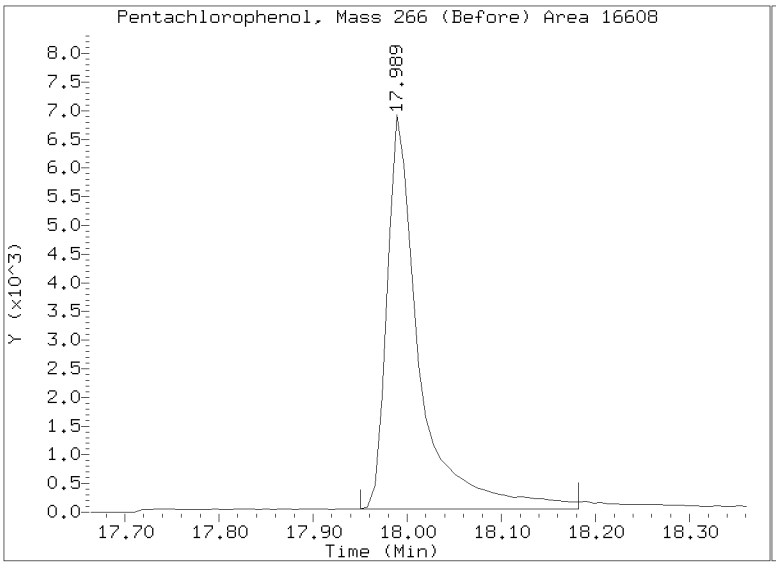
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

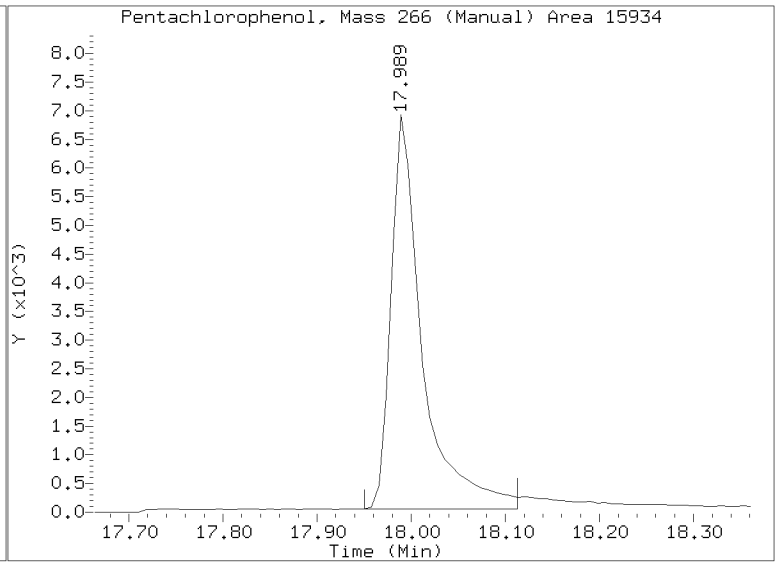
Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230301.b/SIM.b/NT1003012307S.D
Injection Date: 01-MAR-2023 19:15
Lab ID:SLC0143-CAL4 Client ID:
Report Date: 03/10/2023 10:37





Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123085.D

Date : 01-MAR-2023 19:53

Client ID:

Instrument: nt10.i

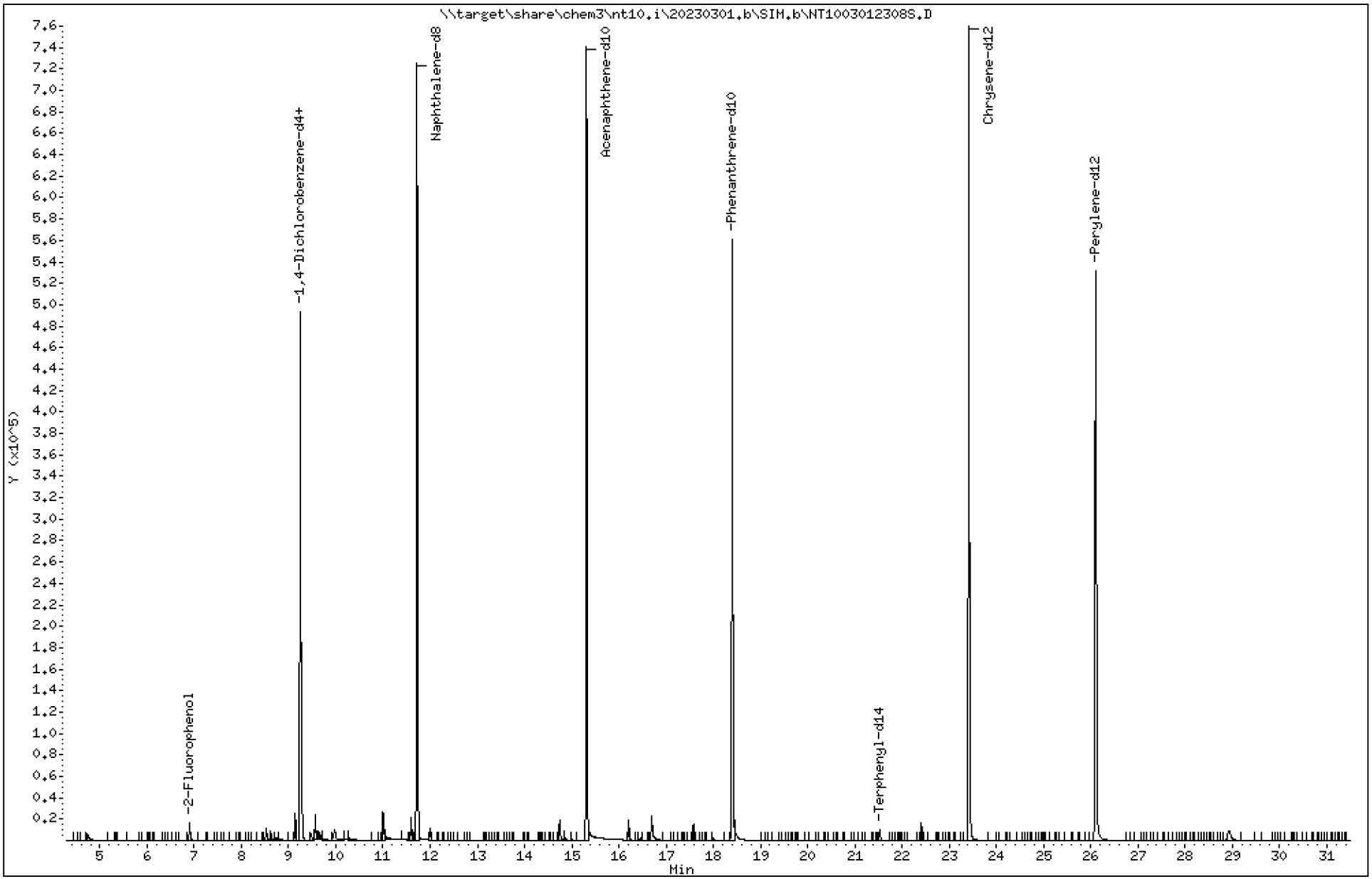
Sample Info: SEQ-CAL3

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012308S.D
Lab Smp Id: SLC0143-CAL3
Inj Date : 01-MAR-2023 19:53 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-CAL3
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:10 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.902	6.902	(0.746)	25671	0.30000	0.2859
	3 Phenol	94	8.524	8.532	(0.921)	19568	0.20000	0.1477
	7 1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	23459	0.20000	0.2013
*	8 1,4-Dichlorobenzene-d4	152	9.251	9.252	(1.000)	314467	4.00000	
	9 1,4-Dichlorobenzene	146	9.275	9.275	(1.002)	22543	0.20000	0.1989
	11 Benzyl alcohol	79	9.484	9.508	(1.025)	10320	0.20000	0.1404
	12 1,2-Dichlorobenzene	146	9.562	9.563	(1.034)	21414	0.20000	0.1966
	13 2-Methylphenol	108	9.663	9.671	(1.044)	11161	0.20000	0.1401
	15 4-Methylphenol	108	9.950	9.966	(1.076)	9608	0.20000	0.1159
	16 N-Nitroso-di-n-propylamine	70	9.973	9.982	(1.078)	10242	0.20000	0.1736
	22 2,4-Dimethylphenol	107	10.997	11.006	(0.938)	27660	0.40000	0.2992
	24 Benzoic acid	105	11.074	11.007	(0.945)	7336	0.80000	0.1448
	26 1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	15379	0.20000	0.1963
*	27 Naphthalene-d8	136	11.723	11.723	(1.000)	1088698	4.00000	
	30 Hexachlorobutadiene	225	11.993	11.994	(1.023)	10781	0.20000	0.1939
	39 Dimethylphthalate	163	14.741	14.749	(0.963)	33436	0.20000	0.1853
*	42 Acenaphthene-d10	162	15.313	15.314	(1.000)	568154	4.00000	
	50 Diethylphthalate	149	16.203	16.211	(1.058)	31499	0.20000	0.1852
	54 N-Nitrosodiphenylamine	169	16.698	16.705	(0.908)	30497	0.20000	0.1924
	57 Hexachlorobenzene	284	17.578	17.579	(0.955)	14544	0.20000	0.1961

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
58	Pentachlorophenol	266	17.996	18.012	(0.978)	3505	0.40000	0.1079
* 59	Phenanthrene-d10	188	18.398	18.398	(1.000)	979213	4.00000	
$ 66	Terphenyl-d14	244	21.524	21.532	(0.919)	13708	0.20000	0.1759
67	Butylbenzylphthalate	149	22.414	22.415	(0.957)	19744	0.20000	0.1214
* 69	Chrysene-d12	240	23.421	23.421	(1.000)	963807	4.00000	
* 77	Perylene-d12	264	26.107	26.108	(1.000)	1037909	4.00000	
79	Dibenzo(a,h)anthracene	278	28.937	28.946	(1.108)	39856	0.20000	0.1655
90	N-Nitrosodimethylamine	74	4.739	4.755	(0.512)	20553	0.40000	0.3867

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012308S.D
Lab Smp Id: SLC0143-CAL3
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 18:37
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	320125	160063	640250	314467	-1.77
27 Naphthalene-d8	1136019	568010	2272038	1088698	-4.17
42 Acenaphthene-d10	636993	318497	1273986	568154	-10.81
59 Phenanthrene-d10	1093620	546810	2187240	979213	-10.46
69 Chrysene-d12	1000300	500150	2000600	963807	-3.65
77 Perylene-d12	1058448	529224	2116896	1037909	-1.94

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.72	11.22	12.22	11.72	-0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	-0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	-0.00
69 Chrysene-d12	23.41	22.91	23.91	23.42	0.03
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012308S.D

Lab ID: SLC0143-CAL3
nt10.i, 20230301.b\SIM.b\SIMABN2.m,   01-MAR-2023 19:53

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.945	0.000	0.9446	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003012310S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123095.D

Page 1

Date : 01-MAR-2023 20:30

Client ID:

Instrument: nt10.i

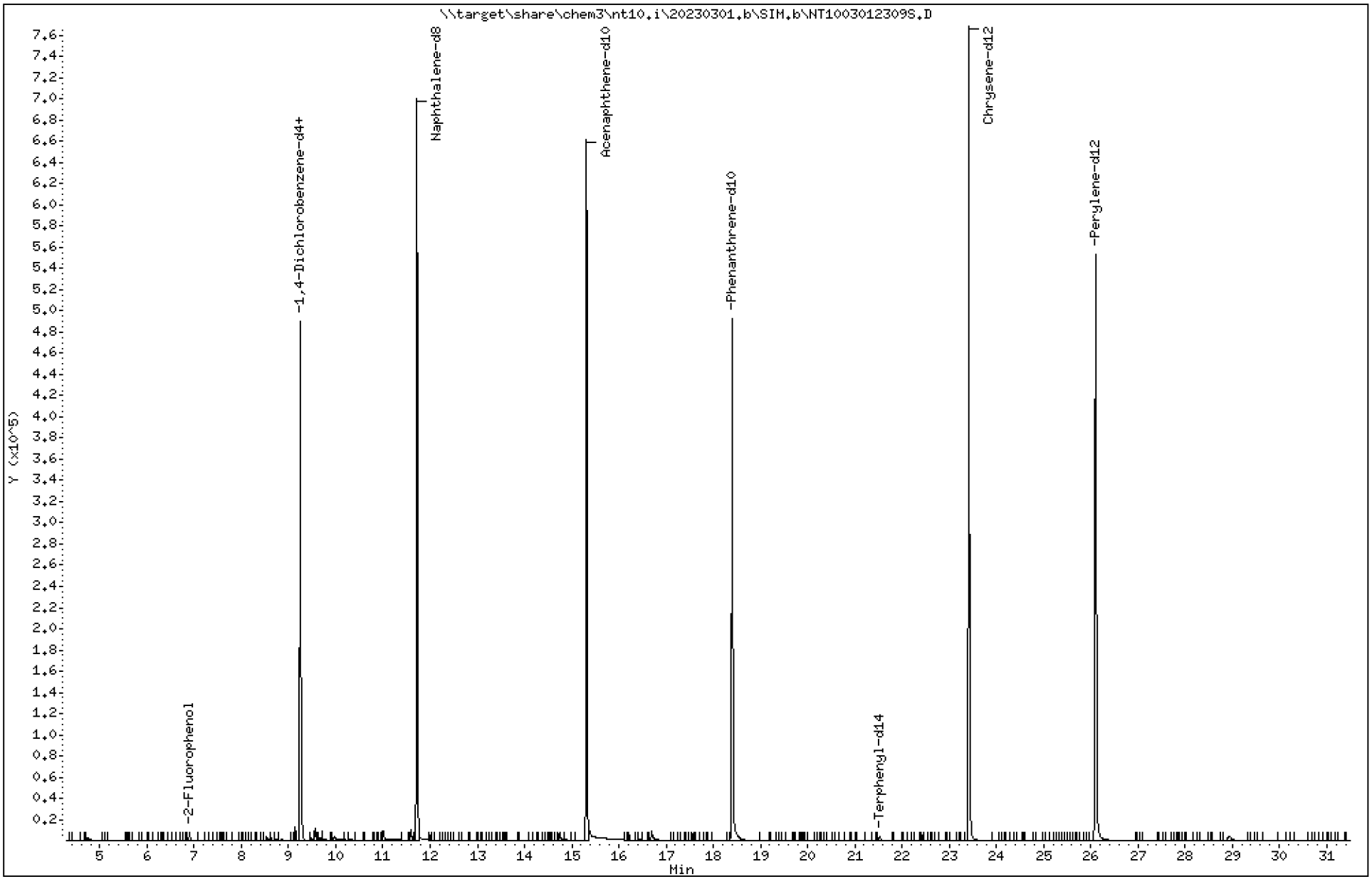
Sample Info: SEQ-CAL2

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012309S.D
Lab Smp Id: SLC0143-CAL2
Inj Date : 01-MAR-2023 20:30 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-CAL2
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:10 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.902	6.902	(0.747)	12090	0.15000	0.1386
	3 Phenol	94	8.525	8.532	(0.922)	8264	0.10000	0.06425
	7 1,3-Dichlorobenzene	146	9.143	9.136	(0.989)	11650	0.10000	0.1029
*	8 1,4-Dichlorobenzene-d4	152	9.244	9.252	(1.000)	305434	4.00000	
	9 1,4-Dichlorobenzene	146	9.275	9.275	(1.003)	11269	0.10000	0.1024
	11 Benzyl alcohol	79	9.485	9.508	(1.026)	3114	0.10000	0.04367(M)
	12 1,2-Dichlorobenzene	146	9.562	9.563	(1.034)	10725	0.10000	0.1014
	13 2-Methylphenol	108	9.663	9.671	(1.045)	4548	0.10000	0.05881
	15 4-Methylphenol	108	9.958	9.966	(1.077)	3746	0.10000	0.04658
	16 N-Nitroso-di-n-propylamine	70	9.974	9.982	(1.079)	4218	0.10000	0.07364
	22 2,4-Dimethylphenol	107	11.006	11.006	(0.939)	11856	0.20000	0.1332
	24 Benzoic acid	105	11.006	11.007	(0.939)	172	0.40000	0.003526(M)
	26 1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	7521	0.10000	0.09961
*	27 Naphthalene-d8	136	11.724	11.723	(1.000)	1048978	4.00000	
	30 Hexachlorobutadiene	225	11.994	11.994	(1.023)	5346	0.10000	0.09978
	39 Dimethylphthalate	163	14.741	14.749	(0.963)	15255	0.10000	0.08950
*	42 Acenaphthene-d10	162	15.314	15.314	(1.000)	536796	4.00000	
	50 Diethylphthalate	149	16.211	16.211	(1.059)	14260	0.10000	0.08872
	54 N-Nitrosodiphenylamine	169	16.698	16.705	(0.908)	13459	0.10000	0.08998
	57 Hexachlorobenzene	284	17.578	17.579	(0.955)	6888	0.10000	0.09840

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	58 Pentachlorophenol	266	18.004	18.012	(0.979)	1243	0.20000	0.04058
*	59 Phenanthrene-d10	188	18.399	18.398	(1.000)	924275	4.00000	
$	66 Terphenyl-d14	244	21.524	21.532	(0.919)	6767	0.10000	0.08836
	67 Butylbenzylphthalate	149	22.407	22.415	(0.957)	8617	0.10000	0.05389
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	947041	4.00000	
*	77 Perylene-d12	264	26.108	26.108	(1.000)	1060218	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.945	28.946	(1.109)	20472	0.10000	0.08330
	90 N-Nitrosodimethylamine	74	4.740	4.755	(0.513)	9108	0.20000	0.1764

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012309S.D
Lab Smp Id: SLC0143-CAL2
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 18:37
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	320125	160063	640250	305434	-4.59
27 Naphthalene-d8	1136019	568010	2272038	1048978	-7.66
42 Acenaphthene-d10	636993	318497	1273986	536796	-15.73
59 Phenanthrene-d10	1093620	546810	2187240	924275	-15.48
69 Chrysene-d12	1000300	500150	2000600	947041	-5.32
77 Perylene-d12	1058448	529224	2116896	1060218	0.17

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.24	-0.00
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	-0.00
69 Chrysene-d12	23.41	22.91	23.91	23.42	0.03
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012309S.D

Lab ID: SLC0143-CAL2
nt10.i, 20230301.b\SIM.b\SIMABN2.m,   01-MAR-2023 20:30

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.939	0.000	0.9388	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003012310S.D

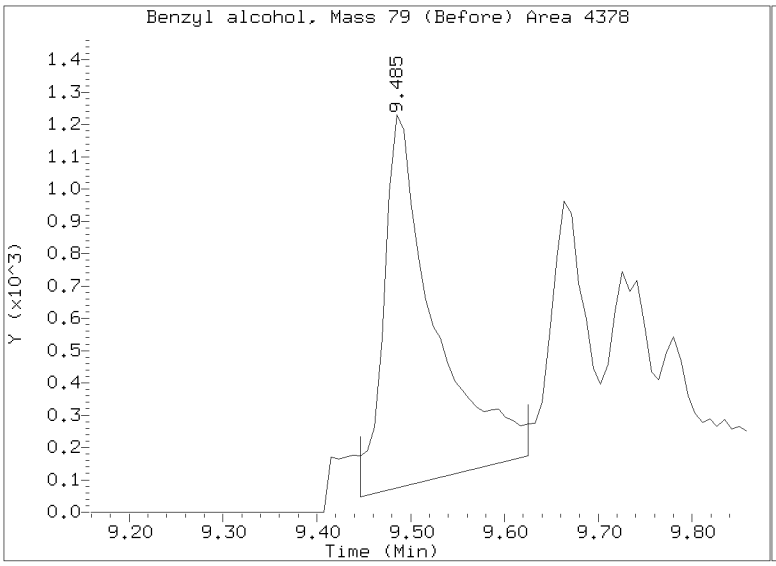
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

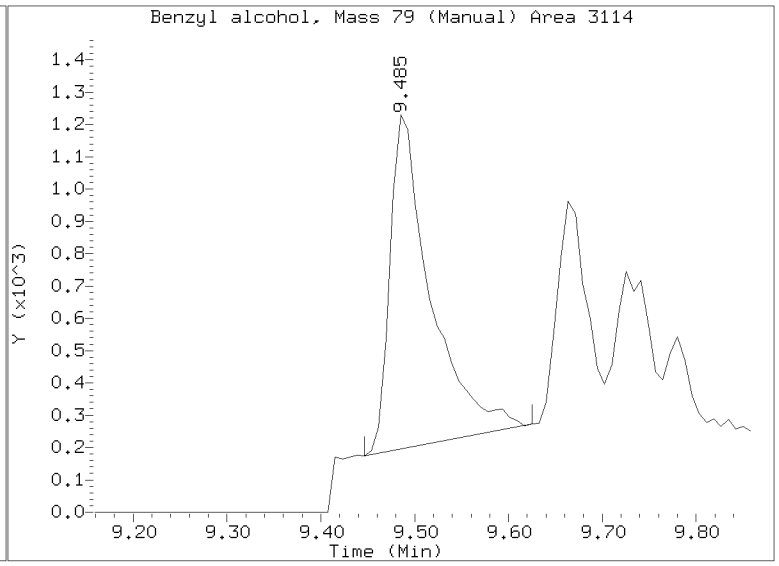
Exception: 1,2,4-Trichlorobenzene 0.0010

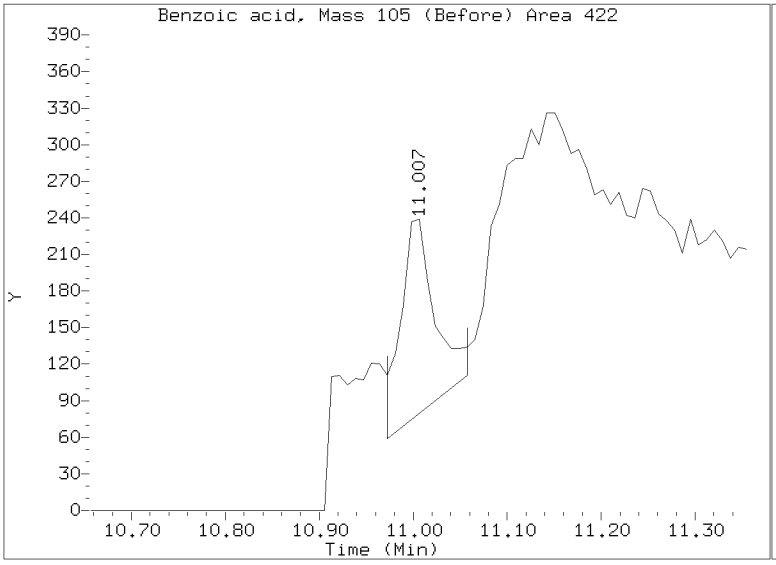
* Only compounds listed in the work order have been verified by the analyst *

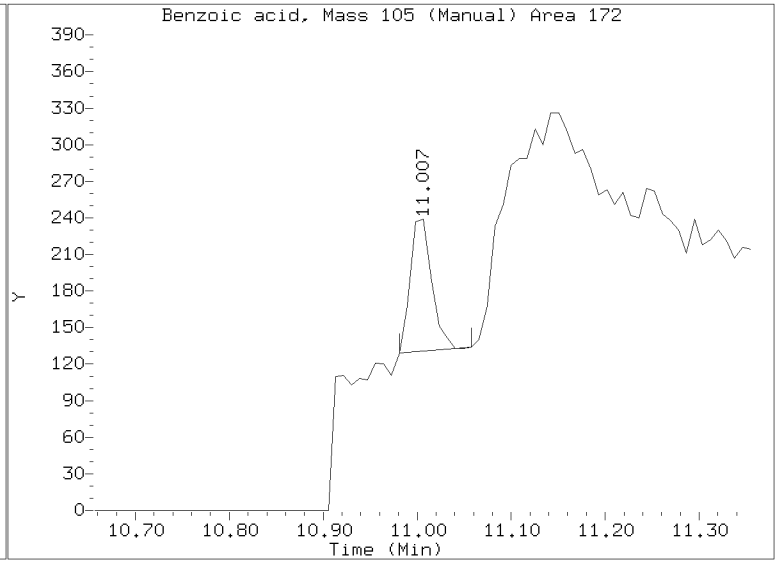
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230301.b/SIM.b/NT1003012309S.D
Injection Date: 01-MAR-2023 20:30
Lab ID:SLC0143-CAL2 Client ID:
Report Date: 03/10/2023 10:37









Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123105.D

Page 1

Date : 01-MAR-2023 21:09

Client ID:

Instrument: nt10.i

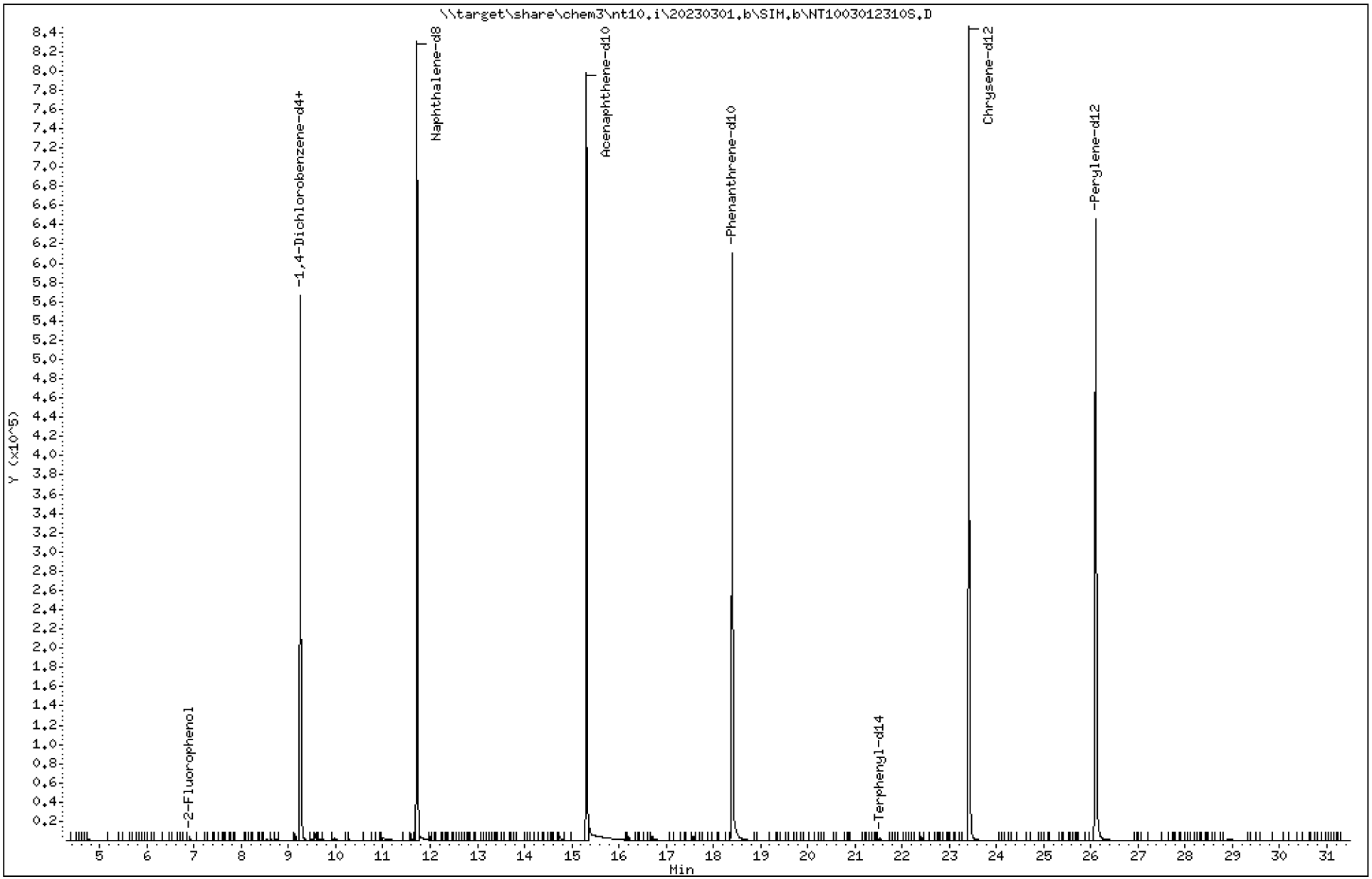
Sample Info: SEQ-CAL1

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012310S.D
Lab Smp Id: SLC0143-CAL1
Inj Date : 01-MAR-2023 21:09 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-CAL1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:10 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.902	6.902	(0.746)	7096	0.07500	0.06711
	3 Phenol	94	8.532	8.532	(0.922)	3599	0.05000	0.02308
	7 1,3-Dichlorobenzene	146	9.135	9.136	(0.987)	7259	0.05000	0.05289
*	8 1,4-Dichlorobenzene-d4	152	9.252	9.252	(1.000)	370360	4.00000	
	9 1,4-Dichlorobenzene	146	9.275	9.275	(1.002)	6987	0.05000	0.05236
	11 Benzyl alcohol	79	9.508	9.508	(1.028)	1380	0.05000	0.01596(M)
	12 1,2-Dichlorobenzene	146	9.562	9.563	(1.034)	6637	0.05000	0.05174
	13 2-Methylphenol	108	9.671	9.671	(1.045)	1789	0.05000	0.01908(M)
	15 4-Methylphenol	108	9.966	9.966	(1.077)	2062	0.05000	0.02115(M)
	16 N-Nitroso-di-n-propylamine	70	9.981	9.982	(1.079)	1965	0.05000	0.02830(M)
	22 2,4-Dimethylphenol	107	11.006	11.006	(0.939)	6159	0.10000	0.05750
	24 Benzoic acid	105	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	4558	0.05000	0.05017
*	27 Naphthalene-d8	136	11.723	11.723	(1.000)	1262304	4.00000	
	30 Hexachlorobutadiene	225	11.994	11.994	(1.023)	3445	0.05000	0.05343
	39 Dimethylphthalate	163	14.749	14.749	(0.963)	9356	0.05000	0.04618
*	42 Acenaphthene-d10	162	15.314	15.314	(1.000)	638059	4.00000	
	50 Diethylphthalate	149	16.211	16.211	(1.059)	8803	0.05000	0.04607
	54 N-Nitrosodiphenylamine	169	16.705	16.705	(0.908)	7370	0.05000	0.04049(M)
	57 Hexachlorobenzene	284	17.578	17.579	(0.955)	4170	0.05000	0.04895(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	58 Pentachlorophenol	266	18.012	18.012	(0.979)	397	0.10000	0.01065
*	59 Phenanthrene-d10	188	18.398	18.398	(1.000)	1124768	4.00000	
$	66 Terphenyl-d14	244	21.532	21.532	(0.919)	3717	0.05000	0.04124
	67 Butylbenzylphthalate	149	22.415	22.415	(0.957)	4671	0.05000	0.02482
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	1114478	4.00000	
*	77 Perylene-d12	264	26.108	26.108	(1.000)	1276260	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.945	28.946	(1.109)	10824	0.05000	0.03661
	90 N-Nitrosodimethylamine	74	4.755	4.755	(0.514)	5382	0.10000	0.08597

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012310S.D
Lab Smp Id: SLC0143-CAL1
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 18:37
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	320125	160063	640250	370360	15.69
27 Naphthalene-d8	1136019	568010	2272038	1262304	11.12
42 Acenaphthene-d10	636993	318497	1273986	638059	0.17
59 Phenanthrene-d10	1093620	546810	2187240	1124768	2.85
69 Chrysene-d12	1000300	500150	2000600	1114478	11.41
77 Perylene-d12	1058448	529224	2116896	1276260	20.58

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.72	11.22	12.22	11.72	-0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	-0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	-0.00
69 Chrysene-d12	23.41	22.91	23.91	23.42	0.03
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012310S.D

Lab ID: SLC0143-CAL1
nt10.i, 20230301.b\SIM.b\SIMABN2.m,   01-MAR-2023 21:09

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: SIM.b/NT1003012310S.D

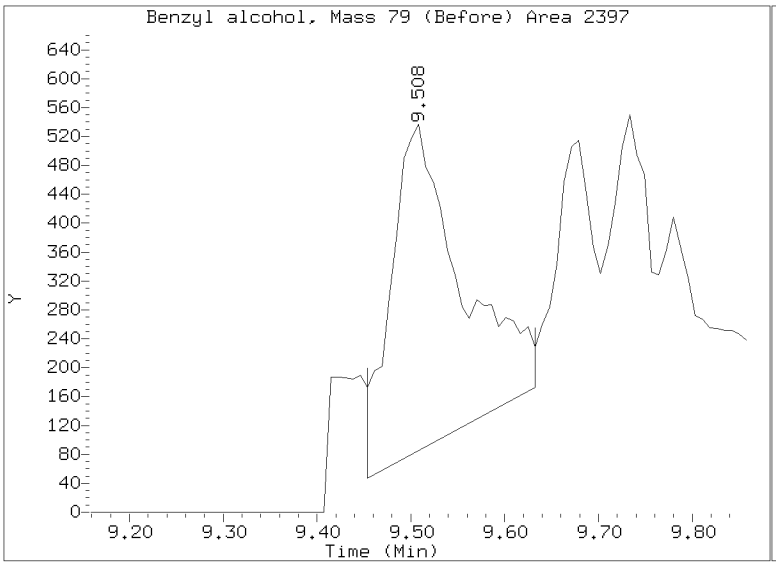
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

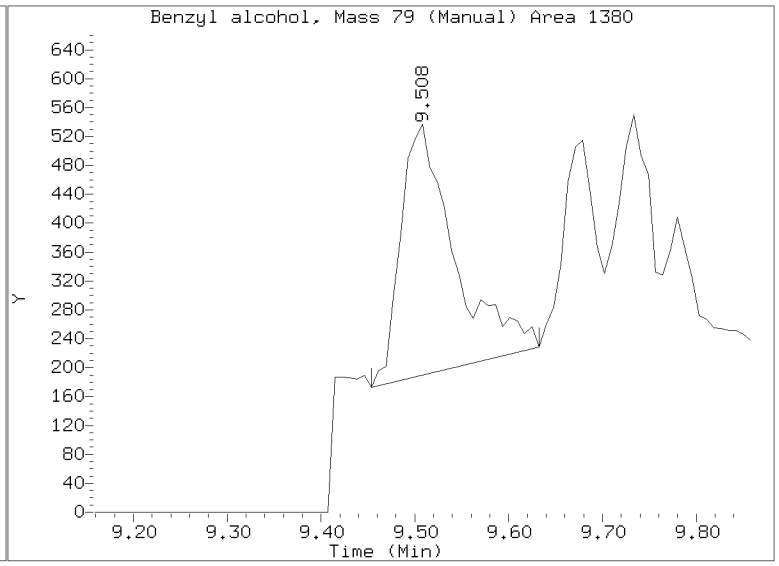
Exception: 1,2,4-Trichlorobenzene 0.0010

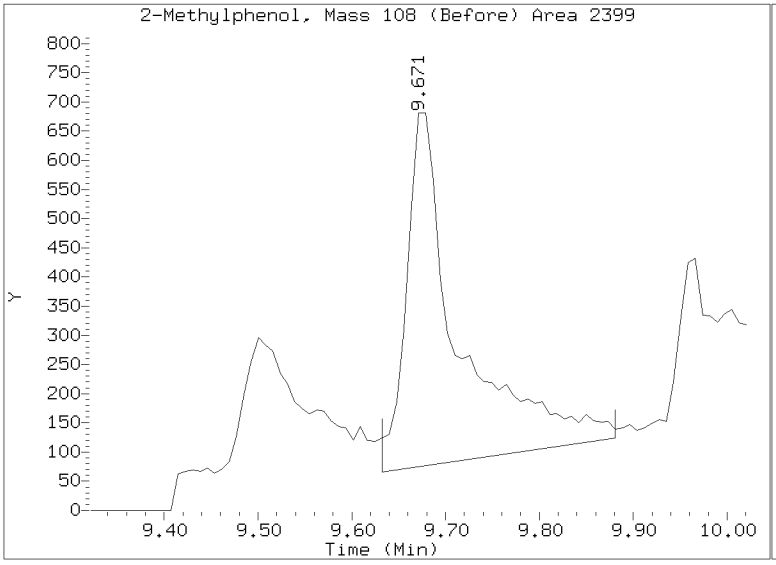
* Only compounds listed in the work order have been verified by the analyst *

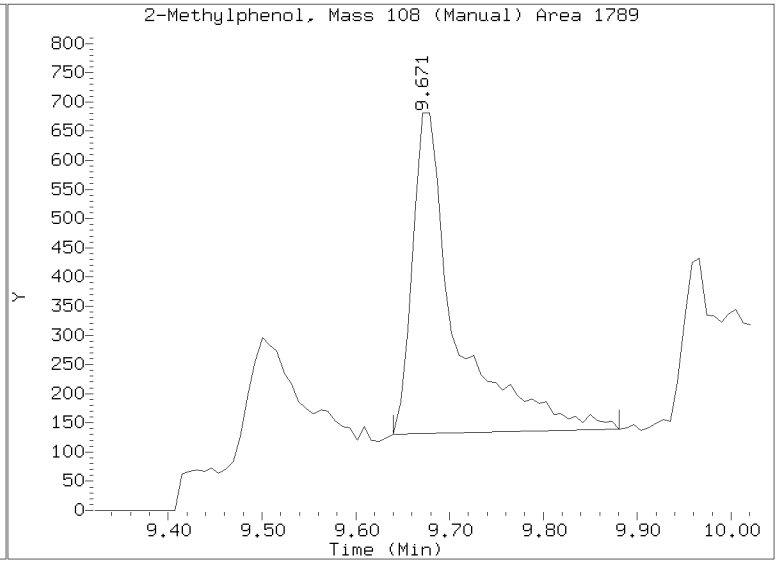
Quant Ion Manual Peak Adjustment Report

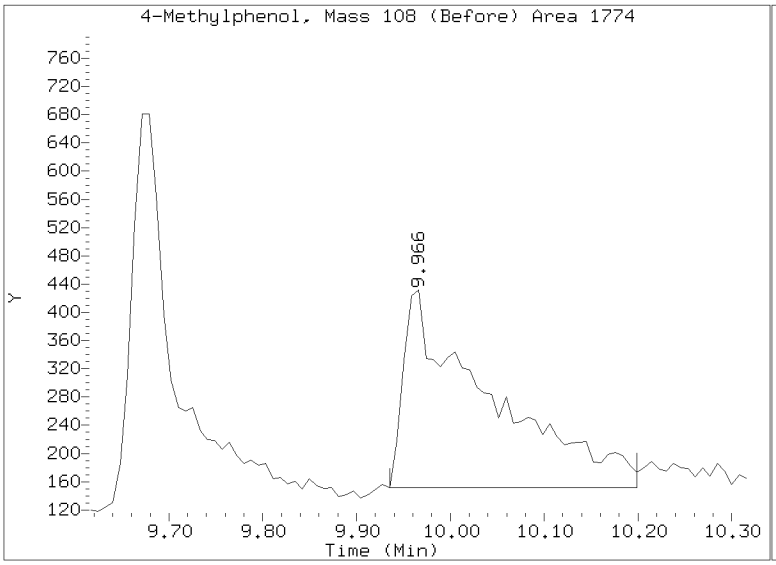
Datafile: //target/share/chem3/nt10.i/20230301.b/SIM.b/NT1003012310S.D
Injection Date: 01-MAR-2023 21:09
Lab ID:SLC0143-CAL1 Client ID:
Report Date: 03/10/2023 10:37

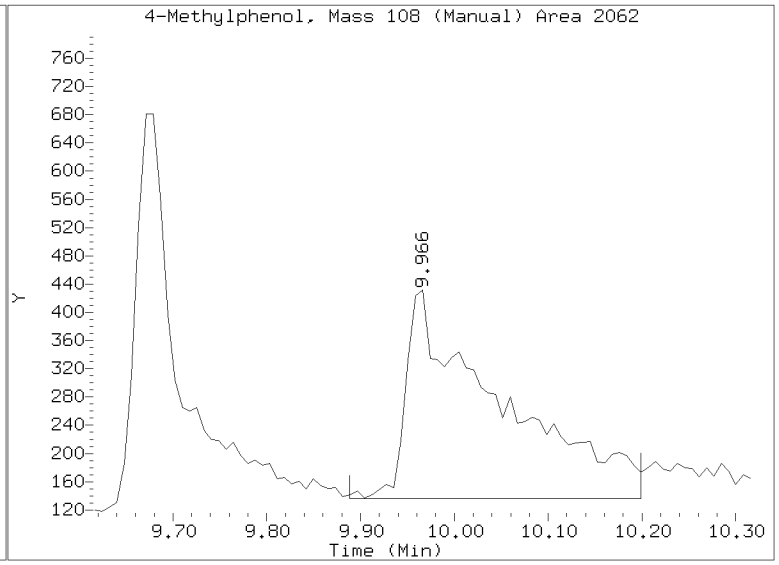






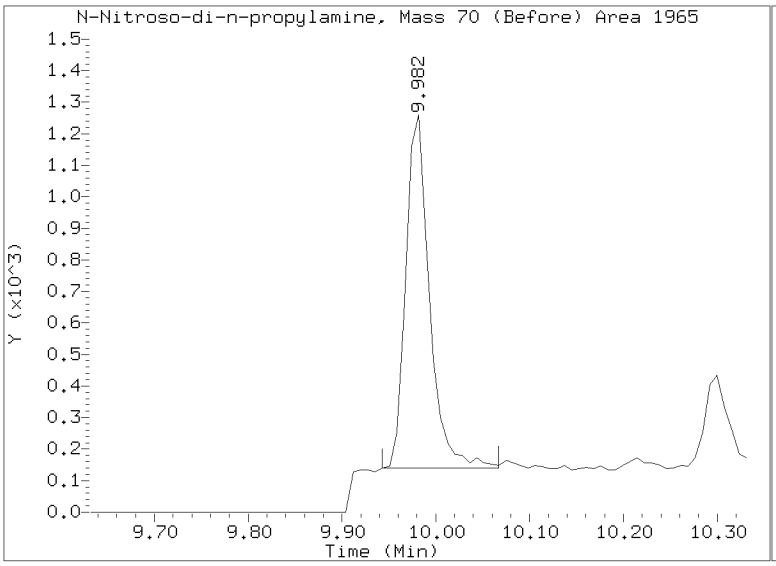


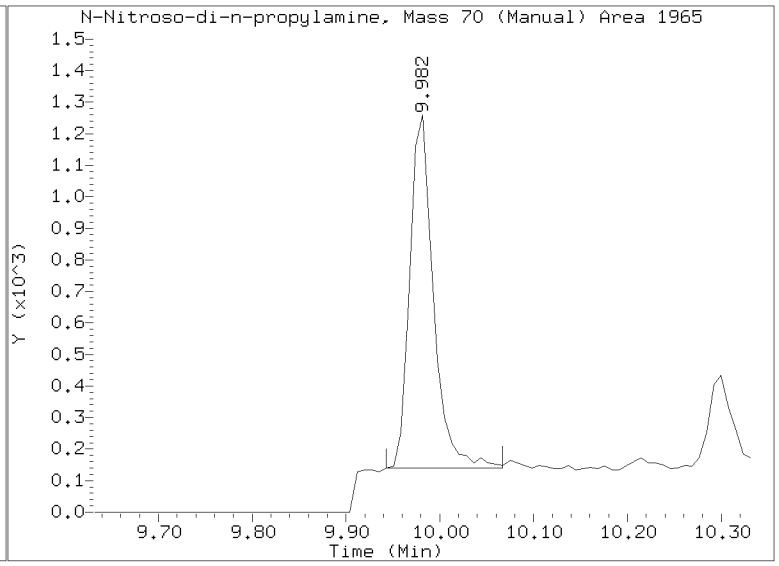


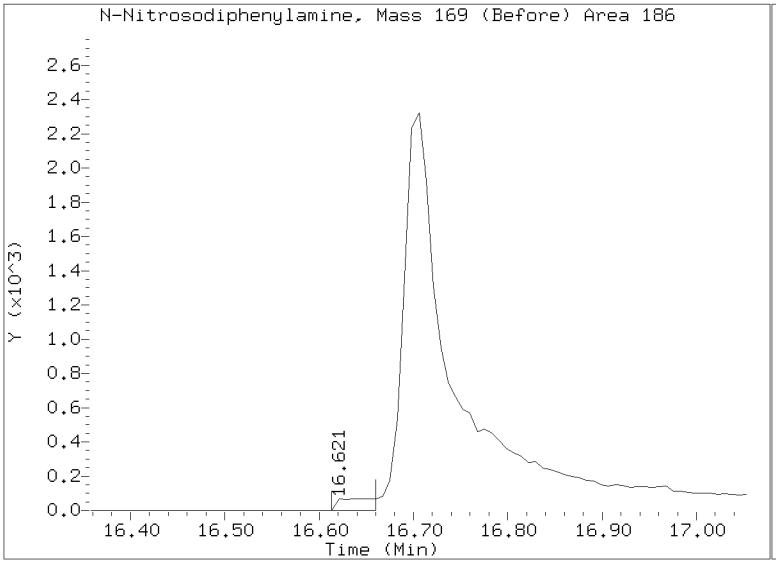


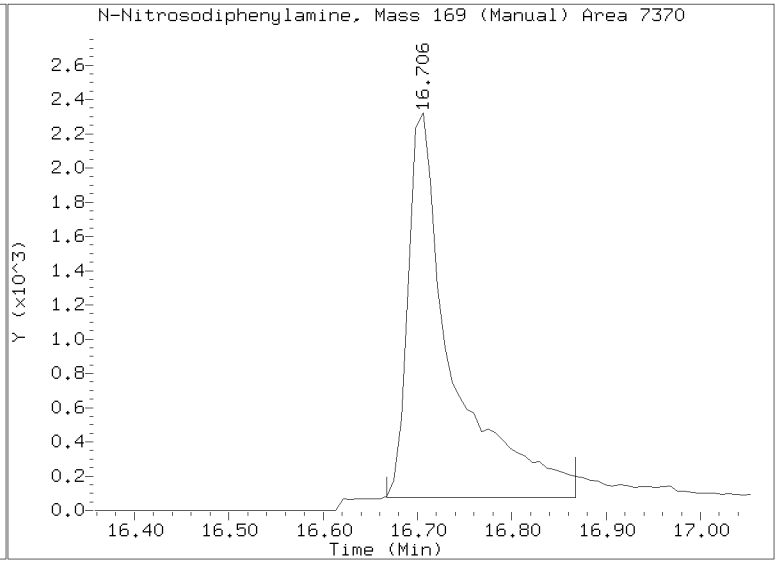
Quant Ion Manual Peak Adjustment Report

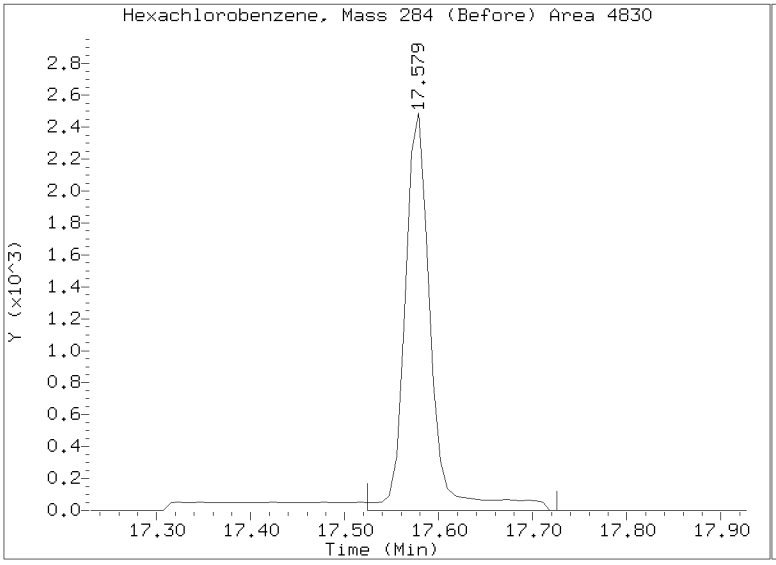
Datafile: //target/share/chem3/nt10.i/20230301.b/SIM.b/NT1003012310S.D
Injection Date: 01-MAR-2023 21:09
Lab ID:SLC0143-CAL1 Client ID:
Report Date: 03/10/2023 10:37

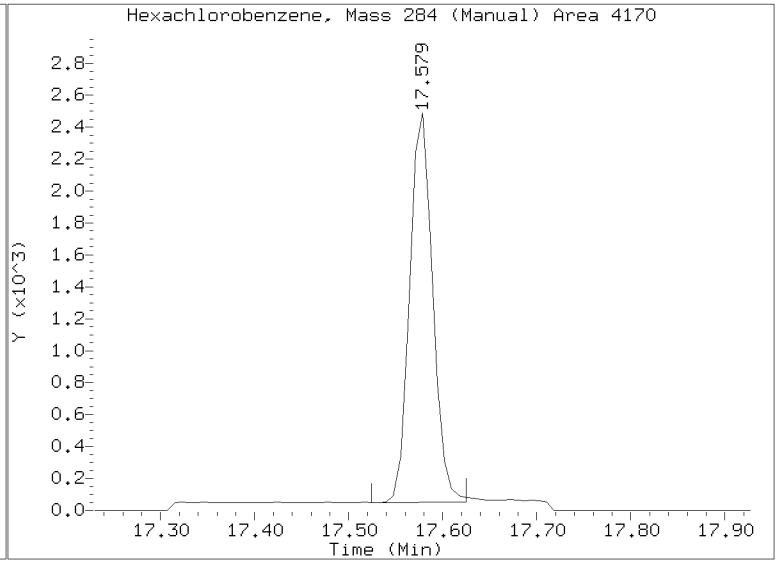












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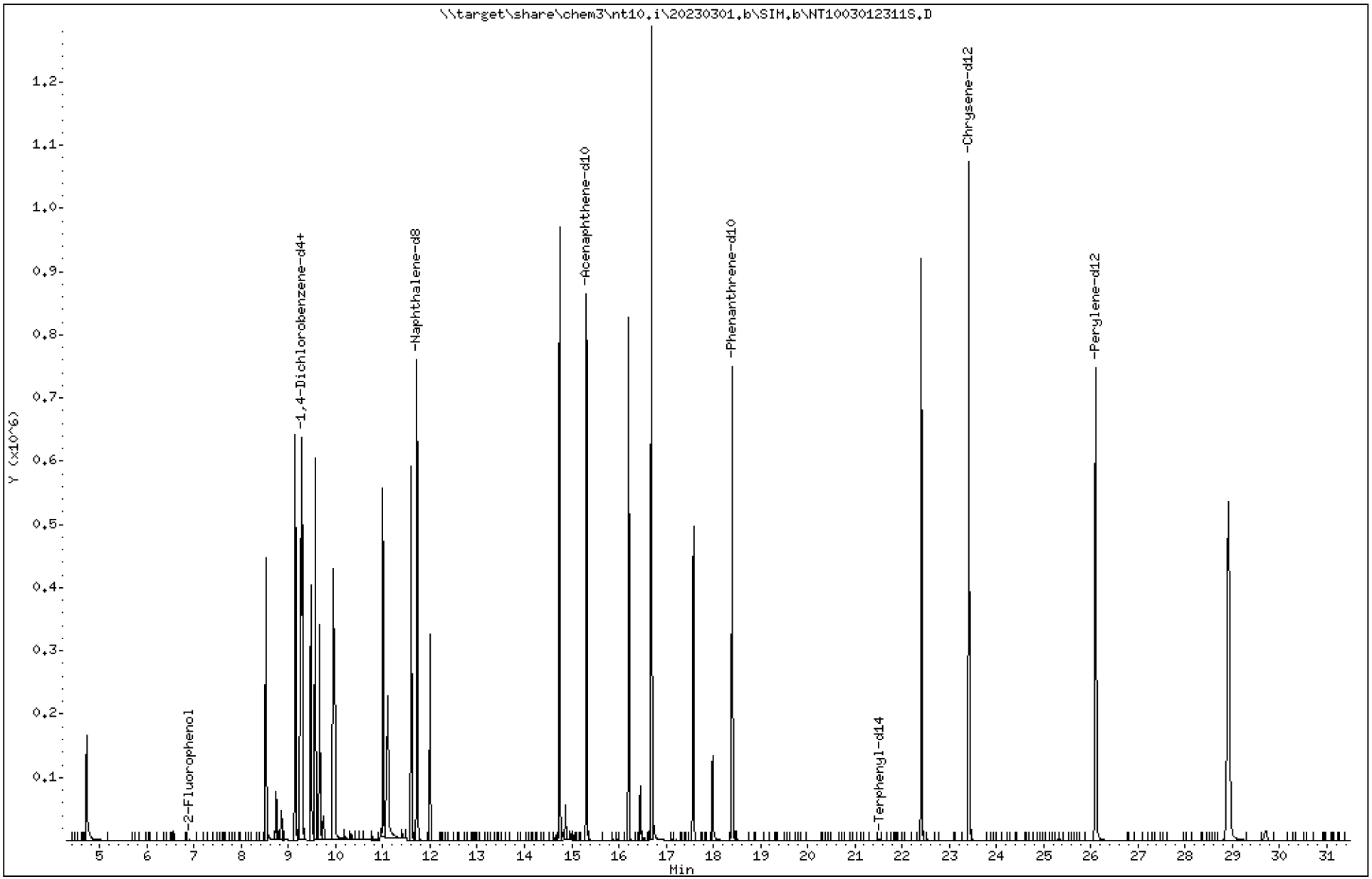
Date : 01-MAR-2023 21:46
Client ID:
Sample Info: SEQ-SCV1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: JGR
Column diameter: 0.25



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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

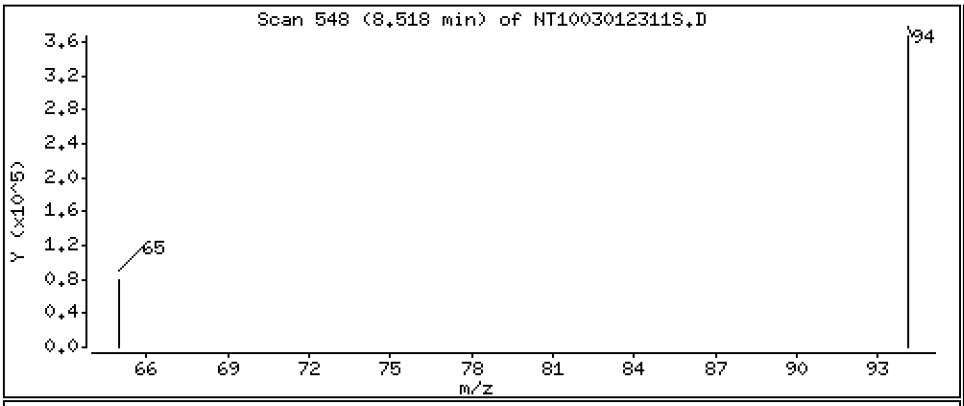
Operator: JGR

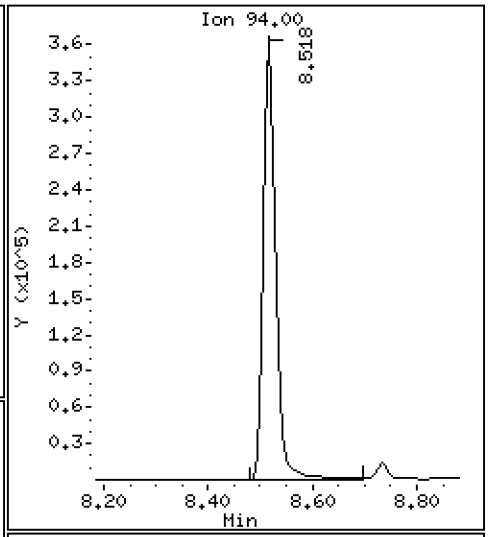
Column phase: ZB-5msi

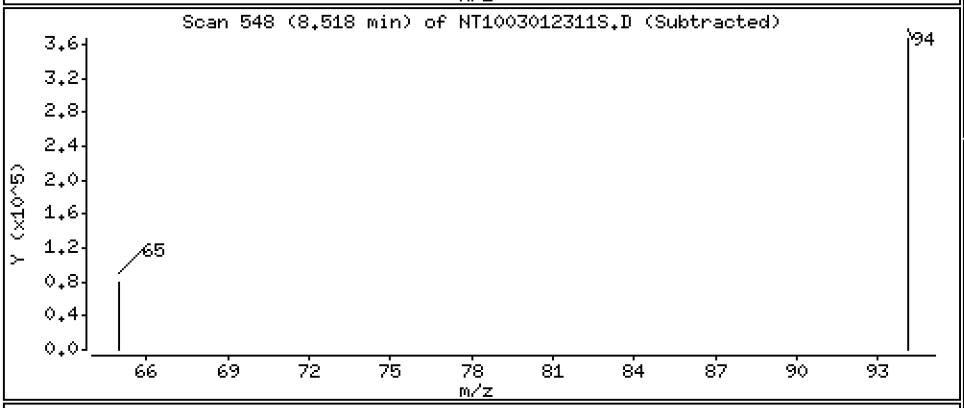
Column diameter: 0.25

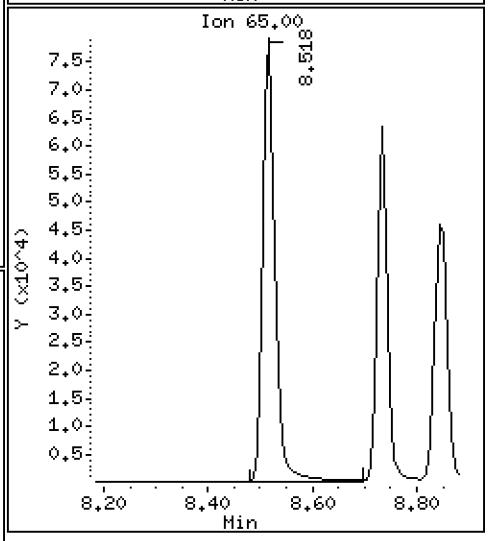
3 Phenol

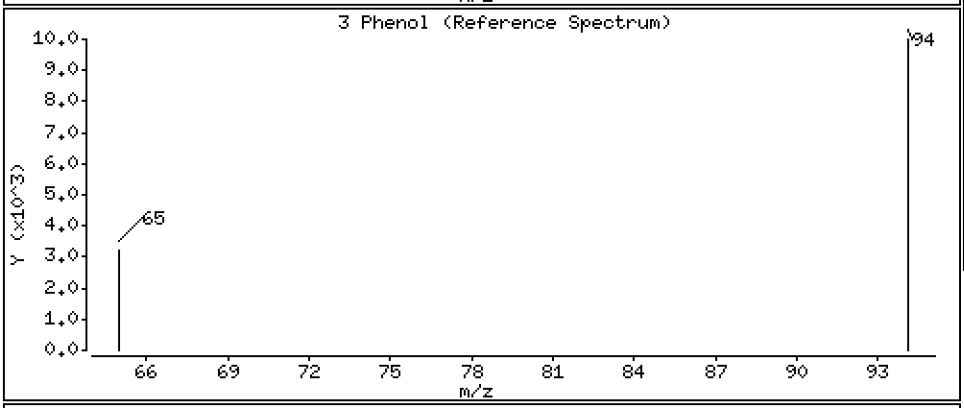
Concentration: 4.507 ug/L

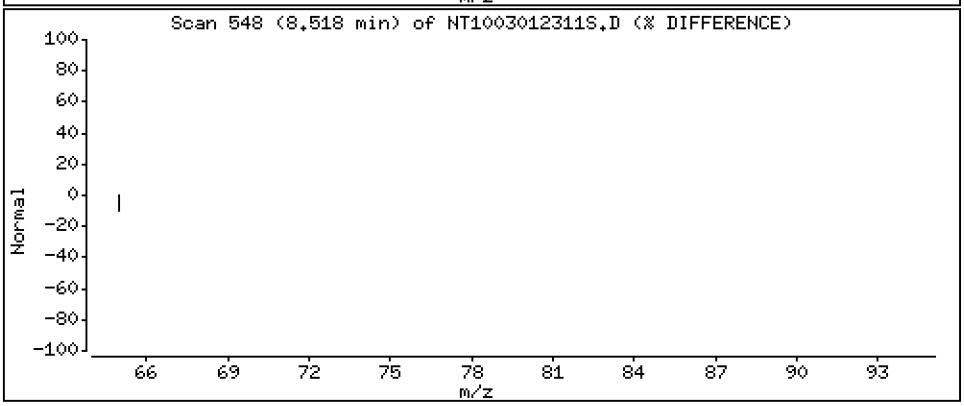












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

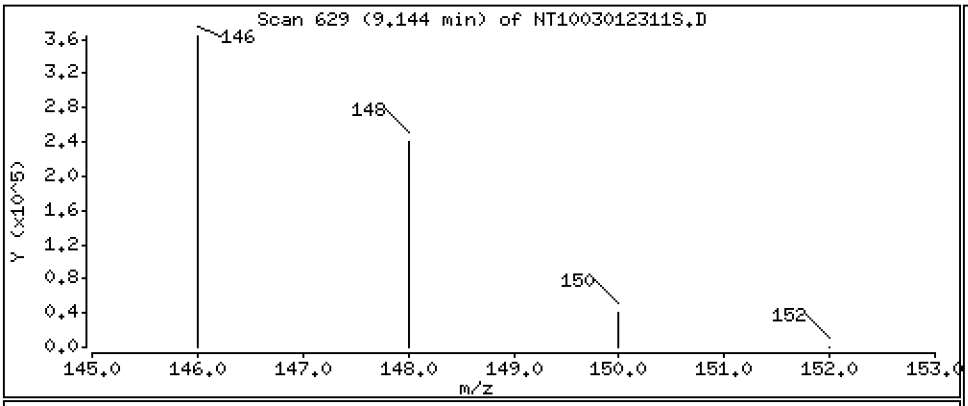
Operator: JGR

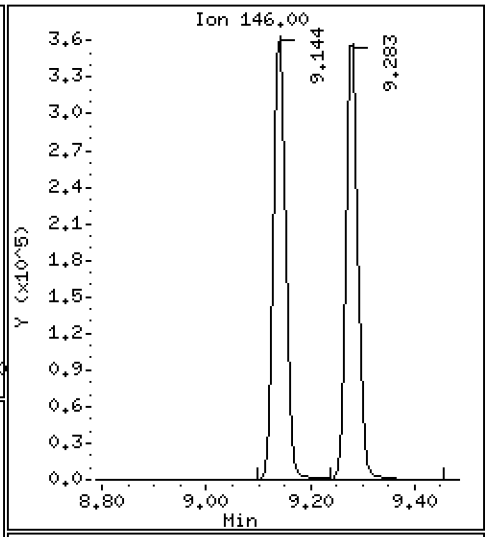
Column phase: ZB-5msi

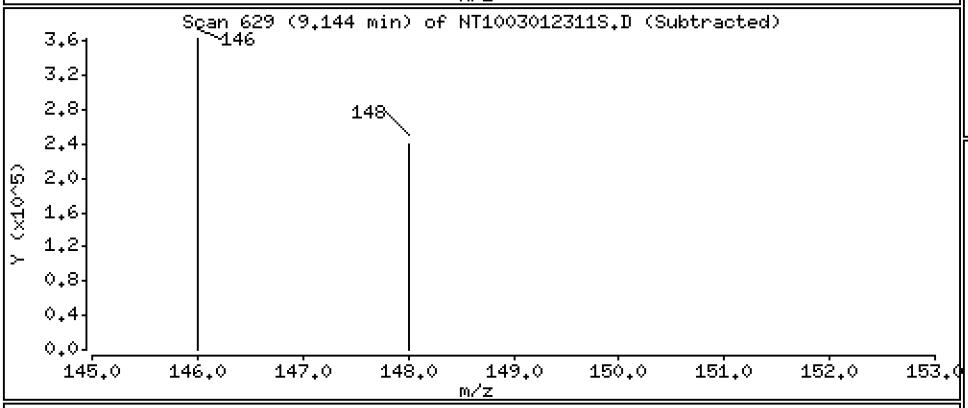
Column diameter: 0.25

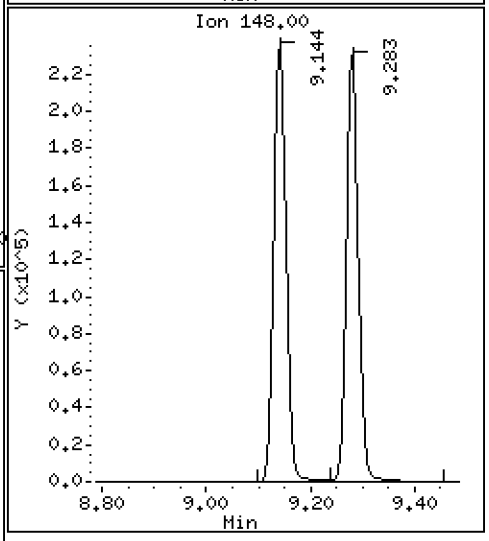
7 1,3-Dichlorobenzene

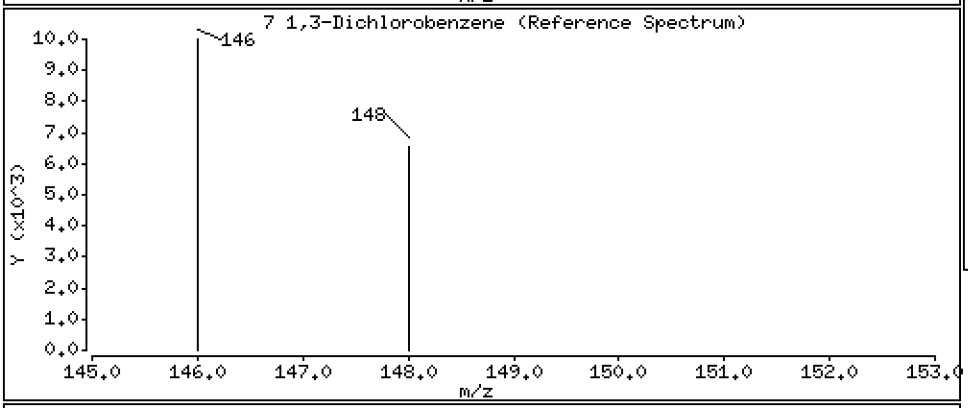
Concentration: 5.084 ug/L

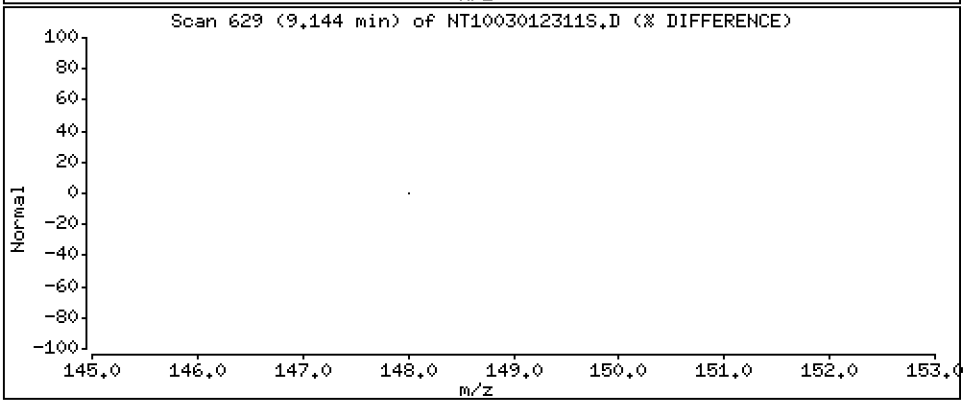












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

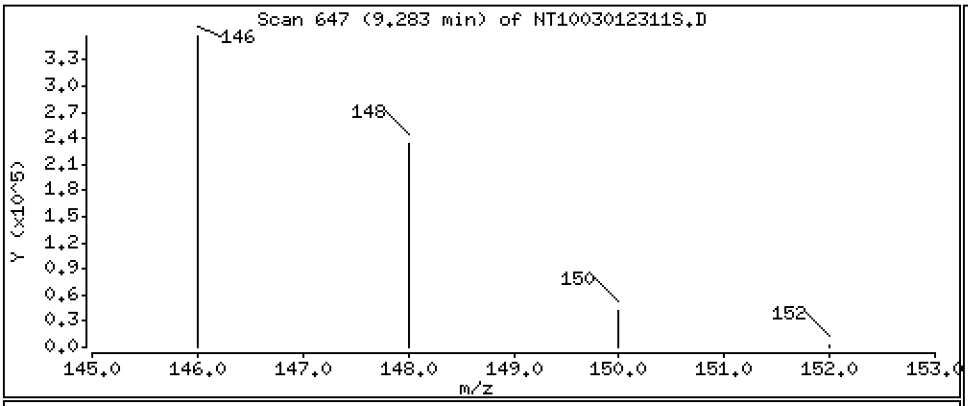
Operator: JGR

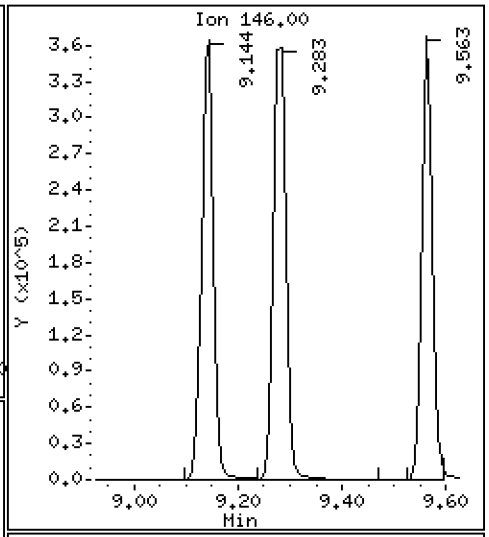
Column phase: ZB-5msi

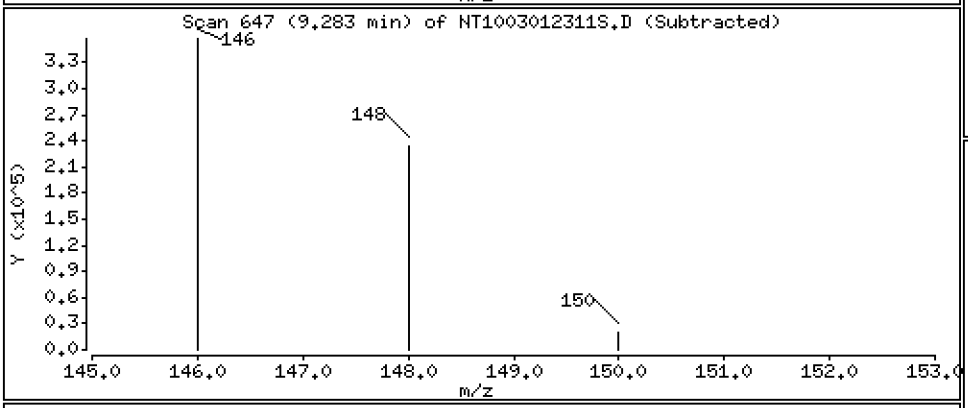
Column diameter: 0.25

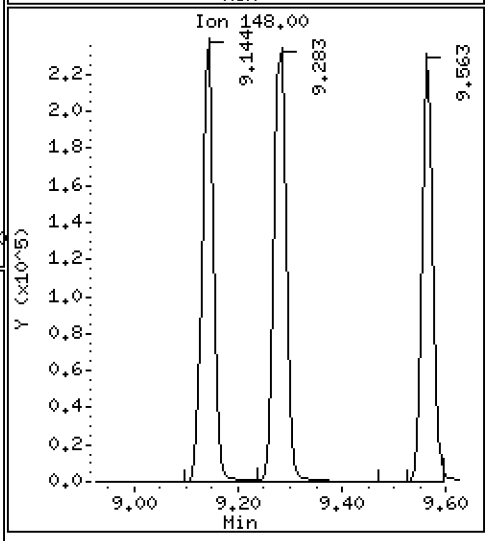
9 1,4-Dichlorobenzene

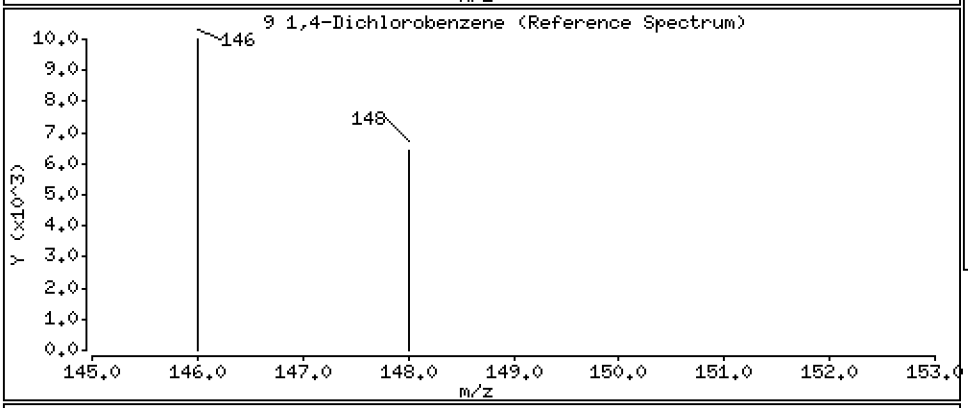
Concentration: 5.250 ug/L

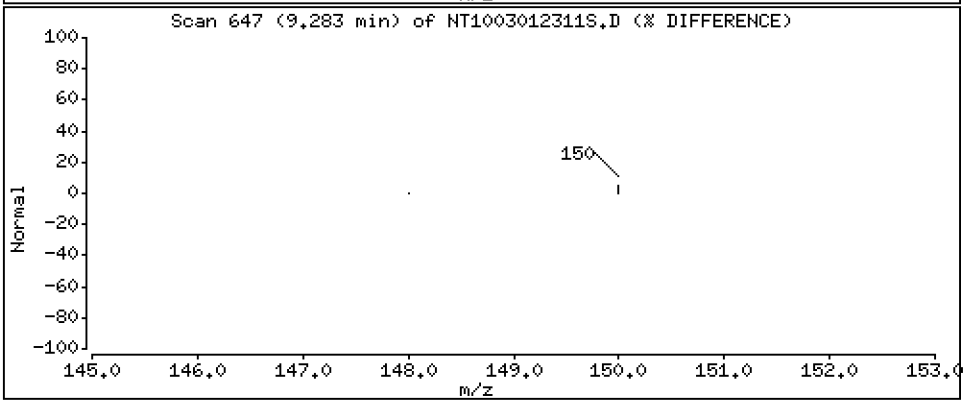












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

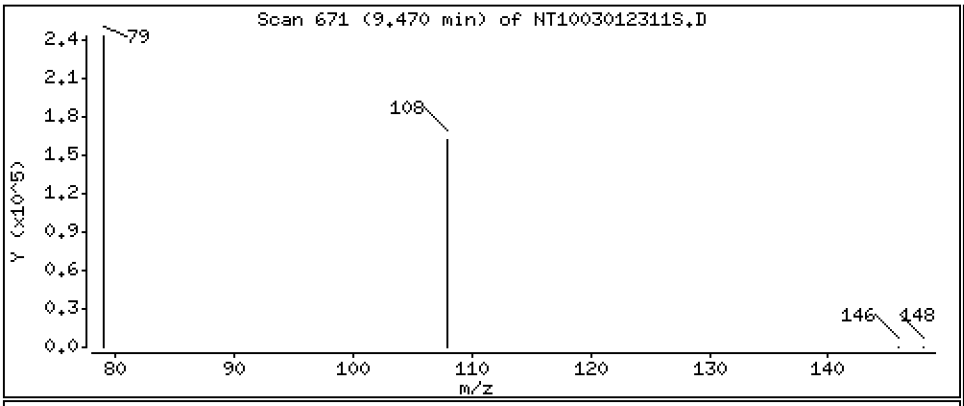
Operator: JGR

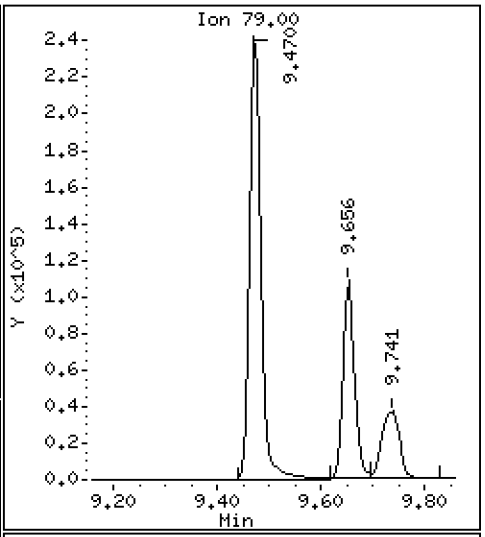
Column phase: ZB-5msi

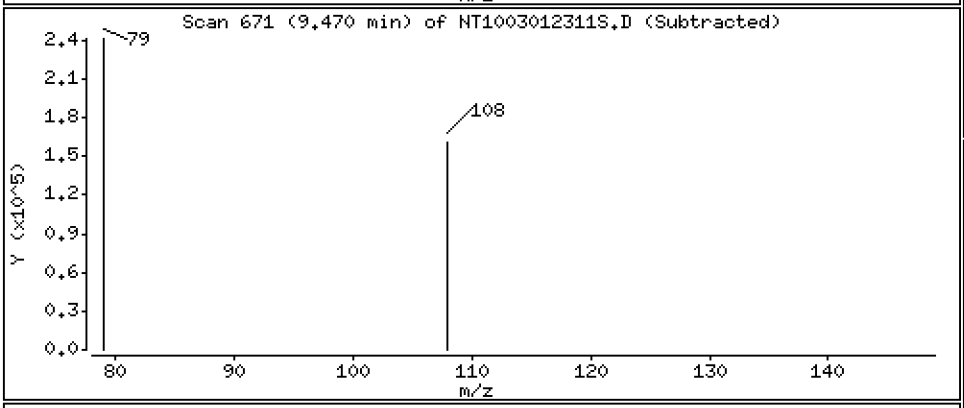
Column diameter: 0.25

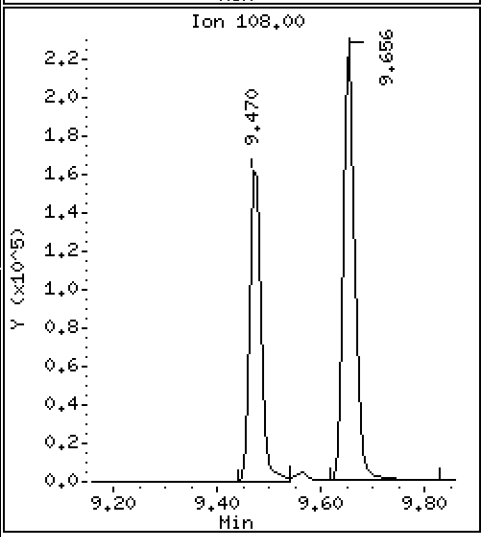
11 Benzyl alcohol

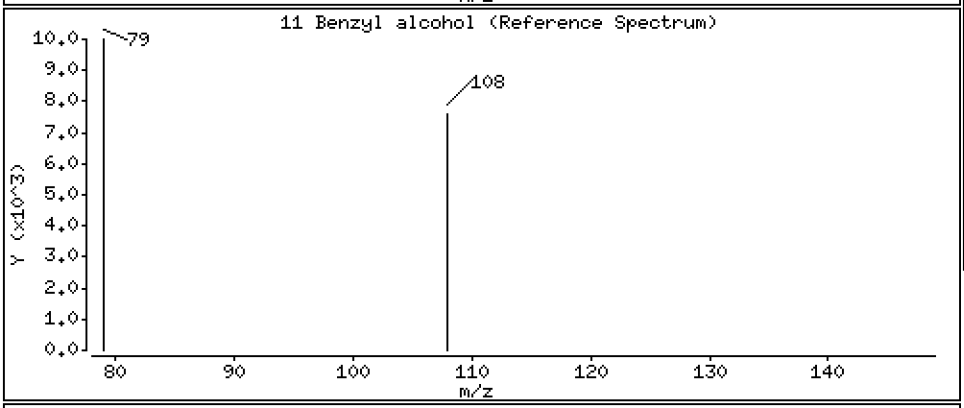
Concentration: 5.104 ug/L

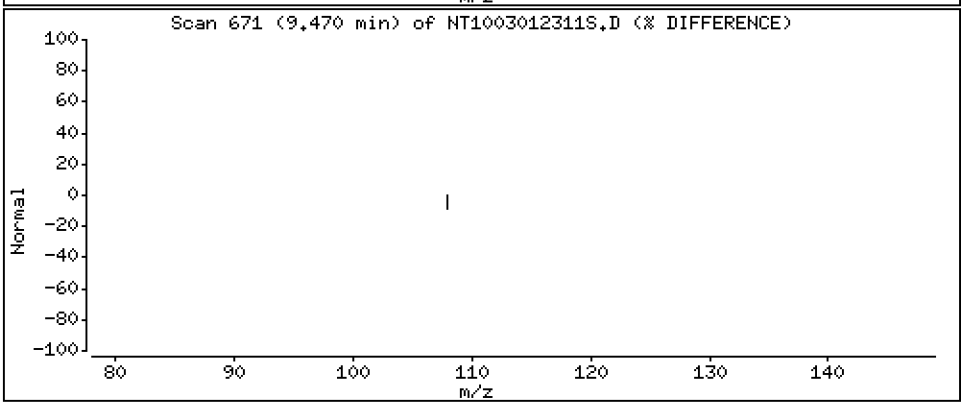












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

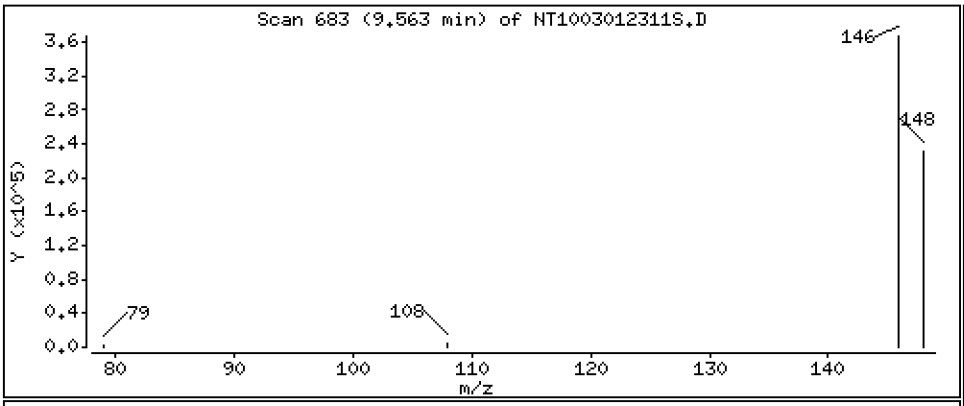
Operator: JGR

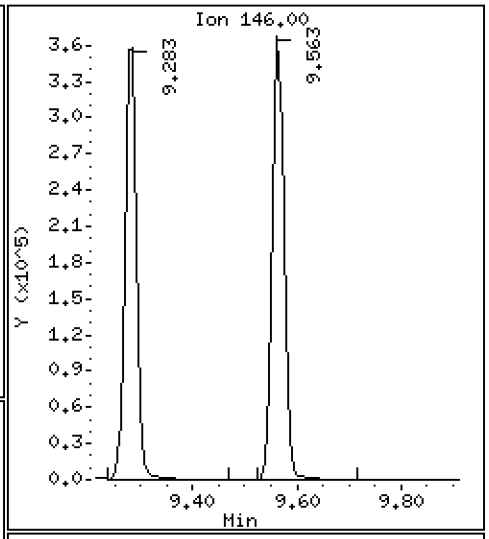
Column phase: ZB-5msi

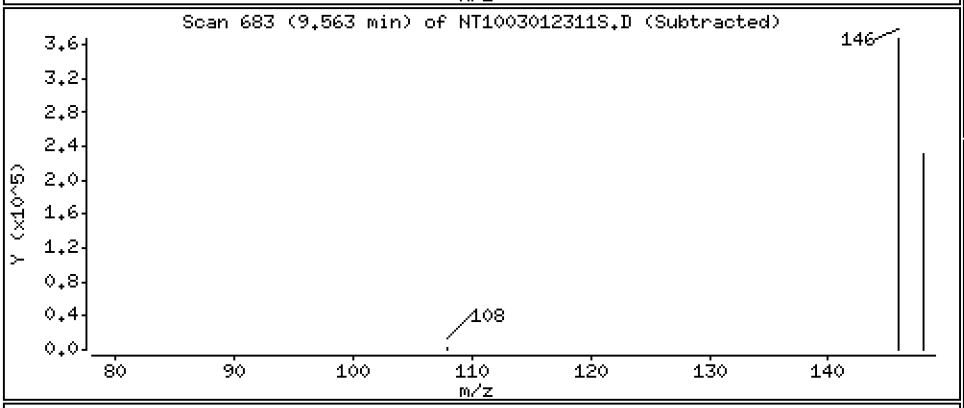
Column diameter: 0.25

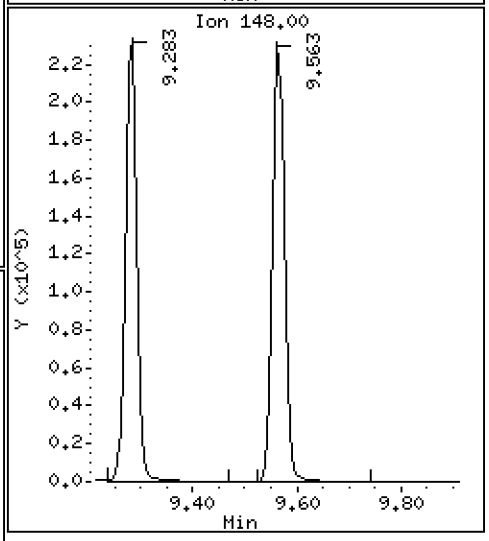
12 1,2-Dichlorobenzene

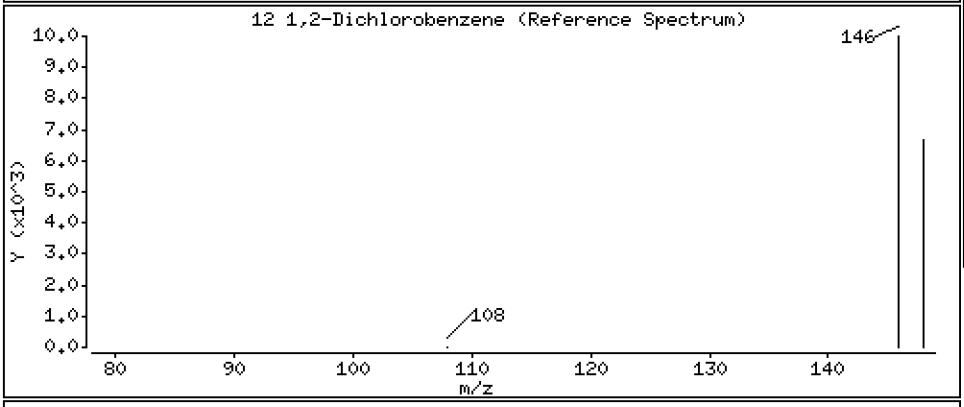
Concentration: 5.142 ug/L

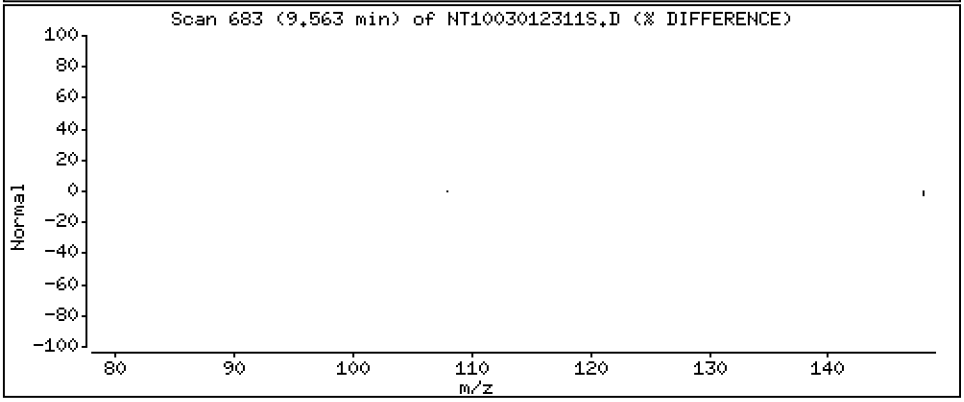












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

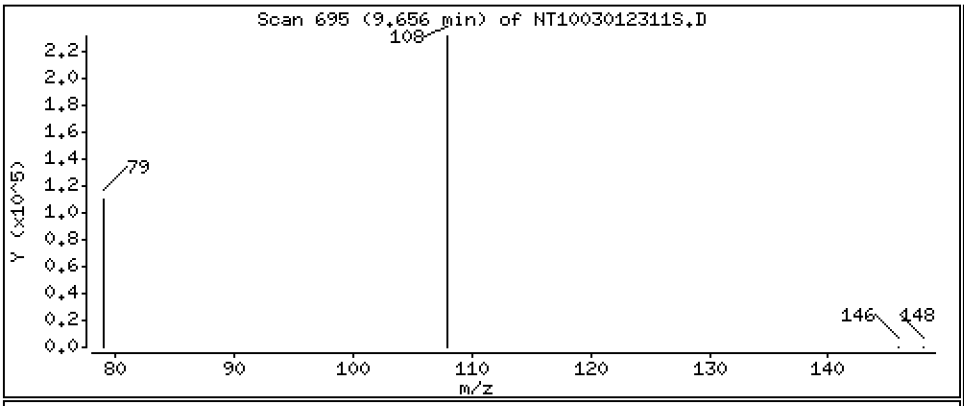
Operator: JGR

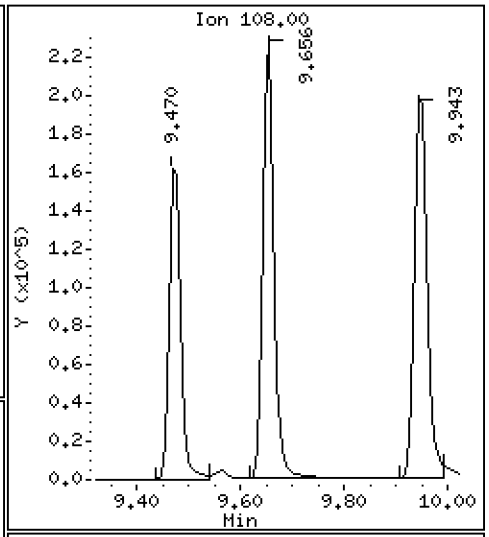
Column phase: ZB-5msi

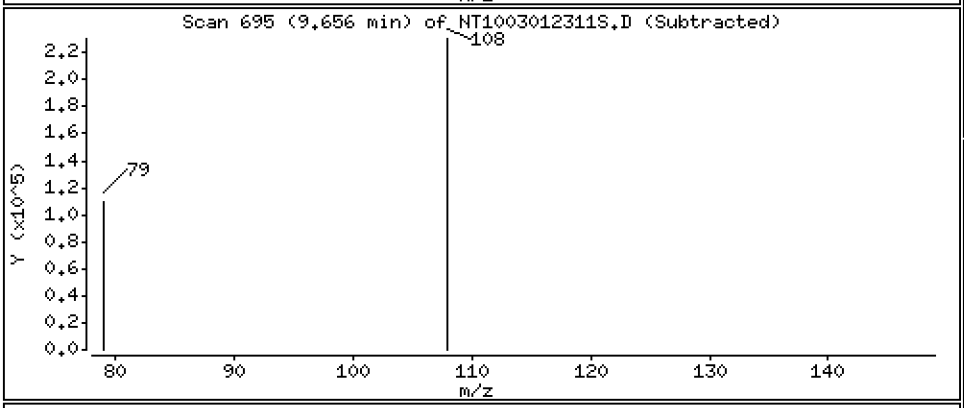
Column diameter: 0.25

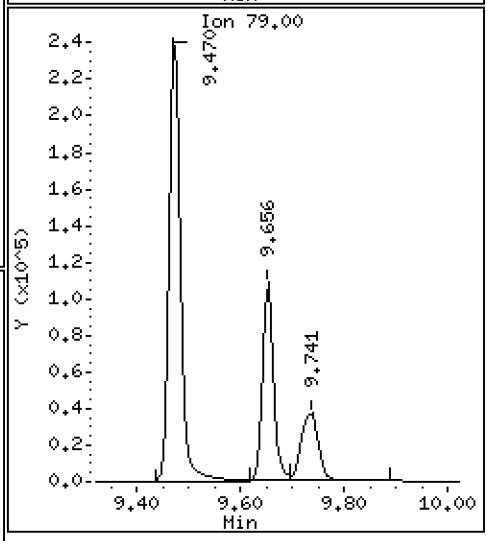
13 2-Methylphenol

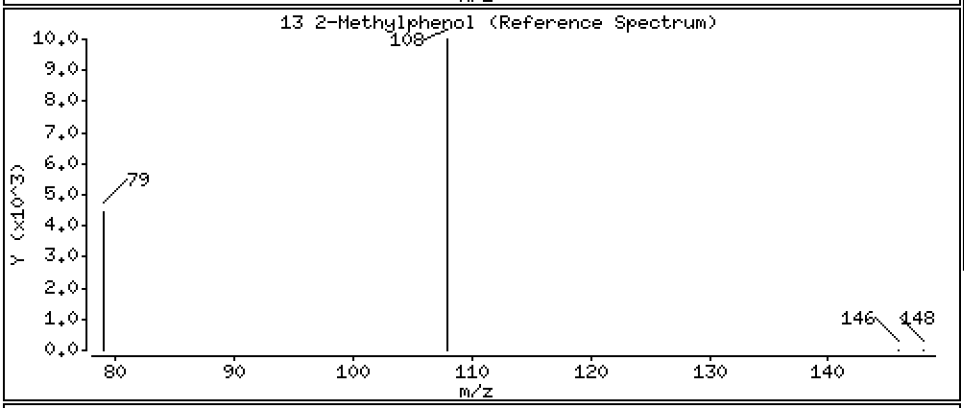
Concentration: 4.365 ug/L

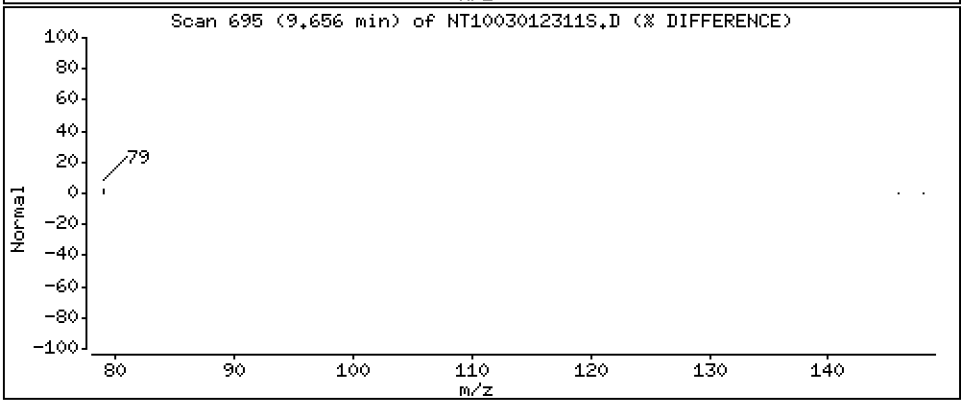












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

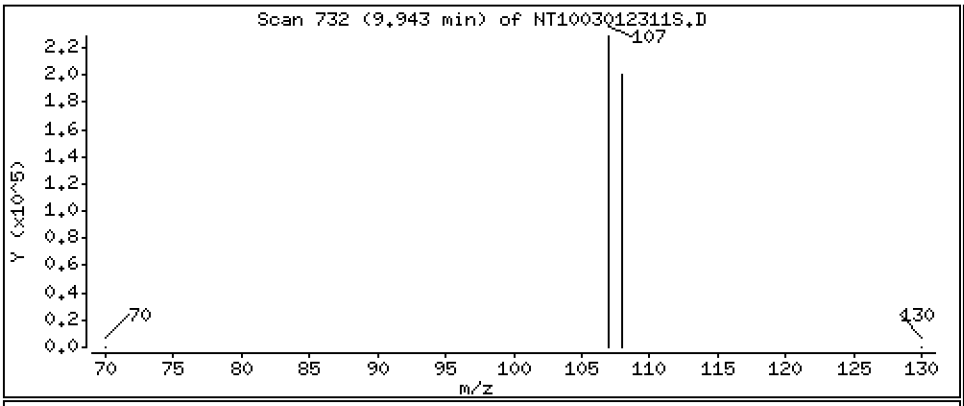
Operator: JGR

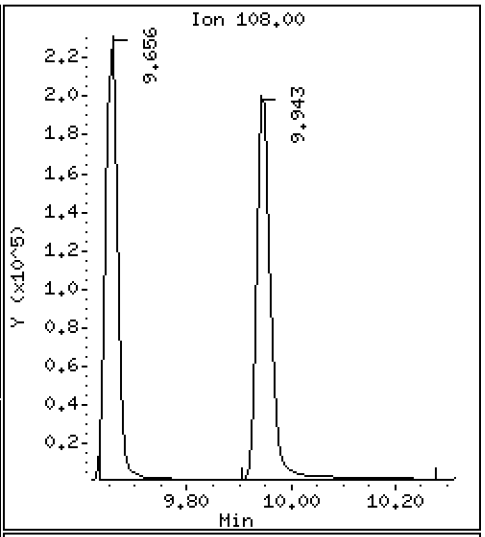
Column phase: ZB-5msi

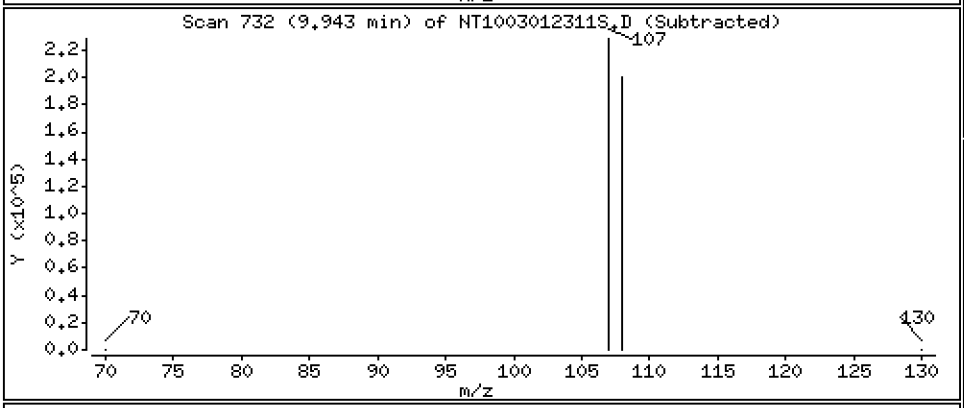
Column diameter: 0.25

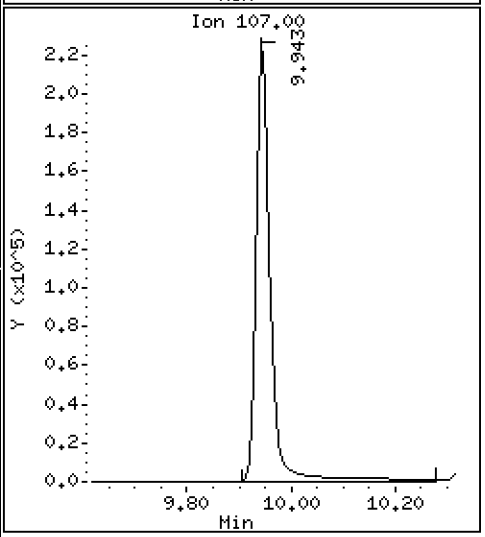
15 4-Methylphenol

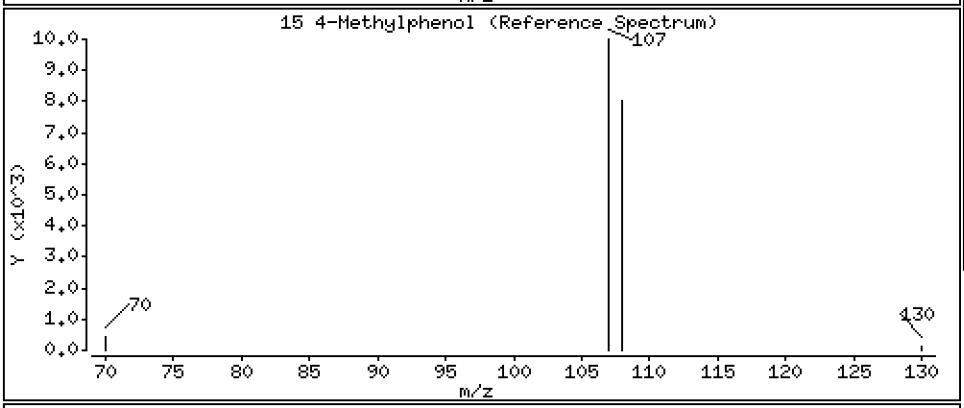
Concentration: 4.505 ug/L

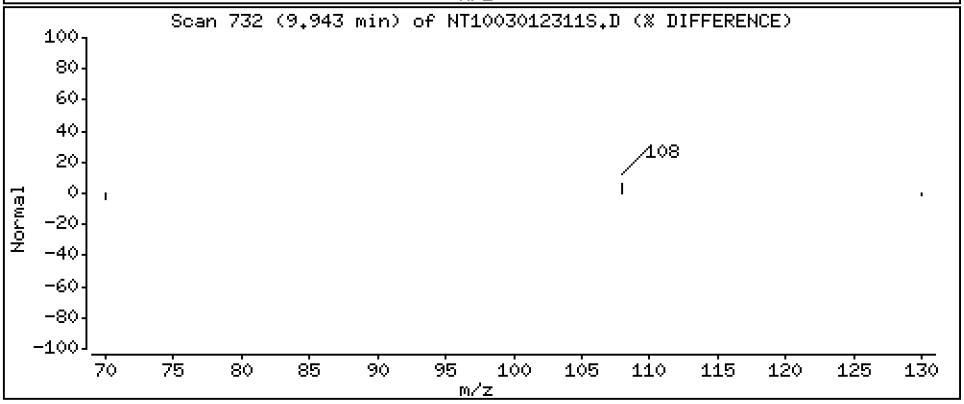












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

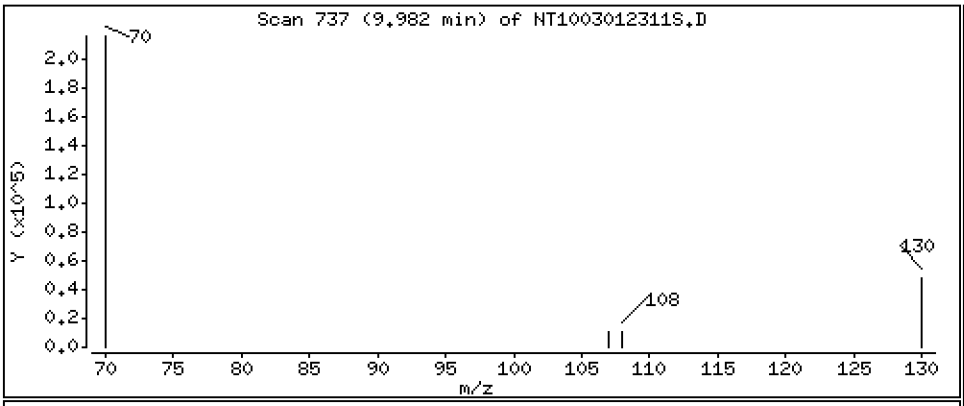
Operator: JGR

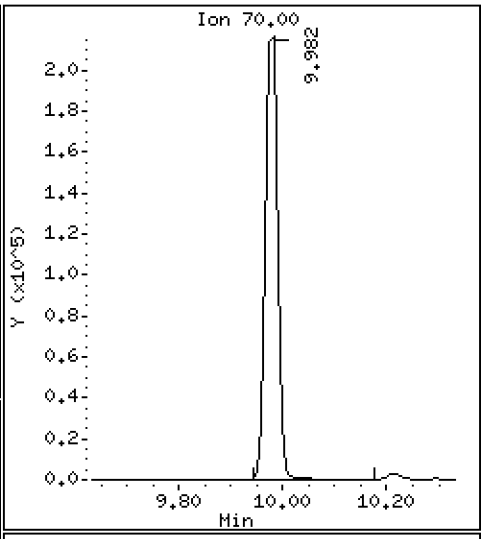
Column phase: ZB-5msi

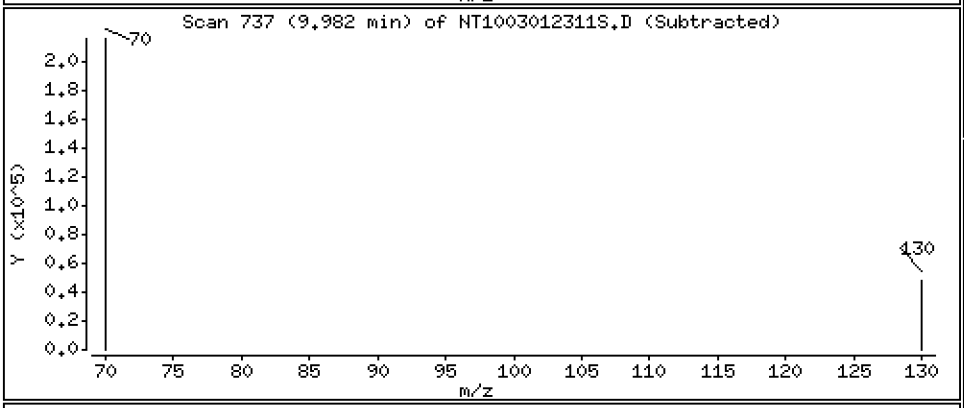
Column diameter: 0.25

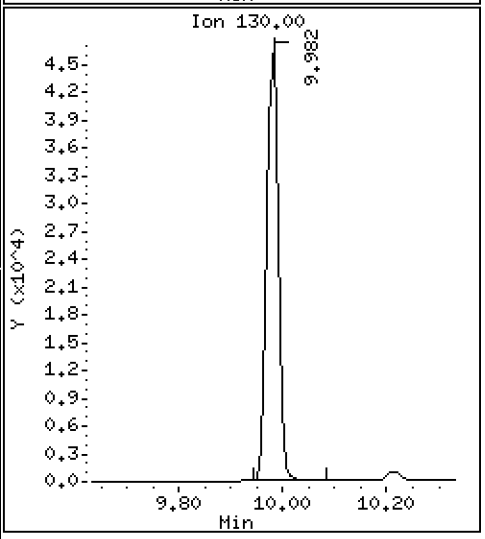
16 N-Nitroso-di-n-propylamine

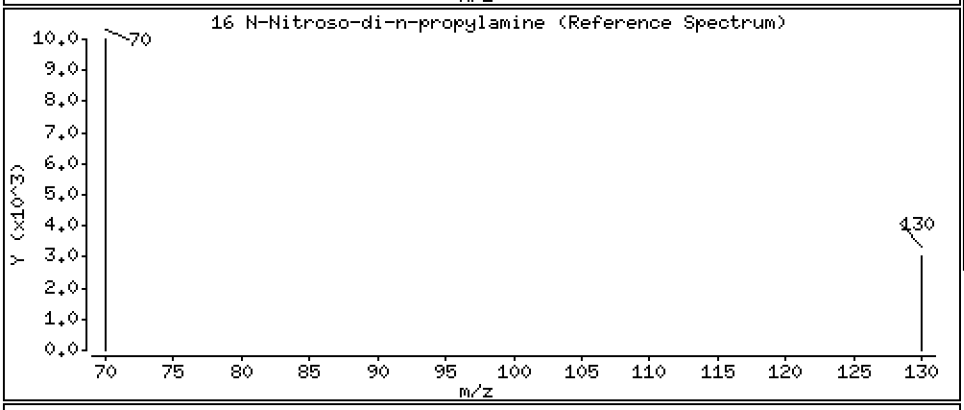
Concentration: 5.685 ug/L

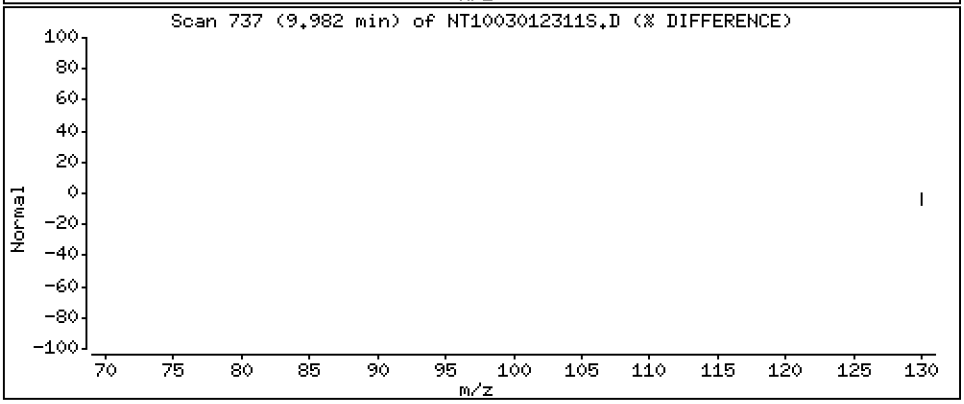












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

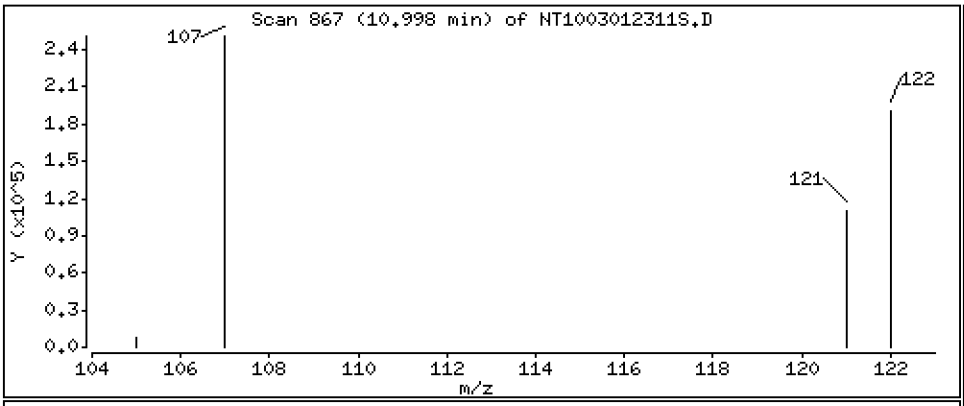
Operator: JGR

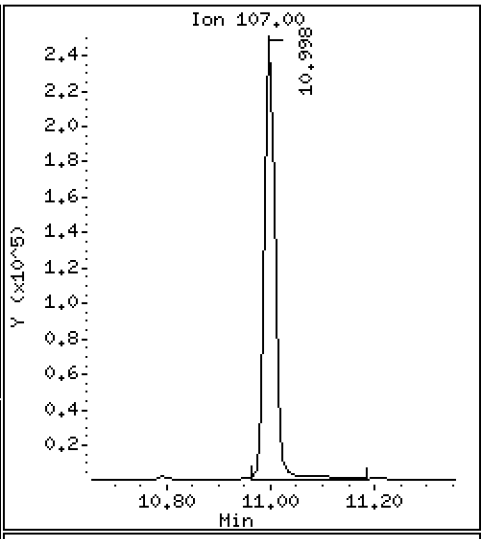
Column phase: ZB-5msi

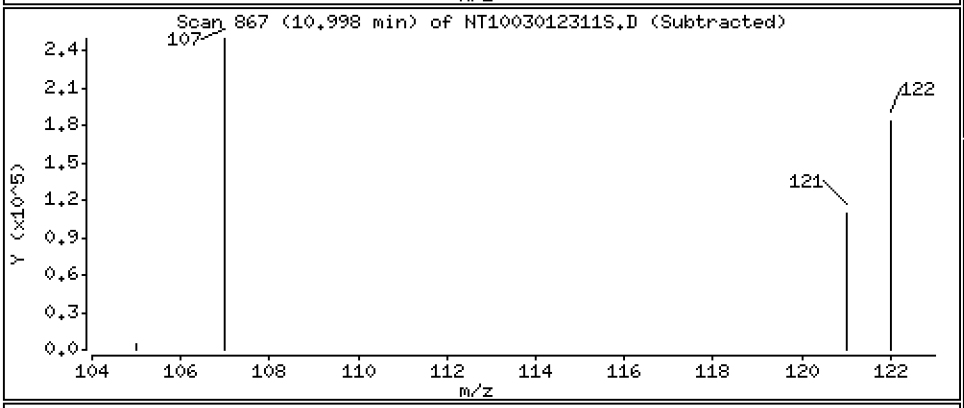
Column diameter: 0.25

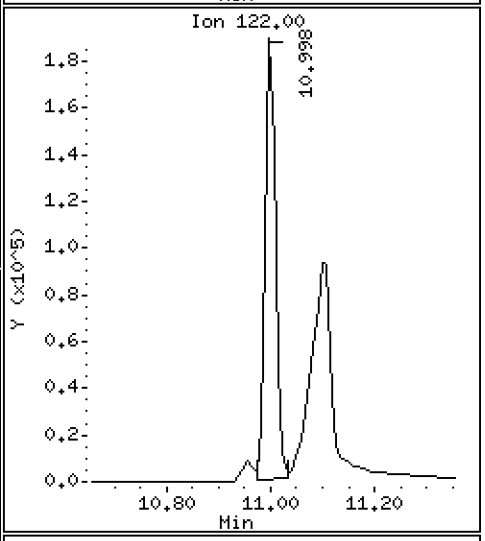
22 2,4-Dimethylphenol

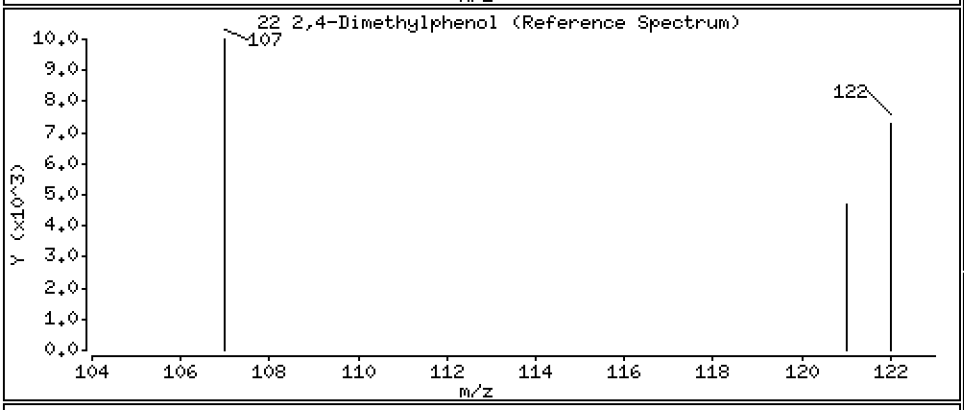
Concentration: 3.637 ug/L

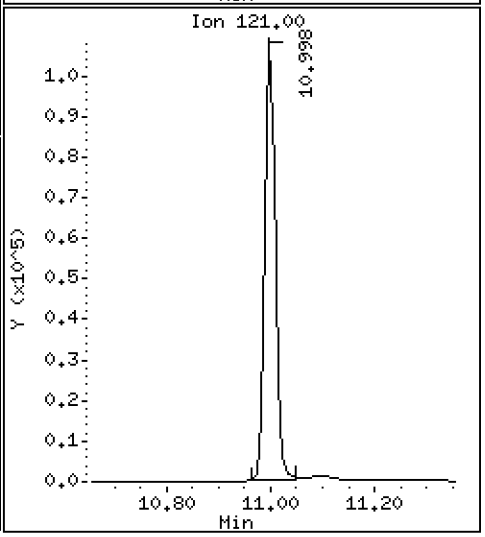


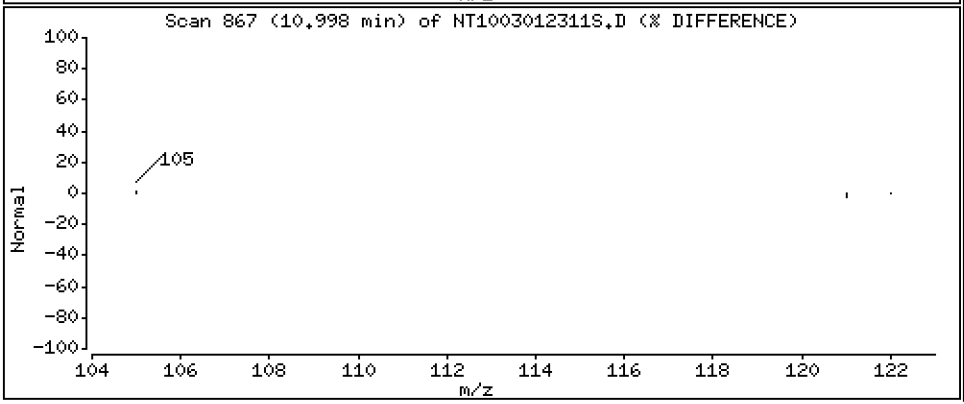












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

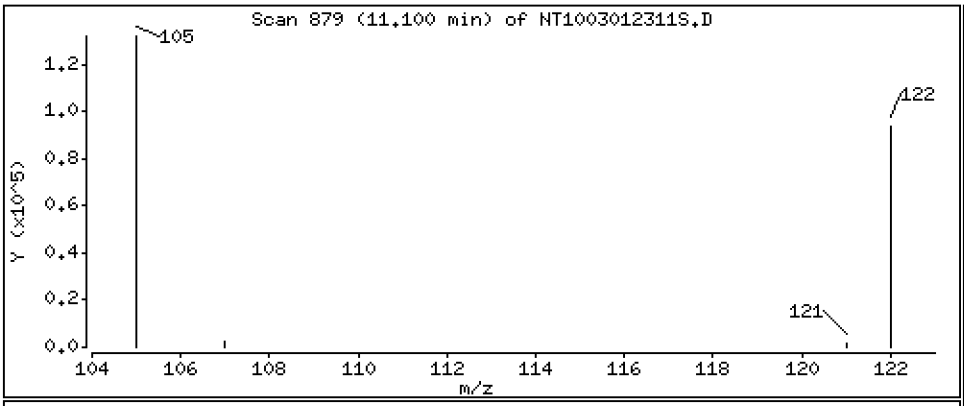
Operator: JGR

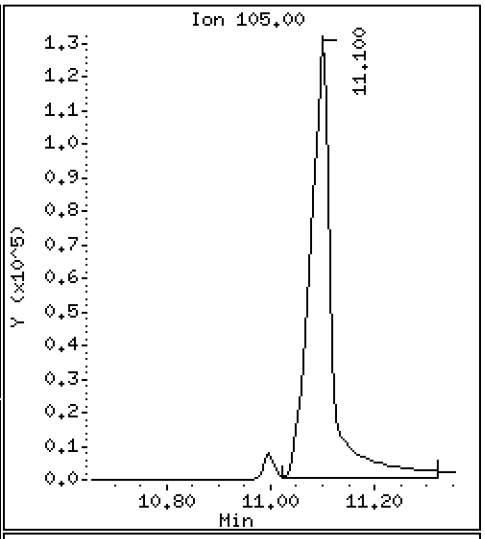
Column phase: ZB-5msi

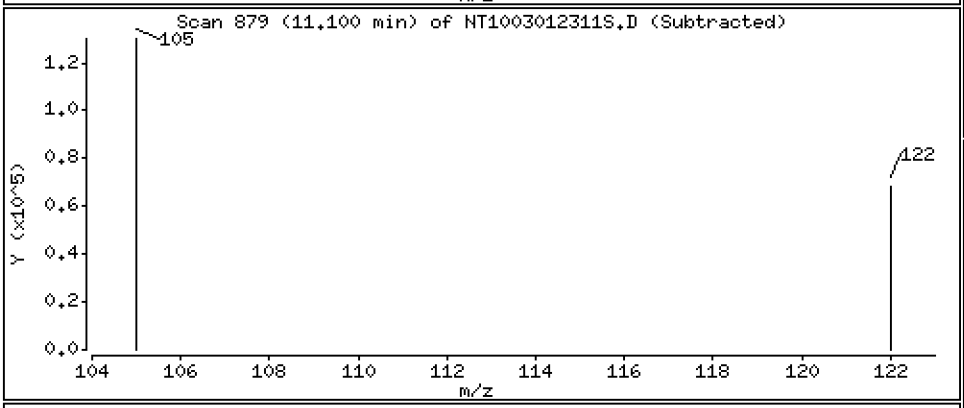
Column diameter: 0.25

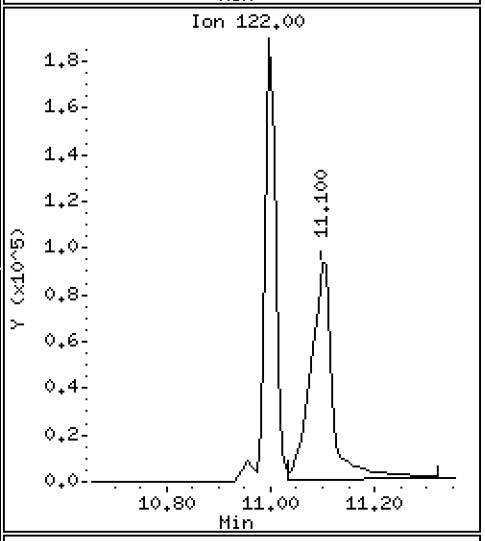
24 Benzoic acid

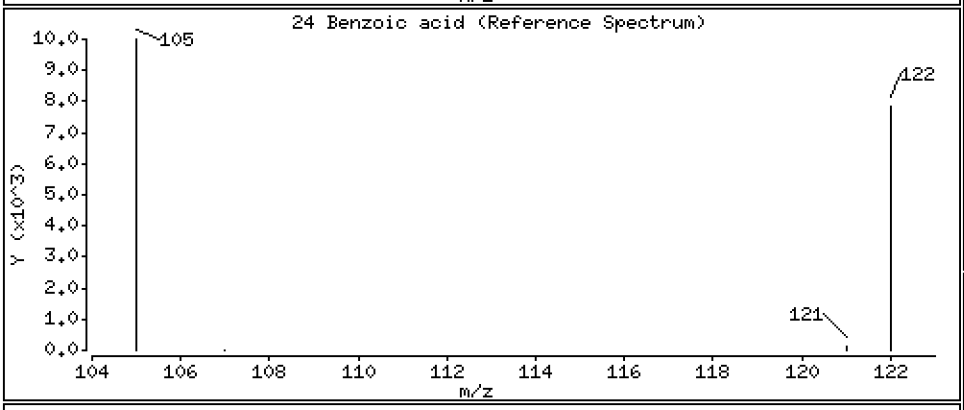
Concentration: 6.870 ug/L

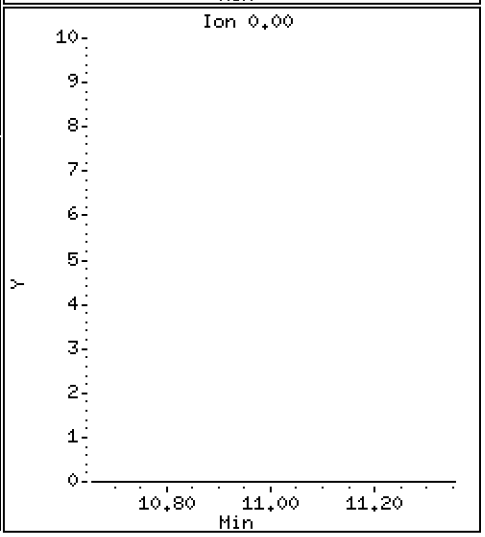


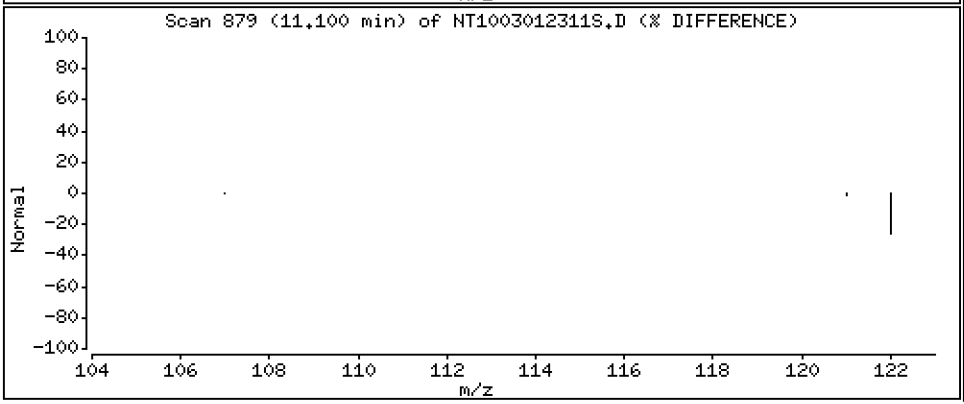












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

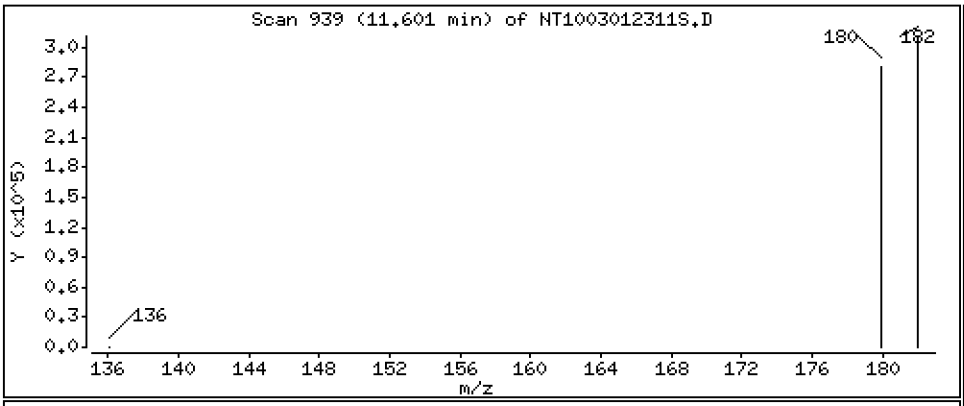
Operator: JGR

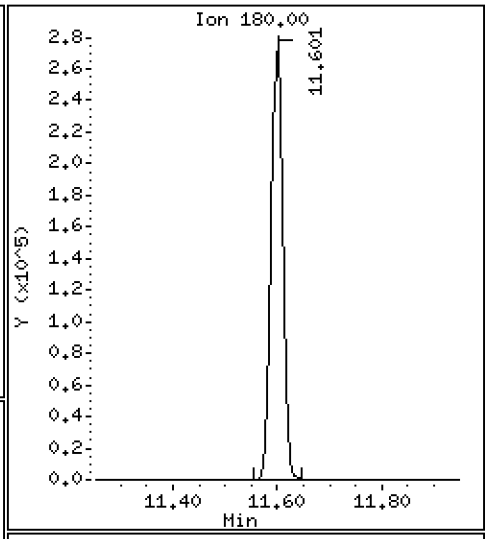
Column phase: ZB-5msi

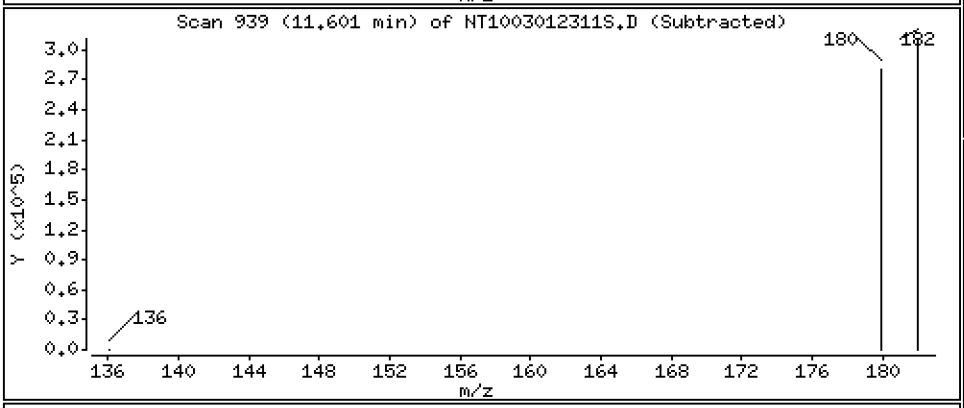
Column diameter: 0.25

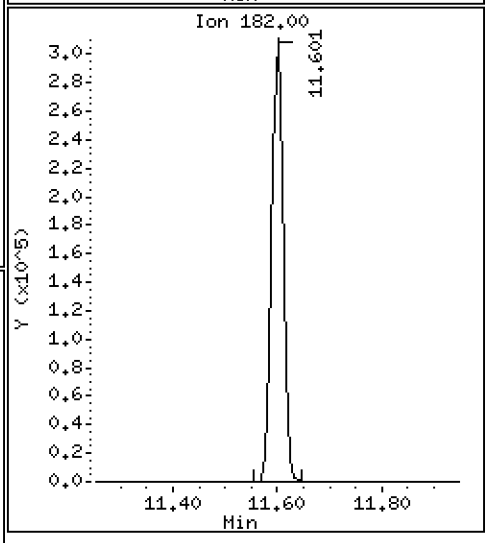
26 1,2,4-Trichlorobenzene

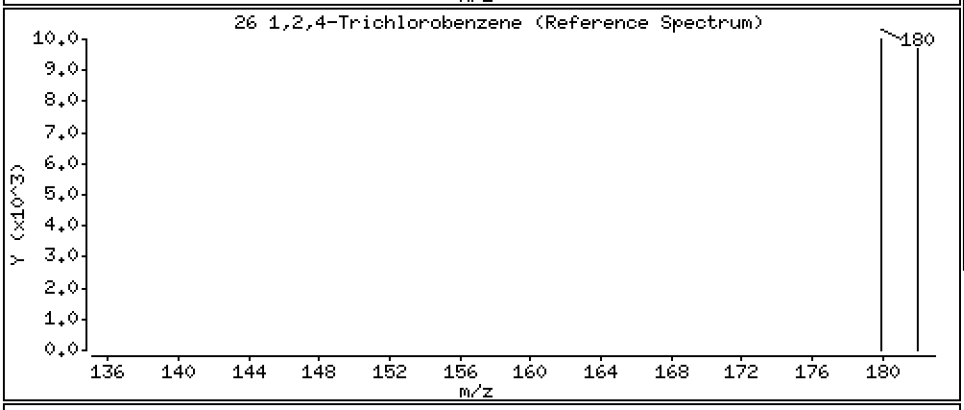
Concentration: 4.870 ug/L

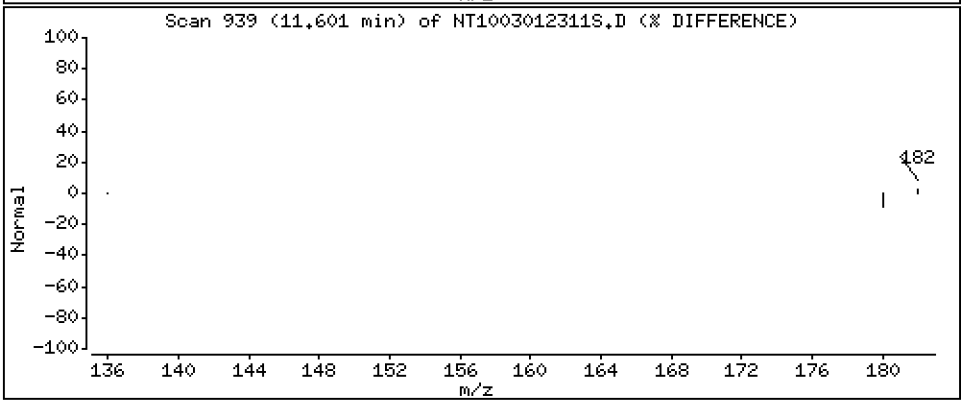












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

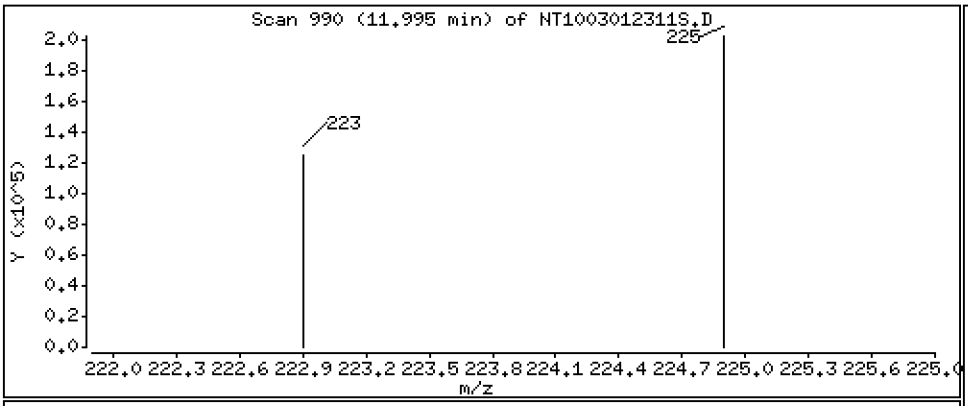
Operator: JGR

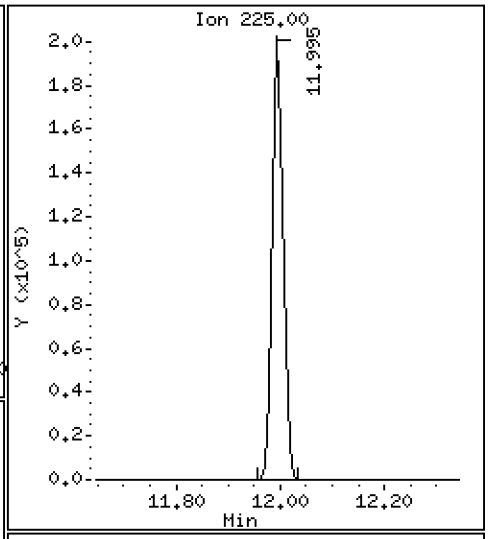
Column phase: ZB-5msi

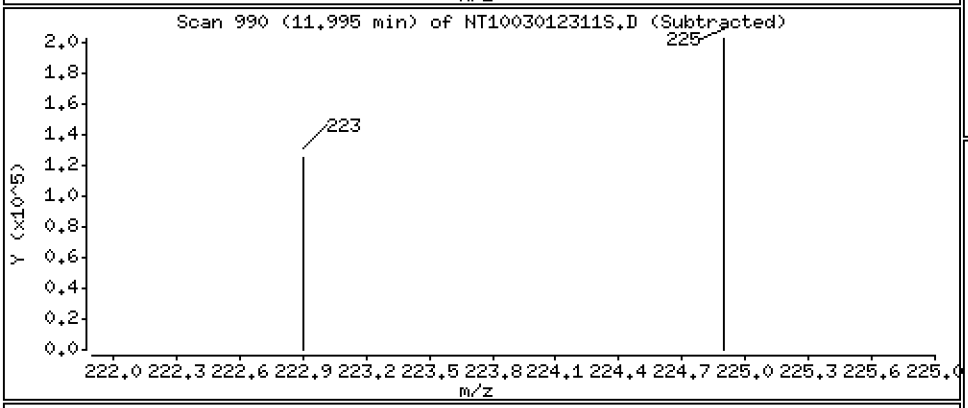
Column diameter: 0.25

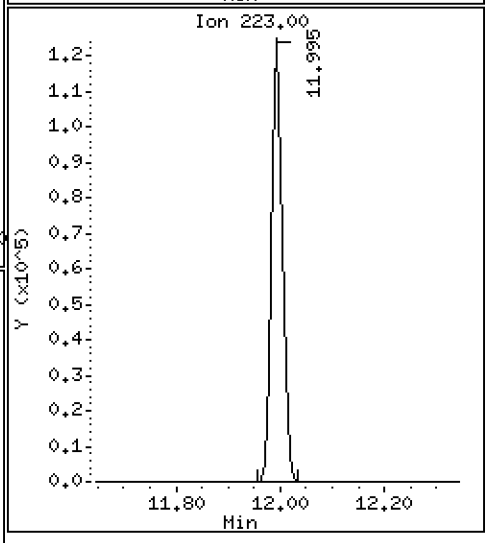
30 Hexachlorobutadiene

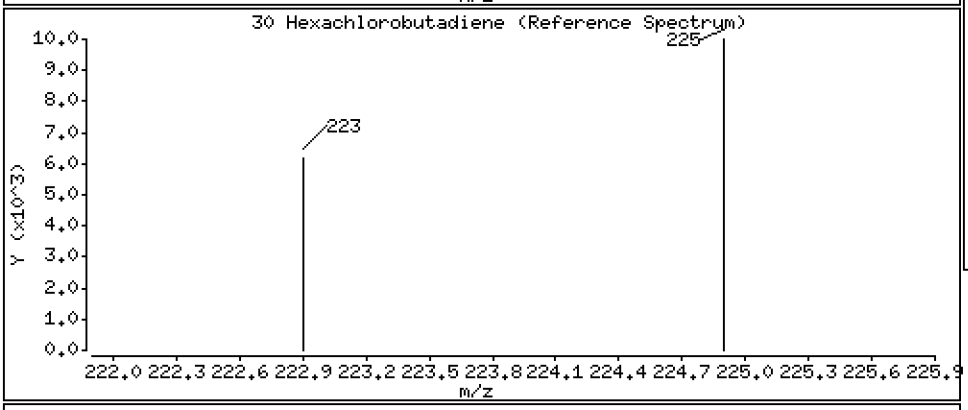
Concentration: 4.862 ug/L

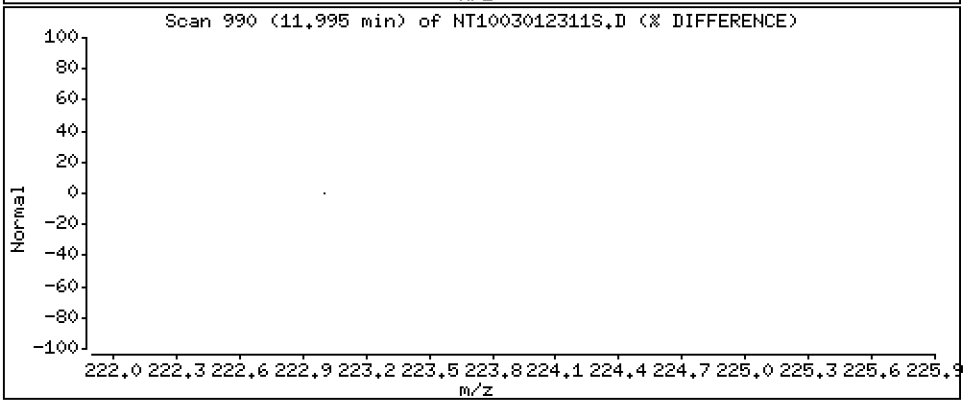












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

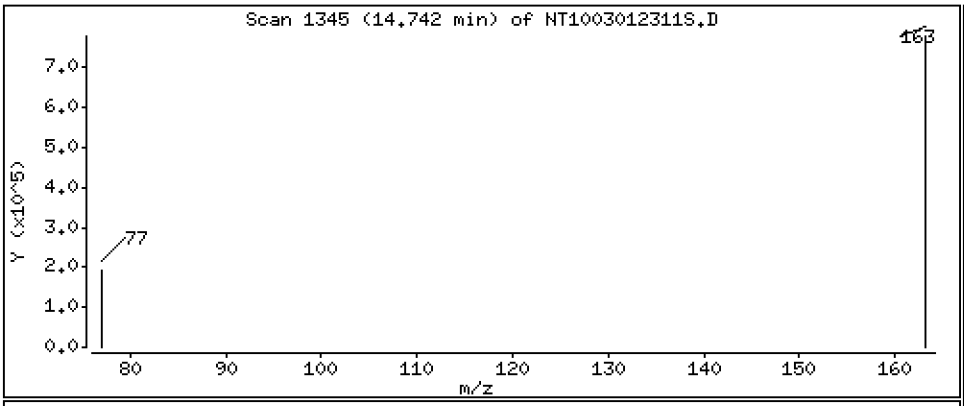
Operator: JGR

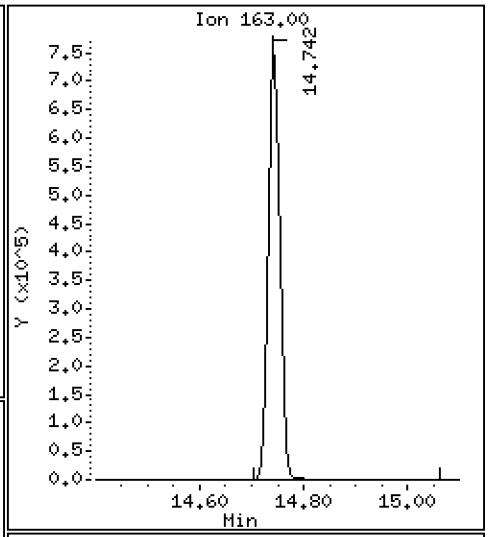
Column phase: ZB-5msi

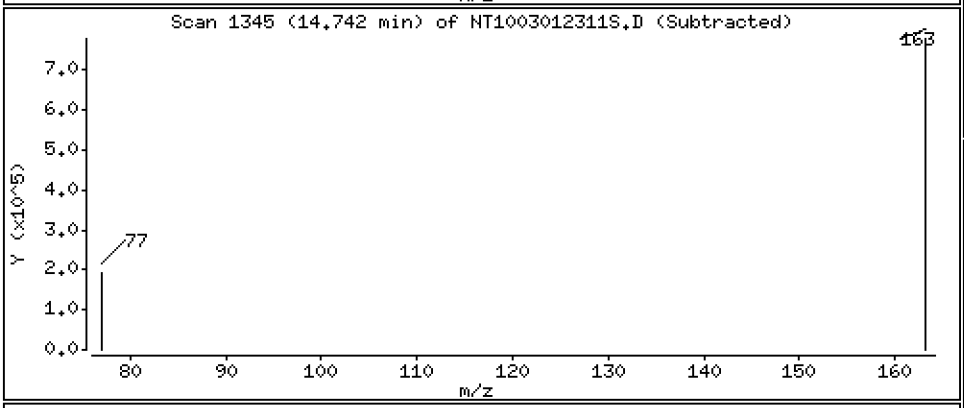
Column diameter: 0.25

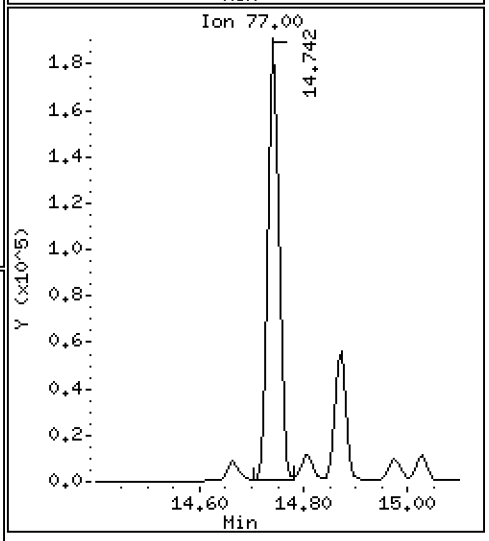
39 Dimethylphthalate

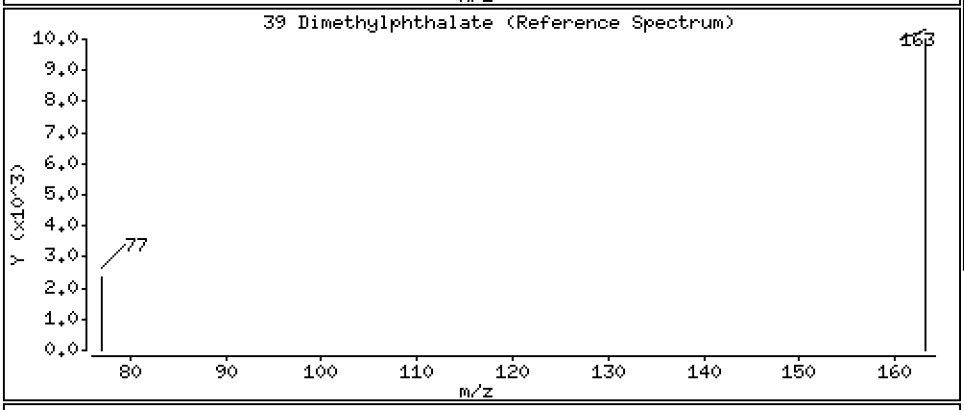
Concentration: 5.571 ug/L

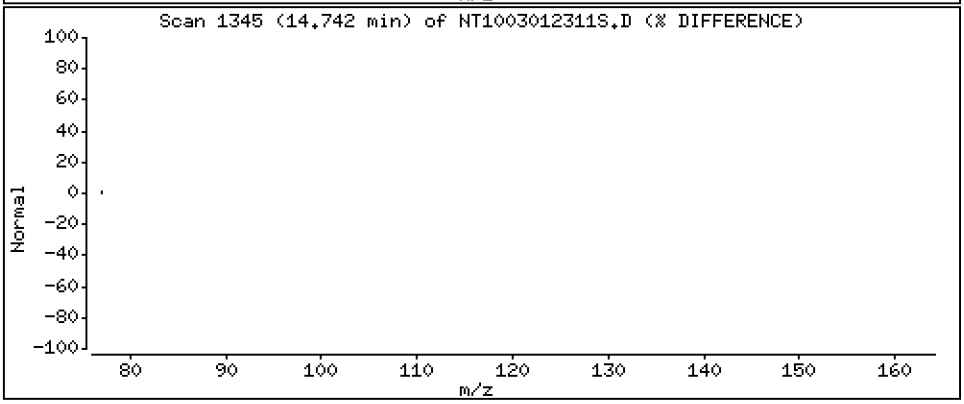












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

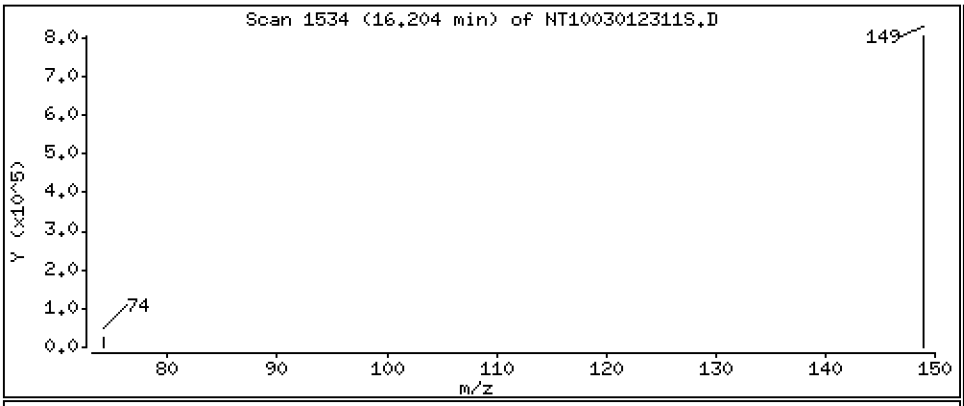
Operator: JGR

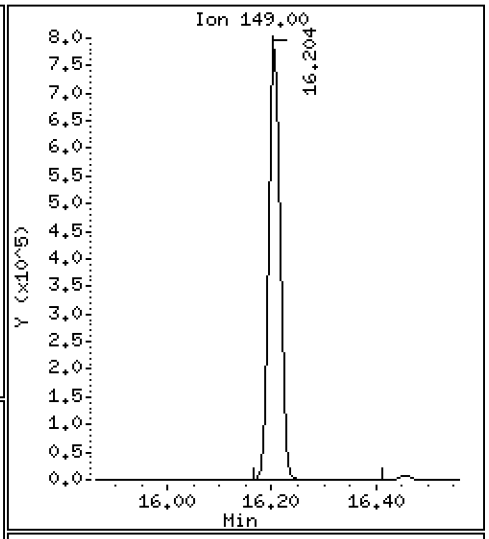
Column phase: ZB-5msi

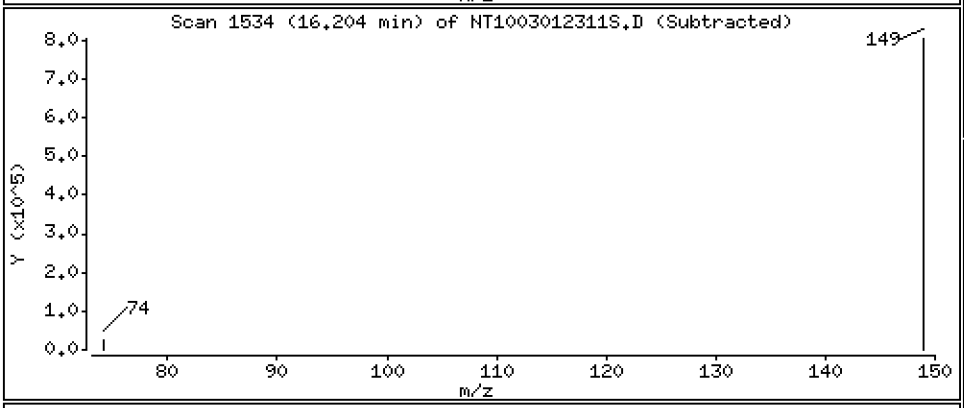
Column diameter: 0.25

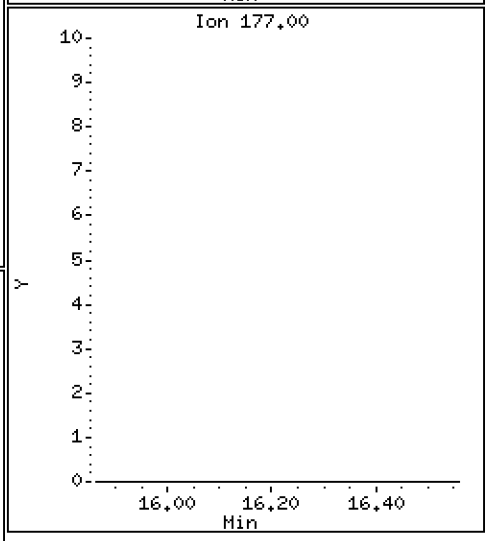
50 Diethylphthalate

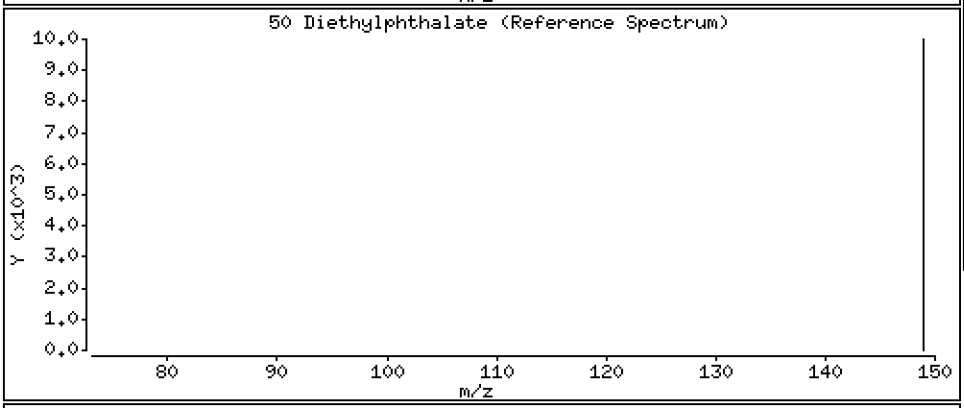
Concentration: 5.979 ug/L

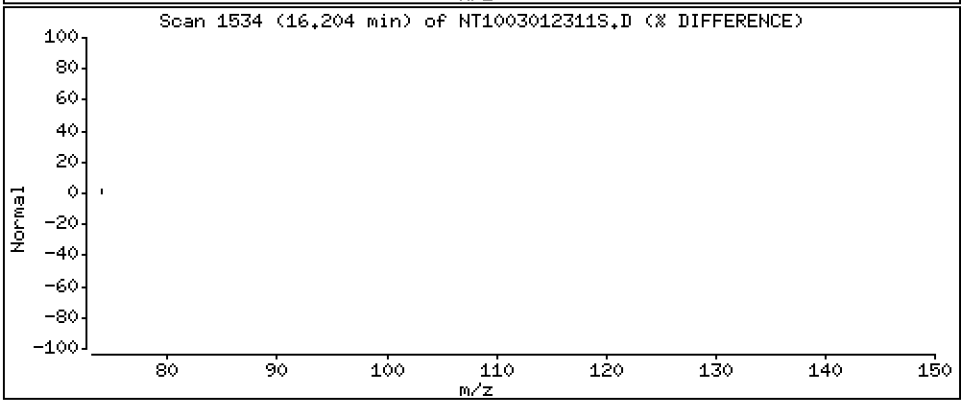












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

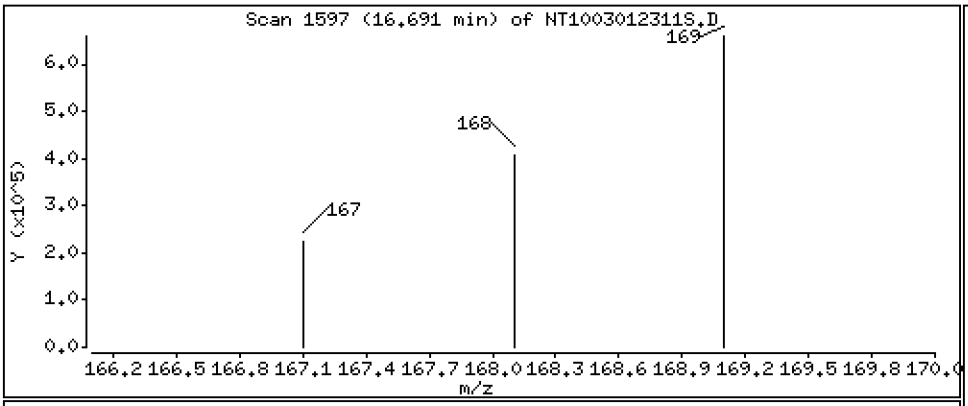
Operator: JGR

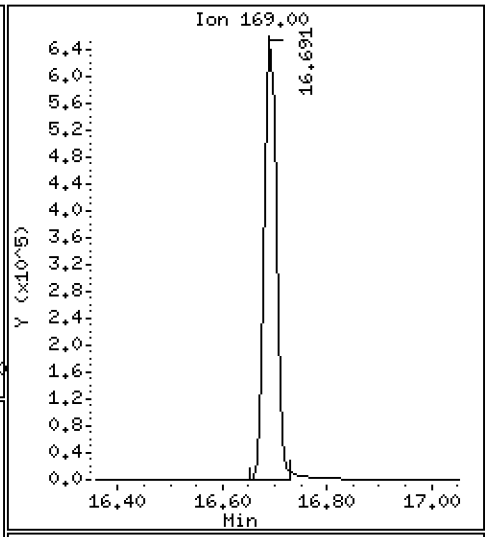
Column phase: ZB-5msi

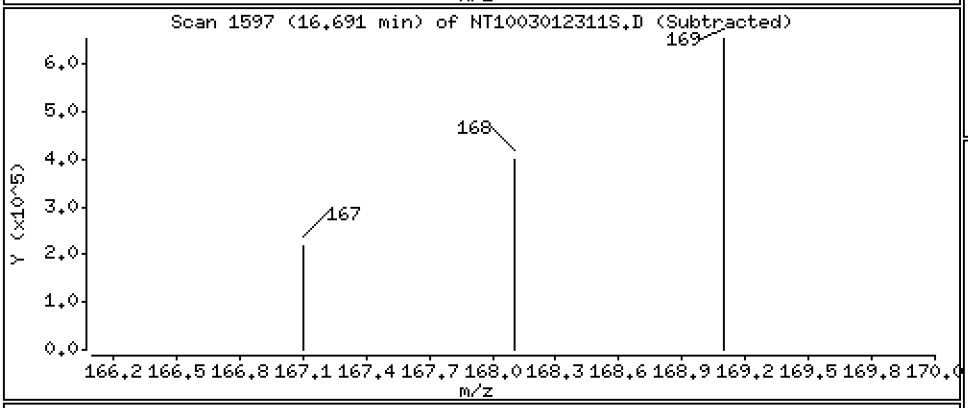
Column diameter: 0.25

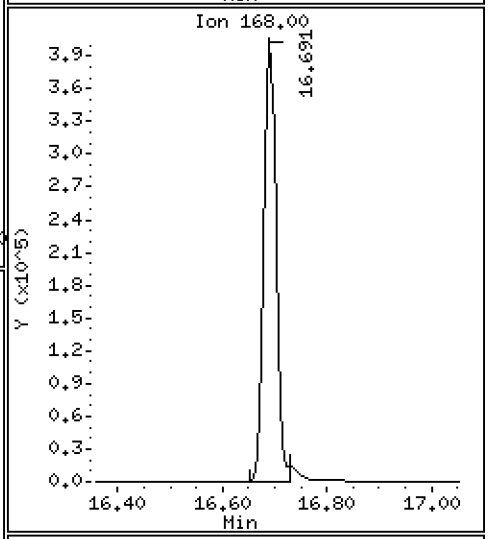
54 N-Nitrosodiphenylamine

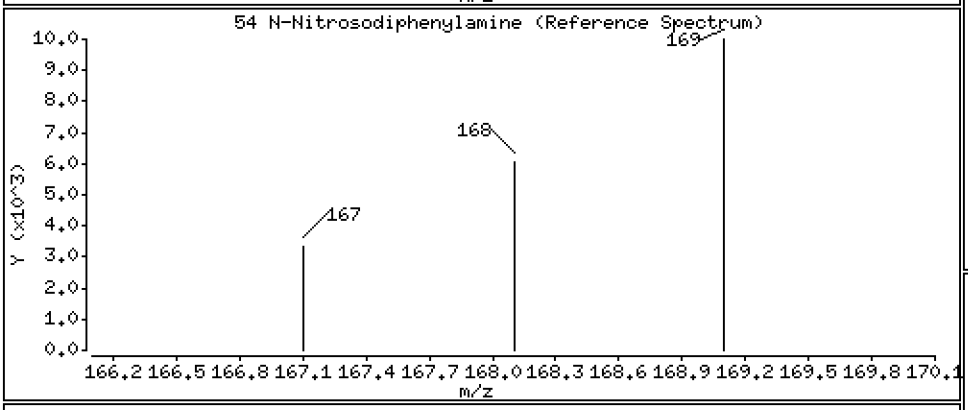
Concentration: 5.359 ug/L

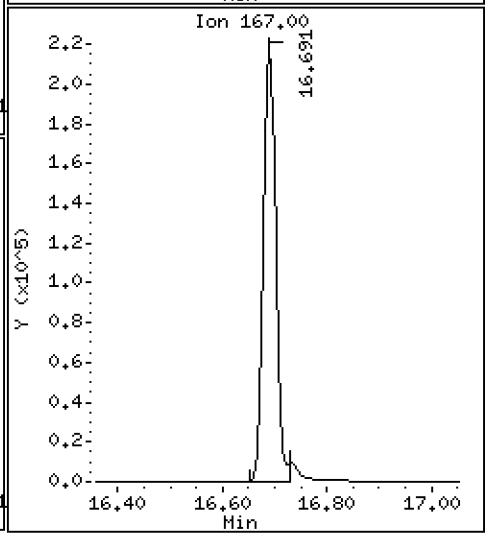


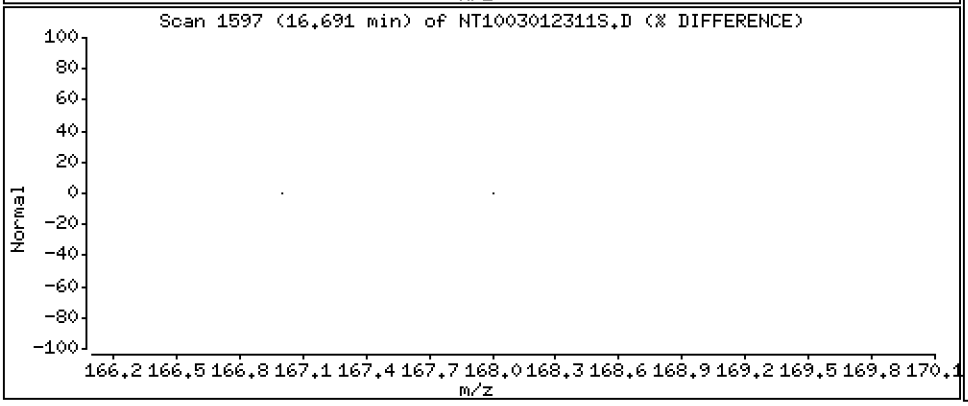












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

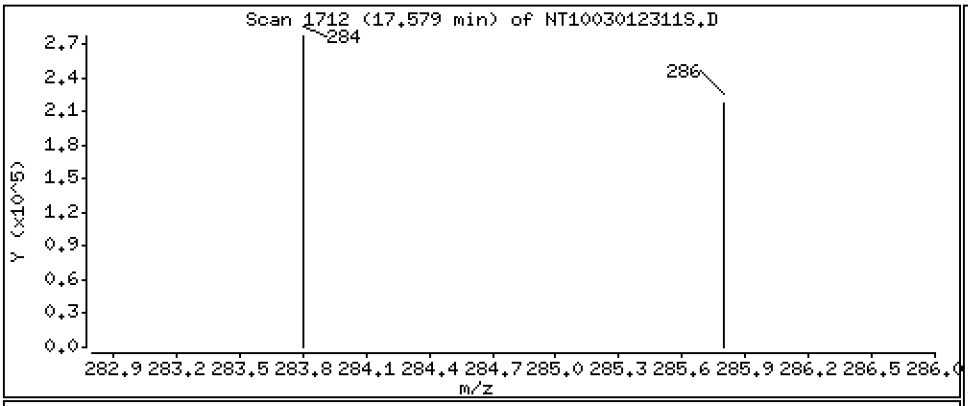
Operator: JGR

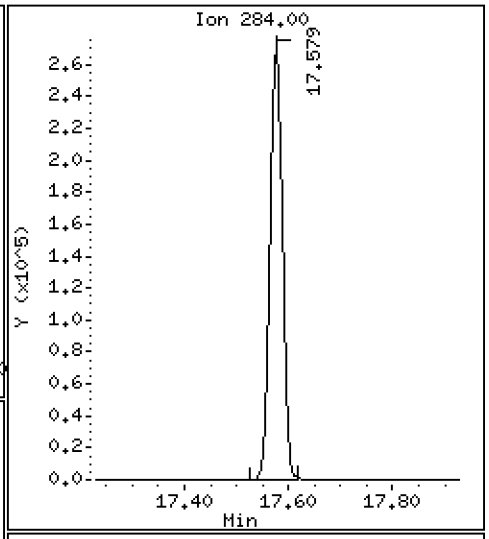
Column phase: ZB-5msi

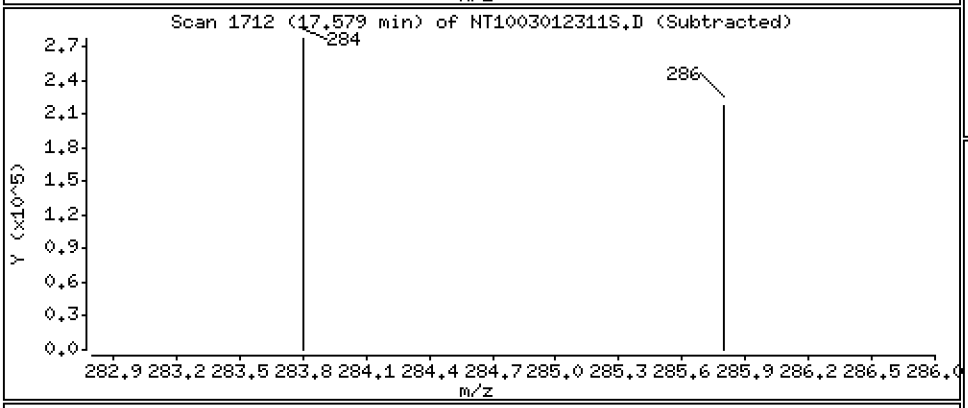
Column diameter: 0.25

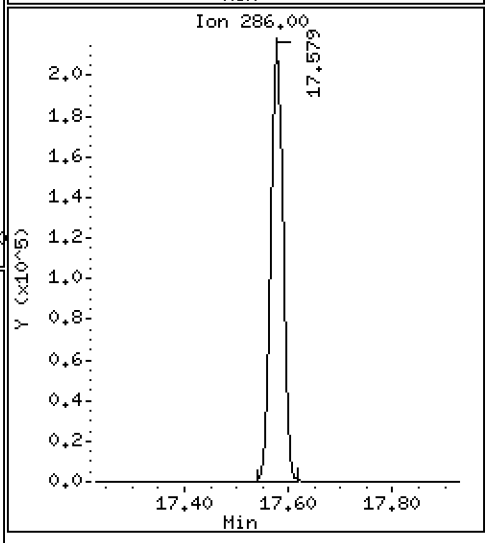
57 Hexachlorobenzene

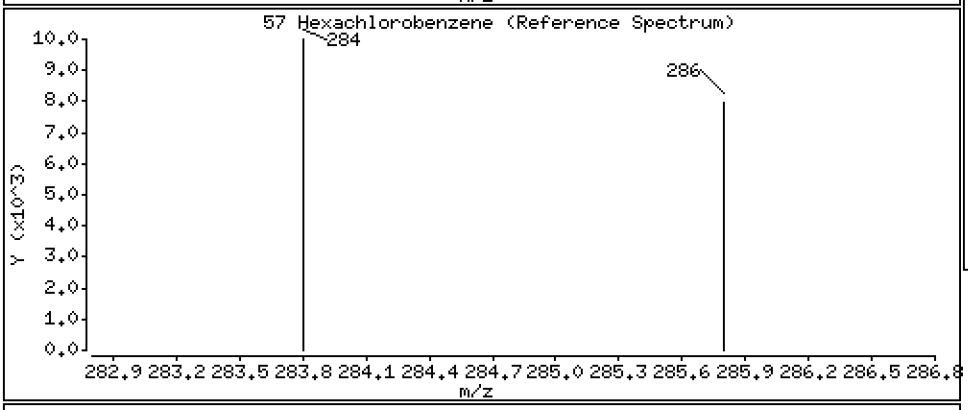
Concentration: 4.866 ug/L

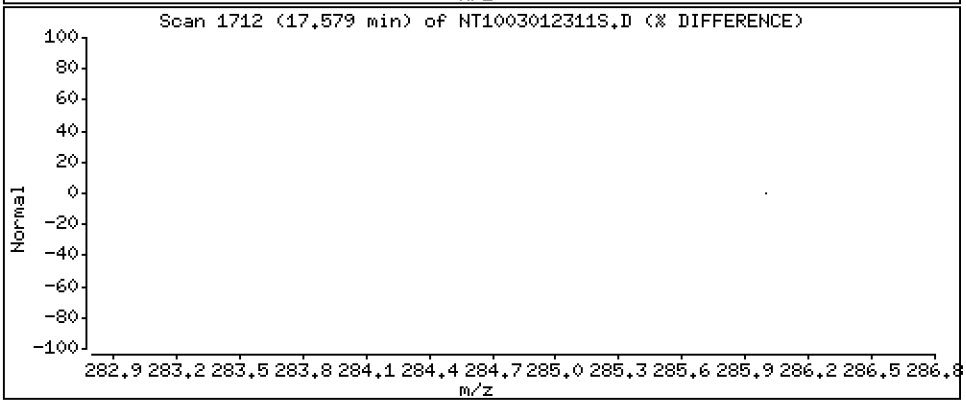












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

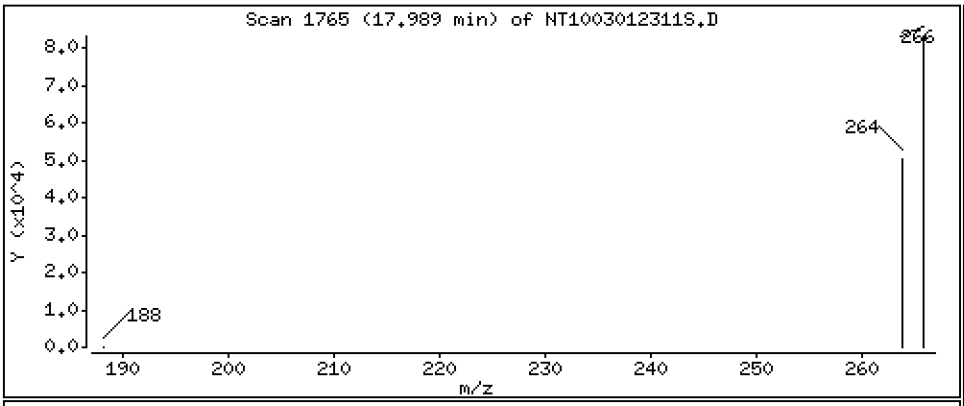
Operator: JGR

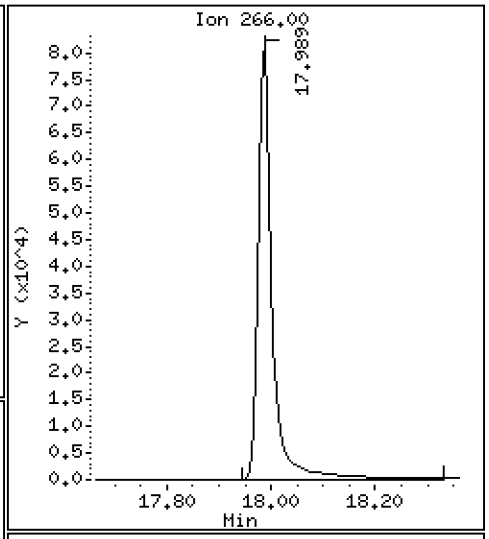
Column phase: ZB-5msi

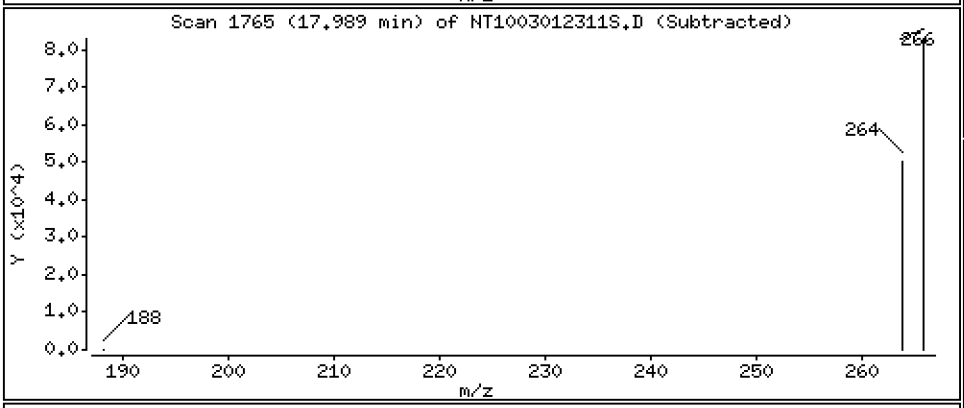
Column diameter: 0.25

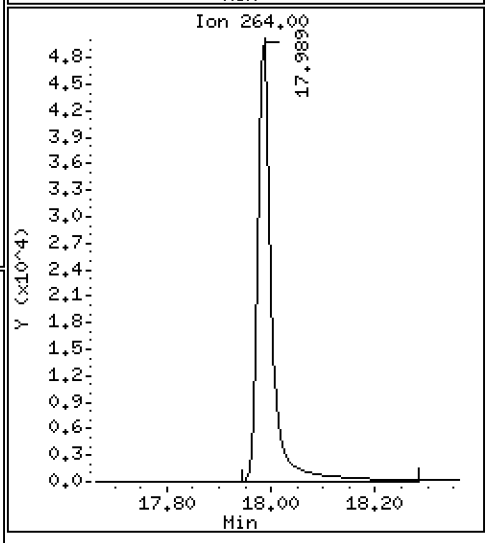
58 Pentachlorophenol

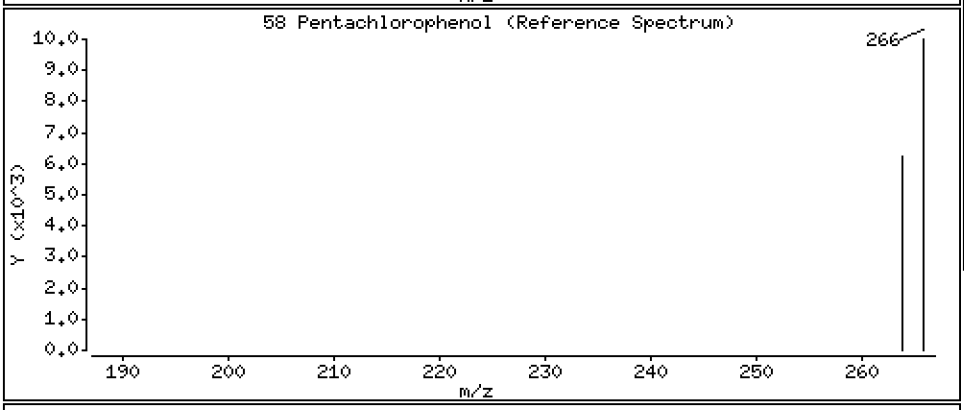
Concentration: 3.912 ug/L

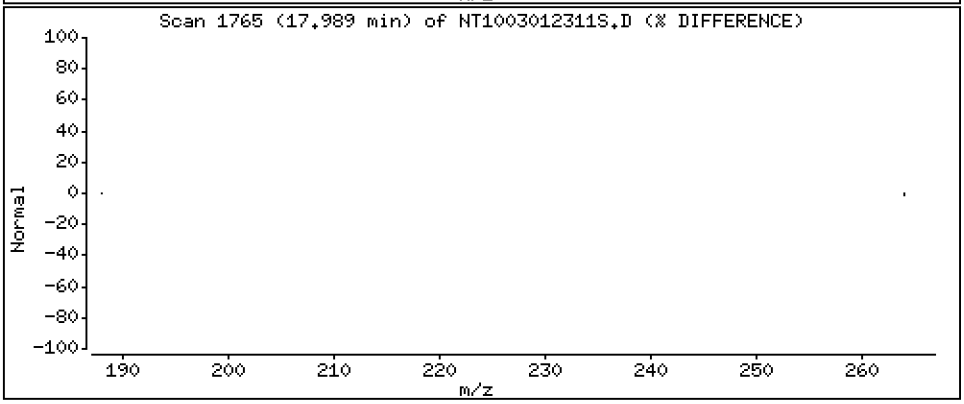












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

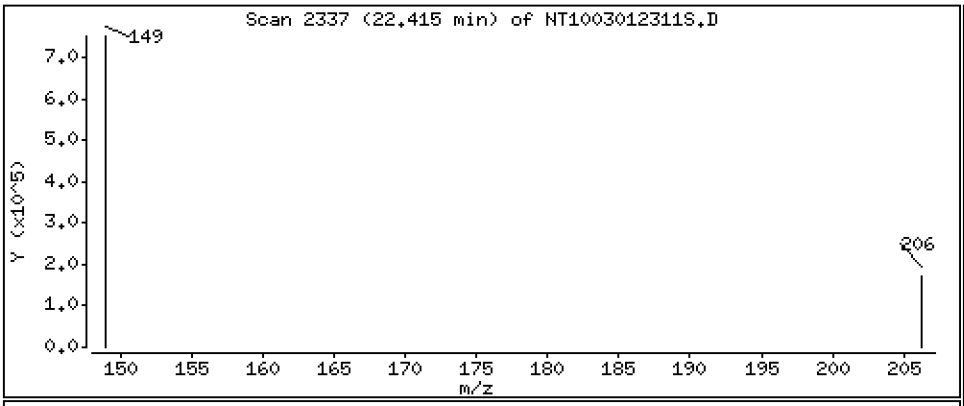
Operator: JGR

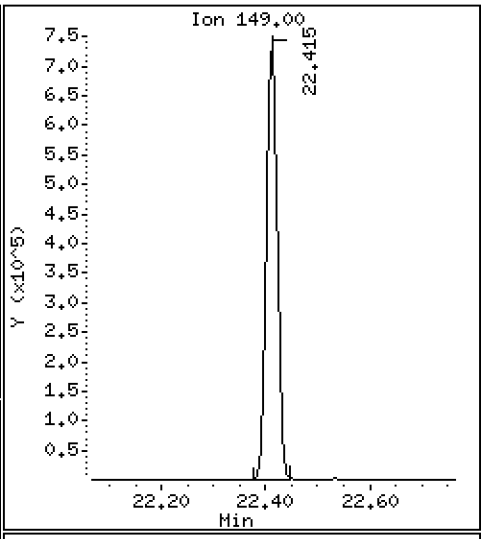
Column phase: ZB-5msi

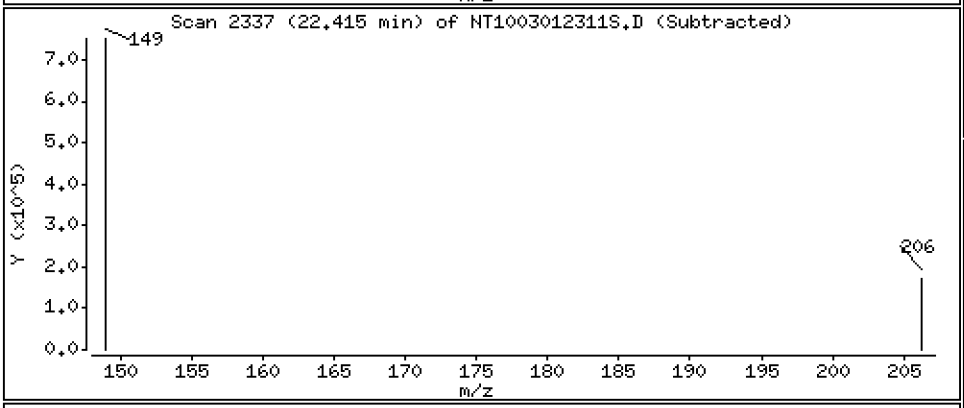
Column diameter: 0.25

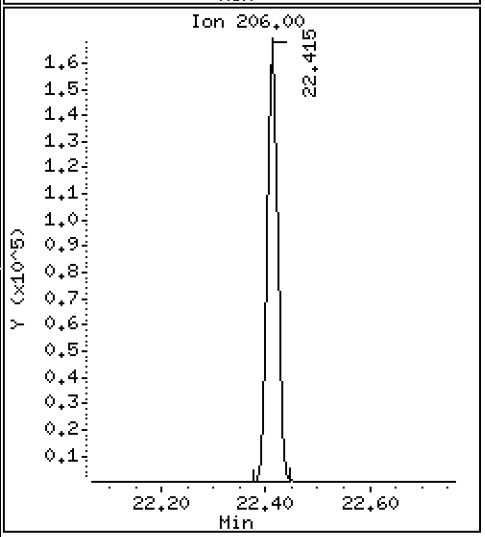
67 Butylbenzylphthalate

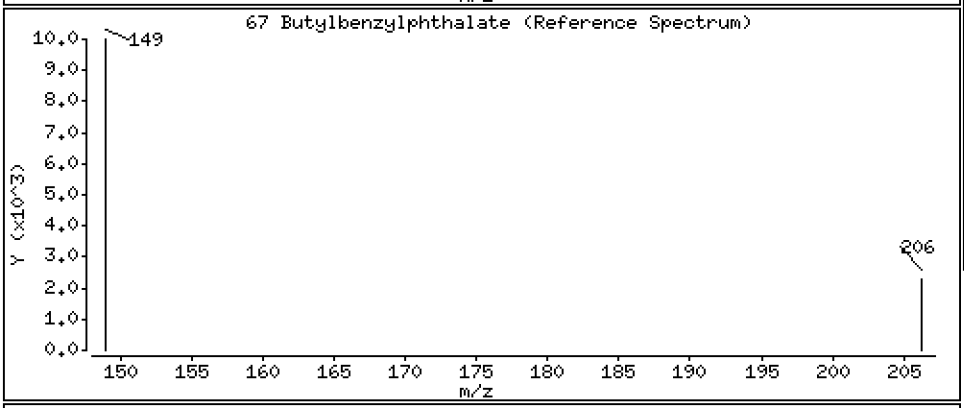
Concentration: 4.689 ug/L

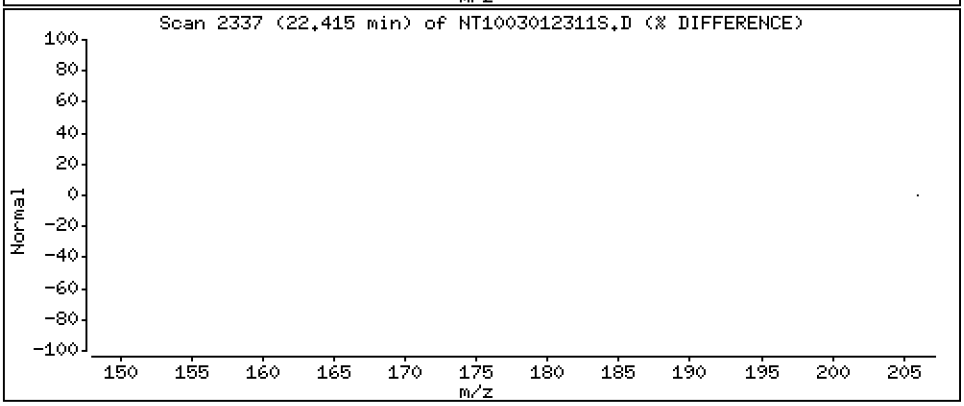












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

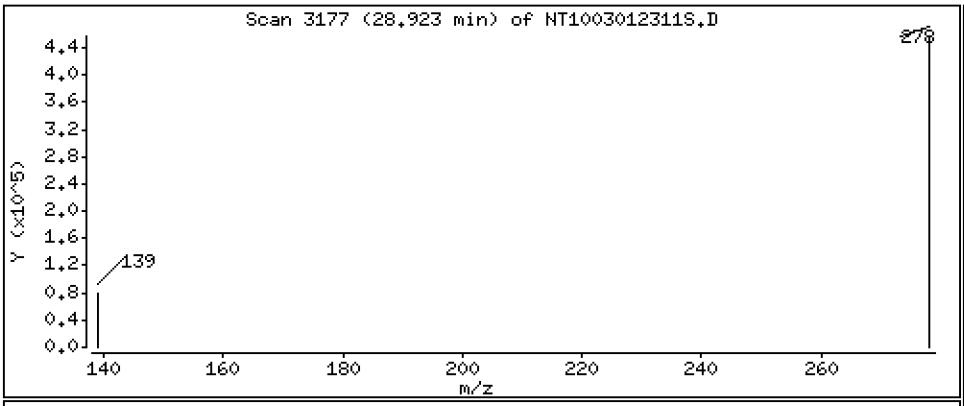
Operator: JGR

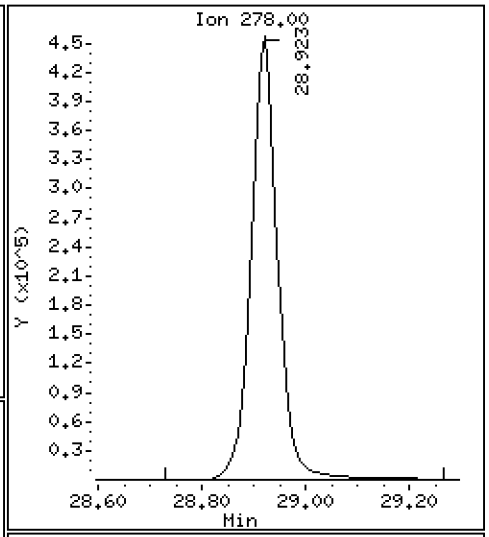
Column phase: ZB-5msi

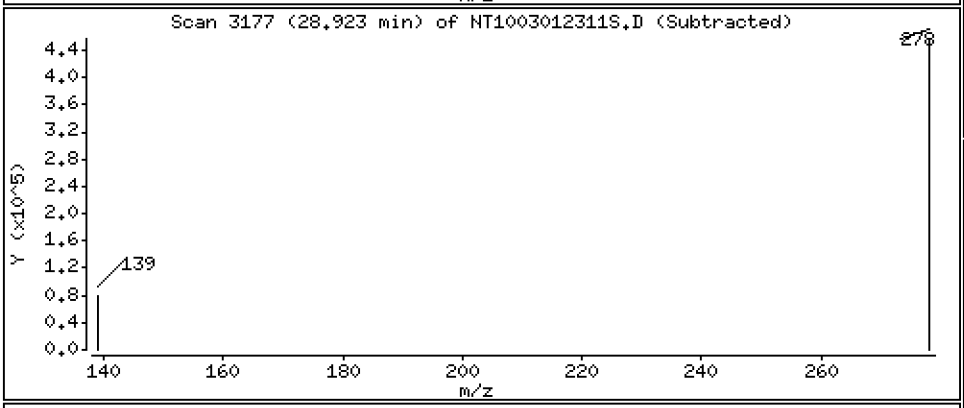
Column diameter: 0.25

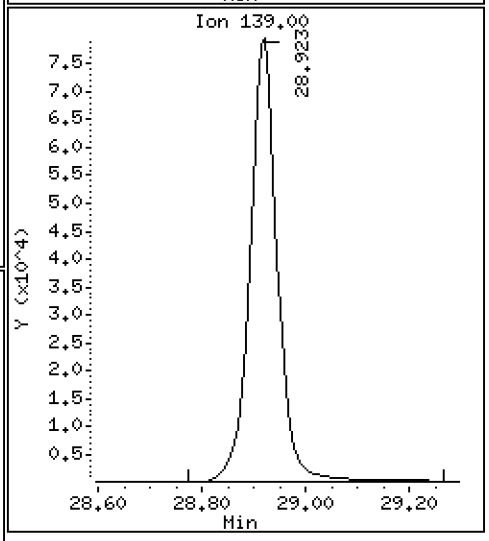
79 Dibenzo(a,h)anthracene

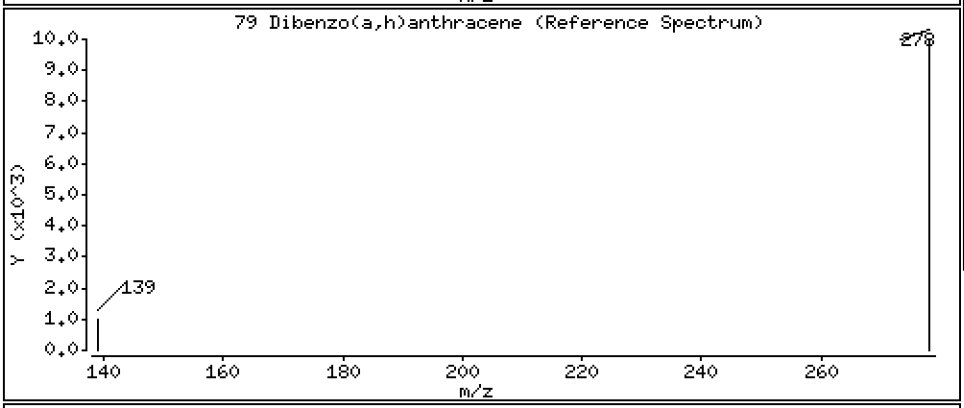
Concentration: 4.760 ug/L

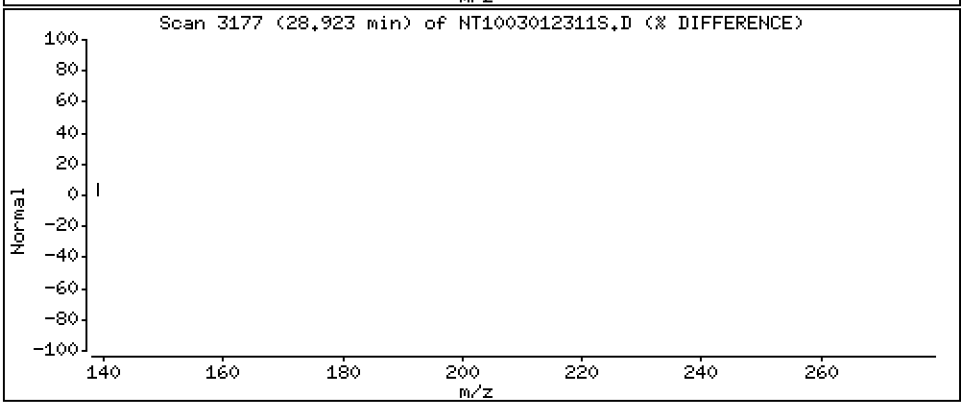












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

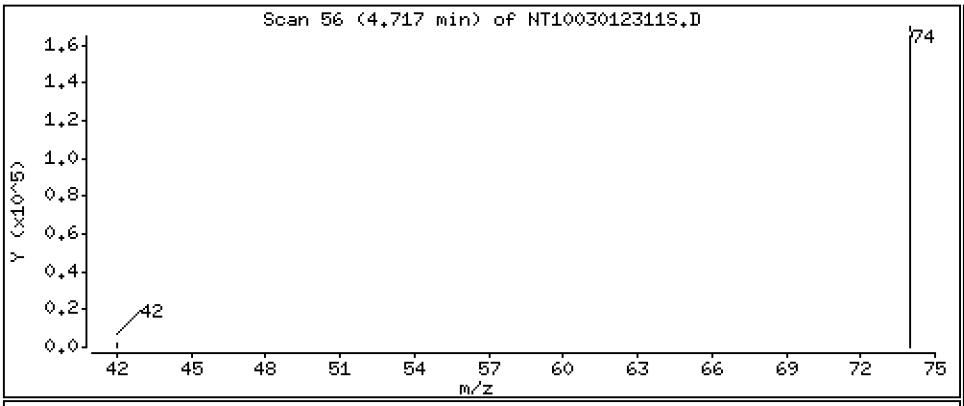
Operator: JGR

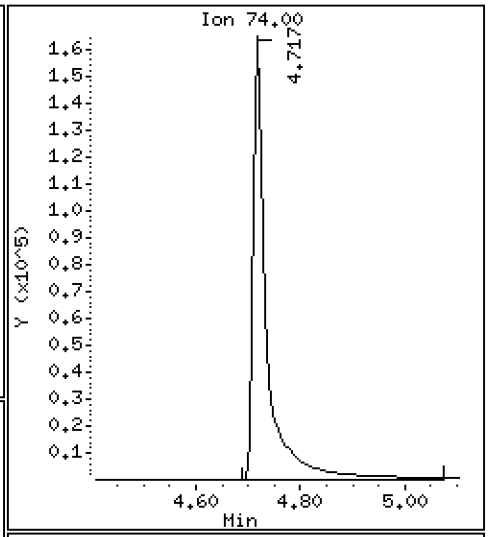
Column phase: ZB-5msi

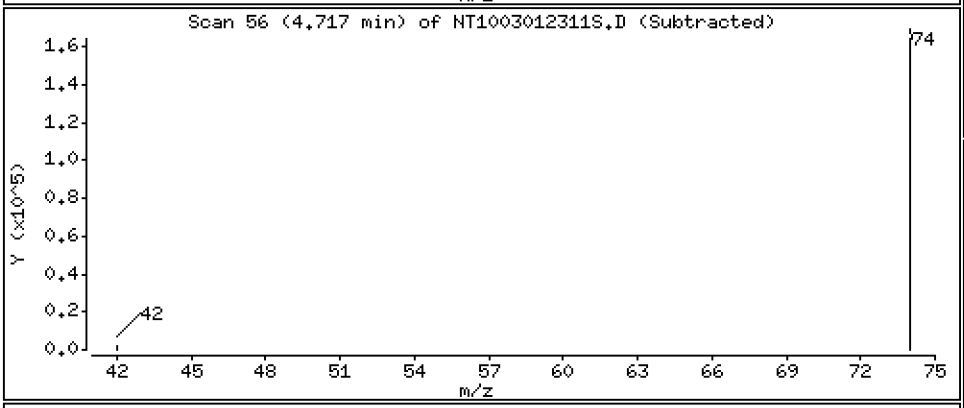
Column diameter: 0.25

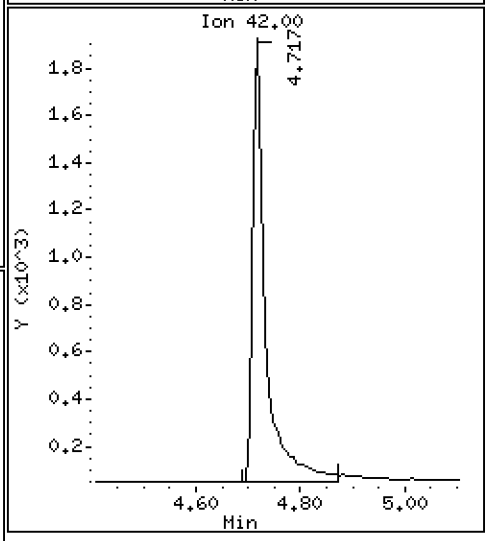
90 N-Nitrosodimethylamine

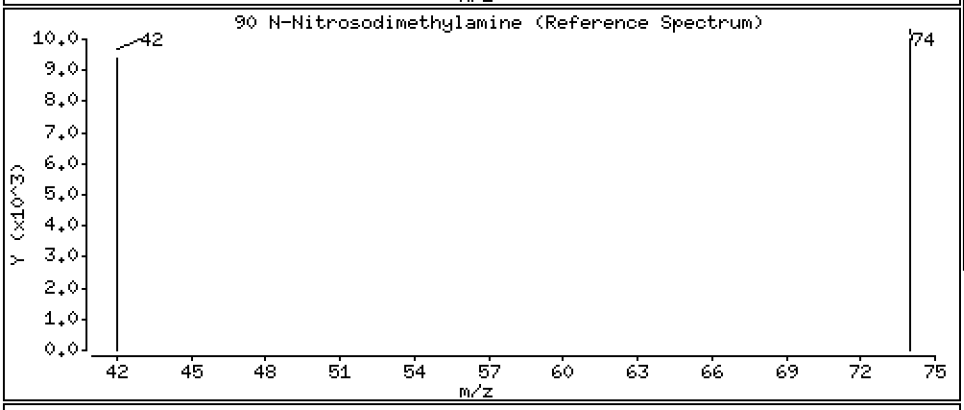
Concentration: 6.057 ug/L

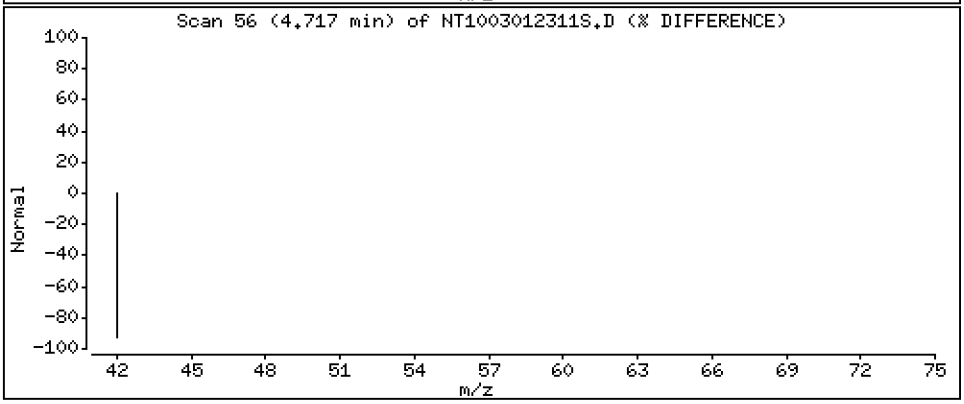












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012311S.D
Lab Smp Id: SLC0143-SCV1
Inj Date : 01-MAR-2023 21:46 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-SCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:10 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.902	6.902	(0.746)	3267	0.03768	0.03768(R)
3	Phenol	94	8.517	8.532	(0.921)	590047	4.50660	4.507
7	1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	572299	5.08409	5.084
* 8	1,4-Dichlorobenzene-d4	152	9.252	9.252	(1.000)	303734	4.00000	
9	1,4-Dichlorobenzene	146	9.283	9.275	(1.003)	574537	5.24962	5.250
11	Benzyl alcohol	79	9.469	9.508	(1.023)	388582	5.10390	5.104
12	1,2-Dichlorobenzene	146	9.562	9.563	(1.034)	540938	5.14228	5.142
13	2-Methylphenol	108	9.655	9.671	(1.044)	348452	4.36547	4.365
15	4-Methylphenol	108	9.943	9.966	(1.075)	379262	4.50495	4.505
16	N-Nitroso-di-n-propylamine	70	9.982	9.982	(1.079)	330861	5.68451	5.685
22	2,4-Dimethylphenol	107	10.998	11.006	(0.938)	357707	3.63670	3.637
24	Benzoic acid	105	11.099	11.007	(0.947)	380081	6.86990	6.870
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	402252	4.87012	4.870
* 27	Naphthalene-d8	136	11.724	11.723	(1.000)	1147551	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	285002	4.86242	4.862
39	Dimethylphthalate	163	14.741	14.749	(0.963)	1142178	5.57065	5.571
* 42	Acenaphthene-d10	162	15.314	15.314	(1.000)	645730	4.00000	
50	Diethylphthalate	149	16.203	16.211	(1.058)	1156037	5.97883	5.979
54	N-Nitrosodiphenylamine	169	16.690	16.705	(0.907)	998237	5.35897	5.359
57	Hexachlorobenzene	284	17.578	17.579	(0.955)	424193	4.86607	4.866

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	17.989	18.012	(0.978)	155412	3.91206	3.912
*	59 Phenanthrene-d10	188	18.399	18.398	(1.000)	1151000	4.00000	
$	66 Terphenyl-d14	244	21.524	21.532	(0.919)	2846	0.02712	0.02712(R)
	67 Butylbenzylphthalate	149	22.415	22.415	(0.957)	1009961	4.68912	4.689
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	1297466	4.00000	
*	77 Perylene-d12	264	26.108	26.108	(1.000)	1394899	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.922	28.946	(1.108)	1657122	4.76032	4.760
	90 N-Nitrosodimethylamine	74	4.717	4.755	(0.510)	310951	6.05685	6.057

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAR-2023
Lab File ID: NT1003012311S.D Calibration Time: 18:37
Lab Smp Id: SLC0143-SCV1
Analysis Type: SV Level: LOW
Quant Type: ISTD Sample Type: AIR
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	320125	160063	640250	303734	-5.12
27 Naphthalene-d8	1136019	568010	2272038	1147551	1.02
42 Acenaphthene-d10	636993	318497	1273986	645730	1.37
59 Phenanthrene-d10	1093620	546810	2187240	1151000	5.25
69 Chrysene-d12	1000300	500150	2000600	1297466	29.71
77 Perylene-d12	1058448	529224	2116896	1394899	31.79

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.41	22.91	23.91	23.42	0.03
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012311S.D

Lab ID: SLC0143-SCV1
nt10.i, 20230301.b\SIM.b\SIMABN2.m,   01-MAR-2023 21:46

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.947	0.000	0.9467	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003012310S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123128.D

Date : 01-MAR-2023 22:24

Client ID:

Sample Info: SEQ-IBL1

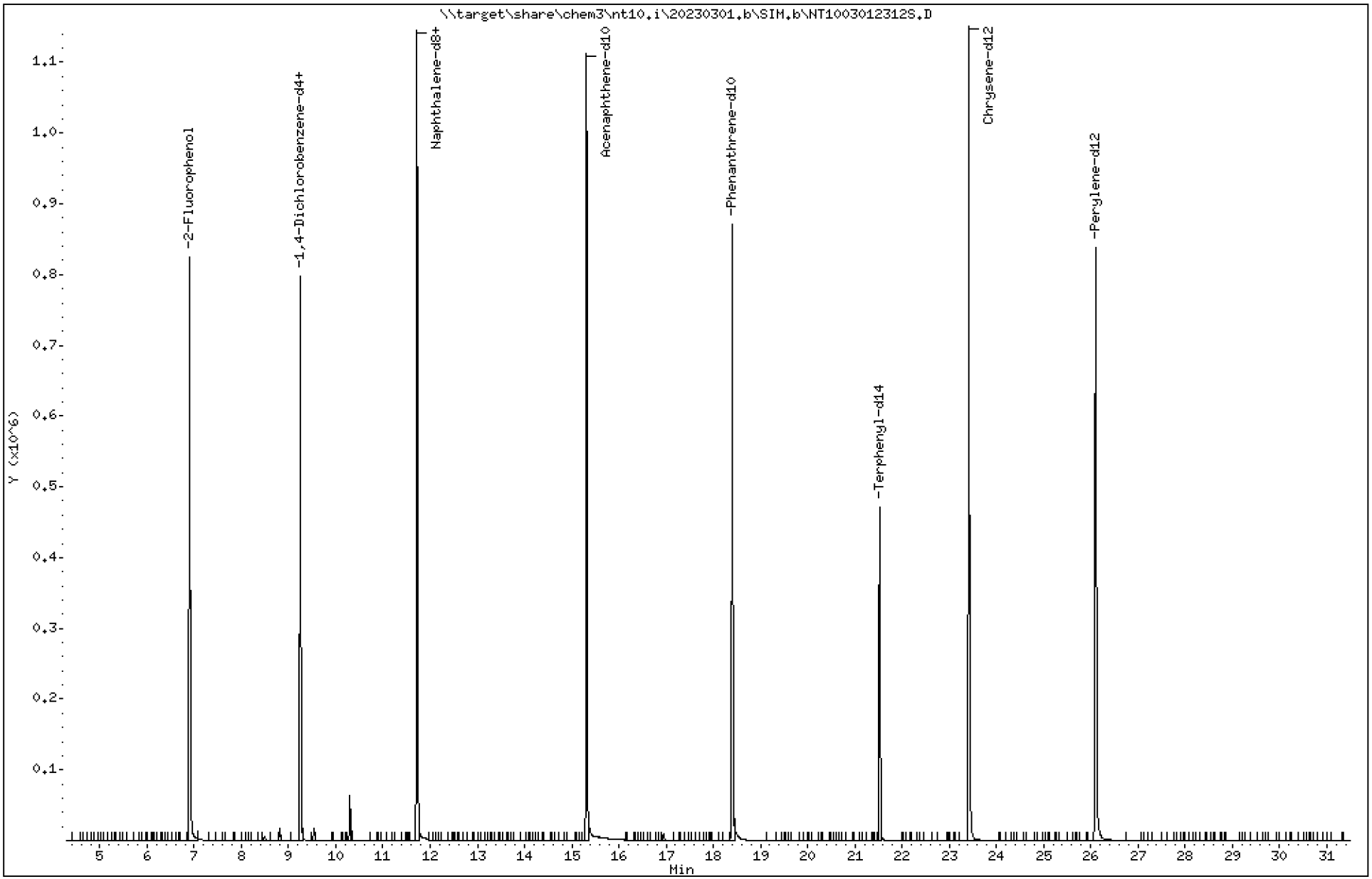
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: JGR

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123125.D

Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

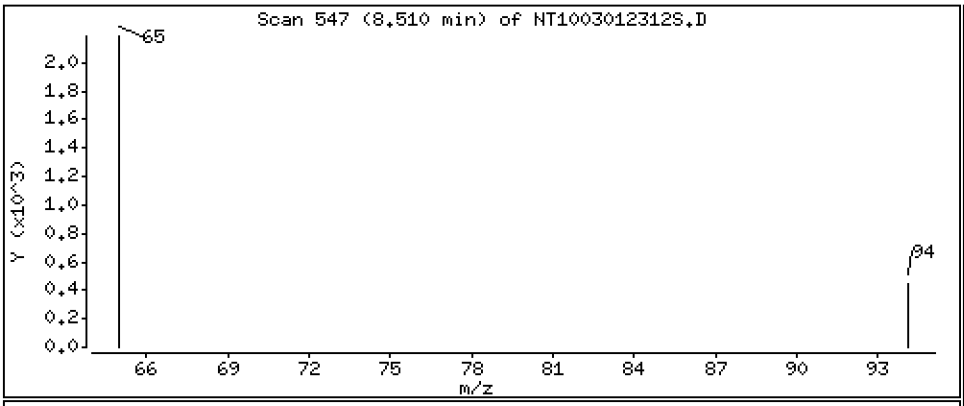
Operator: JGR

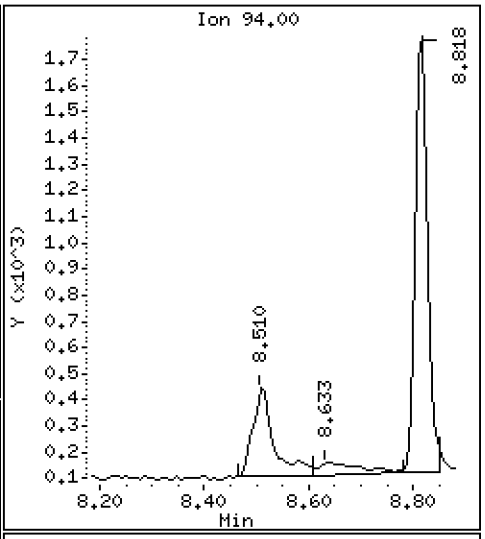
Column phase: ZB-5msi

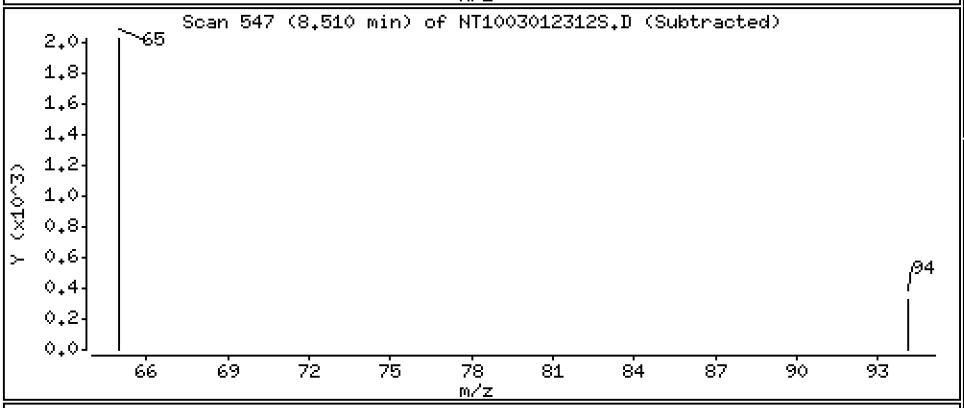
Column diameter: 0.25

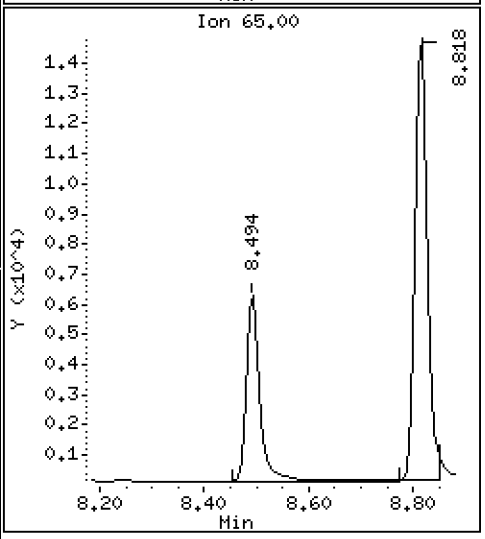
3 Phenol

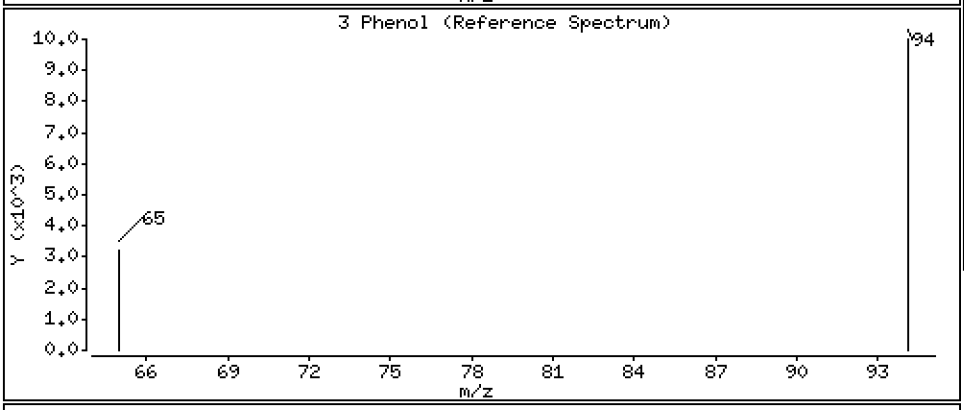
Concentration: 0.004664 ug/L

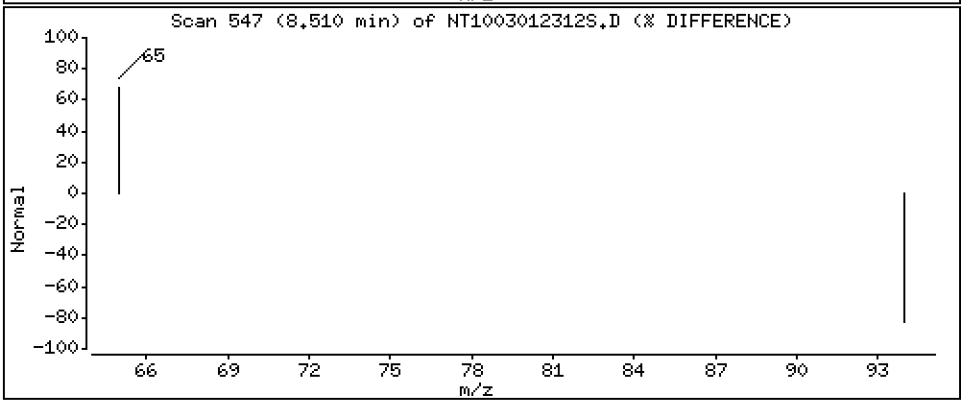












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123125.D

Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

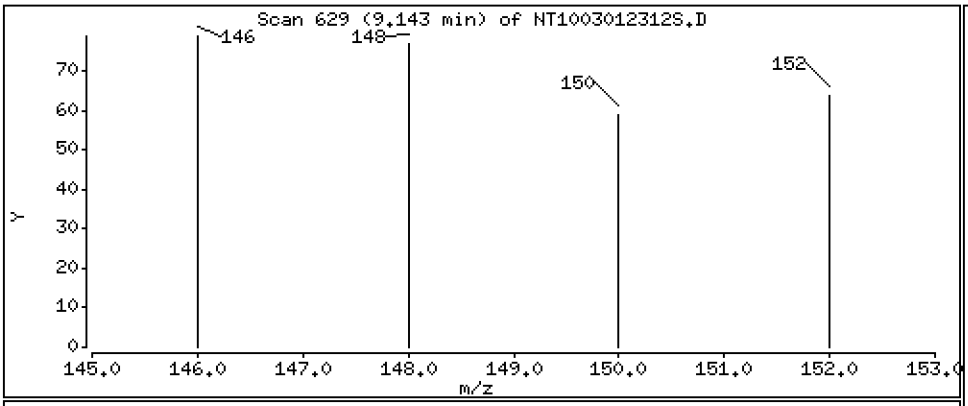
Operator: JGR

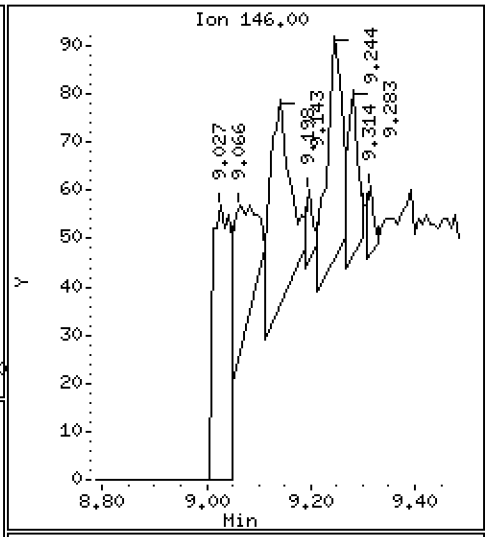
Column phase: ZB-5msi

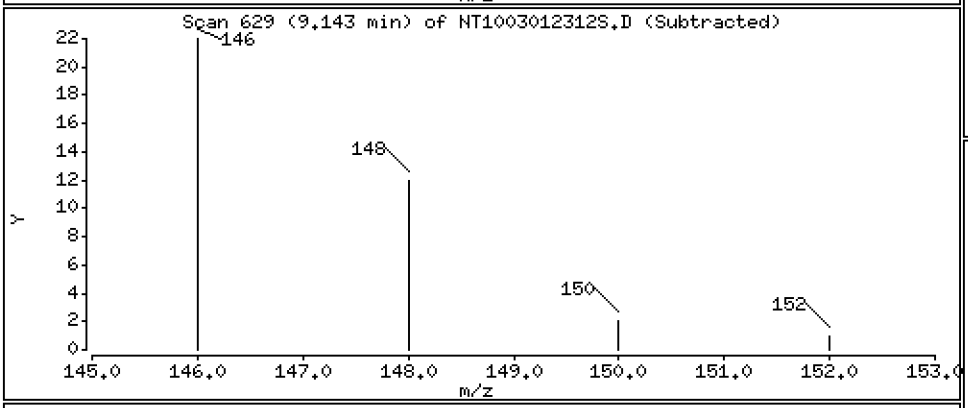
Column diameter: 0.25

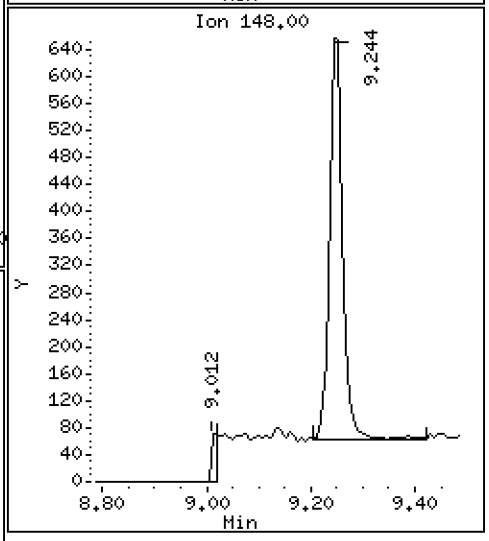
7 1,3-Dichlorobenzene

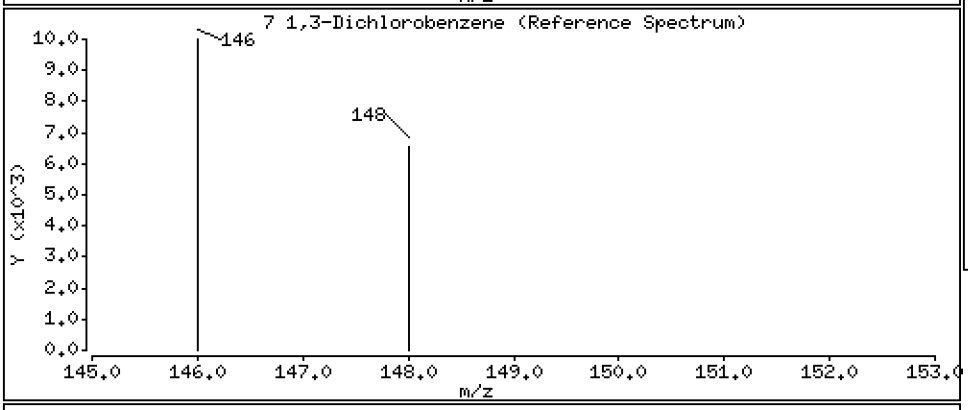
Concentration: 0.0006178 ug/L

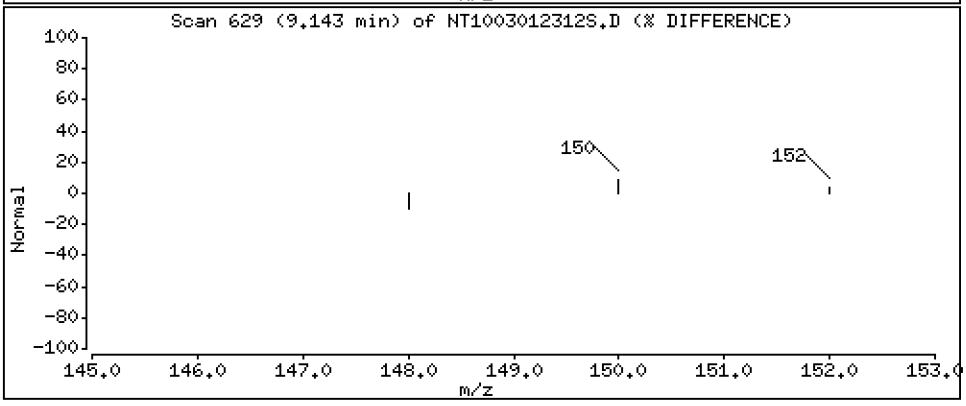












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123125.D

Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

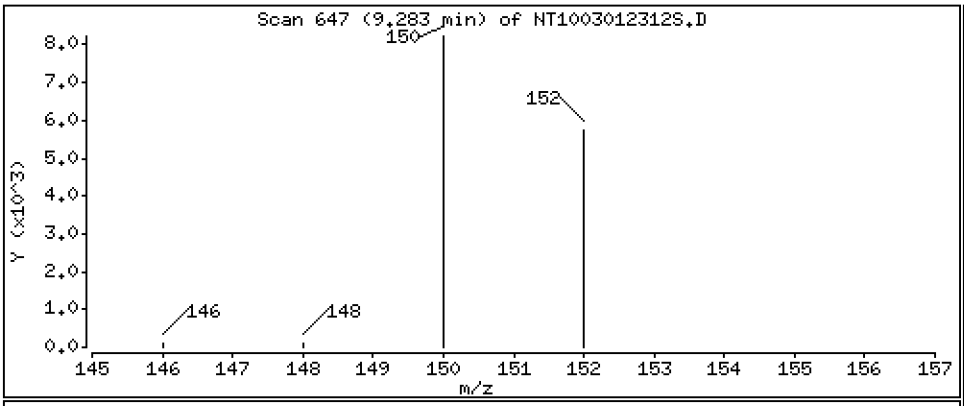
Operator: JGR

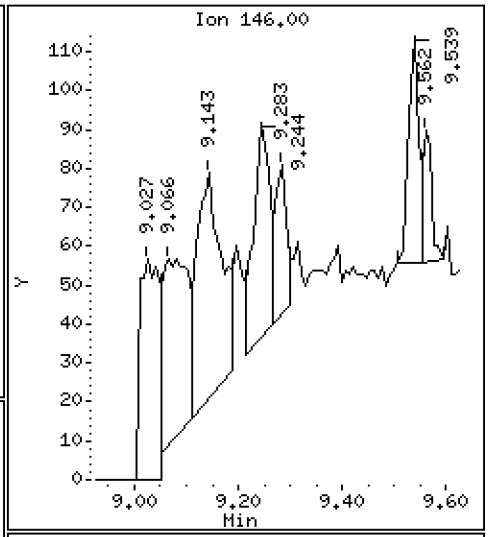
Column phase: ZB-5msi

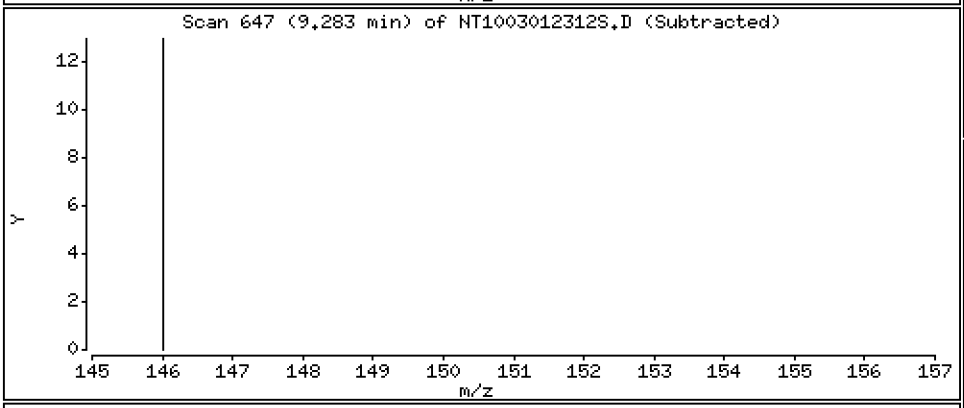
Column diameter: 0.25

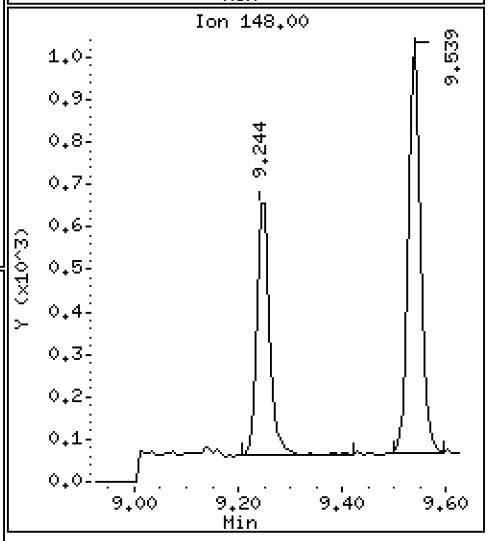
9 1,4-Dichlorobenzene

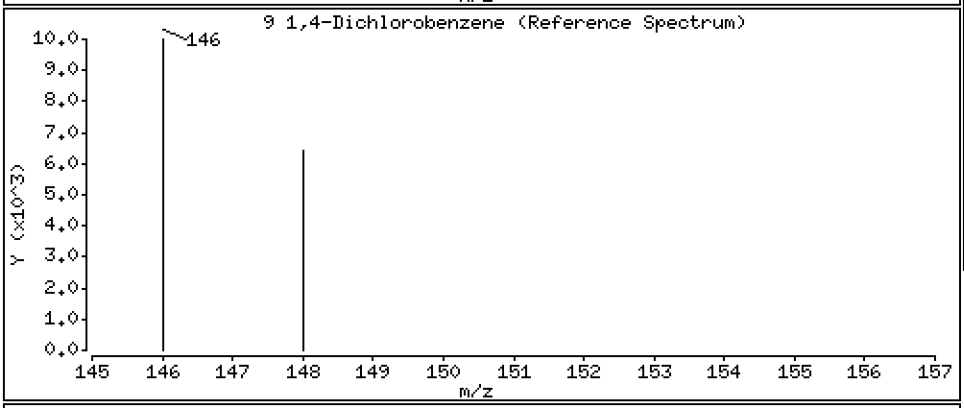
Concentration: 0.0003285 ug/L

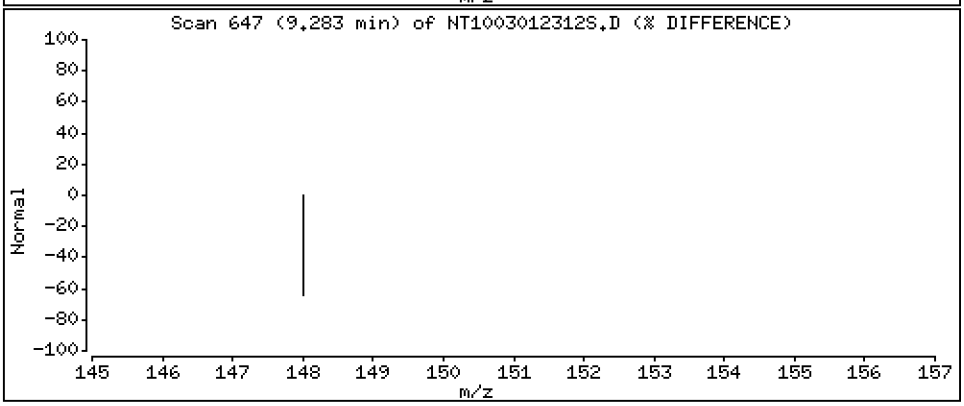












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123125.D

Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

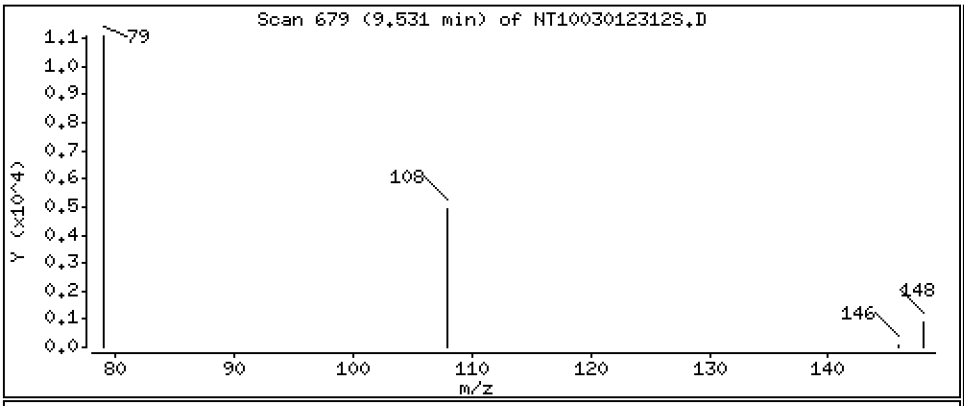
Operator: JGR

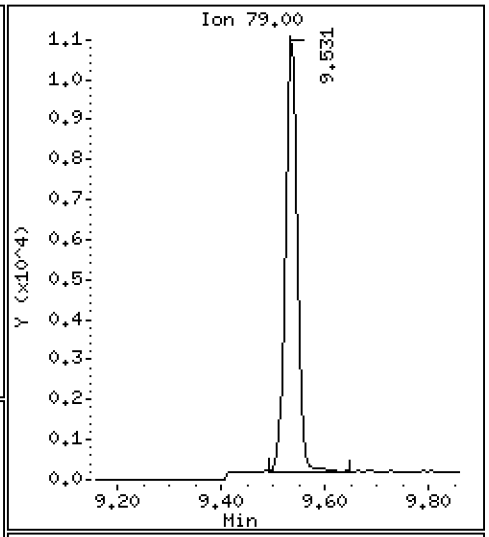
Column phase: ZB-5msi

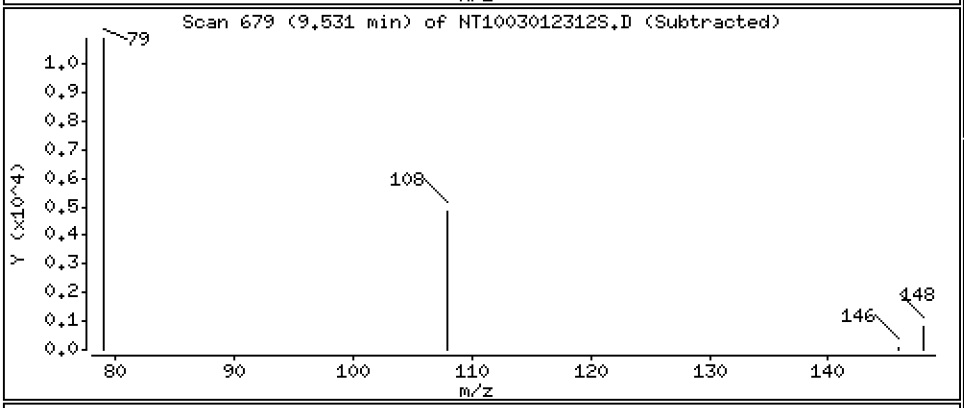
Column diameter: 0.25

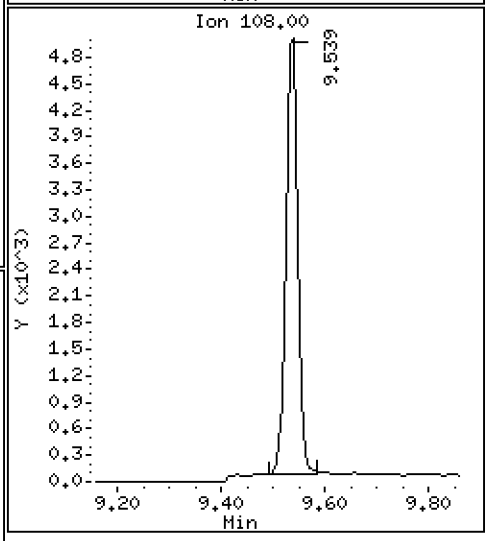
11 Benzyl alcohol

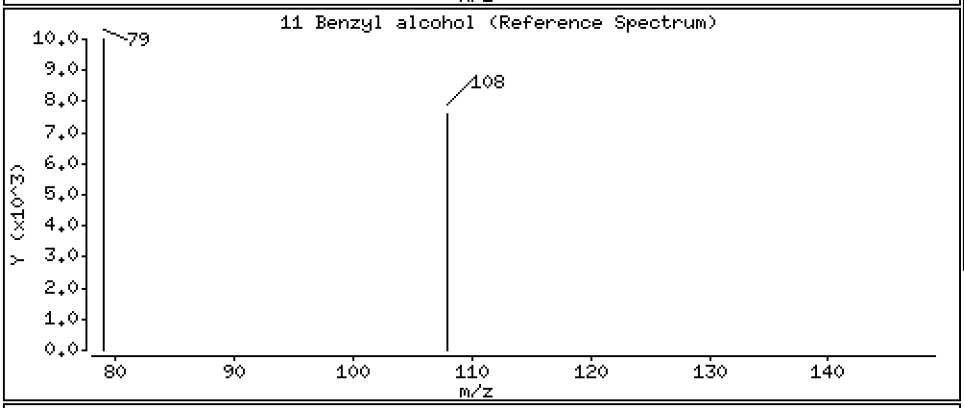
Concentration: 0.1469 ug/L

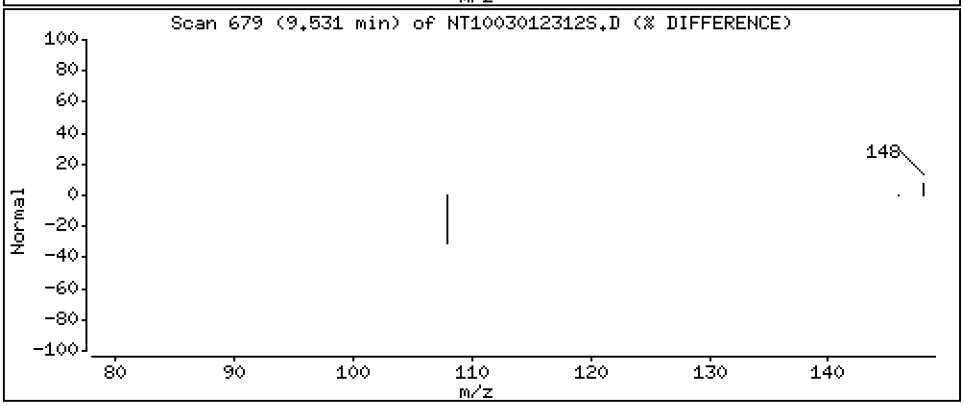












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123125.D

Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

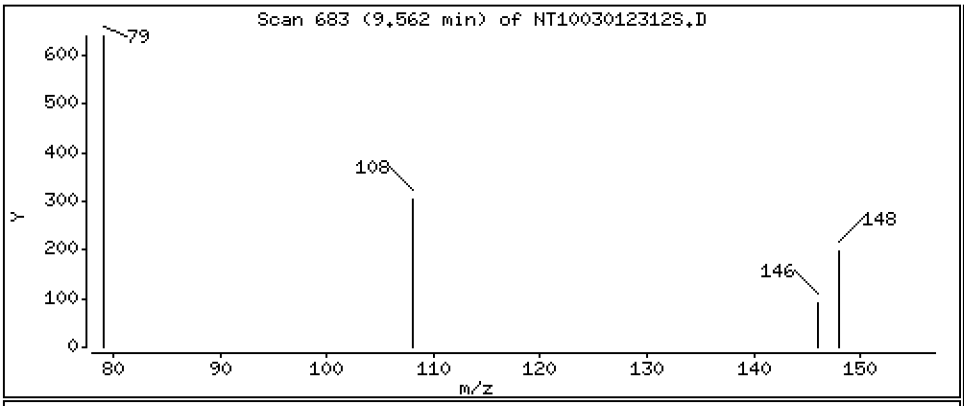
Operator: JGR

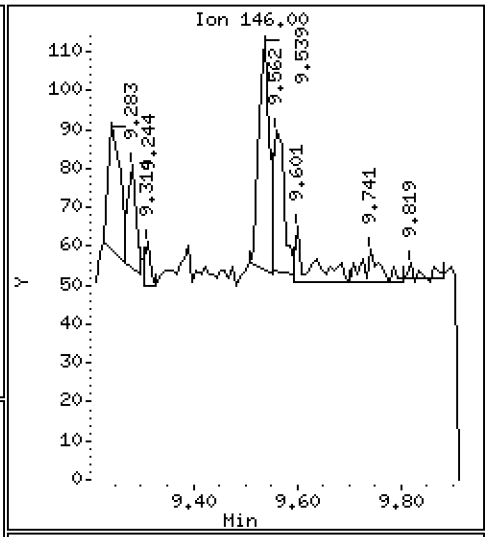
Column phase: ZB-5msi

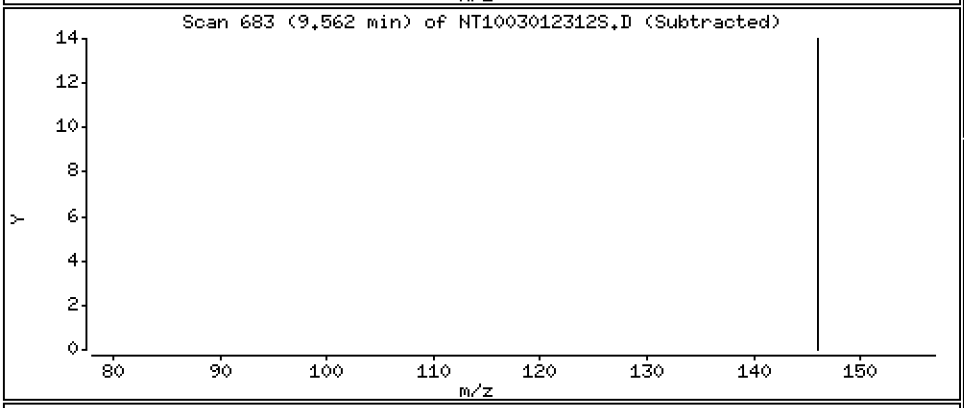
Column diameter: 0.25

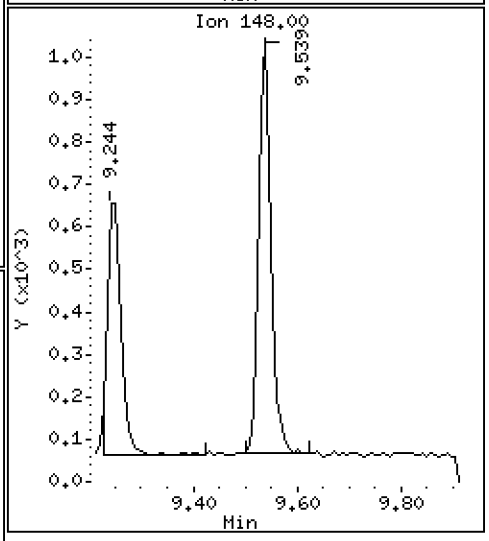
12 1,2-Dichlorobenzene

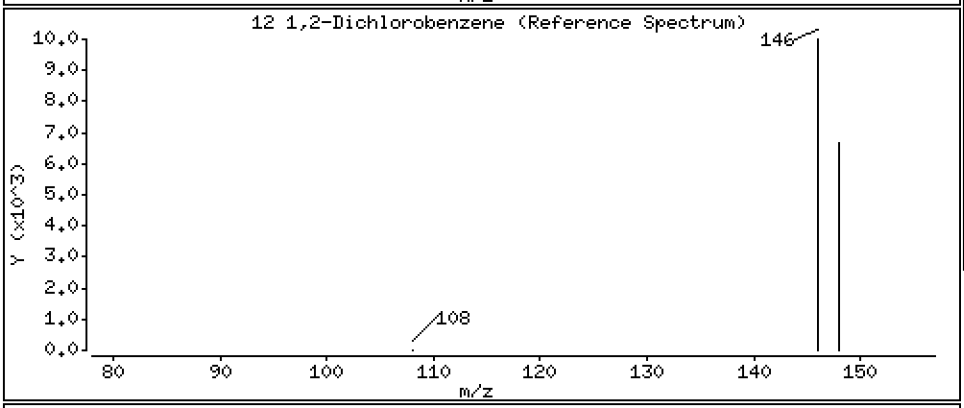
Concentration: 0.0002913 ug/L

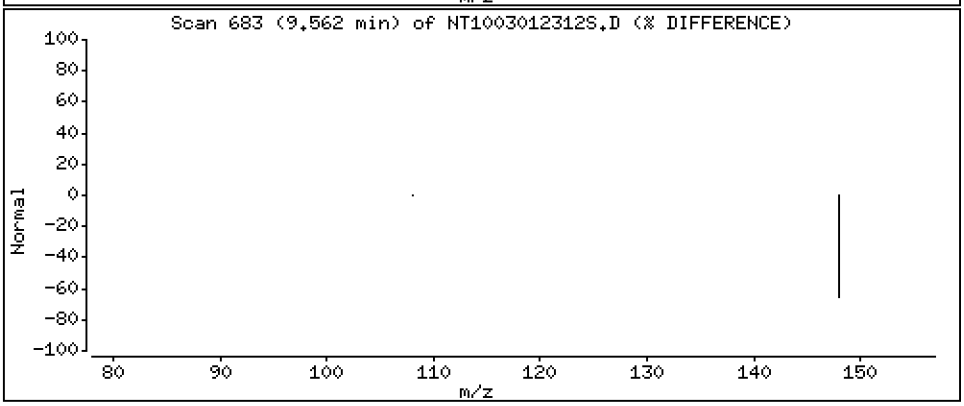












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123125.D

Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

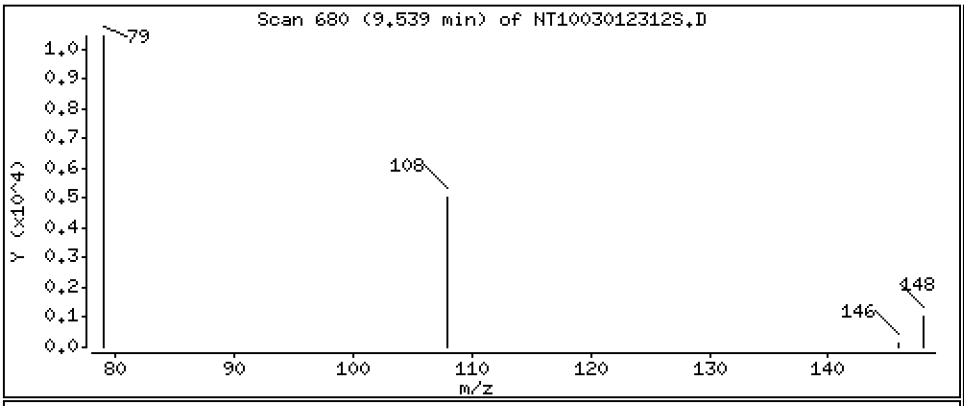
Operator: JGR

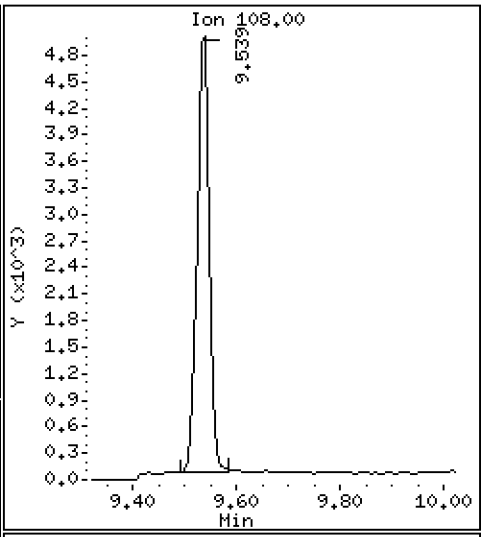
Column phase: ZB-5msi

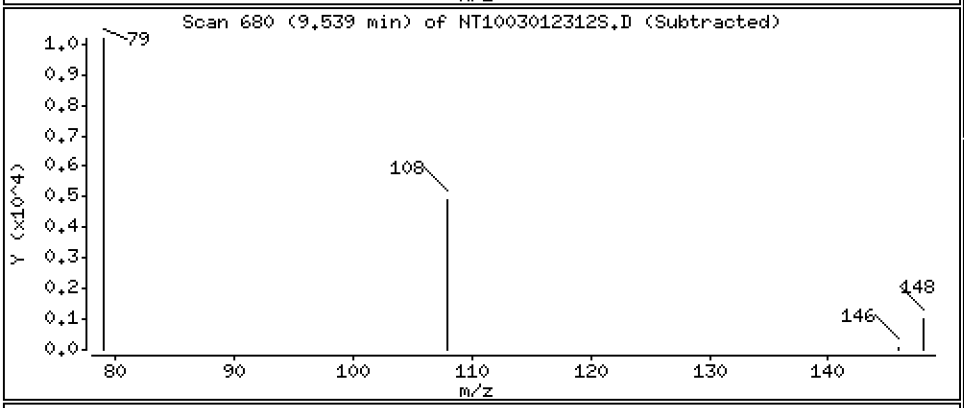
Column diameter: 0.25

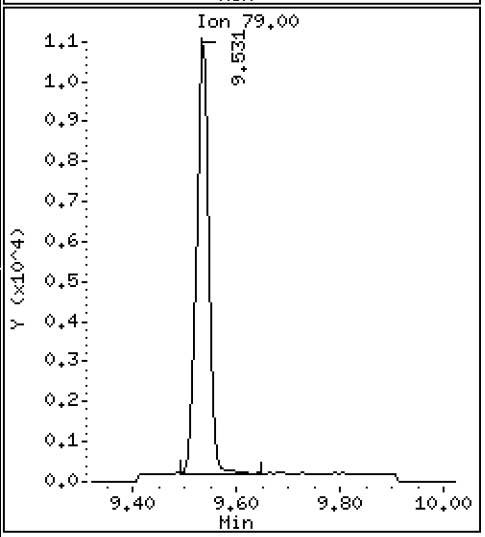
13 2-Methylphenol

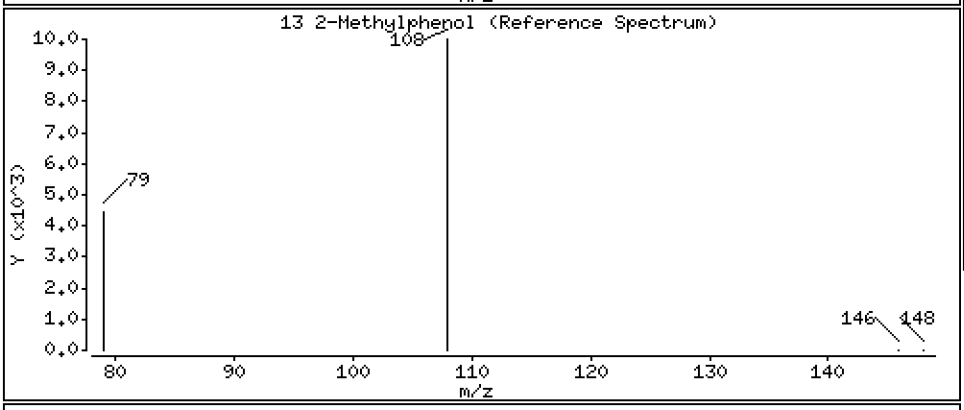
Concentration: 0.06143 ug/L

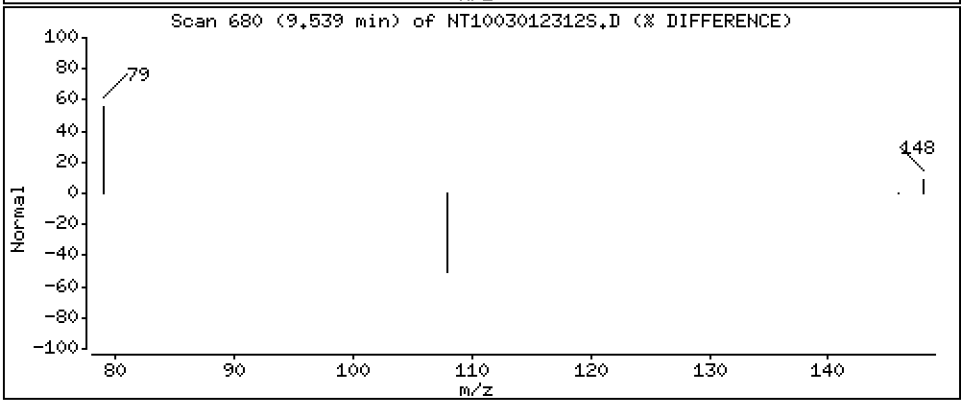












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123125.D

Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

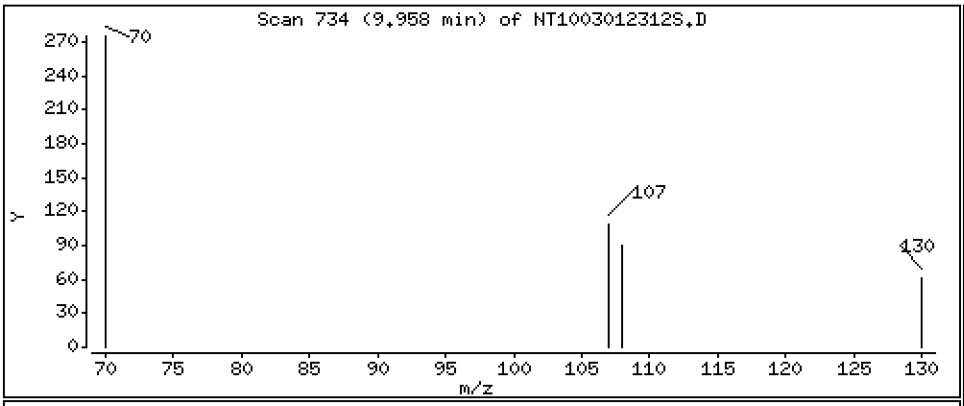
Operator: JGR

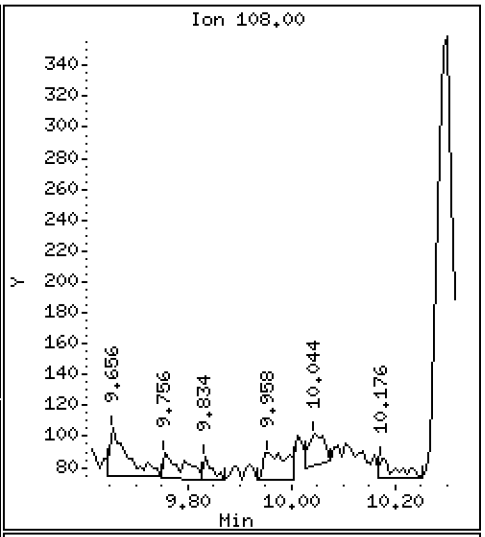
Column phase: ZB-5msi

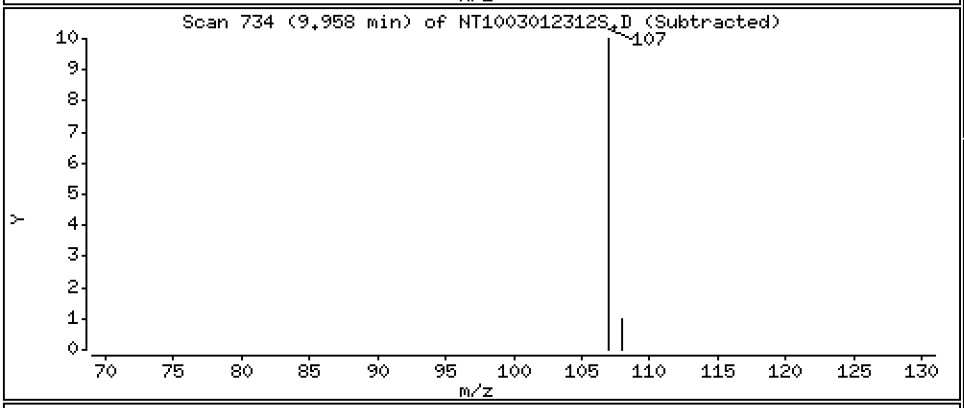
Column diameter: 0.25

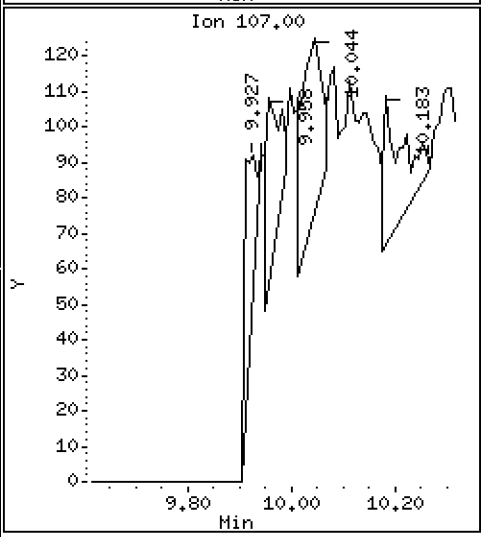
15 4-Methylphenol

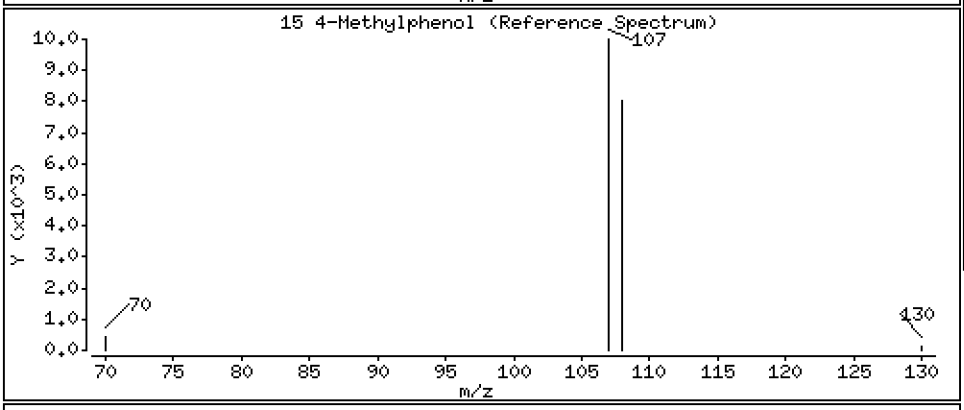
Concentration: 0.0004276 ug/L

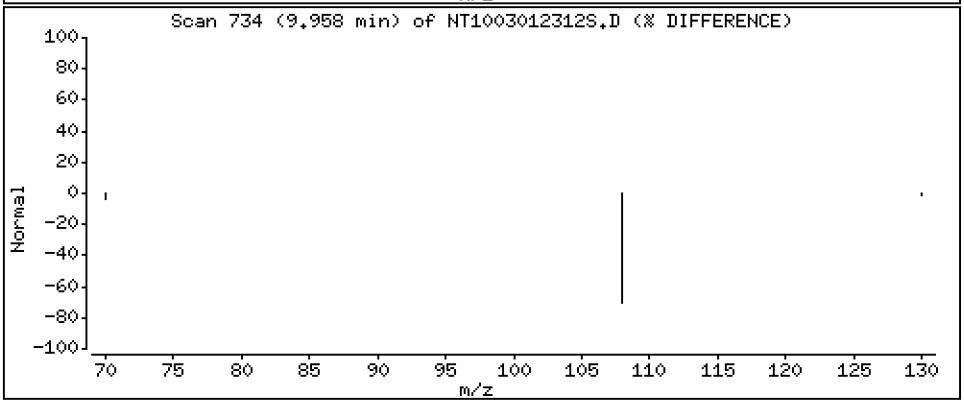












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123125.D

Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

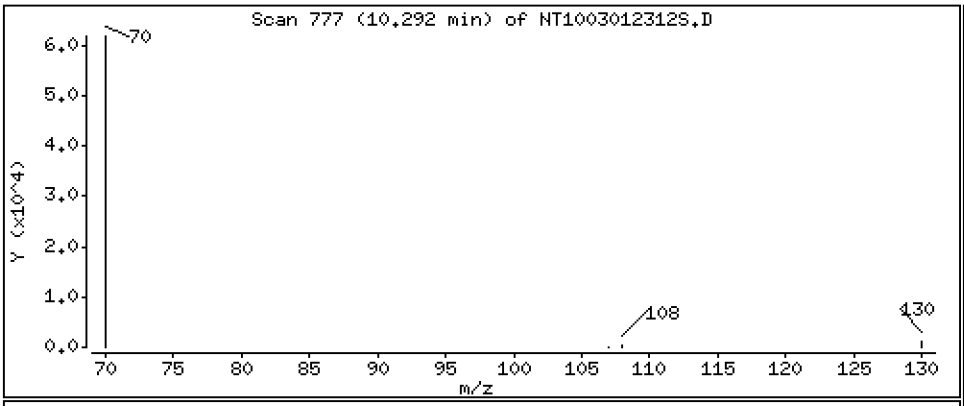
Operator: JGR

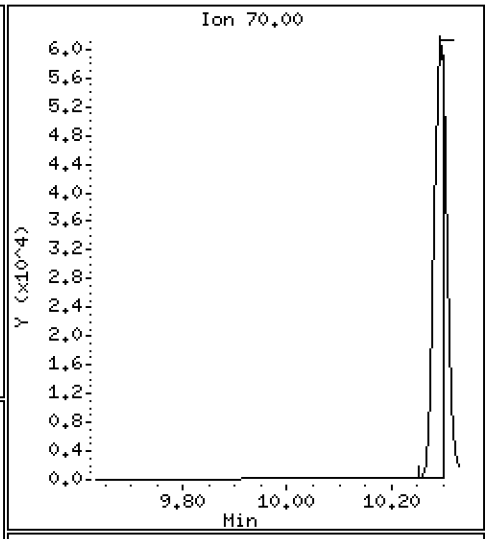
Column phase: ZB-5msi

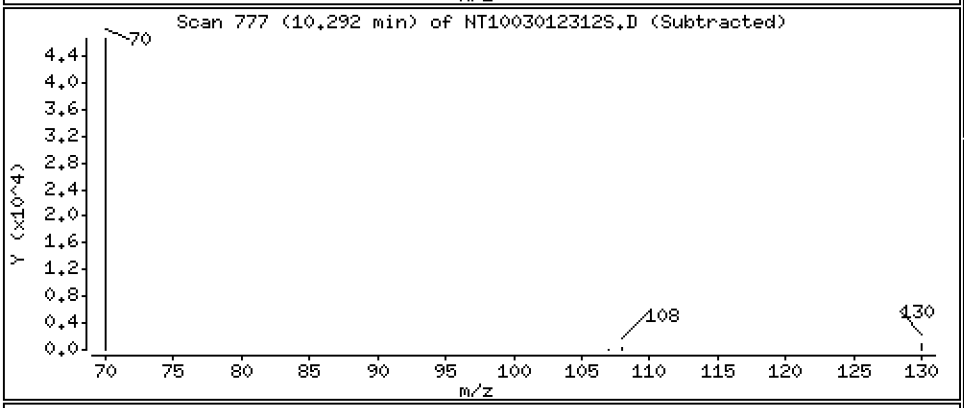
Column diameter: 0.25

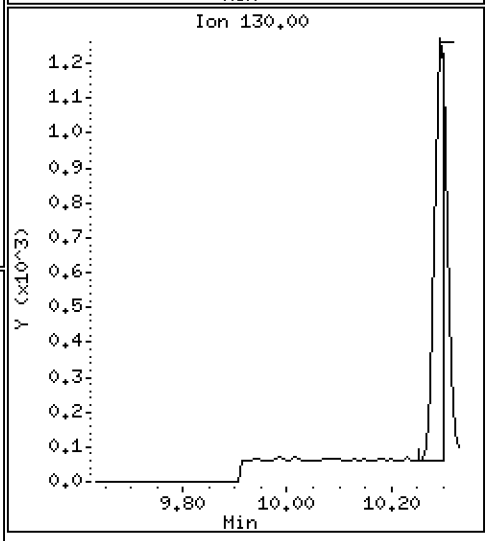
16 N-Nitroso-di-n-propylamine

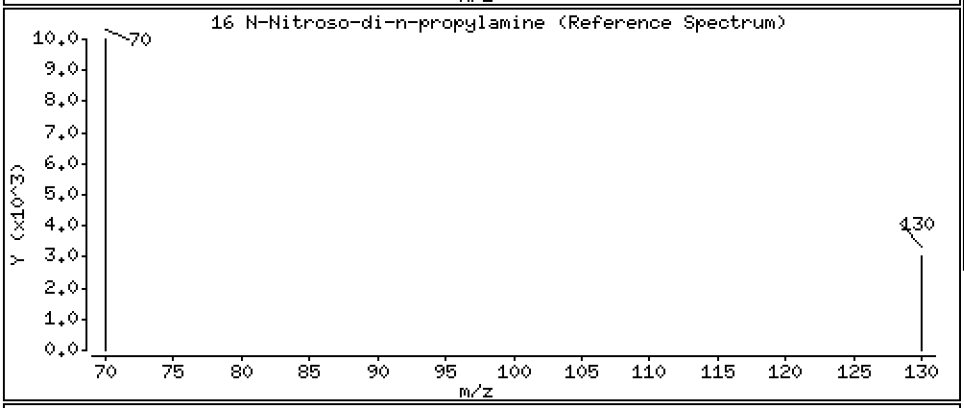
Concentration: 0.8128 ug/L

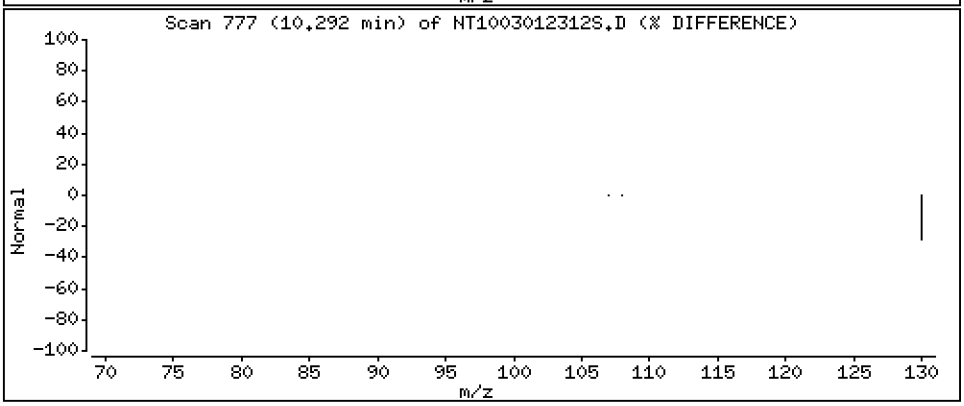












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Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

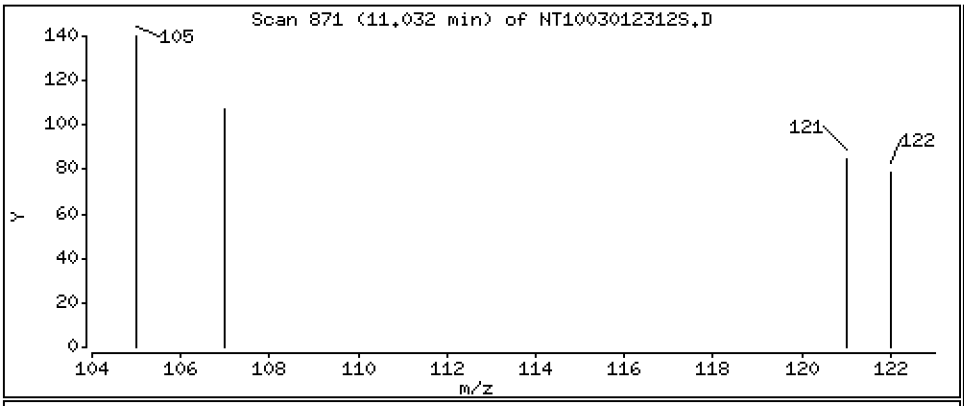
Operator: JGR

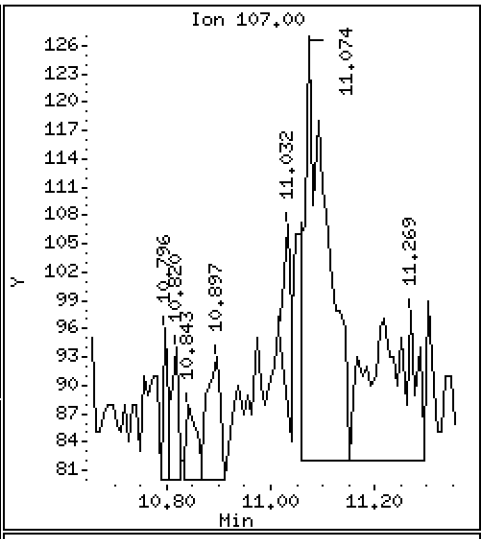
Column phase: ZB-5msi

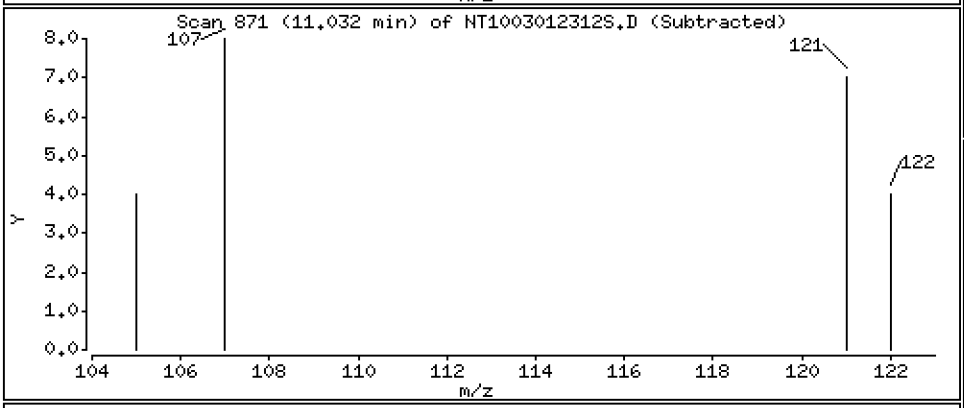
Column diameter: 0.25

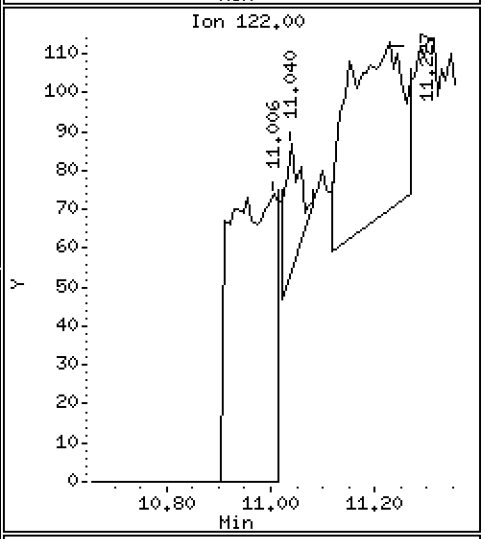
22 2,4-Dimethylphenol

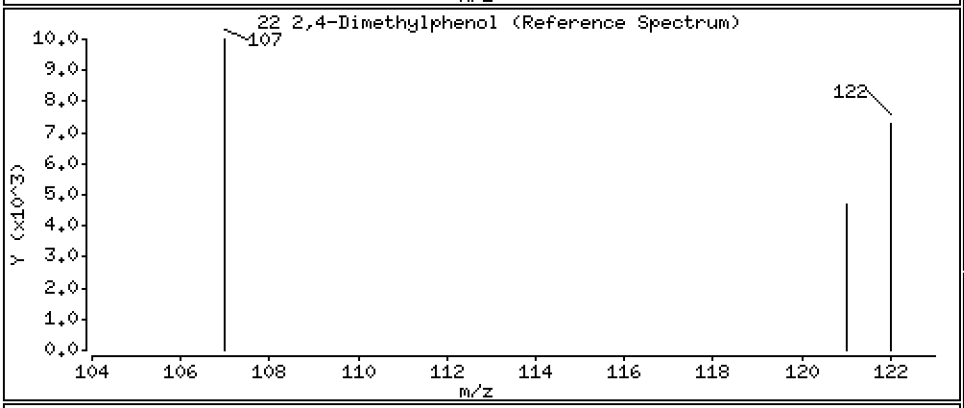
Concentration: 0.0001253 ug/L

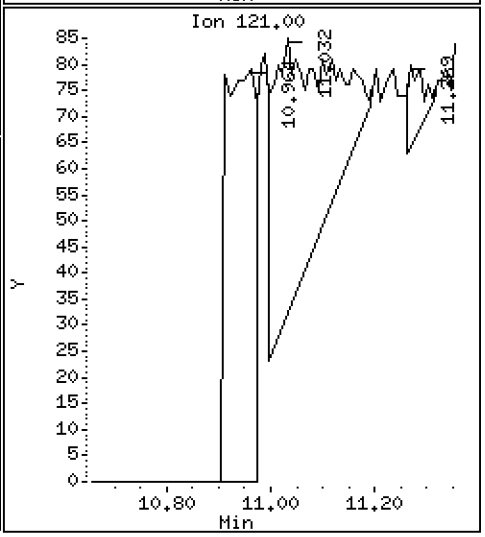


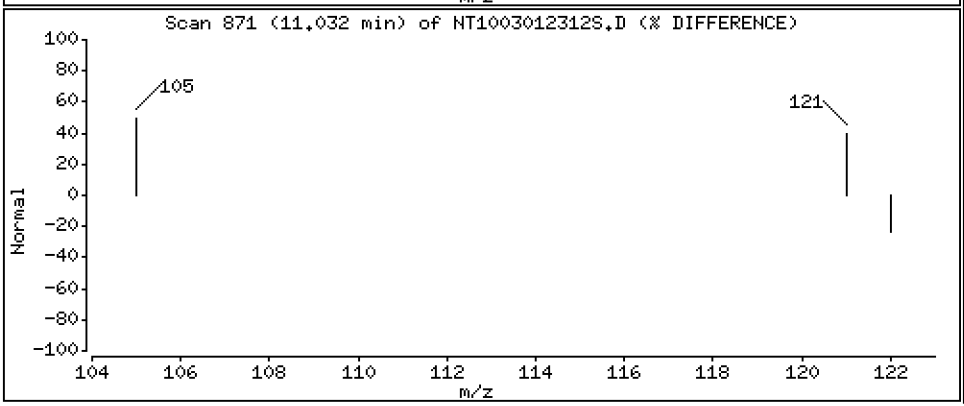












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Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

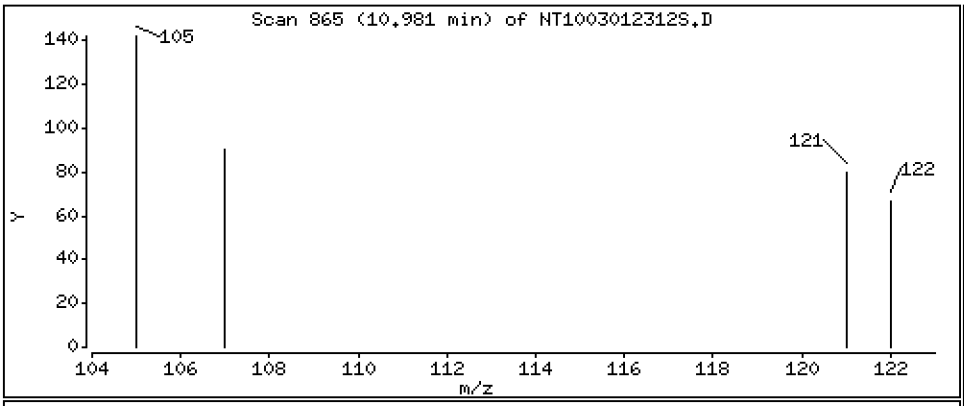
Operator: JGR

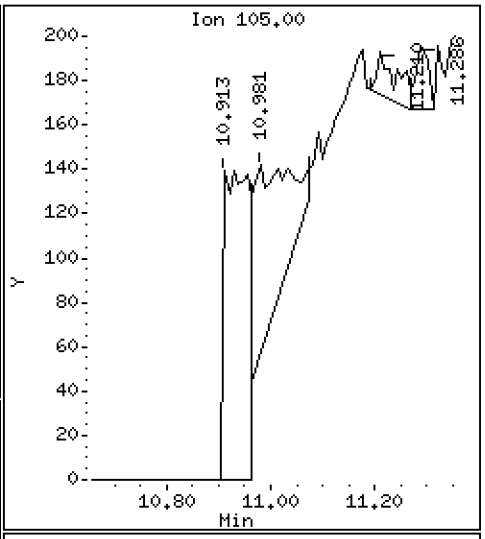
Column phase: ZB-5msi

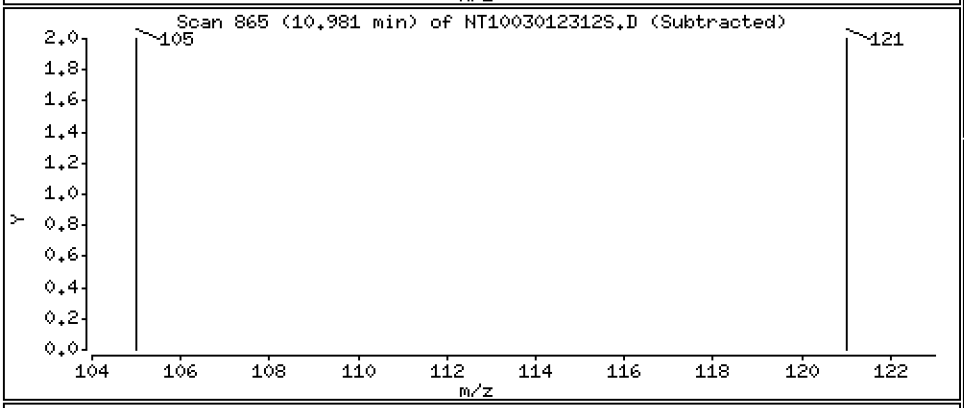
Column diameter: 0.25

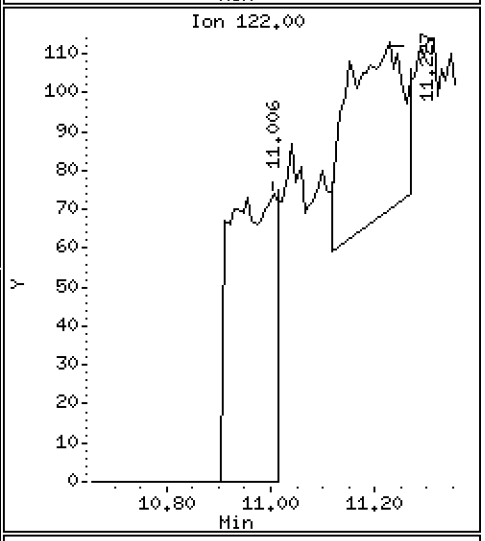
24 Benzoic acid

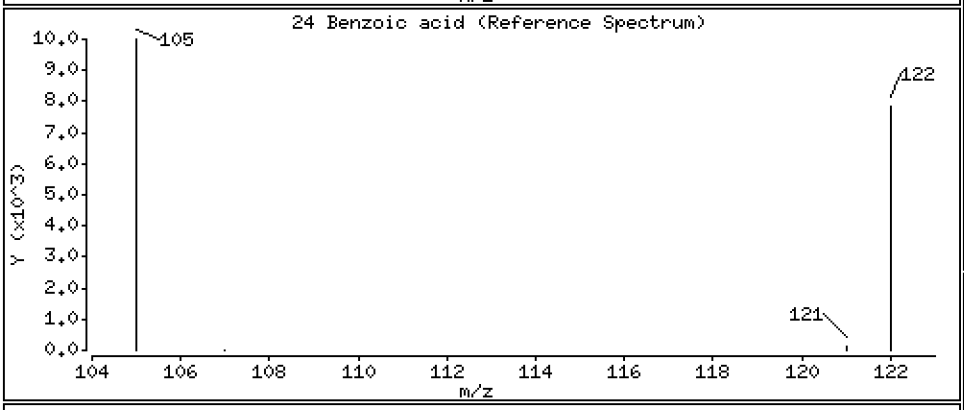
Concentration: 0.004402 ug/L

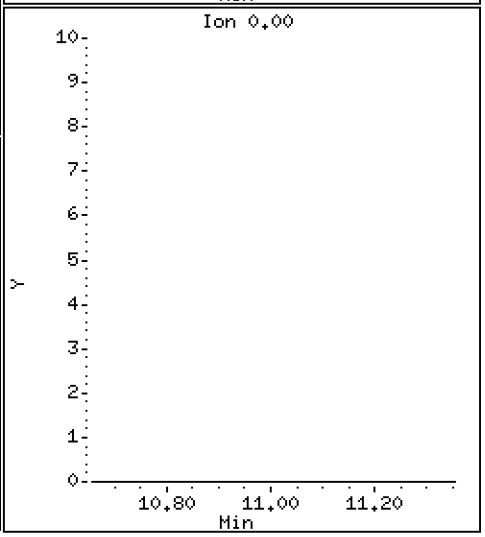


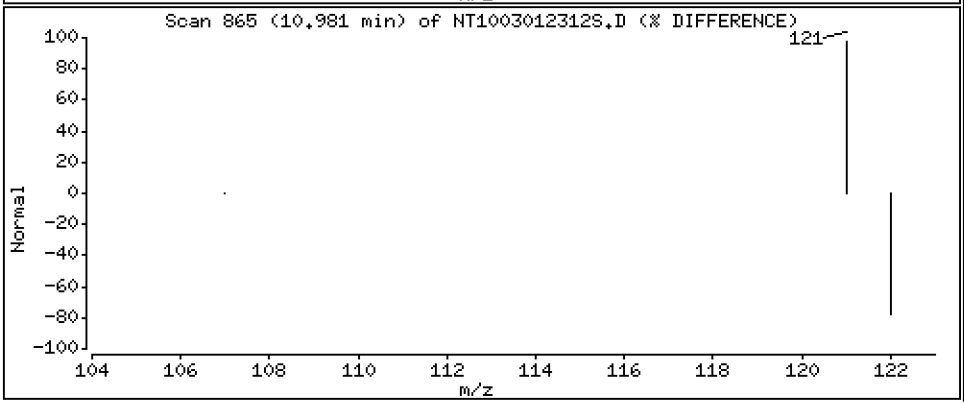












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123125.D

Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

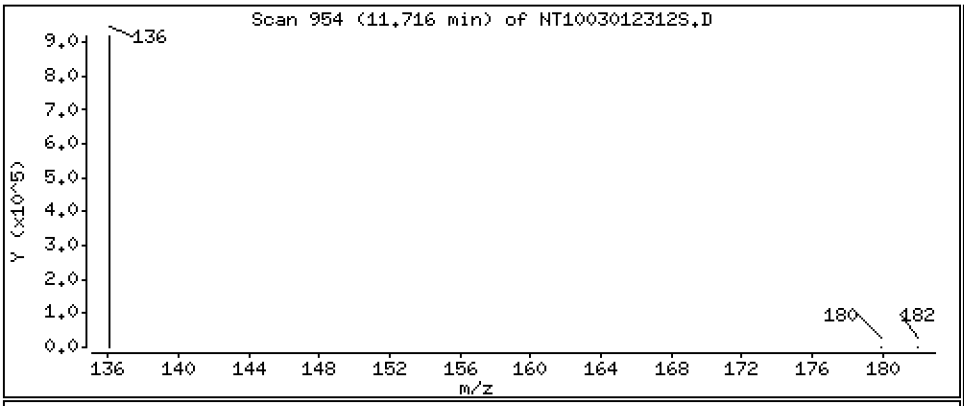
Operator: JGR

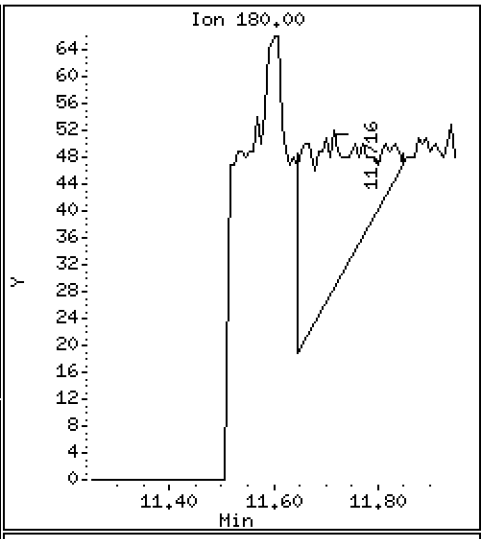
Column phase: ZB-5msi

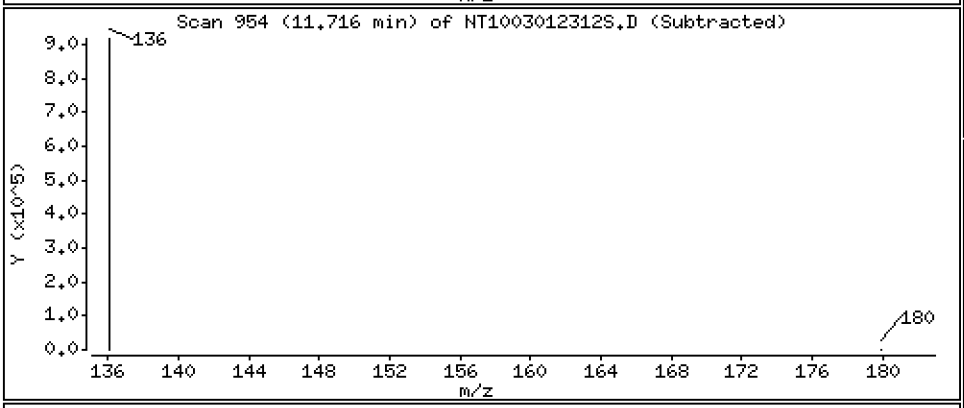
Column diameter: 0.25

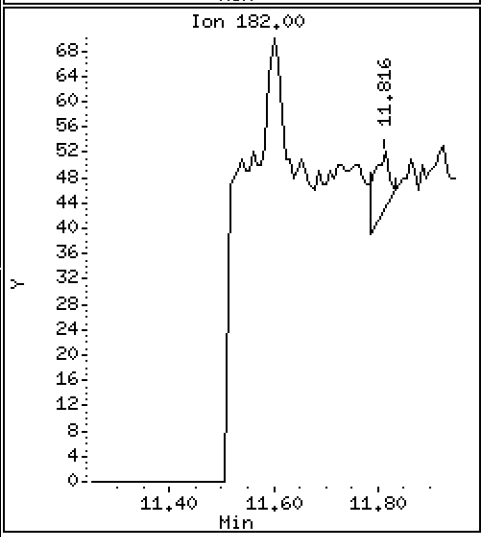
26 1,2,4-Trichlorobenzene

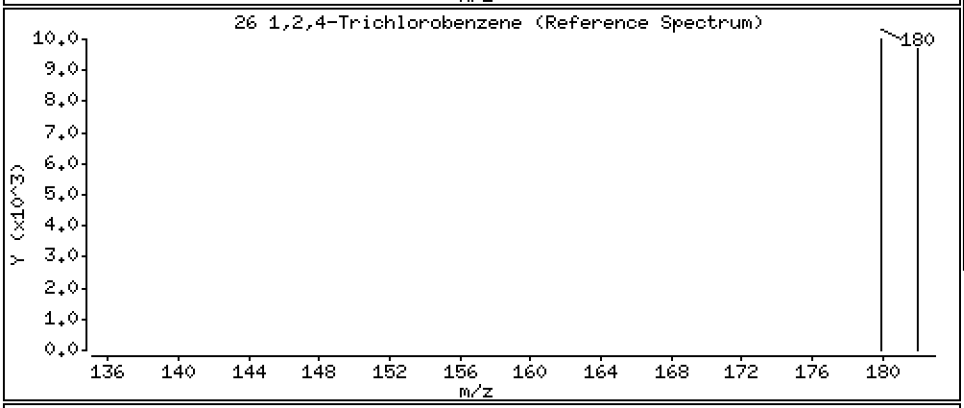
Concentration: 0.001531 ug/L

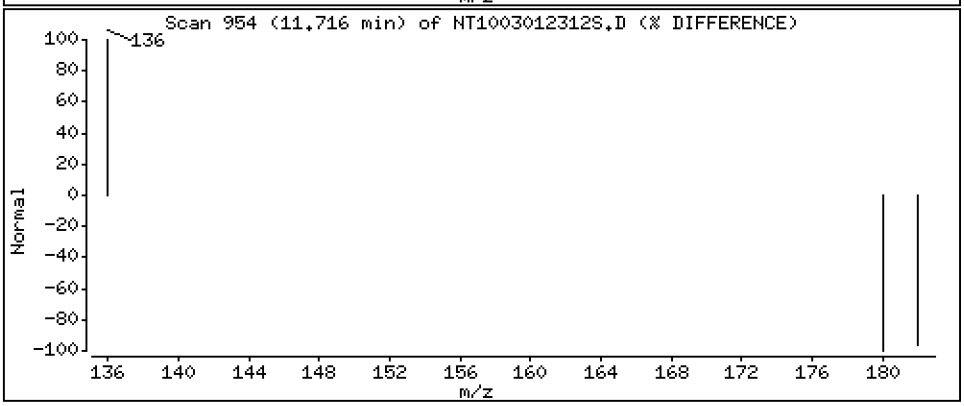












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123125.D

Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

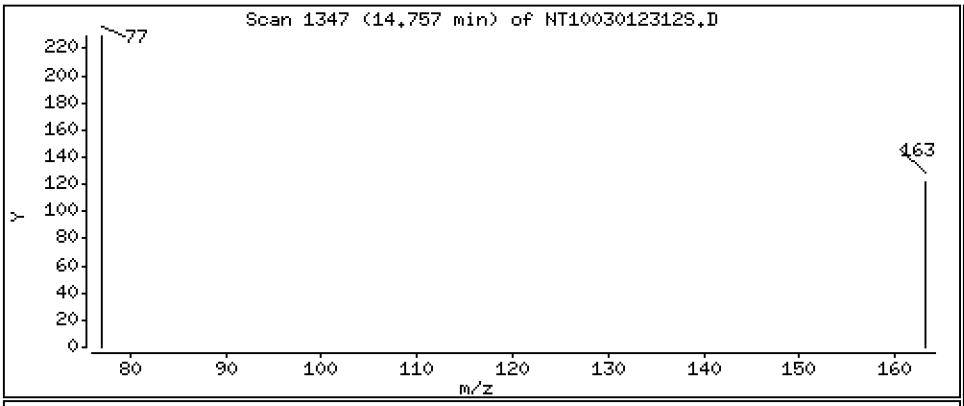
Operator: JGR

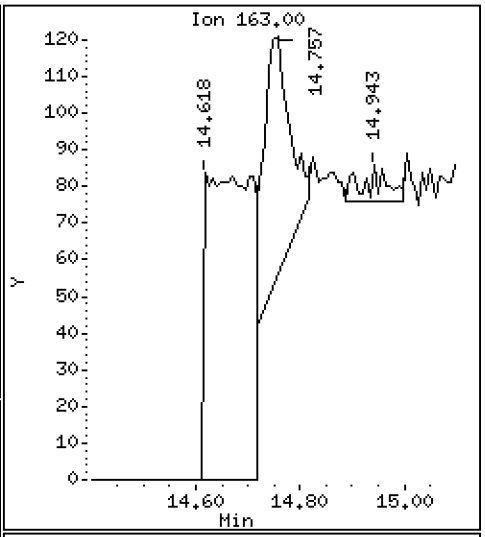
Column phase: ZB-5msi

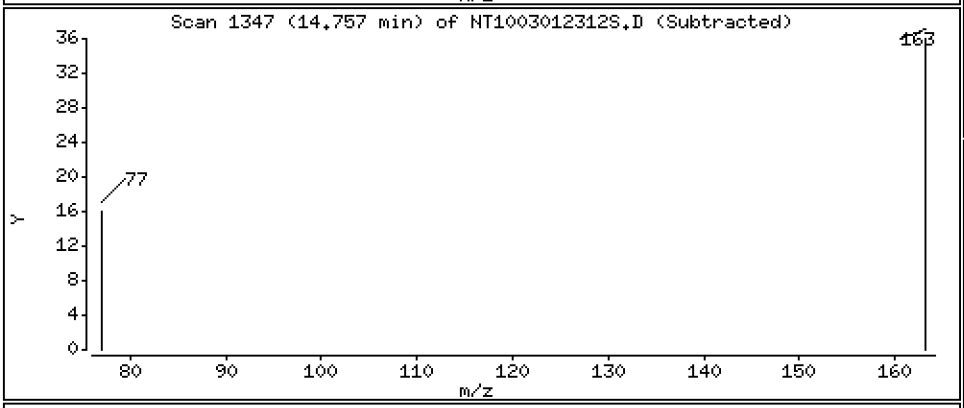
Column diameter: 0.25

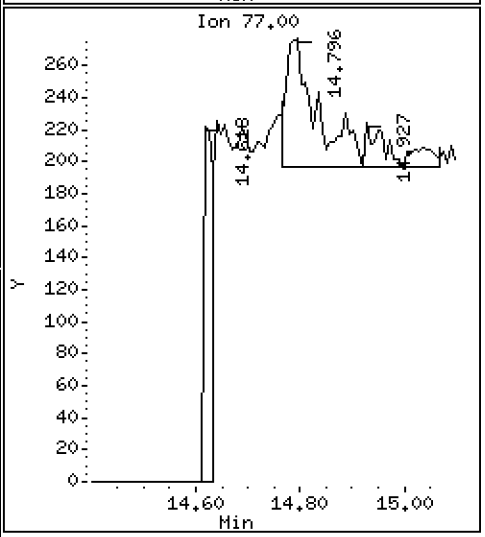
39 Dimethylphthalate

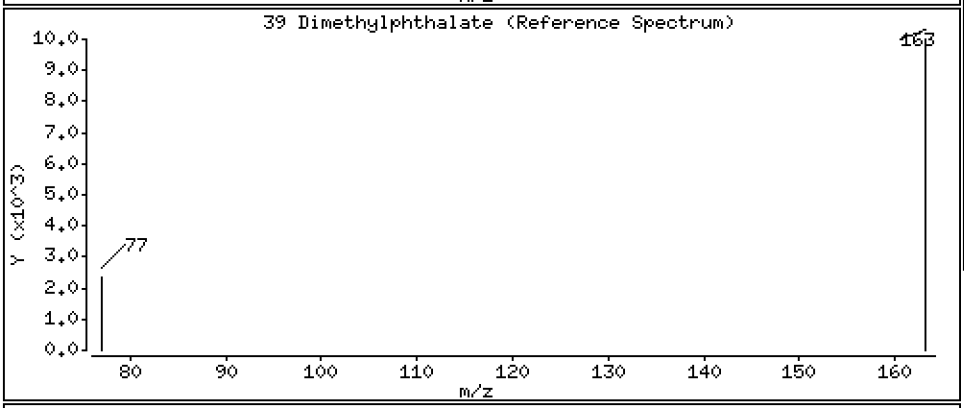
Concentration: 0.0008417 ug/L

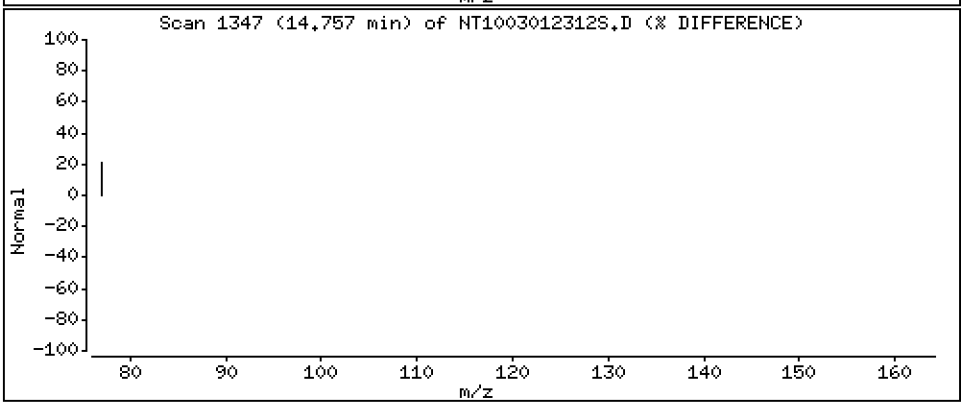












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123125.D

Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

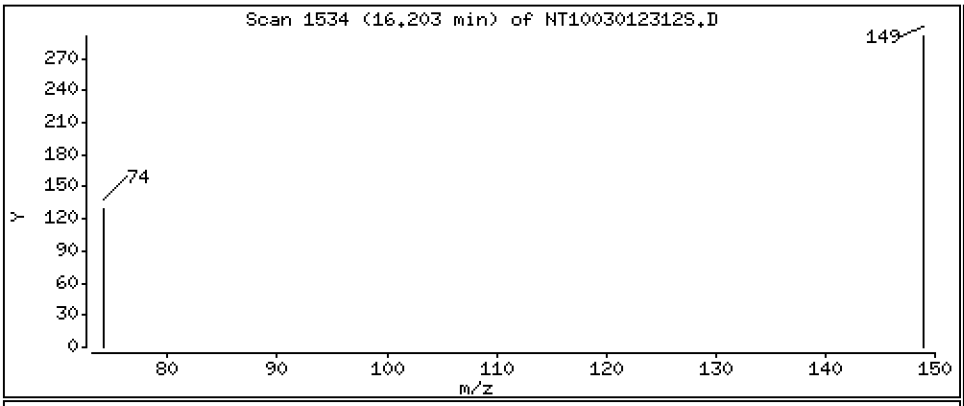
Operator: JGR

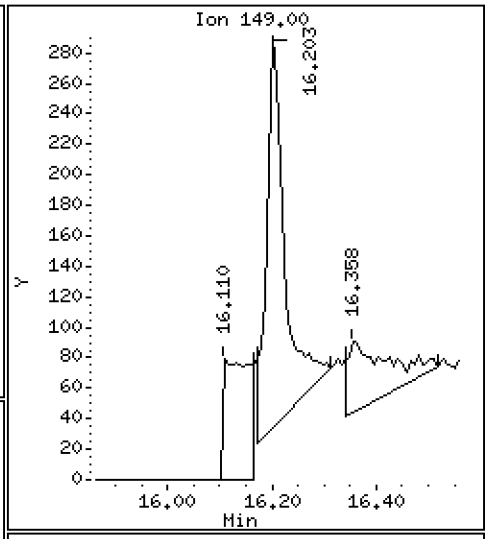
Column phase: ZB-5msi

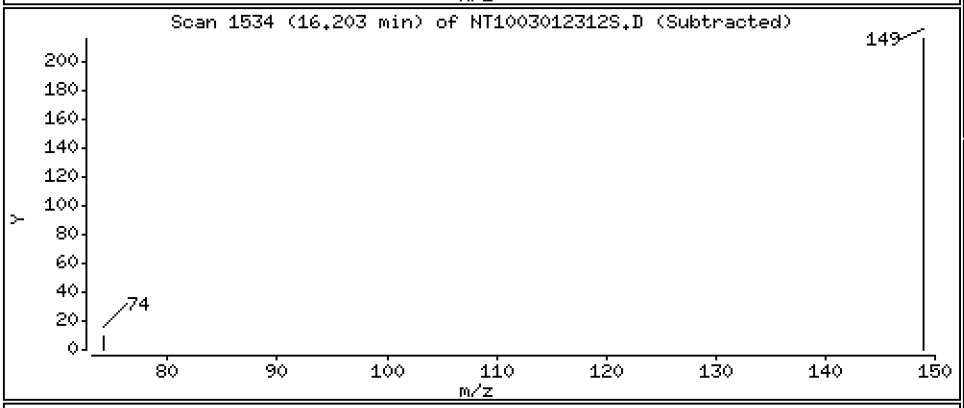
Column diameter: 0.25

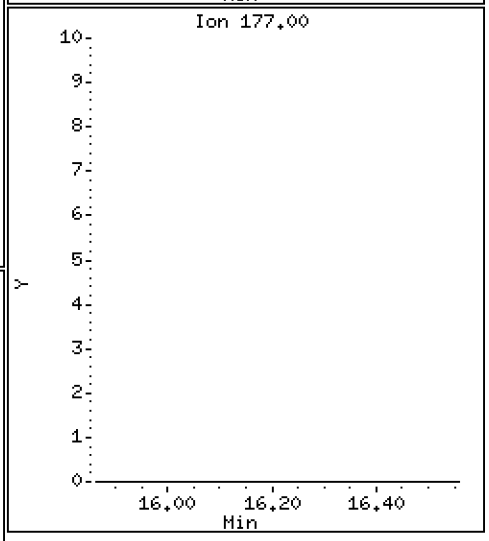
50 Diethylphthalate

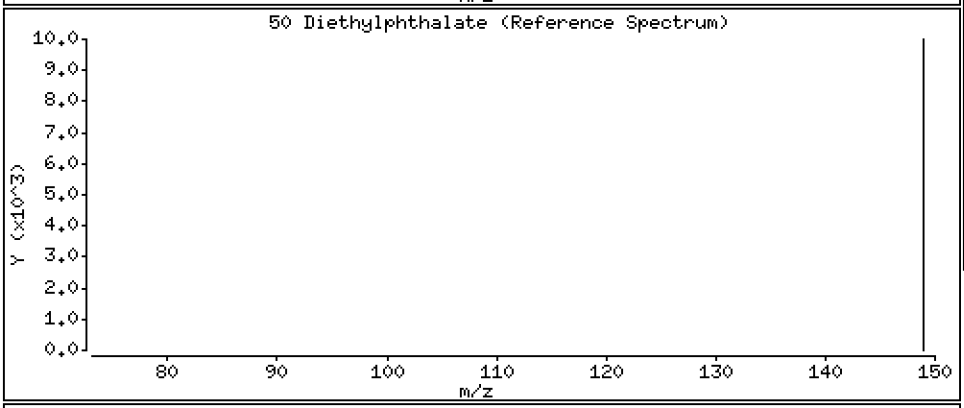
Concentration: 0.002321 ug/L

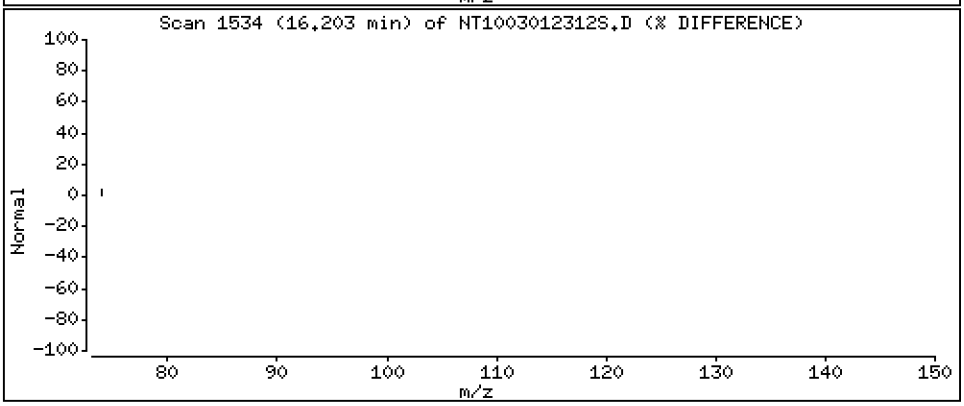












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123125.D

Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

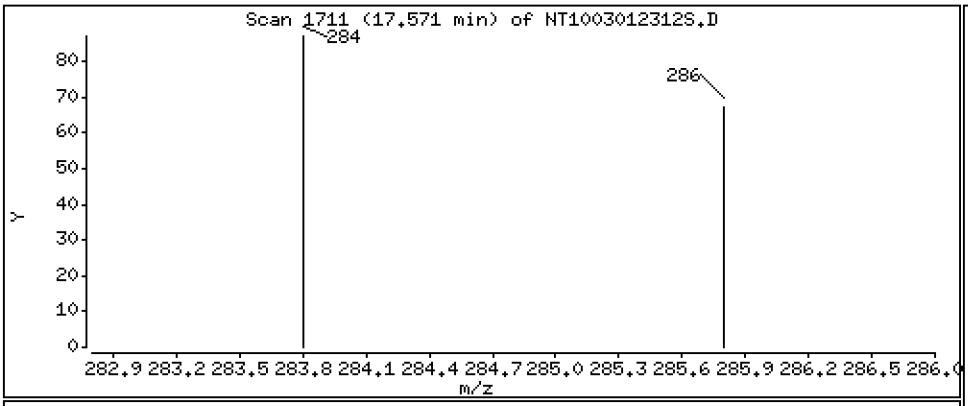
Operator: JGR

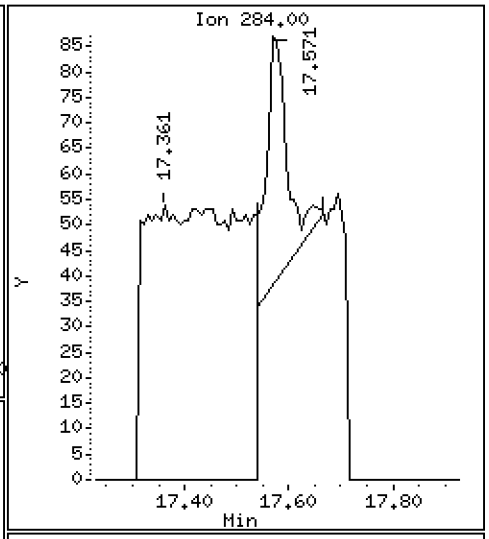
Column phase: ZB-5msi

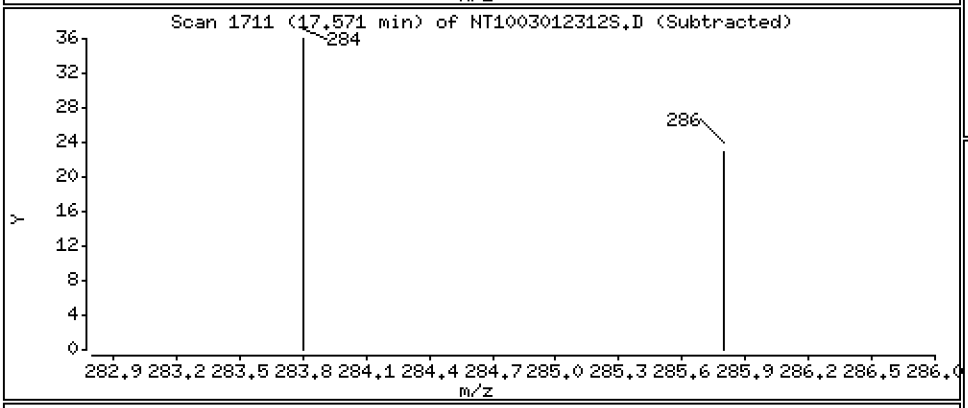
Column diameter: 0.25

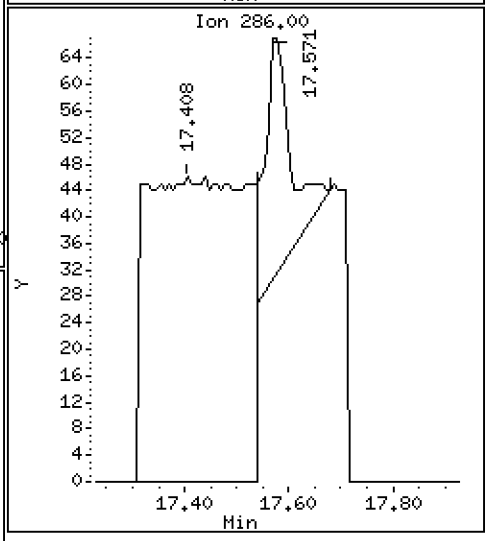
57 Hexachlorobenzene

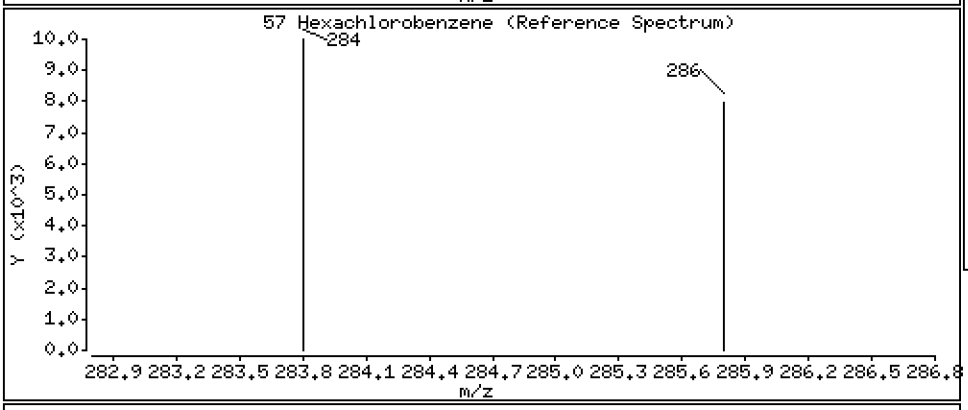
Concentration: 0.001117 ug/L

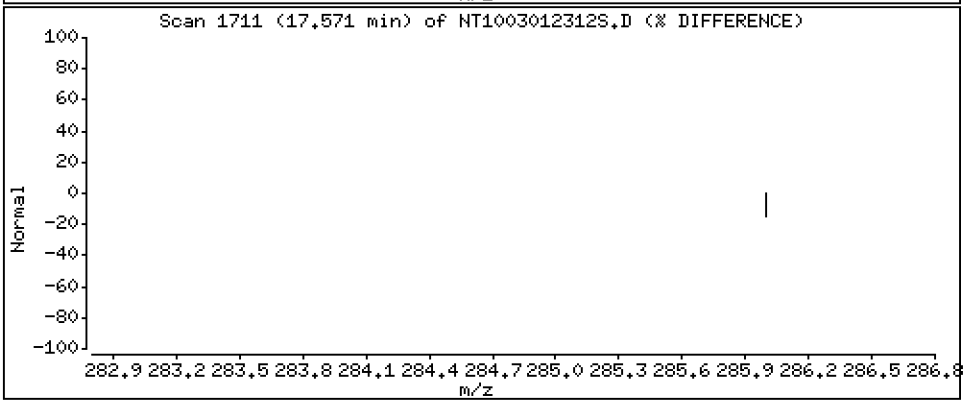












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123125.D

Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

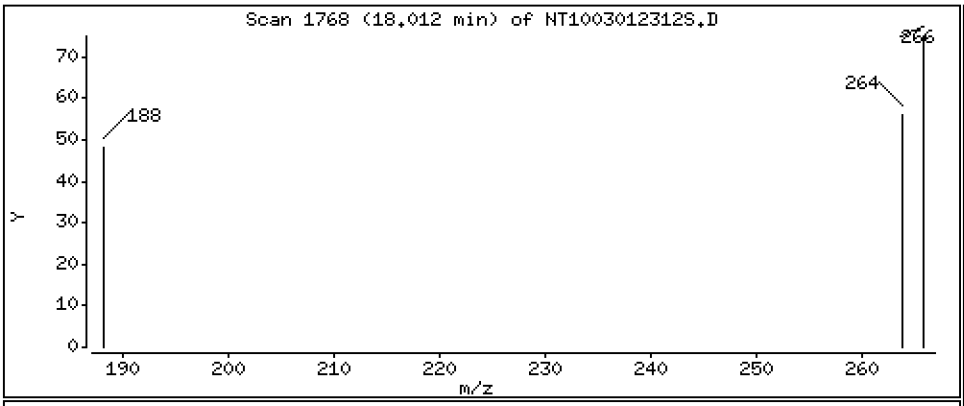
Operator: JGR

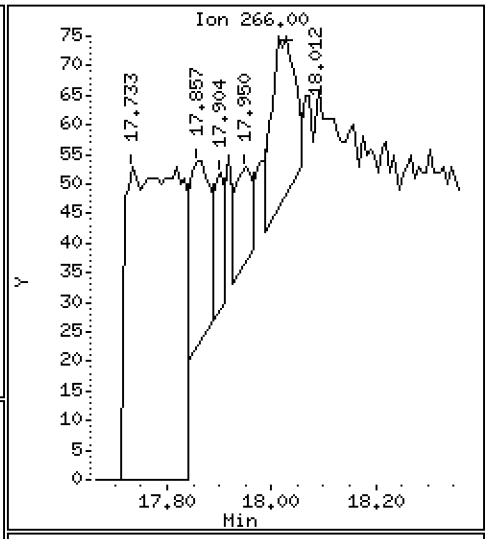
Column phase: ZB-5msi

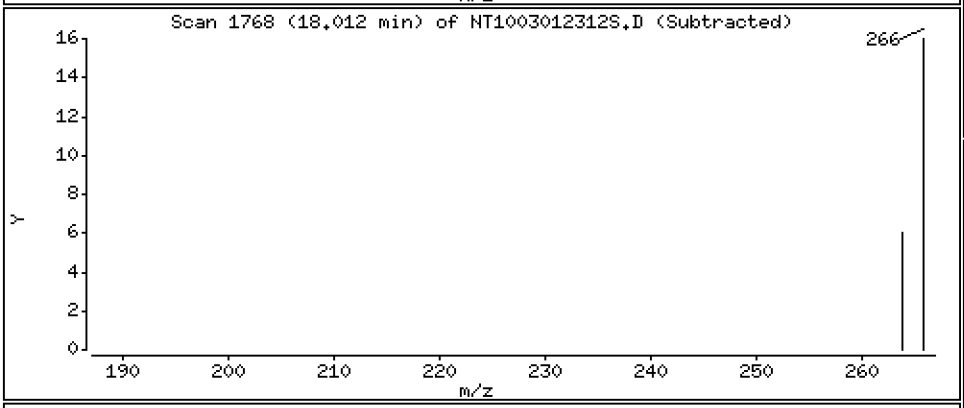
Column diameter: 0.25

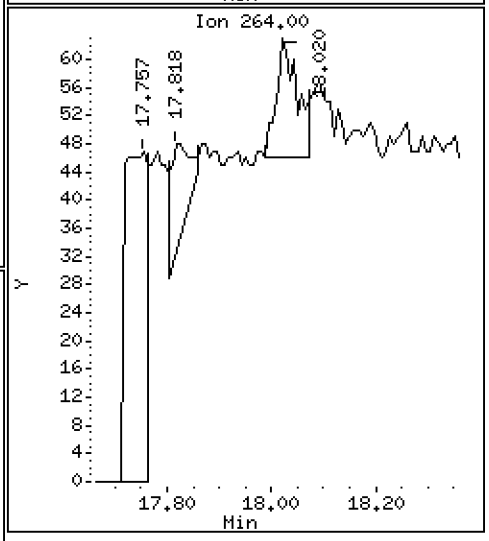
58 Pentachlorophenol

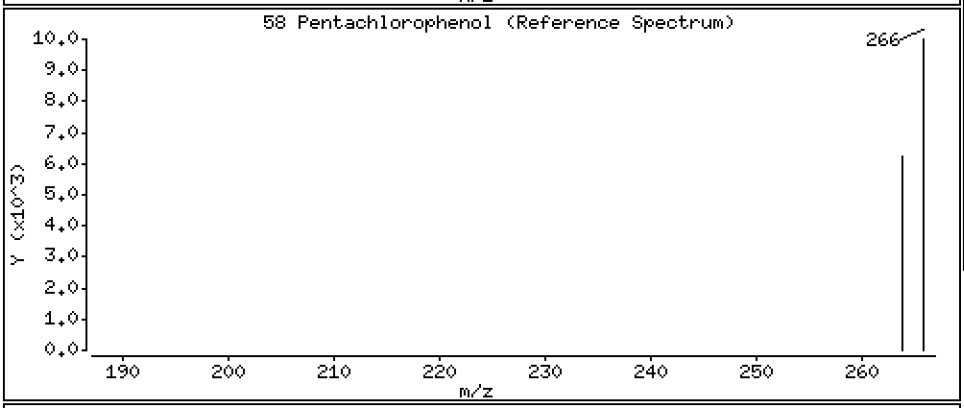
Concentration: 0.001689 ug/L

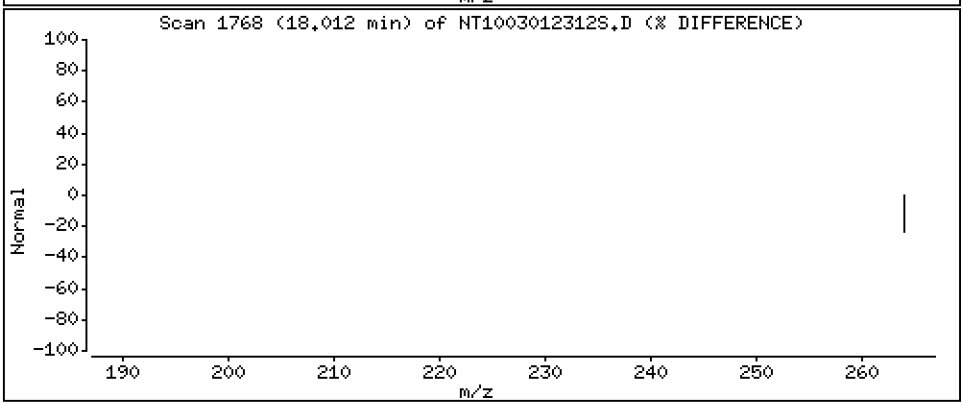












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Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

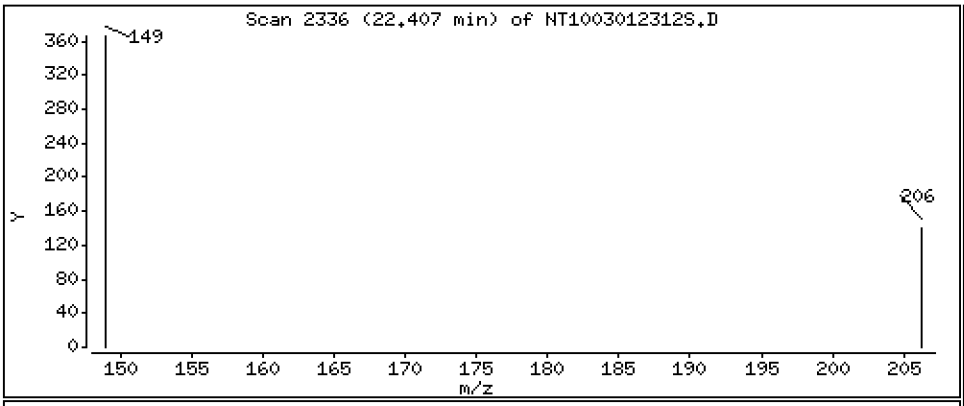
Operator: JGR

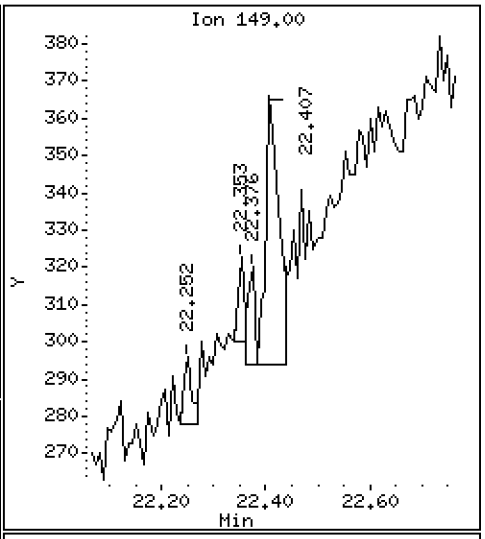
Column phase: ZB-5msi

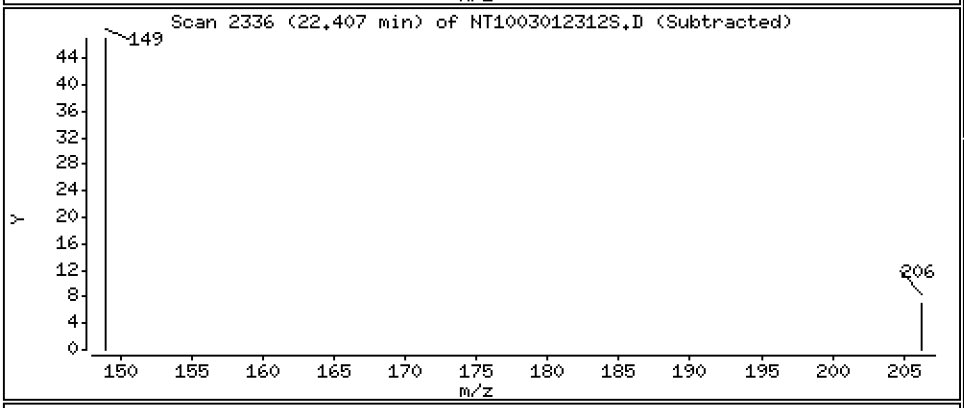
Column diameter: 0.25

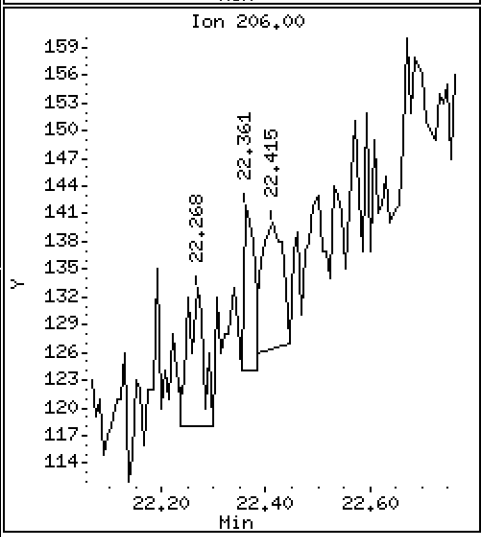
67 Butylbenzylphthalate

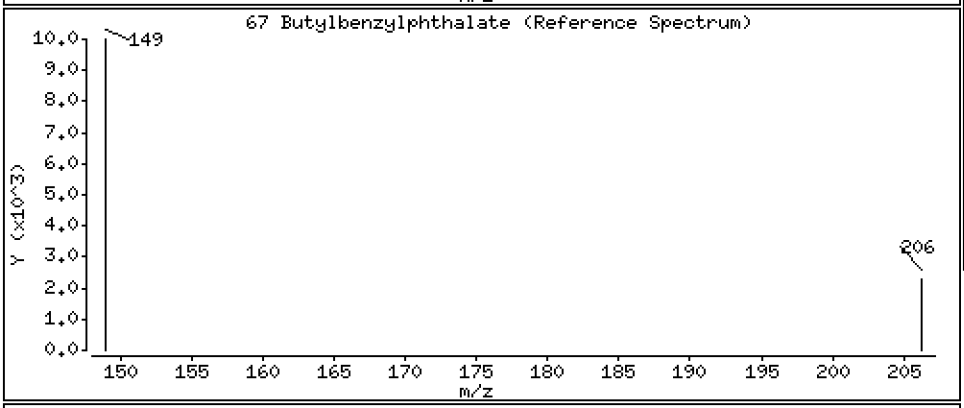
Concentration: 0.0004940 ug/L

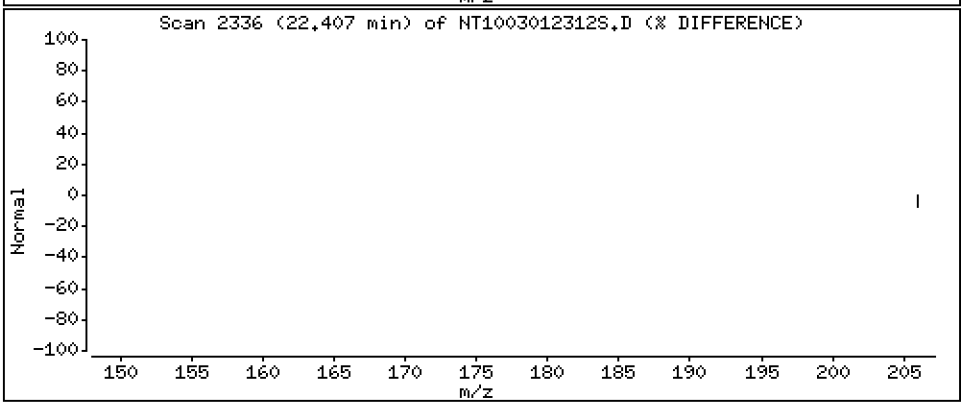












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Date : 01-MAR-2023 22:24

Client ID:

Instrument: nt10.i

Sample Info: SEQ-IBL1

Volume Injected (uL): 1.0

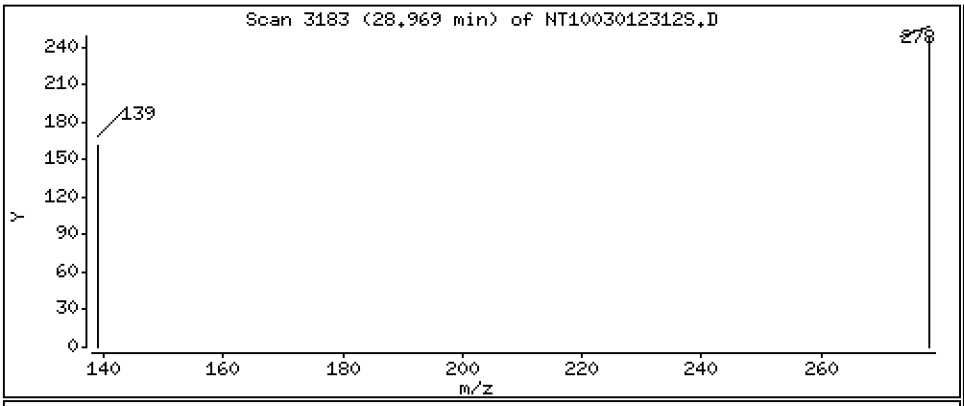
Operator: JGR

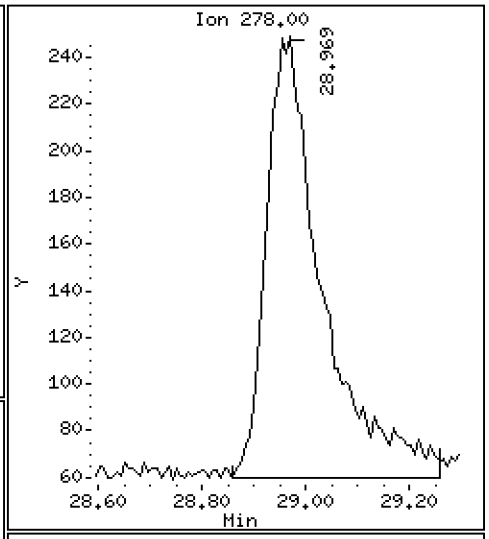
Column phase: ZB-5msi

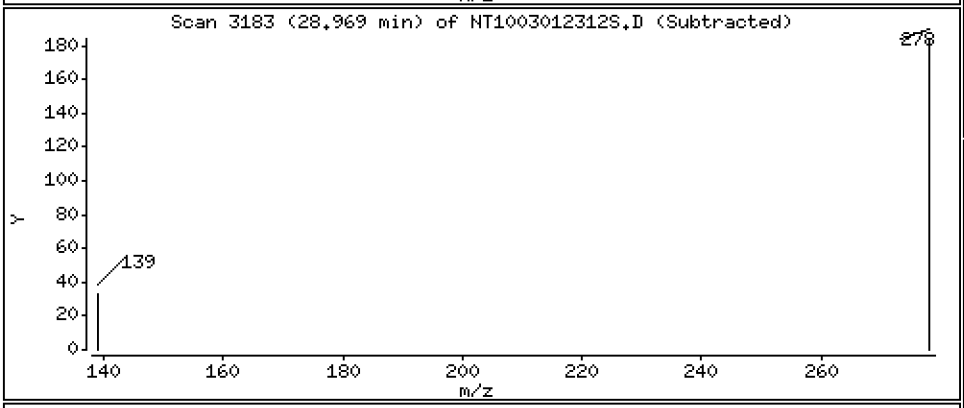
Column diameter: 0.25

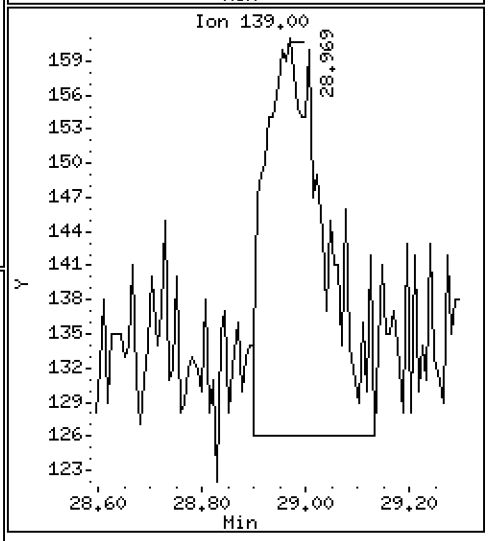
79 Dibenzo(a,h)anthracene

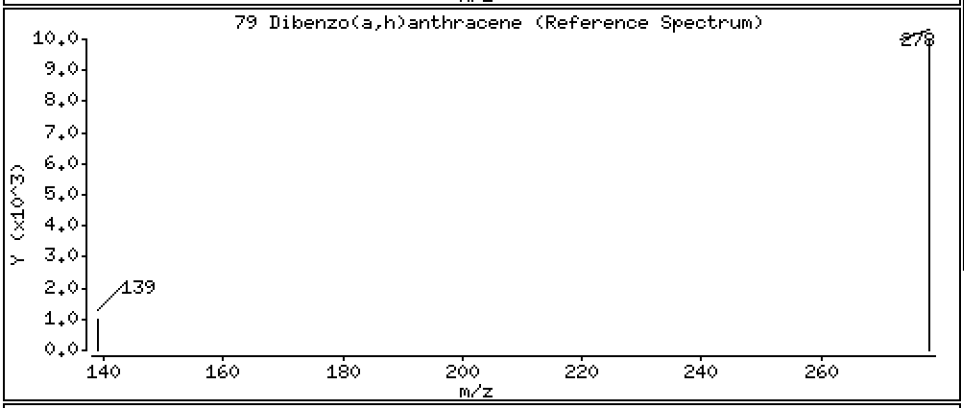
Concentration: 0.003648 ug/L

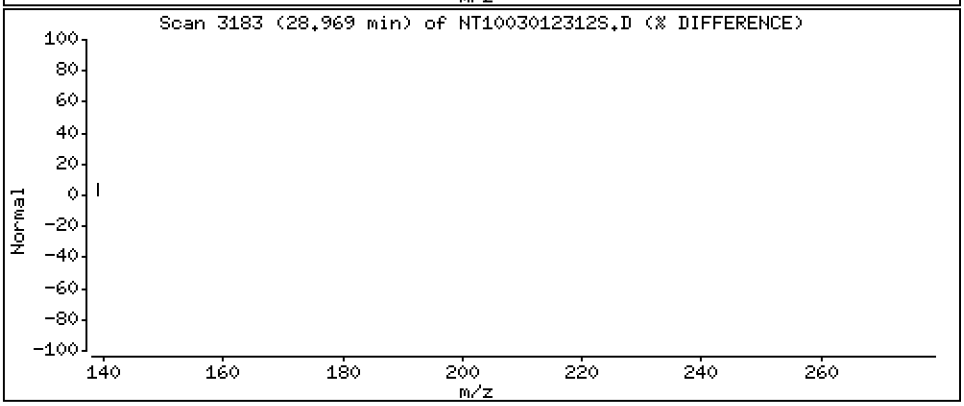












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012312S.D
Lab Smp Id: SLC0143-ICB1
Inj Date : 01-MAR-2023 22:24 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-IBL1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:10 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.894	6.902	(0.745)	1154017	7.84369	7.844(R)
3	Phenol	94	8.509	8.532	(0.920)	1012	0.00466	0.004664
7	1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	118	6e-004	0.0006178
* 8	1,4-Dichlorobenzene-d4	152	9.251	9.252	(1.000)	515340	4.00000	
9	1,4-Dichlorobenzene	146	9.282	9.275	(1.003)	61	3e-004	0.0003285
11	Benzyl alcohol	79	9.531	9.508	(1.030)	17695	0.14687	0.1469
12	1,2-Dichlorobenzene	146	9.562	9.563	(1.034)	52	3e-004	0.0002913
13	2-Methylphenol	108	9.539	9.671	(1.031)	8016	0.06143	0.06143
15	4-Methylphenol	108	9.958	9.966	(1.076)	58	4e-004	0.0004276
16	N-Nitroso-di-n-propylamine	70	10.292	9.982	(1.112)	78763	0.81276	0.8128
22	2,4-Dimethylphenol	107	11.031	11.006	(0.941)	19	1e-004	0.0001253
24	Benzoic acid	105	10.980	11.007	(0.937)	366	0.00440	0.004402
26	1,2,4-Trichlorobenzene	180	11.716	11.600	(0.999)	197	0.00153	0.001531
* 27	Naphthalene-d8	136	11.723	11.723	(1.000)	1787704	4.00000	
30	Hexachlorobutadiene	225	Compound Not Detected.					
39	Dimethylphthalate	163	14.756	14.749	(0.964)	235	8e-004	0.0008417
* 42	Acenaphthene-d10	162	15.314	15.314	(1.000)	879316	4.00000	
50	Diethylphthalate	149	16.203	16.211	(1.058)	611	0.00232	0.002321
54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
57	Hexachlorobenzene	284	17.570	17.579	(0.955)	133	0.00112	0.001117

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	18.011	18.012	(0.979)	88	0.00169	0.001689
*	59 Phenanthrene-d10	188	18.398	18.398	(1.000)	1572306	4.00000	
$	66 Terphenyl-d14	244	21.524	21.532	(0.919)	589014	4.90043	4.900(R)
	67 Butylbenzylphthalate	149	22.407	22.415	(0.957)	124	5e-004	0.0004940
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	1486349	4.00000	
*	77 Perylene-d12	264	26.108	26.108	(1.000)	1674195	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.968	28.946	(1.110)	1414	0.00365	0.003648
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012312S.D
Lab Smp Id: SLC0143-ICB1
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 18:37
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	320125	160063	640250	515340	60.98
27 Naphthalene-d8	1136019	568010	2272038	1787704	57.37
42 Acenaphthene-d10	636993	318497	1273986	879316	38.04
59 Phenanthrene-d10	1093620	546810	2187240	1572306	43.77
69 Chrysene-d12	1000300	500150	2000600	1486349	48.59
77 Perylene-d12	1058448	529224	2116896	1674195	58.17

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.72	11.22	12.22	11.72	-0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	-0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	-0.00
69 Chrysene-d12	23.41	22.91	23.91	23.42	0.03
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012312S.D

Lab ID: SLC0143-ICB1
nt10.i, 20230301.b\SIM.b\SIMABN2.m,   01-MAR-2023 22:24

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.031	1.045	-0.0143	2-Methylphenol
1.112	1.079	0.0335	N-Nitroso-di-n-propylamine
0.937	0.000	0.9366	Benzoic acid
0.999	0.989	0.0099	1,2,4-Trichlorobenzene

RRT check based on Ccal File: SIM.b/NT1003012310S.D

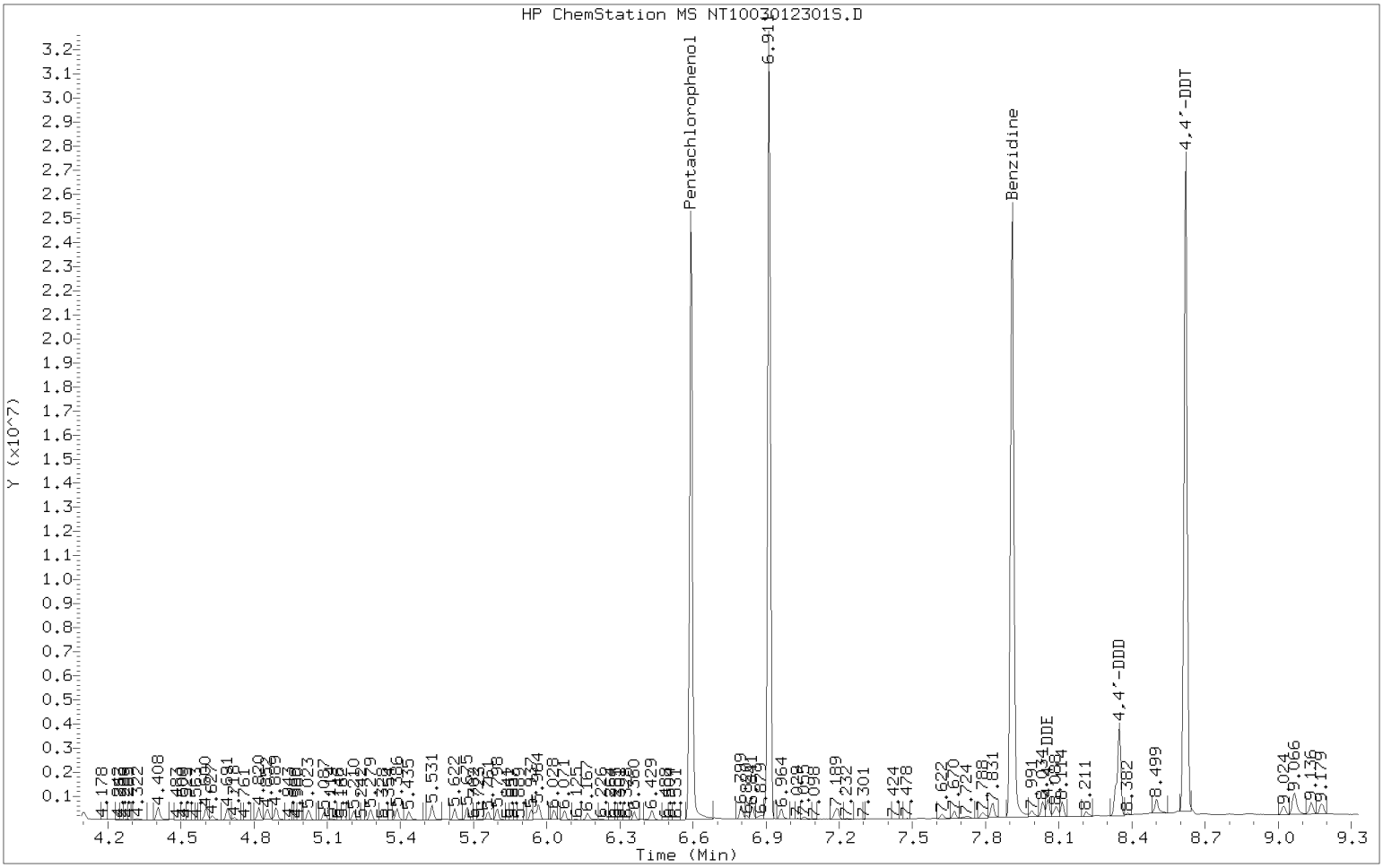
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

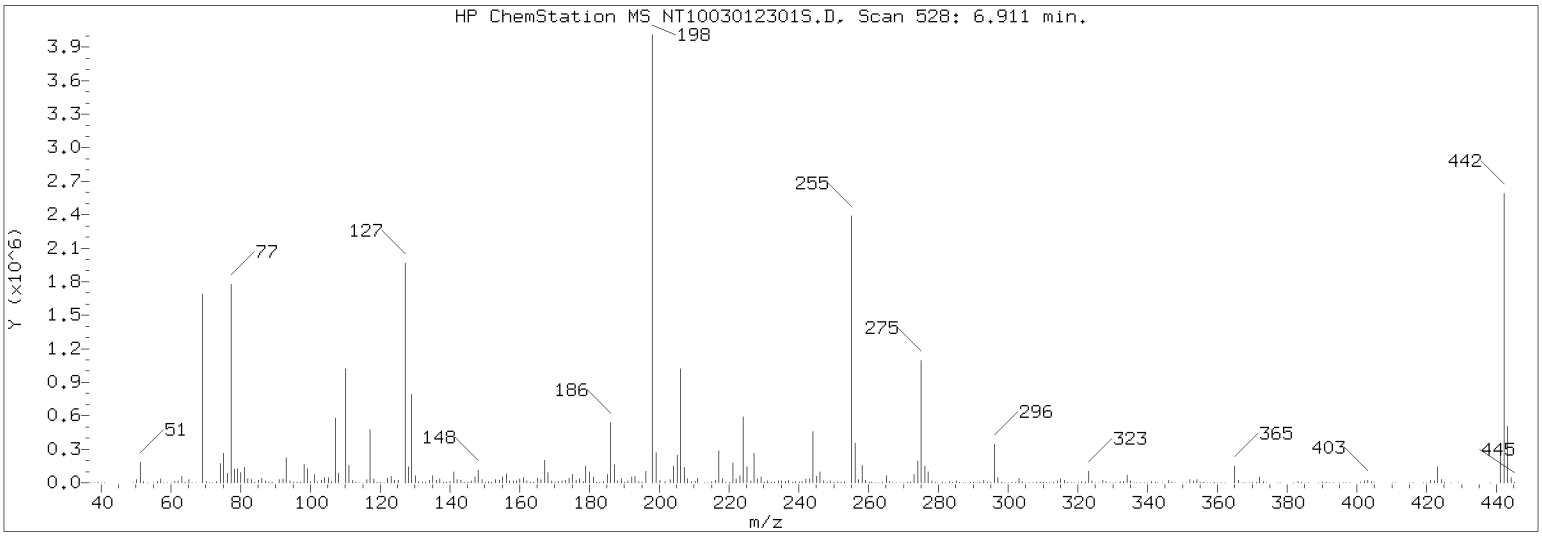
Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

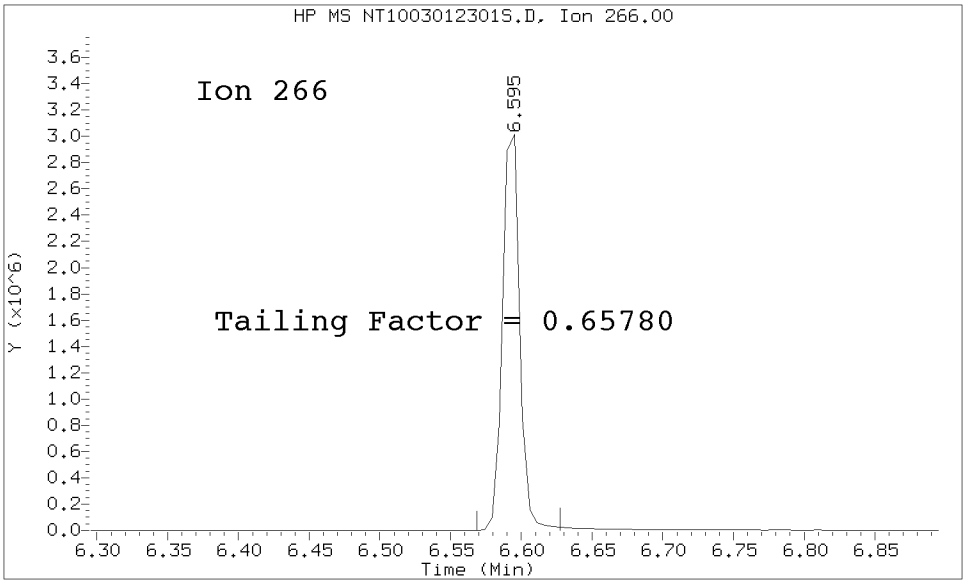
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230301.b/SIM.b/NT1003012301S.D/NT1003012301S.D
Method Used: \20230301.b\SIM.b\DFTPP8270E.m Inst: nt10
Injection Date: 01-MAR-2023 15:49 Operator: JGR
Sample Info: SLC0143-TUN1 SLC0143-TUN1
Report Date: 07/05/2023 09:35



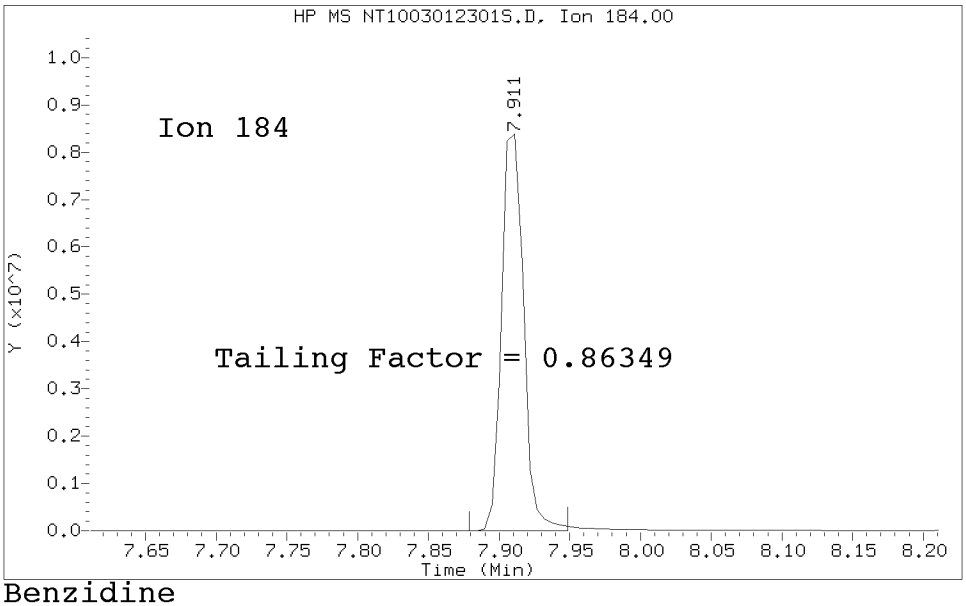


Datafile Analyzed: /20230301.b/SIM.b/NT1003012301S.D/NT1003012301S.D
Method Used: \20230301.b\DFTPP8270E.m\sw846ddt.m Inst: nt10
Injection Date: 01-MAR-2023 15:49 Operator: JGR
Sample Info: SEQ-TUN1
Report Date: 07/05/2023 09:35



Pentachlorophenol
==========
Exp. RT = 6.590
Found RT = 6.595

Tail Factor = 0.658 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.911
Found RT = 7.911

Tail Factor = 0.863 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.6578035	2.000	PASS
Benzidine	0.8634886	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	4780124			N/A
4,4-DDE	47256	1.0	20.0	PASS
4,4-DDD	542360	10.2	20.0	PASS
4,4-DDD + DDE	589616	11.0	20.0	PASS

Tuning Sample, nt10.i/20230301.b/SIM.b/NT1003012301S.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.33 (0.79)
69	Mass 69 relative abundance	41.10
70	Less than 2.00% of mass 69	0.15 (0.37)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.67
365	1.00 - 100.00% of mass 198	4.33
441	Less than 150.00% of mass 443	11.23 (73.44)
442	Less than 200.00% of mass 198	80.08
443	15.00 - 24.00% of mass 442	15.30 (19.10)

Data File: NT1003012301S.D
Spectrum: Avg. Scans 527-529 (6.91), Background Scan 522
Location of Maximum: 198.00
Number of points: 369

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	462	140.00	7430	237.00	14976	332.00	6725
38.00	1113	141.00	70248	238.00	2080	333.00	7901
39.00	4743	142.00	22264	239.00	7687	334.00	53800
40.00	108	143.00	15456	240.00	6126	335.00	13827
45.00	84	144.00	4558	241.00	9927	336.00	1422
49.00	890	145.00	3575	242.00	22800	337.00	158
50.00	20560	146.00	12885	243.00	23656	338.00	111
51.00	115400	147.00	37000	244.00	334528	339.00	1435
52.00	5980	148.00	83184	245.00	44200	340.00	1368
53.00	270	151.00	6891	246.00	75208	341.00	9189
55.00	1004	152.00	4801	247.00	14506	342.00	2530
56.00	6893	153.00	21920	248.00	2995	343.00	476
57.00	20032	154.00	16872	249.00	12012	344.00	229
58.00	1173	155.00	39720	250.00	2462	346.00	19040
59.00	381	156.00	58960	251.00	2978	347.00	3868
60.00	603	157.00	10415	252.00	3463	348.00	369
61.00	8555	158.00	12758	253.00	7543	350.00	680
62.00	12181	159.00	10289	254.00	2201	351.00	1509
63.00	36888	160.00	23104	255.00	1779712	352.00	24280
64.00	5850	161.00	32336	256.00	261248	353.00	16313
65.00	19656	162.00	10036	257.00	19960	354.00	23616
66.00	1277	163.00	2211	258.00	115664	355.00	4277
67.00	218	164.00	3370	259.00	18720	356.00	395
68.00	9335	165.00	26672	260.00	3097	357.00	288
69.00	1177088	166.00	21880	261.00	2983	358.00	496
70.00	4303	167.00	140736	262.00	311	359.00	2088
72.00	118	168.00	67144	263.00	1088	360.00	426
73.00	8187	169.00	12299	264.00	2758	361.00	287
74.00	117944	170.00	4307	265.00	46872	362.00	66
75.00	186240	171.00	6152	266.00	6551	363.00	78
76.00	58584	172.00	12323	267.00	641	364.00	312
77.00	1243648	173.00	16696	268.00	1031	365.00	124024
78.00	82568	174.00	30816	269.00	334	366.00	17240
79.00	86720	175.00	56392	270.00	1777	367.00	1640
80.00	67968	176.00	14808	271.00	3758	368.00	51
81.00	95752	177.00	24968	272.00	4667	369.00	81
82.00	22136	178.00	8414	273.00	54184	370.00	2231
83.00	20016	179.00	108176	274.00	145920	371.00	6578
84.00	1703	180.00	69200	275.00	822080	372.00	39896
85.00	15260	181.00	35088	276.00	108424	373.00	10420
86.00	27208	182.00	5707	277.00	76856	374.00	902
87.00	12947	183.00	2410	278.00	12879	377.00	1108
88.00	4317	184.00	9057	281.00	1271	378.00	190
89.00	1969	185.00	53272	282.00	1654	379.00	112
90.00	227	186.00	390848	283.00	8058	382.00	88
91.00	20144	187.00	115736	284.00	6096	383.00	11296
92.00	22872	188.00	12489	285.00	13310	384.00	3498
93.00	159616	189.00	26224	286.00	2664	385.00	1140
94.00	9906	190.00	3820	287.00	301	386.00	187

95.00	2189	191.00	11505	288.00	1049	388.00	81
96.00	5767	192.00	34688	289.00	3146	389.00	105
97.00	2485	193.00	41016	290.00	2684	390.00	4929
98.00	117552	194.00	9131	291.00	1791	391.00	3340
99.00	90792	195.00	3653	292.00	3510	392.00	2390
100.00	7885	196.00	74504	293.00	16520	393.00	475
101.00	52896	198.00	2863616	294.00	4295	395.00	216
102.00	3052	199.00	190976	295.00	4987	396.00	208
103.00	16416	200.00	14335	296.00	267904	397.00	274
104.00	30568	201.00	9948	297.00	37320	398.00	254
105.00	30136	203.00	20560	298.00	2786	401.00	2284
106.00	9766	204.00	107568	299.00	508	402.00	15386
107.00	410176	205.00	182464	300.00	217	403.00	21456
108.00	62280	206.00	743232	301.00	3180	404.00	8460
109.00	6029	207.00	96144	302.00	4702	405.00	1217
110.00	711808	208.00	26352	303.00	29528	408.00	105
111.00	108280	209.00	9347	304.00	7967	410.00	539
112.00	13160	210.00	10562	305.00	1122	411.00	56
113.00	4333	211.00	27120	306.00	358	415.00	1010
114.00	392	212.00	2578	307.00	530	416.00	312
115.00	1356	213.00	2139	308.00	3845	419.00	166
116.00	22112	214.00	764	309.00	2265	420.00	193
117.00	350208	215.00	8027	310.00	3023	421.00	17744
118.00	25424	216.00	16051	311.00	1030	422.00	15463
119.00	2716	217.00	211072	312.00	626	423.00	129392
120.00	4884	218.00	26304	313.00	2222	424.00	25976
121.00	587	219.00	2900	314.00	12766	425.00	2691
122.00	25416	220.00	3351	315.00	29288	426.00	96
123.00	40488	221.00	123968	316.00	15518	427.00	197
124.00	17936	222.00	24608	317.00	2892	429.00	55
125.00	15919	223.00	46856	318.00	260	437.00	78
127.00	1391616	224.00	432000	319.00	629	438.00	106
128.00	102568	225.00	107056	320.00	924	439.00	148
129.00	561152	226.00	10788	321.00	8267	440.00	550
130.00	46696	227.00	195904	322.00	3948	441.00	321664
131.00	8637	228.00	27456	323.00	81096	442.00	2293248
132.00	4190	229.00	39984	324.00	14693	443.00	438016
133.00	1654	230.00	5777	325.00	1371	444.00	39248
134.00	15899	231.00	15009	326.00	1762	445.00	2356
135.00	44024	232.00	3043	327.00	15694	446.00	82
136.00	18272	233.00	3542	328.00	7475	489.00	54
137.00	22936	234.00	12458	329.00	1733		
138.00	5085	235.00	13429	330.00	352		
139.00	2552	236.00	8601	331.00	463		

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

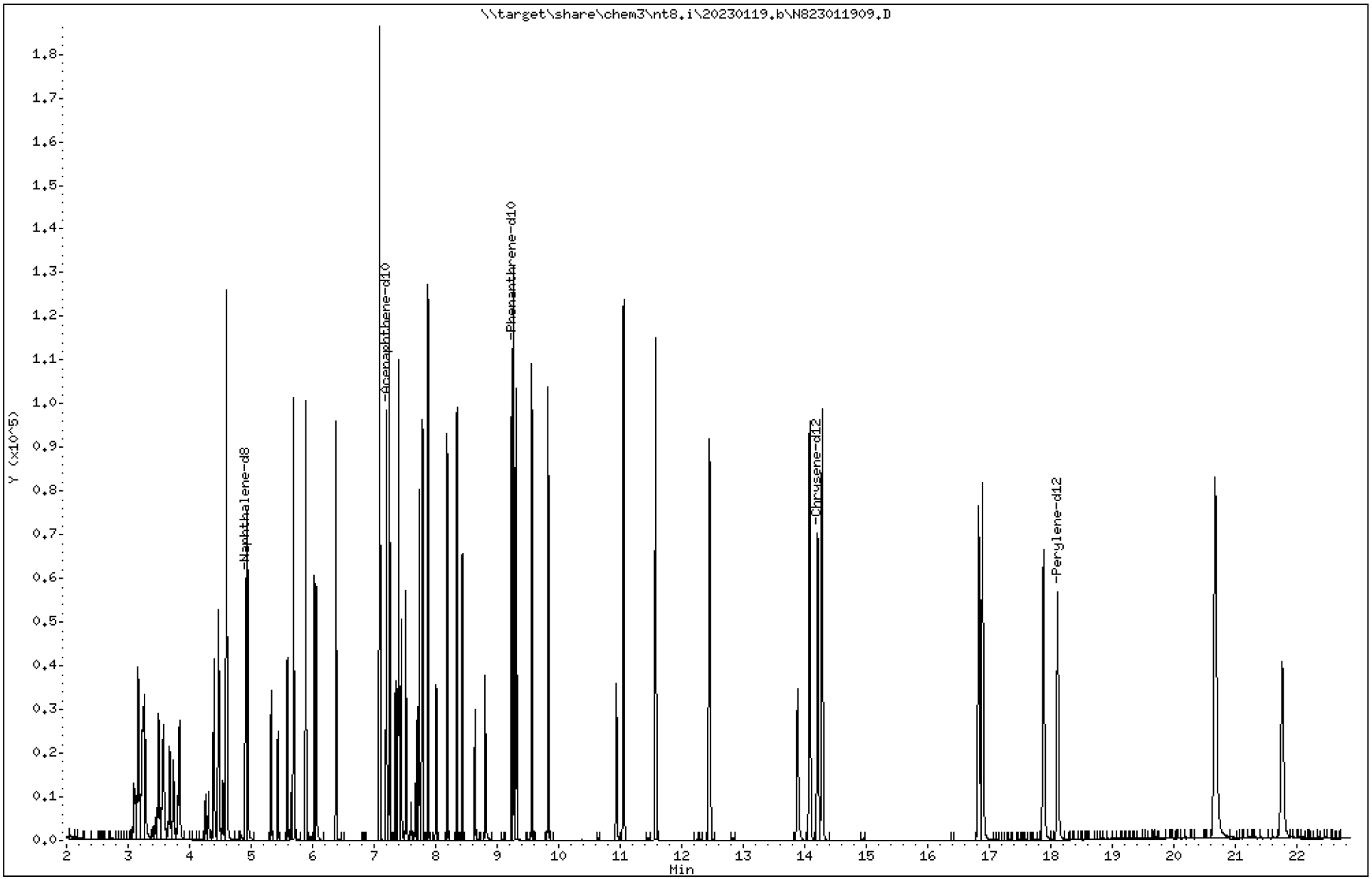
Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GA00050
Laboratory ID: SLA0213-SCV1
Sequence: SLA0213
Sequence Name: 8270 SIM PNA SCV
Standard ID: L000686

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Naphthalene	2.5000	2.63	5.0	
2-Methylnaphthalene	2.5000	2.67	6.8	
1-Methylnaphthalene	2.5000	2.65	6.0	
Acenaphthylene	2.5000	2.82	12.8	
Acenaphthene	2.5000	2.60	4.0	
Dibenzofuran	2.5000	2.86	14.4	
Fluorene	2.5000	2.63	5.2	
Phenanthrene	2.5000	2.45	-2.1	
Anthracene	2.5000	2.27	-9.2	
Fluoranthene	2.5000	2.65	6.1	
Pyrene	2.5000	2.46	-1.5	
Benzo(a)anthracene	2.5000	2.59	3.5	
Chrysene	2.5000	2.40	-4.0	
Benzo(b)fluoranthene	2.5000	2.51	0.3	
Benzo(k)fluoranthene	2.5000	2.66	6.2	
Benzofluoranthenes, Total	5.0000	5.48	9.6	
Benzo(a)pyrene	2.5000	2.57	2.9	
Indeno(1,2,3-cd)pyrene	2.5000	2.69	7.6	
Dibenzo(a,h)anthracene	2.5000	2.49	-0.3	
Benzo(g,h,i)perylene	2.5000	2.48	-0.7	

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D
Date : 19-JAN-2023 14:58
Client ID:
Sample Info: SCV230119
Volume Injected (uL): 1.0
Column phase: Rxi-17sil

Instrument: nt8.i
Operator: JZ
Column diameter: 0.25



Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

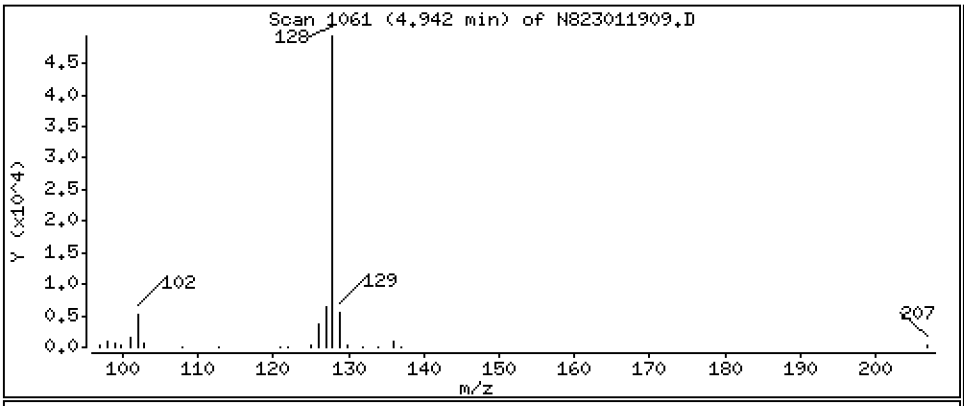
Operator: JZ

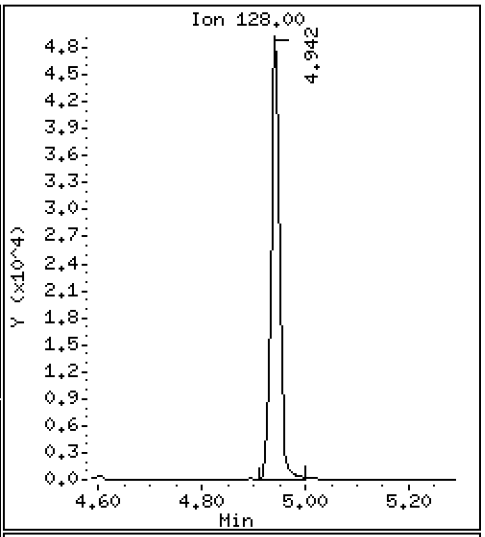
Column phase: Rxi-17sil

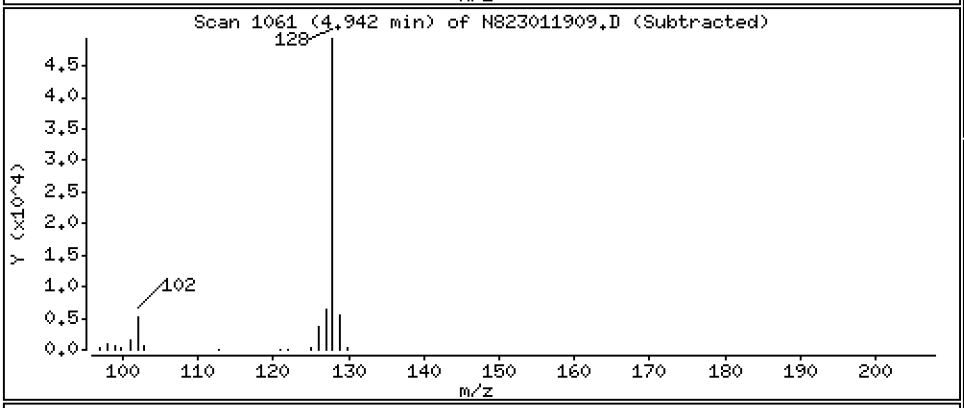
Column diameter: 0.25

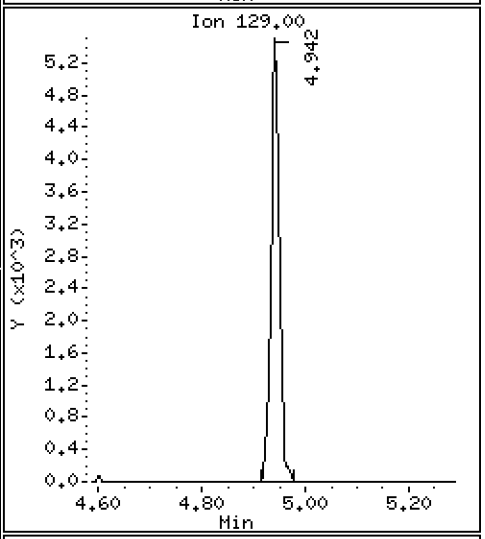
2 Naphthalene

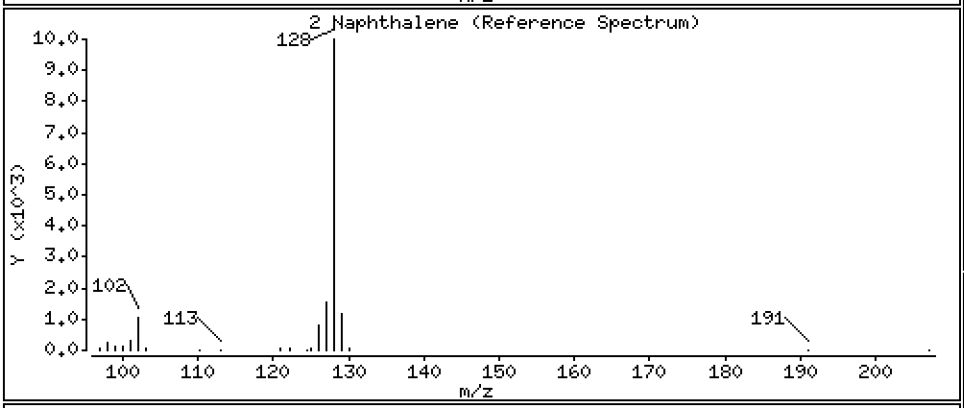
Concentration: 2.626 ug/L

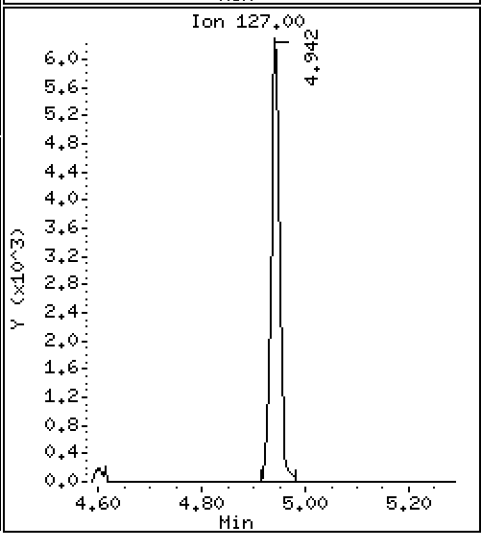


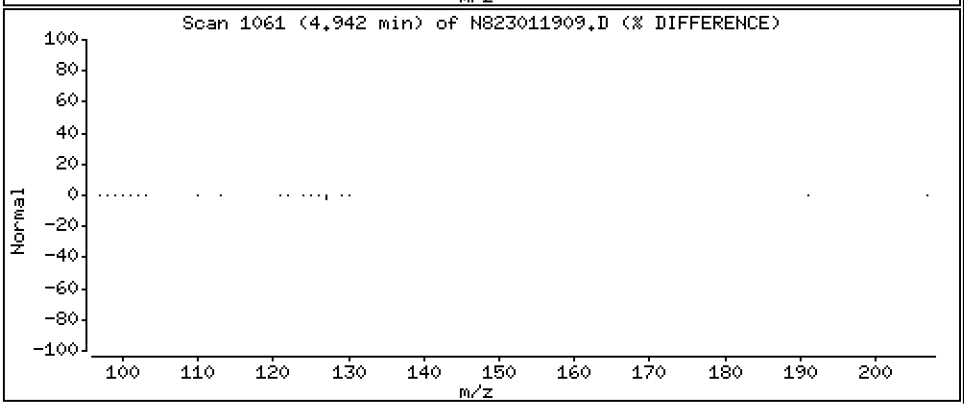












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

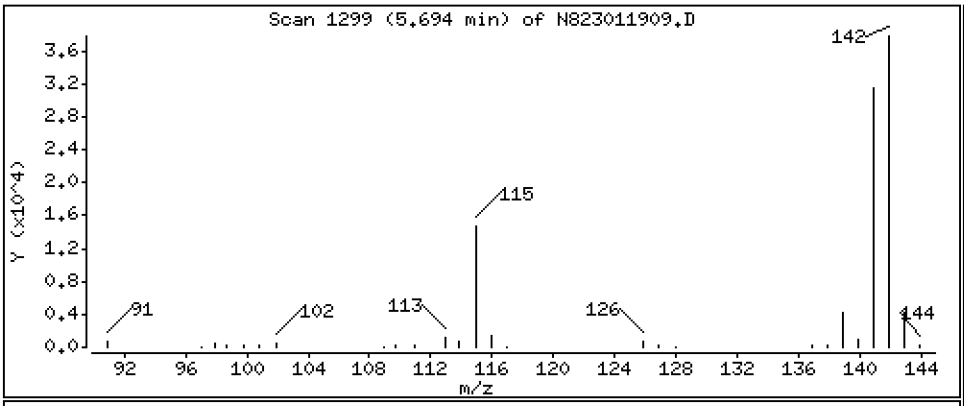
Operator: JZ

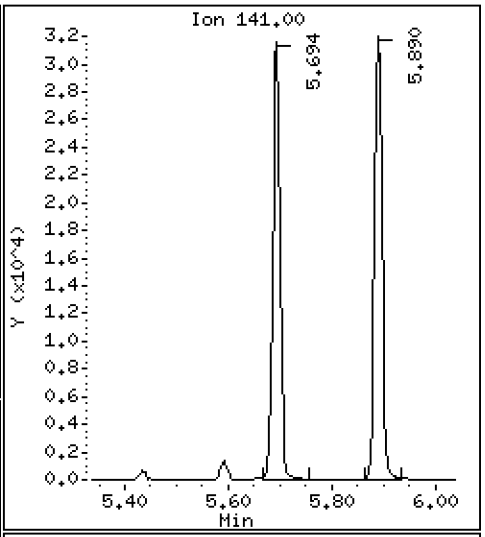
Column phase: Rxi-17sil

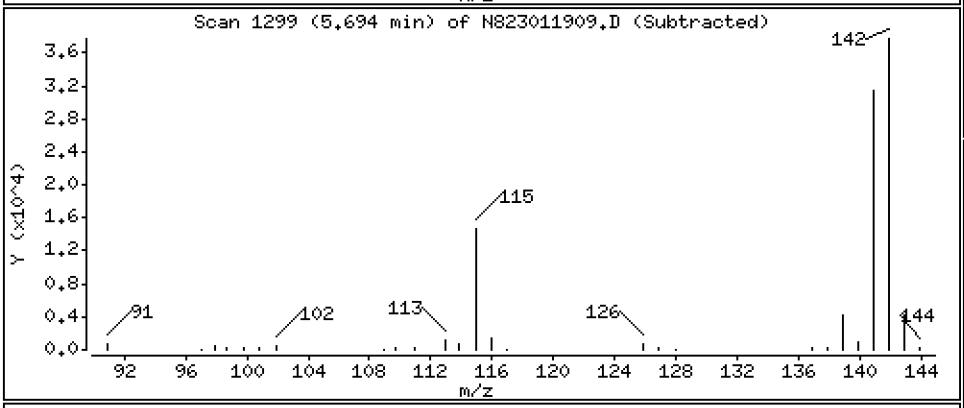
Column diameter: 0.25

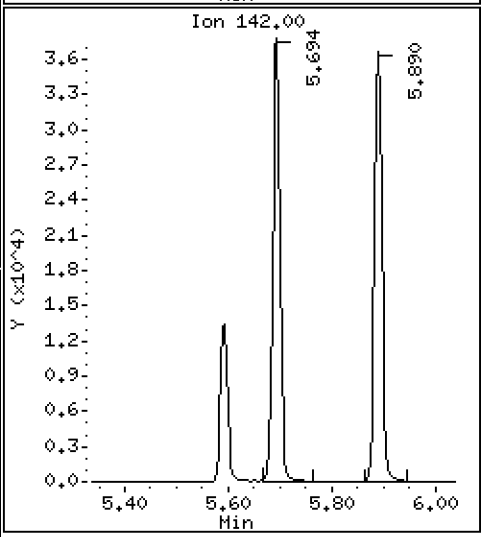
4 2-Methylnaphthalene

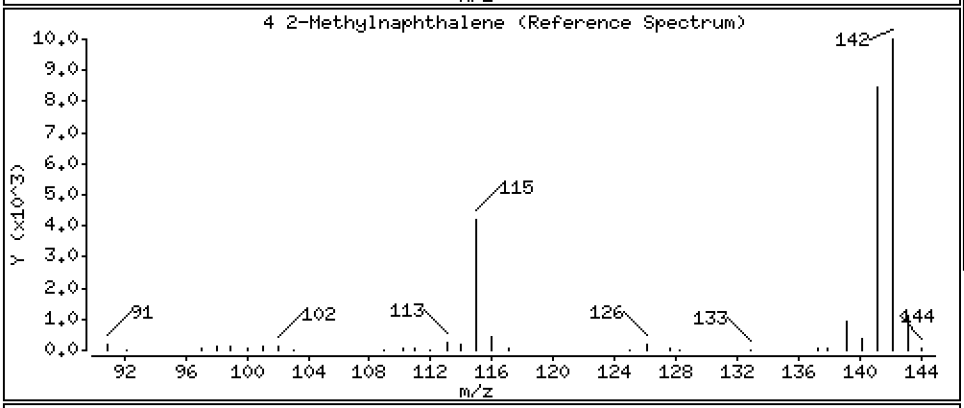
Concentration: 2.670 ug/L

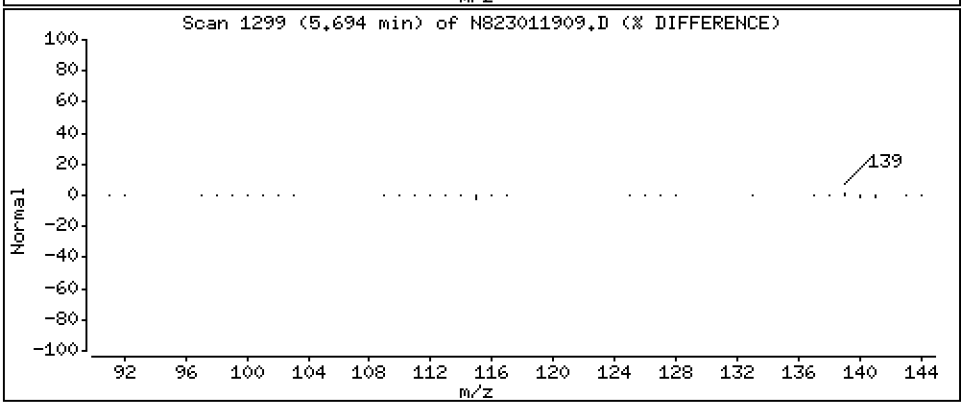












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

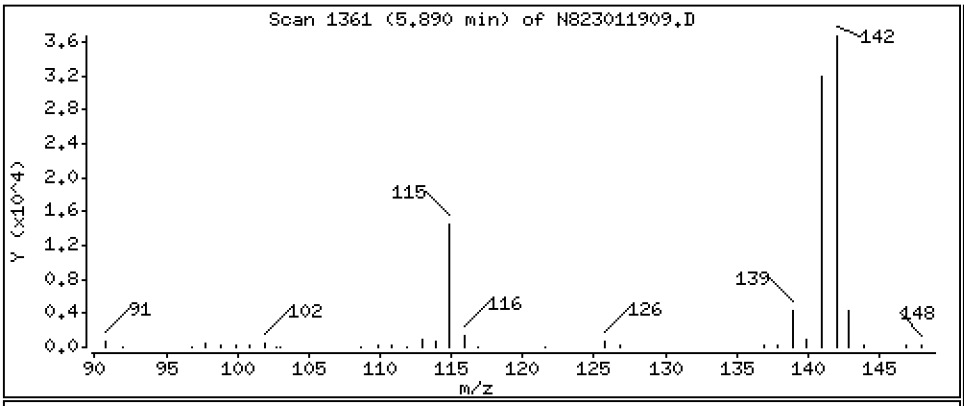
Operator: JZ

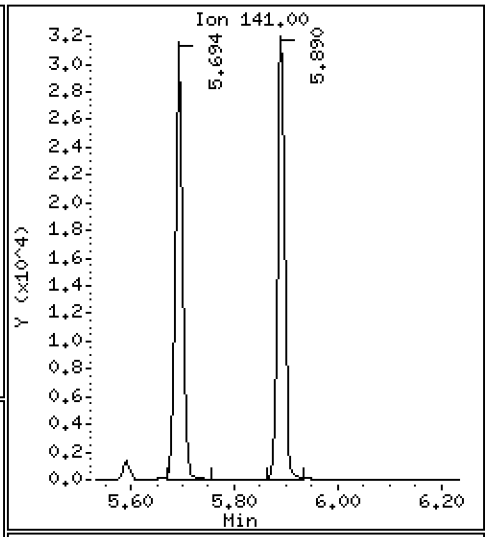
Column phase: Rxi-17sil

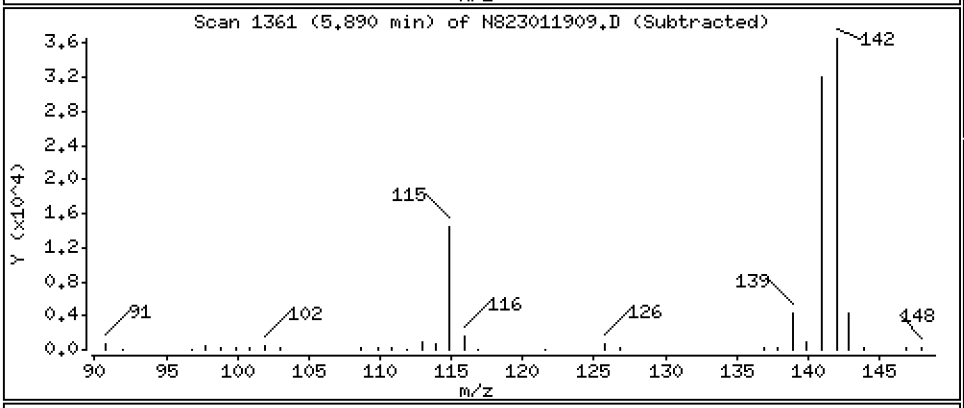
Column diameter: 0.25

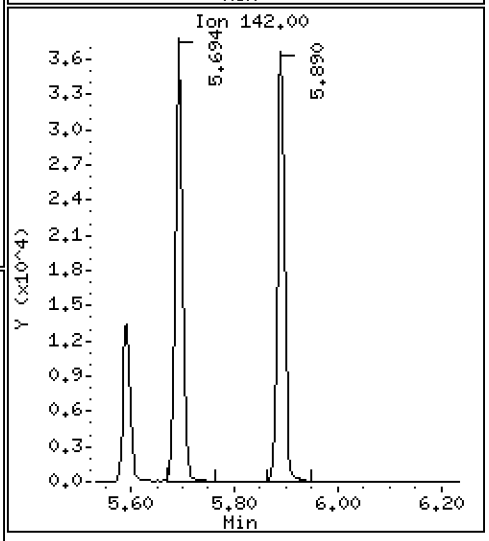
5 1-methylnaphthalene

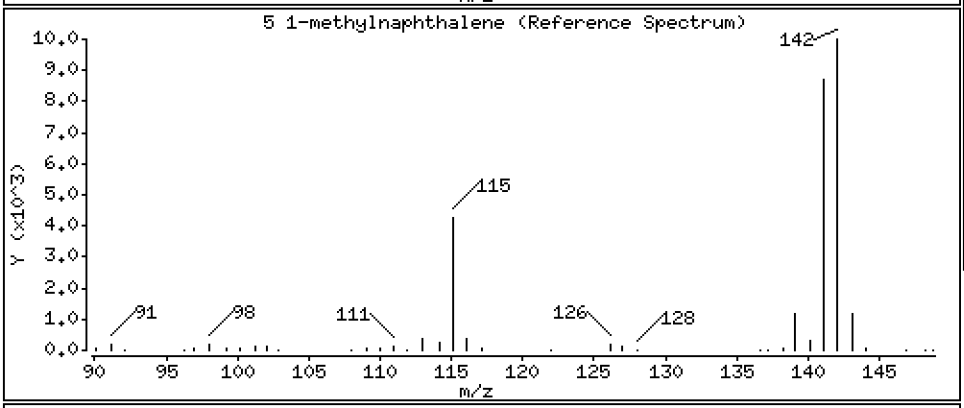
Concentration: 2.649 ug/L

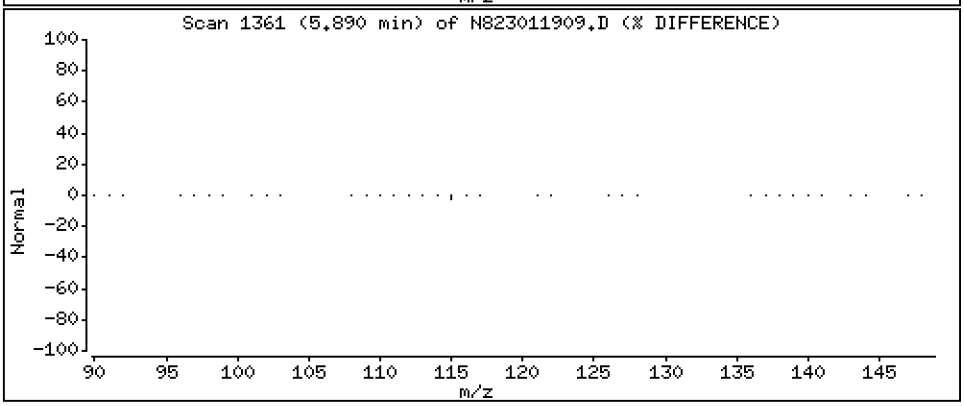












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

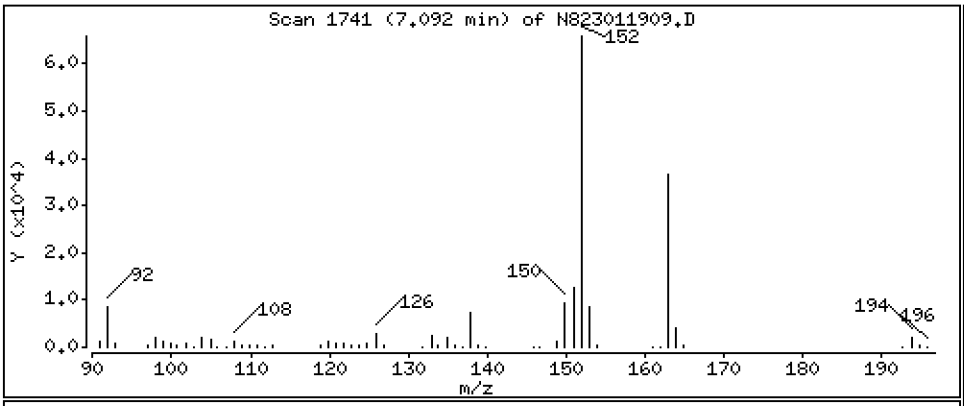
Operator: JZ

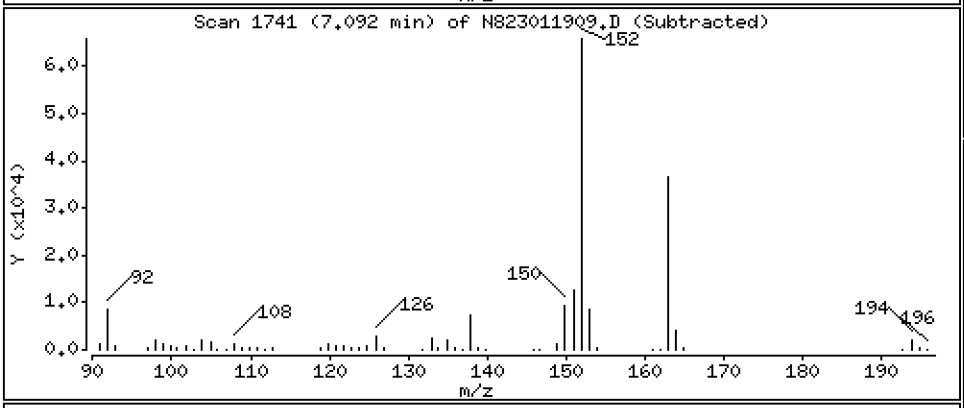
Column phase: Rxi-17sil

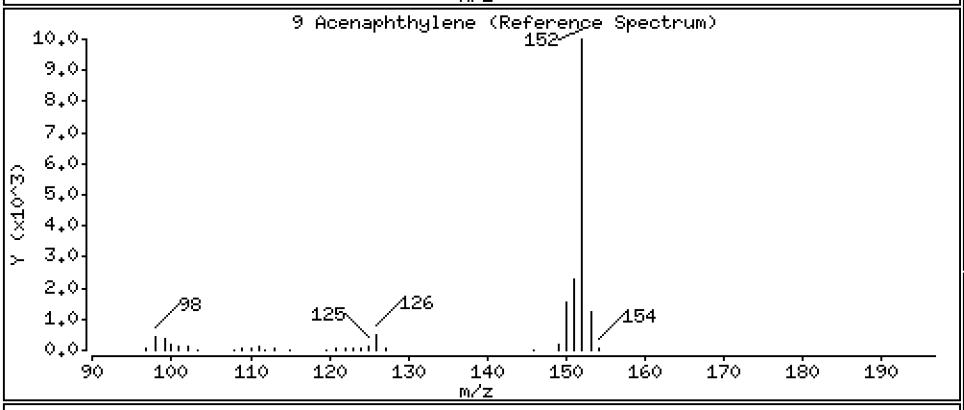
Column diameter: 0.25

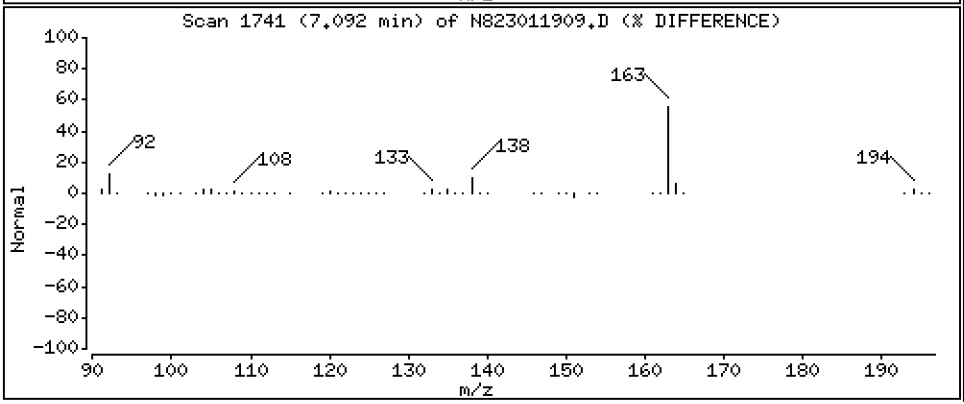
9 Acenaphthylene

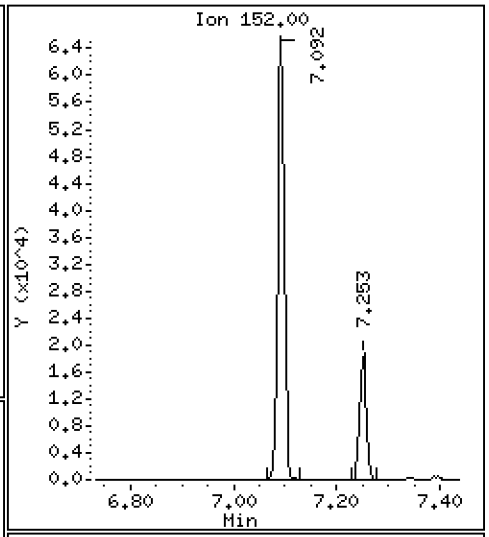
Concentration: 2.821 ug/L

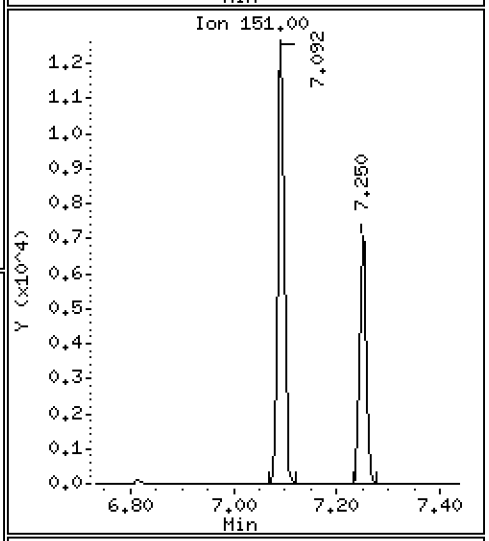


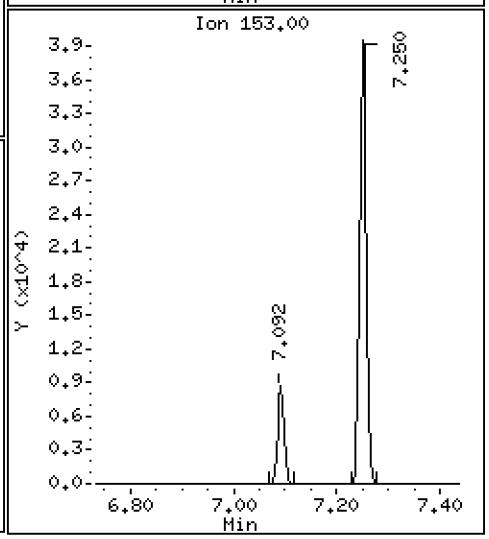












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

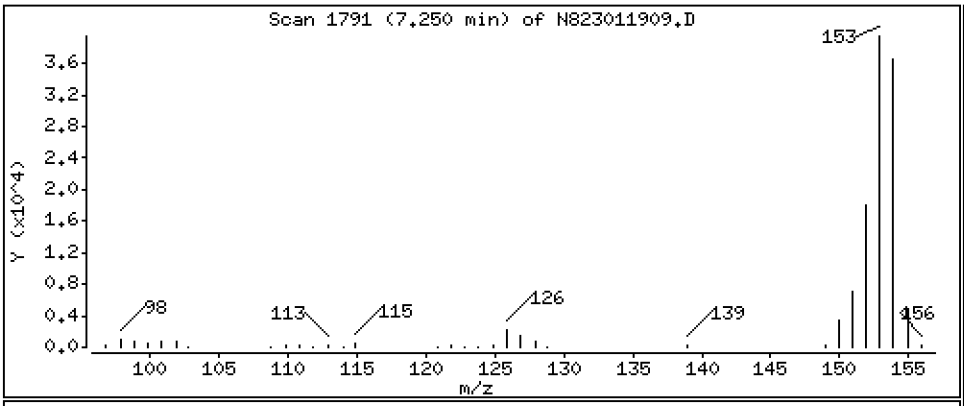
Operator: JZ

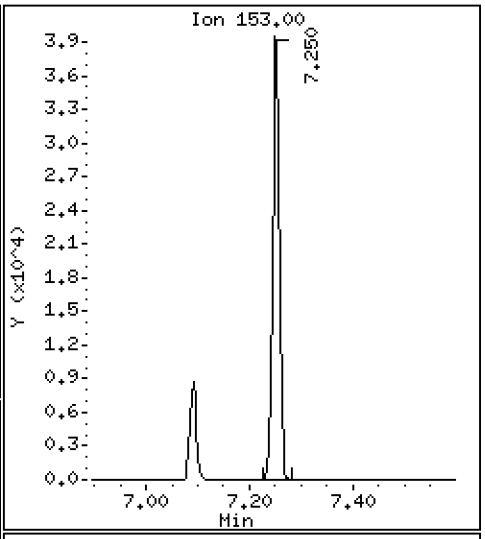
Column phase: Rxi-17sil

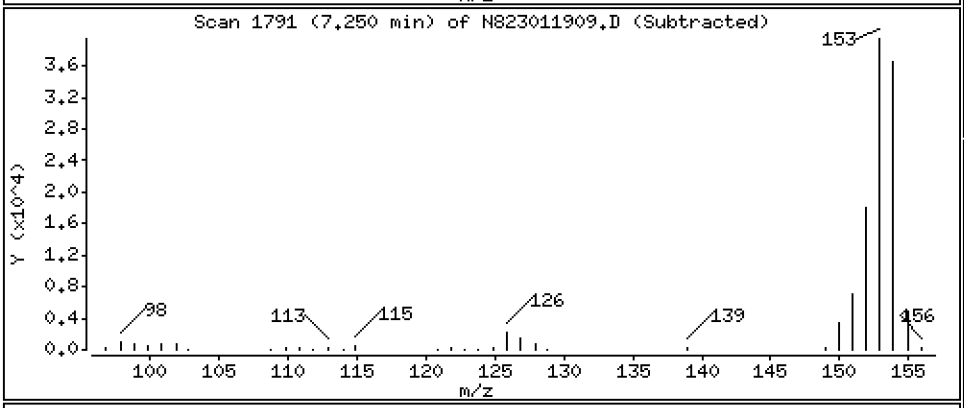
Column diameter: 0.25

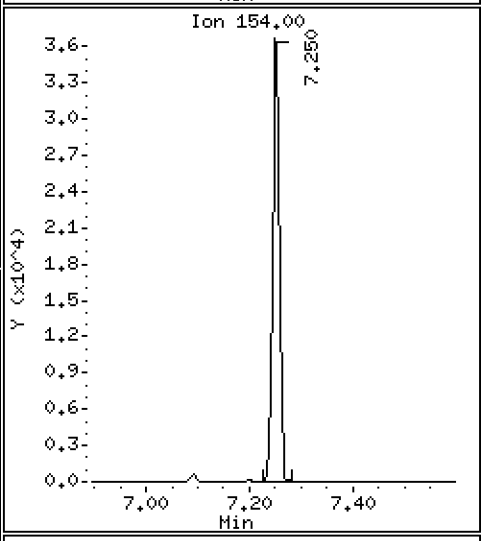
11 Acenaphthene

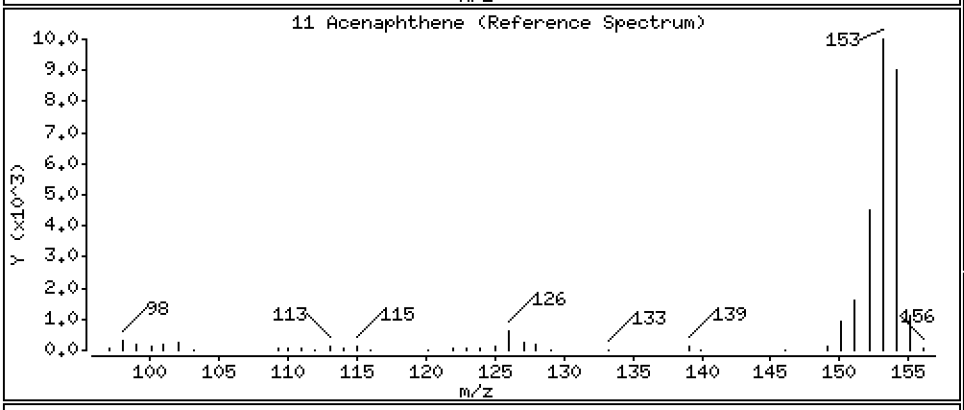
Concentration: 2.600 ug/L

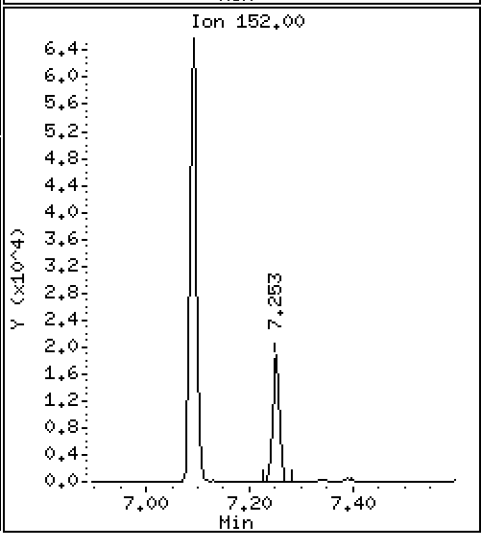


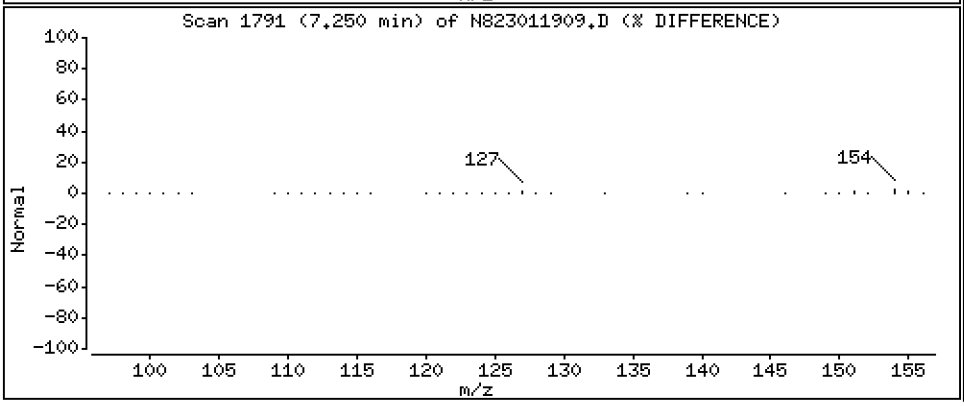












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

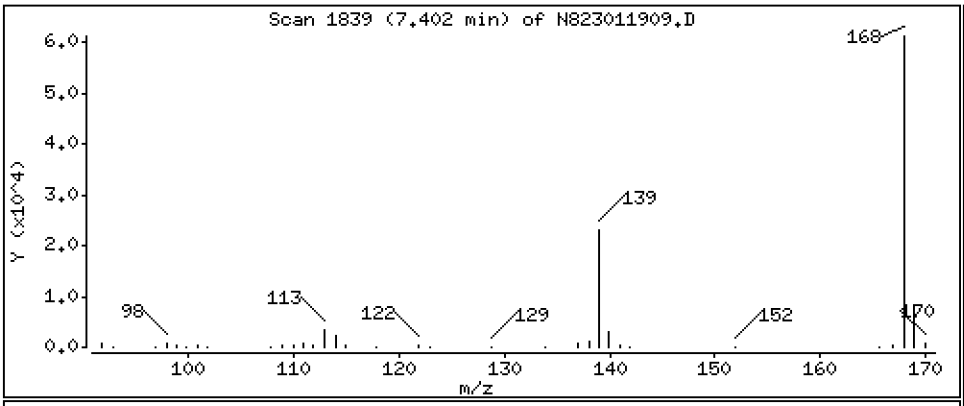
Operator: JZ

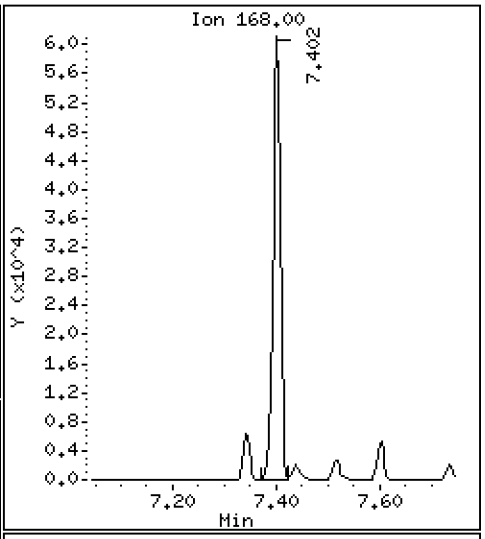
Column phase: Rxi-17sil

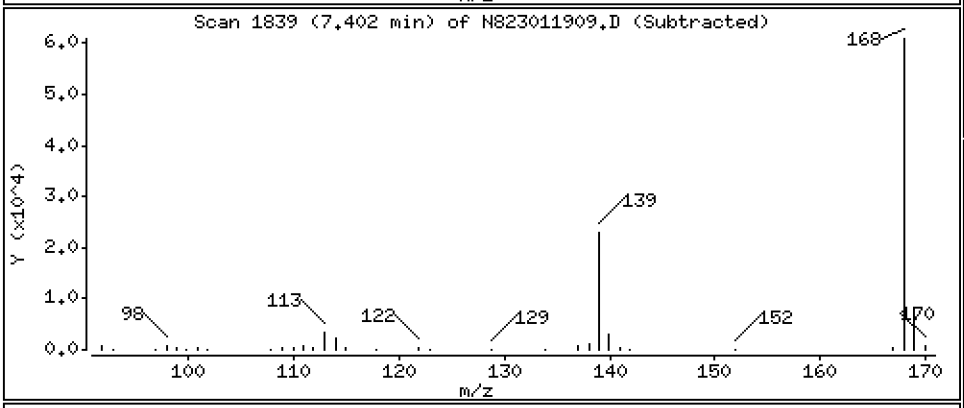
Column diameter: 0.25

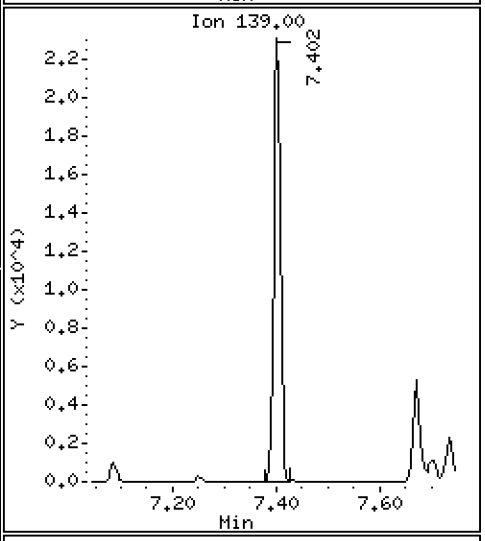
12 Dibenzofuran

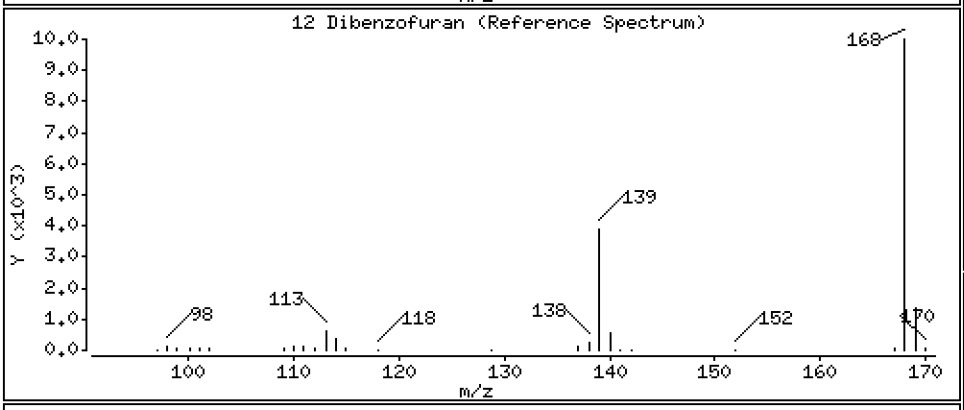
Concentration: 2.860 ug/L

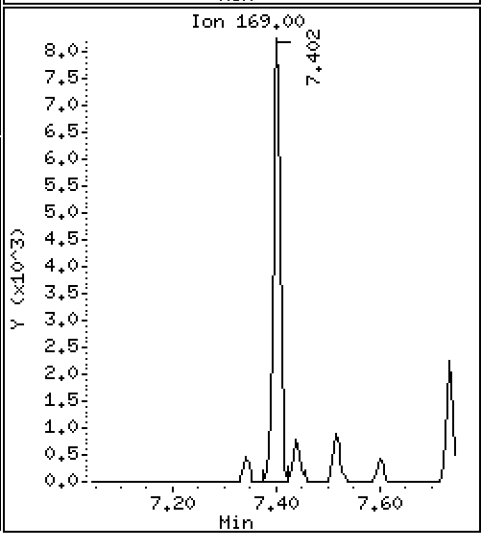


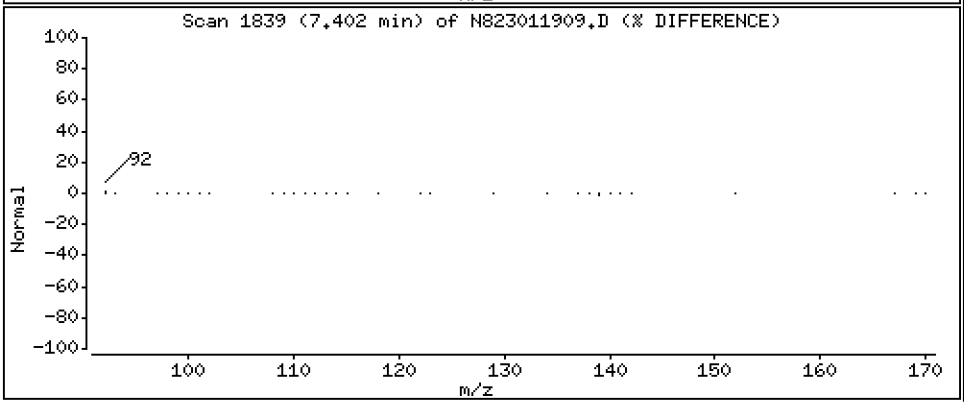












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

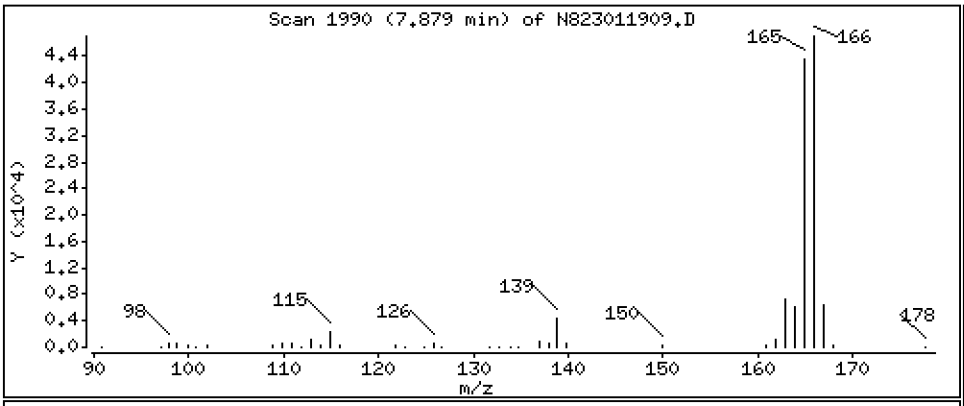
Operator: JZ

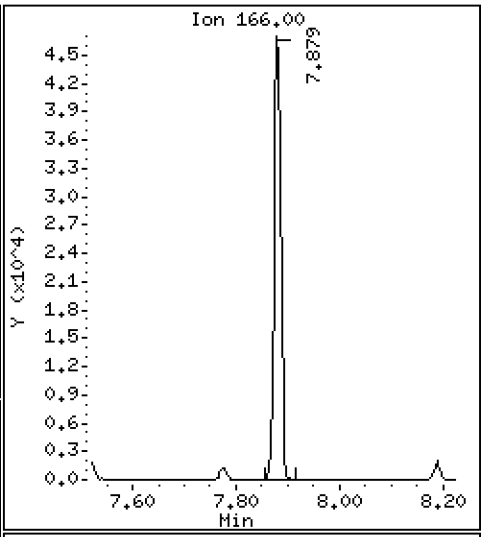
Column phase: Rxi-17sil

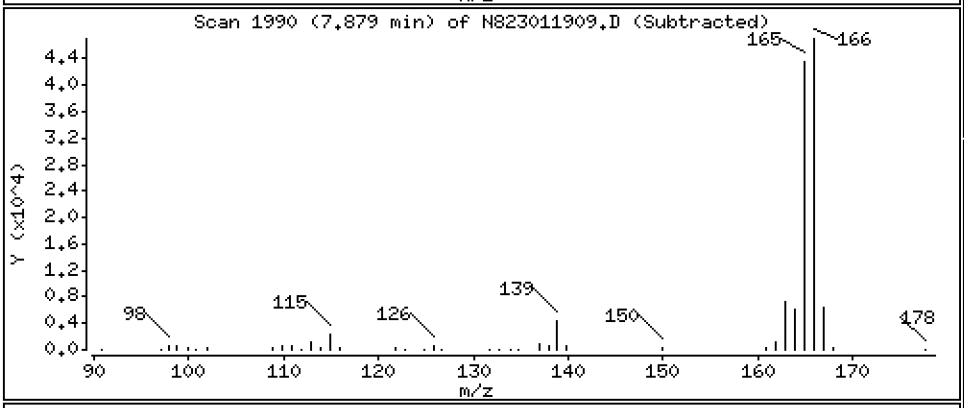
Column diameter: 0.25

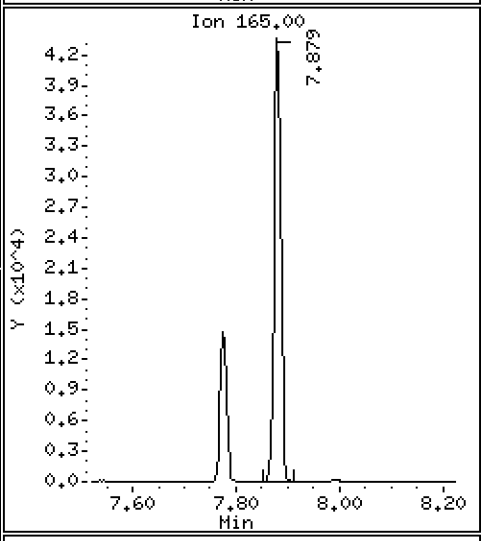
14 Fluorene

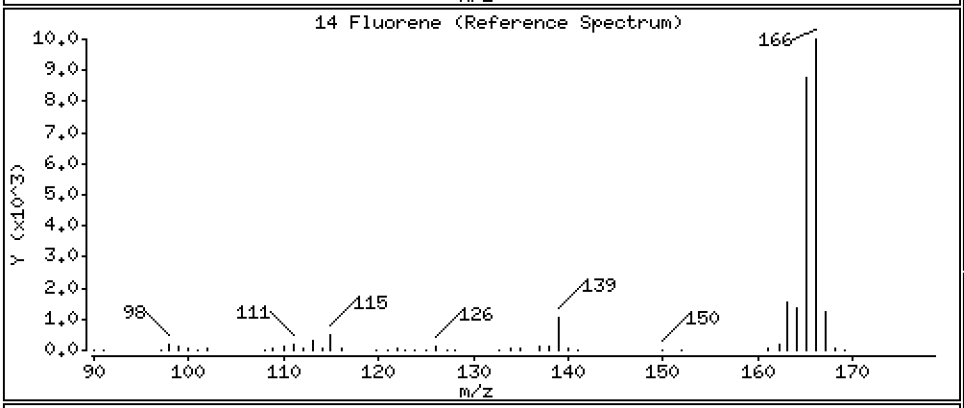
Concentration: 2.631 ug/L

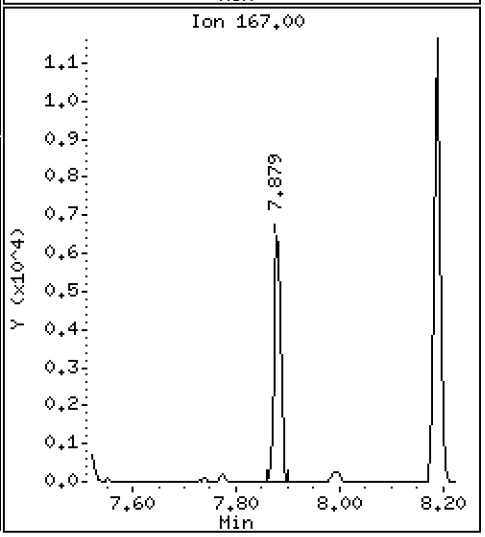


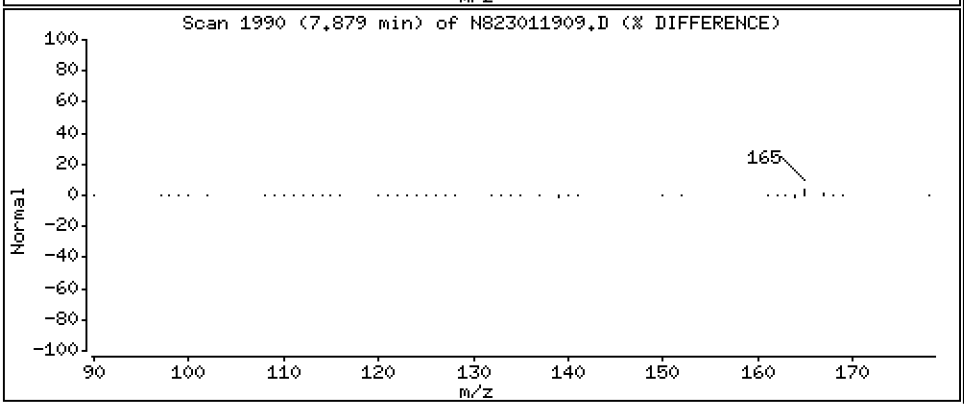












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

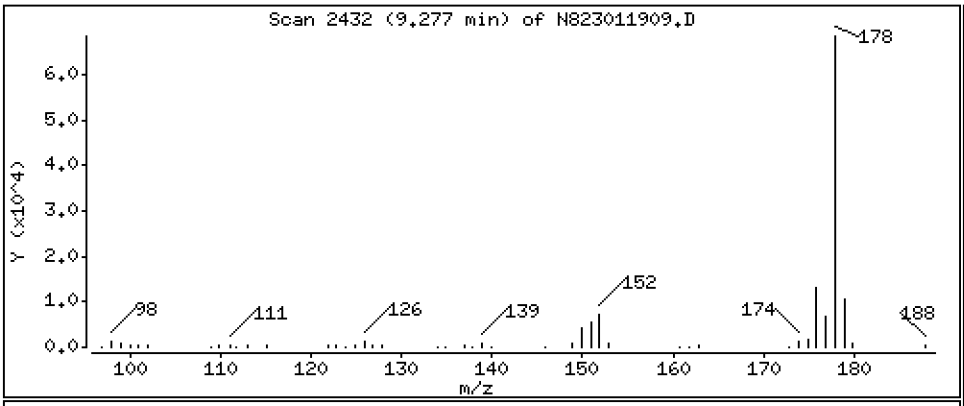
Operator: JZ

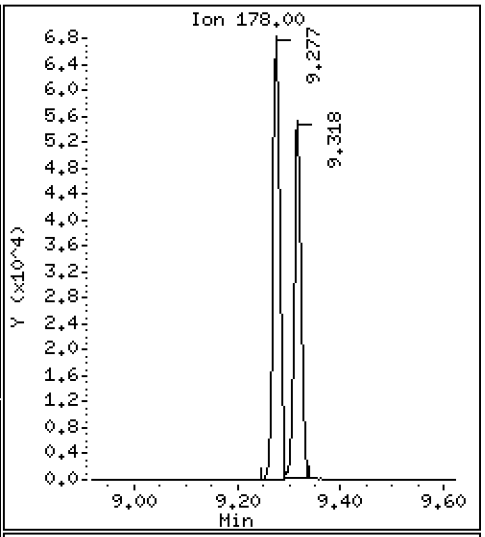
Column phase: Rxi-17sil

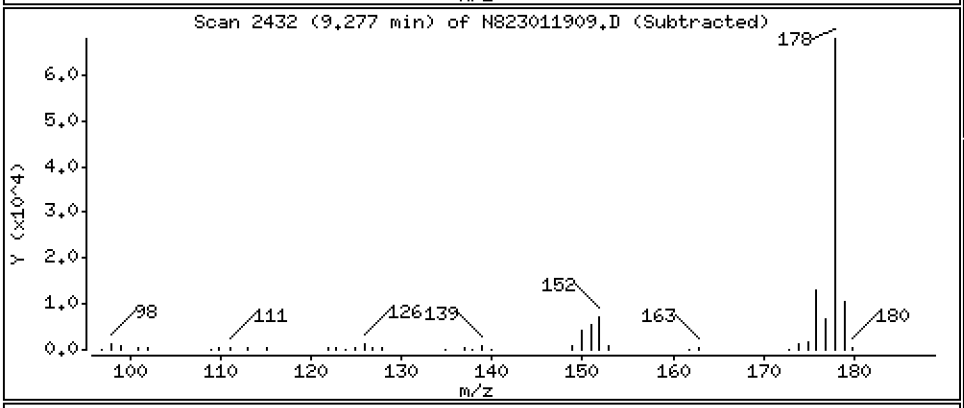
Column diameter: 0.25

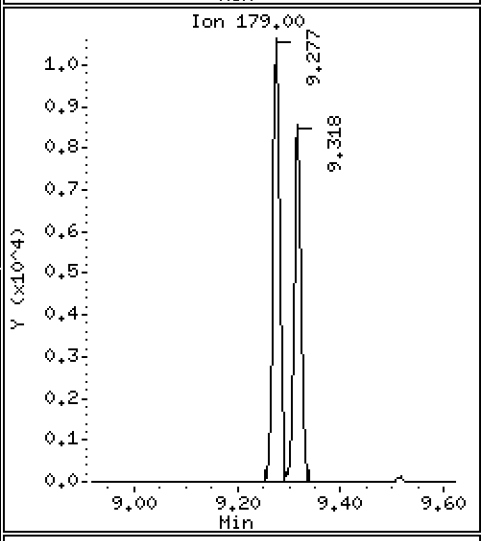
16 Phenanthrene

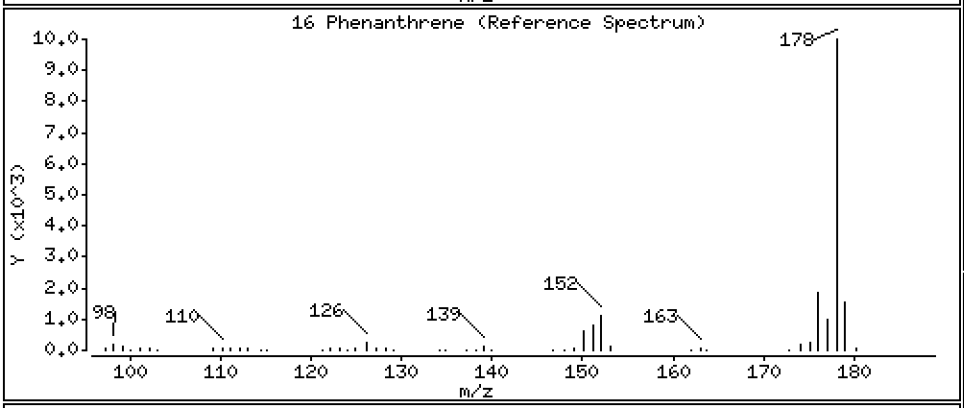
Concentration: 2.448 ug/L

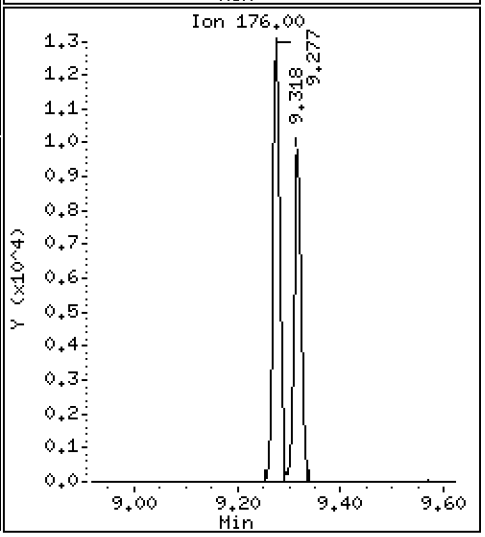


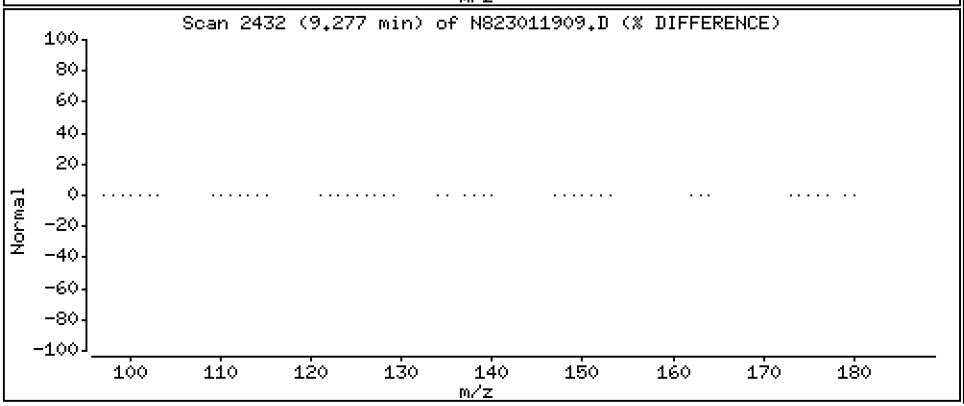












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

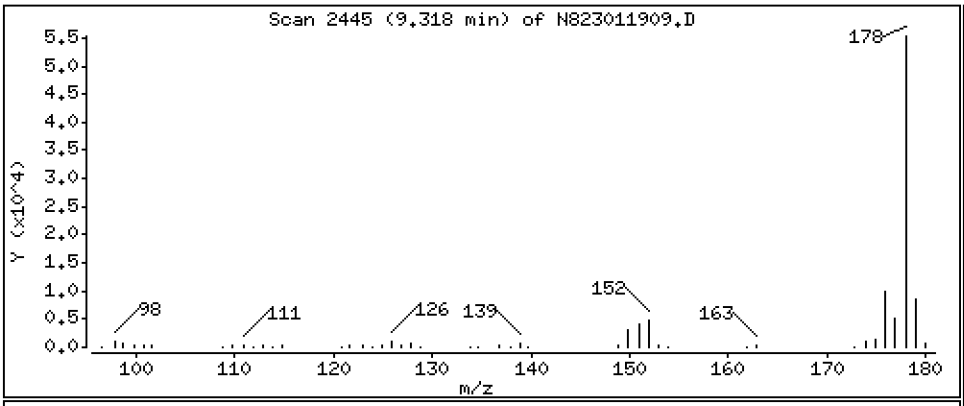
Operator: JZ

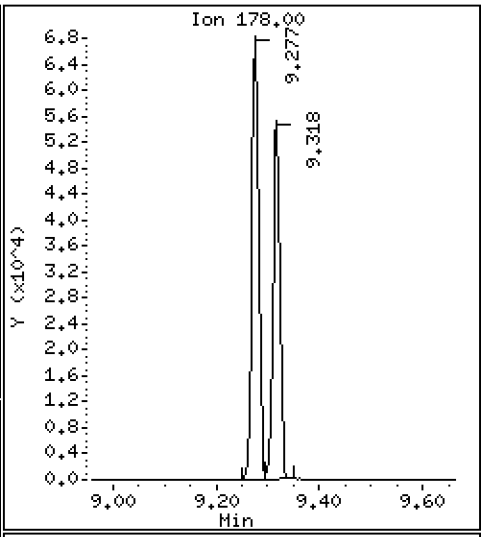
Column phase: Rxi-17sil

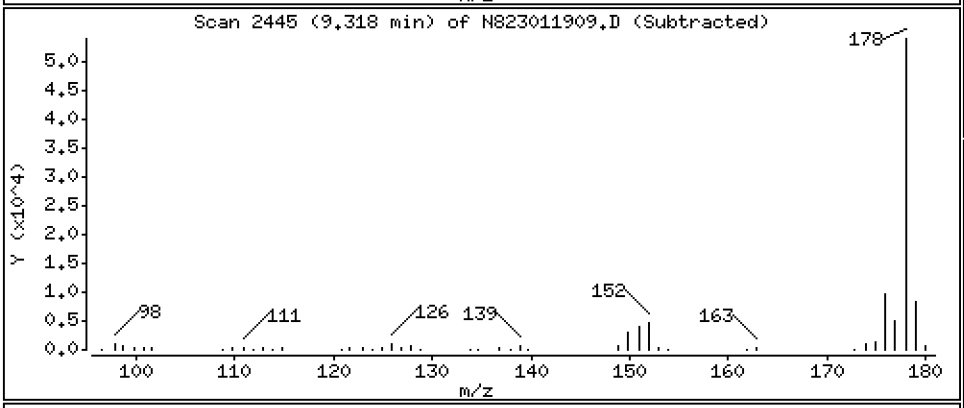
Column diameter: 0.25

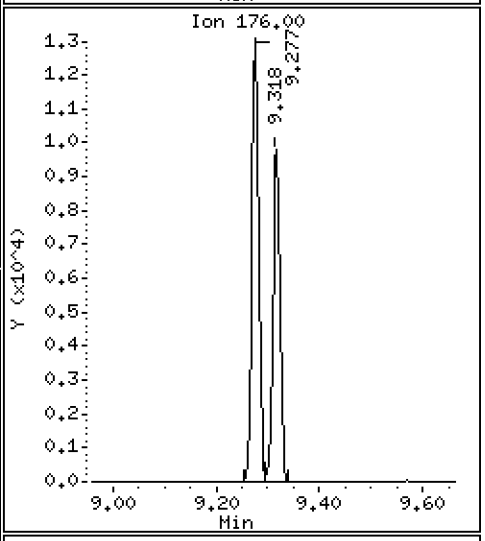
17 Anthracene

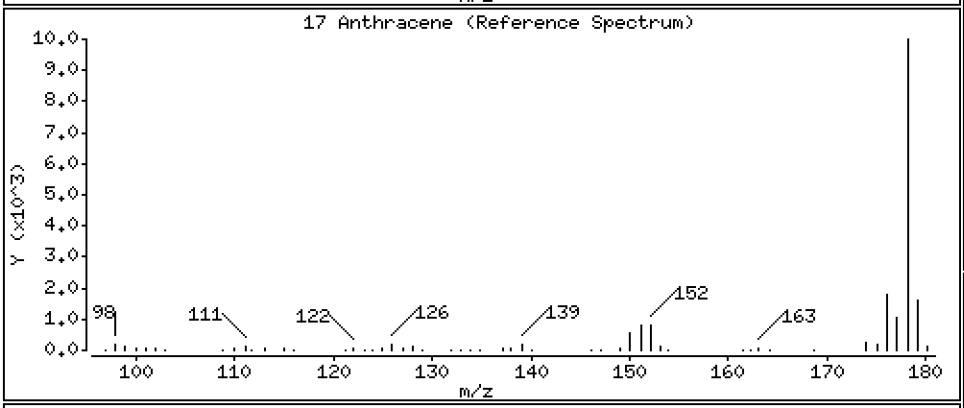
Concentration: 2.270 ug/L

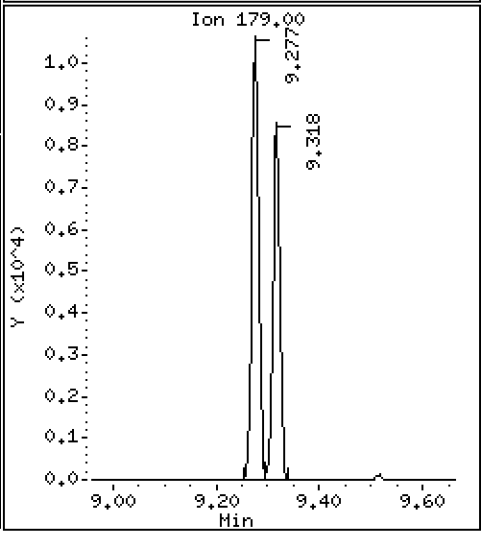


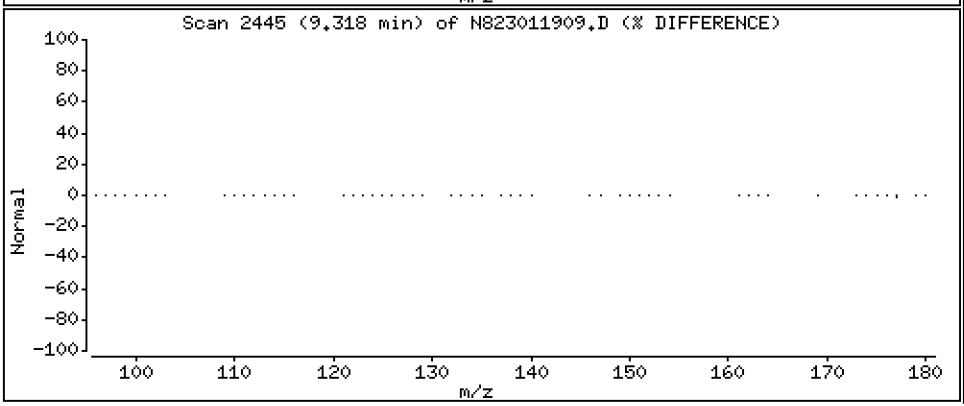












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

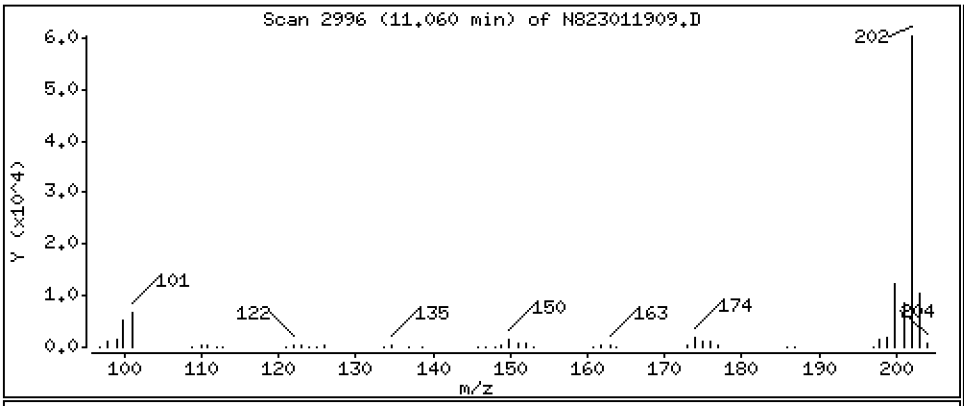
Operator: JZ

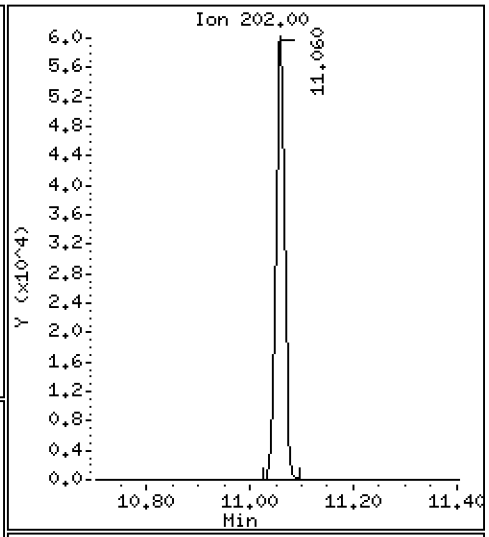
Column phase: Rxi-17sil

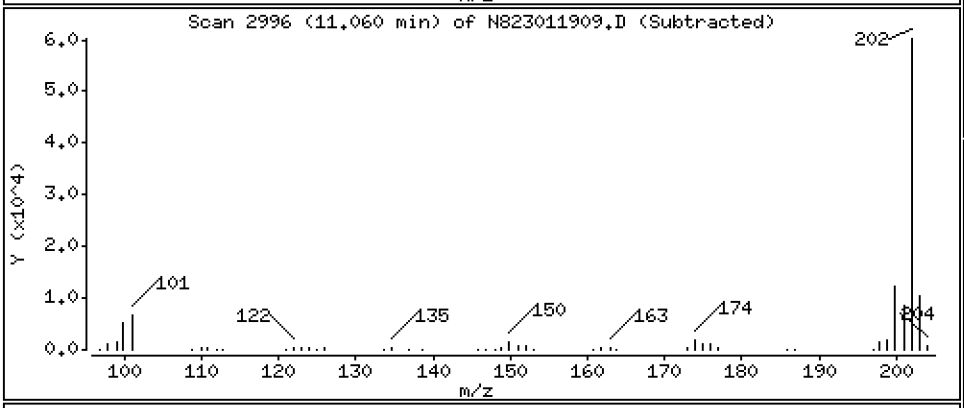
Column diameter: 0.25

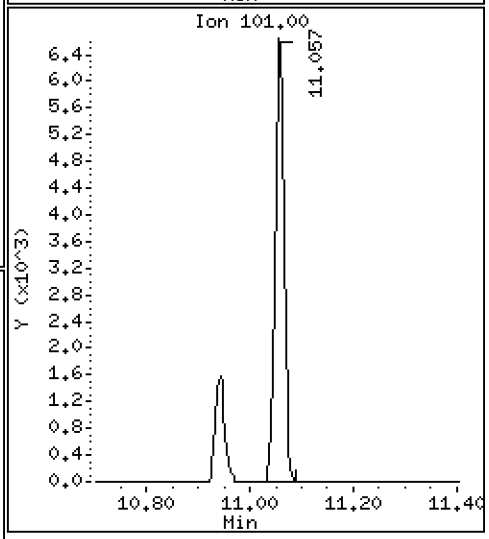
22 Fluoranthene

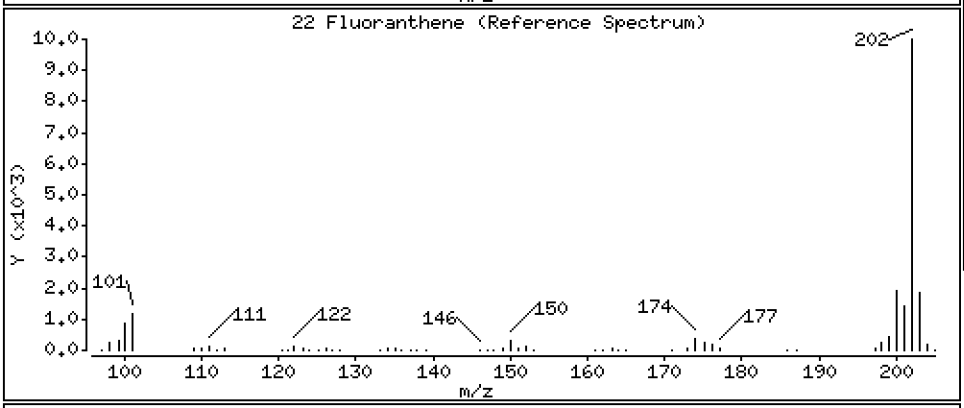
Concentration: 2.653 ug/L

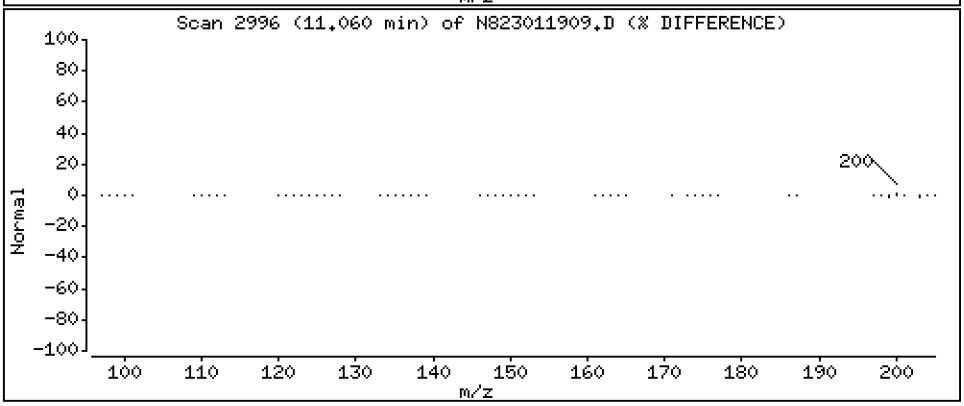












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

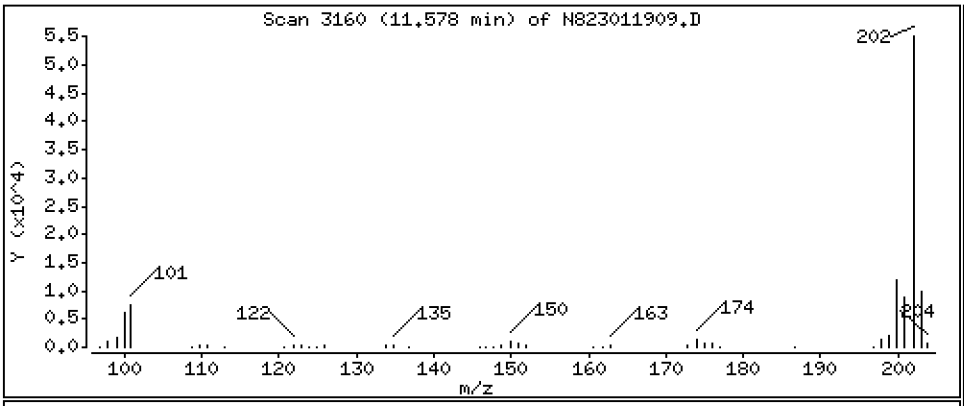
Operator: JZ

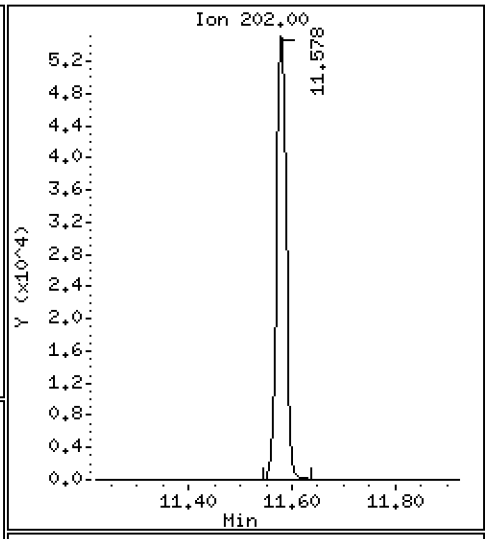
Column phase: Rxi-17sil

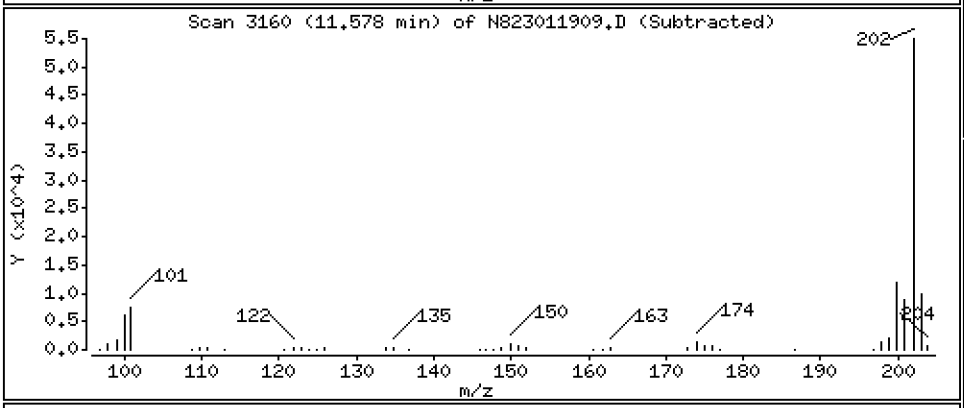
Column diameter: 0.25

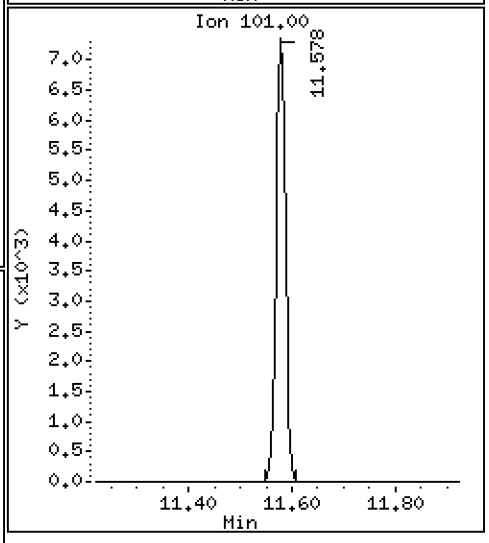
23 Pyrene

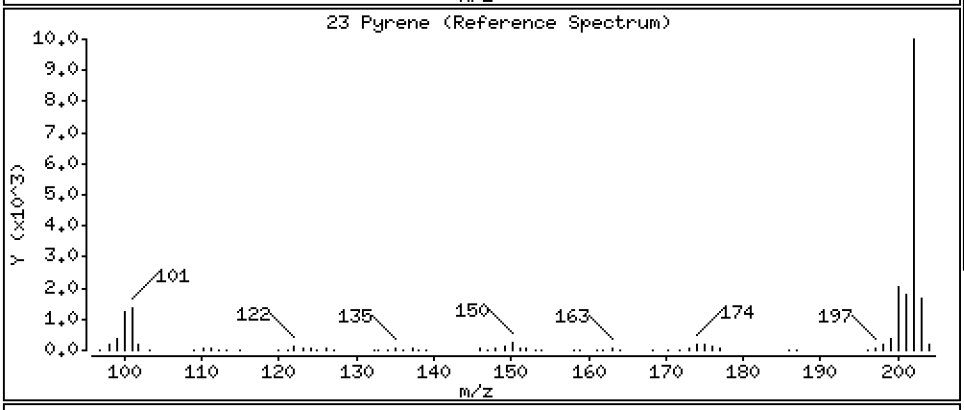
Concentration: 2.462 ug/L

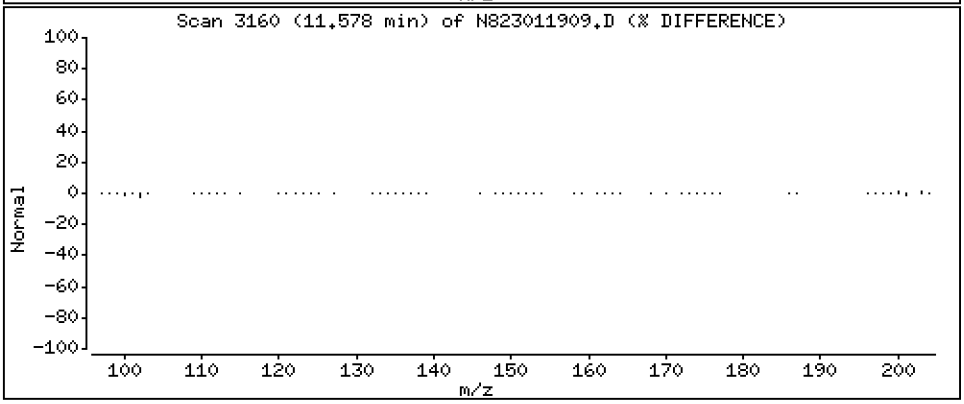












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

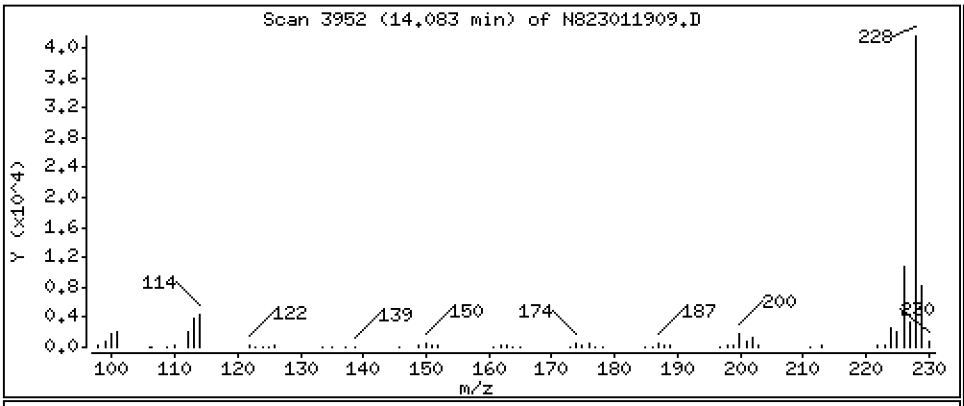
Operator: JZ

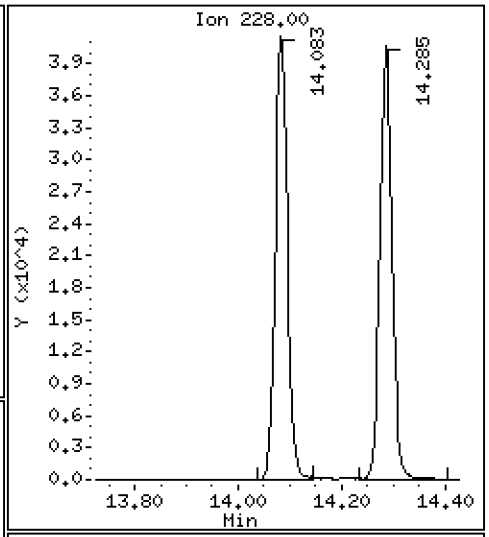
Column phase: Rxi-17sil

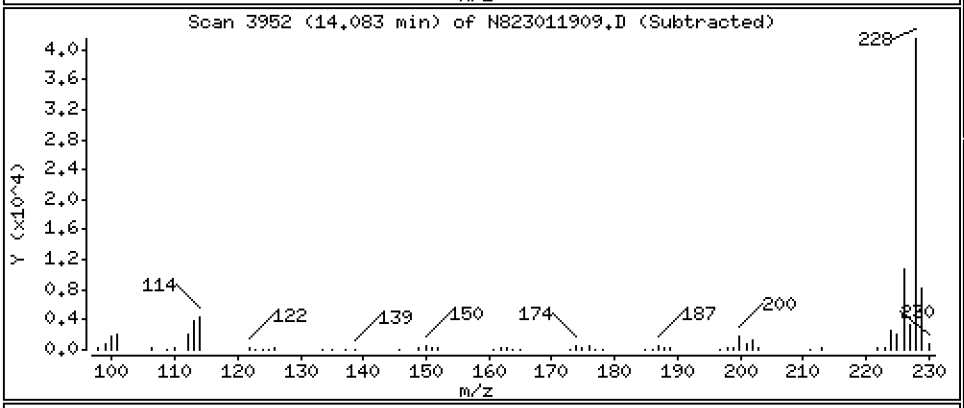
Column diameter: 0.25

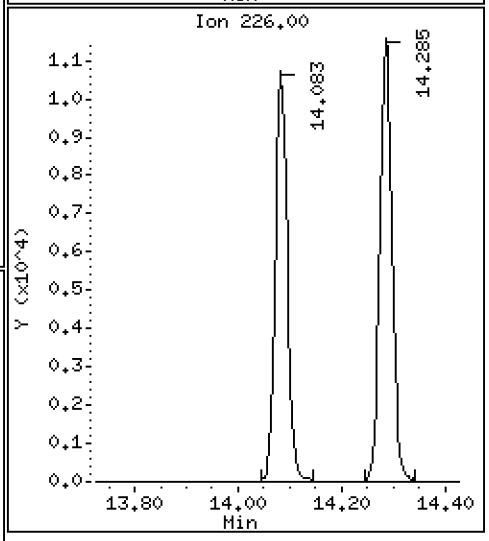
24 Benzo(a)anthracene

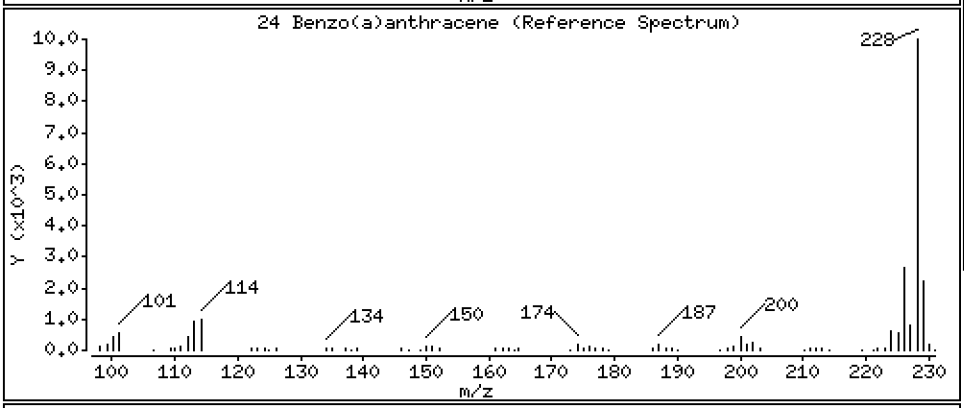
Concentration: 2.587 ug/L

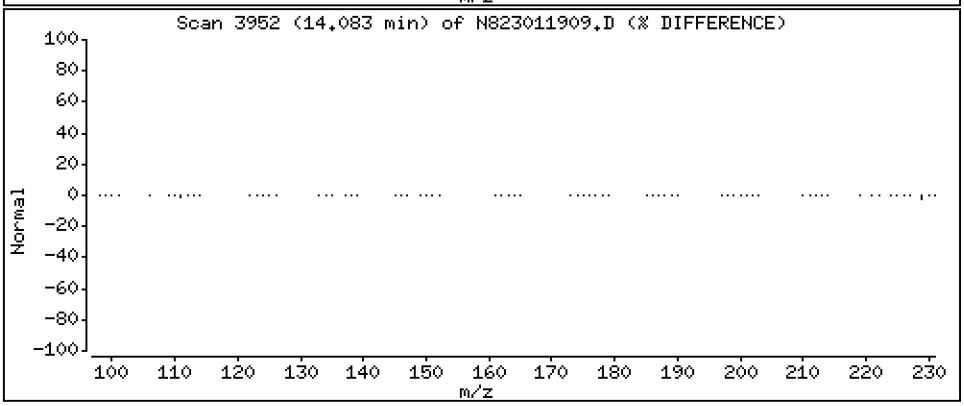












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

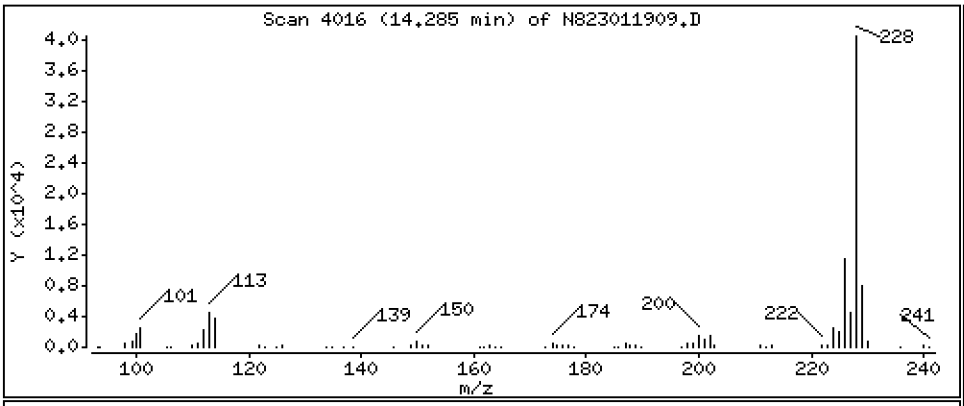
Operator: JZ

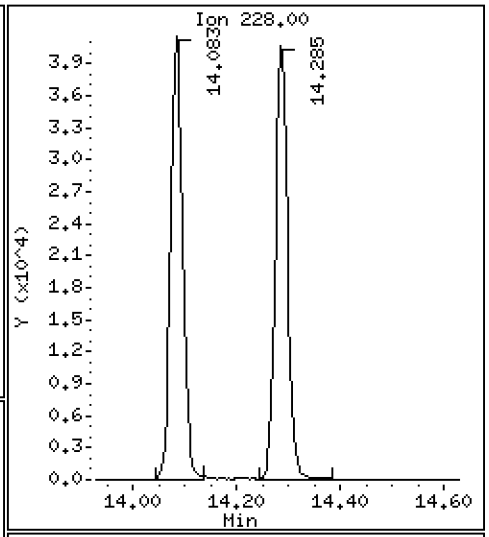
Column phase: Rxi-17sil

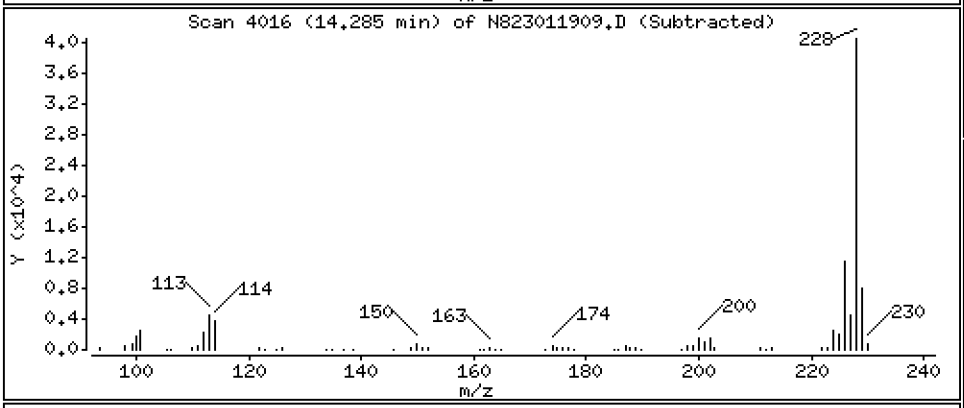
Column diameter: 0.25

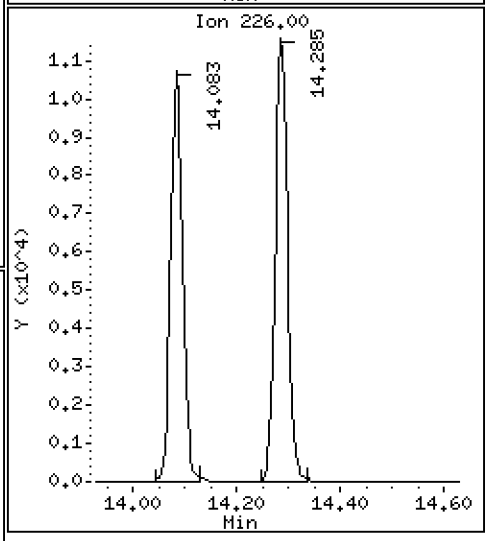
27 Chrysene

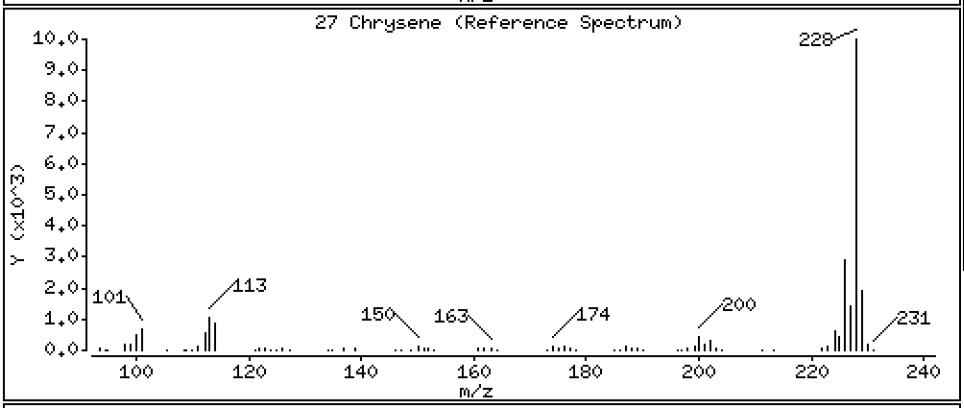
Concentration: 2.400 ug/L

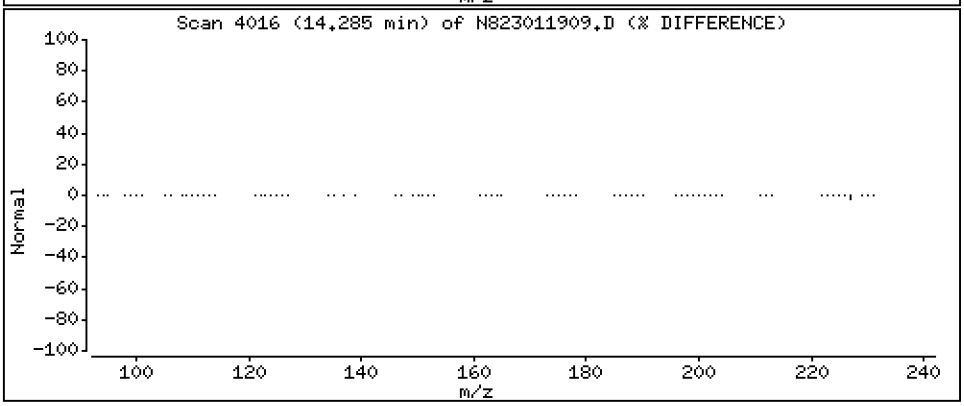












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

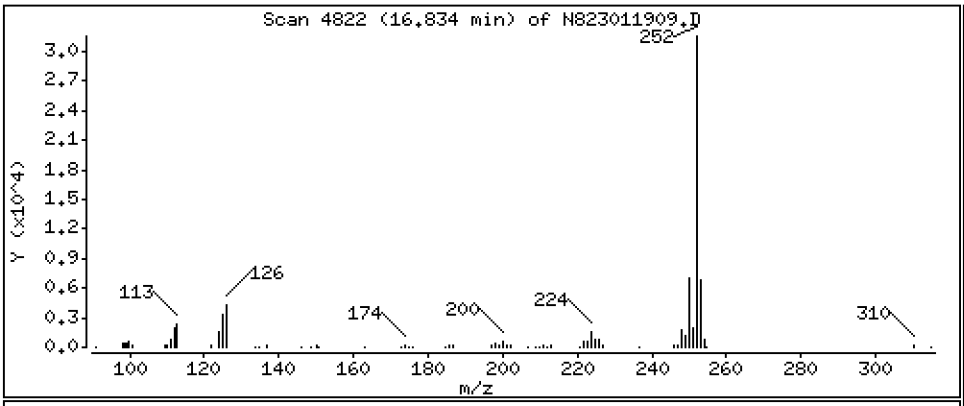
Operator: JZ

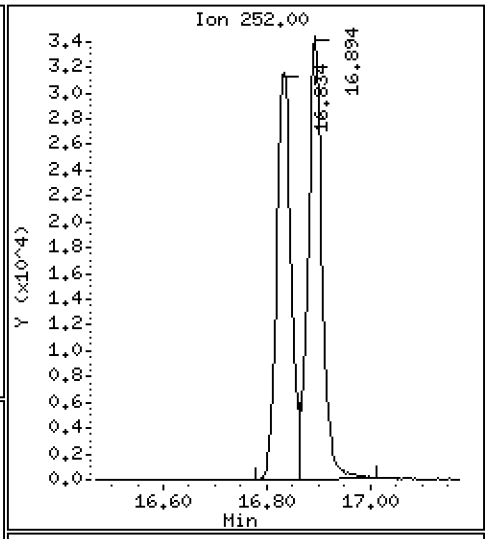
Column phase: Rxi-17sil

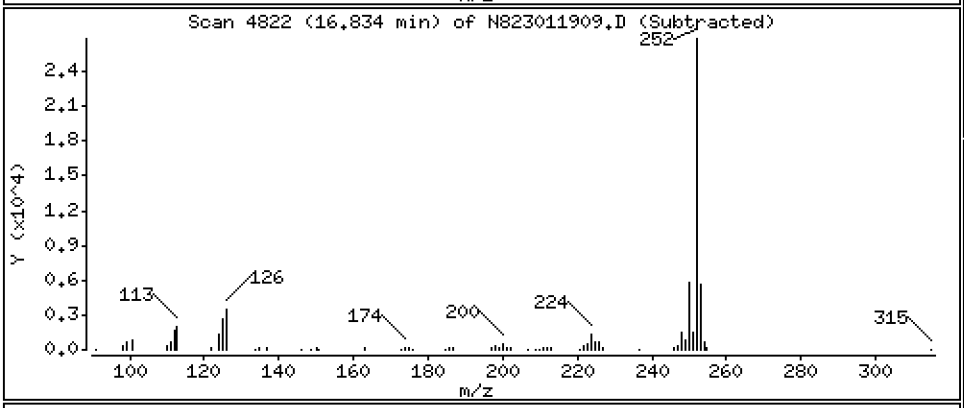
Column diameter: 0.25

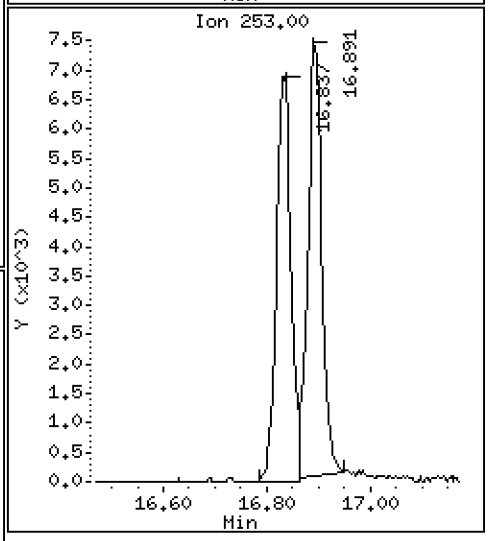
28 Benzo(b)fluoranthene

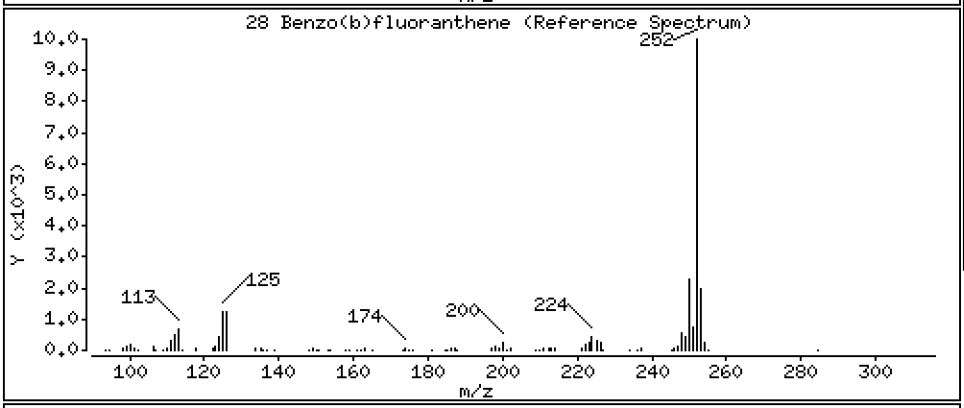
Concentration: 2.507 ug/L

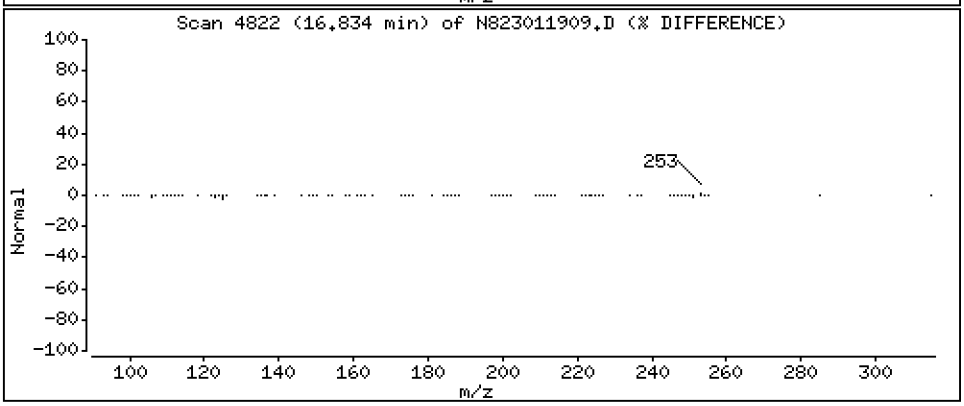












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

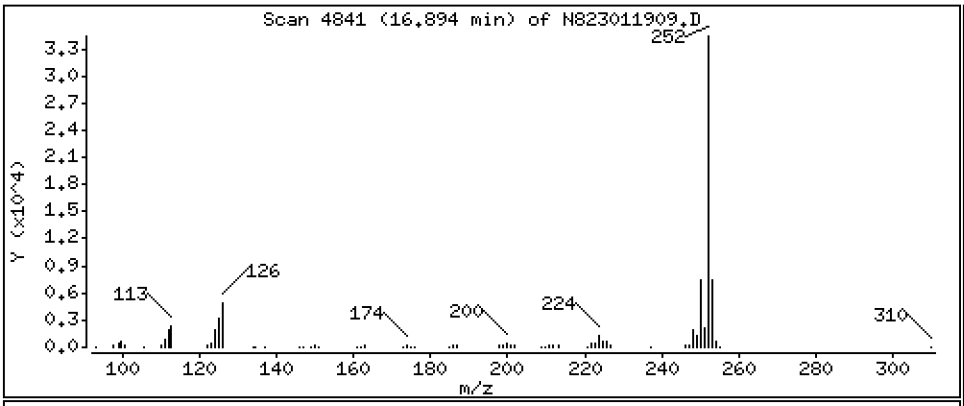
Operator: JZ

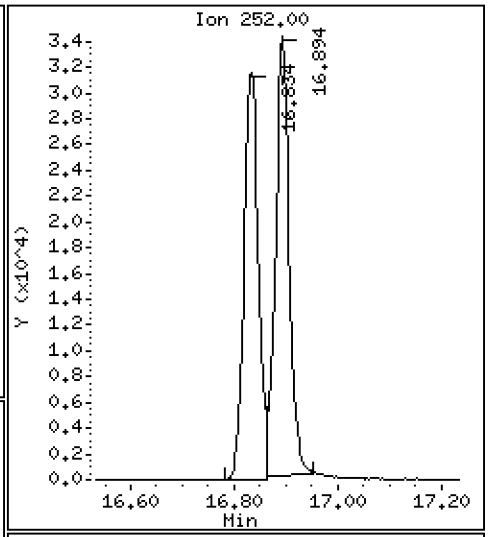
Column phase: Rxi-17sil

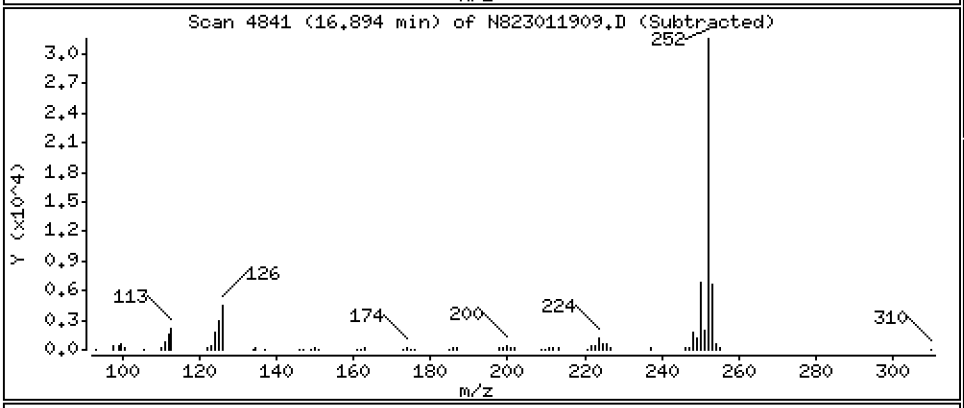
Column diameter: 0.25

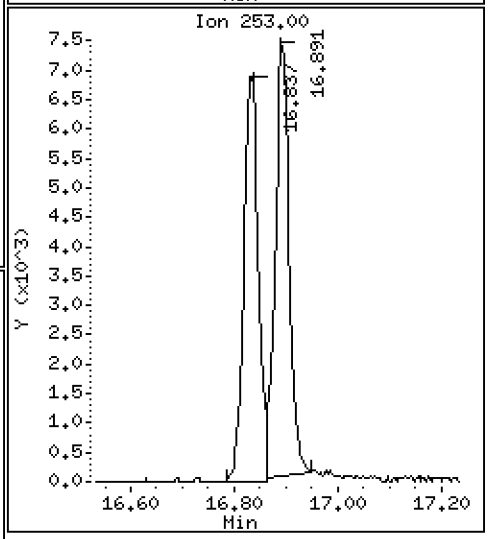
29 Benzo(k)fluoranthene

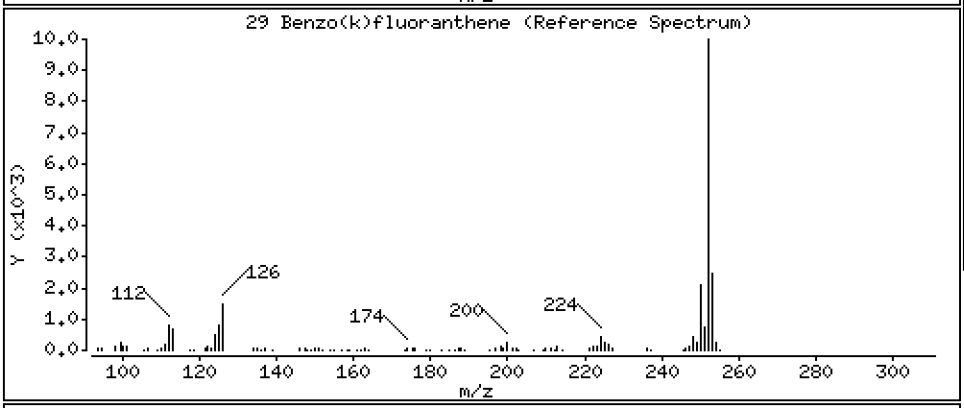
Concentration: 2.656 ug/L

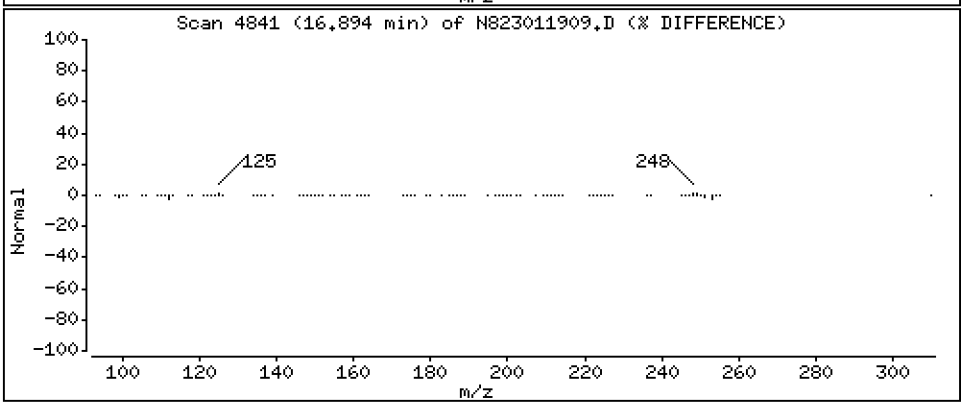












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

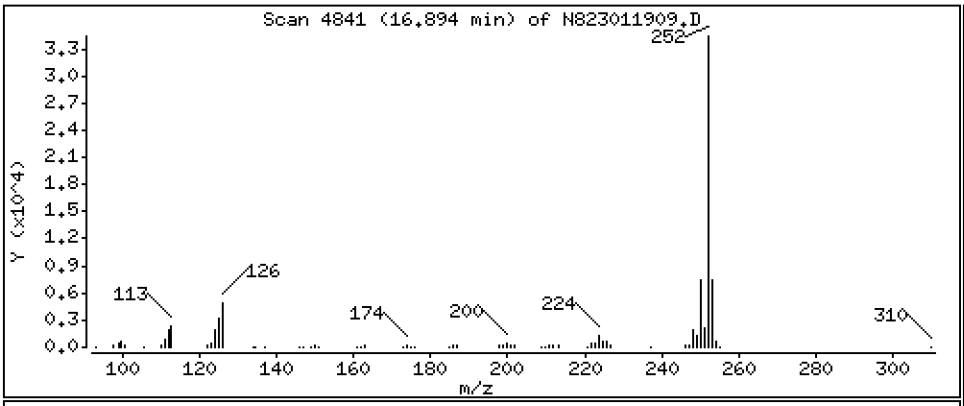
Operator: JZ

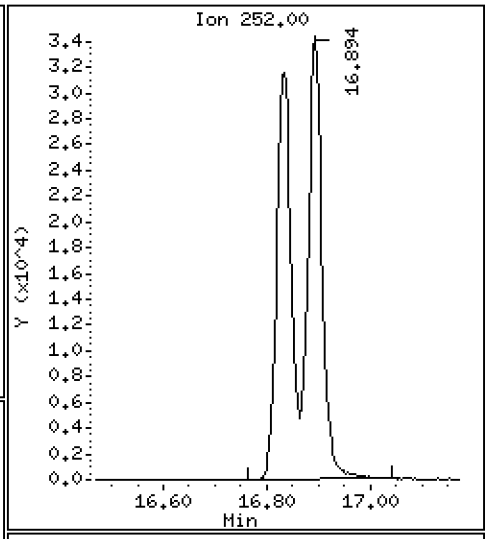
Column phase: Rxi-17sil

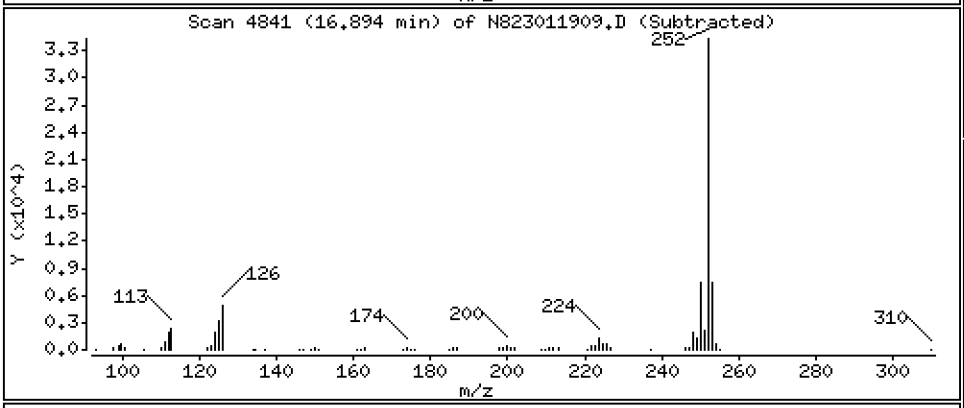
Column diameter: 0.25

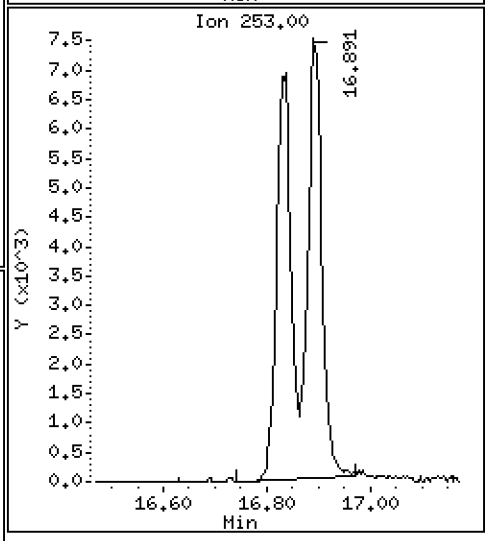
31 Total Benzofluoranthenes

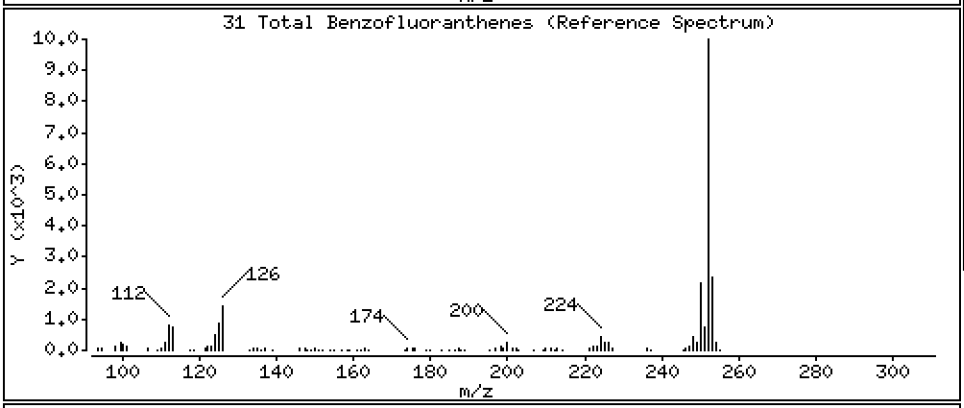
Concentration: 5.480 ug/L

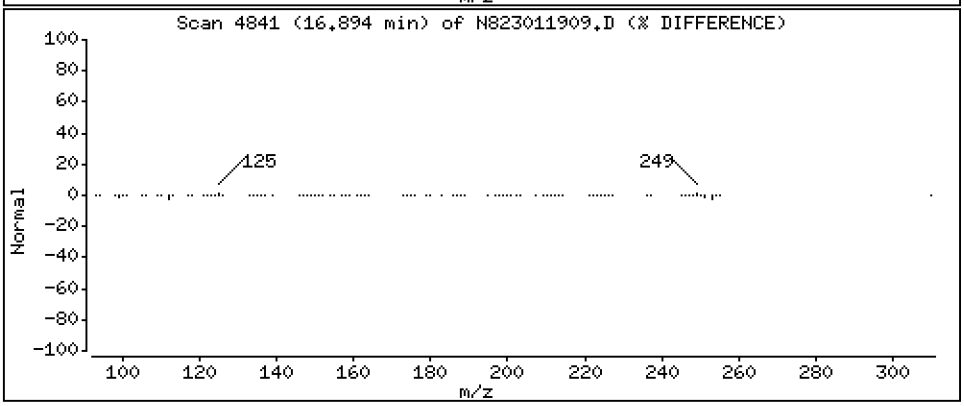












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

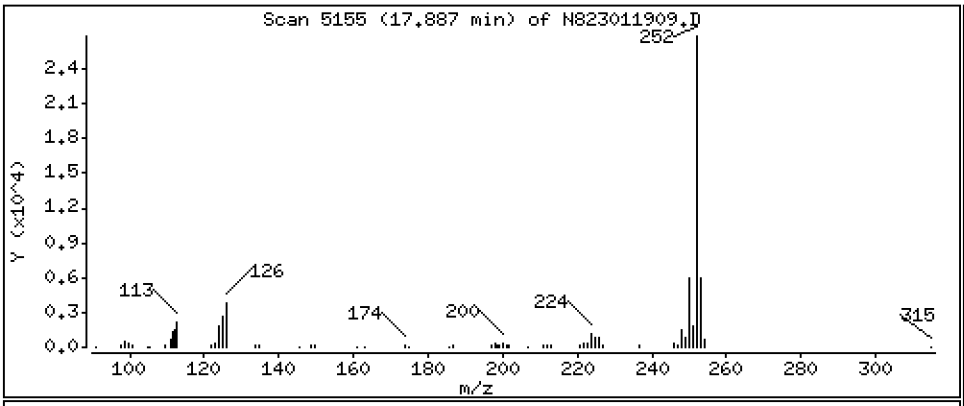
Operator: JZ

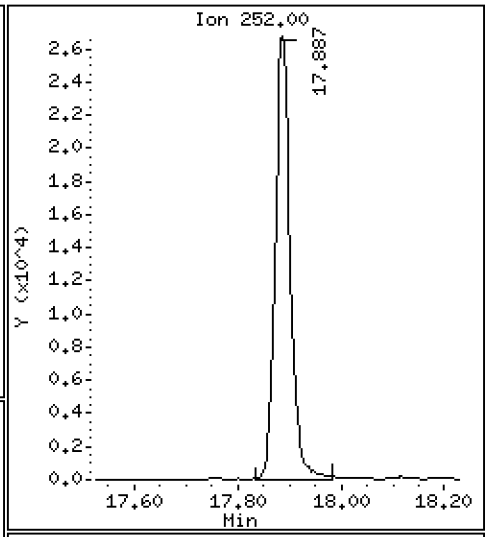
Column phase: Rxi-17sil

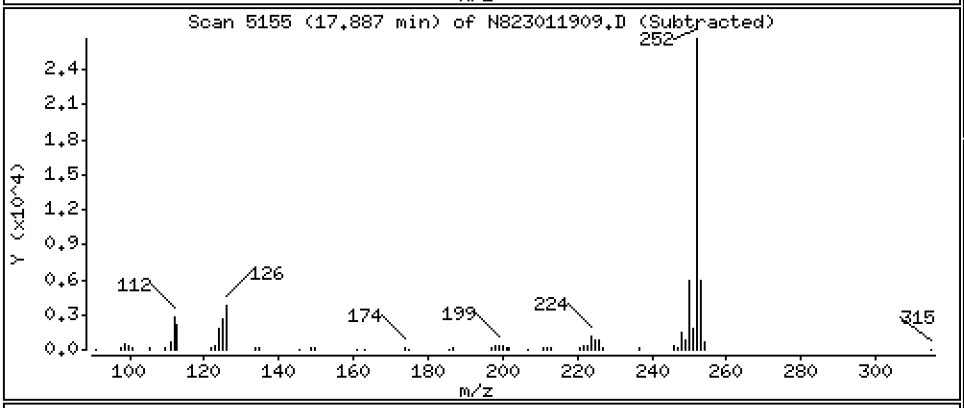
Column diameter: 0.25

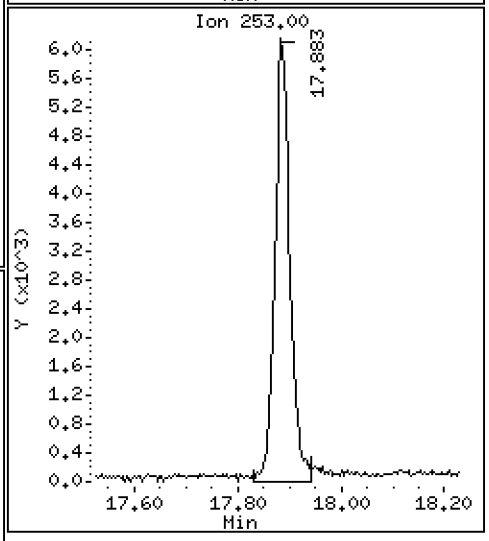
32 Benzo(a)pyrene

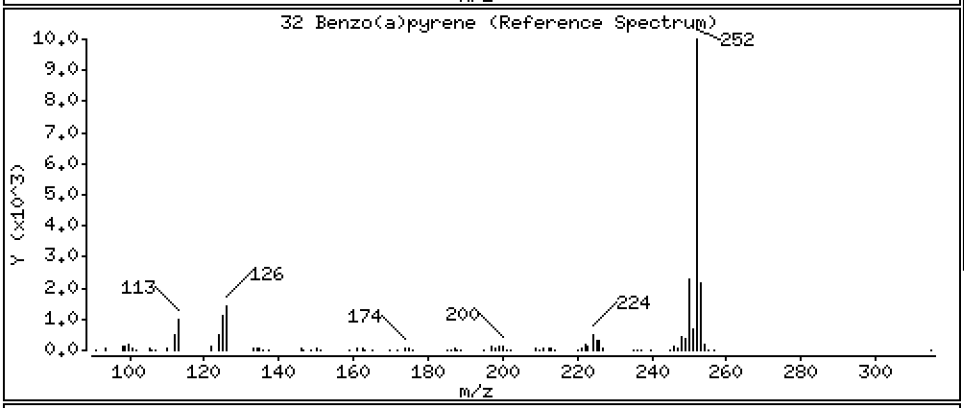
Concentration: 2.572 ug/L

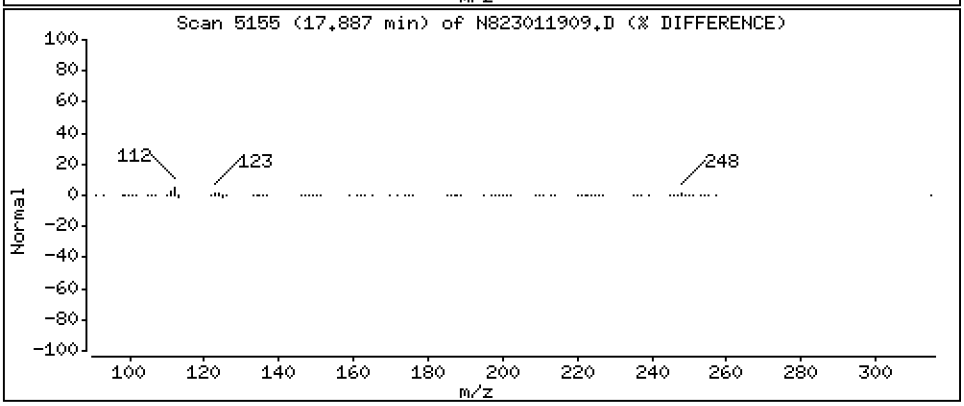












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

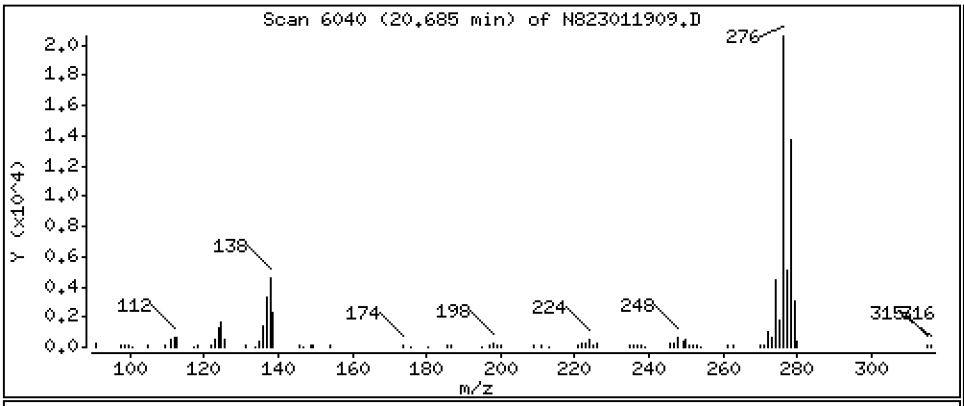
Operator: JZ

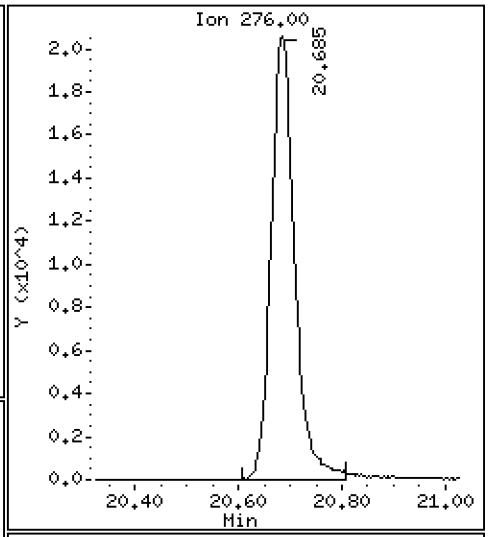
Column phase: Rxi-17sil

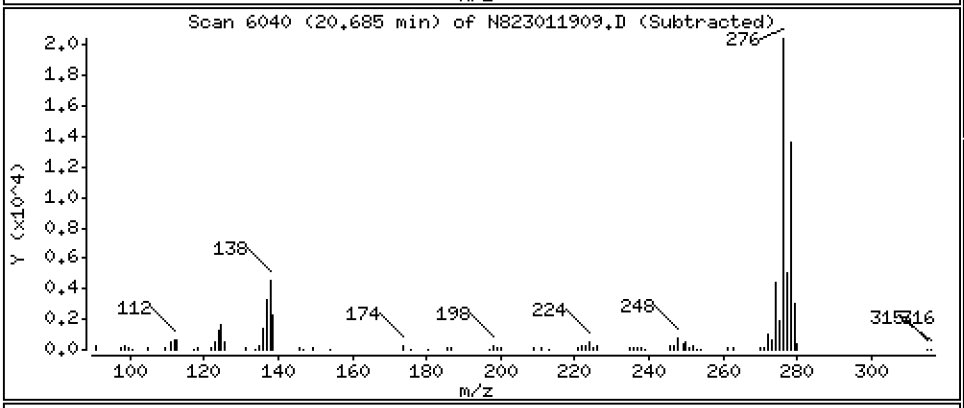
Column diameter: 0.25

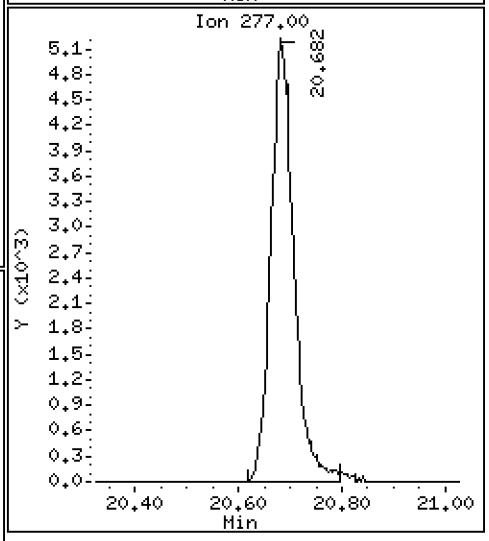
37 Indeno(1,2,3-cd)pyrene

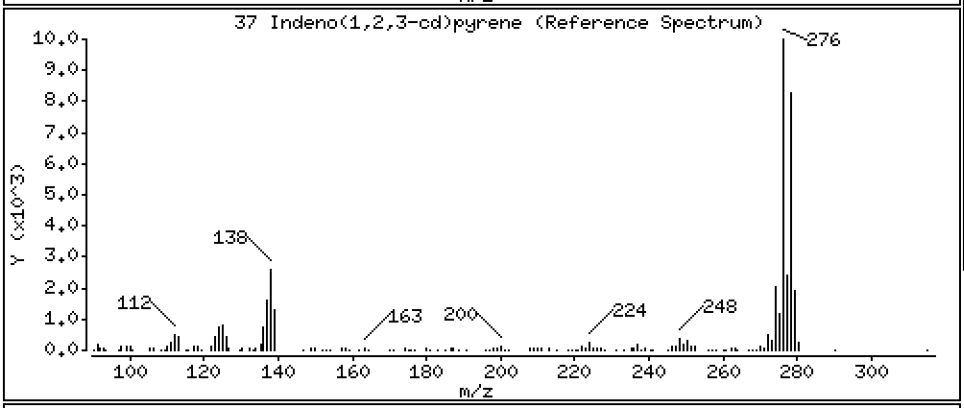
Concentration: 2.689 ug/L

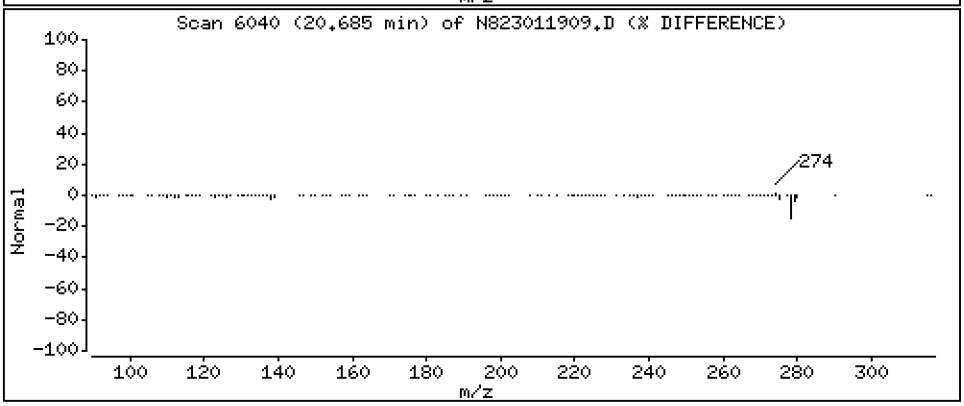












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

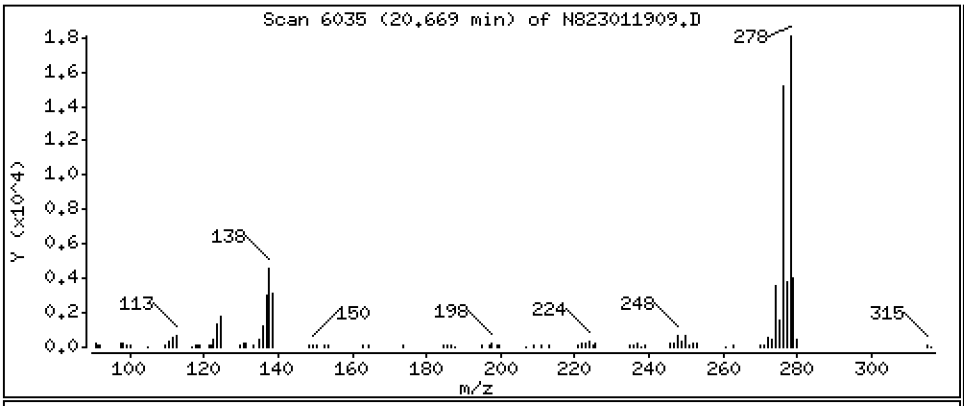
Operator: JZ

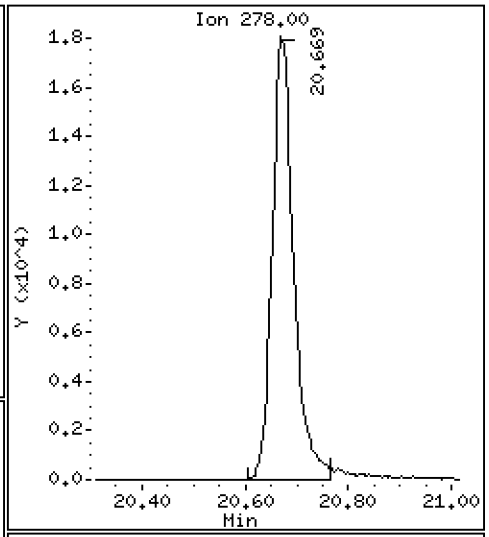
Column phase: Rxi-17sil

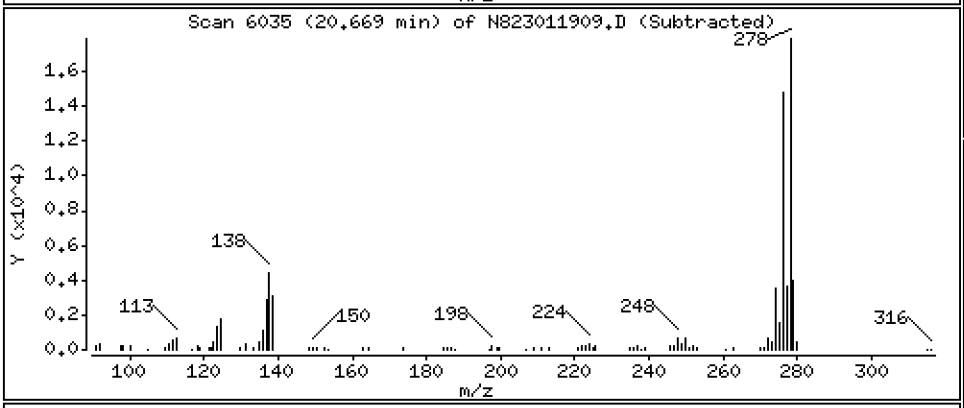
Column diameter: 0.25

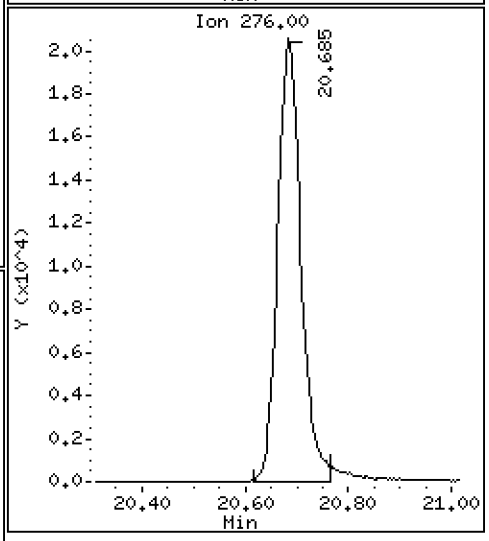
38 Dibenzo(a,h)anthracene

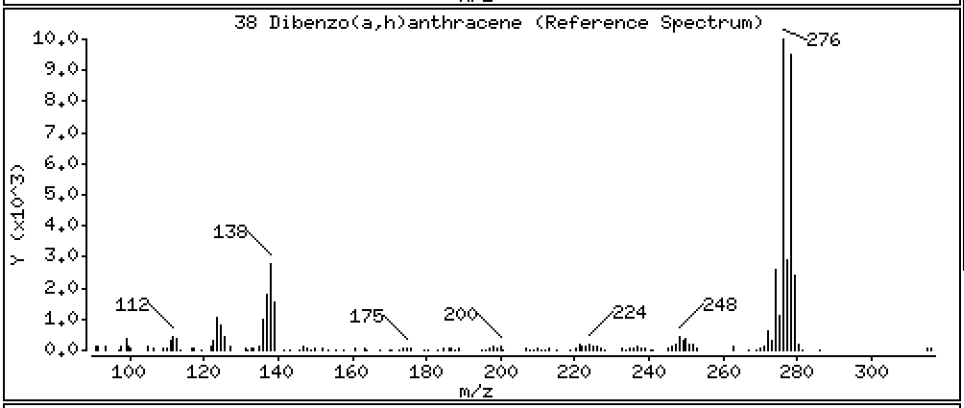
Concentration: 2.493 ug/L

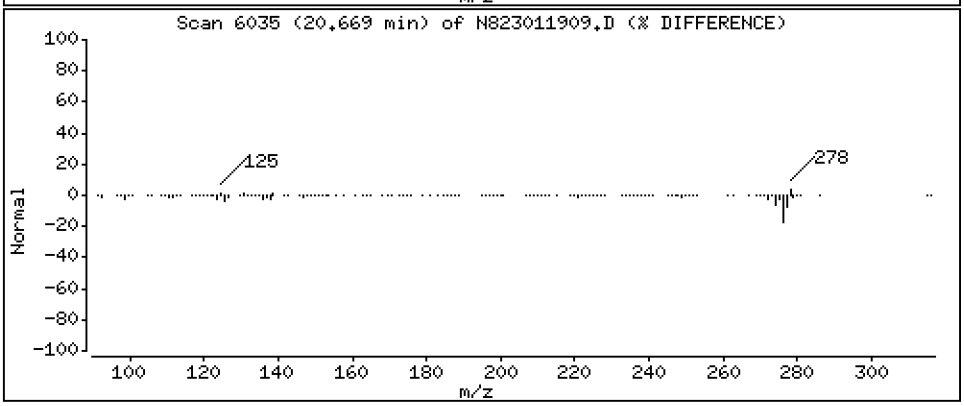












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

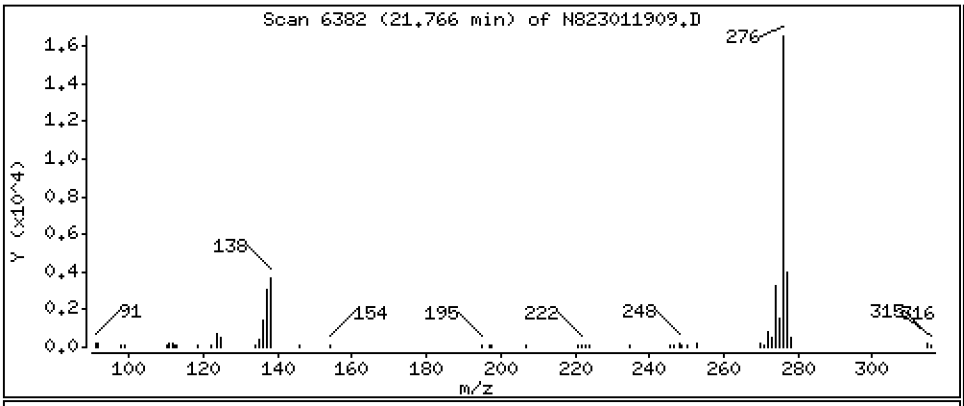
Operator: JZ

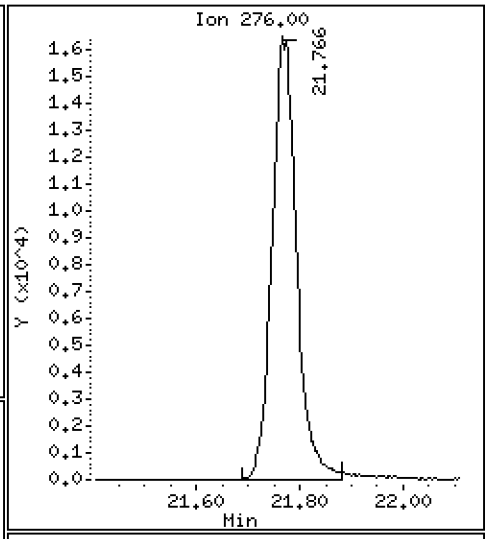
Column phase: Rxi-17sil

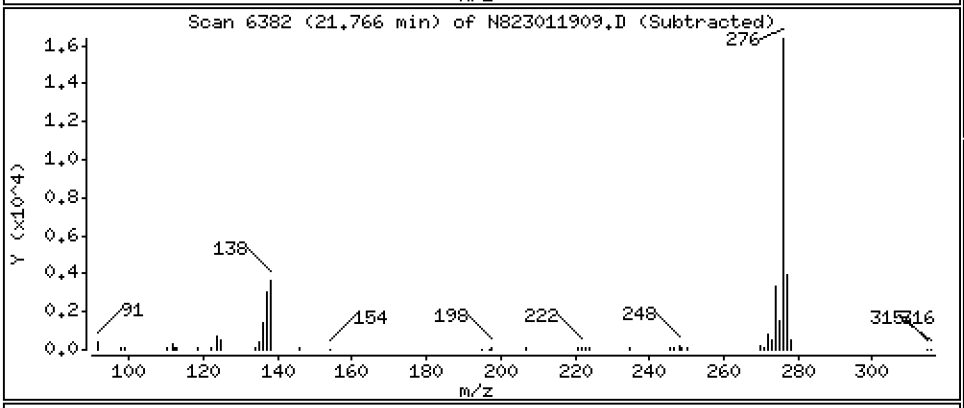
Column diameter: 0.25

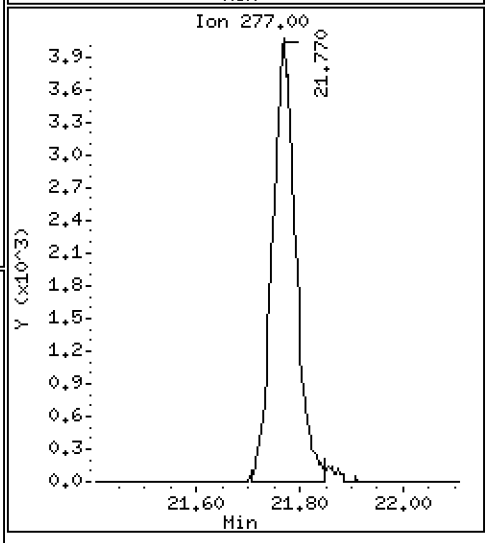
39 Benzo(g,h,i)perylene

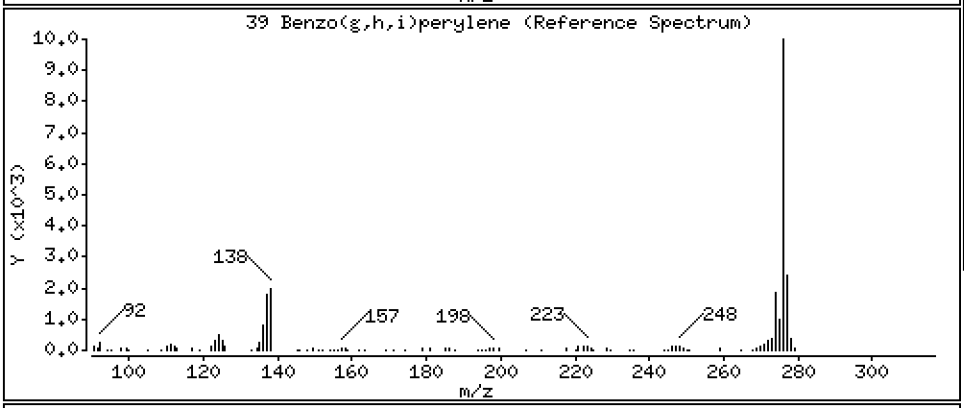
Concentration: 2.483 ug/L

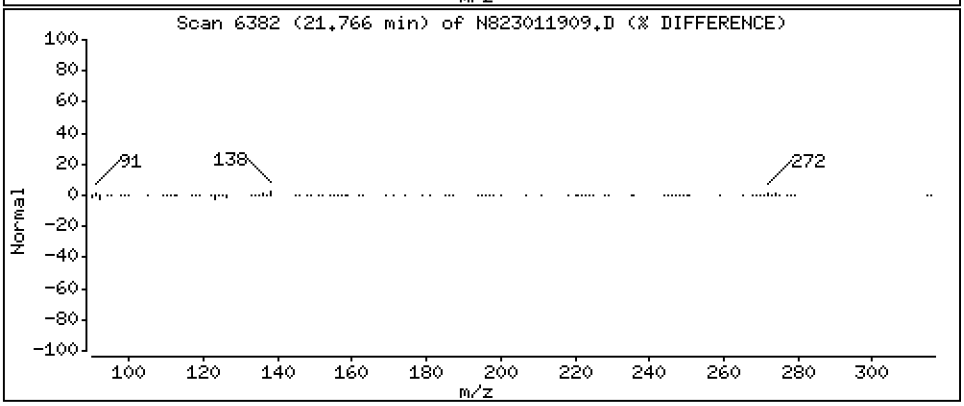












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011909.D
Lab Smp Id: SLA0213-SCV1
Inj Date : 19-JAN-2023 14:58
Operator : JZ Inst ID: nt8.i
Smp Info : SCV230119
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Meth Date : 25-Jan-2023 21:57 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnascv.sub
Target Version: 4.14
Processing Host: JIANQING-202105

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
* 1 Naphthalene-d8	136	4.913	4.906	(1.000)	46346	2.00000	
2 Naphthalene	128	4.941	4.938	(1.006)	56587	2.62597	2.626
$ 3 2-Methylnaphthalene-d10	152	Compound Not Detected.					
4 2-Methylnaphthalene	141	5.694	5.687	(1.159)	31650	2.67019	2.670
5 1-methylnaphthalene	141	5.890	5.883	(1.199)	31873	2.64949	2.649
9 Acenaphthylene	152	7.091	7.085	(0.985)	59018	2.82060	2.821
* 10 Acenaphthene-d10	164	7.202	7.196	(1.000)	27709	2.00000	
11 Acenaphthene	153	7.249	7.246	(1.007)	36454	2.60022	2.600
12 Dibenzofuran	168	7.401	7.395	(1.028)	60898	2.85987	2.860
14 Fluorene	166	7.878	7.872	(1.094)	43507	2.63066	2.631
* 15 Phenanthrene-d10	188	9.238	9.235	(1.000)	51685	2.00000	
16 Phenanthrene	178	9.276	9.270	(1.004)	61815	2.44841	2.448
17 Anthracene	178	9.317	9.311	(1.009)	52064	2.27006	2.270
22 Fluoranthene	202	11.059	11.053	(1.197)	72902	2.65276	2.653
$ 21 Fluoranthene-d10	212	Compound Not Detected.					
23 Pyrene	202	11.578	11.572	(0.815)	71115	2.46242	2.462
24 Benzo(a)anthracene	228	14.082	14.076	(0.991)	67725	2.58725	2.587
* 25 Chrysene-d12	240	14.212	14.202	(1.000)	46582	2.00000	
27 Chrysene	228	14.285	14.278	(1.005)	66872	2.39976	2.400
28 Benzo(b)fluoranthene	252	16.833	16.821	(0.929)	60946	2.50689	2.507
29 Benzo(k)fluoranthene	252	16.893	16.884	(0.932)	63249	2.65606	2.656
31 Total Benzofluoranthenes	252	16.893	16.821	(0.932)	126178	5.48025	5.480(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	32 Benzo(a)pyrene	252	17.886	17.877	(0.987)	55026	2.57205	2.572
*	33 Perylene-d12	264	18.117	18.111	(1.000)	41743	2.00000	
	37 Indeno(1,2,3-cd)pyrene	276	20.684	20.675	(1.142)	65545	2.68928	2.689
$	36 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
	38 Dibenzo(a,h)anthracene	278	20.669	20.662	(1.141)	52293	2.49315	2.493
	39 Benzo(g,h,i)perylene	276	21.766	21.756	(1.201)	54821	2.48258	2.483
	35 Perylene	252	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823011909.D
Lab Smp Id: SLA0213-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 19-JAN-2023
Calibration Time: 12:52
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44704	22352	89408	46346	3.67
10 Acenaphthene-d10	26411	13206	52822	27709	4.91
15 Phenanthrene-d10	49210	24605	98420	51685	5.03
25 Chrysene-d12	42994	21497	85988	46582	8.35
33 Perylene-d12	40520	20260	81040	41743	3.02

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.13
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.09
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.03
25 Chrysene-d12	14.20	13.70	14.70	14.21	0.07
33 Perylene-d12	18.11	17.61	18.61	18.12	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011909.D

Lab ID: SLA0213-SCV1
nt8.i, 20230119.b\FSIMPNA230119.m,   19-JAN-2023 14:58

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

No RRT check performed

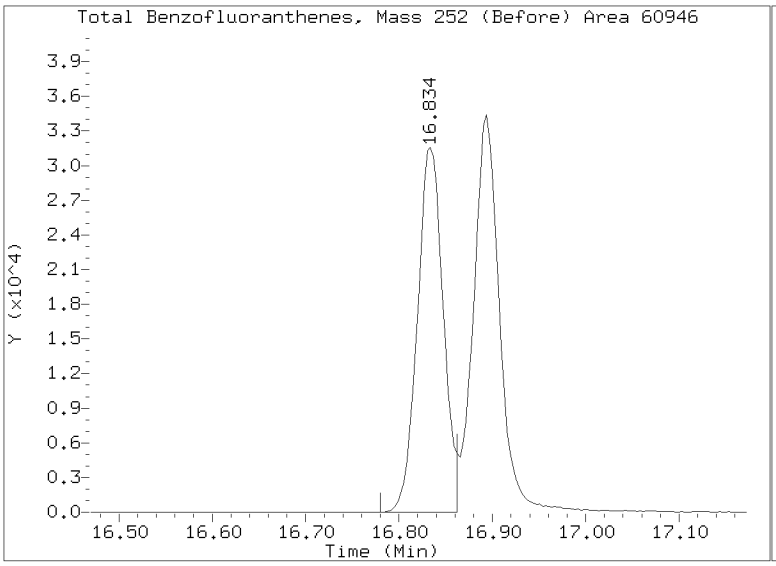
On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, pnascv.sub = 0.0500

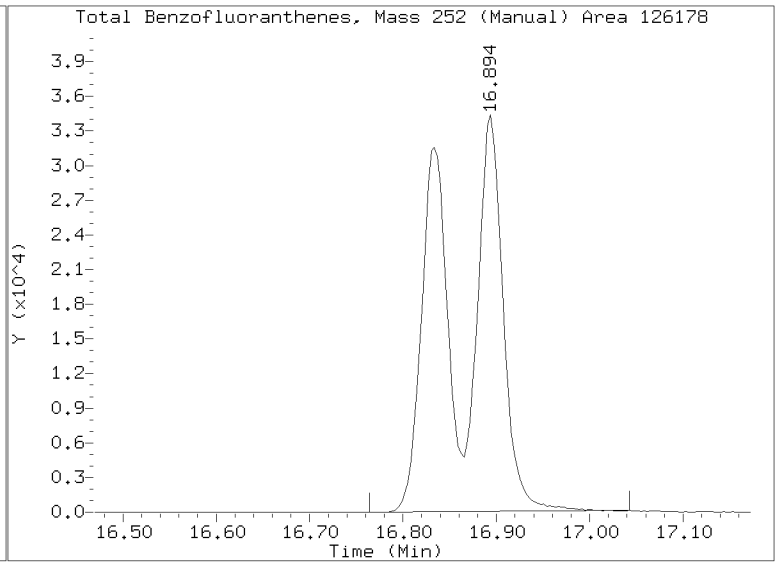
Exception: Benzo(b)fluoranthene 0.0300
Exception: Benzo(k)fluoranthene 0.0300
Exception: Total Benzofluoranthenes 0.0300
Exception: Fluoranthene-d10 (Surr) 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011909.D
Injection Date: 19-JAN-2023 14:58
Lab ID:SLA0213-SCV1 Client ID:
Report Date: 01/25/2023 22:00





SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

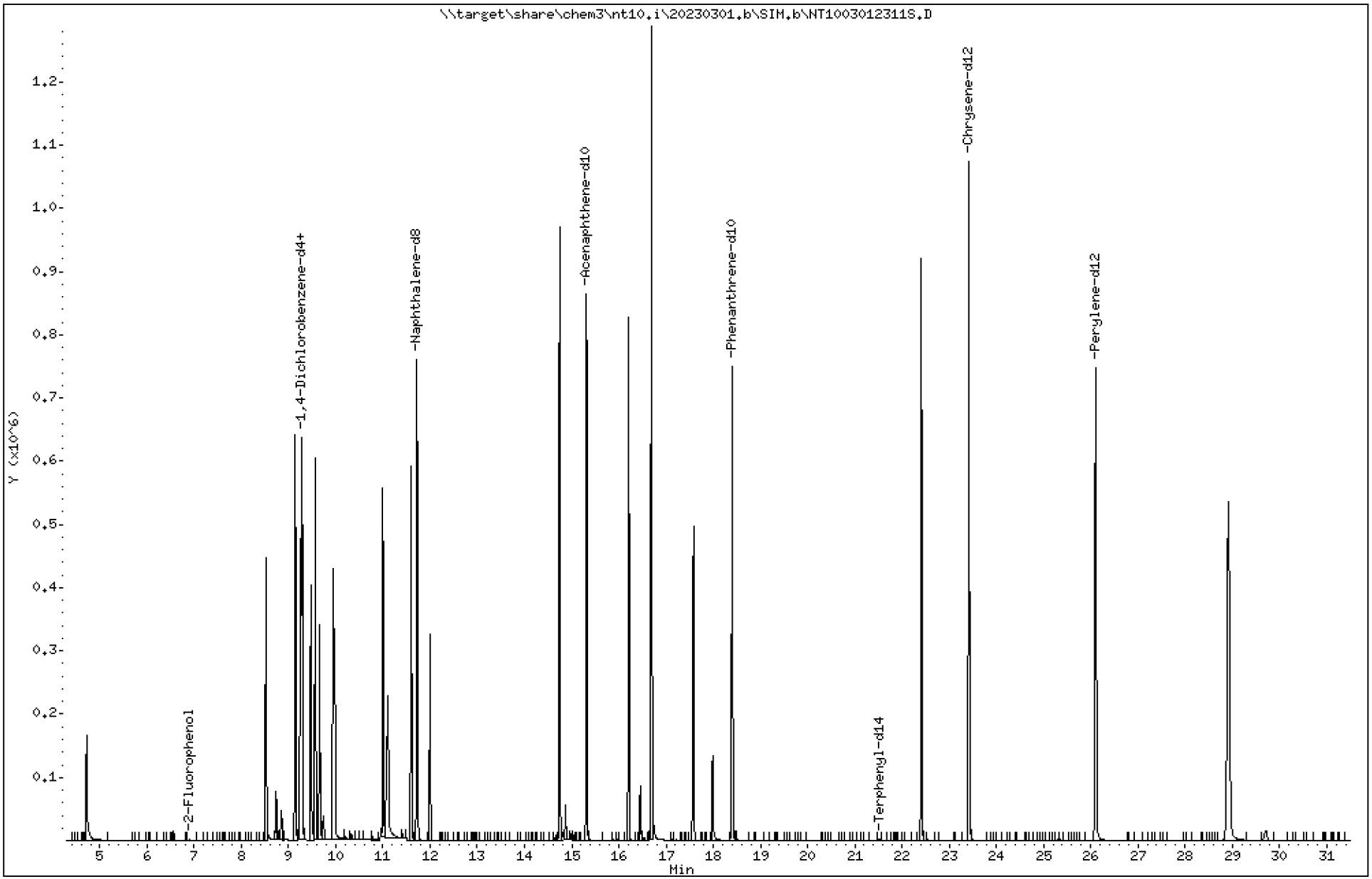
Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00032
Laboratory ID: SLC0143-SCV1
Sequence: SLC0143
Sequence Name: SCV 5.0
Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
1,4-Dichlorobenzene	5.0000	5.2	5.0	20.00
1,2-Dichlorobenzene	5.0000	5.1	2.8	20.00
Benzyl Alcohol	5.0000	5.1	2.1	20.00
Benzoic acid	10.000	6.9	-31.3 *	20.00
2,4-Dimethylphenol	5.0000	3.6	-27.3 *	20.00
1,2,4-Trichlorobenzene	5.0000	4.9	-2.6	20.00
N-Nitrosodiphenylamine	5.0000	5.4	7.2	20.00
Pentachlorophenol	5.0000	3.9	-21.8 *	20.00
2-Fluorophenol	7.5000	0.0377	-99.5	
p-Terphenyl-d14	5.0000	0.0271	-99.5	

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D
Date : 01-MAR-2023 21:46
Client ID:
Sample Info: SEQ-SCV1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: JGR
Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

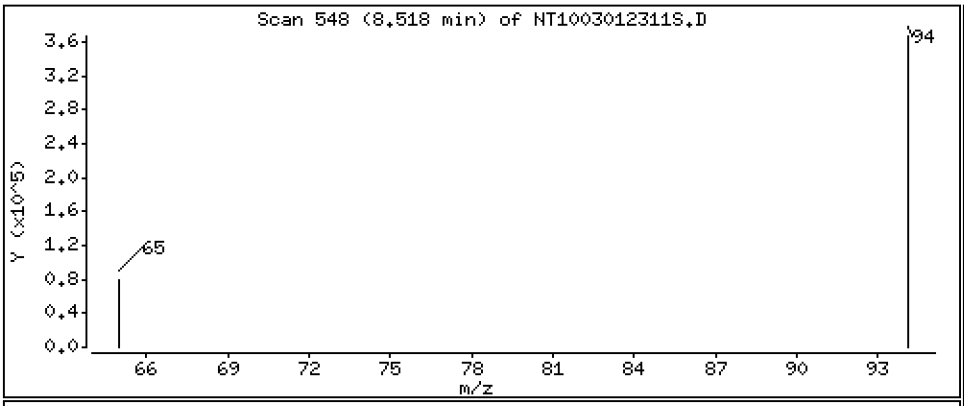
Operator: JGR

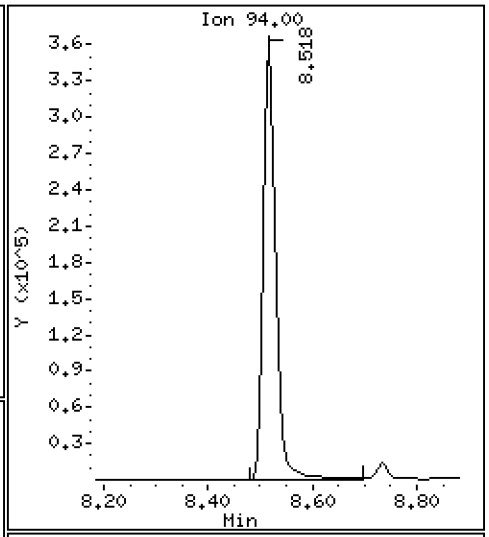
Column phase: ZB-5msi

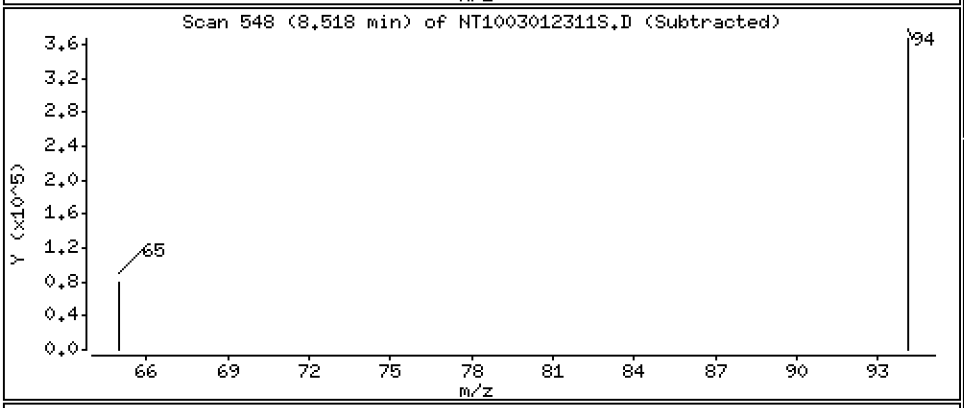
Column diameter: 0.25

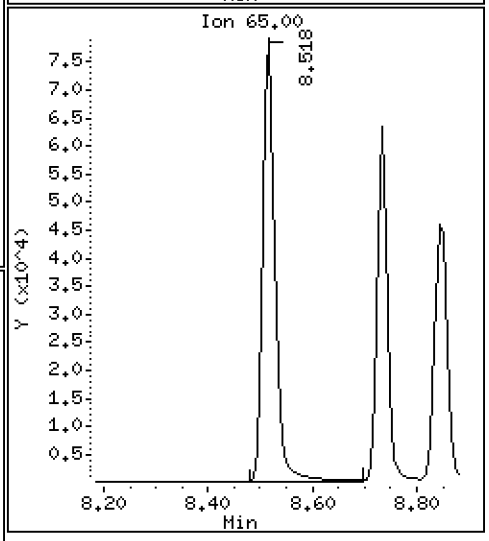
3 Phenol

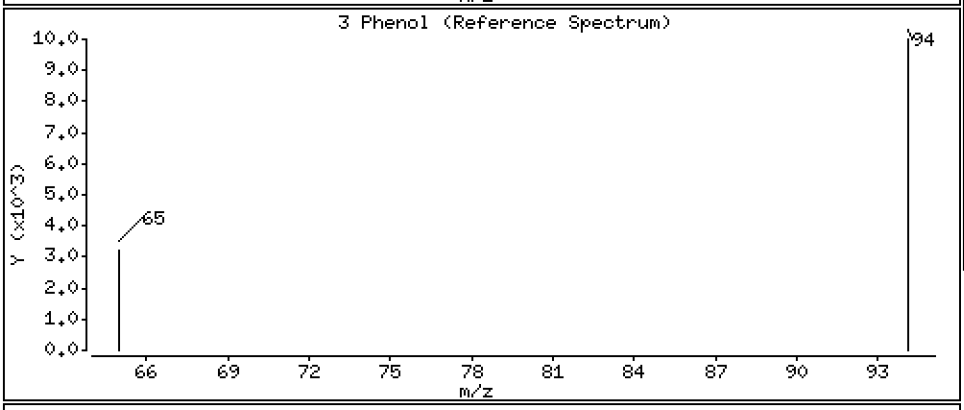
Concentration: 4.507 ug/L

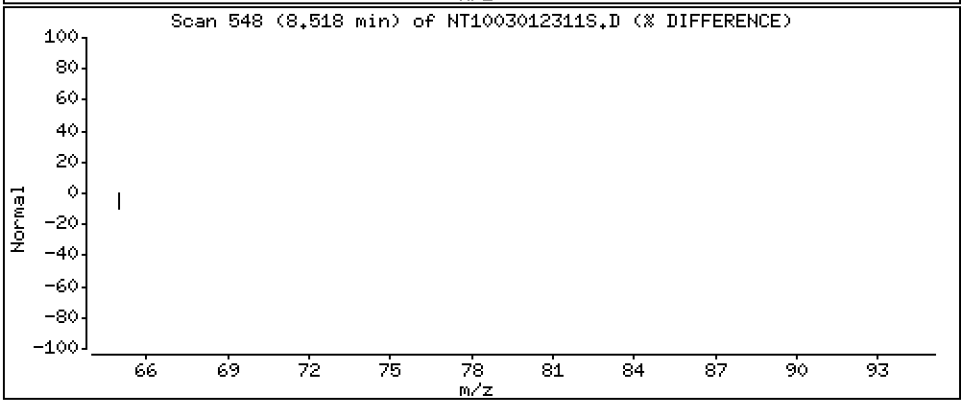












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

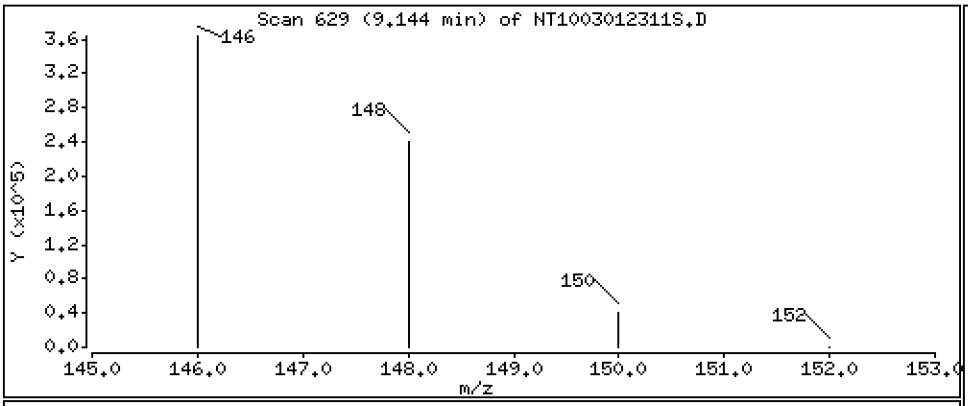
Operator: JGR

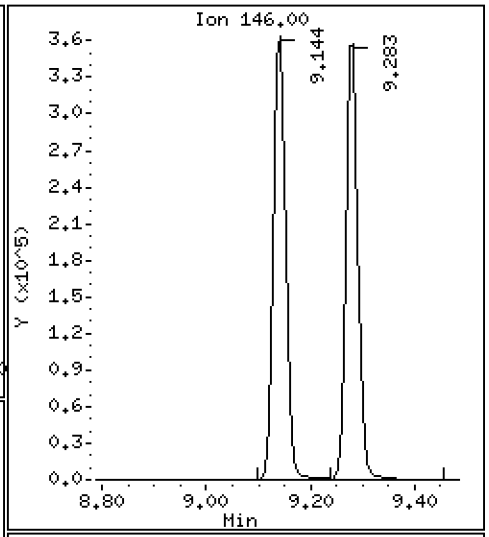
Column phase: ZB-5msi

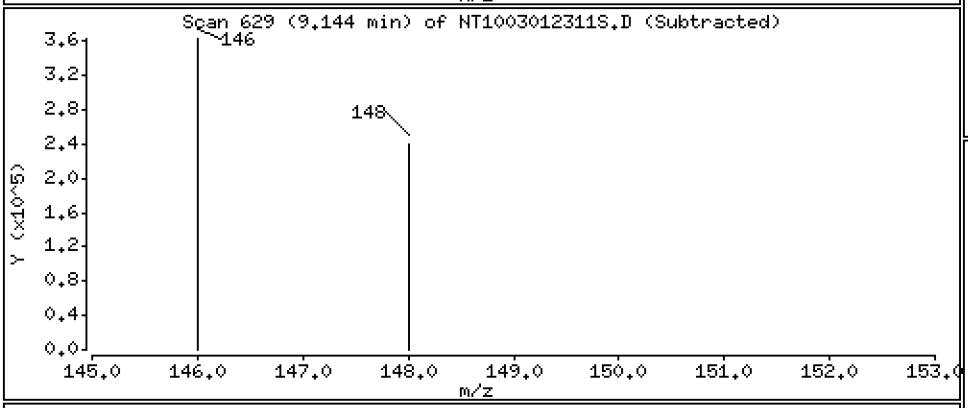
Column diameter: 0.25

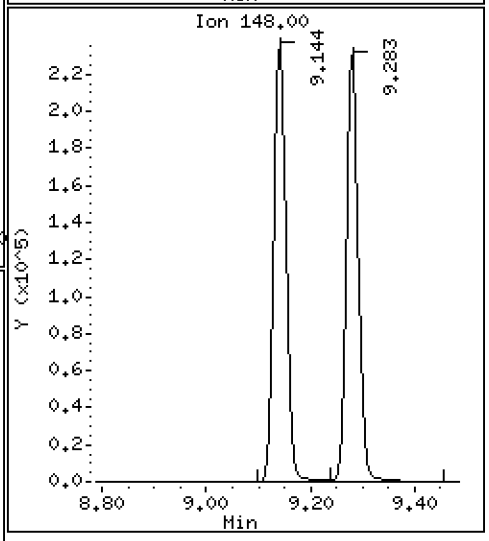
7 1,3-Dichlorobenzene

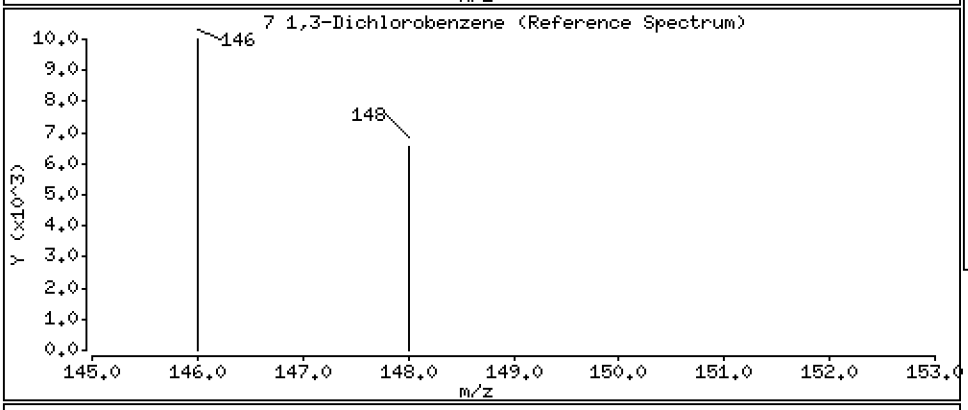
Concentration: 5.084 ug/L

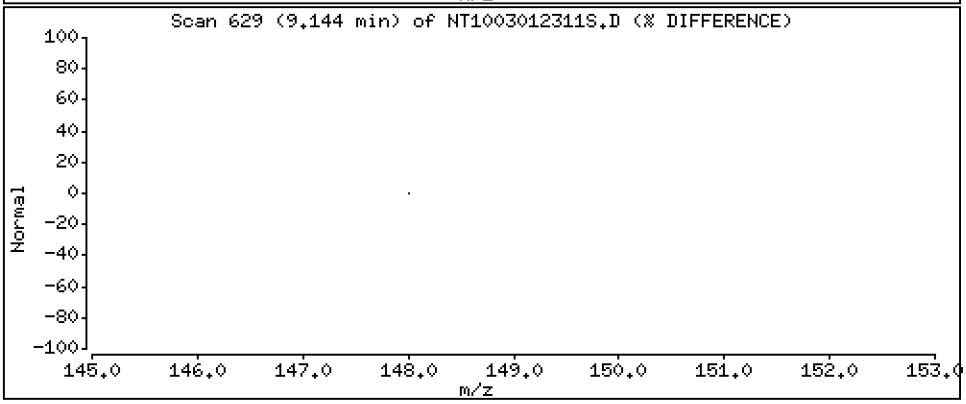












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

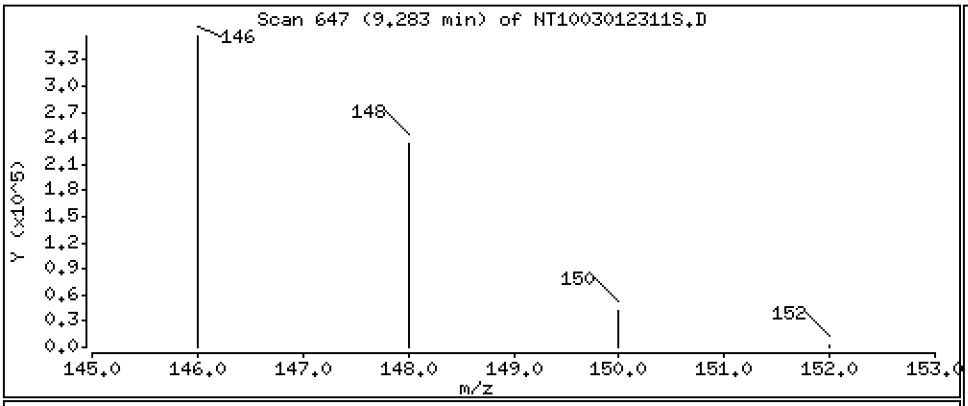
Operator: JGR

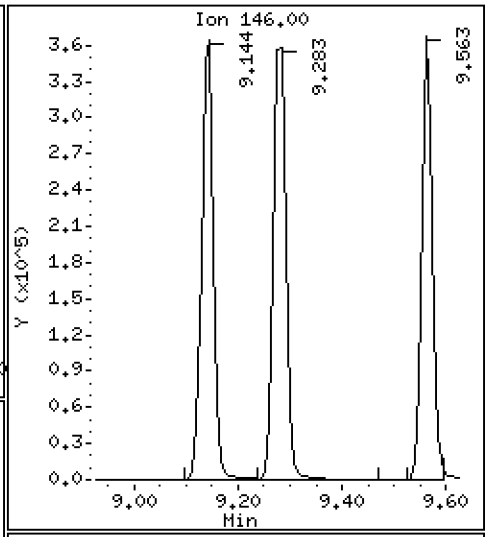
Column phase: ZB-5msi

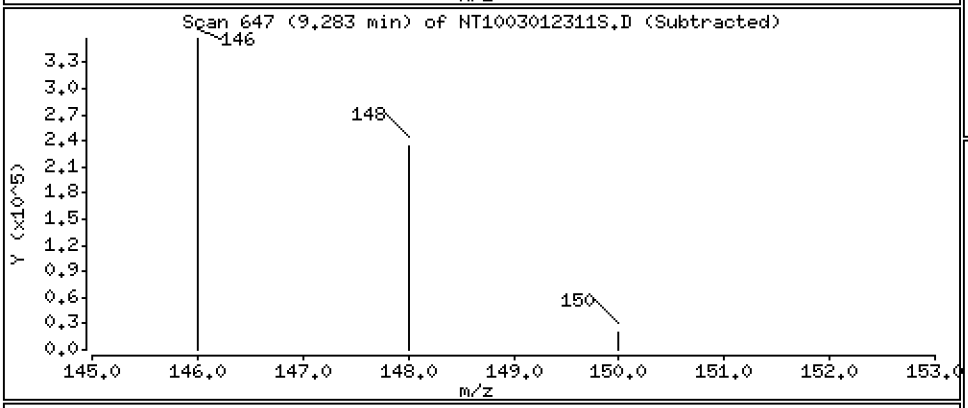
Column diameter: 0.25

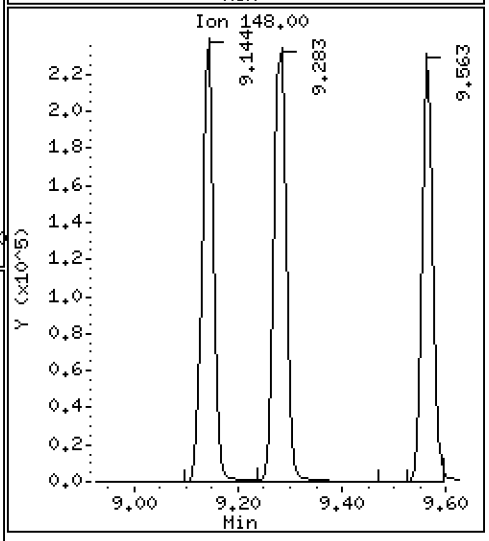
9 1,4-Dichlorobenzene

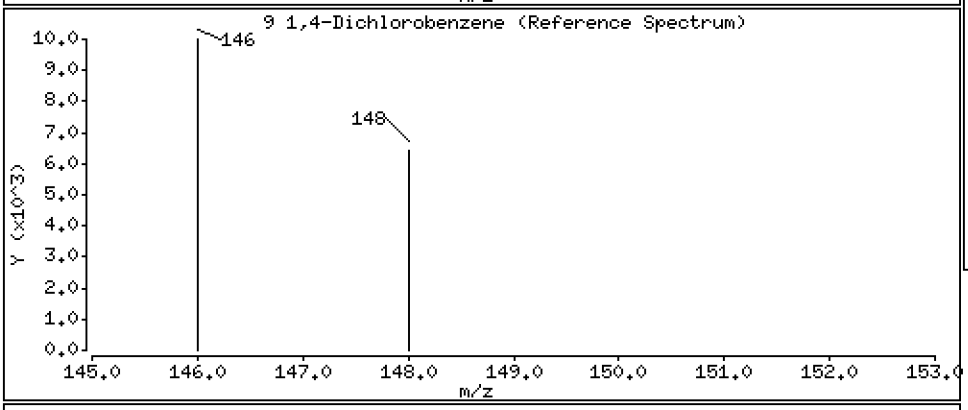
Concentration: 5.250 ug/L

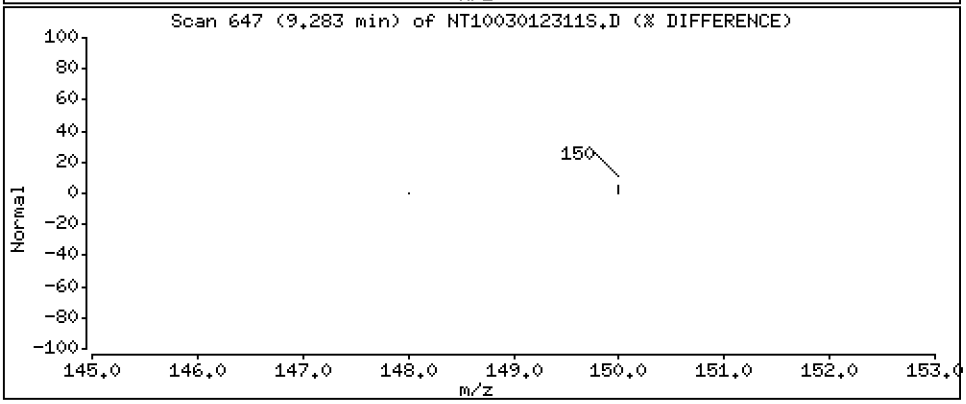












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

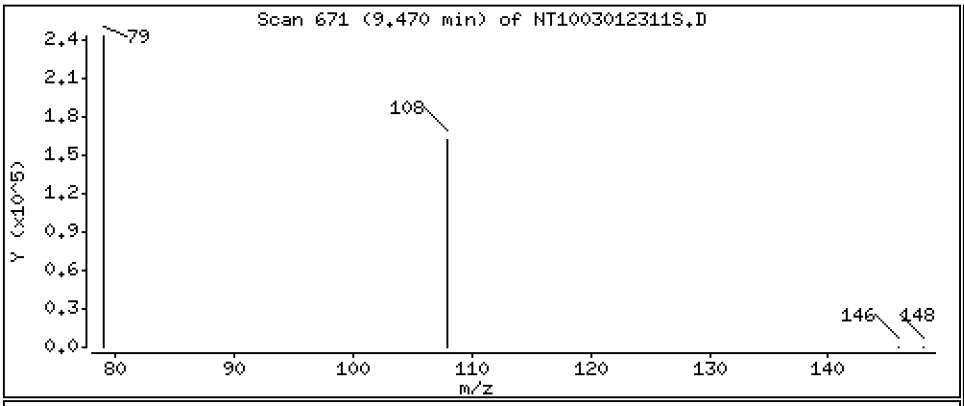
Operator: JGR

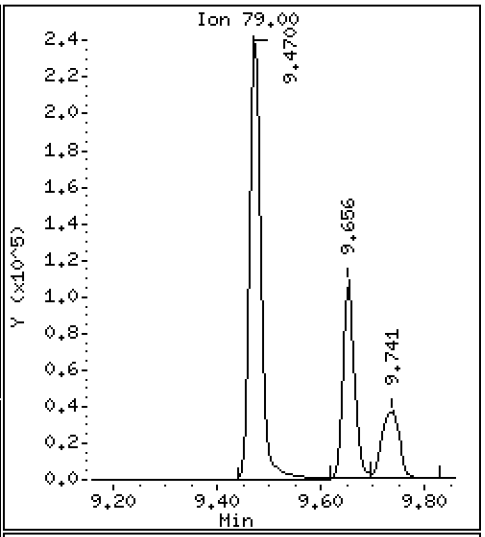
Column phase: ZB-5msi

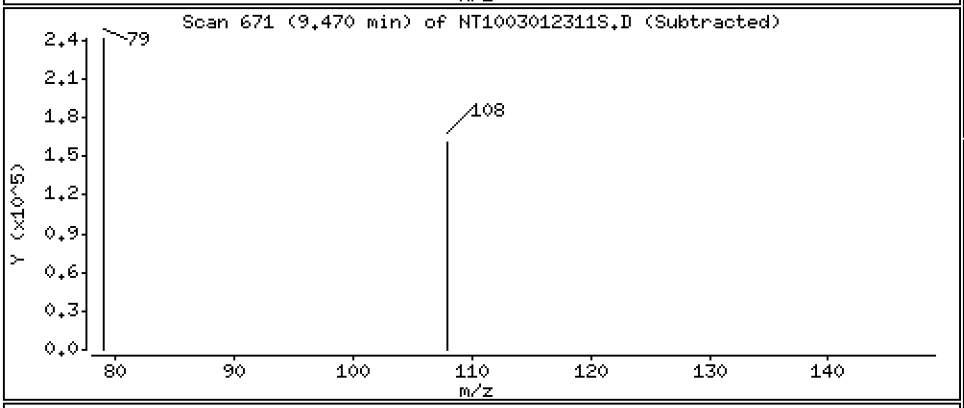
Column diameter: 0.25

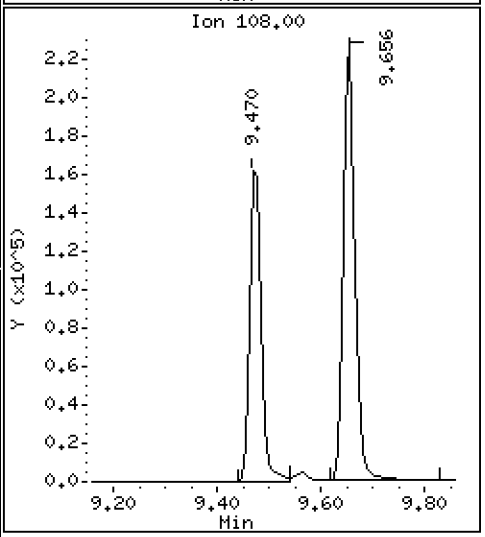
11 Benzyl alcohol

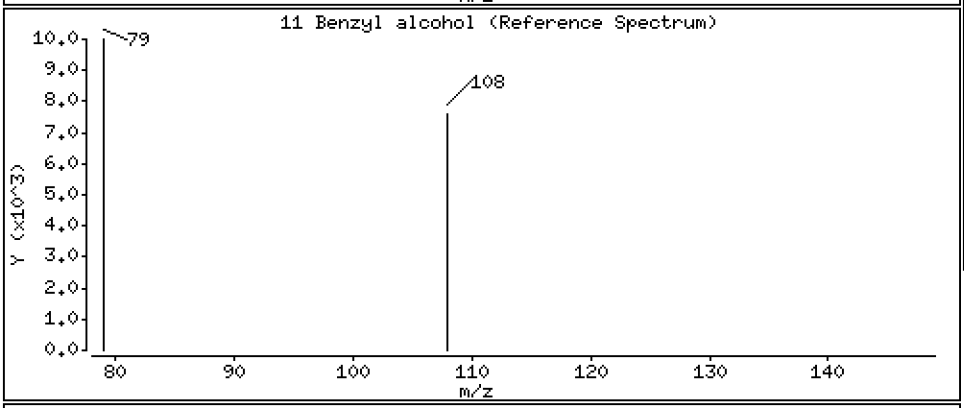
Concentration: 5.104 ug/L

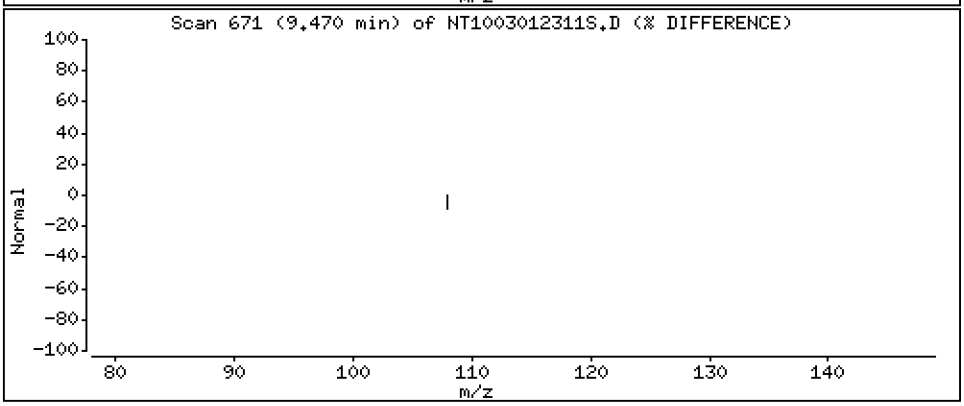












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

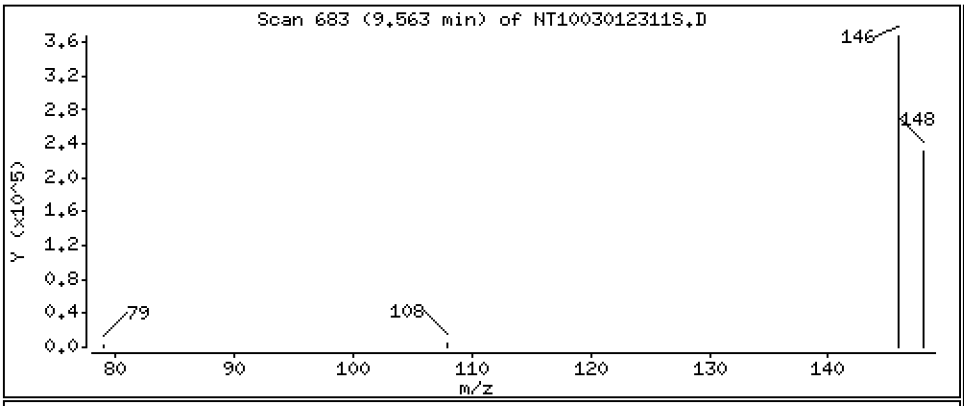
Operator: JGR

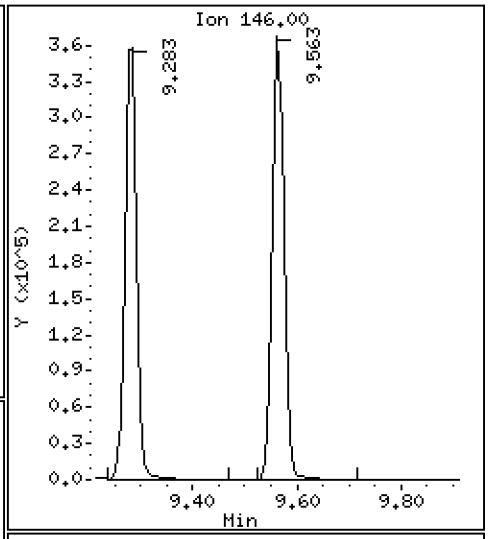
Column phase: ZB-5msi

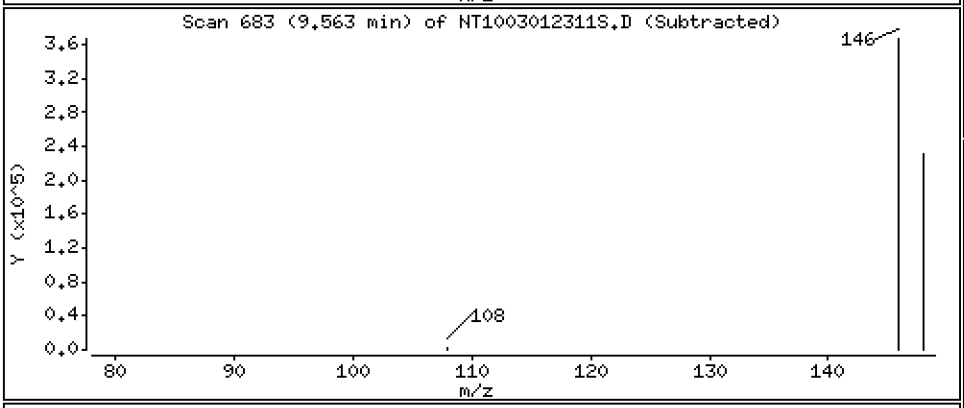
Column diameter: 0.25

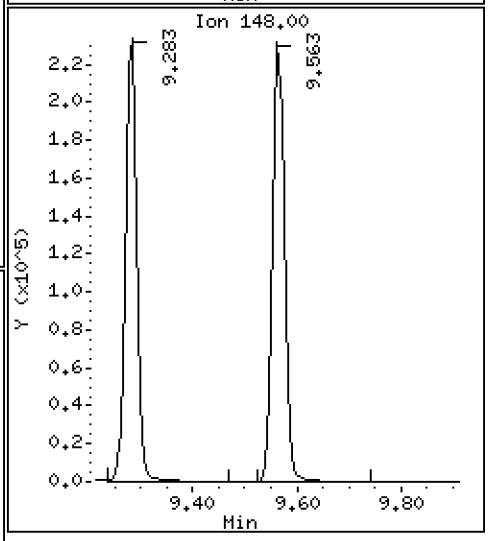
12 1,2-Dichlorobenzene

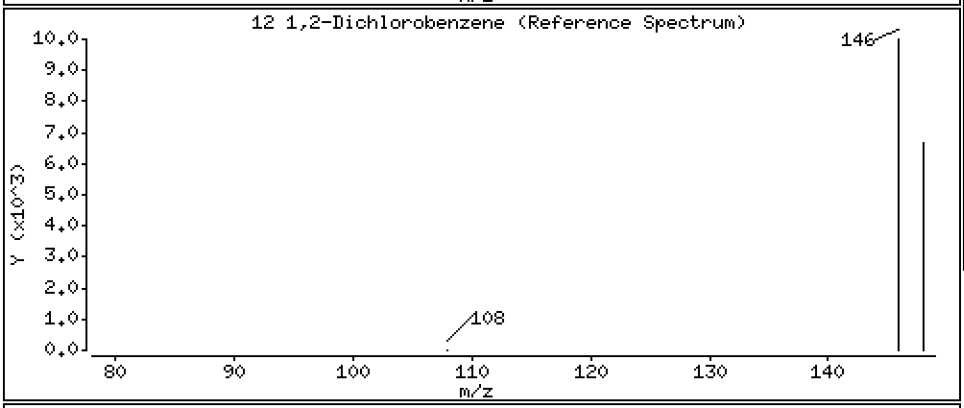
Concentration: 5.142 ug/L

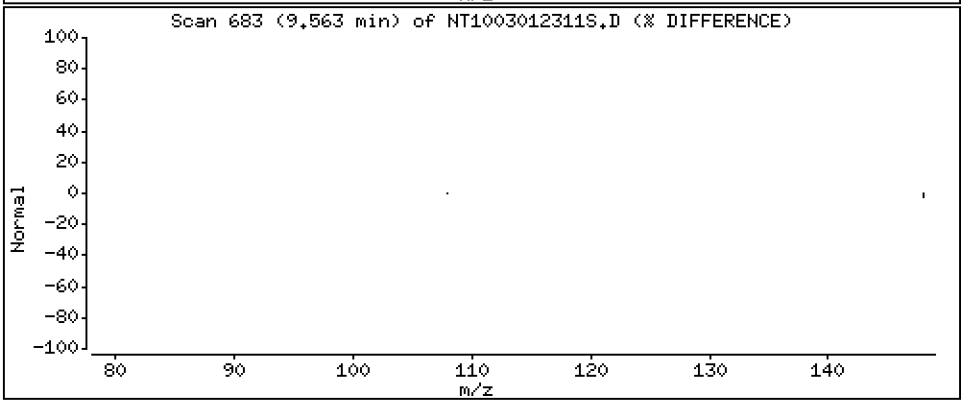












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

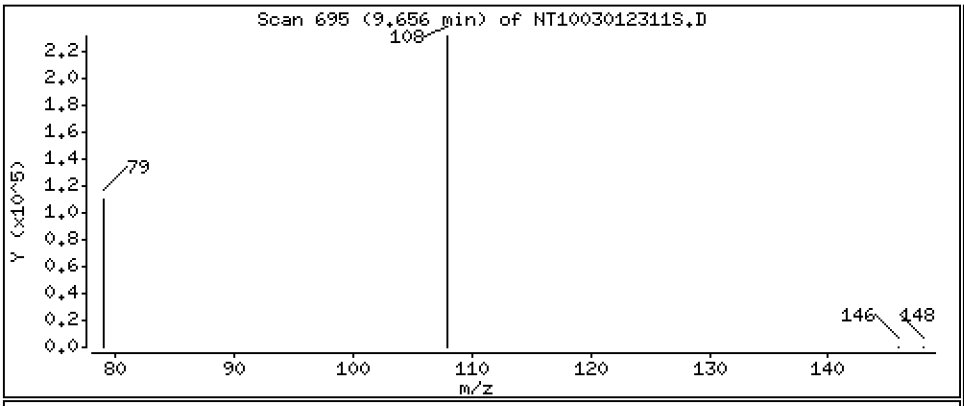
Operator: JGR

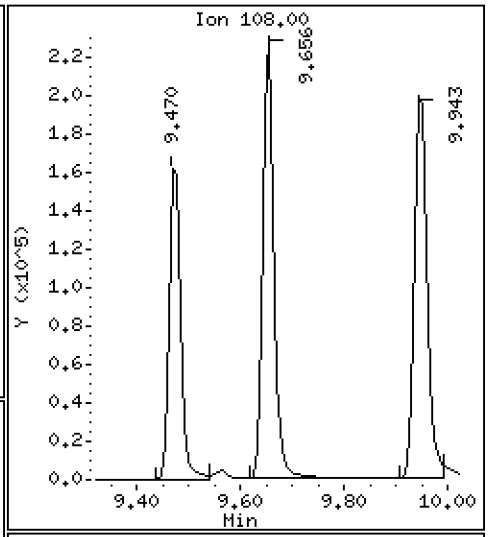
Column phase: ZB-5msi

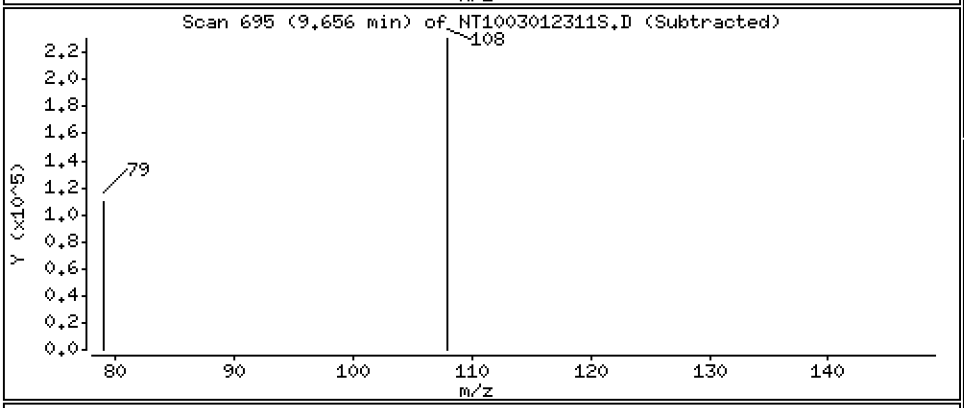
Column diameter: 0.25

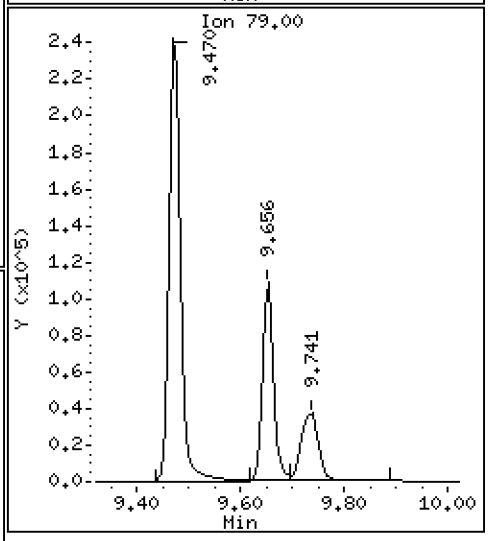
13 2-Methylphenol

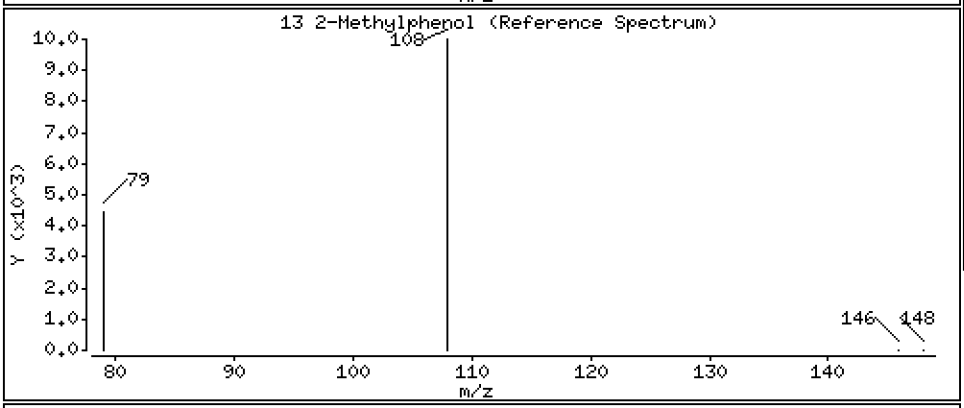
Concentration: 4.365 ug/L

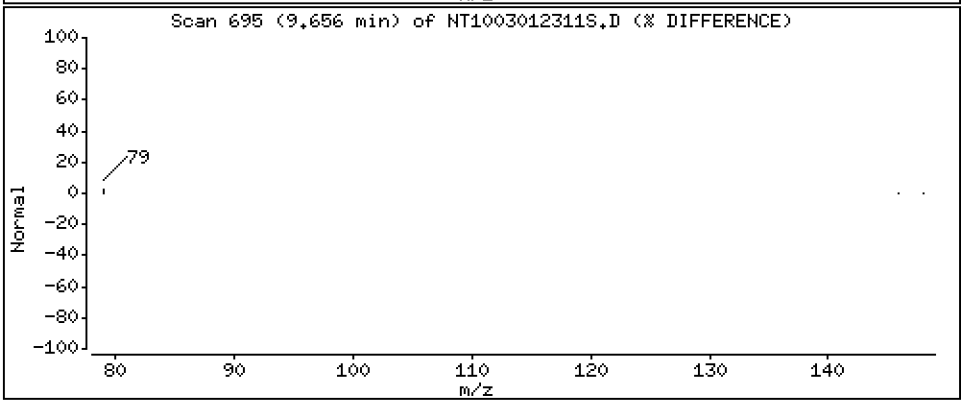












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

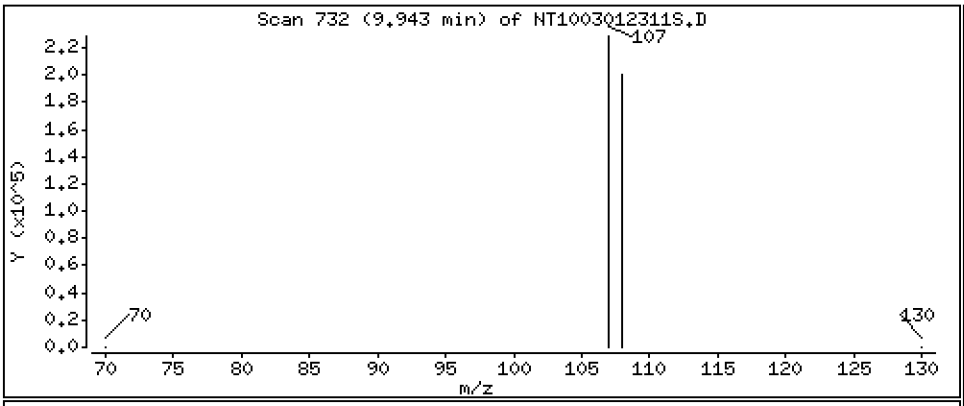
Operator: JGR

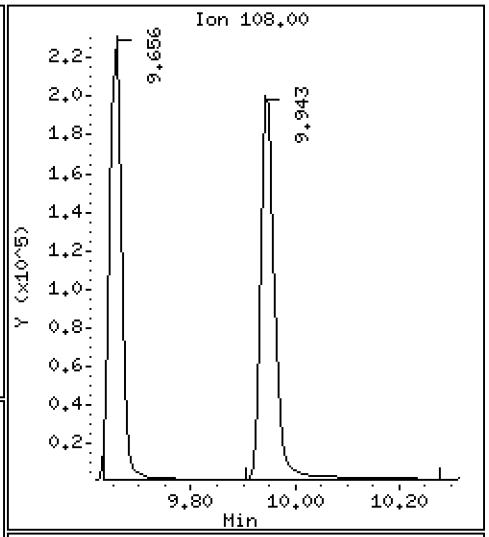
Column phase: ZB-5msi

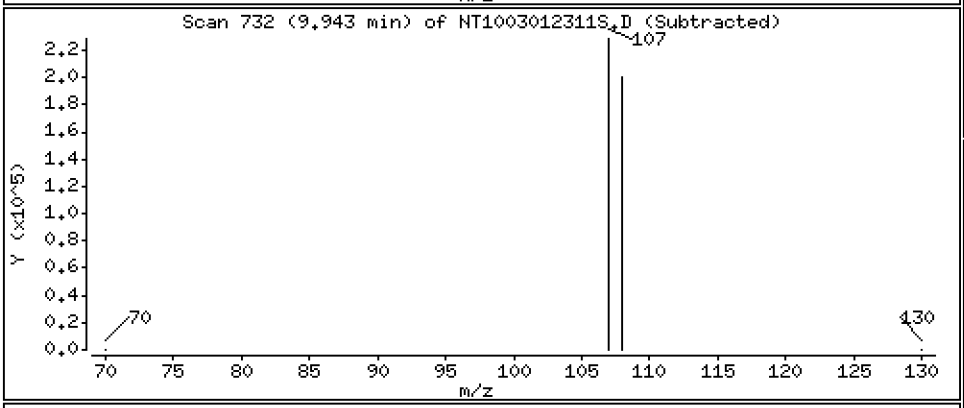
Column diameter: 0.25

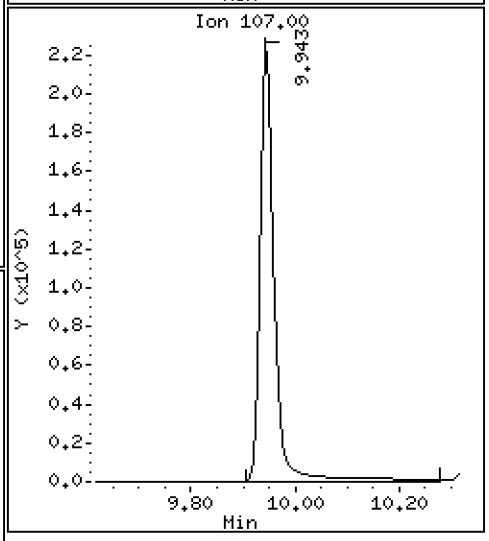
15 4-Methylphenol

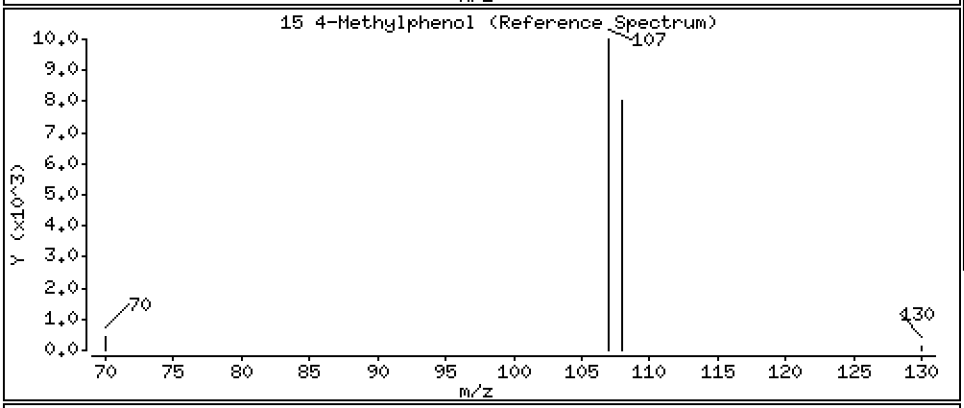
Concentration: 4.505 ug/L

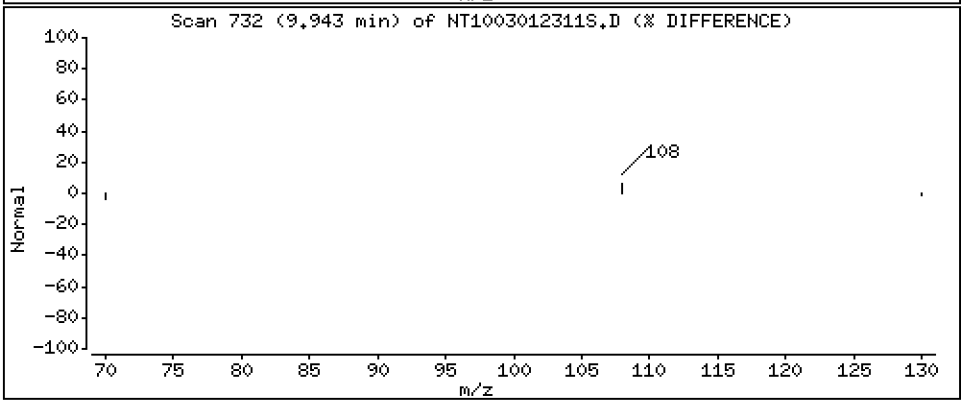












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

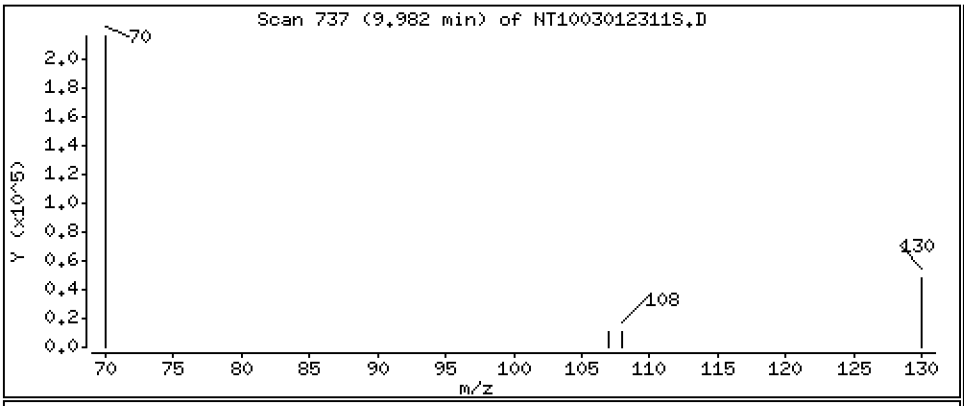
Operator: JGR

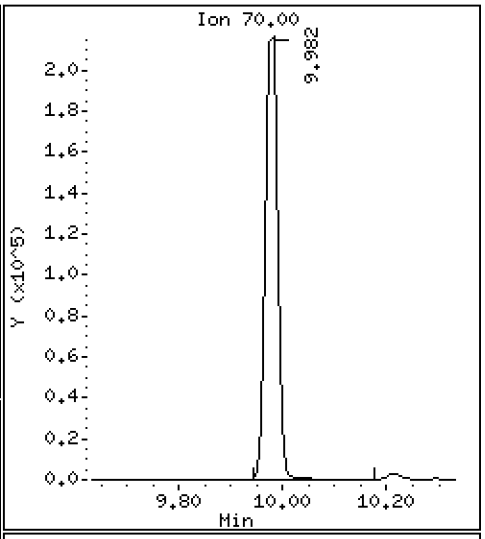
Column phase: ZB-5msi

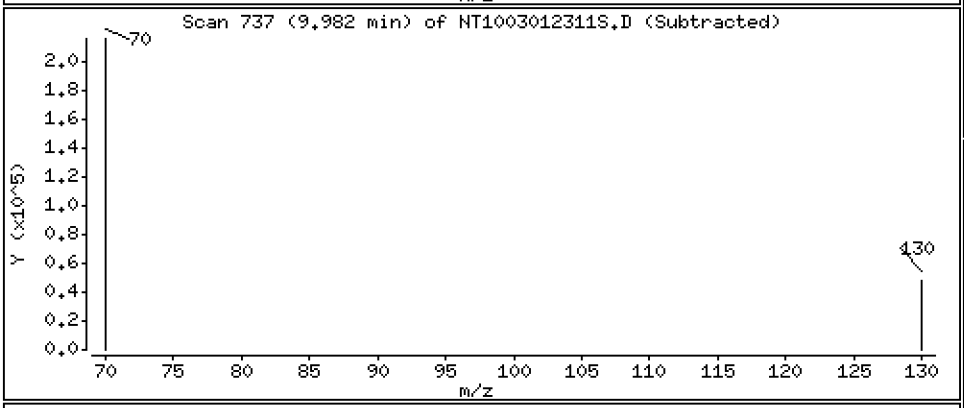
Column diameter: 0.25

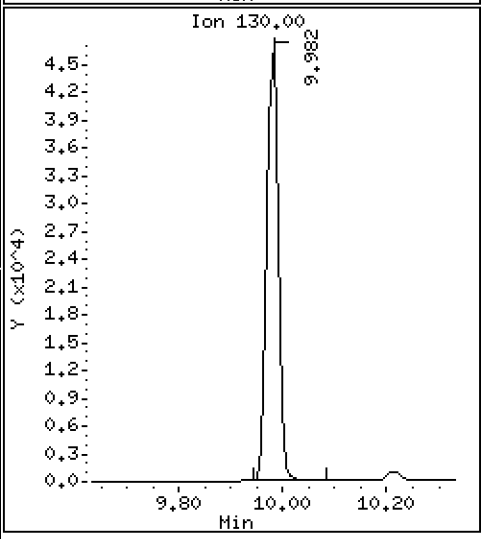
16 N-Nitroso-di-n-propylamine

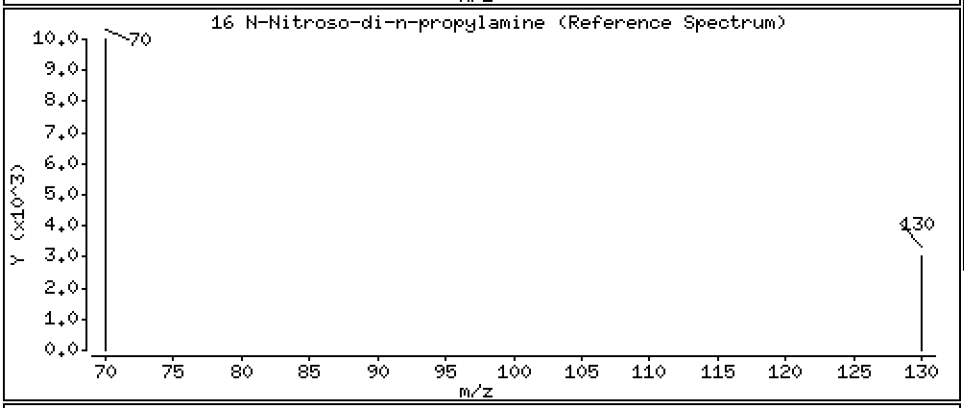
Concentration: 5.685 ug/L

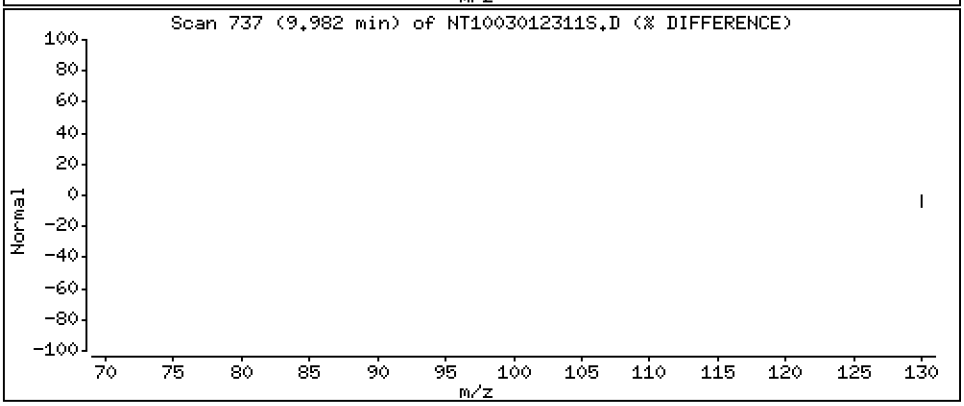












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

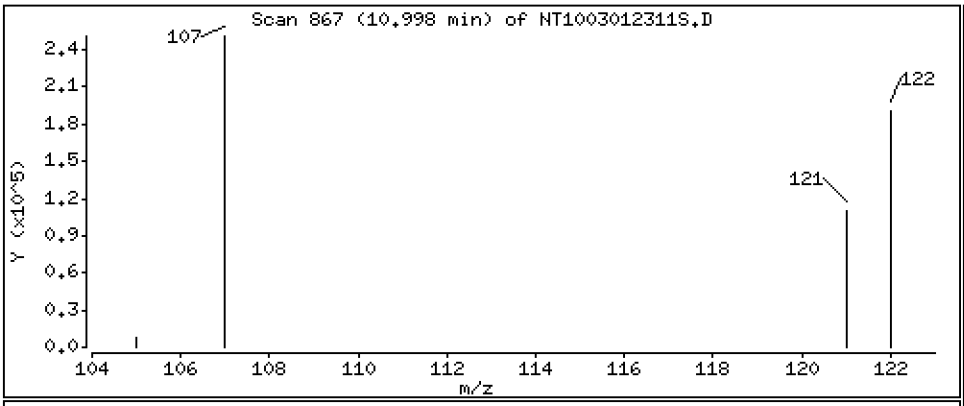
Operator: JGR

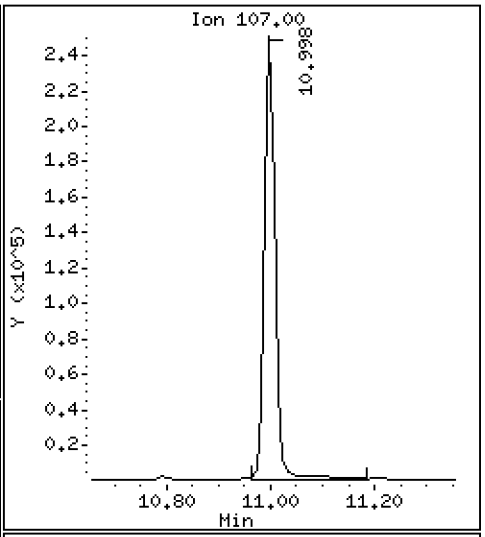
Column phase: ZB-5msi

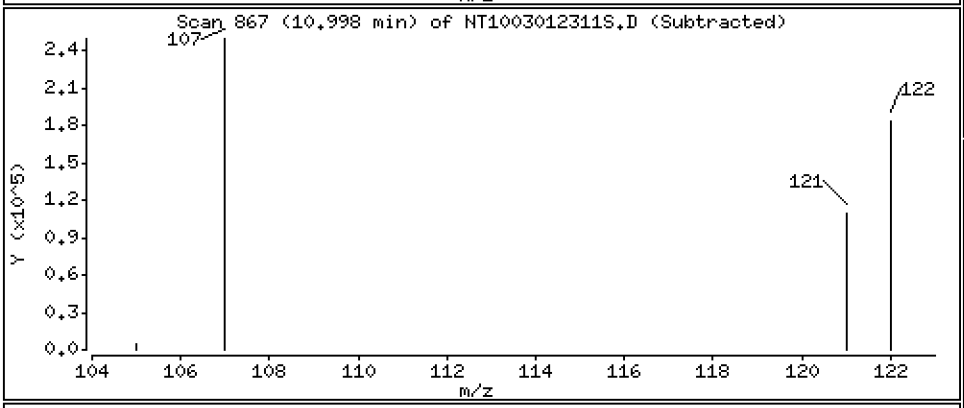
Column diameter: 0.25

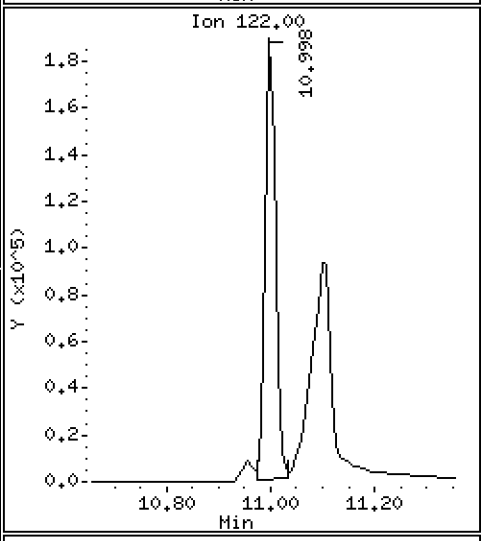
22 2,4-Dimethylphenol

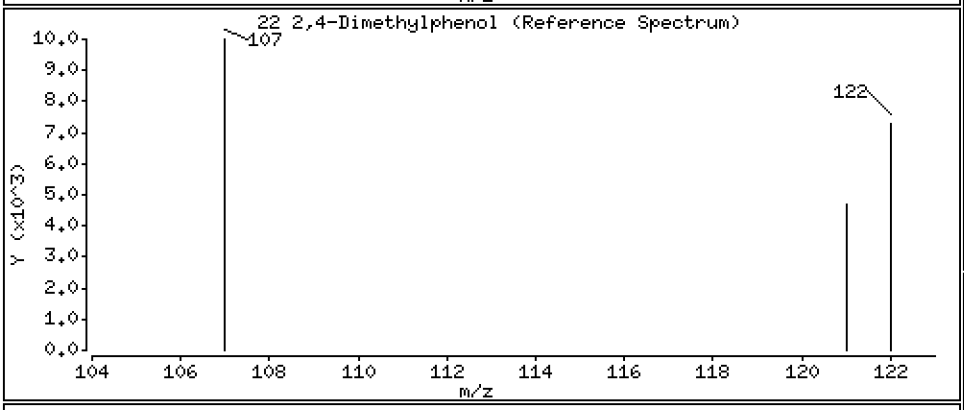
Concentration: 3.637 ug/L

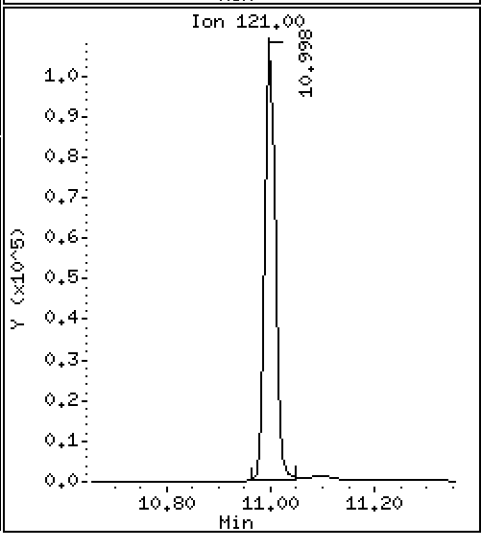


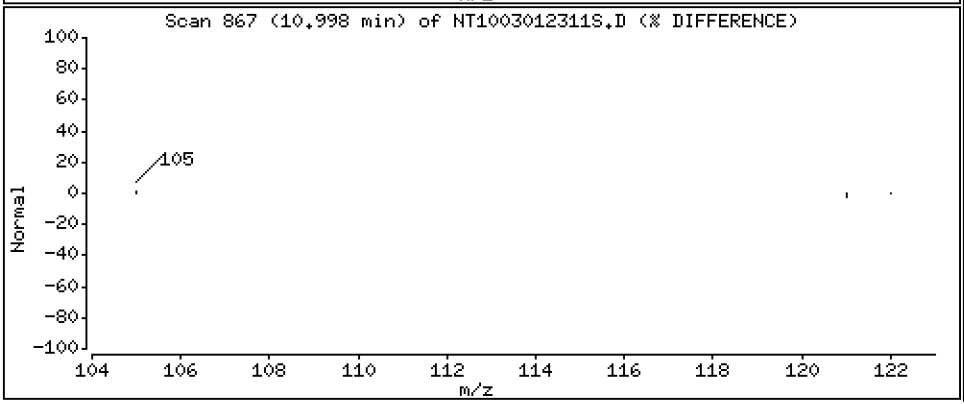












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

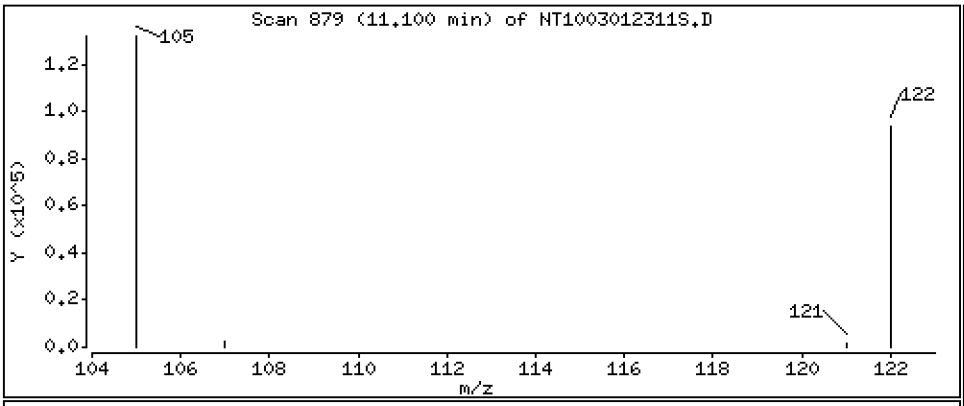
Operator: JGR

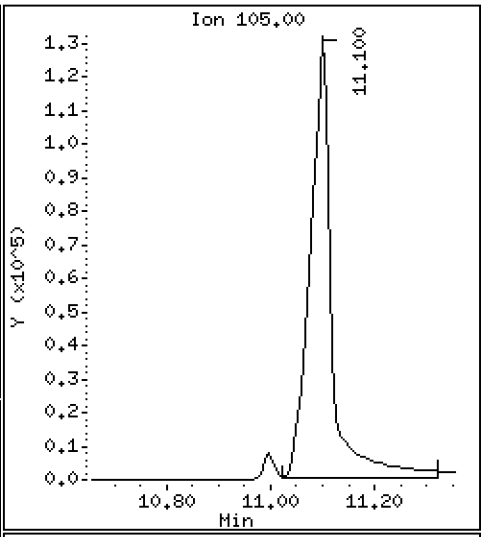
Column phase: ZB-5msi

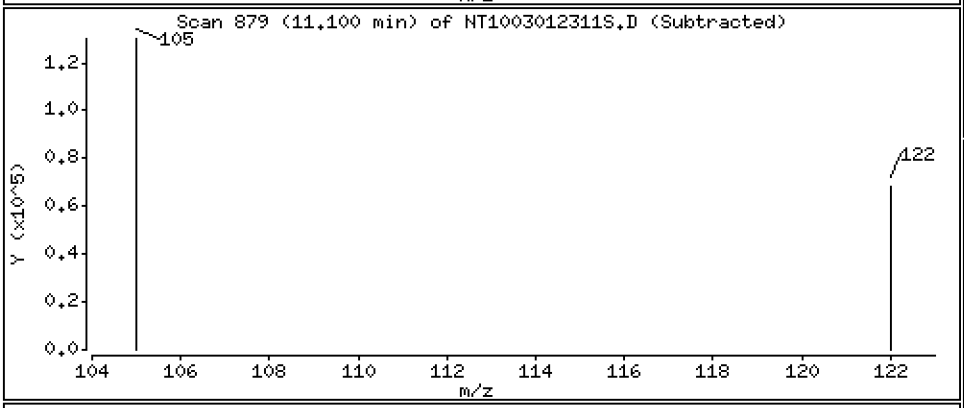
Column diameter: 0.25

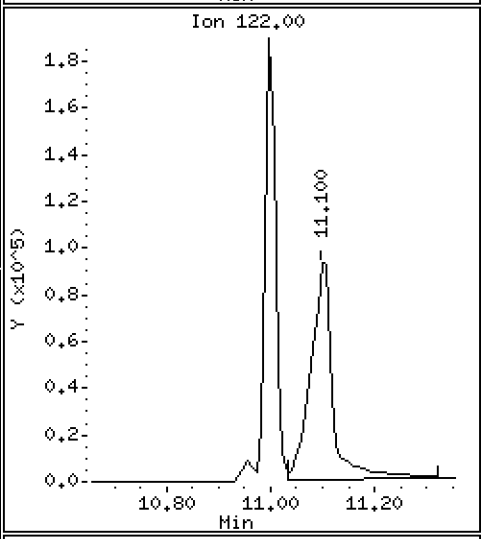
24 Benzoic acid

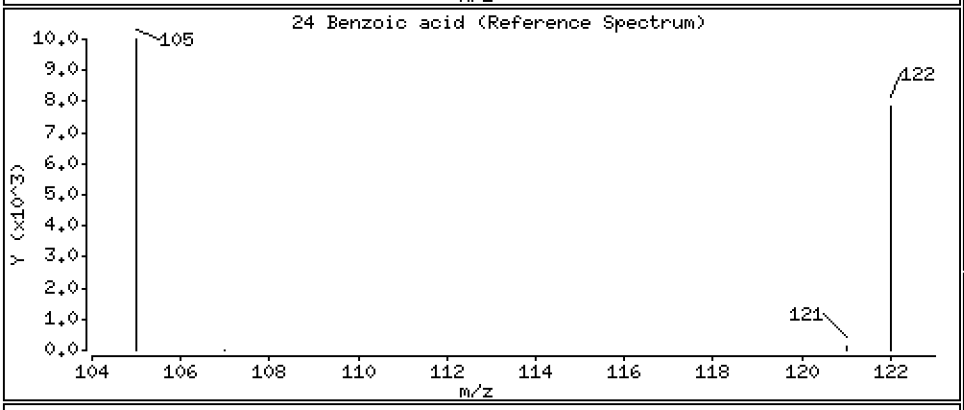
Concentration: 6.870 ug/L

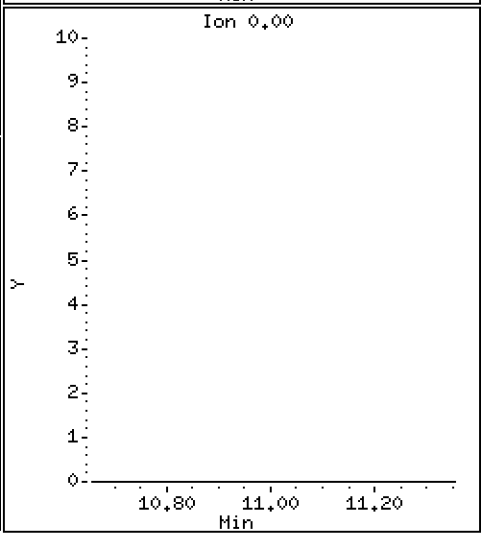


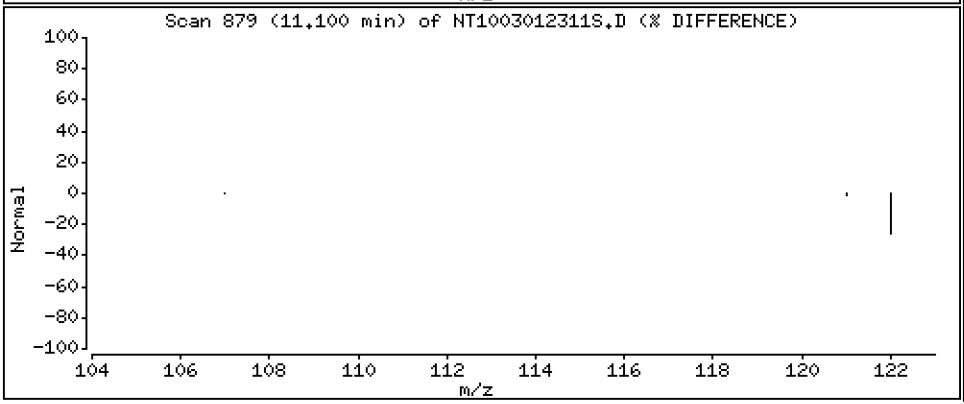












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

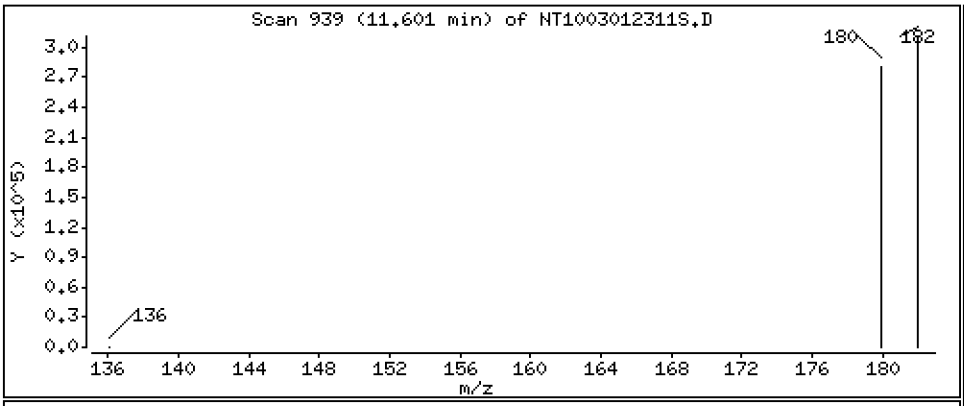
Operator: JGR

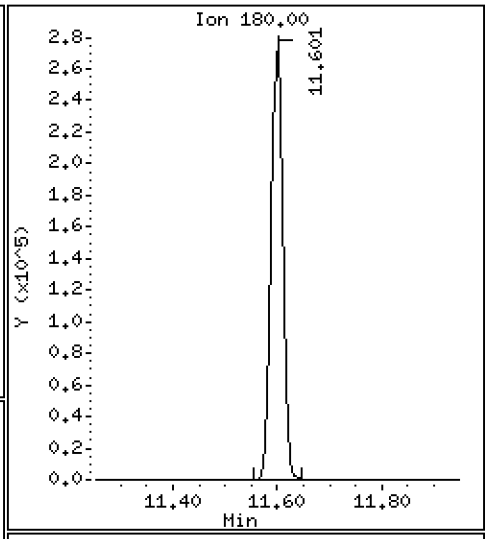
Column phase: ZB-5msi

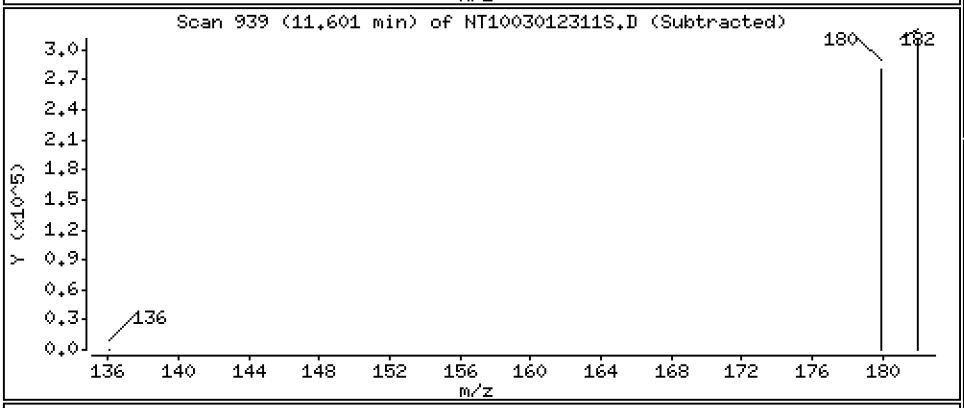
Column diameter: 0.25

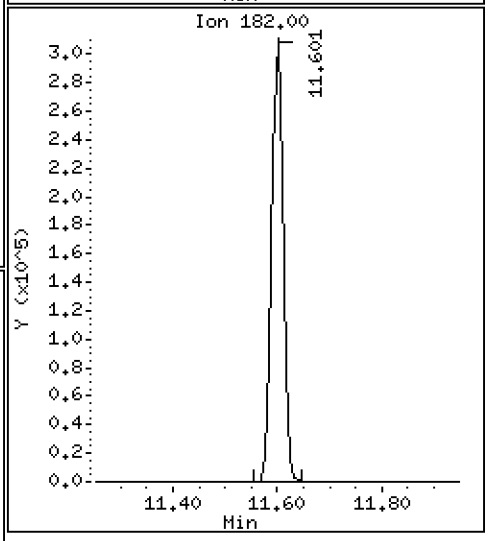
26 1,2,4-Trichlorobenzene

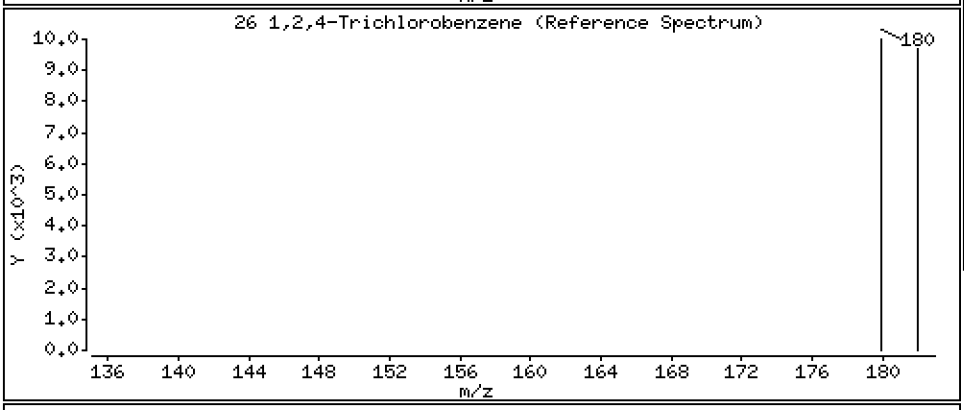
Concentration: 4.870 ug/L

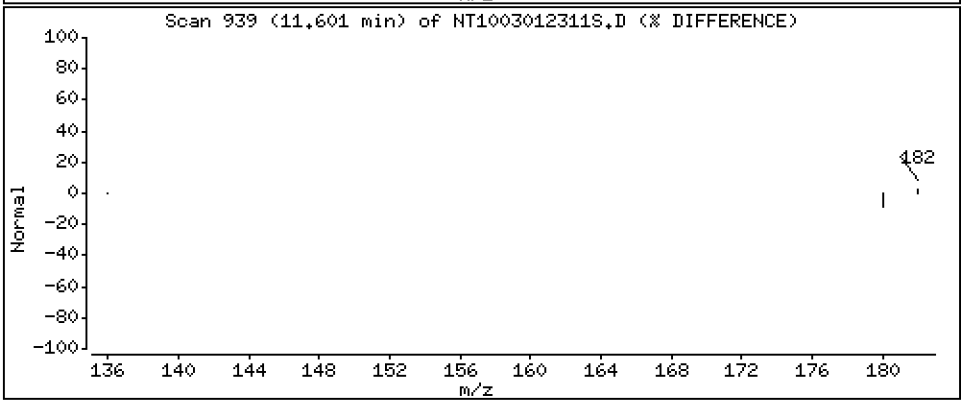












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

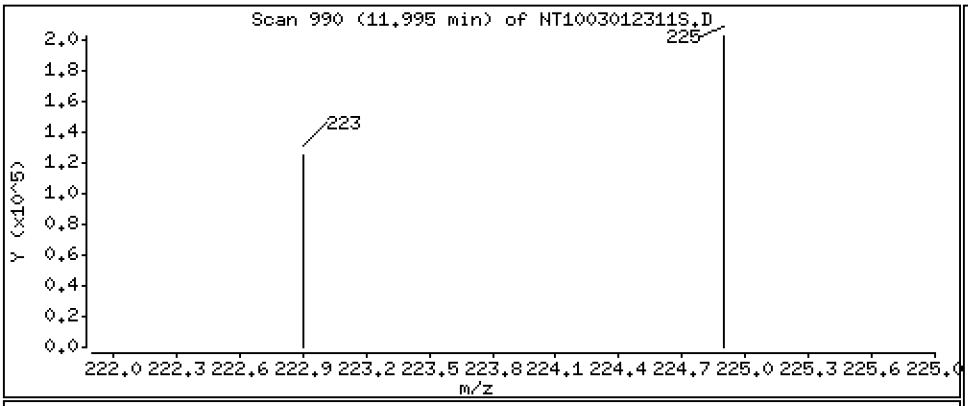
Operator: JGR

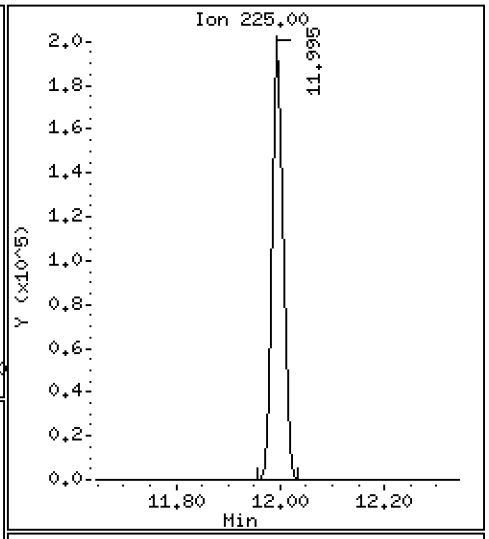
Column phase: ZB-5msi

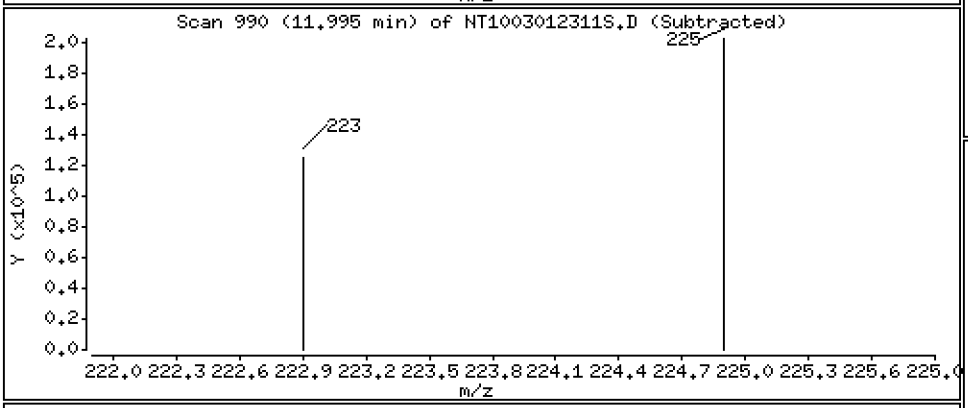
Column diameter: 0.25

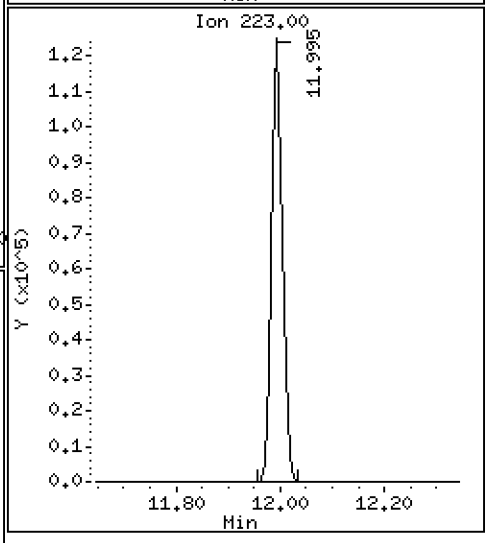
30 Hexachlorobutadiene

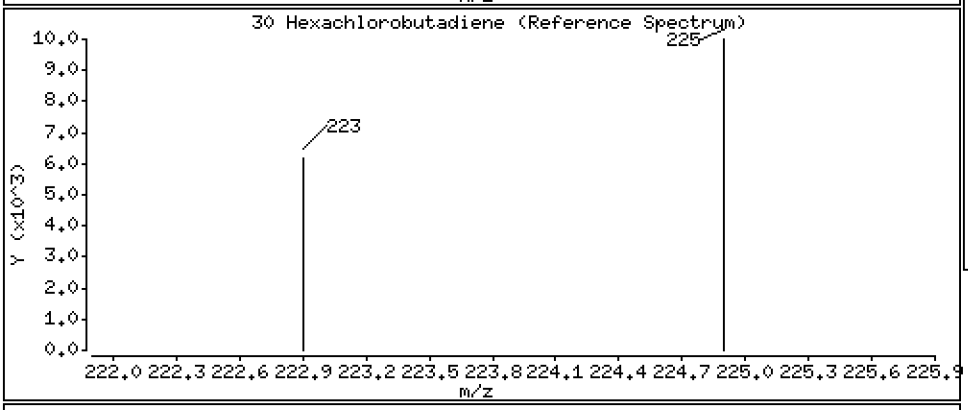
Concentration: 4.862 ug/L

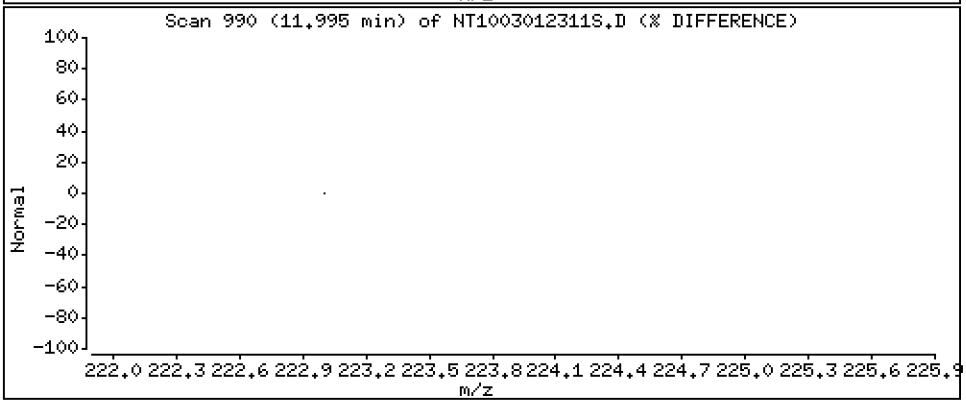












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

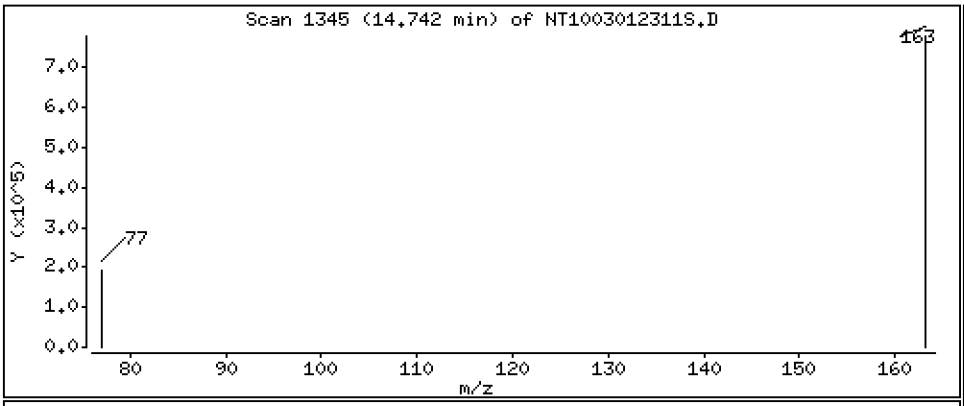
Operator: JGR

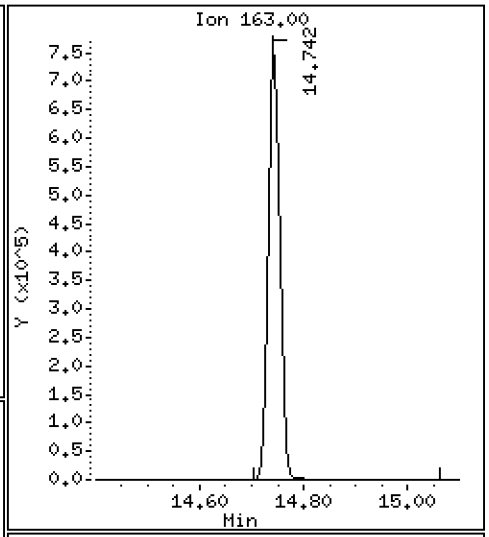
Column phase: ZB-5msi

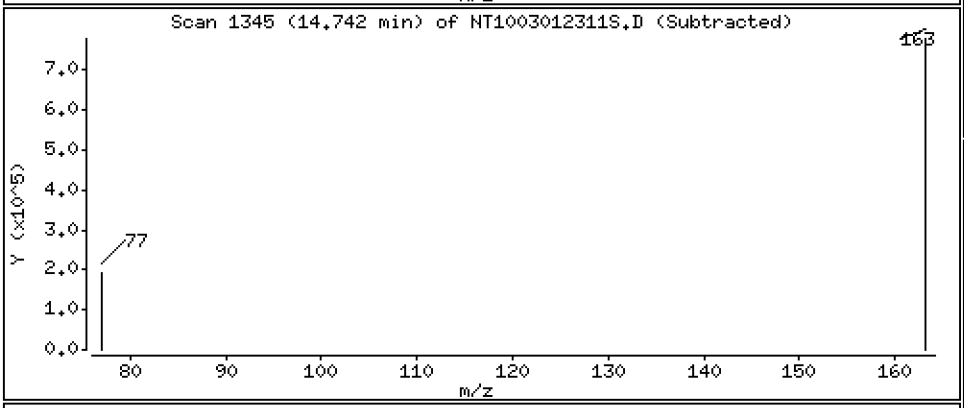
Column diameter: 0.25

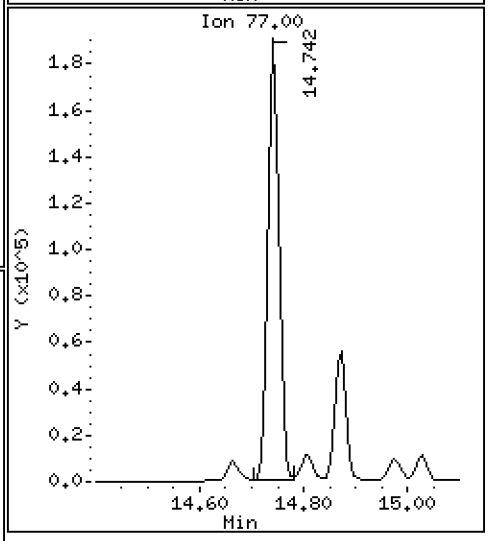
39 Dimethylphthalate

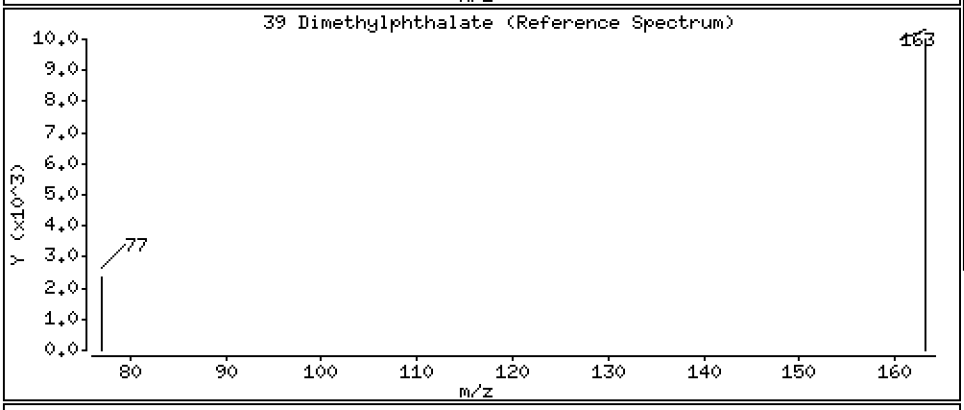
Concentration: 5.571 ug/L

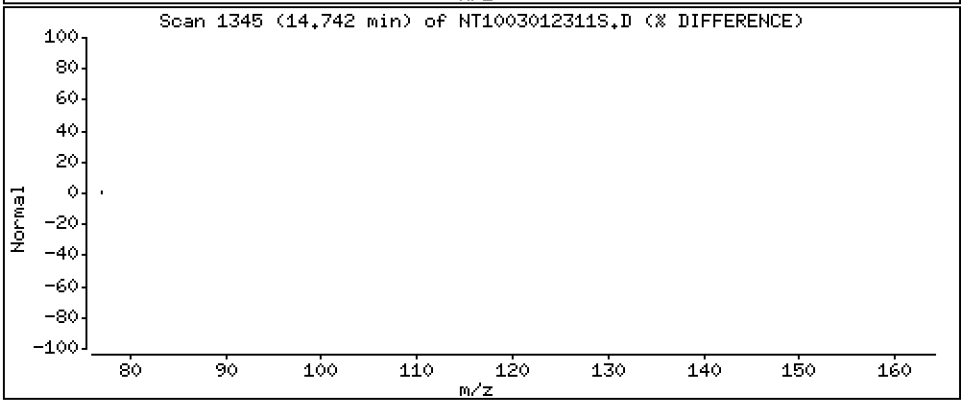












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

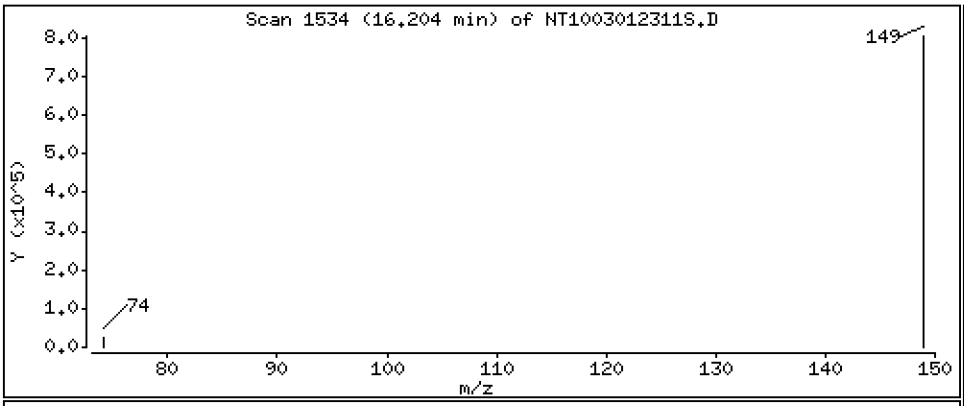
Operator: JGR

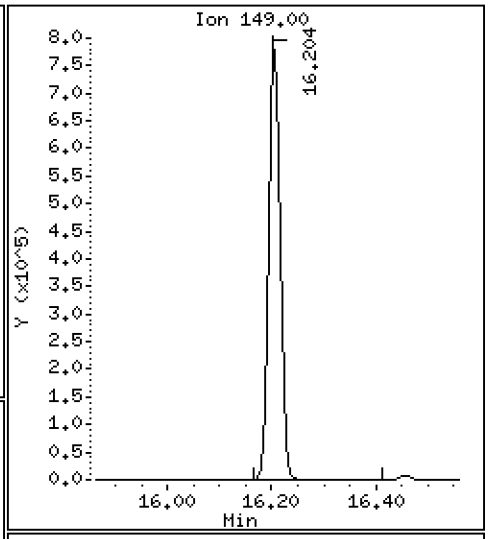
Column phase: ZB-5msi

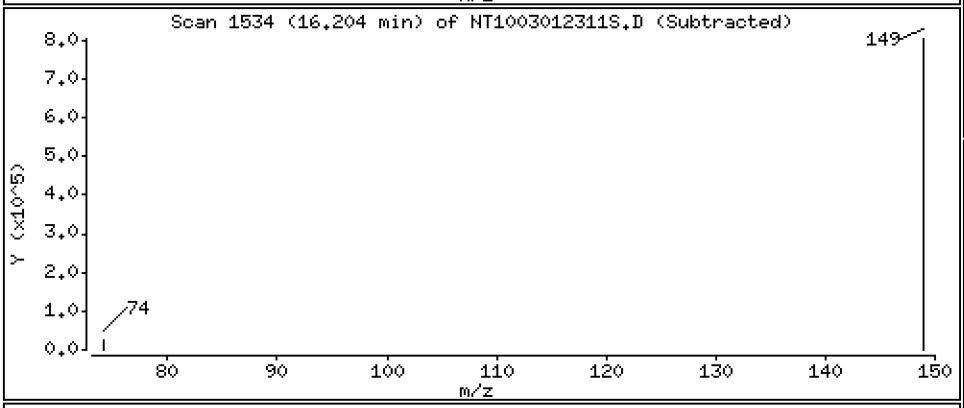
Column diameter: 0.25

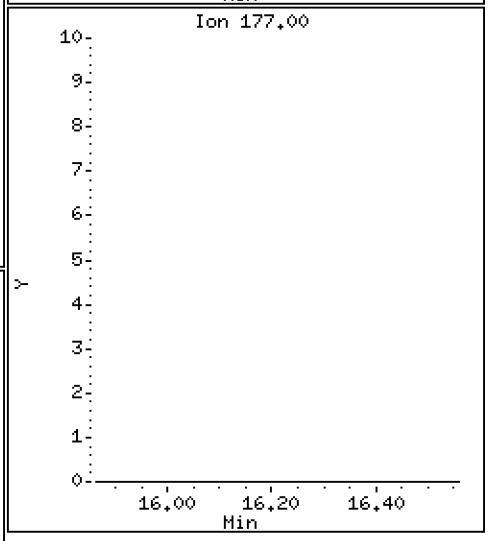
50 Diethylphthalate

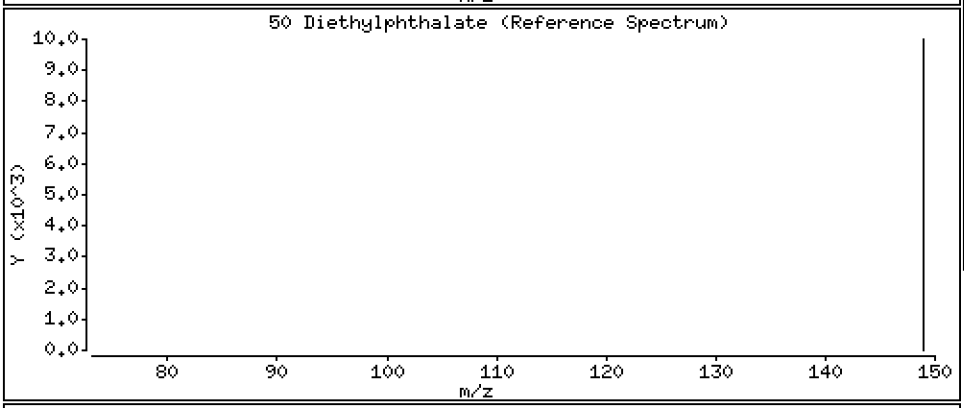
Concentration: 5.979 ug/L

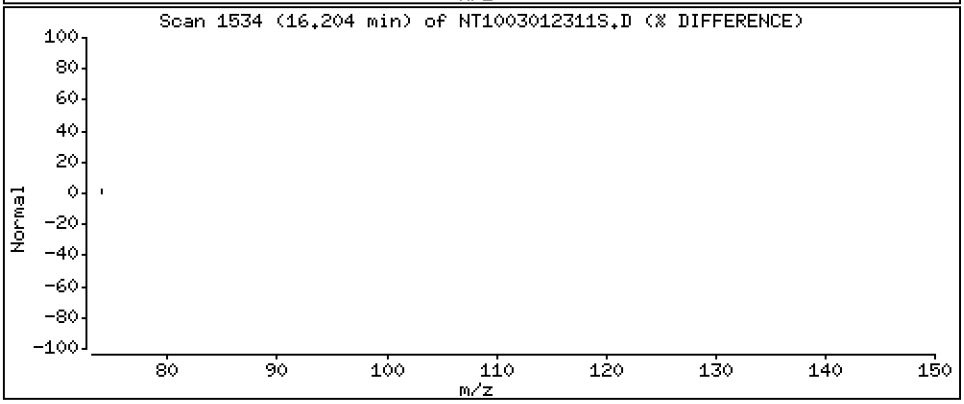












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

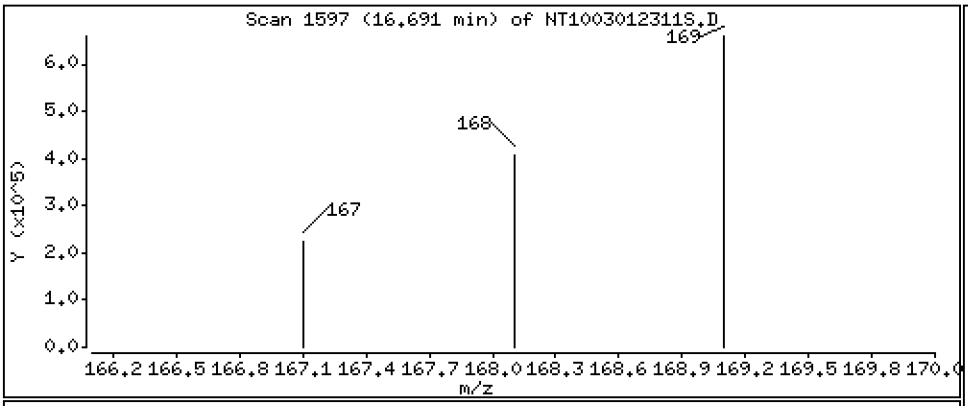
Operator: JGR

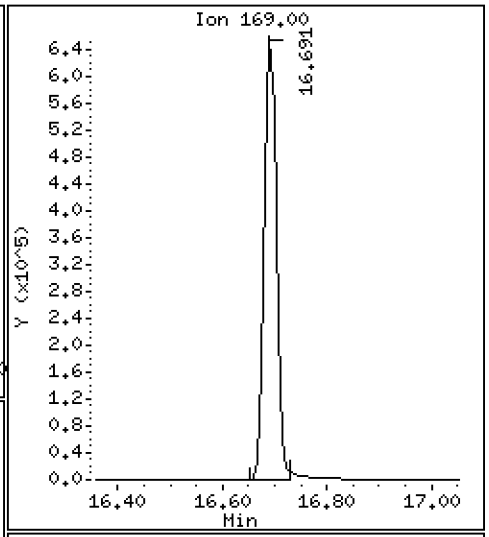
Column phase: ZB-5msi

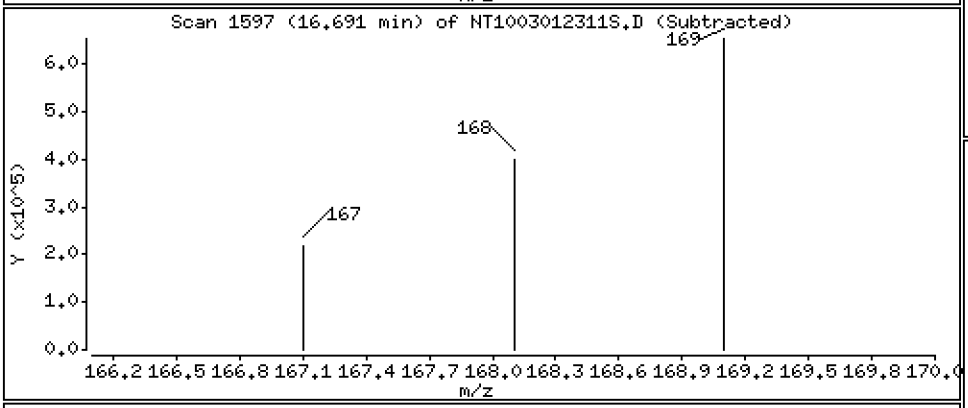
Column diameter: 0.25

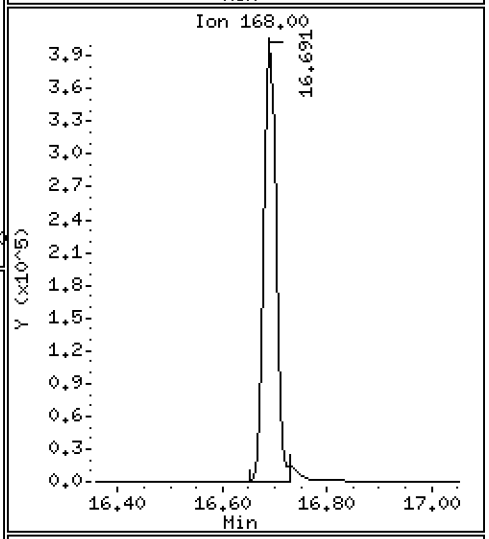
54 N-Nitrosodiphenylamine

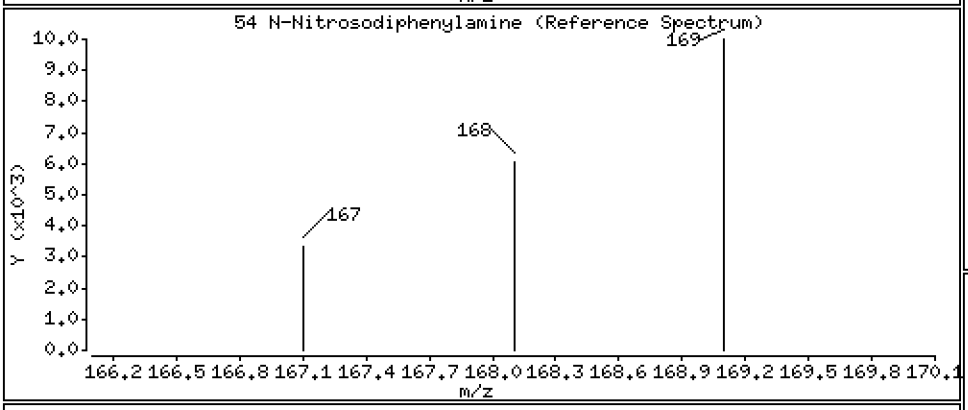
Concentration: 5.359 ug/L

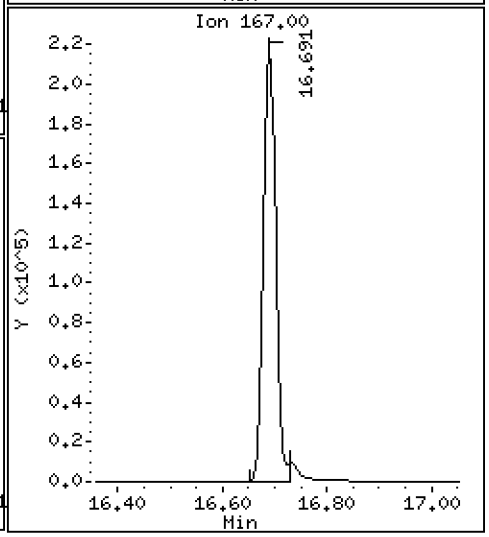


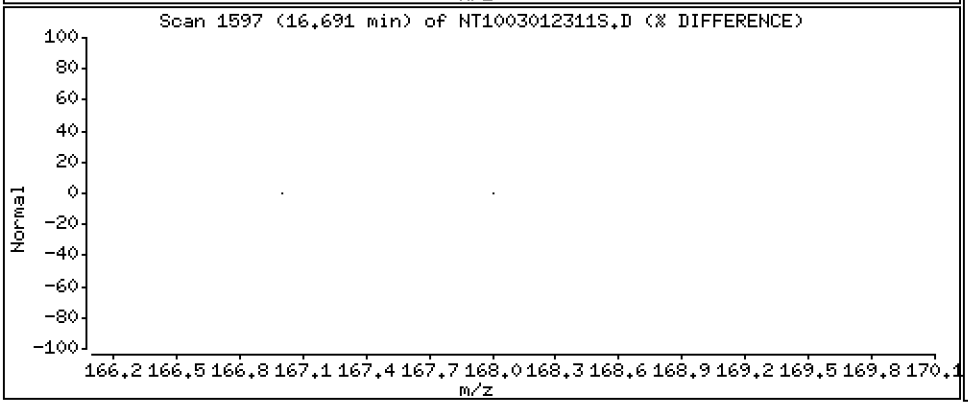












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

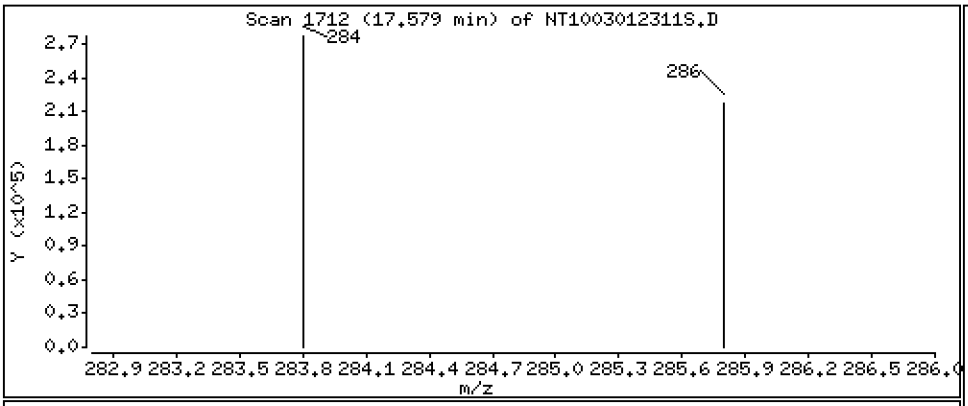
Operator: JGR

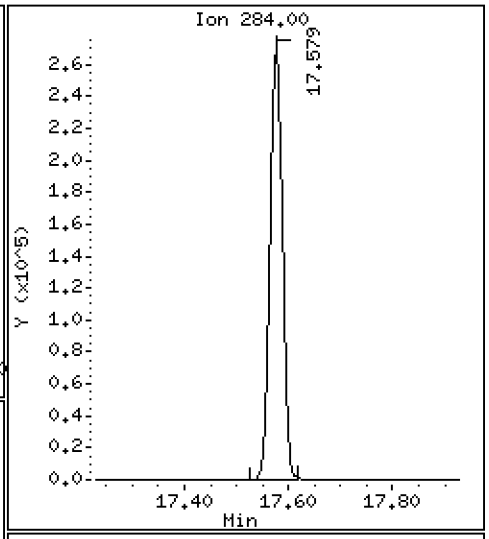
Column phase: ZB-5msi

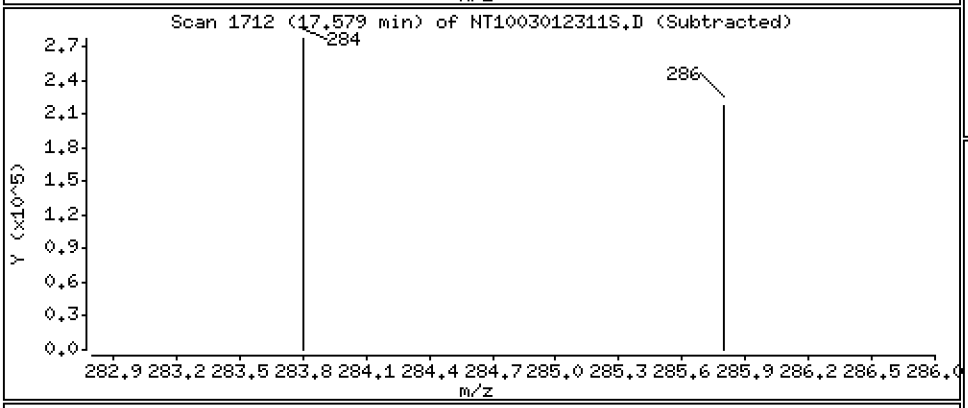
Column diameter: 0.25

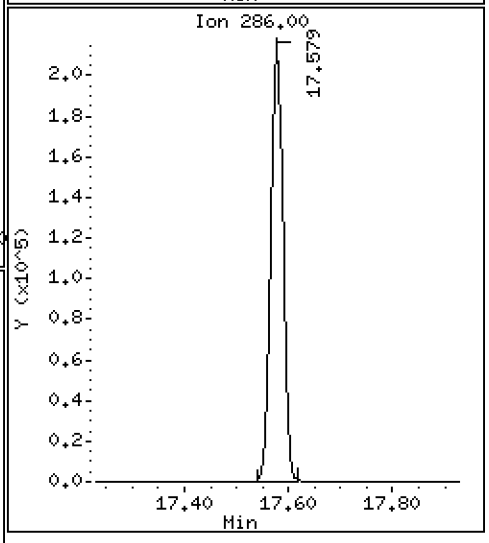
57 Hexachlorobenzene

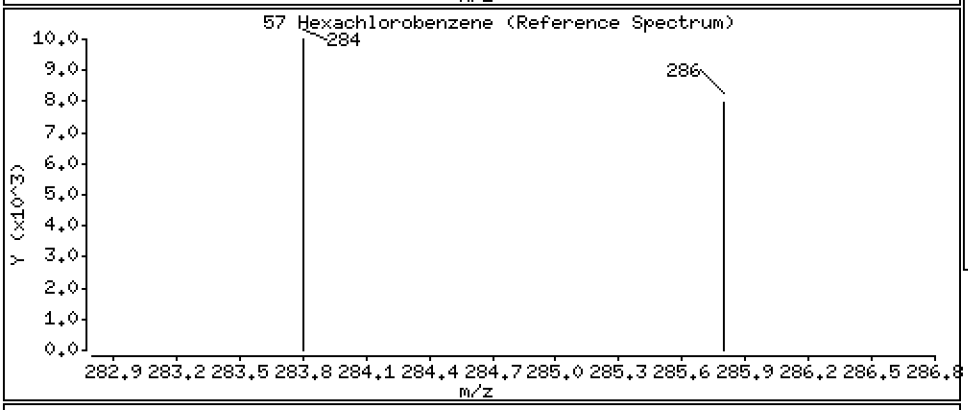
Concentration: 4.866 ug/L

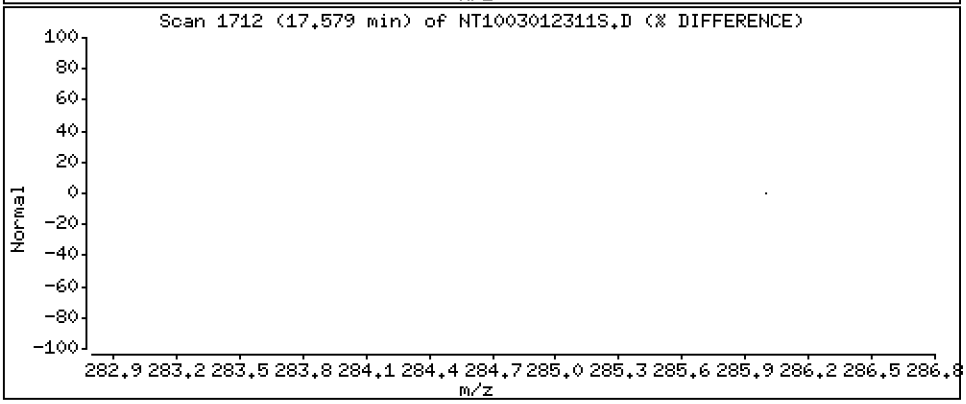












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

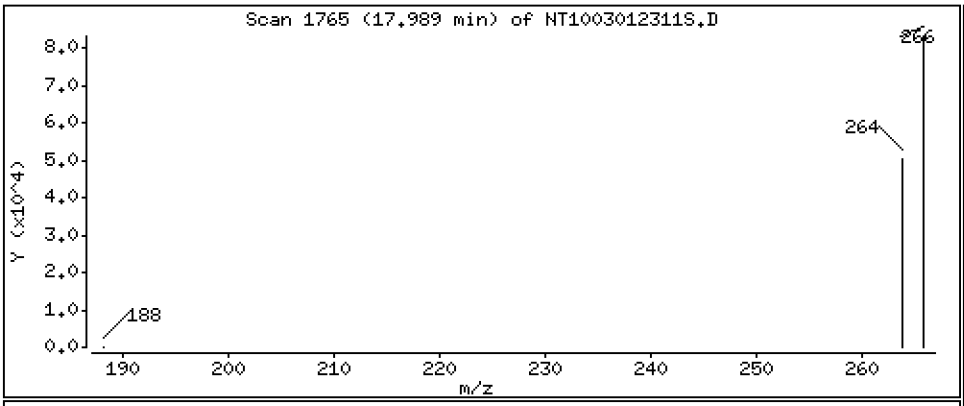
Operator: JGR

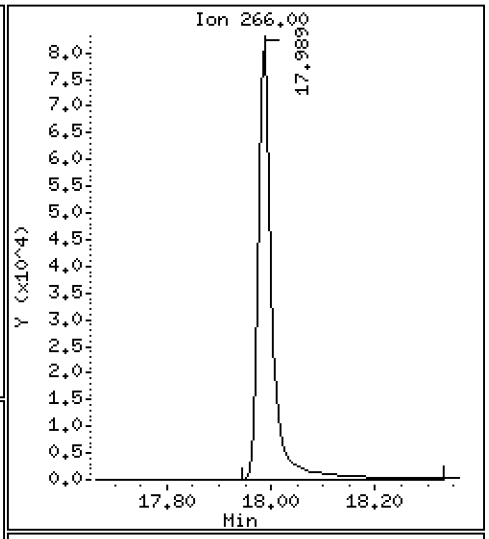
Column phase: ZB-5msi

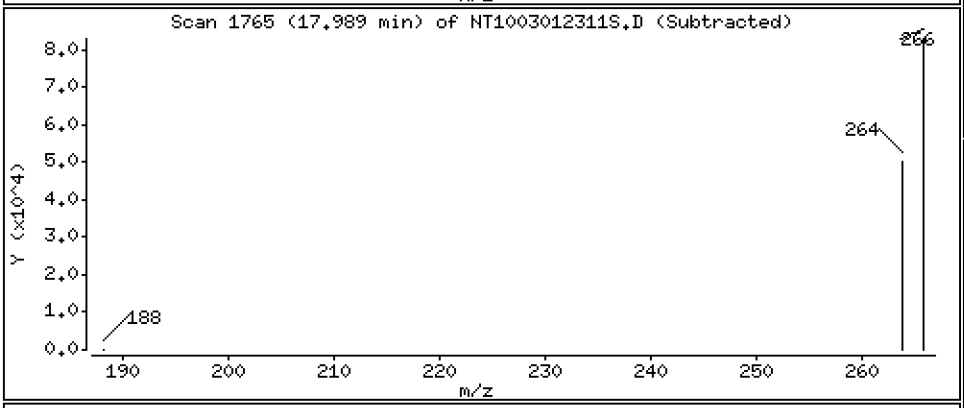
Column diameter: 0.25

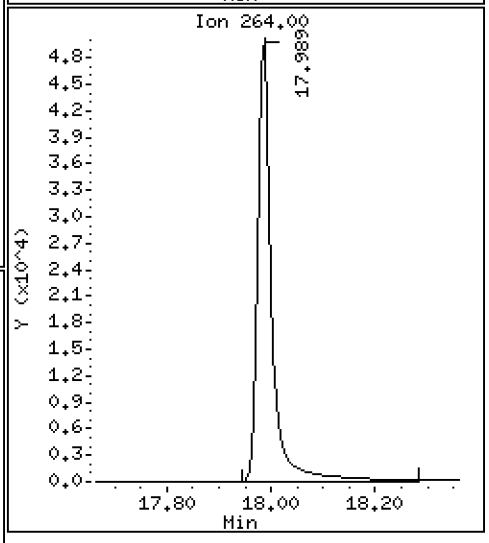
58 Pentachlorophenol

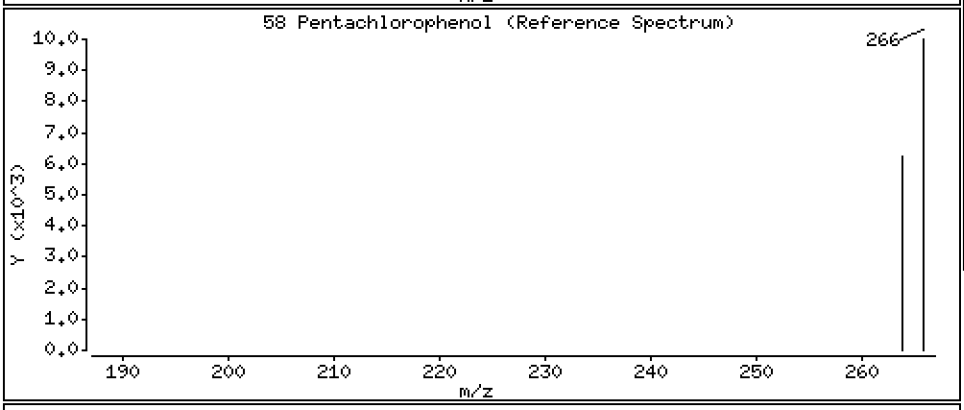
Concentration: 3.912 ug/L

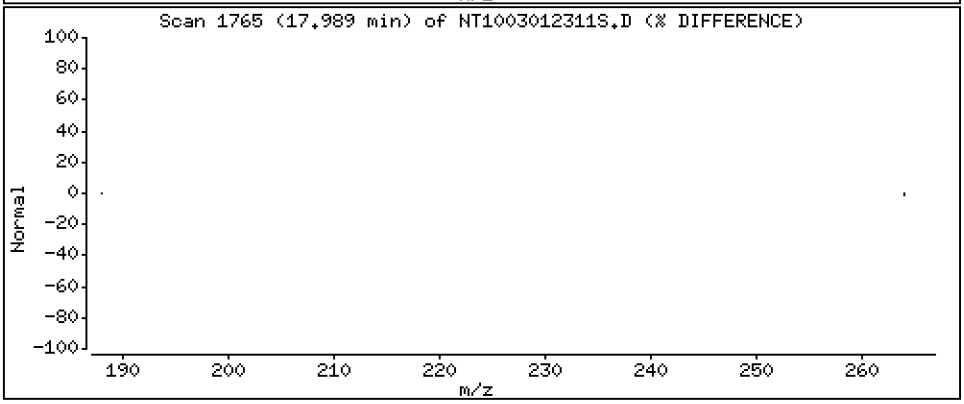












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

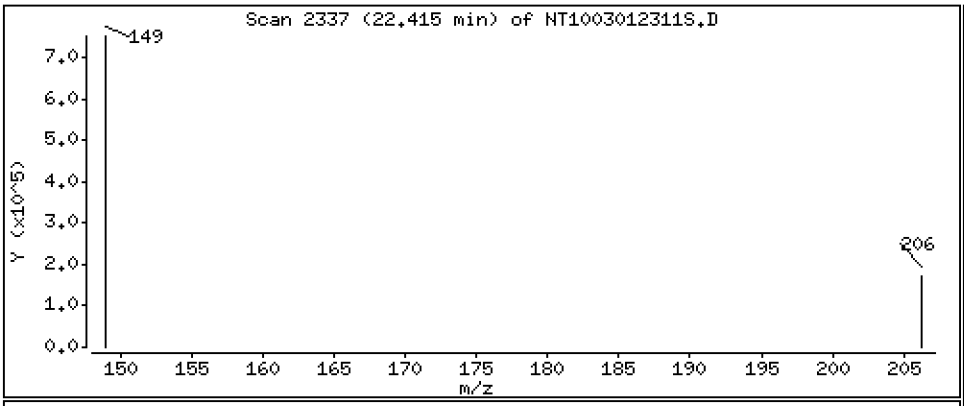
Operator: JGR

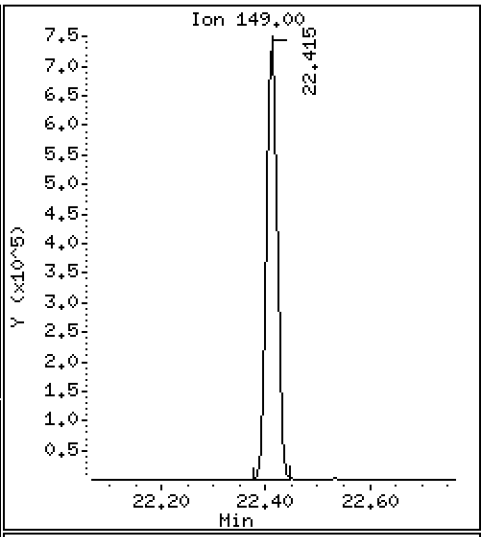
Column phase: ZB-5msi

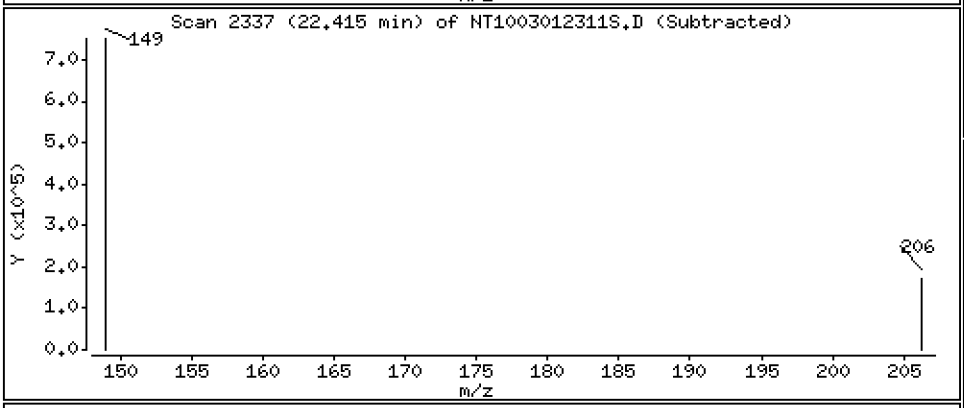
Column diameter: 0.25

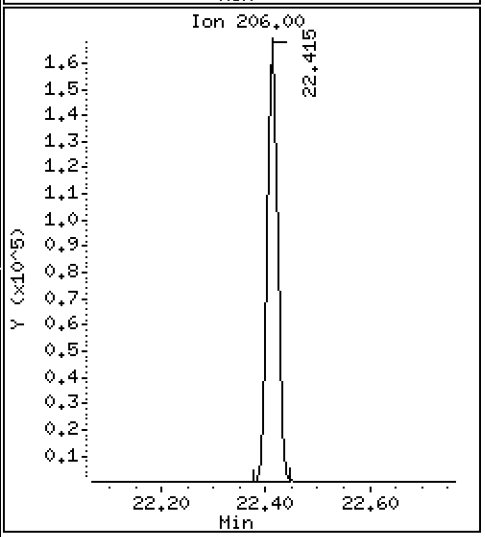
67 Butylbenzylphthalate

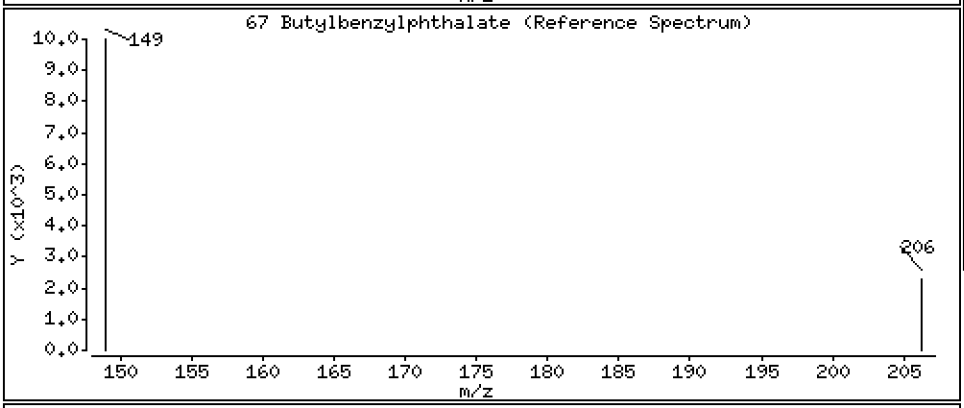
Concentration: 4.689 ug/L

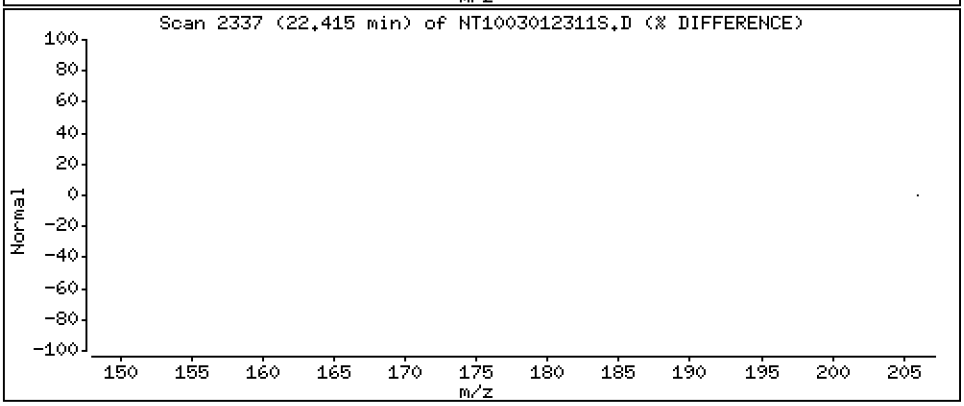












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

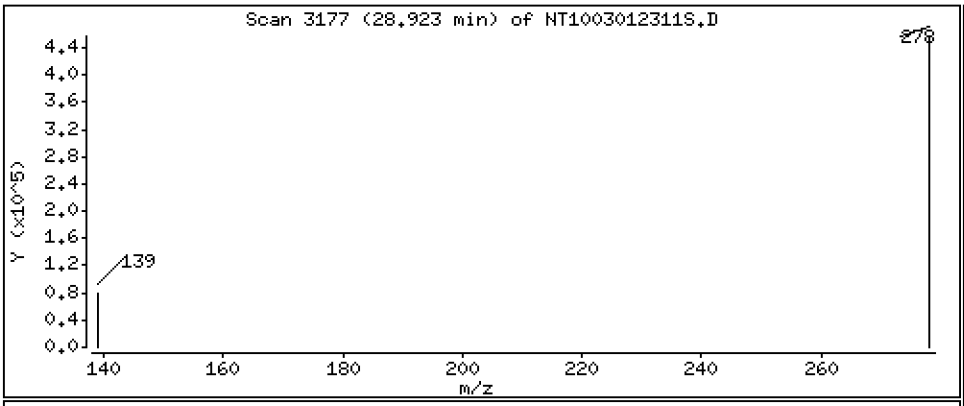
Operator: JGR

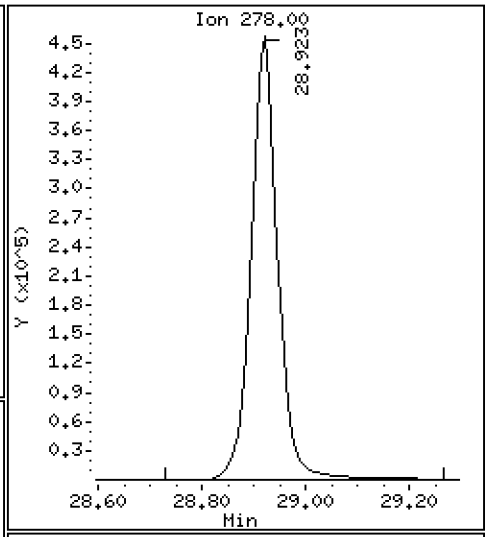
Column phase: ZB-5msi

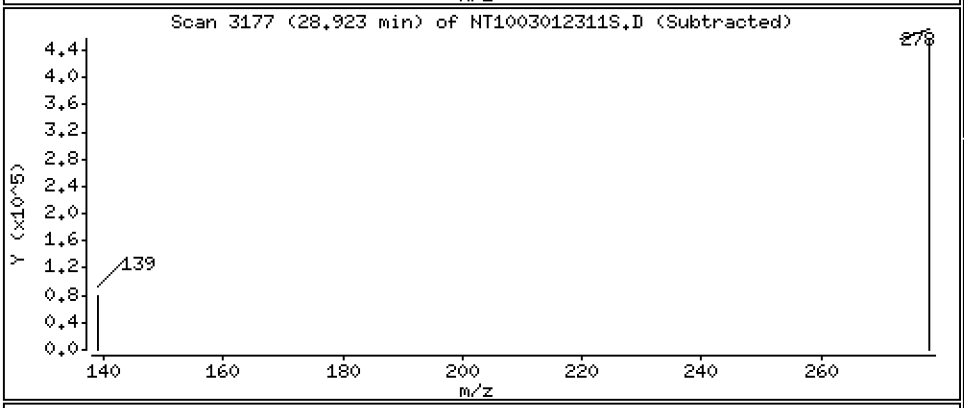
Column diameter: 0.25

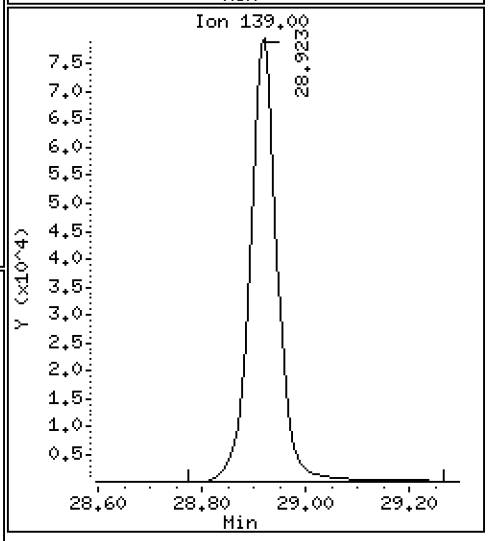
79 Dibenzo(a,h)anthracene

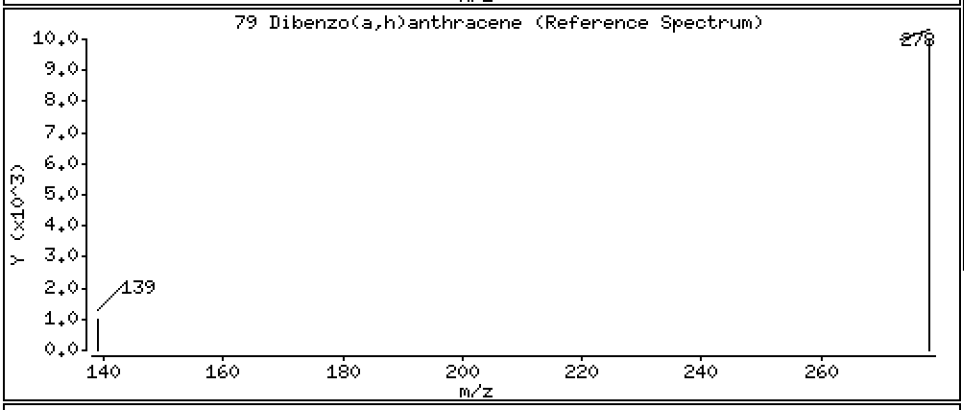
Concentration: 4.760 ug/L

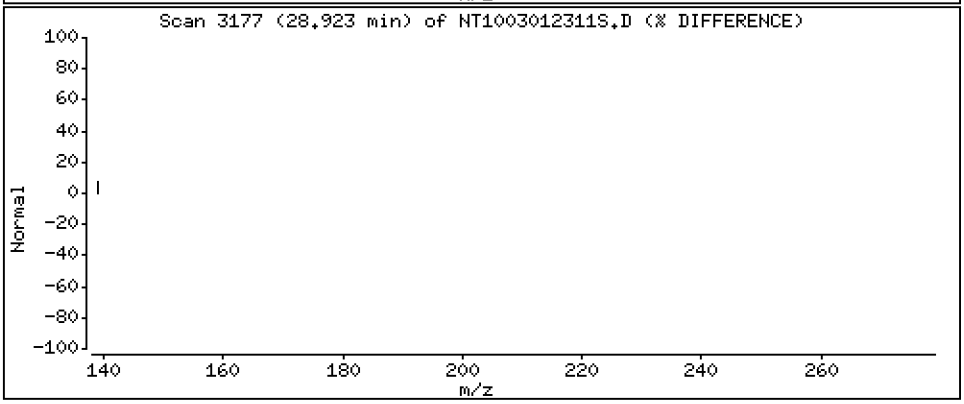












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

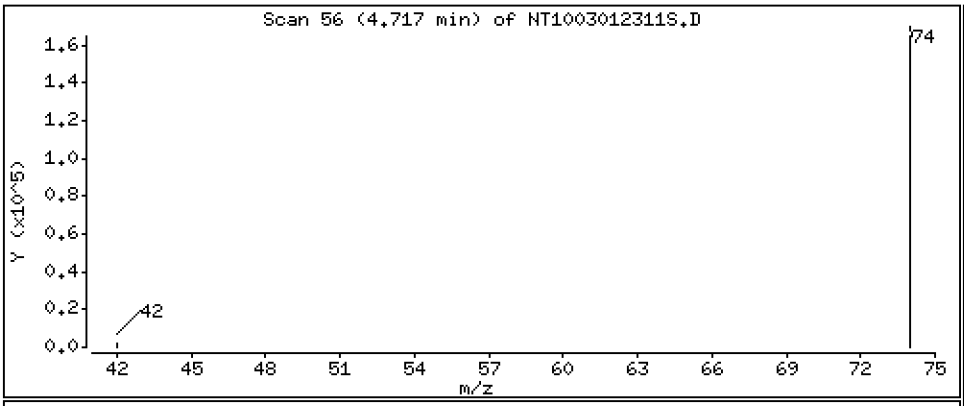
Operator: JGR

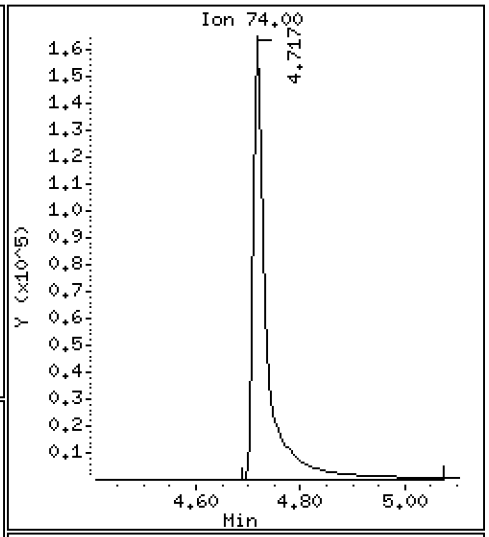
Column phase: ZB-5msi

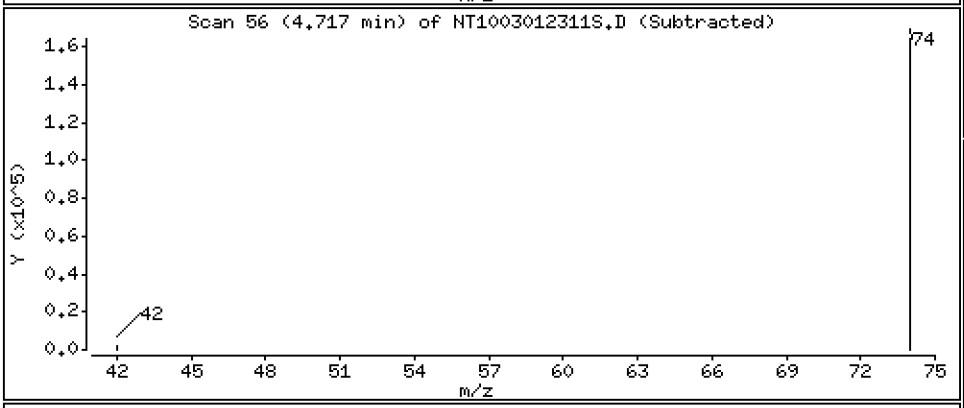
Column diameter: 0.25

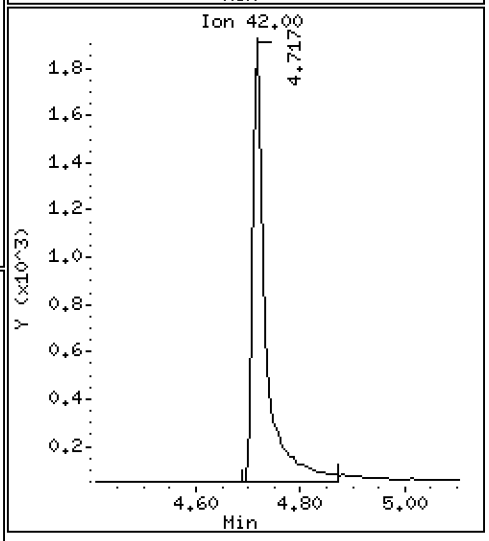
90 N-Nitrosodimethylamine

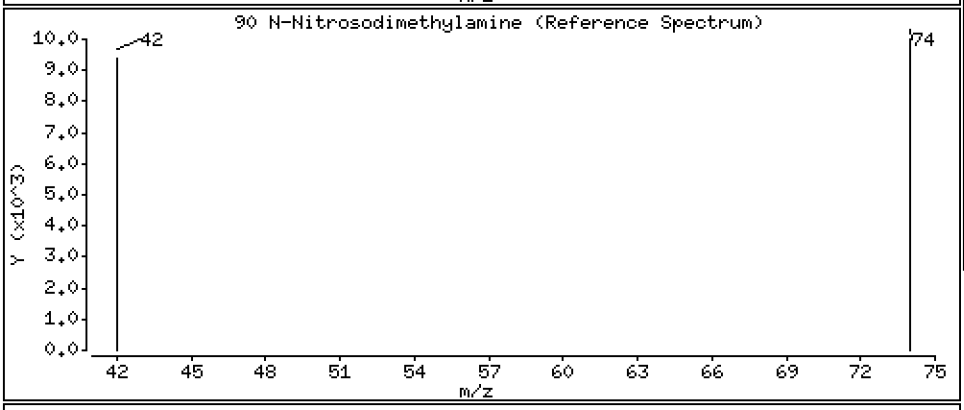
Concentration: 6.057 ug/L

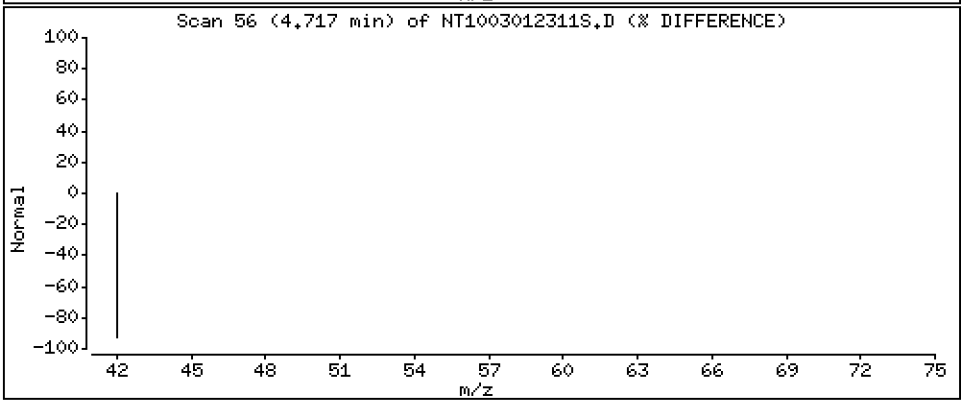












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012311S.D
Lab Smp Id: SLC0143-SCV1
Inj Date : 01-MAR-2023 21:46 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-SCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:10 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.902	6.902	(0.746)	3267	0.03768	0.03768(R)
3	Phenol	94	8.517	8.532	(0.921)	590047	4.50660	4.507
7	1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	572299	5.08409	5.084
* 8	1,4-Dichlorobenzene-d4	152	9.252	9.252	(1.000)	303734	4.00000	
9	1,4-Dichlorobenzene	146	9.283	9.275	(1.003)	574537	5.24962	5.250
11	Benzyl alcohol	79	9.469	9.508	(1.023)	388582	5.10390	5.104
12	1,2-Dichlorobenzene	146	9.562	9.563	(1.034)	540938	5.14228	5.142
13	2-Methylphenol	108	9.655	9.671	(1.044)	348452	4.36547	4.365
15	4-Methylphenol	108	9.943	9.966	(1.075)	379262	4.50495	4.505
16	N-Nitroso-di-n-propylamine	70	9.982	9.982	(1.079)	330861	5.68451	5.685
22	2,4-Dimethylphenol	107	10.998	11.006	(0.938)	357707	3.63670	3.637
24	Benzoic acid	105	11.099	11.007	(0.947)	380081	6.86990	6.870
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	402252	4.87012	4.870
* 27	Naphthalene-d8	136	11.724	11.723	(1.000)	1147551	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	285002	4.86242	4.862
39	Dimethylphthalate	163	14.741	14.749	(0.963)	1142178	5.57065	5.571
* 42	Acenaphthene-d10	162	15.314	15.314	(1.000)	645730	4.00000	
50	Diethylphthalate	149	16.203	16.211	(1.058)	1156037	5.97883	5.979
54	N-Nitrosodiphenylamine	169	16.690	16.705	(0.907)	998237	5.35897	5.359
57	Hexachlorobenzene	284	17.578	17.579	(0.955)	424193	4.86607	4.866

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	17.989	18.012	(0.978)	155412	3.91206	3.912
*	59 Phenanthrene-d10	188	18.399	18.398	(1.000)	1151000	4.00000	
$	66 Terphenyl-d14	244	21.524	21.532	(0.919)	2846	0.02712	0.02712(R)
	67 Butylbenzylphthalate	149	22.415	22.415	(0.957)	1009961	4.68912	4.689
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	1297466	4.00000	
*	77 Perylene-d12	264	26.108	26.108	(1.000)	1394899	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.922	28.946	(1.108)	1657122	4.76032	4.760
	90 N-Nitrosodimethylamine	74	4.717	4.755	(0.510)	310951	6.05685	6.057

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012311S.D
Lab Smp Id: SLC0143-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 18:37
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	320125	160063	640250	303734	-5.12
27 Naphthalene-d8	1136019	568010	2272038	1147551	1.02
42 Acenaphthene-d10	636993	318497	1273986	645730	1.37
59 Phenanthrene-d10	1093620	546810	2187240	1151000	5.25
69 Chrysene-d12	1000300	500150	2000600	1297466	29.71
77 Perylene-d12	1058448	529224	2116896	1394899	31.79

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.41	22.91	23.91	23.42	0.03
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012311S.D

Lab ID: SLC0143-SCV1
nt10.i, 20230301.b\SIM.b\SIMABN2.m,   01-MAR-2023 21:46

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.947	0.000	0.9467	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003012310S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

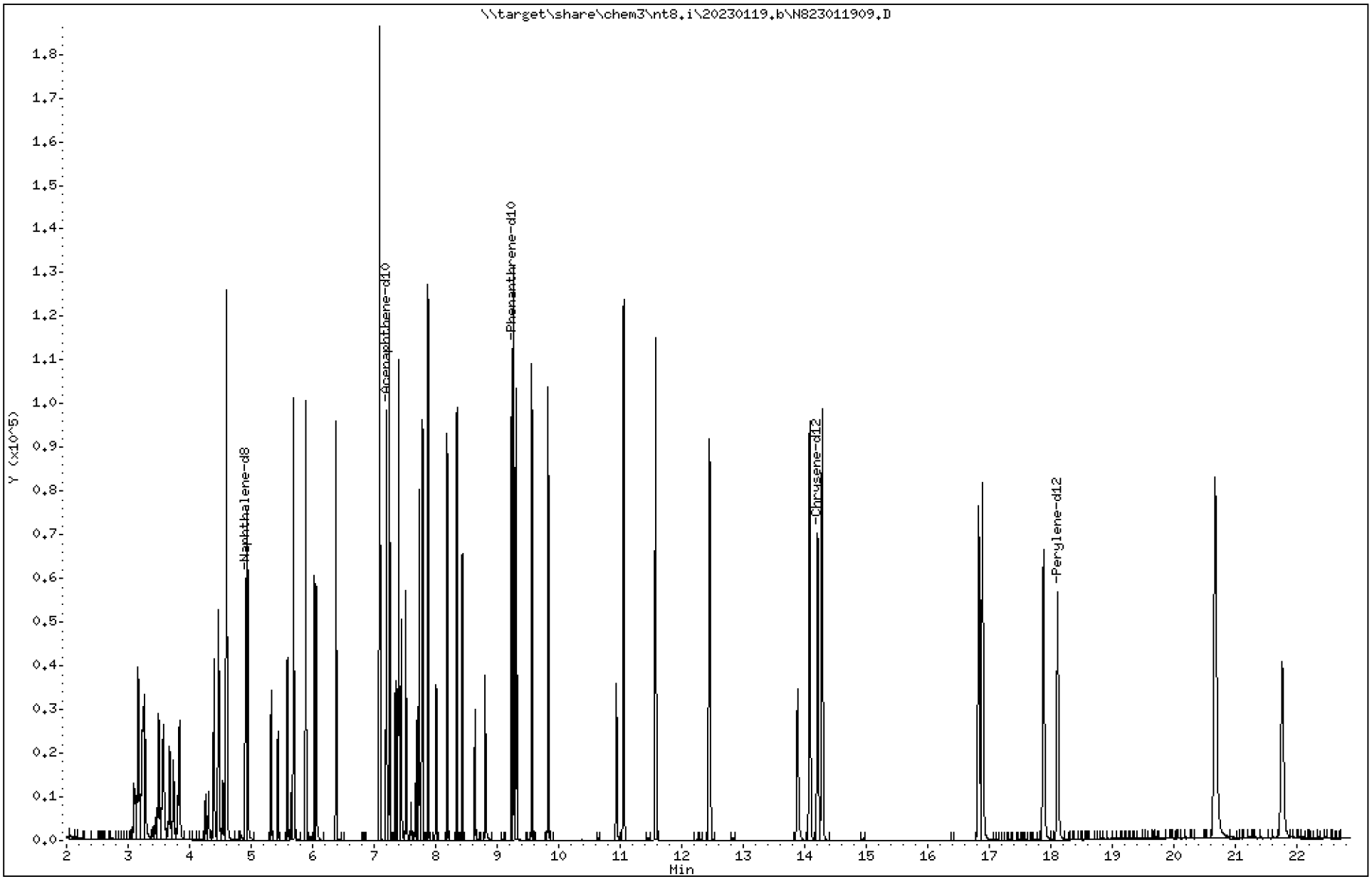
Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GA00050
Laboratory ID: SLA0213-SCV1
Sequence: SLA0213
Standard ID: L000686

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Naphthalene	2.5000	2.63	5.0	
2-Methylnaphthalene	2.5000	2.67	6.8	
1-Methylnaphthalene	2.5000	2.65	6.0	
Acenaphthylene	2.5000	2.82	12.8	
Acenaphthene	2.5000	2.60	4.0	
Dibenzofuran	2.5000	2.86	14.4	
Fluorene	2.5000	2.63	5.2	
Phenanthrene	2.5000	2.45	-2.1	
Anthracene	2.5000	2.27	-9.2	
Fluoranthene	2.5000	2.65	6.1	
Pyrene	2.5000	2.46	-1.5	
Benzo(a)anthracene	2.5000	2.59	3.5	
Chrysene	2.5000	2.40	-4.0	
Benzo(b)fluoranthene	2.5000	2.51	0.3	
Benzo(k)fluoranthene	2.5000	2.66	6.2	
Benzofluoranthenes, Total	5.0000	5.48	9.6	
Benzo(a)pyrene	2.5000	2.57	2.9	
Indeno(1,2,3-cd)pyrene	2.5000	2.69	7.6	
Dibenzo(a,h)anthracene	2.5000	2.49	-0.3	
Benzo(g,h,i)perylene	2.5000	2.48	-0.7	

* Values outside of QC limits

Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D
Date : 19-JAN-2023 14:58
Client ID:
Sample Info: SCV230119
Volume Injected (uL): 1.0
Column phase: Rxi-17sil

Instrument: nt8.i
Operator: JZ
Column diameter: 0.25



Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

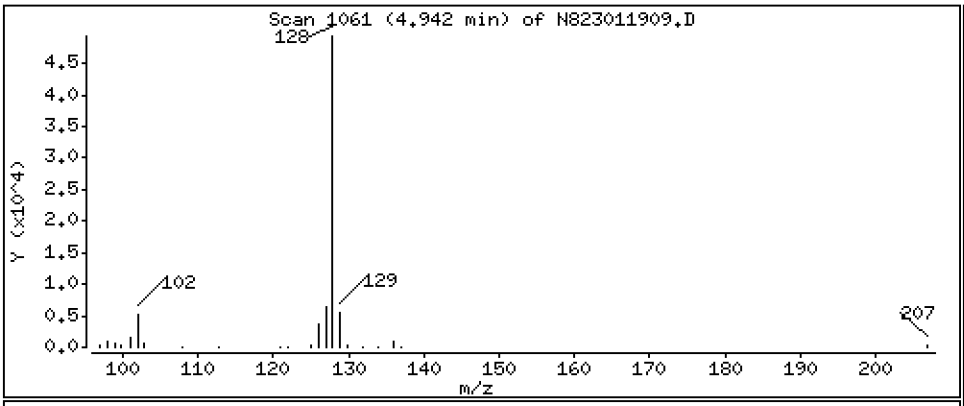
Operator: JZ

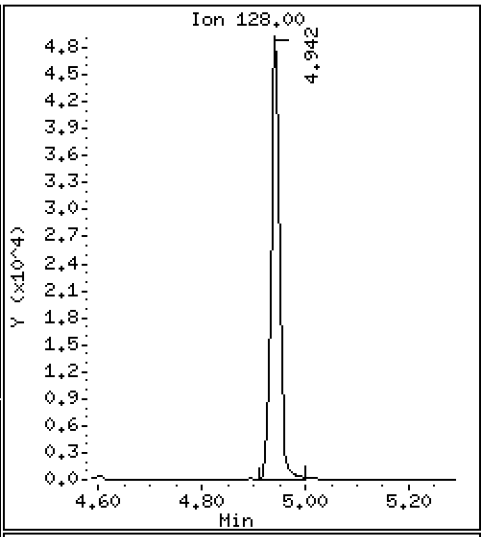
Column phase: Rxi-17sil

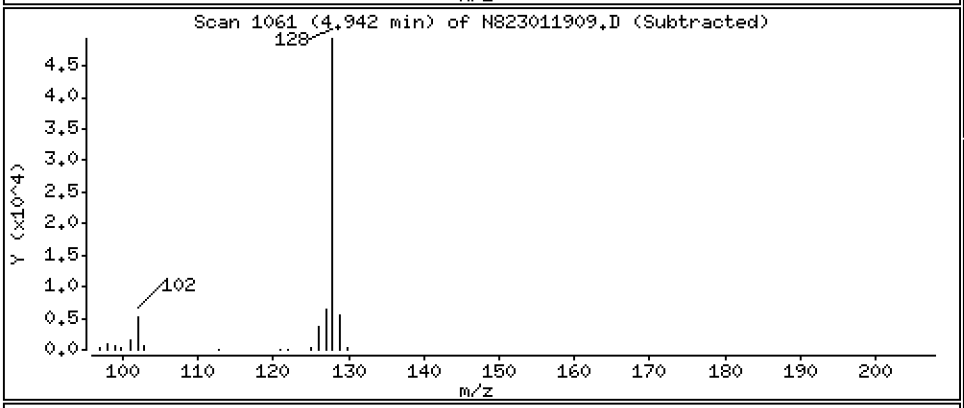
Column diameter: 0.25

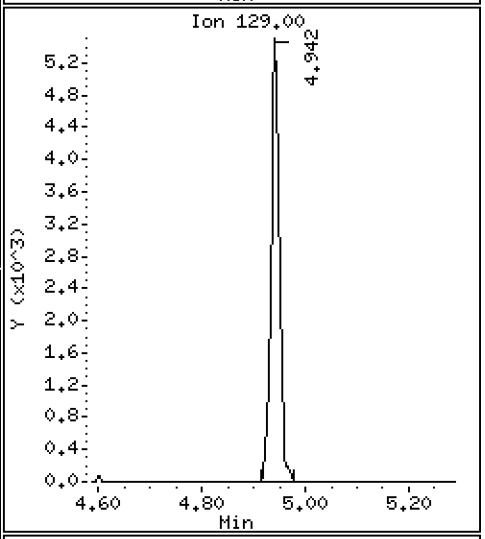
2 Naphthalene

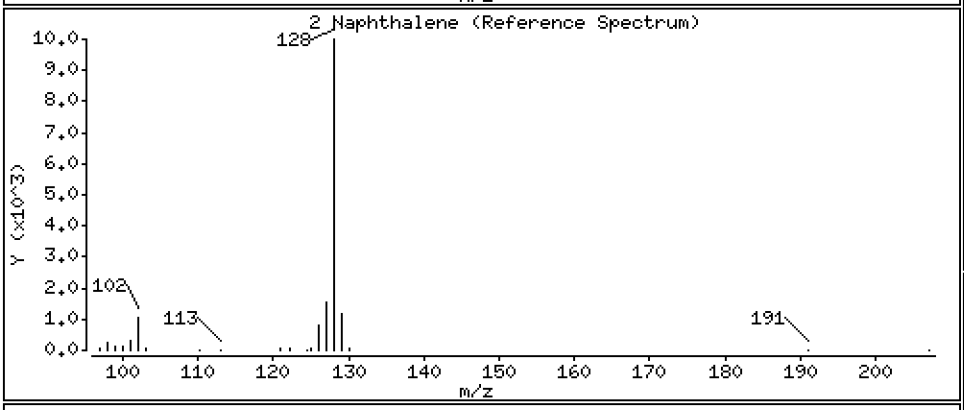
Concentration: 2.626 ug/L

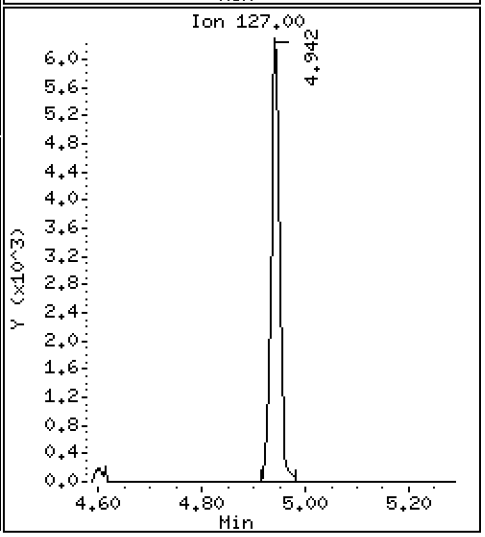


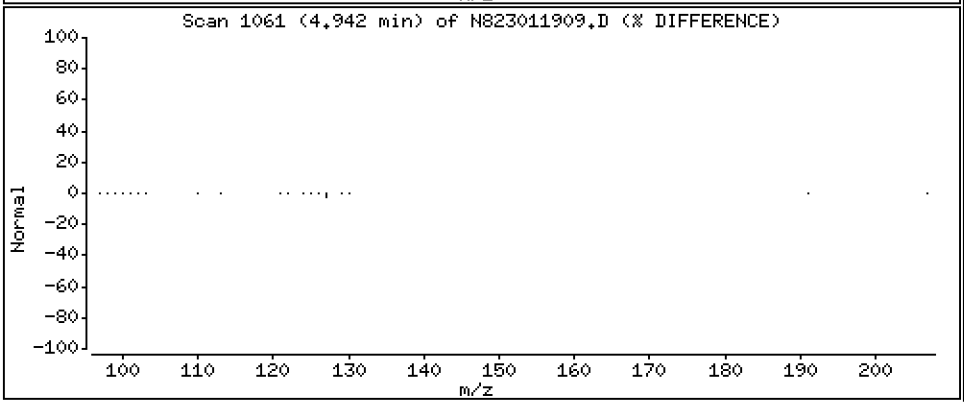












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

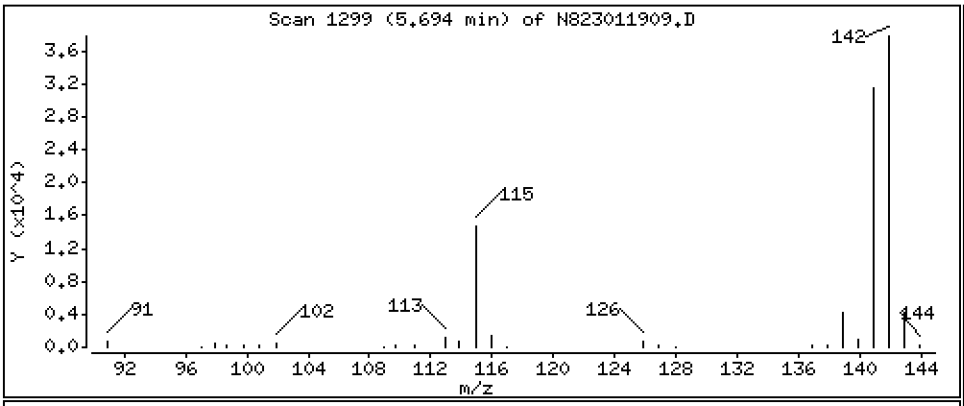
Operator: JZ

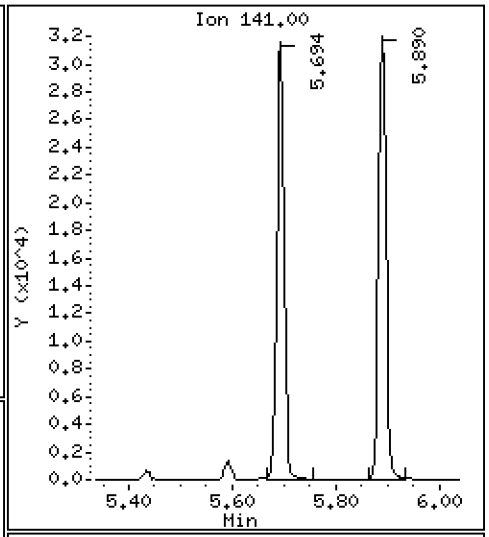
Column phase: Rxi-17sil

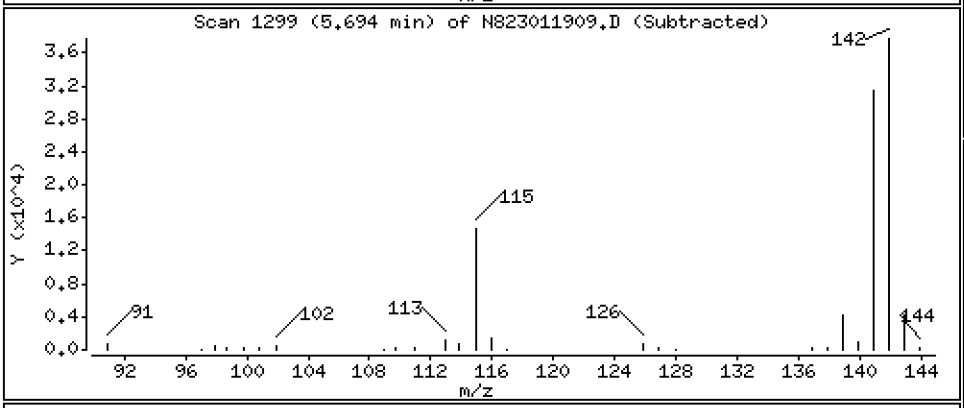
Column diameter: 0.25

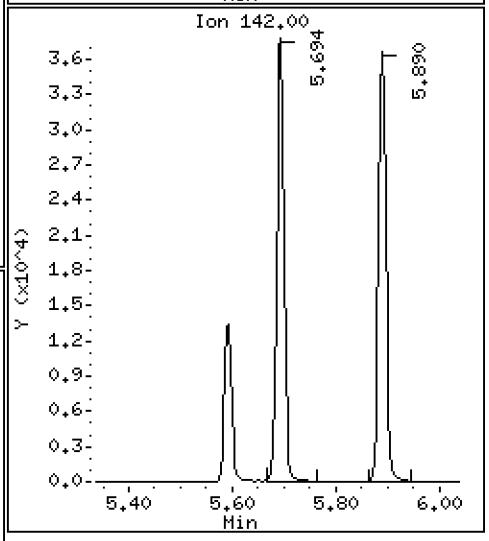
4 2-Methylnaphthalene

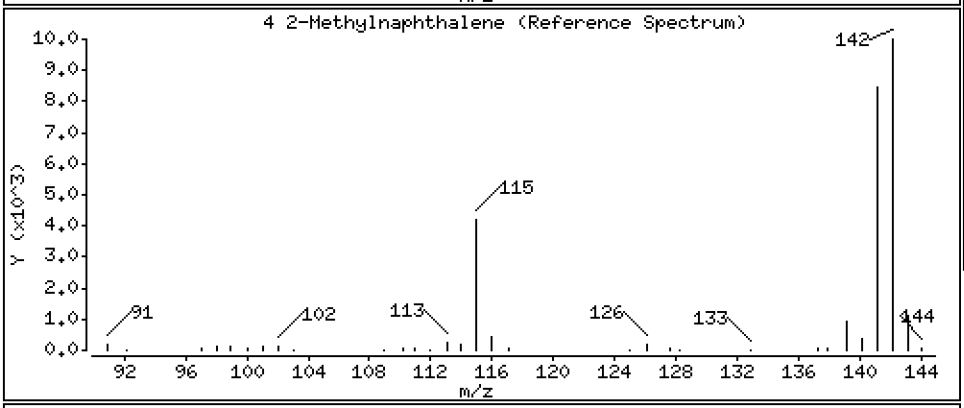
Concentration: 2.670 ug/L

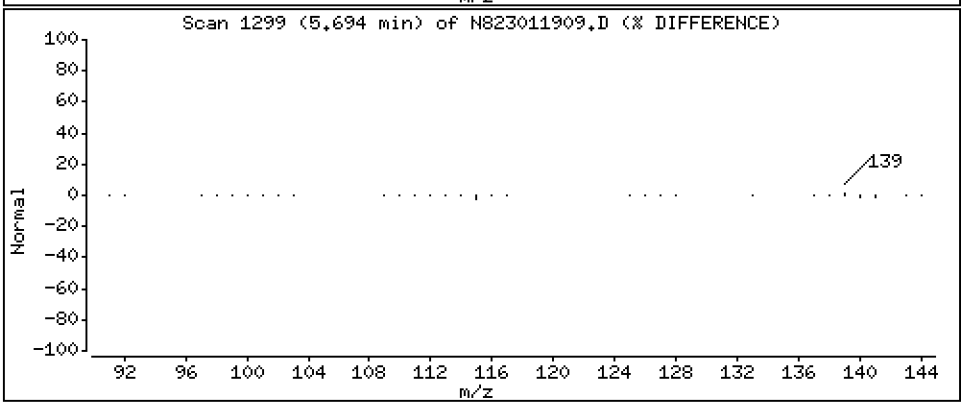












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

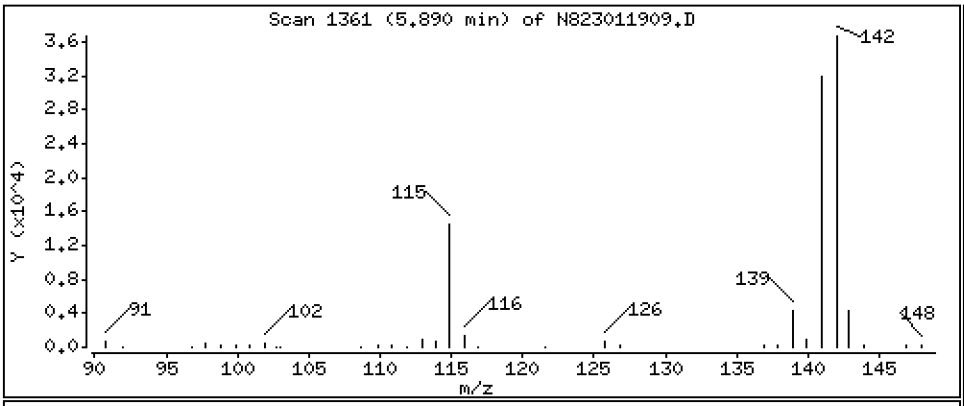
Operator: JZ

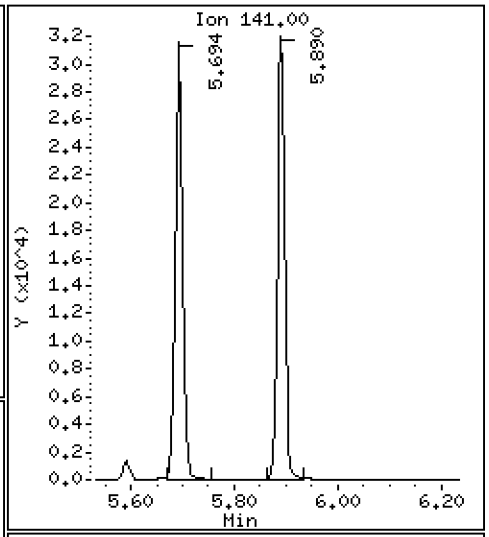
Column phase: Rxi-17sil

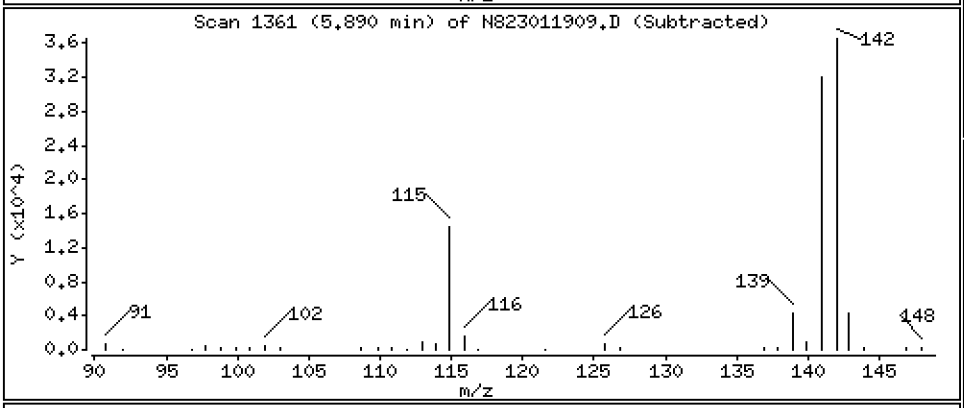
Column diameter: 0.25

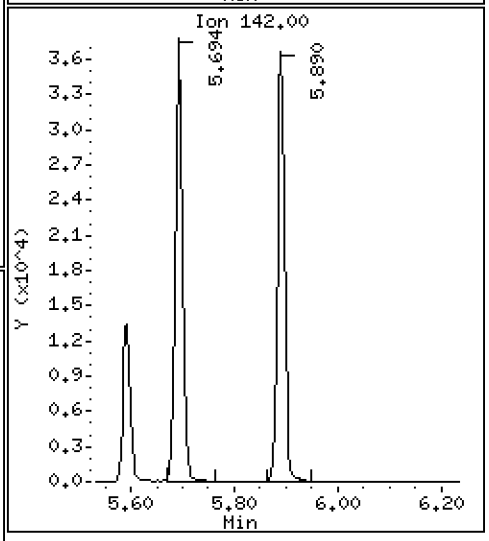
5 1-methylnaphthalene

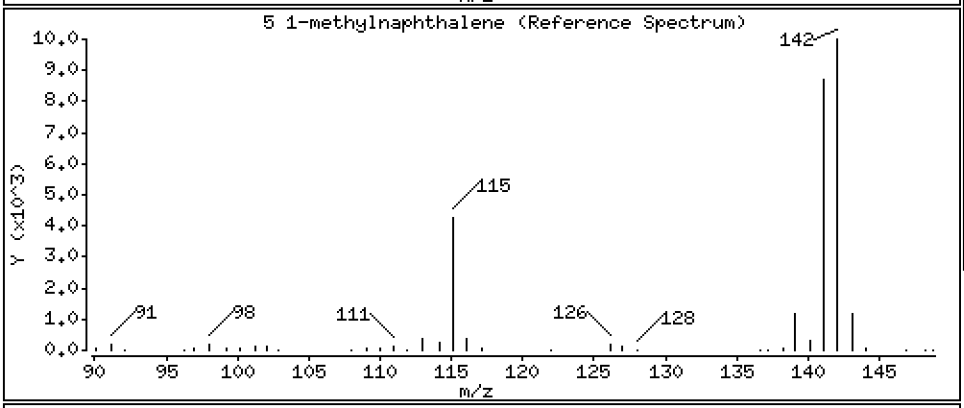
Concentration: 2.649 ug/L

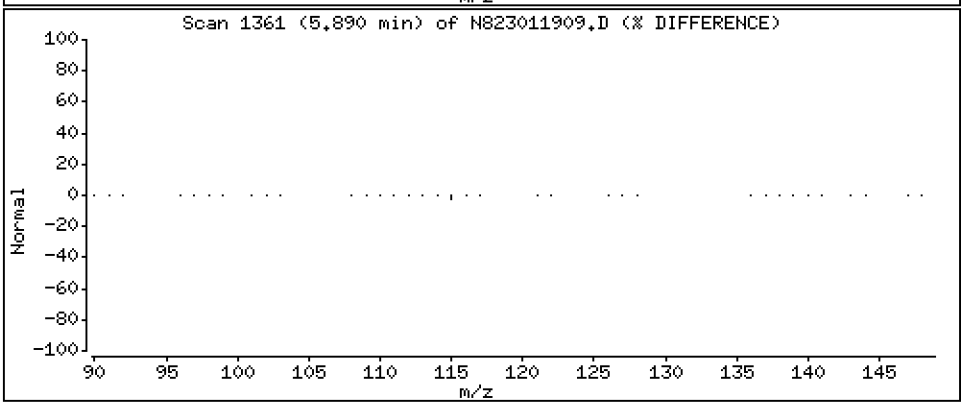












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

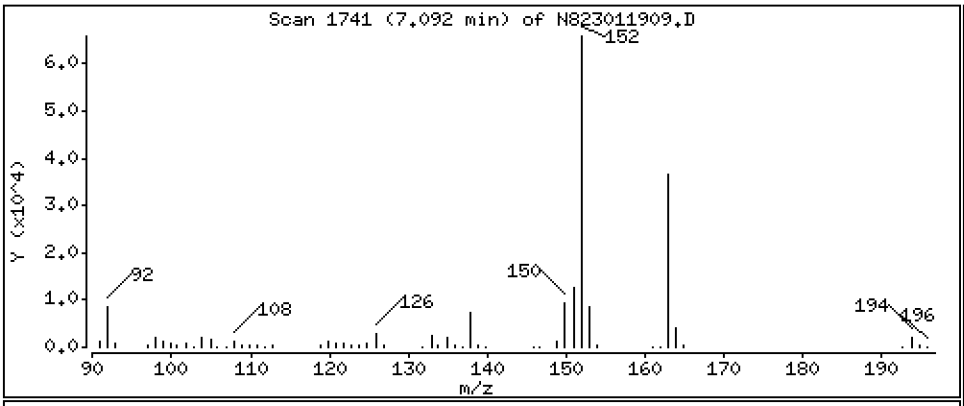
Operator: JZ

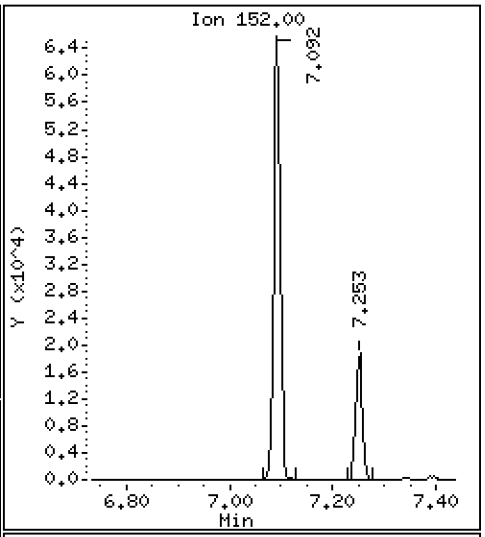
Column phase: Rxi-17sil

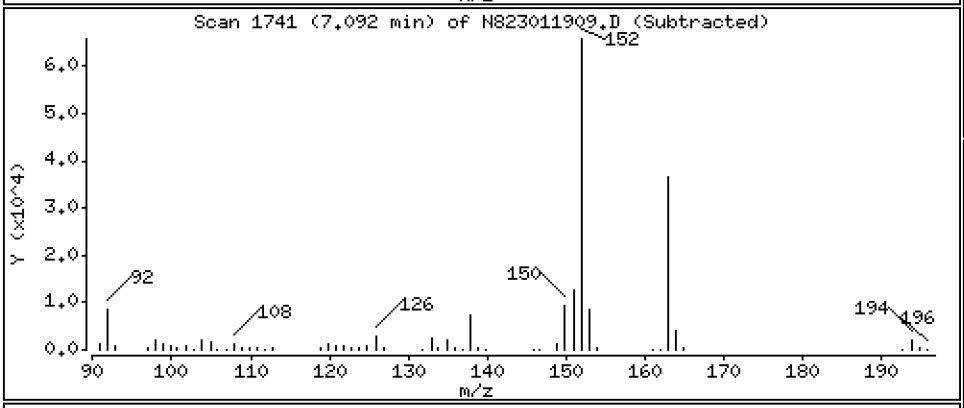
Column diameter: 0.25

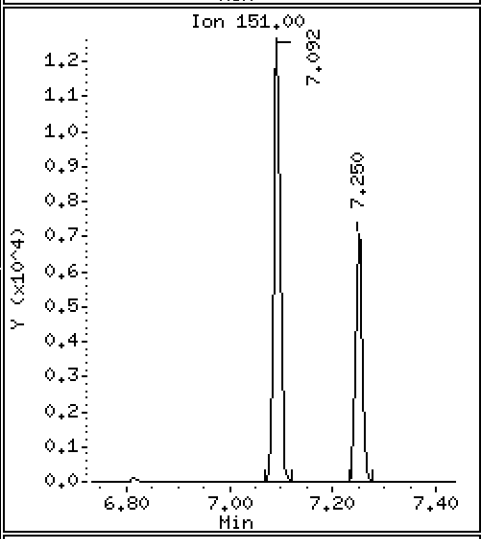
9 Acenaphthylene

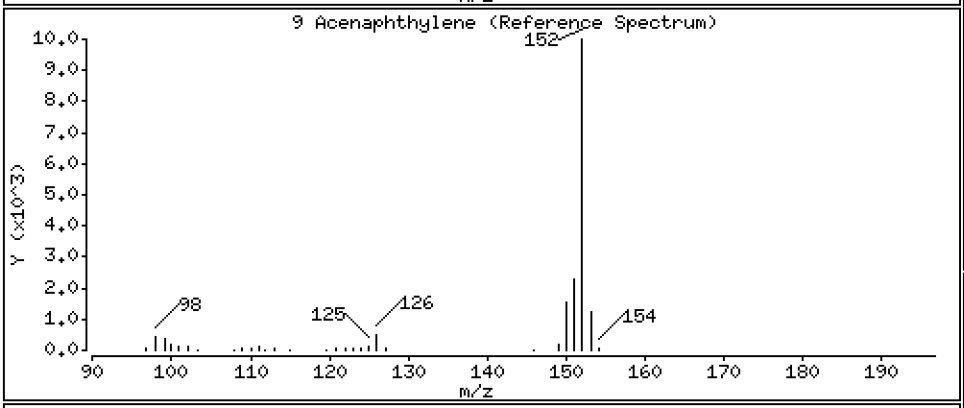
Concentration: 2.821 ug/L

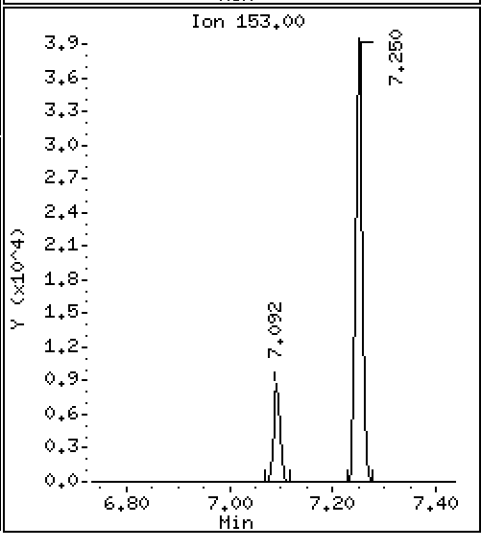


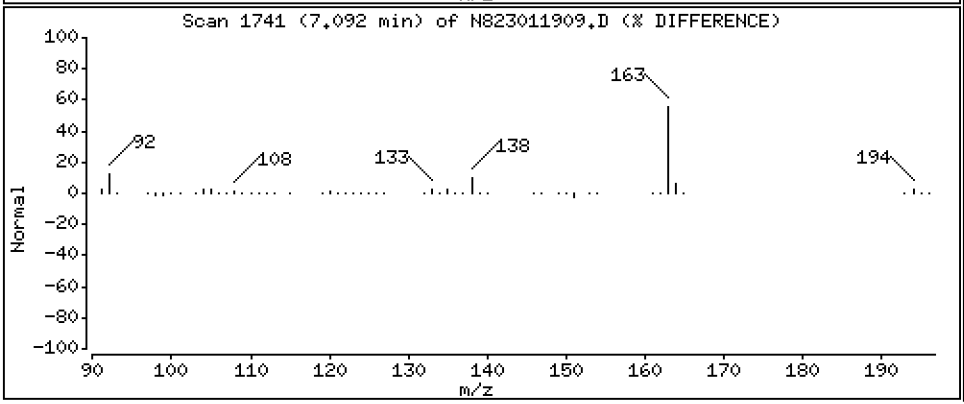












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

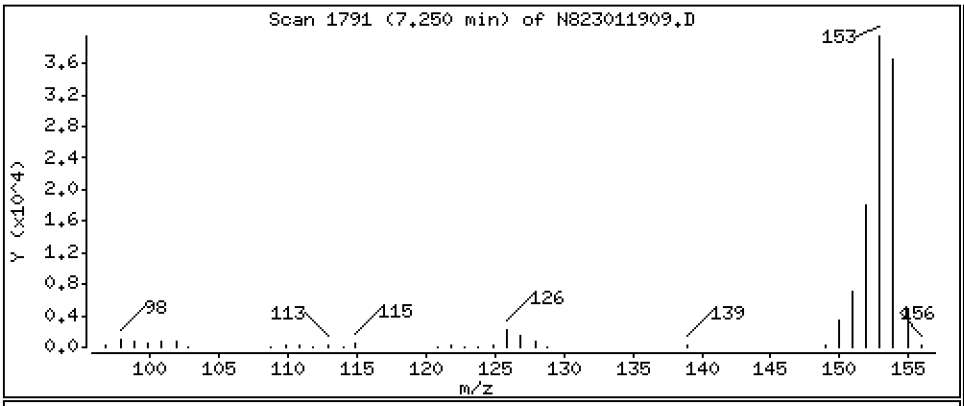
Operator: JZ

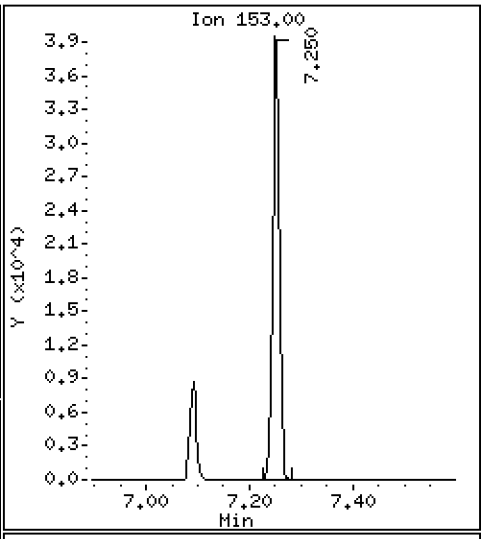
Column phase: Rxi-17sil

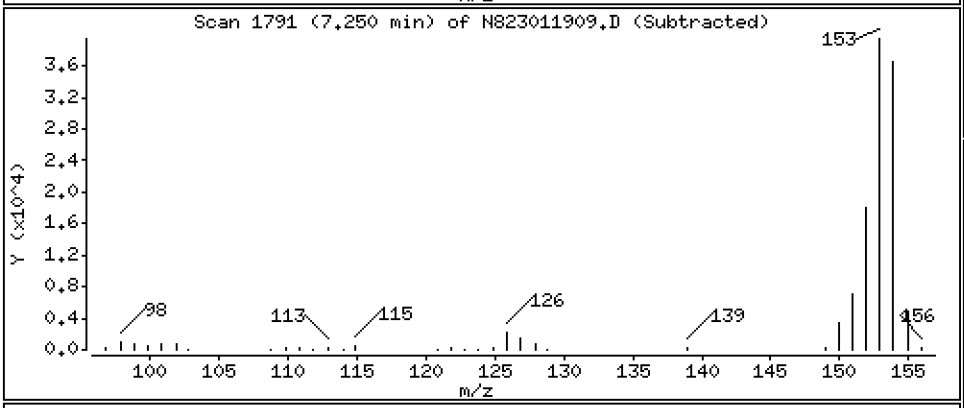
Column diameter: 0.25

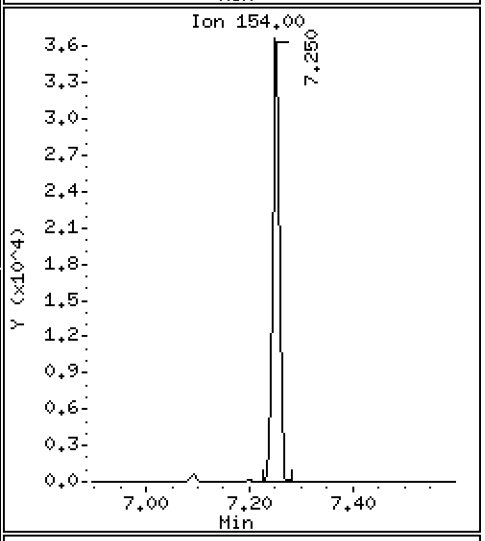
11 Acenaphthene

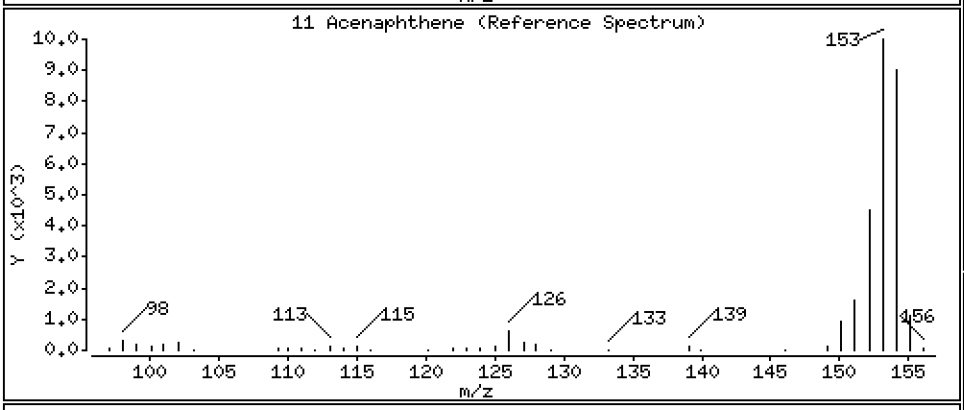
Concentration: 2.600 ug/L

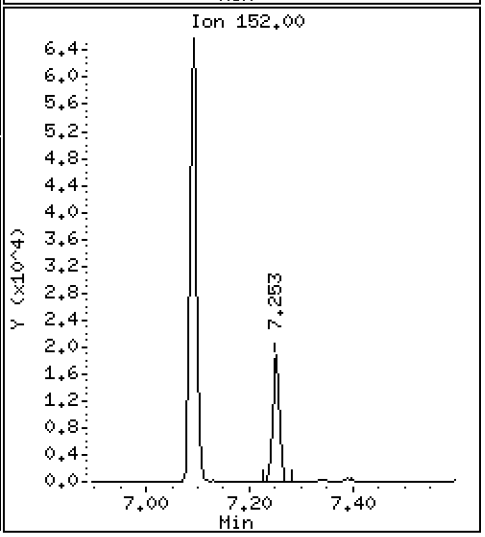


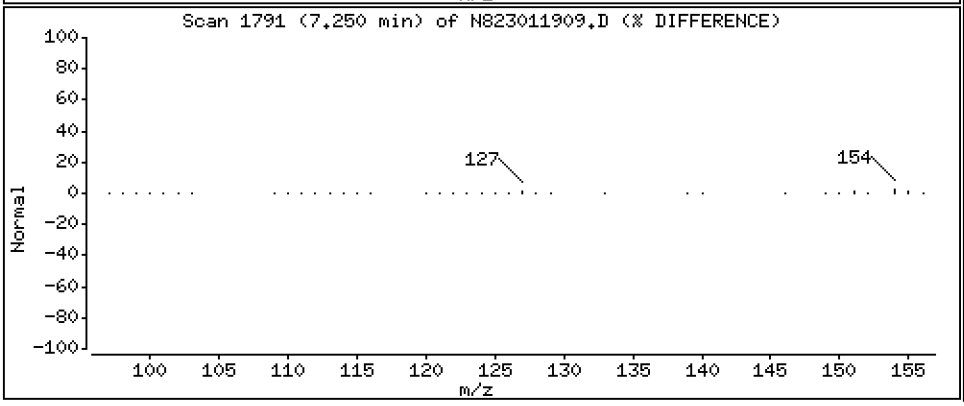












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

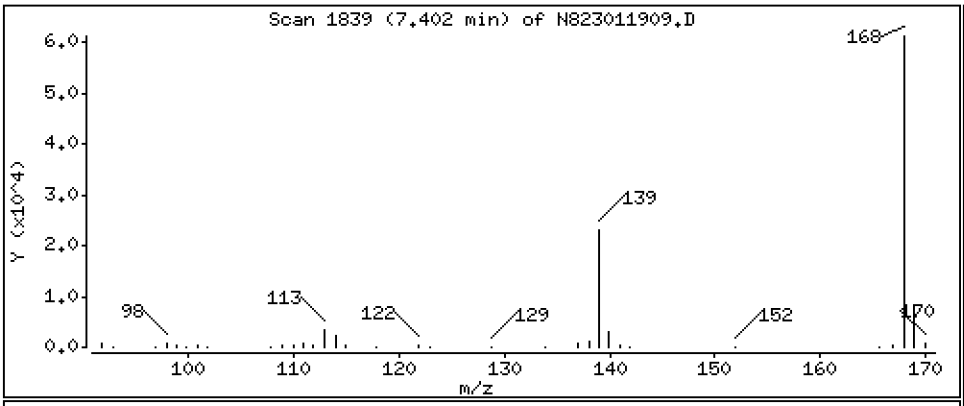
Operator: JZ

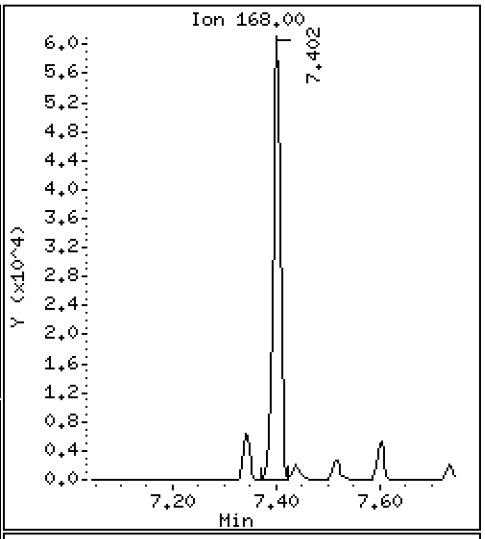
Column phase: Rxi-17sil

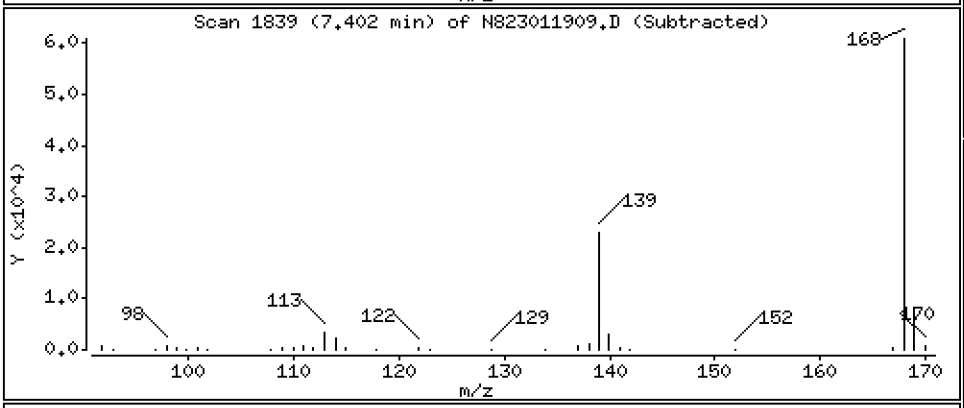
Column diameter: 0.25

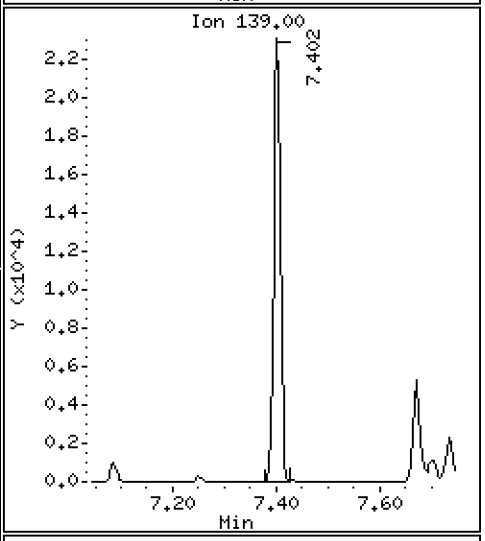
12 Dibenzofuran

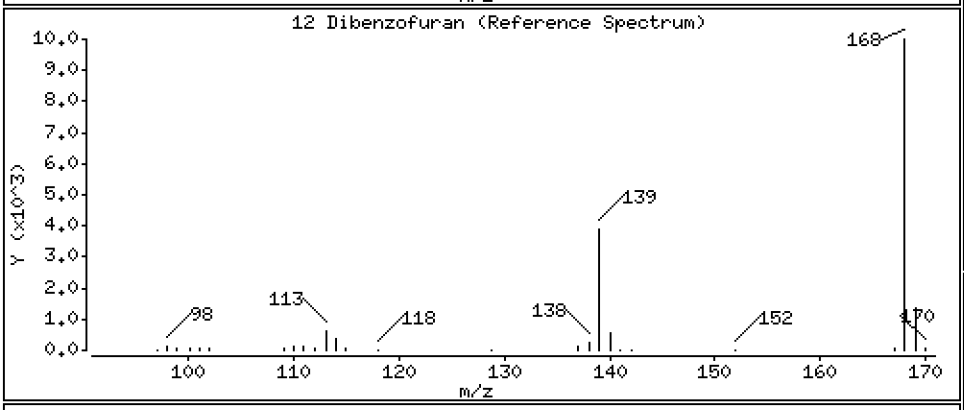
Concentration: 2.860 ug/L

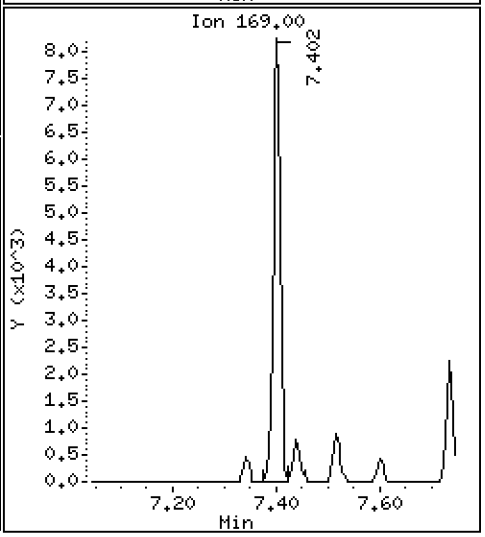


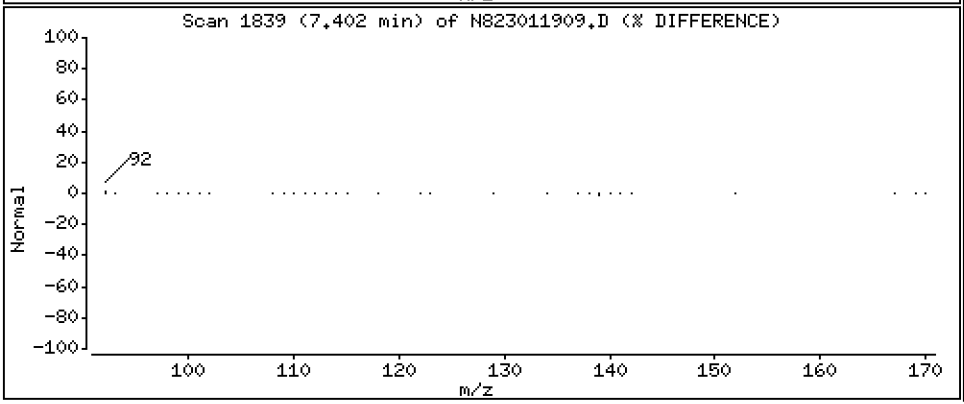












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

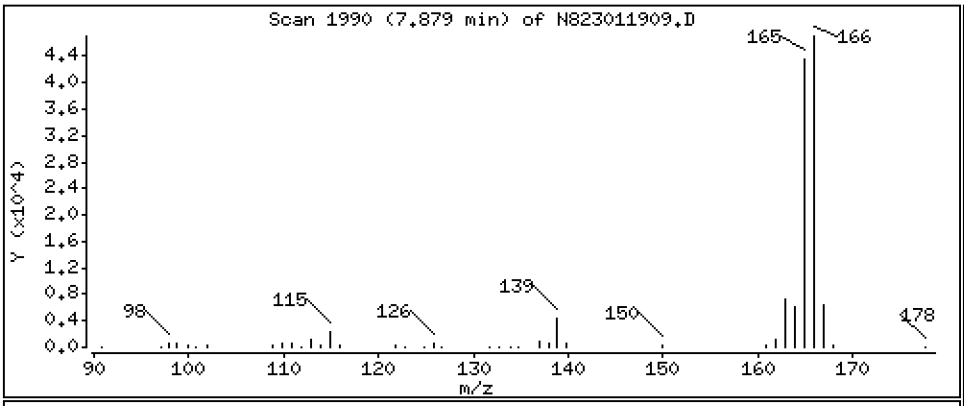
Operator: JZ

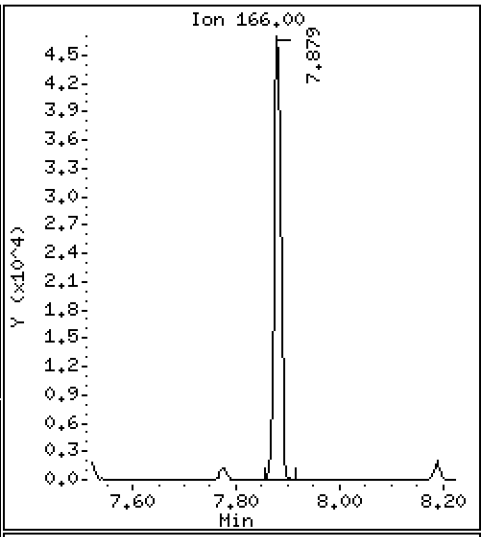
Column phase: Rxi-17sil

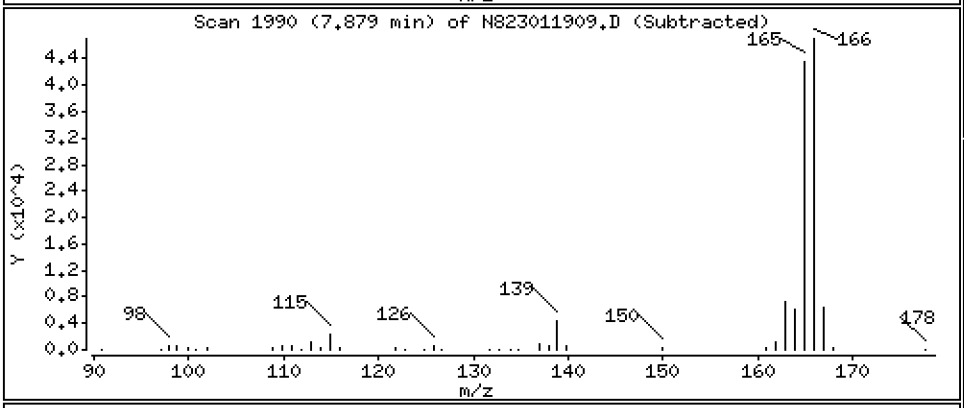
Column diameter: 0.25

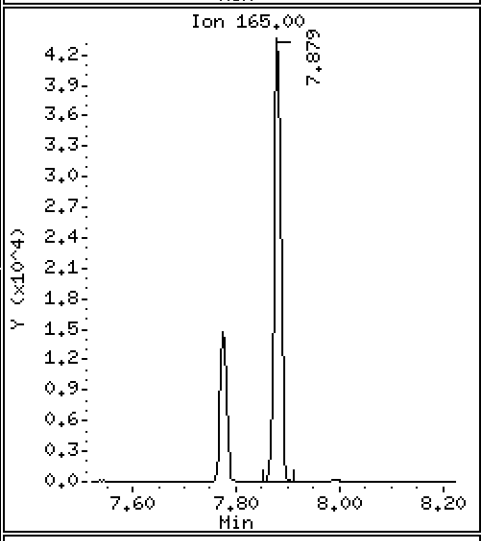
14 Fluorene

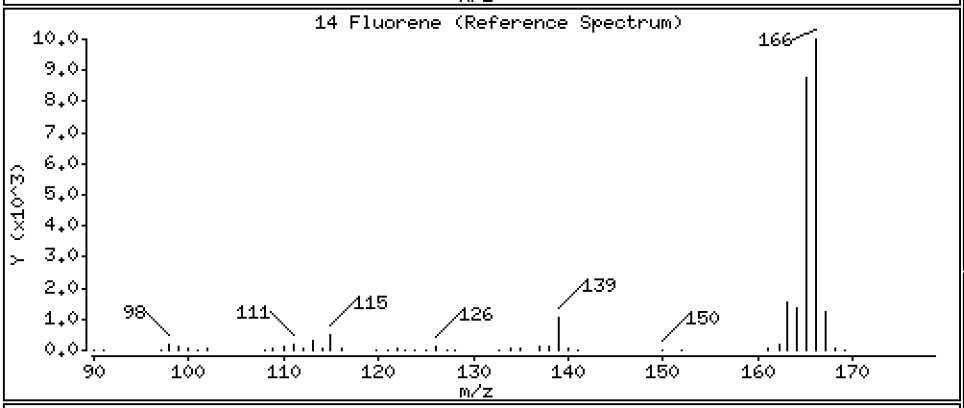
Concentration: 2.631 ug/L

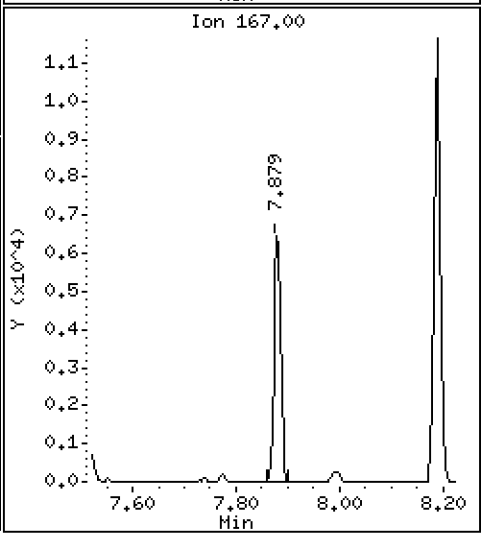


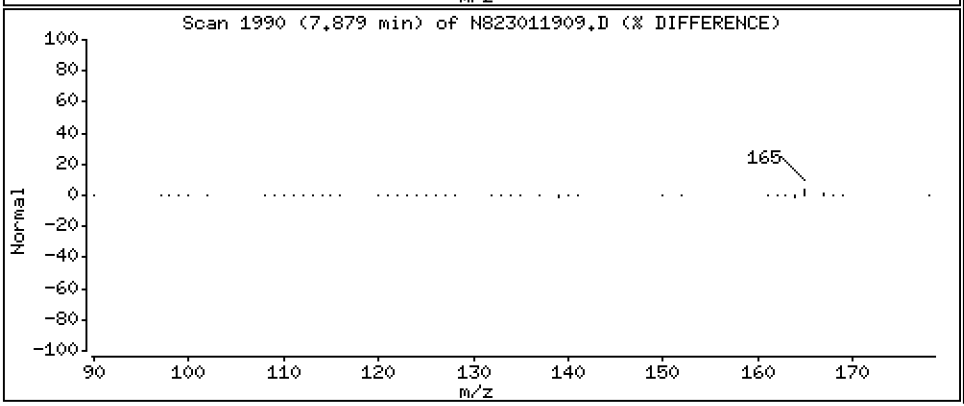












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

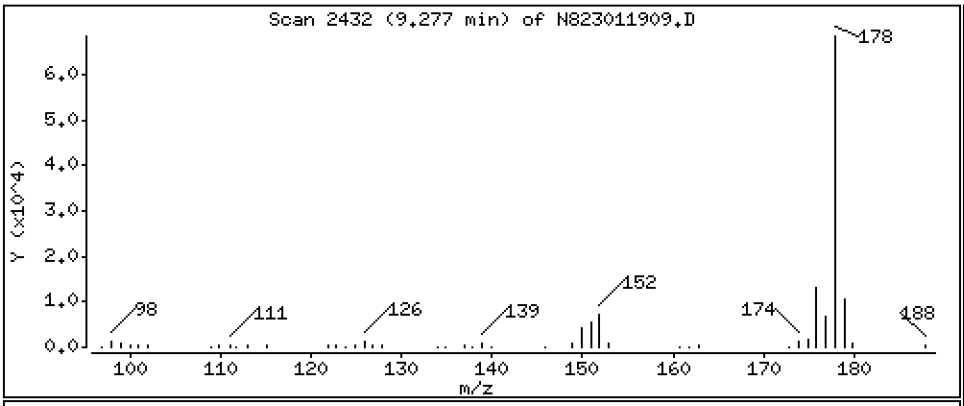
Operator: JZ

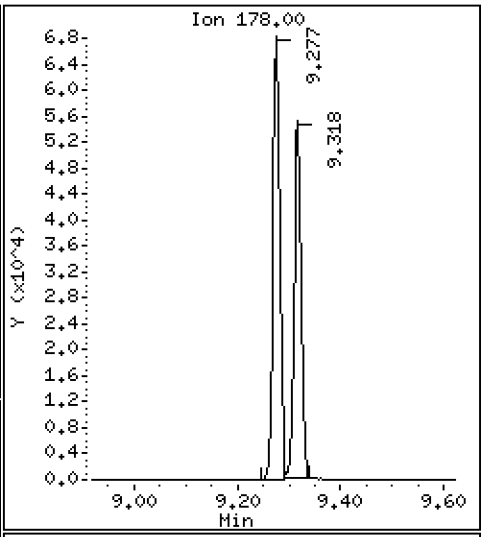
Column phase: Rxi-17sil

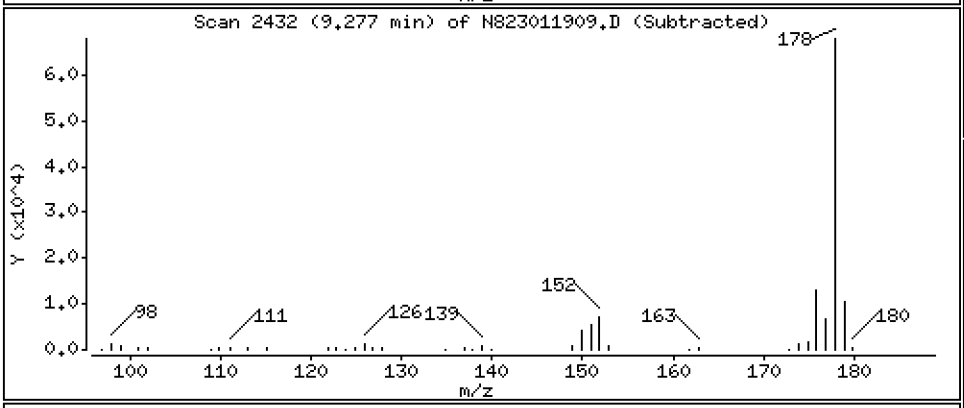
Column diameter: 0.25

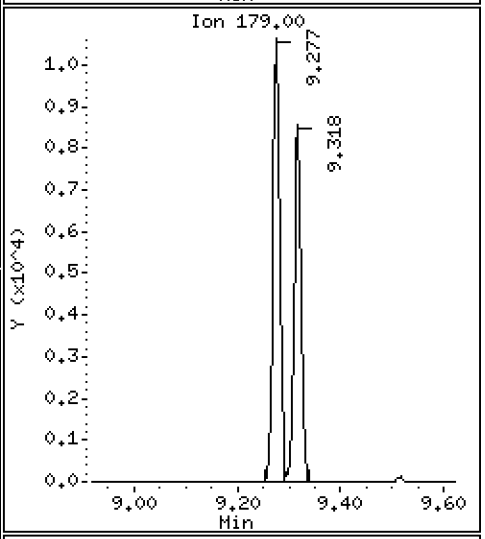
16 Phenanthrene

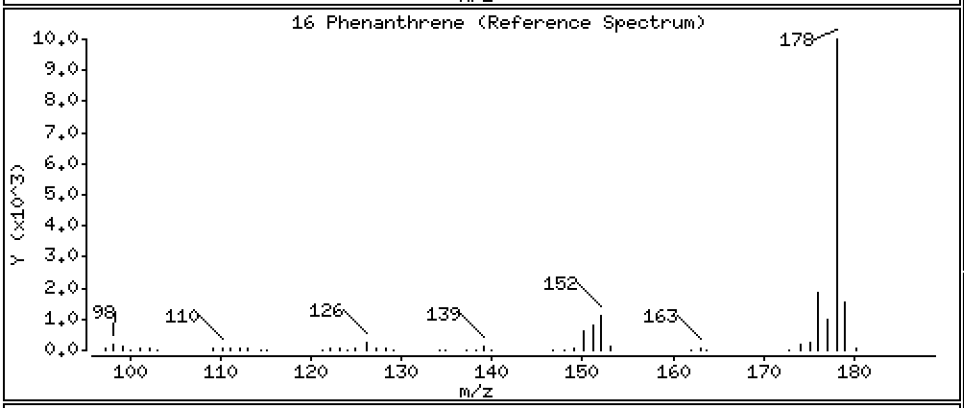
Concentration: 2.448 ug/L

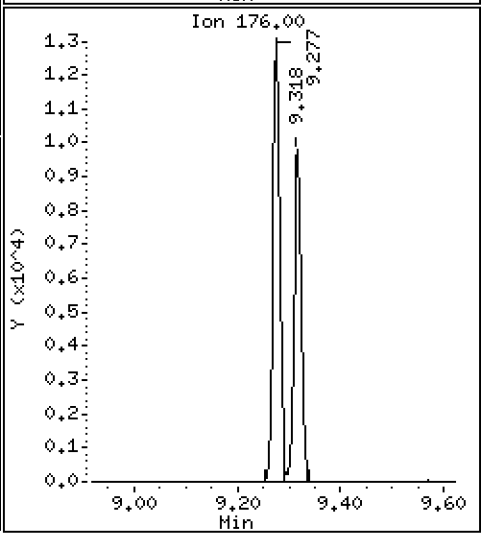


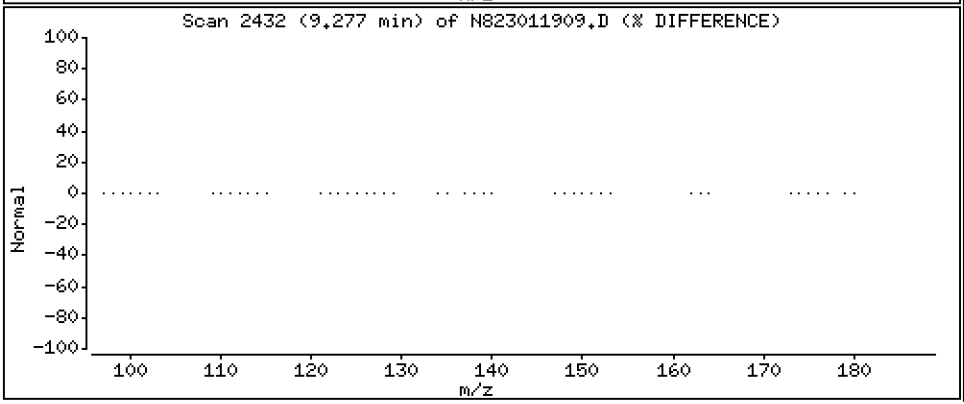












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

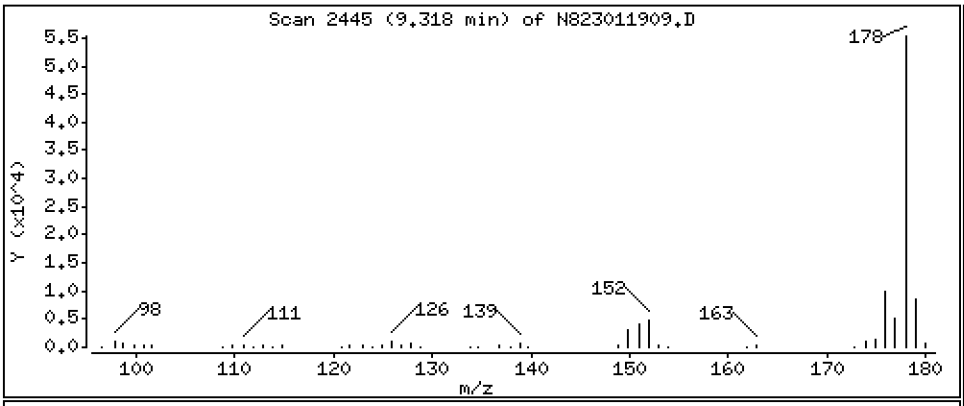
Operator: JZ

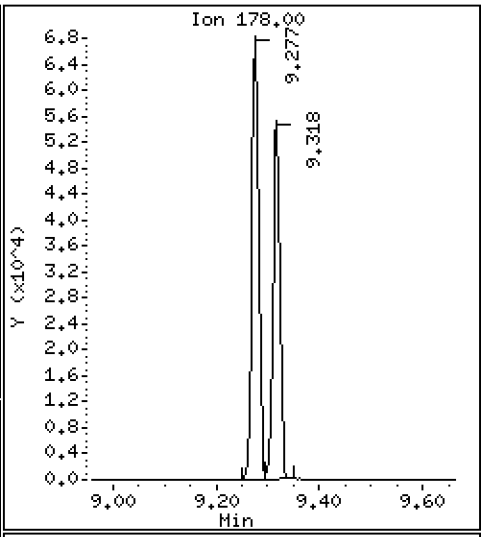
Column phase: Rxi-17sil

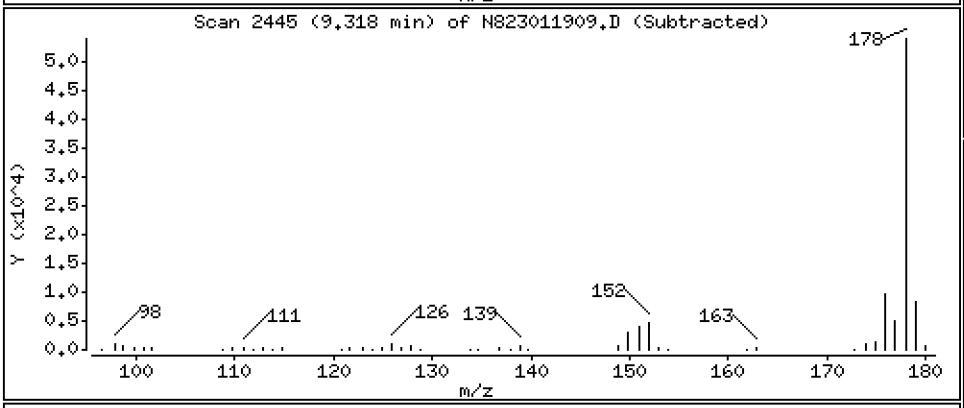
Column diameter: 0.25

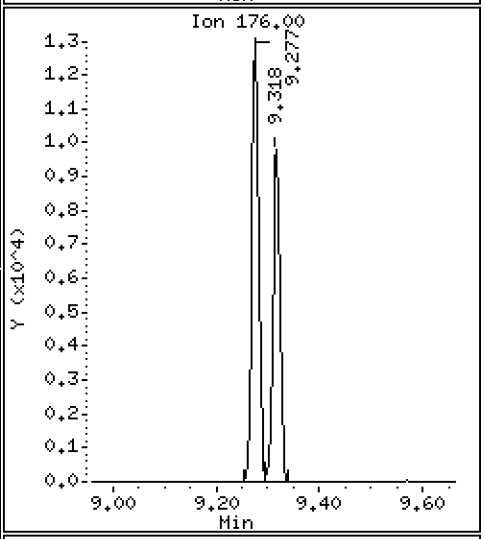
17 Anthracene

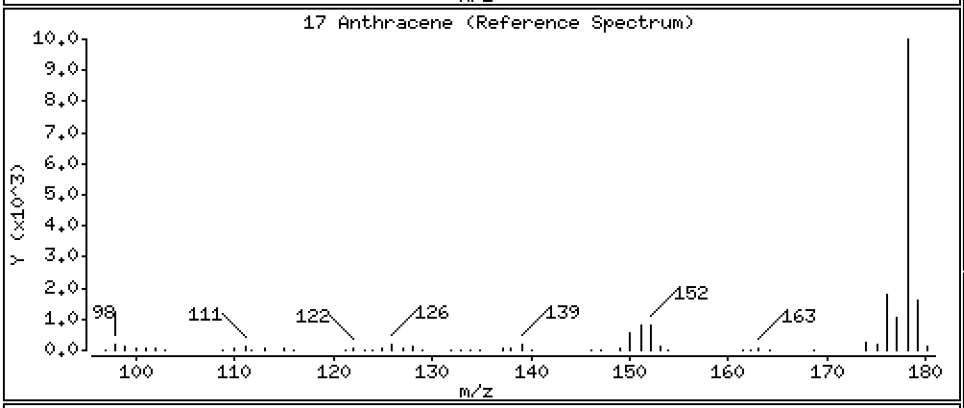
Concentration: 2.270 ug/L

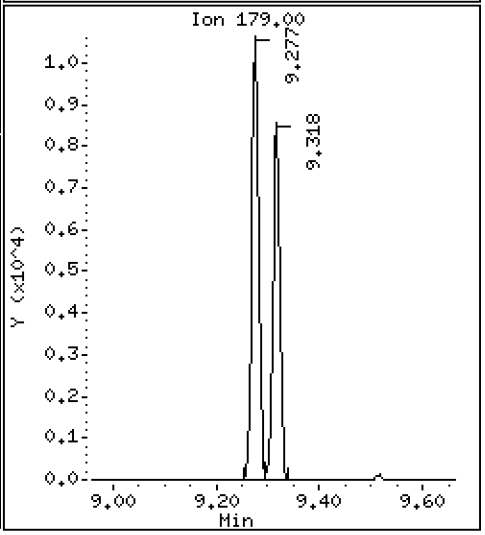


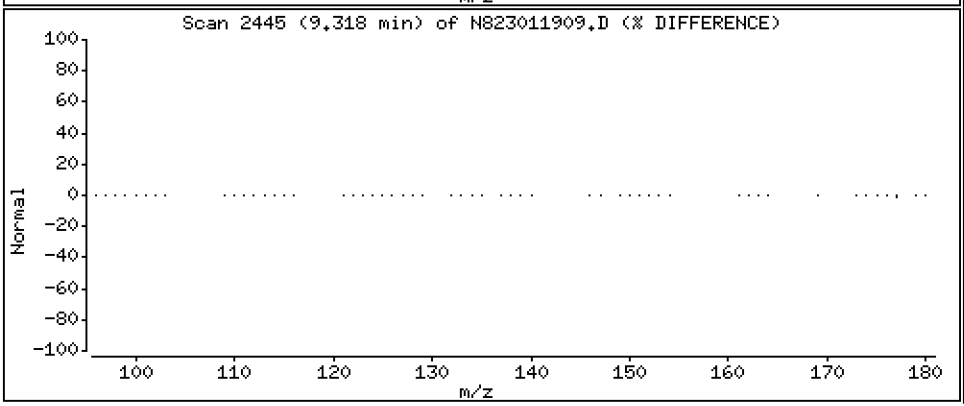












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

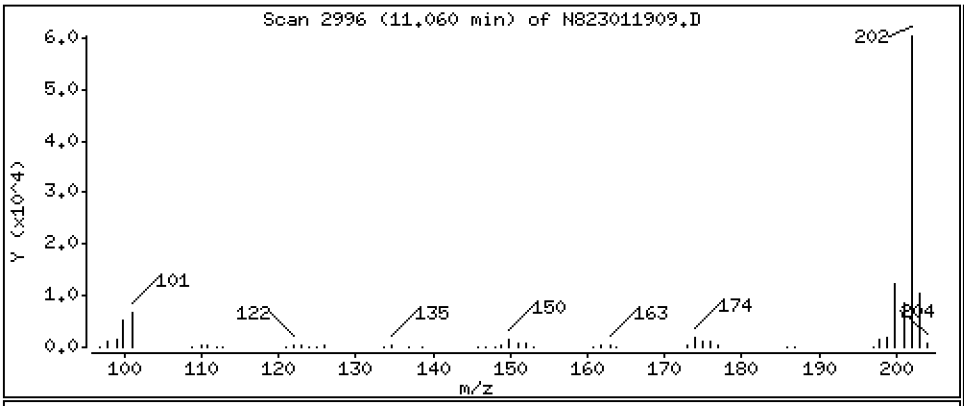
Operator: JZ

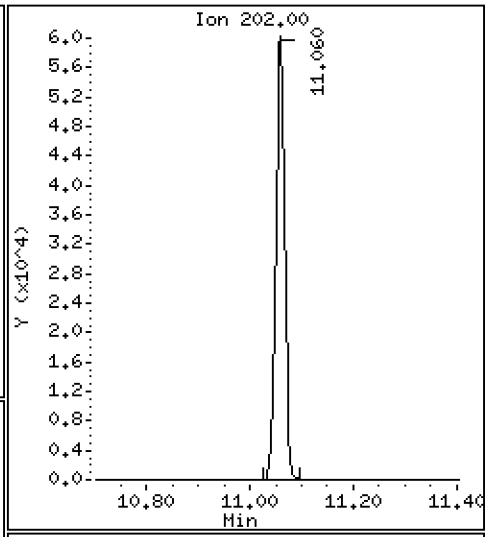
Column phase: Rxi-17sil

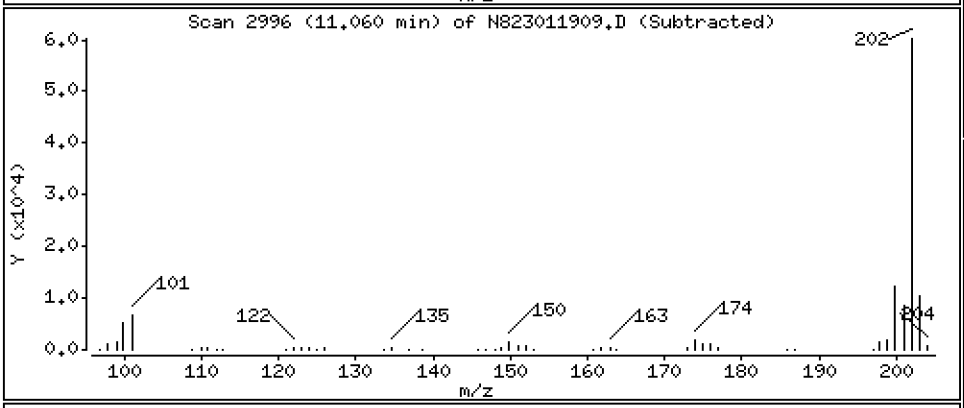
Column diameter: 0.25

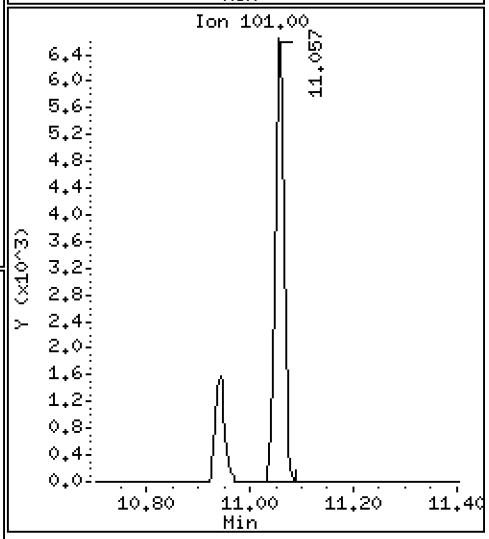
22 Fluoranthene

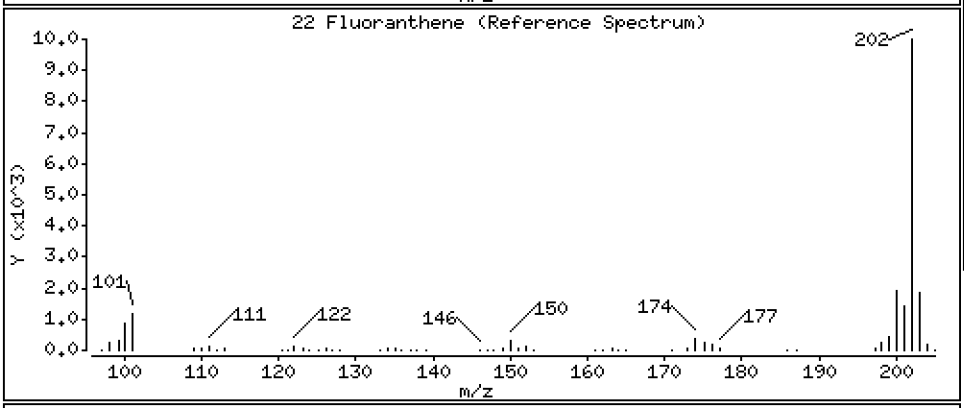
Concentration: 2.653 ug/L

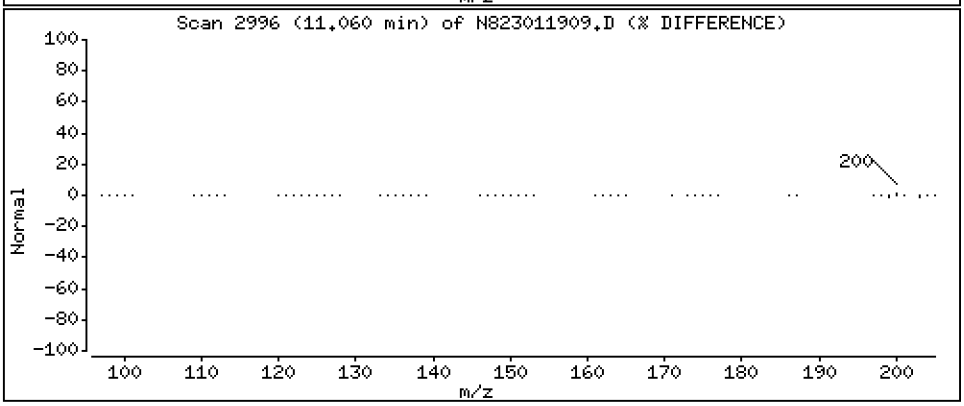












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

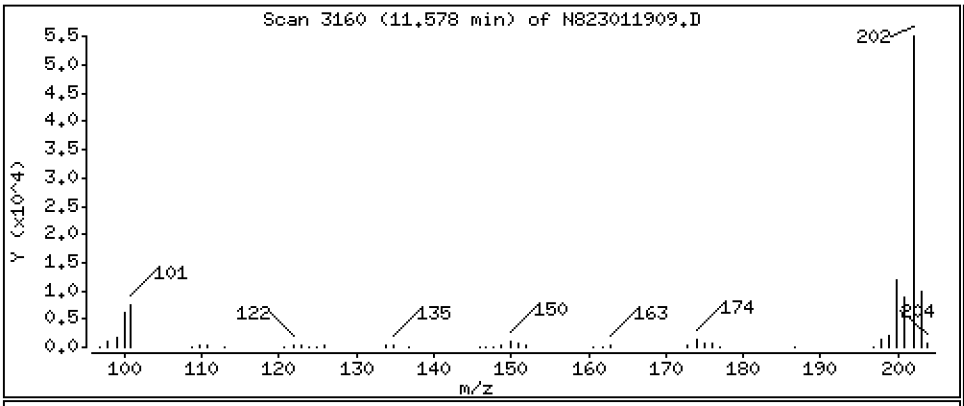
Operator: JZ

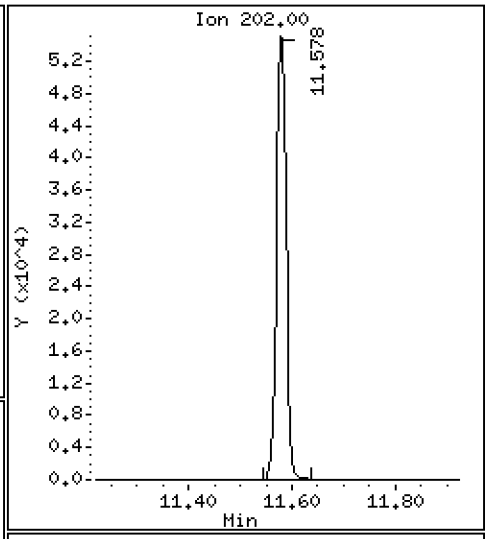
Column phase: Rxi-17sil

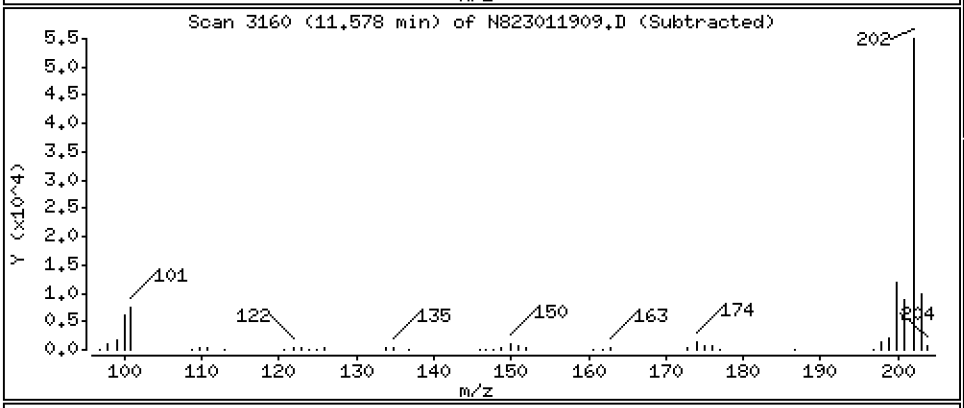
Column diameter: 0.25

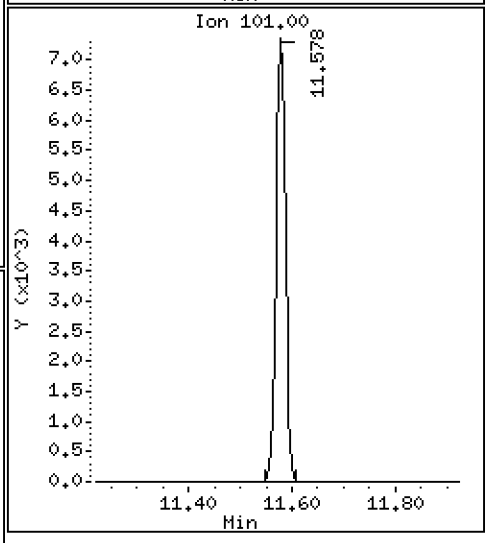
23 Pyrene

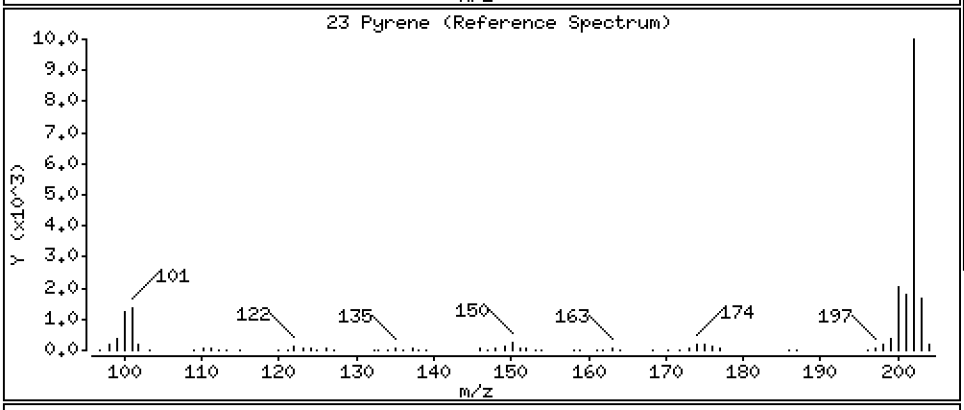
Concentration: 2.462 ug/L

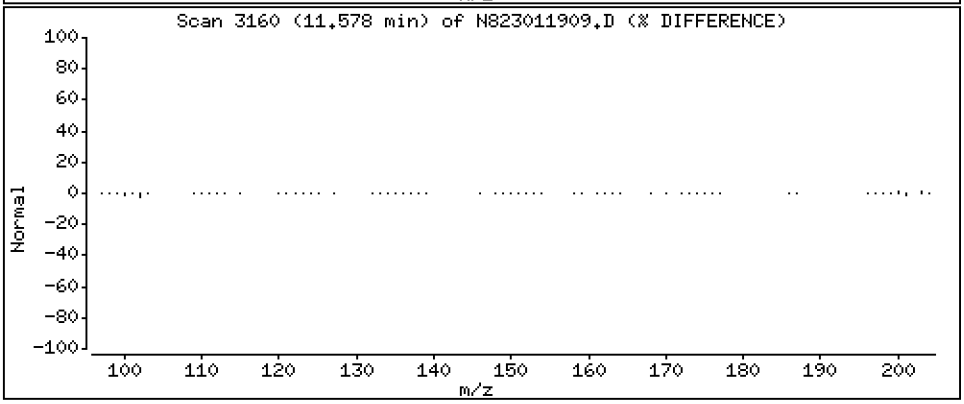












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

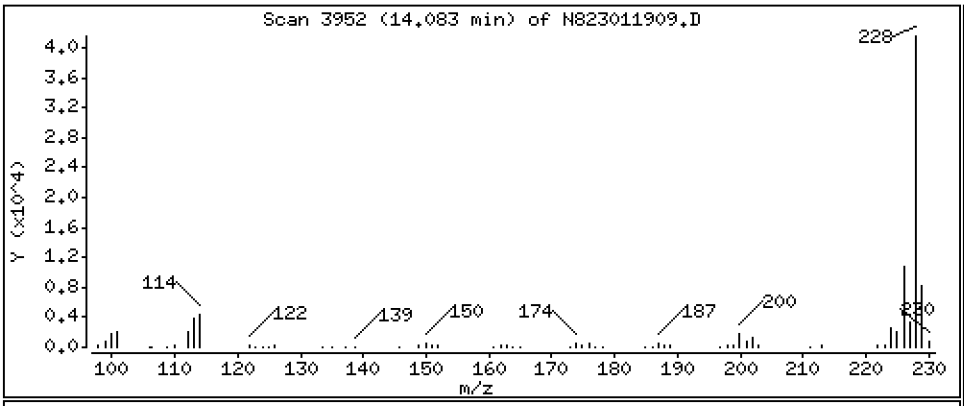
Operator: JZ

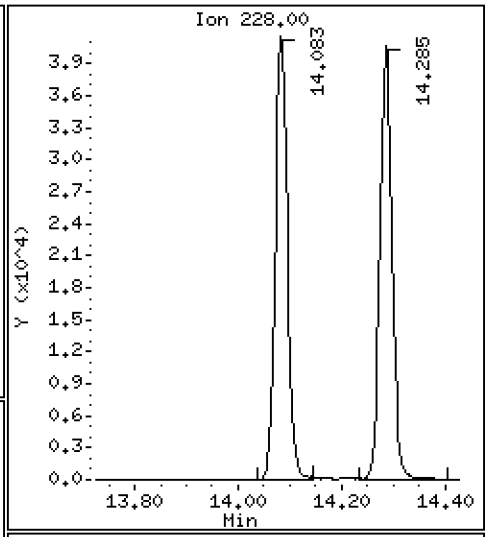
Column phase: Rxi-17sil

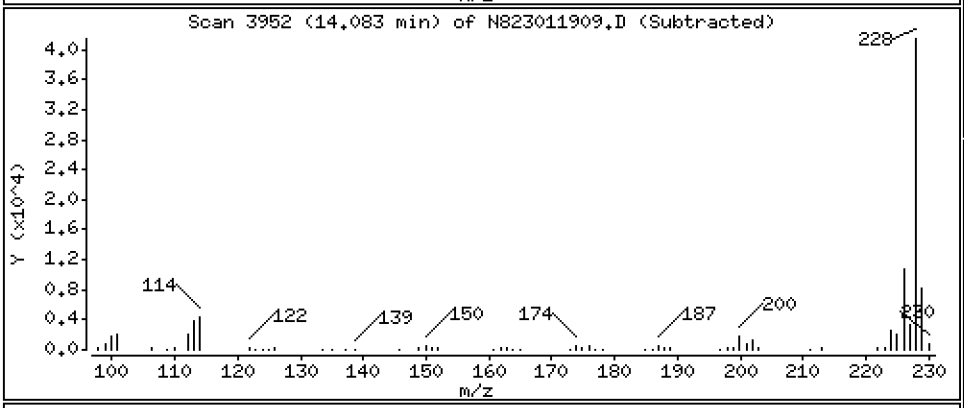
Column diameter: 0.25

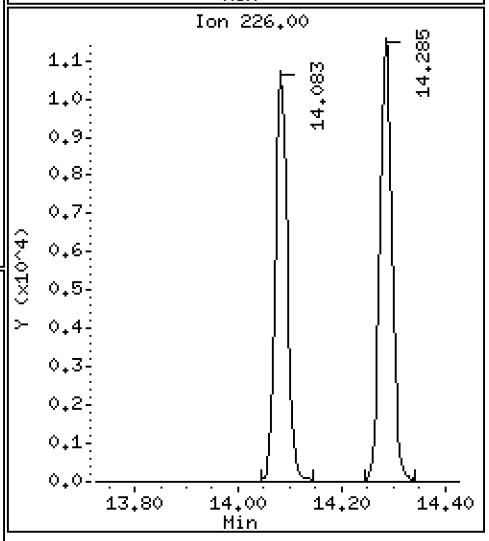
24 Benzo(a)anthracene

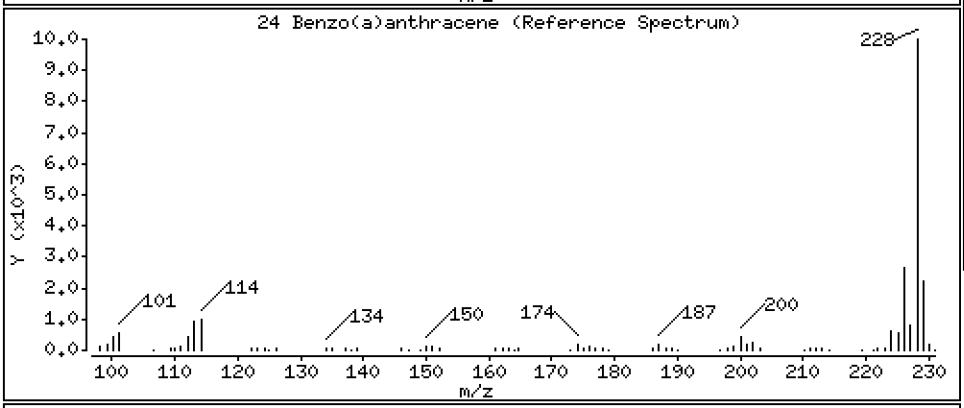
Concentration: 2.587 ug/L

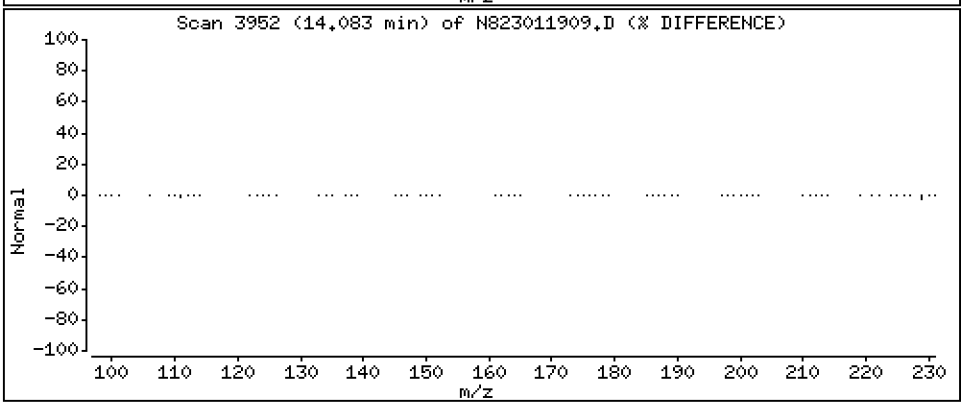












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

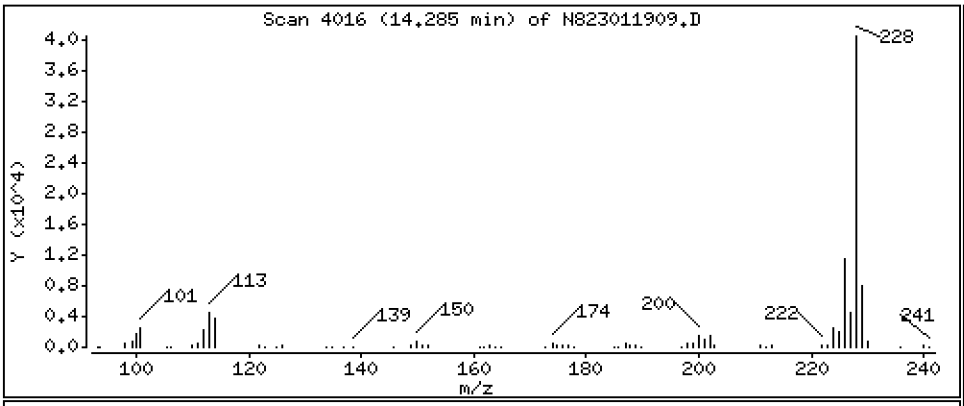
Operator: JZ

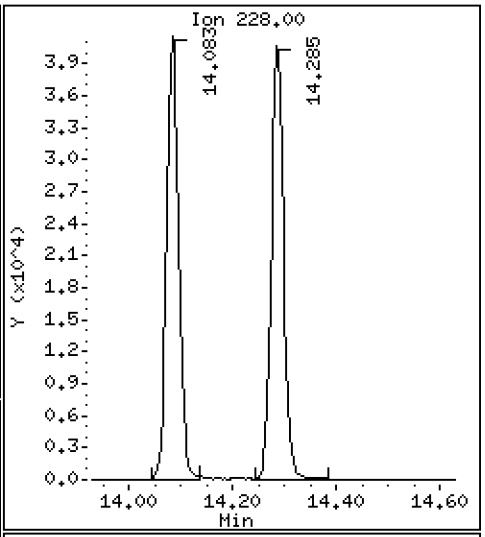
Column phase: Rxi-17sil

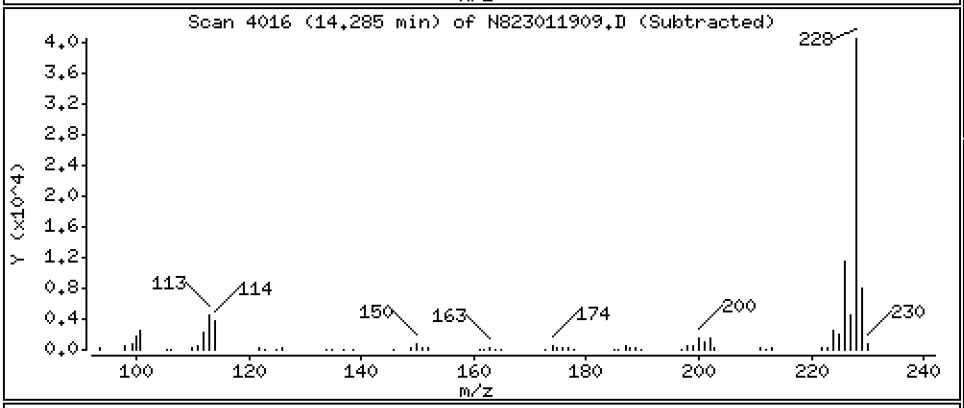
Column diameter: 0.25

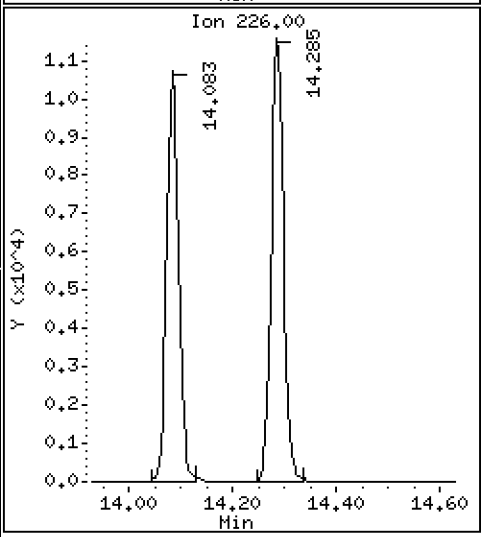
27 Chrysene

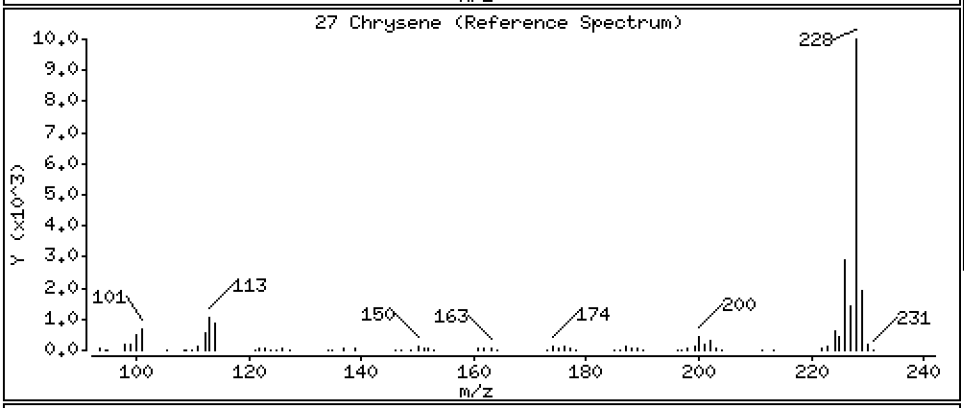
Concentration: 2.400 ug/L

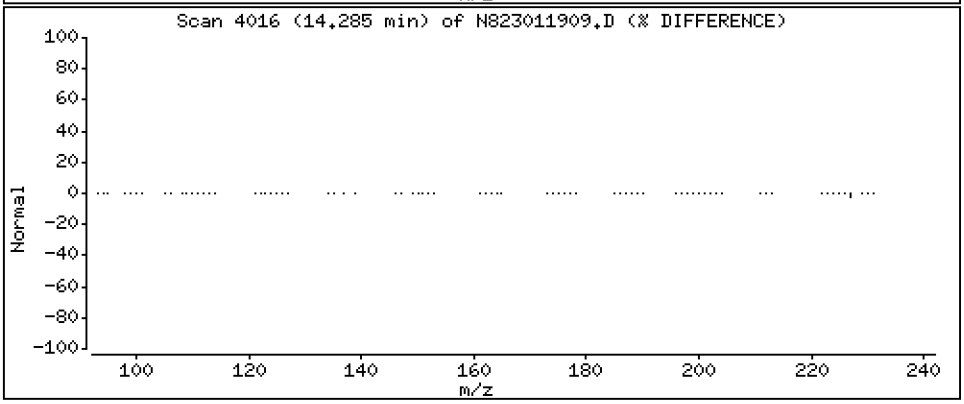












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

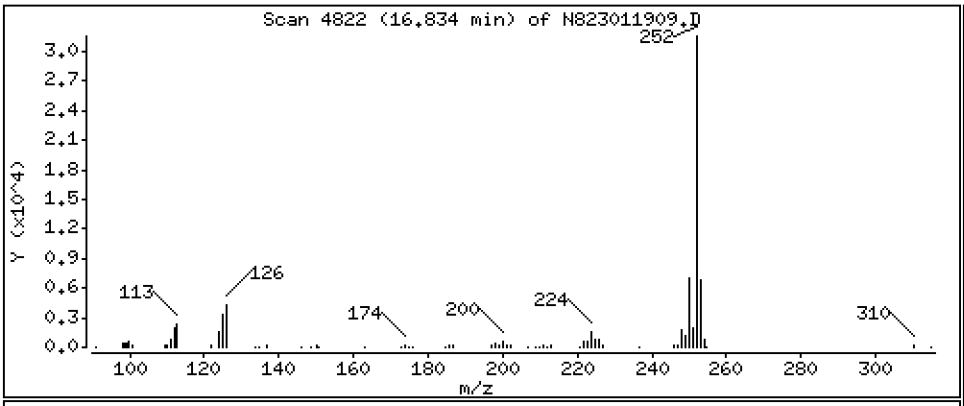
Operator: JZ

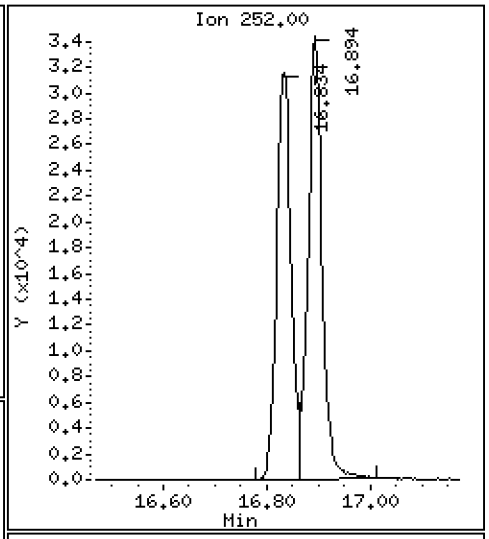
Column phase: Rxi-17sil

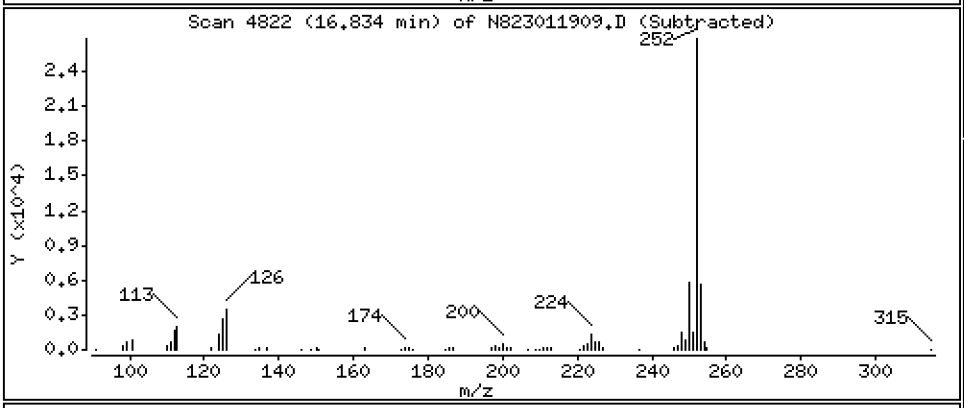
Column diameter: 0.25

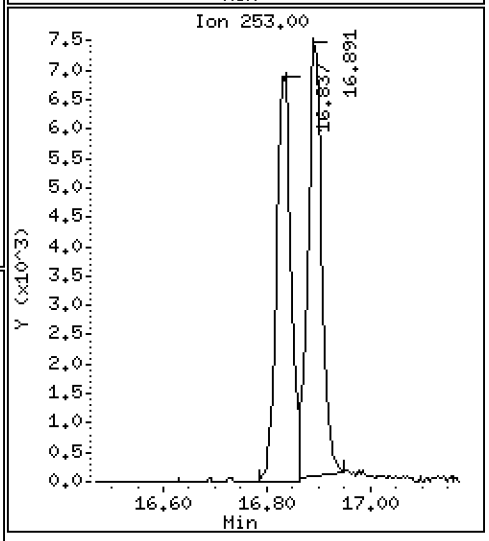
28 Benzo(b)fluoranthene

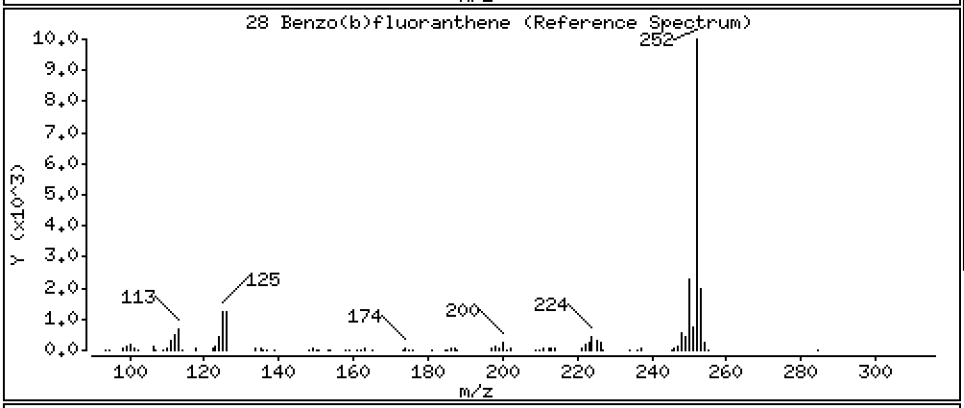
Concentration: 2.507 ug/L

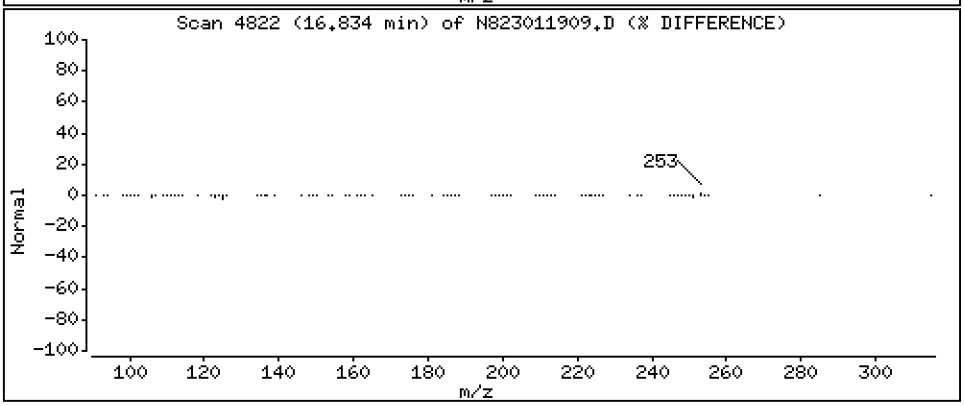












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

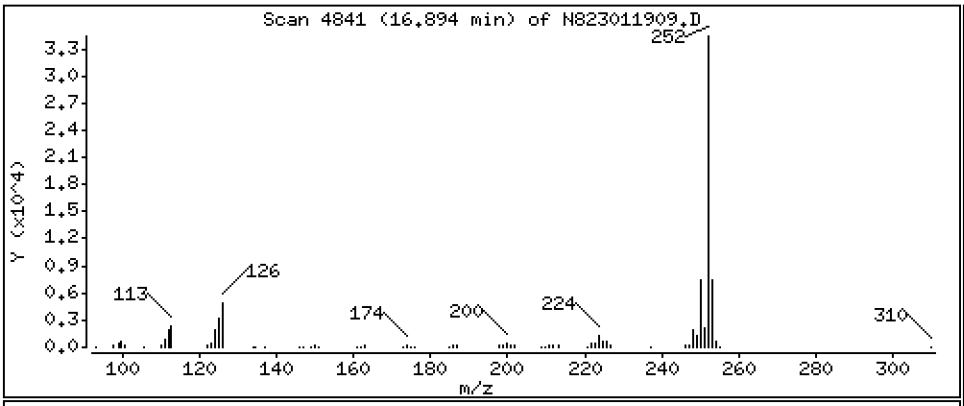
Operator: JZ

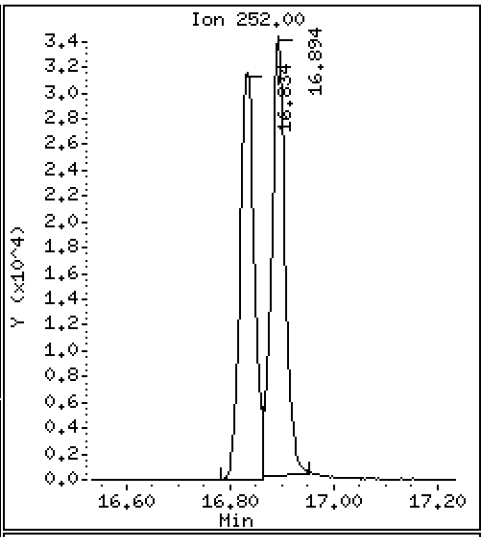
Column phase: Rxi-17sil

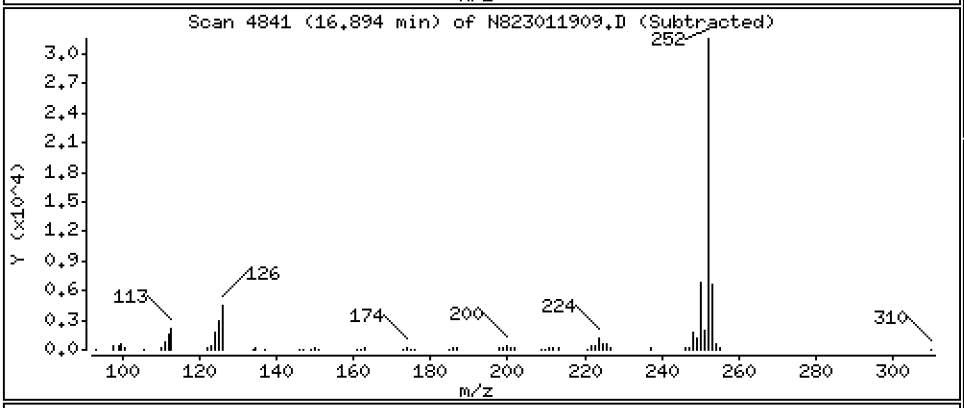
Column diameter: 0.25

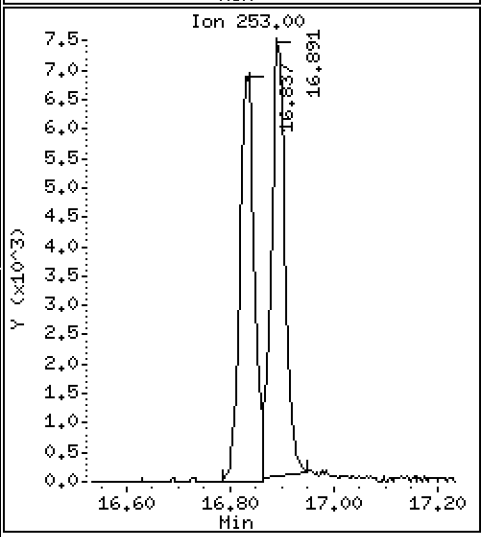
29 Benzo(k)fluoranthene

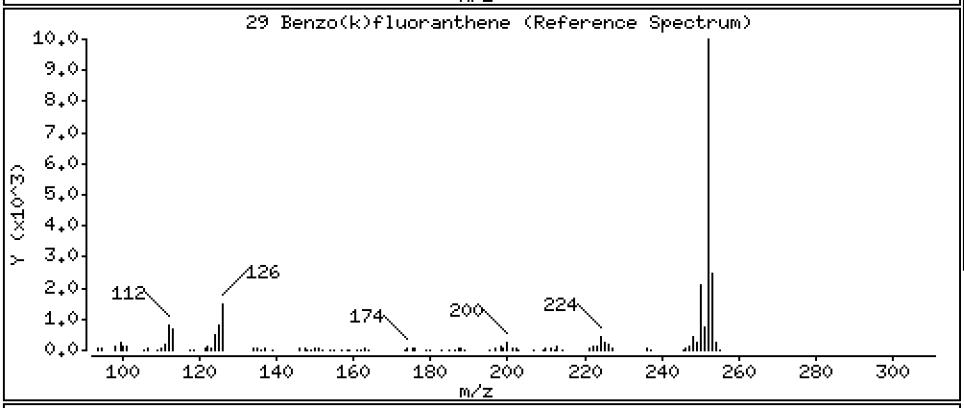
Concentration: 2.656 ug/L

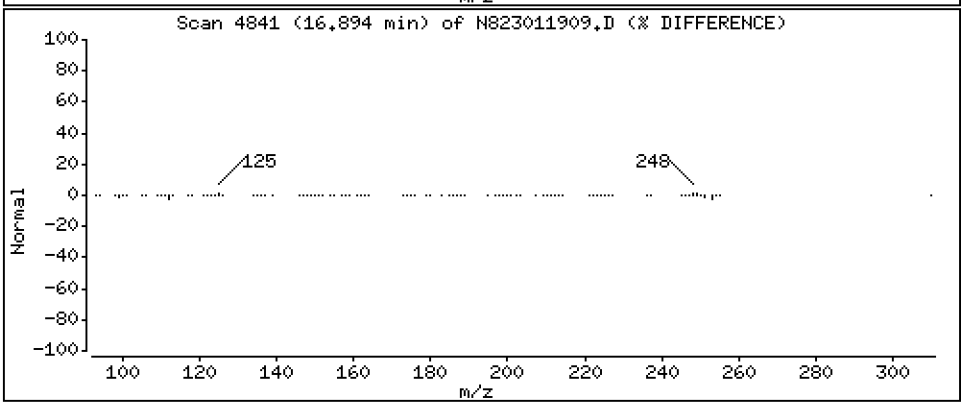












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

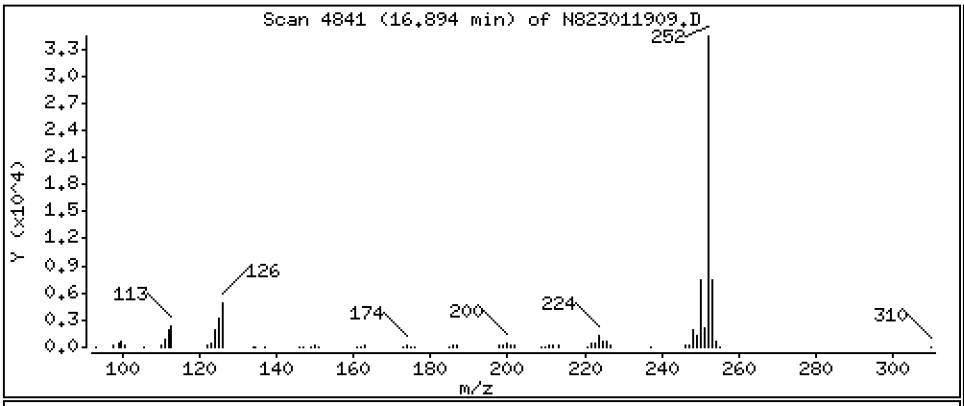
Operator: JZ

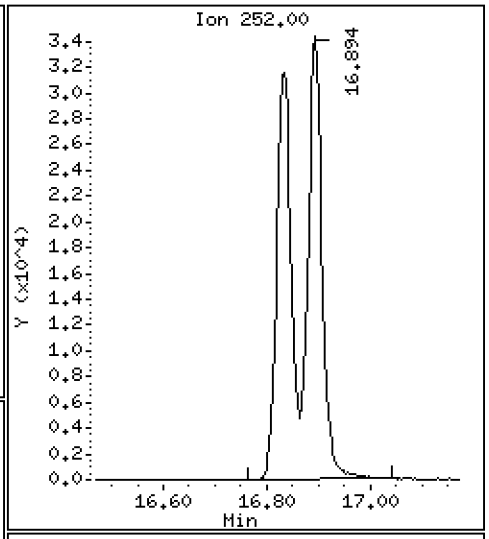
Column phase: Rxi-17sil

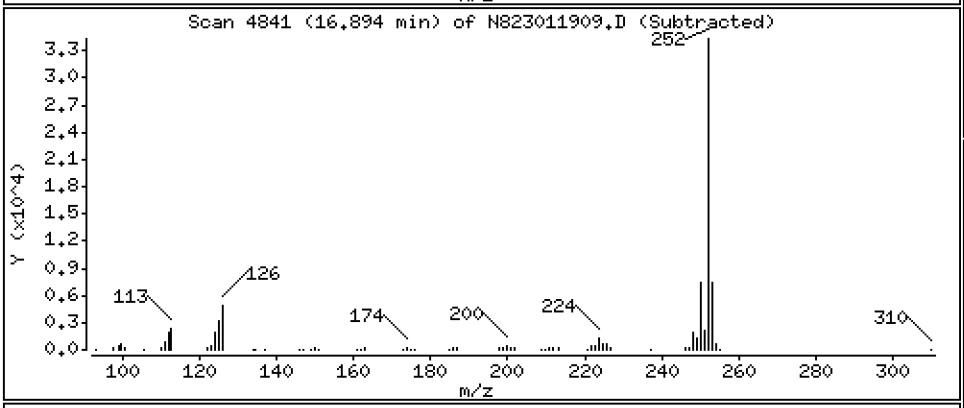
Column diameter: 0.25

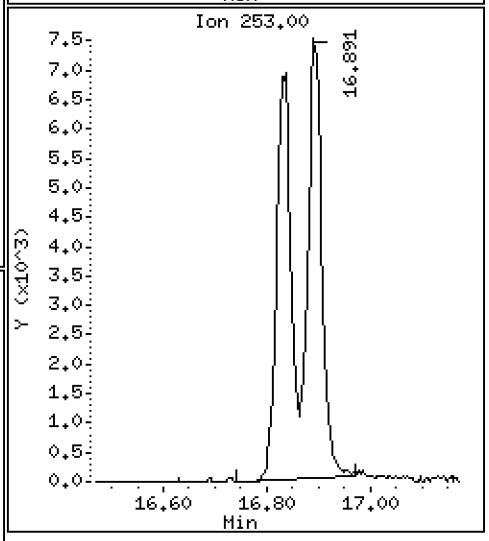
31 Total Benzofluoranthenes

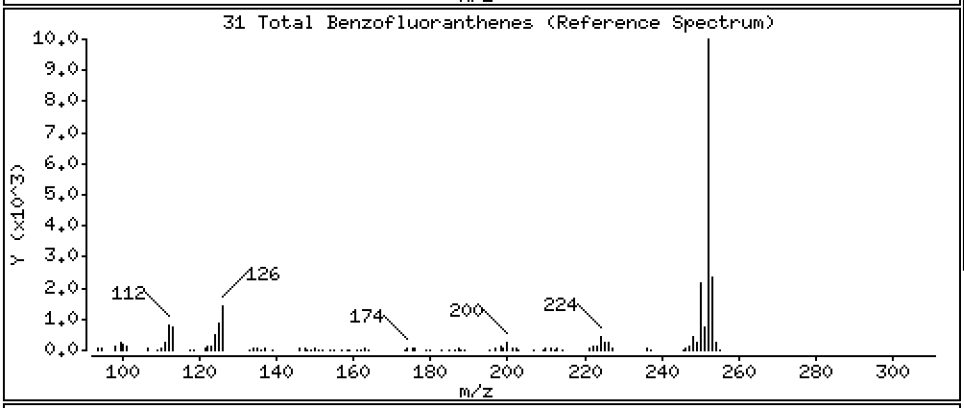
Concentration: 5.480 ug/L

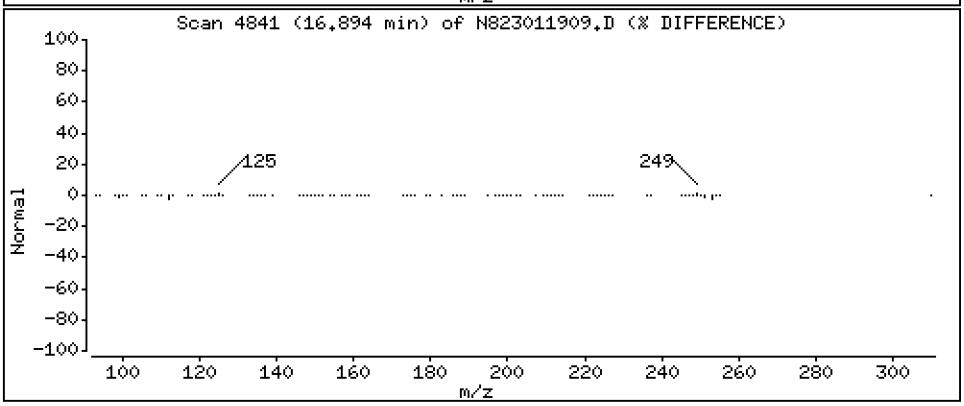












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

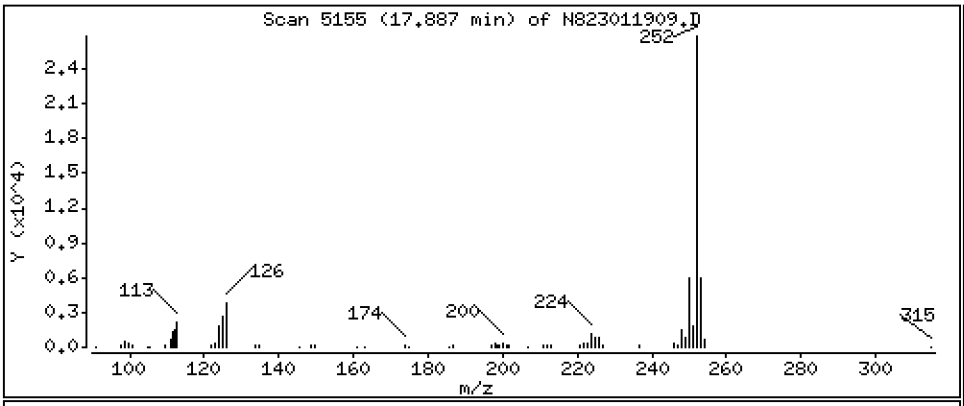
Operator: JZ

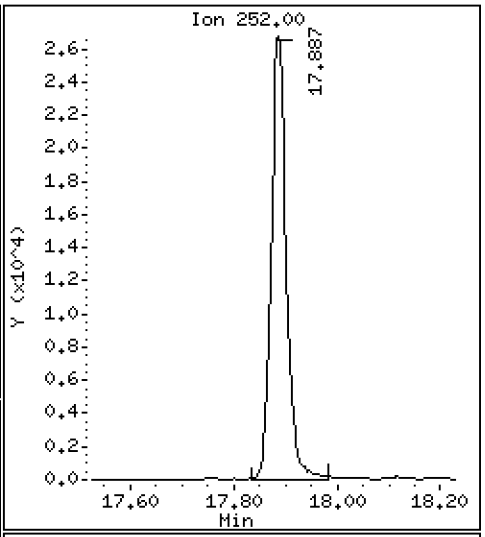
Column phase: Rxi-17sil

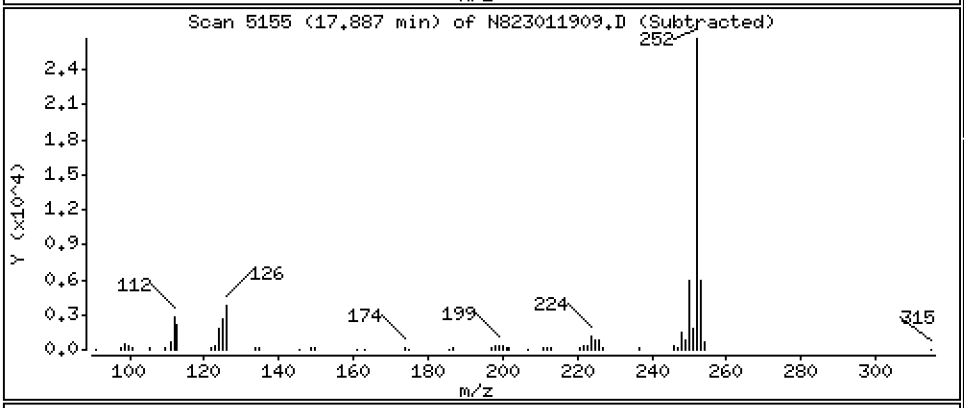
Column diameter: 0.25

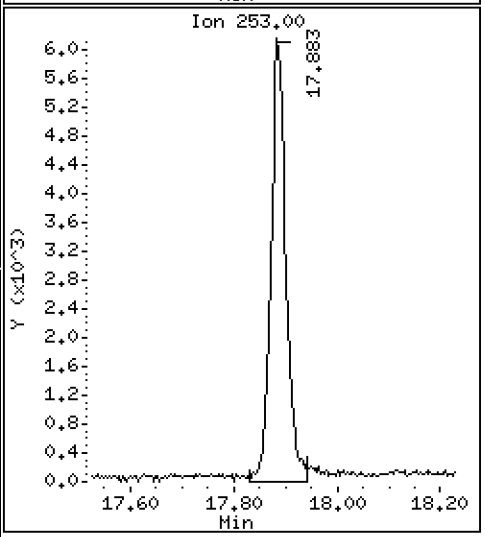
32 Benzo(a)pyrene

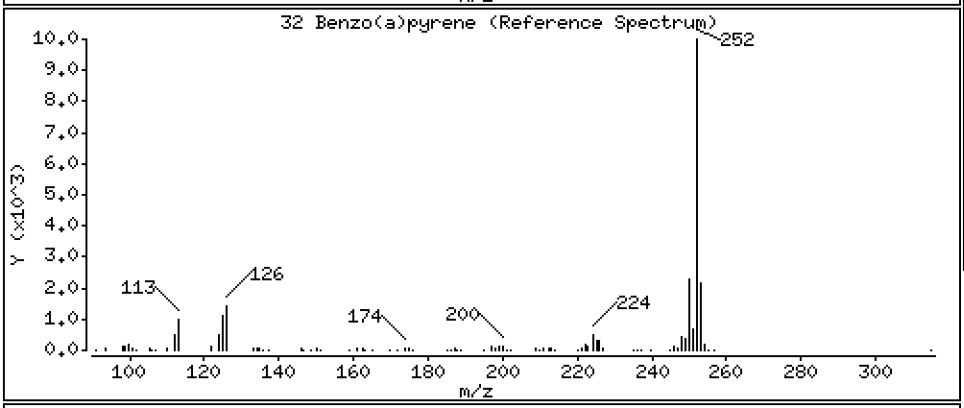
Concentration: 2.572 ug/L

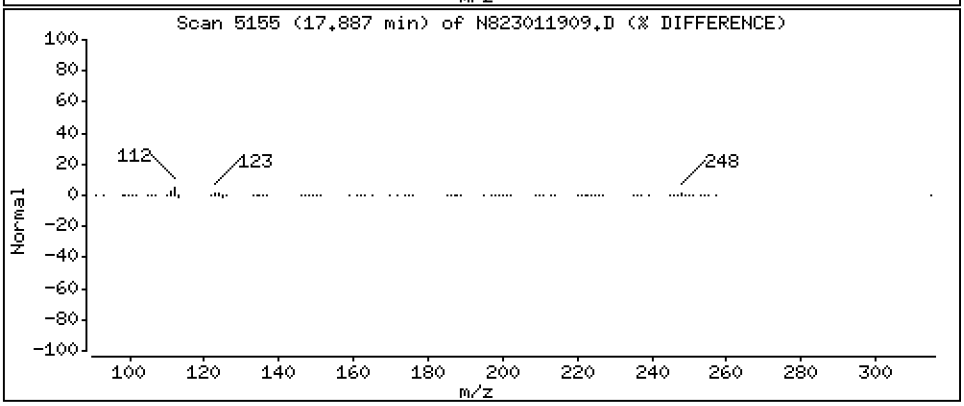












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

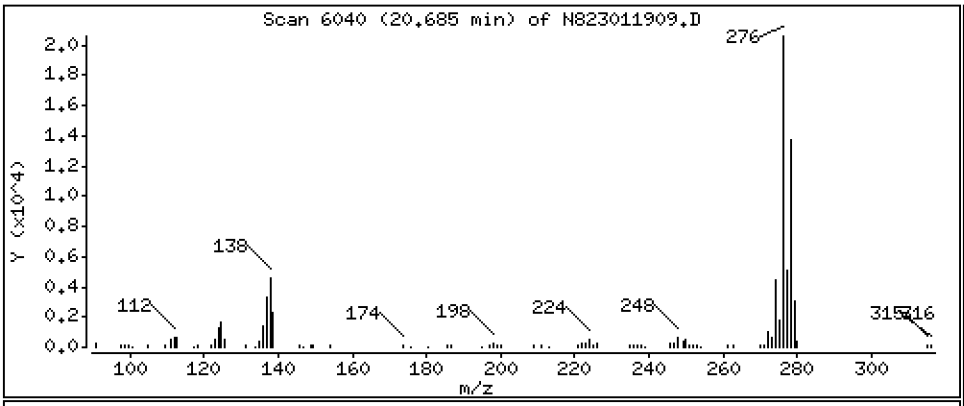
Operator: JZ

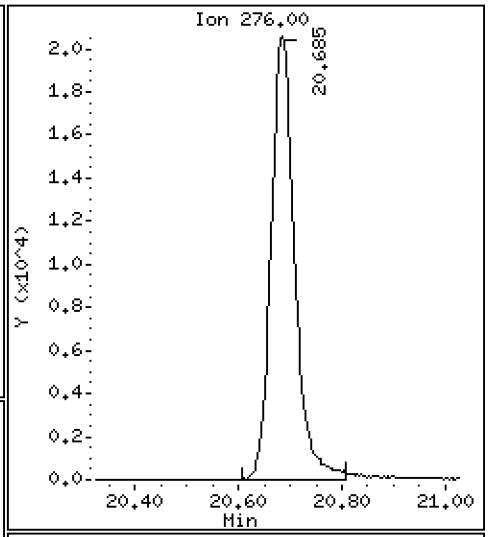
Column phase: Rxi-17sil

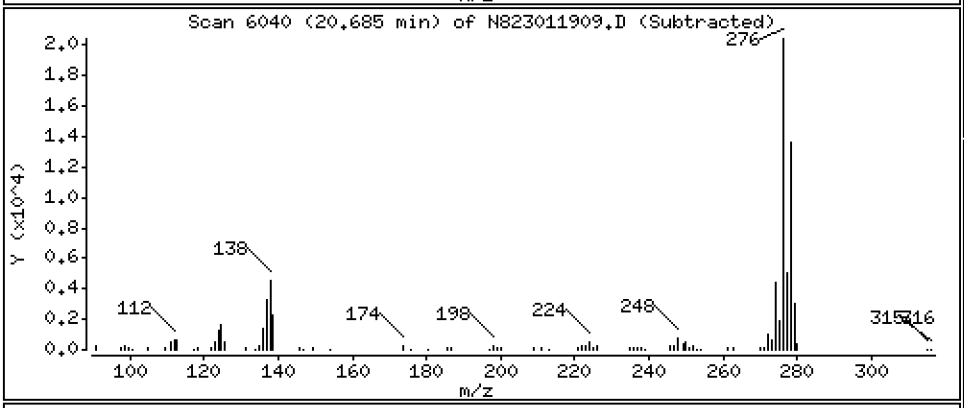
Column diameter: 0.25

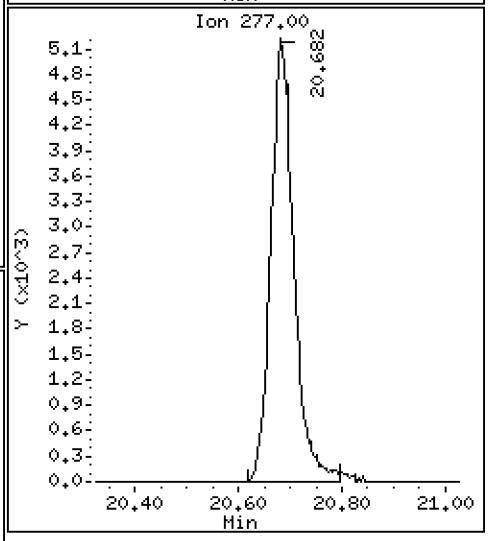
37 Indeno(1,2,3-cd)pyrene

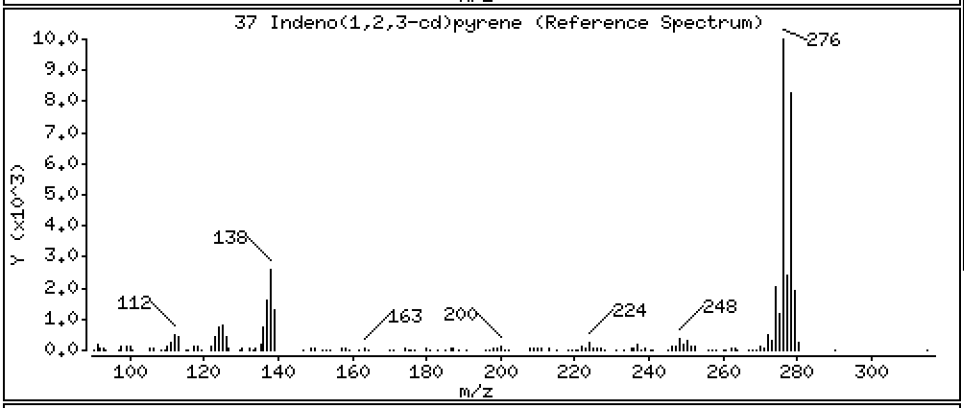
Concentration: 2.689 ug/L

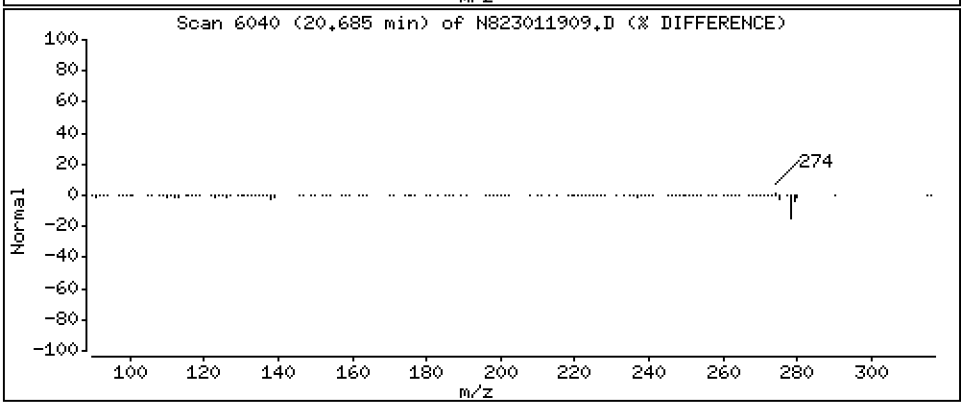












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

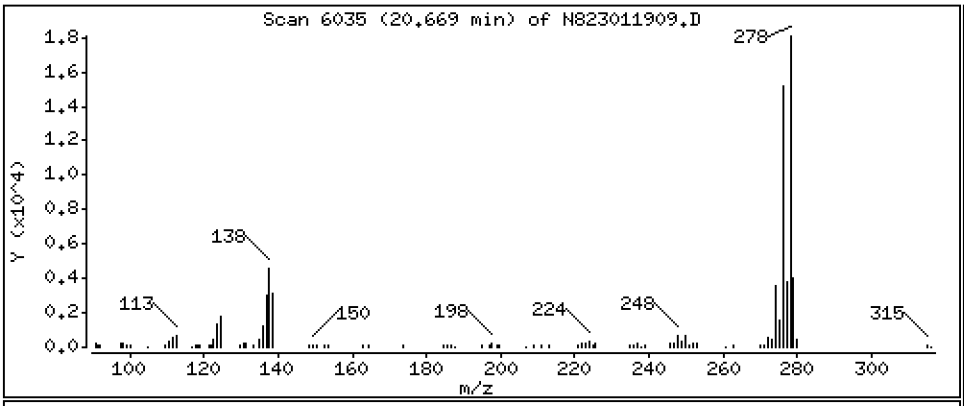
Operator: JZ

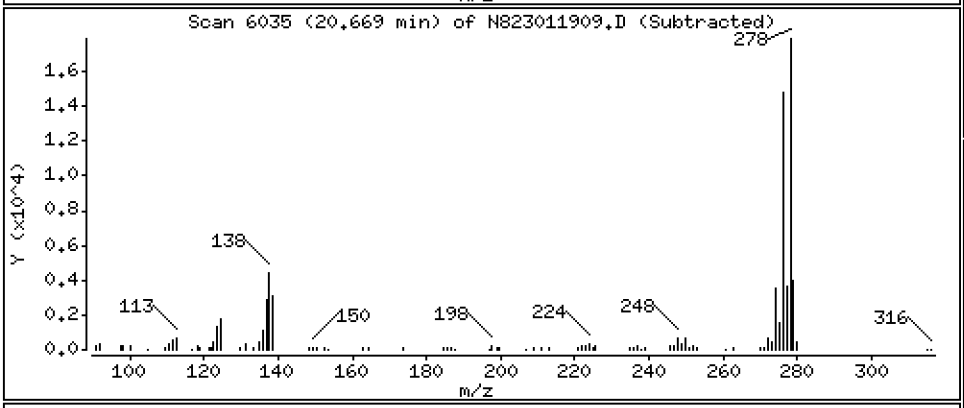
Column phase: Rxi-17sil

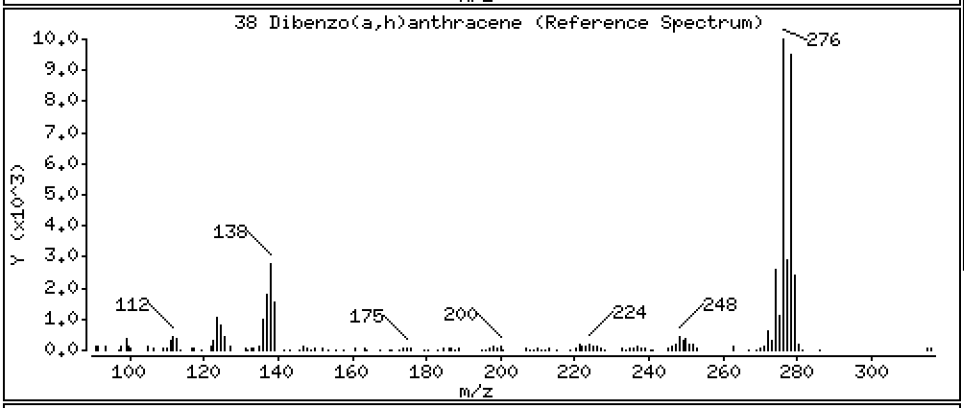
Column diameter: 0.25

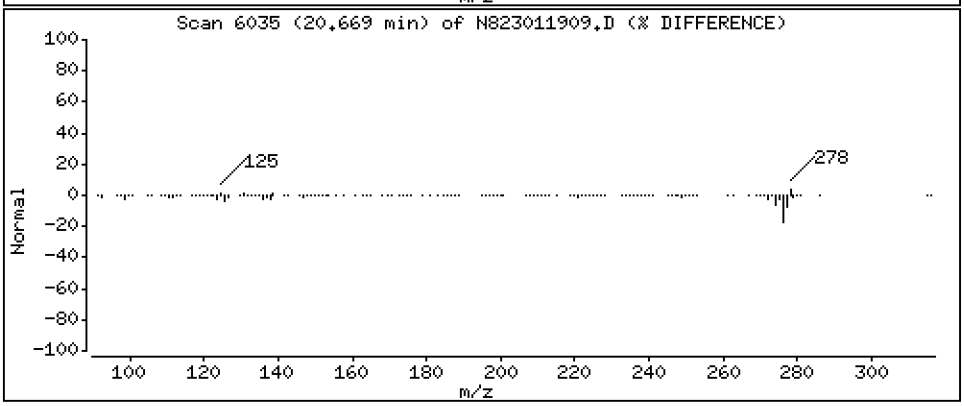
38 Dibenzo(a,h)anthracene

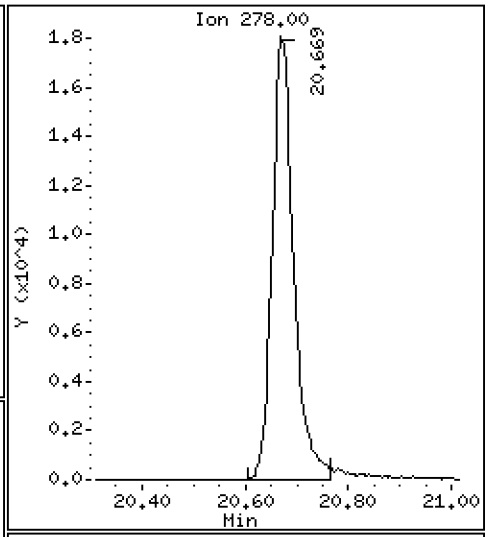
Concentration: 2.493 ug/L

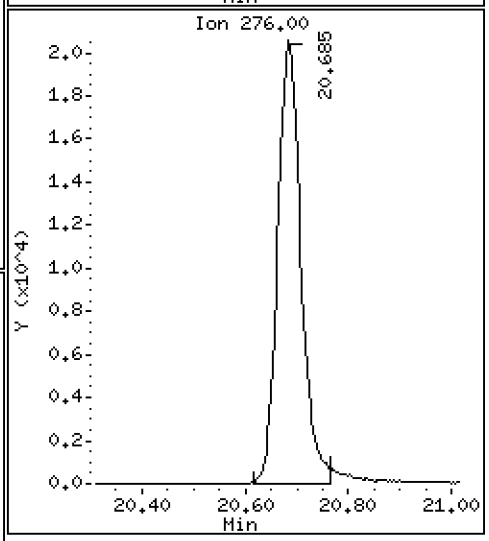












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

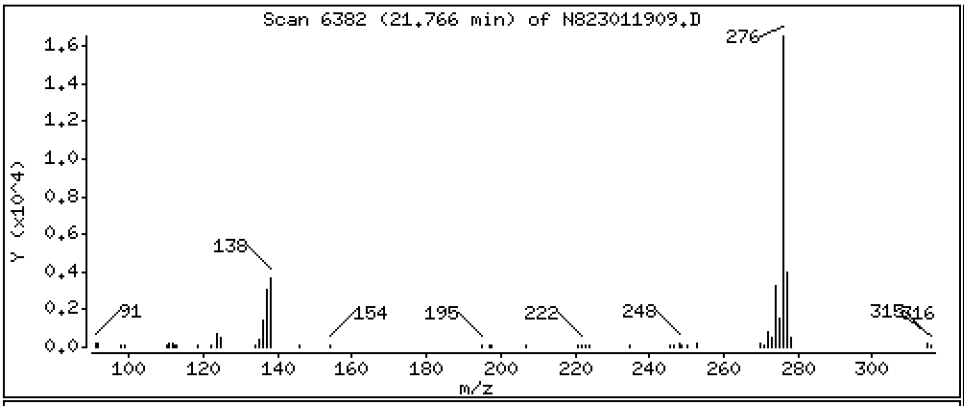
Operator: JZ

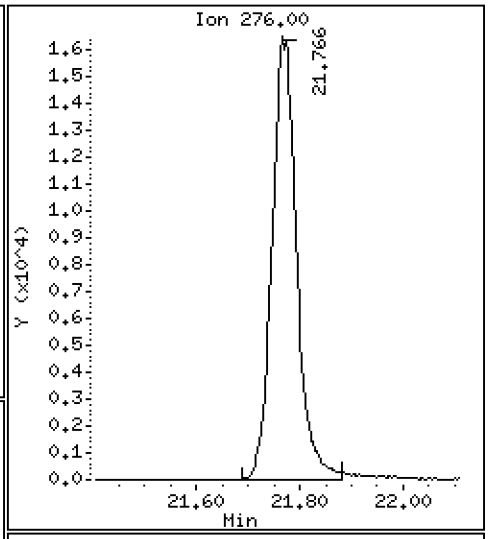
Column phase: Rxi-17sil

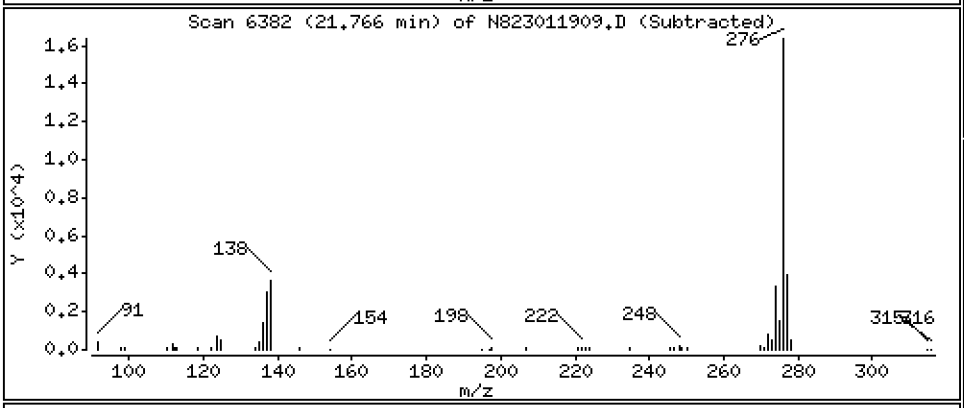
Column diameter: 0.25

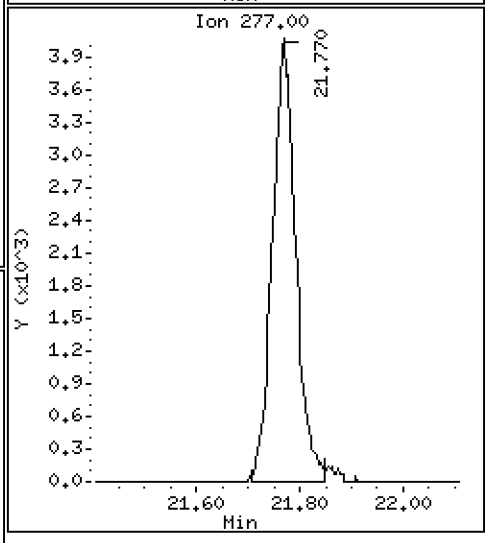
39 Benzo(g,h,i)perylene

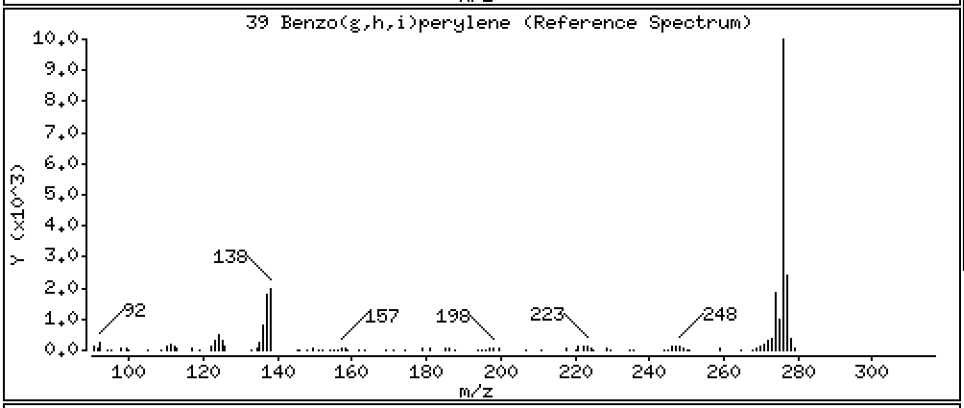
Concentration: 2.483 ug/L

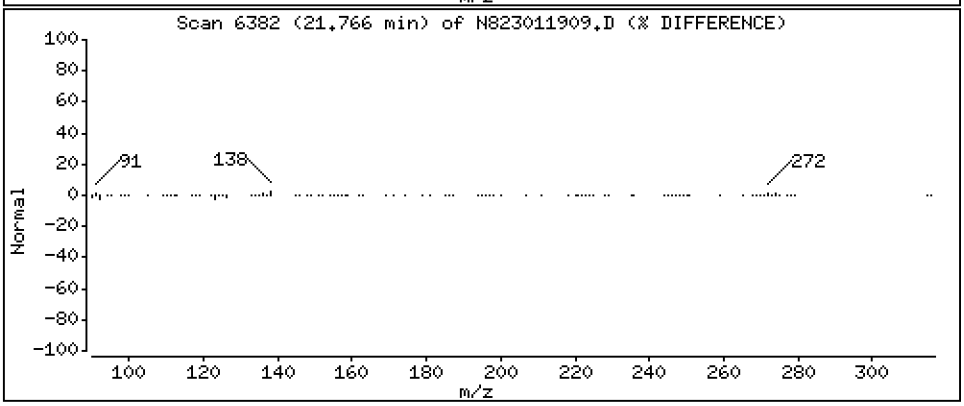












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011909.D
Lab Smp Id: SLA0213-SCV1
Inj Date : 19-JAN-2023 14:58
Operator : JZ Inst ID: nt8.i
Smp Info : SCV230119
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Meth Date : 25-Jan-2023 21:57 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnascv.sub
Target Version: 4.14
Processing Host: JIANQING-202105

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
* 1 Naphthalene-d8	136	4.913	4.906	(1.000)	46346	2.00000	
2 Naphthalene	128	4.941	4.938	(1.006)	56587	2.62597	2.626
$ 3 2-Methylnaphthalene-d10	152	Compound Not Detected.					
4 2-Methylnaphthalene	141	5.694	5.687	(1.159)	31650	2.67019	2.670
5 1-methylnaphthalene	141	5.890	5.883	(1.199)	31873	2.64949	2.649
9 Acenaphthylene	152	7.091	7.085	(0.985)	59018	2.82060	2.821
* 10 Acenaphthene-d10	164	7.202	7.196	(1.000)	27709	2.00000	
11 Acenaphthene	153	7.249	7.246	(1.007)	36454	2.60022	2.600
12 Dibenzofuran	168	7.401	7.395	(1.028)	60898	2.85987	2.860
14 Fluorene	166	7.878	7.872	(1.094)	43507	2.63066	2.631
* 15 Phenanthrene-d10	188	9.238	9.235	(1.000)	51685	2.00000	
16 Phenanthrene	178	9.276	9.270	(1.004)	61815	2.44841	2.448
17 Anthracene	178	9.317	9.311	(1.009)	52064	2.27006	2.270
22 Fluoranthene	202	11.059	11.053	(1.197)	72902	2.65276	2.653
$ 21 Fluoranthene-d10	212	Compound Not Detected.					
23 Pyrene	202	11.578	11.572	(0.815)	71115	2.46242	2.462
24 Benzo(a)anthracene	228	14.082	14.076	(0.991)	67725	2.58725	2.587
* 25 Chrysene-d12	240	14.212	14.202	(1.000)	46582	2.00000	
27 Chrysene	228	14.285	14.278	(1.005)	66872	2.39976	2.400
28 Benzo(b)fluoranthene	252	16.833	16.821	(0.929)	60946	2.50689	2.507
29 Benzo(k)fluoranthene	252	16.893	16.884	(0.932)	63249	2.65606	2.656
31 Total Benzofluoranthenes	252	16.893	16.821	(0.932)	126178	5.48025	5.480(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	32 Benzo(a)pyrene	252	17.886	17.877	(0.987)	55026	2.57205	2.572
*	33 Perylene-d12	264	18.117	18.111	(1.000)	41743	2.00000	
	37 Indeno(1,2,3-cd)pyrene	276	20.684	20.675	(1.142)	65545	2.68928	2.689
$	36 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
	38 Dibenzo(a,h)anthracene	278	20.669	20.662	(1.141)	52293	2.49315	2.493
	39 Benzo(g,h,i)perylene	276	21.766	21.756	(1.201)	54821	2.48258	2.483
	35 Perylene	252	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823011909.D
Lab Smp Id: SLA0213-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 19-JAN-2023
Calibration Time: 12:52
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44704	22352	89408	46346	3.67
10 Acenaphthene-d10	26411	13206	52822	27709	4.91
15 Phenanthrene-d10	49210	24605	98420	51685	5.03
25 Chrysene-d12	42994	21497	85988	46582	8.35
33 Perylene-d12	40520	20260	81040	41743	3.02

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.13
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.09
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.03
25 Chrysene-d12	14.20	13.70	14.70	14.21	0.07
33 Perylene-d12	18.11	17.61	18.61	18.12	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011909.D

Lab ID: SLA0213-SCV1
nt8.i, 20230119.b\FSIMPNA230119.m,   19-JAN-2023 14:58

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

No RRT check performed

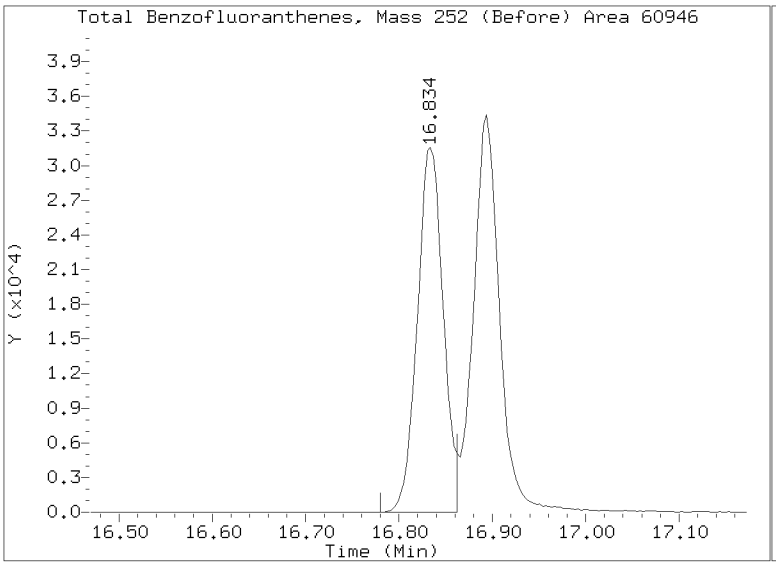
On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, pnascv.sub = 0.0500

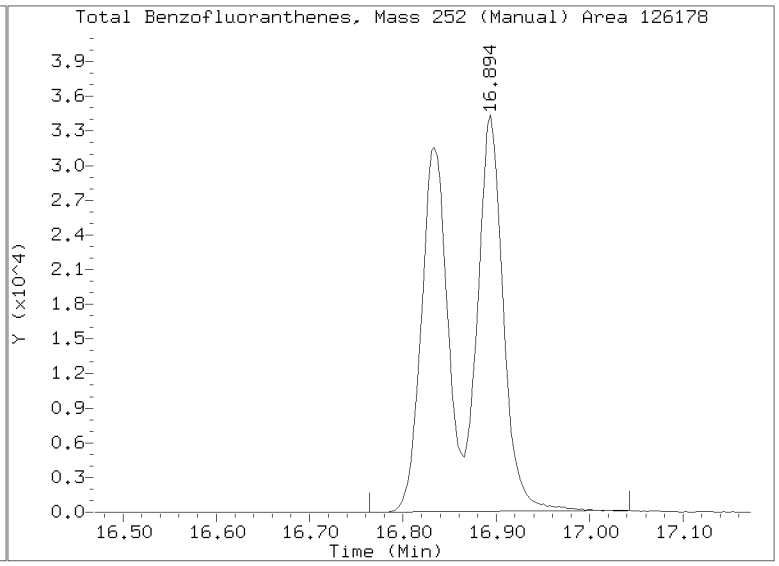
Exception: Benzo(b)fluoranthene 0.0300
Exception: Benzo(k)fluoranthene 0.0300
Exception: Total Benzofluoranthenes 0.0300
Exception: Fluoranthene-d10 (Surr) 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011909.D
Injection Date: 19-JAN-2023 14:58
Lab ID:SLA0213-SCV1 Client ID:
Report Date: 01/25/2023 22:00





SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00032
Laboratory ID: SLC0143-SCV1
Sequence: SLC0143
Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
1,4-Dichlorobenzene	5.0000	5.2	5.0	20.00
1,2-Dichlorobenzene	5.0000	5.1	2.8	20.00
Benzyl Alcohol	5.0000	5.1	2.1	20.00
Benzoic acid	10.000	6.9	-31.3 *	20.00
2,4-Dimethylphenol	5.0000	3.6	-27.3 *	20.00
1,2,4-Trichlorobenzene	5.0000	4.9	-2.6	20.00
N-Nitrosodiphenylamine	5.0000	5.4	7.2	20.00
Pentachlorophenol	5.0000	3.9	-21.8 *	20.00
2-Fluorophenol	7.5000	0.0377	-99.5	
p-Terphenyl-d14	5.0000	0.0271	-99.5	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

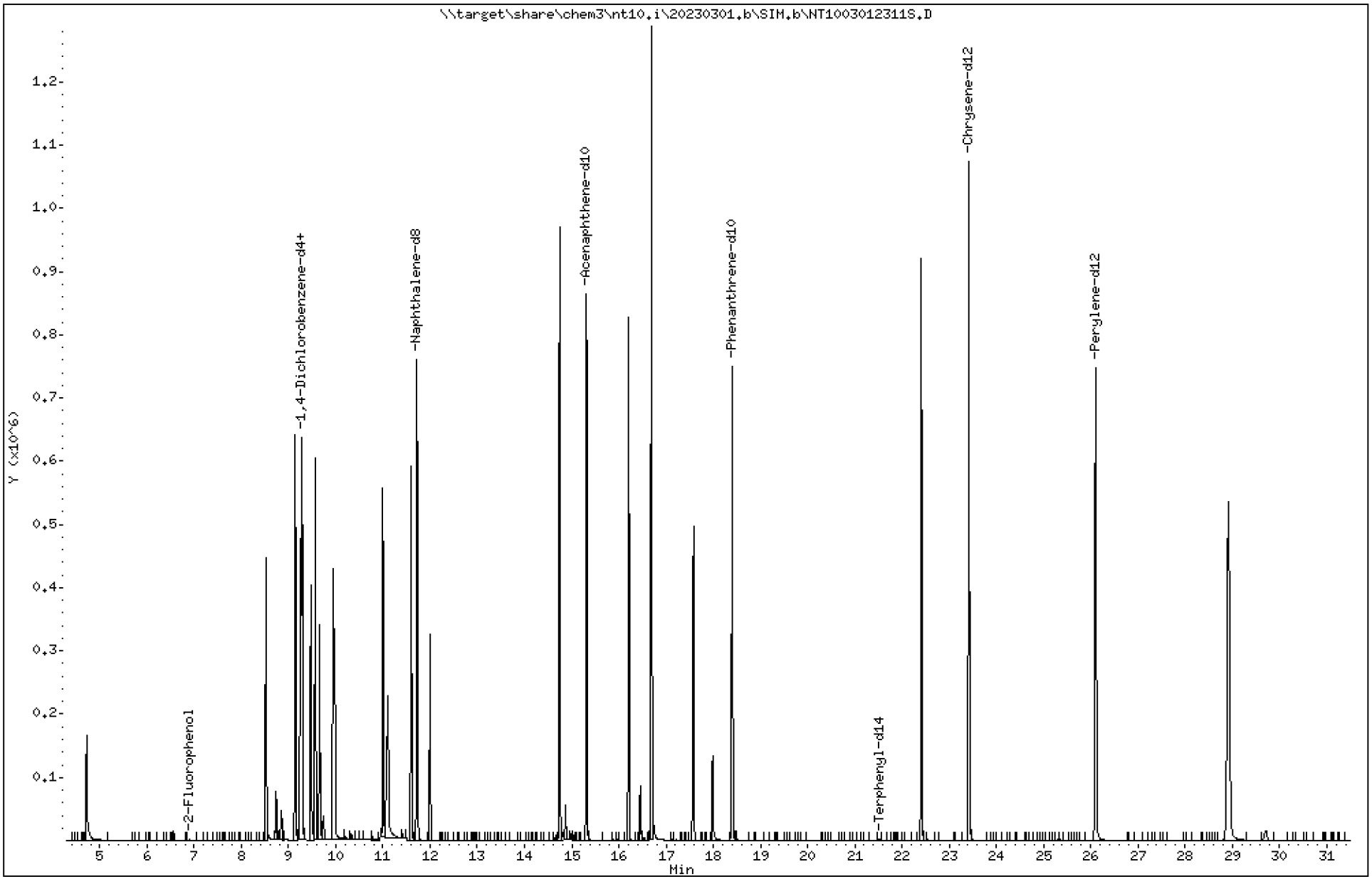
Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

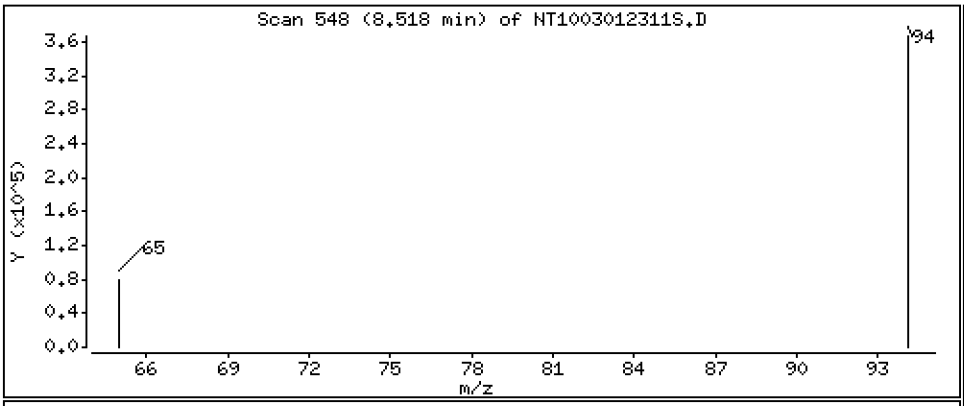
Operator: JGR

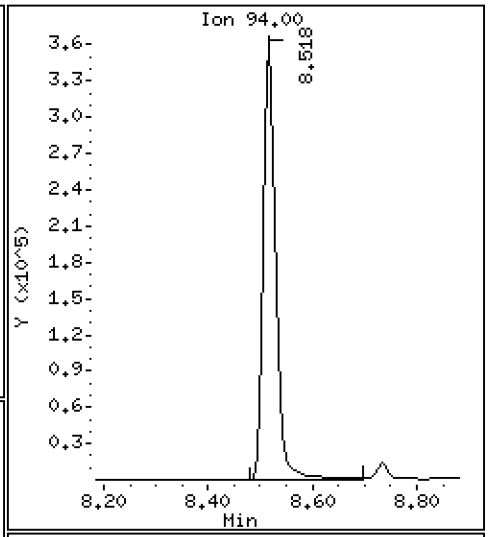
Column phase: ZB-5msi

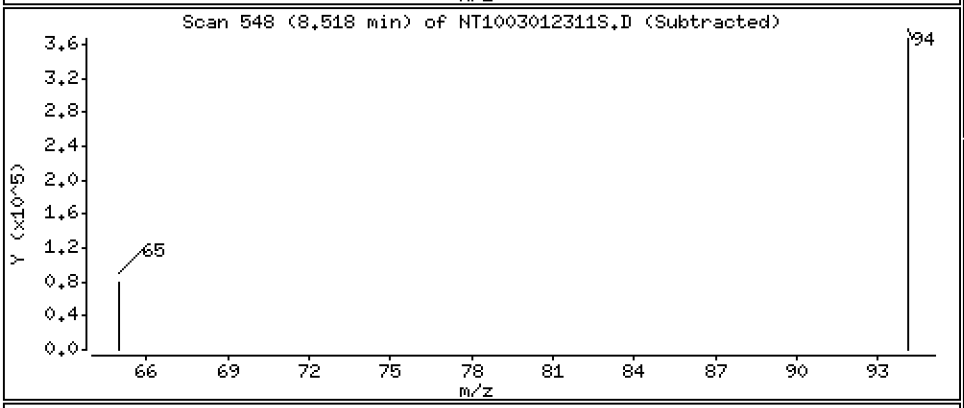
Column diameter: 0.25

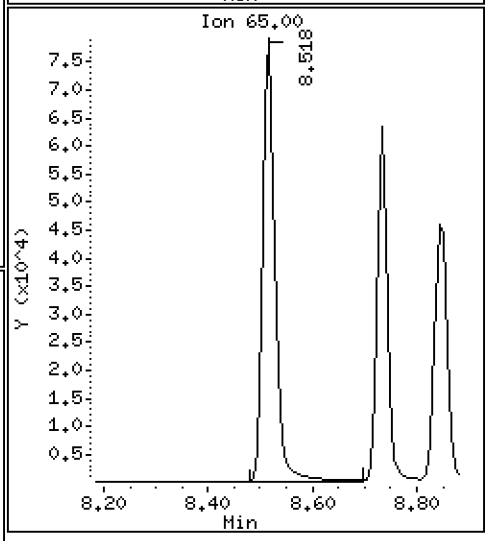
3 Phenol

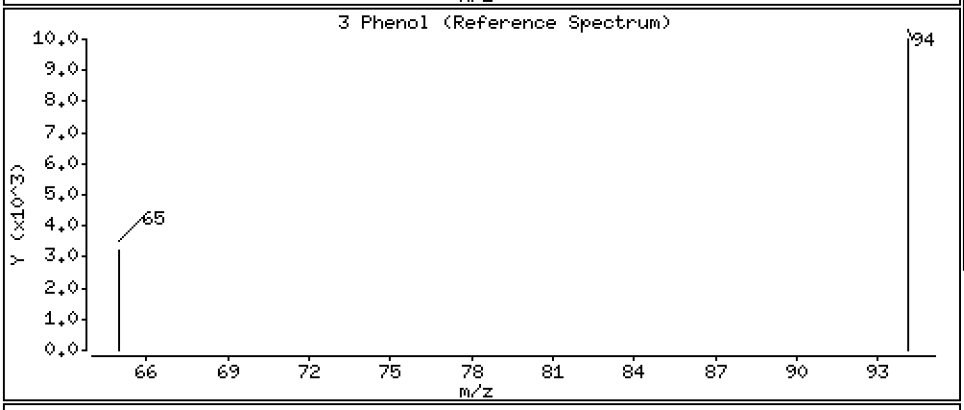
Concentration: 4.507 ug/L

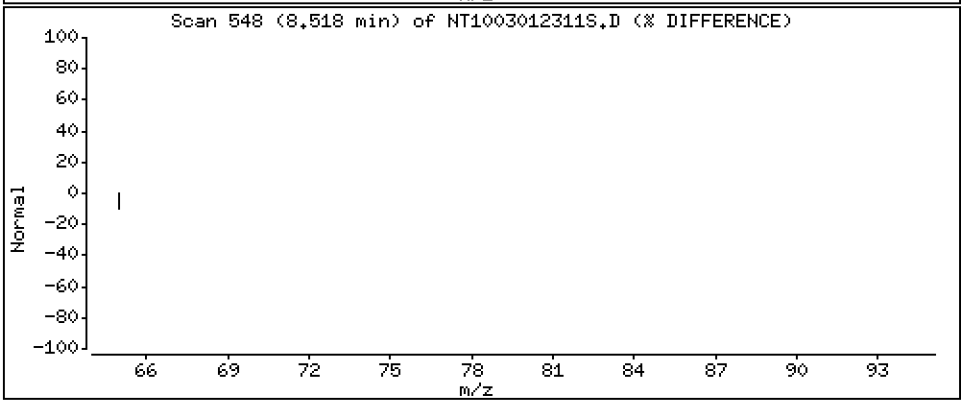












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

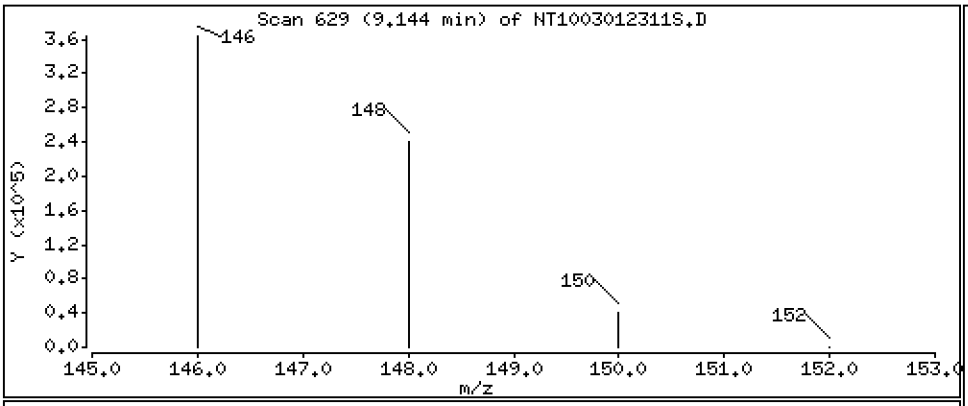
Operator: JGR

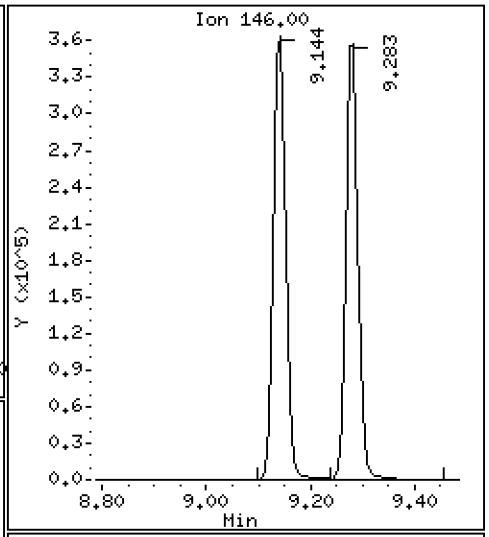
Column phase: ZB-5msi

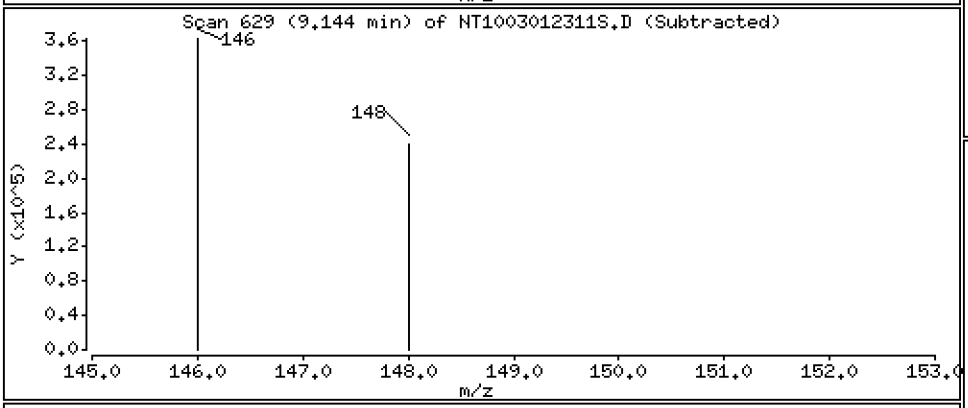
Column diameter: 0.25

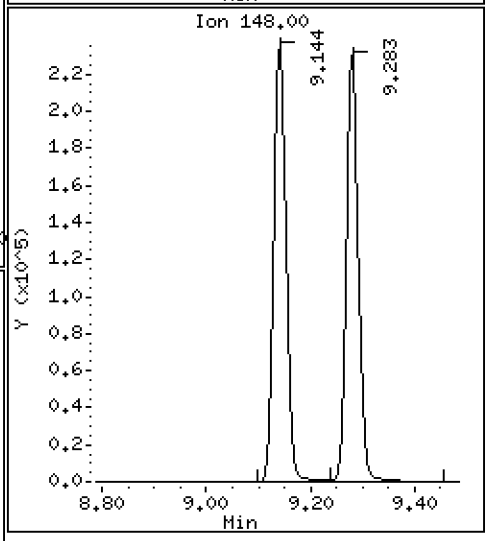
7 1,3-Dichlorobenzene

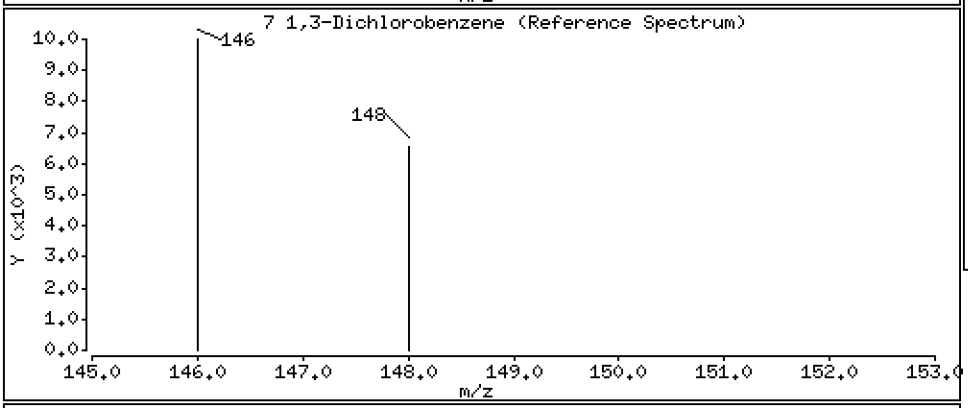
Concentration: 5.084 ug/L

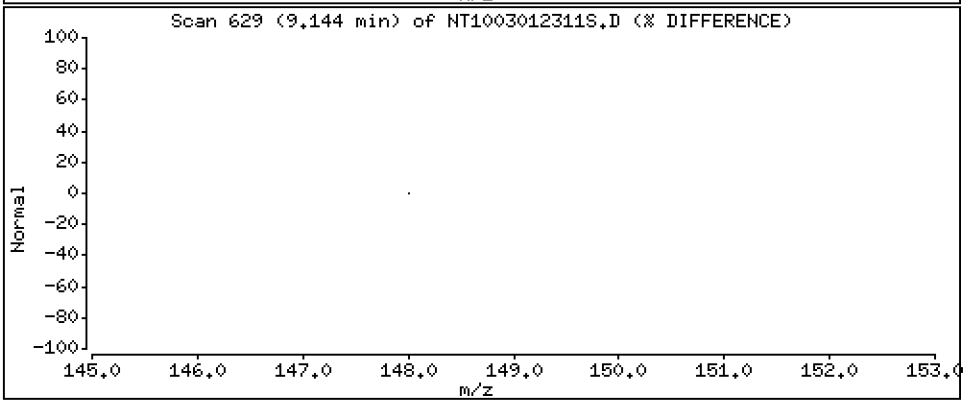












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

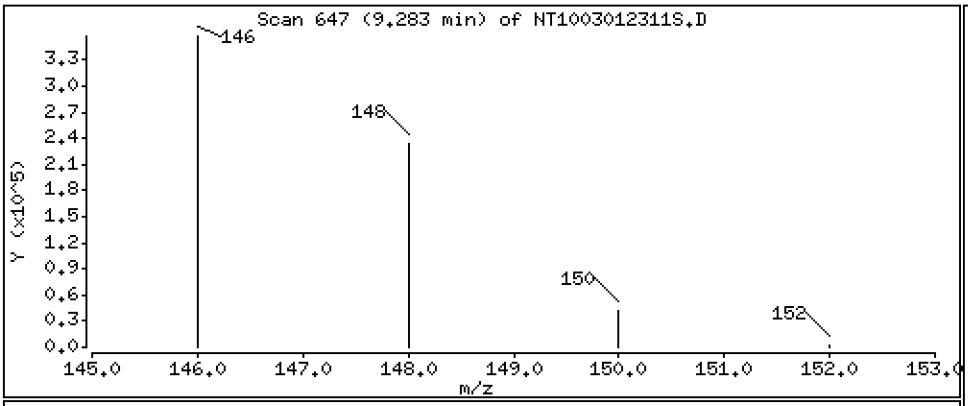
Operator: JGR

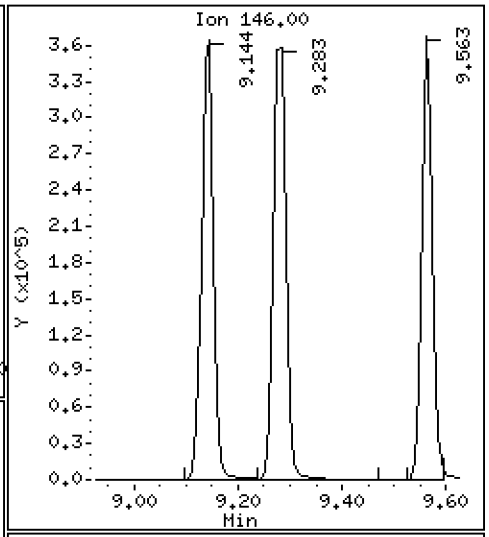
Column phase: ZB-5msi

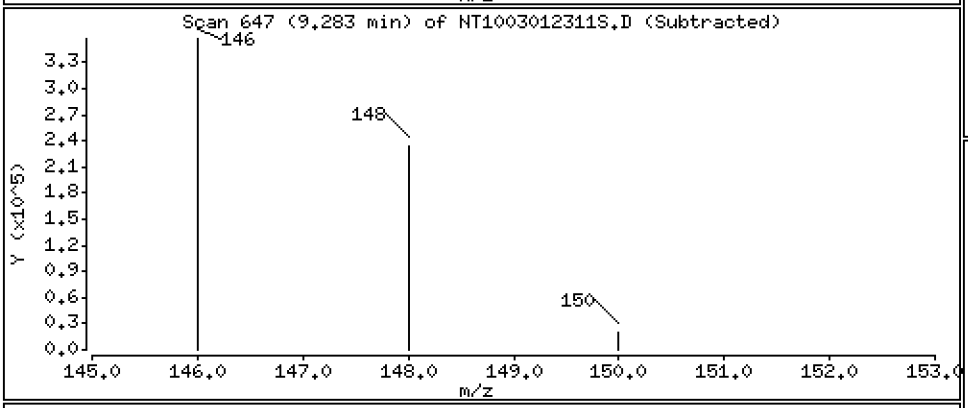
Column diameter: 0.25

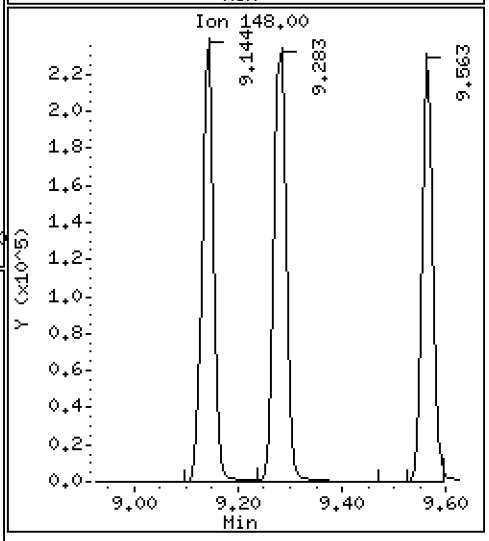
9 1,4-Dichlorobenzene

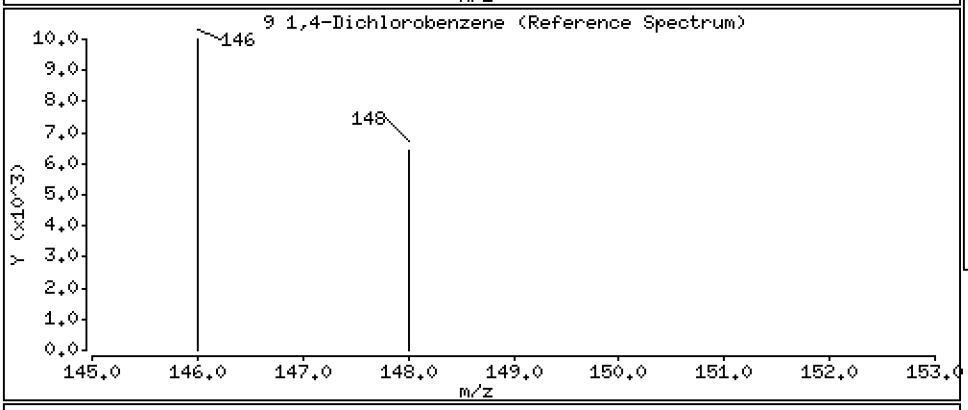
Concentration: 5.250 ug/L

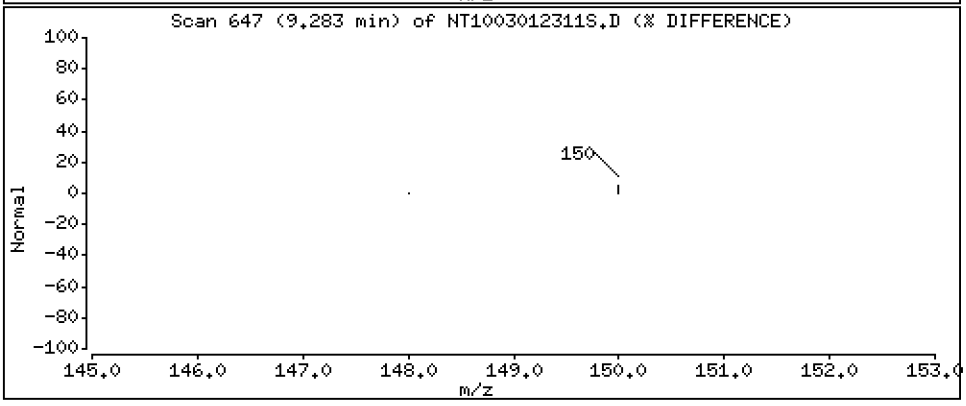












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

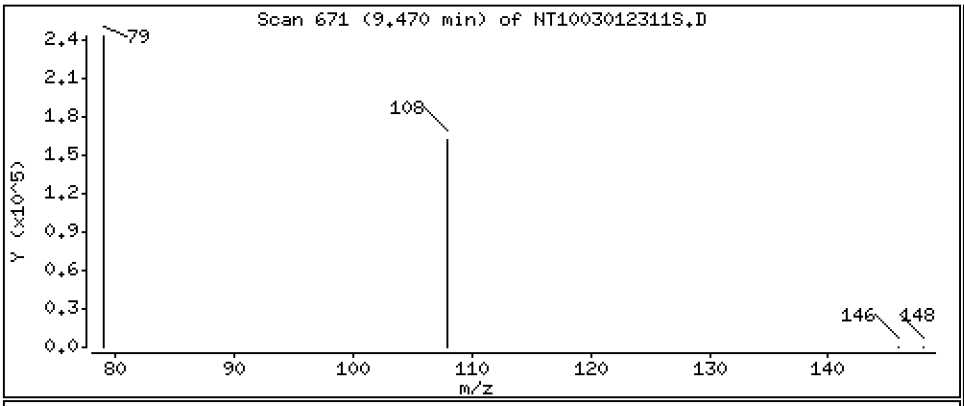
Operator: JGR

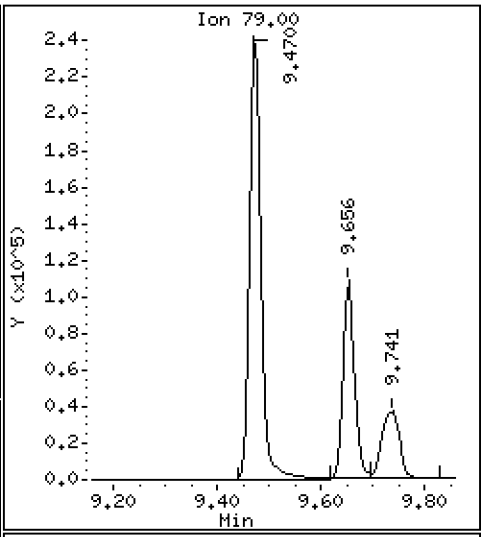
Column phase: ZB-5msi

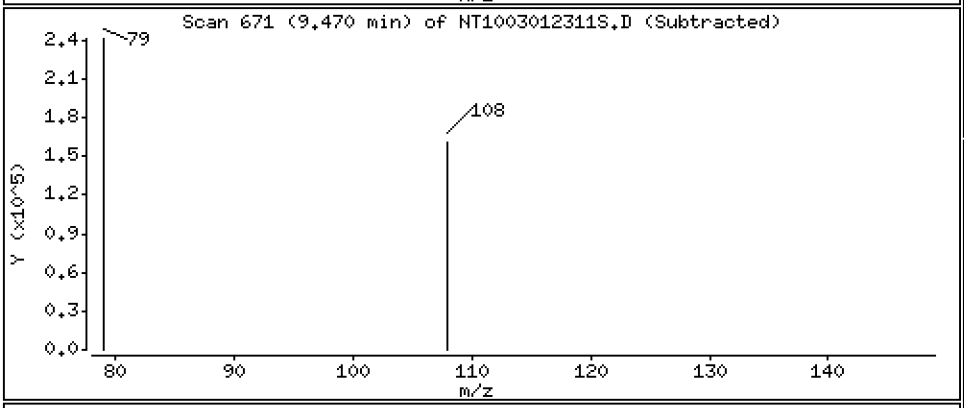
Column diameter: 0.25

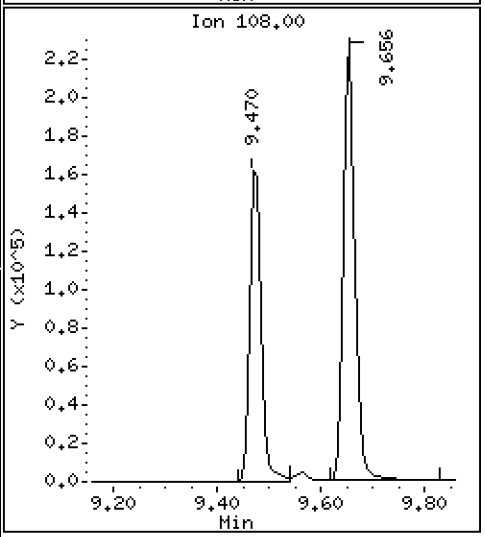
11 Benzyl alcohol

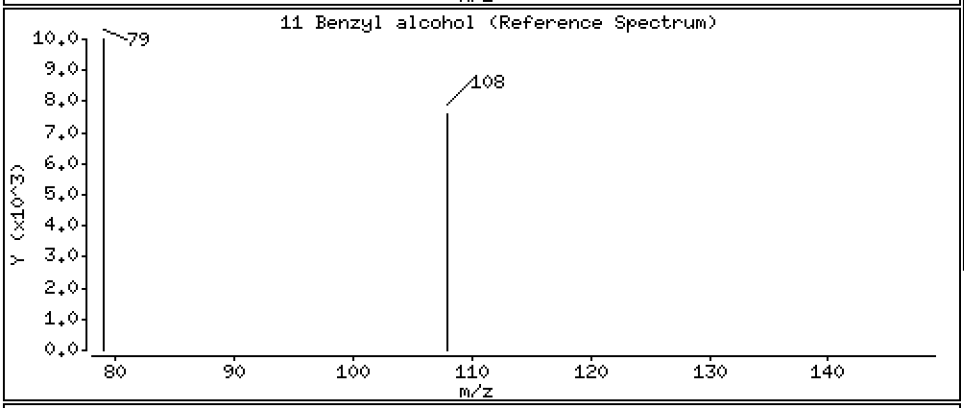
Concentration: 5.104 ug/L

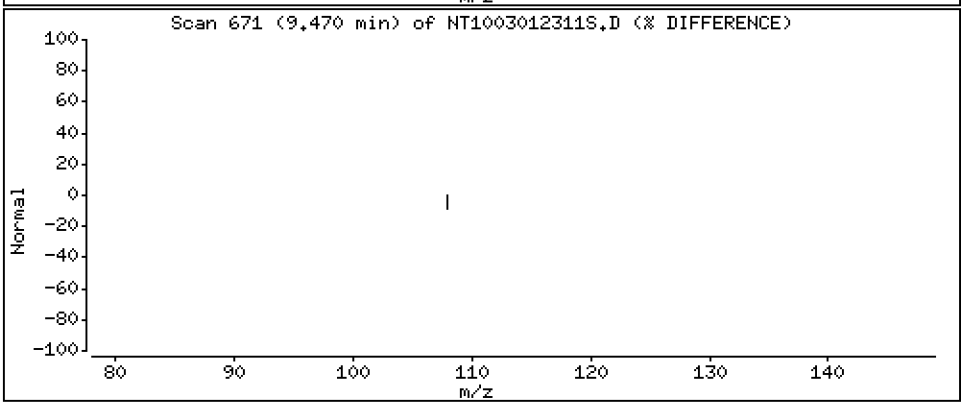












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

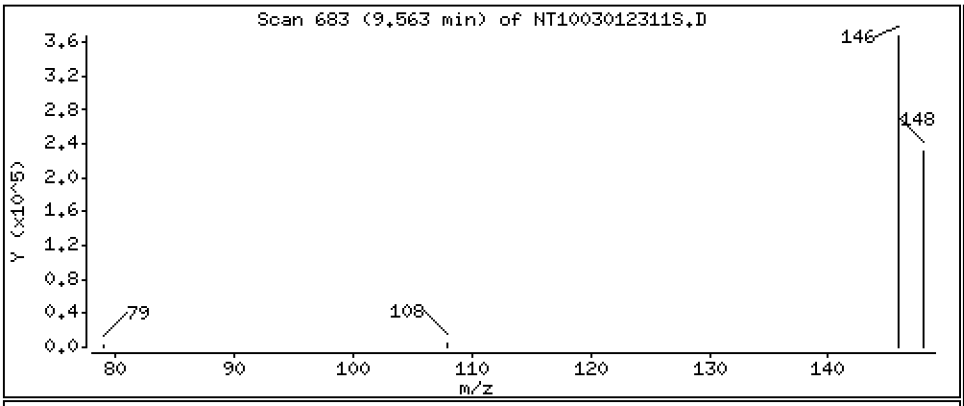
Operator: JGR

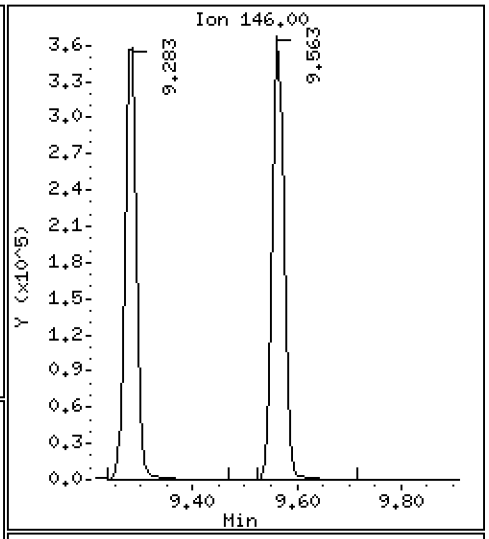
Column phase: ZB-5msi

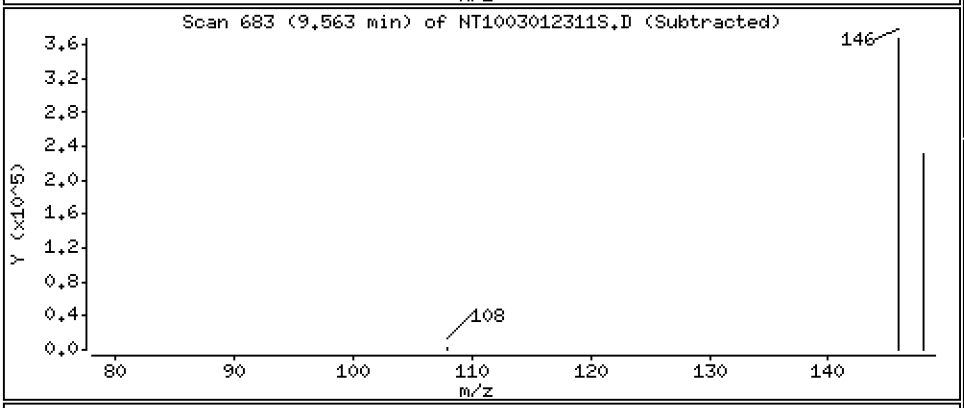
Column diameter: 0.25

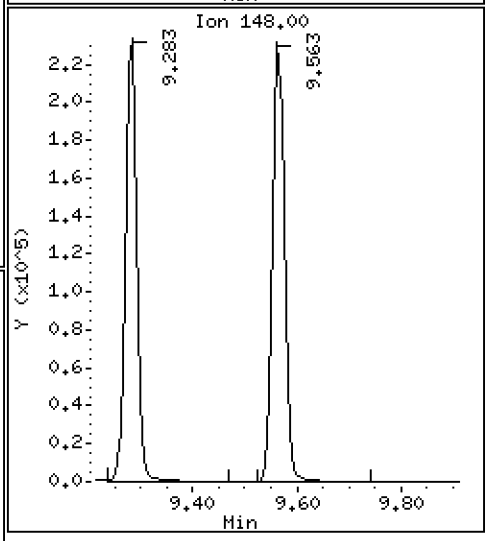
12 1,2-Dichlorobenzene

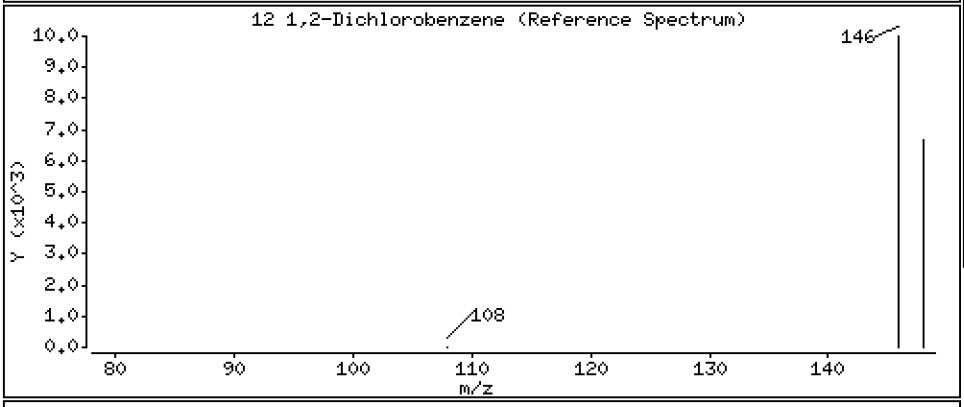
Concentration: 5.142 ug/L

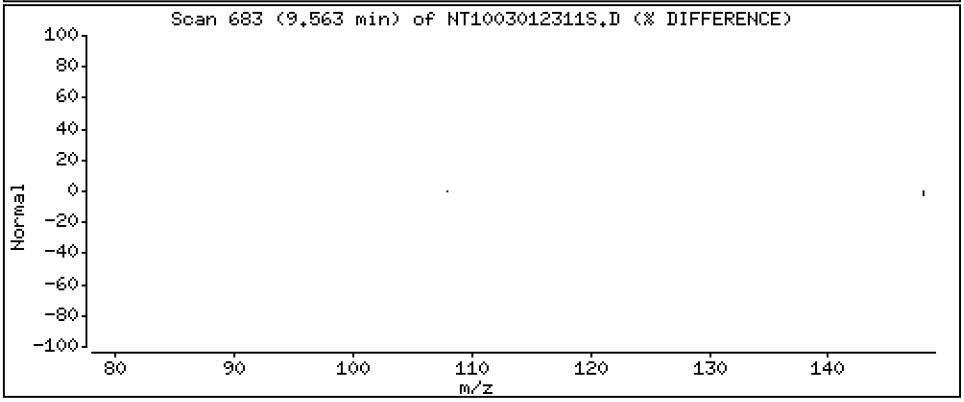












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

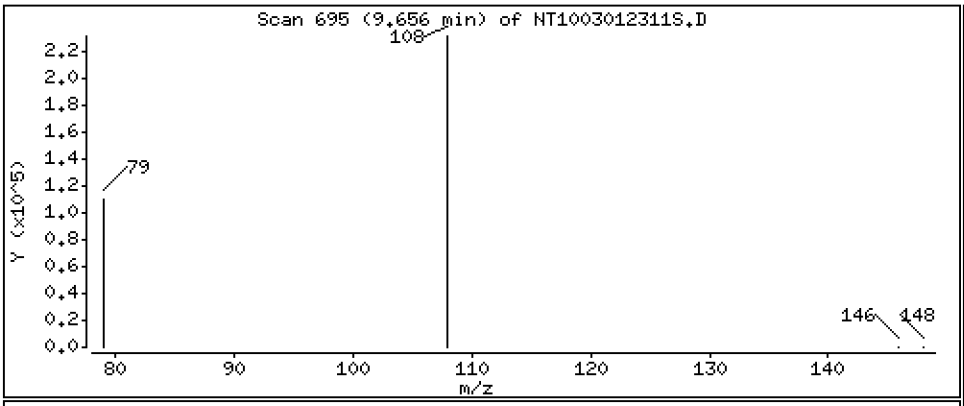
Operator: JGR

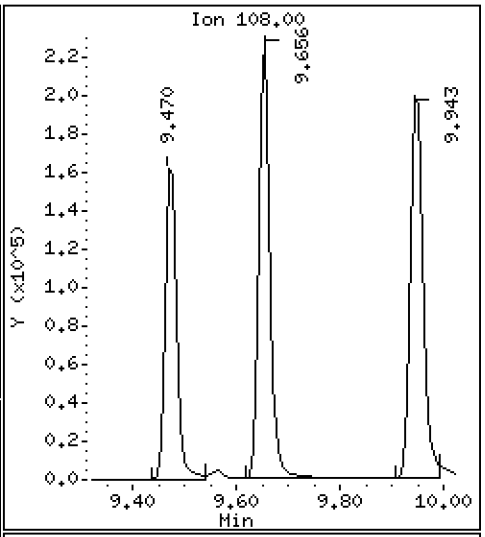
Column phase: ZB-5msi

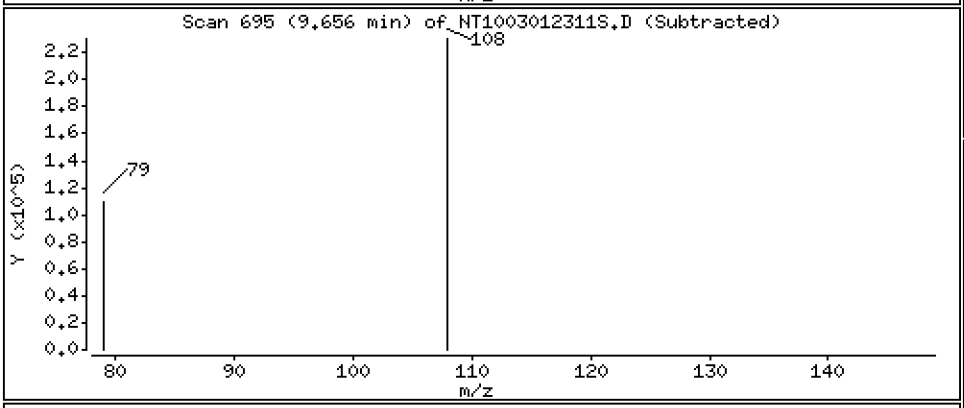
Column diameter: 0.25

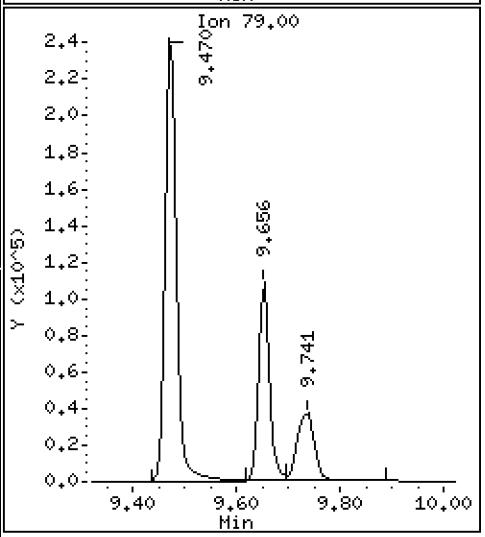
13 2-Methylphenol

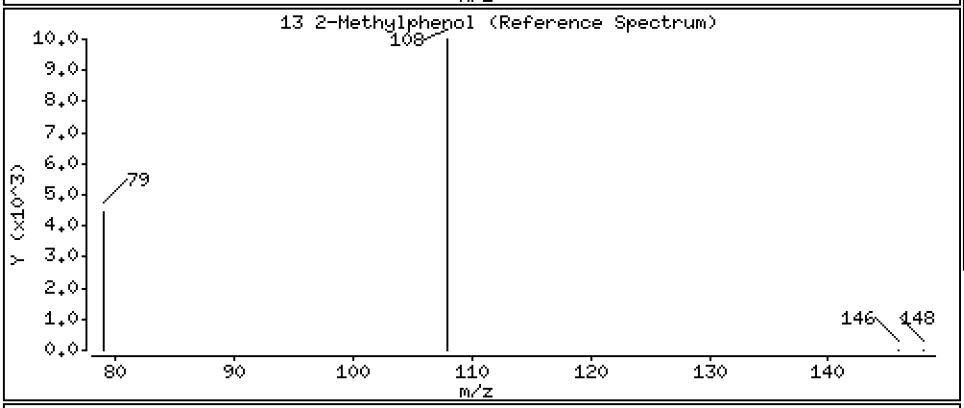
Concentration: 4.365 ug/L

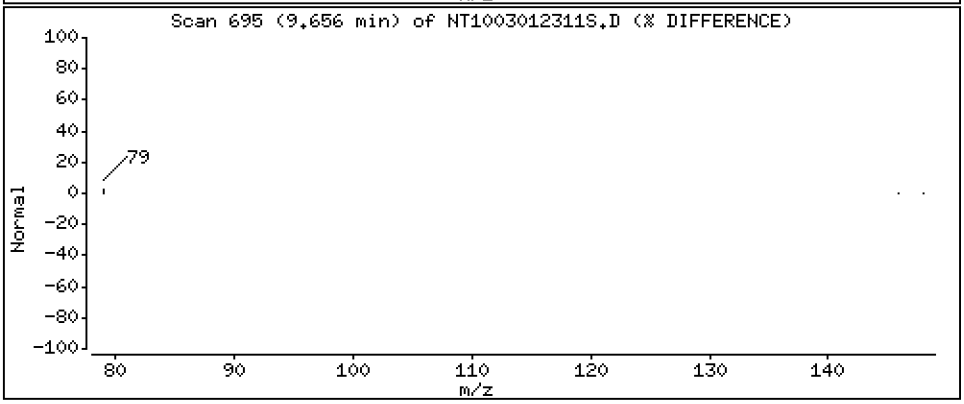












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

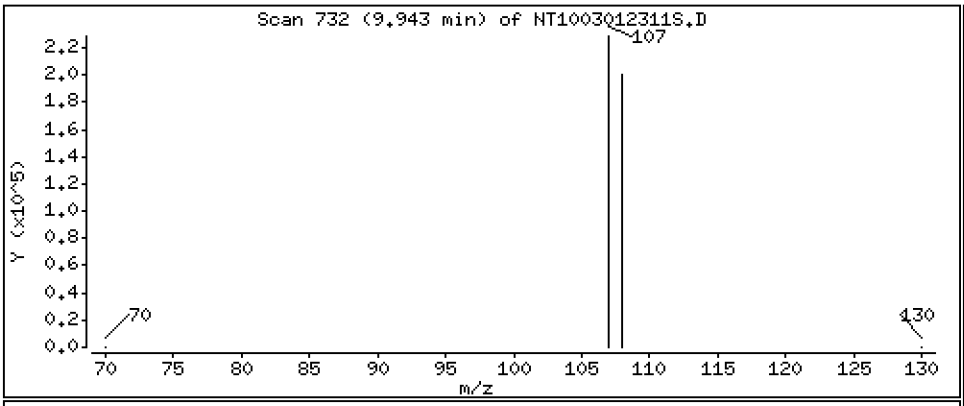
Operator: JGR

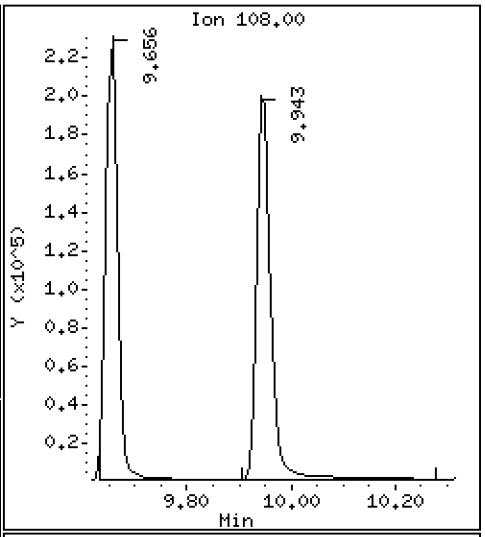
Column phase: ZB-5msi

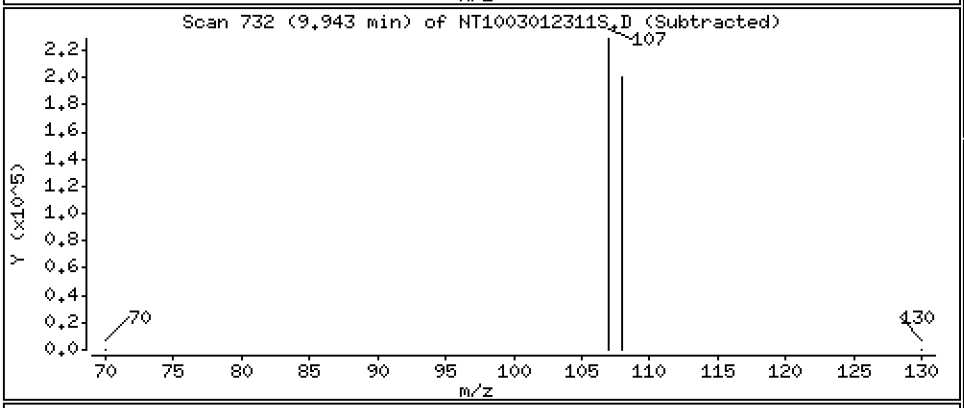
Column diameter: 0.25

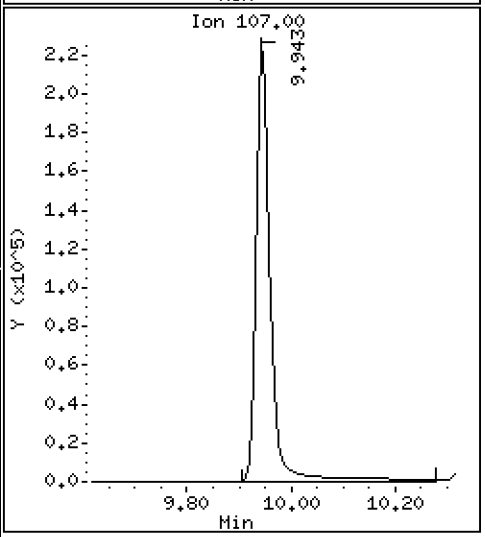
15 4-Methylphenol

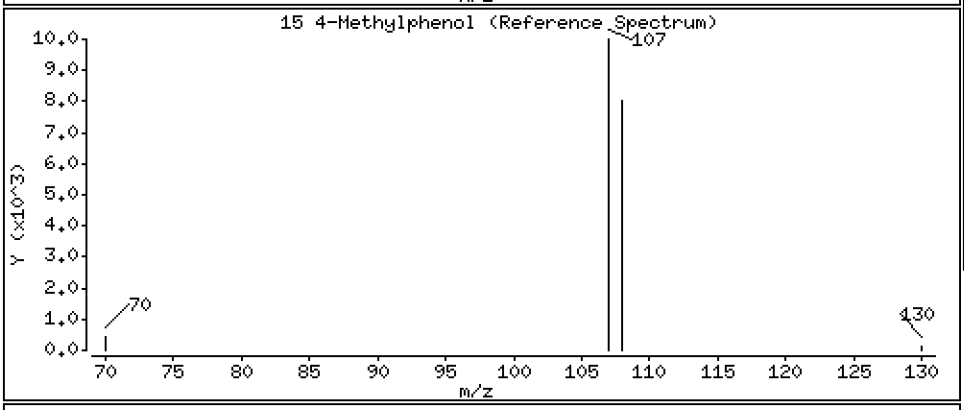
Concentration: 4.505 ug/L

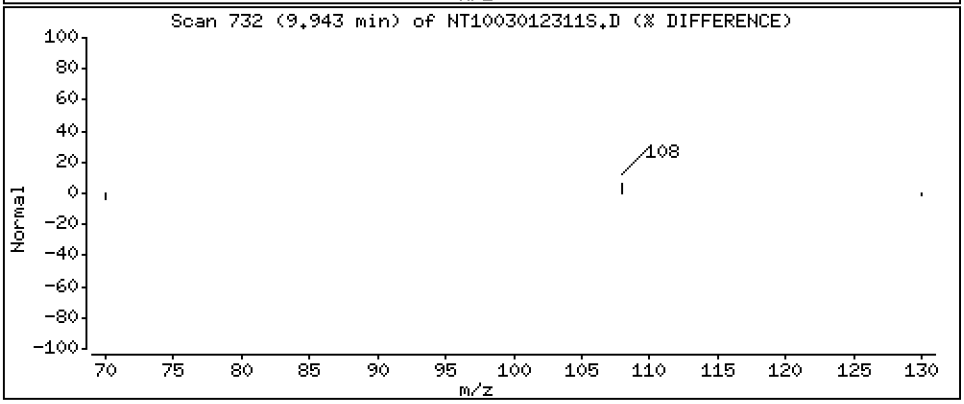












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

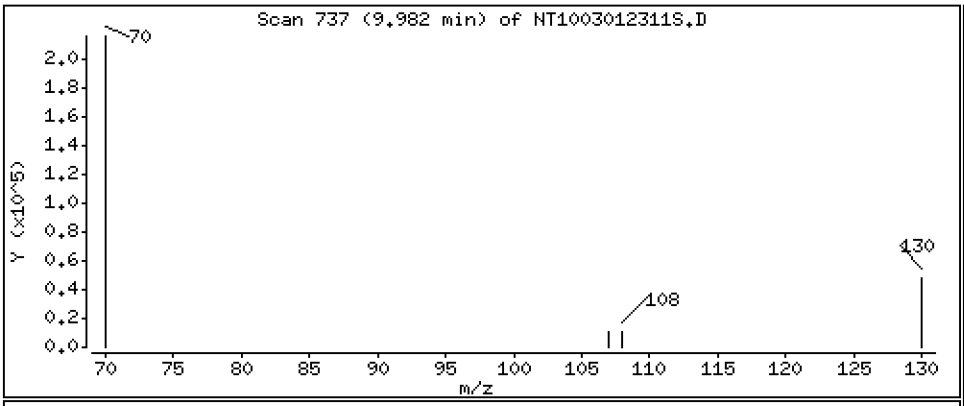
Operator: JGR

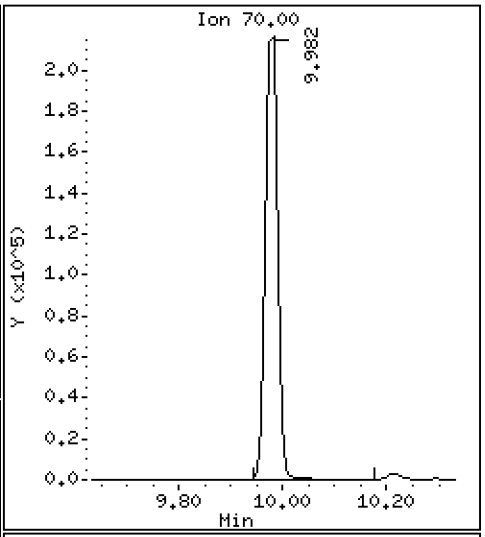
Column phase: ZB-5msi

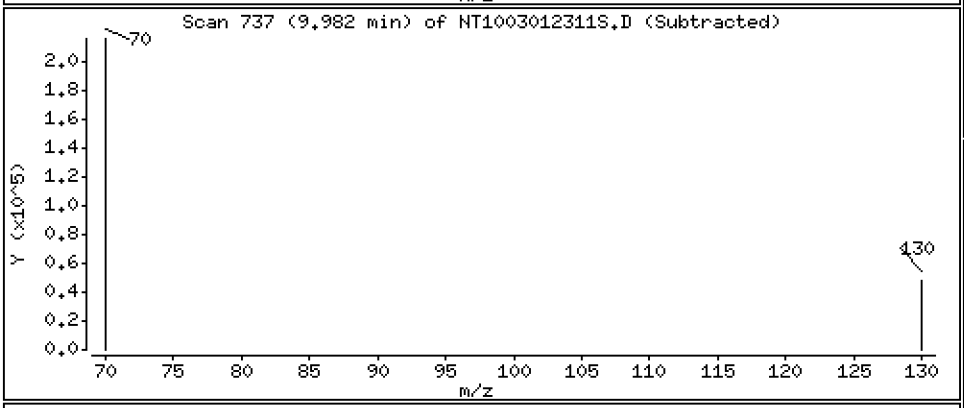
Column diameter: 0.25

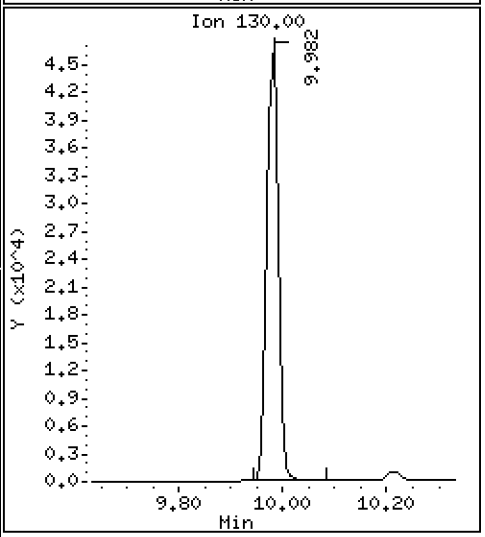
16 N-Nitroso-di-n-propylamine

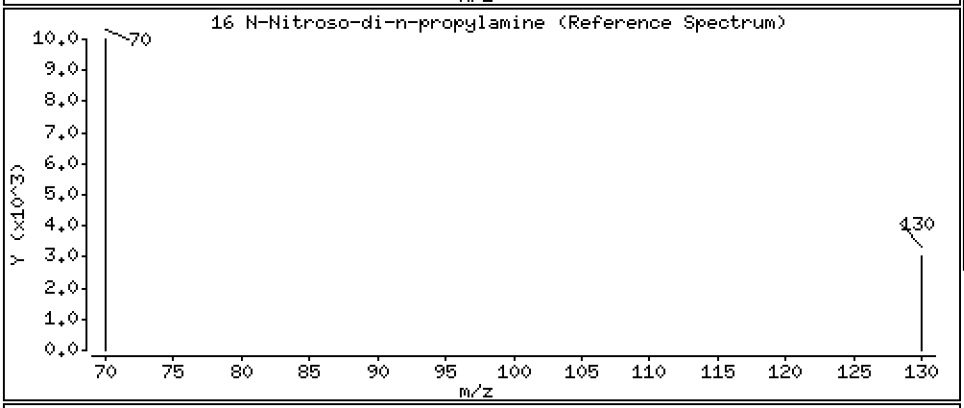
Concentration: 5.685 ug/L

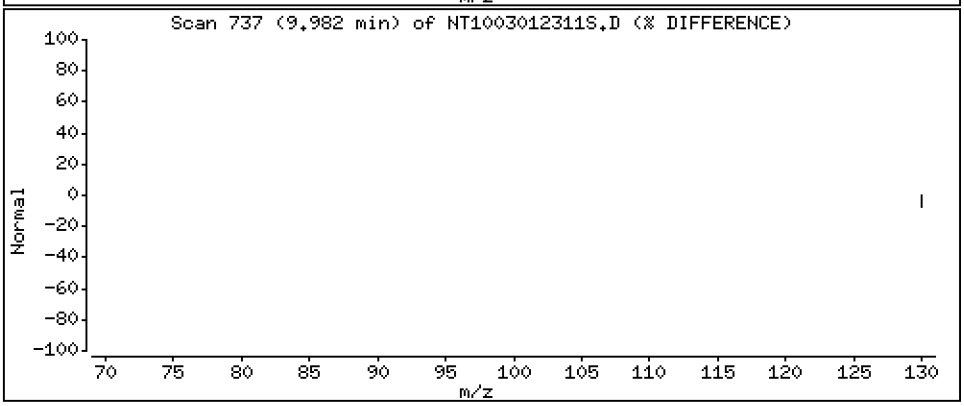












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

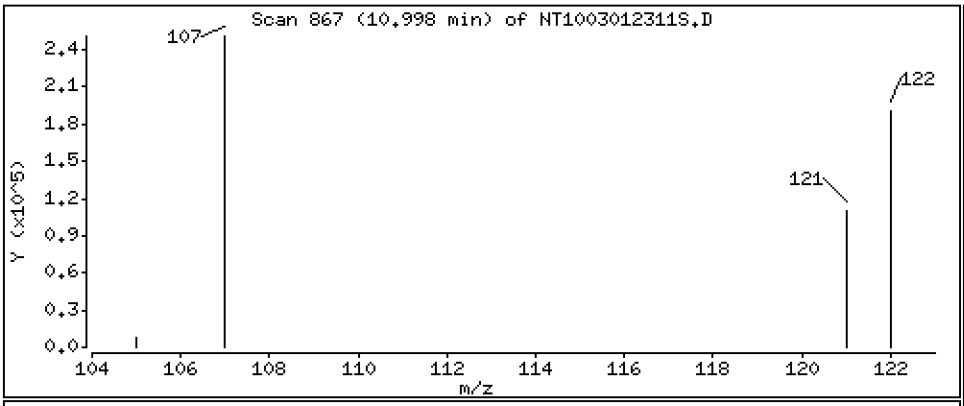
Operator: JGR

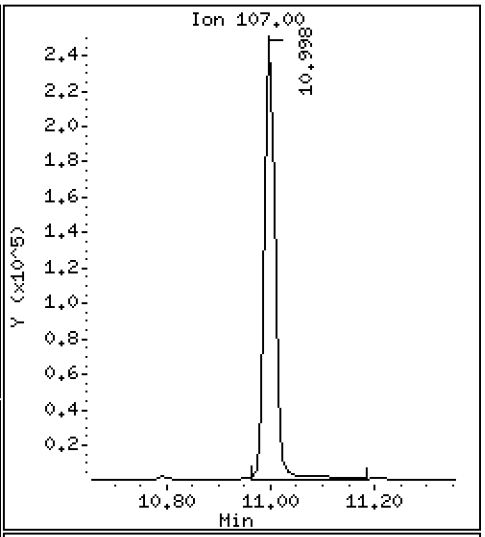
Column phase: ZB-5msi

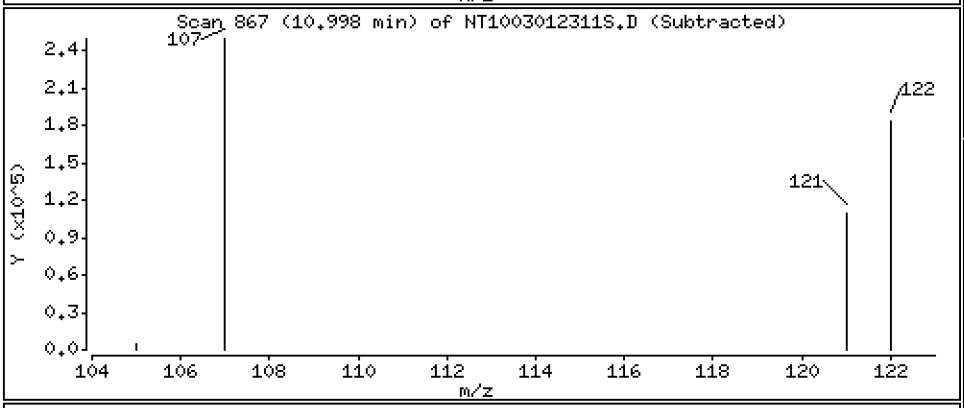
Column diameter: 0.25

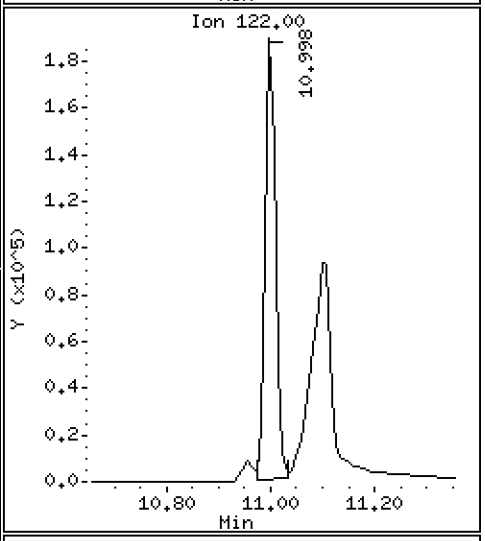
22 2,4-Dimethylphenol

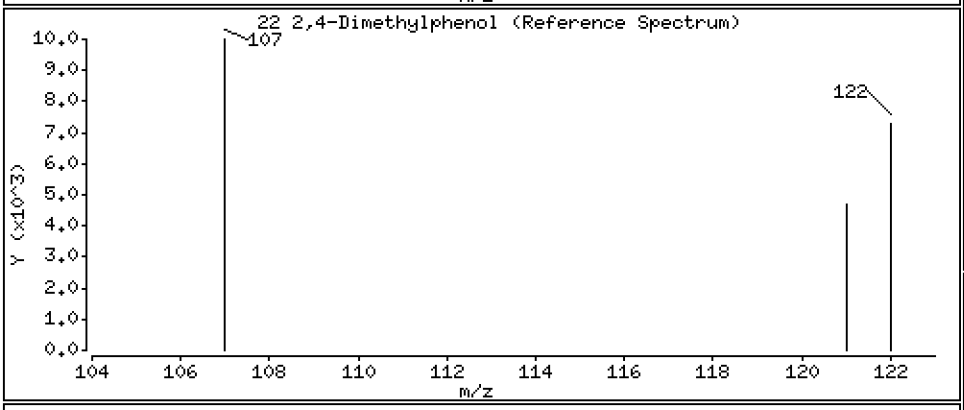
Concentration: 3.637 ug/L

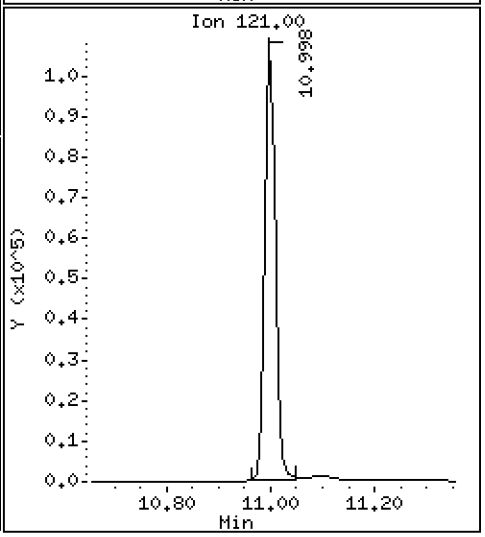


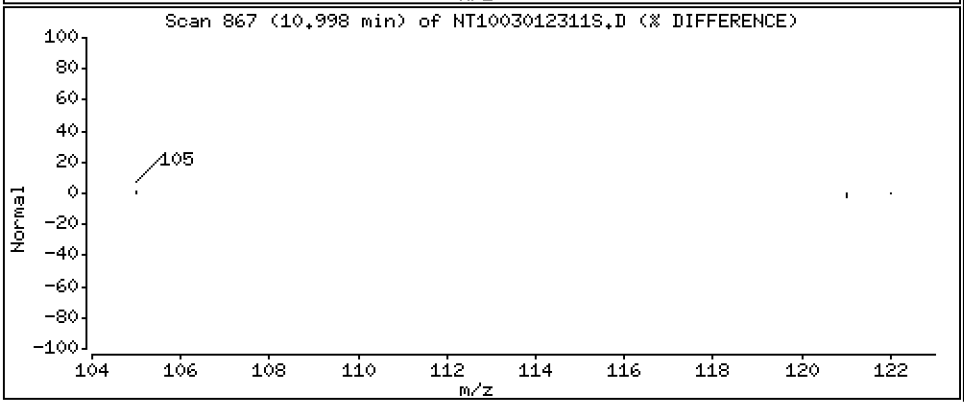












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

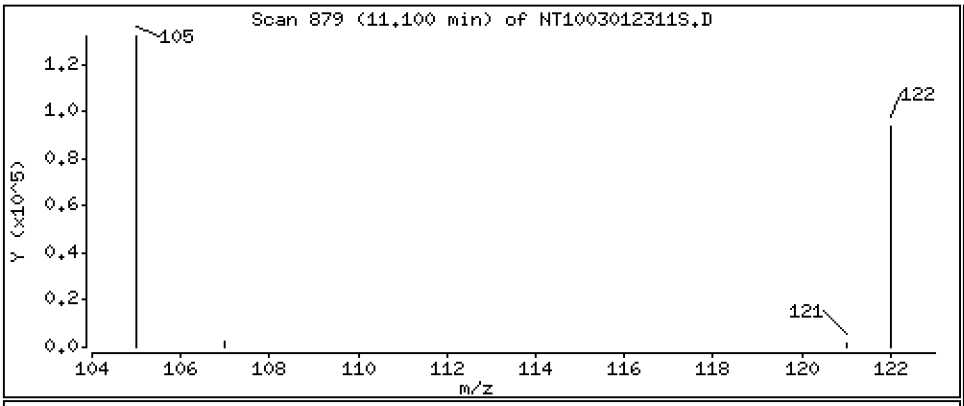
Operator: JGR

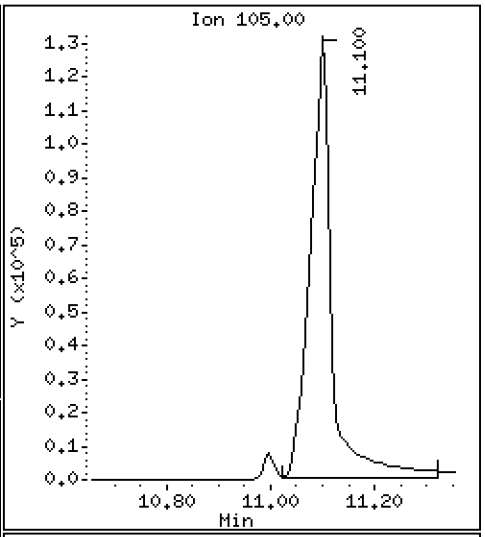
Column phase: ZB-5msi

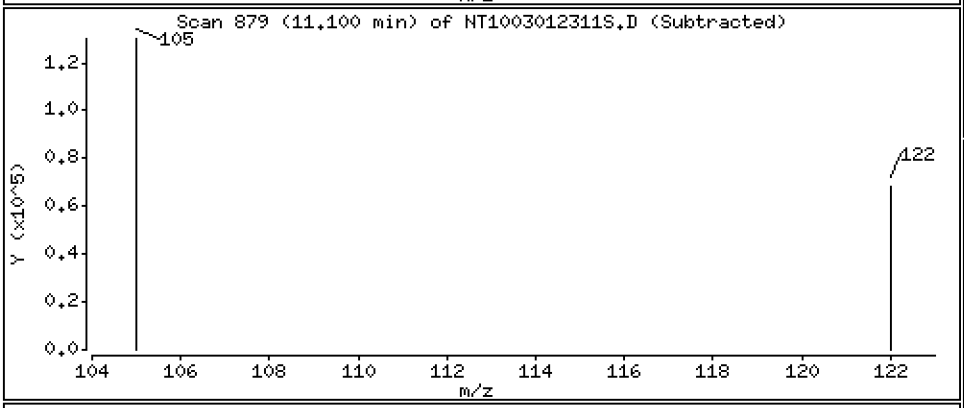
Column diameter: 0.25

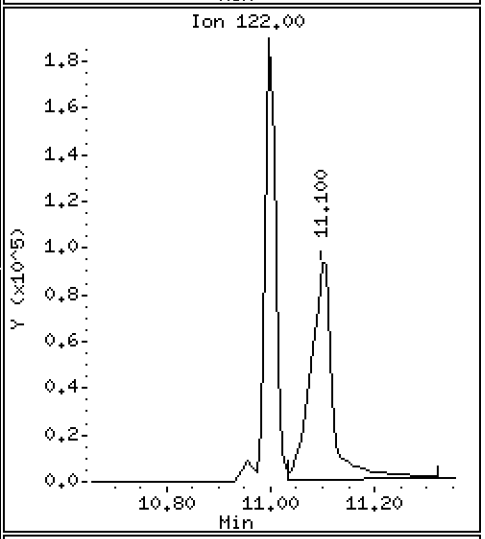
24 Benzoic acid

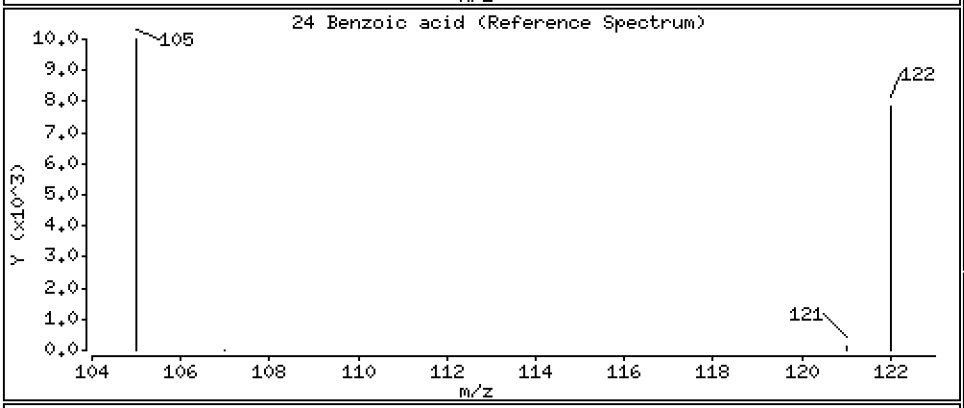
Concentration: 6.870 ug/L

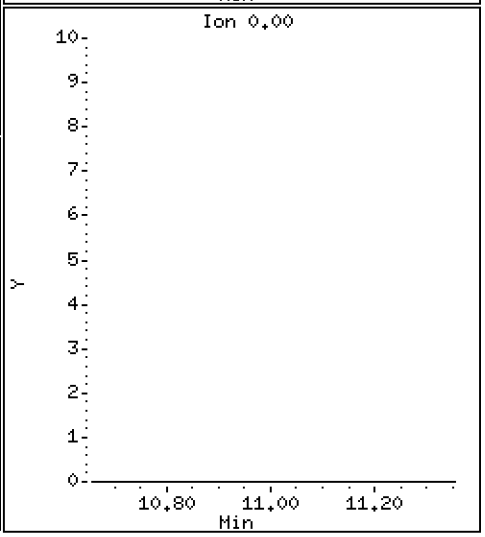


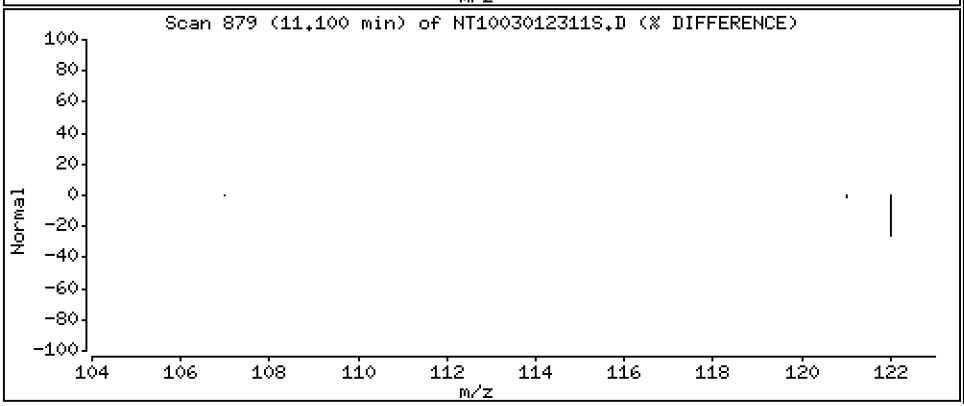












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

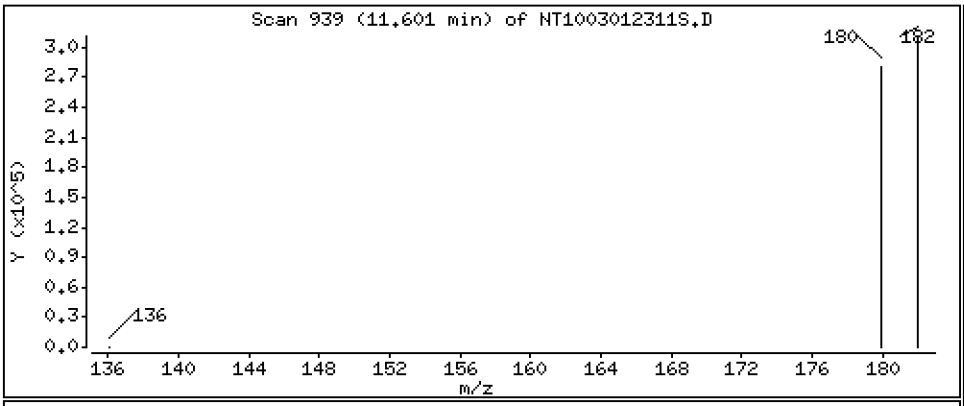
Operator: JGR

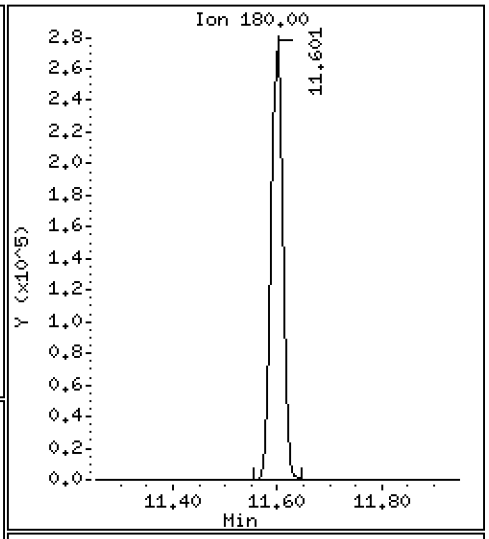
Column phase: ZB-5msi

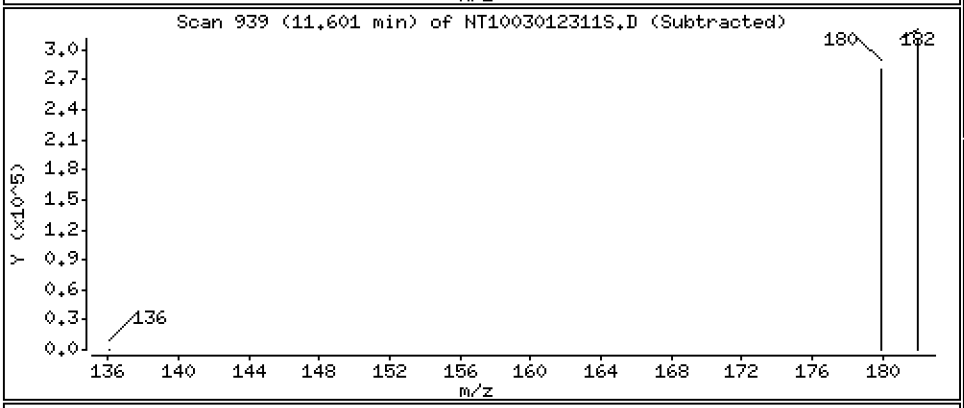
Column diameter: 0.25

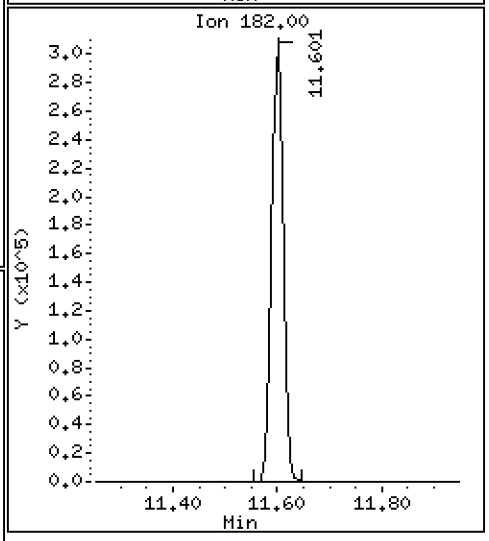
26 1,2,4-Trichlorobenzene

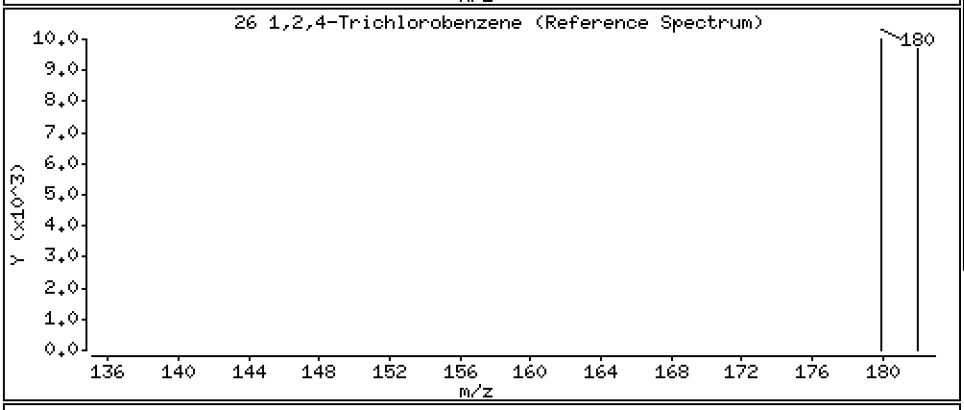
Concentration: 4.870 ug/L

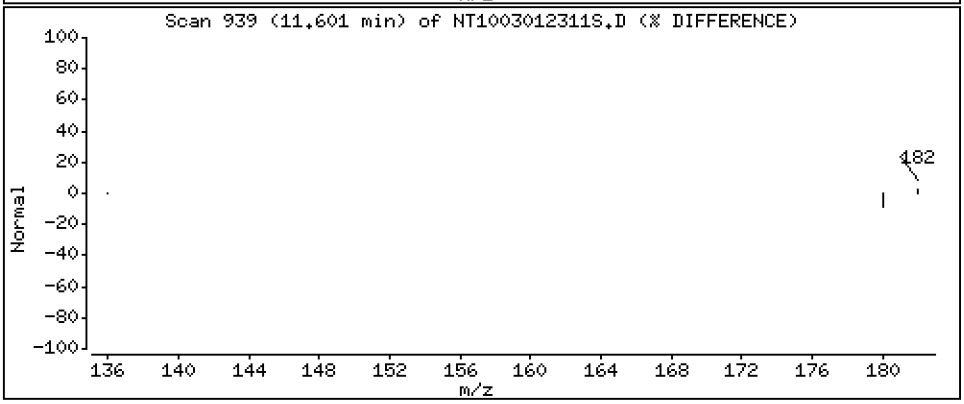












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

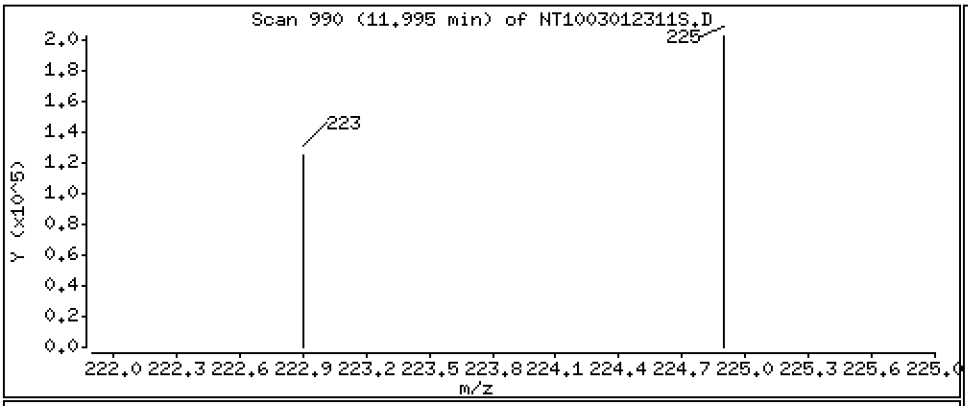
Operator: JGR

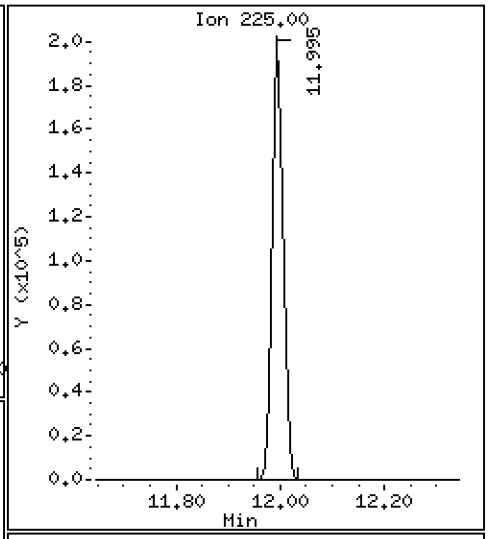
Column phase: ZB-5msi

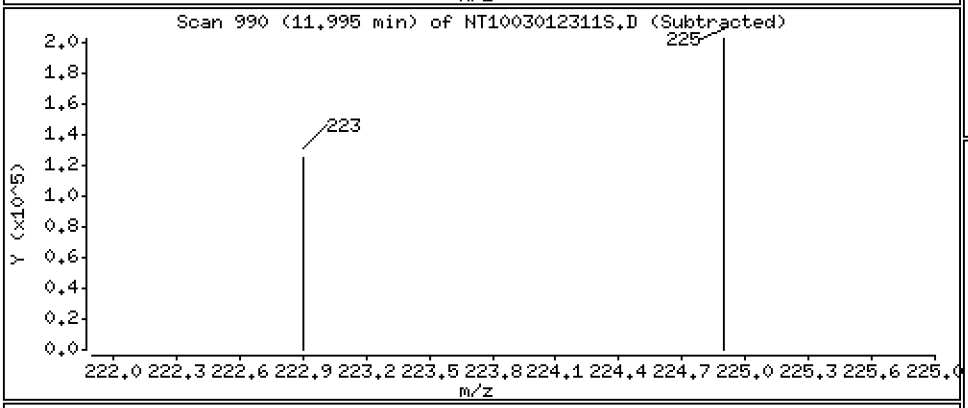
Column diameter: 0.25

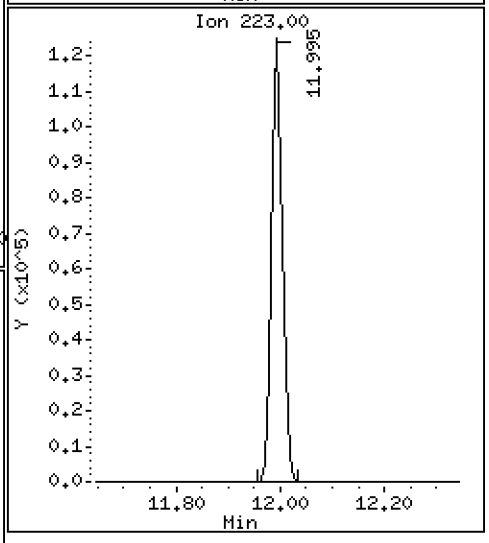
30 Hexachlorobutadiene

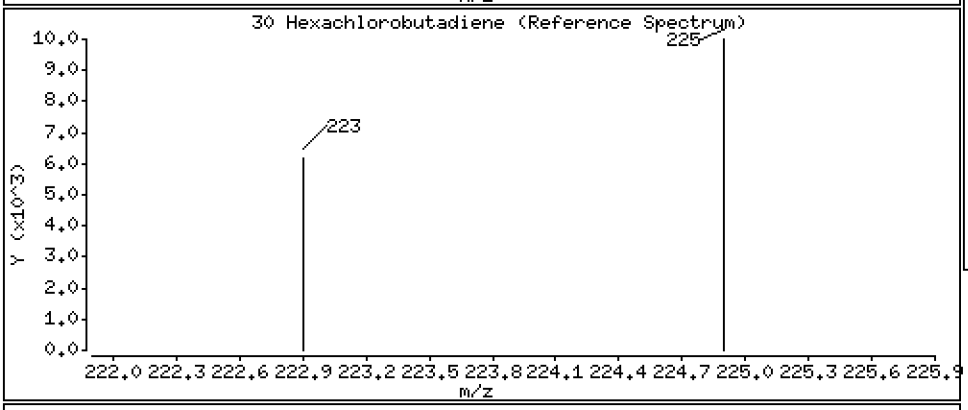
Concentration: 4.862 ug/L

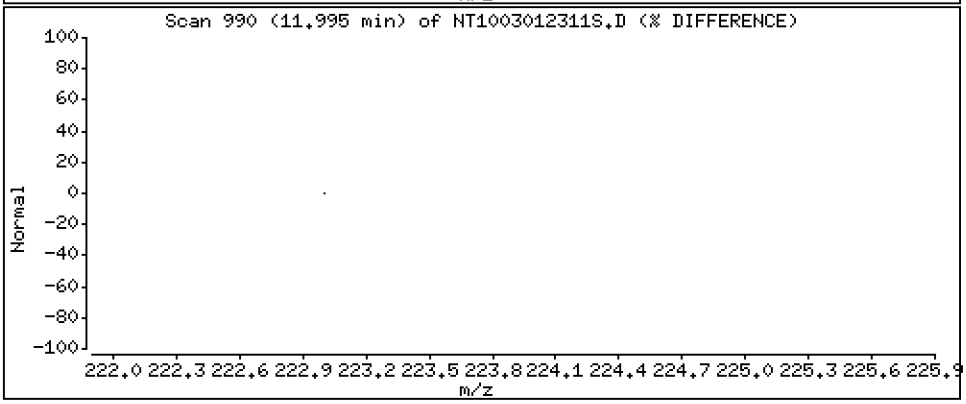












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

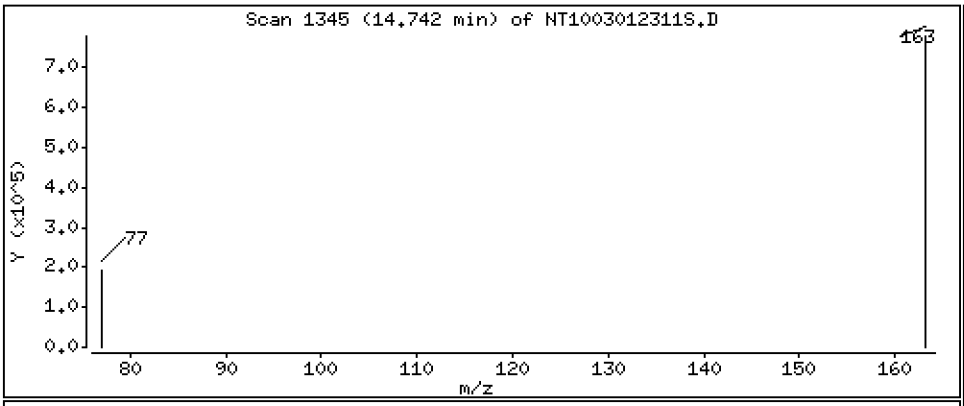
Operator: JGR

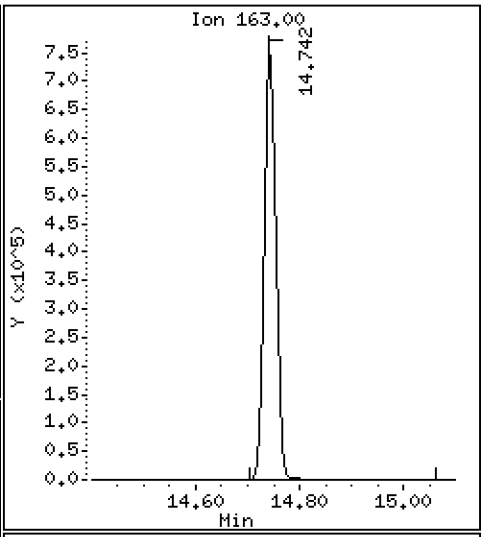
Column phase: ZB-5msi

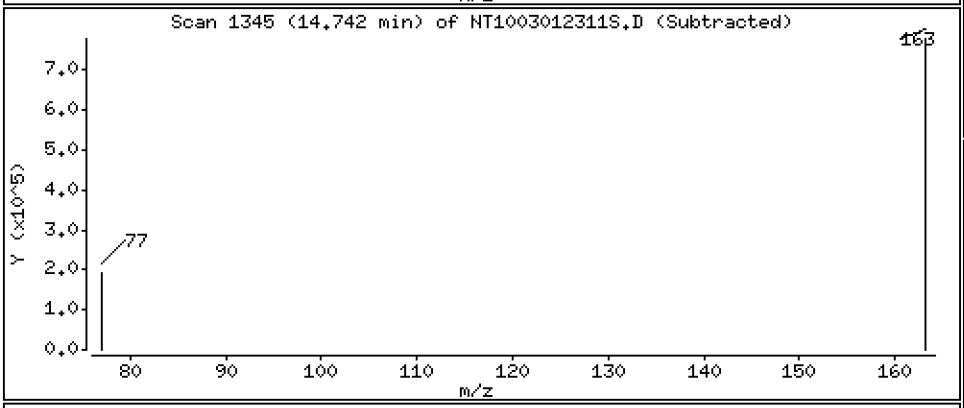
Column diameter: 0.25

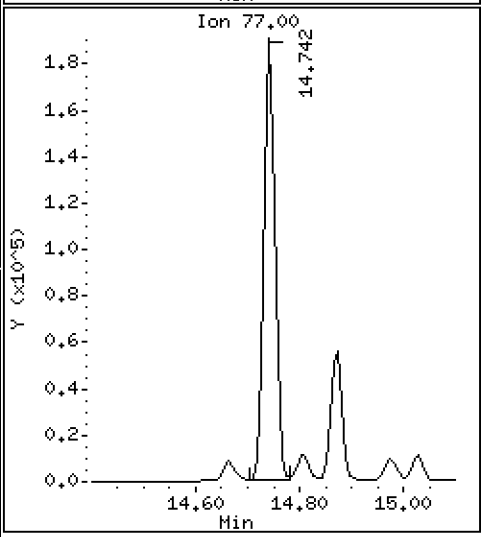
39 Dimethylphthalate

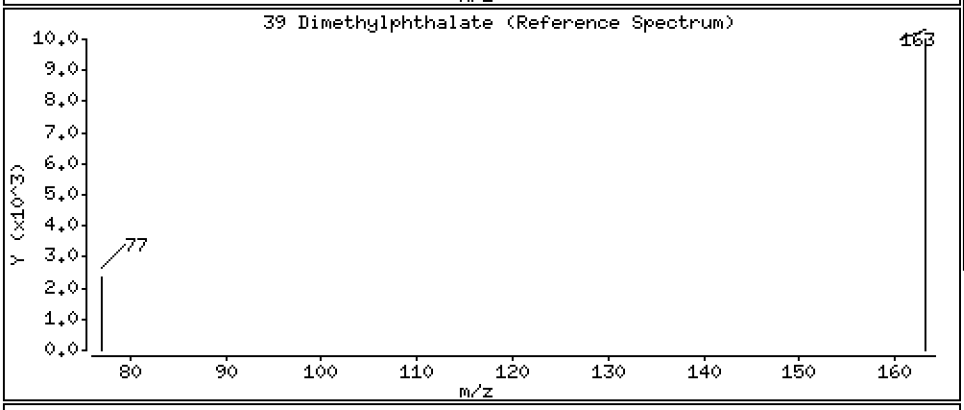
Concentration: 5.571 ug/L

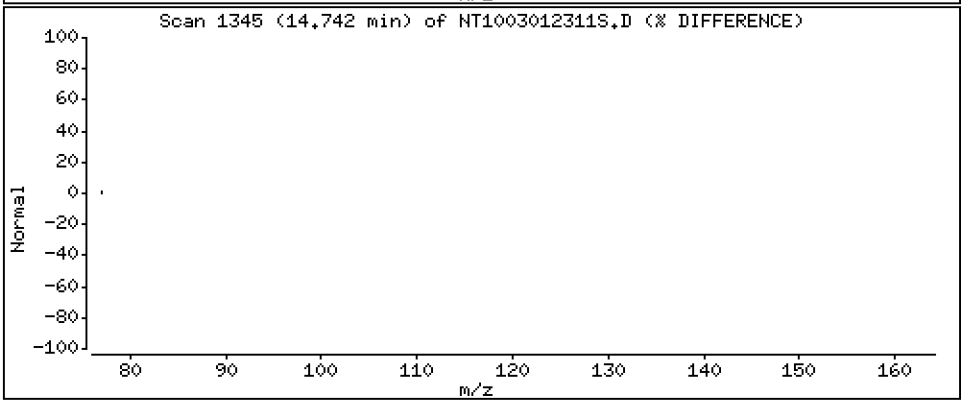












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

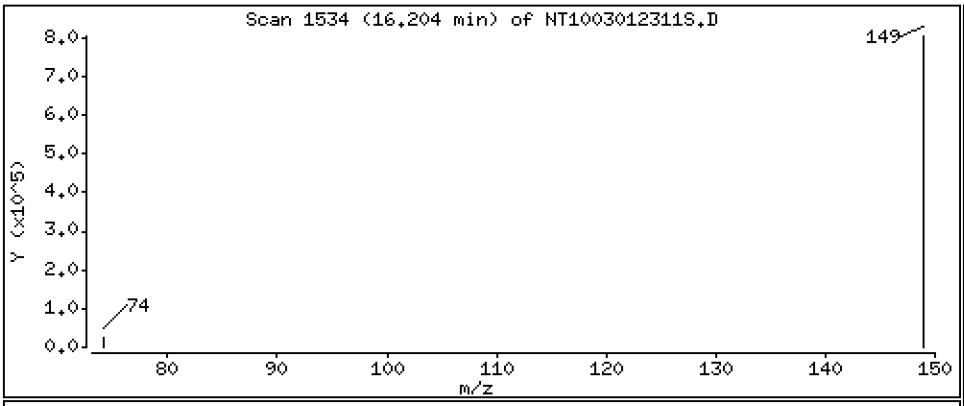
Operator: JGR

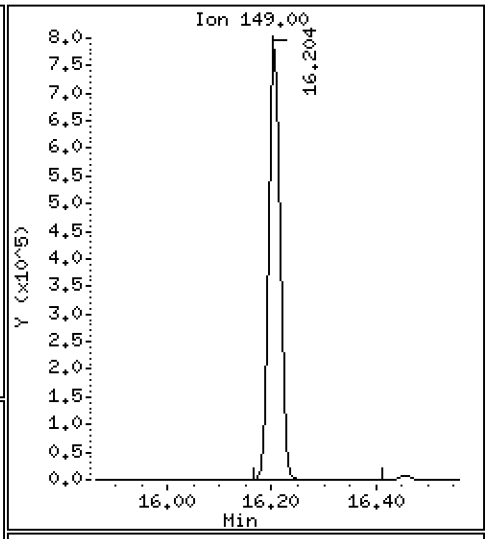
Column phase: ZB-5msi

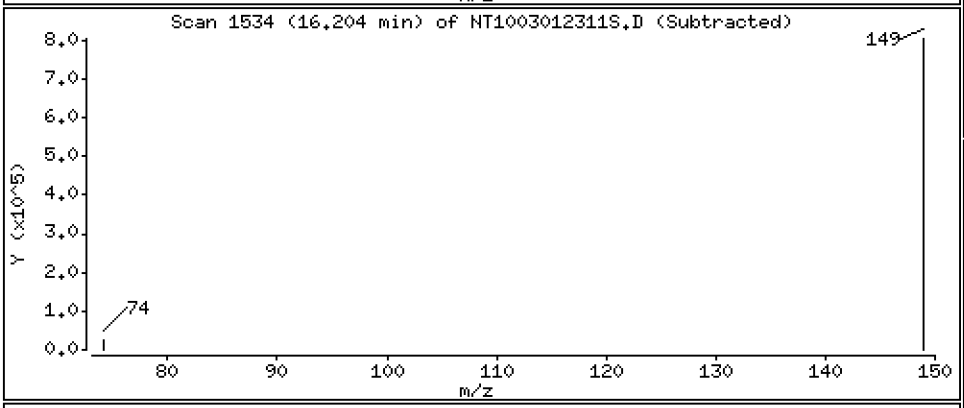
Column diameter: 0.25

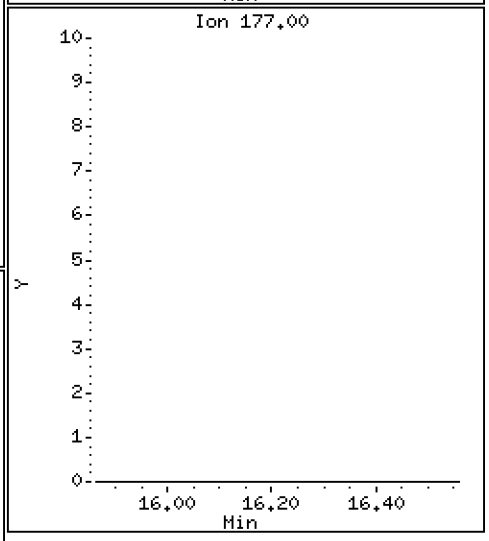
50 Diethylphthalate

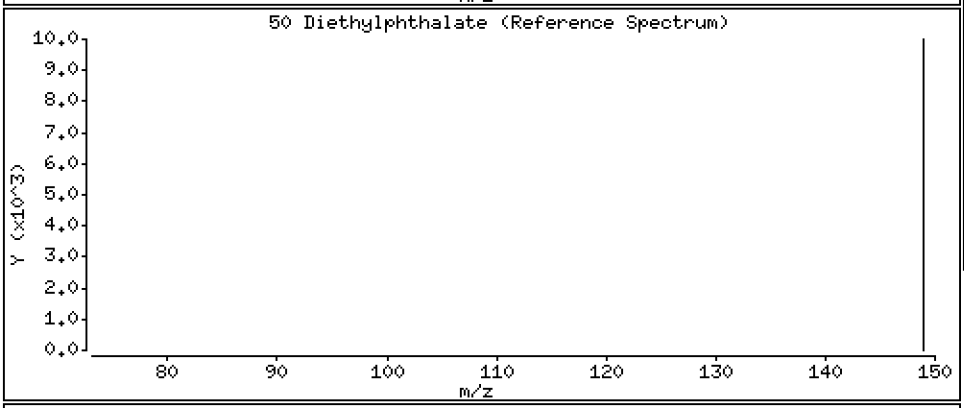
Concentration: 5.979 ug/L

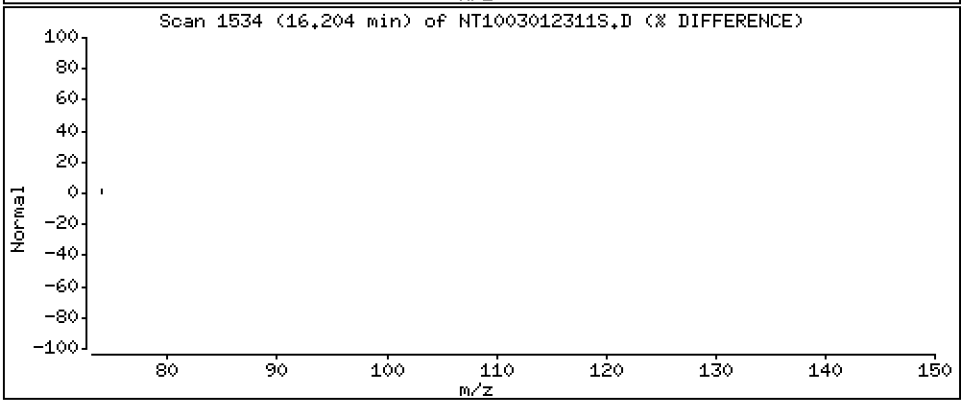












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

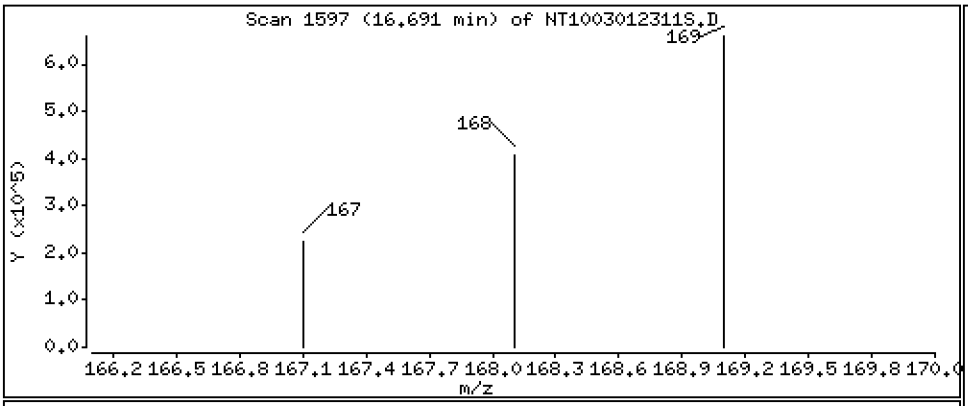
Operator: JGR

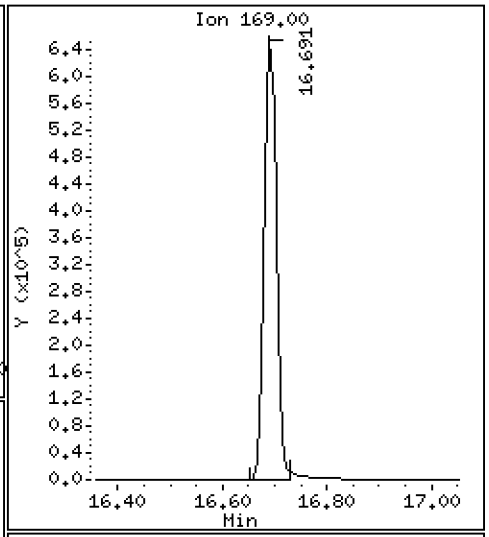
Column phase: ZB-5msi

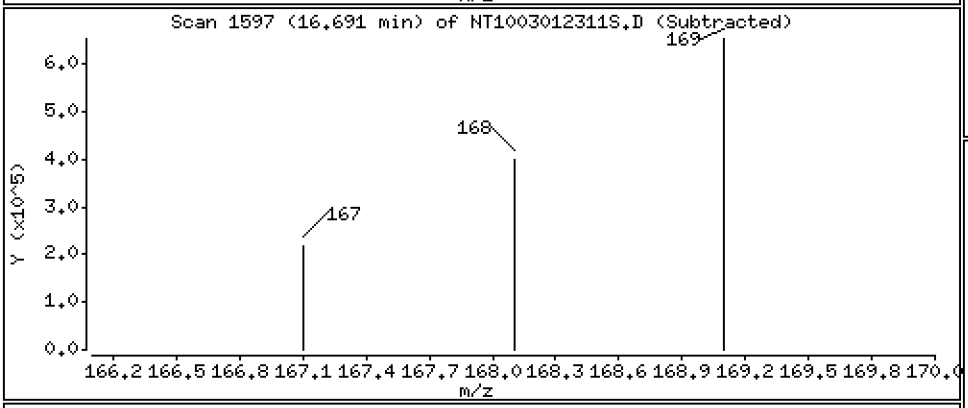
Column diameter: 0.25

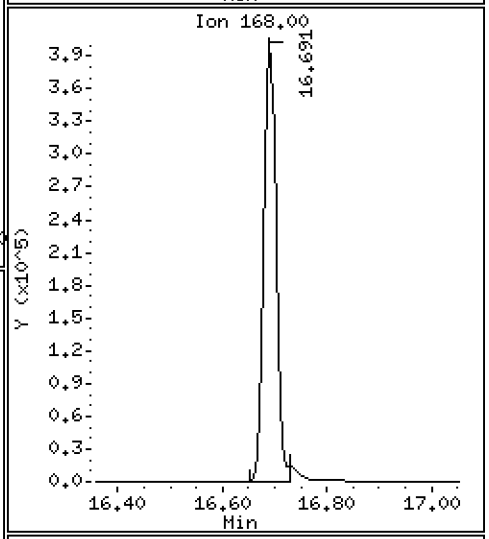
54 N-Nitrosodiphenylamine

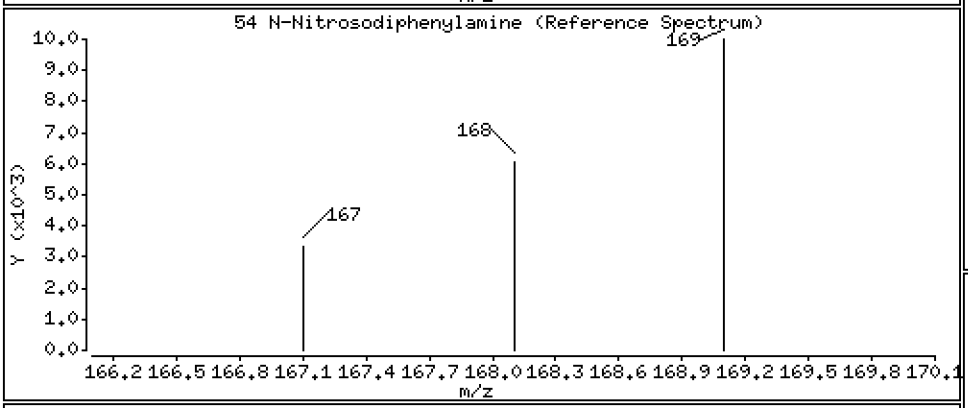
Concentration: 5.359 ug/L

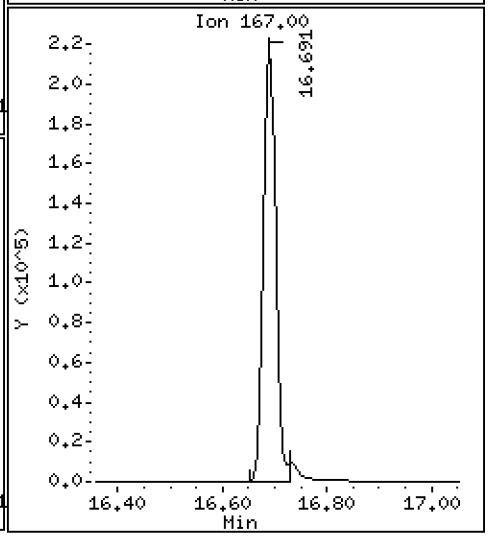


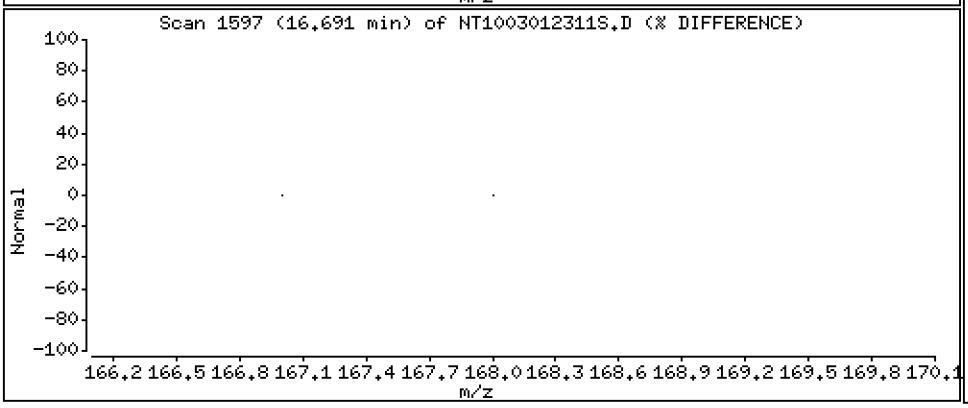












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

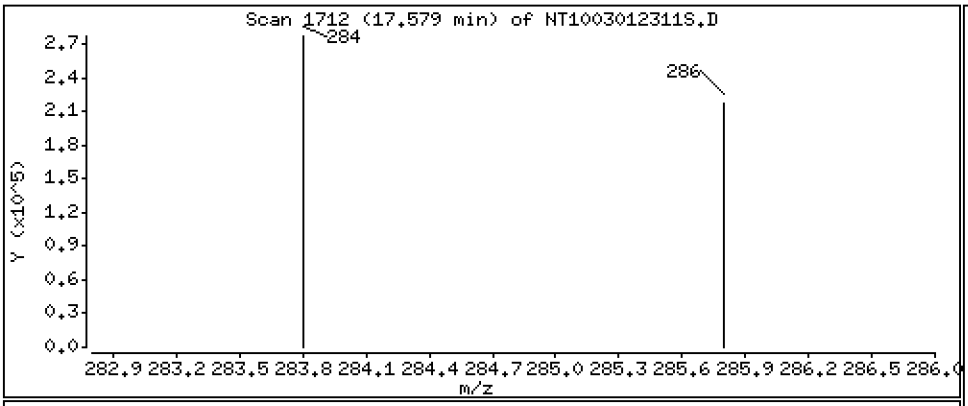
Operator: JGR

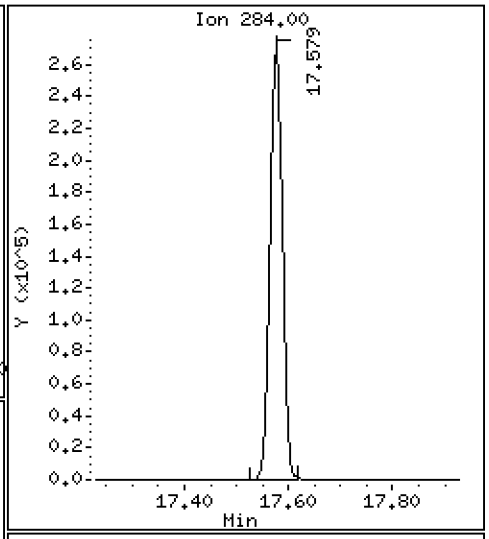
Column phase: ZB-5msi

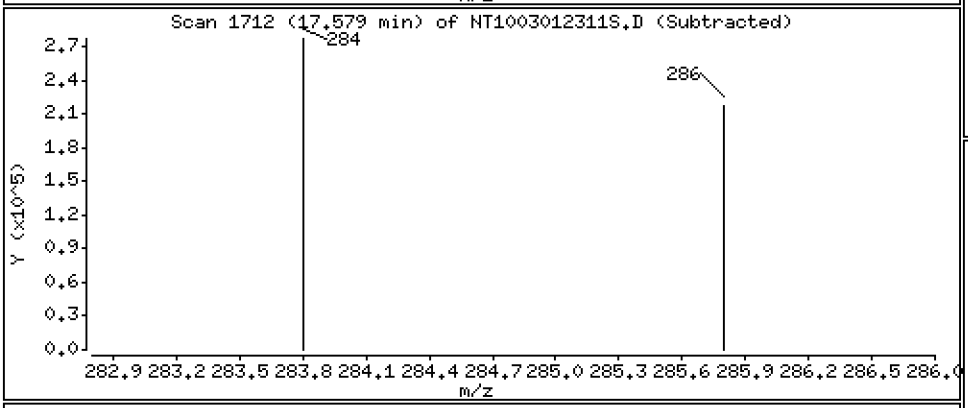
Column diameter: 0.25

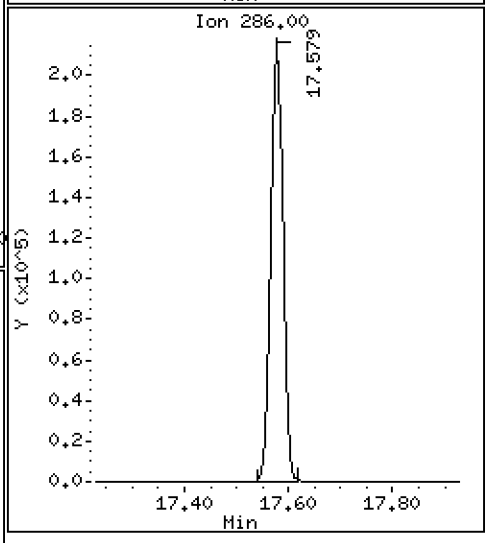
57 Hexachlorobenzene

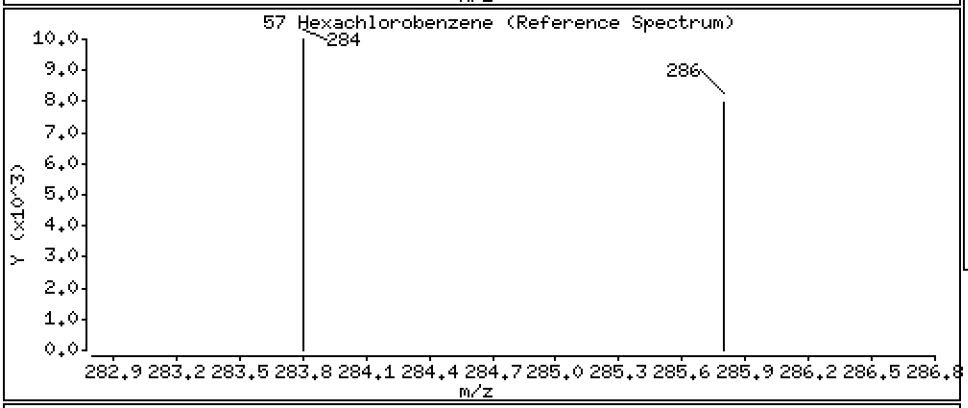
Concentration: 4.866 ug/L

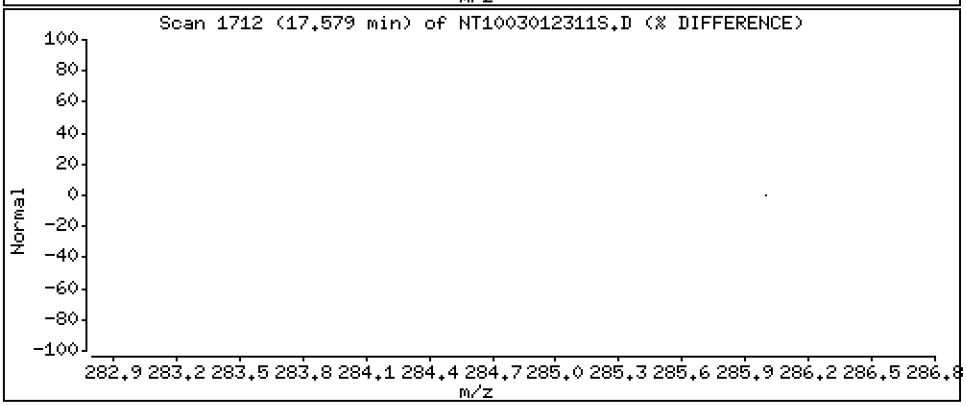












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

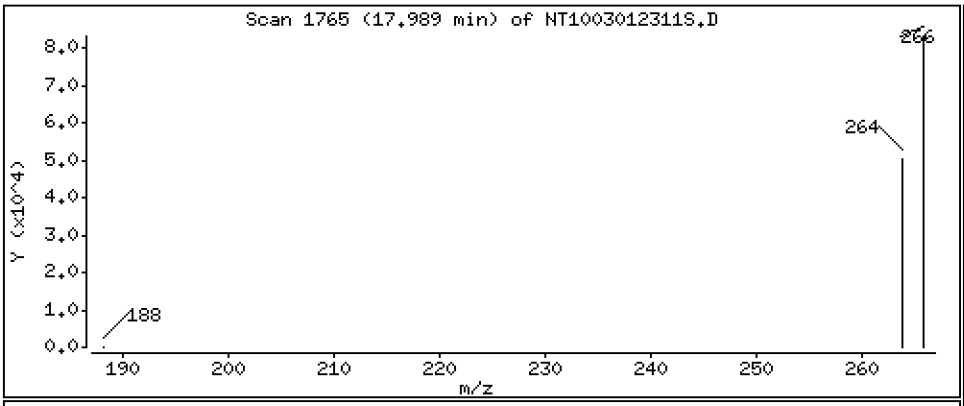
Operator: JGR

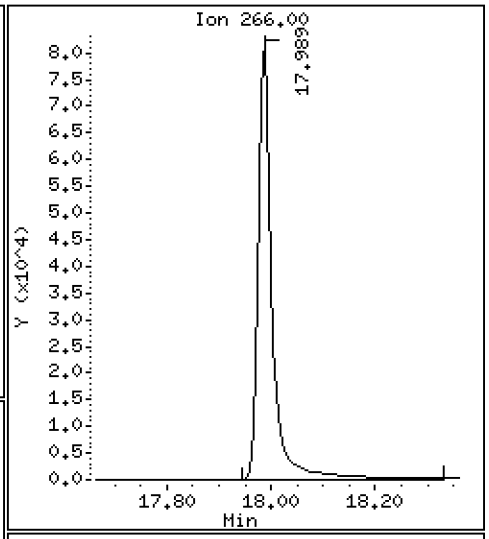
Column phase: ZB-5msi

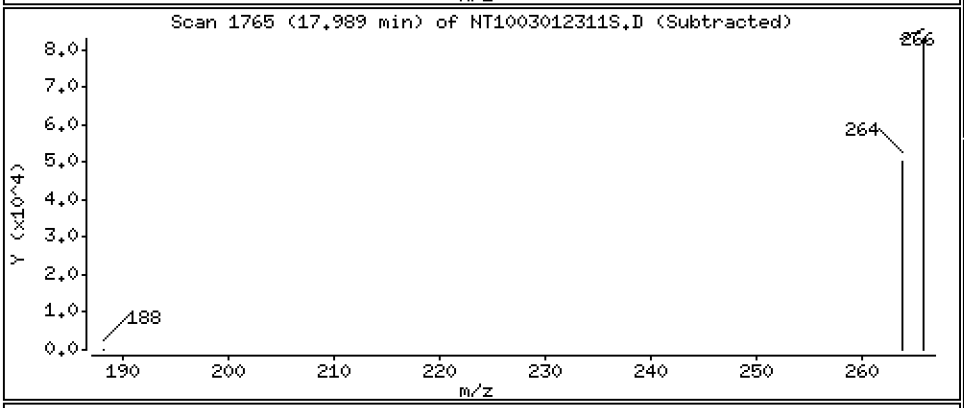
Column diameter: 0.25

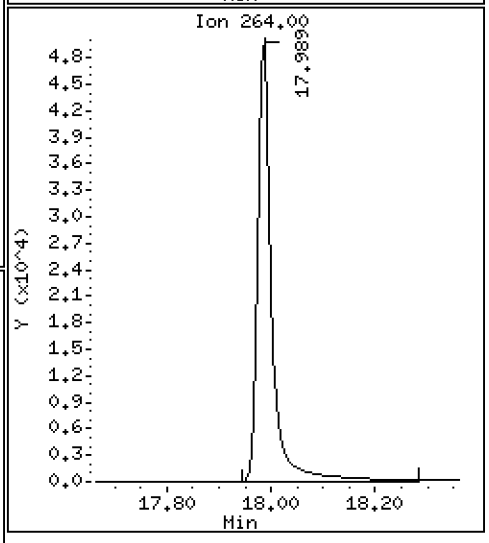
58 Pentachlorophenol

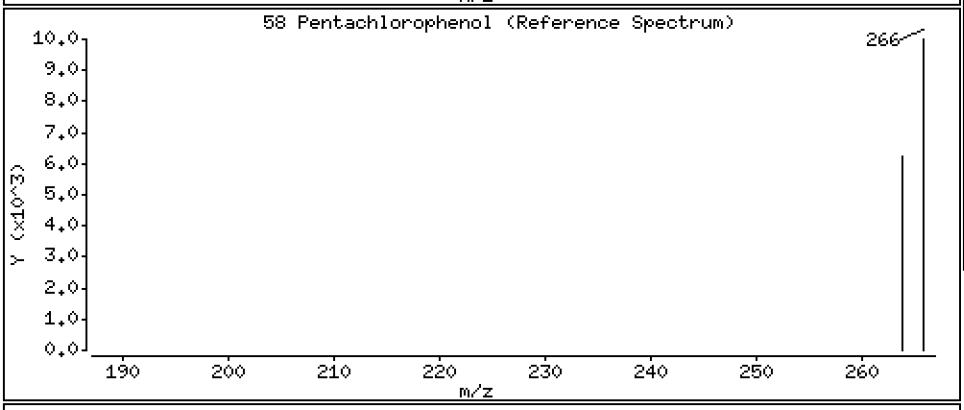
Concentration: 3.912 ug/L

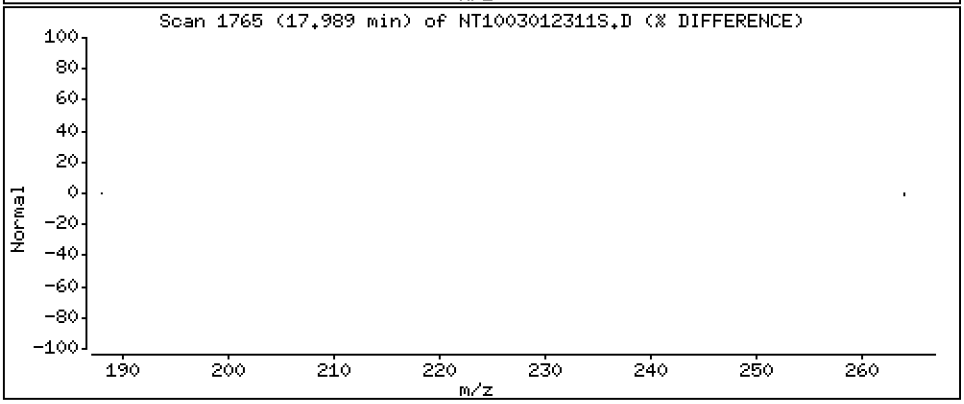












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

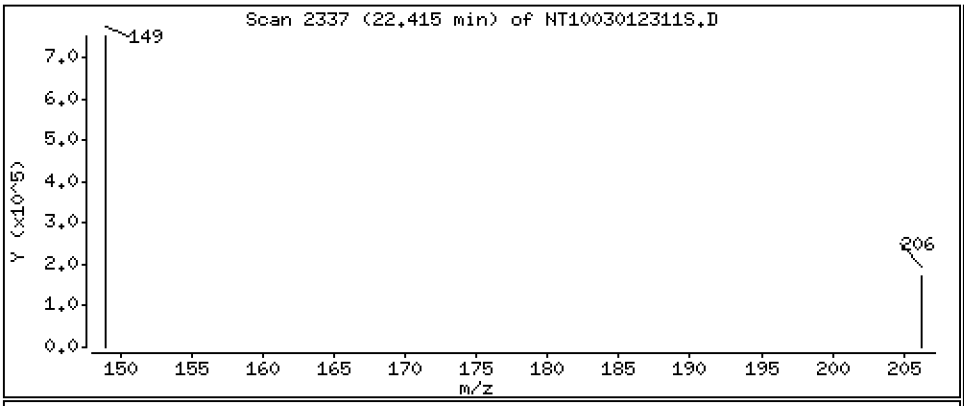
Operator: JGR

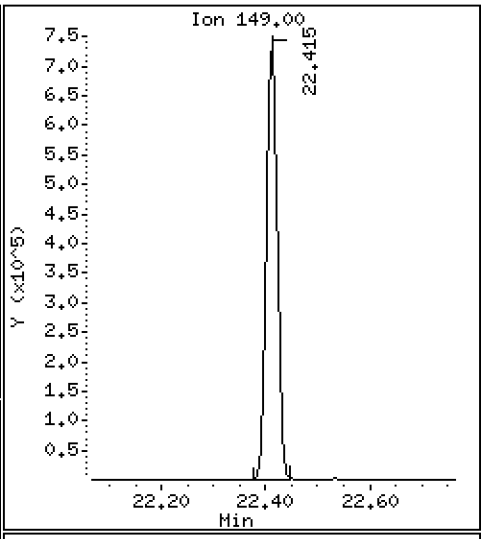
Column phase: ZB-5msi

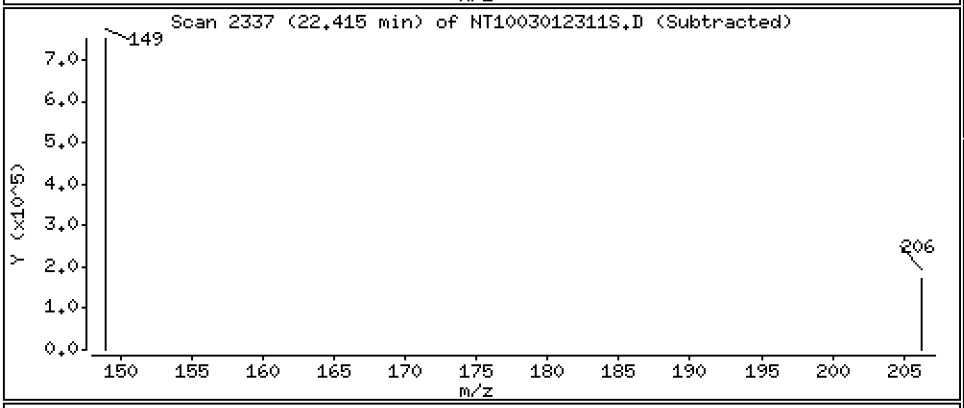
Column diameter: 0.25

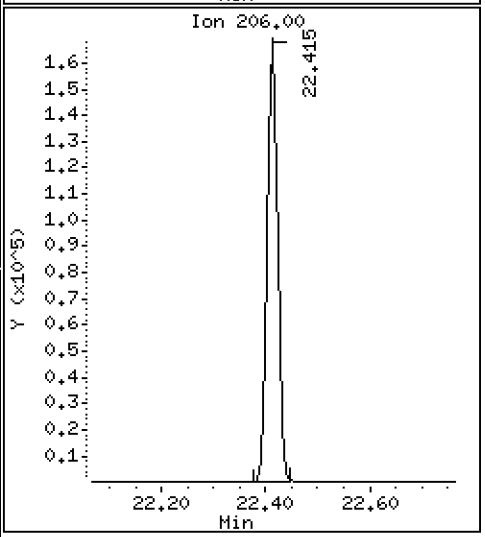
67 Butylbenzylphthalate

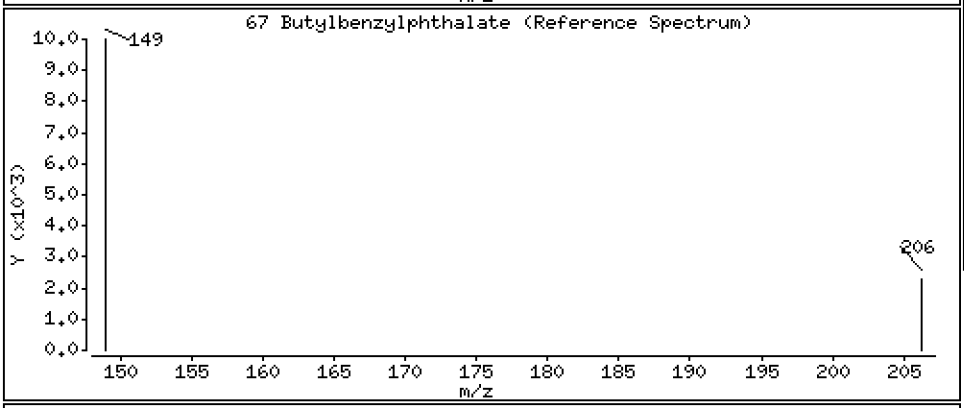
Concentration: 4.689 ug/L

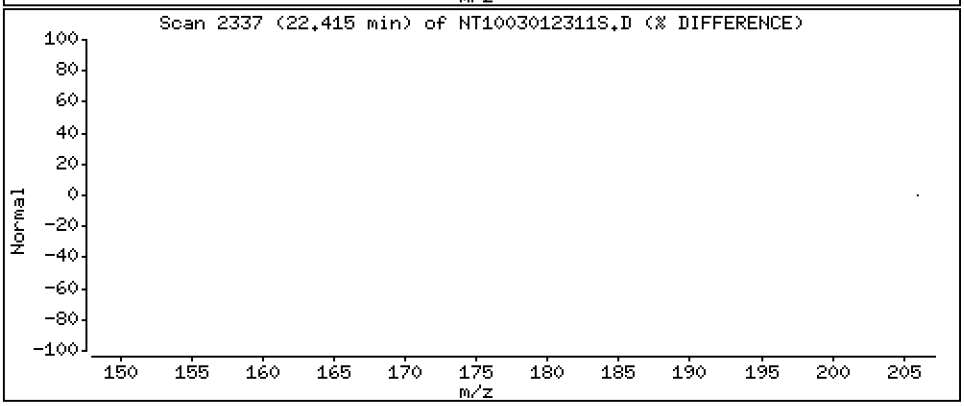












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

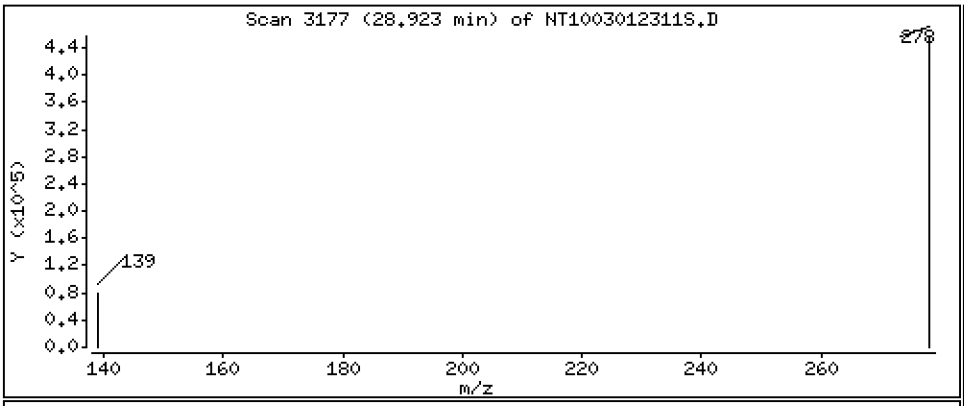
Operator: JGR

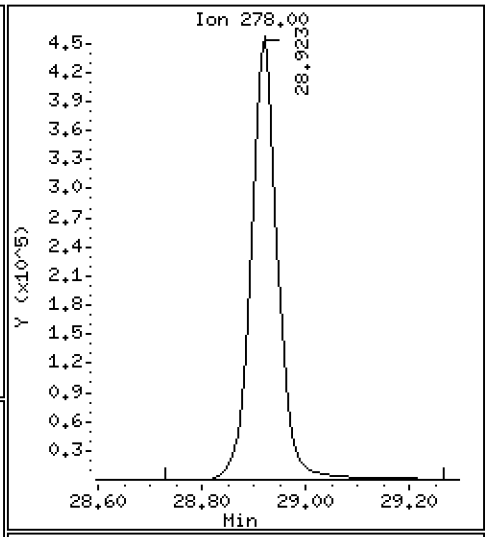
Column phase: ZB-5msi

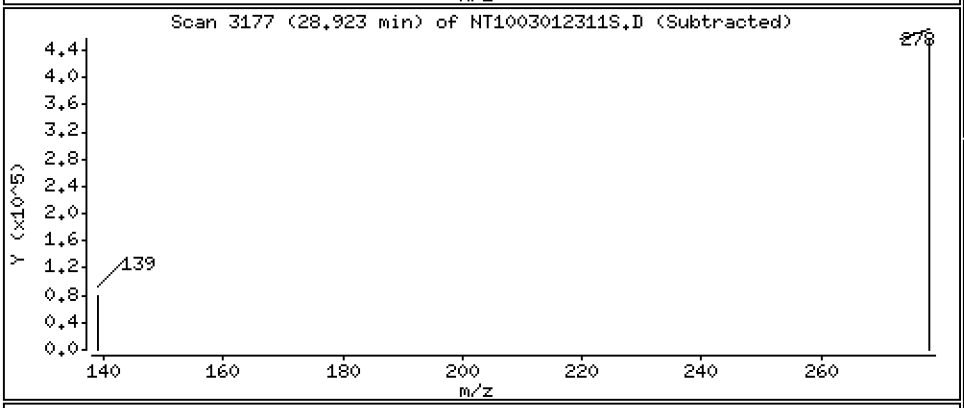
Column diameter: 0.25

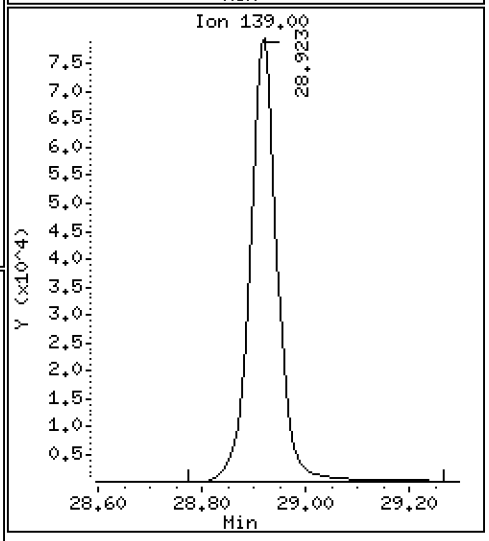
79 Dibenzo(a,h)anthracene

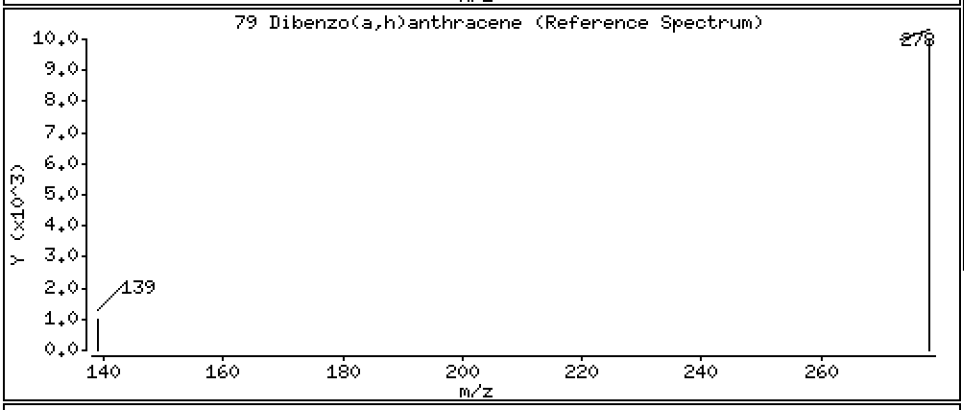
Concentration: 4.760 ug/L

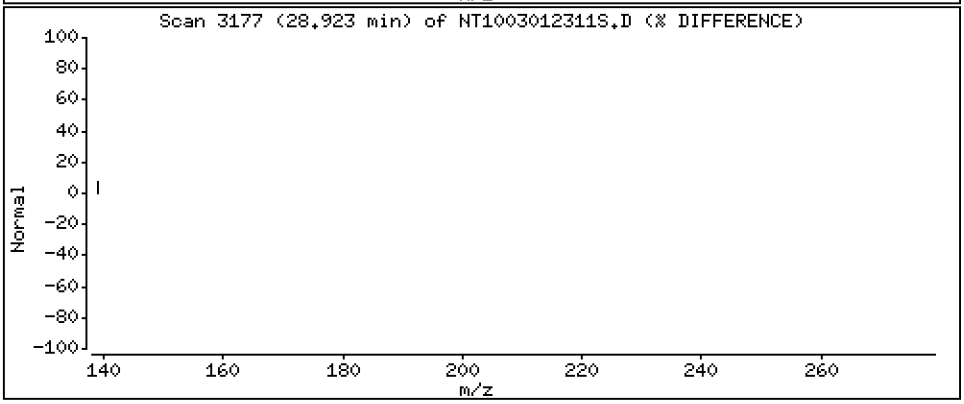












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

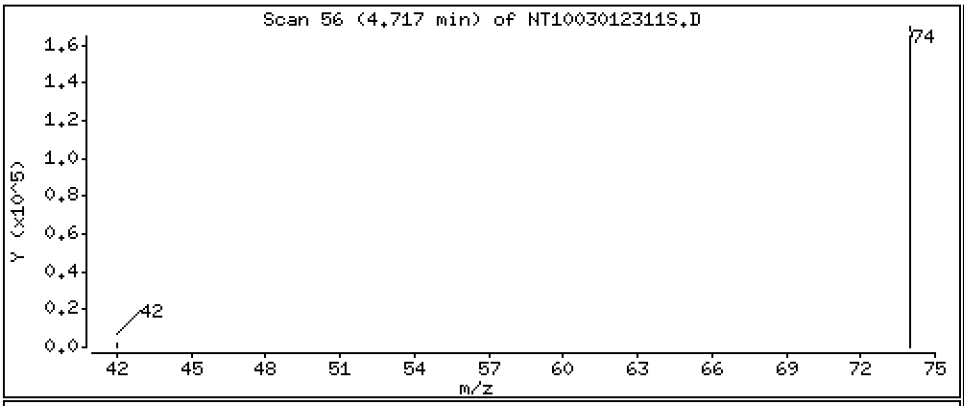
Operator: JGR

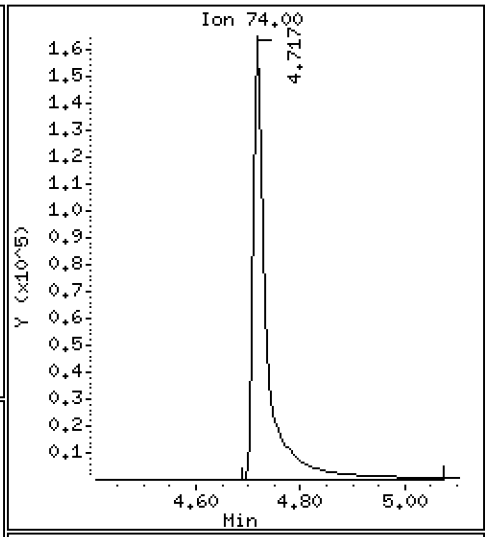
Column phase: ZB-5msi

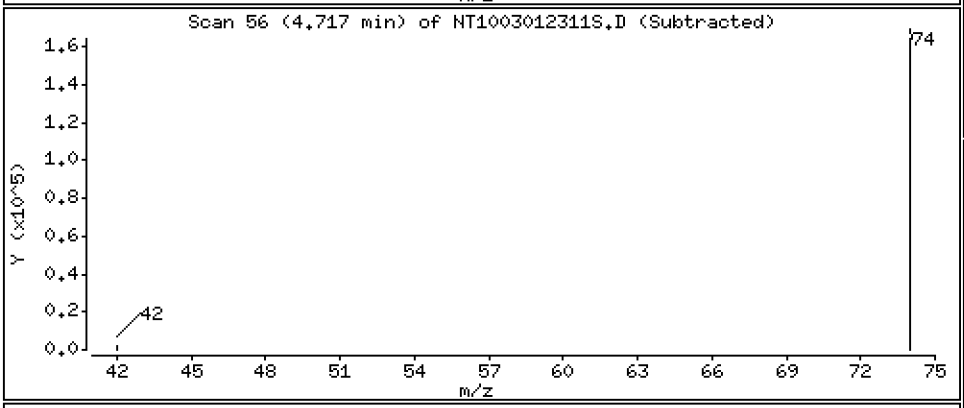
Column diameter: 0.25

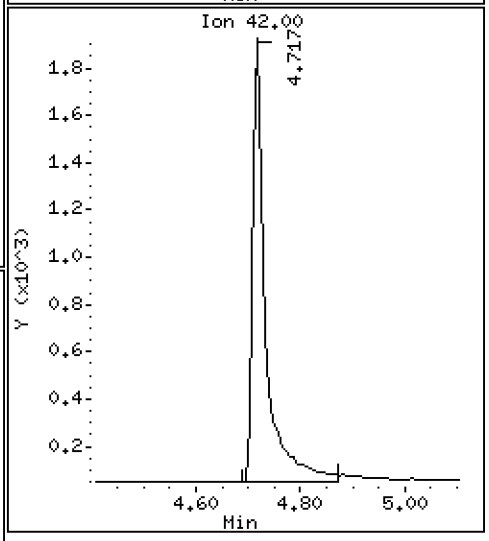
90 N-Nitrosodimethylamine

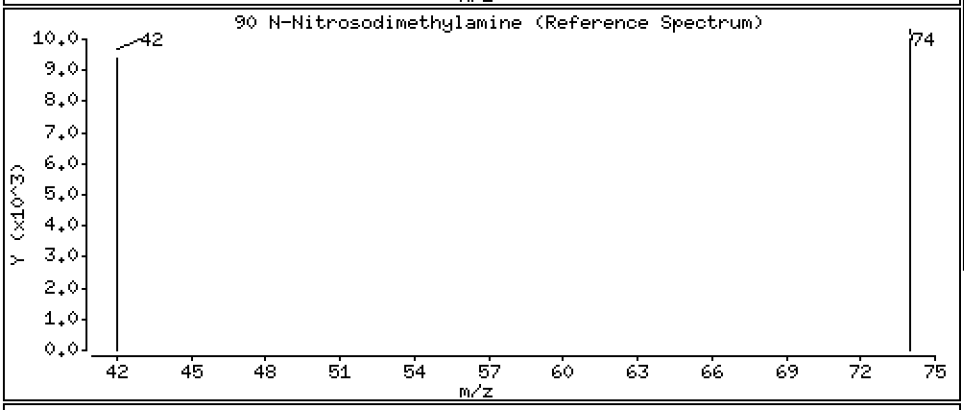
Concentration: 6.057 ug/L

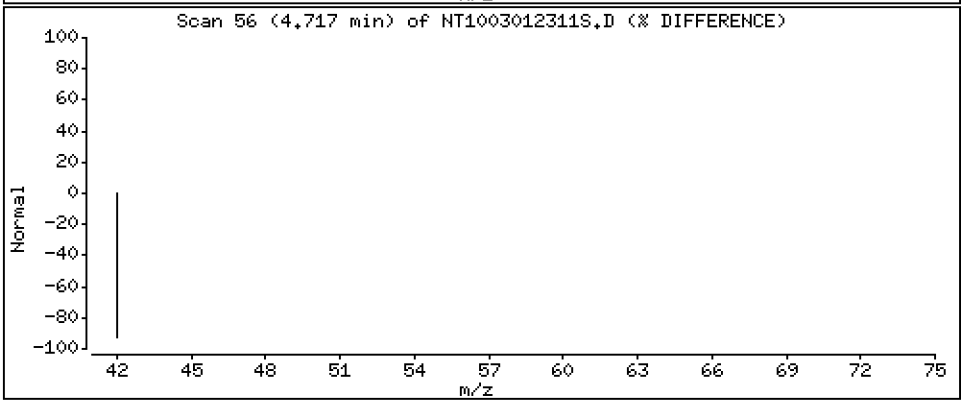












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012311S.D
Lab Smp Id: SLC0143-SCV1
Inj Date : 01-MAR-2023 21:46 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-SCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:10 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.902	6.902	(0.746)	3267	0.03768	0.03768(R)
3	Phenol	94	8.517	8.532	(0.921)	590047	4.50660	4.507
7	1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	572299	5.08409	5.084
* 8	1,4-Dichlorobenzene-d4	152	9.252	9.252	(1.000)	303734	4.00000	
9	1,4-Dichlorobenzene	146	9.283	9.275	(1.003)	574537	5.24962	5.250
11	Benzyl alcohol	79	9.469	9.508	(1.023)	388582	5.10390	5.104
12	1,2-Dichlorobenzene	146	9.562	9.563	(1.034)	540938	5.14228	5.142
13	2-Methylphenol	108	9.655	9.671	(1.044)	348452	4.36547	4.365
15	4-Methylphenol	108	9.943	9.966	(1.075)	379262	4.50495	4.505
16	N-Nitroso-di-n-propylamine	70	9.982	9.982	(1.079)	330861	5.68451	5.685
22	2,4-Dimethylphenol	107	10.998	11.006	(0.938)	357707	3.63670	3.637
24	Benzoic acid	105	11.099	11.007	(0.947)	380081	6.86990	6.870
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	402252	4.87012	4.870
* 27	Naphthalene-d8	136	11.724	11.723	(1.000)	1147551	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	285002	4.86242	4.862
39	Dimethylphthalate	163	14.741	14.749	(0.963)	1142178	5.57065	5.571
* 42	Acenaphthene-d10	162	15.314	15.314	(1.000)	645730	4.00000	
50	Diethylphthalate	149	16.203	16.211	(1.058)	1156037	5.97883	5.979
54	N-Nitrosodiphenylamine	169	16.690	16.705	(0.907)	998237	5.35897	5.359
57	Hexachlorobenzene	284	17.578	17.579	(0.955)	424193	4.86607	4.866

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	17.989	18.012	(0.978)	155412	3.91206	3.912
*	59 Phenanthrene-d10	188	18.399	18.398	(1.000)	1151000	4.00000	
$	66 Terphenyl-d14	244	21.524	21.532	(0.919)	2846	0.02712	0.02712(R)
	67 Butylbenzylphthalate	149	22.415	22.415	(0.957)	1009961	4.68912	4.689
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	1297466	4.00000	
*	77 Perylene-d12	264	26.108	26.108	(1.000)	1394899	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.922	28.946	(1.108)	1657122	4.76032	4.760
	90 N-Nitrosodimethylamine	74	4.717	4.755	(0.510)	310951	6.05685	6.057

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 01-MAR-2023
Lab File ID: NT1003012311S.D Calibration Time: 18:37
Lab Smp Id: SLC0143-SCV1
Analysis Type: SV Level: LOW
Quant Type: ISTD Sample Type: AIR
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	320125	160063	640250	303734	-5.12
27 Naphthalene-d8	1136019	568010	2272038	1147551	1.02
42 Acenaphthene-d10	636993	318497	1273986	645730	1.37
59 Phenanthrene-d10	1093620	546810	2187240	1151000	5.25
69 Chrysene-d12	1000300	500150	2000600	1297466	29.71
77 Perylene-d12	1058448	529224	2116896	1394899	31.79

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.41	22.91	23.91	23.42	0.03
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012311S.D

Lab ID: SLC0143-SCV1
nt10.i, 20230301.b\SIM.b\SIMABN2.m,   01-MAR-2023 21:46

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.947	0.000	0.9467	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003012310S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT8	Calibration:	GA00050
Lab File ID:	N823020607A.D	Calibration Date:	01/19/2023
Sequence:	SLB0075	Injection Date:	02/06/23
Lab Sample ID:	SLB0075-ICV1	Injection Time:	15:15
Sequence Name:	Initial Cal Check		

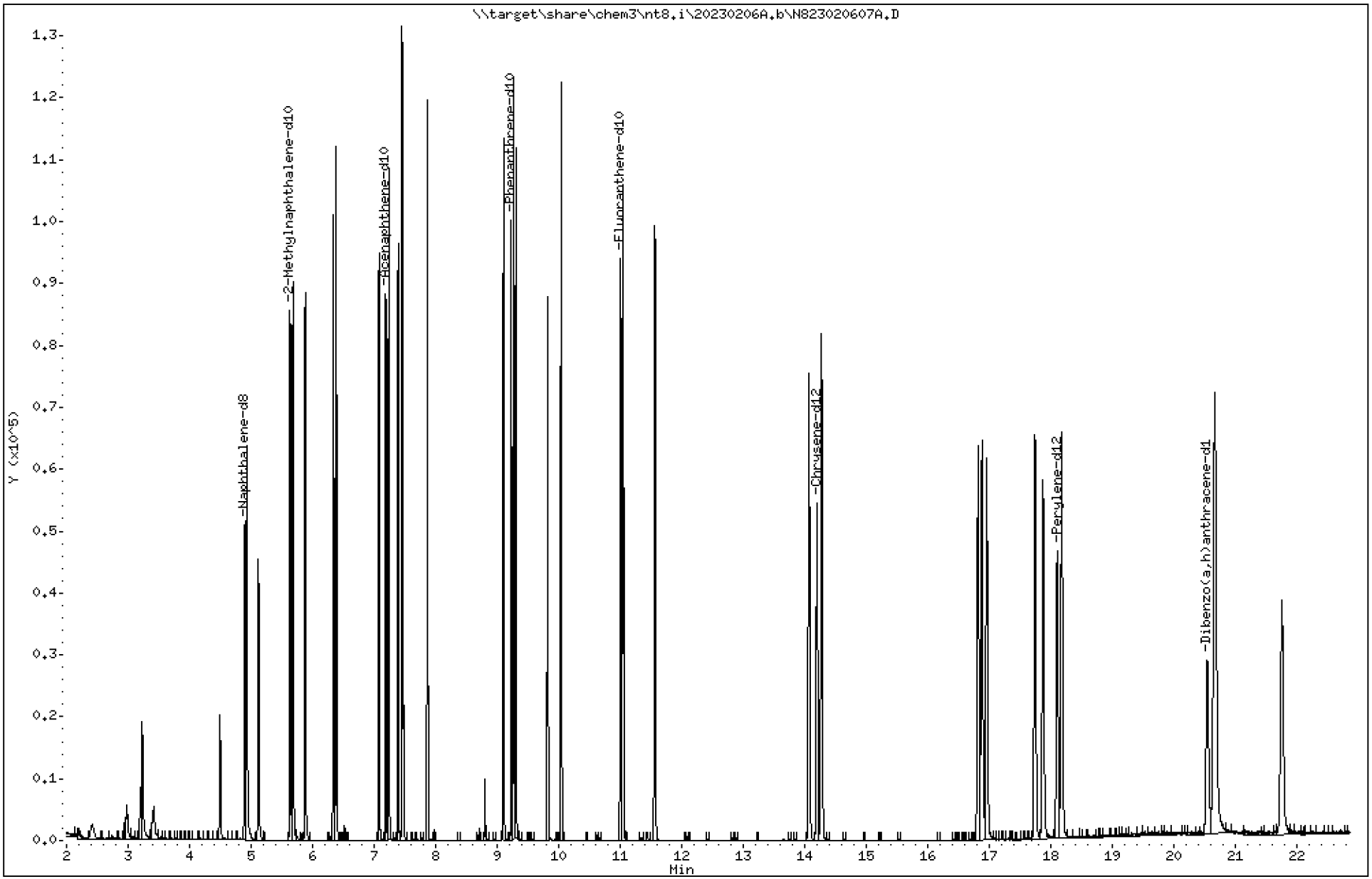
		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Benzo(a)anthracene	A	2.5000	2.66	1.1238870	1.1977170		6.6	+/-20
Chrysene	A	2.5000	2.59	1.1964350	1.2401150		3.6	+/-20
Benzo(b)fluoranthene	A	2.5000	2.43	1.1648110	1.1308220		-2.9	+/-20
Benzo(k)fluoranthene	A	2.5000	2.50	1.1409370	1.1390980		-0.2	+/-20
Benzo(a)pyrene	A	2.5000	2.63	1.0250270	1.0773010		5.1	+/-20
Indeno(1,2,3-cd)pyrene	A	2.5000	2.75	1.1677520	1.2845510		10.0	+/-20
Dibenzo(a,h)anthracene	A	2.5000	2.75	1.0049440	1.1056670		10.0	+/-20
2-Methylnaphthalene-d10	A	2.5000	2.62	0.5454499	0.5707145		4.6	+/-20
Dibenzo[a,h]anthracene-d14	A	2.5000	2.42	0.6679424	0.7585108		-3.2	+/-20
Fluoranthene-d10	A	2.5000	2.58	0.8823923	0.9106613		3.2	+/-20
Naphthalene-d8	A	2.0000	2.00	22973.6700	1.0000		0.0	
Acenaphthene-d10	A	2.0000	2.00	13579.2500	1.0000		0.0	
Phenanthrene-d10	A	2.0000	2.00	25616.1700	1.0000		0.0	
Chrysene-d12	A	2.0000	2.00	22313.2500	1.0000		0.0	
Perylene-d12	A	2.0000	2.00	21012.9200	1.0000		0.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020607A.D
Date : 06-FEB-2023 15:15
Client ID:
Sample Info: ICV230206

Instrument: nt8.i
Operator: JZ
Column diameter: 0.25

Column phase: Rxi-17sil



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230206A.b\N823020607A.D
Lab Smp Id: SLB0075-ICV1
Inj Date : 06-FEB-2023 15:15
Operator : JZ Inst ID: nt8.i
Smp Info : ICV230206
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Meth Date : 07-Feb-2023 12:57 Jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
Target Version: 4.14
Processing Host: JIANQING-202105

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	1 Naphthalene-d8	136	4.900	4.900	(1.000)	44336	2.00000	
	2 Naphthalene	128	4.928	4.928	(1.006)	51993	2.50000	2.522
$	3 2-Methylnaphthalene-d10	152	5.634	5.634	(1.150)	31629	2.50000	2.616
	4 2-Methylnaphthalene	141	5.681	5.681	(1.159)	29535	2.50000	2.605
	5 1-methylnaphthalene	141	5.880	5.880	(1.200)	29856	2.50000	2.594
	7 Biphenyl	154	6.339	6.339	(0.882)	43705	2.50000	2.536
	8 2,6-Dimethylnaphthalene	156	6.386	6.386	(0.888)	31894	2.50000	2.614
	9 Acenaphthylene	152	7.082	7.082	(0.985)	53491	2.50000	2.711
*	10 Acenaphthene-d10	164	7.189	7.189	(1.000)	26127	2.00000	
	11 Acenaphthene	153	7.240	7.240	(1.007)	33973	2.50000	2.570
	12 Dibenzofuran	168	7.392	7.392	(1.028)	49788	2.50000	2.480
	13 1,6,7-Trimethylnaphthalene	170	7.455	7.455	(1.037)	33062	2.50000	2.611
	14 Fluorene	166	7.869	7.869	(1.095)	40694	2.50000	2.610
	18 Dibenzothiophene	184	9.105	9.105	(0.986)	53838	2.50000	2.569
*	15 Phenanthrene-d10	188	9.232	9.232	(1.000)	47424	2.00000	
	16 Phenanthrene	178	9.267	9.267	(1.004)	57495	2.50000	2.482
	17 Anthracene	178	9.308	9.308	(1.008)	54725	2.50000	2.600
	19 Carbazole	167	9.823	9.823	(1.064)	48982	2.50000	2.539
	20 1-Methylphenanthrene	192	10.044	10.044	(1.088)	42941	2.50000	2.572
	22 Fluoranthene	202	11.050	11.050	(1.197)	62701	2.50000	2.487
$	21 Fluoranthene-d10	212	11.009	11.009	(1.192)	53984	2.50000	2.580
	23 Pyrene	202	11.569	11.569	(0.815)	63466	2.50000	2.782
	24 Benzo(a)anthracene	228	14.070	14.070	(0.991)	55086	2.50000	2.664
*	25 Chrysene-d12	240	14.202	14.202	(1.000)	36794	2.00000	
	27 Chrysene	228	14.275	14.275	(1.005)	57036	2.50000	2.591
	28 Benzo(b)fluoranthene	252	16.824	16.824	(0.929)	51786	2.50000	2.427
	29 Benzo(k)fluoranthene	252	16.887	16.887	(0.933)	52165	2.50000	2.496
	30 Benzo(j)fluoranthene	252	16.963	16.963	(0.937)	47288	2.50000	2.513
	31 Total Benzofluoranthenes	252	16.824	16.824	(0.929)	152122	7.50000	7.528(M)
	34 Benzo(e)pyrene	252	17.750	17.750	(0.980)	51675	2.50000	2.429
	32 Benzo(a)pyrene	252	17.877	17.877	(0.987)	49335	2.50000	2.627
*	33 Perylene-d12	264	18.107	18.107	(1.000)	36636	2.00000	
	35 Perylene	252	18.183	18.183	(1.004)	51027	2.50000	2.532

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$ 36 Dibenzo(a,h)anthracene-d14	292	20.549	20.549	(1.135)	34736	2.50000	2.420
37 Indeno(1,2,3-cd)pyrene	276	20.684	20.684	(1.142)	58826	2.50000	2.750
38 Dibenzo(a,h)anthracene	278	20.666	20.666	(1.141)	50634	2.50000	2.751
39 Benzo(g,h,i)perylene	276	21.763	21.763	(1.202)	50628	2.50000	2.612

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823020607A.D
Lab Smp Id: SLB0075-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 06-FEB-2023
Calibration Time: 11:54
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44704	22352	89408	44336	-0.82
10 Acenaphthene-d10	26411	13206	52822	26127	-1.08
15 Phenanthrene-d10	49210	24605	98420	47424	-3.63
25 Chrysene-d12	42994	21497	85988	36794	-14.42
33 Perylene-d12	40520	20260	81040	36636	-9.59

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.90	4.40	5.40	4.90	0.00
10 Acenaphthene-d10	7.19	6.69	7.69	7.19	0.00
15 Phenanthrene-d10	9.23	8.73	9.73	9.23	0.00
25 Chrysene-d12	14.20	13.70	14.70	14.20	0.00
33 Perylene-d12	18.11	17.61	18.61	18.11	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823020607A.D

Lab ID: SLB0075-ICV1
nt8.i, 20230206A.b\FSIMPNA230119.m,   06-FEB-2023 15:15

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

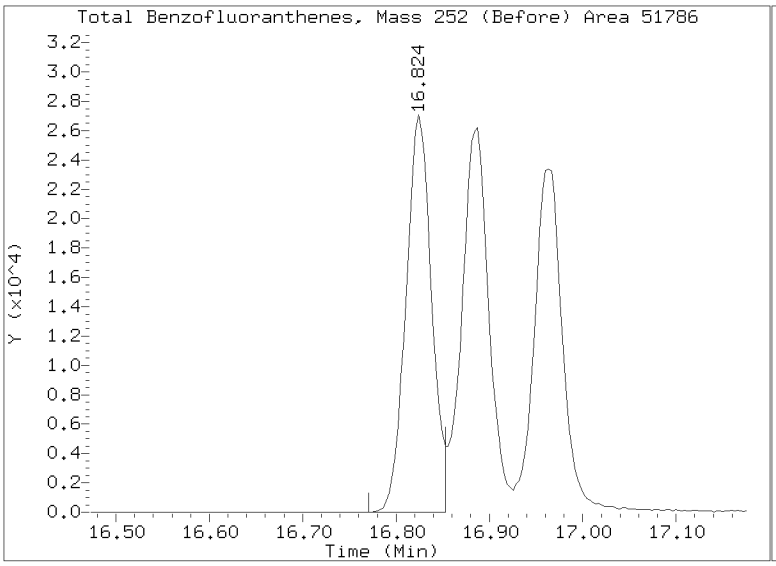
No RRT check performed

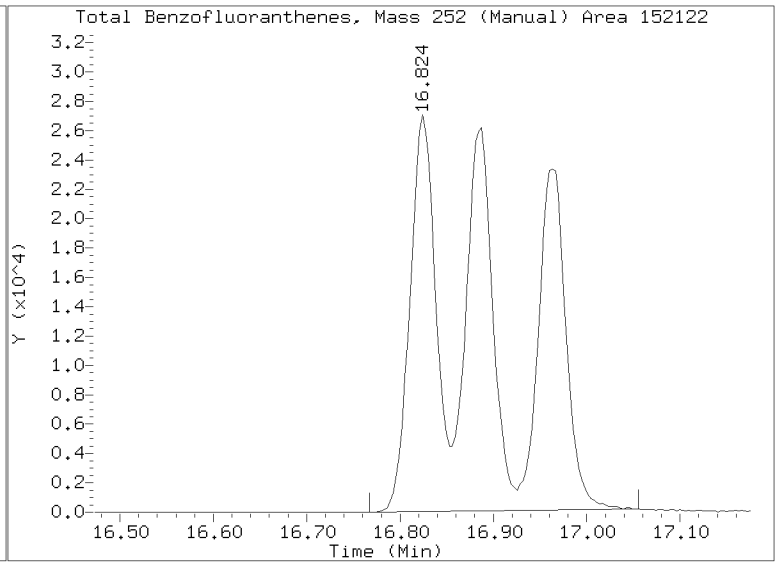
On Column LOD for nt8.i, 20230206A.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230206A.b/N823020607A.D
Injection Date: 06-FEB-2023 15:15
Lab ID:SLB0075-ICV1 Client ID:
Report Date: 02/07/2023 12:57





Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230206A.b

Instrument: nt8.i Date: 06-FEB-2023 Method: 20230206A.b\FSIMPNA230119.m

INITIAL CAL: 19-JAN-2023

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: N823020607A.D 06-FEB-2023 15:15

Compound	%D
NO Q-FLAGS	

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00032
Lab File ID:	NT1003052303S.D	Calibration Date:	03/01/2023
Sequence:	SLC0435	Injection Date:	03/05/23
Lab Sample ID:	SLC0435-ICV1	Injection Time:	14:40
Sequence Name:	Initial Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT	
1,4-Dichlorobenzene	A	1.0000	1.0	1.4413080	1.3972170		-3.1	+/-20	
1,2-Dichlorobenzene	A	1.0000	1.0	1.3853460	1.3964080		0.8	+/-20	
Benzyl Alcohol	A	1.0000	0.9	0.7492523	0.8210072		-13.0	+/-20	
Benzoic acid	A	4.0000	1.7	0.1431163	0.0776340		-58.6	+/-20	*
2,4-Dimethylphenol	A	2.0000	2.1	0.2957717	0.3617131		6.0	+/-20	
1,2,4-Trichlorobenzene	A	1.0000	1.2	0.2879030	0.3359287		16.7	+/-20	
N-Nitrosodiphenylamine	A	1.0000	0.9	0.6473471	0.5809654		-10.3	+/-20	
Pentachlorophenol	A	2.0000	0.5	0.0950913	0.0316002		-76.3	+/-20	*
2-Fluorophenol	A	1.5000	1.53	1.1419780	1.1632310		1.9	+/-20	
p-Terphenyl-d14	A	1.0000	1.49	0.3234672	0.4819341		49.0	+/-20	*
1,4-Dichlorobenzene-d4	A	4.0000	4.0	84099.7200	1.0000		0.0		
Naphthalene-d8	A	4.0000	4.0	296848.2000	1.0000		0.0		
Acenaphthene-d10	A	4.0000	4.0	160957.8000	1.0000		0.0		
Phenanthrene-d10	A	4.0000	4.0	276014.3000	1.0000		0.0		
Chrysene-d12	A	4.0000	4.0	258259.1000	1.0000		0.0		
Perylene-d12	A	4.0000	4.0	271750.8000	1.0000		0.0		

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523035.D

Date : 05-MAR-2023 14:40

Client ID:

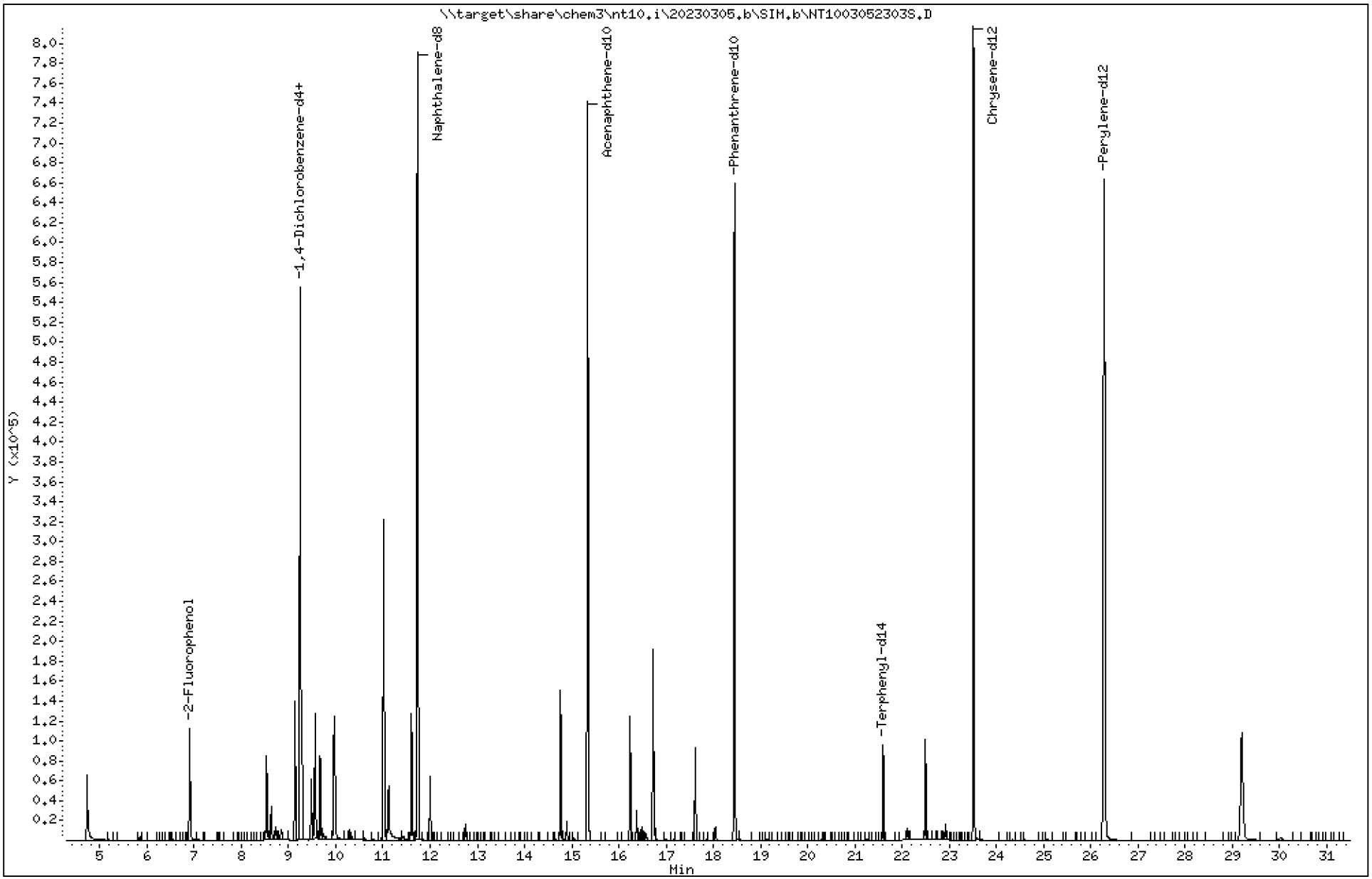
Instrument: nt10.i

Sample Info: SLC0435-ICV1

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052303S.D
Lab Smp Id: SLC0435-ICV1
Inj Date : 05-MAR-2023 14:40
Operator : YZ Inst ID: nt10.i
Smp Info : SLC0435-ICV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:00 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

								AMOUNTS	
		QUANT SIG						CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
$	1 2-Fluorophenol	112	6.902	6.902	(0.747)	140188		1.50000	1.528
	3 Phenol	94	8.533	8.533	(0.923)	114666		1.00000	0.8439
	7 1,3-Dichlorobenzene	146	9.136	9.136	(0.988)	117909		1.00000	0.9900
*	8 1,4-Dichlorobenzene-d4	152	9.244	9.244	(1.000)	321376		4.00000	
	9 1,4-Dichlorobenzene	146	9.275	9.275	(1.003)	112258		1.00000	0.9694
	11 Benzyl alcohol	79	9.485	9.485	(1.026)	65963		1.00000	0.8698(M)
	12 1,2-Dichlorobenzene	146	9.562	9.562	(1.034)	112193		1.00000	1.008
	13 2-Methylphenol	108	9.663	9.663	(1.045)	91736		1.00000	1.117
	15 4-Methylphenol	108	9.958	9.958	(1.077)	93493		1.00000	1.092
	16 N-Nitroso-di-n-propylamine	70	9.982	9.982	(1.080)	69265		1.00000	1.145
	22 2,4-Dimethylphenol	107	11.015	11.015	(0.939)	204898		2.00000	2.119
	24 Benzoic acid	105	11.116	11.116	(0.948)	87954		4.00000	1.655
	26 1,2,4-Trichlorobenzene	180	11.608	11.608	(0.989)	95146		1.00000	1.167
*	27 Naphthalene-d8	136	11.731	11.731	(1.000)	1132931		4.00000	
	30 Hexachlorobutadiene	225	12.002	12.002	(1.023)	61666		1.00000	1.066
	39 Dimethylphthalate	163	14.765	14.765	(0.963)	173463		1.00000	0.9728
*	42 Acenaphthene-d10	162	15.337	15.337	(1.000)	561597		4.00000	
	50 Diethylphthalate	149	16.234	16.234	(1.058)	182212		1.00000	1.084(H)
	54 N-Nitrosodiphenylamine	169	16.729	16.729	(0.907)	155150		1.00000	0.8975
	57 Hexachlorobenzene	284	17.617	17.617	(0.955)	83301		1.00000	1.030
	58 Pentachlorophenol	266	18.043	18.043	(0.978)	16878		2.00000	0.4747
*	59 Phenanthrene-d10	188	18.453	18.453	(1.000)	1068222		4.00000	
$	66 Terphenyl-d14	244	21.602	21.602	(0.919)	120191		1.00000	1.490
	67 Butylbenzylphthalate	149	22.492	22.492	(0.957)	117407		1.00000	0.6988
*	69 Chrysene-d12	240	23.514	23.514	(1.000)	997572		4.00000	
*	77 Perylene-d12	264	26.286	26.286	(1.000)	1245490		4.00000	
	79 Dibenzo(a,h)anthracene	278	29.202	29.202	(1.111)	344110		1.00000	1.173(M)
	90 N-Nitrosodimethylamine	74	4.724	4.724	(0.511)	139664		2.00000	2.571

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052303S.D
Lab Smp Id: SLC0435-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:40
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	321376	160688	642752	321376	0.00
27 Naphthalene-d8	1132931	566466	2265862	1132931	0.00
42 Acenaphthene-d10	561597	280799	1123194	561597	0.00
59 Phenanthrene-d10	1068222	534111	2136444	1068222	0.00
69 Chrysene-d12	997572	498786	1995144	997572	0.00
77 Perylene-d12	1245490	622745	2490980	1245490	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.24	0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.00
42 Acenaphthene-d10	15.34	14.84	15.84	15.34	0.00
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	0.00
69 Chrysene-d12	23.51	23.01	24.01	23.51	0.00
77 Perylene-d12	26.29	25.79	26.79	26.29	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052303S.D

Lab ID: SLC0435-ICV1
nt10.i, 20230305.b\SIM.b\SIMABN2.m,   05-MAR-2023 14:40

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

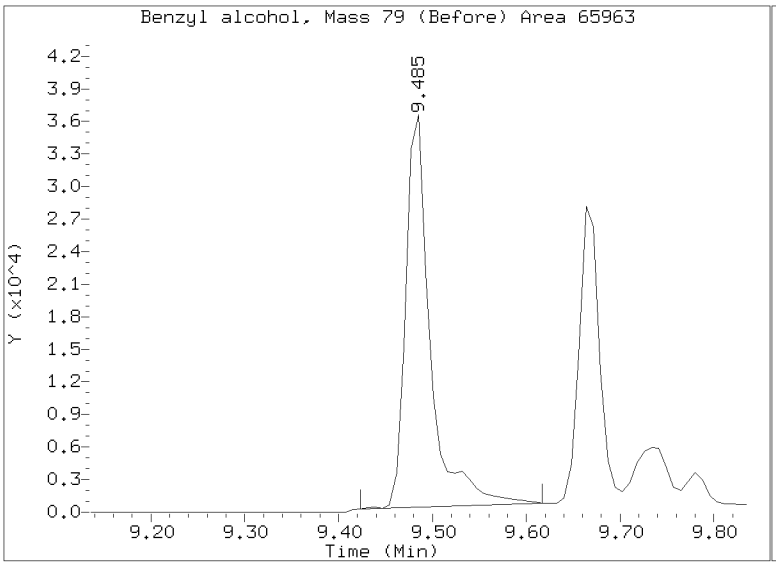
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

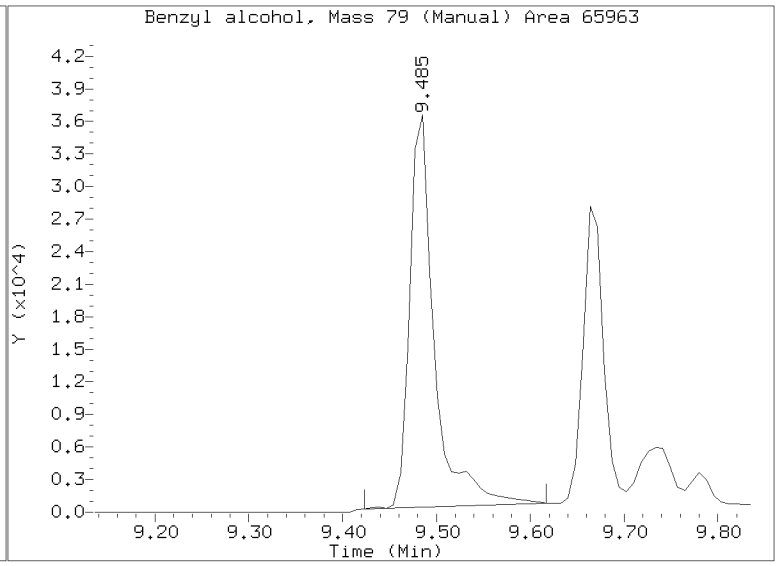
Exception: 1,2,4-Trichlorobenzene 0.0010

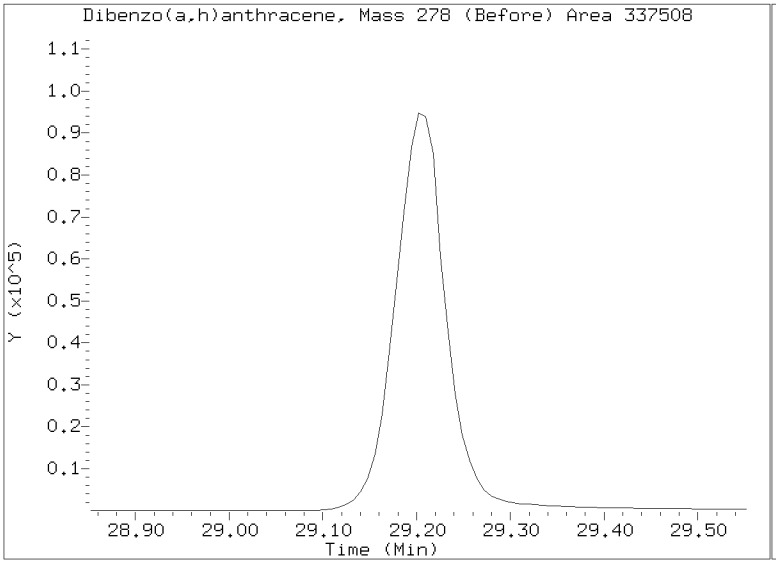
* Only compounds listed in the work order have been verified by the analyst *

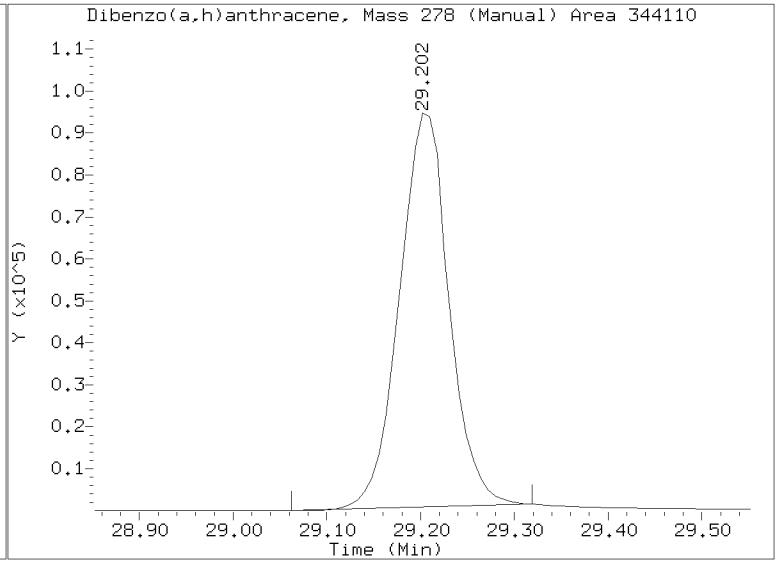
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305.b/SIM.b/NT1003052303S.D
Injection Date: 05-MAR-2023 14:40
Lab ID:SLC0435-ICV1 Client ID:
Report Date: 03/28/2023 11:00









APPROVED

By Deenay Dunmore at 12:03 pm, Mar 28, 2023

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230305.b\SIM.b

Instrument: nt10.i Date: 05-MAR-2023 Method: SIM.b\SIMABN2.m

INITIAL CAL: 01-MAR-2023

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: NT1003052303S.D 05-MAR-2023 14:40

Compound	%D
Benzoic acid	-58.6
N-Nitrosodimethylamine	28.6
Pentachlorophenol	-76.3
Butylbenzylphthalate	-30.1
Terphenyl-d14	49.0

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00032
Lab File ID:	NT1003052315SA.D	Calibration Date:	03/01/2023
Sequence:	SLC0440	Injection Date:	03/05/23
Lab Sample ID:	SLC0440-ICV1	Injection Time:	22:16
Sequence Name:	Initial Cal Check		

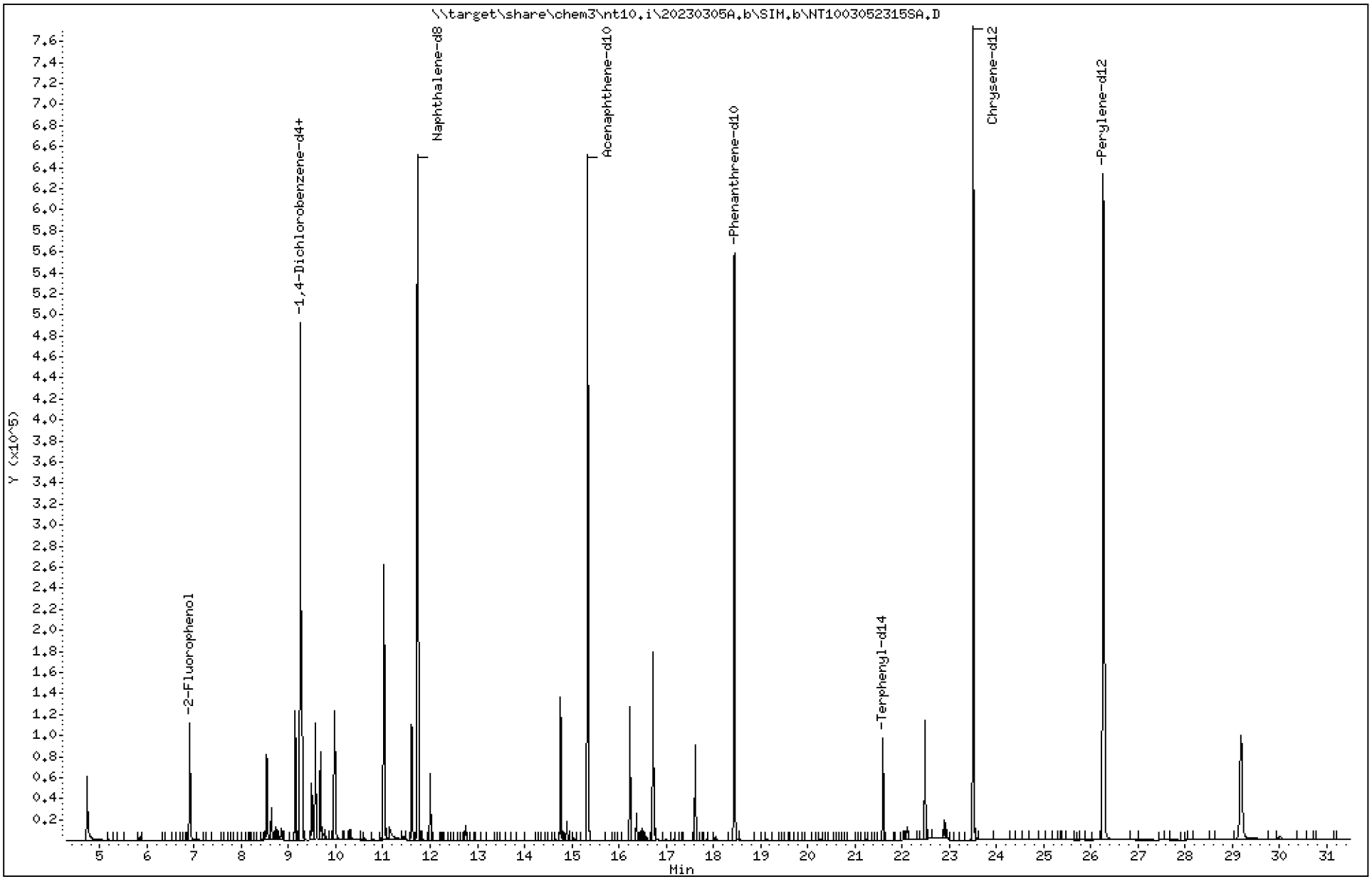
		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT	
1,4-Dichlorobenzene	A	1.0000	1.0	1.4413080	1.4039480		-2.6	+/-20	
1,2-Dichlorobenzene	A	1.0000	1.0	1.3853460	1.3921730		0.5	+/-20	
Benzyl Alcohol	A	1.0000	1.0	0.7492523	0.9105636		-3.7	+/-20	
Benzoic acid	A	4.0000	0.7	0.1431163	0.0332159		-82.2	+/-20	*
2,4-Dimethylphenol	A	2.0000	2.1	0.2957717	0.3638503		6.6	+/-20	
1,2,4-Trichlorobenzene	A	1.0000	1.2	0.2879030	0.3415521		18.6	+/-20	
N-Nitrosodiphenylamine	A	1.0000	0.9	0.6473471	0.5842969		-9.7	+/-20	
Pentachlorophenol	A	2.0000	0.2	0.0950913	0.0126209		-90.5	+/-20	*
2-Fluorophenol	A	1.5000	1.65	1.1419780	1.2529		9.7	+/-20	
p-Terphenyl-d14	A	1.0000	1.57	0.3234672	0.5071780		56.8	+/-20	*
1,4-Dichlorobenzene-d4	A	4.0000	4.0	84099.7200	1.0000		0.0		
Naphthalene-d8	A	4.0000	4.0	296848.2000	1.0000		0.0		
Acenaphthene-d10	A	4.0000	4.0	160957.8000	1.0000		0.0		
Phenanthrene-d10	A	4.0000	4.0	276014.3000	1.0000		0.0		
Chrysene-d12	A	4.0000	4.0	258259.1000	1.0000		0.0		
Perylene-d12	A	4.0000	4.0	271750.8000	1.0000		0.0		

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052315SA.D
Date : 05-MAR-2023 22:16
Client ID:
Sample Info: SLC0440-ICV1

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25

Column phase: ZB-5msi



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052315SA.D
Lab Smp Id: SLC0440-ICV1
Inj Date : 05-MAR-2023 22:16
Operator : YZ Inst ID: nt10.i
Smp Info : SLC0440-ICV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:18 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.902	6.902	(0.746)	138057	1.50000	1.646
	3 Phenol	94	8.532	8.532	(0.922)	113090	1.00000	0.9099
	7 1,3-Dichlorobenzene	146	9.143	9.143	(0.988)	108511	1.00000	0.9964
*	8 1,4-Dichlorobenzene-d4	152	9.252	9.252	(1.000)	293840	4.00000	
	9 1,4-Dichlorobenzene	146	9.283	9.283	(1.003)	103134	1.00000	0.9741
	11 Benzyl alcohol	79	9.484	9.484	(1.025)	66890	1.00000	0.9635
	12 1,2-Dichlorobenzene	146	9.570	9.570	(1.034)	102269	1.00000	1.005
	13 2-Methylphenol	108	9.671	9.671	(1.045)	89685	1.00000	1.194
	15 4-Methylphenol	108	9.966	9.966	(1.077)	91675	1.00000	1.170
	16 N-Nitroso-di-n-propylamine	70	9.981	9.981	(1.079)	68520	1.00000	1.238
	22 2,4-Dimethylphenol	107	11.014	11.014	(0.939)	187863	2.00000	2.132
	24 Benzoic acid	105	11.133	11.133	(0.949)	34300	4.00000	0.7117
	26 1,2,4-Trichlorobenzene	180	11.608	11.608	(0.989)	88175	1.00000	1.186
*	27 Naphthalene-d8	136	11.731	11.731	(1.000)	1032639	4.00000	
	30 Hexachlorobutadiene	225	12.001	12.001	(1.023)	57432	1.00000	1.089
	39 Dimethylphthalate	163	14.764	14.764	(0.963)	163122	1.00000	1.023
*	42 Acenaphthene-d10	162	15.337	15.337	(1.000)	502349	4.00000	
	50 Diethylphthalate	149	16.234	16.234	(1.058)	178603	1.00000	1.187(MH)
	54 N-Nitrosodiphenylamine	169	16.729	16.729	(0.907)	142568	1.00000	0.9026
	57 Hexachlorobenzene	284	17.617	17.617	(0.955)	78174	1.00000	1.058
	58 Pentachlorophenol	266	18.042	18.042	(0.978)	6159	2.00000	0.1901
*	59 Phenanthrene-d10	188	18.453	18.453	(1.000)	975997	4.00000	
$	66 Terphenyl-d14	244	21.594	21.594	(0.918)	124074	1.00000	1.568
	67 Butylbenzylphthalate	149	22.484	22.484	(0.956)	140781	1.00000	0.8547
*	69 Chrysene-d12	240	23.514	23.514	(1.000)	978544	4.00000	
*	77 Perylene-d12	264	26.270	26.270	(1.000)	1201606	4.00000	
	79 Dibenzo(a,h)anthracene	278	29.186	29.186	(1.111)	359657	1.00000	1.269
	90 N-Nitrosodimethylamine	74	4.724	4.724	(0.511)	125707	2.00000	2.531

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052315SA.D
Lab Smp Id: SLC0440-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 18:37
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	321376	160688	642752	293840	-8.57
27 Naphthalene-d8	1132931	566466	2265862	1032639	-8.85
42 Acenaphthene-d10	561597	280799	1123194	502349	-10.55
59 Phenanthrene-d10	1068222	534111	2136444	975997	-8.63
69 Chrysene-d12	997572	498786	1995144	978544	-1.91
77 Perylene-d12	1245490	622745	2490980	1201606	-3.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.00
42 Acenaphthene-d10	15.34	14.84	15.84	15.34	-0.00
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	-0.00
69 Chrysene-d12	23.51	23.01	24.01	23.51	-0.00
77 Perylene-d12	26.29	25.79	26.79	26.27	-0.06

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052315SA.D

Lab ID: SLC0440-ICV1
nt10.i, 20230305A.b\SIM.b\SIMABN2.m,   05-MAR-2023 22:16

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230305A.b\SIM.b

Instrument: nt10.i Date: 05-MAR-2023 Method: SIM.b\SIMABN2.m

INITIAL CAL: 01-MAR-2023

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: NT1003052315SA.D 05-MAR-2023 22:16

Compound	%D
N-Nitroso-di-n-propylamine	23.8
Benzoic acid	-82.2
N-Nitrosodimethylamine	26.6
Pentachlorophenol	-90.5
Dibenzo(a,h)anthracene	26.9
Terphenyl-d14	56.8

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

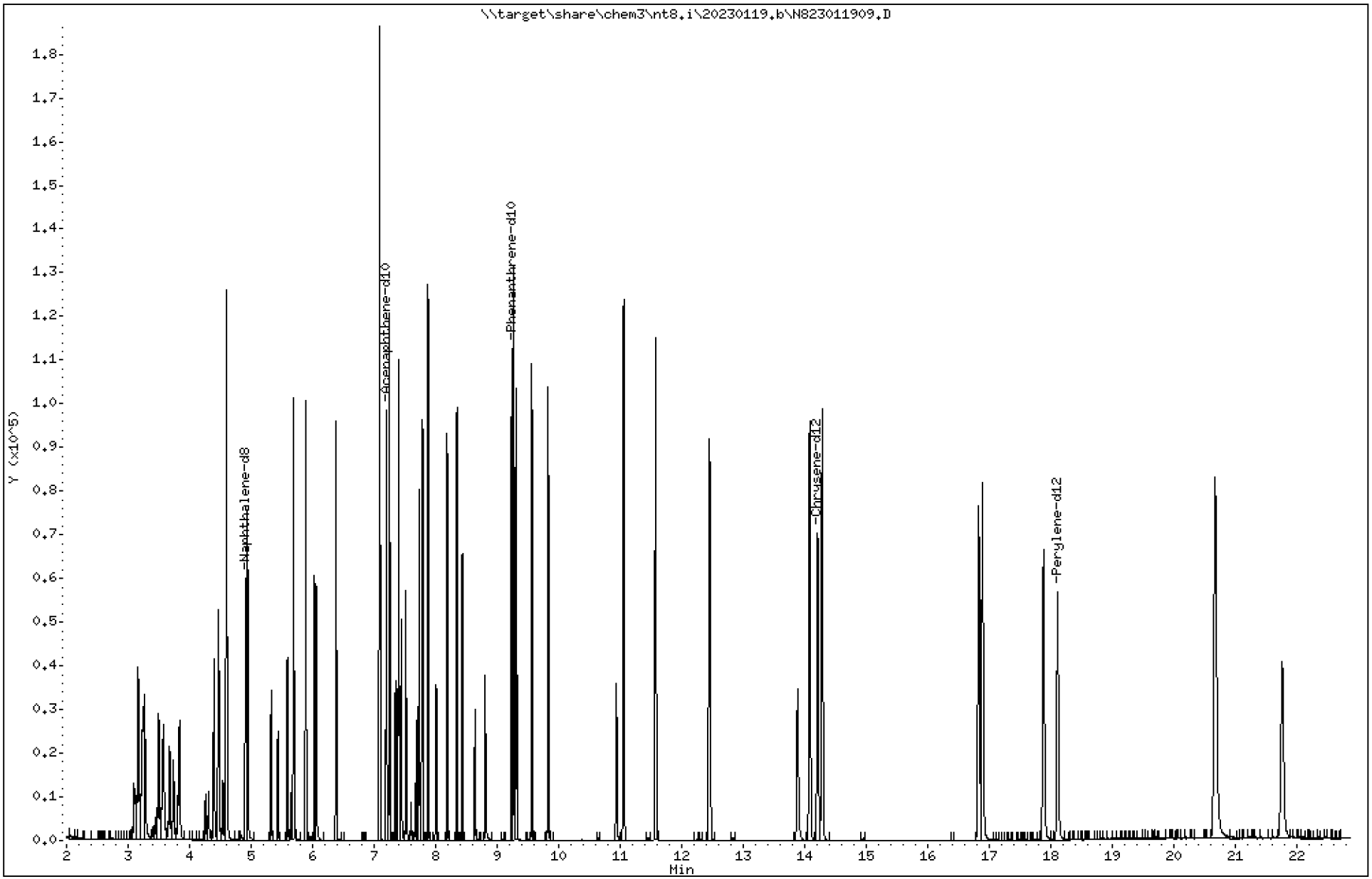
Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT8	Calibration:	GA00050
Lab File ID:	N823011909.D	Calibration Date:	01/19/2023
Sequence:	SLA0213	Injection Date:	01/19/23
Lab Sample ID:	SLA0213-SCV1	Injection Time:	14:58
Sequence Name:	8270 SIM PNA SCV		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	2.5000	2.63	0.9299181	0.9767747		5.0	
2-Methylnaphthalene	A	2.5000	2.67	0.5115033	0.5463255		6.8	
1-Methylnaphthalene	A	2.5000	2.65	0.5191318	0.5501748		6.0	
Acenaphthylene	A	2.5000	2.82	1.5102600	1.7039370		12.8	
Acenaphthene	A	2.5000	2.60	1.0119150	1.0524810		4.0	
Dibenzofuran	A	2.5000	2.86	1.5369690	1.7582160		14.4	
Fluorene	A	2.5000	2.63	1.1937240	1.2561120		5.2	
Phenanthrene	A	2.5000	2.45	0.9769567	0.9567960		-2.1	
Anthracene	A	2.5000	2.27	0.8874960	0.8058663		-9.2	
Fluoranthene	A	2.5000	2.65	1.0634260	1.1284050		6.1	
Pyrene	A	2.5000	2.46	1.2399700	1.2213300		-1.5	
Benzo(a)anthracene	A	2.5000	2.59	1.1238870	1.1631100		3.5	
Chrysene	A	2.5000	2.40	1.1964350	1.1484610		-4.0	
Benzo(b)fluoranthene	A	2.5000	2.51	1.1648110	1.1680230		0.3	
Benzo(k)fluoranthene	A	2.5000	2.66	1.1409370	1.2121600		6.2	
Benzofluoranthenes, Total	A	5.0000	5.48	1.1031370	1.2090940		9.6	
Benzo(a)pyrene	A	2.5000	2.57	1.0250270	1.0545670		2.9	
Indeno(1,2,3-cd)pyrene	A	2.5000	2.69	1.1677520	1.2561630		7.6	
Dibenzo(a,h)anthracene	A	2.5000	2.49	1.0049440	1.0021900		-0.3	
Benzo(g,h,i)perylene	A	2.5000	2.48	1.0580110	1.0506380		-0.7	

* Values outside of QC limits

Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D
Date : 19-JAN-2023 14:58
Client ID:
Sample Info: SCV230119
Volume Injected (uL): 1.0
Column phase: Rxi-17sil

Instrument: nt8.i
Operator: JZ
Column diameter: 0.25



Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

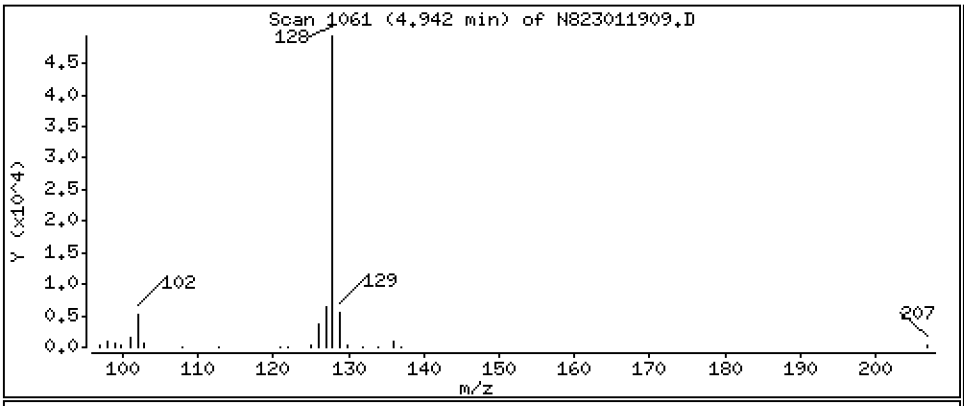
Operator: JZ

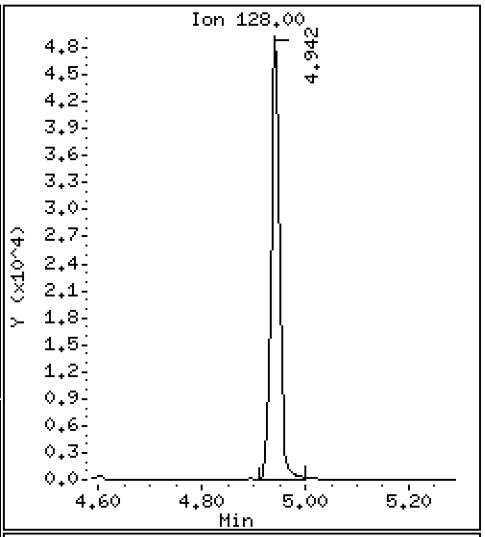
Column phase: Rxi-17sil

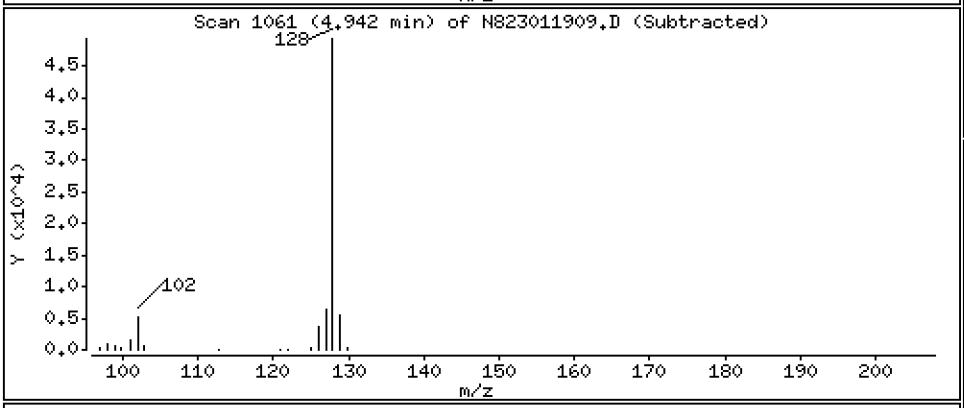
Column diameter: 0.25

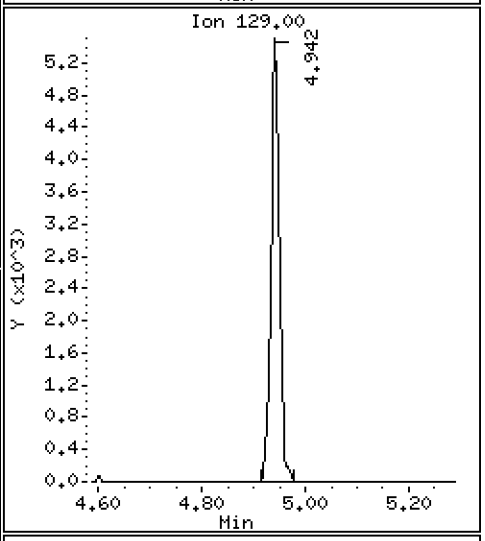
2 Naphthalene

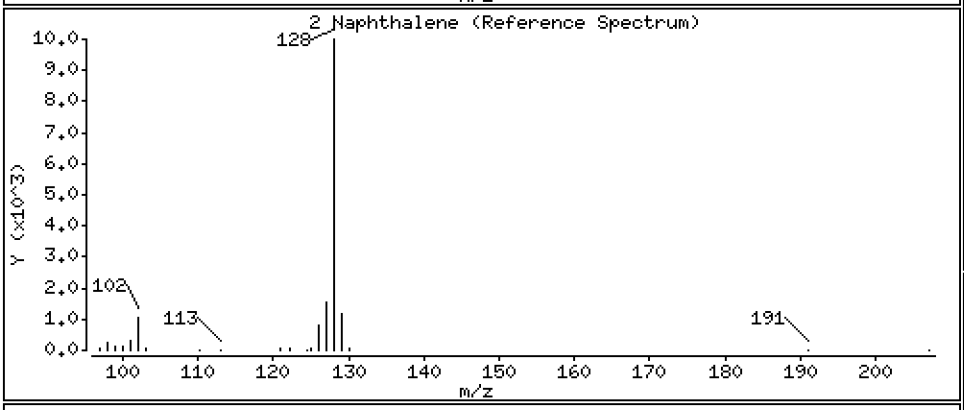
Concentration: 2.626 ug/L

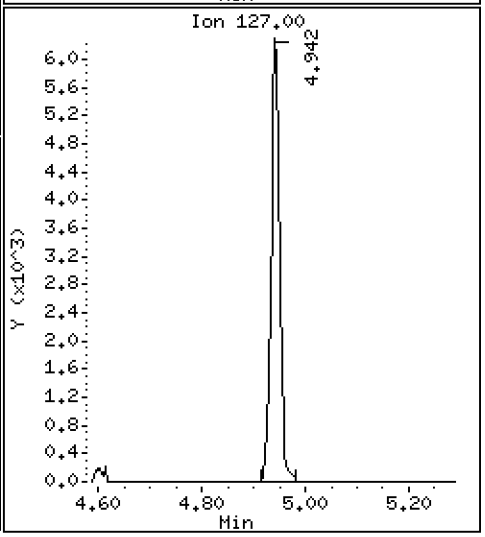


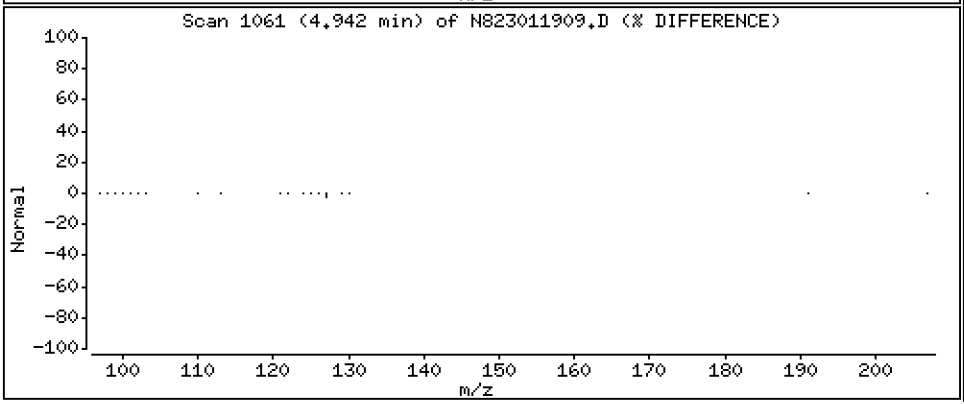












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

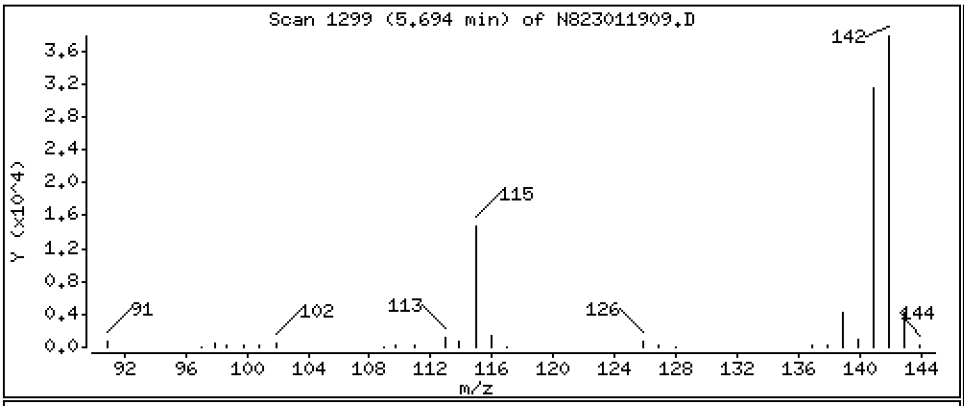
Operator: JZ

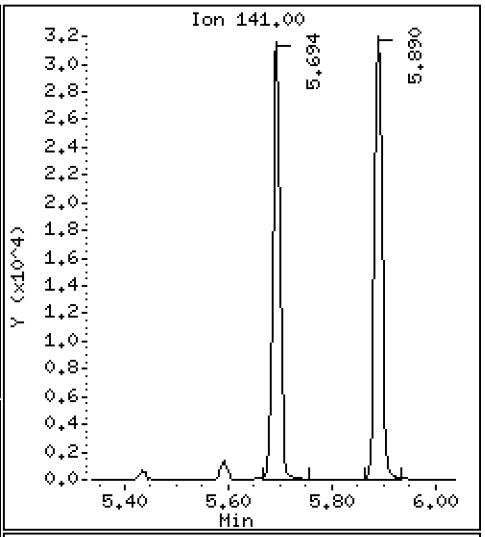
Column phase: Rxi-17sil

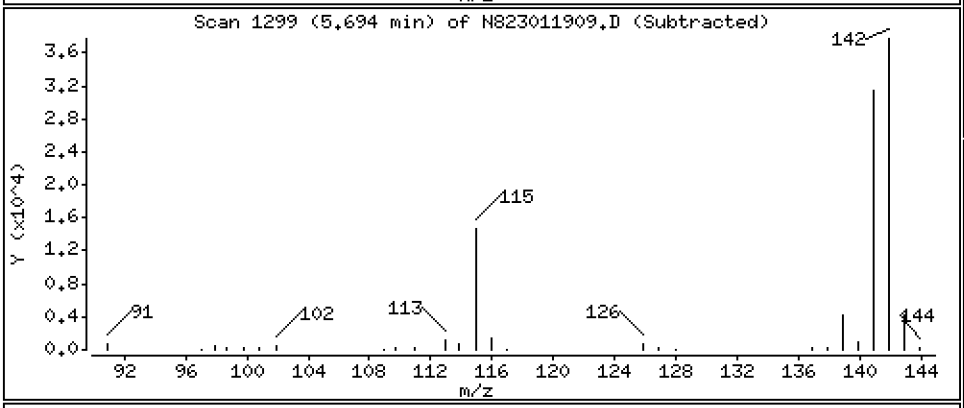
Column diameter: 0.25

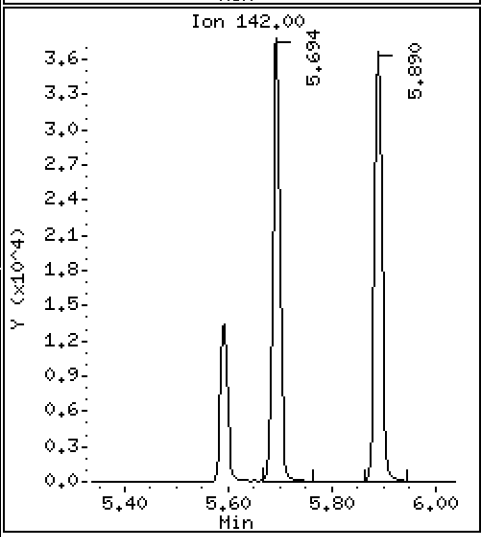
4 2-Methylnaphthalene

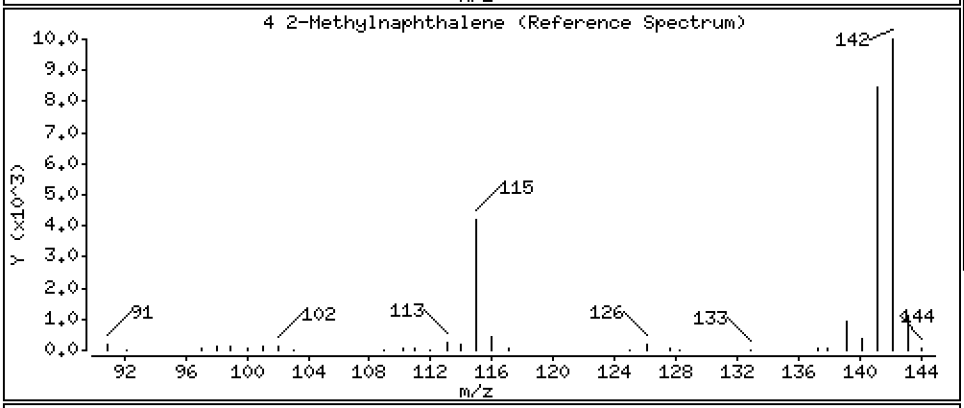
Concentration: 2.670 ug/L

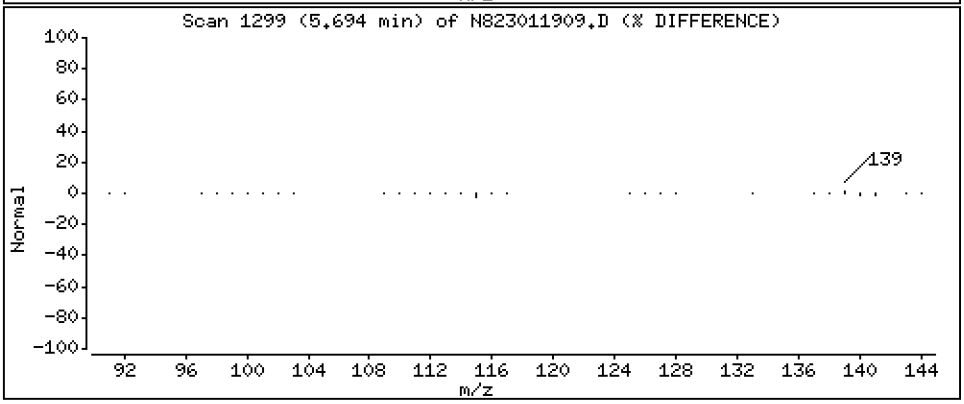












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

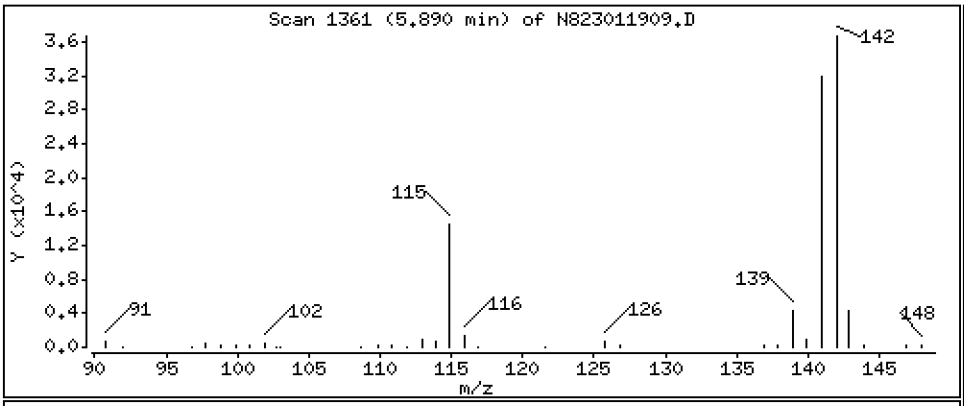
Operator: JZ

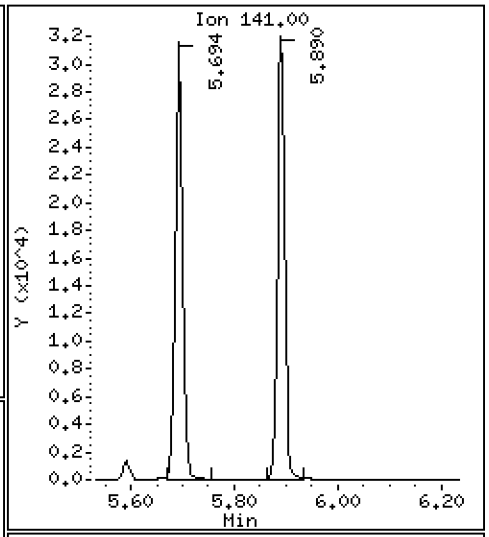
Column phase: Rxi-17sil

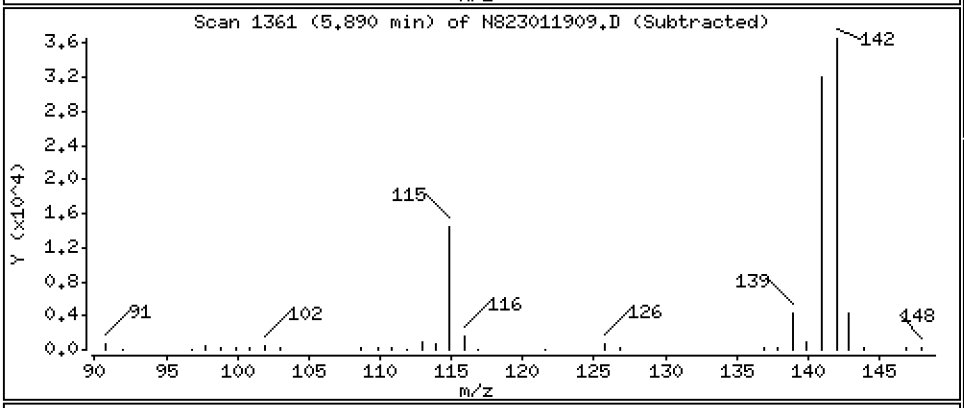
Column diameter: 0.25

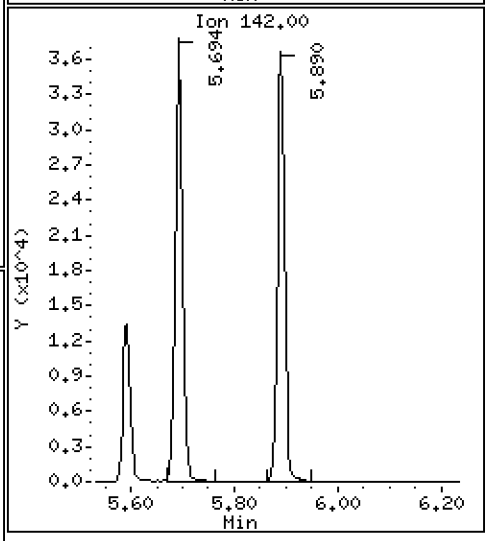
5 1-methylnaphthalene

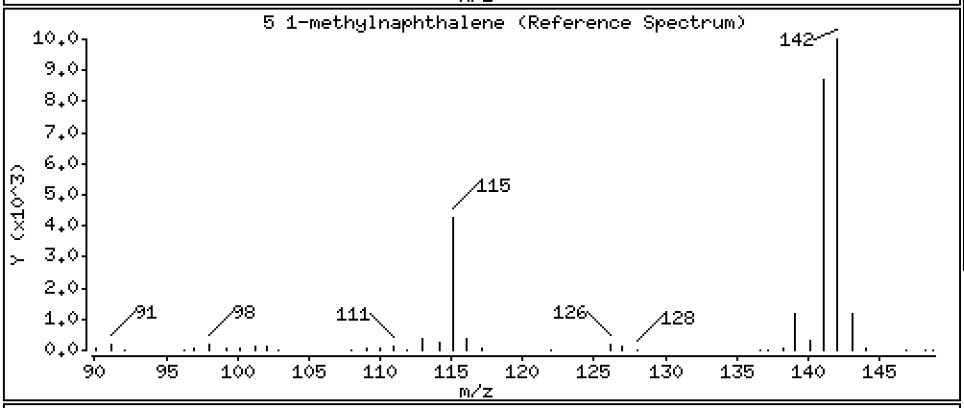
Concentration: 2.649 ug/L

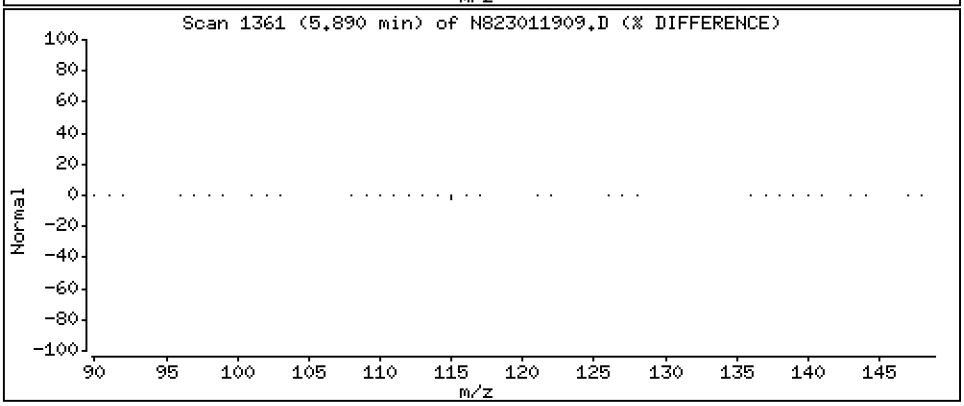












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

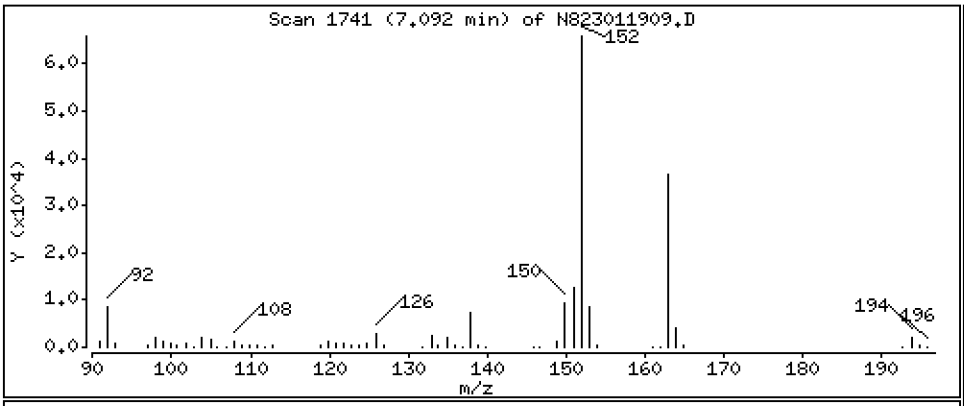
Operator: JZ

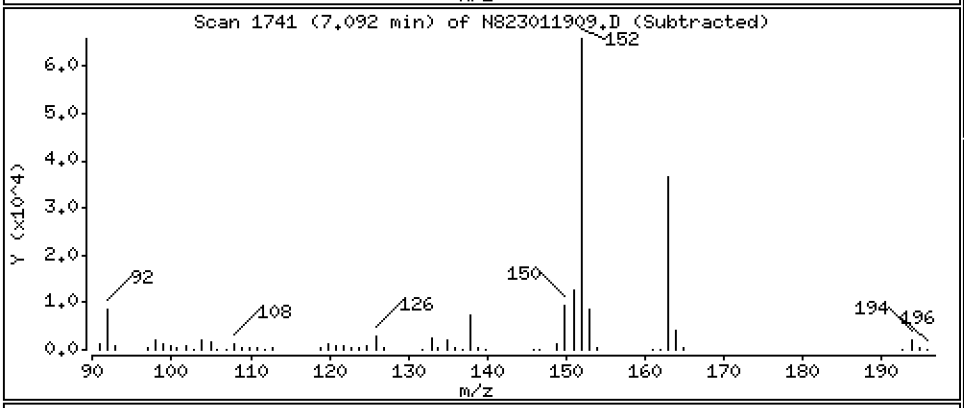
Column phase: Rxi-17sil

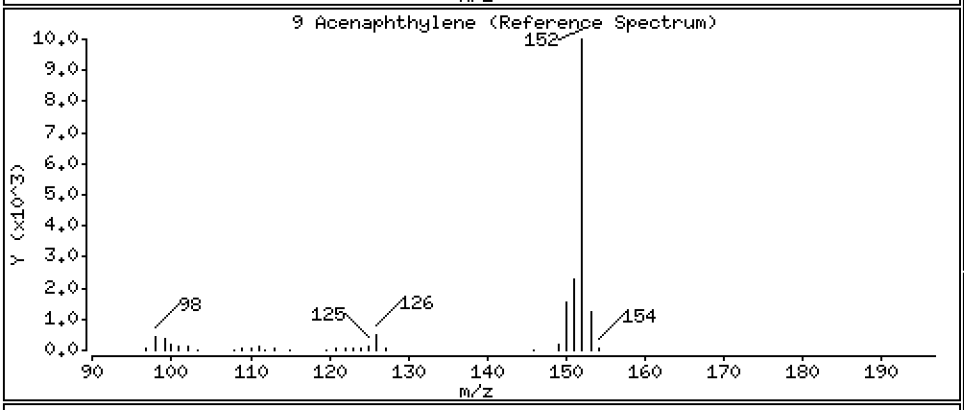
Column diameter: 0.25

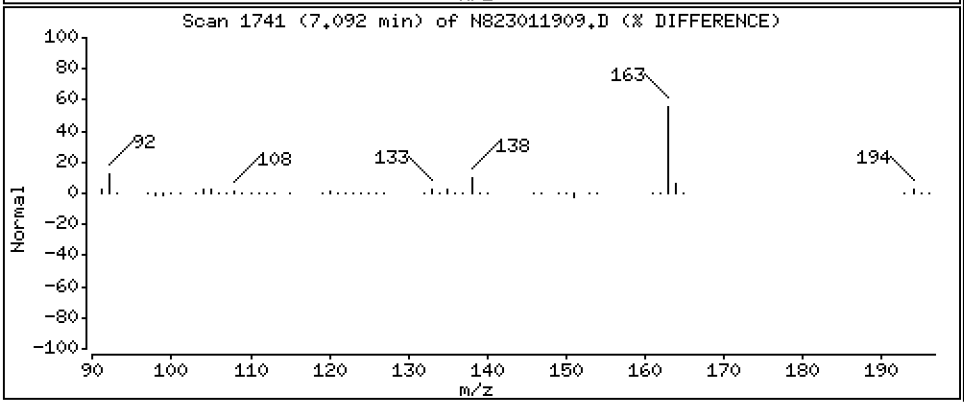
9 Acenaphthylene

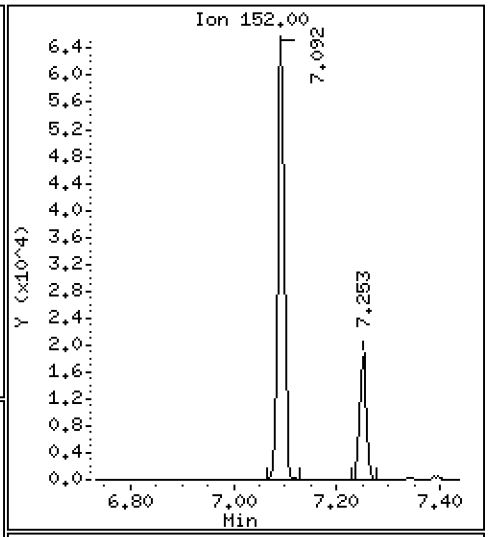
Concentration: 2.821 ug/L

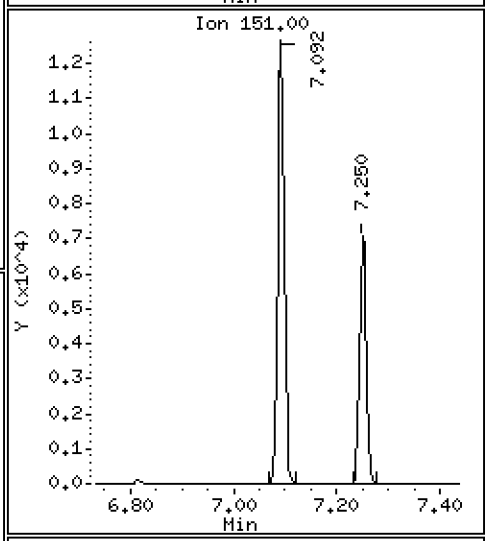


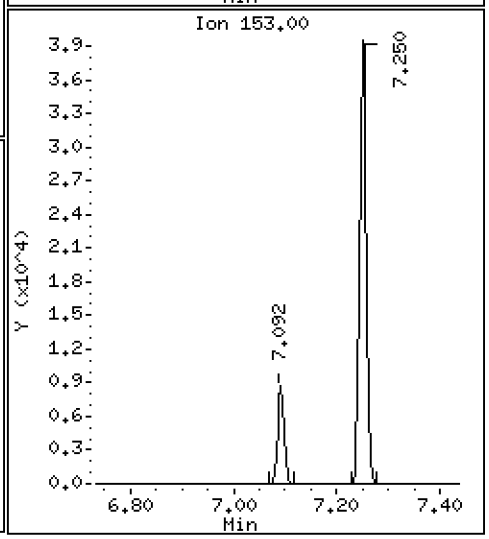












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

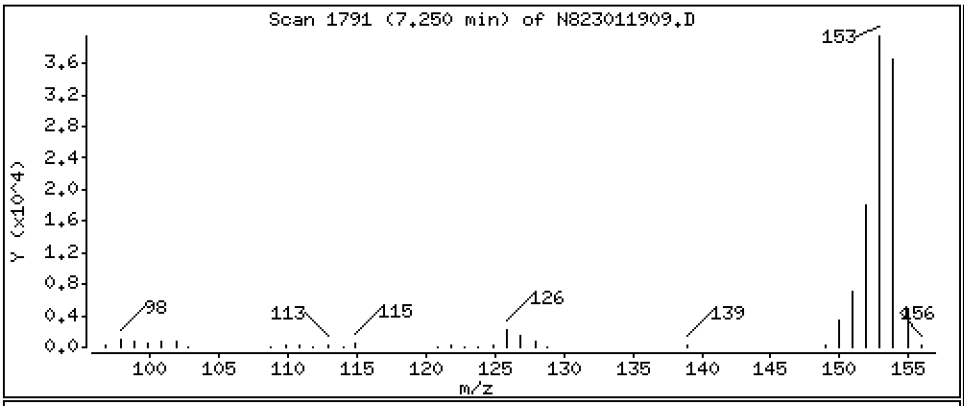
Operator: JZ

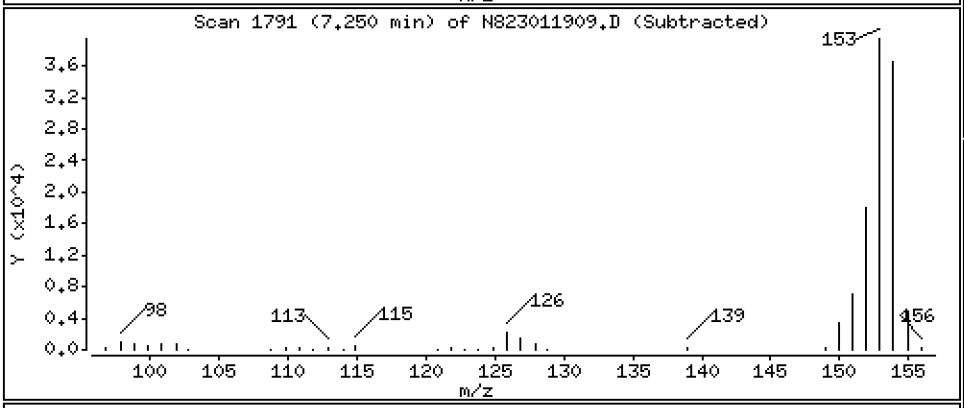
Column phase: Rxi-17sil

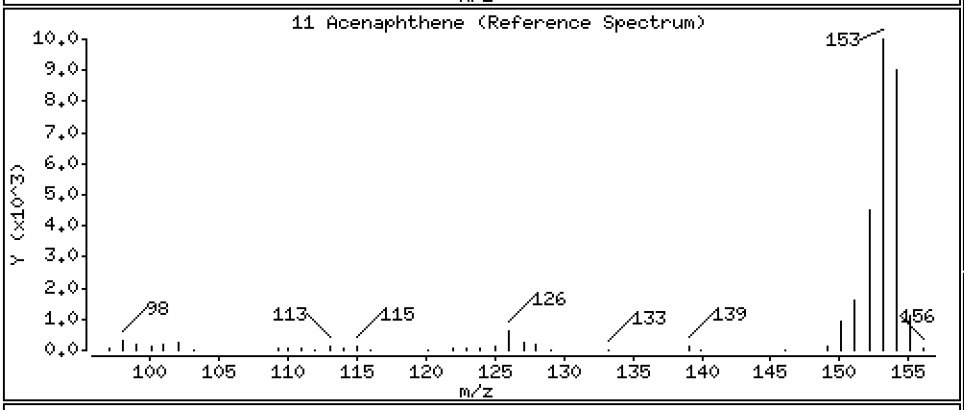
Column diameter: 0.25

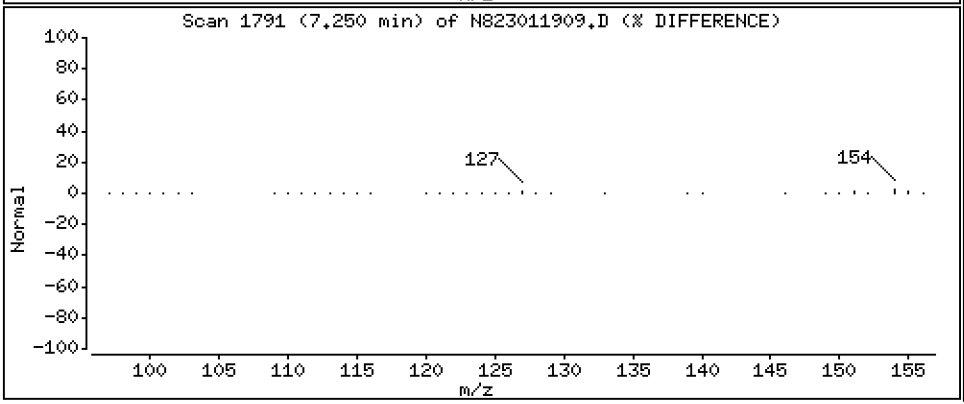
11 Acenaphthene

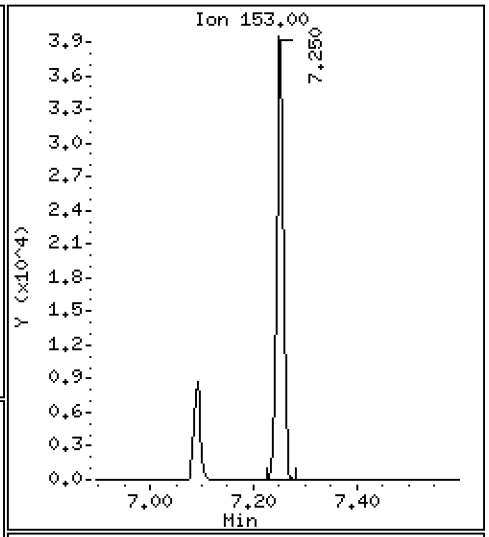
Concentration: 2.600 ug/L

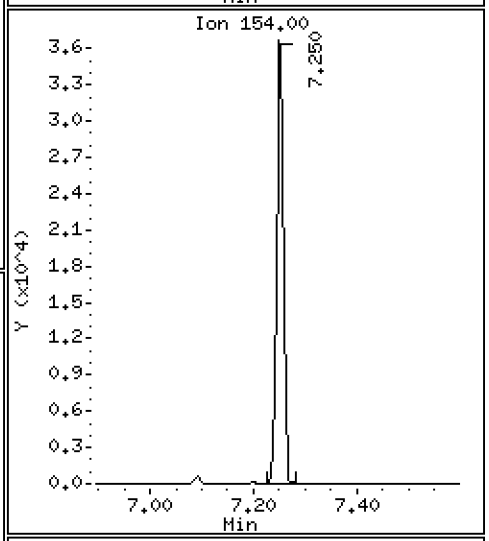


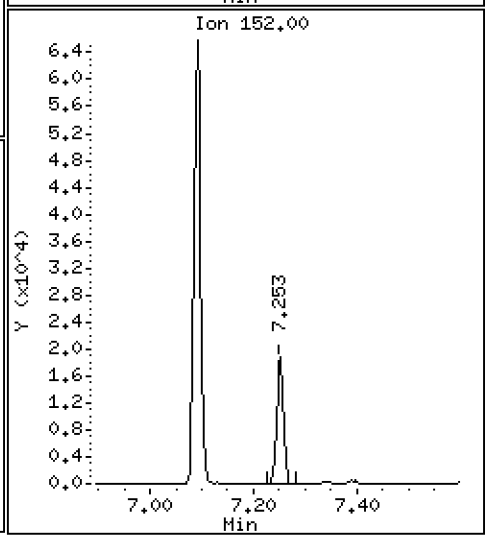












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

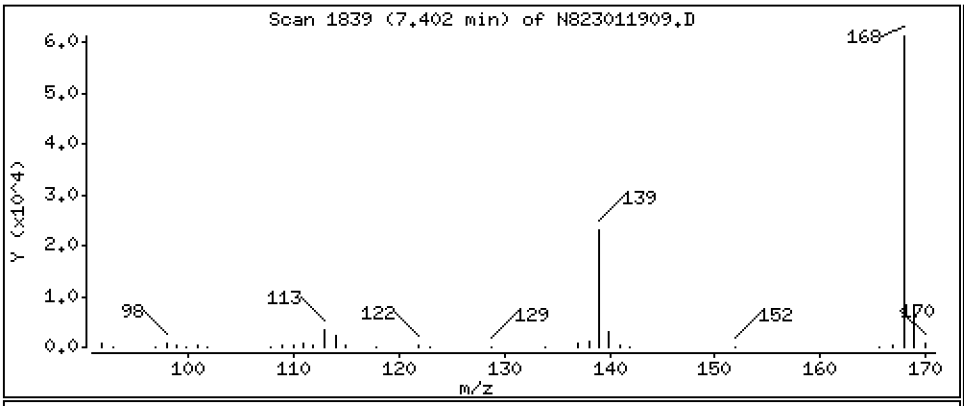
Operator: JZ

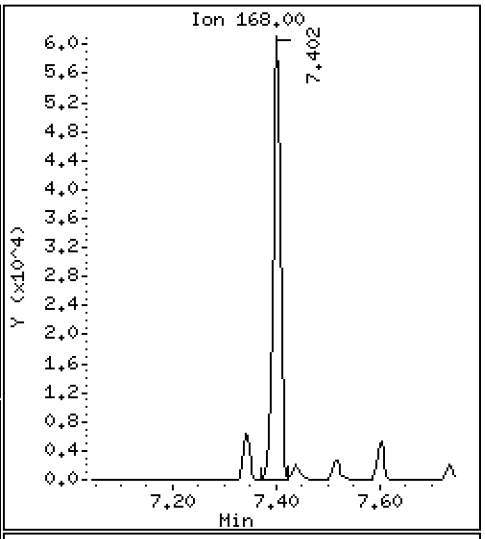
Column phase: Rxi-17sil

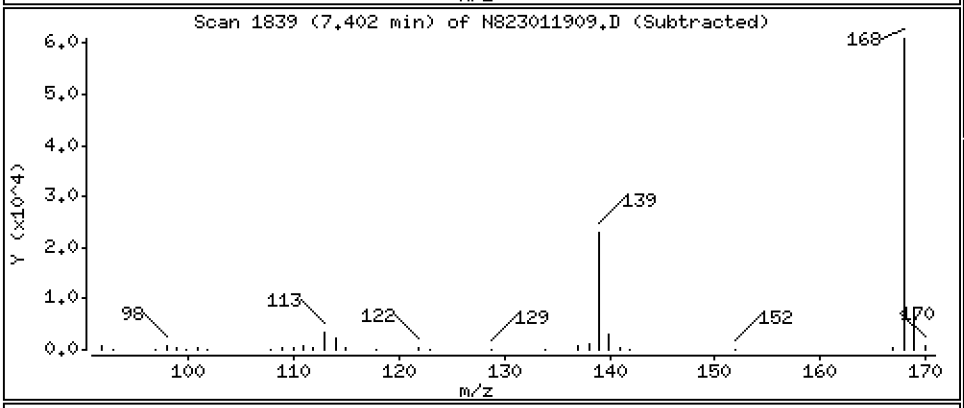
Column diameter: 0.25

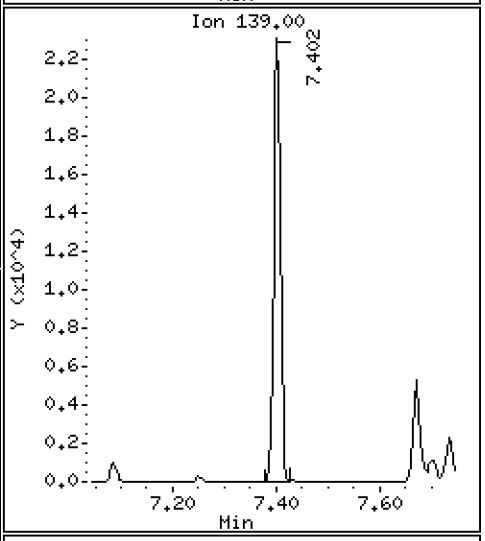
12 Dibenzofuran

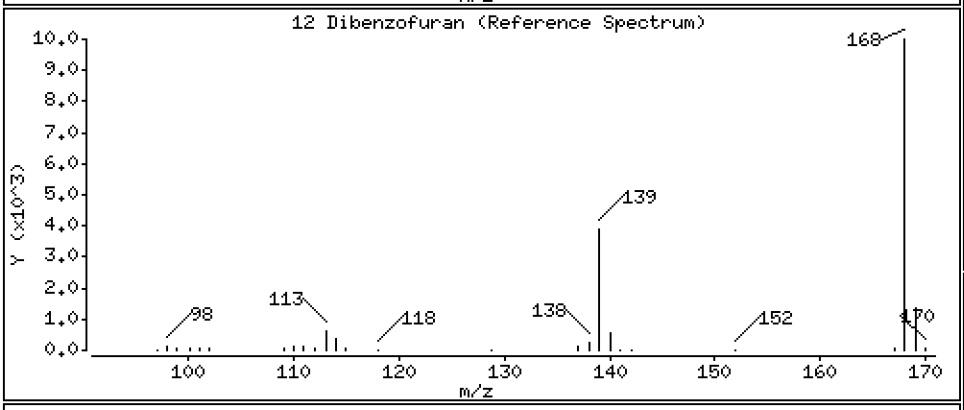
Concentration: 2.860 ug/L

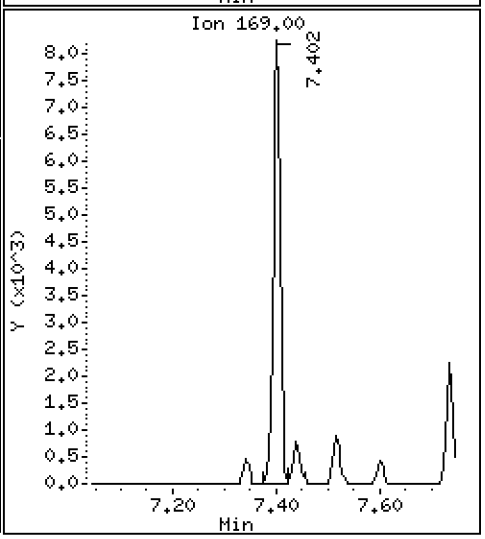


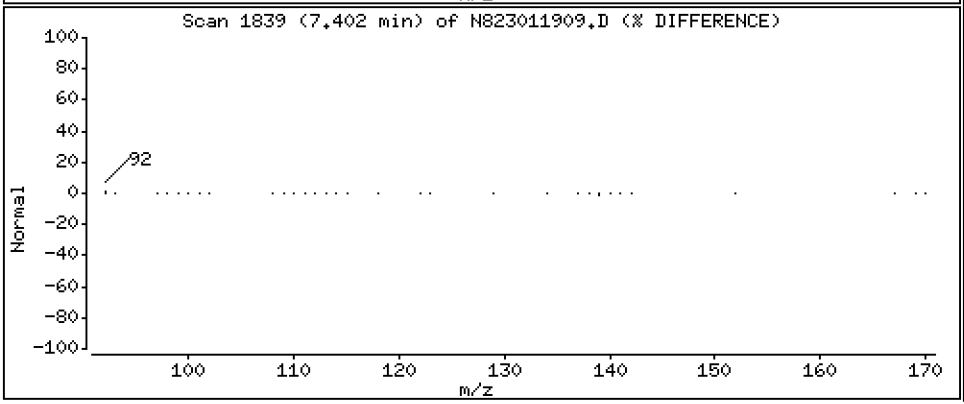












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

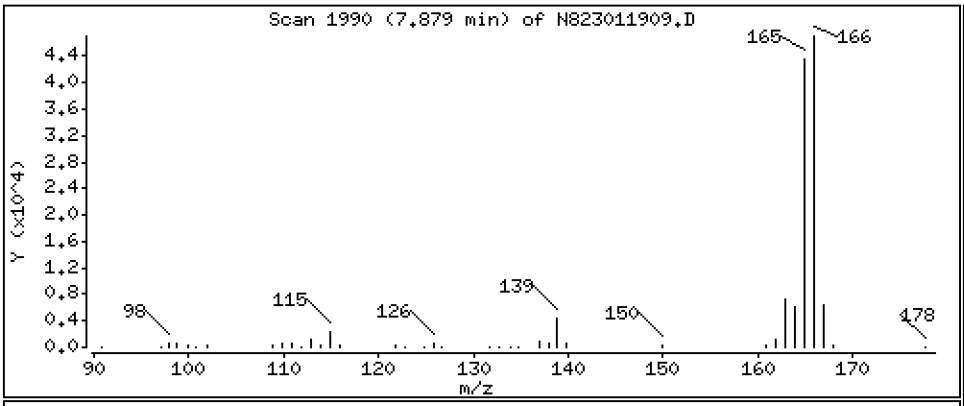
Operator: JZ

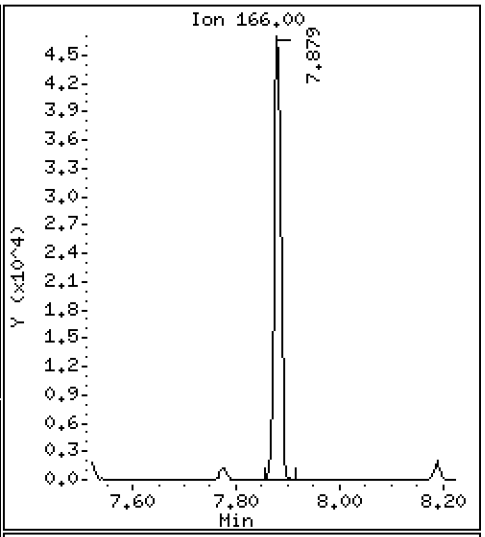
Column phase: Rxi-17sil

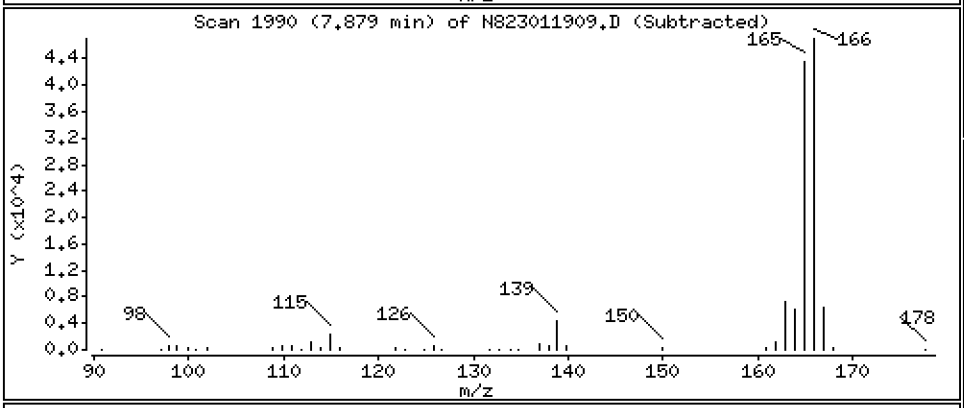
Column diameter: 0.25

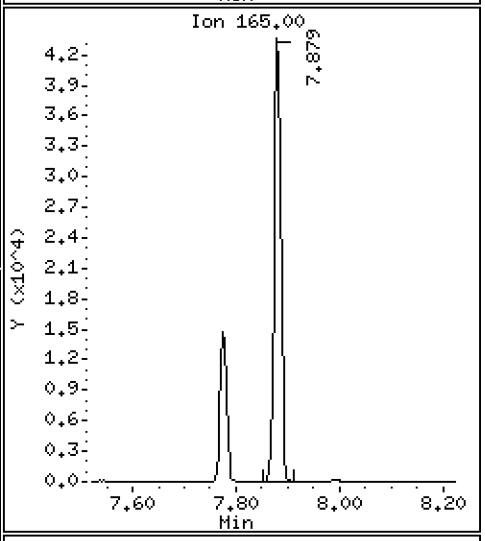
14 Fluorene

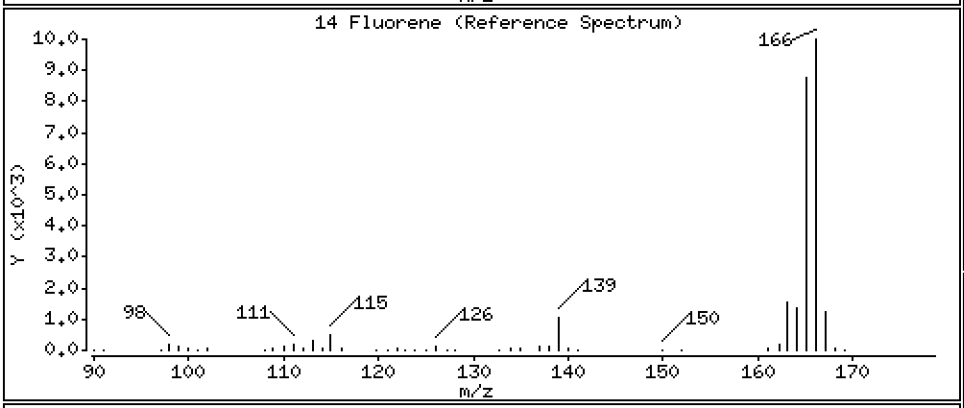
Concentration: 2.631 ug/L

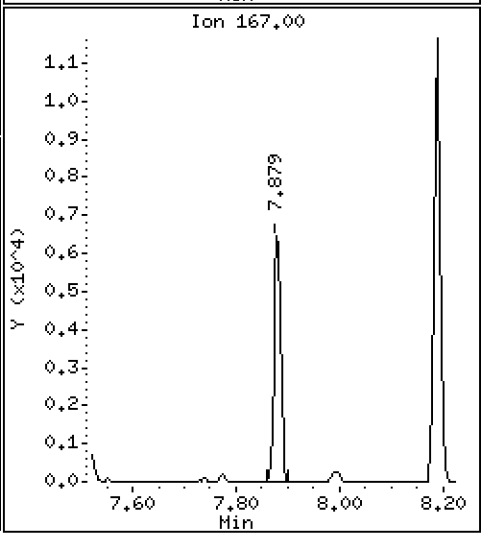


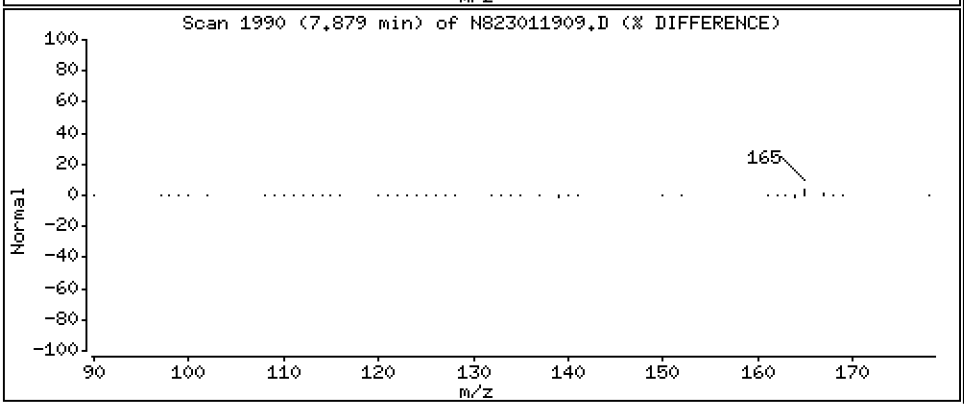












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

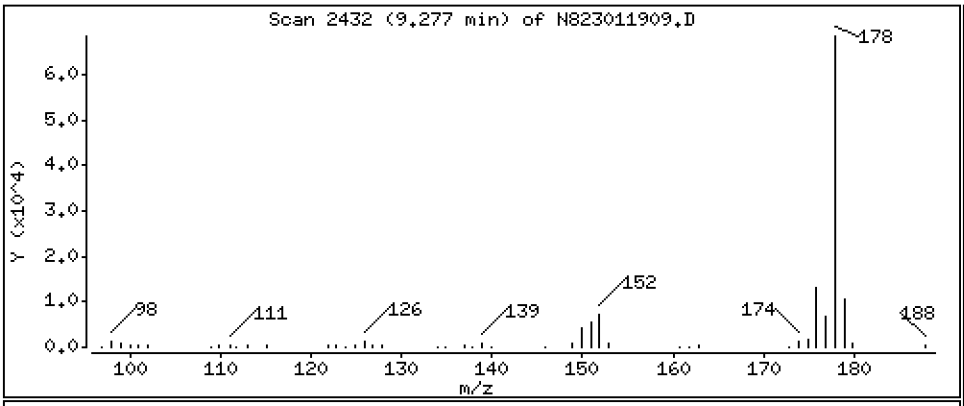
Operator: JZ

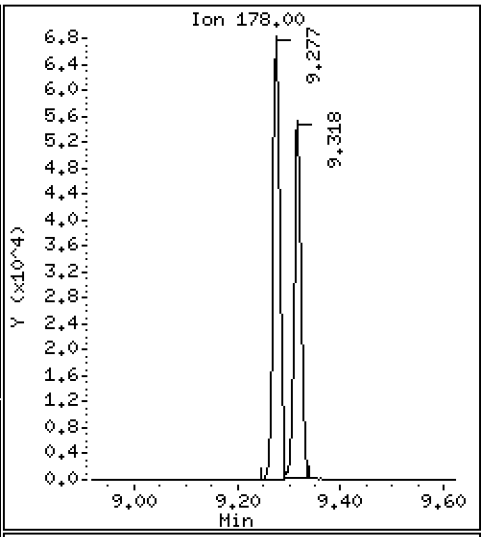
Column phase: Rxi-17sil

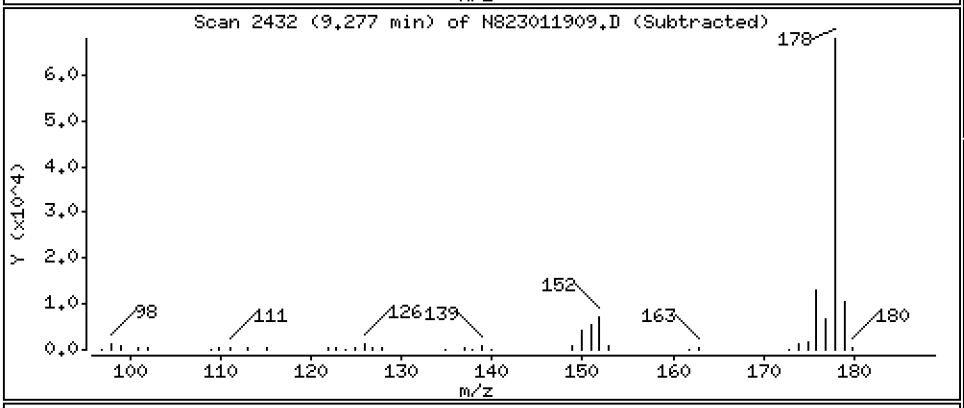
Column diameter: 0.25

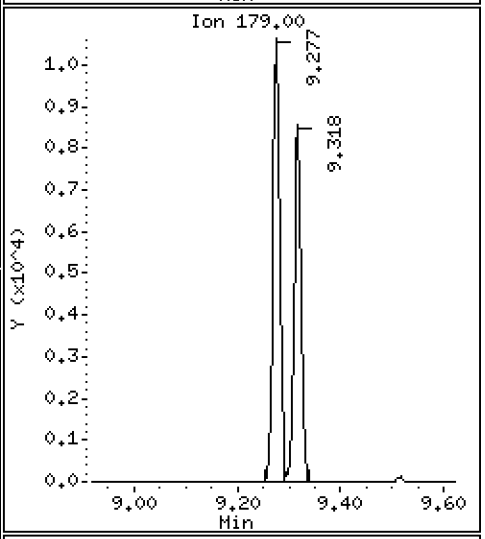
16 Phenanthrene

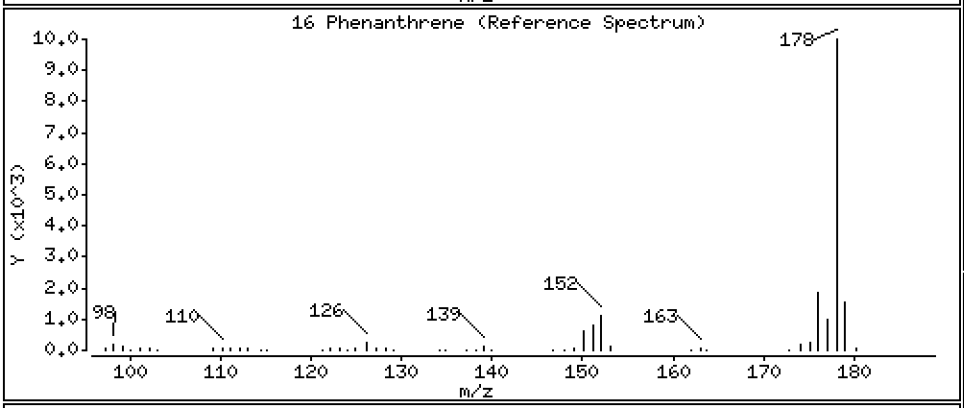
Concentration: 2.448 ug/L

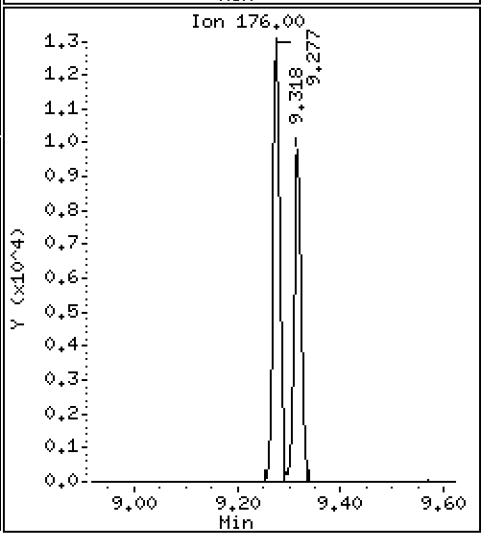


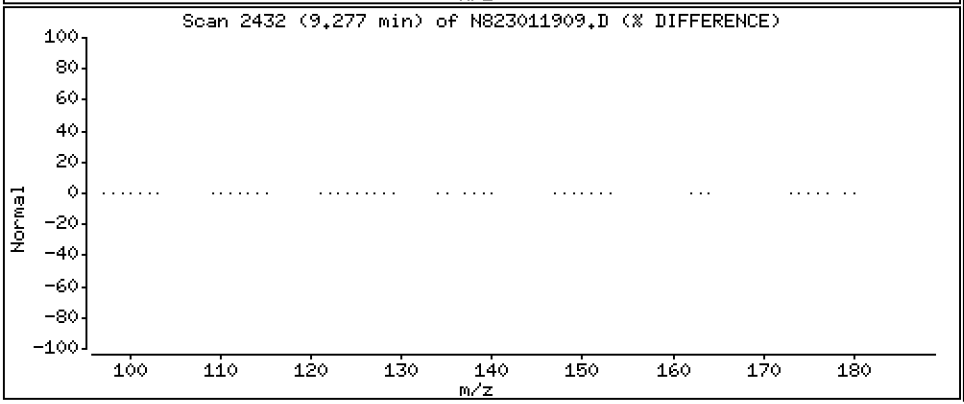












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

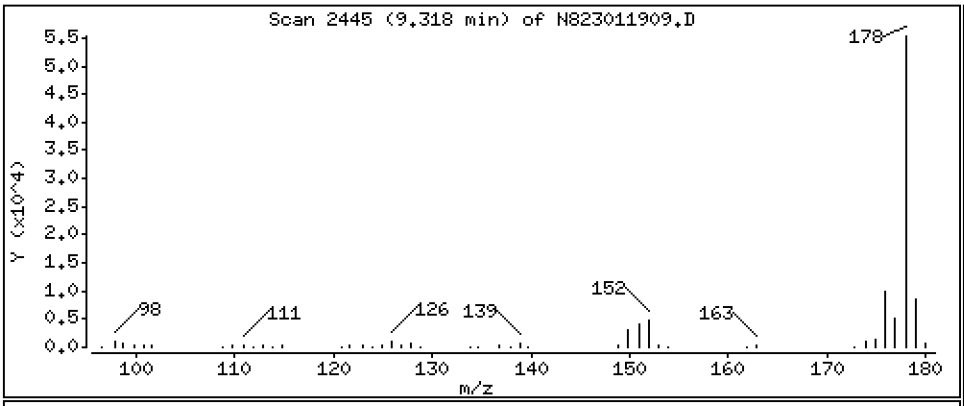
Operator: JZ

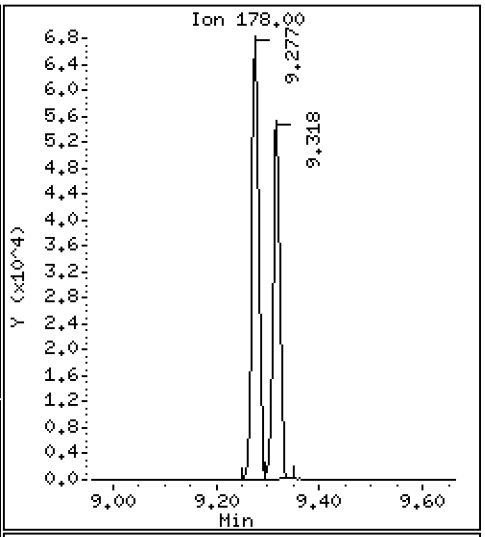
Column phase: Rxi-17sil

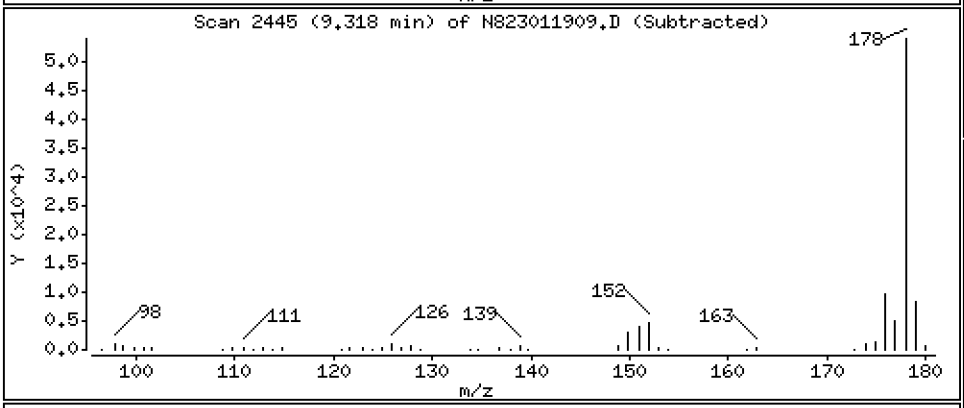
Column diameter: 0.25

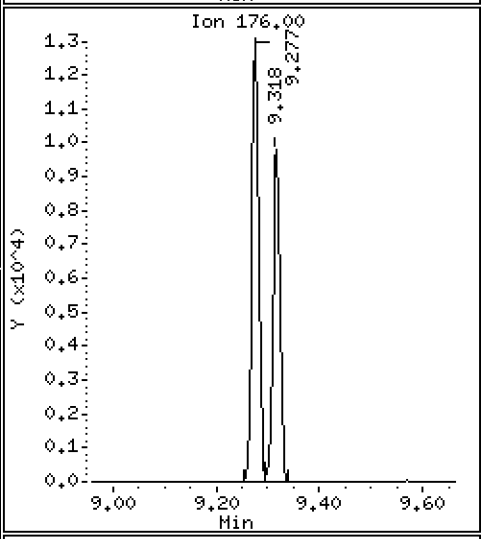
17 Anthracene

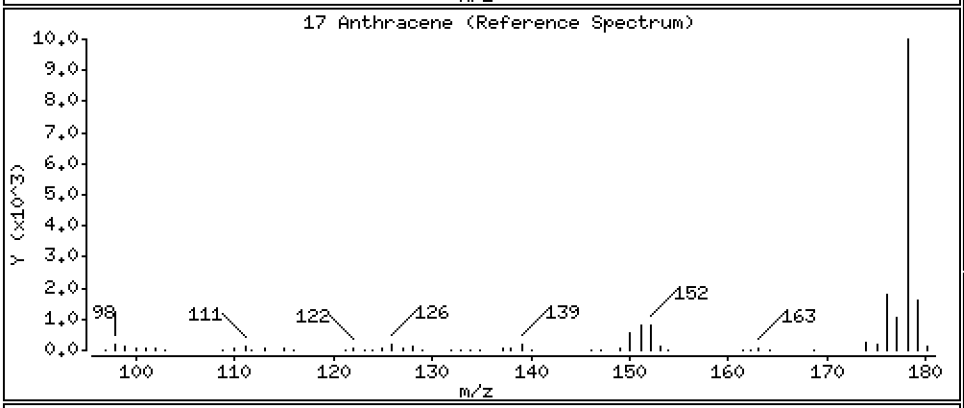
Concentration: 2.270 ug/L

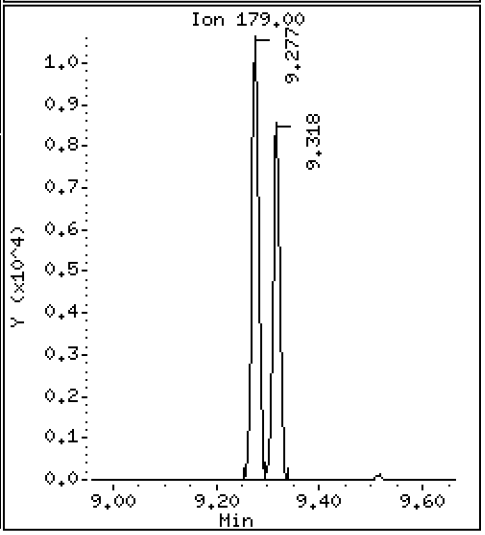


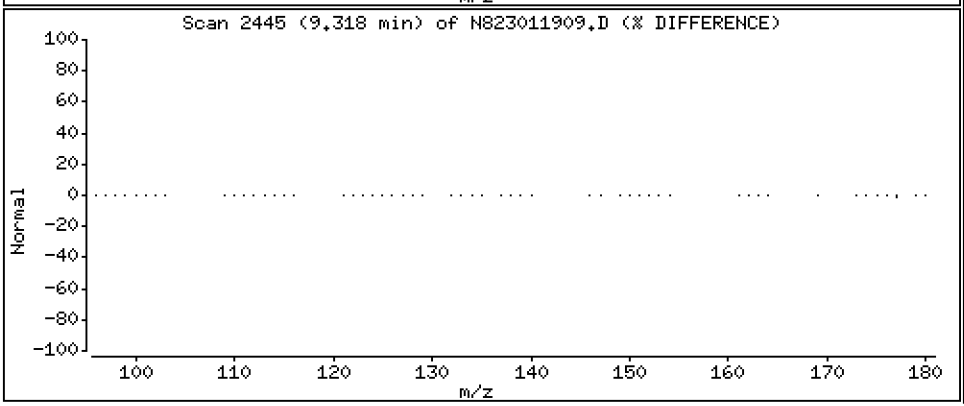












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

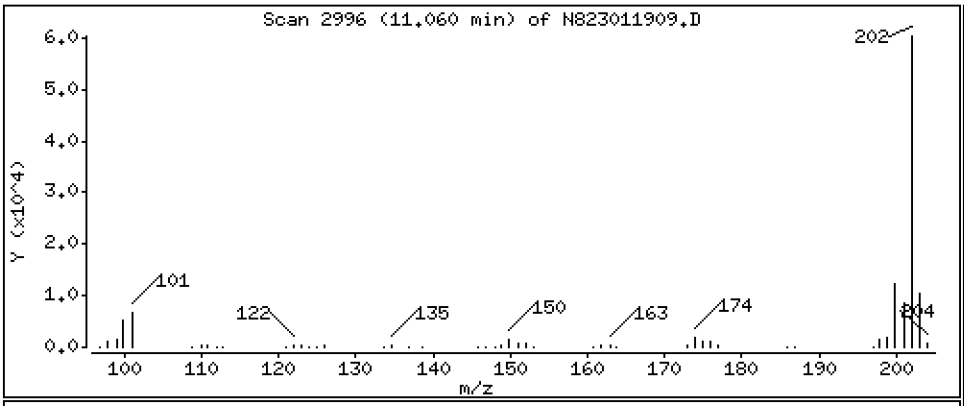
Operator: JZ

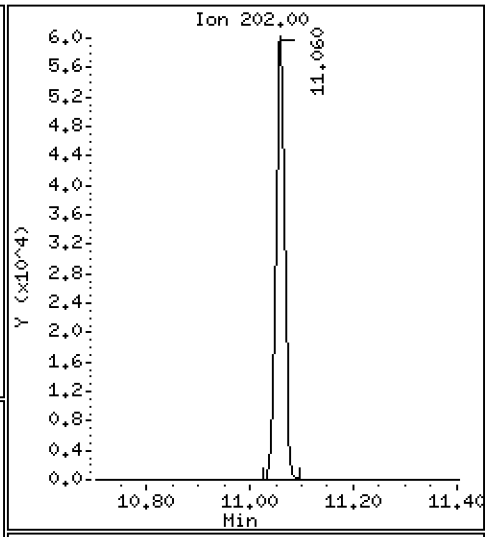
Column phase: Rxi-17sil

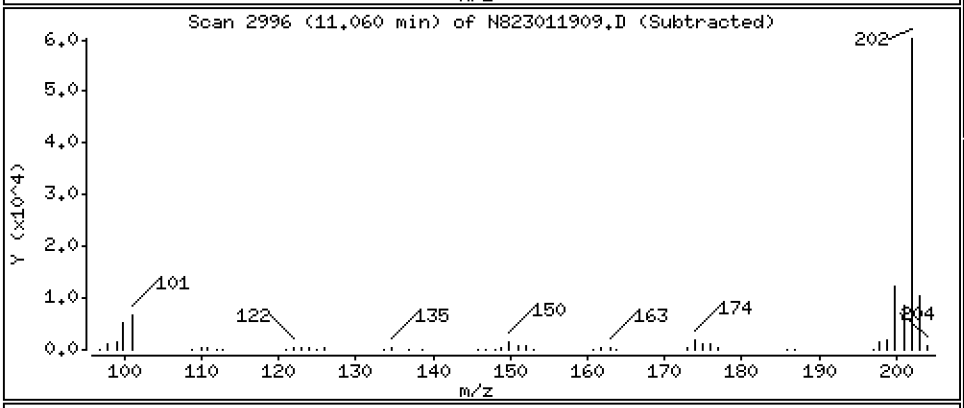
Column diameter: 0.25

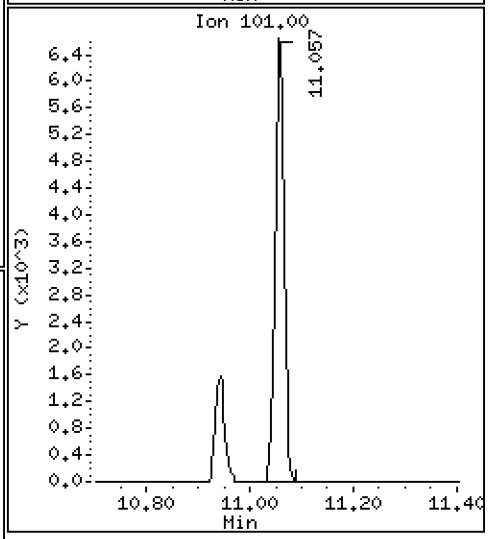
22 Fluoranthene

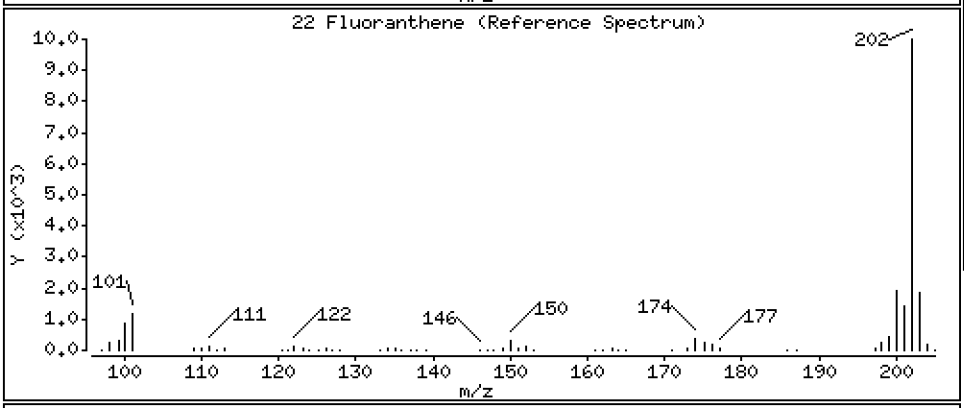
Concentration: 2.653 ug/L

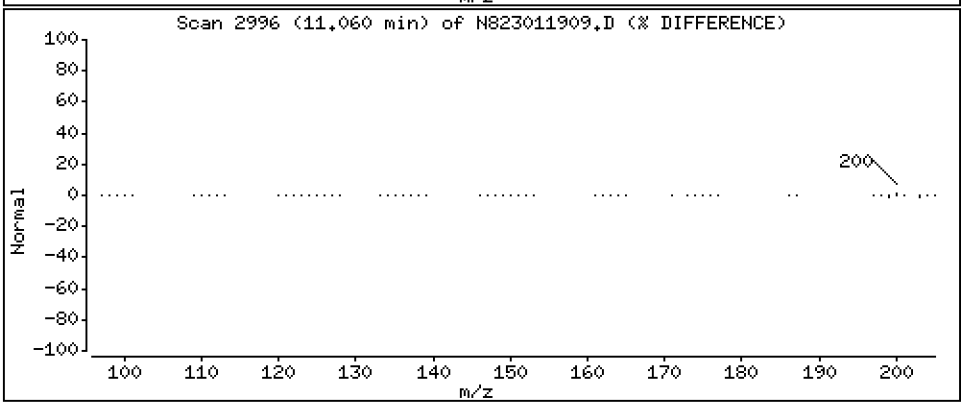












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

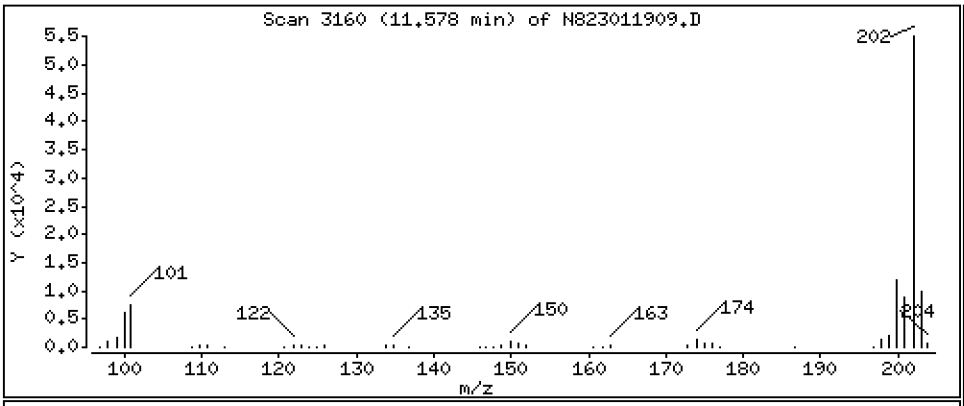
Operator: JZ

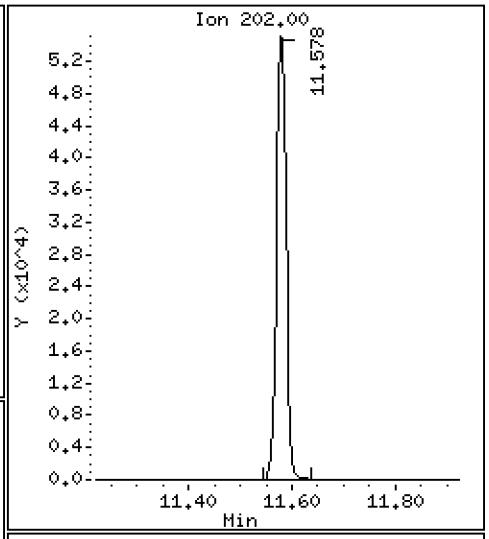
Column phase: Rxi-17sil

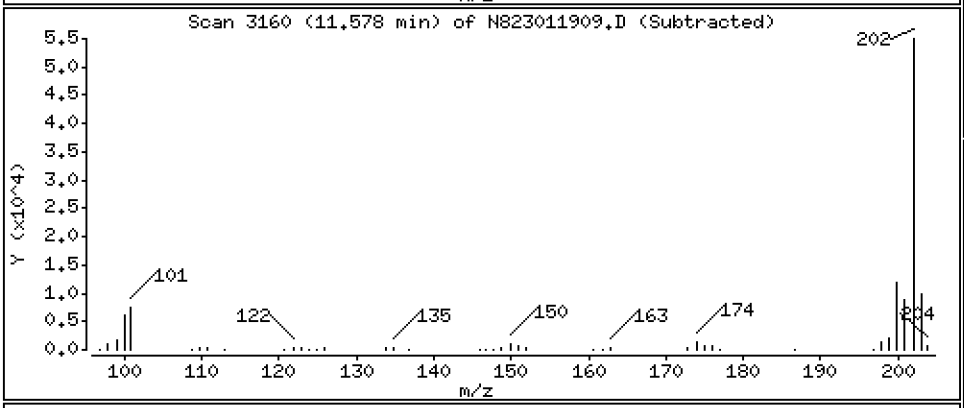
Column diameter: 0.25

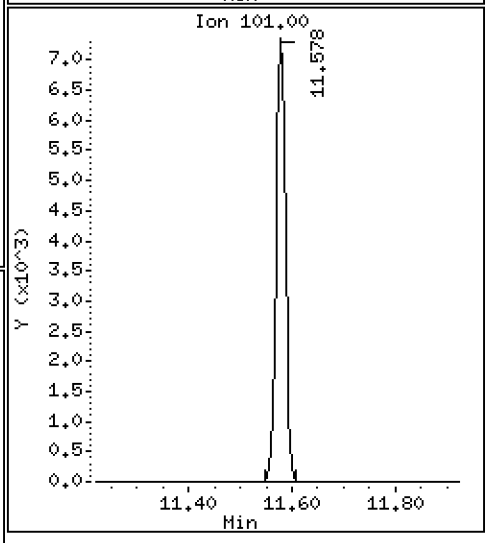
23 Pyrene

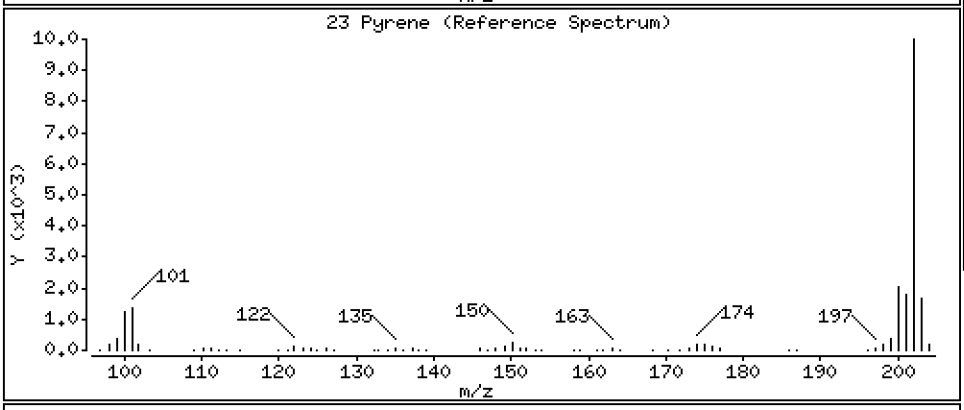
Concentration: 2.462 ug/L

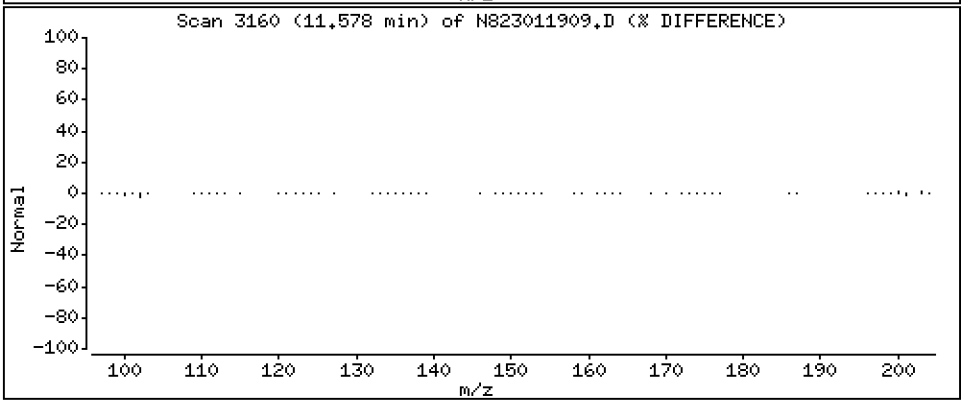












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Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

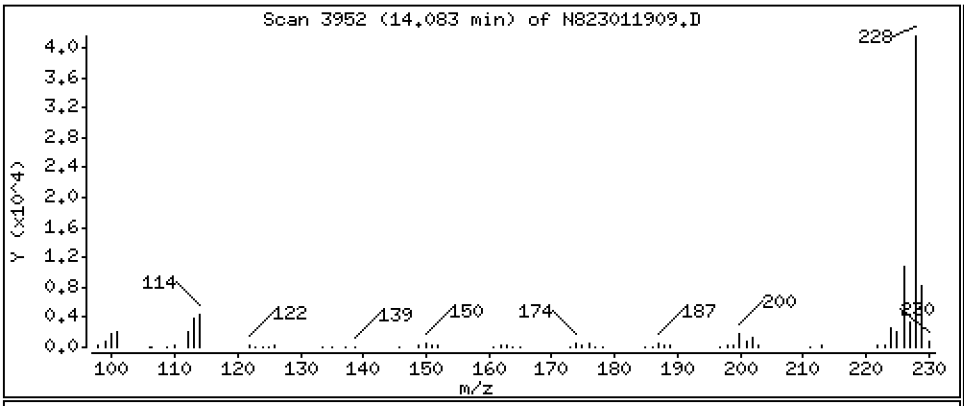
Operator: JZ

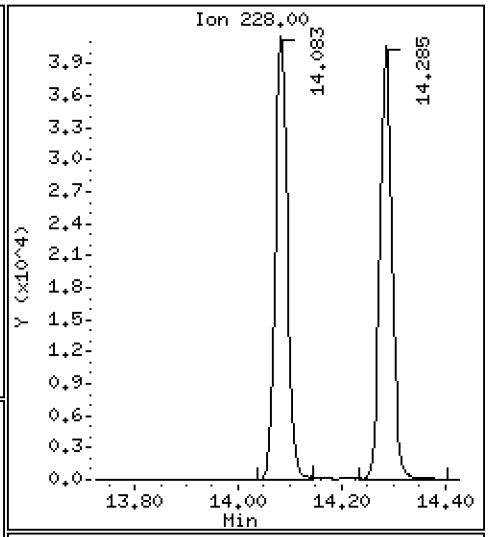
Column phase: Rxi-17sil

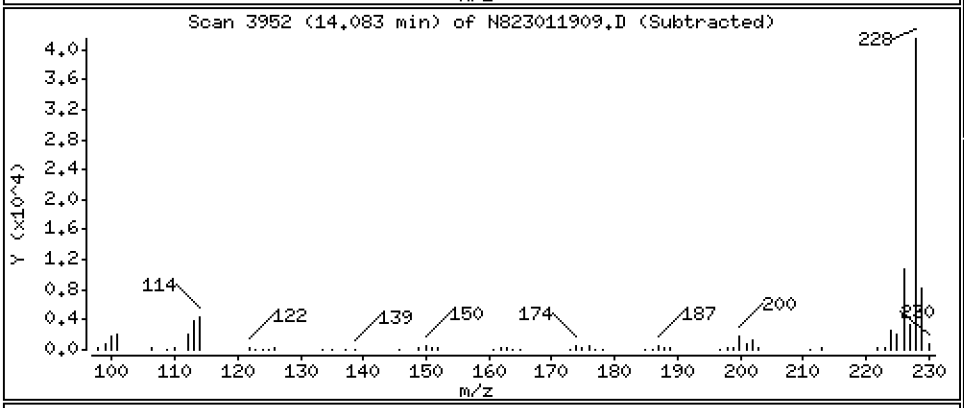
Column diameter: 0.25

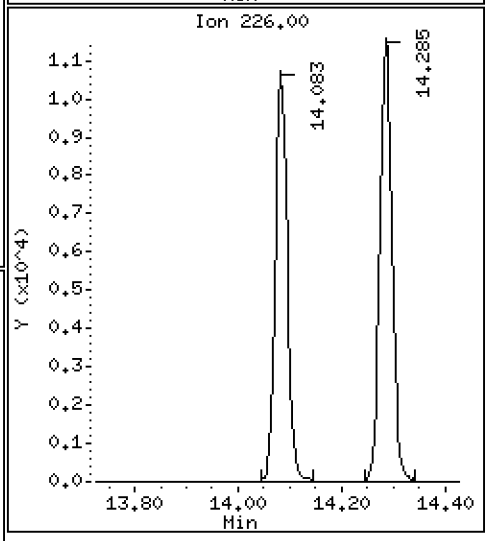
24 Benzo(a)anthracene

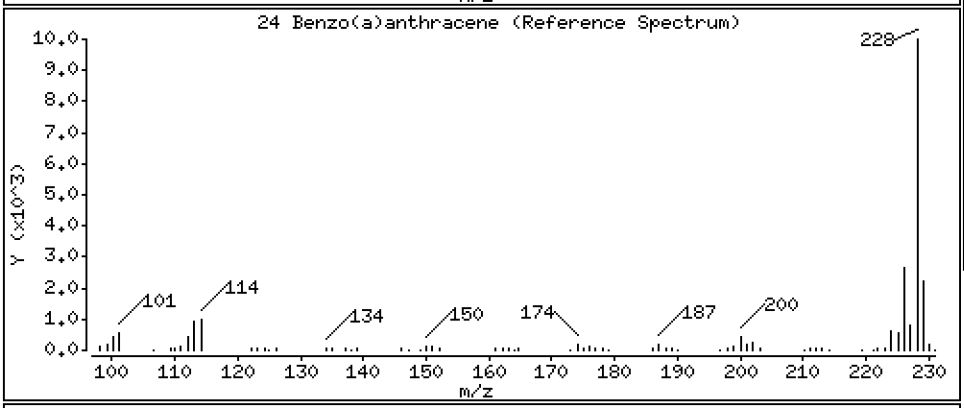
Concentration: 2.587 ug/L

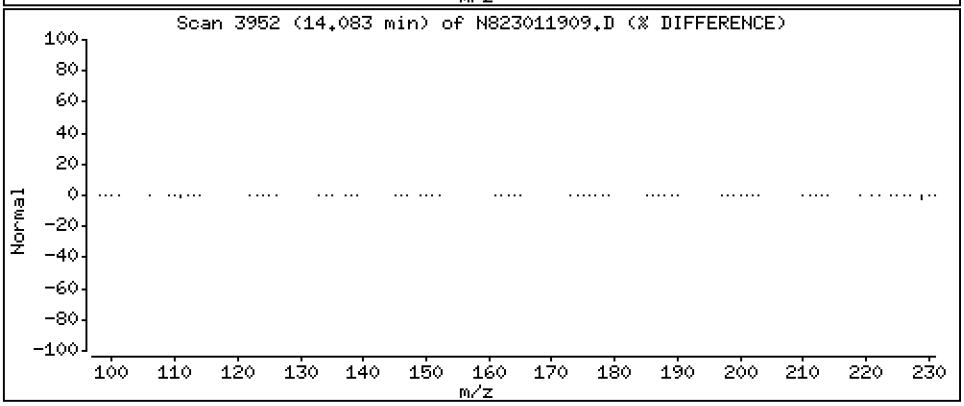












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

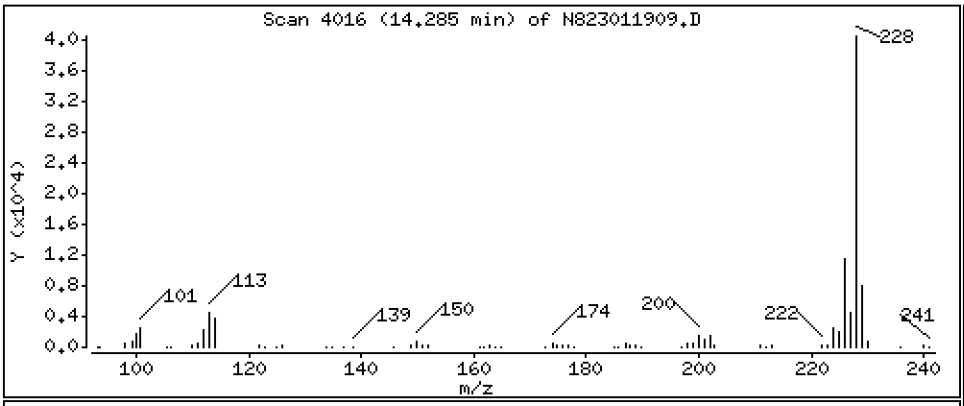
Operator: JZ

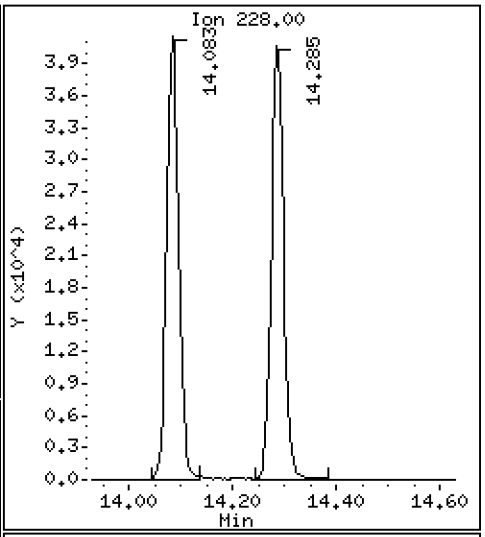
Column phase: Rxi-17sil

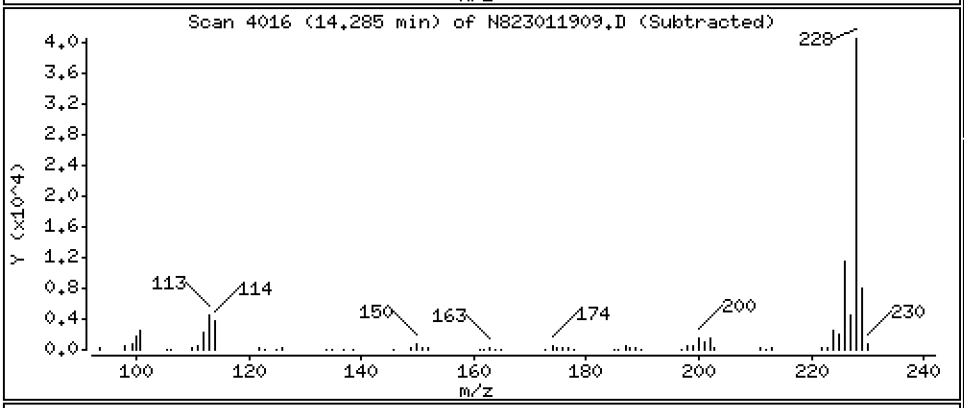
Column diameter: 0.25

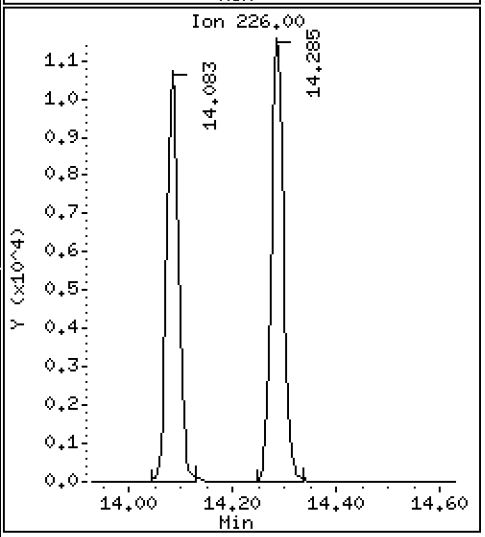
27 Chrysene

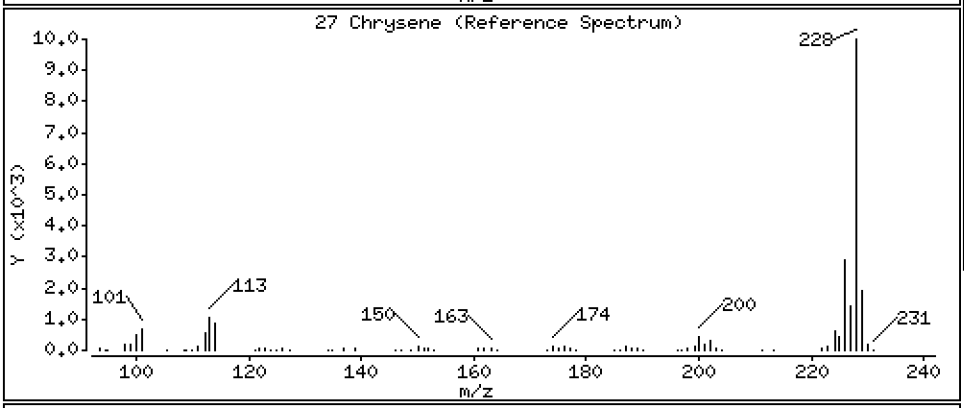
Concentration: 2.400 ug/L

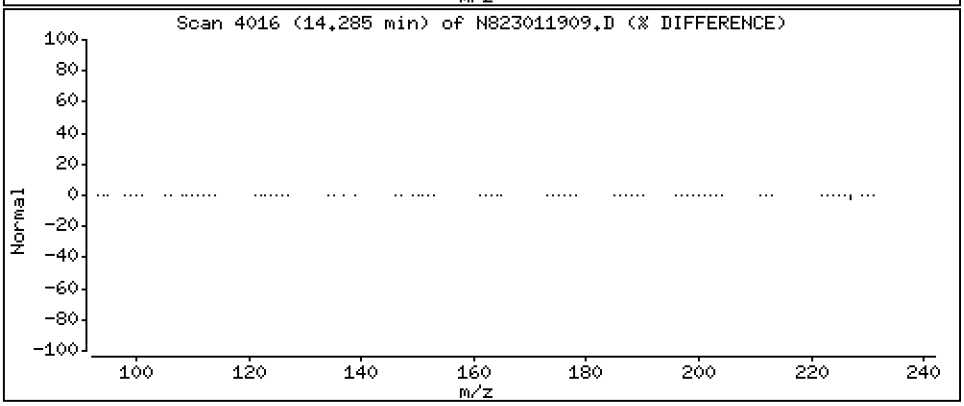












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

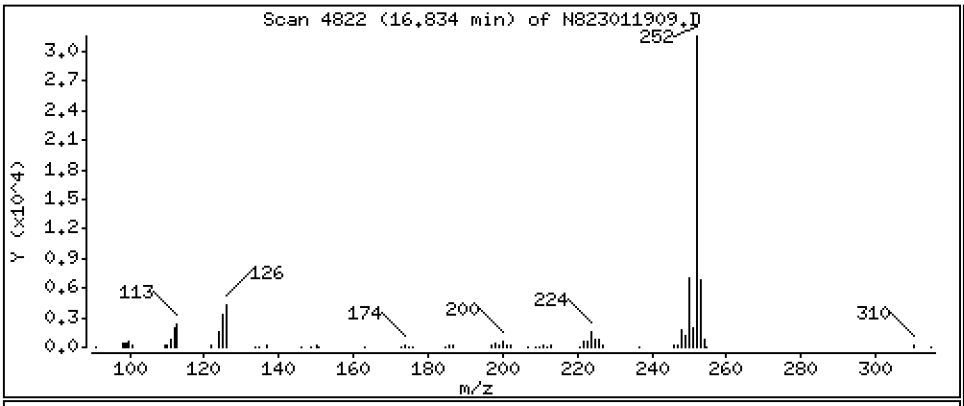
Operator: JZ

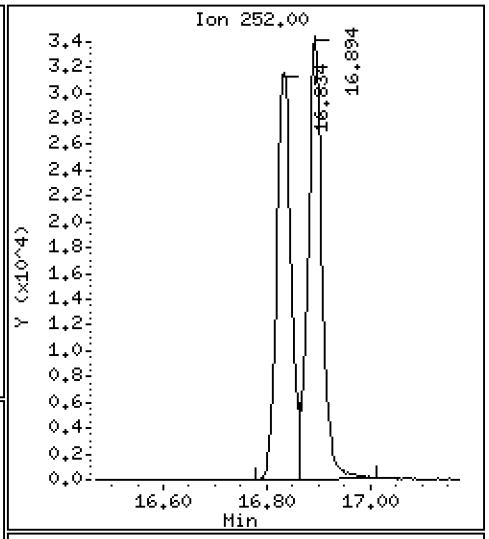
Column phase: Rxi-17sil

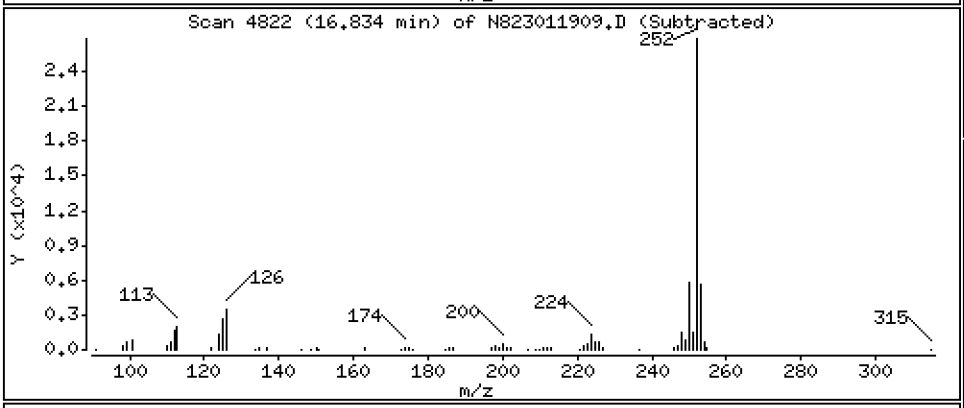
Column diameter: 0.25

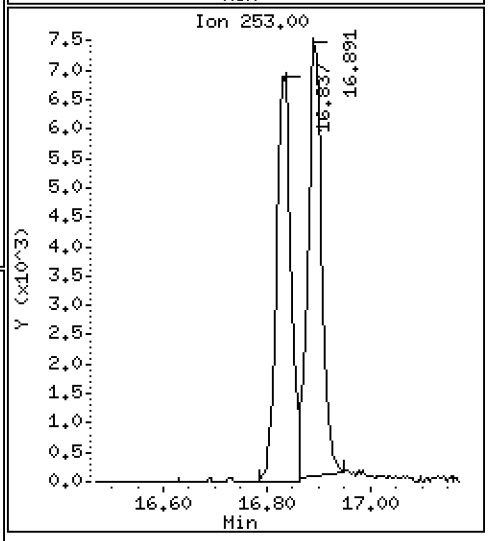
28 Benzo(b)fluoranthene

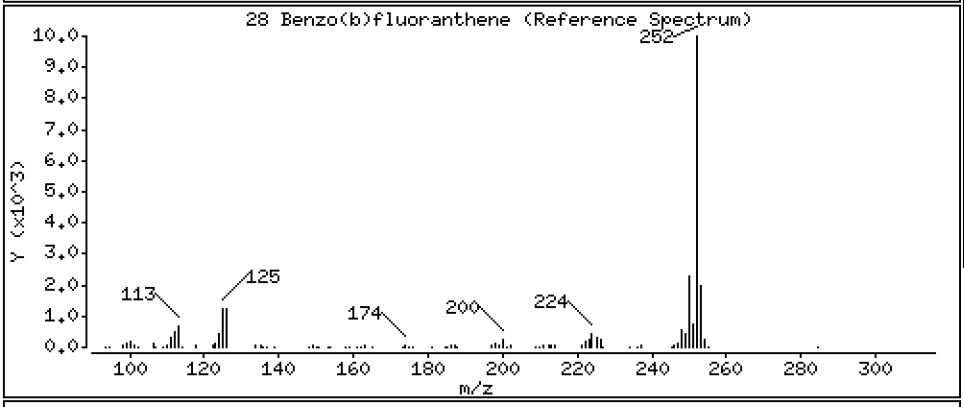
Concentration: 2.507 ug/L

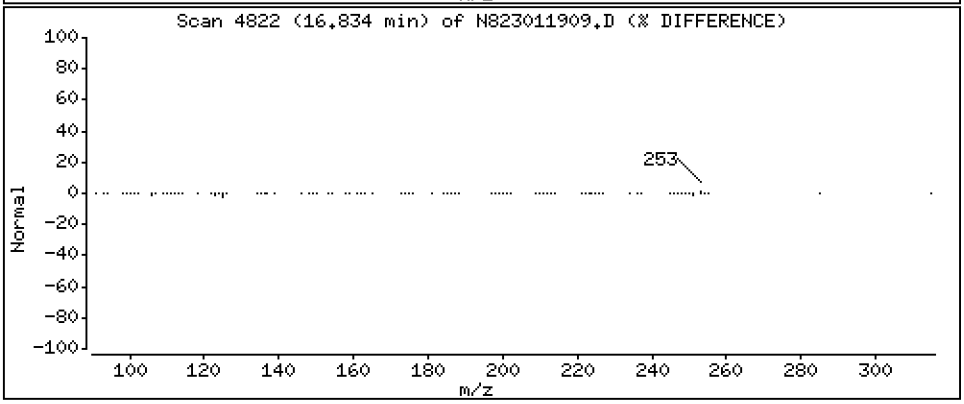












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

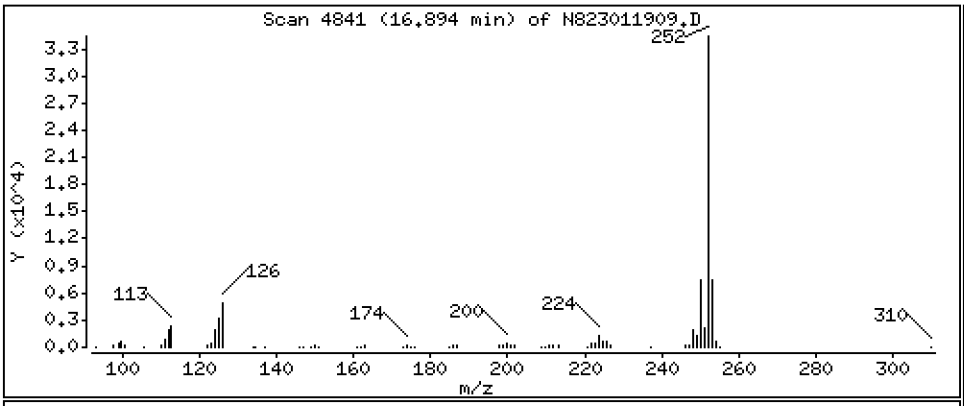
Operator: JZ

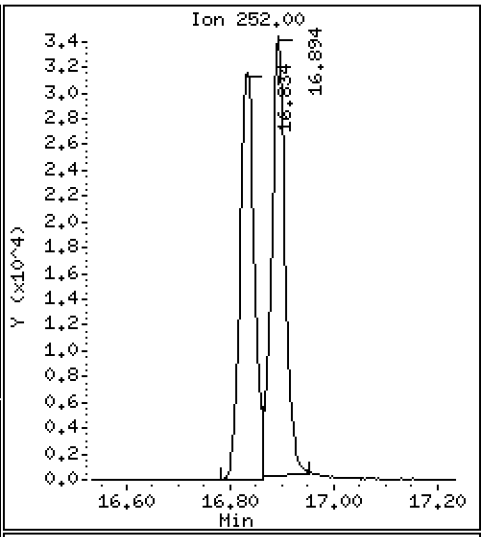
Column phase: Rxi-17sil

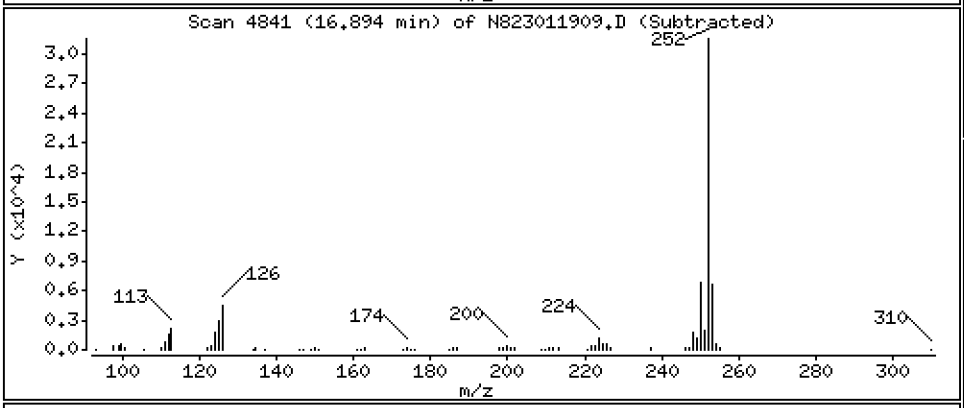
Column diameter: 0.25

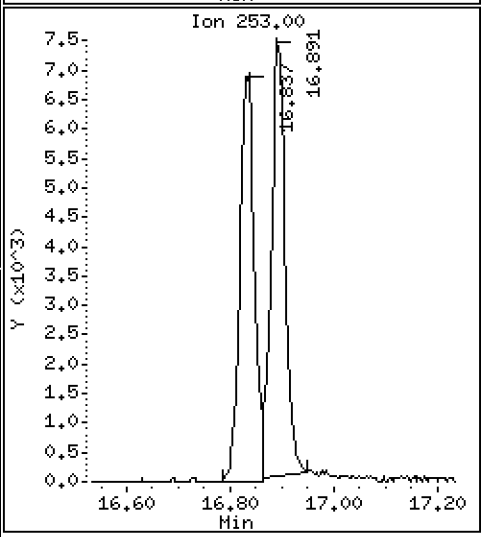
29 Benzo(k)fluoranthene

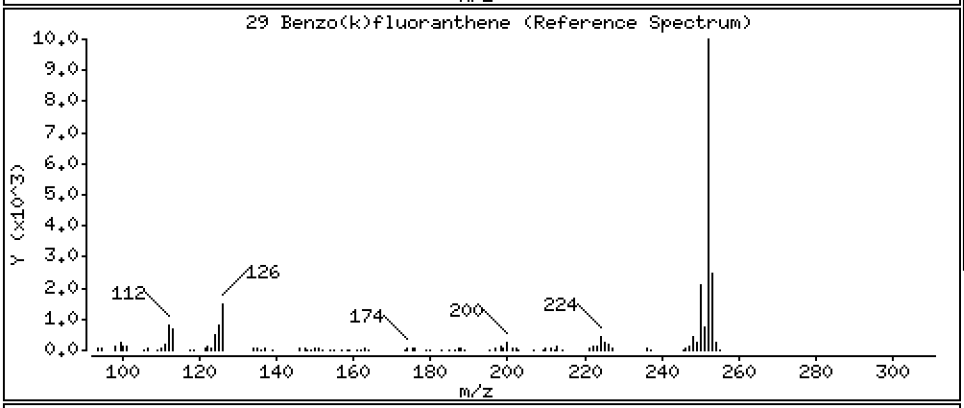
Concentration: 2.656 ug/L

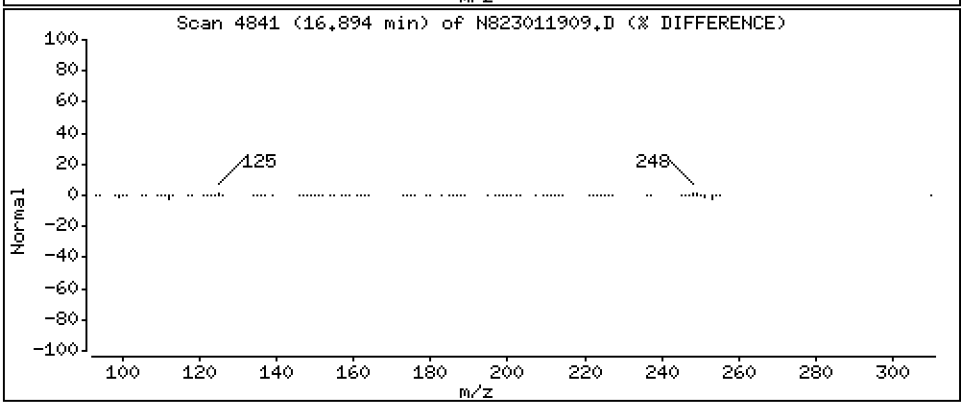












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

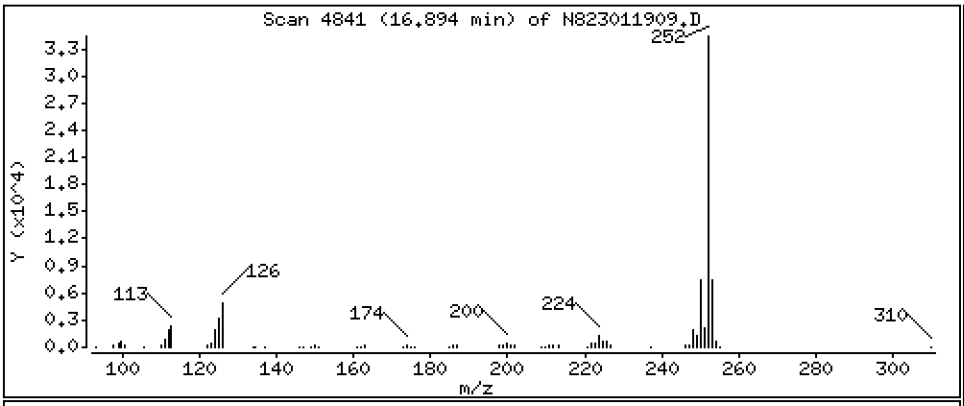
Operator: JZ

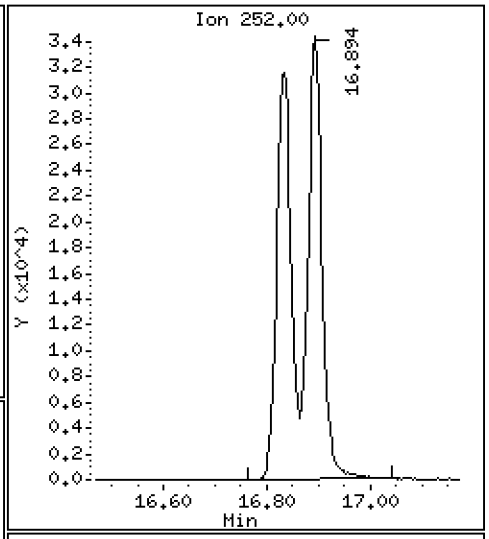
Column phase: Rxi-17sil

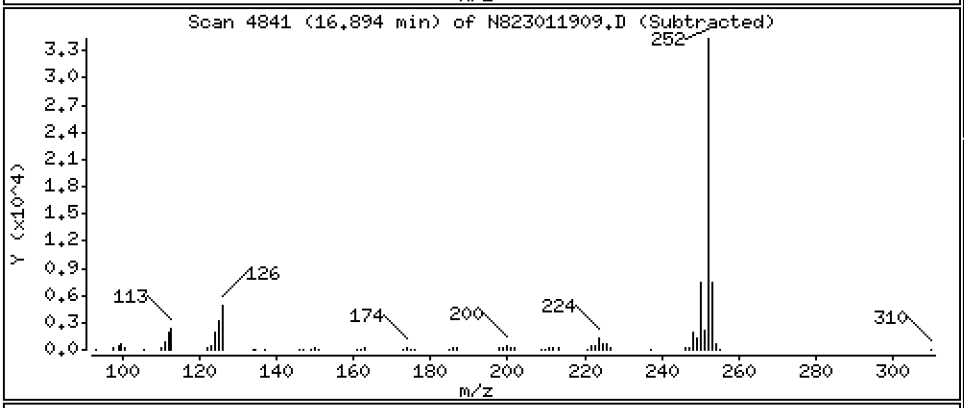
Column diameter: 0.25

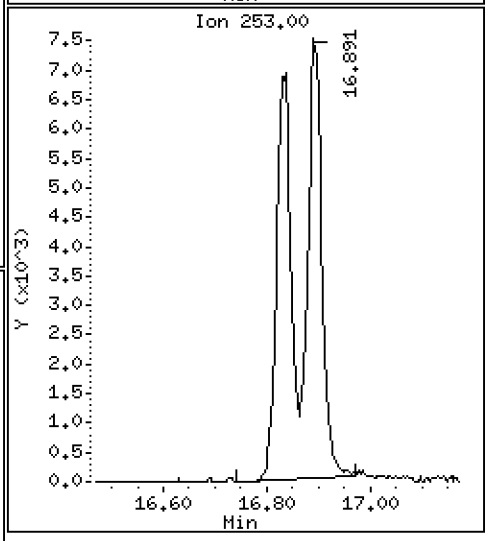
31 Total Benzofluoranthenes

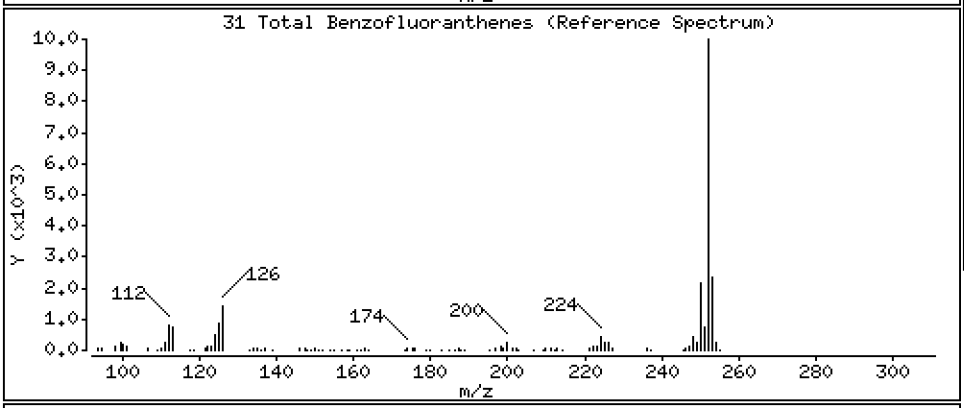
Concentration: 5.480 ug/L

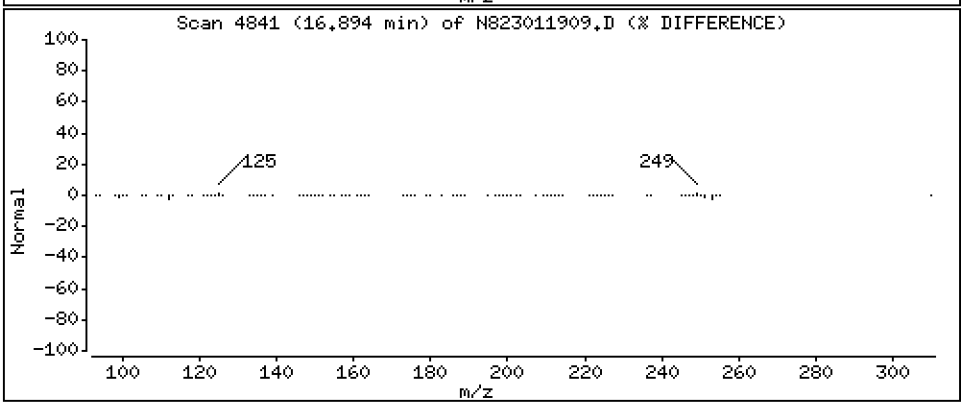












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

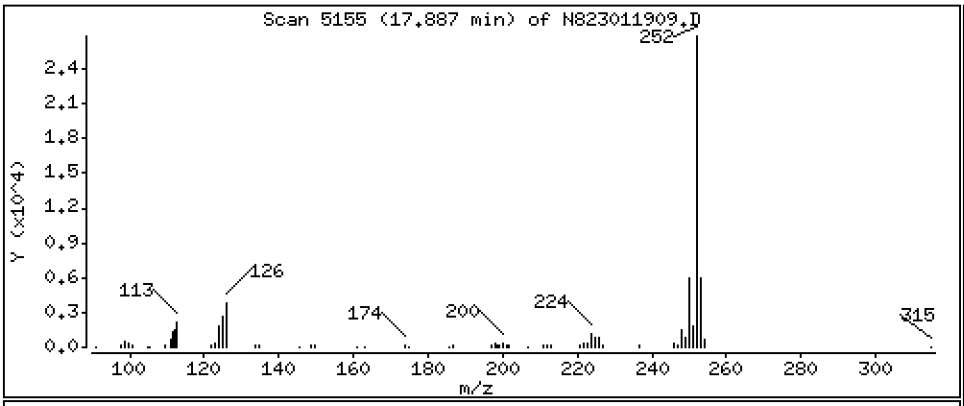
Operator: JZ

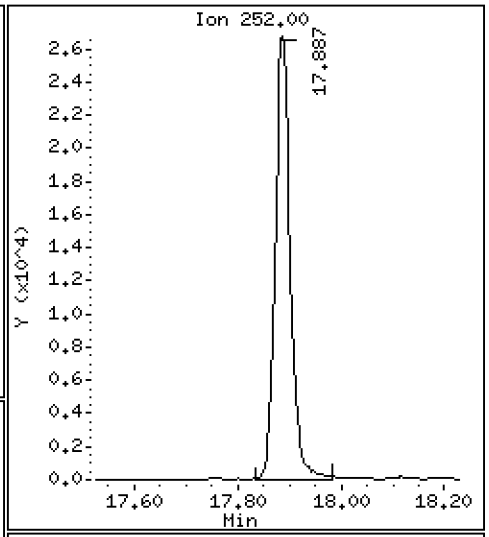
Column phase: Rxi-17sil

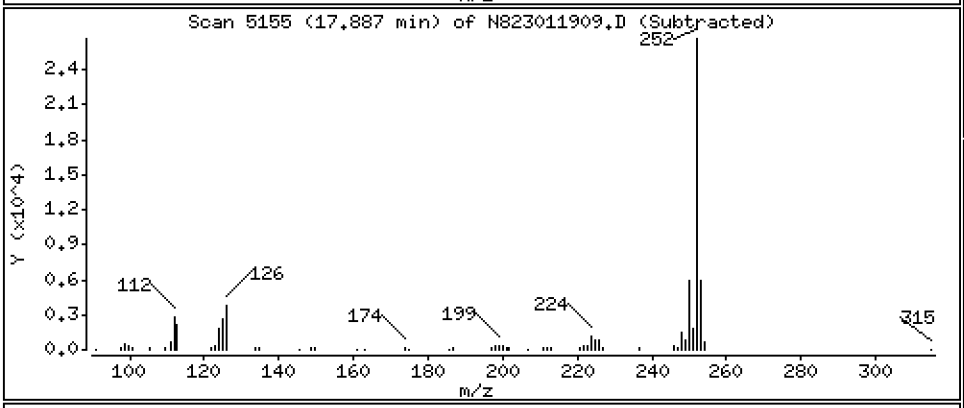
Column diameter: 0.25

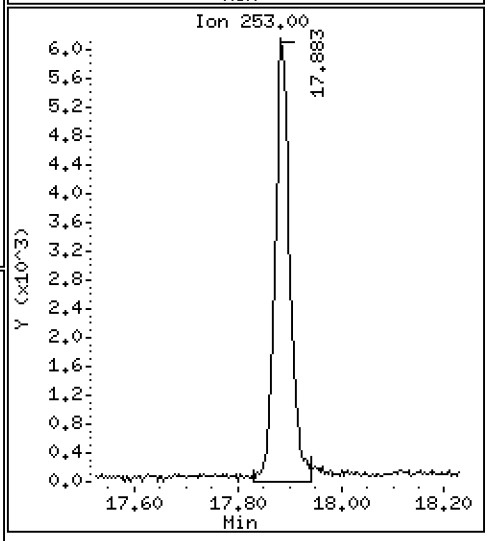
32 Benzo(a)pyrene

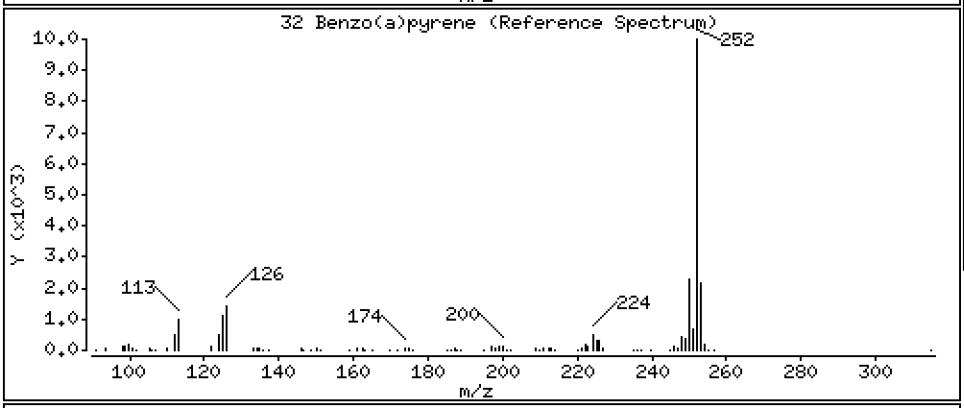
Concentration: 2.572 ug/L

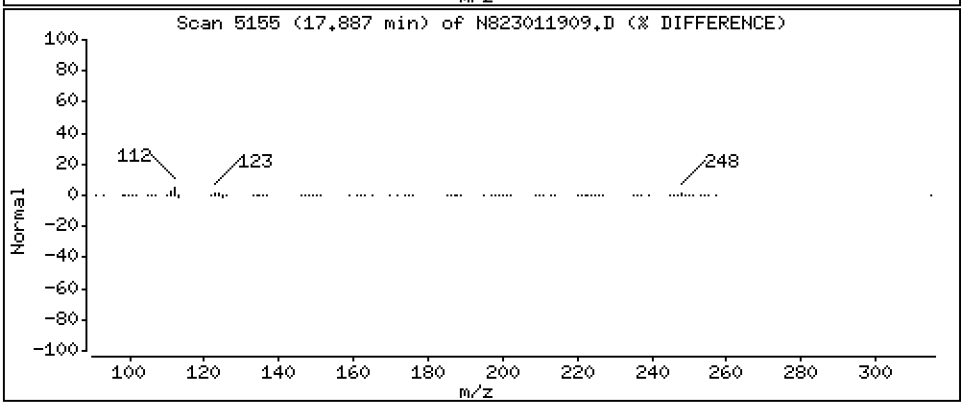












Date : 19-JAN-2023 14:58

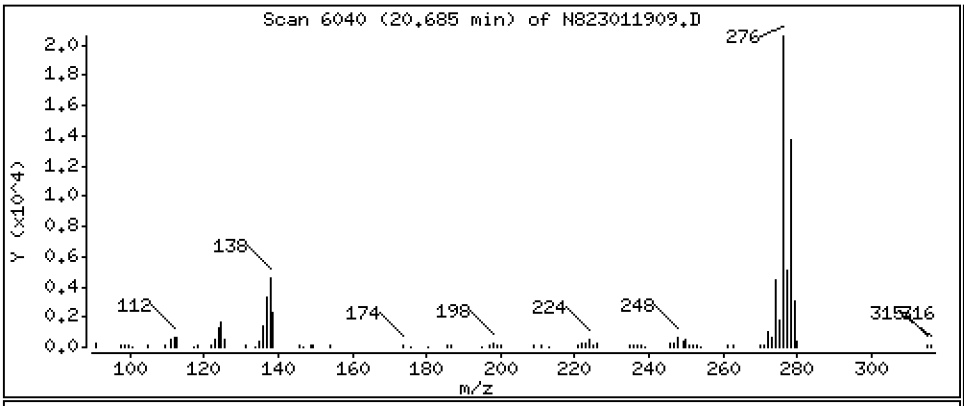
Client ID: Instrument: nt8.i

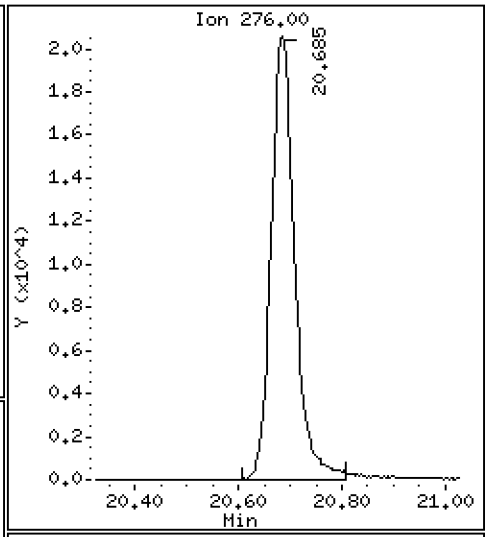
Sample Info: SCV230119

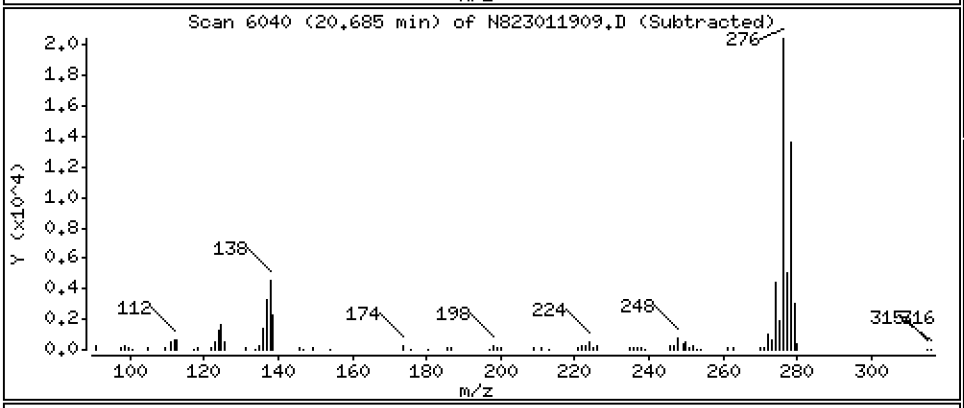
Volume Injected (uL): 1.0 Operator: JZ

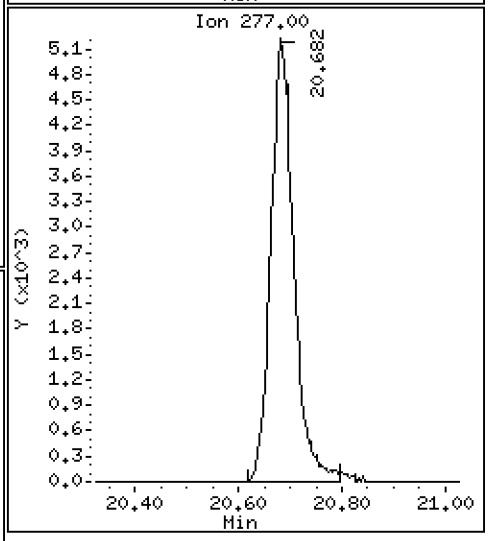
Column phase: Rxi-17sil Column diameter: 0.25

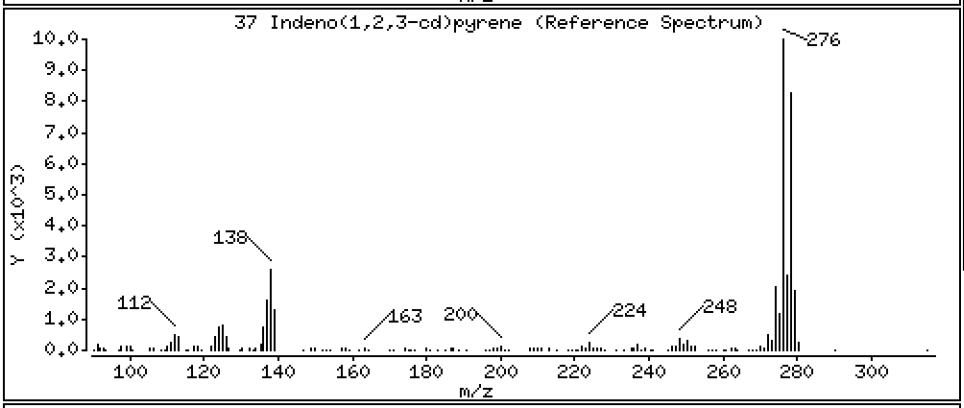
37 Indeno(1,2,3-cd)pyrene Concentration: 2.689 ug/L

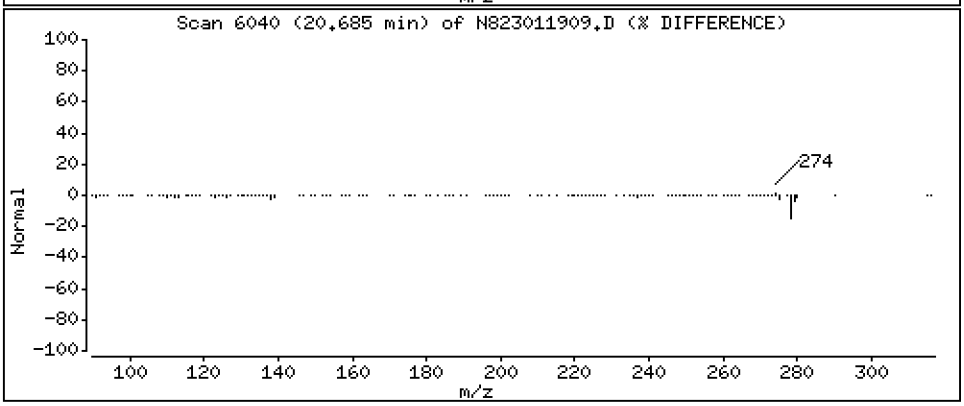












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

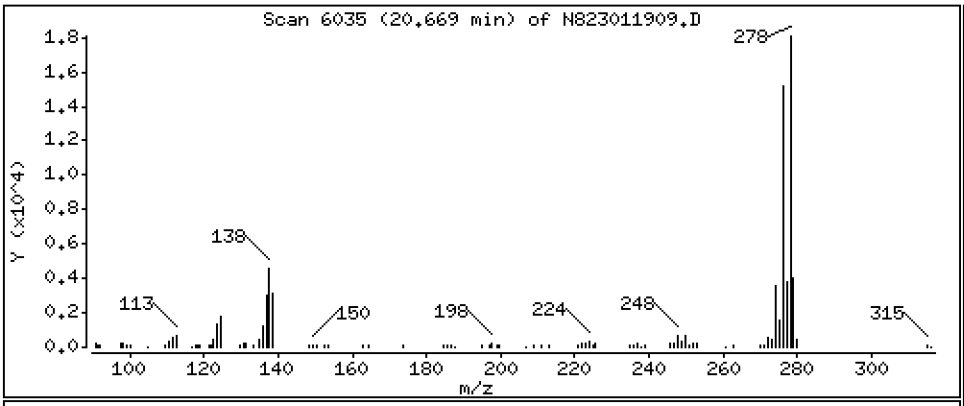
Operator: JZ

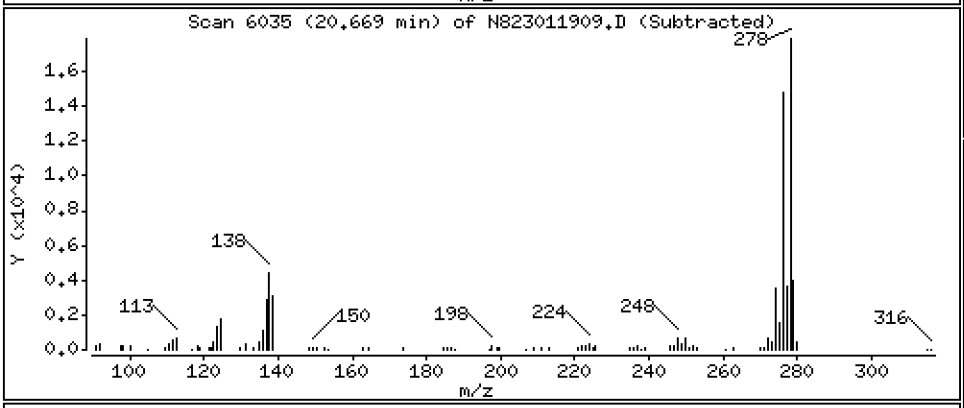
Column phase: Rxi-17sil

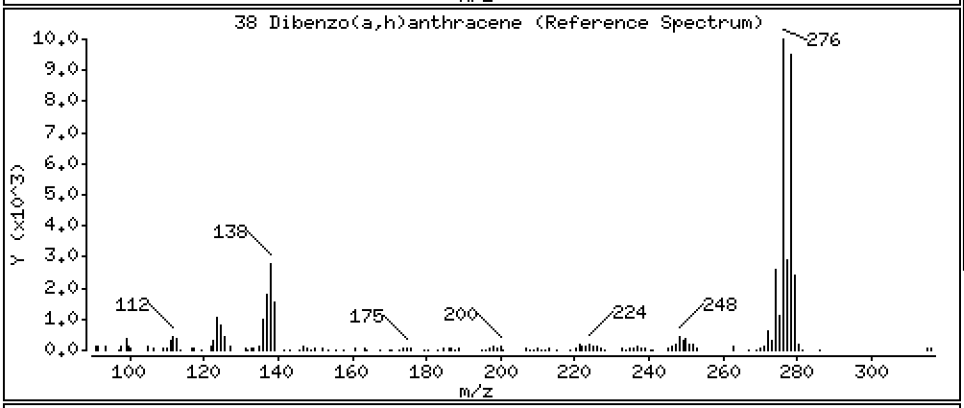
Column diameter: 0.25

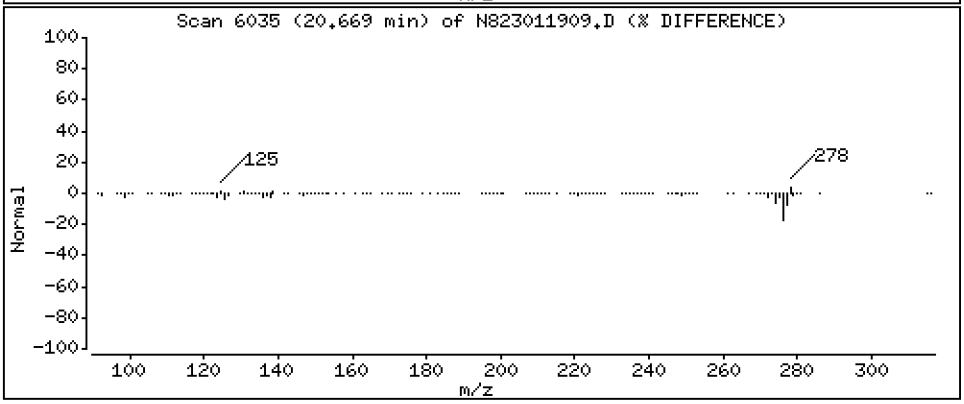
38 Dibenzo(a,h)anthracene

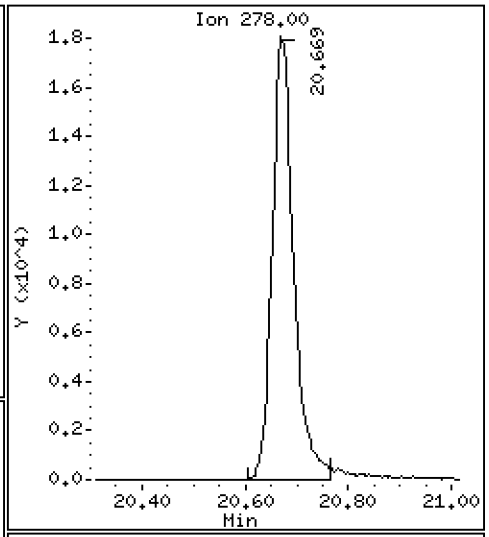
Concentration: 2.493 ug/L

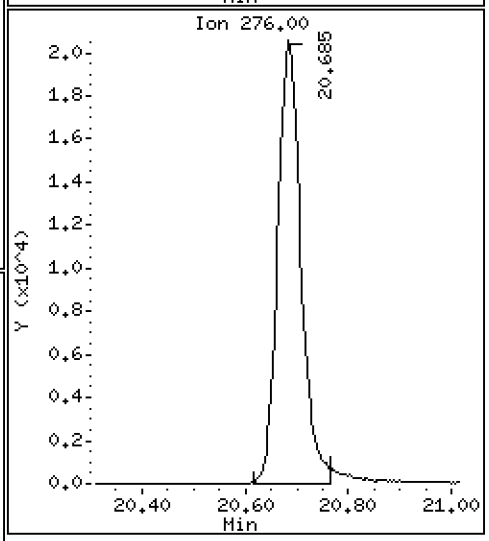












Data File: \\target\share\chem3\nt8.i\20230119.b\N823011909.D

Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

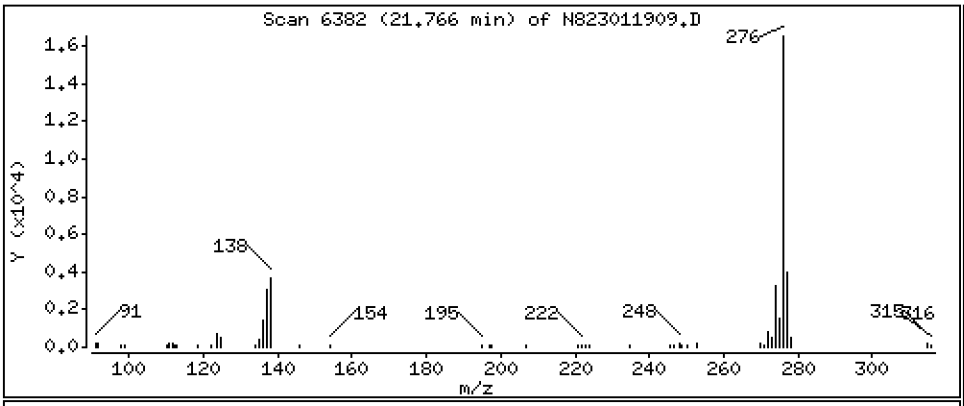
Operator: JZ

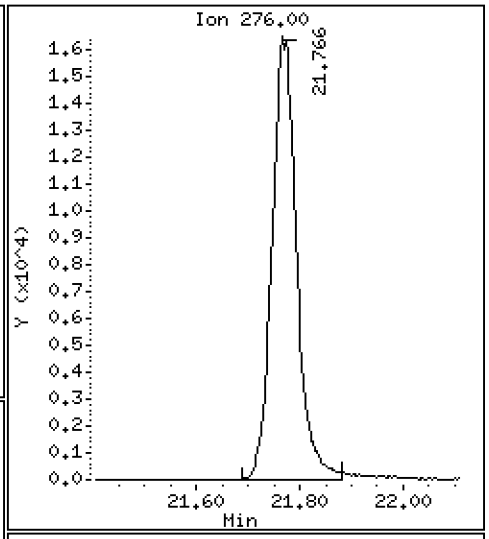
Column phase: Rxi-17sil

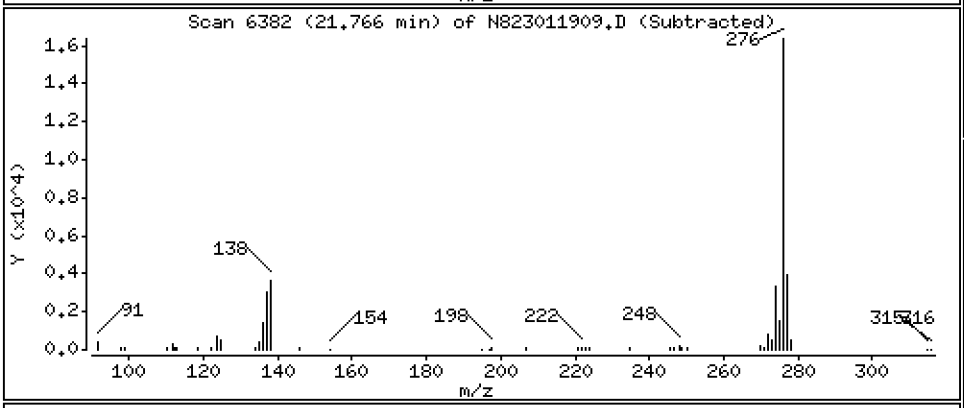
Column diameter: 0.25

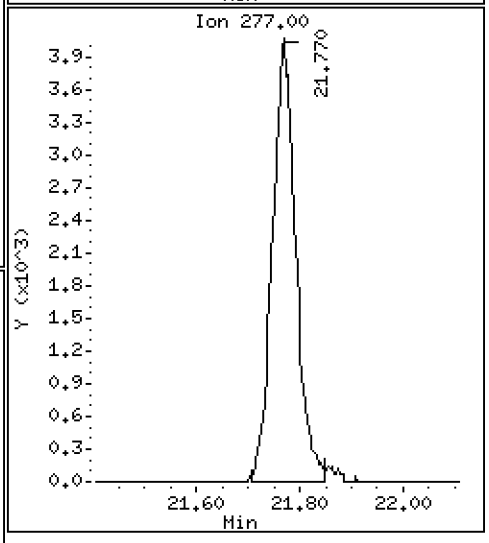
39 Benzo(g,h,i)perylene

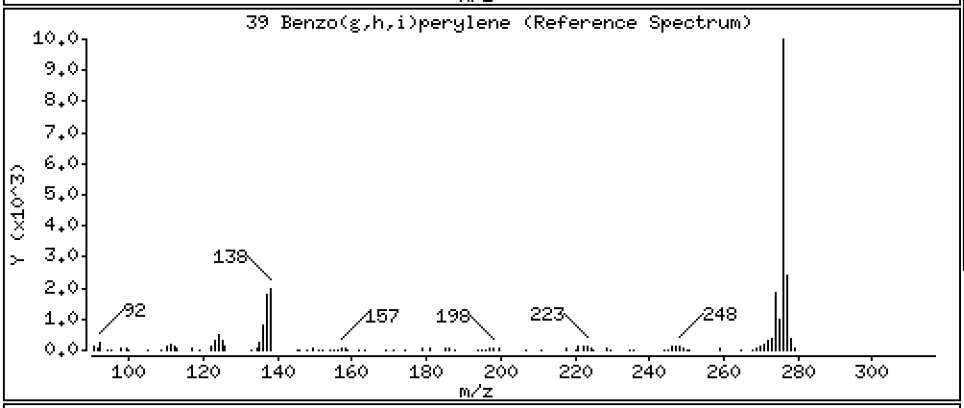
Concentration: 2.483 ug/L

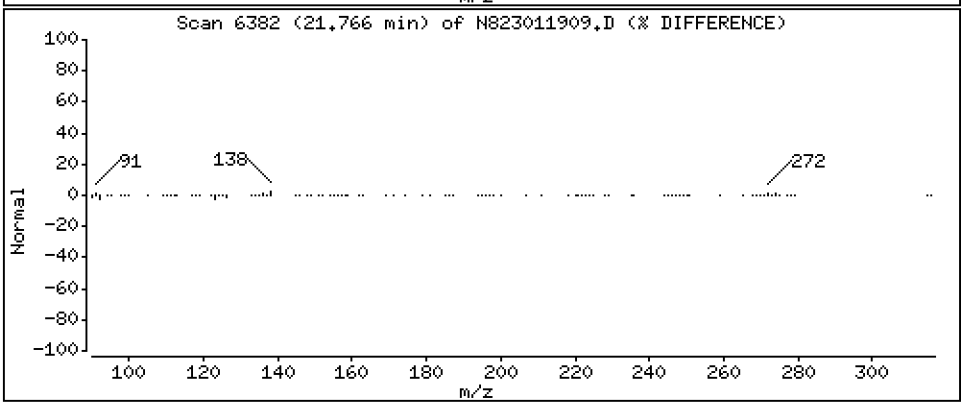












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011909.D
Lab Smp Id: SLA0213-SCV1
Inj Date : 19-JAN-2023 14:58
Operator : JZ Inst ID: nt8.i
Smp Info : SCV230119
Misc Info : 23-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Meth Date : 25-Jan-2023 21:57 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnascv.sub
Target Version: 4.14
Processing Host: JIANQING-202105

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
* 1 Naphthalene-d8	136	4.913	4.906	(1.000)	46346	2.00000	
2 Naphthalene	128	4.941	4.938	(1.006)	56587	2.62597	2.626
$ 3 2-Methylnaphthalene-d10	152	Compound Not Detected.					
4 2-Methylnaphthalene	141	5.694	5.687	(1.159)	31650	2.67019	2.670
5 1-methylnaphthalene	141	5.890	5.883	(1.199)	31873	2.64949	2.649
9 Acenaphthylene	152	7.091	7.085	(0.985)	59018	2.82060	2.821
* 10 Acenaphthene-d10	164	7.202	7.196	(1.000)	27709	2.00000	
11 Acenaphthene	153	7.249	7.246	(1.007)	36454	2.60022	2.600
12 Dibenzofuran	168	7.401	7.395	(1.028)	60898	2.85987	2.860
14 Fluorene	166	7.878	7.872	(1.094)	43507	2.63066	2.631
* 15 Phenanthrene-d10	188	9.238	9.235	(1.000)	51685	2.00000	
16 Phenanthrene	178	9.276	9.270	(1.004)	61815	2.44841	2.448
17 Anthracene	178	9.317	9.311	(1.009)	52064	2.27006	2.270
22 Fluoranthene	202	11.059	11.053	(1.197)	72902	2.65276	2.653
$ 21 Fluoranthene-d10	212	Compound Not Detected.					
23 Pyrene	202	11.578	11.572	(0.815)	71115	2.46242	2.462
24 Benzo(a)anthracene	228	14.082	14.076	(0.991)	67725	2.58725	2.587
* 25 Chrysene-d12	240	14.212	14.202	(1.000)	46582	2.00000	
27 Chrysene	228	14.285	14.278	(1.005)	66872	2.39976	2.400
28 Benzo(b)fluoranthene	252	16.833	16.821	(0.929)	60946	2.50689	2.507
29 Benzo(k)fluoranthene	252	16.893	16.884	(0.932)	63249	2.65606	2.656
31 Total Benzofluoranthenes	252	16.893	16.821	(0.932)	126178	5.48025	5.480(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	32 Benzo(a)pyrene	252	17.886	17.877	(0.987)	55026	2.57205	2.572
*	33 Perylene-d12	264	18.117	18.111	(1.000)	41743	2.00000	
	37 Indeno(1,2,3-cd)pyrene	276	20.684	20.675	(1.142)	65545	2.68928	2.689
$	36 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
	38 Dibenzo(a,h)anthracene	278	20.669	20.662	(1.141)	52293	2.49315	2.493
	39 Benzo(g,h,i)perylene	276	21.766	21.756	(1.201)	54821	2.48258	2.483
	35 Perylene	252	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823011909.D
Lab Smp Id: SLA0213-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 19-JAN-2023
Calibration Time: 12:52
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44704	22352	89408	46346	3.67
10 Acenaphthene-d10	26411	13206	52822	27709	4.91
15 Phenanthrene-d10	49210	24605	98420	51685	5.03
25 Chrysene-d12	42994	21497	85988	46582	8.35
33 Perylene-d12	40520	20260	81040	41743	3.02

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.13
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.09
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.03
25 Chrysene-d12	14.20	13.70	14.70	14.21	0.07
33 Perylene-d12	18.11	17.61	18.61	18.12	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011909.D

Lab ID: SLA0213-SCV1
nt8.i, 20230119.b\FSIMPNA230119.m,   19-JAN-2023 14:58

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

No RRT check performed

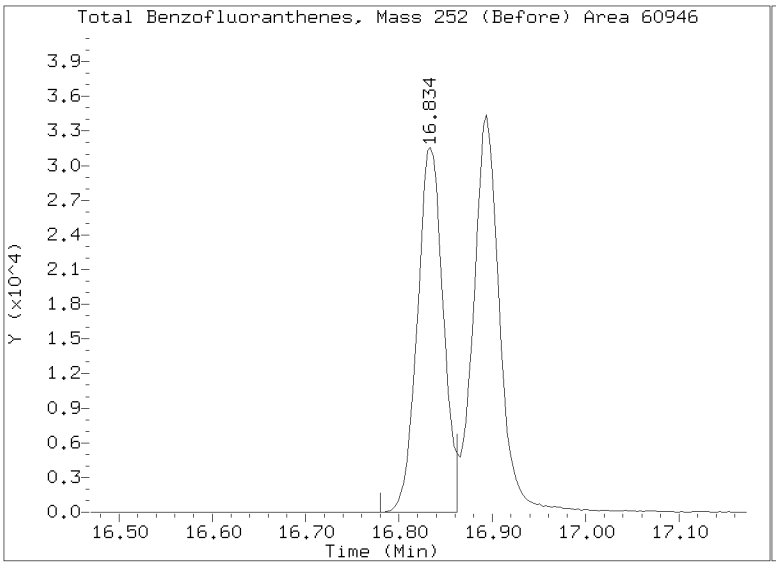
On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, pnascv.sub = 0.0500

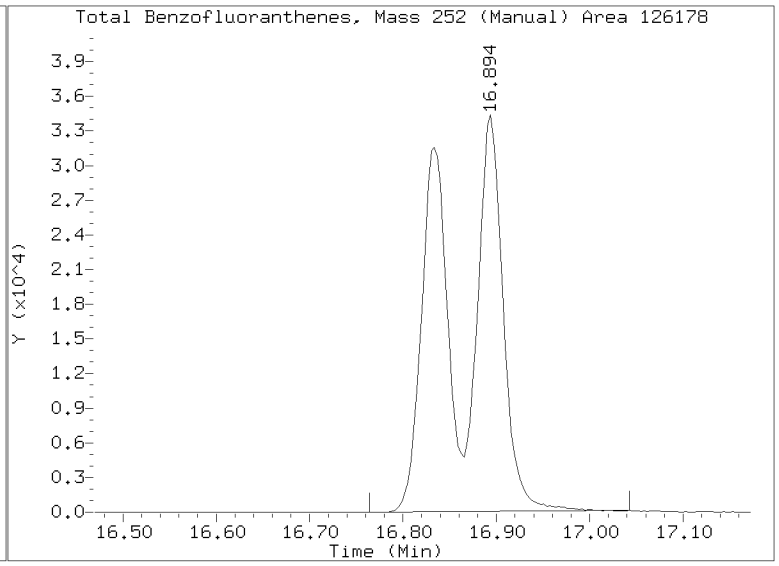
Exception: Benzo(b)fluoranthene 0.0300
Exception: Benzo(k)fluoranthene 0.0300
Exception: Total Benzofluoranthenes 0.0300
Exception: Fluoranthene-d10 (Surr) 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011909.D
Injection Date: 19-JAN-2023 14:58
Lab ID:SLA0213-SCV1 Client ID:
Report Date: 01/25/2023 22:00





Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT8	Calibration:	GA00050
Lab File ID:	N823020633.D	Calibration Date:	01/19/2023
Sequence:	SLB0075	Injection Date:	02/07/23
Lab Sample ID:	SLB0075-CCV1	Injection Time:	03:09
Sequence Name:	Calibration Check		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Benzo(a)anthracene	A	2.5000	2.85	1.1238870	1.2807120		14.0	+/-50
Chrysene	A	2.5000	2.46	1.1964350	1.1765240		-1.7	+/-50
Benzo(b)fluoranthene	A	2.5000	2.93	1.1648110	1.3636180		17.1	+/-50
Benzo(k)fluoranthene	A	2.5000	2.72	1.1409370	1.2422350		8.9	+/-50
Benzo(a)pyrene	A	2.5000	2.65	1.0250270	1.0880440		6.1	+/-50
Indeno(1,2,3-cd)pyrene	A	2.5000	2.26	1.1677520	1.0535810		-9.8	+/-50
Dibenzo(a,h)anthracene	A	2.5000	2.35	1.0049440	0.9451614		-5.9	+/-50
2-Methylnaphthalene-d10	A	2.5000	2.69	0.5454499	0.5877536		7.8	+/-50
Dibenzo[a,h]anthracene-d14	A	2.5000	2.20	0.6679424	0.6893016		-12.0	+/-50
Fluoranthene-d10	A	2.5000	2.73	0.8823923	0.9648554		9.3	+/-50

* Values outside of QC limits

Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

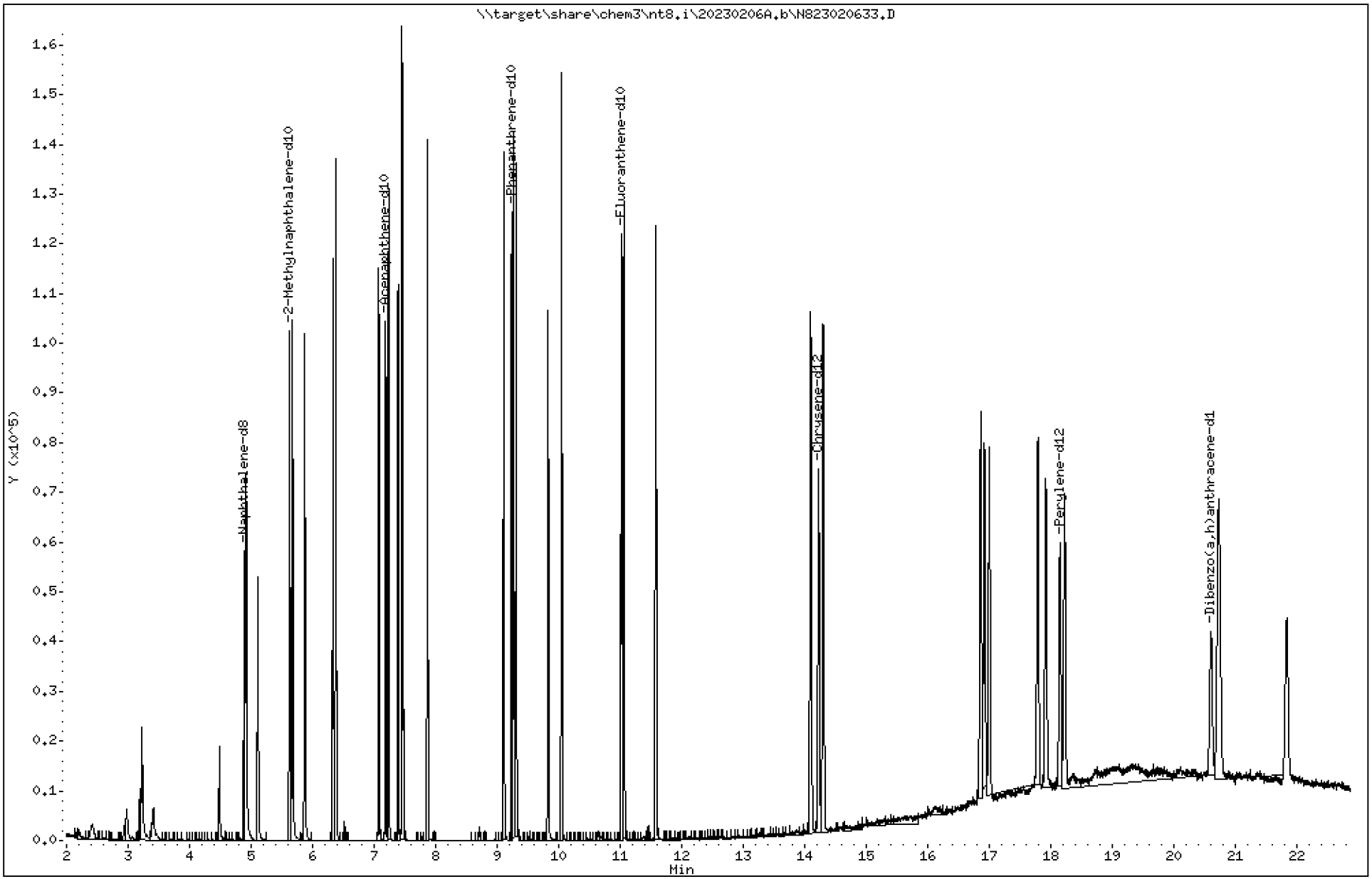
Instrument: nt8.i

Sample Info: CCV230206A

Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25



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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

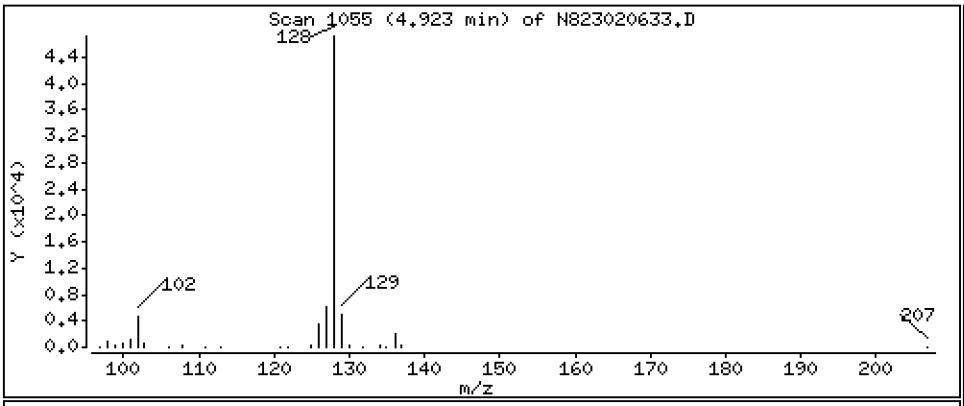
Operator: JZ

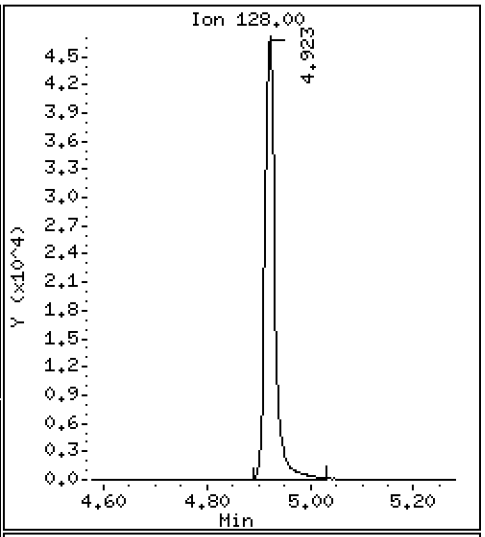
Column phase: Rxi-17sil

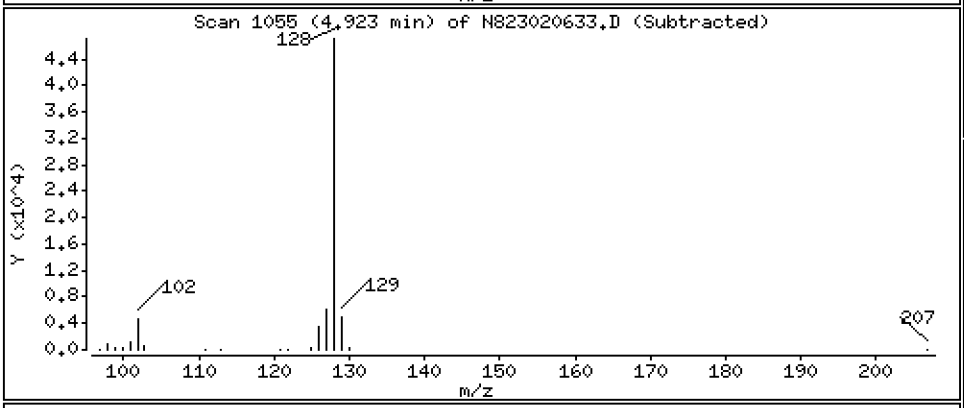
Column diameter: 0.25

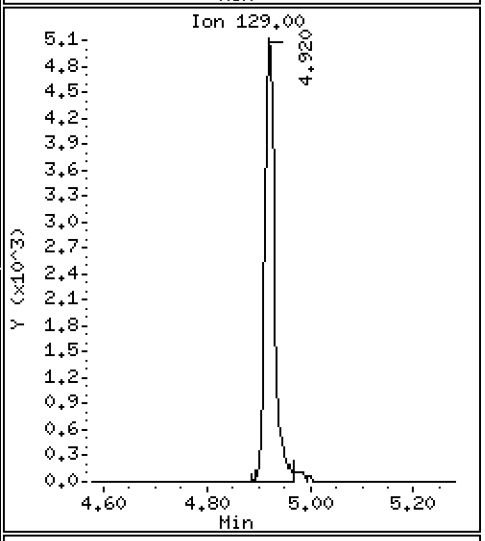
2 Naphthalene

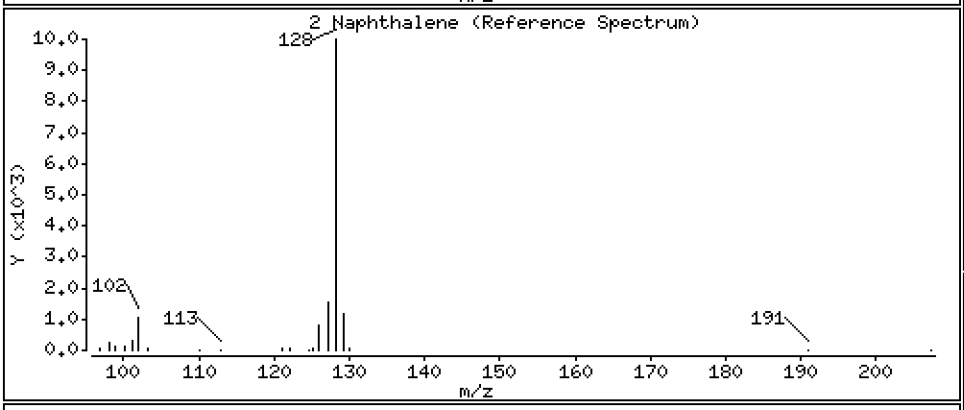
Concentration: 2.576 ug/mL

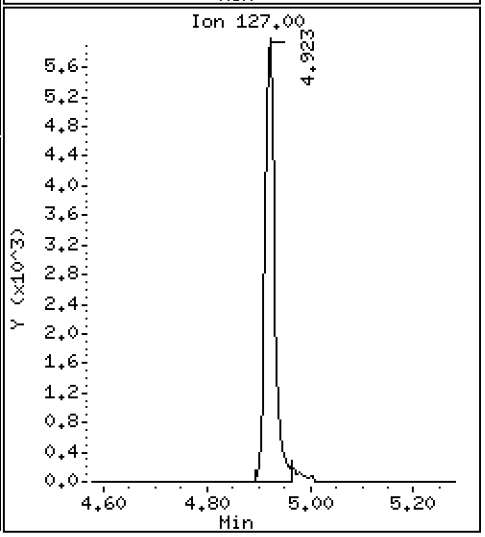


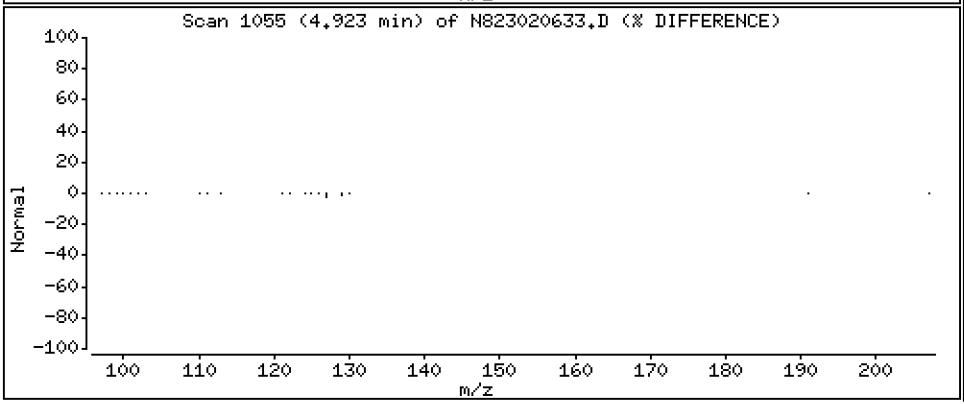












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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

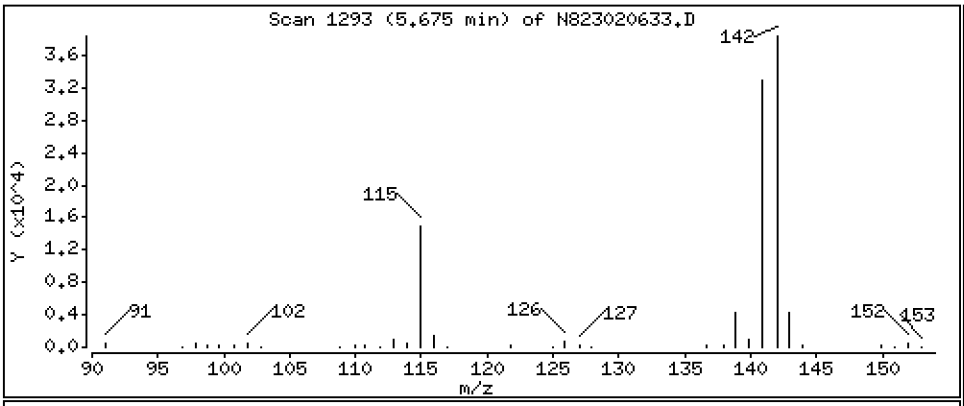
Operator: JZ

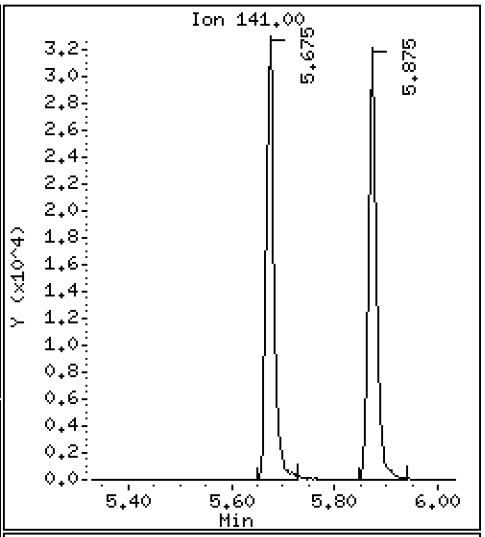
Column phase: Rxi-17sil

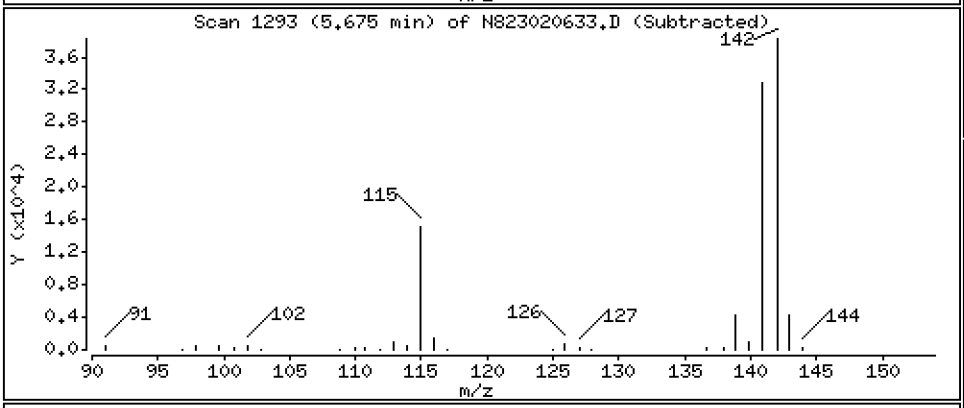
Column diameter: 0.25

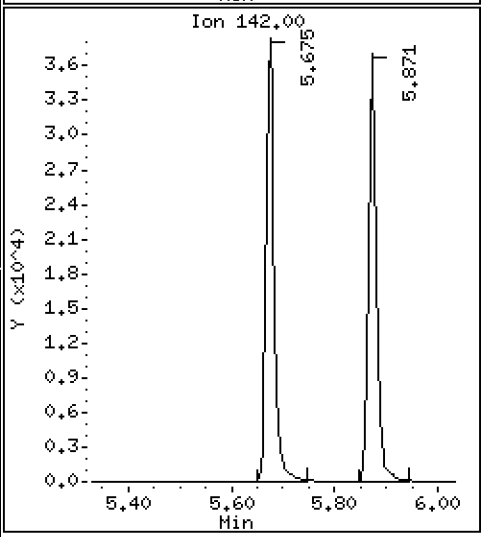
4 2-Methylnaphthalene

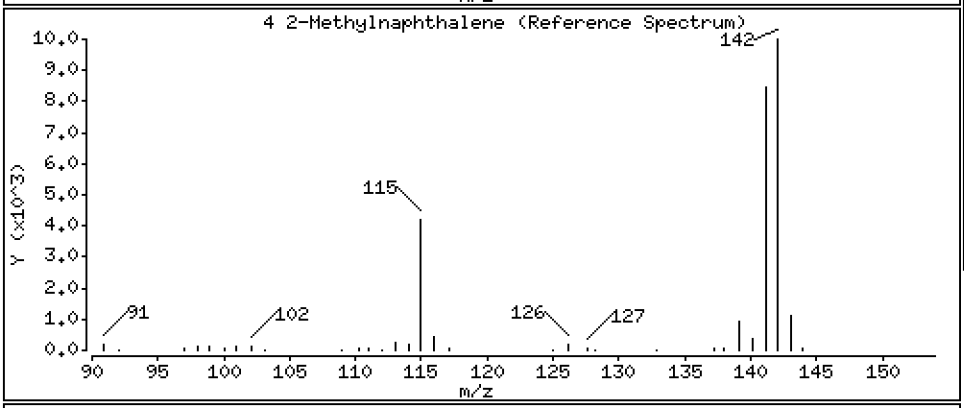
Concentration: 2.611 ug/mL

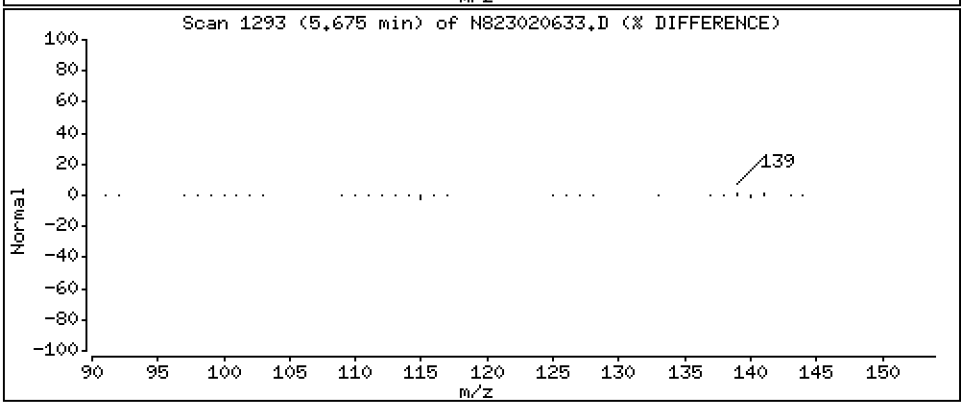












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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

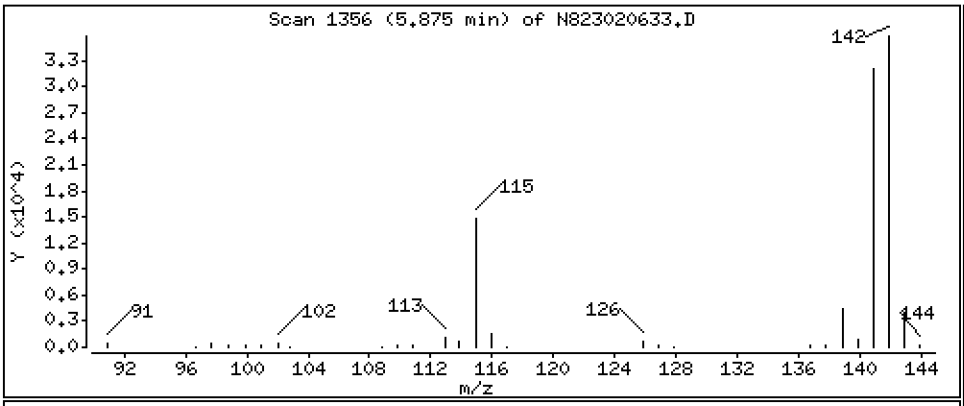
Operator: JZ

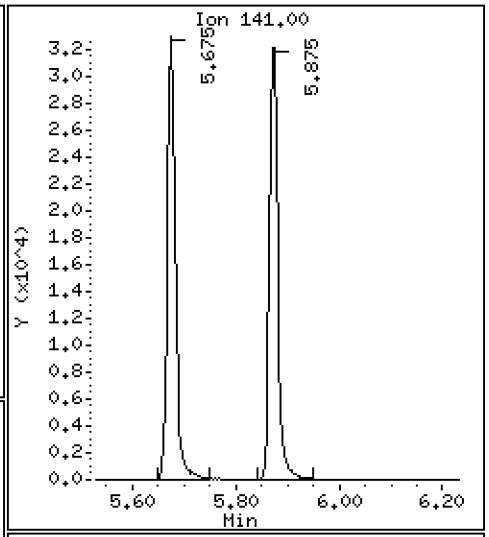
Column phase: Rxi-17sil

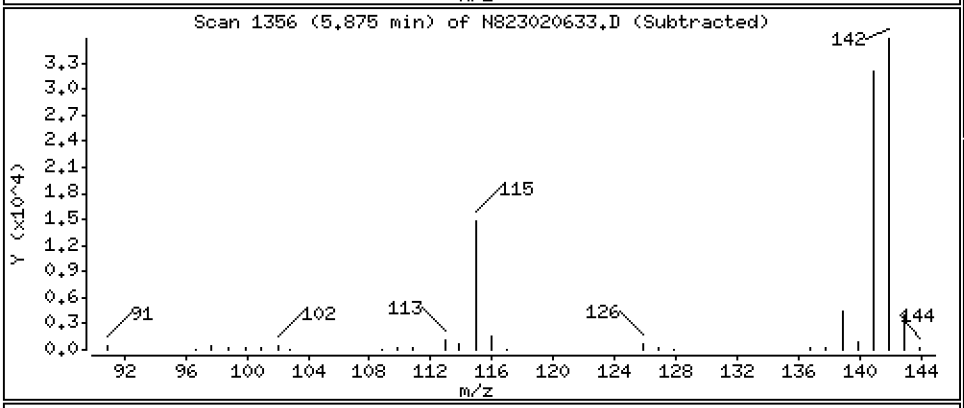
Column diameter: 0.25

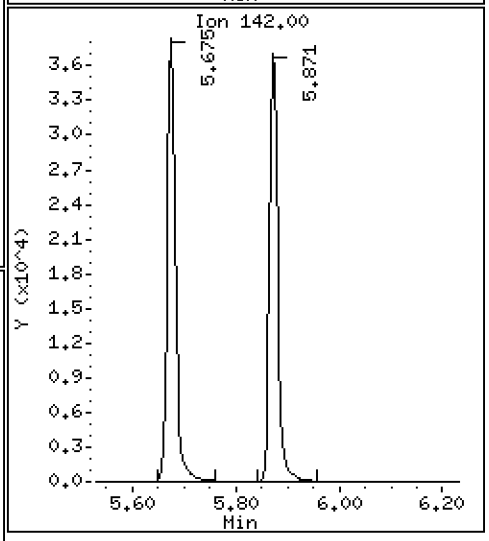
5 1-methylnaphthalene

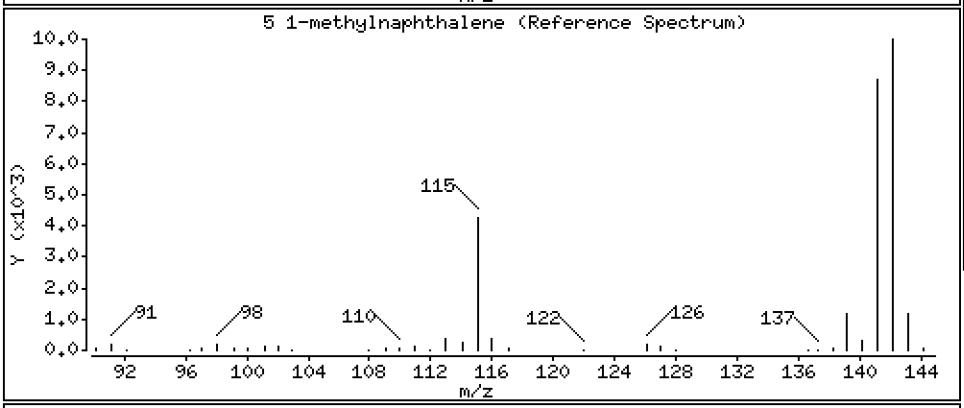
Concentration: 2.603 ug/mL

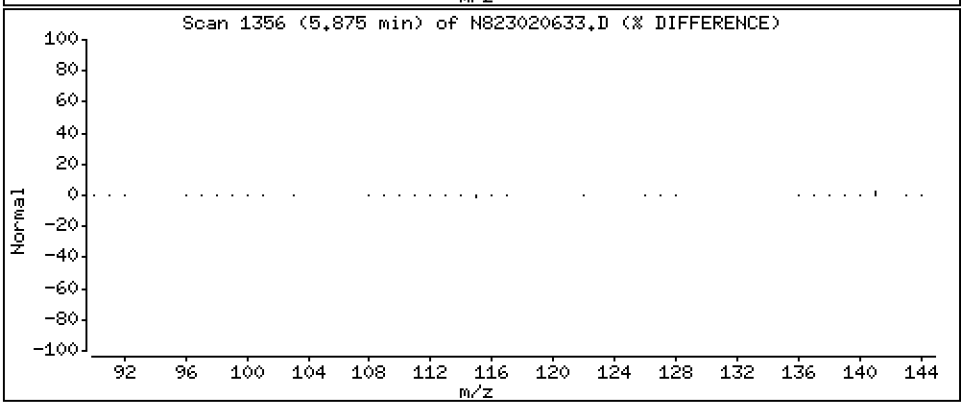












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

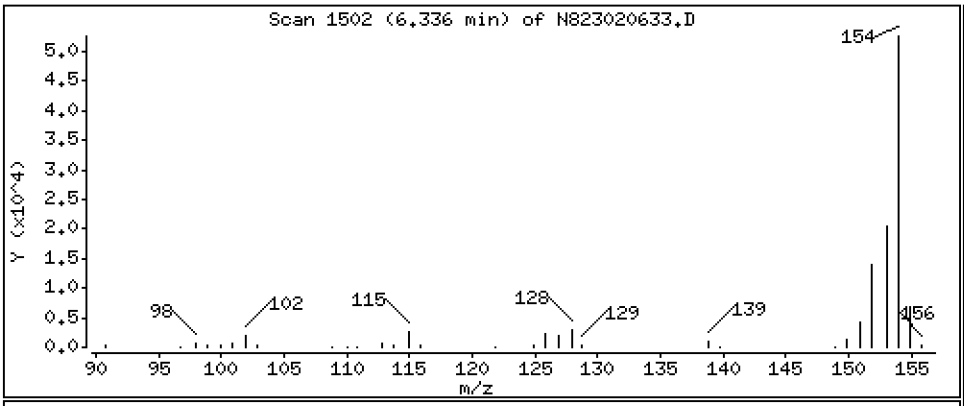
Operator: JZ

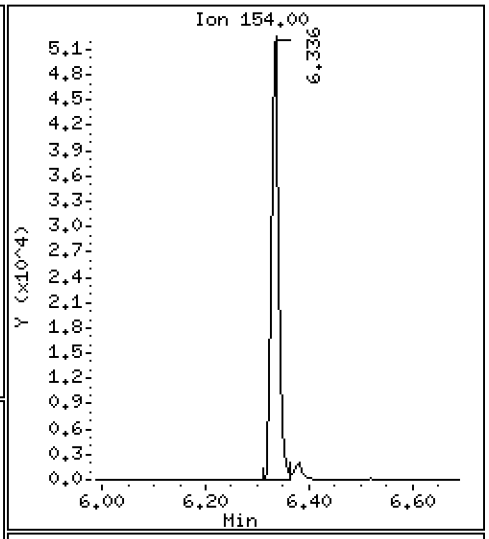
Column phase: Rxi-17sil

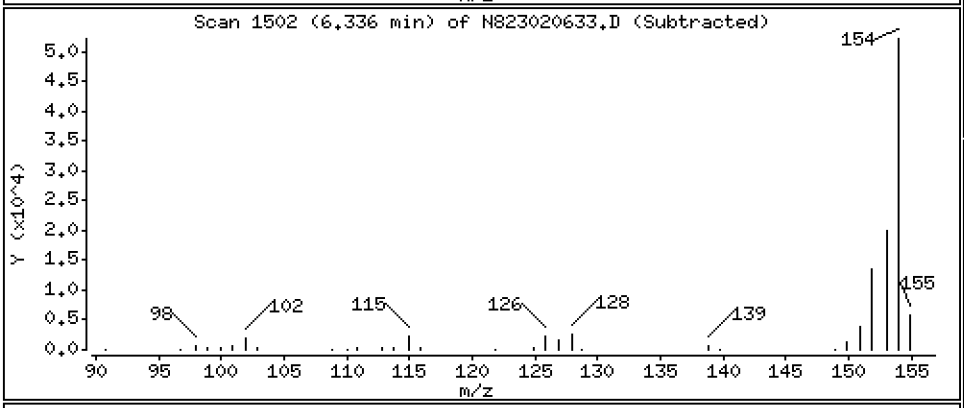
Column diameter: 0.25

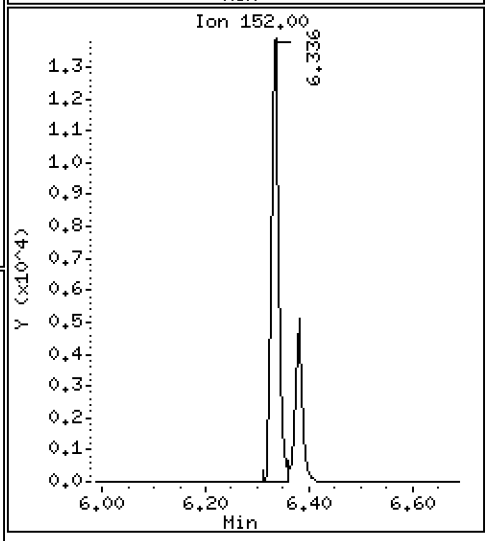
7 Biphenyl

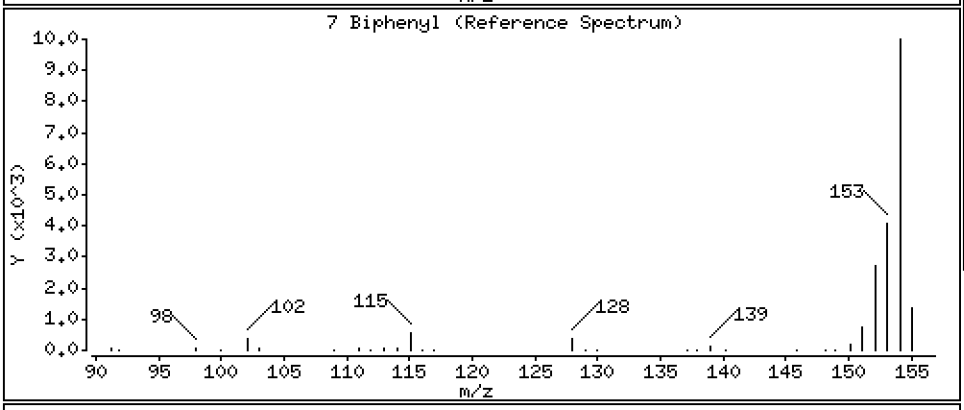
Concentration: 2.532 ug/mL

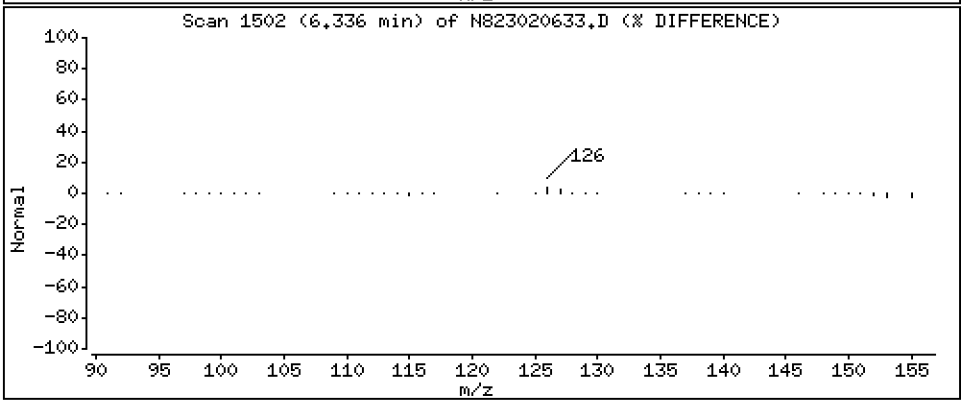












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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

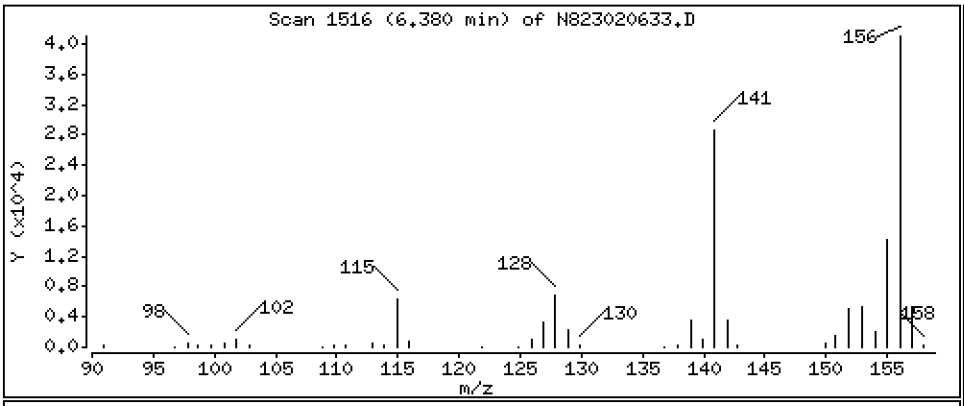
Operator: JZ

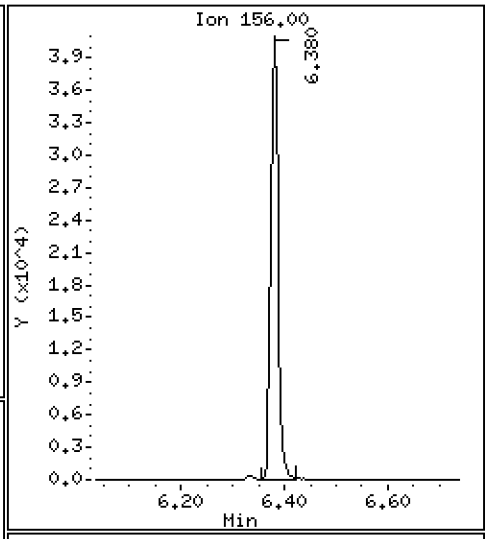
Column phase: Rxi-17sil

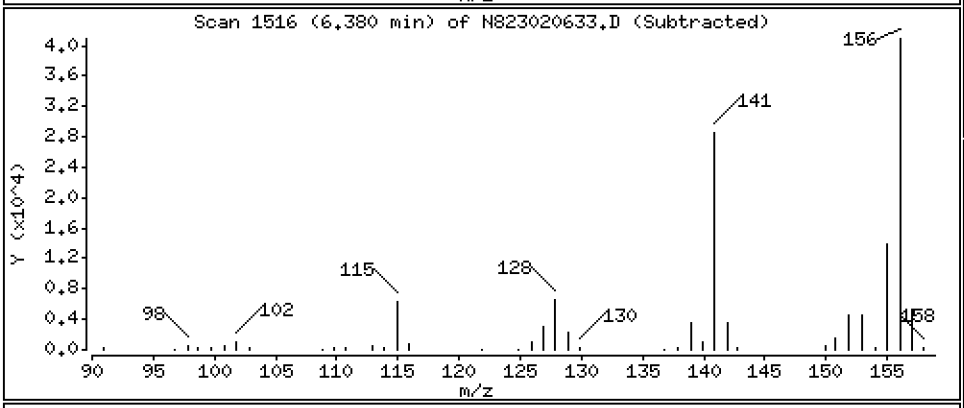
Column diameter: 0.25

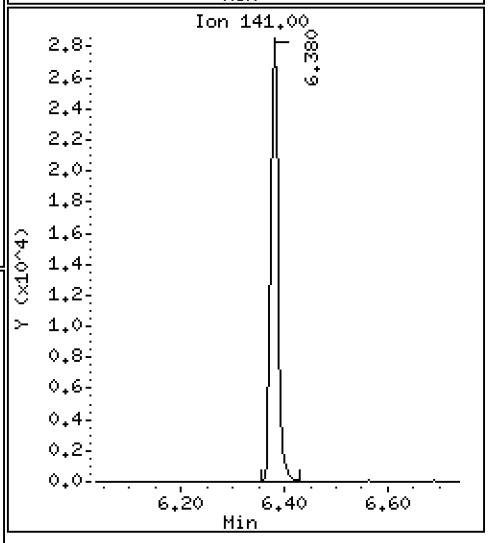
8 2,6-Dimethylnaphthalene

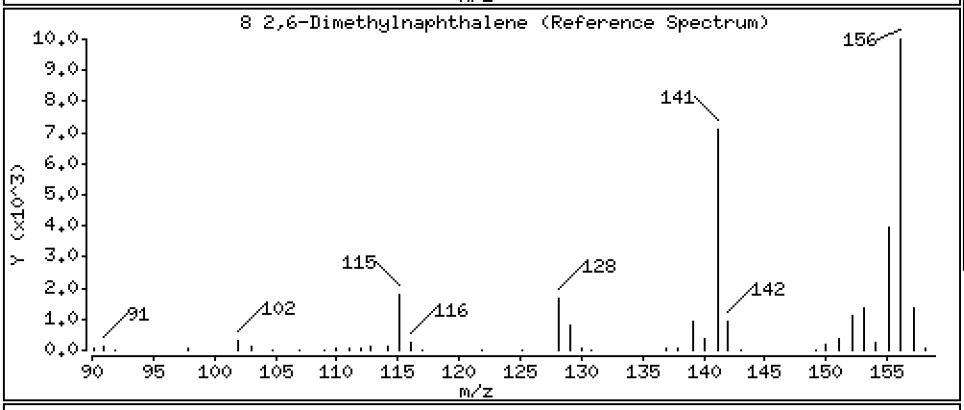
Concentration: 2.669 ug/mL

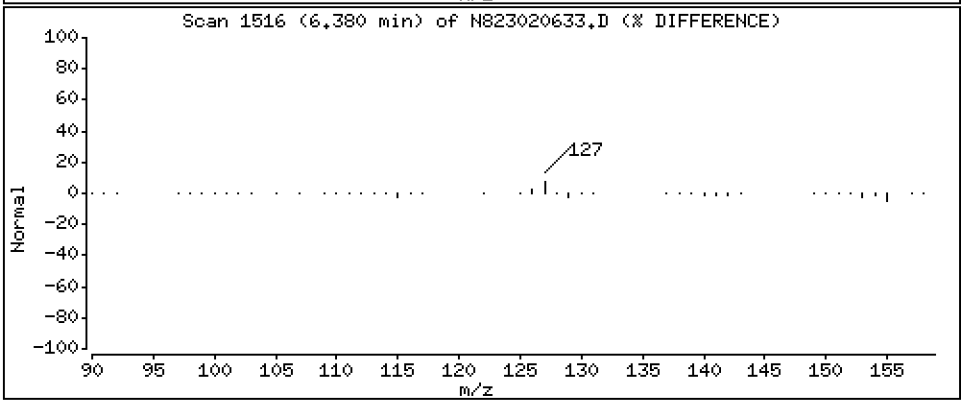












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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

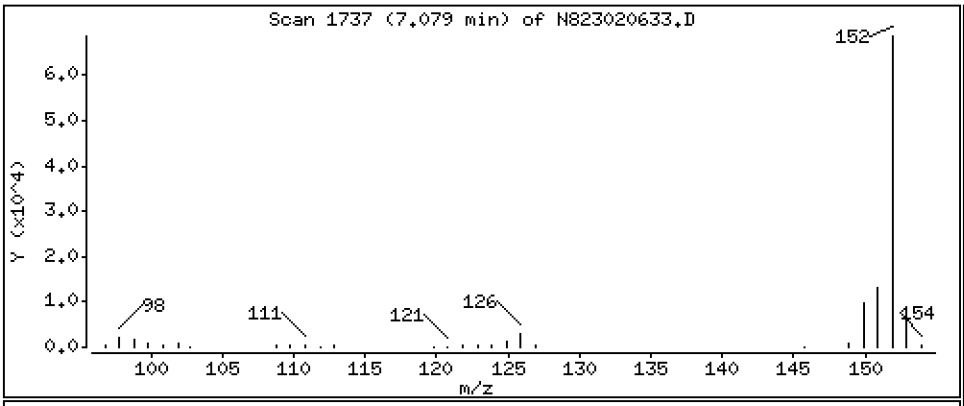
Operator: JZ

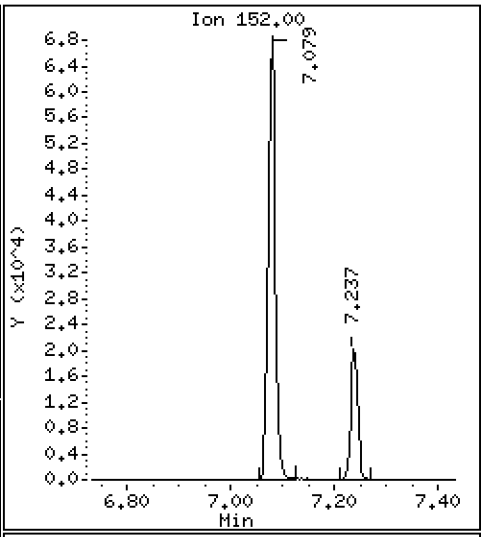
Column phase: Rxi-17sil

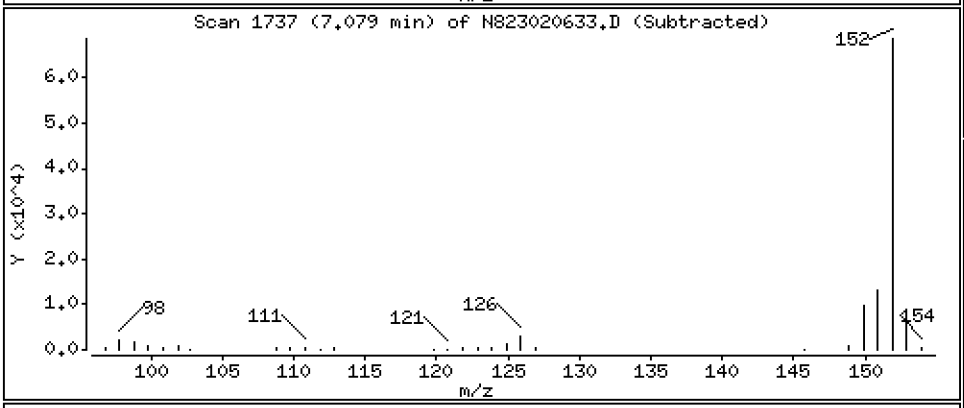
Column diameter: 0.25

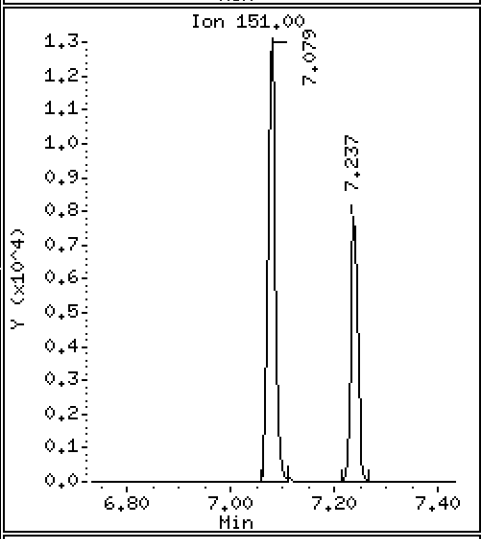
9 Acenaphthylene

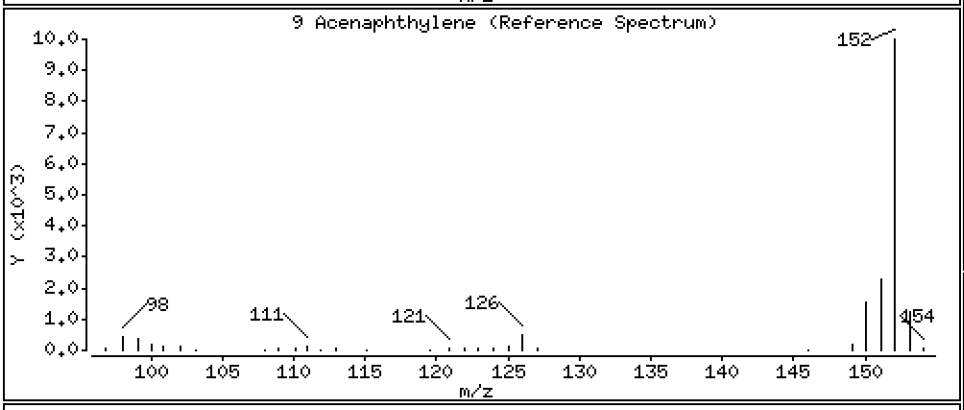
Concentration: 2.741 ug/mL

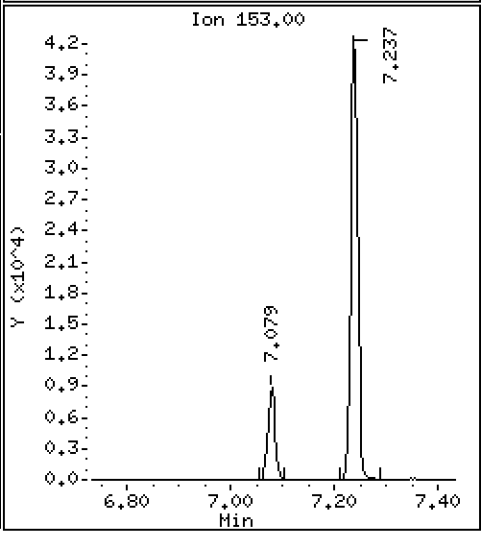


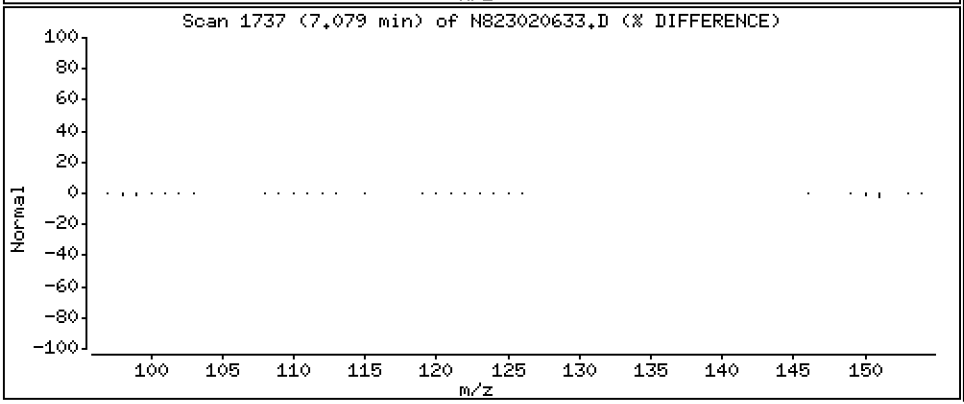












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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

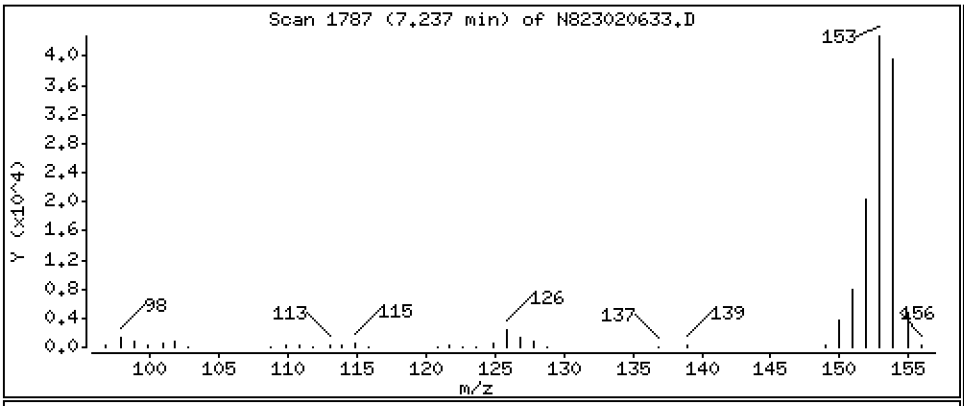
Operator: JZ

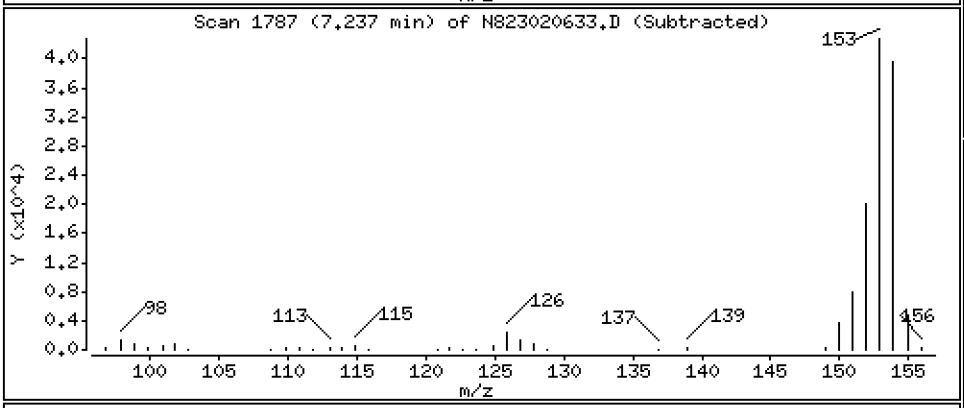
Column phase: Rxi-17sil

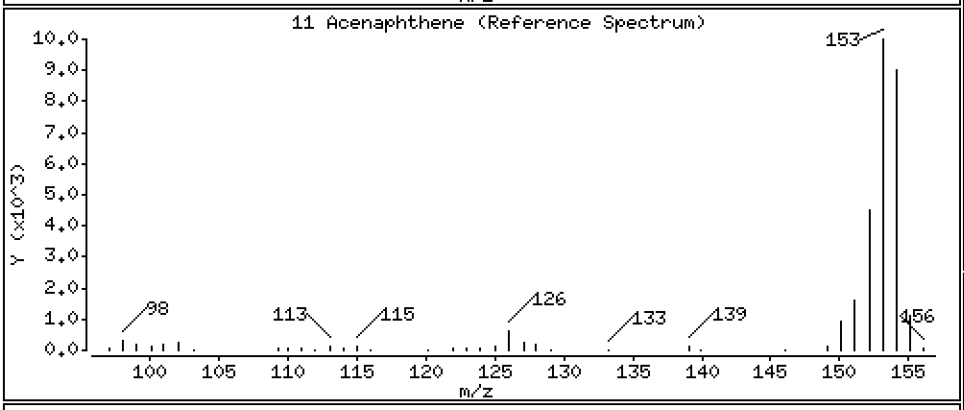
Column diameter: 0.25

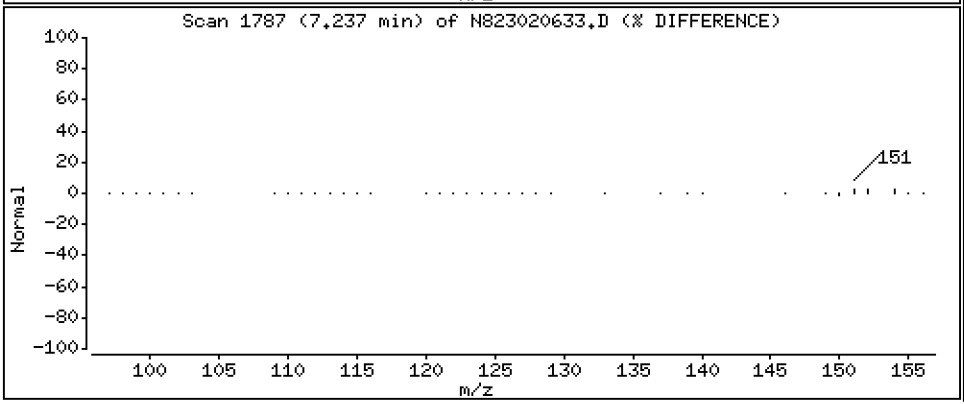
11 Acenaphthene

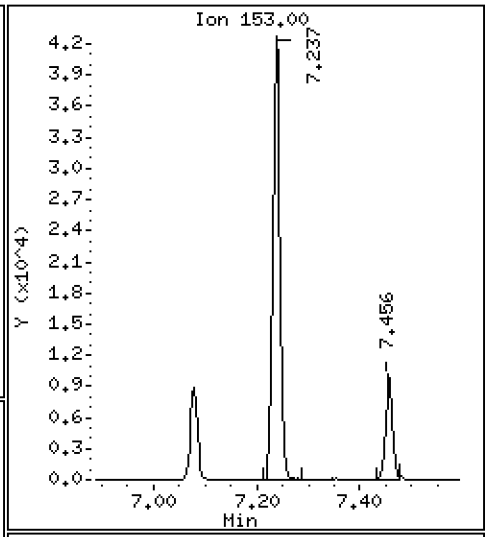
Concentration: 2.545 ug/mL

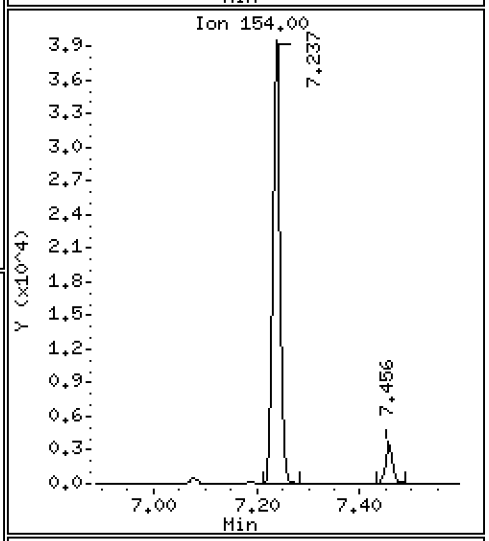


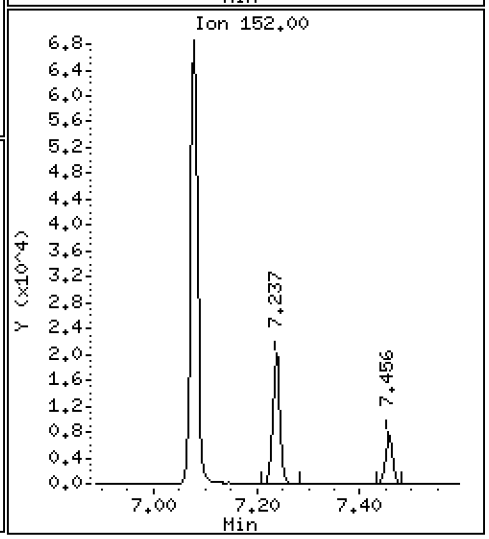












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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

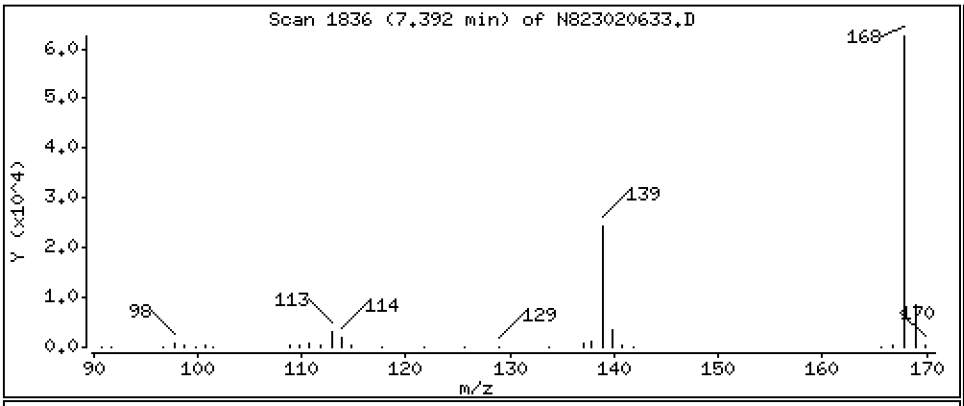
Operator: JZ

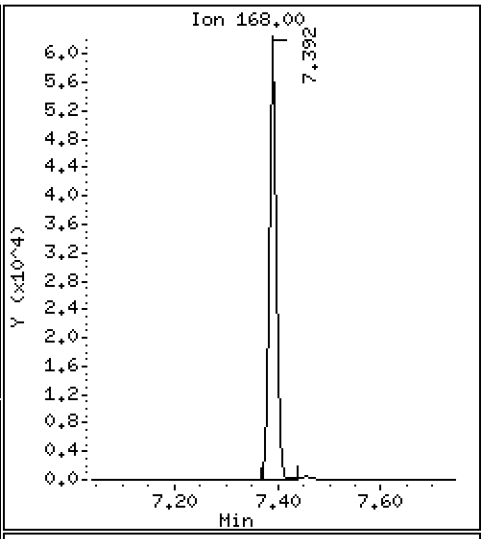
Column phase: Rxi-17sil

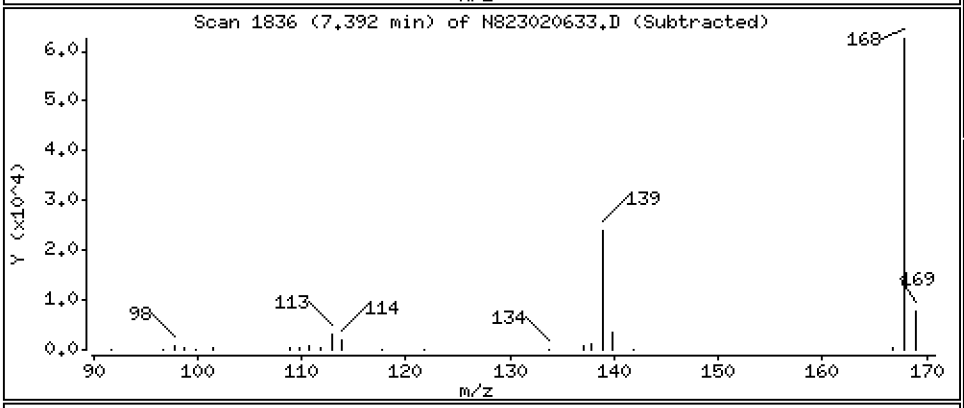
Column diameter: 0.25

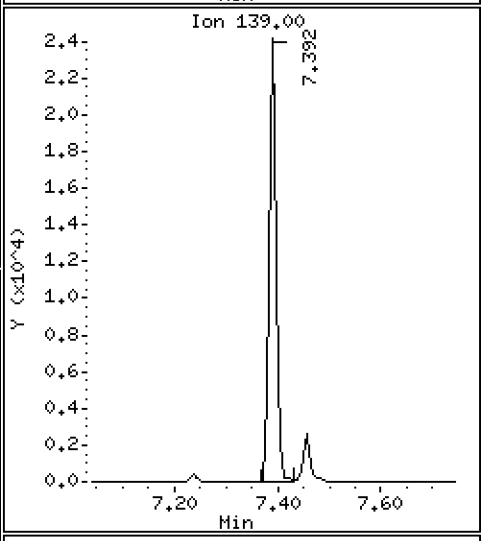
12 Dibenzofuran

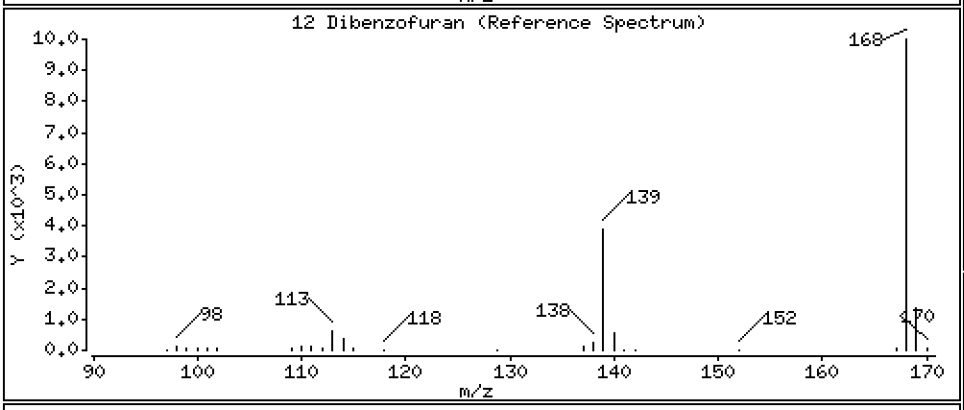
Concentration: 2.493 ug/mL

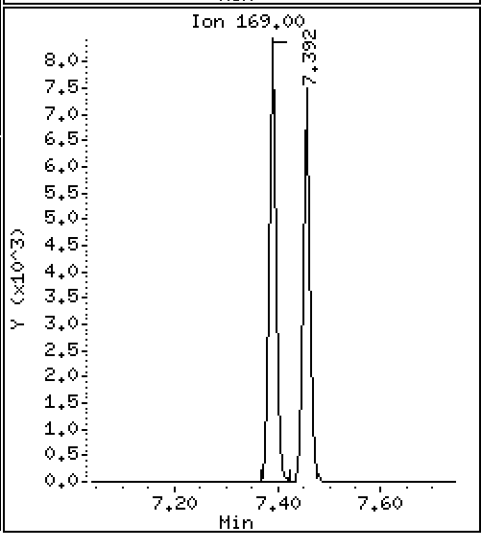


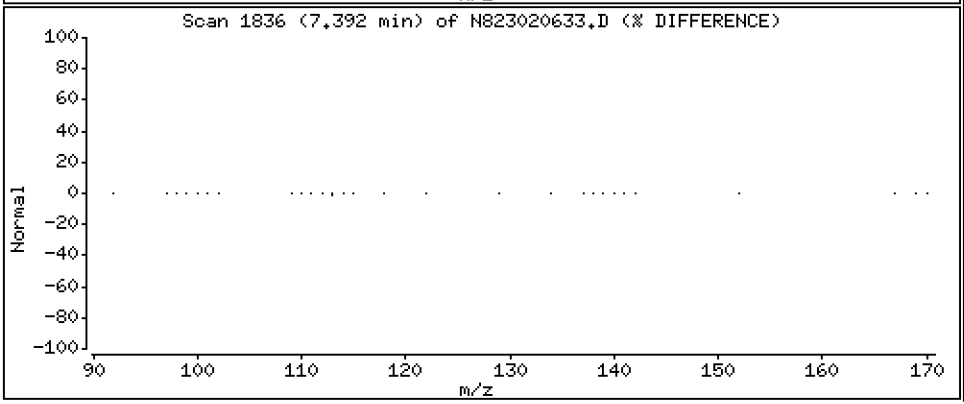












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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

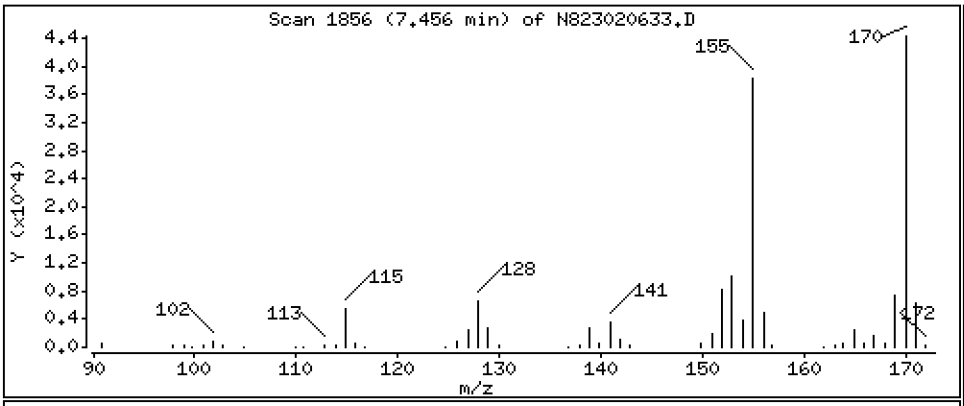
Operator: JZ

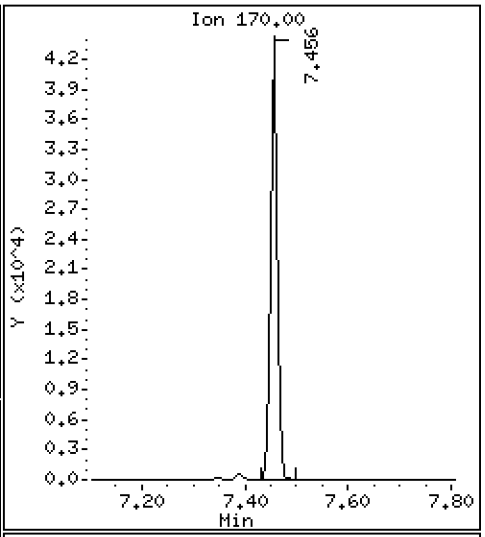
Column phase: Rxi-17sil

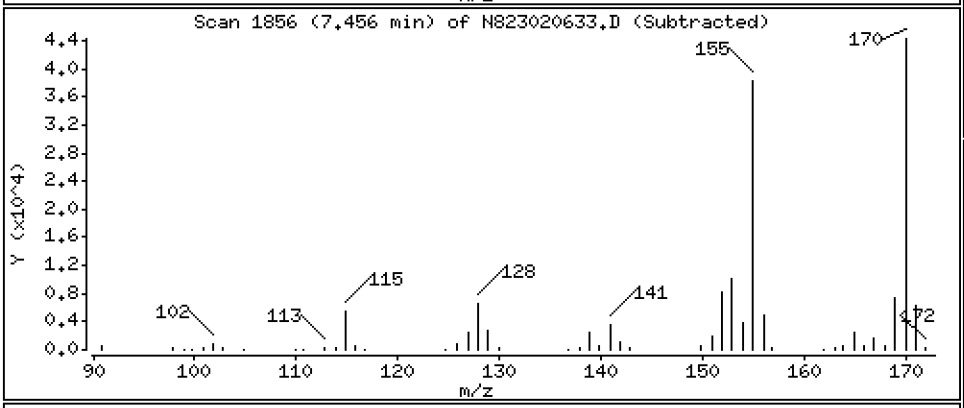
Column diameter: 0.25

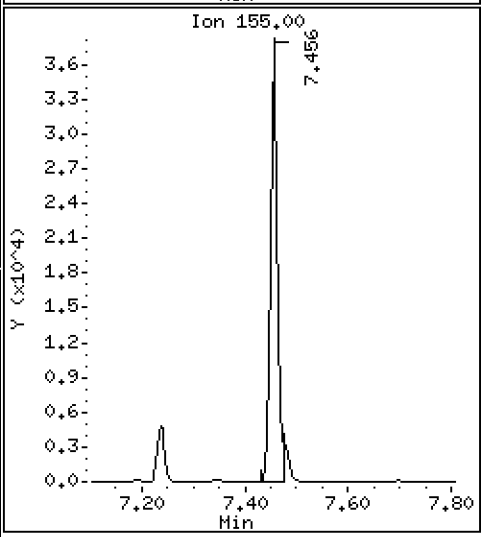
13 1,6,7-Trimethylnaphthalene

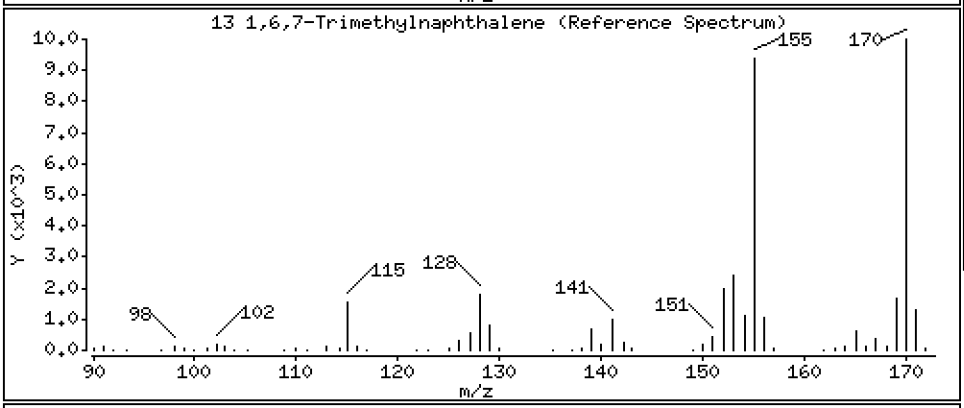
Concentration: 2.660 ug/mL

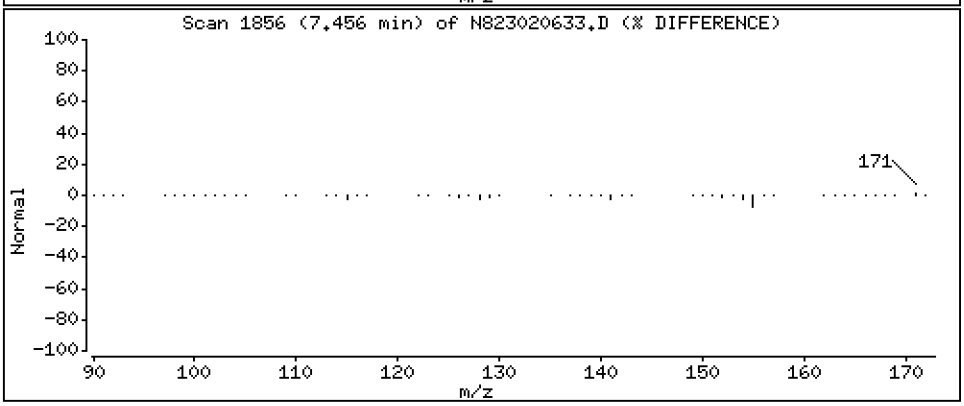












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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

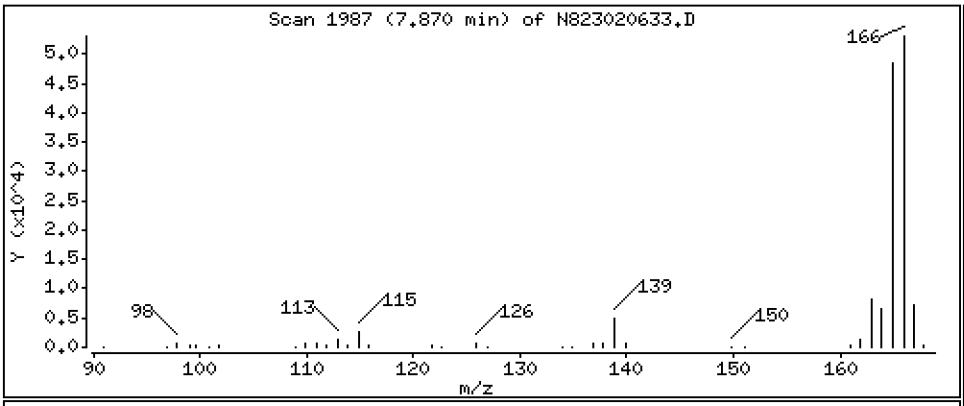
Operator: JZ

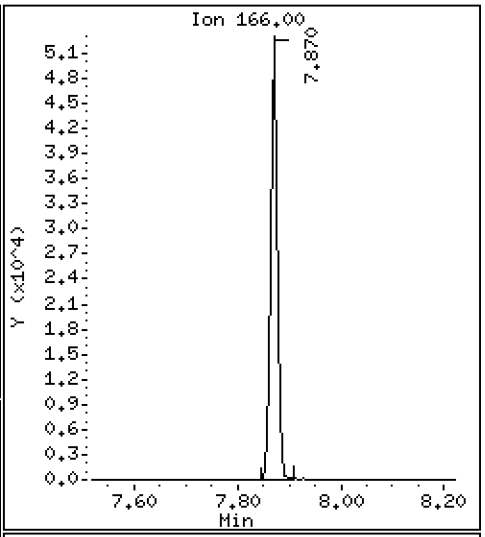
Column phase: Rxi-17sil

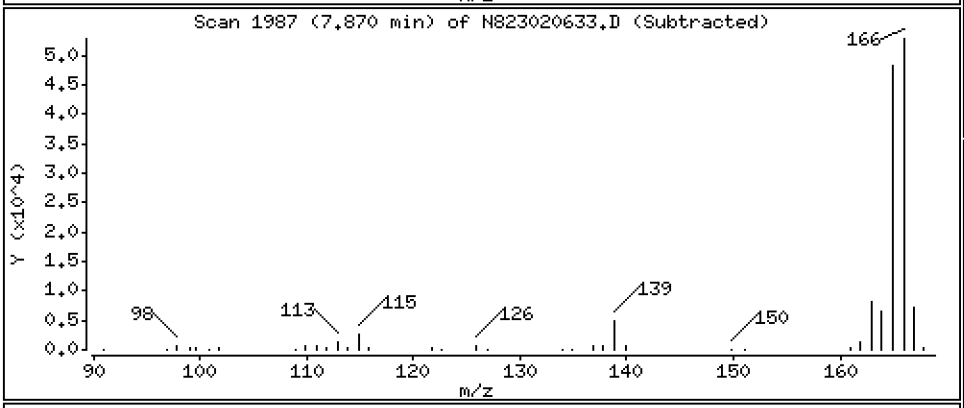
Column diameter: 0.25

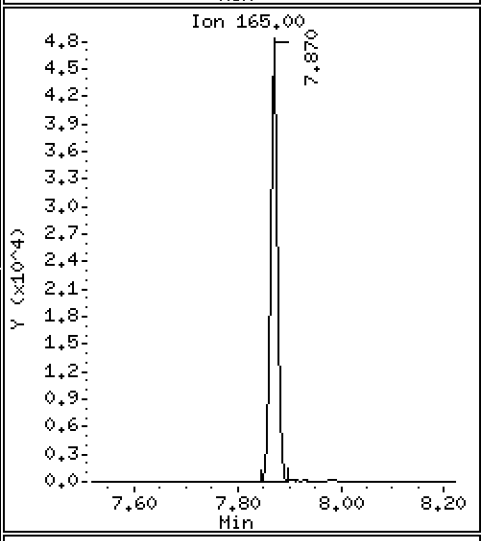
14 Fluorene

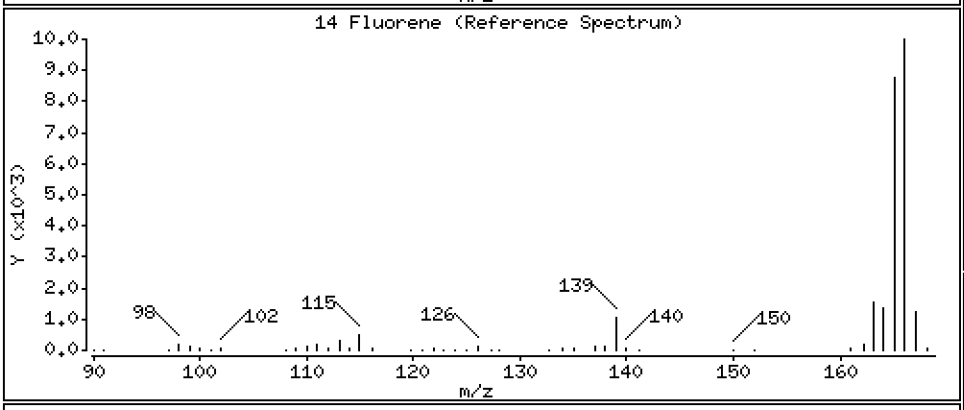
Concentration: 2.623 ug/mL

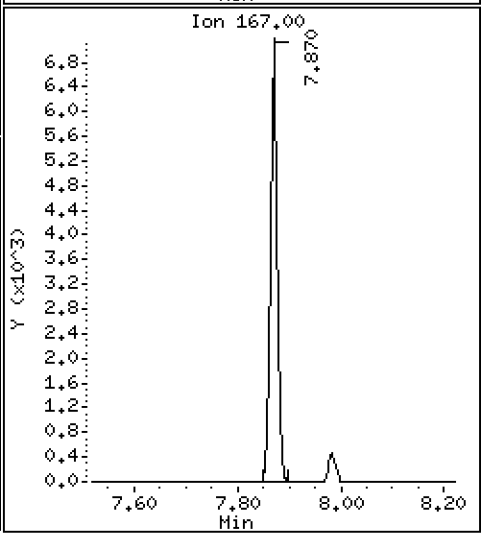


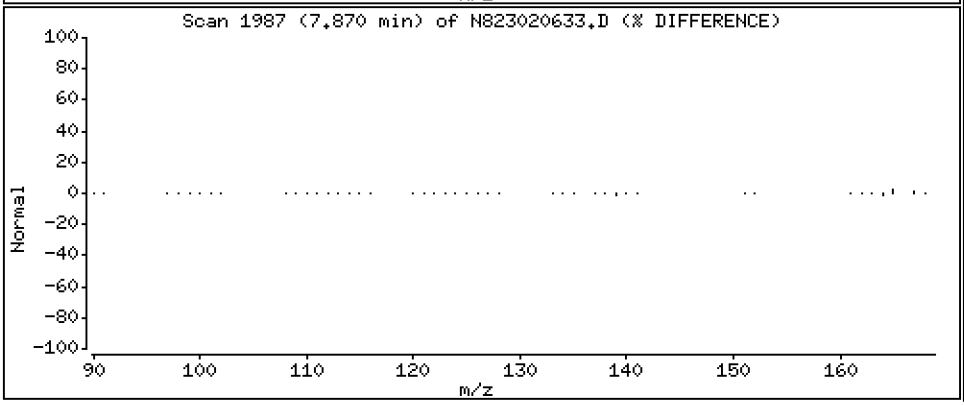












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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

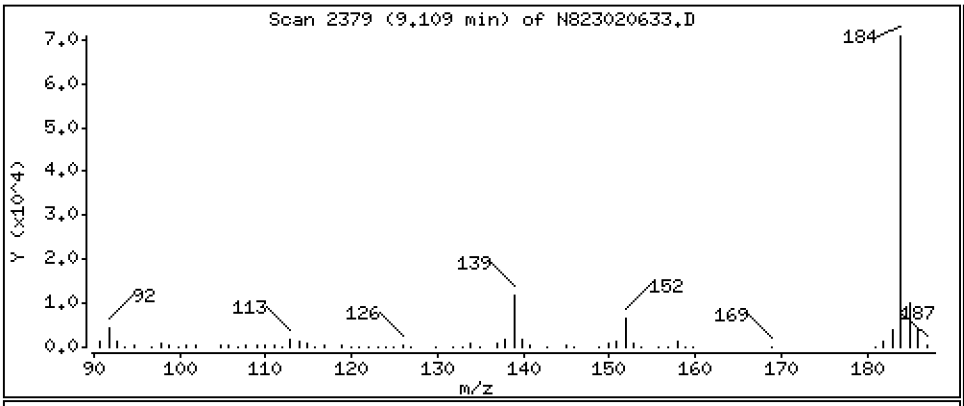
Operator: JZ

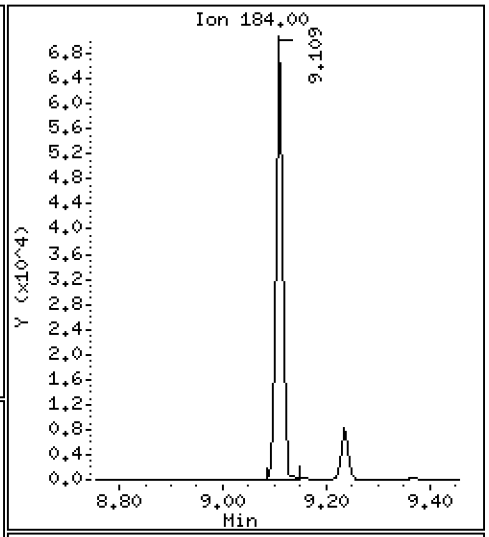
Column phase: Rxi-17sil

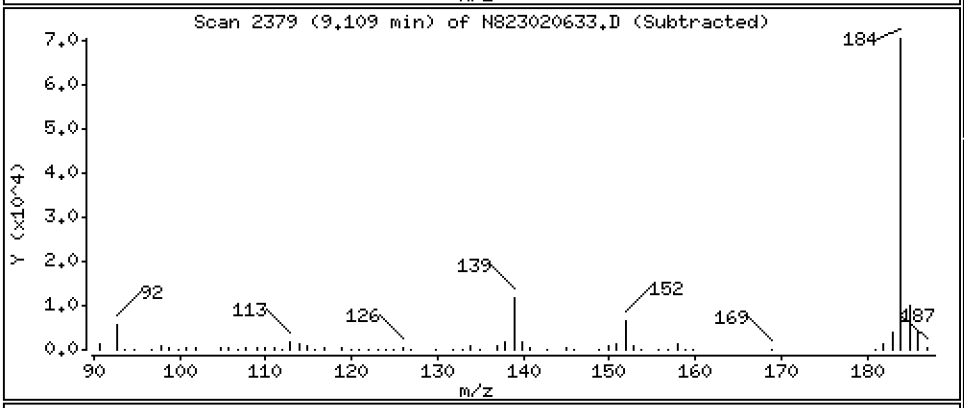
Column diameter: 0.25

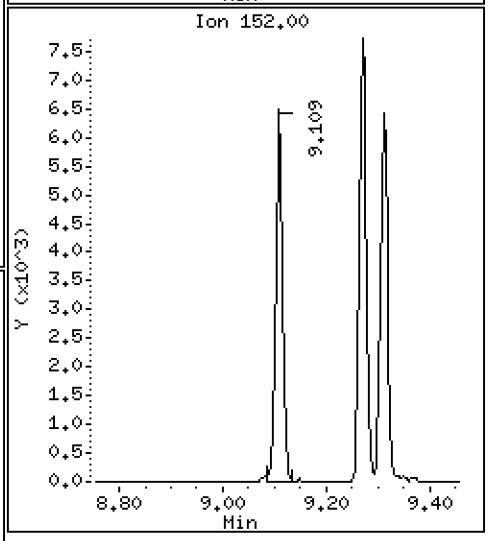
18 Dibenzothiophene

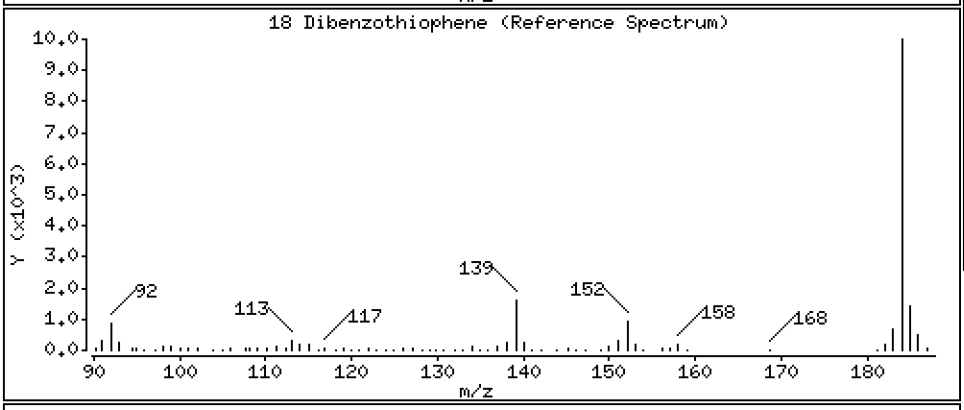
Concentration: 2.606 ug/mL

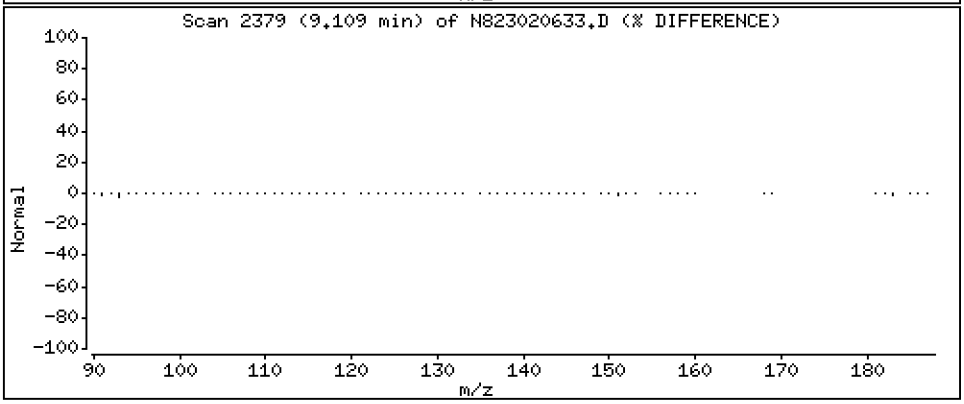












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

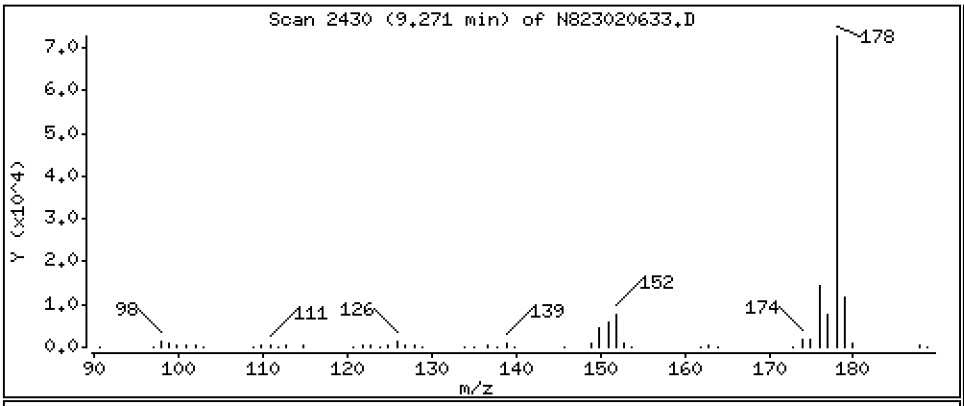
Operator: JZ

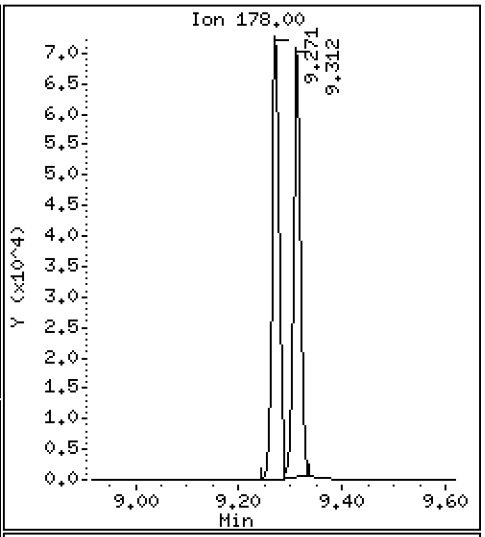
Column phase: Rxi-17sil

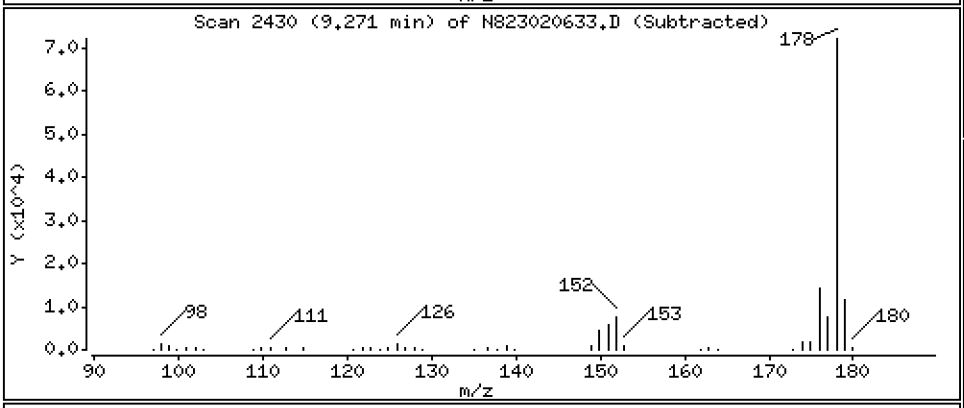
Column diameter: 0.25

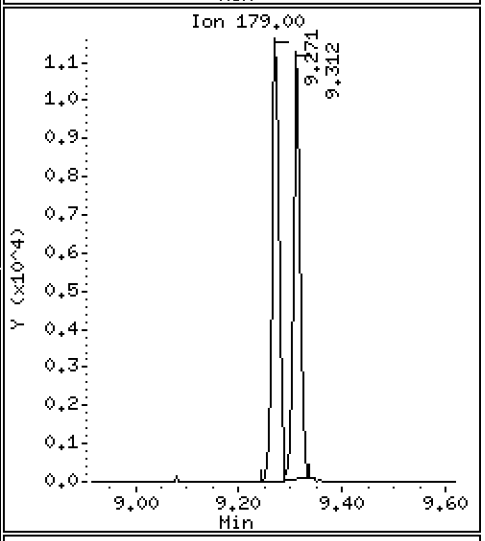
16 Phenanthrene

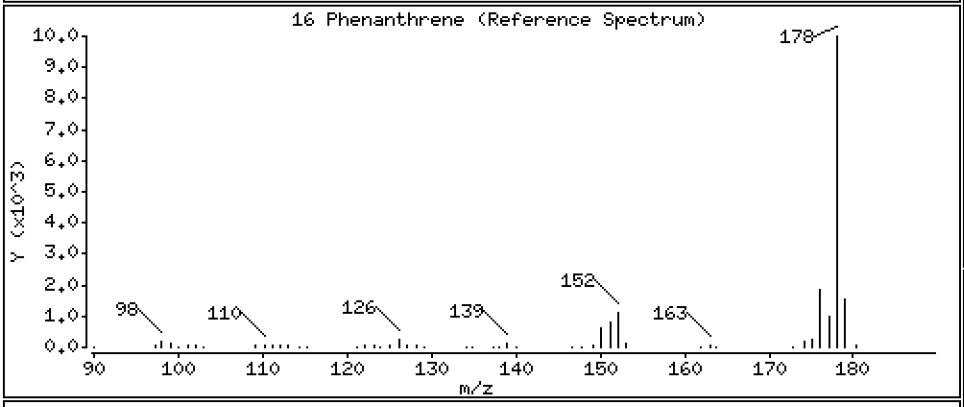
Concentration: 2.454 ug/mL

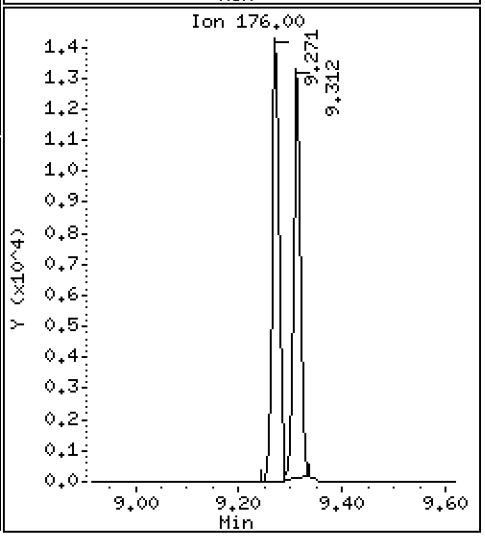


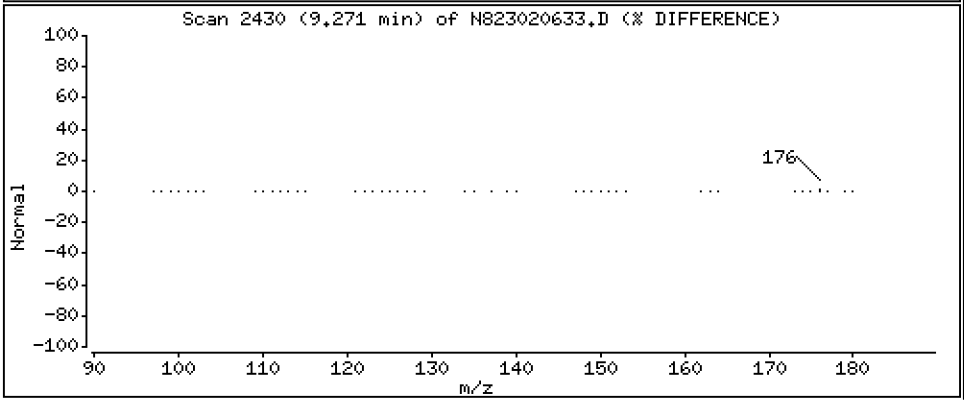












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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

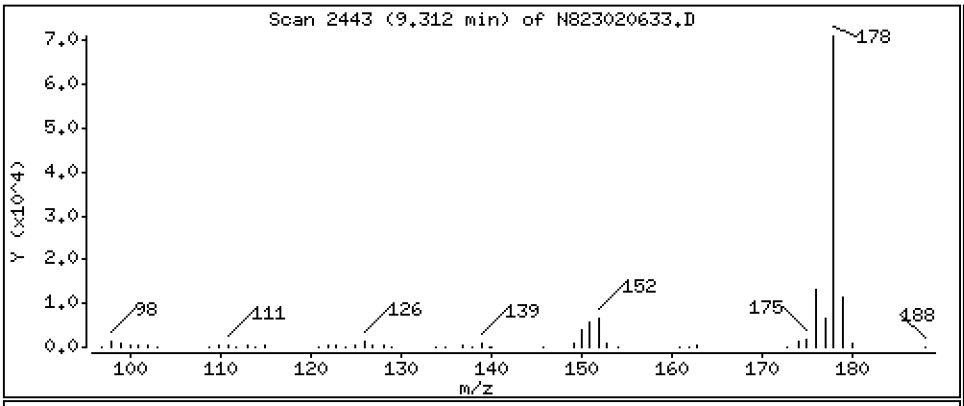
Operator: JZ

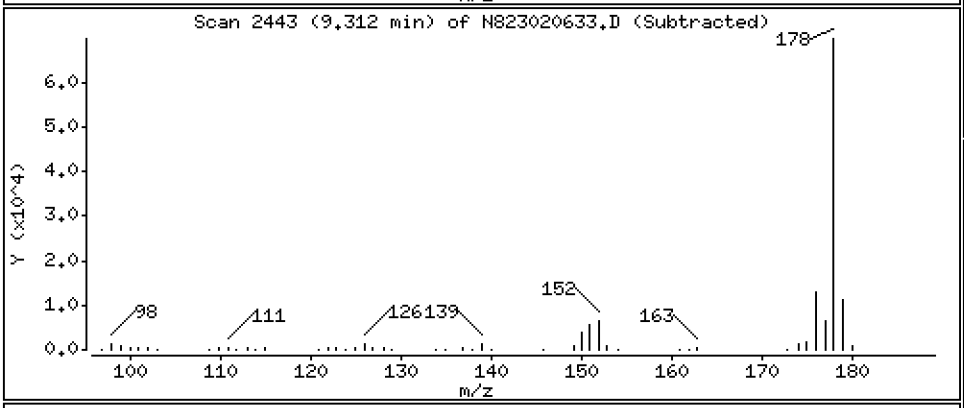
Column phase: Rxi-17sil

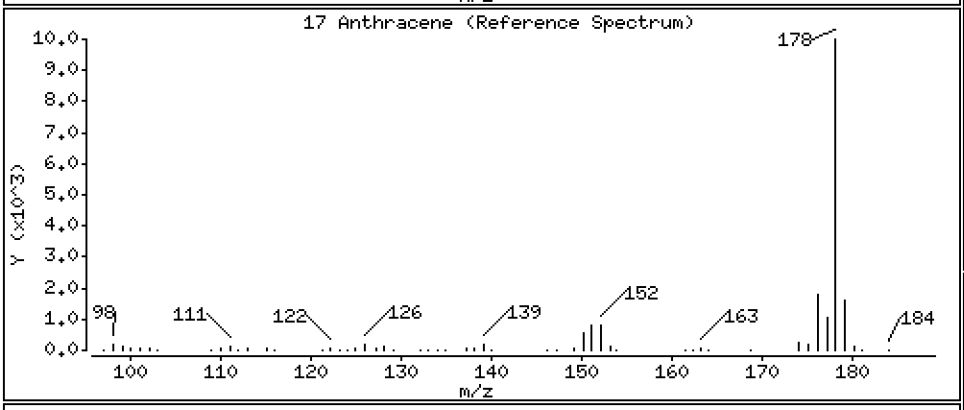
Column diameter: 0.25

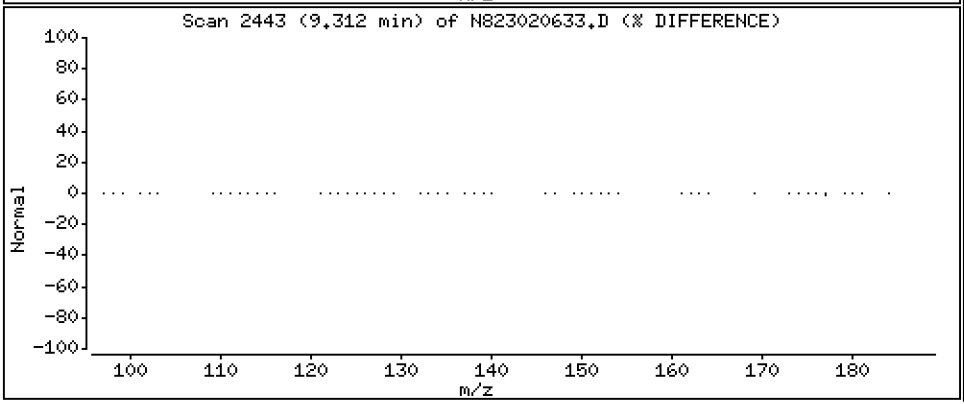
17 Anthracene

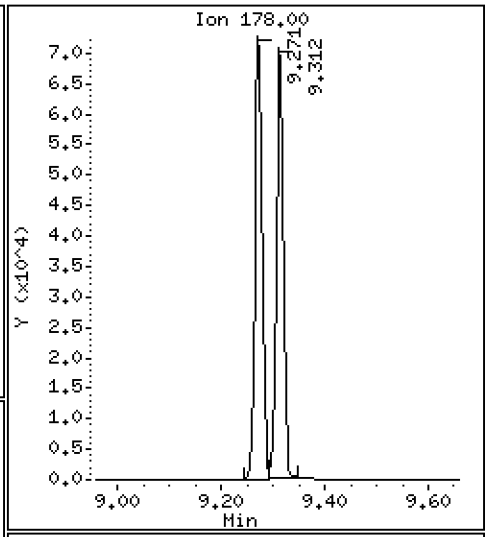
Concentration: 2.634 ug/mL

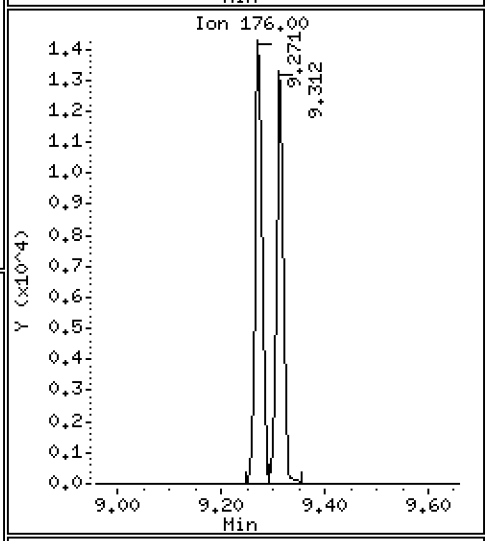


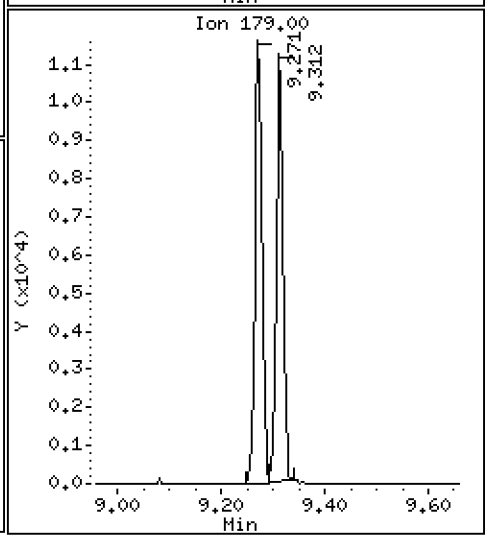












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

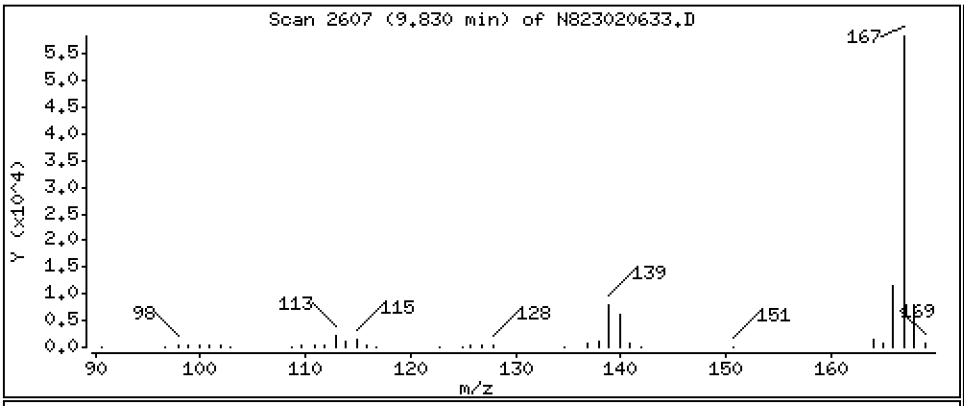
Operator: JZ

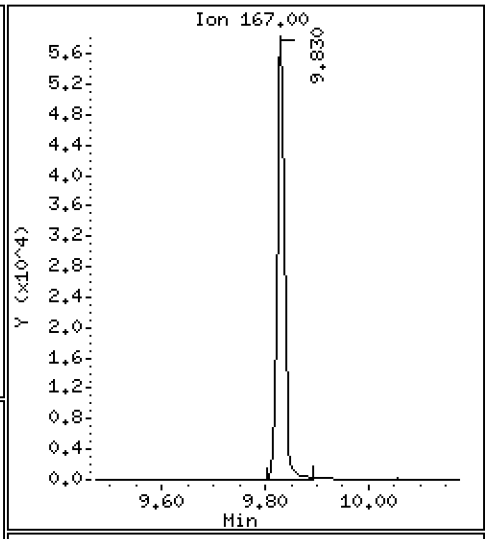
Column phase: Rxi-17sil

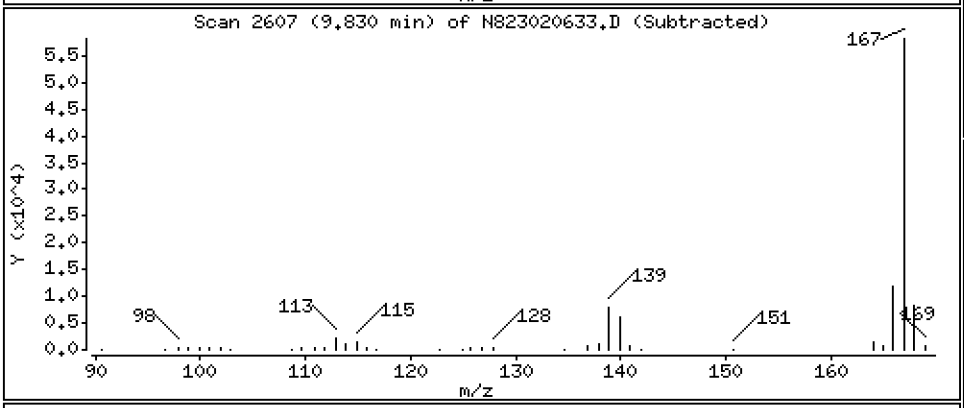
Column diameter: 0.25

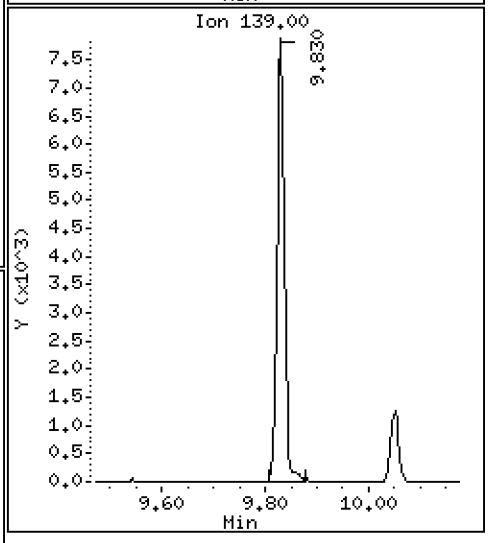
19 Carbazole

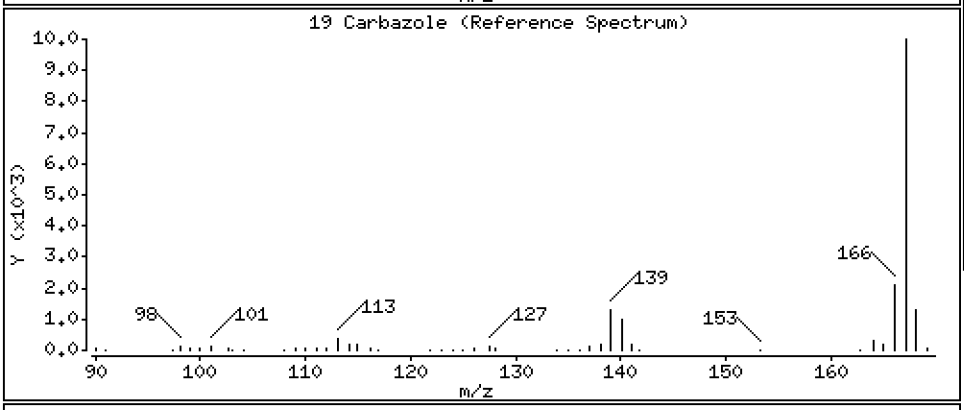
Concentration: 2.534 ug/mL

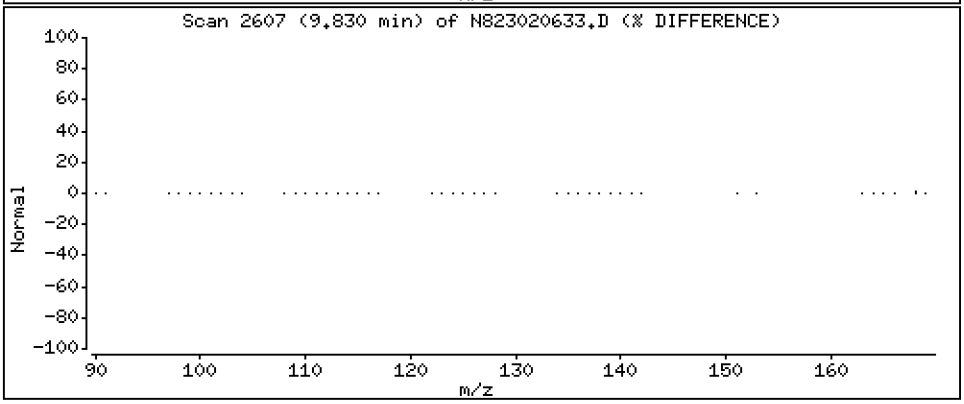












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

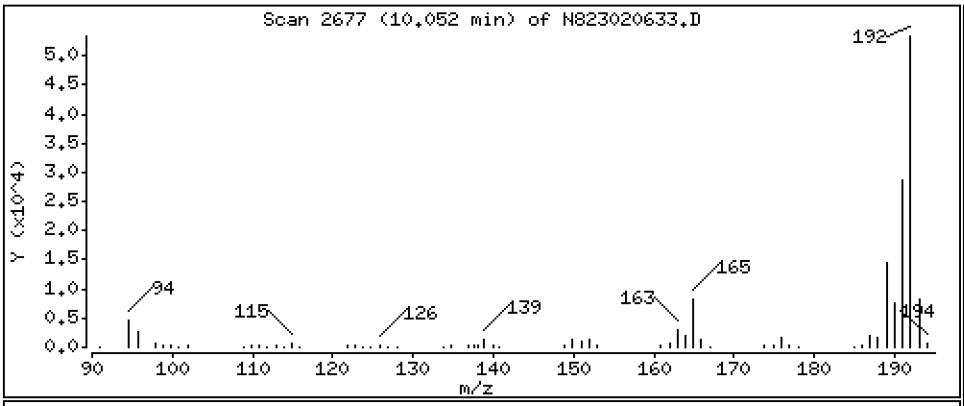
Operator: JZ

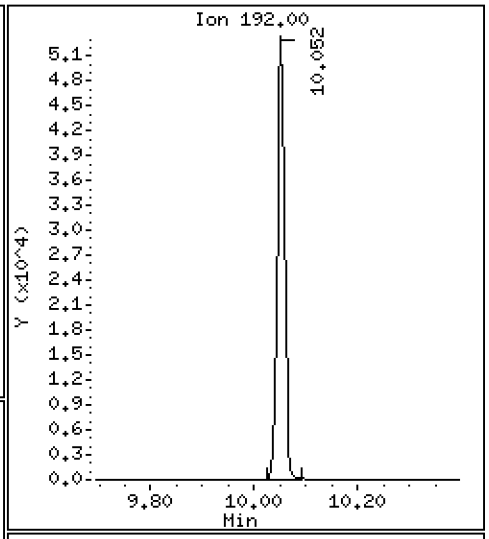
Column phase: Rxi-17sil

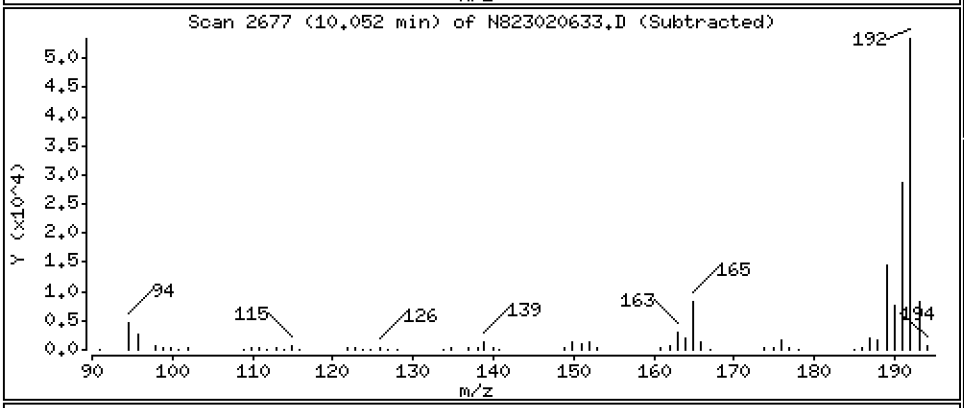
Column diameter: 0.25

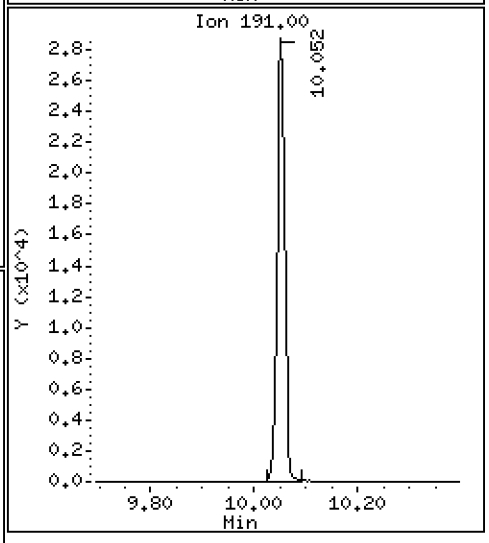
20 1-Methylphenanthrene

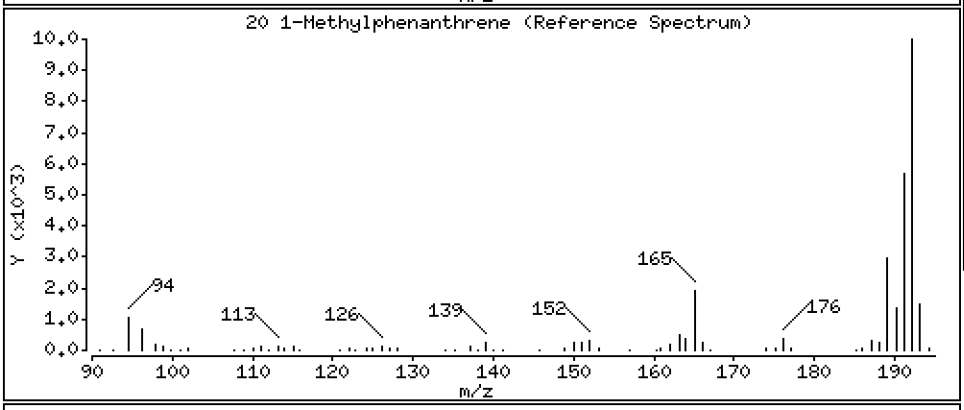
Concentration: 2.660 ug/mL

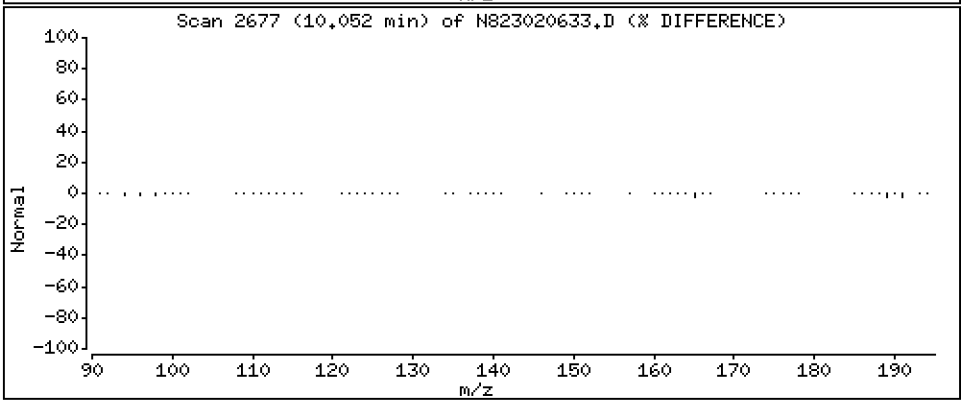












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

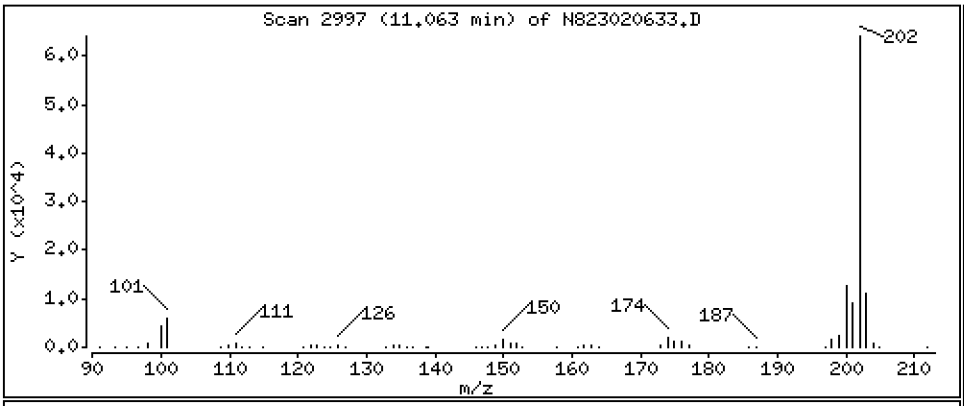
Operator: JZ

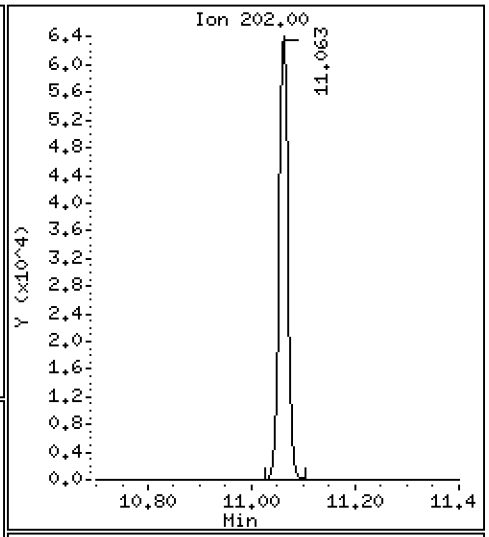
Column phase: Rxi-17sil

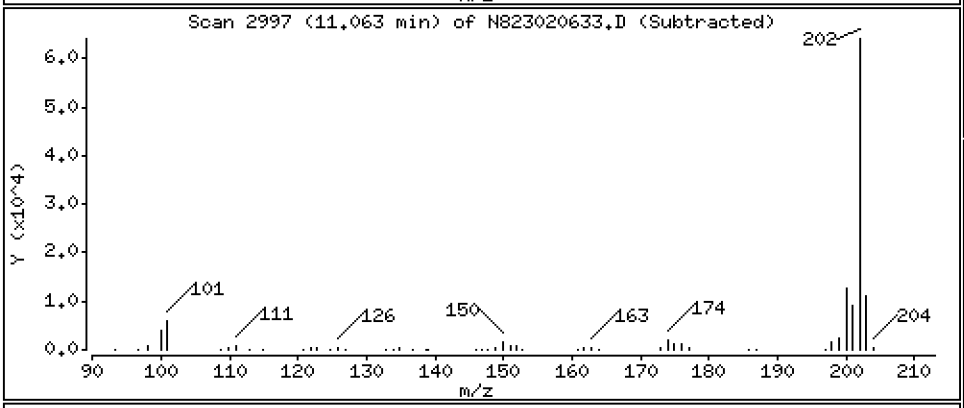
Column diameter: 0.25

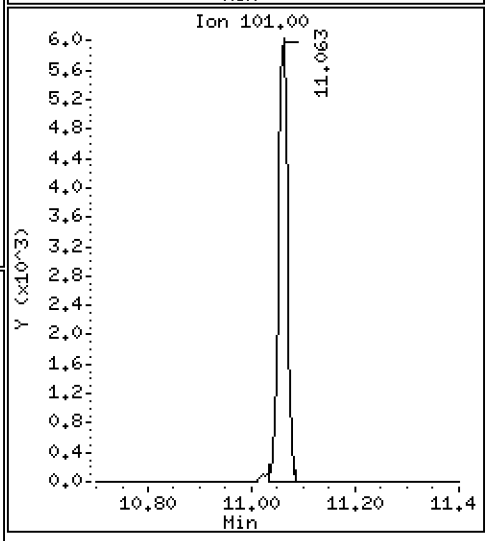
22 Fluoranthene

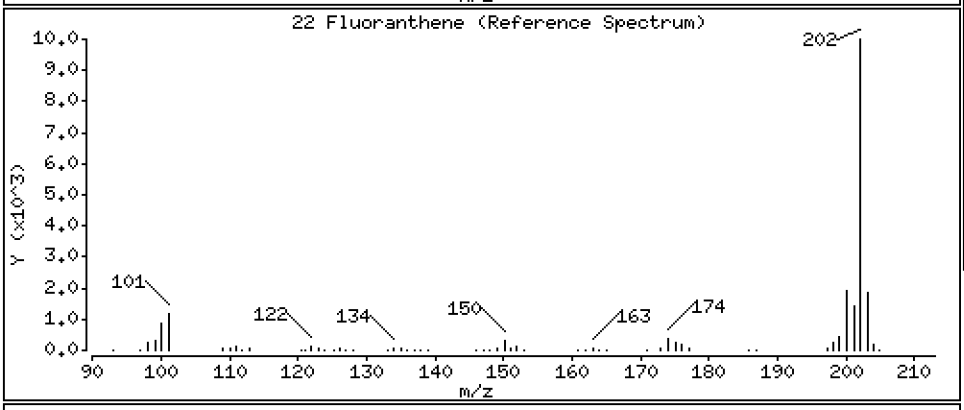
Concentration: 2.561 ug/mL

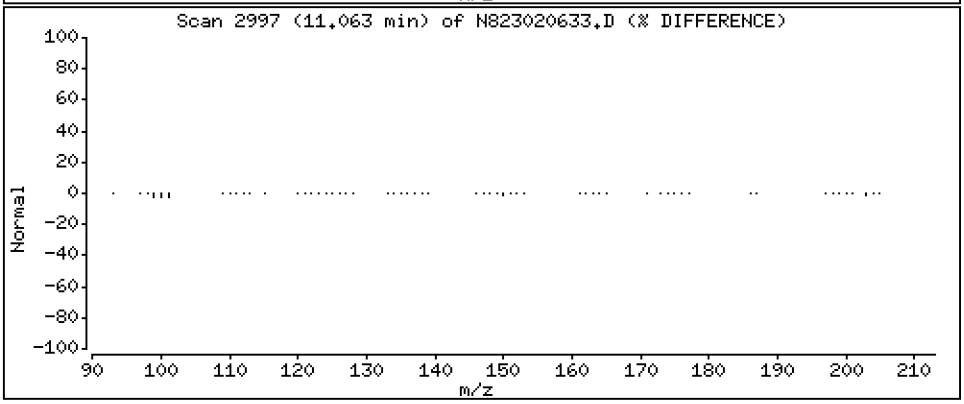












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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

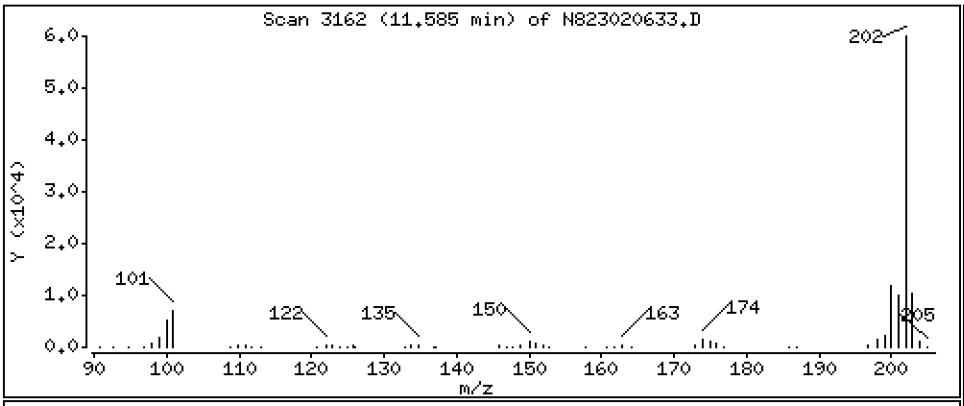
Operator: JZ

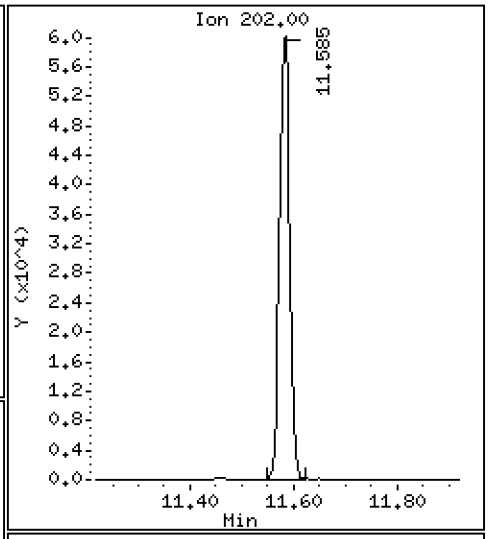
Column phase: Rxi-17sil

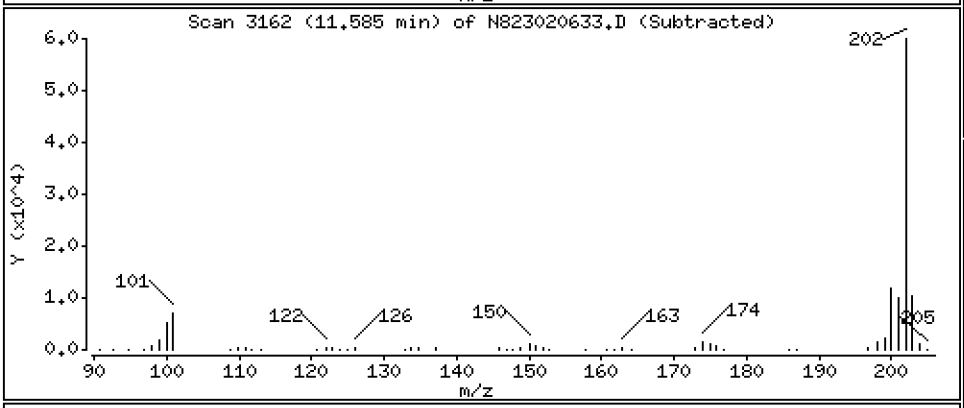
Column diameter: 0.25

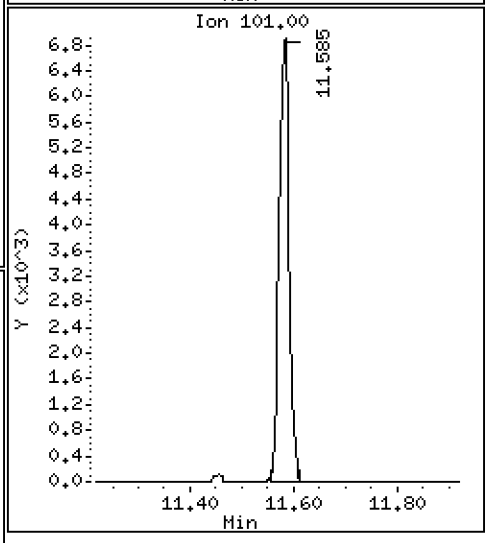
23 Pyrene

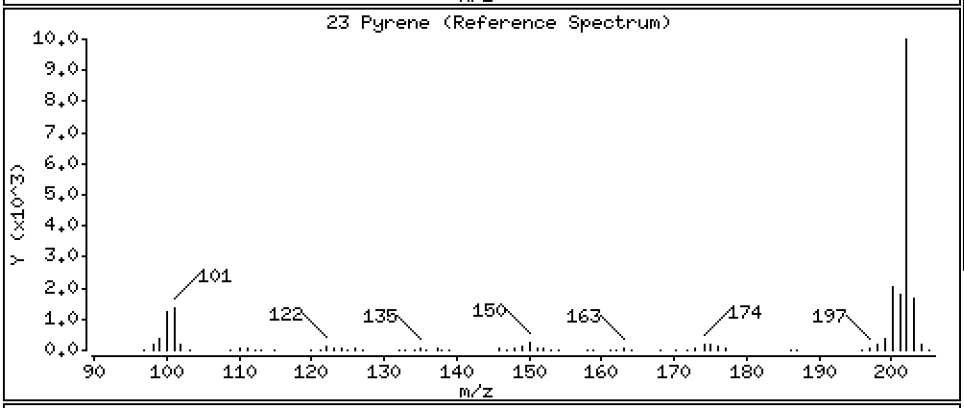
Concentration: 2.763 ug/mL

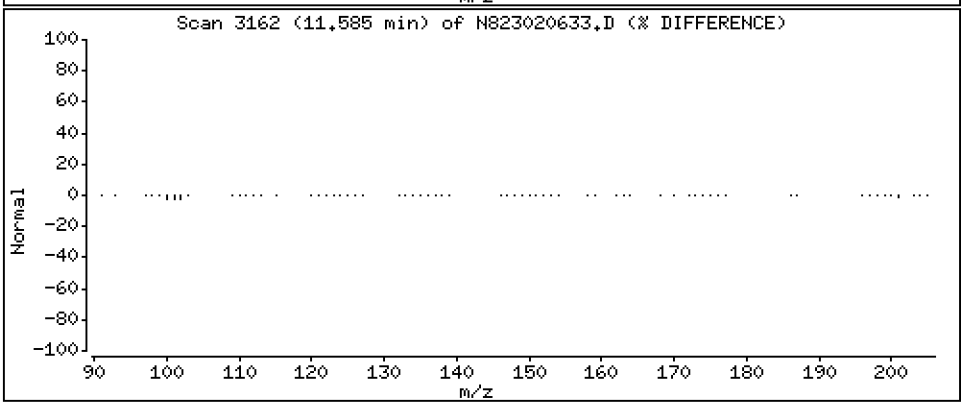












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

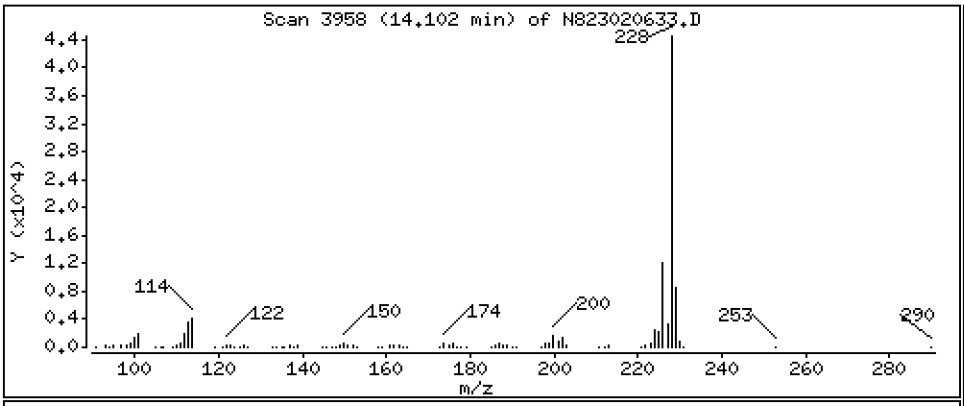
Operator: JZ

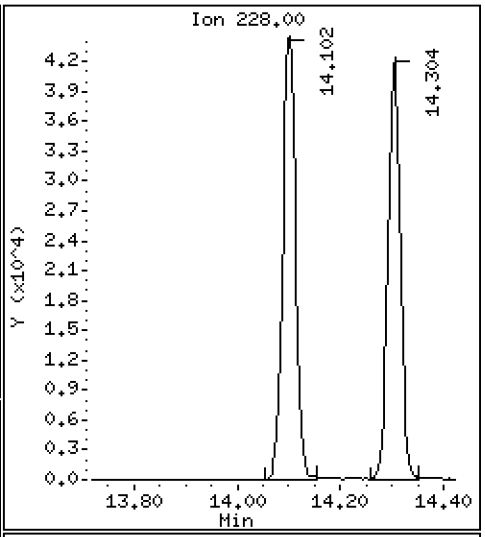
Column phase: Rxi-17sil

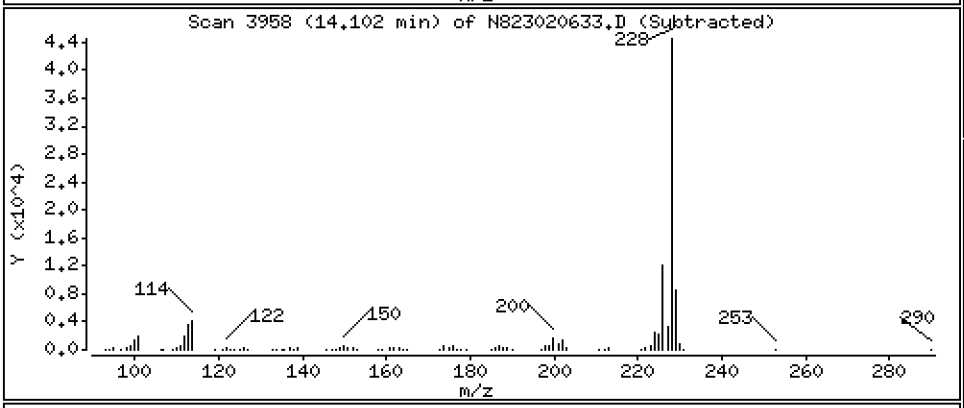
Column diameter: 0.25

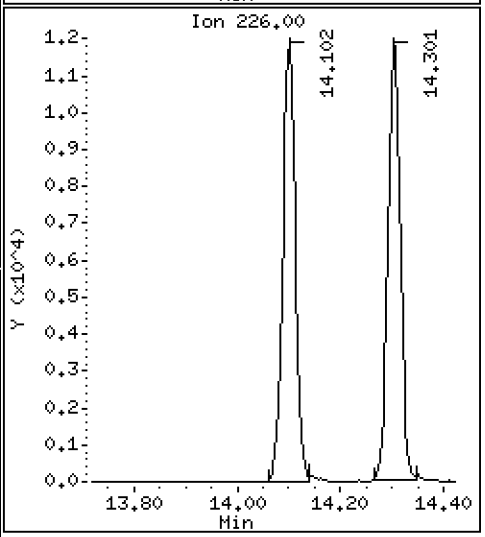
24 Benzo(a)anthracene

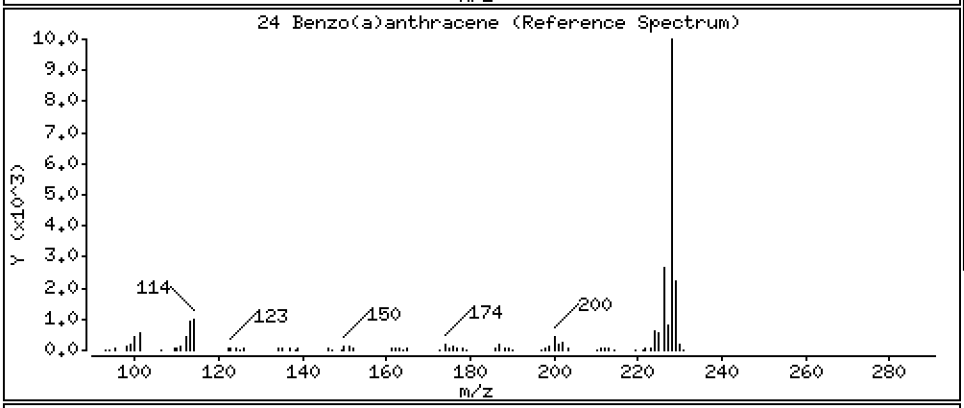
Concentration: 2.849 ug/mL

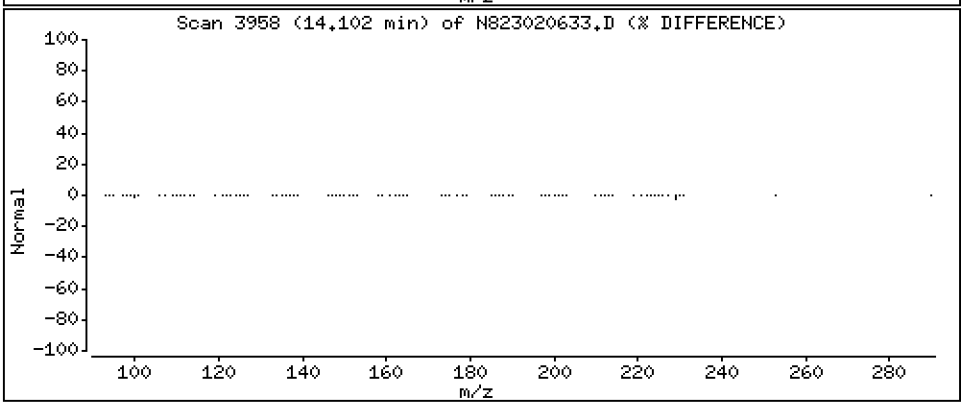












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

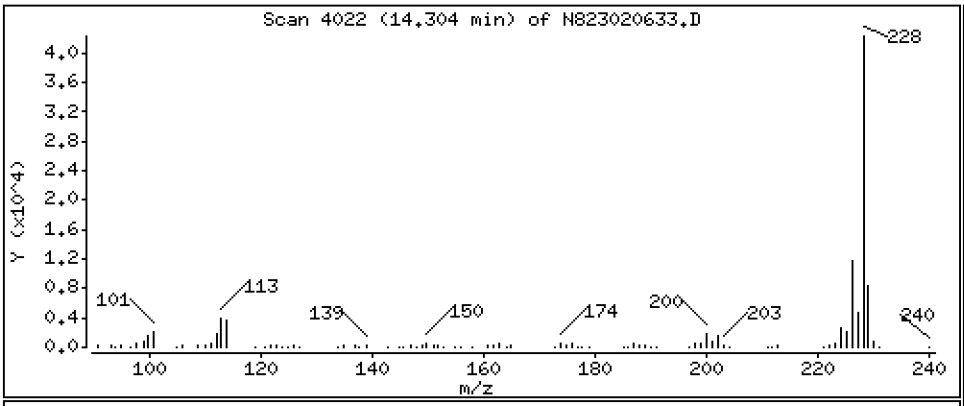
Operator: JZ

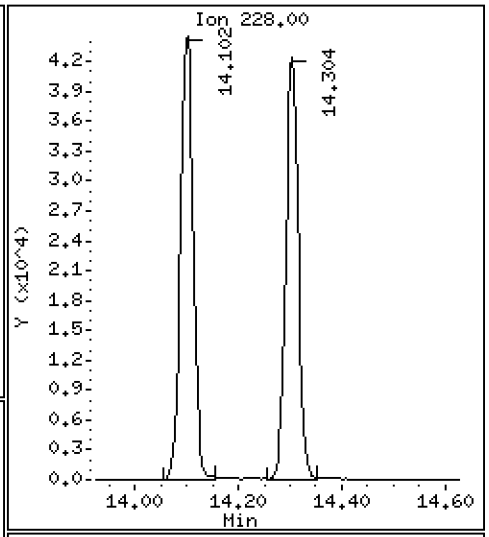
Column phase: Rxi-17sil

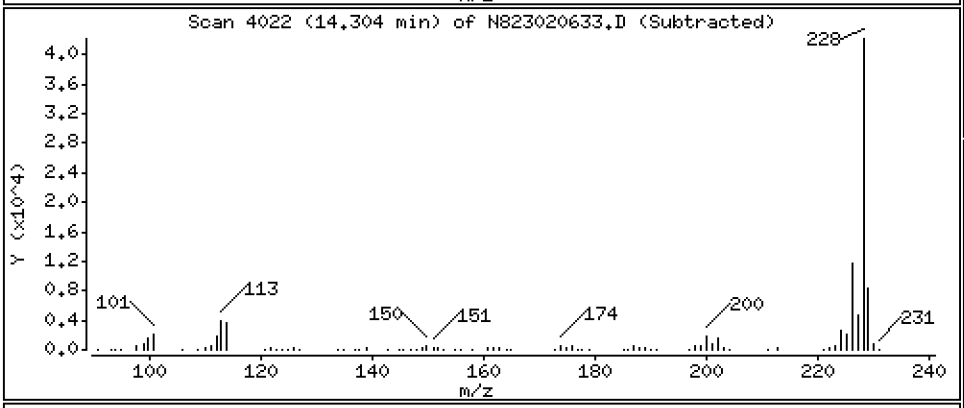
Column diameter: 0.25

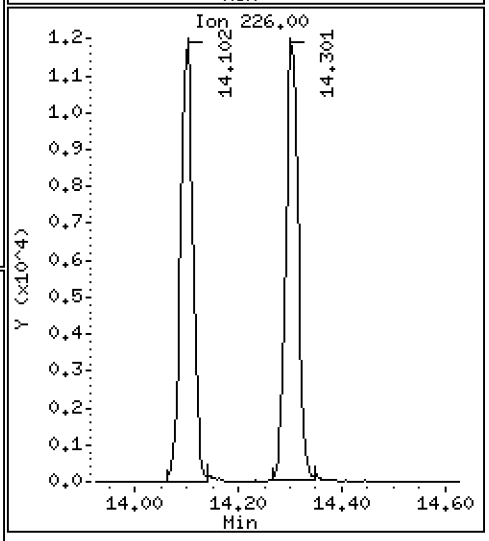
27 Chrysene

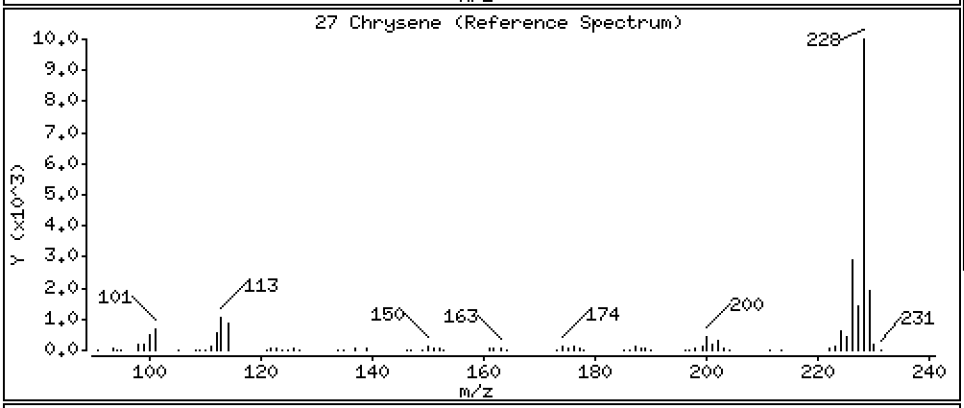
Concentration: 2.458 ug/mL

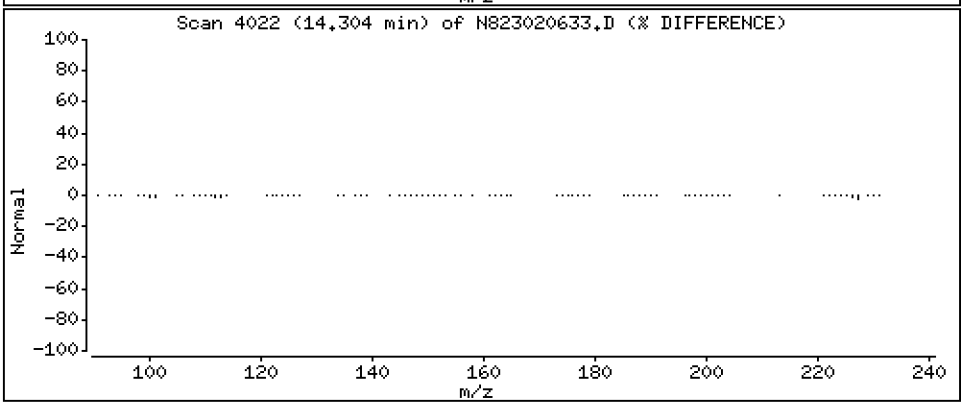












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

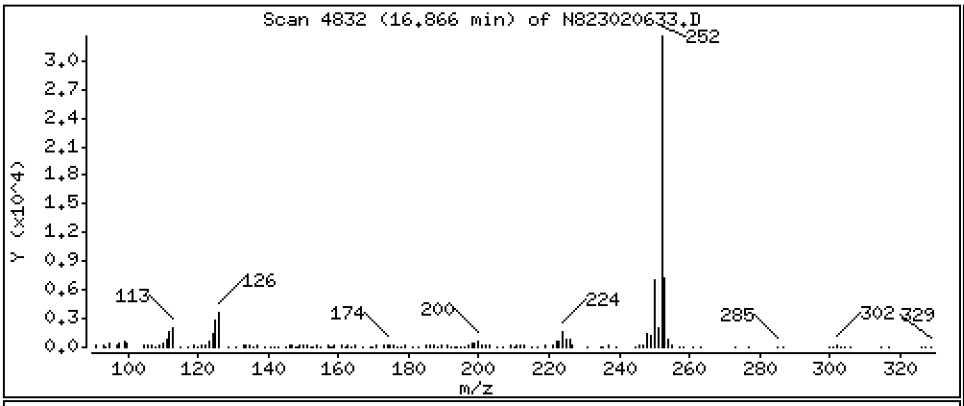
Operator: JZ

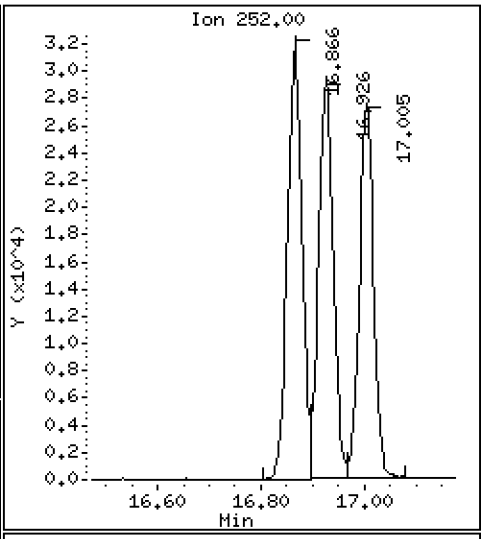
Column phase: Rxi-17sil

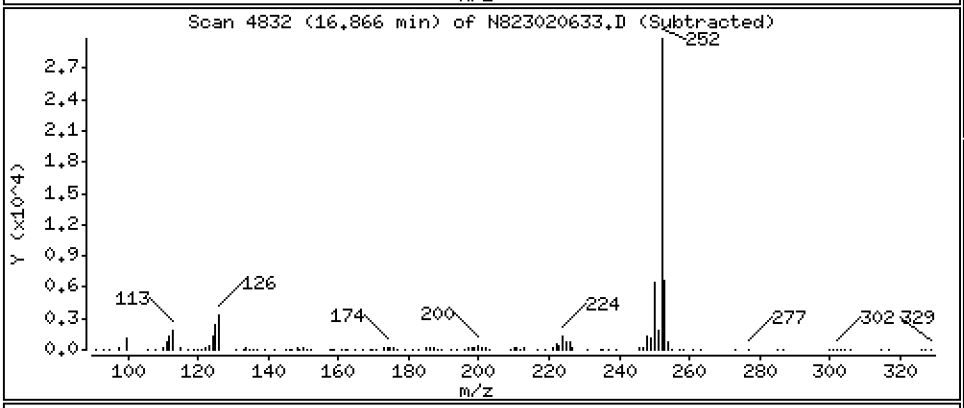
Column diameter: 0.25

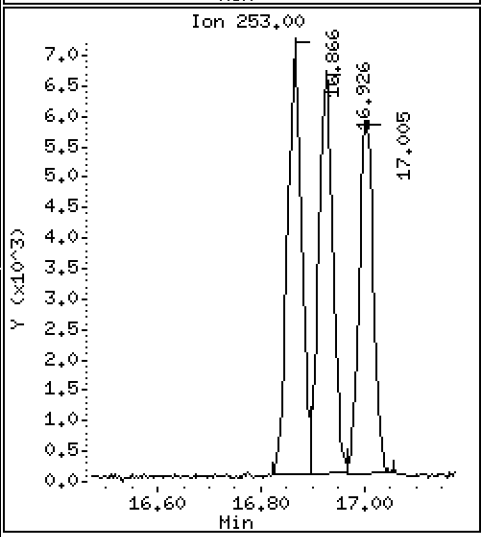
28 Benzo(b)fluoranthene

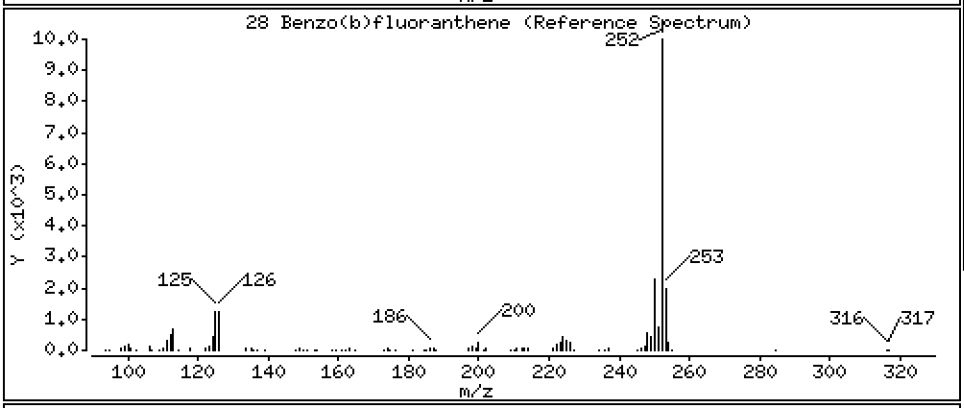
Concentration: 2.927 ug/mL

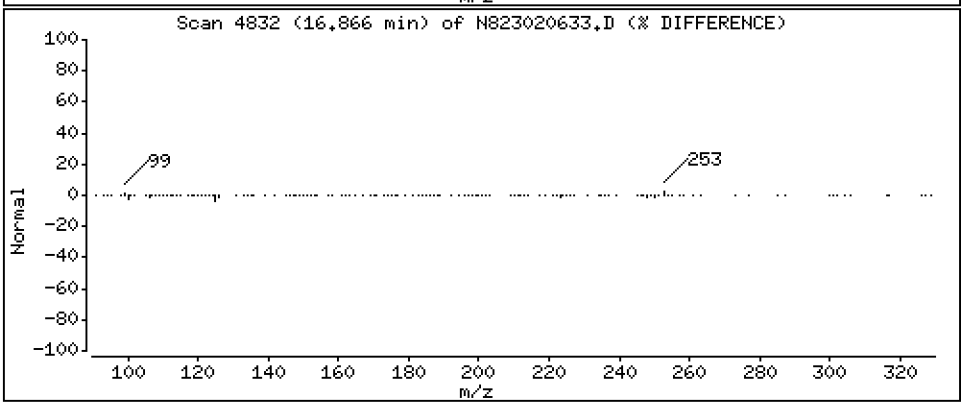












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

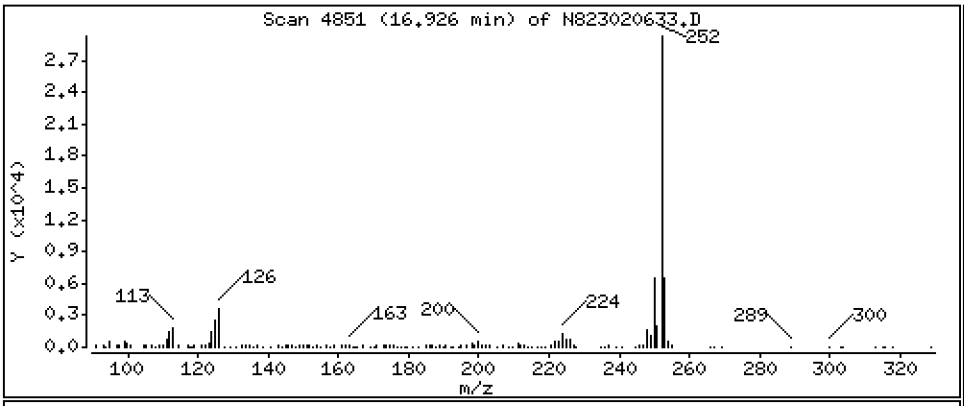
Operator: JZ

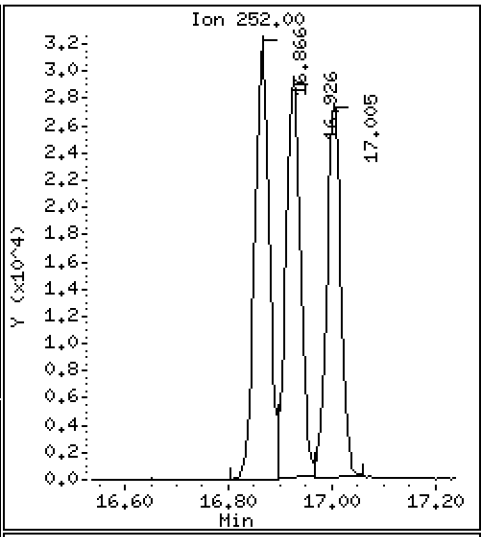
Column phase: Rxi-17sil

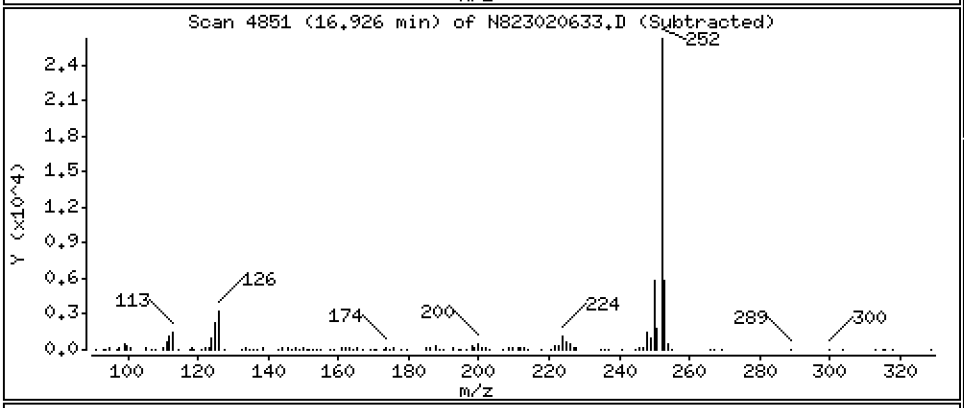
Column diameter: 0.25

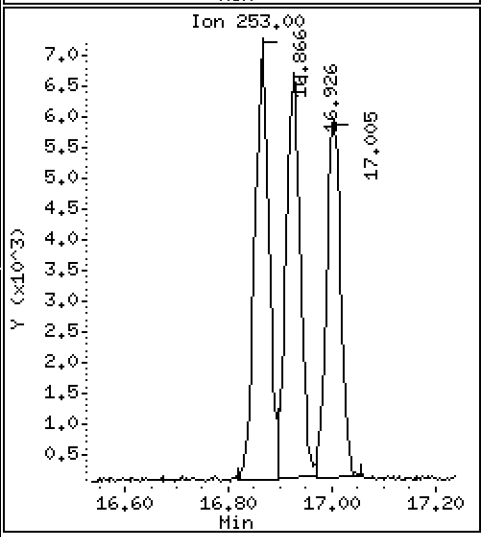
29 Benzo(k)fluoranthene

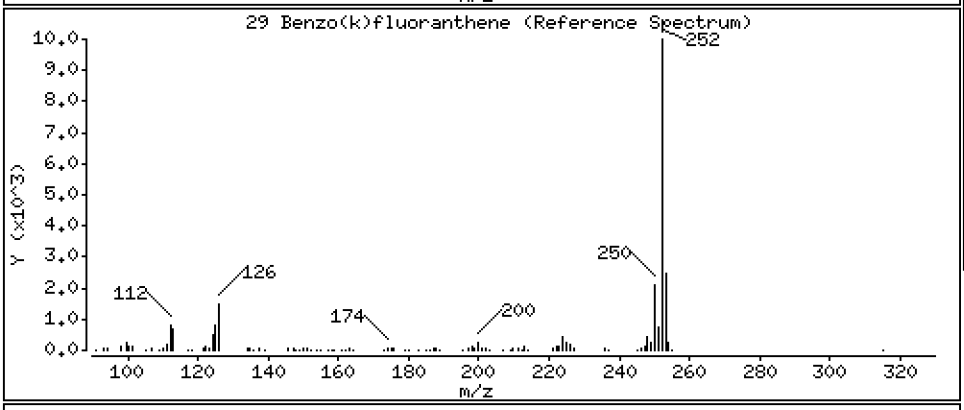
Concentration: 2.722 ug/mL

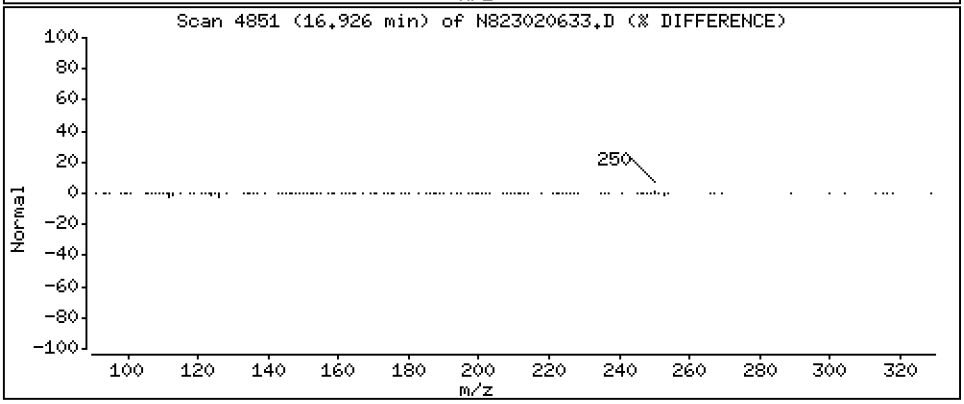












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

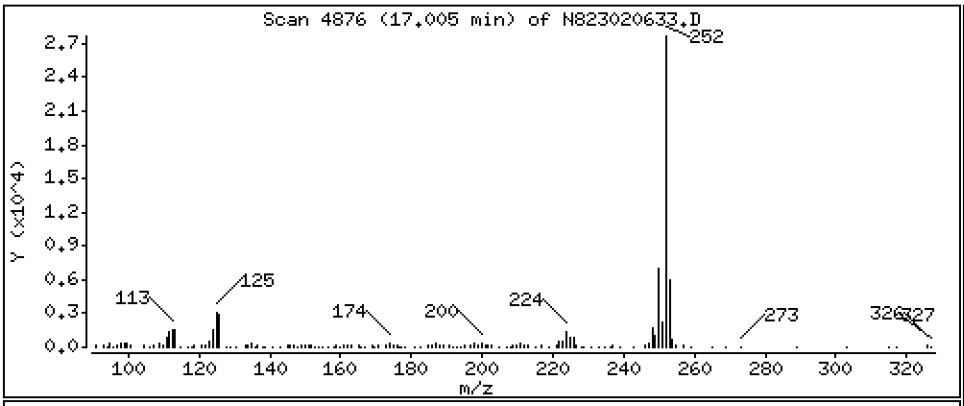
Operator: JZ

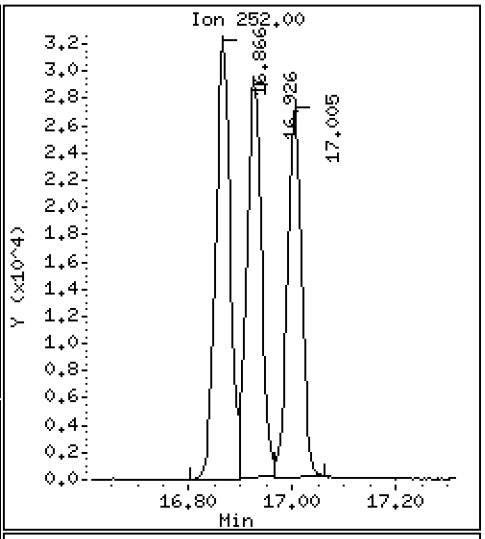
Column phase: Rxi-17sil

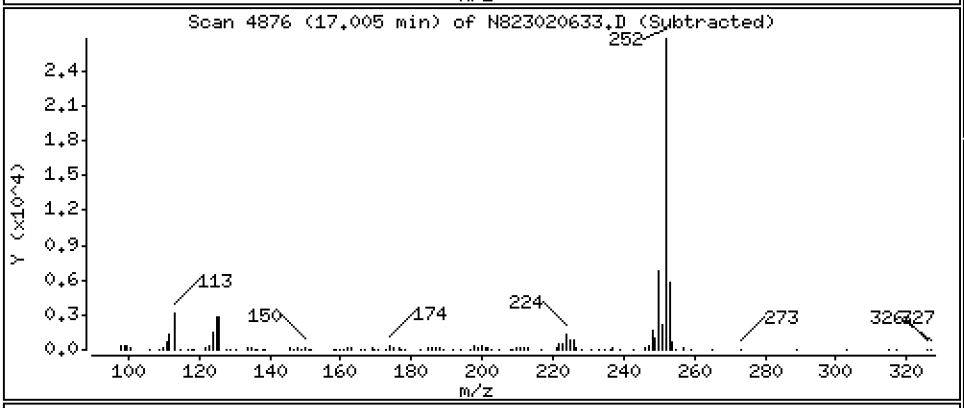
Column diameter: 0.25

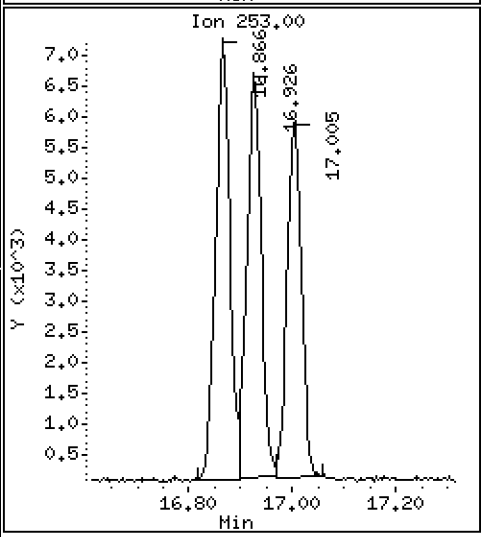
30 Benzo(j)fluoranthene

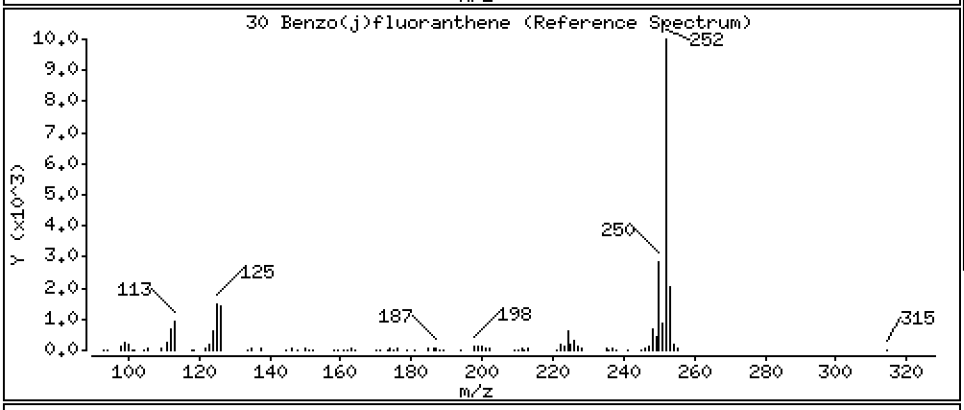
Concentration: 2.719 ug/mL

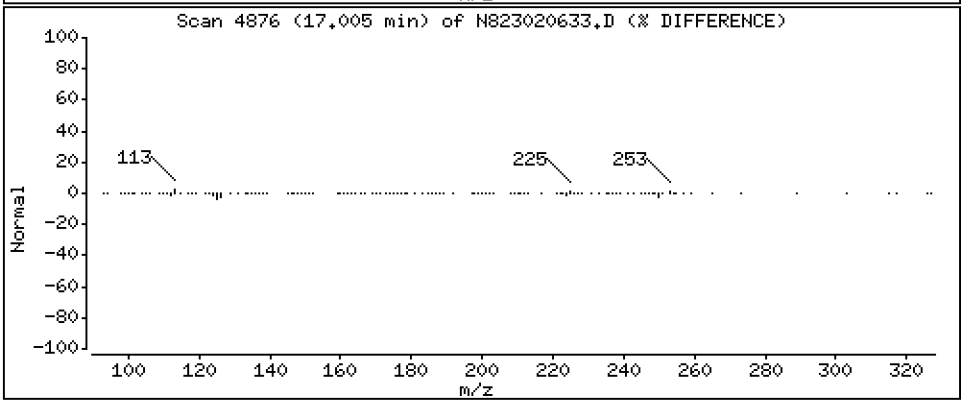












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

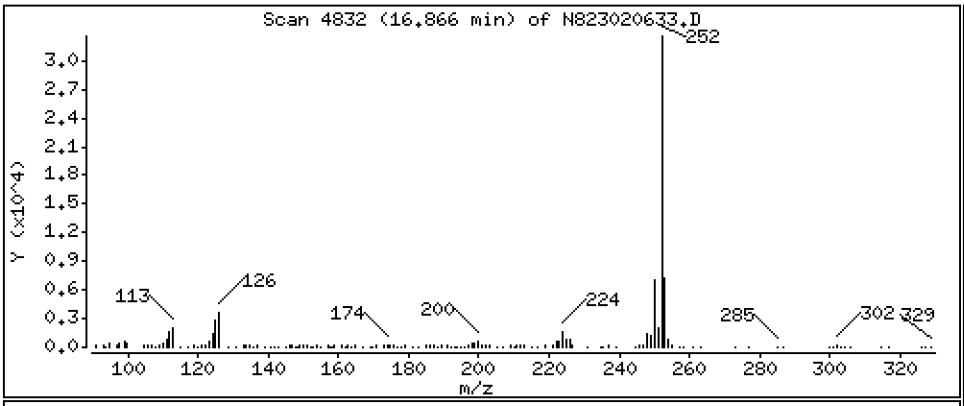
Operator: JZ

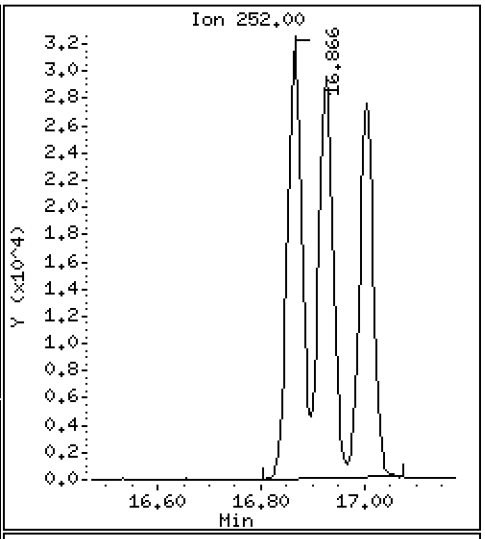
Column phase: Rxi-17sil

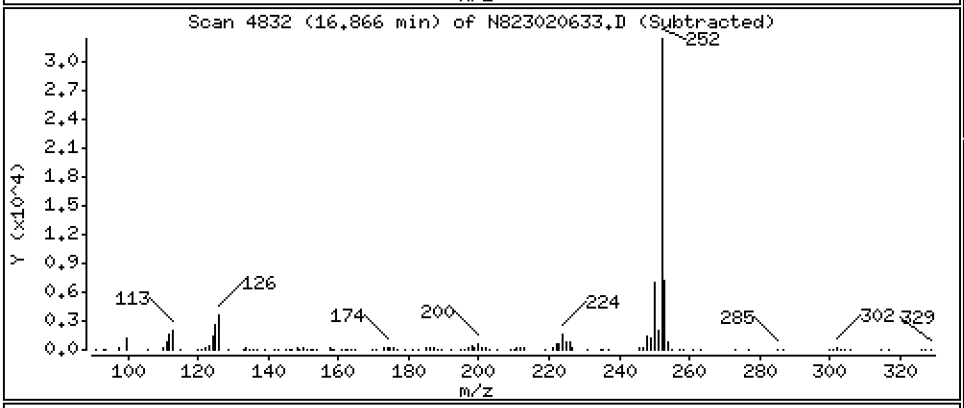
Column diameter: 0.25

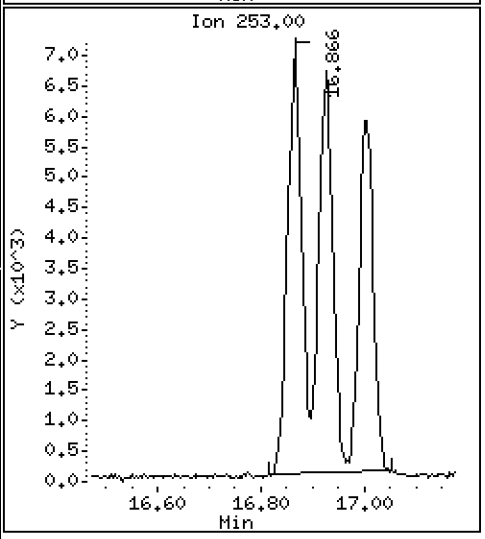
31 Total Benzofluoranthenes

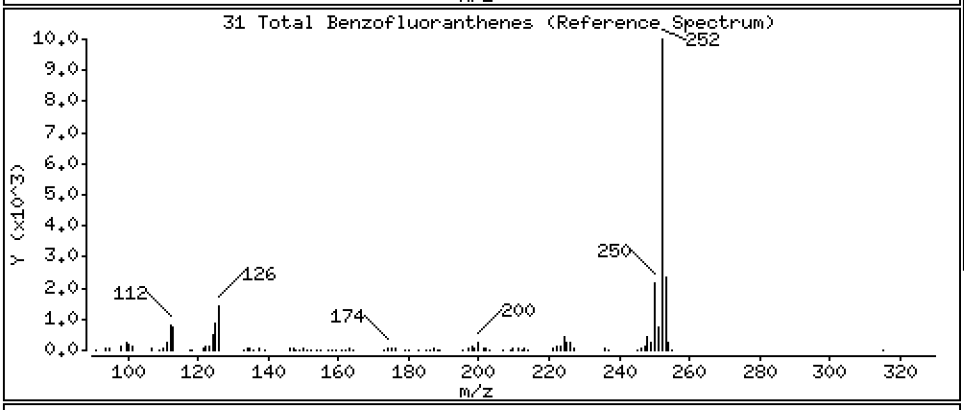
Concentration: 8.381 ug/mL

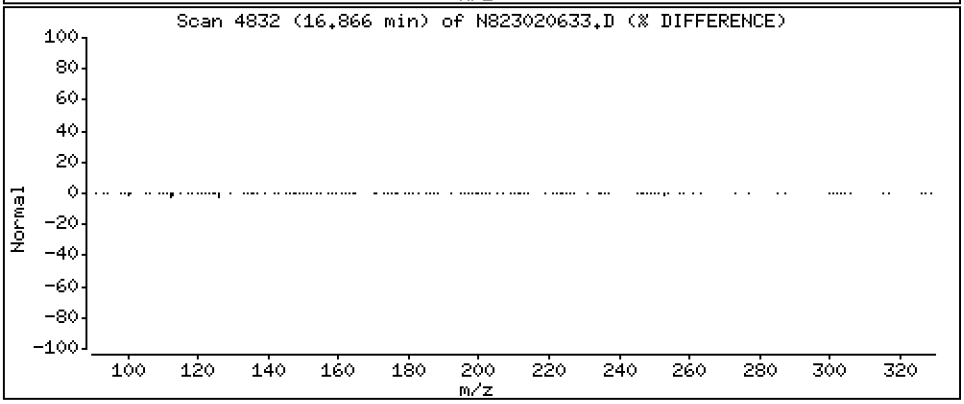












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

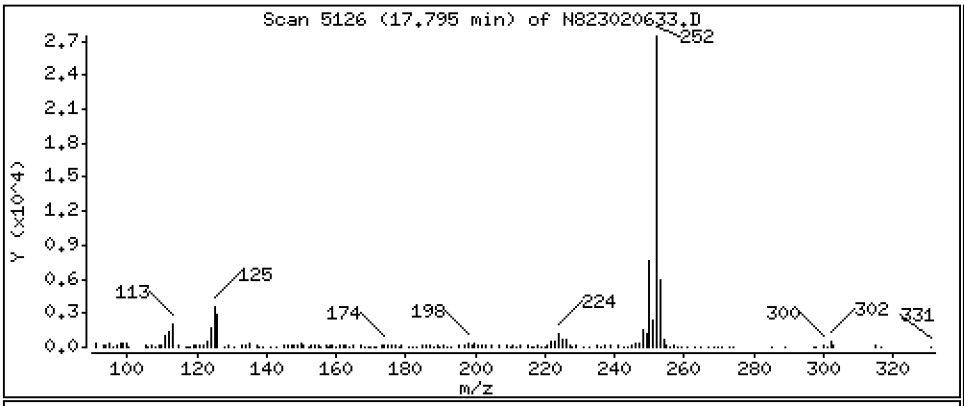
Operator: JZ

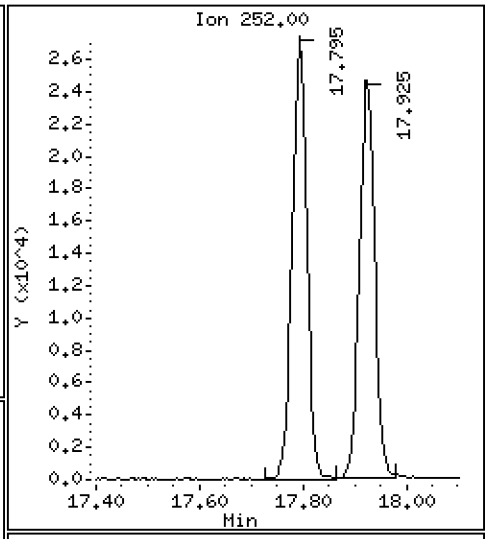
Column phase: Rxi-17sil

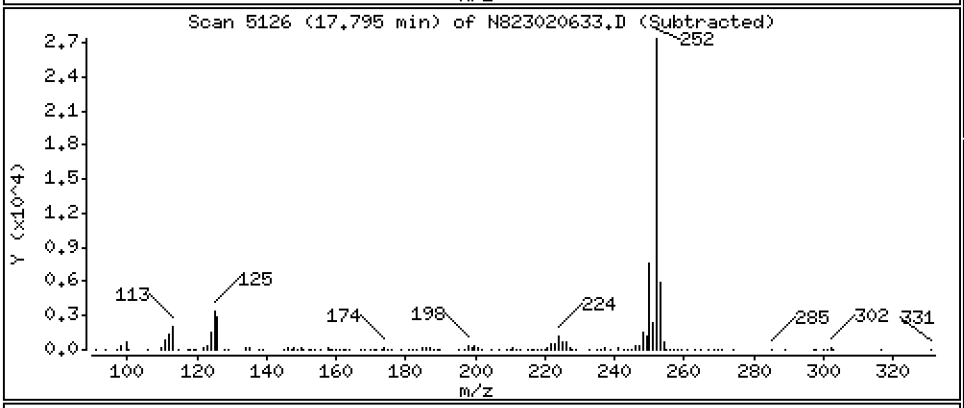
Column diameter: 0.25

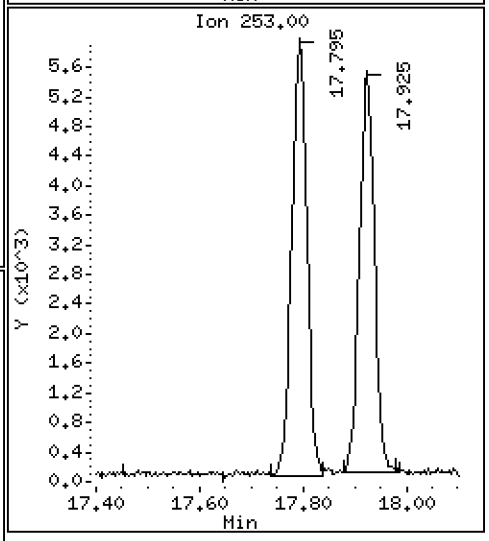
34 Benzo(e)pyrene

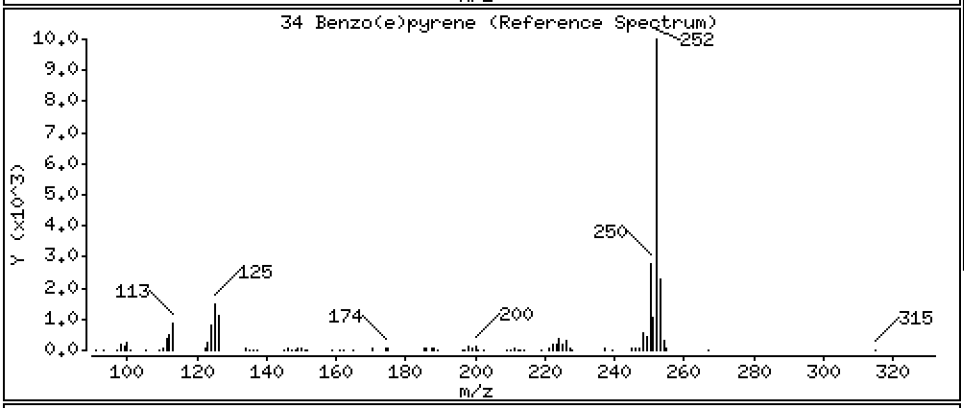
Concentration: 2.516 ug/mL

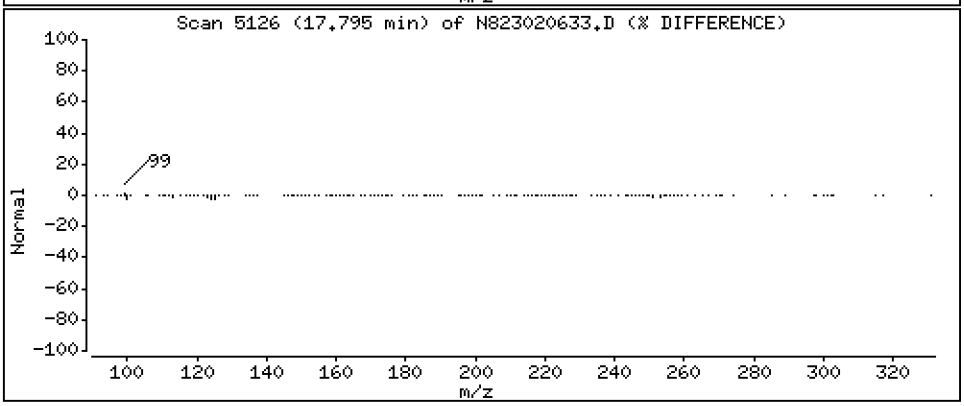












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

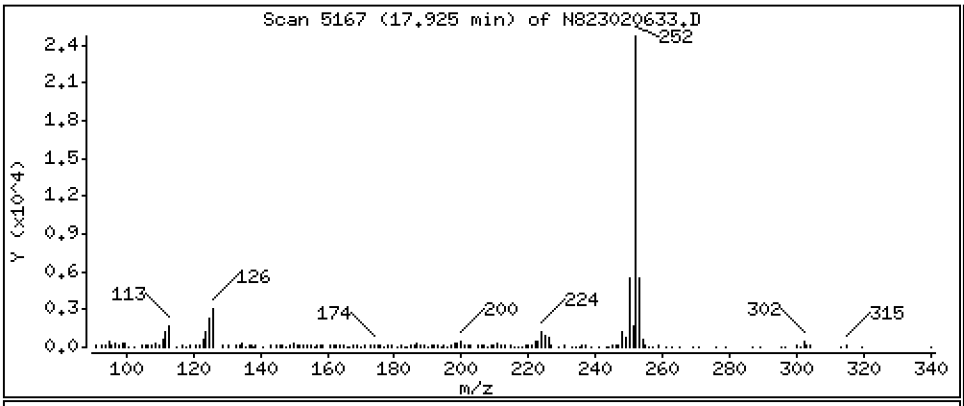
Operator: JZ

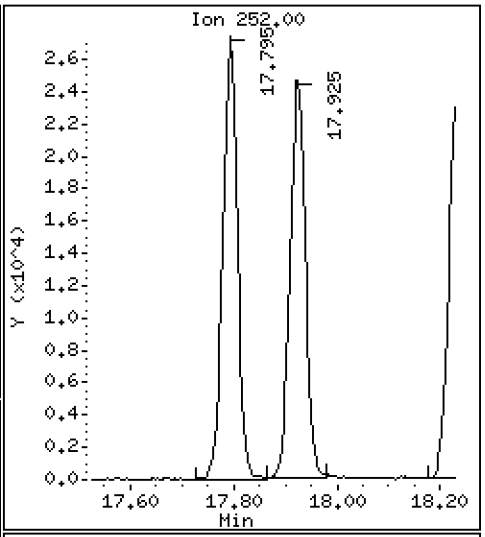
Column phase: Rxi-17sil

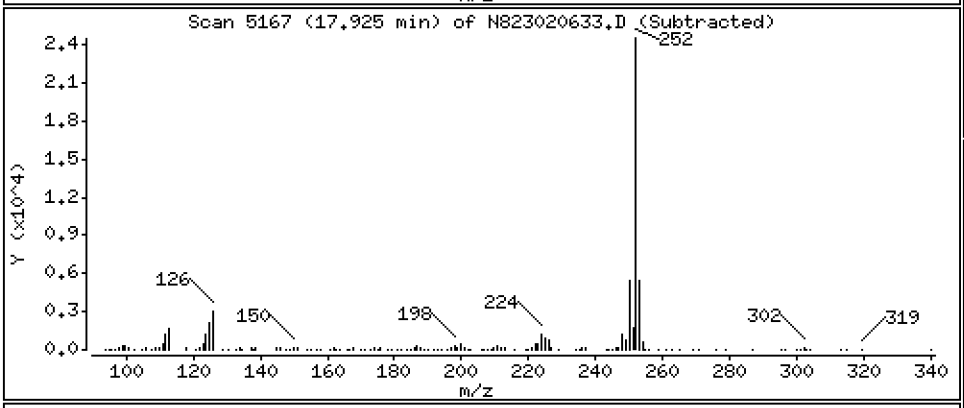
Column diameter: 0.25

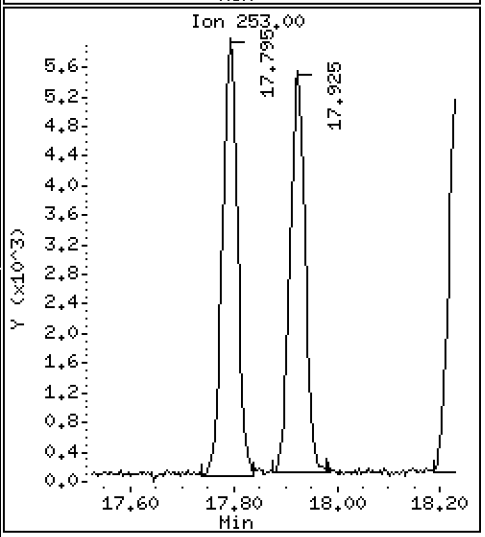
32 Benzo(a)pyrene

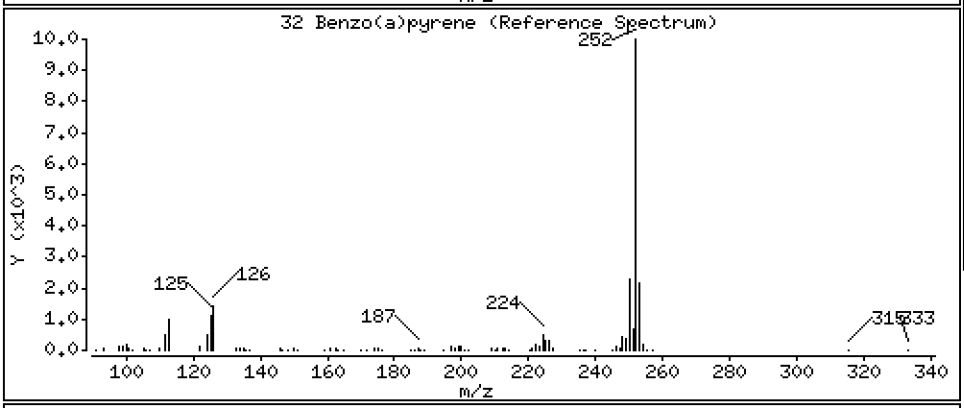
Concentration: 2.654 ug/mL

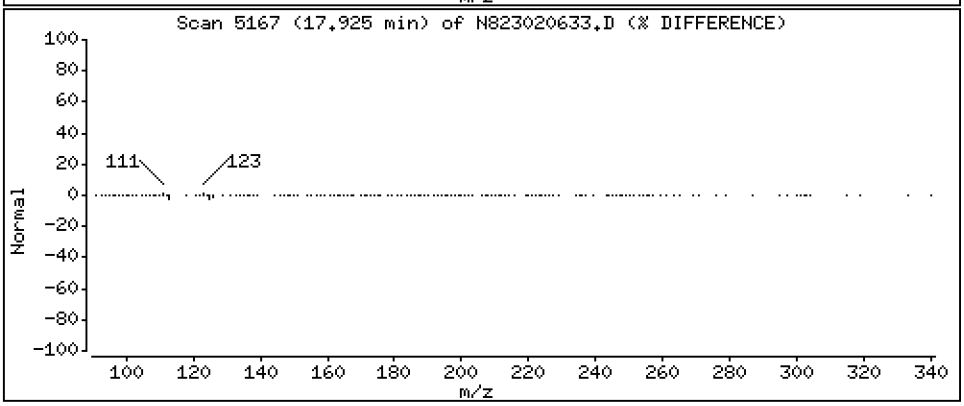












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

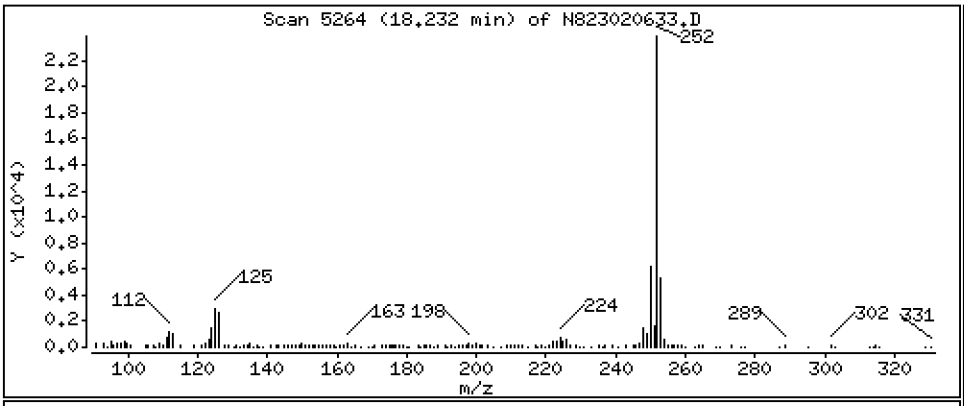
Operator: JZ

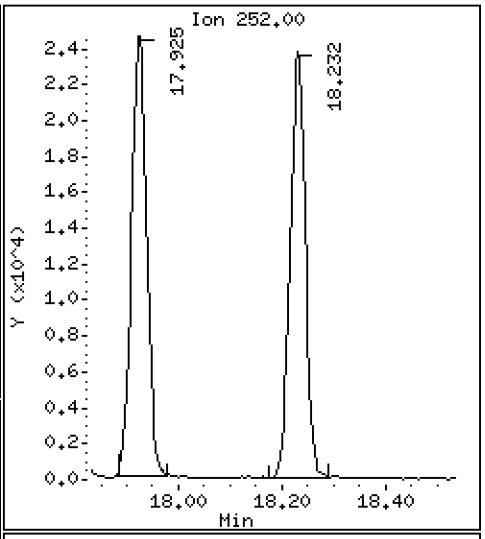
Column phase: Rxi-17sil

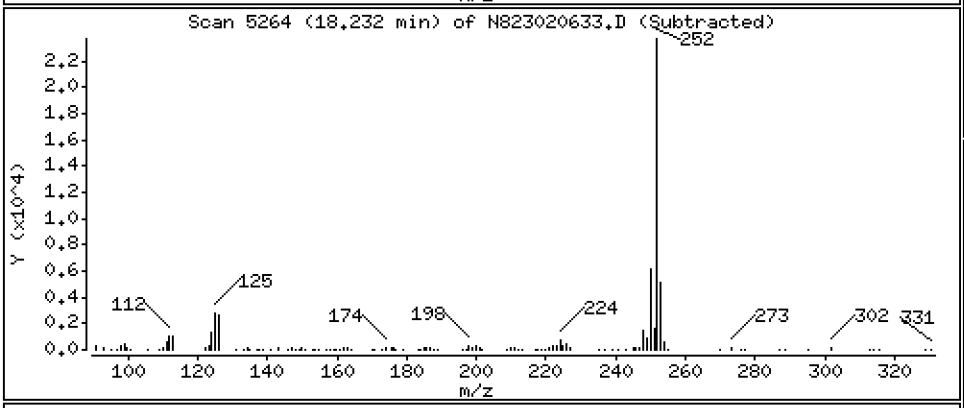
Column diameter: 0.25

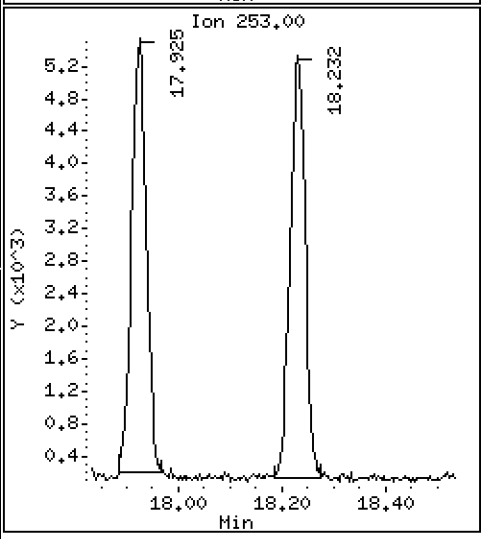
35 Perylene

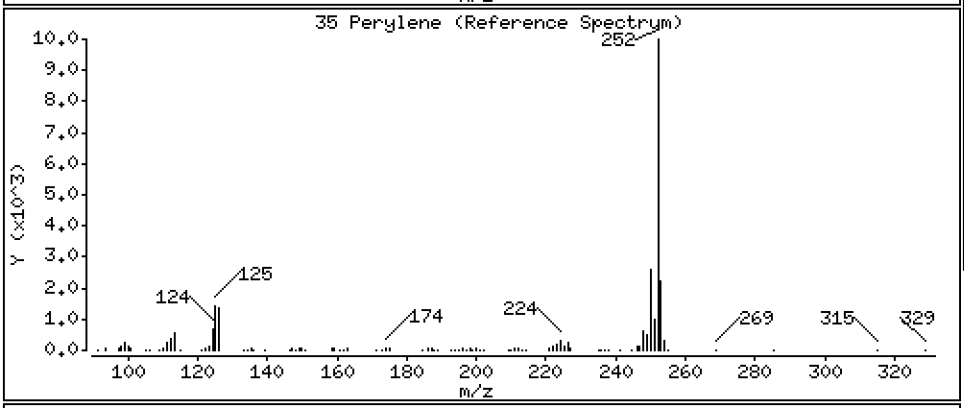
Concentration: 2.357 ug/mL

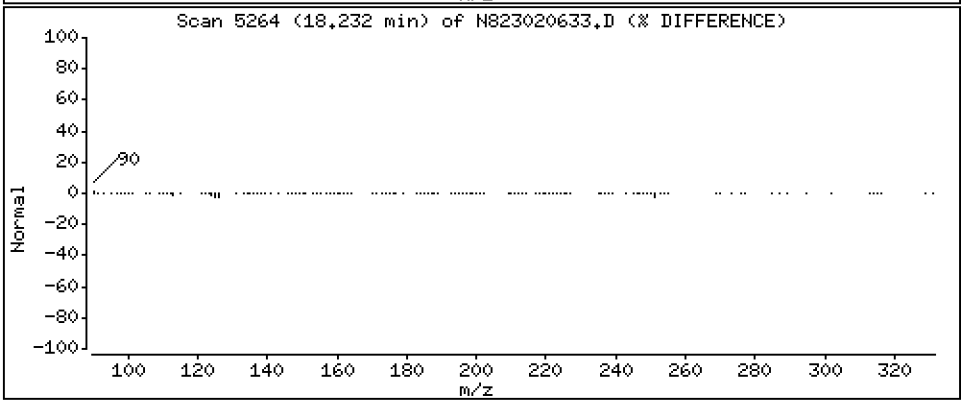












Data File: \\target\share\chem3\nt8.i\20230206A.b\N823020633.D

Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

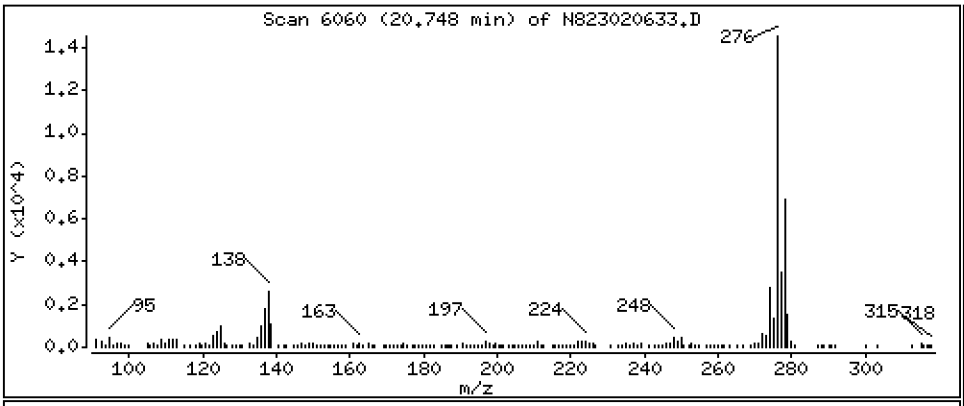
Operator: JZ

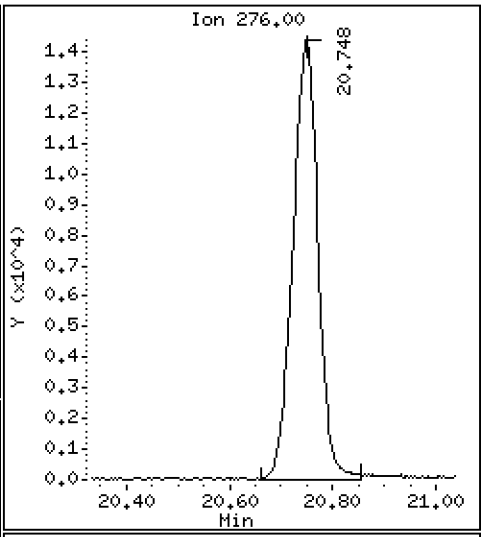
Column phase: Rxi-17sil

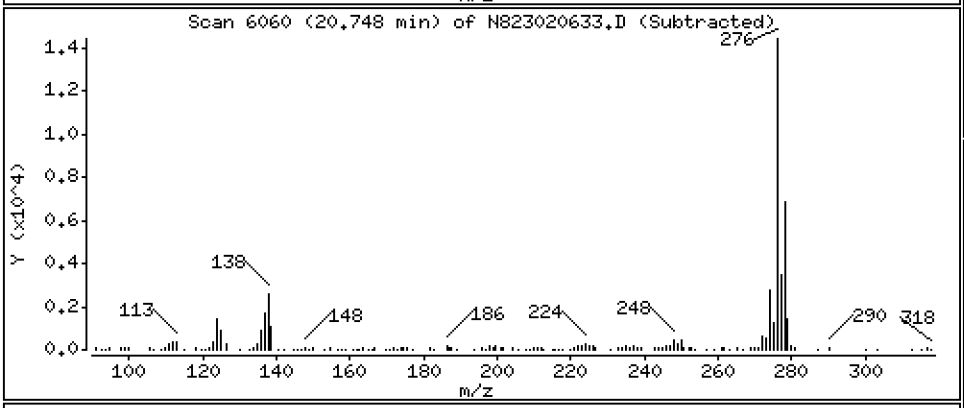
Column diameter: 0.25

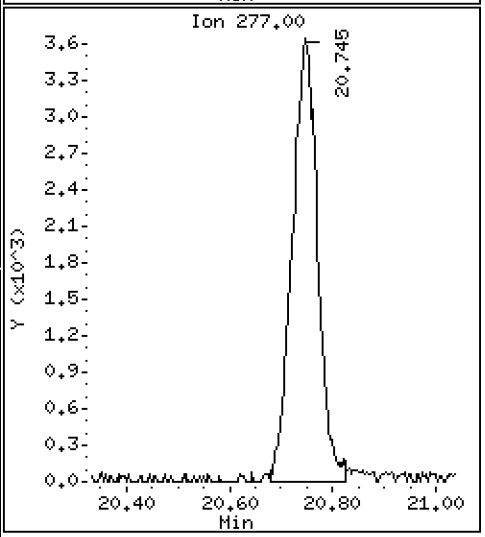
37 Indeno(1,2,3-cd)pyrene

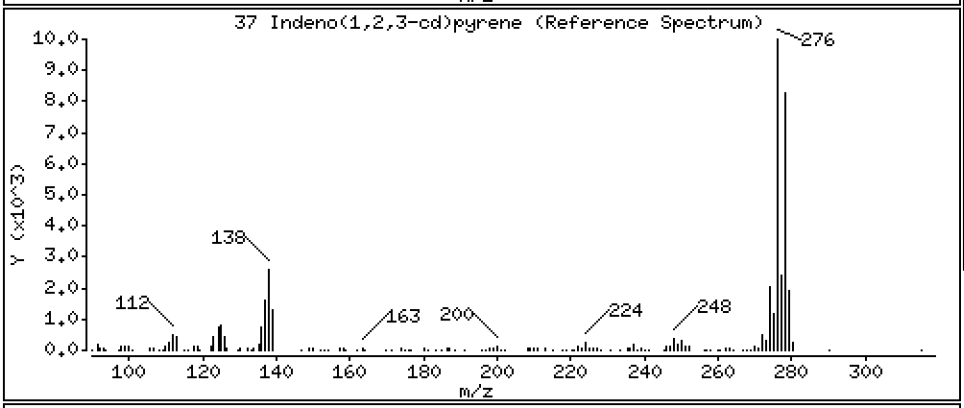
Concentration: 2.256 ug/mL

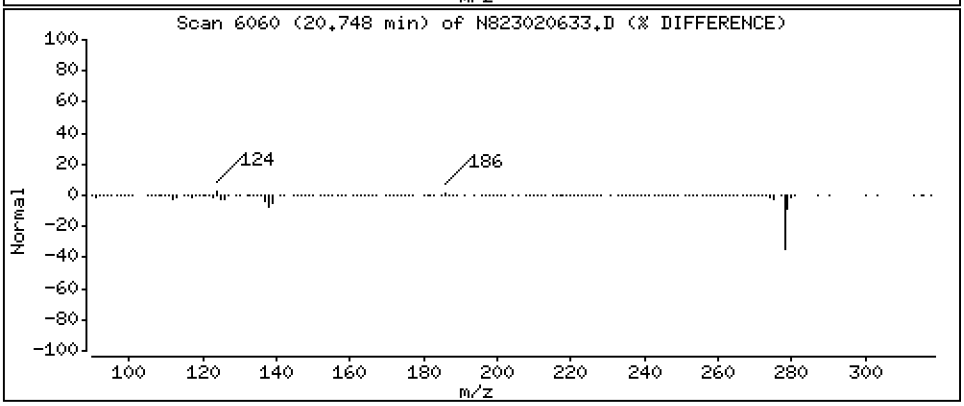












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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

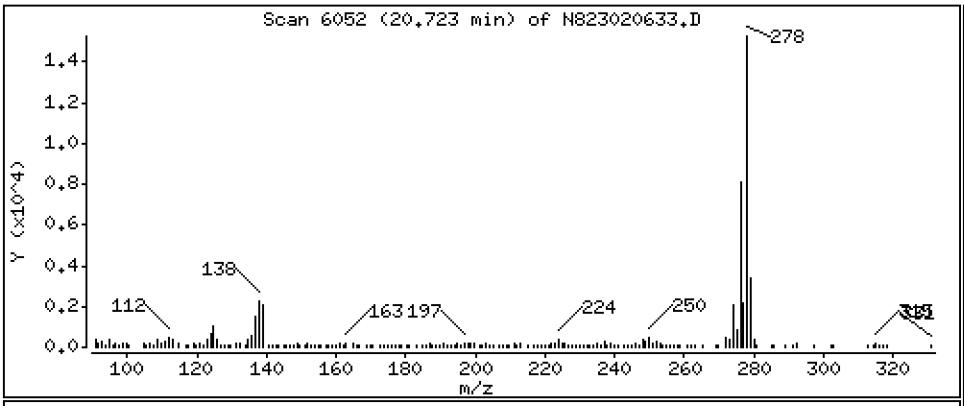
Operator: JZ

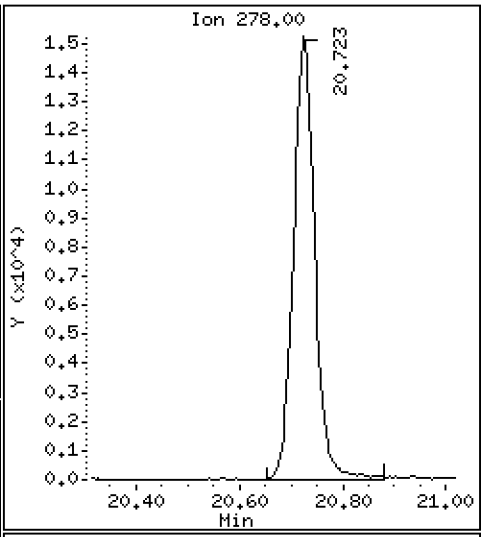
Column phase: Rxi-17sil

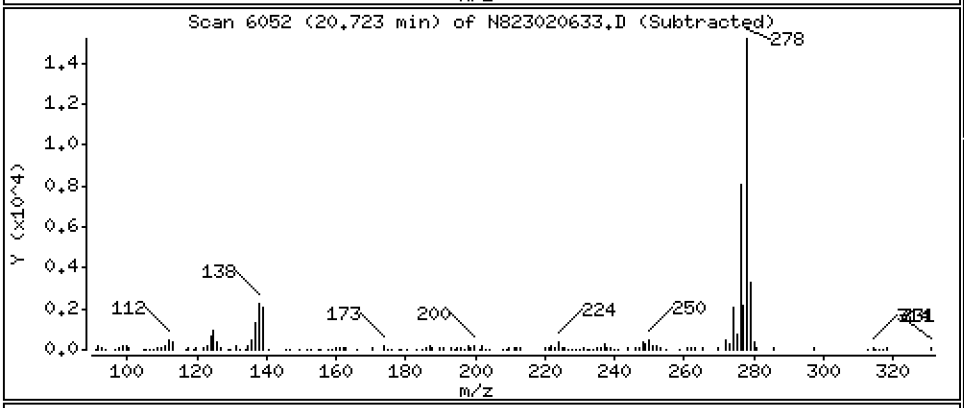
Column diameter: 0.25

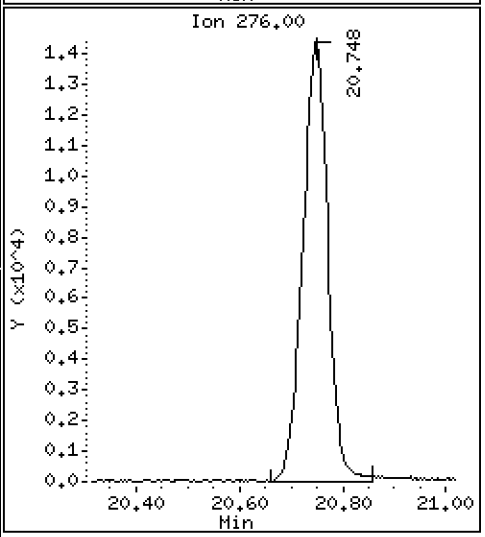
38 Dibenzo(a,h)anthracene

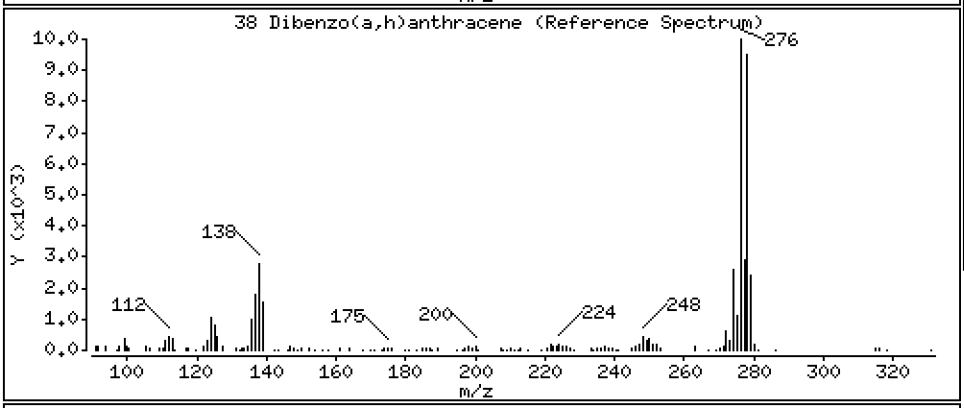
Concentration: 2.351 ug/mL

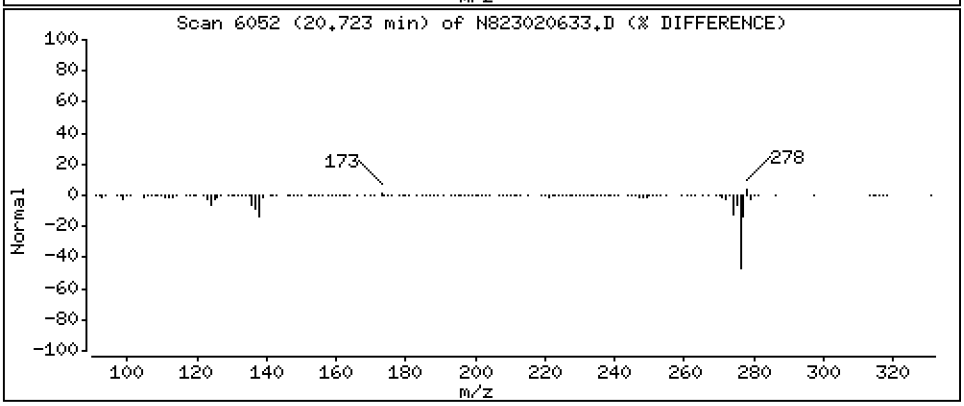












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Date : 07-FEB-2023 03:09

Client ID:

Instrument: nt8.i

Sample Info: CCV230206A

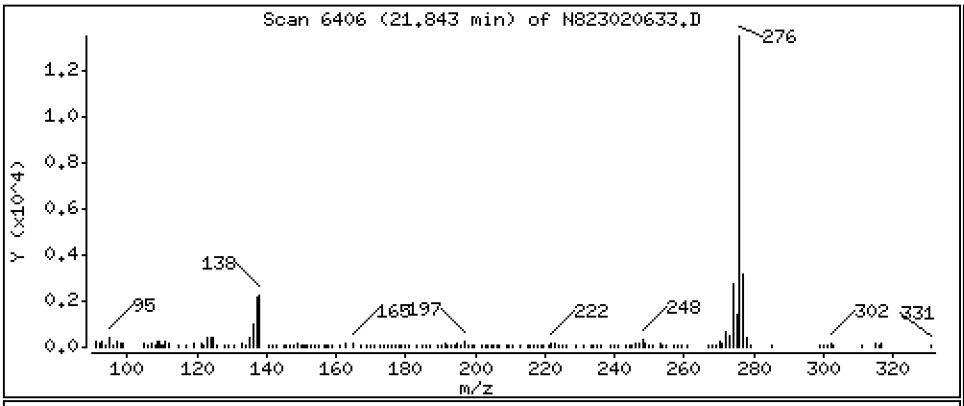
Operator: JZ

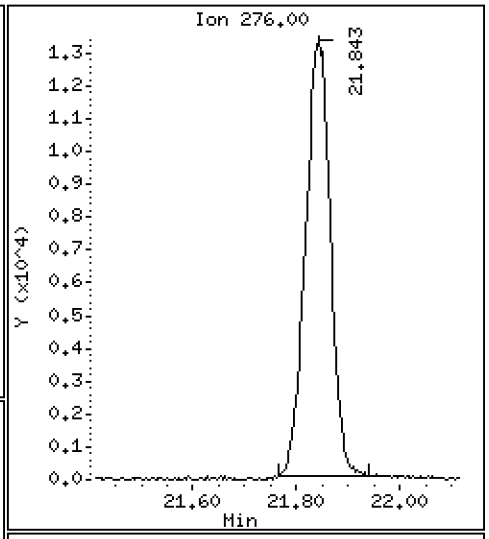
Column phase: Rxi-17sil

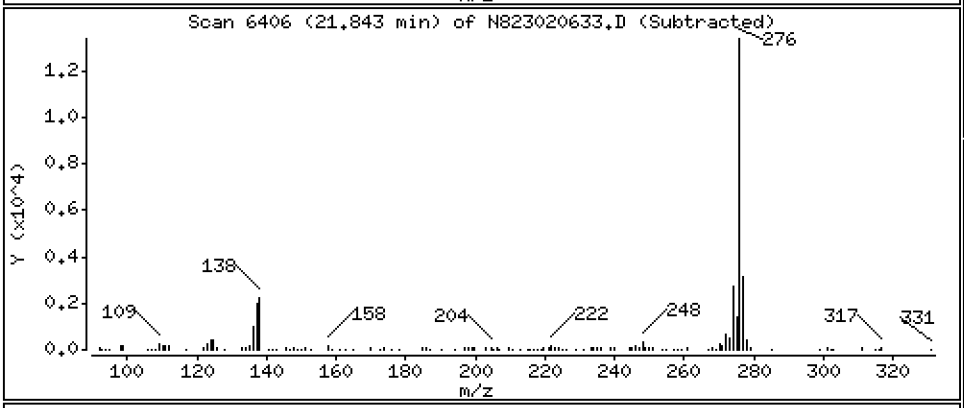
Column diameter: 0.25

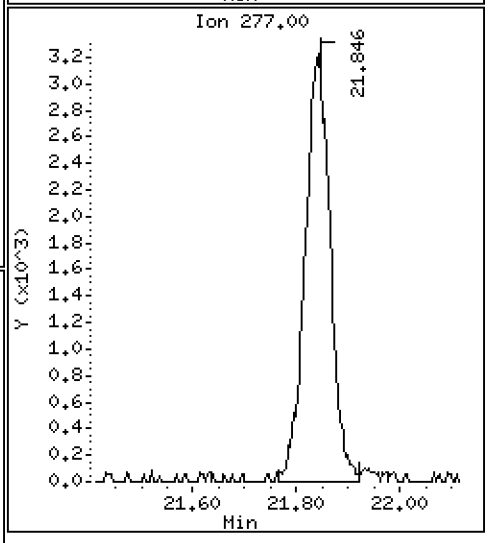
39 Benzo(g,h,i)perylene

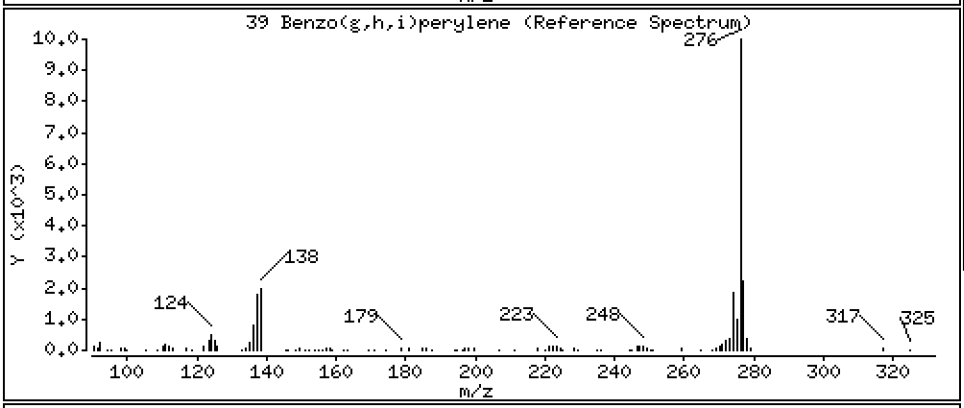
Concentration: 2.282 ug/mL

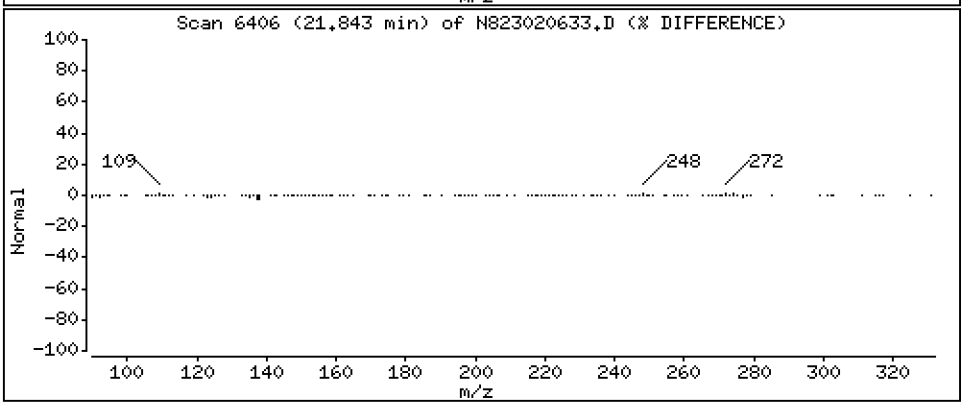












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230206A.b\N823020633.D
Lab Smp Id: SLB0075-CCV1
Inj Date : 07-FEB-2023 03:09
Operator : JZ Inst ID: nt8.i
Smp Info : CCV230206A
Misc Info : 23-
Comment : 1ul Injection
Method : \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Meth Date : 07-Feb-2023 13:04 jianqing Quant Type: ISTD
Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
Target Version: 4.14
Processing Host: JIANQING-202105

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
*	1 Naphthalene-d8	136	4.891	4.900	(1.000)	52897	2.00000	
	2 Naphthalene	128	4.922	4.928	(1.006)	63361	2.57618	2.576
$	3 2-Methylnaphthalene-d10	152	5.627	5.634	(1.151)	38863	2.69389	2.694
	4 2-Methylnaphthalene	141	5.675	5.681	(1.160)	35322	2.61093	2.611
	5 1-methylnaphthalene	141	5.874	5.880	(1.201)	35734	2.60257	2.603
	7 Biphenyl	154	6.336	6.339	(0.882)	52884	2.53205	2.532
	8 2,6-Dimethylnaphthalene	156	6.380	6.386	(0.888)	39449	2.66873	2.669
	9 Acenaphthylene	152	7.079	7.082	(0.985)	65531	2.74112	2.741
*	10 Acenaphthene-d10	164	7.186	7.189	(1.000)	31659	2.00000	
	11 Acenaphthene	153	7.237	7.240	(1.007)	40761	2.54468	2.545
	12 Dibenzofuran	168	7.392	7.392	(1.029)	60656	2.49311	2.493
	13 1,6,7-Trimethylnaphthalene	170	7.455	7.455	(1.037)	40805	2.65970	2.660
	14 Fluorene	166	7.869	7.869	(1.095)	49570	2.62330	2.623
	18 Dibenzothiophene	184	9.109	9.105	(0.986)	66534	2.60645	2.606
*	15 Phenanthrene-d10	188	9.235	9.232	(1.000)	57767	2.00000	
	16 Phenanthrene	178	9.270	9.267	(1.004)	69258	2.45440	2.454
	17 Anthracene	178	9.311	9.308	(1.008)	67531	2.63443	2.634
	19 Carbazole	167	9.830	9.823	(1.064)	59552	2.53414	2.534
	20 1-Methylphenanthrene	192	10.051	10.044	(1.088)	54096	2.66030	2.660
	22 Fluoranthene	202	11.063	11.050	(1.198)	78660	2.56093	2.561
$	21 Fluoranthene-d10	212	11.025	11.009	(1.194)	69671	2.73363	2.734
	23 Pyrene	202	11.585	11.569	(0.814)	82339	2.76298	2.763
	24 Benzo(a)anthracene	228	14.102	14.070	(0.991)	76950	2.84885	2.849
*	25 Chrysene-d12	240	14.228	14.202	(1.000)	48067	2.00000	
	27 Chrysene	228	14.304	14.275	(1.005)	70690	2.45840	2.458
	28 Benzo(b)fluoranthene	252	16.865	16.824	(0.929)	63427	2.92669	2.927
	29 Benzo(k)fluoranthene	252	16.925	16.887	(0.932)	57781	2.72196	2.722
	30 Benzo(j)fluoranthene	252	17.004	16.963	(0.937)	51952	2.71859	2.719
	31 Total Benzofluoranthenes	252	16.865	16.824	(0.929)	172015	8.38100	8.381(M)
	34 Benzo(e)pyrene	252	17.795	17.750	(0.980)	54383	2.51644	2.516
	32 Benzo(a)pyrene	252	17.924	17.877	(0.987)	50609	2.65370	2.654
*	33 Perylene-d12	264	18.155	18.107	(1.000)	37211	2.00000	
	35 Perylene	252	18.231	18.183	(1.004)	48227	2.35653	2.357

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
$ 36 Dibenzo(a,h)anthracene-d14	292	20.609	20.549	(1.135)	32062	2.19903	2.199
37 Indeno(1,2,3-cd)pyrene	276	20.748	20.684	(1.143)	49006	2.25558	2.256
38 Dibenzo(a,h)anthracene	278	20.723	20.666	(1.141)	43963	2.35128	2.351
39 Benzo(g,h,i)perylene	276	21.842	21.763	(1.203)	44913	2.28160	2.282

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt8.i
Lab File ID: N823020633.D
Lab Smp Id: SLB0075-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt8.i\20230206A.b\FSIMPNA230119.m
Misc Info: 23-

Calibration Date: 06-FEB-2023
Calibration Time: 15:15
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	44336	22168	88672	52897	19.31
10 Acenaphthene-d10	26127	13064	52254	31659	21.17
15 Phenanthrene-d10	47424	23712	94848	57767	21.81
25 Chrysene-d12	36794	18397	73588	48067	30.64
33 Perylene-d12	36636	18318	73272	37211	1.57

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	4.90	4.40	5.40	4.89	-0.19
10 Acenaphthene-d10	7.19	6.69	7.69	7.19	-0.04
15 Phenanthrene-d10	9.23	8.73	9.73	9.24	0.04
25 Chrysene-d12	14.20	13.70	14.70	14.23	0.18
33 Perylene-d12	18.11	17.61	18.61	18.16	0.26

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823020633.D

Lab ID: SLB0075-CCV1
nt8.i, 20230206A.b\FSIMPNA230119.m,   07-FEB-2023 03:09

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

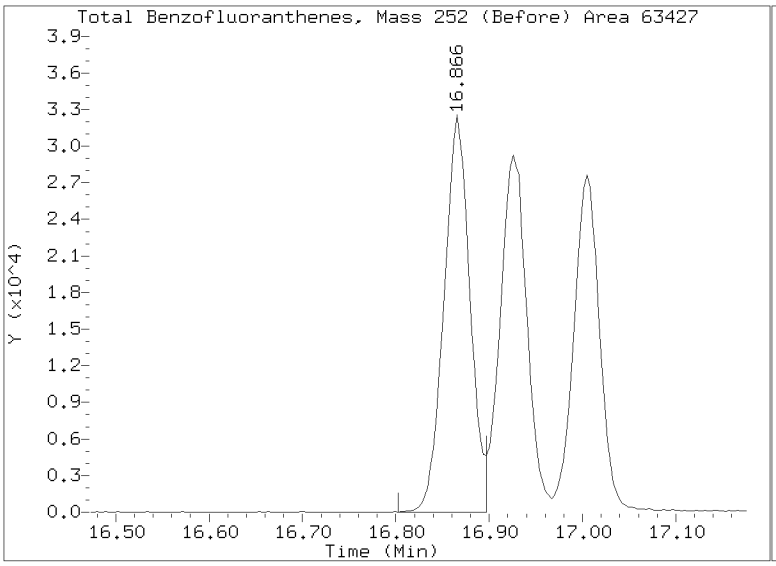
No RRT check performed

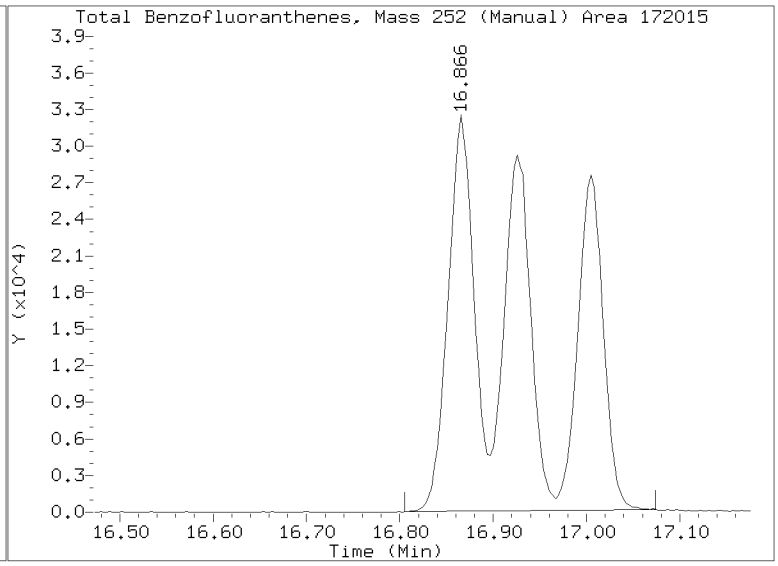
On Column LOD for nt8.i, 20230206A.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230206A.b/N823020633.D
Injection Date: 07-FEB-2023 03:09
Lab ID:SLB0075-CCV1 Client ID:
Report Date: 02/07/2023 19:38





Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00032
Lab File ID:	NT1003012311S.D	Calibration Date:	03/01/2023
Sequence:	SLC0143	Injection Date:	03/01/23
Lab Sample ID:	SLC0143-SCV1	Injection Time:	21:46
Sequence Name:	SCV 5.0		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
1,4-Dichlorobenzene	A	5.0000	5.2	1.4413080	1.5132640		5.0	+/-20	
1,2-Dichlorobenzene	A	5.0000	5.1	1.3853460	1.4247680		2.8	+/-20	
Benzyl Alcohol	A	5.0000	5.1	0.7492523	1.0234800		2.1	+/-20	
Benzoic acid	A	10.000	6.9	0.1431163	0.1324842		-31.3	+/-20	*
2,4-Dimethylphenol	A	5.0000	3.6	0.2957717	0.2493707		-27.3	+/-20	*
1,2,4-Trichlorobenzene	A	5.0000	4.9	0.2879030	0.2804247		-2.6	+/-20	
N-Nitrosodiphenylamine	A	5.0000	5.4	0.6473471	0.6938224		7.2	+/-20	
Pentachlorophenol	A	5.0000	3.9	0.0950913	0.1080188		-21.8	+/-20	*
2-Fluorophenol	A	7.5000	0.0377	1.1419780	0.0057366		-99.5		
p-Terphenyl-d14	A	5.0000	0.0271	0.3234672	0.0017548		-99.5		

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

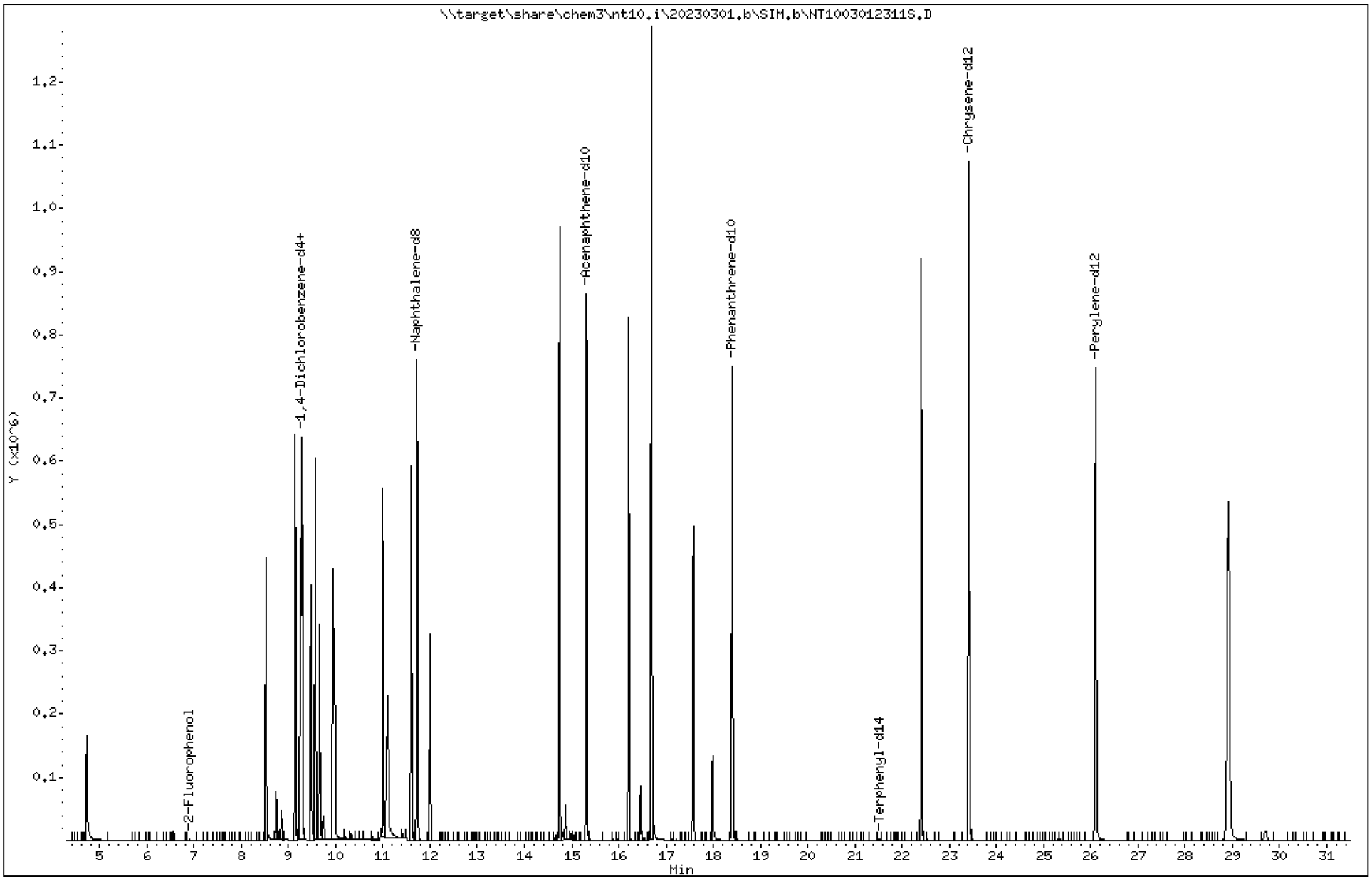
Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

Operator: JGR

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

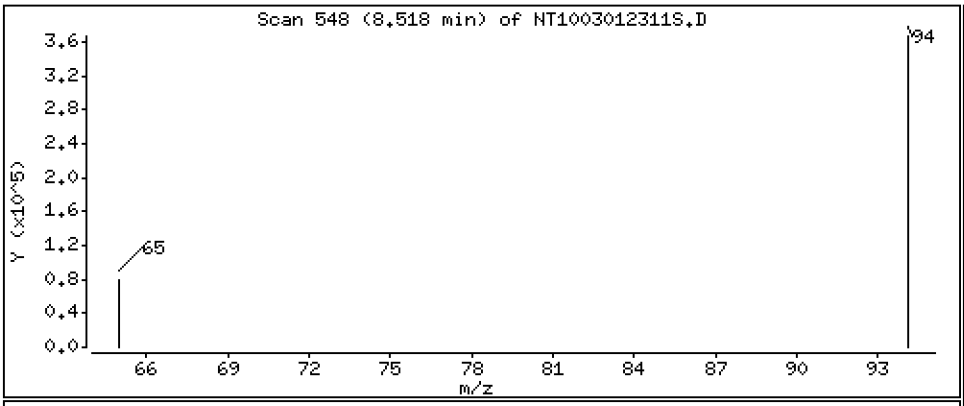
Operator: JGR

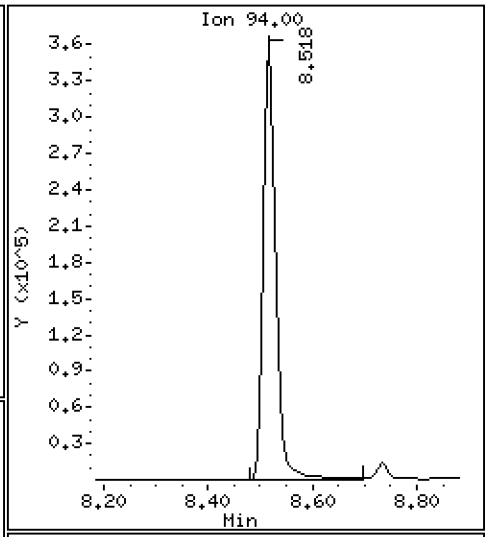
Column phase: ZB-5msi

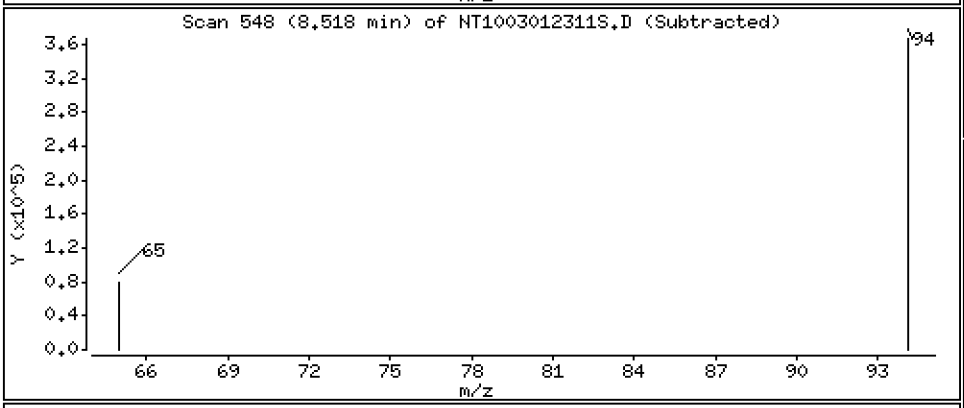
Column diameter: 0.25

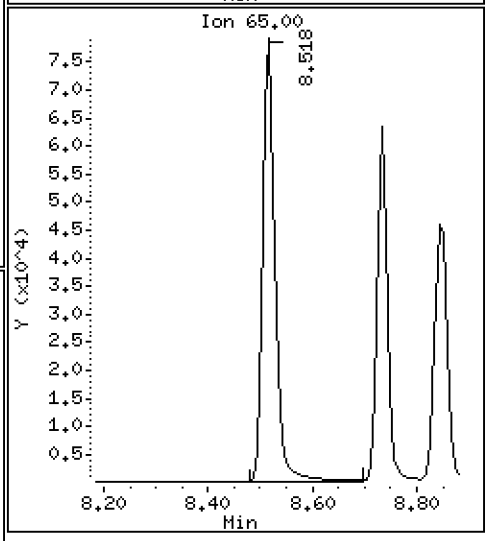
3 Phenol

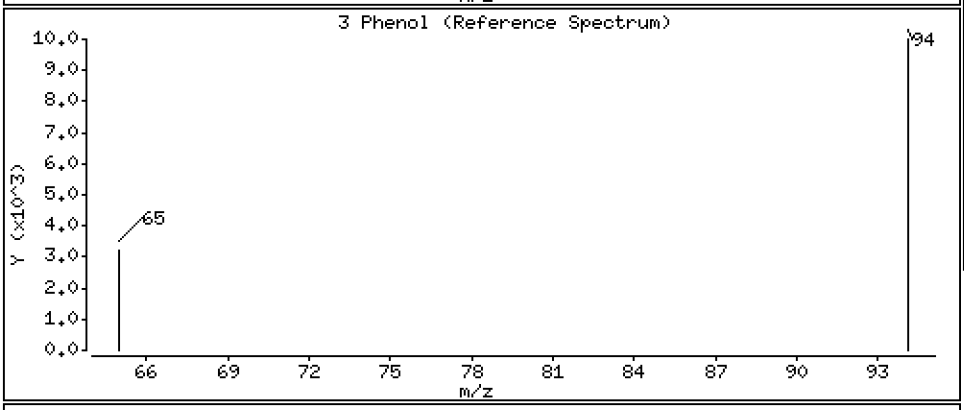
Concentration: 4.507 ug/L

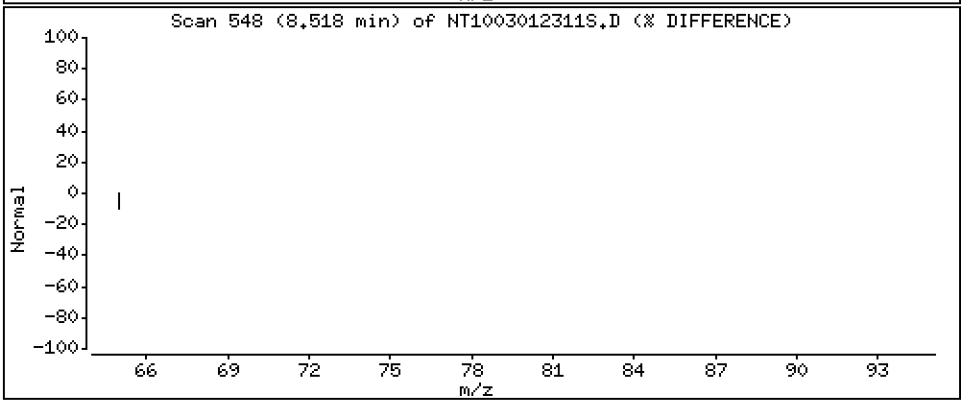












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

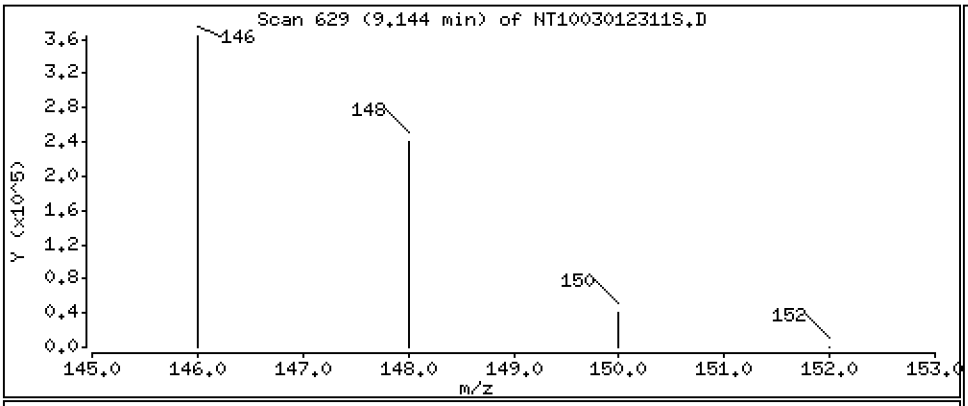
Operator: JGR

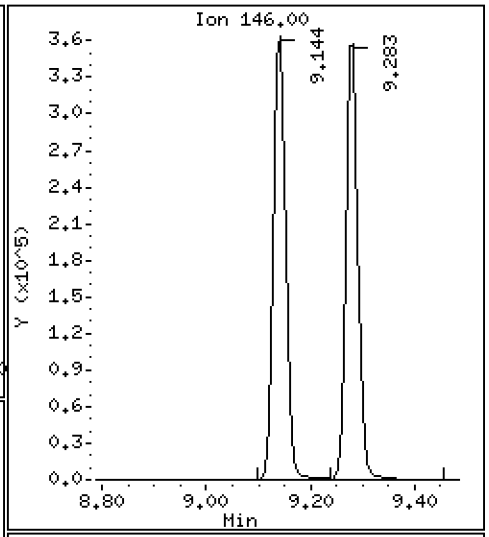
Column phase: ZB-5msi

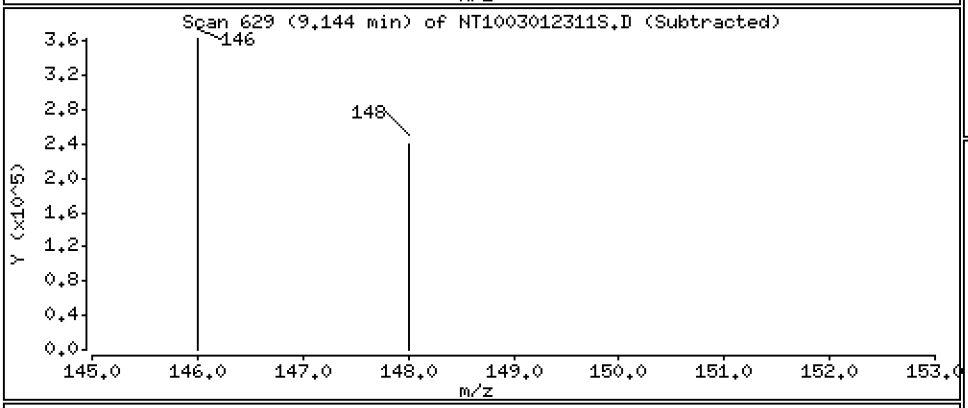
Column diameter: 0.25

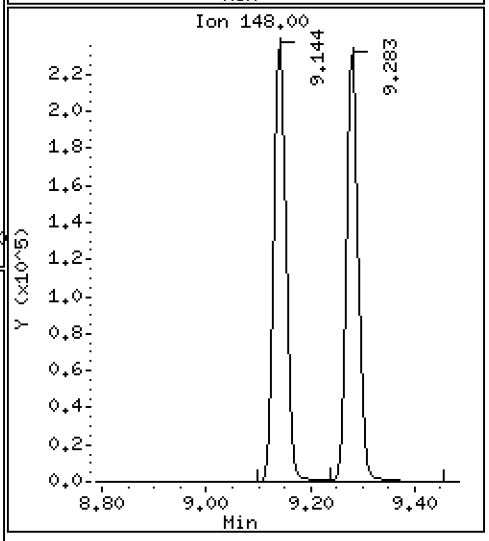
7 1,3-Dichlorobenzene

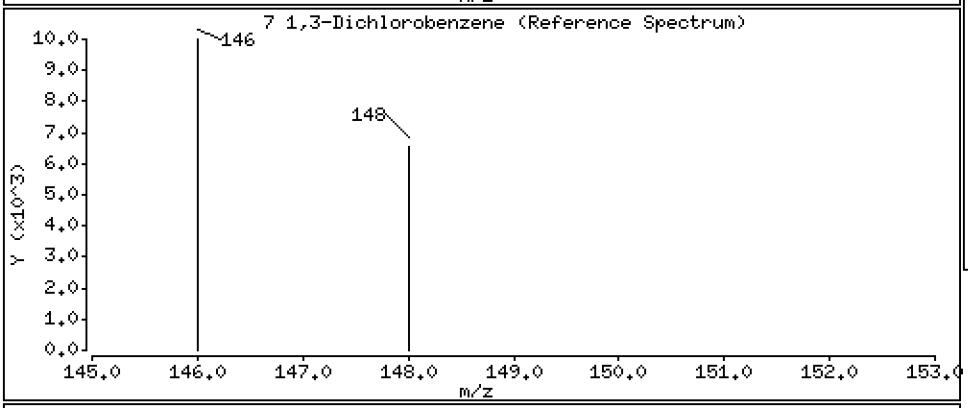
Concentration: 5.084 ug/L

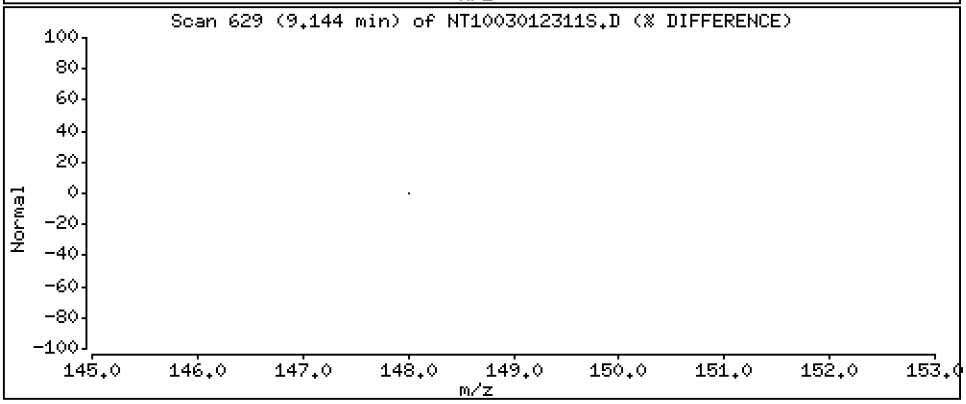












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

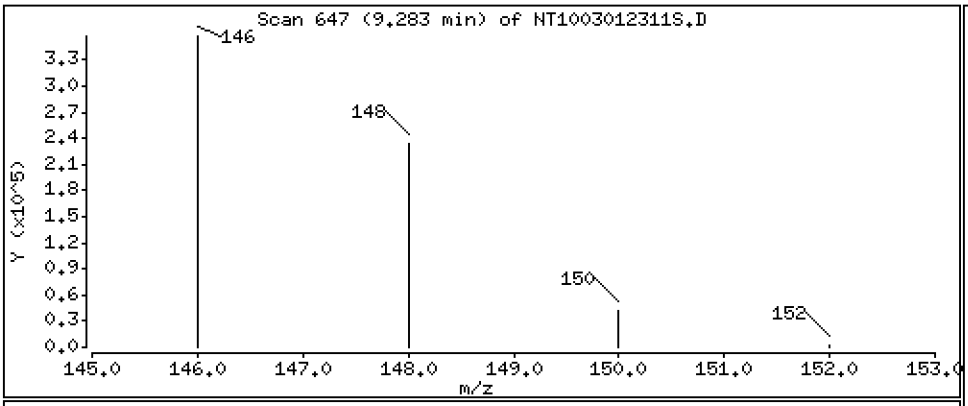
Operator: JGR

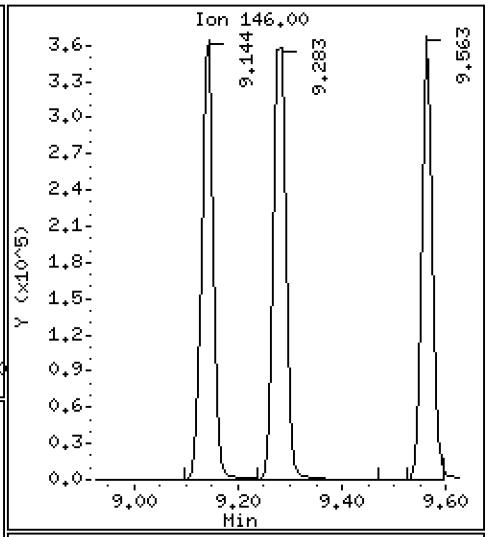
Column phase: ZB-5msi

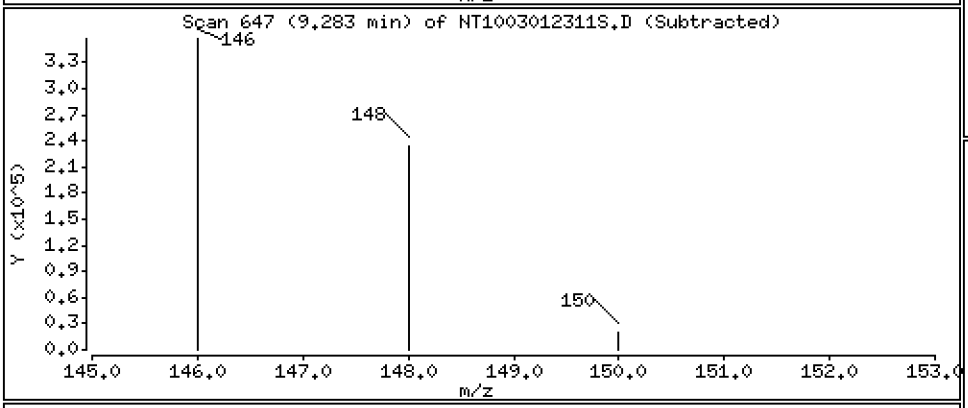
Column diameter: 0.25

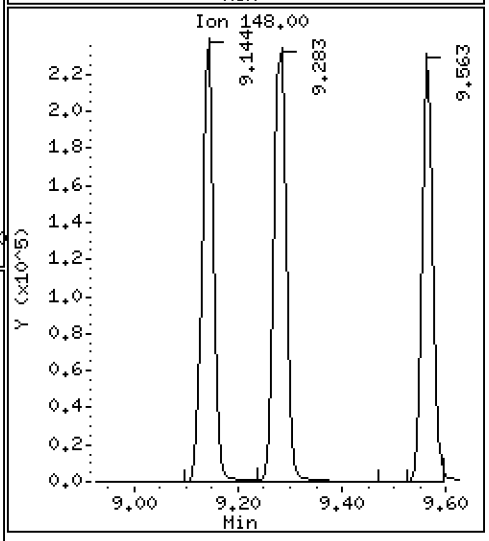
9 1,4-Dichlorobenzene

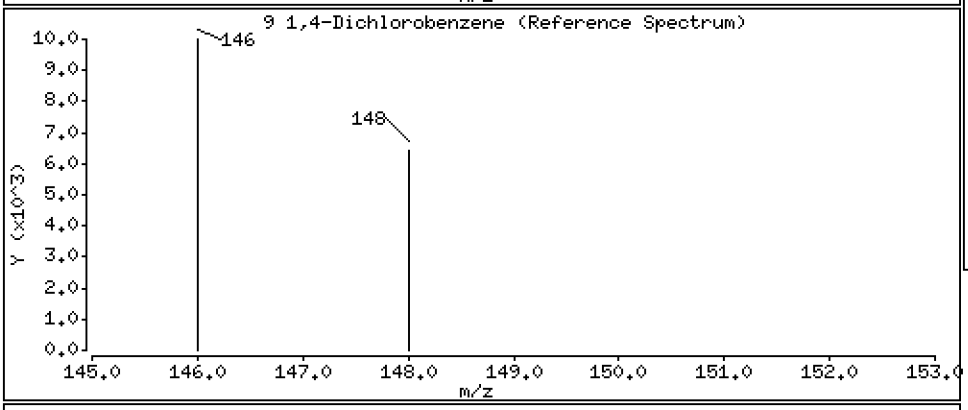
Concentration: 5.250 ug/L

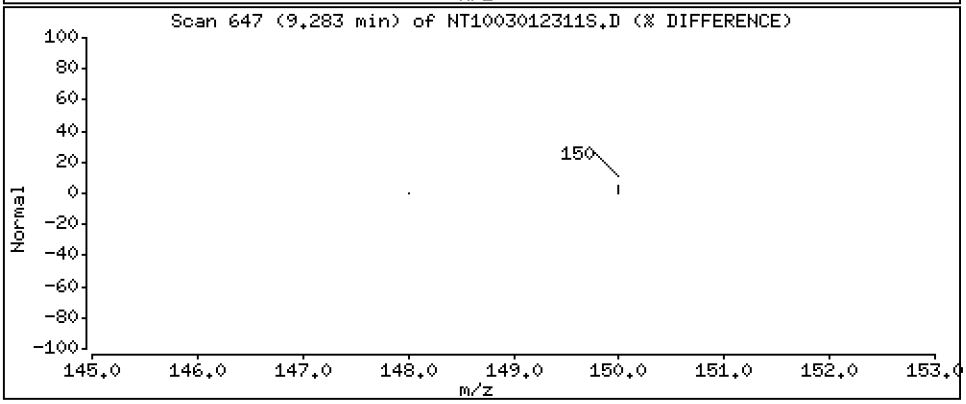












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

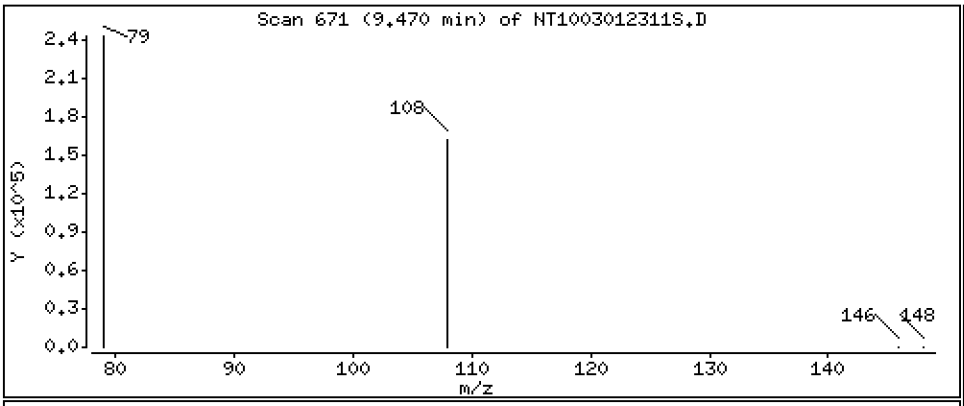
Operator: JGR

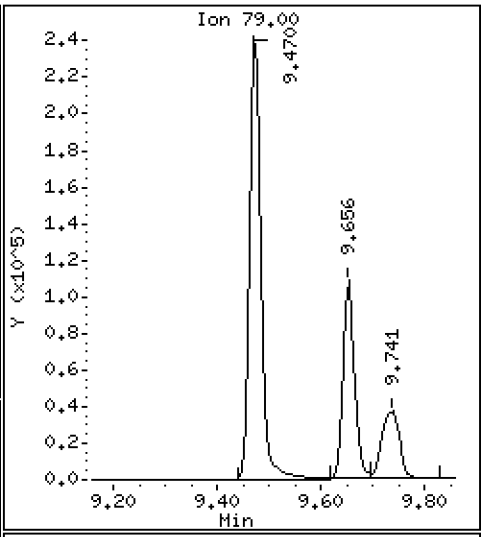
Column phase: ZB-5msi

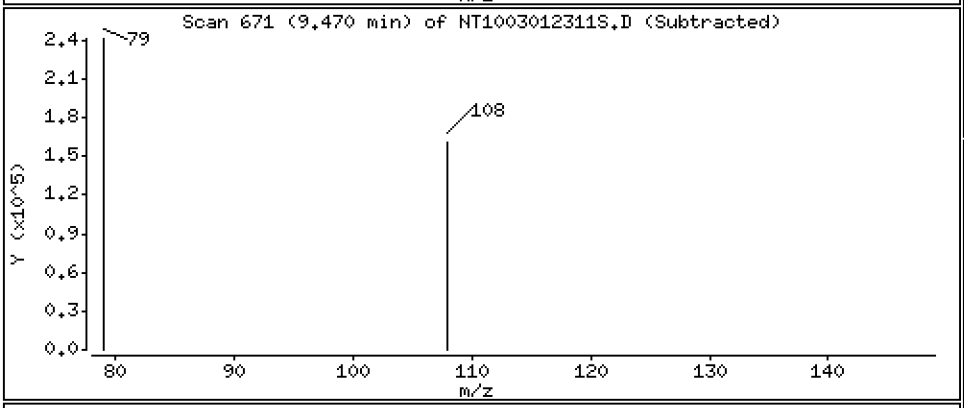
Column diameter: 0.25

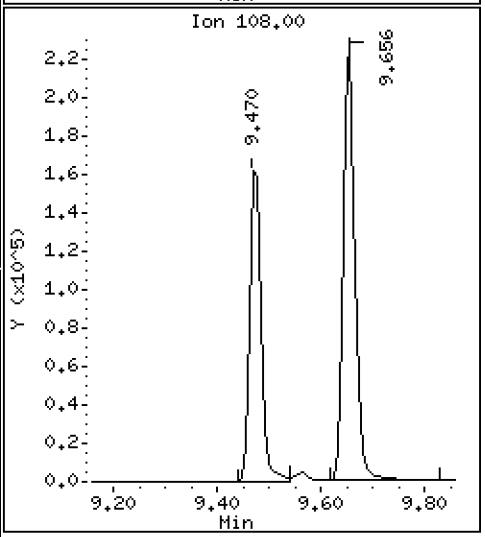
11 Benzyl alcohol

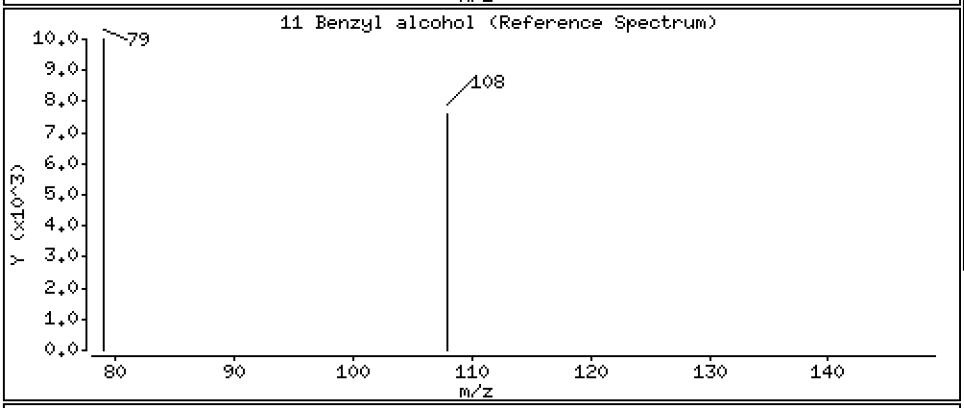
Concentration: 5.104 ug/L

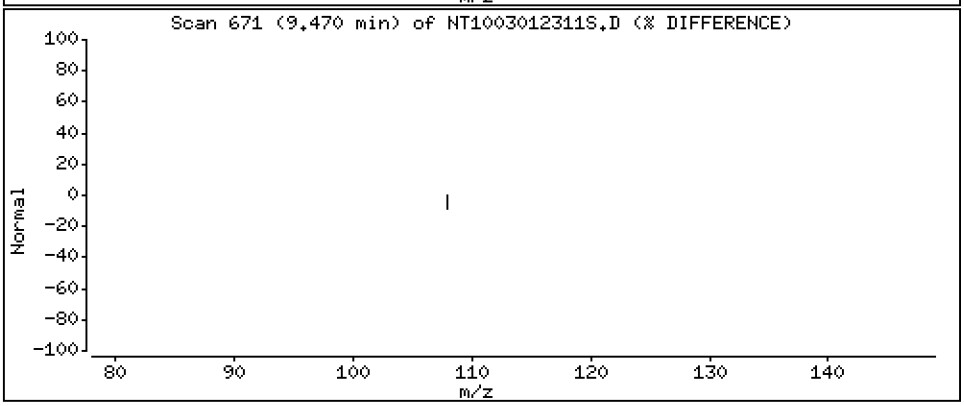












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

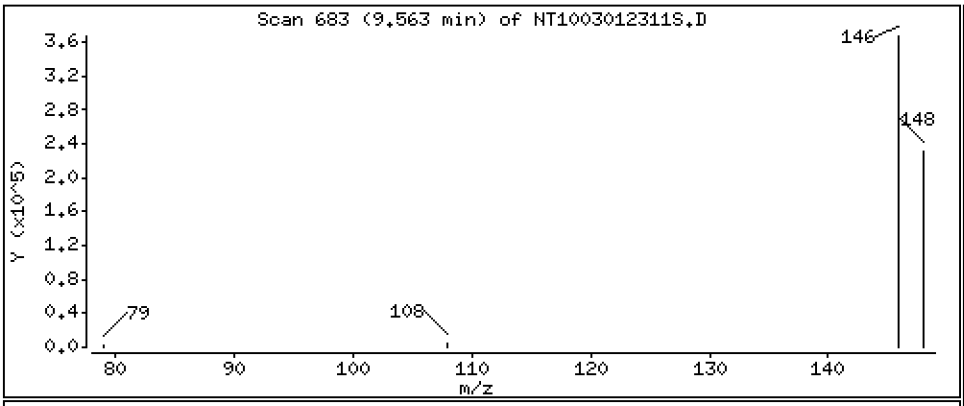
Operator: JGR

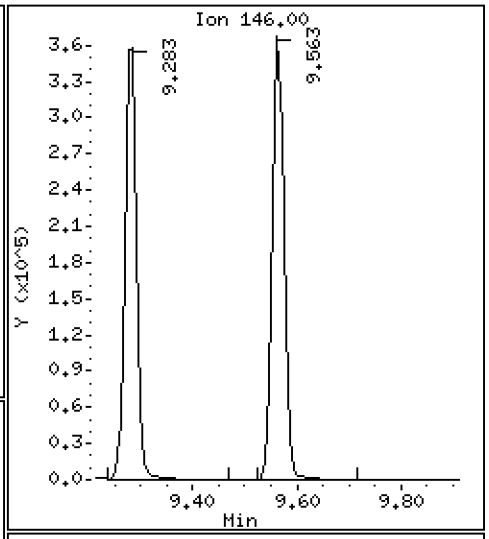
Column phase: ZB-5msi

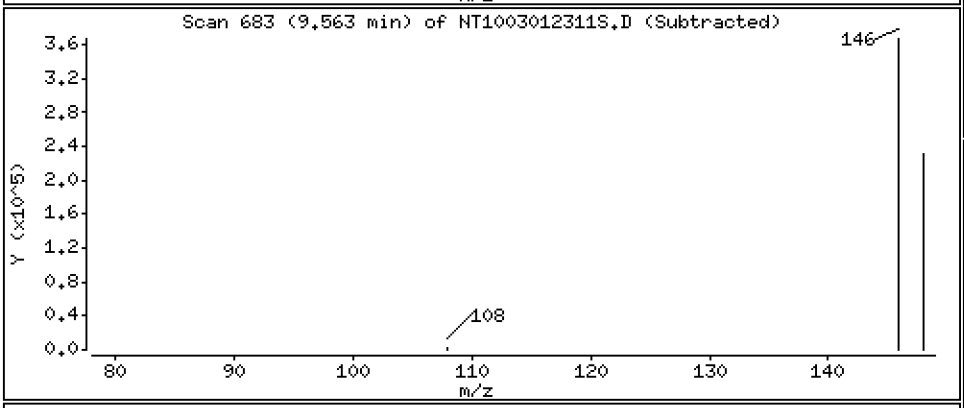
Column diameter: 0.25

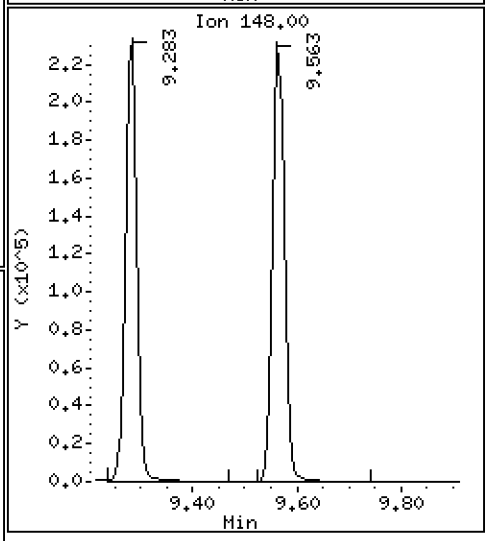
12 1,2-Dichlorobenzene

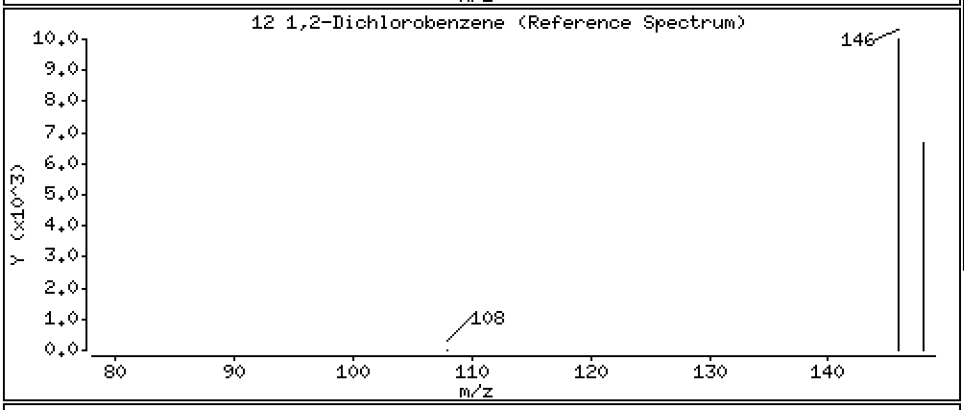
Concentration: 5.142 ug/L

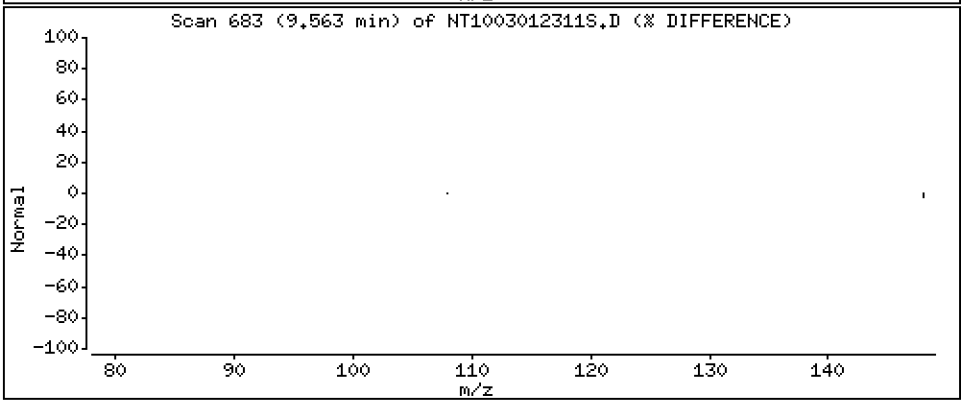












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

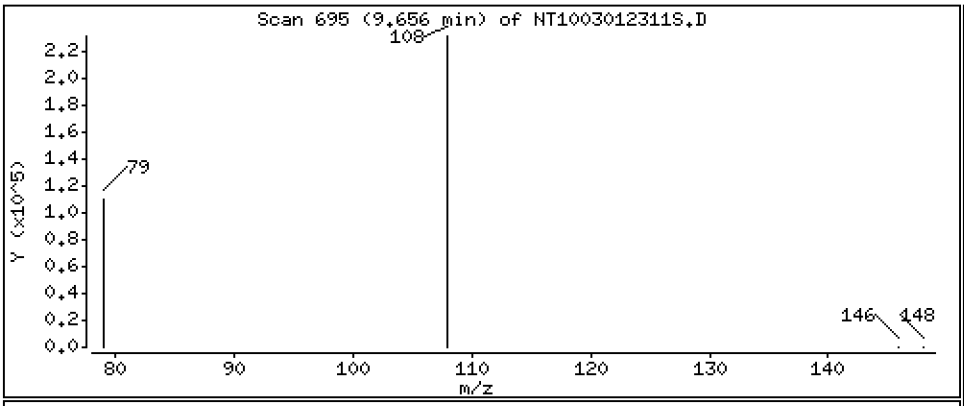
Operator: JGR

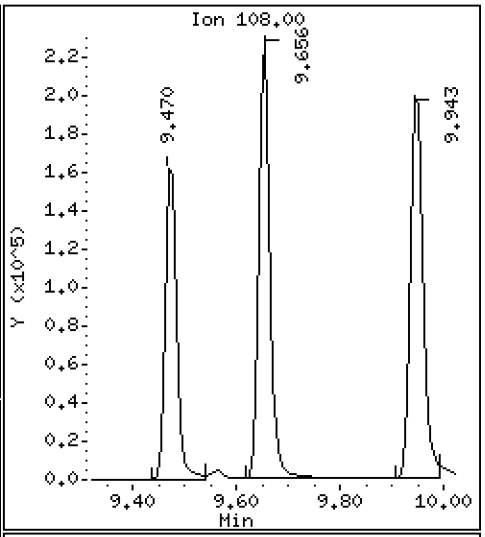
Column phase: ZB-5msi

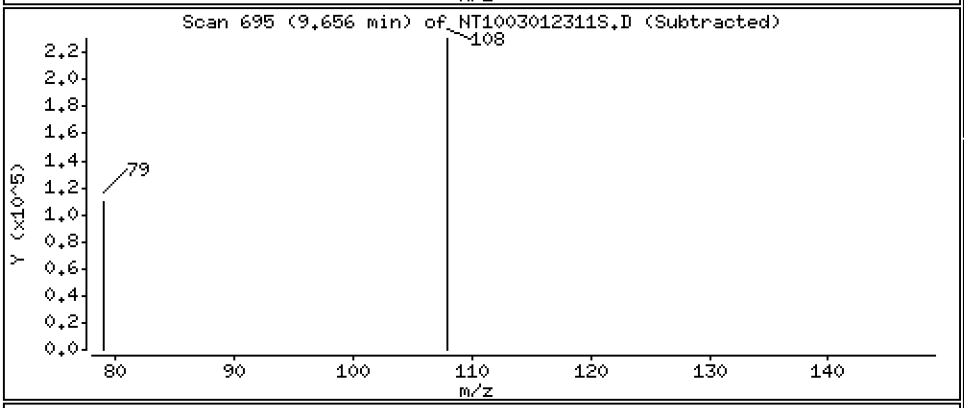
Column diameter: 0.25

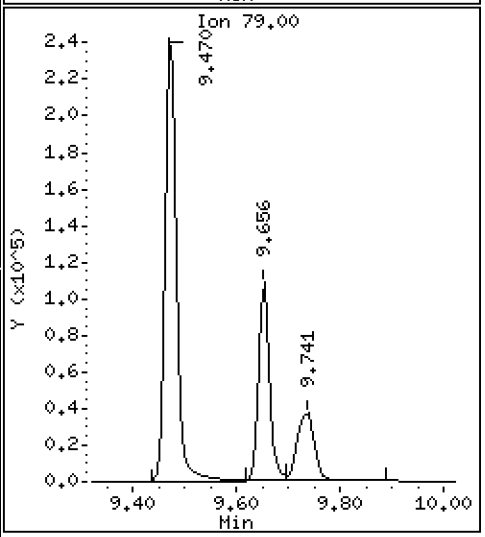
13 2-Methylphenol

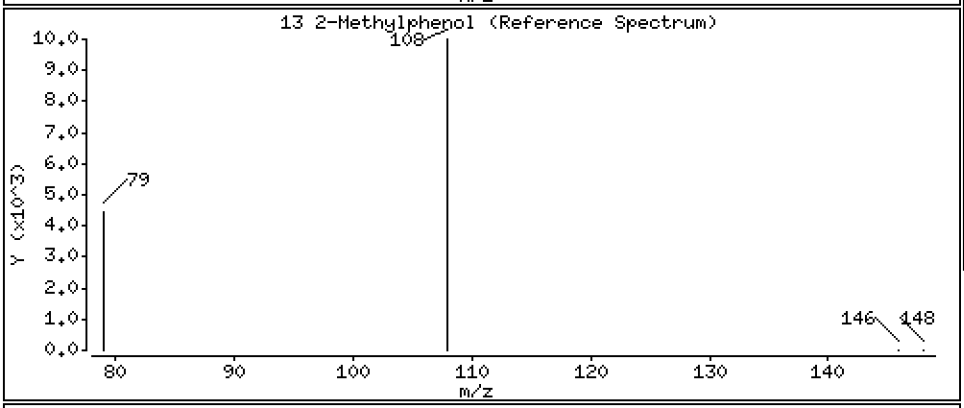
Concentration: 4.365 ug/L

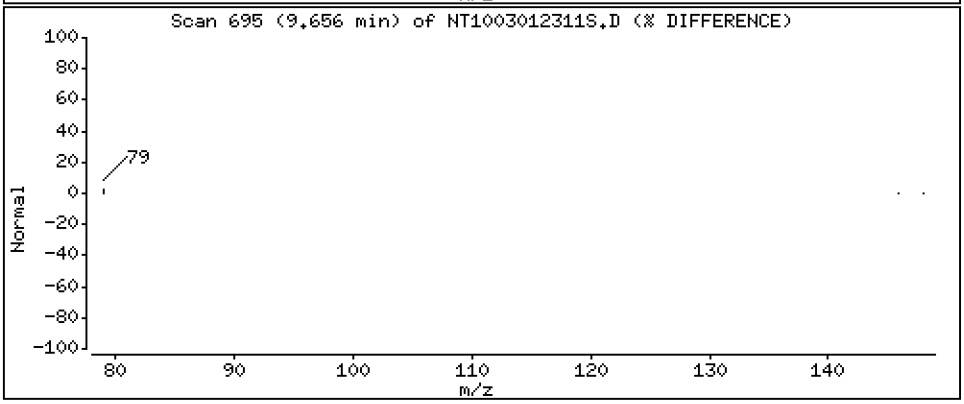












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

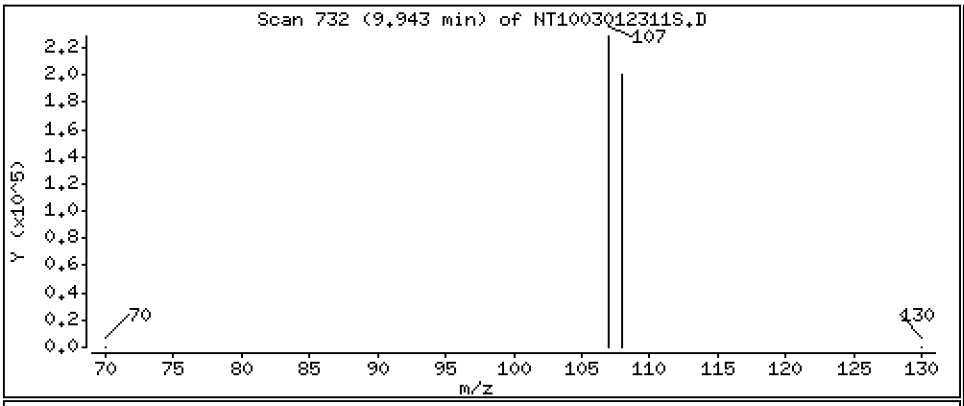
Operator: JGR

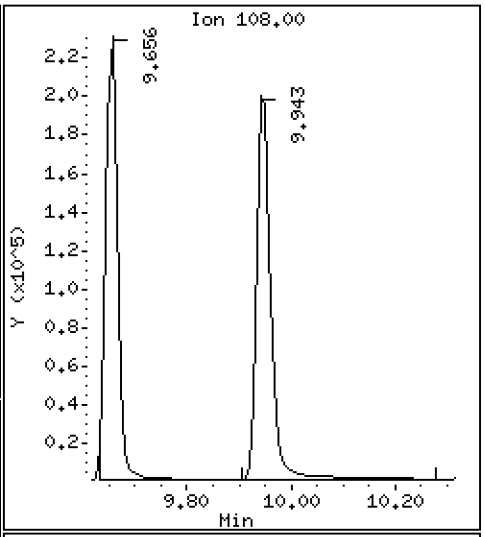
Column phase: ZB-5msi

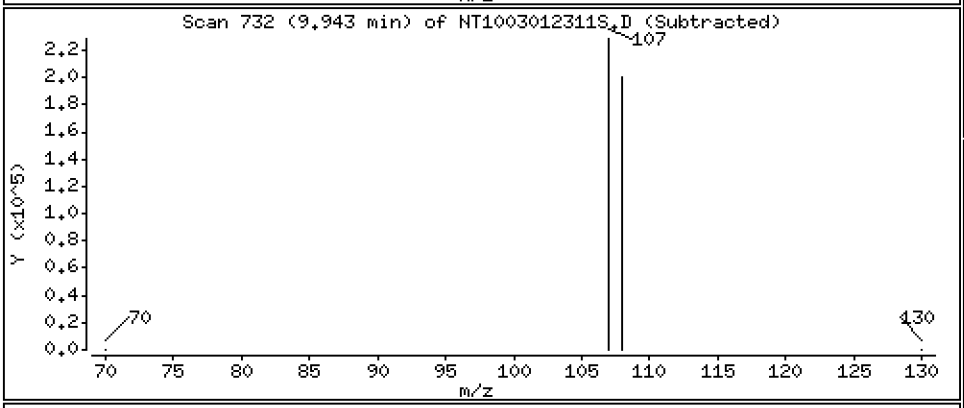
Column diameter: 0.25

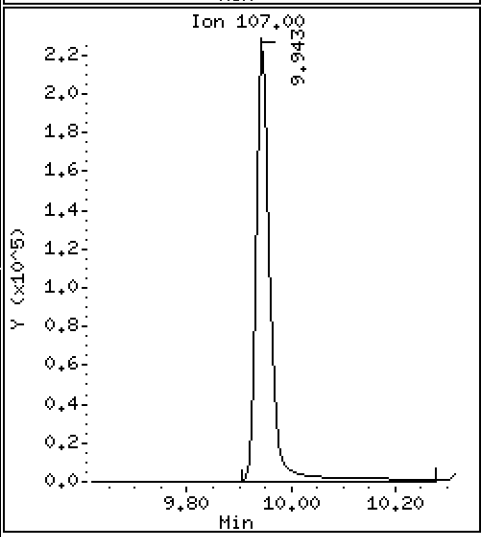
15 4-Methylphenol

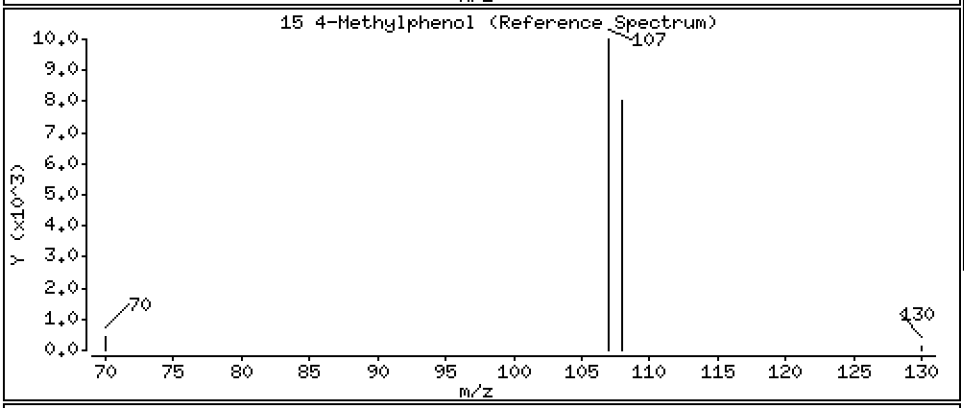
Concentration: 4.505 ug/L

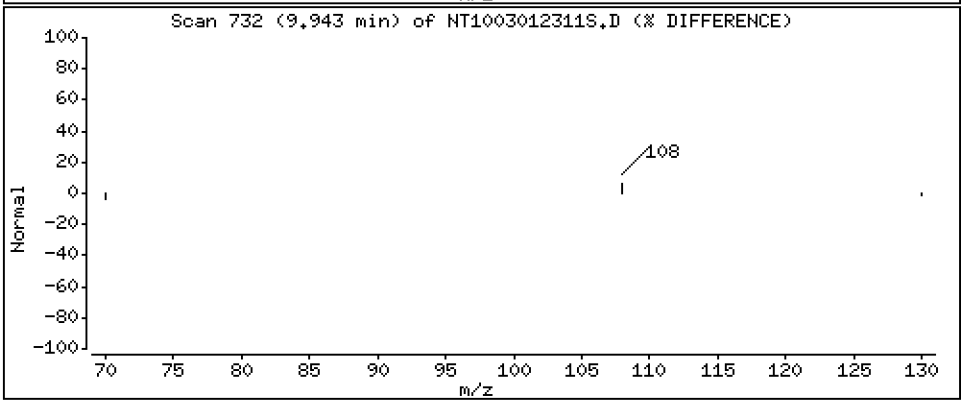












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

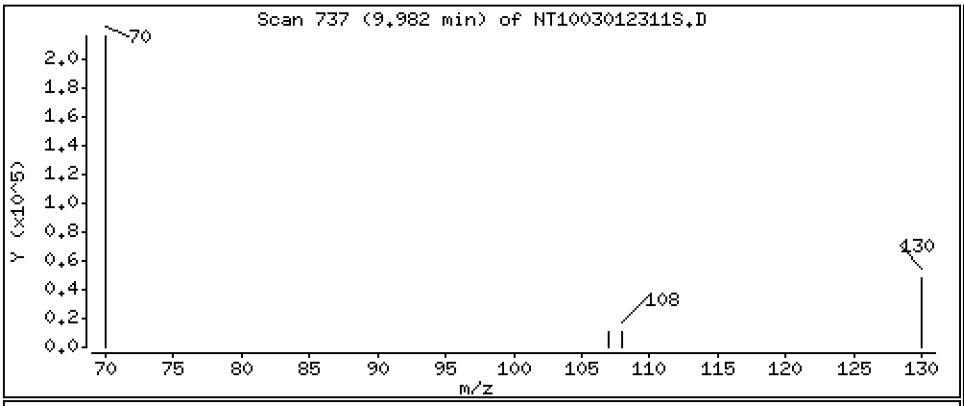
Operator: JGR

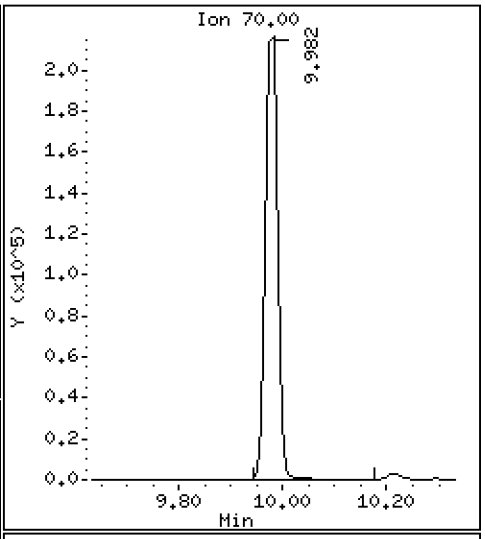
Column phase: ZB-5msi

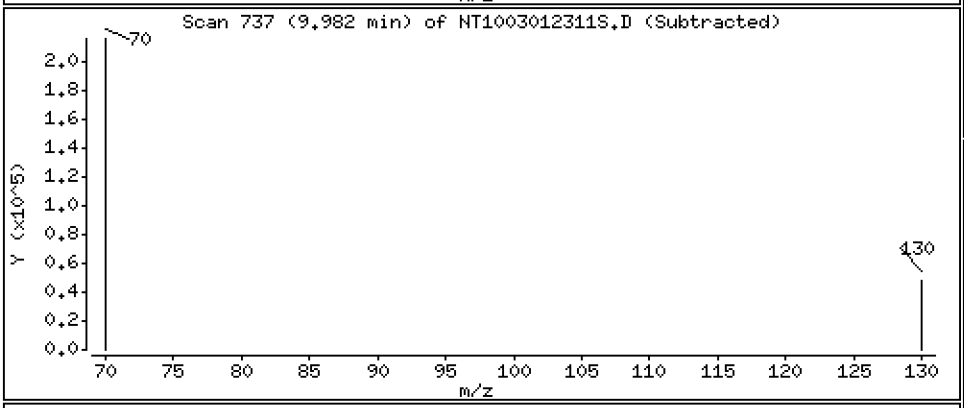
Column diameter: 0.25

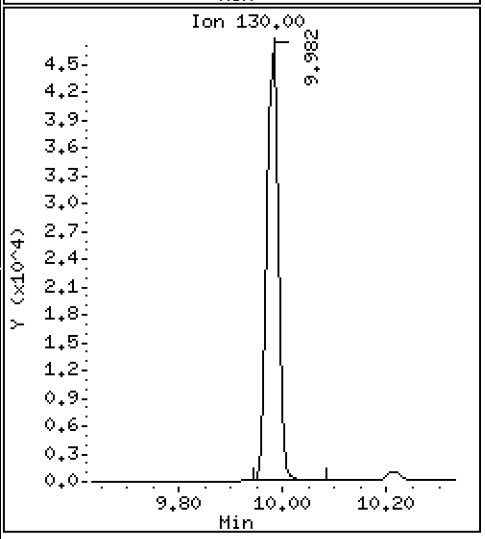
16 N-Nitroso-di-n-propylamine

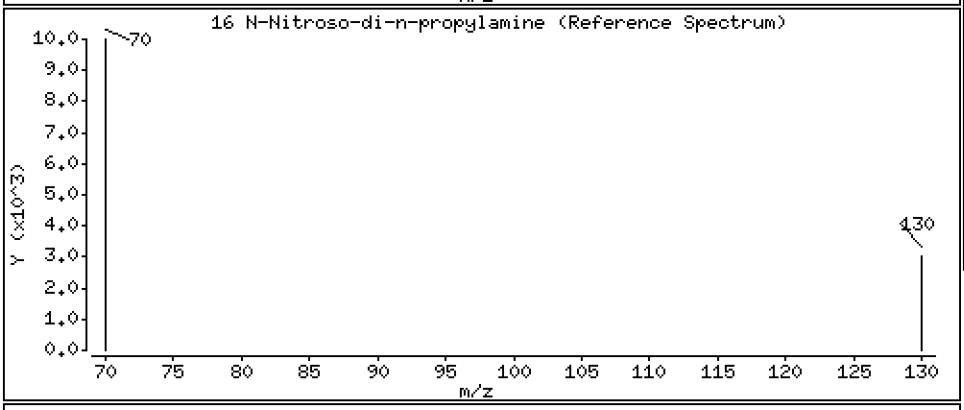
Concentration: 5.685 ug/L

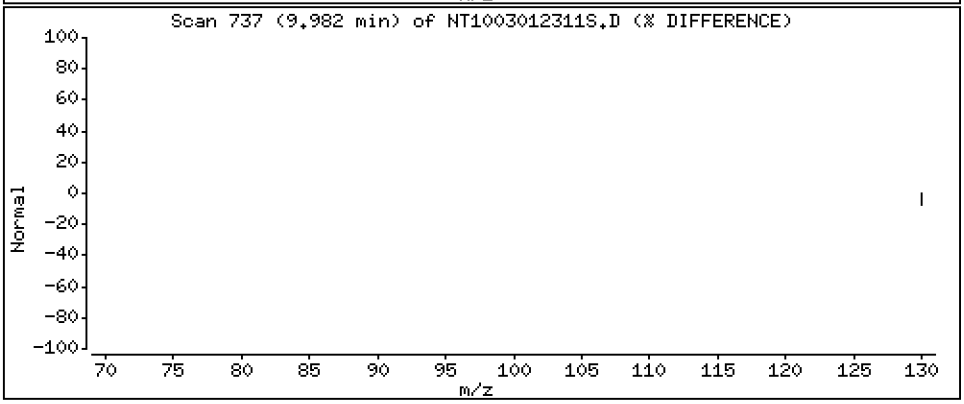












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

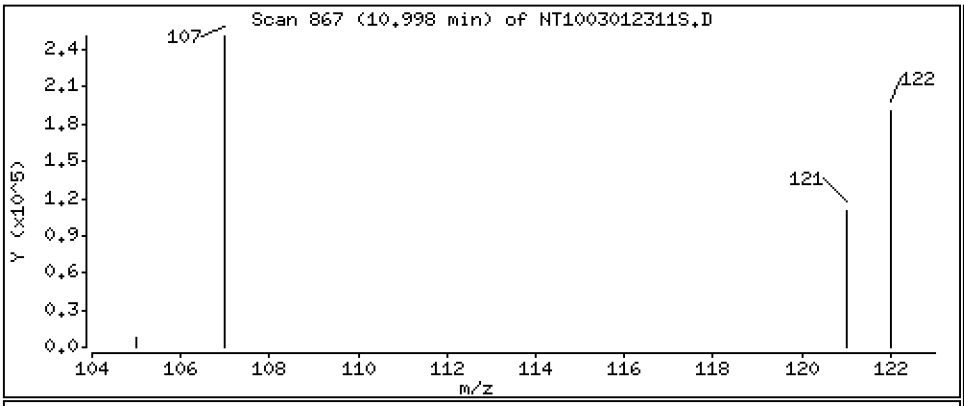
Operator: JGR

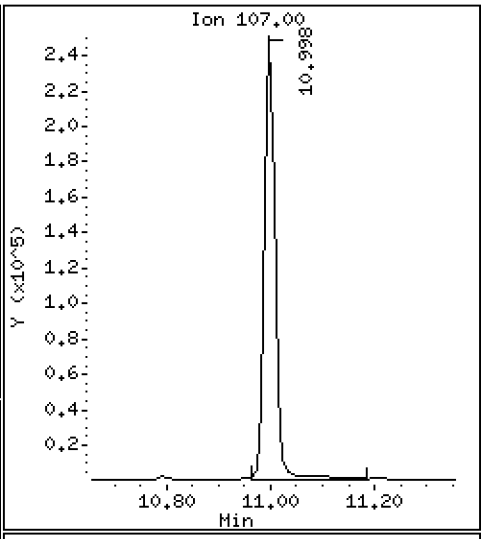
Column phase: ZB-5msi

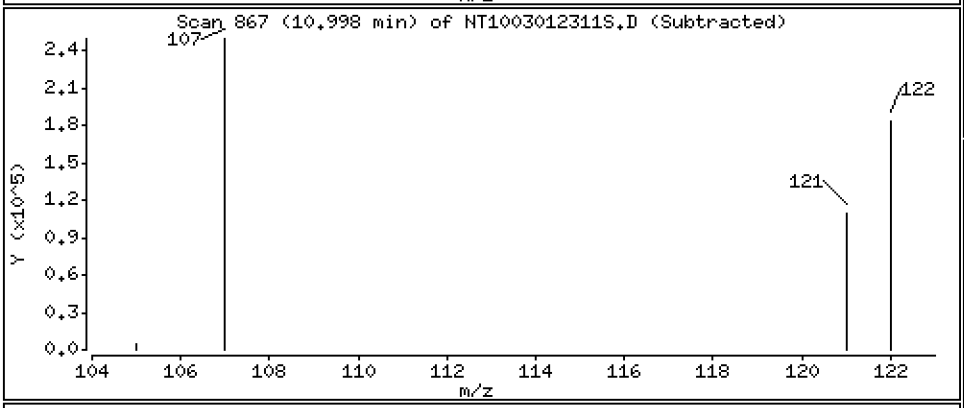
Column diameter: 0.25

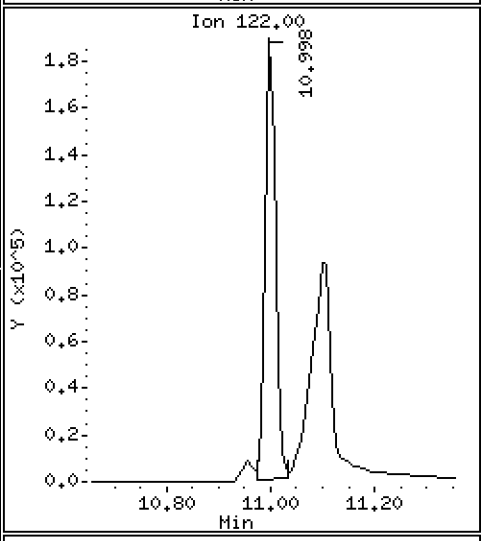
22 2,4-Dimethylphenol

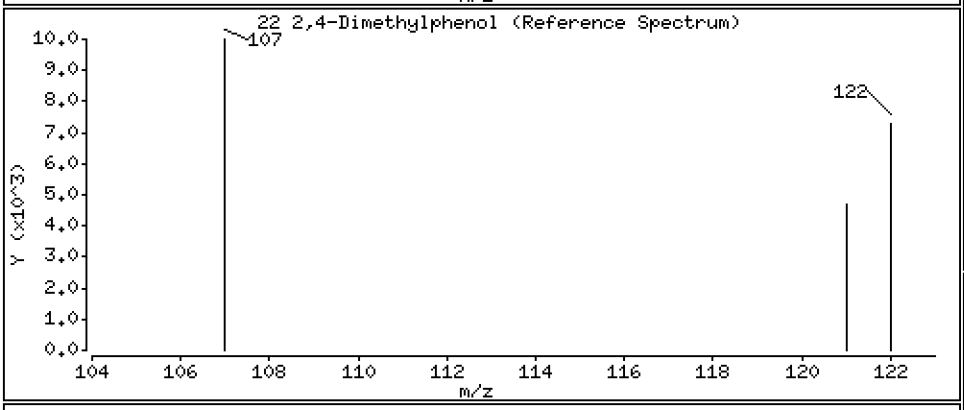
Concentration: 3.637 ug/L

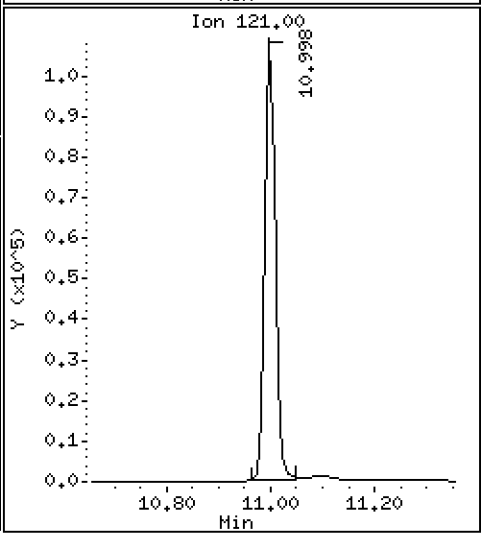


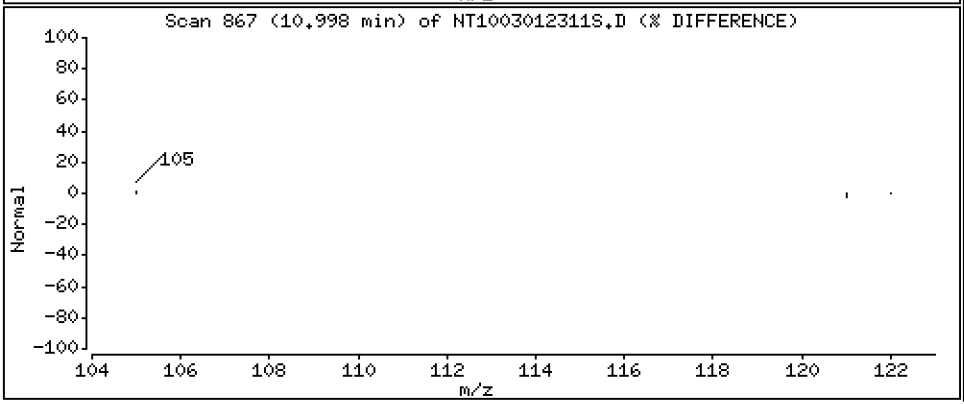












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

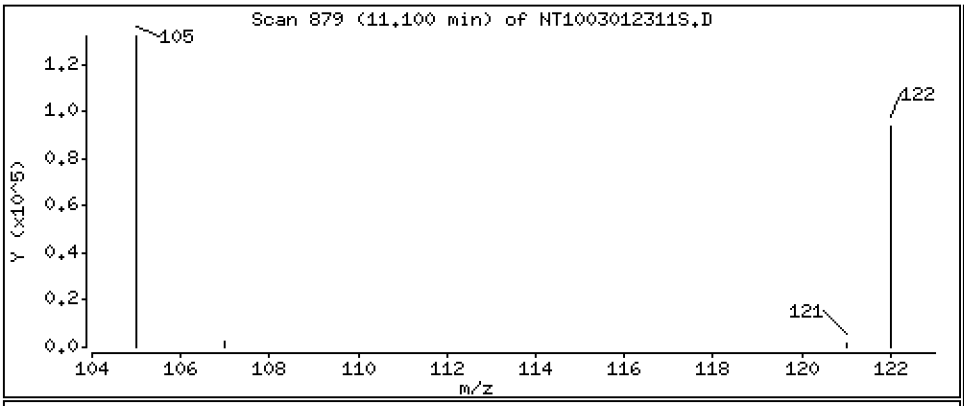
Operator: JGR

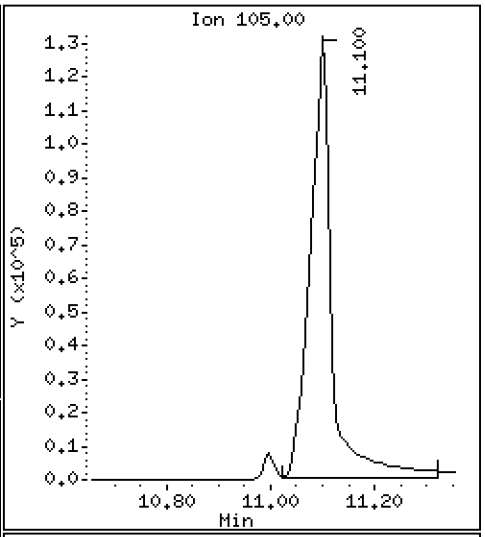
Column phase: ZB-5msi

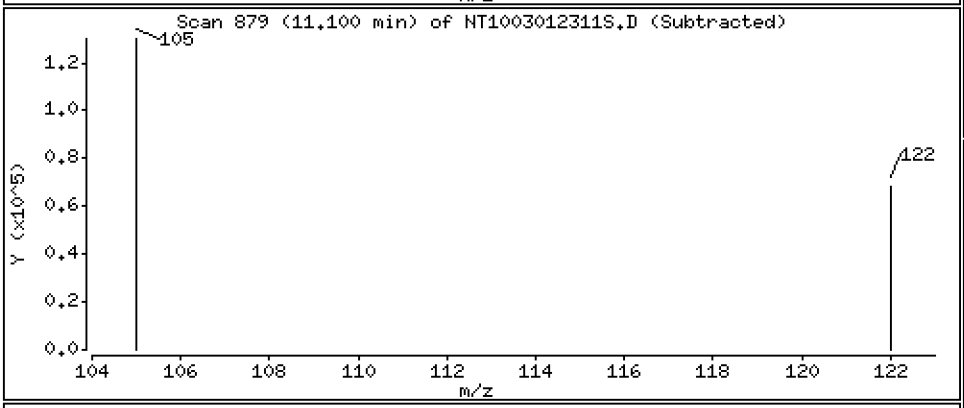
Column diameter: 0.25

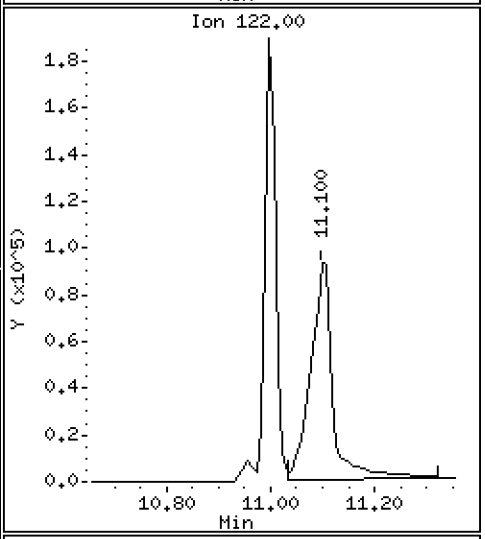
24 Benzoic acid

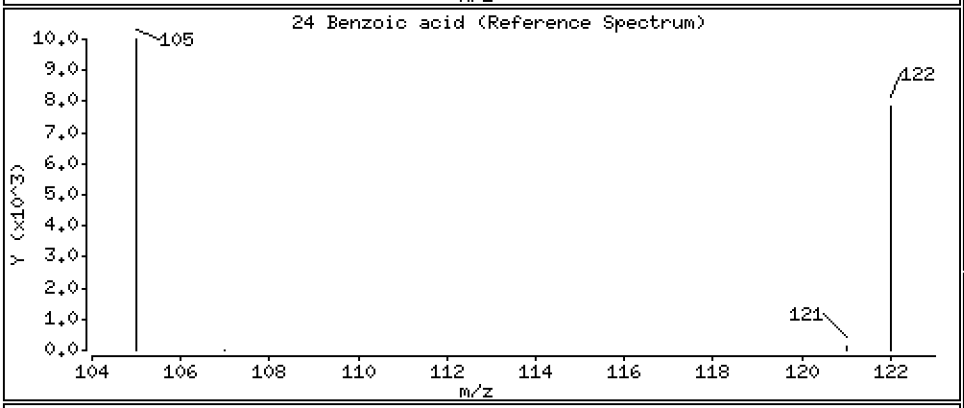
Concentration: 6.870 ug/L

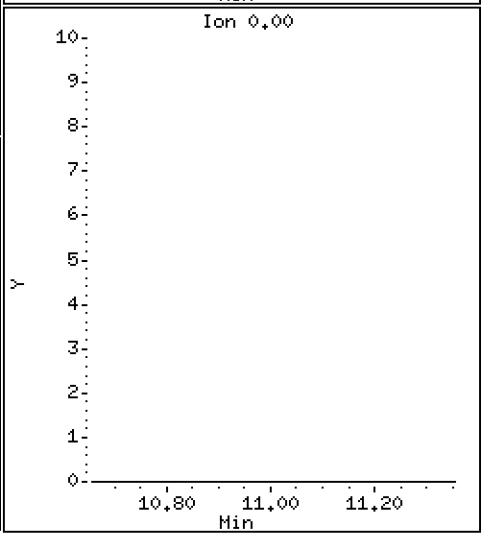


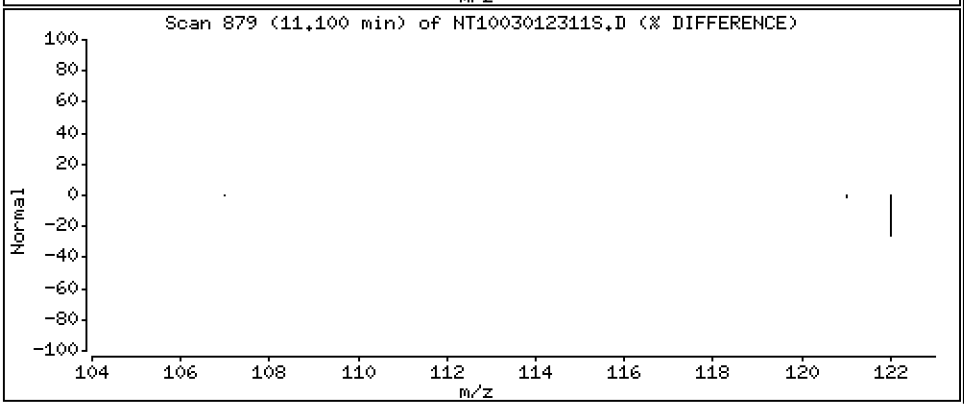












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

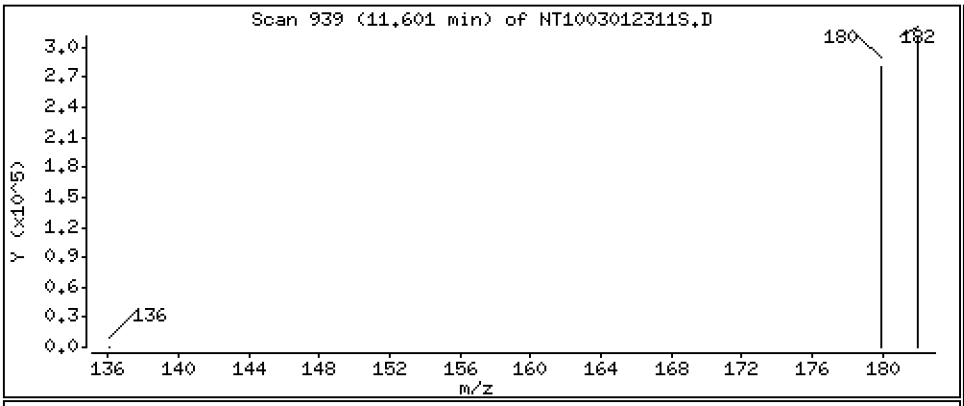
Operator: JGR

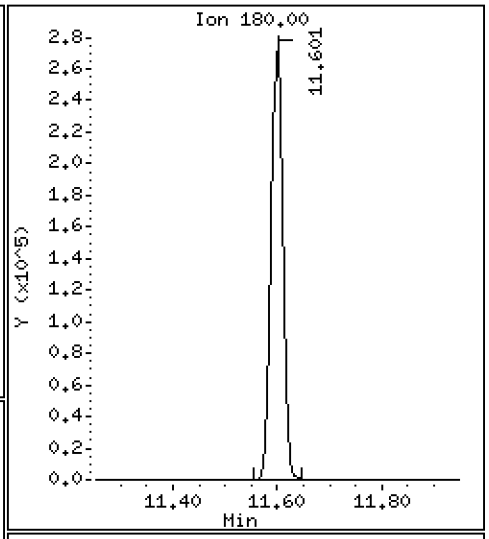
Column phase: ZB-5msi

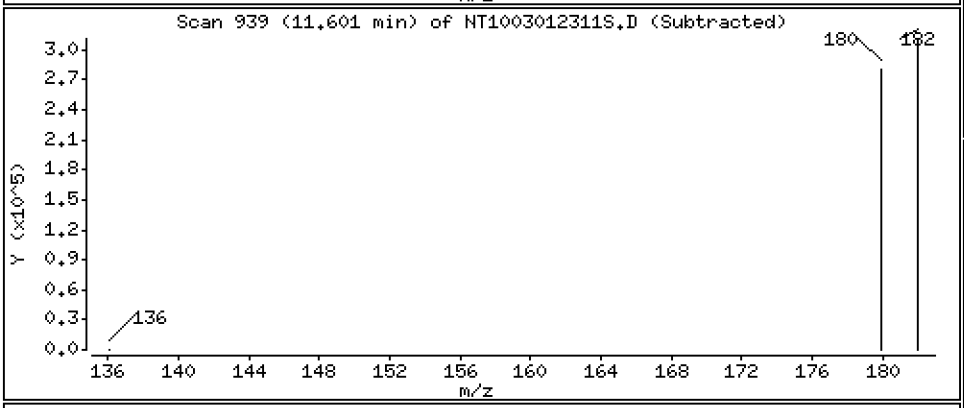
Column diameter: 0.25

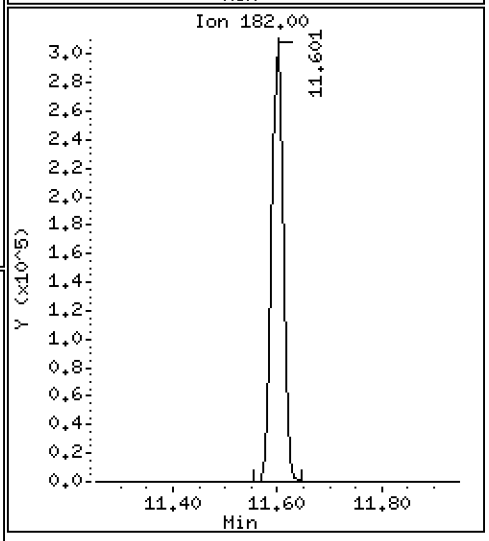
26 1,2,4-Trichlorobenzene

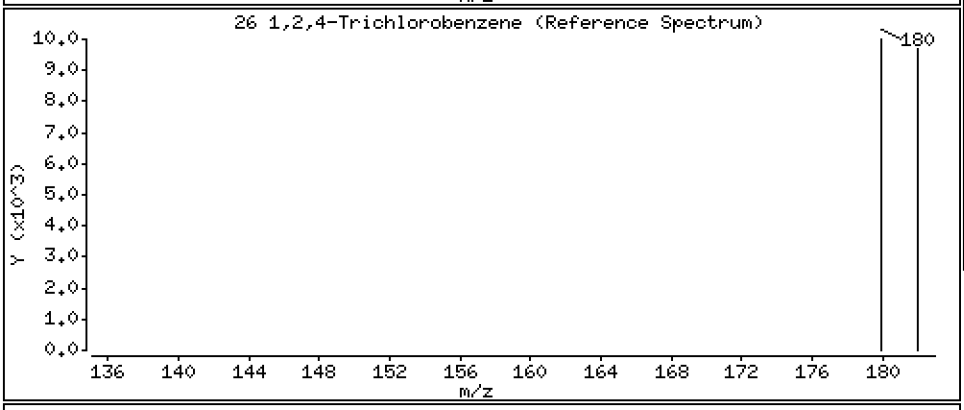
Concentration: 4.870 ug/L

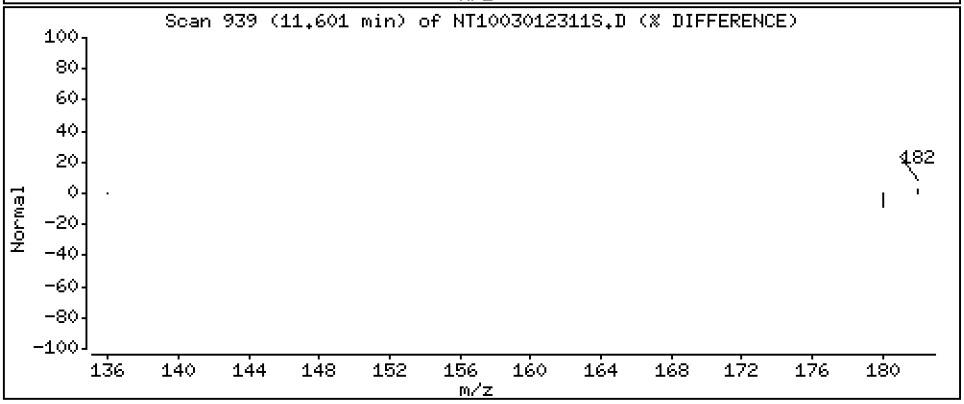












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

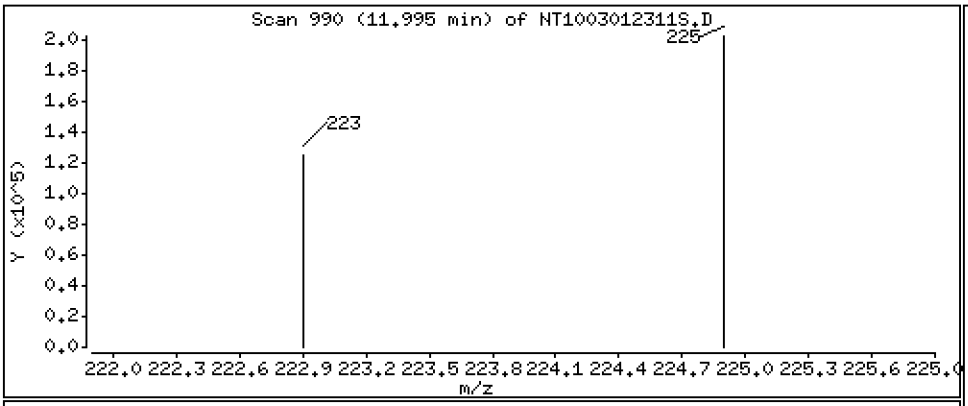
Operator: JGR

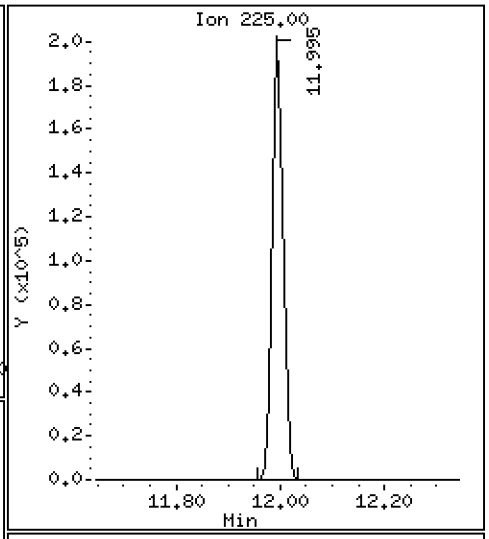
Column phase: ZB-5msi

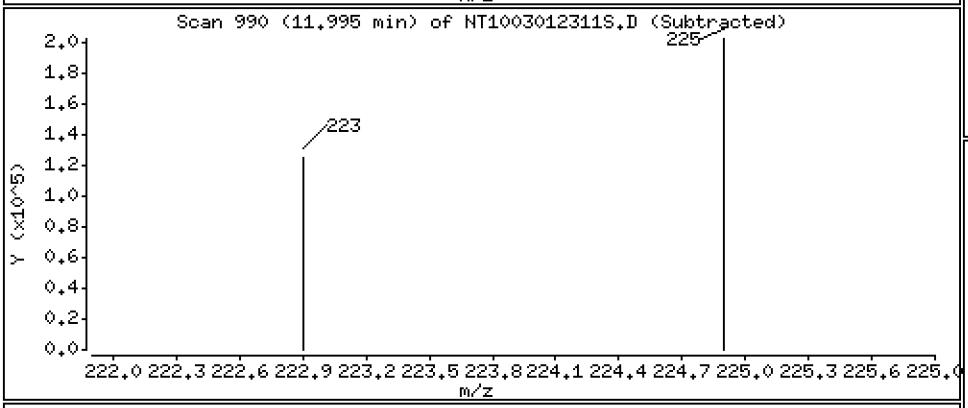
Column diameter: 0.25

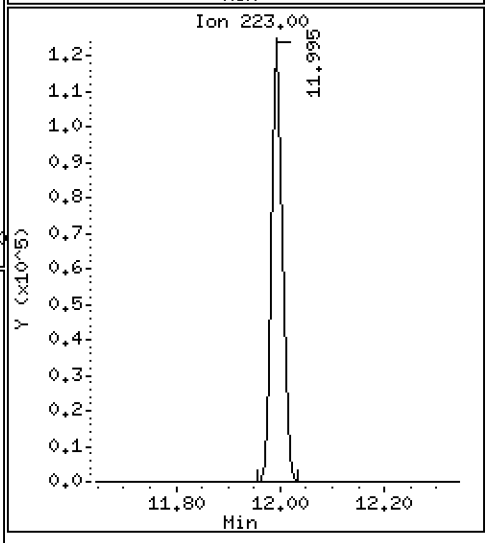
30 Hexachlorobutadiene

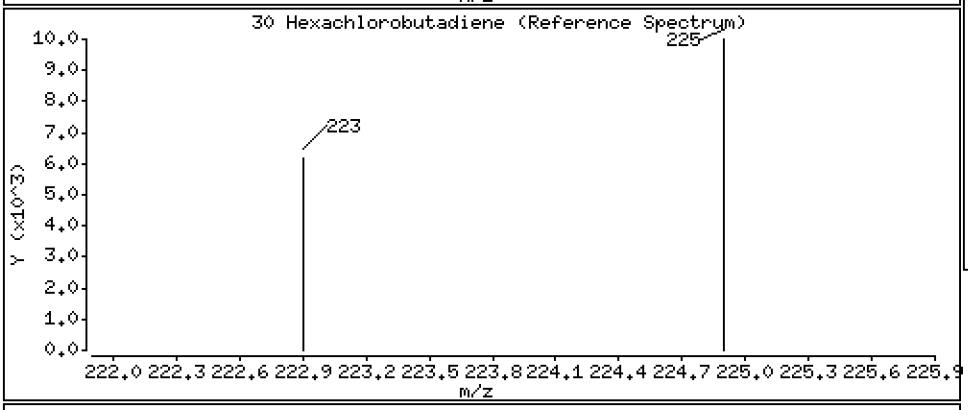
Concentration: 4.862 ug/L

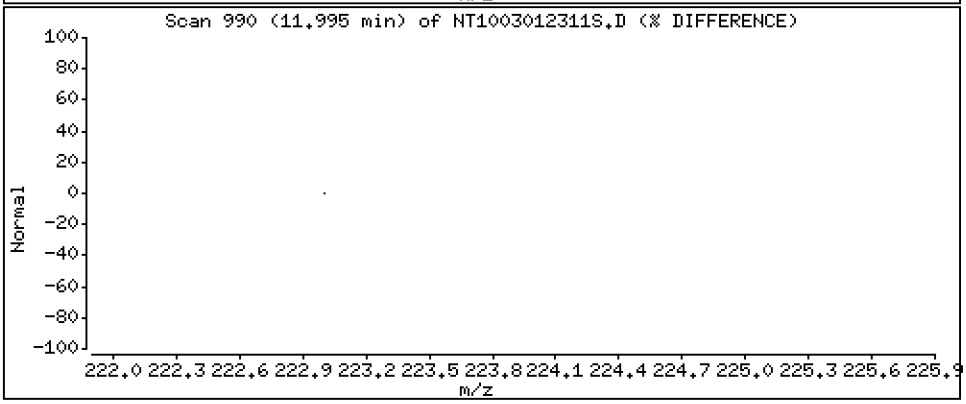












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

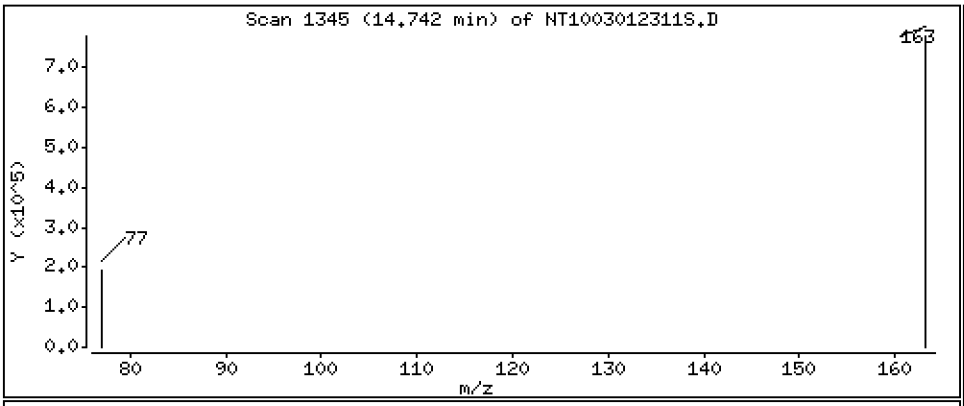
Operator: JGR

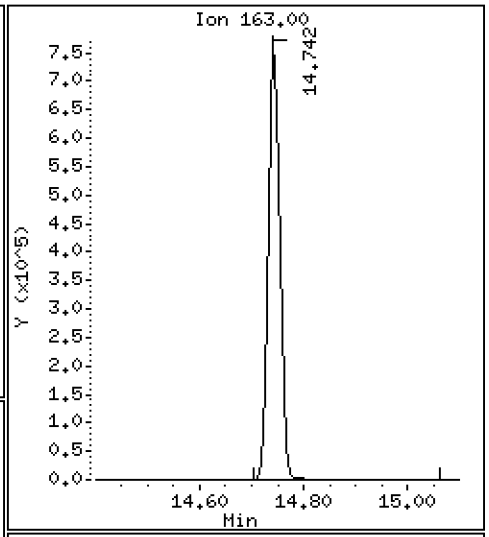
Column phase: ZB-5msi

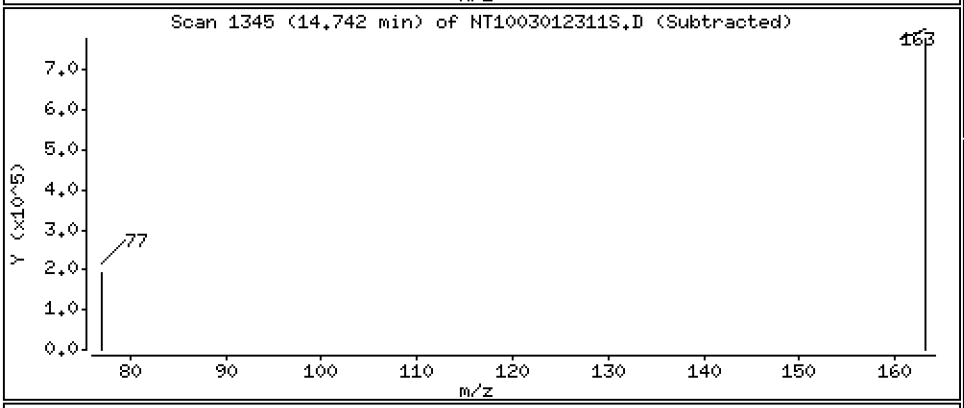
Column diameter: 0.25

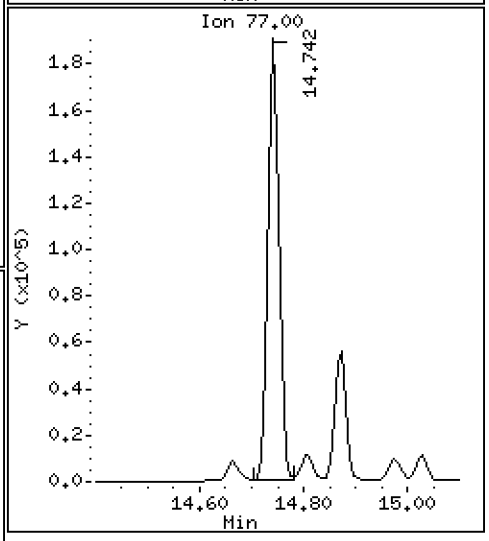
39 Dimethylphthalate

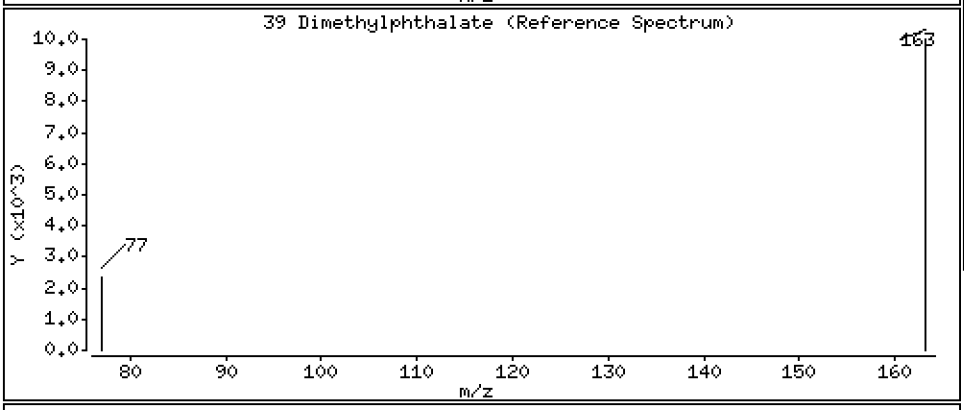
Concentration: 5.571 ug/L

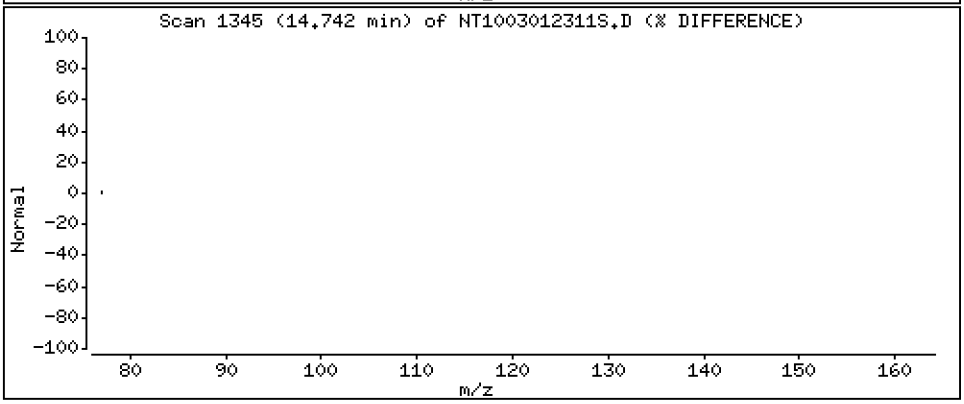












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

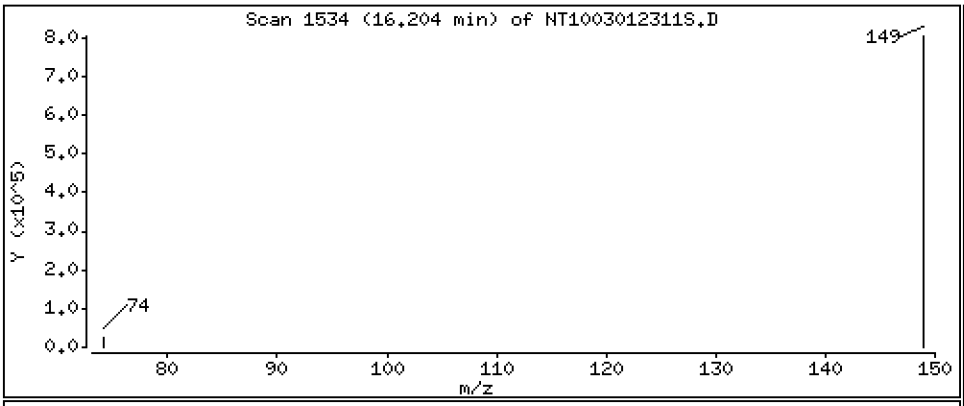
Operator: JGR

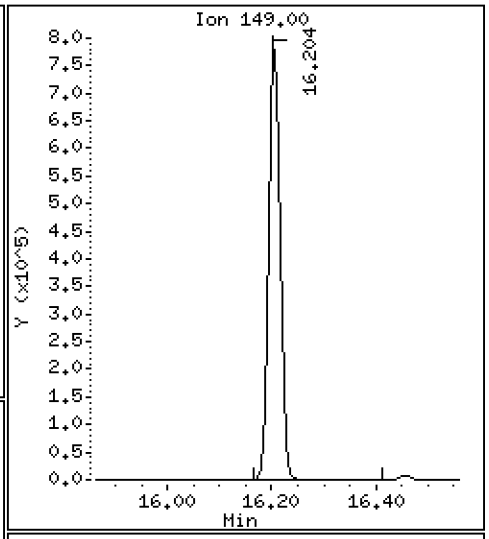
Column phase: ZB-5msi

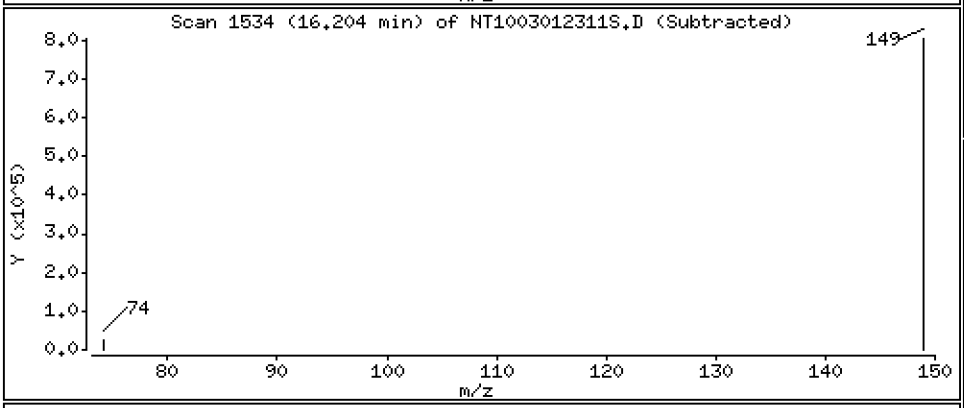
Column diameter: 0.25

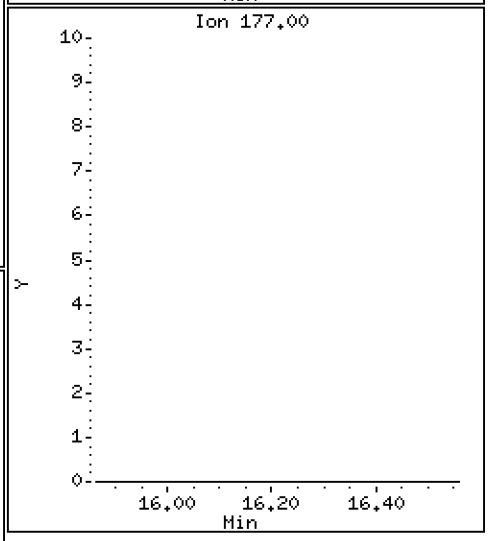
50 Diethylphthalate

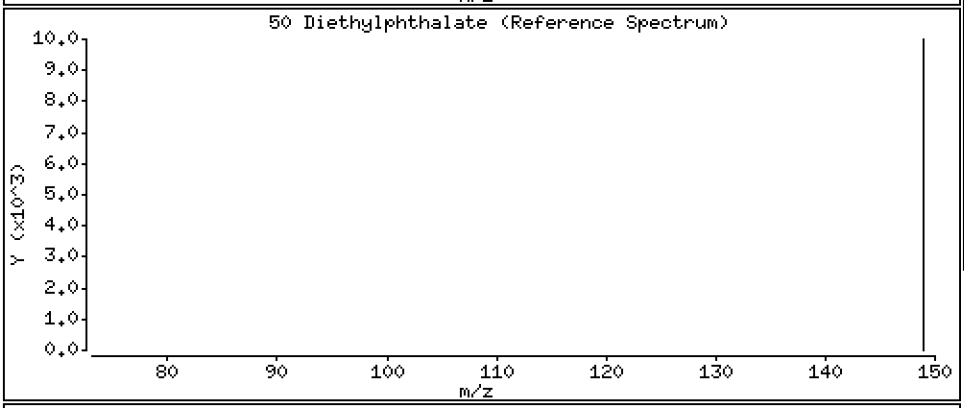
Concentration: 5.979 ug/L

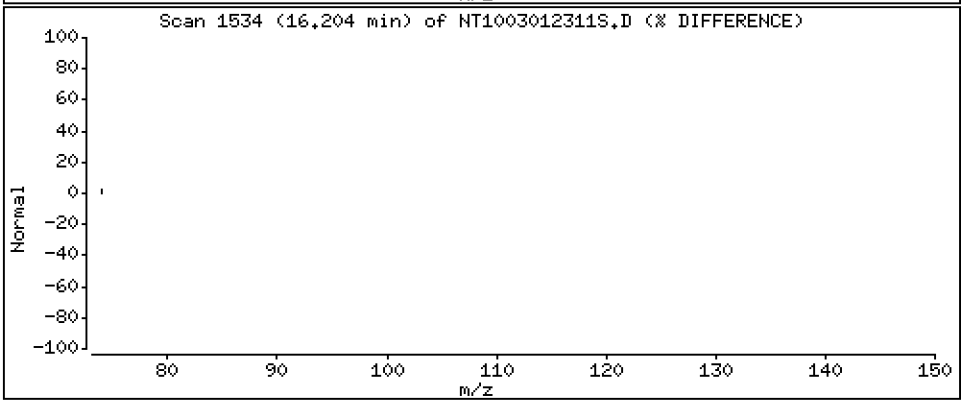












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

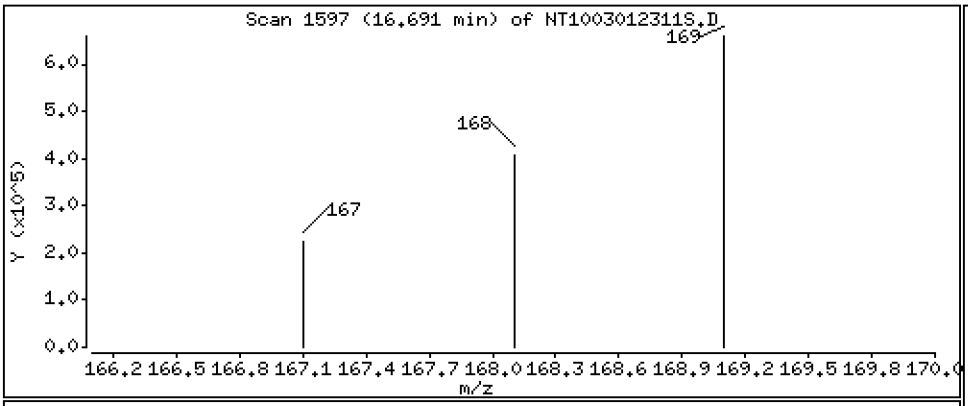
Operator: JGR

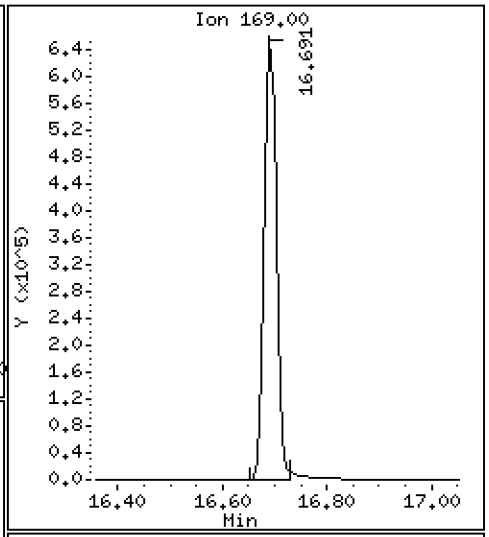
Column phase: ZB-5msi

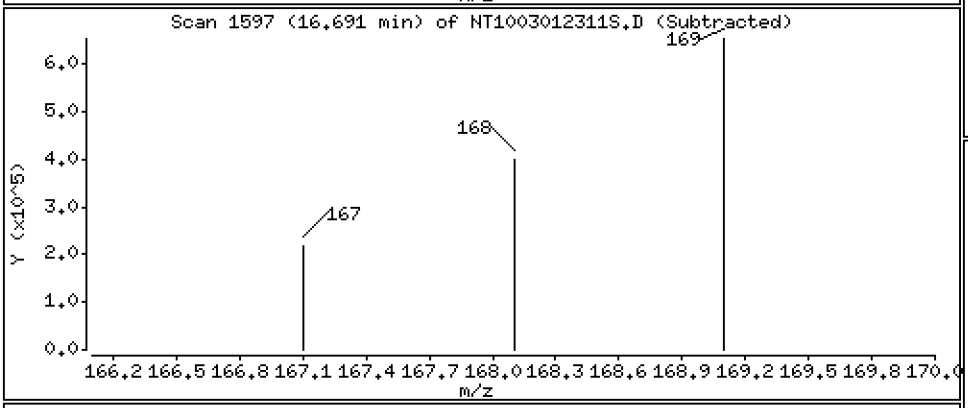
Column diameter: 0.25

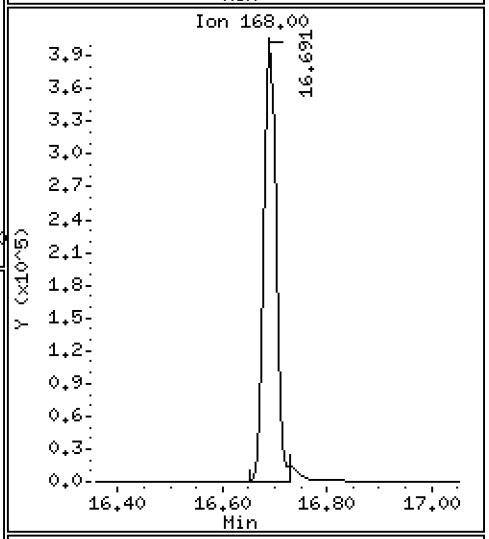
54 N-Nitrosodiphenylamine

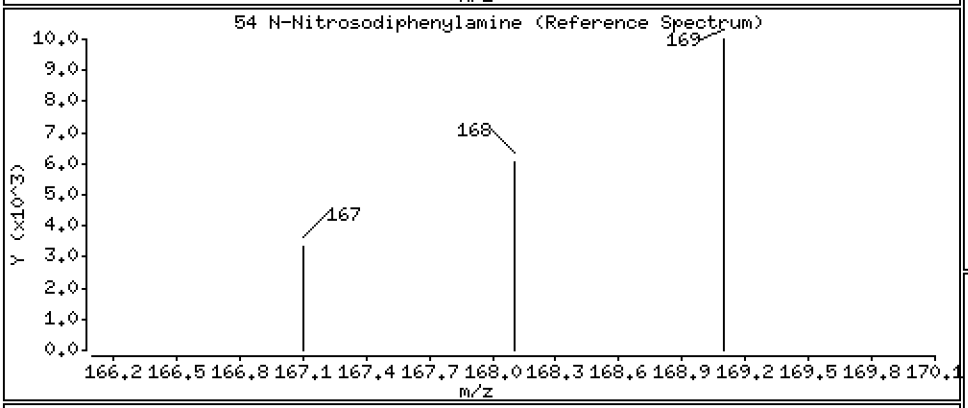
Concentration: 5.359 ug/L

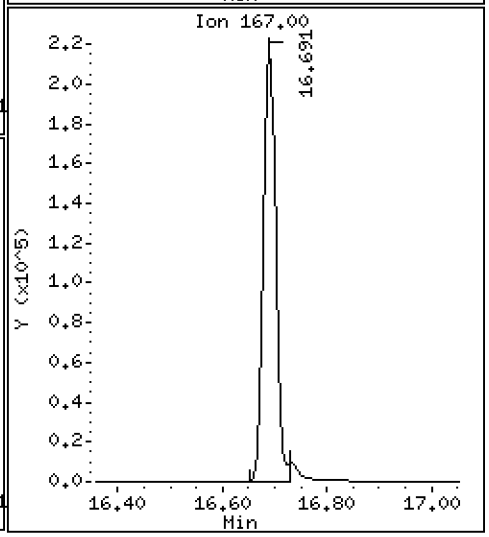


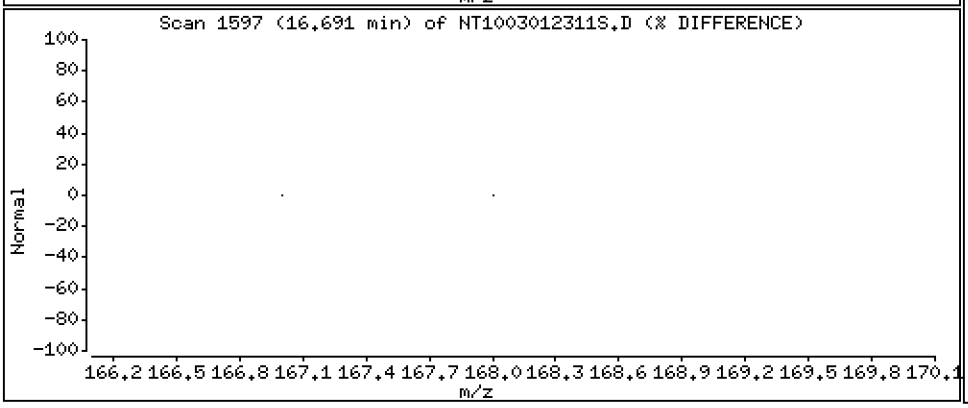












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

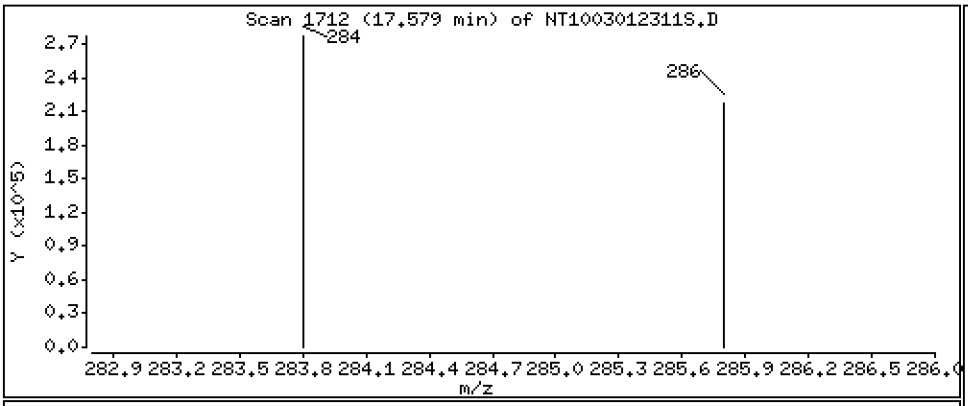
Operator: JGR

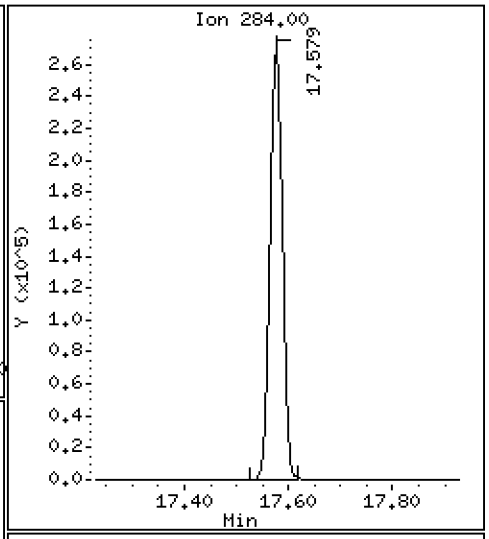
Column phase: ZB-5msi

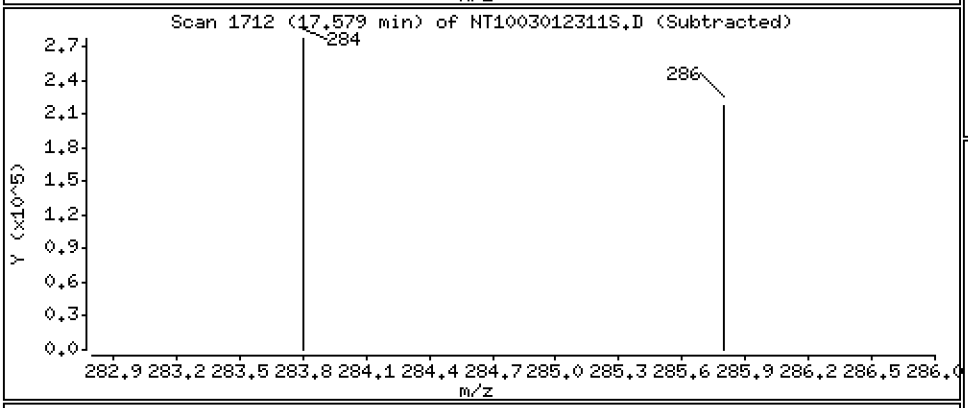
Column diameter: 0.25

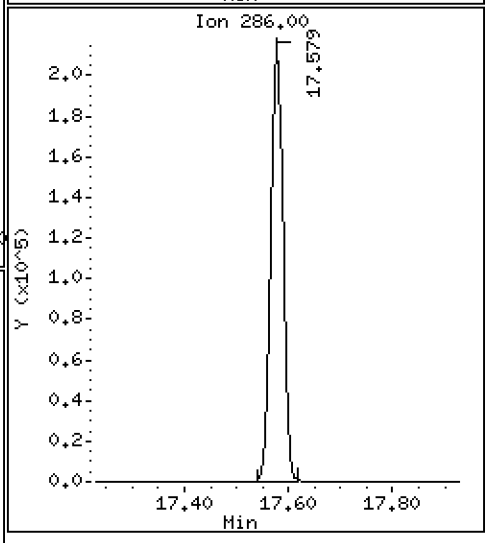
57 Hexachlorobenzene

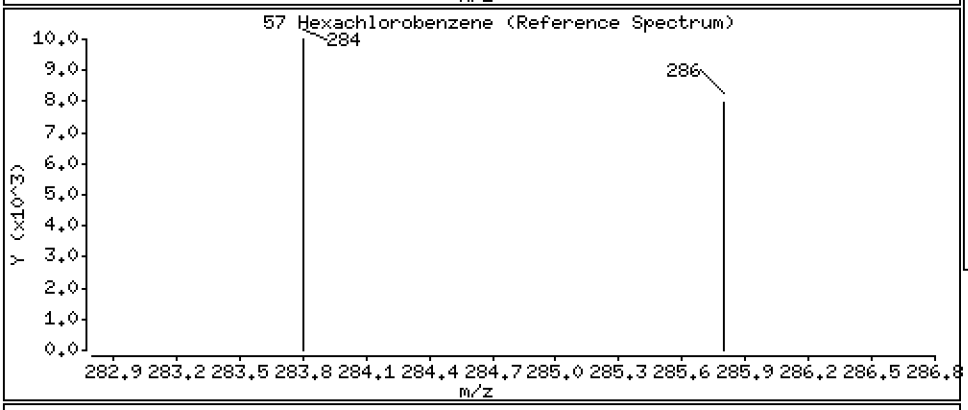
Concentration: 4.866 ug/L

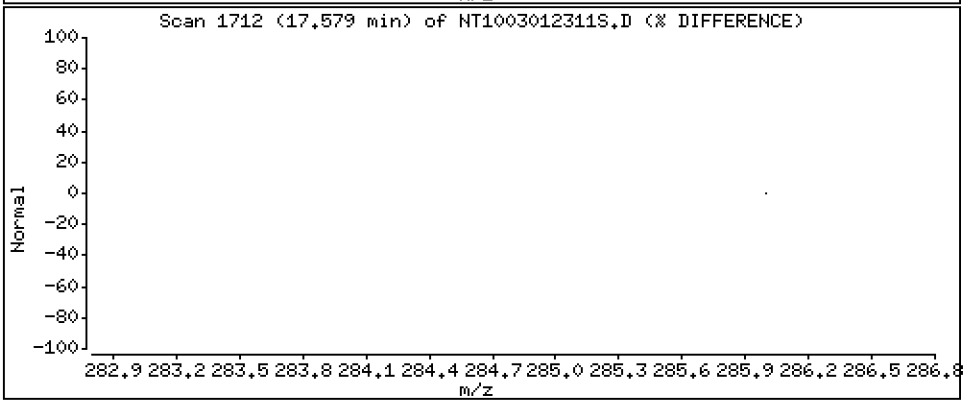












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Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

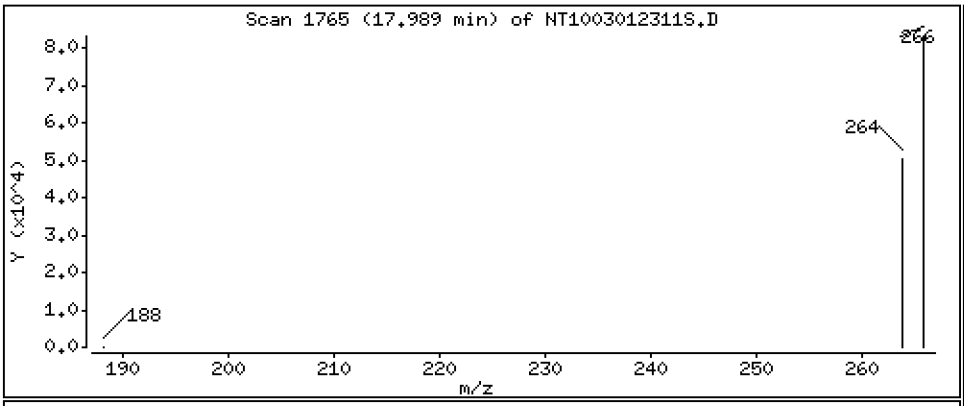
Operator: JGR

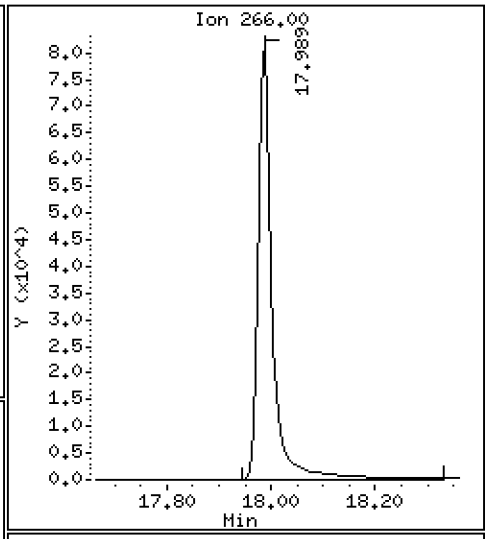
Column phase: ZB-5msi

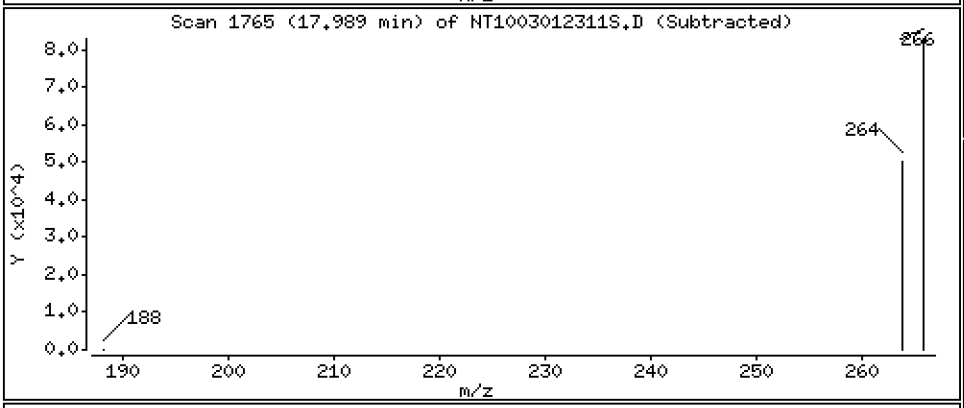
Column diameter: 0.25

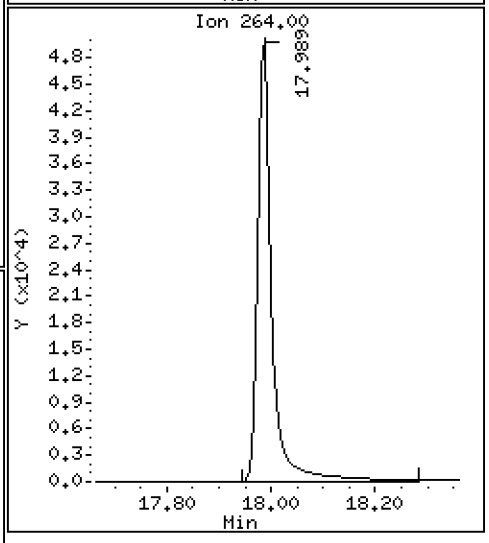
58 Pentachlorophenol

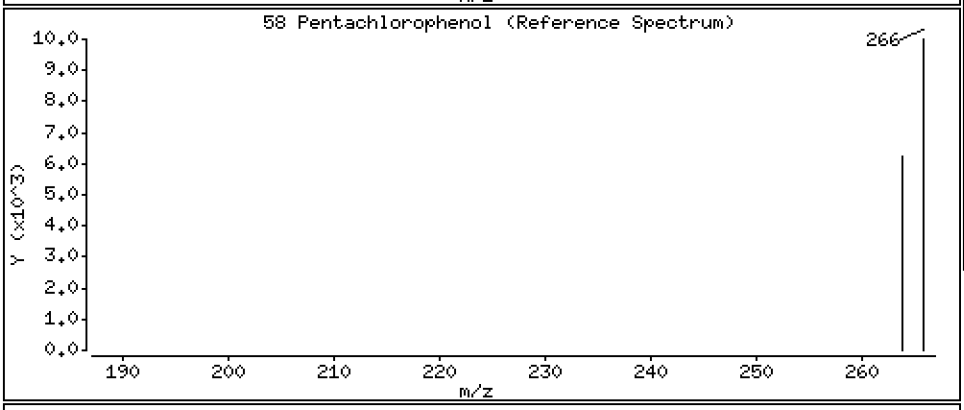
Concentration: 3.912 ug/L

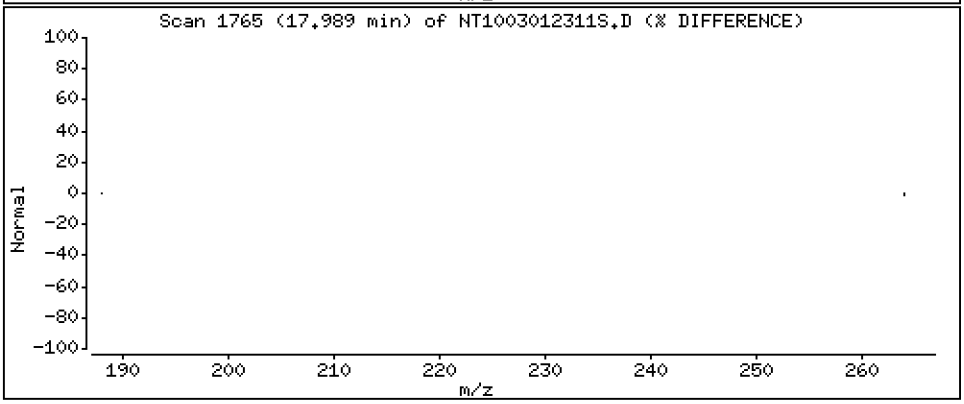












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

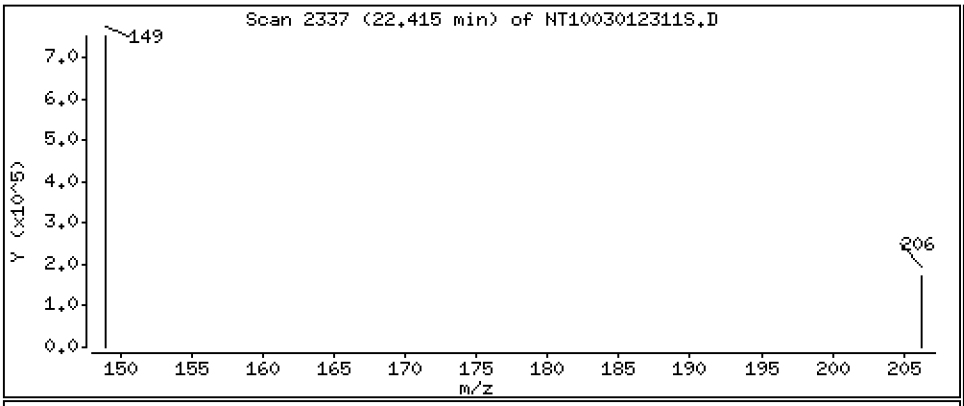
Operator: JGR

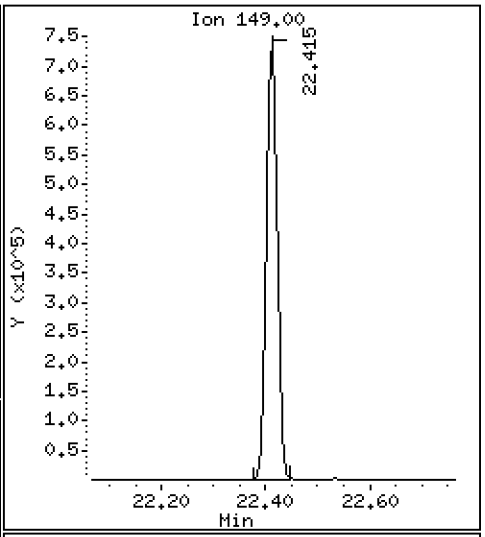
Column phase: ZB-5msi

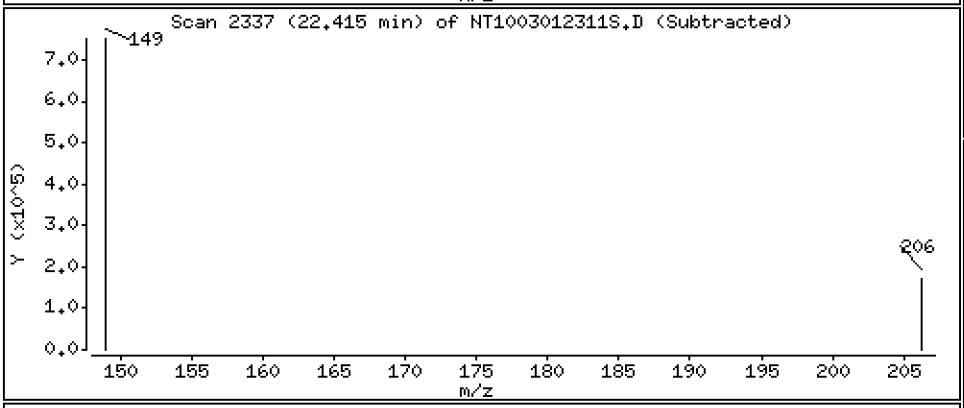
Column diameter: 0.25

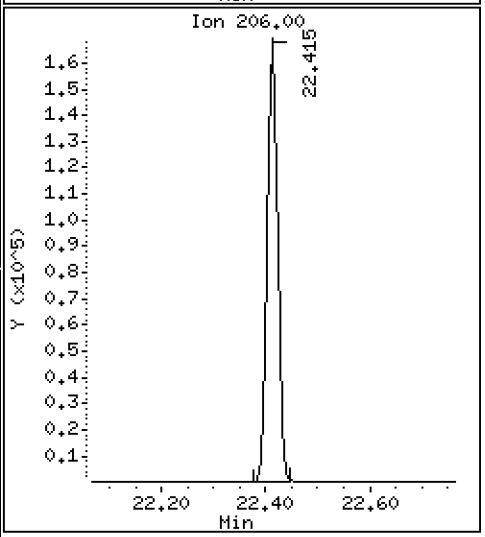
67 Butylbenzylphthalate

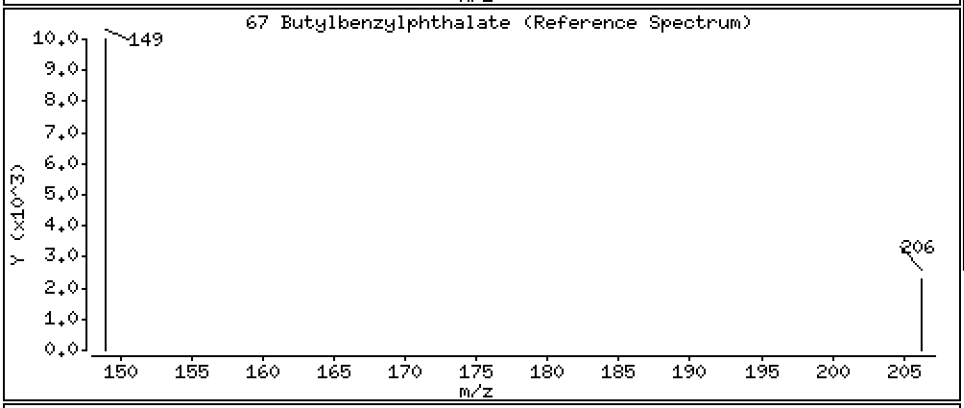
Concentration: 4.689 ug/L

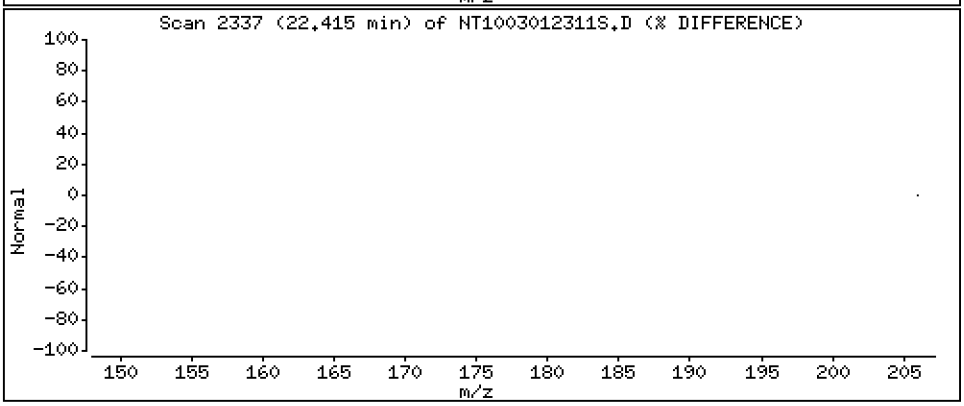












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

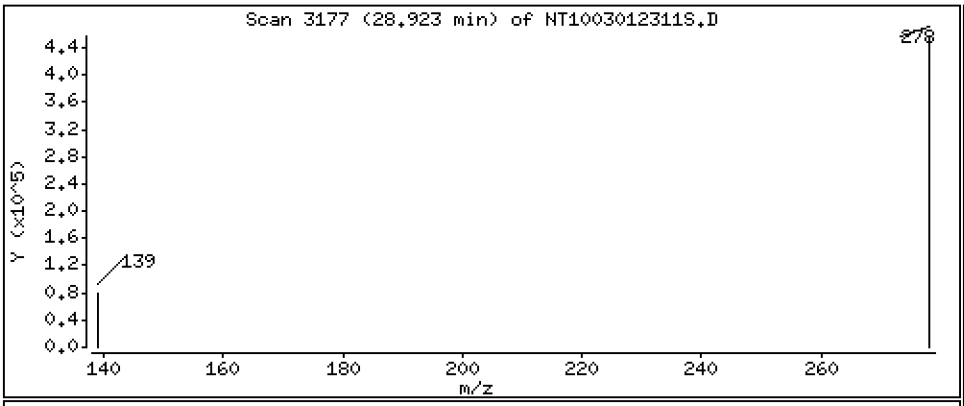
Operator: JGR

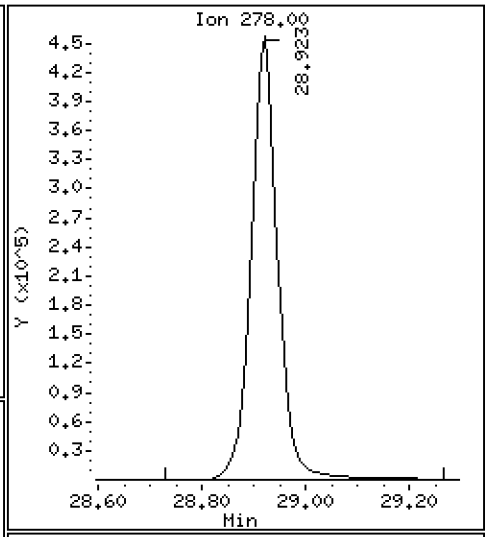
Column phase: ZB-5msi

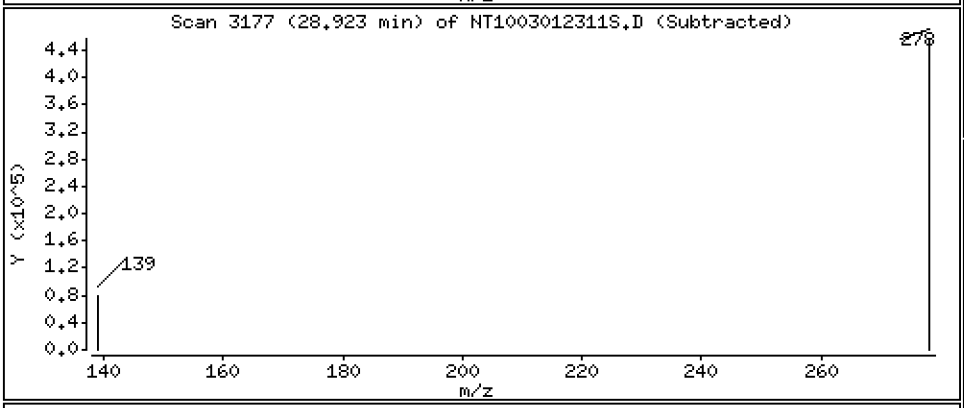
Column diameter: 0.25

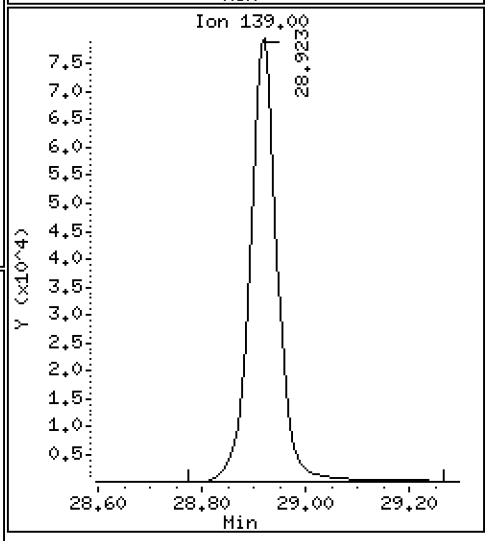
79 Dibenzo(a,h)anthracene

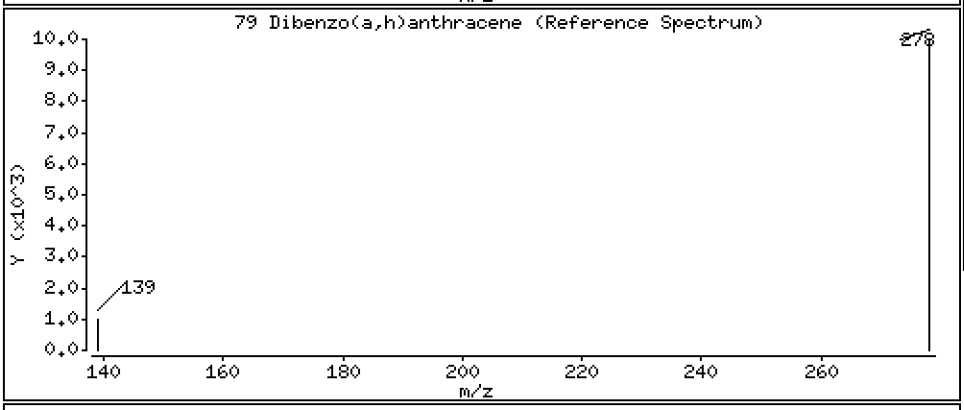
Concentration: 4.760 ug/L

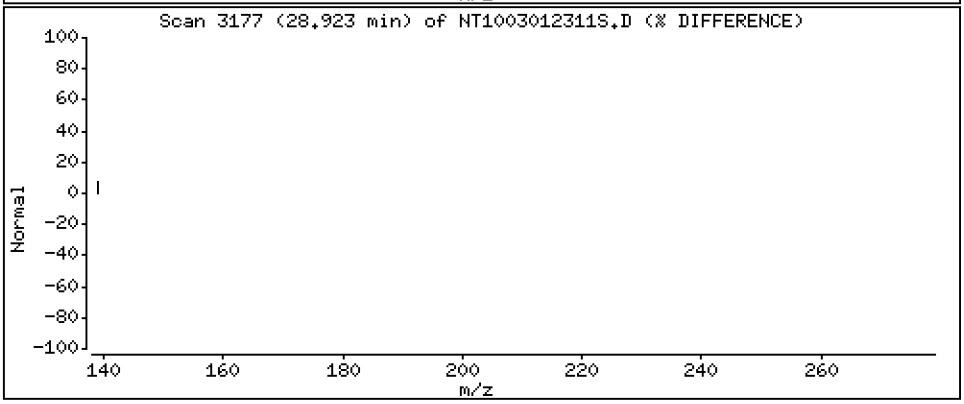












Data File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT10030123115.D

Date : 01-MAR-2023 21:46

Client ID:

Instrument: nt10.i

Sample Info: SEQ-SCV1

Volume Injected (uL): 1.0

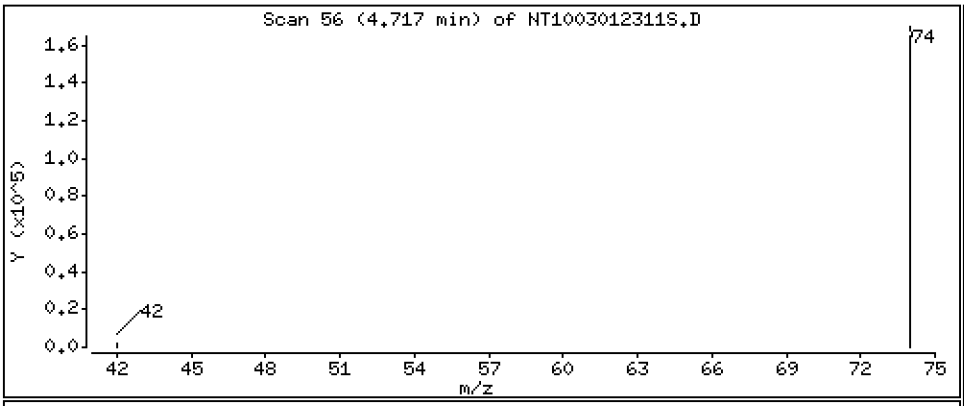
Operator: JGR

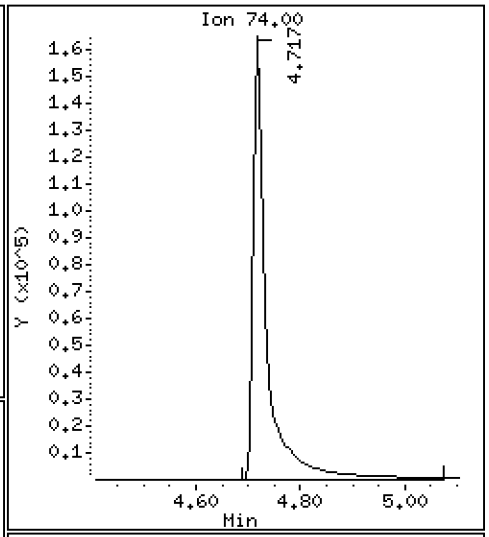
Column phase: ZB-5msi

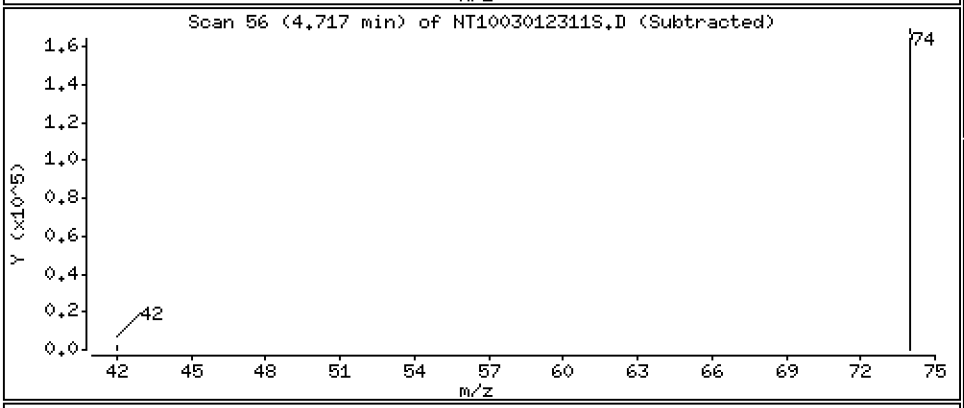
Column diameter: 0.25

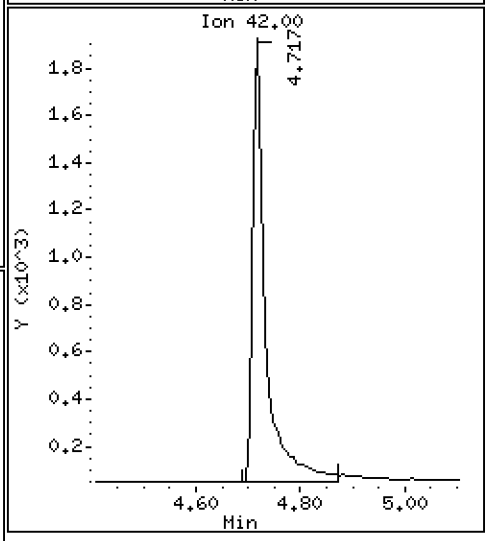
90 N-Nitrosodimethylamine

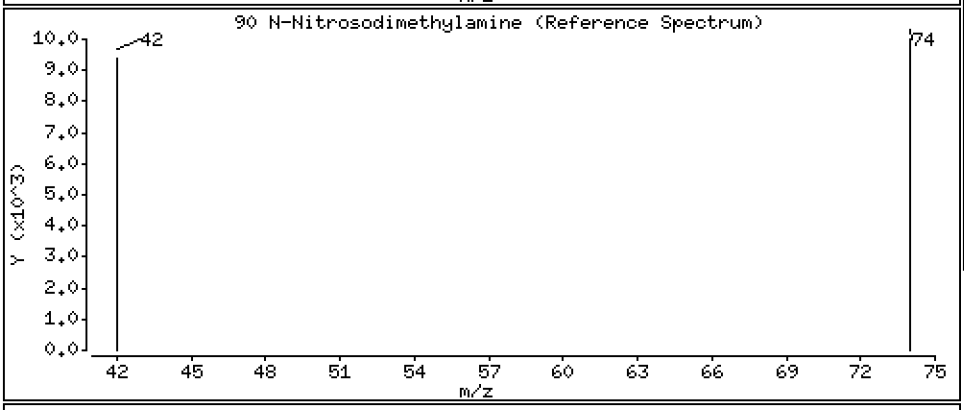
Concentration: 6.057 ug/L

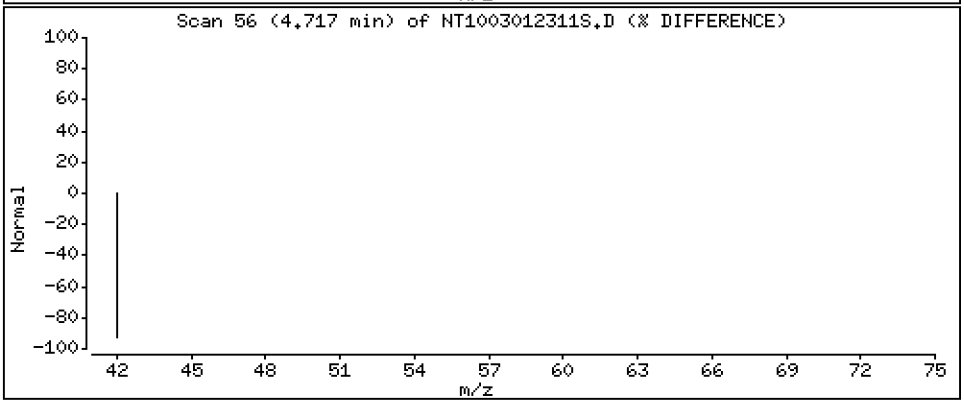












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230301.b\SIM.b\NT1003012311S.D
Lab Smp Id: SLC0143-SCV1
Inj Date : 01-MAR-2023 21:46 MS Autotune Date: 16-JAN-2023 16:42
Operator : JGR Inst ID: nt10.i
Smp Info : SEQ-SCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Meth Date : 08-Mar-2023 15:10 yev Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.902	6.902	(0.746)	3267	0.03768	0.03768(R)
3	Phenol	94	8.517	8.532	(0.921)	590047	4.50660	4.507
7	1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	572299	5.08409	5.084
* 8	1,4-Dichlorobenzene-d4	152	9.252	9.252	(1.000)	303734	4.00000	
9	1,4-Dichlorobenzene	146	9.283	9.275	(1.003)	574537	5.24962	5.250
11	Benzyl alcohol	79	9.469	9.508	(1.023)	388582	5.10390	5.104
12	1,2-Dichlorobenzene	146	9.562	9.563	(1.034)	540938	5.14228	5.142
13	2-Methylphenol	108	9.655	9.671	(1.044)	348452	4.36547	4.365
15	4-Methylphenol	108	9.943	9.966	(1.075)	379262	4.50495	4.505
16	N-Nitroso-di-n-propylamine	70	9.982	9.982	(1.079)	330861	5.68451	5.685
22	2,4-Dimethylphenol	107	10.998	11.006	(0.938)	357707	3.63670	3.637
24	Benzoic acid	105	11.099	11.007	(0.947)	380081	6.86990	6.870
26	1,2,4-Trichlorobenzene	180	11.600	11.600	(0.989)	402252	4.87012	4.870
* 27	Naphthalene-d8	136	11.724	11.723	(1.000)	1147551	4.00000	
30	Hexachlorobutadiene	225	11.994	11.994	(1.023)	285002	4.86242	4.862
39	Dimethylphthalate	163	14.741	14.749	(0.963)	1142178	5.57065	5.571
* 42	Acenaphthene-d10	162	15.314	15.314	(1.000)	645730	4.00000	
50	Diethylphthalate	149	16.203	16.211	(1.058)	1156037	5.97883	5.979
54	N-Nitrosodiphenylamine	169	16.690	16.705	(0.907)	998237	5.35897	5.359
57	Hexachlorobenzene	284	17.578	17.579	(0.955)	424193	4.86607	4.866

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	58 Pentachlorophenol	266	17.989	18.012	(0.978)	155412	3.91206	3.912
*	59 Phenanthrene-d10	188	18.399	18.398	(1.000)	1151000	4.00000	
$	66 Terphenyl-d14	244	21.524	21.532	(0.919)	2846	0.02712	0.02712(R)
	67 Butylbenzylphthalate	149	22.415	22.415	(0.957)	1009961	4.68912	4.689
*	69 Chrysene-d12	240	23.421	23.421	(1.000)	1297466	4.00000	
*	77 Perylene-d12	264	26.108	26.108	(1.000)	1394899	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.922	28.946	(1.108)	1657122	4.76032	4.760
	90 N-Nitrosodimethylamine	74	4.717	4.755	(0.510)	310951	6.05685	6.057

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003012311S.D
Lab Smp Id: SLC0143-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JGR
Method File: \\target\share\chem3\nt10.i\20230301.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 01-MAR-2023
Calibration Time: 18:37
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	320125	160063	640250	303734	-5.12
27 Naphthalene-d8	1136019	568010	2272038	1147551	1.02
42 Acenaphthene-d10	636993	318497	1273986	645730	1.37
59 Phenanthrene-d10	1093620	546810	2187240	1151000	5.25
69 Chrysene-d12	1000300	500150	2000600	1297466	29.71
77 Perylene-d12	1058448	529224	2116896	1394899	31.79

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.72	11.22	12.22	11.72	0.00
42 Acenaphthene-d10	15.31	14.81	15.81	15.31	0.00
59 Phenanthrene-d10	18.40	17.90	18.90	18.40	0.00
69 Chrysene-d12	23.41	22.91	23.91	23.42	0.03
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003012311S.D

Lab ID: SLC0143-SCV1
nt10.i, 20230301.b\SIM.b\SIMABN2.m,   01-MAR-2023 21:46

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.947	0.000	0.9467	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003012310S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00032
Lab File ID:	NT1003052315S.D	Calibration Date:	03/01/2023
Sequence:	SLC0435	Injection Date:	03/05/23
Lab Sample ID:	SLC0435-CCV1	Injection Time:	22:16
Sequence Name:	Calibration Check		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
1,4-Dichlorobenzene	A	1.0000	1.0	1.4413080	1.4039480		-2.6	+/-50	
1,2-Dichlorobenzene	A	1.0000	1.0	1.3853460	1.3921730		0.5	+/-50	
Benzyl Alcohol	A	1.0000	1.0	0.7492523	0.9105636		-3.6	+/-50	
Benzoic acid	A	4.0000	0.7	0.1431163	0.0332159		-82.2	+/-50	*
2,4-Dimethylphenol	A	2.0000	2.1	0.2957717	0.3638503		6.6	+/-50	
1,2,4-Trichlorobenzene	A	1.0000	1.2	0.2879030	0.3415521		18.6	+/-50	
N-Nitrosodiphenylamine	A	1.0000	0.9	0.6473471	0.5842969		-9.7	+/-50	
Pentachlorophenol	A	2.0000	0.2	0.0950913	0.0126209		-90.5	+/-50	*
2-Fluorophenol	A	1.5000	1.65	1.1419780	1.2529000		9.7	+/-50	
p-Terphenyl-d14	A	1.0000	1.57	0.3234672	0.5071780		56.8	+/-50	*

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523155.D

Date : 05-MAR-2023 22:16

Client ID:

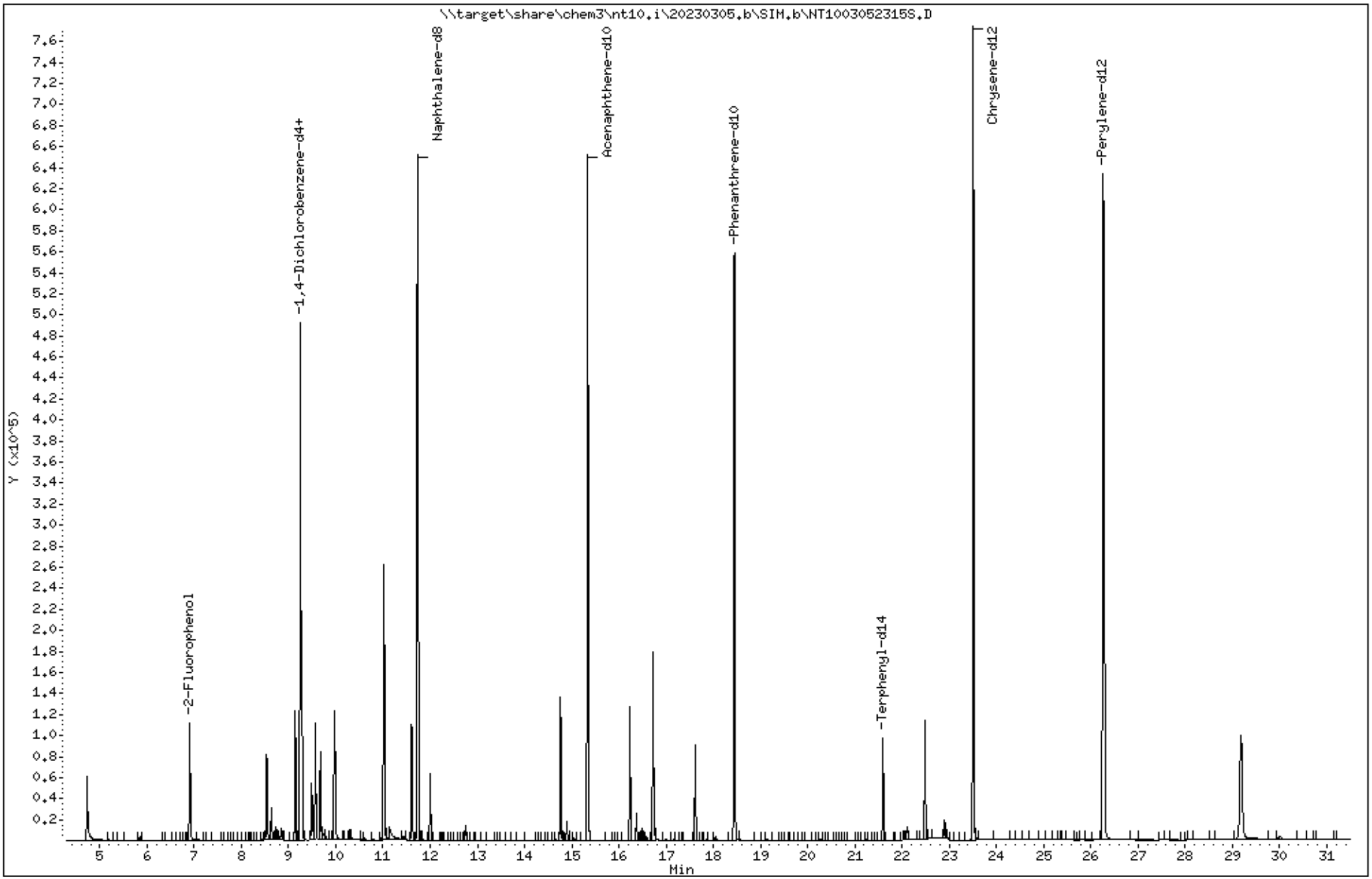
Sample Info: SLC0435-CCV1

Column phase: ZB-5msi

Instrument: nt10.i

Operator: YZ

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523155.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

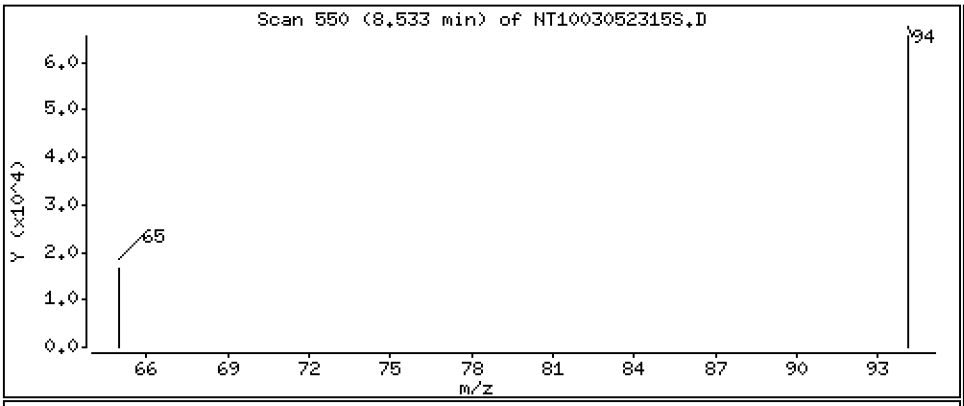
Operator: YZ

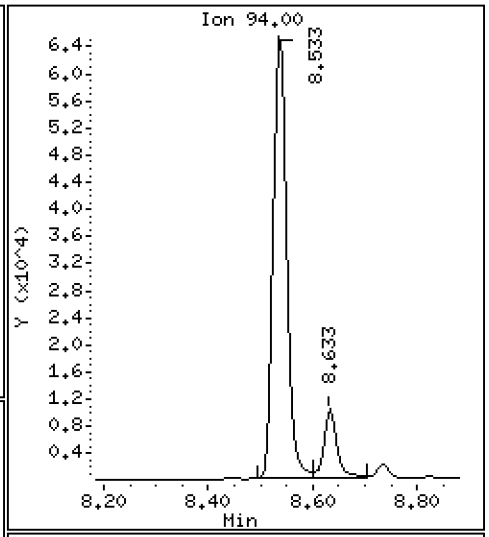
Column phase: ZB-5msi

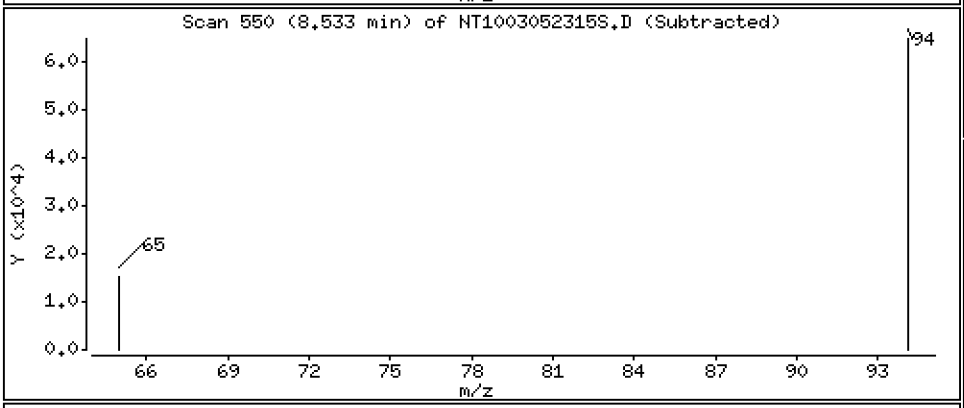
Column diameter: 0.25

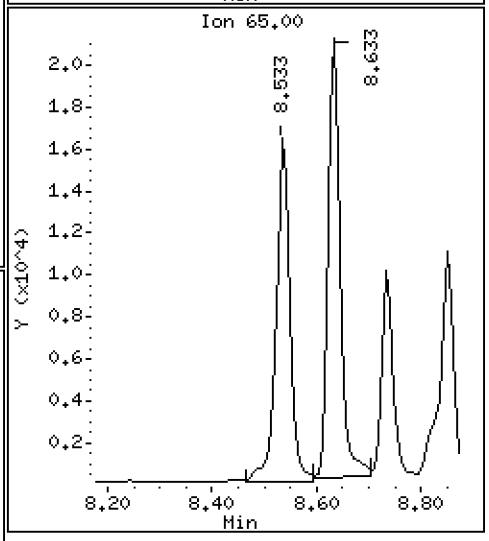
3 Phenol

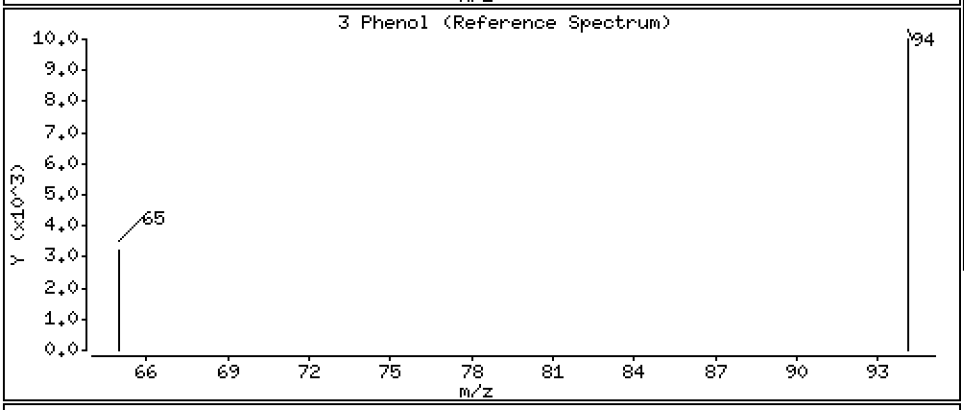
Concentration: 0.9099 ug/mL

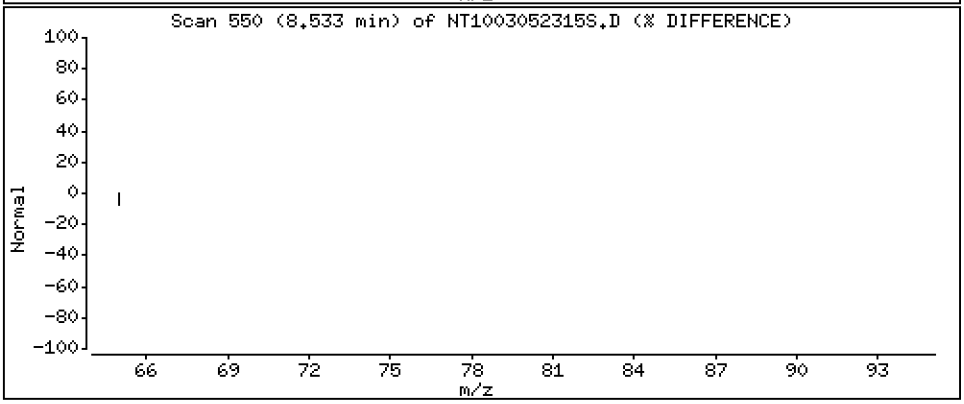












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523155.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

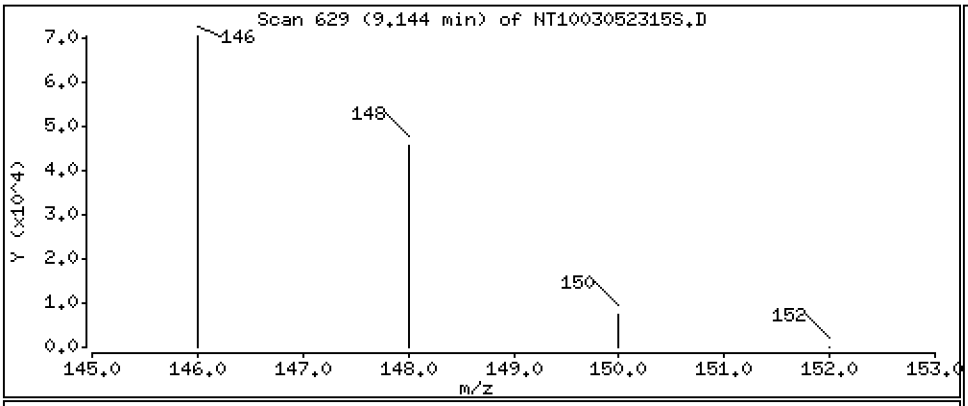
Operator: YZ

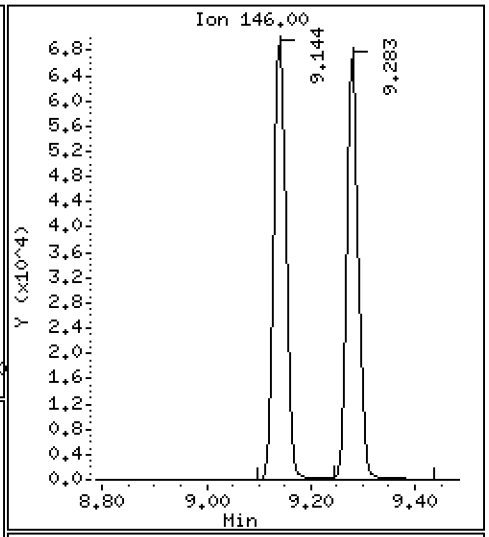
Column phase: ZB-5msi

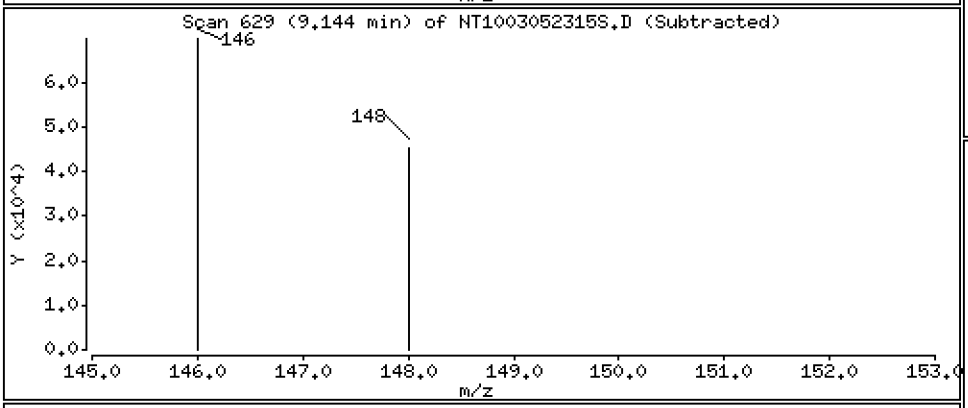
Column diameter: 0.25

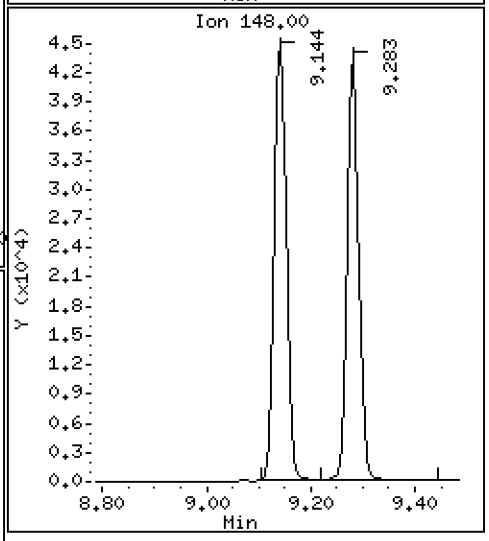
7 1,3-Dichlorobenzene

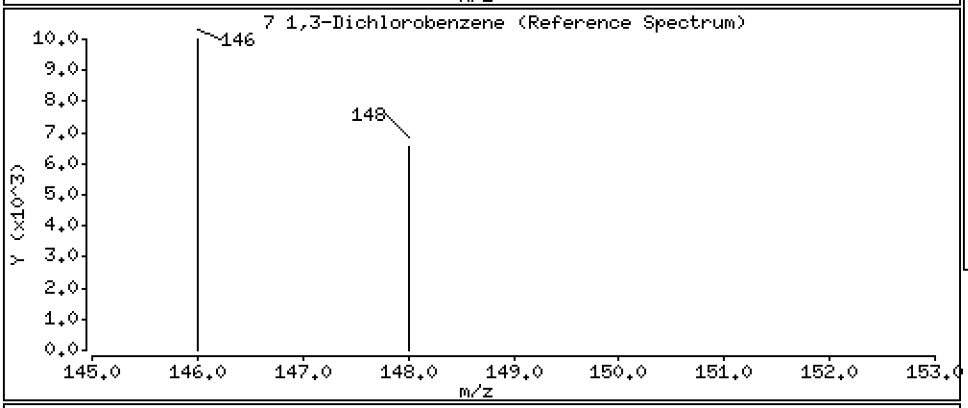
Concentration: 0.9964 ug/mL

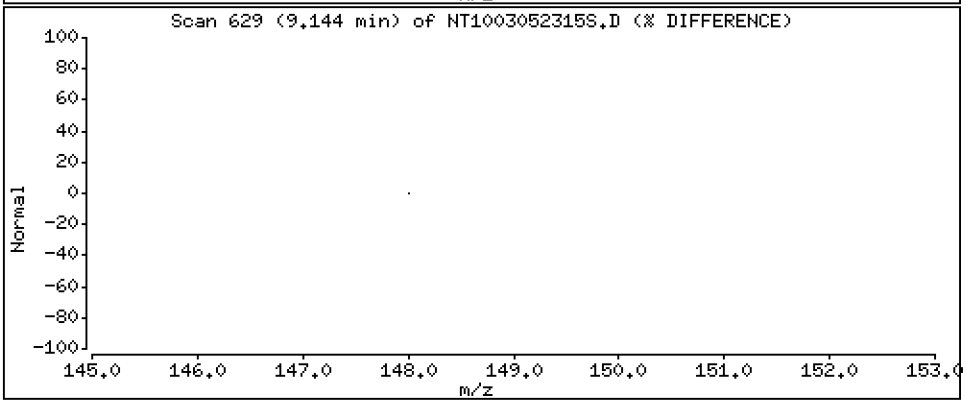












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052315S.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

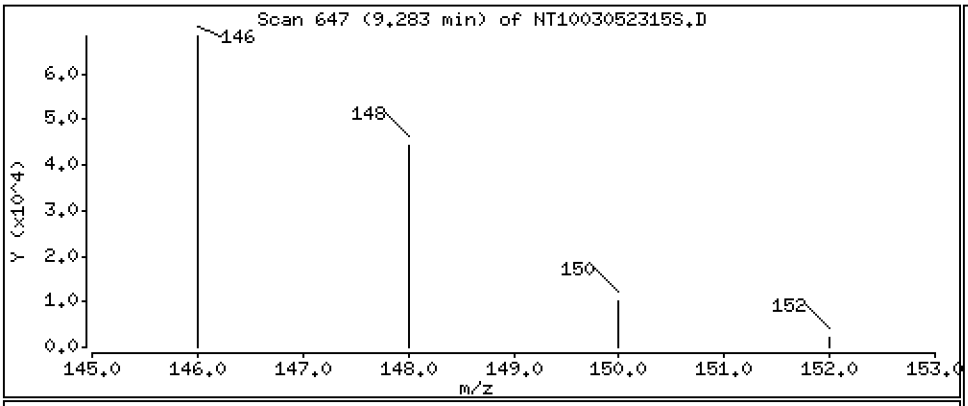
Operator: YZ

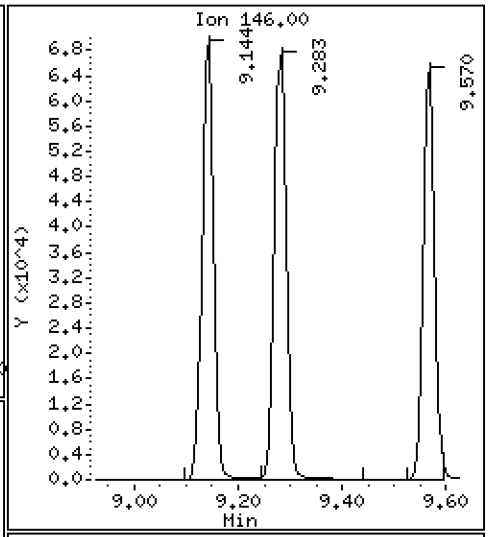
Column phase: ZB-5msi

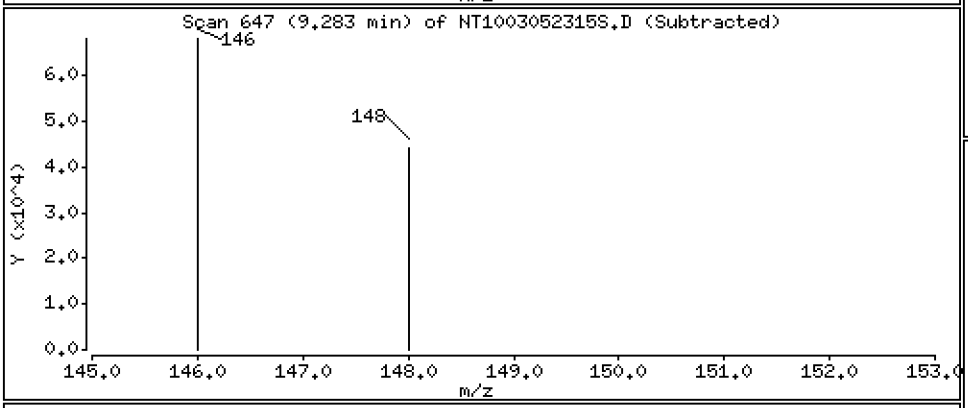
Column diameter: 0.25

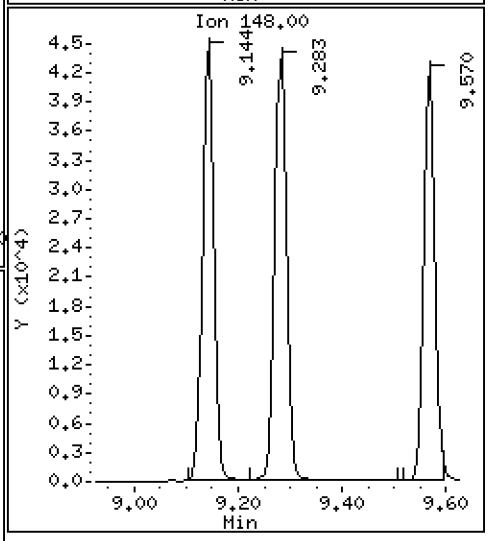
9 1,4-Dichlorobenzene

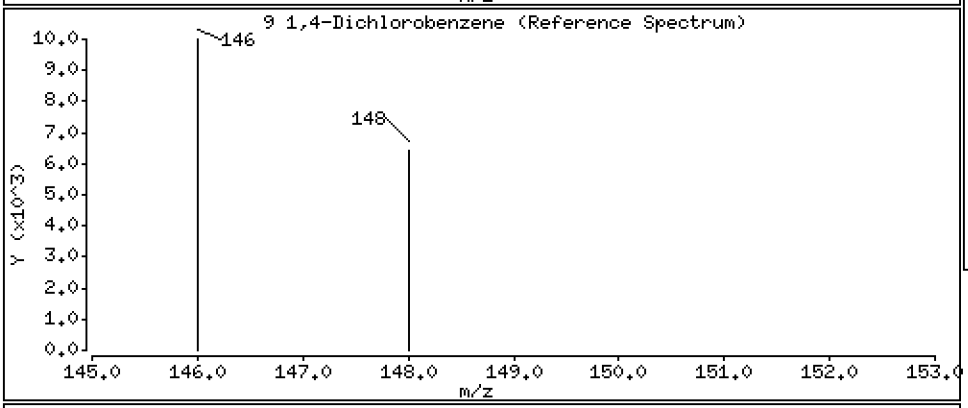
Concentration: 0.9741 ug/mL

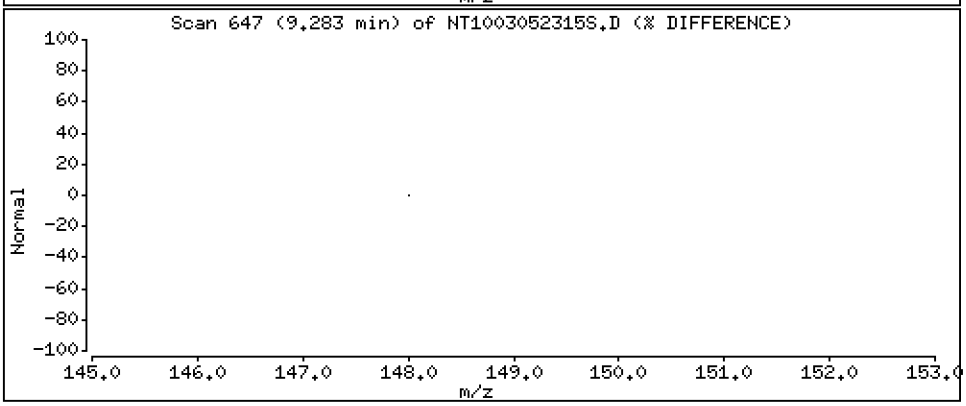












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052315S.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

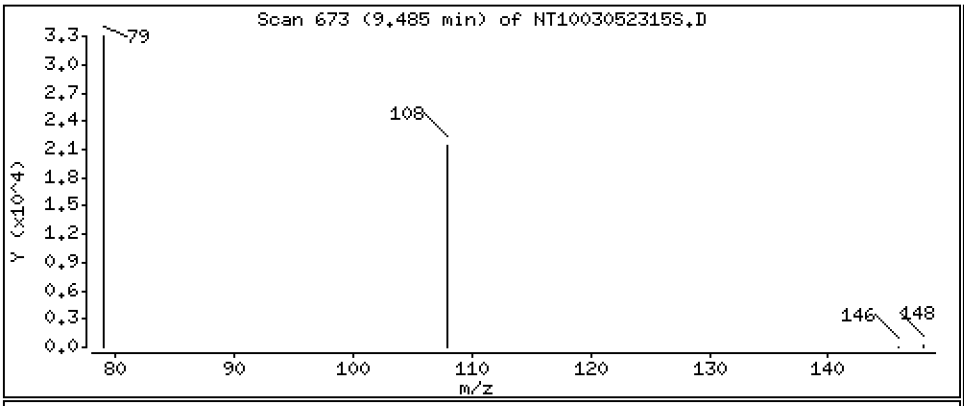
Operator: YZ

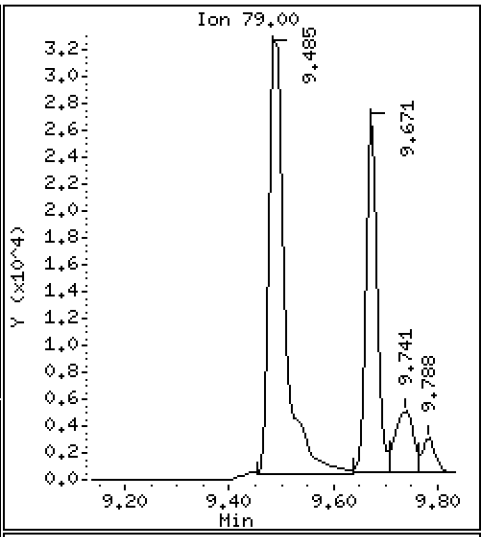
Column phase: ZB-5msi

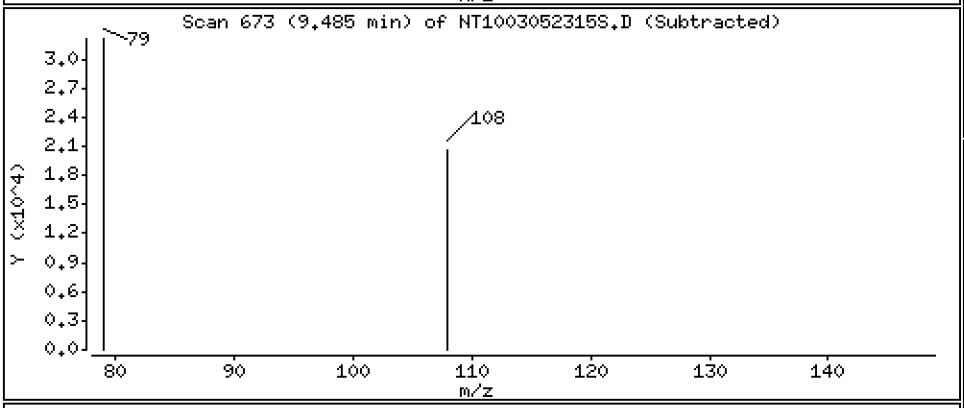
Column diameter: 0.25

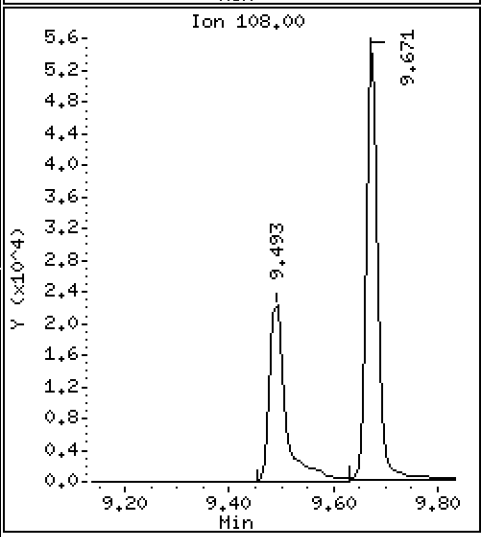
11 Benzyl alcohol

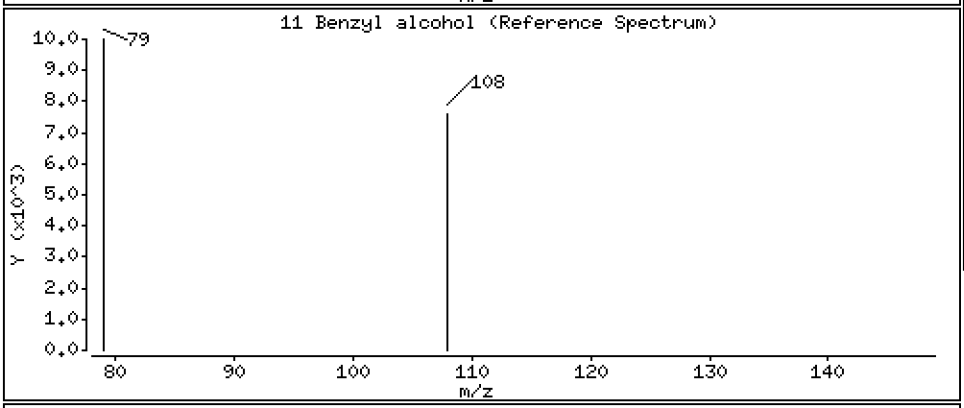
Concentration: 0.9635 ug/mL

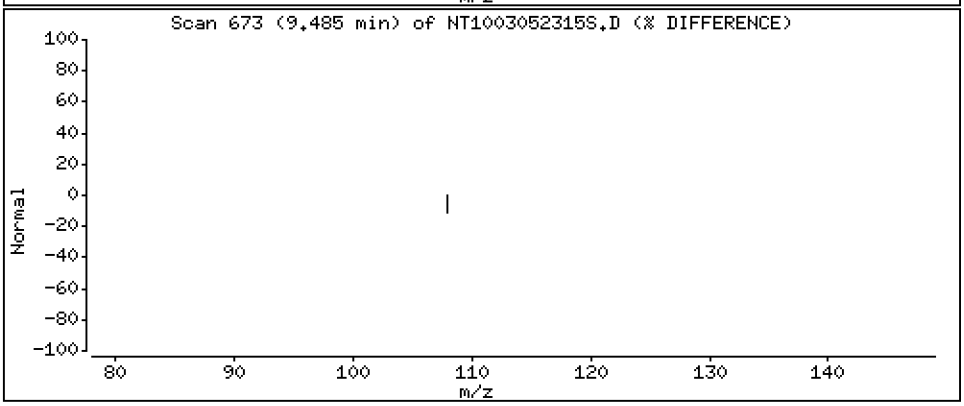












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052315S.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

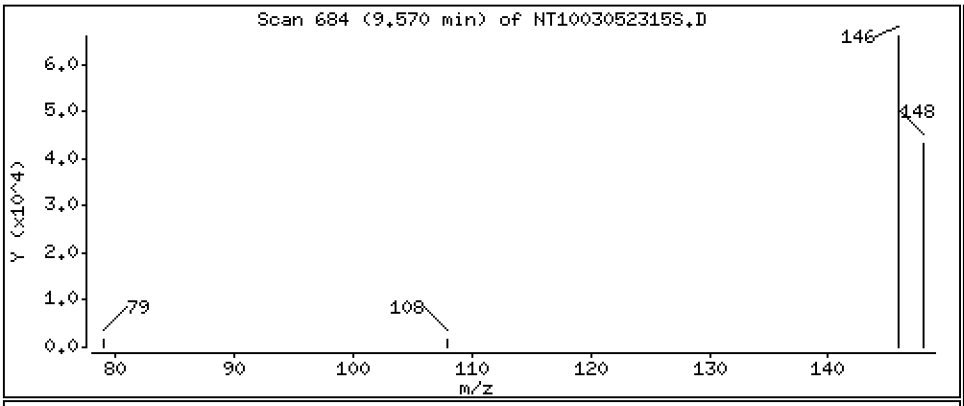
Operator: YZ

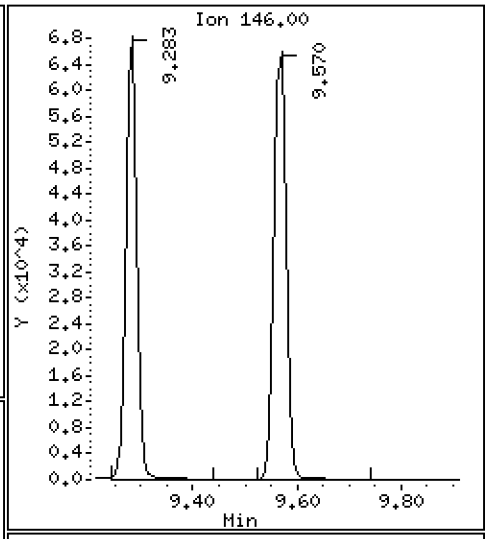
Column phase: ZB-5msi

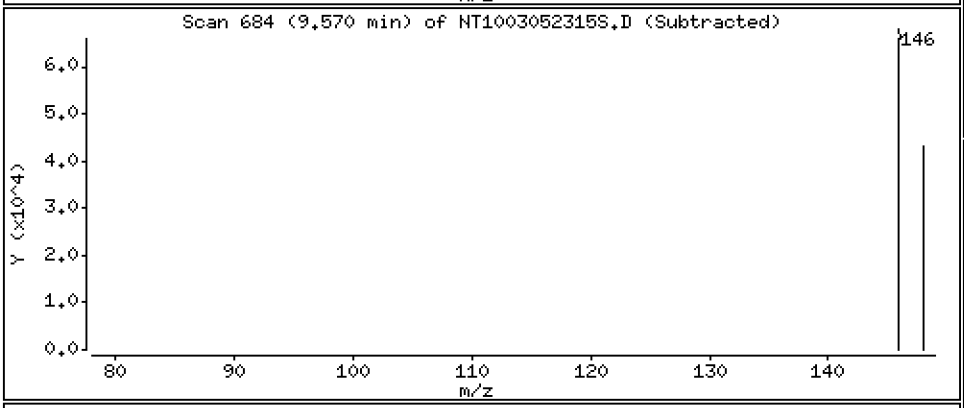
Column diameter: 0.25

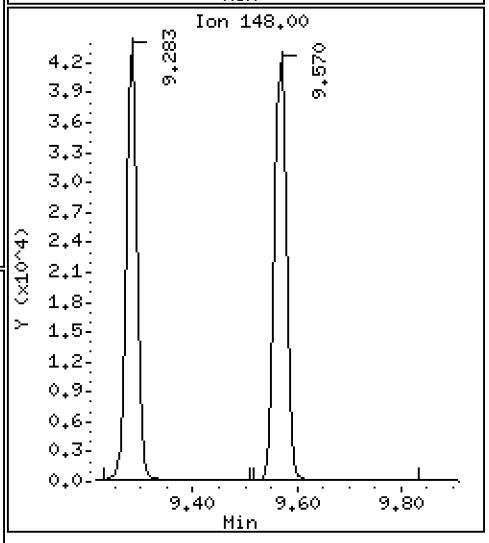
12 1,2-Dichlorobenzene

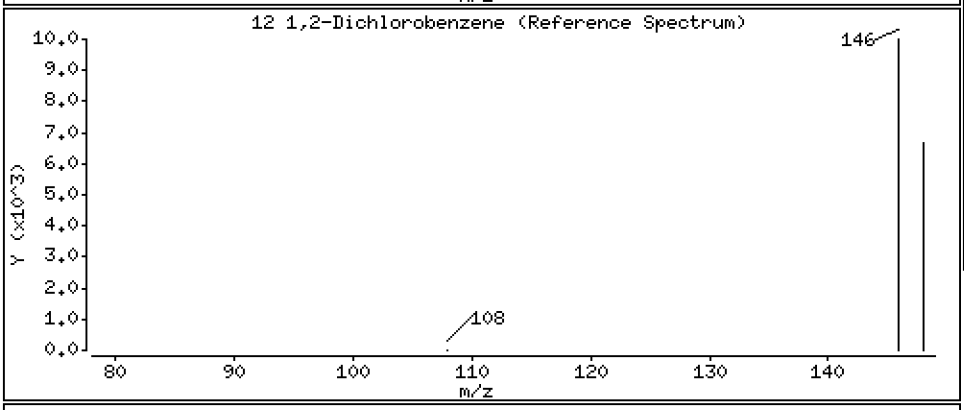
Concentration: 1.005 ug/mL

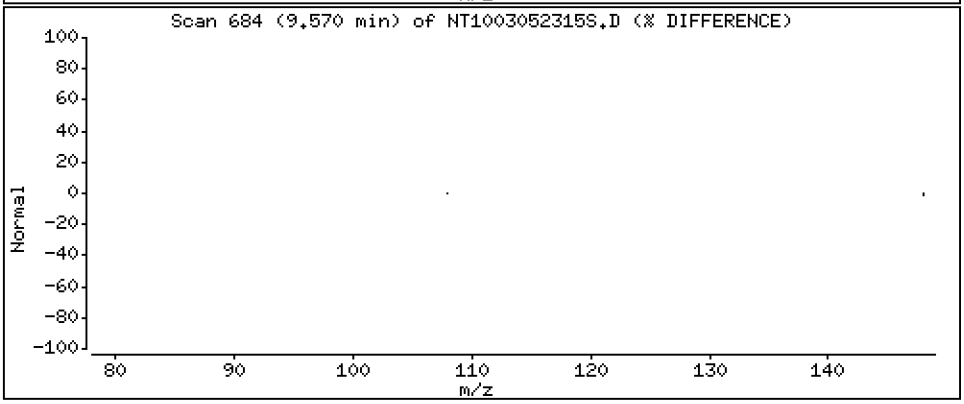












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052315S.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

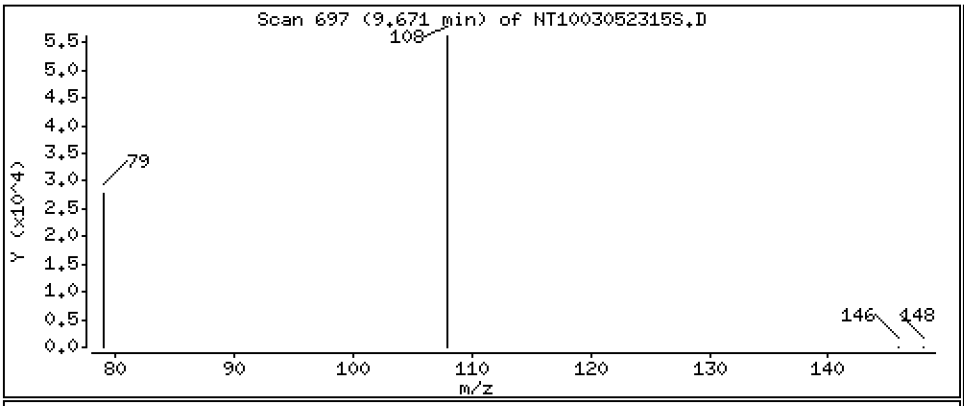
Operator: YZ

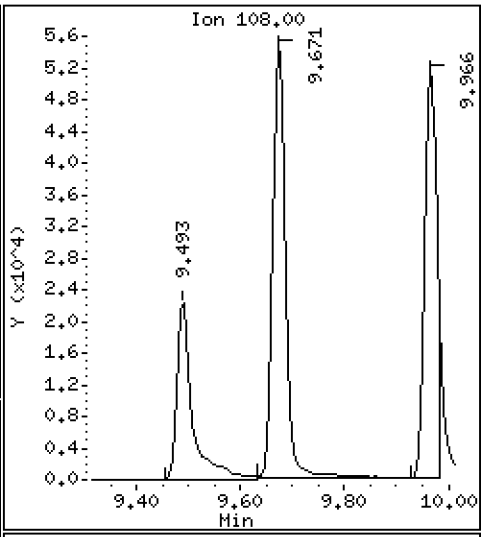
Column phase: ZB-5msi

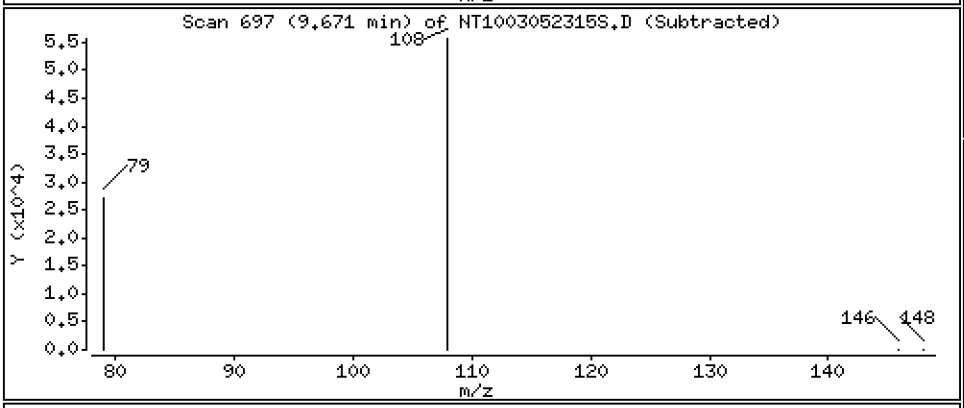
Column diameter: 0.25

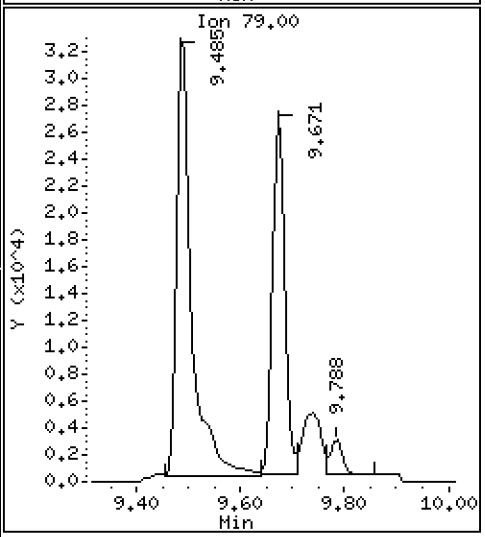
13 2-Methylphenol

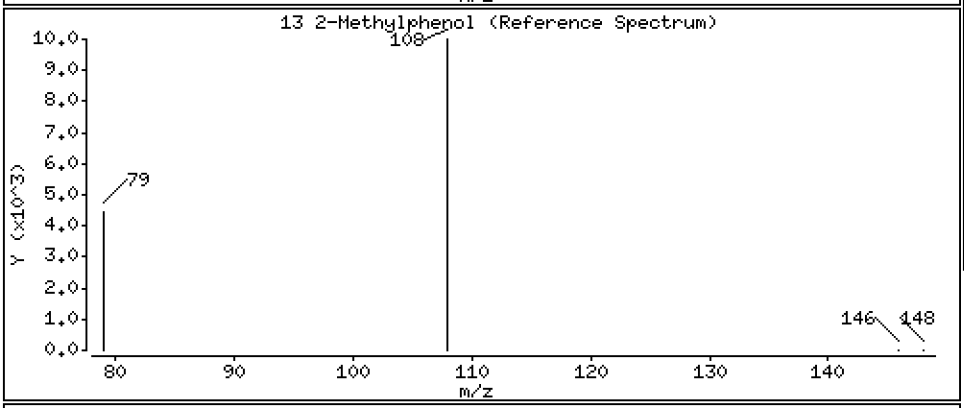
Concentration: 1.194 ug/mL

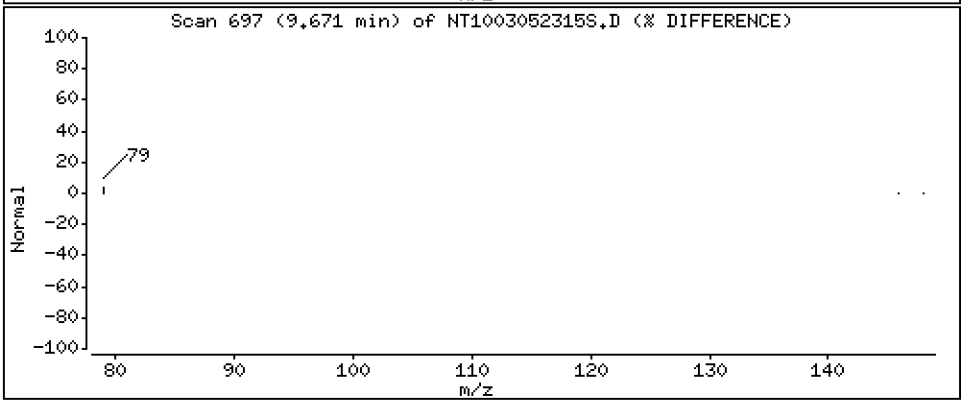












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052315S.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

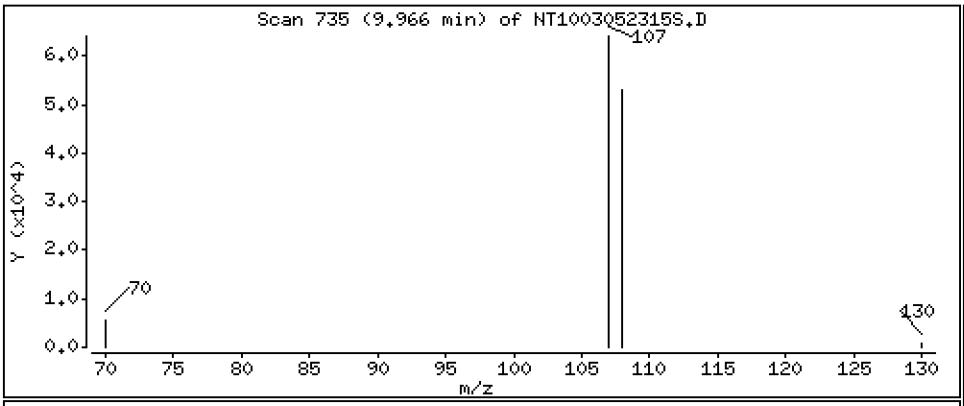
Operator: YZ

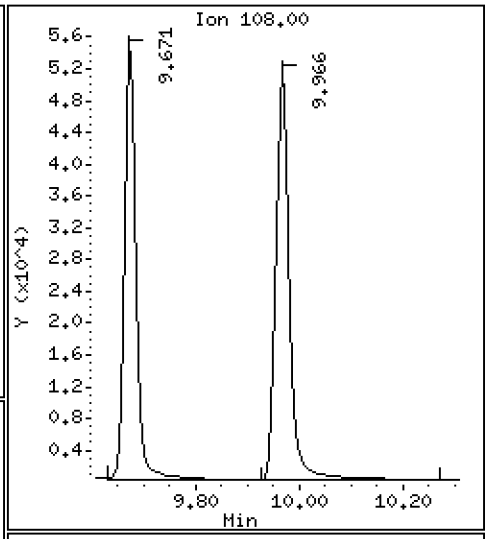
Column phase: ZB-5msi

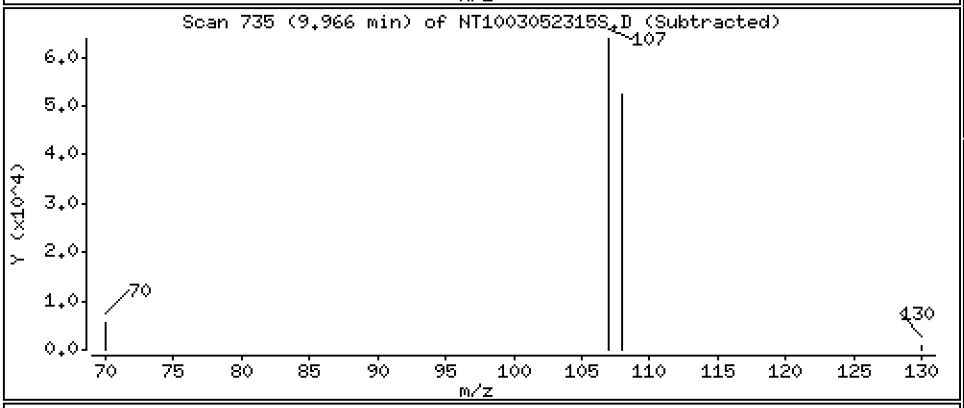
Column diameter: 0.25

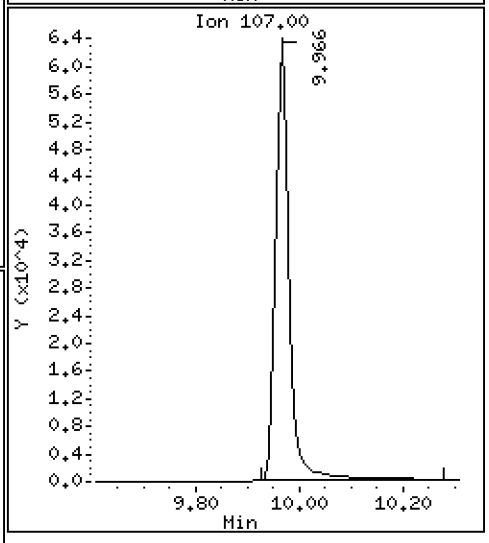
15 4-Methylphenol

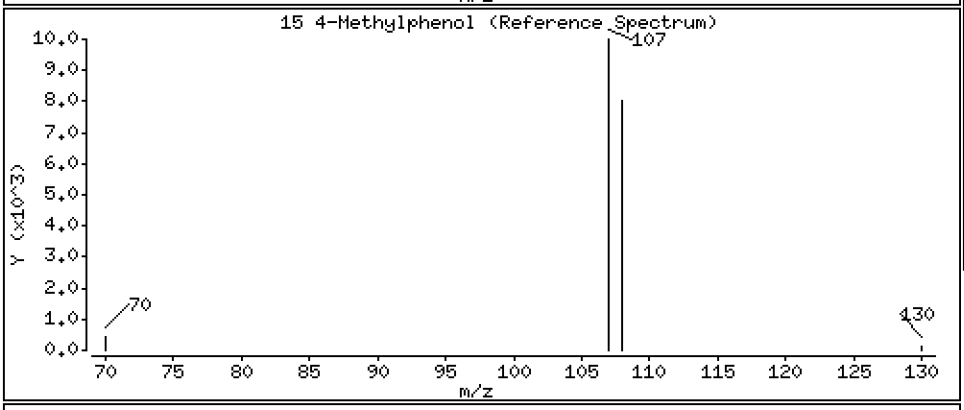
Concentration: 1.170 ug/mL

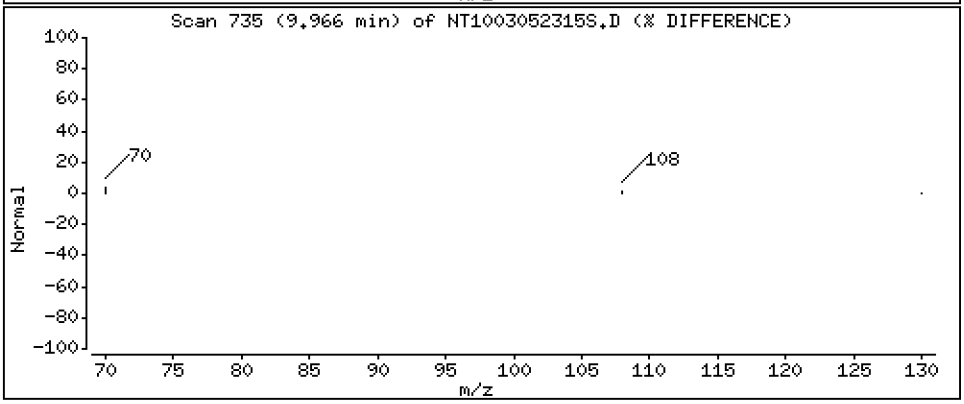












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052315S.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

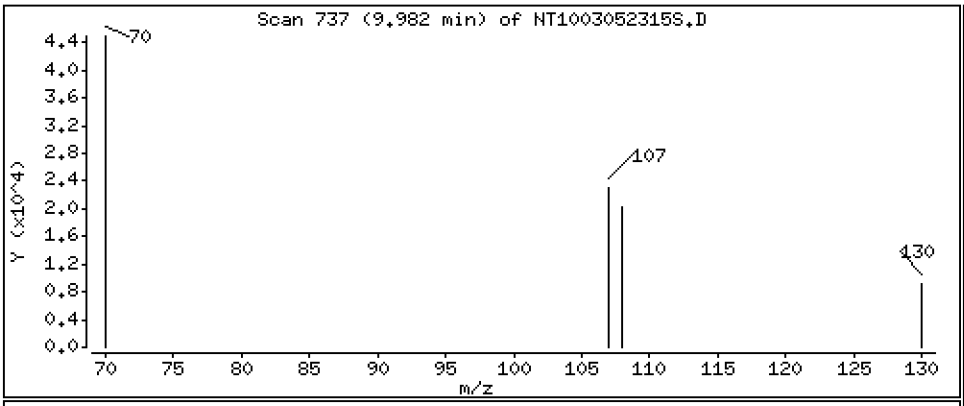
Operator: YZ

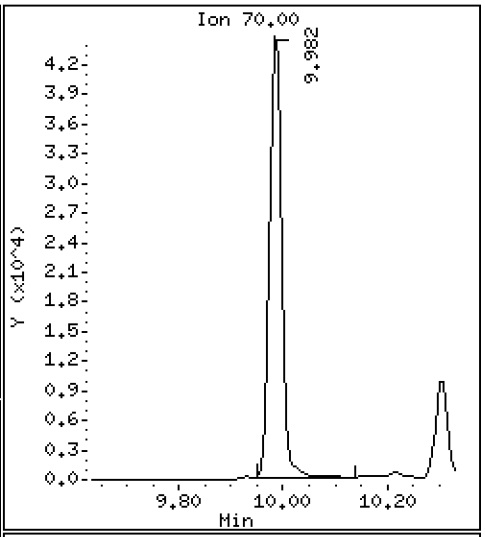
Column phase: ZB-5msi

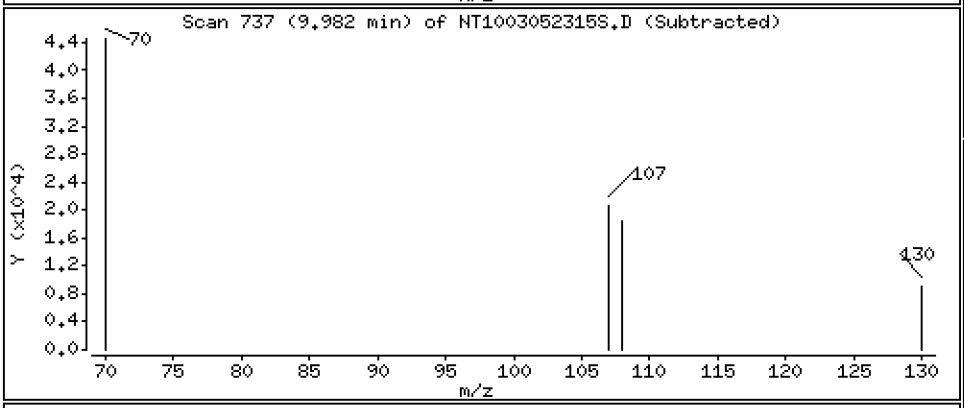
Column diameter: 0.25

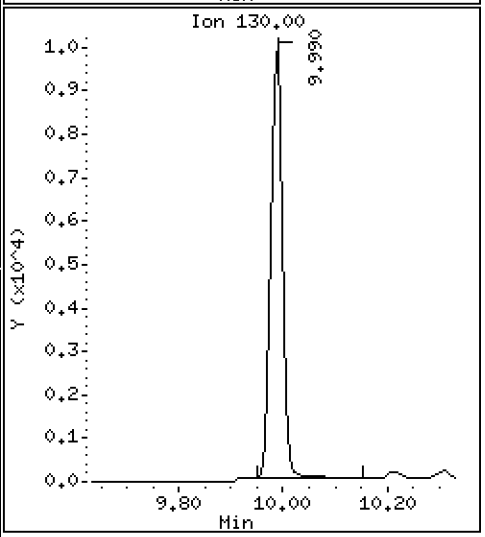
16 N-Nitroso-di-n-propylamine

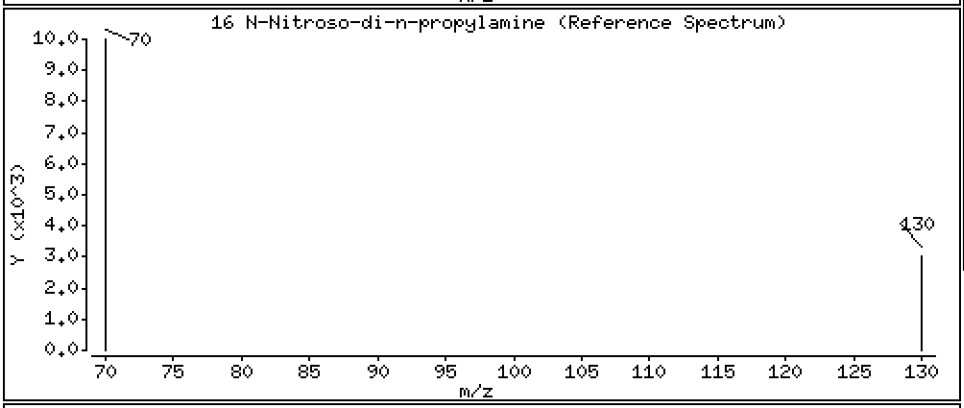
Concentration: 1.238 ug/mL

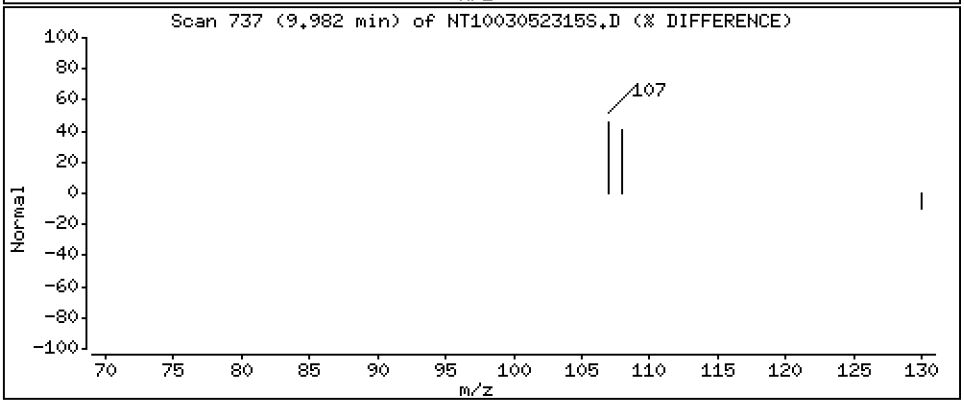












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523155.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

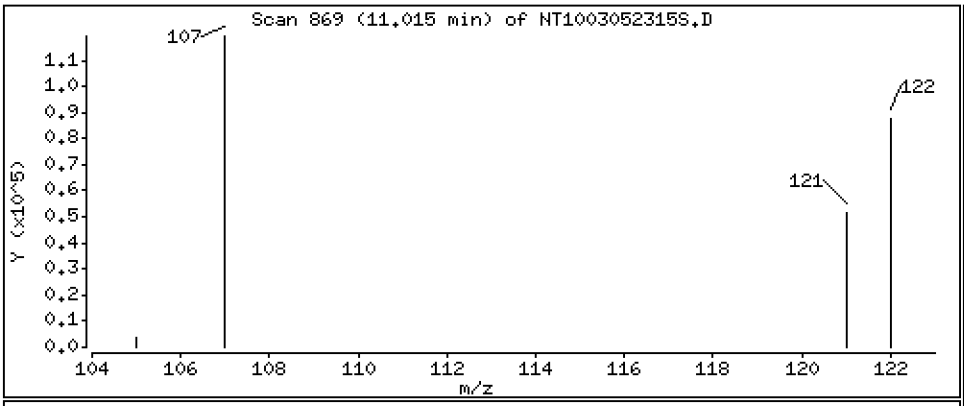
Operator: YZ

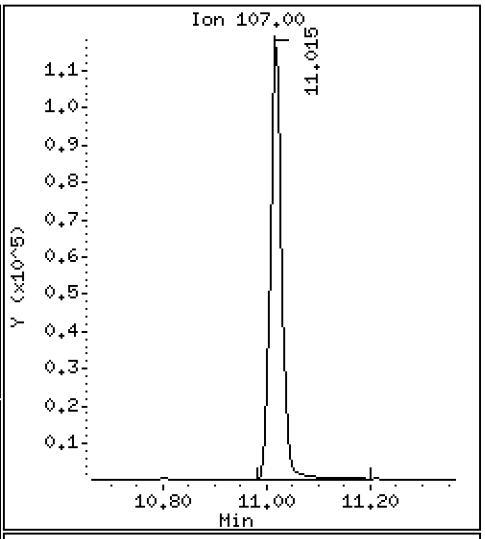
Column phase: ZB-5msi

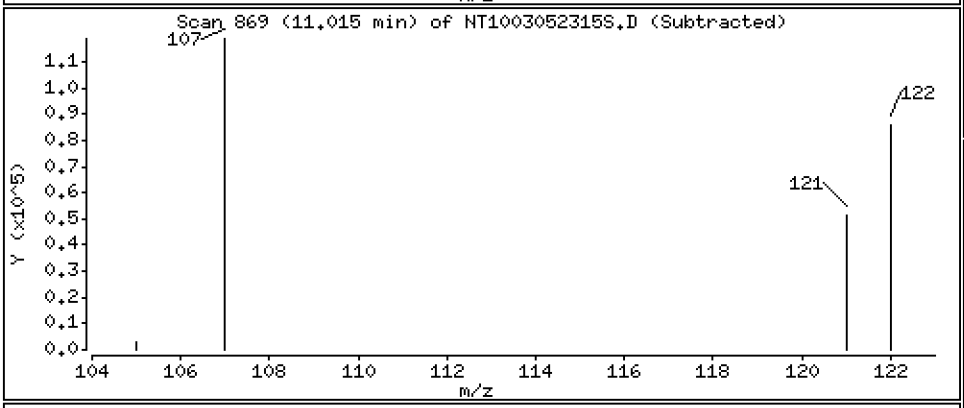
Column diameter: 0.25

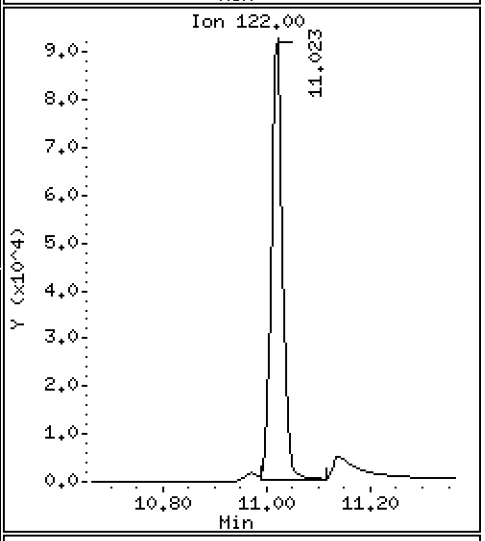
22 2,4-Dimethylphenol

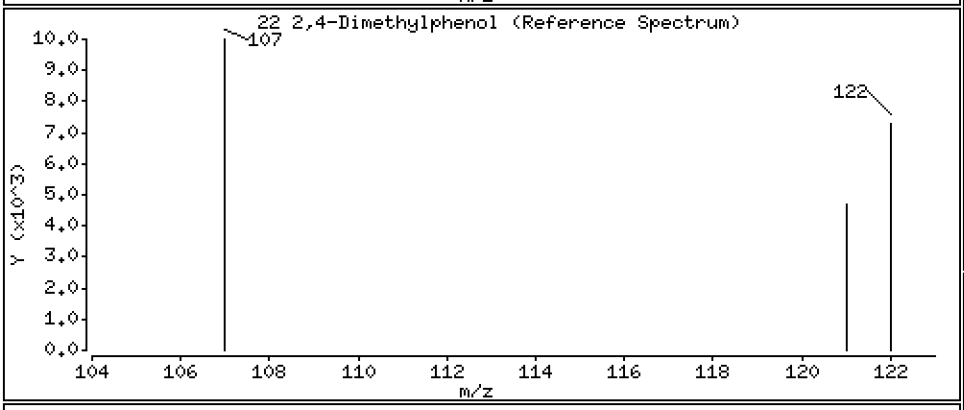
Concentration: 2.132 ug/mL

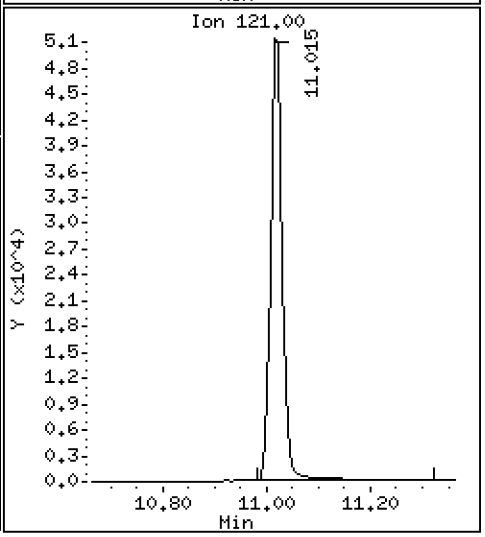


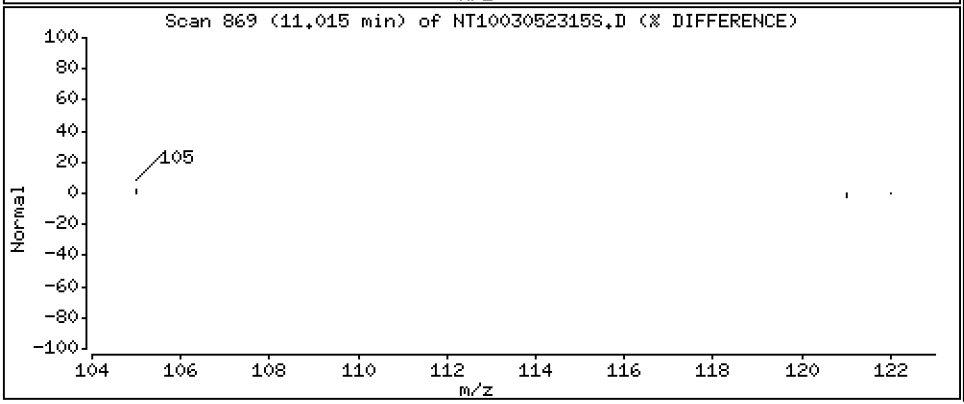












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523155.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

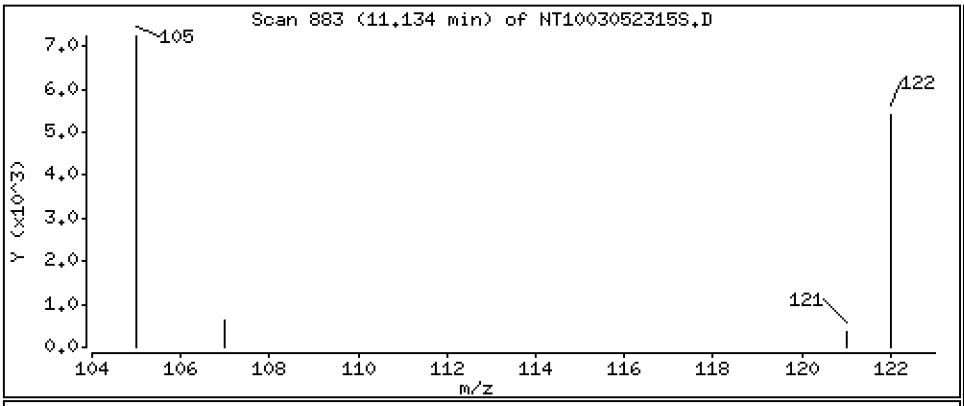
Operator: YZ

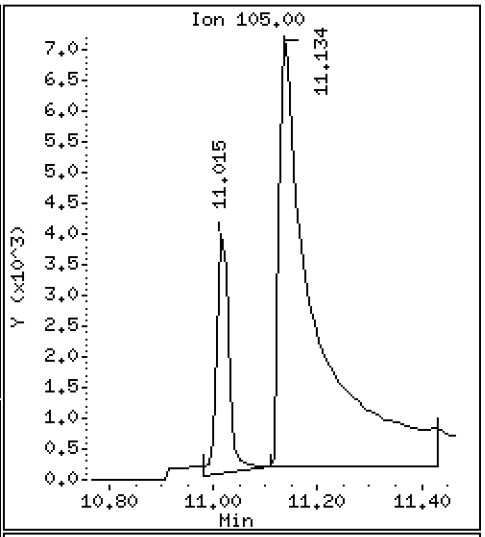
Column phase: ZB-5msi

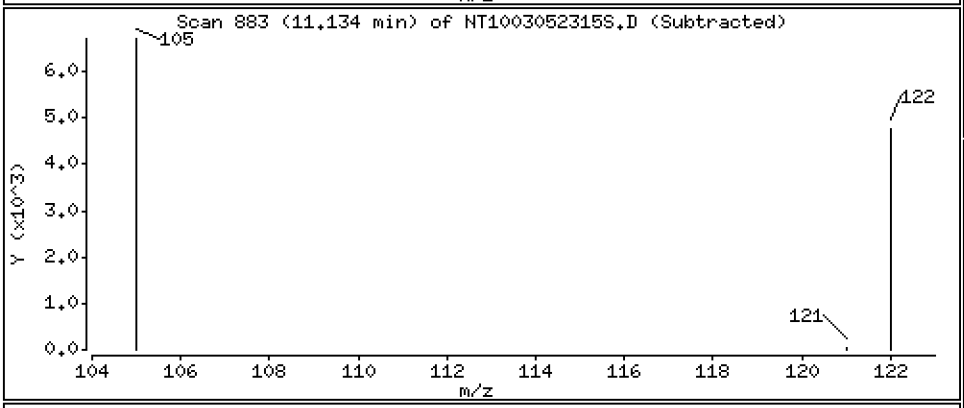
Column diameter: 0.25

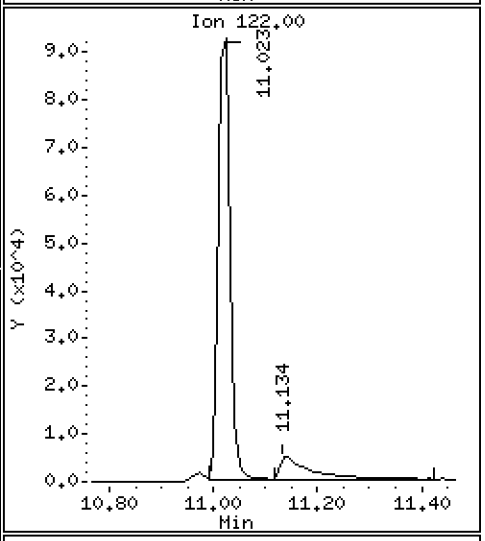
24 Benzoic acid

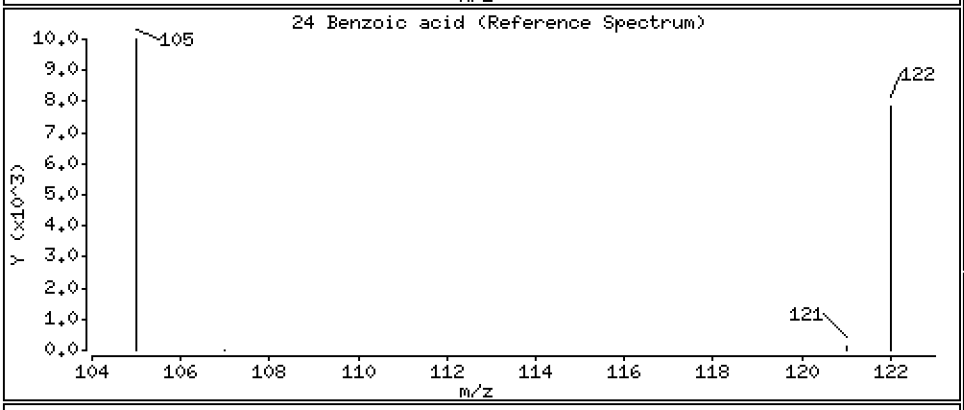
Concentration: 0.7117 ug/mL

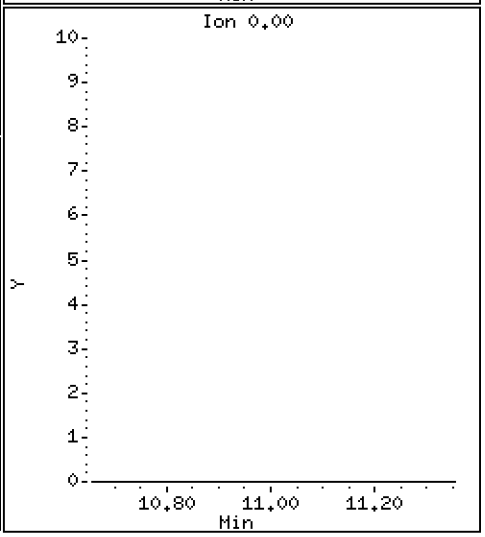


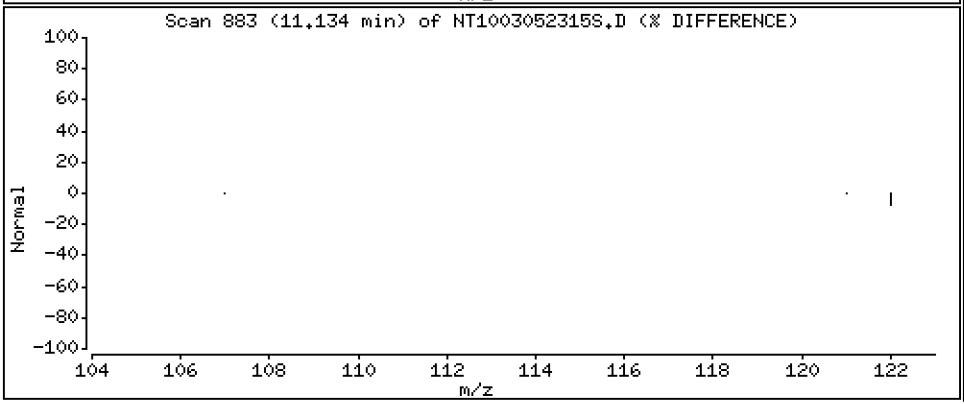












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523155.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

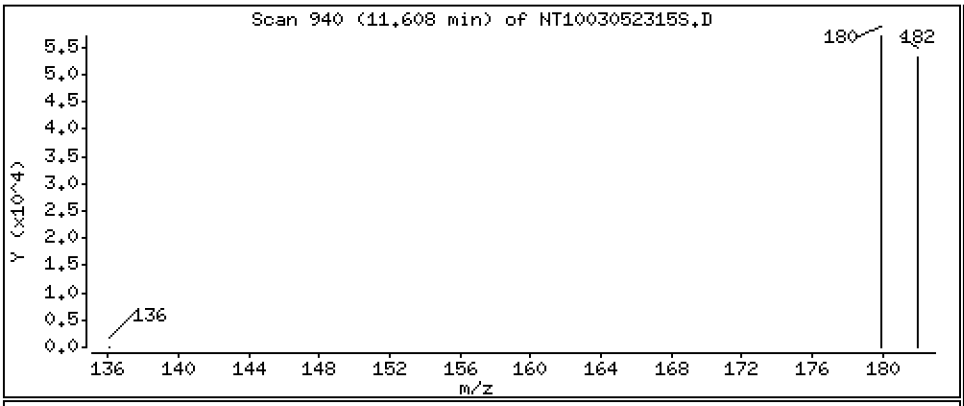
Operator: YZ

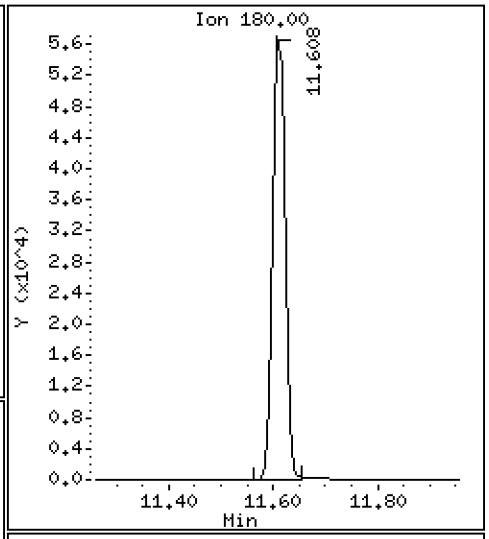
Column phase: ZB-5msi

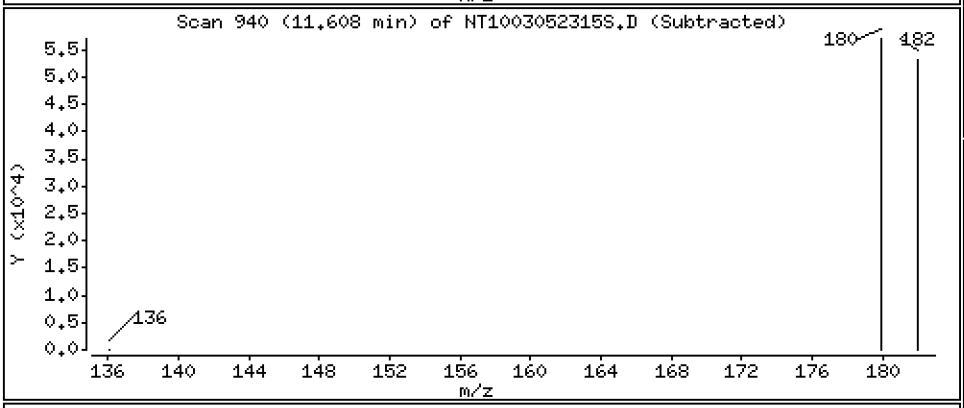
Column diameter: 0.25

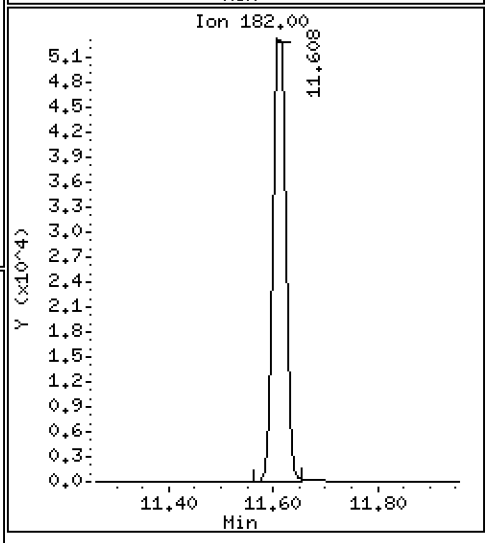
26 1,2,4-Trichlorobenzene

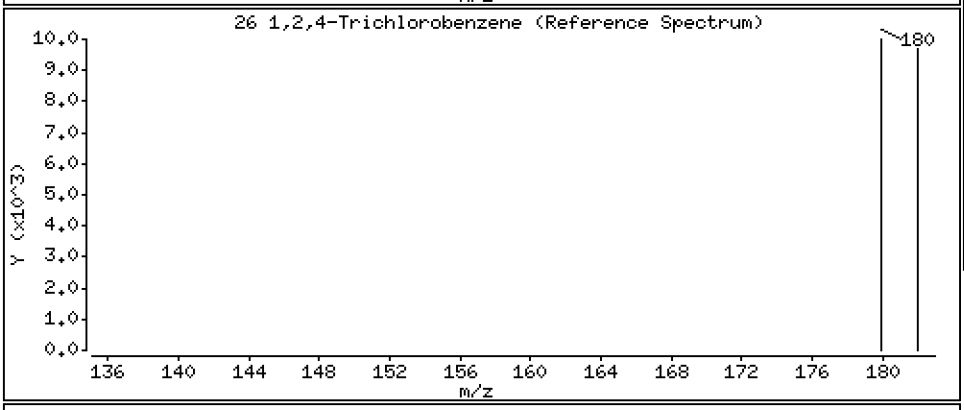
Concentration: 1.186 ug/mL

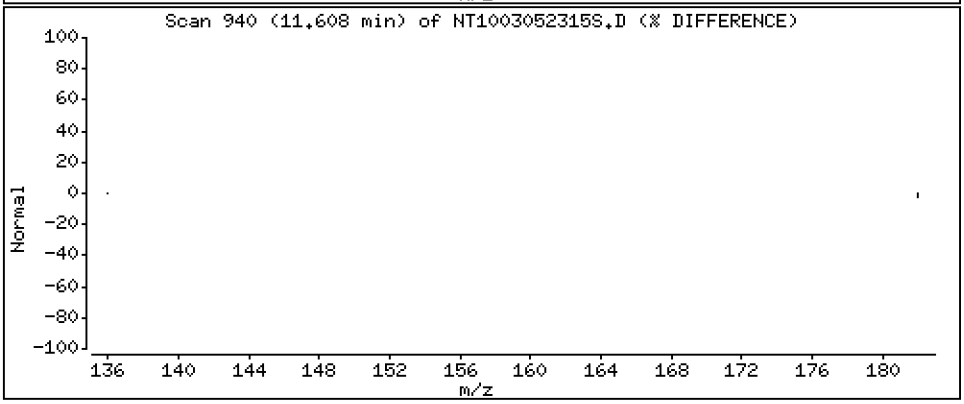












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052315S.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

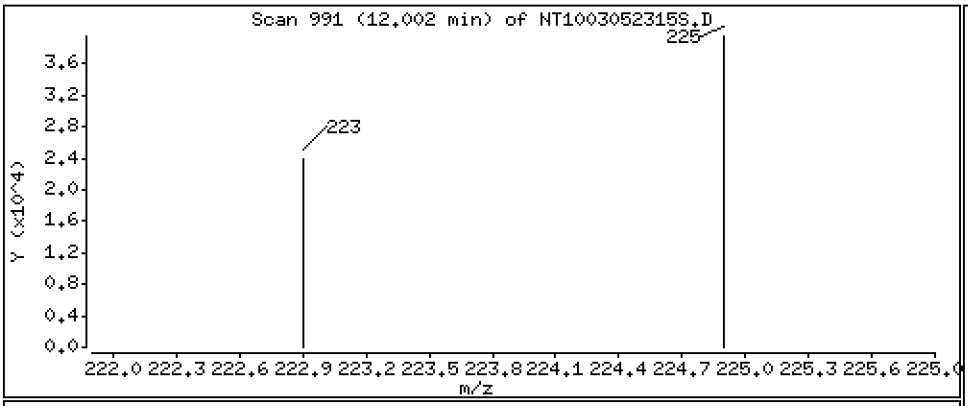
Operator: YZ

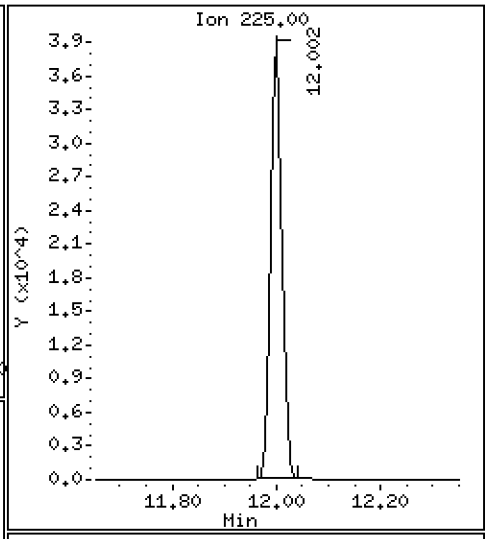
Column phase: ZB-5msi

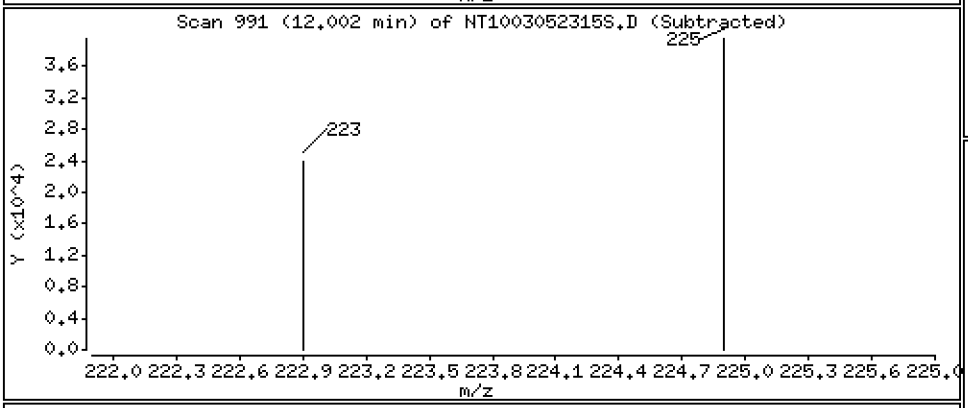
Column diameter: 0.25

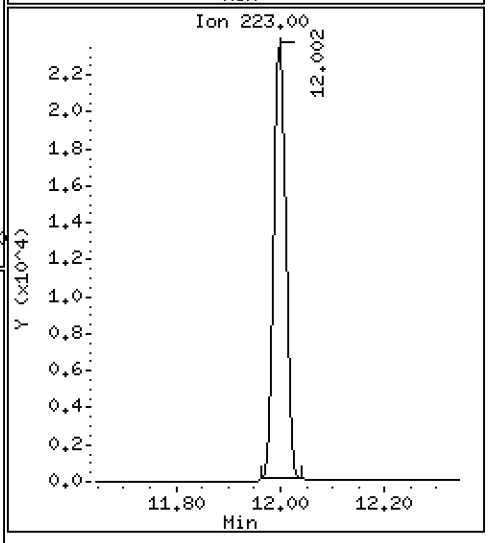
30 Hexachlorobutadiene

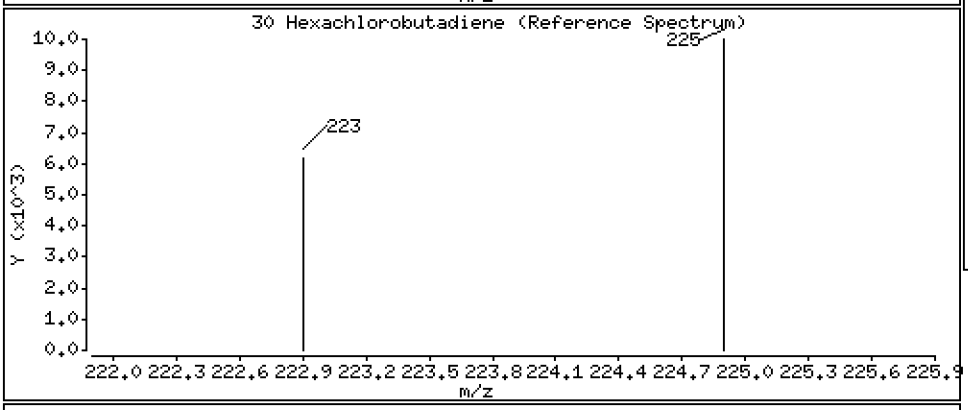
Concentration: 1.089 ug/mL

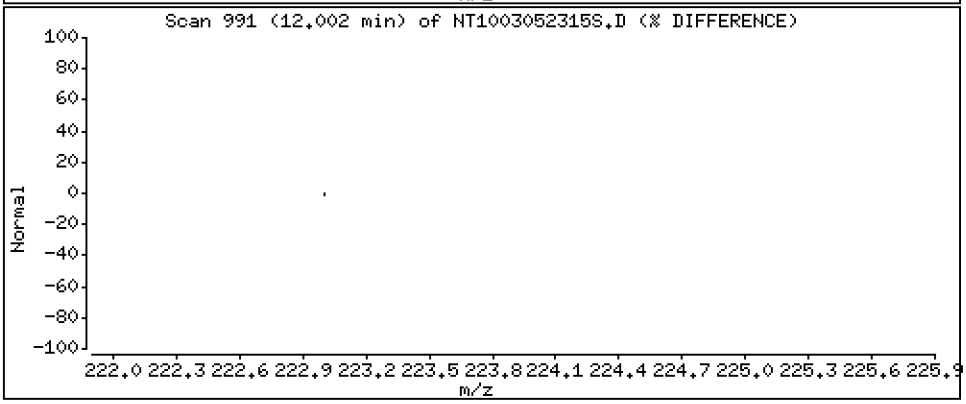












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Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

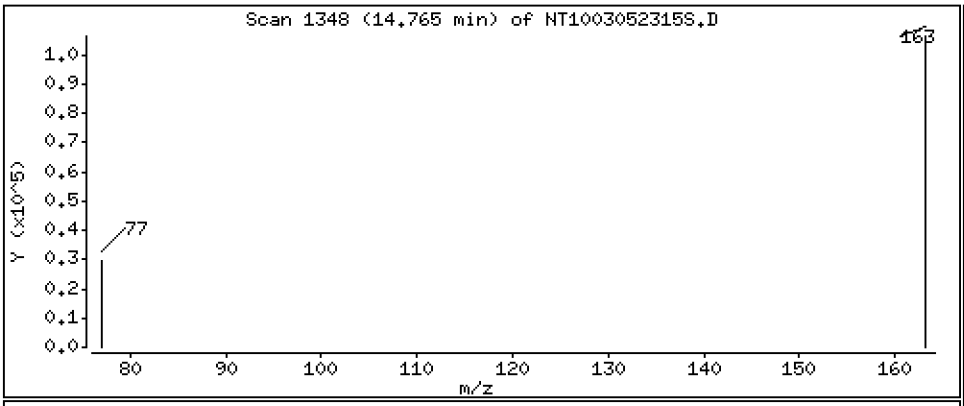
Operator: YZ

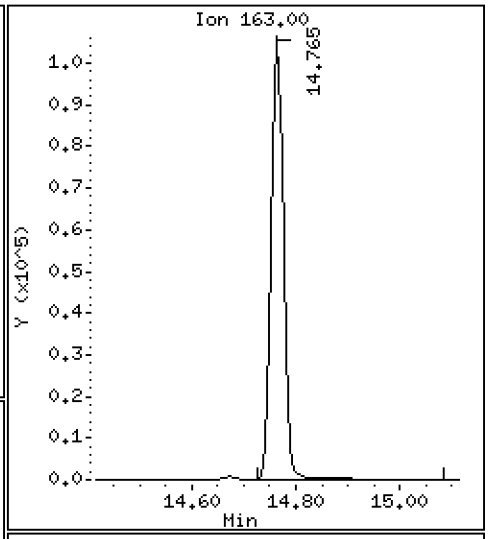
Column phase: ZB-5msi

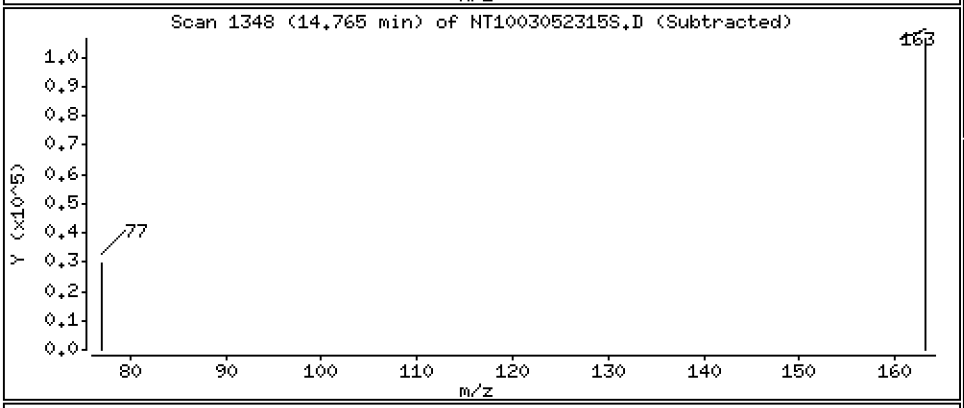
Column diameter: 0.25

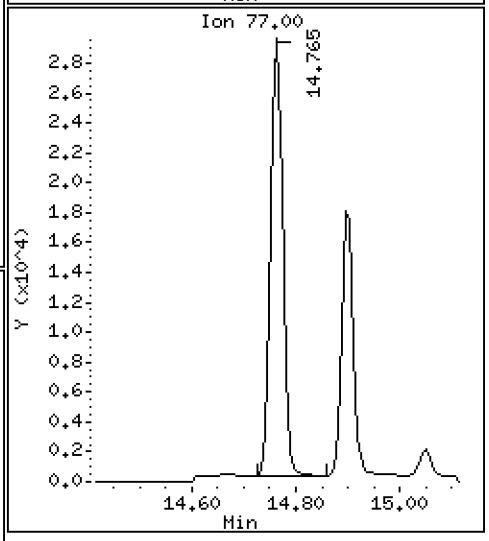
39 Dimethylphthalate

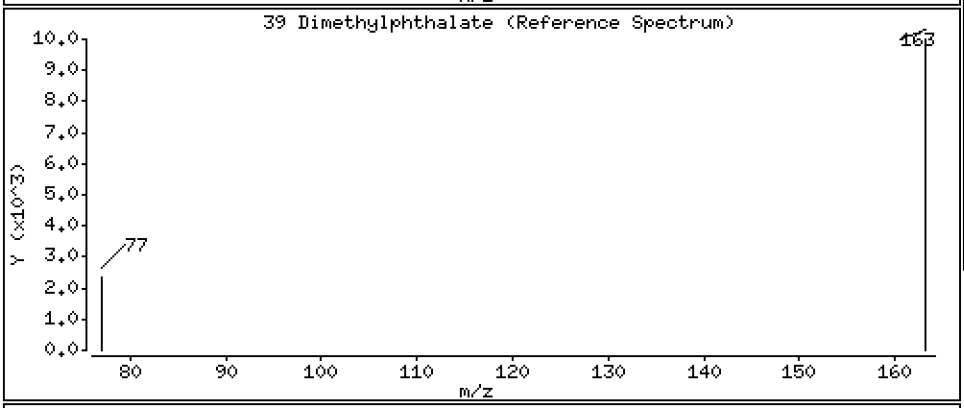
Concentration: 1.023 ug/mL

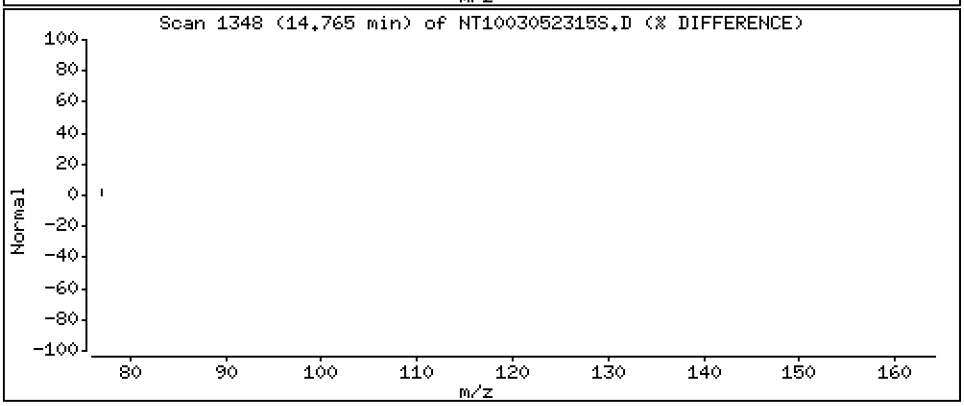












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052315S.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

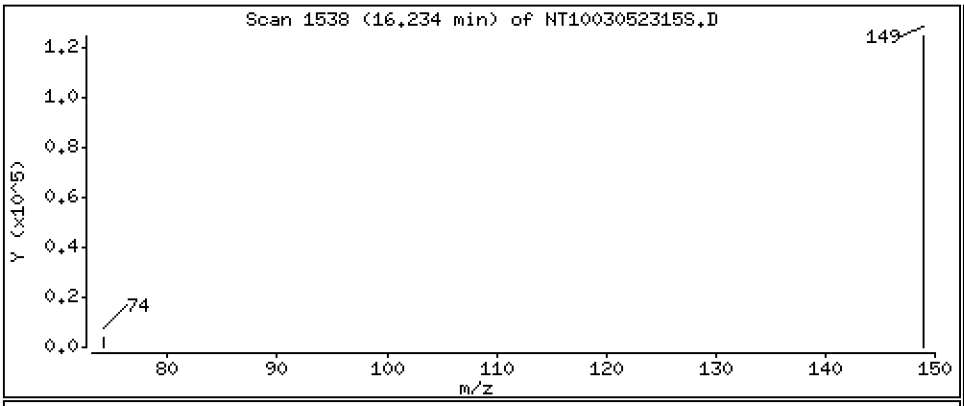
Operator: YZ

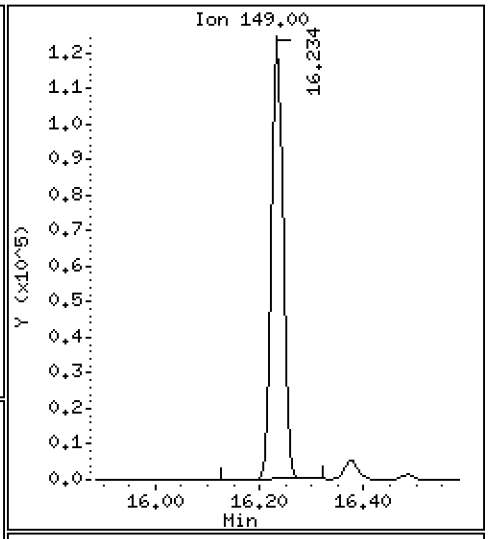
Column phase: ZB-5msi

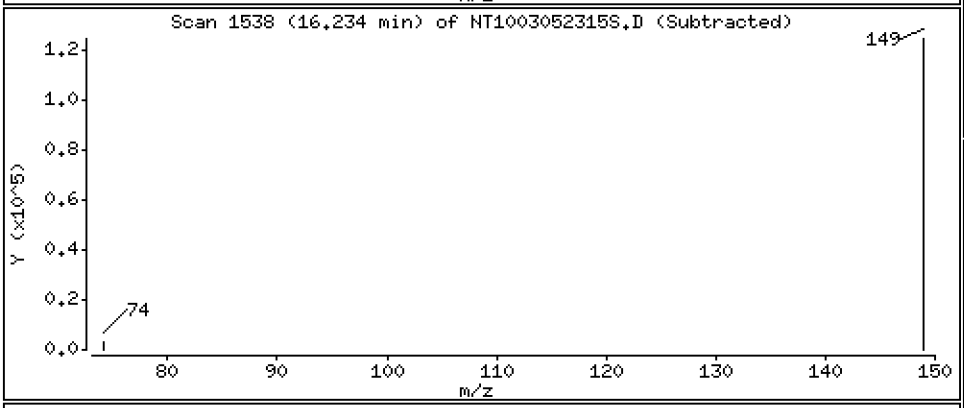
Column diameter: 0.25

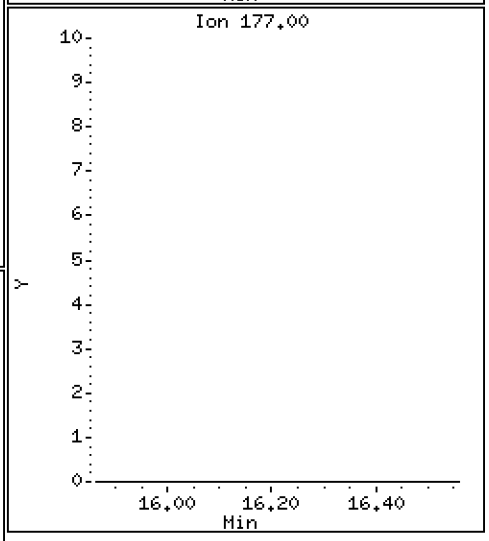
50 Diethylphthalate

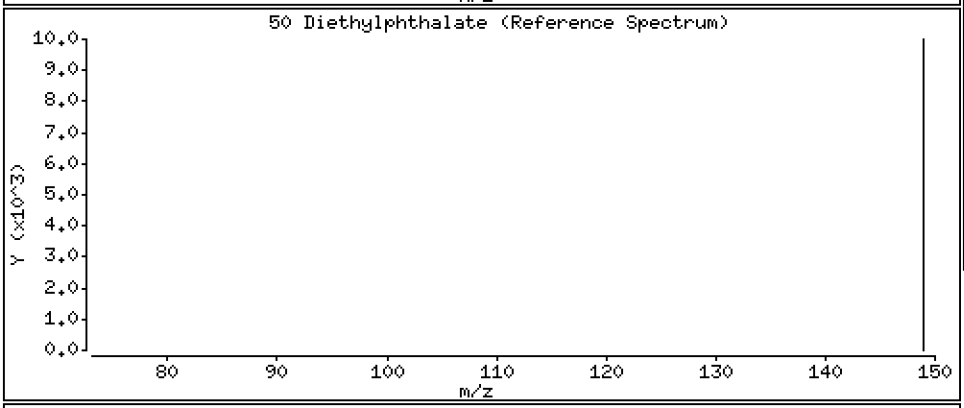
Concentration: 1.187 ug/mL

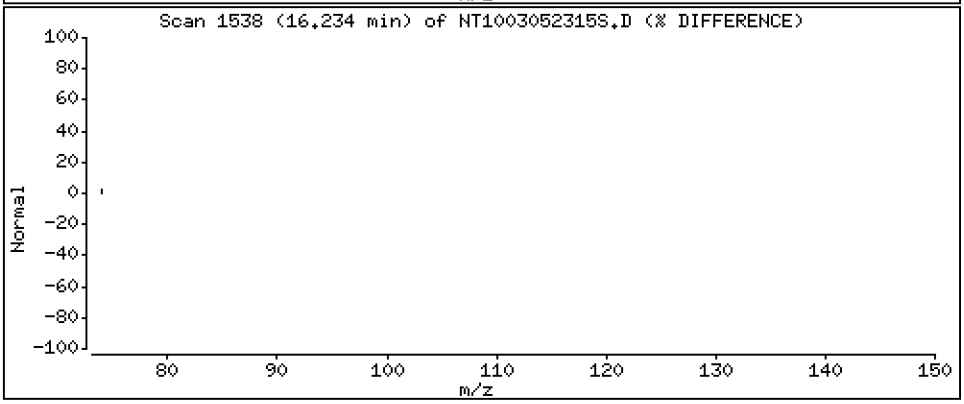












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Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

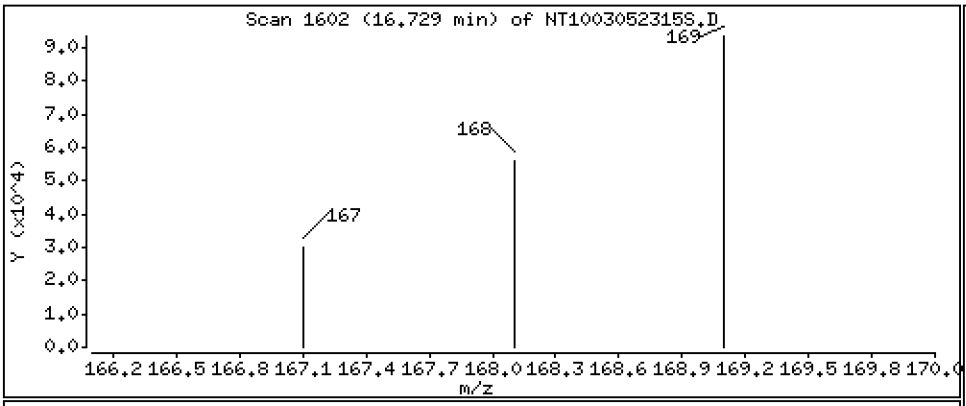
Operator: YZ

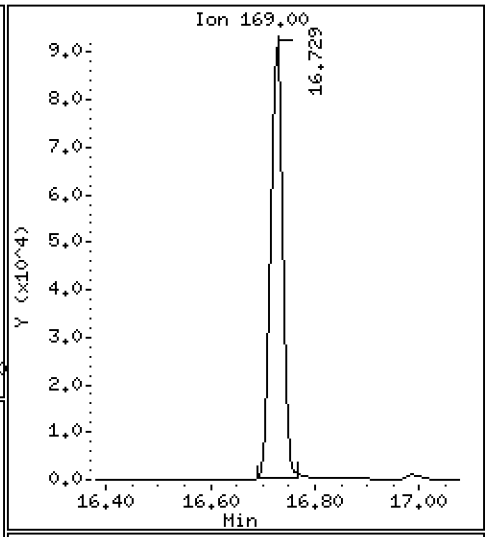
Column phase: ZB-5msi

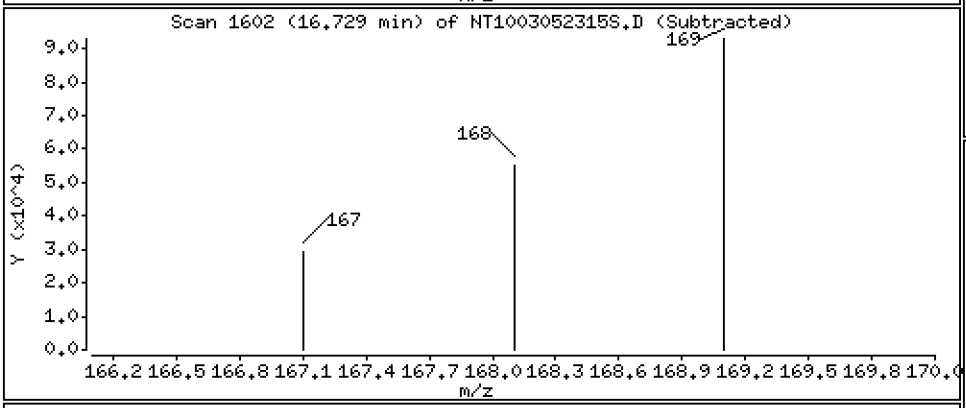
Column diameter: 0.25

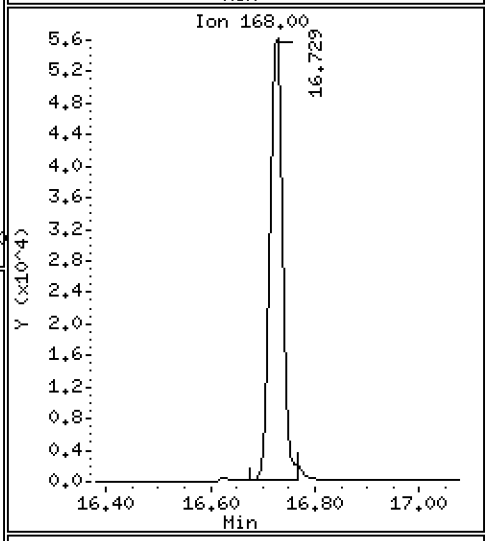
54 N-Nitrosodiphenylamine

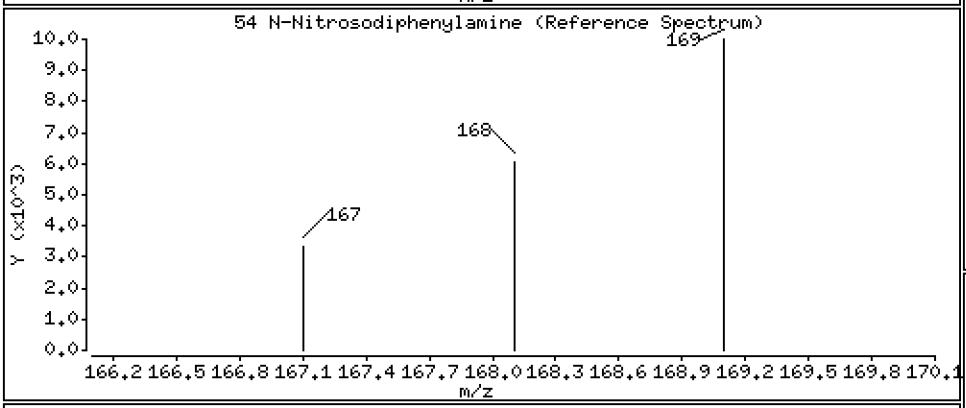
Concentration: 0.9026 ug/mL

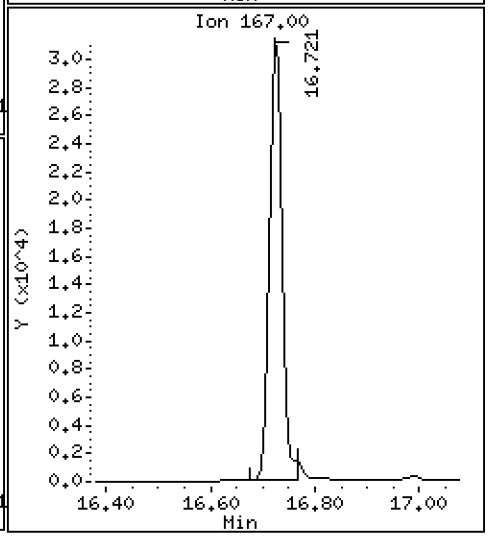


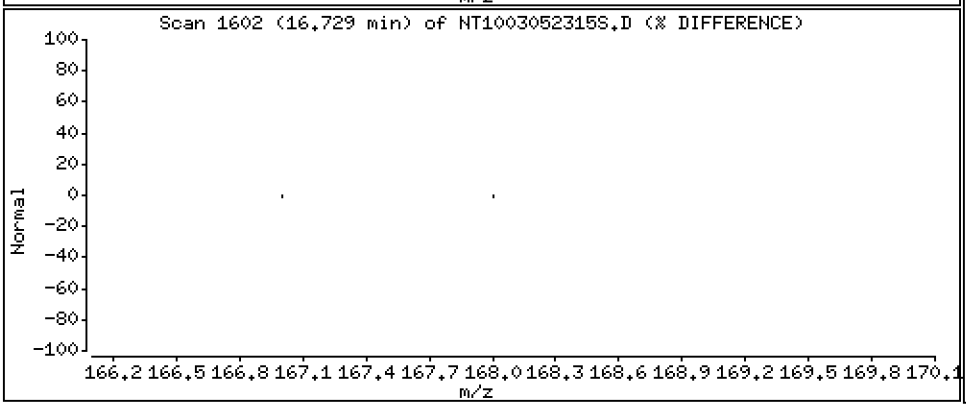












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Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

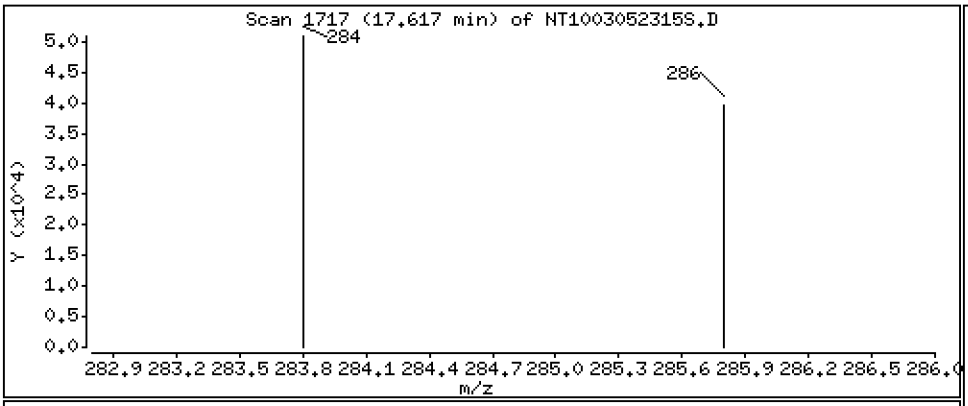
Operator: YZ

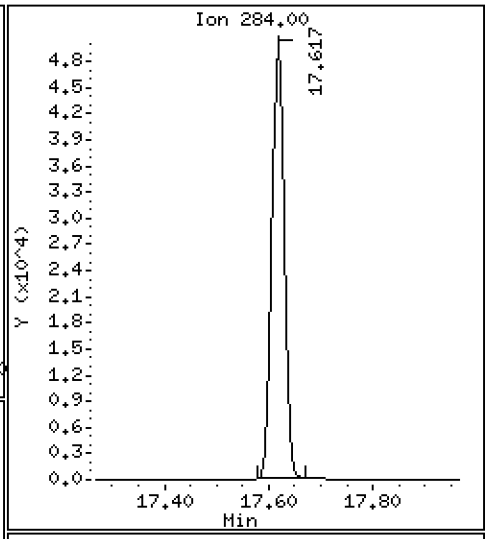
Column phase: ZB-5msi

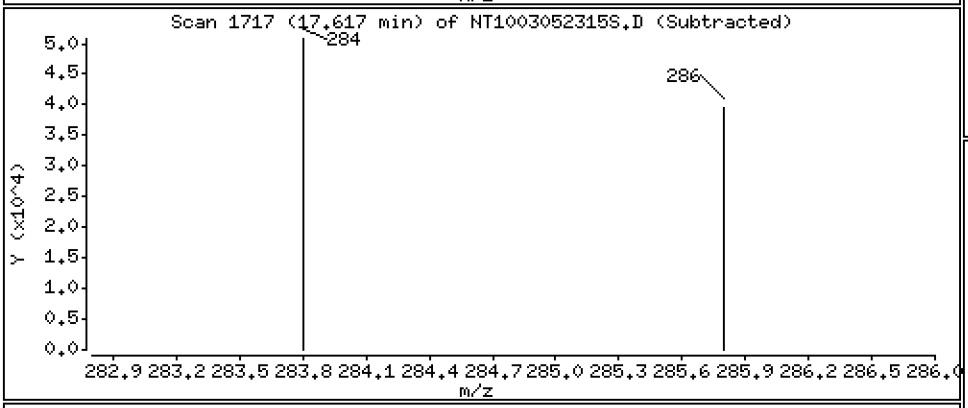
Column diameter: 0.25

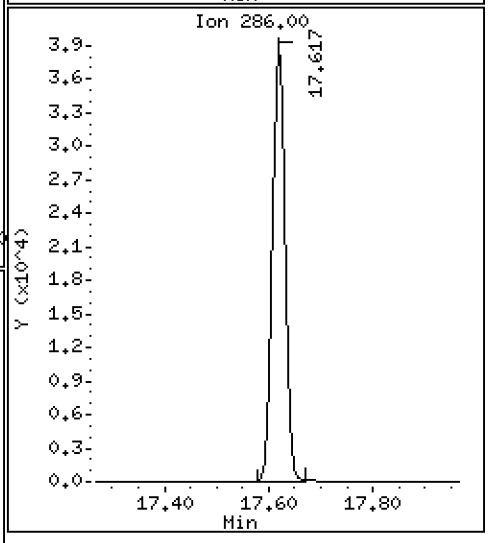
57 Hexachlorobenzene

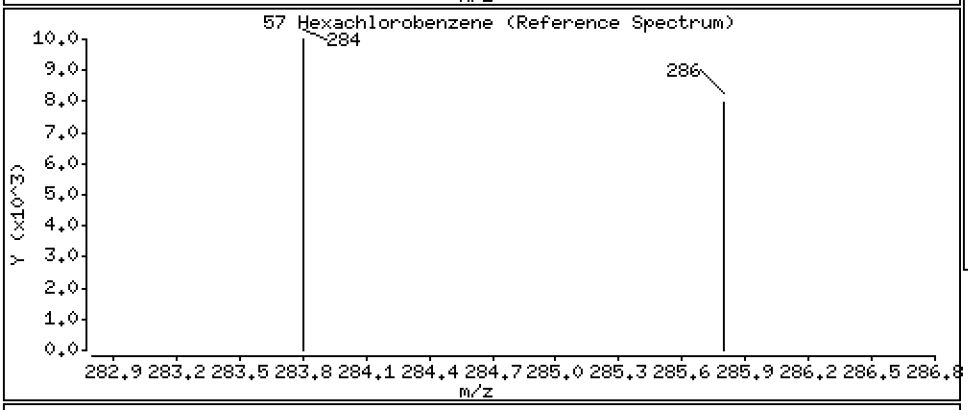
Concentration: 1.058 ug/mL

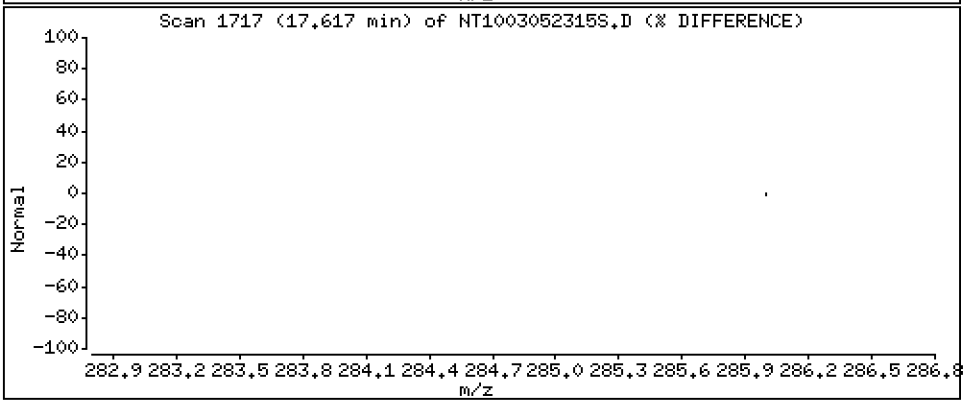












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Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

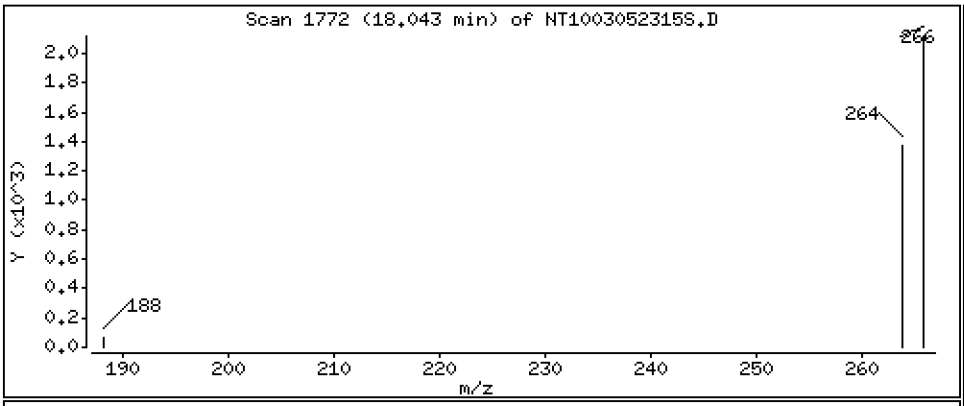
Operator: YZ

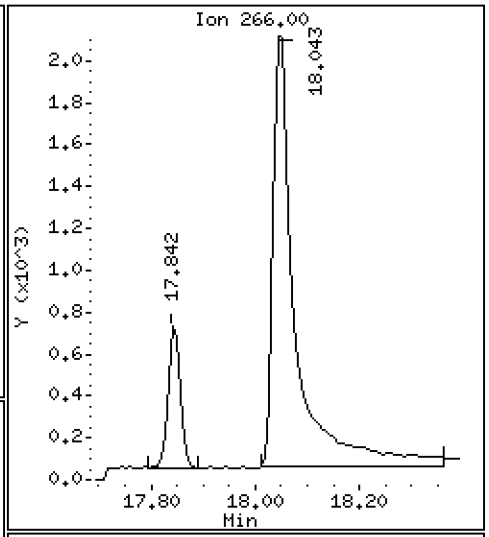
Column phase: ZB-5msi

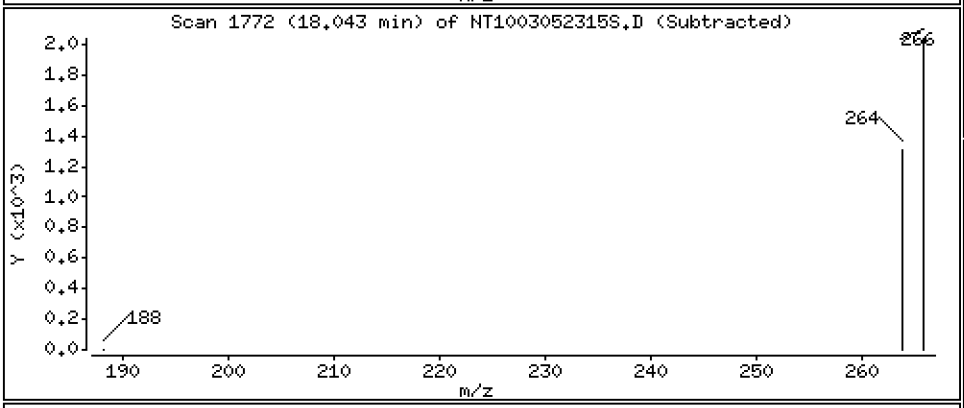
Column diameter: 0.25

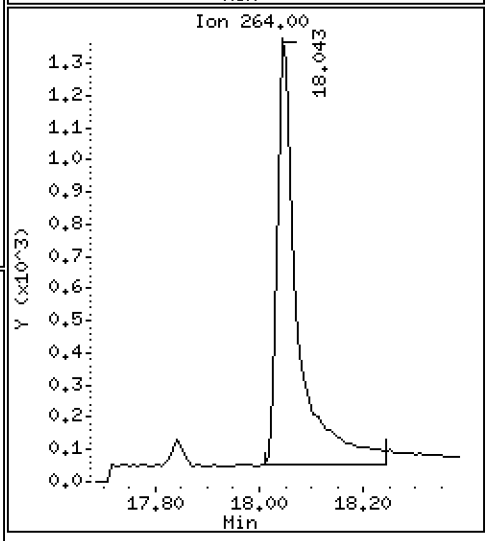
58 Pentachlorophenol

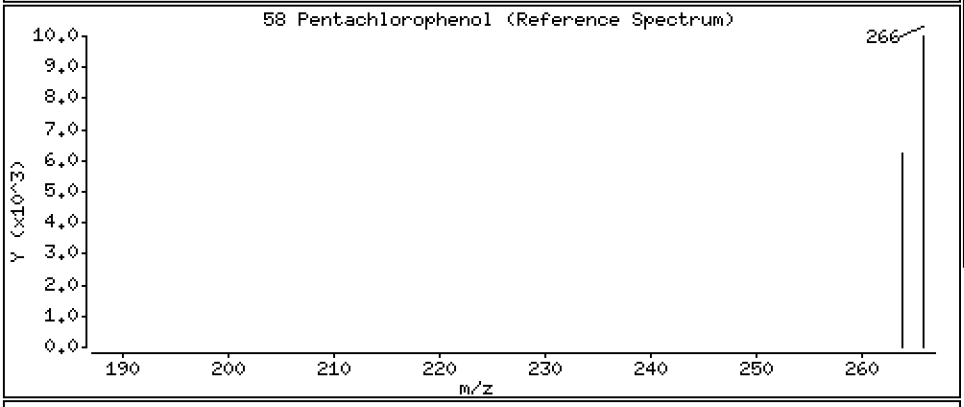
Concentration: 0.1901 ug/mL

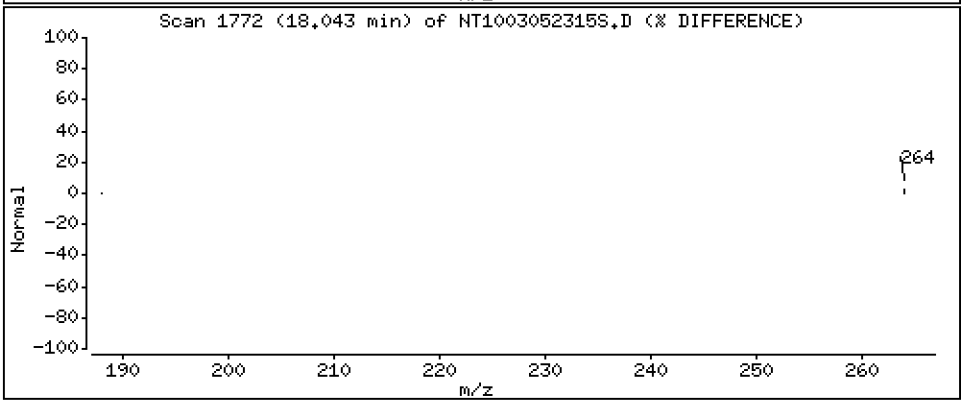












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052315S.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

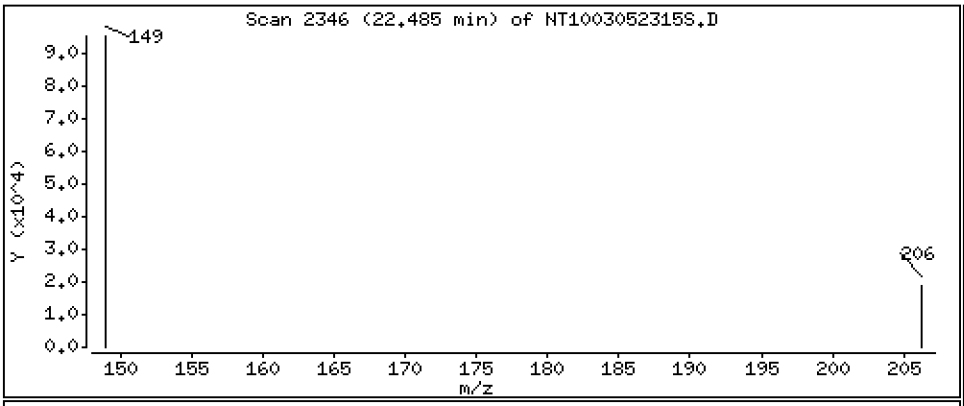
Operator: YZ

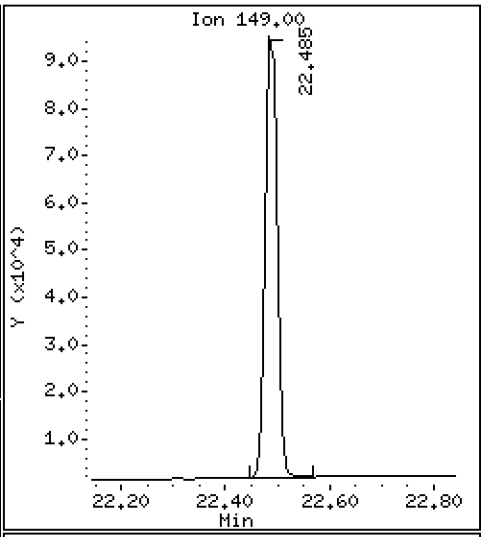
Column phase: ZB-5msi

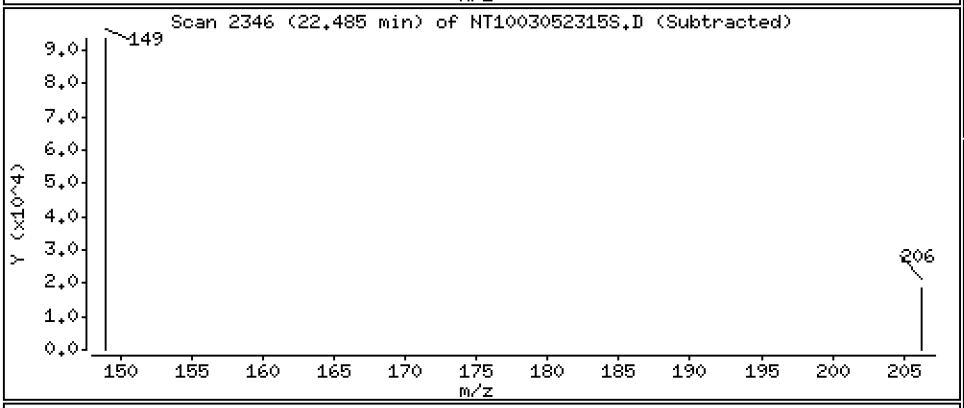
Column diameter: 0.25

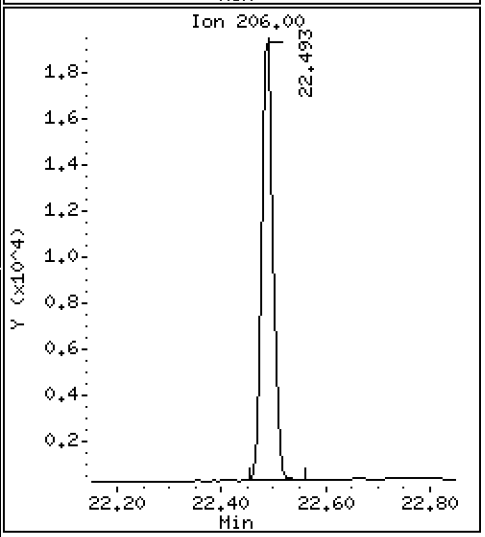
67 Butylbenzylphthalate

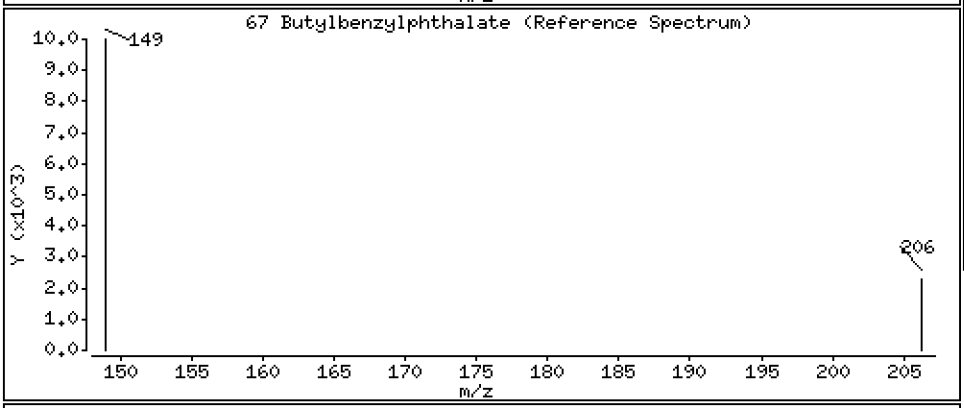
Concentration: 0.8547 ug/mL

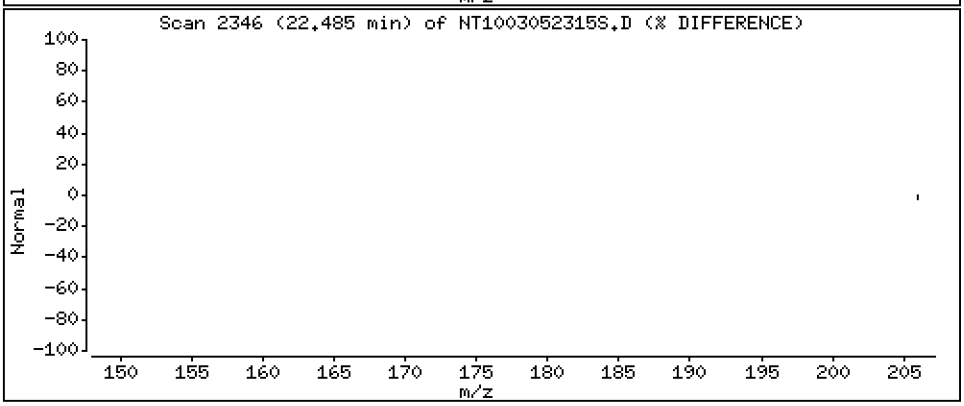












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052315S.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

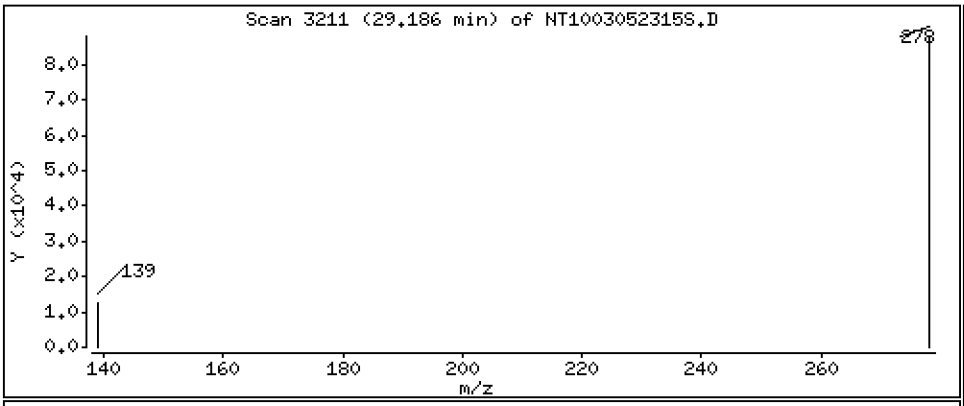
Operator: YZ

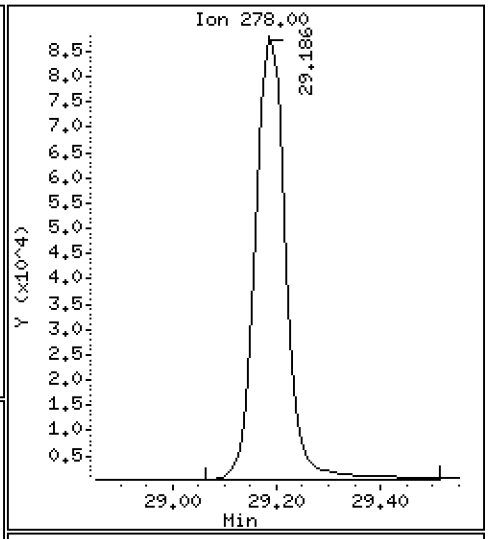
Column phase: ZB-5msi

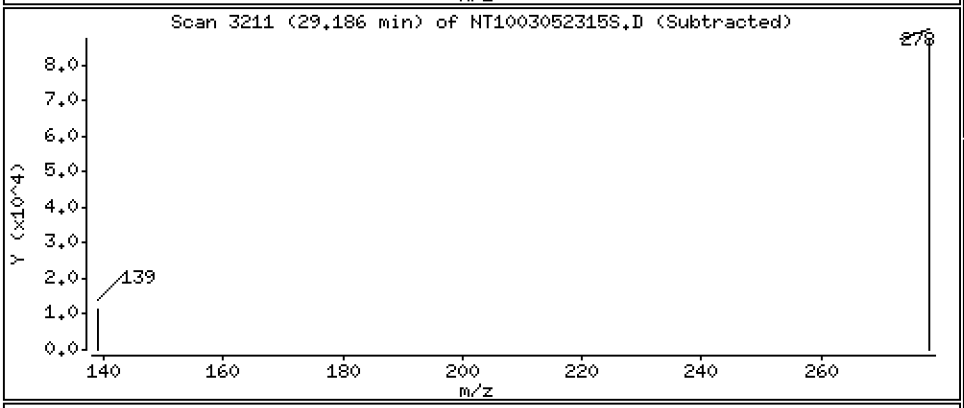
Column diameter: 0.25

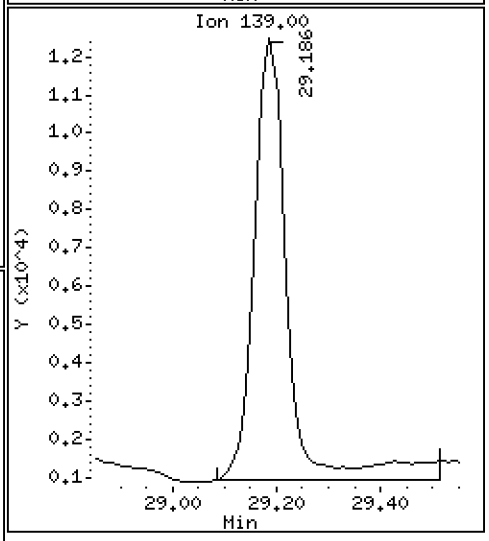
79 Dibenzo(a,h)anthracene

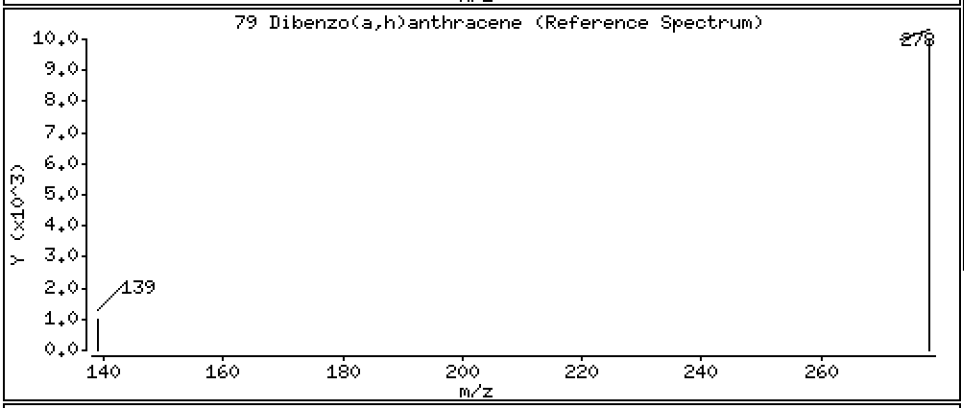
Concentration: 1.269 ug/mL

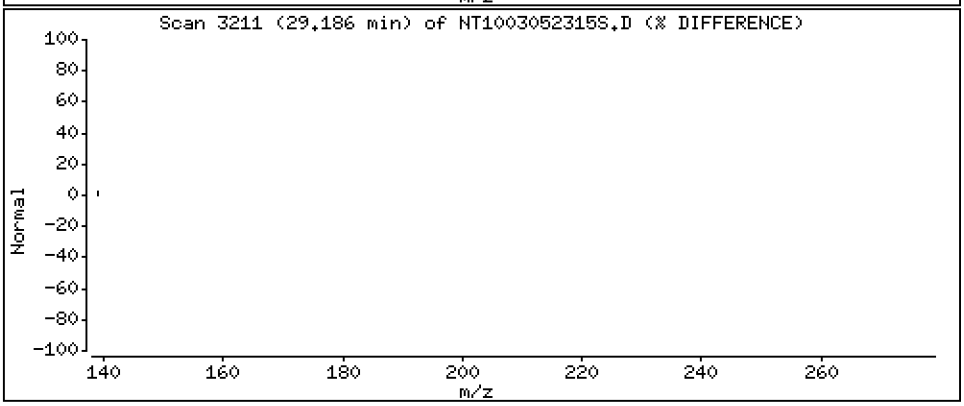












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523155.D

Date : 05-MAR-2023 22:16

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-CCV1

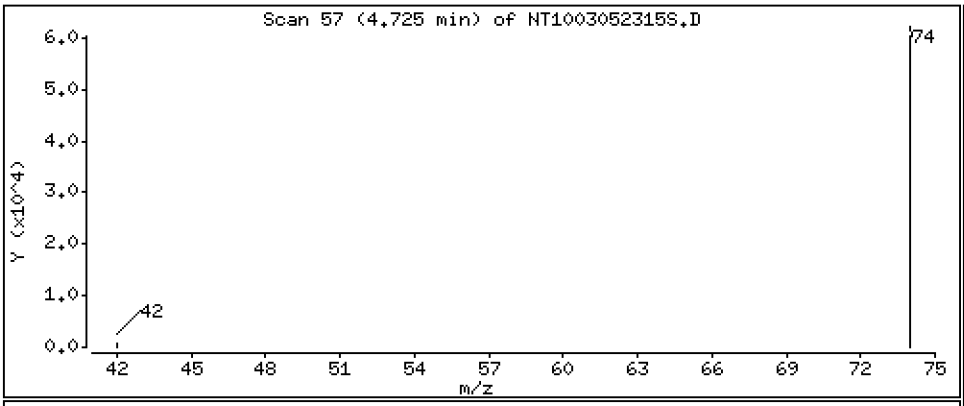
Operator: YZ

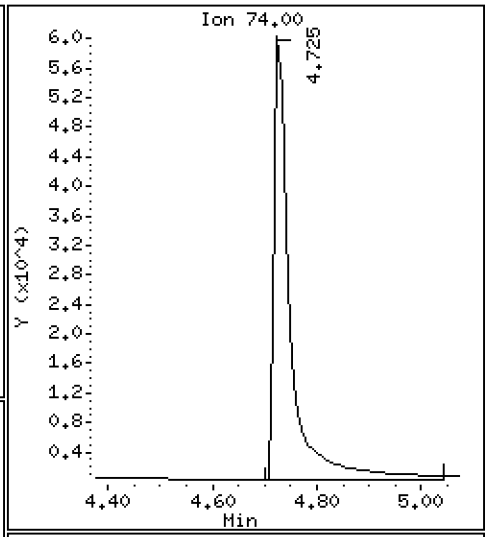
Column phase: ZB-5msi

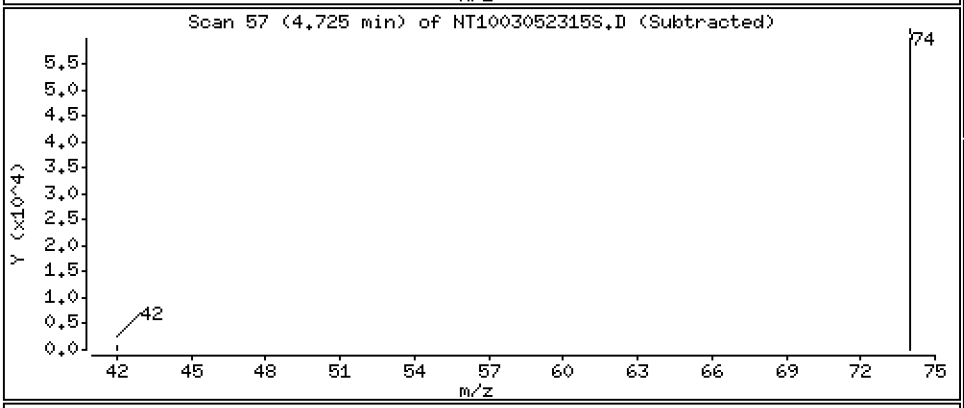
Column diameter: 0.25

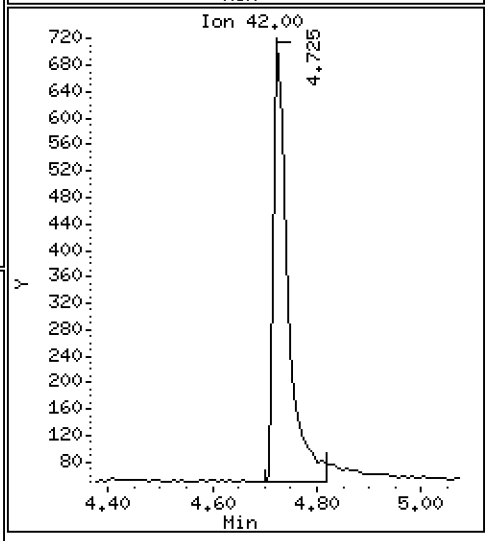
90 N-Nitrosodimethylamine

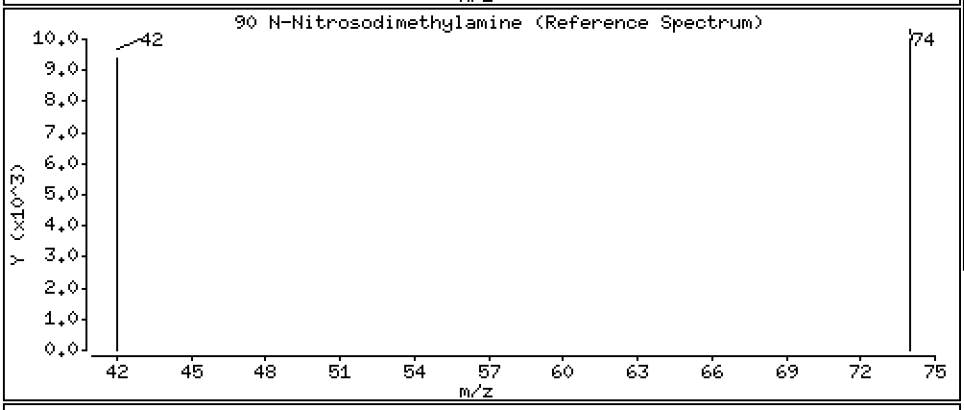
Concentration: 2.531 ug/mL

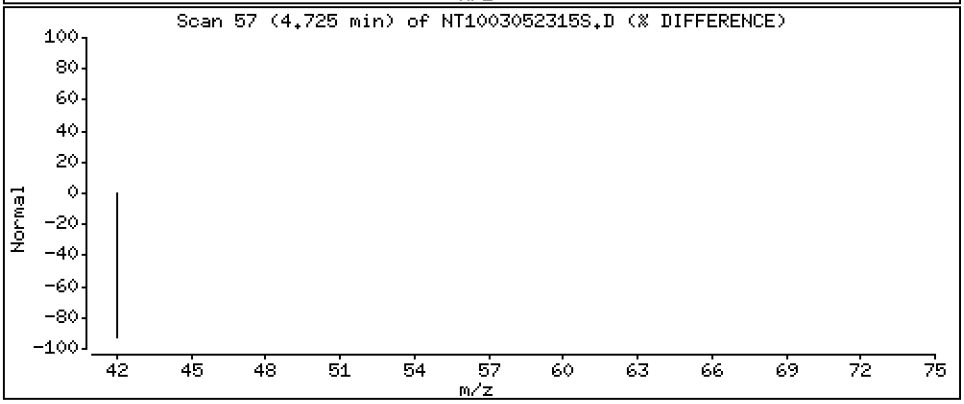












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052315S.D
Lab Smp Id: SLC0435-CCV1
Inj Date : 05-MAR-2023 22:16
Operator : YZ Inst ID: nt10.i
Smp Info : SLC0435-CCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:00 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
$	1	2-Fluorophenol	112	6.902	6.902	(0.746)	138057	1.64570	1.646(R)
	3	Phenol	94	8.532	8.533	(0.922)	113090	0.90995	0.9099
	7	1,3-Dichlorobenzene	146	9.143	9.136	(0.988)	108511	0.99643	0.9964
*	8	1,4-Dichlorobenzene-d4	152	9.252	9.244	(1.000)	293840	4.00000	
	9	1,4-Dichlorobenzene	146	9.283	9.275	(1.003)	103134	0.97408	0.9741
	11	Benzyl alcohol	79	9.484	9.485	(1.025)	66890	0.96354	0.9635
	12	1,2-Dichlorobenzene	146	9.570	9.562	(1.034)	102269	1.00493	1.005
	13	2-Methylphenol	108	9.671	9.663	(1.045)	89685	1.19413	1.194
	15	4-Methylphenol	108	9.966	9.958	(1.077)	91675	1.17048	1.170
	16	N-Nitroso-di-n-propylamine	70	9.981	9.982	(1.079)	68520	1.23806	1.238
	22	2,4-Dimethylphenol	107	11.014	11.015	(0.939)	187863	2.13164	2.132
	24	Benzoic acid	105	11.133	11.116	(0.949)	34300	0.71167	0.7117
	26	1,2,4-Trichlorobenzene	180	11.608	11.608	(0.989)	88175	1.18634	1.186
*	27	Naphthalene-d8	136	11.731	11.731	(1.000)	1032639	4.00000	
	30	Hexachlorobutadiene	225	12.001	12.002	(1.023)	57432	1.08889	1.089
	39	Dimethylphthalate	163	14.764	14.765	(0.963)	163122	1.02266	1.023
*	42	Acenaphthene-d10	162	15.337	15.337	(1.000)	502349	4.00000	
	50	Diethylphthalate	149	16.234	16.234	(1.058)	178603	1.18735	1.187(MH)
	54	N-Nitrosodiphenylamine	169	16.729	16.729	(0.907)	142568	0.90260	0.9026
	57	Hexachlorobenzene	284	17.617	17.617	(0.955)	78174	1.05756	1.058
	58	Pentachlorophenol	266	18.042	18.043	(0.978)	6159	0.19012	0.1901
*	59	Phenanthrene-d10	188	18.453	18.453	(1.000)	975997	4.00000	
$	66	Terphenyl-d14	244	21.594	21.602	(0.918)	124074	1.56794	1.568(R)
	67	Butylbenzylphthalate	149	22.484	22.492	(0.956)	140781	0.85467	0.8547
*	69	Chrysene-d12	240	23.514	23.514	(1.000)	978544	4.00000	
*	77	Perylene-d12	264	26.270	26.286	(1.000)	1201606	4.00000	
	79	Dibenzo(a,h)anthracene	278	29.186	29.202	(1.111)	359657	1.26919	1.269
	90	N-Nitrosodimethylamine	74	4.724	4.724	(0.511)	125707	2.53103	2.531

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052315S.D
Lab Smp Id: SLC0435-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:40
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	321376	160688	642752	293840	-8.57
27 Naphthalene-d8	1132931	566466	2265862	1032639	-8.85
42 Acenaphthene-d10	561597	280799	1123194	502349	-10.55
59 Phenanthrene-d10	1068222	534111	2136444	975997	-8.63
69 Chrysene-d12	997572	498786	1995144	978544	-1.91
77 Perylene-d12	1245490	622745	2490980	1201606	-3.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.25	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.00
42 Acenaphthene-d10	15.34	14.84	15.84	15.34	-0.00
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	-0.00
69 Chrysene-d12	23.51	23.01	24.01	23.51	-0.00
77 Perylene-d12	26.29	25.79	26.79	26.27	-0.06

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052315S.D

Lab ID: SLC0435-CCV1
nt10.i, 20230305.b\SIM.b\SIMABN2.m,   05-MAR-2023 22:16

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: SIM.b/NT1003052303S.D

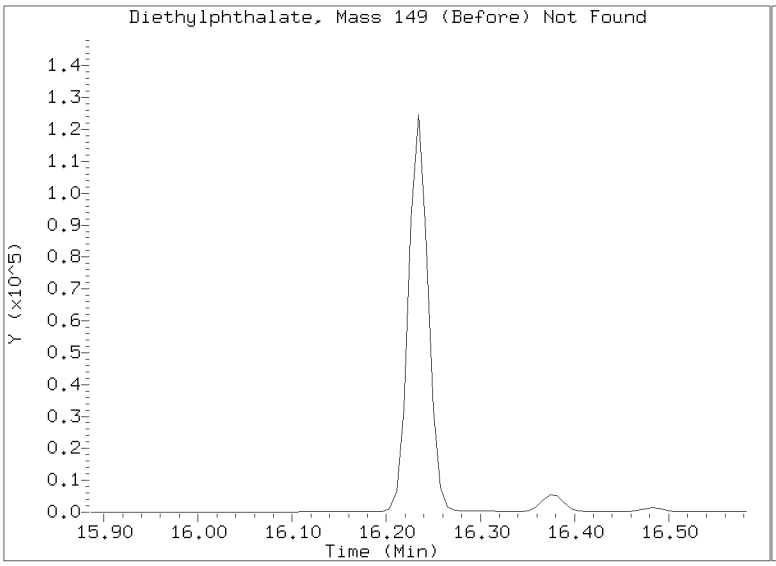
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

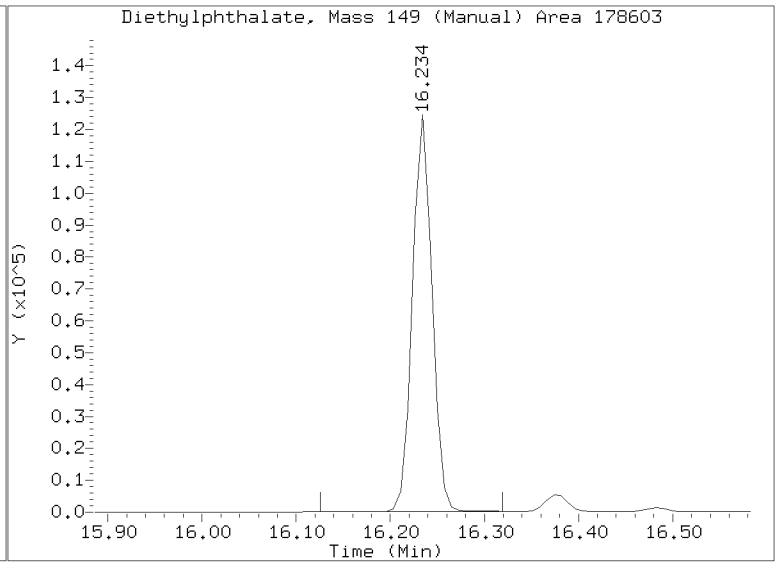
Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305.b/SIM.b/NT1003052315S.D
Injection Date: 05-MAR-2023 22:16
Lab ID:SLC0435-CCV1 Client ID:
Report Date: 03/28/2023 12:12





APPROVED

By Deenay Dunmore at 12:12 pm, Mar 28, 2023

Analytical Resources, LLC
Analytical Chemists and Consultants

LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00032
Lab File ID:	NT1003052305S.D	Calibration Date:	03/01/2023
Sequence:	SLC0435	Injection Date:	03/05/23
Lab Sample ID:	SLC0435-LCV1	Injection Time:	15:56
Sequence Name:	Low Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	0.10000	0.1	1.4413080	1.4291240		-0.9	
1,2-Dichlorobenzene	A	0.10000	0.1	1.3853460	1.4221120		2.7	
Benzyl Alcohol	A	0.10000	0.05	0.7492523	0.4293592		-54.0	
Benzoic acid	A	0.40000	0.0	0.1431163				
2,4-Dimethylphenol	A	0.20000	0.2	0.2957717	0.3031408		-10.7	
1,2,4-Trichlorobenzene	A	0.10000	0.1	0.2879030	0.3384565		17.6	
N-Nitrosodiphenylamine	A	0.10000	0.07	0.6473471	0.4614580		-28.7	
Pentachlorophenol	A	0.20000	0.0	0.0950913				
2-Fluorophenol	A	0.15000	0.112	1.1419780	0.8490153		-25.7	
p-Terphenyl-d14	A	0.10000	0.161	0.3234672	0.5197935		60.7	

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523055.D

Date : 05-MAR-2023 15:56

Client ID:

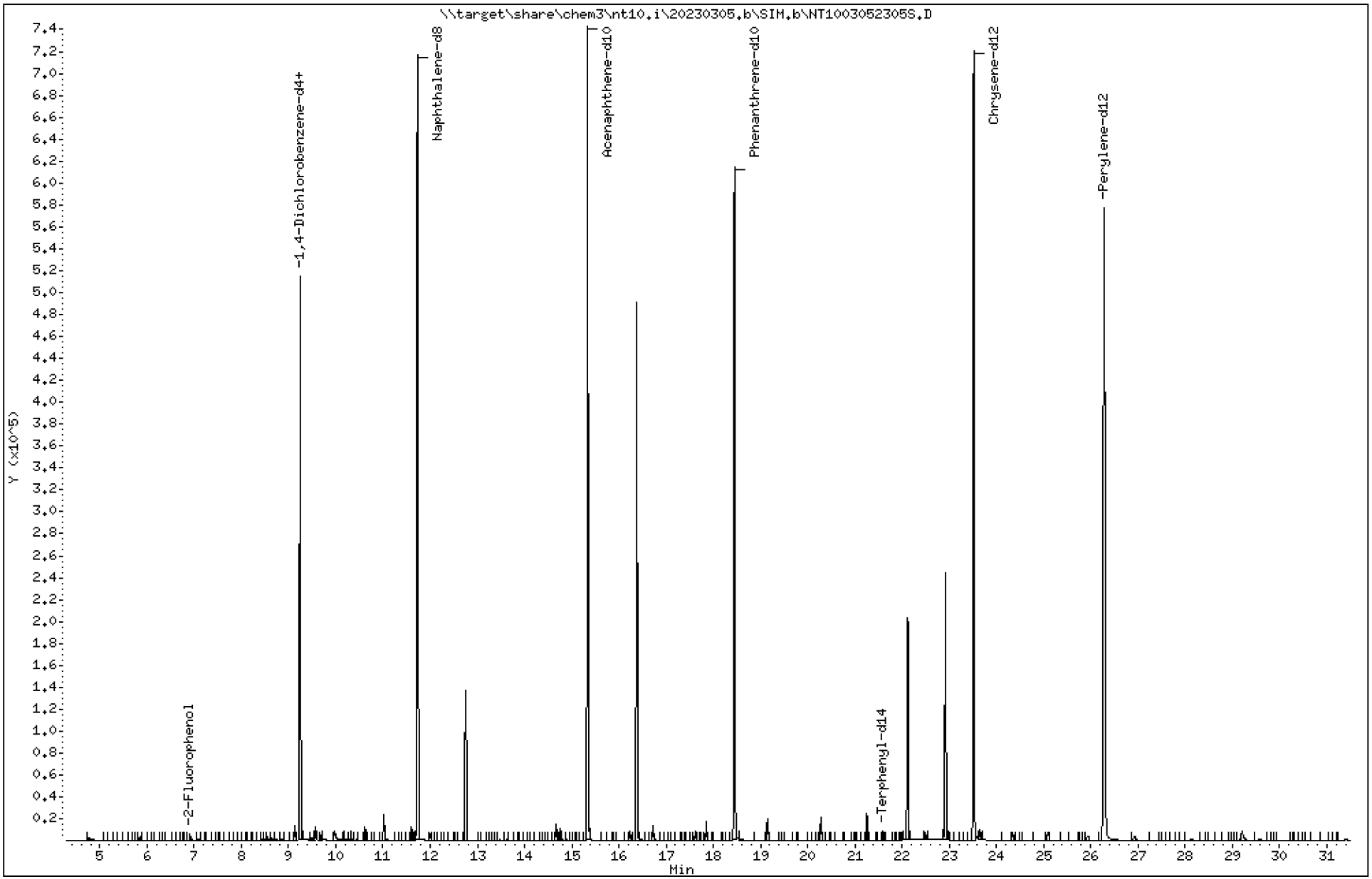
Instrument: nt10.i

Sample Info: SLC0435-LCV1

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

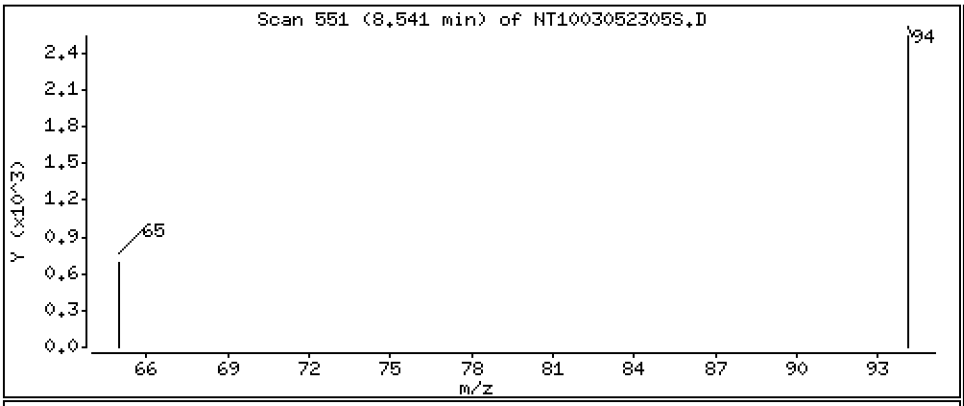
Operator: YZ

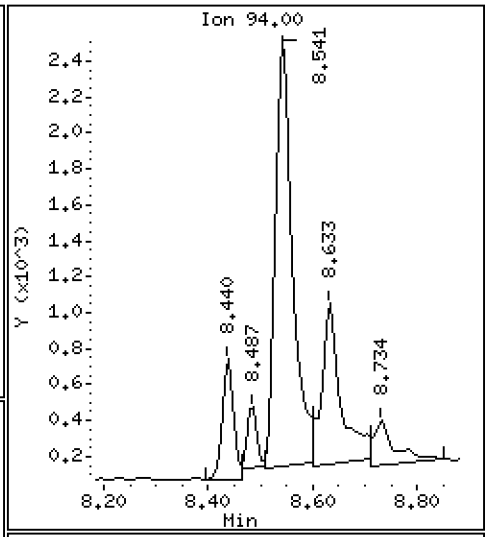
Column phase: ZB-5msi

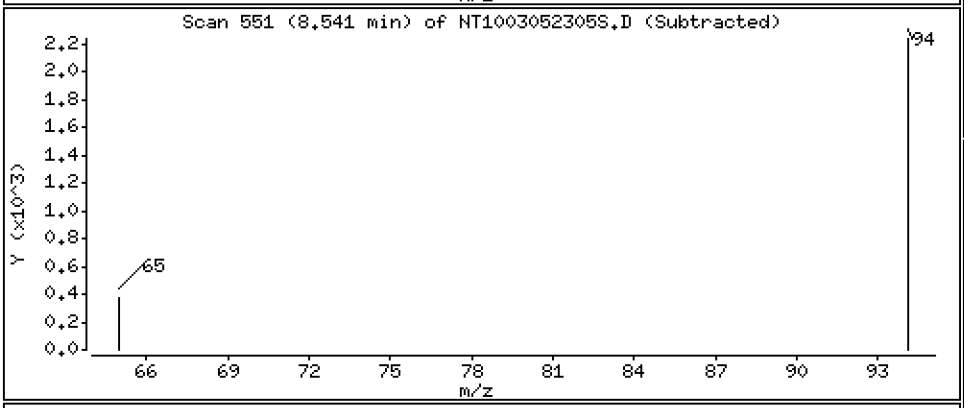
Column diameter: 0.25

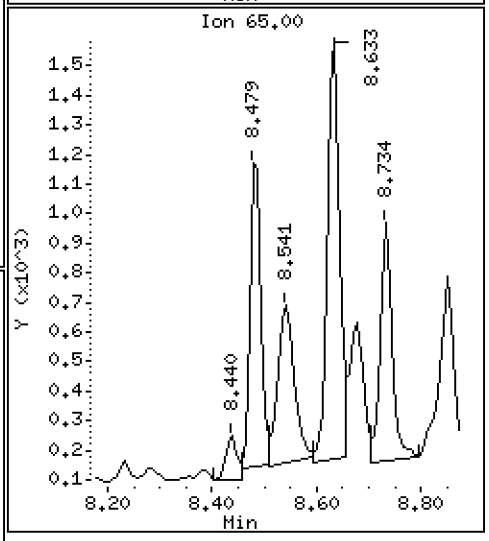
3 Phenol

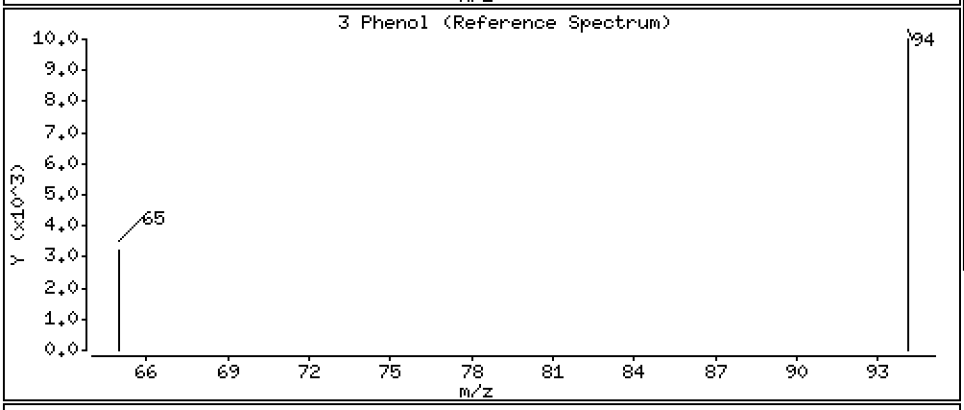
Concentration: 0.04280 ug/mL

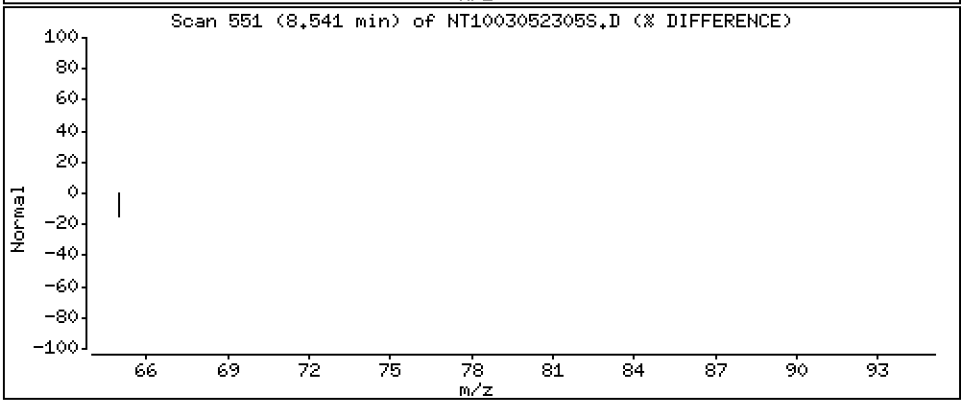












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052305S.D

Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

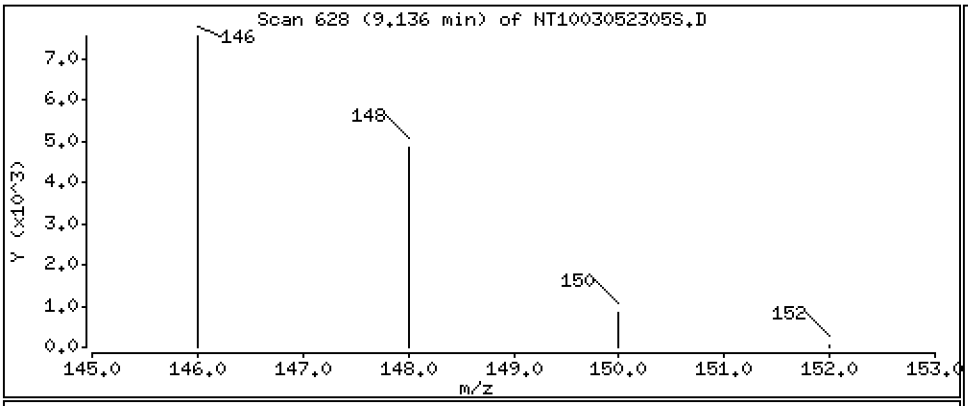
Operator: YZ

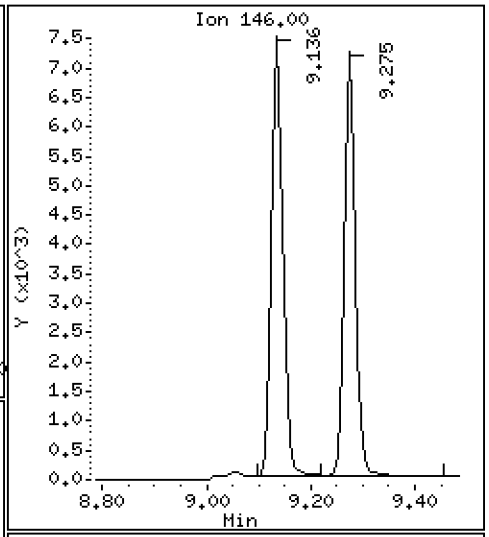
Column phase: ZB-5msi

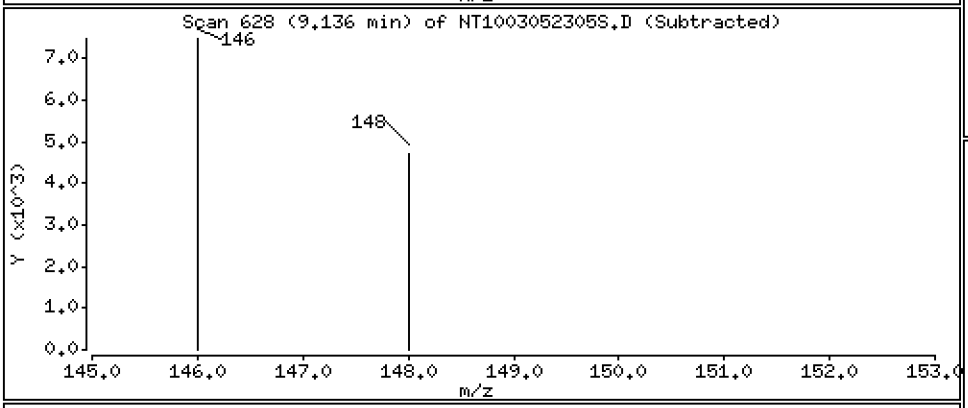
Column diameter: 0.25

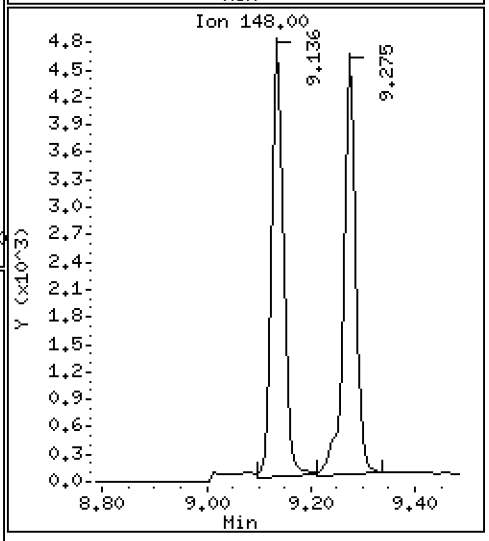
7 1,3-Dichlorobenzene

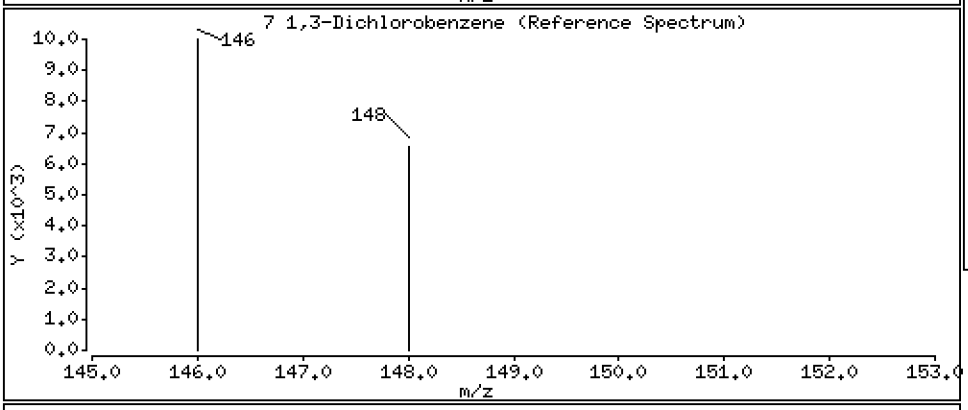
Concentration: 0.09939 ug/mL

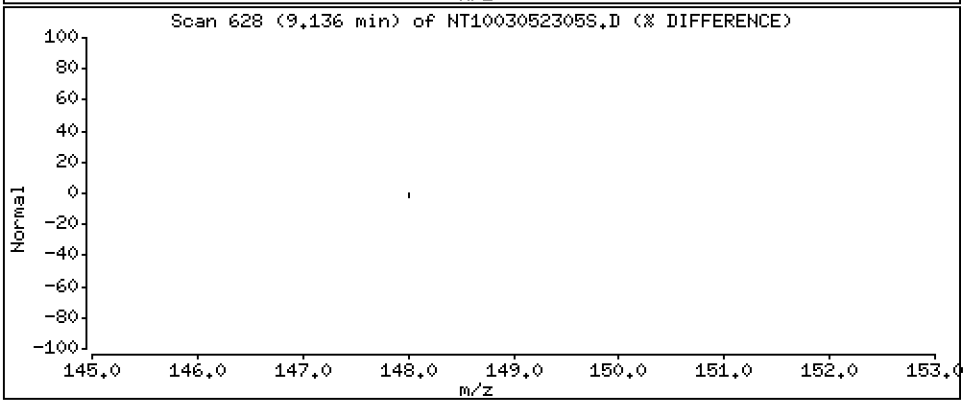












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052305S.D

Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

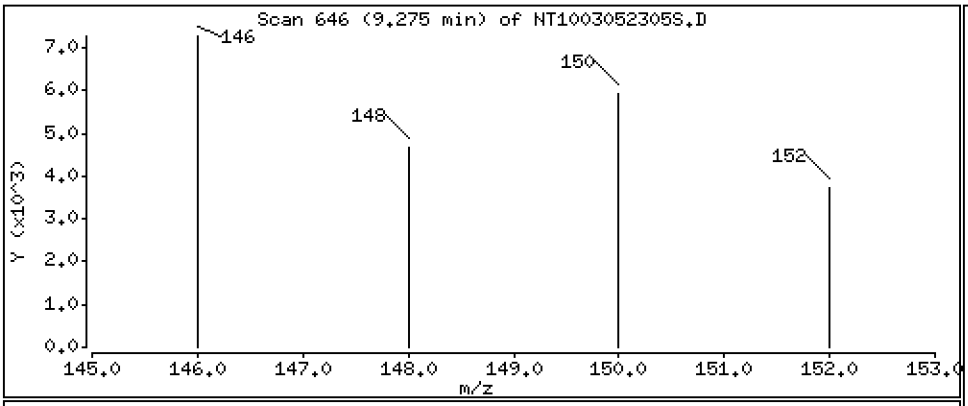
Operator: YZ

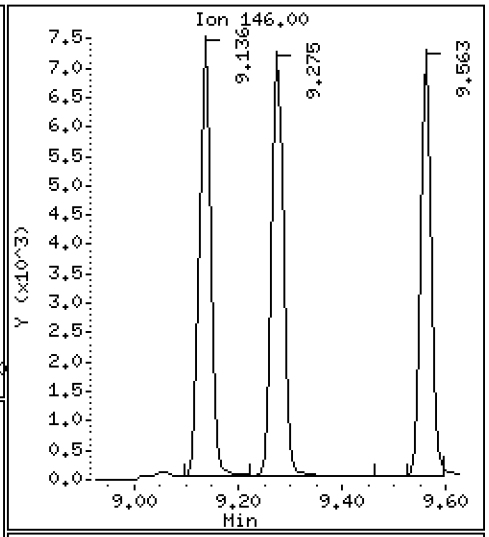
Column phase: ZB-5msi

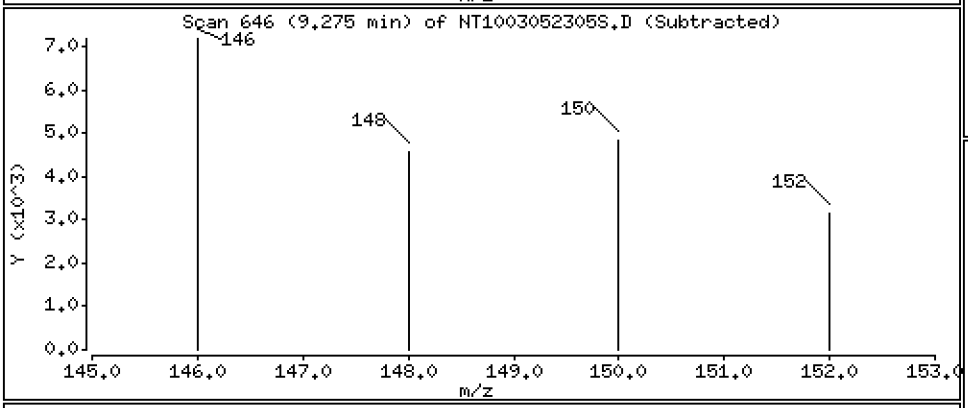
Column diameter: 0.25

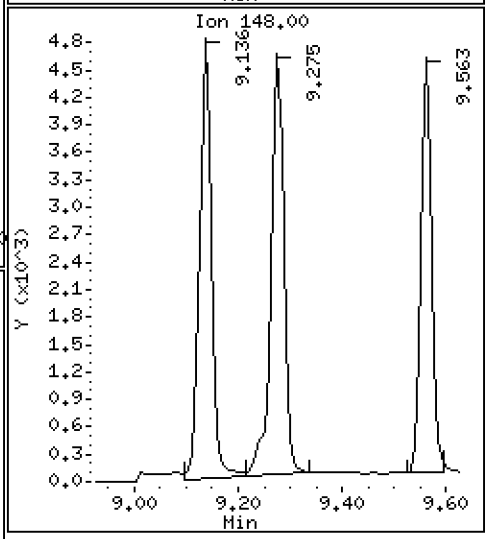
9 1,4-Dichlorobenzene

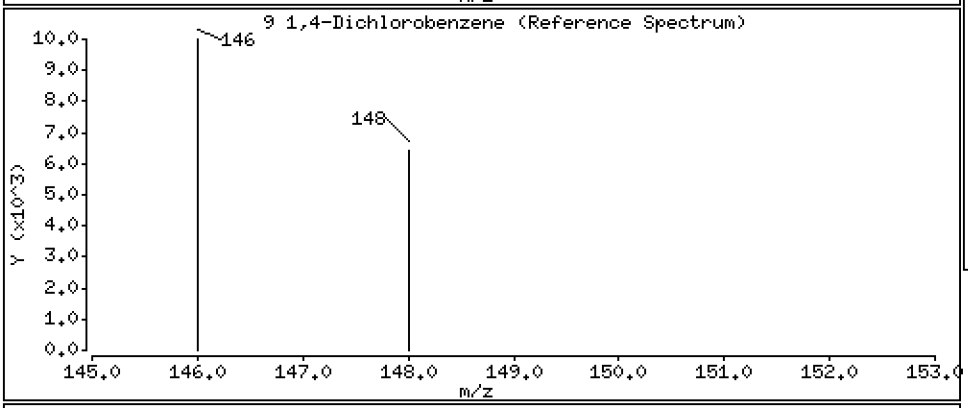
Concentration: 0.09915 ug/mL

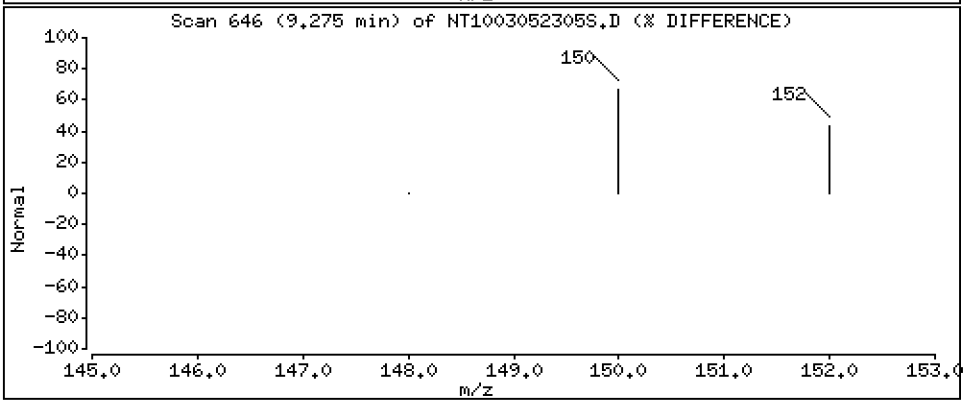












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052305S.D

Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

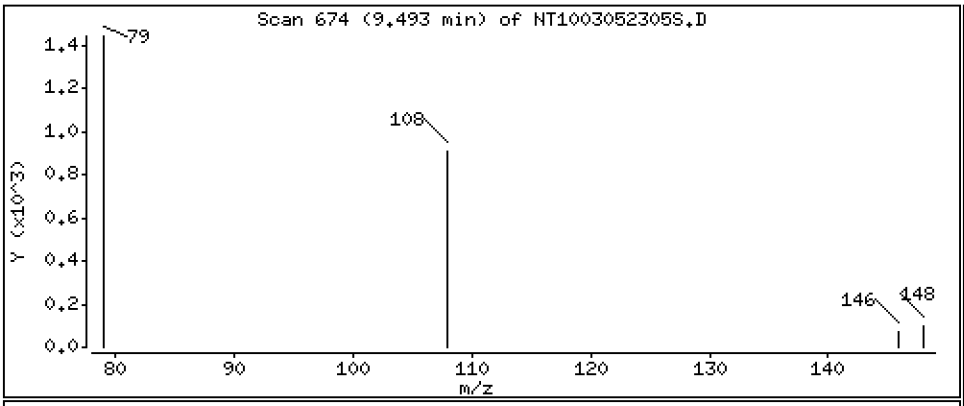
Operator: YZ

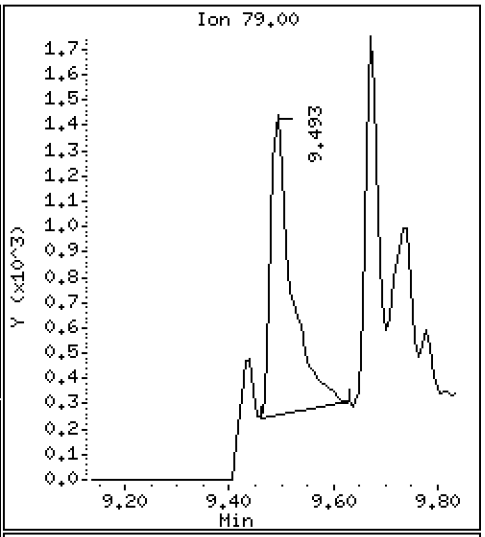
Column phase: ZB-5msi

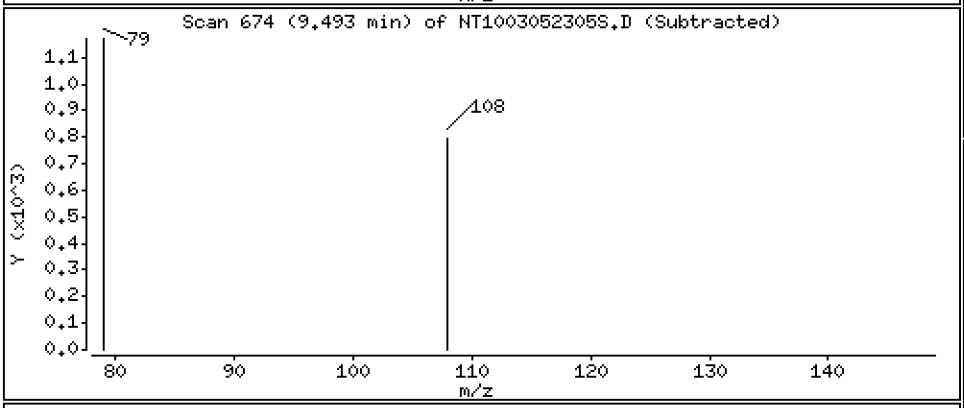
Column diameter: 0.25

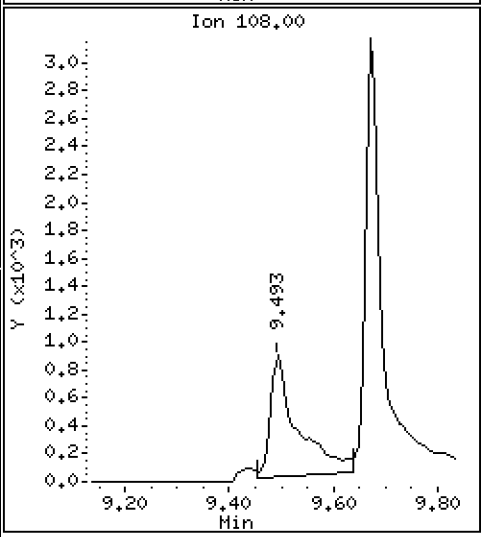
11 Benzyl alcohol

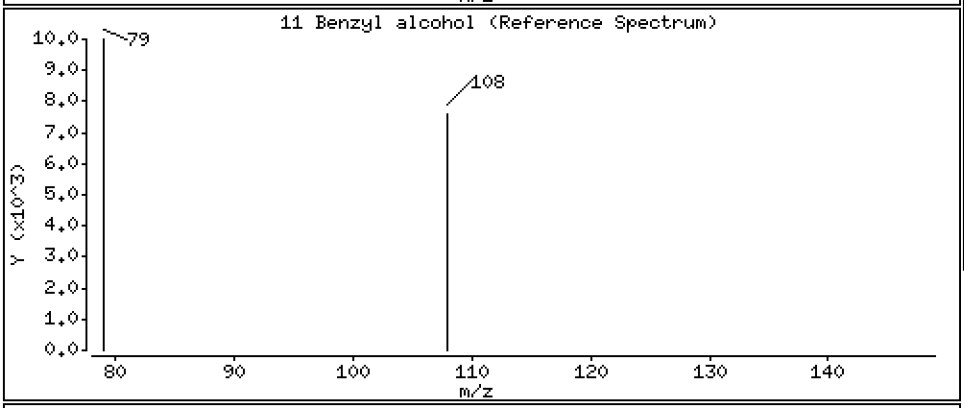
Concentration: 0.04597 ug/mL

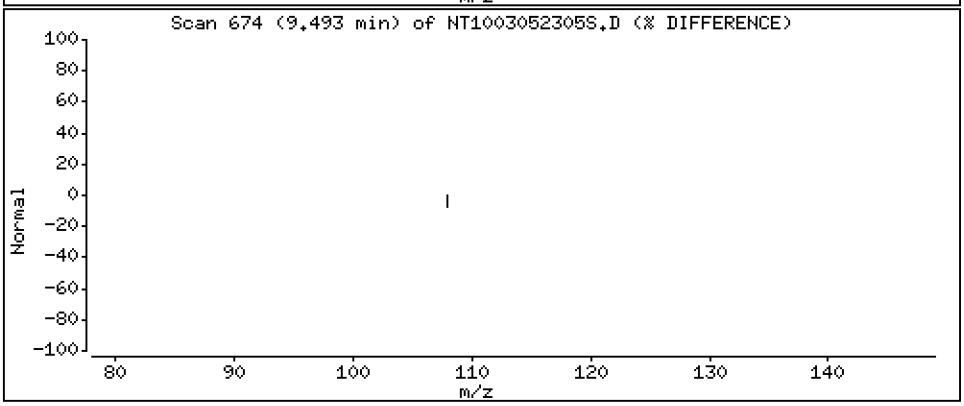












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052305S.D

Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

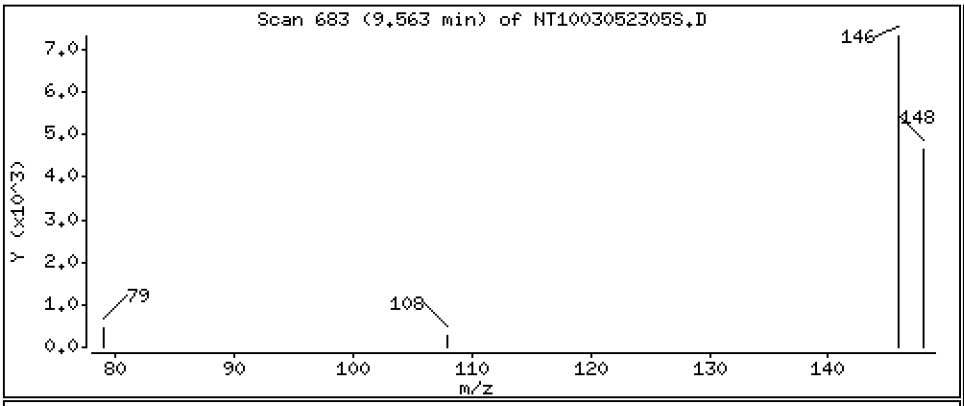
Operator: YZ

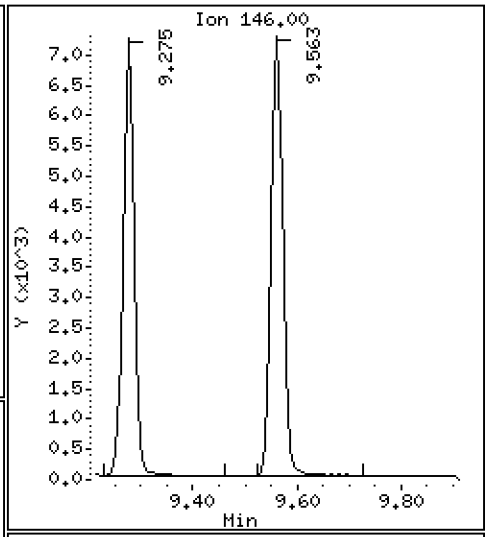
Column phase: ZB-5msi

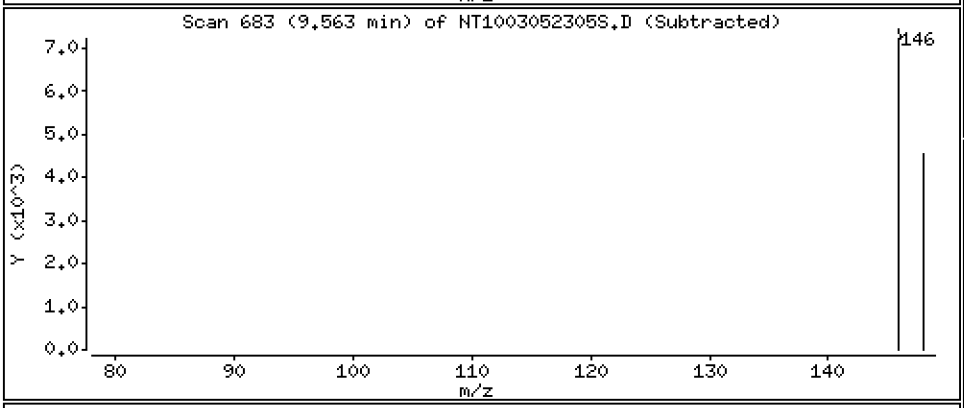
Column diameter: 0.25

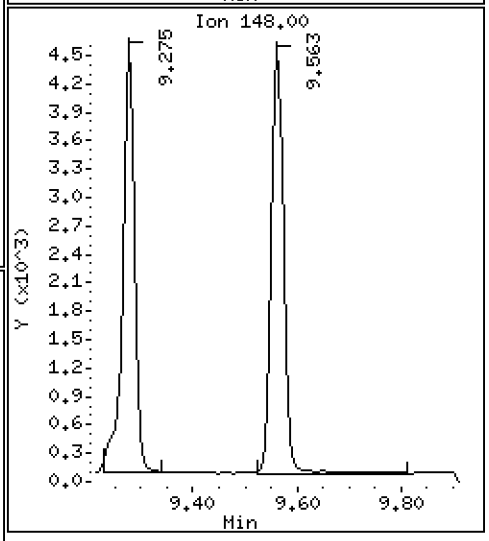
12 1,2-Dichlorobenzene

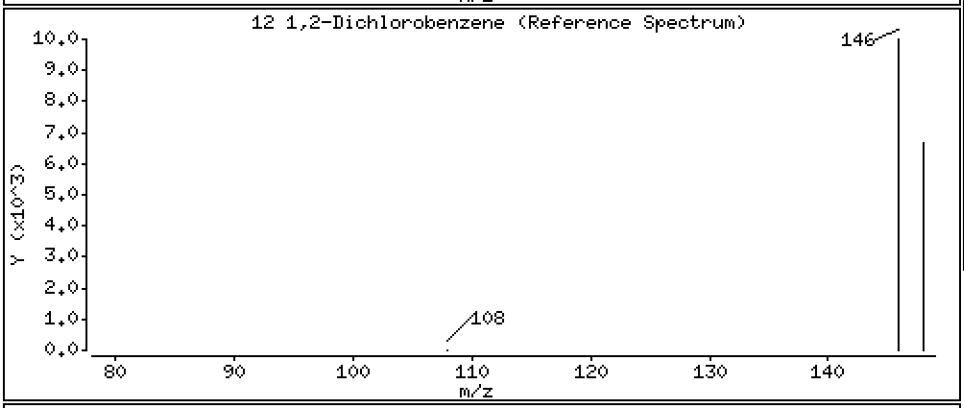
Concentration: 0.1027 ug/mL

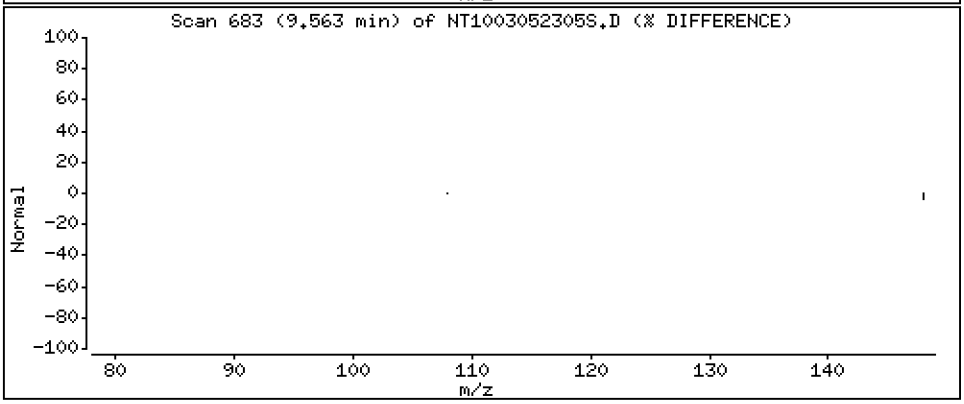












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Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

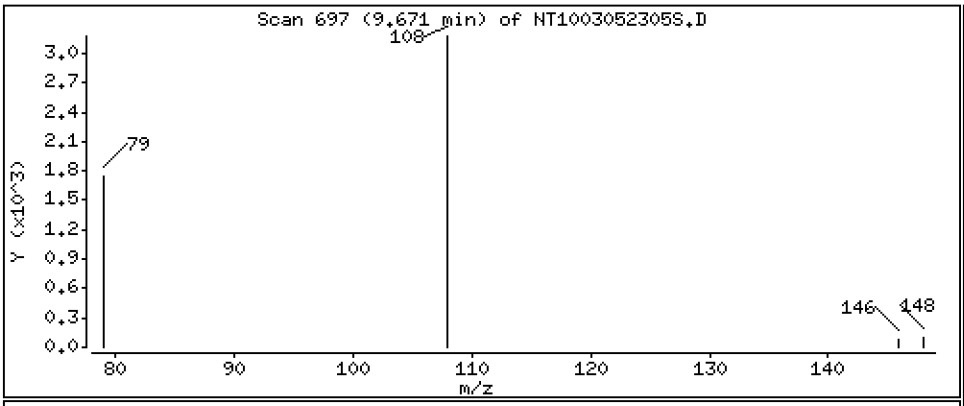
Operator: YZ

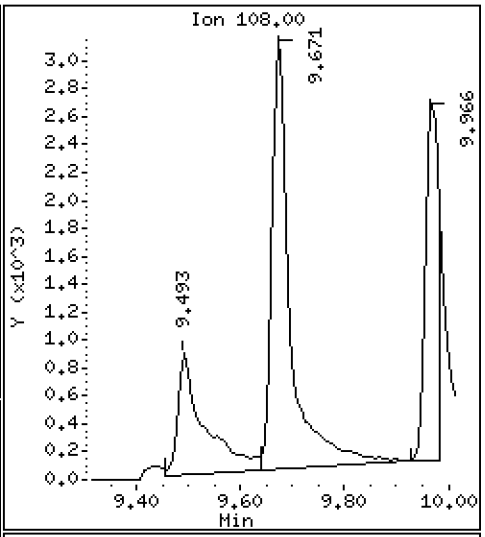
Column phase: ZB-5msi

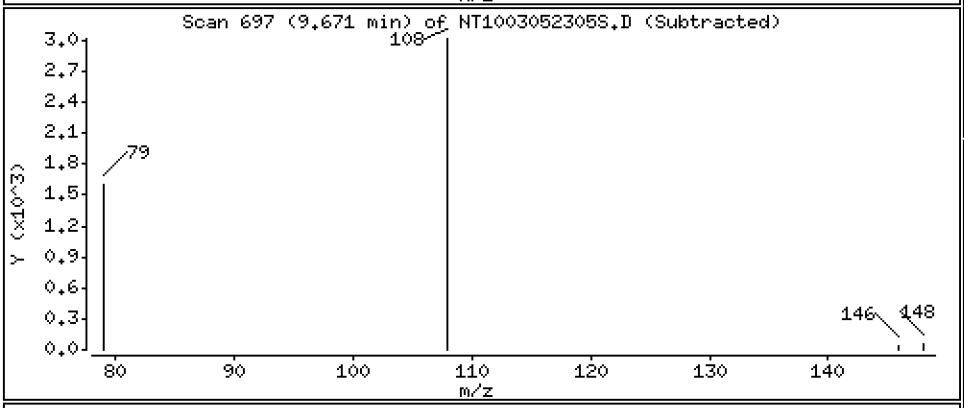
Column diameter: 0.25

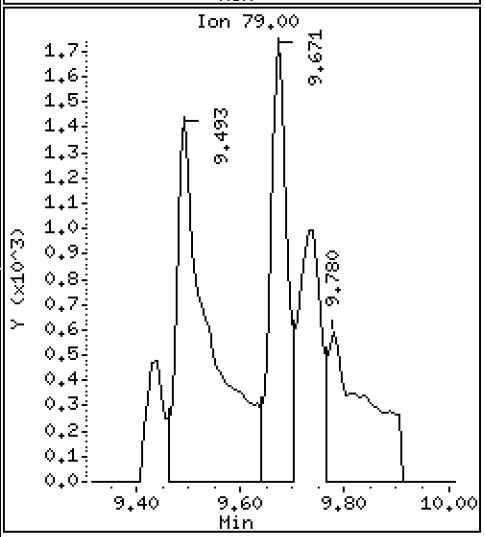
13 2-Methylphenol

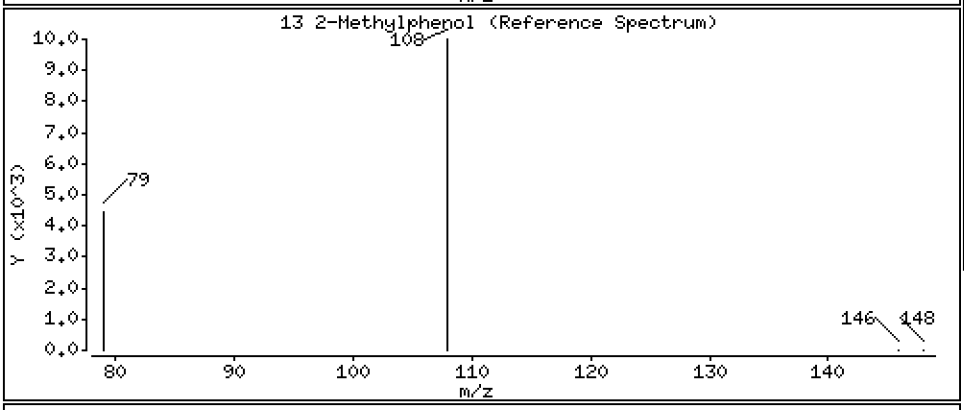
Concentration: 0.09622 ug/mL

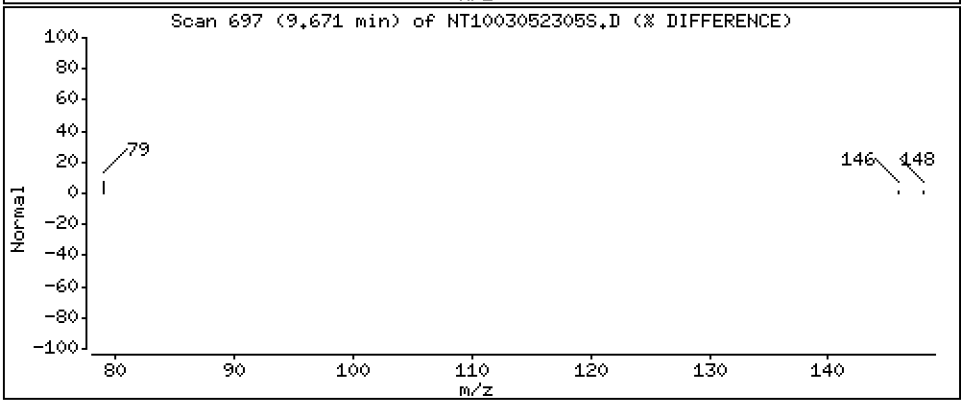












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052305S.D

Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

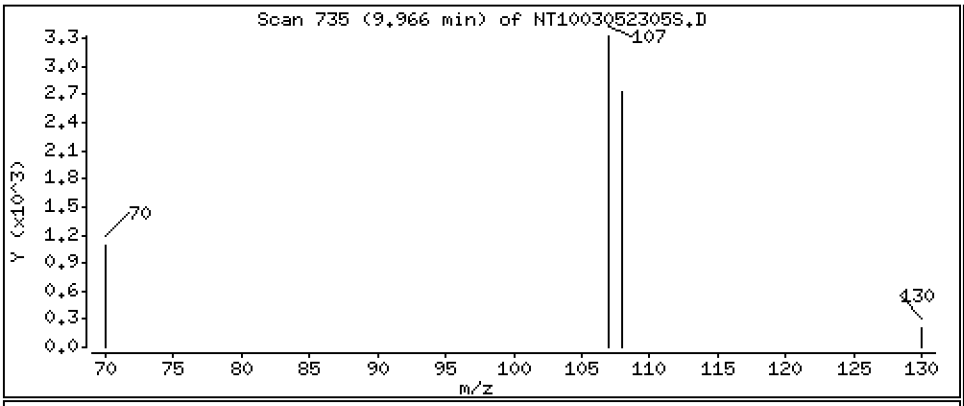
Operator: YZ

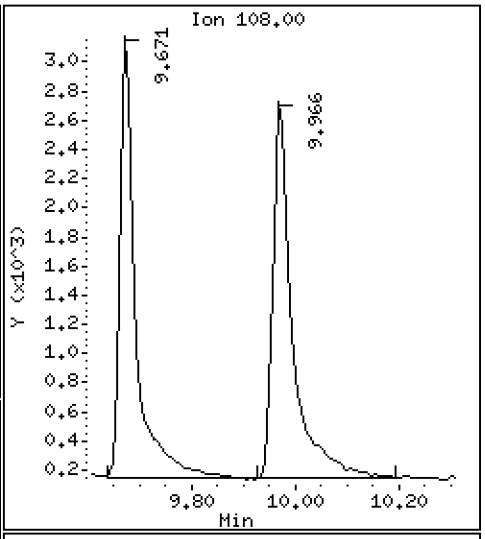
Column phase: ZB-5msi

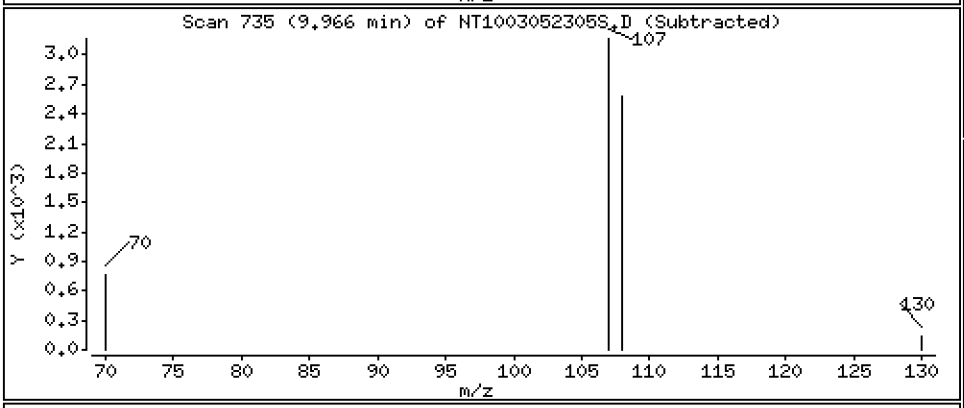
Column diameter: 0.25

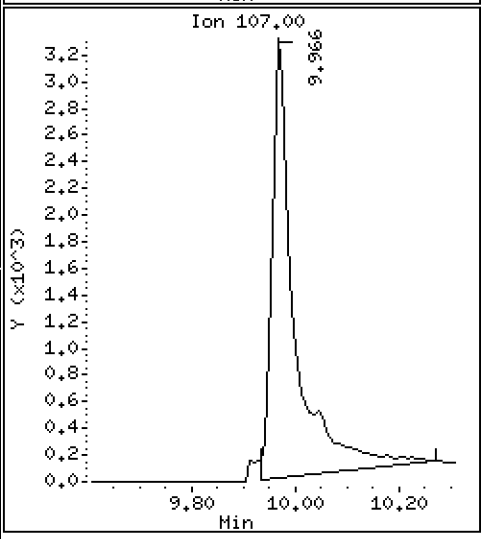
15 4-Methylphenol

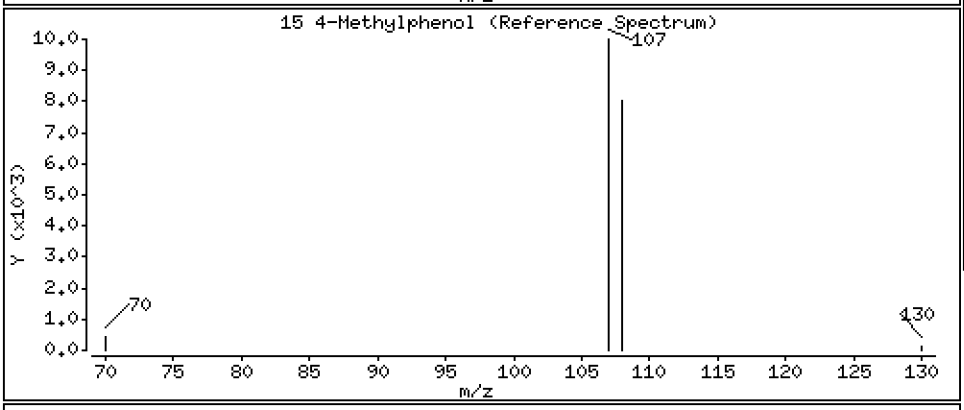
Concentration: 0.08591 ug/mL

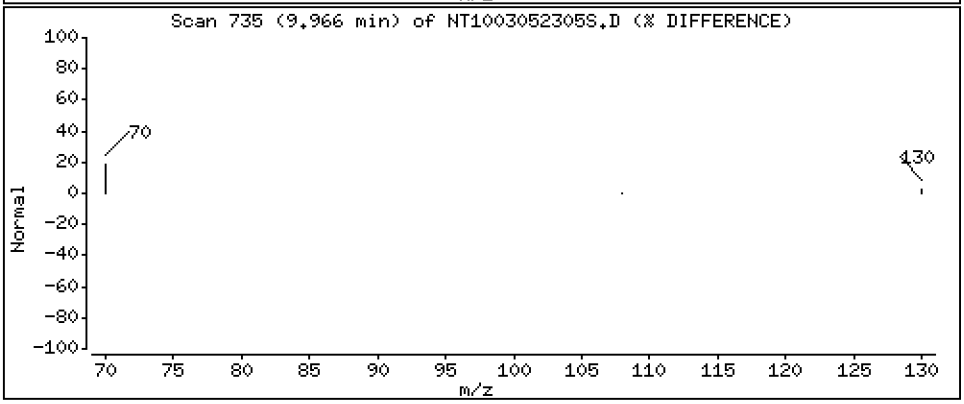












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Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

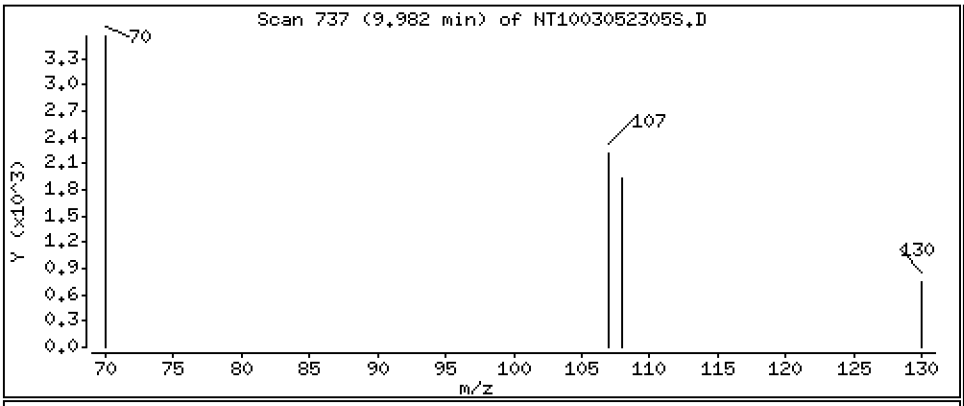
Operator: YZ

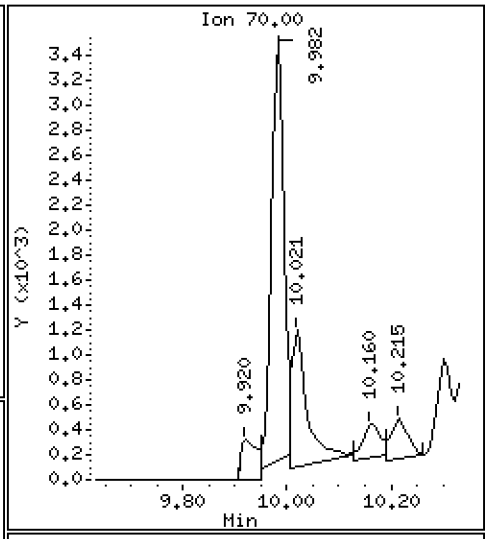
Column phase: ZB-5msi

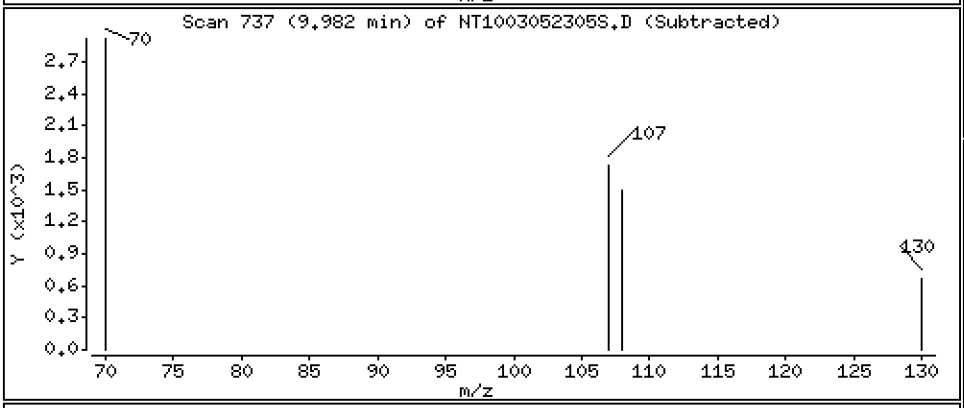
Column diameter: 0.25

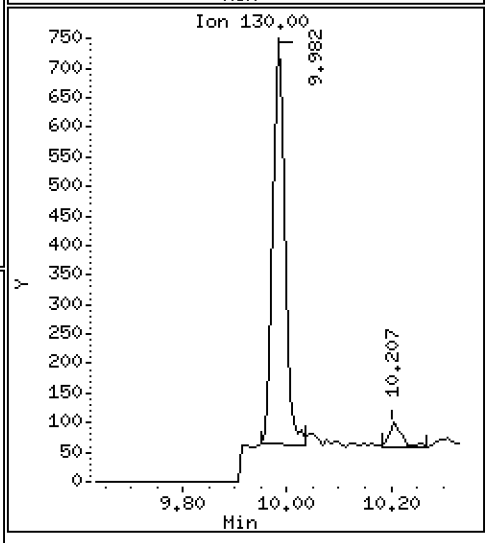
16 N-Nitroso-di-n-propylamine

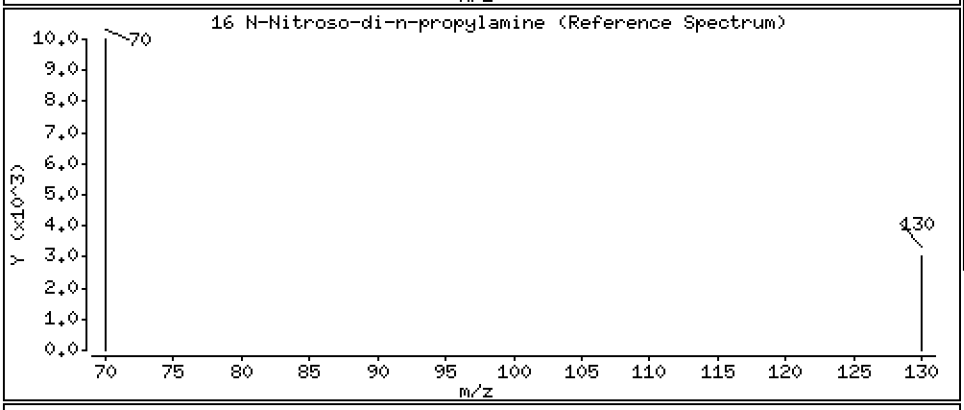
Concentration: 0.09512 ug/mL

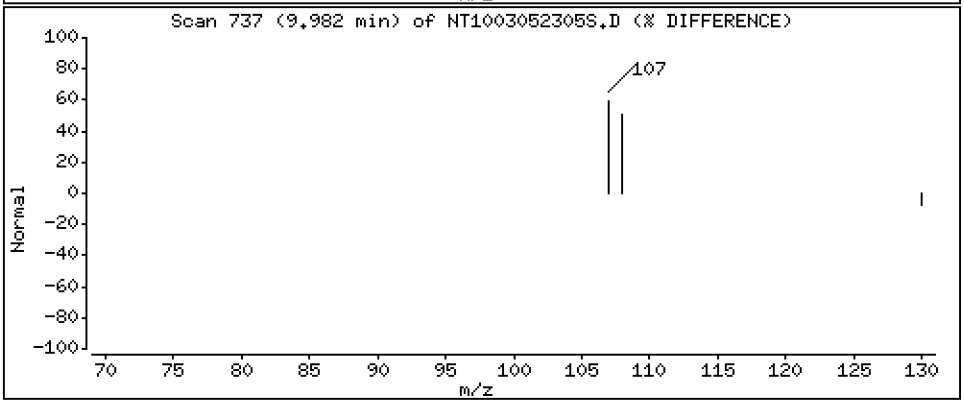












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Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

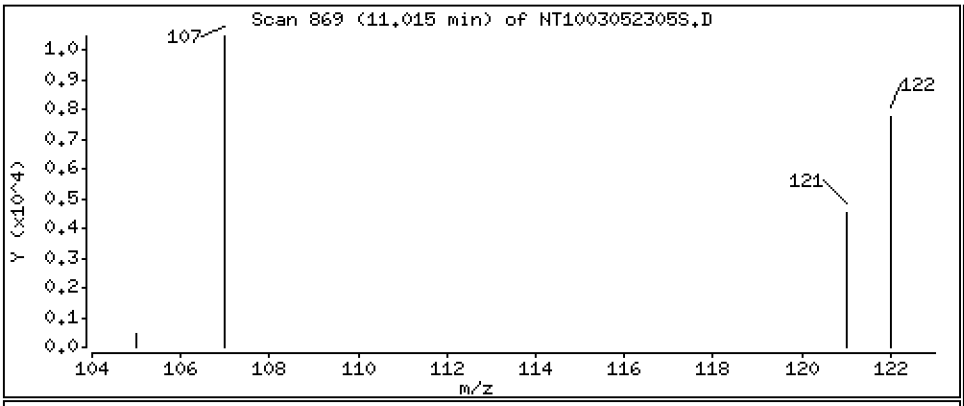
Operator: YZ

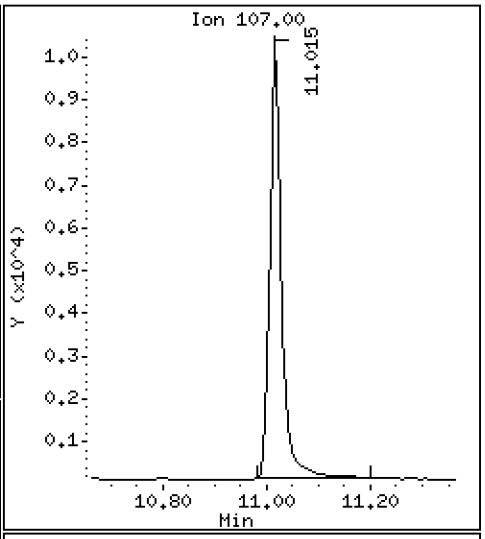
Column phase: ZB-5msi

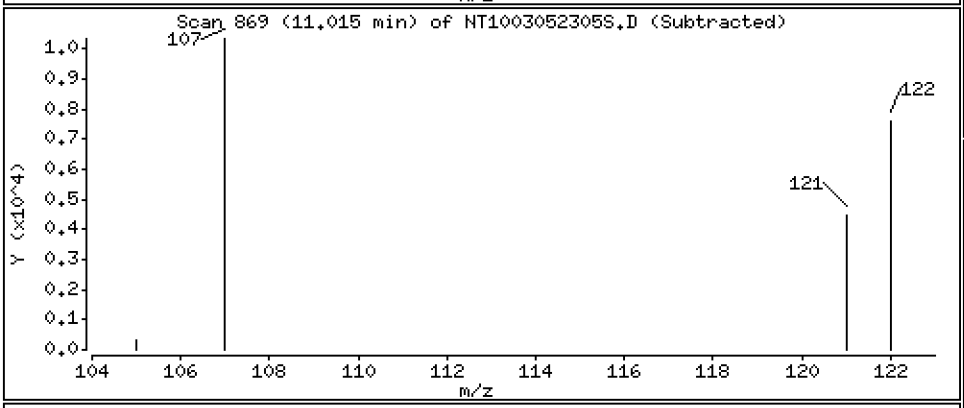
Column diameter: 0.25

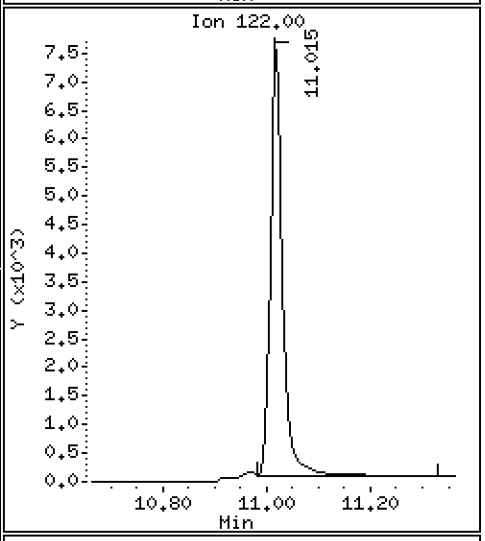
22 2,4-Dimethylphenol

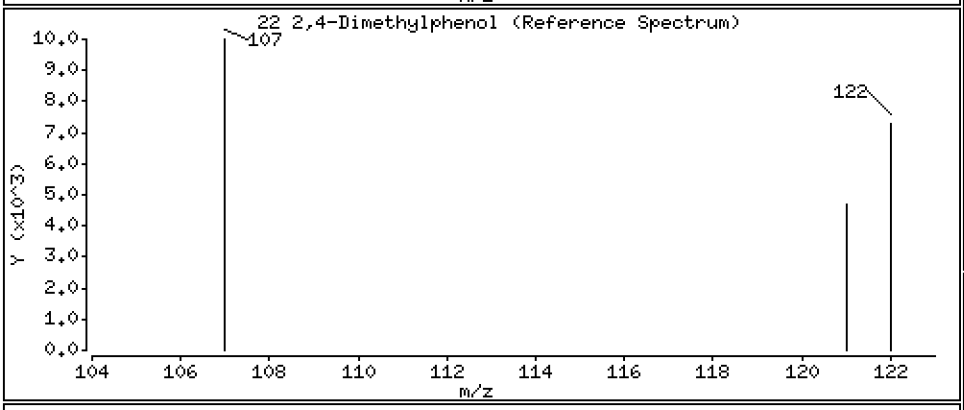
Concentration: 0.1786 ug/mL

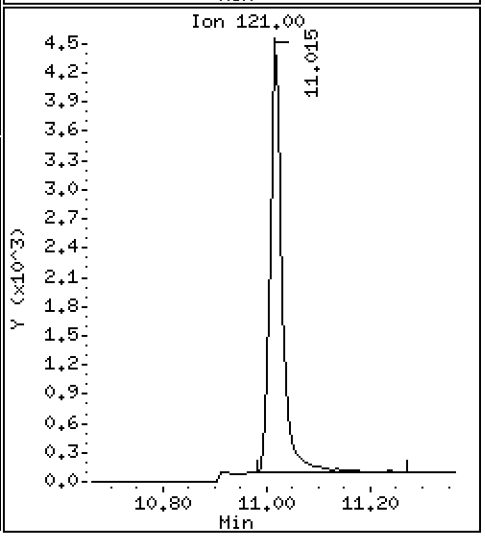


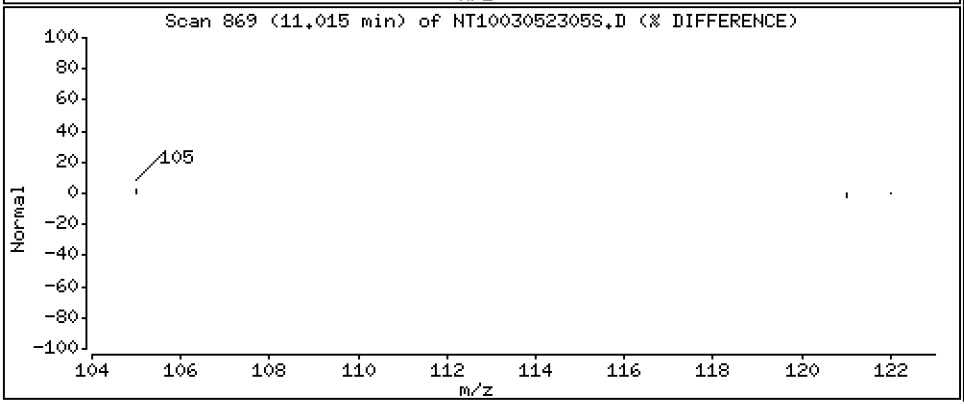












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Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

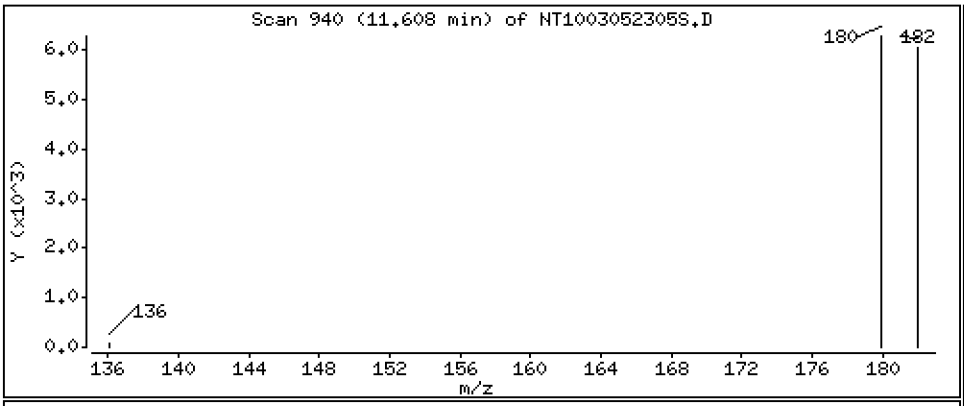
Operator: YZ

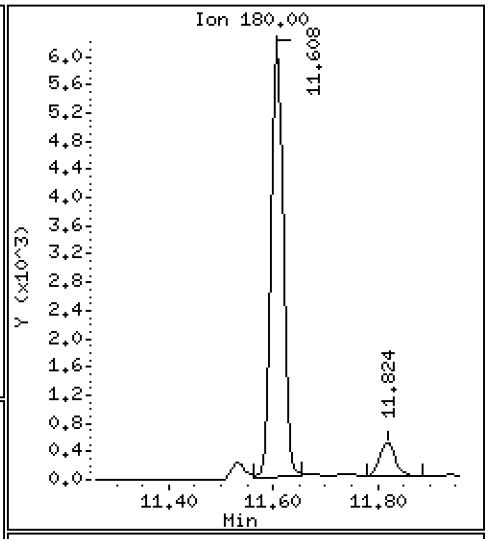
Column phase: ZB-5msi

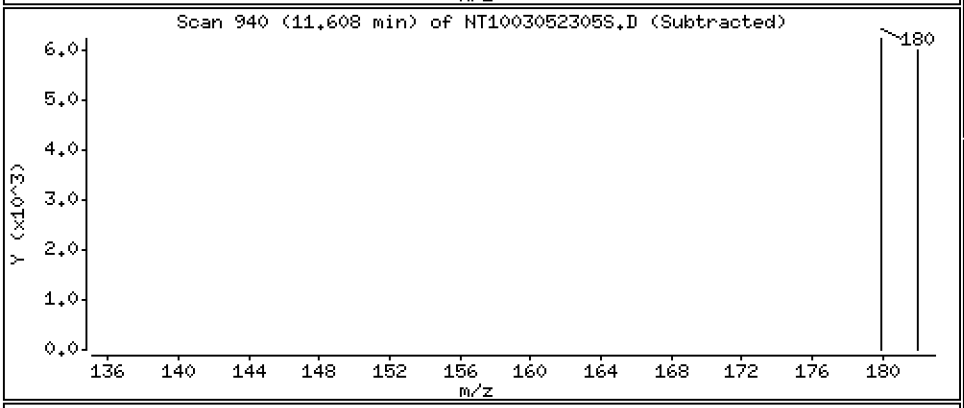
Column diameter: 0.25

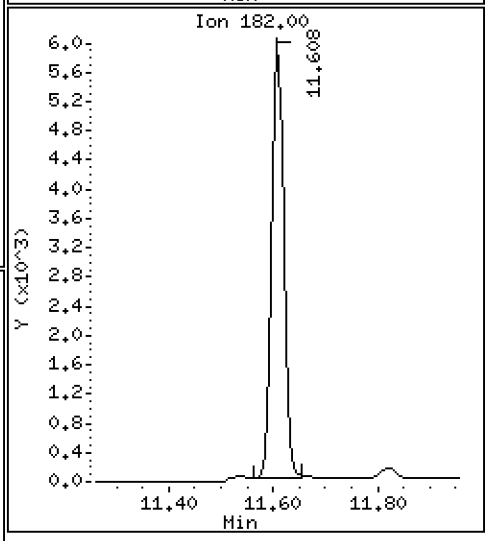
26 1,2,4-Trichlorobenzene

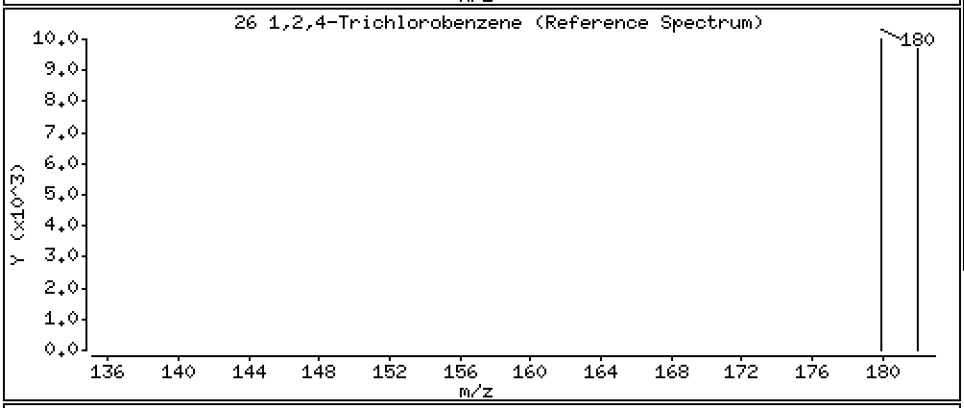
Concentration: 0.1176 ug/mL

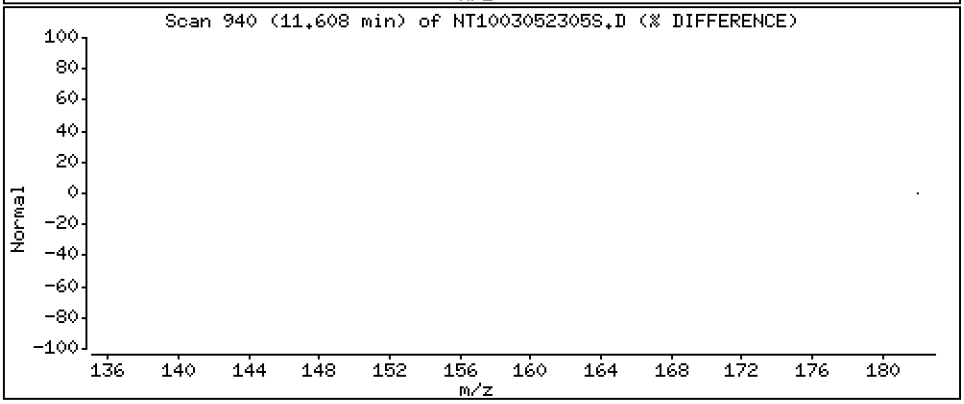












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052305S.D

Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

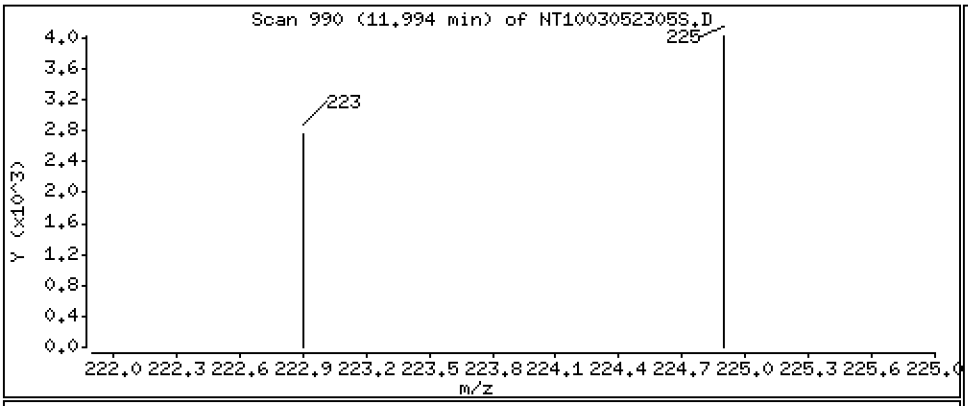
Operator: YZ

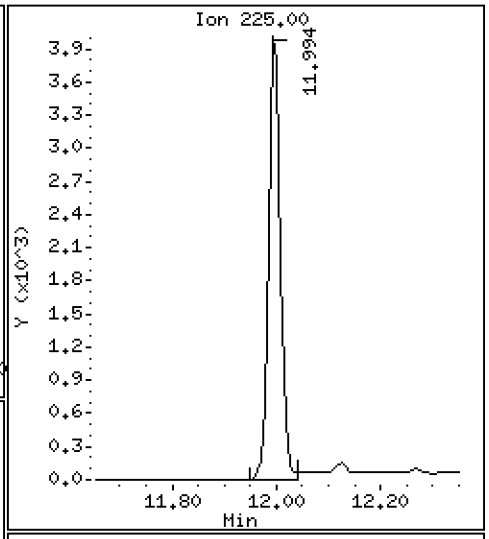
Column phase: ZB-5msi

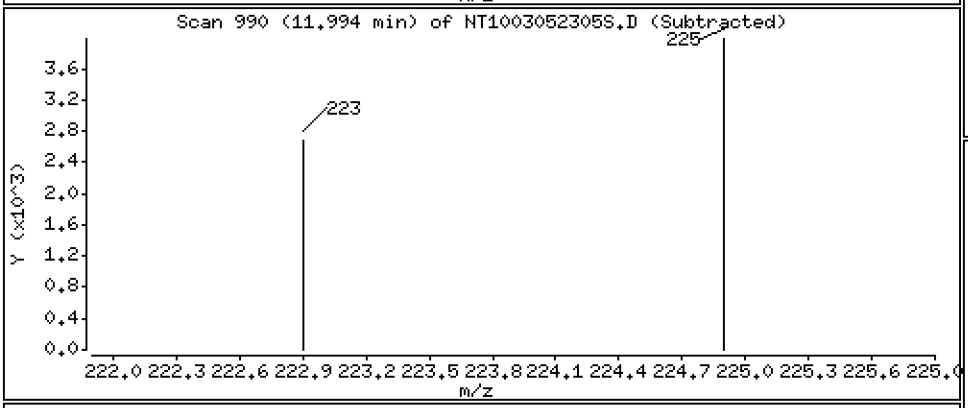
Column diameter: 0.25

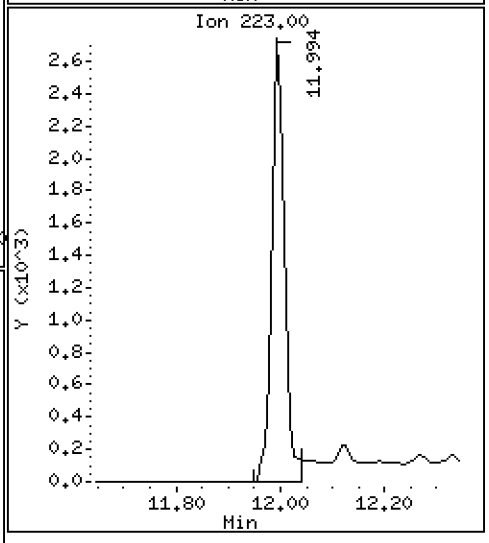
30 Hexachlorobutadiene

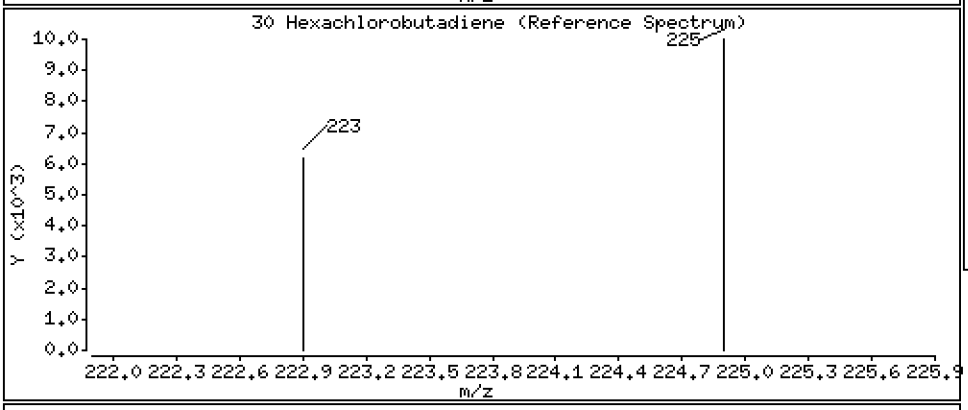
Concentration: 0.1123 ug/mL

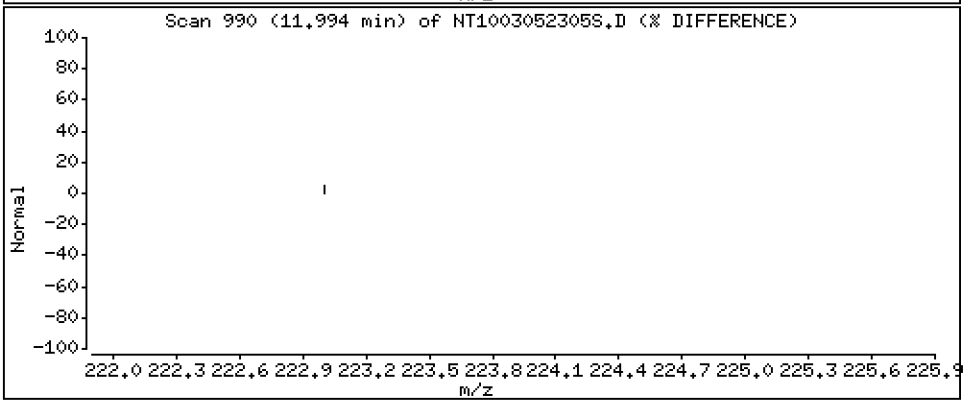












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Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

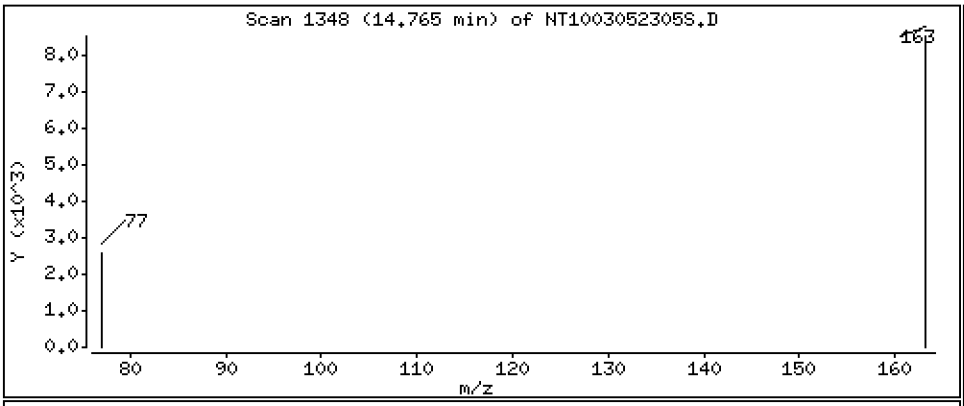
Operator: YZ

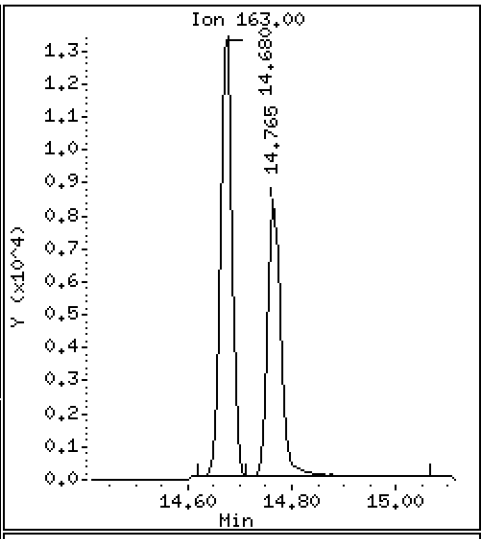
Column phase: ZB-5msi

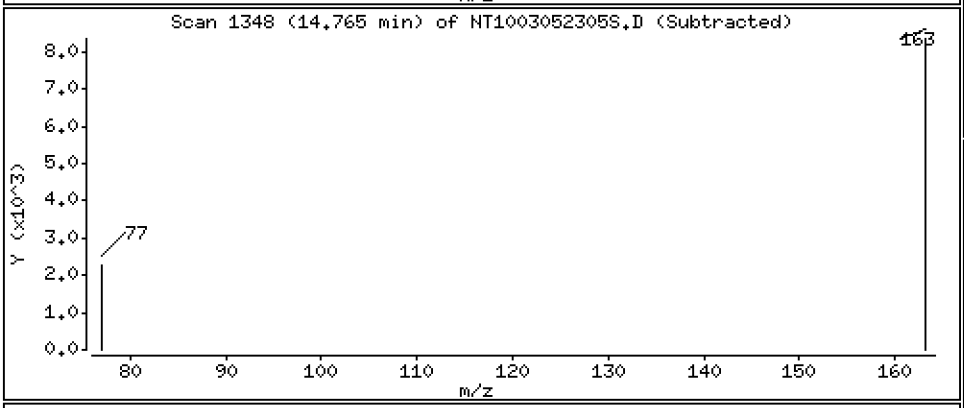
Column diameter: 0.25

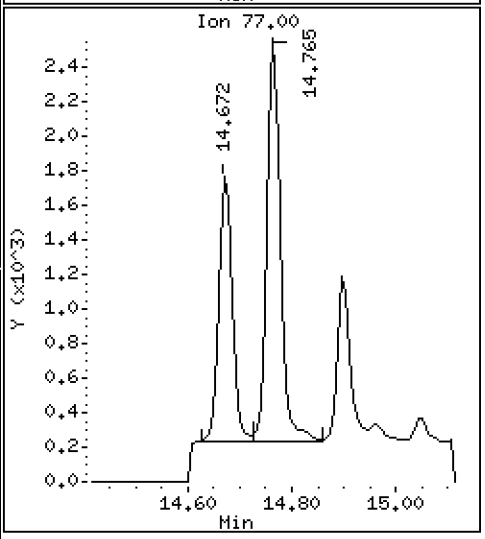
39 Dimethylphthalate

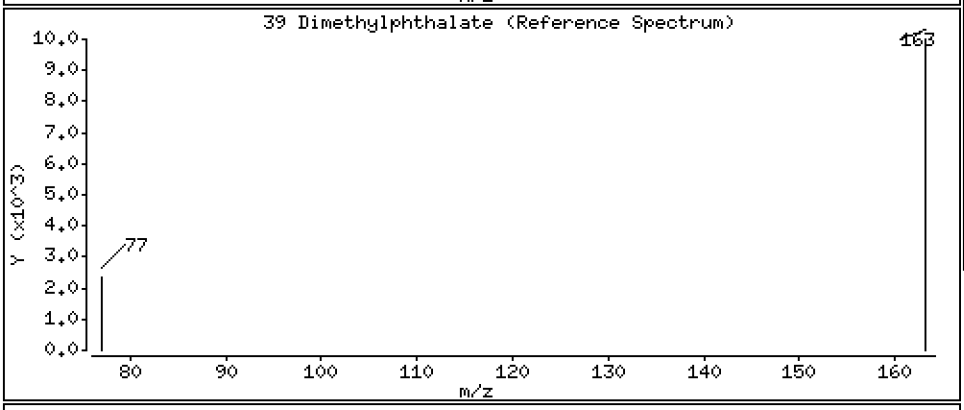
Concentration: 0.08286 ug/mL

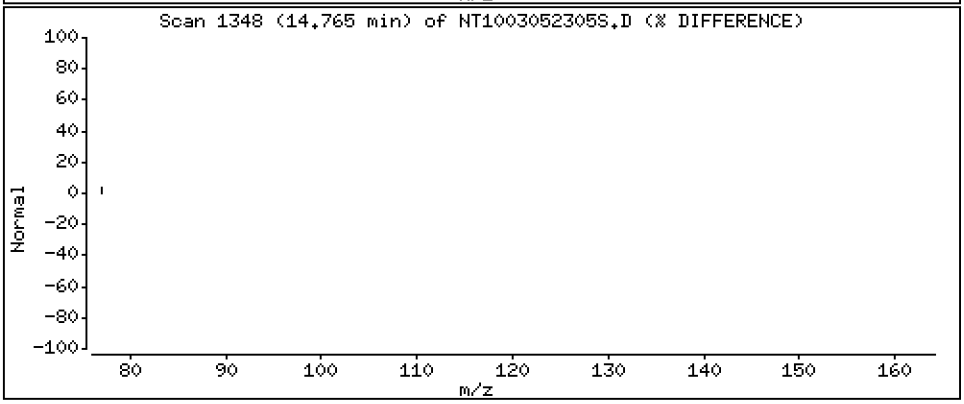












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Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

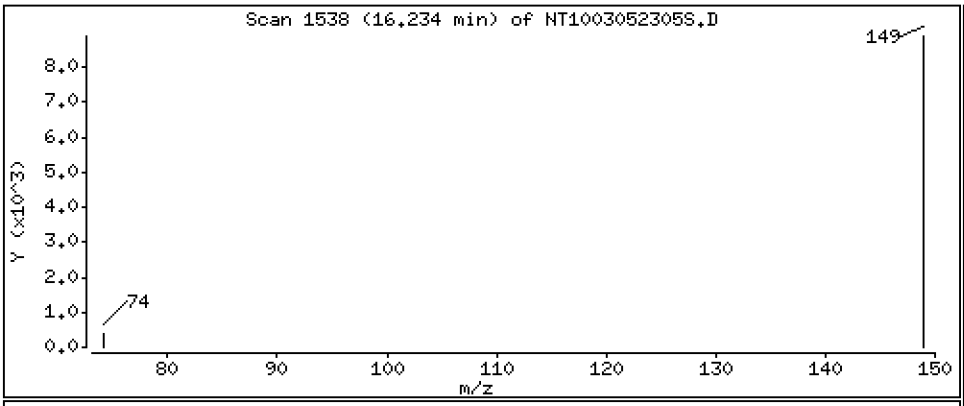
Operator: YZ

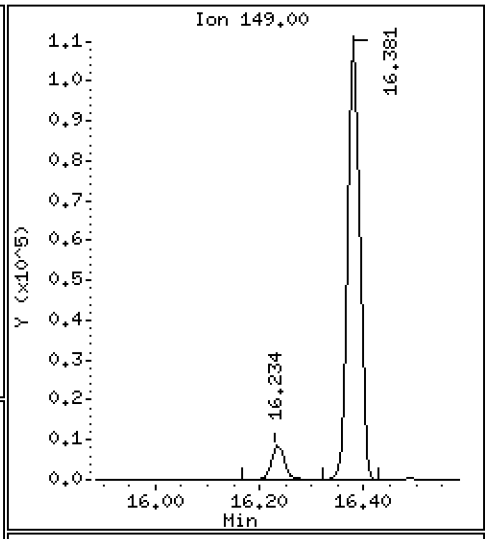
Column phase: ZB-5msi

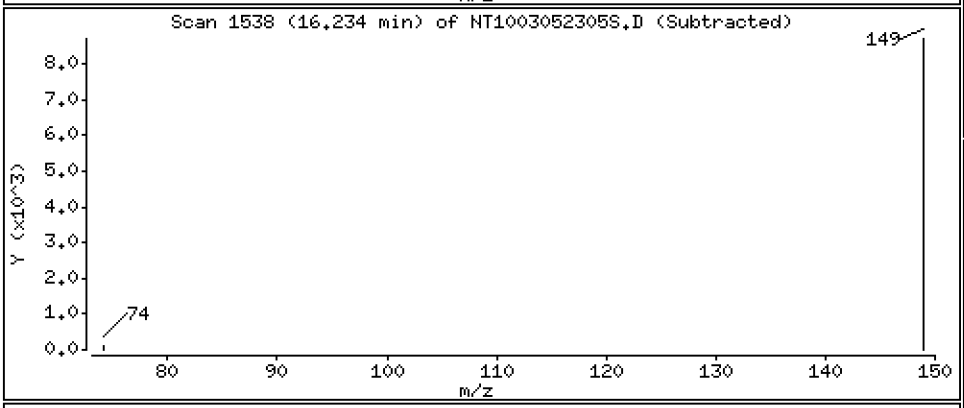
Column diameter: 0.25

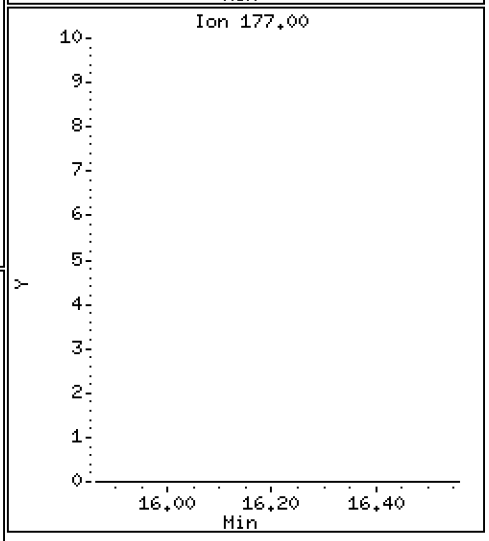
50 Diethylphthalate

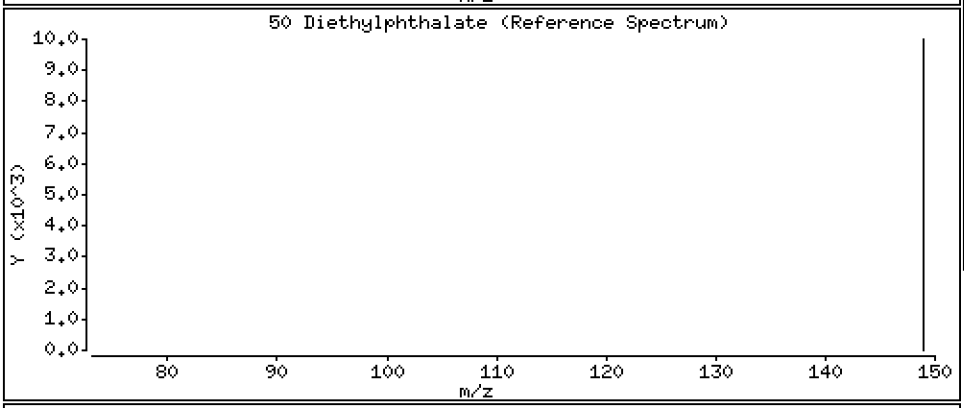
Concentration: 0.08409 ug/mL

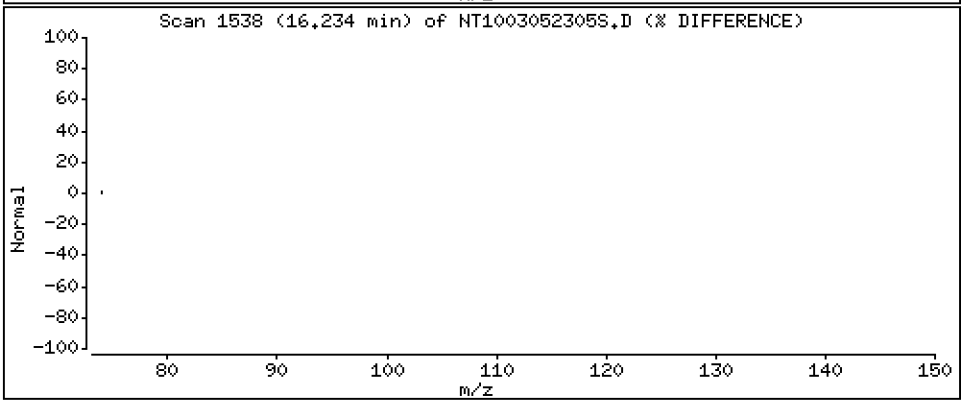












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052305S.D

Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

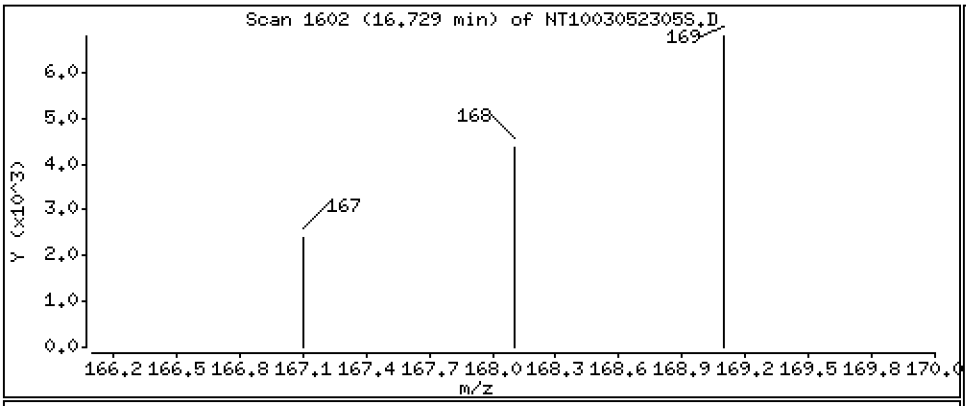
Operator: YZ

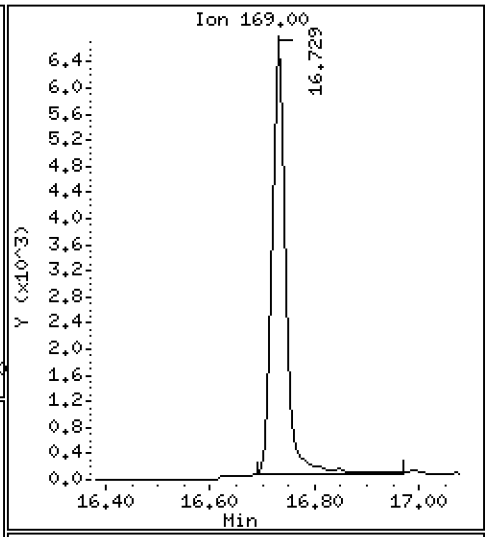
Column phase: ZB-5msi

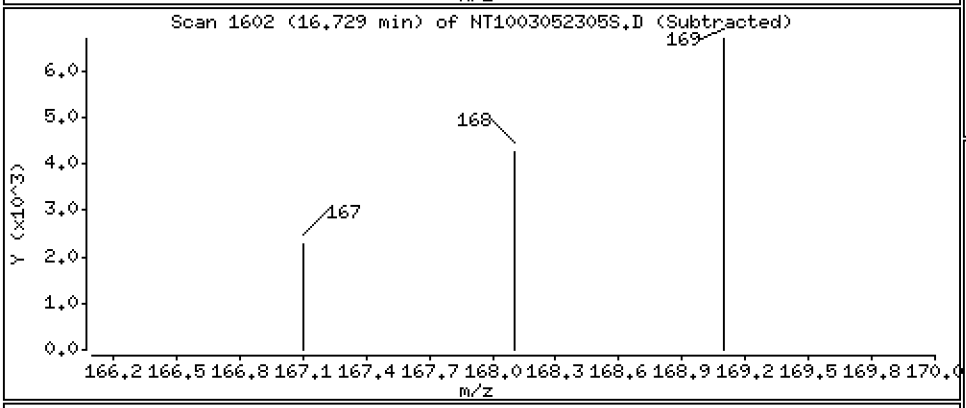
Column diameter: 0.25

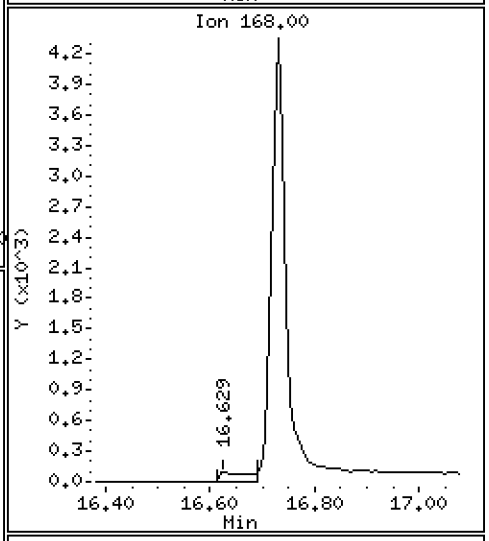
54 N-Nitrosodiphenylamine

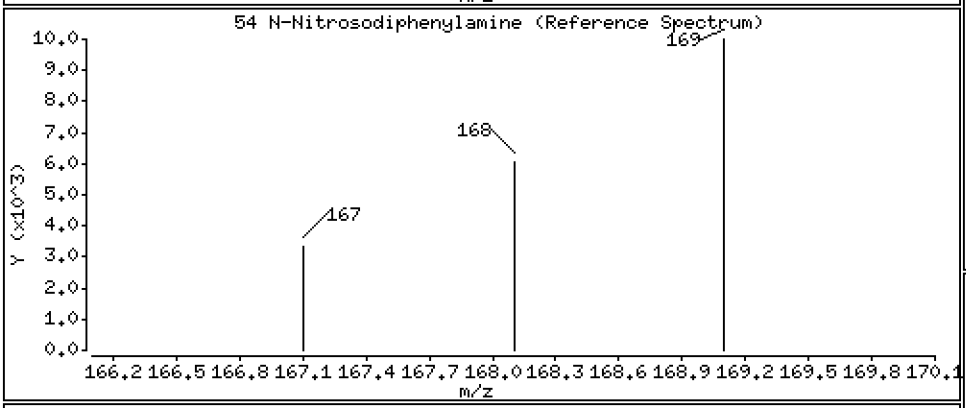
Concentration: 0.07128 ug/mL

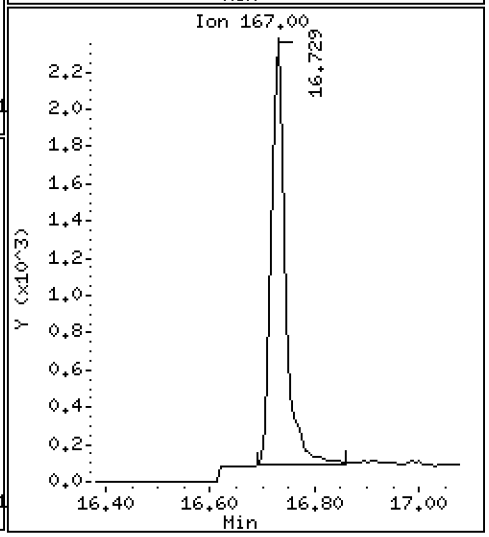


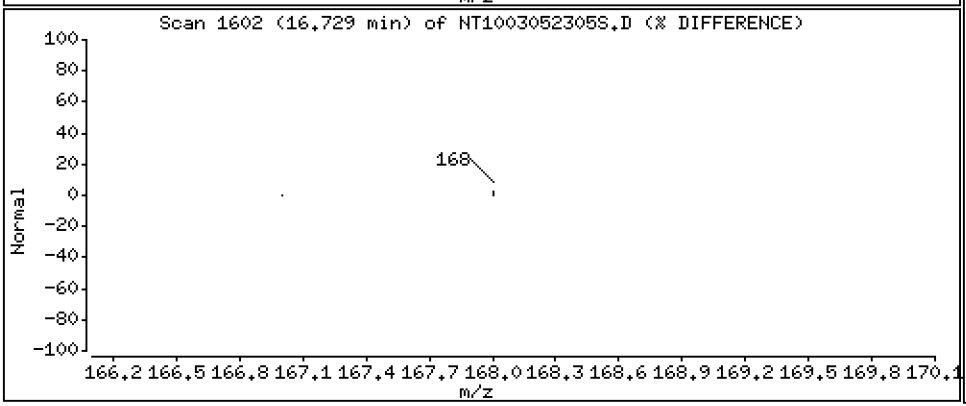












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052305S.D

Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

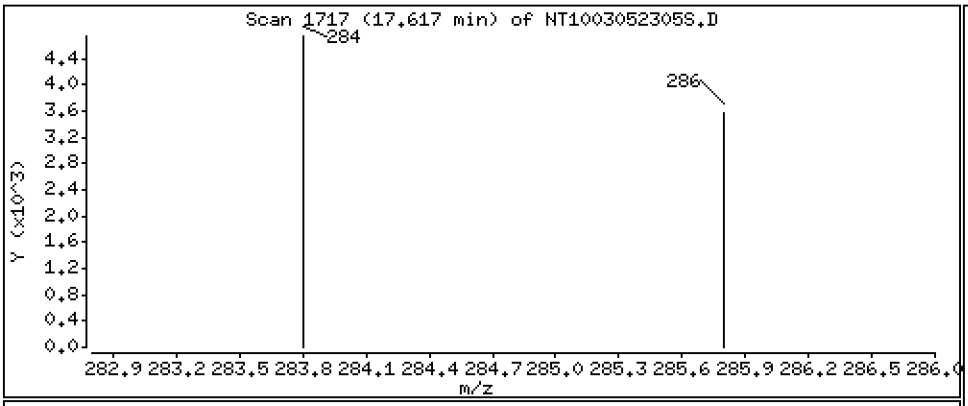
Operator: YZ

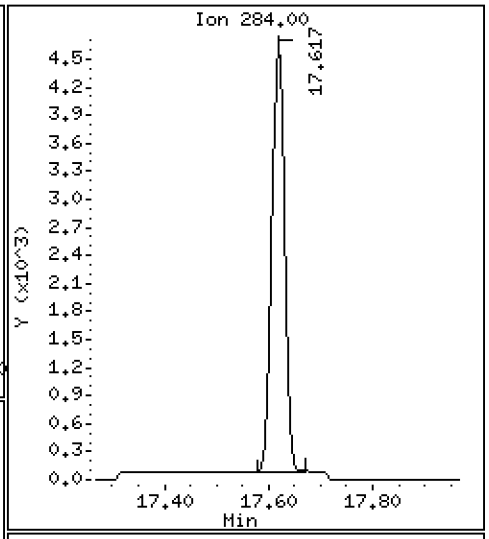
Column phase: ZB-5msi

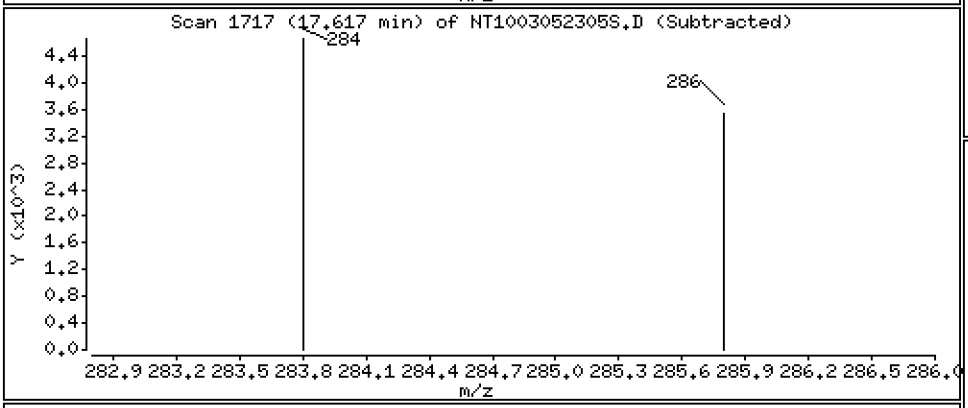
Column diameter: 0.25

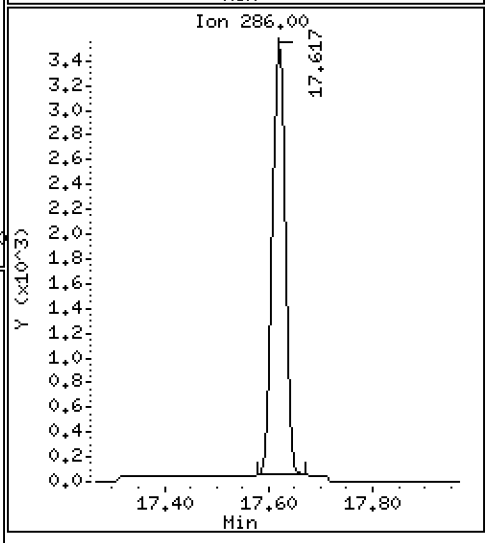
57 Hexachlorobenzene

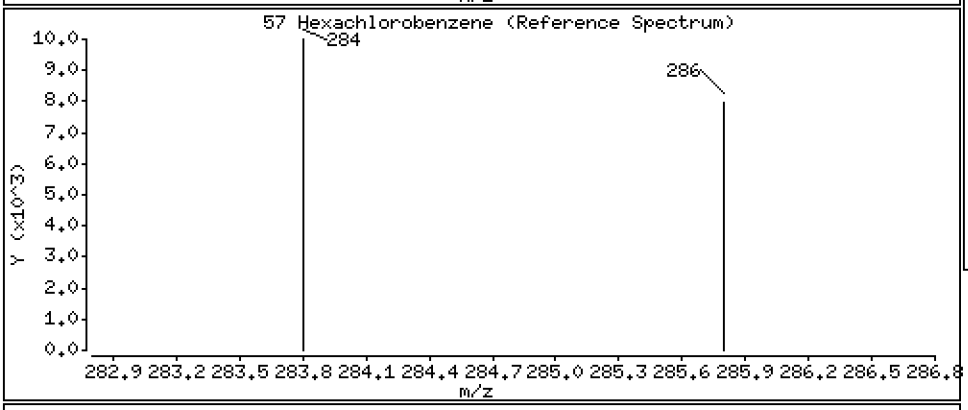
Concentration: 0.09455 ug/mL

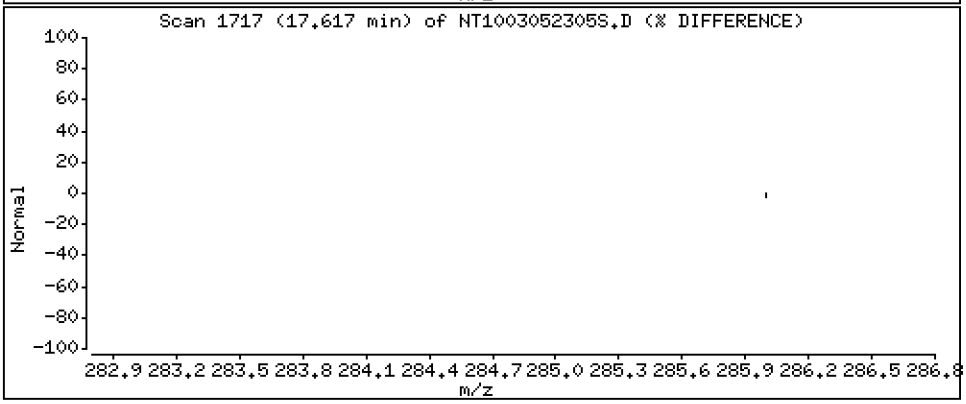












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052305S.D

Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

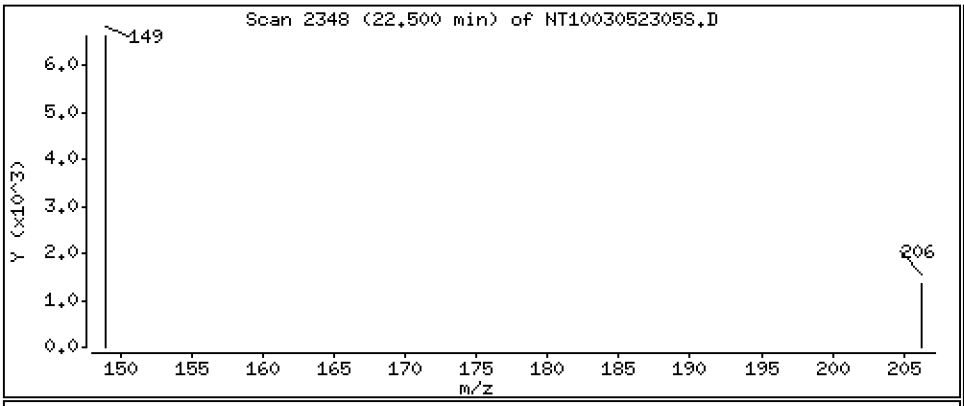
Operator: YZ

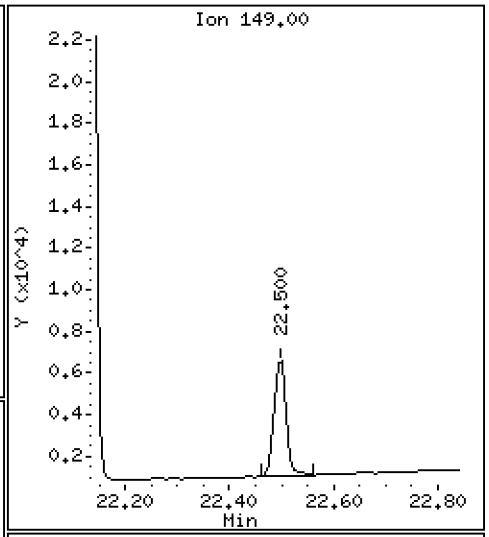
Column phase: ZB-5msi

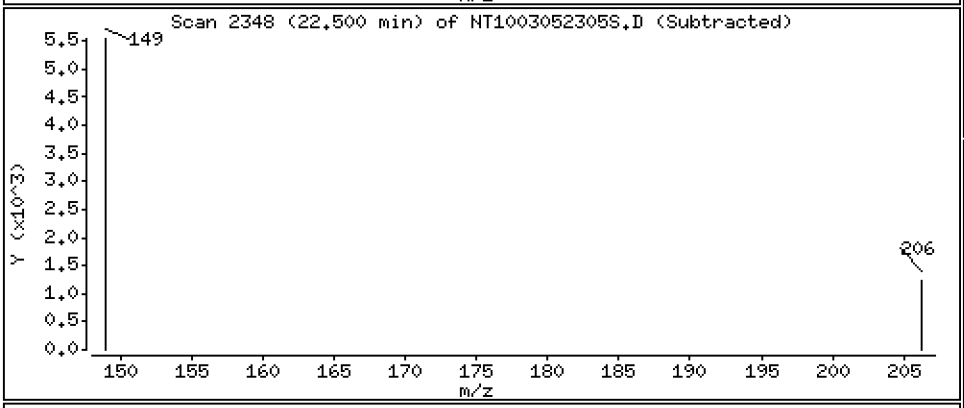
Column diameter: 0.25

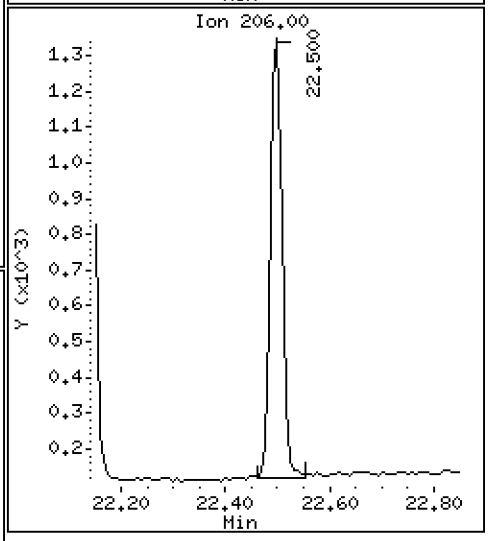
67 Butylbenzylphthalate

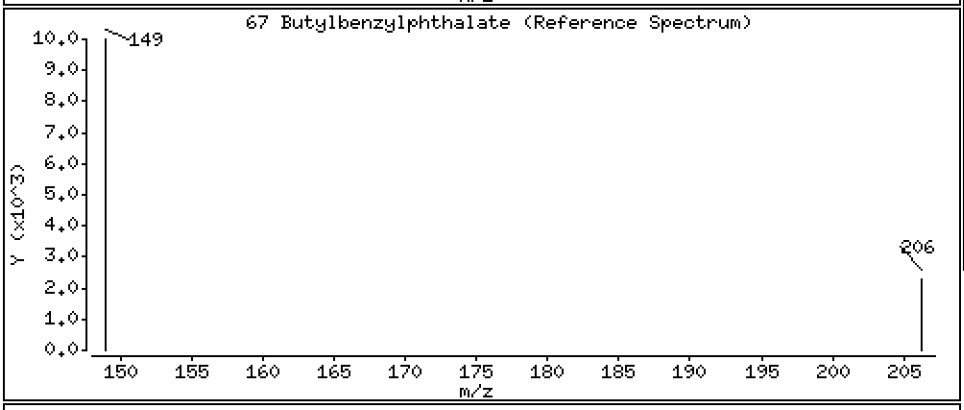
Concentration: 0.05717 ug/mL

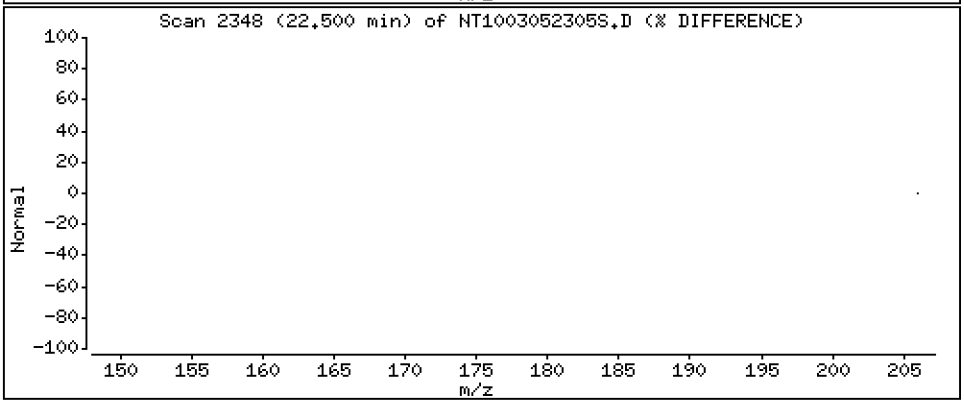












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052305S.D

Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

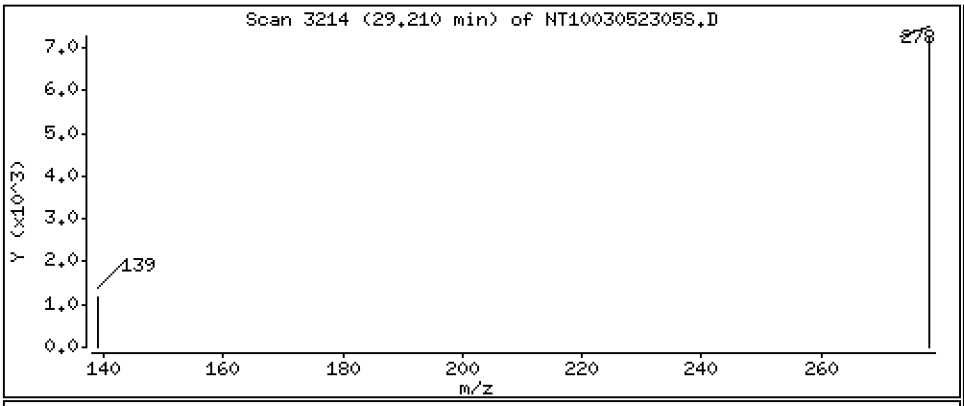
Operator: YZ

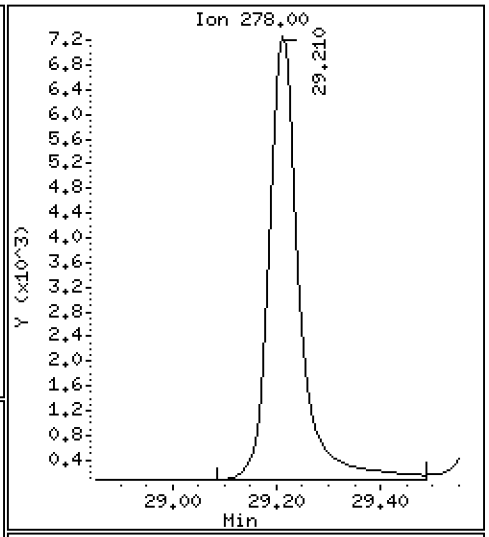
Column phase: ZB-5msi

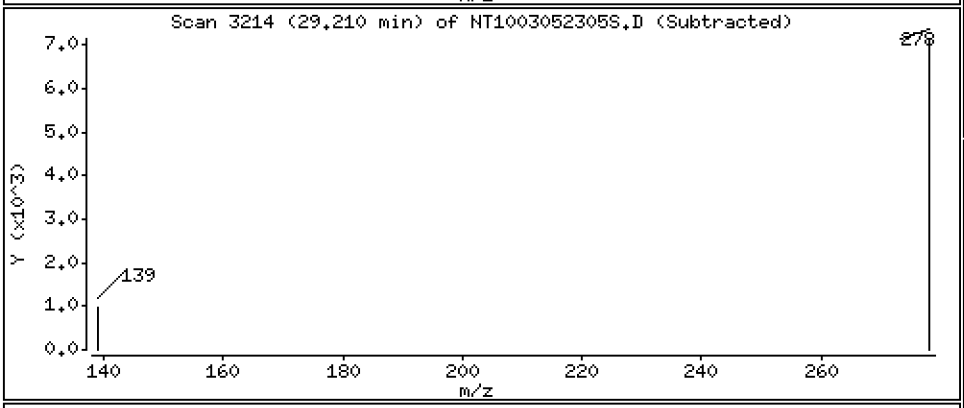
Column diameter: 0.25

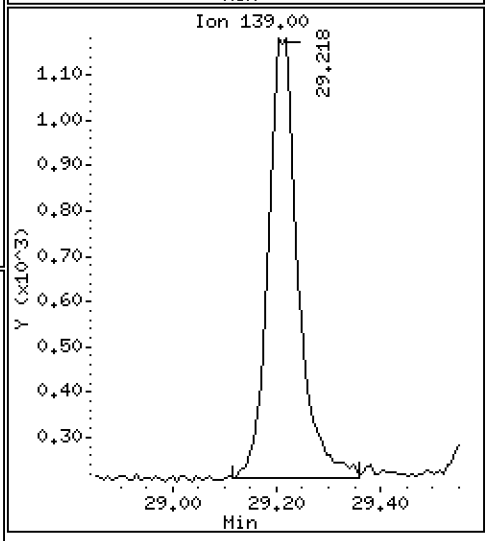
79 Dibenzo(a,h)anthracene

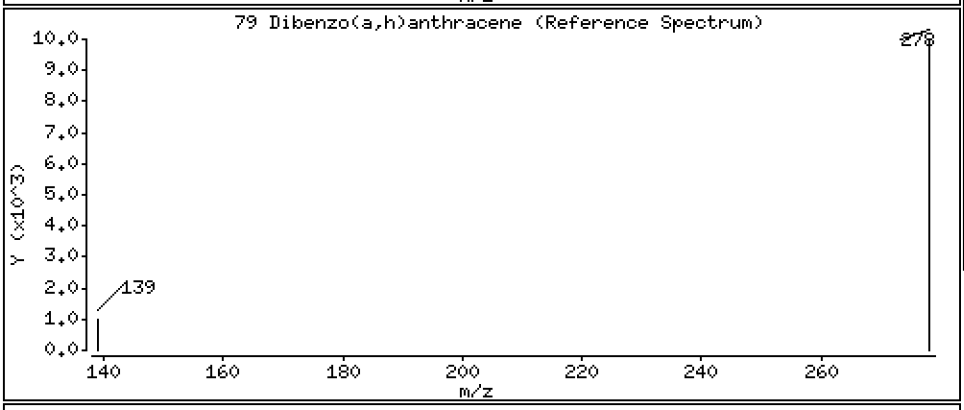
Concentration: 0.1178 ug/mL

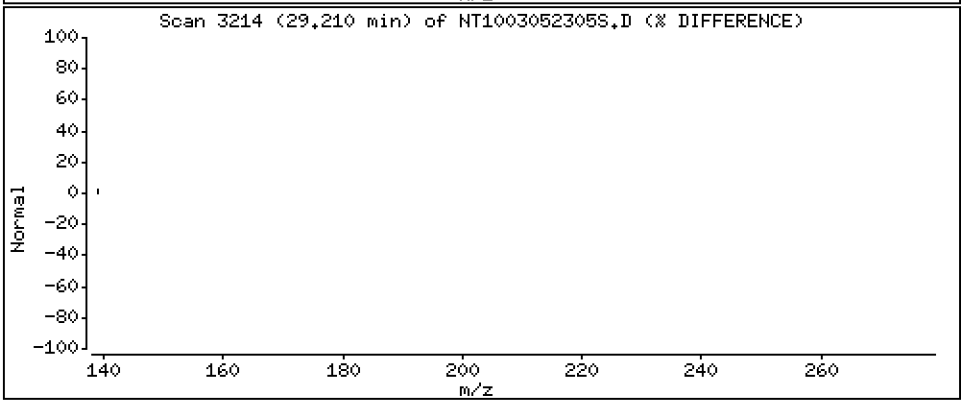












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523055.D

Date : 05-MAR-2023 15:56

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV1

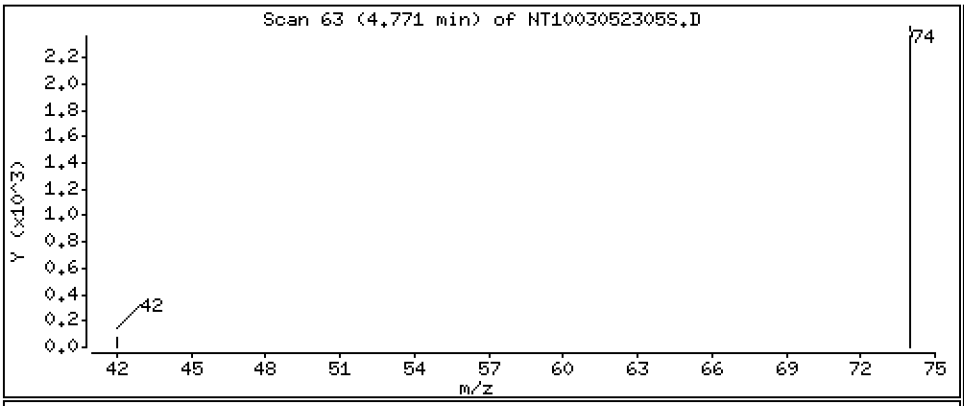
Operator: YZ

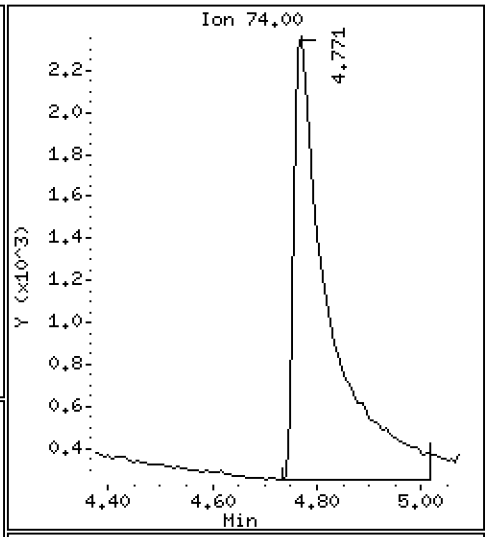
Column phase: ZB-5msi

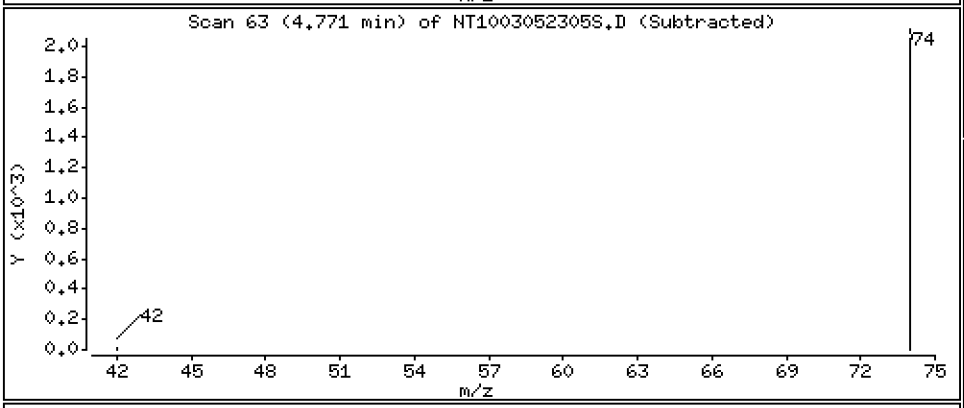
Column diameter: 0.25

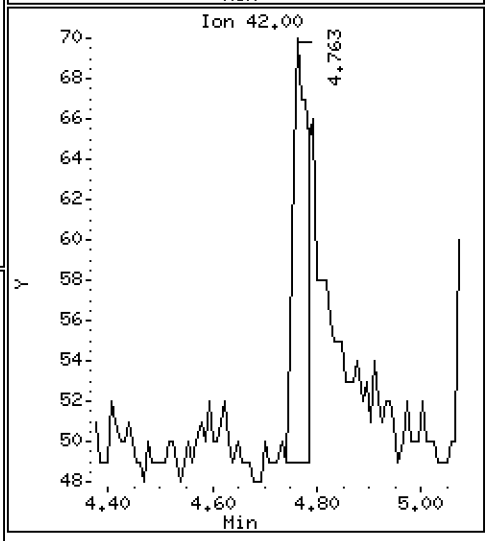
90 N-Nitrosodimethylamine

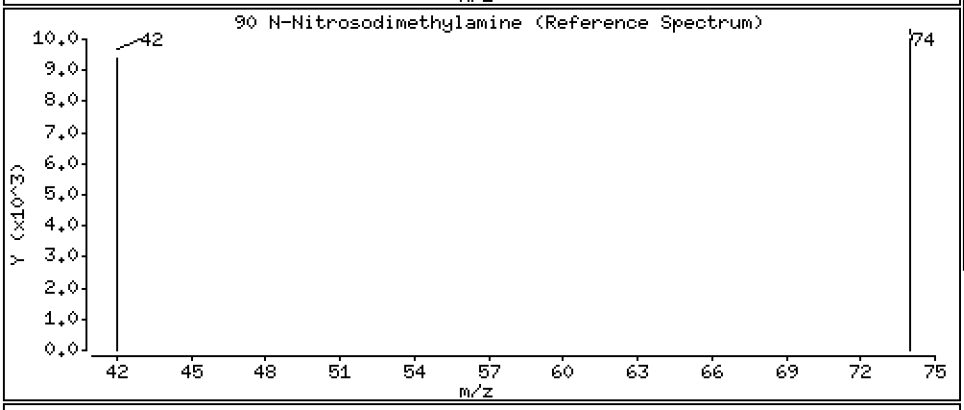
Concentration: 0.1961 ug/mL

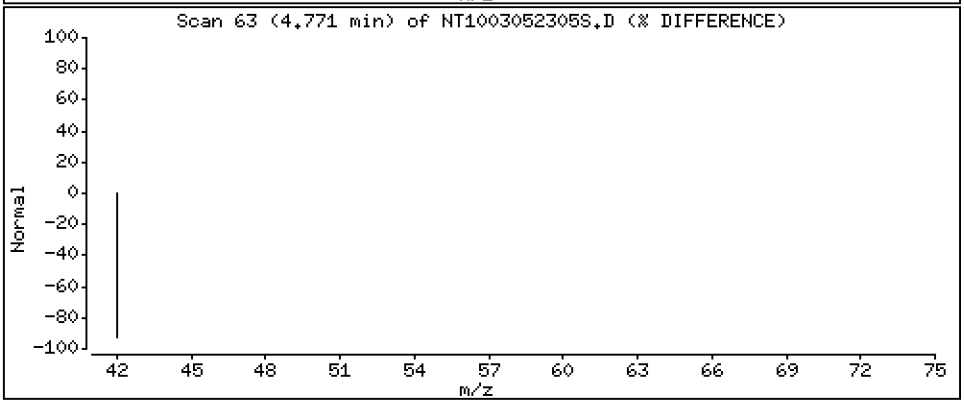












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052305S.D
Lab Smp Id: SLC0435-LCV1
Inj Date : 05-MAR-2023 15:56
Operator : YZ Inst ID: nt10.i
Smp Info : SLC0435-LCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:00 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.910	6.902	(0.748)	9625	0.11152	0.1115(R)
	3 Phenol	94	8.540	8.533	(0.924)	5449	0.04280	0.04280
	7 1,3-Dichlorobenzene	146	9.135	9.136	(0.988)	11136	0.09939	0.09939
*	8 1,4-Dichlorobenzene-d4	152	9.244	9.244	(1.000)	302311	4.00000	
	9 1,4-Dichlorobenzene	146	9.275	9.275	(1.003)	10801	0.09915	0.09915
	11 Benzyl alcohol	79	9.492	9.485	(1.027)	3245	0.04597	0.04597(M)
	12 1,2-Dichlorobenzene	146	9.562	9.562	(1.034)	10748	0.10265	0.1027
	13 2-Methylphenol	108	9.671	9.663	(1.046)	7368	0.09622	0.09622
	15 4-Methylphenol	108	9.966	9.958	(1.078)	6842	0.08591	0.08591
	16 N-Nitroso-di-n-propylamine	70	9.981	9.982	(1.080)	5393	0.09512	0.09512
	22 2,4-Dimethylphenol	107	11.014	11.015	(0.939)	16704	0.17858	0.1786
	24 Benzoic acid	105	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	11.608	11.608	(0.989)	9325	0.11756	0.1176
*	27 Naphthalene-d8	136	11.731	11.731	(1.000)	1102062	4.00000	
	30 Hexachlorobutadiene	225	11.994	12.002	(1.022)	6324	0.11235	0.1123
	39 Dimethylphthalate	163	14.764	14.765	(0.963)	14206	0.08286	0.08286
*	42 Acenaphthene-d10	162	15.337	15.337	(1.000)	539935	4.00000	
	50 Diethylphthalate	149	16.234	16.234	(1.058)	13596	0.08409	0.08409(H)
	54 N-Nitrosodiphenylamine	169	16.729	16.729	(0.907)	11819	0.07128	0.07128
	57 Hexachlorobenzene	284	17.617	17.617	(0.955)	7336	0.09455	0.09455
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.453	18.453	(1.000)	1024492	4.00000	
$	66 Terphenyl-d14	244	21.602	21.602	(0.918)	11841	0.16069	0.1607(R)
	67 Butylbenzylphthalate	149	22.500	22.492	(0.957)	8795	0.05717	0.05717
*	69 Chrysene-d12	240	23.522	23.514	(1.000)	911208	4.00000	
*	77 Perylene-d12	264	26.286	26.286	(1.000)	1065211	4.00000	
	79 Dibenzo(a,h)anthracene	278	29.209	29.202	(1.111)	29092	0.11776	0.1178
	90 N-Nitrosodimethylamine	74	4.771	4.724	(0.516)	10019	0.19607	0.1961

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052305S.D
Lab Smp Id: SLC0435-LCV1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:40
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	321376	160688	642752	302311	-5.93
27 Naphthalene-d8	1132931	566466	2265862	1102062	-2.72
42 Acenaphthene-d10	561597	280799	1123194	539935	-3.86
59 Phenanthrene-d10	1068222	534111	2136444	1024492	-4.09
69 Chrysene-d12	997572	498786	1995144	911208	-8.66
77 Perylene-d12	1245490	622745	2490980	1065211	-14.47

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.24	-0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.00
42 Acenaphthene-d10	15.34	14.84	15.84	15.34	-0.00
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	-0.00
69 Chrysene-d12	23.51	23.01	24.01	23.52	0.03
77 Perylene-d12	26.29	25.79	26.79	26.29	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052305S.D

Lab ID: SLC0435-LCV1
nt10.i, 20230305.b\SIM.b\SIMABN2.m,   05-MAR-2023 15:56

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.516	0.511	0.0050	N-Nitrosodimethylamine

RRT check based on Ccal File: SIM.b/NT1003052303S.D

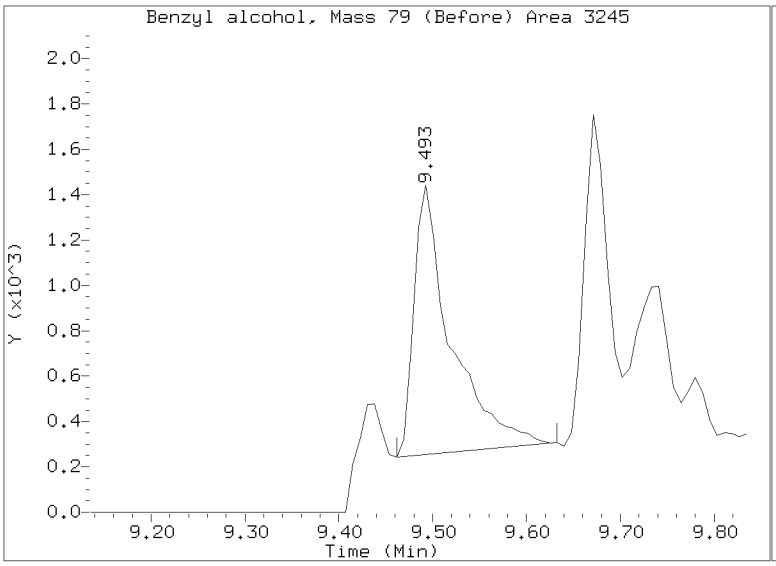
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

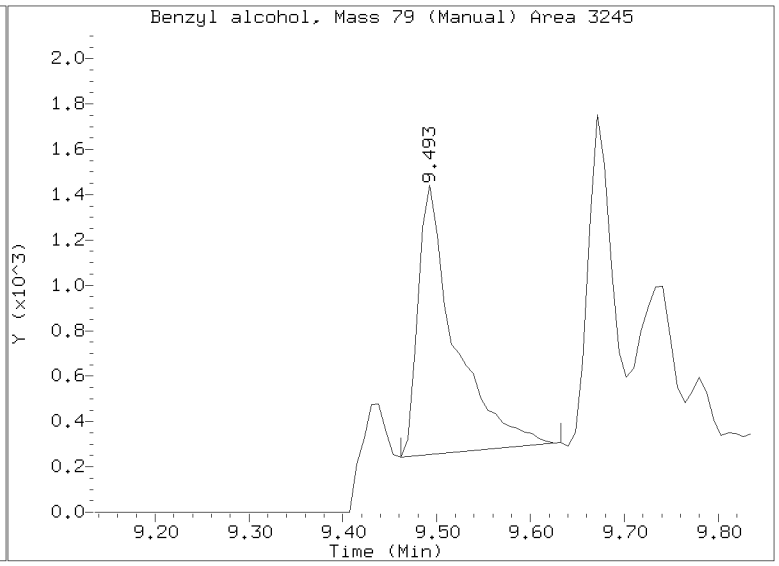
Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305.b/SIM.b/NT1003052305S.D
Injection Date: 05-MAR-2023 15:56
Lab ID:SLC0435-LCV1 Client ID:
Report Date: 03/28/2023 11:00





APPROVED

By Deenay Dunmore at 12:02 pm, Mar 28, 2023

Analytical Resources, LLC
Analytical Chemists and Consultants

LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00032
Lab File ID:	NT1003052304S.D	Calibration Date:	03/01/2023
Sequence:	SLC0435	Injection Date:	03/05/23
Lab Sample ID:	SLC0435-LCV2	Injection Time:	15:18
Sequence Name:	ABN 0.2		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	0.20000	0.2	1.4413080	1.4143400		-1.9	
1,2-Dichlorobenzene	A	0.20000	0.2	1.3853460	1.4302170		3.2	
Benzyl Alcohol	A	0.20000	0.1	0.7492523	0.6145958		-34.3	
Benzoic acid	A	0.80000	0.02	0.1431163	0.0053539		-97.1	
2,4-Dimethylphenol	A	0.40000	0.4	0.2957717	0.3296730		-3.0	
1,2,4-Trichlorobenzene	A	0.20000	0.2	0.2879030	0.3384332		17.6	
N-Nitrosodiphenylamine	A	0.20000	0.2	0.6473471	0.5242603		-19.0	
Pentachlorophenol	A	0.40000	0.02	0.0950913	0.0058987		-95.6	
2-Fluorophenol	A	0.30000	0.246	1.1419780	0.9346170		-18.2	
p-Terphenyl-d14	A	0.20000	0.288	0.3234672	0.4656808		44.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT10030523045.D

Date : 05-MAR-2023 15:18

Client ID:

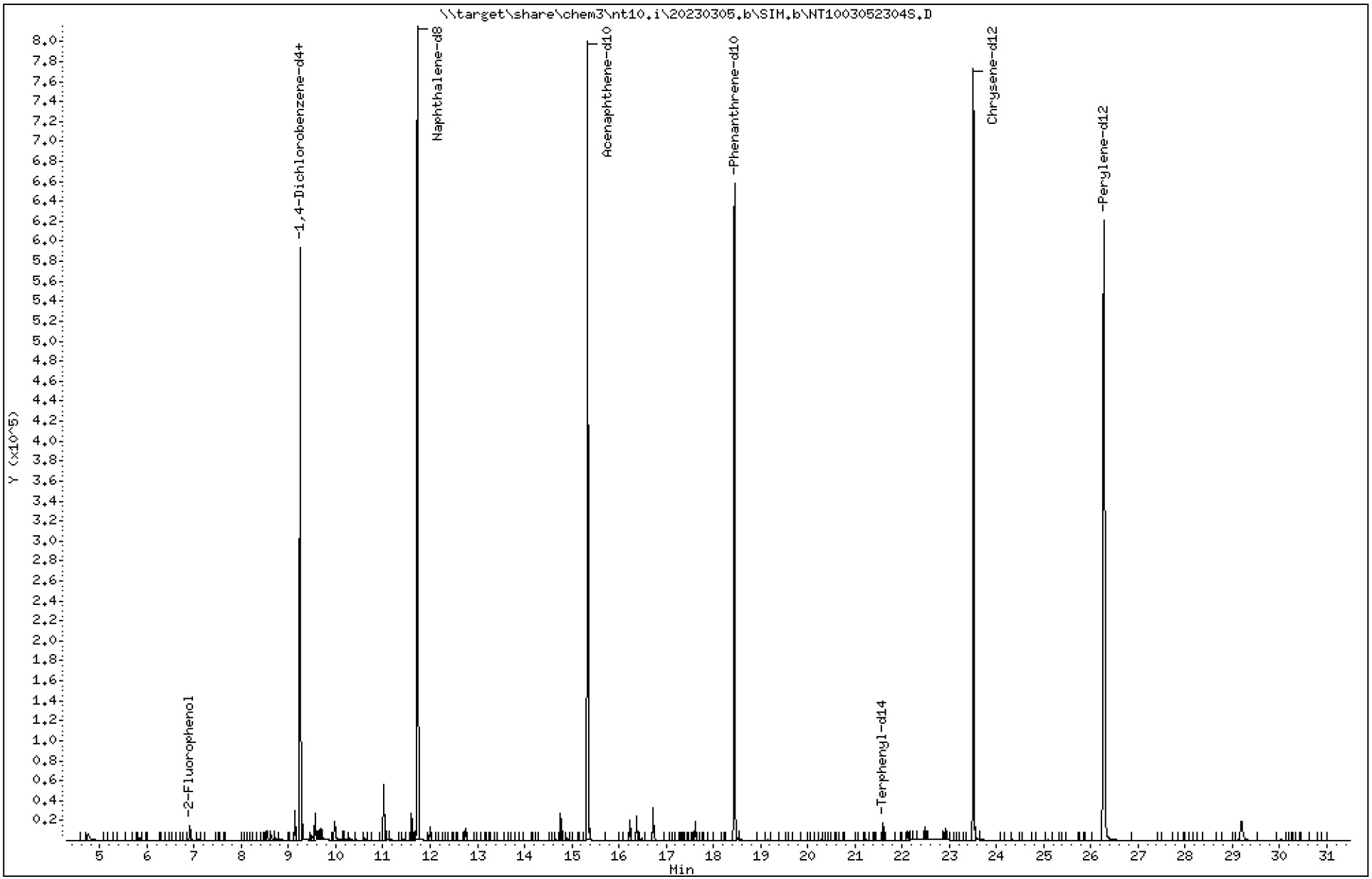
Instrument: nt10.i

Sample Info: SLC0435-LCV2

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

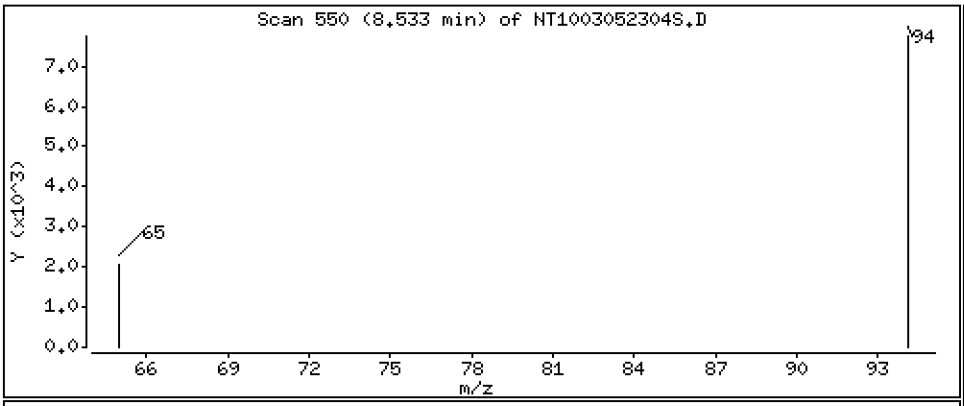
Operator: YZ

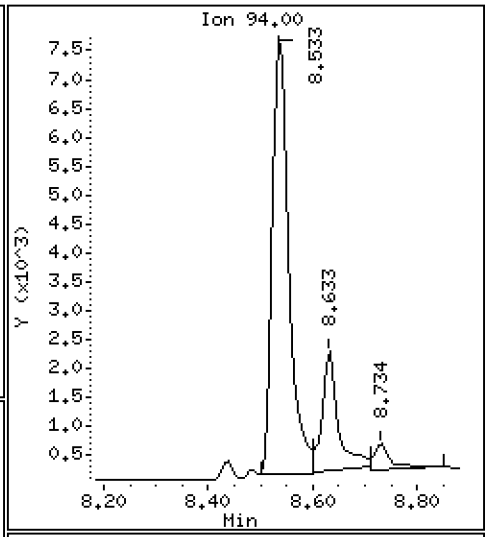
Column phase: ZB-5msi

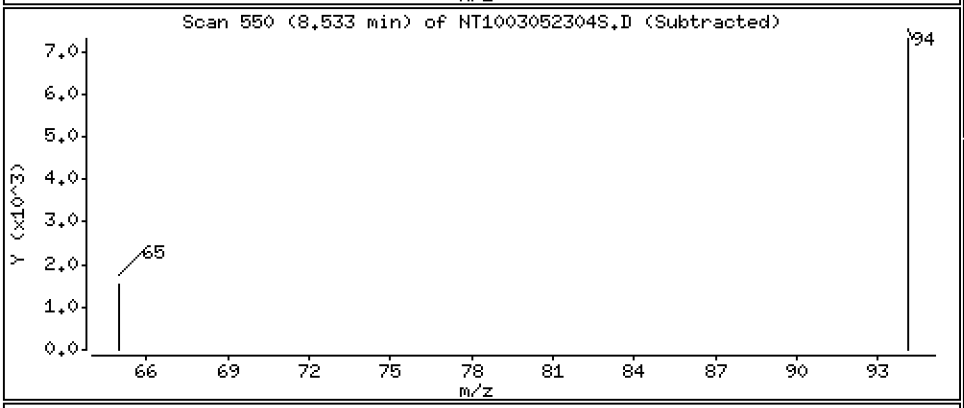
Column diameter: 0.25

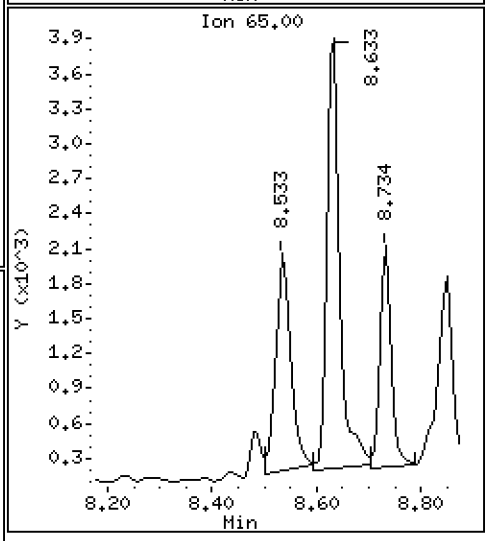
3 Phenol

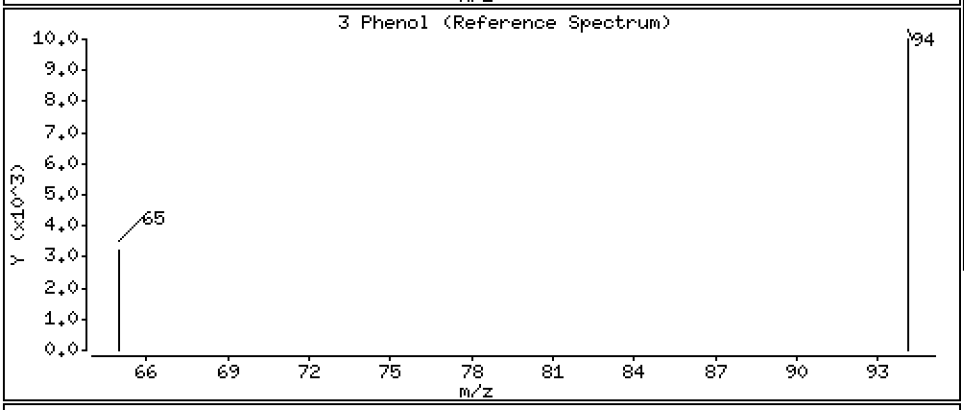
Concentration: 0.1151 ug/mL

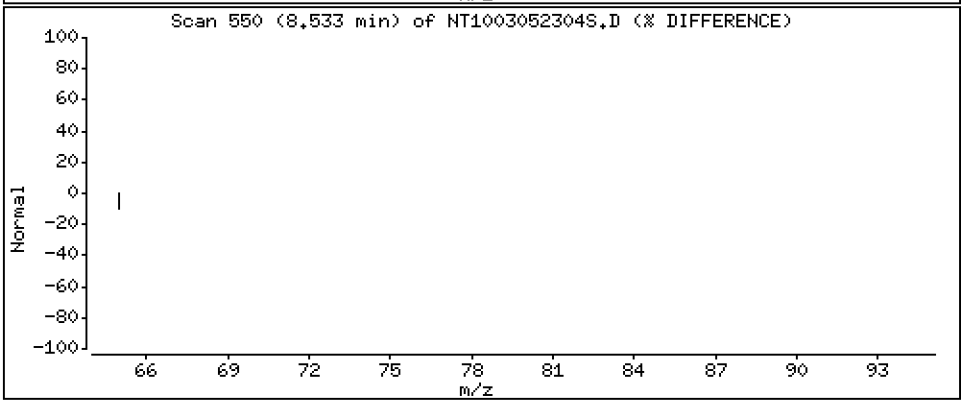












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

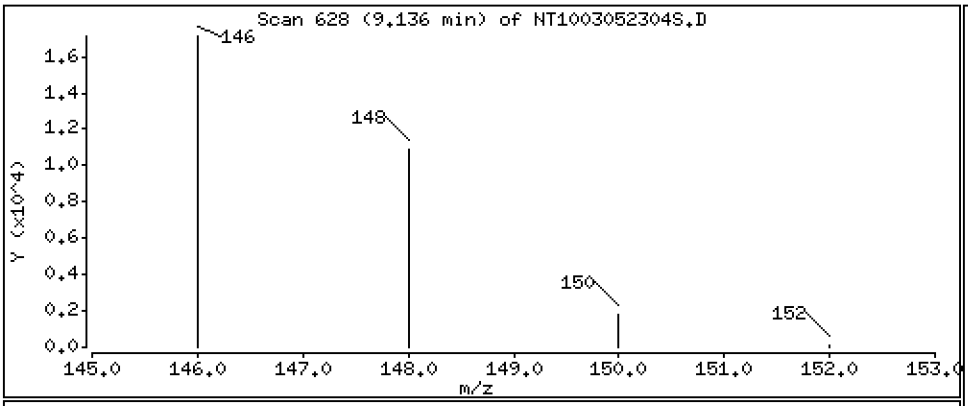
Operator: YZ

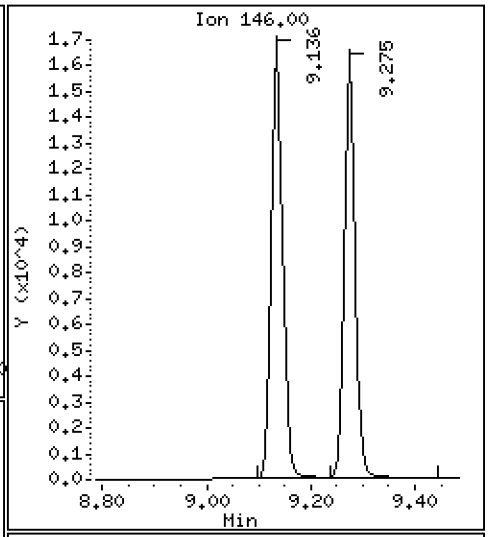
Column phase: ZB-5msi

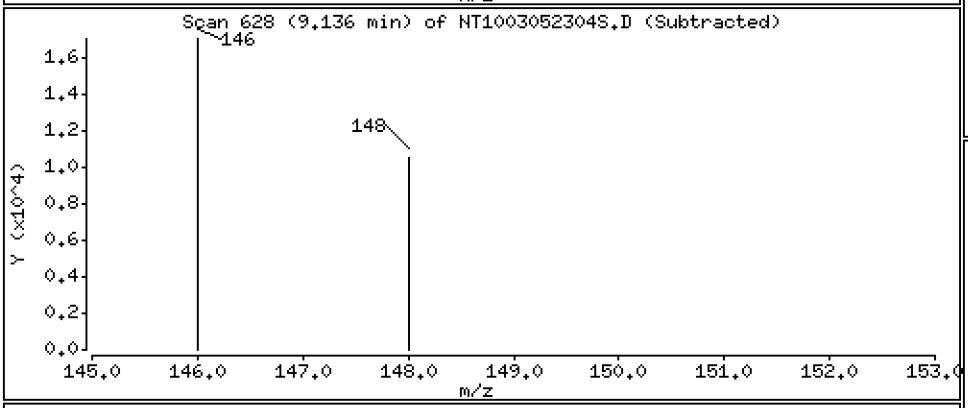
Column diameter: 0.25

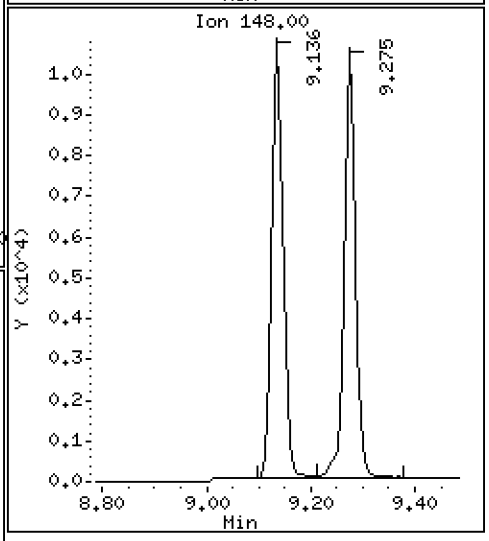
7 1,3-Dichlorobenzene

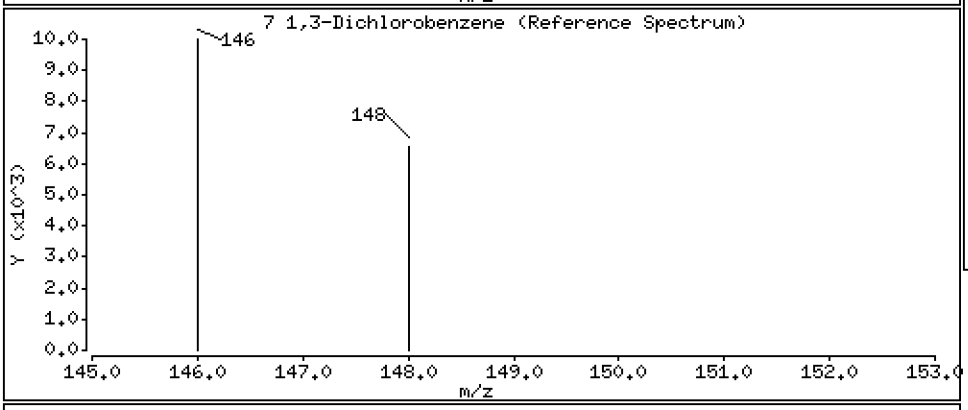
Concentration: 0.2009 ug/mL

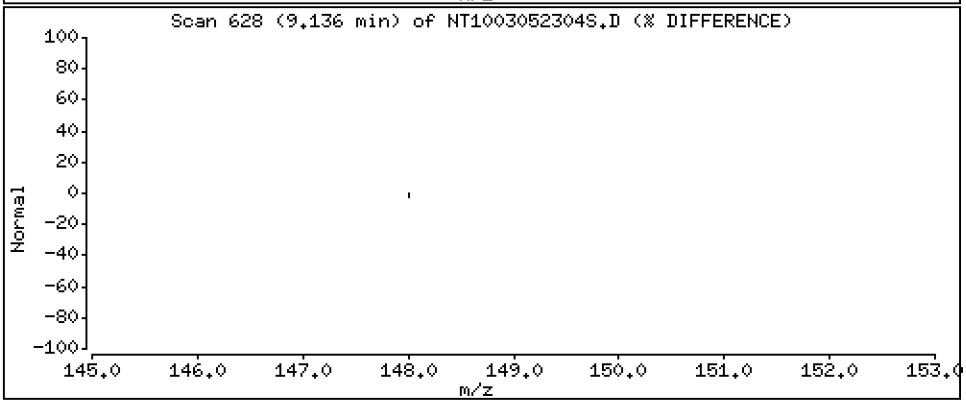












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

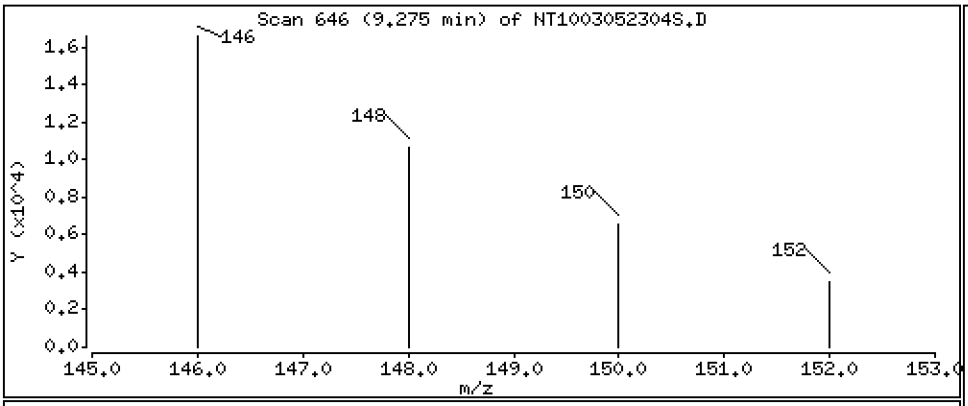
Operator: YZ

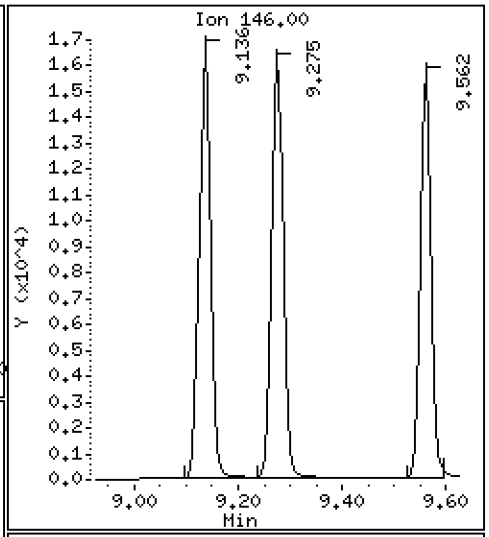
Column phase: ZB-5msi

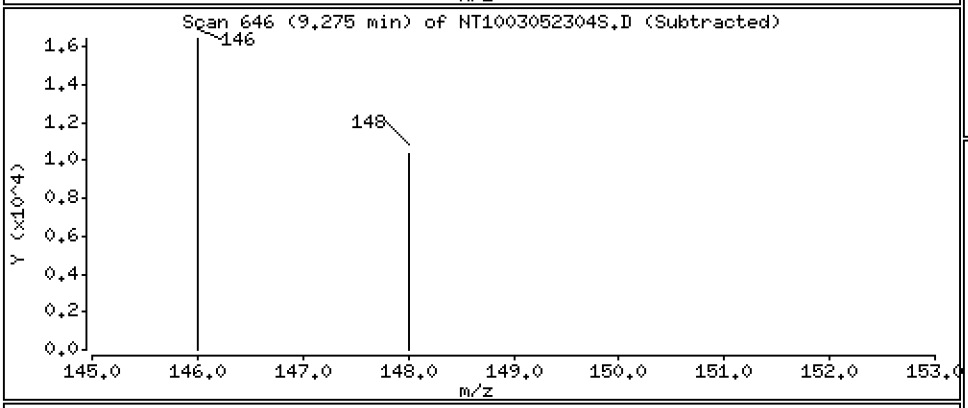
Column diameter: 0.25

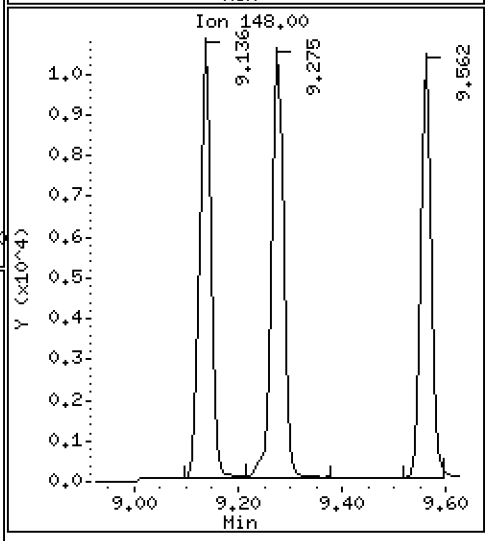
9 1,4-Dichlorobenzene

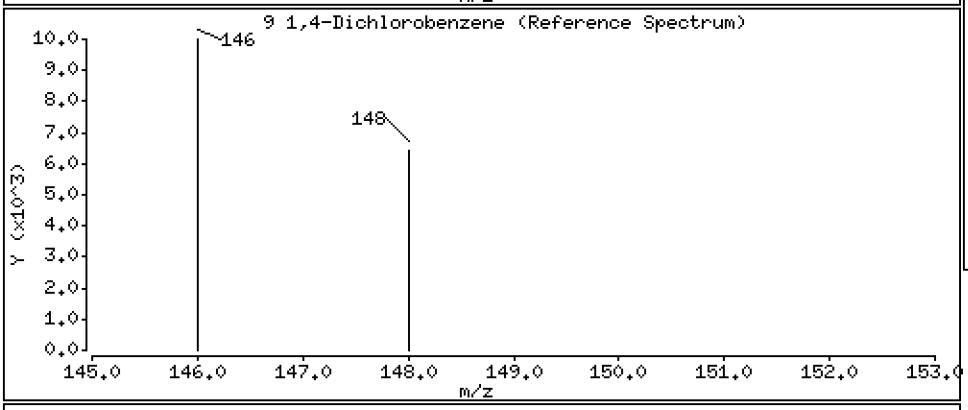
Concentration: 0.1963 ug/mL

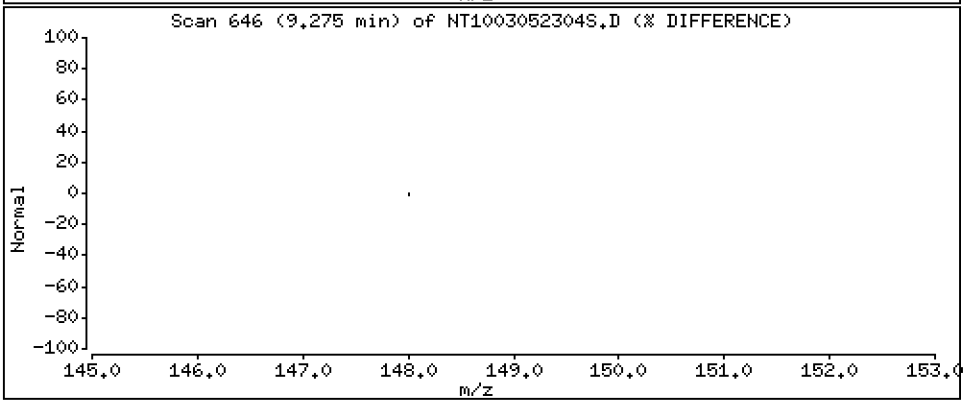












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052304S.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

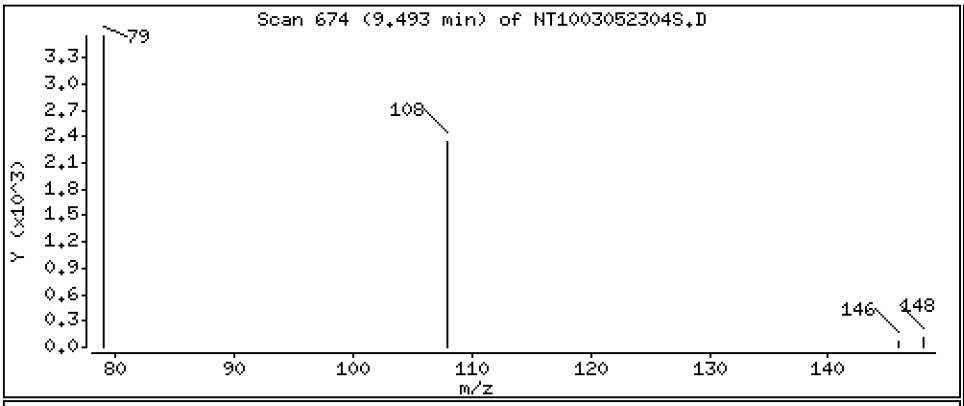
Operator: YZ

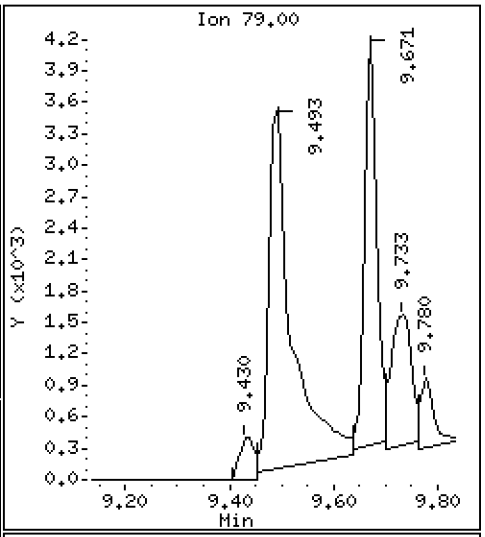
Column phase: ZB-5msi

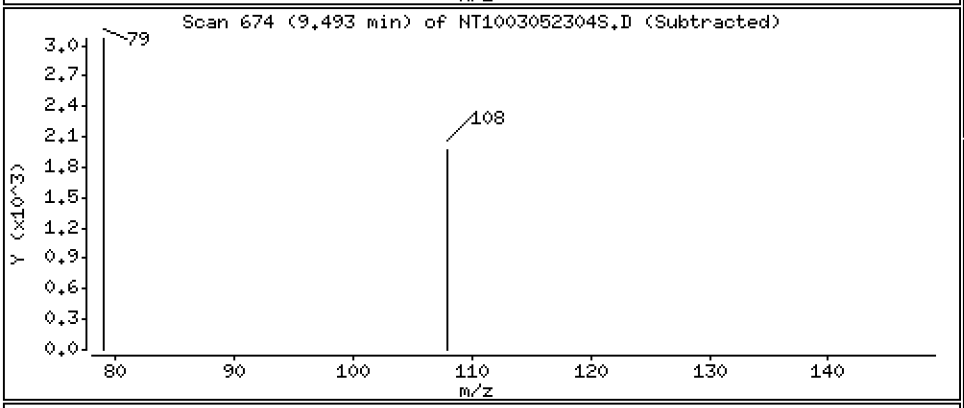
Column diameter: 0.25

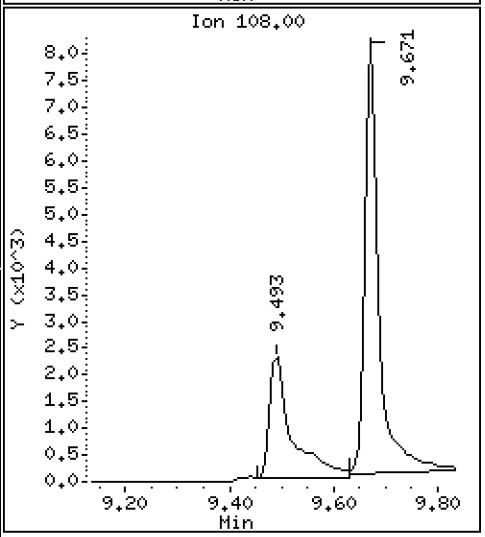
11 Benzyl alcohol

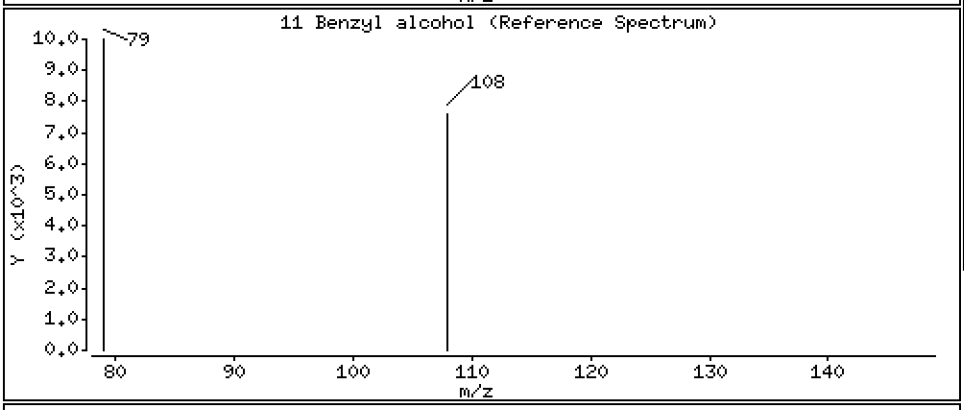
Concentration: 0.1315 ug/mL

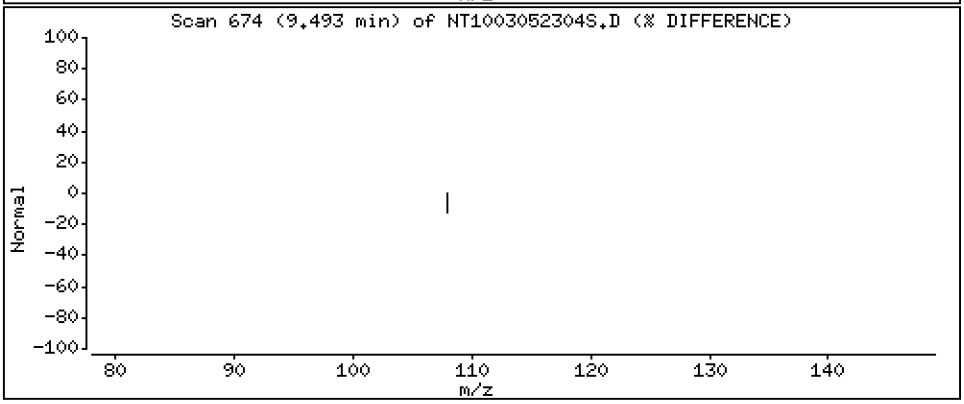












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

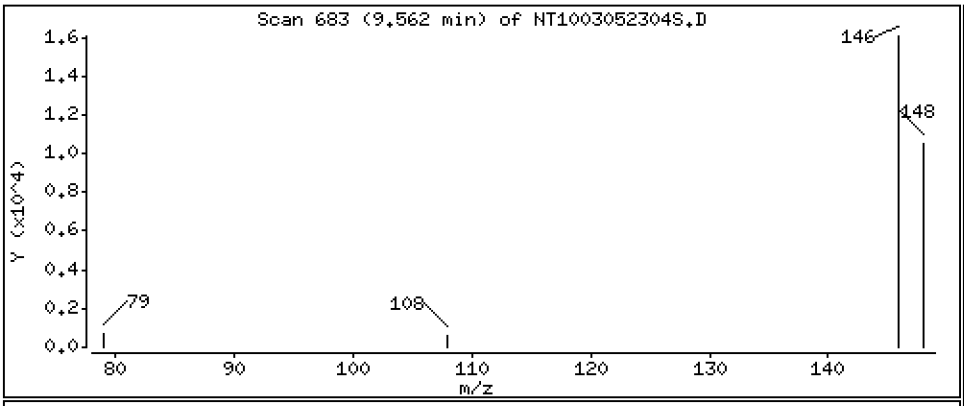
Operator: YZ

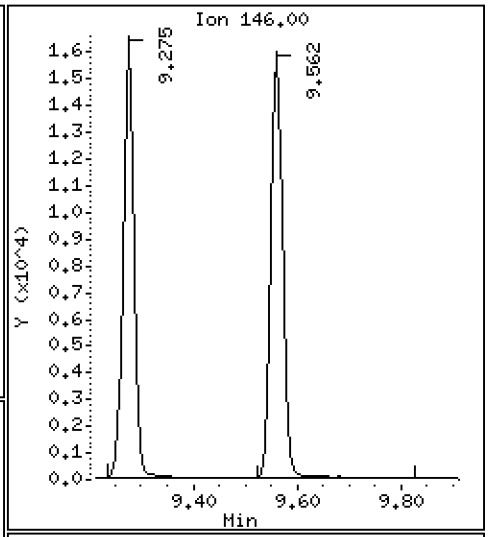
Column phase: ZB-5msi

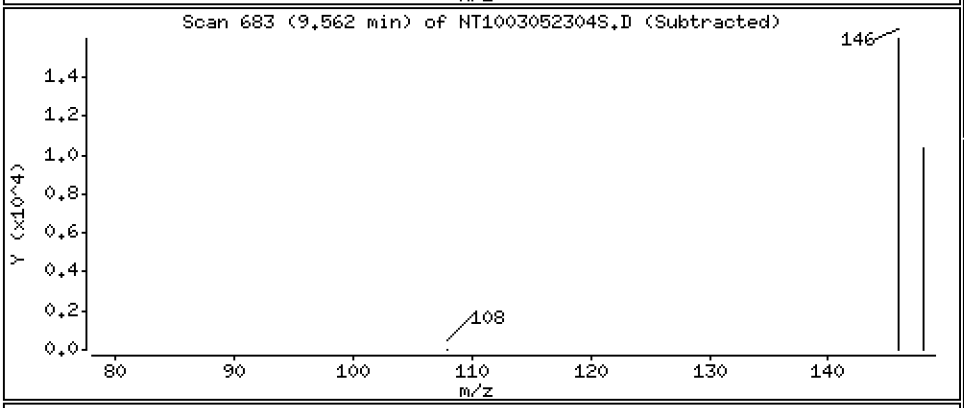
Column diameter: 0.25

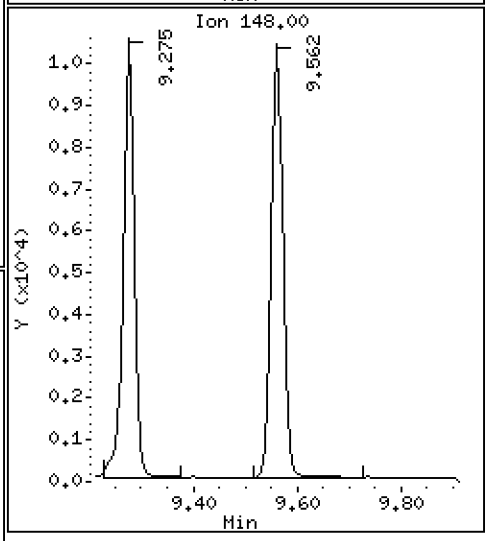
12 1,2-Dichlorobenzene

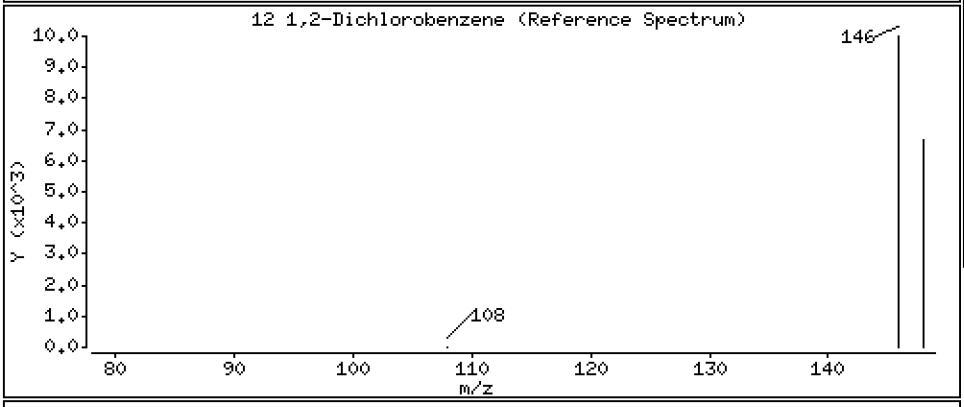
Concentration: 0.2065 ug/mL

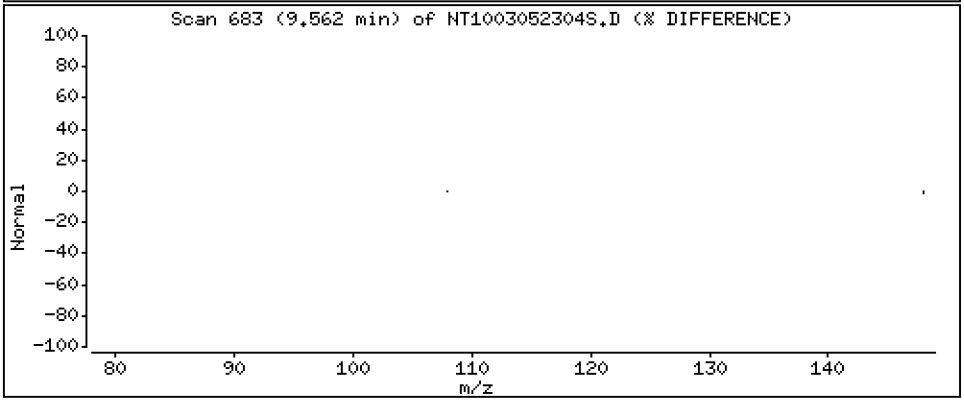












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

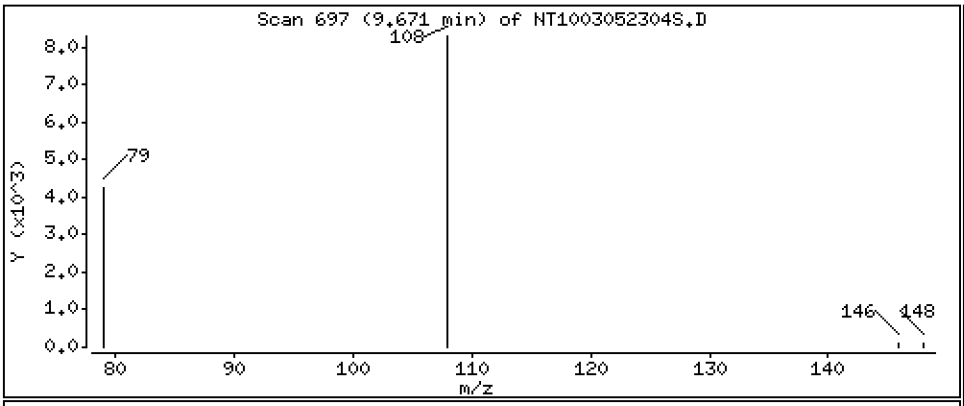
Operator: YZ

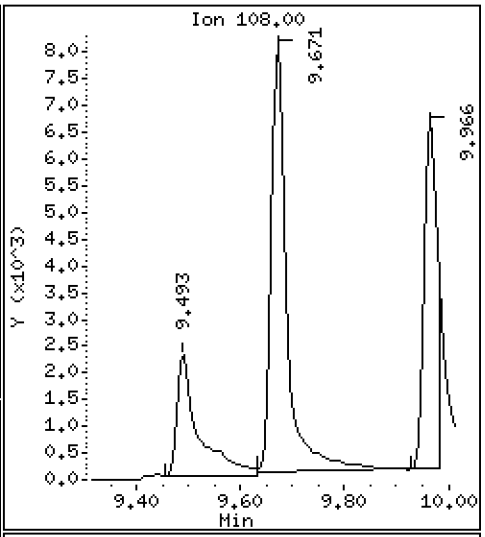
Column phase: ZB-5msi

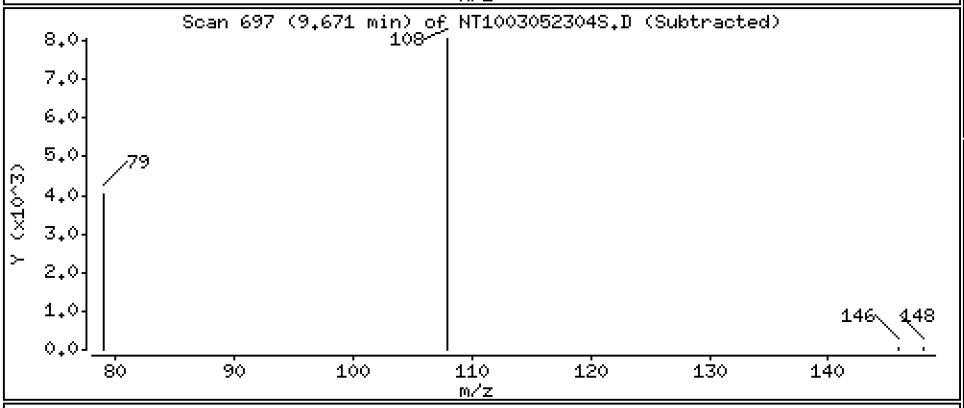
Column diameter: 0.25

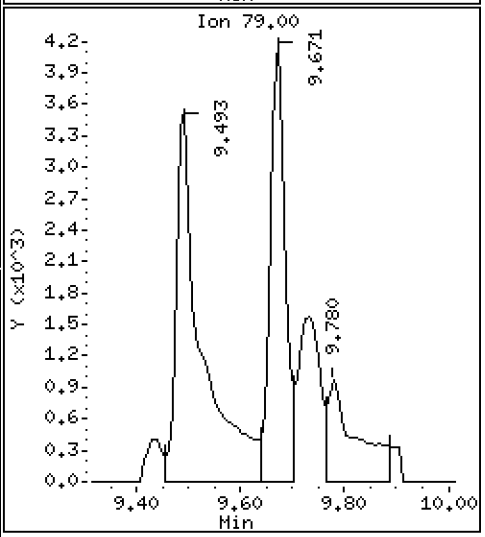
13 2-Methylphenol

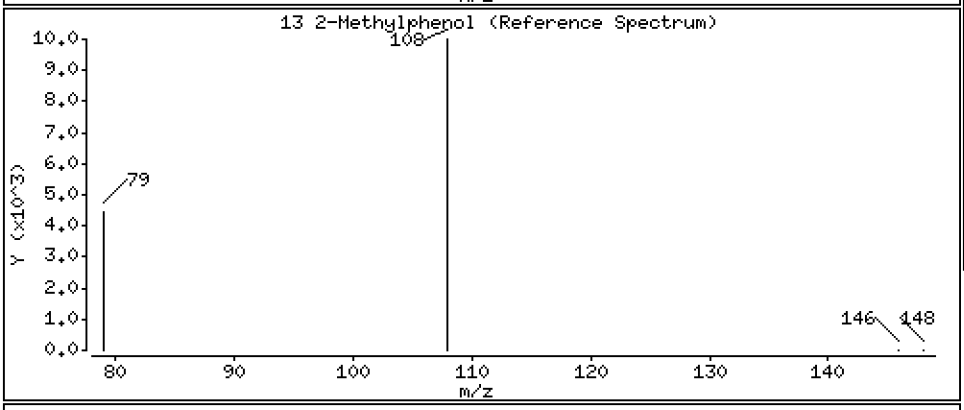
Concentration: 0.1910 ug/mL

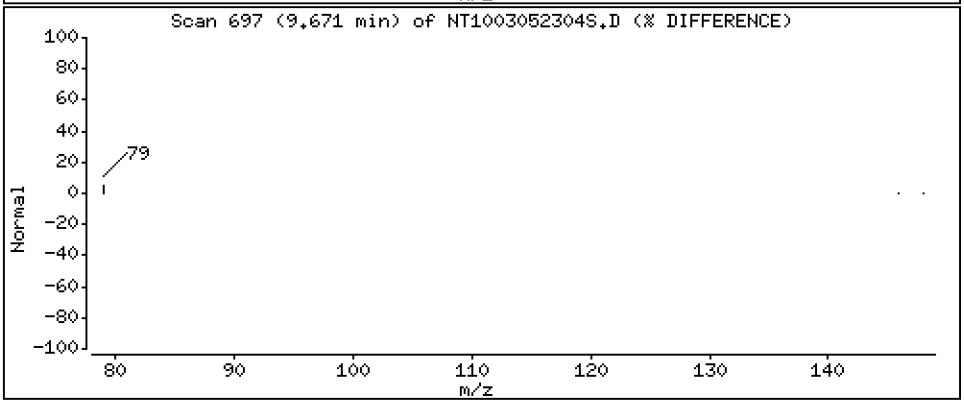












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

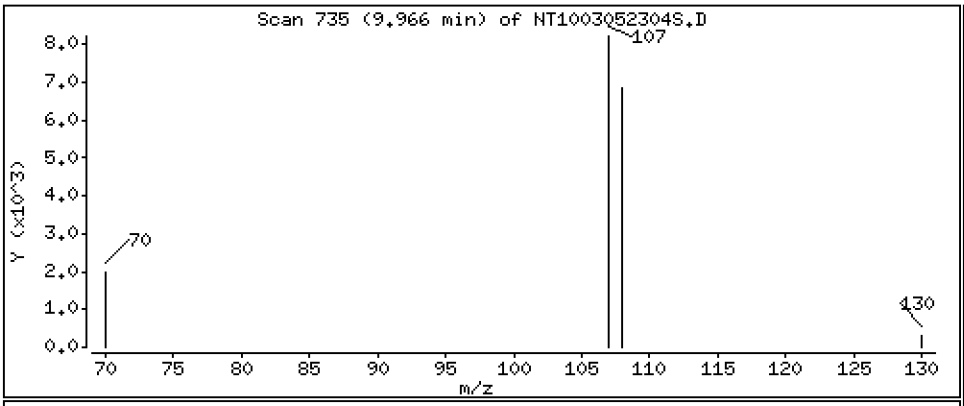
Operator: YZ

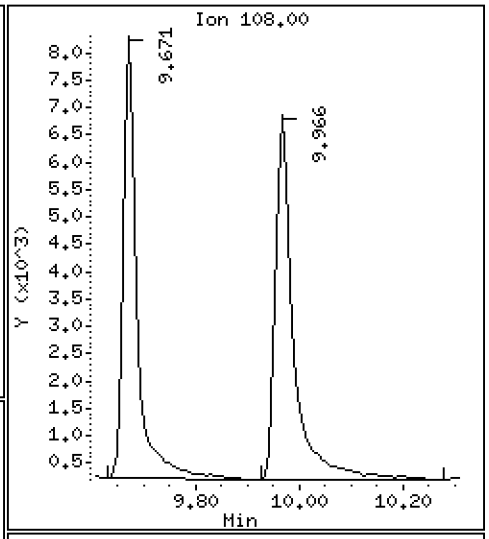
Column phase: ZB-5msi

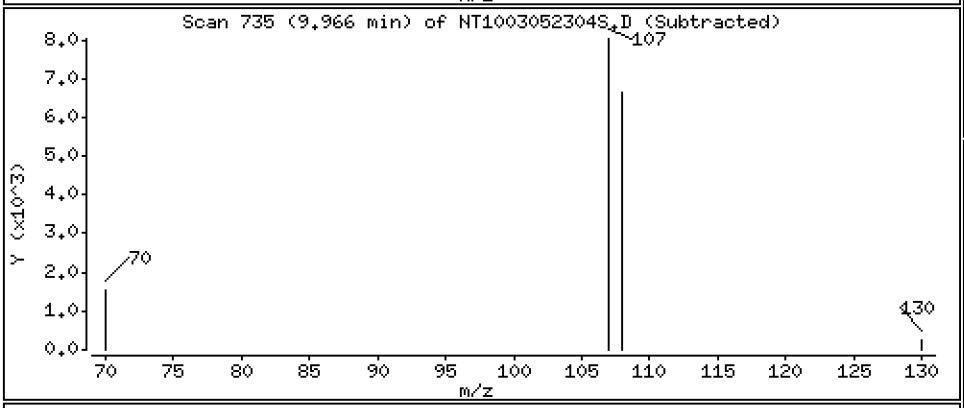
Column diameter: 0.25

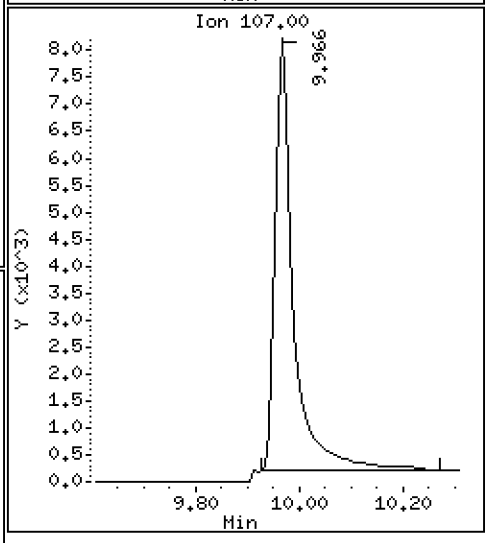
15 4-Methylphenol

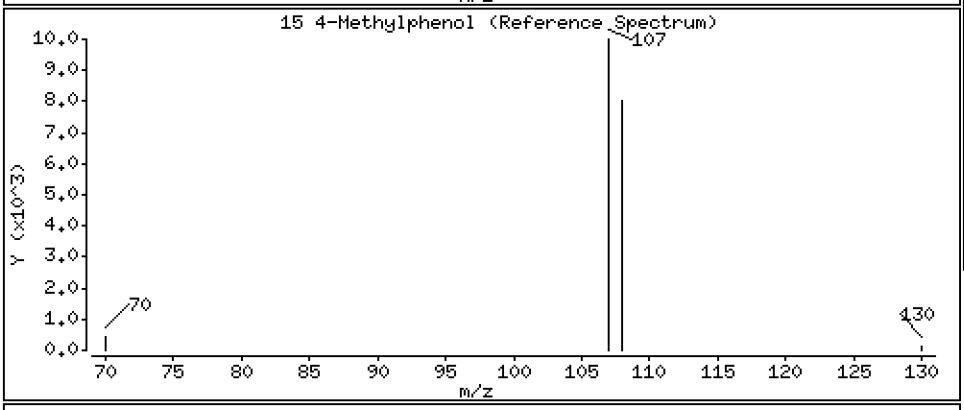
Concentration: 0.1807 ug/mL

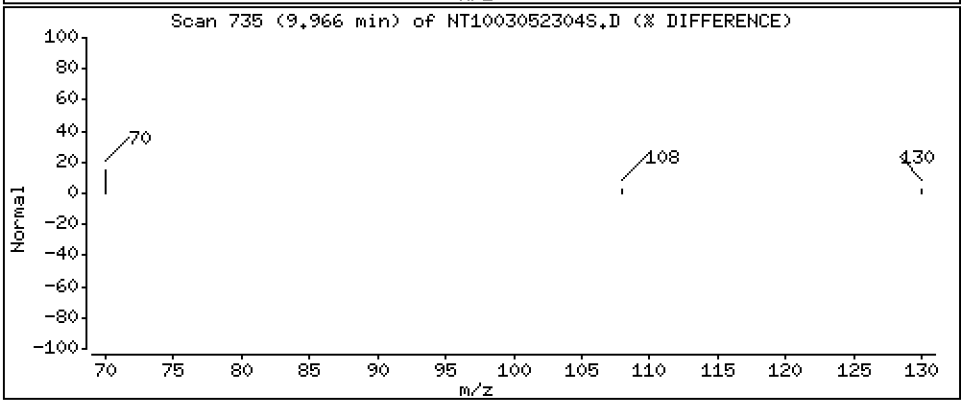












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

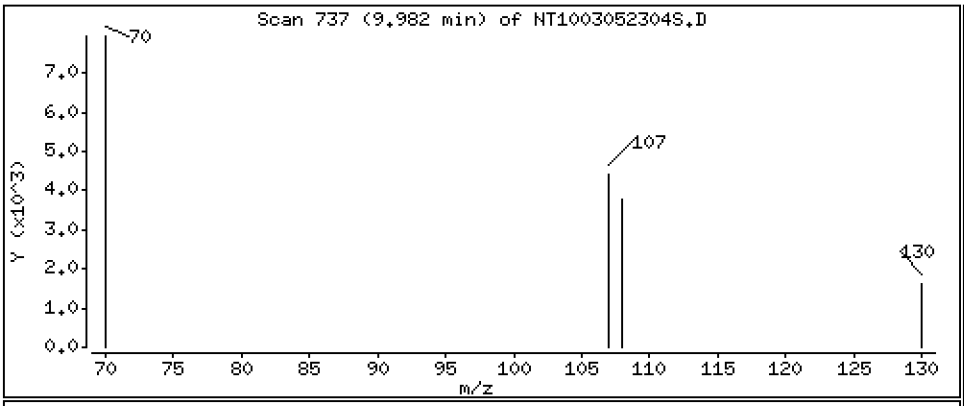
Operator: YZ

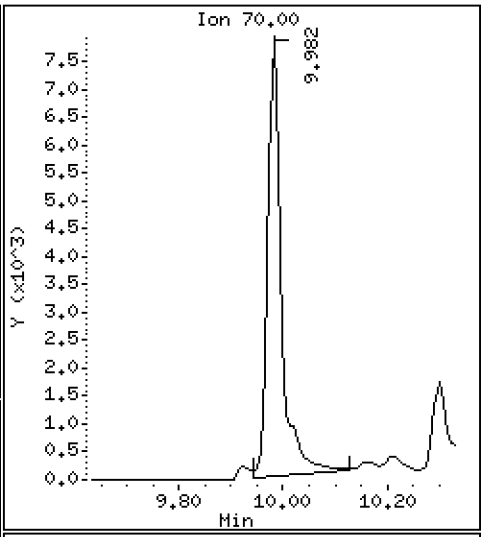
Column phase: ZB-5msi

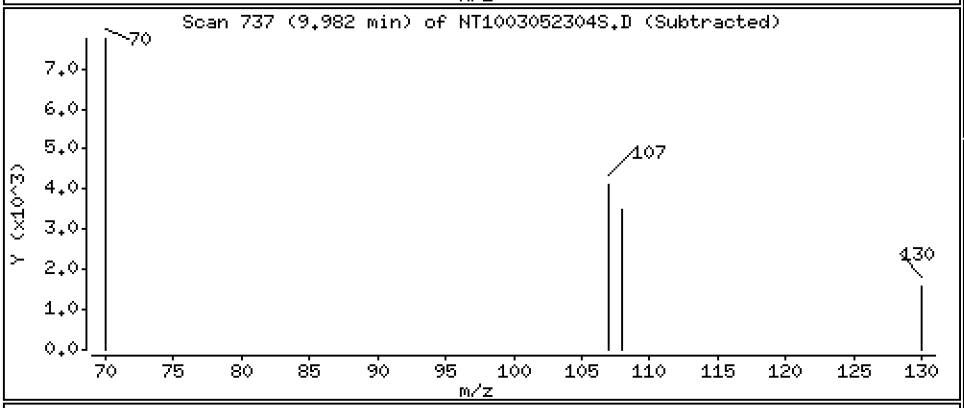
Column diameter: 0.25

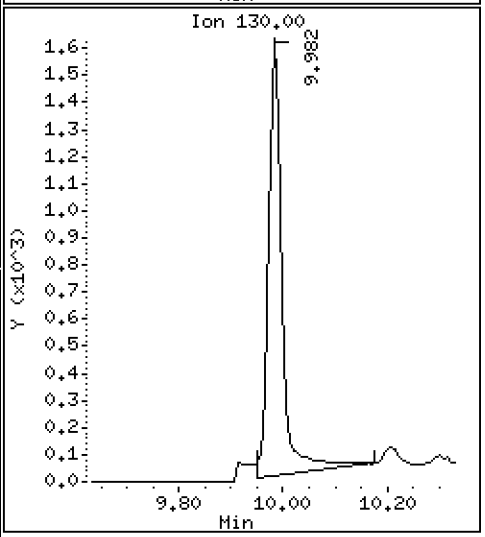
16 N-Nitroso-di-n-propylamine

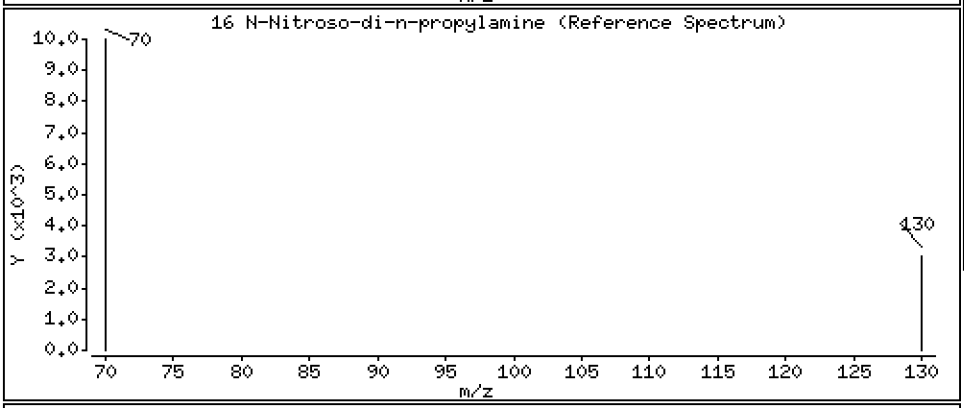
Concentration: 0.2174 ug/mL

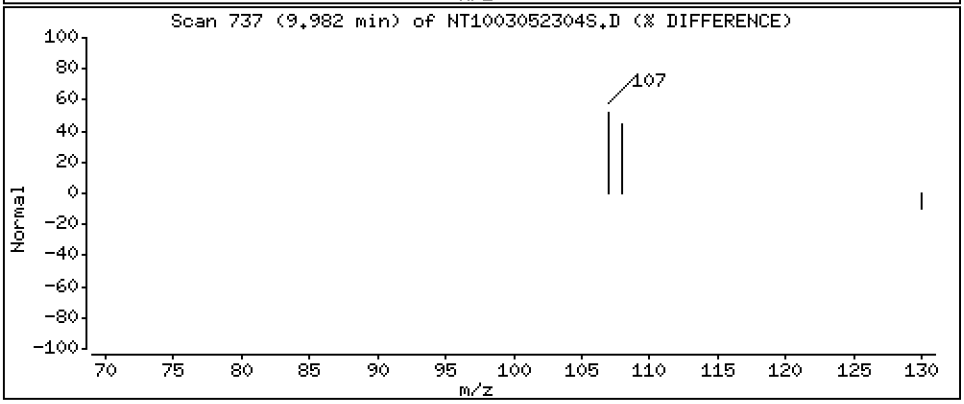












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

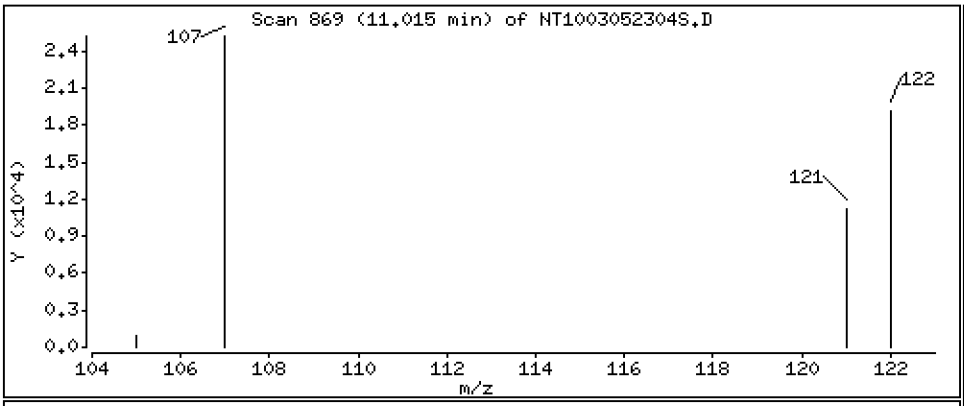
Operator: YZ

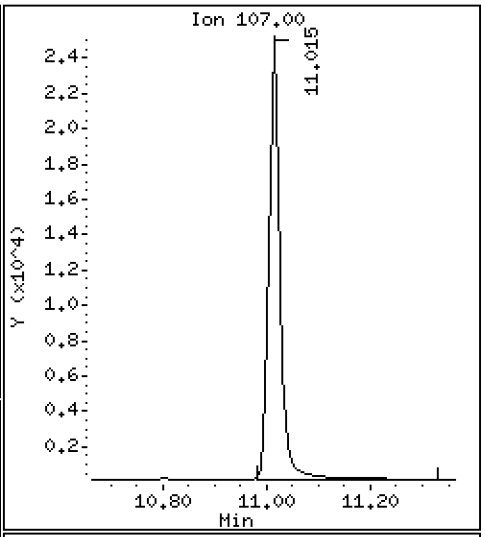
Column phase: ZB-5msi

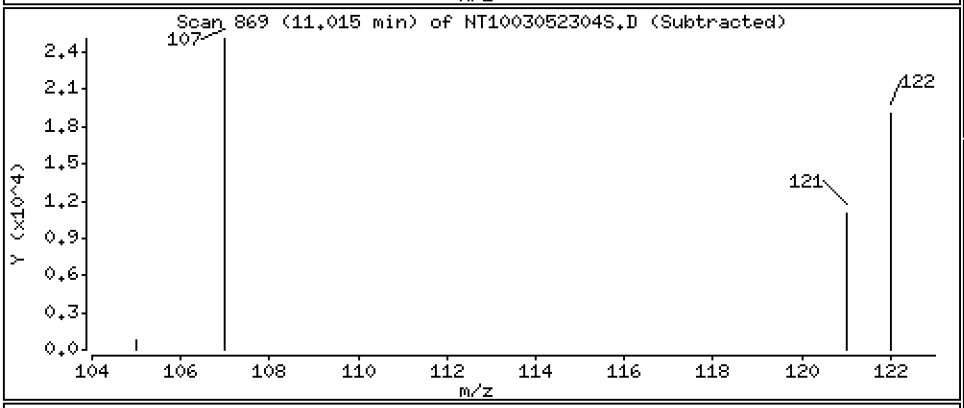
Column diameter: 0.25

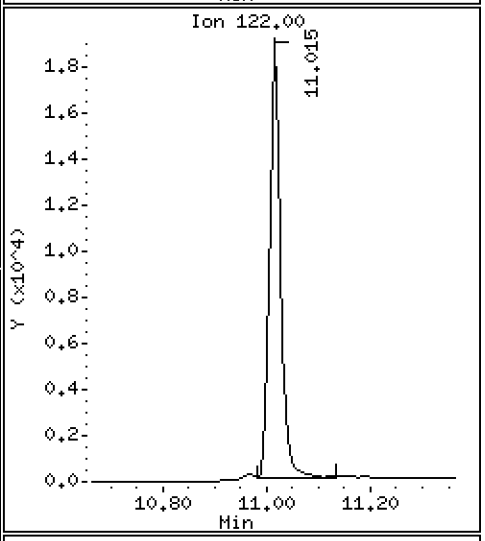
22 2,4-Dimethylphenol

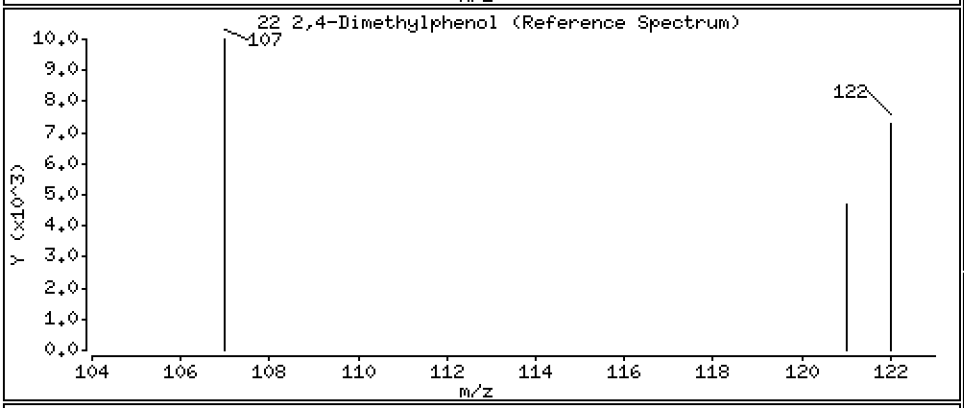
Concentration: 0.3882 ug/mL

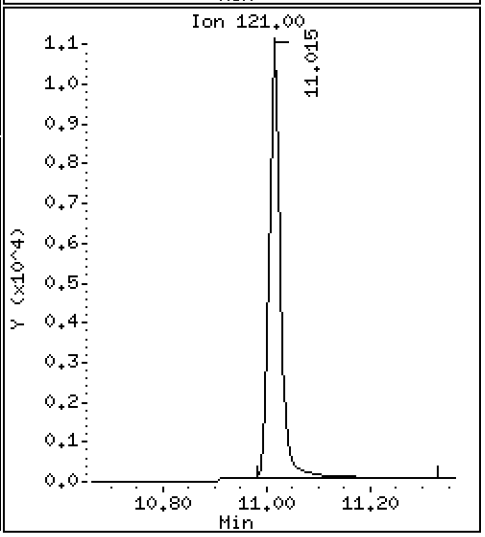


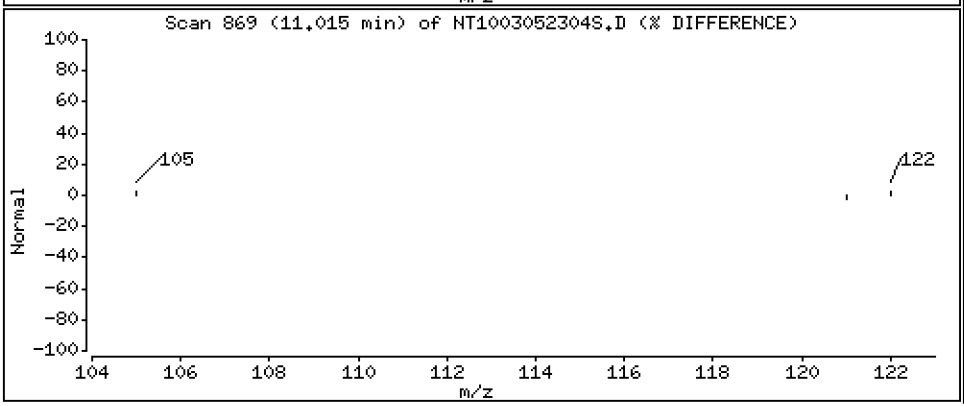












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

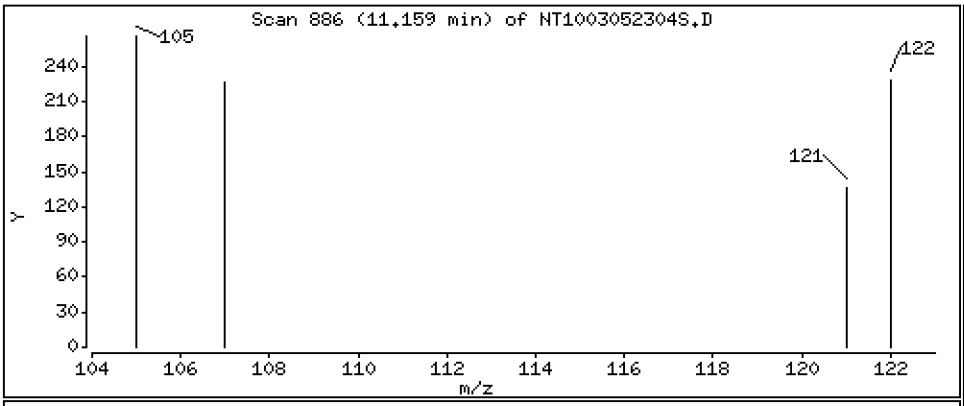
Operator: YZ

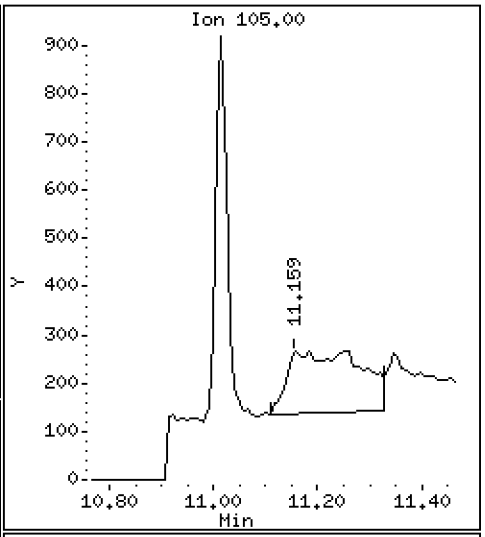
Column phase: ZB-5msi

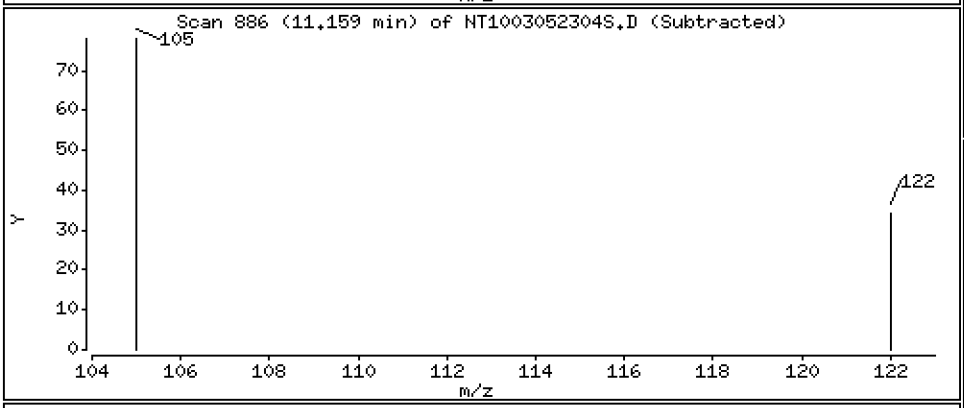
Column diameter: 0.25

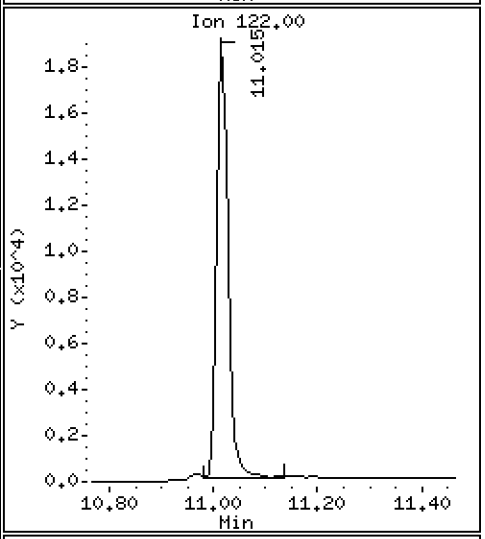
24 Benzoic acid

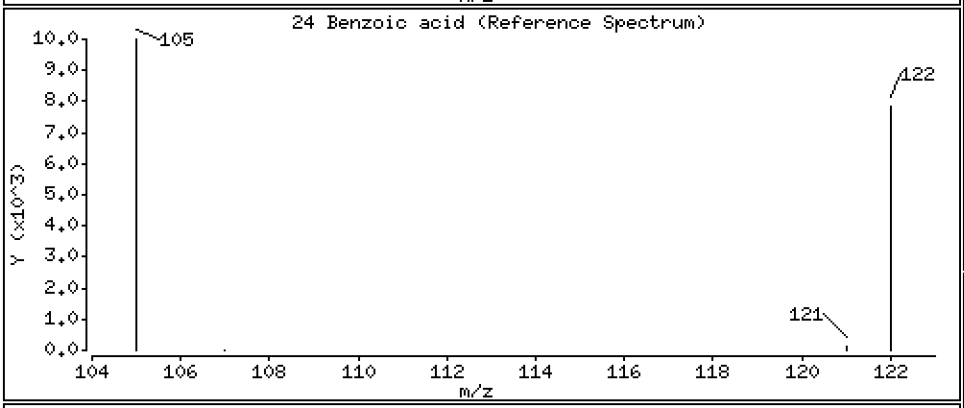
Concentration: 0.02302 ug/mL

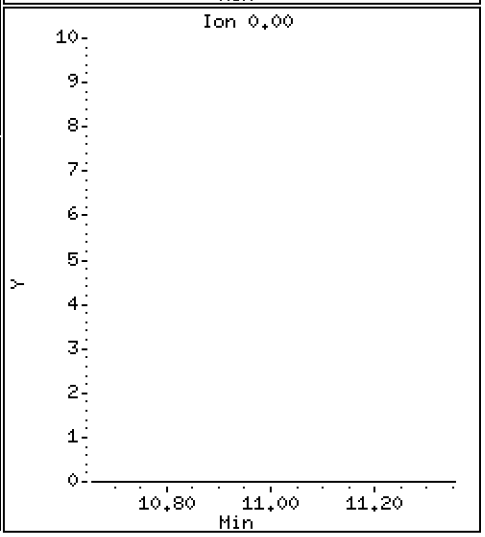


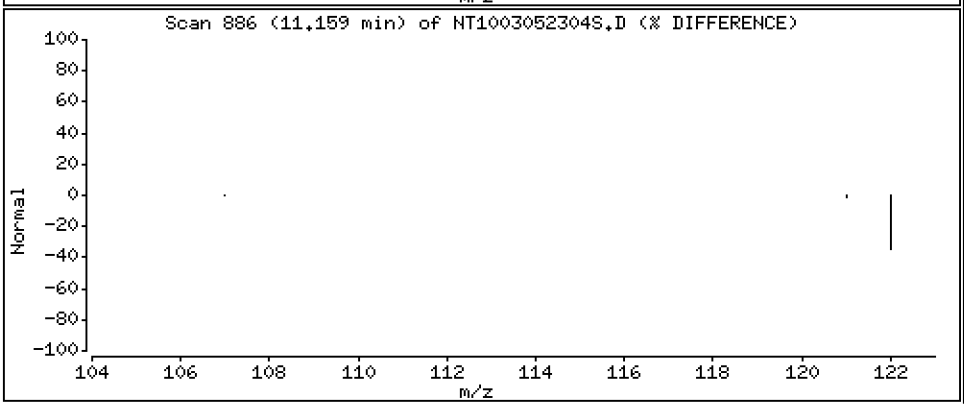












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

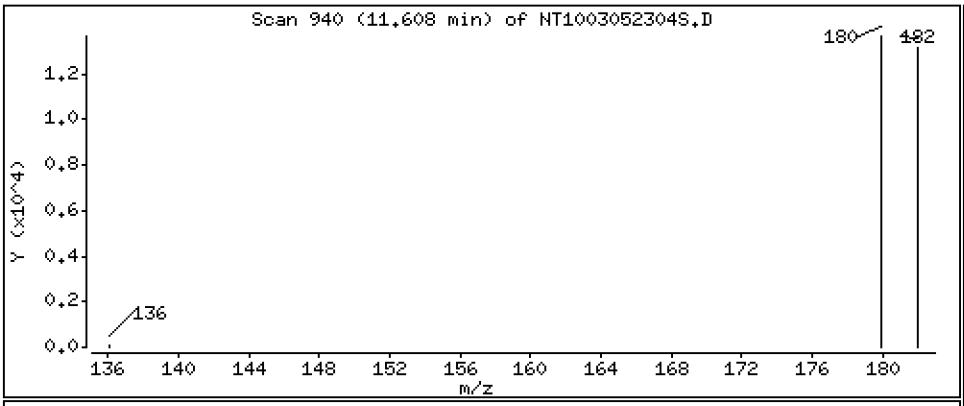
Operator: YZ

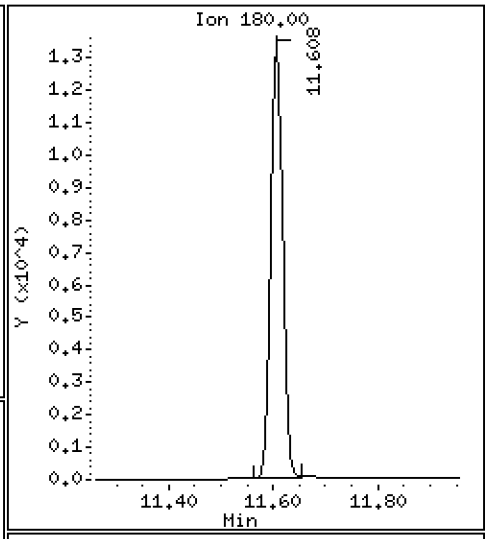
Column phase: ZB-5msi

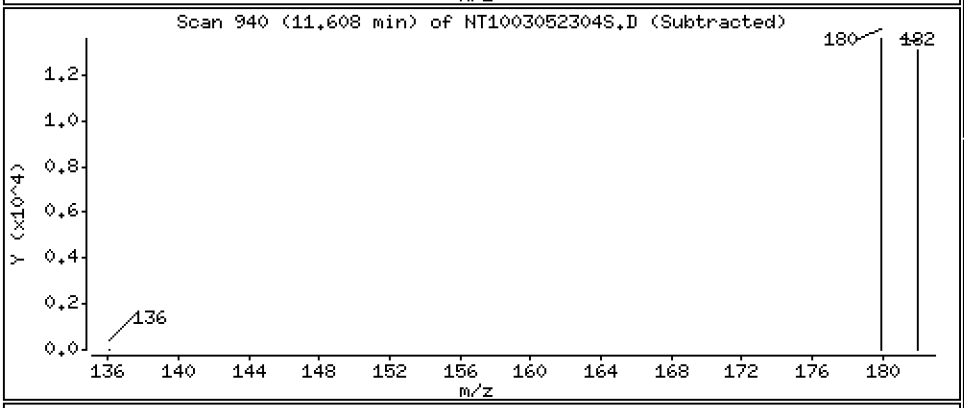
Column diameter: 0.25

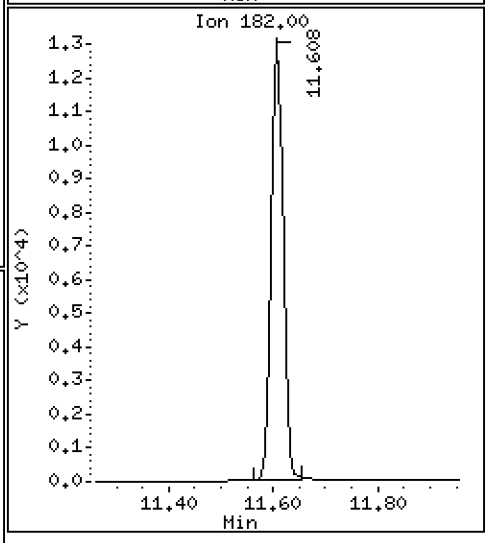
26 1,2,4-Trichlorobenzene

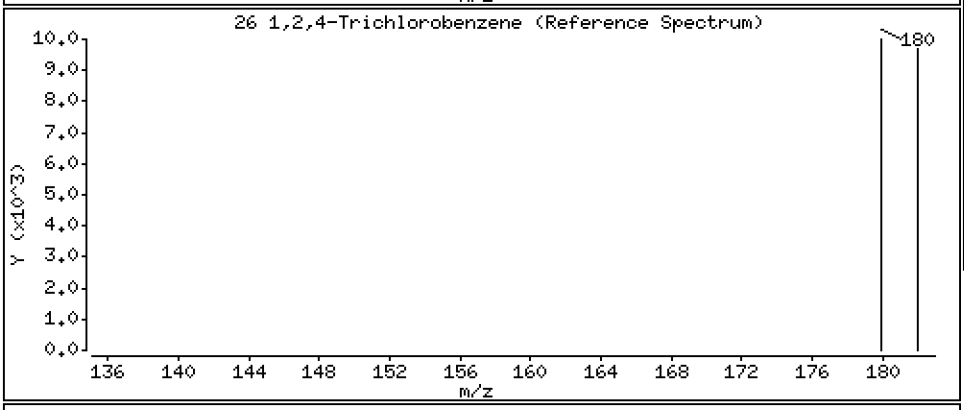
Concentration: 0.2351 ug/mL

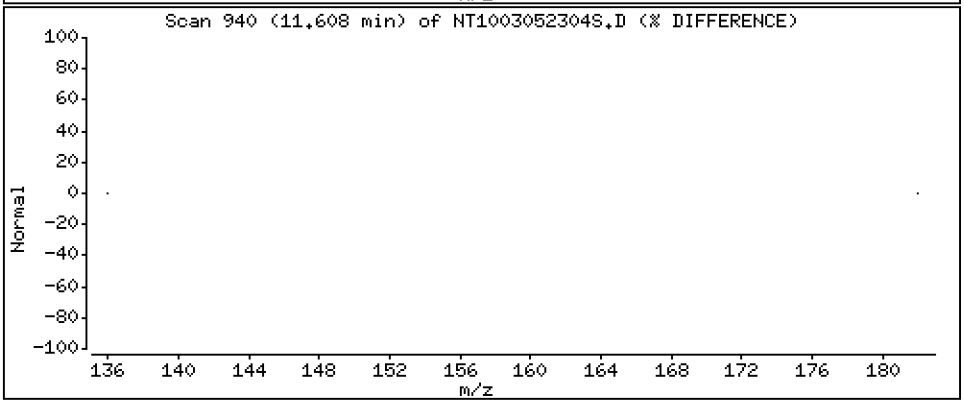












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

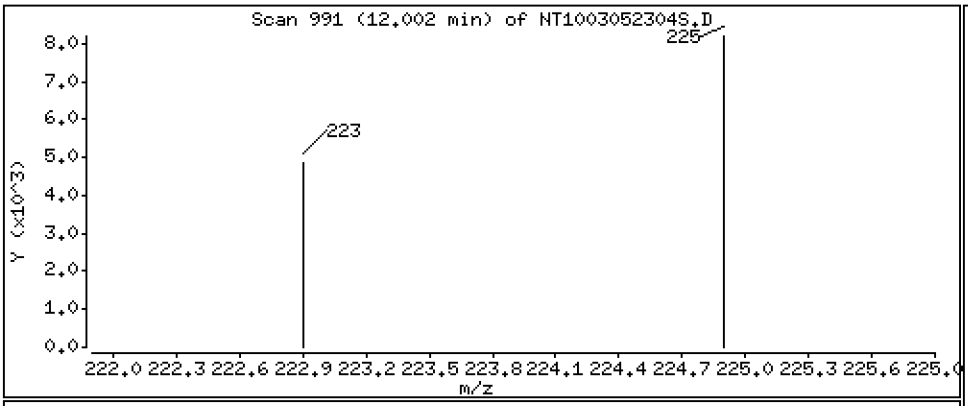
Operator: YZ

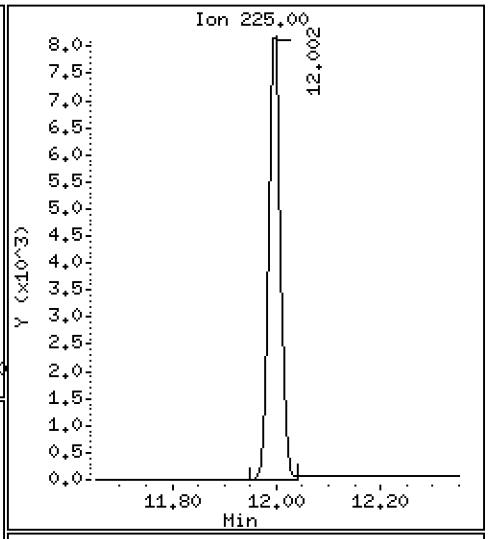
Column phase: ZB-5msi

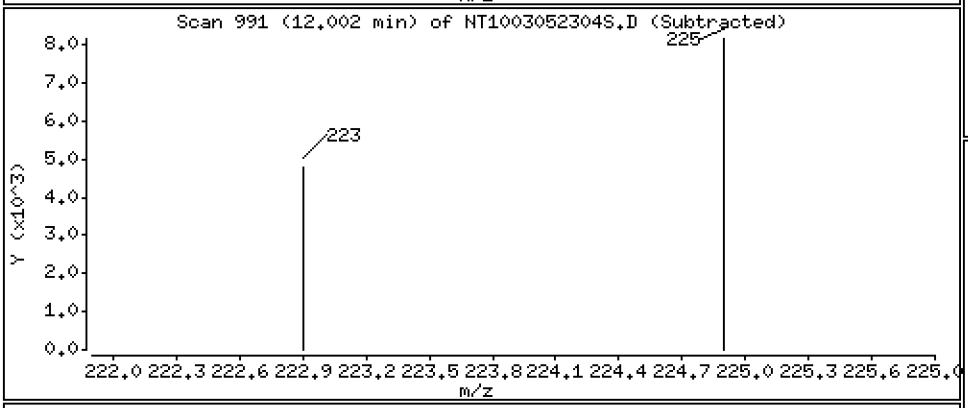
Column diameter: 0.25

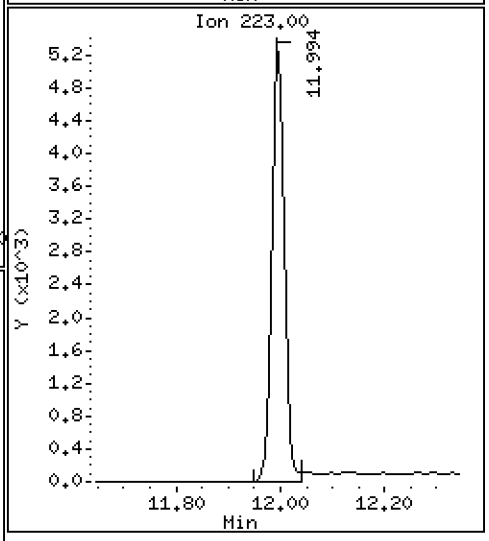
30 Hexachlorobutadiene

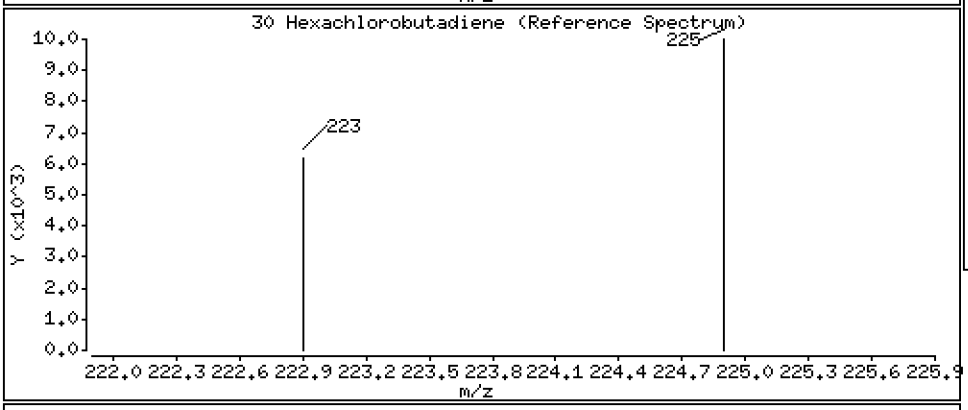
Concentration: 0.2156 ug/mL

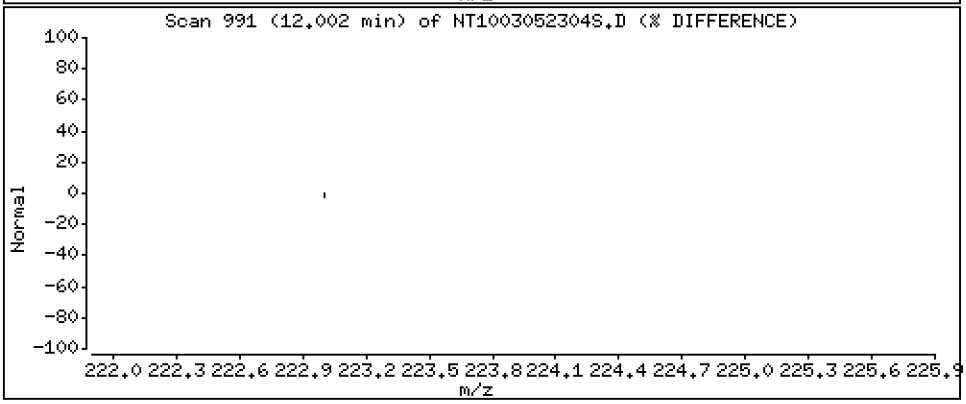












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052304S.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

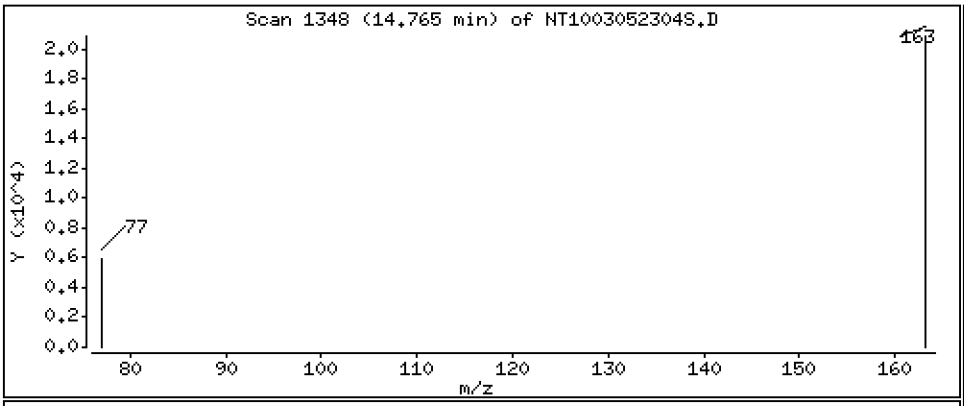
Operator: YZ

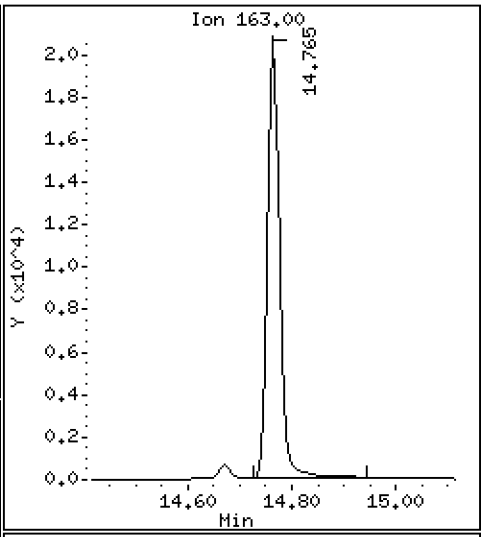
Column phase: ZB-5msi

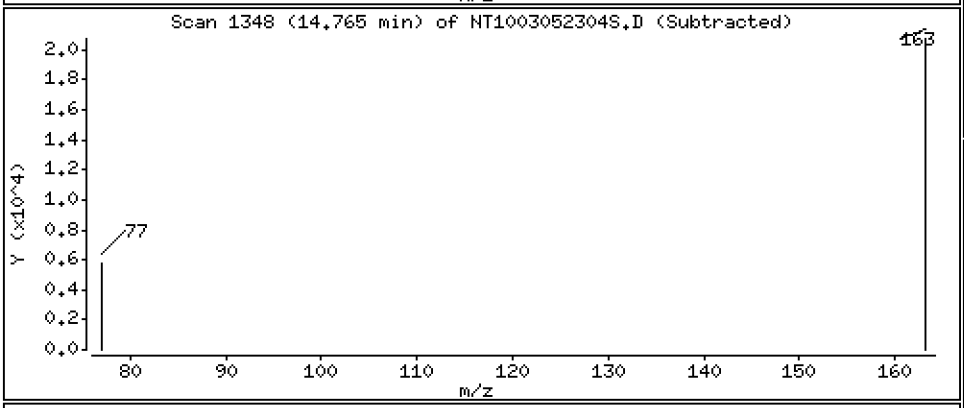
Column diameter: 0.25

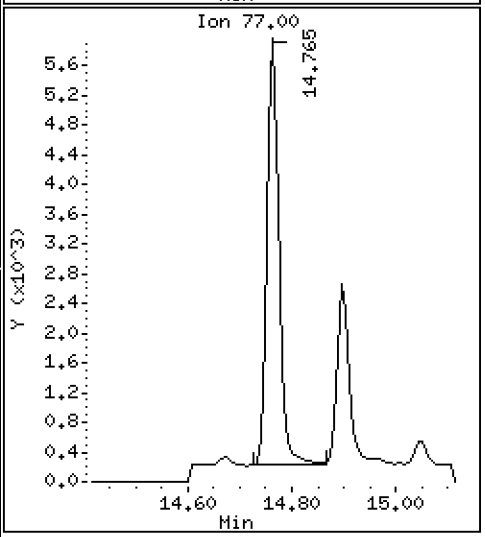
39 Dimethylphthalate

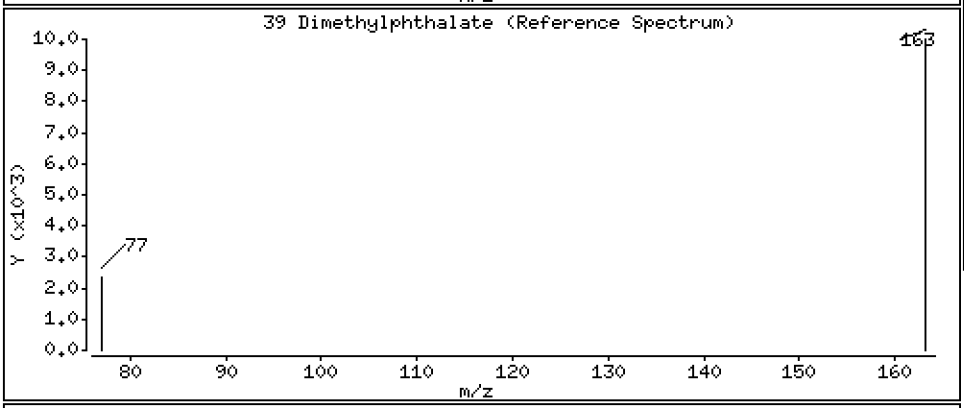
Concentration: 0.1740 ug/mL

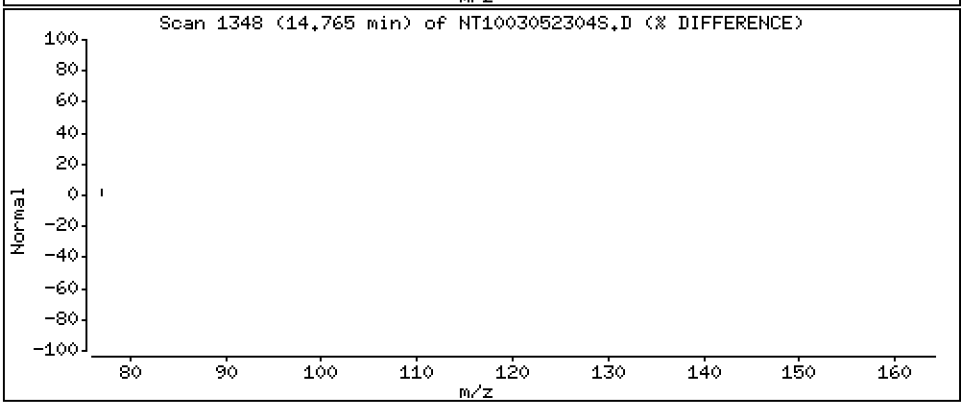












Data File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052304S.D

Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

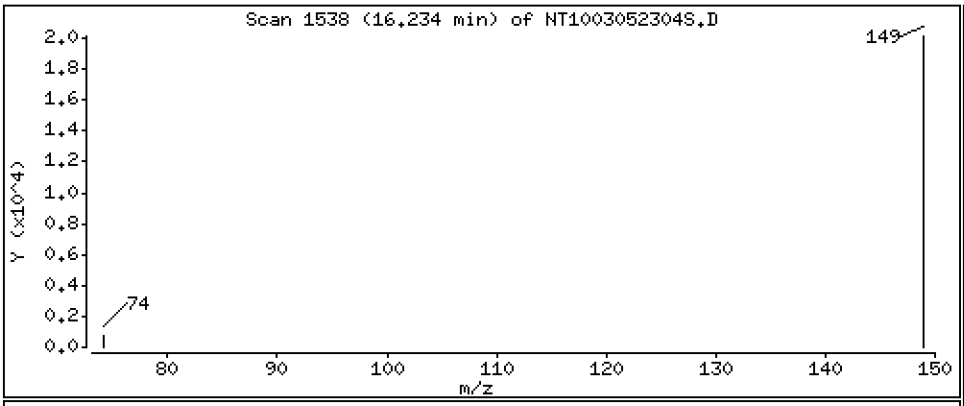
Operator: YZ

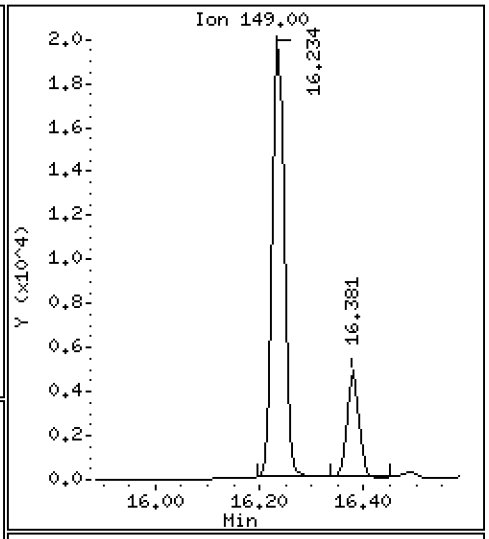
Column phase: ZB-5msi

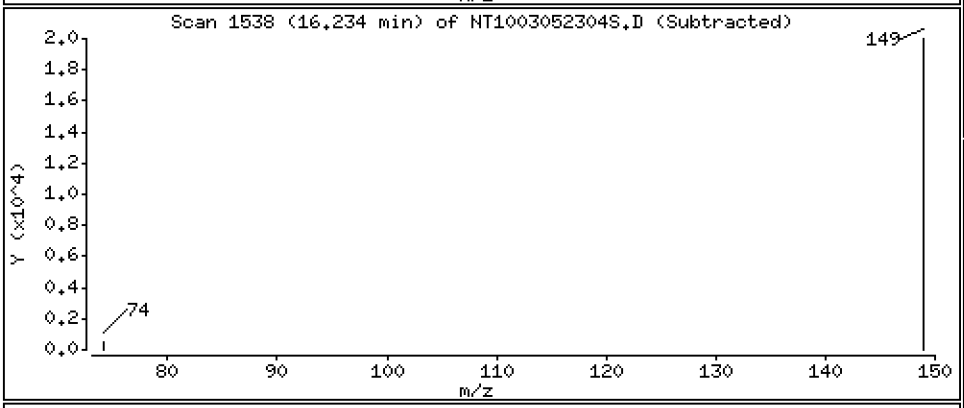
Column diameter: 0.25

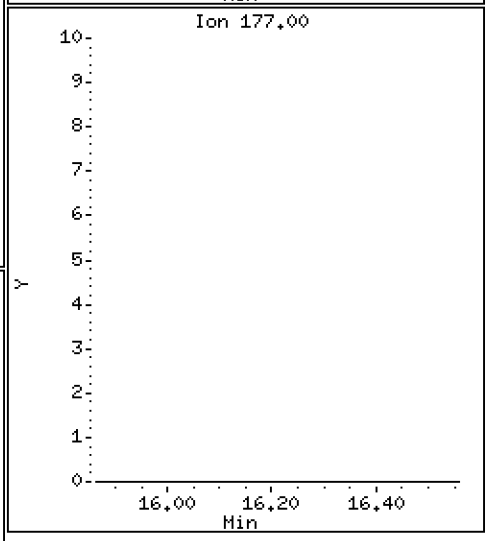
50 Diethylphthalate

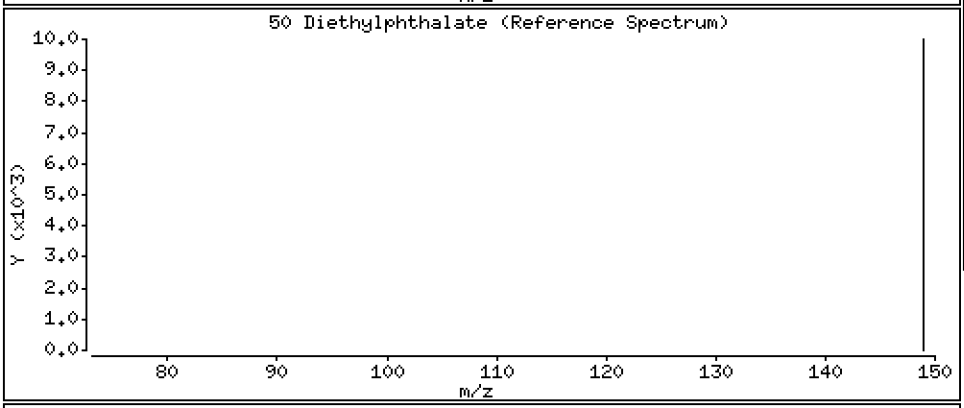
Concentration: 0.1762 ug/mL

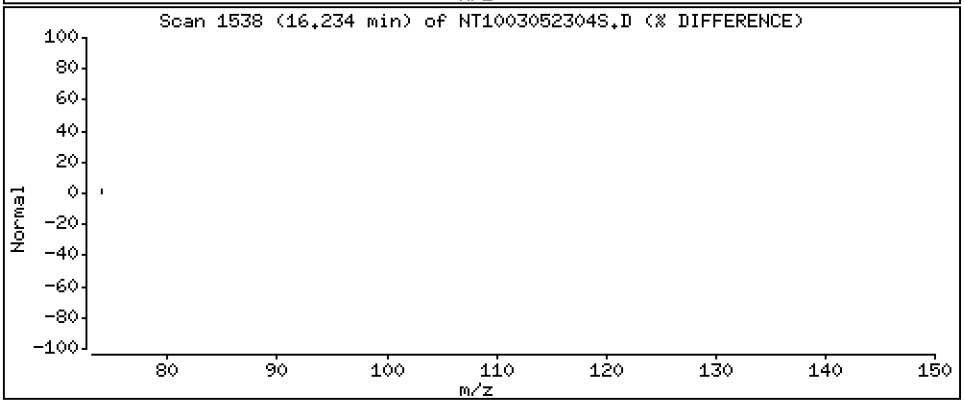












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

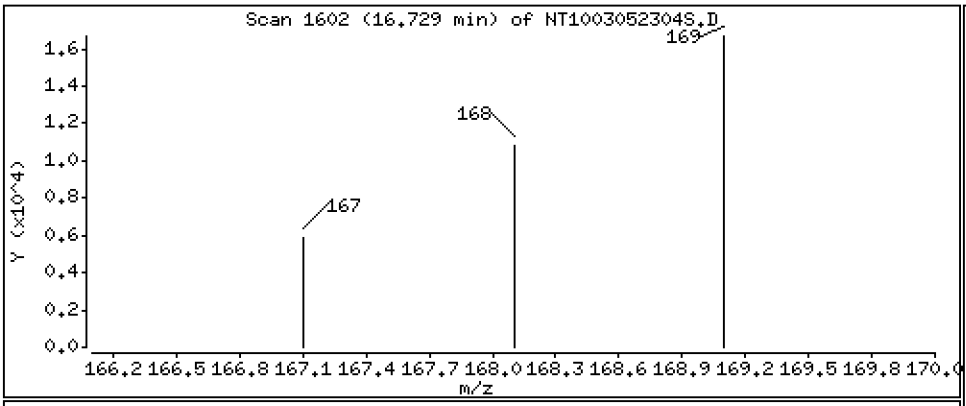
Operator: YZ

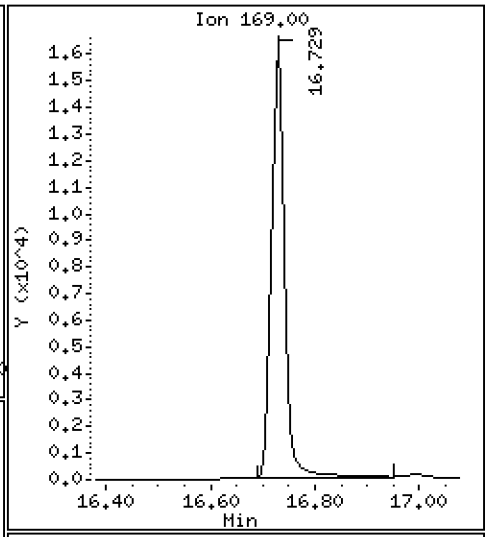
Column phase: ZB-5msi

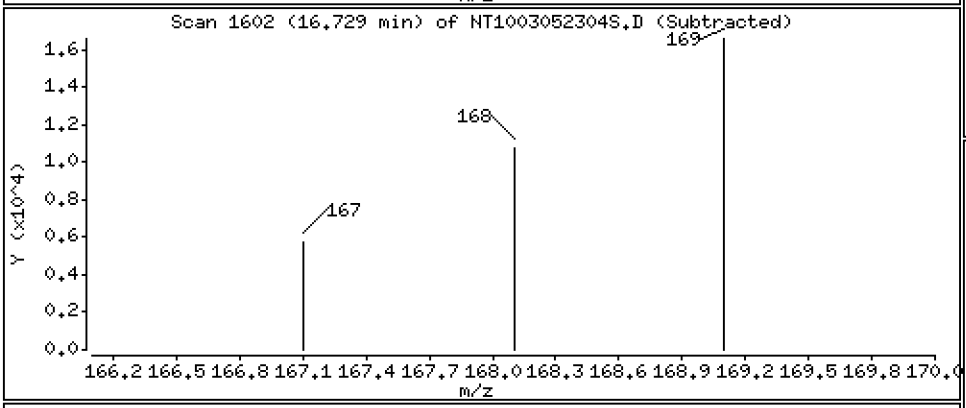
Column diameter: 0.25

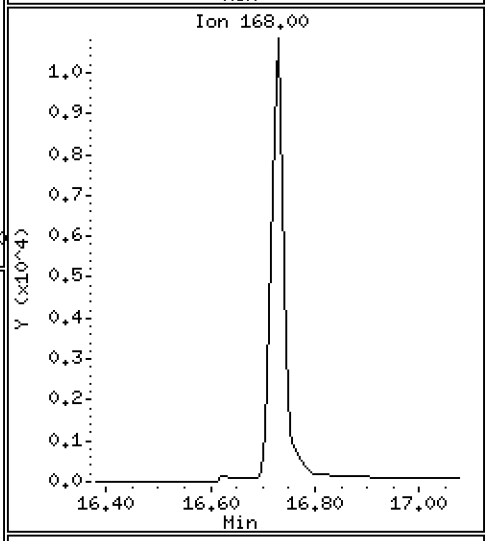
54 N-Nitrosodiphenylamine

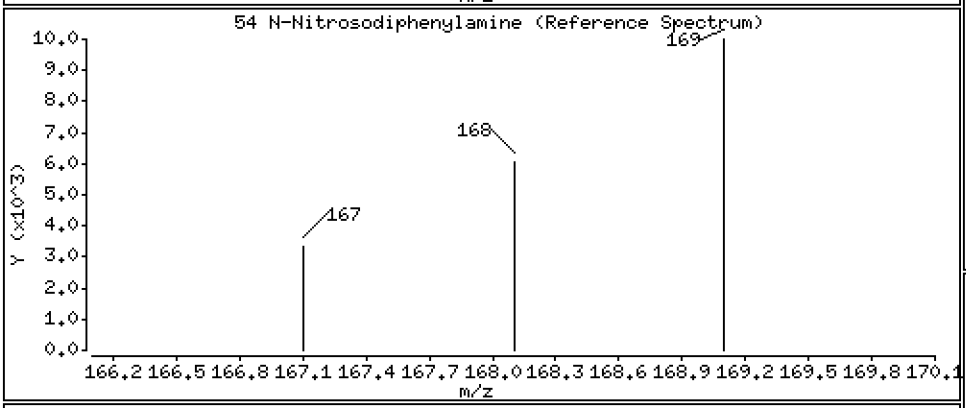
Concentration: 0.1620 ug/mL

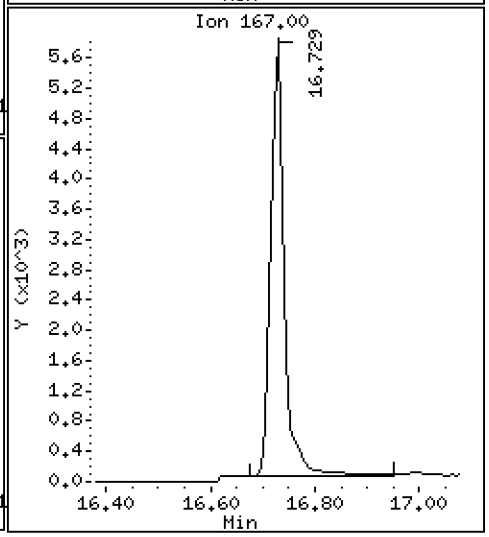


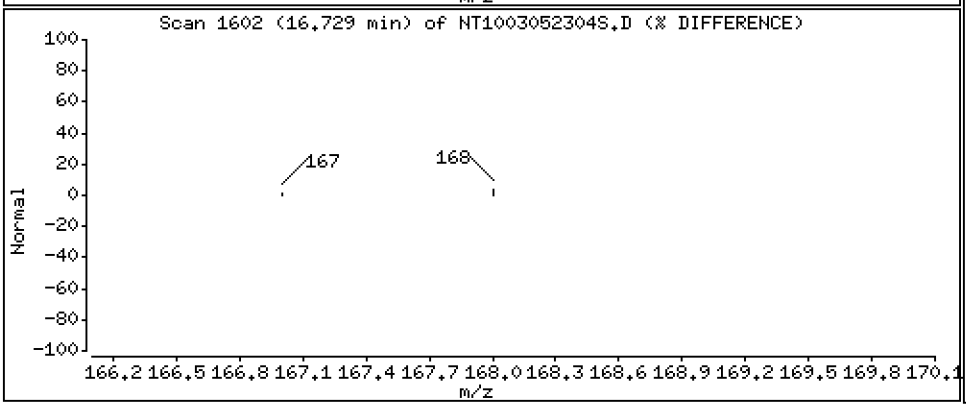












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

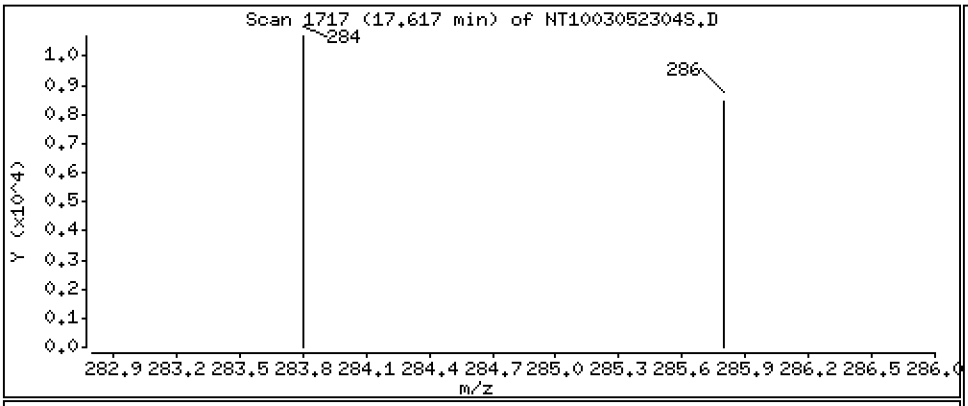
Operator: YZ

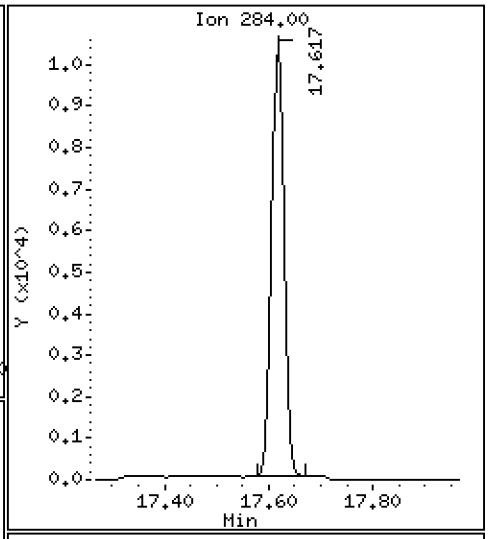
Column phase: ZB-5msi

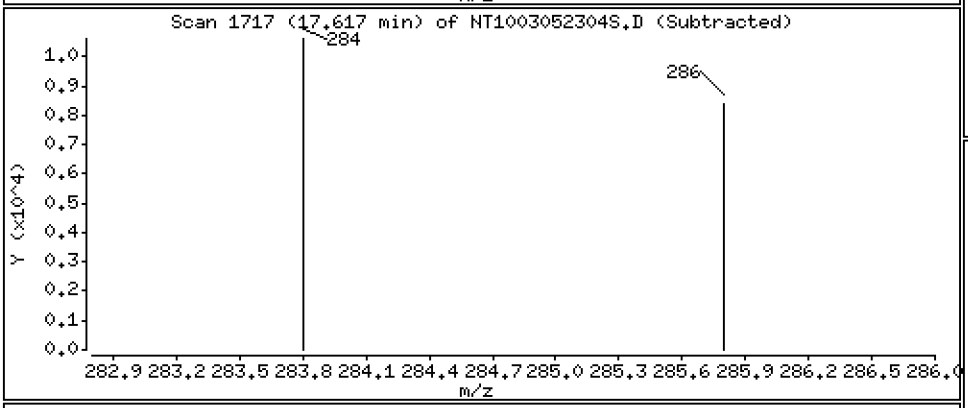
Column diameter: 0.25

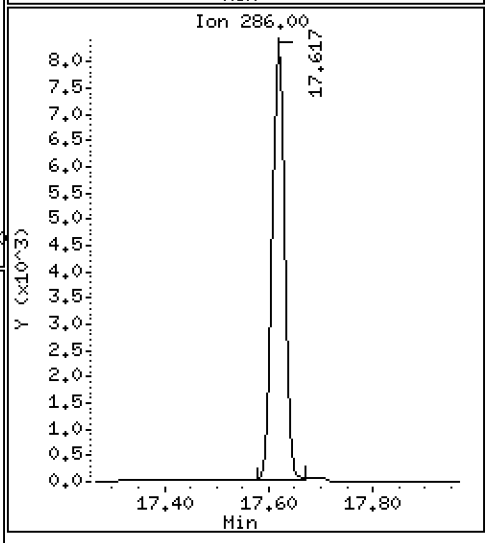
57 Hexachlorobenzene

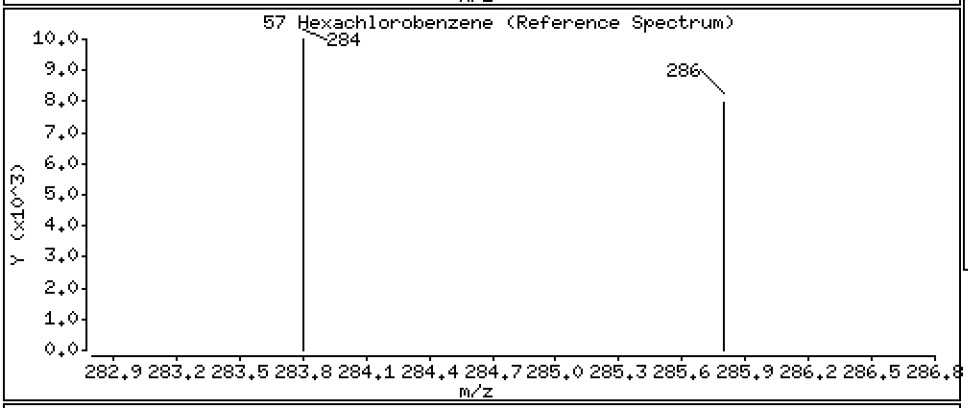
Concentration: 0.2047 ug/mL

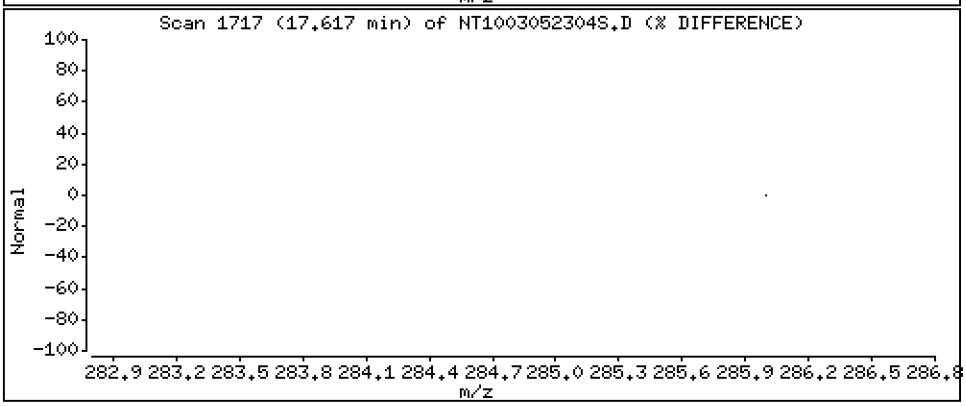












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

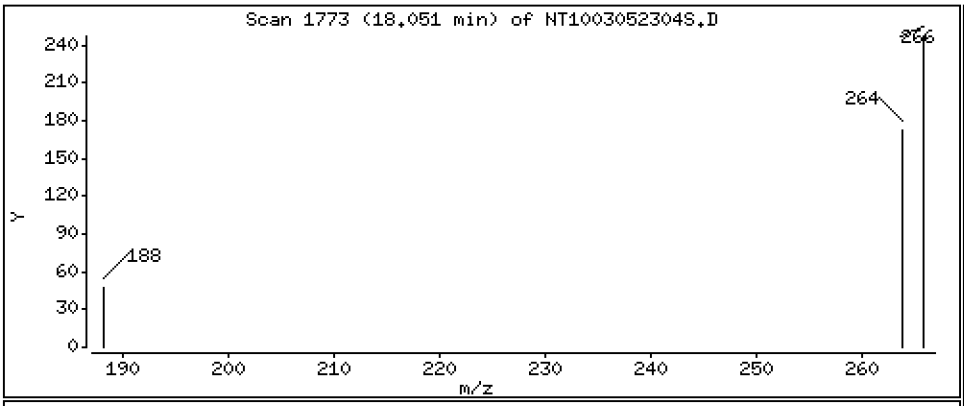
Operator: YZ

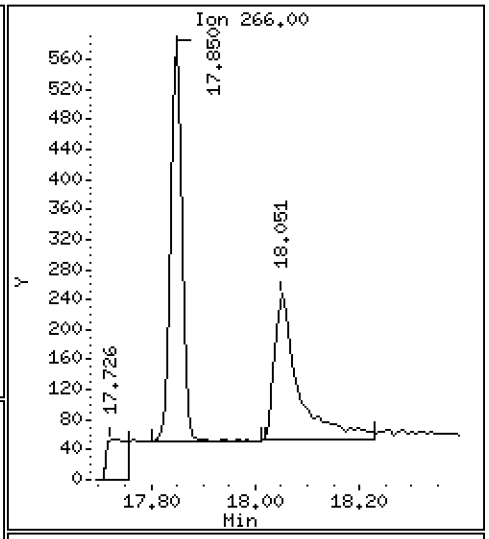
Column phase: ZB-5msi

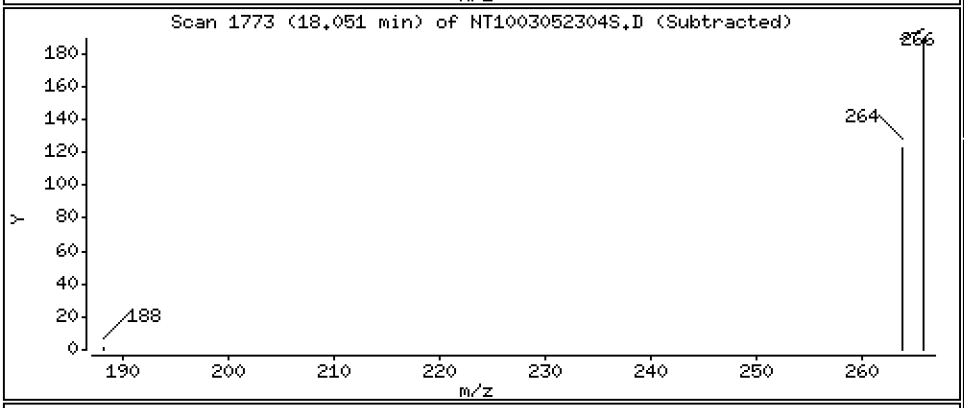
Column diameter: 0.25

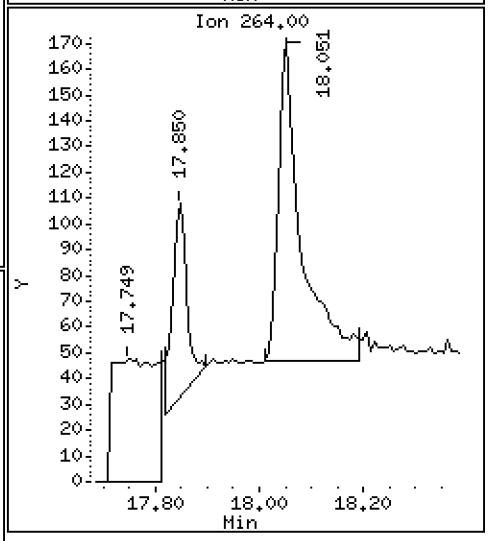
58 Pentachlorophenol

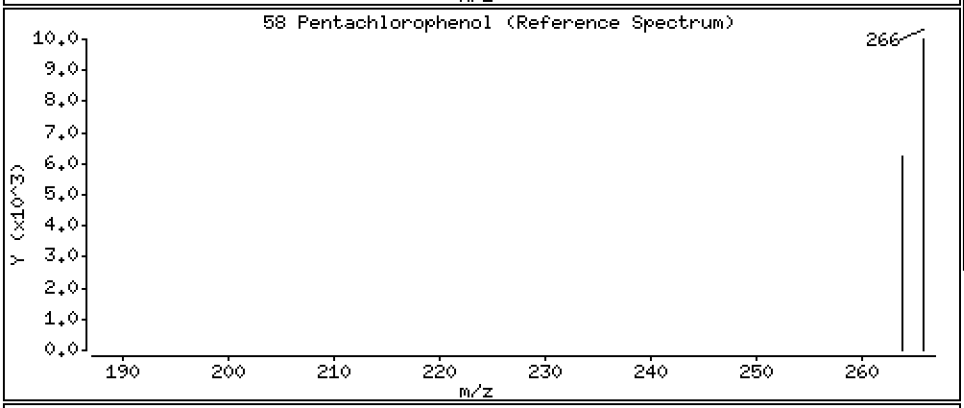
Concentration: 0.01780 ug/mL

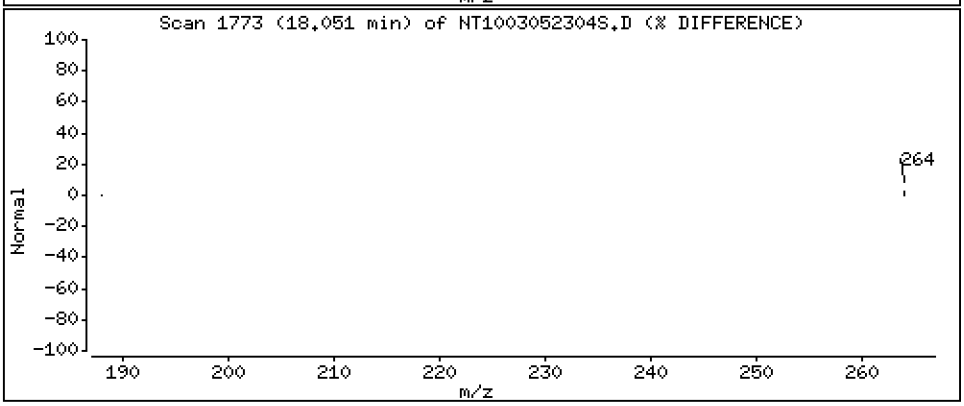












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

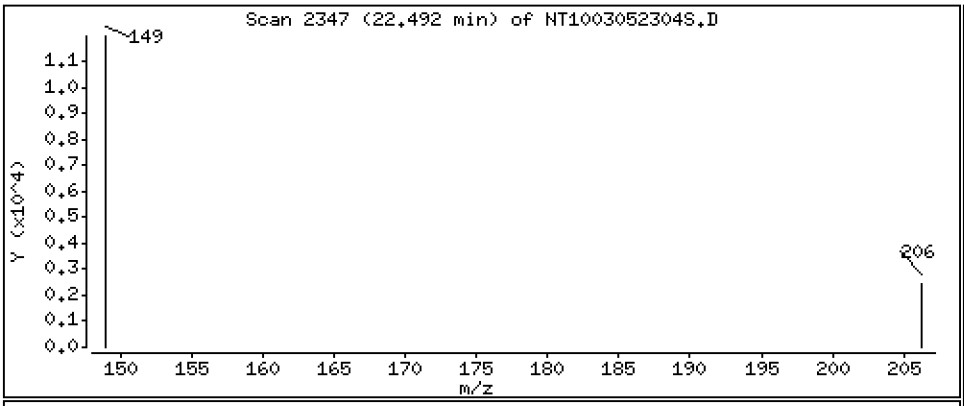
Operator: YZ

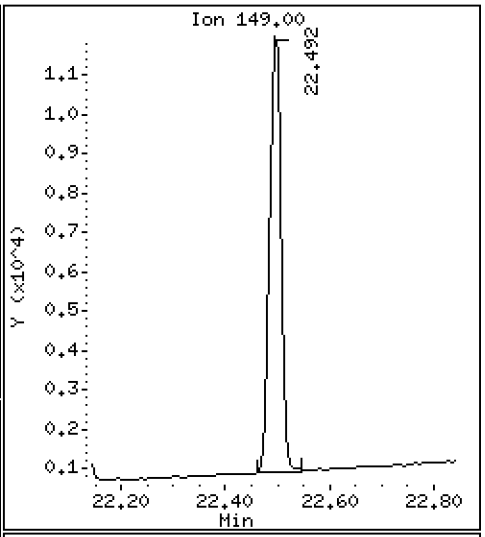
Column phase: ZB-5msi

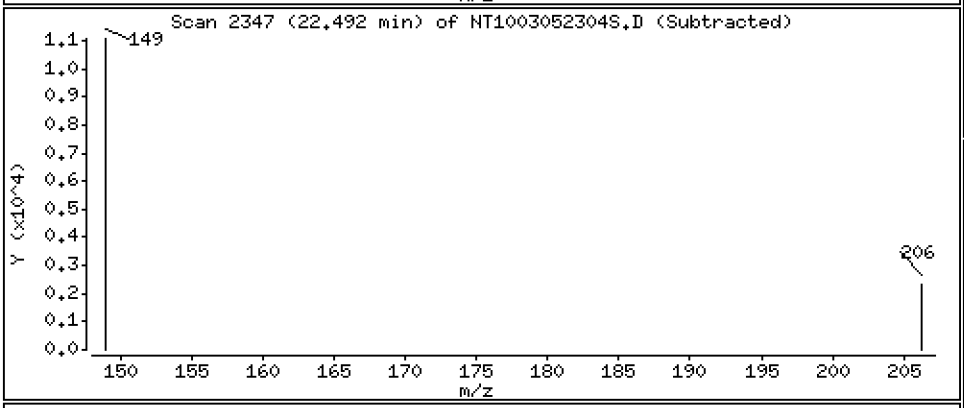
Column diameter: 0.25

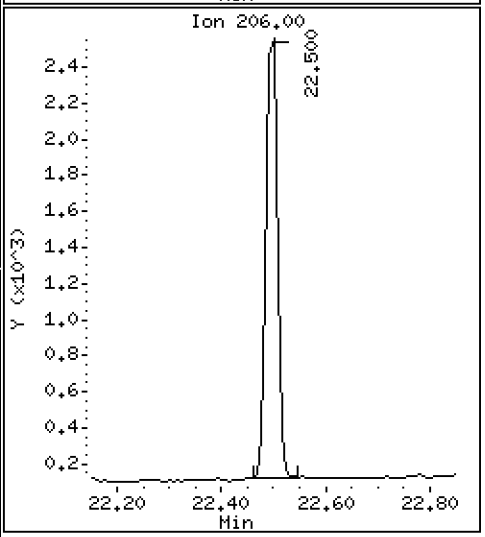
67 Butylbenzylphthalate

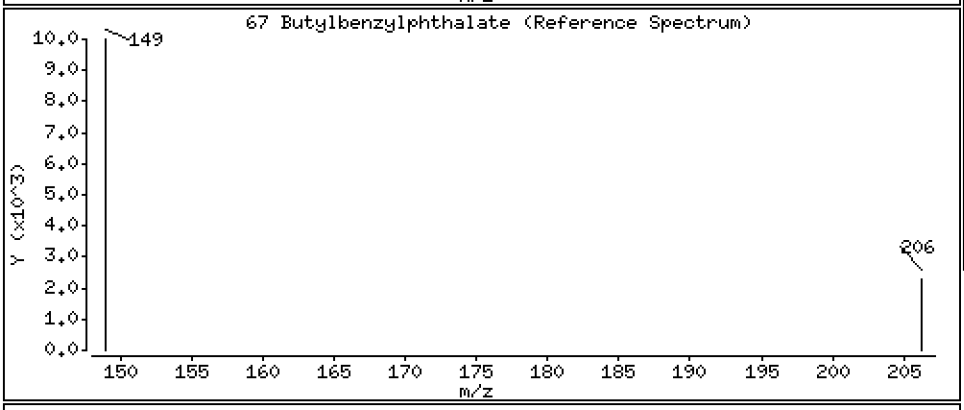
Concentration: 0.09924 ug/mL

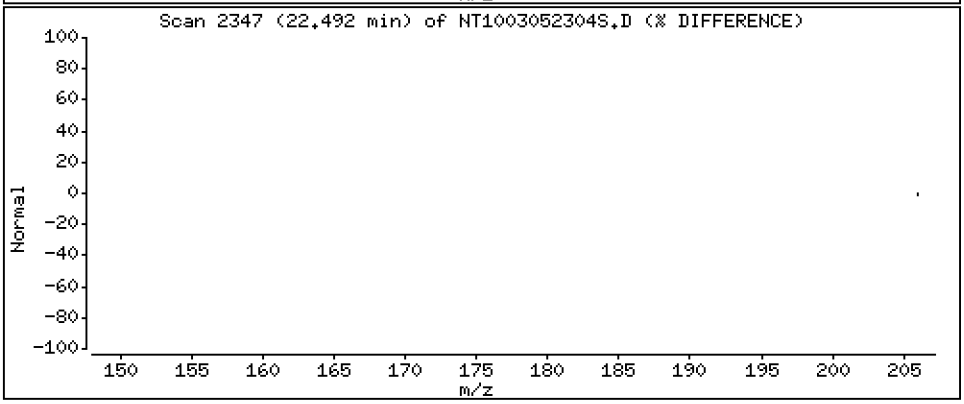












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

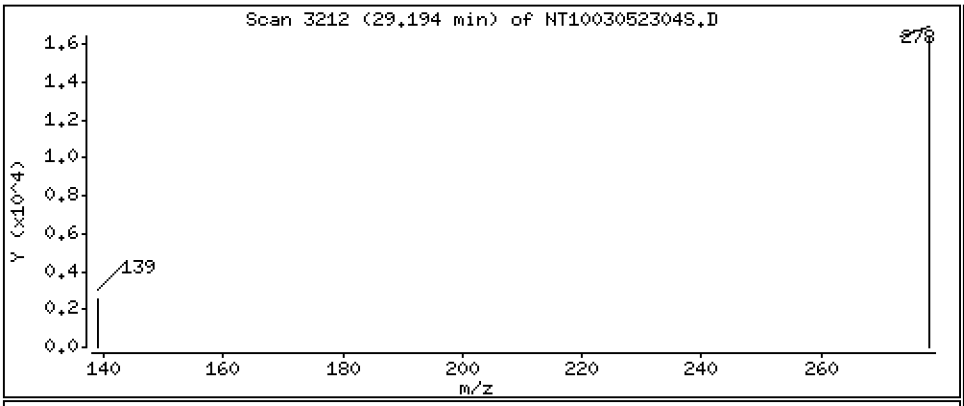
Operator: YZ

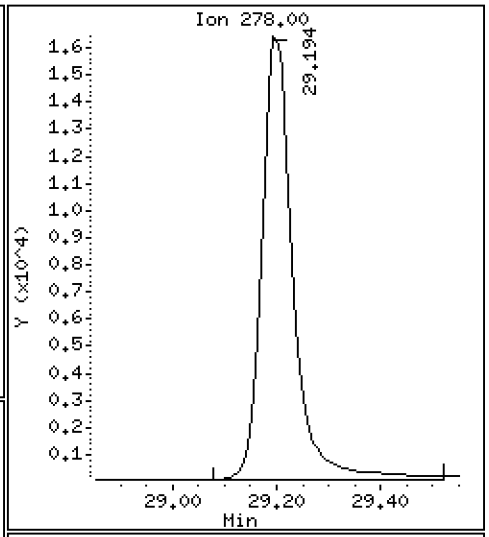
Column phase: ZB-5msi

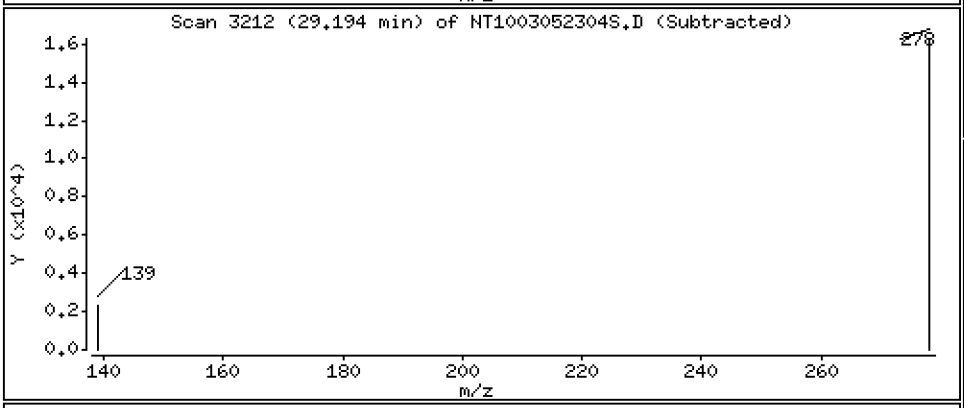
Column diameter: 0.25

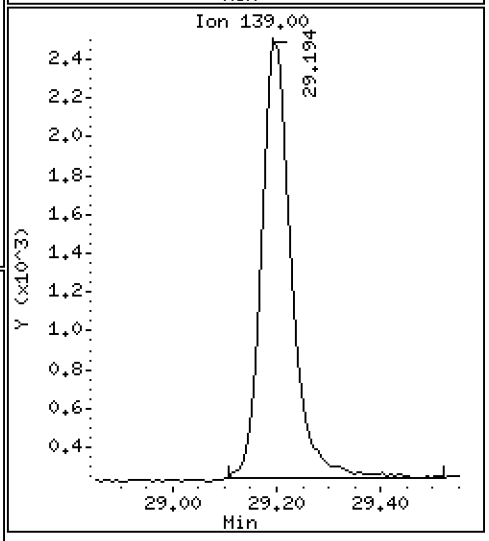
79 Dibenzo(a,h)anthracene

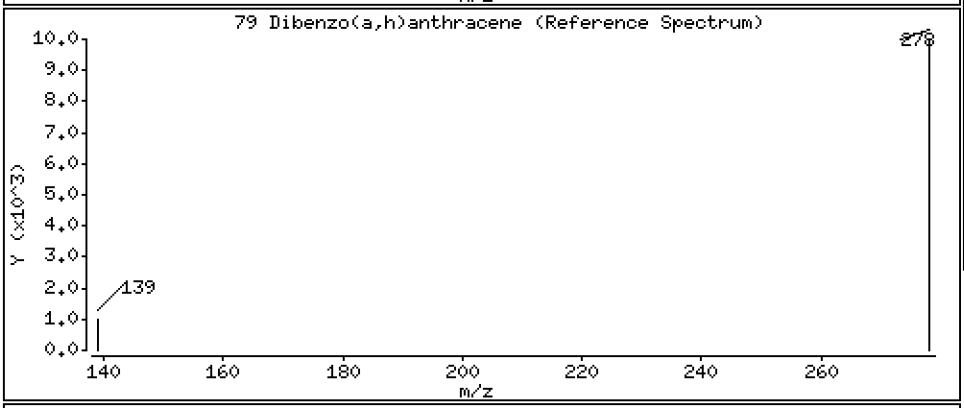
Concentration: 0.2452 ug/mL

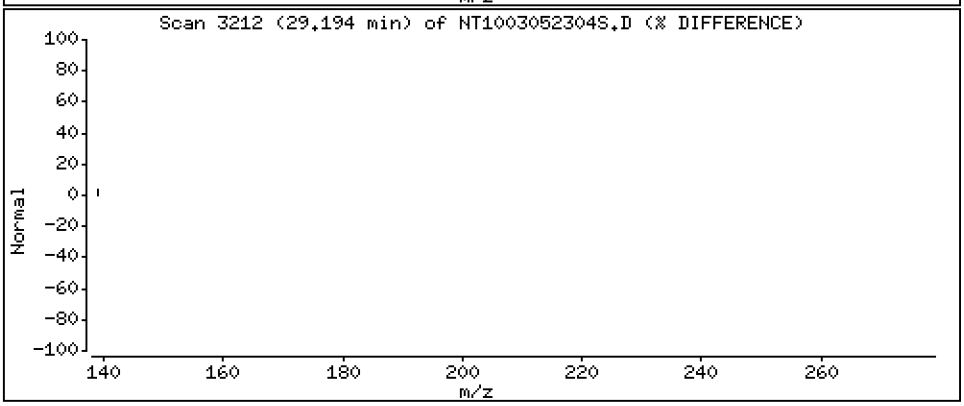












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Date : 05-MAR-2023 15:18

Client ID:

Instrument: nt10.i

Sample Info: SLC0435-LCV2

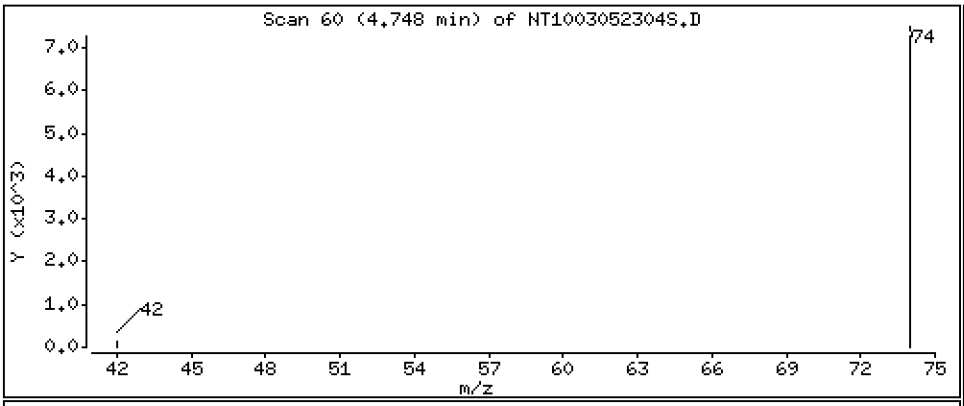
Operator: YZ

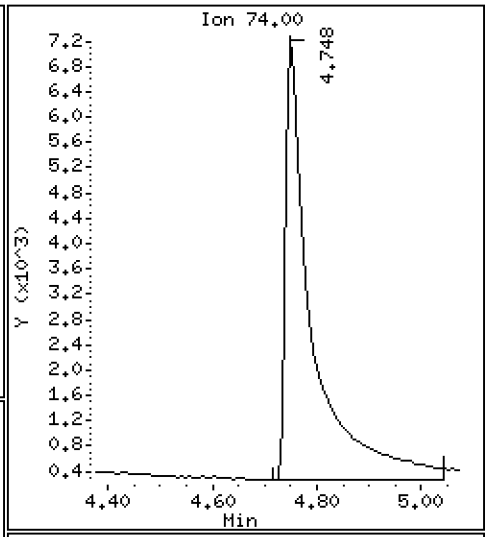
Column phase: ZB-5msi

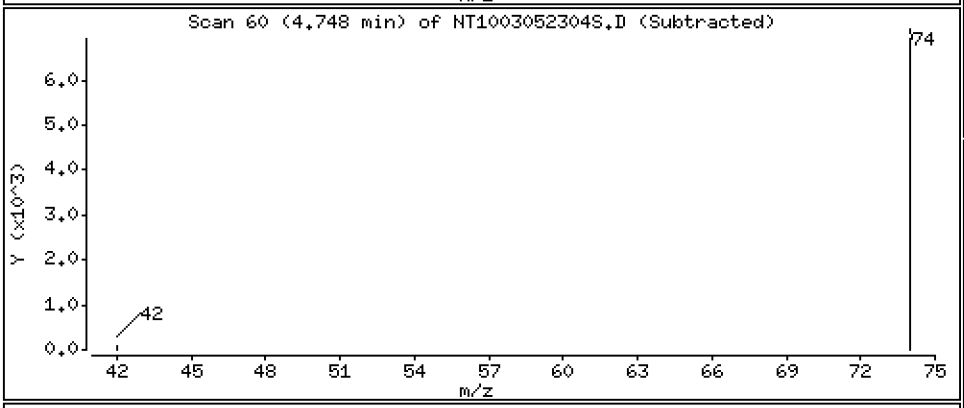
Column diameter: 0.25

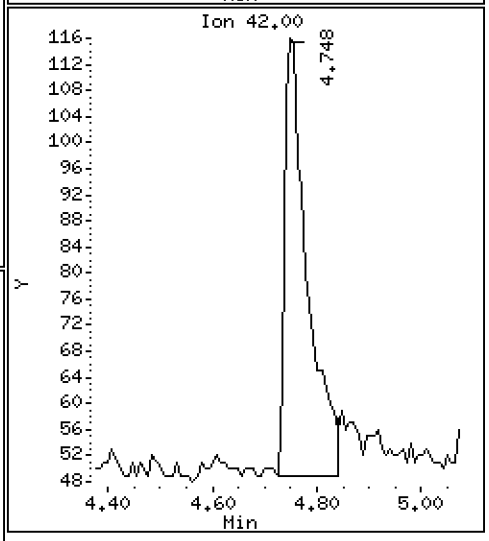
90 N-Nitrosodimethylamine

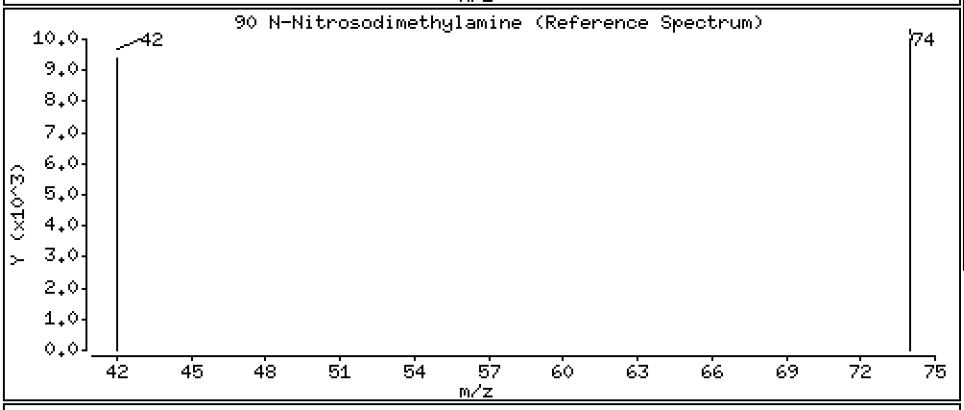
Concentration: 0.4441 ug/mL

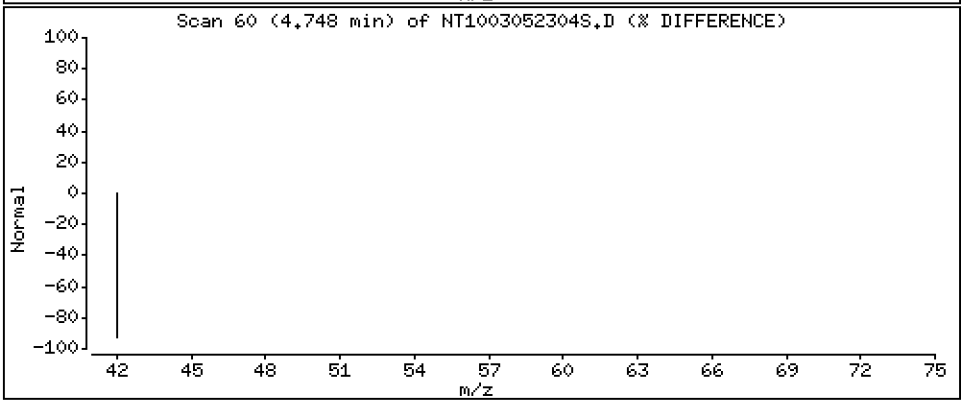












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305.b\SIM.b\NT1003052304S.D
Lab Smp Id: SLC0435-LCV2
Inj Date : 05-MAR-2023 15:18
Operator : YZ Inst ID: nt10.i
Smp Info : SLC0435-LCV2
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:00 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: VANS-201906

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.902	6.902	(0.747)	23488	0.24553	0.2455(R)
	3 Phenol	94	8.532	8.533	(0.923)	16245	0.11509	0.1151
	7 1,3-Dichlorobenzene	146	9.135	9.136	(0.988)	24945	0.20087	0.2009
*	8 1,4-Dichlorobenzene-d4	152	9.244	9.244	(1.000)	335082	4.00000	
	9 1,4-Dichlorobenzene	146	9.275	9.275	(1.003)	23696	0.19626	0.1963
	11 Benzyl alcohol	79	9.492	9.485	(1.027)	10297	0.13147	0.1315
	12 1,2-Dichlorobenzene	146	9.562	9.562	(1.034)	23962	0.20648	0.2065
	13 2-Methylphenol	108	9.671	9.663	(1.046)	16222	0.19099	0.1910
	15 4-Methylphenol	108	9.966	9.958	(1.078)	15966	0.18069	0.1807
	16 N-Nitroso-di-n-propylamine	70	9.981	9.982	(1.080)	13665	0.21735	0.2174
	22 2,4-Dimethylphenol	107	11.014	11.015	(0.939)	39101	0.38819	0.3882
	24 Benzoic acid	105	11.159	11.116	(0.951)	1270	0.02302	0.02302(M)
	26 1,2,4-Trichlorobenzene	180	11.608	11.608	(0.989)	20070	0.23510	0.2351
*	27 Naphthalene-d8	136	11.731	11.731	(1.000)	1186054	4.00000	
	30 Hexachlorobutadiene	225	12.001	12.002	(1.023)	13063	0.21563	0.2156
	39 Dimethylphthalate	163	14.764	14.765	(0.963)	31357	0.17396	0.1740
*	42 Acenaphthene-d10	162	15.337	15.337	(1.000)	567675	4.00000	
	50 Diethylphthalate	149	16.234	16.234	(1.058)	29946	0.17617	0.1762(H)
	54 N-Nitrosodiphenylamine	169	16.729	16.729	(0.907)	27774	0.16197	0.1620
	57 Hexachlorobenzene	284	17.617	17.617	(0.955)	16425	0.20468	0.2047
	58 Pentachlorophenol	266	18.050	18.043	(0.978)	625	0.01780	0.01780
*	59 Phenanthrene-d10	188	18.452	18.453	(1.000)	1059550	4.00000	
$	66 Terphenyl-d14	244	21.602	21.602	(0.919)	22329	0.28793	0.2879(R)
	67 Butylbenzylphthalate	149	22.492	22.492	(0.957)	16066	0.09924	0.09924
*	69 Chrysene-d12	240	23.514	23.514	(1.000)	958983	4.00000	
*	77 Perylene-d12	264	26.278	26.286	(1.000)	1190912	4.00000	
	79 Dibenzo(a,h)anthracene	278	29.194	29.202	(1.111)	67849	0.24521	0.2452
	90 N-Nitrosodimethylamine	74	4.747	4.724	(0.514)	25154	0.44412	0.4441

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052304S.D
Lab Smp Id: SLC0435-LCV2
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 14:40
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	321376	160688	642752	335082	4.26
27 Naphthalene-d8	1132931	566466	2265862	1186054	4.69
42 Acenaphthene-d10	561597	280799	1123194	567675	1.08
59 Phenanthrene-d10	1068222	534111	2136444	1059550	-0.81
69 Chrysene-d12	997572	498786	1995144	958983	-3.87
77 Perylene-d12	1245490	622745	2490980	1190912	-4.38

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.24	8.74	9.74	9.24	-0.00
27 Naphthalene-d8	11.73	11.23	12.23	11.73	-0.00
42 Acenaphthene-d10	15.34	14.84	15.84	15.34	-0.00
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	-0.00
69 Chrysene-d12	23.51	23.01	24.01	23.51	-0.00
77 Perylene-d12	26.29	25.79	26.79	26.28	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052304S.D

Lab ID: SLC0435-LCV2
nt10.i, 20230305.b\SIM.b\SIMABN2.m,   05-MAR-2023 15:18

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: SIM.b/NT1003052303S.D

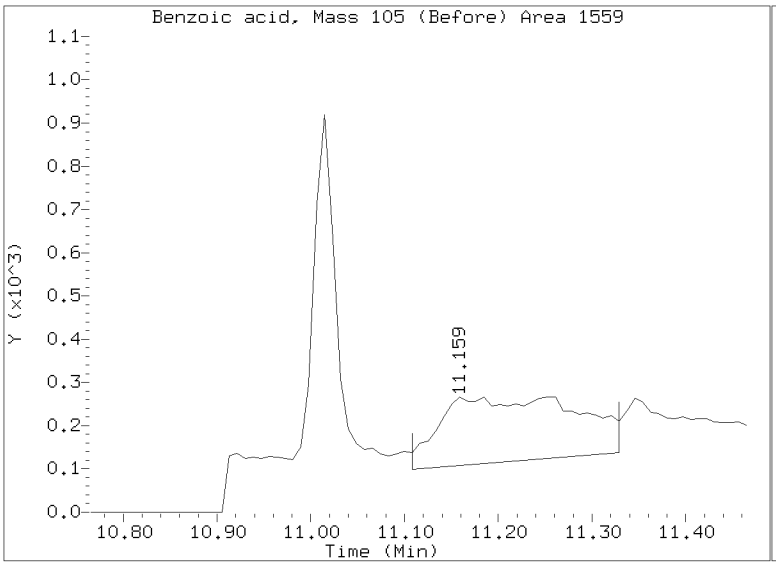
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

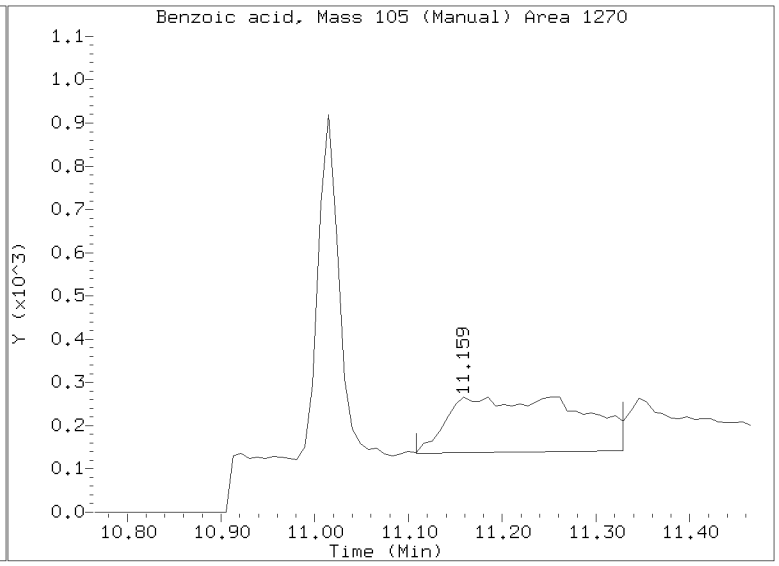
Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305.b/SIM.b/NT1003052304S.D
Injection Date: 05-MAR-2023 15:18
Lab ID:SLC0435-LCV2 Client ID:
Report Date: 03/29/2023 10:42





Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00032
Lab File ID:	NT1003052326S.D	Calibration Date:	03/01/2023
Sequence:	SLC0440	Injection Date:	03/06/23
Lab Sample ID:	SLC0440-CCV1	Injection Time:	05:10
Sequence Name:	Calibration Check		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
1,4-Dichlorobenzene	A	1.0000	1.0	1.4413080	1.4161780		-1.7	+/-50	
1,2-Dichlorobenzene	A	1.0000	1.0	1.3853460	1.3947610		0.7	+/-50	
Benzyl Alcohol	A	1.0000	0.9	0.7492523	0.8806529		-6.8	+/-50	
Benzoic acid	A	4.0000	0.5	0.1431163	0.0228843		-87.7	+/-50	*
2,4-Dimethylphenol	A	2.0000	2.2	0.2957717	0.3675444		7.7	+/-50	
1,2,4-Trichlorobenzene	A	1.0000	1.2	0.2879030	0.3432922		19.2	+/-50	
N-Nitrosodiphenylamine	A	1.0000	0.9	0.6473471	0.5844576		-9.7	+/-50	
Pentachlorophenol	A	2.0000	0.2	0.0950913	0.0108666		-91.8	+/-50	*
2-Fluorophenol	A	1.5000	1.74	1.1419780	1.3229980		15.9	+/-50	
p-Terphenyl-d14	A	1.0000	1.59	0.3234672	0.5149517		59.2	+/-50	*

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523265.D

Date : 06-MAR-2023 05:10

Client ID:

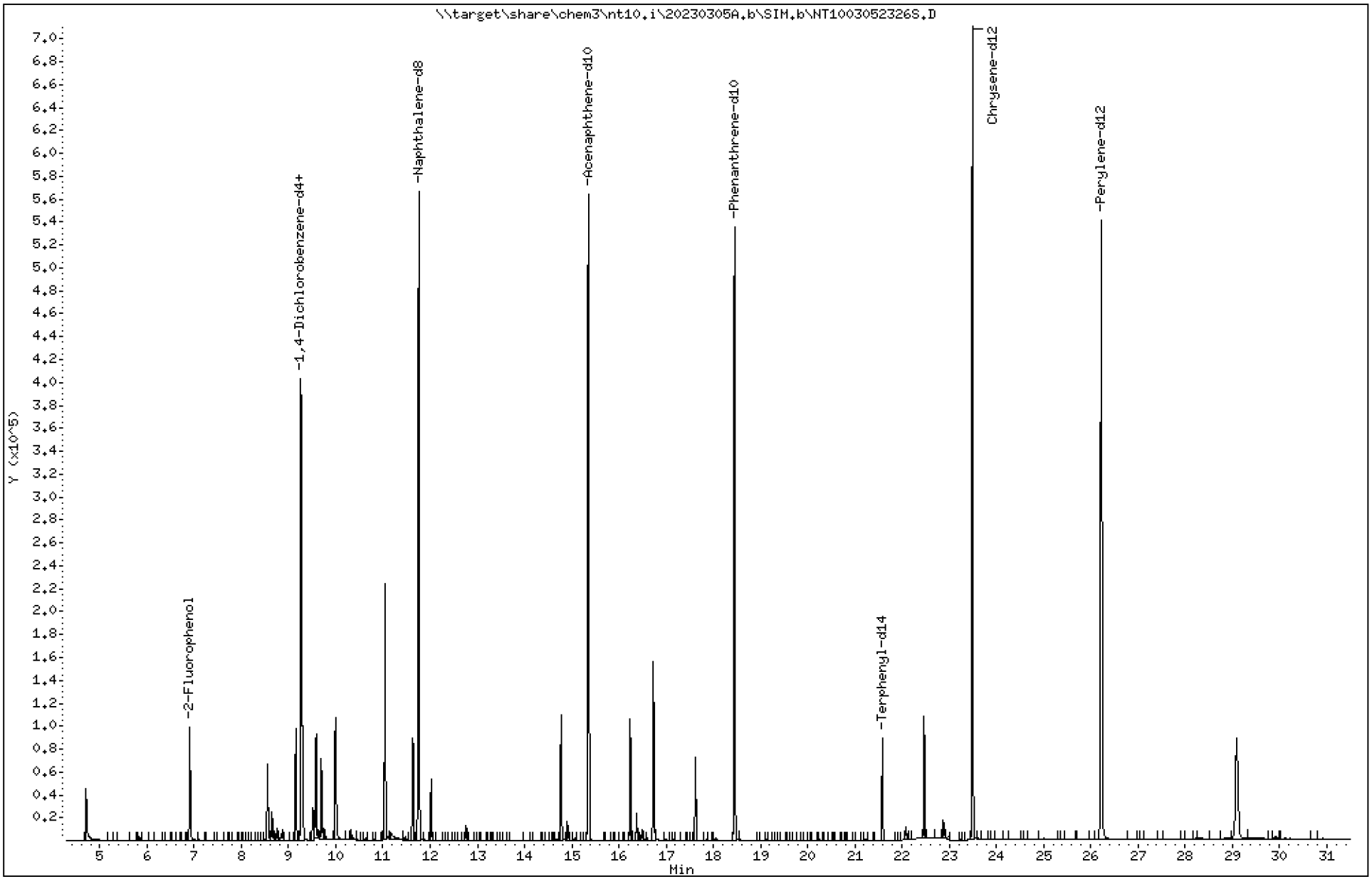
Instrument: nt10.i

Sample Info: SLC0440-CCV1

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

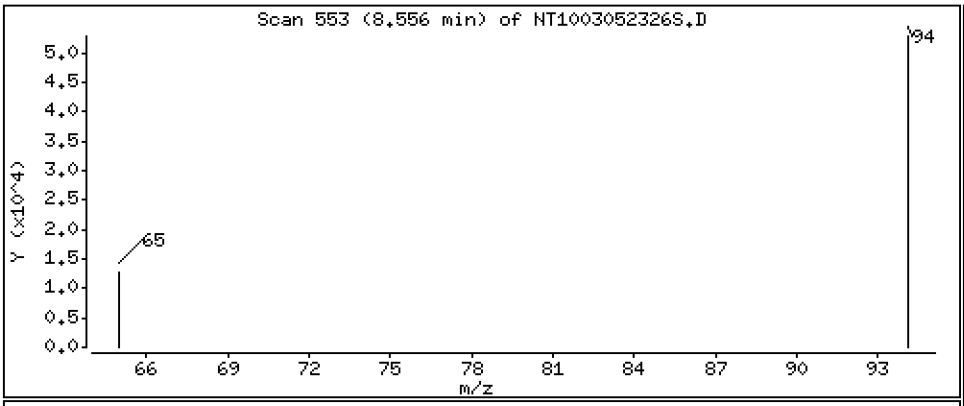
Operator: YZ

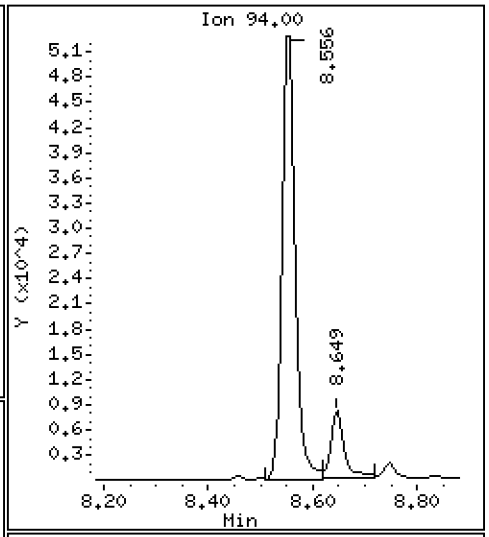
Column phase: ZB-5msi

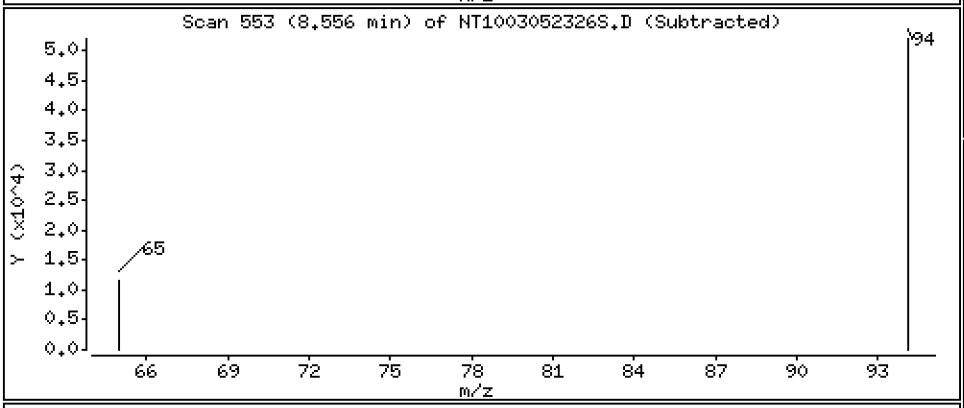
Column diameter: 0.25

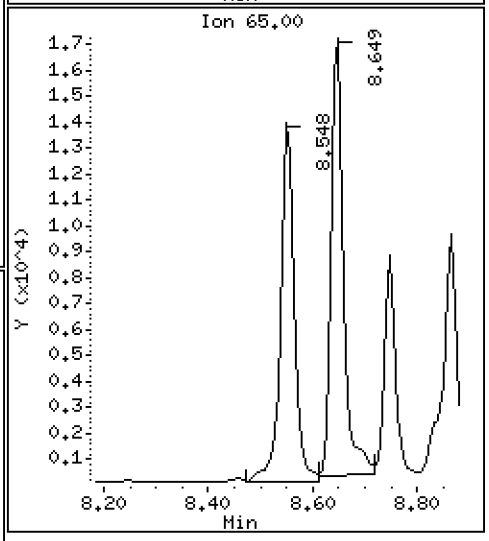
3 Phenol

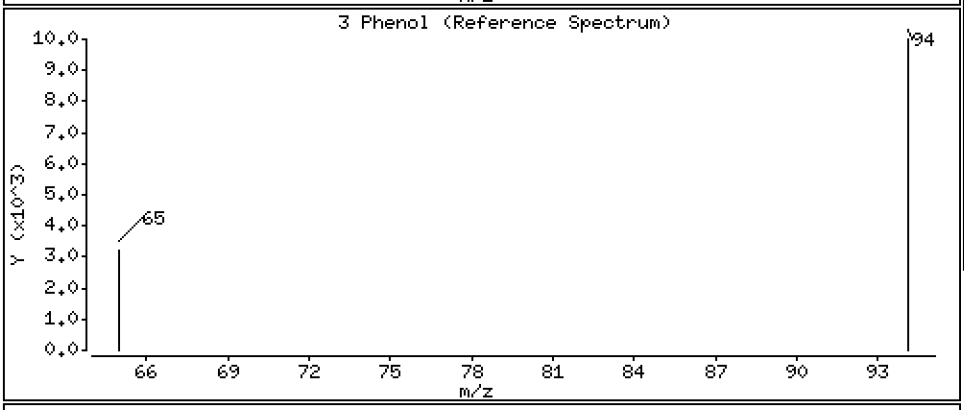
Concentration: 0.9410 ug/mL

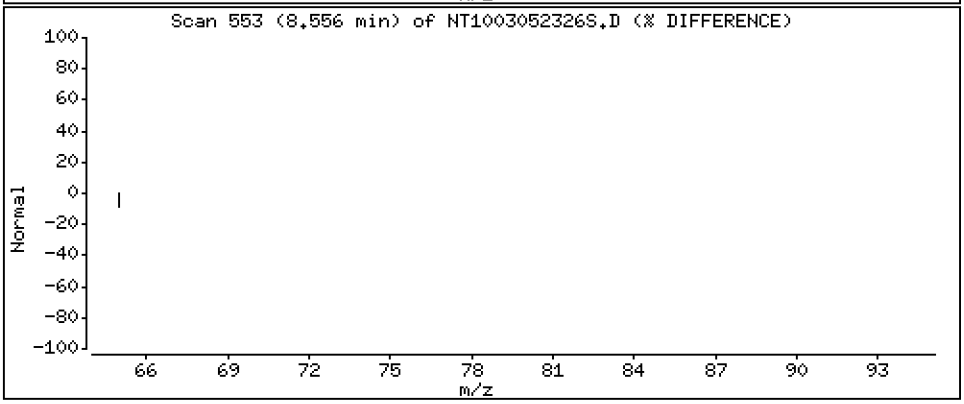












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Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

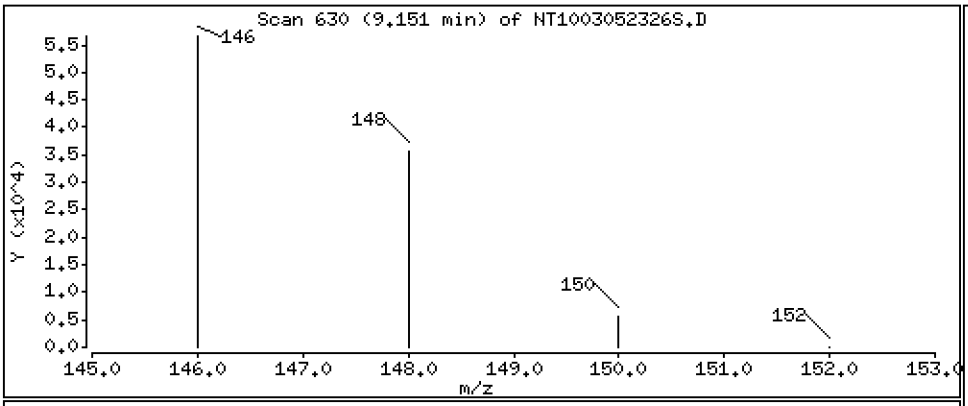
Operator: YZ

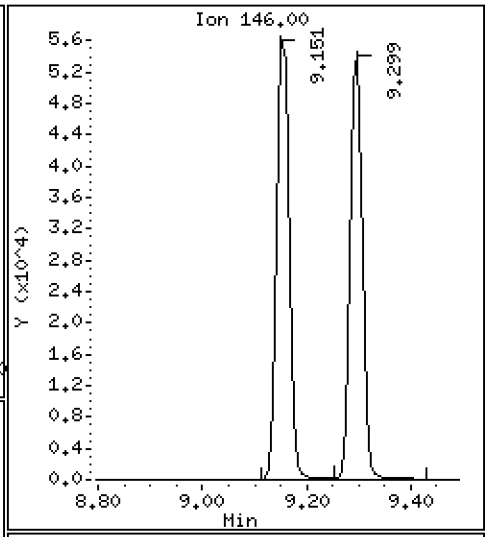
Column phase: ZB-5msi

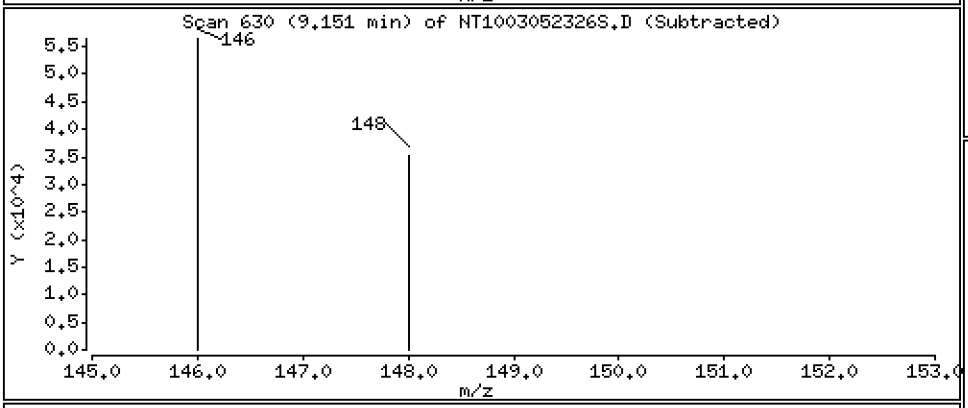
Column diameter: 0.25

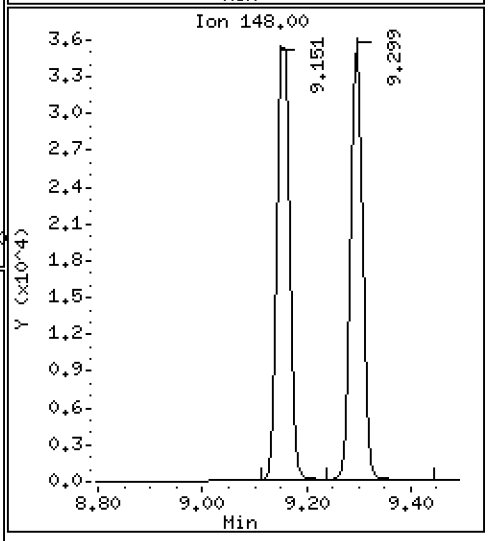
7 1,3-Dichlorobenzene

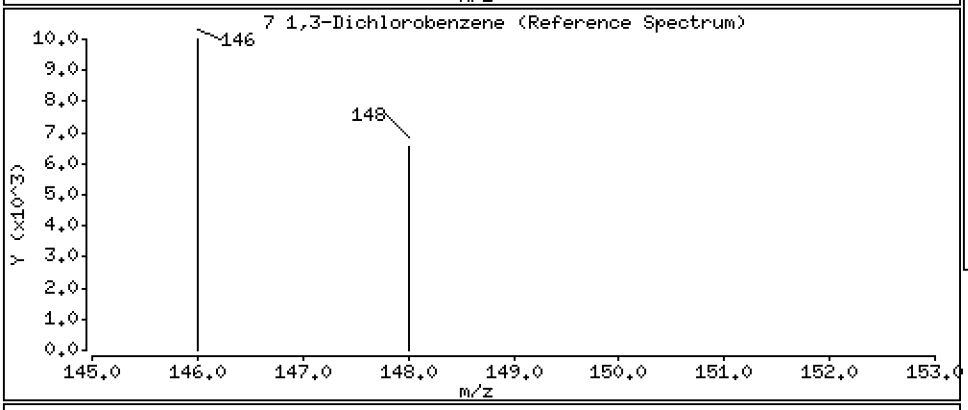
Concentration: 0.9997 ug/mL

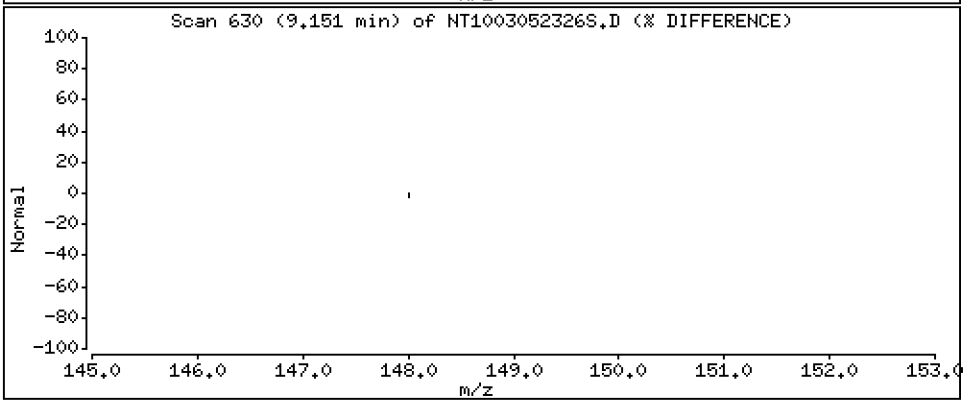












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Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

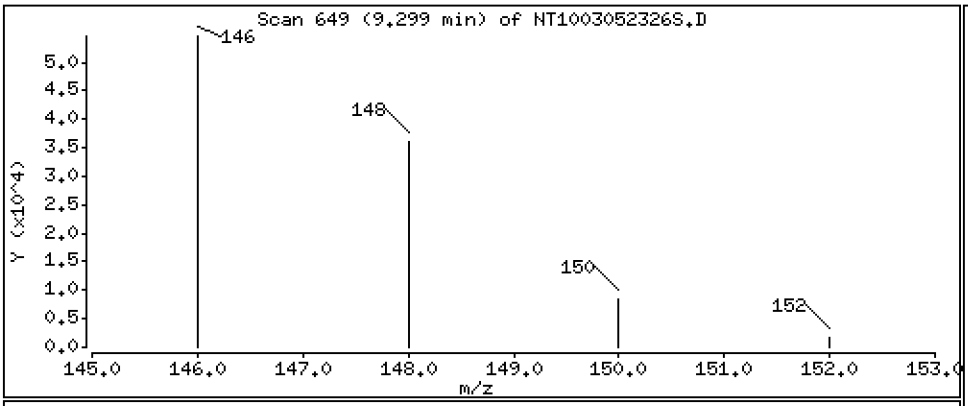
Operator: YZ

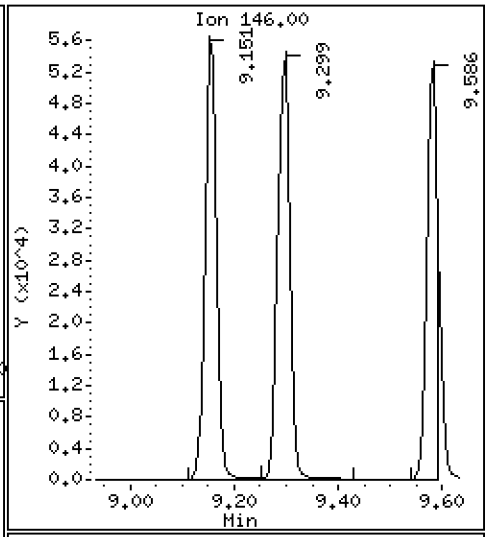
Column phase: ZB-5msi

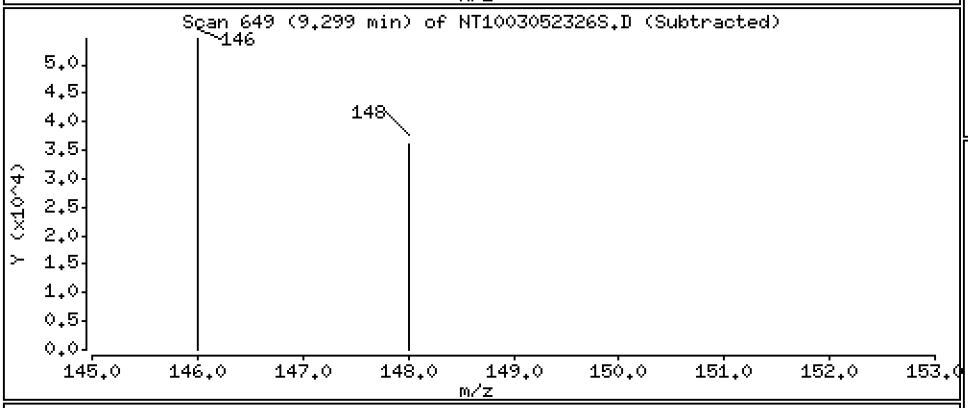
Column diameter: 0.25

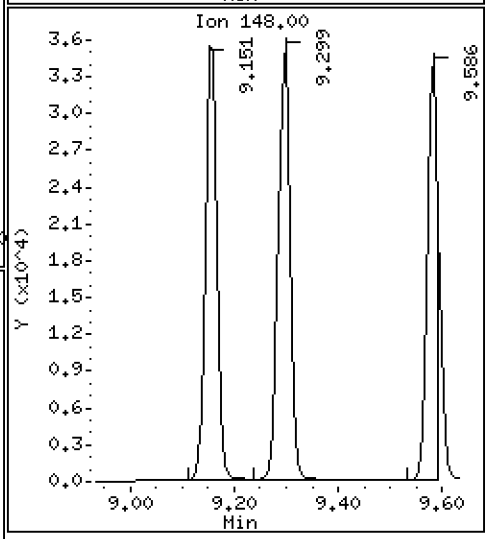
9 1,4-Dichlorobenzene

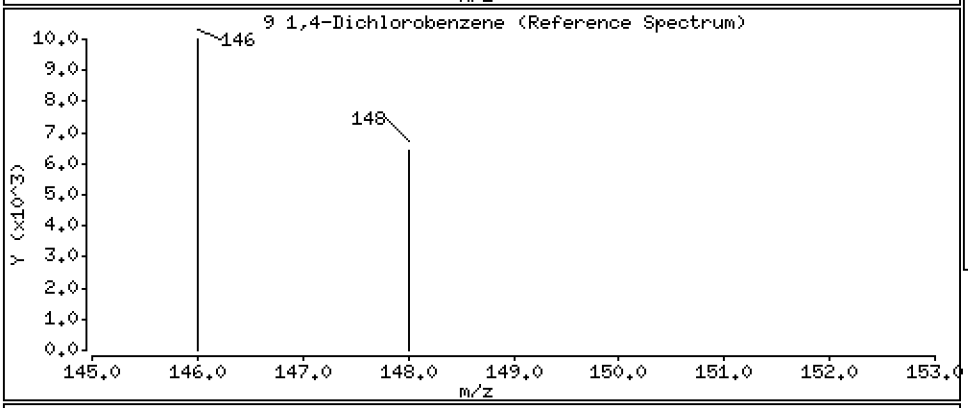
Concentration: 0.9826 ug/mL

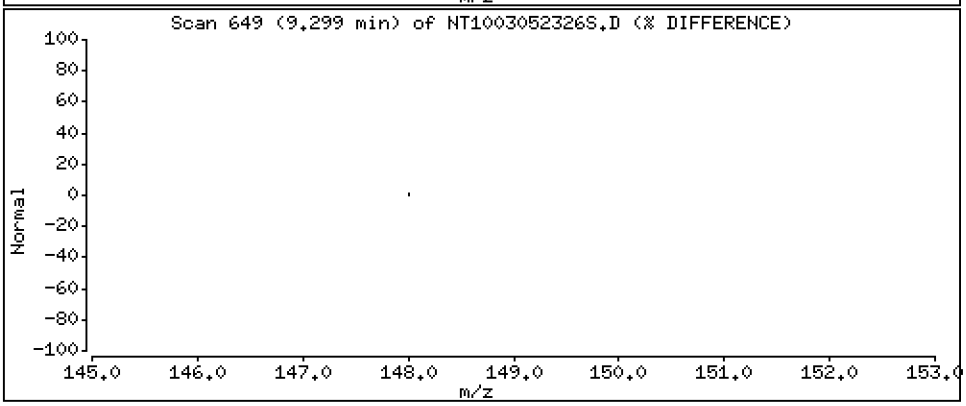












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523265.D

Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

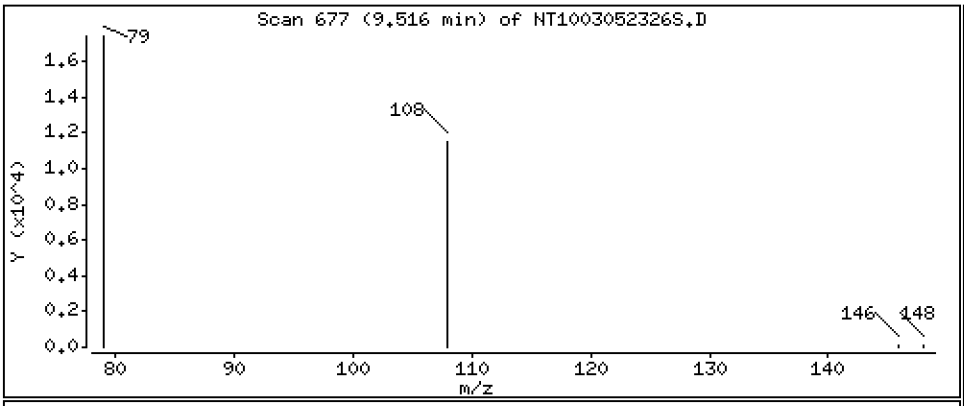
Operator: YZ

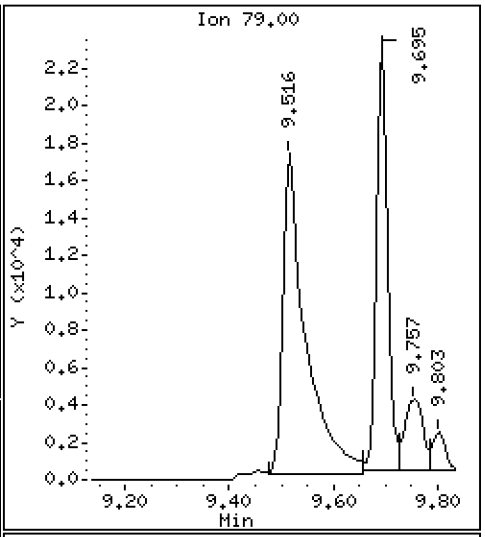
Column phase: ZB-5msi

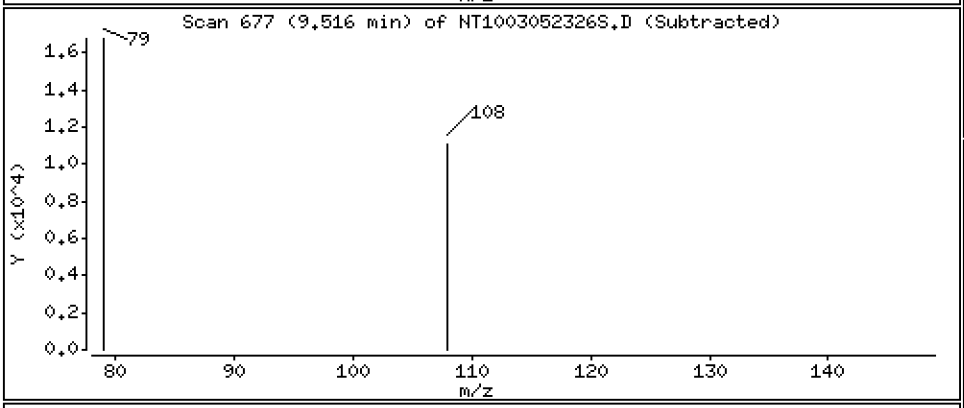
Column diameter: 0.25

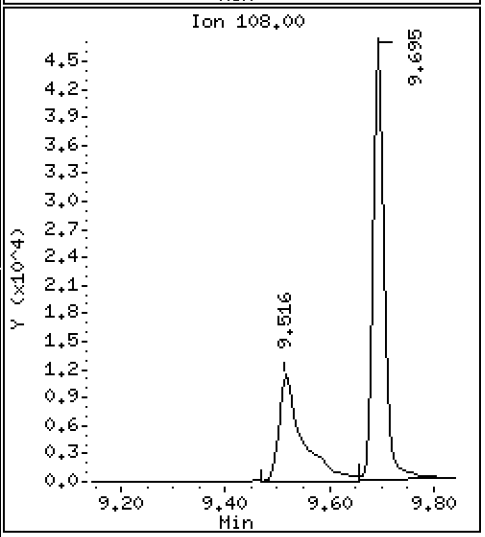
11 Benzyl alcohol

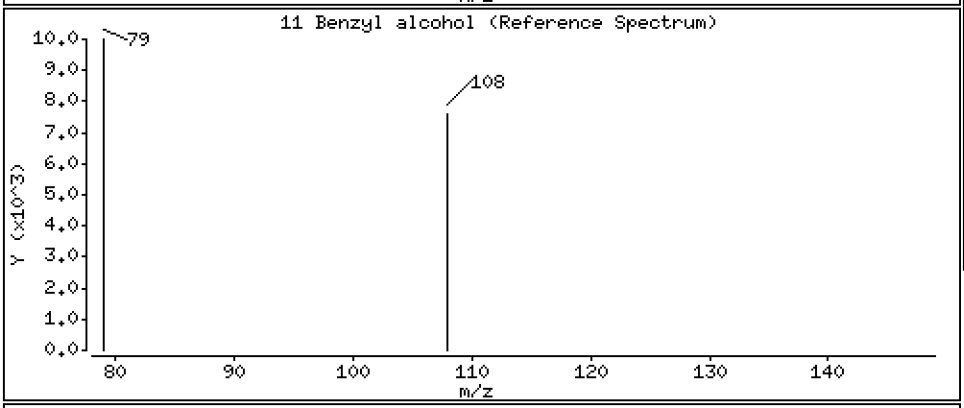
Concentration: 0.9323 ug/mL

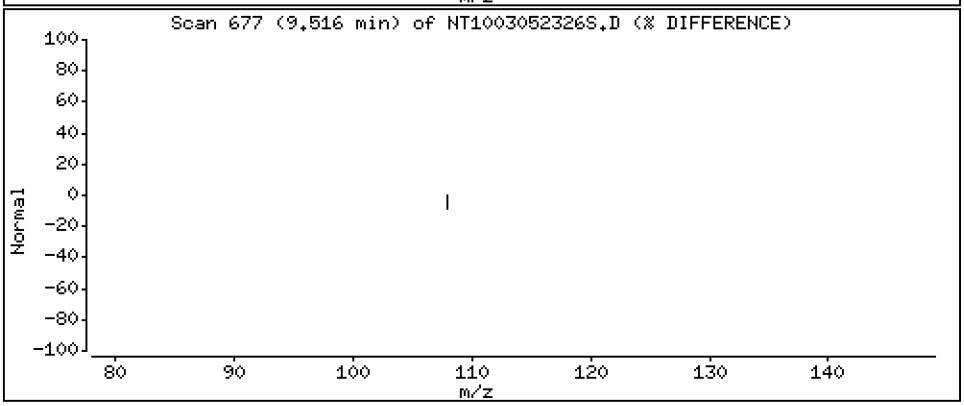












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523265.D

Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

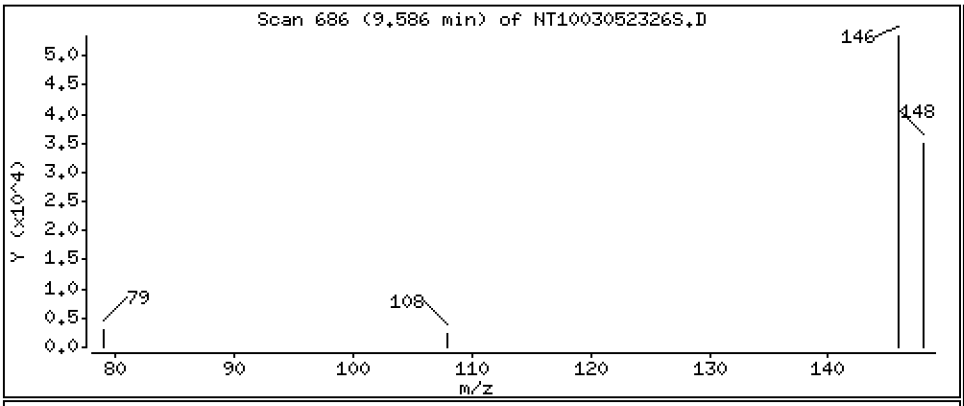
Operator: YZ

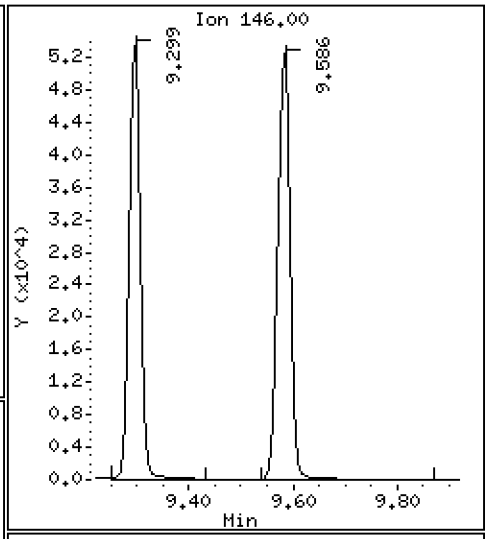
Column phase: ZB-5msi

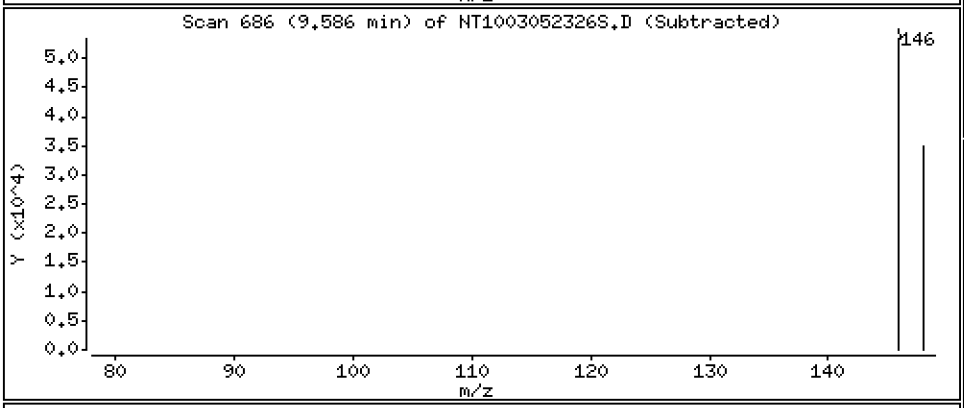
Column diameter: 0.25

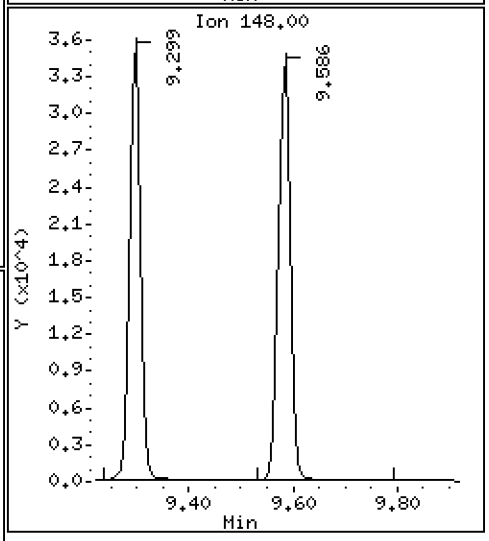
12 1,2-Dichlorobenzene

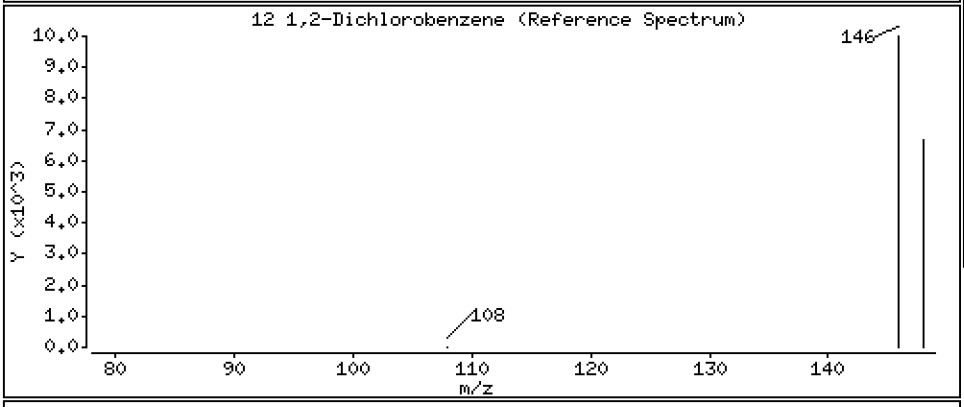
Concentration: 1.007 ug/mL

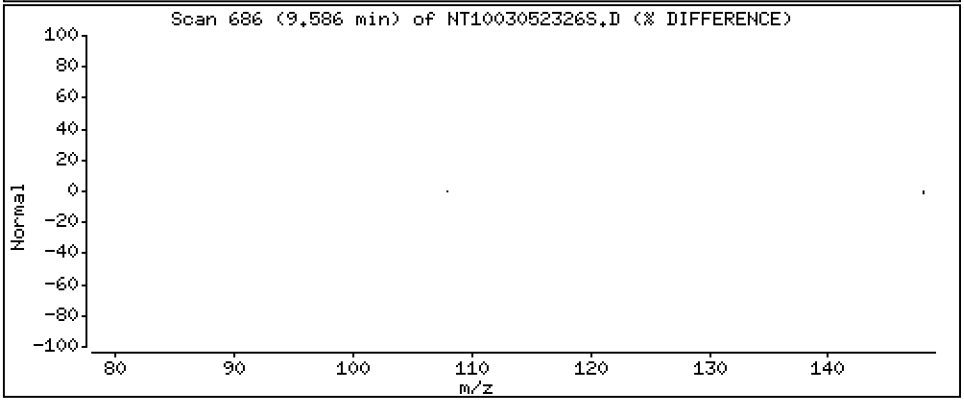












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Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

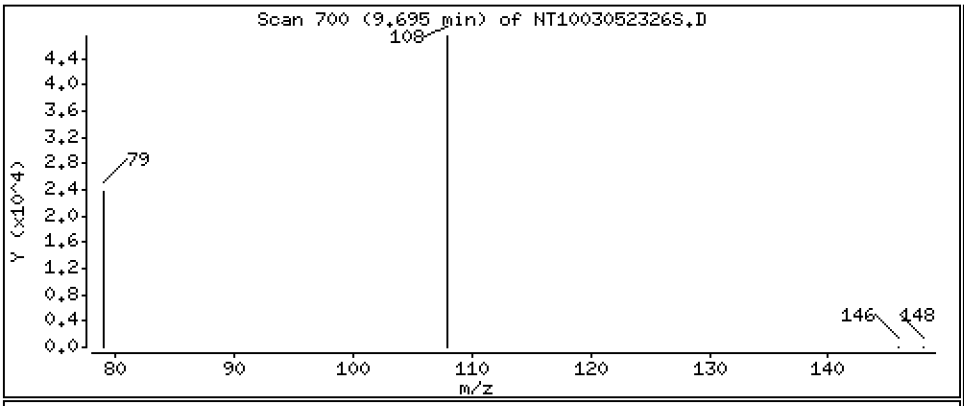
Operator: YZ

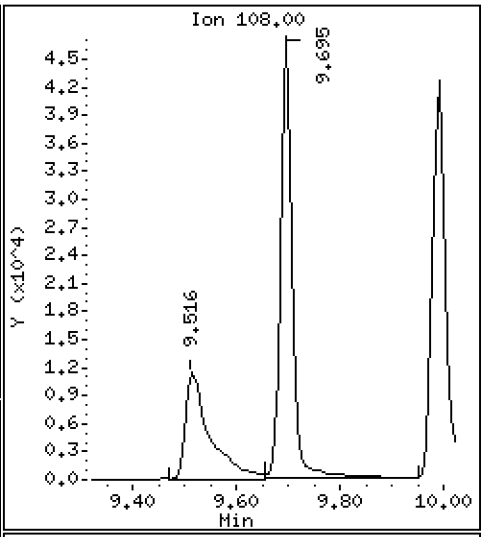
Column phase: ZB-5msi

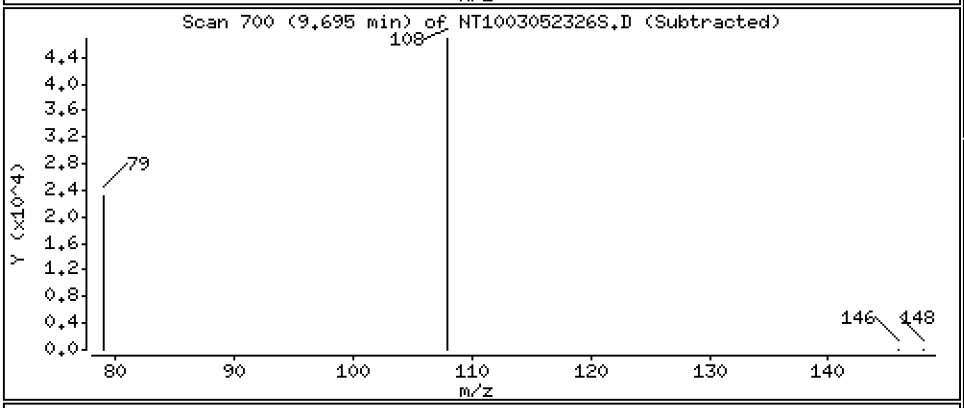
Column diameter: 0.25

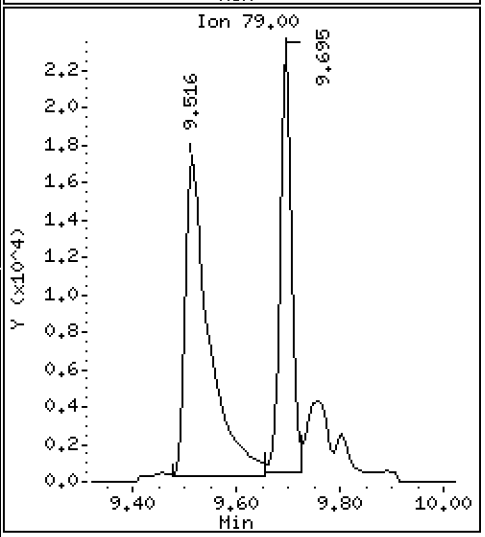
13 2-Methylphenol

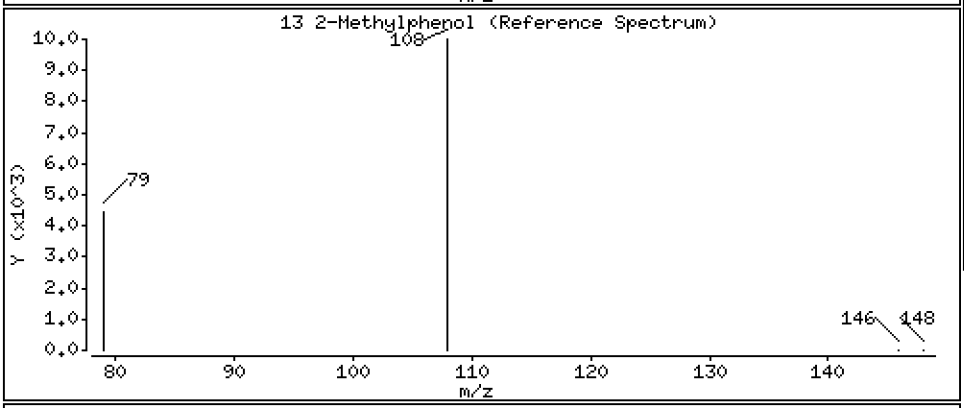
Concentration: 1.216 ug/mL

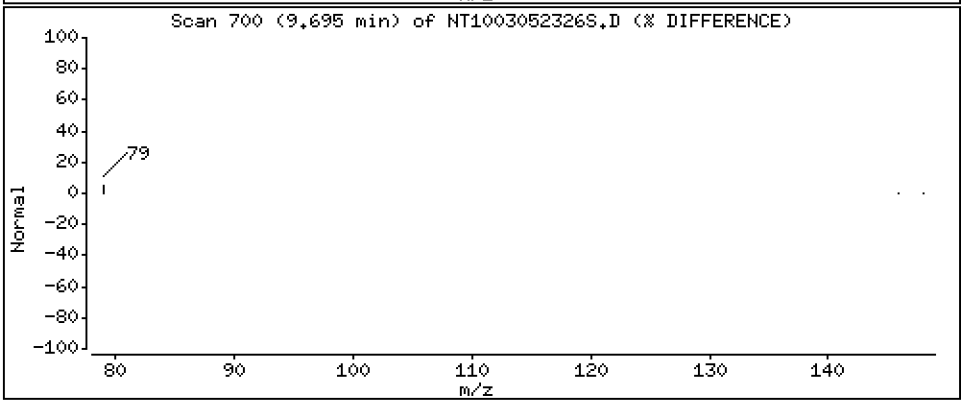












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Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

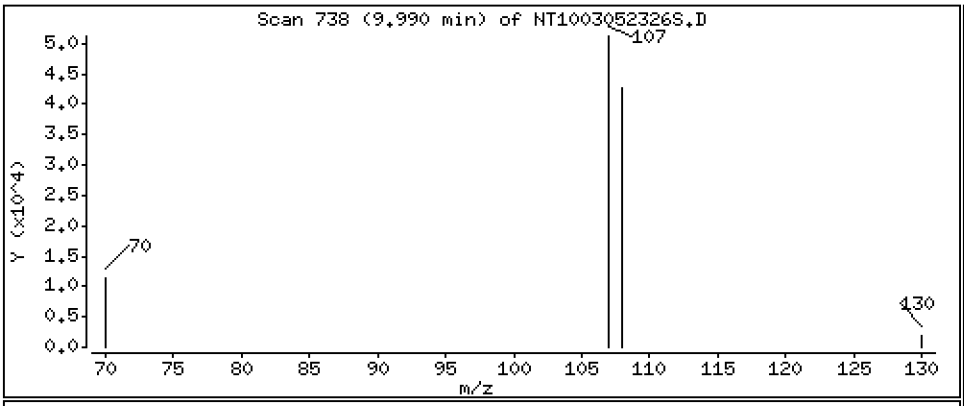
Operator: YZ

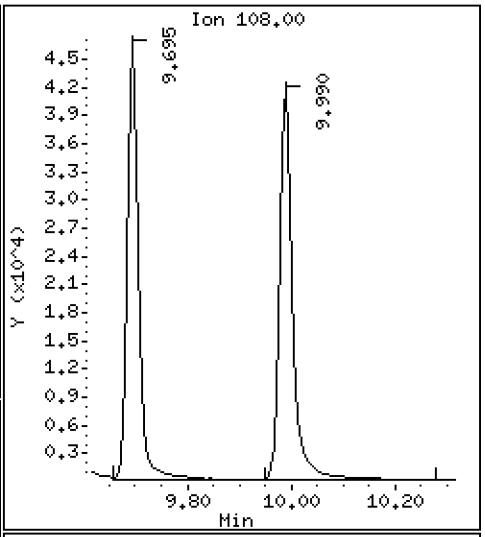
Column phase: ZB-5msi

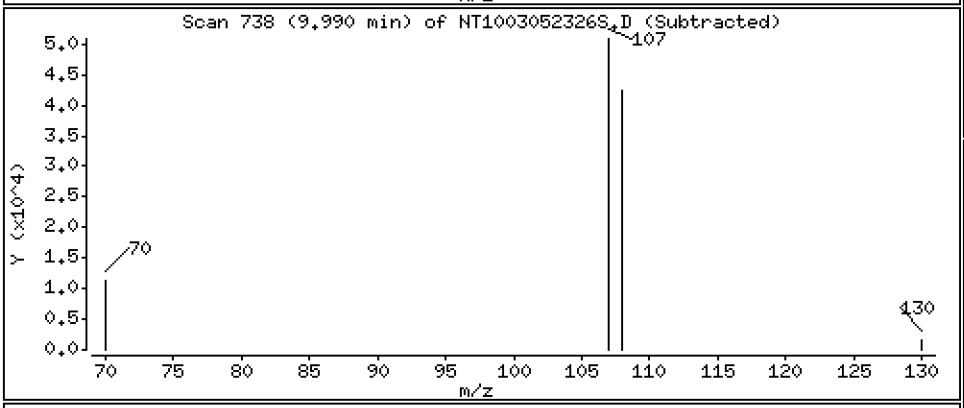
Column diameter: 0.25

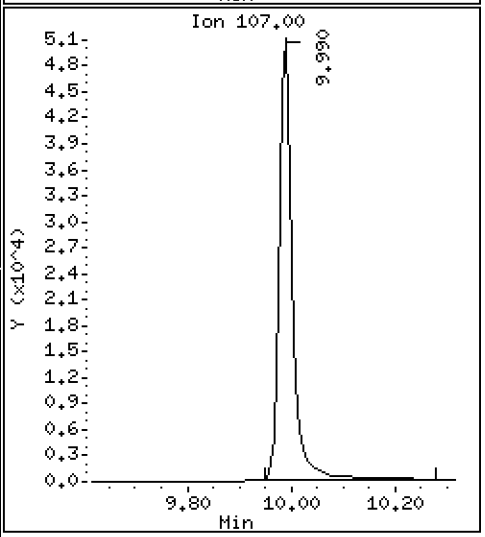
15 4-Methylphenol

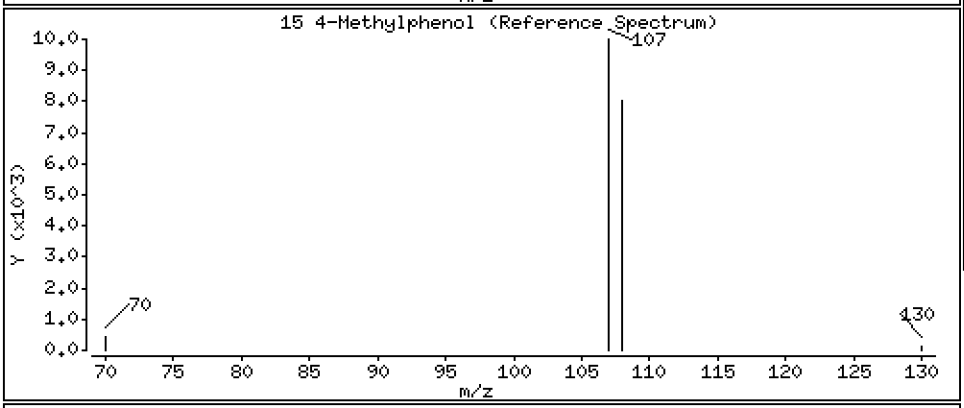
Concentration: 1.180 ug/mL

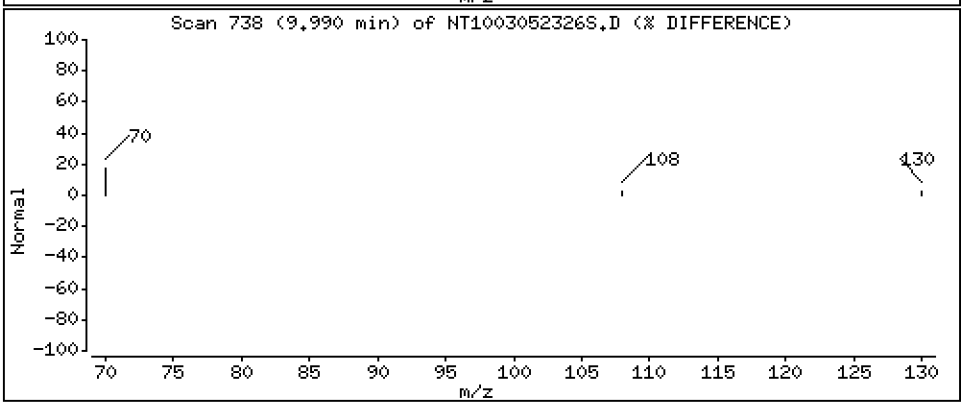












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Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

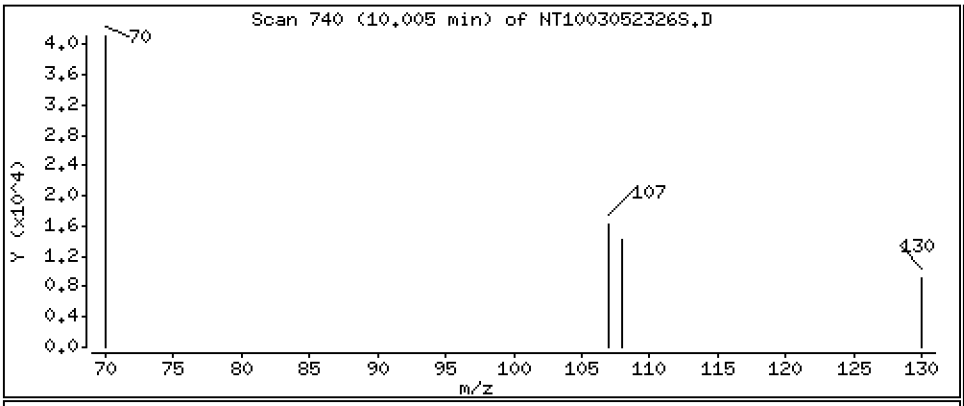
Operator: YZ

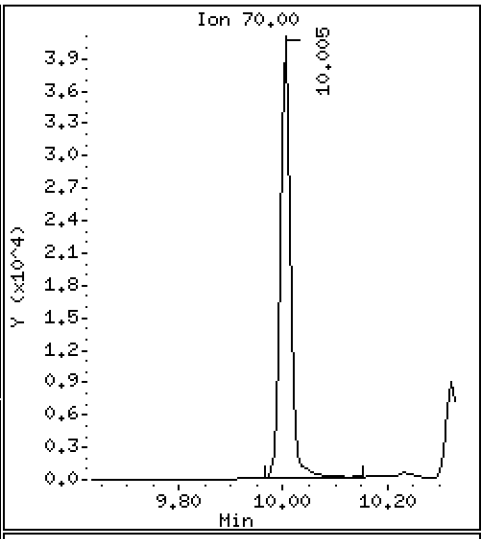
Column phase: ZB-5msi

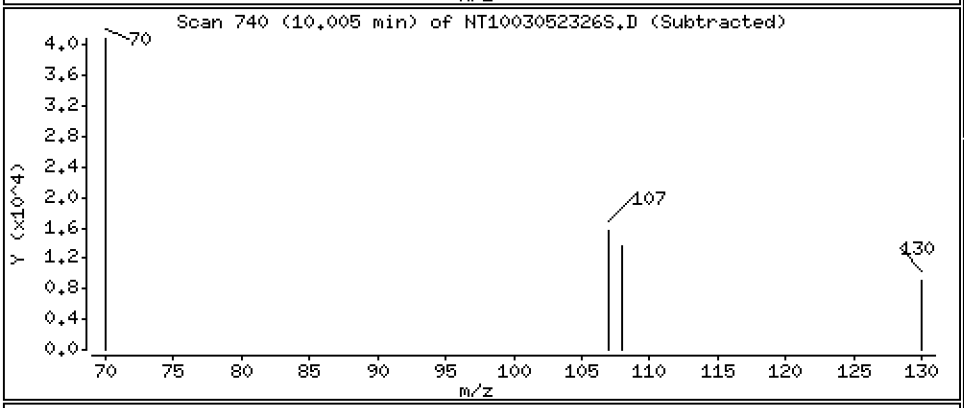
Column diameter: 0.25

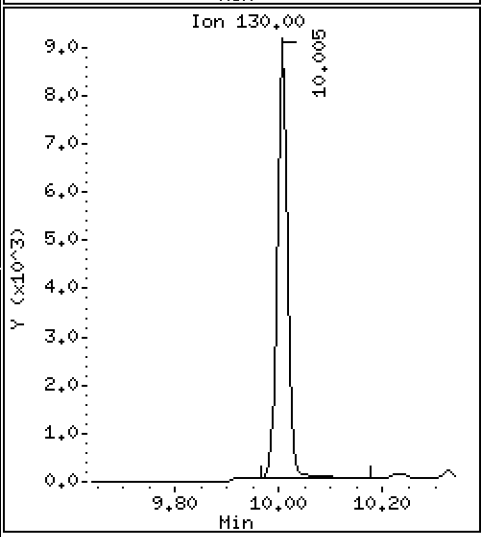
16 N-Nitroso-di-n-propylamine

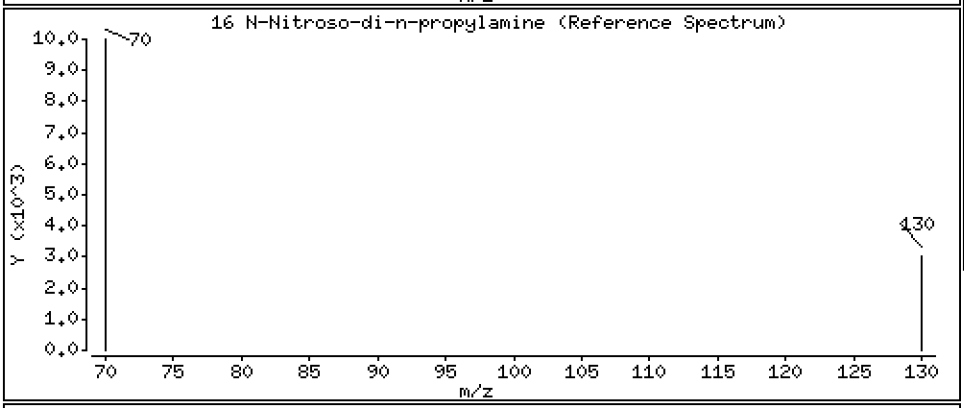
Concentration: 1.272 ug/mL

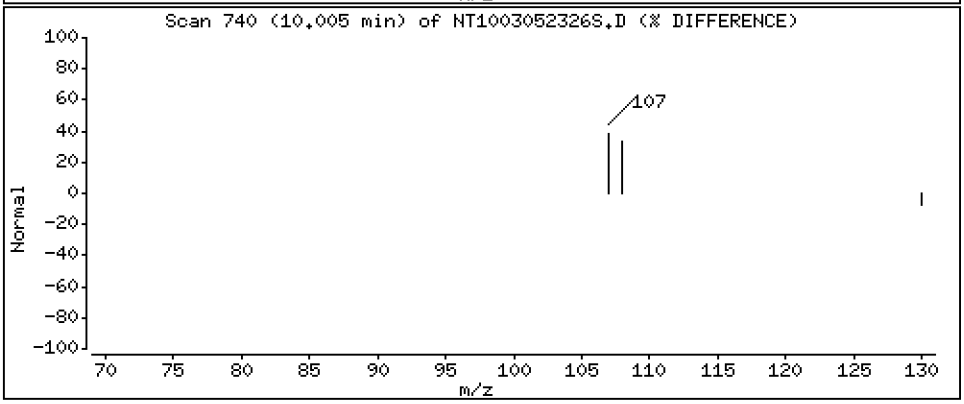












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Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

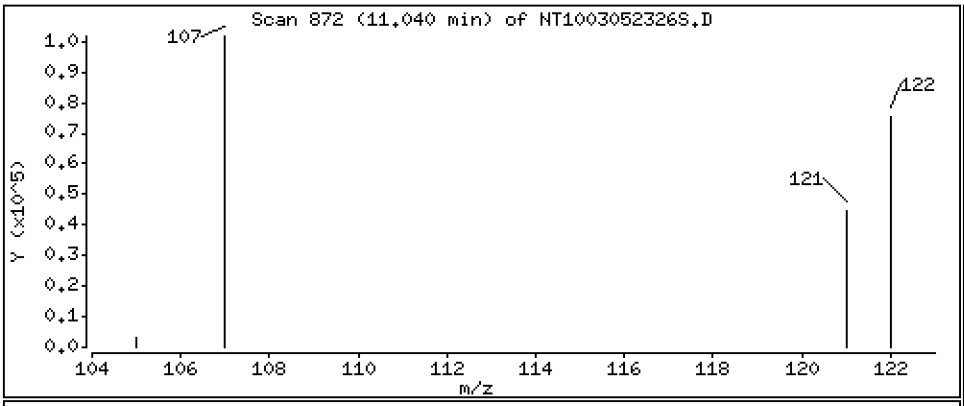
Operator: YZ

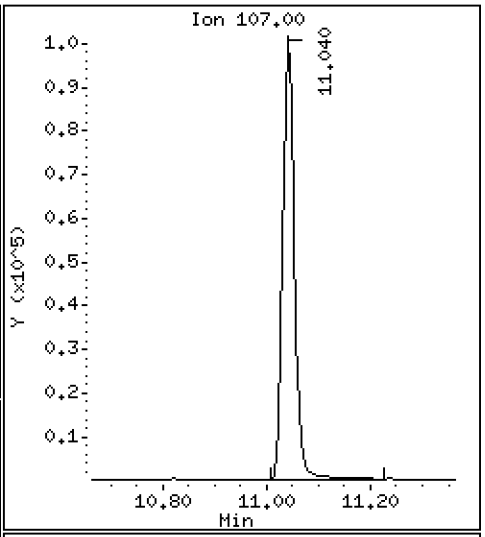
Column phase: ZB-5msi

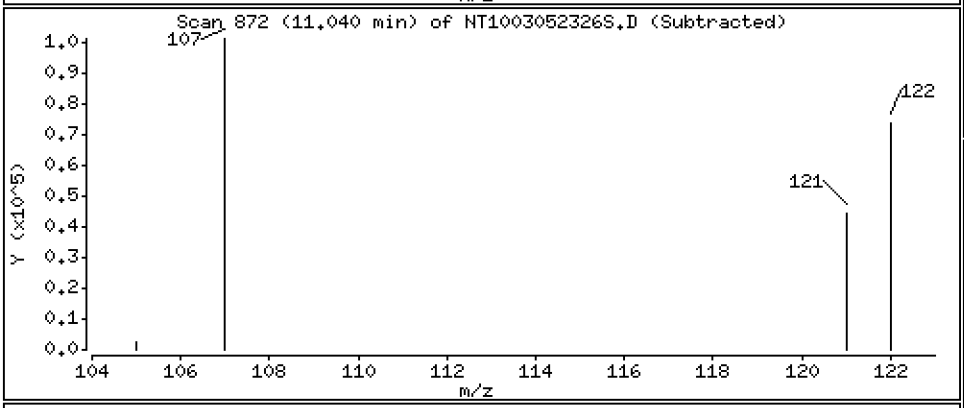
Column diameter: 0.25

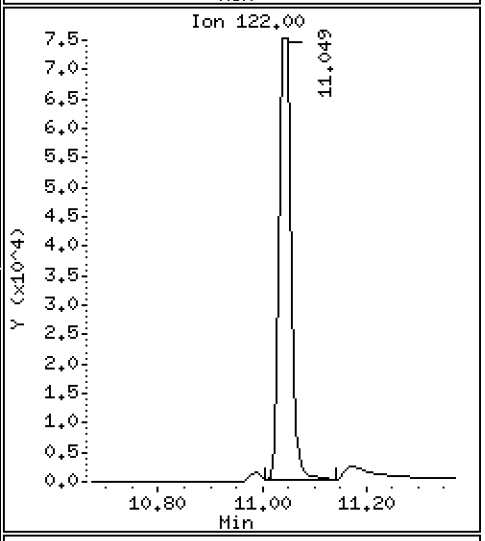
22 2,4-Dimethylphenol

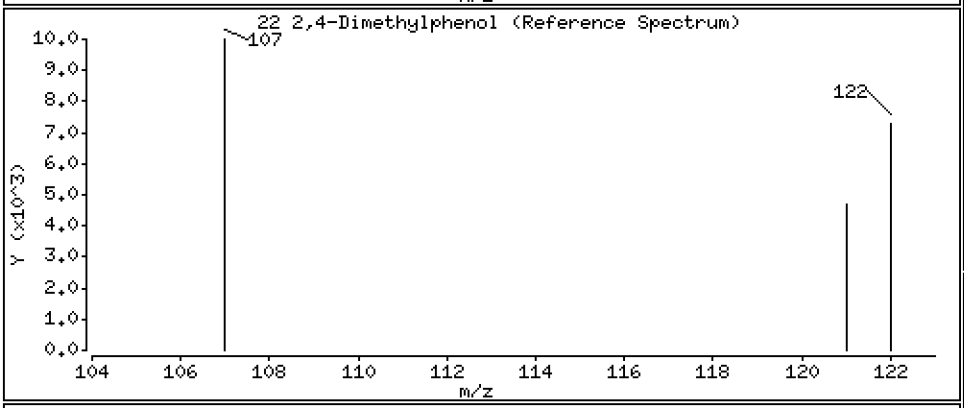
Concentration: 2.153 ug/mL

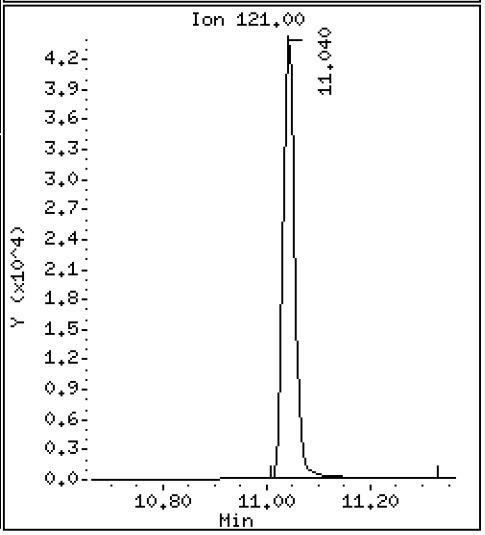


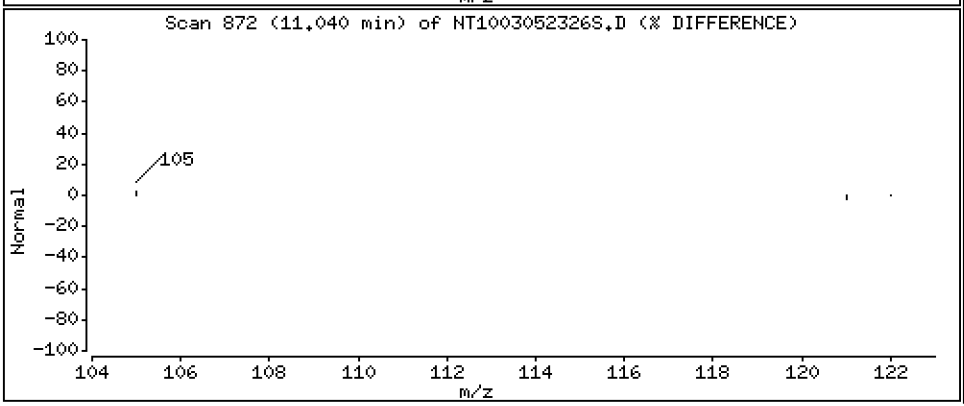












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Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

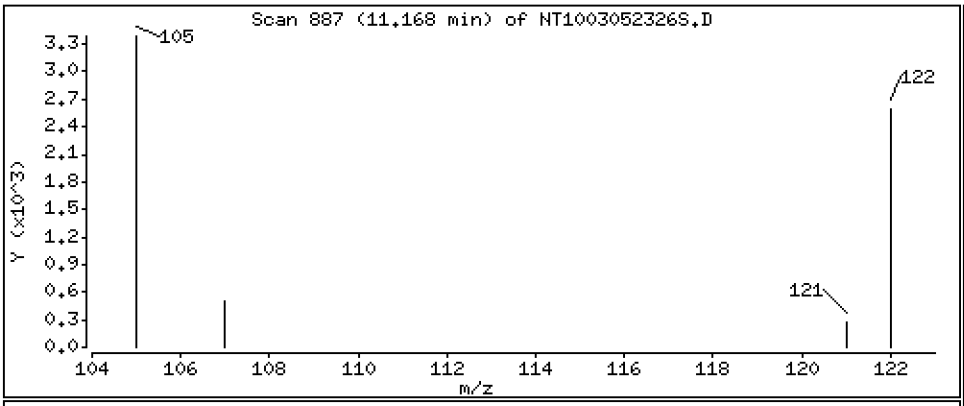
Operator: YZ

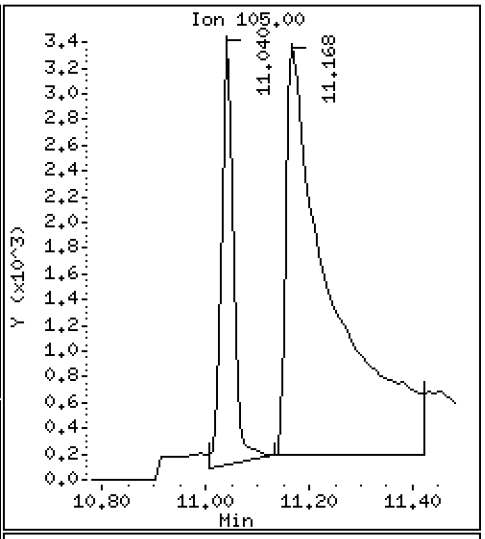
Column phase: ZB-5msi

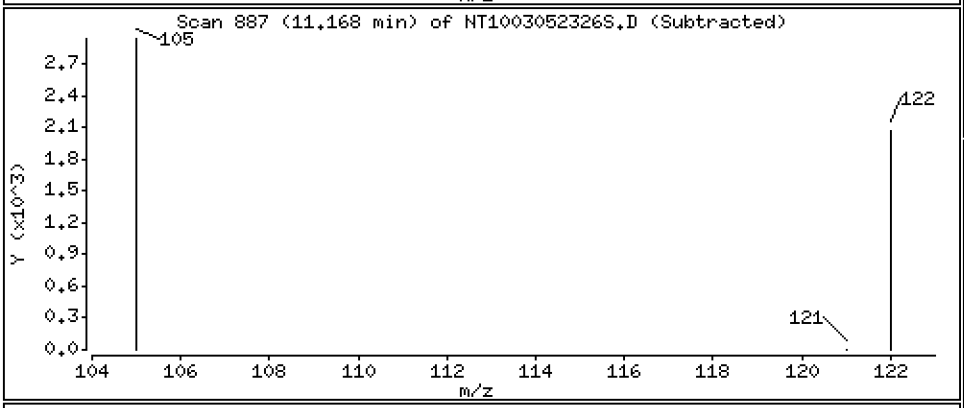
Column diameter: 0.25

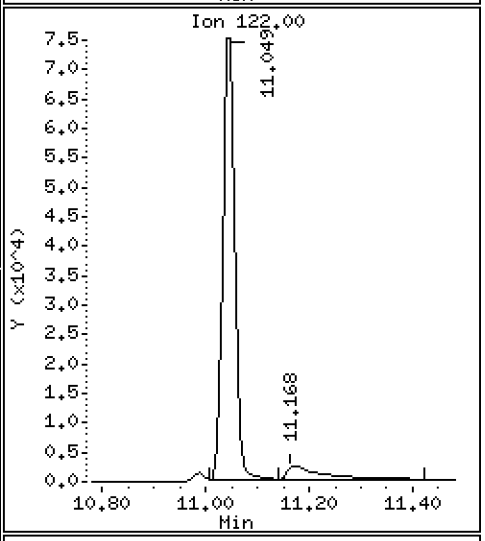
24 Benzoic acid

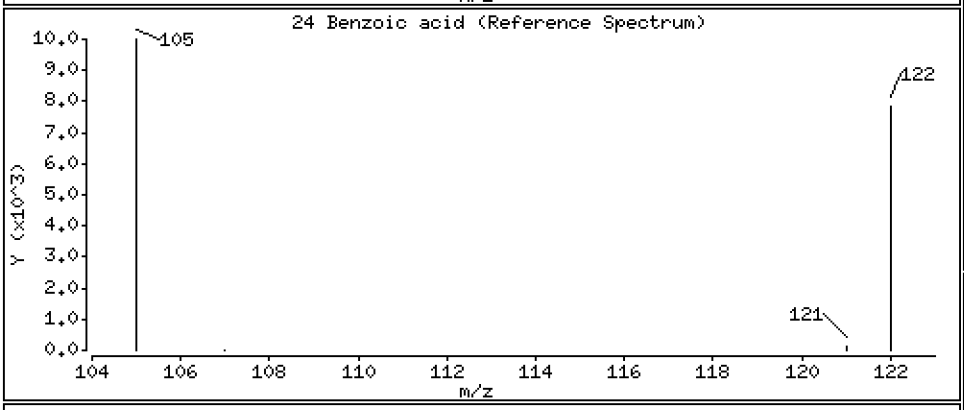
Concentration: 0.4909 ug/mL

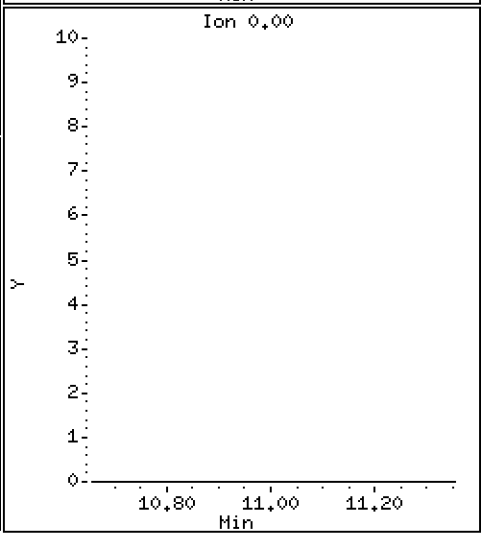


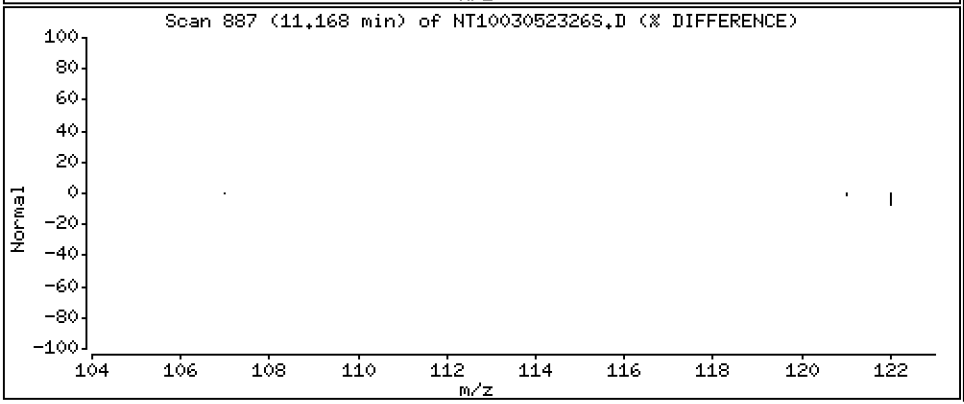












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Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

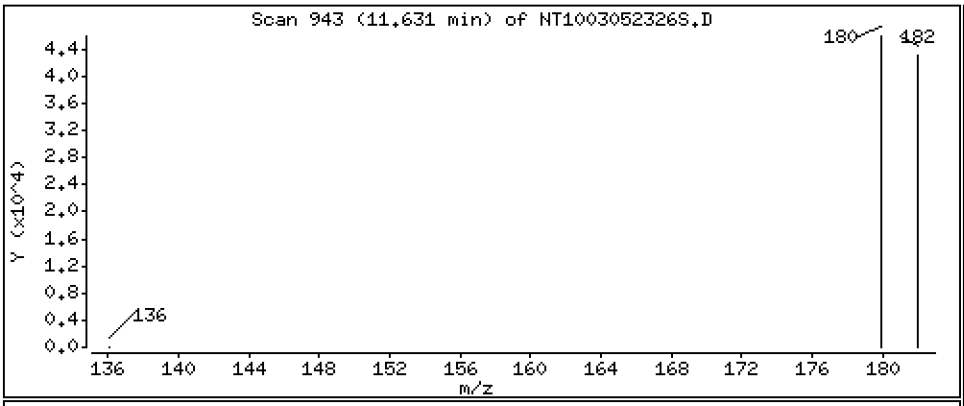
Operator: YZ

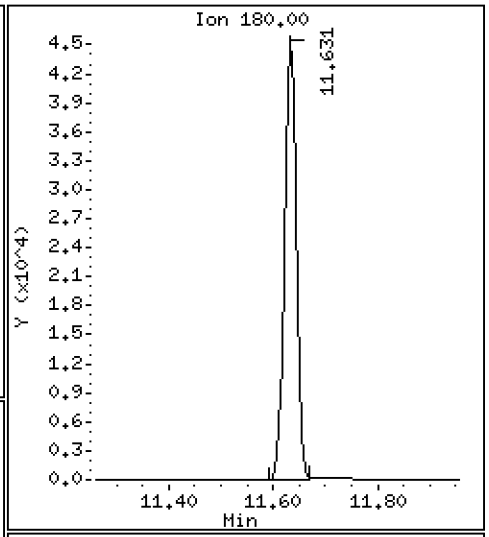
Column phase: ZB-5msi

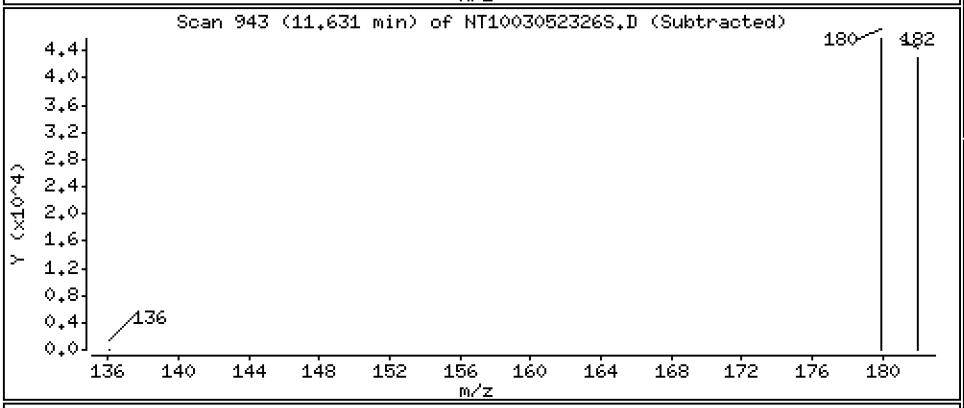
Column diameter: 0.25

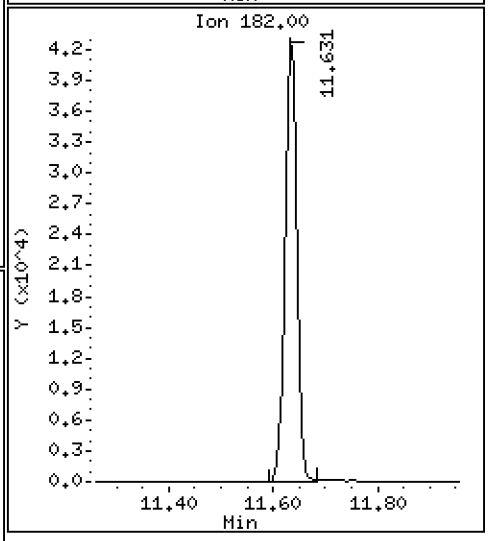
26 1,2,4-Trichlorobenzene

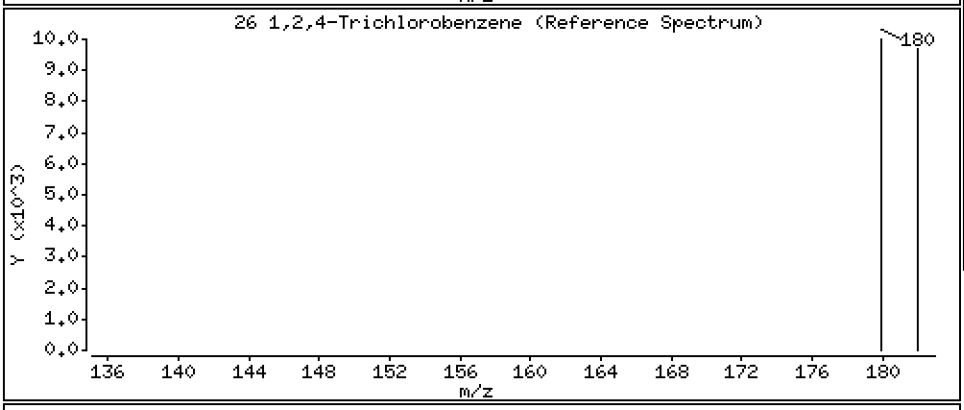
Concentration: 1.192 ug/mL

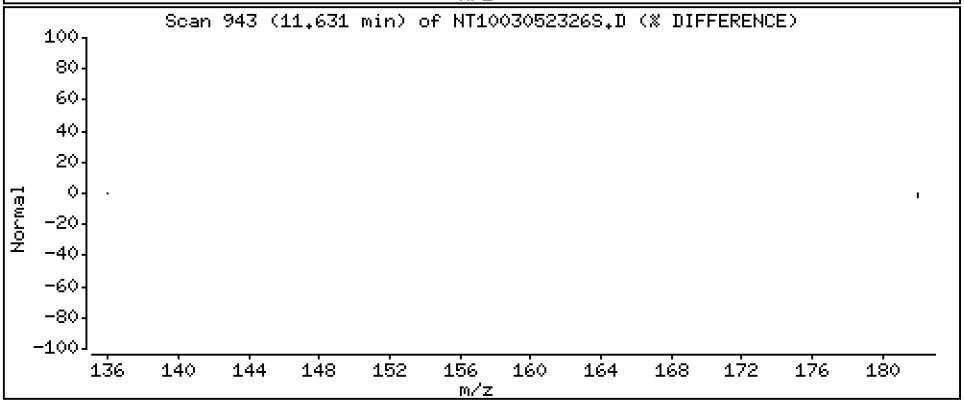












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523265.D

Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

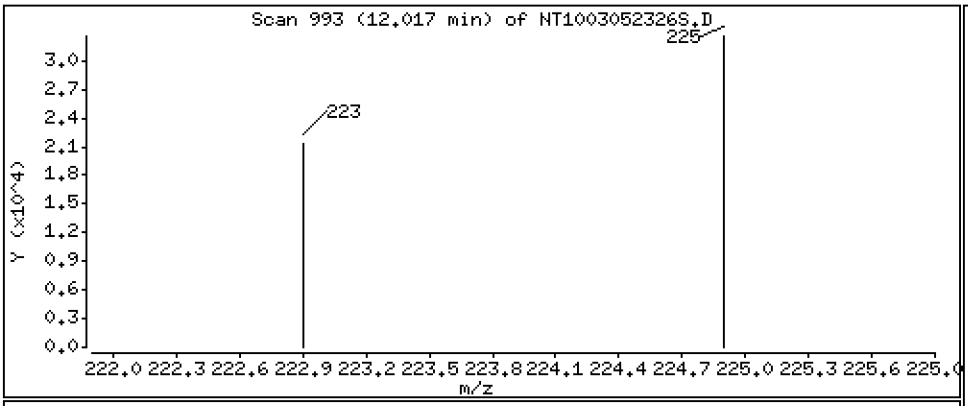
Operator: YZ

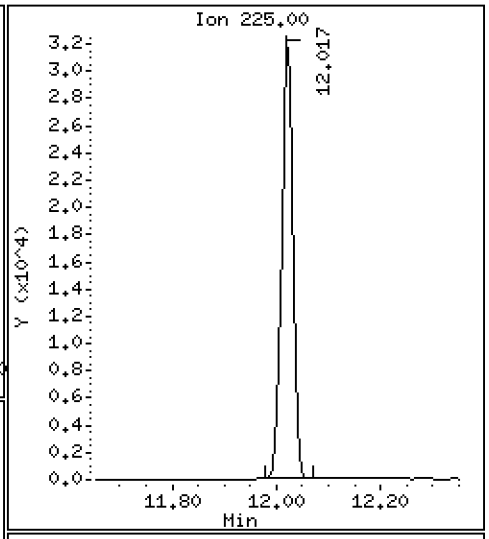
Column phase: ZB-5msi

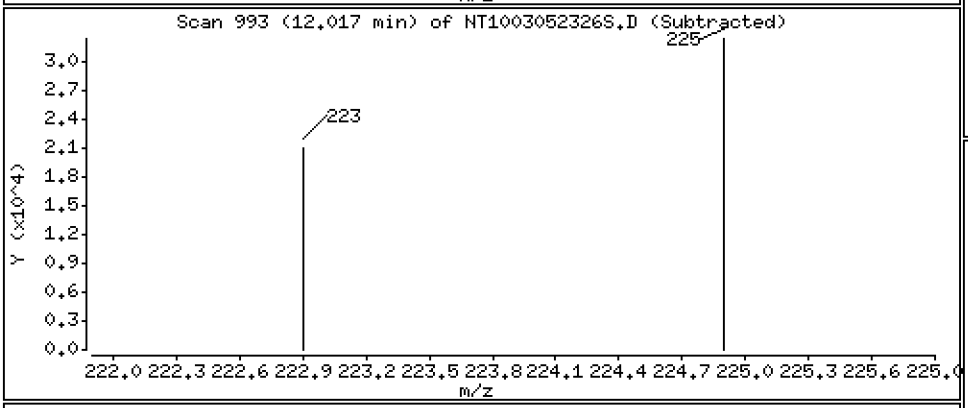
Column diameter: 0.25

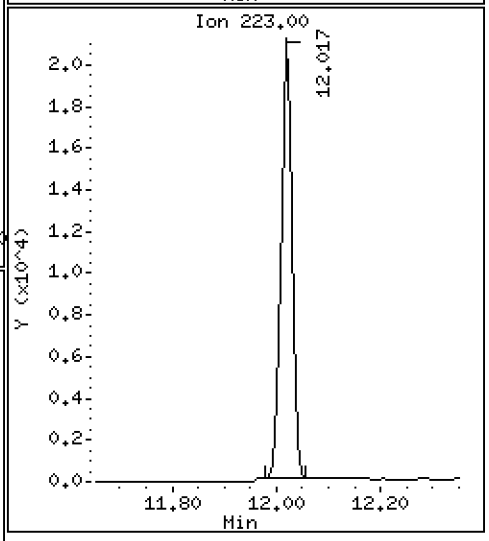
30 Hexachlorobutadiene

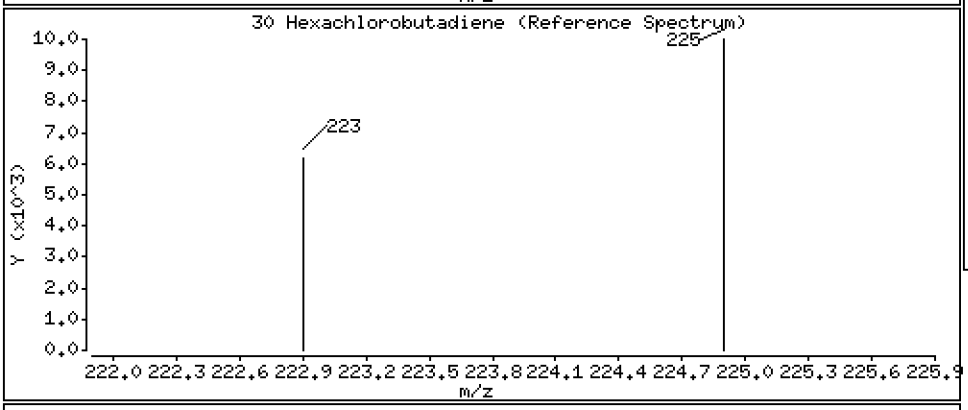
Concentration: 1.108 ug/mL

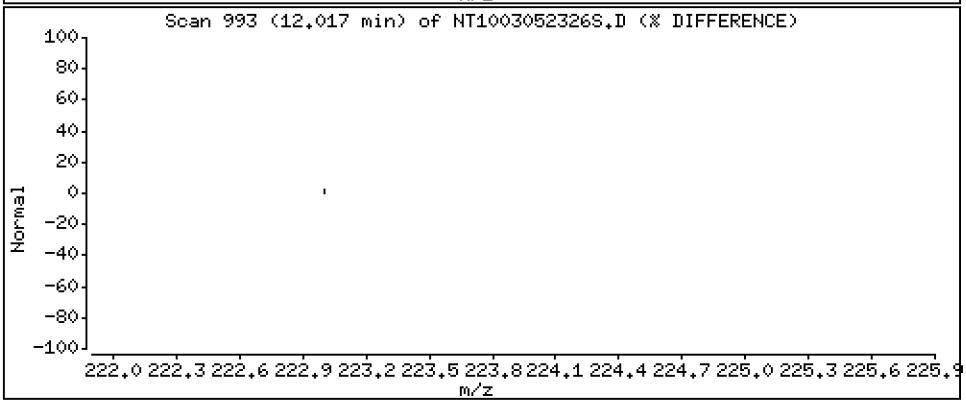












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523265.D

Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

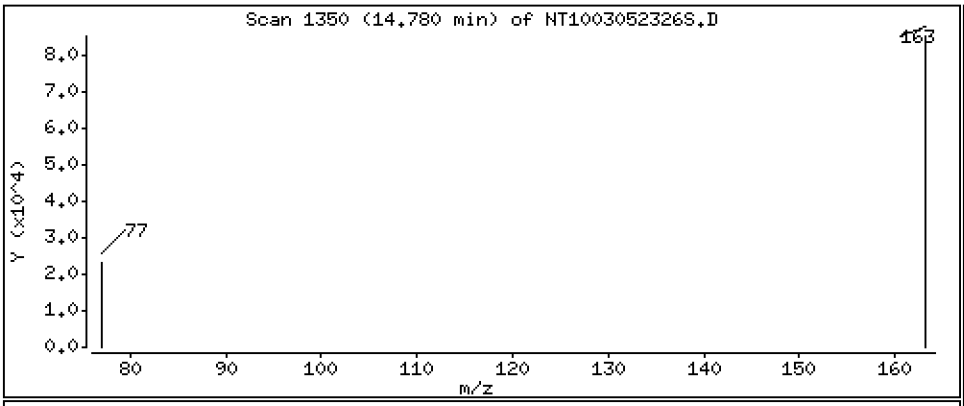
Operator: YZ

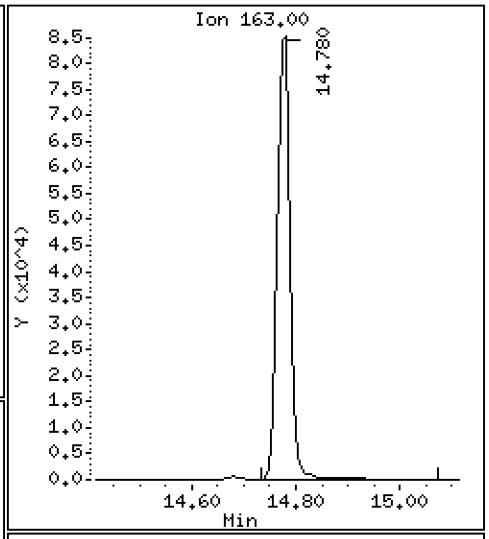
Column phase: ZB-5msi

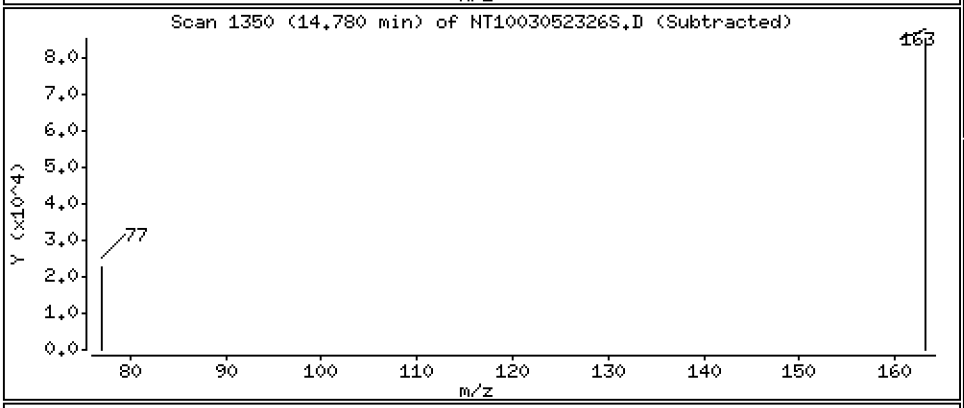
Column diameter: 0.25

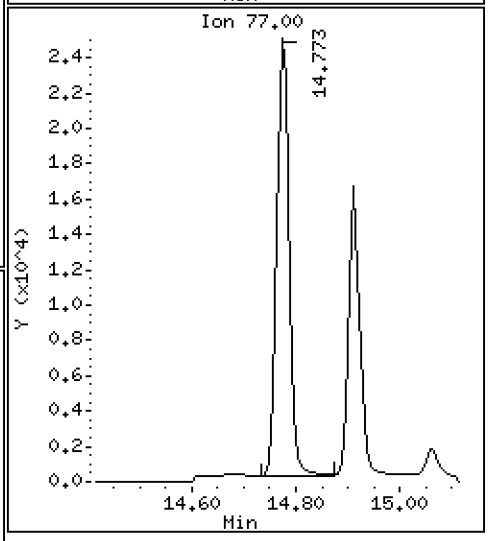
39 Dimethylphthalate

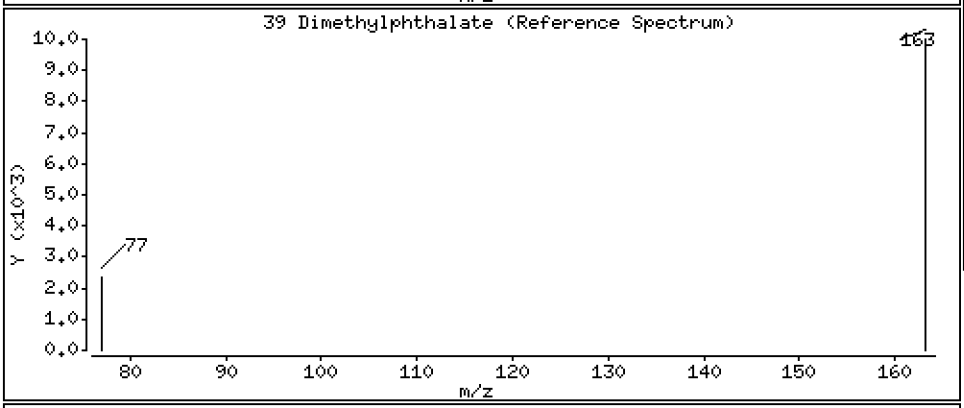
Concentration: 1.032 ug/mL

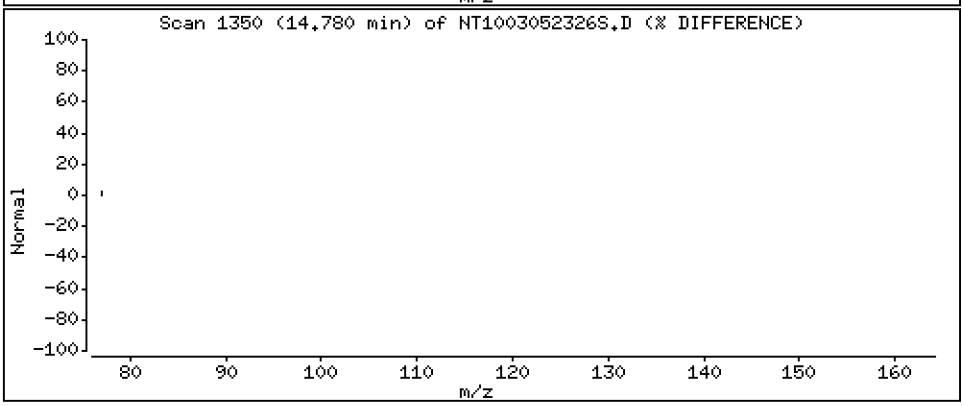












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523265.D

Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

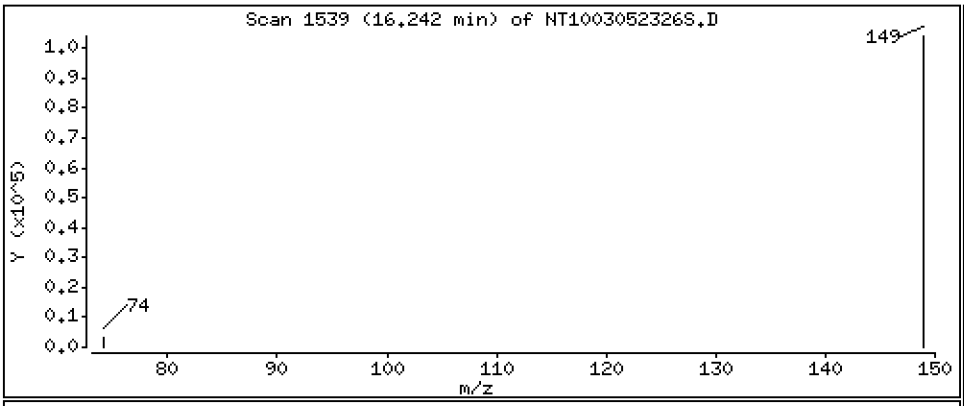
Operator: YZ

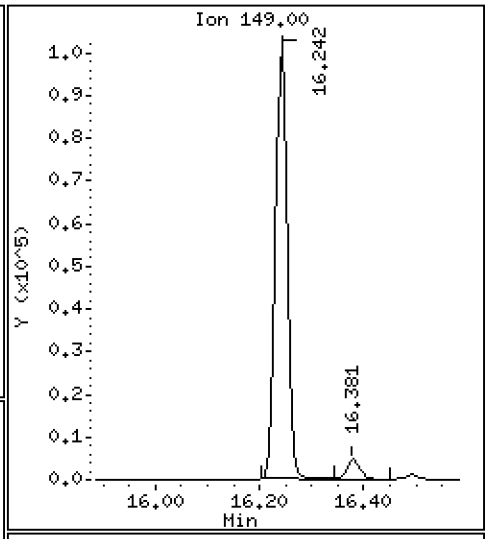
Column phase: ZB-5msi

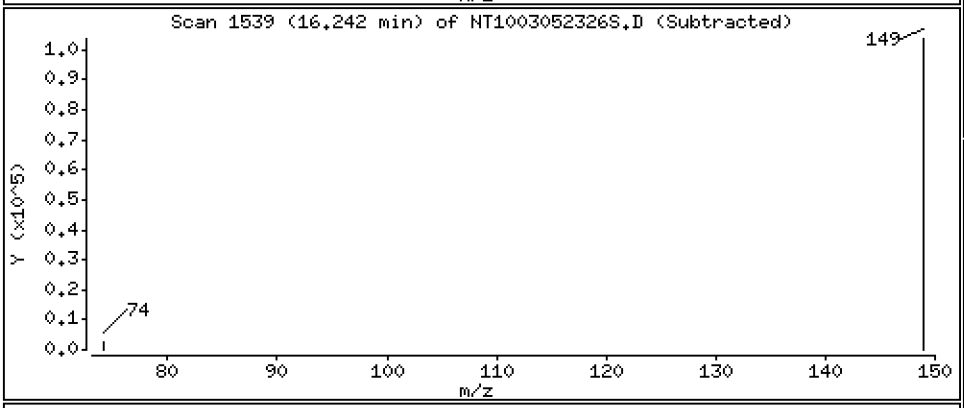
Column diameter: 0.25

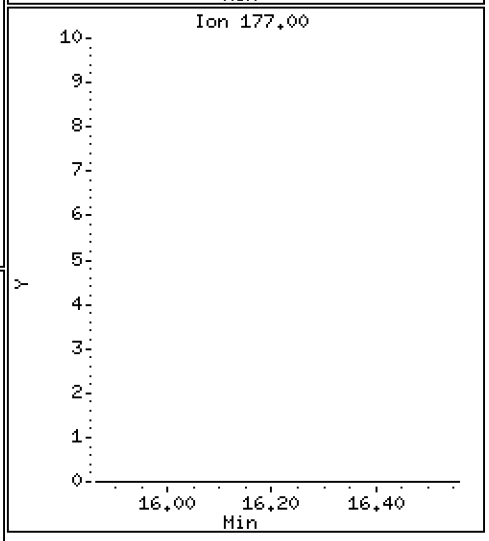
50 Diethylphthalate

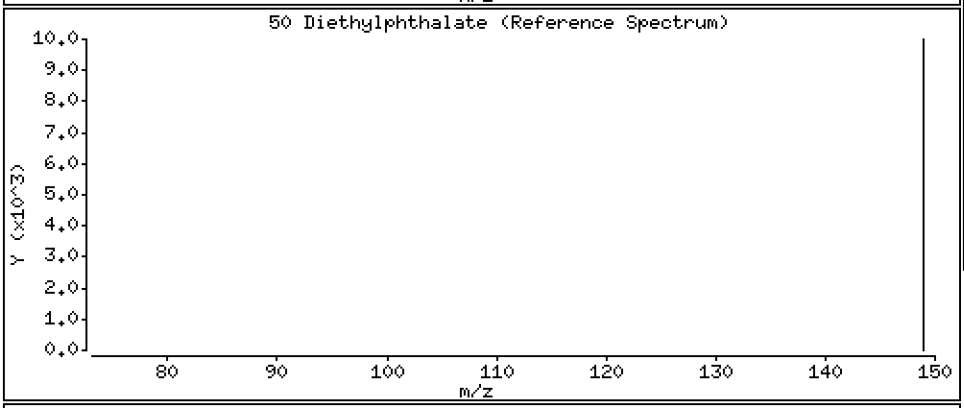
Concentration: 1.189 ug/mL

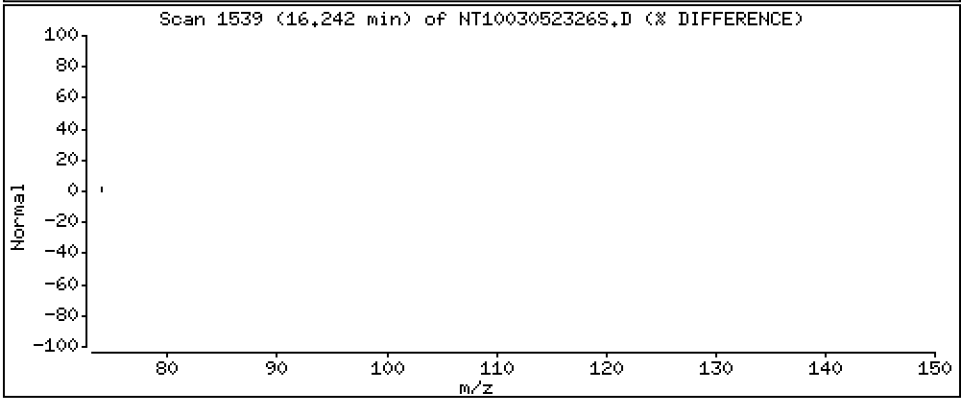












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Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

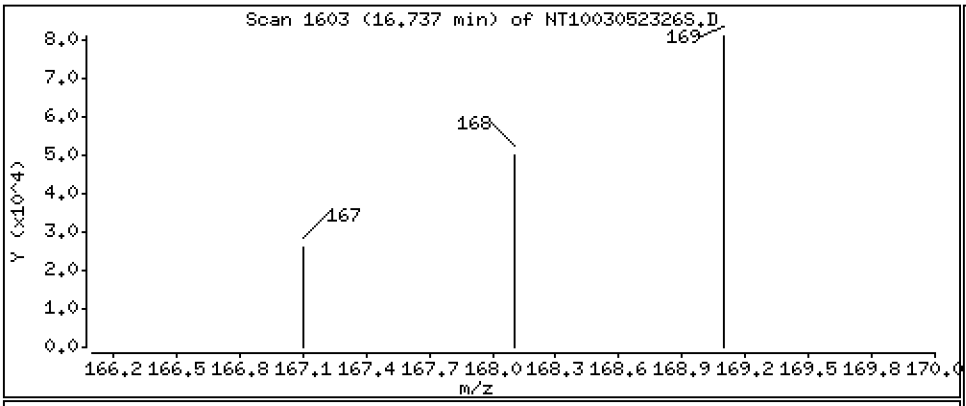
Operator: YZ

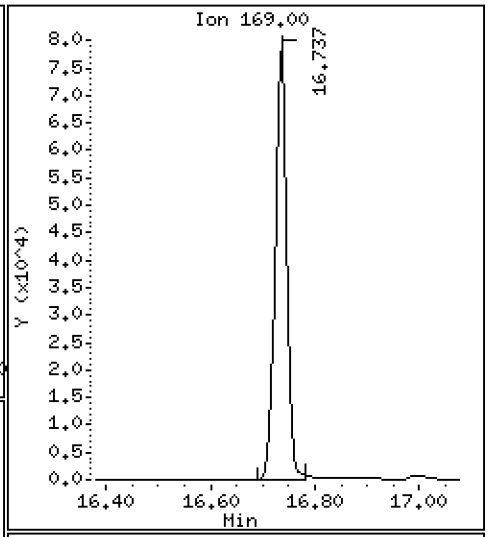
Column phase: ZB-5msi

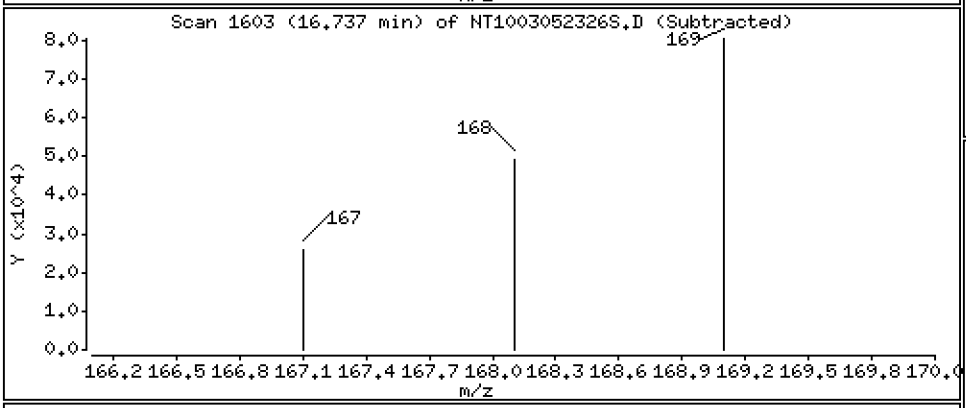
Column diameter: 0.25

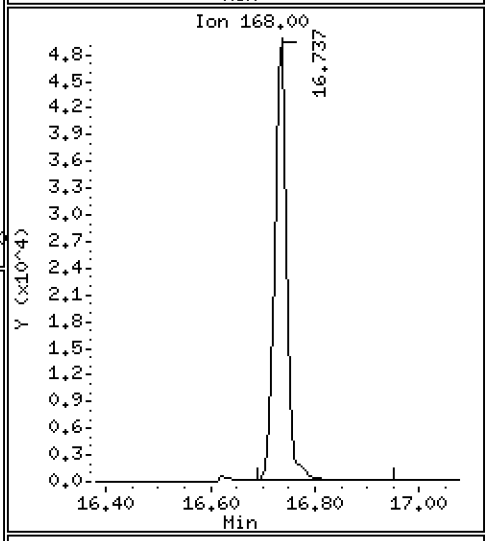
54 N-Nitrosodiphenylamine

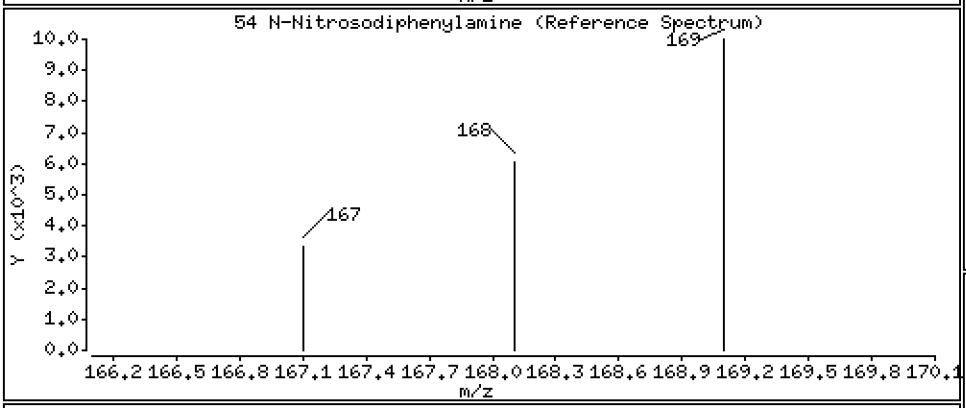
Concentration: 0.9029 ug/mL

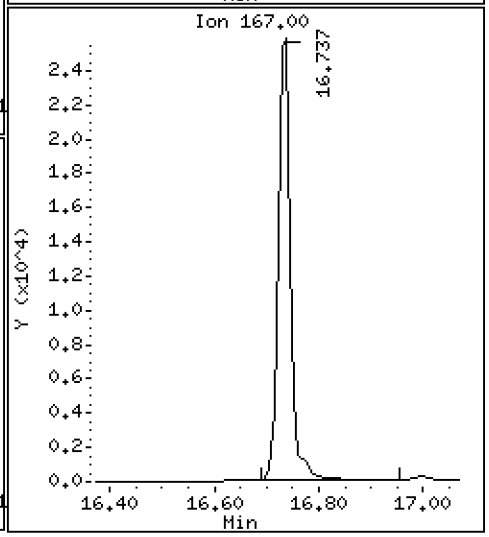


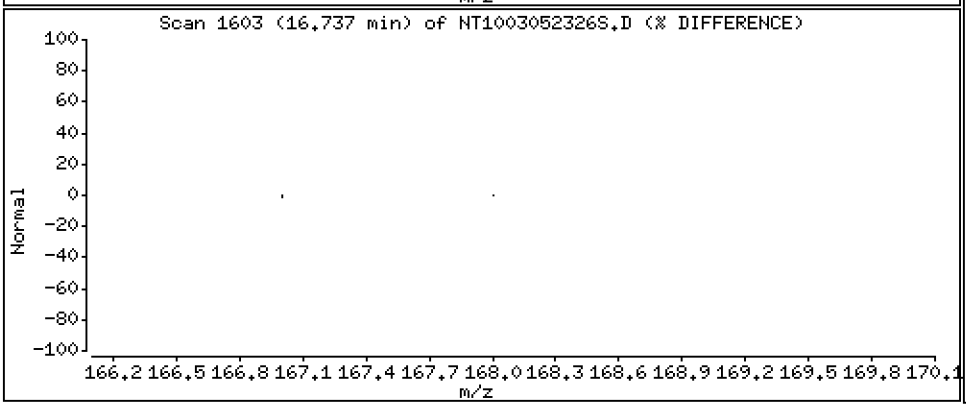












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523265.D

Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

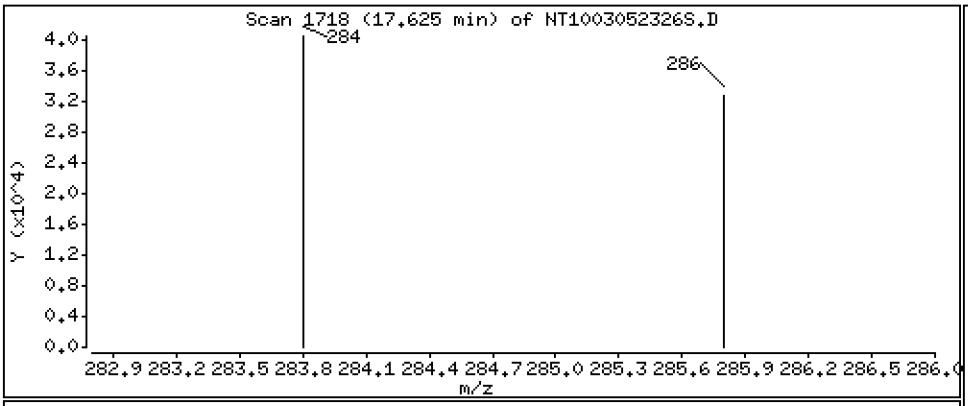
Operator: YZ

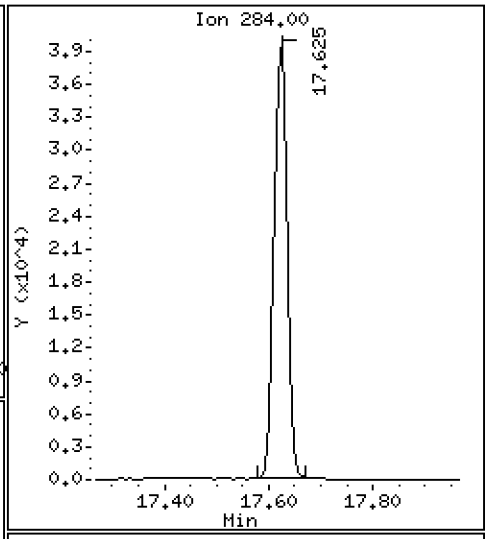
Column phase: ZB-5msi

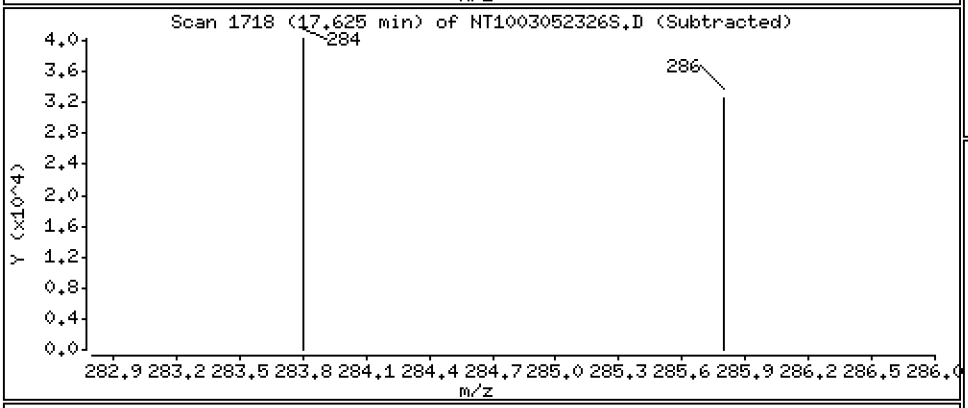
Column diameter: 0.25

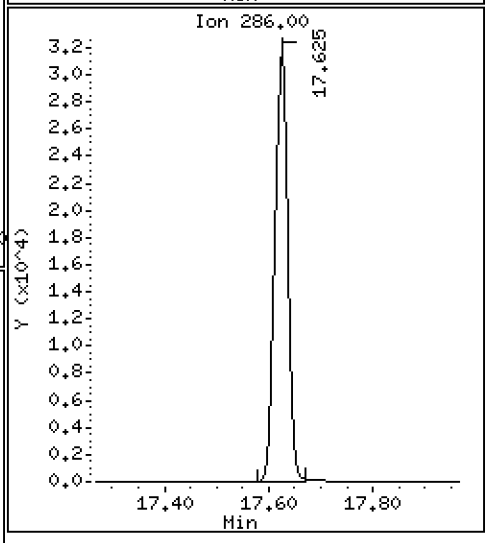
57 Hexachlorobenzene

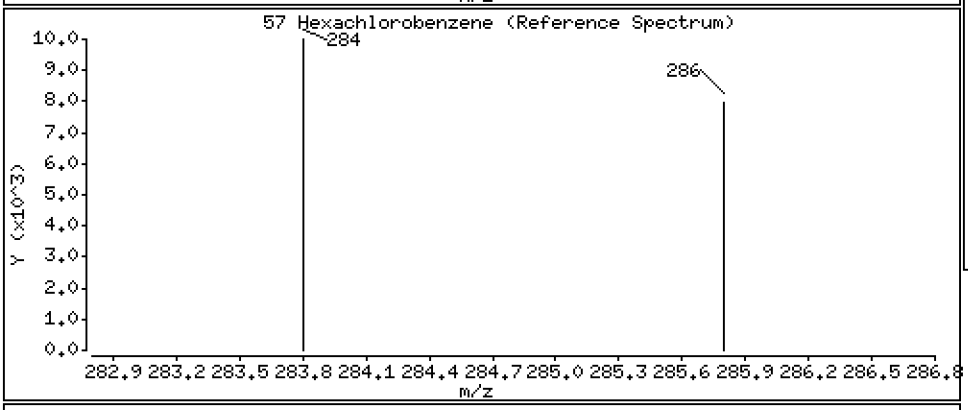
Concentration: 1.060 ug/mL

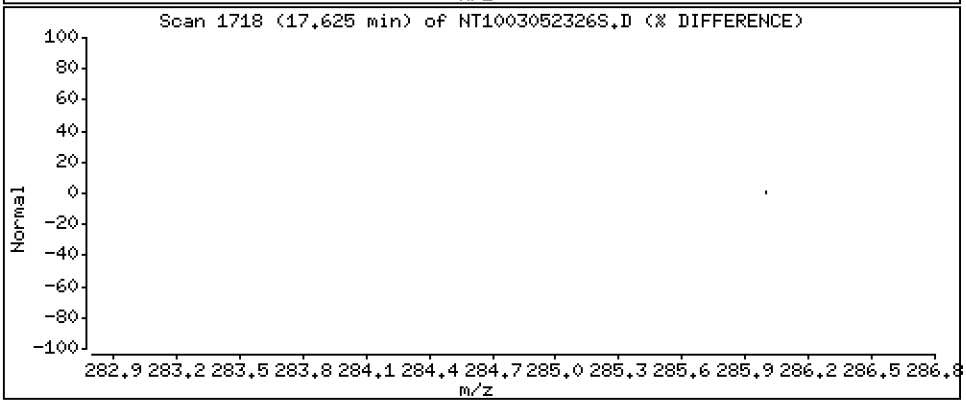












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523265.D

Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

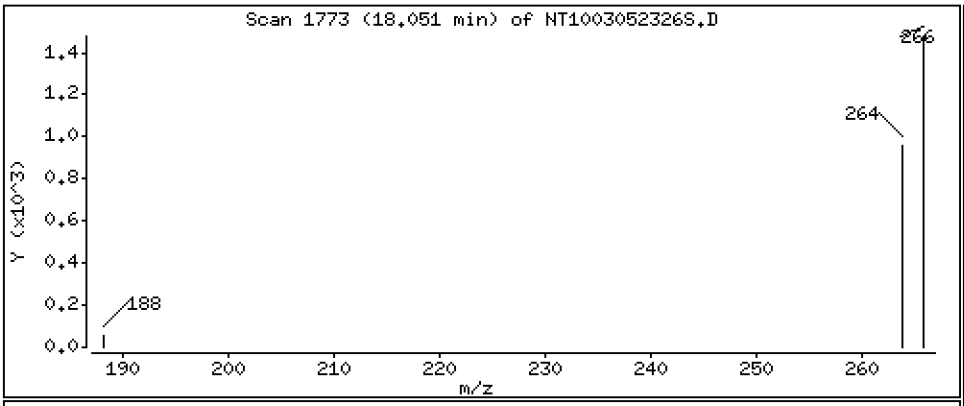
Operator: YZ

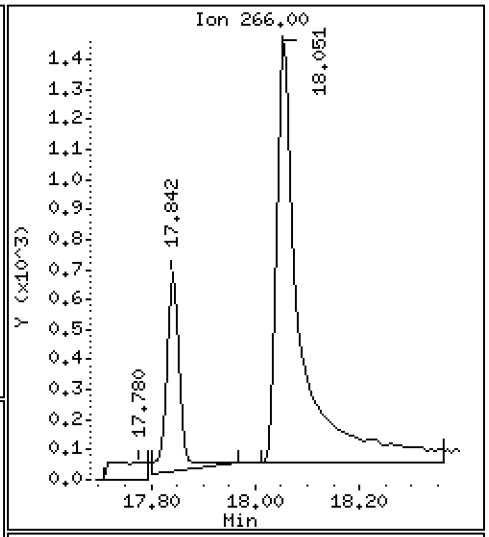
Column phase: ZB-5msi

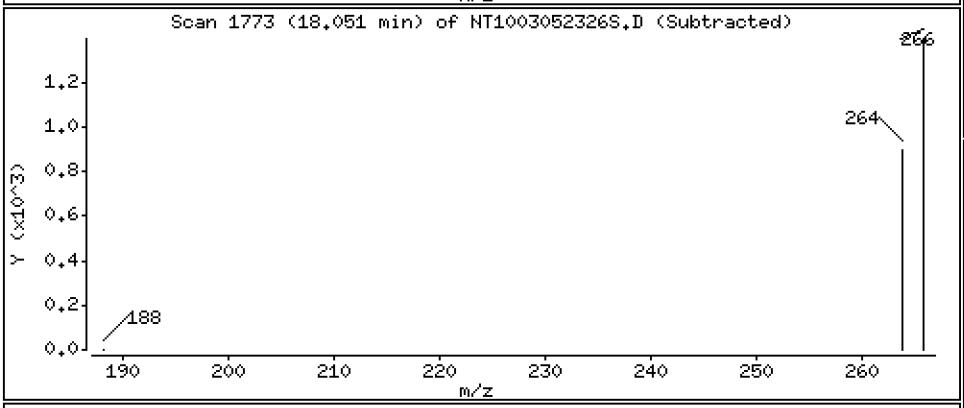
Column diameter: 0.25

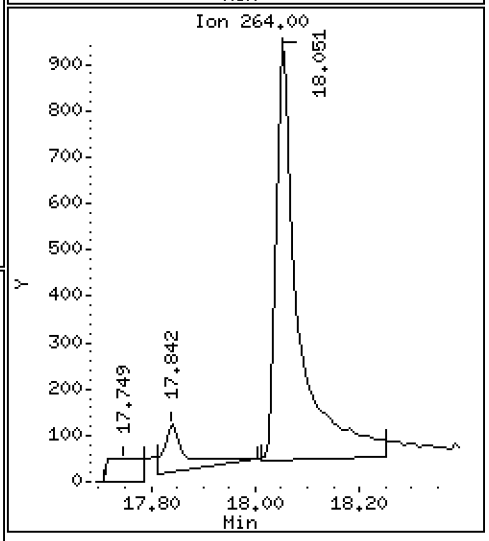
58 Pentachlorophenol

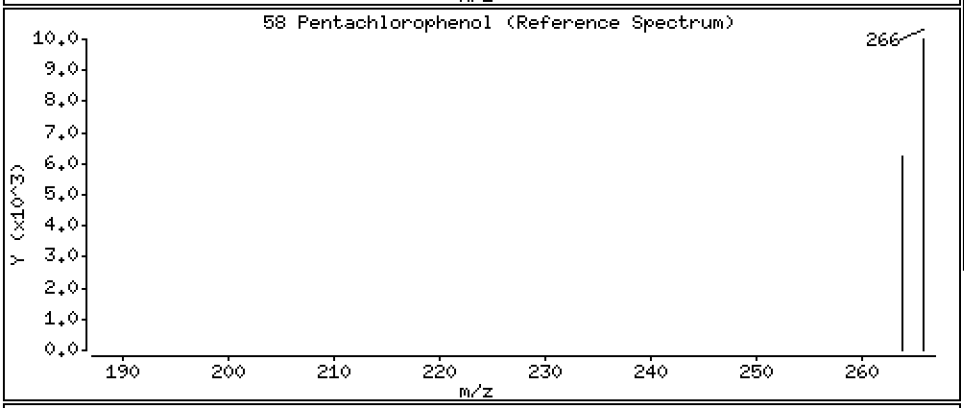
Concentration: 0.1637 ug/mL

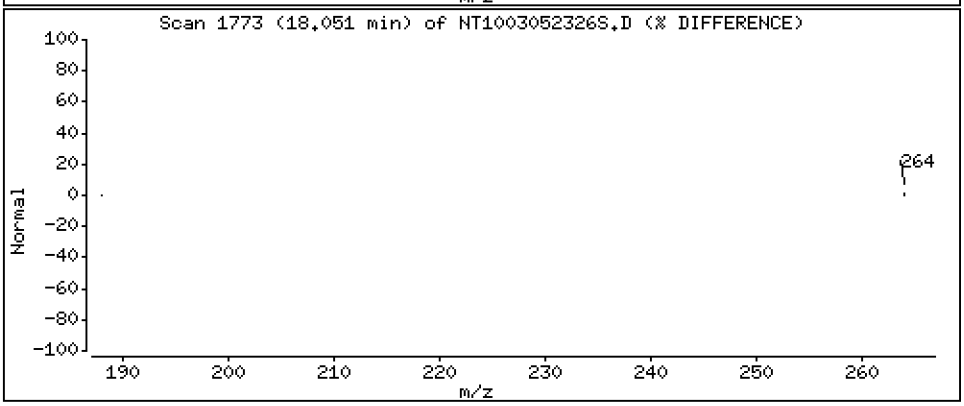












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Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

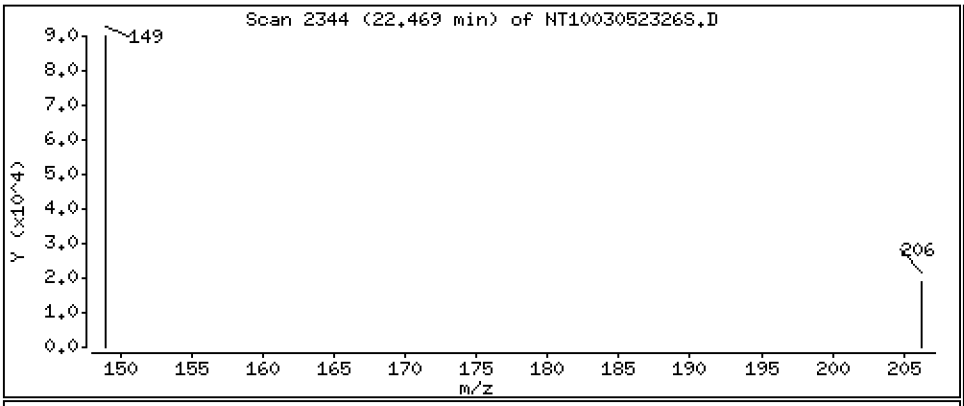
Operator: YZ

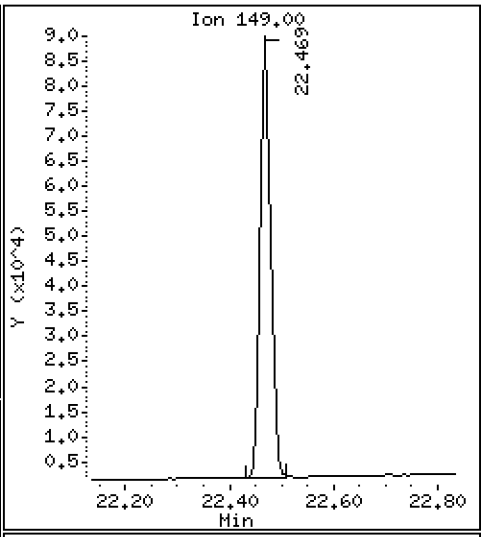
Column phase: ZB-5msi

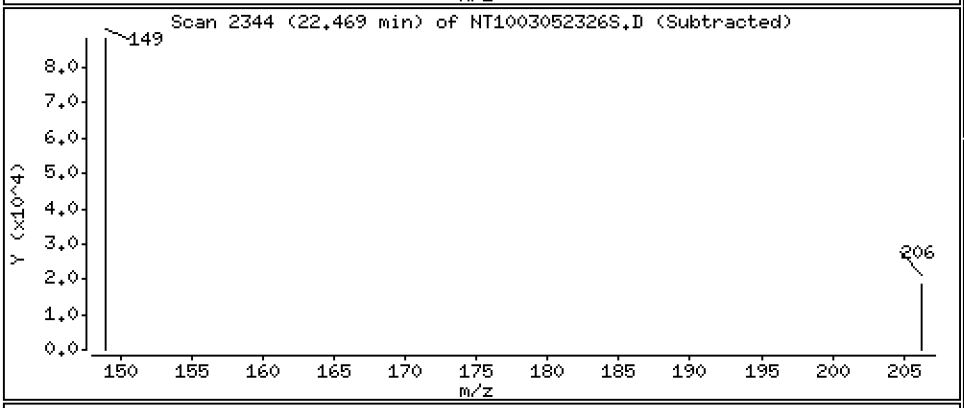
Column diameter: 0.25

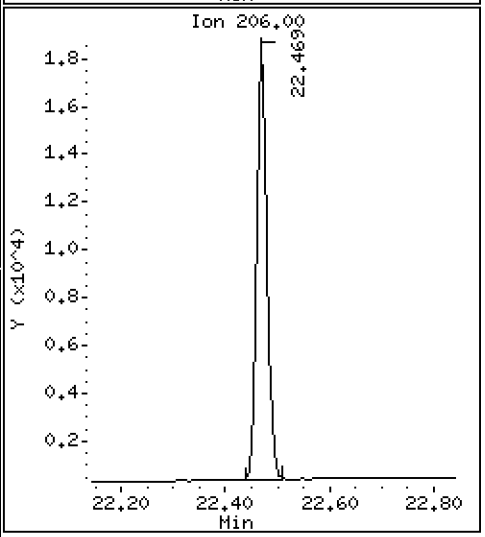
67 Butylbenzylphthalate

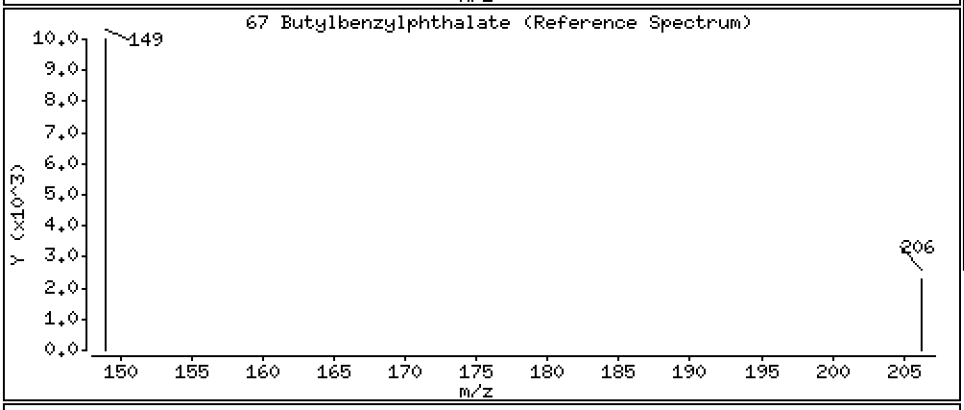
Concentration: 0.8130 ug/mL

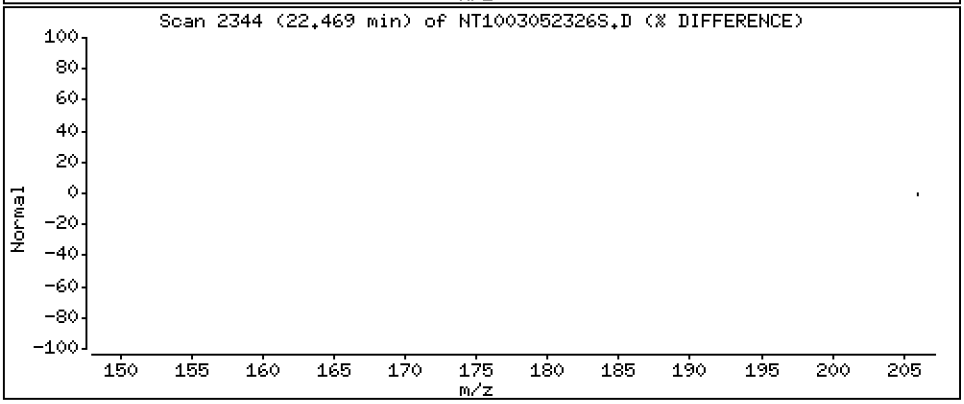












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052326S.D

Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

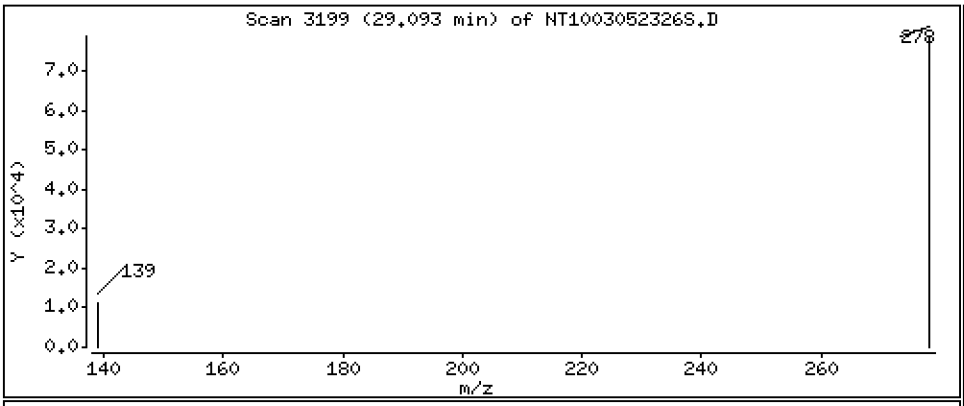
Operator: YZ

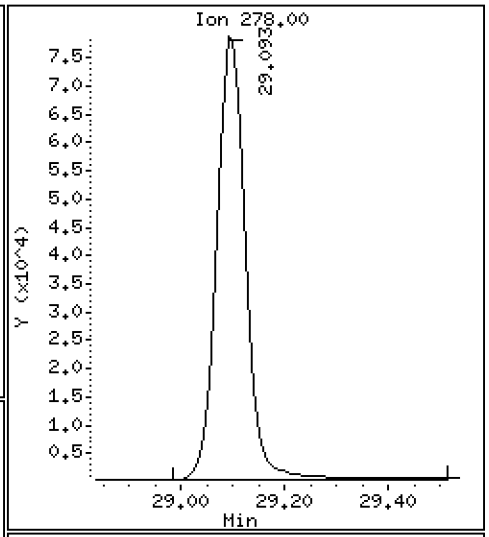
Column phase: ZB-5msi

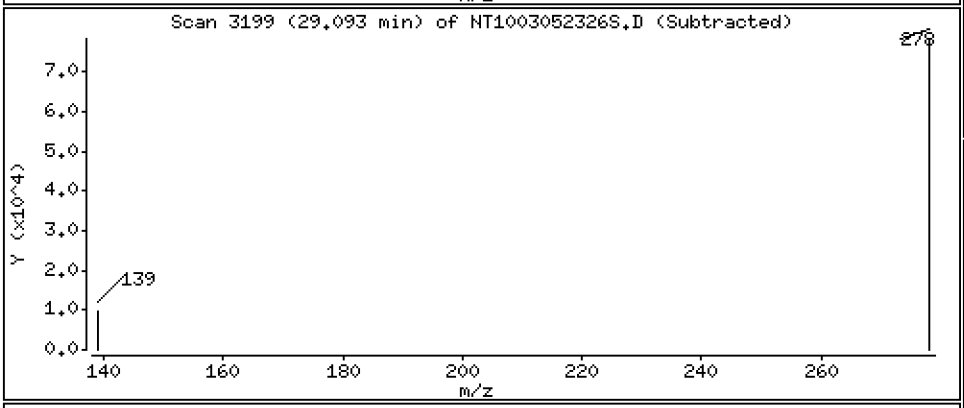
Column diameter: 0.25

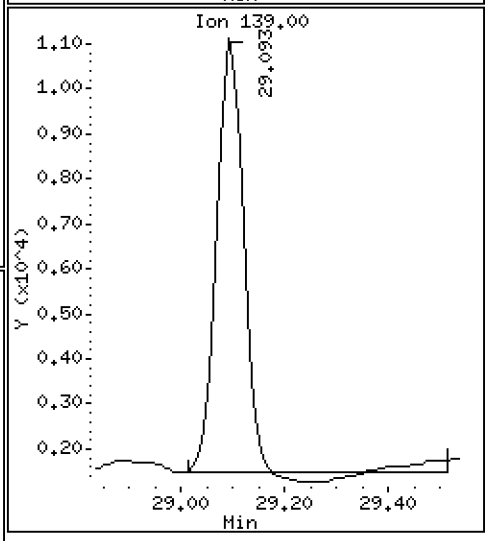
79 Dibenzo(a,h)anthracene

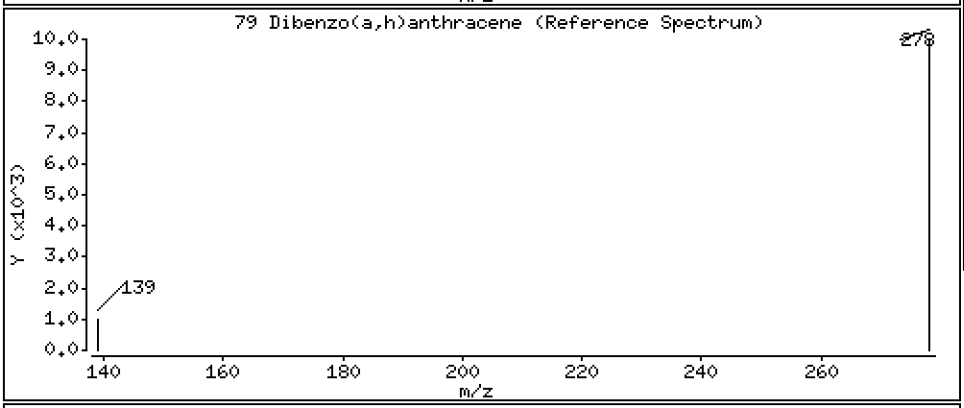
Concentration: 1.244 ug/mL

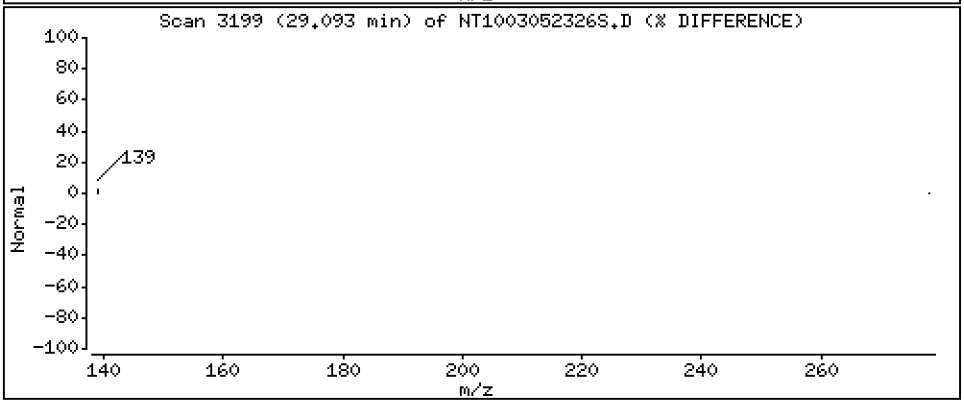












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523265.D

Date : 06-MAR-2023 05:10

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-CCV1

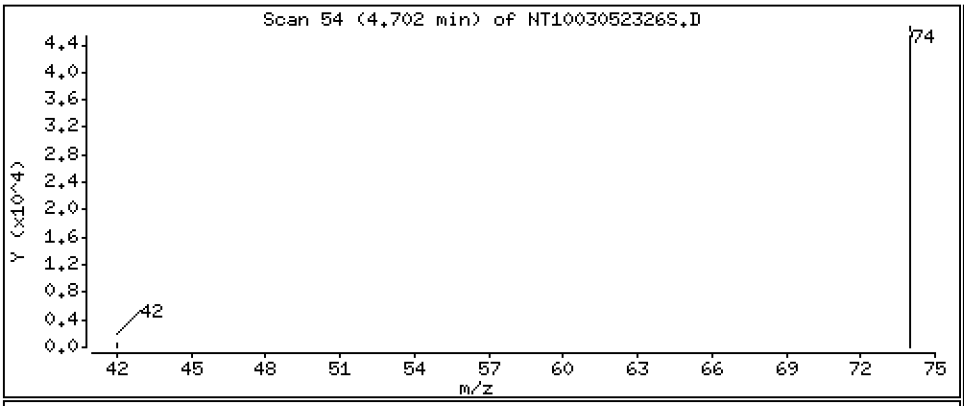
Operator: YZ

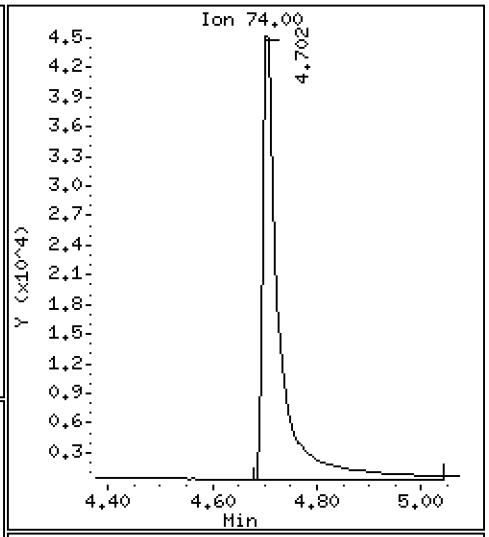
Column phase: ZB-5msi

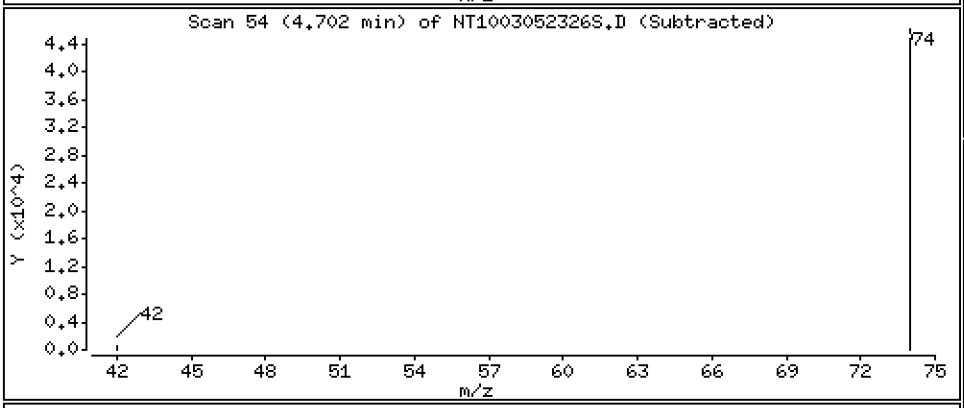
Column diameter: 0.25

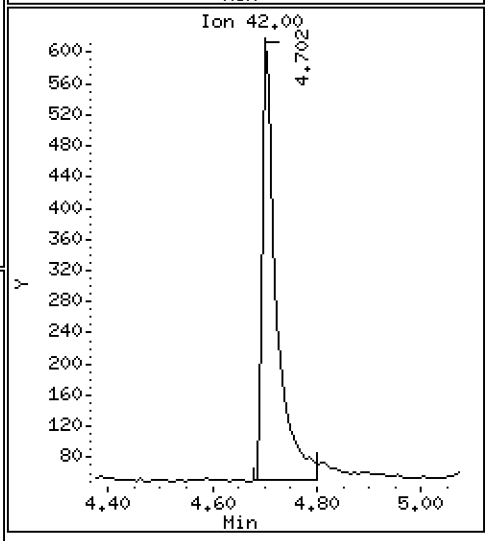
90 N-Nitrosodimethylamine

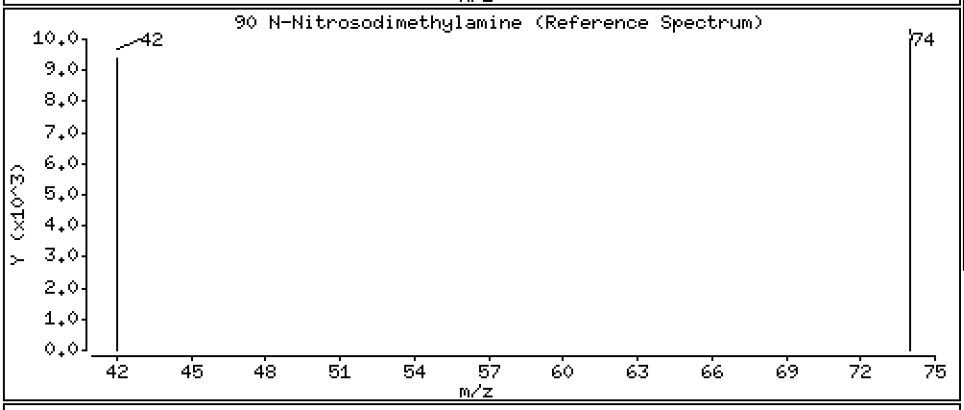
Concentration: 2.525 ug/mL

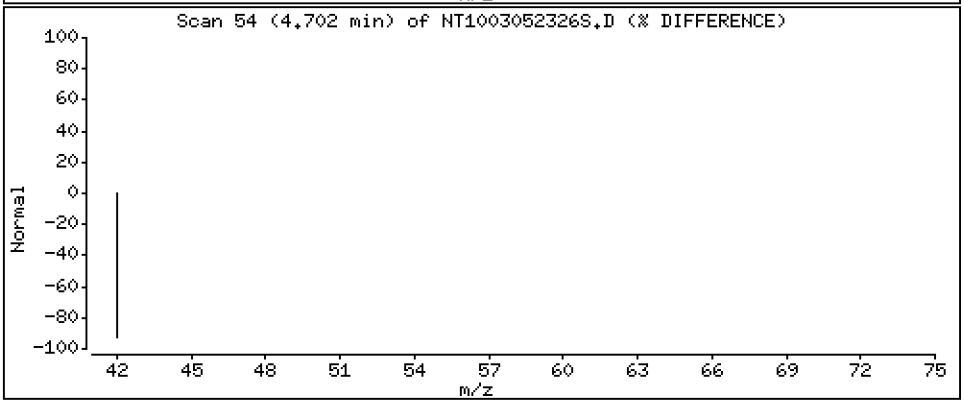












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052326S.D
Lab Smp Id: SLC0440-CCV1
Inj Date : 06-MAR-2023 05:10
Operator : YZ Inst ID: nt10.i
Smp Info : SLC0440-CCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:18 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.902	6.902	(0.745)	118790	1.73777	1.738(R)
	3 Phenol	94	8.556	8.532	(0.924)	95309	0.94098	0.9410
	7 1,3-Dichlorobenzene	146	9.151	9.143	(0.988)	88712	0.99972	0.9997
*	8 1,4-Dichlorobenzene-d4	152	9.259	9.252	(1.000)	239436	4.00000	
	9 1,4-Dichlorobenzene	146	9.298	9.283	(1.004)	84771	0.98256	0.9826
	11 Benzyl alcohol	79	9.515	9.484	(1.028)	52715	0.93227	0.9323
	12 1,2-Dichlorobenzene	146	9.585	9.570	(1.035)	83489	1.00680	1.007
	13 2-Methylphenol	108	9.694	9.671	(1.047)	74459	1.21643	1.216
	15 4-Methylphenol	108	9.989	9.966	(1.079)	75285	1.17950	1.180
	16 N-Nitroso-di-n-propylamine	70	10.005	9.981	(1.080)	57375	1.27208	1.272
	22 2,4-Dimethylphenol	107	11.040	11.014	(0.939)	156113	2.15315	2.153
	24 Benzoic acid	105	11.167	11.133	(0.950)	19440	0.49085	0.4909
	26 1,2,4-Trichlorobenzene	180	11.631	11.608	(0.989)	72906	1.19239	1.192
*	27 Naphthalene-d8	136	11.754	11.731	(1.000)	849492	4.00000	
	30 Hexachlorobutadiene	225	12.017	12.001	(1.022)	48058	1.10760	1.108
	39 Dimethylphthalate	163	14.780	14.764	(0.963)	138152	1.03240	1.032
*	42 Acenaphthene-d10	162	15.352	15.337	(1.000)	421435	4.00000	
	50 Diethylphthalate	149	16.241	16.234	(1.058)	149985	1.18854	1.189(H)
	54 N-Nitrosodiphenylamine	169	16.736	16.729	(0.907)	122091	0.90285	0.9029
	57 Hexachlorobenzene	284	17.625	17.617	(0.955)	67100	1.06028	1.060
	58 Pentachlorophenol	266	18.050	18.042	(0.978)	4540	0.16374	0.1637
*	59 Phenanthrene-d10	188	18.453	18.453	(1.000)	835585	4.00000	
$	66 Terphenyl-d14	244	21.586	21.594	(0.919)	112596	1.59198	1.592(R)
	67 Butylbenzylphthalate	149	22.469	22.484	(0.956)	119714	0.81301	0.8130
*	69 Chrysene-d12	240	23.491	23.514	(1.000)	874614	4.00000	
*	77 Perylene-d12	264	26.224	26.270	(1.000)	1035818	4.00000	
	79 Dibenzo(a,h)anthracene	278	29.093	29.186	(1.109)	303680	1.24365	1.244
	90 N-Nitrosodimethylamine	74	4.701	4.724	(0.508)	102170	2.52454	2.525

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052326S.D
Lab Smp Id: SLC0440-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 22:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	293840	146920	587680	239436	-18.51
27 Naphthalene-d8	1032639	516320	2065278	849492	-17.74
42 Acenaphthene-d10	502349	251175	1004698	421435	-16.11
59 Phenanthrene-d10	975997	487999	1951994	835585	-14.39
69 Chrysene-d12	978544	489272	1957088	874614	-10.62
77 Perylene-d12	1201606	600803	2403212	1035818	-13.80

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.26	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.75	0.20
42 Acenaphthene-d10	15.34	14.84	15.84	15.35	0.10
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	0.00
69 Chrysene-d12	23.51	23.01	24.01	23.49	-0.10
77 Perylene-d12	26.27	25.77	26.77	26.22	-0.18

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052326S.D

Lab ID: SLC0440-CCV1
nt10.i, 20230305A.b\SIM.b\SIMABN2.m,   06-MAR-2023 05:10

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: SIM.b/NT1003052315S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, LLC
Analytical Chemists and Consultants

LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00032
Lab File ID:	NT1003052317S.D	Calibration Date:	03/01/2023
Sequence:	SLC0440	Injection Date:	03/05/23
Lab Sample ID:	SLC0440-LCV1	Injection Time:	23:32
Sequence Name:	ABN 0.1		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	0.10000	0.1	1.4413080	1.4217430		-1.4	
1,2-Dichlorobenzene	A	0.10000	0.1	1.3853460	1.4141480		2.1	
Benzyl Alcohol	A	0.10000	0.07	0.7492523	0.6217753		-33.4	
Benzoic acid	A	0.40000	0.0	0.1431163				
2,4-Dimethylphenol	A	0.20000	0.2	0.2957717	0.3261509		-3.9	
1,2,4-Trichlorobenzene	A	0.10000	0.1	0.2879030	0.3456621		20.1	
N-Nitrosodiphenylamine	A	0.10000	0.08	0.6473471	0.5119664		-20.9	
Pentachlorophenol	A	0.20000	0.0	0.0950913				
2-Fluorophenol	A	0.15000	0.146	1.1419780	1.1130710		-2.5	
p-Terphenyl-d14	A	0.10000	0.161	0.3234672	0.5217174		61.3	

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523175.D

Page 1

Date : 05-MAR-2023 23:32

Client ID:

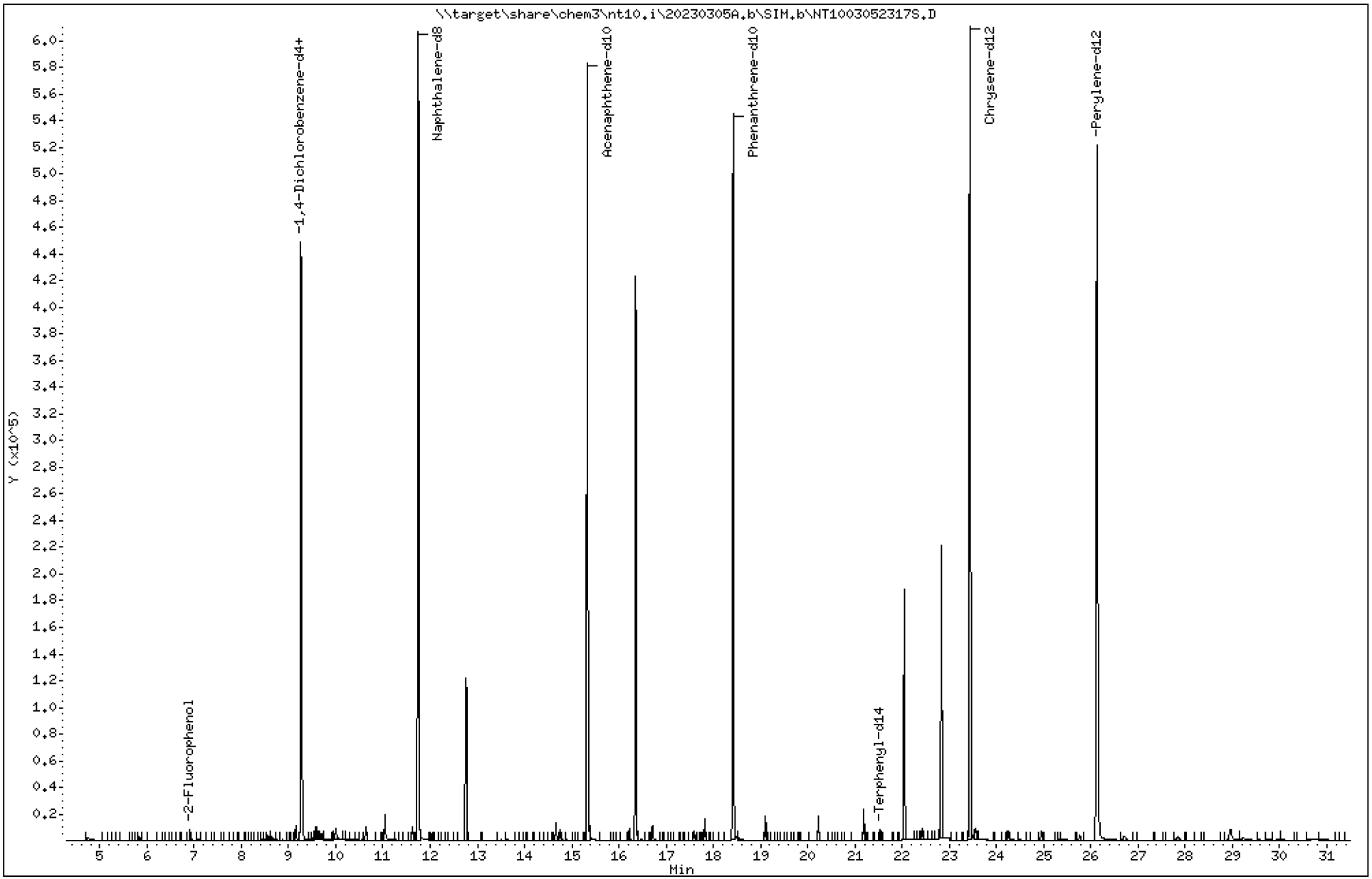
Instrument: nt10.i

Sample Info: SLC0440-LCV1

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



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Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

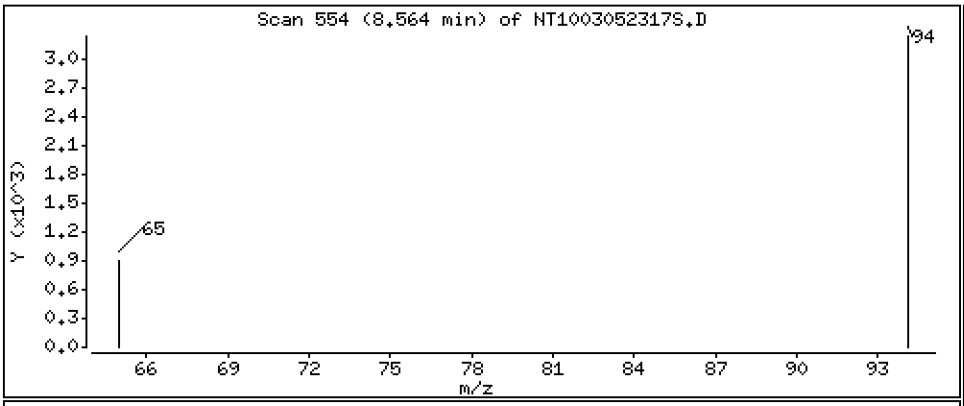
Operator: YZ

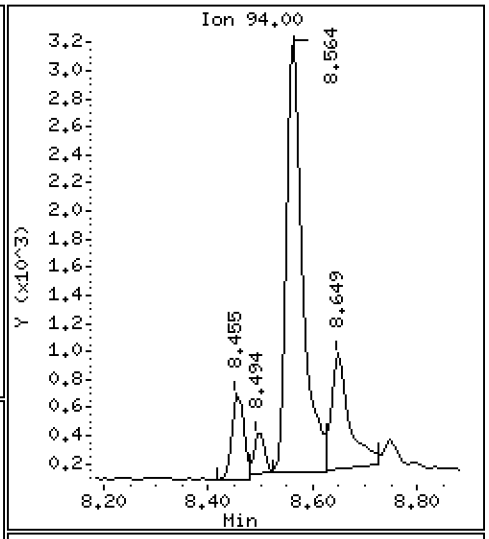
Column phase: ZB-5msi

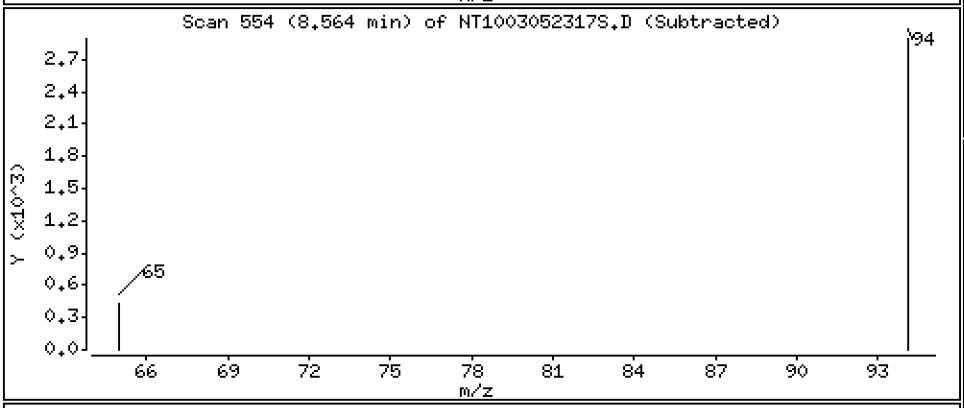
Column diameter: 0.25

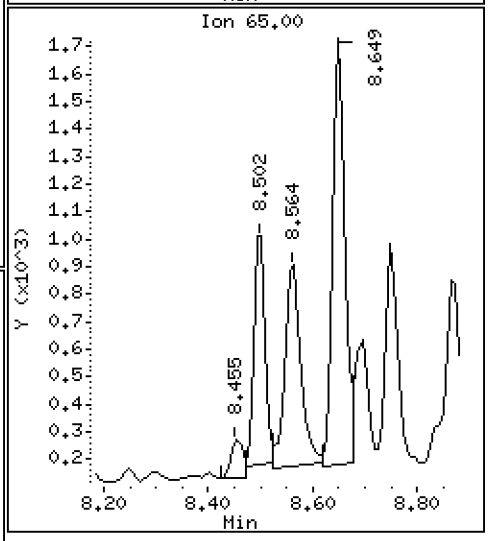
3 Phenol

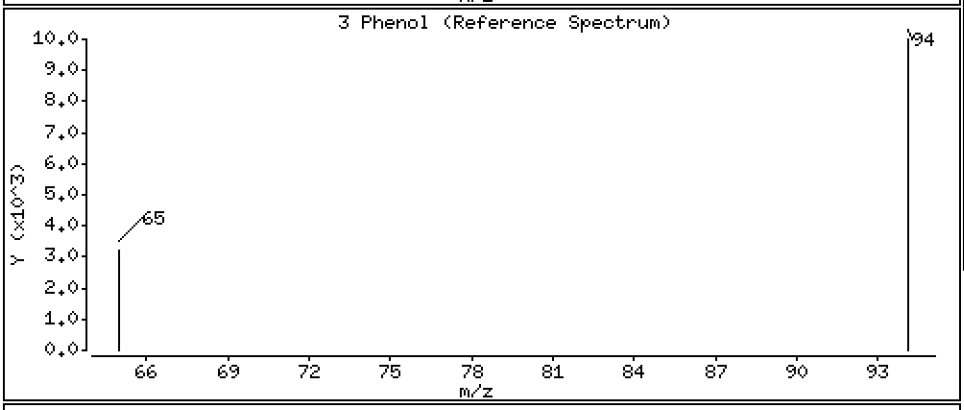
Concentration: 0.06034 ug/mL

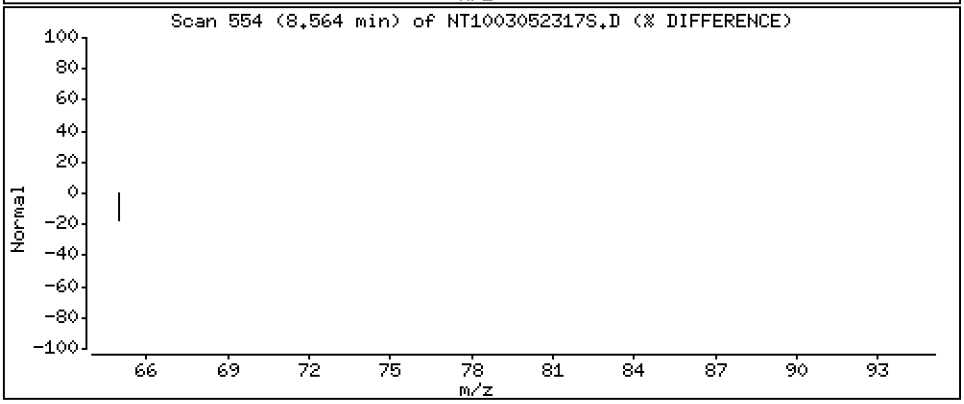












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Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

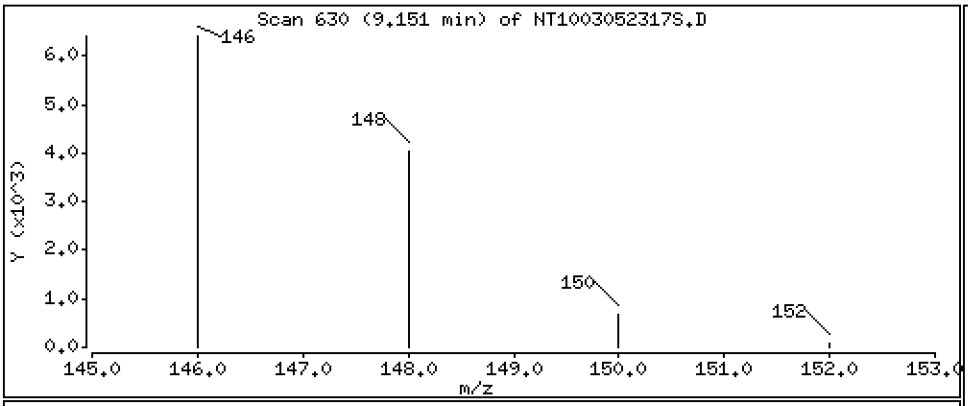
Operator: YZ

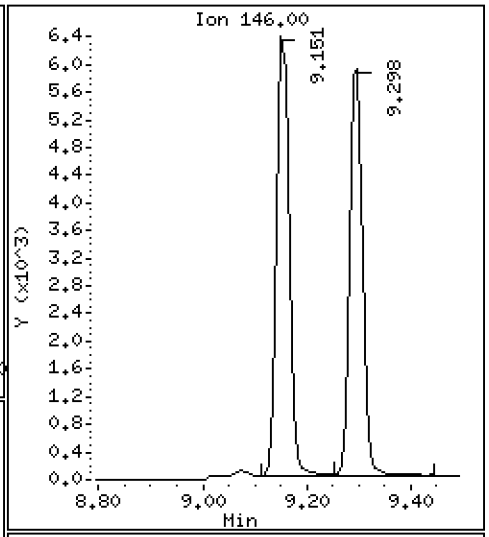
Column phase: ZB-5msi

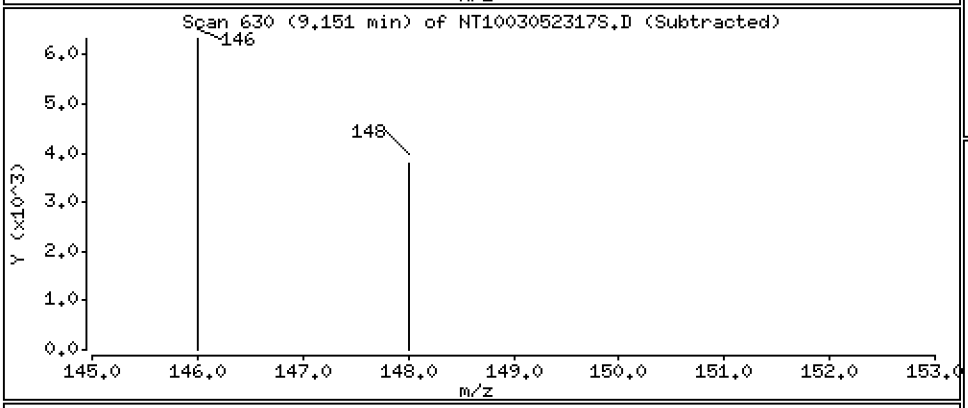
Column diameter: 0.25

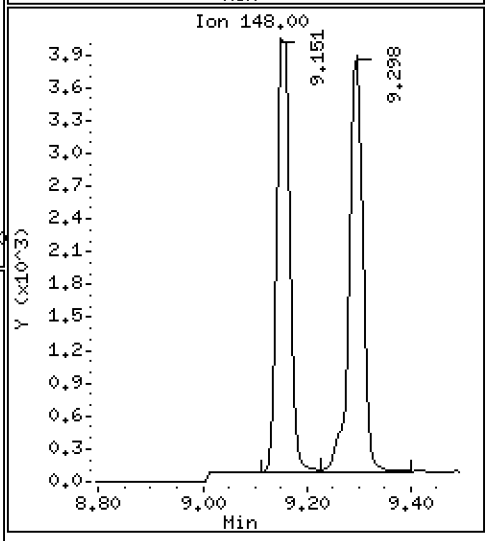
7 1,3-Dichlorobenzene

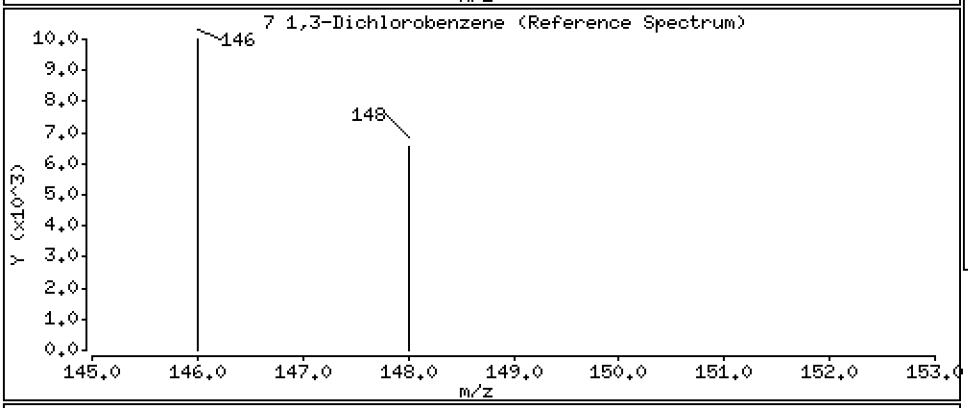
Concentration: 0.1006 ug/mL

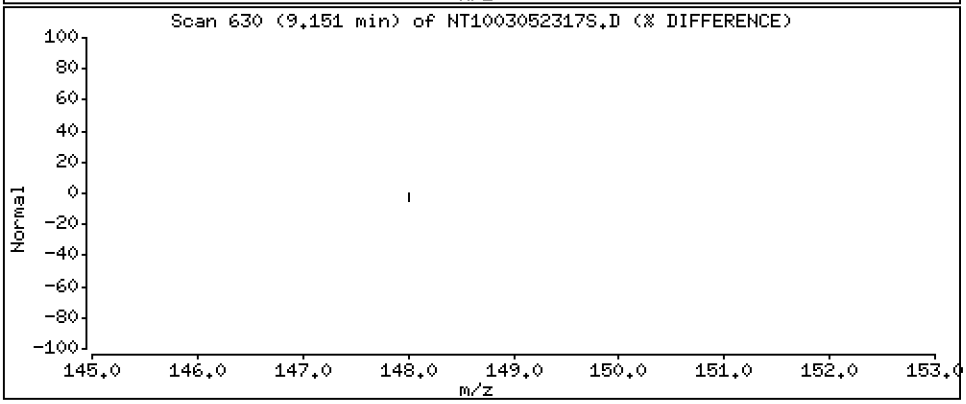












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Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

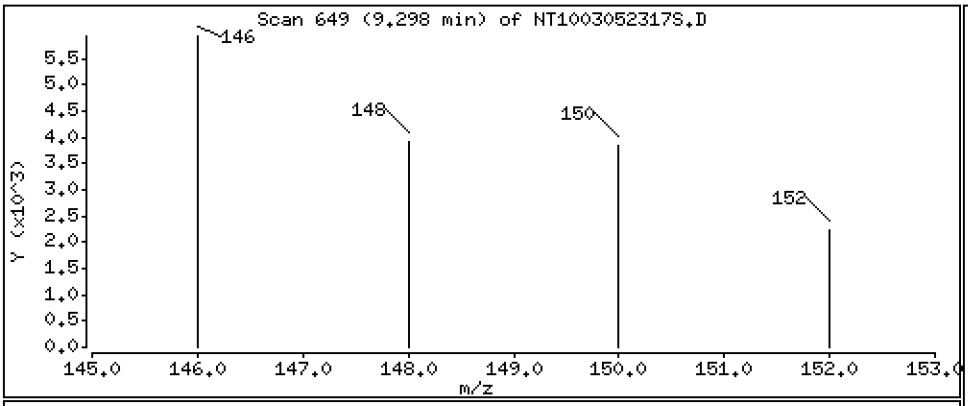
Operator: YZ

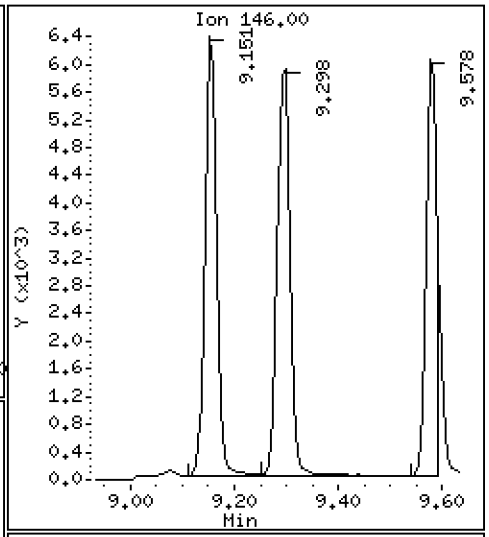
Column phase: ZB-5msi

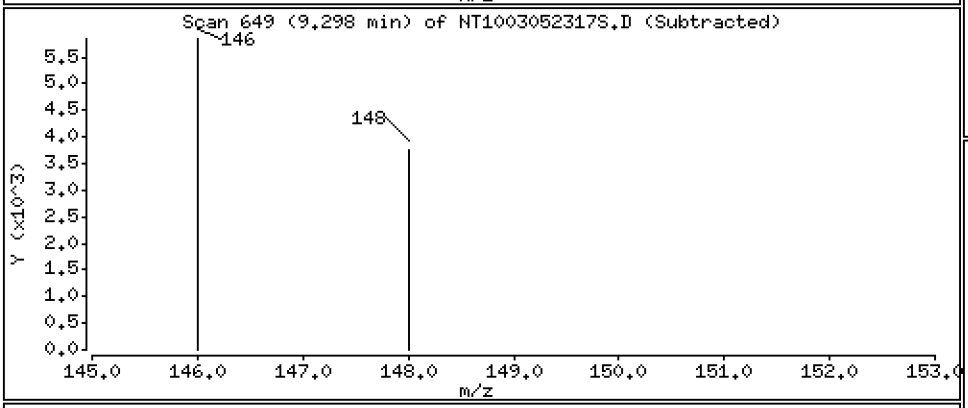
Column diameter: 0.25

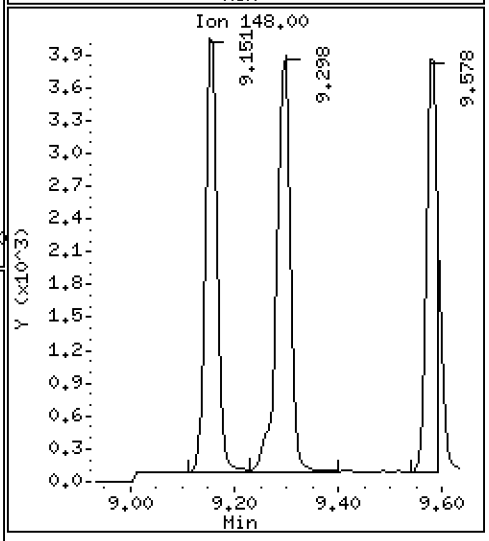
9 1,4-Dichlorobenzene

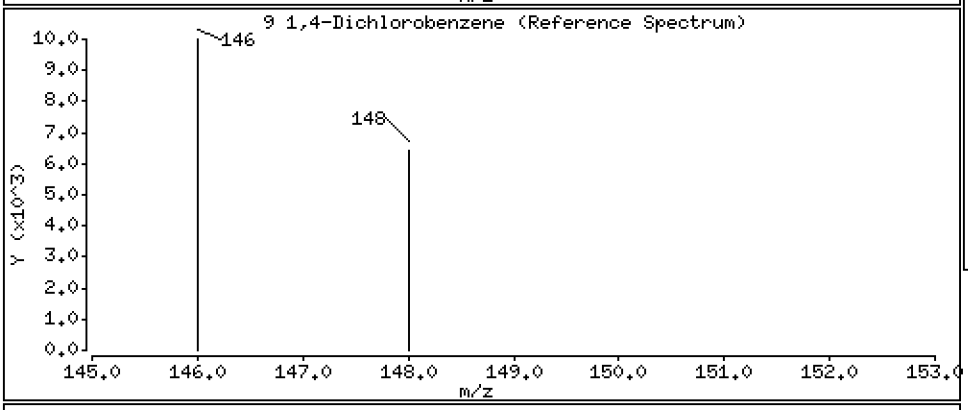
Concentration: 0.09864 ug/mL

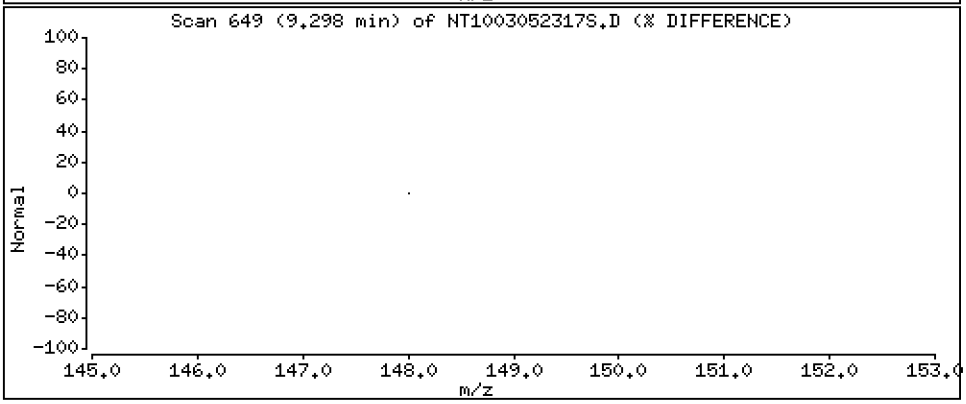












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052317S.D

Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

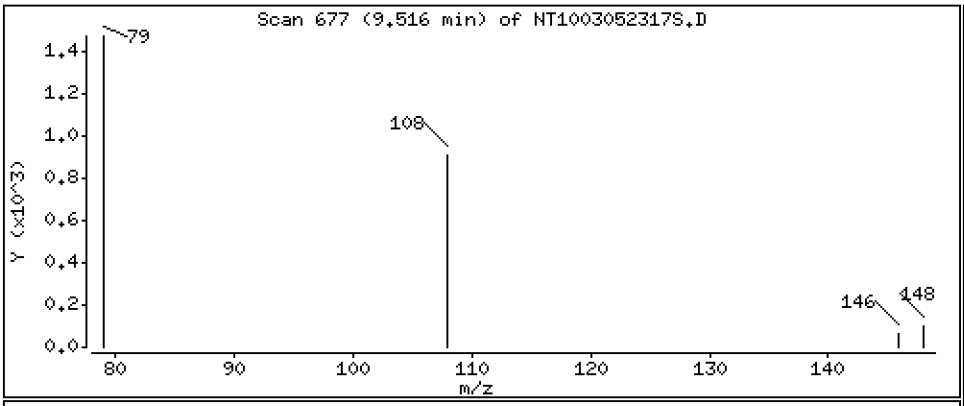
Operator: YZ

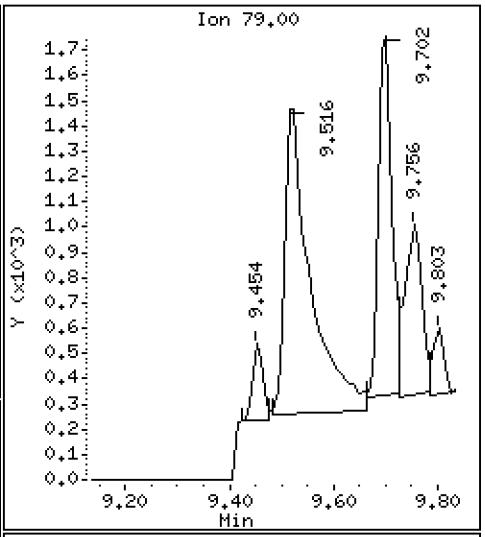
Column phase: ZB-5msi

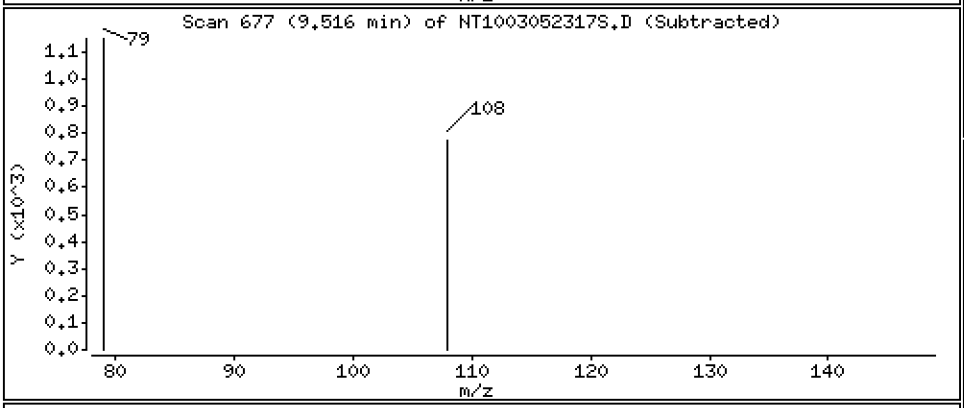
Column diameter: 0.25

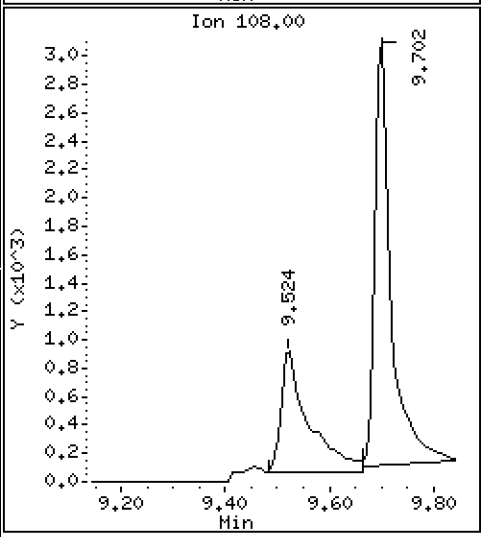
11 Benzyl alcohol

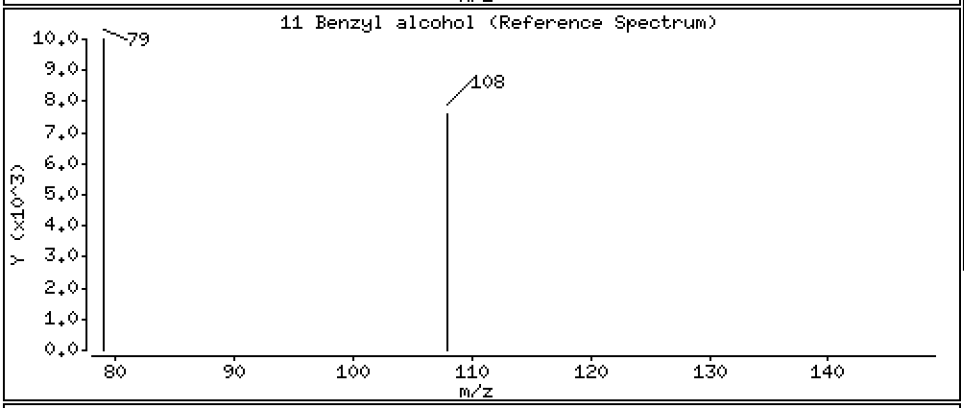
Concentration: 0.06656 ug/mL

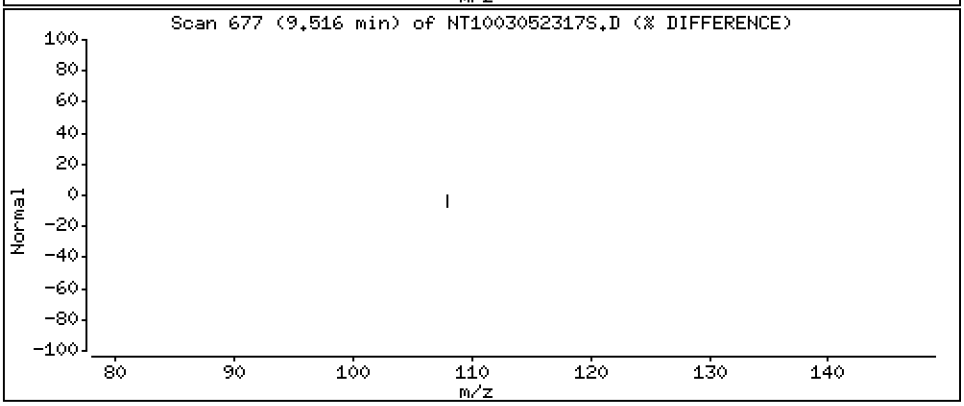












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052317S.D

Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

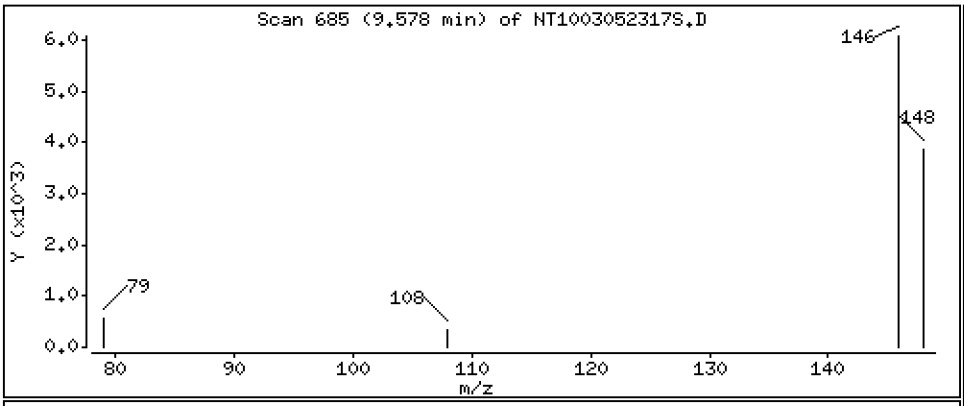
Operator: YZ

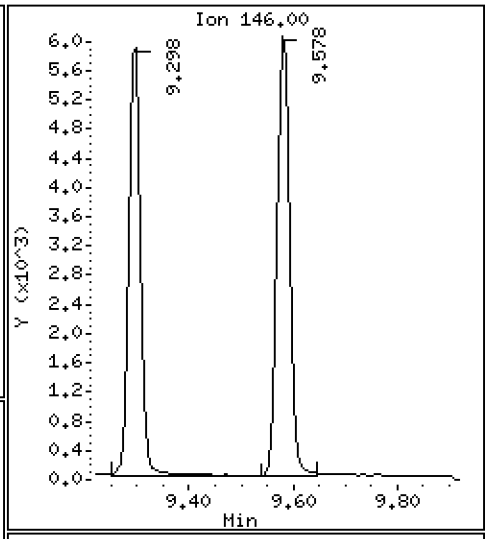
Column phase: ZB-5msi

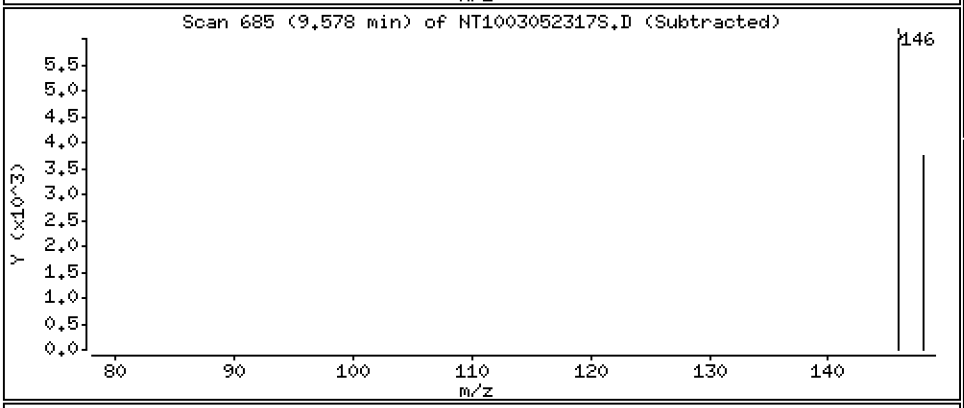
Column diameter: 0.25

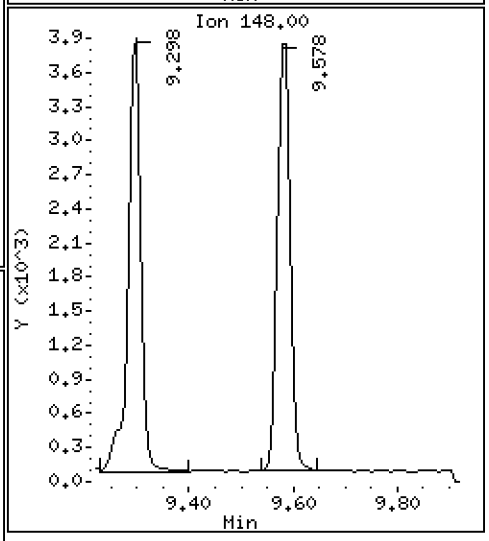
12 1,2-Dichlorobenzene

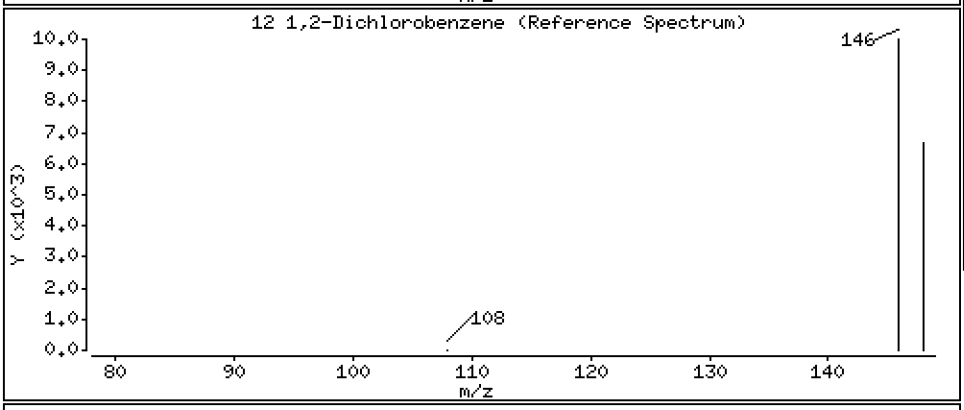
Concentration: 0.1021 ug/mL

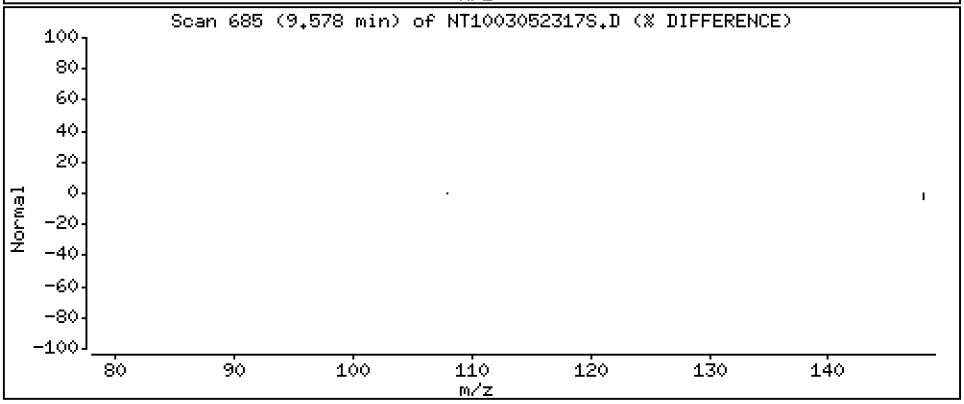












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052317S.D

Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

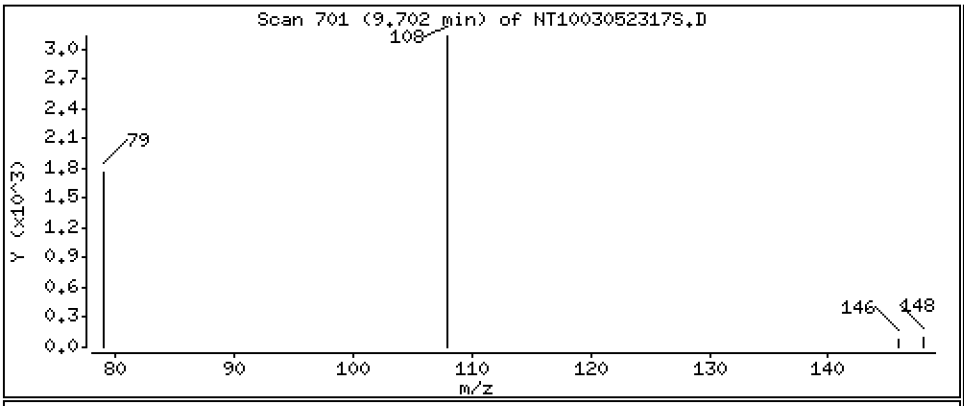
Operator: YZ

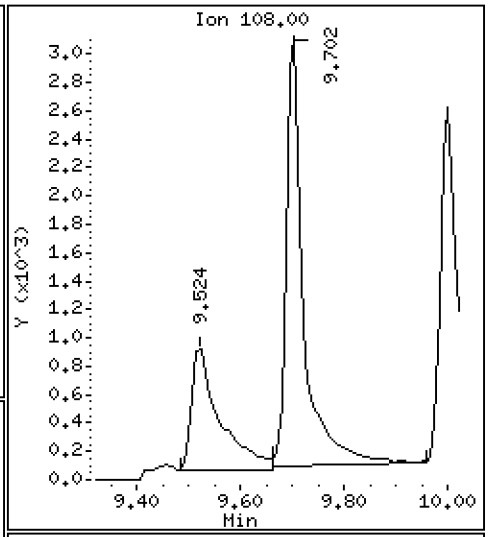
Column phase: ZB-5msi

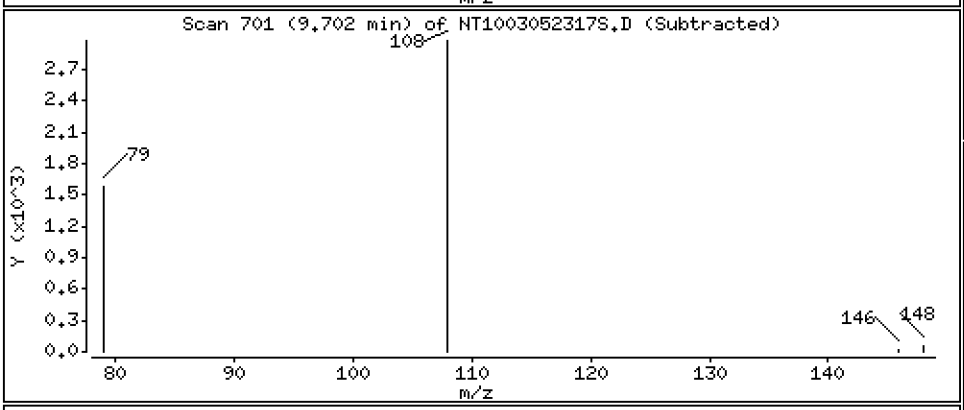
Column diameter: 0.25

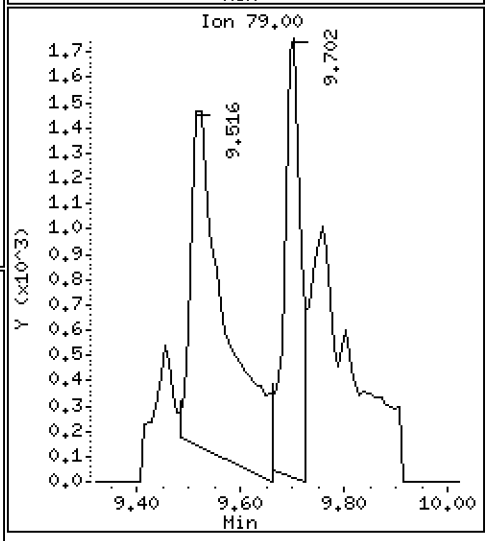
13 2-Methylphenol

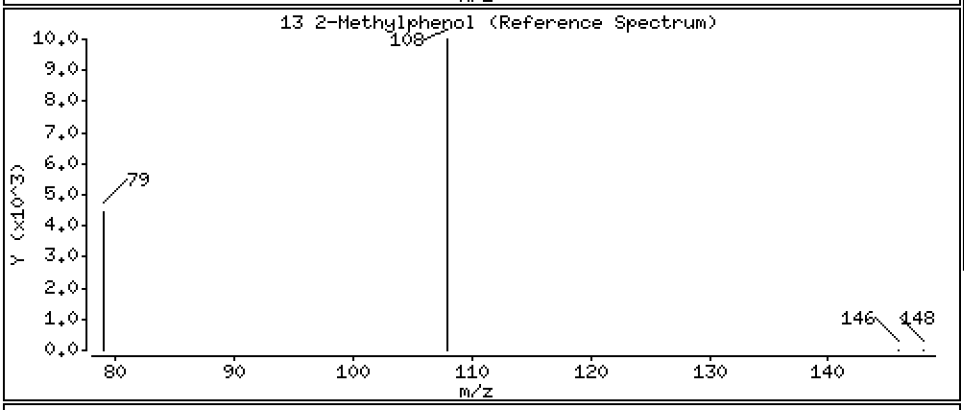
Concentration: 0.1029 ug/mL

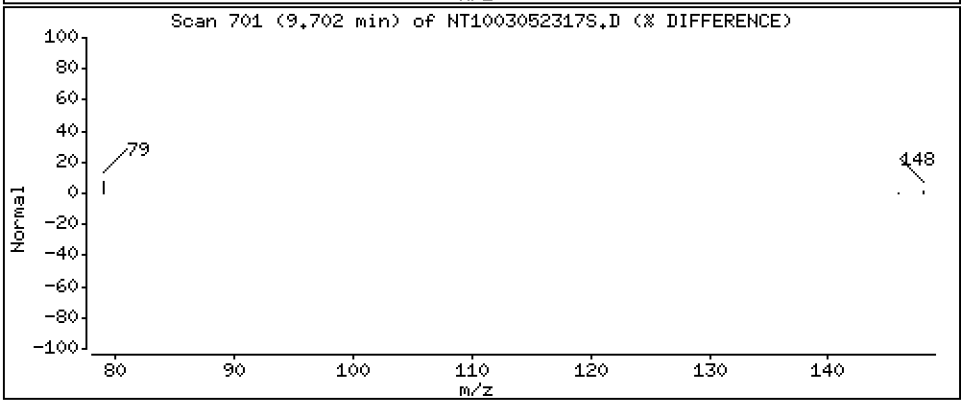












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523175.D

Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

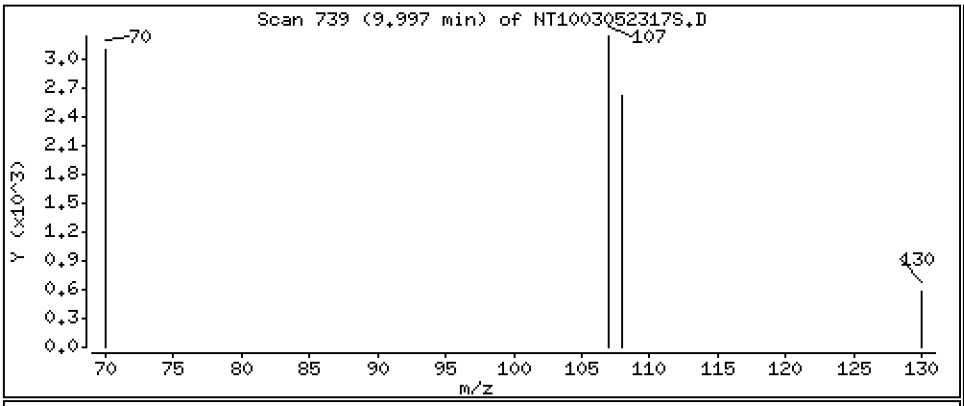
Operator: YZ

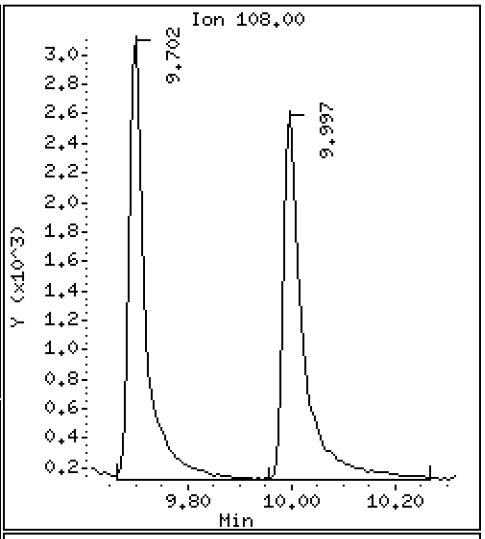
Column phase: ZB-5msi

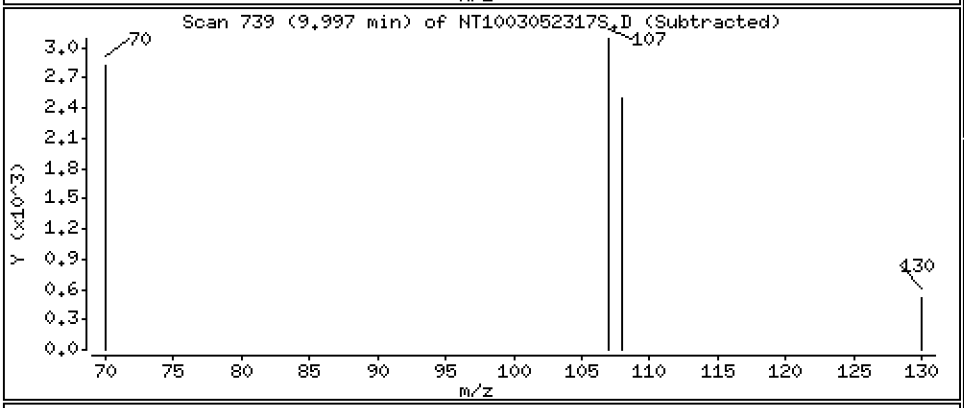
Column diameter: 0.25

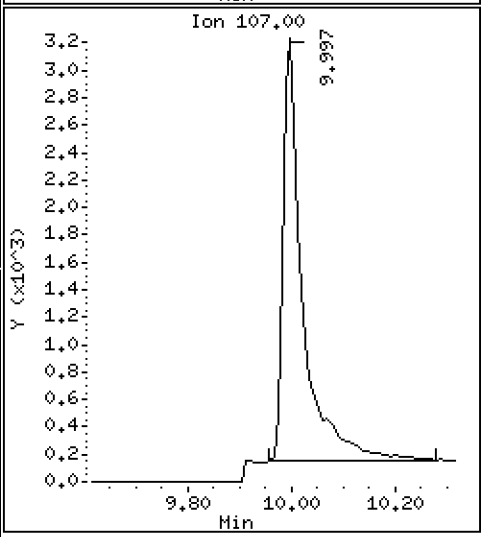
15 4-Methylphenol

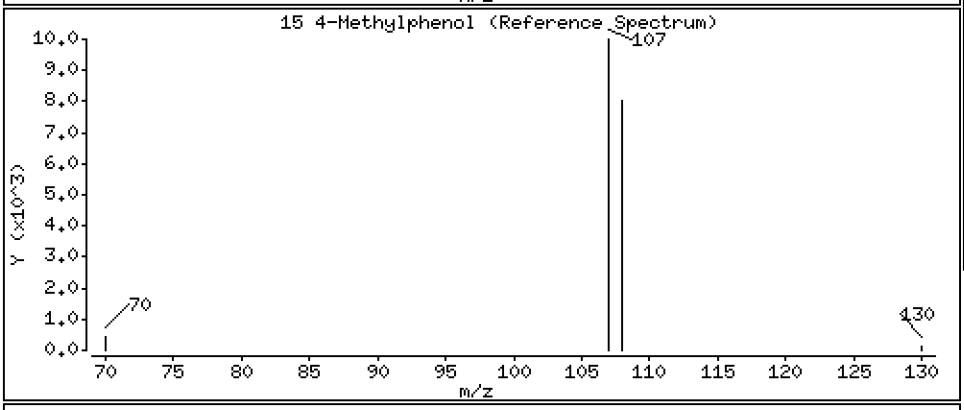
Concentration: 0.09421 ug/mL

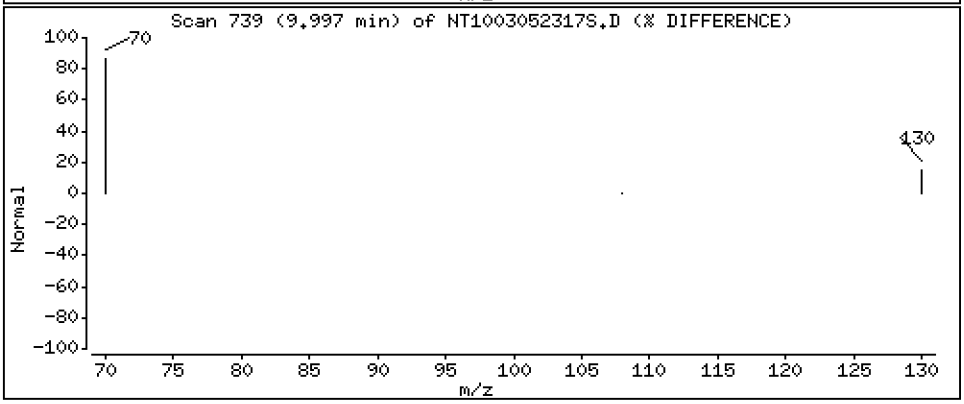












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Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

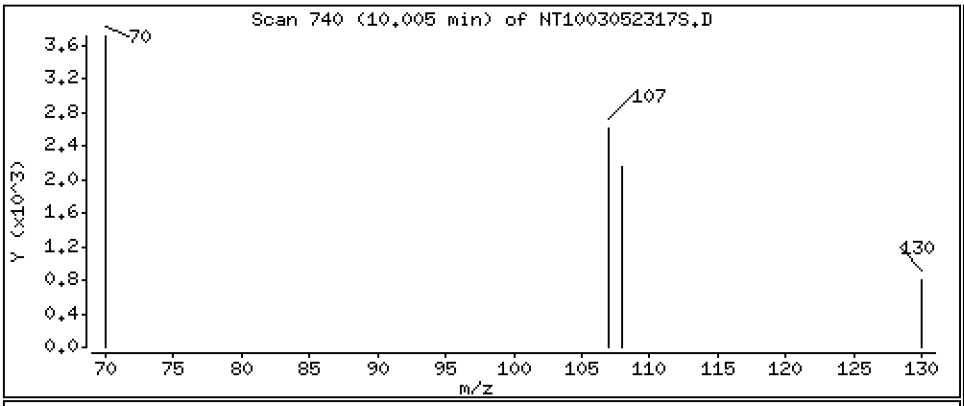
Operator: YZ

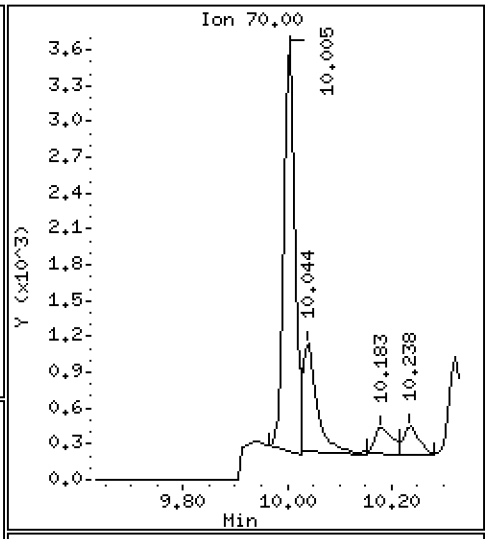
Column phase: ZB-5msi

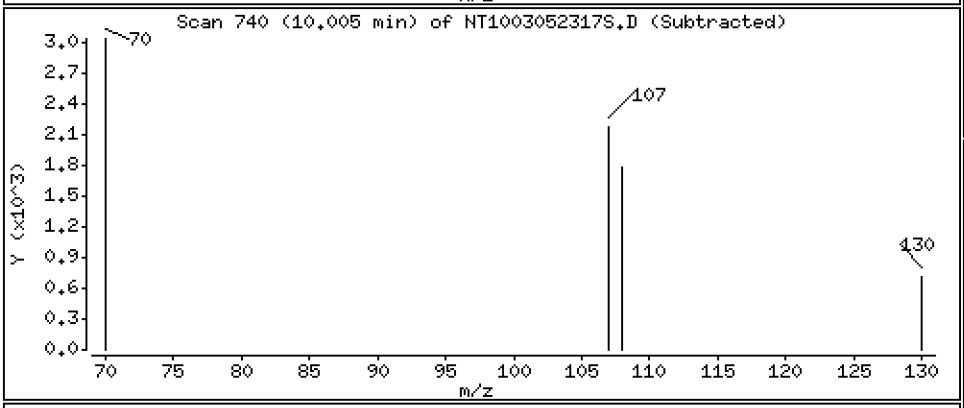
Column diameter: 0.25

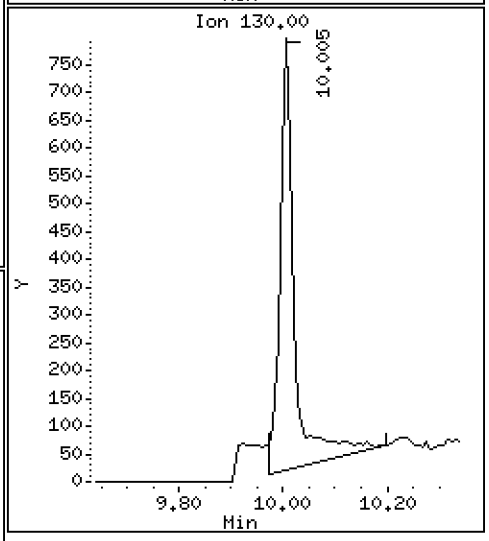
16 N-Nitroso-di-n-propylamine

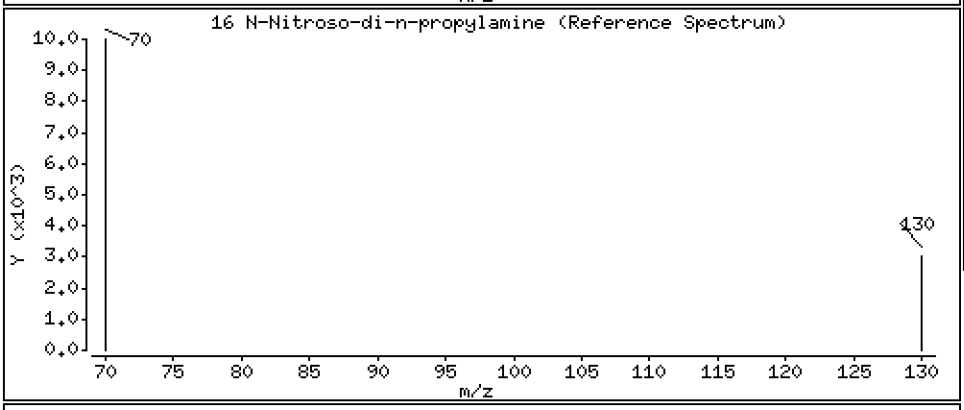
Concentration: 0.1050 ug/mL

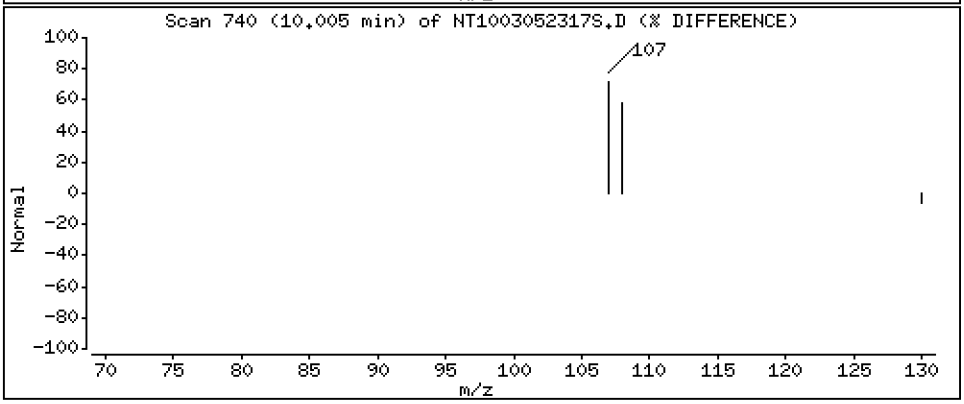












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523175.D

Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

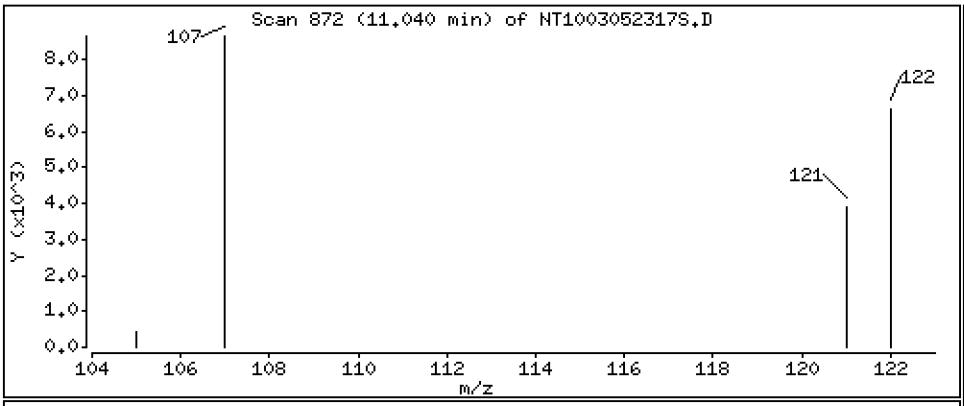
Operator: YZ

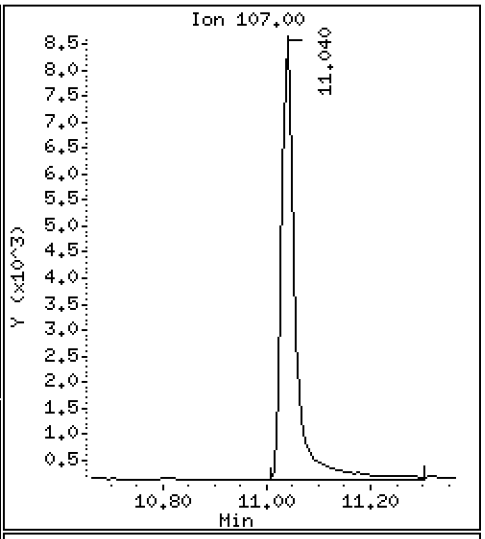
Column phase: ZB-5msi

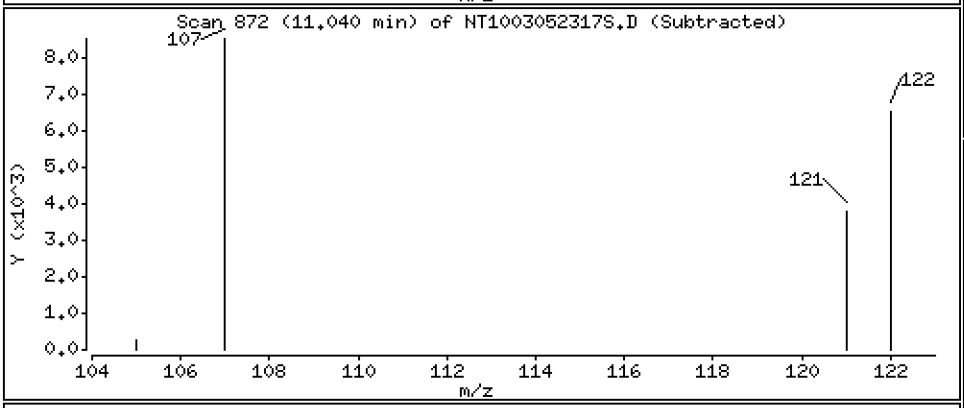
Column diameter: 0.25

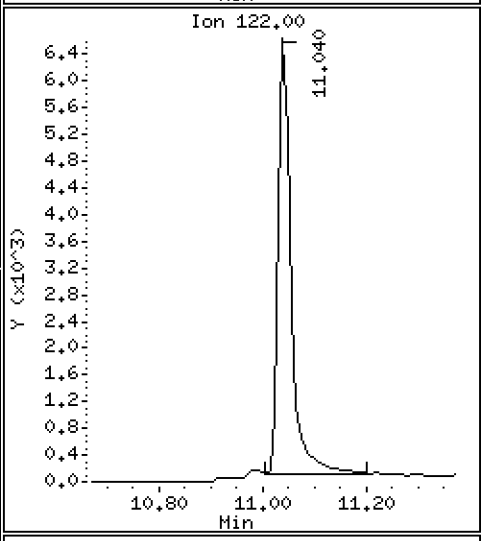
22 2,4-Dimethylphenol

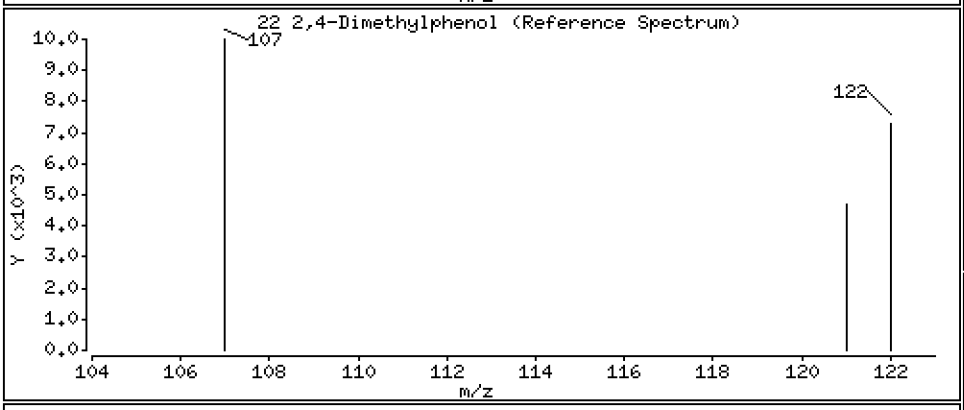
Concentration: 0.1921 ug/mL

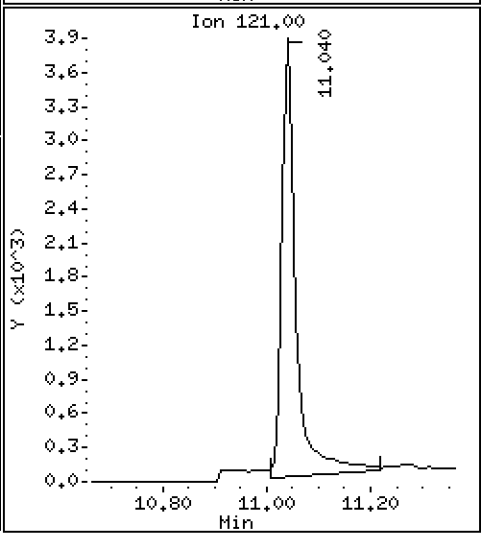


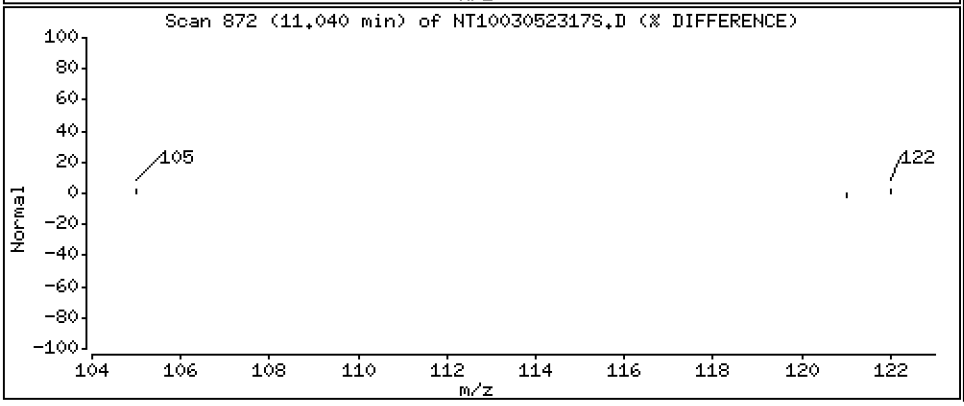












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523175.D

Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

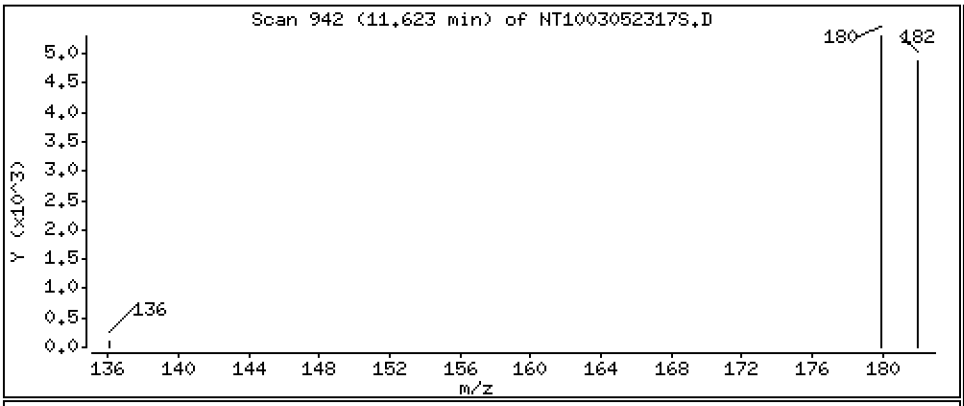
Operator: YZ

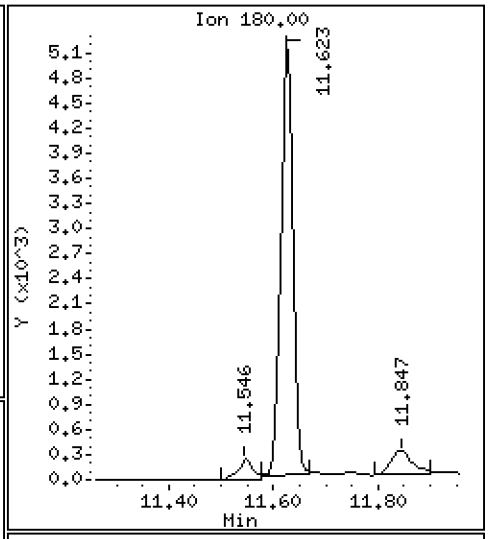
Column phase: ZB-5msi

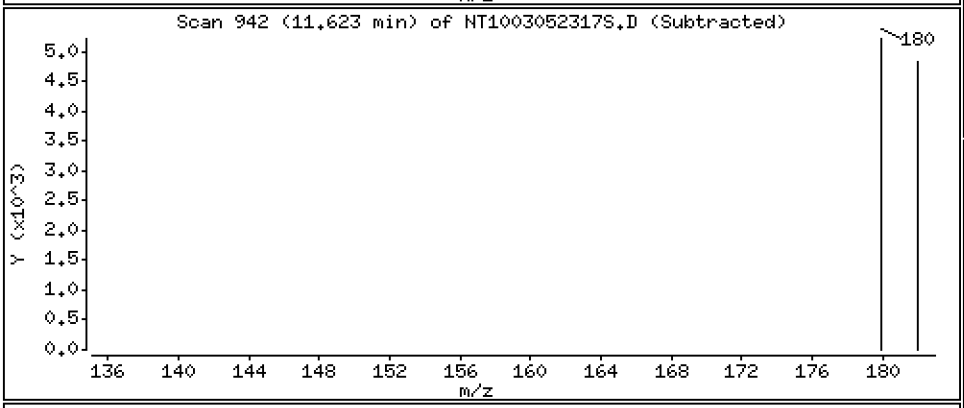
Column diameter: 0.25

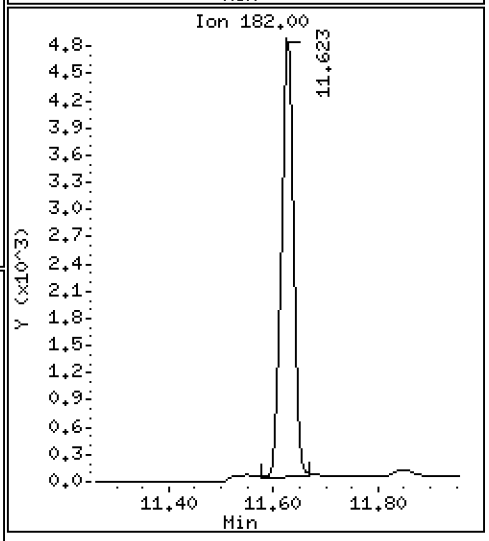
26 1,2,4-Trichlorobenzene

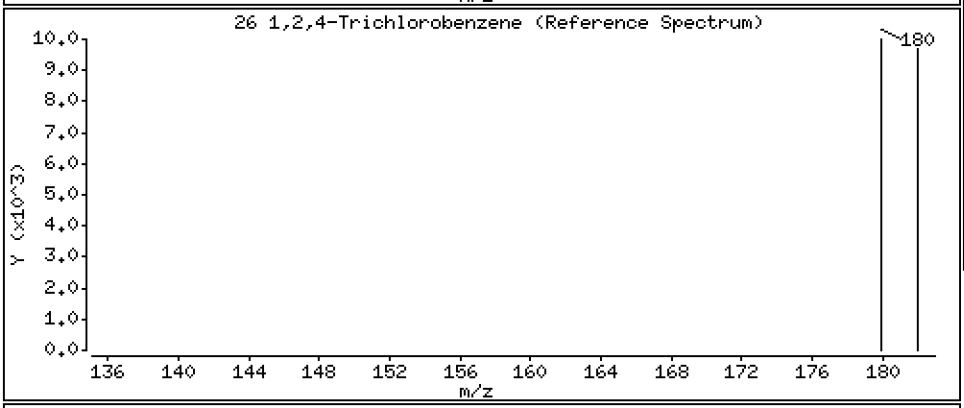
Concentration: 0.1201 ug/mL

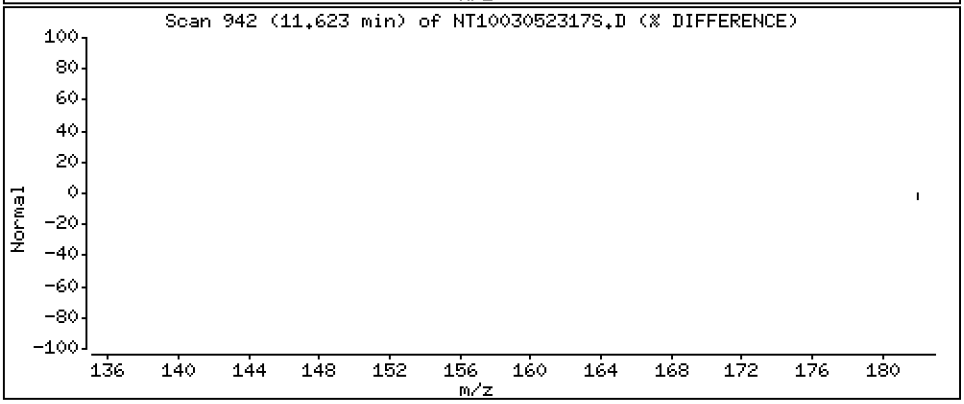












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Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

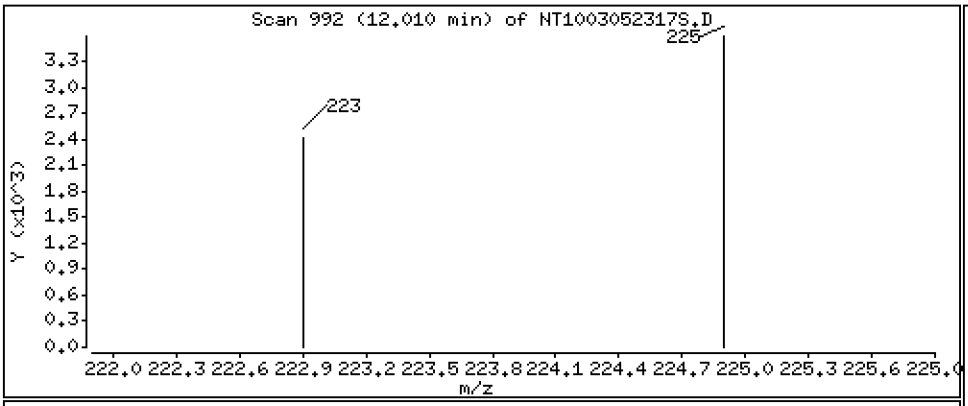
Operator: YZ

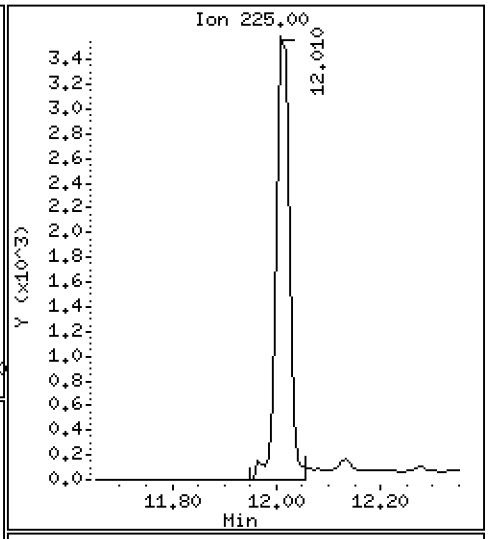
Column phase: ZB-5msi

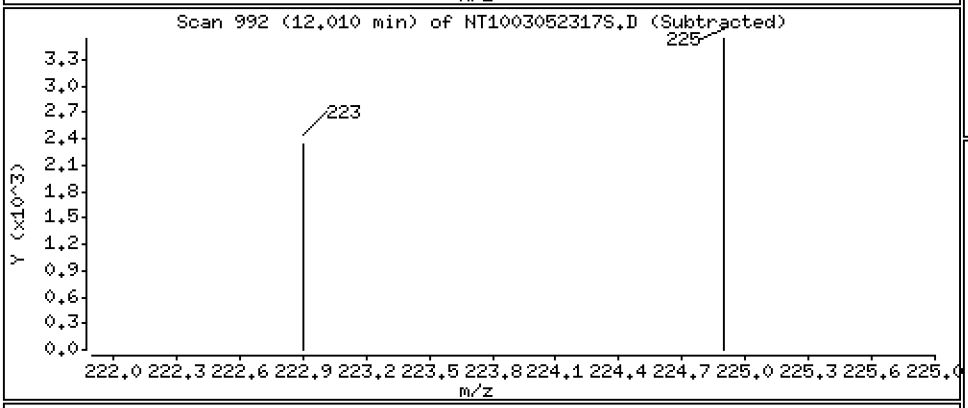
Column diameter: 0.25

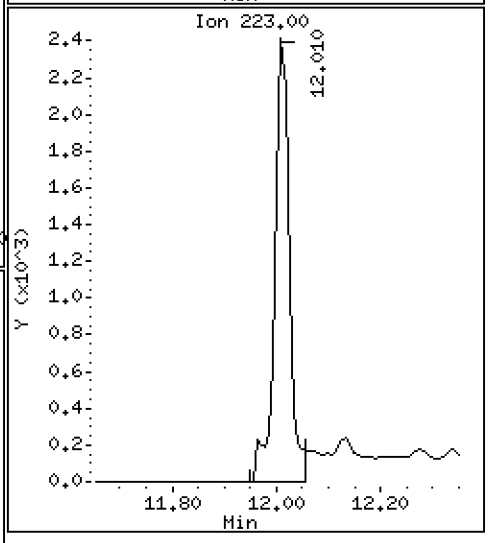
30 Hexachlorobutadiene

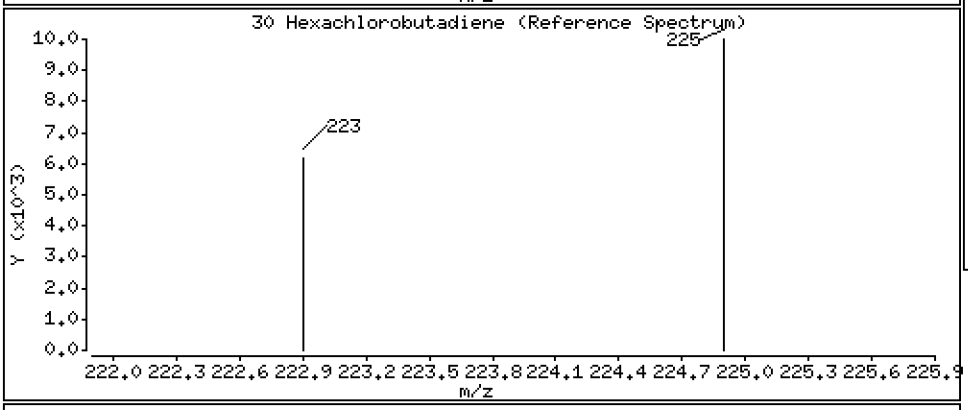
Concentration: 0.1238 ug/mL

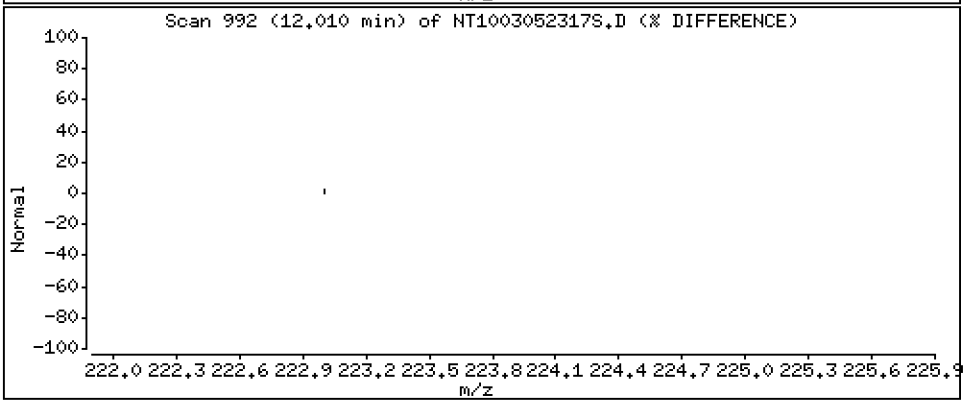












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052317S.D

Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

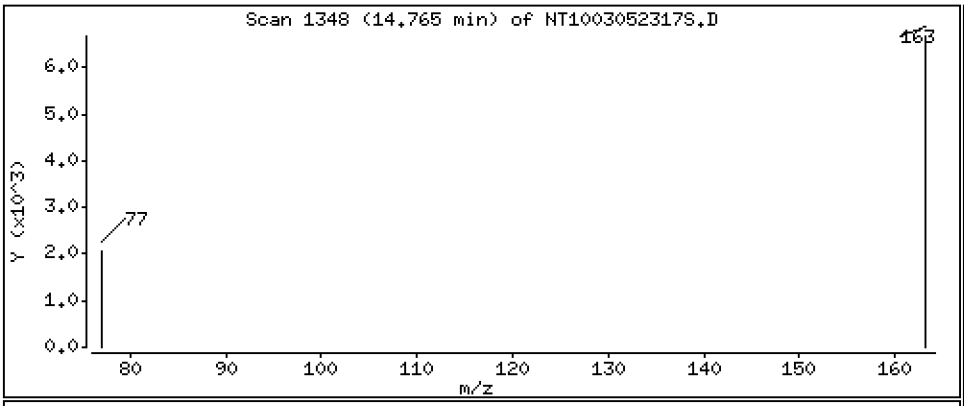
Operator: YZ

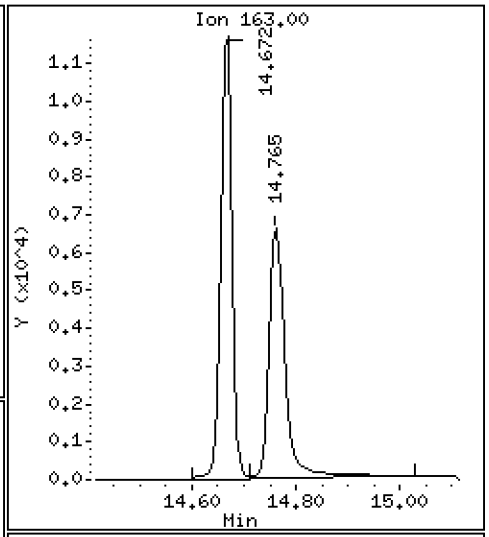
Column phase: ZB-5msi

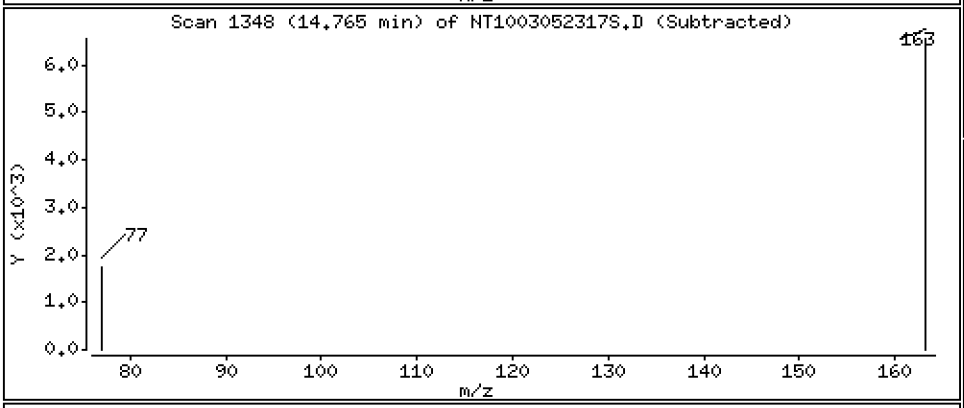
Column diameter: 0.25

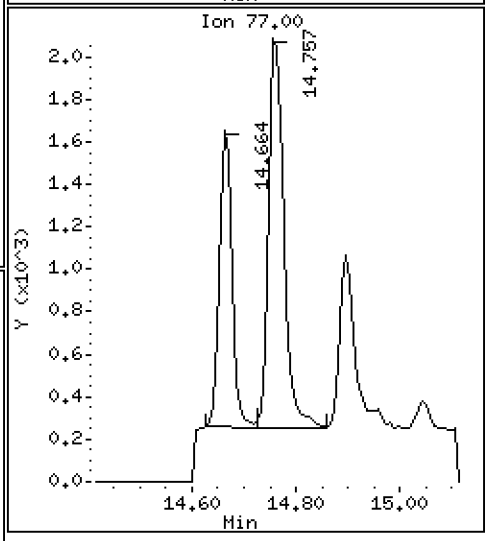
39 Dimethylphthalate

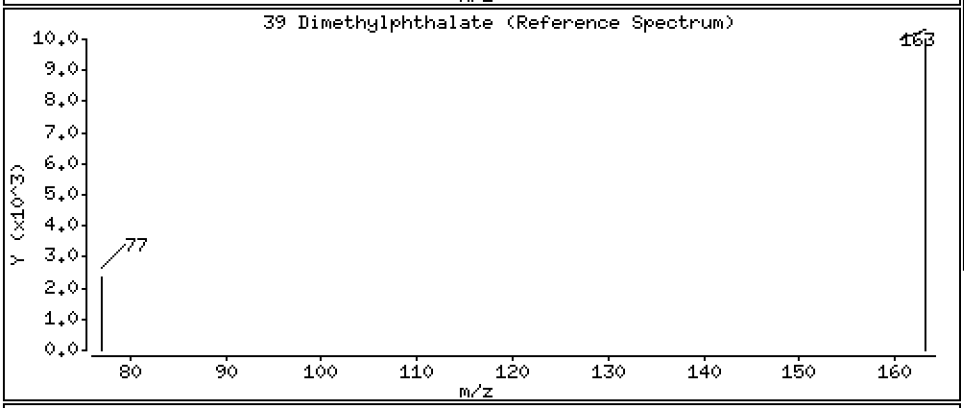
Concentration: 0.09536 ug/mL

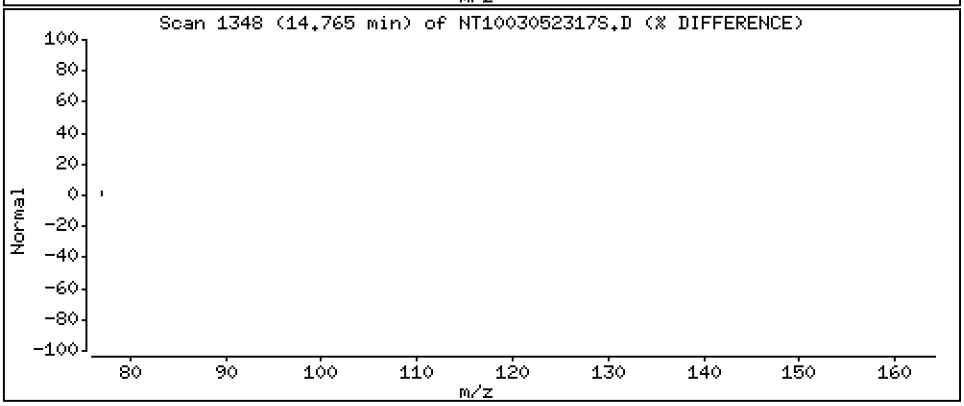












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052317S.D

Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

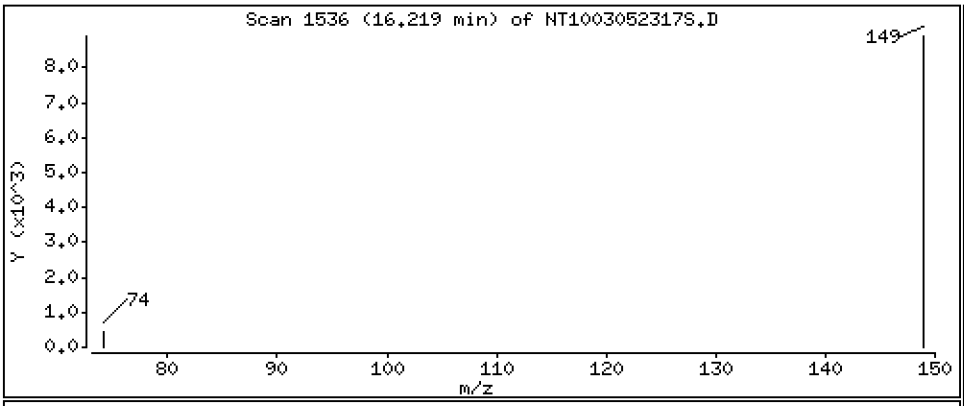
Operator: YZ

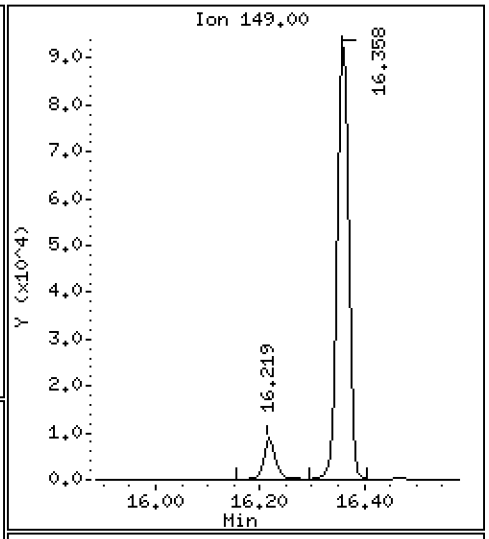
Column phase: ZB-5msi

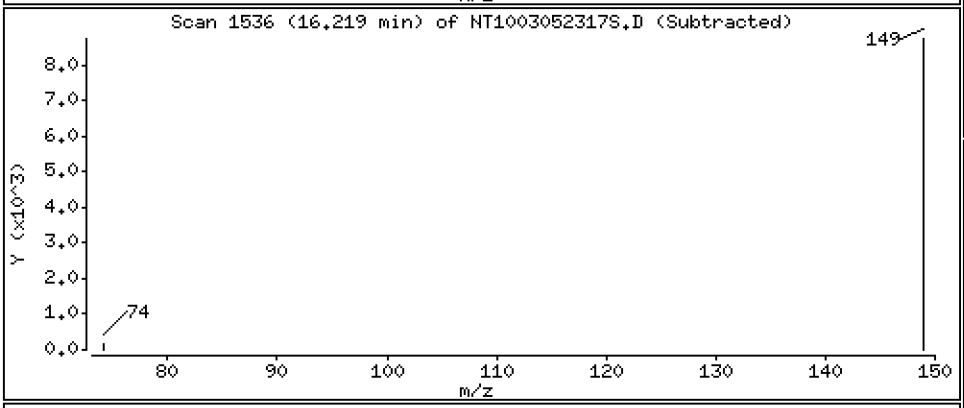
Column diameter: 0.25

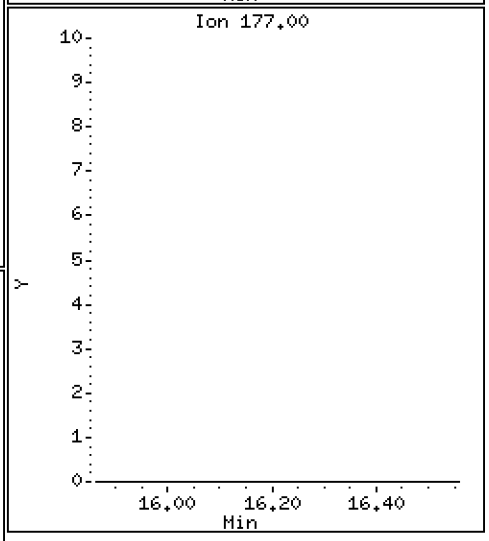
50 Diethylphthalate

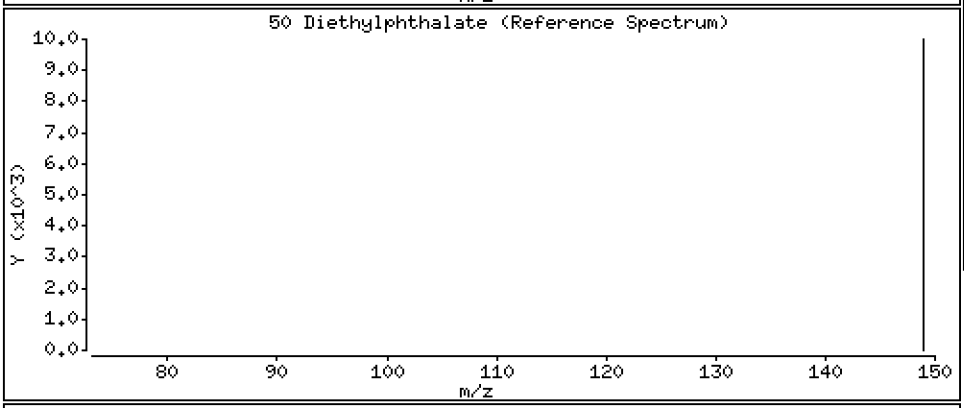
Concentration: 0.1002 ug/mL

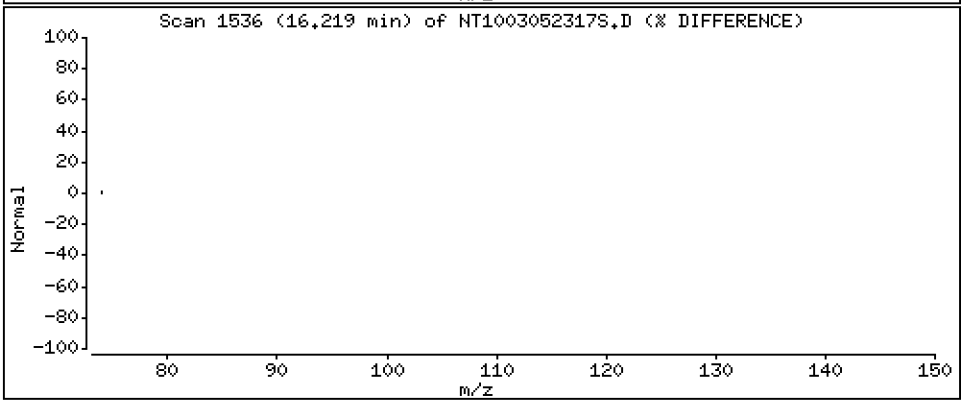












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052317S.D

Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

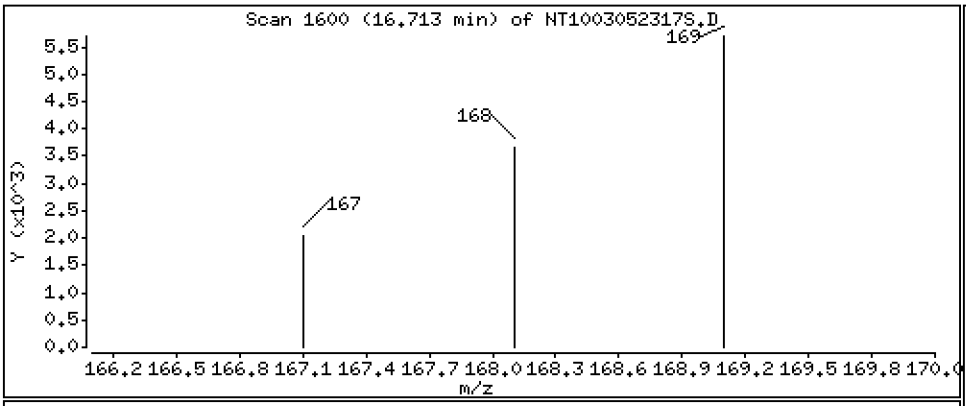
Operator: YZ

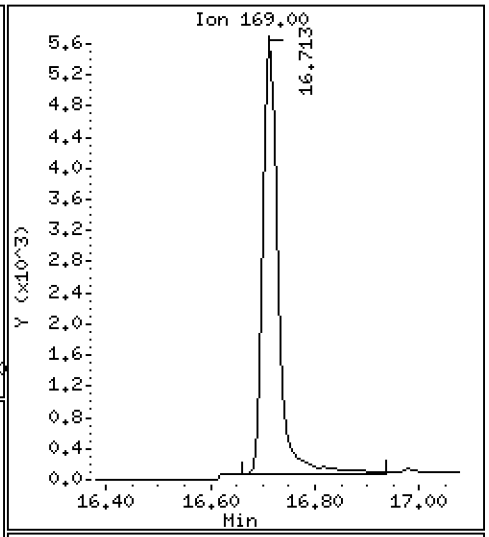
Column phase: ZB-5msi

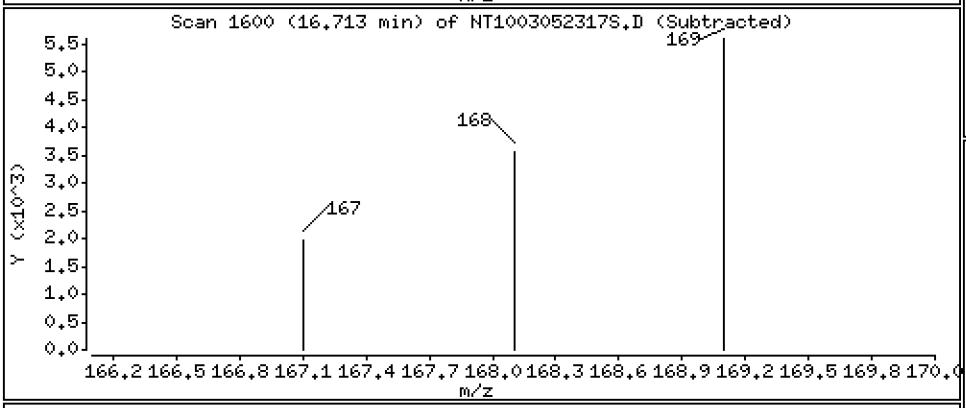
Column diameter: 0.25

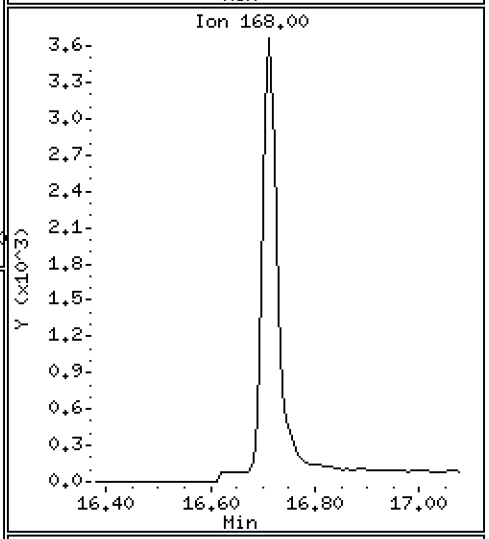
54 N-Nitrosodiphenylamine

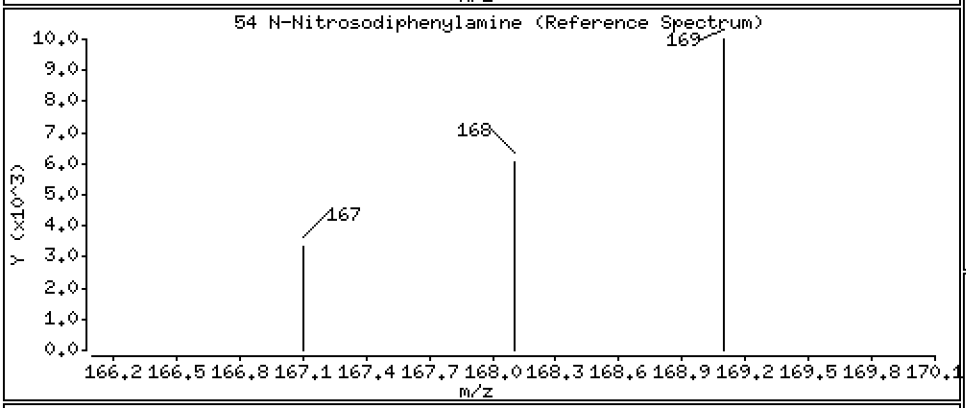
Concentration: 0.07909 ug/mL

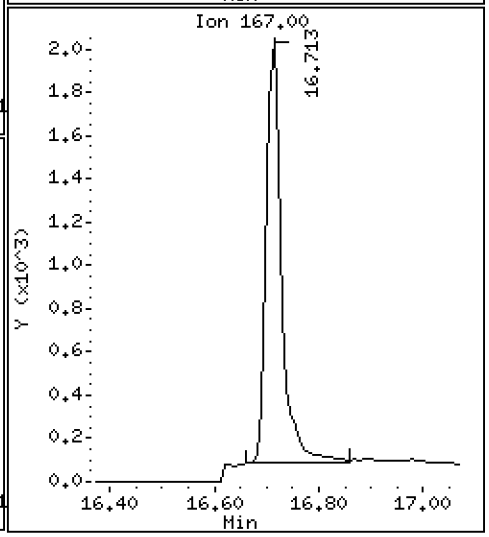


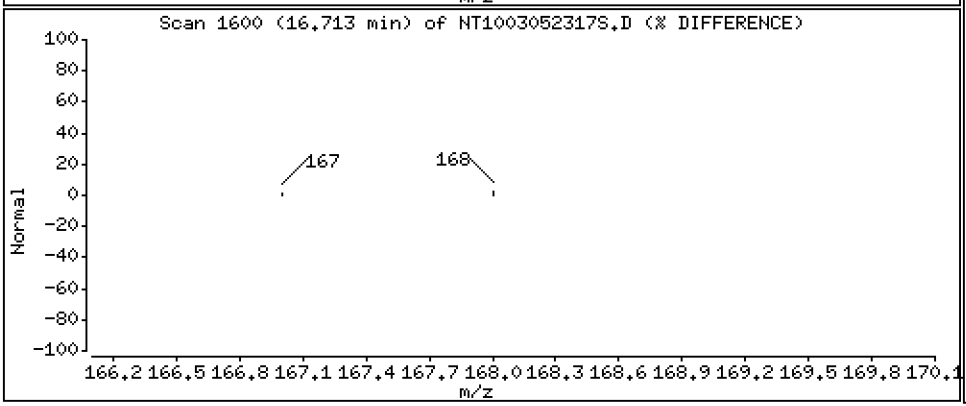












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052317S.D

Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

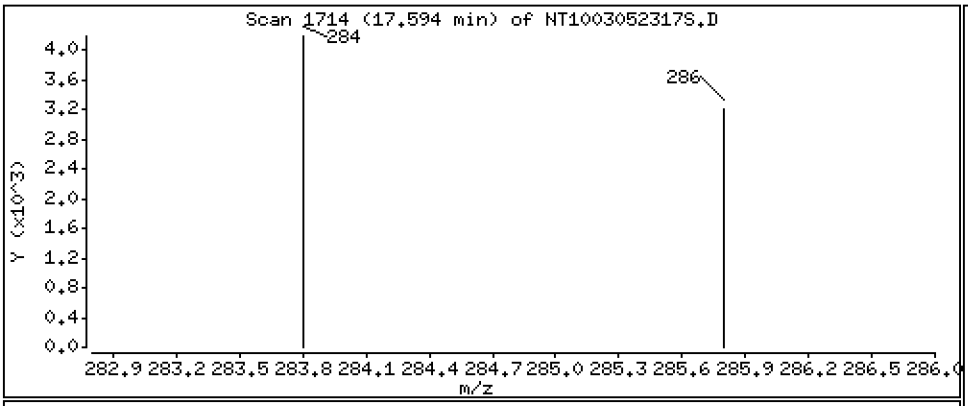
Operator: YZ

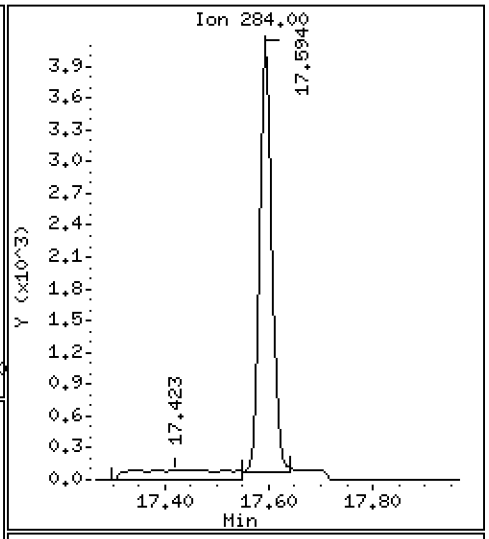
Column phase: ZB-5msi

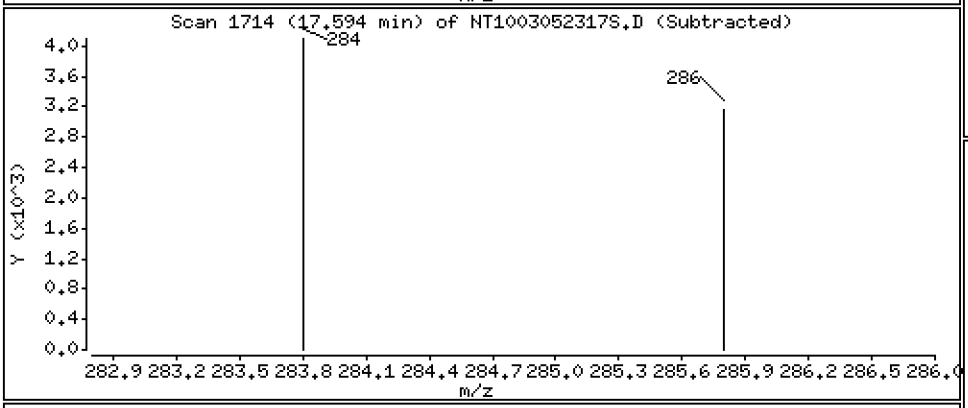
Column diameter: 0.25

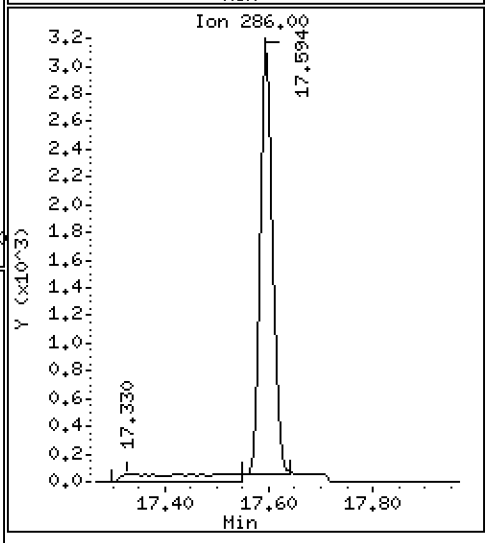
57 Hexachlorobenzene

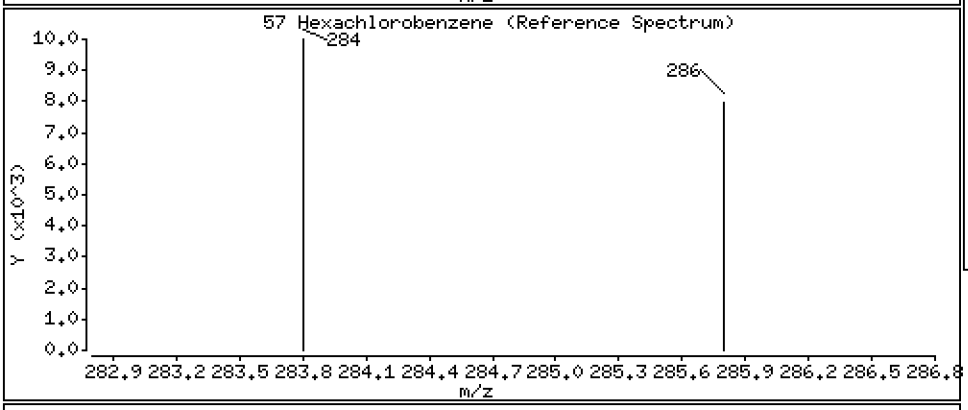
Concentration: 0.1025 ug/mL

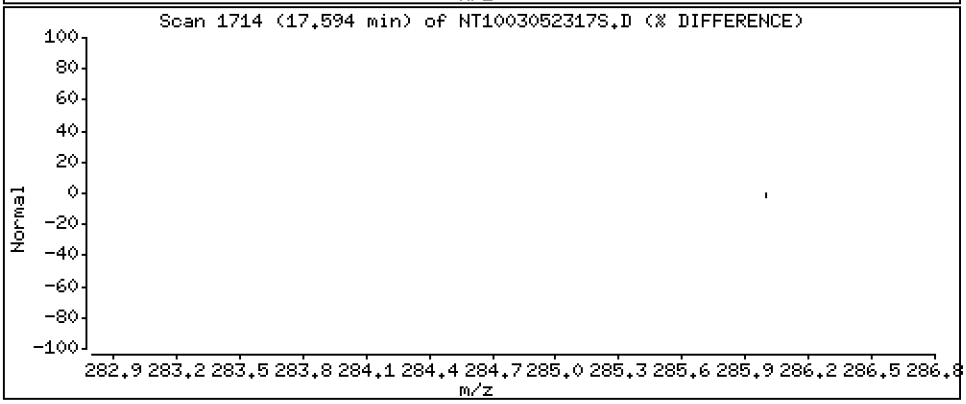












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052317S.D

Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

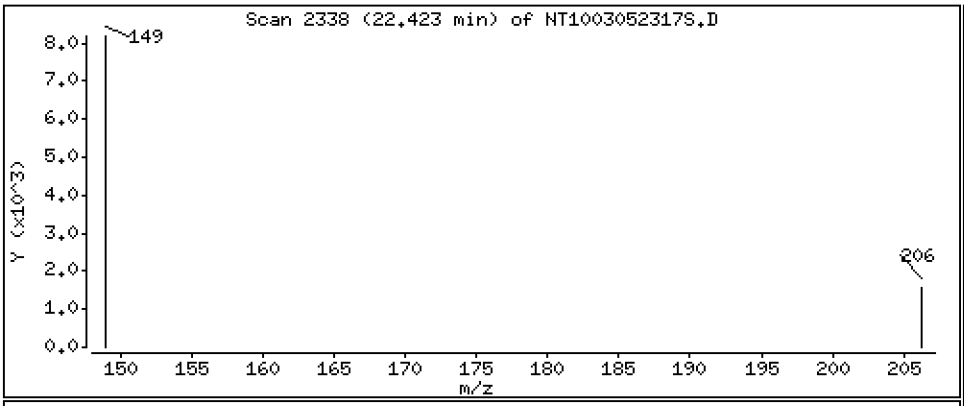
Operator: YZ

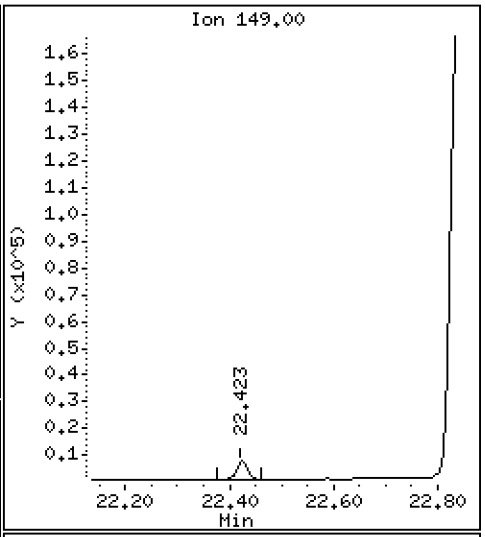
Column phase: ZB-5msi

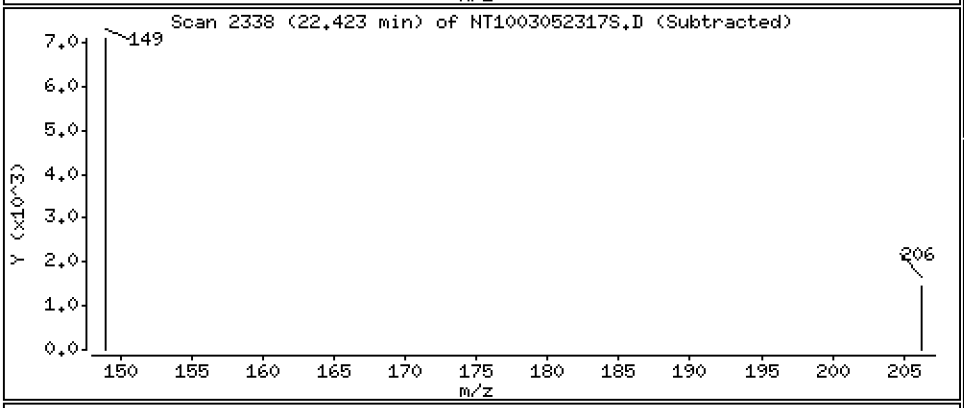
Column diameter: 0.25

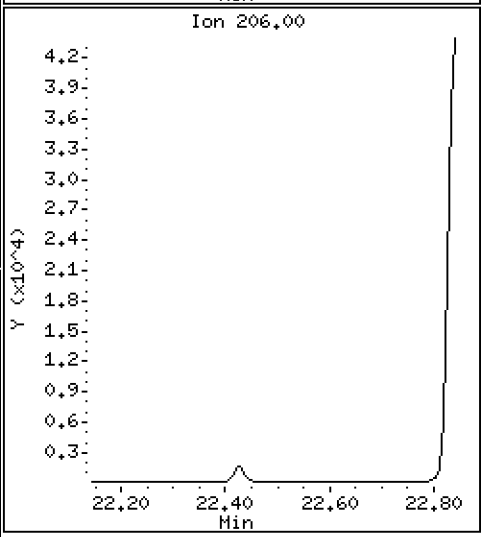
67 Butylbenzylphthalate

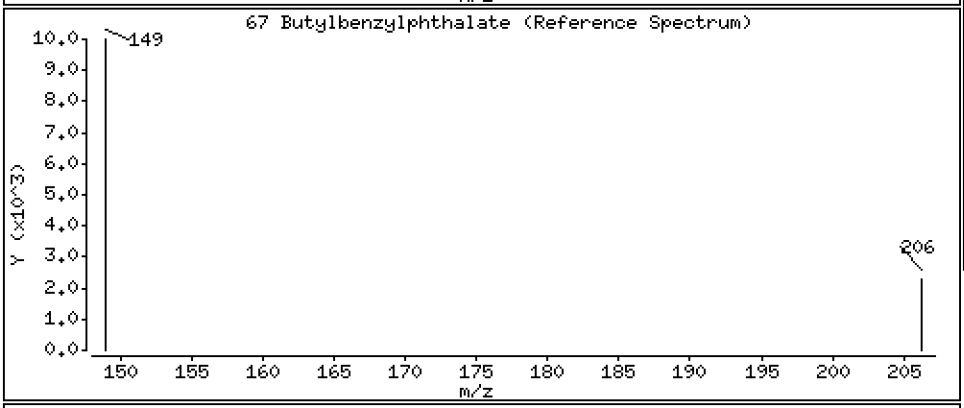
Concentration: 0.07240 ug/mL

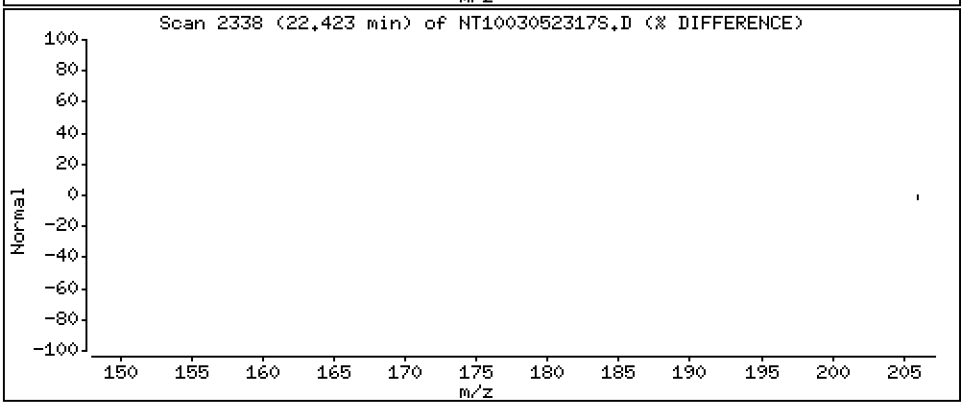












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052317S.D

Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

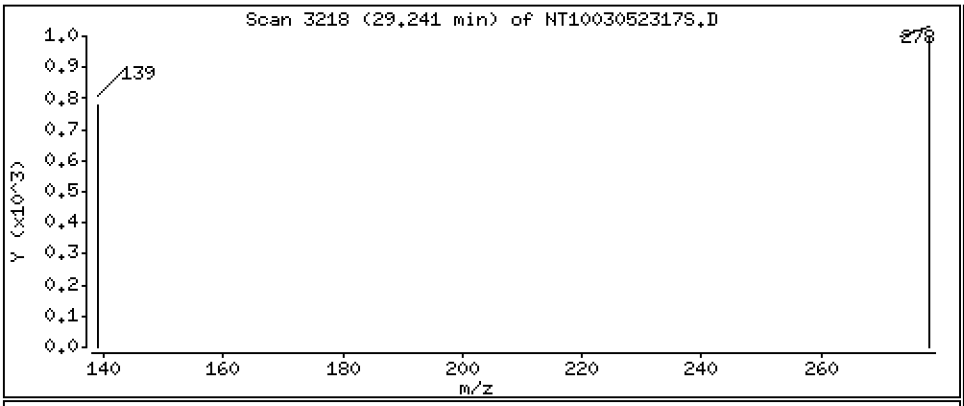
Operator: YZ

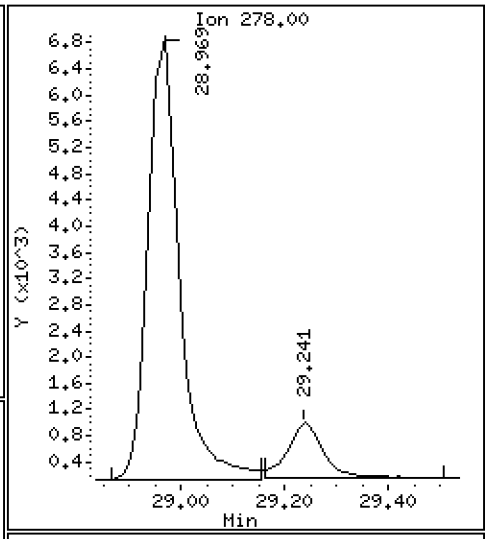
Column phase: ZB-5msi

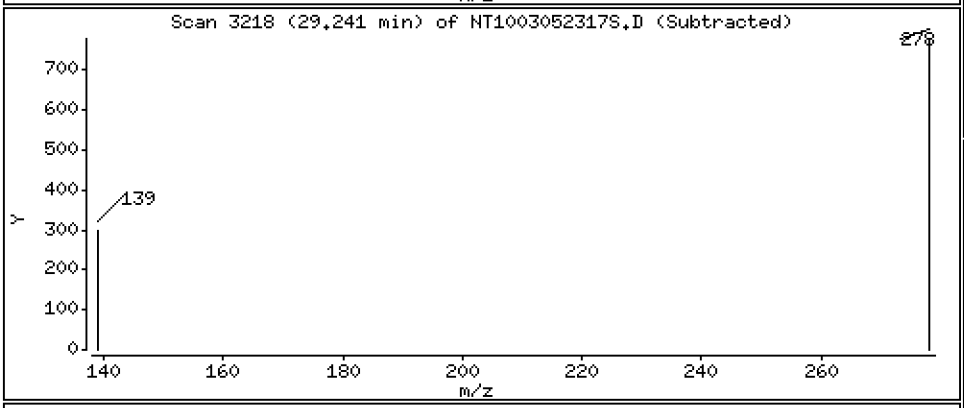
Column diameter: 0.25

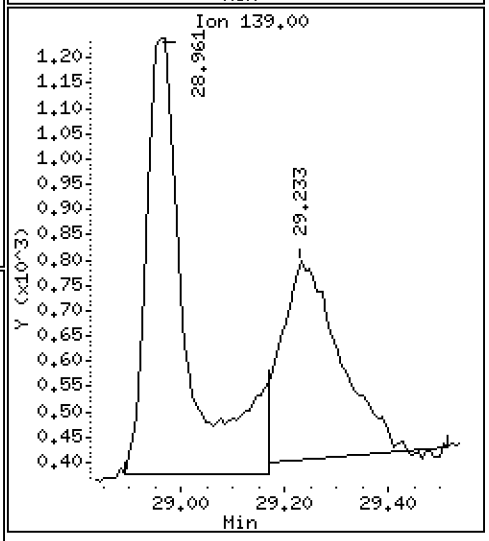
79 Dibenzo(a,h)anthracene

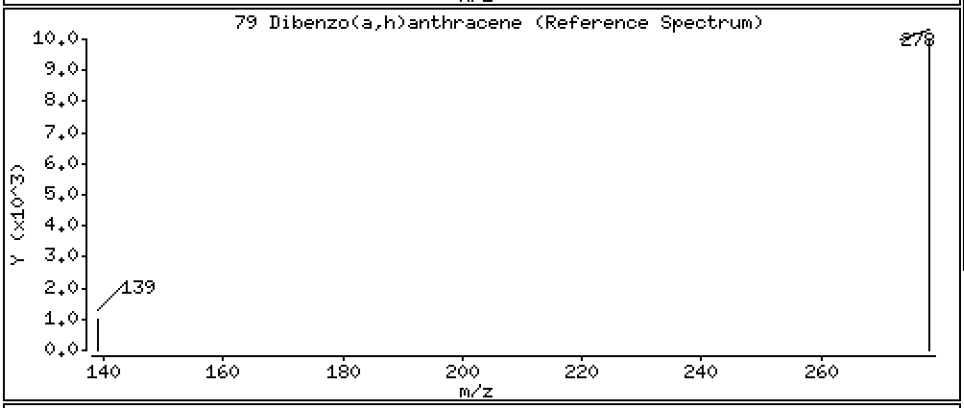
Concentration: 0.01900 ug/mL

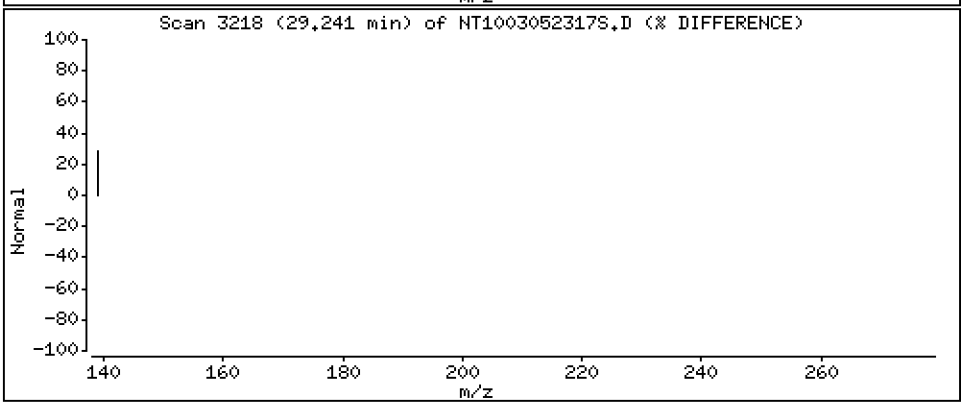












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523175.D

Date : 05-MAR-2023 23:32

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV1

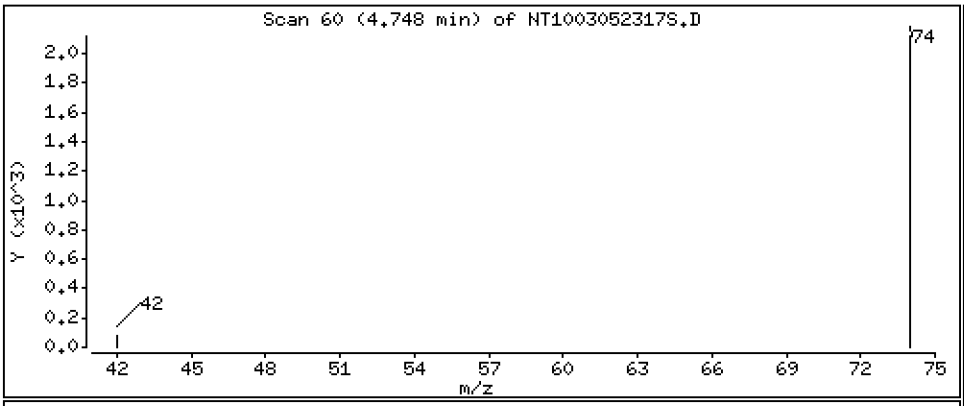
Operator: YZ

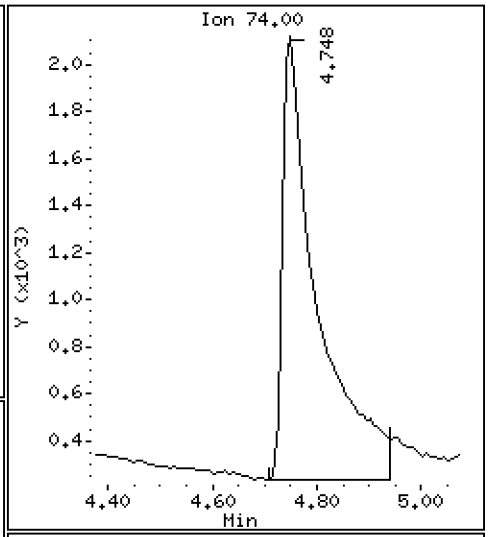
Column phase: ZB-5msi

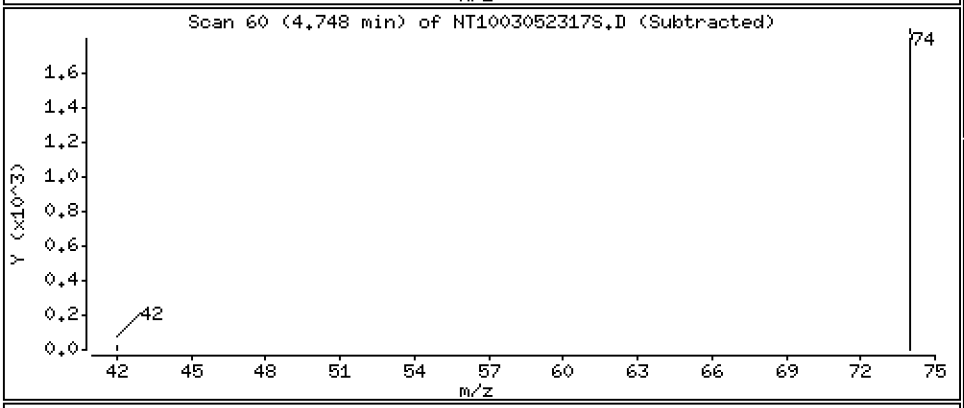
Column diameter: 0.25

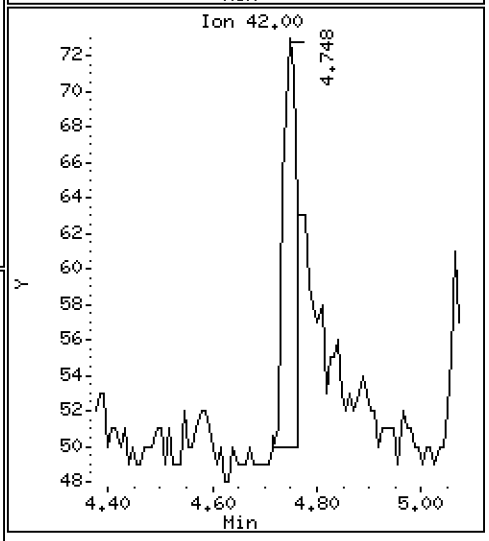
90 N-Nitrosodimethylamine

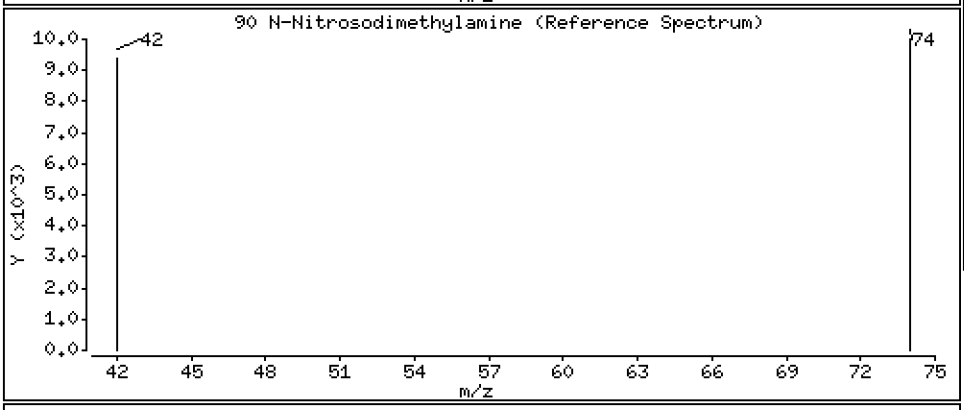
Concentration: 0.1910 ug/mL

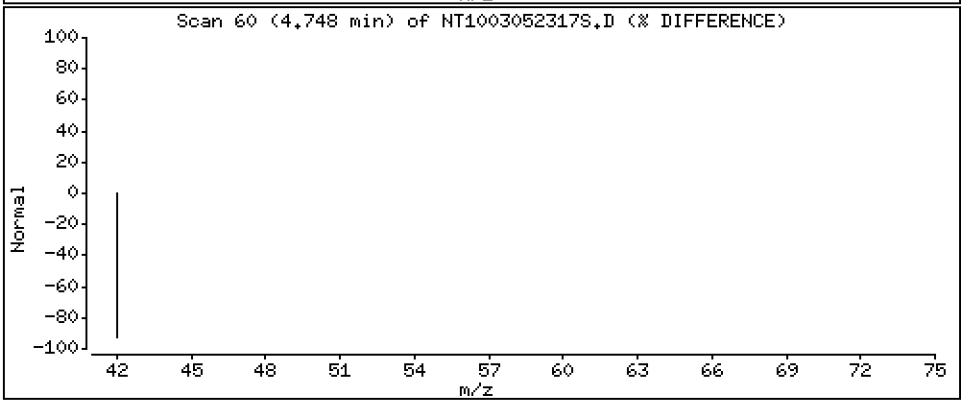












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052317S.D
Lab Smp Id: SLC0440-LCV1
Inj Date : 05-MAR-2023 23:32
Operator : YZ Inst ID: nt10.i
Smp Info : SLC0440-LCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Meth Date : 28-Mar-2023 11:18 deenayd Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: DEENAY-201905

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.909	6.902	(0.746)	11431	0.14620	0.1462(R)
	3 Phenol	94	8.563	8.532	(0.925)	6959	0.06034	0.06034
	7 1,3-Dichlorobenzene	146	9.151	9.143	(0.988)	10212	0.10062	0.1006
*	8 1,4-Dichlorobenzene-d4	152	9.259	9.252	(1.000)	273861	4.00000	
	9 1,4-Dichlorobenzene	146	9.298	9.283	(1.004)	9734	0.09864	0.09864
	11 Benzyl alcohol	79	9.515	9.484	(1.028)	4257	0.06656	0.06656
	12 1,2-Dichlorobenzene	146	9.577	9.570	(1.034)	9682	0.10208	0.1021
	13 2-Methylphenol	108	9.702	9.671	(1.048)	7136	0.10287	0.1029
	15 4-Methylphenol	108	9.997	9.966	(1.080)	6797	0.09421	0.09421
	16 N-Nitroso-di-n-propylamine	70	10.004	9.981	(1.080)	5392	0.10498	0.1050
	22 2,4-Dimethylphenol	107	11.040	11.014	(0.940)	15546	0.19213	0.1921
	24 Benzoic acid	105	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	11.623	11.608	(0.989)	8238	0.12006	0.1201
*	27 Naphthalene-d8	136	11.746	11.731	(1.000)	953301	4.00000	
	30 Hexachlorobutadiene	225	12.009	12.001	(1.022)	6028	0.12380	0.1238
	39 Dimethylphthalate	163	14.764	14.764	(0.963)	13765	0.09536	0.09536
*	42 Acenaphthene-d10	162	15.329	15.337	(1.000)	454624	4.00000	
	50 Diethylphthalate	149	16.218	16.234	(1.058)	13643	0.10022	0.1002(H)
	54 N-Nitrosodiphenylamine	169	16.713	16.729	(0.907)	11012	0.07909	0.07909
	57 Hexachlorobenzene	284	17.593	17.617	(0.955)	6678	0.10248	0.1025
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	18.421	18.453	(1.000)	860369	4.00000	
$	66 Terphenyl-d14	244	21.539	21.594	(0.919)	10456	0.16129	0.1613(R)
	67 Butylbenzylphthalate	149	22.422	22.484	(0.957)	9799	0.07240	0.07240
*	69 Chrysene-d12	240	23.436	23.514	(1.000)	801660	4.00000	
*	77 Perylene-d12	264	26.138	26.270	(1.000)	976489	4.00000	
	79 Dibenzo(a,h)anthracene	278	29.240	29.186	(1.119)	4296	0.01900	0.01900
	90 N-Nitrosodimethylamine	74	4.747	4.724	(0.513)	8839	0.19095	0.1910

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052317S.D
Lab Smp Id: SLC0440-LCV1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 22:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	293840	146920	587680	273861	-6.80
27 Naphthalene-d8	1032639	516320	2065278	953301	-7.68
42 Acenaphthene-d10	502349	251175	1004698	454624	-9.50
59 Phenanthrene-d10	975997	487999	1951994	860369	-11.85
69 Chrysene-d12	978544	489272	1957088	801660	-18.08
77 Perylene-d12	1201606	600803	2403212	976489	-18.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.26	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.75	0.13
42 Acenaphthene-d10	15.34	14.84	15.84	15.33	-0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.42	-0.17
69 Chrysene-d12	23.51	23.01	24.01	23.44	-0.33
77 Perylene-d12	26.27	25.77	26.77	26.14	-0.50

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052317S.D

Lab ID: SLC0440-LCV1
nt10.i, 20230305A.b\SIM.b\SIMABN2.m,   05-MAR-2023 23:32

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.119	1.111	0.0077	Dibenzo(a,h)anthracene

RRT check based on Ccal File: SIM.b/NT1003052315S.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, LLC
Analytical Chemists and Consultants

LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00032
Lab File ID:	NT1003052316S.D	Calibration Date:	03/01/2023
Sequence:	SLC0440	Injection Date:	03/05/23
Lab Sample ID:	SLC0440-LCV2	Injection Time:	22:54
Sequence Name:	ABN 0.2		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	0.20000	0.2	1.4413080	1.4351650		-0.4	
1,2-Dichlorobenzene	A	0.20000	0.2	1.3853460	1.4047050		1.4	
Benzyl Alcohol	A	0.20000	0.2	0.7492523	0.7319680		-21.7	
Benzoic acid	A	0.80000	0.0	0.1431163				
2,4-Dimethylphenol	A	0.40000	0.4	0.2957717	0.3399187		0.06	
1,2,4-Trichlorobenzene	A	0.20000	0.2	0.2879030	0.3534432		22.8	
N-Nitrosodiphenylamine	A	0.20000	0.2	0.6473471	0.5670888		-12.4	
Pentachlorophenol	A	0.40000	0.002	0.0950913	0.0007662		-99.4	
2-Fluorophenol	A	0.30000	0.294	1.1419780	1.1197340		-1.9	
p-Terphenyl-d14	A	0.20000	0.313	0.3234672	0.5058780		56.4	

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

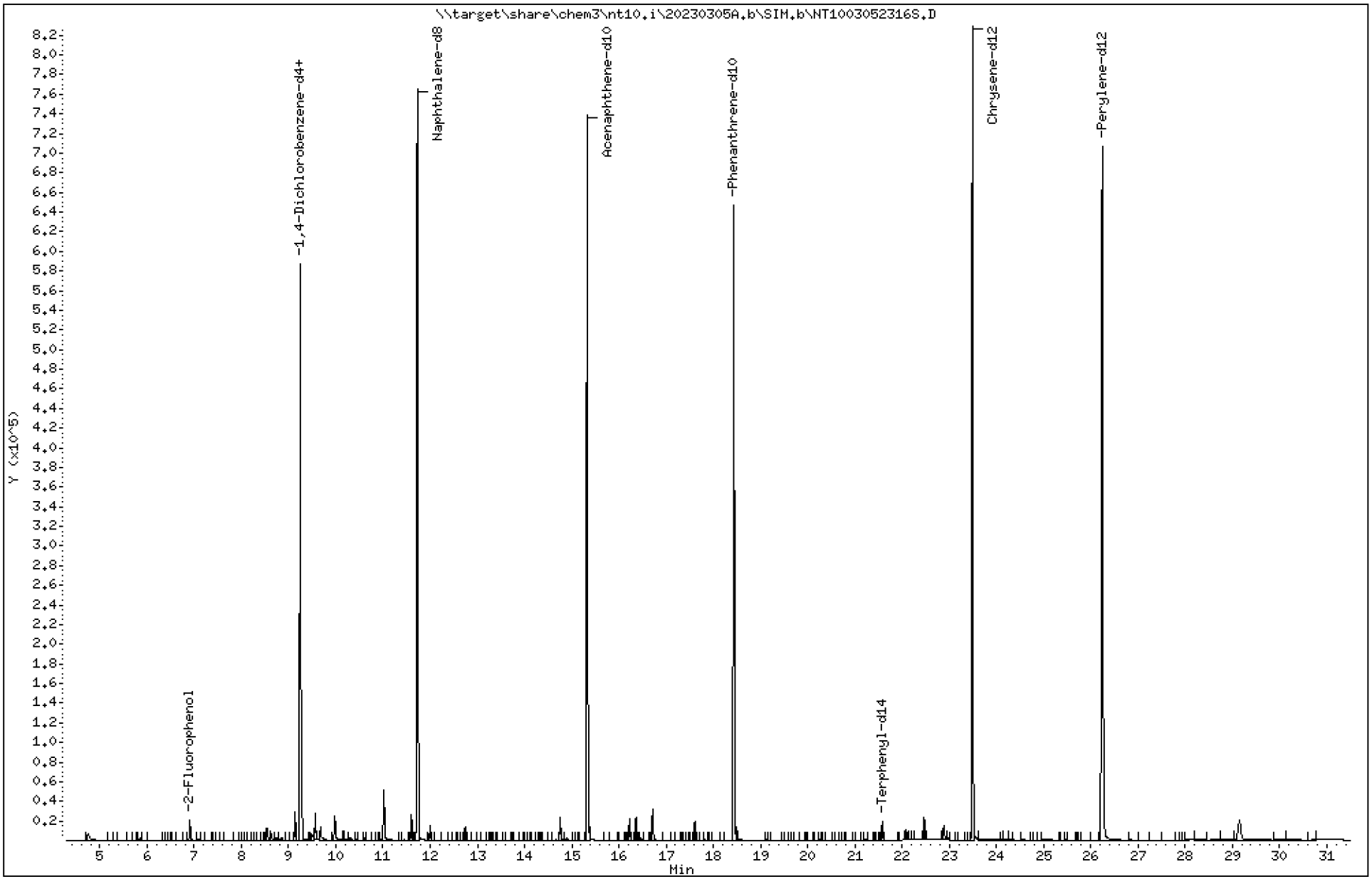
Sample Info: SLC0440-LCV2

Instrument: nt10.i

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

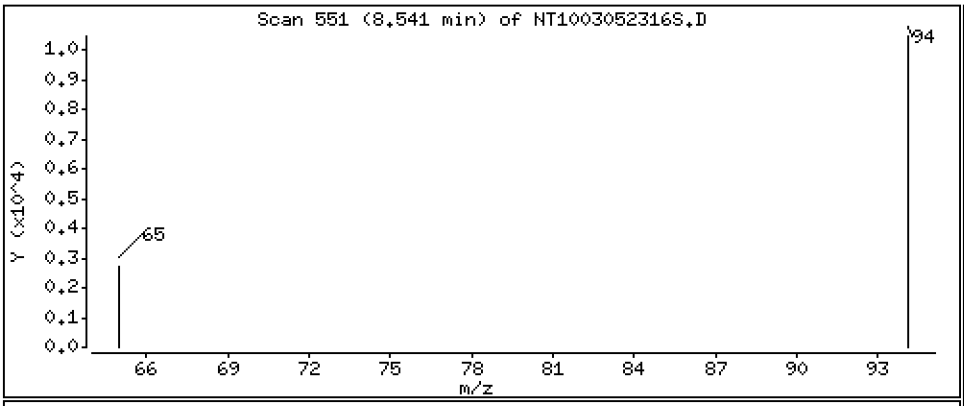
Operator: YZ

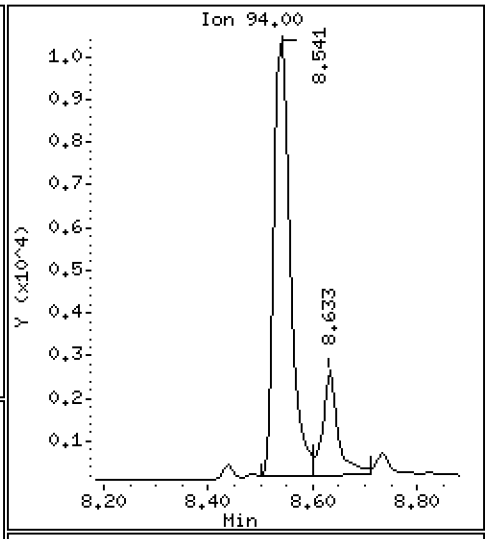
Column phase: ZB-5msi

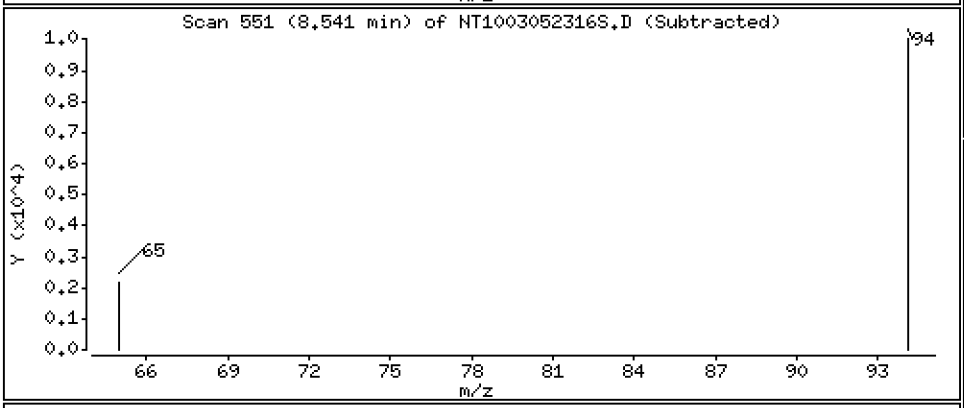
Column diameter: 0.25

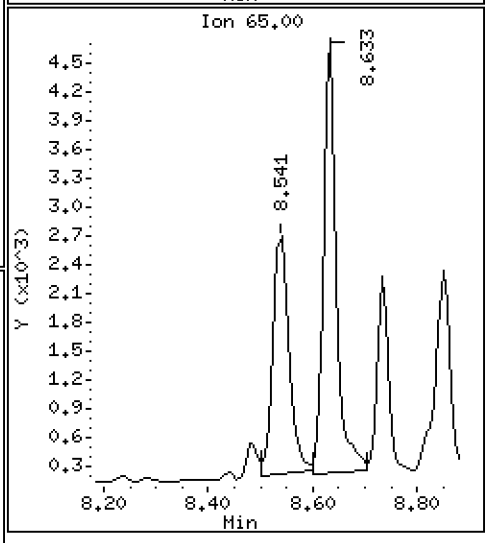
3 Phenol

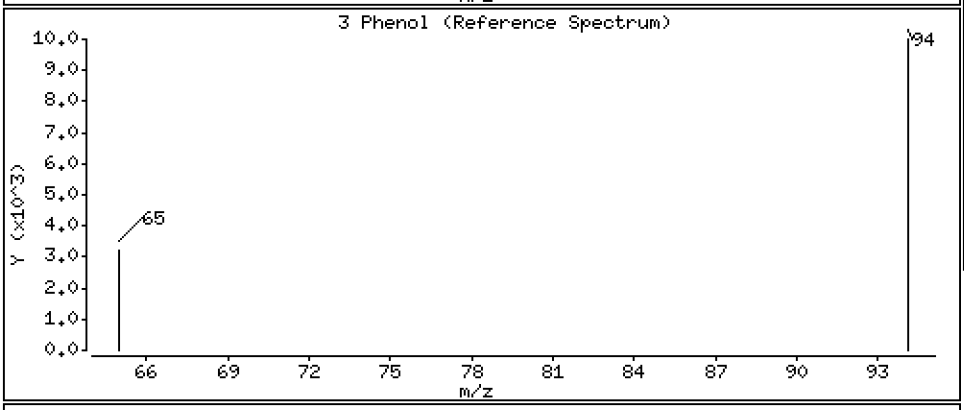
Concentration: 0.1498 ug/mL

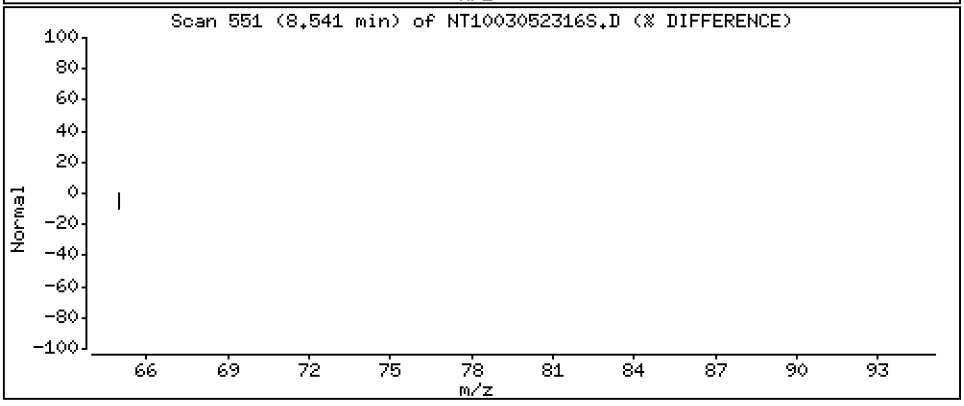












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

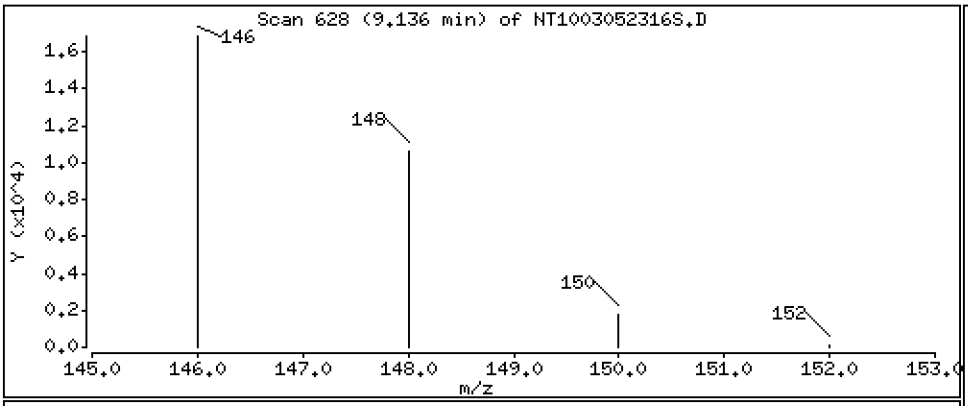
Operator: YZ

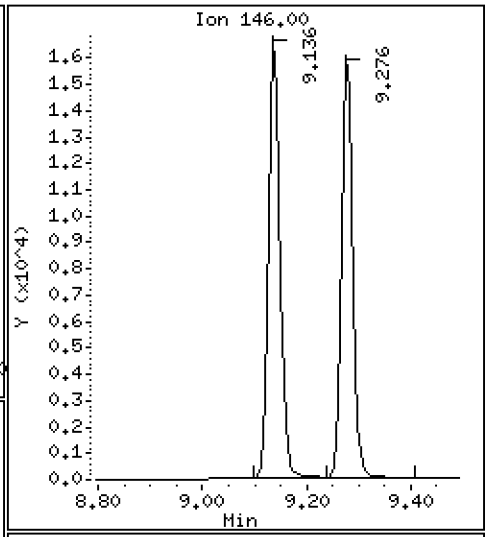
Column phase: ZB-5msi

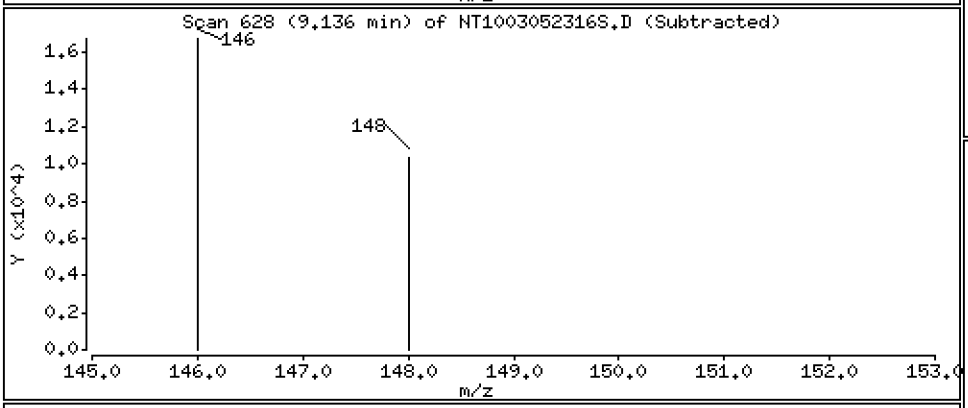
Column diameter: 0.25

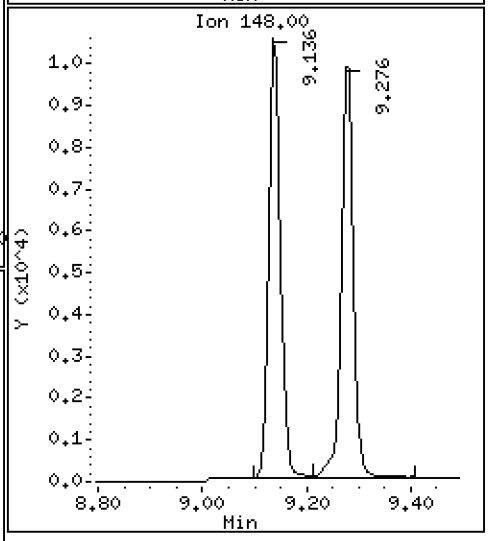
7 1,3-Dichlorobenzene

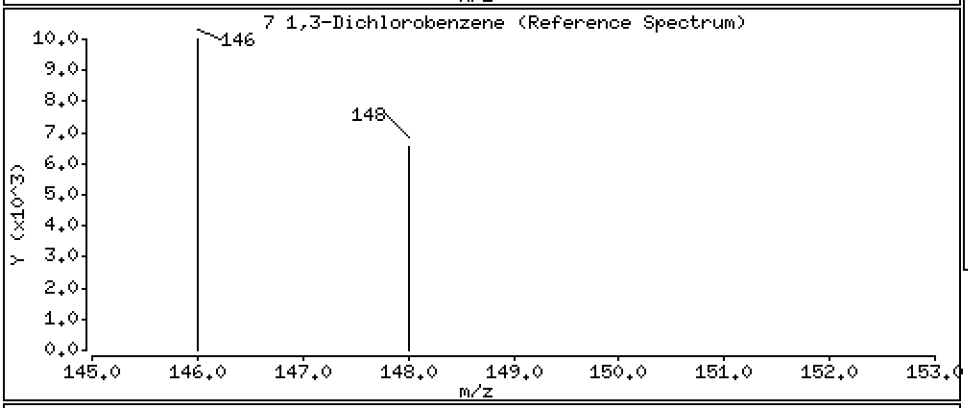
Concentration: 0.2018 ug/mL

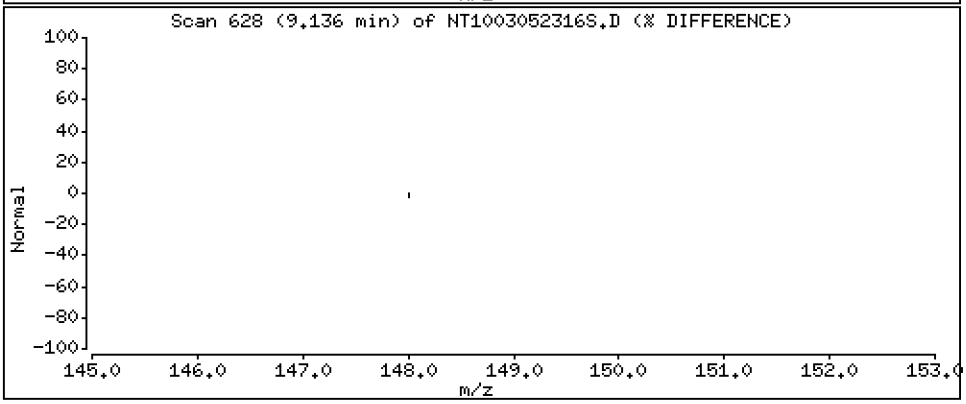












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052316S.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

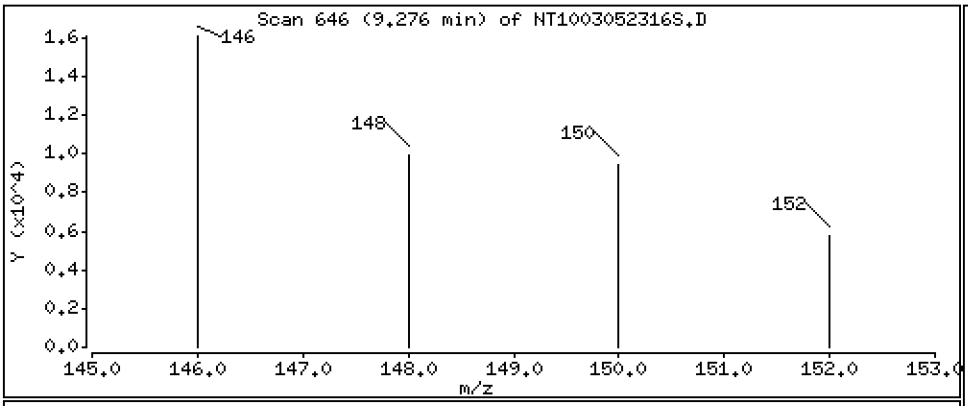
Operator: YZ

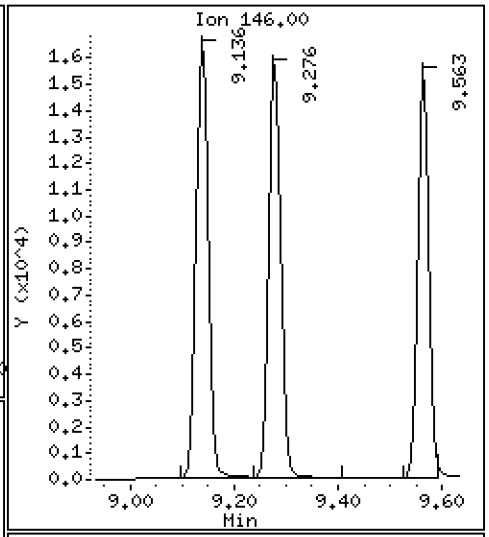
Column phase: ZB-5msi

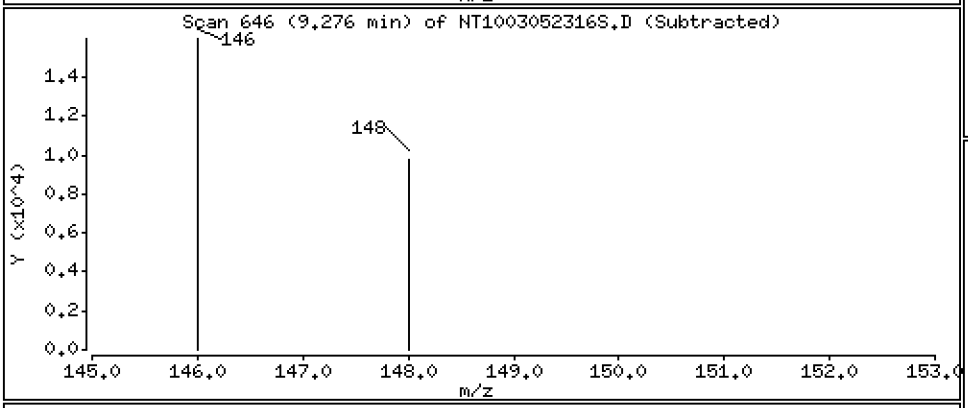
Column diameter: 0.25

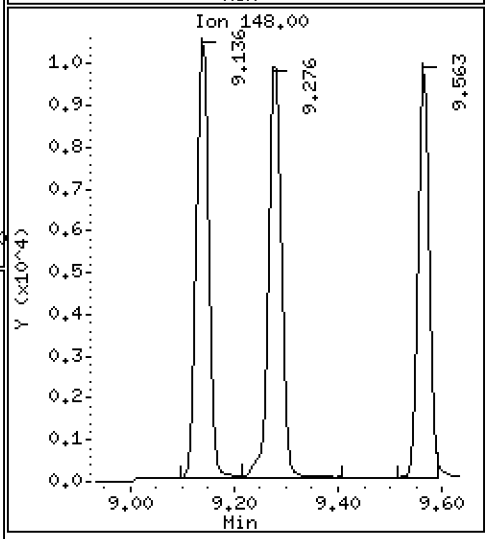
9 1,4-Dichlorobenzene

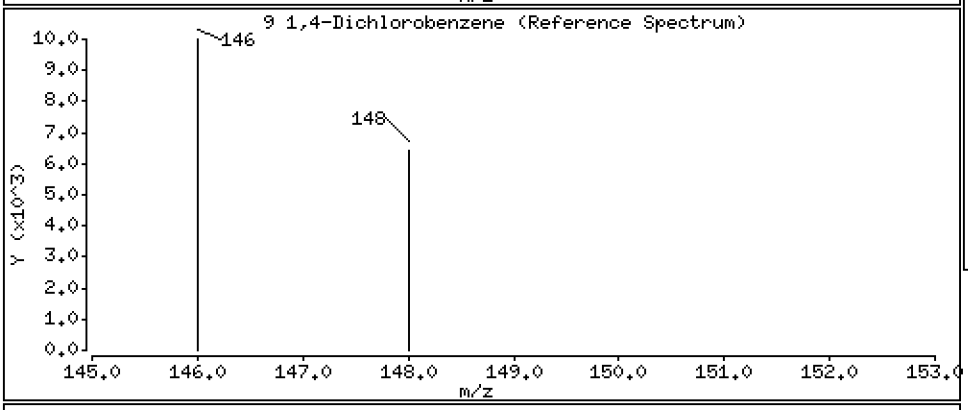
Concentration: 0.1991 ug/mL

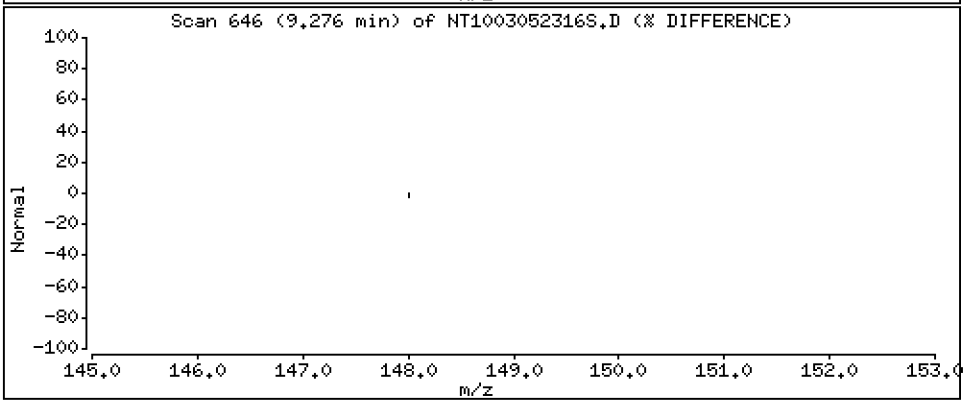












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052316S.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

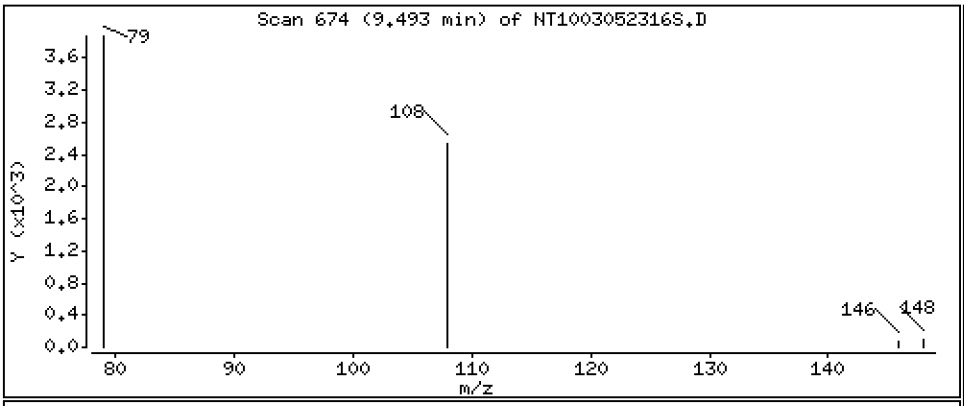
Operator: YZ

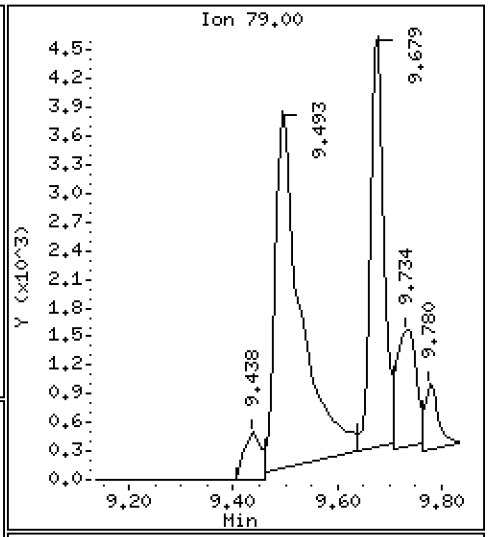
Column phase: ZB-5msi

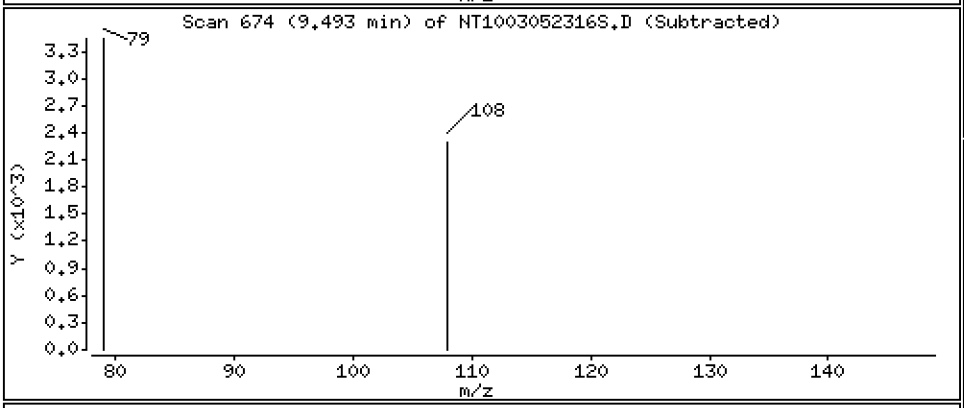
Column diameter: 0.25

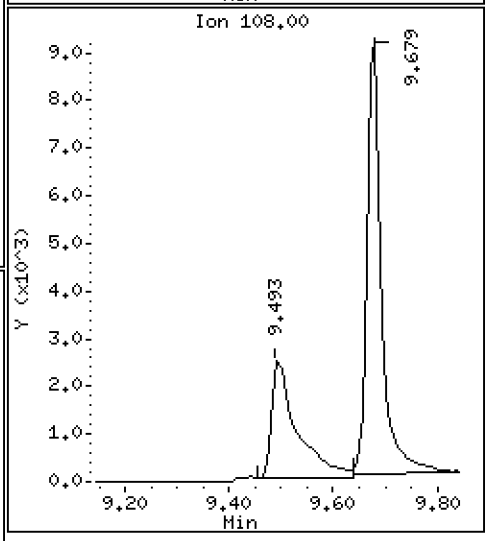
11 Benzyl alcohol

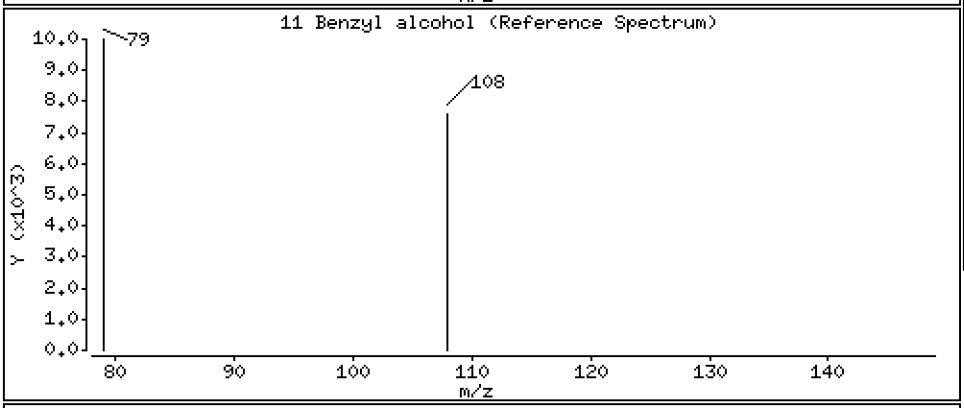
Concentration: 0.1565 ug/mL

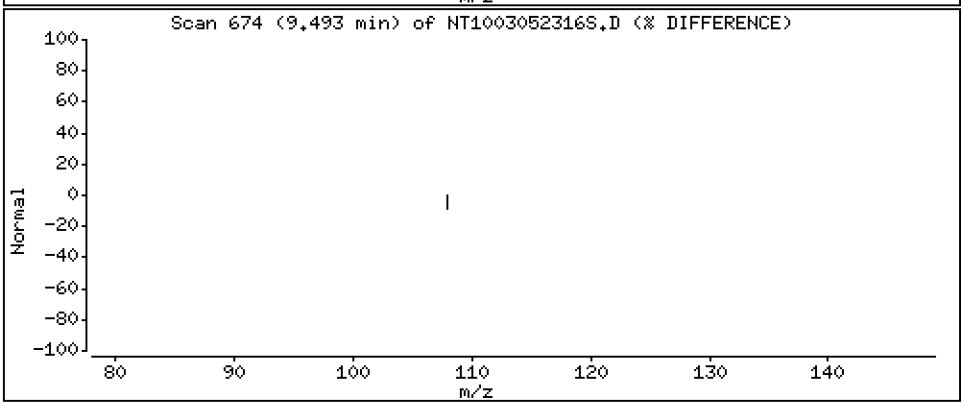












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

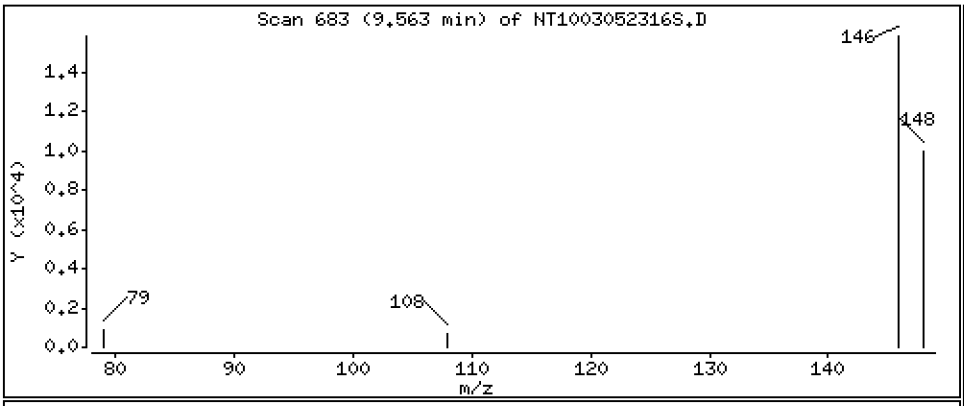
Operator: YZ

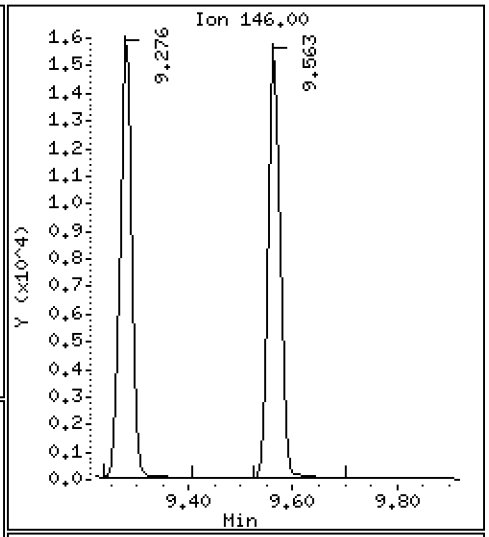
Column phase: ZB-5msi

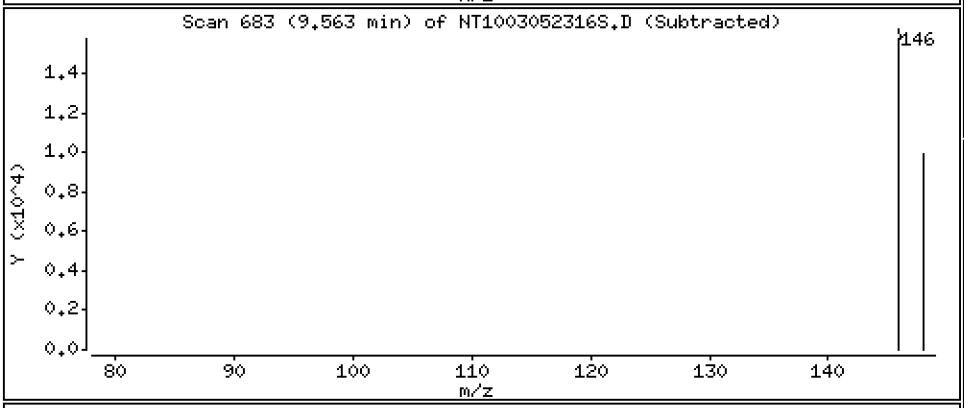
Column diameter: 0.25

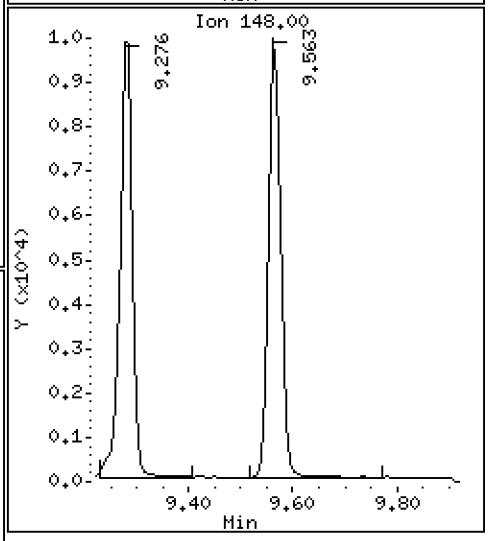
12 1,2-Dichlorobenzene

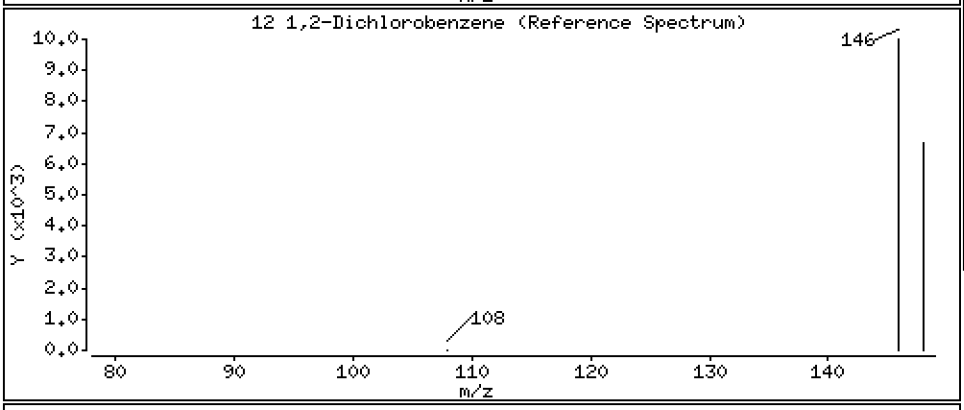
Concentration: 0.2028 ug/mL

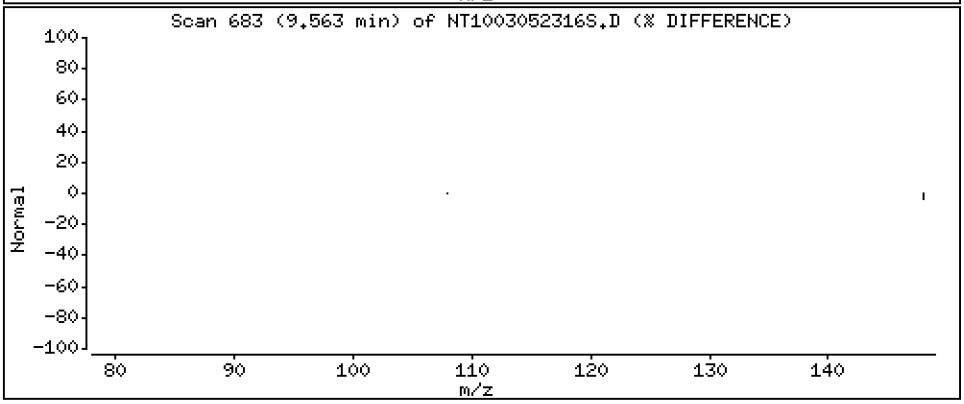












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

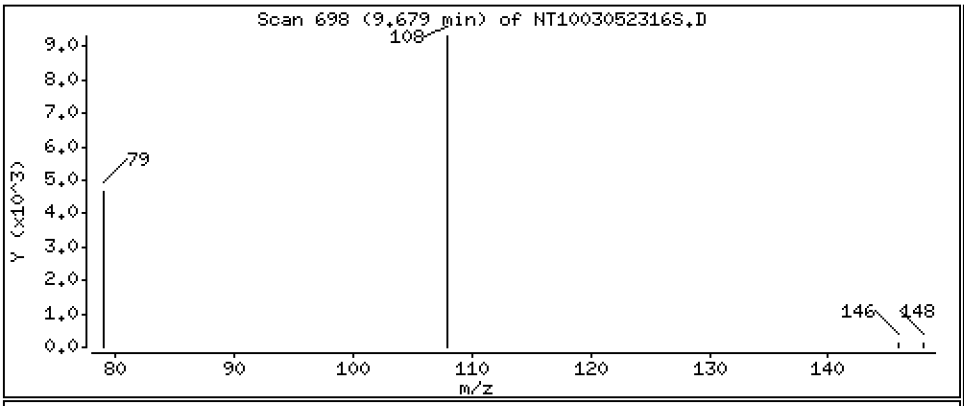
Operator: YZ

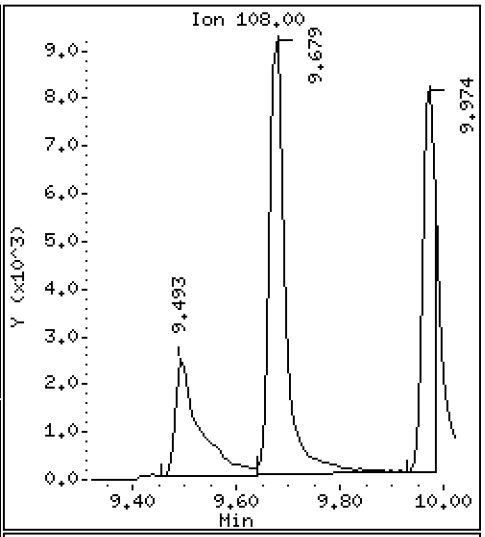
Column phase: ZB-5msi

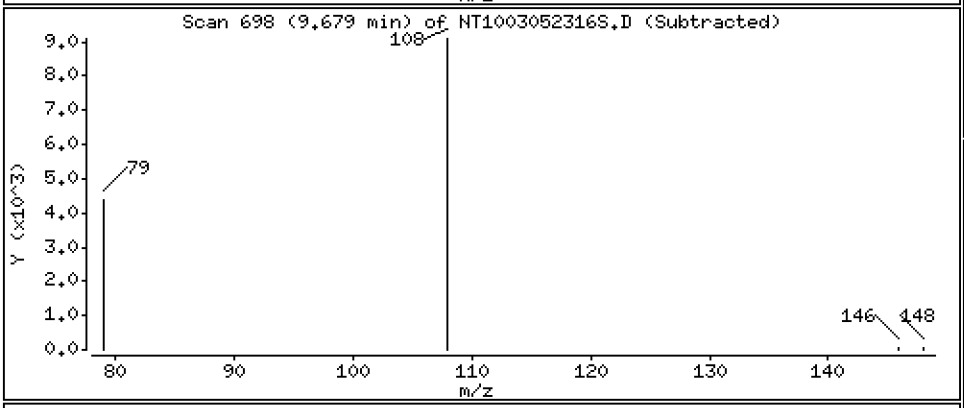
Column diameter: 0.25

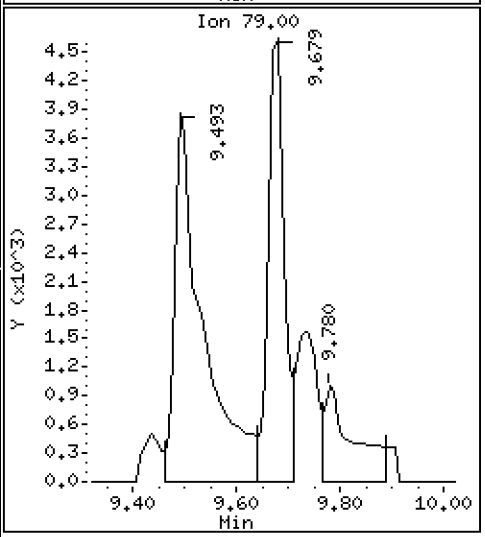
13 2-Methylphenol

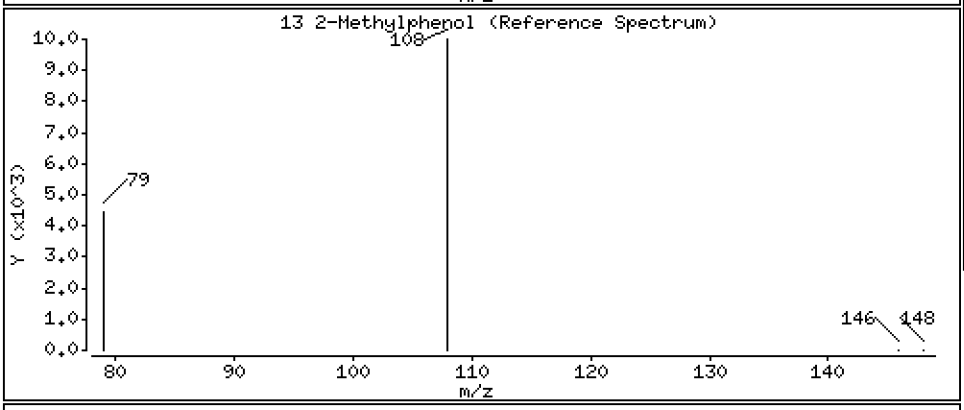
Concentration: 0.2146 ug/mL

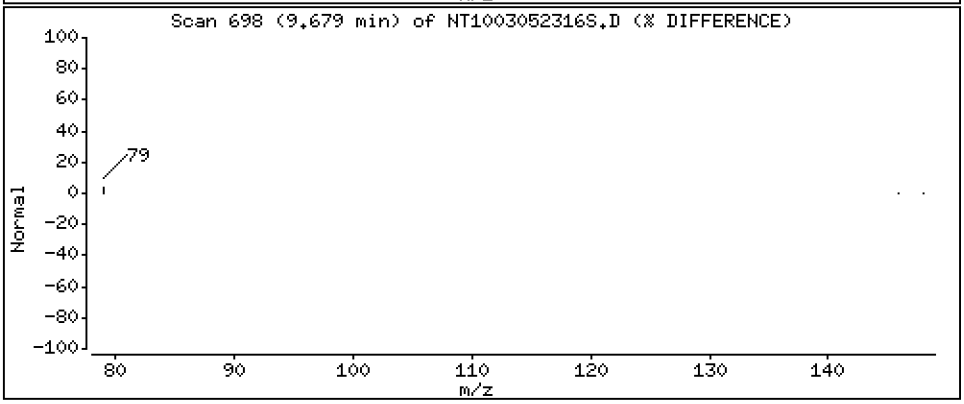












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

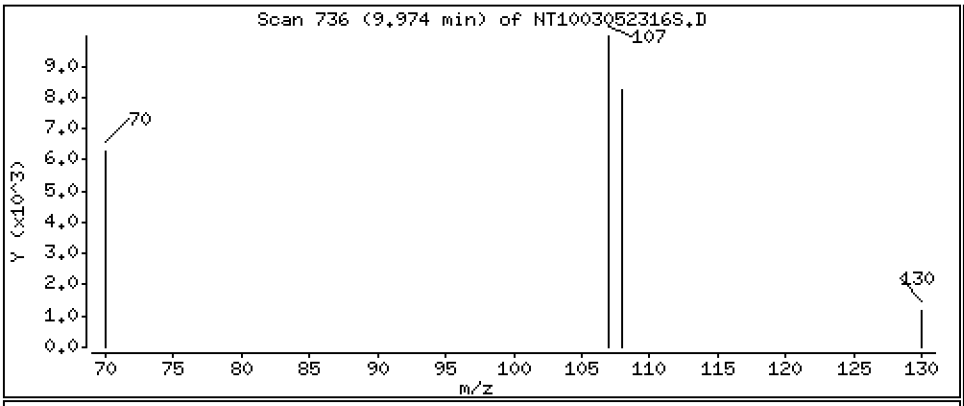
Operator: YZ

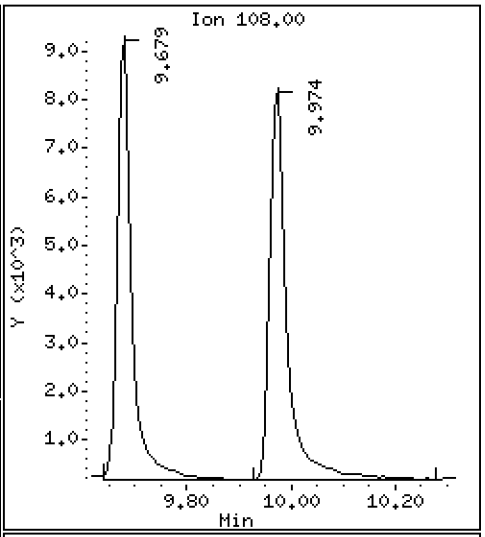
Column phase: ZB-5msi

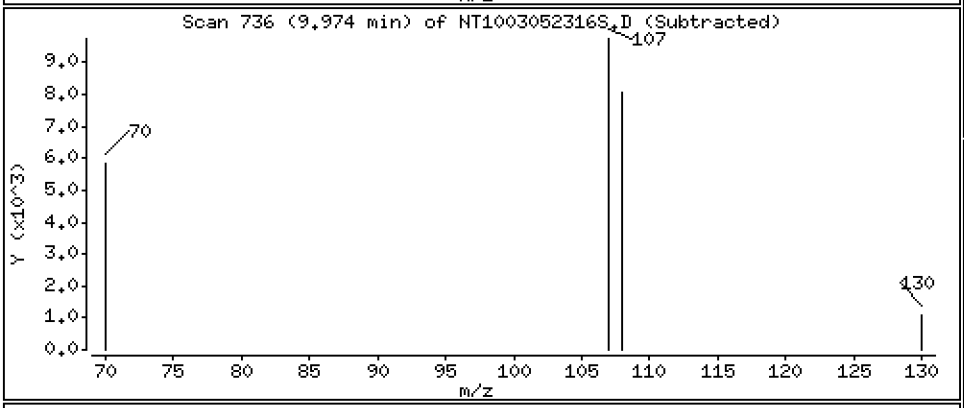
Column diameter: 0.25

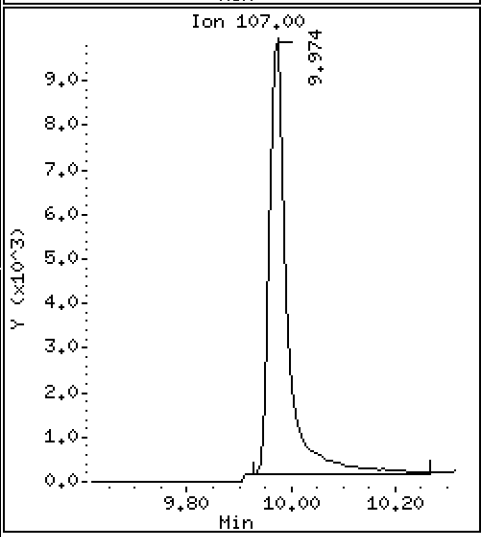
15 4-Methylphenol

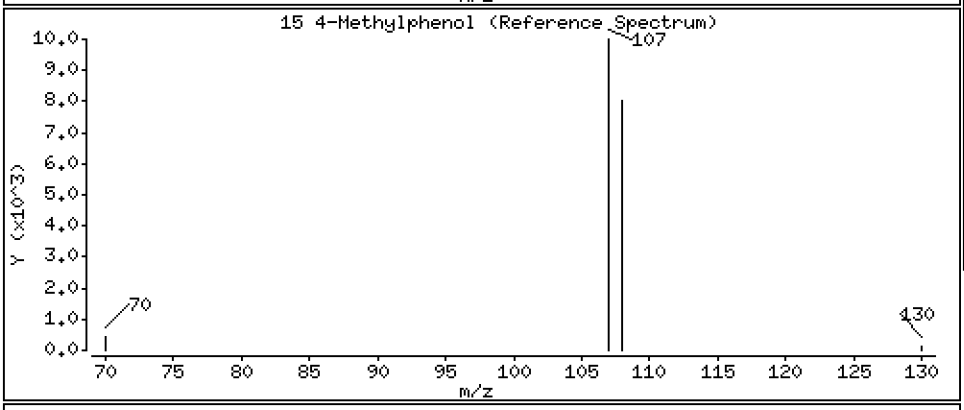
Concentration: 0.2009 ug/mL

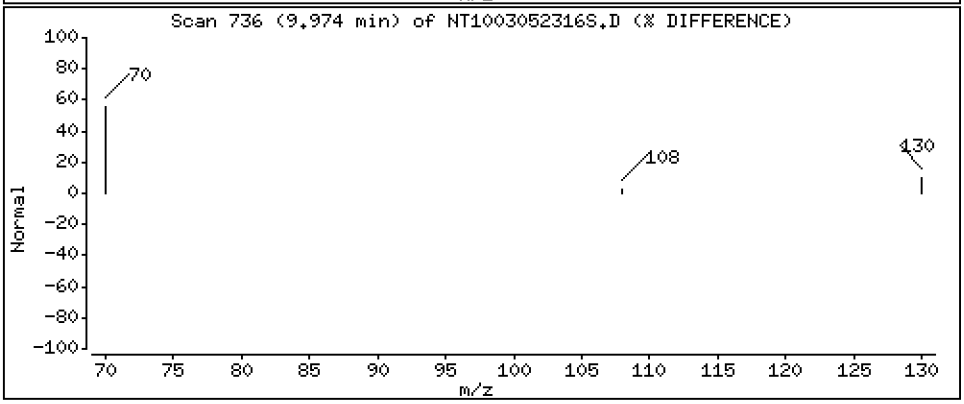












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

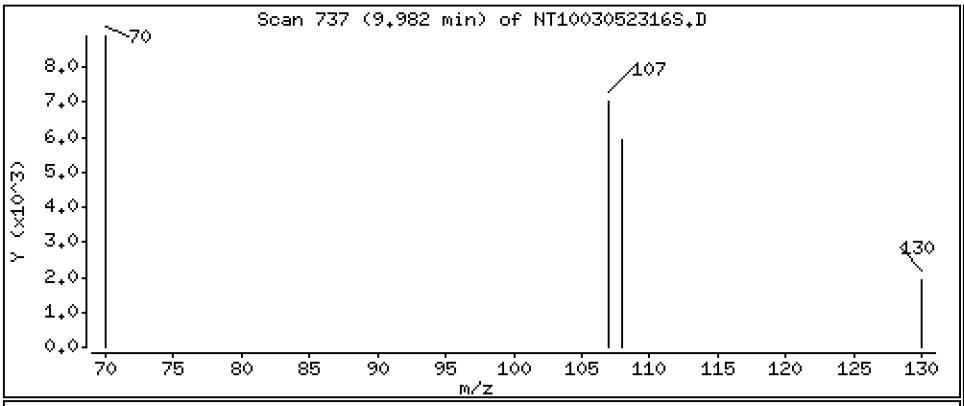
Operator: YZ

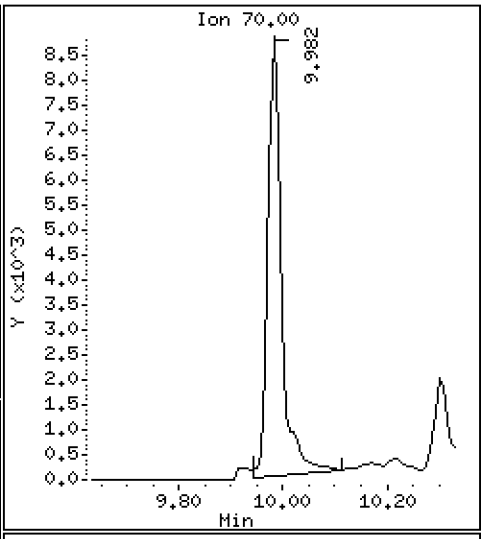
Column phase: ZB-5msi

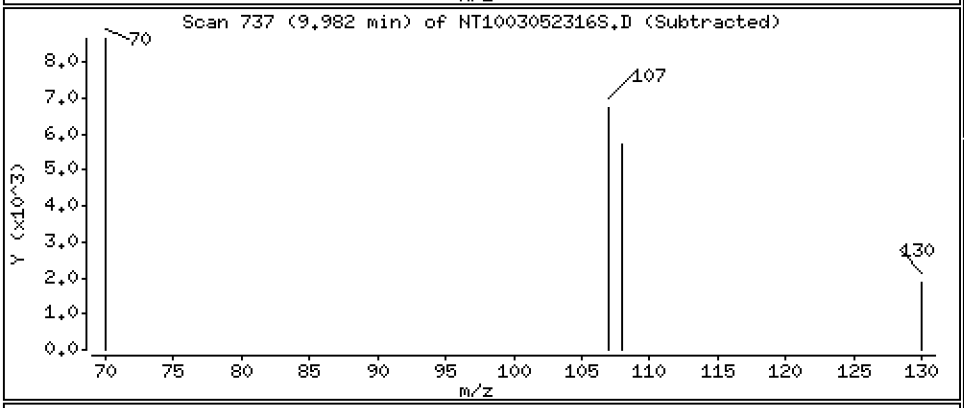
Column diameter: 0.25

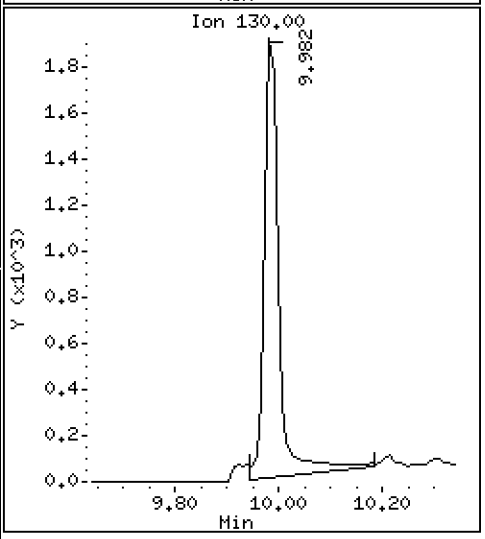
16 N-Nitroso-di-n-propylamine

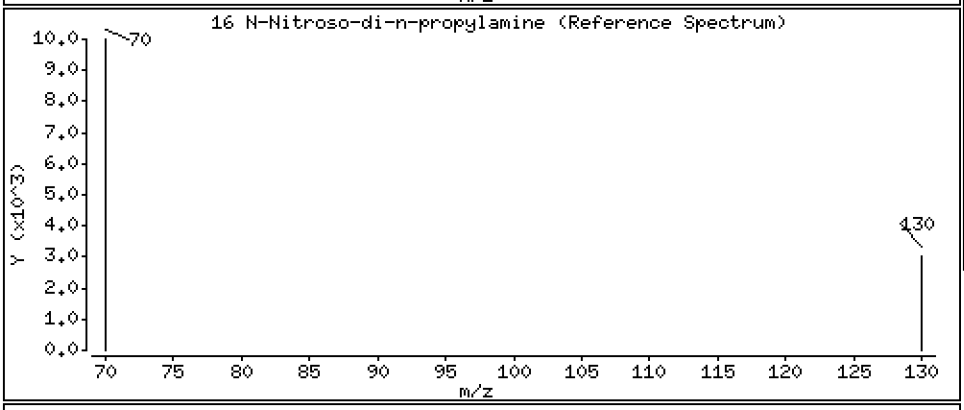
Concentration: 0.2375 ug/mL

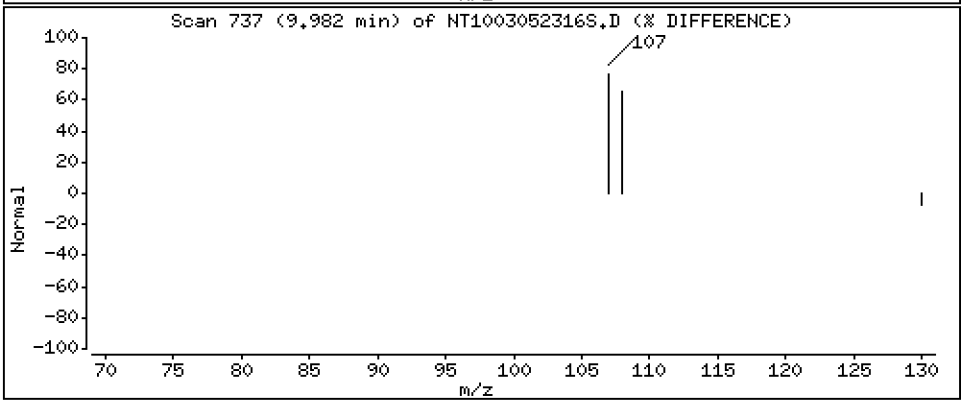












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

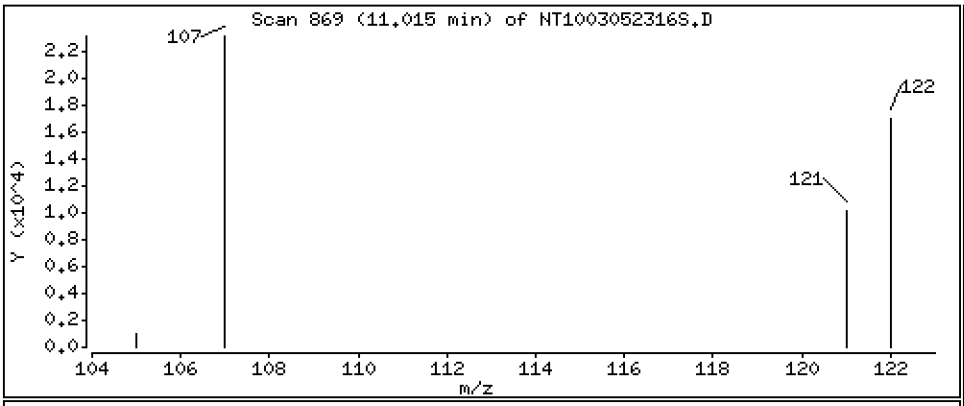
Operator: YZ

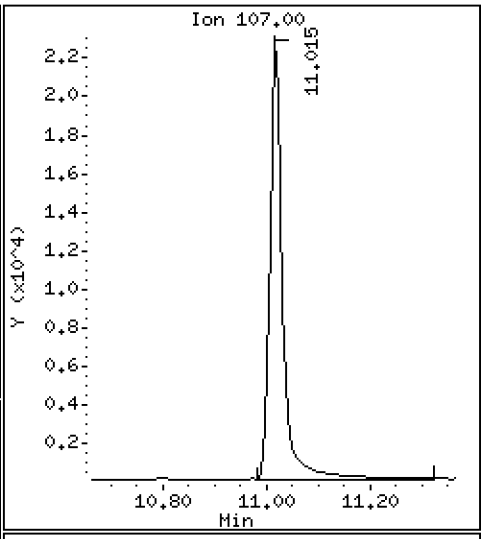
Column phase: ZB-5msi

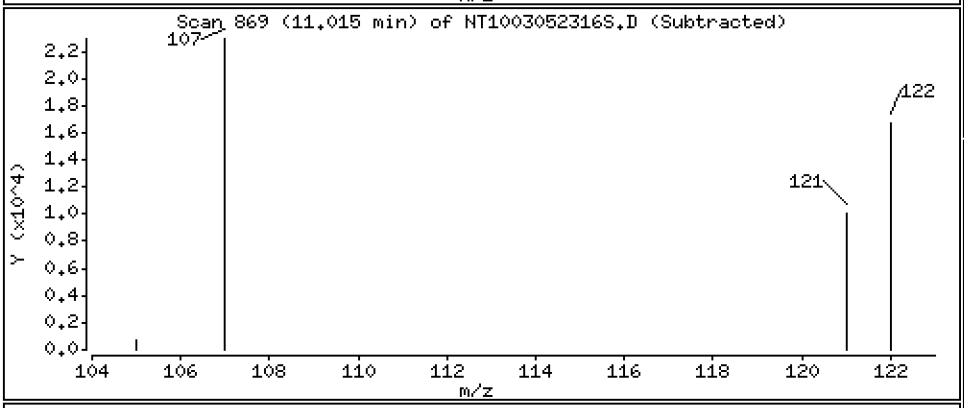
Column diameter: 0.25

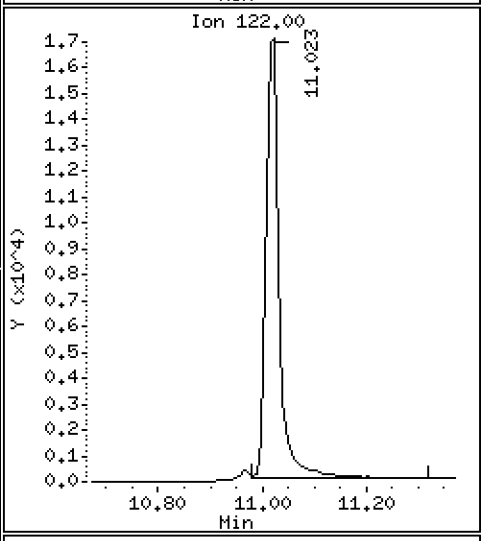
22 2,4-Dimethylphenol

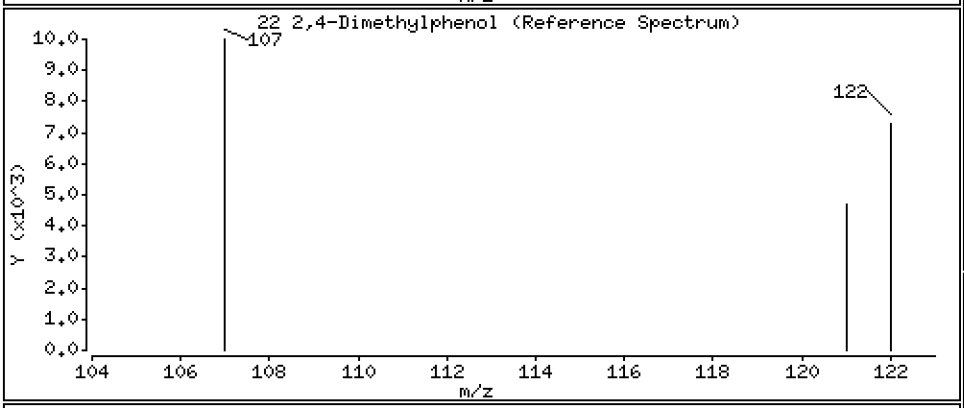
Concentration: 0.4002 ug/mL

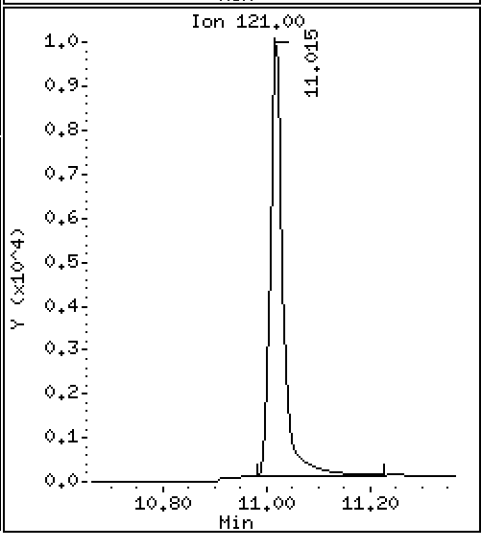


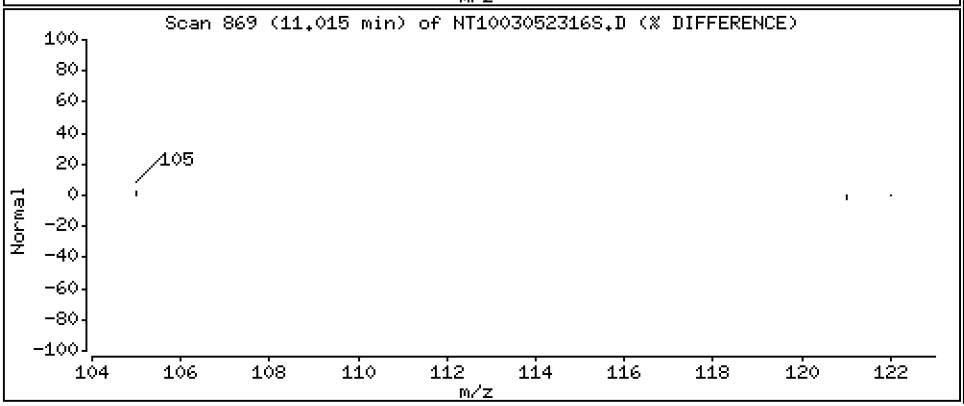












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

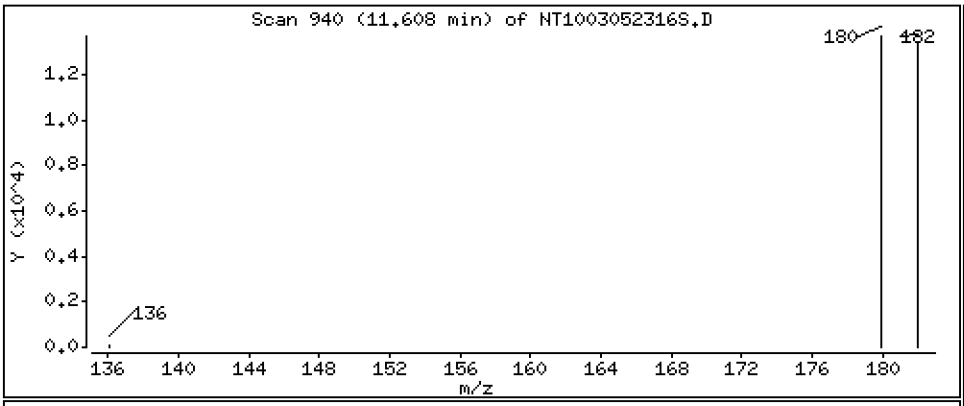
Operator: YZ

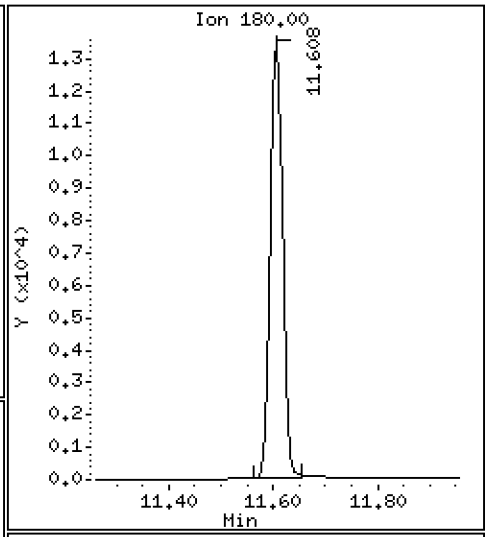
Column phase: ZB-5msi

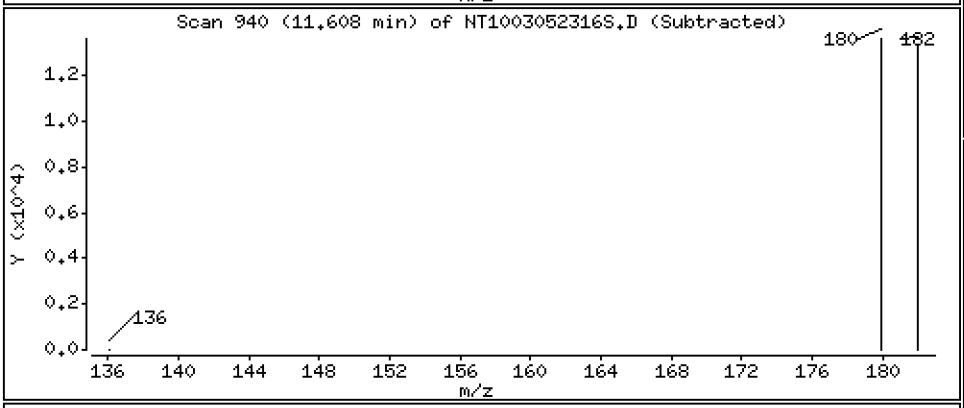
Column diameter: 0.25

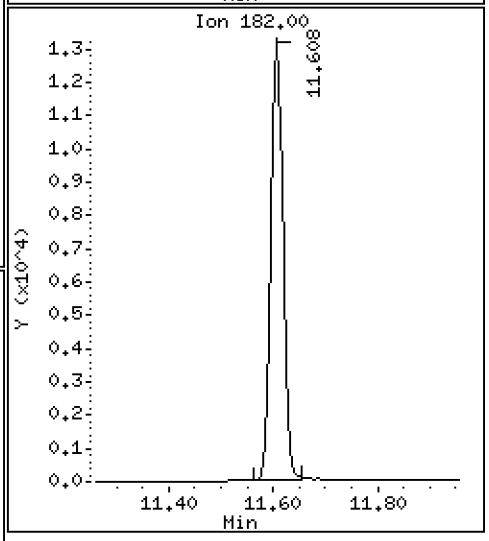
26 1,2,4-Trichlorobenzene

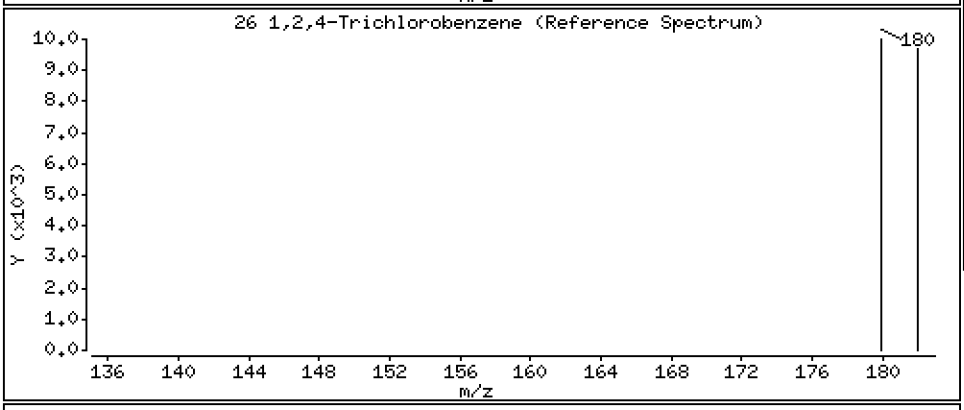
Concentration: 0.2455 ug/mL

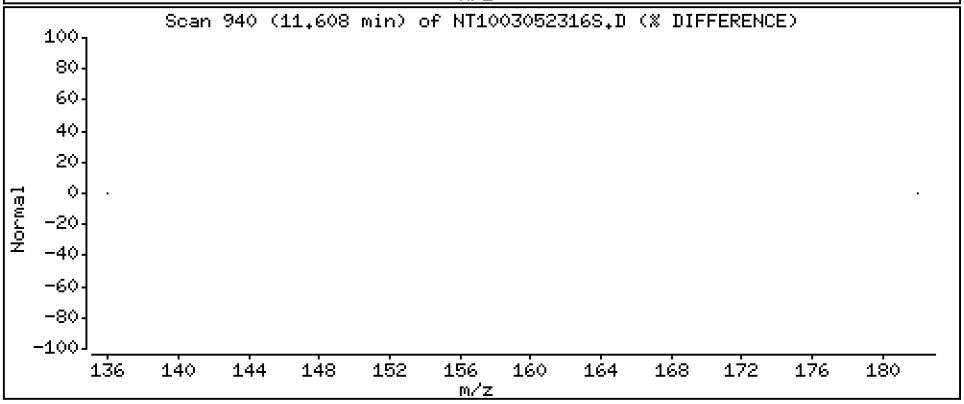












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

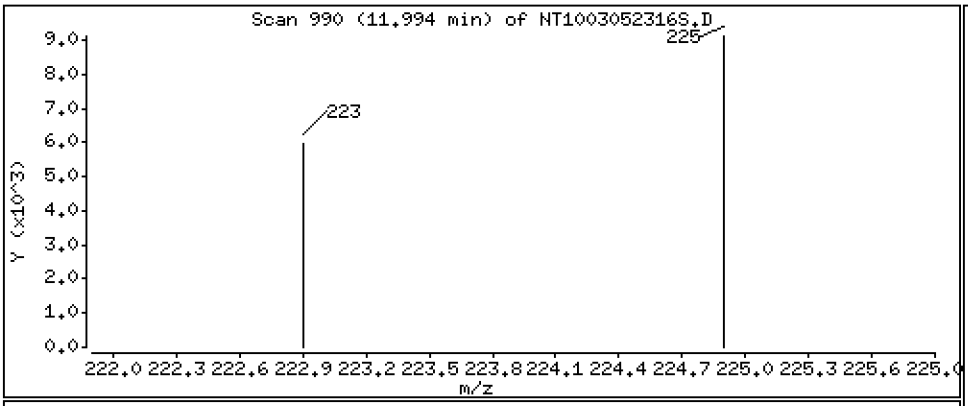
Operator: YZ

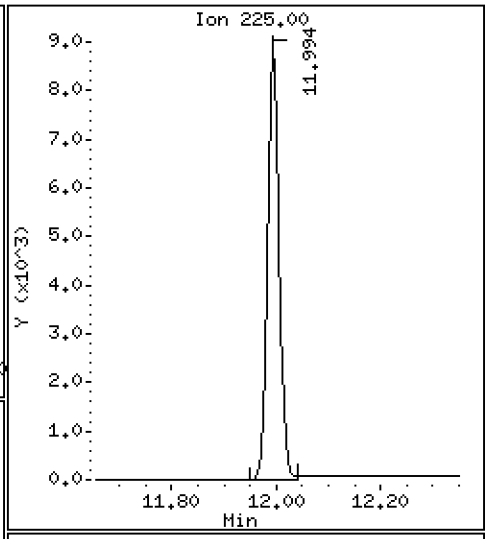
Column phase: ZB-5msi

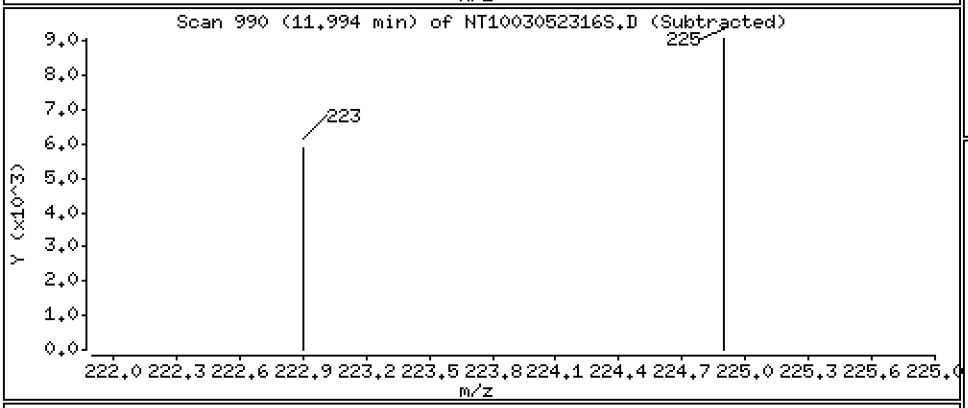
Column diameter: 0.25

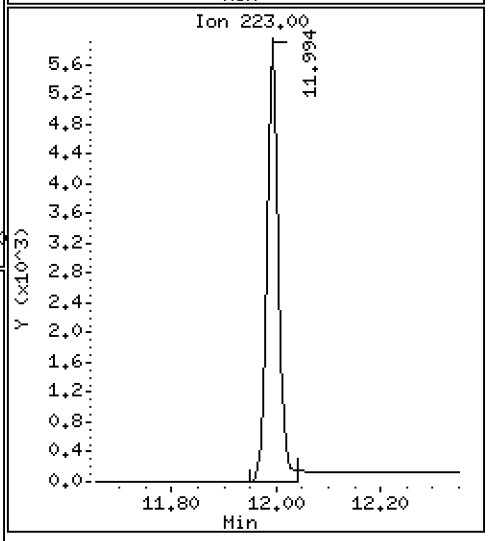
30 Hexachlorobutadiene

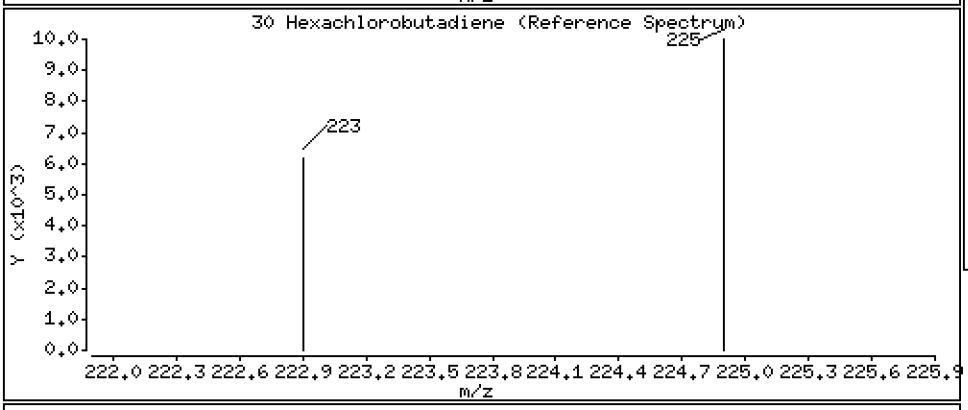
Concentration: 0.2291 ug/mL

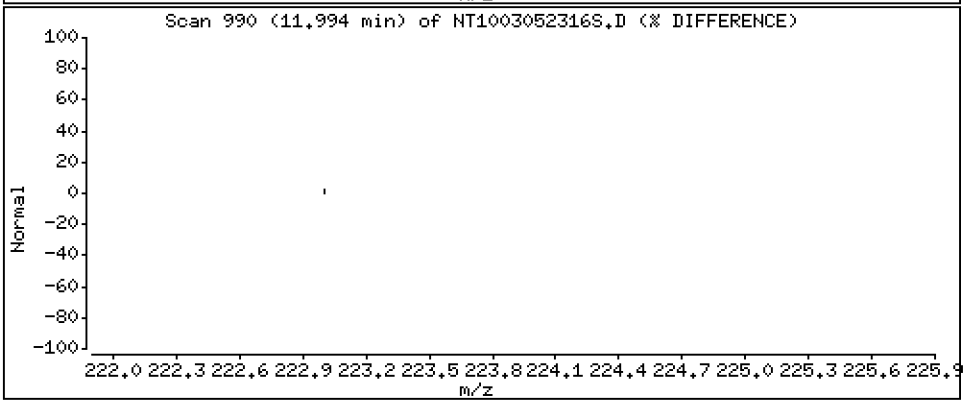












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

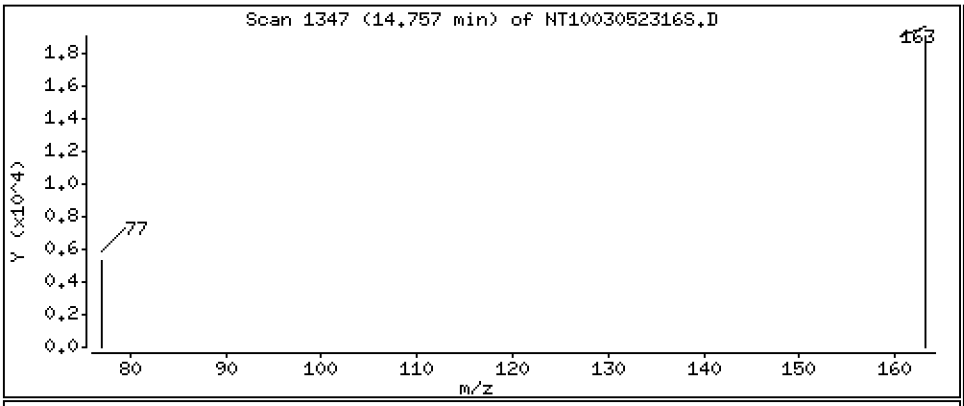
Operator: YZ

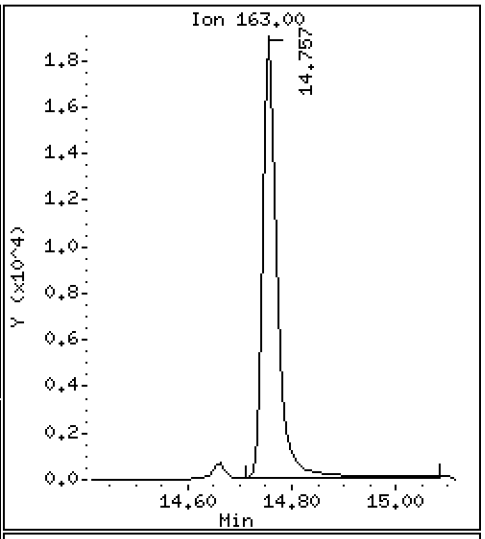
Column phase: ZB-5msi

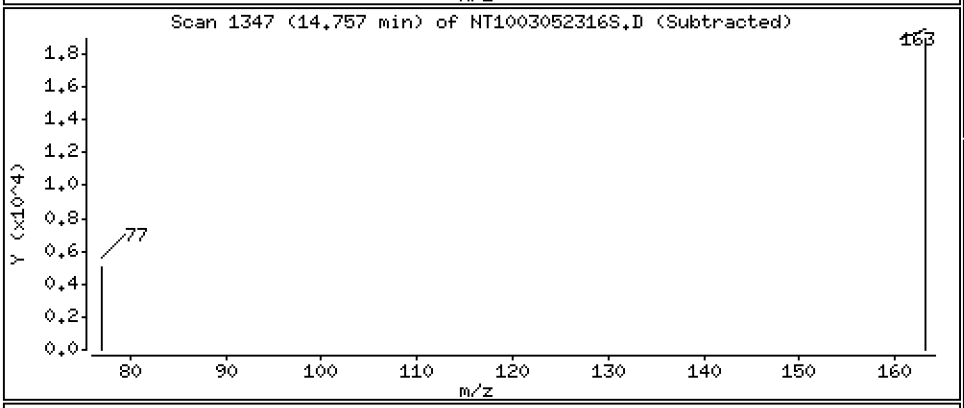
Column diameter: 0.25

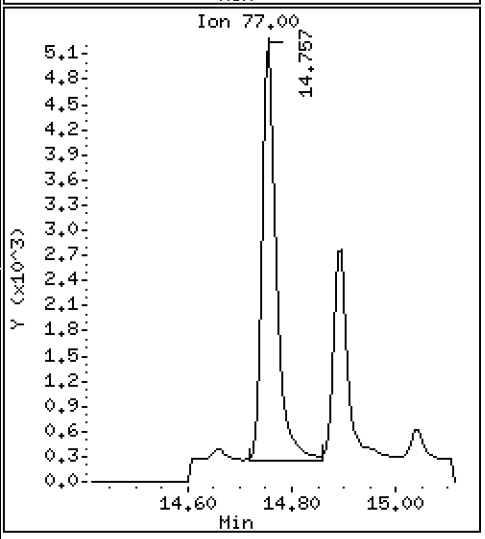
39 Dimethylphthalate

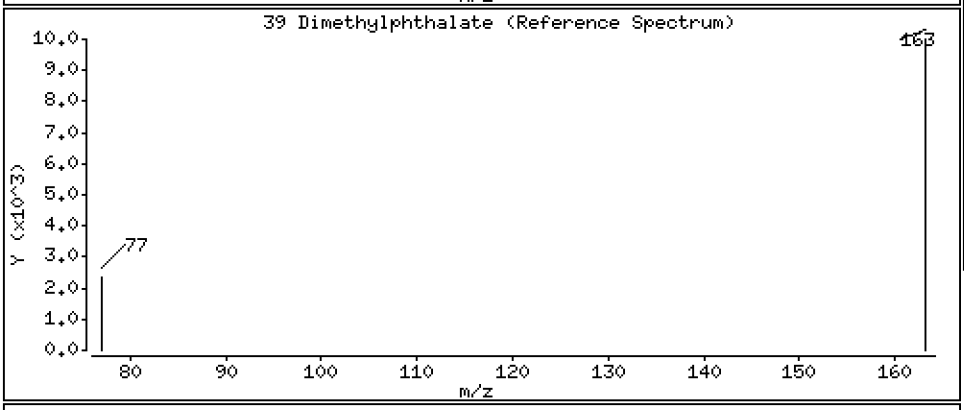
Concentration: 0.1954 ug/mL

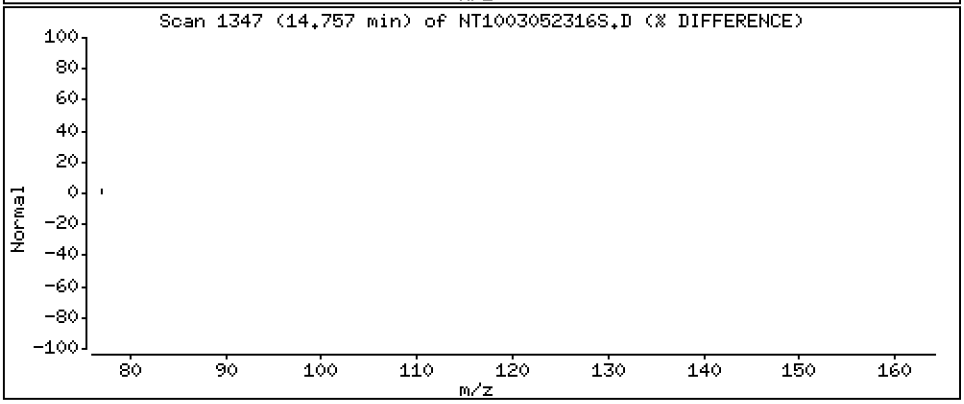












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

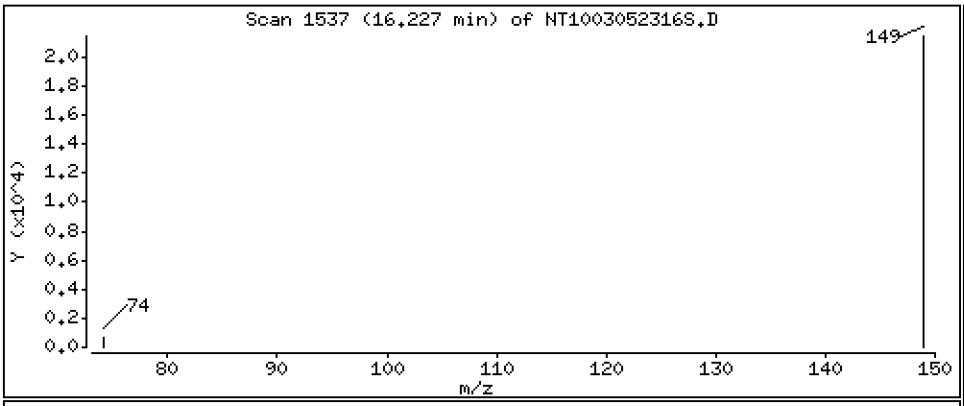
Operator: YZ

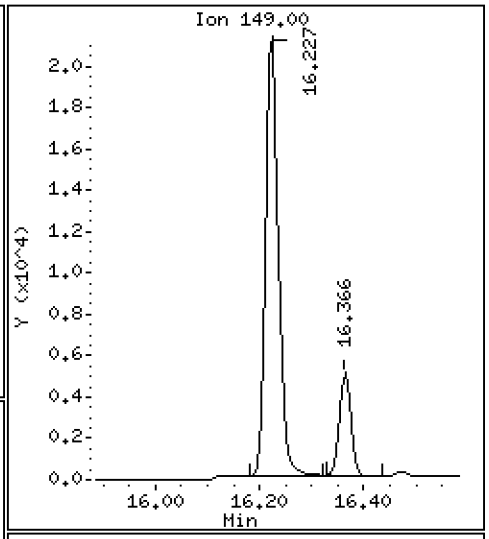
Column phase: ZB-5msi

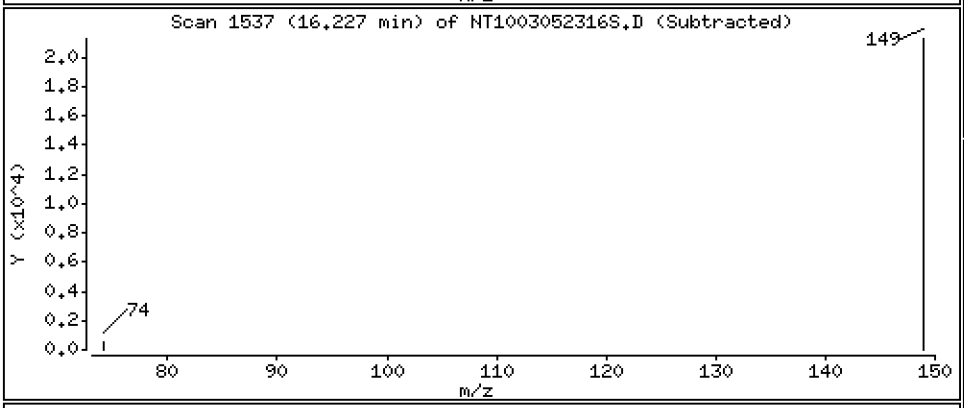
Column diameter: 0.25

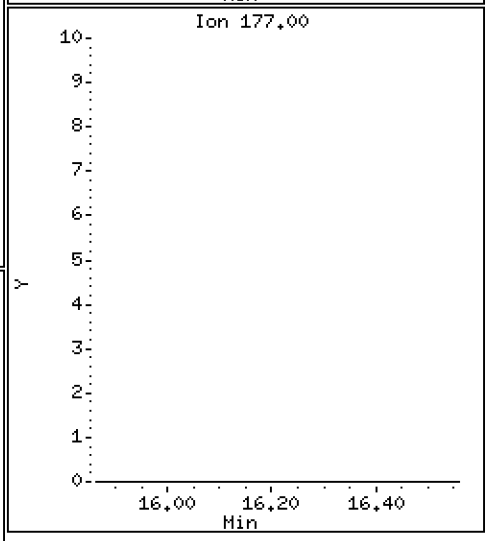
50 Diethylphthalate

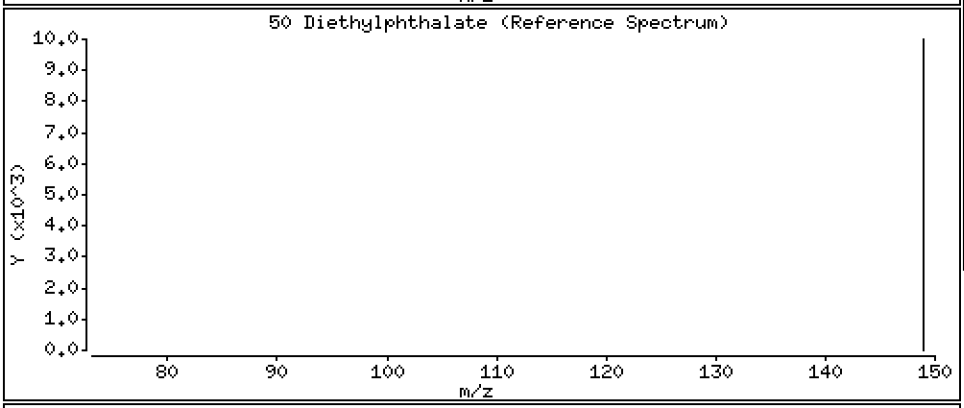
Concentration: 0.2107 ug/mL

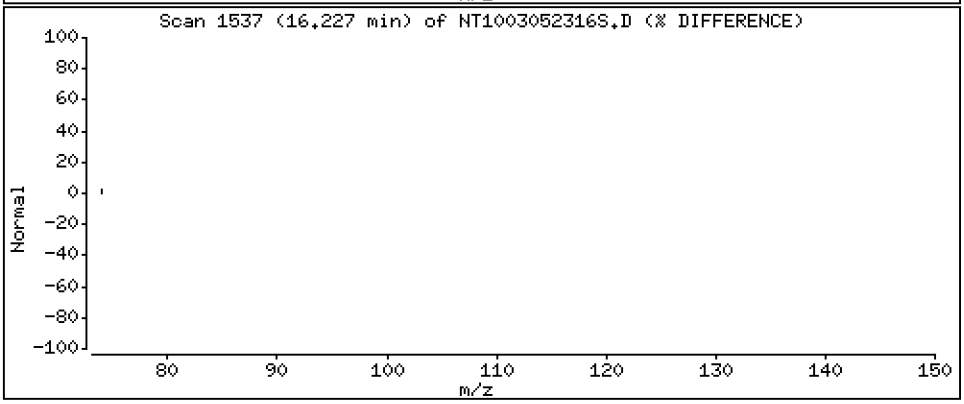












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

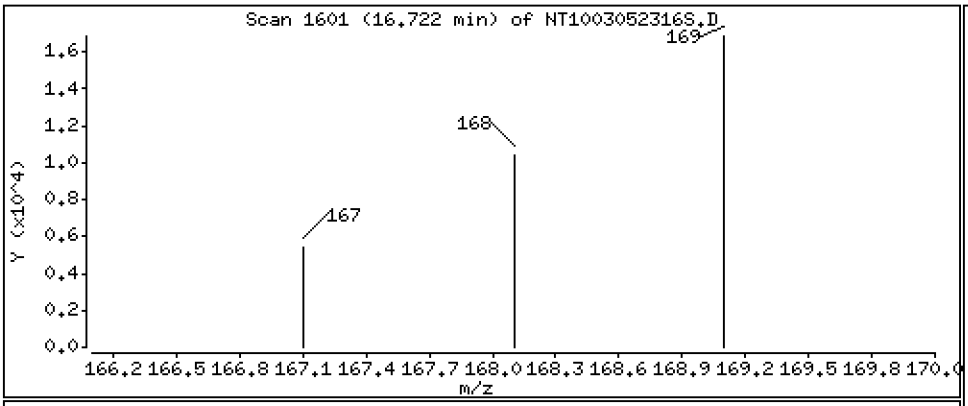
Operator: YZ

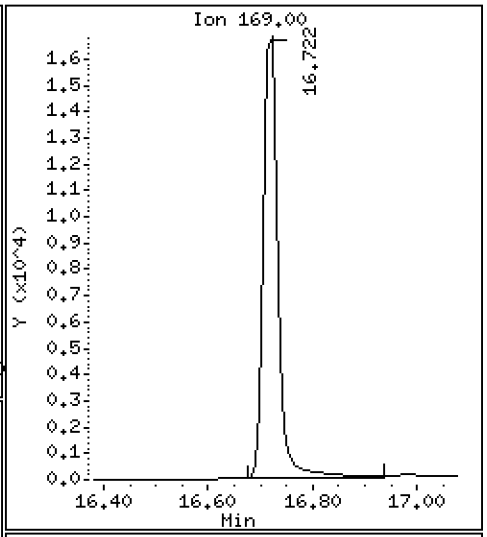
Column phase: ZB-5msi

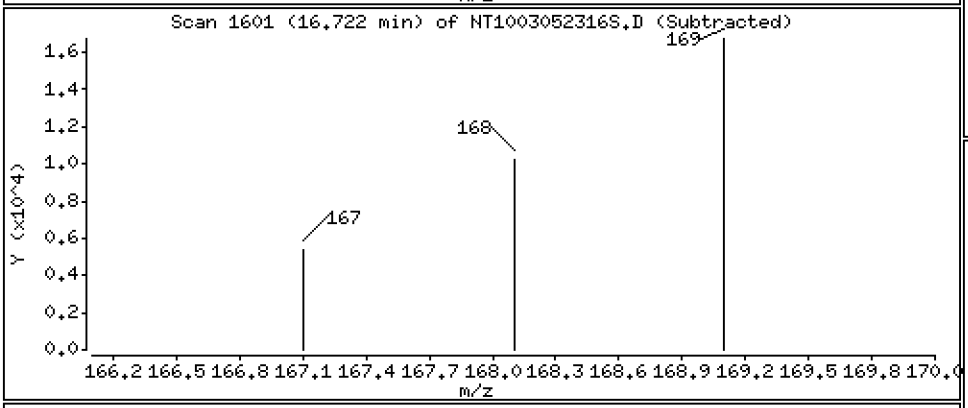
Column diameter: 0.25

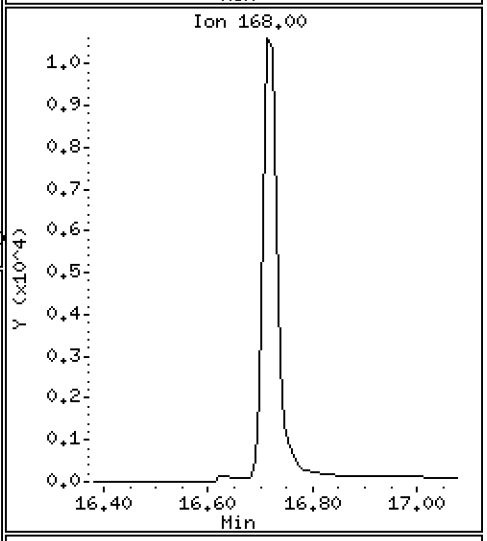
54 N-Nitrosodiphenylamine

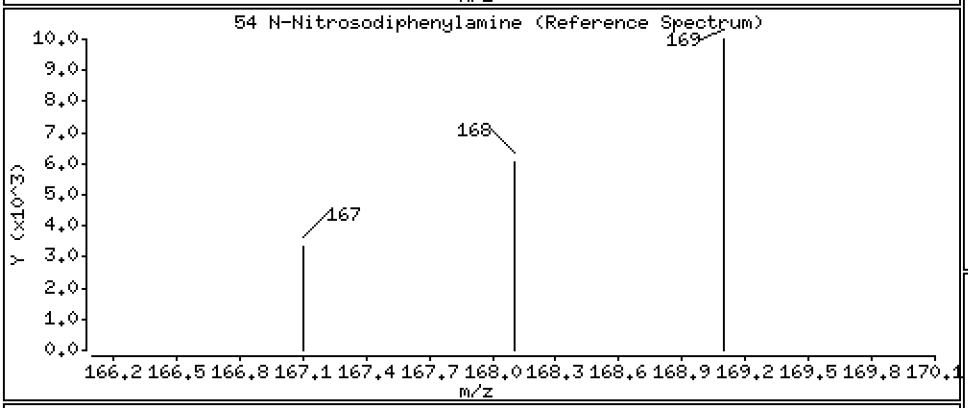
Concentration: 0.1752 ug/mL

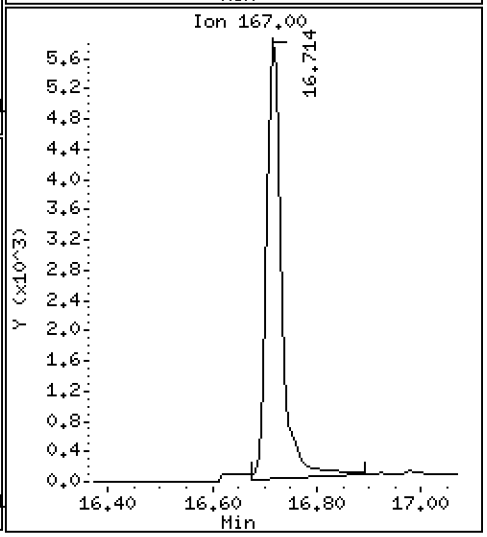


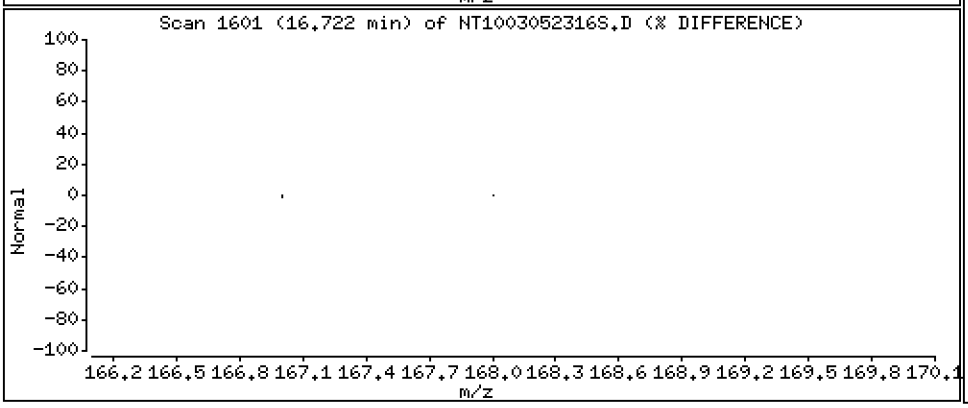












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Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

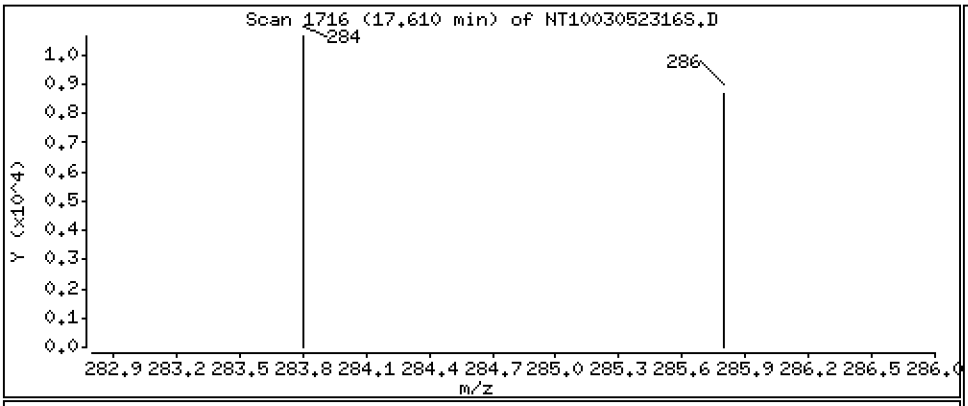
Operator: YZ

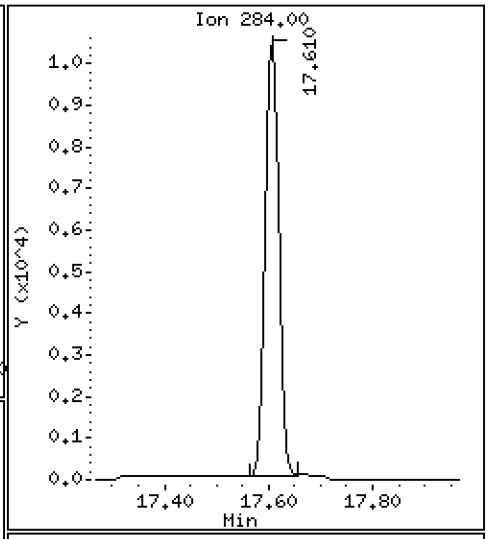
Column phase: ZB-5msi

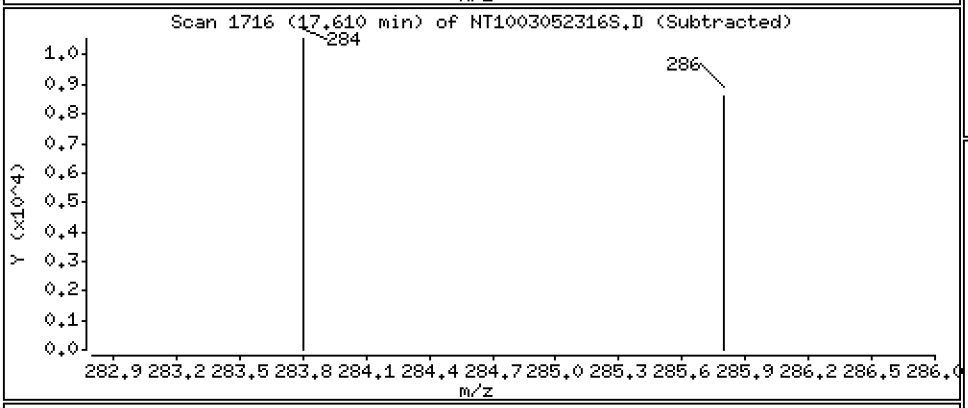
Column diameter: 0.25

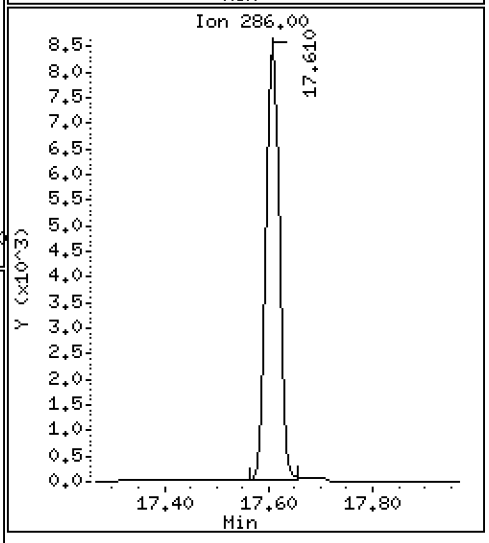
57 Hexachlorobenzene

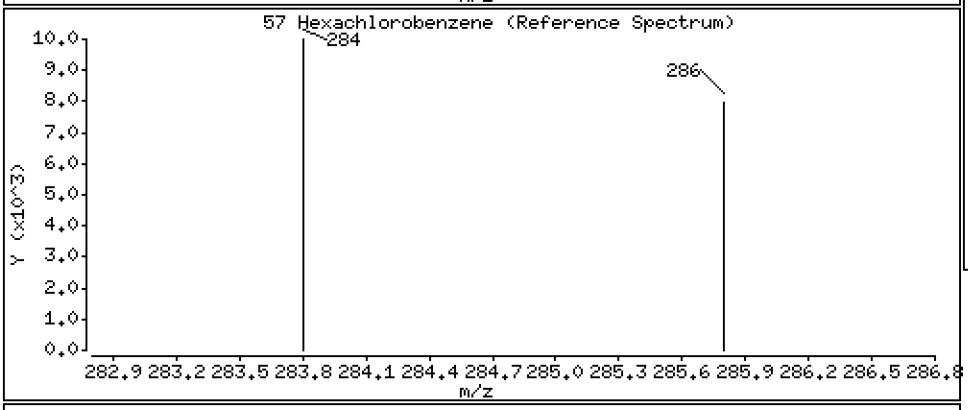
Concentration: 0.2197 ug/mL

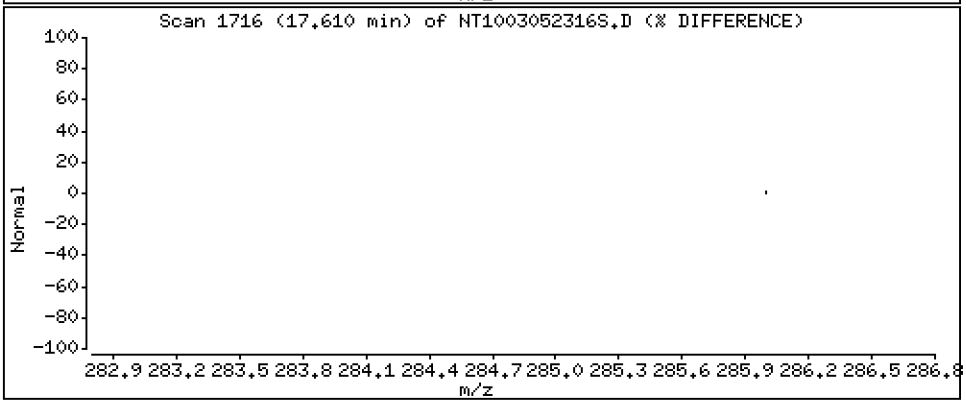












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

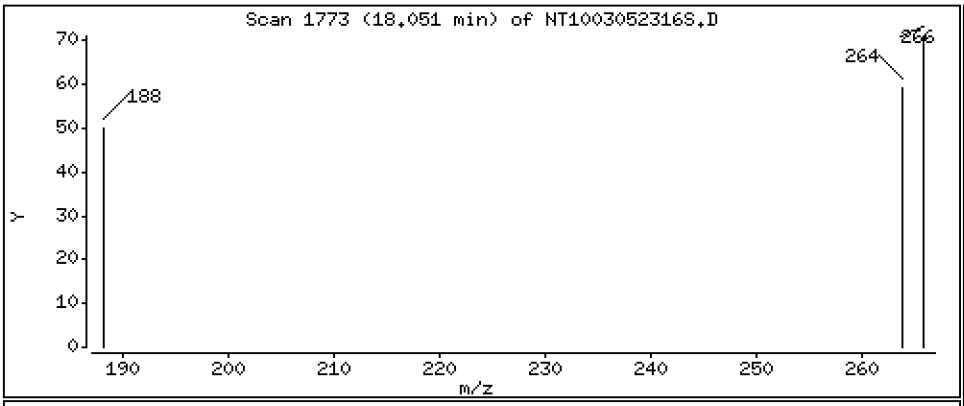
Operator: YZ

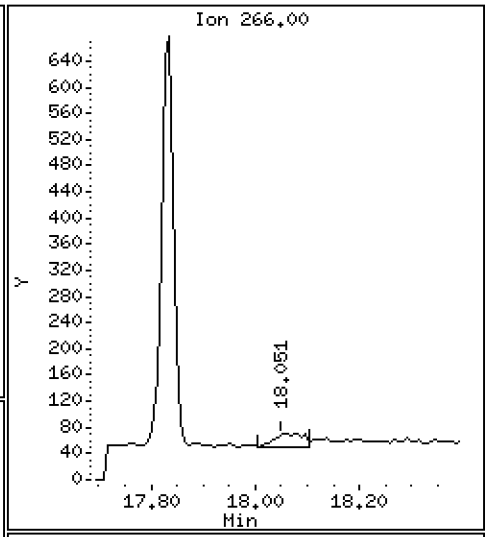
Column phase: ZB-5msi

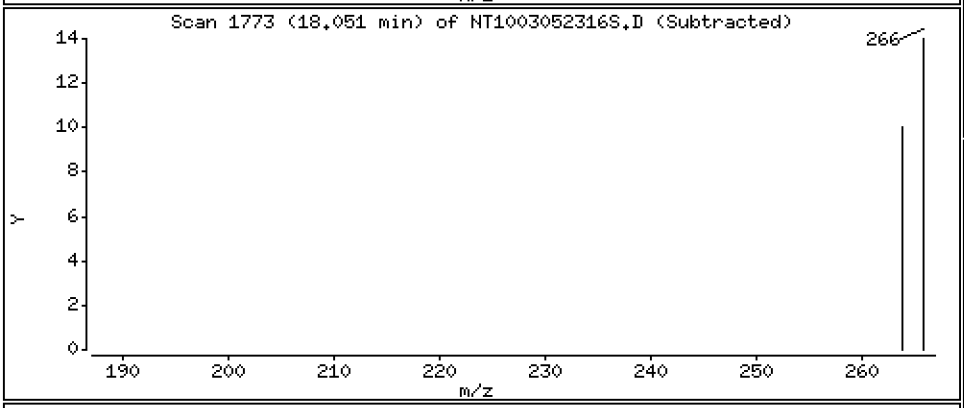
Column diameter: 0.25

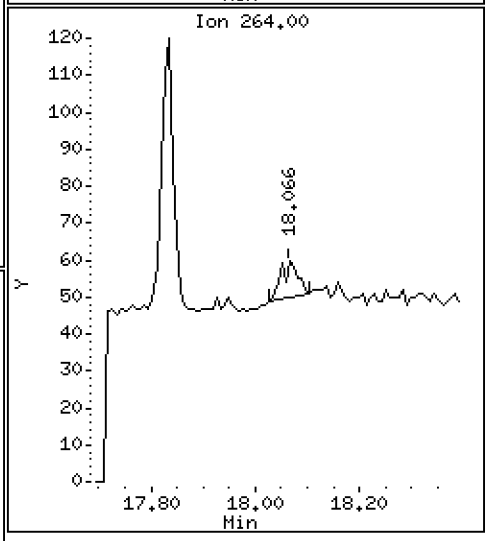
58 Pentachlorophenol

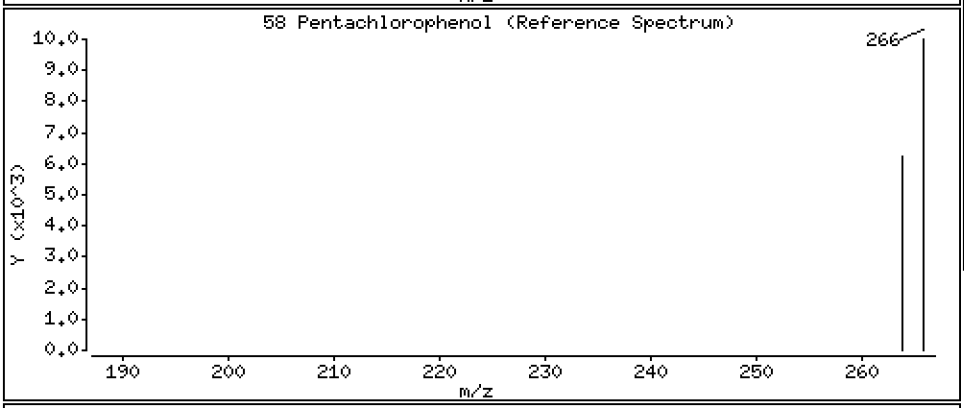
Concentration: 0.002313 ug/mL

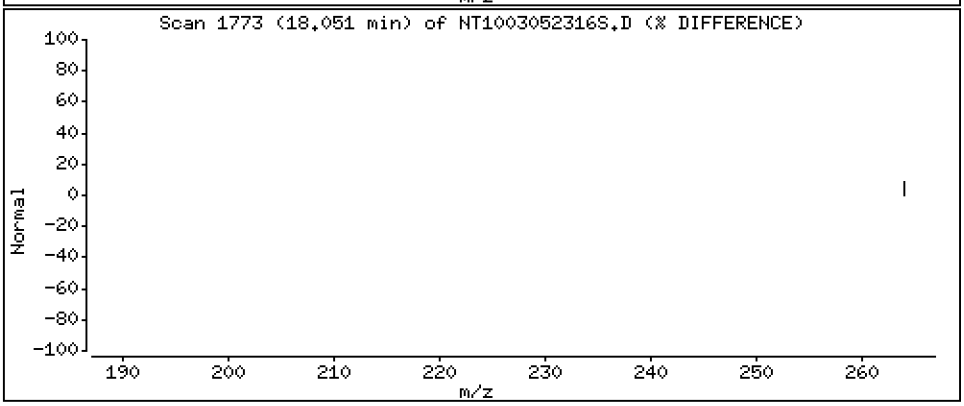












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

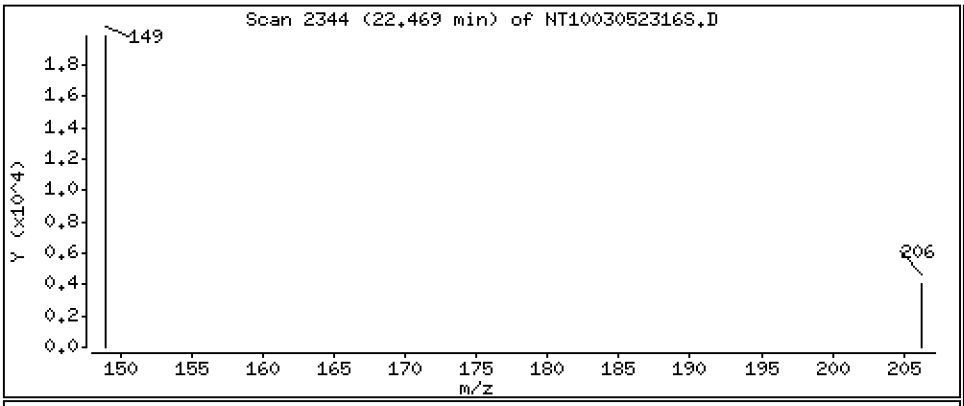
Operator: YZ

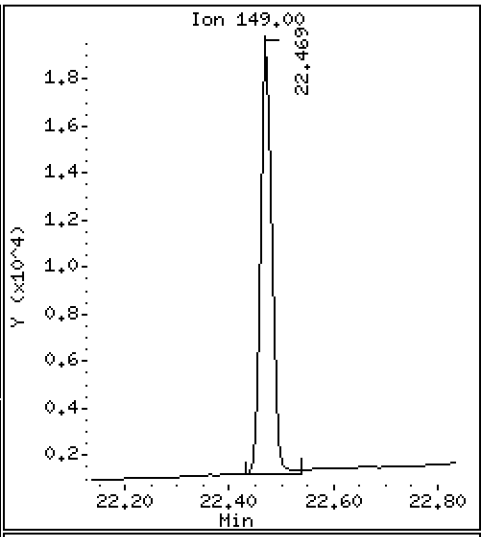
Column phase: ZB-5msi

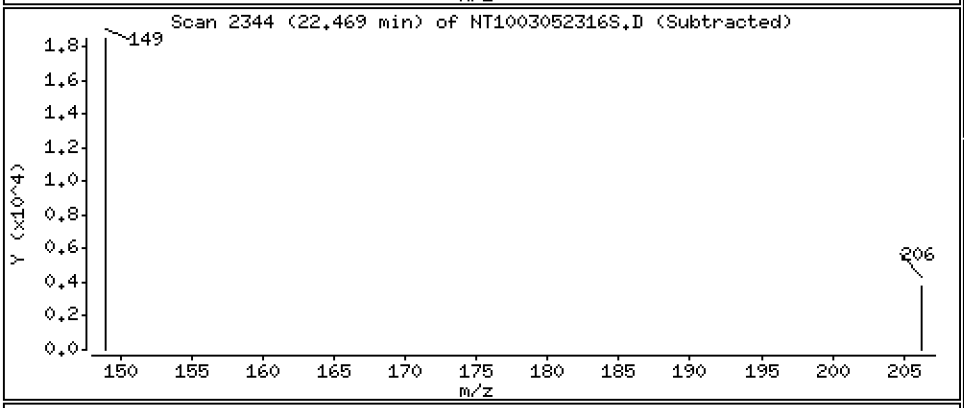
Column diameter: 0.25

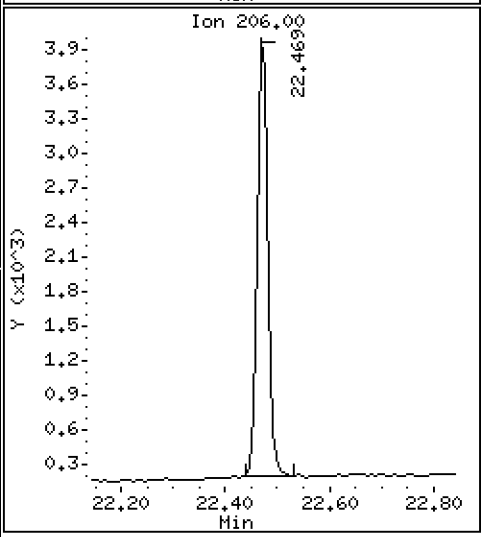
67 Butylbenzylphthalate

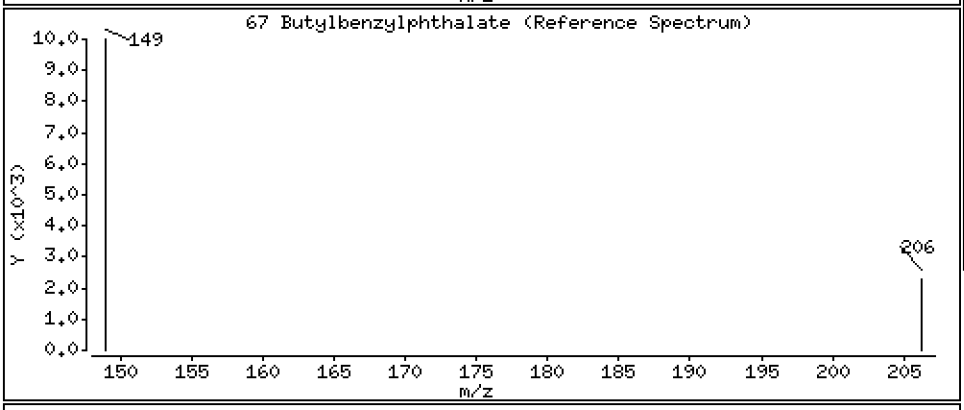
Concentration: 0.1517 ug/mL

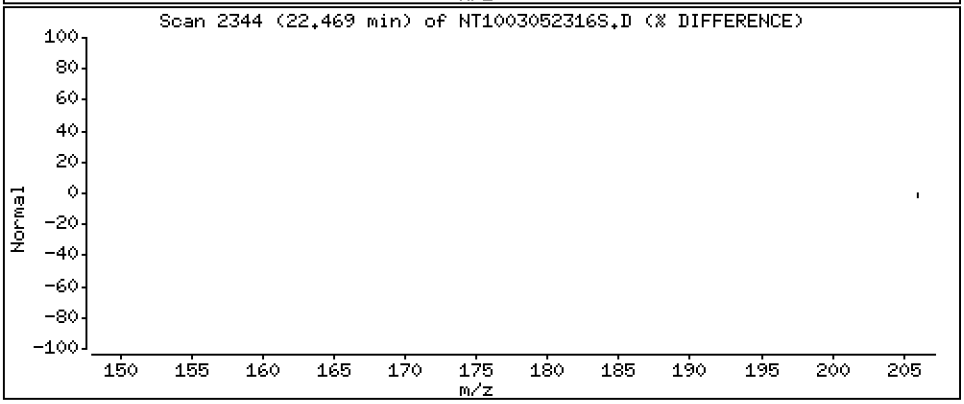












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052316S.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

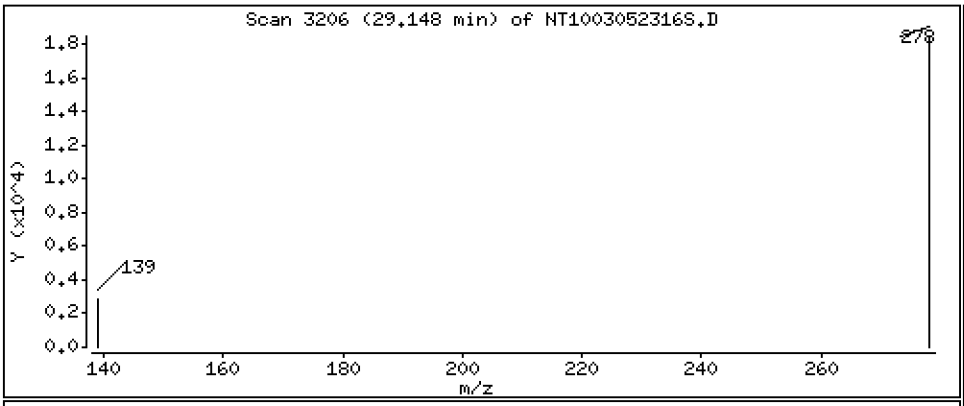
Operator: YZ

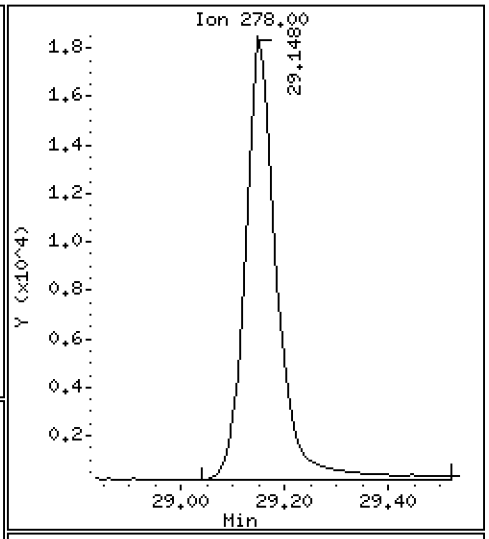
Column phase: ZB-5msi

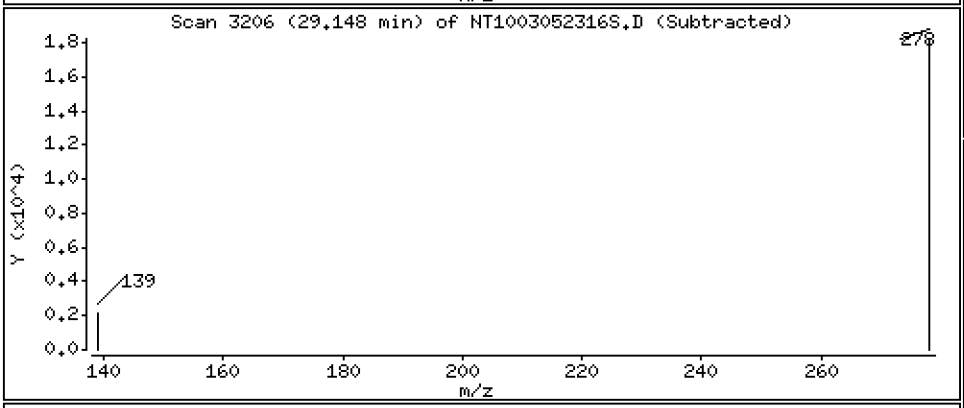
Column diameter: 0.25

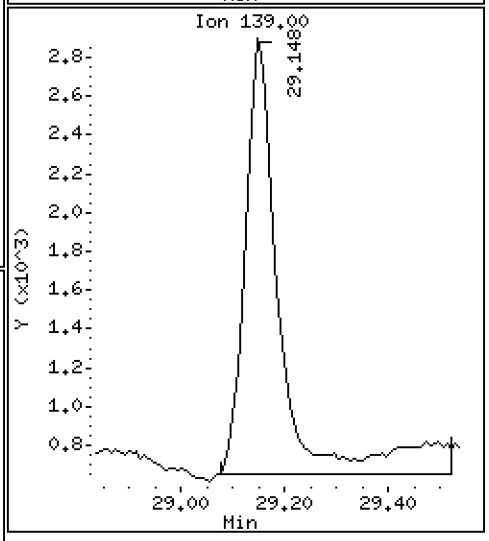
79 Dibenzo(a,h)anthracene

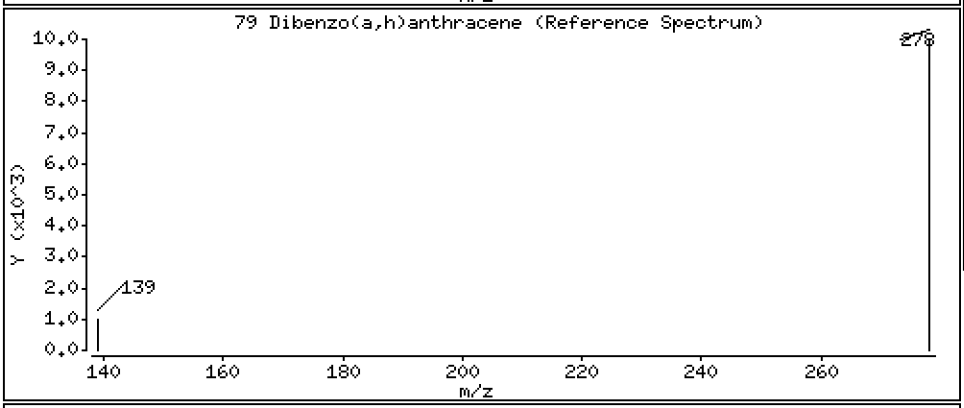
Concentration: 0.2594 ug/mL

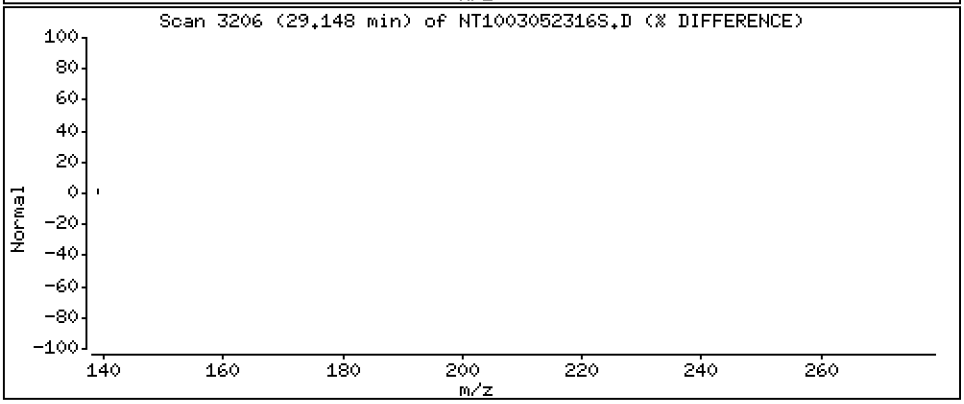












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523165.D

Date : 05-MAR-2023 22:54

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV2

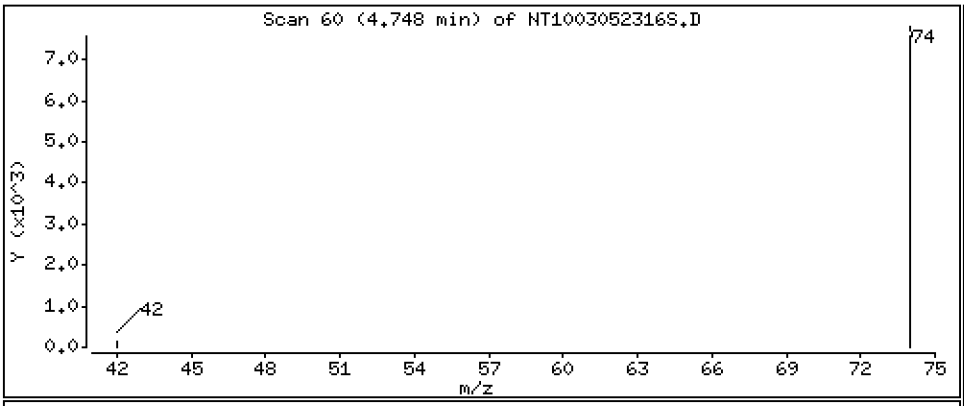
Operator: YZ

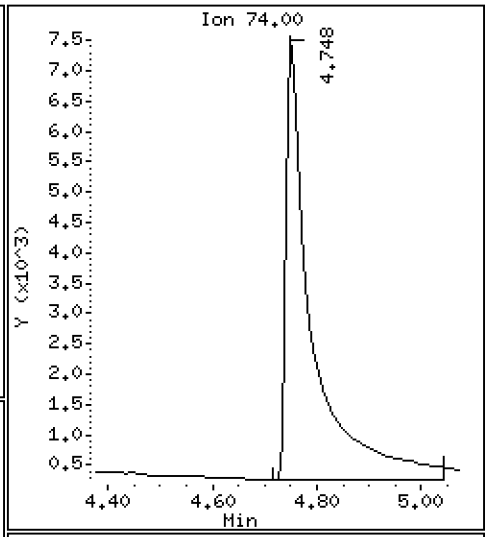
Column phase: ZB-5msi

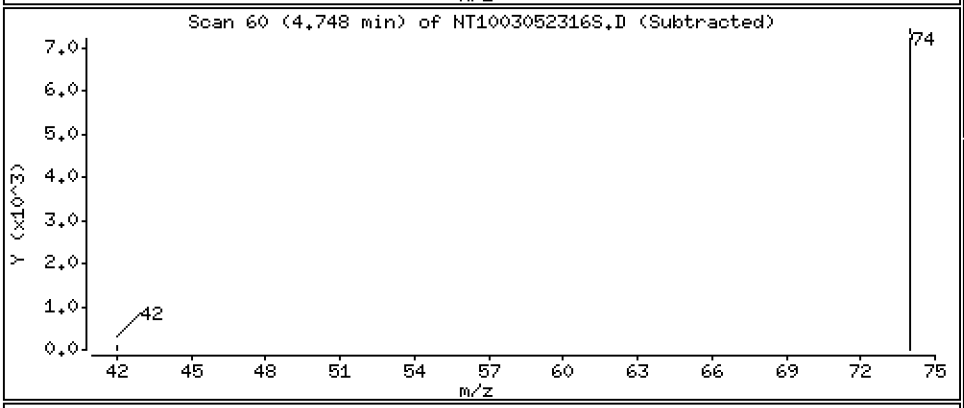
Column diameter: 0.25

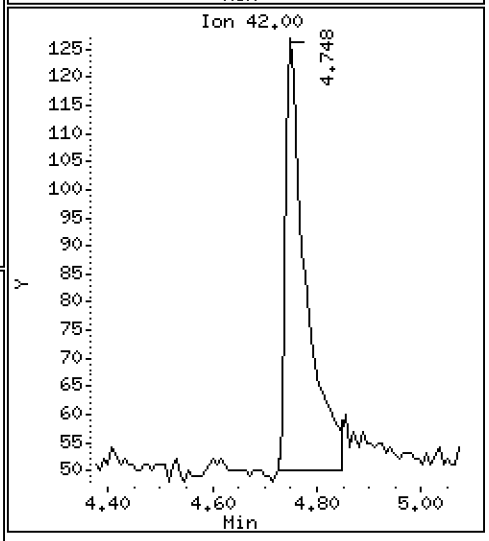
90 N-Nitrosodimethylamine

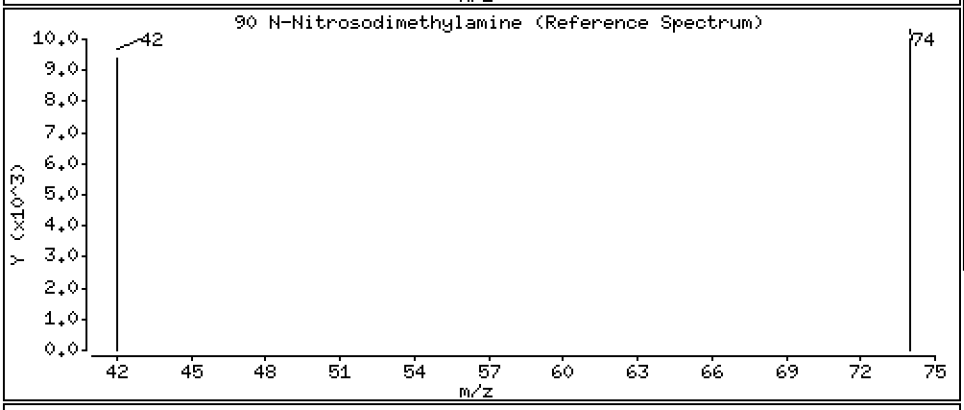
Concentration: 0.4414 ug/mL

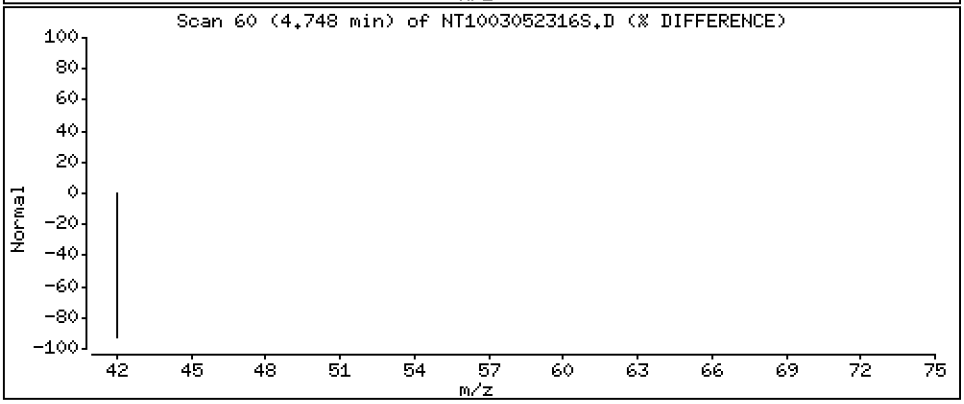












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052316S.D
Lab Smp Id: SLC0440-LCV2
Inj Date : 05-MAR-2023 22:54
Operator : YZ Inst ID: nt10.i
Smp Info : SLC0440-LCV2
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Meth Date : 29-Mar-2023 11:59 van Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: VANS-201906

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.902	6.902	(0.747)	28839	0.29416	0.2942(R)
	3 Phenol	94	8.540	8.532	(0.924)	21680	0.14984	0.1498
	7 1,3-Dichlorobenzene	146	9.135	9.143	(0.988)	25681	0.20179	0.2018
*	8 1,4-Dichlorobenzene-d4	152	9.244	9.252	(1.000)	343403	4.00000	
	9 1,4-Dichlorobenzene	146	9.275	9.283	(1.003)	24642	0.19915	0.1991
	11 Benzyl alcohol	79	9.492	9.484	(1.027)	12568	0.15653	0.1565
	12 1,2-Dichlorobenzene	146	9.562	9.570	(1.034)	24119	0.20279	0.2028
	13 2-Methylphenol	108	9.679	9.671	(1.047)	18687	0.21464	0.2146
	15 4-Methylphenol	108	9.974	9.966	(1.079)	18199	0.20093	0.2009
	16 N-Nitroso-di-n-propylamine	70	9.981	9.981	(1.080)	15306	0.23754	0.2375
	22 2,4-Dimethylphenol	107	11.015	11.014	(0.939)	40239	0.40024	0.4002
	24 Benzoic acid	105	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	11.608	11.608	(0.989)	20920	0.24553	0.2455
*	27 Naphthalene-d8	136	11.731	11.731	(1.000)	1183783	4.00000	
	30 Hexachlorobutadiene	225	11.994	12.001	(1.022)	13854	0.22913	0.2291
	39 Dimethylphthalate	163	14.757	14.764	(0.963)	35615	0.19545	0.1954
*	42 Acenaphthene-d10	162	15.329	15.337	(1.000)	573890	4.00000	
	50 Diethylphthalate	149	16.226	16.234	(1.059)	36209	0.21071	0.2107(H)
	54 N-Nitrosodiphenylamine	169	16.721	16.729	(0.907)	31085	0.17520	0.1752
	57 Hexachlorobenzene	284	17.609	17.617	(0.955)	18239	0.21967	0.2197
	58 Pentachlorophenol	266	18.050	18.042	(0.979)	84	0.00231	0.002313(M)
*	59 Phenanthrene-d10	188	18.437	18.453	(1.000)	1096301	4.00000	
$	66 Terphenyl-d14	244	21.578	21.594	(0.919)	26301	0.31278	0.3128(R)
	67 Butylbenzylphthalate	149	22.469	22.484	(0.956)	26624	0.15171	0.1517
*	69 Chrysene-d12	240	23.491	23.514	(1.000)	1039816	4.00000	
*	77 Perylene-d12	264	26.247	26.270	(1.000)	1308865	4.00000	
	79 Dibenzo(a,h)anthracene	278	29.147	29.186	(1.110)	78908	0.25942	0.2594
	90 N-Nitrosodimethylamine	74	4.748	4.724	(0.514)	25620	0.44139	0.4414

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052316S.D
Lab Smp Id: SLC0440-LCV2
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 22:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	293840	146920	587680	343403	16.87
27 Naphthalene-d8	1032639	516320	2065278	1183783	14.64
42 Acenaphthene-d10	502349	251175	1004698	573890	14.24
59 Phenanthrene-d10	975997	487999	1951994	1096301	12.33
69 Chrysene-d12	978544	489272	1957088	1039816	6.26
77 Perylene-d12	1201606	600803	2403212	1308865	8.93

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.24	-0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.73	0.00
42 Acenaphthene-d10	15.34	14.84	15.84	15.33	-0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.44	-0.08
69 Chrysene-d12	23.51	23.01	24.01	23.49	-0.10
77 Perylene-d12	26.27	25.77	26.77	26.25	-0.09

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052316S.D

Lab ID: SLC0440-LCV2
nt10.i, 20230305A.b\SIM.b\SIMABN2.m,   05-MAR-2023 22:54

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: SIM.b/NT1003052315SA.D

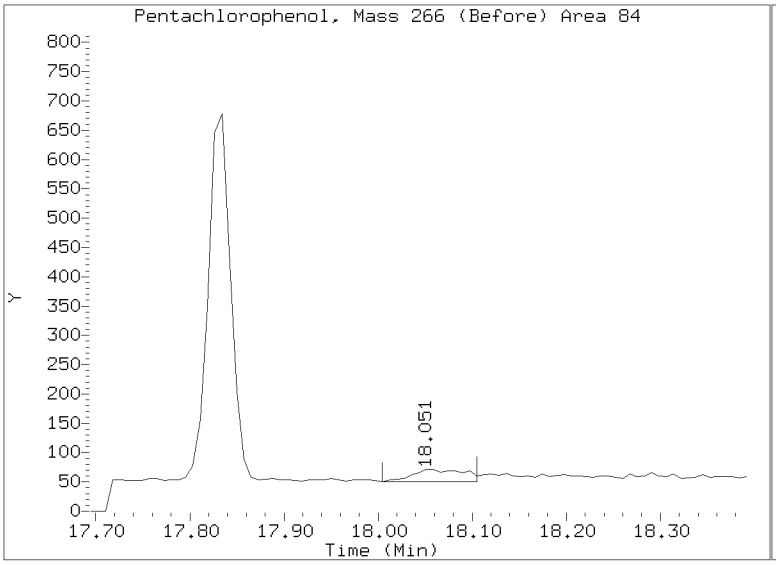
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

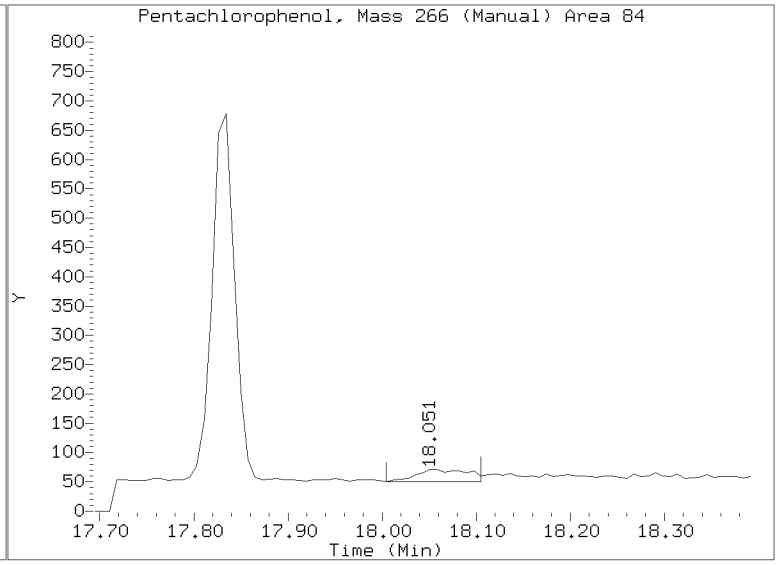
Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230305A.b/SIM.b/NT1003052316S.D
Injection Date: 05-MAR-2023 22:54
Lab ID:SLC0440-LCV2 Client ID:
Report Date: 03/29/2023 11:59





Analytical Resources, LLC
Analytical Chemists and Consultants

LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	NT10	Calibration:	GC00032
Lab File ID:	NT1003052318S.D	Calibration Date:	03/01/2023
Sequence:	SLC0440	Injection Date:	03/06/23
Lab Sample ID:	SLC0440-LCV3	Injection Time:	00:09
Sequence Name:	ABN 0.5		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	0.50000	0.5	1.4413080	1.4946660		3.7	
1,2-Dichlorobenzene	A	0.50000	0.5	1.3853460	1.4708570		6.2	
Benzyl Alcohol	A	0.50000	0.4	0.7492523	0.7734909		-17.6	
Benzoic acid	A	2.0000	0.01	0.1431163	0.0010604		-99.4	
2,4-Dimethylphenol	A	1.0000	1.0	0.2957717	0.3407436		0.1	
1,2,4-Trichlorobenzene	A	0.50000	0.6	0.2879030	0.3564386		23.8	
N-Nitrosodiphenylamine	A	0.50000	0.5	0.6473471	0.5902534		-8.8	
Pentachlorophenol	A	1.0000	0.01	0.0950913	0.0014537		-98.9	
2-Fluorophenol	A	0.75000	0.804	1.1419780	1.2238880		7.2	
p-Terphenyl-d14	A	0.50000	0.813	0.3234672	0.5256901		62.5	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

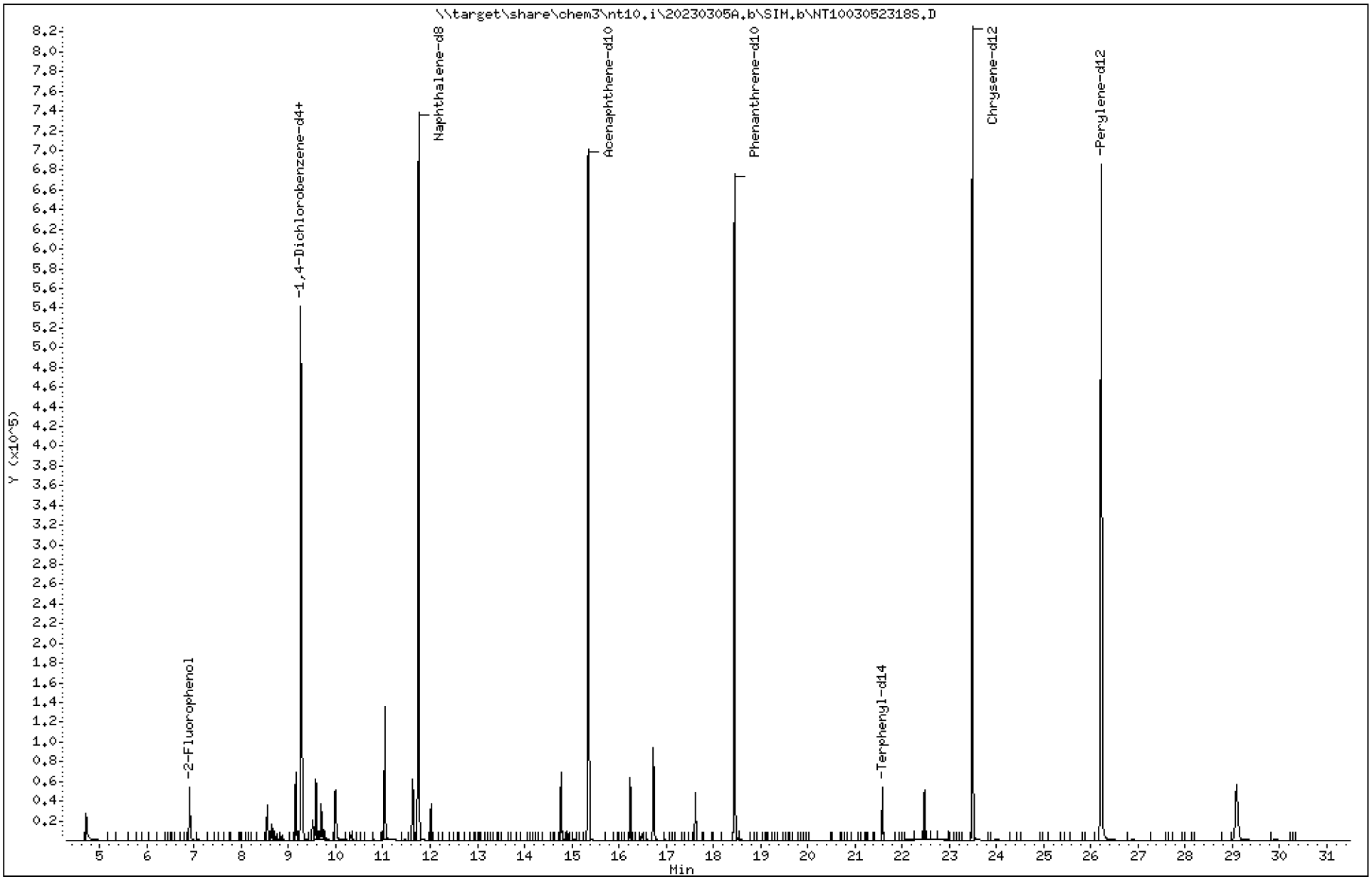
Instrument: nt10.i

Sample Info: SLC0440-LCV3

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

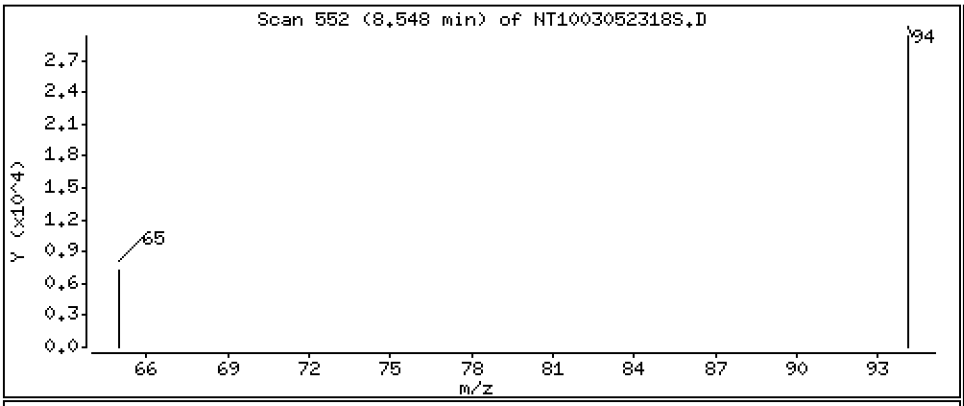
Operator: YZ

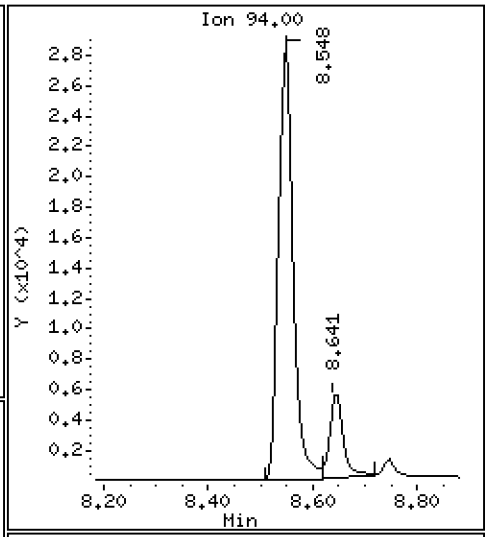
Column phase: ZB-5msi

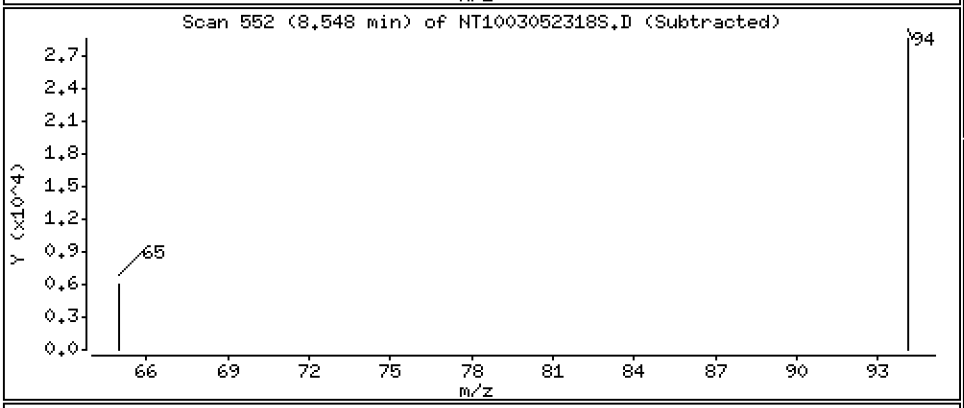
Column diameter: 0.25

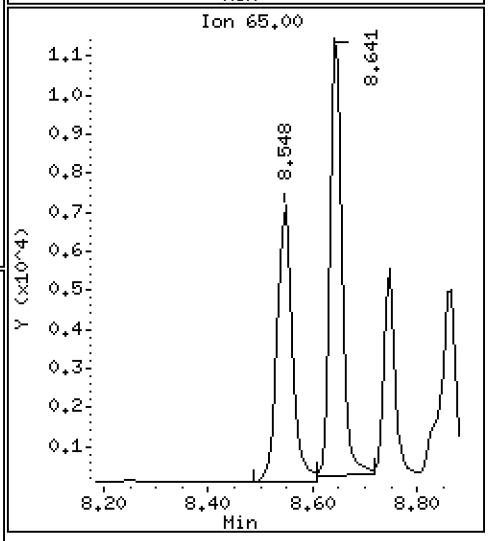
3 Phenol

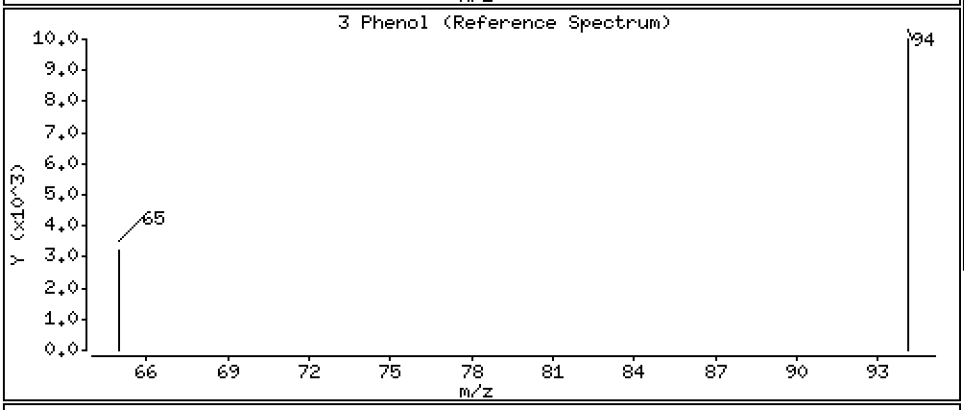
Concentration: 0.4157 ug/mL

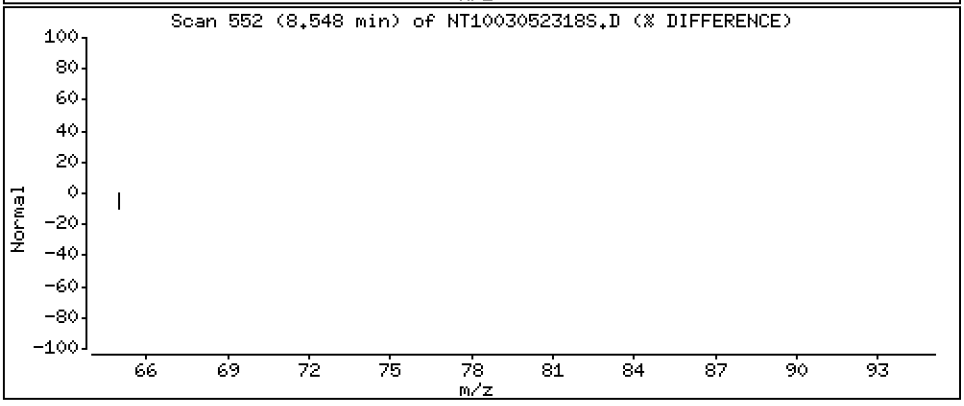












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

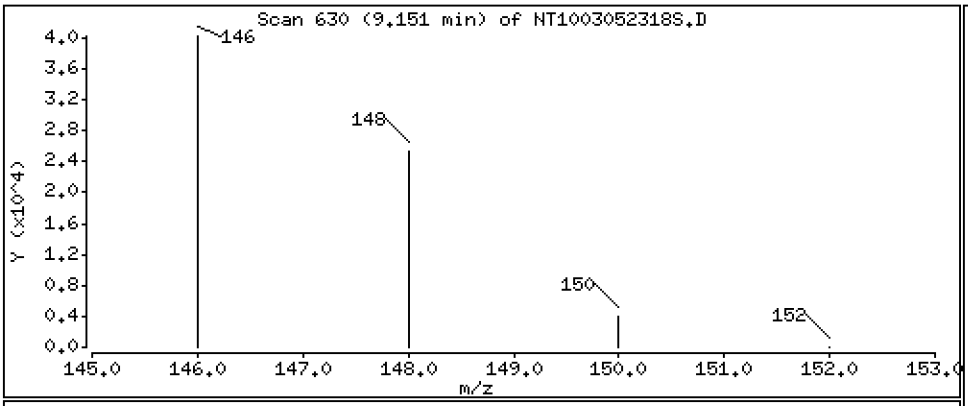
Operator: YZ

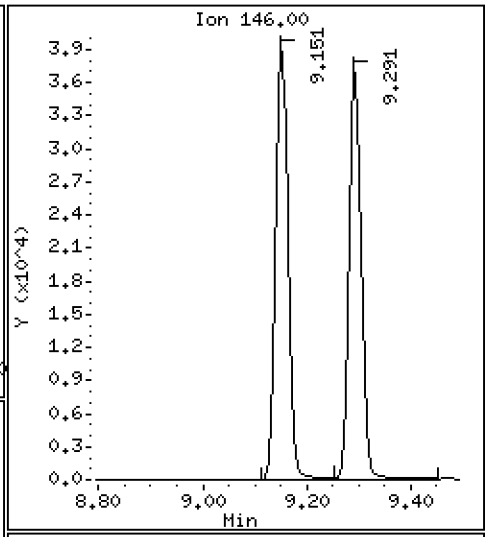
Column phase: ZB-5msi

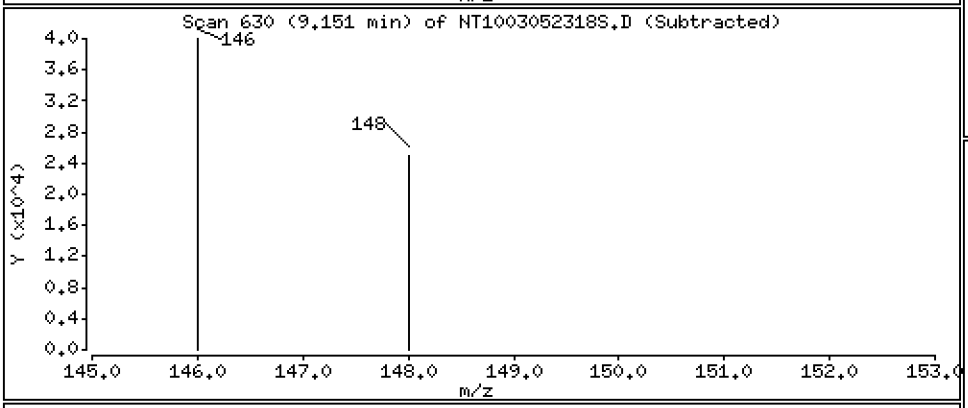
Column diameter: 0.25

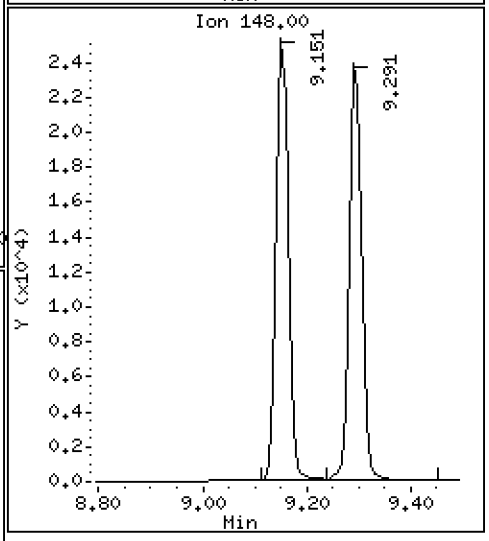
7 1,3-Dichlorobenzene

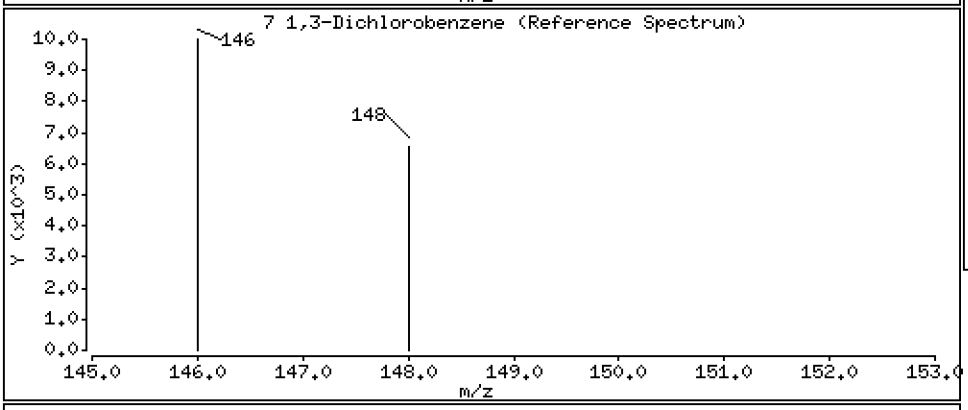
Concentration: 0.5303 ug/mL

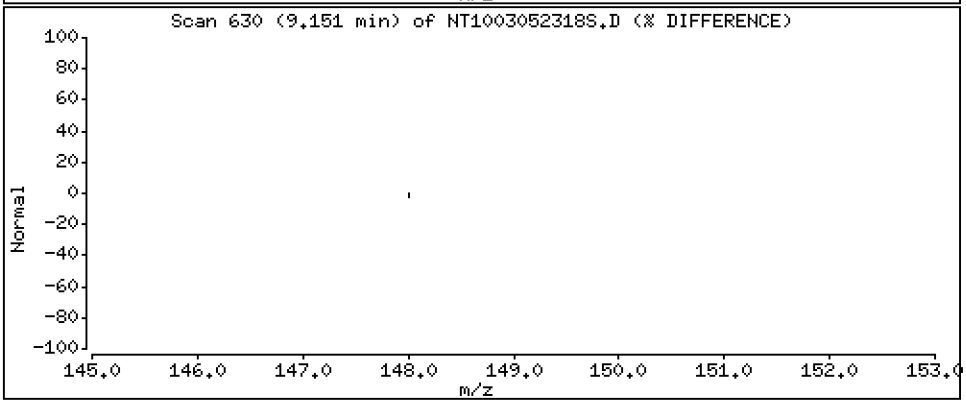












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

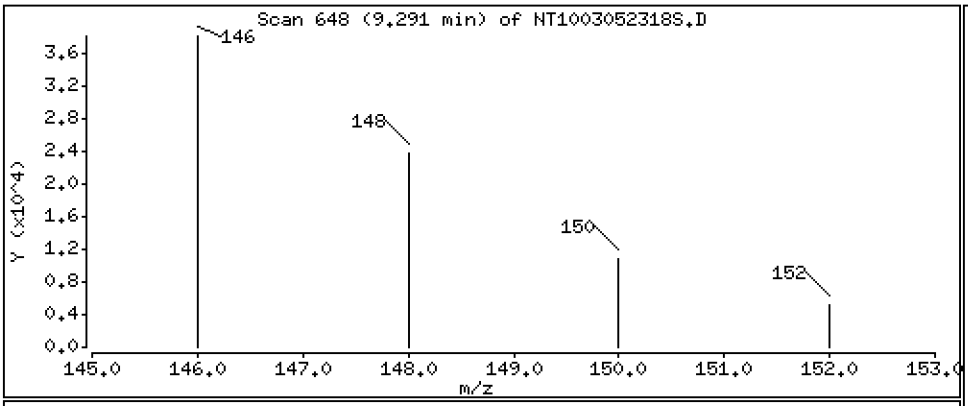
Operator: YZ

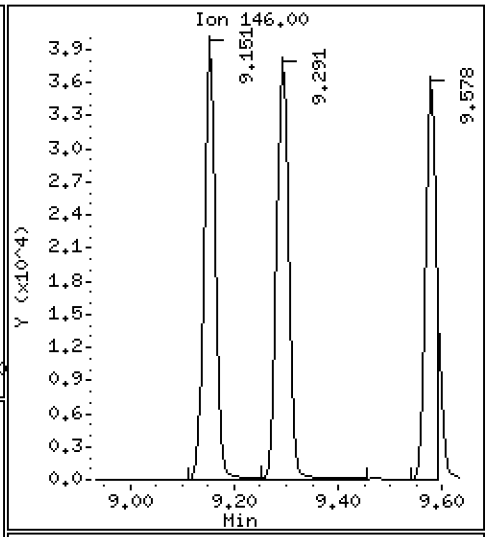
Column phase: ZB-5msi

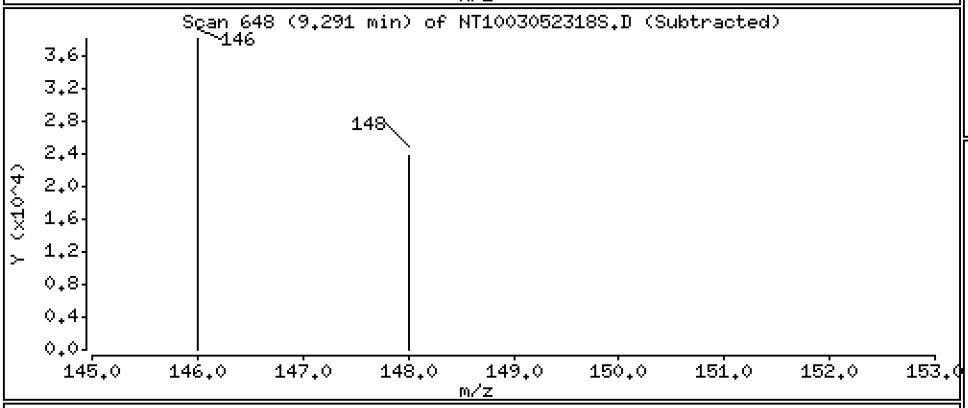
Column diameter: 0.25

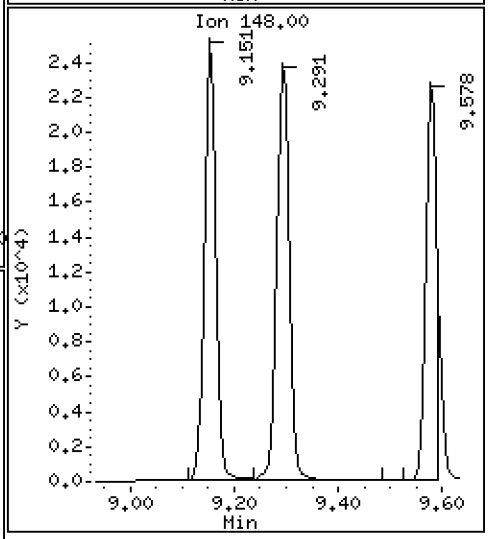
9 1,4-Dichlorobenzene

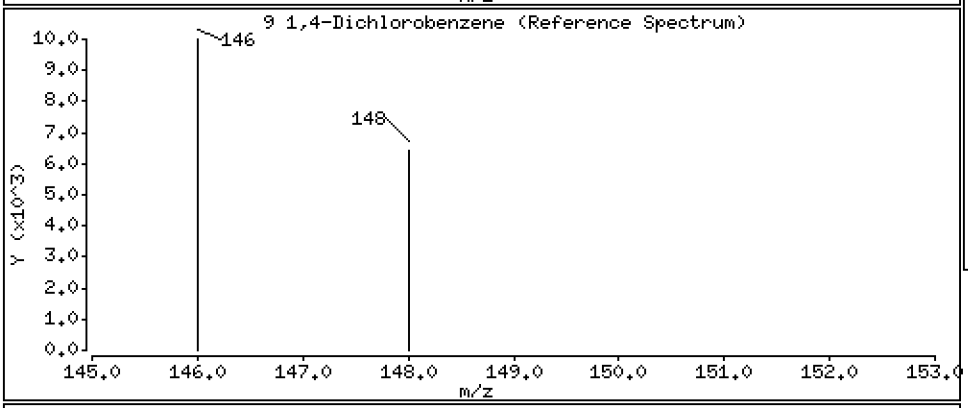
Concentration: 0.5185 ug/mL

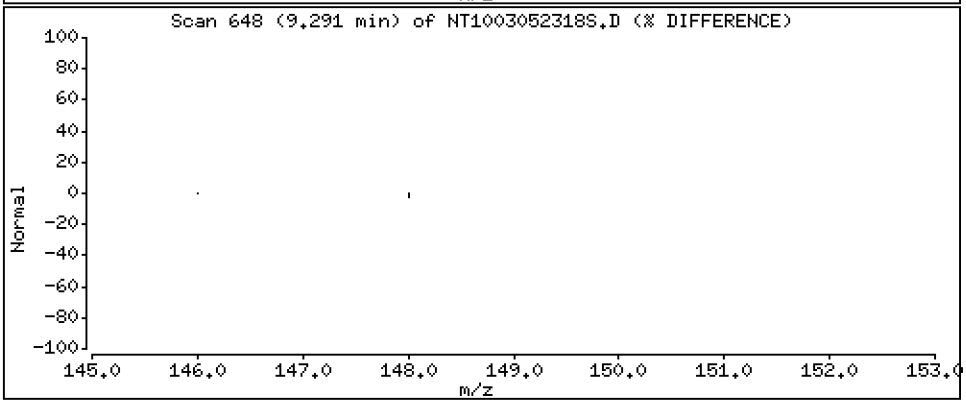












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

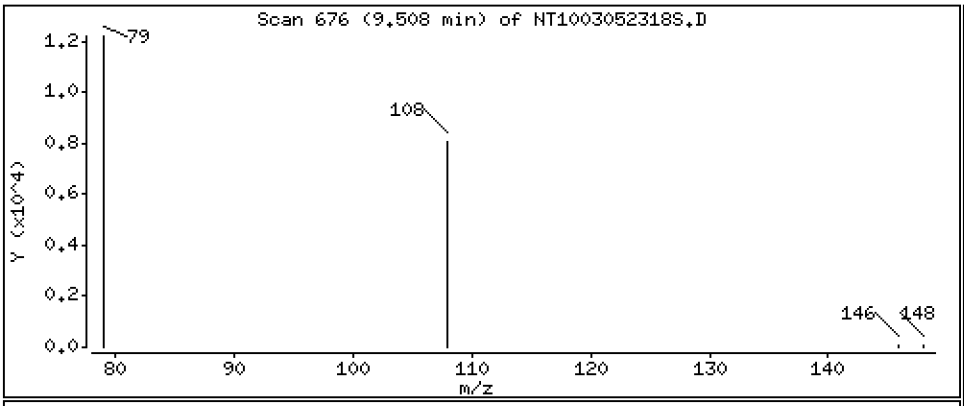
Operator: YZ

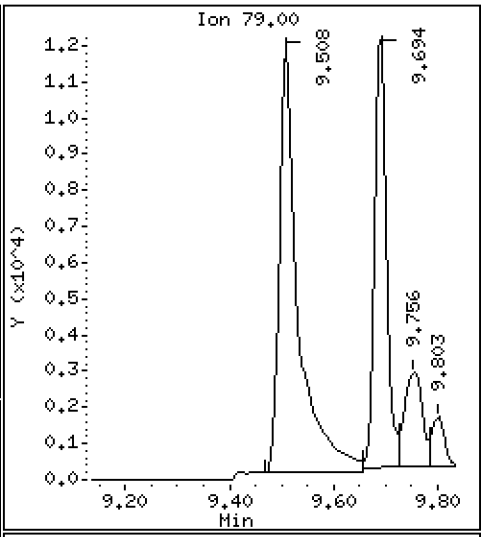
Column phase: ZB-5msi

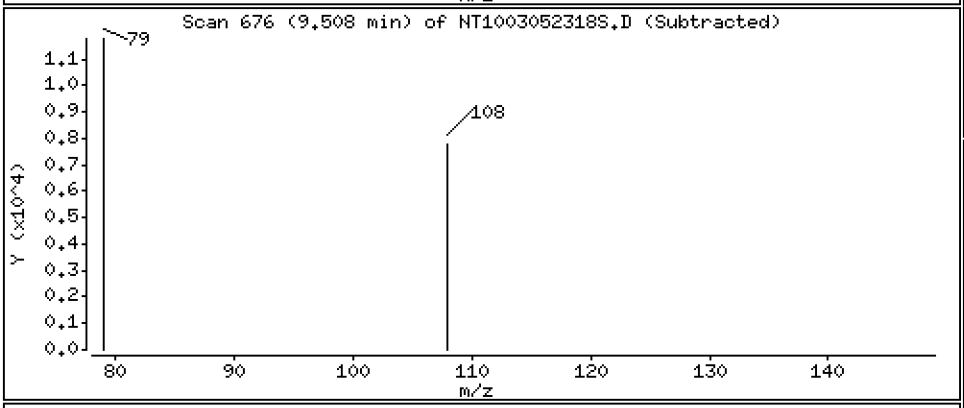
Column diameter: 0.25

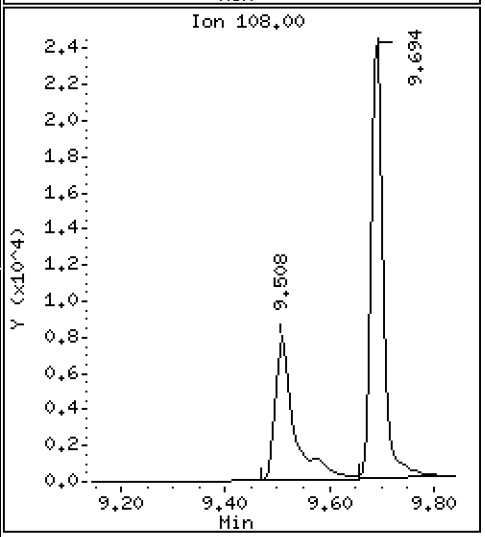
11 Benzyl alcohol

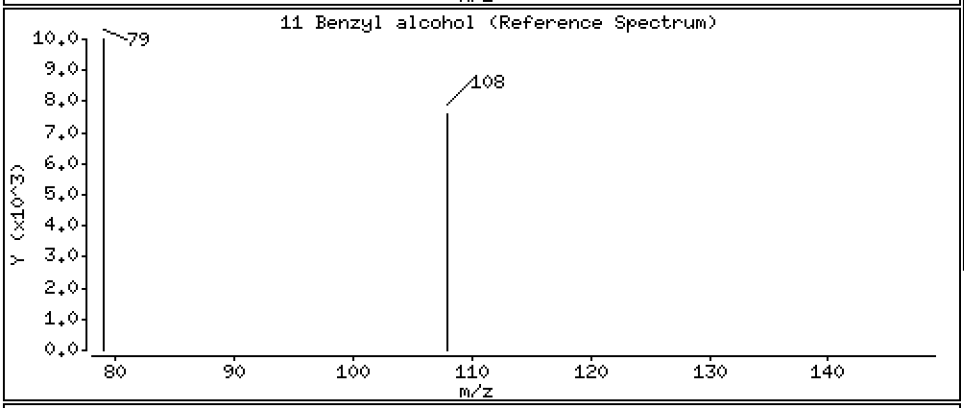
Concentration: 0.4122 ug/mL

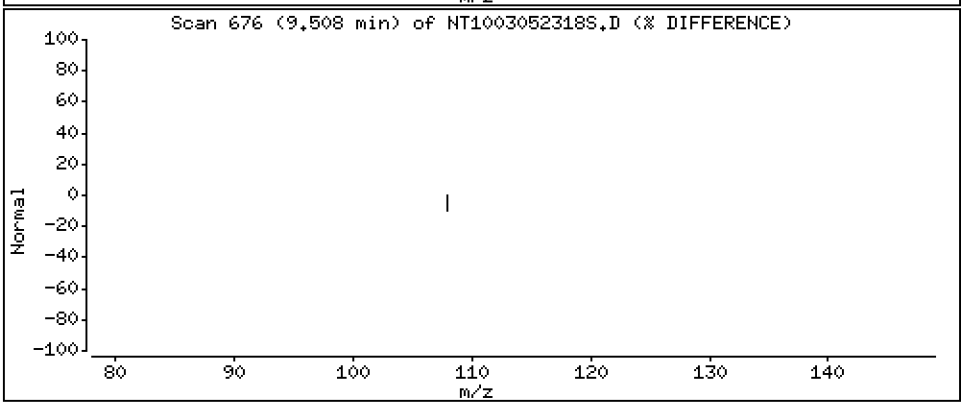












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

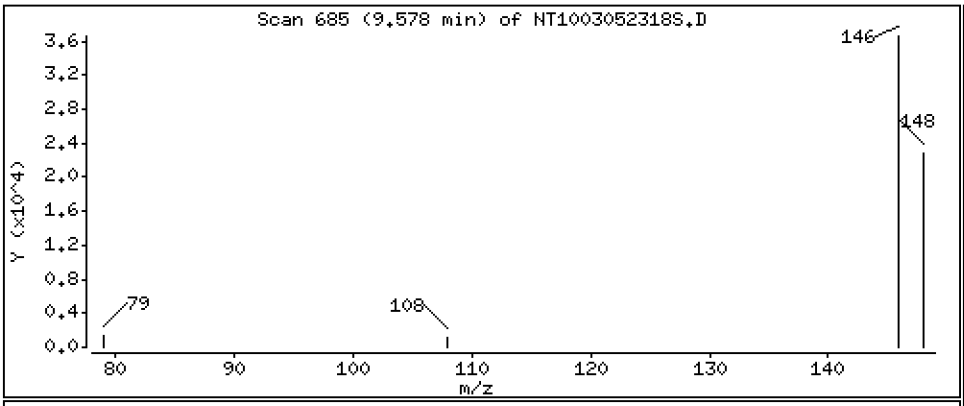
Operator: YZ

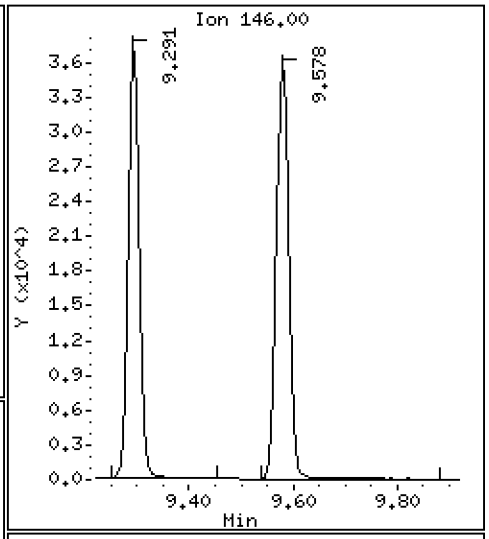
Column phase: ZB-5msi

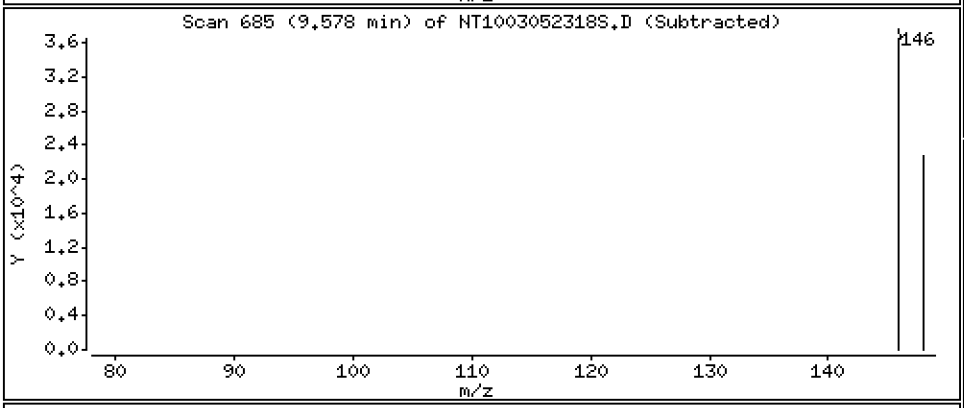
Column diameter: 0.25

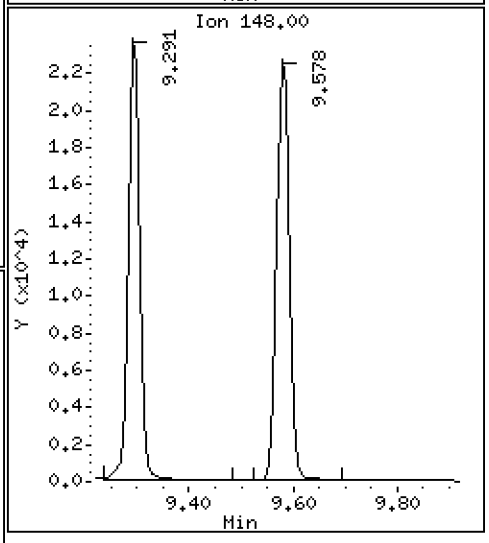
12 1,2-Dichlorobenzene

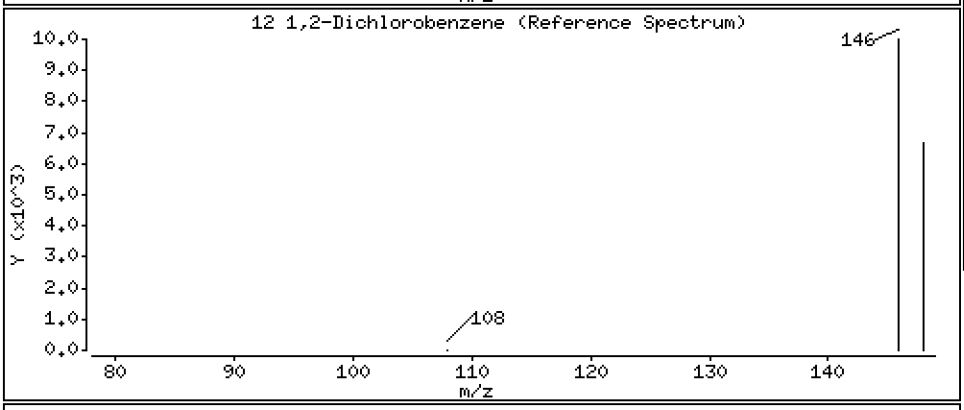
Concentration: 0.5309 ug/mL

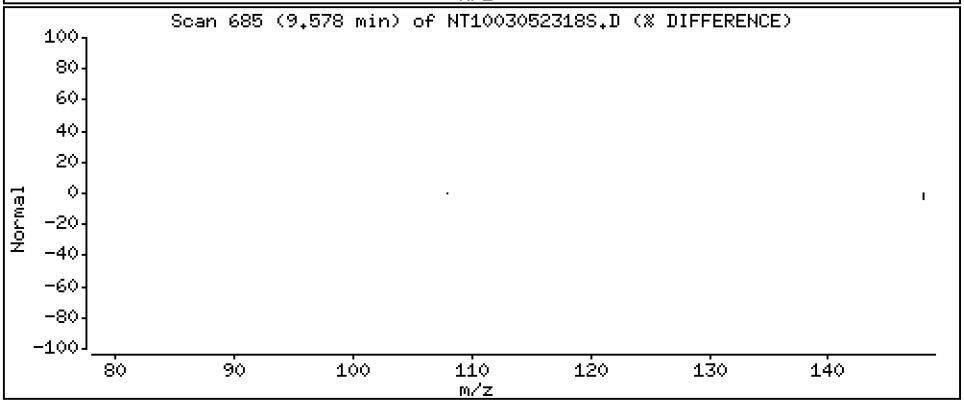












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

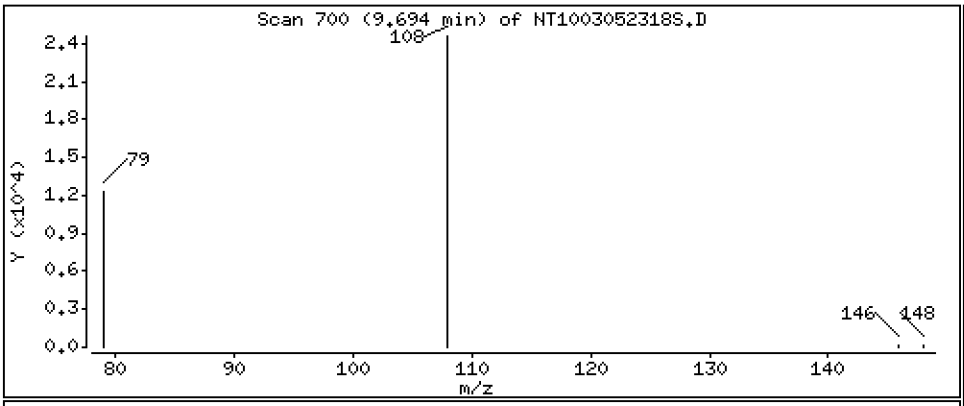
Operator: YZ

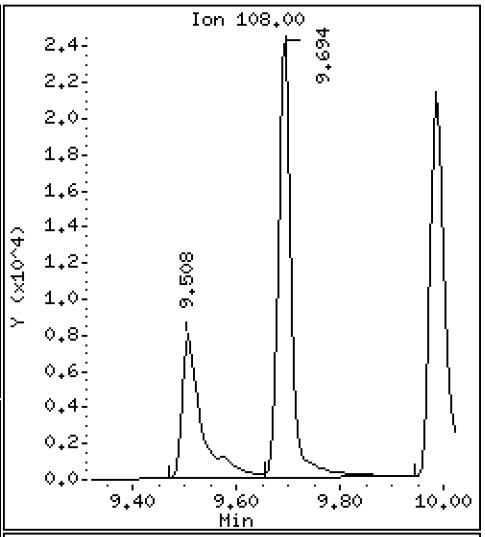
Column phase: ZB-5msi

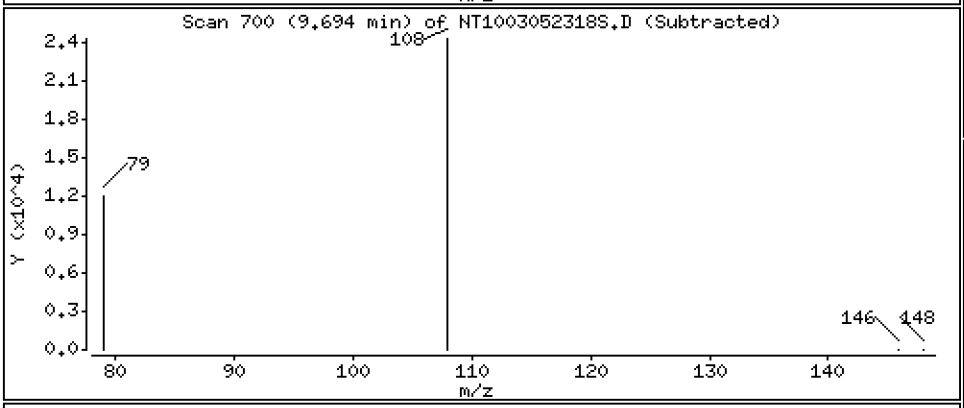
Column diameter: 0.25

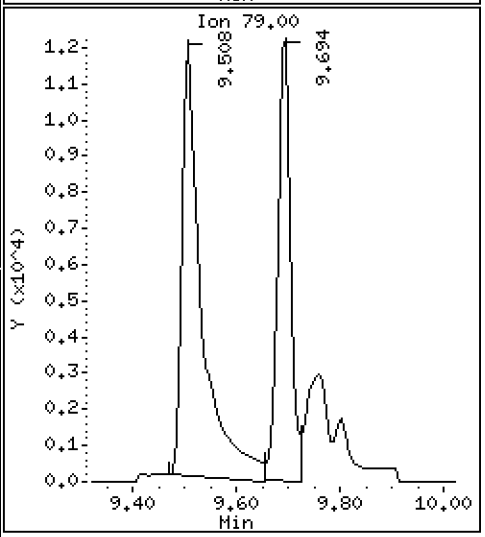
13 2-Methylphenol

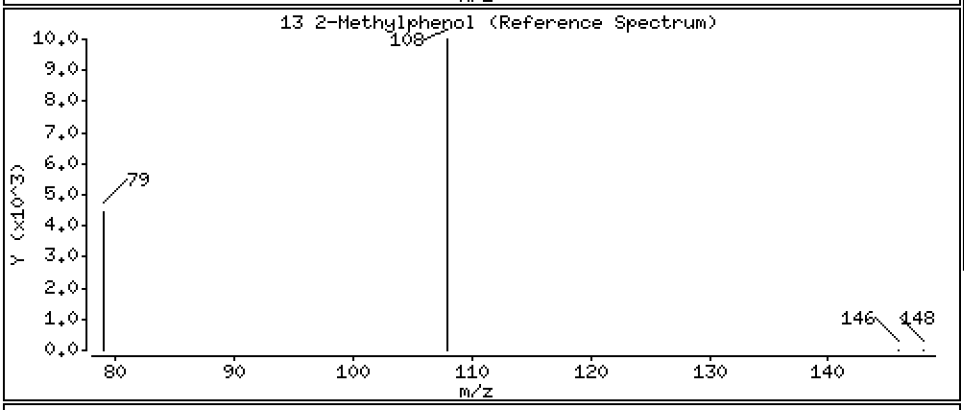
Concentration: 0.5400 ug/mL

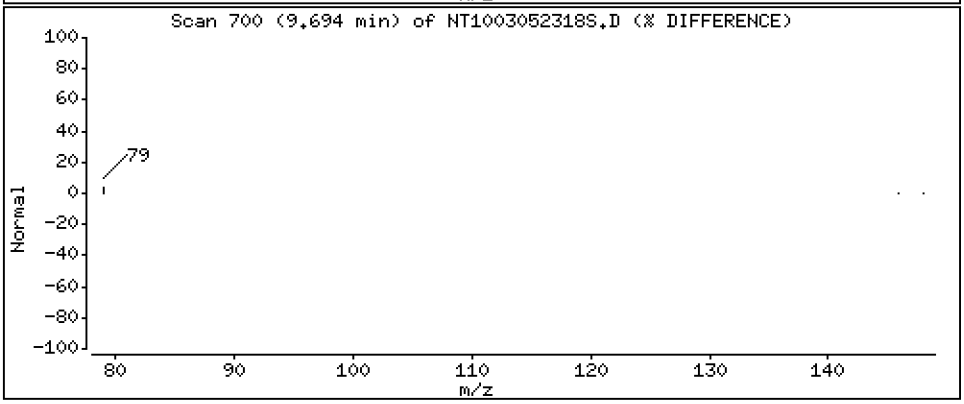












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

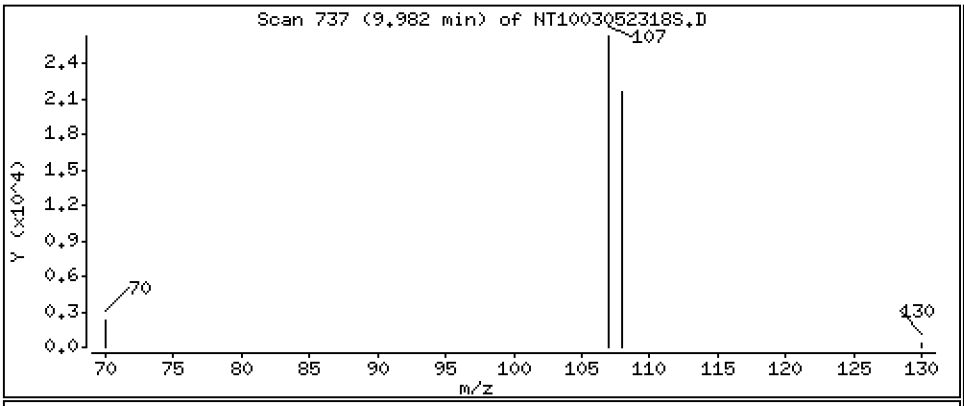
Operator: YZ

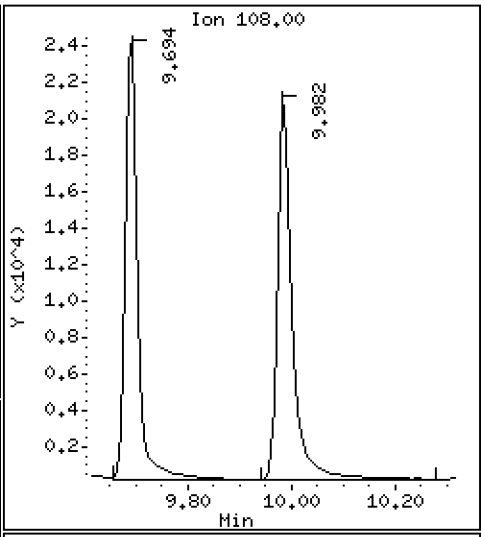
Column phase: ZB-5msi

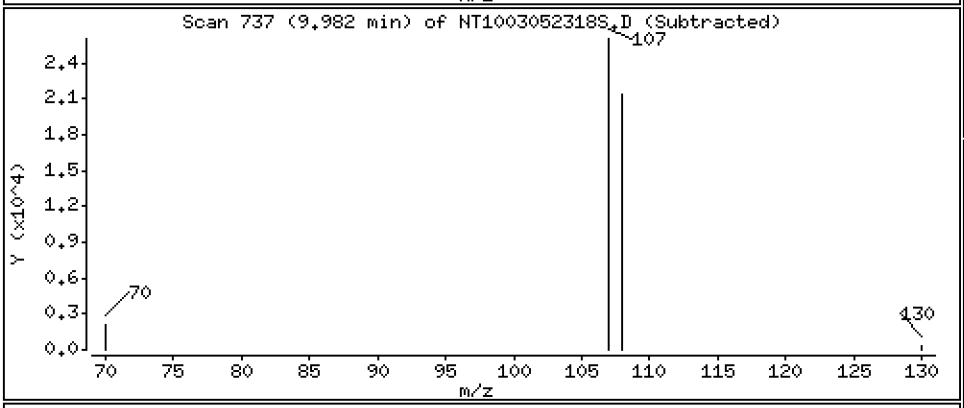
Column diameter: 0.25

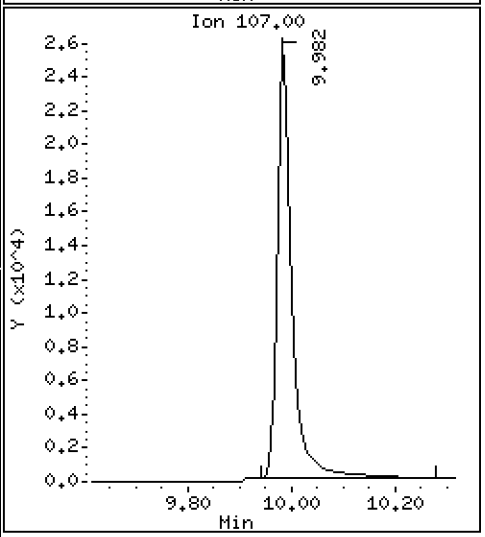
15 4-Methylphenol

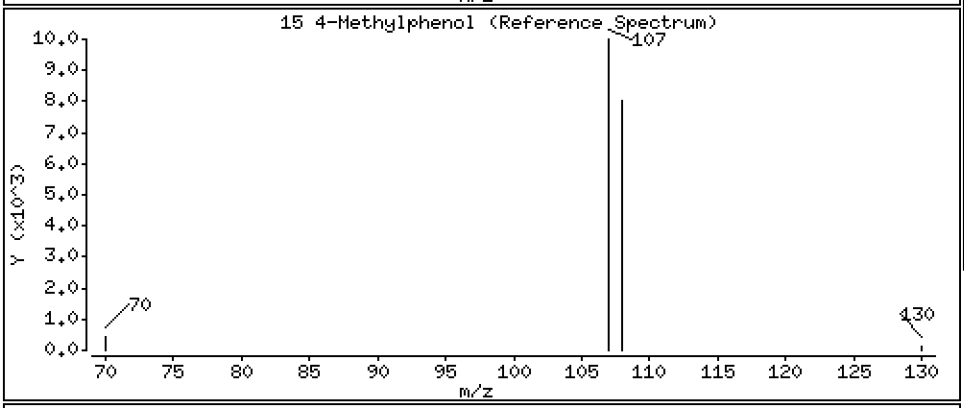
Concentration: 0.5142 ug/mL

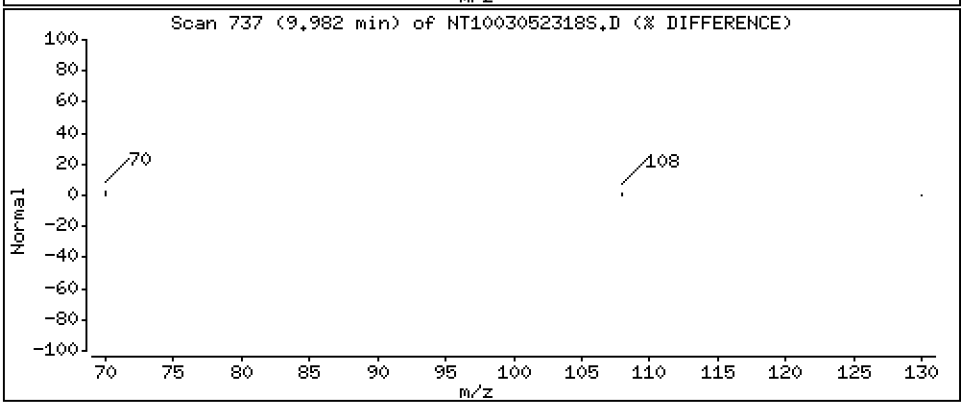












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

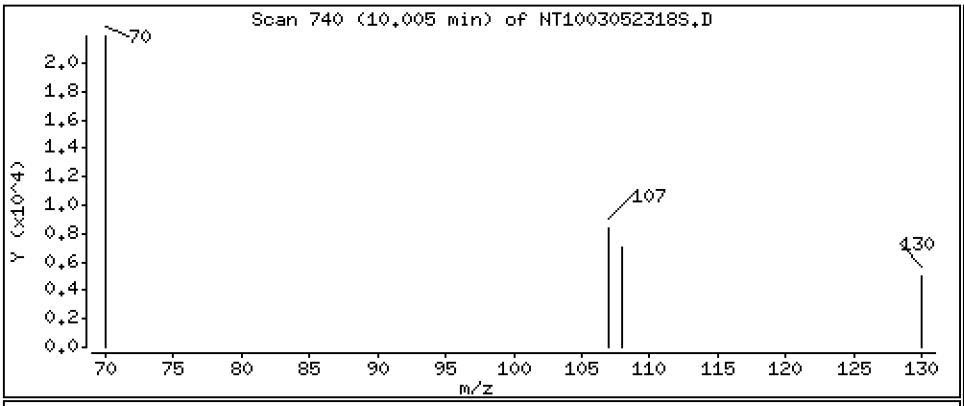
Operator: YZ

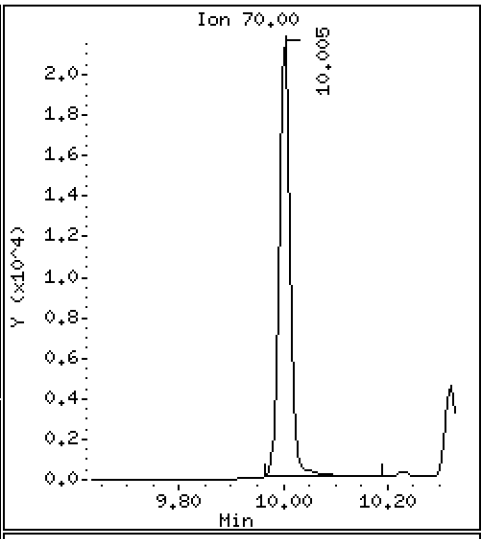
Column phase: ZB-5msi

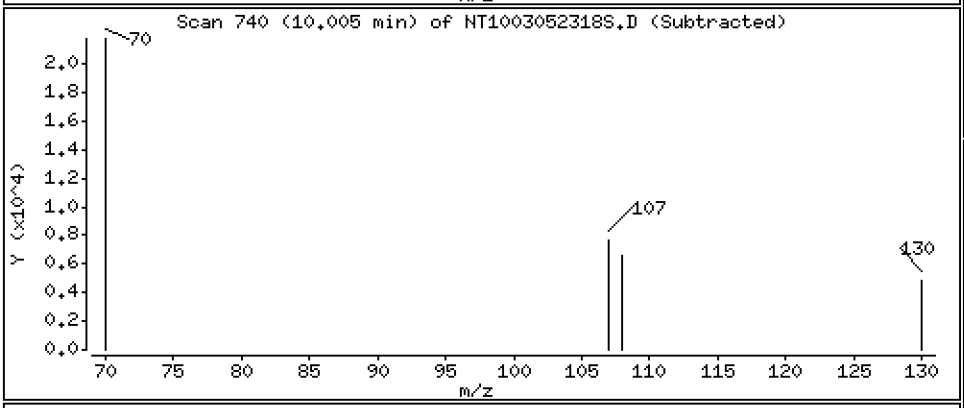
Column diameter: 0.25

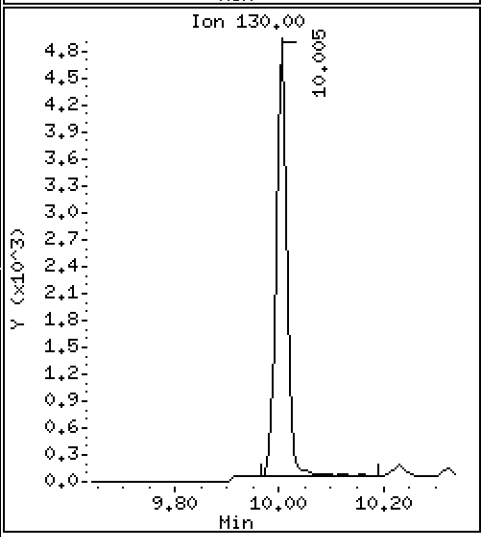
16 N-Nitroso-di-n-propylamine

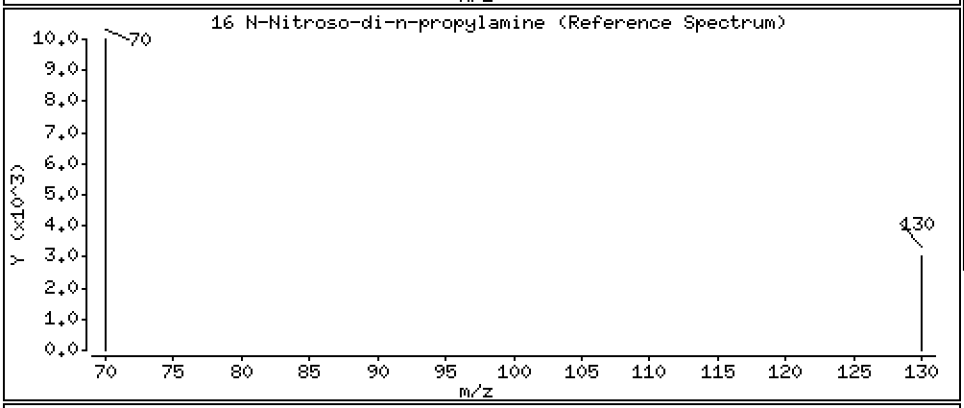
Concentration: 0.5665 ug/mL

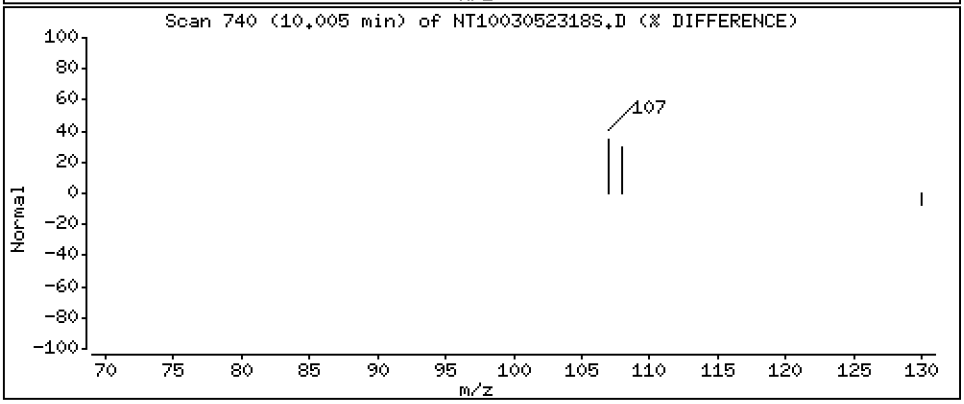












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

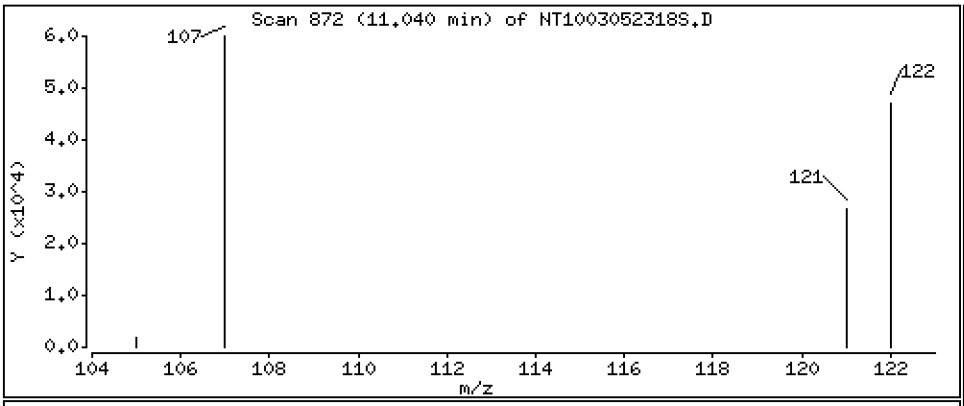
Operator: YZ

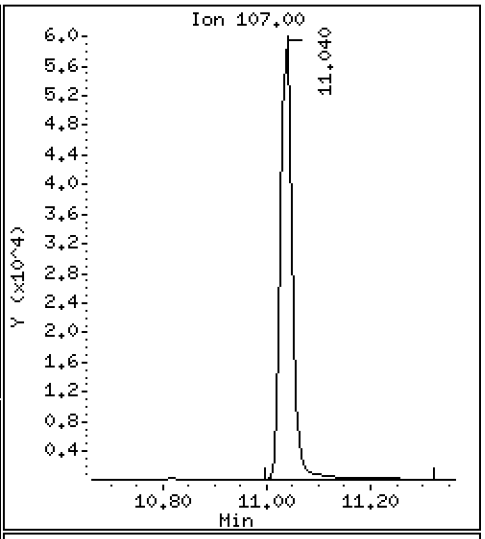
Column phase: ZB-5msi

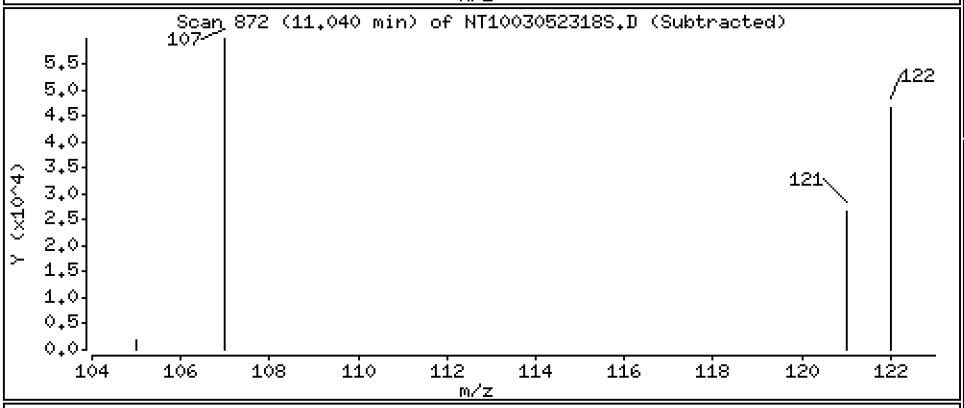
Column diameter: 0.25

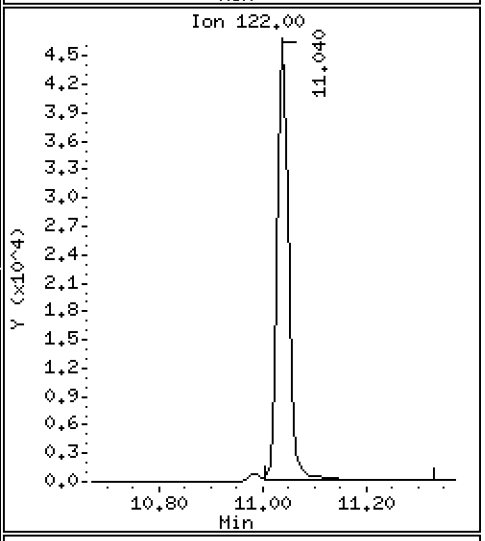
22 2,4-Dimethylphenol

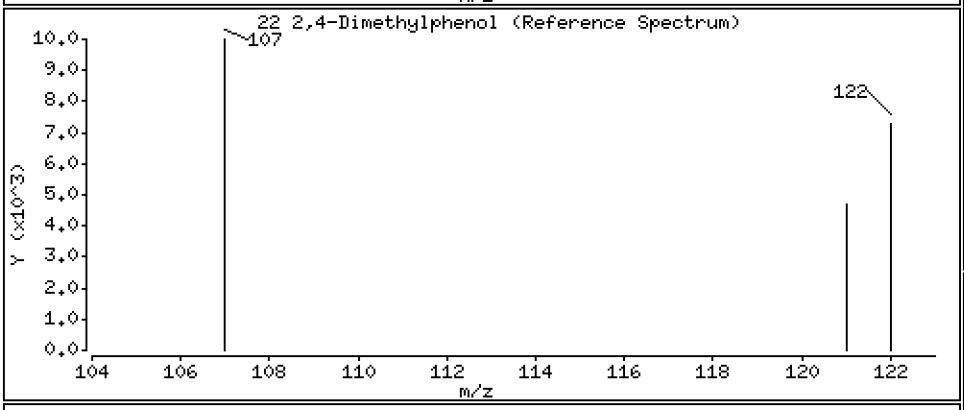
Concentration: 1.001 ug/mL

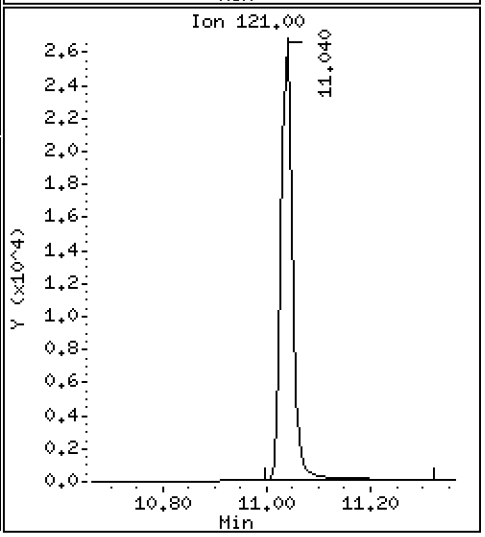


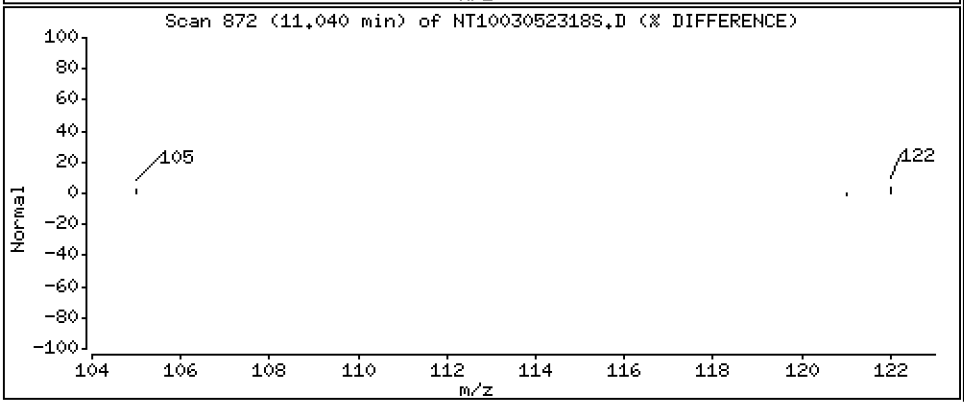












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

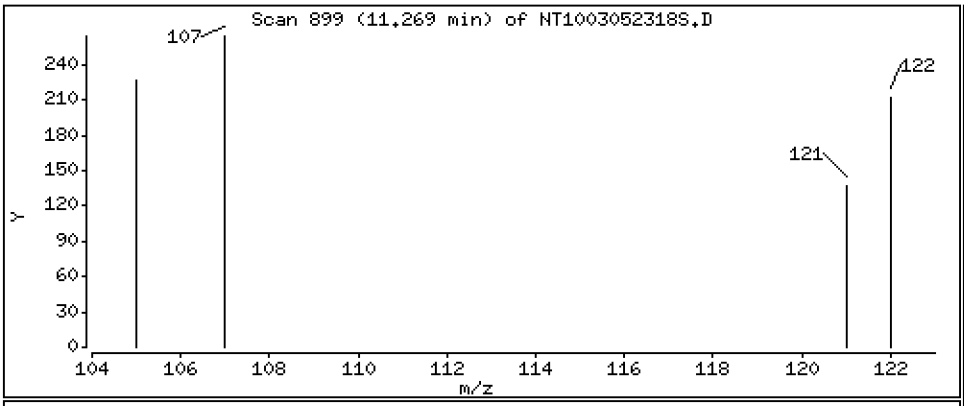
Operator: YZ

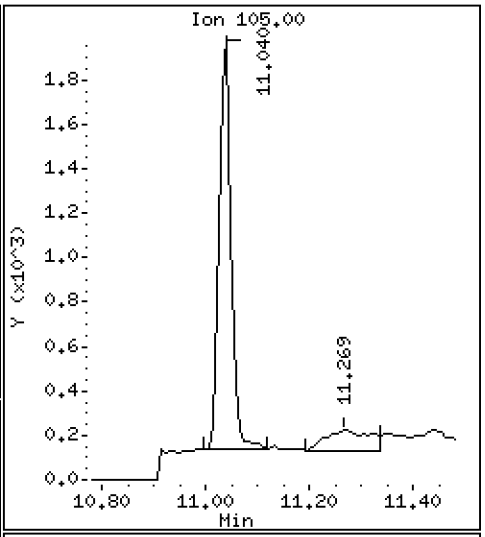
Column phase: ZB-5msi

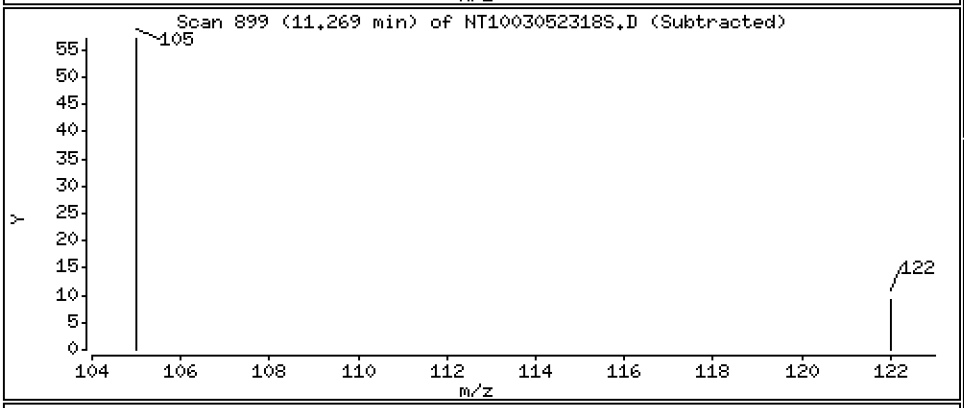
Column diameter: 0.25

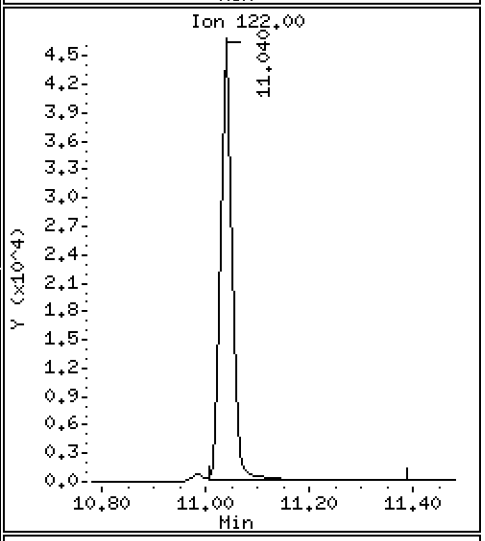
24 Benzoic acid

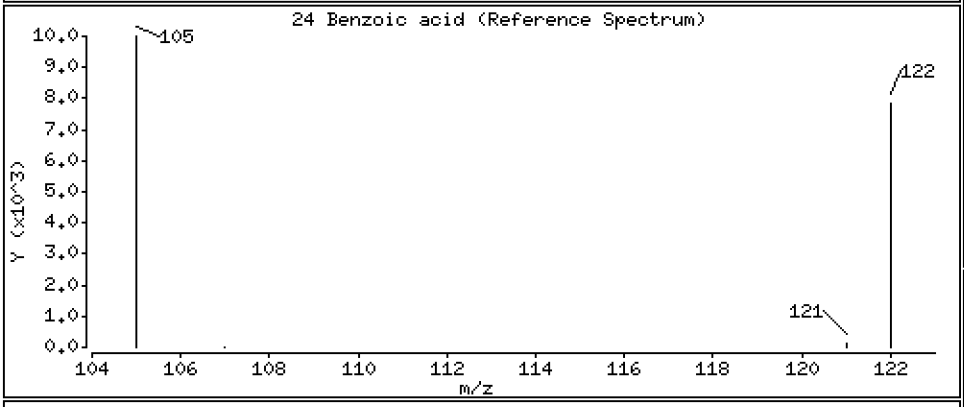
Concentration: 0.01140 ug/mL

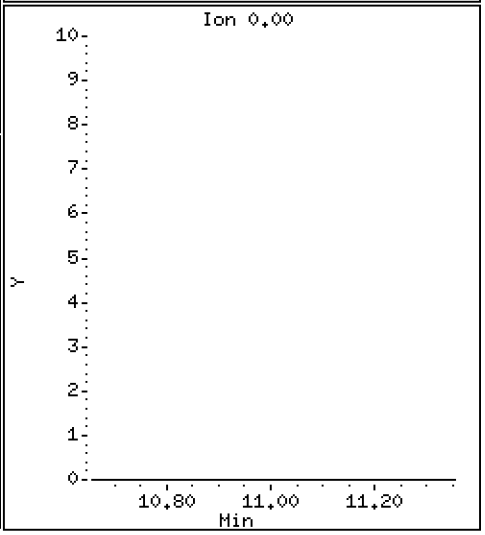


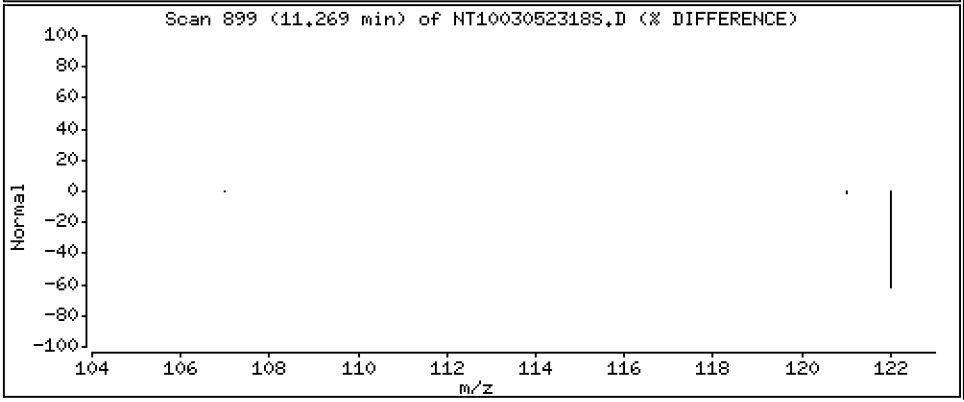












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

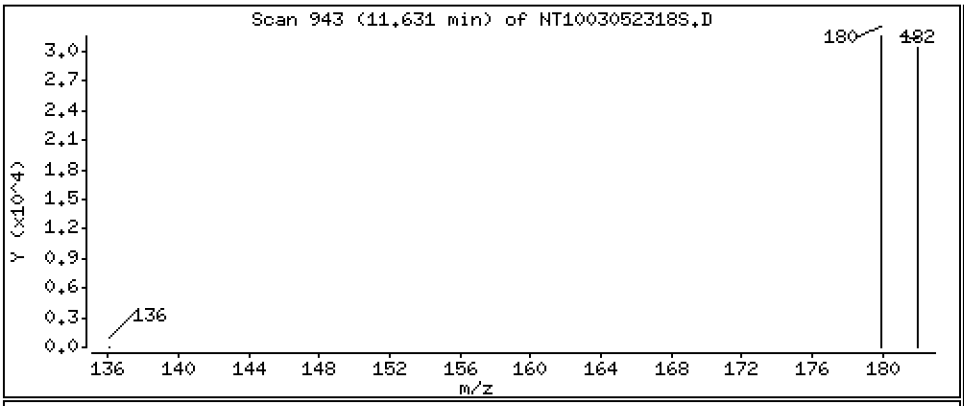
Operator: YZ

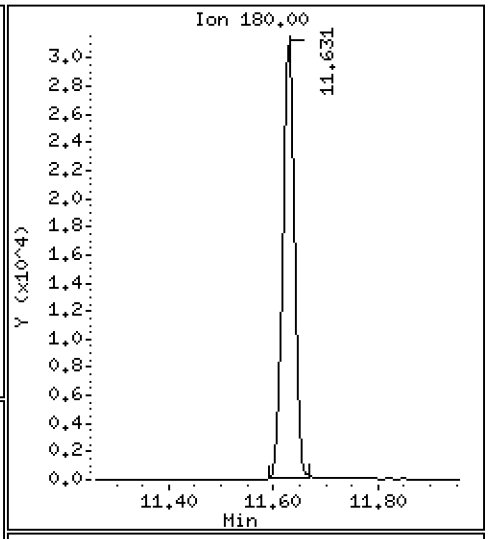
Column phase: ZB-5msi

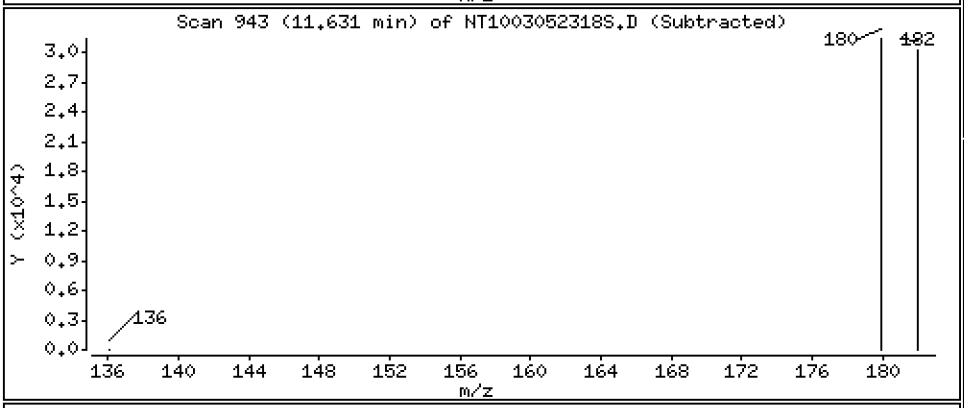
Column diameter: 0.25

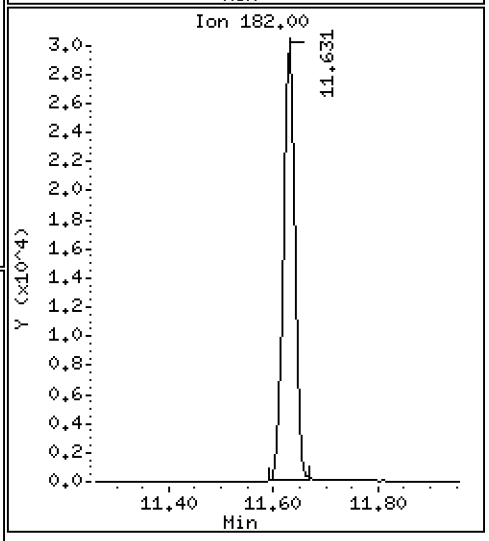
26 1,2,4-Trichlorobenzene

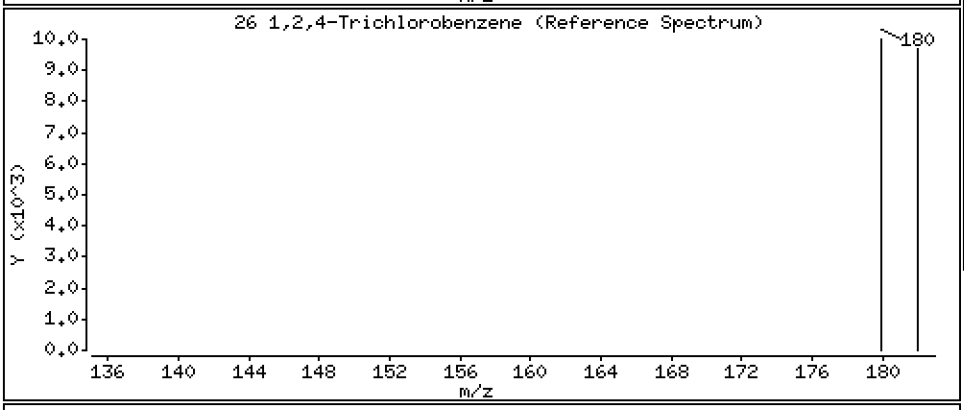
Concentration: 0.6190 ug/mL

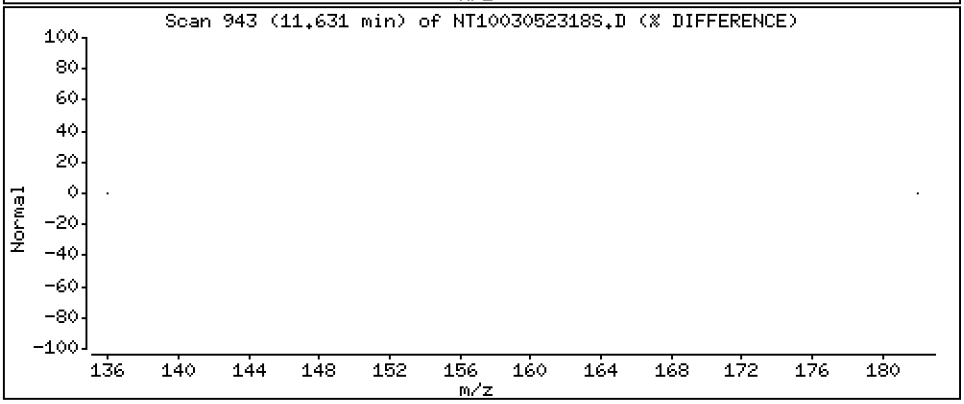












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

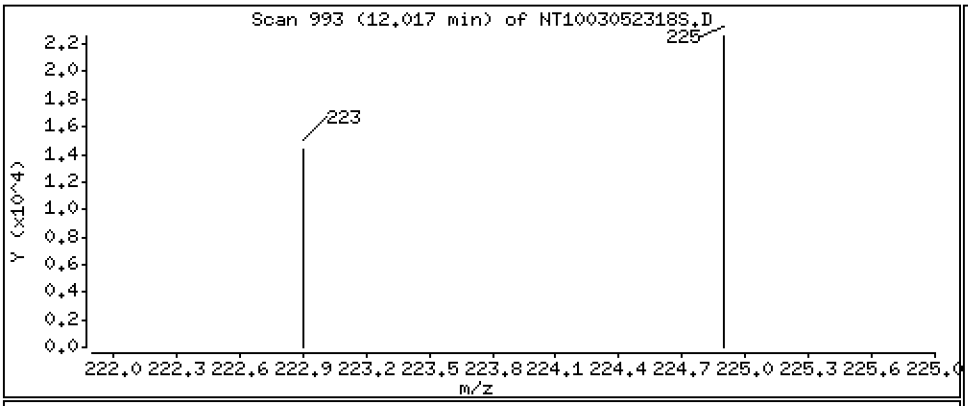
Operator: YZ

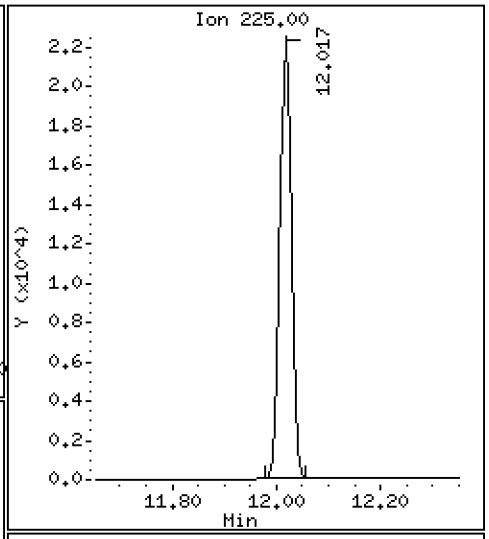
Column phase: ZB-5msi

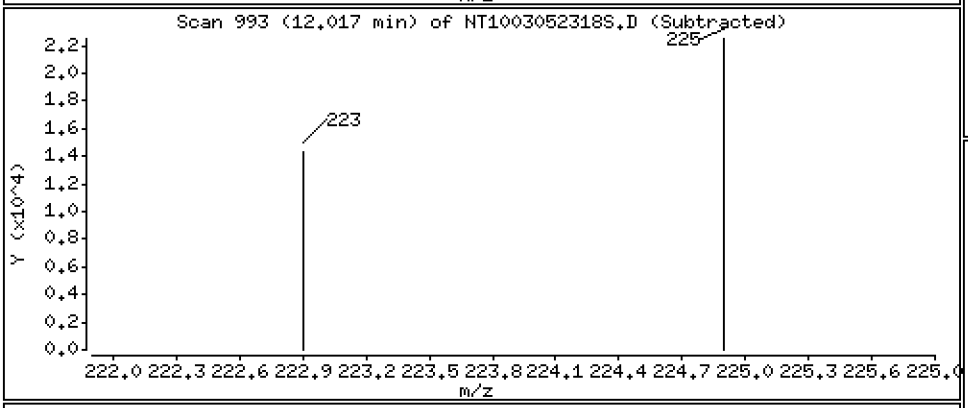
Column diameter: 0.25

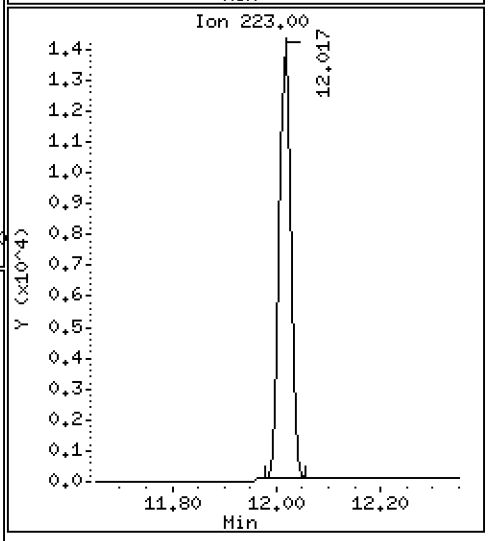
30 Hexachlorobutadiene

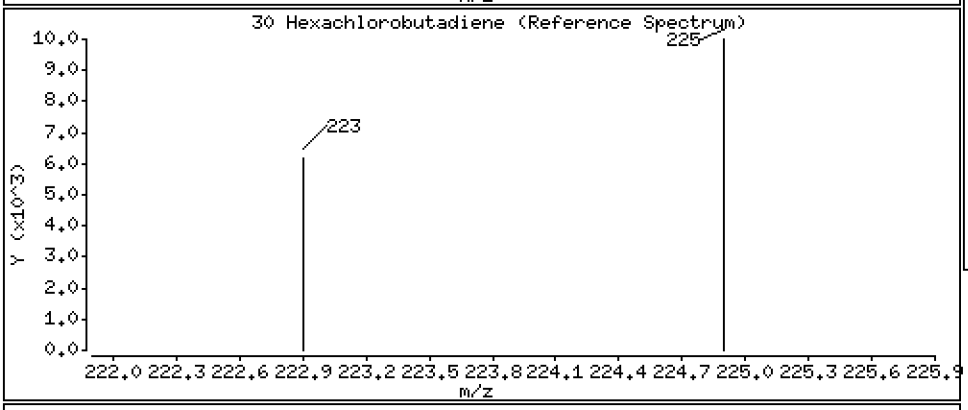
Concentration: 0.5732 ug/mL

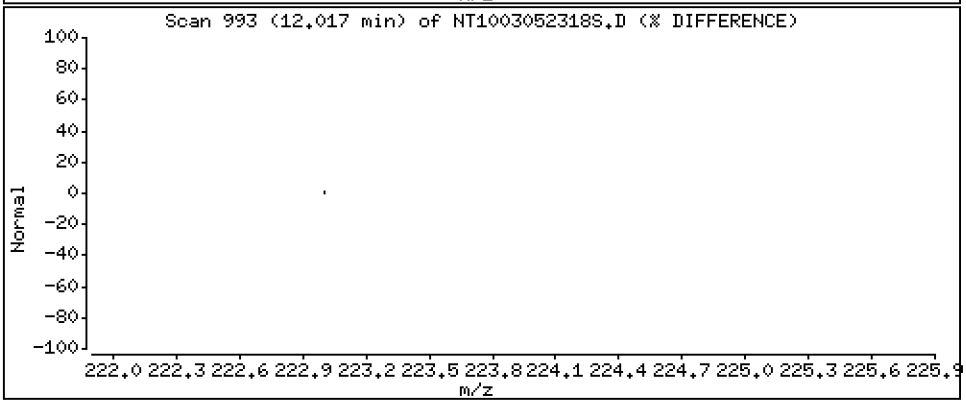












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

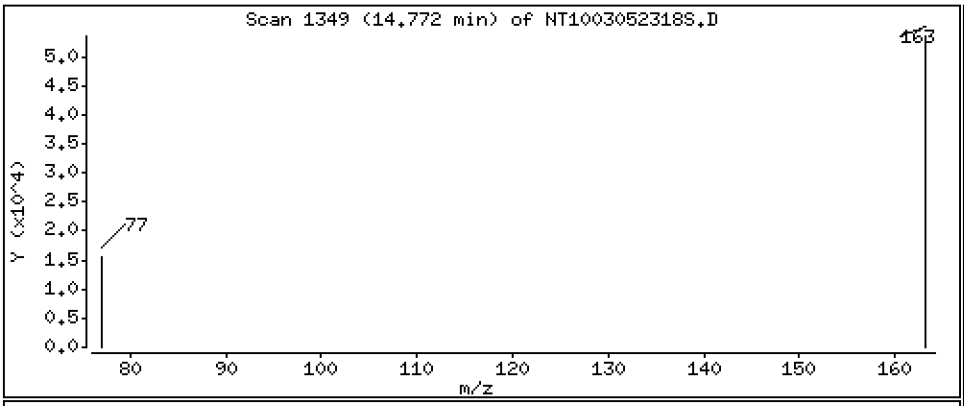
Operator: YZ

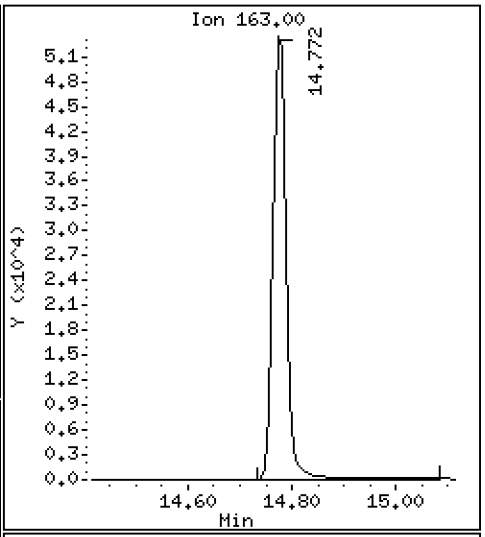
Column phase: ZB-5msi

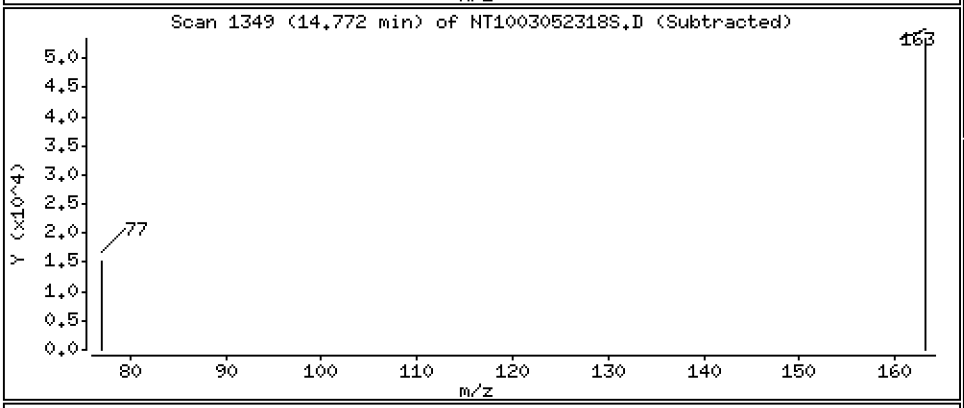
Column diameter: 0.25

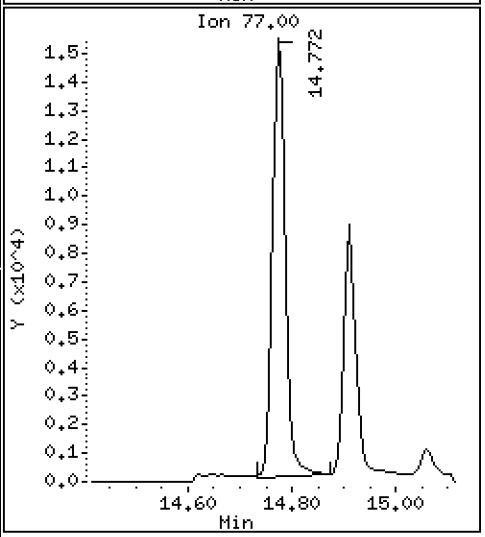
39 Dimethylphthalate

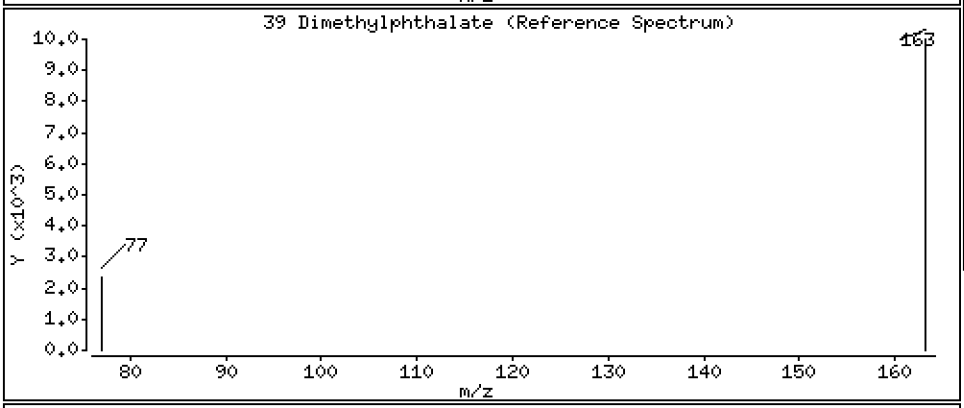
Concentration: 0.5101 ug/mL

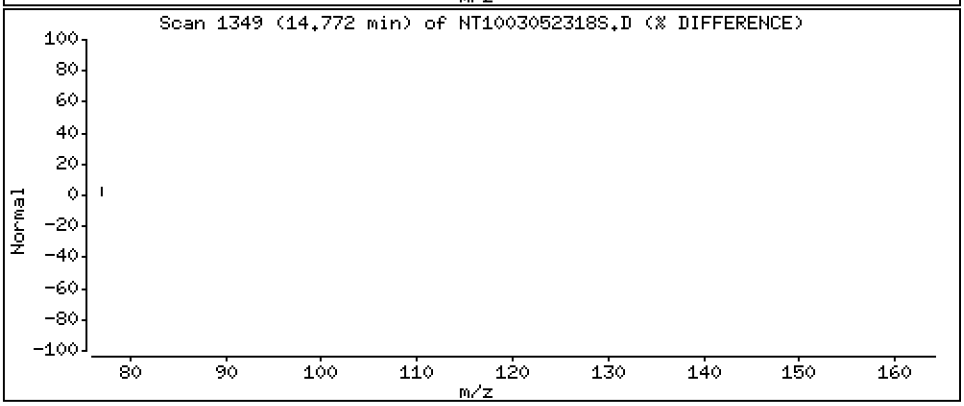












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Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

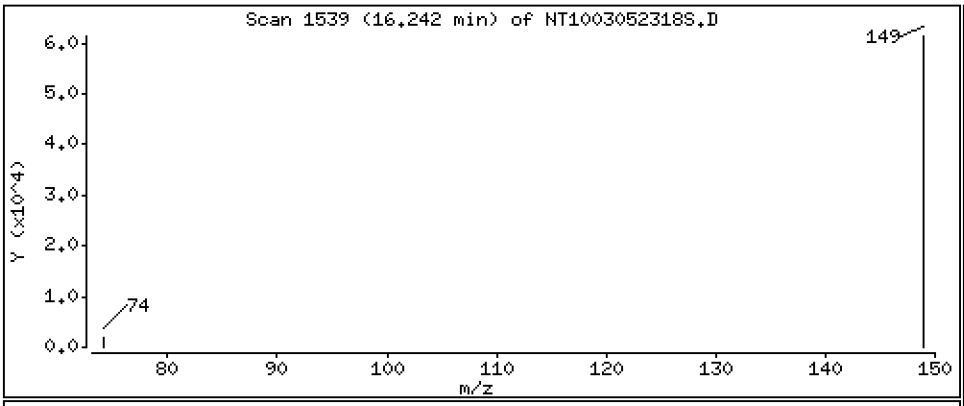
Operator: YZ

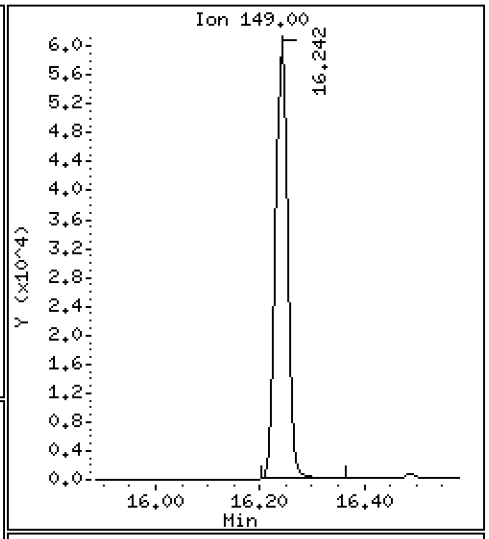
Column phase: ZB-5msi

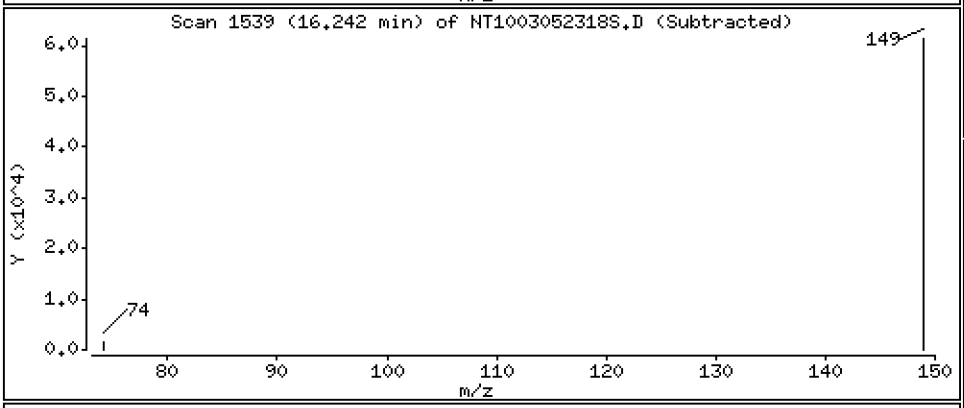
Column diameter: 0.25

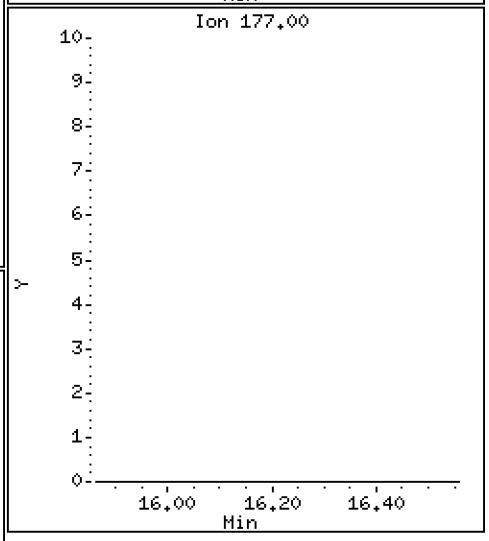
50 Diethylphthalate

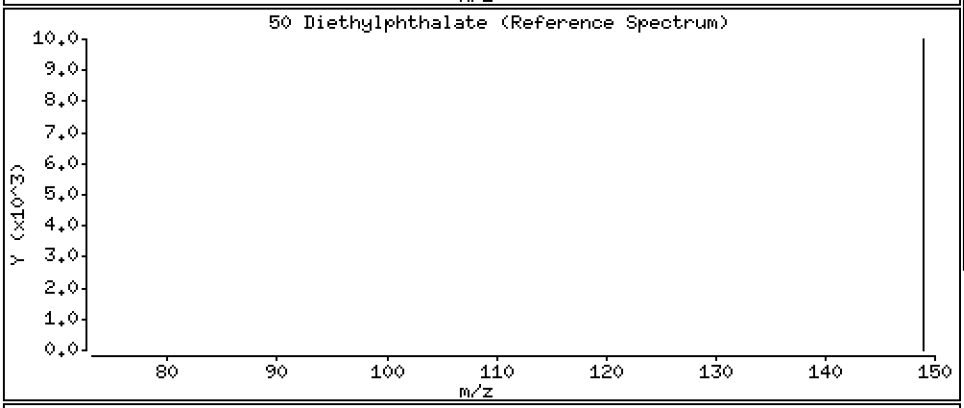
Concentration: 0.5552 ug/mL

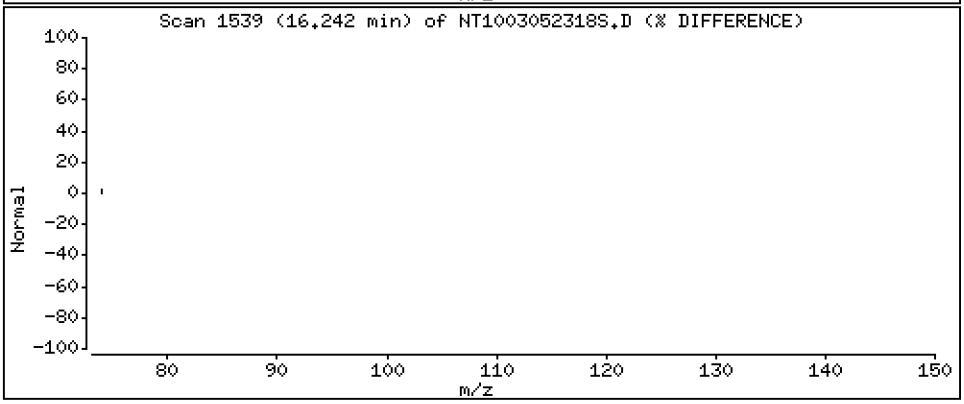












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Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

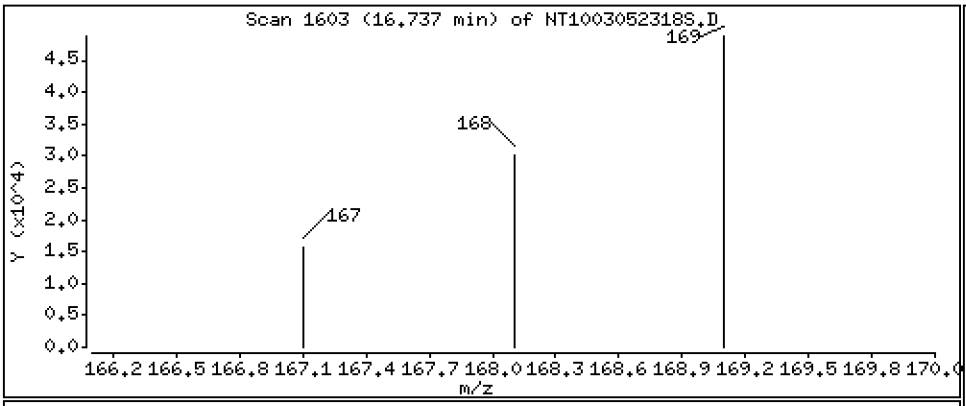
Operator: YZ

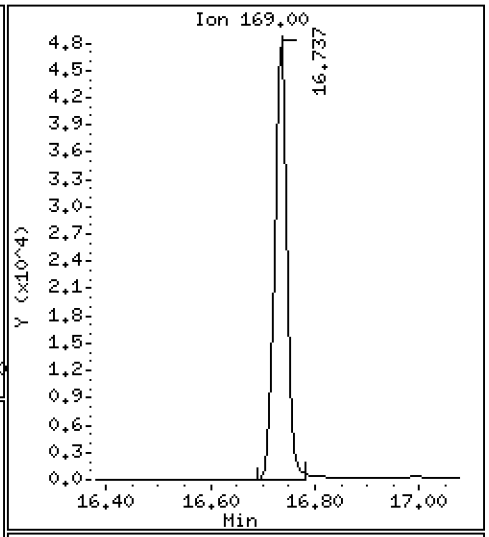
Column phase: ZB-5msi

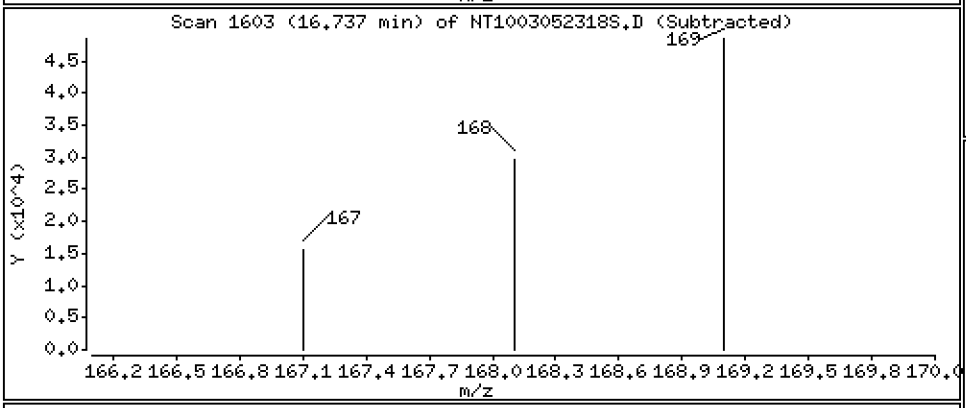
Column diameter: 0.25

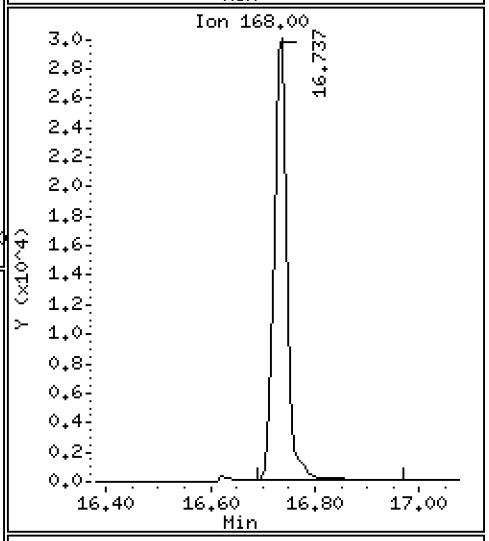
54 N-Nitrosodiphenylamine

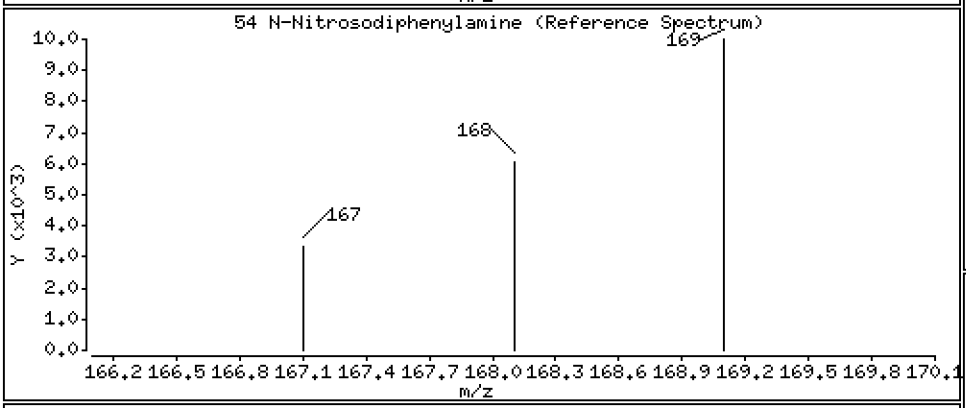
Concentration: 0.4559 ug/mL

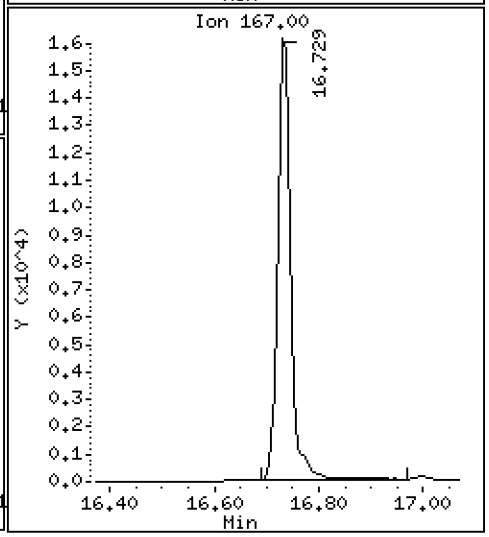


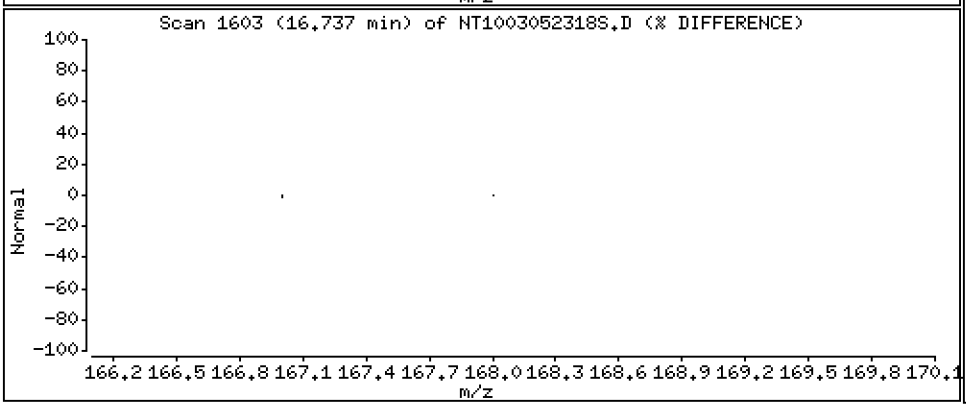












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Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

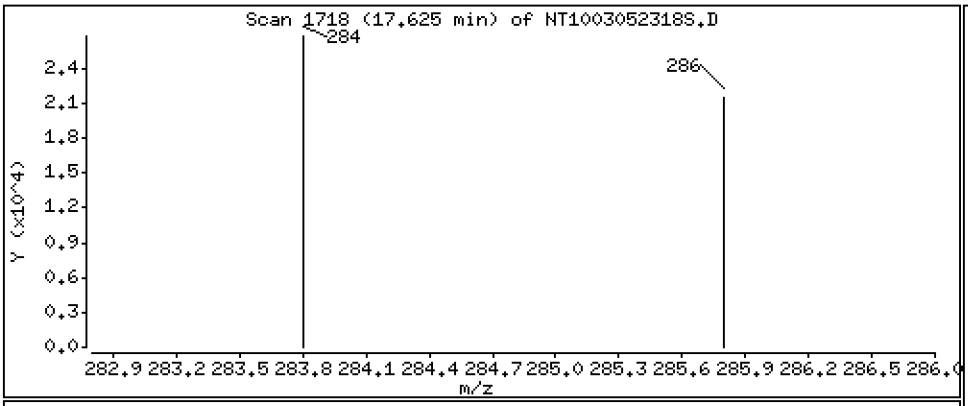
Operator: YZ

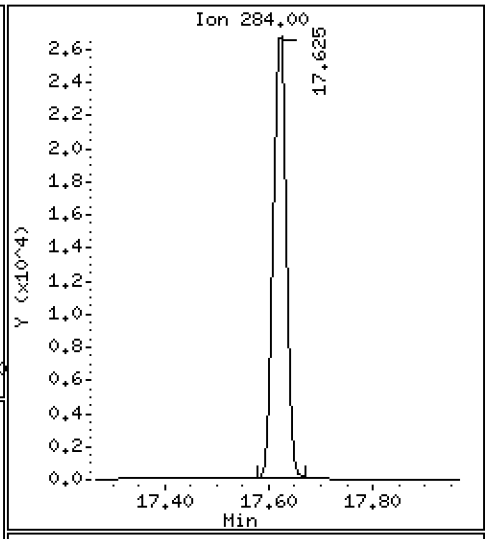
Column phase: ZB-5msi

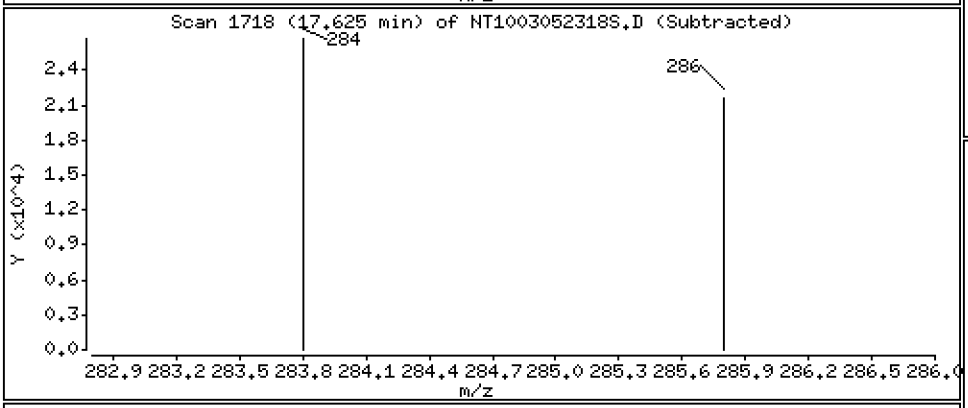
Column diameter: 0.25

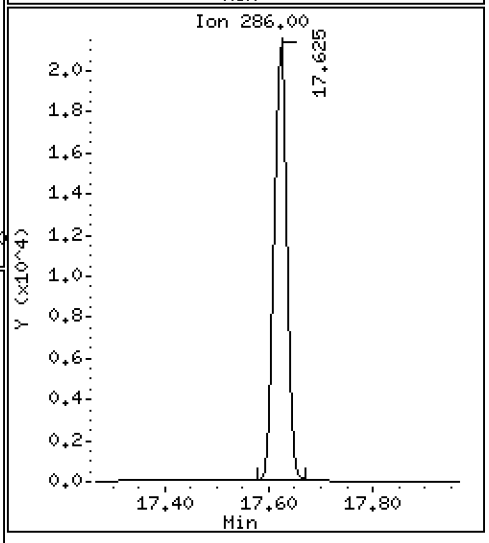
57 Hexachlorobenzene

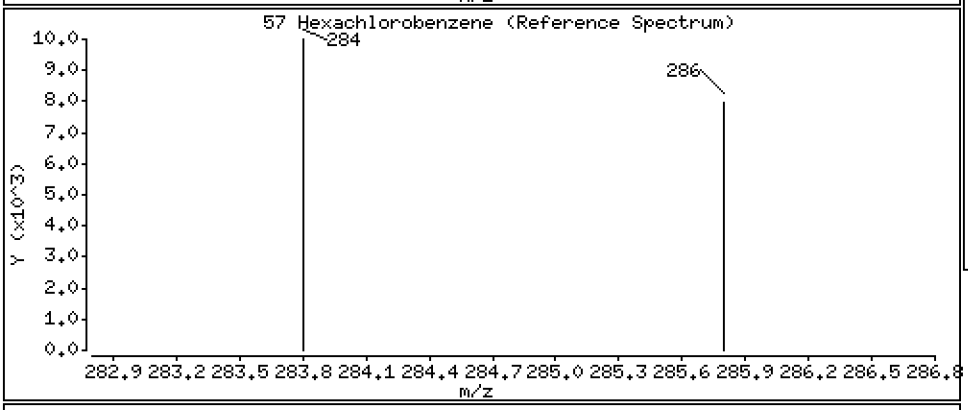
Concentration: 0.5511 ug/mL

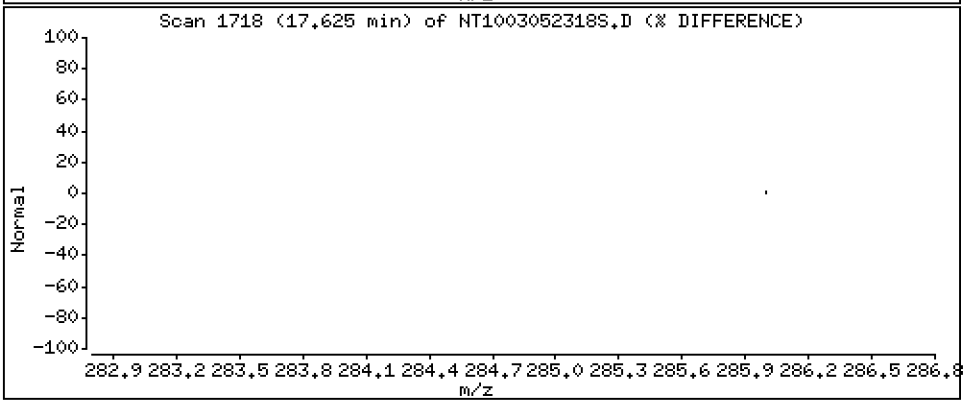












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052318S.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

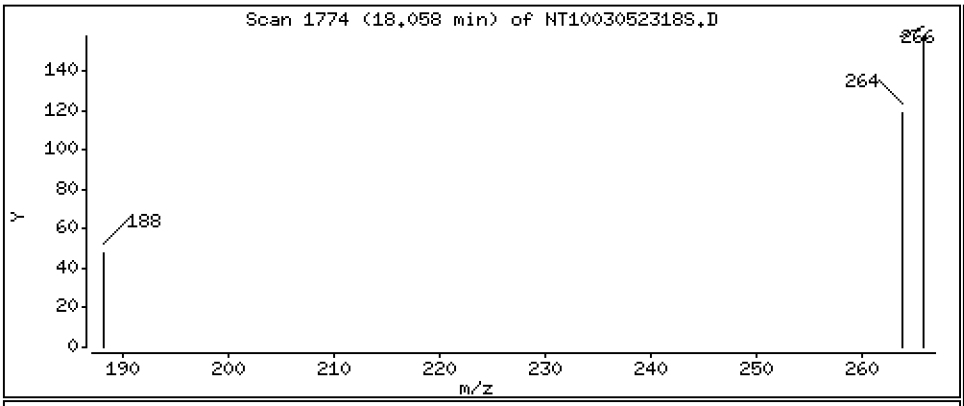
Operator: YZ

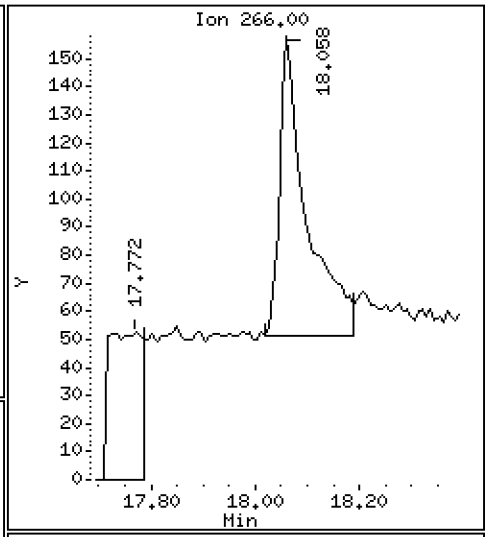
Column phase: ZB-5msi

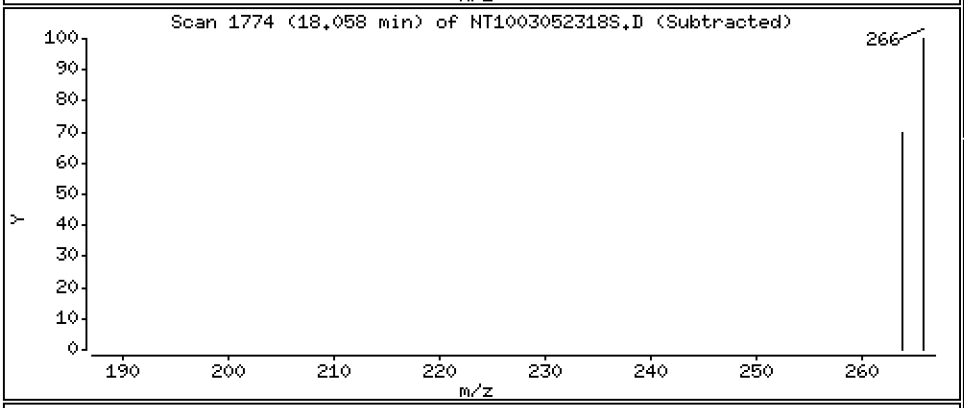
Column diameter: 0.25

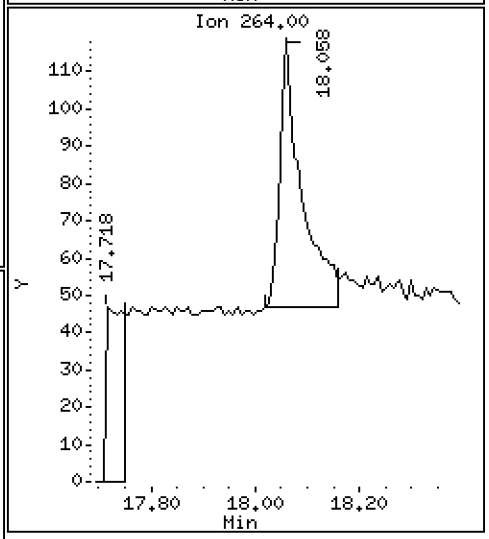
58 Pentachlorophenol

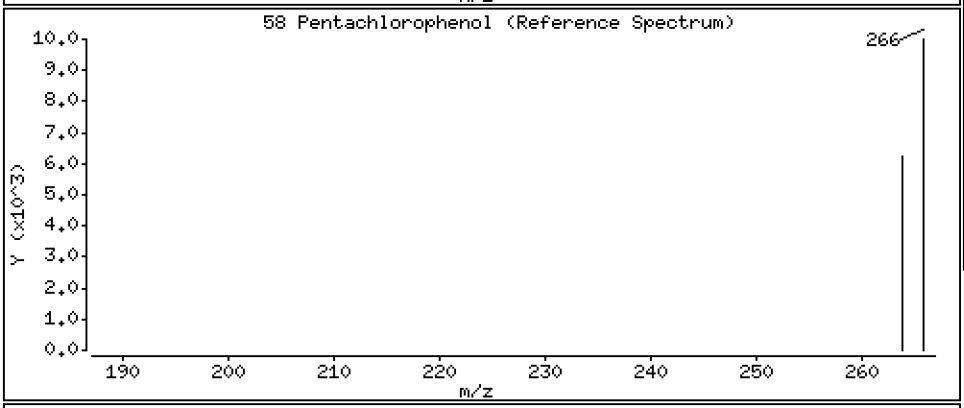
Concentration: 0.01097 ug/mL

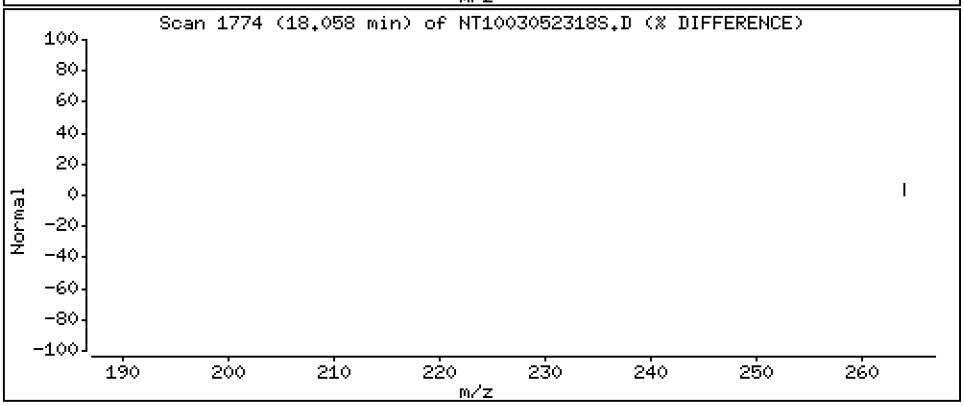












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

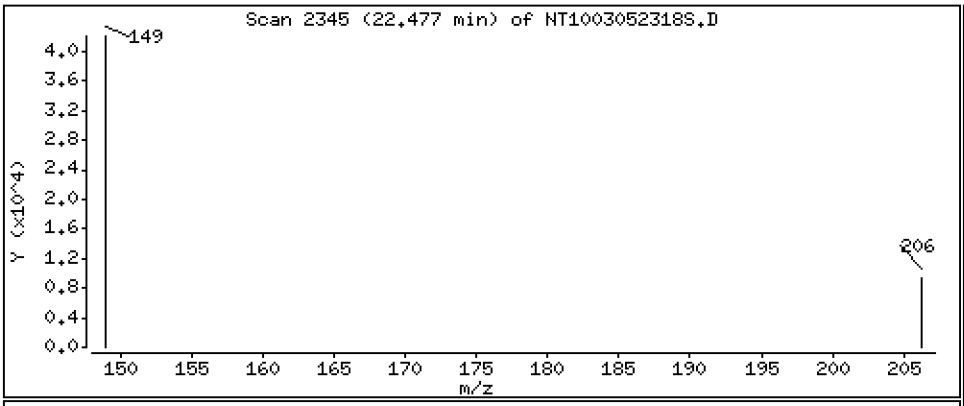
Operator: YZ

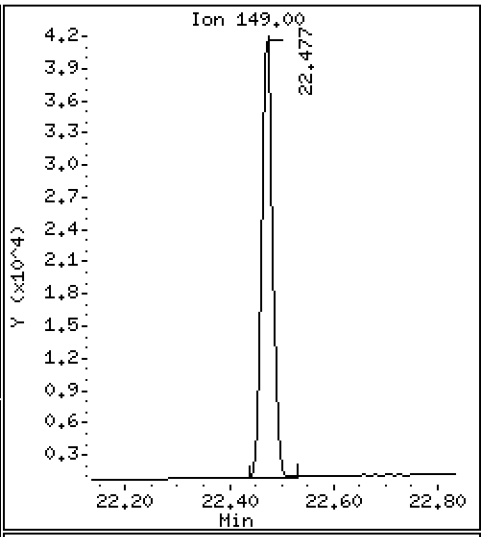
Column phase: ZB-5msi

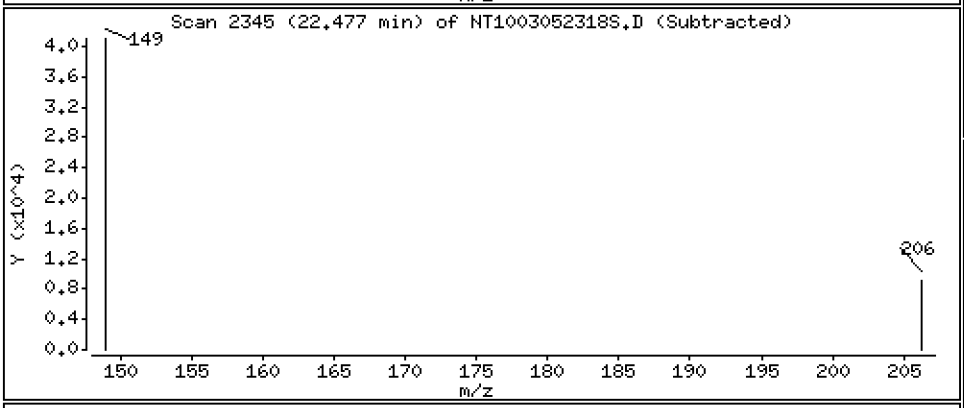
Column diameter: 0.25

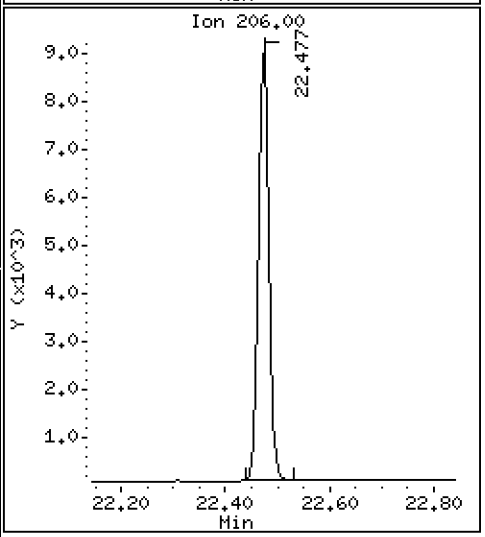
67 Butylbenzylphthalate

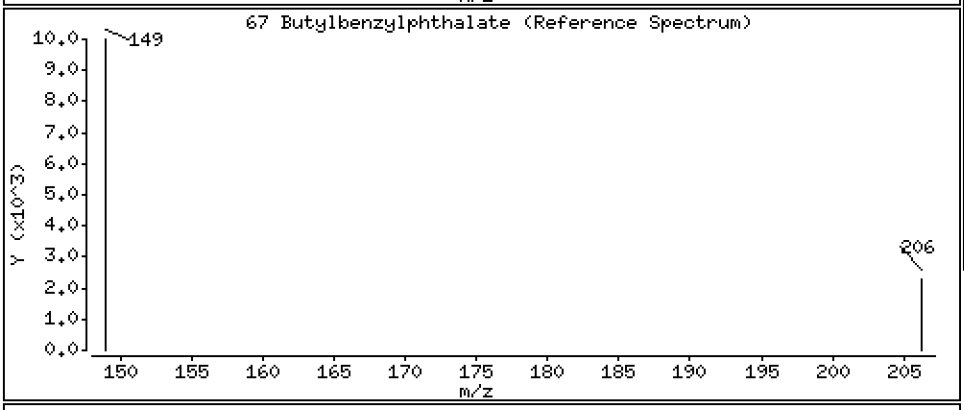
Concentration: 0.3512 ug/mL

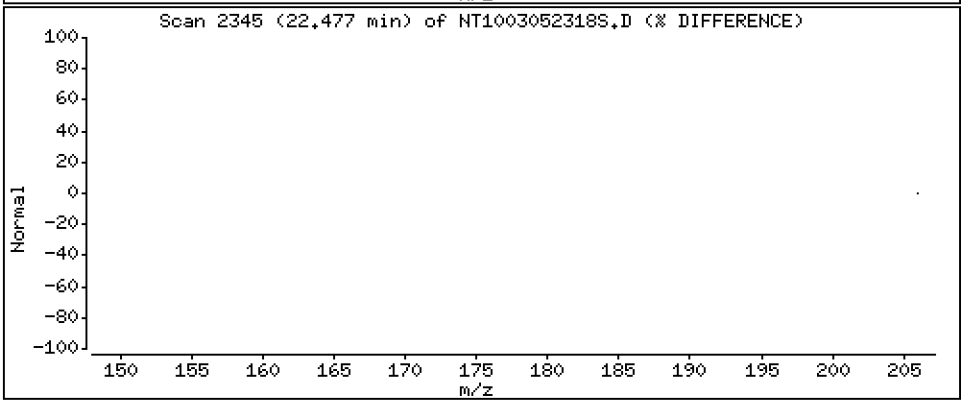












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052318S.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

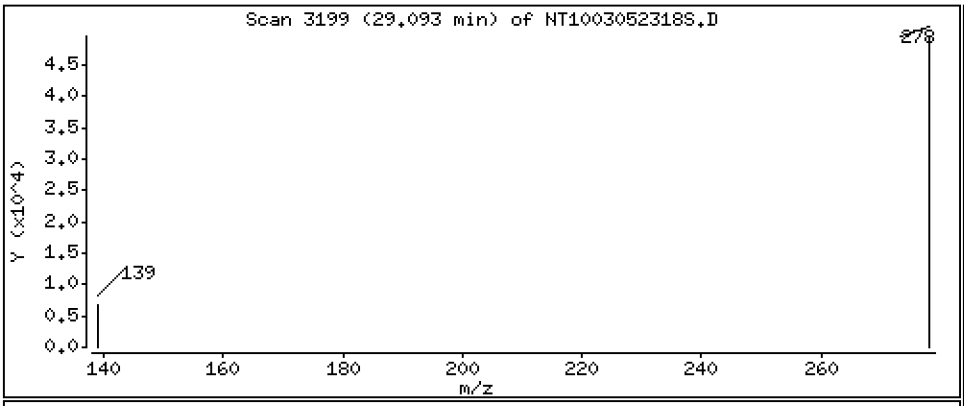
Operator: YZ

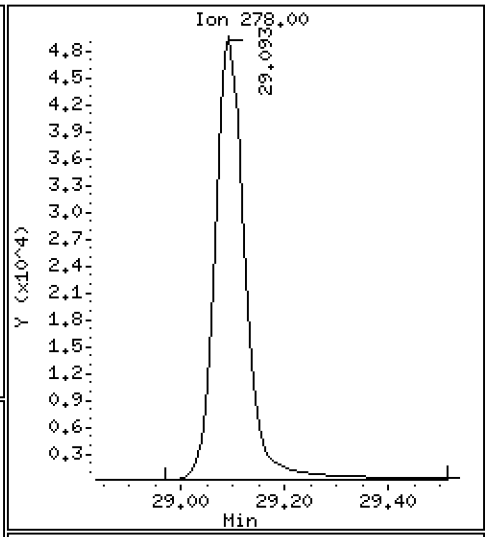
Column phase: ZB-5msi

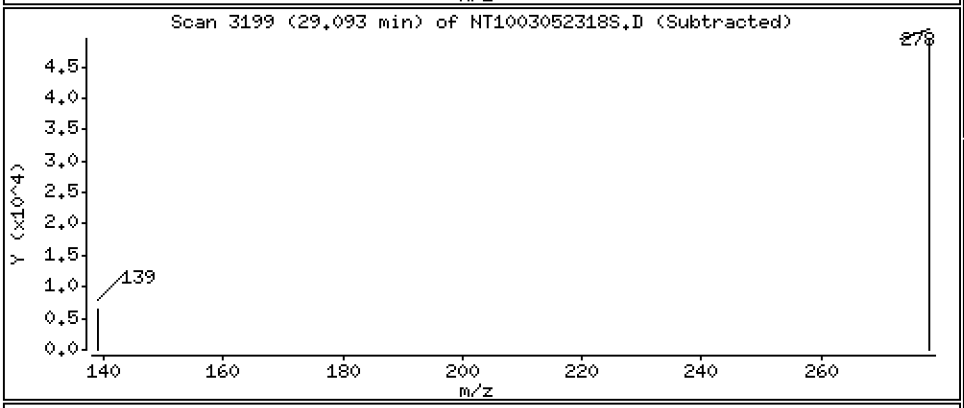
Column diameter: 0.25

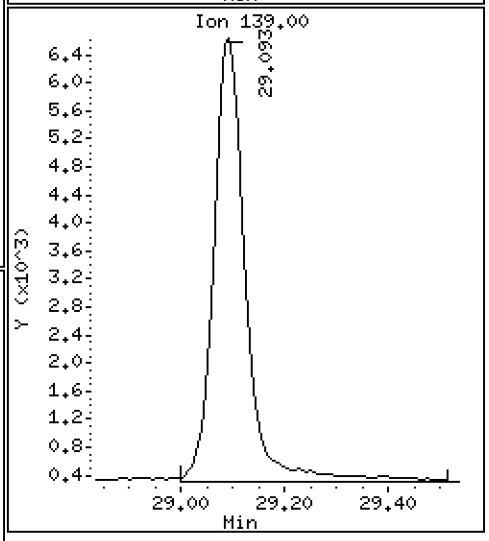
79 Dibenzo(a,h)anthracene

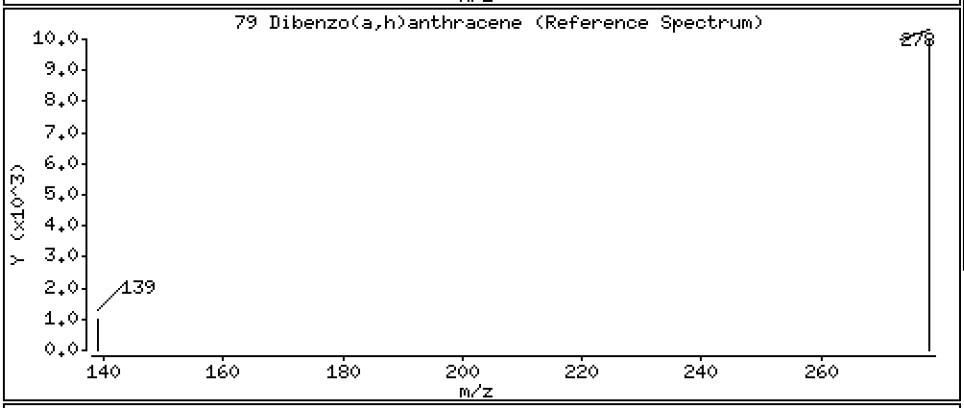
Concentration: 0.6585 ug/mL

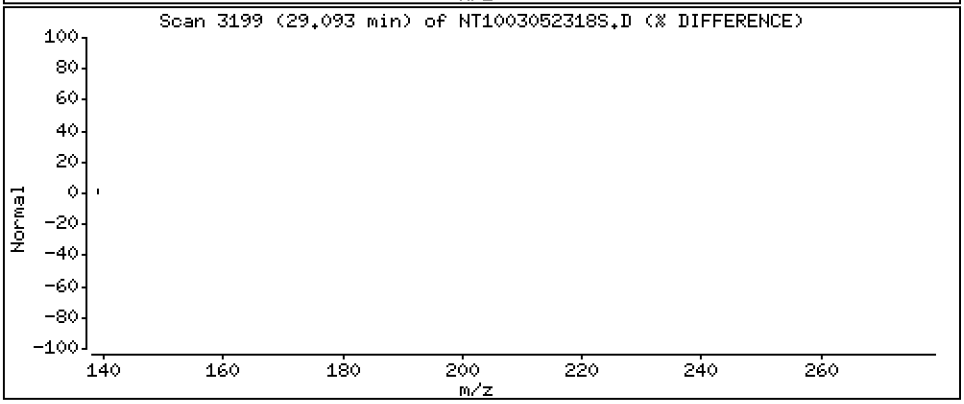












Data File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT10030523185.D

Date : 06-MAR-2023 00:09

Client ID:

Instrument: nt10.i

Sample Info: SLC0440-LCV3

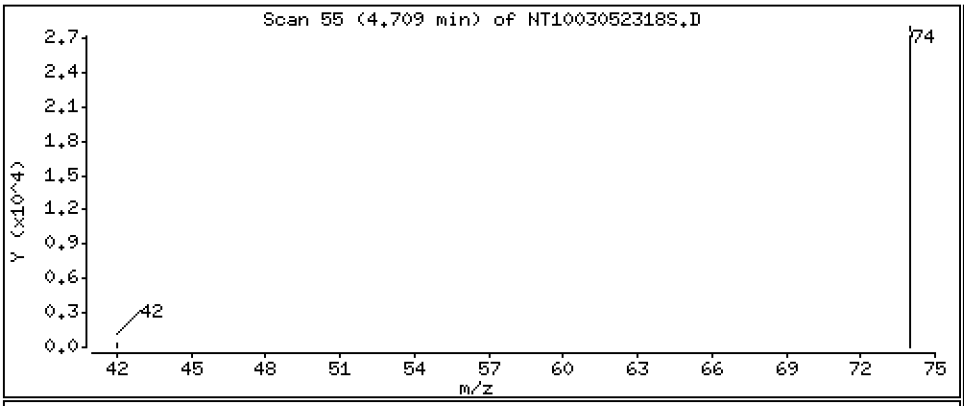
Operator: YZ

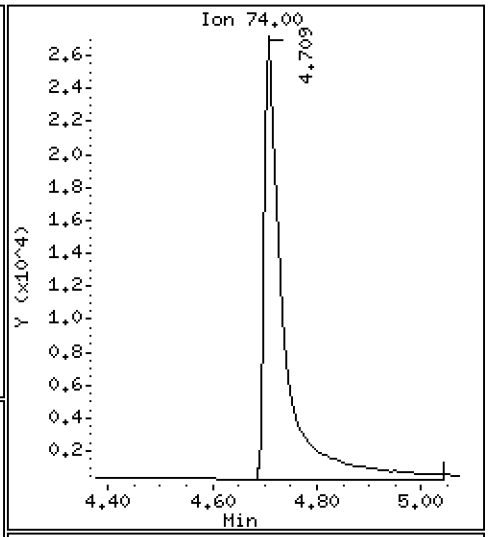
Column phase: ZB-5msi

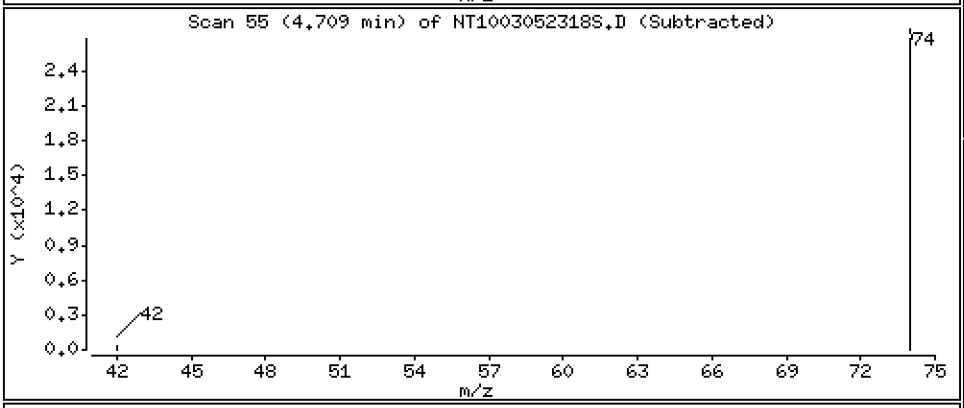
Column diameter: 0.25

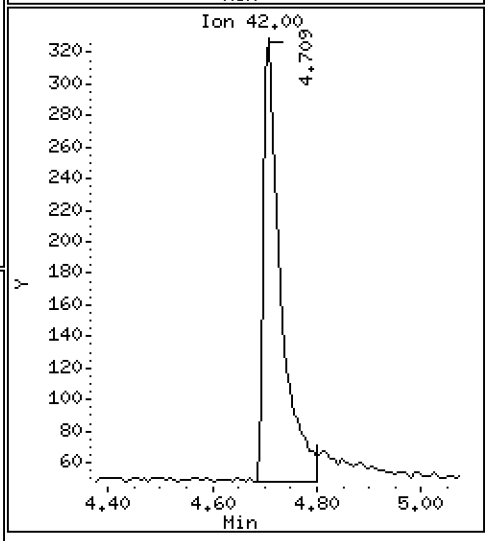
90 N-Nitrosodimethylamine

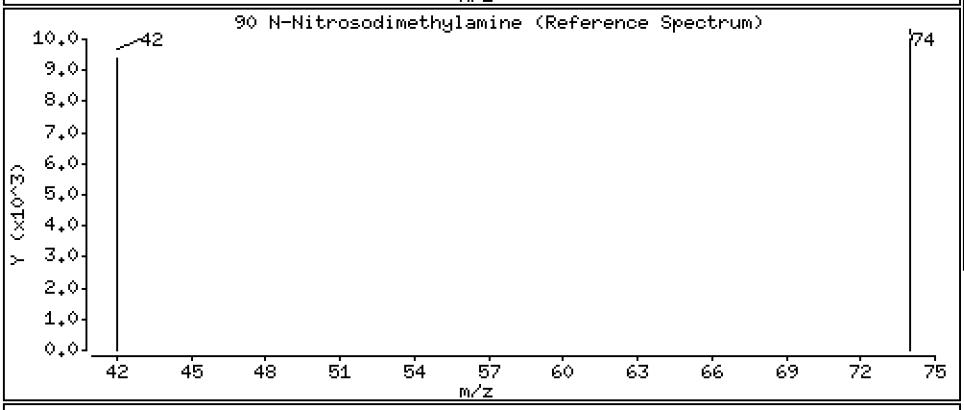
Concentration: 1.302 ug/mL

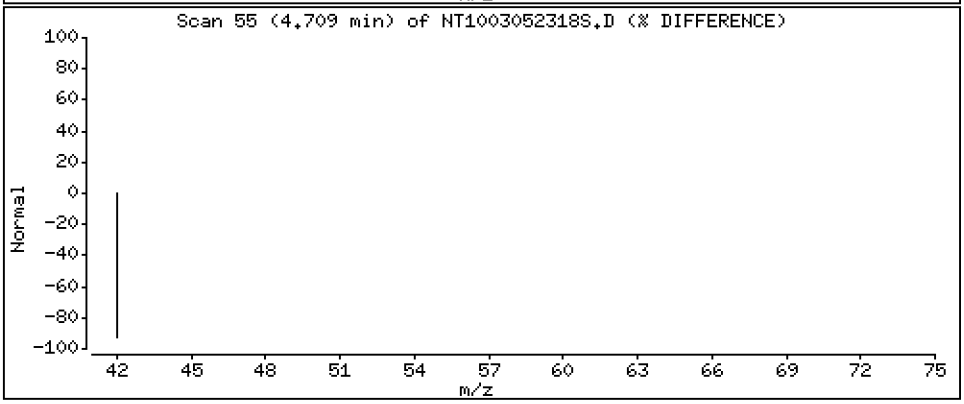












ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\NT1003052318S.D
Lab Smp Id: SLC0440-LCV3
Inj Date : 06-MAR-2023 00:09
Operator : YZ Inst ID: nt10.i
Smp Info : SLC0440-LCV3
Misc Info :
Comment :
Method : \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Meth Date : 29-Mar-2023 11:59 van Quant Type: ISTD
Cal Date : 01-MAR-2023 21:09 Cal File: NT1003012310S.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 4.14
Processing Host: VANS-201906

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
$	1	2-Fluorophenol	112	6.902	6.902	(0.745)	71552	0.80379	0.8038(R)
	3	Phenol	94	8.548	8.532	(0.923)	54678	0.41566	0.4157
	7	1,3-Dichlorobenzene	146	9.151	9.143	(0.988)	61281	0.53031	0.5303
*	8	1,4-Dichlorobenzene-d4	152	9.259	9.252	(1.000)	311802	4.00000	
	9	1,4-Dichlorobenzene	146	9.290	9.283	(1.003)	58255	0.51851	0.5185
	11	Benzyl alcohol	79	9.507	9.484	(1.027)	30147	0.41218	0.4122
	12	1,2-Dichlorobenzene	146	9.577	9.570	(1.034)	57327	0.53086	0.5309
	13	2-Methylphenol	108	9.694	9.671	(1.047)	42802	0.54000	0.5400
	15	4-Methylphenol	108	9.981	9.966	(1.078)	42426	0.51415	0.5142
	16	N-Nitroso-di-n-propylamine	70	10.004	9.981	(1.080)	33183	0.56646	0.5665
	22	2,4-Dimethylphenol	107	11.040	11.014	(0.939)	94310	1.00133	1.001
	24	Benzoic acid	105	11.269	11.133	(0.959)	587	0.01140	0.01140(H)
	26	1,2,4-Trichlorobenzene	180	11.631	11.608	(0.989)	49327	0.61903	0.6190
*	27	Naphthalene-d8	136	11.754	11.731	(1.000)	1107108	4.00000	
	30	Hexachlorobutadiene	225	12.017	12.001	(1.022)	32414	0.57322	0.5732
	39	Dimethylphthalate	163	14.772	14.764	(0.963)	89580	0.51007	0.5101
*	42	Acenaphthene-d10	162	15.344	15.337	(1.000)	553105	4.00000	
	50	Diethylphthalate	149	16.241	16.234	(1.058)	91953	0.55521	0.5552
	54	N-Nitrosodiphenylamine	169	16.736	16.729	(0.907)	79176	0.45590	0.4559
	57	Hexachlorobenzene	284	17.624	17.617	(0.955)	44790	0.55109	0.5511
	58	Pentachlorophenol	266	18.058	18.042	(0.979)	390	0.01097	0.01097
*	59	Phenanthrene-d10	188	18.452	18.453	(1.000)	1073112	4.00000	
$	66	Terphenyl-d14	244	21.586	21.594	(0.919)	66761	0.81259	0.8126(R)
	67	Butylbenzylphthalate	149	22.476	22.484	(0.957)	60183	0.35124	0.3512
*	69	Chrysene-d12	240	23.491	23.514	(1.000)	1015975	4.00000	
*	77	Perylene-d12	264	26.224	26.270	(1.000)	1303152	4.00000	
	79	Dibenzo(a,h)anthracene	278	29.092	29.186	(1.109)	200557	0.65847	0.6585
	90	N-Nitrosodimethylamine	74	4.709	4.724	(0.509)	68624	1.30210	1.302

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: NT1003052318S.D
Lab Smp Id: SLC0440-LCV3
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: \\target\share\chem3\nt10.i\20230305A.b\SIM.b\SIMABN2.m
Misc Info:

Calibration Date: 05-MAR-2023
Calibration Time: 22:16
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	293840	146920	587680	311802	6.11
27 Naphthalene-d8	1032639	516320	2065278	1107108	7.21
42 Acenaphthene-d10	502349	251175	1004698	553105	10.10
59 Phenanthrene-d10	975997	487999	1951994	1073112	9.95
69 Chrysene-d12	978544	489272	1957088	1015975	3.83
77 Perylene-d12	1201606	600803	2403212	1303152	8.45

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.25	8.75	9.75	9.26	0.08
27 Naphthalene-d8	11.73	11.23	12.23	11.75	0.20
42 Acenaphthene-d10	15.34	14.84	15.84	15.34	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	-0.00
69 Chrysene-d12	23.51	23.01	24.01	23.49	-0.10
77 Perylene-d12	26.27	25.77	26.77	26.22	-0.18

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1003052318S.D

Lab ID: SLC0440-LCV3
nt10.i, 20230305A.b\SIM.b\SIMABN2.m,   06-MAR-2023 00:09

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.959	0.949	0.0097	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1003052315SA.D

On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLA0213	Instrument:	NT8
		Calibration:	GA00050

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLA0213-TUN1	N823011901.D	NA	01/19/23 10:28
Initial Cal Blank	SLA0213-ICB1	N823011902.D	NA	01/19/23 10:59
8270 SIM PNA 0.1	SLA0213-CAL1	N823011903.D	NA	01/19/23 11:26
8270 SIM PNA 0.5	SLA0213-CAL2	N823011904.D	NA	01/19/23 11:58
8270 SIM PNA 1.0	SLA0213-CAL3	N823011905.D	NA	01/19/23 12:25
8270 SIM PNA 2.5	SLA0213-CAL4	N823011906.D	NA	01/19/23 12:52
8270 SIM PNA 5	SLA0213-CAL5	N823011907.D	NA	01/19/23 13:19
8270 SIM PNA 10	SLA0213-CAL6	N823011908.D	NA	01/19/23 13:46
8270 SIM PNA SCV	SLA0213-SCV1	N823011909.D	NA	01/19/23 14:58

Printed: 1/19/2023 8:45:16PM

ANALYSIS SEQUENCE

SLA0213

Instrument: NT8 Element Column ID: J006458
Calibration ID: GA00050

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SLA0213-TUN1	MS Tune	QC		1	K004775			
SLA0213-ICB1	Initial Cal Blank	QC		2		K008540		
SLA0213-CAL1	8270 SIM PNA 0.1	QC		3	L000603	K008540		
SLA0213-CAL2	8270 SIM PNA 0.5	QC		4	L000604	K008540		
SLA0213-CAL3	8270 SIM PNA 1.0	QC		5	L000605	K008540		
SLA0213-CAL4	8270 SIM PNA 2.5	QC		6	L000606	K008540		
SLA0213-CAL5	8270 SIM PNA 5	QC		7	L000607	K008540		
SLA0213-CAL6	8270 SIM PNA 10	QC		8	L000608	K008540		
SLA0213-SCV1	8270 SIM PNA SCV	QC		9	L000686	K008540		

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230119.b

	Time	Filename	LabID	ClientId	DF									
1	1028	N823011901.D	SLA0213-TUN1		1	|NO ISTDS FOUND||								
2	1059	N823011902.D	SLA0213-ICB1		1	| 4.92	52082||	7.20	30936||	9.24	59030||	14.22	50944||	18.12	47418|
3	1126	N823011903.D	SLA0213-CAL1		1	| 4.91	46132||	7.20	27261||	9.24	52158||	14.20	44953||	18.11	41635|
4	1158	N823011904.D	SLA0213-CAL2		1	| 4.91	45056||	7.20	26746||	9.24	50759||	14.21	44658||	18.11	42567|
5	1225	N823011905.D	SLA0213-CAL3		1	| 4.91	47180||	7.20	28206||	9.24	53233||	14.20	46493||	18.11	44587|
6	1252	N823011906.D	SLA0213-CAL4		1	| 4.91	44704||	7.20	26411||	9.24	49210||	14.20	42994||	18.11	40520|
7	1319	N823011907.D	SLA0213-CAL5		1	| 4.91	46542||	7.20	27638||	9.23	51351||	14.20	44781||	18.11	42187|
8	1346	N823011908.D	SLA0213-CAL6		1	| 4.91	46070||	7.20	26689||	9.24	50683||	14.21	43880||	18.11	40659|
9	1458	N823011909.D	SLA0213-SCV1		1	| 4.91	46346||	7.20	27709||	9.24	51685||	14.21	46582||	18.12	41743|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230119.b

ARI Job No.: SLA0 Method: FSIMPNA230119.m Instrument: nt8.i Date: 19-JAN-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1059	N823011902.D	SLA0213-ICB1		1	NO MANUAL INTEGRATION
1126	N823011903.D	SLA0213-CAL1		1	Total Benzofluoranthenes, Dibenzo(a,h)anthracene-d14,
1158	N823011904.D	SLA0213-CAL2		1	Total Benzofluoranthenes, Dibenzo(a,h)anthracene, Dibenzo(a,h)anthracene-d14,
1225	N823011905.D	SLA0213-CAL3		1	Total Benzofluoranthenes,
1252	N823011906.D	SLA0213-CAL4		1	Total Benzofluoranthenes,
1319	N823011907.D	SLA0213-CAL5		1	Total Benzofluoranthenes,
1346	N823011908.D	SLA0213-CAL6		1	Total Benzofluoranthenes,
1458	N823011909.D	SLA0213-SCV1		1	Total Benzofluoranthenes,

Security Status Report

Date: 19-Jan-2023 20:43

N823011901.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011902.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011903.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011904.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011905.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011906.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011907.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011908.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011909.D	Data Locked	jianqing, 19-Jan-2023 20:43

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0075	Instrument:	NT8
		Calibration:	GA00050

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLB0075-TUN1	N823020606.D	NA	02/06/23 14:46
Initial Cal Check	SLB0075-ICV1	N823020607A.D	NA	02/06/23 15:15
Blank	BLA0683-BLK1	N823020608.D	Solid	02/06/23 15:57
LCS	BLA0683-BS1	N823020609.D	Solid	02/06/23 16:24
LCS Dup	BLA0683-BSD1	N823020610.D	Solid	02/06/23 16:51
Reference	BLA0683-SRM1	N823020611.D	Solid	02/06/23 17:18
ZZZZZ	23A0207-01	N823020612.D	Solid	02/06/23 17:45
ZZZZZ	23A0207-02	N823020613.D	Solid	02/06/23 18:12
ZZZZZ	23A0207-03	N823020614.D	Solid	02/06/23 18:39
ZZZZZ	23A0207-05	N823020618.D	Solid	02/06/23 20:26
ZZZZZ	23A0207-06	N823020619.D	Solid	02/06/23 20:53
ZZZZZ	23A0207-07	N823020620.D	Solid	02/06/23 21:20
ZZZZZ	23A0207-08	N823020621.D	Solid	02/06/23 21:47
ZZZZZ	23A0207-09	N823020622.D	Solid	02/06/23 22:14
ZZZZZ	23A0207-15	N823020623.D	Solid	02/06/23 22:41
ZZZZZ	23A0207-17	N823020625.D	Solid	02/06/23 23:34
ZZZZZ	23A0249-07	N823020626.D	Solid	02/07/23 00:01
ZZZZZ	23A0295-08	N823020627.D	Solid	02/07/23 00:28
LDW23-IT1114	23A0313-03	N823020628.D	Solid	02/07/23 00:55
LDW23-IT1120	23A0313-04	N823020629.D	Solid	02/07/23 01:22
LDW23-IT1148	23A0313-12	N823020630.D	Solid	02/07/23 01:49
ZZZZZ	23A0326-08	N823020631.D	Solid	02/07/23 02:16
ZZZZZ	23A0326-09	N823020632.D	Solid	02/07/23 02:42
Calibration Check	SLB0075-CCV1	N823020633.D	NA	02/07/23 03:09

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLB0075

Instrument: NT8
Calibration ID: GA00050

Printed: 2/8/2023 4:31:14PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLB0075-TUN1	QC		1		K004775			
SLB0075-ICV1	QC		2		L000606	K008540		
BLA0683-BLK1	QC		3			K008540		
BLA0683-BS1	QC		4			K008540		
BLA0683-BSD1	QC		5			K008540		
BLA0683-SRM1	QC		6			K008540		
23A0207-01	0E-SIM PAH (0.1ug/L or 5ug	A 02	7			K008540	Anchor QEA, LLC	
23A0207-02	0E-SIM PAH (0.1ug/L or 5ug	A 02	8			K008540	Anchor QEA, LLC	
23A0207-03	0E-SIM PAH (0.1ug/L or 5ug	A 02	9			K008540	Anchor QEA, LLC	
BLA0683-MS1	QC		10			K008540		
BLA0683-MSD1	QC		11			K008540		
23A0207-05	0E-SIM PAH (0.1ug/L or 5ug	A 02	12			K008540	Anchor QEA, LLC	
23A0207-06	0E-SIM PAH (0.1ug/L or 5ug	A 02	13			K008540	Anchor QEA, LLC	
23A0207-07	0E-SIM PAH (0.1ug/L or 5ug	A 02	14			K008540	Anchor QEA, LLC	
23A0207-08	0E-SIM PAH (0.1ug/L or 5ug	A 02	15			K008540	Anchor QEA, LLC	
23A0207-09	0E-SIM PAH (0.1ug/L or 5ug	A 02	16			K008540	Anchor QEA, LLC	
23A0207-15	0E-SIM PAH (0.1ug/L or 5ug	A 02	17			K008540	Anchor QEA, LLC	
23A0207-17	0E-SIM PAH (0.1ug/L or 5ug	A 02	18			K008540	Anchor QEA, LLC	
23A0249-07	0E-SIM PAH (0.1ug/L or 5ug	A 01	19			K008540	Anchor QEA, LLC	
23A0295-08	0E-SIM PAH (0.1ug/L or 5ug	A 01	20			K008540	Anchor QEA, LLC	
23A0313-03	0E-SIM PAH (0.1ug/L or 5ug	A 01	21			K008540	Anchor QEA, LLC	

Samples Loaded By Date

Data Processed By Date

ANALYSIS SEQUENCE

SLB0075

Instrument: NT8
Calibration ID: GA00050

Printed: 2/8/2023 4:31:14PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
23A0313-04	0E-SIM PAH (0.1ug/L or 5ug	A 01	22			K008540	Anchor QEA, LLC	
23A0313-12	0E-SIM PAH (0.1ug/L or 5ug	A 01	23			K008540	Anchor QEA, LLC	
23A0326-08	0E-SIM PAH (0.1ug/L or 5ug	A 01	24			K008540	Anchor QEA, LLC	
23A0326-09	0E-SIM PAH (0.1ug/L or 5ug	A 01	25			K008540	Anchor QEA, LLC	
SLB0075-CCV1	QC		26		L000606	K008540		

Samples Loaded By Date

Data Processed By Date

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230206A.b

	Time	Filename	LabID	ClientId	DF											
1	1446	N823020606.D	SLB0075-TUN1		1	NO ISTDS FOUND										
2	1515	N823020607A.D	SLB0075-ICV1		1	4.90	44336	7.19	26127	9.23	47424	14.20	36794	18.11	36636	
3	1557	N823020608.D	BLA0683-BLK1		1	4.89	48985	7.19	28561	9.23	52393	14.20	40654	18.10	24723	
4	1624	N823020609.D	BLA0683-BS1		1	4.88	50596	7.18	29850	9.22	54061	14.19	41046	18.10	27103	
5	1651	N823020610.D	BLA0683-BSD1		1	4.89	52018	7.18	29996	9.22	54697	14.19	41650	18.10	27575	
6	1718	N823020611.D	BLA0683-SRM1		1	4.88	47898	7.18	26592	9.22	44776	14.19	36552	18.09	22526	
7	1745	N823020612.D	23A0207-01		1	4.88	49668	7.18	29744	9.22	50330	14.19	35079	18.09	30080	
8	1812	N823020613.D	23A0207-02		1	4.89	52443	7.18	30994	9.22	49132	14.19	23550	18.10	21895	
9	1839	N823020614.D	23A0207-03		1	4.88	52165	7.18	30594	9.23	46304	14.19	23098	18.10	21017	
10	1906	N823020615.D	BLA0683-MS1		1	4.88	54388	7.18	30727	9.23	46335	14.19	24118	18.11	21563	
11	1933	N823020616.D	BLA0683-MSD1		1	4.88	52636	7.18	30563	9.23	45924	14.19	23485	18.10	21615	
12	1959	N823020617.D	23A0207-04	IS out, NR	1	4.88	51275	7.18	28123	9.23	43249	14.20	19710	18.11	17658	
13	2026	N823020618.D	23A0207-05		1	4.89	50448	7.18	28375	9.23	45673	14.20	20022	18.11	18460	
14	2053	N823020619.D	23A0207-06		3	4.89	50637	7.18	30605	9.23	52103	14.20	24084	18.10	20229	
15	2120	N823020620.D	23A0207-07		1	4.89	51867	7.18	31021	9.23	53247	14.20	26745	18.11	24765	
16	2147	N823020621.D	23A0207-08		1	4.88	54142	7.18	32326	9.23	57668	14.19	37315	18.11	31960	
17	2214	N823020622.D	23A0207-09		1	4.88	51253	7.18	30524	9.23	47253	14.19	26321	18.11	26206	
18	2241	N823020623.D	23A0207-15		3	4.89	54069	7.19	27937	9.23	43496	14.20	23177	18.12	20718	
19	2308	N823020624.D	23A0207-16	IS out, NR	3	4.89	52940	7.19	28892	9.23	42684	14.22	19654	18.13	17901	
20	2334	N823020625.D	23A0207-17		3	4.89	53176	7.19	28398	9.23	43410	14.22	20694	18.14	18612	

JZ 2/10/23

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230206A.b

	Time	Filename	LabID	ClientId	DF										
21	0001	N823020626.D	23A0249-07		1	4.88	57390	7.19	33309	9.24	50089	14.24	22976	18.17	20857
22	0028	N823020627.D	23A0295-08		1	4.88	53834	7.19	32628	9.24	54268	14.23	24018	18.16	19340
23	0055	N823020628.D	23A0313-03		3	4.89	56887	7.19	30456	9.24	48664	14.25	22993	18.17	19769
24	0122	N823020629.D	23A0313-04		1	4.89	53062	7.19	28241	9.24	46666	14.28	29789	18.19	22259
25	0149	N823020630.D	23A0313-12		1	4.88	58298	7.19	35361	9.24	61613	14.23	23944	18.16	19888
26	0216	N823020631.D	23A0326-08		1	4.88	56917	7.19	31966	9.24	50110	14.25	22679	18.17	20298
27	0242	N823020632.D	23A0326-09		1	4.88	55762	7.19	33500	9.24	54143	14.23	22621	18.16	20226
28	0309	N823020633.D	SLB0075-CCV1		1	4.89	52897	7.19	31659	9.24	57767	14.23	48067	18.16	37211

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230206A.b

ARI Job No.: SLB0 Method: tune.b\DFTPP.m Instrument: nt8.i Date: 06-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1446	N823020606.D	SLB0075-TUN1		1	NO MANUAL INTEGRATION
1557	N823020608.D	BLA0683-BLK1		1	Acenaphthene, Phenanthrene,
1624	N823020609.D	BLA0683-BS1		1	Total Benzofluoranthenes,
1651	N823020610.D	BLA0683-BSD1		1	Total Benzofluoranthenes,
1718	N823020611.D	BLA0683-SRM1		1	2-Methylnaphthalene, Dibenzofuran, Perylene, Total Benzofluoranthenes,
1745	N823020612.D	23A0207-01		1	Total Benzofluoranthenes,
1812	N823020613.D	23A0207-02		1	2-Methylnaphthalene, Anthracene, Total Benzofluoranthenes,
1839	N823020614.D	23A0207-03		1	Naphthalene, Dibenzo(a,h)anthracene, 2-Methylnaphthalene, 1-methylnaphthalene, Acenaphthylene, Total Benzofluoranthenes, Chrysene,
1906	N823020615.D	BLA0683-MS1		1	Total Benzofluoranthenes,
1933	N823020616.D	BLA0683-MSD1		1	Total Benzofluoranthenes,
2026	N823020618.D	23A0207-05		1	Benzo(g,h,i)perylene, Naphthalene, Dibenzo(a,h)anthracene, 1-methylnaphthalene, Indeno(1,2,3-cd)pyrene, Acenaphthene, Perylene, Total Benzofluoranthenes, Chrysene, Carbazole,
2053	N823020619.D	23A0207-06		3	Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene, Perylene, Benzo(a)pyrene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
2120	N823020620.D	23A0207-07		1	Benzo(g,h,i)perylene, Naphthalene, Dibenzo(a,h)anthracene, 2-Methylnaphthalene, Indeno(1,2,3-cd)pyrene, Acenaphthene, Fluorene, Perylene, Benzo(a)pyrene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
2147	N823020621.D	23A0207-08		1	Benzo(g,h,i)perylene, 2-Methylnaphthalene, Phenanthrene, Benzo(k)fluoranthene, Total Benzofluoranthenes, Carbazole,
2214	N823020622.D	23A0207-09		1	Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene, Acenaphthene, Anthracene, Benzo(a)anthracene, Total Benzofluoranthenes, Chrysene,
2241	N823020623.D	23A0207-15		3	Benzo(g,h,i)perylene, Naphthalene, 2-Methylnaphthalene, Acenaphthylene, Acenaphthene, Dibenzofuran, Fluorene, Benzo(a)pyrene, Total Benzofluoranthenes,

2334	N823020625.D	23A0207-17	3	1-methylnaphthalene, Total Benzofluoranthenes, Carbazole,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230206A.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0001	N823020626.D	23A0249-07		1	Dibenzo(a,h)anthracene, Fluorene, Benzo(a)pyrene, Benzo(a)anthracene, Total Benzofluoranthenes, Chrysene,
0028	N823020627.D	23A0295-08		1	Dibenzo(a,h)anthracene, 2-Methylnaphthalene, Acenaphthylene, Indeno(1,2,3-cd)pyrene, Perylene, Total Benzofluoranthenes, Chrysene, Carbazole,
0055	N823020628.D	23A0313-03		3	Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene, Acenaphthylene, Acenaphthene, Anthracene, Total Benzofluoranthenes, Carbazole,
0122	N823020629.D	23A0313-04		1	Dibenzo(a,h)anthracene, Total Benzofluoranthenes, Dibenzo(a,h)anthracene-d14,
0149	N823020630.D	23A0313-12		1	Benzo(g,h,i)perylene, Naphthalene, Dibenzo(a,h)anthracene, 2-Methylnaphthalene, Acenaphthylene, Indeno(1,2,3-cd)pyrene, Fluorene, Perylene, Total Benzofluoranthenes, Chrysene, Benzo(j)fluoranthene, Dibenzo(a,h)anthracene-d14,
0216	N823020631.D	23A0326-08		1	Benzo(g,h,i)perylene, Naphthalene, Dibenzo(a,h)anthracene, 2-Methylnaphthalene, 1-methylnaphthalene, Indeno(1,2,3-cd)pyrene, Acenaphthene, Fluorene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Perylene-d12, Carbazole, Fluoranthene-d10, Dibenzo(a,h)anthracene-d14,
0242	N823020632.D	23A0326-09		1	Naphthalene, Dibenzo(a,h)anthracene, 2-Methylnaphthalene, Acenaphthylene, Acenaphthene, Total Benzofluoranthenes, Carbazole,
0309	N823020633.D	SLB0075-CCV1		1	Total Benzofluoranthenes,

Security Status Report

Date: 10-Feb-2023 13:10

N823020606.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020607A.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020608.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020609.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020610.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020611.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020612.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020613.D	Data Locked	jianqing, 10-Feb-2023 13:10
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N823020616.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020618.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020619.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020620.D	Data Locked	jianqing, 10-Feb-2023 13:10
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N823020627.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020628.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020629.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020630.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020631.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020632.D	Data Locked	jianqing, 10-Feb-2023 13:10
N823020633.D	Data Locked	jianqing, 10-Feb-2023 13:10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Extract Dilution Bench Sheet

Sequence: SLB0078
Analyst: JZ Date: 2/6/23

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
23A0207-06	100	K005942	200	3				
23A0207-15	100		200	3				
23A0207-17	100		200	3				
23A0313-03	100		200	3				

Form 12010F Version 002 03/01/2018

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0143	Instrument:	NT10
		Calibration:	GC00032

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLC0143-TUN1	NT1003012301S.D	NA	03/01/23 15:49
CAL 10.0	SLC0143-CAL8	NT1003012303S.D	NA	03/01/23 16:42
CAL 5.0	SLC0143-CAL7	NT1003012304S.D	NA	03/01/23 17:21
CAL 2.5	SLC0143-CAL6	NT1003012305S.D	NA	03/01/23 17:59
CAL 1.0	SLC0143-CAL5	NT1003012306S.D	NA	03/01/23 18:37
CAL 0.50	SLC0143-CAL4	NT1003012307S.D	NA	03/01/23 19:15
CAL 0.20	SLC0143-CAL3	NT1003012308S.D	NA	03/01/23 19:53
CAL 0.10	SLC0143-CAL2	NT1003012309S.D	NA	03/01/23 20:30
CAL 0.05	SLC0143-CAL1	NT1003012310S.D	NA	03/01/23 21:09
SCV 5.0	SLC0143-SCV1	NT1003012311S.D	NA	03/01/23 21:46
Initial Cal Blank	SLC0143-ICB1	NT1003012312S.D	NA	03/01/23 22:24

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLC0143

Instrument: NT10
Calibration ID: UNASSIGNED

Printed: 3/10/2023 10:34:45AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLC0143-CAL1	QC		1		K011453	K010831		
SLC0143-CAL2	QC		2		K011452	K010831		
SLC0143-CAL3	QC		3		K011105	K010831		
SLC0143-CAL4	QC		4		K011106	K010831		
SLC0143-CAL5	QC		5		K011107	K010831		
SLC0143-CAL6	QC		6		K011108	K010831		
SLC0143-CAL7	QC		7		K011109	K010831		
SLC0143-CAL8	QC		8		K011110	K010831		
SLC0143-ICB1	QC		9		K005156	K010831		
SLC0143-SCV1	QC		10		K010066	K010831		

Samples Loaded By Date

Data Processed By Date

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230301.b\SIM.b

	Time	Filename	LabID	ClientId	DF											
1	1642	NT1003012303S.D	SEQ-CAL8		1	9.25	358478	11.72	1302515	15.31	720687	18.40	1243145	23.42	1161833	26.11	1054384
2	1721	NT1003012304S.D	SEQ-CAL7		1	9.25	354441	11.72	1288295	15.31	739997	18.40	1248235	23.41	1079945	26.11	1086769
3	1759	NT1003012305S.D	SEQ-CAL6		1	9.24	334269	11.72	1202042	15.31	670352	18.40	1124281	23.41	948691	26.11	1004445
4	1837	NT1003012306S.D	SEQ-CAL5		1	9.24	320125	11.72	1136019	15.31	636993	18.40	1093620	23.41	1000300	26.10	1058448
5	1915	NT1003012307S.D	SEQ-CAL4		1	9.24	333617	11.72	1170292	15.31	639612	18.40	1094919	23.42	1048196	26.11	1117593
6	1953	NT1003012308S.D	SEQ-CAL3		1	9.25	314467	11.72	1088698	15.31	568154	18.40	979213	23.42	963807	26.11	1037909
7	2030	NT1003012309S.D	SEQ-CAL2		1	9.24	305434	11.72	1048978	15.31	536796	18.40	924275	23.42	947041	26.11	1060218
8	2109	NT1003012310S.D	SEQ-CAL1		1	9.25	370360	11.72	1262304	15.31	638059	18.40	1124768	23.42	1114478	26.11	1276260
9	2146	NT1003012311S.D	SEQ-SCV1		1	9.25	303734	11.72	1147551	15.31	645730	18.40	1151000	23.42	1297466	26.11	1394899
10	2224	NT1003012312S.D	SEQ-IBL1		1	9.25	515340	11.72	1787704	15.31	879316	18.40	1572306	23.42	1486349	26.11	1674195

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230301.b\SIM.b

ARI Job No.: SEQ- Method: SIM.b\SIMABN2.m Instrument: nt10.i Date: 01-MAR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1642	NT1003012303S.D	SEQ-CAL8		1	NO MANUAL INTEGRATION
1721	NT1003012304S.D	SEQ-CAL7		1	NO MANUAL INTEGRATION
1759	NT1003012305S.D	SEQ-CAL6		1	NO MANUAL INTEGRATION
1837	NT1003012306S.D	SEQ-CAL5		1	Pentachlorophenol,
1915	NT1003012307S.D	SEQ-CAL4		1	Pentachlorophenol,
1953	NT1003012308S.D	SEQ-CAL3		1	NO MANUAL INTEGRATION
2030	NT1003012309S.D	SEQ-CAL2		1	Benzyl alcohol, Benzoic acid,
2109	NT1003012310S.D	SEQ-CAL1		1	Benzyl alcohol, 2-Methylphenol, 4-Methylphenol, N-Nitroso-di-n-propylamine, N-Nitrosodiphenylamine, Hexachlorobenzene,
2146	NT1003012311S.D	SEQ-SCV1		1	NO MANUAL INTEGRATION
2224	NT1003012312S.D	SEQ-IBL1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 10-Mar-2023 11:02

NT1003012303S.D	Data Locked	yev, 10-
NT1003012304S.D	Data Locked	yev, 10-
NT1003012305S.D	Data Locked	yev, 10-
NT1003012306S.D	Data Locked	yev, 10-
NT1003012307S.D	Data Locked	yev, 10-
NT1003012308S.D	Data Locked	yev, 10-
NT1003012309S.D	Data Locked	yev, 10-
NT1003012310S.D	Data Locked	yev, 10-
NT1003012311S.D	Data Locked	yev, 10-
NT1003012312S.D	Data Locked	yev, 10-

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0435	Instrument:	NT10
		Calibration:	GC00032

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLC0435-TUN1	NT1003052301S.D	NA	03/05/23 13:48
Initial Cal Check	SLC0435-ICV1	NT1003052303S.D	NA	03/05/23 14:40
ABN 0.2	SLC0435-LCV2	NT1003052304S.D	NA	03/05/23 15:18
Low Cal Check	SLC0435-LCV1	NT1003052305S.D	NA	03/05/23 15:56
Blank	BLA0685-BLK2	NT1003052307S.D	Solid	03/05/23 17:12
LCS	BLA0685-BS2	NT1003052308S.D	Solid	03/05/23 17:50
LCS Dup	BLA0685-BSD2	NT1003052309S.D	Solid	03/05/23 18:28
LDW23-SC1159	BLA0685-MS2	NT1003052310S.D	Solid	03/05/23 19:06
LDW23-SC1159	BLA0685-MSD2	NT1003052311S.D	Solid	03/05/23 19:44
Reference	BLA0685-SRM2	NT1003052312S.D	Solid	03/05/23 20:22
LDW23-SC1016A	23A0313-08	NT1003052313S.D	Solid	03/05/23 21:00
Calibration Check	SLC0435-CCV1	NT1003052315S.D	NA	03/05/23 22:16

ANALYSIS SEQUENCE

SLC0435

Instrument ID: NT10
Calibration ID: GC00032
MS EM Level: 1317.6 EV

GCMS Description: Agilent 5975/MS http://bi
GCMS Column ID: l001330

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLC0435-TUN1	MS Tune	QC		1	L002618		03/05/2023 13:48	NT1003052301S.D	VTS	
SLC0435-ICV1	Initial Cal Check	QC		2	K011107	K010831	03/05/2023 14:40	NT1003052303S.D	YZ	
SLC0435-LCV1	Low Cal Check	QC		3	K011452	K010831	03/05/2023 15:56	NT1003052305S.D	YZ	
BLA0685-BLK2	Blank	QC		4		K010831	03/05/2023 17:12	NT1003052307S.D	YZ	
BLA0685-BS2	LCS	QC		5		K010831	03/05/2023 17:50	NT1003052308S.D	YZ	
BLA0685-BSD2	LCS Dup	QC		6		K010831	03/05/2023 18:28	NT1003052309S.D	YZ	
BLA0685-SRM2	Reference	QC		7		K010831	03/05/2023 20:22	NT1003052312S.D	YZ	
BLA0685-MS2	Matrix Spike	QC		8		K010831	03/05/2023 19:06	NT1003052310S.D	YZ	
BLA0685-MSD2	Matrix Spike Dup	QC		9		K010831	03/05/2023 19:44	NT1003052311S.D	YZ	
23A0313-08	LDW23-SC1016A	270E-SIM Dual Scan SVO	A 04	10		K010831	03/05/2023 21:00	NT1003052313S.D	YZ	
SLC0435-CCV1	Calibration Check	QC		11	K011107	K010831	03/05/2023 22:16	NT1003052315S.D	YZ	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230305.b\SIM.b

	Time	Filename	LabID	ClientId	DF																
1	1348	NT1003052301S.D	SLC0435-TUN1		1	|NO ISTDS FOUND||															
2	1440	NT1003052303S.D	SLC0435-ICV1		1	| 9.24	321376	||11.73	1132931	||15.34	561597	||18.45	1068222	||23.51	997572	||26.29	1245490 |			
3	1556	NT1003052305S.D	SLC0435-LCV1		1	| 9.24	302311	||11.73	1102062	||15.34	539935	||18.45	1024492	||23.52	911208	||26.29	1065211 |			
4	1712	NT1003052307S.D	BLA0685-BLK1		1	| 9.24	308288	||11.73	1085923	||15.34	528064	||18.45	1014390	||23.52	923539	||26.29	1001440 |			
5	1750	NT1003052308S.D	BLA0685-BS1		1	| 9.25	335662	||11.74	1201009	||15.35	587178	||18.46	1118430	||23.53	1055166	||26.30	1125544 |			
6	1828	NT1003052309S.D	BLA0685-BSD1		1	| 9.25	373655	||11.74	1328154	||15.35	660605	||18.45	1250960	||23.51	1159338	||26.28	1176555 |			
7	1906	NT1003052310S.D	BLA0685-MS1		1	| 9.26	338041	||11.74	1209805	||15.35	593872	||18.46	1170327	||23.52	1225934	||26.29	1335320 |			
8	1944	NT1003052311S.D	BLA0685-MSD1		1	| 9.25	324331	||11.74	1148792	||15.35	566447	||18.46	1132534	||23.52	1164880	||26.29	1261918 |			
9	2022	NT1003052312S.D	BLA0685-SRM1		1	| 9.25	291216	||11.74	1022375	||15.35	512455	||18.46	1021943	||23.52	1019134	||26.29	1141471 |			
10	2100	NT1003052313S.D	23A0313-08		1	| 9.25	350409	||11.74	1235679	||15.35	603959	||18.46	1203779	||23.54	1124621	||26.32	1296389 |			
11	2216	NT1003052315S.D	SLC0435-CCV1		1	| 9.25	293840	||11.73	1032639	||15.34	502349	||18.45	975997	||23.51	978544	||26.27	1201606 |			

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230305.b\SIM.b

ARI Job No.: SEQ- Method: SIM.b\SIMABN2.m Instrument: nt10.i Date: 05-MAR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1403	NT1003052302S.D	SEQ-ICVFULL		1	NO MANUAL INTEGRATION
1440	NT1003052303S.D	SLC0435-ICV1		1	Benzyl alcohol, Dibenzo(a,h)anthracene,
1518	NT1003052304S.D	SEQ-SIM200		1	NO MANUAL INTEGRATION
1556	NT1003052305S.D	SLC0435-LCV1		1	Benzyl alcohol,
1634	NT1003052306S.D	SEQ-SIM500		1	NO MANUAL INTEGRATION
1712	NT1003052307S.D	BLA0685-BLK1		1	NO MANUAL INTEGRATION
1750	NT1003052308S.D	BLA0685-BS1		1	Benzyl alcohol,
1828	NT1003052309S.D	BLA0685-BSD1		1	Benzyl alcohol,
1906	NT1003052310S.D	BLA0685-MS1		1	Benzyl alcohol,
1944	NT1003052311S.D	BLA0685-MSD1		1	Benzyl alcohol,
2022	NT1003052312S.D	BLA0685-SRM1		1	Hexachlorobenzene,
2100	NT1003052313S.D	23A0313-08		1	NO MANUAL INTEGRATION
2138	NT1003052314S.D	SEQ-CCVFULL		1	NO MANUAL INTEGRATION
2216	NT1003052315S.D	SLC0435-CCV1		1	Diethylphthalate,

Security Status Report

Date: 28-Mar-2023 11:50

NT1003052301S.D	Data Locked	deenayd, 28-
NT1003052302S.D	Data Locked	deenayd, 28-
NT1003052303S.D	Data Locked	deenayd, 28-
NT1003052304S.D	Data Locked	deenayd, 28-
NT1003052305S.D	Data Locked	deenayd, 28-
NT1003052306S.D	Data Locked	deenayd, 28-
NT1003052307S.D	Data Locked	deenayd, 28-
NT1003052308S.D	Data Locked	deenayd, 28-
NT1003052309S.D	Data Locked	deenayd, 28-
NT1003052310S.D	Data Locked	deenayd, 28-
NT1003052311S.D	Data Locked	deenayd, 28-
NT1003052312S.D	Data Locked	deenayd, 28-
NT1003052313S.D	Data Locked	deenayd, 28-
NT1003052314S.D	Data Locked	deenayd, 28-
NT1003052315S.D	Data Locked	deenayd, 28-

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0440	Instrument:	NT10
		Calibration:	GC00032

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLC0440-TUN1	NT1003052301SA.D	NA	03/05/23 13:48
Initial Cal Check	SLC0440-ICV1	NT1003052315SA.D	NA	03/05/23 22:16
ABN 0.2	SLC0440-LCV2	NT1003052316S.D	NA	03/05/23 22:54
ABN 0.1	SLC0440-LCV1	NT1003052317S.D	NA	03/05/23 23:32
ABN 0.5	SLC0440-LCV3	NT1003052318S.D	NA	03/06/23 00:09
LDW23-SC1011A	23A0313-09	NT1003052319S.D	Solid	03/06/23 00:47
LDW23-SC1006A	23A0313-10	NT1003052320S.D	Solid	03/06/23 01:25
LDW23-SC1012B	23A0313-11	NT1003052321S.D	Solid	03/06/23 02:02
LDW23-SC1159	23A0313-13	NT1003052322S.D	Solid	03/06/23 02:40
ZZZZZ	23A0326-01	NT1003052323S.D	Solid	03/06/23 03:17
ZZZZZ	23A0326-02	NT1003052324S.D	Solid	03/06/23 03:55
Calibration Check	SLC0440-CCV1	NT1003052326S.D	NA	03/06/23 05:10

ANALYSIS SEQUENCE

SLC0440

Instrument ID: NT10
Calibration ID: GC00032
MS EM Level: 1317.6 EV

GCMS Description: Agilent 5975/MS http://bi
GCMS Column ID: l001330

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLC0440-TUN1	MS Tune	QC		1	L002618		03/05/2023 13:48	NT1003052301SA.D	VTS	
SLC0440-ICV1	Initial Cal Check	QC		2	K011107	K010831	03/05/2023 22:16	NT1003052315SA.D	YZ	
SLC0440-LCV1	ABN 0.2	QC		3	K011452	K010831	03/05/2023 23:32	NT1003052317S.D	YZ	
23A0313-10	LDW23-SC1006A	270E-SIM Dual Scan SVO	A 04	4		K010831	03/06/2023 01:25	NT1003052320S.D	YZ	
23A0313-11	LDW23-SC1012B	270E-SIM Dual Scan SVO	A 04	5		K010831	03/06/2023 02:02	NT1003052321S.D	YZ	
23A0313-13	LDW23-SC1159	270E-SIM Dual Scan SVO	A 04	6		K010831	03/06/2023 02:40	NT1003052322S.D	YZ	
23A0326-01	LDW23-SC1028	270E-SIM Dual Scan SVO	A 04	7		K010831	03/06/2023 03:17	NT1003052323S.D	YZ	
23A0326-02	LDW23-SC1032	270E-SIM Dual Scan SVO	A 04	8		K010831	03/06/2023 03:55	NT1003052324S.D	YZ	
23A0313-09	LDW23-SC1011A	270E-SIM Dual Scan SVO	A 04	9		K010831	03/06/2023 00:47	NT1003052319S.D	YZ	
SLC0440-CCV1	Calibration Check	QC		10	K011107	K010831	03/06/2023 05:10	NT1003052326S.D	YZ	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230305A.b\SIM.b

	Time	Filename	LabID	ClientId	DF											
1	1348	NT1003052301SA.D	SLC0440-TUN1		1	|NO ISTDS FOUND||										
2	2216	NT1003052315SA.D	SLC0440-ICV1		1	| 9.25	293840||11.73	1032639||15.34	502349||18.45	975997||23.51	978544||26.27	1201606|				
3	2332	NT1003052317S.D	SLC0440-LCV1		1	| 9.26	273861||11.75	953301||15.33	454624||18.42	860369||23.44	801660||26.14	976489|				
4	0047	NT1003052319S.D	23A0313-09		1	| 9.26	312461||11.75	1106271||15.34	540606||18.45	1031434||23.50	1116268||26.24	1332726|				
5	0125	NT1003052320S.D	23A0313-10		1	| 9.26	318026||11.76	1112734||15.35	544391||18.45	1064250||23.51	1058301||26.24	1201257|				
6	0202	NT1003052321S.D	23A0313-11		1	| 9.26	321868||11.75	1135908||15.35	569381||18.46	1110246||23.51	1072933||26.25	1245013|				
7	0240	NT1003052322S.D	23A0313-13		1	| 9.26	252500||11.75	898205||15.35	443491||18.46	905195||23.51	911194||26.25	1029784|				
8	0317	NT1003052323S.D	23A0326-01		1	| 9.26	239857||11.75	850863||15.35	416153||18.46	849063||23.51	827784||26.25	975174|				
9	0355	NT1003052324S.D	23A0326-02		1	| 9.26	287793||11.76	1014116||15.35	497309||18.46	999293||23.51	986742||26.25	1120343|				
10	0510	NT1003052326S.D	SLC0440-CCV1		1	| 9.26	239436||11.75	849492||15.35	421435||18.45	835585||23.49	874614||26.22	1035818|				

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230305A.b\SIM.b

ARI Job No.: SLC0 Method: SIM.b\DFTPP8270E.m Instrument: nt10.i Date: 05-MAR-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1348	NT1003052301SA.D	SLC0440-TUN1		1	NO MANUAL INTEGRATION
2138	NT1003052314SA.D	SEQ-CCVFULL		1	NO MANUAL INTEGRATION
2216	NT1003052315S.D	SLC0440-ICV1		1	Diethylphthalate,
2254	NT1003052316S.D	SEQ-SIM200		1	NO MANUAL INTEGRATION
2332	NT1003052317S.D	SLC0440-LCV1		1	NO MANUAL INTEGRATION
0009	NT1003052318S.D	SEQ-SIM500		1	NO MANUAL INTEGRATION
0047	NT1003052319S.D	23A0313-09		1	1,4-Dichlorobenzene,
0125	NT1003052320S.D	23A0313-10		1	NO MANUAL INTEGRATION
0202	NT1003052321S.D	23A0313-11		1	NO MANUAL INTEGRATION
0240	NT1003052322S.D	23A0313-13		1	NO MANUAL INTEGRATION
0317	NT1003052323S.D	23A0326-01		1	Diethylphthalate,
0355	NT1003052324S.D	23A0326-02		1	Diethylphthalate,
0432	NT1003052325S.D	SEQ-CCVFULL		1	NO MANUAL INTEGRATION
0510	NT1003052326S.D	SLC0440-CCV1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 28-Mar-2023 11:37

NT1003052301SA.D	Data Locked	deenayd, 28-
NT1003052314SA.D	Data Locked	deenayd, 28-
NT1003052315SA.D	Data Locked	deenayd, 28-
NT1003052316S.D	Data Locked	deenayd, 28-
NT1003052317S.D	Data Locked	deenayd, 28-
NT1003052318S.D	Data Locked	deenayd, 28-
NT1003052319S.D	Data Locked	deenayd, 28-
NT1003052320S.D	Data Locked	deenayd, 28-
NT1003052321S.D	Data Locked	deenayd, 28-
NT1003052322S.D	Data Locked	deenayd, 28-
NT1003052323S.D	Data Locked	deenayd, 28-
NT1003052324S.D	Data Locked	deenayd, 28-
NT1003052325S.D	Data Locked	deenayd, 28-
NT1003052326S.D	Data Locked	deenayd, 28-

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLA0213	Instrument:	NT8
Calibration:	GA00050	Calibration Date:	01/19/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLA0213-ICB1 (Water)			Lab File ID: N823011902.D			Analyzed: 01/19/23 10:59		
2-Methylnaphthalene-d10			31 - 120		5.6415	-5.6415	N/A	
Dibenzo[a,h]anthracene-d14			10 - 125		20.5525	-20.5525	N/A	
Fluoranthene-d10			46 - 121		11.016	-11.0160	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0075	Instrument:	NT8
Calibration:	GA00050	Calibration Date:	01/19/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0075-ICV1 (Solid)			Lab File ID: N823020607A.D			Analyzed: 02/06/23 15:15		
2-Methylnaphthalene-d10	2.5000	105	80 - 120	5.634	5.6415	-0.0075	N/A	
Dibenzo[a,h]anthracene-d14	2.5000	96.8	80 - 120	20.549	20.5525	-0.0035	N/A	
Fluoranthene-d10	2.5000	103	80 - 120	11.009	11.016	-0.0070	N/A	
BLA0683-BLK1 (Solid)			Lab File ID: N823020608.D			Analyzed: 02/06/23 15:57		
2-Methylnaphthalene-d10	150.00	83.2	32 - 120	5.627	5.6415	-0.0145	N/A	
Dibenzo[a,h]anthracene-d14	150.00	154	21 - 133	20.545	20.5525	-0.0075	N/A	*
Fluoranthene-d10	150.00	99.4	36 - 134	11.009	11.016	-0.0070	N/A	
BLA0683-BS1 (Solid)			Lab File ID: N823020609.D			Analyzed: 02/06/23 16:24		
2-Methylnaphthalene-d10	150.00	63.3	32 - 120	5.624	5.6415	-0.0175	N/A	
Dibenzo[a,h]anthracene-d14	150.00	114	21 - 133	20.536	20.5525	-0.0165	N/A	
Fluoranthene-d10	150.00	73.4	36 - 134	11	11.016	-0.0160	N/A	
BLA0683-BSD1 (Solid)			Lab File ID: N823020610.D			Analyzed: 02/06/23 16:51		
2-Methylnaphthalene-d10	150.00	71.8	32 - 120	5.624	5.6415	-0.0175	N/A	
Dibenzo[a,h]anthracene-d14	150.00	119	21 - 133	20.533	20.5525	-0.0195	N/A	
Fluoranthene-d10	150.00	80.0	36 - 134	11.003	11.016	-0.0130	N/A	
BLA0683-SRM1 (Solid)			Lab File ID: N823020611.D			Analyzed: 02/06/23 17:18		
2-Methylnaphthalene-d10	300.00	95.8	32 - 120	5.624	5.6415	-0.0175	N/A	
Dibenzo[a,h]anthracene-d14	300.00	173	21 - 133	20.53	20.5525	-0.0225	N/A	*
Fluoranthene-d10	300.00	110	36 - 134	11.003	11.016	-0.0130	N/A	
23A0313-03 (Solid)			Lab File ID: N823020628.D			Analyzed: 02/07/23 00:55		
2-Methylnaphthalene-d10	149.85	102	32 - 120	5.627	5.6415	-0.0145	N/A	
Dibenzo[a,h]anthracene-d14	149.85	118	21 - 133	20.621	20.5525	0.0685	N/A	
Fluoranthene-d10	149.85	142	36 - 134	11.041	11.016	0.0250	N/A	*
23A0313-04 (Solid)			Lab File ID: N823020629.D			Analyzed: 02/07/23 01:22		
2-Methylnaphthalene-d10	149.85	88.8	32 - 120	5.627	5.6415	-0.0145	N/A	
Dibenzo[a,h]anthracene-d14	149.85	92.4	21 - 133	20.656	20.5525	0.1035	N/A	
Fluoranthene-d10	149.85	87.8	36 - 134	11.063	11.016	0.0470	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0075	Instrument:	NT8
Calibration:	GA00050	Calibration Date:	01/19/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
23A0313-12 (Solid)			Lab File ID: N823020630.D				Analyzed: 02/07/23 01:49	
2-Methylnaphthalene-d10	149.96	98.5	32 - 120	5.624	5.6415	-0.0175	N/A	
Dibenzo[a,h]anthracene-d14	149.96	125	21 - 133	20.615	20.5525	0.0625	N/A	
Fluoranthene-d10	149.96	103	36 - 134	11.028	11.016	0.0120	N/A	
SLB0075-CCV1 (Solid)			Lab File ID: N823020633.D				Analyzed: 02/07/23 03:09	
2-Methylnaphthalene-d10	2.5000	108	50 - 150	5.627	5.6415	-0.0145	N/A	
Dibenzo[a,h]anthracene-d14	2.5000	88.0	50 - 150	20.609	20.5525	0.0565	N/A	
Fluoranthene-d10	2.5000	109	50 - 150	11.025	11.016	0.0090	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0143	Instrument:	NT10
Calibration:	GC00032	Calibration Date:	03/01/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLC0143-SCV1 (Solid)			Lab File ID: NT1003012311S.D				Analyzed: 03/01/23 21:46	
2-Fluorophenol	7.5000	0.502	0 - 200	6.902	6.899	0.0030	N/A	
p-Terphenyl-d14	5.0000	0.542	0 - 200	21.524	21.525	-0.0010	N/A	
SLC0143-ICB1 (Solid)			Lab File ID: NT1003012312S.D				Analyzed: 03/01/23 22:24	
2-Fluorophenol	7.5000	105	27 - 120	6.894	6.899	-0.0050	N/A	
p-Terphenyl-d14	5.0000	98.0	37 - 120	21.524	21.525	-0.0010	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
SDG/WO: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLC0435
Instrument: NT10
Calibration: GC00032
Calibration Date: 03/01/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLC0435-ICV1 (Solid)			Lab File ID: NT1003052303S.D				Analyzed: 03/05/23 14:40	
2-Fluorophenol	1.5000	102	80 - 120	6.902	6.899	0.0030	N/A	
p-Terphenyl-d14	1.0000	149	80 - 120	21.602	21.525	0.0770	N/A	*
SLC0435-LCV2 (Solid)			Lab File ID: NT1003052304S.D				Analyzed: 03/05/23 15:18	
2-Fluorophenol	0.30000	81.8	0 - 200	6.902	6.899	0.0030	N/A	
p-Terphenyl-d14	0.20000	144	0 - 200	21.602	21.525	0.0770	N/A	
SLC0435-LCV1 (Solid)			Lab File ID: NT1003052305S.D				Analyzed: 03/05/23 15:56	
2-Fluorophenol	0.15000	74.3	0 - 200	6.91	6.899	0.0110	N/A	
p-Terphenyl-d14	0.10000	161	0 - 200	21.602	21.525	0.0770	N/A	
BLA0685-BLK2 (Solid)			Lab File ID: NT1003052307S.D				Analyzed: 03/05/23 17:12	
2-Fluorophenol	750.00	62.5	27 - 120	6.902	6.899	0.0030	N/A	
p-Terphenyl-d14	500.00	141	37 - 120	21.609	21.525	0.0840	N/A	*
BLA0685-BS2 (Solid)			Lab File ID: NT1003052308S.D				Analyzed: 03/05/23 17:50	
2-Fluorophenol	750.00	83.8	27 - 120	6.91	6.899	0.0110	N/A	
p-Terphenyl-d14	500.00	143	37 - 120	21.609	21.525	0.0840	N/A	*
BLA0685-BSD2 (Solid)			Lab File ID: NT1003052309S.D				Analyzed: 03/05/23 18:28	
2-Fluorophenol	750.00	83.7	27 - 120	6.91	6.899	0.0110	N/A	
p-Terphenyl-d14	500.00	135	37 - 120	21.602	21.525	0.0770	N/A	*
BLA0685-MS2 (Solid)			Lab File ID: NT1003052310S.D				Analyzed: 03/05/23 19:06	
2-Fluorophenol	750.14	79.7	27 - 120	6.925	6.899	0.0260	N/A	
p-Terphenyl-d14	500.09	139	37 - 120	21.609	21.525	0.0840	N/A	*
BLA0685-MSD2 (Solid)			Lab File ID: NT1003052311S.D				Analyzed: 03/05/23 19:44	
2-Fluorophenol	750.14	69.2	27 - 120	6.917	6.899	0.0180	N/A	
p-Terphenyl-d14	500.09	144	37 - 120	21.609	21.525	0.0840	N/A	*
BLA0685-SRM2 (Solid)			Lab File ID: NT1003052312S.D				Analyzed: 03/05/23 20:22	
2-Fluorophenol	7500.0	87.7	27 - 120	6.91	6.899	0.0110	N/A	
p-Terphenyl-d14	5000.0	137	37 - 120	21.602	21.525	0.0770	N/A	*

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0435	Instrument:	NT10
Calibration:	GC00032	Calibration Date:	03/01/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
23A0313-08 (Solid)			Lab File ID: NT1003052313S.D			Analyzed: 03/05/23 21:00		
2-Fluorophenol	745.45	81.7	27 - 120	6.925	6.899	0.0260	N/A	
p-Terphenyl-d14	496.97	152	37 - 120	21.617	21.525	0.0920	N/A	*
SLC0435-CCV1 (Solid)			Lab File ID: NT1003052315S.D			Analyzed: 03/05/23 22:16		
2-Fluorophenol	1.5000	110	50 - 150	6.902	6.899	0.0030	N/A	
p-Terphenyl-d14	1.0000	157	50 - 150	21.594	21.525	0.0690	N/A	*

SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0440	Instrument:	NT10
Calibration:	GC00032	Calibration Date:	03/01/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLC0440-ICV1 (Solid)			Lab File ID: NT1003052315SA.D			Analyzed: 03/05/23 22:16		
2-Fluorophenol	1.5000	110	80 - 120	6.902	6.899	0.0030	N/A	
p-Terphenyl-d14	1.0000	157	80 - 120	21.594	21.525	0.0690	N/A	*
SLC0440-LCV2 (Solid)			Lab File ID: NT1003052316S.D			Analyzed: 03/05/23 22:54		
2-Fluorophenol	0.30000	98.1	0 - 200	6.902	6.899	0.0030	N/A	
p-Terphenyl-d14	0.20000	156	0 - 200	21.578	21.525	0.0530	N/A	
SLC0440-LCV1 (Solid)			Lab File ID: NT1003052317S.D			Analyzed: 03/05/23 23:32		
2-Fluorophenol	0.15000	97.5	0 - 200	6.909	6.899	0.0100	N/A	
p-Terphenyl-d14	0.10000	161	0 - 200	21.539	21.525	0.0140	N/A	
SLC0440-LCV3 (Solid)			Lab File ID: NT1003052318S.D			Analyzed: 03/06/23 00:09		
2-Fluorophenol	0.75000	107	0 - 200	6.902	6.899	0.0030	N/A	
p-Terphenyl-d14	0.50000	163	0 - 200	21.586	21.525	0.0610	N/A	
23A0313-09 (Solid)			Lab File ID: NT1003052319S.D			Analyzed: 03/06/23 00:47		
2-Fluorophenol	738.15	74.6	27 - 120	6.917	6.899	0.0180	N/A	
p-Terphenyl-d14	492.10	132	37 - 120	21.586	21.525	0.0610	N/A	*
23A0313-10 (Solid)			Lab File ID: NT1003052320S.D			Analyzed: 03/06/23 01:25		
2-Fluorophenol	748.01	80.5	27 - 120	6.918	6.899	0.0190	N/A	
p-Terphenyl-d14	498.67	155	37 - 120	21.594	21.525	0.0690	N/A	*
23A0313-11 (Solid)			Lab File ID: NT1003052321S.D			Analyzed: 03/06/23 02:02		
2-Fluorophenol	712.29	83.4	27 - 120	6.91	6.899	0.0110	N/A	
p-Terphenyl-d14	474.86	147	37 - 120	21.601	21.525	0.0760	N/A	*
23A0313-13 (Solid)			Lab File ID: NT1003052322S.D			Analyzed: 03/06/23 02:40		
2-Fluorophenol	750.14	82.7	27 - 120	6.91	6.899	0.0110	N/A	
p-Terphenyl-d14	500.09	160	37 - 120	21.594	21.525	0.0690	N/A	*
SLC0440-CCV1 (Solid)			Lab File ID: NT1003052326S.D			Analyzed: 03/06/23 05:10		
2-Fluorophenol	1.5000	116	50 - 150	6.902	6.899	0.0030	N/A	
p-Terphenyl-d14	1.0000	159	50 - 150	21.586	21.525	0.0610	N/A	*

Analytical Resources, LLC
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INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLA0213	Instrument:	NT8
		Calibration:	GA00050

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Blank (SLA0213-ICB1)		(Water)		Lab File ID: N823011902.D				Analyzed: 01/19/23 10:59	
Naphthalene-d8	52082	4.916	44704	4.906	117	50 - 200	0.010	+/-0.50	
Acenaphthene-d10	30936	7.202	26411	7.196	117	50 - 200	0.006	+/-0.50	
Phenanthrene-d10	59030	9.241	49210	9.235	120	50 - 200	0.006	+/-0.50	
Chrysene-d12	50944	14.215	42994	14.202	118	50 - 200	0.013	+/-0.50	
Perylene-d12	47418	18.12	40520	18.111	117	50 - 200	0.009	+/-0.50	
Secondary Cal Check (SLA0213-SCV1)		(Water)		Lab File ID: N823011909.D				Analyzed: 01/19/23 14:58	
Naphthalene-d8	46346	4.913	44704	4.906	104	50 - 200	0.007	+/-0.50	
Acenaphthene-d10	27709	7.202	26411	7.196	105	50 - 200	0.006	+/-0.50	
Phenanthrene-d10	51685	9.238	49210	9.235	105	50 - 200	0.003	+/-0.50	
Chrysene-d12	46582	14.212	42994	14.202	108	50 - 200	0.010	+/-0.50	
Perylene-d12	41743	18.117	40520	18.111	103	50 - 200	0.006	+/-0.50	

Analytical Resources, LLC
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INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0075	Instrument:	NT8
		Calibration:	GA00050

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLB0075-ICV1)		(Solid)		Lab File ID: N823020607A.D				Analyzed: 02/06/23 15:15	
Naphthalene-d8	44336	4.9	44336	4.9	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	26127	7.189	26127	7.189	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	47424	9.232	47424	9.232	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	36794	14.202	36794	14.202	100	50 - 200	0.000	+/-0.50	
Perylene-d12	36636	18.107	36636	18.107	100	50 - 200	0.000	+/-0.50	
Blank (BLA0683-BLK1)		(Solid)		Lab File ID: N823020608.D				Analyzed: 02/06/23 15:57	
Naphthalene-d8	48985	4.89	44336	4.9	110	50 - 200	-0.010	+/-0.50	
Acenaphthene-d10	28561	7.189	26127	7.189	109	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	52393	9.229	47424	9.232	110	50 - 200	-0.003	+/-0.50	
Chrysene-d12	40654	14.196	36794	14.202	110	50 - 200	-0.006	+/-0.50	
Perylene-d12	24723	18.104	36636	18.107	67	50 - 200	-0.003	+/-0.50	
LCS (BLA0683-BS1)		(Solid)		Lab File ID: N823020609.D				Analyzed: 02/06/23 16:24	
Naphthalene-d8	50596	4.884	44336	4.9	114	50 - 200	-0.016	+/-0.50	
Acenaphthene-d10	29850	7.183	26127	7.189	114	50 - 200	-0.006	+/-0.50	
Phenanthrene-d10	54061	9.222	47424	9.232	114	50 - 200	-0.010	+/-0.50	
Chrysene-d12	41046	14.19	36794	14.202	112	50 - 200	-0.012	+/-0.50	
Perylene-d12	27103	18.098	36636	18.107	74	50 - 200	-0.009	+/-0.50	
LCS Dup (BLA0683-BSD1)		(Solid)		Lab File ID: N823020610.D				Analyzed: 02/06/23 16:51	
Naphthalene-d8	52018	4.887	44336	4.9	117	50 - 200	-0.013	+/-0.50	
Acenaphthene-d10	29996	7.183	26127	7.189	115	50 - 200	-0.006	+/-0.50	
Phenanthrene-d10	54697	9.223	47424	9.232	115	50 - 200	-0.009	+/-0.50	
Chrysene-d12	41650	14.187	36794	14.202	113	50 - 200	-0.015	+/-0.50	
Perylene-d12	27575	18.098	36636	18.107	75	50 - 200	-0.009	+/-0.50	
Reference (BLA0683-SRM1)		(Solid)		Lab File ID: N823020611.D				Analyzed: 02/06/23 17:18	
Naphthalene-d8	47898	4.884	44336	4.9	108	50 - 200	-0.016	+/-0.50	
Acenaphthene-d10	26592	7.183	26127	7.189	102	50 - 200	-0.006	+/-0.50	
Phenanthrene-d10	44776	9.223	47424	9.232	94	50 - 200	-0.009	+/-0.50	
Chrysene-d12	36552	14.19	36794	14.202	99	50 - 200	-0.012	+/-0.50	
Perylene-d12	22526	18.092	36636	18.107	61	50 - 200	-0.015	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0075	Instrument:	NT8
		Calibration:	GA00050

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-IT1114 (23A0313-03)		(Solid)		Lab File ID: N823020628.D				Analyzed: 02/07/23 00:55	
Naphthalene-d8	56887	4.887	44336	4.9	128	50 - 200	-0.013	+/-0.50	
Acenaphthene-d10	30456	7.189	26127	7.189	117	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	48664	9.238	47424	9.232	103	50 - 200	0.006	+/-0.50	
Chrysene-d12	22993	14.247	36794	14.202	62	50 - 200	0.045	+/-0.50	
Perylene-d12	19769	18.168	36636	18.107	54	50 - 200	0.061	+/-0.50	
LDW23-IT1120 (23A0313-04)		(Solid)		Lab File ID: N823020629.D				Analyzed: 02/07/23 01:22	
Naphthalene-d8	53062	4.887	44336	4.9	120	50 - 200	-0.013	+/-0.50	
Acenaphthene-d10	28241	7.189	26127	7.189	108	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	46666	9.244	47424	9.232	98	50 - 200	0.012	+/-0.50	
Chrysene-d12	29789	14.278	36794	14.202	81	50 - 200	0.076	+/-0.50	
Perylene-d12	22259	18.193	36636	18.107	61	50 - 200	0.086	+/-0.50	
LDW23-IT1148 (23A0313-12)		(Solid)		Lab File ID: N823020630.D				Analyzed: 02/07/23 01:49	
Naphthalene-d8	58298	4.884	44336	4.9	131	50 - 200	-0.016	+/-0.50	
Acenaphthene-d10	35361	7.186	26127	7.189	135	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	61613	9.235	47424	9.232	130	50 - 200	0.003	+/-0.50	
Chrysene-d12	23944	14.231	36794	14.202	65	50 - 200	0.029	+/-0.50	
Perylene-d12	19888	18.158	36636	18.107	54	50 - 200	0.051	+/-0.50	
Calibration Check (SLB0075-CCV1)		(Water)		Lab File ID: N823020633.D				Analyzed: 02/07/23 03:09	
Naphthalene-d8	52897	4.891	44336	4.9	119	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	31659	7.186	26127	7.189	121	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	57767	9.235	47424	9.232	122	50 - 200	0.003	+/-0.50	
Chrysene-d12	48067	14.228	36794	14.202	131	50 - 200	0.026	+/-0.50	
Perylene-d12	37211	18.155	36636	18.107	102	50 - 200	0.048	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0143	Instrument:	NT10
		Calibration:	GC00032

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLC0143-SCV1)		(Solid)		Lab File ID: NT1003012311S.D				Analyzed: 03/01/23 21:46	
1,4-Dichlorobenzene-d4	303734	9.252	320125	9.244	95	50 - 200	0.008	+/-0.50	
Naphthalene-d8	1147551	11.724	1136019	11.724	101	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	645730	15.314	636993	15.314	101	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	1151000	18.399	1093620	18.399	105	50 - 200	0.000	+/-0.50	
Chrysene-d12	1297466	23.421	1000300	23.414	130	50 - 200	0.007	+/-0.50	
Perylene-d12	1394899	26.108	1058448	26.1	132	50 - 200	0.008	+/-0.50	
Initial Cal Blank (SLC0143-ICB1)		(Solid)		Lab File ID: NT1003012312S.D				Analyzed: 03/01/23 22:24	
1,4-Dichlorobenzene-d4	515340	9.251	320125	9.244	161	50 - 200	0.007	+/-0.50	
Naphthalene-d8	1787704	11.723	1136019	11.724	157	50 - 200	-0.001	+/-0.50	
Acenaphthene-d10	879316	15.314	636993	15.314	138	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	1572306	18.398	1093620	18.399	144	50 - 200	-0.001	+/-0.50	
Chrysene-d12	1486349	23.421	1000300	23.414	149	50 - 200	0.007	+/-0.50	
Perylene-d12	1674195	26.108	1058448	26.1	158	50 - 200	0.008	+/-0.50	

Analytical Resources, LLC
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INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0435	Instrument:	NT10
		Calibration:	GC00032

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLC0435-ICV1)		(Solid)	Lab File ID: NT1003052303S.D				Analyzed: 03/05/23 14:40		
1,4-Dichlorobenzene-d4	321376	9.244	321376	9.244	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1132931	11.731	1132931	11.731	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	561597	15.337	561597	15.337	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	1068222	18.453	1068222	18.453	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	997572	23.514	997572	23.514	100	50 - 200	0.000	+/-0.50	
Perylene-d12	1245490	26.286	1245490	26.286	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLC0435-LCV2)		(Solid)	Lab File ID: NT1003052304S.D				Analyzed: 03/05/23 15:18		
1,4-Dichlorobenzene-d4	335082	9.244	321376	9.244	104	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1186054	11.731	1132931	11.731	105	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	567675	15.337	561597	15.337	101	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	1059550	18.452	1068222	18.453	99	50 - 200	-0.001	+/-0.50	
Chrysene-d12	958983	23.514	997572	23.514	96	50 - 200	0.000	+/-0.50	
Perylene-d12	1190912	26.278	1245490	26.286	96	50 - 200	-0.008	+/-0.50	
Low Cal Check (SLC0435-LCV1)		(Solid)	Lab File ID: NT1003052305S.D				Analyzed: 03/05/23 15:56		
1,4-Dichlorobenzene-d4	302311	9.244	321376	9.244	94	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1102062	11.731	1132931	11.731	97	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	539935	15.337	561597	15.337	96	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	1024492	18.453	1068222	18.453	96	50 - 200	0.000	+/-0.50	
Chrysene-d12	911208	23.522	997572	23.514	91	50 - 200	0.008	+/-0.50	
Perylene-d12	1065211	26.286	1245490	26.286	86	50 - 200	0.000	+/-0.50	
Blank (BLA0685-BLK2)		(Solid)	Lab File ID: NT1003052307S.D				Analyzed: 03/05/23 17:12		
1,4-Dichlorobenzene-d4	308288	9.244	321376	9.244	96	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1085923	11.731	1132931	11.731	96	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	528064	15.337	561597	15.337	94	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	1014390	18.453	1068222	18.453	95	50 - 200	0.000	+/-0.50	
Chrysene-d12	923539	23.522	997572	23.514	93	50 - 200	0.008	+/-0.50	
Perylene-d12	1001440	26.294	1245490	26.286	80	50 - 200	0.008	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLC0435
SDG: 23A0313
Project: AOC5 MR Phase 1
Instrument: NT10
Calibration: GC00032

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (BLA0685-BS2)		(Solid)	Lab File ID: NT1003052308S.D				Analyzed: 03/05/23 17:50		
1,4-Dichlorobenzene-d4	335662	9.252	321376	9.244	104	50 - 200	0.008	+/-0.50	
Naphthalene-d8	1201009	11.739	1132931	11.731	106	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	587178	15.345	561597	15.337	105	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	1118430	18.46	1068222	18.453	105	50 - 200	0.007	+/-0.50	
Chrysene-d12	1055166	23.53	997572	23.514	106	50 - 200	0.016	+/-0.50	
Perylene-d12	1125544	26.301	1245490	26.286	90	50 - 200	0.015	+/-0.50	
LCS Dup (BLA0685-BSD2)		(Solid)	Lab File ID: NT1003052309S.D				Analyzed: 03/05/23 18:28		
1,4-Dichlorobenzene-d4	373655	9.252	321376	9.244	116	50 - 200	0.008	+/-0.50	
Naphthalene-d8	1328154	11.739	1132931	11.731	117	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	660605	15.345	561597	15.337	118	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	1250960	18.453	1068222	18.453	117	50 - 200	0.000	+/-0.50	
Chrysene-d12	1159338	23.514	997572	23.514	116	50 - 200	0.000	+/-0.50	
Perylene-d12	1176555	26.278	1245490	26.286	94	50 - 200	-0.008	+/-0.50	
Matrix Spike (BLA0685-MS2)		(Solid)	Lab File ID: NT1003052310S.D				Analyzed: 03/05/23 19:06		
1,4-Dichlorobenzene-d4	338041	9.26	321376	9.244	105	50 - 200	0.016	+/-0.50	
Naphthalene-d8	1209805	11.739	1132931	11.731	107	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	593872	15.345	561597	15.337	106	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	1170327	18.46	1068222	18.453	110	50 - 200	0.007	+/-0.50	
Chrysene-d12	1225934	23.522	997572	23.514	123	50 - 200	0.008	+/-0.50	
Perylene-d12	1335320	26.286	1245490	26.286	107	50 - 200	0.000	+/-0.50	
Matrix Spike Dup (BLA0685-MSD2)		(Solid)	Lab File ID: NT1003052311S.D				Analyzed: 03/05/23 19:44		
1,4-Dichlorobenzene-d4	324331	9.251	321376	9.244	101	50 - 200	0.007	+/-0.50	
Naphthalene-d8	1148792	11.739	1132931	11.731	101	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	566447	15.345	561597	15.337	101	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	1132534	18.46	1068222	18.453	106	50 - 200	0.007	+/-0.50	
Chrysene-d12	1164880	23.522	997572	23.514	117	50 - 200	0.008	+/-0.50	
Perylene-d12	1261918	26.293	1245490	26.286	101	50 - 200	0.007	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0435	Instrument:	NT10
		Calibration:	GC00032

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Reference (BLA0685-SRM2)		(Solid)	Lab File ID: NT1003052312S.D				Analyzed: 03/05/23 20:22		
1,4-Dichlorobenzene-d4	291216	9.252	321376	9.244	91	50 - 200	0.008	+/-0.50	
Naphthalene-d8	1022375	11.739	1132931	11.731	90	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	512455	15.345	561597	15.337	91	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	1021943	18.46	1068222	18.453	96	50 - 200	0.007	+/-0.50	
Chrysene-d12	1019134	23.522	997572	23.514	102	50 - 200	0.008	+/-0.50	
Perylene-d12	1141471	26.286	1245490	26.286	92	50 - 200	0.000	+/-0.50	
LDW23-SC1016A (23A0313-08)		(Solid)	Lab File ID: NT1003052313S.D				Analyzed: 03/05/23 21:00		
1,4-Dichlorobenzene-d4	350409	9.252	321376	9.244	109	50 - 200	0.008	+/-0.50	
Naphthalene-d8	1235679	11.739	1132931	11.731	109	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	603959	15.345	561597	15.337	108	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	1203779	18.46	1068222	18.453	113	50 - 200	0.007	+/-0.50	
Chrysene-d12	1124621	23.537	997572	23.514	113	50 - 200	0.023	+/-0.50	
Perylene-d12	1296389	26.317	1245490	26.286	104	50 - 200	0.031	+/-0.50	
Calibration Check (SLC0435-CCV1)		(Solid)	Lab File ID: NT1003052315S.D				Analyzed: 03/05/23 22:16		
1,4-Dichlorobenzene-d4	293840	9.252	321376	9.244	91	50 - 200	0.008	+/-0.50	
Naphthalene-d8	1032639	11.731	1132931	11.731	91	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	502349	15.337	561597	15.337	89	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	975997	18.453	1068222	18.453	91	50 - 200	0.000	+/-0.50	
Chrysene-d12	978544	23.514	997572	23.514	98	50 - 200	0.000	+/-0.50	
Perylene-d12	1201606	26.27	1245490	26.286	96	50 - 200	-0.016	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0440	Instrument:	NT10
		Calibration:	GC00032

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLC0440-ICV1)		(Solid)	Lab File ID: NT1003052315SA.D				Analyzed: 03/05/23 22:16		
1,4-Dichlorobenzene-d4	293840	9.252	293840	9.252	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	1032639	11.731	1032639	11.731	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	502349	15.337	502349	15.337	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	975997	18.453	975997	18.453	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	978544	23.514	978544	23.514	100	50 - 200	0.000	+/-0.50	
Perylene-d12	1201606	26.27	1201606	26.27	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLC0440-LCV2)		(Solid)	Lab File ID: NT1003052316S.D				Analyzed: 03/05/23 22:54		
1,4-Dichlorobenzene-d4	343403	9.244	293840	9.252	117	50 - 200	-0.008	+/-0.50	
Naphthalene-d8	1183783	11.731	1032639	11.731	115	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	573890	15.329	502349	15.337	114	50 - 200	-0.008	+/-0.50	
Phenanthrene-d10	1096301	18.437	975997	18.453	112	50 - 200	-0.016	+/-0.50	
Chrysene-d12	1039816	23.491	978544	23.514	106	50 - 200	-0.023	+/-0.50	
Perylene-d12	1308865	26.247	1201606	26.27	109	50 - 200	-0.023	+/-0.50	
Low Cal Check (SLC0440-LCV1)		(Solid)	Lab File ID: NT1003052317S.D				Analyzed: 03/05/23 23:32		
1,4-Dichlorobenzene-d4	273861	9.259	293840	9.252	93	50 - 200	0.007	+/-0.50	
Naphthalene-d8	953301	11.746	1032639	11.731	92	50 - 200	0.015	+/-0.50	
Acenaphthene-d10	454624	15.329	502349	15.337	90	50 - 200	-0.008	+/-0.50	
Phenanthrene-d10	860369	18.421	975997	18.453	88	50 - 200	-0.032	+/-0.50	
Chrysene-d12	801660	23.436	978544	23.514	82	50 - 200	-0.078	+/-0.50	
Perylene-d12	976489	26.138	1201606	26.27	81	50 - 200	-0.132	+/-0.50	
Low Cal Check (SLC0440-LCV3)		(Solid)	Lab File ID: NT1003052318S.D				Analyzed: 03/06/23 00:09		
1,4-Dichlorobenzene-d4	311802	9.259	293840	9.252	106	50 - 200	0.007	+/-0.50	
Naphthalene-d8	1107108	11.754	1032639	11.731	107	50 - 200	0.023	+/-0.50	
Acenaphthene-d10	553105	15.344	502349	15.337	110	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	1073112	18.452	975997	18.453	110	50 - 200	-0.001	+/-0.50	
Chrysene-d12	1015975	23.491	978544	23.514	104	50 - 200	-0.023	+/-0.50	
Perylene-d12	1303152	26.224	1201606	26.27	108	50 - 200	-0.046	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0440	Instrument:	NT10
		Calibration:	GC00032

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SC1011A (23A0313-09)		(Solid)	Lab File ID: NT1003052319S.D				Analyzed: 03/06/23 00:47		
1,4-Dichlorobenzene-d4	312461	9.259	293840	9.252	106	50 - 200	0.007	+/-0.50	
Naphthalene-d8	1106271	11.754	1032639	11.731	107	50 - 200	0.023	+/-0.50	
Acenaphthene-d10	540606	15.344	502349	15.337	108	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	1031434	18.452	975997	18.453	106	50 - 200	-0.001	+/-0.50	
Chrysene-d12	1116268	23.498	978544	23.514	114	50 - 200	-0.016	+/-0.50	
Perylene-d12	1332726	26.239	1201606	26.27	111	50 - 200	-0.031	+/-0.50	
LDW23-SC1006A (23A0313-10)		(Solid)	Lab File ID: NT1003052320S.D				Analyzed: 03/06/23 01:25		
1,4-Dichlorobenzene-d4	318026	9.26	293840	9.252	108	50 - 200	0.008	+/-0.50	
Naphthalene-d8	1112734	11.755	1032639	11.731	108	50 - 200	0.024	+/-0.50	
Acenaphthene-d10	544391	15.353	502349	15.337	108	50 - 200	0.016	+/-0.50	
Phenanthrene-d10	1064250	18.453	975997	18.453	109	50 - 200	0.000	+/-0.50	
Chrysene-d12	1058301	23.507	978544	23.514	108	50 - 200	-0.007	+/-0.50	
Perylene-d12	1201257	26.24	1201606	26.27	100	50 - 200	-0.030	+/-0.50	
LDW23-SC1012B (23A0313-11)		(Solid)	Lab File ID: NT1003052321S.D				Analyzed: 03/06/23 02:02		
1,4-Dichlorobenzene-d4	321868	9.259	293840	9.252	110	50 - 200	0.007	+/-0.50	
Naphthalene-d8	1135908	11.754	1032639	11.731	110	50 - 200	0.023	+/-0.50	
Acenaphthene-d10	569381	15.352	502349	15.337	113	50 - 200	0.015	+/-0.50	
Phenanthrene-d10	1110246	18.46	975997	18.453	114	50 - 200	0.007	+/-0.50	
Chrysene-d12	1072933	23.506	978544	23.514	110	50 - 200	-0.008	+/-0.50	
Perylene-d12	1245013	26.247	1201606	26.27	104	50 - 200	-0.023	+/-0.50	
LDW23-SC1159 (23A0313-13)		(Solid)	Lab File ID: NT1003052322S.D				Analyzed: 03/06/23 02:40		
1,4-Dichlorobenzene-d4	252500	9.259	293840	9.252	86	50 - 200	0.007	+/-0.50	
Naphthalene-d8	898205	11.754	1032639	11.731	87	50 - 200	0.023	+/-0.50	
Acenaphthene-d10	443491	15.352	502349	15.337	88	50 - 200	0.015	+/-0.50	
Phenanthrene-d10	905195	18.46	975997	18.453	93	50 - 200	0.007	+/-0.50	
Chrysene-d12	911194	23.506	978544	23.514	93	50 - 200	-0.008	+/-0.50	
Perylene-d12	1029784	26.247	1201606	26.27	86	50 - 200	-0.023	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0440	Instrument:	NT10
		Calibration:	GC00032

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (SLC0440-CCV1)		(Solid)		Lab File ID: NT1003052326S.D				Analyzed: 03/06/23 05:10	
1,4-Dichlorobenzene-d4	239436	9.259	293840	9.252	81	50 - 200	0.007	+/-0.50	
Naphthalene-d8	849492	11.754	1032639	11.731	82	50 - 200	0.023	+/-0.50	
Acenaphthene-d10	421435	15.352	502349	15.337	84	50 - 200	0.015	+/-0.50	
Phenanthrene-d10	835585	18.453	975997	18.453	86	50 - 200	0.000	+/-0.50	
Chrysene-d12	874614	23.491	978544	23.514	89	50 - 200	-0.023	+/-0.50	
Perylene-d12	1035818	26.224	1201606	26.27	86	50 - 200	-0.046	+/-0.50	

HOLDING TIME SUMMARY

Analysis: EPA 8270E-SIM

Laboratory: Analytical Resources, LLC SDG: 23A0313

Client: Anchor QEA, LLC Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1114 23A0313-03	01/16/23 08:42	01/16/23 16:35	02/01/23 11:29	16	365	02/07/23 00:55	6	40	
LDW23-IT1120 23A0313-04	01/16/23 08:57	01/16/23 16:35	02/01/23 11:29	16	365	02/07/23 01:22	6	40	
LDW23-SC1016A 23A0313-08	01/16/23 11:11	01/16/23 16:35	02/02/23 13:06	17	365	03/05/23 21:00	31	40	
LDW23-SC1011A 23A0313-09	01/16/23 11:46	01/16/23 16:35	02/02/23 13:06	17	365	03/06/23 00:47	31	40	
LDW23-SC1006A 23A0313-10	01/16/23 12:29	01/16/23 16:35	02/02/23 13:06	17	365	03/06/23 01:25	32	40	
LDW23-SC1012B 23A0313-11	01/16/23 13:13	01/16/23 16:35	02/02/23 13:06	16	365	03/06/23 02:02	32	40	
LDW23-IT1148 23A0313-12	01/16/23 14:44	01/16/23 16:35	02/01/23 11:29	15	365	02/07/23 01:49	6	40	
LDW23-SC1159 23A0313-13	01/16/23 14:26	01/16/23 16:35	02/02/23 13:06	16	365	03/06/23 02:40	32	40	
Matrix Spike BLA0685-MS2	01/16/23 14:26	01/16/23 16:35	02/02/23 13:06	16	365	03/05/23 19:06	31	40	
Matrix Spike Dup BLA0685-MSD2	01/16/23 14:26	01/16/23 16:35	02/02/23 13:06	16	365	03/05/23 19:44	31	40	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Instrument: NT10

Analyte	MDL	RL	Units
1,4-Dichlorobenzene	0.6	5.0	ug/kg
1,2-Dichlorobenzene	0.7	5.0	ug/kg
Benzyl Alcohol	2.5	20.0	ug/kg
Benzoic acid	13.4	100	ug/kg
2,4-Dimethylphenol	2.2	20.0	ug/kg
1,2,4-Trichlorobenzene	2.7	5.0	ug/kg
N-Nitrosodiphenylamine	1.3	5.0	ug/kg
Pentachlorophenol	2.1	20.0	ug/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Instrument: NT8

Analyte	MDL	RL	Units
Benzo(a)anthracene	0.82	5.00	ug/kg
Chrysene	1.05	5.00	ug/kg
Benzo(b)fluoranthene	1.37	5.00	ug/kg
Benzo(k)fluoranthene	0.76	5.00	ug/kg
Benzo(a)pyrene	0.61	5.00	ug/kg
Indeno(1,2,3-cd)pyrene	1.05	5.00	ug/kg
Dibenzo(a,h)anthracene	0.89	5.00	ug/kg

I-8227

Certificate of Analysis

SIGMA-ALDRICH

Product Name	Pentachlorophenol, 97%
Product Number	P2604
Product Brand	ALDRICH
CAS Number	87-86-5
Molecular Formula	C_6Cl_5OH
Molecular Weight	266.34

TEST	SPECIFICATION	LOT 07119HO RESULTS
APPEARANCE	WHITE TO OFF-WHITE OR LIGHT BLUE POWDER	OFF-WHITE POWDER
INFRARED SPECTRUM	CONFORMS TO STRUCTURE.	CONFORMS TO STRUCTURE AND STANDARD
TITRATION	97.5% - 102.5% (WITH AGNO3 AFTER OXYGEN	100.5 % (WITH AGNO3 AFTER OXYGEN COMBUSTION)
GAS LIQUID CHROMATOGRAPHY	97.5% (MINIMUM)	99.9 %
SOLUBILITY		100 MG/ML, 95% ETOH: VERY HAZY, FAINT YELLOW SOLUTION
QUALITY CONTROL ACCEPTANCE DATE		JUNE 2001

Barbara Rajzer

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: NA

Chemical: Tributyl Phosphate

Manufacturer: Chemservice

Product #: O-916

Lot #: 59-57A

Purity: 99%

Analyst: VB

Element: B000954

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001873

Printed: 9/23/2013 11:47:03AM

Description:	SVOC 4,4 DDT	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	23-Sep-13
Solvent:	N/A	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 11:46 by JZ
Vendor:	Chem Service	Lot #:	198-128A
Vendor Catalog #:			

Comments

Neat, Purity @ 99.2%. (ARI#: 790A)

Analyte	CAS Number	Concentration	Units
4,4'-DDT	50-29-3	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: 4,4' DDT

Manufacturer: Chem Service

Product #: _____

Lot #: 198-128A

Purity: 99.2%

Analyst: AB

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001875

Printed: 9/23/2013 12:13:55PM

Description:	SVOC alpha-Terpineol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	N/A	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 12:13 by JZ
Vendor:	ACROS Organics	Lot #:	AD16481201
Vendor Catalog #:			

Comments

Neat, Purity @ 98%. (ARI#: I1582A)

Analyte	CAS Number	Concentration	Units
alpha-Terpineol	98-55-5	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: alpha-Terpineol

Manufacturer: Acros Organics

Product #: _____

Lot #: A0648170 1

Purity: 98%

Analyst: _____

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001885

Printed: 9/23/2013 3:45:57PM

Description:	SVOA Dibutyl Phenyl phosphate	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 15:45 by JZ
Vendor:	Monsanto	Lot #:	N/A
Vendor Catalog #:			

Comments

Neat, Purity @ 98.9%.

Analyte	CAS Number	Concentration	Units
Dibutyl Phenyl Phosphate	2528-36-1	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: Dibutyl Phenyl Phosphate

Manufacturer: Monsanto

Product #: N/A

Lot #: N/A

Purity: 98.9%

Analyst: [signature]

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001886

Printed: 9/23/2013 3:59:35PM

Description:	SVOC Triphenyl Phosphate	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 15:59 by JZ
Vendor:	Aldrich	Lot #:	04902CM
Vendor Catalog #:			

Comments

Neat, Purity @ 99%.

Analyte	CAS Number	Concentration	Units
Triphenyl Phosphate	115-86-6	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: Triphenyl Phosphate

Manufacturer: Aldrich

Product #: _____

Lot #: 04907CM

Purity: 99%

Analyst: _____

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001887

Printed: 9/23/2013 4:18:55PM

Description:	SVOC Butylated Hydroxytoluene	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 16:18 by JZ
Vendor:	SIGMA	Lot #:	39F-0197
Vendor Catalog #:			

Comments

neat,Purity @ 99.9%.

Analyte	CAS Number	Concentration	Units
Butylated Hydroxytoluene	128-37-0	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Butylated Hydroxytoluene

Manufacturer: Sigma

Product #: _____

Lot #: 39F-0197

Purity: 99.8%

Analyst: AR

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001890

Printed: 9/23/2013 5:02:53PM

Description:	SVOC Butyl Diphenyl Phosphate	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 17:02 by JZ
Vendor:	Monsanto	Lot #:	N/A
Vendor Catalog #:			

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Butyl Diphenyl Phosphate	2752-95-6	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Butyl Diphenyl Phosphate

Manufacturer: Monsanto

Product #: NA

Lot #: NA

Purity: 98%

Analyst: [signature]

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001941

Printed: 9/25/2013 1:45:31PM

Description:	SVOC 2,4-Dinitrophenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 13:45 by JZ
Vendor:	SIGMA	Lot #:	65H5021
Vendor Catalog #:			

Comments

Neat, Purity @ 90-95%. (ARI#: 0466)

Analyte	CAS Number	Concentration	Units
2,4-Dinitrophenol	51-28-5	1000000	ug/mL

B001941
SVOA 2,4-Dinitrophenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: 2,4-Dinitrophenol

Manufacturer: Sigma

Product #: _____

Lot #: bEH 502 I

Purity: 90 ~ 94%

Analyst: _____

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001945

Printed: 9/25/2013 3:23:22PM

Description:	SVOC Benzoic Acid	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:23 by JZ
Vendor:	ACROS Organics	Lot #:	A0224339
Vendor Catalog #:			

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Benzoic acid	65-85-0	1000000	ug/mL

B001945
SVOC Benzoic Acid
Expires 12/31/2029
Prepared By Jianqing Zhou 12/31/2012

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: Benzoic Acid

Manufacturer: Acros Organics

Product #: _____

Lot #: A0214339

Purity: 98%

Analyst: [signature]

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001948

Printed: 9/25/2013 3:37:51PM

Description:	SVOC 4,6-Dinitro-2-Methylphenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:37 by JZ
Vendor:	Chem Service	Lot #:	179-31A
Vendor Catalog #:			

Comments

Neat, Purity @ 99%. (ARI#: 009A)

Analyte	CAS Number	Concentration	Units
4,6-Dinitro-2-methylphenol	534-52-1	1000000	ug/mL

B001948
SVOA 4,6-Dinitro-2-Methylphenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 4,6-Dinitro-2-Methylphenol

Manufacturer: Chem Service

Product #: _____

Lot #: 179-31A

Purity: 99%

Analyst: KB

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B002054

Printed: 10/4/2013 6:32:21PM

Description:	SVOA 1-Methylnaphthalene	Expires:	02-Apr-14
Standard Type:	Analyte Spike	Prepared:	13-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	04-Oct-13 18:32 by JZ
Vendor:	Chem Service	Lot #:	62-5B
Vendor Catalog #:			

Comments

Neat, Purity @ 99%

Analyte	CAS Number	Concentration	Units
1-Methylnaphthalene	90-12-0	1000000	ug/mL

B002054
SVOA 1-Methylnaphthalene
Solvent / Lot: NA
Prep: 12/13/2012 by JZ
Exp: 12/31/2029
Location:

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: 1-Methyl naphthalene

Manufacturer: Chem Service

Product #: 0787

Lot #: 67-53

Purity: 99%

Analyst: AZ

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B002135

Printed: 10/15/2013 12:07:39PM

Description:	SVOA Benzidine	Expires:	31-Dec-29
Standard Type:	Analyte Spike	Prepared:	15-Oct-13
Solvent:	N/A	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	15-Oct-13 12:07 by JZ
Vendor:	SIGMA	Lot #:	18C0024
Vendor Catalog #:			

Comments

Purity @ 95%. ARI#: 0467.

Analyte	CAS Number	Concentration	Units
Benzidine	92-87-5	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: Benzidine

Manufacturer: Sigma

Product #: B-3503

Lot #: 18C0024

Purity: 98%

Analyst: [signature]

Cambridge Isotope Laboratories, Inc.

50 Frontage Road, Andover, MA 01810-5413 USA
800.322.1174 (N.AMERICA) 978.749.8000 (INTERNATIONAL)
www.isotope.com

CERTIFICATE OF ANALYSIS

Product Name: DIBENZ[A,H]ANTHRACENE
(Isotopic Label & Enrichment Specification) (D14, 97%)

Lot Number: PR-14764/09163DA2

Catalog Number: DLM-677-0

I295

Product Information

Chemical Purity Specification:	≥ 98%
Labeled CAS Number:	NA
Unlabeled CAS Number:	53-70-3
Molecular Weight:	292.5
Chemical Formula:	C22D14
Storage:	Store at room temperature away from light and moisture.
Stability:	Stable if stored under recommended conditions.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible.

Approved by: Deborah E. Costa

Deborah E. Costa, Quality Assurance

Quality Control Tests and Results

GC/MS for Chemical Purity	99.3%
GC/MS for Isotopic Enrichment	97.4%
Melting Point Range Determination	263-265°C
1H NMR for Chemical Purity	Pass

E006466

SVOA-d14-Dibenz(a,h)anthracene-NEAT
Solvent / Lot: NA
Prep: 11/9/2016 by VS
Exp: 5/8/2030
Location:

Certificate of Analysis

Product Name:	1,2,4,5-Tetrachlorobenzene
Product Description:	98%
Product Brand:	Sigma-Aldrich
Product Number:	131857
Molecular Weight:	215.89
CAS Number:	95-94-3

TEST	SPECIFICATION	LOT 19309JR RESULTS
APPEARANCE	WHITE POWDER, CHIPS OR CRYSTALS	WHITE CHIPS
INFRARED SPECTRUM	CONFORMS TO STRUCTURE.	CONFORMS TO STRUCTURE AND STANDARD AS
** **		ILLUSTRATED ON PAGE 1011C OF EDITION I,
** **		VOLUME 1 OF "THE ALDRICH LIBRARY OF FT-IR
** **		SPECTRA".
GAS LIQUID	97.5% (MINIMUM)	99.9 %
QUALITY CONTROL		JULY 1997

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

F009172
SVOC 1,2,4,5-Tetrachlorobenzene
Expires 12/31/2079
Prepared By Joshua Rains 10/6/2017

H000691

Data File: \\target\share\chem2\fid4a.i\20230317.b\423C1703.D

Page 1

Date : 17-MAR-2023 10:46

Client ID:

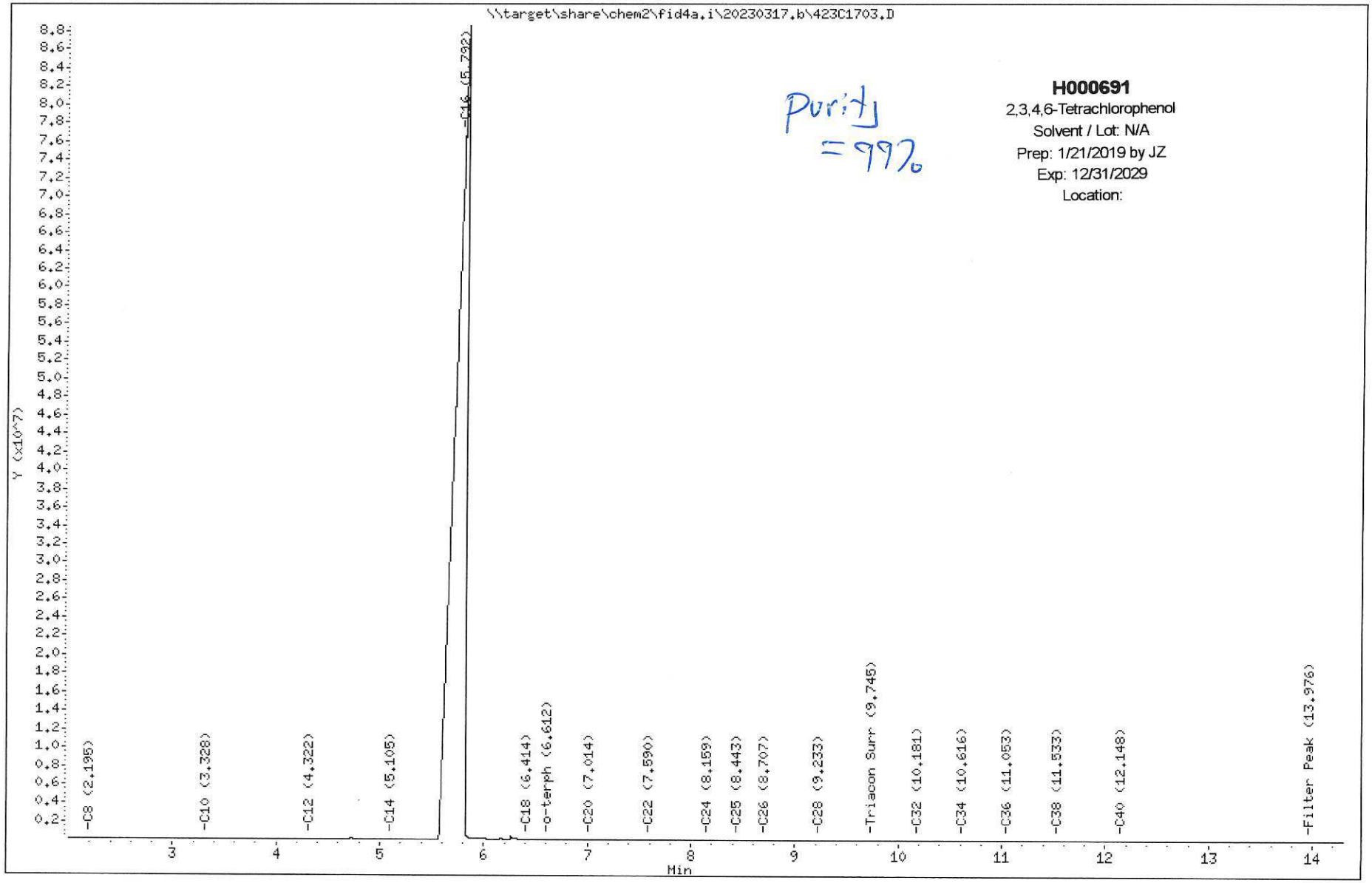
Instrument: fid4a.i

Sample Info: K007226

Operator: AA

Column phase: RTX-1

Column diameter: 0.25



Purity = 99%

H000691
2,3,4,6-Tetrachlorophenol
Solvent / Lot: N/A
Prep: 1/21/2019 by JZ
Exp: 12/31/2029
Location:

ARI Labs, Inc.

Data file : \\target\share\chem2\fid4a.i\20230317.b\423C1703.D
Lab Smp Id: K007226
Inj Date : 17-MAR-2023 10:46
Operator : AA Inst ID: fid4a.i
Smp Info : K007226
Misc Info :
Comment   :
Method   : \\target\share\chem2\fid4a.i\20230317.b\FID4TPH.m
Meth Date : 17-Mar-2023 16:58 alfonso Quant Type: AREA%
Cal Date : 18-AUG-2022 11:51 Cal File: 422H1803.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: Falcon+ Compound Sublist: tph.sub
Target Version: 4.14
Processing Host: ALFONSO-201901

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
2.043	81395	55677	0.684	0.012	1 Toluene
2.074	68503	39991	0.584	0.010	
2.104	85451	37158	0.435	0.012	
2.146	59381	25207	0.424	0.008	
2.181	11414	22862	2.003	0.001	
2.195	34939	23199	0.664	0.005	2 C8
2.218	8679	21808	2.513	0.001	
2.224	21070	21832	1.036	0.003	
2.243	45086	20191	0.448	0.006	
2.286	3130	15677	5.009	0.000	
2.291	12615	15880	1.259	0.001	
2.313	20979	15888	0.757	0.003	
2.333	7621	15373	2.017	0.001	
2.348	31874	17112	0.537	0.004	
2.373	4619	13267	2.872	0.000	
2.380	12003	13446	1.120	0.001	
2.393	10327	13347	1.292	0.001	
2.408	9963	12697	1.274	0.001	
2.446	24366	11882	0.488	0.003	
2.498	24898	10214	0.410	0.003	
2.557	1592	6395	4.017	0.000	
2.570	4427	6384	1.442	0.000	
2.583	4275	6215	1.454	0.000	
2.595	1208	6068	5.024	0.000	
2.602	3076	6230	2.025	0.000	
2.607	1560	6270	4.019	0.000	
2.631	17195	8933	0.520	0.002	
2.654	17386	7637	0.439	0.002	
2.703	4531	5468	1.207	0.000	
2.717	9156	5741	0.627	0.001	
2.740	3955	5045	1.275	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
2.768	1029	4134	4.017	0.000	
2.771	830	4189	5.050	0.000	
2.778	1924	4438	2.307	0.000	
2.784	5498	4564	0.830	0.000	
2.846	25970	8400	0.323	0.003	
2.880	939	3165	3.370	0.000	
2.884	1885	3183	1.688	0.000	
2.901	4805	3504	0.729	0.000	
2.938	581	1990	3.423	0.000	
2.944	1450	2016	1.390	0.000	
2.955	449	1816	4.043	0.000	
2.967	1234	2009	1.629	0.000	
2.982	712	2087	2.931	0.000	
2.988	1000	2338	2.337	0.000	
3.001	3475	3541	1.019	0.000	
3.018	3528	3705	1.050	0.000	
3.033	983	2521	2.564	0.000	
3.038	1297	2686	2.070	0.000	
3.044	2547	2541	0.997	0.000	
3.069	389	1330	3.418	0.000	
3.078	728	1545	2.123	0.000	
3.085	1244	1637	1.316	0.000	
3.098	1115	1624	1.457	0.000	
3.108	926	1475	1.593	0.000	
3.119	239	1202	5.036	0.000	
3.125	540	1251	2.315	0.000	
3.133	409	1219	2.978	0.000	
3.144	2600	1886	0.725	0.000	
3.165	620	1604	2.588	0.000	
3.173	554	1647	2.972	0.000	
3.192	2423	2273	0.938	0.000	
3.197	582	2418	4.158	0.000	
3.204	1161	2723	2.346	0.000	
3.208	825	2777	3.364	0.000	
3.228	4472	3391	0.758	0.000	
3.246	1586	2676	1.688	0.000	
3.279	1194	2070	1.734	0.000	
3.293	854	1951	2.285	0.000	
3.298	595	2029	3.408	0.000	
3.315	2640	2597	0.984	0.000	
3.320	1015	2542	2.504	0.000	
3.328	1549	2593	1.674	0.000	3 C10
3.338	1314	2533	1.928	0.000	
3.350	523	2159	4.130	0.000	
3.358	1776	2105	1.185	0.000	
3.371	356	1797	5.043	0.000	
3.378	914	1880	2.057	0.000	
3.383	380	1927	5.068	0.000	
3.387	595	2023	3.399	0.000	
3.395	1390	2270	1.633	0.000	
3.405	1490	1994	1.338	0.000	
3.423	690	1601	2.321	0.000	
3.435	821	1554	1.894	0.000	
3.441	387	1583	4.087	0.000	
3.444	401	1625	4.051	0.000	
3.448	403	1636	4.060	0.000	
3.455	1216	1700	1.398	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
3.478	235	1185	5.047	0.000	
3.482	412	1229	2.986	0.000	
3.488	695	1177	1.694	0.000	
3.501	239	969	4.063	0.000	
3.509	914	1149	1.258	0.000	
3.520	1078	1069	0.992	0.000	
3.540	301	927	3.079	0.000	
3.556	406	849	2.089	0.000	
3.567	370	873	2.359	0.000	
3.572	178	939	5.270	0.000	
3.578	591	1171	1.981	0.000	
3.591	869	1353	1.556	0.000	
3.596	741	1352	1.826	0.000	
3.606	471	1401	2.976	0.000	
3.613	548	1411	2.577	0.000	
3.618	433	1521	3.511	0.000	
3.625	710	1635	2.303	0.000	
3.630	910	1667	1.832	0.000	
3.652	661	1562	2.362	0.000	
3.670	462	1214	2.627	0.000	
3.686	1036	1453	1.403	0.000	
3.690	829	1374	1.658	0.000	
3.702	531	1191	2.241	0.000	
3.712	452	1355	3.001	0.000	
3.716	820	1423	1.736	0.000	
3.736	2685	2093	0.780	0.000	
3.752	689	2030	2.946	0.000	
3.760	4109	2349	0.572	0.000	
3.805	3183	2036	0.640	0.000	
3.823	496	1686	3.401	0.000	
3.835	1641	2314	1.410	0.000	
3.859	9243	4616	0.499	0.001	
3.897	851	1745	2.051	0.000	
3.904	503	1721	3.419	0.000	
3.927	3866	3293	0.852	0.000	
3.941	5520	3558	0.645	0.000	
3.980	573	1715	2.991	0.000	
3.992	1027	1794	1.748	0.000	
3.995	1494	1860	1.245	0.000	
4.010	887	1639	1.847	0.000	
4.021	663	1724	2.602	0.000	
4.026	1380	1776	1.287	0.000	
4.045	306	1546	5.059	0.000	
4.053	1001	1758	1.757	0.000	
4.061	1137	1804	1.586	0.000	
4.072	779	1773	2.275	0.000	
4.080	989	1896	1.917	0.000	
4.087	561	1905	3.396	0.000	
4.098	1956	2156	1.103	0.000	
4.106	1168	2044	1.750	0.000	
4.127	1049	1627	1.551	0.000	
4.142	587	1545	2.633	0.000	
4.148	1155	1572	1.361	0.000	
4.173	3682	2398	0.651	0.000	
4.189	1023	1738	1.700	0.000	
4.204	549	1627	2.961	0.000	
4.213	628	1658	2.641	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
4.221	1039	1830	1.761	0.000	
4.227	447	1814	4.058	0.000	
4.248	2703	2638	0.976	0.000	
4.256	1387	2945	2.123	0.000	
4.260	743	2988	4.022	0.000	
4.265	912	3081	3.378	0.000	
4.268	779	3140	4.031	0.000	
4.275	1736	3217	1.853	0.000	
4.289	2688	3495	1.300	0.000	
4.295	3466	3448	0.995	0.000	
4.322	1054	2680	2.543	0.000	4 C12
4.330	1686	2627	1.558	0.000	
4.358	1066	1974	1.852	0.000	
4.378	434	1758	4.054	0.000	
4.384	1324	1879	1.419	0.000	
4.403	860	1608	1.869	0.000	
4.414	457	1567	3.431	0.000	
4.421	1117	1675	1.499	0.000	
4.433	910	1538	1.690	0.000	
4.439	865	1534	1.774	0.000	
4.449	764	1302	1.705	0.000	
4.471	433	1123	2.593	0.000	
4.476	734	1135	1.546	0.000	
4.490	385	1005	2.610	0.000	
4.498	555	1186	2.137	0.000	
4.502	695	1166	1.677	0.000	
4.518	587	949	1.618	0.000	
4.526	316	925	2.924	0.000	
4.533	560	989	1.765	0.000	
4.543	469	1001	2.135	0.000	
4.548	222	916	4.130	0.000	
4.553	188	980	5.207	0.000	
4.558	255	1038	4.076	0.000	
4.568	652	1157	1.775	0.000	
4.573	338	1151	3.409	0.000	
4.580	487	1283	2.636	0.000	
4.596	3801	1950	0.513	0.000	
4.631	531	1429	2.692	0.000	
4.663	4548	3737	0.822	0.000	
4.667	2815	3822	1.358	0.000	
4.679	2199	3760	1.710	0.000	
4.688	1068	3585	3.356	0.000	
4.694	2166	3742	1.727	0.000	
4.723	372603	172476	0.463	0.055	
4.894	47034	21828	0.464	0.006	
4.956	80510	28154	0.350	0.011	
4.999	54273	16950	0.312	0.008	
5.068	1137	5713	5.027	0.000	
5.072	8415	5792	0.688	0.001	
5.105	4203	4316	1.027	0.000	5 C14
5.146	660	2685	4.070	0.000	
5.153	2524	2649	1.050	0.000	
5.170	1076	2437	2.265	0.000	
5.174	2371	2438	1.028	0.000	
5.201	1013	2011	1.986	0.000	
5.210	2064	2332	1.130	0.000	
5.224	1083	2304	2.127	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
5.228	2027	2354	1.162	0.000	
5.276	4673	2682	0.574	0.000	
5.322	195	844	4.328	0.000	
5.331	977	1203	1.231	0.000	
5.356	490	993	2.027	0.000	
5.361	814	1044	1.283	0.000	
5.382	115	387	3.351	0.000	
5.399	619	960	1.551	0.000	
5.406	402	1035	2.576	0.000	
5.410	378	1122	2.968	0.000	
5.423	1663	1555	0.935	0.000	
5.452	5951	5020	0.844	0.000	
5.501	290	797	2.753	0.000	
5.523	2317	2472	1.067	0.000	
5.538	5946	6823	1.147	0.000	
5.792	501855376	76456669	0.152	74.449	6 C16
5.807	79757019	82319946	1.032	11.775	
5.823	77929961	88539160	1.136	11.505	
5.962	75333	84828	1.126	0.011	
5.986	474748	124326	0.262	0.070	
6.070	17103	57180	3.343	0.002	
6.074	120761	57565	0.477	0.017	
6.113	90233	47140	0.522	0.013	
6.165	407438	218439	0.536	0.060	
6.263	944101	374166	0.396	0.139	
6.414	114839	39498	0.344	0.016	7 C18
6.464	53190	31177	0.586	0.007	
6.523	31509	25870	0.821	0.004	
6.551	4785	23963	5.008	0.000	
6.559	51194	25409	0.496	0.007	
6.590	21354	21666	1.015	0.003	
6.612	35061	21127	0.603	0.005	$ 8 o-terph
6.638	17712	19934	1.125	0.002	
6.672	22159	19651	0.887	0.003	
6.683	26846	19268	0.718	0.003	
6.708	5413	18142	3.351	0.000	
6.713	24941	18247	0.732	0.003	
6.747	50657	18478	0.365	0.007	
6.795	23973	17444	0.728	0.003	
6.814	28457	17895	0.629	0.004	
6.837	10746	15445	1.437	0.001	
6.871	29974	21406	0.714	0.004	
6.874	4287	21471	5.009	0.000	
6.882	20520	21675	1.056	0.003	
6.944	32864	17445	0.531	0.004	
6.978	9138	15347	1.679	0.001	
7.014	4130	13830	3.348	0.000	9 C20
7.025	12567	14083	1.121	0.001	
7.038	4952	14274	2.882	0.000	
7.044	6508	14578	2.240	0.000	
7.050	25344	14736	0.581	0.003	
7.099	5531	12365	2.236	0.000	
7.108	16440	12371	0.752	0.002	
7.129	9415	11275	1.198	0.001	
7.175	3589	10327	2.878	0.000	
7.182	7285	10474	1.438	0.001	
7.212	11252	10002	0.889	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
7.227	5193	9506	1.830	0.000	
7.237	5172	9476	1.832	0.000	
7.247	4652	9357	2.011	0.000	
7.254	3258	9369	2.875	0.000	
7.259	7003	9455	1.350	0.001	
7.272	5540	9252	1.670	0.000	
7.283	4511	9087	2.014	0.000	
7.296	5828	9031	1.550	0.000	
7.308	4850	8866	1.828	0.000	
7.318	3111	9014	2.897	0.000	
7.324	3191	9168	2.873	0.000	
7.328	2775	9325	3.360	0.000	
7.339	6190	9713	1.569	0.000	
7.344	2920	9761	3.343	0.000	
7.350	17091	9874	0.578	0.002	
7.379	7217	8616	1.194	0.001	
7.395	5430	8408	1.548	0.000	
7.404	2492	8342	3.348	0.000	
7.409	1666	8354	5.014	0.000	
7.415	2955	8500	2.877	0.000	
7.423	3887	8782	2.259	0.000	
7.465	28160	14253	0.506	0.004	
7.471	6466	14499	2.242	0.000	
7.480	6649	15111	2.273	0.000	
7.484	26595	15197	0.571	0.003	
7.514	13964	13621	0.975	0.002	
7.539	8118	12614	1.554	0.001	
7.553	10540	12495	1.185	0.001	
7.584	2820	11307	4.010	0.000	
7.590	4522	11429	2.527	0.000	10 C22
7.620	16634	10435	0.627	0.002	
7.653	6793	9783	1.440	0.001	
7.663	8606	9666	1.123	0.001	
7.675	2827	9464	3.347	0.000	
7.683	9373	9620	1.026	0.001	
7.699	3657	9205	2.517	0.000	
7.708	5071	9290	1.832	0.000	
7.713	10483	9274	0.885	0.001	
7.735	10686	9257	0.866	0.001	
7.752	4732	8664	1.831	0.000	
7.765	5624	8765	1.558	0.000	
7.773	5614	8686	1.547	0.000	
7.784	3375	8506	2.520	0.000	
7.793	2118	8517	4.021	0.000	
7.799	10086	8544	0.847	0.001	
7.817	7761	8325	1.073	0.001	
7.833	2415	8088	3.350	0.000	
7.838	2838	8160	2.875	0.000	
7.844	3649	8173	2.240	0.000	
7.858	2009	8069	4.017	0.000	
7.864	4482	8197	1.829	0.000	
7.871	3688	8223	2.230	0.000	
7.879	4875	8269	1.696	0.000	
7.889	2009	8061	4.013	0.000	
7.897	4080	8308	2.036	0.000	
7.916	17828	10103	0.567	0.002	
7.935	4052	9086	2.242	0.000	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
7.940	2229	8948	4.015	0.000	
7.945	5765	8973	1.556	0.000	
7.954	6458	8765	1.357	0.000	
7.976	2099	8428	4.016	0.000	
7.984	10213	8807	0.862	0.001	
7.999	4897	8282	1.691	0.000	
8.013	8782	8112	0.924	0.001	
8.028	5860	7858	1.341	0.000	
8.040	3929	7871	2.003	0.000	
8.054	9161	8146	0.889	0.001	
8.067	2701	7766	2.876	0.000	
8.074	3069	7702	2.510	0.000	
8.081	2694	7742	2.874	0.000	
8.088	2705	7793	2.881	0.000	
8.095	5842	7832	1.341	0.000	
8.104	5419	7841	1.447	0.000	
8.119	5740	7735	1.348	0.000	
8.134	4986	7768	1.558	0.000	
8.141	5893	8009	1.359	0.000	
8.159	9098	8027	0.882	0.001	11 C24
8.174	3156	7971	2.526	0.000	
8.185	2376	7967	3.353	0.000	
8.190	4739	7937	1.675	0.000	
8.202	5181	8028	1.549	0.000	
8.212	1994	8027	4.025	0.000	
8.223	6137	8270	1.348	0.000	
8.236	6864	8171	1.190	0.001	
8.248	2383	7986	3.351	0.000	
8.253	2405	8059	3.351	0.000	
8.259	5294	8207	1.550	0.000	
8.268	2866	8235	2.874	0.000	
8.280	6583	8312	1.263	0.000	
8.289	4538	8296	1.828	0.000	
8.295	2060	8300	4.029	0.000	
8.300	2063	8291	4.020	0.000	
8.313	7062	8400	1.189	0.001	
8.318	1667	8375	5.023	0.000	
8.332	11362	9100	0.801	0.001	
8.343	4357	8741	2.006	0.000	
8.358	1267	8458	6.676	0.000	
8.363	2991	8621	2.882	0.000	
8.371	3980	8983	2.257	0.000	
8.379	6330	9083	1.435	0.000	
8.385	3111	8963	2.881	0.000	
8.393	6706	9050	1.349	0.000	
8.404	4903	8943	1.824	0.000	
8.417	8437	8972	1.063	0.001	
8.438	7166	9103	1.270	0.001	
8.443	3211	9227	2.873	0.000	12 C25
8.450	3688	9295	2.521	0.000	
8.455	2313	9276	4.010	0.000	
8.475	30054	13714	0.456	0.004	
8.504	5760	9733	1.690	0.000	
8.519	2799	9376	3.350	0.000	
8.529	4766	9710	2.037	0.000	
8.537	4875	9815	2.013	0.000	
8.543	8411	9973	1.186	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
8.555	2969	9916	3.340	0.000	
8.560	3974	9987	2.513	0.000	
8.568	2483	9997	4.026	0.000	
8.572	5007	10043	2.006	0.000	
8.591	14074	10725	0.762	0.002	
8.602	2648	10665	4.028	0.000	
8.606	2159	10862	5.032	0.000	
8.609	2183	10952	5.017	0.000	
8.633	7361	10561	1.435	0.001	
8.647	6774	10495	1.549	0.001	
8.658	2596	10420	4.014	0.000	
8.663	4723	10573	2.239	0.000	
8.669	3156	10589	3.355	0.000	
8.687	15405	11334	0.736	0.002	
8.699	6103	11158	1.828	0.000	
8.707	2223	11136	5.009	0.000	13 C26
8.730	28697	12536	0.437	0.004	
8.754	8658	11553	1.334	0.001	
8.763	2896	11612	4.010	0.000	
8.780	15029	12352	0.822	0.002	
8.788	1833	12243	6.680	0.000	
8.798	11854	12679	1.070	0.001	
8.806	1873	12509	6.677	0.000	
8.809	3133	12565	4.011	0.000	
8.813	2506	12550	5.008	0.000	
8.819	7588	12757	1.681	0.001	
8.829	4418	12679	2.870	0.000	
8.835	6988	12762	1.826	0.001	
8.848	13711	13258	0.967	0.002	
8.872	26625	13656	0.513	0.003	
8.894	4575	13127	2.869	0.000	
8.898	2631	13188	5.013	0.000	
8.902	5918	13262	2.241	0.000	
8.914	8577	13313	1.552	0.001	
8.922	4011	13433	3.349	0.000	
8.926	4724	13546	2.867	0.000	
8.933	6787	13651	2.011	0.001	
8.946	9614	13923	1.448	0.001	
8.951	6274	14004	2.232	0.000	
8.960	5592	14036	2.510	0.000	
8.966	3513	14090	4.011	0.000	
8.969	2829	14171	5.009	0.000	
8.973	4976	14233	2.860	0.000	
8.980	4289	14365	3.350	0.000	
8.996	27708	16441	0.593	0.004	
9.013	8129	14847	1.827	0.001	
9.025	8129	14840	1.826	0.001	
9.036	7503	15229	2.030	0.001	
9.040	4559	15225	3.340	0.000	
9.057	14920	16251	1.089	0.002	
9.067	9915	16831	1.698	0.001	
9.076	8535	17331	2.031	0.001	
9.081	5250	17596	3.352	0.000	
9.084	10558	17675	1.674	0.001	
9.095	4386	17601	4.013	0.000	
9.111	30564	19262	0.630	0.004	
9.128	8346	18722	2.243	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.139	15095	18986	1.258	0.002	
9.149	6655	19050	2.862	0.000	
9.158	23240	19719	0.848	0.003	
9.171	1903	19042	10.005	0.000	
9.175	4773	19156	4.013	0.000	
9.187	23630	19927	0.843	0.003	
9.199	4925	19763	4.013	0.000	
9.208	14115	20394	1.445	0.002	
9.219	12303	20691	1.682	0.001	
9.226	7266	20831	2.867	0.001	
9.233	15622	21000	1.344	0.002	14 C28
9.247	9280	20714	2.232	0.001	
9.262	45057	27849	0.618	0.006	
9.281	22651	23200	1.024	0.003	
9.304	13489	22820	1.692	0.001	
9.307	18038	22862	1.267	0.002	
9.328	8656	21778	2.516	0.001	
9.334	8635	21650	2.507	0.001	
9.343	16240	21738	1.339	0.002	
9.354	5409	21709	4.013	0.000	
9.367	16481	22234	1.349	0.002	
9.370	6683	22346	3.344	0.000	
9.382	14775	23166	1.568	0.002	
9.390	11679	23531	2.015	0.001	
9.394	12888	23584	1.830	0.001	
9.408	18752	23645	1.261	0.002	
9.416	4675	23396	5.004	0.000	
9.428	25138	24392	0.970	0.003	
9.438	20233	24095	1.191	0.002	
9.468	67429	26696	0.396	0.009	
9.496	8413	24122	2.867	0.001	
9.507	12049	24259	2.013	0.001	
9.527	36362	25771	0.709	0.005	
9.538	12891	25911	2.010	0.001	
9.543	6452	25853	4.007	0.000	
9.551	10420	26202	2.515	0.001	
9.557	29750	26593	0.894	0.004	
9.574	6252	25071	4.010	0.000	
9.593	29143	27655	0.949	0.004	
9.599	40783	27905	0.684	0.006	
9.620	13159	26364	2.004	0.001	
9.632	17259	26799	1.553	0.002	
9.640	13210	26592	2.013	0.001	
9.664	35362	28170	0.797	0.005	
9.672	27890	28134	1.009	0.004	
9.696	26737	28634	1.071	0.003	
9.711	53475	30848	0.577	0.007	
9.745	33266	29504	0.887	0.004	$ 15 Triacon Surr
9.752	7348	29501	4.015	0.001	
9.756	20542	29565	1.439	0.003	
9.768	7255	29059	4.005	0.001	
9.773	7275	29173	4.010	0.001	
9.785	31543	30611	0.970	0.004	
9.803	46804	32832	0.701	0.006	
9.821	10456	30060	2.875	0.001	
9.833	30772	31156	1.012	0.004	
9.860	77784	33514	0.431	0.011	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.881	12779	32069	2.510	0.001	
9.892	14531	32668	2.248	0.002	
9.896	8201	32902	4.012	0.001	
9.908	23357	33882	1.451	0.003	
9.912	27050	34095	1.260	0.003	
9.939	14585	32570	2.233	0.002	
9.951	23032	33095	1.437	0.003	
9.956	11596	33292	2.871	0.001	
9.966	16544	33271	2.011	0.002	
9.971	11660	33391	2.864	0.001	
9.975	10051	33617	3.345	0.001	
9.983	15209	33983	2.234	0.002	
9.988	15177	33830	2.229	0.002	
9.996	10128	33907	3.348	0.001	
10.018	43348	35629	0.822	0.006	
10.021	7133	35693	5.004	0.001	
10.025	8960	35988	4.016	0.001	
10.034	42064	36944	0.878	0.006	
10.063	65447	38699	0.591	0.009	
10.077	7375	36906	5.004	0.001	
10.083	16743	37428	2.235	0.002	
10.095	34467	38665	1.122	0.005	
10.118	90921	40621	0.447	0.013	
10.151	37738	38047	1.008	0.005	
10.158	11383	38037	3.342	0.001	
10.168	36074	38274	1.061	0.005	
10.181	15072	37809	2.509	0.002	16 C32
10.185	5655	37746	6.675	0.000	
10.198	43905	38471	0.876	0.006	
10.208	24771	38177	1.541	0.003	
10.218	19031	38113	2.003	0.002	
10.228	13353	38279	2.867	0.001	
10.237	21225	38826	1.829	0.003	
10.243	30946	38929	1.258	0.004	
10.266	43064	39733	0.923	0.006	
10.275	11912	39784	3.340	0.001	
10.278	19932	39886	2.001	0.002	
10.293	46366	40725	0.878	0.006	
10.318	46465	41024	0.883	0.006	
10.328	24720	41353	1.673	0.003	
10.334	10308	41278	4.005	0.001	
10.343	29100	41866	1.439	0.004	
10.354	22822	41695	1.827	0.003	
10.360	16568	41490	2.504	0.002	
10.376	31388	42321	1.348	0.004	
10.384	36478	43119	1.182	0.005	
10.393	21427	43144	2.014	0.003	
10.416	82339	44731	0.543	0.012	
10.434	23173	42257	1.824	0.003	
10.455	42801	43684	1.021	0.006	
10.459	19648	44004	2.240	0.002	
10.469	19632	43883	2.235	0.002	
10.492	56113	45807	0.816	0.008	
10.497	20626	45915	2.226	0.003	
10.503	27439	45837	1.671	0.004	
10.513	31833	45842	1.440	0.004	
10.523	6773	45190	6.672	0.001	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
10.529	22697	45513	2.005	0.003	
10.543	39087	46432	1.188	0.005	
10.552	16284	46719	2.869	0.002	
10.558	18796	47158	2.509	0.002	
10.576	69878	48769	0.698	0.010	
10.586	12085	48384	4.004	0.001	
10.592	21757	48469	2.228	0.003	
10.609	46960	50482	1.075	0.006	
10.616	40486	50812	1.255	0.005	17 C34
10.628	52392	50284	0.960	0.007	
10.665	99744	52644	0.528	0.014	
10.680	20832	52264	2.509	0.003	
10.699	126137	55939	0.443	0.018	
10.723	18258	52316	2.865	0.002	
10.733	65550	52928	0.807	0.009	
10.751	49102	51903	1.057	0.007	
10.765	10288	51490	5.005	0.001	
10.777	73220	52877	0.722	0.010	
10.791	15621	52150	3.338	0.002	
10.799	46819	52190	1.115	0.006	
10.817	52000	52328	1.006	0.007	
10.828	13014	52167	4.008	0.001	
10.833	18275	52280	2.861	0.002	
10.838	67284	52271	0.777	0.009	
10.860	15395	51401	3.339	0.002	
10.867	15366	51252	3.335	0.002	
10.874	25712	51608	2.007	0.003	
10.885	59363	52064	0.877	0.008	
10.901	33199	51247	1.544	0.004	
10.911	35859	51446	1.435	0.005	
10.925	15150	50526	3.335	0.002	
10.936	27761	50508	1.819	0.004	
10.954	40634	51235	1.261	0.005	
10.958	17973	51428	2.861	0.002	
10.982	101216	54997	0.543	0.014	
10.999	80380	54264	0.675	0.011	
11.022	15822	52869	3.342	0.002	
11.029	23878	53171	2.227	0.003	
11.032	23908	53219	2.226	0.003	
11.044	39793	53228	1.338	0.005	
11.053	13218	52959	4.007	0.001	19 C36
11.057	26491	53088	2.004	0.003	
11.069	47933	53454	1.115	0.007	
11.079	78088	52997	0.679	0.011	
11.132	4853	48537	10.002	0.000	
11.138	21933	48845	2.227	0.003	
11.148	46678	49317	1.057	0.006	
11.158	12248	49060	4.006	0.001	
11.164	14711	49102	3.338	0.002	
11.179	64473	49939	0.775	0.009	
11.192	19751	49439	2.503	0.002	
11.197	14848	49541	3.337	0.002	
11.202	17336	49566	2.859	0.002	
11.206	12400	49639	4.003	0.001	
11.212	56808	49881	0.878	0.008	
11.230	26830	48794	1.819	0.003	
11.263	19014	47590	2.503	0.002	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
11.267	11927	47790	4.007	0.001	
11.285	66432	50042	0.753	0.009	
11.308	17214	49235	2.860	0.002	
11.312	19684	49285	2.504	0.002	
11.322	19740	49570	2.511	0.002	
11.331	27467	50208	1.828	0.004	
11.334	12565	50301	4.003	0.001	
11.338	17617	50367	2.859	0.002	
11.356	50450	50688	1.005	0.007	
11.383	31641	48774	1.541	0.004	
11.392	14562	48589	3.337	0.002	
11.398	14566	48593	3.336	0.002	
11.405	21947	48858	2.226	0.003	
11.418	36961	49602	1.342	0.005	
11.428	52174	49838	0.955	0.007	
11.438	46900	49605	1.058	0.006	
11.456	66003	49218	0.746	0.009	
11.481	84312	48818	0.579	0.012	
11.518	39837	46996	1.180	0.005	
11.533	55836	46822	0.839	0.008	20 C38
11.560	30101	46465	1.544	0.004	
11.568	20916	46512	2.224	0.003	
11.573	11637	46596	4.004	0.001	
11.579	23274	46598	2.002	0.003	
11.586	13953	46531	3.335	0.002	
11.591	9318	46631	5.004	0.001	
11.623	97892	48831	0.499	0.014	
11.631	17107	48984	2.863	0.002	
11.638	22090	49260	2.230	0.003	
11.642	32050	49351	1.540	0.004	
11.669	95446	50981	0.534	0.014	
11.685	95822	49865	0.520	0.014	
11.788	8918	44609	5.002	0.001	
11.791	35704	44768	1.254	0.005	
11.804	11082	44350	4.002	0.001	
11.813	22172	44403	2.003	0.003	
11.823	19993	44543	2.228	0.002	
11.829	13395	44754	3.341	0.001	
11.837	20184	44981	2.228	0.002	
11.852	26933	44942	1.669	0.003	
11.866	36041	45224	1.255	0.005	
11.877	15835	45355	2.864	0.002	
11.883	18222	45726	2.509	0.002	
11.889	15985	45741	2.861	0.002	
11.896	20679	46117	2.230	0.003	
11.905	23259	46896	2.016	0.003	
11.929	70146	49826	0.710	0.010	
11.936	52288	50085	0.958	0.007	
11.951	14787	49369	3.339	0.002	
11.957	17313	49595	2.865	0.002	
11.961	32199	49647	1.542	0.004	
11.971	19578	49063	2.506	0.002	
11.980	34244	49065	1.433	0.005	
12.019	96987	51133	0.527	0.014	
12.025	48685	51499	1.058	0.007	
12.053	38386	51386	1.339	0.005	
12.062	38575	51549	1.336	0.005	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
12.070	17923	51300	2.862	0.002	
12.078	45780	51141	1.117	0.006	
12.105	31495	48817	1.550	0.004	
12.118	85510	48295	0.565	0.012	
12.148	55474	46657	0.841	0.008	21 C40
12.172	34299	45899	1.338	0.005	
12.181	18286	45754	2.502	0.002	
12.188	20565	45727	2.223	0.003	
12.198	29701	45787	1.542	0.004	
12.212	11377	45530	4.002	0.001	
12.218	29576	45566	1.541	0.004	
12.237	41054	45750	1.114	0.006	
12.243	13695	45701	3.337	0.002	
12.253	27528	46122	1.675	0.004	
12.260	16149	46201	2.861	0.002	
12.272	32473	46571	1.434	0.004	
12.347	231342	54259	0.235	0.034	
12.355	96470	54322	0.563	0.014	
12.383	13155	52687	4.005	0.001	
12.389	52817	52930	1.002	0.007	
12.434	117936	55204	0.468	0.017	
12.440	19323	55283	2.861	0.002	
12.448	22049	55156	2.502	0.003	
12.460	127044	56114	0.442	0.018	
12.500	63536	55700	0.877	0.009	
12.519	44746	56237	1.257	0.006	
12.523	16928	56556	3.341	0.002	
12.528	14154	56666	4.003	0.002	
12.532	14154	56644	4.002	0.002	
12.538	25607	57089	2.229	0.003	
12.543	31284	57010	1.822	0.004	
12.560	76588	57084	0.745	0.011	
12.574	22463	56167	2.500	0.003	
12.583	192414	56305	0.293	0.028	
12.668	201456	54098	0.269	0.029	
12.722	63529	49368	0.777	0.009	
12.744	14574	48683	3.340	0.002	
12.757	68233	49046	0.719	0.010	
12.777	29106	48653	1.672	0.004	
12.802	69072	49884	0.722	0.010	
12.805	19947	49915	2.502	0.002	
12.813	12457	49907	4.006	0.001	
12.826	42860	50672	1.182	0.006	
12.830	15192	50711	3.338	0.002	
12.835	63121	50727	0.804	0.009	
12.856	30109	50299	1.671	0.004	
12.871	12459	49875	4.003	0.001	
12.876	24950	49913	2.001	0.003	
12.883	12458	49860	4.002	0.001	
12.892	24999	50091	2.004	0.003	
12.904	37682	50442	1.339	0.005	
12.918	60965	51059	0.838	0.009	
12.929	15268	50972	3.338	0.002	
12.950	101236	52476	0.518	0.014	
12.991	32619	50285	1.542	0.004	
13.030	23826	47690	2.002	0.003	
13.047	49429	47410	0.959	0.007	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
13.072	11668	46709	4.003	0.001	
13.077	14056	46964	3.341	0.002	
13.083	21201	47214	2.227	0.003	
13.092	45034	47490	1.055	0.006	
13.103	33139	47401	1.430	0.004	
13.119	58622	47300	0.807	0.008	
13.136	61979	46406	0.749	0.009	
13.163	36232	45399	1.253	0.005	
13.172	13552	45219	3.337	0.002	
13.178	13550	45211	3.337	0.002	
13.183	13581	45318	3.337	0.002	
13.188	15867	45365	2.859	0.002	
13.193	11350	45433	4.003	0.001	
13.206	54879	45909	0.837	0.008	
13.233	74220	46899	0.632	0.010	
13.246	18724	46923	2.506	0.002	
13.250	14089	47028	3.338	0.002	
13.254	9392	46999	5.004	0.001	
13.261	35241	47103	1.337	0.005	
13.270	21093	46884	2.223	0.003	
13.278	16404	46889	2.858	0.002	
13.284	28108	46937	1.670	0.004	
13.309	27777	46575	1.677	0.004	
13.313	11643	46617	4.004	0.001	
13.323	30391	46938	1.544	0.004	
13.337	49696	47554	0.957	0.007	
13.345	11906	47686	4.005	0.001	
13.352	21499	47921	2.229	0.003	
13.358	14416	48133	3.339	0.002	
13.366	24163	48487	2.007	0.003	
13.391	108474	49842	0.459	0.016	
13.411	39818	49922	1.254	0.005	
13.421	140245	49882	0.356	0.020	
13.468	75433	46221	0.613	0.011	
13.519	59701	44435	0.744	0.008	
13.538	26345	44021	1.671	0.003	
13.553	17475	43727	2.502	0.002	
13.559	19699	43828	2.225	0.002	
13.566	15324	43832	2.860	0.002	
13.574	28519	43956	1.541	0.004	
13.585	21950	43943	2.002	0.003	
13.595	26497	44341	1.673	0.003	
13.603	22230	44574	2.005	0.003	
13.608	11135	44585	4.004	0.001	
13.633	100703	46371	0.460	0.014	
13.650	25255	45974	1.820	0.003	
13.663	20511	45675	2.227	0.003	
13.670	15945	45584	2.859	0.002	
13.677	40973	45642	1.114	0.006	
13.688	4544	45448	10.002	0.000	
13.693	29520	45508	1.542	0.004	
13.718	24720	44995	1.820	0.003	
13.727	11216	44890	4.002	0.001	
13.735	29185	45025	1.543	0.004	
13.752	17874	44782	2.505	0.002	
13.767	35874	45020	1.255	0.005	
13.775	36036	45104	1.252	0.005	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
13.785	11226	44939	4.003	0.001	
13.790	47016	44953	0.956	0.006	
13.813	11118	44516	4.004	0.001	
13.818	37641	44507	1.182	0.005	
13.832	15424	44192	2.865	0.002	
13.838	17564	43967	2.503	0.002	
13.844	26339	43892	1.666	0.003	
13.855	30567	43821	1.434	0.004	
13.865	23854	43526	1.825	0.003	
13.882	28266	43639	1.544	0.004	
13.886	30418	43629	1.434	0.004	
13.901	34702	43472	1.253	0.005	
13.920	48162	44005	0.914	0.007	
13.928	17577	43956	2.501	0.002	
13.941	15410	44084	2.861	0.002	
13.946	11045	44251	4.006	0.001	
13.949	24369	44341	1.820	0.003	
13.959	22103	44264	2.003	0.003	
13.967	22088	44195	2.001	0.003	
13.976	33207	44336	1.335	0.004	18 Filter Peak
13.998	24195	44018	1.819	0.003	
14.007	15335	43888	2.862	0.002	
14.014	17519	43863	2.504	0.002	
14.019	54335	43870	0.807	0.008	
14.046	10722	42915	4.003	0.001	
14.052	19305	42955	2.225	0.002	
14.058	8568	42864	5.003	0.001	
14.067	38739	43159	1.114	0.005	
14.077	15012	42931	2.860	0.002	
14.083	25753	42977	1.669	0.003	
14.102	25682	42913	1.671	0.003	
14.108	19267	42865	2.225	0.002	
14.116	12834	42815	3.336	0.001	
14.126	25874	43369	1.676	0.003	
14.133	56339	43595	0.774	0.008	
14.161	32503	43582	1.341	0.004	
14.165	10909	43696	4.006	0.001	
14.170	15313	43822	2.862	0.002	
14.175	10960	43911	4.007	0.001	
14.178	13176	43945	3.335	0.001	
14.183	19785	43976	2.223	0.002	
14.191	8796	44018	5.005	0.001	
14.197	17636	44177	2.505	0.002	
14.208	28815	44459	1.543	0.004	
14.219	8873	44379	5.002	0.001	
14.223	13318	44445	3.337	0.001	
14.229	28860	44456	1.540	0.004	
14.247	15436	44194	2.863	0.002	
14.260	37147	43758	1.178	0.005	
14.274	45685	43705	0.957	0.006	
	677340272	268782821		100.000	

Total unknown % area = 25.478

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

2-Chloronaphthalene

CATALOG NUMBER	N-10323-100MG
LOT NUMBER	10816400
DATE CERTIFIED	05/22/18
EXPIRATION DATE	05/31/24
CAS NUMBER	91-58-7
MOLECULAR FORMULA	C10H7Cl
MOLECULAR WEIGHT	162.62
STORAGE	Store at room temperature (20 - 25 °C).
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.

I010152
2-Chloronaphthalene NEAT
Expires 12/31/2079
Prepared By Joshua Rains 10/29/2020

Analytical Test	Value
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell
CSM/TC

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015

PJLA Reference Material Producer
PJLA Testing

COA Form
Revision 3 (3/2015)

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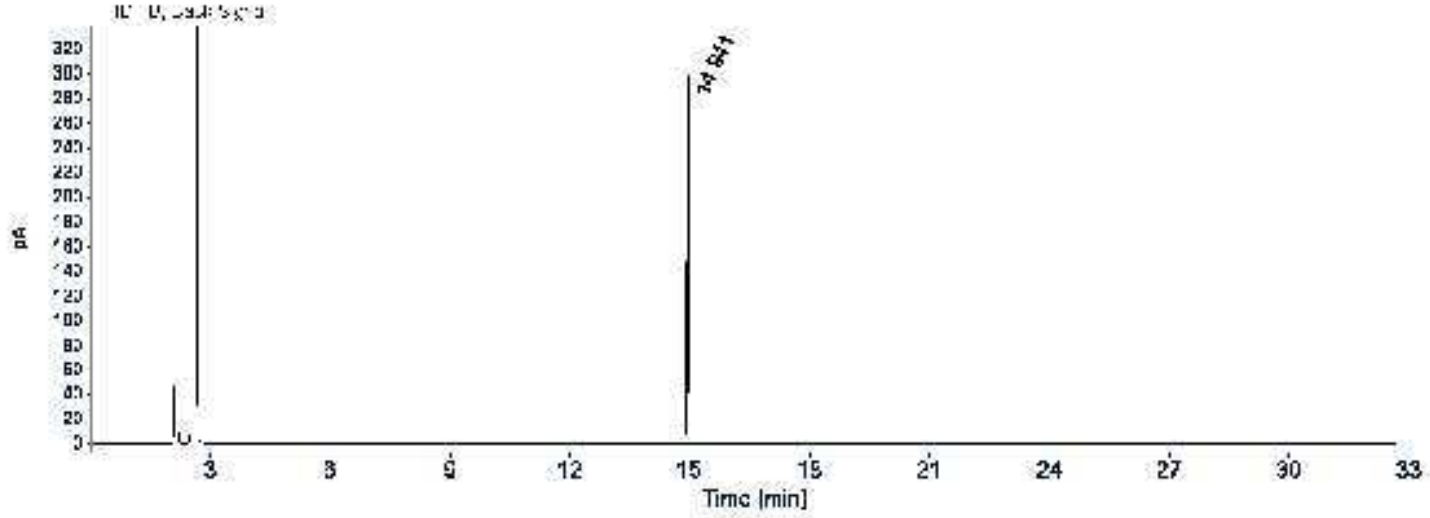
CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\Chem32\1\Data\2018 Data\0518\2-Chloronaphtthalene.D
Sample name: 2-Chloronaphthalene

Instrument: GC3
Injection date: 5/22/2018 1:12:52 PM
Acq. method: REAR_SCREEN.M
Location: 209
Injection volume: 1.0uL
Col Type: pn# 7HG-G006-17-C **Diameter** 250.000 **Length** 30.000



Signal: FID1 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
14.941	BB	0.0410	808.8124	308.5675	100.0000
		Sum	808.8124		

Supelco®

www.sigmaaldrich.com

Certificate of Composition - Analytical Standard

BASE STOCK

Product no.: 22523051
Lot no.: LRAC9813
Expiry Date: May 2023
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: Dichloromethane
Certificate version: LRAC9813.01 *(Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*

J005199
SVOA-ABN BASE STOCK-200-800ug/ml
Expires 5/31/2023
Prepared By Jianqing Zhou 5/18/2021

Analyte	*Assigned Value*	*Units*	*Raw Material Purity,%*	*Raw Material Lot*
3,3'-DICHLOROBENZIDINE CAS# 91-94-1	802	µg/mL	99.9	LC27068
2,4-DINITROTOLUENE CAS# 121-14-2	802	µg/mL	97.8	LB46632
2,6-DINITROTOLUENE CAS# 606-20-2	801	µg/mL	99.9	LB79891
HEXACHLOROCYCLOPENTADIENE CAS# 77-47-4	802	µg/mL	96.0	LB95525
N-NITROSODIMETHYLAMINE CAS# 62-75-9	801	µg/mL	95.0	2019-030598 5
PERYLENE CAS# 198-55-0	201	µg/mL	99.6	04101PG
ANILINE CAS# 62-53-3	803	µg/mL	100.0	10126MG
4-CHLOROANILINE CAS# 106-47-8	803	µg/mL	100.0	MKBZ6909V
2-NITROANILINE CAS# 88-74-4	802	µg/mL	99.9	LC05068
3-NITROANILINE CAS# 99-09-2	802	µg/mL	99.9	LC09264
4-NITROANILINE CAS# 100-01-6	802	µg/mL	99.9	LC11400
PYRIDINE (LOW WATER) CAS# 110-86-1	802	µg/mL	100.0	SHBJ9218

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Sigma-Aldrich RTC, 2931 Soldier Springs Rd. Laramie, WY 82070, USA;
Tel. 1 307-742-5452; Fax 1 855-831-9211; www.sigmaaldrich.com
Sigma-Aldrich RTC is a subsidiary of Merck KGaA, Darmstadt, Germany.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date: 12-May-2021

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAC9813.01	12-May-2021	Original Release Date

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www.sigmaaldrich.com

Certificate of Composition - Analytical Standard

ACID STOC"

Product no.: 22523046
Lot no.: LRAC9812
Expiry Date: May 2023
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: Dichloromethane
Certificate version: LRAC9812.01 *(Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*

J005200
SVOA-ABN ACID STOCK-200-800ug/ml
Solvent / Lot: DCM
Prep: 5/18/2021 by JZ
Exp: 5/31/2023
Location:

JZ 5/18/21

Analyte	*Assigned Value*	*Units*	*Raw Material Purity,%*	*Raw Material Lot*
2,4-DIMETHYLPHENOL CAS# 105-67-9	802	µg/mL	99.9	LB88935
2,4-DICHLOROPHENOL CAS# 120-83-2	802	µg/mL	100.0	BCBZ6787
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	802	µg/mL	99.9	JS00008
2,4-DINITROPHENOL CAS# 51-28-5	1806	µg/mL	75.9	MKBP5833V
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	803	µg/mL	98.7	LB82983
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	801	µg/mL	99.9	JS00013
4-NITROPHENOL CAS# 100-02-7	801	µg/mL	99.9	LC10889
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	1804	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	803	µg/mL	98.7	MKCK8156
BENZOIC ACID CAS# 65-85-0	1805	µg/mL	99.9	LC16514

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Sigma-Aldrich RTC, 2931 Soldier Springs Rd. Laramie, WY 82070, USA;
Tel. 1 307-742-5452; Fax 1 855-831-9211; www.sigmaaldrich.com
Sigma-Aldrich RTC is a subsidiary of Merck KGaA, Darmstadt, Germany.

CERTIFIED WEIGHT REPORT

Part Number: **70476**
Lot Number: 092220
Description: Benzo(j)fluoranthene

Expiration Date: 092225
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 23060

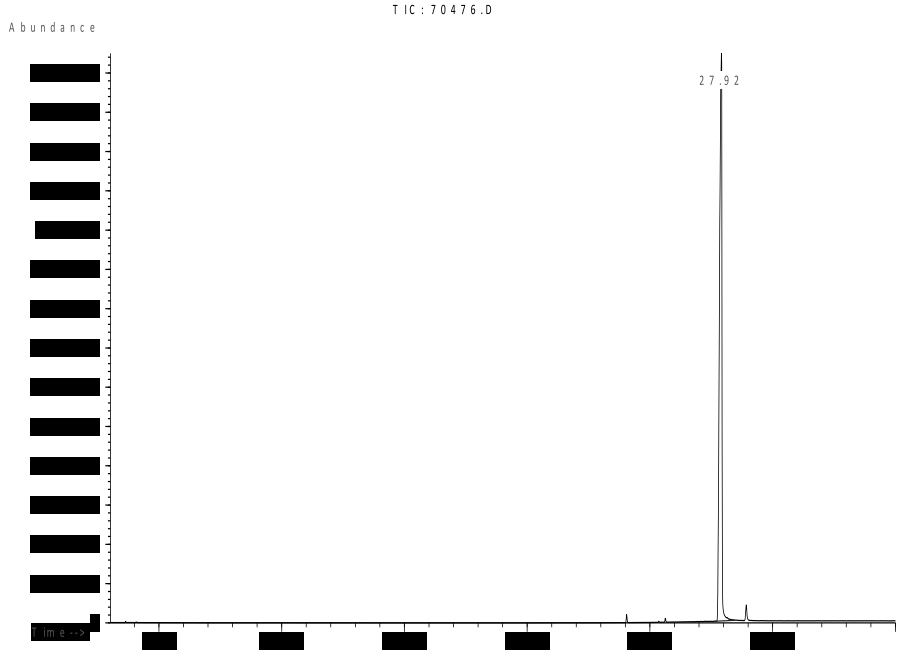
Solvent(s): **Lot#**
Methylene chloride 104929

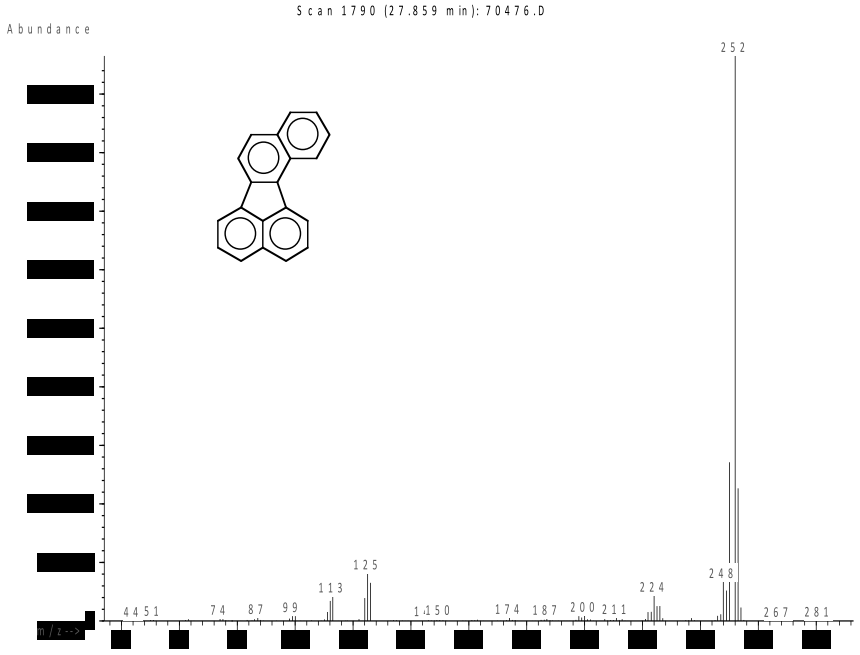
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.001 Flask Uncertainty

092220	
Formulated By: Benson Chan	DATE
092220	
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Benzo(j)fluoranthene	476	3-CSZ-153-20	1000	98.1	0.2	0.02547	0.02552	1001.8	5.7	205-82-3	0.2mg/m3	N/A

Method GC8MSD1M: Column:SBB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9 min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 290°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Candice Warren.





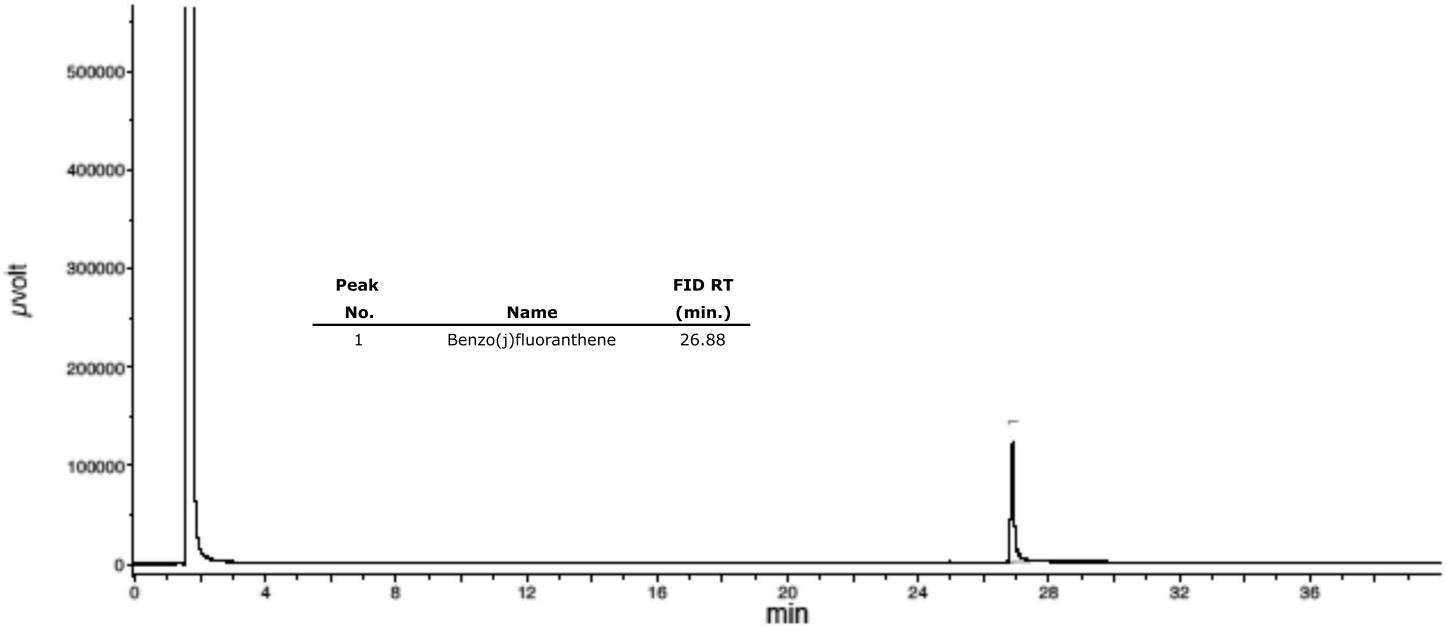
- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Run 31, "P70476 L092220 [1000µg/mL in MeCl2]"

Run Length: 40.00 min, 23999 points at 10 points/second.
Created: Thu, Sep 24, 2020 at 2:33:43 AM.
Sampled: Sequence "092120-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments

GC9-M2 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =360 mLOven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 3



Peak No.	Name	FID RT (min.)
1	Benzo(j)fluoranthene	26.88

Agilent

Certificate of Analysis

J008074

SVOA PAH STD 2000ug/ml
Expires 6/30/2023
Prepared By Joshua Rains 8/5/2021

Product Name: PAH Standard

Product Number: US-106N-1

Lot Number: 0006540449

Lot Issue Date: 11-Jun-2020

Expiration Date: 30-Jun-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
acenaphthene	000083-32-9	RM10879	2008 ± 10 µg/mL
acenaphthylene	000208-96-8	RM10891	2003 ± 10 µg/mL
anthracene	000120-12-7	RM14212	2006 ± 10 µg/mL
benz[a]anthracene	000056-55-3	RM16072	2006 ± 10 µg/mL
benzo[b]fluoranthene	000205-99-2	RM14571	2005 ± 10 µg/mL
benzo[k]fluoranthene	000207-08-9	RM14321	2009 ± 10 µg/mL
benzo[ghi]perylene	000191-24-2	RM15761	2008 ± 10 µg/mL
benzo[a]pyrene	000050-32-8	RM12669	2009 ± 10 µg/mL
chrysene	000218-01-9	RM12260	2009 ± 10 µg/mL
dibenz[a,h]anthracene	000053-70-3	RM06786	2009 ± 10 µg/mL
fluoranthene	000206-44-0	RM12277	2004 ± 10 µg/mL
fluorene	000086-73-7	RM09441	2009 ± 10 µg/mL
indeno[1,2,3-cd]pyrene	000193-39-5	RM14192	2009 ± 10 µg/mL
naphthalene	000091-20-3	NT00970	2008 ± 10 µg/mL
phenanthrene	000085-01-8	RM10495	2009 ± 10 µg/mL
pyrene	000129-00-0	RM03479	2008 ± 10 µg/mL

Matrix: methylene chloride/benzene (1:1)

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

Certificate of Analysis

Product Number: US-106N-1 **Lot Number:** 0006540449

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/

ISO 17025 Cert
No. AT-1937

Certificate of Analysis

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Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244
Lot Number: CL16062
Description: Benzidines Standard
Certification Date: November 19, 2020
Storage: 4 °C
Expiration Date: November 30, 2030
Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 2.740%
3,3'-Dichlorobenzidine	91-94-1	2000	± 3.229%

J008310
Benzidines std @2000ug/ml
Expires 11/30/2030
Prepared By Van Spohn 8/12/2021

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

IL64691018_us

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

   Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

Certificate of Analysis

Sigma-Aldrich

Product Name:	2,4,6-Tribromophenol
Product Description:	99%
Product Brand:	Sigma-Aldrich
Product Number:	137715
Molecular Weight:	330.80
Molecular Formula:	$Br_3C_6H_2OH$
CAS Number:	118-79-6

TEST	SPECIFICATION	LOT 05110PD RESULTS
APPEARANCE:	WHITE TO OFF-WHITE TO PINK FLAKES, CHUNKS,	PINK BEADS
INFRARED SPECTRUM:		CONFORMS TO STRUCTURE.
GAS LIQUID:	98.5% (MINIMUM)	99.9%
QUALITY CONTROL:		NOVEMBER 2005

Barbara Rajzer

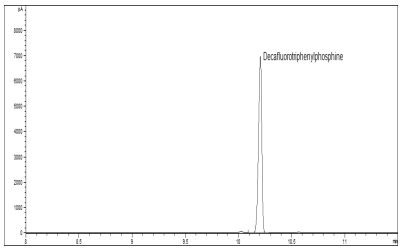
Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

J010541
SVOA-Tribromophenol-NEAT
Solvent / Lot: 05110PD
Prep: 10/1/2021 by VS
Exp: 3/30/2040
Location: voa freezer

Certificate of Analysis - Certified Reference Material

Decafluorotriphenylphosphine solution

Product no.: 48724-U
Lot no.: LRAD0628
Expiry Date: October 2024
Manufacturing Date: September 2021
Storage: ROOM TEMPERATURE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0628.01 (*Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*

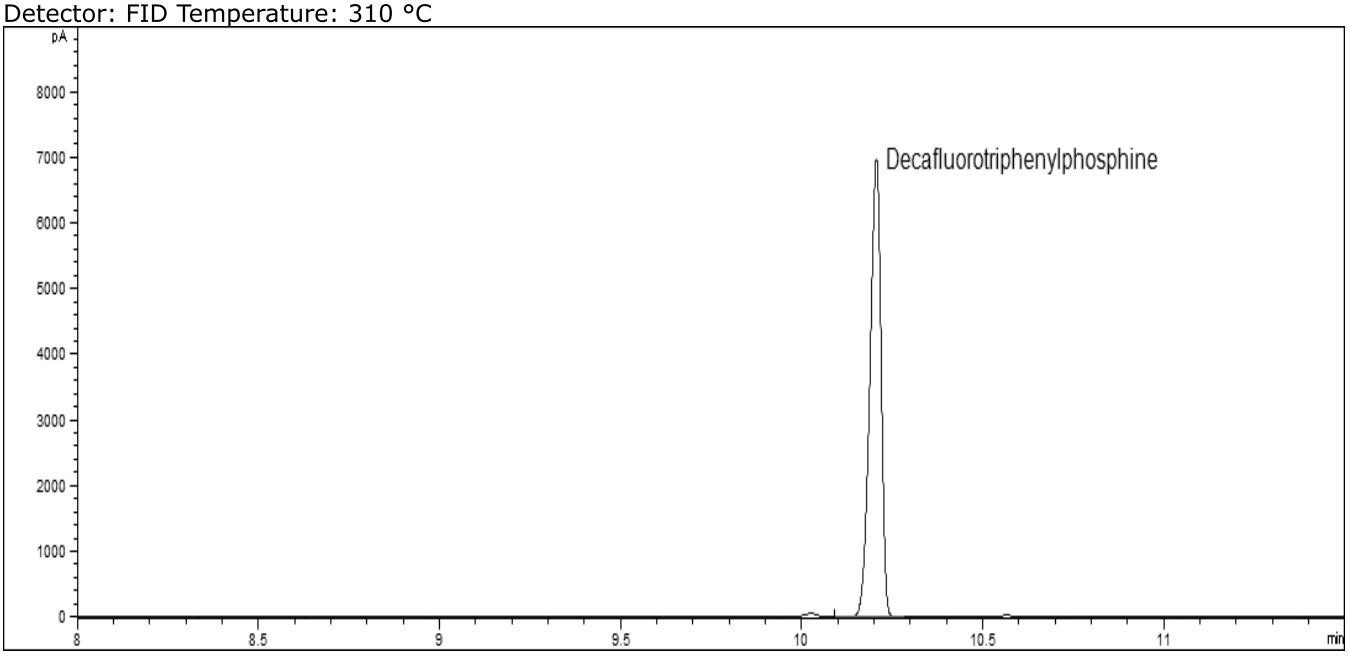


Certified Values:

Analyte	*Certified Value*	*Units*	*Raw Material Purity,%*	*Raw Material Lot*
DFTPP CAS# 5074-71-5	25.2 ± 2.6	mg/mL	97.0	10220909

ASSAY Method

METHOD: GC (BELLEFONTE)
Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness
Carrier Gas: H_2 Flow Rate: 4.3 mL/min
Inlet Temperature: 250 °C Injection Volume: 1 µL
Injection Mode: 25:1
Temperature Program: 120 °C (Hold 0 min) @ 12 °C/min to 260 °C (Hold 0 min)
Detector: FID Temperature: 310 °C



Sigma-Aldrich RTC, 2931 Soldier Springs Rd. Laramie, WY 82070, USA;
Tel. 1 307-742-5452; Fax 1 855-831-9211; www.sigmaaldrich.com
Sigma-Aldrich RTC is a subsidiary of Merck KGaA, Darmstadt, Germany.

Elution details:

EO	RT(MIN)	ANALYTE
1	10.206	Decafluorotriphenylphosphine

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Minimum sample size: 1 µL

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 30-Sep-2021

Andy Ommen - QC Manager

Scott Stetler - QA Manager

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{\text{hom } ogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment: Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0628.01	30-Sep-2021	Original Release Date

.

Certificate of Analysis

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101246
Description: Benzoic Acid
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Lot Number: CL16693
Certification Date: May 6, 2021
Expiration Date: April 30, 2031

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 4.383%

K3238

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Reference Material Producer
Certicate No. 2427.02

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Chemical Testing Laboratory
Certicate No. 2427.03

IL64691018_us

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 25 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101443
Description: Aniline
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Lot Number: CL17696
Certification Date: December 14, 2021
Expiration Date: December 31, 2029

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aniline	62-53-3	1000	± 0.760%

K 3239

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Reference Material Producer
Certicate No. 2427.02

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Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

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Chemical Testing Laboratory
Certicate No. 2427.03

IL64691018_us

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

Certificate of Analysis

BNAs - Sandy Loam 1

Certified Reference Material

Description

Product ID CRM143-50G
Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Certified Values

Analyte	*Units*	*Certified Value* [1,4]
1,2,4-Trichlorobenzene	µg/Kg	1477 ± 181
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	1625 ± 292
1-Chloronaphthalene	µg/Kg	2809 ± 84
2,3-Dimethylphenol	µg/Kg	4552 ± 137
2,4,5-Trichlorophenol	µg/Kg	3438 ± 245
2,4,6-Trichlorophenol	µg/Kg	2194 ± 251
2,4-Dichlorophenol	µg/Kg	6991 ± 394
2,4-Dimethylphenol	µg/Kg	6357 ± 879
2,4-Dinitrophenol	µg/Kg	2922 ± 523
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	3318 ± 442
2,6-Dichlorophenol	µg/Kg	4578 ± 874
2,6-Dimethylphenol	µg/Kg	7582 ± 228
2-Chloronaphthalene	µg/Kg	2223 ± 168
2-Chlorophenol	µg/Kg	1678 ± 202
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	5148 ± 685
2-Methylphenol (o-Cresol)	µg/Kg	6004 ± 573
2-Nitrophenol	µg/Kg	6456 ± 383
3,4-Dimethylphenol	µg/Kg	7185 ± 216
3+4-Methylphenol (m+p-Cresol)	µg/Kg	8033 ± 1613
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	7169 ± 310
4-Chloro-3-methylphenol	µg/Kg	2071 ± 110
4-Chlorophenyl phenylether	µg/Kg	2052 ± 113
4-Methylphenol (p-Cresol)	µg/Kg	6617 ± 1371
4-Nitrophenol	µg/Kg	6812 ± 595
Acenaphthene	µg/Kg	5489 ± 380

Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Acenaphthylene	µg/Kg	1948 ± 240
Anthracene	µg/Kg	2866 ± 237
Benzo(a)anthracene	µg/Kg	5751 ± 552
Benzo(a)pyrene	µg/Kg	5902 ± 612
Benzo(b)fluoranthene	µg/Kg	3010 ± 409
Benzo(b+k)fluoranthene	µg/Kg	6534 ± 196
Benzo(g,h,i)perylene	µg/Kg	1380 ± 136
Benzo(k)fluoranthene	µg/Kg	2215 ± 237
Butyl benzyl phthalate	µg/Kg	3511 ± 384
Carbazole	µg/Kg	5412 ± 407
Chrysene	µg/Kg	1477 ± 72
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	2905 ± 321
Dibenzo(a,h)anthracene	µg/Kg	3420 ± 302
Dibenzofuran	µg/Kg	6130 ± 253
Dimethyl phthalate	µg/Kg	4537 ± 250
Di-n-butyl phthalate	µg/Kg	1721 ± 154
Di-n-octyl phthalate	µg/Kg	2744 ± 288
Fluoranthene	µg/Kg	2497 ± 222
Fluorene	µg/Kg	3724 ± 222
Hexachlorobutadiene	µg/Kg	1877 ± 245
Indeno(1,2,3-cd) pyrene	µg/Kg	3914 ± 409
Isophorone	µg/Kg	1615 ± 170
Naphthalene	µg/Kg	4458 ± 480
Nitrobenzene	µg/Kg	3539 ± 266
n-Nitrosodimethylamine	µg/Kg	1580 ± 402
n-Nitrosodiphenylamine	µg/Kg	2854 ± 379
Pentachlorophenol	µg/Kg	3411 ± 358
Phenanthrene	µg/Kg	5052 ± 385
Phenol	µg/Kg	2660 ± 184
Pyrene	µg/Kg	2964 ± 256
Pyridine	µg/Kg	1008 ± 30

Informational Values

Certificate of Analysis

BNAs - Sandy Loam 1

Certified Reference Material

Description

Product ID CRM143-50G
Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Analyte	*Units*	*Suggested Acceptance Windows*	*Standard Deviation*
1,2,4-Trichlorobenzene	µg/Kg	148 to 2853	459
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	163 to 3440	605
1-Chloronaphthalene	µg/Kg	1123 to 4494	562
2,3-Dimethylphenol	µg/Kg	1821 to 7284	910
2,4,5-Trichlorophenol	µg/Kg	1003 to 5872	811
2,4,6-Trichlorophenol	µg/Kg	640 to 3748	518
2,4-Dichlorophenol	µg/Kg	2391 to 11591	1533
2,4-Dimethylphenol	µg/Kg	0.00 to 13959	2534
2,4-Dinitrophenol	µg/Kg	1169 to 4675	584
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	1248 to 5388	690
2,6-Dichlorophenol	µg/Kg	1831 to 7324	916
2,6-Dimethylphenol	µg/Kg	3033 to 12132	1516
2-Chloronaphthalene	µg/Kg	748 to 3699	492
2-Chlorophenol	µg/Kg	415 to 2942	421
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	0.00 to 10347	1733
2-Methylphenol (o-Cresol)	µg/Kg	1306 to 10702	1566
2-Nitrophenol	µg/Kg	1534 to 11379	1641
3,4-Dimethylphenol	µg/Kg	2874 to 11495	1437
3+4-Methylphenol (m+p-Cresol)	µg/Kg	4054 to 16218	2027
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	2901 to 11437	1423
4-Chloro-3-methylphenol	µg/Kg	677 to 3464	464
4-Chlorophenyl phenylether	µg/Kg	756 to 3348	432
4-Methylphenol (p-Cresol)	µg/Kg	2647 to 10587	1323
4-Nitrophenol	µg/Kg	681 to 14762	2650
Acenaphthene	µg/Kg	2243 to 8736	1082
Acenaphthylene	µg/Kg	712 to 3183	412
Anthracene	µg/Kg	1218 to 4515	550
Benzo(a)anthracene	µg/Kg	2806 to 8696	982
Benzo(a)pyrene	µg/Kg	2512 to 9292	1130
Benzo(b)fluoranthene	µg/Kg	1197 to 4822	604
Benzo(b+k)fluoranthene	µg/Kg	2614 to 10454	1307

Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Benzo(g,h,i)perylene	µg/Kg	489 to 2271	297
Benzo(k)fluoranthene	µg/Kg	892 to 3537	441
Butyl benzyl phthalate	µg/Kg	1255 to 5766	752
Carbazole	µg/Kg	2032 to 8792	1127
Chrysene	µg/Kg	669 to 2284	269
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	765 to 5045	713
Dibenzo(a,h)anthracene	µg/Kg	1257 to 5583	721
Dibenzofuran	µg/Kg	2766 to 9493	1121
Dimethyl phthalate	µg/Kg	1842 to 7231	898
Di-n-butyl phthalate	µg/Kg	495 to 2947	409
Di-n-octyl phthalate	µg/Kg	690 to 4798	685
Fluoranthene	µg/Kg	984 to 4009	504
Fluorene	µg/Kg	1638 to 5810	695
Hexachlorobutadiene	µg/Kg	425 to 3329	484
Indeno(1,2,3-cd) pyrene	µg/Kg	870 to 6957	1015
Isophorone	µg/Kg	437 to 2792	392
Naphthalene	µg/Kg	1131 to 7784	1109
Nitrobenzene	µg/Kg	1024 to 6054	838
n-Nitrosodimethylamine	µg/Kg	632 to 2528	316
n-Nitrosodiphenylamine	µg/Kg	1142 to 4567	571
Pentachlorophenol	µg/Kg	341 to 7037	1209
Phenanthrene	µg/Kg	2307 to 7798	915
Phenol	µg/Kg	681 to 4639	660
Pyrene	µg/Kg	1118 to 4810	615
Pyridine	µg/Kg	403 to 1613	202

Additional Information:

DESCRIPTION

The organic sample is a soil containing extractable BNAs for analysis by 8100, 8270, 8310 or equivalent methods.

This product consist of a 5 vials each containing 10g of soil for analysis of PAHs. Each vial is identical and has been tested how homogeneity. Only one vial is need for test the remaining vials are to be used for multiple methods or routine testing.

The soil has been sterilized to minimize degradation of the sample.

The sample has been sized to 100 mesh.

Required storage condition is 4ºC.

The sample has been intentionally prepared with an apparent headspace.

STORAGE

The sample should be stored at 4ºC. It has been determined to be stable for the duration of the expiration date.

After sub-sampling replace cap securely and store remaining sample at 4ºC.

The shelf life of the product was determined by historic stability of similar CRM's. The expiration date may be extended based on stock and popularity upon successful stability testing by a 17025 accredited laboratory.

Certificate of Analysis

BNAs - Sandy Loam 1

Certified Reference Material

Description

Product ID	CRM143-50G
Lot	**LRAC8918**
Expiration Date	January 2024
Manufacturing Date	January 2021
Storage Conditions	Refrigerate
Solvent/Matrix	SOIL

Stability and shelf life after opening must be determined by the user, taking into account sampling frequency/volume and all local conditions.

SAMPLE PREPARATION

Extract the complete contents of a single vial. Transfer entire contents of one vial to extraction vessel. Rinse vial and cap with extraction solvent.

Assume a 10g sample size for all calculations.

Note: Sample extracts and calibration solutions should be in the same solvent.

Report all results on a wet weight basis, do not correct for moisture.

NOTE: For method 8100 and using a packed column gas chromatographic method or cannot adequately resolve the following may coelute in four pairs of compounds: anthracene and phenanthrene; chrysene and benzo(a)anthracene; benzo(b)fluoranthene and benzo(k)fluoranthene; and dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene.

SCOPE AND APPLICATION

The BNAs in Soil Certified Reference Material (CRM) consists of 5 10mL VOA vials, with a Teflon lined closures containing approximately 10 grams of soil, fortified with BNAs. Being a natural matrix waste sample the analyst is challenged by the same preparation problems, analytical interferences, etc. as is typical for similar matrices received by the laboratory for analysis.

Description

Lot	**LRAC8918**
Expiration Date	January 2024
Manufacturing Date	January 2021
Storage Conditions	Refrigerate
Solvent/Matrix	SOIL

1 **Metrological traceability:** Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. K=2 unless specified. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{\text{hom } ogeneity}^2 + u_{stability}^2}$$

***k*:** Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were preformed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH **ISO/IEC 17025:2017 (ANAB Cert AT-1467)** and **ISO 17034:2016 (ANAB Cert AR-1470).**

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Certification Date	January 05, 2021
Version	0-152021

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 93462
Lot Number: 081021
Description: PAH Standard
30 components
Expiration Date: 081026
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

Solvent(s): Methylene chloride **Lot#** 105345

K3587

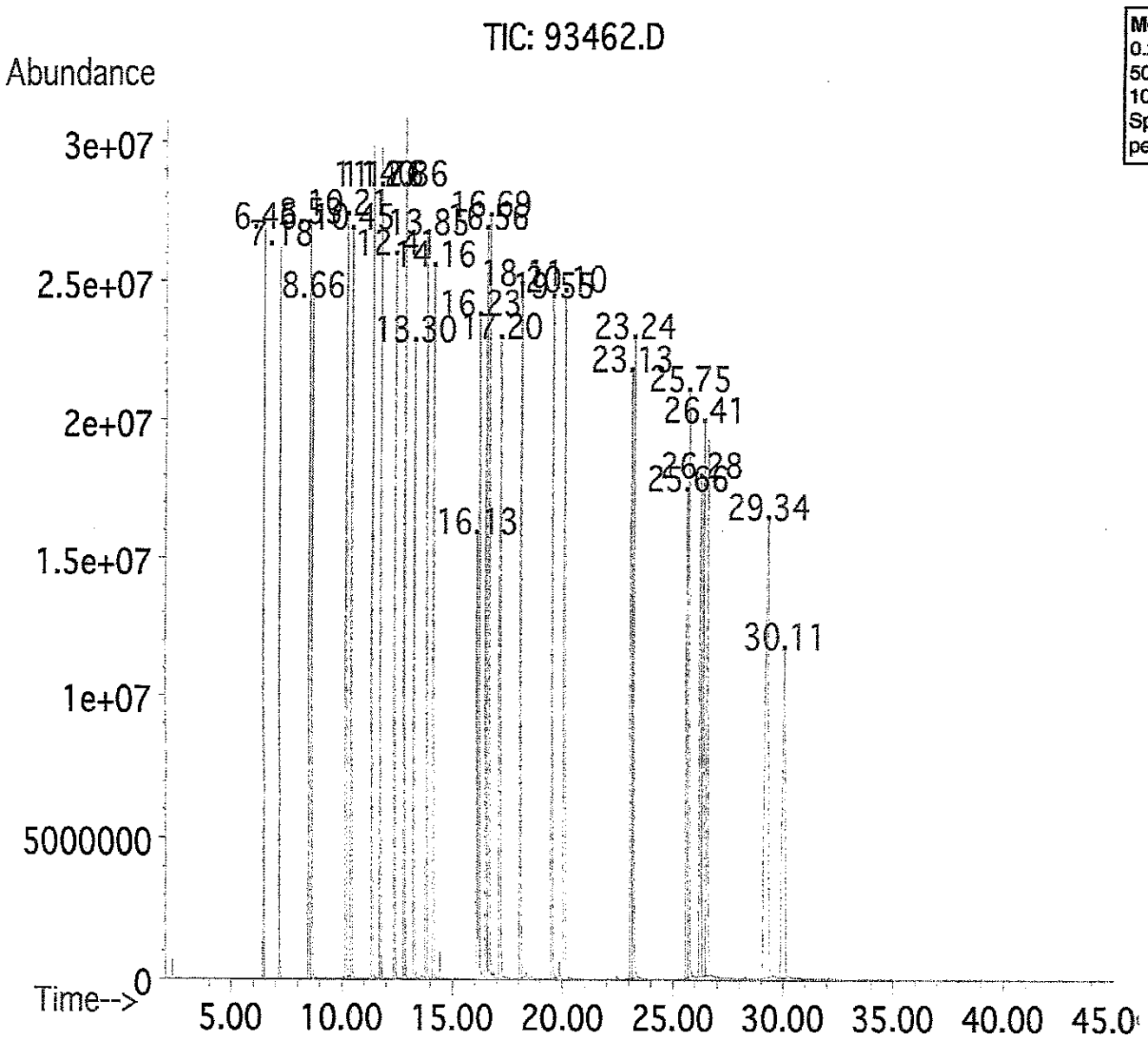
Formulated By:	Prashant Chauhan	081021 DATE
Reviewed By:	Pedro L. Rentas	081021 DATE

Volume(s) shown below were combined and diluted to (mL): 20.0

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

	Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(ug/mL)	Final Conc.(ug/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	10007	042420	0.50	10.00	0.042	2001.2	1000.4	9.4	83-32-9	N/A	ipr-rat 600mg/kg
2.	Acenaphthylene	10007	042420	0.50	10.00	0.042	2000.2	999.9	9.4	208-96-8	N/A	N/A
3.	Anthracene	10007	042420	0.50	10.00	0.042	2000.3	999.9	9.3	120-12-7	0.2mg/m3 (8H)	ipr-mus 430mg/kg
4.	Benzo(a)anthracene	10007	042420	0.50	10.00	0.042	2001.3	1000.4	9.4	56-55-3	N/A	N/A
5.	Benzo(a)pyrene	10007	042420	0.50	10.00	0.042	2000.0	999.8	9.3	50-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6.	Benzo(b)fluoranthene	10007	042420	0.50	10.00	0.042	2000.9	1000.2	9.3	205-99-2	N/A	N/A
7.	Benzo(k)fluoranthene	10007	042420	0.50	10.00	0.042	2001.2	1000.4	9.4	207-08-9	N/A	N/A
8.	Benzo(g,h,i)perylene	10007	042420	0.50	10.00	0.042	2000.0	999.8	9.3	191-24-2	N/A	N/A
9.	Carbazole	10007	042420	0.50	10.00	0.042	2000.3	999.9	9.4	86-74-8	N/A	ipr-mus 200mg/kg
10.	Chrysene	10007	042420	0.50	10.00	0.042	2000.8	1000.2	9.4	218-01-9	0.2mg/m3	N/A
11.	Dibenzo(a,h)anthracene	10007	042420	0.50	10.00	0.042	2000.8	1000.2	9.4	53-70-3	0.2mg/m3	N/A
12.	Fluoranthene	10007	042420	0.50	10.00	0.042	2000.3	999.9	9.4	206-44-0	N/A	orl-rat 2000mg/kg
13.	Fluorene	10007	042420	0.50	10.00	0.042	2000.9	1000.2	9.4	86-73-7	N/A	ipr-mus 2 g/kg
14.	Indeno(1,2,3-cd)pyrene	10007	042420	0.50	10.00	0.042	2000.1	999.8	9.3	193-39-5	N/A	N/A
15.	Naphthalene	10007	042420	0.50	10.00	0.042	2000.9	1000.2	9.3	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
16.	Phenanthrene	10007	042420	0.50	10.00	0.042	2000.9	1000.2	9.4	85-01-8	0.2mg/m3/8H	orl-mus 700mg/kg
17.	Pyrene	10007	042420	0.50	10.00	0.042	2001.0	1000.3	9.4	129-00-0	0.2mg/m3/8H	orl-rat 2700mg/kg
18.	Benzo(e)pyrene	94851	081021	0.50	10.00	0.042	2002.1	1000.8	9.4	192-97-2	N/A	N/A
19.	Biphenyl	94851	081021	0.50	10.00	0.042	2001.5	1000.5	9.4	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
20.	Decalin (49% cis, 51% trans)	94851	081021	0.50	10.00	0.042	2002.5	1001.0	9.4	91-17-8	N/A	N/A
21.	Dibenzofuran	94851	081021	0.50	10.00	0.042	2002.3	1000.9	9.4	132-64-9	N/A	N/A
22.	Dibenzothiophene	94851	081021	0.50	10.00	0.042	2002.5	1001.0	9.4	132-65-0	N/A	orl-mus 470 mg/kg
23.	2,6-Dimethylnaphthalene	94851	081021	0.50	10.00	0.042	2001.9	1000.7	9.4	581-42-0	N/A	N/A
24.	1-Methylnaphthalene	94851	081021	0.50	10.00	0.042	2002.2	1000.9	9.4	90-12-0	N/A	orl-rat 1840mg/kg
25.	2-Methylnaphthalene	94851	081021	0.50	10.00	0.042	2000.6	1000.1	9.4	91-57-6	N/A	orl-rat 1630mg/kg
26.	1-Methylphenanthrene	94851	081021	0.50	10.00	0.042	2002.3	1000.9	13.2	832-69-9	N/A	N/A
27.	Pentachlorophenol	94851	081021	0.50	10.00	0.042	3961.5	1980.3	18.6	87-86-5	0.5mg/m3/8H (skin)	orl-rat 27mg/kg
28.	Perylene	94851	081021	0.50	10.00	0.042	2001.9	1000.7	9.4	198-55-0	N/A	N/A
29.	Thianaphthene	94851	081021	0.50	10.00	0.042	2003.1	1001.3	9.4	95-15-8	N/A	N/A
30.	2,3,5-Trimethylnaphthalene	94851	081021	0.50	10.00	0.042	2003.1	1001.3	9.5	2245-38-7	N/A	N/A

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



Method GC8MSD-2Long: Column:SPB-5 (30m X 0.25mm ID X 0.25μm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.

Retention Time (min.)	
Decahydronaphthalene (Decalin) (isomer)	6.46
Decahydronaphthalene (Decalin) (isomer)	7.18
Naphthalene	8.53
Thianaphthene	8.66
2-Methylnaphthalene	10.21
1-Methylnaphthalene	10.45
Biphenyl	11.4
2,6-Dimethylnaphthalene	11.76
Acenaphthylene	12.41
Acenaphthene	12.86
Dibenzofuran	13.3
2,3,5-Trimethylnaphthalene	13.85
Fluorene	14.16
Pentachlorophenol	16.13
Dibenzothiophene	16.23
Phenanthrene	16.56
Anthracene	16.69
Carbazole	17.2
1-Methylphenanthrene	18.11
Fluoranthene	19.55
Pyrene	20.1
Benzo(a)anthracene	23.13
Chrysene	23.24
Benzo(b)fluoranthene	25.66
Benzo(k)fluoranthene	25.75
Perylene	26.28
Benzo(a)pyrene	26.41
Benzo(e)pyrene	26.61
Indeno(1,2,3-cd)pyrene	29.34
Dibenzo(a,h)anthracene	29.34
Benzo(g,h,i)perylene	30.11

Certificate of Analysis

Phenova Certified Reference Materials are sold by Phenomenex.
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Access your MSDS and digital C of A at **www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards**

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.:	AL0-101291	**Lot Number:**	CL11000
Description:	GC/MS Tuning Mix	**Certification Date:**	May 9, 2014
Storage:	4 °C	**Expiration Date:**	December 31, 2023
Provided As:	1 mL in 2 mL Ampoule in Methylene chloride	**Revision Date:**	August 5, 2015

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty (%)
Benzidine	92-87-5	1000	± 0.208%
Decafluorotriphenylphosphine (DFTPP)	5074-71-5	1000	± 0.057%
4,4'-DDT	50-29-3	1000	± 0.056%
Pentachlorophenol	87-86-5	1000	± 0.061%

K003891
GC/MS Tune solution-1000ug/ml
Solvent / Lot: CL11000
Prep: 4/22/2022 by VS
Exp: 12/31/2023
Location:

ACCREDITED
Reference Material Producer
Certificate No. 2427.02

phenova® Certified Reference Materials

Manufactured by Phenova, Inc.
Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ilac-MRA ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

IL111106131.us

Agilent

Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-103N-1 **Lot Issue Date:** 25-May-2021

Lot Number: 0006609664 **Expiration Date:** 30-Jun-2024

Description:
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
benzoic acid	000065-85-0	RM01884	2005 ± 10 µg/mL
o-cresol	000095-48-7	RM12877	2005 ± 10 µg/mL
p-cresol	000106-44-5	RM01988	2005 ± 10 µg/mL
2,4,5-trichlorophenol	000095-95-4	NT00344	2004 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

5/11/22

K004539
toxic sub mix#1
Solvent / Lot: methylene chloride
Prep: 5/11/2022 by JZ
Exp: 6/30/2024
Location:

ANAB ACCREDITED ISO17034 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO 17025 Cert No. AT-1937

ISO 17034

Agilent
Trusted Answers

Reference Material Certificate

Product Name: Phenols Standard
Product Number: US-107N-1
Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006648297
Lot Issue Date: 17-Nov-2021
Expiration Date: 31-Dec-2024

Component Name	CERTIFIED VALUES Concentration	Expanded Uncertainty	CAS#	Analyte Lot
4-chloro-3-methylphenol	2006 ±	10 µg/mL	000059-50-7	RM01885
2-chlorophenol	2007 ±	10 µg/mL	000095-57-8	RM01871
2,4-dichlorophenol	2005 ±	10 µg/mL	000120-83-2	RM13878
2,4-dimethylphenol	2006 ±	10 µg/mL	000105-67-9	RM13009
2,4-dinitrophenol	2006 ±	10 µg/mL	000051-28-5	RM02112
2-methyl-4,6-dinitrophenol	2005 ±	10 µg/mL	000534-52-1	RM02292
2-nitrophenol	2007 ±	10 µg/mL	000088-75-5	RM13445
4-nitrophenol	2006 ±	10 µg/mL	000100-02-7	RM03752
pentachlorophenol	2006 ±	10 µg/mL	000087-86-5	RM02474
phenol	2006 ±	10 µg/mL	000108-95-2	RM11471
2,4,6-trichlorophenol	2006 ±	10 µg/mL	000088-06-2	RM18096

Matrix: methylene chloride (dichloromethane)

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

5/11/22

CSD-QA-015.1

K004540
phenols mix
Solvent / Lot: methylene chloride
Prep: 5/11/2022 by JZ
Exp: 12/31/2024
Location:

ISO 17034

Agilent
Trusted Answers

Reference Material Certificate

Product Name: PAH Standard
Product Number: US-106N-1
Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006627349
Lot Issue Date: 17-Sep-2021
Expiration Date: 31-Oct-2024

Component Name	CERTIFIED VALUES Concentration	Expanded Uncertainty	CAS#	Analyte Lot
acenaphthene	2007 ±	10 µg/mL	000083-32-9	RM10879
acenaphthylene	2004 ±	10 µg/mL	000208-96-8	RM10891
anthracene	2006 ±	10 µg/mL	000120-12-7	RM14212
benz[a]anthracene	2006 ±	10 µg/mL	000056-55-3	RM16072
benzo[b]fluoranthene	2006 ±	10 µg/mL	000205-99-2	RM14571
benzo[k]fluoranthene	2006 ±	10 µg/mL	000207-08-9	RM18376
benzo[ghi]perylene	2006 ±	10 µg/mL	000191-24-2	RM15761
benzo[a]pyrene	2006 ±	10 µg/mL	000050-32-8	RM17573
chrysene	2007 ±	10 µg/mL	000218-01-9	RM13771
dibenz[a,h]anthracene	2006 ±	10 µg/mL	000053-70-3	RM06786
fluoranthene	2006 ±	10 µg/mL	000206-44-0	RM12277
fluorene	2006 ±	10 µg/mL	000086-73-7	RM09441
indeno[1,2,3-cd]pyrene	2006 ±	10 µg/mL	000193-39-5	RM14192
naphthalene	2007 ±	10 µg/mL	000091-20-3	RM10445
phenanthrene	2005 ±	10 µg/mL	000085-01-8	RM10495
pyrene	2005 ±	10 µg/mL	000129-00-0	RM16126

Matrix: methylene chloride/benzene (1:1)

Description:
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Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

K004541
SVOA PAH STD 2000ug/ml
Solvent / Lot: DCM/BENZENE
Prep: 5/11/2022 by JZ
Exp: 10/31/2024
Location: Fridge 19

CSD-QA-015.1

11/22

Reference Materials Producer
Cert #2495.01

Certificate of Analysis

Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030 **Lot No.** AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

This **SPEXOrganics**® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

Compound	CAS #	Labeled	Purity	Certified†	Uncertainty
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

Certificate of Reference Material

Catalog Number: ECS-A-030 **Lot No.** AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021 Certifying Officer: Shannon Mora

Report of Certification

Catalog Number: ECS-A-030 **Lot No.** AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory , please store this product in a refrigerator (2°C to 8°C). Note: Shipping conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and is applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve after one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that should be removed from this vial is 5 µL with a 25µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that come in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation have been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bottle variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i, where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breech of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liable for any loss of profits or any incidental, special, or consequential damages.

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Accredited to 17025 & Guide 34 ISO Certified to 9001

ACCREDITED
Reference Materials Producer
Cert #2495.01

ECS

Certificate of Analysis

ilac-MRA ACCREDITED
Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030 **Lot No.** AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

This **SPEXOrganics®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

Compound	CAS #	Labeled	Purity	Certified†	Uncertainty
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
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K004542

Certificate of Reference Material

Catalog Number: ECS-A-030 **Lot No.** AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

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Date of Certification: 1-26-2021 Certifying Officer: Shannon Nave

Report of Certification

Catalog Number: ECS-A-030 **Lot No.** AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

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- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

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Accredited to 17025 & Guide 34 ISO Certified to 9001

Agilent

Certificate of Analysis

Product Name: 1-Methylnaphthalene Standard

Product Number: EPA-1225-1 **Lot Issue Date:** 19-Jul-2021

Lot Number: 0006624769 **Expiration Date:** 31-Jul-2023

Description:
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1-methylnaphthalene	000090-12-0	RM07712	999.3 ± 5.0 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

K004543
1-Methylnaphthalene
Solvent / Lot: MEOH
Prep: 5/11/2022 by JZ
Exp: 7/31/2023
Location:

5/11/22

Sample lot approver:
Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO17034 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026
Page: 1 of 1
www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO 17025 Cert
No. AT-1937

Agilent

Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-104N-1 **Lot Issue Date:** 02-Jul-2021

Lot Number: 0006620643 **Expiration Date:** 31-Jul-2023

Description:
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
aniline	000062-53-3	RM12853	2005 ± 10 µg/mL
benzyl alcohol	000100-51-6	RM10547	2004 ± 10 µg/mL
4-chloroaniline	000106-47-8	RM01886	2002 ± 10 µg/mL
dibenzofuran	000132-64-9	RM02077	2002 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	2006 ± 10 µg/mL
2-nitroaniline	000088-74-4	RM02402	2003 ± 10 µg/mL
3-nitroaniline	000099-09-2	RM02424	2003 ± 10 µg/mL
4-nitroaniline	000100-01-6	RM02425	2003 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

K004544
toxic sub mix#2
Solvent / Lot: methylene chloride
Prep: 5/11/2022 by JZ
Exp: 7/31/2023
Location:

05/11/22

ANAB ACCREDITED ISO17034 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO 17025 Cert No. AT-1937

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31493 **Lot No.:** A0181243

Description : CLP 04.1 BNA Surrogate Mix

CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2025 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

05/11/22

K004545
CLP 04.1 BNA SURR MIX
Solvent / Lot: AO175316
Prep: 5/11/2022 by JZ
Exp: 10/20/2025
Location:

Elution Order	Compound	Gr (weig					
1	2-Fluorophenol **CAS #** 367-12-4 (Lot STBJ2508) **Purity** 99%	1,50		+/- 53.3632	µg/mL	Stressed	
2	Phenol-d6 **CAS #** 13127-88-3 (Lot PR-31262) **Purity** 99%	1,506.0	µg/mL	+/- 8.9452 +/- 43.9882 +/- 53.3632	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed	
3	2-Chlorophenol-d4 **CAS #** 93951-73-6 (Lot PR-30568) **Purity** 99%	1,510.0	µg/mL	+/- 8.9689 +/- 44.1050 +/- 53.5049	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed	
4	1,2-Dichlorobenzene-d4 **CAS #** 2199-69-1 (Lot PR-32542/022621DB1 **Purity** 99%	1,004.0	µg/mL	+/- 5.9635 +/- 29.3255 +/- 35.5754	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed	
5	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	1,008.0	µg/mL	+/- 5.9872 +/- 29.4423 +/- 35.7172	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed	
6	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 19169) **Purity** 99%	1,006.0	µg/mL	+/- 5.9753 +/- 29.3839 +/- 35.6463	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed	
7	2,4,6-Tribromophenol **CAS #** 118-79-6 (Lot MKCJ7664) **Purity** 99%	1,506.0	µg/mL	+/- 8.9452 +/- 43.9882 +/- 53.3632	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed	

Certificate of Analysis

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Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101246
Description: Benzoic Acid
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Lot Number: CL17953
Certification Date: January 31, 2022
Expiration Date: January 31, 2032

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 2.714%

K004603
Benzoic Acid @2000ug/ml
Solvent / Lot: N/A
Prep: 5/13/2022 by JZ
Exp: 1/31/2032
Location: GC

5/13/22

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Certicate No. 2427.03

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Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244
Description: Benzidines Standard
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Lot Number: CL17662
Certification Date: December 2, 2021
Expiration Date: November 30, 2031

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 0.211%
3,3'-Dichlorobenzidine	91-94-1	2000	± 1.305%

K004604
Benzidines std @2000ug/ml
Solvent / Lot: MeCl2
Prep: 5/13/2022 by JZ
Exp: 11/30/2031
Location: GC

5/13/22

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 33913 **Lot No.:** A0183500

Description : SOM01.0 SIM Analysis Standard

SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1mL /ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 29, 2028 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Methylnaphthalene-d10	2,003.5 µg/mL	+/- 11.7578 µg/mL	Gravimetric
	CAS # 7297-45-2 (Lot EF-135)		+/- 90.2539 µg/mL	Unstressed
	Purity 96%		+/- 100.1449 µg/mL	Stressed
2	Fluoranthene-d10	2,006.0 µg/mL	+/- 11.7723 µg/mL	Gravimetric
	CAS # 93951-69-0 (Lot PR-20668)		+/- 90.3656 µg/mL	Unstressed
	Purity 99%		+/- 100.2689 µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

K004605
SOMO 1.0 SIM DMC
Solvent / Lot: A0183500
Prep: 5/14/2022 by VS
Exp: 2/29/2028
Location:

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

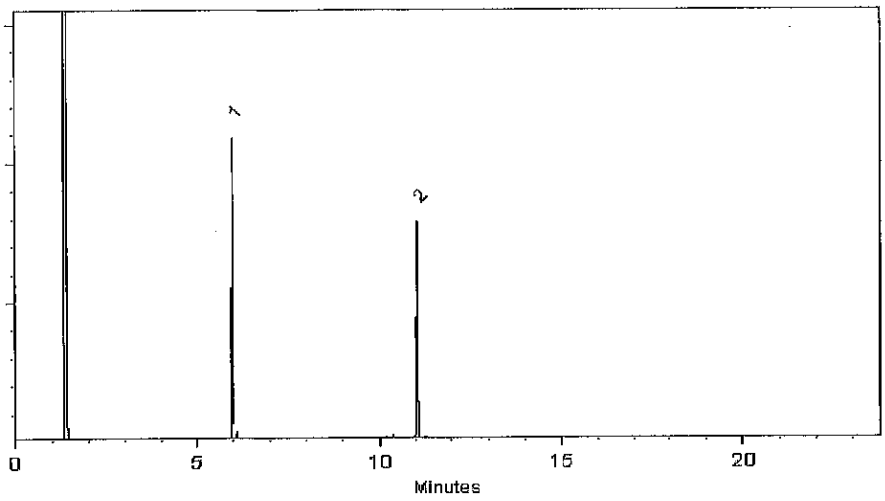
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cathleen Soltis - Mix Technician

Date Mixed: 29-Mar-2022 **Balance:** B345965662

Clara Windle - Operations Technician I

Date Passed: 01-Apr-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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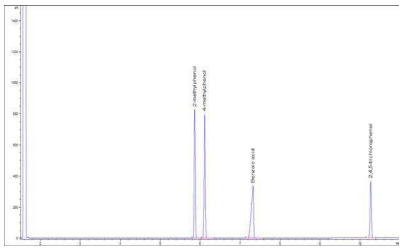
Certificate of Analysis - Certified Reference Material

EPA TCL Hazardous Substances Mix 1

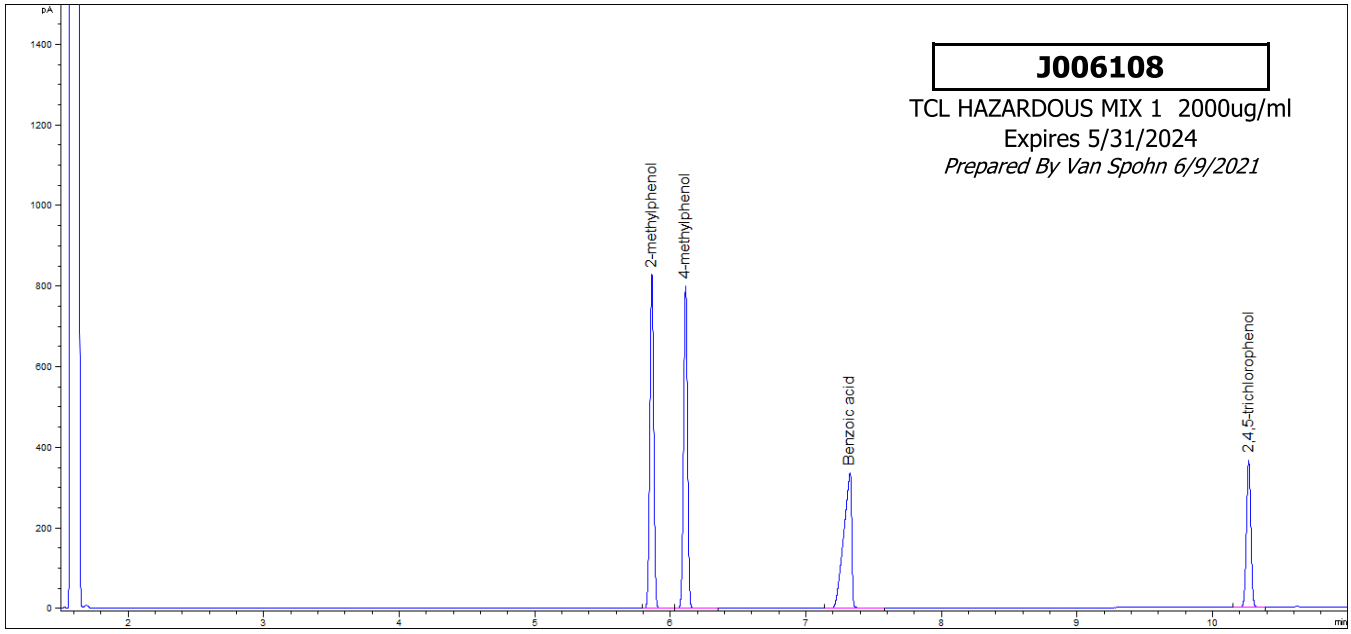
Product no.: 48907
Lot no.: LRAC9610
Expiry Date: May 2024
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAC9610.01 *(Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*



Certified Values:

Analyte	*Certified Value*	*Units*	*Raw Material Purity,%*	*Elution order*	*Raw Material Lot*
2-METHYLPHENOL CAS# 95-48-7	2004 ± 9	µg/mL	99.0	1	G1735A
4-METHYLPHENOL CAS# 106-44-5	2004 ± 13	µg/mL	98.9	2	06921MG
BENZOIC ACID CAS# 65-85-0	2012 ± 6	µg/mL	99.9	3	LC16514
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	2003 ± 6	µg/mL	99.9	4	JS00008

Informational Values:



Additional Information:
Analytical Method Parameters:
Column: Equity-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #98)
Carrier Gas: H2, Flow: 4.5 mL/min
Inlet Temperature: 170 °C, Injection Volume: 1 µL
Injection Mode: Split, Split Ratio: 20:1

Sigma-Aldrich RTC, 2931 Soldier Springs Rd. Laramie, WY 82070, USA;
Tel. 1 307-742-5452; Fax 1 855-831-9211; www.sigmaaldrich.com
Sigma-Aldrich RTC is a subsidiary of Merck KGaA, Darmstadt, Germany.

Temperature Program: 80 °C @ 10 °C/min to 190 °C (Hold 5 min)
Detector: FID
Detector Temperature: 310 °C

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 20-May-2021

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{\text{hom}\ ogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment: Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAC9610.01	20-May-2021	Original Release Date

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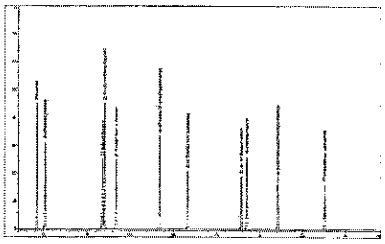
Certificate of Analysis - Certified Reference Material

EPA TCL Phenols Mix

Product no.: 48904
Lot no.: LRAD0139
Expiry Date: July 2024
Manufacturing Date: July 2021
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0139.01 *(Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*



Certified Values:

Analyte	*Certified Value*	*Units*	*Raw Material Purity,%*	*Raw Material Lot*
2-CHLOROPHENOL CAS# 95-57-8	2001 ± 25	µg/mL	99.9	STBG3033V
2-NITROPHENOL CAS# 88-75-5	1999 ± 18	µg/mL	99.3	15905BB
2,4-DIMETHYLPHENOL CAS# 105-67-9	2000 ± 14	µg/mL	99.2	05421CO
2,4-DICHLOROPHENOL CAS# 120-83-2	2000 ± 17	µg/mL	99.5	03221TN
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	2000 ± 5	µg/mL	99.9	JS00013
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	2002 ± 5	µg/mL	99.5	04212PS
2,4-DINITROPHENOL CAS# 51-28-5	2000 ± 28	µg/mL	66.9	STBJ5751
4-NITROPHENOL CAS# 100-02-7	2000 ± 33	µg/mL	99.0	04628LT
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	2000 ± 27	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	1999 ± 25	µg/mL	97.9	MKCD2150

ASSAY Method

J013597
TCL Phenols Mix 2000ug/ml
Solvent / Lot: LRAD0139
Prep: 12/30/2021 by VS
Exp: 7/31/2024
Location:

Sigma-Aldrich RTC, 2931 Soldier Springs Rd. Laramie, WY 82070, USA;
Tel. 1 307-742-5452; Fax 1 855-831-9211; www.sigmaaldrich.com
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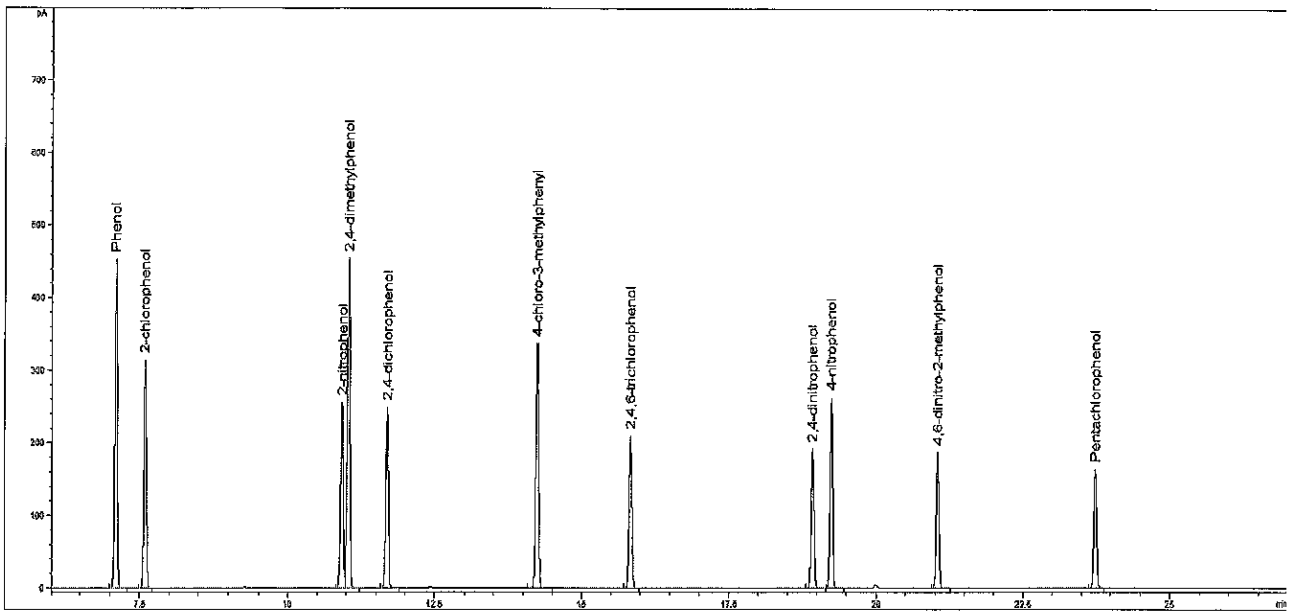


METHOD: GC (Bellefonte Method)

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness
Carrier Gas: H_2 Flow Rate: 4.5 mL/min
Inlet Temperature: 200 °C Injection Volume: 1.0 µL
Injection Mode: 25:1
Temperature Program: 80 °C (Hold 2 min) @ 6 °C/min to 260 °C (Hold 5 min)
Detector: FID Temperature: 310 °C

Elution details:

EO	RT(MIN)	ANALYTE
1	7.095	Phenol
2	7.585	2-chlorophenol
3	10.925	2-nitrophenol
4	11.037	2,4-dimethylphenol
5	11.696	2,4-dichlorphenol
6	14.242	4-chloro-3-m3thylphenol
7	15.842	2,4,6-trichlorophenol
8	18.93	2,4-dinitrophenol
9	19.25	4-nitrophenol
10	21.05	4,6-dinitro-2-methylphenol
11	23.752	Pentachlorophenol

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 12-Jul-2021

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{hom\ ogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment: Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0139.01	12-Jul-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.

RESTEK® C

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

K007194
CLP 04.1 BNA SURR MIX
Solvent / Lot: AO187400
Prep: 8/5/2022 by VS
Exp: 4/30/2026
Location:

Certificate of Analysis

IAL

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31493 **Lot No.:** A0187400

Description : CLP 04.1 BNA Surrogate Mix

CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Fluorophenol **CAS #** 367-12-4 (Lot STBJ3299) **Purity** 99%	1,508.0 µg/mL	+/- 8.9571 µg/mL +/- 44.0466 µg/mL +/- 53.4340 µg/mL	Gravimetric Unstressed Stressed
2	Phenol-d6 **CAS #** 13127-88-3 (Lot SL210831) **Purity** 99%	1,510.0 µg/mL	+/- 8.9689 µg/mL +/- 44.1050 µg/mL +/- 53.5049 µg/mL	Gravimetric Unstressed Stressed
3	2-Chlorophenol-d4 **CAS #** 93951-73-6 (Lot PR-30568) **Purity** 99%	1,512.0 µg/mL	+/- 8.9808 µg/mL +/- 44.1635 µg/mL +/- 53.5758 µg/mL	Gravimetric Unstressed Stressed
4	1,2-Dichlorobenzene-d4 **CAS #** 2199-69-1 (Lot PR-32597) **Purity** 99%	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 29.3255 µg/mL +/- 35.5754 µg/mL	Gravimetric Unstressed Stressed
5	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 29.3255 µg/mL +/- 35.5754 µg/mL	Gravimetric Unstressed Stressed
6	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 00021384) **Purity** 99%	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 29.3255 µg/mL +/- 35.5754 µg/mL	Gravimetric Unstressed Stressed
7	2,4,6-Tribromophenol **CAS #** 118-79-6 (Lot MKCJ7664) **Purity** 99%	1,502.0 µg/mL	+/- 8.9214 µg/mL +/- 43.8714 µg/mL +/- 53.2214 µg/mL	Gravimetric Unstressed Stressed

8	p-Terphenyl-d14		1,002.0	µg/mL	+/-	5.9516	µg/mL	Gravimetric
	CAS # 1718-51-0	(Lot PR-30504)			+/-	29.2671	µg/mL	Unstressed
	Purity 99%				+/-	35.5046	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

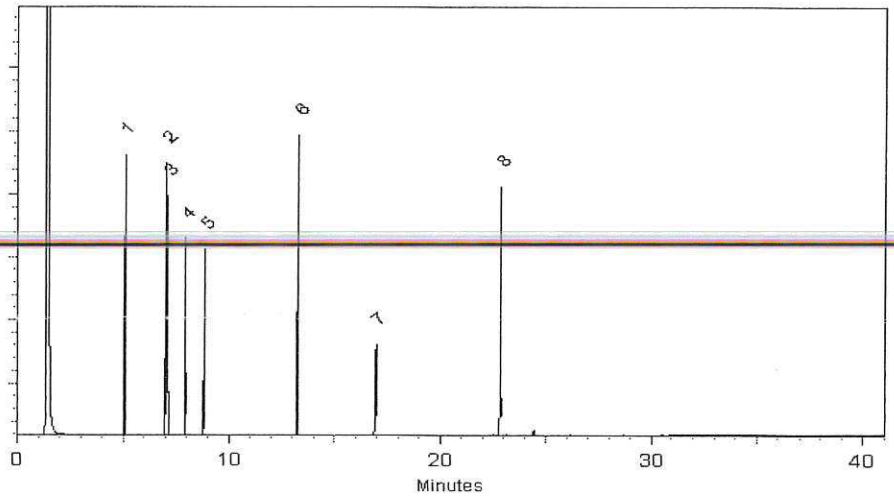
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 17-Jul-2022 **Balance:** 1128353505

Christie Mills - Operations Tech II - ARM QC

Date Passed: 21-Jul-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Certificate of Analysis

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL18355
Certification Date: July 25, 2022
Expiration Date: August 31, 2023

K007995
SVOA-8270 LCS MIX 1000ug/ml
Solvent / Lot: N/A
Prep: 8/29/2022 by JZ
Exp: 8/31/2023
Location: FREEZER 44

Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 0.300%
Acenaphthylene	208-96-8	1000	± 0.225%
Anthracene	120-12-7	1000	± 6.858%
Azobenzene	103-33-3	1000	± 0.224%
Benzo(a)anthracene	56-55-3	1000	± 0.247%
Benzo(a)pyrene	50-32-8	1000	± 0.270%
Benzo(b)fluoranthene	205-99-2	1000	± 0.635%
Benzo(k)fluoranthene	207-08-9	1000	± 0.682%
Benzo(g,h,i)perylene	191-24-2	1000	± 0.272%
Benzyl alcohol	100-51-6	1000	± 0.231%
Benzyl butyl phthalate	85-68-7	1000	± 0.480%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 0.479%
bis(2-Chloroethyl) ether	111-44-4	1000	± 0.479%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 0.550%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 0.479%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 0.479%
4-Bromophenyl phenyl ether	101-55-3	1000	± 0.479%
Carbazole	86-74-8	1000	± 0.146%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444
Lot Number: CL18355
Description: 8270 Calibration Standard
Certification Date: July 25, 2022
Storage: -18 °C
Expiration Date: August 31, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 0.300%
4-Chloro-3-methylphenol	59-50-7	1000	± 0.545%
2-Chloronaphthalene	91-58-7	1000	± 0.224%
2-Chlorophenol	95-57-8	1000	± 0.507%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 0.479%
Chrysene	218-01-9	1000	± 0.145%
Dibenz(a,h)anthracene	53-70-3	1000	± 1.058%
Dibenzofuran	132-64-9	1000	± 0.302%
Di-n-butyl phthalate	84-74-2	1000	± 0.518%
1,2-Dichlorobenzene	95-50-1	1000	± 0.247%
1,3-Dichlorobenzene	541-73-1	1000	± 0.225%
1,4-Dichlorobenzene	106-46-7	1000	± 0.224%
2,4-Dichlorophenol	120-83-2	1000	± 0.545%
Diethyl phthalate	84-66-2	1000	± 0.518%
2,4-Dimethylphenol	105-67-9	1000	± 0.507%
Dimethyl phthalate	131-11-3	1000	± 0.518%
1,2-Dinitrobenzene	528-29-0	1000	± 0.361%
1,3-Dinitrobenzene	99-65-0	1000	± 0.300%
1,4-Dinitrobenzene	100-25-4	1000	± 0.242%
2,4-Dinitrophenol	51-28-5	1000	± 0.545%
2,4-Dinitrotoluene	121-14-2	1000	± 1.128%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444
Lot Number: CL18355
Description: 8270 Calibration Standard
Certification Date: July 25, 2022
Storage: -18 °C
Expiration Date: August 31, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 0.224%
Di-n-octyl phthalate	117-84-0	1000	± 0.486%
Fluoranthene	206-44-0	1000	± 0.224%
Fluorene	86-73-7	1000	± 0.224%
Hexachlorobenzene	118-74-1	1000	± 0.152%
Hexachlorobutadiene	87-68-3	1000	± 0.746%
Hexachlorocyclopentadiene	77-47-4	1000	± 0.153%
Hexachloroethane	67-72-1	1000	± 0.300%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 0.883%
Isophorone	78-59-1	1000	± 0.145%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 0.508%
1-Methylnaphthalene	90-12-0	1000	± 0.479%
2-Methylnaphthalene	91-57-6	1000	± 0.487%
2-Methylphenol	95-48-7	1000	± 0.545%
3-Methylphenol	108-39-4	500	± 0.279%
4-Methylphenol	106-44-5	500	± 0.399%
Naphthalene	91-20-3	1000	± 0.226%
2-Nitroaniline	88-74-4	1000	± 0.224%
3-Nitroaniline	99-09-2	1000	± 0.235%
4-Nitroaniline	100-01-6	1000	± 0.300%
Nitrobenzene	98-95-3	1000	± 0.300%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444
Lot Number: CL18355
Description: 8270 Calibration Standard
Certification Date: July 25, 2022
Storage: -18 °C
Expiration Date: August 31, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 0.514%
4-Nitrophenol	100-02-7	1000	± 0.519%
N-Nitrosodimethylamine	62-75-9	1000	± 0.503%
N-Nitrosodiphenylamine	86-30-6	1000	± 0.476%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.461%
Pentachlorophenol	87-86-5	1000	± 0.202%
Phenanthrene	85-01-8	1000	± 0.145%
Phenol	108-95-2	1000	± 0.545%
Pyrene	129-00-0	1000	± 0.147%
Pyridine	110-86-1	1000	± 0.503%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 0.247%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 0.247%
1,2,4-Trichlorobenzene	120-82-1	1000	± 0.224%
2,4,5-Trichlorophenol	95-95-4	1000	± 0.507%
2,4,6-Trichlorophenol	88-06-2	1000	± 0.509%

Notes: The proper chemical name for Bis(2-Chloroiospropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

   Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

Certificate of Composition - Analytical Standard

BASE STOCK

Product no.: 22523051
Lot no.: LRAD2751
Expiry Date: June 2024
Manufacturing Date: June 2022
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD2751.01 (*Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*

Analyte	*Assigned Value*	*Units*	*Raw Material Purity,%*	*Raw Material Lot*
3,3'-DICHLOROBENZIDINE, 100MG, NEAT CAS# 91-94-1	799	µg/mL	99.8	LRAD2376
2,4-DINITROTOLUENE CAS# 121-14-2	801	µg/mL	97.8	LB46632
2,6-DINITROTOLUENE CAS# 606-20-2	800	µg/mL	99.2	11231AN
HEXACHLOROCYCLOPENTADIENE CAS# 77-47-4	800	µg/mL	96.0	LB95525
N-NITROSODIMETHYLAMINE CAS# 62-75-9	800	µg/mL	95.0	2019-030598 5
PERYLENE CAS# 198-55-0	200	µg/mL	99.6	04101PG
ANILINE CAS# 62-53-3	800	µg/mL	99.9	LA41596
4-CHLOROANILINE CAS# 106-47-8	800	µg/mL	100.0	MKBZ6909V
2-NITROANILINE CAS# 88-74-4	799	µg/mL	99.9	07411KN
3-NITROANILINE CAS# 99-09-2	800	µg/mL	99.9	LC09264
4-NITROANILINE CAS# 100-01-6	800	µg/mL	99.9	15609AA
PYRIDINE (LOW WATER) CAS# 110-86-1	800	µg/mL	100.0	SHBJ9218

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Sigma-Aldrich RTC, 2931 Soldier Springs Rd. Laramie, WY 82070, USA;
Tel. 1 307-742-5452; Fax 1 855-831-9211; www.sigmaaldrich.com
Sigma-Aldrich RTC is a subsidiary of Merck KGaA, Darmstadt, Germany.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date: 03 JUN 2022

Andy Ommen - QC Manager

Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD2751.01	03 JUN 2022	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

Certificate of Analysis - Analytical Standard

PAHs in Soil

Product no.: SQC017-40G
Lot no.: LRAD3953
Expiry Date: October 2025
Manufacturing Date: October 2022
Storage: REFRIGERATE
Solvent/Matrix: SOIL
Certificate version: LRAD3953.01 (*Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*

Analyte	*Units*	*Certified Value*
Naphthalene	µg/Kg	418 ± 39
Acenaphthene	µg/Kg	478 ± 51
Acenaphthylene	µg/Kg	557 ± 63
Anthracene	µg/Kg	393 ± 23
Benzo(a)anthracene	µg/Kg	110 ± 11
Benzo(a)pyrene	µg/Kg	159 ± 23
Benzo(b)fluoranthene	µg/Kg	318 ± 49
Benzo(g,h,i)perylene	µg/Kg	103 ± 18
Benzo(k)fluoranthene	µg/Kg	95.1 ± 16.0
Chrysene	µg/Kg	231 ± 24
Dibenz(a,h) anthracene	µg/Kg	220 ± 16
Fluoranthene	µg/Kg	303 ± 24
Fluorene	µg/Kg	340 ± 27
Indeno(1,2,3-cd) pyrene	µg/Kg	119 ± 14
Phenanthrene	µg/Kg	510 ± 30
Pyrene	µg/Kg	350 ± 25

Sigma-Aldrich RTC, 2931 Soldier Springs Rd. Laramie, WY 82070, USA;
Tel. 1 307-742-5452; Fax 1 855-831-9211; www.sigmaaldrich.com
Sigma-Aldrich RTC is a subsidiary of Merck KGaA, Darmstadt, Germany.

Informational Values:

Analyte	*Units*	*Suggested Acceptance Windows*	*Standard Deviation*
Acenaphthene	µg/Kg	192 to 1041	141
Acenaphthylene	µg/Kg	13.1 to 1101	181
Anthracene	µg/Kg	166 to 619	75.4
Benzo(a)anthracene	µg/Kg	28.4 to 191	27.2
Benzo(a)pyrene	µg/Kg	0.00 to 327	56.2
Benzo(b)fluoranthene	µg/Kg	0.00 to 672	118
Benzo(g,h,i)perylene	µg/Kg	35.9 to 170	36.0
Benzo(k)fluoranthene	µg/Kg	0.00 to 215	39.9
Chrysene	µg/Kg	100.00 to 361	43.5
Dibenz(a,h) anthracene	µg/Kg	98.0 to 341	40.5
Fluoranthene	µg/Kg	176 to 518	57.0
Fluorene	µg/Kg	128 to 644	85.9
Indeno(1,2,3-cd) pyrene	µg/Kg	52.6 to 185	22.0
Naphthalene	µg/Kg	31.3 to 910	146
Phenanthrene	µg/Kg	255 to 953	116
Pyrene	µg/Kg	184 to 654	78.2

Additional Information: DESCRIPTION

This product consist of a 4 vials each containing 10g of soil for analysis of PAHs. Each vial is identical and has been tested show homogeneity.

Four samples have been provided for your convenience (multiple methods, multiple analysts, etc.)

The soil has been chemically stabilized with 1 mL of acetone to minimize degradation of the sample.

SAMPLE PREPARATION

Extract the complete contents of a single vial. Transfer entire contents of one vial to extraction vessel. Rinse vial and cap with extraction solvent.

Note: Sample extracts and calibration solutions should be in the same solvent.

All values are based on a wet weight basis, do not correct for moisture.

Assume a 10g sample size for all calculations.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: Package of 4 units of 10 g in amber jar

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date: 24 OCT 2022

Andy Ommen - QC Manager

Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD3953.01	24 OCT 2022	Original release date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1016A

ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-08 A	File ID:	23021330.D
Sampled:	01/16/23 11:11	Prepared:	02/01/23 13:23	Analyzed:	02/13/23 21:58
% Solids:	56.05	Preparation:	EPA 3546 (Microwave)	Initial/Final:	22.34 g Wet / 2.5 mL
Batch:	BLA0684	Sequence:	SLB0237	Calibration:	FL00041
Instrument:	ECD6	Column 1:	STX-CLP	Column 2:	STX-CLPII

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
118-74-1	Hexachlorobenzene	1	1	0.50	0.14	0.50	U

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*7.9862*	*10.2*	*128*	*30 - 160*	
Decachlorobiphenyl	*2*	*7.9862*	*7.17*	*89.8*	*30 - 160*	
Tetrachlorometaxylene	*1*	*7.9862*	*6.11*	*76.6*	*30 - 160*	
Tetrachlorometaxylene	*2*	*7.9862*	*5.38*	*67.4*	*30 - 160*	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021330.D
Data file 2: /20230213.b/B20230213.b/23021330.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: 23A0313-08
Client ID:
Injection Date: 13-FEB-2023 21:58
Report Date: 02/17/2023 12:17
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.291	-0.008	137594	4.830	0.015	23108	7.03	0.87	156.2*	alpha-BHC
4.671	-0.010	57948	5.314	0.024	18819	7.69	1.85	122.3*	beta-BHC
4.869	0.006	162510	5.628	-0.014	7067	10.16	0.32	187.7*	delta-BHC
4.601	0.002	119601	5.212	0.003	14013	7.05	0.62	167.7*	gamma-BHC (Lindane)
5.066	-0.013	104549	5.745	0.011	43231	6.92	2.11	106.7*	Heptachlor
5.417	0.018	183799	6.136	0.001	27772	10.86	1.19	160.7*	Aldrin
6.060	-0.012	87674	6.772	-0.020	189772	5.98	9.79	48.4*	Heptachlor epoxide b
----			7.225	-0.011	18554	0.00	1.09	---	Endosulfan I
6.805	0.030	79254	7.513	-0.017	78921	5.48	4.18	26.8	Dieldrin
6.431	-0.009	195677	7.319	-0.004	69721	14.57	4.03	113.3*	4,4'-DDE
7.051	0.025	480725	----			36.42	0.00	---	Endrin
7.293	0.029	119481	8.077	0.010	99574	10.06	7.93	23.7	Endosulfan II
----			7.926	-0.003	80785	0.00	6.78	---	4,4'-DDD
----			----			0.00	0.00	---	Endosulfan sulfate
----			8.255	0.007	414873	0.00	36.07	---	4,4'-DDT
7.894	0.028	187795	----			35.27	0.00	---	Methoxychlor
----			9.208	0.019	194000	0.00	16.29	---	Endrin ketone
7.716	0.025	171795	8.390	-0.008	105920	18.13	11.96	41.0*	Endrin aldehyde
----			7.011	0.008	70402	0.00	3.64	---	trans-Chlordane
6.379	0.019	232302	7.162	-0.002	23403	15.54	1.24	170.5*	cis-Chlordane
2.279	-0.017	18219	2.444	-0.029	26691	0.89	1.05	16.9	Hexachlorobutadiene
4.142	0.000	103862	----			5.72	0.00	---	Hexachlorobenzene
3.789	-0.002	423459	4.180	-0.002	505663	30.63	26.96	12.7	Tetrachloro-m-xylene
9.309	0.003	521703	10.404	0.001	342208	51.14	35.93	34.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

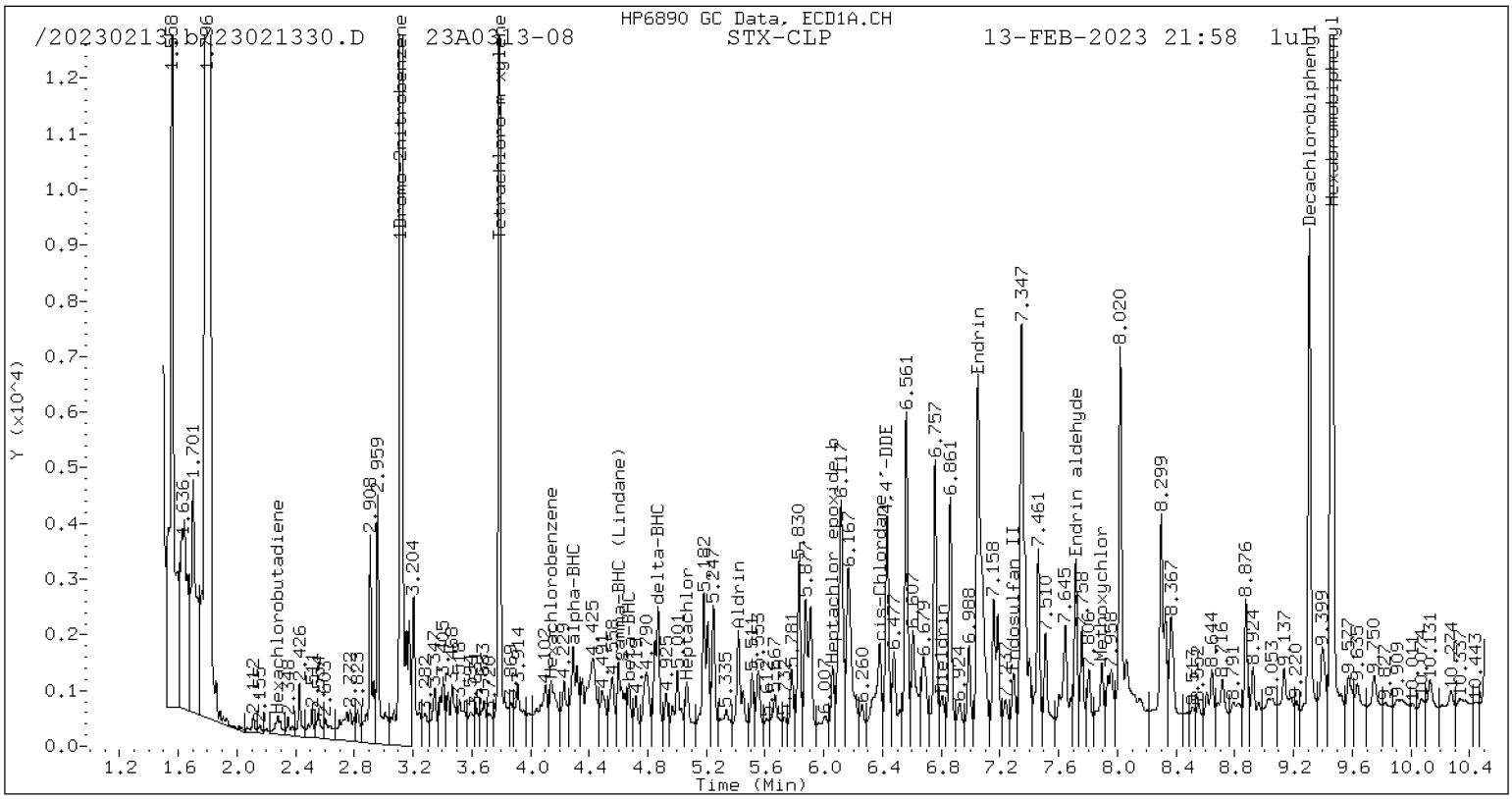
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	1016732	51.2
Hexabromobiphenyl	609723	1006817	65.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	1332331	32.4
Hexabromobiphenyl	769764	861759	12.0

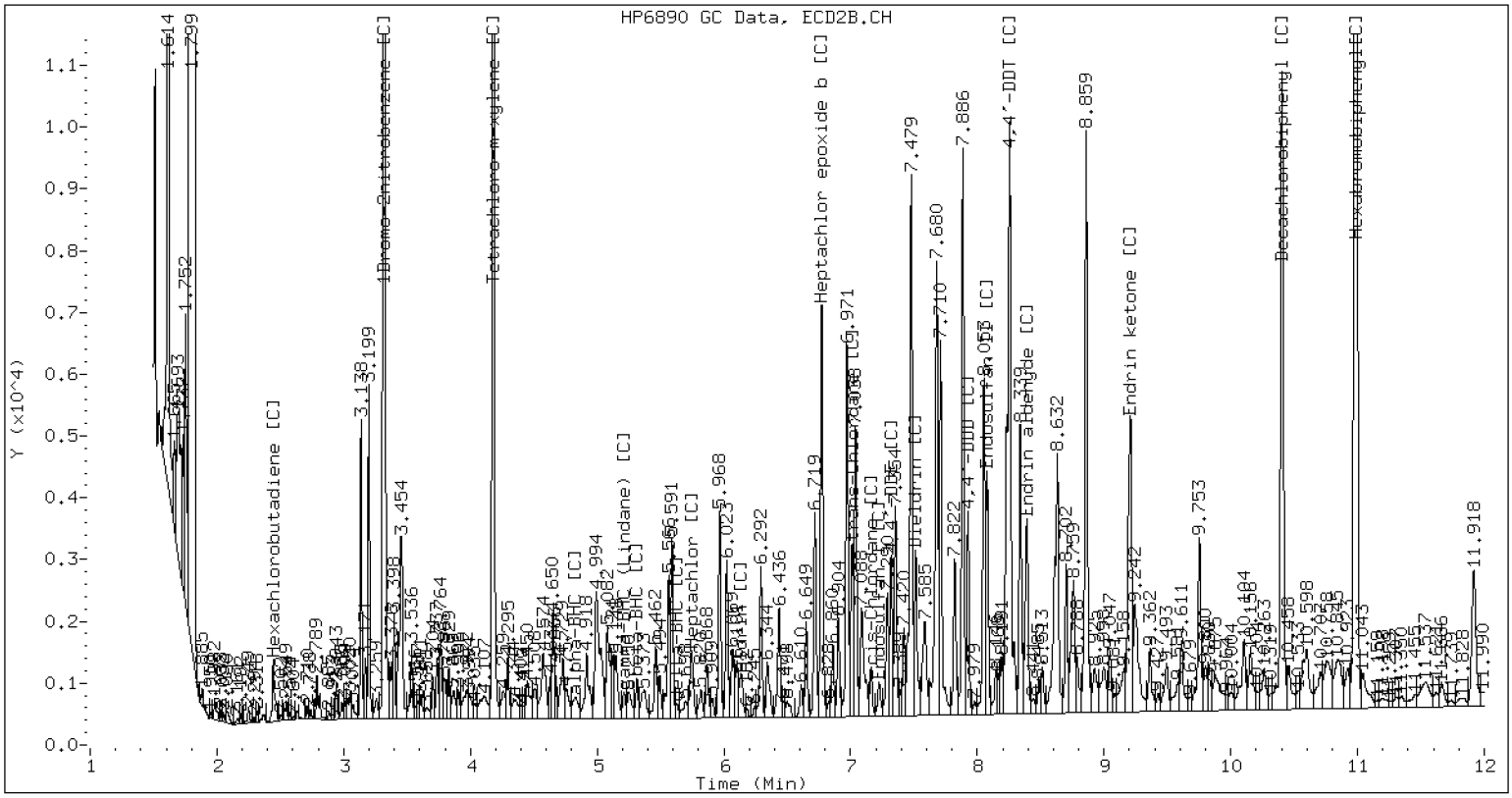
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

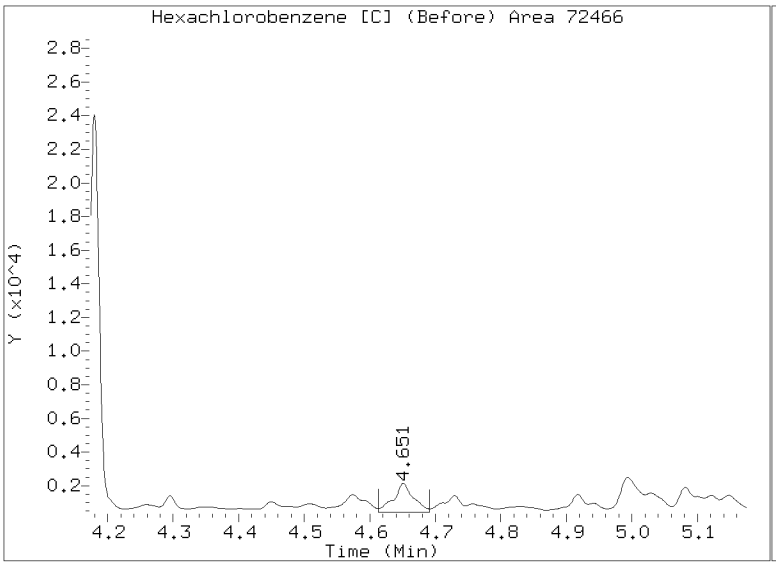
/20230213.b/B20230213.b/23021330.D 23A0313-08 CLP2

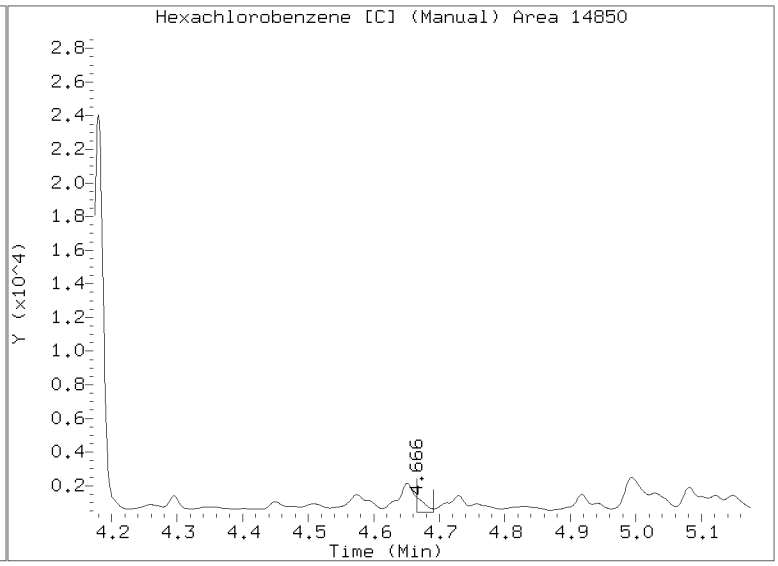


CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, CLP-2

Datafile: /20230213.b/B20230213.b/23021330.D
Injection Date: 13-FEB-2023 21:58
Lab ID:23A0313-08 Client ID:





Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1011A

ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-09 A	File ID:	23021331.D
Sampled:	01/16/23 11:46	Prepared:	02/01/23 13:23	Analyzed:	02/13/23 22:15
% Solids:	52.32	Preparation:	EPA 3546 (Microwave)	Initial/Final:	23.97 g Wet / 2.5 mL
Batch:	BLA0684	Sequence:	SLB0237	Calibration:	FL00041
Instrument:	ECD6	Column 1:	STX-CLP	Column 2:	STX-CLPII

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
118-74-1	Hexachlorobenzene	1	1	0.50	0.14	0.50	U

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*7.9738*	*7.18*	*90.0*	*30 - 160*	
Decachlorobiphenyl	*2*	*7.9738*	*7.58*	*95.1*	*30 - 160*	
Tetrachlorometaxylene	*1*	*7.9738*	*5.92*	*74.2*	*30 - 160*	
Tetrachlorometaxylene	*2*	*7.9738*	*5.64*	*70.8*	*30 - 160*	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021331.D
Data file 2: /20230213.b/B20230213.b/23021331.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: 23A0313-09
Client ID:
Injection Date: 13-FEB-2023 22:15
Report Date: 02/17/2023 12:17
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.316	0.017	72878	4.832	0.017	19143	4.31	0.72	142.4*	alpha-BHC
4.672	-0.009	24798	5.315	0.025	19842	3.81	1.97	63.4*	beta-BHC
4.870	0.006	96381	----			6.97	0.00	---	delta-BHC
4.601	0.002	38754	5.209	0.000	10579	2.64	0.47	139.4*	gamma-BHC (Lindane)
5.066	-0.013	29272	5.745	0.012	42810	2.24	2.11	6.2	Heptachlor
5.418	0.019	48602	6.137	0.002	31382	3.32	1.35	84.3*	Aldrin
6.060	-0.012	28796	6.774	-0.018	167762	2.27	8.74	117.6*	Heptachlor epoxide b
----			7.226	-0.011	20360	0.00	1.20	---	Endosulfan I
6.805	0.030	17019	----			1.36	0.00	---	Dieldrin
6.431	-0.009	117455	7.319	-0.004	133458	10.11	7.79	26.0	4,4'-DDE
7.052	0.026	277792	----			30.72	0.00	---	Endrin
7.291	0.027	17564	8.054	-0.013	238114	2.16	18.66	158.5*	Endosulfan II
----			7.927	-0.003	84372	0.00	6.97	---	4,4'-DDD
8.153	0.027	44220	----			5.72	0.00	---	Endosulfan sulfate
----			8.254	0.007	437993	0.00	37.47	---	4,4'-DDT
7.895	0.029	34266	----			9.39	0.00	---	Methoxychlor
8.436	0.037	4324	9.207	0.018	318073	0.49	26.28	192.7*	Endrin ketone
7.717	0.025	76768	8.393	-0.004	81473	11.83	9.05	26.6	Endrin aldehyde
----			----			0.00	0.00	---	trans-Chlordane
6.380	0.019	76067	7.162	-0.002	25224	5.89	1.35	125.5*	cis-Chlordane
2.279	-0.017	9292	2.445	-0.028	23529	0.52	0.94	56.5*	Hexachlorobutadiene
4.143	0.001	46326	----			2.95	0.00	---	Hexachlorobenzene
3.789	-0.001	355030	4.180	-0.001	525624	29.69	28.30	4.8	Tetrachloro-m-xylene
9.310	0.004	251693	10.405	0.002	367951	36.02	38.02	5.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

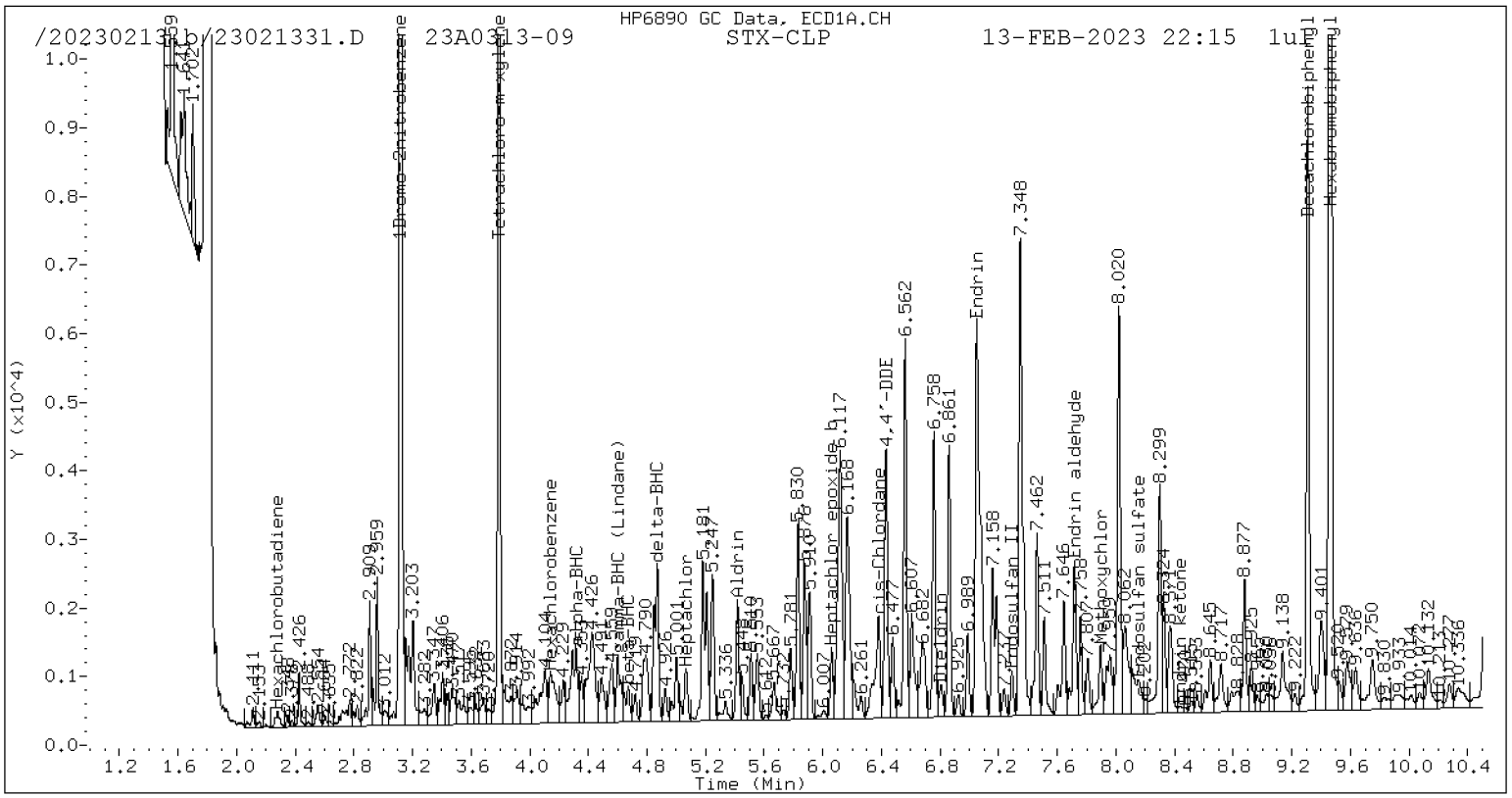
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	879152	30.7
Hexabromobiphenyl	609723	689634	13.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	1319236	31.1
Hexabromobiphenyl	769764	875606	13.7

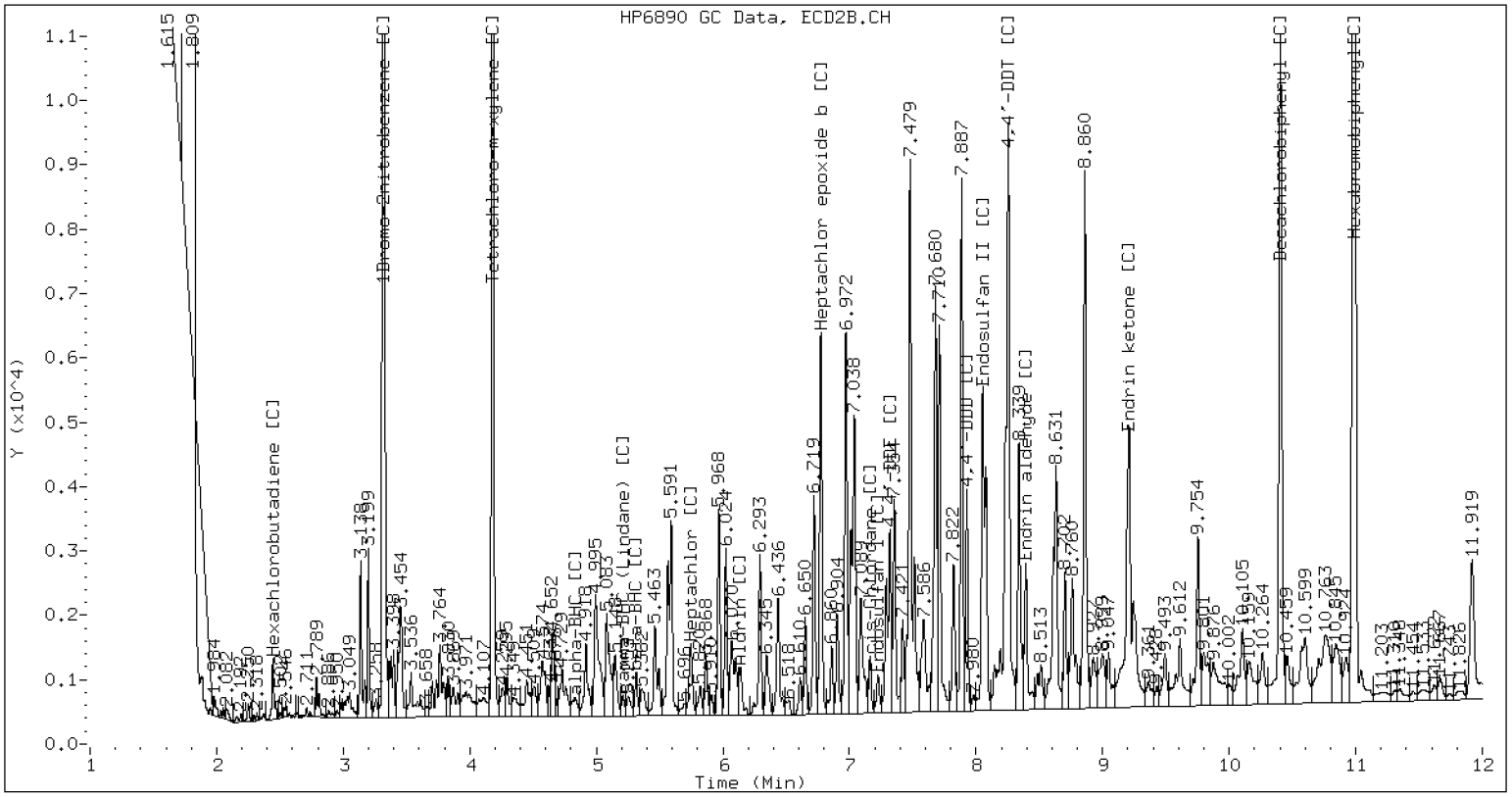
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230213.b/B20230213.b/23021331.D 23A0313-09 CLP2



CLP-2 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1006A

ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-10 A	File ID:	23021332.D
Sampled:	01/16/23 12:29	Prepared:	02/01/23 13:23	Analyzed:	02/13/23 22:33
% Solids:	54.11	Preparation:	EPA 3546 (Microwave)	Initial/Final:	23.58 g Wet / 2.5 mL
Batch:	BLA0684	Sequence:	SLB0237	Calibration:	FL00041
Instrument:	ECD6	Column 1:	STX-CLP	Column 2:	STX-CLPII

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
118-74-1	Hexachlorobenzene	1	1	0.49	0.14	0.49	U

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*7.8375*	*6.90*	*88.0*	*30 - 160*	
Decachlorobiphenyl	*2*	*7.8375*	*7.27*	*92.8*	*30 - 160*	
Tetrachlorometaxylene	*1*	*7.8375*	*5.65*	*72.1*	*30 - 160*	
Tetrachlorometaxylene	*2*	*7.8375*	*5.32*	*67.9*	*30 - 160*	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021332.D
Data file 2: /20230213.b/B20230213.b/23021332.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: 23A0313-10
Client ID:
Injection Date: 13-FEB-2023 22:33
Report Date: 02/17/2023 12:17
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.292	-0.007	85994	4.833	0.018	20019	5.08	0.76	147.9*	alpha-BHC
4.672	-0.009	32395	5.314	0.024	18952	4.97	1.89	89.7*	beta-BHC
4.869	0.006	116900	----			8.45	0.00	---	delta-BHC
4.601	0.002	46339	5.209	-0.000	10425	3.16	0.47	148.5*	gamma-BHC (Lindane)
5.065	-0.013	38033	5.745	0.012	54625	2.91	2.70	7.6	Heptachlor
5.418	0.019	60991	6.137	0.001	30995	4.17	1.34	102.6*	Aldrin
6.059	-0.012	35493	6.772	-0.020	243890	2.80	12.76	128.1*	Heptachlor epoxide b
----			7.225	-0.012	21634	0.00	1.28	---	Endosulfan I
6.805	0.030	19343	7.513	-0.017	91872	1.55	4.94	104.6*	Dieldrin
6.434	-0.006	227239	7.319	-0.004	103524	19.56	6.07	105.3*	4,4'-DDE
7.051	0.026	350933	----			38.55	0.00	---	Endrin
7.290	0.026	23125	8.076	0.010	127803	2.82	10.39	114.6*	Endosulfan II
----			7.926	-0.003	90826	0.00	7.78	---	4,4'-DDD
8.154	0.028	41131	----			5.29	0.00	---	Endosulfan sulfate
----			8.255	0.008	494296	0.00	43.89	---	4,4'-DDT
7.894	0.028	41629	----			11.34	0.00	---	Methoxychlor
8.430	0.030	6464	9.208	0.019	279180	0.73	23.94	188.2*	Endrin ketone
7.717	0.025	98744	8.393	-0.005	87198	15.11	10.05	40.2*	Endrin aldehyde
----			----			0.00	0.00	---	trans-Chlordane
6.380	0.020	92291	7.162	-0.002	26568	7.14	1.42	133.4*	cis-Chlordane
2.279	-0.017	11963	2.444	-0.029	26543	0.67	1.06	44.6*	Hexachlorobutadiene
4.141	-0.001	23184	----			1.47	0.00	---	Hexachlorobenzene
3.789	-0.002	344759	4.180	-0.002	502047	28.83	27.14	6.0	Tetrachloro-m-xylene
9.309	0.004	247719	10.405	0.002	345973	35.21	37.10	5.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

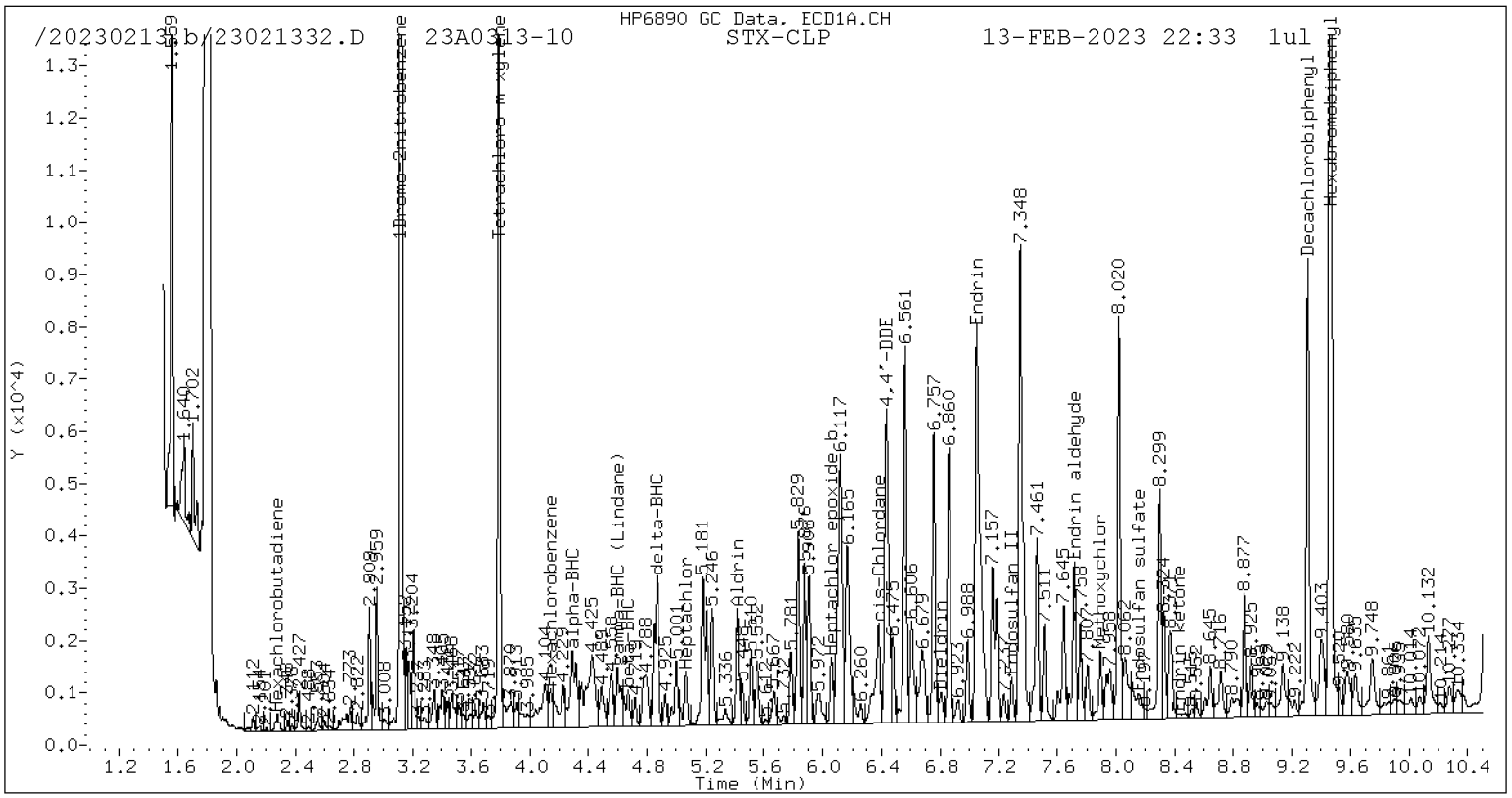
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	879449	30.8
Hexabromobiphenyl	609723	694311	13.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	1314003	30.6
Hexabromobiphenyl	769764	843657	9.6

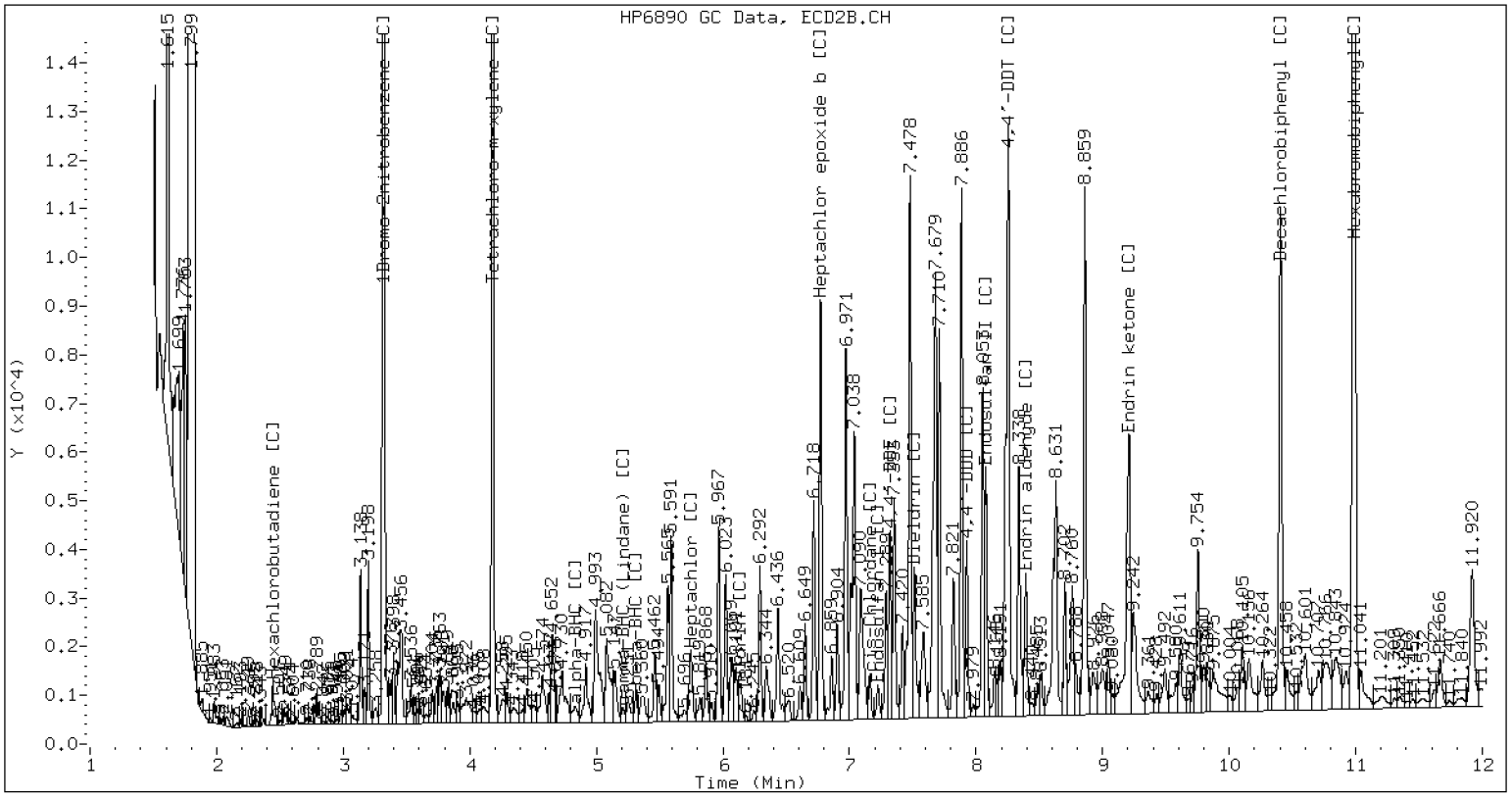
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230213.b/B20230213.b/23021332.D 23A0313-10 CLP2



CLP-2 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1012B

ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-11 A	File ID:	23021333.D
Sampled:	01/16/23 13:13	Prepared:	02/01/23 13:23	Analyzed:	02/13/23 22:51
% Solids:	58.66	Preparation:	EPA 3546 (Microwave)	Initial/Final:	21.4 g Wet / 2.5 mL
Batch:	BLA0684	Sequence:	SLB0237	Calibration:	FL00041
Instrument:	ECD6	Column 1:	STX-CLP	Column 2:	STX-CLPII

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
118-74-1	Hexachlorobenzene	1	1	1.00	1.00	1.00	Y1, U

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*7.9661*	*7.28*	*91.4*	*30 - 160*	
Decachlorobiphenyl	*2*	*7.9661*	*7.93*	*99.5*	*30 - 160*	
Tetrachlorometaxylene	*1*	*7.9661*	*5.57*	*69.9*	*30 - 160*	
Tetrachlorometaxylene	*2*	*7.9661*	*5.45*	*68.4*	*30 - 160*	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021333.D
Data file 2: /20230213.b/B20230213.b/23021333.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: 23A0313-11
Client ID:
Injection Date: 13-FEB-2023 22:51
Report Date: 02/17/2023 12:17
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.292	-0.007	99807	4.832	0.017	31137	5.74	1.17	132.1*	alpha-BHC
4.672	-0.009	41849	5.314	0.024	24785	6.25	2.46	87.2*	beta-BHC
4.869	0.006	141635	----			9.97	0.00	---	delta-BHC
4.602	0.003	76963	5.212	0.003	16349	5.11	0.73	150.2*	gamma-BHC (Lindane)
5.067	-0.012	52198	5.745	0.012	65461	3.89	3.21	19.2	Heptachlor
5.417	0.018	72769	6.137	0.001	28821	4.84	1.24	118.6*	Aldrin
6.117	0.046	272289	6.773	-0.019	275237	20.90	14.29	37.5	Heptachlor epoxide b
----			7.225	-0.011	23490	0.00	1.38	---	Endosulfan I
6.805	0.030	22460	7.514	-0.016	94229	1.75	5.02	96.7*	Dieldrin
6.431	-0.009	149063	7.319	-0.003	82113	12.50	4.77	89.4*	4,4'-DDE
7.052	0.027	350261	----			39.32	0.00	---	Endrin
7.291	0.027	22147	8.077	0.010	134470	2.76	11.23	121.0*	Endosulfan II
----			7.927	-0.002	95532	0.00	8.41	---	4,4'-DDD
8.153	0.027	74303	----			9.76	0.00	---	Endosulfan sulfate
----			8.256	0.008	496481	0.00	45.26	---	4,4'-DDT
7.895	0.030	45287	8.860	-0.030	306062	12.60	63.05	133.4*	Methoxychlor
----			9.210	0.021	309127	0.00	27.21	---	Endrin ketone
7.716	0.024	97053	8.393	-0.004	92550	15.17	10.95	32.3	Endrin aldehyde
6.208	-0.007	22517	----			1.70	0.00	---	trans-Chlordane
6.380	0.019	101302	7.162	-0.002	32937	7.63	1.75	125.3*	cis-Chlordane
2.277	-0.019	14591	2.444	-0.029	36039	0.80	1.43	56.4*	Hexachlorobutadiene
4.146	0.004	44370	4.650	-0.025	116863	2.75	4.84	55.1*	Hexachlorobenzene N
3.789	-0.001	343447	4.179	-0.002	509566	27.97	27.34	2.3	Tetrachloro-m-xylene
9.311	0.005	251609	10.406	0.003	361643	36.55	39.82	8.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

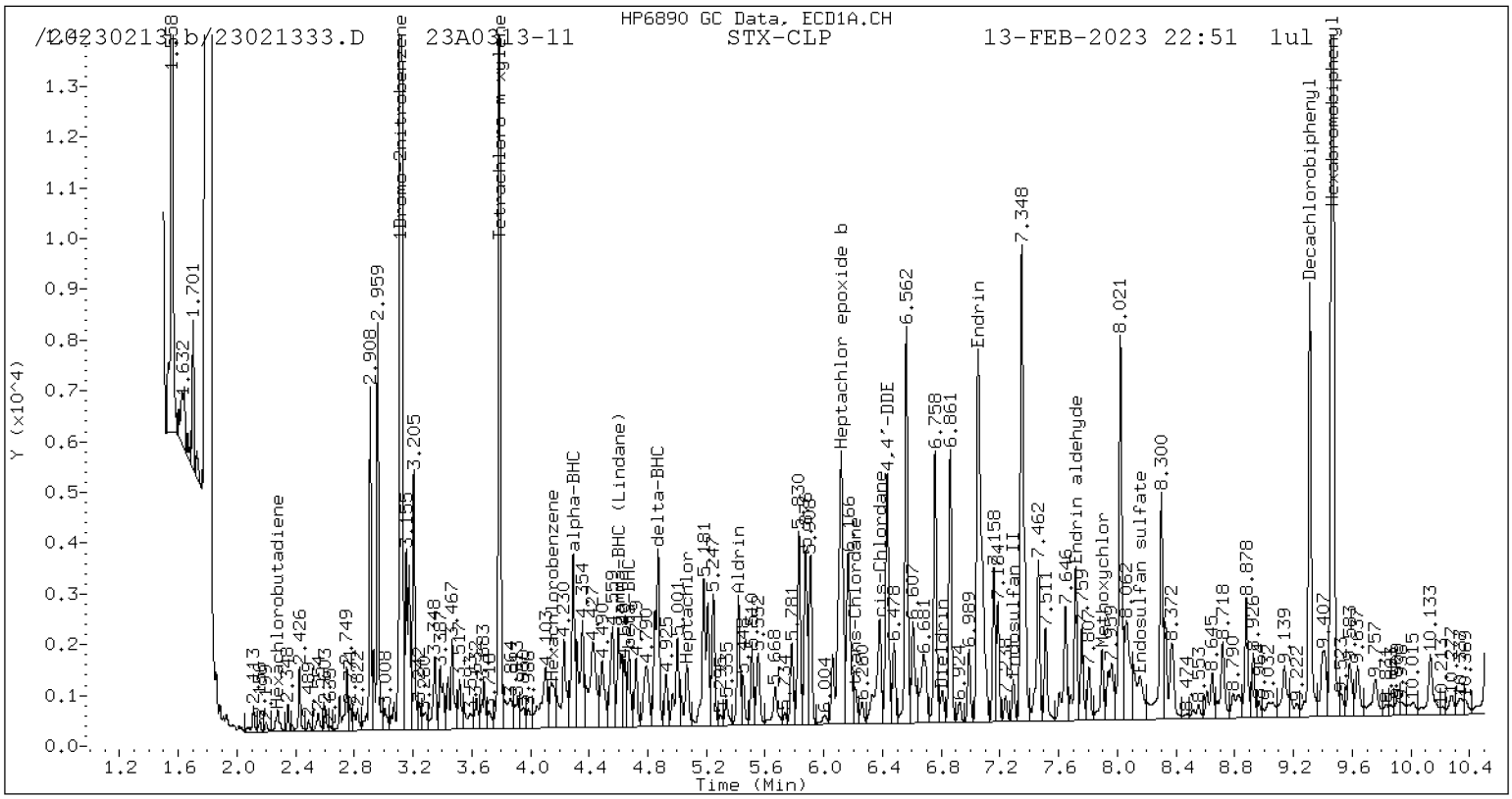
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	902852	34.3
Hexabromobiphenyl	609723	679429	11.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	1323995	31.5
Hexabromobiphenyl	769764	821766	6.8

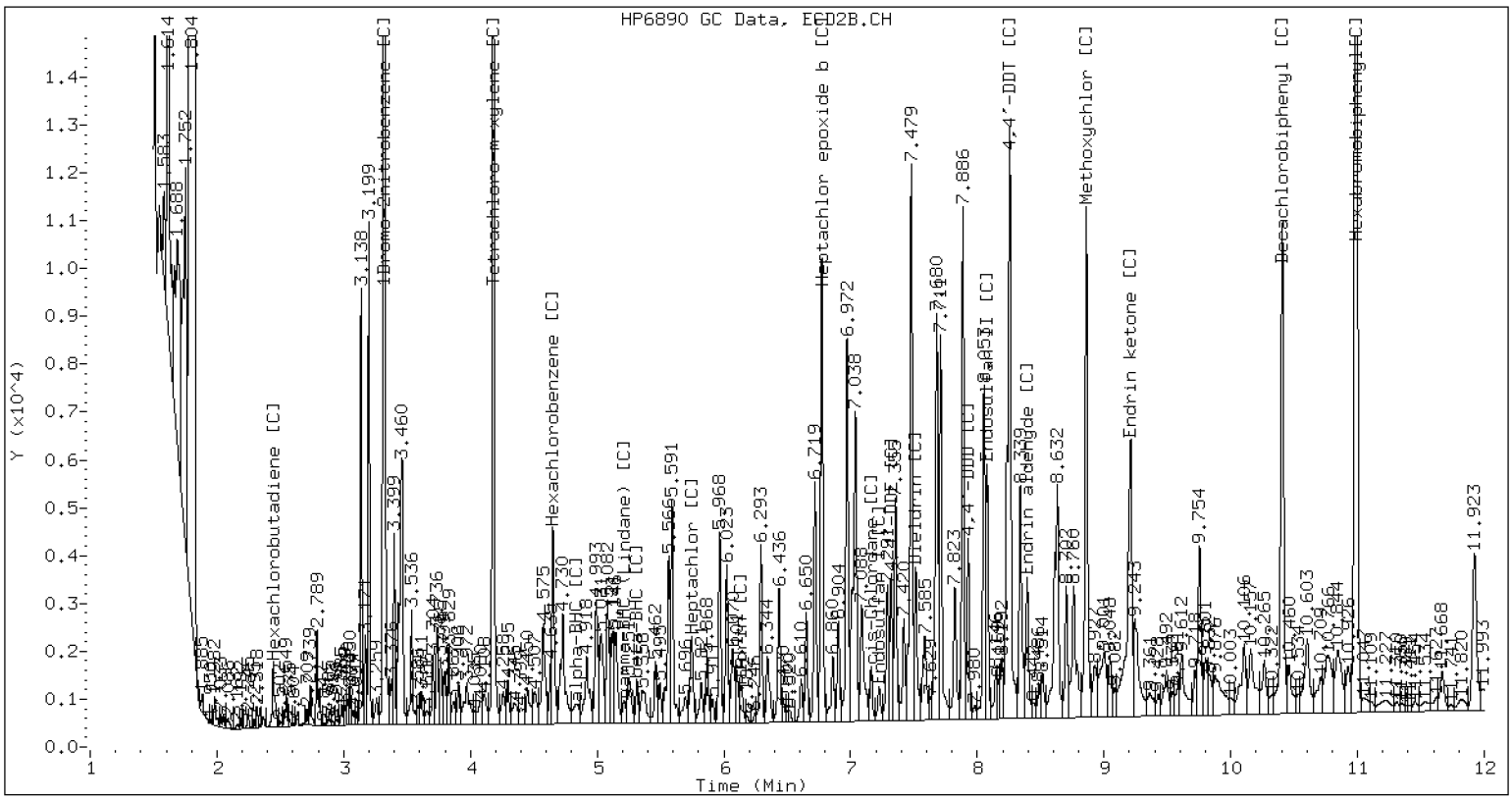
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

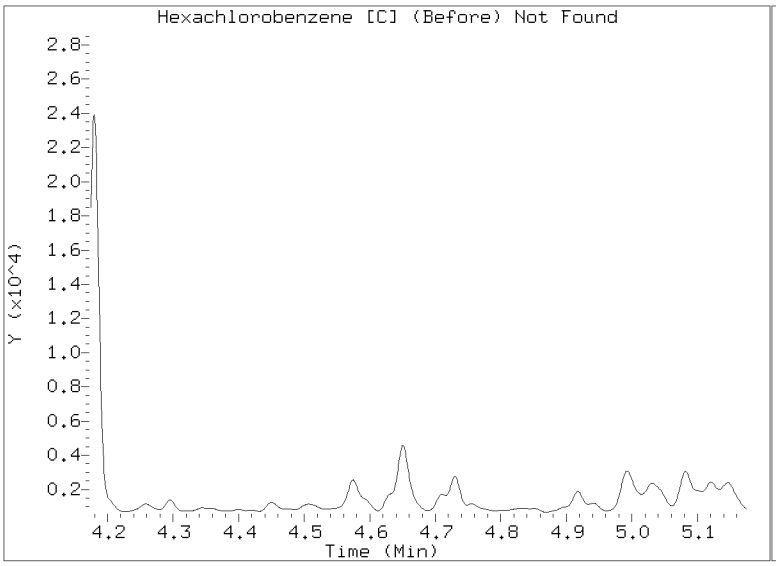
/20230213.b/B20230213.b/23021333.D 23A0313-11 CLP2

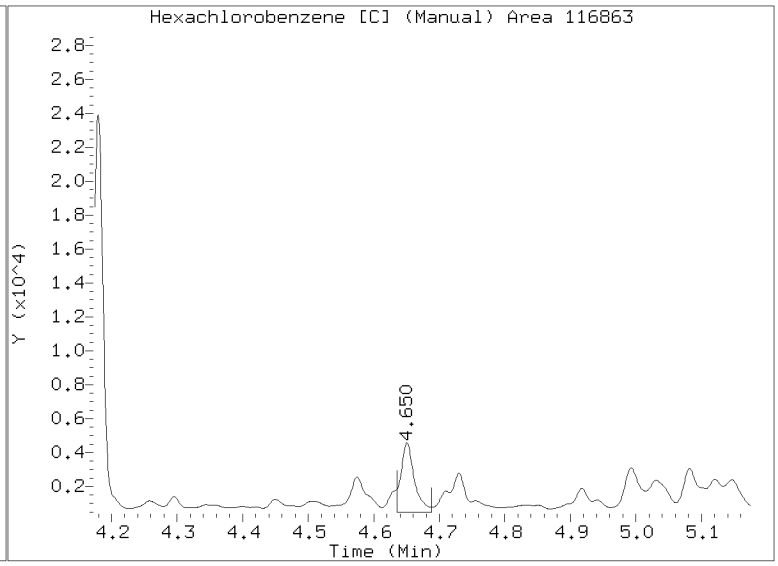


CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, CLP-2

Datafile: /20230213.b/B20230213.b/23021333.D
Injection Date: 13-FEB-2023 22:51
Lab ID:23A0313-11 Client ID:





Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1159

ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-13 A	File ID:	23021334.D
Sampled:	01/16/23 14:26	Prepared:	02/01/23 13:23	Analyzed:	02/13/23 23:09
% Solids:	84.73	Preparation:	EPA 3546 (Microwave)	Initial/Final:	14.75 g Wet / 2.5 mL
Batch:	BLA0684	Sequence:	SLB0237	Calibration:	FL00041
Instrument:	ECD6	Column 1:	STX-CLP	Column 2:	STX-CLPII

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
118-74-1	Hexachlorobenzene	1	1	0.50	0.15	0.50	U

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*8.0015*	*6.63*	*82.8*	*30 - 160*	
Decachlorobiphenyl	*2*	*8.0015*	*8.03*	*100*	*30 - 160*	
Tetrachlorometaxylene	*1*	*8.0015*	*5.33*	*66.7*	*30 - 160*	
Tetrachlorometaxylene	*2*	*8.0015*	*4.97*	*62.1*	*30 - 160*	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021334.D
Data file 2: /20230213.b/B20230213.b/23021334.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: 23A0313-13
Client ID:
Injection Date: 13-FEB-2023 23:09
Report Date: 02/17/2023 12:17
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.291	-0.008	45410	4.828	0.013	14144	2.69	0.53	134.1*	alpha-BHC
4.672	-0.009	36601	5.314	0.024	12072	5.64	1.19	130.1*	beta-BHC
4.869	0.006	65385	----			4.74	0.00	---	delta-BHC
4.601	0.003	25572	5.212	0.003	8549	1.75	0.38	128.8*	gamma-BHC (Lindane)
5.066	-0.013	23303	5.744	0.011	30730	1.79	1.50	17.5	Heptachlor
5.417	0.018	37245	6.138	0.003	27676	2.55	1.19	73.3*	Aldrin
6.060	-0.011	25589	6.771	-0.020	165888	2.02	8.59	123.7*	Heptachlor epoxide b
6.560	0.046	145020	7.225	-0.011	17344	12.50	1.02	169.9*	Endosulfan I
6.805	0.030	12572	7.513	-0.017	84889	1.01	4.51	126.9*	Dieldrin
6.429	-0.011	104751	7.319	-0.004	51099	9.05	2.96	101.4*	4,4'-DDE
7.049	0.024	291246	----			32.79	0.00	---	Endrin
7.290	0.026	14672	8.079	0.012	140790	1.83	11.71	145.8*	Endosulfan II
7.099	0.012	61438	7.926	-0.004	57790	7.68	5.06	41.0*	4,4'-DDD
----			----			0.00	0.00	---	Endosulfan sulfate
----			8.255	0.007	452385	0.00	41.07	---	4,4'-DDT
7.893	0.027	45527	----			12.71	0.00	---	Methoxychlor
----			9.200	0.011	561887	0.00	49.26	---	Endrin ketone
7.715	0.023	200024	8.393	-0.004	180483	31.36	21.27	38.3	Endrin aldehyde
6.211	-0.004	12945	----			1.01	0.00	---	trans-Chlordane
6.379	0.019	65583	7.161	-0.003	19823	5.09	1.05	131.5*	cis-Chlordane
2.278	-0.018	8205	2.444	-0.029	27098	0.46	1.07	79.1*	Hexachlorobutadiene
4.142	-0.000	26058	----			1.66	0.00	---	Hexachlorobenzene
3.789	-0.002	317666	4.180	-0.002	464186	26.67	24.84	7.1	Tetrachloro-m-xylene
9.308	0.002	227460	10.404	0.001	366330	33.13	40.17	19.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

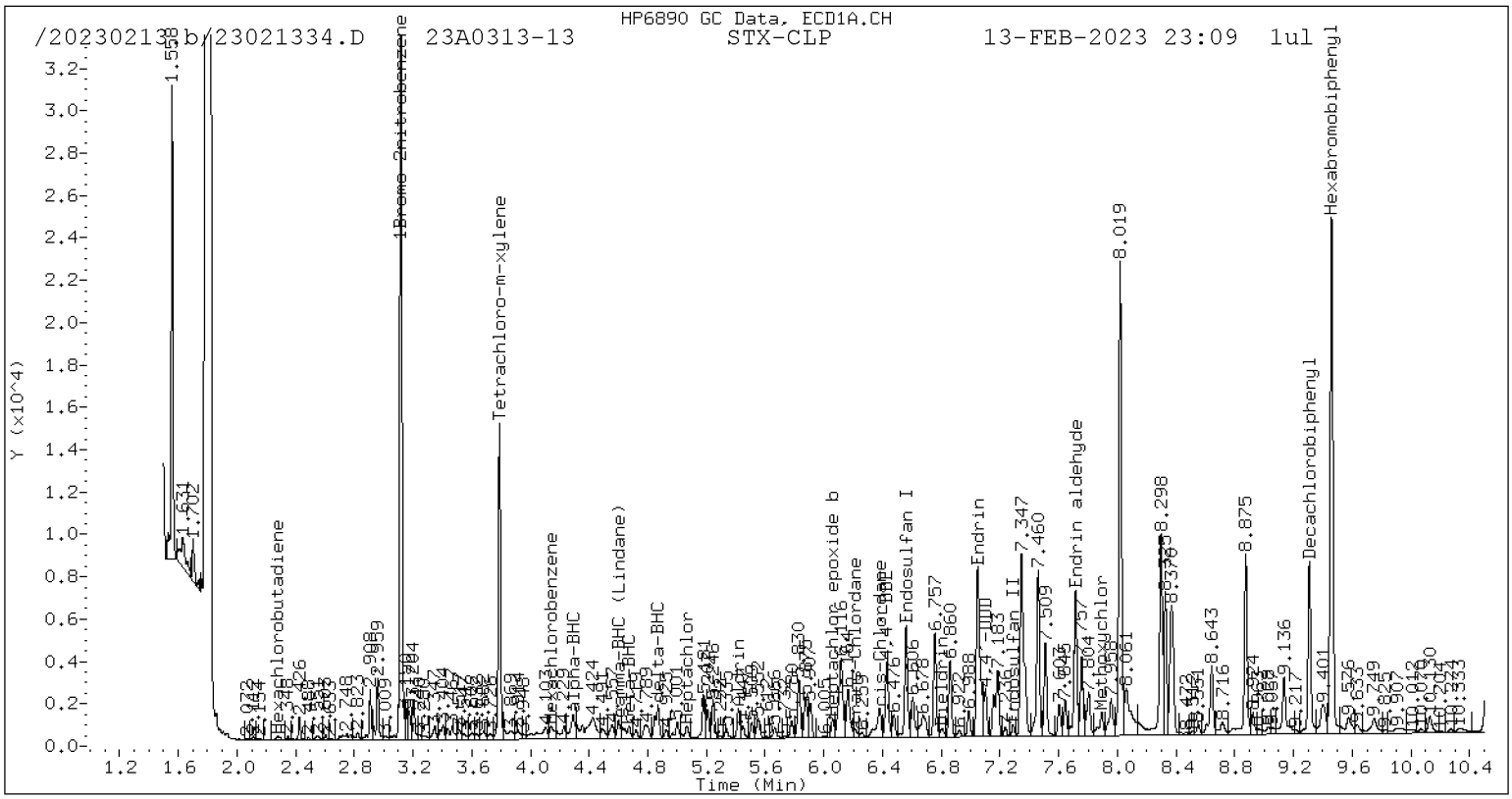
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	875902	30.3
Hexabromobiphenyl	609723	677505	11.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	1327711	31.9
Hexabromobiphenyl	769764	825178	7.2

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

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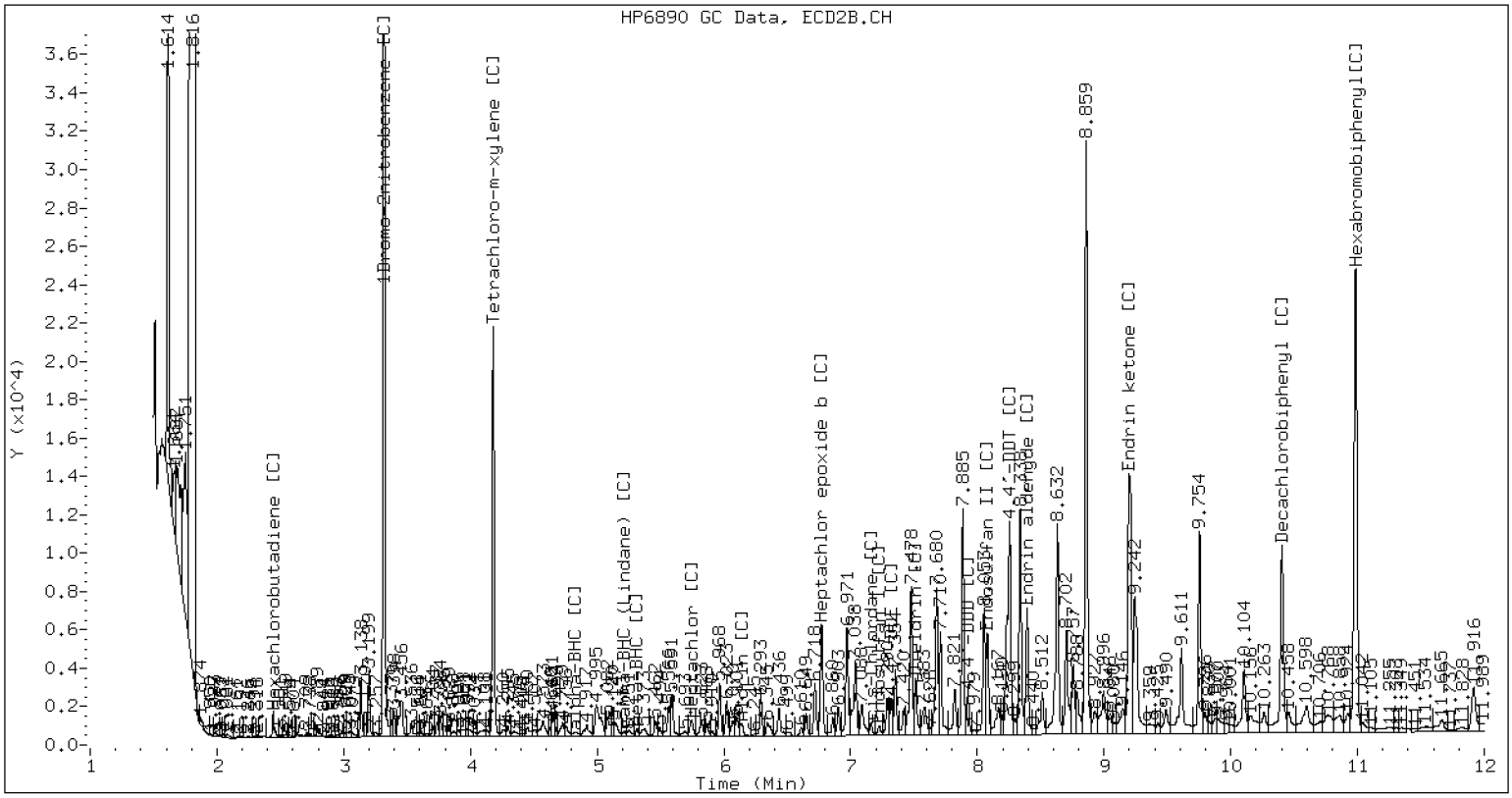

CLP-2 Manual Integration: NO

PREPARATION BATCH SUMMARY

EPA 8081B

Laboratory: Analytical Resources, LLC SDG: 23A0313

Client: Anchor QEA, LLC Project: AOC5 MR Phase 1

Batch: BLA0684 Batch Matrix: Solid Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1016A	23A0313-08	23021330.D	02/01/23 13:23	
LDW23-SC1011A	23A0313-09	23021331.D	02/01/23 13:23	
LDW23-SC1006A	23A0313-10	23021332.D	02/01/23 13:23	
LDW23-SC1012B	23A0313-11	23021333.D	02/01/23 13:23	
LDW23-SC1159	23A0313-13	23021334.D	02/01/23 13:23	
Blank	BLA0684-BLK1	23021325.D	02/01/23 13:23	
LCS	BLA0684-BS1	23021326.D	02/01/23 13:23	
LCS Dup	BLA0684-BSD1	23021327.D	02/01/23 13:23	
LDW23-SC1159	BLA0684-MS1	23021328.D	02/01/23 13:23	
LDW23-SC1159	BLA0684-MSD1	23021329.D	02/01/23 13:23	

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0684

Prepared using: EPA 3546 (Microwave)

8081B Pest (PSDDA) in Solid (Version:HCB Only)

Matrix: Solid Date Prepared: 2/1/23 Balance ID: B139298002 Set Up By: CTO 1/28/23

WO Comments

23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

The following standards may be missing from this batch!

Designator	Description
62	Toxaphene
44	WND
QLS 10	QLS Spike

Analysis: 8081B Pest (PSDDA)

Lab Number & Container	% Solids	Initial (g) Target Dry: 12.5 (Wet)	Actual	(REQ) GPC (1:1) 1 2 3	(Yes / No) Acid Clean 5mL	(REQ) Sulfur C/U 4.5mL+0.5 mL ~~Ethyl Acetate~~	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
23A0313-08 A	56.1	(22.30)	22.34	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0313-09 A	52.3	(23.89)	23.97	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0313-10 A	54.1	(23.10)	23.58	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0313-11 A	58.7	(21.31)	21.40	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0313-13 A	84.7	(14.75)	14.75	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0326-01 A	59.0	(21.20)	21.33	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0326-02 A	57.3	(21.82)	22.37	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0326-04 A	51.6	(24.21)	24.34	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0326-05 A	54.6	(22.88)	23.31	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0326-10 A	54.6	(22.88)	22.38	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0326-11 A	52.6	(23.78)	23.91	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0326-12 A	51.4	(24.31)	24.65	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	

Batch QC

Lab Number	% Solids	Initial (g) Target Dry: 12.5 (Wet)	Actual	(REQ) GPC (1:1) 1 2 3	(Yes / No) Acid Clean 5mL	(REQ) Sulfur C/U 4.5mL+0.5 mL ~~Ethyl Acetate~~	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BLA0684-BLK1	100.0	(12.50)	12.50	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
BLA0684-BS1	100.0	(12.50)	12.50	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
BLA0684-BSD1	100.0	(12.50)	12.50	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
BLA0684-MS1	84.7	(14.75)	14.75	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	Use 23A0313-13
BLA0684-MSD1	84.7	(14.75)	14.75	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	Use 23A0313-13

R 2/1/23 — Client ID verified By / Date

NR 2/9/23 — Preparation Reviewed By / Date

R 2/1/23 13:23 — Extraction Date and Time

Printed: 1/28/2023 12:05:54PM

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0684

Prepared using: EPA 3546 (Microwave)

8081B Pest (PSDDA) in Solid (Version:HCB Only)

WO Comments

23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Steps

Microwave
1 2 3
CR 2/1/23
Analyst/Date

Pre GPC KD
100°C
(No Exchange)
1 3 4 5 6
TWC 2/6/23
Analyst/Date

TurboVap
Pre GPC
1 2 3 4 5
CRO 2/7/23
Analyst/Date

Post GPC KD
80 - 85°C
Hexane Exchange
(2 X 20 mL)
100°C
1 2 3 4 5 6
LO/AV 2/8/23
Analyst/Date

TurboVap
Pre-Cleanups
1 2 3 4 5
NRB 2/9/23
Analyst/Date

TurboVap
Post-Cleanups
1 2 3 4 5
NRB 2/9/23
Analyst/Date

Vialing
NRB 2/9/23

Reagents Used

Station/Reagent	Standard ID
Microwave Analyst: CR Date: 2/1/23	
Hexane	K011373
80:20 Hexane/Acetone	L000257
1:1 Hexane/Acetone	L000879
Neutral Glass Wool	L000350
Anhydrous Sodium Sulfate	L000759
Pre GPC KD Analyst: TWC Date: 2/6/23	
Hexane	K011373
Anhydrous Sodium Sulfate	N/A
Neutral Glass Wool	N/A
GPC Filter Prep Analyst: CRO Date: 2/7/23	
Methylene Chloride	L000808
GPC Analyst: CRO Date: 2/7/23	
Methylene Chloride	L000808
GPC Calibration File	CLA0166
Post GPC KD Analyst: LO/AV Date: 2/8/23	
Methylene Chloride	L000800
Hexane	K011373
Vialing Analyst: NRB Date: 2/9/23	
Hexane	IC011373
Sulfuric Acid	L001033
~~Ethyl Acetate~~	
Tetrabutylammonium hydrogensulfate (TBAS)	L000840
Sodium Sulfite	IC010263
Silica Gel (SPE) Darts	IC011573

Surrogates & Spike Standards Used

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Surrogate 2µg/mL	N L000773 Exp Date: 7/12/23	50µL	CR	
Spike (Freezer) 0.5/1/5µg/mL	3 K011471 Exp Date: 6/10/23	100µL	CR	

MANUALLY ENTER EXPIRATION DATES!

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0684

Prepared using: EPA 3546 (Microwave)

8081B Pest (PSDDA) in Solid (Version:HCB Only)

WO Comments

23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Analyst/Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: PEST Extraction Batch: BLA0684

Total Solids Batch: BLA0320 Work Order(s): 23A0313

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
[X] No Anomalies (standard soil/wet sediment/sand/gravel)= #7, #8.	NP #1/27/23
[X] Standing Water Decanted (Not shared)= #1 – 12	NP #1/27/23
[ ] Standing Water Homogenized (Shared samples)=	
[ ] Clay/Clumps (Difficult to homogenize)=	
[ ] Rocks (%+size)?	
[ ] Organics (Leaves/sticks/grass)=	
[X] Oily, obvious fuel/sulfur odors= #1 – #6, #9 – 12.	NP #1/27/23
[ ] Received in 32oz jar(s)=Homogenized in Pyrex dish=	
[ ] Previously Frozen =	
[ ] Other (Details)=	
Aqueous:	
[ ] No Anomalies	
[ ] Turbid/Color=	
[ ] Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
[ ] Emulsions (%)=	
[ ] Oily, obvious fuel/sulfur odors=	
[ ] Other (Details)=	
[ ] Received in 1.0L Bottle(s)=No Bottle Rinse=	
[ ] Other Notes/Comments= (Note problems, concerns, corrective actions).	
[X] Share Samples Y / N	NP #1/27/23
[X] Multiple Jars Y / N	NP #1/27/23
[ ] Sample Pre-Screens indicate analyte activity=	
[ ] Sample weights/volumes reduced based on Pre-Screen=	

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0684

Prepared using: EPA 3546 (Microwave)

8081B Pest (PSDDA) in Solid (Version:HCB Only)

WO Comments

23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

23A0326: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessels. 3. Add 1:1 Hex/ACE to the vessels (until solvent is 3" above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 15 min in cold water. Re-homogenize while cool. 7. Decant 1:1 Hex/ACE into Erlenmeyer flask using a funnel containing neutral glasswool. 8. Rinse with Hexane. 9. Microwave a 2nd time using 8:2 Hex/Ace (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with Hexane. 11. KD to 5mL at 100°C. (NO HEXANE EXCHANGE). 12. TurboVap 13. GPC 14. After GPC: KD at 80 - 85°C 15. Exchange to Hexane at 100°C 2 x 20 mL). 16. TurboVap. 17. Cleanups, If Acid cleaning do not add Ethyl Acetate for Sulfur Clean. Do Not Acid Clean if Acid liable compounds are requested. 18. Vial in Hexane. A. Need Total Solids Y /(N) B. Archive/Freeze(Y) N	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: PEST Extraction Batch: BLA0684

Total Solids Batch: BLA1919 Work Order(s): 23A0313

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☒ No Anomalies (standard soil/wet sediment/sand/gravel)= 2, 11	VJ 01/27/23
☒ Standing Water Decanted (Not shared)= 01, 02, 05=11, 13 1/27/23	VJ 01/27/23
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☒ Oily, obvious fuel/sulfur odors= sulfur odor = 01, 02, 05 — 11, 13 fuel odor 03, 04.	VJ 01/27/23
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Previously Frozen =	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☒ Share Samples Y / N	VJ 01/27/23
☒ Multiple Jars Y / N	VJ 01/27/23
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

BLA0684 23a0313/23a0326

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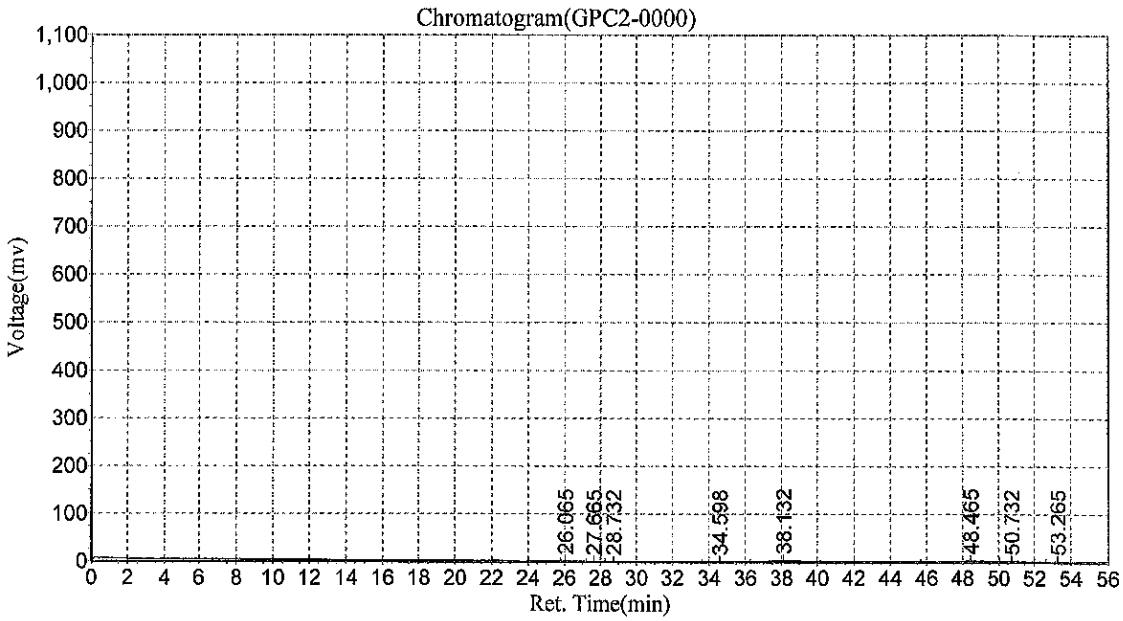

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		26.065	2045.637	175390.813	11.5630
2		27.665	2287.374	116313.930	7.6682
3		28.732	2577.198	141872.141	9.3532
4		34.598	1745.552	110368.398	7.2762
5		38.132	2482.952	308108.313	20.3126
6		48.465	2452.892	343415.844	22.6403
7		50.732	2297.757	214301.344	14.1282
8		53.265	1828.135	107062.008	7.0583
Total			17717.497	1516832.789	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0684 23a0313/23a0326

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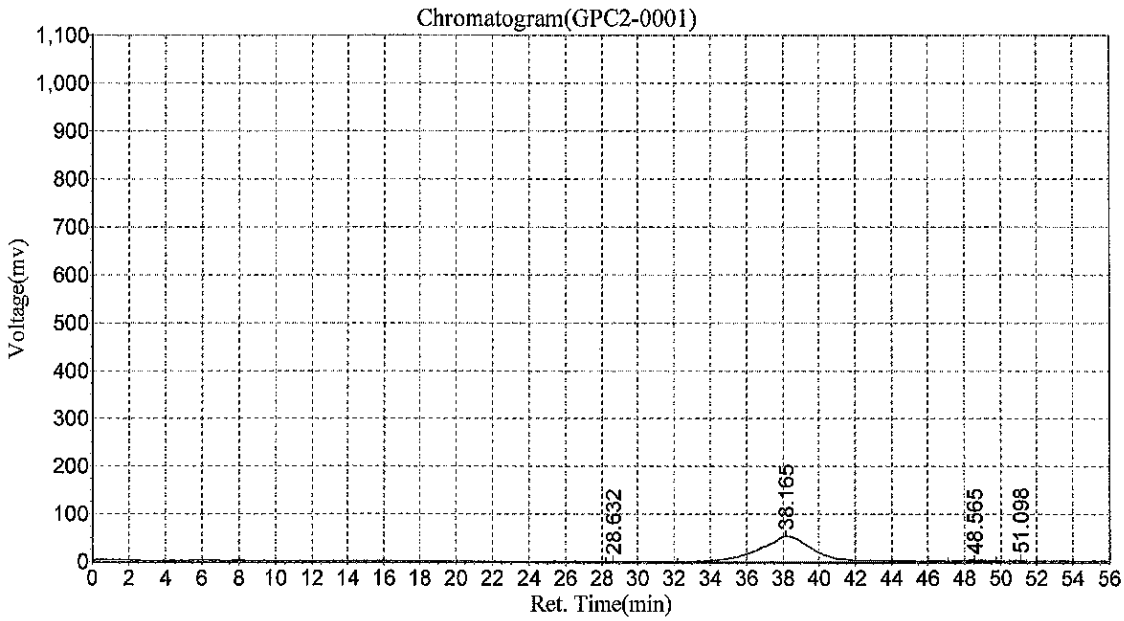

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		28.632	1872.667	105375.859	0.9108
2		38.165	53448.621	11129589.000	96.1967
3		48.565	1865.577	169535.688	1.4654
4		51.098	1766.712	165115.516	1.4271
Total			58953.576	11569616.063	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0684 23a0313/23a0326

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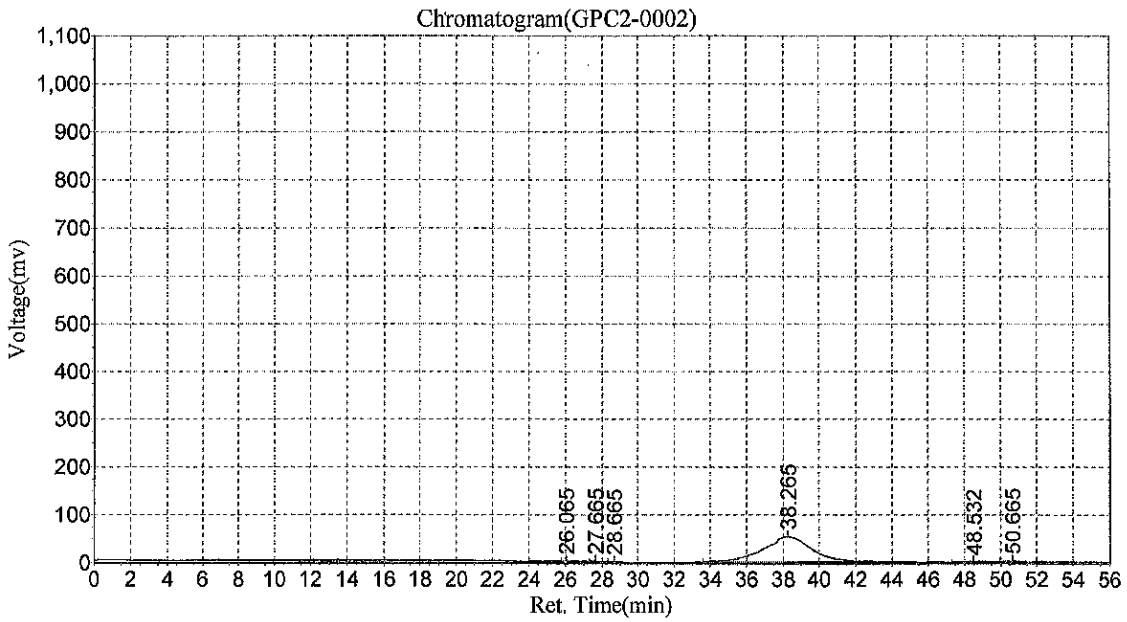

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		26.065	2044.281	125258.219	1.1201
2		27.665	2677.741	123849.922	1.1075
3		28.665	2769.405	154366.172	1.3804
4		38.265	54103.621	10478551.000	93.7047
5		48.532	1507.548	151866.969	1.3581
6		50.665	1982.918	148629.219	1.3291
Total			65085.514	11182521.500	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0684 23a0313/23a0326

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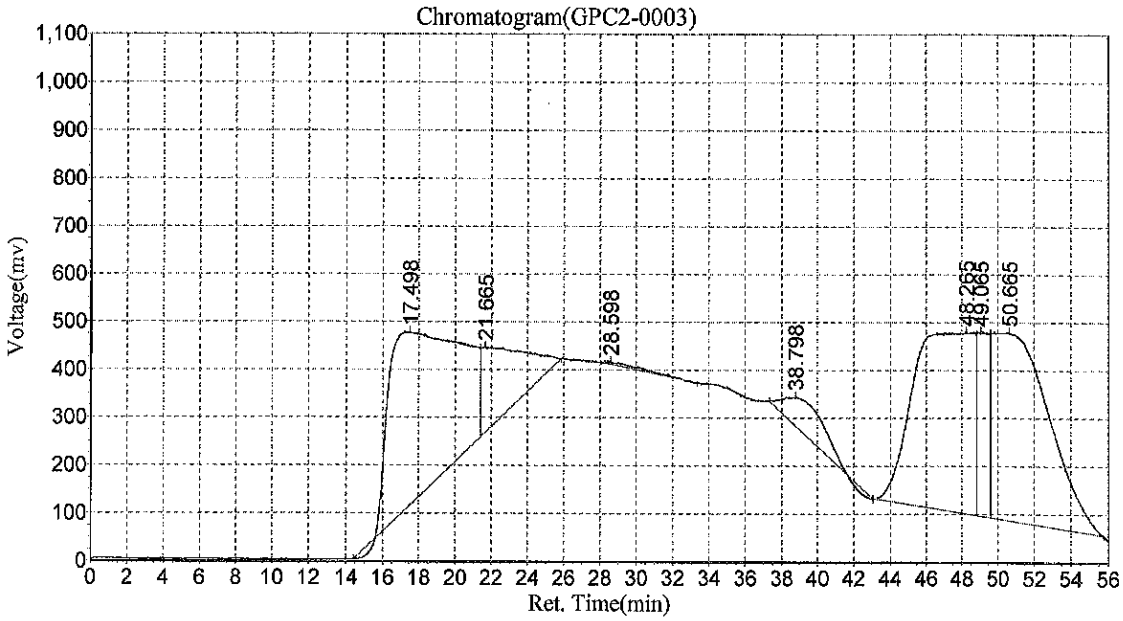

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.498	361567.875	93923208.000	29.4580
2		21.665	177956.109	25590148.000	8.0261
3		28.598	7453.872	1298927.000	0.4074
4		38.798	59552.023	10055738.000	3.1539
5		48.265	377205.375	86255184.000	27.0530
6		49.065	381770.594	18316824.000	5.7449
7		50.665	390079.000	83397704.000	26.1568
Total			1755584.849	318837733.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0684 23a0313/23a0326

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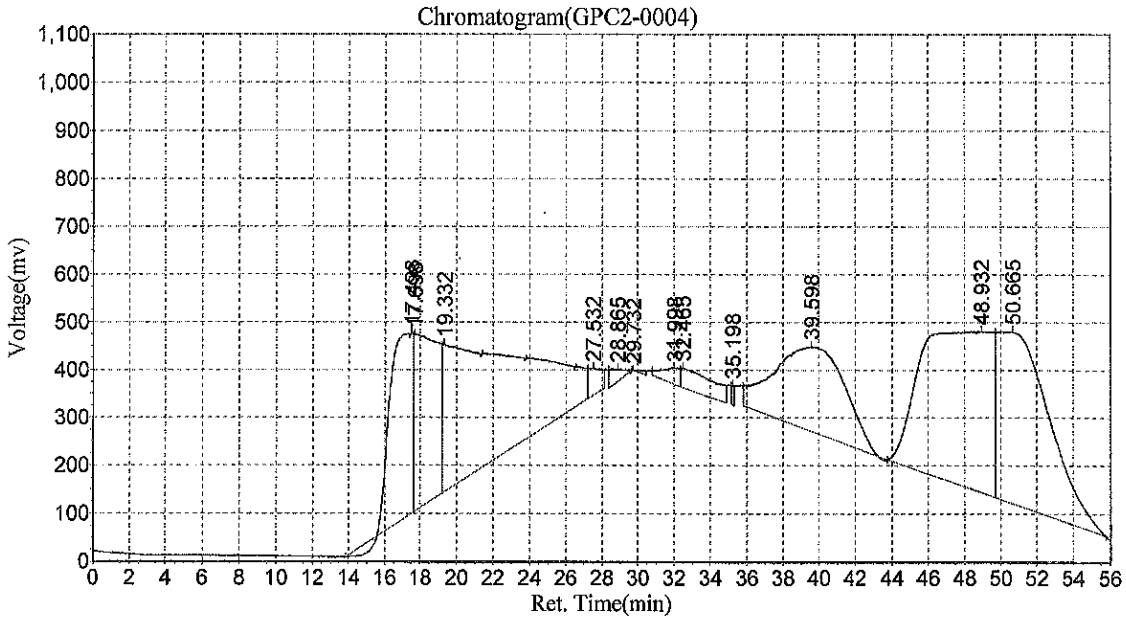

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.498	378171.344	33221718.000	8.8020
2		17.698	371236.000	32839988.000	8.7009
3		19.332	311264.031	89675272.000	23.7593
4		27.532	57203.898	2701164.500	0.7157
5		28.865	22632.936	1340354.250	0.3551
6		29.732	2258.431	270377.313	0.0716
7		31.998	35564.094	2537687.000	0.6724
8		32.465	41963.113	5950597.500	1.5766
9		35.198	42958.793	336711.188	0.0892
10		39.598	182113.250	50367236.000	13.3447
11		48.932	335034.031	88271688.000	23.3874
12		50.665	357095.719	69919280.000	18.5250
Total			2137495.640	377432073.750	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

2023-02-07 ***Analytical Resources, Inc.***

BLA0684 23a0313/23a0326

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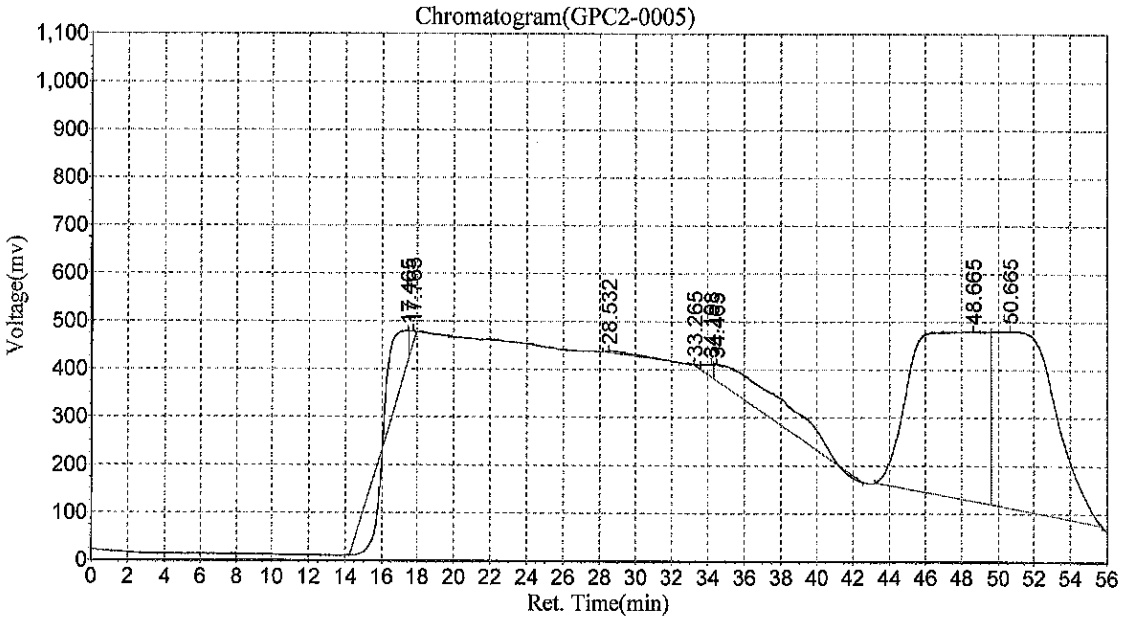

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.465	65355.211	1987989.375	0.9500
2		17.765	28363.482	753694.625	0.3602
3		28.532	6062.290	935352.000	0.4470
4		33.265	2726.936	119844.297	0.0573
5		34.198	25858.035	849874.500	0.4061
6		34.465	32817.777	17338680.000	8.2858
7		48.665	352897.531	100165776.000	47.8673
8		50.665	367063.469	87106088.000	41.6263
Total			881144.731	209257298.797	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0684 23a0313/23a0326

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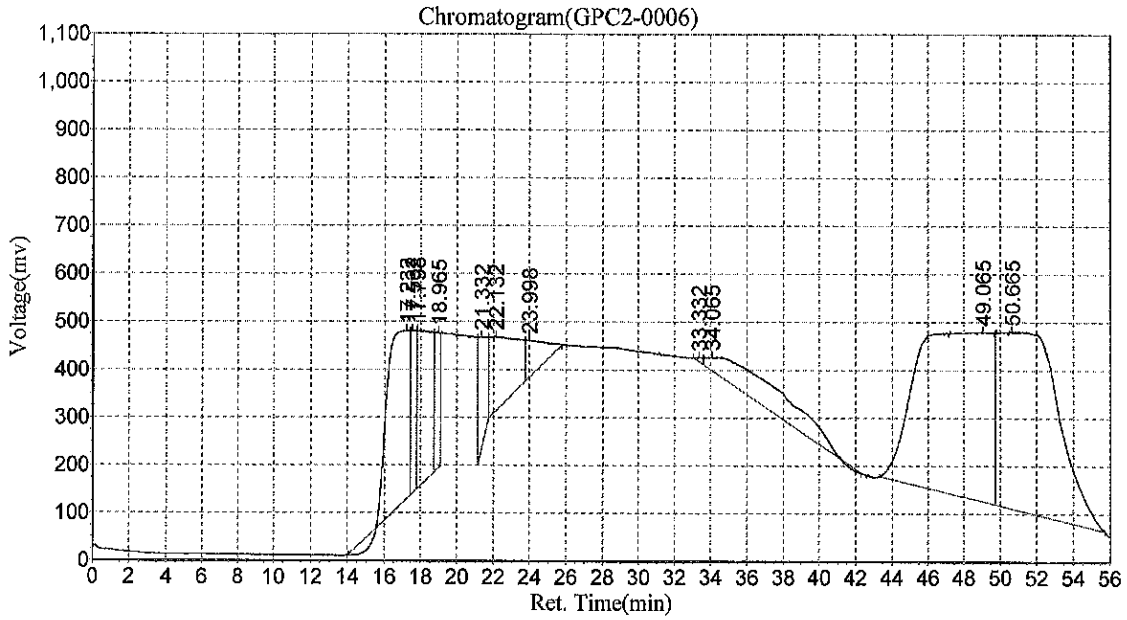

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.232	351395.969	29399818.000	10.1379
2		17.532	340227.781	6744449.000	2.3257
3		17.798	330202.313	17447950.000	6.0165
4		18.965	283422.344	6262672.000	2.1595
5		21.332	184204.750	6483515.000	2.2357
6		22.132	154606.313	15827304.000	5.4577
7	Collect BAN	23.998	77211.969	5197848.000	1.7924
8		33.332	7197.638	223502.094	0.0771
9		34.065	27158.893	18320312.000	6.3174
10		49.065	352242.844	99002440.000	34.1389
11		50.665	367601.063	85089480.000	29.3413
Total			2475471.874	289999290.094	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0684 23a0313/23a0326

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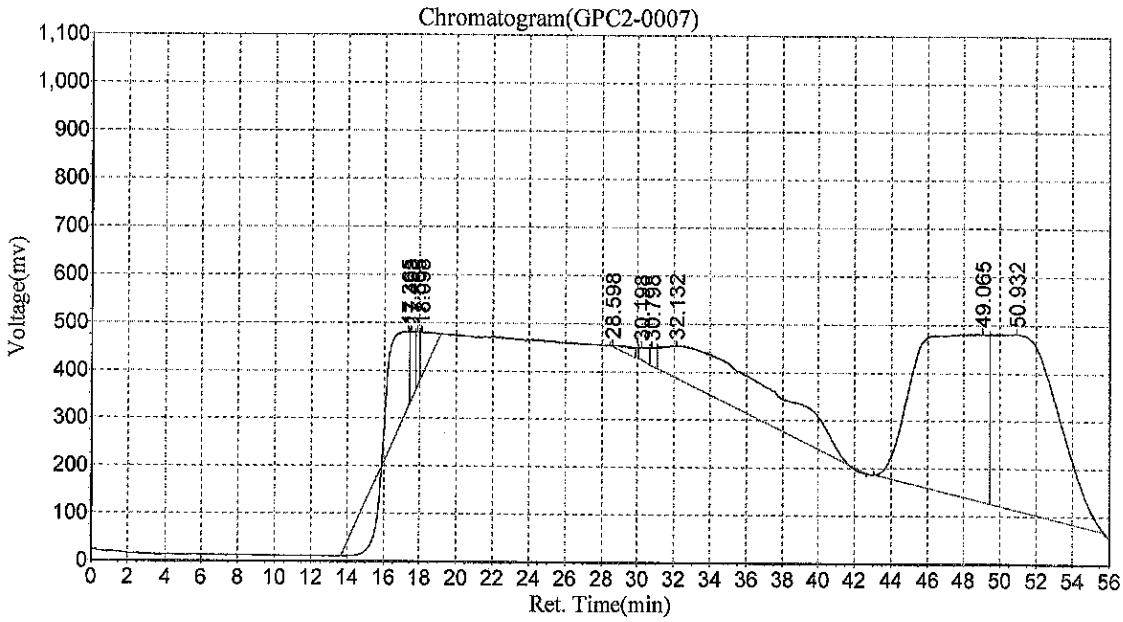

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.365	157158.484	6460461.000	2.6419
2		17.498	145667.031	2735405.750	1.1186
3		17.865	114760.570	1784165.875	0.7296
4		18.098	94770.547	3414838.000	1.3964
5		28.598	2947.897	952096.063	0.3893
6		30.198	28665.658	1128058.750	0.4613
7		30.798	39588.195	972821.375	0.3978
8		32.132	68118.164	43446736.000	17.7667
9		49.065	349350.156	94006864.000	38.4423
10		50.932	366789.875	89638792.000	36.6561
Total			1367816.578	244540238.813	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0684 23a0313/23a0326

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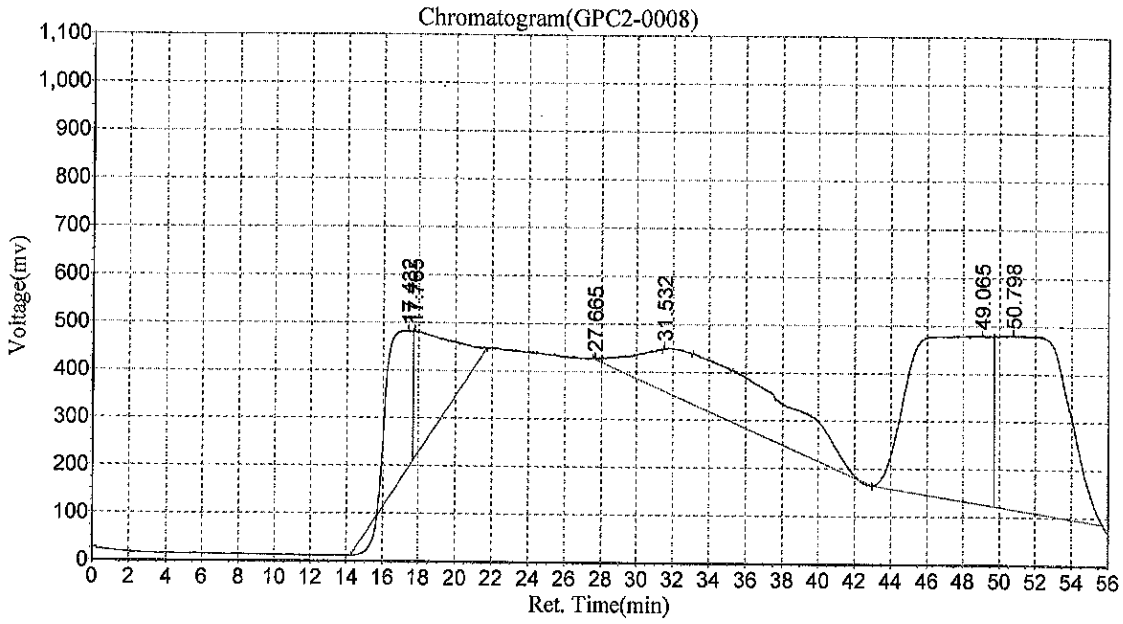

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.432	285774.406	28112124.000	8.5782
2		17.765	266163.875	32129906.000	9.8042
3		27.665	3194.303	151873.906	0.0463
4		31.532	91231.094	65394472.000	19.9546
5		49.065	350504.125	105313952.000	32.1357
6		50.798	361467.313	96613680.000	29.4809
Total			1358335.115	327716007.906	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0684 23a0313/23a0326

Date:2023-02-08,12:19:49 AM
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Analyst£°CTO
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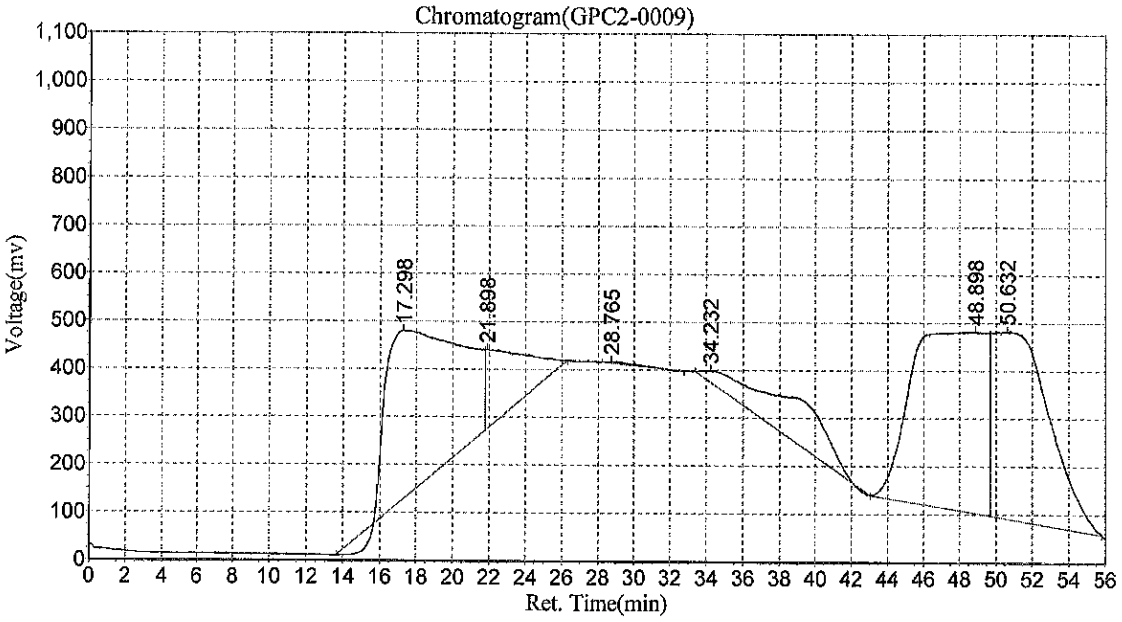

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.298	351414.750	91876480.000	27.6058
2		21.898	164695.313	22989242.000	6.9075
3		28.765	4745.500	590200.688	0.1773
4		34.232	23918.063	26827426.000	8.0608
5		48.898	376970.781	106771744.000	32.0814
6		50.632	388368.344	83760312.000	25.1672
Total			1310112.750	332815404.688	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0684 23a0313/23a0326

Date:2023-02-08,1:17:30 AM
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Method File:E:\GPC2_InHouse.mtd

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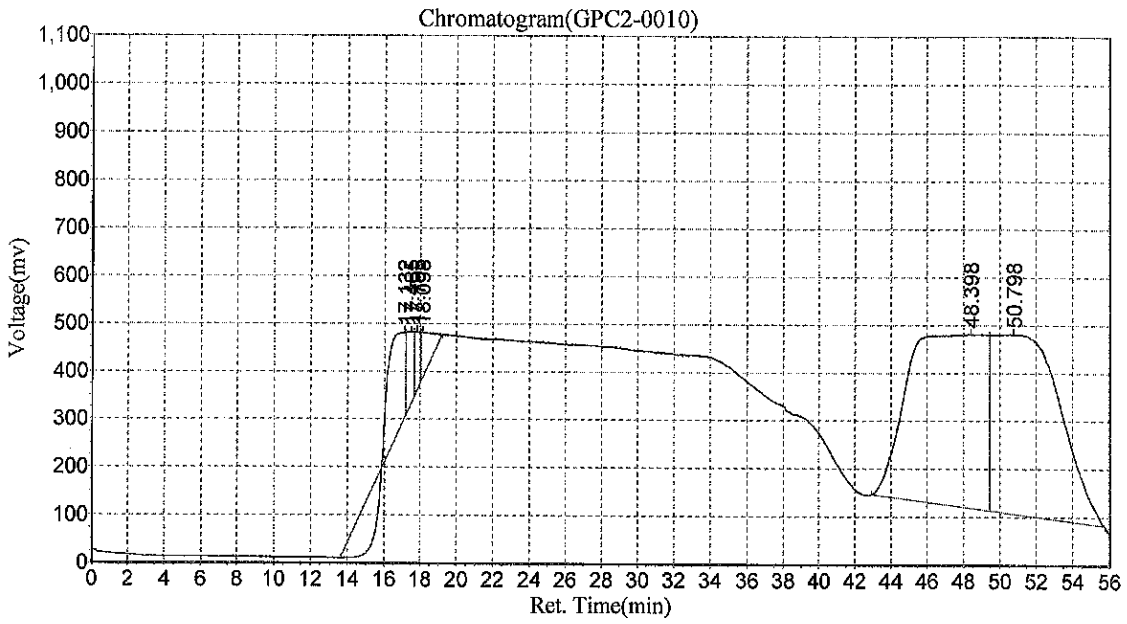

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.132	179613.234	4741030.000	2.1898
2		17.465	153128.844	4351076.500	2.0097
3		17.798	125574.430	2654679.750	1.2261
4		18.098	99311.969	3783231.250	1.7474
5		48.398	360984.281	106371040.000	49.1302
6		50.798	372913.844	94607344.000	43.6968
Total			1291526.602	216508401.500	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0684 23a0313/23a0326

Date:2023-02-08,2:15:18 AM
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Method File:E:\GPC2_InHouse.mtd

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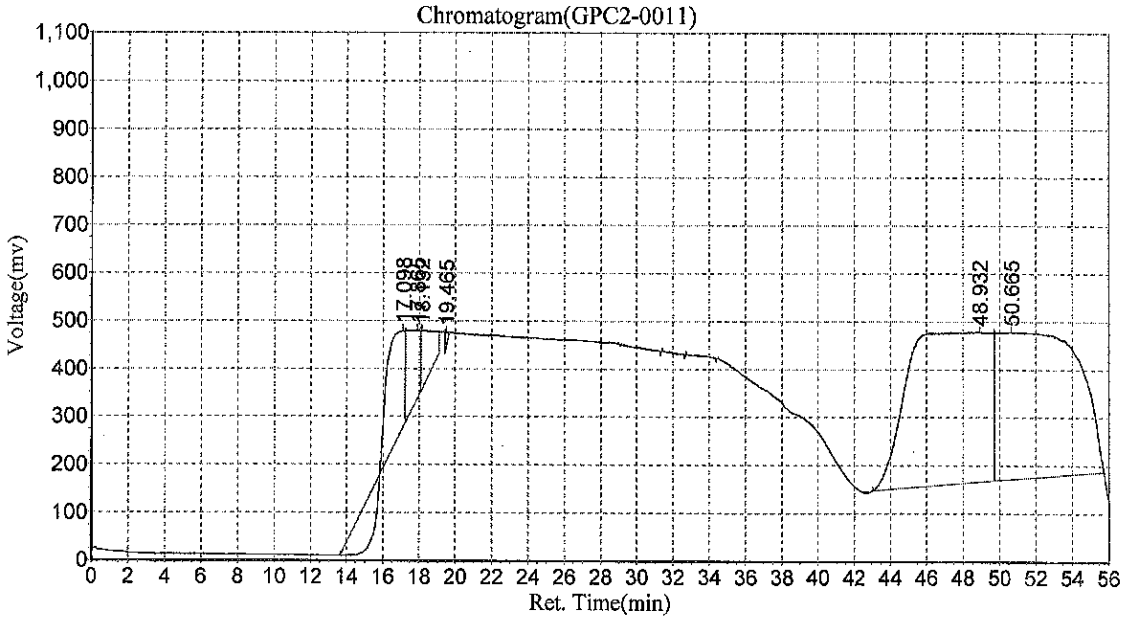

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.098	203656.750	7214126.500	3.4824
2		17.865	144546.391	8045000.500	3.8834
3		18.132	123420.703	5395251.000	2.6044
4		19.465	16746.254	173290.297	0.0836
5		48.932	305085.031	97305856.000	46.9710
6		50.665	297291.188	89028008.000	42.9752
Total			1090746.316	207161532.297	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0684 23a0313/23a0326

Date:2023-02-08,3:12:59 AM
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Method File:E:\GPC2_InHouse.mtd

Analyst£ºCTO
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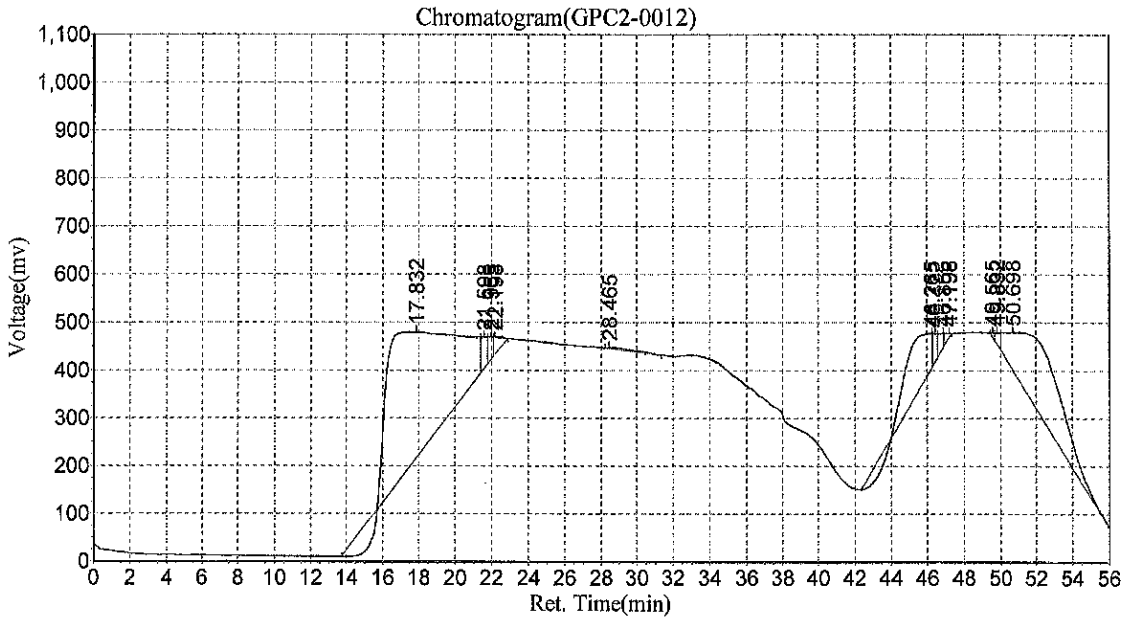

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.832	265792.375	65047660.000	60.3012
2		21.598	66632.078	1322080.750	1.2256
3		21.965	48148.926	989856.063	0.9176
4		22.198	36461.465	973650.625	0.9026
5		28.465	1960.151	342867.188	0.3178
6		46.265	71621.078	9622771.000	8.9206
7		46.432	60904.398	971701.688	0.9008
8		46.865	32965.039	882455.813	0.8181
9		47.198	11032.682	367878.688	0.3410
10		49.565	6409.438	101121.805	0.0937
11		49.832	22746.273	491085.406	0.4553
12		50.698	77339.734	26758042.000	24.8056
Total			702013.637	107871171.023	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

2023-02-08 ***Analytical Resources, Inc.***

BLA0684 23a0313/23a0326

Date:2023-02-08,4:10:42 AM
Data File:c:\n2000\data\gpc2\020723\GPC2-0013
Method File:E:\GPC2_InHouse.mtd

Analyst£ºCTO
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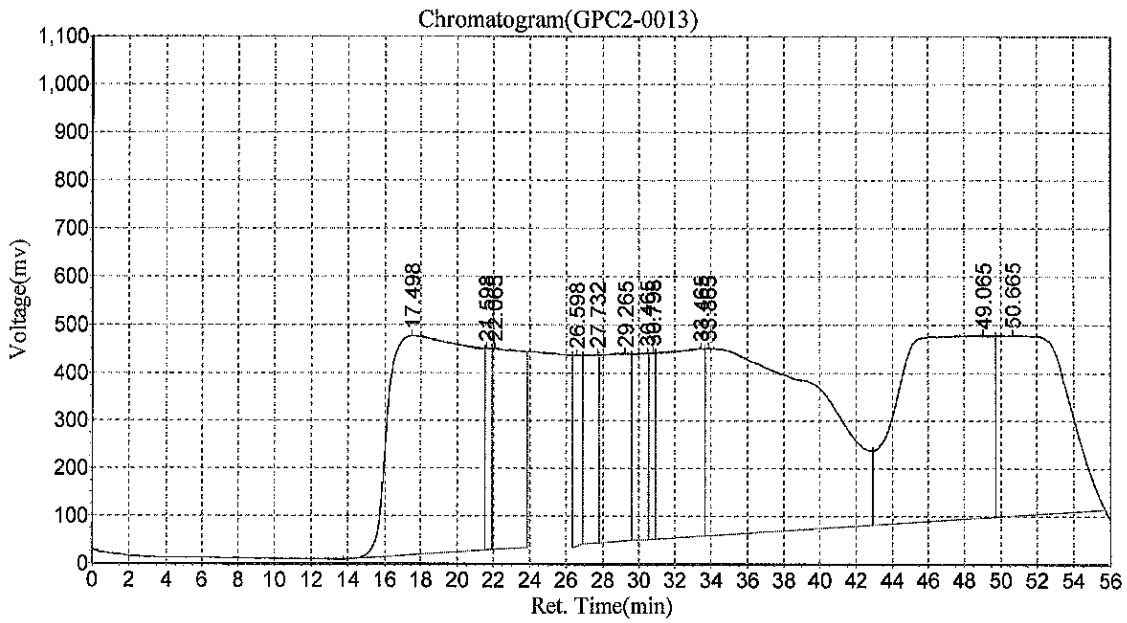

Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.498	457003.969	146407408.000	18.8770
2		21.598	421701.313	10087459.000	1.3006
3		22.065	419339.063	47994832.000	6.1882
4		26.598	394113.000	14168122.000	1.8268
5		27.732	391543.250	20375022.000	2.6270
6		29.265	390593.000	42187828.000	5.4395
7		30.465	388140.469	21743510.000	2.8035
8		30.798	387896.719	9306643.000	1.1999
9		33.465	390068.688	63656888.000	8.2076
10		33.865	388962.188	168079104.000	21.6712
11		49.065	375465.063	135636336.000	17.4882
12		50.665	371734.031	95944232.000	12.3705
Total			4776560.750	775587384.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

2023-02-08 ***Analytical Resources, Inc.***

BLA0684 23a0313/23a0326

Date:2023-02-08,5:08:23 AM
Data File:c:\n2000\data\gpc2\020723\GPC2-0014
Method File:E:\GPC2_InHouse.mtd

Analyst£°CTO
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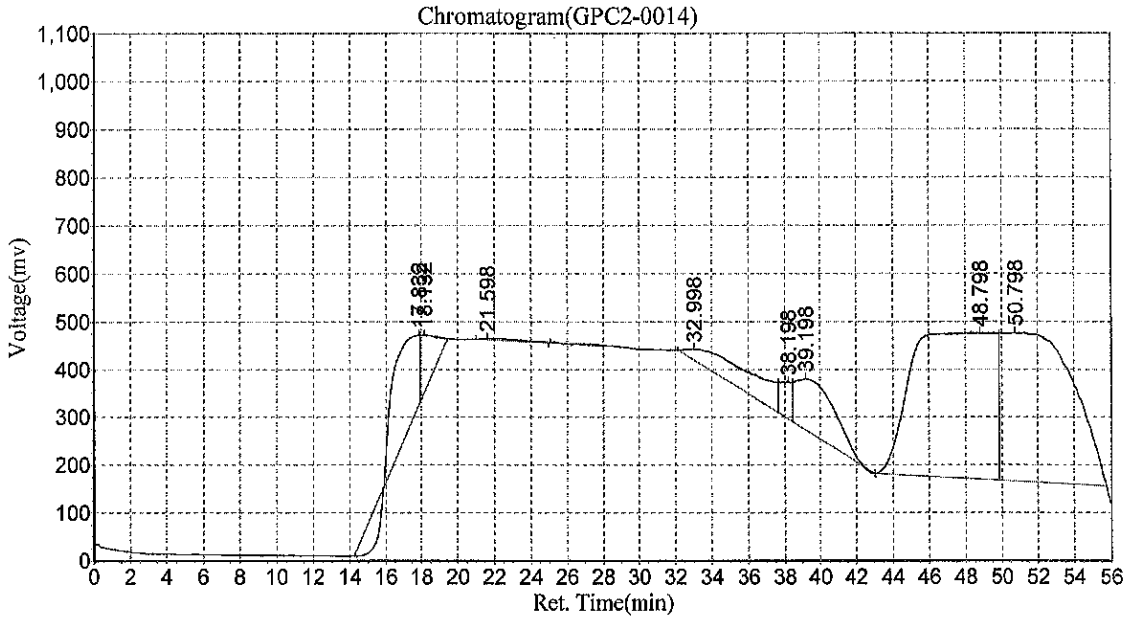


Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.832	147901.891	15465743.000	6.6273
2		18.132	121640.031	6614780.500	2.8345
3		21.598	4183.657	935222.125	0.4008
4		32.998	26553.137	13890007.000	5.9521
5		38.198	79204.938	3605424.750	1.5450
6		39.198	108816.125	17155622.000	7.3514
7		48.798	300711.344	94479296.000	40.4858
8		50.798	303635.563	81217704.000	34.8030
Total			1092646.684	233363799.375	100.000

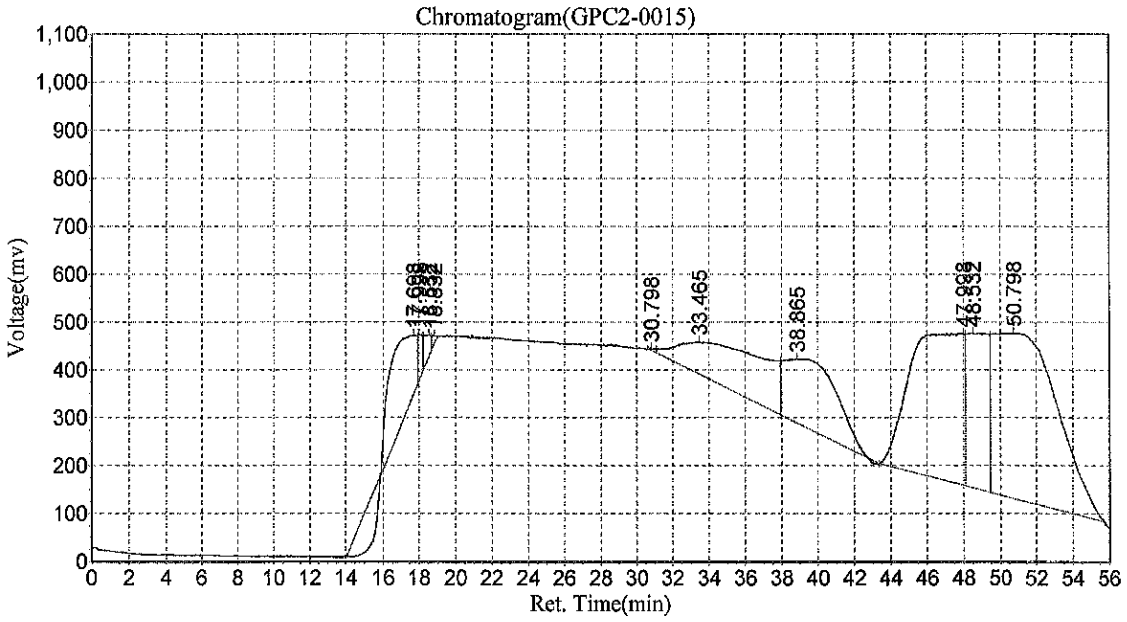
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0684 23a0313/23a0326

Date:2023-02-08,6:06:11 AM
Data File:c:\n2000\data\gpc2\020723\GPC2-0015
Method File:E:\GPC2_InHouse.mtd

Analyst£°CTO
Date/Time2023-02-08,6:06:11 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.698	122716.875	11321036.000	4.5950
2		17.998	95965.523	1627600.375	0.6606
3		18.532	45138.438	1510906.500	0.6132
4		18.832	16534.080	322007.156	0.1307
5		30.798	4695.848	134228.359	0.0545
6		33.465	67765.156	30011826.000	12.1812
7		38.865	134736.063	29046574.000	11.7894
8	Dump BAN	47.998	315676.906	62679528.000	25.4403
9		48.532	321795.438	25859998.000	10.4960
10		50.798	343290.844	83865344.000	34.0392
Total			1468315.170	246379048.391	100.000

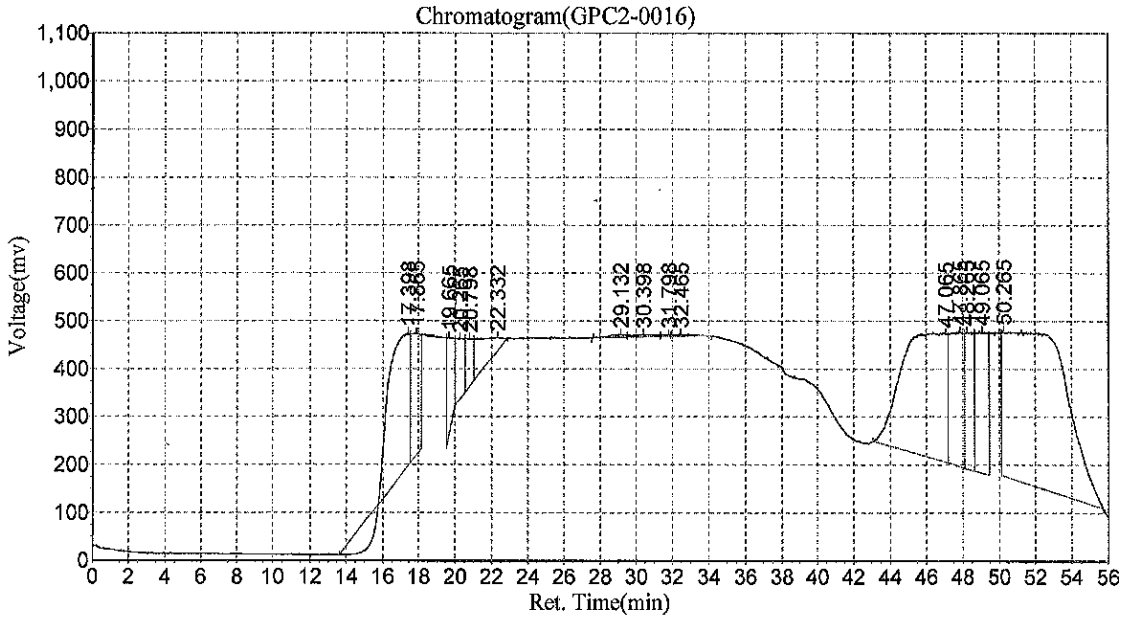
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000
2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

BLA0684 23a0313/23a0326

Date:2023-02-08,7:03:52 AM
Data File:c:\n2000\data\gpc2\020723\GPC2-0016
Method File:E:\GPC2_InHouse.mtd

Analyst£ºCTO
Date/Time2023-02-08,7:03:53 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		17.398	276680.313	19002084.000	9.2619
2		17.865	254762.344	9184247.000	4.4765
3		19.665	157862.156	4261930.000	2.0773
4		20.265	127179.750	4054936.000	1.9764
5		20.798	100407.063	3202546.000	1.5610
6		22.332	27212.707	4763639.000	2.3219
7		29.132	5593.894	396476.938	0.1932
8		30.398	4639.841	446572.969	0.2177
9		31.798	4079.150	132808.547	0.0647
10		32.465	3729.965	335989.406	0.1638
11		47.065	268158.844	44148660.000	21.5187
12		47.865	278318.406	15390726.000	7.5017
13		48.265	282099.688	9059252.000	4.4156
14		49.065	291385.250	13941107.000	6.7951
15		50.265	304767.125	76843184.000	37.4545
Total			2386876.494	205164158.859	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect Pest	29.000	0.010	0.00E+000	0.00E+000	0.0000

2023-02-08

Analytical Resources, Inc.

2	Dump Pest	46.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump BAN	48.000	0.010	0.00E+000	0.00E+000	0.0000
4	Collect BAN	24.000	0.010	0.00E+000	0.00E+000	0.0000

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0078	Cleanup Type:	Sulfuric Acid
Cleanup Method:	EPA 3665 Sulfuric Acid Cleanup - uL	Analysis:	EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	BLA0684-BLK1	23021325.D	02/09/2023	
LDW23-SC1159	23A0313-13	23021334.D	02/09/2023	
LDW23-SC1006A	23A0313-10	23021332.D	02/09/2023	
LDW23-SC1011A	23A0313-09	23021331.D	02/09/2023	
LDW23-SC1016A	23A0313-08	23021330.D	02/09/2023	
LCS	BLA0684-BS1	23021326.D	02/09/2023	
LCS Dup	BLA0684-BSD1	23021327.D	02/09/2023	
Matrix Spike	BLA0684-MS1	23021328.D	02/09/2023	
Matrix Spike Dup	BLA0684-MSD1	23021329.D	02/09/2023	
LDW23-SC1012B	23A0313-11	23021333.D	02/09/2023	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0078

Matrix: Solid **Cleanup using: Organics - EPA 3665 Sulfuric Acid Cleanup - uL** **Printed: 2/9/2023 4:54:04PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0313-08	A	LDW23-SC1016A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-09	A	LDW23-SC1011A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-10	A	LDW23-SC1006A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-11	A	LDW23-SC1012B	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-13	A	LDW23-SC1159	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-01	A	LDW23-SC1028	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-02	A	LDW23-SC1032	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-04	A	LDW23-SC1170A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-05	A	LDW23-SC1169C	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-10	A	LDW23-SC1161	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-11	A	LDW23-SC1155	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-12	A	LDW23-SC1162B	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
BLA0684-BLK1	-	Blank	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-BS1	-	LCS	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-BSD1	-	LCS Dup	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-MS1	-	Matrix Spike	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	2/9/2023	NRB	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0079	Cleanup Type:	Sulfur
Cleanup Method:	EPA 3660B Sulfur Cleanup - uL	Analysis:	EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1006A	23A0313-10	23021332.D	02/09/2023	
LDW23-SC1012B	23A0313-11	23021333.D	02/09/2023	
Matrix Spike	BLA0684-MS1	23021328.D	02/09/2023	
LCS Dup	BLA0684-BSD1	23021327.D	02/09/2023	
LCS	BLA0684-BS1	23021326.D	02/09/2023	
Blank	BLA0684-BLK1	23021325.D	02/09/2023	
LDW23-SC1159	23A0313-13	23021334.D	02/09/2023	
LDW23-SC1016A	23A0313-08	23021330.D	02/09/2023	
LDW23-SC1011A	23A0313-09	23021331.D	02/09/2023	
Matrix Spike Dup	BLA0684-MSD1	23021329.D	02/09/2023	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0079

Matrix: Solid **Cleanup using: Organics - EPA 3660B Sulfur Cleanup - uL** **Printed: 2/9/2023 4:54:38PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0313-08	A	LDW23-SC1016A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-09	A	LDW23-SC1011A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-10	A	LDW23-SC1006A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-11	A	LDW23-SC1012B	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-13	A	LDW23-SC1159	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-01	A	LDW23-SC1028	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-02	A	LDW23-SC1032	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-04	A	LDW23-SC1170A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-05	A	LDW23-SC1169C	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-10	A	LDW23-SC1161	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-11	A	LDW23-SC1155	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-12	A	LDW23-SC1162B	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
BLA0684-BLK1	-	Blank	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-BS1	-	LCS	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-BSD1	-	LCS Dup	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-MS1	-	Matrix Spike	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	2/9/2023	NRB	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0080	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup - uL	Analysis:	EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LCS Dup	BLA0684-BSD1	23021327.D	02/09/2023	
Matrix Spike	BLA0684-MS1	23021328.D	02/09/2023	
LCS	BLA0684-BS1	23021326.D	02/09/2023	
Blank	BLA0684-BLK1	23021325.D	02/09/2023	
LDW23-SC1006A	23A0313-10	23021332.D	02/09/2023	
LDW23-SC1011A	23A0313-09	23021331.D	02/09/2023	
LDW23-SC1012B	23A0313-11	23021333.D	02/09/2023	
LDW23-SC1016A	23A0313-08	23021330.D	02/09/2023	
LDW23-SC1159	23A0313-13	23021334.D	02/09/2023	
Matrix Spike Dup	BLA0684-MSD1	23021329.D	02/09/2023	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0080

Matrix: Solid **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup - uL** **Printed: 2/9/2023 4:55:12PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0313-08	A	LDW23-SC1016A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-09	A	LDW23-SC1011A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-10	A	LDW23-SC1006A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-11	A	LDW23-SC1012B	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-13	A	LDW23-SC1159	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-01	A	LDW23-SC1028	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-02	A	LDW23-SC1032	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-04	A	LDW23-SC1170A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-05	A	LDW23-SC1169C	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-10	A	LDW23-SC1161	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-11	A	LDW23-SC1155	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-12	A	LDW23-SC1162B	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
BLA0684-BLK1	-	Blank	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-BS1	-	LCS	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-BSD1	-	LCS Dup	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-MS1	-	Matrix Spike	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	2/9/2023	NRB	

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0081	Cleanup Type:	GPC
Cleanup Method:	EPA 3640A GPC Cleanup 1:1	Analysis:	EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	BLA0684-BLK1	23021325.D	02/09/2023	
Matrix Spike Dup	BLA0684-MSD1	23021329.D	02/09/2023	
Matrix Spike	BLA0684-MS1	23021328.D	02/09/2023	
LCS Dup	BLA0684-BSD1	23021327.D	02/09/2023	
LDW23-SC1159	23A0313-13	23021334.D	02/09/2023	
LCS	BLA0684-BS1	23021326.D	02/09/2023	
LDW23-SC1011A	23A0313-09	23021331.D	02/09/2023	
LDW23-SC1016A	23A0313-08	23021330.D	02/09/2023	
LDW23-SC1012B	23A0313-11	23021333.D	02/09/2023	
LDW23-SC1006A	23A0313-10	23021332.D	02/09/2023	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0081

Matrix: Solid **Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1** **Check Standard: CLA0166-GPC1** **Printed: 2/9/2023 4:55:51PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0313-08	A	LDW23-SC1016A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-09	A	LDW23-SC1011A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-10	A	LDW23-SC1006A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-11	A	LDW23-SC1012B	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0313-13	A	LDW23-SC1159	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-01	A	LDW23-SC1028	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-02	A	LDW23-SC1032	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-04	A	LDW23-SC1170A	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-05	A	LDW23-SC1169C	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-10	A	LDW23-SC1161	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-11	A	LDW23-SC1155	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
23A0326-12	A	LDW23-SC1162B	A 01	2.5	2.5	8081B Pest (PSDDA)	2/9/2023	NRB	
BLA0684-BLK1	-	Blank	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-BS1	-	LCS	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-BSD1	-	LCS Dup	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-MS1	-	Matrix Spike	-	2.5	2.5	-	2/9/2023	NRB	
BLA0684-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	2/9/2023	NRB	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I

METHOD BLANK DATA SHEET

EPA 8081B

Blank

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	BLA0684-BLK1	File ID:	23021325.D
Sampled:	N/A	Prepared:	02/01/23 13:23	Analyzed:	02/13/23 20:28
Solids:		Preparation:	EPA 3546 (Microwave)	Initial/Final:	12.5 g / 2.5 mL
Batch:	BLA0684	Sequence:	SLB0237	Calibration:	FL00041
Instrument:	ECD6	Column:	STX-CLP	Cleanups:	GPC, Silica Gel, Sulfur, Sulfuric Acid

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
118-74-1	Hexachlorobenzene	1	0.50	U	0.15	0.50

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Decachlorobiphenyl	8.0000	9.05	113	30 - 160	
Decachlorobiphenyl [2C]	8.0000	9.36	117	30 - 160	
Tetrachlorometaxylene	8.0000	5.72	71.5	30 - 160	
Tetrachlorometaxylene [2C]	8.0000	5.70	71.3	30 - 160	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021325.D
Data file 2: /20230213.b/B20230213.b/23021325.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: BLA0684-BLK1
Client ID:
Injection Date: 13-FEB-2023 20:28
Report Date: 02/17/2023 12:17
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			4.813	-0.002	2388	0.00	0.16	---	alpha-BHC
----			----			0.00	0.00	---	beta-BHC
----			----			0.00	0.00	---	delta-BHC
4.606	0.007	32333	----			4.21	0.00	---	gamma-BHC (Lindane)
----			----			0.00	0.00	---	Heptachlor
----			----			0.00	0.00	---	Aldrin
----			----			0.00	0.00	---	Heptachlor epoxide b
----			----			0.00	0.00	---	Endosulfan I
----			----			0.00	0.00	---	Dieldrin
----			----			0.00	0.00	---	4,4'-DDE
7.026	0.001	66019	----			10.35	0.00	---	Endrin
----			----			0.00	0.00	---	Endosulfan II
----			----			0.00	0.00	---	4,4'-DDD
----			----			0.00	0.00	---	Endosulfan sulfate
7.378	-0.001	94740	----			16.32	0.00	---	4,4'-DDT
7.866	0.001	109327	----			42.50	0.00	---	Methoxychlor
8.430	0.030	81915	----			13.12	0.00	---	Endrin ketone
----			----			0.00	0.00	---	Endrin aldehyde
----			----			0.00	0.00	---	trans-Chlordane
----			----			0.00	0.00	---	cis-Chlordane
----			2.447	-0.026	25173	0.00	1.73	---	Hexachlorobutadiene
4.144	0.002	3278	4.673	-0.002	5011	0.40	0.36	10.1	Hexachlorobenzene
3.792	0.002	179072	4.183	0.001	306263	28.60	28.51	0.3	Tetrachloro-m-xylene
9.305	-0.001	223058	10.401	-0.001	278631	45.27	46.82	3.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

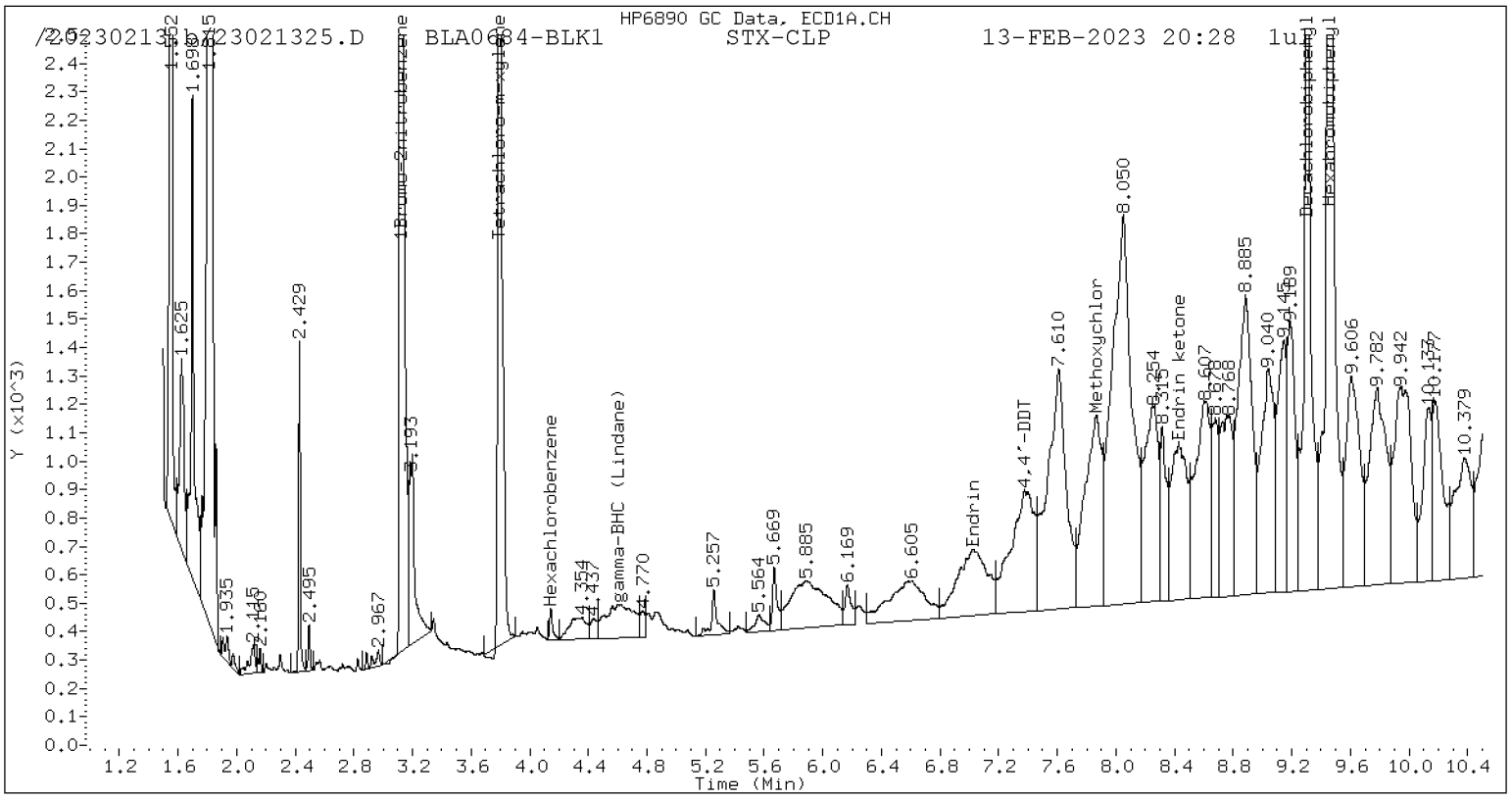
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	460404	-31.5
Hexabromobiphenyl	609723	486330	-20.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	763127	-24.2
Hexabromobiphenyl	769764	538454	-30.0

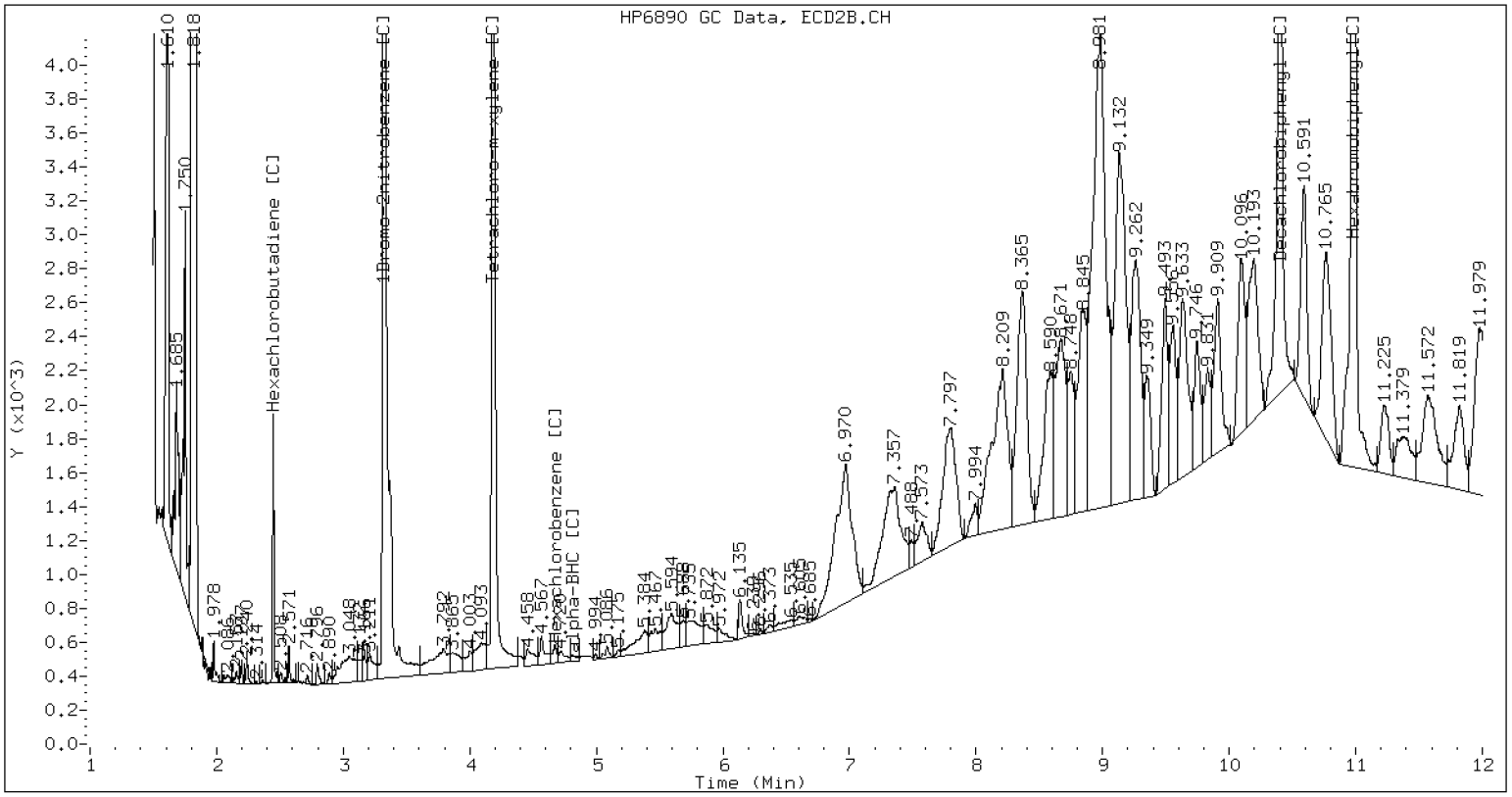
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

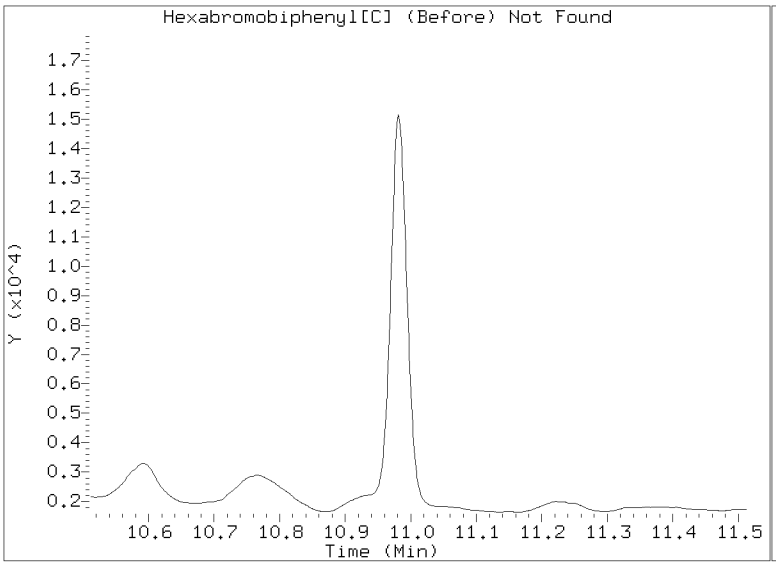
/20230213.b/B20230213.b/23021325.D BLA0684-BLK1 CLP2

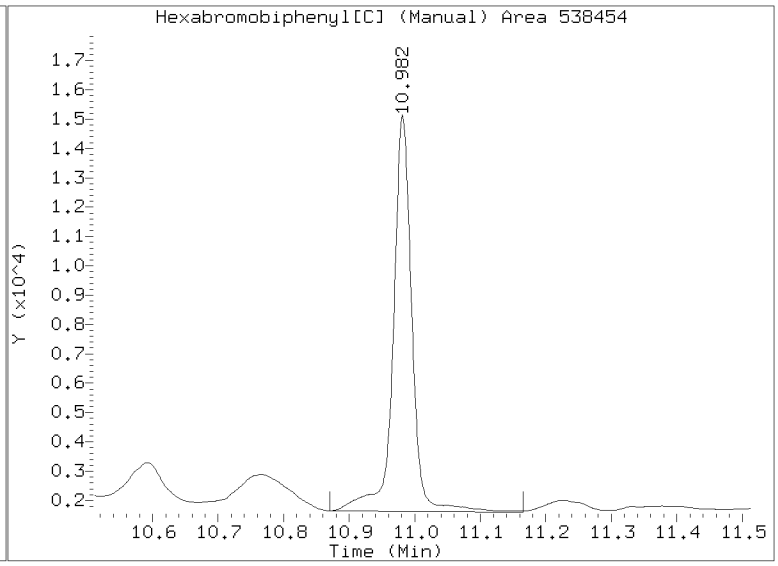


CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, CLP-2

Datafile: /20230213.b/B20230213.b/23021325.D
Injection Date: 13-FEB-2023 20:28
Lab ID:BLA0684-BLK1 Client ID:





LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	02/13/23 20:46
Batch:	BLA0684	Laboratory ID:	BLA0684-BS1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	LCS
Initial/Final:	12.5 g / 2.5 mL		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Hexachlorobenzene	4.00	3.23		80.7	26 - 128

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Hexachlorobenzene	4.00	3.17		79.3	1.64	30	26 - 128

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021326.D
Data file 2: /20230213.b/B20230213.b/23021326.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: BLA0684-BS1
Client ID:
Injection Date: 13-FEB-2023 20:46
Report Date: 02/17/2023 12:17
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.299	0.001	157078	4.815	0.000	239734	17.01	15.40	9.9	alpha-BHC
4.682	0.001	64049	5.290	0.000	94189	18.01	15.92	12.4	beta-BHC
4.864	0.001	147491	5.641	-0.001	211961	19.54	16.53	16.7	delta-BHC
4.600	0.001	144117	5.209	0.000	218831	18.00	16.57	8.3	gamma-BHC (Lindane)
5.079	0.001	132041	5.733	-0.000	196760	18.53	16.44	12.0	Heptachlor
5.399	0.000	134661	6.135	-0.001	183946	16.87	13.46	22.4	Aldrin
6.072	0.000	121961	6.792	0.000	177871	17.62	15.74	11.2	Heptachlor epoxide b
6.516	0.001	185140	7.235	-0.001	256806	29.14	25.79	12.2	Endosulfan I
----			7.548	0.018	7532	0.00	0.68	---	Dieldrin
6.437	-0.002	236396	7.321	-0.002	344427	37.30	34.14	8.9	4,4'-DDE
----			7.862	0.007	24842	0.00	2.88	---	Endrin
7.264	-0.000	44010	8.066	-0.000	79769	8.59	9.01	4.7	Endosulfan II
7.086	-0.001	203451	7.929	-0.001	287837	39.68	34.25	14.7	4,4'-DDD
8.126	0.000	197924	8.665	-0.000	312410	40.69	40.18	1.3	Endosulfan sulfate
7.378	0.000	216460	8.246	-0.001	283048	41.78	34.90	17.9	4,4'-DDT
7.867	0.001	30481	8.889	-0.001	110872	13.28	30.89	79.8*	Methoxychlor
8.400	0.000	168551	9.189	-0.000	235778	30.25	28.07	7.5	Endrin ketone
7.692	0.001	25885	8.398	-0.000	74015	6.33	11.85	60.7*	Endrin aldehyde
6.214	-0.001	132745	7.003	-0.001	185763	18.88	16.49	13.5	trans-Chlordane
6.361	0.000	125654	7.163	-0.001	181732	17.82	16.49	7.8	cis-Chlordane
2.297	0.001	138535	2.475	0.001	196925	14.32	13.32	7.2	Hexachlorobutadiene
4.144	0.001	138316	4.676	0.000	201547	16.13	14.23	12.5	Hexachlorobenzene
3.792	0.002	201768	4.182	0.000	311123	30.93	28.46	8.3	Tetrachloro-m-xylene
9.306	-0.000	150844	10.402	-0.001	258213	34.29	38.45	11.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

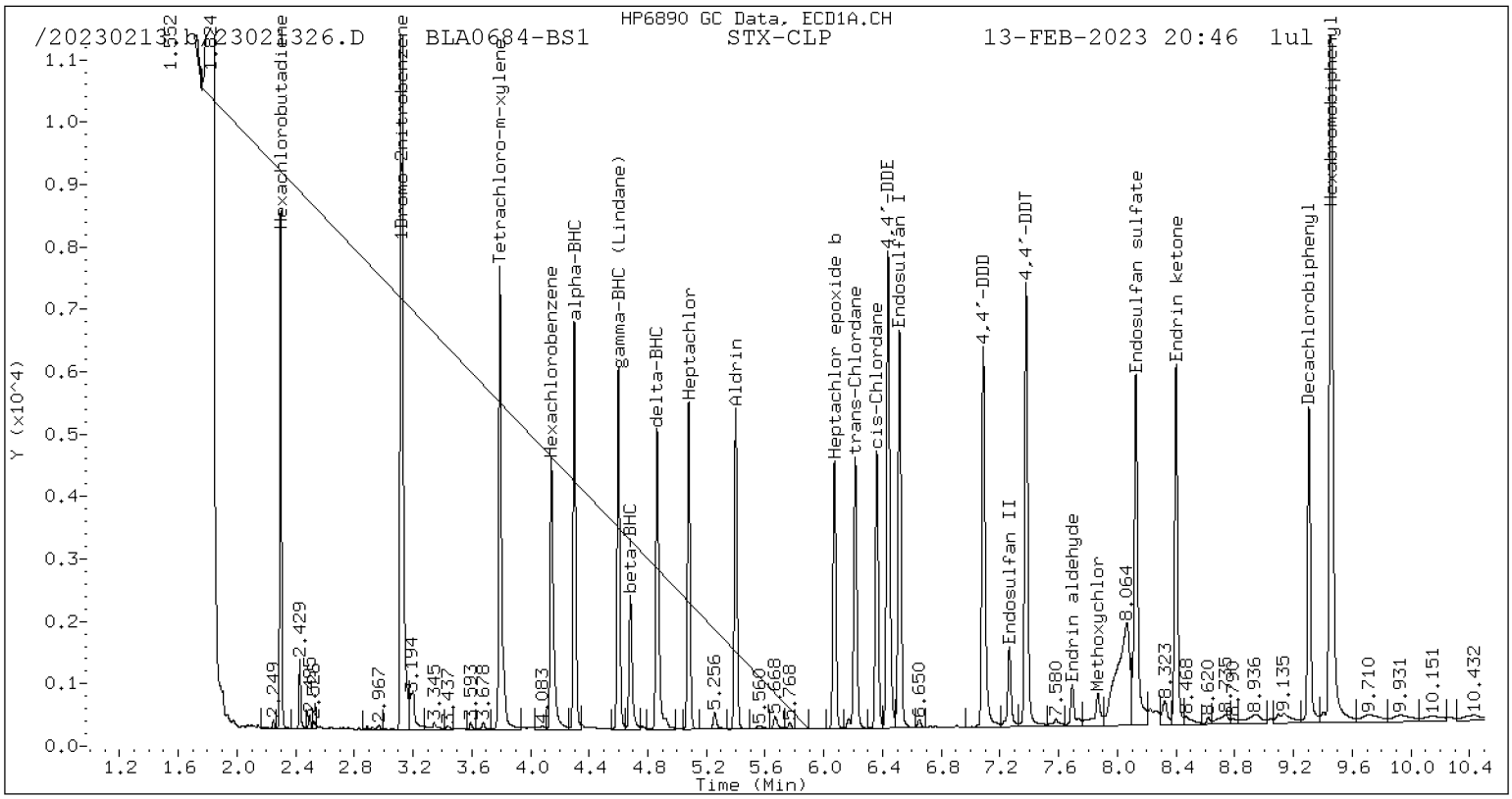
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	479700	-28.7
Hexabromobiphenyl	609723	434102	-28.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	776692	-22.8
Hexabromobiphenyl	769764	607596	-21.1

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

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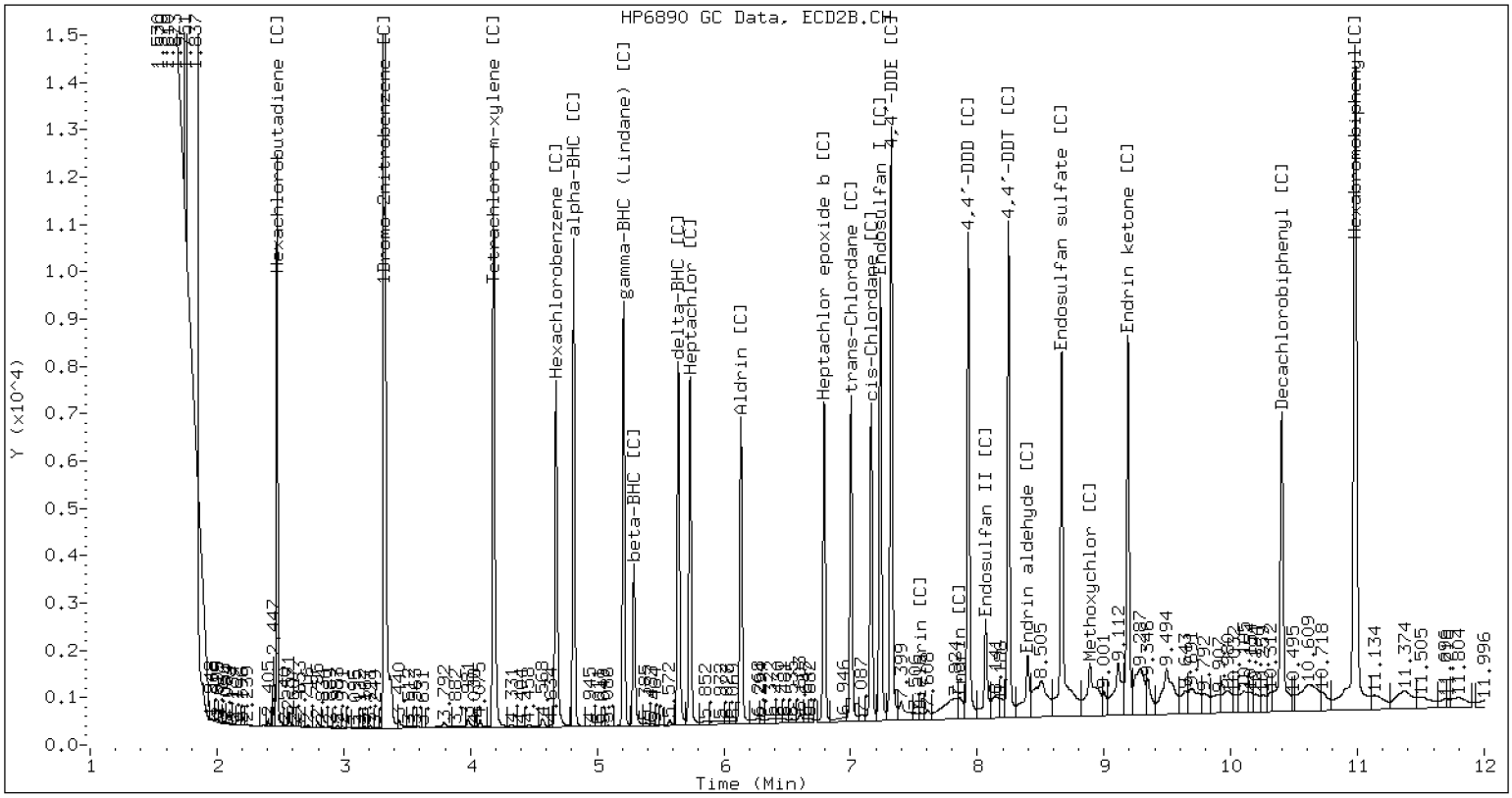
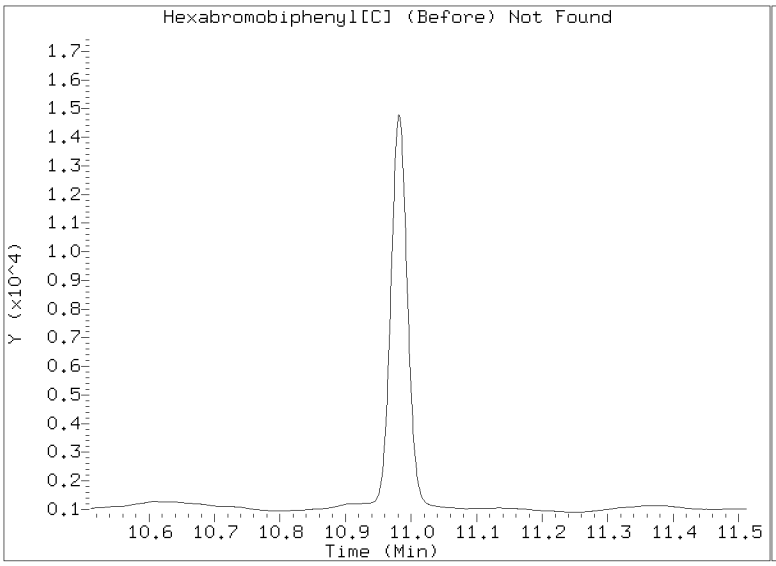
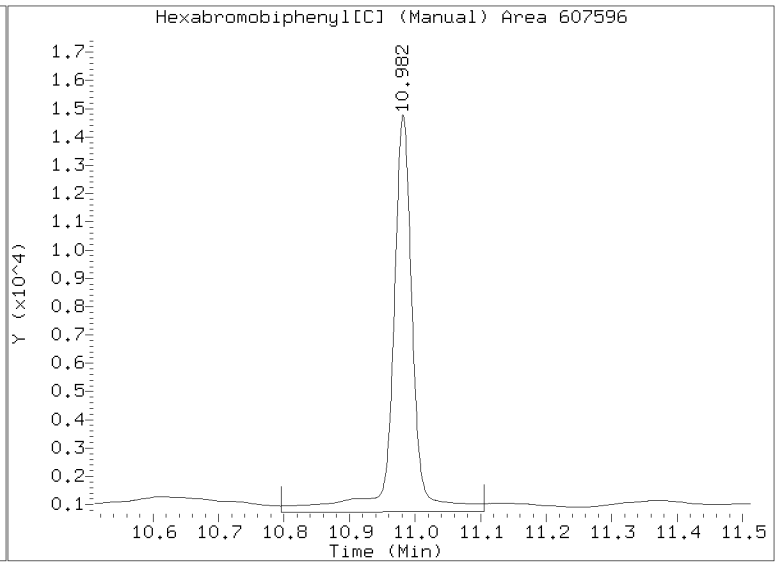


CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, CLP-2

Datafile: /20230213.b/B20230213.b/23021326.D
Injection Date: 13-FEB-2023 20:46
Lab ID:BLA0684-BS1 Client ID:





Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021327.D
Data file 2: /20230213.b/B20230213.b/23021327.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: BLA0684-BSD1
Client ID:
Injection Date: 13-FEB-2023 21:04
Report Date: 02/17/2023 12:17
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.297	-0.002	304563	4.813	-0.002	478529	17.52	16.43	6.4	alpha-BHC
4.680	-0.002	121740	5.288	-0.002	185163	18.19	16.73	8.4	beta-BHC
4.861	-0.002	281246	5.639	-0.003	437460	19.79	18.24	8.2	delta-BHC
4.598	-0.001	279899	5.207	-0.002	438285	18.57	17.74	4.6	gamma-BHC (Lindane)
5.077	-0.001	255366	5.731	-0.002	387836	19.04	17.33	9.4	Heptachlor
5.398	-0.001	264996	6.133	-0.002	340601	17.63	13.33	27.8	Aldrin
6.070	-0.002	237369	6.790	-0.002	355122	18.21	16.80	8.1	Heptachlor epoxide b
6.514	-0.001	337242	7.234	-0.002	473552	28.20	25.42	10.3	Endosulfan I
----			7.542	0.012	4012	0.00	0.19	---	Dieldrin
6.435	-0.005	461188	7.320	-0.003	659416	38.66	34.94	10.1	4,4'-DDE
----			7.862	0.008	8627	0.00	0.63	---	Endrin
7.262	-0.002	119565	8.065	-0.002	153153	13.21	10.89	19.2	Endosulfan II
7.084	-0.003	392902	7.927	-0.002	551859	43.37	41.36	4.7	4,4'-DDD
8.125	-0.000	299547	8.665	-0.001	428506	34.85	34.71	0.4	Endosulfan sulfate
7.377	-0.001	411022	8.246	-0.002	531387	44.90	41.27	8.4	4,4'-DDT
7.865	-0.001	40875	8.888	-0.002	106946	10.08	18.77	60.3*	Methoxychlor
8.399	-0.001	346844	9.188	-0.001	429778	35.22	32.23	8.9	Endrin ketone
7.691	-0.001	43178	8.396	-0.001	76925	5.98	7.76	25.9	Endrin aldehyde
6.213	-0.002	259150	7.002	-0.002	368818	19.58	17.50	11.2	trans-Chlordane
6.359	-0.001	246918	7.162	-0.002	353099	18.60	17.13	8.3	cis-Chlordane
2.295	-0.001	256870	2.472	-0.001	365299	14.10	13.21	6.5	Hexachlorobutadiene
4.141	-0.001	256141	4.674	-0.001	386776	15.87	14.60	8.4	Hexachlorobenzene
3.790	-0.001	370805	4.180	-0.001	586565	30.19	28.68	5.1	Tetrachloro-m-xylene
9.305	-0.001	263874	10.402	-0.001	380204	33.95	35.66	4.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

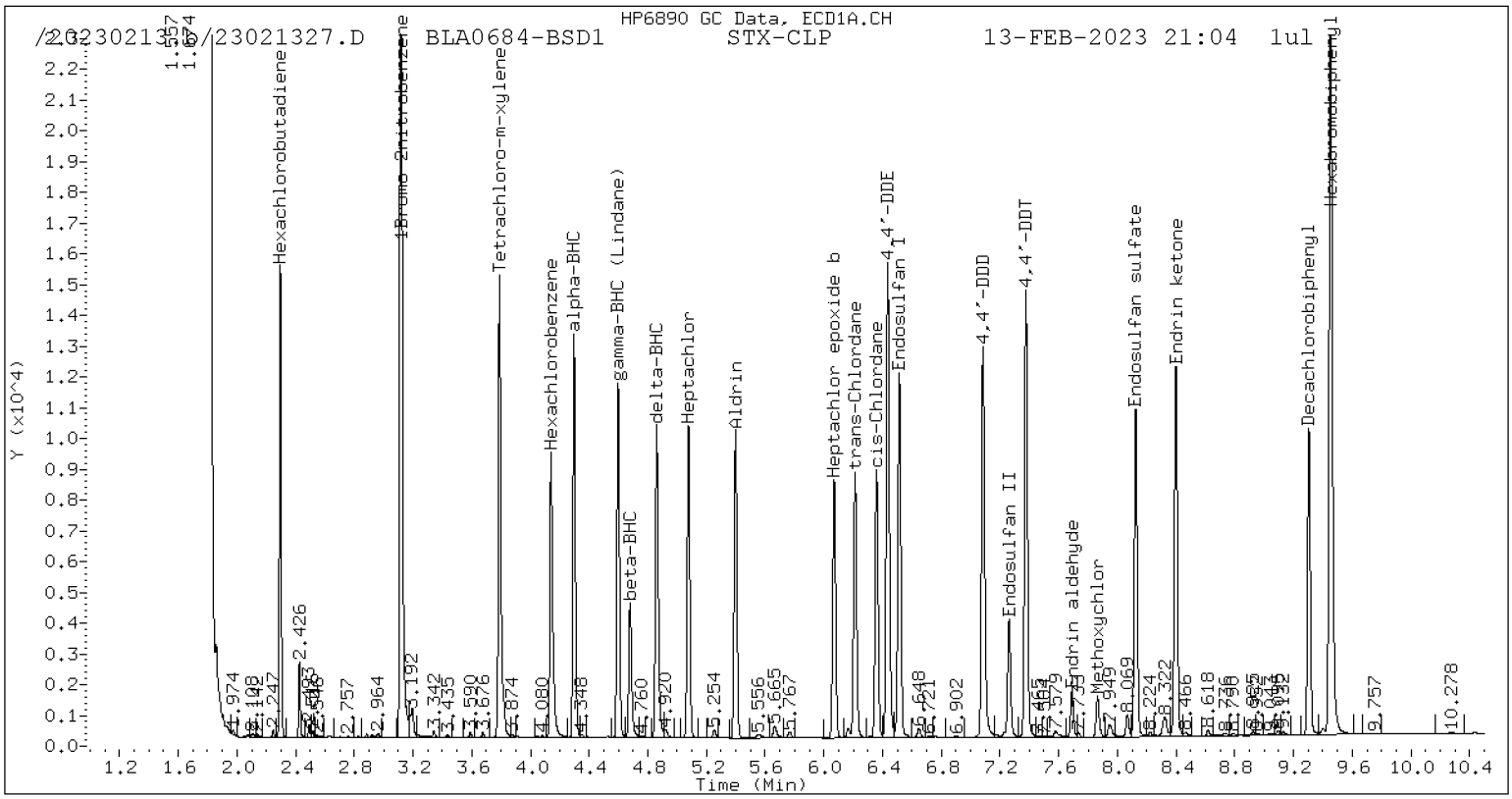
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	903043	34.3
Hexabromobiphenyl	609723	767072	25.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	1452954	44.4
Hexabromobiphenyl	769764	964689	25.3

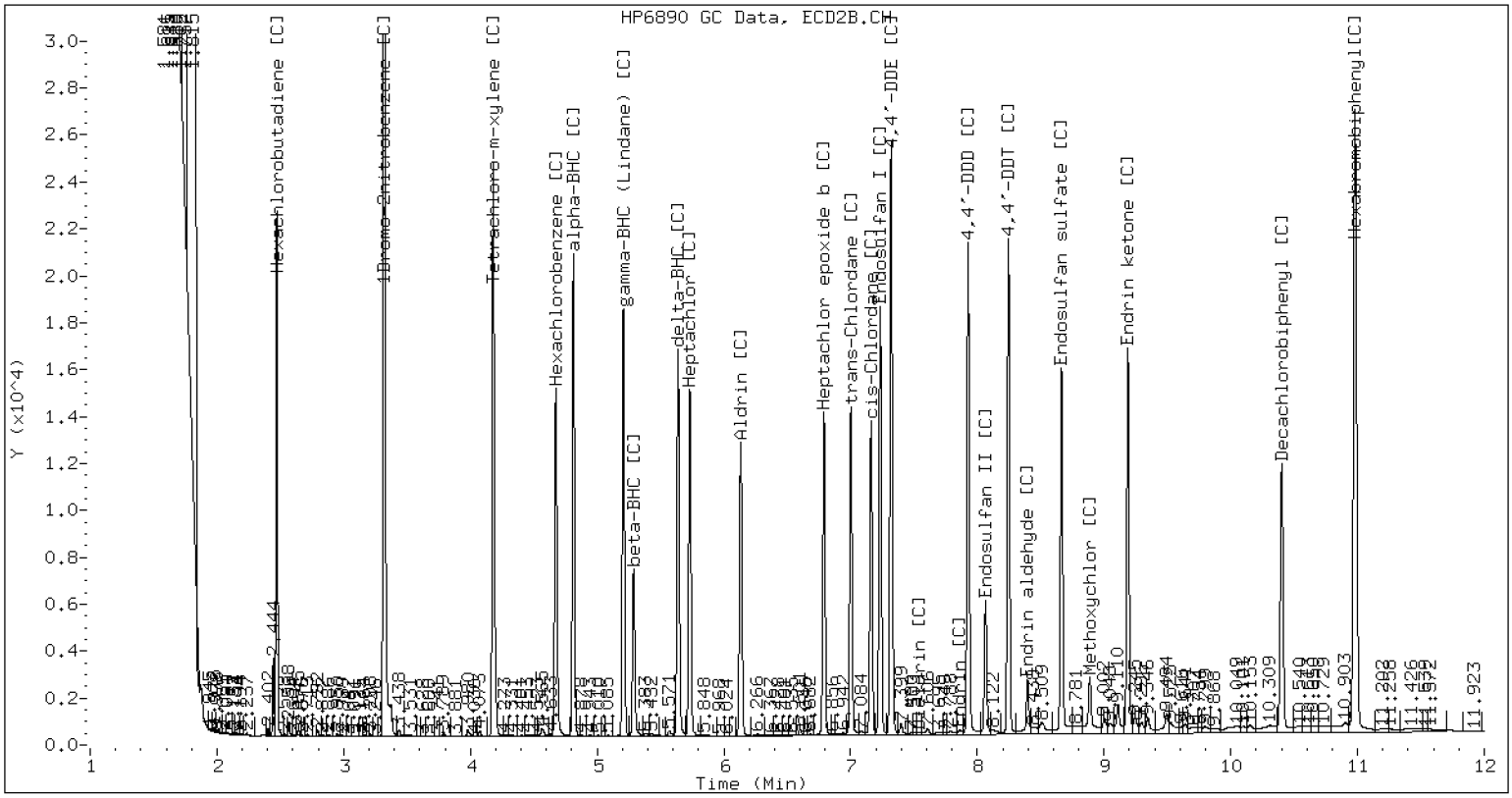
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

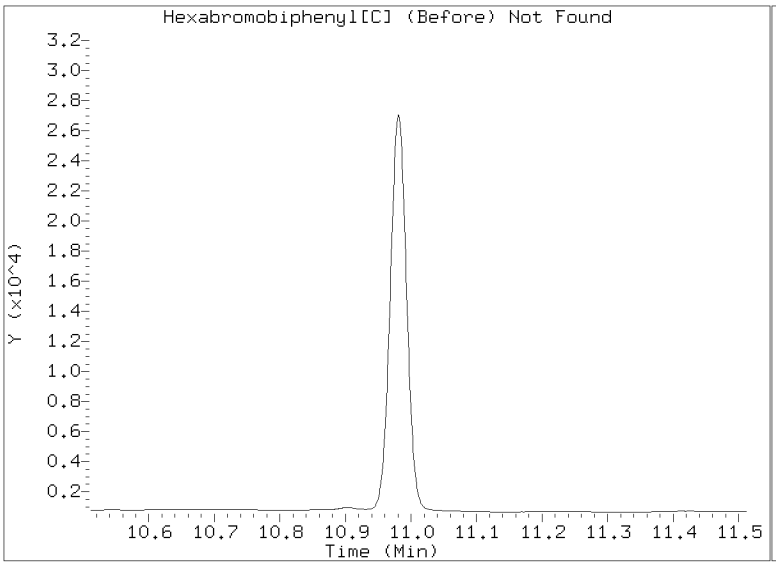
/20230213.b/B20230213.b/23021327.D BLA0684-BSD1 CLP2

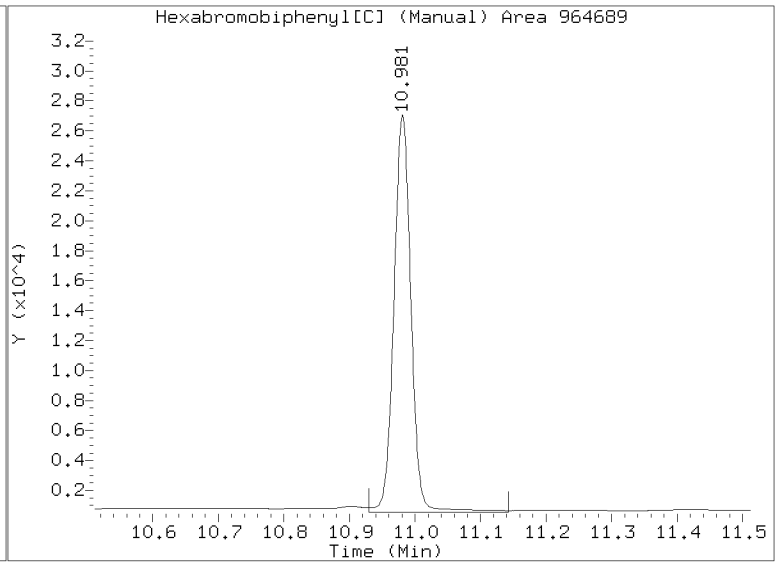


CLP-2 Manual Integration: NO

Manual Peak Adjustment Report, CLP-2

Datafile: /20230213.b/B20230213.b/23021327.D
Injection Date: 13-FEB-2023 21:04
Lab ID:BLA0684-BSD1 Client ID:





MS / MS DUPLICATE RECOVERY
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	02/13/23 21:22
Batch:	BLA0684	Laboratory ID:	BLA0684-MS1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	Matrix Spike
Initial/Final:	14.75 g / 2.5 mL	Source Sample:	LDW23-SC1159

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Hexachlorobenzene	4.00	ND	U	4.56		114	26 - 128

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

MS / MS DUPLICATE RECOVERY
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	02/13/23 21:40
Batch:	BLA0684	Laboratory ID:	BLA0684-MSD1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	Matrix Spike Dup
Initial/Final:	14.75 g / 2.5 mL	Source Sample:	LDW23-SC1159

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Hexachlorobenzene	4.00	3.90		97.5	15.5	30	26 - 128

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021328.D
Data file 2: /20230213.b/B20230213.b/23021328.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: BLA0684-MS1
Client ID:
Injection Date: 13-FEB-2023 21:22
Report Date: 02/17/2023 12:17
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.298	-0.001	163391	4.814	-0.001	195876	18.23	13.42	30.4	alpha-BHC
4.679	-0.002	60270	5.288	-0.002	80462	17.46	14.50	18.5	beta-BHC
4.861	-0.002	148729	5.639	-0.003	167565	20.30	13.94	37.2	delta-BHC
4.598	-0.001	148559	5.208	-0.001	175728	19.11	14.19	29.6	gamma-BHC (Lindane)
5.077	-0.001	120155	5.732	-0.001	175945	17.37	15.68	10.2	Heptachlor
5.399	-0.000	123023	6.134	-0.001	171653	15.87	13.40	16.9	Aldrin
6.069	-0.002	104484	6.789	-0.003	216033	15.55	20.39	27.0	Heptachlor epoxide b
6.514	-0.001	147766	7.234	-0.002	185540	23.96	19.87	18.7	Endosulfan I
6.804	0.029	6787	7.513	-0.017	34000	1.02	3.30	105.2*	Dieldrin
6.433	-0.007	232237	7.320	-0.003	325398	37.75	34.40	9.3	4,4'-DDE
----			----			0.00	0.00	---	Endrin
7.261	-0.003	34440	8.058	-0.008	155389	7.67	22.51	98.3*	Endosulfan II
7.081	-0.006	273573	7.927	-0.003	251456	60.88	38.39	45.3*	4,4'-DDD
8.124	-0.001	127654	8.664	-0.002	172440	29.94	28.45	5.1	Endosulfan sulfate
7.374	-0.004	285438	8.247	-0.001	392146	62.86	62.03	1.3	4,4'-DDT
7.892	0.026	22389	----			11.13	0.00	---	Methoxychlor
8.398	-0.002	166976	9.189	0.000	258990	34.19	39.56	14.6	Endrin ketone
7.715	0.023	39928	8.393	-0.005	41147	11.15	8.45	27.5	Endrin aldehyde
6.212	-0.003	102956	7.003	-0.001	146109	15.08	13.83	8.7	trans-Chlordane
6.360	-0.001	123617	7.162	-0.002	145063	18.06	14.04	25.1	cis-Chlordane
2.298	0.001	122339	2.475	0.001	179224	13.03	12.93	0.7	Hexachlorobutadiene
4.142	-0.000	189767	4.674	-0.001	203066	22.80	15.29	39.4	Hexachlorobenzene
3.791	0.000	186807	4.181	-0.000	282937	29.50	27.60	6.7	Tetrachloro-m-xylene
9.306	-0.000	131701	10.402	-0.000	182379	34.17	34.84	2.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

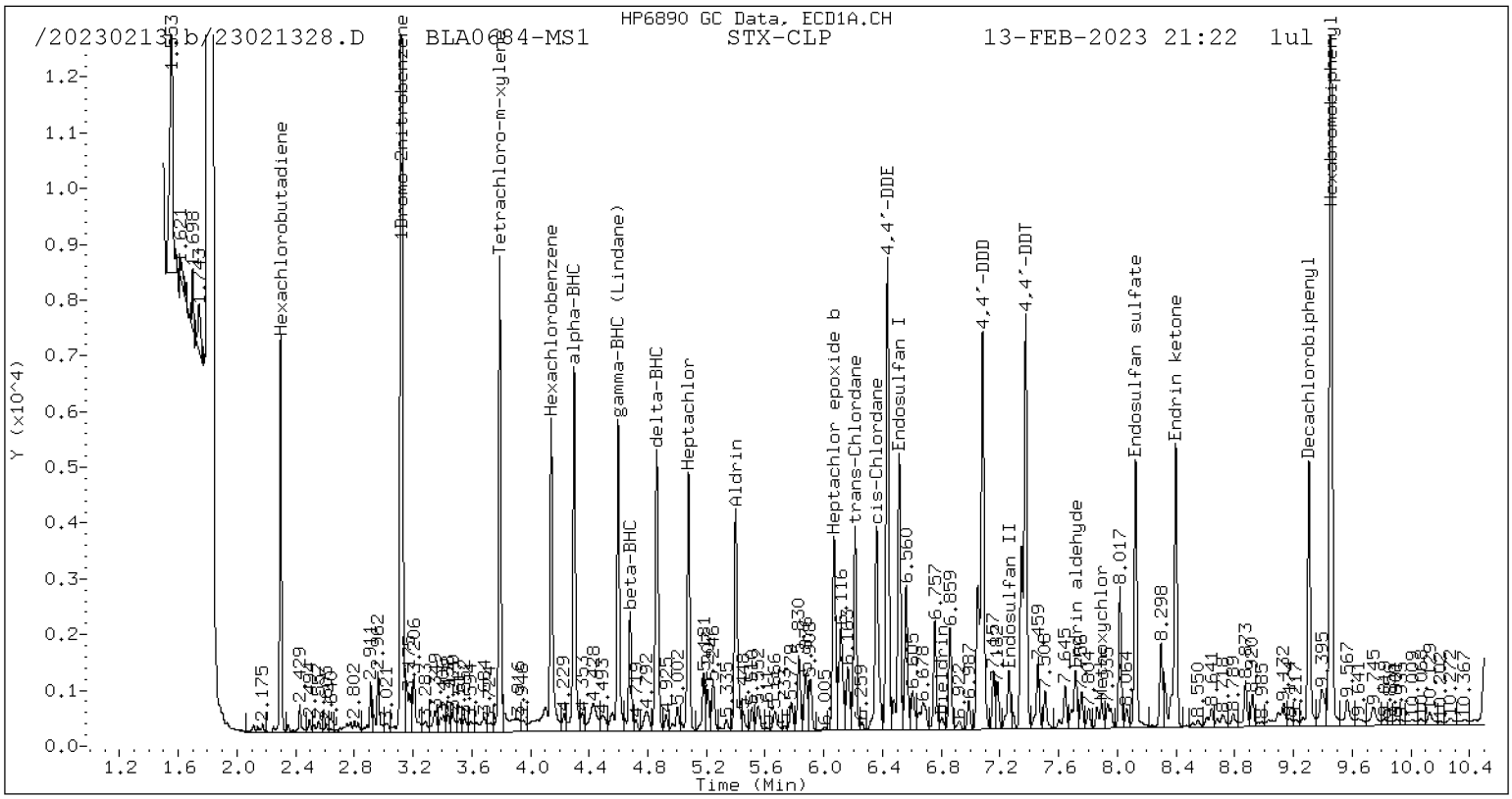
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	465677	-30.7
Hexabromobiphenyl	609723	380429	-37.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	728314	-27.6
Hexabromobiphenyl	769764	473570	-38.5

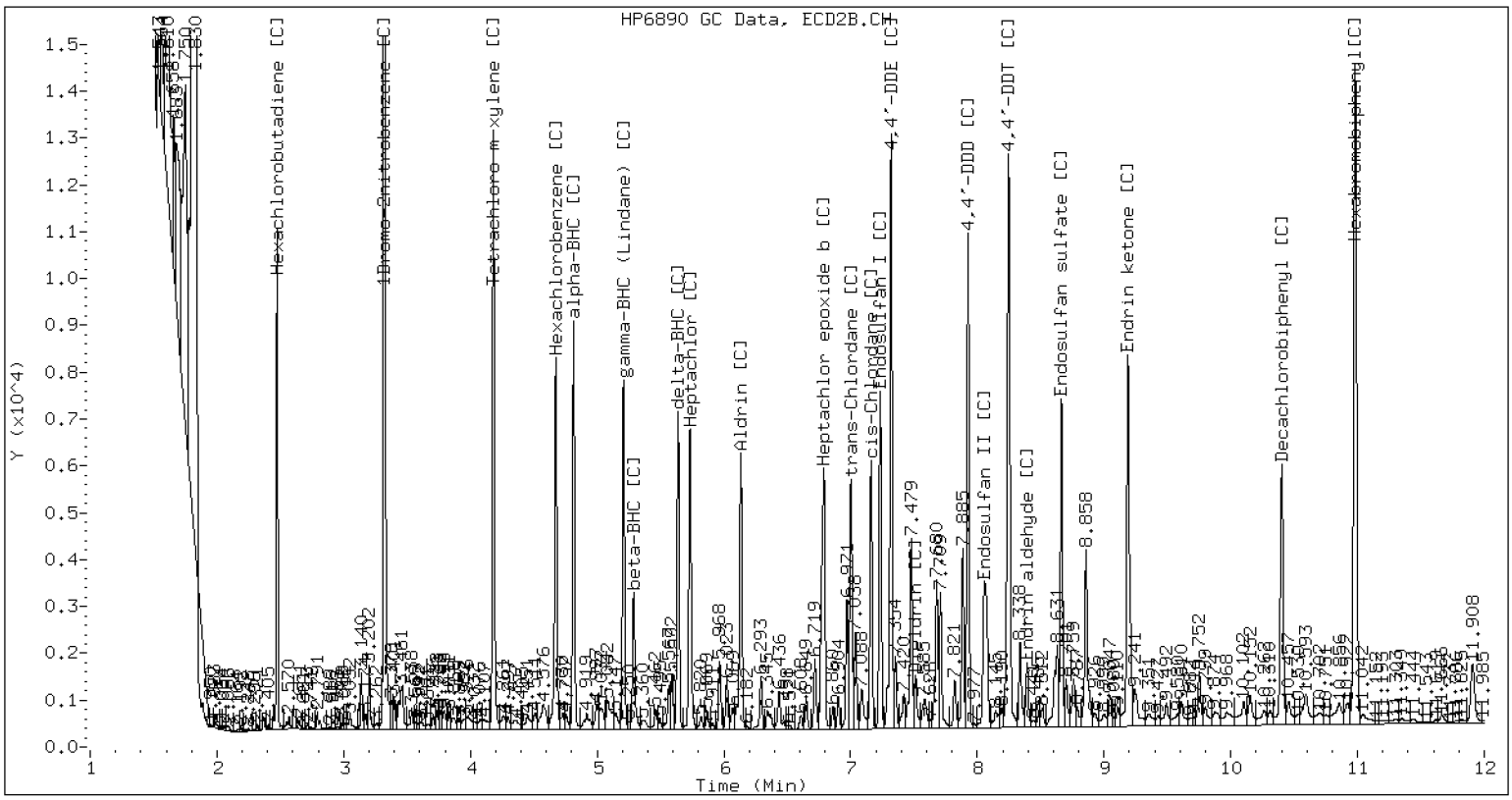
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

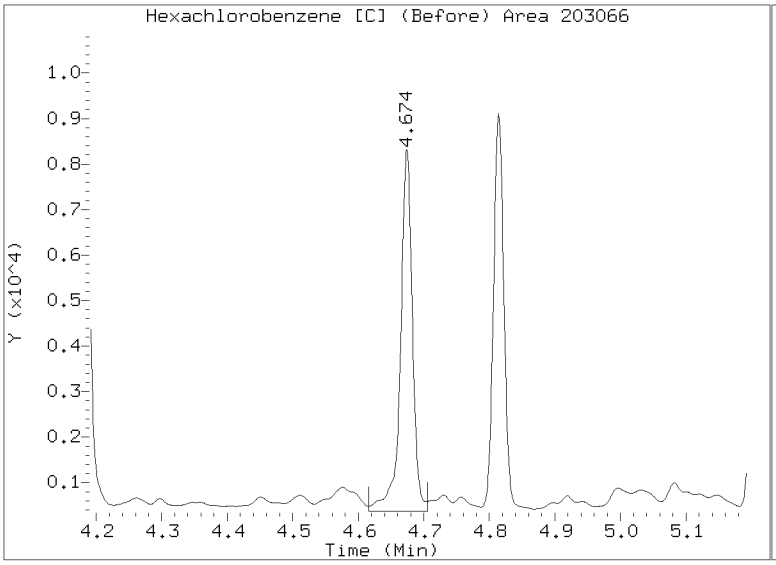
/20230213.b/B20230213.b/23021328.D BLA0684-MS1 CLP2

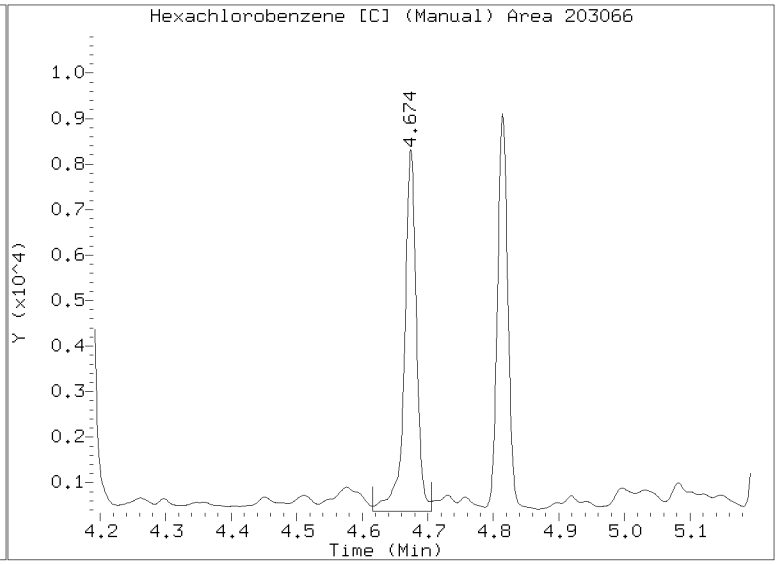


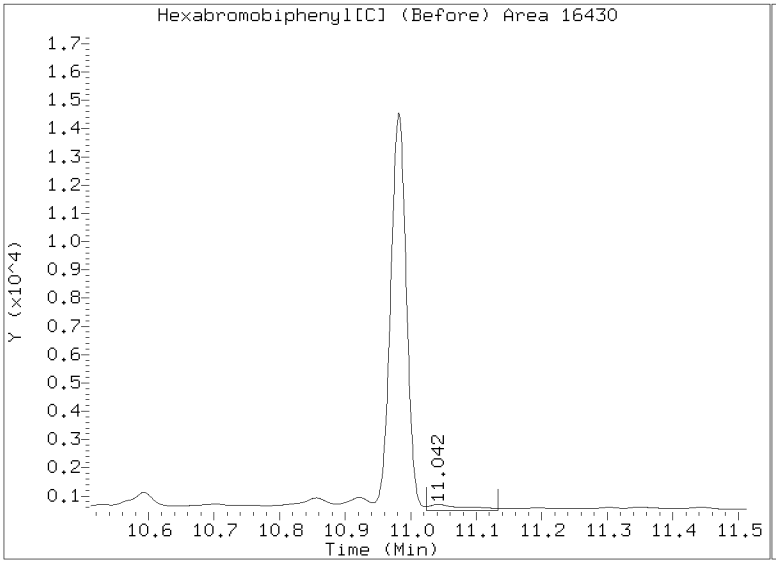
CLP-2 Manual Integration: NO

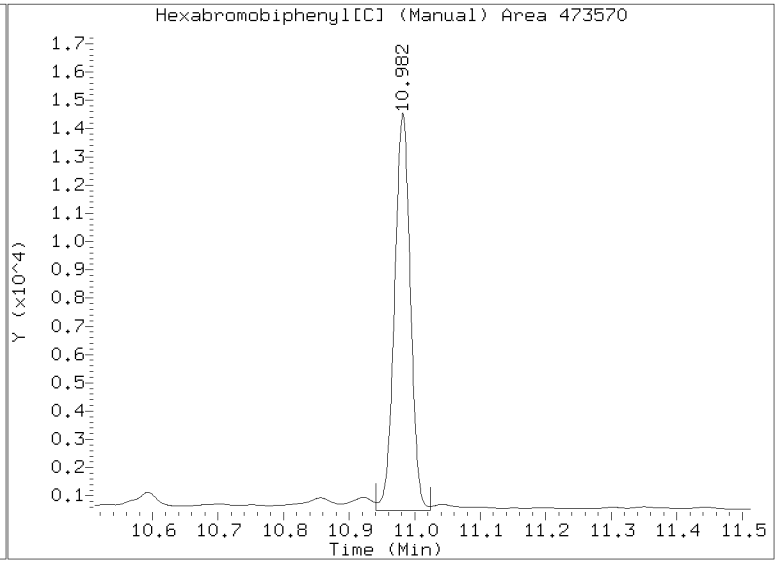
Manual Peak Adjustment Report, CLP-2

Datafile: /20230213.b/B20230213.b/23021328.D
Injection Date: 13-FEB-2023 21:22
Lab ID:BLA0684-MS1 Client ID:









Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021329.D
Data file 2: /20230213.b/B20230213.b/23021329.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: BLA0684-MSD1
Client ID:
Injection Date: 13-FEB-2023 21:40
Report Date: 02/17/2023 12:17
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.297	-0.002	314303	4.813	-0.002	369781	18.74	13.92	29.5	alpha-BHC
4.678	-0.003	116752	5.288	-0.002	142667	18.08	14.13	24.5	beta-BHC
4.860	-0.003	274210	5.638	-0.004	313089	20.01	14.31	33.2	delta-BHC
4.597	-0.002	280793	5.207	-0.002	323760	19.31	14.36	29.4	gamma-BHC (Lindane)
5.076	-0.002	224573	5.731	-0.002	329419	17.36	16.13	7.3	Heptachlor
5.398	-0.001	227568	6.133	-0.002	327922	15.70	14.07	10.9	Aldrin
6.070	-0.002	196104	6.789	-0.003	385886	15.60	20.02	24.8	Heptachlor epoxide b
6.514	-0.001	269066	7.234	-0.002	339062	23.32	19.96	15.6	Endosulfan I
6.805	0.029	12140	7.513	-0.017	56432	0.98	3.01	101.7*	Dieldrin
6.434	-0.006	432830	7.320	-0.003	599350	37.61	34.82	7.7	4,4'-DDE
----			----			0.00	0.00	---	Endrin
7.261	-0.003	43853	8.057	-0.010	250017	5.29	19.84	115.8*	Endosulfan II
7.082	-0.005	491514	7.927	-0.003	453530	59.29	37.93	43.9*	4,4'-DDD
8.126	0.000	229488	8.664	-0.001	306372	29.18	27.69	5.2	Endosulfan sulfate
7.376	-0.003	511344	8.247	-0.000	719860	61.04	62.38	2.2	4,4'-DDT
7.894	0.028	30176	----			8.13	0.00	---	Methoxychlor
8.398	-0.001	304793	9.189	-0.000	462596	33.83	38.71	13.5	Endrin ketone
7.716	0.024	65332	8.393	-0.004	67684	9.89	7.62	26.0	Endrin aldehyde
6.213	-0.002	189327	7.003	-0.001	280828	14.83	14.61	1.5	trans-Chlordane
6.359	-0.001	224091	7.162	-0.002	261521	17.50	13.91	22.9	cis-Chlordane
2.295	-0.001	238026	2.472	-0.001	338526	13.55	13.42	0.9	Hexachlorobutadiene
4.140	-0.003	303803	4.673	-0.002	377137	19.51	15.60	22.3	Hexachlorobenzene
3.789	-0.002	338139	4.180	-0.002	505015	28.54	27.07	5.3	Tetrachloro-m-xylene
9.308	0.002	229734	10.403	0.001	320893	32.30	33.59	3.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

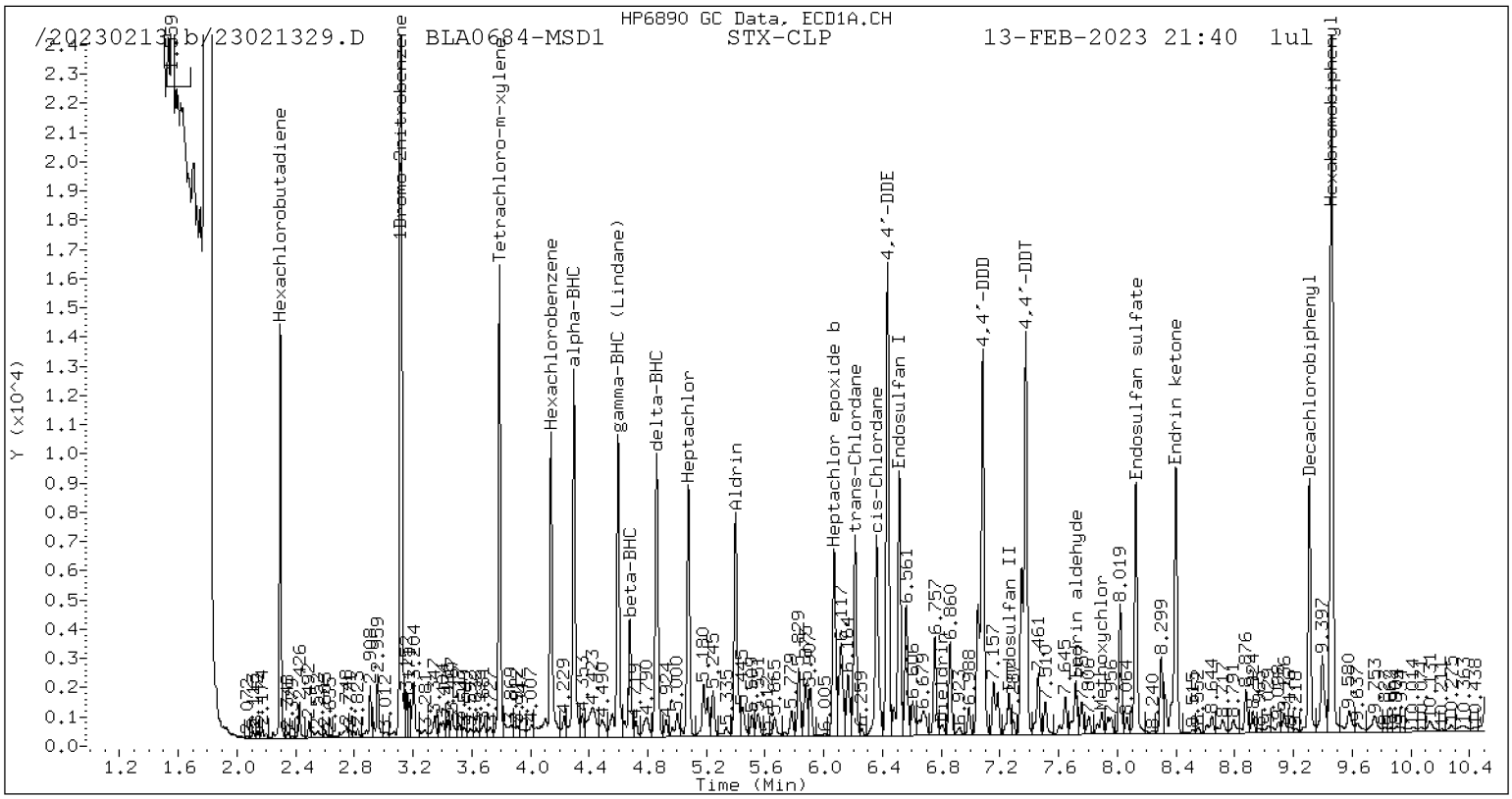
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	871128	29.6
Hexabromobiphenyl	609723	701907	15.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	1325260	31.7
Hexabromobiphenyl	769764	864478	12.3

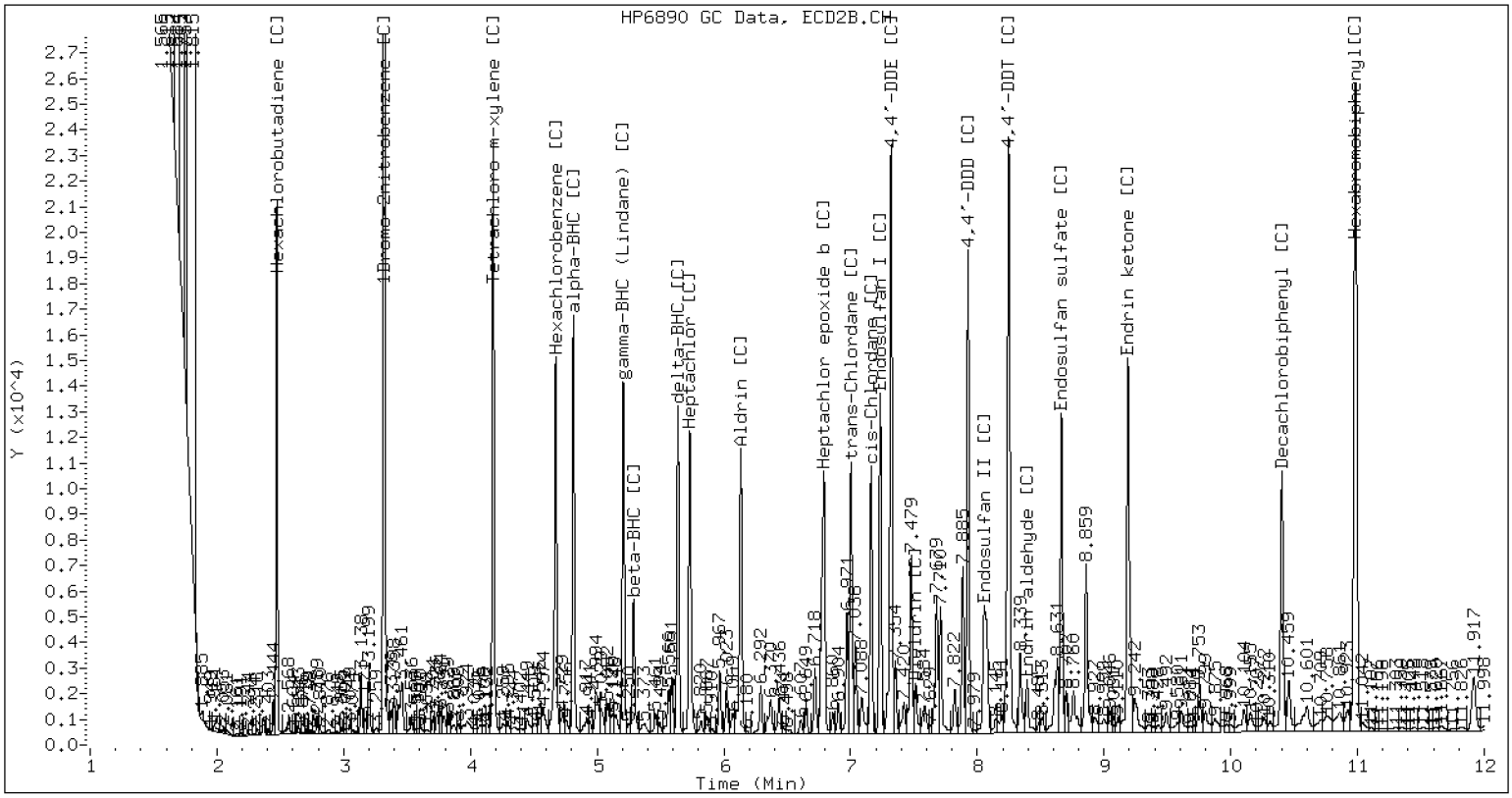
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230213.b/B20230213.b/23021329.D BLA0684-MSD1 CLP2



CLP-2 Manual Integration: NO

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (1):	STX-CLP

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	**RRF**	Conc	RRF	Conc	RRF	Conc	**RRF**	Conc	**RRF**
alpha-BHC			2.5	1.564682	5	1.558115	10	1.57359	20	1.566596	40	1.528219
beta-BHC			2.5	0.6501672	5	0.6116678	10	0.6049898	20	0.5910241	40	0.567415
gamma-BHC (Lindane)			2.5	1.364013	5	1.359107	10	1.367627	20	1.357913	40	1.317203
delta-BHC			2.5	1.267737	5	1.264366	10	1.278672	20	1.286232	40	1.255792
Heptachlor			2.5	1.26903	5	1.222902	10	1.218715	20	1.207966	40	1.145438
Aldrin			2.5	1.349967	5	1.349283	10	1.40535	20	1.372547	40	1.307197
Heptachlor Epoxide			2.5	1.231126	5	1.189593	10	1.20792	20	1.178021	40	1.104377
trans-Chlordane (beta-Chlordane)			2.5	1.262297	5	1.202181	10	1.202336	20	1.19062	40	1.128117
cis-Chlordane (alpha-chlordane)			2.5	1.308183	5	1.222582	10	1.200602	20	1.177182	40	1.111332
Endosulfan I			2.5	1.143813	5	1.097776	10	1.093658	20	1.076133	40	1.011287
4,4'-DDE			5	1.141182	10	1.108491	20	1.098369	40	1.077225	80	0.9961189
Dieldrin			5	1.225418	10	1.190449	20	1.185191	40	1.155764	80	1.077517
Endrin			5	1.158191	10	1.117563	20	1.079508	40	1.061387	80	0.9725989
Endosulfan II			5	0.9400399	10	0.9913797	20	1.005265	40	0.925043	80	0.9337917
4,4'-DDD			5	1.004568	10	0.9927897	20	0.9803235	40	0.9586353	80	0.8937077
Endrin Aldehyde			5	0.8167784	10	0.7834798	20	0.7706241	40	0.7573308	80	0.7147756
4,4'-DDT			5	1.007054	10	0.9936998	20	0.9768522	40	0.9722874	80	0.9123228
Endosulfan Sulfate			5	0.9534179	10	0.9413755	20	0.9158457	40	0.9056998	80	0.8542021
Endrin Ketone			5	1.134866	10	1.083274	20	1.043162	40	1.021136	80	0.9645492
Methoxychlor			25	0.4887243	50	0.4567517	100	0.4291758	200	0.4123964	400	0.380531
Hexachlorobutadiene			2.5	1.967135	5	1.727858	10	1.608612	20	1.550898	40	1.457962
Hexachlorobenzene			2.5	1.583946	5	1.509865	10	1.463674	20	1.414258	40	1.348389
Decachlorobiphenyl			5	0.9567749	10	0.8690419	20	0.8114883	40	0.7853665	80	0.7399881
Tetrachlorometaxylene			5	1.223478	10	1.154628	20	1.122612	40	1.064313	80	1.018952

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (1):	STX-CLP

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
alpha-BHC	80	1.449687										
beta-BHC	80	0.5324503										
gamma-BHC (Lindane)	80	1.246178										
delta-BHC	80	1.199667										
Heptachlor	80	1.064858										
Aldrin	80	1.204866										
Heptachlor Epoxide	80	1.016142										
trans-Chlordane (beta-Chlordane)	80	1.050129										
cis-Chlordane (alpha-chlordane)	80	1.036345										
Endosulfan I	80	0.9344351										
4,4'-DDE	160	0.9196699										
Dieldrin	160	0.9953457										
Endrin	160	0.903669										
Endosulfan II	160	0.8694106										
4,4'-DDD	160	0.8394108										
Endrin Aldehyde	160	0.6754471										
4,4'-DDT	160	0.8666848										
Endosulfan Sulfate	160	0.808554										
Endrin Ketone	160	0.9150773										
Methoxychlor	800	0.3710888										
Hexachlorobutadiene	80	1.368623										
Hexachlorobenzene	80	1.259233										
2,4'-DDE					5	0.8703192	10	0.8471901	20	0.8231684	40	0.7887622
2,4'-DDD					5	0.761682	10	0.7418629	20	0.7301989	40	0.7053717
2,4'-DDT					5	0.8194572	10	0.8004965	20	0.7842725	40	0.7616258
Oxychlordane					5	1.016746	10	1.011016	20	0.9890796	40	0.9530961
cis-Nonachlor					5	1.323191	10	1.277938	20	1.243982	40	1.217703

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (1):	STX-CLP

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
trans-Nonachlor					5	1.347777	10	1.328677	20	1.28535	40	1.249062
Mirex					5	0.8317764	10	0.8043457	20	0.7641487	40	0.7481553
Decachlorobiphenyl	160	0.7008722										
Tetrachlorometaxylene	160	0.9437243										

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (1):	STX-CLP

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
2,4'-DDE	80	0.7262802	160	0.6559468								
2,4'-DDD	80	0.6522807	160	0.6001736								
2,4'-DDT	80	0.7135595	160	0.6495601								
Oxychlordane	80	0.9018234	160	0.8351028								
cis-Nonachlor	80	1.140435	160	1.065099								
trans-Nonachlor	80	1.167639	160	1.085646								
Mirex	80	0.706171	160	0.6667706								

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (1):	STX-CLP

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	Conc		Conc		Conc		Conc		Conc		Conc	

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (1):	STX-CLP

Compound	Level 25		Level 26		Level 27		Level 28		Level 29		Level 30	
	Conc		Conc		Conc		Conc		Conc		Conc	

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (1):	STX-CLP

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
alpha-BHC	1.540148	3.1			RSD (20)	
beta-BHC	0.5929524	6.8			RSD (20)	
gamma-BHC (Lindane)	1.33534	3.5			RSD (20)	
delta-BHC	1.258744	2.5			RSD (20)	
Heptachlor	1.188151	6.1			RSD (20)	
Aldrin	1.331535	5.2			RSD (20)	
Heptachlor Epoxide	1.15453	6.9			RSD (20)	
trans-Chlordane (beta-Chlordane)	1.172613	6.3			RSD (20)	
cis-Chlordane (alpha-chlordane)	1.176038	8.0			RSD (20)	
Endosulfan I	1.059517	7.1			RSD (20)	
4,4'-DDE	1.056843	7.9			RSD (20)	
Dieldrin	1.138281	7.6			RSD (20)	
Endrin	1.048819	9.0			RSD (20)	
Endosulfan II	0.944155	5.2			RSD (20)	
4,4'-DDD	0.9449058	6.9			RSD (20)	
Endrin Aldehyde	0.7530726	6.7			RSD (20)	
4,4'-DDT	0.9548168	5.7			RSD (20)	
Endosulfan Sulfate	0.8965158	6.2			RSD (20)	
Endrin Ketone	1.027011	7.7			RSD (20)	
Methoxychlor	0.4231113	10.6			RSD (20)	
Hexachlorobutadiene	1.613515	13.2			RSD (20)	
Hexachlorobenzene	1.429894	8.1			RSD (20)	
2,4'-DDE	0.7852778	10.3			RSD (20)	
2,4'-DDD	0.698595	8.8			RSD (20)	
2,4'-DDT	0.7548286	8.4			RSD (20)	
Oxychlordane	0.951144	7.5			RSD (20)	
cis-Nonachlor	1.211391	7.8			RSD (20)	
trans-Nonachlor	1.244025	8.1			RSD (20)	
Mirex	0.7535613	8.1			RSD (20)	
Decachlorobiphenyl	0.8105886	11.4			RSD (20)	
Tetrachlorometaxylene	1.087951	9.2			RSD (20)	

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (2):	STX-CLPII

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	**RRF**	Conc	RRF	Conc	RRF	Conc	**RRF**	Conc	**RRF**
alpha-BHC [2C]			2.5	1.582358	5	1.586238	10	1.633164	20	1.640486	40	1.615441
beta-BHC [2C]			2.5	0.652782	5	0.6172948	10	0.6184608	20	0.6125812	40	0.5918008
gamma-BHC (Lindane) [2C]			2.5	1.355071	5	1.348783	10	1.381456	20	1.392772	40	1.366606
delta-BHC [2C]			2.5	1.323764	5	1.307234	10	1.339425	20	1.328433	40	1.331977
Heptachlor [2C]			2.5	1.270249	5	1.234236	10	1.258409	20	1.272245	40	1.215755
Aldrin [2C]			2.5	1.511397	5	1.416724	10	1.432636	20	1.430376	40	1.370917
Heptachlor Epoxide [2C]			2.5	1.2977	5	1.174596	10	1.174288	20	1.174706	40	1.114434
trans-Chlordane (beta-Chlordane) [2C]			2.5	1.25449	5	1.176102	10	1.164843	20	1.168848	40	1.125534
cis-Chlordane (alpha-chlordane) [2C]			2.5	1.258498	5	1.153199	10	1.135052	20	1.136251	40	1.089792
Endosulfan I [2C]			2.5	1.118263	5	1.044155	10	1.035412	20	1.034697	40	0.9885012
4,4'-DDE [2C]			5	1.120237	10	1.069625	20	1.064387	40	1.055415	80	0.9897135
Dieldrin [2C]			5	1.270008	10	1.162844	20	1.139359	40	1.136098	80	1.071389
Endrin [2C]			5	1.256912	10	1.17909	20	1.159477	40	1.149599	80	1.066056
Endosulfan II [2C]			5	1.296819	10	1.202961	20	1.188491	40	1.160501	80	1.099056
4,4'-DDD [2C]			5	1.234482	10	1.121556	20	1.117792	40	1.112003	80	1.04628
Endrin Aldehyde [2C]			5	0.9430111	10	0.8430348	20	0.8249196	40	0.8129946	80	0.7727701
4,4'-DDT [2C]			5	1.175911	10	1.077825	20	1.067612	40	1.073272	80	1.019364
Endosulfan Sulfate [2C]			5	1.137768	10	1.042553	20	1.030373	40	1.023023	80	0.9721732
Endrin Ketone [2C]			5	1.235631	10	1.119988	20	1.114405	40	1.100852	80	1.047659
Methoxychlor [2C]			25	0.5184064	50	0.4866753	100	0.4751666	200	0.4681736	400	0.4433957
Hexachlorobutadiene [2C]			2.5	1.975612	5	1.648845	10	1.492482	20	1.376096	40	1.341211
Hexachlorobenzene [2C]			2.5	1.602215	5	1.520618	10	1.491402	20	1.450251	40	1.385947
Decachlorobiphenyl [2C]			5	1.087142	10	0.9391597	20	0.8562421	40	0.8499592	80	0.8013928
Tetrachlorometaxylene [2C]			5	1.220863	10	1.179368	20	1.164832	40	1.127982	80	1.06878

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (2):	STX-CLPII

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
alpha-BHC [2C]	80	1.561903										
beta-BHC [2C]	80	0.5642956										
gamma-BHC (Lindane) [2C]	80	1.31891										
delta-BHC [2C]	80	1.29291										
Heptachlor [2C]	80	1.144118										
Aldrin [2C]	80	1.281263										
Heptachlor Epoxide [2C]	80	1.046144										
trans-Chlordane (beta-Chlordane) [2C]	80	1.072685										
cis-Chlordane (alpha-chlordane) [2C]	80	1.03859										
Endosulfan I [2C]	80	0.9325836										
4,4'-DDE [2C]	160	0.9356313										
Dieldrin [2C]	160	1.019365										
Endrin [2C]	160	1.013782										
Endosulfan II [2C]	160	1.047801										
4,4'-DDD [2C]	160	1.006382										
Endrin Aldehyde [2C]	160	0.7380269										
4,4'-DDT [2C]	160	0.9933936										
Endosulfan Sulfate [2C]	160	0.9372514										
Endrin Ketone [2C]	160	1.016567										
Methoxychlor [2C]	800	0.4436418										
Hexachlorobutadiene [2C]	80	1.300813										
Hexachlorobenzene [2C]	80	1.304223										
2,4'-DDE [2C]					5	0.8343307	10	0.8052418	20	0.7431295	40	0.7258871
2,4'-DDD [2C]					5	0.9097548	10	0.8797099	20	0.8273813	40	0.8164191
2,4'-DDT [2C]					5	0.9400077	10	0.8804604	20	0.8502582	40	0.8485216
Oxychlordane [2C]					5	0.9644685	10	0.9467754	20	0.9033255	40	0.8966281
cis-Nonachlor [2C]					5	1.449238	10	1.407074	20	1.376474	40	1.372123

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (2):	STX-CLPII

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
trans-Nonachlor [2C]					5	1.488853	10	1.51762	20	1.451789	40	1.447663
Mirex [2C]					5	0.9331395	10	0.8115521	20	0.7946205	40	0.762682
Decachlorobiphenyl [2C]	160	0.7711875										
Tetrachlorometaxylene [2C]	160	0.9948184										

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (2):	STX-CLPII

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
2,4'-DDE [2C]	80	0.6667087	160	0.6020159								
2,4'-DDD [2C]	80	0.76623	160	0.7136982								
2,4'-DDT [2C]	80	0.7977257	160	0.7424898								
Oxychlordane [2C]	80	0.8433342	160	0.7909247								
cis-Nonachlor [2C]	80	1.313286	160	1.248174								
trans-Nonachlor [2C]	80	1.376815	160	1.306683								
Mirex [2C]	80	0.7399752	160	0.7075065								

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (2):	STX-CLPII

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	Conc		Conc		Conc		Conc		Conc		Conc	

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (2):	STX-CLPII

Compound	Level 25		Level 26		Level 27		Level 28		Level 29		Level 30	
	Conc		Conc		Conc		Conc		Conc		Conc	

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (2):	STX-CLPII

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
alpha-BHC [2C]	1.603265	1.9			RSD (20)	
beta-BHC [2C]	0.6095359	4.9			RSD (20)	
gamma-BHC (Lindane) [2C]	1.3606	1.9			RSD (20)	
delta-BHC [2C]	1.320624	1.3			RSD (20)	
Heptachlor [2C]	1.232502	3.9			RSD (20)	
Aldrin [2C]	1.407219	5.4			RSD (20)	
Heptachlor Epoxide [2C]	1.163645	7.1			RSD (20)	
trans-Chlordane (beta-Chlordane) [2C]	1.160417	5.2			RSD (20)	
cis-Chlordane (alpha-chlordane) [2C]	1.13523	6.5			RSD (20)	
Endosulfan I [2C]	1.025602	6.0			RSD (20)	
4,4'-DDE [2C]	1.039168	6.3			RSD (20)	
Dieldrin [2C]	1.133177	7.5			RSD (20)	
Endrin [2C]	1.137486	7.6			RSD (20)	
Endosulfan II [2C]	1.165938	7.4			RSD (20)	
4,4'-DDD [2C]	1.106416	7.0			RSD (20)	
Endrin Aldehyde [2C]	0.8224595	8.5			RSD (20)	
4,4'-DDT [2C]	1.067896	5.9			RSD (20)	
Endosulfan Sulfate [2C]	1.023857	6.7			RSD (20)	
Endrin Ketone [2C]	1.10585	6.8			RSD (20)	
Methoxychlor [2C]	0.4725766	6.0			RSD (20)	
Hexachlorobutadiene [2C]	1.52251	16.8			RSD (20)	
Hexachlorobenzene [2C]	1.459109	7.2			RSD (20)	
2,4'-DDE [2C]	0.7295523	11.8			RSD (20)	
2,4'-DDD [2C]	0.8188656	8.8			RSD (20)	
2,4'-DDT [2C]	0.8432439	8.1			RSD (20)	
Oxychlordane [2C]	0.8909094	7.3			RSD (20)	
cis-Nonachlor [2C]	1.361061	5.2			RSD (20)	
trans-Nonachlor [2C]	1.43157	5.4			RSD (20)	
Mirex [2C]	0.7915793	9.9			RSD (20)	
Decachlorobiphenyl [2C]	0.8841805	13.0			RSD (20)	
Tetrachlorometaxylene [2C]	1.126107	7.3			RSD (20)	

Printed: 12/17/2022 10:57:45AM

ANALYSIS SEQUENCE

SKL0233

Instrument: ECD6 Element Column ID:
Calibration ID: FL00041

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SKL0233-PEM1	DS1	QC		1	K007286	K006953		
SKL0233-CAL1	INDAA	QC		2	K011594	K006953		
SKL0233-CAL2	INDAB	QC		3	K011593	K006953		
SKL0233-CAL3	INDAC	QC		4	K011592	K006953		
SKL0233-CAL4	INDAD	QC		5	K011591	K006953		
SKL0233-CAL5	INDAE	QC		6	K011590	K006953		
SKL0233-CAL6	INDAF	QC		7	K011589	K006953		
SKL0233-CAL7	INDAG	QC		8	K011463	K006953		
SKL0233-CAL8	WNDA	QC		9	K011595	K006953		
SKL0233-CAL9	WNDB	QC		10	K007148	K006953		
SKL0233-CALA	WNDC	QC		11	K007147	K006953		
SKL0233-CALB	WNDD	QC		12	K007146	K006953		
SKL0233-CALC	WNDE	QC		13	K007145	K006953		
SKL0233-CALD	WNDF	QC		14	K007144	K006953		
SKL0233-CALE	WNDG	QC		15	K007093	K006953		
SKL0233-CALM	NOS1	QC		16	K007375	K006953		
SKL0233-CALN	NOS2	QC		17	K007374	K006953		
SKL0233-CALO	NOS3	QC		18	K007373	K006953		
SKL0233-CALP	NOS4	QC		19	K007372	K006953		
SKL0233-CALQ	NOS5	QC		20	K007371	K006953		
SKL0233-CALR	NOS6	QC		21	K007370	K006953		
SKL0233-CALS	NOS7	QC		22	K007287	K006953		

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ANALYSIS SEQUENCE

SKL0233

Instrument: ECD6 Element Column ID:
Calibration ID: FL00041

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SKL0233-CALF	TOXAPH1	QC		23	K011601	K006953		
SKL0233-CALG	TOXAPH2	QC		24	K011600	K006953		
SKL0233-CALH	TOXAPH3	QC		25	K011599	K006953		
SKL0233-CALI	TOXAPH4	QC		26	K011598	K006953		
SKL0233-CALJ	TOXAPH5	QC		27	K011597	K006953		
SKL0233-CALK	TOXAPH6	QC		28	K011596	K006953		
SKL0233-CALL	TOXAPH7	QC		29	K008546	K006953		

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	14-DEC-2022 19:27	22121401.D	1	RINSE	
2	14-DEC-2022 19:44	22121402.D	1	RINSE	
3	14-DEC-2022 20:02	22121403.D	1	SEQ-IBL1	
4	14-DEC-2022 20:20	22121404.D	1	SEQ-PEM1	
5	14-DEC-2022 20:38	22121405.D	1	SEQ-CAL1	
6	14-DEC-2022 20:56	22121406.D	1	SEQ-CAL2	
7	14-DEC-2022 21:14	22121407.D	1	SEQ-CAL3	
8	14-DEC-2022 21:31	22121408.D	1	SEQ-CAL4	
9	14-DEC-2022 21:49	22121409.D	1	SEQ-CAL5	
10	14-DEC-2022 22:07	22121410.D	1	SEQ-CAL6	
11	14-DEC-2022 22:25	22121411.D	1	SEQ-CAL7	
12	14-DEC-2022 22:43	22121412.D	1	SEQ-CAL8	
13	14-DEC-2022 23:01	22121413.D	1	SEQ-CAL9	
14	14-DEC-2022 23:19	22121414.D	1	SEQ-CALA	
15	14-DEC-2022 23:36	22121415.D	1	SEQ-CALB	
16	14-DEC-2022 23:54	22121416.D	1	SEQ-CALC	
17	15-DEC-2022 00:12	22121417.D	1	SEQ-CALD	
18	15-DEC-2022 00:30	22121418.D	1	SEQ-CALE	
19	15-DEC-2022 00:48	22121419.D	1	SEQ-SCV1	
20	15-DEC-2022 01:06	22121420.D	1	SEQ-SCV2	
21	15-DEC-2022 01:24	22121421.D	1	SEQ-CAL1A	
22	15-DEC-2022 01:42	22121422.D	1	SEQ-CAL2A	
23	15-DEC-2022 01:59	22121423.D	1	SEQ-CAL3A	
24	15-DEC-2022 02:17	22121424.D	1	SEQ-CAL4A	
25	15-DEC-2022 02:35	22121425.D	1	SEQ-CAL5A	
26	15-DEC-2022 02:53	22121426.D	1	SEQ-CAL6A	
27	15-DEC-2022 03:11	22121427.D	1	SEQ-CAL7A	
28	15-DEC-2022 03:29	22121428.D	1	SEQ-CAL8A	
29	15-DEC-2022 03:46	22121429.D	1	SEQ-CAL9A	
30	15-DEC-2022 04:04	22121430.D	1	SEQ-CALAA	
31	15-DEC-2022 04:22	22121431.D	1	SEQ-CALAB	
32	15-DEC-2022 04:40	22121432.D	1	SEQ-CALAC	
33	15-DEC-2022 04:58	22121433.D	1	SEQ-CALAD	
34	15-DEC-2022 05:16	22121434.D	1	SEQ-CALAE	
35	15-DEC-2022 05:33	22121435.D	1	SEQ-PEM2	
36	15-DEC-2022 05:51	22121436.D	1	SEQ-ICV1	
37	15-DEC-2022 06:09	22121437.D	1	SEQ-ICV2	
38	15-DEC-2022 06:27	22121438.D	1	SEQ-ICV3	
39	15-DEC-2022 06:45	22121439.D	1	SEQ-ICV4	
40	15-DEC-2022 07:03	22121440.D	1	BKK0688-BLK1	
41	15-DEC-2022 07:21	22121441.D	1	BKK0688-BS1	
42	15-DEC-2022 07:39	22121442.D	1	BKK0688-BS2	
43	15-DEC-2022 07:57	22121443.D	1	BKK0688-BS3	
44	15-DEC-2022 08:15	22121444.D	1	BKK0688-BSD1	
45	15-DEC-2022 08:32	22121445.D	1	BKK0142-BLK1	
46	15-DEC-2022 08:50	22121446.D	1	BKK0142-BS1	
47	15-DEC-2022 09:08	22121447.D	1	BKK0142-BS2	
48	15-DEC-2022 09:26	22121448.D	1	BKK0142-BSD1	
49	15-DEC-2022 09:44	22121449.D	1	BKK0142-MS1	
50	15-DEC-2022 10:02	22121450.D	1	BKK0142-MSD1	

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b p

	Inject Date/Time	Filename	DF	LabID	ClientID
51	15-DEC-2022 10:20	22121451.D	1	22J0513-01	
52	15-DEC-2022 10:38	22121452.D	1	22J0513-04	
53	15-DEC-2022 10:55	22121453.D	1	22J0535-01	
54	15-DEC-2022 11:13	22121454.D	1	22K0429-01	
55	15-DEC-2022 11:31	22121455.D	1	22K0429-02	
56	15-DEC-2022 11:49	22121456.D	1	22K0429-03	
57	15-DEC-2022 12:07	22121457.D	1	SEQ-PEM3	
58	15-DEC-2022 12:25	22121458.D	1	SEQ-CCV1	
59	15-DEC-2022 12:43	22121459.D	1	SEQ-CCV2	
60	15-DEC-2022 13:01	22121460.D	1	SEQ-CCV3	
61	15-DEC-2022 13:19	22121461.D	1	SEQ-CCV4	
62	15-DEC-2022 13:36	22121462.D	1	BKK0380-BLK1	
63	15-DEC-2022 13:54	22121463.D	1	BKK0380-BS1	
64	15-DEC-2022 14:12	22121464.D	1	BKK0380-BSD1	
65	15-DEC-2022 14:30	22121465.D	1	22K0157-01	
66	15-DEC-2022 14:48	22121466.D	1	22K0230-01	
67	15-DEC-2022 15:06	22121467.D	1	22K0231-01	
68	15-DEC-2022 15:24	22121468.D	1	BKK0382-BLK1	
69	15-DEC-2022 15:42	22121469.D	1	BKK0382-BS1	
70	15-DEC-2022 16:00	22121470.D	1	BKK0382-BS2	
71	15-DEC-2022 16:18	22121471.D	1	BKK0382-BSD1	
72	15-DEC-2022 16:35	22121472.D	1	22K0075-01	
73	15-DEC-2022 16:53	22121473.D	1	SEQ-PEM4	
74	15-DEC-2022 17:11	22121474.D	1	SEQ-CCV5	
75	15-DEC-2022 17:29	22121475.D	1	SEQ-CCV6	
76	15-DEC-2022 17:47	22121476.D	1	SEQ-CCV7	
77	15-DEC-2022 18:05	22121477.D	1	SEQ-CCV8	
78	15-DEC-2022 18:23	22121478.D	1	BKK0537-BLK1	
79	15-DEC-2022 18:40	22121479.D	1	BKK0537-BS1	
80	15-DEC-2022 18:58	22121480.D	1	BKK0537-BS2	
81	15-DEC-2022 19:16	22121481.D	1	22K0194-01	
82	15-DEC-2022 19:34	22121482.D	1	22K0194-01RE1	10
83	15-DEC-2022 19:52	22121483.D	1	SEQ-PEM5	
84	15-DEC-2022 20:09	22121484.D	1	SEQ-CCV9	
85	15-DEC-2022 20:27	22121485.D	1	SEQ-CCVA	
86	15-DEC-2022 20:45	22121486.D	1	SEQ-CCVB	
87	15-DEC-2022 21:03	22121487.D	1	SEQ-CCVC	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

ARI Job No.: RINS Method: PEST.m Instrument: ecd6.i Date: 14-DEC-2022

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1927	22121401.D	RINSE		1	NO MANUAL INTEGRATION
1944	22121402.D	RINSE		1	NO MANUAL INTEGRATION
2002	22121403.D	SEQ-IBL1		1	NO MANUAL INTEGRATION
2020	22121404.D	SEQ-PEM1		1	NO MANUAL INTEGRATION
2038	22121405.D	SEQ-CAL1		1	NO MANUAL INTEGRATION
2056	22121406.D	SEQ-CAL2		1	NO MANUAL INTEGRATION
2114	22121407.D	SEQ-CAL3		1	NO MANUAL INTEGRATION
2131	22121408.D	SEQ-CAL4		1	NO MANUAL INTEGRATION
2149	22121409.D	SEQ-CAL5		1	NO MANUAL INTEGRATION
2207	22121410.D	SEQ-CAL6		1	NO MANUAL INTEGRATION
2225	22121411.D	SEQ-CAL7		1	NO MANUAL INTEGRATION
2243	22121412.D	SEQ-CAL8		1	NO MANUAL INTEGRATION
2301	22121413.D	SEQ-CAL9		1	NO MANUAL INTEGRATION
2319	22121414.D	SEQ-CALA		1	NO MANUAL INTEGRATION
2336	22121415.D	SEQ-CALB		1	NO MANUAL INTEGRATION
2354	22121416.D	SEQ-CALC		1	NO MANUAL INTEGRATION
0012	22121417.D	SEQ-CALD		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0030	22121418.D	SEQ-CALE		1	NO MANUAL INTEGRATION
0048	22121419.D	SEQ-SCV1		1	NO MANUAL INTEGRATION
0106	22121420.D	SEQ-SCV2		1	NO MANUAL INTEGRATION
0124	22121421.D	SEQ-CAL1A		1	NO MANUAL INTEGRATION
0142	22121422.D	SEQ-CAL2A		1	NO MANUAL INTEGRATION
0159	22121423.D	SEQ-CAL3A		1	NO MANUAL INTEGRATION
0217	22121424.D	SEQ-CAL4A		1	NO MANUAL INTEGRATION
0235	22121425.D	SEQ-CAL5A		1	NO MANUAL INTEGRATION
0253	22121426.D	SEQ-CAL6A		1	NO MANUAL INTEGRATION
0311	22121427.D	SEQ-CAL7A		1	NO MANUAL INTEGRATION
0329	22121428.D	SEQ-CAL8A		1	NO MANUAL INTEGRATION
0346	22121429.D	SEQ-CAL9A		1	NO MANUAL INTEGRATION
0404	22121430.D	SEQ-CALAA		1	NO MANUAL INTEGRATION
0422	22121431.D	SEQ-CALAB		1	NO MANUAL INTEGRATION
0440	22121432.D	SEQ-CALAC		1	NO MANUAL INTEGRATION
0458	22121433.D	SEQ-CALAD		1	NO MANUAL INTEGRATION
0516	22121434.D	SEQ-CALAE		1	NO MANUAL INTEGRATION
0533	22121435.D	SEQ-PEM2		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0551	22121436.D	SEQ-ICV1		1	NO MANUAL INTEGRATION
0609	22121437.D	SEQ-ICV2		1	NO MANUAL INTEGRATION
0627	22121438.D	SEQ-ICV3		1	NO MANUAL INTEGRATION
0645	22121439.D	SEQ-ICV4		1	NO MANUAL INTEGRATION
0703	22121440.D	BKK0688-BLK1		1	NO MANUAL INTEGRATION
0721	22121441.D	BKK0688-BS1		1	NO MANUAL INTEGRATION
0739	22121442.D	BKK0688-BS2		1	NO MANUAL INTEGRATION
0757	22121443.D	BKK0688-BS3		1	NO MANUAL INTEGRATION
0815	22121444.D	BKK0688-BSD1		1	NO MANUAL INTEGRATION
0832	22121445.D	BKK0142-BLK1		1	NO MANUAL INTEGRATION
0850	22121446.D	BKK0142-BS1		1	NO MANUAL INTEGRATION
0908	22121447.D	BKK0142-BS2		1	NO MANUAL INTEGRATION
0926	22121448.D	BKK0142-BSD1		1	NO MANUAL INTEGRATION
0944	22121449.D	BKK0142-MS1		1	NO MANUAL INTEGRATION
1002	22121450.D	BKK0142-MSD1		1	NO MANUAL INTEGRATION
1020	22121451.D	22J0513-01		1	NO MANUAL INTEGRATION
1038	22121452.D	22J0513-04		1	NO MANUAL INTEGRATION
1055	22121453.D	22J0535-01		1	trans-Chlordane,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1113	22121454.D	22K0429-01		1	Heptachlor epoxide b,
1131	22121455.D	22K0429-02		1	Heptachlor epoxide b,
1149	22121456.D	22K0429-03		1	Hexachlorobenzene,
1207	22121457.D	SEQ-PEM3		1	NO MANUAL INTEGRATION
1225	22121458.D	SEQ-CCV1		1	NO MANUAL INTEGRATION
1243	22121459.D	SEQ-CCV2		1	NO MANUAL INTEGRATION
1301	22121460.D	SEQ-CCV3		1	NO MANUAL INTEGRATION
1319	22121461.D	SEQ-CCV4		1	NO MANUAL INTEGRATION
1336	22121462.D	BKK0380-BLK1		1	NO MANUAL INTEGRATION
1354	22121463.D	BKK0380-BS1		1	NO MANUAL INTEGRATION
1412	22121464.D	BKK0380-BSD1		1	NO MANUAL INTEGRATION
1430	22121465.D	22K0157-01		1	NO MANUAL INTEGRATION
1448	22121466.D	22K0230-01		1	NO MANUAL INTEGRATION
1506	22121467.D	22K0231-01		1	NO MANUAL INTEGRATION
1524	22121468.D	BKK0382-BLK1		1	NO MANUAL INTEGRATION
1542	22121469.D	BKK0382-BS1		1	NO MANUAL INTEGRATION
1600	22121470.D	BKK0382-BS2		1	NO MANUAL INTEGRATION
1618	22121471.D	BKK0382-BSD1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1635	22121472.D	22K0075-01		1	NO MANUAL INTEGRATION
1653	22121473.D	SEQ-PEM4		1	NO MANUAL INTEGRATION
1711	22121474.D	SEQ-CCV5		1	NO MANUAL INTEGRATION
1729	22121475.D	SEQ-CCV6		1	NO MANUAL INTEGRATION
1747	22121476.D	SEQ-CCV7		1	NO MANUAL INTEGRATION
1805	22121477.D	SEQ-CCV8		1	NO MANUAL INTEGRATION
1823	22121478.D	BKK0537-BLK1		1	NO MANUAL INTEGRATION
1840	22121479.D	BKK0537-BS1		1	NO MANUAL INTEGRATION
1858	22121480.D	BKK0537-BS2		1	NO MANUAL INTEGRATION
1916	22121481.D	22K0194-01		1	NO MANUAL INTEGRATION
1934	22121482.D	22K0194-01RE1	10	1	NO MANUAL INTEGRATION
1952	22121483.D	SEQ-PEM5		1	NO MANUAL INTEGRATION
2009	22121484.D	SEQ-CCV9		1	NO MANUAL INTEGRATION
2027	22121485.D	SEQ-CCVA		1	NO MANUAL INTEGRATION
2045	22121486.D	SEQ-CCVB		1	NO MANUAL INTEGRATION
2103	22121487.D	SEQ-CCVC		1	NO MANUAL INTEGRATION
1927	22121401.D	RINSE		1	NO MANUAL INTEGRATION
1944	22121402.D	RINSE		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2002	22121403.D	SEQ-IBL1		1	NO MANUAL INTEGRATION
2020	22121404.D	SEQ-PEM1		1	NO MANUAL INTEGRATION
2038	22121405.D	SEQ-CAL1		1	NO MANUAL INTEGRATION
2056	22121406.D	SEQ-CAL2		1	NO MANUAL INTEGRATION
2114	22121407.D	SEQ-CAL3		1	NO MANUAL INTEGRATION
2131	22121408.D	SEQ-CAL4		1	NO MANUAL INTEGRATION
2149	22121409.D	SEQ-CAL5		1	NO MANUAL INTEGRATION
2207	22121410.D	SEQ-CAL6		1	NO MANUAL INTEGRATION
2225	22121411.D	SEQ-CAL7		1	NO MANUAL INTEGRATION
2243	22121412.D	SEQ-CAL8		1	NO MANUAL INTEGRATION
2301	22121413.D	SEQ-CAL9		1	NO MANUAL INTEGRATION
2319	22121414.D	SEQ-CALA		1	NO MANUAL INTEGRATION
2336	22121415.D	SEQ-CALB		1	NO MANUAL INTEGRATION
2354	22121416.D	SEQ-CALC		1	NO MANUAL INTEGRATION
0012	22121417.D	SEQ-CALD		1	NO MANUAL INTEGRATION
0030	22121418.D	SEQ-CALE		1	NO MANUAL INTEGRATION
0048	22121419.D	SEQ-SCV1		1	NO MANUAL INTEGRATION
0106	22121420.D	SEQ-SCV2		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0124	22121421.D	SEQ-CAL1A		1	NO MANUAL INTEGRATION
0142	22121422.D	SEQ-CAL2A		1	NO MANUAL INTEGRATION
0159	22121423.D	SEQ-CAL3A		1	NO MANUAL INTEGRATION
0217	22121424.D	SEQ-CAL4A		1	NO MANUAL INTEGRATION
0235	22121425.D	SEQ-CAL5A		1	NO MANUAL INTEGRATION
0253	22121426.D	SEQ-CAL6A		1	NO MANUAL INTEGRATION
0311	22121427.D	SEQ-CAL7A		1	NO MANUAL INTEGRATION
0329	22121428.D	SEQ-CAL8A		1	NO MANUAL INTEGRATION
0346	22121429.D	SEQ-CAL9A		1	NO MANUAL INTEGRATION
0404	22121430.D	SEQ-CALAA		1	NO MANUAL INTEGRATION
0422	22121431.D	SEQ-CALAB		1	NO MANUAL INTEGRATION
0440	22121432.D	SEQ-CALAC		1	NO MANUAL INTEGRATION
0458	22121433.D	SEQ-CALAD		1	NO MANUAL INTEGRATION
0516	22121434.D	SEQ-CALAE		1	NO MANUAL INTEGRATION
0533	22121435.D	SEQ-PEM2		1	NO MANUAL INTEGRATION
0551	22121436.D	SEQ-ICV1		1	NO MANUAL INTEGRATION
0609	22121437.D	SEQ-ICV2		1	NO MANUAL INTEGRATION
0627	22121438.D	SEQ-ICV3		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0645	22121439.D	SEQ-ICV4		1	NO MANUAL INTEGRATION
0703	22121440.D	BKK0688-BLK1		1	NO MANUAL INTEGRATION
0721	22121441.D	BKK0688-BS1		1	NO MANUAL INTEGRATION
0739	22121442.D	BKK0688-BS2		1	NO MANUAL INTEGRATION
0757	22121443.D	BKK0688-BS3		1	NO MANUAL INTEGRATION
0815	22121444.D	BKK0688-BSD1		1	NO MANUAL INTEGRATION
0832	22121445.D	BKK0142-BLK1		1	NO MANUAL INTEGRATION
0850	22121446.D	BKK0142-BS1		1	NO MANUAL INTEGRATION
0908	22121447.D	BKK0142-BS2		1	NO MANUAL INTEGRATION
0926	22121448.D	BKK0142-BSD1		1	NO MANUAL INTEGRATION
0944	22121449.D	BKK0142-MS1		1	NO MANUAL INTEGRATION
1002	22121450.D	BKK0142-MSD1		1	NO MANUAL INTEGRATION
1020	22121451.D	22J0513-01		1	NO MANUAL INTEGRATION
1038	22121452.D	22J0513-04		1	NO MANUAL INTEGRATION
1055	22121453.D	22J0535-01		1	trans-Chlordane [C],
1113	22121454.D	22K0429-01		1	NO MANUAL INTEGRATION
1131	22121455.D	22K0429-02		1	Aldrin [C], Heptachlor epoxide b [C], trans-Chlordane [C],
1149	22121456.D	22K0429-03		1	Aldrin [C],

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1207	22121457.D	SEQ-PEM3		1	NO MANUAL INTEGRATION
1225	22121458.D	SEQ-CCV1		1	NO MANUAL INTEGRATION
1243	22121459.D	SEQ-CCV2		1	NO MANUAL INTEGRATION
1301	22121460.D	SEQ-CCV3		1	NO MANUAL INTEGRATION
1319	22121461.D	SEQ-CCV4		1	NO MANUAL INTEGRATION
1336	22121462.D	BKK0380-BLK1		1	NO MANUAL INTEGRATION
1354	22121463.D	BKK0380-BS1		1	NO MANUAL INTEGRATION
1412	22121464.D	BKK0380-BSD1		1	NO MANUAL INTEGRATION
1430	22121465.D	22K0157-01		1	NO MANUAL INTEGRATION
1448	22121466.D	22K0230-01		1	NO MANUAL INTEGRATION
1506	22121467.D	22K0231-01		1	NO MANUAL INTEGRATION
1524	22121468.D	BKK0382-BLK1		1	NO MANUAL INTEGRATION
1542	22121469.D	BKK0382-BS1		1	NO MANUAL INTEGRATION
1600	22121470.D	BKK0382-BS2		1	NO MANUAL INTEGRATION
1618	22121471.D	BKK0382-BSD1		1	NO MANUAL INTEGRATION
1635	22121472.D	22K0075-01		1	NO MANUAL INTEGRATION
1653	22121473.D	SEQ-PEM4		1	NO MANUAL INTEGRATION
1711	22121474.D	SEQ-CCV5		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1729	22121475.D	SEQ-CCV6		1	NO MANUAL INTEGRATION
1747	22121476.D	SEQ-CCV7		1	NO MANUAL INTEGRATION
1805	22121477.D	SEQ-CCV8		1	NO MANUAL INTEGRATION
1823	22121478.D	BKK0537-BLK1		1	NO MANUAL INTEGRATION
1840	22121479.D	BKK0537-BS1		1	NO MANUAL INTEGRATION
1858	22121480.D	BKK0537-BS2		1	NO MANUAL INTEGRATION
1916	22121481.D	22K0194-01		1	NO MANUAL INTEGRATION
1934	22121482.D	22K0194-01RE1	10	1	NO MANUAL INTEGRATION
1952	22121483.D	SEQ-PEM5		1	NO MANUAL INTEGRATION
2010	22121484.D	SEQ-CCV9		1	NO MANUAL INTEGRATION
2027	22121485.D	SEQ-CCVA		1	NO MANUAL INTEGRATION
2045	22121486.D	SEQ-CCVB		1	NO MANUAL INTEGRATION
2103	22121487.D	SEQ-CCVC		1	NO MANUAL INTEGRATION

Security Status Report

Date: 17-Dec-2022 10:57

22121401.D	Data Locked	jrains, 17-Dec-2022 10:57
22121402.D	Data Locked	jrains, 17-Dec-2022 10:57
22121403.D	Data Locked	jrains, 17-Dec-2022 10:57
22121404.D	Data Locked	jrains, 17-Dec-2022 10:57
22121405.D	Data Locked	jrains, 17-Dec-2022 10:57
22121406.D	Data Locked	jrains, 17-Dec-2022 10:57
22121407.D	Data Locked	jrains, 17-Dec-2022 10:57
22121408.D	Data Locked	jrains, 17-Dec-2022 10:57
22121409.D	Data Locked	jrains, 17-Dec-2022 10:57
22121410.D	Data Locked	jrains, 17-Dec-2022 10:57
22121411.D	Data Locked	jrains, 17-Dec-2022 10:57
22121412.D	Data Locked	jrains, 17-Dec-2022 10:57
22121413.D	Data Locked	jrains, 17-Dec-2022 10:57
22121414.D	Data Locked	jrains, 17-Dec-2022 10:57
22121415.D	Data Locked	jrains, 17-Dec-2022 10:57
22121416.D	Data Locked	jrains, 17-Dec-2022 10:57
22121417.D	Data Locked	jrains, 17-Dec-2022 10:57
22121418.D	Data Locked	jrains, 17-Dec-2022 10:57
22121419.D	Data Locked	jrains, 17-Dec-2022 10:57
22121420.D	Data Locked	jrains, 17-Dec-2022 10:57
22121421.D	Data Locked	jrains, 17-Dec-2022 10:57
22121422.D	Data Locked	jrains, 17-Dec-2022 10:57
22121423.D	Data Locked	jrains, 17-Dec-2022 10:57
22121424.D	Data Locked	jrains, 17-Dec-2022 10:57
22121425.D	Data Locked	jrains, 17-Dec-2022 10:57
22121426.D	Data Locked	jrains, 17-Dec-2022 10:57
22121427.D	Data Locked	jrains, 17-Dec-2022 10:57
22121428.D	Data Locked	jrains, 17-Dec-2022 10:57
22121429.D	Data Locked	jrains, 17-Dec-2022 10:57
22121430.D	Data Locked	jrains, 17-Dec-2022 10:57
22121431.D	Data Locked	jrains, 17-Dec-2022 10:57
22121432.D	Data Locked	jrains, 17-Dec-2022 10:57
22121433.D	Data Locked	jrains, 17-Dec-2022 10:57
22121434.D	Data Locked	jrains, 17-Dec-2022 10:57

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2022 20:38
End Cal Date : 15-DEC-2022 05:16
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Last Edit : 15-Dec-2022 08:33 jrains
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121428.D
Level 2: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121429.D
Level 3: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121430.D
Level 4: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121431.D
Level 5: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121432.D
Level 6: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121433.D
Level 7: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121434.D

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
1 Hexachlorobutadiene [C]	+++++	1.97561	1.64885	1.49248	1.37610	1.34121	1.30081	1.52251	16.761
5 Hexachlorobenzene [C]	+++++	1.60221	1.52062	1.49140	1.45025	1.38595	1.30422	1.45911	7.170
6 alpha-BHC [C]	+++++	1.58236	1.58624	1.63316	1.64049	1.61544	1.56190	1.60327	1.946
7 gamma-BHC (Lindane) [C]	+++++	1.35507	1.34878	1.38146	1.39277	1.36661	1.31891	1.36060	1.921
8 beta-BHC [C]	+++++	0.65278	0.61729	0.61846	0.61258	0.59180	0.56430	0.60954	4.856
9 delta-BHC [C]	+++++	1.32376	1.30723	1.33943	1.32843	1.33198	1.29291	1.32062	1.312
10 Heptachlor [C]	+++++	1.27025	1.23424	1.25841	1.27225	1.21576	1.14412	1.23250	3.937
11 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2022 20:38
End Cal Date : 15-DEC-2022 05:16
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Last Edit : 15-Dec-2022 08:33 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
12 Aldrin [C]	+++++	1.51140	1.41672	1.43264	1.43038	1.37092	1.28126	1.40722	5.441
13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Heptachlor epoxide b [C]	+++++	1.29770	1.17460	1.17429	1.17471	1.11443	1.04614	1.16364	7.144
15 cis-Chlordane [C]	+++++	1.25850	1.15320	1.13505	1.13625	1.08979	1.03859	1.13523	6.464
16 trans-Chlordane [C]	+++++	1.25449	1.17610	1.16484	1.16885	1.12553	1.07269	1.16042	5.185
17 Endosulfan I [C]	+++++	1.11826	1.04415	1.03541	1.03470	0.98850	0.93258	1.02560	6.032
18 4,4'-DDE [C]	+++++	1.12024	1.06963	1.06439	1.05541	0.98971	0.93563	1.03917	6.320
19 Dieldrin [C]	+++++	1.27001	1.16284	1.13936	1.13610	1.07139	1.01937	1.13318	7.532
20 Endrin [C]	+++++	1.25691	1.17909	1.15948	1.14960	1.06606	1.01378	1.13749	7.566
21 4,4'-DDD [C]	+++++	1.23448	1.12156	1.11779	1.11200	1.04628	1.00638	1.10642	7.049
22 Endosulfan II [C]	+++++	1.29682	1.20296	1.18849	1.16050	1.09906	1.04780	1.16594	7.425

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2022 20:38
End Cal Date : 15-DEC-2022 05:16
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Last Edit : 15-Dec-2022 08:33 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
23 4,4'-DDT [C]	+++++	1.17591	1.07782	1.06761	1.07327	1.01936	0.99339	1.06790	5.878
24 Endrin aldehyde [C]	+++++	0.94301	0.84303	0.82492	0.81299	0.77277	0.73803	0.82246	8.537
25 Endosulfan sulfate [C]	+++++	1.13777	1.04255	1.03037	1.02302	0.97217	0.93725	1.02386	6.702
26 Methoxychlor [C]	+++++	0.51841	0.48668	0.47517	0.46817	0.44340	0.44364	0.47258	5.996
27 Endrin ketone [C]	+++++	1.23563	1.11999	1.11440	1.10085	1.04766	1.01657	1.10585	6.827
29 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2022 20:38
End Cal Date : 15-DEC-2022 05:16
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Last Edit : 15-Dec-2022 08:33 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
(2)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(4)	#####	#####	#####	#####	#####	#####	#####	#####	#####
31 Aroclor-1232(1)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(2)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(4)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(5)	#####	#####	#####	#####	#####	#####	#####	#####	#####
32 Aroclor-1242(1)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(2)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####	#####	#####

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2022 20:38
End Cal Date : 15-DEC-2022 05:16
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Last Edit : 15-Dec-2022 08:33 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
(4)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(5)	#####	#####	#####	#####	#####	#####	#####	#####	#####
33 Aroclor-1248(1)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(2)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(4)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(5)	#####	#####	#####	#####	#####	#####	#####	#####	#####
34 Aroclor-1254(1)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(2)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(4)	#####	#####	#####	#####	#####	#####	#####	#####	#####

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2022 20:38
End Cal Date : 15-DEC-2022 05:16
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Last Edit : 15-Dec-2022 08:33 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
(5)	#####	#####	#####	#####	#####	#####	#####	#####	#####
35 Aroclor-1260(1)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(2)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(4)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(5)	#####	#####	#####	#####	#####	#####	#####	#####	#####
36 Aroclor-1262(1)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(2)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(4)	#####	#####	#####	#####	#####	#####	#####	#####	#####
(5)	#####	#####	#####	#####	#####	#####	#####	#####	#####

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2022 20:38
End Cal Date : 15-DEC-2022 05:16
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Last Edit : 15-Dec-2022 08:33 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
37 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Toxaphene [C](1)	0.01492	0.01529	0.01573	0.01558	0.01527	0.01455	0.01387	0.01503	4.285
(2)	0.03524	0.03538	0.03581	0.03480	0.03351	0.03170	0.03010	0.03379	6.368
(3)	0.02615	0.02659	0.02671	0.02640	0.02571	0.02464	0.02387	0.02572	4.197
(4)	0.08868	0.08690	0.08740	0.08502	0.08225	0.07926	0.07782	0.08390	5.022
(5)	0.04138	0.04124	0.04193	0.04145	0.04102	0.04046	0.04062	0.04116	1.227
39 2,4-DDE [C]	+++++	0.83433	0.80524	0.74313	0.72589	0.66671	0.60202	0.72955	11.810

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2022 20:38
End Cal Date : 15-DEC-2022 05:16
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Last Edit : 15-Dec-2022 08:33 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
40 2,4-DDD [C]	+++++	0.90975	0.87971	0.82738	0.81642	0.76623	0.71370	0.81887	8.785
41 2,4-DDT [C]	+++++	0.94001	0.88046	0.85026	0.84852	0.79773	0.74249	0.84324	8.052
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Oxychlordane [C]	+++++	0.96447	0.94678	0.90333	0.89663	0.84333	0.79092	0.89091	7.271
44 trans-Nonachlor [C]	+++++	1.48885	1.51762	1.45179	1.44766	1.37681	1.30668	1.43157	5.406
45 cis-Nonachlor [C]	+++++	1.44924	1.40707	1.37647	1.37212	1.31329	1.24817	1.36106	5.224
46 Mirex [C]	+++++	0.93314	0.81155	0.79462	0.76268	0.73998	0.70751	0.79158	9.949
47 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Chlordane (NOS) [C](1)	0.03877	0.03690	0.03764	0.03840	0.03761	0.03805	0.03764	0.03786	1.615
(2)	0.04647	0.04439	0.04416	0.04357	0.04103	0.03978	0.03825	0.04252	6.844
(3)	0.14135	0.14252	0.14927	0.15059	0.14418	0.14081	0.13812	0.14383	3.173

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2022 20:38
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Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Last Edit : 15-Dec-2022 08:33 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
49 Trifluralin	*****	*****	*****	*****	*****	*****	*****	*****	*****
50 Dacthal	*****	*****	*****	*****	*****	*****	*****	*****	*****
51 Oxadiazon	*****	*****	*****	*****	*****	*****	*****	*****	*****
52 Kelthane	*****	*****	*****	*****	*****	*****	*****	*****	*****
53 Chlorpyrifos	*****	*****	*****	*****	*****	*****	*****	*****	*****
54 Methyl Parathion	*****	*****	*****	*****	*****	*****	*****	*****	*****
55 Ethyl Parathion	*****	*****	*****	*****	*****	*****	*****	*****	*****
56 Kepone [C]	*****	*****	*****	*****	*****	*****	*****	*****	*****
57 1-Chloropyrene	*****	*****	*****	*****	*****	*****	*****	*****	*****
$ 4 Tetrachloro-m-xylene [C]	*****	1.22086	1.17937	1.16483	1.12798	1.06878	0.99482	1.12611	7.306
$ 28 Decachlorobiphenyl [C]	*****	1.08714	0.93916	0.85624	0.84996	0.80139	0.77119	0.88418	12.973

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
End Cal Date : 13-DEC-2022 22:43
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Last Edit : 14-Dec-2022 10:32
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd6.i\20220809.b\22080909.D
Level 2: \\target\share\chem4\ecd6.i\20220809.b\22080910.D
Level 3: \\target\share\chem4\ecd6.i\20220809.b\22080911.D
Level 4: \\target\share\chem4\ecd6.i\20220809.b\22080912.D
Level 5: \\target\share\chem4\ecd6.i\20220809.b\22080913.D
Level 6: \\target\share\chem4\ecd6.i\20220809.b\22080914.D
Level 7: \\target\share\chem4\ecd6.i\20220809.b\22080915.D

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7							
1 Hexachlorobutadiene	+++++	1.64215	1.55667	1.51049	1.47308	1.40536		
	1.30292						1.48178	7.988
5 Hexachlorobenzene	+++++	1.48647	1.40778	1.36481	1.31957	1.25458		
	1.15582						1.33150	8.750
6 alpha-BHC	+++++	1.41183	1.40802	1.42270	1.42790	1.37811		
	1.29587						1.39074	3.567
7 gamma-BHC (Lindane)	+++++	1.20108	1.18733	1.20704	1.21598	1.18532		
	1.11861						1.18589	2.948
8 beta-BHC	+++++	0.65244	0.60612	0.58927	0.57533	0.54649		
	0.50588						0.57925	8.684
9 delta-BHC	+++++	1.15252	1.13315	1.18185	1.21952	1.21492		
	1.16159						1.17726	2.950
10 Heptachlor	+++++	1.18674	1.12881	1.11527	1.09009	1.03076		
	0.94214						1.08230	7.897
11 Aldrin	+++++	1.14505	1.10493	1.10576	1.09698	1.04621		
	0.96536						1.07738	5.877

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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End Cal Date : 13-DEC-2022 22:43
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Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Last Edit : 14-Dec-2022 10:32
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
12 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Heptachlor epoxide b	+++++	1.05278	0.99602	0.98316	0.95413	0.89408	0.81733	0.94959	8.751
15 cis-Chlordane	+++++	1.00217	0.95563	0.94931	0.93343	0.89233	0.82943	0.92705	6.424
16 trans-Chlordane	+++++	1.02223	0.96054	0.95840	0.94631	0.90606	0.84267	0.93937	6.420
17 Endosulfan I	+++++	1.10444	1.01004	0.97510	0.92642	0.86761	0.77363	0.94287	12.207
18 4,4'-DDE	+++++	0.85783	0.84618	0.86175	0.85068	0.80349	0.73346	0.82557	6.027
19 Dieldrin	+++++	1.02112	0.97469	0.96064	0.93395	0.87876	0.79720	0.92773	8.553
20 Endrin	+++++	1.03359	0.99258	1.01493	1.03951	0.95184	0.92125	0.99228	4.755
21 4,4'-DDD	+++++	1.26749	1.21690	1.21140	1.19455	1.09258	1.02286	1.16763	7.815
22 Endosulfan II	+++++	1.32213	1.30831	1.28817	1.25191	1.14300	1.05695	1.22841	8.614

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Last Edit : 14-Dec-2022 10:32
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
23 4,4'-DDT	+++++	1.20278	1.19912	1.21231	1.21971	1.13284	1.06544	1.17203	5.186
24 Endrin aldehyde	+++++	1.05042	1.01673	1.00197	0.99460	0.91340	0.84575	0.97048	7.836
25 Methoxychlor	+++++	0.56408	0.54010	0.51985	0.50693	0.45626	0.43428	0.50358	9.854
26 Endosulfan sulfate	+++++	1.14290	1.11216	1.09802	1.09968	1.00734	0.94888	1.06816	6.922
27 Endrin ketone	+++++	1.47959	1.40243	1.34455	1.31335	1.19489	1.12695	1.31029	9.966
29 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
End Cal Date : 13-DEC-2022 22:43
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Last Edit : 14-Dec-2022 10:32
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
(2)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(3)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(4)	*****	*****	*****	*****	*****	*****	*****	*****	*****
31 Aroclor-1232(1)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(2)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(3)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(4)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(5)	*****	*****	*****	*****	*****	*****	*****	*****	*****
32 Aroclor-1242(1)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(2)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(3)	*****	*****	*****	*****	*****	*****	*****	*****	*****

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
End Cal Date : 13-DEC-2022 22:43
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Last Edit : 14-Dec-2022 10:32
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
(4)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(5)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(6)	*****	*****	*****	*****	*****	*****	*****	*****	*****
33 Aroclor-1248(1)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(2)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(3)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(4)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(5)	*****	*****	*****	*****	*****	*****	*****	*****	*****
34 Aroclor-1254(1)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(2)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(3)	*****	*****	*****	*****	*****	*****	*****	*****	*****

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
End Cal Date : 13-DEC-2022 22:43
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Last Edit : 14-Dec-2022 10:32
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
(4)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(5)	*****	*****	*****	*****	*****	*****	*****	*****	*****
35 Aroclor-1260(1)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(2)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(3)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(4)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(5)	*****	*****	*****	*****	*****	*****	*****	*****	*****
36 Aroclor-1262(1)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(2)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(3)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(4)	*****	*****	*****	*****	*****	*****	*****	*****	*****

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
End Cal Date : 13-DEC-2022 22:43
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Last Edit : 14-Dec-2022 10:32
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
(5)	*****	*****	*****	*****	*****	*****	*****	*****	*****
37 Aroclor-1268(1)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(2)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(3)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(4)	*****	*****	*****	*****	*****	*****	*****	*****	*****
(5)	*****	*****	*****	*****	*****	*****	*****	*****	*****
38 Toxaphene(1)	0.02824	0.03896	0.03693	0.03480	0.03418	0.02891	0.02792	0.03285	13.645
(2)	0.08343	0.10636	0.10204	0.09499	0.09608	0.08394	0.08263	0.09278	10.362
(3)	0.04776	0.06283	0.06069	0.06020	0.06090	0.05141	0.05119	0.05643	10.755
(4)	0.05098	0.07225	0.07089	0.06844	0.06847	0.06296	0.06388	0.06541	11.021
(5)	0.04955	0.06896	0.06748	0.06372	0.06603	0.05846	0.05934	0.06194	10.880

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
End Cal Date : 13-DEC-2022 22:43
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Last Edit : 14-Dec-2022 10:32
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
39 2,4-DDE	+++++	1.14103	1.08072	1.09005	1.06169	0.88466	0.89319	1.02522	10.614
40 2,4-DDD	+++++	1.08881	1.01841	0.99599	0.98400	0.85150	0.85318	0.96531	9.816
41 2,4-DDT	+++++	0.97799	0.97179	0.97332	0.98841	0.88743	0.88215	0.94685	5.117
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Oxychlordane	+++++	1.32927	1.24890	1.22496	1.20236	1.04785	1.05015	1.18392	9.540
44 trans-Nonachlor	+++++	1.68629	1.57989	1.58456	1.55669	1.34437	1.36253	1.51906	8.949
45 cis-Nonachlor	+++++	1.62941	1.55213	1.53413	1.52347	1.34758	1.35527	1.49033	7.639
46 Mirex	+++++	1.20478	1.11168	1.05006	1.00932	0.85381	0.85786	1.01459	13.749
47 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Chlordane (NOS)(1)	0.06029	0.05735	0.05369	0.05005	0.04581	0.04808	0.04531	0.05151	11.230
(2)	0.15038	0.14213	0.13501	0.13074	0.12020	0.12674	0.12030	0.13221	8.482

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
End Cal Date : 13-DEC-2022 22:43
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Last Edit : 14-Dec-2022 10:32
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	___ RRF	% RSD
(3)	0.17221	0.15459	0.13623	0.13893	0.12753	0.13518	0.13160	0.14232	11.024
49 Trifluralin	*****	*****	*****	*****	*****	*****	*****	*****	*****
50 Dacthal	*****	*****	*****	*****	*****	*****	*****	*****	*****
51 Oxadiazon	*****	*****	*****	*****	*****	*****	*****	*****	*****
52 Kelthane	*****	*****	*****	*****	*****	*****	*****	*****	*****
53 Chlorpyrifos	*****	*****	*****	*****	*****	*****	*****	*****	*****
54 Methyl Parathion	*****	*****	*****	*****	*****	*****	*****	*****	*****
55 Ethyl Parathion	*****	*****	*****	*****	*****	*****	*****	*****	*****
56 Kepone	*****	*****	*****	*****	*****	*****	*****	*****	*****
57 1-Chloropyrene	*****	*****	*****	*****	*****	*****	*****	*****	*****
$ 4 Tetrachloro-m-xylene	*****	1.10401	1.05839	1.02629	0.99588	0.93352	0.85040	0.99475	9.166

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
End Cal Date : 13-DEC-2022 22:43
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Last Edit : 14-Dec-2022 10:32
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	___ RRF	% RSD
	80.000 Level 7							
$ 28 Decachlorobiphenyl	+++++	0.99444	0.96249	0.90111	0.87014	0.79161		
	0.75653						0.87939	10.607

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	22121405	22121406	22121407	22121408	22121409	22121410	22121411
INJ.DATE:	14-DEC-2022	14-DEC-2022	14-DEC-2022	14-DEC-2022	14-DEC-2022	14-DEC-2022	14-DEC-2022
INJ.TIME:	20:38	20:56	21:14	21:31	21:49	22:07	22:25

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	2.323	2.323	2.324	2.323	2.324	2.324	2.324	2.324	2.294-2.354	2.323	0.000
* 2 1Bromo-2nitrobenzene	3.151	3.151	3.152	3.151	3.151	3.151	3.151	3.151	3.121-3.181	3.151	0.000
* 3 Hexabromobiphenyl	9.504	9.503	9.504	9.505	9.505	9.504	9.504	9.505	9.475-9.535	9.504	0.001
$ 4 Tetrachloro-m-xylene	3.828	3.828	3.828	3.828	3.828	3.828	3.828	3.828	3.798-3.858	3.828	0.000
5 Hexachlorobenzene	4.182	4.182	4.183	4.183	4.182	4.183	4.182	4.182	4.152-4.212	4.183	0.000
6 alpha-BHC	4.342	4.342	4.343	4.343	4.342	4.342	4.342	4.342	4.312-4.372	4.342	0.000
7 gamma-BHC (Lindane)	4.645	4.645	4.646	4.646	4.645	4.646	4.645	4.645	4.615-4.675	4.645	0.000
8 beta-BHC	4.726	4.726	4.727	4.726	4.726	4.726	4.726	4.726	4.696-4.756	4.726	0.000
9 delta-BHC	4.909	4.909	4.910	4.910	4.909	4.910	4.910	4.909	4.879-4.939	4.910	0.000
10 Heptachlor	5.130	5.129	5.130	5.130	5.130	5.130	5.130	5.130	5.100-5.160	5.130	0.000
11 Aldrin	5.453	5.453	5.455	5.454	5.454	5.454	5.454	5.454	5.424-5.484	5.454	0.000
12 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.597-13.657	+++++	+++++
13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.839-10.899	+++++	+++++
14 Heptachlor epoxide b	6.130	6.130	6.132	6.131	6.130	6.130	6.130	6.130	6.100-6.160	6.131	0.001
15 cis-Chlordane	6.417	6.417	6.417	6.418	6.417	6.417	6.417	6.417	6.387-6.447	6.417	0.000
16 trans-Chlordane	6.270	6.271	6.271	6.271	6.271	6.271	6.271	6.271	6.241-6.301	6.271	0.000
17 Endosulfan I	6.572	6.572	6.573	6.573	6.572	6.572	6.573	6.572	6.542-6.602	6.573	0.000

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	18 4,4'-DDE	6.489	6.489	6.490	6.490	6.489	6.489	6.490	6.489	6.459-6.519	6.489	0.000
	19 Dieldrin	6.831	6.832	6.832	6.832	6.831	6.832	6.832	6.831	6.801-6.861	6.832	0.000
	20 Endrin	7.081	7.081	7.082	7.082	7.081	7.082	7.082	7.081	7.051-7.111	7.082	0.000
	21 4,4'-DDD	7.135	7.136	7.136	7.136	7.135	7.136	7.135	7.135	7.105-7.165	7.136	0.000
	22 Endosulfan II	7.318	7.317	7.318	7.318	7.317	7.317	7.317	7.317	7.287-7.347	7.317	0.000
	23 4,4'-DDT	7.427	7.427	7.428	7.428	7.427	7.427	7.428	7.427	7.397-7.457	7.428	0.000
	24 Endrin aldehyde	7.746	7.746	7.746	7.746	7.746	7.746	7.746	7.746	7.716-7.776	7.746	0.000
	25 Methoxychlor	7.912	7.912	7.913	7.912	7.912	7.912	7.912	7.912	7.882-7.942	7.912	0.000
	26 Endosulfan sulfate	8.180	8.179	8.180	8.180	8.180	8.179	8.180	8.180	8.150-8.210	8.180	0.000
	27 Endrin ketone	8.453	8.452	8.454	8.453	8.453	8.453	8.454	8.453	8.423-8.483	8.453	0.001
$	28 Decachlorobiphenyl	9.355	9.354	9.355	9.355	9.355	9.355	9.356	9.355	9.325-9.385	9.355	0.000
	29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
	30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.851-4.911	+++++	+++++
	31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.329-5.389	+++++	+++++
	32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
	33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.388-4.448	+++++	+++++
	34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.227-5.287	+++++	+++++
	35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	6.015-6.075	+++++	+++++
	36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.271-8.331	+++++	+++++
	37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.229-11.289	+++++	+++++
	38 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.931	6.901-6.961	+++++	+++++
	39 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.106	6.076-6.136	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.681	6.651-6.711	+++++	+++++
41 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.957	6.927-6.987	+++++	+++++
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.774	1.744-1.804	+++++	+++++
43 Oxychlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.014	5.984-6.044	+++++	+++++
44 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.397	6.367-6.427	+++++	+++++
45 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.112	7.082-7.142	+++++	+++++
46 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.082	8.052-8.112	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.126-20.186	+++++	+++++
48 Chlordane (NOS)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.593	5.563-5.623	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.289-6.349	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.906-9.966	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.861-11.921	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.797-14.857	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.720-9.780	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.077-9.137	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.221-10.281	+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.588	6.558-6.618	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.923-6.983	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	22121405	22121406	22121407	22121408	22121409	22121410	22121411
INJ.DATE:	14-DEC-2022	14-DEC-2022	14-DEC-2022	14-DEC-2022	14-DEC-2022	14-DEC-2022	14-DEC-2022
INJ.TIME:	20:38	20:56	21:14	21:31	21:49	22:07	22:25

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene [C	2.500	2.500	2.500	2.500	2.500	2.500	2.501	2.501	2.471-2.531	2.500	0.000
* 2 1Bromo-2nitrobenzene [	3.350	3.350	3.351	3.351	3.350	3.351	3.351	3.351	3.321-3.381	3.351	0.000
* 3 Hexabromobiphenyl[C]	11.054	11.053	11.054	11.054	11.053	11.053	11.054	11.054	11.024-11.084	11.054	0.000
$ 4 Tetrachloro-m-xylene [	4.220	4.220	4.220	4.220	4.220	4.221	4.220	4.220	4.190-4.250	4.220	0.000
5 Hexachlorobenzene [C]	4.718	4.718	4.718	4.718	4.718	4.718	4.718	4.718	4.688-4.748	4.718	0.000
6 alpha-BHC [C]	4.860	4.859	4.860	4.860	4.860	4.860	4.861	4.861	4.831-4.891	4.860	0.000
7 gamma-BHC (Lindane) [C	5.257	5.257	5.258	5.258	5.258	5.258	5.258	5.258	5.228-5.288	5.258	0.000
8 beta-BHC [C]	5.337	5.337	5.338	5.337	5.337	5.337	5.337	5.337	5.307-5.367	5.337	0.000
9 delta-BHC [C]	5.690	5.691	5.691	5.691	5.690	5.691	5.691	5.691	5.661-5.721	5.691	0.000
10 Heptachlor [C]	5.786	5.787	5.787	5.787	5.787	5.787	5.787	5.787	5.757-5.817	5.787	0.000
11 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.558-14.618	+++++	+++++
12 Aldrin [C]	6.190	6.190	6.191	6.191	6.191	6.190	6.191	6.191	6.161-6.221	6.191	0.000
13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.650-12.710	+++++	+++++
14 Heptachlor epoxide b [	6.845	6.845	6.845	6.846	6.845	6.846	6.845	6.845	6.815-6.875	6.845	0.000
15 cis-Chlordane [C]	7.215	7.215	7.216	7.216	7.216	7.215	7.216	7.216	7.186-7.246	7.215	0.000
16 trans-Chlordane [C]	7.056	7.055	7.056	7.056	7.056	7.056	7.056	7.056	7.026-7.086	7.056	0.000
17 Endosulfan I [C]	7.288	7.288	7.289	7.289	7.289	7.288	7.289	7.289	7.259-7.319	7.288	0.000

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	18 4,4'-DDE [C]	7.370	7.370	7.371	7.371	7.370	7.371	7.371	7.371	7.341-7.401	7.371	0.000
	19 Dieldrin [C]	7.582	7.582	7.583	7.583	7.582	7.582	7.583	7.583	7.553-7.613	7.582	0.000
	20 Endrin [C]	7.906	7.906	7.906	7.907	7.907	7.907	7.907	7.907	7.877-7.937	7.907	0.000
	21 4,4'-DDD [C]	7.976	7.976	7.976	7.977	7.976	7.976	7.976	7.976	7.946-8.006	7.976	0.000
	22 Endosulfan II [C]	8.117	8.116	8.117	8.117	8.117	8.117	8.117	8.117	8.087-8.147	8.117	0.000
	23 4,4'-DDT [C]	8.294	8.294	8.294	8.295	8.295	8.295	8.295	8.295	8.265-8.325	8.295	0.000
	24 Endrin aldehyde [C]	8.448	8.447	8.448	8.448	8.448	8.448	8.448	8.448	8.418-8.478	8.448	0.000
	25 Endosulfan sulfate [C]	8.715	8.714	8.715	8.715	8.715	8.715	8.715	8.715	8.685-8.745	8.715	0.000
	26 Methoxychlor [C]	8.935	8.934	8.935	8.936	8.935	8.935	8.936	8.936	8.906-8.966	8.935	0.001
	27 Endrin ketone [C]	9.239	9.239	9.239	9.240	9.239	9.239	9.240	9.240	9.210-9.270	9.239	0.000
$	28 Decachlorobiphenyl [C]	10.466	10.465	10.466	10.466	10.466	10.466	10.467	10.467	10.437-10.497	10.466	0.001
	29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.150-4.210	+++++	+++++
	30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.021-5.081	+++++	+++++
	31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.141-5.201	+++++	+++++
	32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.940-5.000	+++++	+++++
	33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.255-5.315	+++++	+++++
	34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.938-5.998	+++++	+++++
	35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.737-6.797	+++++	+++++
	36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.684-9.744	+++++	+++++
	37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.761-11.821	+++++	+++++
	38 Toxaphene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.126	7.096-7.156	+++++	+++++
	39 2,4-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.036	7.006-7.066	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.591	7.561-7.621	+++++	+++++
41 2,4-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.913	7.883-7.943	+++++	+++++
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.676	1.646-1.706	+++++	+++++
43 Oxychlordane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.741	6.711-6.771	+++++	+++++
44 trans-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.155	7.125-7.185	+++++	+++++
45 cis-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.975	7.945-8.005	+++++	+++++
46 Mirex [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.223	9.193-9.253	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.469-21.529	+++++	+++++
48 Chlordane (NOS) [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.612	5.582-5.642	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.841-4.901	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.610-6.670	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.085-8.145	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.256-11.316	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.497-6.557	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.312-6.372	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.811-6.871	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.306-7.366	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.715-7.775	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	22121412	22121413	22121414	22121415	22121416	22121417	22121418
INJ.DATE:	14-DEC-2022	14-DEC-2022	14-DEC-2022	14-DEC-2022	14-DEC-2022	15-DEC-2022	15-DEC-2022
INJ.TIME:	22:43	23:01	23:19	23:36	23:54	00:12	00:30

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.324	2.294-2.354	+++++	+++++
*	2 1Bromo-2nitrobenzene	3.151	3.151	3.151	3.151	3.151	3.151	3.151	3.151	3.121-3.181	3.151	0.000
*	3 Hexabromobiphenyl	9.504	9.504	9.504	9.504	9.504	9.504	9.504	9.505	9.475-9.535	9.504	0.000
$	4 Tetrachloro-m-xylene	+++++	+++++	+++++	+++++	3.800	3.800	3.800	3.828	3.798-3.858	3.800	0.000
	5 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.182	4.152-4.212	+++++	+++++
	6 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.342	4.312-4.372	+++++	+++++
	7 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.645	4.615-4.675	+++++	+++++
	8 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.726	4.696-4.756	+++++	+++++
	9 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.909	4.879-4.939	+++++	+++++
	10 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.130	5.100-5.160	+++++	+++++
	11 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.454	5.424-5.484	+++++	+++++
	12 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.597-13.657	+++++	+++++
	13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.839-10.899	+++++	+++++
	14 Heptachlor epoxide b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.130	6.100-6.160	+++++	+++++
	15 cis-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.417	6.387-6.447	+++++	+++++
	16 trans-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.271	6.241-6.301	+++++	+++++
	17 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.572	6.542-6.602	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	18 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.489	6.459-6.519	+++++	+++++
	19 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.831	6.801-6.861	+++++	+++++
	20 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.081	7.051-7.111	+++++	+++++
	21 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.135	7.105-7.165	+++++	+++++
	22 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.317	7.287-7.347	+++++	+++++
	23 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.427	7.397-7.457	+++++	+++++
	24 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.746	7.716-7.776	+++++	+++++
	25 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.912	7.882-7.942	+++++	+++++
	26 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.180	8.150-8.210	+++++	+++++
	27 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.453	8.423-8.483	+++++	+++++
$	28 Decachlorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.355	9.325-9.385	+++++	+++++
	29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
	30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.851-4.911	+++++	+++++
	31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.329-5.389	+++++	+++++
	32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
	33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.388-4.448	+++++	+++++
	34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.227-5.287	+++++	+++++
	35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	6.015-6.075	+++++	+++++
	36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.271-8.331	+++++	+++++
	37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.229-11.289	+++++	+++++
	38 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.931	6.901-6.961	+++++	+++++
	39 2,4-DDE	6.106	6.106	6.106	6.106	6.106	6.106	6.106	6.106	6.076-6.136	6.106	0.000

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	6.681	6.681	6.681	6.681	6.681	6.681	6.680	6.681	6.651-6.711	6.681	0.000
41 2,4-DDT	6.956	6.957	6.956	6.956	6.957	6.956	6.956	6.957	6.927-6.987	6.956	0.000
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.774	1.744-1.804	+++++	+++++
43 Oxychlordane	6.014	6.015	6.014	6.015	6.014	6.014	6.014	6.014	5.984-6.044	6.015	0.000
44 trans-Nonachlor	6.397	6.398	6.398	6.398	6.397	6.397	6.397	6.397	6.367-6.427	6.398	0.000
45 cis-Nonachlor	7.112	7.112	7.111	7.112	7.112	7.112	7.112	7.112	7.082-7.142	7.112	0.000
46 Mirex	8.082	8.082	8.082	8.082	8.082	8.082	8.082	8.082	8.052-8.112	8.082	0.000
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.126-20.186	+++++	+++++
48 Chlordane (NOS)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.593	5.563-5.623	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.289-6.349	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.906-9.966	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.861-11.921	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.797-14.857	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.720-9.780	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.077-9.137	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.221-10.281	+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.588	6.558-6.618	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.923-6.983	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	22121412	22121413	22121414	22121415	22121416	22121417	22121418
INJ.DATE:	14-DEC-2022	14-DEC-2022	14-DEC-2022	14-DEC-2022	14-DEC-2022	15-DEC-2022	15-DEC-2022
INJ.TIME:	22:43	23:01	23:19	23:36	23:54	00:12	00:30

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 Hexachlorobutadiene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.501	2.471-2.531	+++++	+++++
*	2 1Bromo-2nitrobenzene [	3.351	3.351	3.351	3.351	3.351	3.351	3.351	3.351	3.321-3.381	3.351	0.000
*	3 Hexabromobiphenyl[C]	11.054	11.054	11.054	11.054	11.054	11.054	11.054	11.054	11.024-11.084	11.054	0.000
$	4 Tetrachloro-m-xylene [	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.220	4.190-4.250	+++++	+++++
	5 Hexachlorobenzene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.718	4.688-4.748	+++++	+++++
	6 alpha-BHC [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.861	4.831-4.891	+++++	+++++
	7 gamma-BHC (Lindane) [C	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.258	5.228-5.288	+++++	+++++
	8 beta-BHC [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.337	5.307-5.367	+++++	+++++
	9 delta-BHC [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.691	5.661-5.721	+++++	+++++
	10 Heptachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.787	5.757-5.817	+++++	+++++
	11 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.558-14.618	+++++	+++++
	12 Aldrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.191	6.161-6.221	+++++	+++++
	13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.650-12.710	+++++	+++++
	14 Heptachlor epoxide b [	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.845	6.815-6.875	+++++	+++++
	15 cis-Chlordane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.216	7.186-7.246	+++++	+++++
	16 trans-Chlordane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.056	7.026-7.086	+++++	+++++
	17 Endosulfan I [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.289	7.259-7.319	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	18 4,4'-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.371	7.341-7.401	+++++	+++++
	19 Dieldrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.583	7.553-7.613	+++++	+++++
	20 Endrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.907	7.877-7.937	+++++	+++++
	21 4,4'-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.976	7.946-8.006	+++++	+++++
	22 Endosulfan II [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.117	8.087-8.147	+++++	+++++
	23 4,4'-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.295	8.265-8.325	+++++	+++++
	24 Endrin aldehyde [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.448	8.418-8.478	+++++	+++++
	25 Endosulfan sulfate [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.715	8.685-8.745	+++++	+++++
	26 Methoxychlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.936	8.906-8.966	+++++	+++++
	27 Endrin ketone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.240	9.210-9.270	+++++	+++++
$	28 Decachlorobiphenyl [C]	+++++	+++++	+++++	+++++	+++++	+++++	10.471	10.467	10.437-10.497	10.471	0.000
	29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.150-4.210	+++++	+++++
	30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.021-5.081	+++++	+++++
	31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.141-5.201	+++++	+++++
	32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.940-5.000	+++++	+++++
	33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.255-5.315	+++++	+++++
	34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.938-5.998	+++++	+++++
	35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.737-6.797	+++++	+++++
	36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.684-9.744	+++++	+++++
	37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.761-11.821	+++++	+++++
	38 Toxaphene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.126	7.096-7.156	+++++	+++++
	39 2,4-DDE [C]	7.036	7.036	7.035	7.036	7.036	7.036	7.036	7.036	7.006-7.066	7.036	0.000

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD [C]	7.591	7.590	7.590	7.591	7.590	7.591	7.591	7.591	7.561-7.621	7.591	0.000
41 2,4-DDT [C]	7.913	7.914	7.913	7.913	7.913	7.914	7.913	7.913	7.883-7.943	7.913	0.000
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.676	1.646-1.706	+++++	+++++
43 Oxychlordane [C]	6.741	6.741	6.741	6.741	6.741	6.741	6.741	6.741	6.711-6.771	6.741	0.000
44 trans-Nonachlor [C]	7.154	7.154	7.154	7.155	7.154	7.155	7.155	7.155	7.125-7.185	7.154	0.000
45 cis-Nonachlor [C]	7.975	7.975	7.975	7.975	7.975	7.975	7.975	7.975	7.945-8.005	7.975	0.000
46 Mirex [C]	9.223	9.223	9.222	9.223	9.222	9.223	9.223	9.223	9.193-9.253	9.223	0.000
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.469-21.529	+++++	+++++
48 Chlordane (NOS) [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.612	5.582-5.642	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.841-4.901	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.610-6.670	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.085-8.145	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.256-11.316	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.497-6.557	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.312-6.372	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.811-6.871	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.306-7.366	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.715-7.775	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	22121421	22121422	22121423	22121424	22121425	22121426	22121427
INJ.DATE:	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022
INJ.TIME:	01:24	01:42	01:59	02:17	02:35	02:53	03:11

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.324	2.294-2.354	+++++	+++++
*	2 1Bromo-2nitrobenzene	3.151	3.151	3.151	3.151	3.151	3.151	3.151	3.151	3.121-3.181	3.151	0.000
*	3 Hexabromobiphenyl	9.504	9.504	9.505	9.504	9.504	9.504	9.505	9.505	9.475-9.535	9.504	0.000
$	4 Tetrachloro-m-xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.828	3.798-3.858	+++++	+++++
	5 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.182	4.152-4.212	+++++	+++++
	6 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.342	4.312-4.372	+++++	+++++
	7 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.645	4.615-4.675	+++++	+++++
	8 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.726	4.696-4.756	+++++	+++++
	9 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.909	4.879-4.939	+++++	+++++
	10 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.130	5.100-5.160	+++++	+++++
	11 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.454	5.424-5.484	+++++	+++++
	12 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.597-13.657	+++++	+++++
	13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.839-10.899	+++++	+++++
	14 Heptachlor epoxide b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.130	6.100-6.160	+++++	+++++
	15 cis-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.417	6.387-6.447	+++++	+++++
	16 trans-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.271	6.241-6.301	+++++	+++++
	17 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.572	6.542-6.602	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	18 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.489	6.459-6.519	+++++	+++++
	19 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.831	6.801-6.861	+++++	+++++
	20 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.081	7.051-7.111	+++++	+++++
	21 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.135	7.105-7.165	+++++	+++++
	22 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.317	7.287-7.347	+++++	+++++
	23 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.427	7.397-7.457	+++++	+++++
	24 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.746	7.716-7.776	+++++	+++++
	25 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.912	7.882-7.942	+++++	+++++
	26 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.180	8.150-8.210	+++++	+++++
	27 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.453	8.423-8.483	+++++	+++++
$	28 Decachlorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	9.380	9.355	9.325-9.385	9.380	0.000
	29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
	30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.851-4.911	+++++	+++++
	31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.329-5.389	+++++	+++++
	32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
	33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.388-4.448	+++++	+++++
	34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.227-5.287	+++++	+++++
	35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	6.015-6.075	+++++	+++++
	36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.271-8.331	+++++	+++++
	37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.229-11.289	+++++	+++++
	38 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.931	6.901-6.961	+++++	+++++
	39 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.106	6.076-6.136	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.681	6.651-6.711	+++++	+++++
41 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.957	6.927-6.987	+++++	+++++
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.774	1.744-1.804	+++++	+++++
43 Oxychlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.014	5.984-6.044	+++++	+++++
44 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.397	6.367-6.427	+++++	+++++
45 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.112	7.082-7.142	+++++	+++++
46 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.082	8.052-8.112	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.126-20.186	+++++	+++++
48 Chlordane (NOS)	5.593	5.593	5.593	5.593	5.593	5.592	5.593	5.593	5.563-5.623	5.593	0.000
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.289-6.349	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.906-9.966	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.861-11.921	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.797-14.857	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.720-9.780	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.077-9.137	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.221-10.281	+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.588	6.558-6.618	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.923-6.983	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	22121421	22121422	22121423	22121424	22121425	22121426	22121427
INJ.DATE:	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022
INJ.TIME:	01:24	01:42	01:59	02:17	02:35	02:53	03:11

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 Hexachlorobutadiene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.501	2.471-2.531	+++++	+++++
*	2 1Bromo-2nitrobenzene [	3.351	3.351	3.351	3.351	3.351	3.351	3.351	3.351	3.321-3.381	3.351	0.000
*	3 Hexabromobiphenyl[C]	11.054	11.055	11.054	11.054	11.054	11.054	11.054	11.054	11.024-11.084	11.054	0.000
$	4 Tetrachloro-m-xylene [	4.215	+++++	+++++	+++++	+++++	+++++	+++++	4.220	4.190-4.250	4.215	0.000
	5 Hexachlorobenzene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.718	4.688-4.748	+++++	+++++
	6 alpha-BHC [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.861	4.831-4.891	+++++	+++++
	7 gamma-BHC (Lindane) [C	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.258	5.228-5.288	+++++	+++++
	8 beta-BHC [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.337	5.307-5.367	+++++	+++++
	9 delta-BHC [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.691	5.661-5.721	+++++	+++++
	10 Heptachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.787	5.757-5.817	+++++	+++++
	11 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.558-14.618	+++++	+++++
	12 Aldrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.191	6.161-6.221	+++++	+++++
	13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.650-12.710	+++++	+++++
	14 Heptachlor epoxide b [	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.845	6.815-6.875	+++++	+++++
	15 cis-Chlordane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.216	7.186-7.246	+++++	+++++
	16 trans-Chlordane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.056	7.026-7.086	+++++	+++++
	17 Endosulfan I [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.289	7.259-7.319	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	18 4,4'-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.371	7.341-7.401	+++++	+++++
	19 Dieldrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.583	7.553-7.613	+++++	+++++
	20 Endrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.907	7.877-7.937	+++++	+++++
	21 4,4'-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.976	7.946-8.006	+++++	+++++
	22 Endosulfan II [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.117	8.087-8.147	+++++	+++++
	23 4,4'-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.295	8.265-8.325	+++++	+++++
	24 Endrin aldehyde [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.448	8.418-8.478	+++++	+++++
	25 Endosulfan sulfate [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.715	8.685-8.745	+++++	+++++
	26 Methoxychlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.936	8.906-8.966	+++++	+++++
	27 Endrin ketone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.240	9.210-9.270	+++++	+++++
$	28 Decachlorobiphenyl [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.467	10.437-10.497	+++++	+++++
	29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.150-4.210	+++++	+++++
	30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.021-5.081	+++++	+++++
	31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.141-5.201	+++++	+++++
	32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.940-5.000	+++++	+++++
	33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.255-5.315	+++++	+++++
	34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.938-5.998	+++++	+++++
	35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.737-6.797	+++++	+++++
	36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.684-9.744	+++++	+++++
	37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.761-11.821	+++++	+++++
	38 Toxaphene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.126	7.096-7.156	+++++	+++++
	39 2,4-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.036	7.006-7.066	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.591	7.561-7.621	+++++	+++++
41 2,4-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.913	7.883-7.943	+++++	+++++
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.676	1.646-1.706	+++++	+++++
43 Oxychlordane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.741	6.711-6.771	+++++	+++++
44 trans-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.155	7.125-7.185	+++++	+++++
45 cis-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.975	7.945-8.005	+++++	+++++
46 Mirex [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.223	9.193-9.253	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.469-21.529	+++++	+++++
48 Chlordane (NOS) [C]	5.612	5.612	5.612	5.611	5.612	5.612	5.612	5.612	5.582-5.642	5.612	0.000
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.841-4.901	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.610-6.670	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.085-8.145	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.256-11.316	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.497-6.557	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.312-6.372	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.811-6.871	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.306-7.366	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.715-7.775	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	22121428	22121429	22121430	22121431	22121432	22121433	22121434
INJ.DATE:	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022
INJ.TIME:	03:29	03:46	04:04	04:22	04:40	04:58	05:16

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.324	2.294-2.354	+++++	+++++
*	2 1Bromo-2nitrobenzene	3.151	3.151	3.151	3.151	3.151	3.151	3.151	3.151	3.121-3.181	3.151	0.000
*	3 Hexabromobiphenyl	9.505	9.504	9.504	9.504	9.505	9.504	9.504	9.505	9.475-9.535	9.504	0.000
$	4 Tetrachloro-m-xylene	3.828	3.828	3.828	3.828	3.828	3.828	3.828	3.828	3.798-3.858	3.828	0.000
	5 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.182	4.152-4.212	+++++	+++++
	6 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.342	4.312-4.372	+++++	+++++
	7 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.645	4.615-4.675	+++++	+++++
	8 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.726	4.696-4.756	+++++	+++++
	9 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.909	4.879-4.939	+++++	+++++
	10 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.130	5.100-5.160	+++++	+++++
	11 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.454	5.424-5.484	+++++	+++++
	12 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.597-13.657	+++++	+++++
	13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.839-10.899	+++++	+++++
	14 Heptachlor epoxide b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.130	6.100-6.160	+++++	+++++
	15 cis-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.417	6.387-6.447	+++++	+++++
	16 trans-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.271	6.241-6.301	+++++	+++++
	17 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.572	6.542-6.602	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	18 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.489	6.459-6.519	+++++	+++++
	19 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.831	6.801-6.861	+++++	+++++
	20 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.081	7.051-7.111	+++++	+++++
	21 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.135	7.105-7.165	+++++	+++++
	22 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.317	7.287-7.347	+++++	+++++
	23 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.427	7.397-7.457	+++++	+++++
	24 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.746	7.716-7.776	+++++	+++++
	25 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.912	7.882-7.942	+++++	+++++
	26 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.180	8.150-8.210	+++++	+++++
	27 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.453	8.423-8.483	+++++	+++++
$	28 Decachlorobiphenyl	9.355	9.355	9.355	9.355	9.356	9.356	9.355	9.355	9.325-9.385	9.356	0.000
	29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
	30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.851-4.911	+++++	+++++
	31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.329-5.389	+++++	+++++
	32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
	33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.388-4.448	+++++	+++++
	34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.227-5.287	+++++	+++++
	35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	6.015-6.075	+++++	+++++
	36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.271-8.331	+++++	+++++
	37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.229-11.289	+++++	+++++
	38 Toxaphene	6.931	6.931	6.931	6.931	6.931	6.931	6.931	6.931	6.901-6.961	6.931	0.000
	39 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.106	6.076-6.136	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.681	6.651-6.711	+++++	+++++
41 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.957	6.927-6.987	+++++	+++++
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.774	1.744-1.804	+++++	+++++
43 Oxychlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.014	5.984-6.044	+++++	+++++
44 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.397	6.367-6.427	+++++	+++++
45 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.112	7.082-7.142	+++++	+++++
46 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.082	8.052-8.112	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.126-20.186	+++++	+++++
48 Chlordane (NOS)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.593	5.563-5.623	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.289-6.349	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.906-9.966	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.861-11.921	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.797-14.857	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.720-9.780	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.077-9.137	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.221-10.281	+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.588	6.558-6.618	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.923-6.983	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	22121428	22121429	22121430	22121431	22121432	22121433	22121434
INJ.DATE:	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022	15-DEC-2022
INJ.TIME:	03:29	03:46	04:04	04:22	04:40	04:58	05:16

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 Hexachlorobutadiene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.501	2.471-2.531	+++++	+++++
*	2 1Bromo-2nitrobenzene [	3.351	3.351	3.351	3.351	3.351	3.351	3.351	3.351	3.321-3.381	3.351	0.000
*	3 Hexabromobiphenyl[C]	11.055	11.054	11.054	11.055	11.054	11.054	11.054	11.054	11.024-11.084	11.054	0.000
$	4 Tetrachloro-m-xylene [	4.221	4.220	4.220	4.221	4.221	4.221	4.221	4.220	4.190-4.250	4.221	0.000
	5 Hexachlorobenzene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.718	4.688-4.748	+++++	+++++
	6 alpha-BHC [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.861	4.831-4.891	+++++	+++++
	7 gamma-BHC (Lindane) [C	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.258	5.228-5.288	+++++	+++++
	8 beta-BHC [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.337	5.307-5.367	+++++	+++++
	9 delta-BHC [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.691	5.661-5.721	+++++	+++++
	10 Heptachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.787	5.757-5.817	+++++	+++++
	11 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.558-14.618	+++++	+++++
	12 Aldrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.191	6.161-6.221	+++++	+++++
	13 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.650-12.710	+++++	+++++
	14 Heptachlor epoxide b [	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.845	6.815-6.875	+++++	+++++
	15 cis-Chlordane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.216	7.186-7.246	+++++	+++++
	16 trans-Chlordane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.056	7.026-7.086	+++++	+++++
	17 Endosulfan I [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.289	7.259-7.319	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	18 4,4'-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.371	7.341-7.401	+++++	+++++
	19 Dieldrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.583	7.553-7.613	+++++	+++++
	20 Endrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.907	7.877-7.937	+++++	+++++
	21 4,4'-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.976	7.946-8.006	+++++	+++++
	22 Endosulfan II [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.117	8.087-8.147	+++++	+++++
	23 4,4'-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.295	8.265-8.325	+++++	+++++
	24 Endrin aldehyde [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.448	8.418-8.478	+++++	+++++
	25 Endosulfan sulfate [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.715	8.685-8.745	+++++	+++++
	26 Methoxychlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.936	8.906-8.966	+++++	+++++
	27 Endrin ketone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.240	9.210-9.270	+++++	+++++
$	28 Decachlorobiphenyl [C]	10.467	10.467	10.467	10.466	10.466	10.466	10.467	10.467	10.437-10.497	10.466	0.000
	29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.150-4.210	+++++	+++++
	30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.021-5.081	+++++	+++++
	31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.141-5.201	+++++	+++++
	32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.940-5.000	+++++	+++++
	33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.255-5.315	+++++	+++++
	34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.938-5.998	+++++	+++++
	35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.737-6.797	+++++	+++++
	36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.684-9.744	+++++	+++++
	37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.761-11.821	+++++	+++++
	38 Toxaphene [C]	7.125	7.125	7.125	7.125	7.126	7.126	7.126	7.126	7.096-7.156	7.125	0.000
	39 2,4-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.036	7.006-7.066	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.591	7.561-7.621	+++++	+++++
41 2,4-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.913	7.883-7.943	+++++	+++++
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.676	1.646-1.706	+++++	+++++
43 Oxychlordane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.741	6.711-6.771	+++++	+++++
44 trans-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.155	7.125-7.185	+++++	+++++
45 cis-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.975	7.945-8.005	+++++	+++++
46 Mirex [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.223	9.193-9.253	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.469-21.529	+++++	+++++
48 Chlordane (NOS) [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.612	5.582-5.642	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.841-4.901	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.610-6.670	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.085-8.145	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.256-11.316	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.497-6.557	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.312-6.372	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.811-6.871	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.306-7.366	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.715-7.775	+++++	+++++

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121403.D
Data file 2: /20221214.b/B20221214.b/22121403.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-IBL1
Client ID:
Injection Date: 14-DEC-2022 20:02
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	alpha-BHC
----			----			0.00	0.00	---	beta-BHC
----			----			0.00	0.00	---	delta-BHC
----			----			0.00	0.00	---	gamma-BHC (Lindane)
----			----			0.00	0.00	---	Heptachlor
----			----			0.00	0.00	---	Aldrin
----			6.824	-0.021	2291	0.00	0.14	---	Heptachlor epoxide b
----			----			0.00	0.00	---	Endosulfan I
----			7.597	0.015	1696	0.00	0.11	---	Dieldrin
----			----			0.00	0.00	---	4,4'-DDE
----			----			0.00	0.00	---	Endrin
----			8.135	0.018	285	0.00	0.02	---	Endosulfan II
----			7.975	-0.002	1369	0.00	0.12	---	4,4'-DDD
----			8.720	0.005	243	0.00	0.02	---	Endosulfan sulfate
----			----			0.00	0.00	---	4,4'-DDT
----			8.924	-0.013	546	0.00	0.11	---	Methoxychlor
8.444	-0.009	1962	9.226	-0.013	2888	0.23	0.25	10.1	Endrin ketone
----			----			0.00	0.00	---	Endrin aldehyde
----			7.070	0.014	4708	0.00	0.30	---	trans-Chlordane
----			7.219	0.003	810	0.00	0.05	---	cis-Chlordane
2.351	0.028	6378	2.512	0.012	33421	0.42	1.60	116.6*	Hexachlorobutadiene
4.183	0.001	4869	4.721	0.003	421	0.36	0.02	178.1*	Hexachlorobenzene
3.828	0.000	375293	4.220	-0.000	579767	36.70	37.46	2.1	Tetrachloro-m-xylene
9.356	0.001	243291	10.467	0.000	323668	35.86	35.40	1.3	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

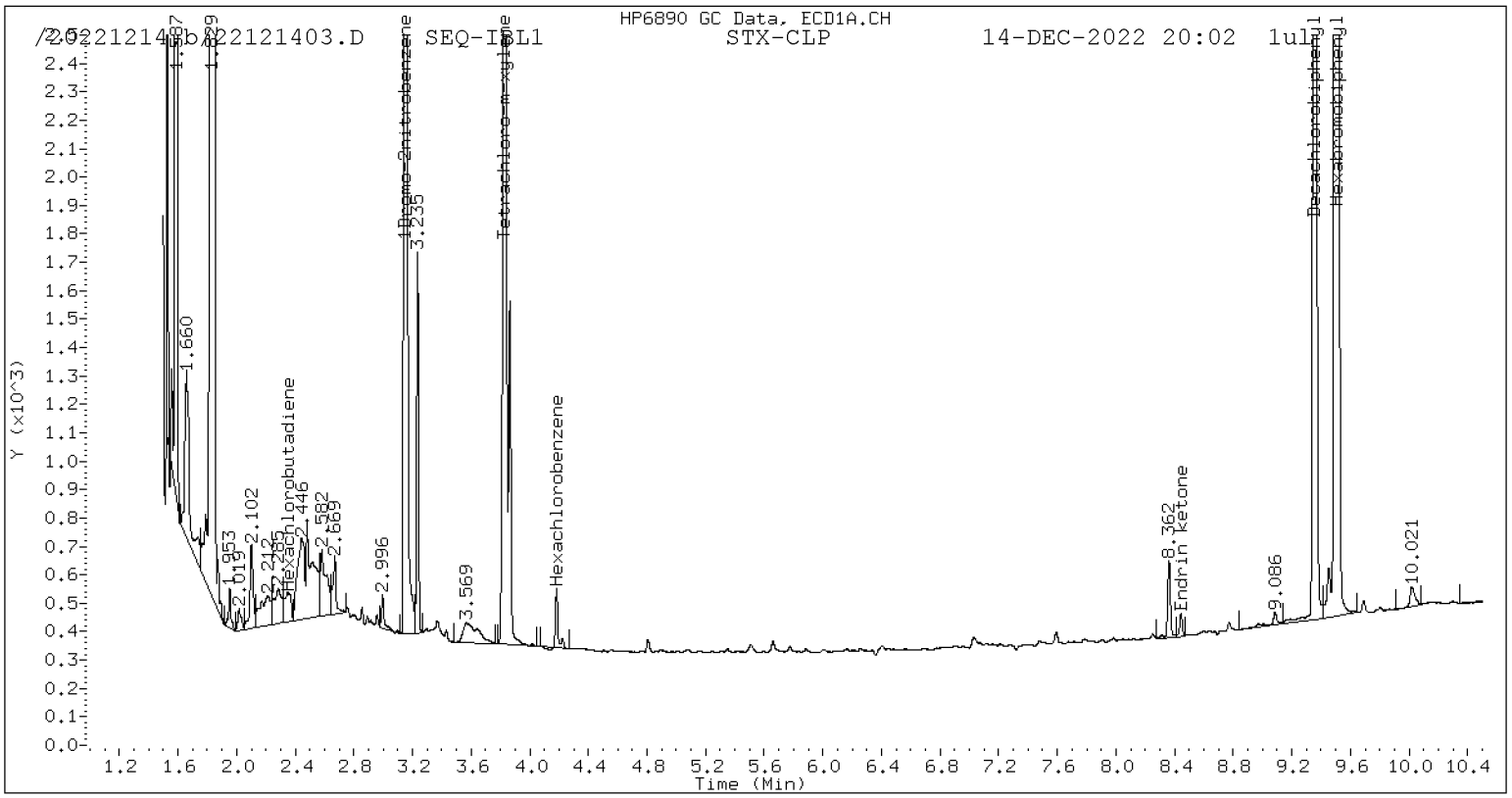
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	751998	5.8
Hexabromobiphenyl	641833	669495	4.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1099555	3.8
Hexabromobiphenyl	797125	827325	3.8

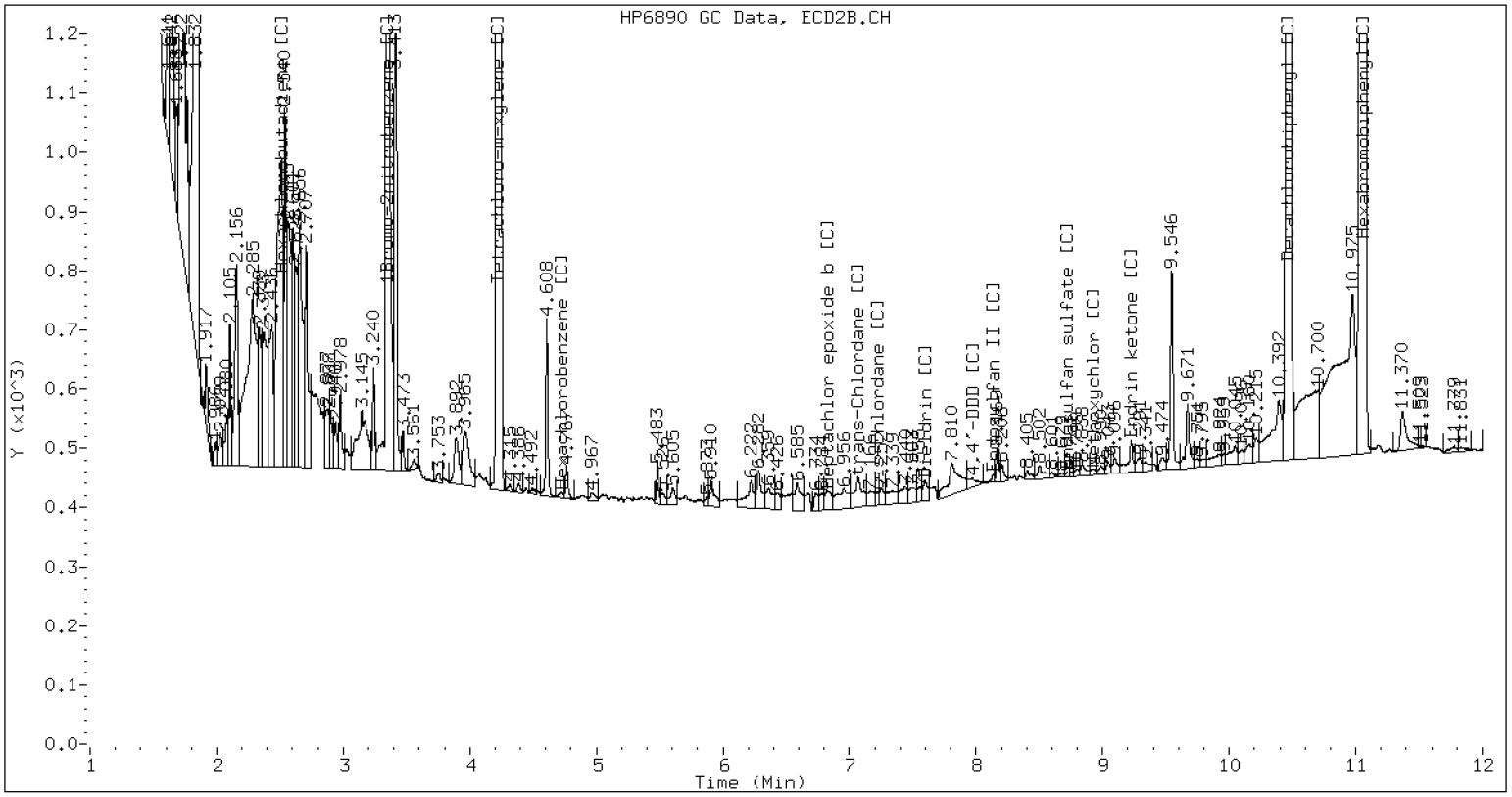
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121403.D SEQ-IBL1 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121403.D
Data file 2: /20221214.b/B20221214.b/22121403.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-IBL1
Client ID:
Injection Date: 14-DEC-2022 20:02
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SEQ-PEM1 InstID,Data File: ecd6.i, 22121404.D

Analysis Date: 14-DEC-2022 20:20 Init. Calib. Date: 14-DEC-2022

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene	3.151	683485
4,4'-DDE	6.490	6258
Endrin	7.082	745471
4,4'-DDD	7.136	15566
4,4'-DDT	7.428	629664
Endrin ketone	8.453	19276
Endrin aldehyde	7.747	21328
Hexabromobiphenyl	9.504	619012
Tetrachloro-m-xylene	3.828	1161664
Decachlorobiphenyl	9.355	833312

DDT Percent Breakdown = 3.3 %
((6258+15566) * 100)/(6258+15566+629664)

Endrin Percent Breakdown = 5.2 %
((21328+19276) * 100)/(21328+19276+745471)

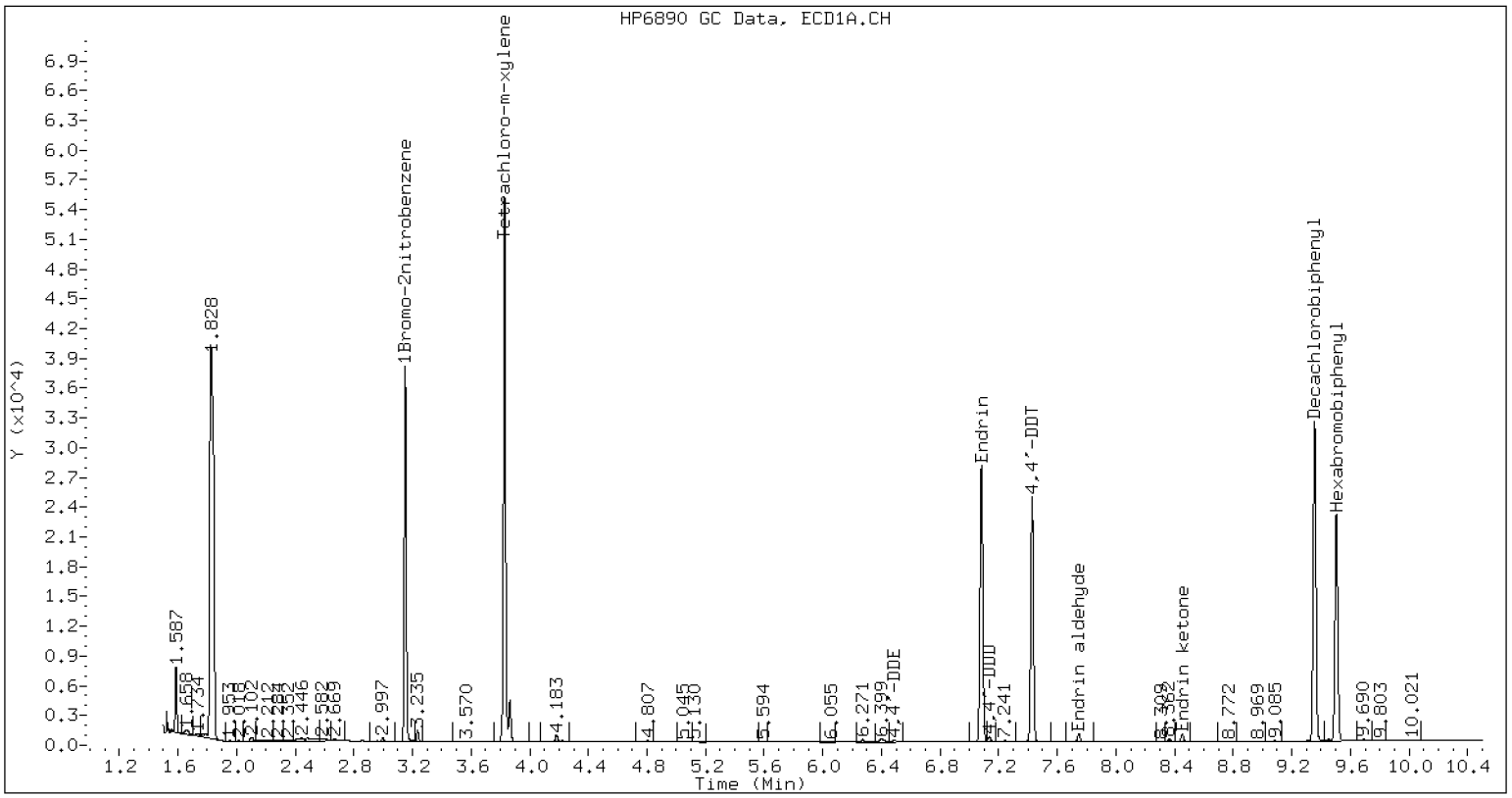
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene [C]	3.350	1005375
4,4'-DDE [C]	7.370	11906
Endrin [C]	7.907	1029194
4,4'-DDD [C]	7.977	32697
4,4'-DDT [C]	8.295	890195
Endrin ketone [C]	9.239	28268
Endrin aldehyde [C]	8.448	31426
Hexabromobiphenyl[C]	11.054	772586
Tetrachloro-m-xylene [C]	4.220	1890294
Decachlorobiphenyl [C]	10.467	1140978

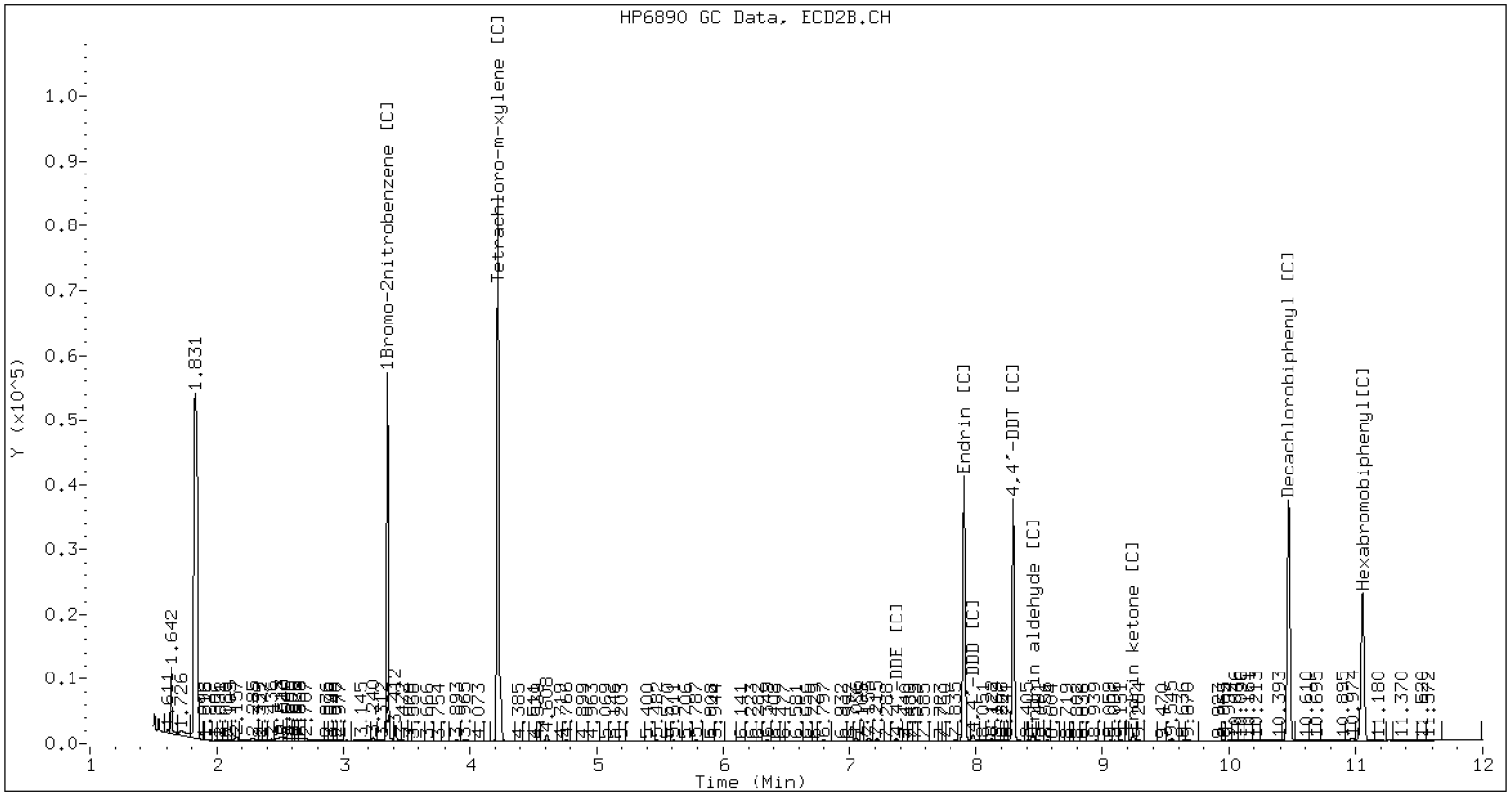
DDT Percent Breakdown = 4.8 %
((11906+32697) * 100)/(11906+32697+890195)

Endrin Percent Breakdown = 5.5 %
((31426+28268) * 100)/(31426+28268+1029194)

/20221214.b/22121404.D SEQ-PEM1 STX-CLP 14-DEC-2022 20:20 1ul



/20221214.b/B20221214.b/22121404.D SEQ-PEM1 CLP2 14-DEC-2022



7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SEQ-PEM1 InstID,Data File: ecd6.i, 22121404.D

Analysis Date: 14-DEC-2022 20:20 Init. Calib. Date: 14-DEC-2022

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene	3.151	683485
4,4'-DDE	6.490	6258
Endrin	7.082	745471
4,4'-DDD	7.136	15566
4,4'-DDT	7.428	629664
Endrin ketone	8.453	19276
Endrin aldehyde	7.747	21328
Hexabromobiphenyl	9.504	619012
Tetrachloro-m-xylene	3.828	1161664
Decachlorobiphenyl	9.355	833312

DDT Percent Breakdown = 3.3 %
((6258+15566) * 100)/(6258+15566+629664)

Endrin Percent Breakdown = 5.2 %
((21328+19276) * 100)/(21328+19276+745471)

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312

Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121405.D
Data file 2: /20221214.b/B20221214.b/22121405.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL1
Client ID:
Injection Date: 14-DEC-2022 20:38
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.342	-0.000	17720	4.860	-0.001	25579	1.30	1.22	6.4	alpha-BHC
4.726	-0.000	7513	5.337	-0.000	10927	1.43	1.37	4.4	beta-BHC
4.909	-0.000	14050	5.690	-0.000	21188	1.26	1.23	2.8	delta-BHC
4.645	-0.000	15329	5.257	-0.001	21981	1.30	1.24	4.9	gamma-BHC (Lindane)
5.130	-0.000	14540	5.786	-0.000	20395	1.38	1.27	8.9	Heptachlor
5.453	-0.001	15026	6.190	-0.001	24413	1.28	1.33	3.9	Aldrin
6.130	0.000	13937	6.845	-0.000	21959	1.37	1.44	5.6	Heptachlor epoxide b
6.572	-0.000	13220	7.288	-0.000	19257	1.41	1.44	1.8	Endosulfan I
6.831	0.000	27285	7.582	-0.001	43580	2.71	2.94	8.2	Dieldrin
6.489	0.000	25951	7.370	-0.001	37722	2.78	2.78	0.0	4,4'-DDE
7.081	0.000	24429	7.906	-0.001	31381	2.94	2.78	5.3	Endrin
7.318	0.001	19827	8.117	-0.000	30675	2.65	2.66	0.3	Endosulfan II
7.135	0.000	20434	7.976	-0.000	28995	2.73	2.65	3.0	4,4'-DDD
8.180	-0.000	19661	8.715	-0.000	26689	2.76	2.63	4.9	Endosulfan sulfate
7.427	0.000	20071	8.294	-0.001	26950	2.65	2.55	3.9	4,4'-DDT
7.912	-0.000	52385	8.935	-0.001	65896	15.60	14.07	10.3	Methoxychlor
8.453	-0.001	24276	9.239	-0.000	30129	2.98	2.75	8.0	Endrin ketone
7.746	-0.000	17209	8.448	-0.000	21218	2.88	2.60	10.1	Endrin aldehyde
6.270	-0.001	14829	7.056	-0.000	22517	1.43	1.48	3.7	trans-Chlordane
6.417	0.000	15767	7.215	-0.000	22150	1.52	1.49	1.6	cis-Chlordane
2.323	-0.001	27320	2.500	-0.001	42655	1.92	2.14	11.3	Hexachlorobutadiene
4.182	0.000	18555	4.718	-0.000	27377	1.47	1.44	2.2	Hexachlorobenzene
3.828	-0.000	28792	4.220	-0.001	41270	2.99	2.80	6.5	Tetrachloro-m-xylene
9.355	-0.000	21954	10.466	-0.000	30646	3.41	3.50	2.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

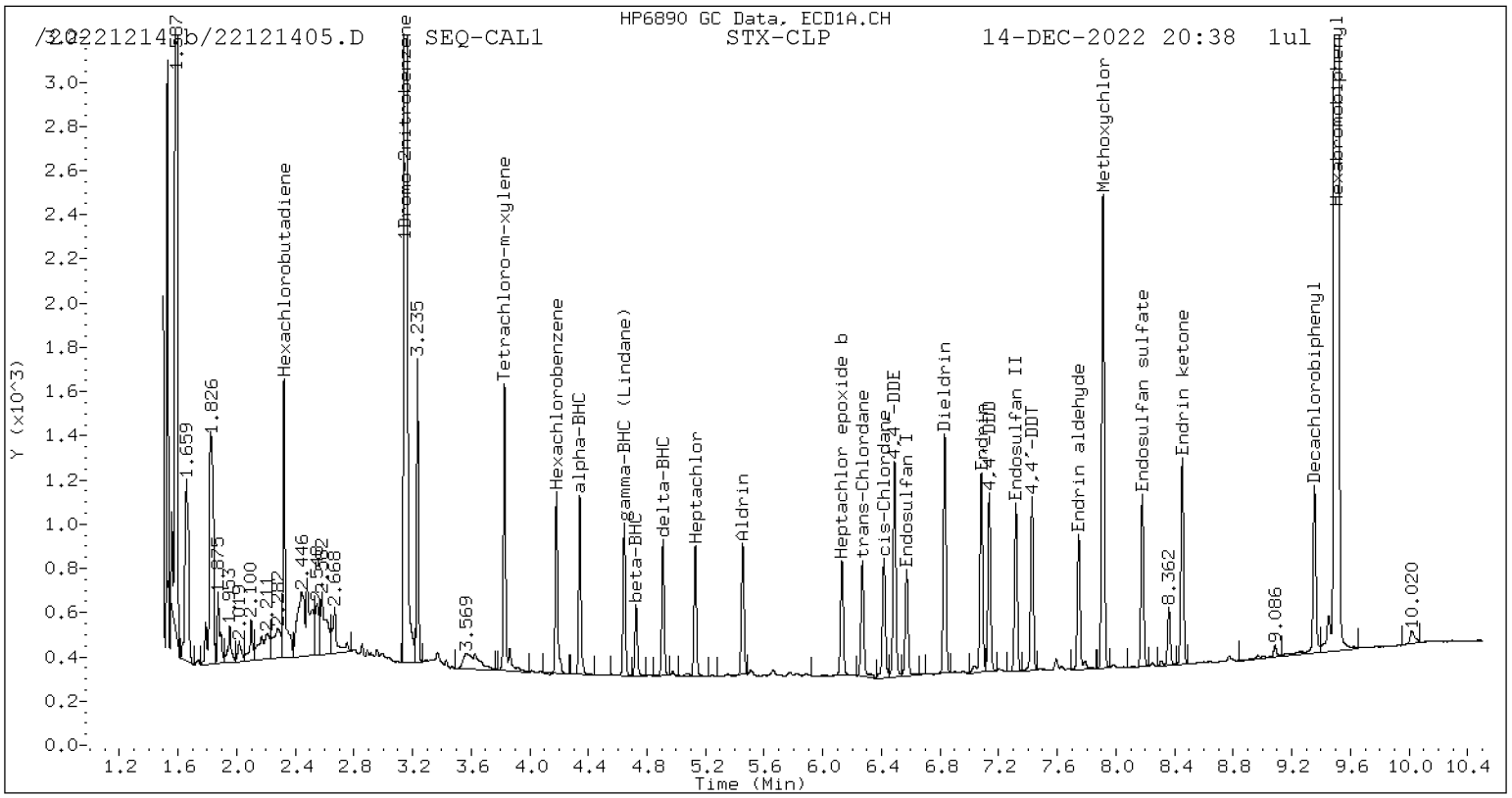
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	707324	-0.5
Hexabromobiphenyl	641833	634819	-1.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1045524	-1.3
Hexabromobiphenyl	797125	792558	-0.6

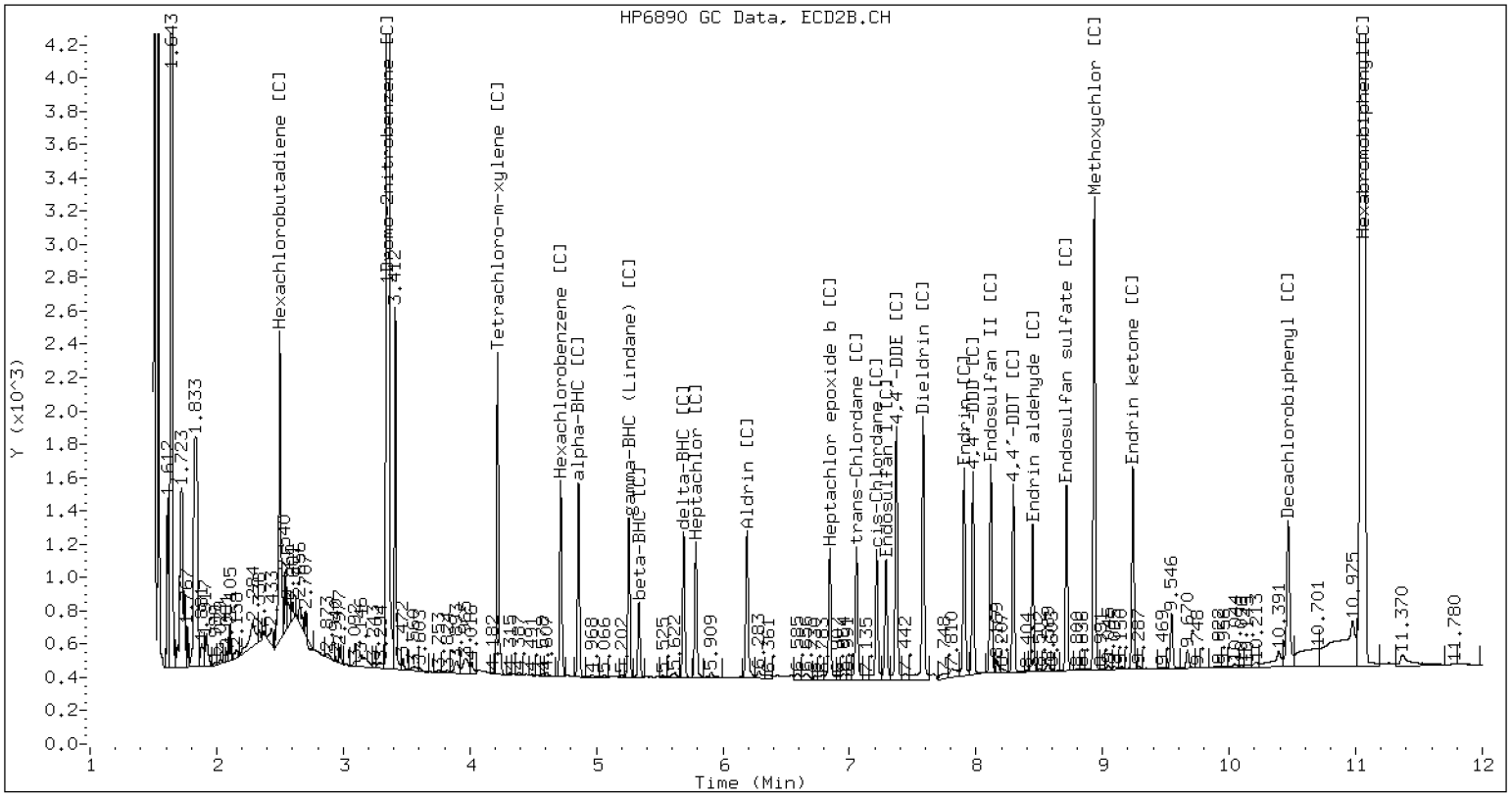
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121405.D SEQ-CAL1 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121405.D
Data file 2: /20221214.b/B20221214.b/22121405.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL1
Client ID:
Injection Date: 14-DEC-2022 20:38
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121406.D
Data file 2: /20221214.b/B20221214.b/22121406.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL2
Client ID:
Injection Date: 14-DEC-2022 20:56
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.342	-0.000	35088	4.859	-0.001	52514	2.54	2.47	2.9	alpha-BHC
4.726	-0.000	14580	5.337	-0.000	21664	2.74	2.68	2.4	beta-BHC
4.909	-0.000	28429	5.691	-0.000	43932	2.52	2.51	0.5	delta-BHC
4.645	0.000	30588	5.257	-0.001	44971	2.55	2.49	2.5	gamma-BHC (Lindane)
5.129	-0.001	28458	5.787	-0.000	42156	2.67	2.58	3.6	Heptachlor
5.453	-0.001	30273	6.190	-0.001	50159	2.53	2.69	5.8	Aldrin
6.130	-0.001	27608	6.845	-0.001	43067	2.67	2.79	4.5	Heptachlor epoxide b
6.572	-0.000	25650	7.288	-0.001	37112	2.70	2.73	1.0	Endosulfan I
6.832	0.000	54960	7.582	-0.001	84296	5.38	5.60	4.0	Dieldrin
6.489	-0.000	51182	7.370	-0.001	74355	5.40	5.39	0.2	4,4'-DDE
7.081	0.000	46577	7.906	-0.001	63434	5.52	5.52	0.1	Endrin
7.317	0.001	37804	8.116	-0.001	65448	4.98	5.56	11.1	Endosulfan II
7.136	0.001	40399	7.976	-0.001	62302	5.32	5.58	4.8	4,4'-DDD
8.179	-0.001	38342	8.714	-0.001	57421	5.32	5.56	4.4	Endosulfan sulfate
7.427	-0.000	40499	8.294	-0.001	59346	5.27	5.51	4.3	4,4'-DDT
7.912	-0.000	98271	8.934	-0.002	130815	28.88	27.42	5.2	Methoxychlor
8.452	-0.001	45639	9.239	-0.001	62360	5.53	5.59	1.1	Endrin ketone
7.746	0.000	32847	8.447	-0.001	47592	5.42	5.73	5.6	Endrin aldehyde
6.271	0.000	28307	7.055	-0.001	41633	2.69	2.70	0.4	trans-Chlordane
6.417	0.000	29336	7.215	-0.000	41766	2.78	2.77	0.3	cis-Chlordane
2.323	-0.001	44113	2.500	-0.001	65565	3.05	3.24	6.2	Hexachlorobutadiene
4.182	-0.000	35520	4.718	-0.000	53173	2.77	2.75	0.9	Hexachlorobenzene
3.828	-0.000	54873	4.220	-0.001	81034	5.62	5.42	3.7	Tetrachloro-m-xylene
9.354	-0.001	38477	10.465	-0.001	54866	5.90	6.15	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

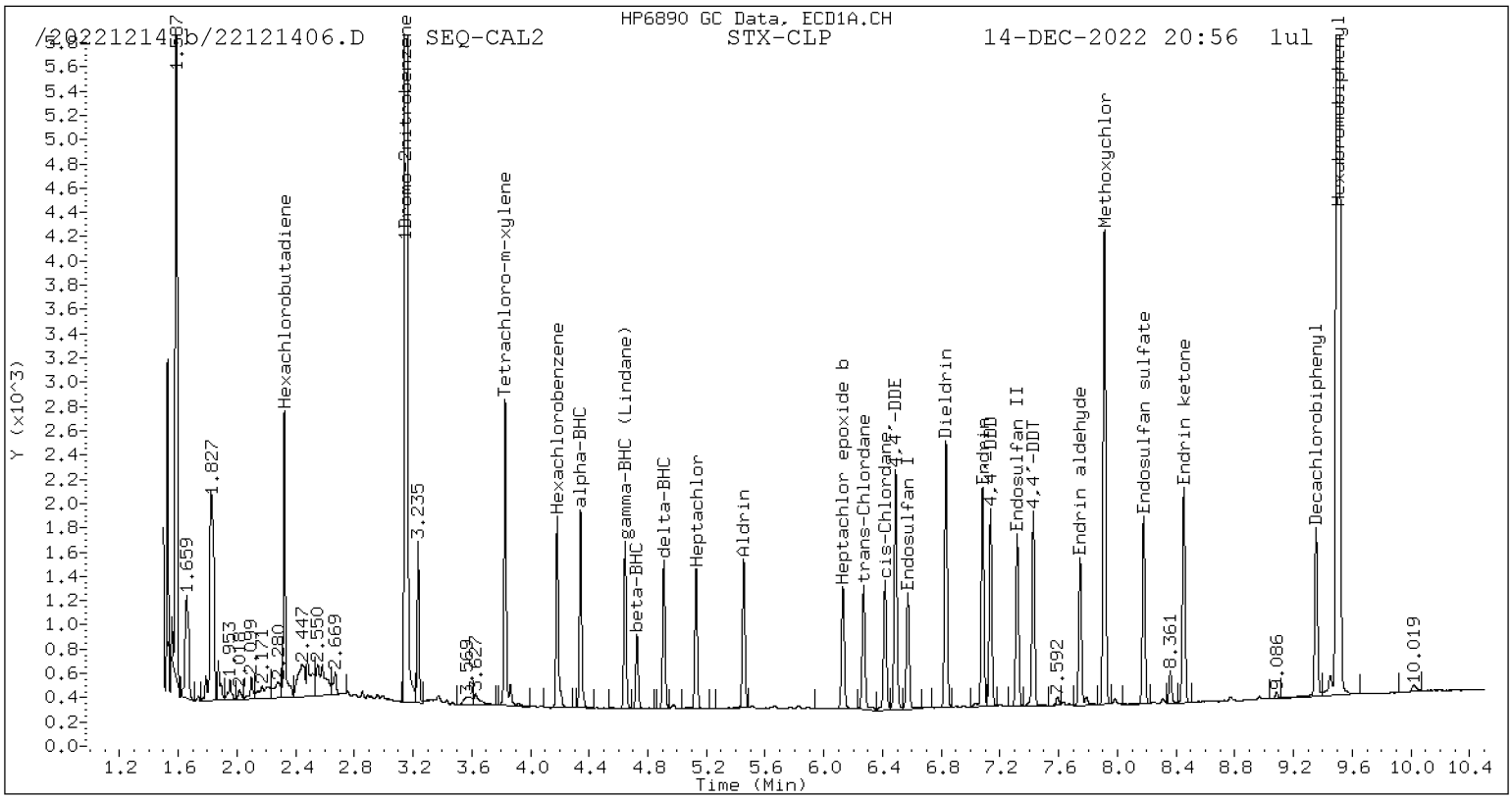
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	717600	1.0
Hexabromobiphenyl	641833	643445	0.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1061990	0.3
Hexabromobiphenyl	797125	807490	1.3

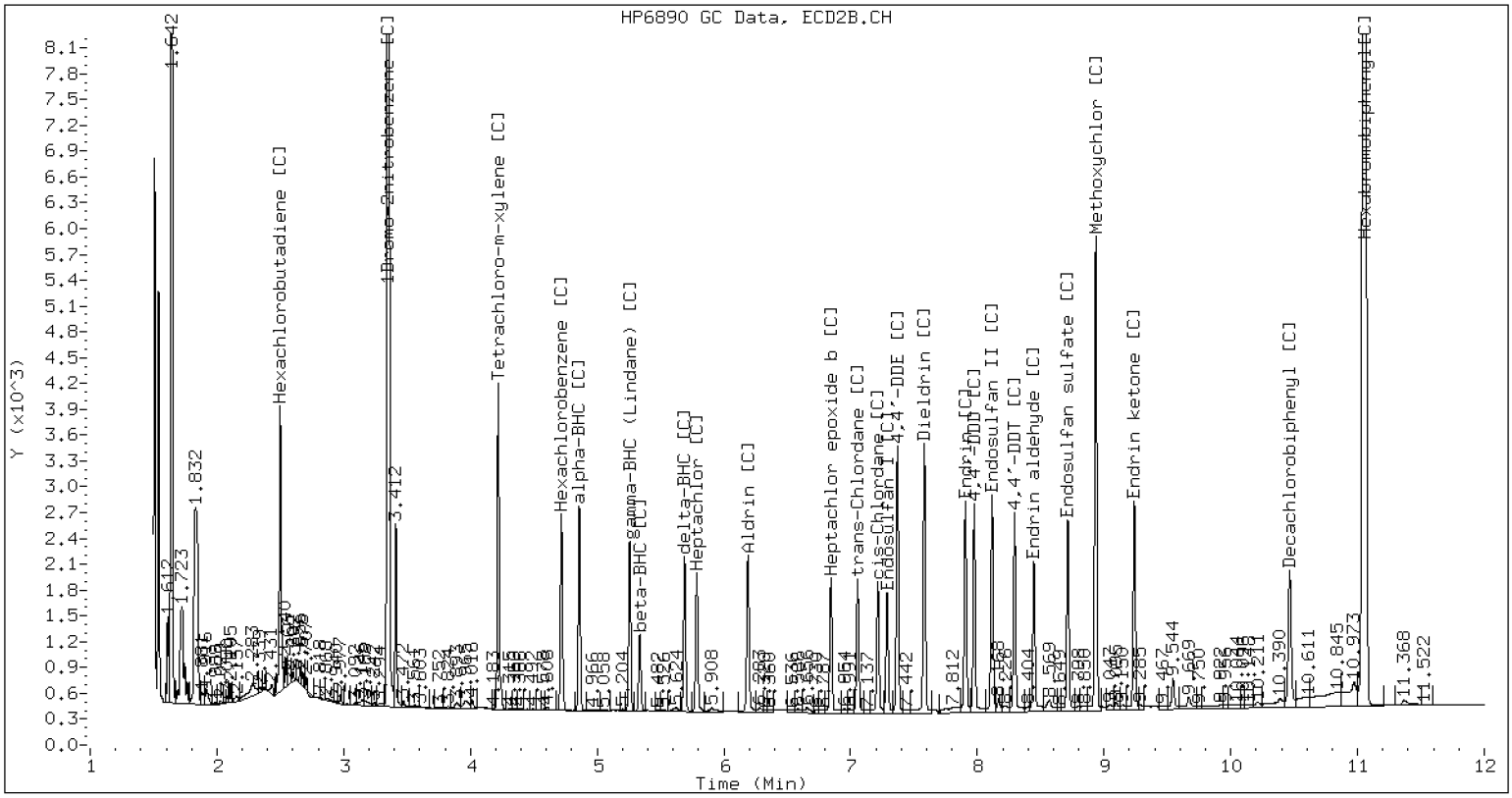
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121406.D SEQ-CAL2 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121406.D
Data file 2: /20221214.b/B20221214.b/22121406.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL2
Client ID:
Injection Date: 14-DEC-2022 20:56
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121407.D
Data file 2: /20221214.b/B20221214.b/22121407.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL3
Client ID:
Injection Date: 14-DEC-2022 21:14
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.343	0.001	68202	4.860	-0.000	103195	5.06	4.95	2.2	alpha-BHC
4.727	0.000	26774	5.338	0.000	40159	5.16	5.06	1.8	beta-BHC
4.910	0.001	55344	5.691	0.000	85044	5.02	4.95	1.5	delta-BHC
4.646	0.001	59491	5.258	0.000	87747	5.09	4.96	2.6	gamma-BHC (Lindane)
5.130	0.000	53529	5.787	0.000	80295	5.15	5.01	2.7	Heptachlor
5.455	0.001	59061	6.191	0.000	92167	5.07	5.03	0.7	Aldrin
6.132	0.001	52071	6.845	-0.000	76415	5.15	5.05	2.1	Heptachlor epoxide b
6.573	0.001	48052	7.289	-0.000	67929	5.18	5.09	1.8	Endosulfan I
6.832	0.001	104217	7.583	-0.000	151301	10.46	10.26	1.9	Dieldrin
6.490	0.001	97042	7.371	0.000	139172	10.49	10.29	1.9	4,4'-DDE
7.082	0.001	87185	7.906	-0.001	115830	10.66	10.37	2.8	Endrin
7.318	0.001	77341	8.117	0.000	118175	10.50	10.32	1.8	Endosulfan II
7.136	0.001	77451	7.976	0.000	110178	10.51	10.14	3.6	4,4'-DDD
8.180	0.001	73440	8.715	0.000	102417	10.50	10.18	3.1	Endosulfan sulfate
7.428	0.001	77522	8.294	-0.001	105882	10.41	10.09	3.1	4,4'-DDT
7.913	0.001	178164	8.935	-0.001	239047	53.98	51.49	4.7	Methoxychlor
8.454	0.000	84510	9.239	-0.000	110024	10.55	10.13	4.1	Endrin ketone
7.746	0.001	61122	8.448	-0.000	82817	10.40	10.25	1.5	Endrin aldehyde
6.271	0.001	52622	7.056	-0.000	76513	5.13	5.07	1.1	trans-Chlordane
6.417	0.001	53515	7.216	0.000	75023	5.20	5.08	2.3	cis-Chlordane
2.324	-0.000	75632	2.500	-0.000	107268	5.35	5.41	1.1	Hexachlorobutadiene
4.183	0.001	66090	4.718	-0.000	98926	5.28	5.21	1.3	Hexachlorobenzene
3.828	0.000	101081	4.220	-0.000	153451	10.61	10.47	1.3	Tetrachloro-m-xylene
9.355	-0.000	67797	10.466	-0.000	92260	10.72	10.62	0.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

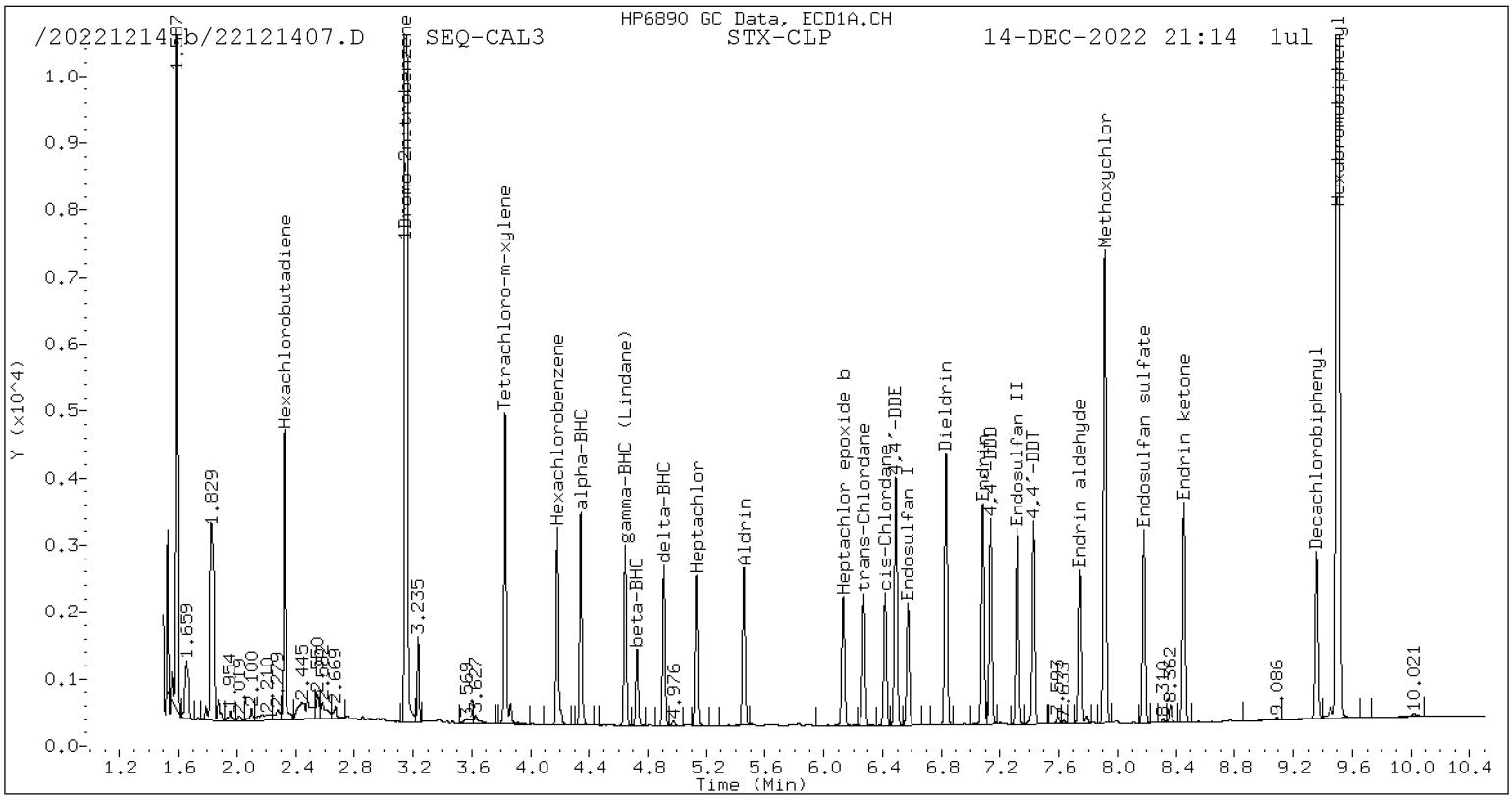
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	700354	-1.4
Hexabromobiphenyl	641833	624108	-2.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1040903	-1.7
Hexabromobiphenyl	797125	785894	-1.4

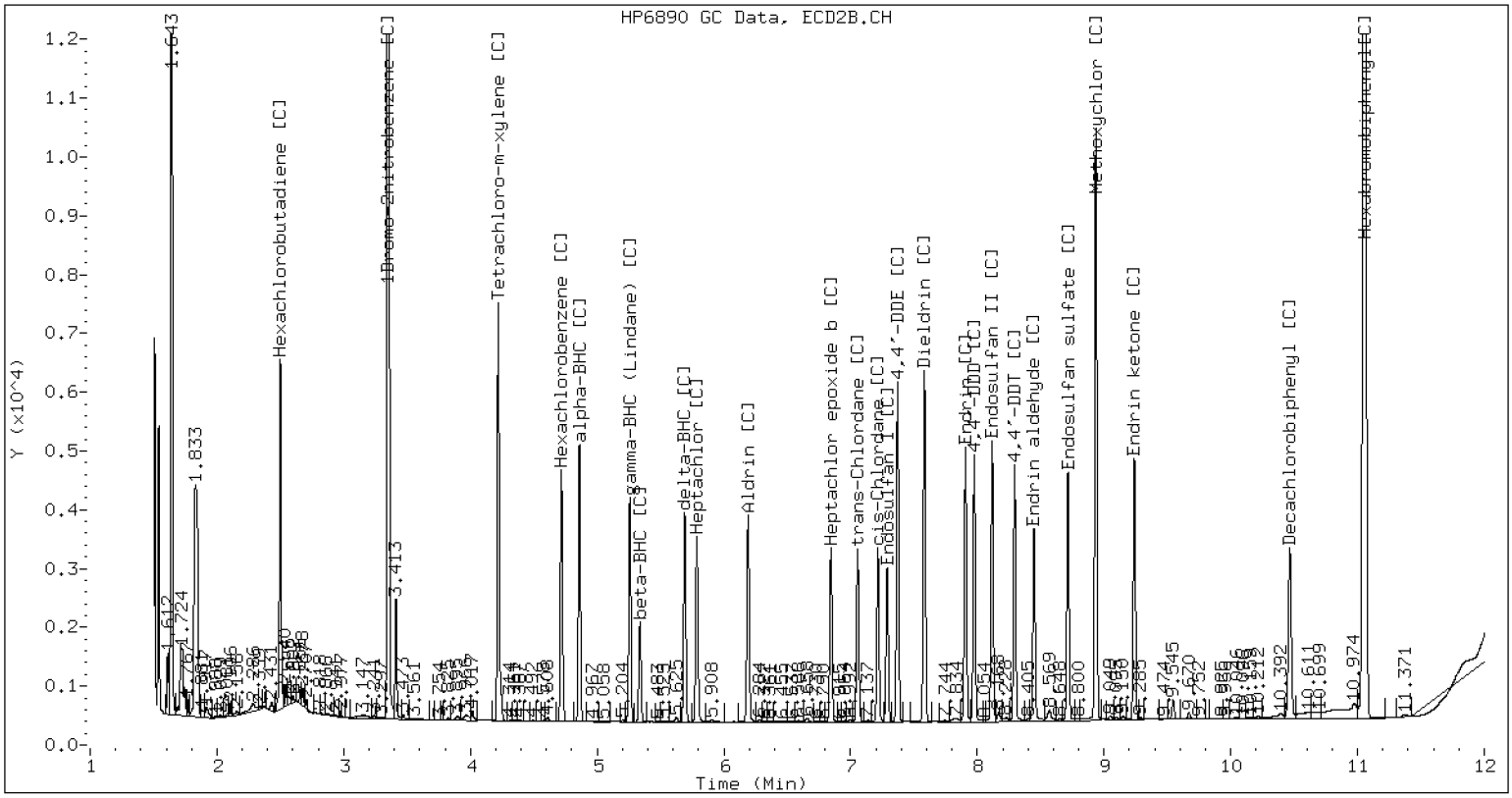
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121407.D SEQ-CAL3 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121407.D
Data file 2: /20221214.b/B20221214.b/22121407.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL3
Client ID:
Injection Date: 14-DEC-2022 21:14
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121408.D
Data file 2: /20221214.b/B20221214.b/22121408.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL4
Client ID:
Injection Date: 14-DEC-2022 21:31
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.343	0.000	139784	4.860	-0.000	216159	10.22	10.19	0.3	alpha-BHC
4.726	0.000	53742	5.337	0.000	81857	10.20	10.15	0.6	beta-BHC
4.910	0.001	113586	5.691	0.000	177281	10.16	10.14	0.2	delta-BHC
4.646	0.000	121488	5.258	0.000	182844	10.24	10.15	0.9	gamma-BHC (Lindane)
5.130	0.000	108260	5.787	-0.000	166558	10.26	10.21	0.5	Heptachlor
5.454	0.000	124839	6.191	0.000	189618	10.55	10.18	3.6	Aldrin
6.131	0.001	107301	6.846	0.001	155424	10.46	10.09	3.6	Heptachlor epoxide b
6.573	0.000	97151	7.289	0.000	137043	10.32	10.10	2.2	Endosulfan I
6.832	0.001	210564	7.583	0.000	301602	20.82	20.11	3.5	Dieldrin
6.490	0.001	195139	7.371	0.000	281756	20.79	20.49	1.5	4,4'-DDE
7.082	0.001	173216	7.907	-0.000	231062	20.59	20.39	1.0	Endrin
7.318	0.001	161303	8.117	0.001	236844	21.29	20.39	4.4	Endosulfan II
7.136	0.001	157301	7.977	0.001	222755	20.75	20.21	2.7	4,4'-DDD
8.180	0.000	146955	8.715	0.000	205334	20.43	20.13	1.5	Endosulfan sulfate
7.428	0.001	156744	8.295	-0.000	212755	20.46	19.99	2.3	4,4'-DDT
7.912	0.001	344324	8.936	-0.001	473459	101.43	100.55	0.9	Methoxychlor
8.453	-0.000	167384	9.240	0.000	222080	20.31	20.15	0.8	Endrin ketone
7.746	0.000	123653	8.448	0.000	164391	20.47	20.06	2.0	Endrin aldehyde
6.271	0.001	106805	7.056	0.000	154174	10.25	10.04	2.1	trans-Chlordane
6.418	0.001	106651	7.216	0.001	150231	10.21	10.00	2.1	cis-Chlordane
2.323	-0.000	142895	2.500	-0.001	197539	9.97	9.80	1.7	Hexachlorobutadiene
4.183	0.000	130020	4.718	0.000	197396	10.24	10.22	0.1	Hexachlorobenzene
3.828	0.000	199446	4.220	-0.000	308345	20.64	20.69	0.2	Tetrachloro-m-xylene
9.355	0.000	130210	10.466	-0.000	170633	20.02	19.37	3.3	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

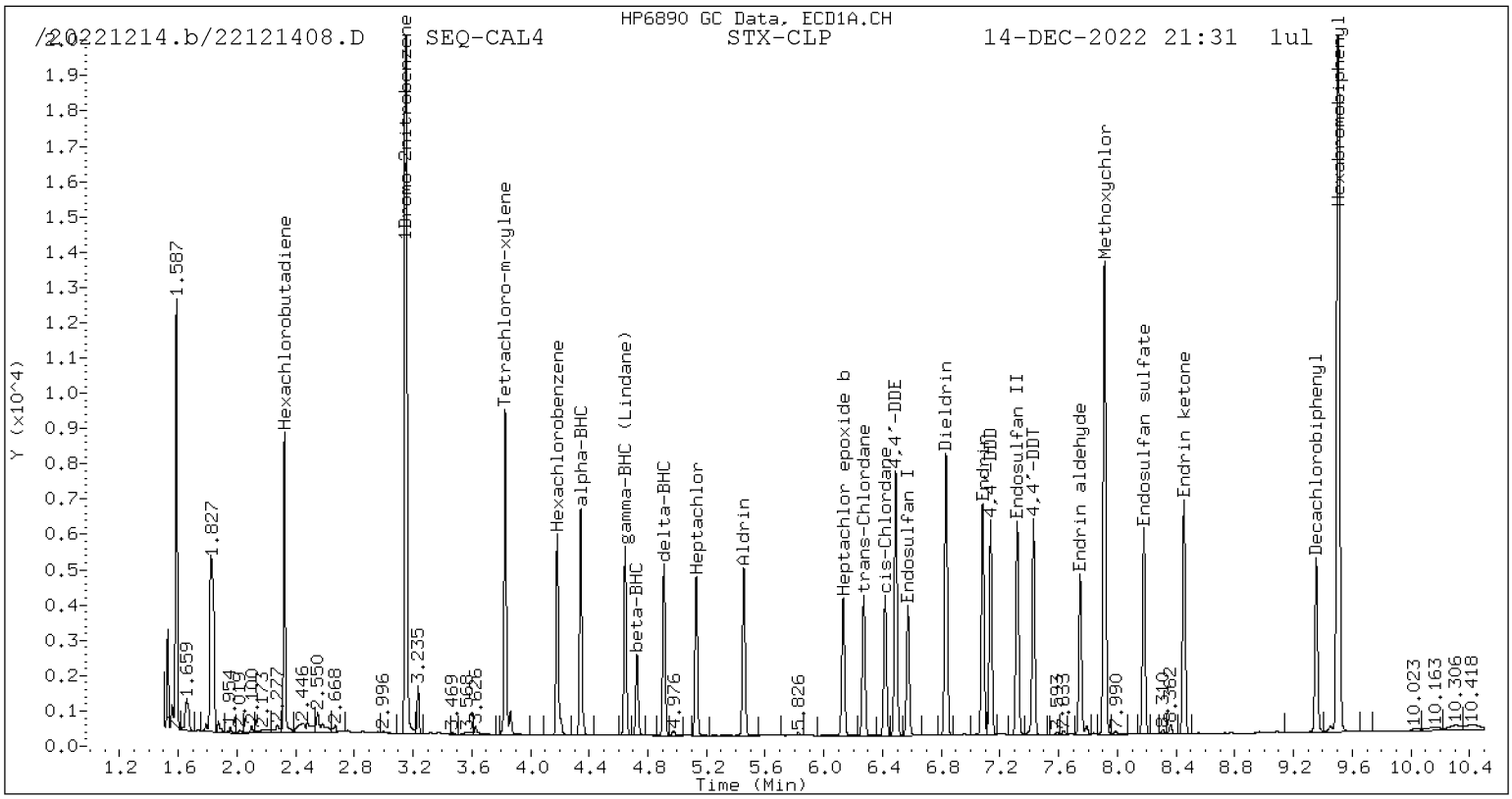
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	710650	0.0
Hexabromobiphenyl	641833	641833	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1058848	0.0
Hexabromobiphenyl	797125	797125	0.0

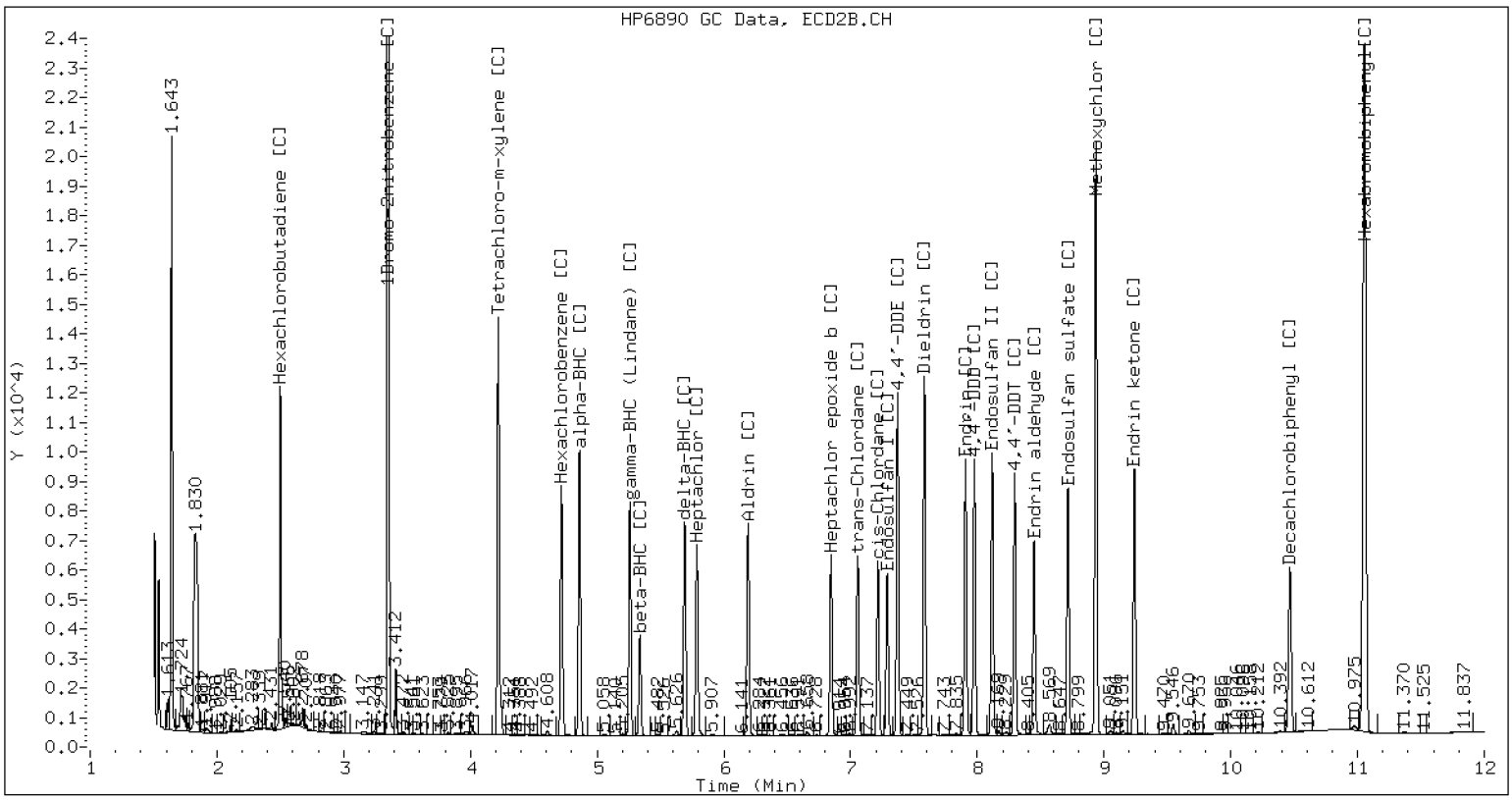
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121408.D SEQ-CAL4 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121408.D
Data file 2: /20221214.b/B20221214.b/22121408.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL4
Client ID:
Injection Date: 14-DEC-2022 21:31
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121409.D
Data file 2: /20221214.b/B20221214.b/22121409.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL5
Client ID:
Injection Date: 14-DEC-2022 21:49
Report Date: 12/16/2022 15:30
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.342	0.000	263355	4.860	-0.001	412780	20.34	20.46	0.6	alpha-BHC
4.726	0.000	99355	5.337	-0.000	154138	19.93	20.10	0.8	beta-BHC
4.909	0.000	216224	5.690	-0.000	334261	20.44	20.12	1.6	delta-BHC
4.645	0.000	228274	5.258	-0.000	350450	20.34	20.47	0.7	gamma-BHC (Lindane)
5.130	0.000	203067	5.787	-0.000	320123	20.33	20.64	1.5	Heptachlor
5.454	0.000	230734	6.191	-0.000	359912	20.62	20.33	1.4	Aldrin
6.130	0.000	198033	6.845	-0.000	295580	20.41	20.19	1.1	Heptachlor epoxide b
6.572	0.000	180905	7.289	-0.000	260351	20.31	20.18	0.7	Endosulfan I
6.831	0.000	388583	7.582	-0.000	571731	40.61	40.10	1.3	Dieldrin
6.489	0.000	362177	7.370	-0.000	531128	40.77	40.63	0.4	4,4'-DDE
7.081	0.000	323576	7.907	-0.000	442460	40.48	40.43	0.1	Endrin
7.317	0.000	282010	8.117	-0.000	446656	39.19	39.81	1.6	Endosulfan II
7.135	0.000	292251	7.976	-0.000	427990	40.58	40.20	0.9	4,4'-DDD
8.180	0.000	276113	8.715	0.000	393743	40.41	39.97	1.1	Endosulfan sulfate
7.427	0.000	296413	8.295	-0.000	413083	40.73	40.20	1.3	4,4'-DDT
7.912	0.000	628619	8.935	-0.001	900958	194.94	198.14	1.6	Methoxychlor
8.453	0.000	311305	9.239	-0.000	423698	39.77	39.82	0.1	Endrin ketone
7.746	0.000	230881	8.448	0.000	312907	40.23	39.54	1.7	Endrin aldehyde
6.271	0.000	200151	7.056	-0.000	294106	20.31	20.15	0.8	trans-Chlordane
6.417	0.000	197892	7.216	-0.000	285904	20.02	20.02	0.0	cis-Chlordane
2.324	0.000	260716	2.500	-0.000	346254	19.22	18.08	6.2	Hexachlorobutadiene
4.182	0.000	237746	4.718	-0.000	364913	19.78	19.88	0.5	Hexachlorobenzene
3.828	0.000	357836	4.220	-0.000	567647	39.13	40.07	2.4	Tetrachloro-m-xylene
9.355	0.000	239428	10.466	-0.001	327134	38.76	38.45	0.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

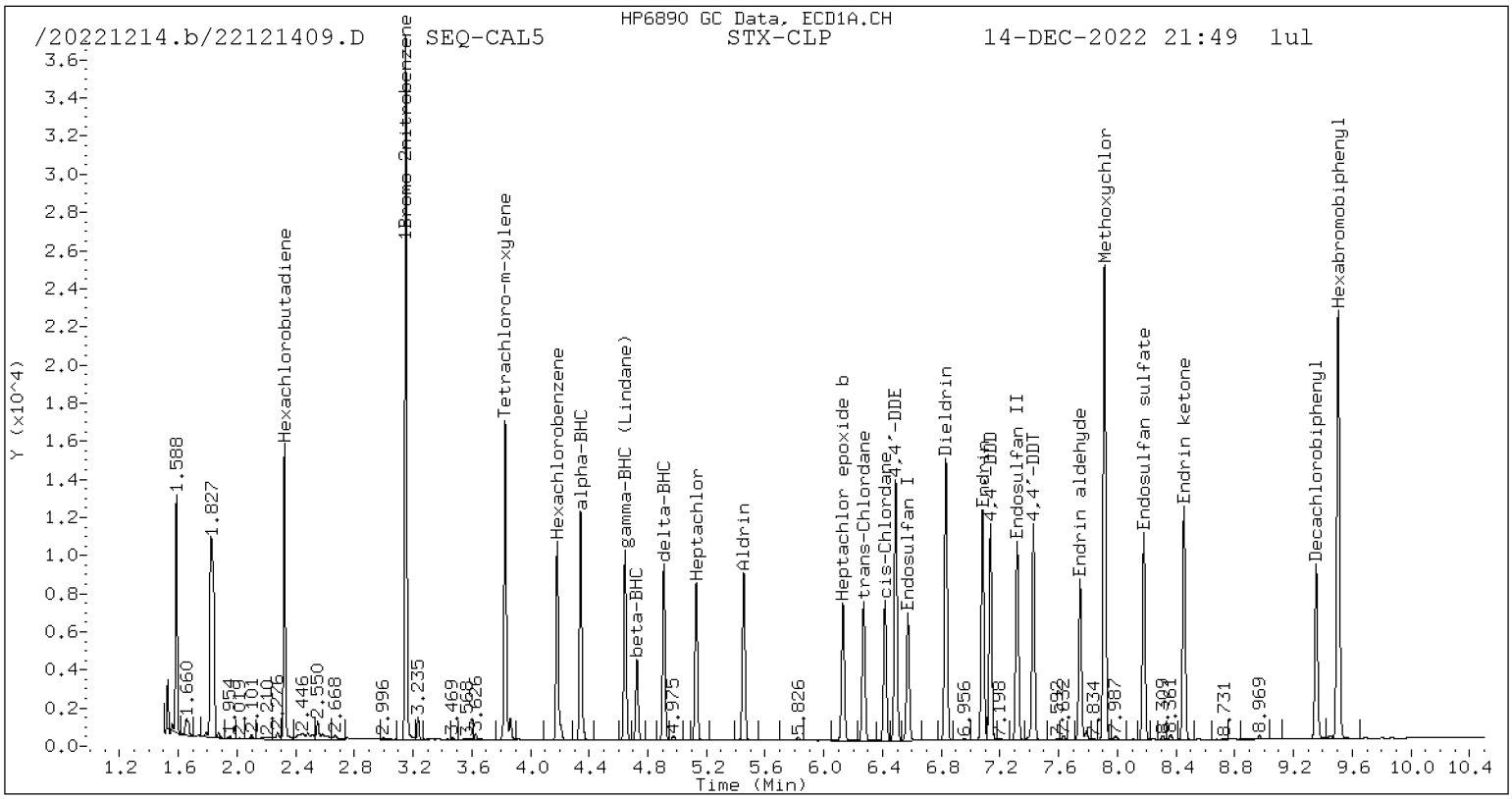
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	672426	0.0
Hexabromobiphenyl	609723	609723	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	1006482	0.0
Hexabromobiphenyl	769764	769764	0.0

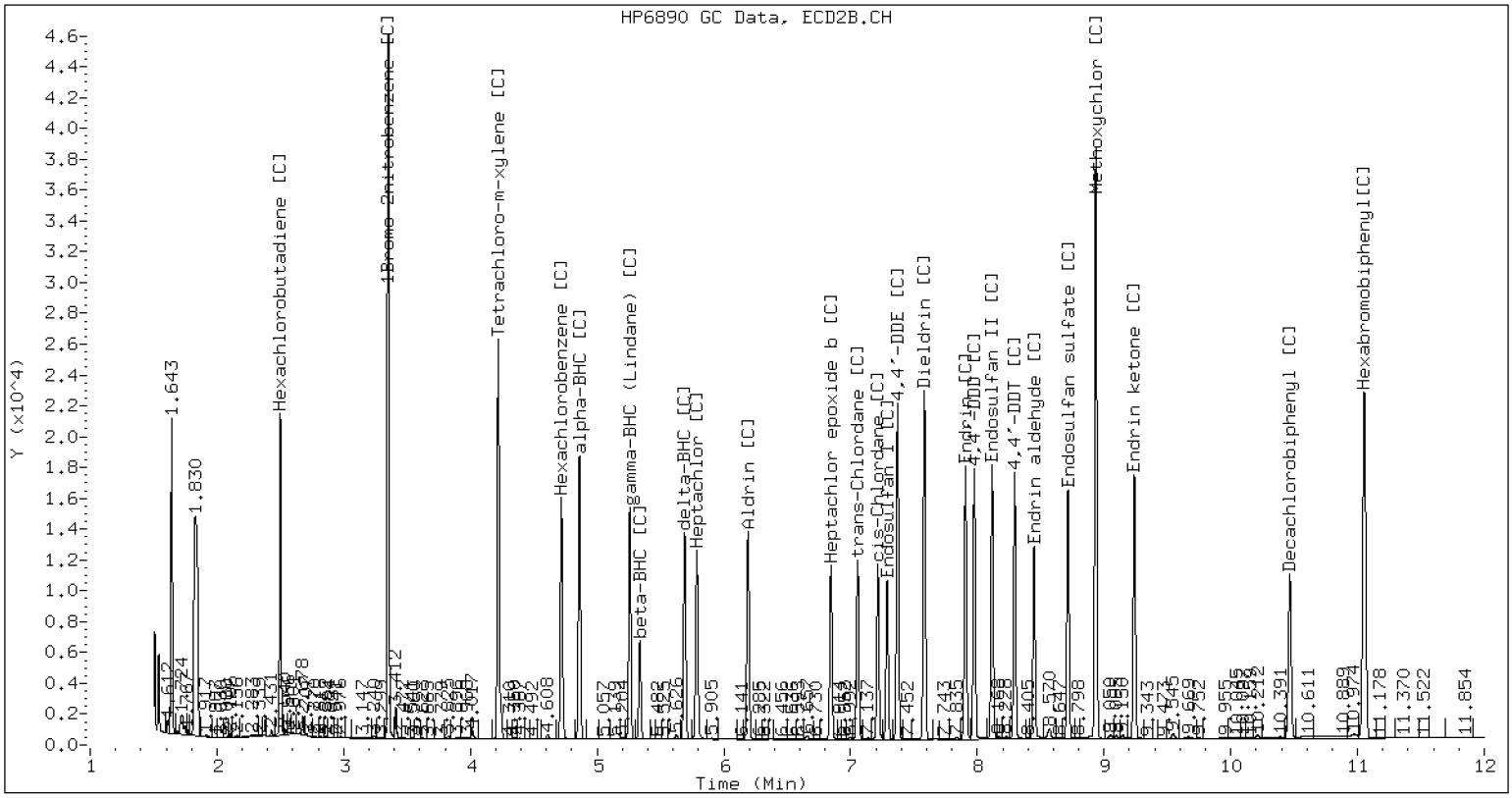
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121409.D SEQ-CAL5 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121409.D
Data file 2: /20221214.b/B20221214.b/22121409.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL5
Client ID:
Injection Date: 14-DEC-2022 21:49
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121410.D
Data file 2: /20221214.b/B20221214.b/22121410.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL6
Client ID:
Injection Date: 14-DEC-2022 22:07
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.342	0.000	535902	4.860	-0.000	849533	39.69	40.30	1.5	alpha-BHC
4.726	0.000	198976	5.337	-0.000	311218	38.28	38.84	1.4	beta-BHC
4.910	0.000	440370	5.691	0.000	700464	39.91	40.34	1.1	delta-BHC
4.646	0.000	461905	5.258	0.000	718675	39.46	40.18	1.8	gamma-BHC (Lindane)
5.130	0.000	401672	5.787	0.000	639345	38.56	39.46	2.3	Heptachlor
5.454	0.000	458396	6.190	-0.000	720942	39.27	38.97	0.8	Aldrin
6.130	0.000	387273	6.846	0.000	586062	38.26	38.31	0.1	Heptachlor epoxide b
6.572	-0.000	354629	7.288	-0.001	519836	38.18	38.55	1.0	Endosulfan I
6.832	0.000	755708	7.582	-0.000	1126850	75.73	75.64	0.1	Dieldrin
6.489	0.000	698620	7.371	-0.000	1040947	75.40	76.19	1.0	4,4'-DDE
7.082	0.000	615481	7.907	-0.000	858461	74.19	74.98	1.1	Endrin
7.317	0.000	590923	8.117	-0.000	885035	79.12	75.41	4.8	Endosulfan II
7.136	0.000	565557	7.976	-0.000	842536	75.67	75.65	0.0	4,4'-DDD
8.179	-0.001	540557	8.715	0.000	782860	76.22	75.96	0.3	Endosulfan sulfate
7.427	0.000	577337	8.295	-0.000	820861	76.44	76.36	0.1	4,4'-DDT
7.912	-0.000	1204040	8.935	-0.001	1785262	359.75	375.30	4.2	Methoxychlor
8.453	-0.001	610387	9.239	-0.000	843646	75.13	75.79	0.9	Endrin ketone
7.746	-0.000	452325	8.448	0.000	622287	75.93	75.17	1.0	Endrin aldehyde
6.271	0.000	395598	7.056	-0.000	591899	38.48	38.80	0.8	trans-Chlordane
6.417	0.001	389712	7.215	-0.000	573103	37.80	38.40	1.6	cis-Chlordane
2.324	0.000	511265	2.500	-0.000	705320	36.14	35.24	2.5	Hexachlorobutadiene
4.183	0.001	472841	4.718	0.000	728846	37.72	37.99	0.7	Hexachlorobenzene
3.828	-0.000	714634	4.221	0.000	1124106	74.93	75.93	1.3	Tetrachloro-m-xylene
9.355	-0.000	468280	10.466	-0.001	645336	73.03	72.51	0.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

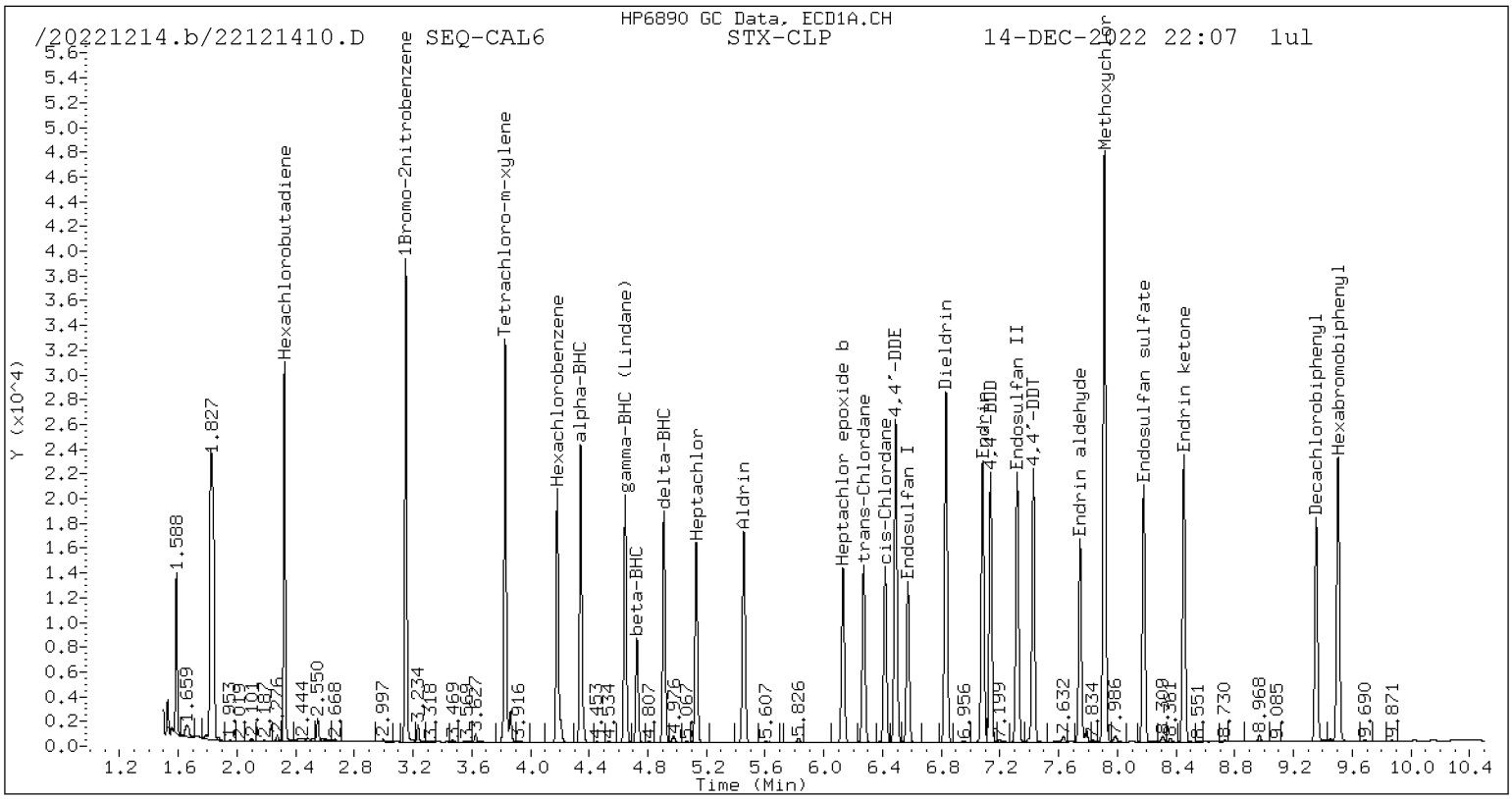
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	701342	-1.3
Hexabromobiphenyl	641833	632821	-1.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1051766	-0.7
Hexabromobiphenyl	797125	805268	1.0

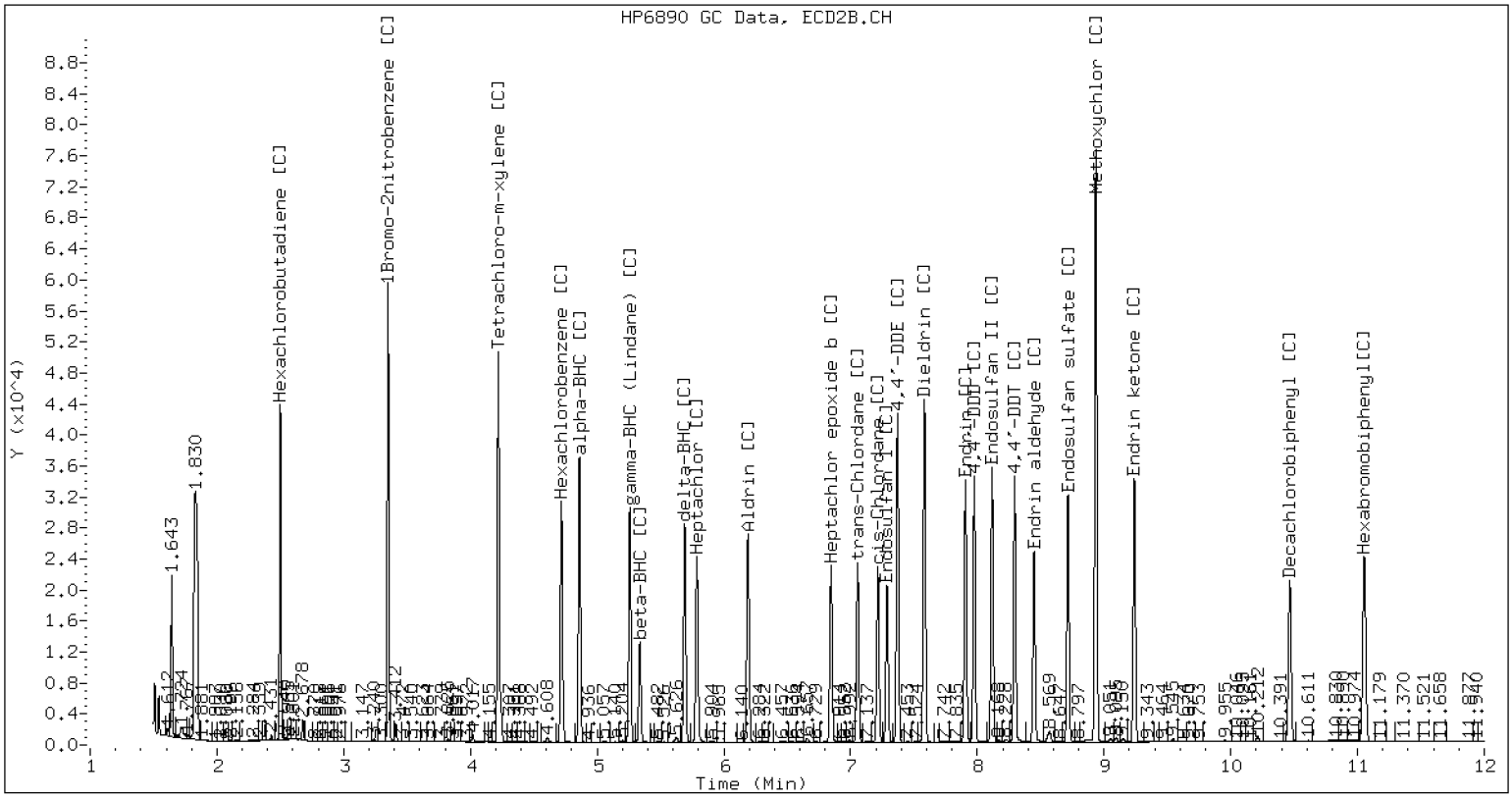
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121410.D SEQ-CAL6 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121410.D
Data file 2: /20221214.b/B20221214.b/22121410.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL6
Client ID:
Injection Date: 14-DEC-2022 22:07
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121411.D
Data file 2: /20221214.b/B20221214.b/22121411.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL7
Client ID:
Injection Date: 14-DEC-2022 22:25
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.342	0.000	1012605	4.861	0.000	1623058	75.30	77.94	3.4	alpha-BHC
4.726	0.000	371916	5.337	0.000	586390	71.84	74.06	3.1	beta-BHC
4.910	0.000	837966	5.691	0.000	1343533	76.25	78.32	2.7	delta-BHC
4.645	-0.000	870454	5.258	0.000	1370551	74.66	77.55	3.8	gamma-BHC (Lindane)
5.130	0.000	743802	5.787	0.000	1188915	71.70	74.26	3.5	Heptachlor
5.454	0.000	841598	6.191	0.000	1331430	72.39	72.84	0.6	Aldrin
6.130	-0.000	709774	6.845	0.000	1087105	70.41	71.92	2.1	Heptachlor epoxide b
6.573	0.000	652702	7.289	0.000	969098	70.56	72.74	3.1	Endosulfan I
6.832	0.000	1390496	7.583	0.000	2118555	139.91	143.93	2.8	Dieldrin
6.490	0.001	1284777	7.371	0.000	1944530	139.23	144.06	3.4	4,4'-DDE
7.082	0.001	1132487	7.907	0.000	1618631	137.86	142.60	3.4	Endrin
7.317	0.000	1089554	8.117	0.000	1672946	147.33	143.79	2.4	Endosulfan II
7.135	0.000	1051958	7.976	0.000	1606815	142.14	145.53	2.4	4,4'-DDD
8.180	0.000	1013288	8.715	0.000	1496440	144.30	146.47	1.5	Endosulfan sulfate
7.428	0.001	1086138	8.295	0.000	1586078	145.23	148.84	2.5	4,4'-DDT
7.912	0.001	2325261	8.936	0.000	3541650	701.64	751.02	6.8	Methoxychlor
8.454	0.000	1146784	9.240	0.000	1623077	142.56	147.08	3.1	Endrin ketone
7.746	-0.000	846477	8.448	0.000	1178353	143.51	143.57	0.0	Endrin aldehyde
6.271	0.000	733514	7.056	0.000	1114685	71.64	73.95	3.2	trans-Chlordane
6.417	0.001	723886	7.216	0.000	1079255	70.50	73.19	3.7	cis-Chlordane
2.324	0.000	955982	2.501	0.000	1351745	67.86	68.35	0.7	Hexachlorobutadiene
4.182	0.000	879573	4.718	0.000	1355289	70.45	71.51	1.5	Hexachlorobenzene
3.828	0.000	1318381	4.220	0.000	2067539	138.79	141.35	1.8	Tetrachloro-m-xylene
9.356	0.000	878340	10.467	0.000	1231298	138.34	139.55	0.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

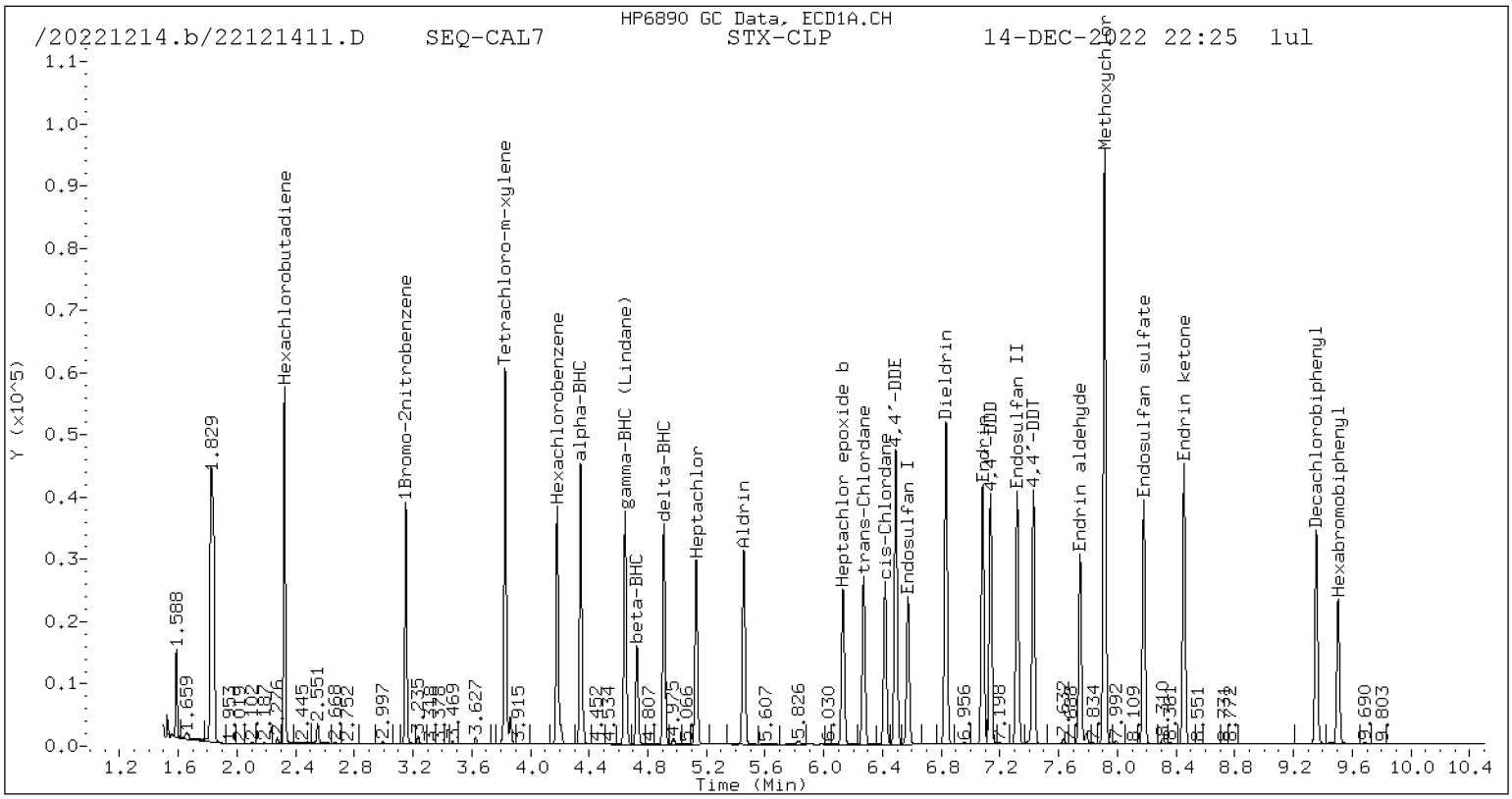
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	698499	-1.7
Hexabromobiphenyl	641833	626605	-2.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1039154	-1.9
Hexabromobiphenyl	797125	798313	0.1

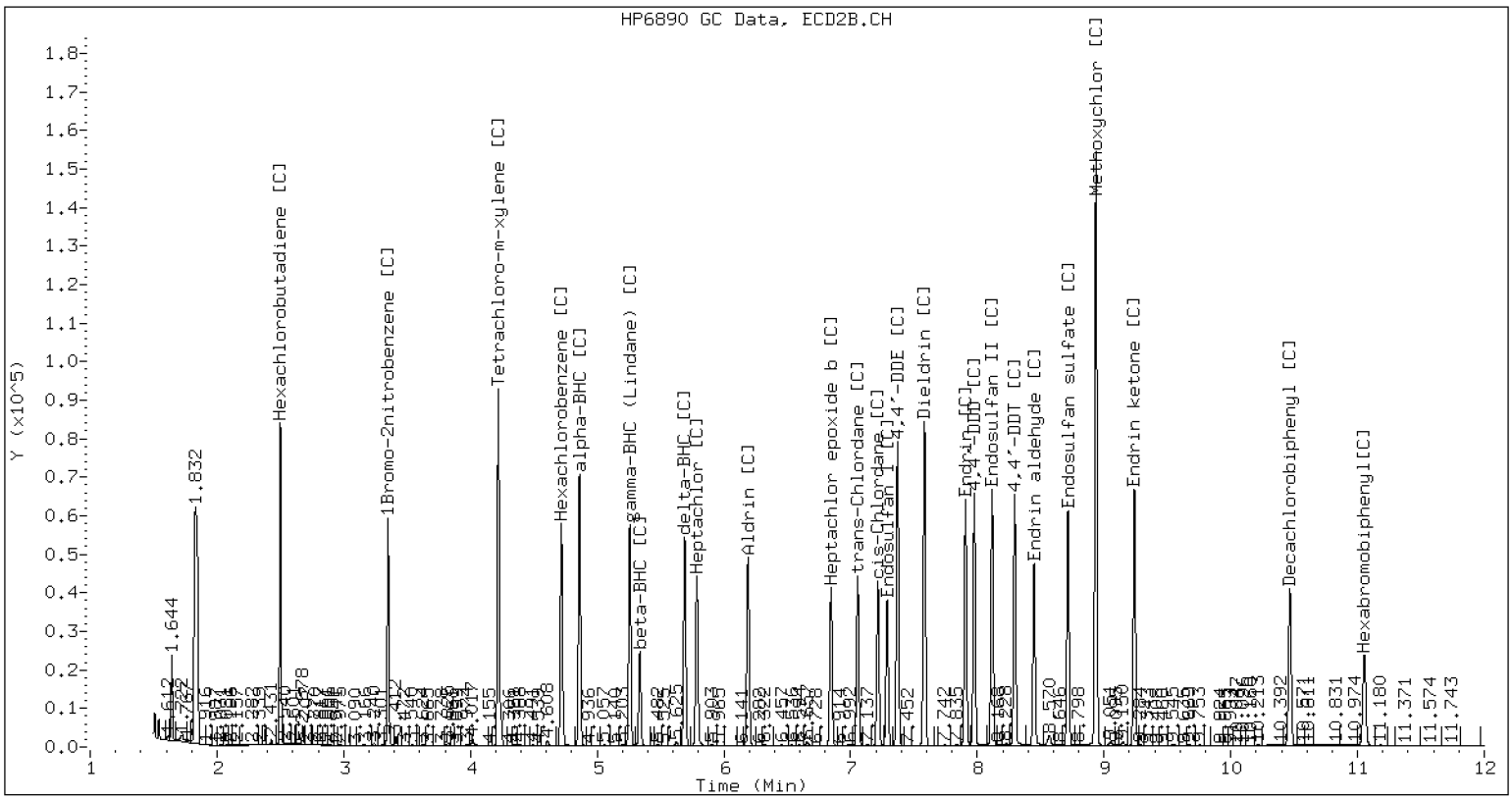
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121411.D SEQ-CAL7 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121411.D
Data file 2: /20221214.b/B20221214.b/22121411.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL7
Client ID:
Injection Date: 14-DEC-2022 22:25
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121412.D
Data file 2: /20221214.b/B20221214.b/22121412.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL8
Client ID:
Injection Date: 14-DEC-2022 22:43
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.014	-0.000	22184	6.741	-0.000	34211	2.89	2.85	1.2	Oxychlordane
6.106	-0.000	18661	7.036	-0.000	30817	2.94	3.14	6.5	2,4-DDE
6.397	-0.000	30616	7.154	-0.001	41466	3.05	2.82	7.5	trans-Nonachlor
6.681	0.000	16263	7.591	0.000	26177	2.88	3.12	7.9	2,4-DDD
6.956	-0.001	17569	7.913	-0.000	24398	2.88	2.82	2.1	2,4-DDT
7.112	-0.000	29417	7.975	-0.000	37972	3.01	2.72	9.9	cis-Nonachlor
8.082	-0.000	18819	9.223	-0.000	24312	3.09	3.00	3.1	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

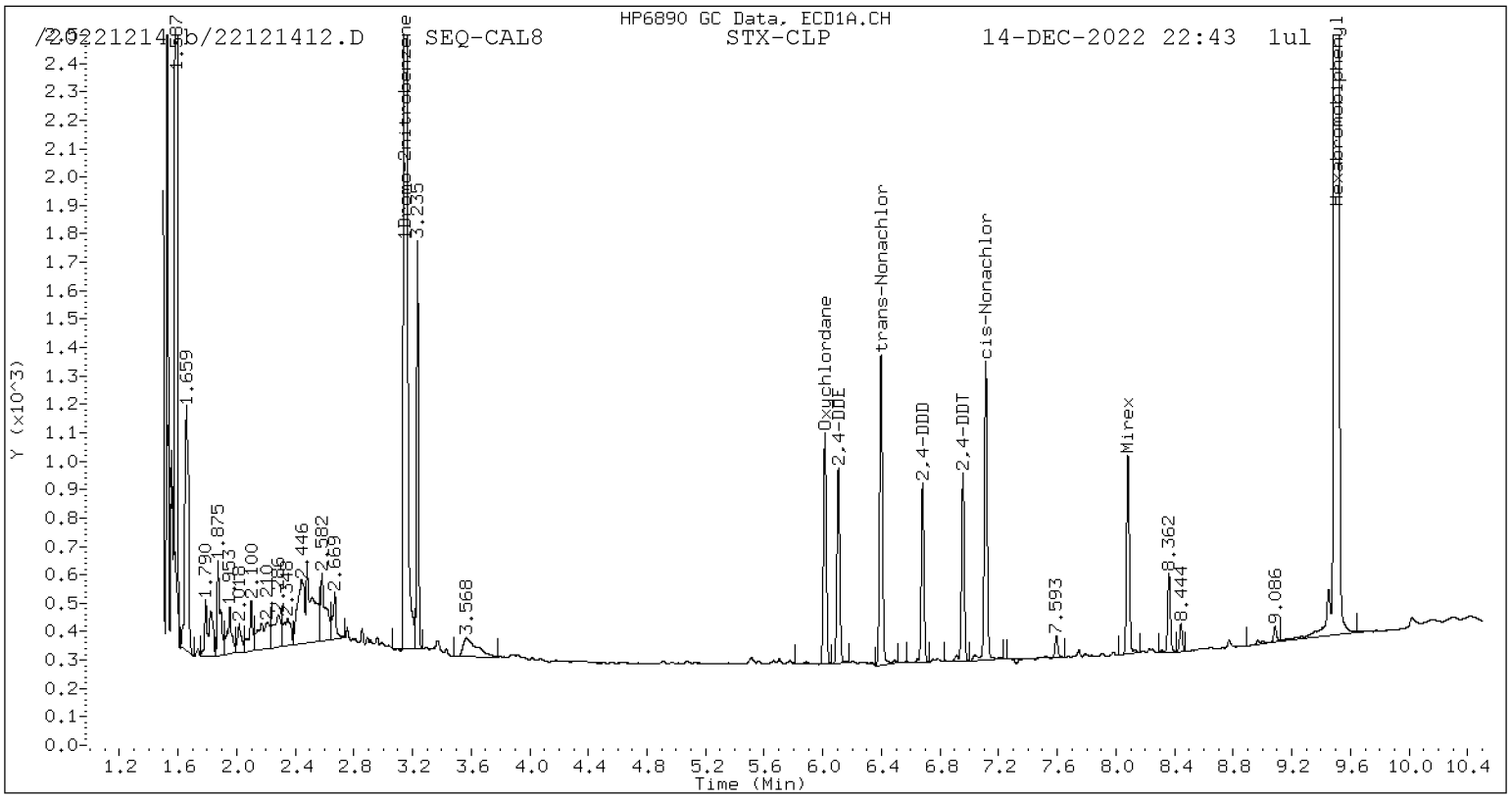
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	713898	0.5
Hexabromobiphenyl	641833	646441	0.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1076864	1.7
Hexabromobiphenyl	797125	820275	2.9

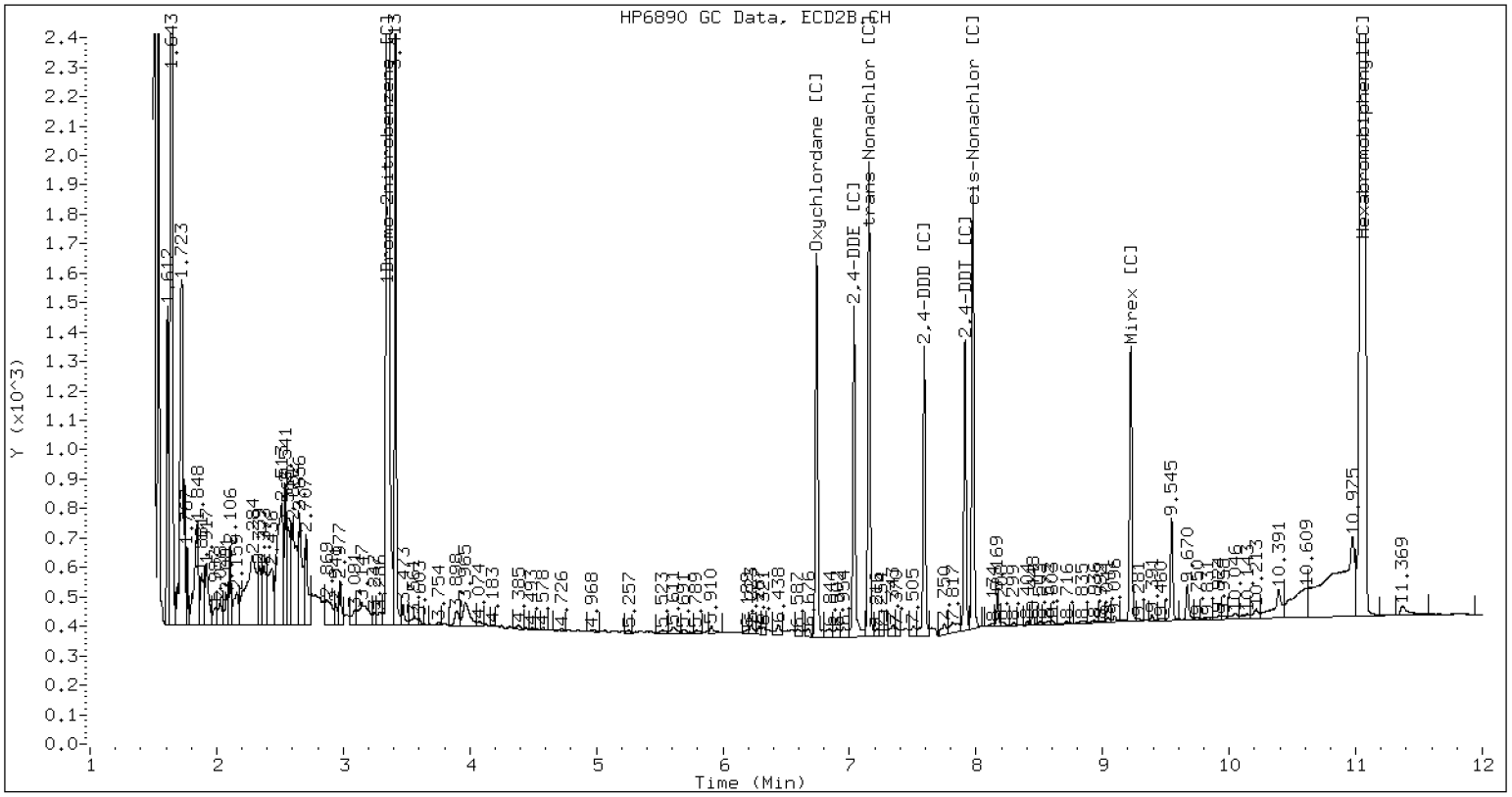
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121412.D SEQ-CAL8 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121412.D
Data file 2: /20221214.b/B20221214.b/22121412.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL8
Client ID:
Injection Date: 14-DEC-2022 22:43
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121413.D
Data file 2: /20221214.b/B20221214.b/22121413.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL9
Client ID:
Injection Date: 14-DEC-2022 23:01
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.015	0.000	39121	6.741	-0.000	61505	5.34	5.41	1.3	Oxychlordane
6.106	0.000	33487	7.036	-0.000	53206	5.54	5.72	3.1	2,4-DDE
6.398	0.000	51858	7.154	-0.001	72836	5.42	5.20	4.1	trans-Nonachlor
6.681	0.000	29307	7.590	-0.000	44506	5.45	5.55	1.9	2,4-DDD
6.957	-0.000	31530	7.914	0.000	45986	5.43	5.57	2.6	2,4-DDT
7.112	-0.000	50912	7.975	0.000	70898	5.46	5.32	2.6	cis-Nonachlor
8.082	-0.000	32004	9.223	-0.000	45650	5.52	5.89	6.6	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

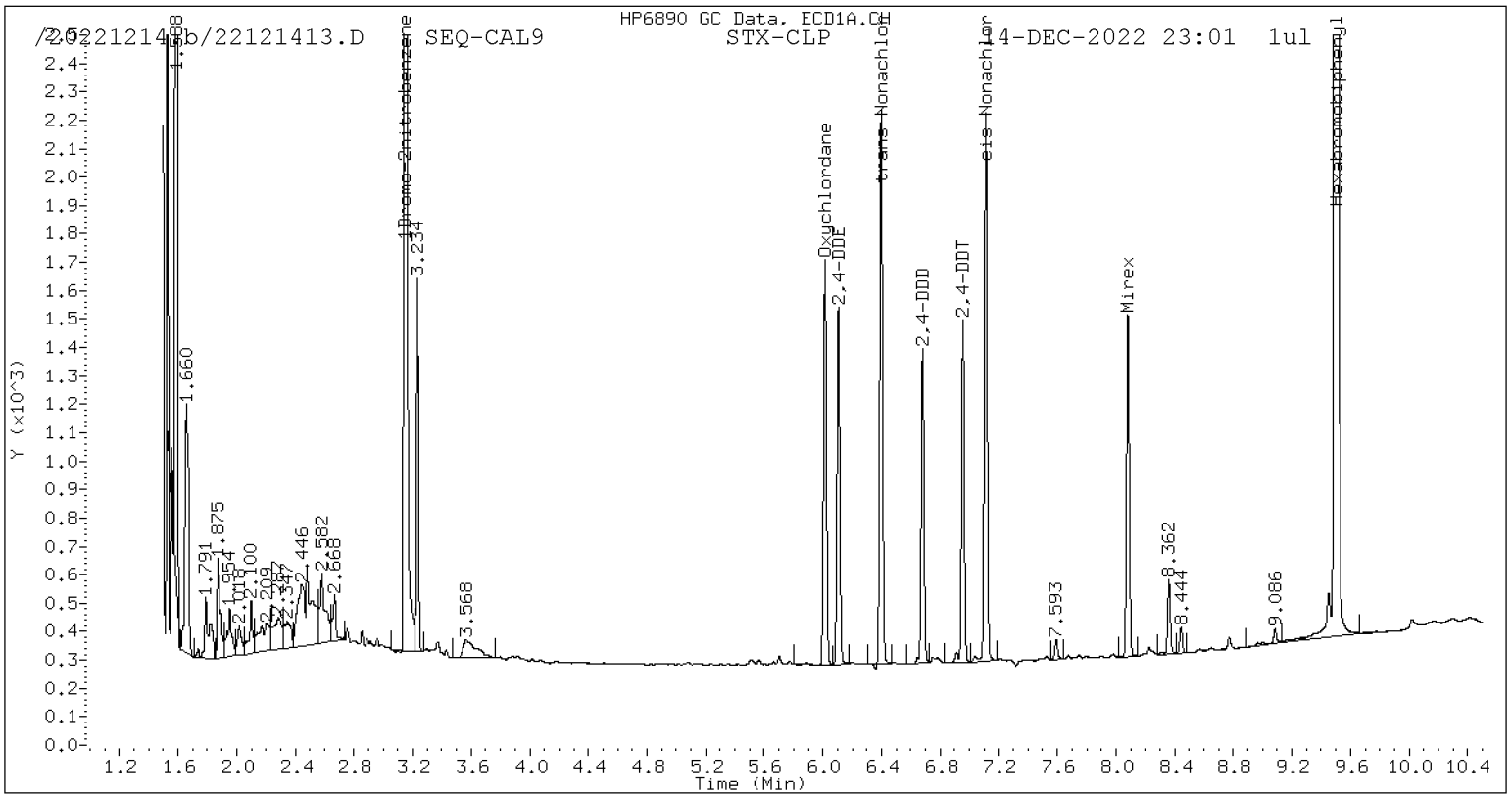
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	672507	-5.4
Hexabromobiphenyl	641833	615627	-4.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1020334	-3.6
Hexabromobiphenyl	797125	782734	-1.8

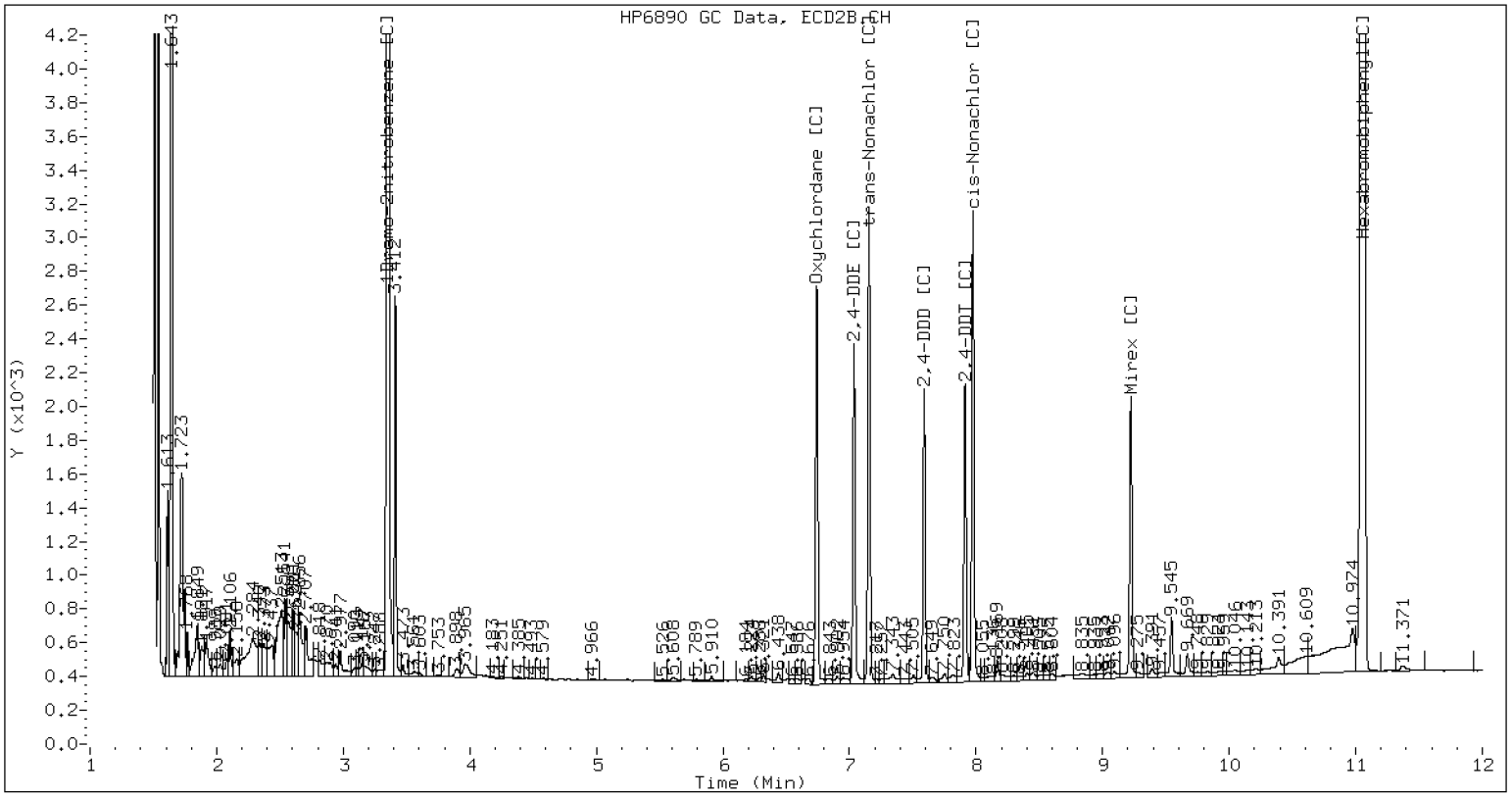
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121413.D SEQ-CAL9 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121413.D
Data file 2: /20221214.b/B20221214.b/22121413.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL9
Client ID:
Injection Date: 14-DEC-2022 23:01
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121414.D
Data file 2: /20221214.b/B20221214.b/22121414.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALA
Client ID:
Injection Date: 14-DEC-2022 23:19
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.014	-0.000	82473	6.741	-0.001	127500	10.63	10.63	0.0	Oxychlordane
6.106	-0.000	69109	7.035	-0.001	108440	10.79	11.04	2.3	2,4-DDE
6.398	0.000	108386	7.154	-0.001	157712	10.68	10.60	0.7	trans-Nonachlor
6.681	0.000	60517	7.590	-0.000	91420	10.62	10.74	1.2	2,4-DDD
6.956	-0.001	65300	7.913	0.000	91498	10.61	10.44	1.6	2,4-DDT
7.111	-0.001	104247	7.975	-0.000	146224	10.55	10.34	2.0	cis-Nonachlor
8.082	-0.000	65614	9.222	-0.000	84337	10.67	10.25	4.0	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

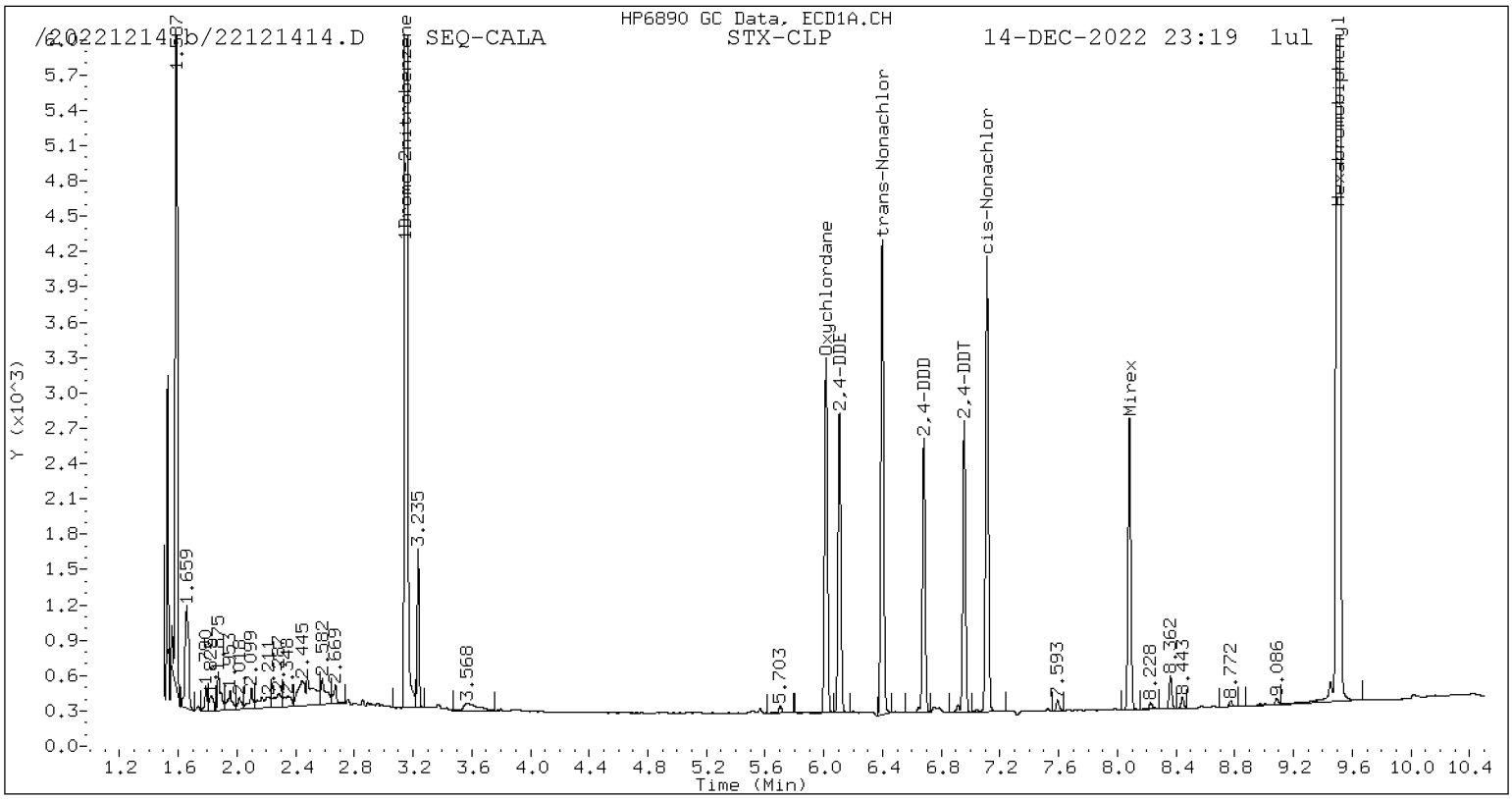
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	712122	0.2
Hexabromobiphenyl	641833	652595	1.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1077341	1.7
Hexabromobiphenyl	797125	831365	4.3

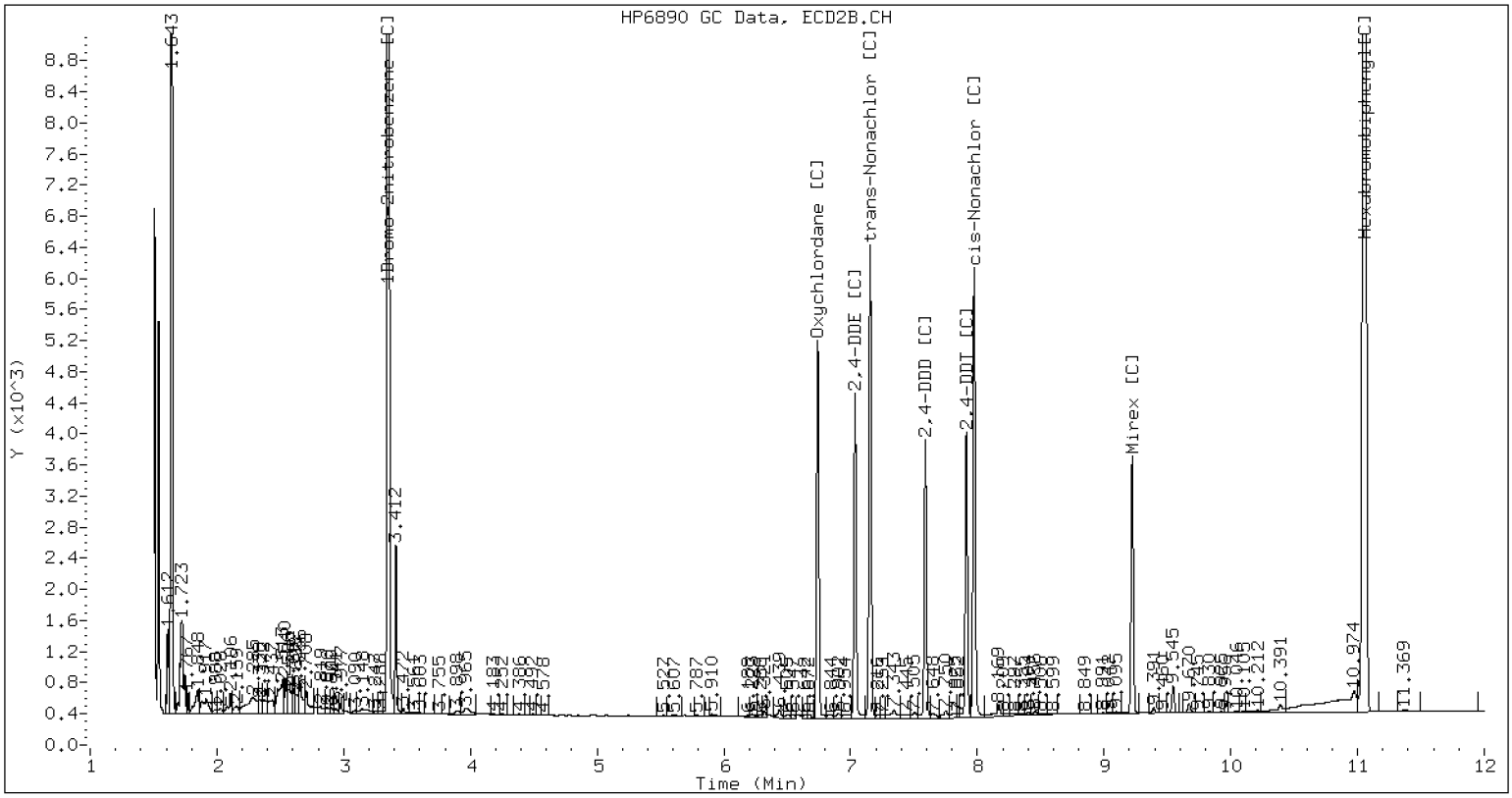
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121414.D SEQ-CALA CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121414.D
Data file 2: /20221214.b/B20221214.b/22121414.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALA
Client ID:
Injection Date: 14-DEC-2022 23:19
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121415.D
Data file 2: /20221214.b/B20221214.b/22121415.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALB
Client ID:
Injection Date: 14-DEC-2022 23:36
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.015	0.001	154379	6.741	-0.000	238017	20.80	20.28	2.5	Oxychlordane
6.106	-0.000	128483	7.036	-0.000	195807	20.97	20.37	2.9	2,4-DDE
6.398	0.000	200622	7.155	-0.000	289952	20.66	20.28	1.9	trans-Nonachlor
6.681	0.000	113972	7.591	0.000	165245	20.90	20.21	3.4	2,4-DDD
6.956	-0.001	122412	7.913	0.000	169814	20.78	20.17	3.0	2,4-DDT
7.112	-0.000	194165	7.975	-0.000	274910	20.54	20.23	1.5	cis-Nonachlor
8.082	-0.000	119271	9.223	0.000	158702	20.28	20.08	1.0	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

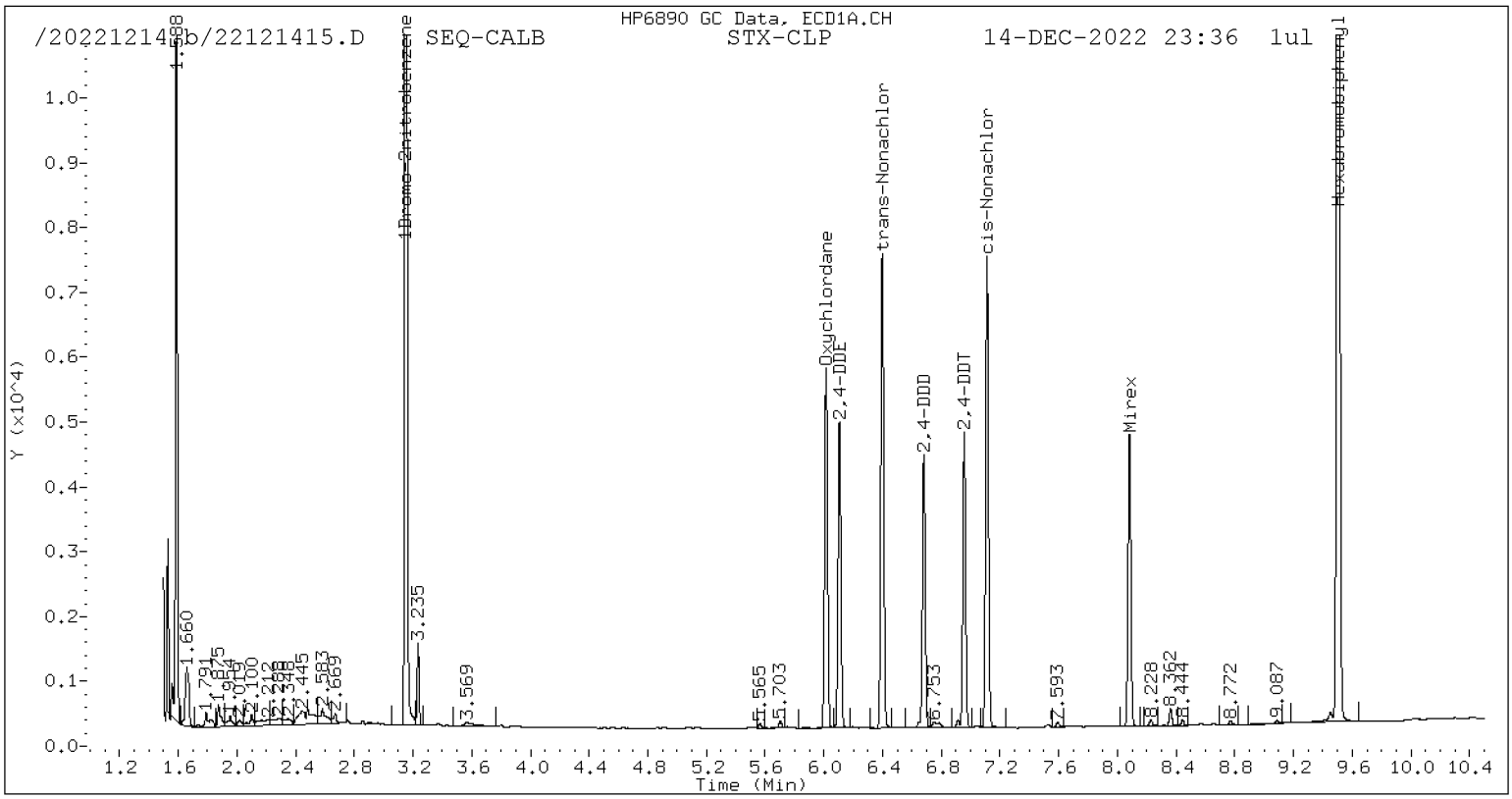
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	693450	-2.4
Hexabromobiphenyl	641833	624334	-2.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1053959	-0.5
Hexabromobiphenyl	797125	798882	0.2

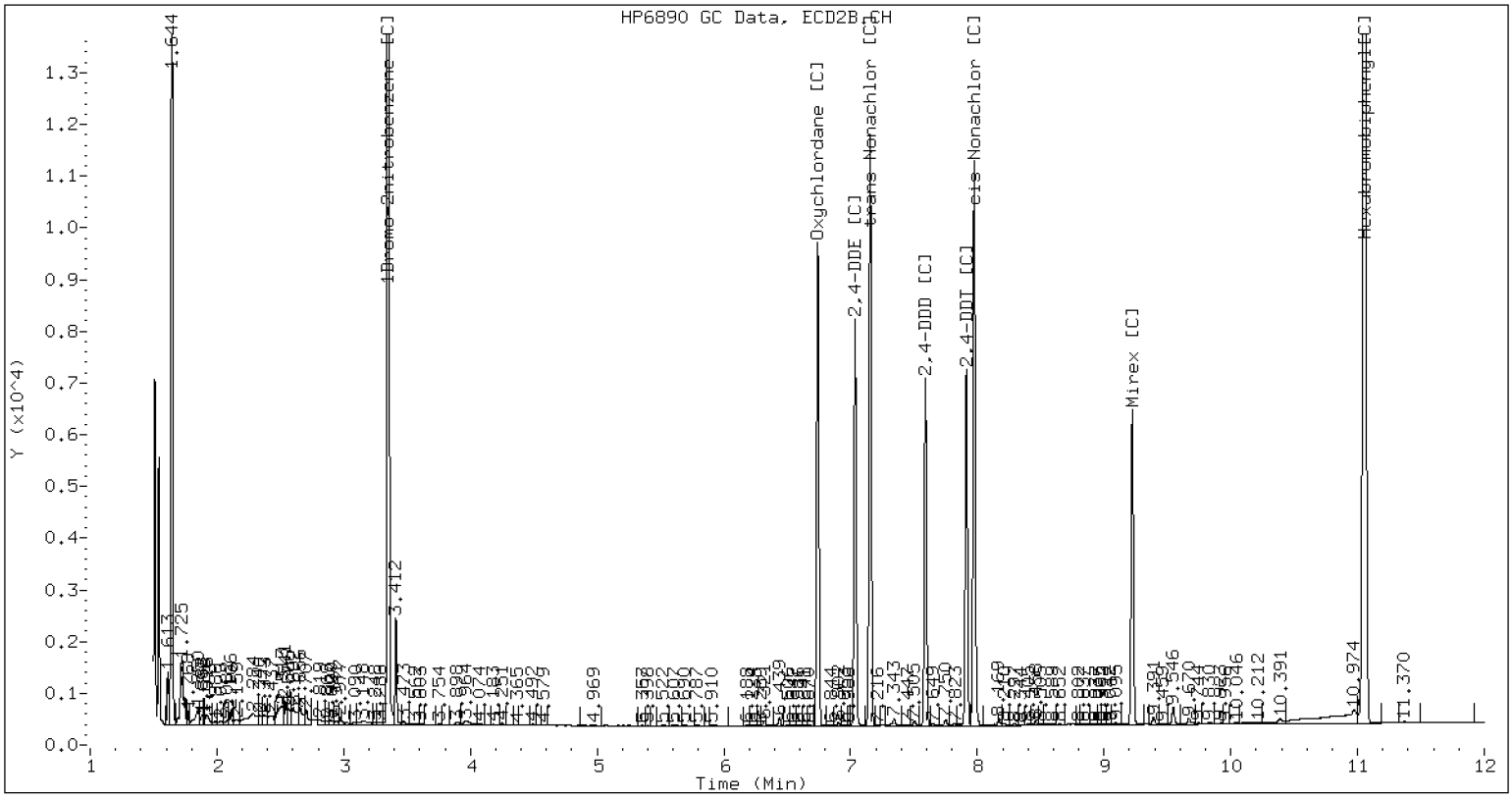
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121415.D SEQ-CALB CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121415.D
Data file 2: /20221214.b/B20221214.b/22121415.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALB
Client ID:
Injection Date: 14-DEC-2022 23:36
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121416.D
Data file 2: /20221214.b/B20221214.b/22121416.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALC
Client ID:
Injection Date: 14-DEC-2022 23:54
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.014	0.000	292499	6.741	-0.000	460731	40.08	40.26	0.4	Oxychlordane
6.106	0.000	242066	7.036	-0.000	372996	40.18	39.80	0.9	2,4-DDE
6.397	0.000	383329	7.154	-0.001	567971	40.16	40.45	0.7	trans-Nonachlor
6.681	0.000	216474	7.590	-0.000	320311	40.39	39.88	1.3	2,4-DDD
6.957	0.000	233738	7.913	-0.000	332906	40.36	40.25	0.3	2,4-DDT
7.112	0.000	373705	7.975	-0.000	538334	40.21	40.33	0.3	cis-Nonachlor
8.082	0.000	229604	9.222	-0.000	299228	39.71	38.54	3.0	Mirex
3.800	-0.028	1151	----			0.13	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

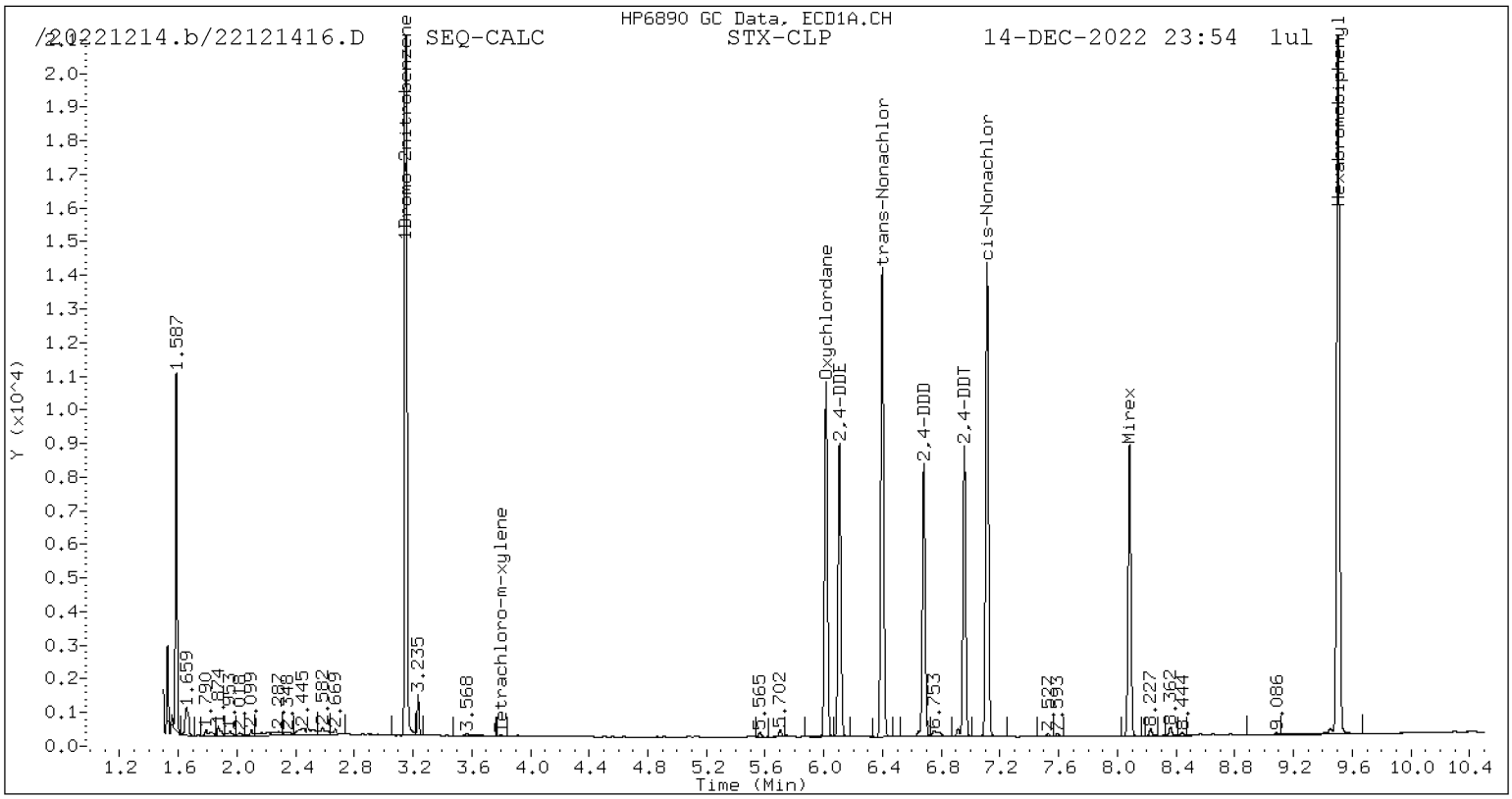
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	674573	-5.1
Hexabromobiphenyl	641833	613787	-4.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1027697	-2.9
Hexabromobiphenyl	797125	784673	-1.6

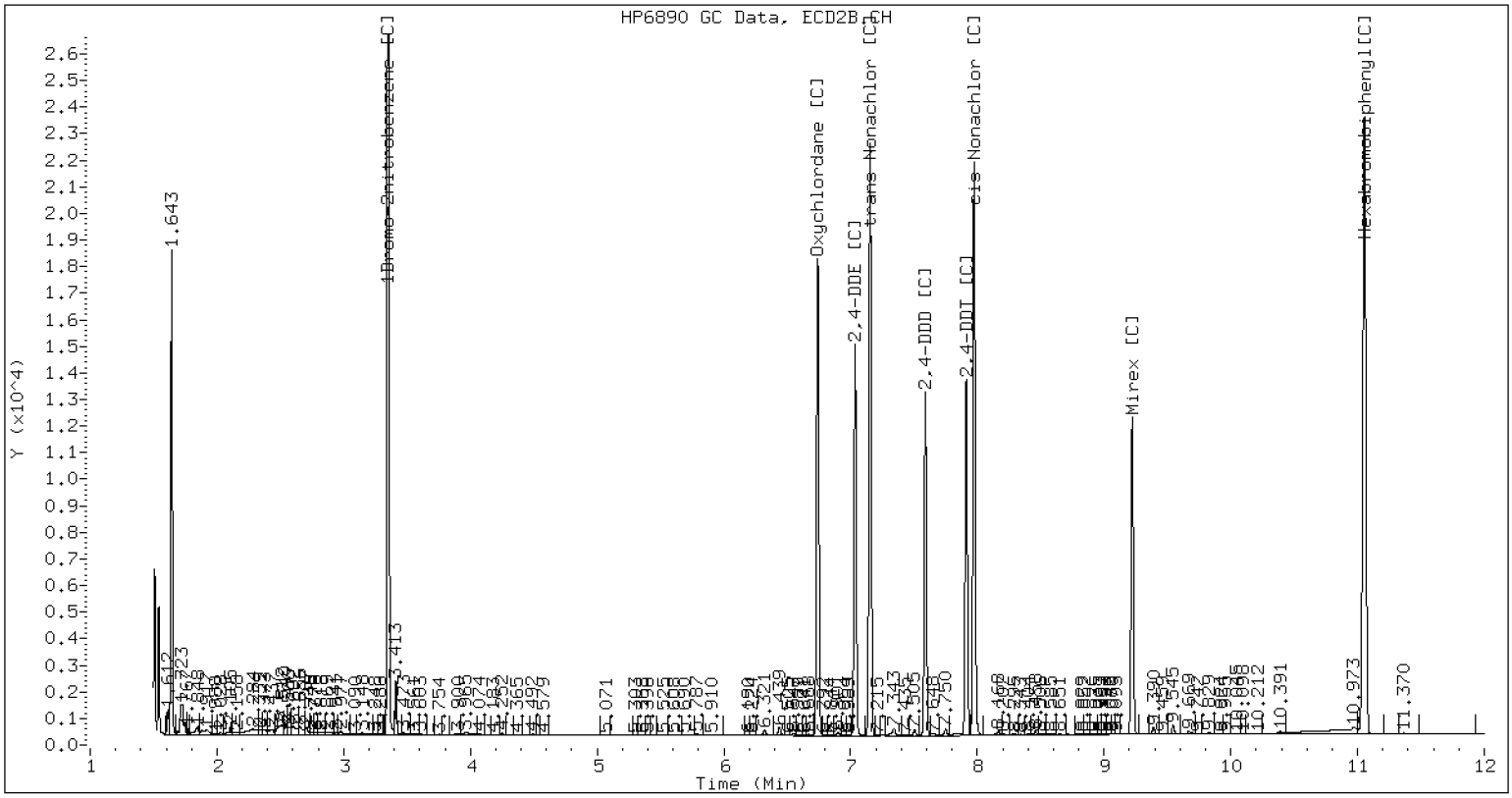
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121416.D SEQ-CALC CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121416.D
Data file 2: /20221214.b/B20221214.b/22121416.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALC
Client ID:
Injection Date: 14-DEC-2022 23:54
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121417.D
Data file 2: /20221214.b/B20221214.b/22121417.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALD
Client ID:
Injection Date: 15-DEC-2022 00:12
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.014	-0.000	544254	6.741	-0.000	856443	75.85	75.73	0.2	Oxychlordane
6.106	-0.000	438313	7.036	-0.000	677072	73.99	73.11	1.2	2,4-DDE
6.397	-0.000	704675	7.155	0.000	1067899	75.09	76.94	2.4	trans-Nonachlor
6.681	0.000	393654	7.591	0.000	594311	74.70	74.86	0.2	2,4-DDD
6.956	-0.001	430636	7.914	0.000	618740	75.63	75.68	0.1	2,4-DDT
7.112	-0.000	688257	7.975	0.000	1018624	75.31	77.19	2.5	cis-Nonachlor
8.082	-0.001	426177	9.223	0.000	573947	74.97	74.78	0.2	Mirex
3.800	-0.028	2109	----			0.23	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

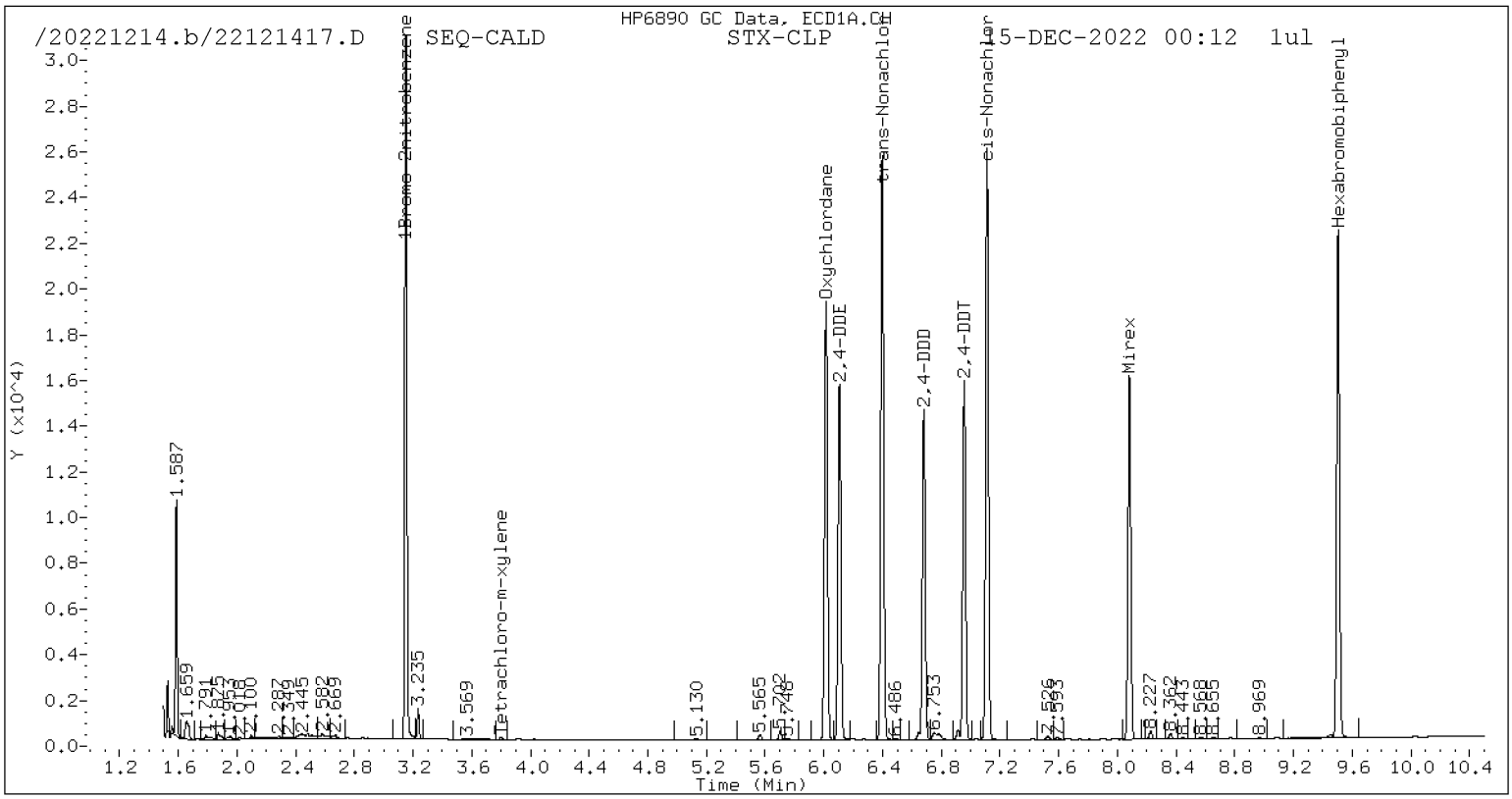
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	664375	-6.5
Hexabromobiphenyl	641833	603504	-6.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1015544	-4.1
Hexabromobiphenyl	797125	775630	-2.7

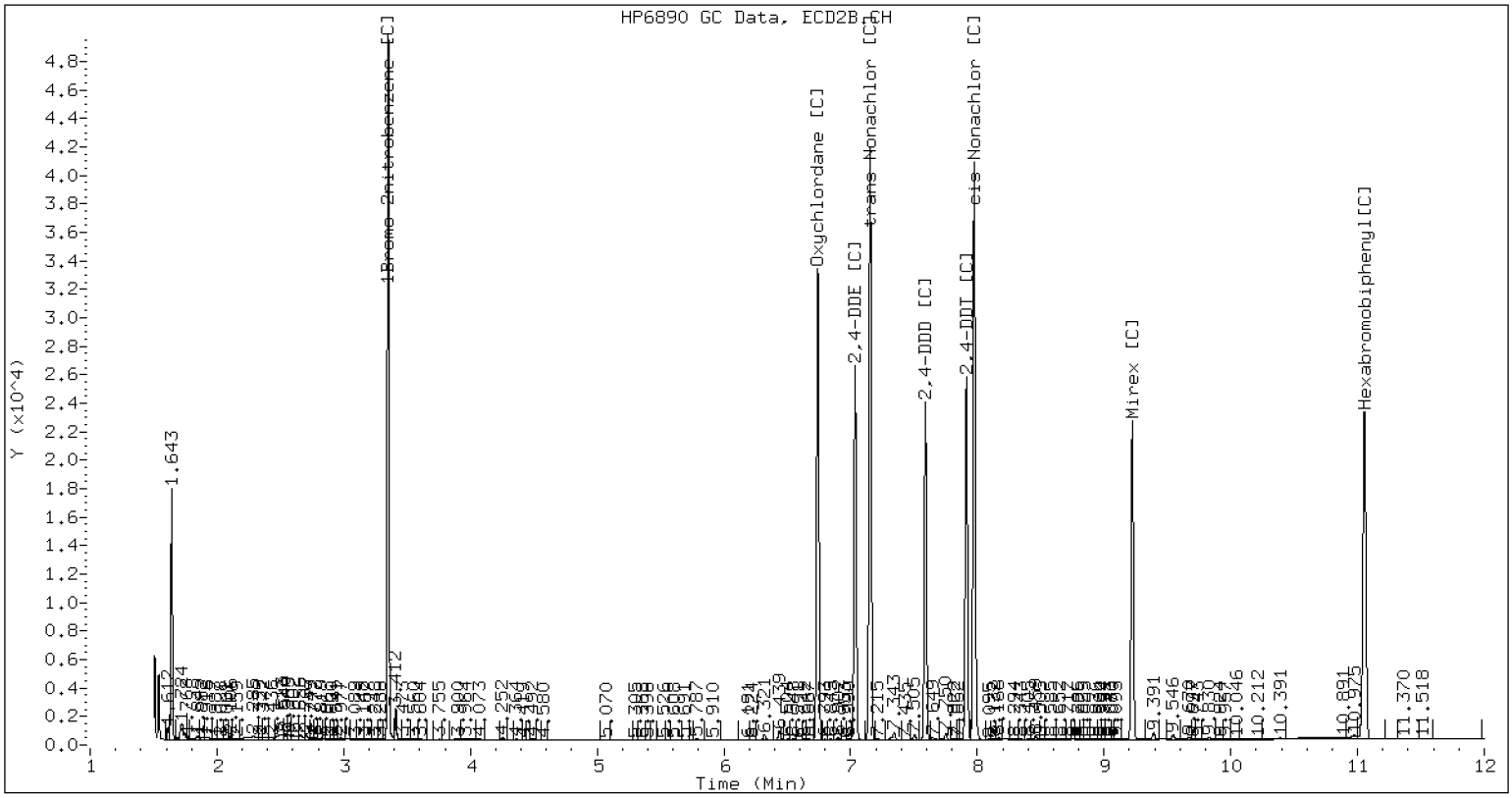
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121417.D SEQ-CALD CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121417.D
Data file 2: /20221214.b/B20221214.b/22121417.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALD
Client ID:
Injection Date: 15-DEC-2022 00:12
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121418.D
Data file 2: /20221214.b/B20221214.b/22121418.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALE
Client ID:
Injection Date: 15-DEC-2022 00:30
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.014	0.000	1020828	6.741	0.000	1630330	140.48	142.04	1.1	Oxychlordane
6.106	-0.000	801828	7.036	0.000	1240933	133.65	132.03	1.2	2,4-DDE
6.397	0.000	1327091	7.155	0.000	2047915	139.63	146.04	4.5	trans-Nonachlor
6.680	-0.000	733651	7.591	0.000	1118552	137.46	139.45	1.4	2,4-DDD
6.956	-0.001	794021	7.913	0.000	1163676	137.69	140.88	2.3	2,4-DDT
7.112	-0.000	1301975	7.975	0.000	1956215	140.68	146.73	4.2	cis-Nonachlor
8.082	-0.001	815059	9.223	0.000	1108848	141.57	143.01	1.0	Mirex
3.800	-0.028	3997	----			0.43	0.00	---	Tetrachloro-m-xylene
----			10.471	0.004	3393	0.00	0.39	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

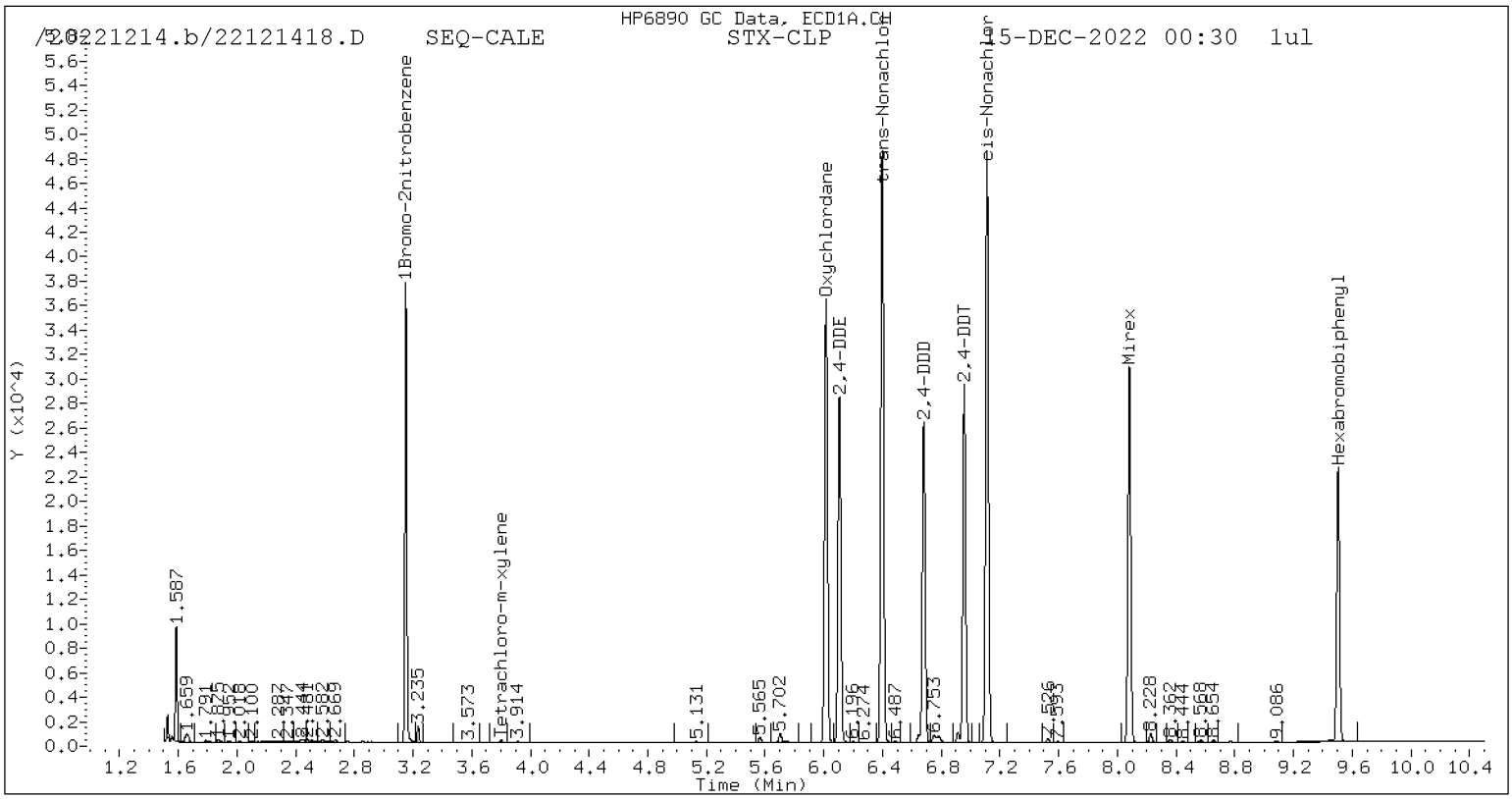
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	675789	-4.9
Hexabromobiphenyl	641833	611199	-4.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1030648	-2.7
Hexabromobiphenyl	797125	783631	-1.7

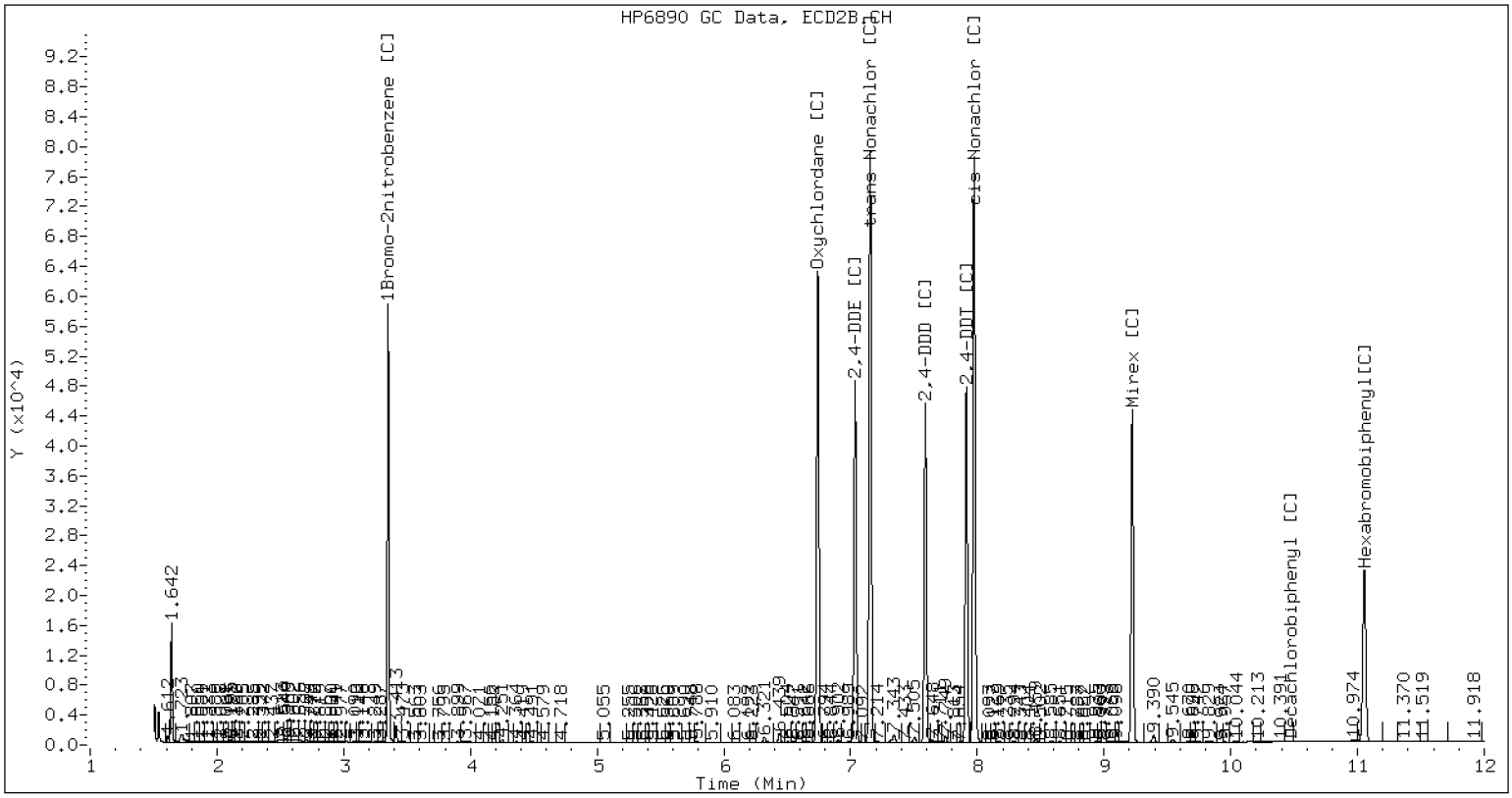
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121418.D SEQ-CALE CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121418.D
Data file 2: /20221214.b/B20221214.b/22121418.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALE
Client ID:
Injection Date: 15-DEC-2022 00:30
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121419.D
Data file 2: /20221214.b/B20221214.b/22121419.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-SCV1
Client ID:
Injection Date: 15-DEC-2022 00:48
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.342	0.000	643235	4.860	-0.000	1047709	49.66	51.22	3.1	alpha-BHC
4.726	-0.000	242617	5.337	0.000	386388	48.66	49.69	2.1	beta-BHC
4.909	0.000	554797	5.692	0.001	897343	52.41	53.26	1.6	delta-BHC
4.646	0.001	573983	5.258	0.000	915596	51.11	52.75	3.1	gamma-BHC (Lindane)
5.130	0.000	495138	5.788	0.001	804002	49.55	51.13	3.1	Heptachlor
5.454	0.000	526615	6.191	0.000	842909	47.03	46.95	0.2	Aldrin
6.130	0.000	469481	6.846	0.000	724932	48.36	48.83	1.0	Heptachlor epoxide b
6.573	0.000	423102	7.289	-0.000	632890	47.49	48.37	1.8	Endosulfan I
6.832	0.000	478299	7.583	0.000	724854	49.97	50.14	0.3	Dieldrin
6.489	0.000	448741	7.371	0.000	670346	50.49	50.56	0.1	4,4'-DDE
7.082	0.001	396143	7.907	0.000	551004	50.36	50.73	0.7	Endrin
7.318	0.001	350431	8.118	0.001	537104	49.49	48.24	2.6	Endosulfan II
7.136	0.001	355688	7.977	0.001	525927	50.19	49.78	0.8	4,4'-DDD
8.180	0.000	347949	8.716	0.001	502438	51.75	51.39	0.7	Endosulfan sulfate
7.428	0.001	368644	8.295	-0.000	524685	51.48	51.45	0.1	4,4'-DDT
7.913	0.001	174306	8.935	-0.001	238791	54.93	52.91	3.7	Methoxychlor
8.454	0.000	394474	9.240	-0.000	540431	51.21	51.18	0.1	Endrin ketone
7.746	0.001	316262	8.448	0.000	449269	56.00	57.20	2.1	Endrin aldehyde
6.271	0.000	490842	7.056	0.000	748350	49.78	50.55	1.5	trans-Chlordane
6.417	0.001	469513	7.216	0.000	700871	47.47	48.39	1.9	cis-Chlordane
----			2.512	0.011	11364	0.00	0.59	---	Hexachlorobutadiene
----			4.719	0.001	634	0.00	0.03	---	Hexachlorobenzene
----			4.220	-0.000	1724	0.00	0.12	---	Tetrachloro-m-xylene
----			10.468	0.001	643	0.00	0.08	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

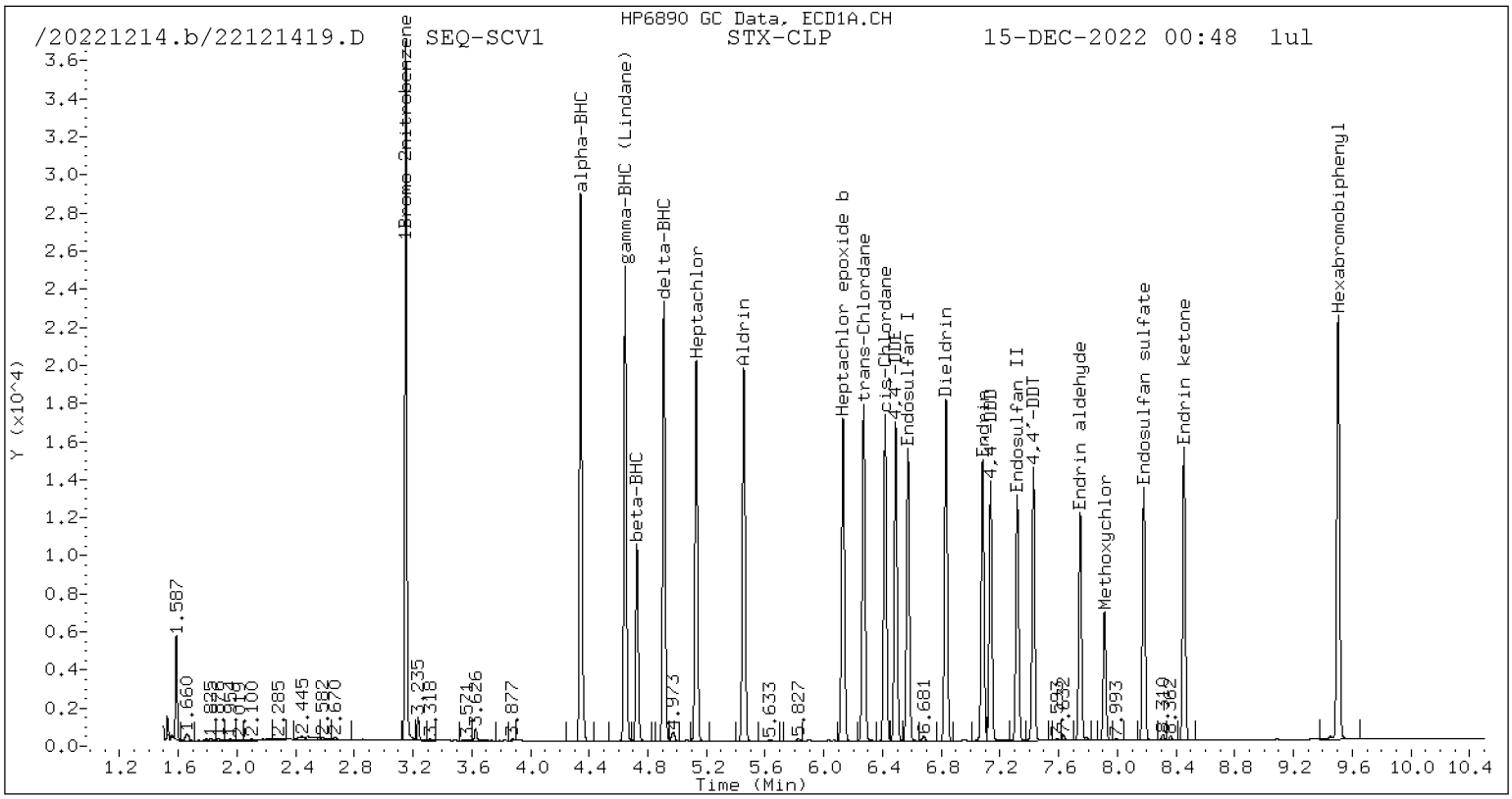
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	672755	-5.3
Hexabromobiphenyl	641833	599983	-6.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1020655	-3.6
Hexabromobiphenyl	797125	763949	-4.2

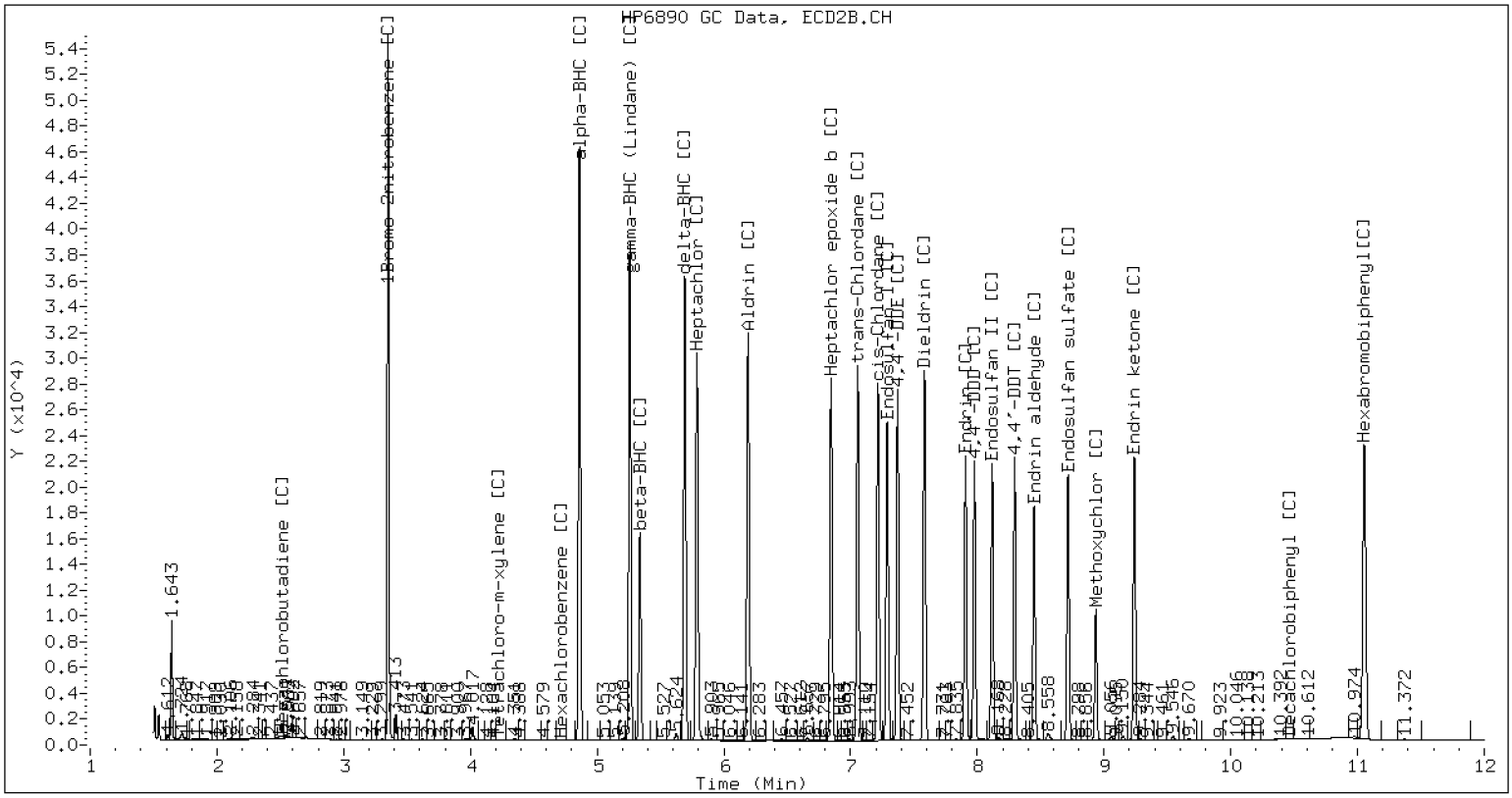
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121419.D SEQ-SCV1 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121419.D
Data file 2: /20221214.b/B20221214.b/22121419.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-SCV1
Client ID:
Injection Date: 15-DEC-2022 00:48
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121420.D
Data file 2: /20221214.b/B20221214.b/22121420.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-SCV2
Client ID:
Injection Date: 15-DEC-2022 01:06
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.014	-0.000	374516	6.741	0.000	591348	51.08	50.07	2.0	Oxychlordane
6.106	-0.000	261097	7.036	-0.000	403824	43.13	41.76	3.2	2,4-DDE
6.397	-0.000	444133	7.155	-0.000	657777	46.31	45.91	0.9	trans-Nonachlor
6.681	0.000	222534	7.591	0.000	334706	41.32	40.84	1.2	2,4-DDD
6.956	-0.001	262722	7.914	0.000	382016	45.15	45.26	0.2	2,4-DDT
7.111	-0.001	455894	7.975	0.000	655718	48.82	48.13	1.4	cis-Nonachlor
8.081	-0.001	256593	9.223	0.000	343173	44.17	43.31	2.0	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

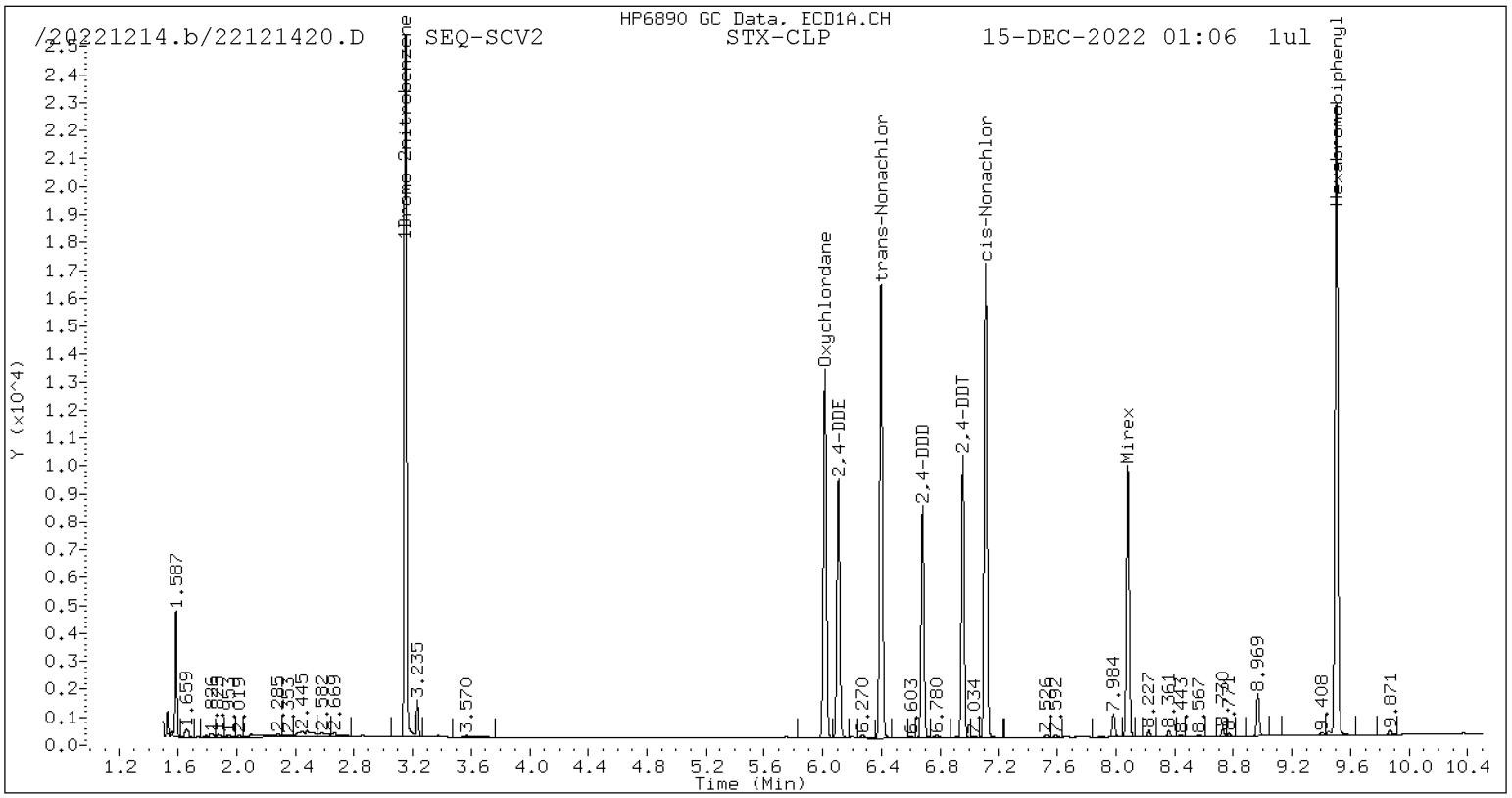
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	687052	-3.3
Hexabromobiphenyl	641833	616730	-3.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1060438	0.2
Hexabromobiphenyl	797125	800740	0.5

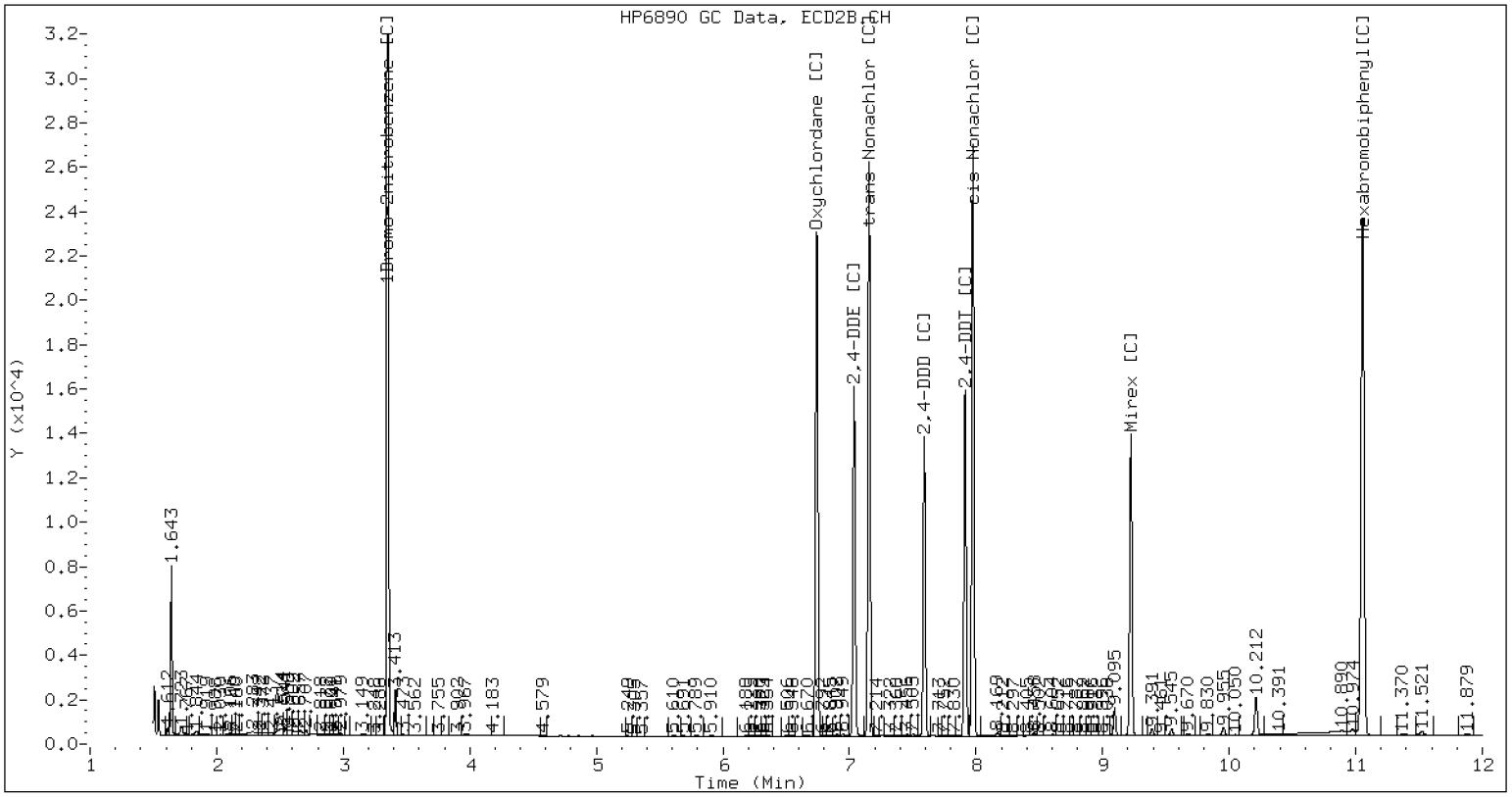
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121420.D SEQ-SCV2 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121420.D
Data file 2: /20221214.b/B20221214.b/22121420.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-SCV2
Client ID:
Injection Date: 15-DEC-2022 01:06
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121421.D
Data file 2: /20221214.b/B20221214.b/22121421.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL1A
Client ID:
Injection Date: 15-DEC-2022 01:24
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			4.215	-0.006	361	0.00	0.02	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	601512	-15.4
Hexabromobiphenyl	641833	690103	7.5

Column 2

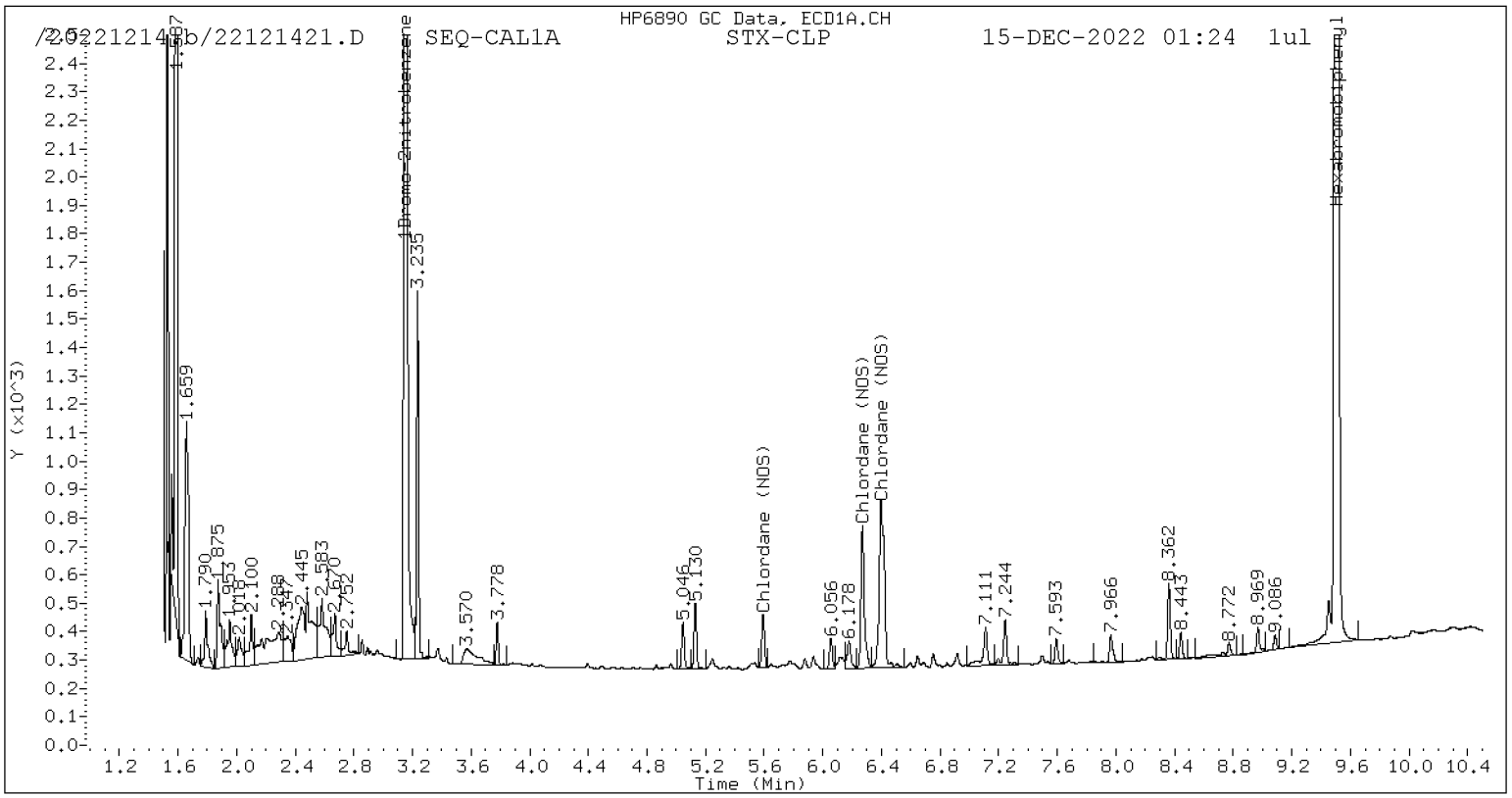
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	776759	-26.6
Hexabromobiphenyl	797125	1058847	32.8

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	5.593	0.000	5054	13.1	1	5.612	-0.000	6415	12.8
Chlordane (NOS)	2	6.271	-0.000	15913	12.4	2	6.349	-0.000	7689	13.7
Chlordane (NOS)	3	6.399	0.000	29332	13.1	3	7.155	-0.001	23386	12.3

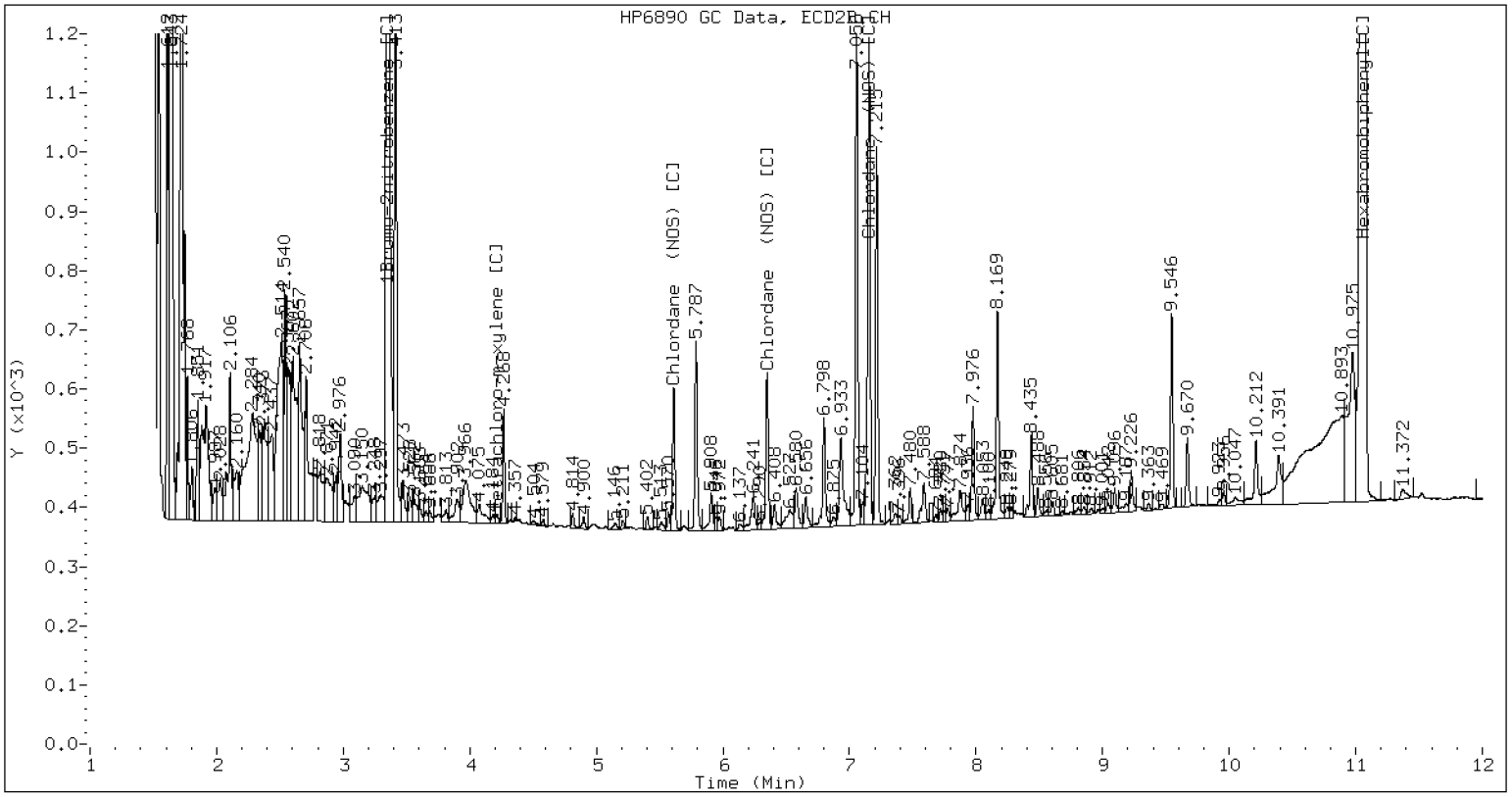
Total STX-CLPAve (3 peaks): 12.882 Total CLP2Ave (3 peaks): 12.916 RPD = 0
Corrected Ave (3 peaks): 12.882 Corrected Ave (3 peaks): 12.916 RPD = 0

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121421.D SEQ-CAL1A CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121421.D
Data file 2: /20221214.b/B20221214.b/22121421.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL1A
Client ID:
Injection Date: 15-DEC-2022 01:24
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121422.D
Data file 2: /20221214.b/B20221214.b/22121422.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL2A
Client ID:
Injection Date: 15-DEC-2022 01:42
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	611280	-14.0
Hexabromobiphenyl	641833	704720	9.8

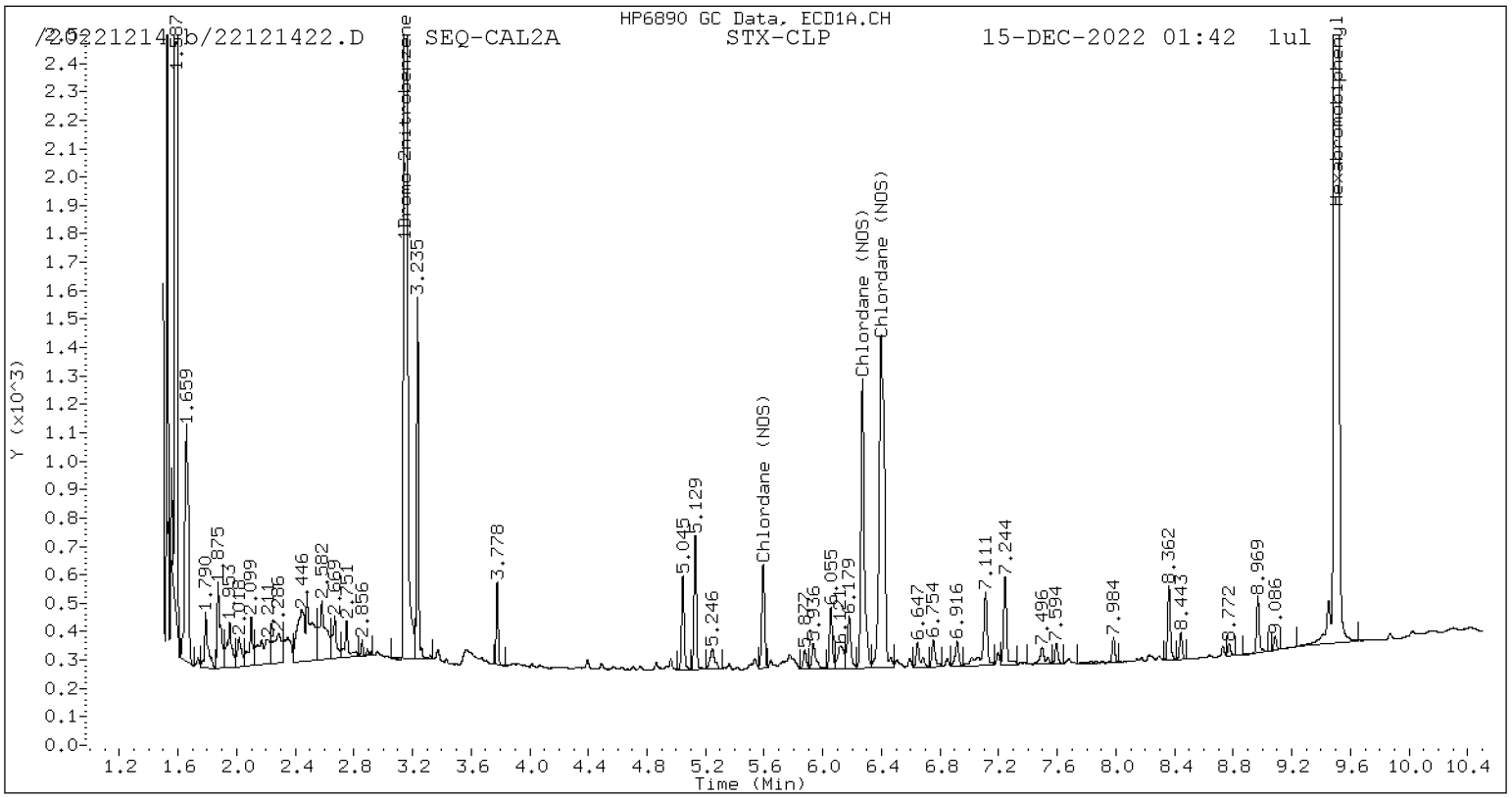
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	793365	-25.1
Hexabromobiphenyl	797125	1083049	35.9

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

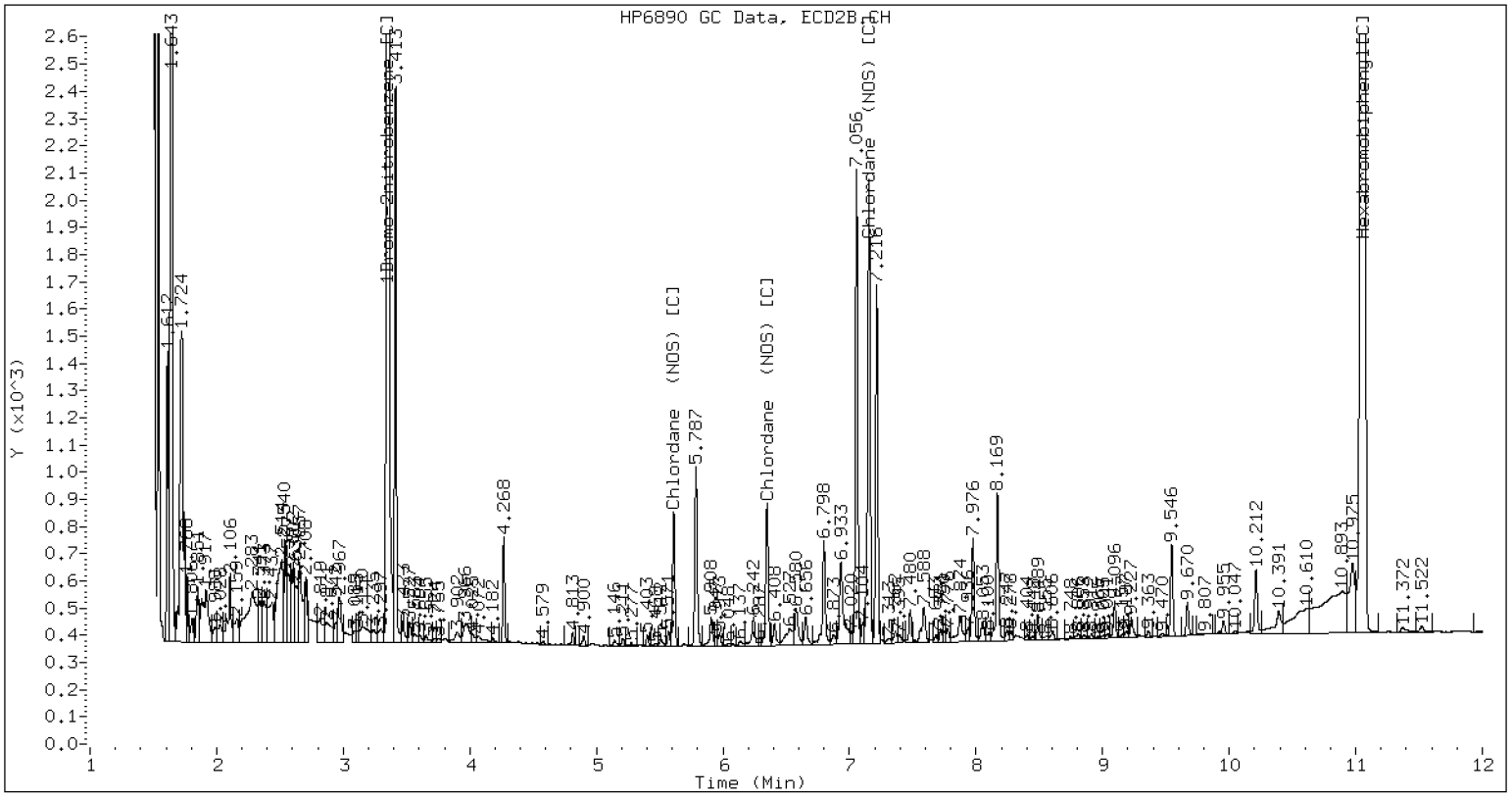
		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Chlordane (NOS)	1	5.593	0.000	10046	25.5	1	5.612	-0.000	12488	24.4	
Chlordane (NOS)	2	6.271	-0.000	32715	25.0	2	6.348	-0.001	15023	26.1	
Chlordane (NOS)	3	6.399	0.000	58016	25.4	3	7.155	-0.000	48236	24.8	
Total STX-CLPAve (3 peaks): 25.309						Total CLP2Ave (3 peaks): 25.077				RPD = 1	
Corrected Ave (3 peaks): 25.309						Corrected Ave (3 peaks): 25.077				RPD = 1	

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121422.D SEQ-CAL2A CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121422.D
Data file 2: /20221214.b/B20221214.b/22121422.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL2A
Client ID:
Injection Date: 15-DEC-2022 01:42
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121423.D
Data file 2: /20221214.b/B20221214.b/22121423.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL3A
Client ID:
Injection Date: 15-DEC-2022 01:59
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	592438	-16.6
Hexabromobiphenyl	641833	685225	6.8

Column 2

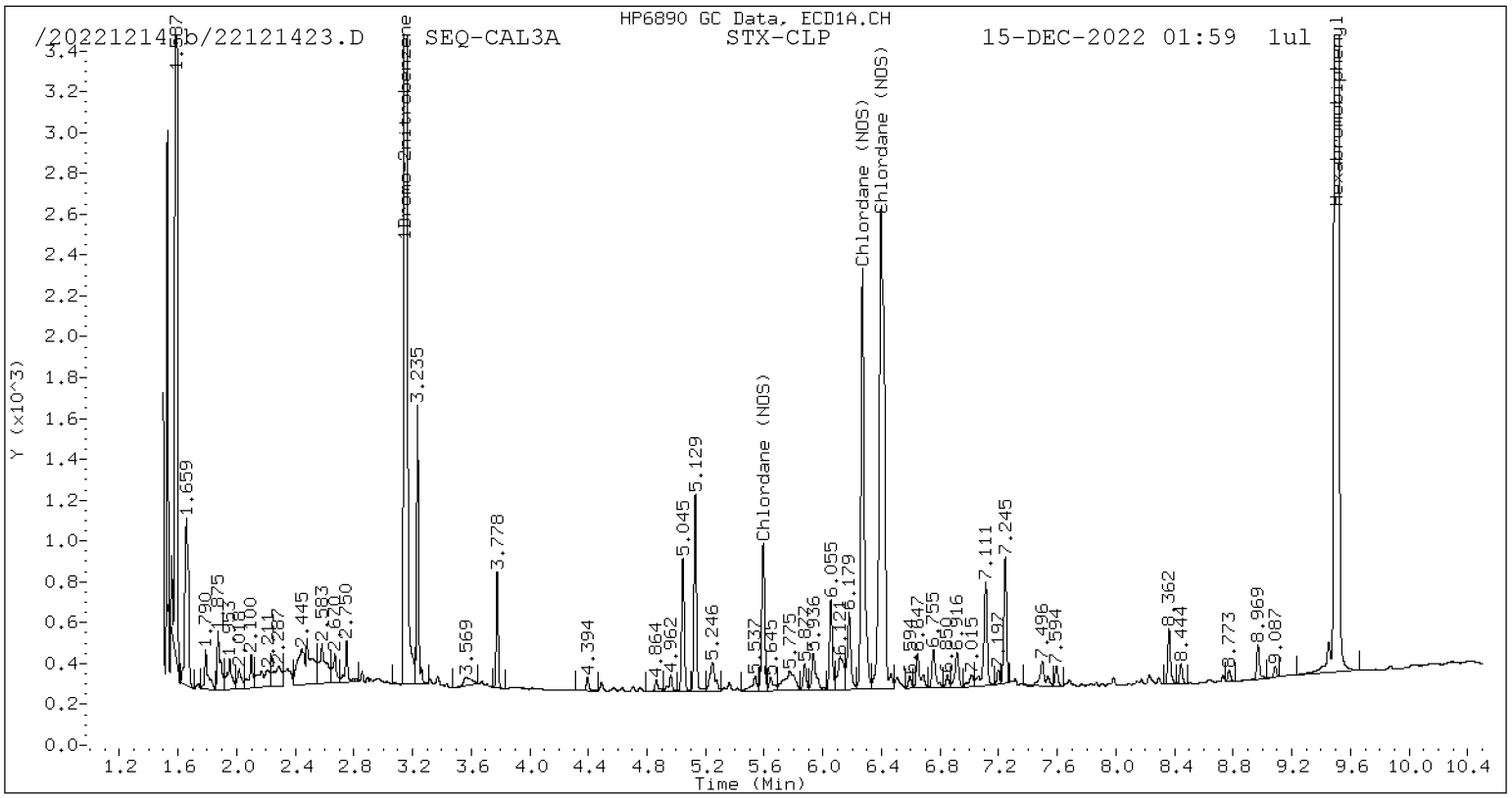
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	769029	-27.4
Hexabromobiphenyl	797125	1054742	32.3

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	5.593	0.001	20502	53.5	1	5.612	-0.000	24816	49.7
Chlordane (NOS)	2	6.271	-0.000	66320	52.2	2	6.349	0.000	29114	51.9
Chlordane (NOS)	3	6.399	0.000	116820	52.6	3	7.155	-0.000	98401	51.9

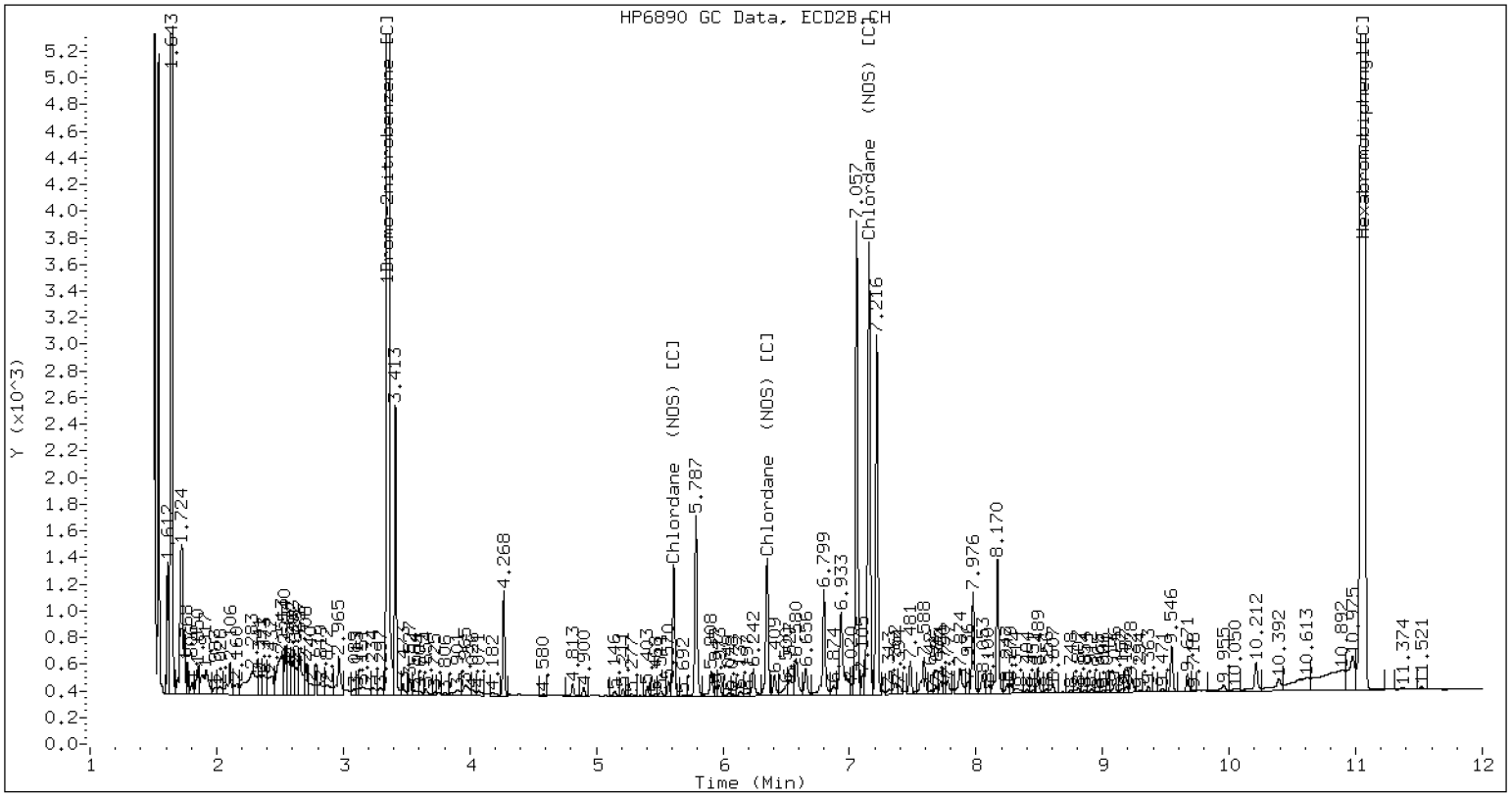
Total STX-CLPAve (3 peaks): 52.767 Total CLP2Ave (3 peaks): 51.179 RPD = 3
Corrected Ave (3 peaks): 52.767 Corrected Ave (3 peaks): 51.179 RPD = 3

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121423.D SEQ-CAL3A CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121423.D
Data file 2: /20221214.b/B20221214.b/22121423.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL3A
Client ID:
Injection Date: 15-DEC-2022 01:59
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121424.D
Data file 2: /20221214.b/B20221214.b/22121424.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL4A
Client ID:
Injection Date: 15-DEC-2022 02:17
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	584808	-17.7
Hexabromobiphenyl	641833	675665	5.3

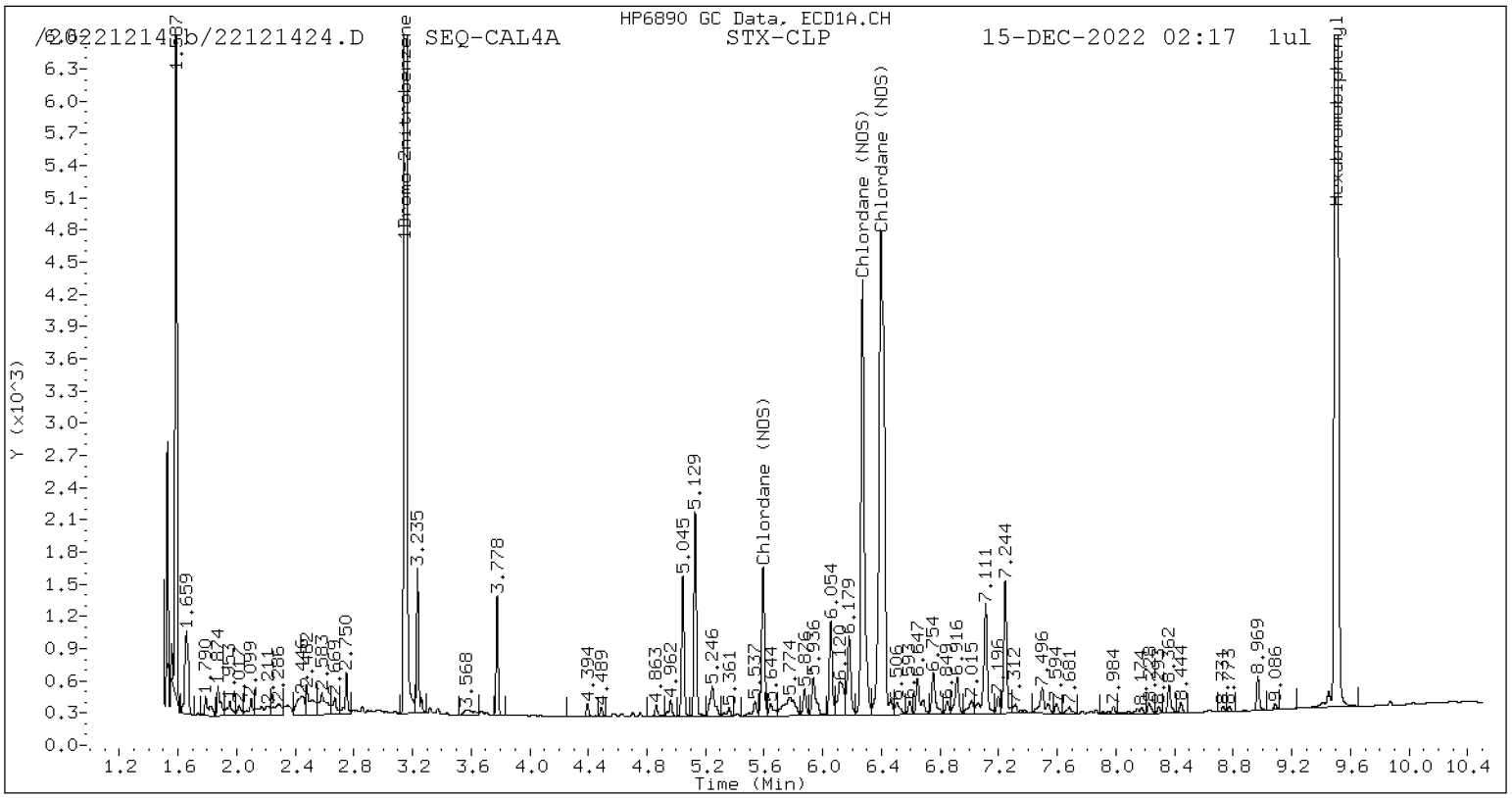
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	758204	-28.4
Hexabromobiphenyl	797125	1039488	30.4

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

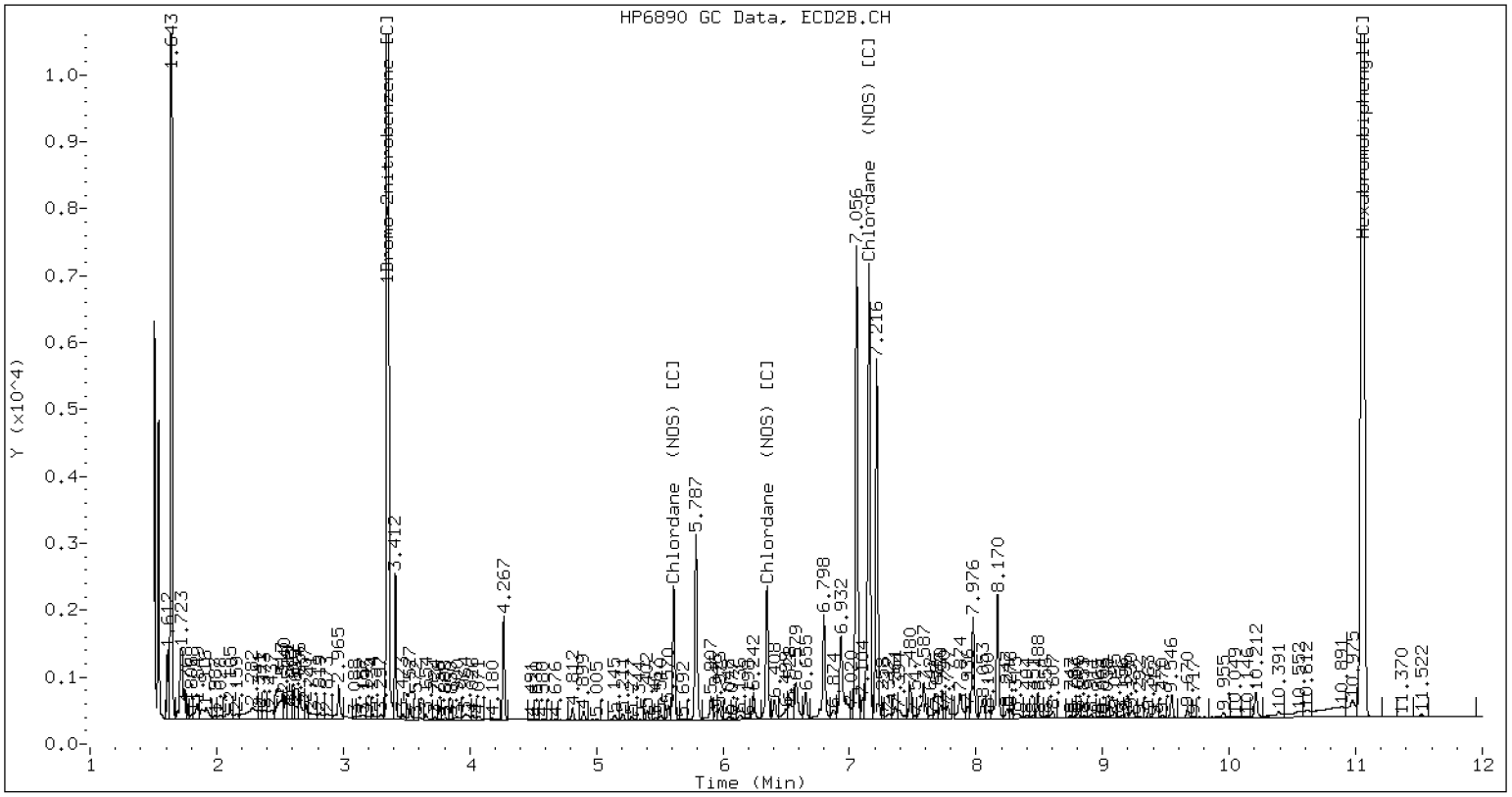
		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Chlordane (NOS)	1	5.593	-0.000	39696	105.0	1	5.611	-0.001	49889	101.4	
Chlordane (NOS)	2	6.271	-0.000	131726	105.2	2	6.348	-0.001	56608	102.5	
Chlordane (NOS)	3	6.398	-0.001	229050	104.6	3	7.155	-0.000	195665	104.7	
Total STX-CLPAve (3 peaks): 104.931						Total CLP2Ave (3 peaks): 102.854				RPD = 2	
Corrected Ave (3 peaks): 104.931						Corrected Ave (3 peaks): 102.854				RPD = 2	

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121424.D SEQ-CAL4A CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121424.D
Data file 2: /20221214.b/B20221214.b/22121424.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL4A
Client ID:
Injection Date: 15-DEC-2022 02:17
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121425.D
Data file 2: /20221214.b/B20221214.b/22121425.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL5A
Client ID:
Injection Date: 15-DEC-2022 02:35
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	612592	-13.8
Hexabromobiphenyl	641833	705251	9.9

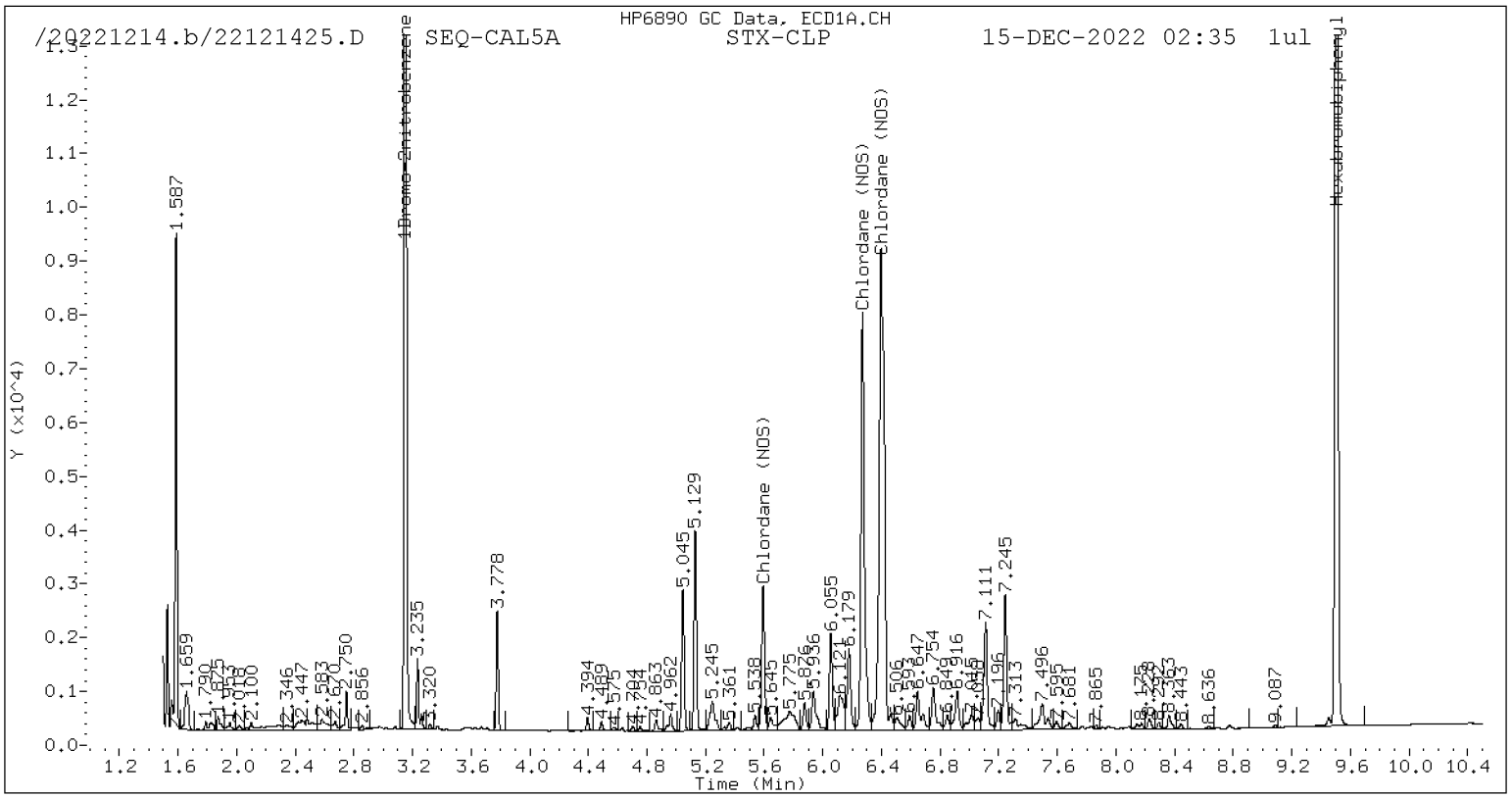
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	792856	-25.1
Hexabromobiphenyl	797125	1079718	35.5

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

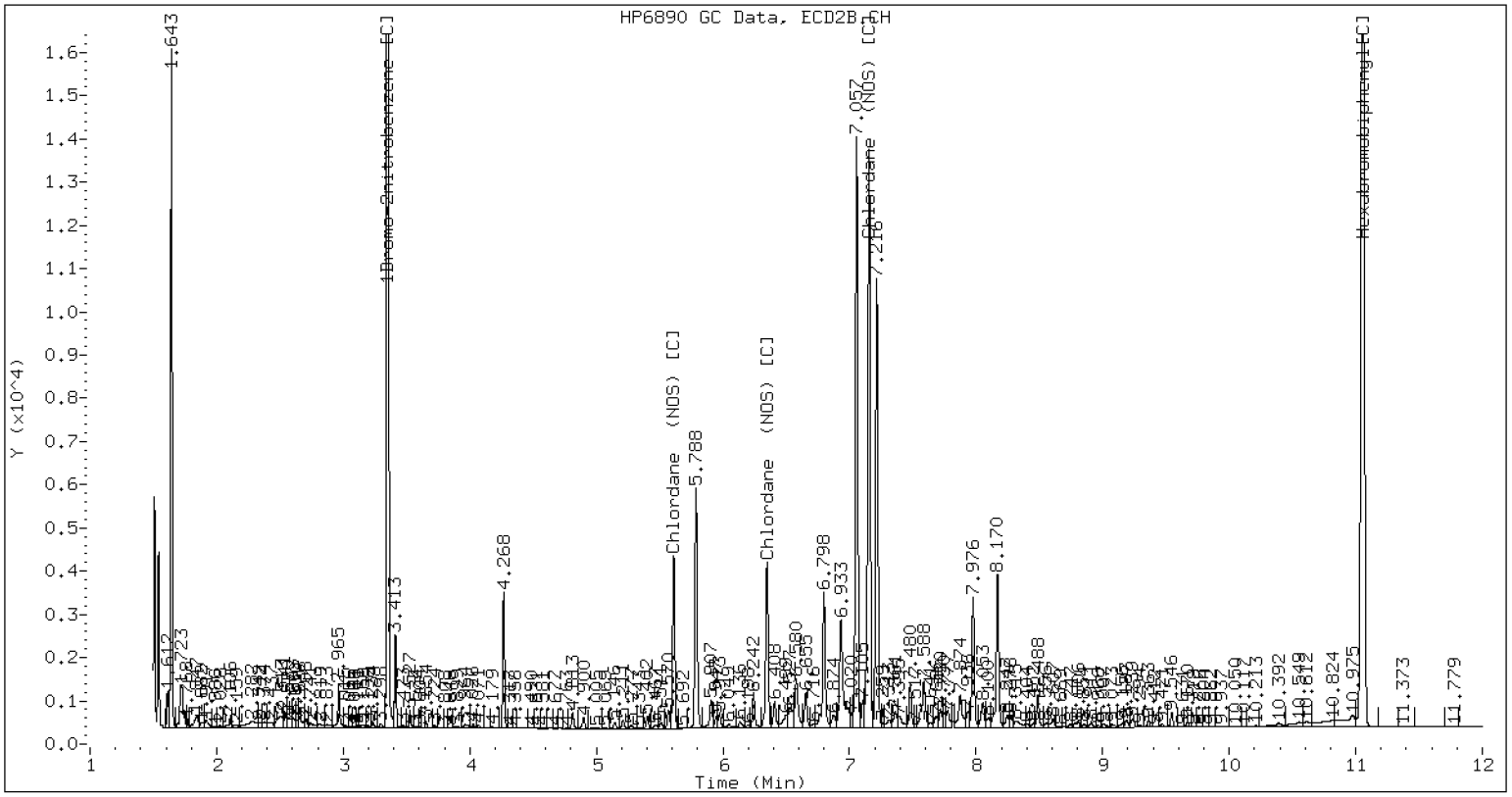
		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Chlordane (NOS)	1	5.593	0.000	77307	196.0	1	5.612	-0.000	101527	198.7	
Chlordane (NOS)	2	6.271	0.000	261078	199.7	2	6.349	-0.001	110757	193.0	
Chlordane (NOS)	3	6.399	0.000	449301	196.5	3	7.155	-0.000	389197	200.5	
Total STX-CLPAve (3 peaks): 197.408						Total CLP2Ave (3 peaks): 197.390				RPD = 0	
Corrected Ave (3 peaks): 197.408						Corrected Ave (3 peaks): 197.390				RPD = 0	

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121425.D SEQ-CAL5A CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121425.D
Data file 2: /20221214.b/B20221214.b/22121425.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL5A
Client ID:
Injection Date: 15-DEC-2022 02:35
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121426.D
Data file 2: /20221214.b/B20221214.b/22121426.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL6A
Client ID:
Injection Date: 15-DEC-2022 02:53
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	603526	-15.1
Hexabromobiphenyl	641833	699031	8.9

Column 2

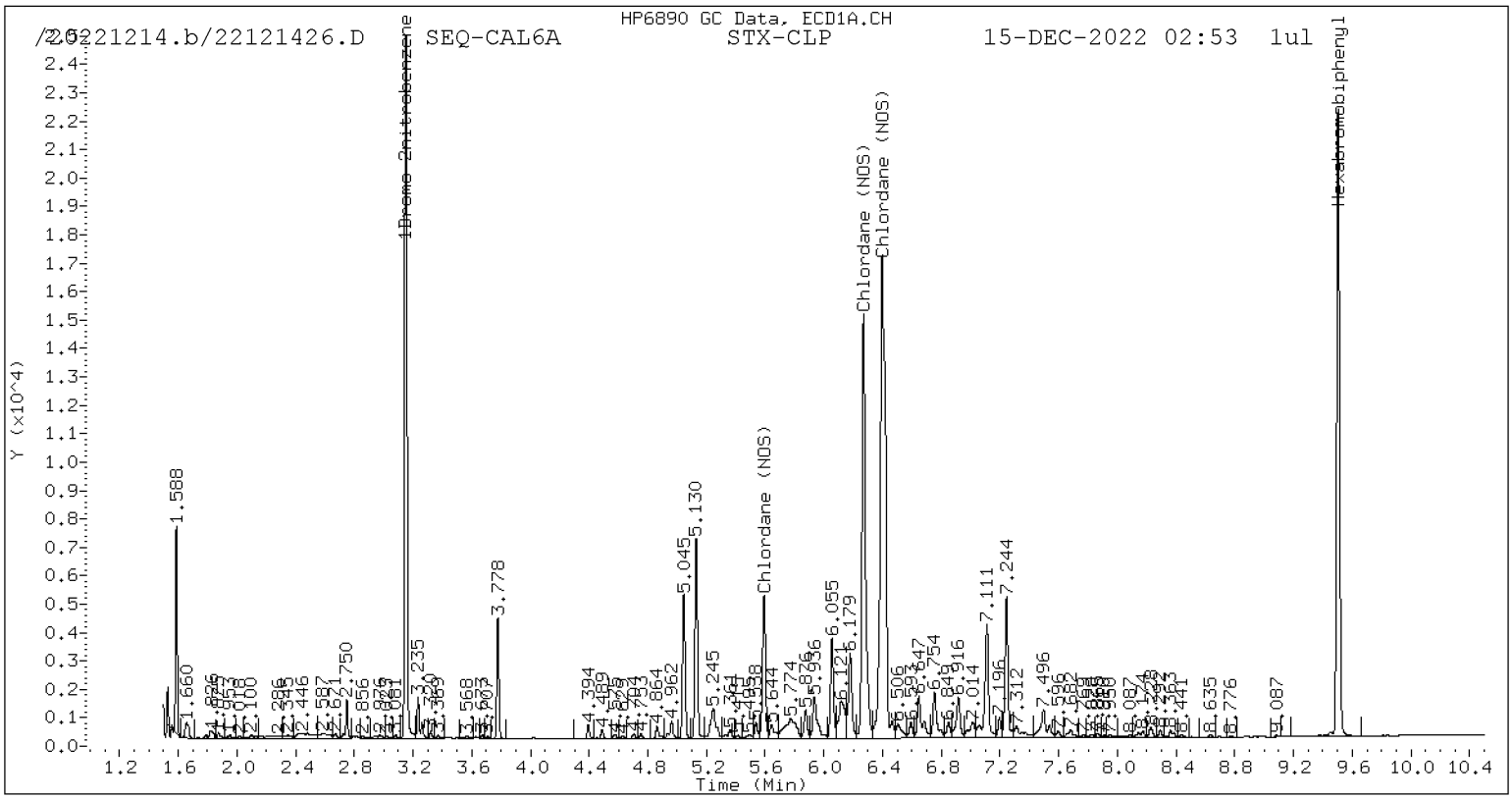
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	779405	-26.4
Hexabromobiphenyl	797125	1068976	34.1

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Chlordane (NOS)	1	5.592	-0.000	146950	375.8	1	5.612	-0.000	203386	402.0
Chlordane (NOS)	2	6.271	-0.000	503310	388.5	2	6.349	-0.000	212637	374.2
Chlordane (NOS)	3	6.399	0.000	857451	378.4	3	7.155	-0.000	752631	391.6

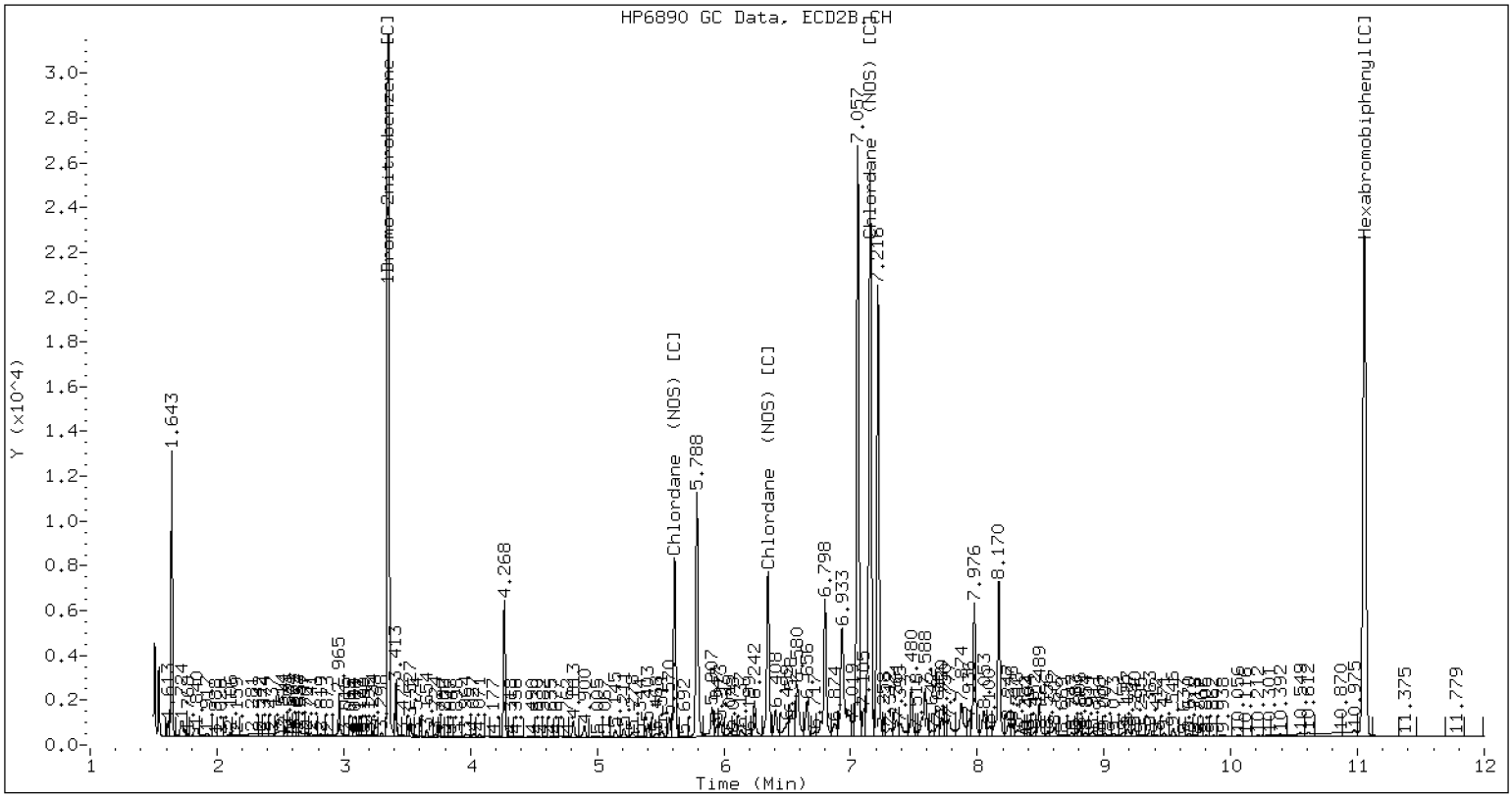
Total STX-CLPAve (3 peaks): 380.894 Total CLP2Ave (3 peaks): 389.290 RPD = 2
Corrected Ave (3 peaks): 380.894 Corrected Ave (3 peaks): 389.290 RPD = 2

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121426.D SEQ-CAL6A CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121426.D
Data file 2: /20221214.b/B20221214.b/22121426.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL6A
Client ID:
Injection Date: 15-DEC-2022 02:53
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121427.D
Data file 2: /20221214.b/B20221214.b/22121427.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL7A
Client ID:
Injection Date: 15-DEC-2022 03:11
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
----			----			0.00	0.00	---	Tetrachloro-m-xylene
9.380	0.025	1930	----			0.31	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	610159	-14.1
Hexabromobiphenyl	641833	692215	7.8

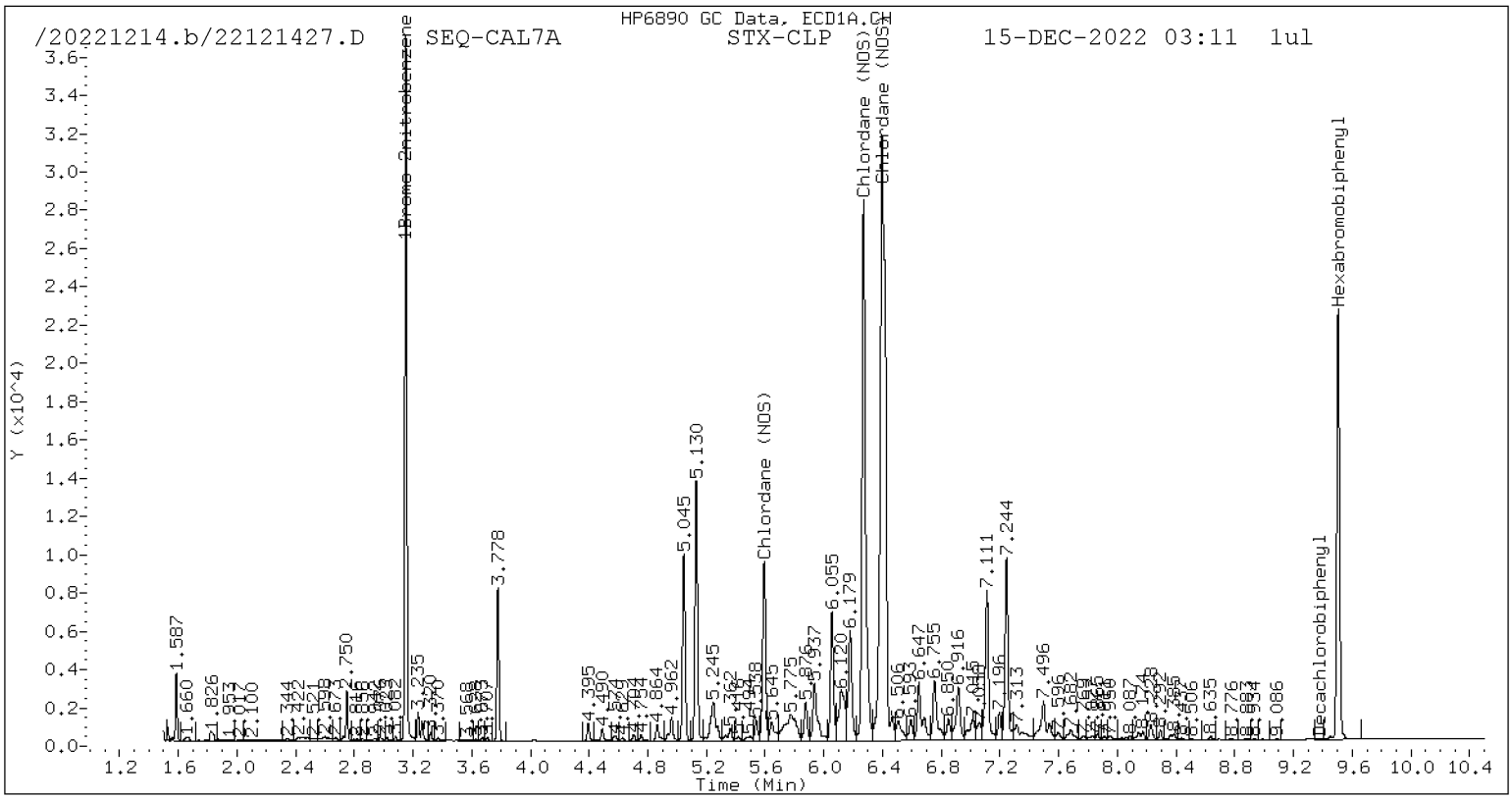
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	790388	-25.4
Hexabromobiphenyl	797125	1059143	32.9

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

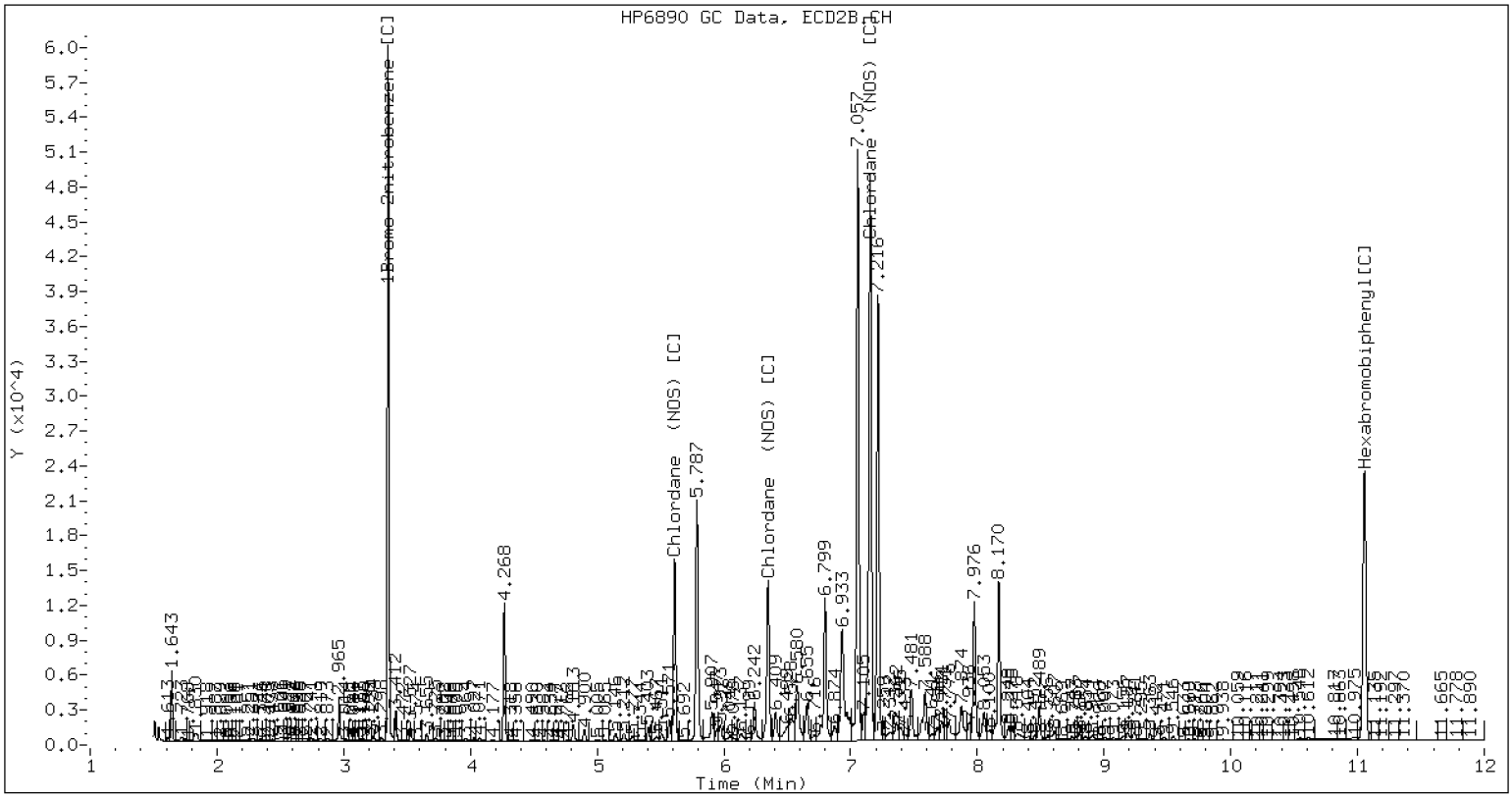
		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Chlordane (NOS)	1	5.593	0.001	276980	715.3	1	5.612	0.000	398620	795.3	
Chlordane (NOS)	2	6.271	-0.000	961368	749.3	2	6.349	0.000	405170	719.7	
Chlordane (NOS)	3	6.399	-0.000	1631241	727.0	3	7.155	0.000	1462876	768.2	
Total STX-CLPAve (3 peaks): 730.539						Total CLP2Ave (3 peaks): 761.064				RPD = 4	
Corrected Ave (3 peaks): 730.539						Corrected Ave (3 peaks): 761.064				RPD = 4	

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121427.D SEQ-CAL7A CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121427.D
Data file 2: /20221214.b/B20221214.b/22121427.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL7A
Client ID:
Injection Date: 15-DEC-2022 03:11
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121428.D
Data file 2: /20221214.b/B20221214.b/22121428.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL8A
Client ID:
Injection Date: 15-DEC-2022 03:29
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.828	0.000	8893	4.221	0.000	14795	0.95	0.98	4.0	Tetrachloro-m-xylene
9.355	0.000	15511	10.467	0.000	24896	2.54	2.86	11.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	691781	-2.7
Hexabromobiphenyl	641833	602865	-6.1

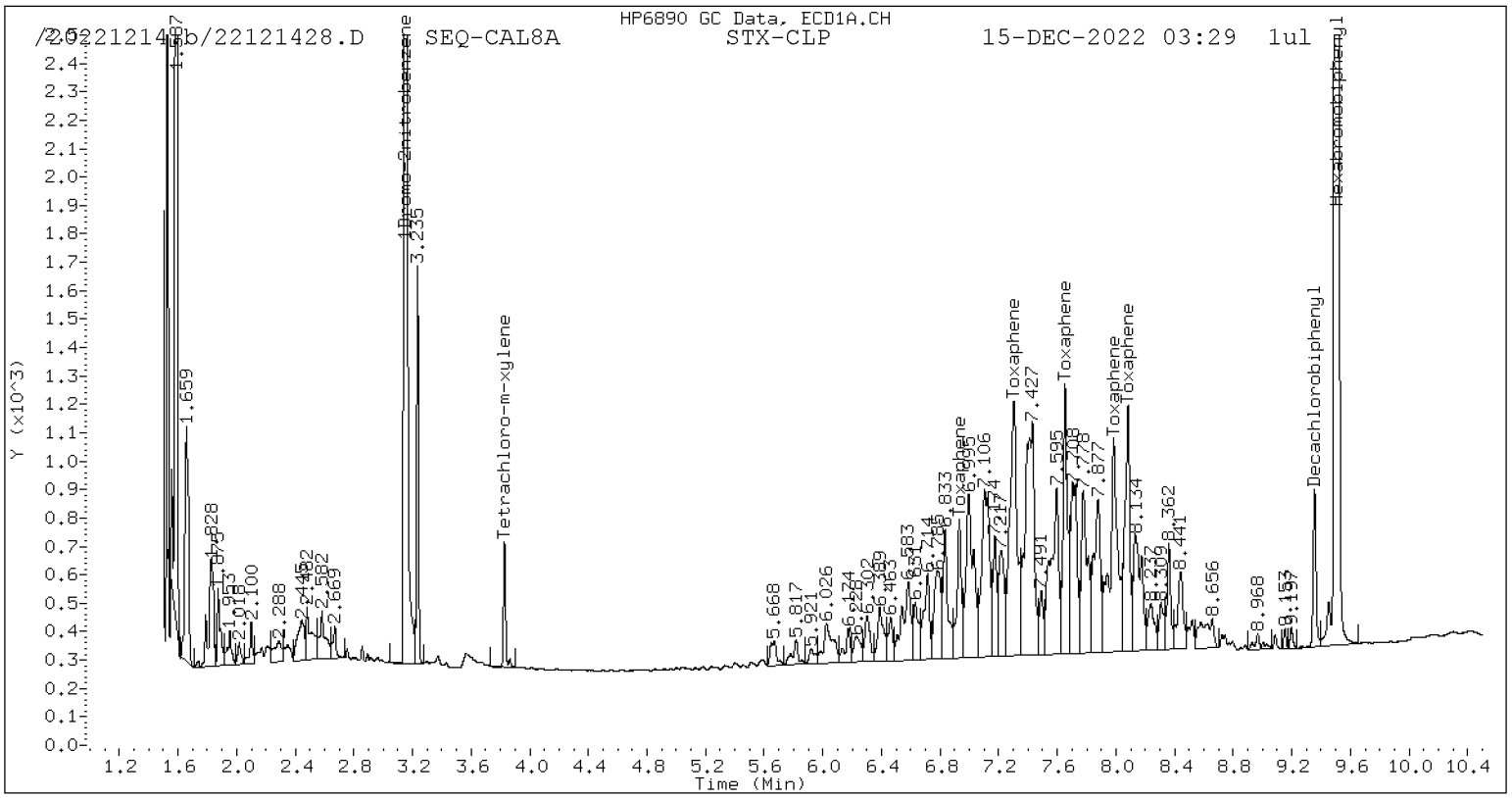
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1068328	0.9
Hexabromobiphenyl	797125	788806	-1.0

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

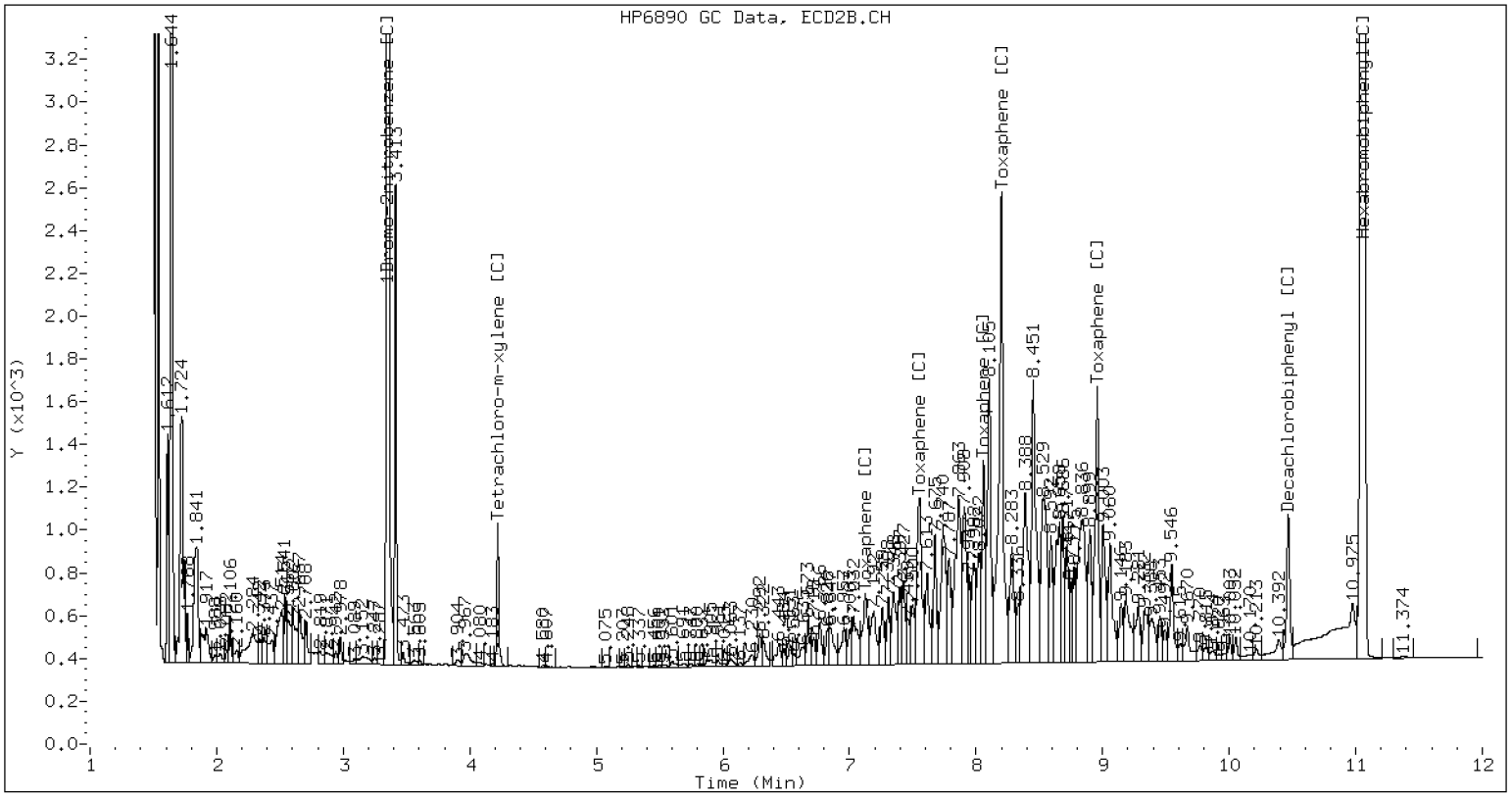
		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Toxaphene	1	6.931	0.000	20939	118.9	1	7.125	-0.000	18390	124.1	
Toxaphene	2	7.304	0.000	62921	127.5	2	7.553	-0.000	43437	130.4	
Toxaphene	3	7.653	-0.000	40147	126.2	3	8.059	-0.001	32235	127.1	
Toxaphene	4	7.985	-0.001	56816	133.6	4	8.201	-0.001	109296	132.1	
Toxaphene	5	8.082	-0.000	39643	123.4	5	8.958	-0.001	50997	125.7	
Total STX-CLPAve (5 peaks): 125.907						Total CLP2Ave (5 peaks): 127.865					RPD = 2
Corrected Ave (5 peaks): 125.907						Corrected Ave (5 peaks): 127.865					RPD = 2

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121428.D SEQ-CAL8A CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121428.D
Data file 2: /20221214.b/B20221214.b/22121428.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL8A
Client ID:
Injection Date: 15-DEC-2022 03:29
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121429.D
Data file 2: /20221214.b/B20221214.b/22121429.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL9A
Client ID:
Injection Date: 15-DEC-2022 03:46
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.828	-0.000	18632	4.220	-0.000	29829	1.92	1.92	0.1	Tetrachloro-m-xylene
9.355	0.000	29179	10.467	0.000	44716	4.64	4.98	7.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	713620	0.4
Hexabromobiphenyl	641833	620026	-3.4

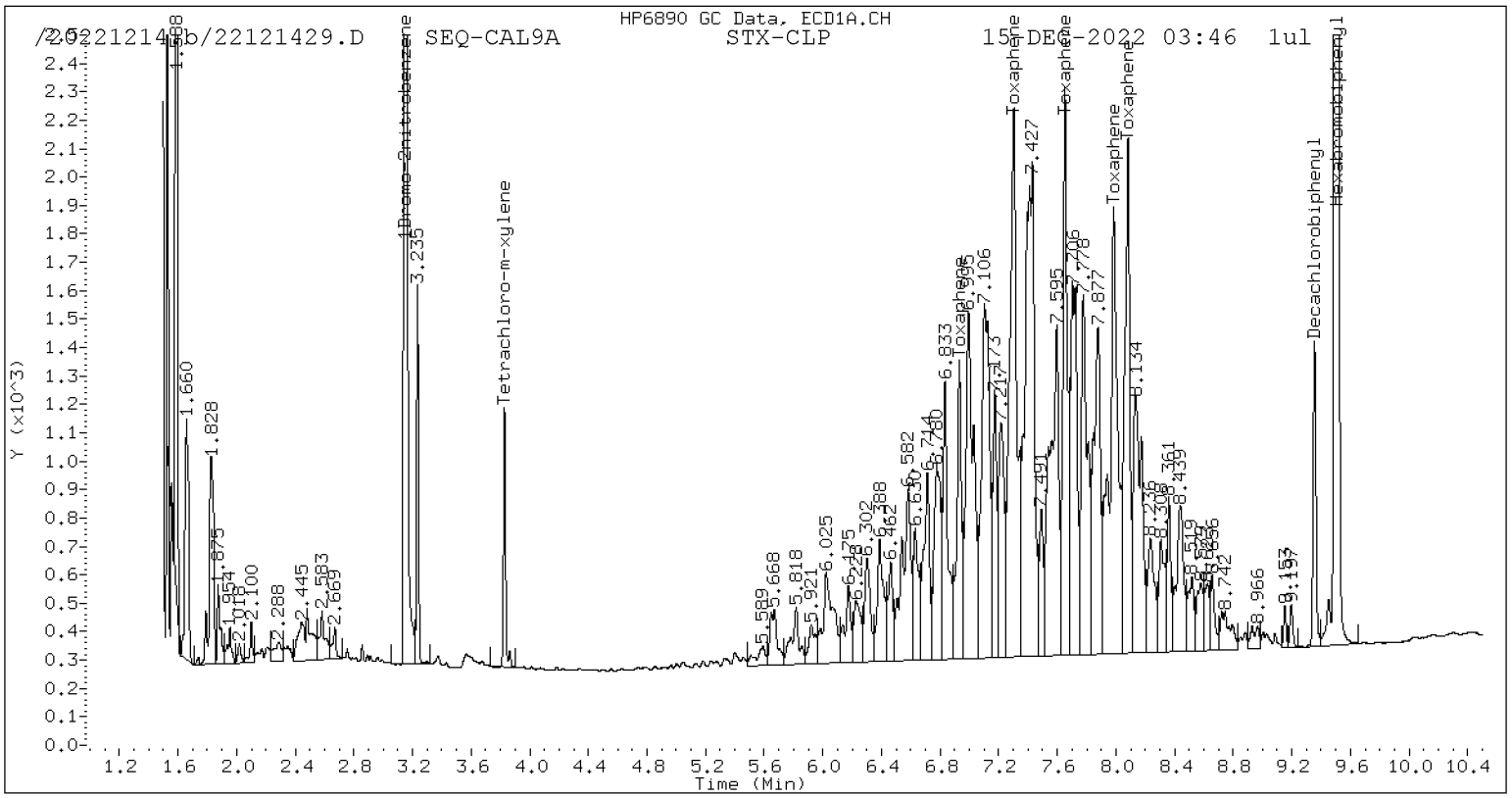
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1104488	4.3
Hexabromobiphenyl	797125	811719	1.8

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

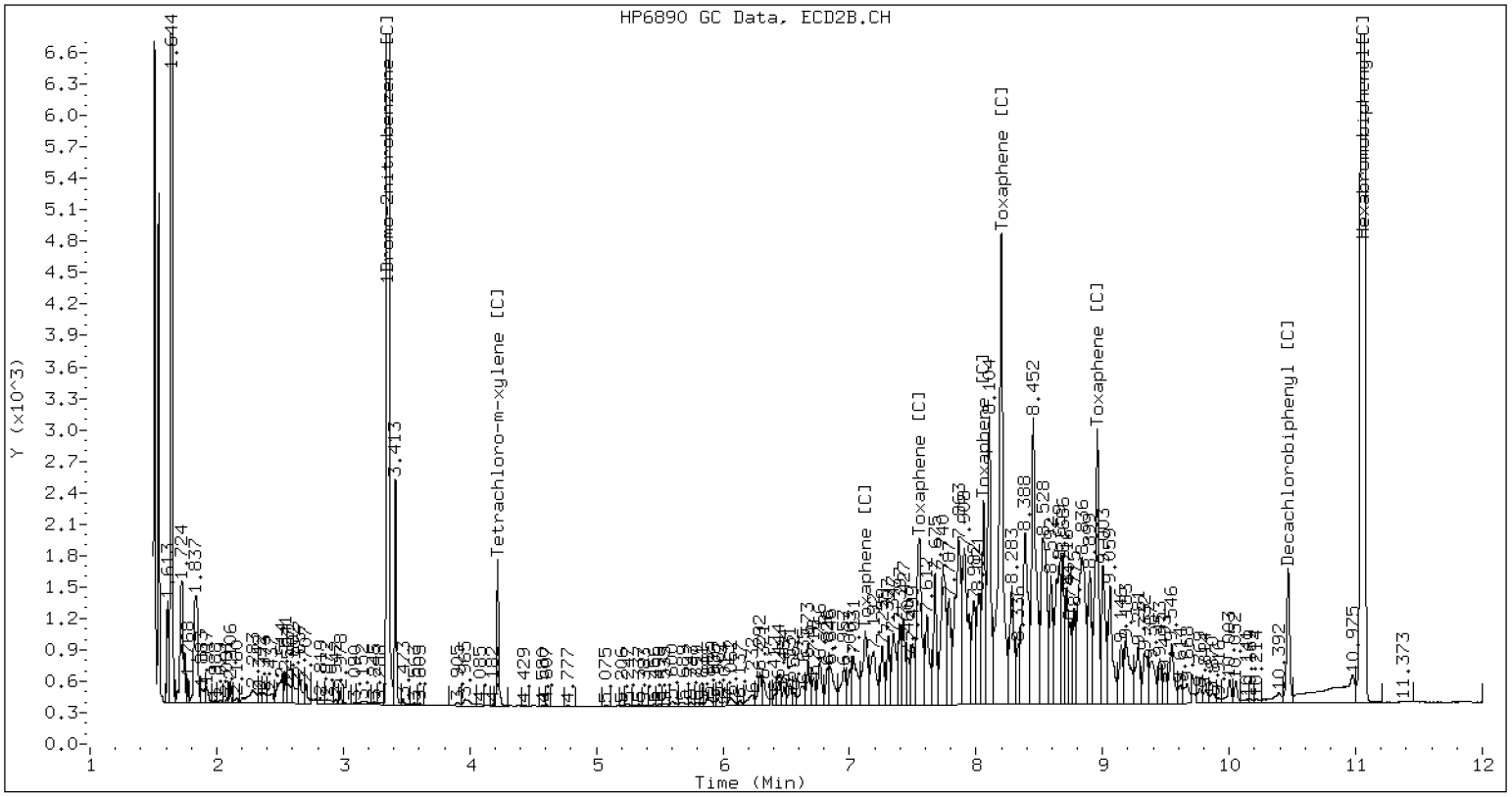
		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Toxaphene	1	6.931	0.000	47415	261.8	1	7.125	-0.001	38790	254.4	
Toxaphene	2	7.302	-0.001	134642	265.2	2	7.552	-0.001	89754	261.8	
Toxaphene	3	7.652	-0.001	86679	264.9	3	8.059	-0.001	67442	258.4	
Toxaphene	4	7.985	-0.001	125891	287.7	4	8.200	-0.001	220426	258.9	
Toxaphene	5	8.081	-0.000	85903	260.0	5	8.958	-0.001	104601	250.5	
Total STX-CLPAve (5 peaks): 267.939						Total CLP2Ave (5 peaks): 256.784				RPD = 4	
Corrected Ave (5 peaks): 267.939						Corrected Ave (5 peaks): 256.784				RPD = 4	

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121429.D SEQ-CAL9A CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121429.D
Data file 2: /20221214.b/B20221214.b/22121429.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL9A
Client ID:
Injection Date: 15-DEC-2022 03:46
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121430.D
Data file 2: /20221214.b/B20221214.b/22121430.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAA
Client ID:
Injection Date: 15-DEC-2022 04:04
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.828	-0.000	37717	4.220	0.000	60469	3.98	3.98	0.0	Tetrachloro-m-xylene
9.355	0.000	57106	10.467	0.000	82418	9.20	9.32	1.3	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	696179	-2.0
Hexabromobiphenyl	641833	612804	-4.5

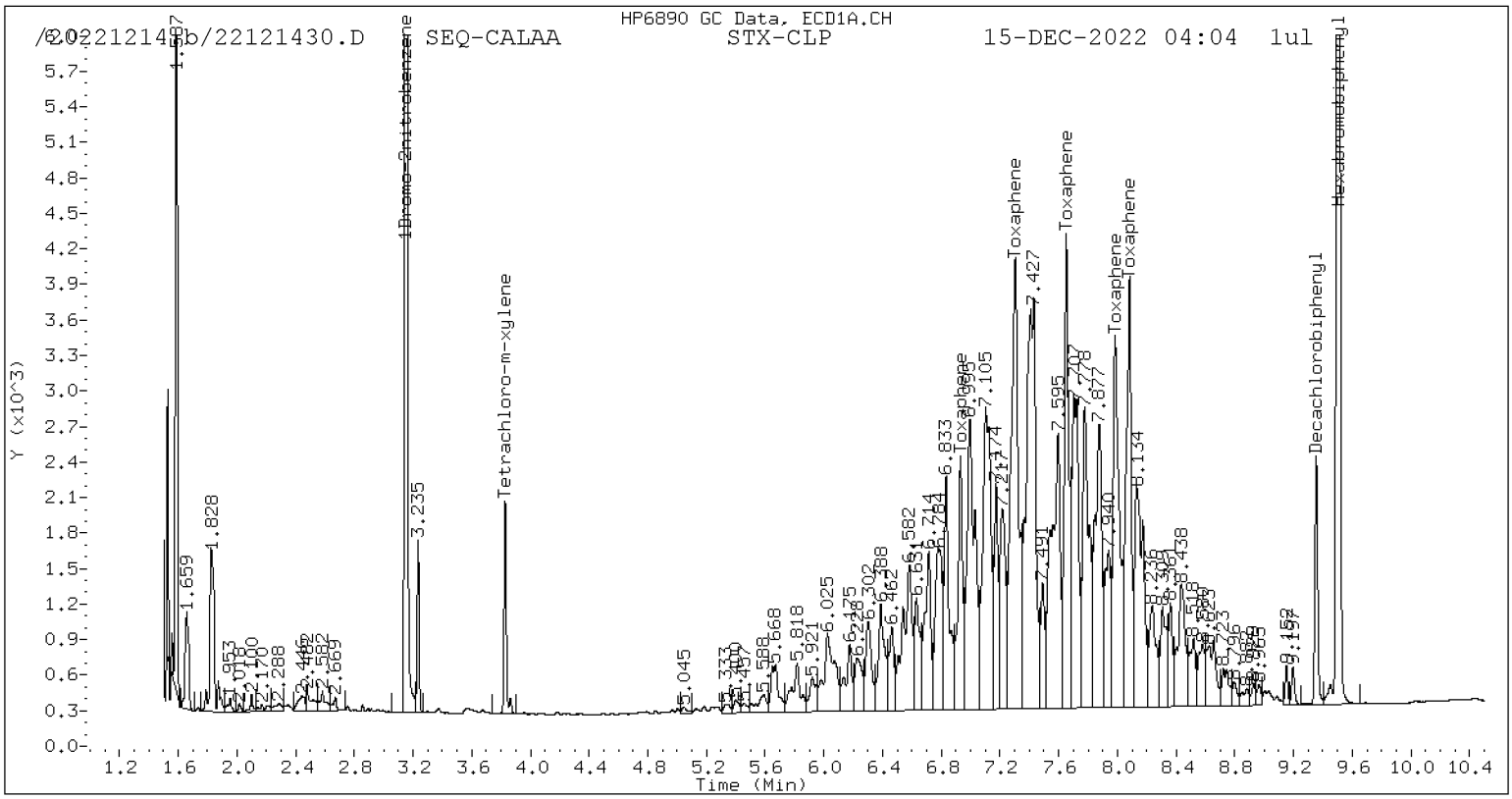
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1078803	1.9
Hexabromobiphenyl	797125	800071	0.4

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

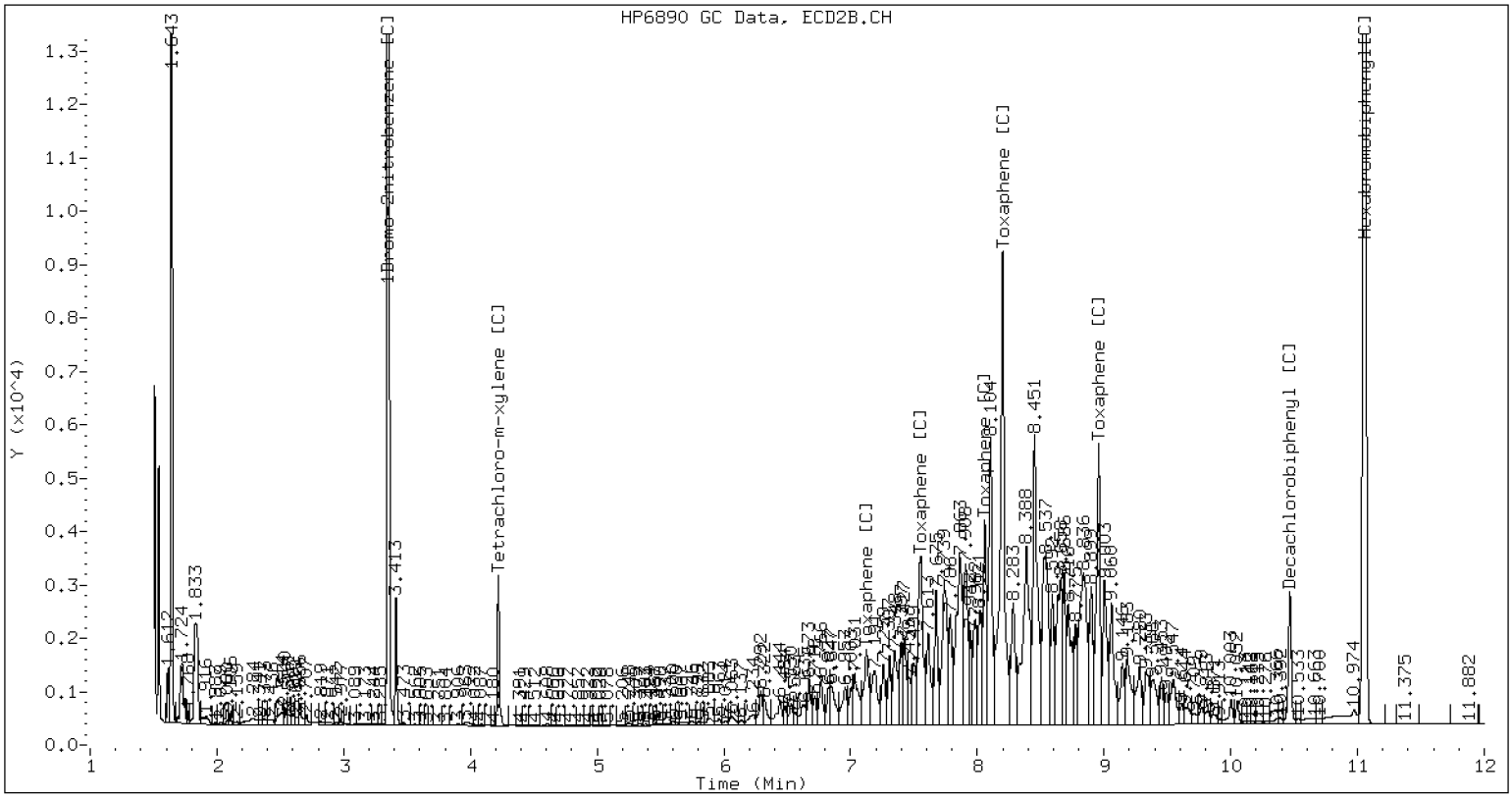
		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Toxaphene	1	6.931	-0.000	96535	539.4	1	7.125	-0.001	78635	523.1	
Toxaphene	2	7.304	0.000	273576	545.2	2	7.553	-0.001	179081	529.9	
Toxaphene	3	7.652	-0.001	177095	547.7	3	8.059	-0.001	133547	519.1	
Toxaphene	4	7.985	-0.001	190443	440.4	4	8.200	-0.001	437035	520.8	
Toxaphene	5	8.082	-0.000	175009	535.8	5	8.958	-0.001	209659	509.4	
Total STX-CLPAve (5 peaks): 521.711						Total CLP2Ave (5 peaks): 520.468				RPD = 0	
Corrected Ave (5 peaks): 521.711						Corrected Ave (5 peaks): 520.468				RPD = 0	

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121430.D SEQ-CALAA CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121430.D
Data file 2: /20221214.b/B20221214.b/22121430.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAA
Client ID:
Injection Date: 15-DEC-2022 04:04
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121431.D
Data file 2: /20221214.b/B20221214.b/22121431.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAB
Client ID:
Injection Date: 15-DEC-2022 04:22
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.828	0.000	74347	4.221	0.000	119694	7.73	7.77	0.5	Tetrachloro-m-xylene
9.355	-0.000	107024	10.466	-0.000	151970	17.00	17.11	0.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	706924	-0.5
Hexabromobiphenyl	641833	621486	-3.2

Column 2

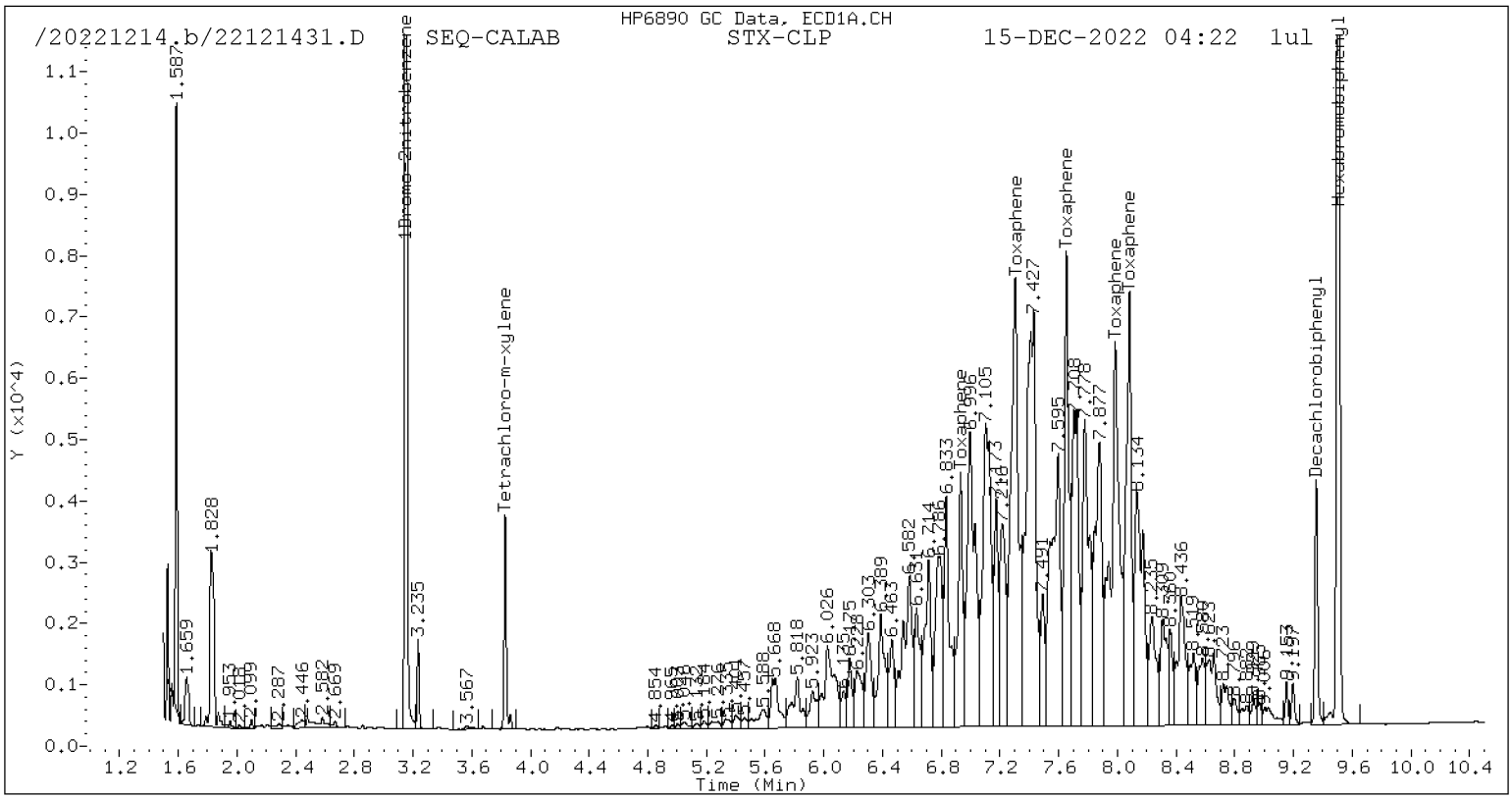
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1093936	3.3
Hexabromobiphenyl	797125	803782	0.8

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.931	0.000	192757	1062.0	1	7.125	-0.000	156515	1036.5
Toxaphene	2	7.303	-0.000	530863	1043.2	2	7.553	-0.001	349637	1029.8
Toxaphene	3	7.653	-0.000	344194	1049.6	3	8.059	-0.000	265296	1026.5
Toxaphene	4	7.986	-0.000	522105	1190.6	4	8.201	-0.001	854255	1013.3
Toxaphene	5	8.082	-0.000	345477	1043.0	5	8.958	-0.001	416452	1007.1

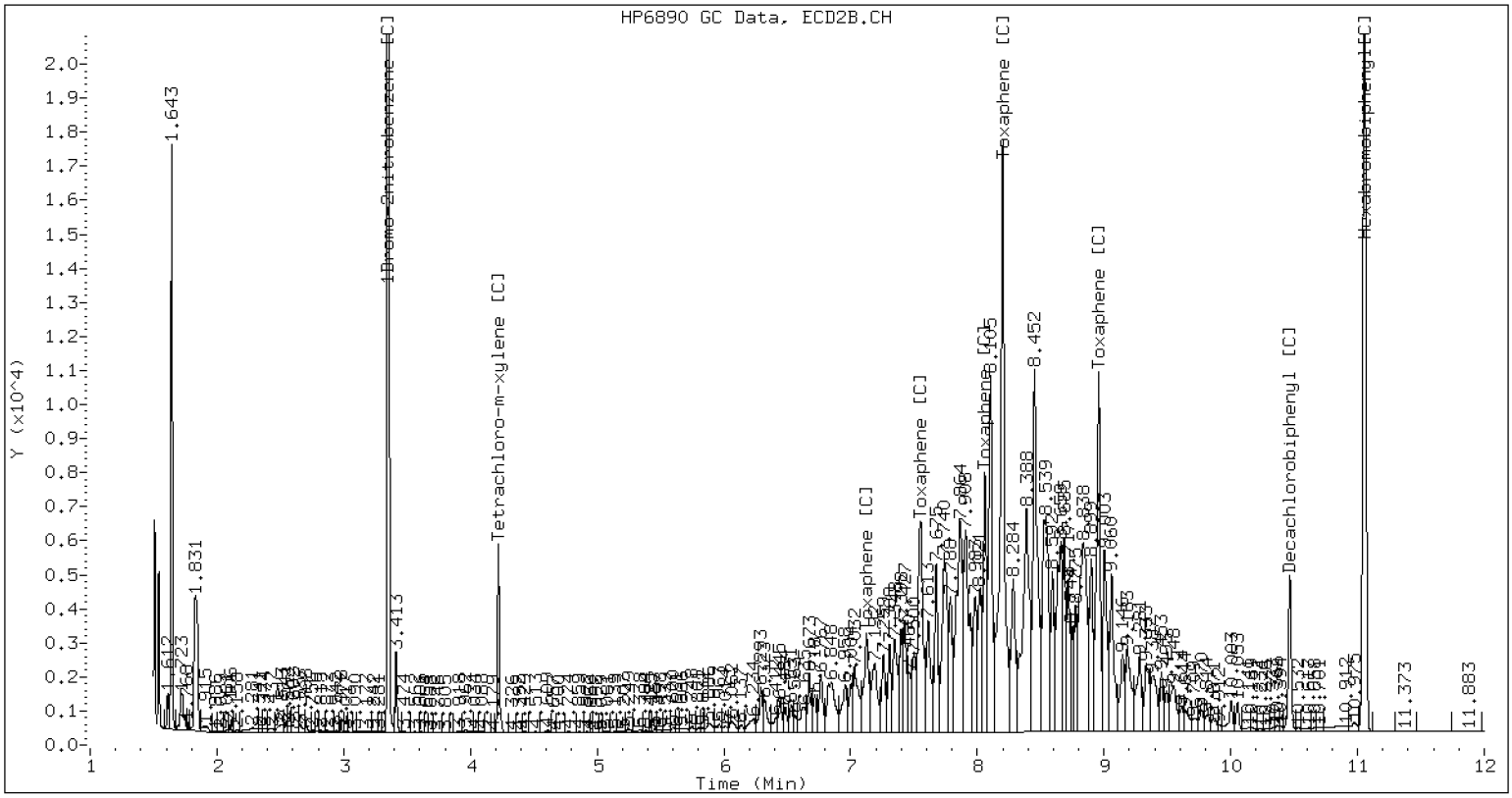
Total STX-CLPAve (5 peaks): 1077.665 Total CLP2Ave (5 peaks): 1022.630 RPD = 5
Corrected Ave (5 peaks): 1077.665 Corrected Ave (5 peaks): 1022.630 RPD = 5

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121431.D SEQ-CALAB CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121431.D
Data file 2: /20221214.b/B20221214.b/22121431.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAB
Client ID:
Injection Date: 15-DEC-2022 04:22
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121432.D
Data file 2: /20221214.b/B20221214.b/22121432.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAC
Client ID:
Injection Date: 15-DEC-2022 04:40
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.828	0.000	169388	4.221	0.000	273030	18.51	18.69	1.0	Tetrachloro-m-xylene
9.356	0.001	234532	10.466	-0.000	332716	40.53	40.11	1.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	672958	-5.3
Hexabromobiphenyl	641833	571112	-11.0

Column 2

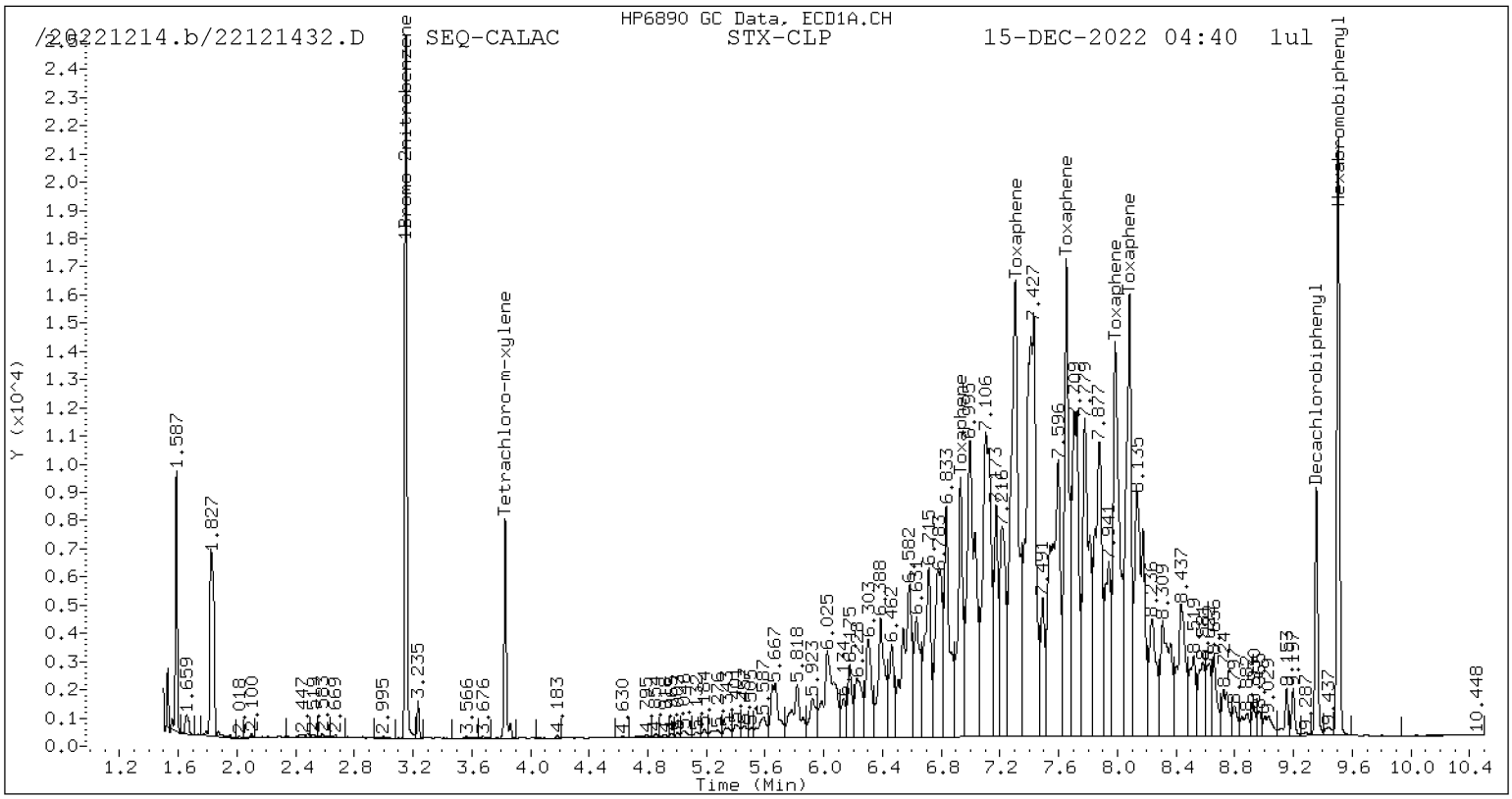
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1037593	-2.0
Hexabromobiphenyl	797125	750492	-5.9

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.931	0.000	432250	2591.5	1	7.126	-0.000	358061	2539.5
Toxaphene	2	7.303	0.000	1180375	2524.1	2	7.553	0.000	785942	2479.1
Toxaphene	3	7.653	0.000	762221	2529.4	3	8.059	-0.000	602985	2498.7
Toxaphene	4	7.986	0.000	863552	2142.9	4	8.201	-0.001	1929083	2450.8
Toxaphene	5	8.082	0.000	777497	2554.3	5	8.958	-0.001	962132	2492.0

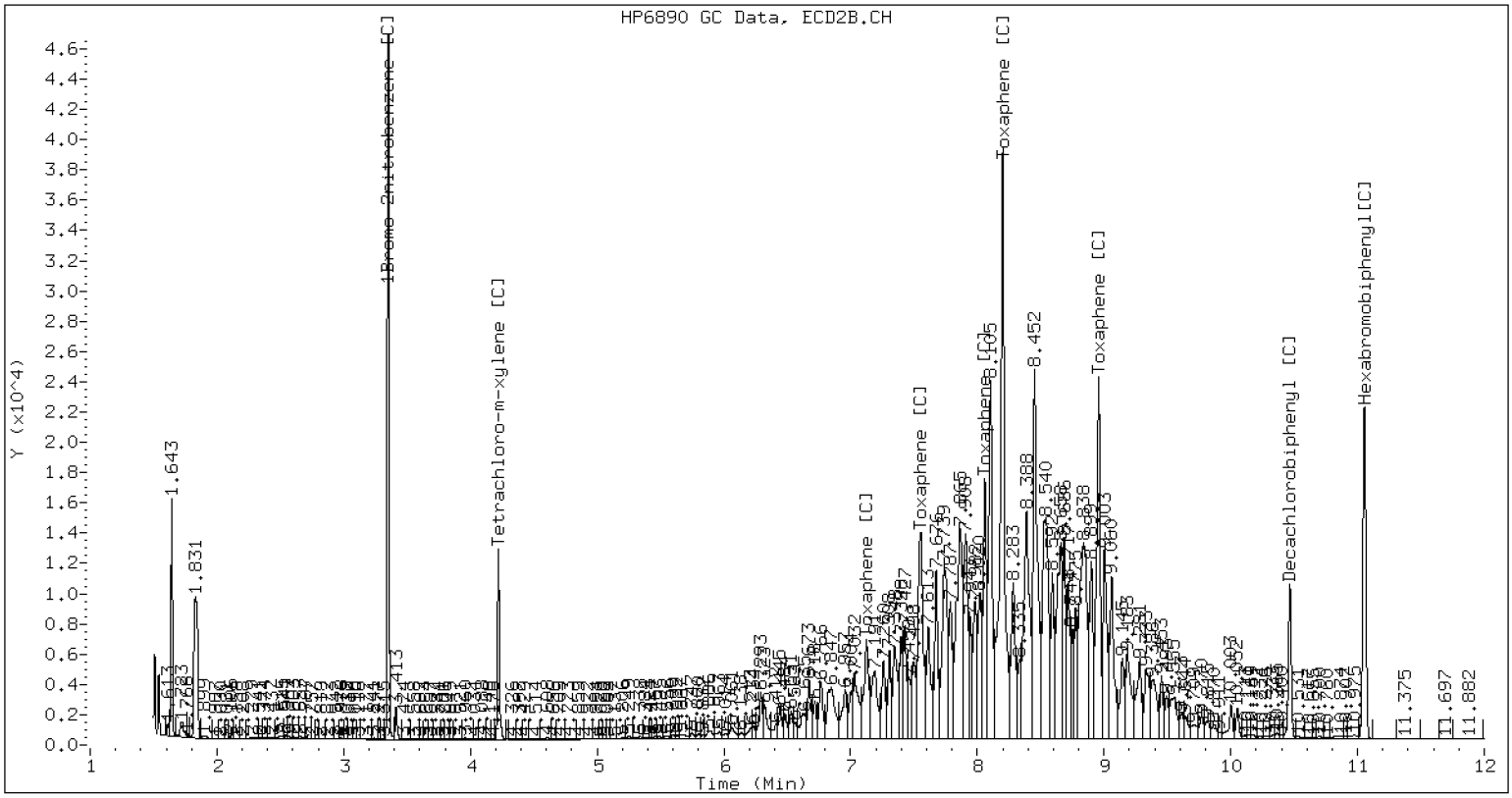
Total STX-CLPAve (5 peaks): 2468.427 Total CLP2Ave (5 peaks): 2492.024 RPD = 1
Corrected Ave (5 peaks): 2468.427 Corrected Ave (5 peaks): 2492.024 RPD = 1

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121432.D SEQ-CALAC CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121432.D
Data file 2: /20221214.b/B20221214.b/22121432.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAC
Client ID:
Injection Date: 15-DEC-2022 04:40
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121433.D
Data file 2: /20221214.b/B20221214.b/22121433.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAD
Client ID:
Injection Date: 15-DEC-2022 04:58
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.828	-0.000	329284	4.221	0.000	536251	34.78	35.63	2.4	Tetrachloro-m-xylene
9.356	0.000	464116	10.466	-0.000	660536	76.95	77.19	0.3	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

˜ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	696178	-2.0
Hexabromobiphenyl	641833	595287	-7.3

Column 2

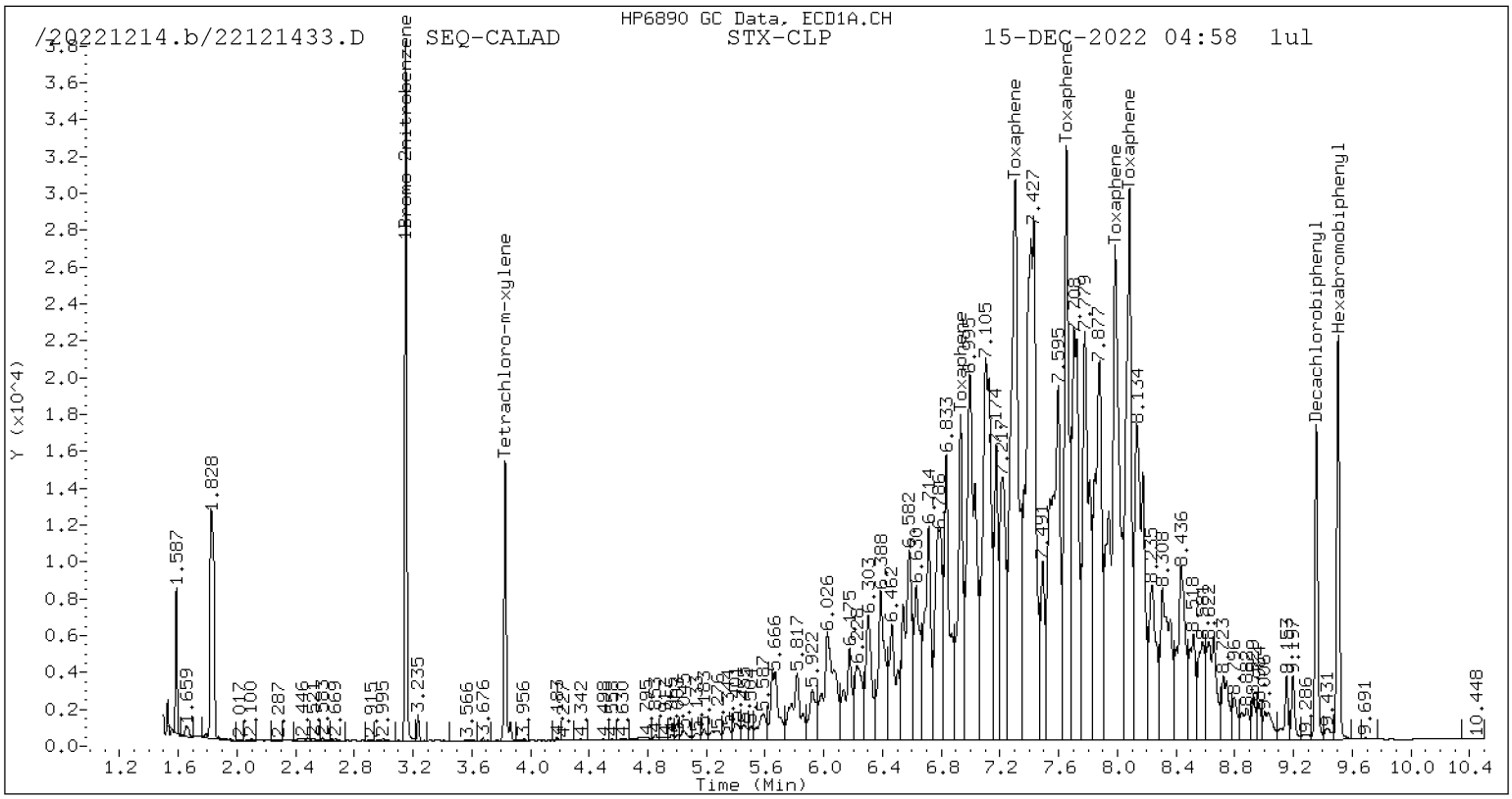
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1069205	1.0
Hexabromobiphenyl	797125	774218	-2.9

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.931	0.000	828531	4765.6	1	7.126	-0.000	704213	4841.5
Toxaphene	2	7.303	-0.000	2275106	4667.4	2	7.554	0.000	1533921	4690.3
Toxaphene	3	7.653	-0.000	1493693	4755.4	3	8.059	-0.001	1192086	4788.5
Toxaphene	4	7.986	0.000	2318449	5519.5	4	8.201	-0.001	3835448	4723.4
Toxaphene	5	8.081	-0.000	1509568	4758.0	5	8.958	-0.000	1957568	4914.8

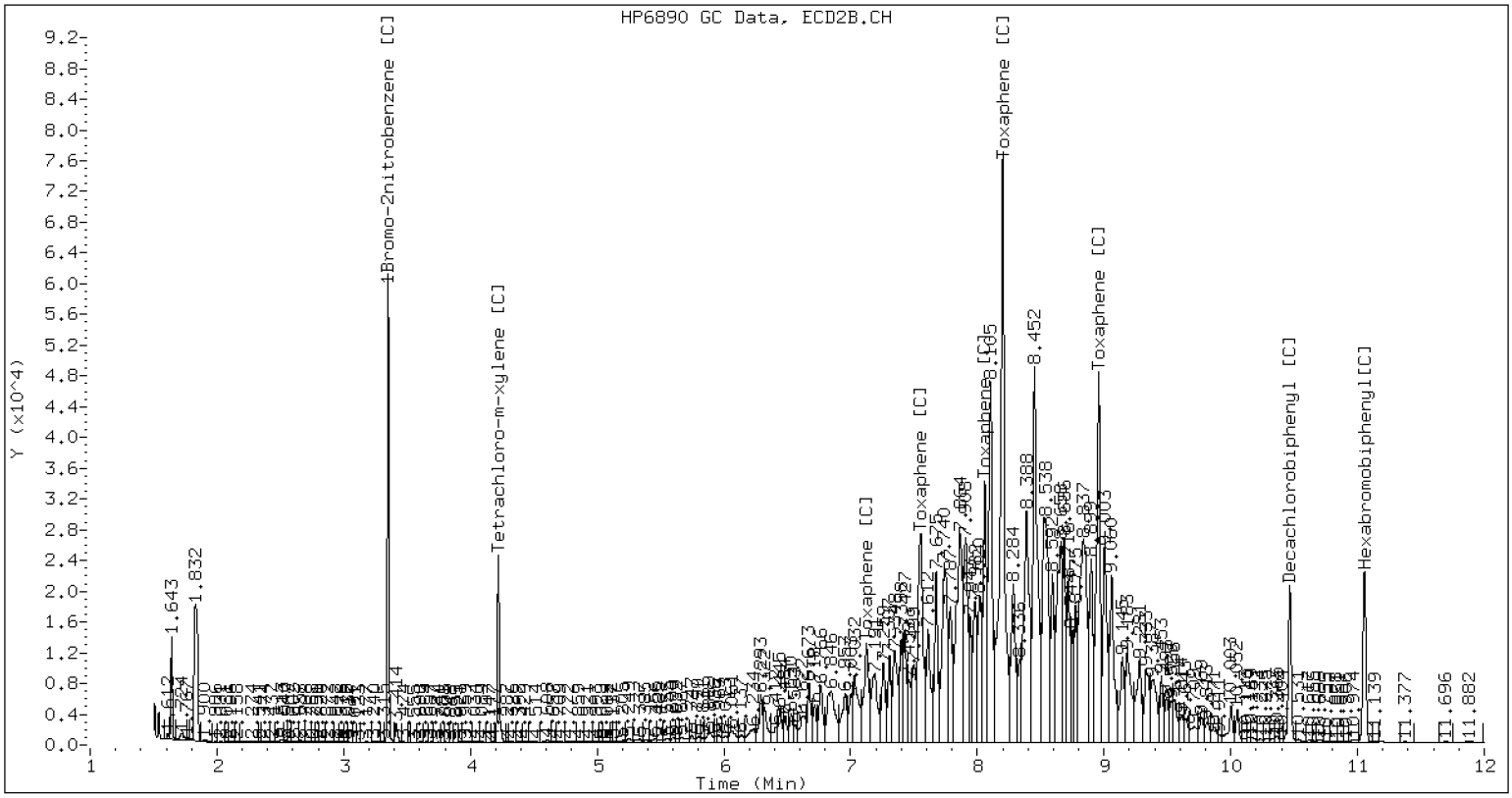
Total STX-CLPAve (5 peaks): 4893.192 Total CLP2Ave (5 peaks): 4791.694 RPD = 2
Corrected Ave (5 peaks): 4893.192 Corrected Ave (5 peaks): 4791.694 RPD = 2

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121433.D SEQ-CALAD CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121433.D
Data file 2: /20221214.b/B20221214.b/22121433.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAD
Client ID:
Injection Date: 15-DEC-2022 04:58
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121434.D
Data file 2: /20221214.b/B20221214.b/22121434.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAE
Client ID:
Injection Date: 15-DEC-2022 05:16
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.828	-0.000	626937	4.221	0.000	1016753	65.66	67.54	2.8	Tetrachloro-m-xylene
9.355	0.000	899917	10.467	0.000	1293767	145.37	151.89	4.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	702143	-1.2
Hexabromobiphenyl	641833	610983	-4.8

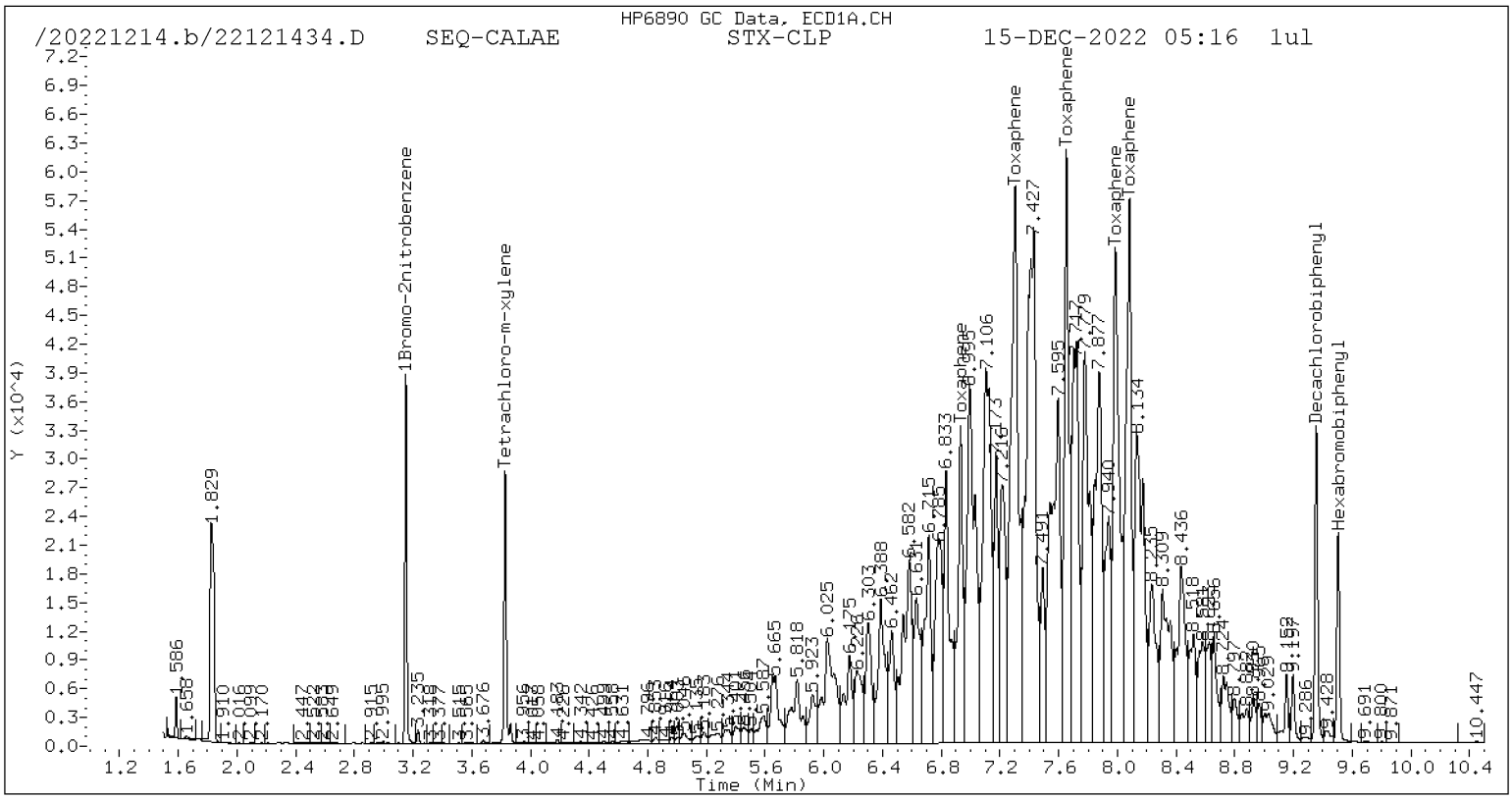
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1069521	1.0
Hexabromobiphenyl	797125	770702	-3.3

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

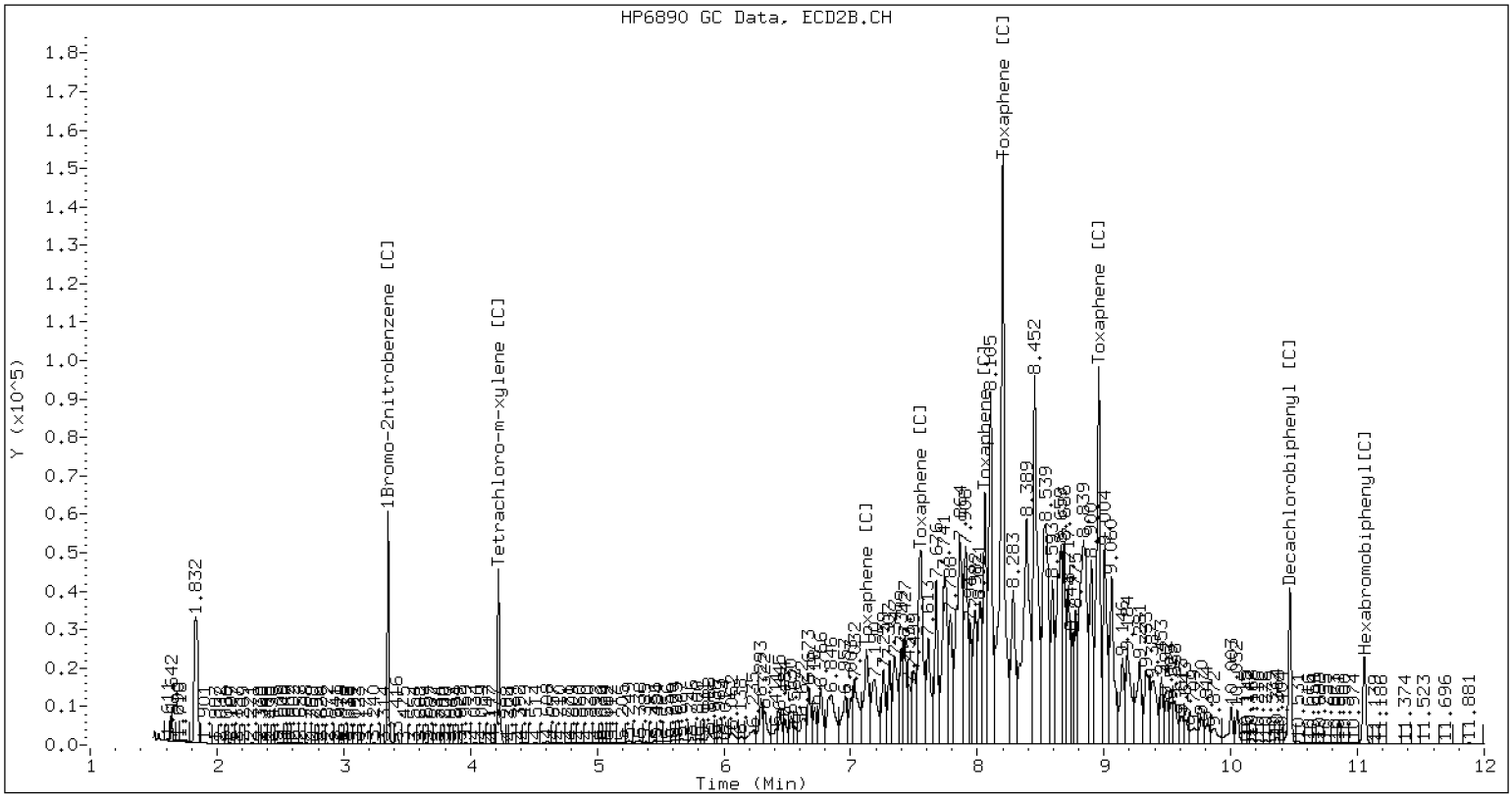
		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Toxaphene	1	6.931	0.000	1553785	8707.6	1	7.126	0.000	1336419	9229.8	
Toxaphene	2	7.303	-0.000	4216546	8428.1	2	7.553	0.000	2900195	8908.4	
Toxaphene	3	7.653	-0.000	2652265	8227.0	3	8.060	0.000	2299294	9278.2	
Toxaphene	4	7.987	0.001	3225164	7480.8	4	8.201	0.000	7496819	9274.6	
Toxaphene	5	8.082	-0.000	2882252	8851.2	5	8.959	0.000	3913616	9870.7	
Total STX-CLPAve (5 peaks): 8338.950						Total CLP2Ave (5 peaks): 9312.318				RPD = 11	
Corrected Ave (5 peaks): 8338.950						Corrected Ave (5 peaks): 9312.318				RPD = 11	

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121434.D SEQ-CALAE CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121434.D
Data file 2: /20221214.b/B20221214.b/22121434.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAE
Client ID:
Injection Date: 15-DEC-2022 05:16
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD6	Calibration:	FL00041
Lab File ID:	23021303.D	Calibration Date:	12/14/2022
Sequence:	SLB0237	Injection Date:	02/13/23
Lab Sample ID:	SLB0237-ICV1	Injection Time:	13:53
Sequence Name:	INDAE		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Hexachlorobenzene	A	20.000	20.4	1.4298940	1.4579300		2.0	+/-20
Hexachlorobenzene [2C]	A	20.000	20.0	1.4591090	1.4622300		0.0	+/-20
Decachlorobiphenyl	A	40.000	36.1	0.8105886	0.7310306		-9.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	36.0	0.8841805	0.7959641		-10.0	+/-20
Tetrachlorometaxylene	A	40.000	40.1	1.0879510	1.0898270		0.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.2	1.1261070	1.1047360		-2.0	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021303.D
Data file 2: /20230213.b/B20230213.b/23021303.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: SLB0237-ICV1
Client ID:
Injection Date: 13-FEB-2023 13:53
Report Date: 02/17/2023 12:16
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.299	0.000	385166	4.815	0.000	591161	22.93	22.31	2.8	alpha-BHC
4.681	0.000	150867	5.290	0.000	221903	23.33	22.03	5.8	beta-BHC
4.863	0.000	331352	5.642	0.000	479832	24.14	21.98	9.3	delta-BHC
4.599	0.000	319554	5.209	0.000	499695	21.94	22.22	1.3	gamma-BHC (Lindane)
5.078	0.000	302682	5.733	0.000	440264	23.36	21.61	7.8	Heptachlor
5.399	0.000	317692	6.135	0.000	489547	21.88	21.05	3.9	Aldrin
6.072	0.000	271636	6.792	0.000	398191	21.57	20.70	4.1	Heptachlor epoxide b
6.515	0.000	286877	7.236	0.000	357255	24.83	21.07	16.4	Endosulfan I
6.775	0.000	532996	7.530	0.000	761256	42.93	40.64	5.5	Dieldrin
6.440	0.000	492409	7.323	0.000	740969	42.72	43.14	1.0	4,4'-DDE
7.025	0.000	364580	7.854	0.000	496172	33.58	35.94	6.8	Endrin
7.264	0.000	455043	8.067	0.000	606712	46.56	42.88	8.2	Endosulfan II
7.087	0.000	441342	7.930	0.000	593025	45.12	44.16	2.1	4,4'-DDD
8.126	0.000	404235	8.666	0.000	565565	43.56	45.52	4.4	Endosulfan sulfate
7.378	0.000	457513	8.247	0.000	577599	46.29	44.57	3.8	4,4'-DDT
7.866	0.000	907770	8.890	0.000	1081159	207.27	188.51	9.5	Methoxychlor
8.400	0.000	470936	9.189	0.000	602288	44.30	44.88	1.3	Endrin ketone
7.692	0.000	360981	8.398	0.000	465305	46.31	46.62	0.7	Endrin aldehyde
6.215	0.000	280851	7.004	0.000	405296	21.96	21.13	3.9	trans-Chlordane
6.361	0.000	277028	7.164	0.000	394538	21.60	21.03	2.7	cis-Chlordane
2.296	0.000	356877	2.473	0.000	509414	20.28	20.24	0.2	Hexachlorobutadiene
4.142	0.000	318003	4.675	0.000	483385	20.39	20.04	1.7	Hexachlorobenzene
3.791	0.000	475425	4.181	0.000	730409	40.07	39.24	2.1	Tetrachloro-m-xylene
9.306	0.000	302673	10.403	0.000	386396	36.07	36.01	0.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

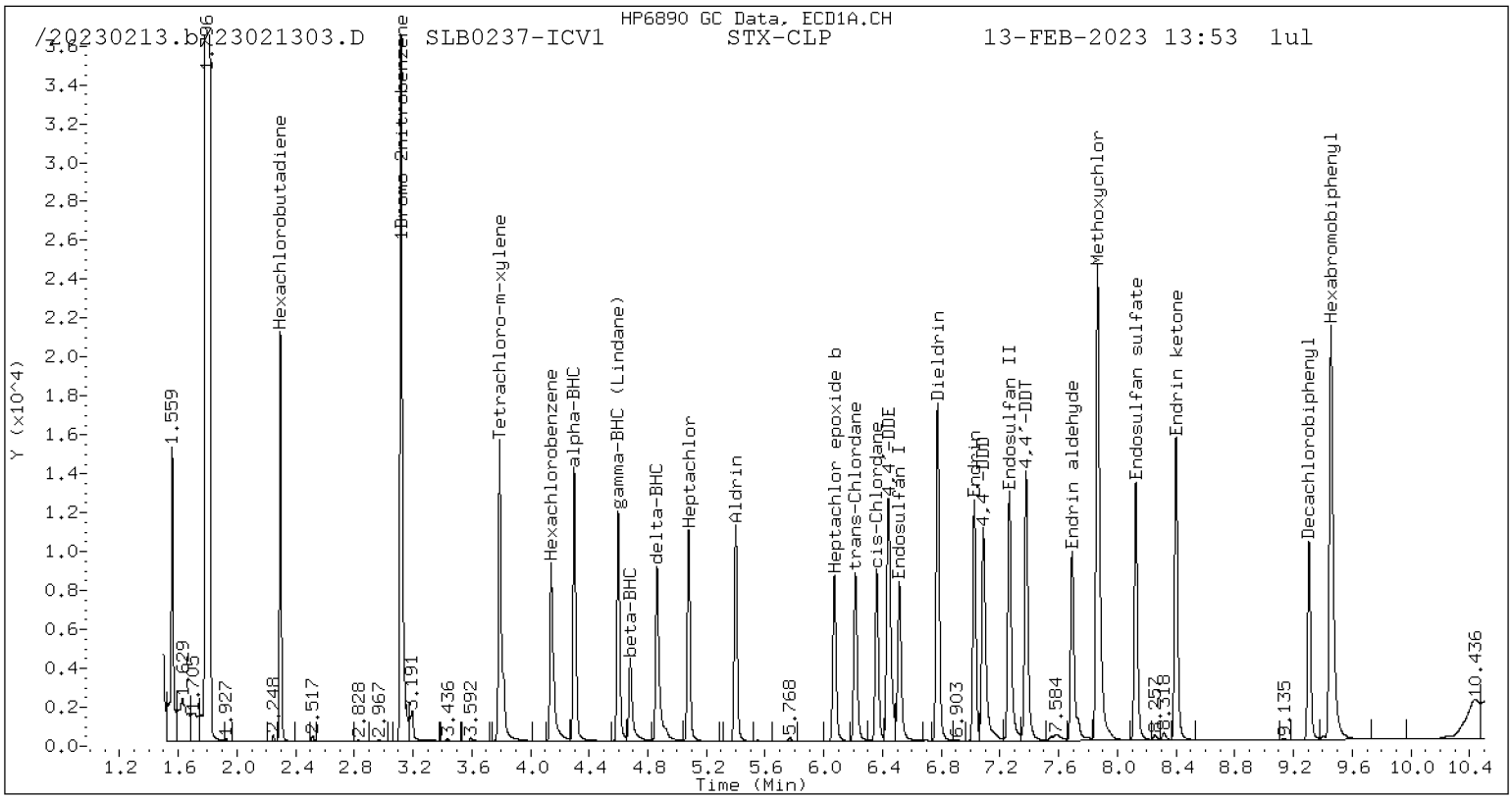
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	872478	29.8
Hexabromobiphenyl	609723	828072	35.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	1322323	31.4
Hexabromobiphenyl	769764	970888	26.1

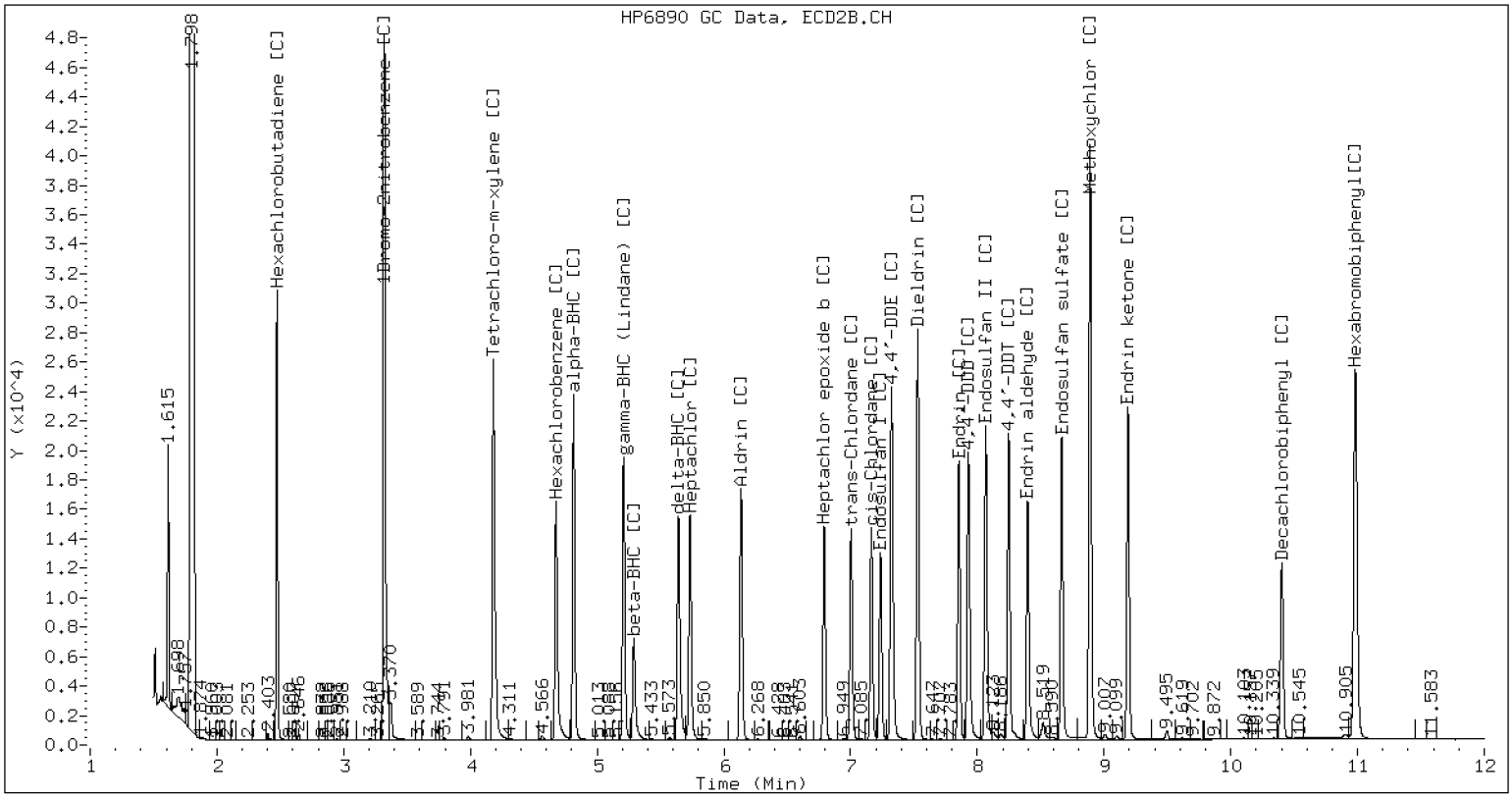
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230213.b/B20230213.b/23021303.D SLB0237-ICV1 CLP2



CLP-2 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD6	Calibration:	FL00041
Lab File ID:	23021318.D	Calibration Date:	12/14/2022
Sequence:	SLB0237	Injection Date:	02/13/23
Lab Sample ID:	SLB0237-CCV1	Injection Time:	18:23
Sequence Name:	INDAE		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Hexachlorobenzene	A	20.000	20.2	1.4298940	1.4412880		0.8	+/-20
Hexachlorobenzene [2C]	A	20.000	17.7	1.4591090	1.2885810		-11.7	+/-20
Decachlorobiphenyl	A	40.000	35.9	0.8105886	0.7278352		-10.2	+/-20
Decachlorobiphenyl [2C]	A	40.000	36.0	0.8841805	0.7955198		-10.0	+/-20
Tetrachlorometaxylene	A	40.000	40.0	1.0879510	1.0884600		0.05	+/-20
Tetrachlorometaxylene [2C]	A	40.000	35.7	1.1261070	1.0046290		-10.8	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021318.D
Data file 2: /20230213.b/B20230213.b/23021318.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: SLB0237-CCV1
Client ID:
Injection Date: 13-FEB-2023 18:23
Report Date: 02/17/2023 12:17
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.301	0.002	194160	4.816	0.001	294989	22.33	19.24	14.9	alpha-BHC
4.683	0.002	77768	5.291	0.001	112550	23.23	19.31	18.4	beta-BHC
4.866	0.003	160725	5.643	0.001	226060	22.62	17.90	23.3	delta-BHC
4.601	0.002	158602	5.210	0.000	247692	21.04	19.04	10.0	gamma-BHC (Lindane)
5.080	0.001	155598	5.733	0.000	236809	23.20	20.09	14.3	Heptachlor
5.400	0.001	161345	6.136	0.000	244794	21.47	18.19	16.5	Aldrin
6.073	0.002	140571	6.792	0.000	201681	21.57	18.13	17.3	Heptachlor epoxide b
6.517	0.003	156569	7.236	-0.000	176685	26.18	18.02	36.9	Endosulfan I
6.777	0.002	278472	7.530	-0.000	386242	43.34	35.65	19.5	Dieldrin
6.443	0.003	244136	7.323	0.000	371027	40.92	37.34	9.2	4,4'-DDE
7.026	0.001	152996	7.855	0.000	207941	27.06	27.83	2.8	Endrin
7.266	0.002	241934	8.067	0.000	308364	47.54	40.26	16.6	Endosulfan II
7.090	0.003	225828	7.931	0.001	299466	44.34	41.20	7.3	4,4'-DDD
8.127	0.001	242834	8.666	0.000	290419	50.25	43.18	15.1	Endosulfan sulfate
7.381	0.002	237235	8.247	0.000	308753	46.10	44.01	4.6	4,4'-DDT
7.868	0.003	465508	8.891	0.001	589006	204.12	189.74	7.3	Methoxychlor
8.401	0.001	253677	9.190	0.001	335185	45.83	46.14	0.7	Endrin ketone
7.694	0.002	211925	8.398	0.000	254221	52.21	47.06	10.4	Endrin aldehyde
6.216	0.001	142529	7.004	0.000	199319	21.53	17.96	18.1	trans-Chlordane
6.362	0.002	138238	7.163	-0.001	192710	20.82	17.75	15.9	cis-Chlordane
2.297	0.001	184101	2.475	0.001	256275	20.21	17.60	13.8	Hexachlorobutadiene
4.145	0.003	162716	4.677	0.001	246415	20.16	17.66	13.2	Hexachlorobenzene
3.793	0.002	245766	4.183	0.001	384230	40.02	35.69	11.4	Tetrachloro-m-xylene
9.308	0.002	156922	10.403	0.001	209026	35.92	35.99	0.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

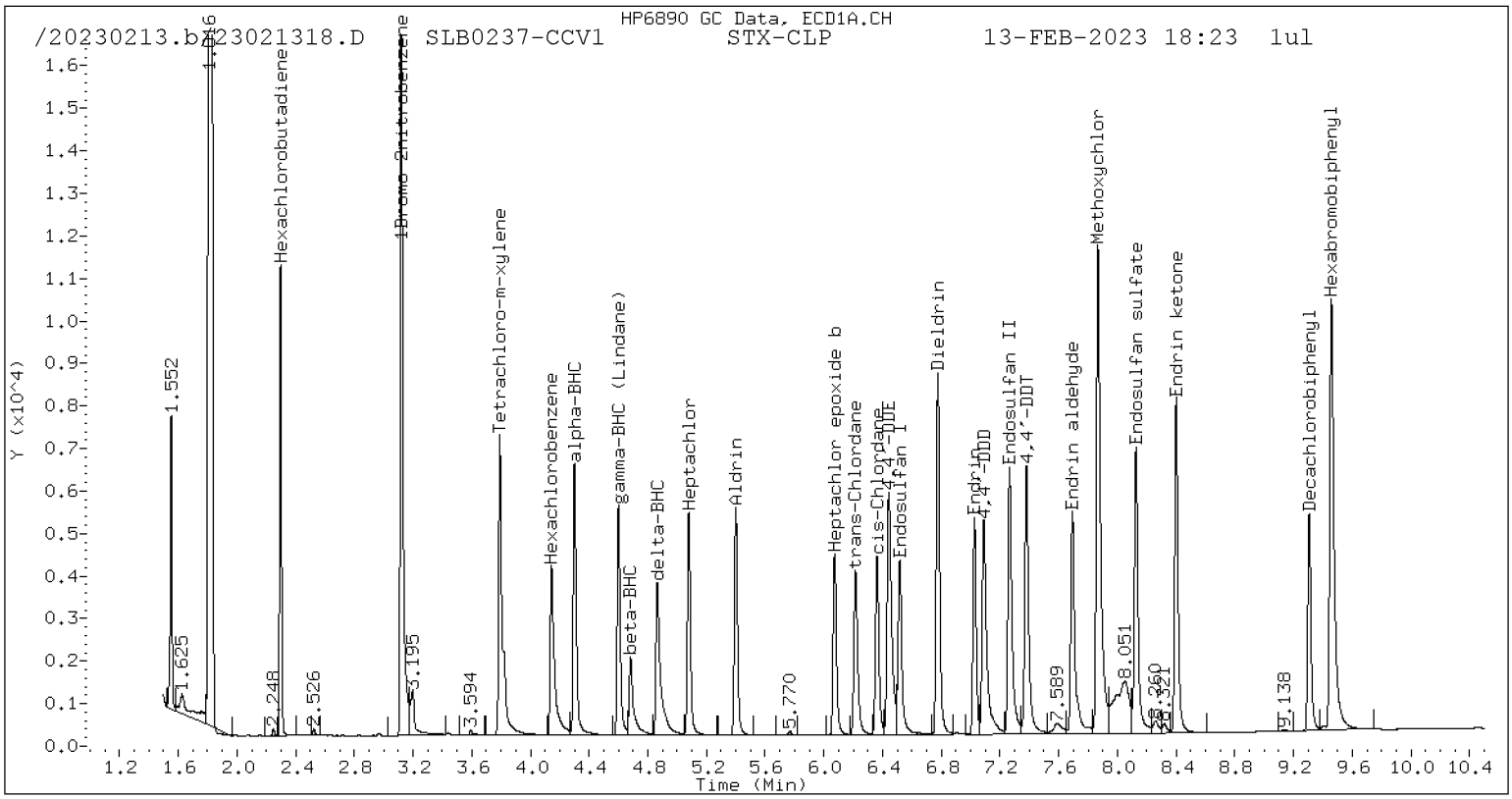
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	451585	-32.8
Hexabromobiphenyl	609723	431202	-29.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	764919	-24.0
Hexabromobiphenyl	769764	525508	-31.7

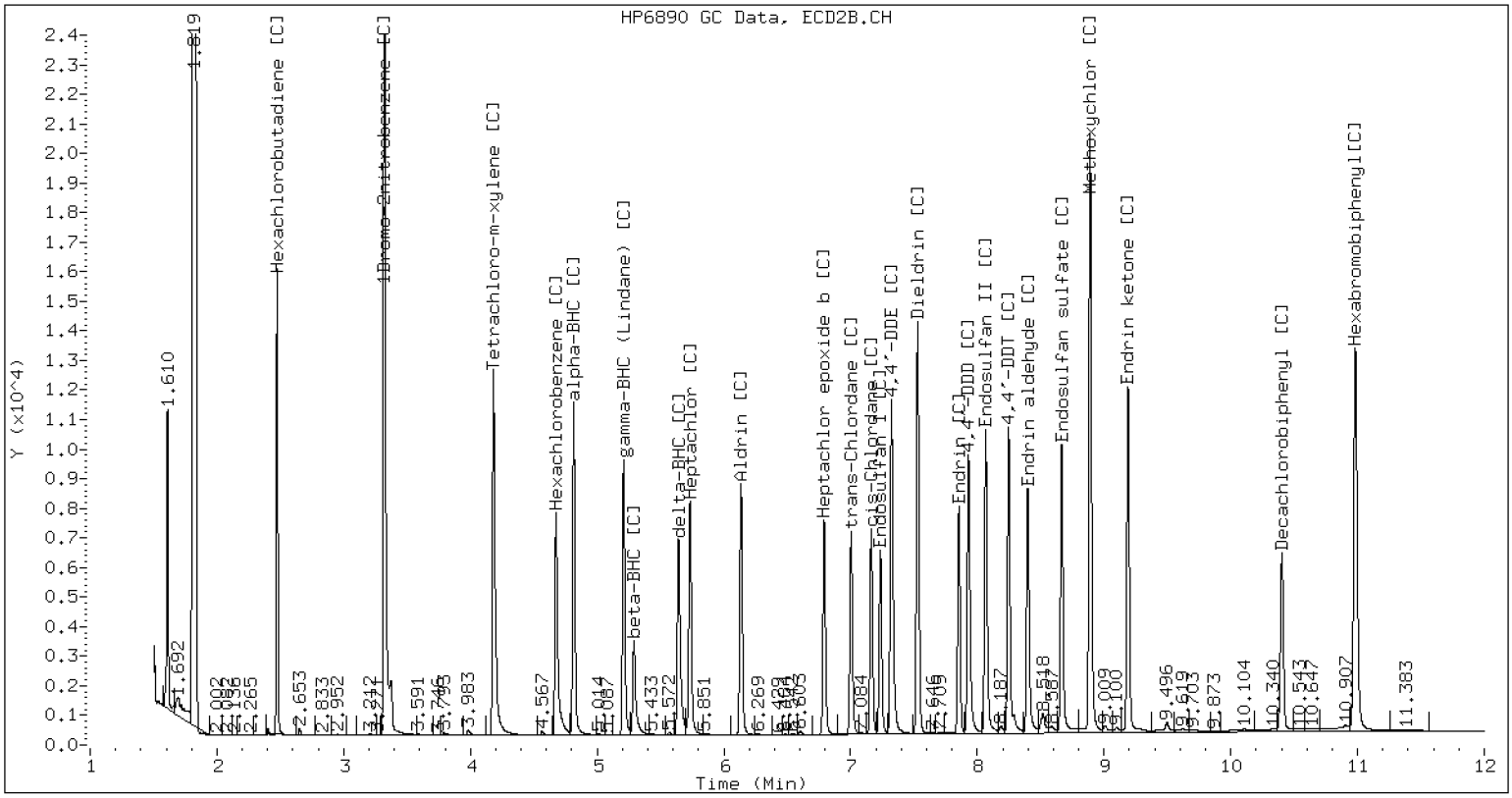
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230213.b/B20230213.b/23021318.D SLB0237-CCV1 CLP2



CLP-2 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD6	Calibration:	FL00041
Lab File ID:	23021336.D	Calibration Date:	12/14/2022
Sequence:	SLB0237	Injection Date:	02/13/23
Lab Sample ID:	SLB0237-CCV2	Injection Time:	23:45
Sequence Name:	INDAE		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Hexachlorobenzene	A	20.000	19.9	1.4298940	1.4234100		-0.5	+/-20
Hexachlorobenzene [2C]	A	20.000	19.0	1.4591090	1.3855120		-5.0	+/-20
Decachlorobiphenyl	A	40.000	35.2	0.8105886	0.7132044		-12.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	35.2	0.8841805	0.7791637		-11.9	+/-20
Tetrachlorometaxylene	A	40.000	39.1	1.0879510	1.0644710		-2.2	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.6	1.1261070	1.0576030		-6.1	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021336.D
Data file 2: /20230213.b/B20230213.b/23021336.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: SLB0237-CCV2
Client ID:
Injection Date: 13-FEB-2023 23:45
Report Date: 02/17/2023 12:17
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.299	0.000	361457	4.814	-0.000	561582	21.94	21.02	4.3	alpha-BHC
4.681	0.000	142563	5.290	-0.001	207695	22.47	20.45	9.4	beta-BHC
4.864	0.000	317618	5.641	-0.001	452056	23.59	20.54	13.8	delta-BHC
4.599	0.001	306353	5.208	-0.001	475058	21.44	20.96	2.3	gamma-BHC (Lindane)
5.079	0.001	289449	5.732	-0.001	428063	22.77	20.84	8.8	Heptachlor
5.400	0.001	301007	6.134	-0.001	444319	21.13	18.95	10.9	Aldrin
6.072	0.001	255233	6.791	-0.000	350955	20.66	18.10	13.2	Heptachlor epoxide b
6.516	0.001	255207	7.235	-0.001	294126	22.52	17.21	26.7	Endosulfan I
6.776	0.000	494995	7.529	-0.001	634223	40.65	33.59	19.0	Dieldrin
6.440	-0.000	463564	7.322	-0.001	615164	41.00	35.53	14.3	4,4'-DDE
7.026	0.001	261427	7.854	-0.001	329027	27.98	27.74	0.9	Endrin
7.264	0.000	418251	8.066	-0.001	496023	49.73	40.79	19.7	Endosulfan II
7.087	-0.000	399778	7.929	-0.000	487429	47.50	42.24	11.7	4,4'-DDD
8.126	0.001	410284	8.665	-0.001	457142	51.38	42.81	18.2	Endosulfan sulfate
7.379	0.000	400918	8.247	-0.001	495036	47.14	44.45	5.9	4,4'-DDT
7.866	0.000	813487	8.890	-0.000	1003472	215.84	203.61	5.8	Methoxychlor
8.400	0.000	437877	9.189	-0.000	534700	47.87	46.36	3.2	Endrin ketone
7.693	0.001	348779	8.397	-0.001	403975	51.99	47.10	9.9	Endrin aldehyde
6.215	-0.000	260314	7.003	-0.000	340843	20.75	17.63	16.3	trans-Chlordane
6.361	0.000	253946	7.162	-0.002	323072	20.18	17.08	16.7	cis-Chlordane
2.296	0.000	346462	2.473	-0.000	491295	20.07	19.37	3.6	Hexachlorobutadiene
4.143	0.000	304557	4.675	0.000	461702	19.91	18.99	4.7	Hexachlorobenzene
3.791	0.000	455515	4.181	-0.000	704862	39.14	37.57	4.1	Tetrachloro-m-xylene
9.307	0.001	254114	10.402	-0.000	325034	35.19	35.25	0.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

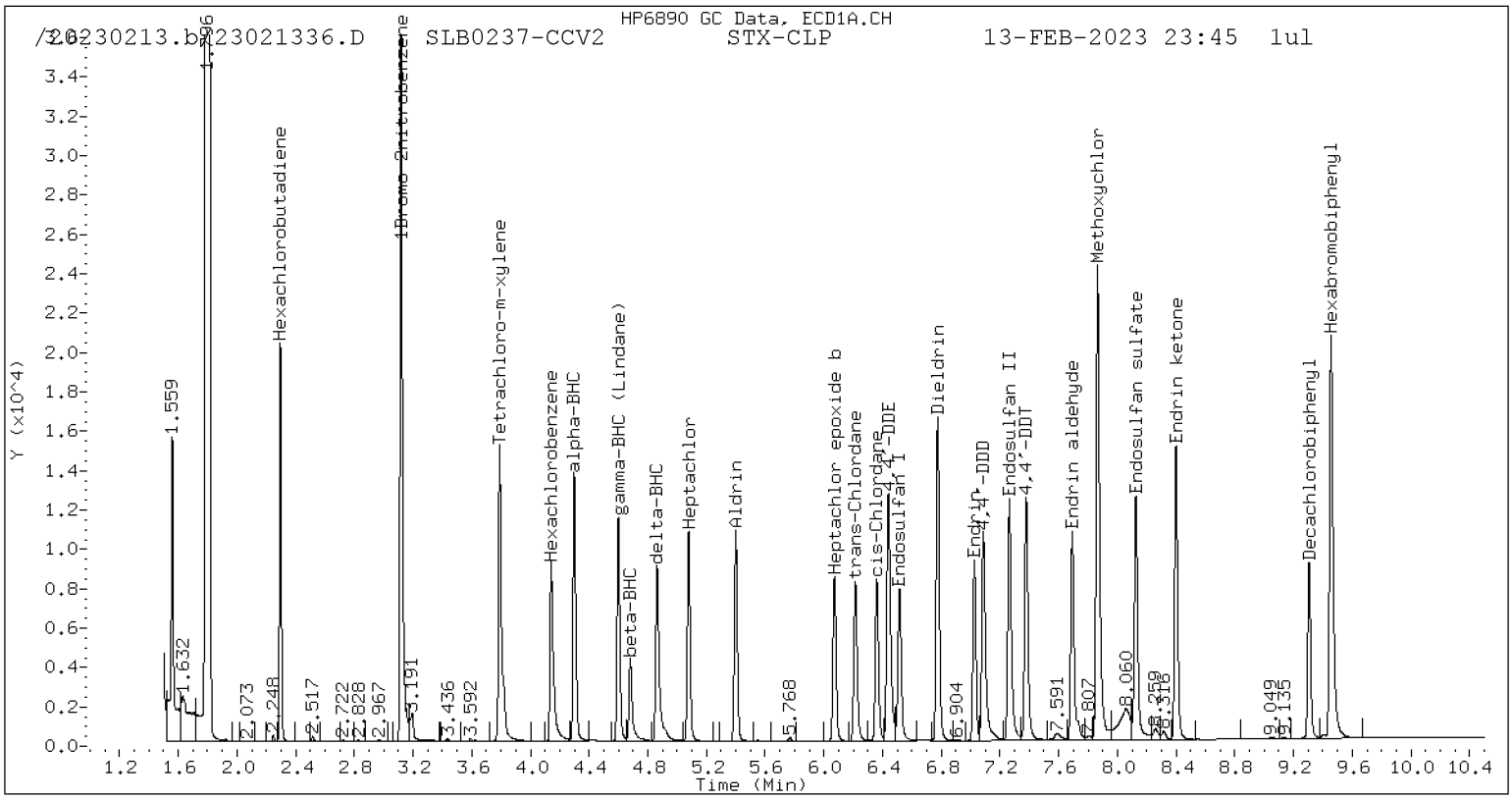
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	855852	27.3
Hexabromobiphenyl	609723	712598	16.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	1332943	32.4
Hexabromobiphenyl	769764	834315	8.4

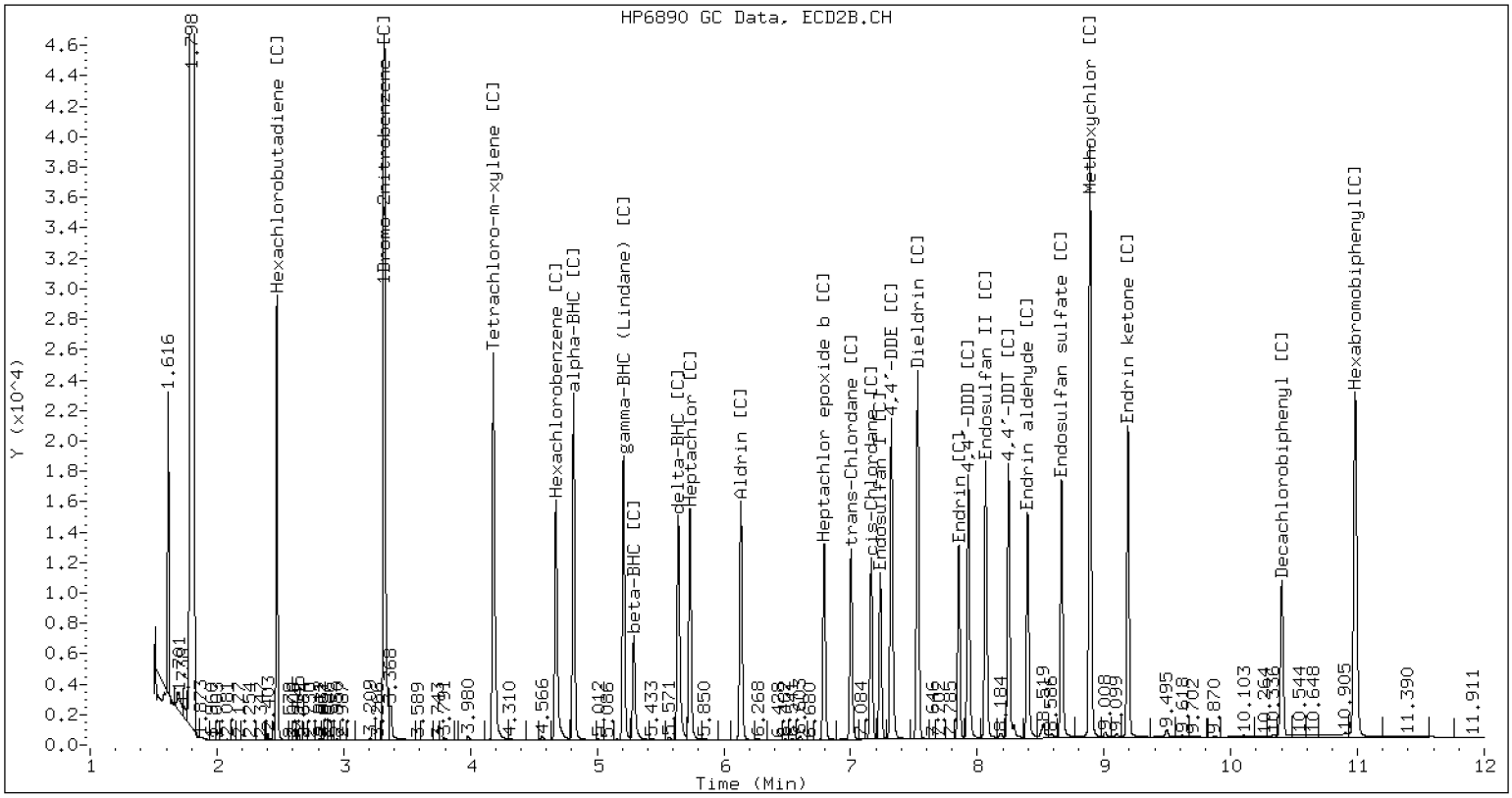
* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

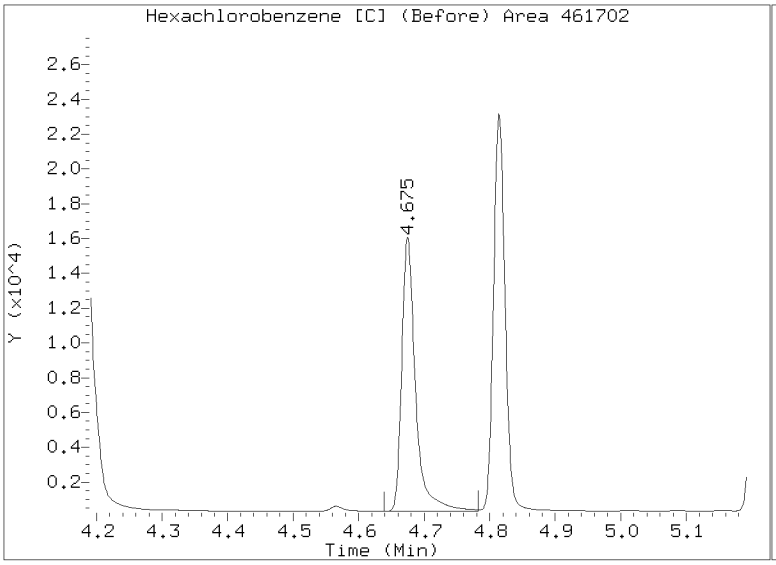
/20230213.b/B20230213.b/23021336.D SLB0237-CCV2 CLP2

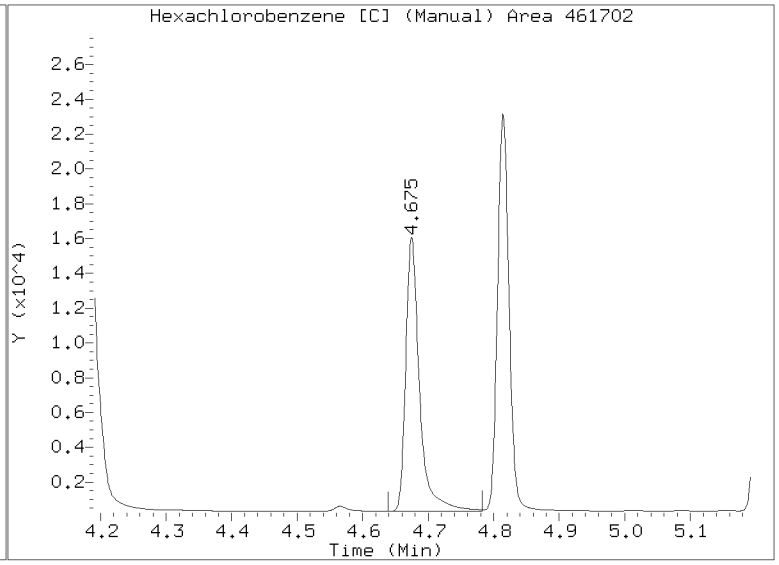


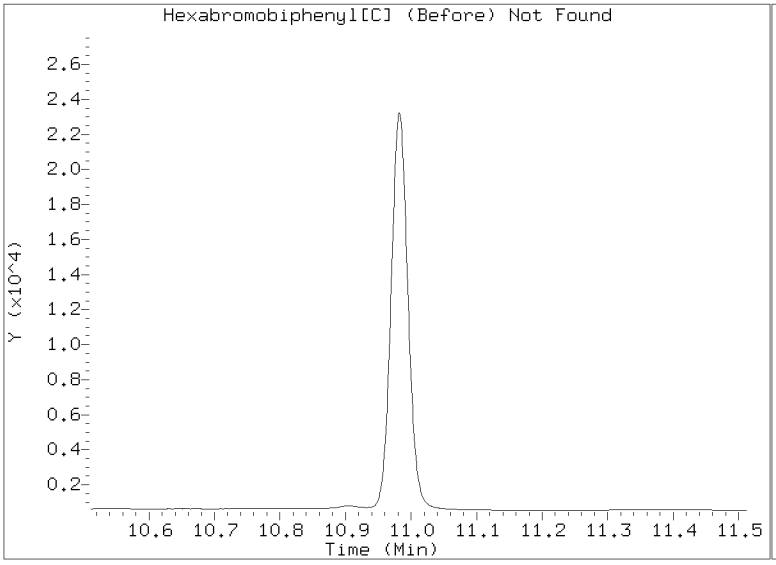
CLP-2 Manual Integration: NO

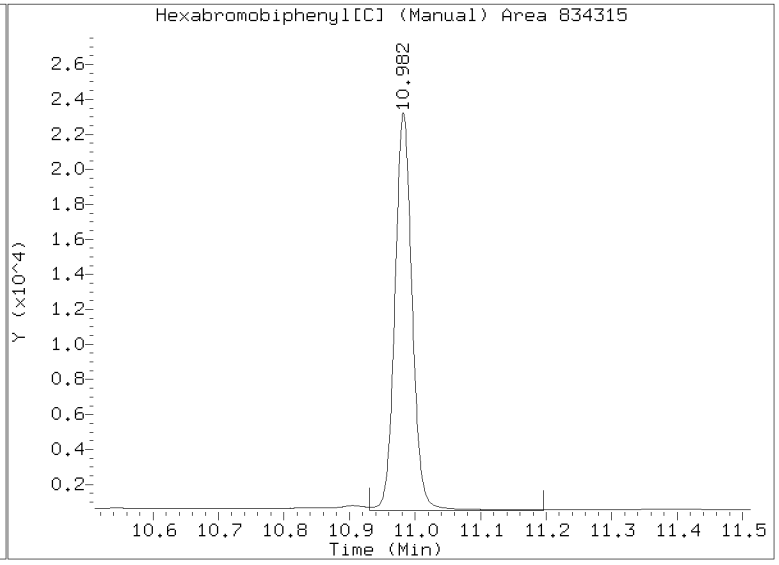
Manual Peak Adjustment Report, CLP-2

Datafile: /20230213.b/B20230213.b/23021336.D
Injection Date: 13-FEB-2023 23:45
Lab ID:SEQ-CCV2 Client ID:









CONTINUING CALIBRATION CHECK

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD6	Calibration:	FL00041
Lab File ID:	23021345.D	Calibration Date:	12/14/2022
Sequence:	SLB0237	Injection Date:	02/14/23
Lab Sample ID:	SLB0237-CCV3	Injection Time:	02:26
Sequence Name:	INDAE		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Hexachlorobenzene	A	20.000	20.2	1.4298940	1.4436410		1.0	+/-20
Hexachlorobenzene [2C]	A	20.000	19.1	1.4591090	1.3914940		-4.6	+/-20
Decachlorobiphenyl	A	40.000	35.8	0.8105886	0.7261920		-10.4	+/-20
Decachlorobiphenyl [2C]	A	40.000	36.6	0.8841805	0.8094974		-8.4	+/-20
Tetrachlorometaxylene	A	40.000	40.1	1.0879510	1.0896450		0.2	+/-20
Tetrachlorometaxylene [2C]	A	40.000	38.2	1.1261070	1.0754550		-4.5	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230213.b/23021345.D
Data file 2: /20230213.b/B20230213.b/23021345.D
Method: \20230213.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: AA/JR

ARI ID: SLB0237-CCV3
Client ID:
Injection Date: 14-FEB-2023 02:26
Report Date: 02/17/2023 12:18
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.301	0.002	188179	4.816	0.001	290256	21.84	20.61	5.8	alpha-BHC
4.683	0.002	74818	5.291	0.001	108840	22.55	20.33	10.4	beta-BHC
4.866	0.003	158990	5.642	-0.000	225657	22.57	19.45	14.9	delta-BHC
4.601	0.002	156260	5.210	0.000	243980	20.91	20.41	2.4	gamma-BHC (Lindane)
5.080	0.002	151735	5.733	-0.000	224276	22.82	20.71	9.7	Heptachlor
5.401	0.002	157825	6.135	-0.000	231176	21.18	18.70	12.5	Aldrin
6.073	0.002	135112	6.792	-0.000	183074	20.92	17.91	15.5	Heptachlor epoxide b
6.517	0.002	139246	7.236	-0.000	153178	23.49	17.00	32.0	Endosulfan I
6.777	0.002	262196	7.529	-0.001	332610	41.17	33.41	20.8	Dieldrin
6.442	0.002	238516	7.323	-0.000	320500	40.34	35.11	13.9	4,4'-DDE
7.027	0.002	131361	7.854	-0.000	159476	25.04	23.91	4.6	Endrin
7.265	0.001	220942	8.066	-0.000	263585	46.79	38.55	19.3	Endosulfan II
7.089	0.002	210480	7.929	-0.000	254875	44.54	39.29	12.5	4,4'-DDD
8.127	0.001	213399	8.665	-0.000	252070	47.60	41.99	12.5	Endosulfan sulfate
7.380	0.001	208384	8.247	-0.001	235096	43.64	37.54	15.0	4,4'-DDT
7.867	0.001	444931	8.889	-0.001	533735	210.27	192.61	8.8	Methoxychlor
8.401	0.001	235199	9.189	-0.000	291229	45.79	44.91	1.9	Endrin ketone
7.693	0.001	189288	8.397	-0.001	222039	50.26	46.04	8.8	Endrin aldehyde
6.217	0.002	135624	7.004	0.000	175272	20.67	17.19	18.4	trans-Chlordane
6.362	0.001	133329	7.163	-0.001	167755	20.26	16.82	18.6	cis-Chlordane
2.297	0.001	181738	2.475	0.002	267244	20.13	19.98	0.7	Hexachlorobutadiene
4.145	0.003	161551	4.676	0.001	244490	20.19	19.07	5.7	Hexachlorobenzene
3.793	0.002	243874	4.182	0.001	377922	40.06	38.20	4.8	Tetrachloro-m-xylene
9.307	0.001	145266	10.402	-0.001	189866	35.84	36.62	2.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

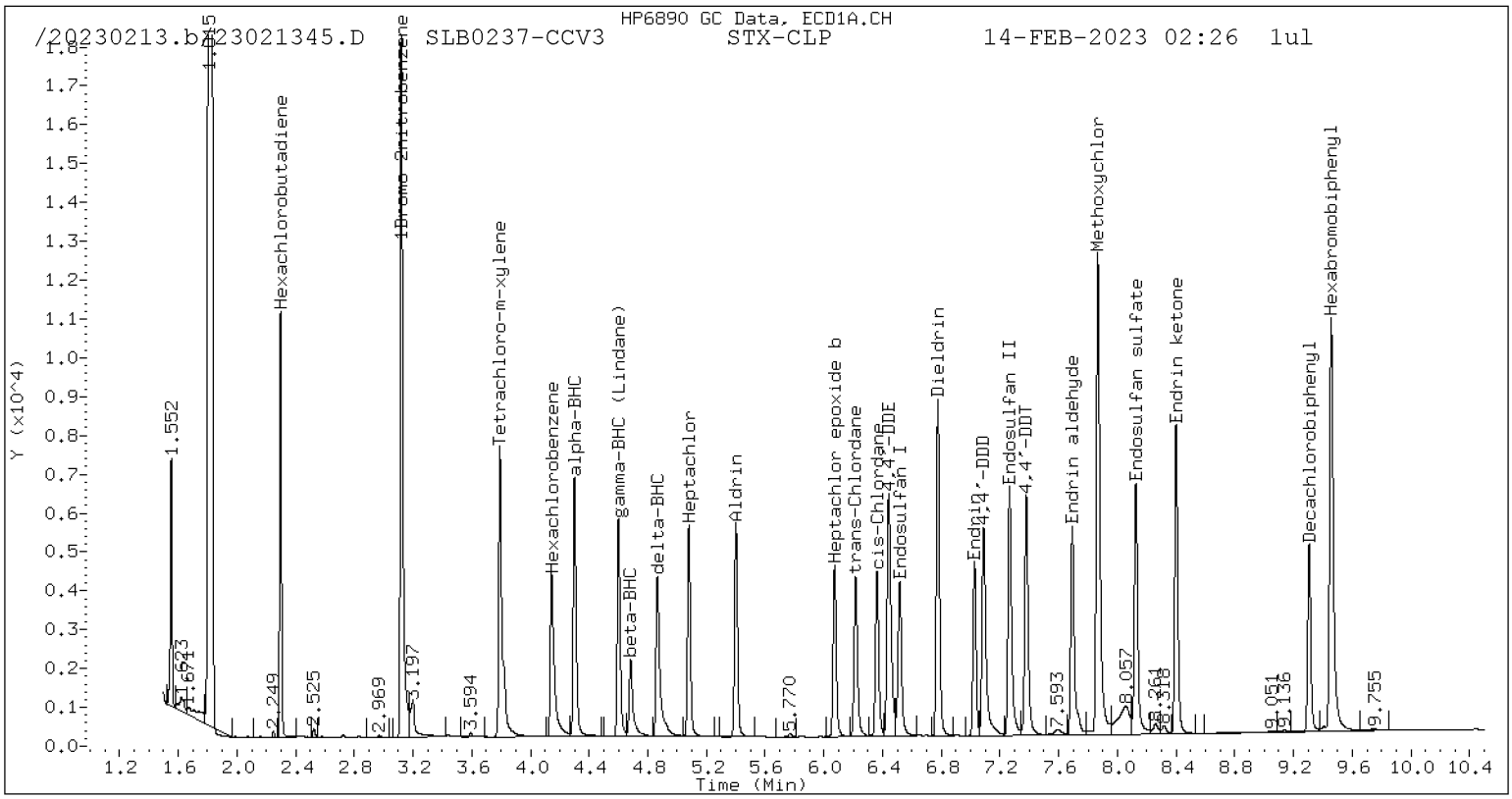
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	672426	447621	-33.4
Hexabromobiphenyl	609723	400076	-34.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1006482	702813	-30.2
Hexabromobiphenyl	769764	469096	-39.1

* Standard Areas taken from Initial Cal Level 5
Initial Calibration Date: 14-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

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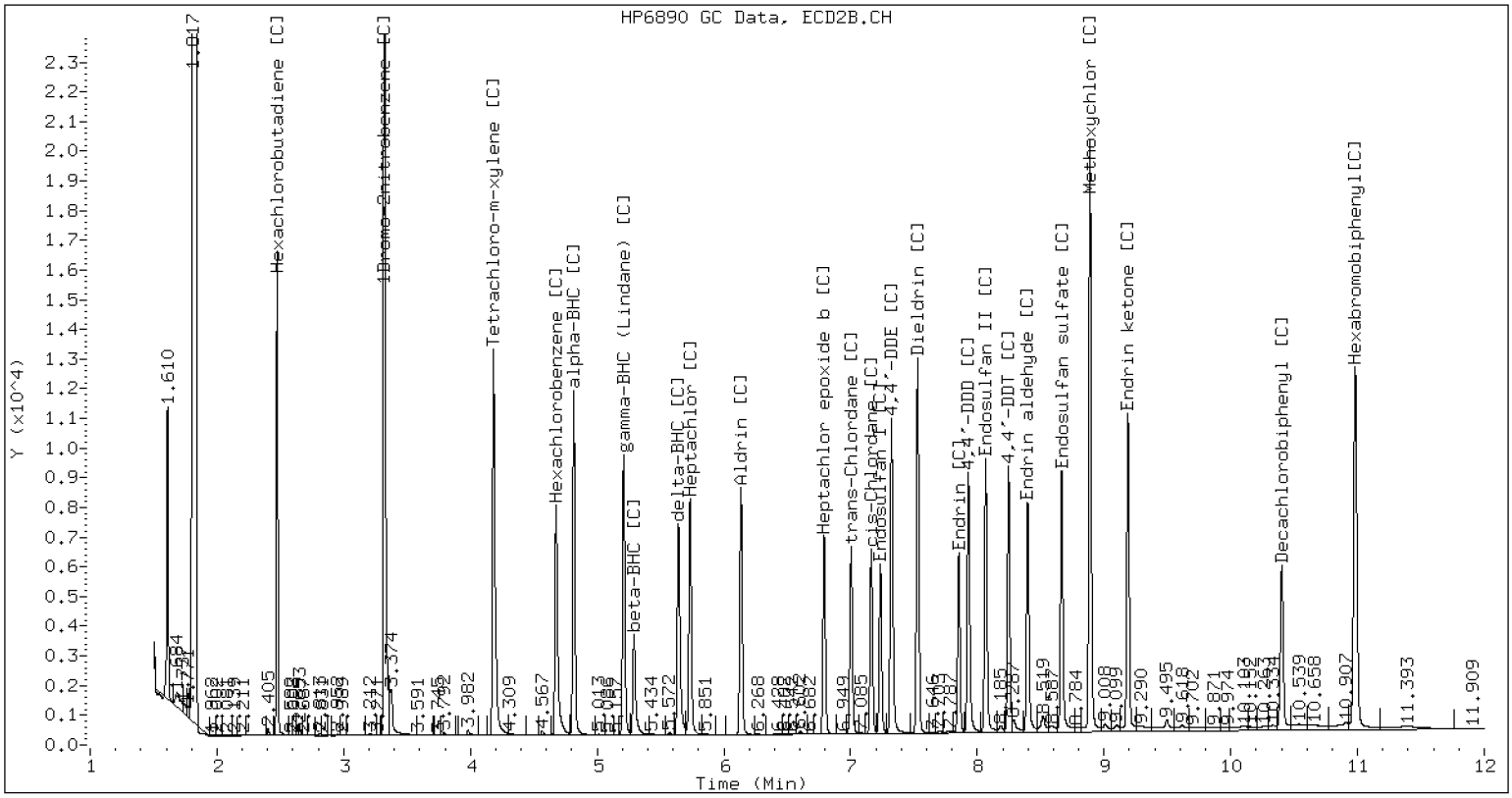


CLP-2 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

PERFORMANCE EVAUATION DATA SHEET

DS1

EPA 8081B

Laboratory:	Analytical Resources, LLC	Laboratory ID:	SKL0233-PEM1	File ID:	22121404.D
Client:	Anchor QEA, LLC	Matrix:	Water	Instrument:	ECD6
Project:	AOC5 MR Phase 1	Analyzed:	12/14/2022	Sequence:	SKL0233
SDG:	23A0313	Calibration:	FL00041	Column:	1

PEM COMPOUND	RT	Response
4,4'-DDE	6.49	6258
Endrin	7.08	745471
4,4'-DDD	7.14	15566
Endrin Aldehyde	7.75	21328
4,4'-DDT	7.43	629664
Endrin Ketone	8.45	19276

4,4'-DDT %Breakdown (1): 3.3

Endrin %Breakdown (1): 5.2

Analytical Resources, LLC
Analytical Chemists and Consultants

PERFORMANCE EVAUATION DATA SHEET

DS1

EPA 8081B

Laboratory:	Analytical Resources, LLC	Laboratory ID:	SKL0233-PEM1	File ID:	22121404.D
Client:	Anchor QEA, LLC	Matrix:	Water	Instrument:	ECD6
Project:	AOC5 MR Phase 1	Analyzed:	12/14/2022	Sequence:	SKL0233
SDG:	23A0313	Calibration:	FL00041	Column:	2

PEM COMPOUND	RT	Response
4,4'-DDE	7.37	11906
Endrin	7.91	1029194
4,4'-DDD	7.98	32697
Endrin Aldehyde	8.45	31426
4,4'-DDT	8.30	890195
Endrin Ketone	9.24	28268

4,4'-DDT %Breakdown (1): 4.8

Endrin %Breakdown (1): 5.5

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SEQ-PEM1 InstID,Data File: ecd6.i, 22121404.D

Analysis Date: 14-DEC-2022 20:20 Init. Calib. Date: 14-DEC-2022

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene	3.151	683485
4,4'-DDE	6.490	6258
Endrin	7.082	745471
4,4'-DDD	7.136	15566
4,4'-DDT	7.428	629664
Endrin ketone	8.453	19276
Endrin aldehyde	7.747	21328
Hexabromobiphenyl	9.504	619012
Tetrachloro-m-xylene	3.828	1161664
Decachlorobiphenyl	9.355	833312

DDT Percent Breakdown = 3.3 %
((6258+15566) * 100)/(6258+15566+629664)

Endrin Percent Breakdown = 5.2 %
((21328+19276) * 100)/(21328+19276+745471)

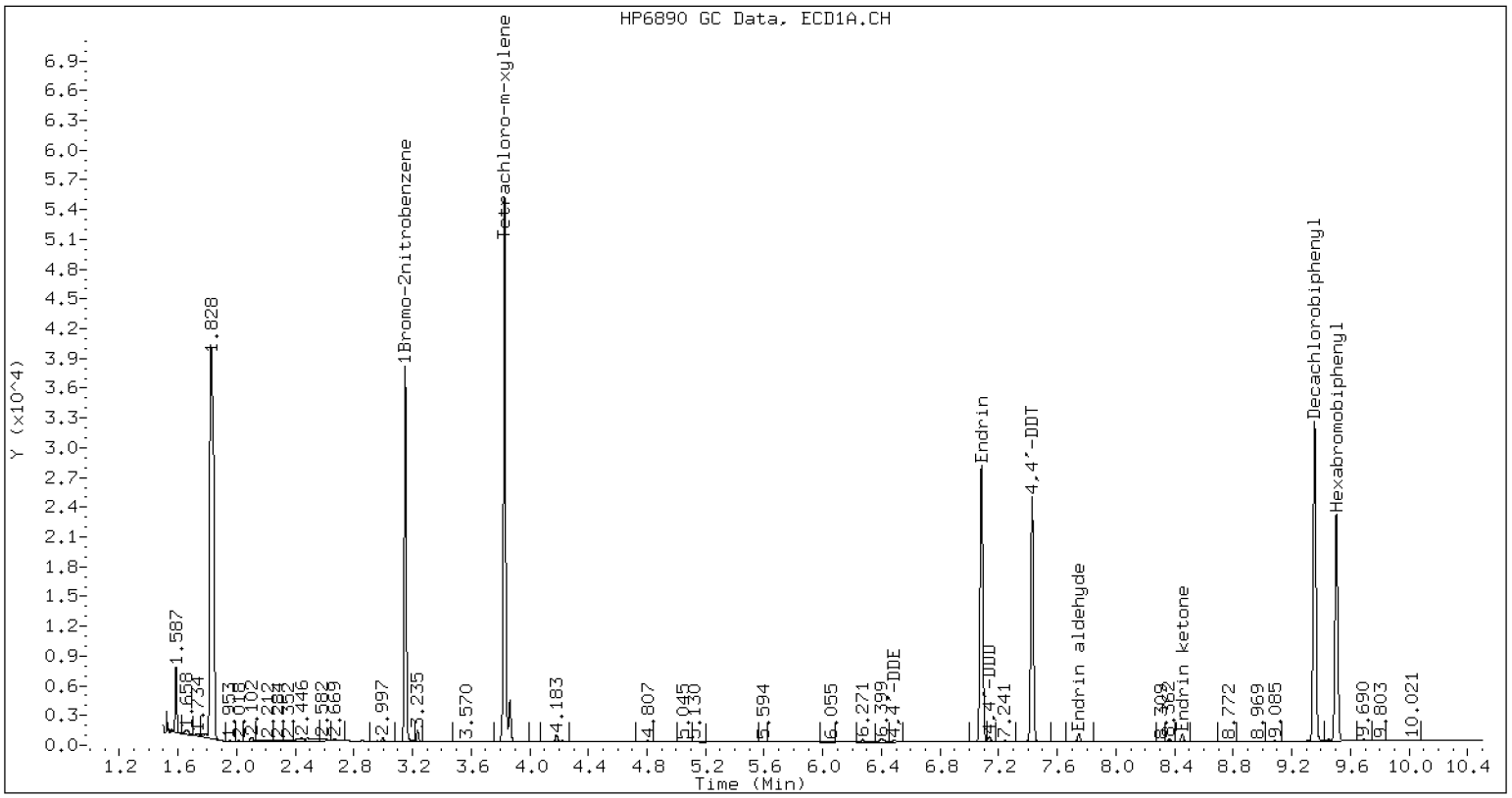
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene [C]	3.350	1005375
4,4'-DDE [C]	7.370	11906
Endrin [C]	7.907	1029194
4,4'-DDD [C]	7.977	32697
4,4'-DDT [C]	8.295	890195
Endrin ketone [C]	9.239	28268
Endrin aldehyde [C]	8.448	31426
Hexabromobiphenyl[C]	11.054	772586
Tetrachloro-m-xylene [C]	4.220	1890294
Decachlorobiphenyl [C]	10.467	1140978

DDT Percent Breakdown = 4.8 %
((11906+32697) * 100)/(11906+32697+890195)

Endrin Percent Breakdown = 5.5 %
((31426+28268) * 100)/(31426+28268+1029194)

/20221214.b/22121404.D SEQ-PEM1 STX-CLP 14-DEC-2022 20:20 1ul



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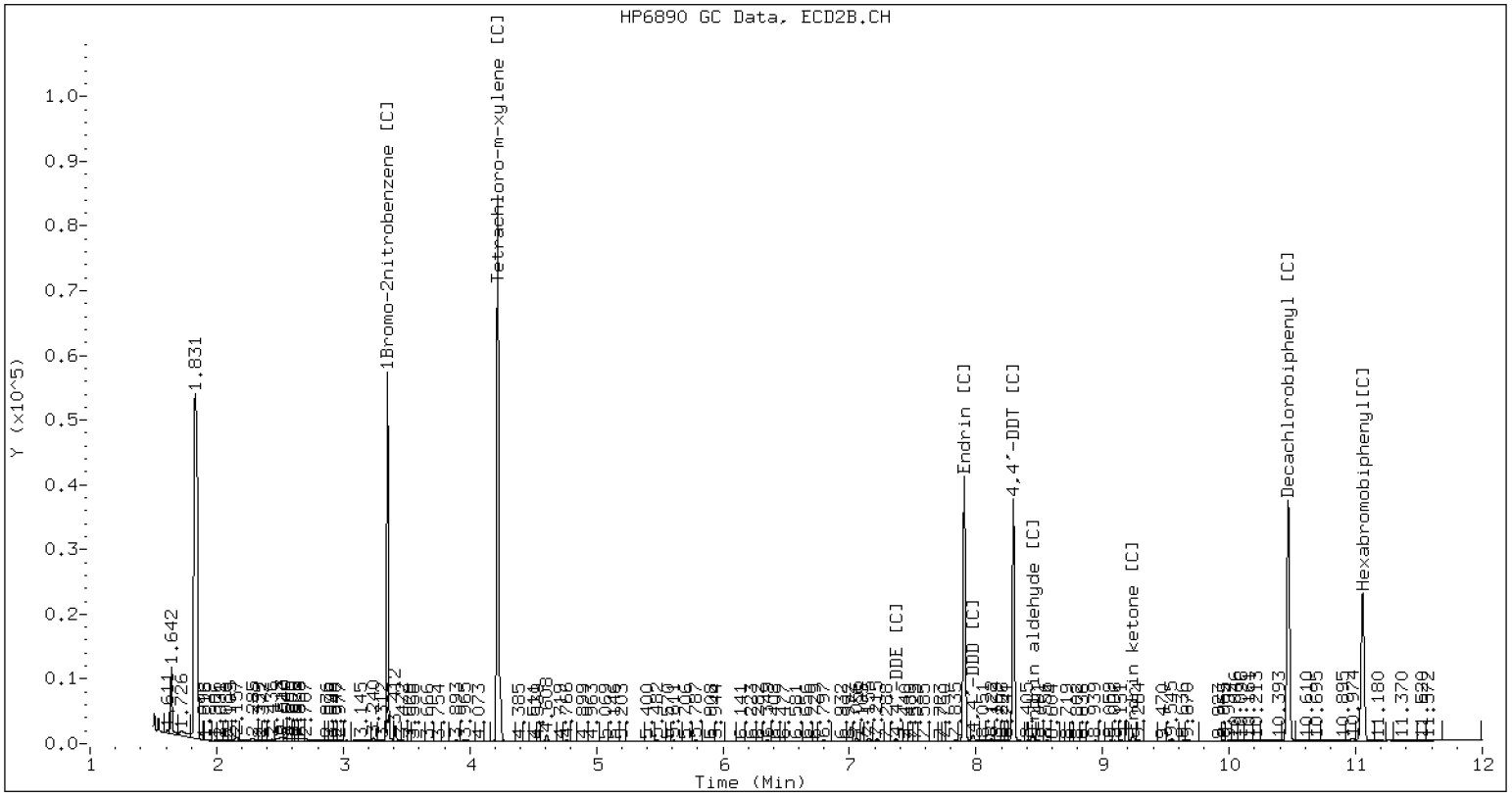

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SEQ-PEM1 InstID,Data File: ecd6.i, 22121404.D

Analysis Date: 14-DEC-2022 20:20 Init. Calib. Date: 14-DEC-2022

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene	3.151	683485
4,4'-DDE	6.490	6258
Endrin	7.082	745471
4,4'-DDD	7.136	15566
4,4'-DDT	7.428	629664
Endrin ketone	8.453	19276
Endrin aldehyde	7.747	21328
Hexabromobiphenyl	9.504	619012
Tetrachloro-m-xylene	3.828	1161664
Decachlorobiphenyl	9.355	833312

DDT Percent Breakdown = 3.3 %
((6258+15566) * 100)/(6258+15566+629664)

Endrin Percent Breakdown = 5.2 %
((21328+19276) * 100)/(21328+19276+745471)

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312

Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312

Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8081B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SKL0233
Instrument: ECD6
Calibration: FL00041

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Performance Mix	SKL0233-PEM1	22121404.D	22121404.D	NA	12/14/22 20:20
Cal Standard	SKL0233-CAL1	22121405.D	22121405.D	NA	12/14/22 20:38
Cal Standard	SKL0233-CAL2	22121406.D	22121406.D	NA	12/14/22 20:56
Cal Standard	SKL0233-CAL3	22121407.D	22121407.D	NA	12/14/22 21:14
Cal Standard	SKL0233-CAL4	22121408.D	22121408.D	NA	12/14/22 21:31
Cal Standard	SKL0233-CAL5	22121409.D	22121409.D	NA	12/14/22 21:49
Cal Standard	SKL0233-CAL6	22121410.D	22121410.D	NA	12/14/22 22:07
Cal Standard	SKL0233-CAL7	22121411.D	22121411.D	NA	12/14/22 22:25
Cal Standard	SKL0233-CAL8	22121412.D	22121412.D	NA	12/14/22 22:43
Cal Standard	SKL0233-CAL9	22121413.D	22121413.D	NA	12/14/22 23:01
Cal Standard	SKL0233-CALA	22121414.D	22121414.D	NA	12/14/22 23:19
Cal Standard	SKL0233-CALB	22121415.D	22121415.D	NA	12/14/22 23:36
Cal Standard	SKL0233-CALC	22121416.D	22121416.D	NA	12/14/22 23:54
Cal Standard	SKL0233-CALD	22121417.D	22121417.D	NA	12/15/22 00:12
Cal Standard	SKL0233-CALE	22121418.D	22121418.D	NA	12/15/22 00:30

Printed: 12/17/2022 10:57:45AM

ANALYSIS SEQUENCE

SKL0233

Instrument: ECD6 Element Column ID:
Calibration ID: FL00041

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SKL0233-PEM1	DS1	QC		1	K007286	K006953		
SKL0233-CAL1	INDAA	QC		2	K011594	K006953		
SKL0233-CAL2	INDAB	QC		3	K011593	K006953		
SKL0233-CAL3	INDAC	QC		4	K011592	K006953		
SKL0233-CAL4	INDAD	QC		5	K011591	K006953		
SKL0233-CAL5	INDAE	QC		6	K011590	K006953		
SKL0233-CAL6	INDAF	QC		7	K011589	K006953		
SKL0233-CAL7	INDAG	QC		8	K011463	K006953		
SKL0233-CAL8	WNDA	QC		9	K011595	K006953		
SKL0233-CAL9	WNDB	QC		10	K007148	K006953		
SKL0233-CALA	WNDC	QC		11	K007147	K006953		
SKL0233-CALB	WNDD	QC		12	K007146	K006953		
SKL0233-CALC	WNDE	QC		13	K007145	K006953		
SKL0233-CALD	WNDF	QC		14	K007144	K006953		
SKL0233-CALE	WNDG	QC		15	K007093	K006953		
SKL0233-CALM	NOS1	QC		16	K007375	K006953		
SKL0233-CALN	NOS2	QC		17	K007374	K006953		
SKL0233-CALO	NOS3	QC		18	K007373	K006953		
SKL0233-CALP	NOS4	QC		19	K007372	K006953		
SKL0233-CALQ	NOS5	QC		20	K007371	K006953		
SKL0233-CALR	NOS6	QC		21	K007370	K006953		
SKL0233-CALS	NOS7	QC		22	K007287	K006953		

Printed: 12/17/2022 10:57:45AM

ANALYSIS SEQUENCE

SKL0233

Instrument: ECD6 Element Column ID:
Calibration ID: FL00041

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SKL0233-CALF	TOXAPH1	QC		23	K011601	K006953		
SKL0233-CALG	TOXAPH2	QC		24	K011600	K006953		
SKL0233-CALH	TOXAPH3	QC		25	K011599	K006953		
SKL0233-CALI	TOXAPH4	QC		26	K011598	K006953		
SKL0233-CALJ	TOXAPH5	QC		27	K011597	K006953		
SKL0233-CALK	TOXAPH6	QC		28	K011596	K006953		
SKL0233-CALL	TOXAPH7	QC		29	K008546	K006953		

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	14-DEC-2022 19:27	22121401.D	1	RINSE	
2	14-DEC-2022 19:44	22121402.D	1	RINSE	
3	14-DEC-2022 20:02	22121403.D	1	SEQ-IBL1	
4	14-DEC-2022 20:20	22121404.D	1	SEQ-PEM1	
5	14-DEC-2022 20:38	22121405.D	1	SEQ-CAL1	
6	14-DEC-2022 20:56	22121406.D	1	SEQ-CAL2	
7	14-DEC-2022 21:14	22121407.D	1	SEQ-CAL3	
8	14-DEC-2022 21:31	22121408.D	1	SEQ-CAL4	
9	14-DEC-2022 21:49	22121409.D	1	SEQ-CAL5	
10	14-DEC-2022 22:07	22121410.D	1	SEQ-CAL6	
11	14-DEC-2022 22:25	22121411.D	1	SEQ-CAL7	
12	14-DEC-2022 22:43	22121412.D	1	SEQ-CAL8	
13	14-DEC-2022 23:01	22121413.D	1	SEQ-CAL9	
14	14-DEC-2022 23:19	22121414.D	1	SEQ-CALA	
15	14-DEC-2022 23:36	22121415.D	1	SEQ-CALB	
16	14-DEC-2022 23:54	22121416.D	1	SEQ-CALC	
17	15-DEC-2022 00:12	22121417.D	1	SEQ-CALD	
18	15-DEC-2022 00:30	22121418.D	1	SEQ-CALE	
19	15-DEC-2022 00:48	22121419.D	1	SEQ-SCV1	
20	15-DEC-2022 01:06	22121420.D	1	SEQ-SCV2	
21	15-DEC-2022 01:24	22121421.D	1	SEQ-CAL1A	
22	15-DEC-2022 01:42	22121422.D	1	SEQ-CAL2A	
23	15-DEC-2022 01:59	22121423.D	1	SEQ-CAL3A	
24	15-DEC-2022 02:17	22121424.D	1	SEQ-CAL4A	
25	15-DEC-2022 02:35	22121425.D	1	SEQ-CAL5A	
26	15-DEC-2022 02:53	22121426.D	1	SEQ-CAL6A	
27	15-DEC-2022 03:11	22121427.D	1	SEQ-CAL7A	
28	15-DEC-2022 03:29	22121428.D	1	SEQ-CAL8A	
29	15-DEC-2022 03:46	22121429.D	1	SEQ-CAL9A	
30	15-DEC-2022 04:04	22121430.D	1	SEQ-CALAA	
31	15-DEC-2022 04:22	22121431.D	1	SEQ-CALAB	
32	15-DEC-2022 04:40	22121432.D	1	SEQ-CALAC	
33	15-DEC-2022 04:58	22121433.D	1	SEQ-CALAD	
34	15-DEC-2022 05:16	22121434.D	1	SEQ-CALAE	
35	15-DEC-2022 05:33	22121435.D	1	SEQ-PEM2	
36	15-DEC-2022 05:51	22121436.D	1	SEQ-ICV1	
37	15-DEC-2022 06:09	22121437.D	1	SEQ-ICV2	
38	15-DEC-2022 06:27	22121438.D	1	SEQ-ICV3	
39	15-DEC-2022 06:45	22121439.D	1	SEQ-ICV4	
40	15-DEC-2022 07:03	22121440.D	1	BKK0688-BLK1	
41	15-DEC-2022 07:21	22121441.D	1	BKK0688-BS1	
42	15-DEC-2022 07:39	22121442.D	1	BKK0688-BS2	
43	15-DEC-2022 07:57	22121443.D	1	BKK0688-BS3	
44	15-DEC-2022 08:15	22121444.D	1	BKK0688-BSD1	
45	15-DEC-2022 08:32	22121445.D	1	BKK0142-BLK1	
46	15-DEC-2022 08:50	22121446.D	1	BKK0142-BS1	
47	15-DEC-2022 09:08	22121447.D	1	BKK0142-BS2	
48	15-DEC-2022 09:26	22121448.D	1	BKK0142-BSD1	
49	15-DEC-2022 09:44	22121449.D	1	BKK0142-MS1	
50	15-DEC-2022 10:02	22121450.D	1	BKK0142-MSD1	

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b p

	Inject Date/Time	Filename	DF	LabID	ClientID
51	15-DEC-2022 10:20	22121451.D	1	22J0513-01	
52	15-DEC-2022 10:38	22121452.D	1	22J0513-04	
53	15-DEC-2022 10:55	22121453.D	1	22J0535-01	
54	15-DEC-2022 11:13	22121454.D	1	22K0429-01	
55	15-DEC-2022 11:31	22121455.D	1	22K0429-02	
56	15-DEC-2022 11:49	22121456.D	1	22K0429-03	
57	15-DEC-2022 12:07	22121457.D	1	SEQ-PEM3	
58	15-DEC-2022 12:25	22121458.D	1	SEQ-CCV1	
59	15-DEC-2022 12:43	22121459.D	1	SEQ-CCV2	
60	15-DEC-2022 13:01	22121460.D	1	SEQ-CCV3	
61	15-DEC-2022 13:19	22121461.D	1	SEQ-CCV4	
62	15-DEC-2022 13:36	22121462.D	1	BKK0380-BLK1	
63	15-DEC-2022 13:54	22121463.D	1	BKK0380-BS1	
64	15-DEC-2022 14:12	22121464.D	1	BKK0380-BSD1	
65	15-DEC-2022 14:30	22121465.D	1	22K0157-01	
66	15-DEC-2022 14:48	22121466.D	1	22K0230-01	
67	15-DEC-2022 15:06	22121467.D	1	22K0231-01	
68	15-DEC-2022 15:24	22121468.D	1	BKK0382-BLK1	
69	15-DEC-2022 15:42	22121469.D	1	BKK0382-BS1	
70	15-DEC-2022 16:00	22121470.D	1	BKK0382-BS2	
71	15-DEC-2022 16:18	22121471.D	1	BKK0382-BSD1	
72	15-DEC-2022 16:35	22121472.D	1	22K0075-01	
73	15-DEC-2022 16:53	22121473.D	1	SEQ-PEM4	
74	15-DEC-2022 17:11	22121474.D	1	SEQ-CCV5	
75	15-DEC-2022 17:29	22121475.D	1	SEQ-CCV6	
76	15-DEC-2022 17:47	22121476.D	1	SEQ-CCV7	
77	15-DEC-2022 18:05	22121477.D	1	SEQ-CCV8	
78	15-DEC-2022 18:23	22121478.D	1	BKK0537-BLK1	
79	15-DEC-2022 18:40	22121479.D	1	BKK0537-BS1	
80	15-DEC-2022 18:58	22121480.D	1	BKK0537-BS2	
81	15-DEC-2022 19:16	22121481.D	1	22K0194-01	
82	15-DEC-2022 19:34	22121482.D	1	22K0194-01RE1	10
83	15-DEC-2022 19:52	22121483.D	1	SEQ-PEM5	
84	15-DEC-2022 20:09	22121484.D	1	SEQ-CCV9	
85	15-DEC-2022 20:27	22121485.D	1	SEQ-CCVA	
86	15-DEC-2022 20:45	22121486.D	1	SEQ-CCVB	
87	15-DEC-2022 21:03	22121487.D	1	SEQ-CCVC	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

ARI Job No.: RINS Method: PEST.m Instrument: ecd6.i Date: 14-DEC-2022

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1927	22121401.D	RINSE		1	NO MANUAL INTEGRATION
1944	22121402.D	RINSE		1	NO MANUAL INTEGRATION
2002	22121403.D	SEQ-IBL1		1	NO MANUAL INTEGRATION
2020	22121404.D	SEQ-PEM1		1	NO MANUAL INTEGRATION
2038	22121405.D	SEQ-CAL1		1	NO MANUAL INTEGRATION
2056	22121406.D	SEQ-CAL2		1	NO MANUAL INTEGRATION
2114	22121407.D	SEQ-CAL3		1	NO MANUAL INTEGRATION
2131	22121408.D	SEQ-CAL4		1	NO MANUAL INTEGRATION
2149	22121409.D	SEQ-CAL5		1	NO MANUAL INTEGRATION
2207	22121410.D	SEQ-CAL6		1	NO MANUAL INTEGRATION
2225	22121411.D	SEQ-CAL7		1	NO MANUAL INTEGRATION
2243	22121412.D	SEQ-CAL8		1	NO MANUAL INTEGRATION
2301	22121413.D	SEQ-CAL9		1	NO MANUAL INTEGRATION
2319	22121414.D	SEQ-CALA		1	NO MANUAL INTEGRATION
2336	22121415.D	SEQ-CALB		1	NO MANUAL INTEGRATION
2354	22121416.D	SEQ-CALC		1	NO MANUAL INTEGRATION
0012	22121417.D	SEQ-CALD		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0030	22121418.D	SEQ-CALE		1	NO MANUAL INTEGRATION
0048	22121419.D	SEQ-SCV1		1	NO MANUAL INTEGRATION
0106	22121420.D	SEQ-SCV2		1	NO MANUAL INTEGRATION
0124	22121421.D	SEQ-CAL1A		1	NO MANUAL INTEGRATION
0142	22121422.D	SEQ-CAL2A		1	NO MANUAL INTEGRATION
0159	22121423.D	SEQ-CAL3A		1	NO MANUAL INTEGRATION
0217	22121424.D	SEQ-CAL4A		1	NO MANUAL INTEGRATION
0235	22121425.D	SEQ-CAL5A		1	NO MANUAL INTEGRATION
0253	22121426.D	SEQ-CAL6A		1	NO MANUAL INTEGRATION
0311	22121427.D	SEQ-CAL7A		1	NO MANUAL INTEGRATION
0329	22121428.D	SEQ-CAL8A		1	NO MANUAL INTEGRATION
0346	22121429.D	SEQ-CAL9A		1	NO MANUAL INTEGRATION
0404	22121430.D	SEQ-CALAA		1	NO MANUAL INTEGRATION
0422	22121431.D	SEQ-CALAB		1	NO MANUAL INTEGRATION
0440	22121432.D	SEQ-CALAC		1	NO MANUAL INTEGRATION
0458	22121433.D	SEQ-CALAD		1	NO MANUAL INTEGRATION
0516	22121434.D	SEQ-CALAE		1	NO MANUAL INTEGRATION
0533	22121435.D	SEQ-PEM2		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0551	22121436.D	SEQ-ICV1		1	NO MANUAL INTEGRATION
0609	22121437.D	SEQ-ICV2		1	NO MANUAL INTEGRATION
0627	22121438.D	SEQ-ICV3		1	NO MANUAL INTEGRATION
0645	22121439.D	SEQ-ICV4		1	NO MANUAL INTEGRATION
0703	22121440.D	BKK0688-BLK1		1	NO MANUAL INTEGRATION
0721	22121441.D	BKK0688-BS1		1	NO MANUAL INTEGRATION
0739	22121442.D	BKK0688-BS2		1	NO MANUAL INTEGRATION
0757	22121443.D	BKK0688-BS3		1	NO MANUAL INTEGRATION
0815	22121444.D	BKK0688-BSD1		1	NO MANUAL INTEGRATION
0832	22121445.D	BKK0142-BLK1		1	NO MANUAL INTEGRATION
0850	22121446.D	BKK0142-BS1		1	NO MANUAL INTEGRATION
0908	22121447.D	BKK0142-BS2		1	NO MANUAL INTEGRATION
0926	22121448.D	BKK0142-BSD1		1	NO MANUAL INTEGRATION
0944	22121449.D	BKK0142-MS1		1	NO MANUAL INTEGRATION
1002	22121450.D	BKK0142-MSD1		1	NO MANUAL INTEGRATION
1020	22121451.D	22J0513-01		1	NO MANUAL INTEGRATION
1038	22121452.D	22J0513-04		1	NO MANUAL INTEGRATION
1055	22121453.D	22J0535-01		1	trans-Chlordane,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1113	22121454.D	22K0429-01		1	Heptachlor epoxide b,
1131	22121455.D	22K0429-02		1	Heptachlor epoxide b,
1149	22121456.D	22K0429-03		1	Hexachlorobenzene,
1207	22121457.D	SEQ-PEM3		1	NO MANUAL INTEGRATION
1225	22121458.D	SEQ-CCV1		1	NO MANUAL INTEGRATION
1243	22121459.D	SEQ-CCV2		1	NO MANUAL INTEGRATION
1301	22121460.D	SEQ-CCV3		1	NO MANUAL INTEGRATION
1319	22121461.D	SEQ-CCV4		1	NO MANUAL INTEGRATION
1336	22121462.D	BKK0380-BLK1		1	NO MANUAL INTEGRATION
1354	22121463.D	BKK0380-BS1		1	NO MANUAL INTEGRATION
1412	22121464.D	BKK0380-BSD1		1	NO MANUAL INTEGRATION
1430	22121465.D	22K0157-01		1	NO MANUAL INTEGRATION
1448	22121466.D	22K0230-01		1	NO MANUAL INTEGRATION
1506	22121467.D	22K0231-01		1	NO MANUAL INTEGRATION
1524	22121468.D	BKK0382-BLK1		1	NO MANUAL INTEGRATION
1542	22121469.D	BKK0382-BS1		1	NO MANUAL INTEGRATION
1600	22121470.D	BKK0382-BS2		1	NO MANUAL INTEGRATION
1618	22121471.D	BKK0382-BSD1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1635	22121472.D	22K0075-01		1	NO MANUAL INTEGRATION
1653	22121473.D	SEQ-PEM4		1	NO MANUAL INTEGRATION
1711	22121474.D	SEQ-CCV5		1	NO MANUAL INTEGRATION
1729	22121475.D	SEQ-CCV6		1	NO MANUAL INTEGRATION
1747	22121476.D	SEQ-CCV7		1	NO MANUAL INTEGRATION
1805	22121477.D	SEQ-CCV8		1	NO MANUAL INTEGRATION
1823	22121478.D	BKK0537-BLK1		1	NO MANUAL INTEGRATION
1840	22121479.D	BKK0537-BS1		1	NO MANUAL INTEGRATION
1858	22121480.D	BKK0537-BS2		1	NO MANUAL INTEGRATION
1916	22121481.D	22K0194-01		1	NO MANUAL INTEGRATION
1934	22121482.D	22K0194-01RE1	10	1	NO MANUAL INTEGRATION
1952	22121483.D	SEQ-PEM5		1	NO MANUAL INTEGRATION
2009	22121484.D	SEQ-CCV9		1	NO MANUAL INTEGRATION
2027	22121485.D	SEQ-CCVA		1	NO MANUAL INTEGRATION
2045	22121486.D	SEQ-CCVB		1	NO MANUAL INTEGRATION
2103	22121487.D	SEQ-CCVC		1	NO MANUAL INTEGRATION
1927	22121401.D	RINSE		1	NO MANUAL INTEGRATION
1944	22121402.D	RINSE		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2002	22121403.D	SEQ-IBL1		1	NO MANUAL INTEGRATION
2020	22121404.D	SEQ-PEM1		1	NO MANUAL INTEGRATION
2038	22121405.D	SEQ-CAL1		1	NO MANUAL INTEGRATION
2056	22121406.D	SEQ-CAL2		1	NO MANUAL INTEGRATION
2114	22121407.D	SEQ-CAL3		1	NO MANUAL INTEGRATION
2131	22121408.D	SEQ-CAL4		1	NO MANUAL INTEGRATION
2149	22121409.D	SEQ-CAL5		1	NO MANUAL INTEGRATION
2207	22121410.D	SEQ-CAL6		1	NO MANUAL INTEGRATION
2225	22121411.D	SEQ-CAL7		1	NO MANUAL INTEGRATION
2243	22121412.D	SEQ-CAL8		1	NO MANUAL INTEGRATION
2301	22121413.D	SEQ-CAL9		1	NO MANUAL INTEGRATION
2319	22121414.D	SEQ-CALA		1	NO MANUAL INTEGRATION
2336	22121415.D	SEQ-CALB		1	NO MANUAL INTEGRATION
2354	22121416.D	SEQ-CALC		1	NO MANUAL INTEGRATION
0012	22121417.D	SEQ-CALD		1	NO MANUAL INTEGRATION
0030	22121418.D	SEQ-CALE		1	NO MANUAL INTEGRATION
0048	22121419.D	SEQ-SCV1		1	NO MANUAL INTEGRATION
0106	22121420.D	SEQ-SCV2		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0124	22121421.D	SEQ-CAL1A		1	NO MANUAL INTEGRATION
0142	22121422.D	SEQ-CAL2A		1	NO MANUAL INTEGRATION
0159	22121423.D	SEQ-CAL3A		1	NO MANUAL INTEGRATION
0217	22121424.D	SEQ-CAL4A		1	NO MANUAL INTEGRATION
0235	22121425.D	SEQ-CAL5A		1	NO MANUAL INTEGRATION
0253	22121426.D	SEQ-CAL6A		1	NO MANUAL INTEGRATION
0311	22121427.D	SEQ-CAL7A		1	NO MANUAL INTEGRATION
0329	22121428.D	SEQ-CAL8A		1	NO MANUAL INTEGRATION
0346	22121429.D	SEQ-CAL9A		1	NO MANUAL INTEGRATION
0404	22121430.D	SEQ-CALAA		1	NO MANUAL INTEGRATION
0422	22121431.D	SEQ-CALAB		1	NO MANUAL INTEGRATION
0440	22121432.D	SEQ-CALAC		1	NO MANUAL INTEGRATION
0458	22121433.D	SEQ-CALAD		1	NO MANUAL INTEGRATION
0516	22121434.D	SEQ-CALAE		1	NO MANUAL INTEGRATION
0533	22121435.D	SEQ-PEM2		1	NO MANUAL INTEGRATION
0551	22121436.D	SEQ-ICV1		1	NO MANUAL INTEGRATION
0609	22121437.D	SEQ-ICV2		1	NO MANUAL INTEGRATION
0627	22121438.D	SEQ-ICV3		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0645	22121439.D	SEQ-ICV4		1	NO MANUAL INTEGRATION
0703	22121440.D	BKK0688-BLK1		1	NO MANUAL INTEGRATION
0721	22121441.D	BKK0688-BS1		1	NO MANUAL INTEGRATION
0739	22121442.D	BKK0688-BS2		1	NO MANUAL INTEGRATION
0757	22121443.D	BKK0688-BS3		1	NO MANUAL INTEGRATION
0815	22121444.D	BKK0688-BSD1		1	NO MANUAL INTEGRATION
0832	22121445.D	BKK0142-BLK1		1	NO MANUAL INTEGRATION
0850	22121446.D	BKK0142-BS1		1	NO MANUAL INTEGRATION
0908	22121447.D	BKK0142-BS2		1	NO MANUAL INTEGRATION
0926	22121448.D	BKK0142-BSD1		1	NO MANUAL INTEGRATION
0944	22121449.D	BKK0142-MS1		1	NO MANUAL INTEGRATION
1002	22121450.D	BKK0142-MSD1		1	NO MANUAL INTEGRATION
1020	22121451.D	22J0513-01		1	NO MANUAL INTEGRATION
1038	22121452.D	22J0513-04		1	NO MANUAL INTEGRATION
1055	22121453.D	22J0535-01		1	trans-Chlordane [C],
1113	22121454.D	22K0429-01		1	NO MANUAL INTEGRATION
1131	22121455.D	22K0429-02		1	Aldrin [C], Heptachlor epoxide b [C], trans-Chlordane [C],
1149	22121456.D	22K0429-03		1	Aldrin [C],

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1207	22121457.D	SEQ-PEM3		1	NO MANUAL INTEGRATION
1225	22121458.D	SEQ-CCV1		1	NO MANUAL INTEGRATION
1243	22121459.D	SEQ-CCV2		1	NO MANUAL INTEGRATION
1301	22121460.D	SEQ-CCV3		1	NO MANUAL INTEGRATION
1319	22121461.D	SEQ-CCV4		1	NO MANUAL INTEGRATION
1336	22121462.D	BKK0380-BLK1		1	NO MANUAL INTEGRATION
1354	22121463.D	BKK0380-BS1		1	NO MANUAL INTEGRATION
1412	22121464.D	BKK0380-BSD1		1	NO MANUAL INTEGRATION
1430	22121465.D	22K0157-01		1	NO MANUAL INTEGRATION
1448	22121466.D	22K0230-01		1	NO MANUAL INTEGRATION
1506	22121467.D	22K0231-01		1	NO MANUAL INTEGRATION
1524	22121468.D	BKK0382-BLK1		1	NO MANUAL INTEGRATION
1542	22121469.D	BKK0382-BS1		1	NO MANUAL INTEGRATION
1600	22121470.D	BKK0382-BS2		1	NO MANUAL INTEGRATION
1618	22121471.D	BKK0382-BSD1		1	NO MANUAL INTEGRATION
1635	22121472.D	22K0075-01		1	NO MANUAL INTEGRATION
1653	22121473.D	SEQ-PEM4		1	NO MANUAL INTEGRATION
1711	22121474.D	SEQ-CCV5		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1729	22121475.D	SEQ-CCV6		1	NO MANUAL INTEGRATION
1747	22121476.D	SEQ-CCV7		1	NO MANUAL INTEGRATION
1805	22121477.D	SEQ-CCV8		1	NO MANUAL INTEGRATION
1823	22121478.D	BKK0537-BLK1		1	NO MANUAL INTEGRATION
1840	22121479.D	BKK0537-BS1		1	NO MANUAL INTEGRATION
1858	22121480.D	BKK0537-BS2		1	NO MANUAL INTEGRATION
1916	22121481.D	22K0194-01		1	NO MANUAL INTEGRATION
1934	22121482.D	22K0194-01RE1	10	1	NO MANUAL INTEGRATION
1952	22121483.D	SEQ-PEM5		1	NO MANUAL INTEGRATION
2010	22121484.D	SEQ-CCV9		1	NO MANUAL INTEGRATION
2027	22121485.D	SEQ-CCVA		1	NO MANUAL INTEGRATION
2045	22121486.D	SEQ-CCVB		1	NO MANUAL INTEGRATION
2103	22121487.D	SEQ-CCVC		1	NO MANUAL INTEGRATION

Security Status Report

Date: 17-Dec-2022 10:57

22121401.D	Data Locked	jrains, 17-Dec-2022 10:57
22121402.D	Data Locked	jrains, 17-Dec-2022 10:57
22121403.D	Data Locked	jrains, 17-Dec-2022 10:57
22121404.D	Data Locked	jrains, 17-Dec-2022 10:57
22121405.D	Data Locked	jrains, 17-Dec-2022 10:57
22121406.D	Data Locked	jrains, 17-Dec-2022 10:57
22121407.D	Data Locked	jrains, 17-Dec-2022 10:57
22121408.D	Data Locked	jrains, 17-Dec-2022 10:57
22121409.D	Data Locked	jrains, 17-Dec-2022 10:57
22121410.D	Data Locked	jrains, 17-Dec-2022 10:57
22121411.D	Data Locked	jrains, 17-Dec-2022 10:57
22121412.D	Data Locked	jrains, 17-Dec-2022 10:57
22121413.D	Data Locked	jrains, 17-Dec-2022 10:57
22121414.D	Data Locked	jrains, 17-Dec-2022 10:57
22121415.D	Data Locked	jrains, 17-Dec-2022 10:57
22121416.D	Data Locked	jrains, 17-Dec-2022 10:57
22121417.D	Data Locked	jrains, 17-Dec-2022 10:57
22121418.D	Data Locked	jrains, 17-Dec-2022 10:57
22121419.D	Data Locked	jrains, 17-Dec-2022 10:57
22121420.D	Data Locked	jrains, 17-Dec-2022 10:57
22121421.D	Data Locked	jrains, 17-Dec-2022 10:57
22121422.D	Data Locked	jrains, 17-Dec-2022 10:57
22121423.D	Data Locked	jrains, 17-Dec-2022 10:57
22121424.D	Data Locked	jrains, 17-Dec-2022 10:57
22121425.D	Data Locked	jrains, 17-Dec-2022 10:57
22121426.D	Data Locked	jrains, 17-Dec-2022 10:57
22121427.D	Data Locked	jrains, 17-Dec-2022 10:57
22121428.D	Data Locked	jrains, 17-Dec-2022 10:57
22121429.D	Data Locked	jrains, 17-Dec-2022 10:57
22121430.D	Data Locked	jrains, 17-Dec-2022 10:57
22121431.D	Data Locked	jrains, 17-Dec-2022 10:57
22121432.D	Data Locked	jrains, 17-Dec-2022 10:57
22121433.D	Data Locked	jrains, 17-Dec-2022 10:57
22121434.D	Data Locked	jrains, 17-Dec-2022 10:57

Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8081B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLB0237
Instrument: ECD6
Calibration: FL00041

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Initial Cal Check	SLB0237-ICV1	23021303.D	23021303.D	NA	02/13/23 13:53
Calibration Check	SLB0237-CCV1	23021318.D	23021318.D	NA	02/13/23 18:23
Blank	BLA0684-BLK1	23021325.D	23021325.D	Solid	02/13/23 20:28
LCS	BLA0684-BS1	23021326.D	23021326.D	Solid	02/13/23 20:46
LCS Dup	BLA0684-BSD1	23021327.D	23021327.D	Solid	02/13/23 21:04
LDW23-SC1159	BLA0684-MS1	23021328.D	23021328.D	Solid	02/13/23 21:22
LDW23-SC1159	BLA0684-MSD1	23021329.D	23021329.D	Solid	02/13/23 21:40
LDW23-SC1016A	23A0313-08	23021330.D	23021330.D	Solid	02/13/23 21:58
LDW23-SC1011A	23A0313-09	23021331.D	23021331.D	Solid	02/13/23 22:15
LDW23-SC1006A	23A0313-10	23021332.D	23021332.D	Solid	02/13/23 22:33
LDW23-SC1012B	23A0313-11	23021333.D	23021333.D	Solid	02/13/23 22:51
LDW23-SC1159	23A0313-13	23021334.D	23021334.D	Solid	02/13/23 23:09
Calibration Check	SLB0237-CCV2	23021336.D	23021336.D	NA	02/13/23 23:45
Calibration Check	SLB0237-CCV3	23021345.D	23021345.D	NA	02/14/23 02:26

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLB0237

Instrument: ECD6
Calibration ID: FL00041

Printed: 2/17/2023 12:00:09PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLB0237-PEM1	QC		1		K007286	L000844		
SLB0237-ICV1	QC		2		L000845	L000844		
BLA0622-BLK1	QC		3			L000844		
BLA0622-BS1	QC		4			L000844		
BLA0622-BSD1	QC		5			L000844		
BLA0622-MS1	QC		6			L000844		
BLA0622-MSD1	QC		7			L000844		
23A0206-01	8081B Pest (PSDDA)	B 01	8			L000844	Anchor QEA, LLC	
23A0206-02	8081B Pest (PSDDA)	B 01	9			L000844	Anchor QEA, LLC	
23A0206-03	8081B Pest (PSDDA)	B 01	10			L000844	Anchor QEA, LLC	
23A0206-04	8081B Pest (PSDDA)	B 01	11			L000844	Anchor QEA, LLC	
23A0206-05	8081B Pest (PSDDA)	B 01	12			L000844	Anchor QEA, LLC	
23A0206-06	8081B Pest (PSDDA)	B 01	13			L000844	Anchor QEA, LLC	
23A0206-07	8081B Pest (PSDDA)	B 01	14			L000844	Anchor QEA, LLC	
23A0206-08	8081B Pest (PSDDA)	B 01	15			L000844	Anchor QEA, LLC	
23A0206-09	8081B Pest (PSDDA)	B 01	16			L000844	Anchor QEA, LLC	
23A0206-10	8081B Pest (PSDDA)	B 01	17			L000844	Anchor QEA, LLC	
SLB0237-PEM2	QC		18		K007286	L000844		
SLB0237-CCV1	QC		19		L000845	L000844		
23A0206-11	8081B Pest (PSDDA)	B 01	20			L000844	Anchor QEA, LLC	
23A0206-12	8081B Pest (PSDDA)	B 01	21			L000844	Anchor QEA, LLC	

Samples Loaded By Date

Data Processed By Date

ANALYSIS SEQUENCE

SLB0237

Instrument: ECD6
Calibration ID: FL00041

Printed: 2/17/2023 12:00:09PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
23A0206-13	8081B Pest (PSDDA)	B 01	22			L000844	Anchor QEA, LLC	
23A0206-14	8081B Pest (PSDDA)	B 01	23			L000844	Anchor QEA, LLC	
BLA0684-BLK1	QC		24			L000844		
BLA0684-BS1	QC		25			L000844		
BLA0684-BSD1	QC		26			L000844		
BLA0684-MS1	QC		27			L000844		
BLA0684-MSD1	QC		28			L000844		
23A0313-08	8081B Pest (PSDDA)	A 01	29			L000844	Anchor QEA, LLC	
23A0313-09	8081B Pest (PSDDA)	A 01	30			L000844	Anchor QEA, LLC	
23A0313-10	8081B Pest (PSDDA)	A 01	31			L000844	Anchor QEA, LLC	
23A0313-11	8081B Pest (PSDDA)	A 01	32			L000844	Anchor QEA, LLC	
23A0313-13	8081B Pest (PSDDA)	A 01	33			L000844	Anchor QEA, LLC	
23A0326-01	8081B Pest (PSDDA)	A 01	34			L000844	Anchor QEA, LLC	
23A0326-02	8081B Pest (PSDDA)	A 01	35			L000844	Anchor QEA, LLC	
23A0326-04	8081B Pest (PSDDA)	A 01	36			L000844	Anchor QEA, LLC	
SLB0237-PEM3	QC		37		K007286	L000844		
SLB0237-CCV2	QC		38		L000845	L000844		
23A0326-05	8081B Pest (PSDDA)	A 01	39			L000844	Anchor QEA, LLC	
23A0326-10	8081B Pest (PSDDA)	A 01	40			L000844	Anchor QEA, LLC	
23A0326-11	8081B Pest (PSDDA)	A 01	41			L000844	Anchor QEA, LLC	
23A0326-12	8081B Pest (PSDDA)	A 01	42			L000844	Anchor QEA, LLC	

Samples Loaded By Date

Data Processed By Date

ANALYSIS SEQUENCE

SLB0237

Instrument: ECD6
Calibration ID: FL00041

Printed: 2/17/2023 12:00:09PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLB0237-PEM4	QC		43		K007286	L000844		
SLB0237-CCV3	QC		44		L000845	L000844		

Samples Loaded By Date

Data Processed By Date

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230213.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	13-FEB-2023 13:18	23021301.D	1	RINSE	
2	13-FEB-2023 13:36	23021302.D	1	SEQ-PEM1	
3	13-FEB-2023 13:53	23021303.D	1	SEQ-ICV1	
4	13-FEB-2023 14:11	23021304.D	1	BLA0622-BLK1	
5	13-FEB-2023 14:29	23021305.D	1	BLA0622-BS1	
6	13-FEB-2023 14:47	23021306.D	1	BLA0622-BSD1	
7	13-FEB-2023 15:05	23021307.D	1	23A0206-01	
8	13-FEB-2023 15:23	23021308.D	1	23A0206-02	
9	13-FEB-2023 15:41	23021309.D	1	23A0206-03	
10	13-FEB-2023 15:59	23021310.D	1	23A0206-04	
11	13-FEB-2023 16:17	23021311.D	1	23A0206-05	
12	13-FEB-2023 16:35	23021312.D	1	23A0206-06	
13	13-FEB-2023 16:53	23021313.D	1	23A0206-07	
14	13-FEB-2023 17:11	23021314.D	1	23A0206-08	
15	13-FEB-2023 17:29	23021315.D	1	23A0206-09	
16	13-FEB-2023 17:47	23021316.D	1	23A0206-10	
17	13-FEB-2023 18:05	23021317.D	1	SEQ-PEM2	
18	13-FEB-2023 18:23	23021318.D	1	SEQ-CCV1	
19	13-FEB-2023 18:41	23021319.D	1	23A0206-11	
20	13-FEB-2023 18:58	23021320.D	1	23A0206-12	
21	13-FEB-2023 19:16	23021321.D	1	23A0206-13	
22	13-FEB-2023 19:34	23021322.D	1	23A0206-14	
23	13-FEB-2023 19:52	23021323.D	1	BLA0622-MS1	
24	13-FEB-2023 20:10	23021324.D	1	BLA0622-MSD1	
25	13-FEB-2023 20:28	23021325.D	1	BLA0684-BLK1	
26	13-FEB-2023 20:46	23021326.D	1	BLA0684-BS1	
27	13-FEB-2023 21:04	23021327.D	1	BLA0684-BSD1	
28	13-FEB-2023 21:22	23021328.D	1	BLA0684-MS1	
29	13-FEB-2023 21:40	23021329.D	1	BLA0684-MSD1	
30	13-FEB-2023 21:58	23021330.D	1	23A0313-08	
31	13-FEB-2023 22:15	23021331.D	1	23A0313-09	
32	13-FEB-2023 22:33	23021332.D	1	23A0313-10	
33	13-FEB-2023 22:51	23021333.D	1	23A0313-11	
34	13-FEB-2023 23:09	23021334.D	1	23A0313-13	
35	13-FEB-2023 23:27	23021335.D	1	SEQ-PEM3	
36	13-FEB-2023 23:45	23021336.D	1	SEQ-CCV2	
37	14-FEB-2023 00:03	23021337.D	1	23A0326-01	
38	14-FEB-2023 00:21	23021338.D	1	23A0326-02	
39	14-FEB-2023 00:39	23021339.D	1	23A0326-04	
40	14-FEB-2023 00:57	23021340.D	1	23A0326-05	
41	14-FEB-2023 01:15	23021341.D	1	23A0326-10	
42	14-FEB-2023 01:32	23021342.D	1	23A0326-11	
43	14-FEB-2023 01:50	23021343.D	1	23A0326-12	
44	14-FEB-2023 02:08	23021344.D	1	SEQ-PEM4	
45	14-FEB-2023 02:26	23021345.D	1	SEQ-CCV3	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230213.b

ARI Job No.: SEQ- Method: PEST.m Instrument: ecd6.i Date: 13-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1336	23021302.D	SEQ-PEM1		1	Endrin, 4,4'-DDD,
1353	23021303.D	SEQ-ICV1		1	NO MANUAL INTEGRATION
1411	23021304.D	BLA0622-BLK1		1	NO MANUAL INTEGRATION
1429	23021305.D	BLA0622-BS1		1	NO MANUAL INTEGRATION
1447	23021306.D	BLA0622-BSD1		1	NO MANUAL INTEGRATION
1505	23021307.D	23A0206-01		1	NO MANUAL INTEGRATION
1523	23021308.D	23A0206-02		1	NO MANUAL INTEGRATION
1541	23021309.D	23A0206-03		1	NO MANUAL INTEGRATION
1559	23021310.D	23A0206-04		1	NO MANUAL INTEGRATION
1617	23021311.D	23A0206-05		1	NO MANUAL INTEGRATION
1635	23021312.D	23A0206-06		1	NO MANUAL INTEGRATION
1653	23021313.D	23A0206-07		1	NO MANUAL INTEGRATION
1711	23021314.D	23A0206-08		1	NO MANUAL INTEGRATION
1729	23021315.D	23A0206-09		1	NO MANUAL INTEGRATION
1747	23021316.D	23A0206-10		1	NO MANUAL INTEGRATION
1805	23021317.D	SEQ-PEM2		1	NO MANUAL INTEGRATION
1823	23021318.D	SEQ-CCV1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230213.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1841	23021319.D	23A0206-11		1	NO MANUAL INTEGRATION
1858	23021320.D	23A0206-12		1	NO MANUAL INTEGRATION
1916	23021321.D	23A0206-13		1	NO MANUAL INTEGRATION
1934	23021322.D	23A0206-14		1	NO MANUAL INTEGRATION
1952	23021323.D	BLA0622-MS1		1	NO MANUAL INTEGRATION
2010	23021324.D	BLA0622-MSD1		1	NO MANUAL INTEGRATION
2028	23021325.D	BLA0684-BLK1		1	NO MANUAL INTEGRATION
2046	23021326.D	BLA0684-BS1		1	NO MANUAL INTEGRATION
2104	23021327.D	BLA0684-BSD1		1	NO MANUAL INTEGRATION
2122	23021328.D	BLA0684-MS1		1	NO MANUAL INTEGRATION
2140	23021329.D	BLA0684-MSD1		1	NO MANUAL INTEGRATION
2158	23021330.D	23A0313-08		1	NO MANUAL INTEGRATION
2215	23021331.D	23A0313-09		1	NO MANUAL INTEGRATION
2233	23021332.D	23A0313-10		1	NO MANUAL INTEGRATION
2251	23021333.D	23A0313-11		1	NO MANUAL INTEGRATION
2309	23021334.D	23A0313-13		1	NO MANUAL INTEGRATION
2327	23021335.D	SEQ-PEM3		1	NO MANUAL INTEGRATION
2345	23021336.D	SEQ-CCV2		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230213.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0003	23021337.D	23A0326-01		1	NO MANUAL INTEGRATION
0021	23021338.D	23A0326-02		1	NO MANUAL INTEGRATION
0039	23021339.D	23A0326-04		1	NO MANUAL INTEGRATION
0057	23021340.D	23A0326-05		1	NO MANUAL INTEGRATION
0115	23021341.D	23A0326-10		1	NO MANUAL INTEGRATION
0132	23021342.D	23A0326-11		1	NO MANUAL INTEGRATION
0150	23021343.D	23A0326-12		1	NO MANUAL INTEGRATION
0208	23021344.D	SEQ-PEM4		1	NO MANUAL INTEGRATION
0226	23021345.D	SEQ-CCV3		1	NO MANUAL INTEGRATION

Security Status Report

Date: 17-Feb-2023 11:49

23021302.D	Data Locked	yev, 17-
23021303.D	Data Locked	yev, 17-
23021304.D	Data Locked	yev, 17-
23021305.D	Data Locked	yev, 17-
23021306.D	Data Locked	yev, 17-
23021307.D	Data Locked	yev, 17-
23021308.D	Data Locked	yev, 17-
23021309.D	Data Locked	yev, 17-
23021310.D	Data Locked	yev, 17-
23021311.D	Data Locked	yev, 17-
23021312.D	Data Locked	yev, 17-
23021313.D	Data Locked	yev, 17-
23021314.D	Data Locked	yev, 17-
23021315.D	Data Locked	yev, 17-
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23021335.D	Data Locked	yev, 17-
23021336.D	Data Locked	yev, 17-
23021337.D	Data Locked	yev, 17-
23021338.D	Data Locked	yev, 17-
23021339.D	Data Locked	yev, 17-
23021340.D	Data Locked	yev, 17-
23021341.D	Data Locked	yev, 17-
23021342.D	Data Locked	yev, 17-
23021343.D	Data Locked	yev, 17-
23021344.D	Data Locked	yev, 17-
23021345.D	Data Locked	yev, 17-

SURROGATE RECOVERY AND RT SUMMARY
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SKL0233	Instrument:	ECD6
Calibration:	FL00041	Calibration Date:	12/15/2022

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SKL0233-PEM1 (Water)				Lab File ID: 22121404.D			Analyzed: 12/14/22 20:20	
Decachlorobiphenyl	160.00	83.0	0 - 200	9.355	9.354666	0.0003	+/-0.1	
Decachlorobiphenyl [2C]	160.00	83.5	0 - 200	10.466	10.4655	0.0005	+/-0.1	
Tetrachlorometaxylene	160.00	78.1	0 - 200	3.828	3.827833	0.0002	+/-0.1	
Tetrachlorometaxylene [2C]	160.00	83.5	0 - 200	4.22	4.219666	0.0003	+/-0.1	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC
SDG/WO: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLB0237
Instrument: ECD6
Calibration: FL00041
Calibration Date: 12/14/2022

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0237-ICV1 (Solid)				Lab File ID: 23021303.D			Analyzed: 02/13/23 13:53	
Decachlorobiphenyl	40.000	90.3	80 - 120	9.305	9.354666	-0.0497	+/-0.1	
Decachlorobiphenyl [2C]	40.000	90.0	80 - 120	10.402	10.4655	-0.0635	+/-0.1	
Tetrachlorometaxylene	40.000	100	80 - 120	3.79	3.827833	-0.0378	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	98.0	80 - 120	4.181	4.219666	-0.0387	+/-0.1	
SLB0237-CCV1 (Solid)				Lab File ID: 23021318.D			Analyzed: 02/13/23 18:23	
Decachlorobiphenyl	40.000	89.8	80 - 120	9.307	9.354666	-0.0477	+/-0.1	
Decachlorobiphenyl [2C]	40.000	90.0	80 - 120	10.403	10.4655	-0.0625	+/-0.1	
Tetrachlorometaxylene	40.000	100	80 - 120	3.792	3.827833	-0.0358	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	89.2	80 - 120	4.182	4.219666	-0.0377	+/-0.1	
BLA0684-BLK1 (Solid)				Lab File ID: 23021325.D			Analyzed: 02/13/23 20:28	
Decachlorobiphenyl	8.0000	113	30 - 160	9.305	9.354666	-0.0497	+/-0.1	
Decachlorobiphenyl [2C]	8.0000	117	30 - 160	10.401	10.4655	-0.0645	+/-0.1	
Tetrachlorometaxylene	8.0000	71.5	30 - 160	3.792	3.827833	-0.0358	+/-0.1	
Tetrachlorometaxylene [2C]	8.0000	71.3	30 - 160	4.182	4.219666	-0.0377	+/-0.1	
BLA0684-BS1 (Solid)				Lab File ID: 23021326.D			Analyzed: 02/13/23 20:46	
Decachlorobiphenyl	8.0000	85.7	30 - 160	9.305	9.354666	-0.0497	+/-0.1	
Decachlorobiphenyl [2C]	8.0000	96.1	30 - 160	10.401	10.4655	-0.0645	+/-0.1	
Tetrachlorometaxylene	8.0000	77.3	30 - 160	3.792	3.827833	-0.0358	+/-0.1	
Tetrachlorometaxylene [2C]	8.0000	71.1	30 - 160	4.181	4.219666	-0.0387	+/-0.1	
BLA0684-BSD1 (Solid)				Lab File ID: 23021327.D			Analyzed: 02/13/23 21:04	
Decachlorobiphenyl	8.0000	84.9	30 - 160	9.305	9.354666	-0.0497	+/-0.1	
Decachlorobiphenyl [2C]	8.0000	89.1	30 - 160	10.402	10.4655	-0.0635	+/-0.1	
Tetrachlorometaxylene	8.0000	75.5	30 - 160	3.789	3.827833	-0.0388	+/-0.1	
Tetrachlorometaxylene [2C]	8.0000	71.7	30 - 160	4.18	4.219666	-0.0397	+/-0.1	
BLA0684-MS1 (Solid)				Lab File ID: 23021328.D			Analyzed: 02/13/23 21:22	
Decachlorobiphenyl	8.0015	85.4	30 - 160	9.305	9.354666	-0.0497	+/-0.1	
Decachlorobiphenyl [2C]	8.0015	87.1	30 - 160	10.402	10.4655	-0.0635	+/-0.1	
Tetrachlorometaxylene	8.0015	73.7	30 - 160	3.79	3.827833	-0.0378	+/-0.1	
Tetrachlorometaxylene [2C]	8.0015	69.0	30 - 160	4.181	4.219666	-0.0387	+/-0.1	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC
SDG/WO: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLB0237
Instrument: ECD6
Calibration: FL00041
Calibration Date: 12/15/2022

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLA0684-MSD1 (Solid)				Lab File ID: 23021329.D			Analyzed: 02/13/23 21:40	
Decachlorobiphenyl	8.0015	80.8	30 - 160	9.308	9.354666	-0.0467	+/-0.1	
Decachlorobiphenyl [2C]	8.0015	84.0	30 - 160	10.403	10.4655	-0.0625	+/-0.1	
Tetrachlorometaxylene	8.0015	71.4	30 - 160	3.788	3.827833	-0.0398	+/-0.1	
Tetrachlorometaxylene [2C]	8.0015	67.7	30 - 160	4.179	4.219666	-0.0407	+/-0.1	
23A0313-08 (Solid)				Lab File ID: 23021330.D			Analyzed: 02/13/23 21:58	
Decachlorobiphenyl	7.9862	128	30 - 160	9.308	9.354666	-0.0467	+/-0.1	
Decachlorobiphenyl [2C]	7.9862	89.8	30 - 160	10.404	10.4655	-0.0615	+/-0.1	
Tetrachlorometaxylene	7.9862	76.6	30 - 160	3.788	3.827833	-0.0398	+/-0.1	
Tetrachlorometaxylene [2C]	7.9862	67.4	30 - 160	4.179	4.219666	-0.0407	+/-0.1	
23A0313-09 (Solid)				Lab File ID: 23021331.D			Analyzed: 02/13/23 22:15	
Decachlorobiphenyl	7.9738	90.0	30 - 160	9.309	9.354666	-0.0457	+/-0.1	
Decachlorobiphenyl [2C]	7.9738	95.1	30 - 160	10.404	10.4655	-0.0615	+/-0.1	
Tetrachlorometaxylene	7.9738	74.2	30 - 160	3.789	3.827833	-0.0388	+/-0.1	
Tetrachlorometaxylene [2C]	7.9738	70.8	30 - 160	4.18	4.219666	-0.0397	+/-0.1	
23A0313-10 (Solid)				Lab File ID: 23021332.D			Analyzed: 02/13/23 22:33	
Decachlorobiphenyl	7.8375	88.0	30 - 160	9.309	9.354666	-0.0457	+/-0.1	
Decachlorobiphenyl [2C]	7.8375	92.8	30 - 160	10.404	10.4655	-0.0615	+/-0.1	
Tetrachlorometaxylene	7.8375	72.1	30 - 160	3.788	3.827833	-0.0398	+/-0.1	
Tetrachlorometaxylene [2C]	7.8375	67.9	30 - 160	4.179	4.219666	-0.0407	+/-0.1	
23A0313-11 (Solid)				Lab File ID: 23021333.D			Analyzed: 02/13/23 22:51	
Decachlorobiphenyl	7.9661	91.4	30 - 160	9.31	9.354666	-0.0447	+/-0.1	
Decachlorobiphenyl [2C]	7.9661	99.5	30 - 160	10.405	10.4655	-0.0605	+/-0.1	
Tetrachlorometaxylene	7.9661	69.9	30 - 160	3.789	3.827833	-0.0388	+/-0.1	
Tetrachlorometaxylene [2C]	7.9661	68.4	30 - 160	4.179	4.219666	-0.0407	+/-0.1	
23A0313-13 (Solid)				Lab File ID: 23021334.D			Analyzed: 02/13/23 23:09	
Decachlorobiphenyl	8.0015	82.8	30 - 160	9.308	9.354666	-0.0467	+/-0.1	
Decachlorobiphenyl [2C]	8.0015	100	30 - 160	10.404	10.4655	-0.0615	+/-0.1	
Tetrachlorometaxylene	8.0015	66.7	30 - 160	3.788	3.827833	-0.0398	+/-0.1	
Tetrachlorometaxylene [2C]	8.0015	62.1	30 - 160	4.179	4.219666	-0.0407	+/-0.1	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0237	Instrument:	ECD6
Calibration:	FL00041	Calibration Date:	12/14/2022

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0237-CCV2 (Solid)			Lab File ID: 23021336.D			Analyzed: 02/13/23 23:45		
Decachlorobiphenyl	40.000	88.0	80 - 120	9.306	9.354666	-0.0487	+/-0.1	
Decachlorobiphenyl [2C]	40.000	88.1	80 - 120	10.402	10.4655	-0.0635	+/-0.1	
Tetrachlorometaxylene	40.000	97.8	80 - 120	3.791	3.827833	-0.0368	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	93.9	80 - 120	4.18	4.219666	-0.0397	+/-0.1	
SLB0237-CCV3 (Solid)			Lab File ID: 23021345.D			Analyzed: 02/14/23 02:26		
Decachlorobiphenyl	40.000	89.6	80 - 120	9.306	9.354666	-0.0487	+/-0.1	
Decachlorobiphenyl [2C]	40.000	91.6	80 - 120	10.401	10.4655	-0.0645	+/-0.1	
Tetrachlorometaxylene	40.000	100	80 - 120	3.792	3.827833	-0.0358	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	95.5	80 - 120	4.182	4.219666	-0.0377	+/-0.1	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SKL0233	Instrument:	ECD6
		Calibration:	FL00041

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Performance Mix (SKL0233-PEM1)		(Water)		Lab File ID: 22121404.D				Analyzed: 12/14/22 20:20	
1-Bromo-2-Nitrobenzene	683485	3.15	672426	3.15	102	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	619012	9.503	609723	9.504	102	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1005375	3.35	1006482	3.35	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	772586	11.054	769764	11.053	100	50 - 200	0.001	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8081B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLB0237
Instrument: ECD6
Calibration: FL00041

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLB0237-ICV1)		(Solid)		Lab File ID: 23021303.D			Analyzed: 02/13/23 13:53		
1-Bromo-2-Nitrobenzene	872478	3.118	872478	3.118	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	828072	9.455	828072	9.455	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1322323	3.319	1322323	3.319	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	970888	10.983	970888	10.983	100	50 - 200	0.000	+/-0.50	
Blank (BLA0684-BLK1)		(Solid)		Lab File ID: 23021325.D			Analyzed: 02/13/23 20:28		
1-Bromo-2-Nitrobenzene	460404	3.12	872478	3.118	53	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	486330	9.455	828072	9.455	59	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	763127	3.32	1322323	3.319	58	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	538454	10.981	970888	10.983	55	50 - 200	-0.002	+/-0.50	
LCS (BLA0684-BS1)		(Solid)		Lab File ID: 23021326.D			Analyzed: 02/13/23 20:46		
1-Bromo-2-Nitrobenzene	479700	3.12	872478	3.118	55	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	434102	9.455	828072	9.455	52	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	776692	3.32	1322323	3.319	59	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	607596	10.981	970888	10.983	63	50 - 200	-0.002	+/-0.50	
LCS Dup (BLA0684-BSD1)		(Solid)		Lab File ID: 23021327.D			Analyzed: 02/13/23 21:04		
1-Bromo-2-Nitrobenzene	903043	3.118	872478	3.118	104	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	767072	9.453	828072	9.455	93	50 - 200	-0.002	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1452954	3.318	1322323	3.319	110	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	964689	10.98	970888	10.983	99	50 - 200	-0.003	+/-0.50	
Matrix Spike (BLA0684-MS1)		(Solid)		Lab File ID: 23021328.D			Analyzed: 02/13/23 21:22		
1-Bromo-2-Nitrobenzene	465677	3.12	872478	3.118	53	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	380429	9.454	828072	9.455	46	50 - 200	-0.001	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	728314	3.319	1322323	3.319	55	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	473570	10.981	970888	10.983	49	50 - 200	-0.002	+/-0.50	*
Matrix Spike Dup (BLA0684-MSD1)		(Solid)		Lab File ID: 23021329.D			Analyzed: 02/13/23 21:40		
1-Bromo-2-Nitrobenzene	871128	3.117	872478	3.118	100	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	701907	9.459	828072	9.455	85	50 - 200	0.004	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1325260	3.317	1322323	3.319	100	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	864478	10.984	970888	10.983	89	50 - 200	0.001	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0237	Instrument:	ECD6
		Calibration:	FL00041

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SC1016A (23A0313-08)		(Solid)		Lab File ID: 23021330.D				Analyzed: 02/13/23 21:58	
1-Bromo-2-Nitrobenzene	1016732	3.117	872478	3.118	117	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	1006817	9.461	828072	9.455	122	50 - 200	0.006	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1332331	3.317	1322323	3.319	101	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	861759	10.985	970888	10.983	89	50 - 200	0.002	+/-0.50	
LDW23-SC1011A (23A0313-09)		(Solid)		Lab File ID: 23021331.D				Analyzed: 02/13/23 22:15	
1-Bromo-2-Nitrobenzene	879152	3.117	872478	3.118	101	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	689634	9.462	828072	9.455	83	50 - 200	0.007	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1319236	3.317	1322323	3.319	100	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	875606	10.985	970888	10.983	90	50 - 200	0.002	+/-0.50	
LDW23-SC1006A (23A0313-10)		(Solid)		Lab File ID: 23021332.D				Analyzed: 02/13/23 22:33	
1-Bromo-2-Nitrobenzene	879449	3.117	872478	3.118	101	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	694311	9.463	828072	9.455	84	50 - 200	0.008	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1314003	3.317	1322323	3.319	99	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	843657	10.985	970888	10.983	87	50 - 200	0.002	+/-0.50	
LDW23-SC1012B (23A0313-11)		(Solid)		Lab File ID: 23021333.D				Analyzed: 02/13/23 22:51	
1-Bromo-2-Nitrobenzene	902852	3.117	872478	3.118	103	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	679429	9.465	828072	9.455	82	50 - 200	0.010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1323995	3.317	1322323	3.319	100	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	821766	10.987	970888	10.983	85	50 - 200	0.004	+/-0.50	
LDW23-SC1159 (23A0313-13)		(Solid)		Lab File ID: 23021334.D				Analyzed: 02/13/23 23:09	
1-Bromo-2-Nitrobenzene	875902	3.117	872478	3.118	100	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	677505	9.459	828072	9.455	82	50 - 200	0.004	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1327711	3.317	1322323	3.319	100	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	825178	10.984	970888	10.983	85	50 - 200	0.001	+/-0.50	

HOLDING TIME SUMMARY

Analysis: EPA 8081B

Laboratory: Analytical Resources, LLC SDG: 23A0313

Client: Anchor QEA, LLC Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SC1016A 23A0313-08	01/16/23 11:11	01/16/23 16:35	02/01/23 13:23	16	365	02/13/23 21:58	12	40	
LDW23-SC1011A 23A0313-09	01/16/23 11:46	01/16/23 16:35	02/01/23 13:23	16	365	02/13/23 22:15	12	40	
LDW23-SC1006A 23A0313-10	01/16/23 12:29	01/16/23 16:35	02/01/23 13:23	16	365	02/13/23 22:33	12	40	
LDW23-SC1012B 23A0313-11	01/16/23 13:13	01/16/23 16:35	02/01/23 13:23	16	365	02/13/23 22:51	12	40	
LDW23-SC1159 23A0313-13	01/16/23 14:26	01/16/23 16:35	02/01/23 13:23	15	365	02/13/23 23:09	12	40	
Matrix Spike BLA0684-MS1	01/16/23 14:26	01/16/23 16:35	02/01/23 13:23	15	365	02/13/23 21:22	12	40	
Matrix Spike Dup BLA0684-MSD1	01/16/23 14:26	01/16/23 16:35	02/01/23 13:23	15	365	02/13/23 21:40	12	40	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 8081B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Instrument: ECD6

Analyte	MDL	RL	Units
Hexachlorobenzene	0.15	0.50	ug/kg
Hexachlorobenzene [2C]	0.15	0.50	ug/kg

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

Tel (203)786-5290
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www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: S-279N
Description: Tetrachloro-m-xylene
Lot: 0052481B-1
Solvent: N/A
Hazards: *Refer to SDS for complete safety information*

Signal Word: Warning

Date Certified: Jul 28, 2005
Expiration: Jul 28, 2015
Sample Size: 100 mg
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

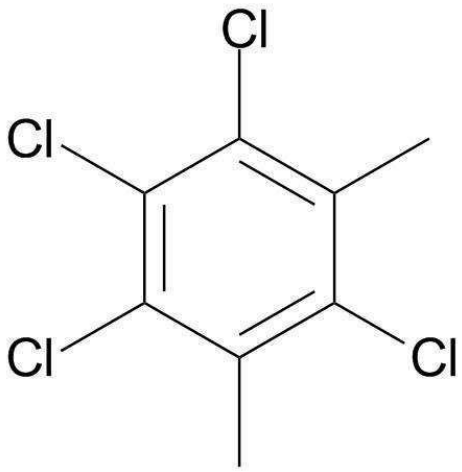
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration	Certified Analyte Concentration[1]
Tetrachloro-meta-xylene	877-09-8	96.0	N/A	N/A

Identification:

Molecular formula: C8H6Cl4
Molecular weight: 243.94



C000147
tetrachlormetaxylene
Expires 1/15/2020
Prepared By Joshua Rains 1/15/2014

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] The Uncertainty calculated for this product is ±2.4%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Metrological traceability is established through in-house validated methods.

Purity, if stated, is equal to 100% minus found impurity components. Impurity components have not been identified.

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

AccuStandard
125 Market Street
New Haven, CT 06513
(203) 786-5290

CERTIFICATE OF PRODUCT DATA

PRODUCT: C-209N
DESCRIPTION: 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl
LOT #: 990521LB-AC
SOLVENT: N/A

EXPIRATION: Jul 28, 2015

This product is guaranteed accurate to ±0.5% of the Certified Analyte concentration through the Expiration Date on the Label.

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[1]	Certified Analyte Concentration[2]
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3	100	N/A	N/A

C000148
decachlorbiphenyl
Expires 1/15/2020
Prepared By Joshua Rains 1/15/2014

* I1768A

Certified by: R. Cooper

1. All weights are traceable through National Institute of Standards & Technology, Test No. 822/254480
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is ±4% which is the Combined Uncertainty uc(y). It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is Uc(y) *K where K is the coverage factor at the 95% confidence level (K=2).
3. A product with a suffix (-1A, -2B, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

Please note: AccuStandard follows the U.S. conventions in reporting numerical values, on both certificates and labels.

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

This product was manufactured in accordance to quality system requirements of ISO 9001:2000 and ISO 17025

* Recertified 2 4-6-09 JS

Analytical Standard Record

Standard ID: C000148 **Printed: 4/23/2015 11:54:44AM**

Description:	decachlorbiphenyl	Expires:	15-Jan-2020
Standard Type:	Other	Prepared:	15-Jan-2014
Solvent:	na/a	Prepared By:	Joshua Rains
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	27-Feb-2015 13:03 by JGR
Vendor:	Accustandard	Lot #:	990521lb-ac
Vendor Catalog #:			

Comments

see i1768a
SOM calibrations added 06/12/14 sdrd

Analyte	CAS Number	Concentration	Units
Decachlorobiphenyl [2C]	2051-24-3	1000000	ug/mL
Decachlorobiphenyl	2051-24-3	1000000	ug/mL
DCB 1660 [2C]	2051-24-3	1000000	ug/mL
DCB 1660	2051-24-3	1000000	ug/mL
DCB [2C]	2051-24-3	1000000	ug/mL
DCB (A) [2C]	2051-24-3	1000000	ug/mL
DCB (A)	2051-24-3	1000000	ug/mL
DCB	2051-24-3	1000000	ug/mL

Reviewed By Date

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: P-066S
Description: Mirex
Lot: 219051741-01
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Jun 5, 2020
Expiration: Jun 5, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY AT-1339

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Mirex	2385-85-5	98.2	100.2	98.4

I007970
Mirex 2d source
Solvent / Lot: MeOH
Prep: 9/7/2020 by JR
Exp: 6/5/2024
Location:

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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CERTIFICATE OF ANALYSIS

Catalog No: P-026S
Description: o,p'-DDE
Lot: 218021093-01
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Feb 10, 2020
Expiration: Feb 10, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463
ANAB ACCREDITED TESTING LABORATORY AT-1339
ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
o,p'-DDE	3424-82-6	99.9	100.4	100.3

I7971

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 822-275872-11

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Certified By: Larry Decker, Organic QC Manager

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CERTIFICATE OF ANALYSIS

Catalog No: P-184S
Description: trans-Nonachlor
Lot: 218011470
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Jan 30, 2018
Expiration: Jan 30, 2028
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463
ANAB ACCREDITED TESTING LABORATORY AT-1339
ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
trans-Nonachlor	39765-80-5	99.0	100.2	99.2

I 7974

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 822-275872-11

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Certified By: Larry Decker, Organic QC Manager

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CERTIFICATE OF ANALYSIS

Catalog No: P-024S
Description: o,p'-DDD
Lot: 220051307
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: May 27, 2020
Expiration: Jun 27, 2022
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463
ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY AT-1339
ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
o,p'-DDD	53-19-0	100.0	100.2	100.2

I010773
o,p-DDD
Solvent / Lot: methanol
Prep: 11/20/2020 by VS
Exp: 6/27/2022
Location:

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

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1. **Quality Standards:**

   ISO 17034 – General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

   ISO/IEC 17025 – General Requirements for the Competence of Testing And Calibration Laboratories ANAB Certificate Number AT-1339

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations Certificate Number 3774

2 **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7

3 **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this .

4 **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5 **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6 **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7 **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

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CERTIFICATE OF ANALYSIS

Catalog No: P-331S
Description: Oxychlordane Isomer
Lot: 218101131
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Oct 8, 2018
Expiration: Nov 8, 2020
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY AT-1339

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Oxychlordane Isomer	27304-13-8	97.7	102.4*	100.0

I010795
Oxychlordane isomer
Solvent / Lot: methanol
Prep: 11/20/2020 by VS
Exp: 6/20/2022
Location:

* Weight compensated to 100% purity.

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Certified By: Larry Decker, Organic QC Manager

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1. **Quality Standards:**

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   ISO/IEC 17025 – General Requirements for the Competence of Testing And Calibration Laboratories ANAB Certificate Number AT-1339

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations Certificate Number 3774

2 **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7

3 **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards and calibrated using an in-house procedure. Good Laboratory Practices have been used throughout the preparation of this CRM.

4 **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5 **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6 **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7 **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

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CERTIFICATE OF ANALYSIS

Catalog No: P-297S
Description: cis-Nonachlor
Lot: 217121240
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Dec 13, 2017
Expiration: Dec 13, 2020
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY AT-1339

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[1] (µg/mL)	Certified Analyte Concentration[2] (µg/mL)
cis-Nonachlor	5103-73-1	98.6	100.4	99.0

I010796
cis-Nonochlor-Accustd-100ug/ml
Solvent / Lot: methanol
Prep: 11/20/2020 by VS
Exp: 11/27/2022
Location:

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] All weights are traceable through NIST, Test No. 822-275872-11

[2] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

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1. **Quality Standards:**

   ISO 17034 – General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

   ISO/IEC 17025 – General Requirements for the Competence of Testing And Calibration Laboratories ANAB Certificate Number AT-1339

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations Certificate Number 3774

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 11.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards and calibrated using an in-house procedure. Good Laboratory Practices have been used throughout the preparation of this CRM.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

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CERTIFICATE OF ANALYSIS

Catalog No: APP-9-112-D-20X
Description: Hexachlorobenzene in Dichloromethane
Lot: 219051389
Solvent: Dichloromethane
Hazards: *Refer to SDS for complete safety information*

Signal Word: Warning

Date Certified: May 13, 2019
Expiration: May 13, 2029
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463
ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY AT-1339
ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Hexachlorobenzene	118-74-1	99.0	2002	1982

J006504
Hexachlorobenzene
Solvent / Lot: Dichloromethane
Prep: 6/21/2021 by YZ
Exp: 5/13/2029
Location:

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Certified By: Larry Decker, Organic QC Manager

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1. **Quality Standards:**

   ISO 17034 – General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

   ISO/IEC 17025 – General Requirements for the Competence of Testing And Calibration Laboratories ANAB Certificate Number AT-1339

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations Certificate Number 3774

2 **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7

3 **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards and calibrated using an in-house procedure. Good Laboratory Practices have been used throughout the preparation of this .

4 **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5 **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6 **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7 **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

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CERTIFICATE OF ANALYSIS

Catalog No: P-028S
Description: o,p'-DDT
Lot: 221071322
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Jul 21, 2021
Expiration: Aug 21, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
o,p'-DDT	789-02-6	99.9	100.1	100.0

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

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1. **Quality Standards:**

   ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

   ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

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CERTIFICATE OF ANALYSIS

Catalog No: P-024S
Description: o,p'-DDD
Lot: 220051307-01
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Jul 6, 2021
Expiration: Aug 6, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
o,p'-DDD	53-19-0	100.0	100.2	100.2

K 0448

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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CERTIFICATE OF ANALYSIS

Catalog No: P-331S
Description: Oxychlordane Isomer
Lot: 221051706
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: May 28, 2021
Expiration: Jun 28, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Oxychlordane Isomer	27304-13-8	99.2	100.1	99.3

K000449
Oxychlordane isomer
Solvent / Lot: methanol
Prep: 1/13/2022 by YZ
Exp: 6/28/2023
Location:

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

1. **Quality Standards:**

   ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

   ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
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CERTIFICATE OF ANALYSIS

Catalog No: P-297S
Description: cis-Nonachlor
Lot: 221041461
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Apr 22, 2021
Expiration: Apr 22, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463
ANAB ACCREDITED TESTING LABORATORY AT-1339
ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
cis-Nonachlor	5103-73-1	98.6	101.1	99.7

K 000450

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:
Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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CERTIFICATE OF ANALYSIS

Catalog No: P-184S
Description: trans-Nonachlor
Lot: 220091107
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Sep 11, 2020
Expiration: Sep 11, 2030
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB AR-1463 ANAB AT-1339 ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
trans-Nonachlor	39765-80-5	99.0	100.2	99.2

K 0045 I

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

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Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

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Certified By: Larry Decker, Organic QC Manager

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CERTIFICATE OF ANALYSIS

Catalog No: P-066S
Description: Mirex
Lot: 219051741-01
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Jun 5, 2020
Expiration: Jun 5, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED AR-1463 ANAB ACCREDITED AT-1339 ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Mirex	2385-85-5	98.2	100.2	98.4

K 000452

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

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Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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K 000452

CERTIFICATE OF ANALYSIS

Catalog No: P-066S
Description: Mirex
Lot: 221121451
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Dec 27, 2021
Expiration: Dec 27, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Mirex	2385-85-5	98.2	100.0	98.2

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

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CERTIFICATE OF ANALYSIS

Catalog No: M-8081-DS
Description: 4,4'-DDT & Endrin
Lot: 221031488-04
Solvent: Hexane
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Apr 8, 2022
Expiration: May 8, 2023
Sample Size: 1 mL
Components: 2
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
4,4'-DDT	50-29-3	100.0	200.9	200.9
Endrin	72-20-8	99.8	200.0	199.6

K7002

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32292 **Lot No.:** A0185477

Description : Organochlorine Pesticide Mix AB # 2

Organochlorine Pesticide Mix AB # 2 8-80 µg/mL, Hexane/Toluene(1:1), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	alpha-BHC	8.1 µg/mL	+/- 0.0660 µg/mL	Gravimetric
	CAS # 319-84-6 (Lot 12307600)		+/- 0.3703 µg/mL	Unstressed
	Purity 99%		+/- 0.5325 µg/mL	Stressed
2	gamma-BHC (Lindane)	8.0 µg/mL	+/- 0.0654 µg/mL	Gravimetric
	CAS # 58-89-9 (Lot 13087200)		+/- 0.3672 µg/mL	Unstressed
	Purity 99%		+/- 0.5281 µg/mL	Stressed
3	beta-BHC	8.1 µg/mL	+/- 0.0660 µg/mL	Gravimetric
	CAS # 319-85-7 (Lot 0588007-4)		+/- 0.3703 µg/mL	Unstressed
	Purity 99%		+/- 0.5325 µg/mL	Stressed
4	delta-BHC	8.1 µg/mL	+/- 0.0660 µg/mL	Gravimetric
	CAS # 319-86-8 (Lot 13112400)		+/- 0.3703 µg/mL	Unstressed
	Purity 99%		+/- 0.5325 µg/mL	Stressed
5	Heptachlor	8.0 µg/mL	+/- 0.0654 µg/mL	Gravimetric
	CAS # 76-44-8 (Lot 803759)		+/- 0.3672 µg/mL	Unstressed
	Purity 99%		+/- 0.5281 µg/mL	Stressed
6	Aldrin	8.1 µg/mL	+/- 0.0660 µg/mL	Gravimetric
	CAS # 309-00-2 (Lot 12983100)		+/- 0.3702 µg/mL	Unstressed
	Purity 96%		+/- 0.5323 µg/mL	Stressed
7	Heptachlor epoxide (isomer B)	8.1 µg/mL	+/- 0.0660 µg/mL	Gravimetric
	CAS # 1024-57-3 (Lot 13168200)		+/- 0.3703 µg/mL	Unstressed
	Purity 99%		+/- 0.5325 µg/mL	Stressed

8	trans-Chlordane		8.0	µg/mL	+/-	0.0657	µg/mL	Gravimetric
	CAS # 5103-74-2	(Lot 32943)			+/-	0.3689	µg/mL	Unstressed
	Purity 98%				+/-	0.5305	µg/mL	Stressed
9	cis-Chlordane		8.0	µg/mL	+/-	0.0657	µg/mL	Gravimetric
	CAS # 5103-71-9	(Lot 31766)			+/-	0.3689	µg/mL	Unstressed
	Purity 98%				+/-	0.5305	µg/mL	Stressed
10	Endosulfan I		8.0	µg/mL	+/-	0.0654	µg/mL	Gravimetric
	CAS # 959-98-8	(Lot BCCF4060)			+/-	0.3672	µg/mL	Unstressed
	Purity 99%				+/-	0.5281	µg/mL	Stressed
11	4,4'-DDE		16.1	µg/mL	+/-	0.1314	µg/mL	Gravimetric
	CAS # 72-55-9	(Lot GHYQG)			+/-	0.7375	µg/mL	Unstressed
	Purity 99%				+/-	1.0606	µg/mL	Stressed
12	Dieldrin		16.1	µg/mL	+/-	0.1320	µg/mL	Gravimetric
	CAS # 60-57-1	(Lot 11129900)			+/-	0.7408	µg/mL	Unstressed
	Purity 98%				+/-	1.0653	µg/mL	Stressed
13	Endrin		16.1	µg/mL	+/-	0.1320	µg/mL	Gravimetric
	CAS # 72-20-8	(Lot 13157400)			+/-	0.7406	µg/mL	Unstressed
	Purity 99%				+/-	1.0650	µg/mL	Stressed
14	4,4'-DDD		16.1	µg/mL	+/-	0.1320	µg/mL	Gravimetric
	CAS # 72-54-8	(Lot HAN02)			+/-	0.7406	µg/mL	Unstressed
	Purity 99%				+/-	1.0650	µg/mL	Stressed
15	Endosulfan II		16.0	µg/mL	+/-	0.1309	µg/mL	Gravimetric
	CAS # 33213-65-9	(Lot 12448900)			+/-	0.7345	µg/mL	Unstressed
	Purity 99%				+/-	1.0562	µg/mL	Stressed
16	4,4'-DDT		16.1	µg/mL	+/-	0.1315	µg/mL	Gravimetric
	CAS # 50-29-3	(Lot 220428JLM)			+/-	0.7378	µg/mL	Unstressed
	Purity 98%				+/-	1.0610	µg/mL	Stressed
17	Endrin aldehyde		16.1	µg/mL	+/-	0.1314	µg/mL	Gravimetric
	CAS # 7421-93-4	(Lot 30720)			+/-	0.7375	µg/mL	Unstressed
	Purity 99%				+/-	1.0606	µg/mL	Stressed
18	Endosulfan sulfate		16.1	µg/mL	+/-	0.1320	µg/mL	Gravimetric
	CAS # 1031-07-8	(Lot BCCB0424)			+/-	0.7406	µg/mL	Unstressed
	Purity 99%				+/-	1.0650	µg/mL	Stressed
19	Methoxychlor		80.2	µg/mL	+/-	0.5781	µg/mL	Gravimetric
	CAS # 72-43-5	(Lot 13027000)			+/-	3.6697	µg/mL	Unstressed
	Purity 98%				+/-	5.2871	µg/mL	Stressed
20	Endrin ketone		16.1	µg/mL	+/-	0.1314	µg/mL	Gravimetric
	CAS # 53494-70-5	(Lot 13026800)			+/-	0.7375	µg/mL	Unstressed
	Purity 99%				+/-	1.0606	µg/mL	Stressed

Solvent: Hexane/Toluene (50:50)
CAS # 110-54-3/108-88-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

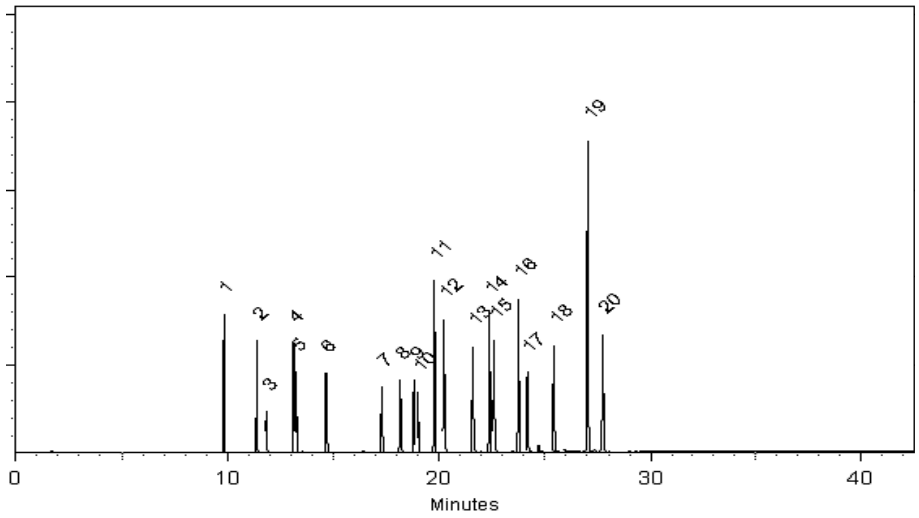
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
150°C to 300°C
@ 4°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
300°C

Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 19-May-2022 **Balance:** B442140311

Fang-Yun Lo - QC Analyst

Date Passed: 26-May-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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USA

AccuStandard® Inc.

Tel (203)786-5290
Fax (203)786-5287
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CERTIFICATE OF ANALYSIS

Catalog No: M-502-36-10X
Description: Hexachlorobutadiene
Lot: 222031188
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 11, 2022
Expiration: Apr 11, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Hexachlorobutadiene	87-68-3	98.0	2002	1962

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

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Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

1. **Quality Standards:**

   ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

   ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

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CERTIFICATE OF ANALYSIS

Catalog No: M-502-36-10X
Description: Hexachlorobutadiene
Lot: 222031188
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 11, 2022
Expiration: Apr 11, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Hexachlorobutadiene	87-68-3	98.0	2002	1962

K 011468

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1108

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-01 A	File ID:	02202317ECD7.D
Sampled:	01/16/23 08:10	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 15:47
% Solids:	52.04	Preparation:	EPA 3546 (Microwave)	Initial/Final:	24.05 g Wet / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0274	Calibration:	GB00045
Instrument:	ECD7	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	44.5	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	68.4	1.6	4.0	
11096-82-5	Aroclor 1260	1	1	59.7	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*7.9900*	*8.27*	*103*	*40 - 126*	
Tetrachlorometaxylene	*1*	*7.9900*	*6.12*	*76.7*	*44 - 120*	
Decachlorobiphenyl	*2*	*7.9900*	*7.99*	*100*	*40 - 126*	
Tetrachlorometaxylene	*2*	*7.9900*	*7.63*	*95.5*	*44 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202317ECD7.D
Data file 2: /230220.b/230220.b/02202317ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0313-01
Client ID:
Injection Date: 20-FEB-2023 15:47
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.803	-0.005	263827	5.680	-0.005	131307	30.7	38.2	21.9	Tetrachloro-m-xylene
13.884	-0.007	238445	14.110	-0.006	163972	41.4	40.0	3.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	606407	41.0
Hexabromobiphenyl	975457	654153	-32.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	257785	-29.7
Hexabromobiphenyl	646884	304622	-52.9 <-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1248	1	8.394	-0.009	49074	167.8	1	8.297	-0.007	26649	229.2
Aroclor-1248	2	8.564	-0.014	41955	113.7	2	8.703	-0.007	21980	179.6
Aroclor-1248	3	8.982	-0.014	118261	226.7	3	9.137	-0.020	31192	220.6
Aroclor-1248	4	9.284	-0.007	126327	382.9	4	9.530	-0.049	30932	180.4
		Total Col1Ave (4 peaks):			222.8		Total Col2Ave (4 peaks):			202.5 RPD = 10
		Corrected Ave (3 peaks):			169.4		Corrected Ave (3 peaks):			193.6 RPD = 13
Aroclor-1254	1	9.284	-0.011	126327	215.3	1	9.436	-0.010	54001	297.1
Aroclor-1254	2	9.360	-0.013	53148	230.0	2	9.954	-0.011	27823	189.5
Aroclor-1254	3	9.660	-0.004	120394	321.9	3	10.103	-0.015	93670	292.9
Aroclor-1254	4	9.785	-0.018	183614	246.6	4	10.350	-0.017	126881	402.1
Aroclor-1254	5	10.117	-0.050	228676	503.6	5	10.552	-0.012	84597	530.6
		Total Col1Ave (5 peaks):			303.5		Total Col2Ave (5 peaks):			342.5 RPD = 12
		Corrected Ave (4 peaks):			253.4		Corrected Ave (4 peaks):			295.4 RPD = 15
Aroclor-1260	1	11.032	-0.009	76026	337.1	1	11.640	-0.009	50111	316.5
Aroclor-1260	2	11.346	-0.011	56552	245.1	2	11.902	-0.012	96008	241.7
Aroclor-1260	3	11.717	-0.013	176798	289.4	3	12.420	-0.013	39249	363.9
Aroclor-1260	4	12.117	-0.017	89881	289.7	4	12.484	-0.014	68055	253.8
Aroclor-1260	5	12.233	-0.008	44416	333.9	NS	---			----
		Total Col1Ave (5 peaks):			299.0		Total Col2Ave (4 peaks):			294.0 RPD = 2
		Corrected Ave (4 peaks):			289.5		Corrected Ave (3 peaks):			270.7 RPD = 7
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			

Total PCB Area Col1 (5.908 - 13.791) = 3597224 Col1 Total PCB = 0.5 ppm*

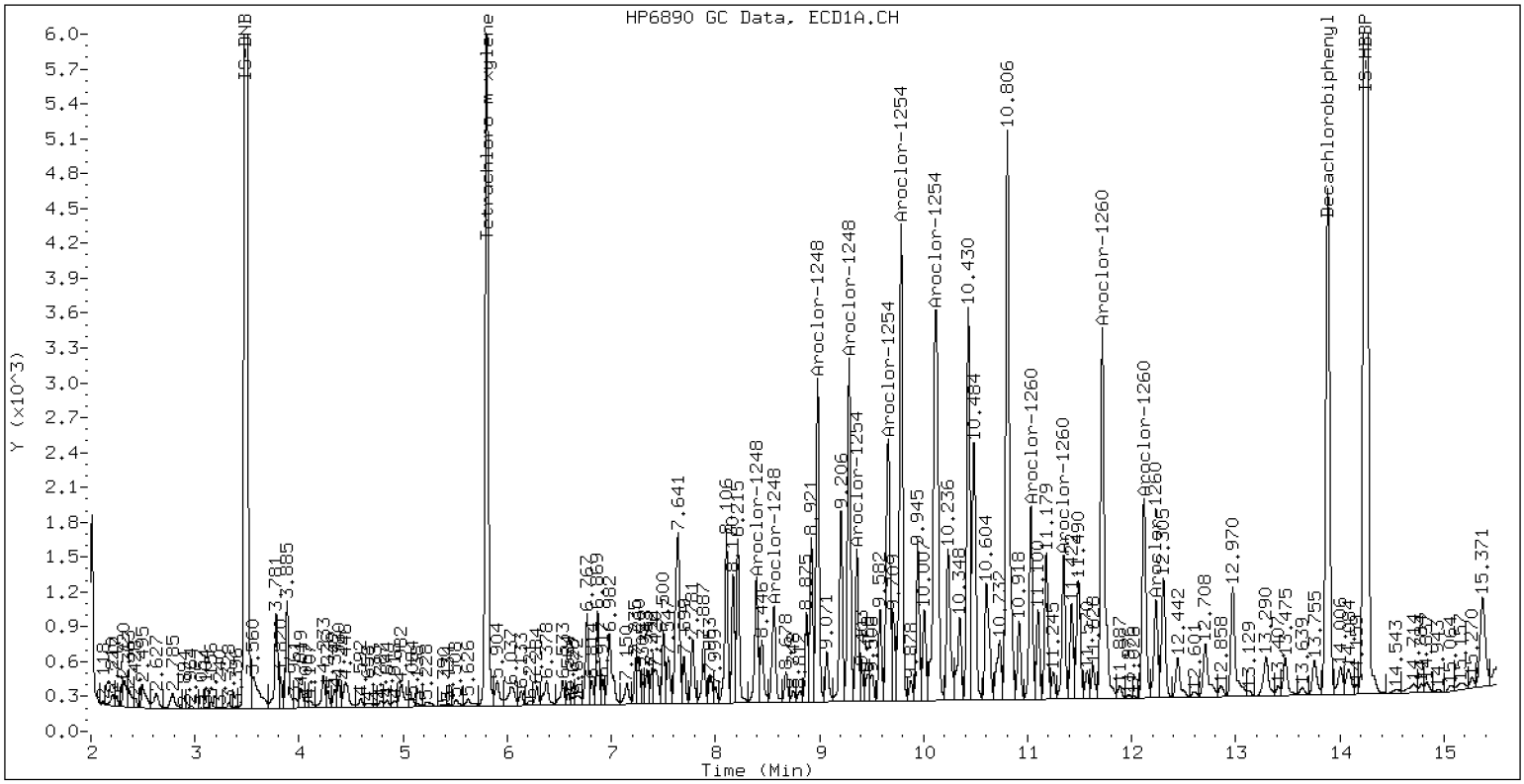
Total PCB Area Col2 (5.785 - 14.017) = 1825707 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

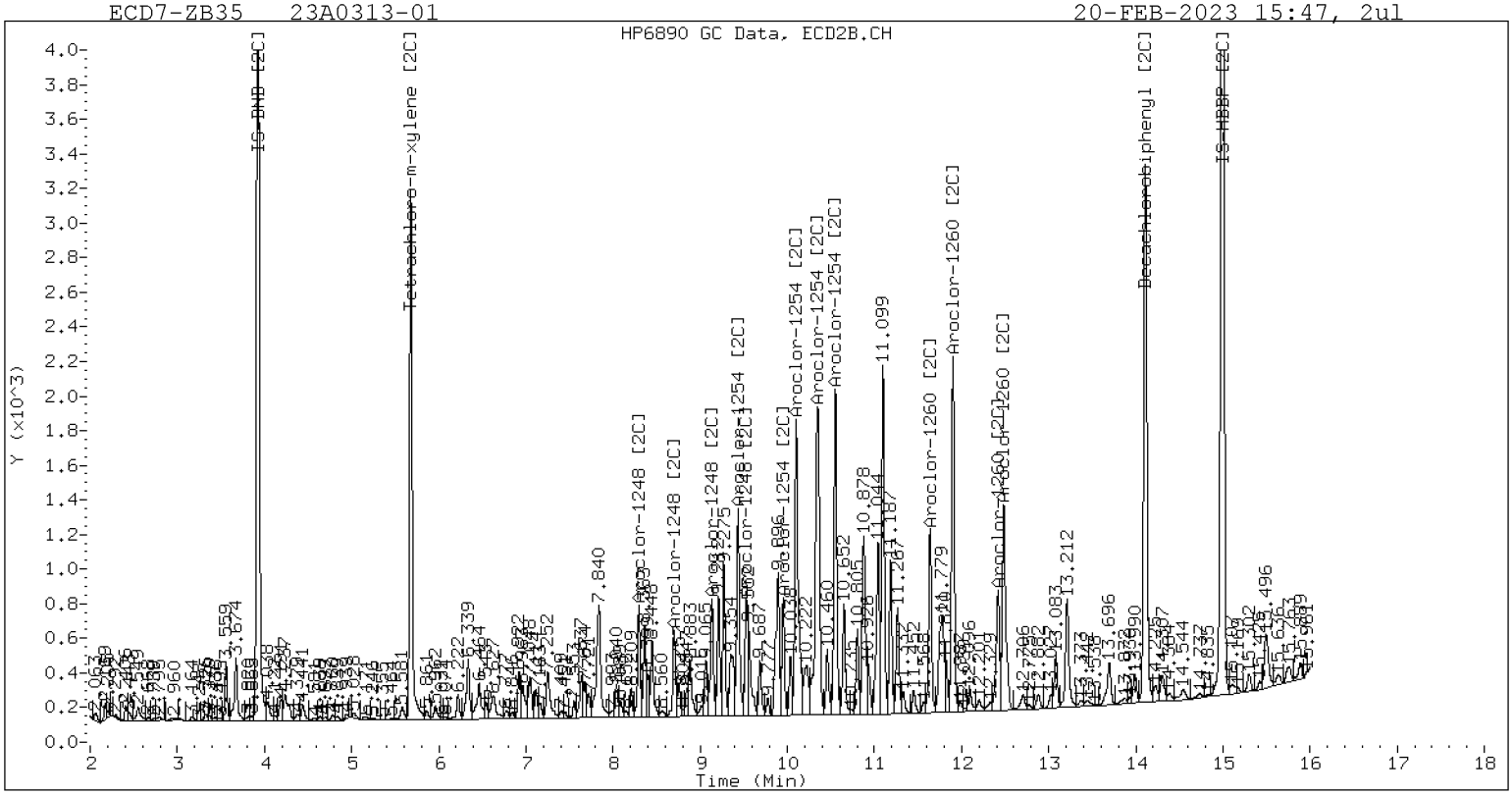
PCB Dual Column Chromatograms

ECD7-ZB5 23A0313-01 20-FEB-2023 15:47, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0313-01 20-FEB-2023 15:47, 2ul

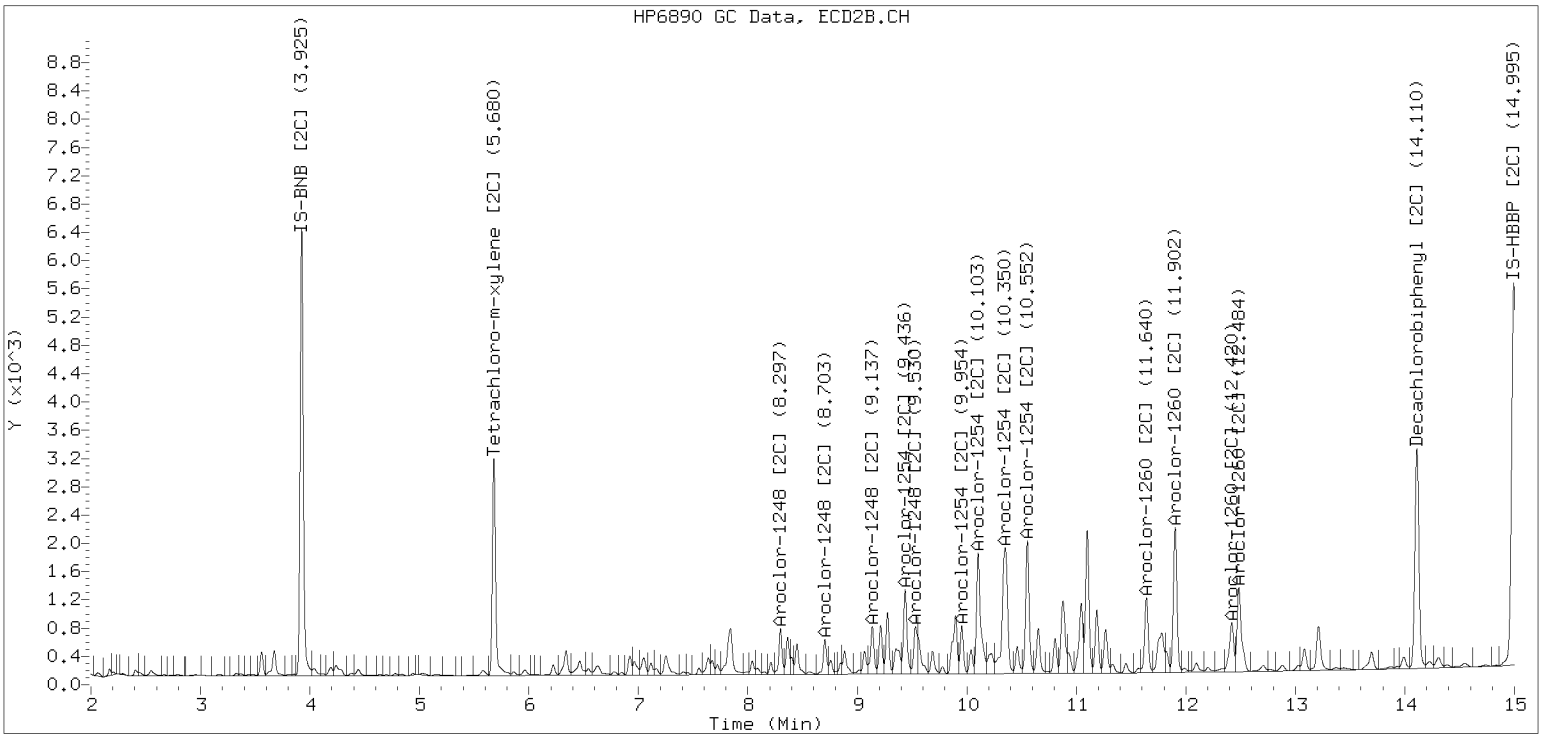


ZB-35 Manual Integration: YES

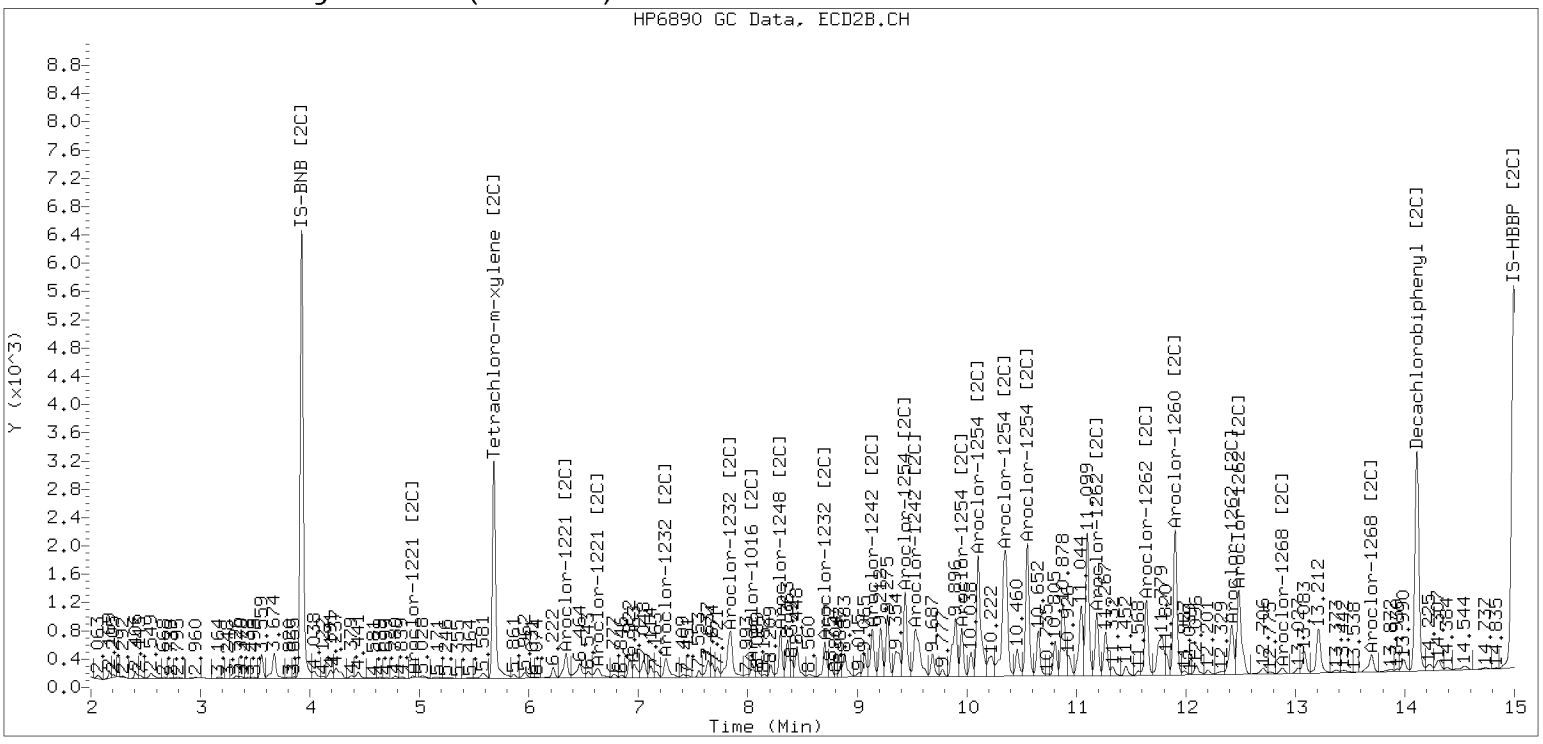
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230220.b/230220.b/02202317ECD7.D Injection Date: 20-FEB-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1115

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-02 A	File ID:	02202318ECD7.D
Sampled:	01/16/23 08:28	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 16:08
% Solids:	53.21	Preparation:	EPA 3546 (Microwave)	Initial/Final:	23.51 g Wet / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0274	Calibration:	GB00045
Instrument:	ECD7	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	40.8	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	64.7	1.6	4.0	
11096-82-5	Aroclor 1260	1	1	55.9	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*7.9938*	*7.53*	*94.2*	*40 - 126*	
Tetrachlorometaxylene	*1*	*7.9938*	*5.40*	*67.5*	*44 - 120*	
Decachlorobiphenyl	*2*	*7.9938*	*7.21*	*90.2*	*40 - 126*	
Tetrachlorometaxylene	*2*	*7.9938*	*6.93*	*86.7*	*44 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202318ECD7.D
Data file 2: /230220.b/230220.b/02202318ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0313-02
Client ID:
Injection Date: 20-FEB-2023 16:08
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.804	-0.004	238318	5.680	-0.005	119105	27.0	34.7	24.8	Tetrachloro-m-xylene
13.883	-0.008	202835	14.110	-0.006	143701	37.7	36.1	4.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	621725	44.6
Hexabromobiphenyl	975457	611427	-37.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	257678	-29.7
Hexabromobiphenyl	646884	295972	-54.2 <-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks				Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
		Col1Ave: <3 Quant Peaks				Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks				Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks				Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	8.395	-0.009	45603	152.1	1	8.297	-0.007	27209	234.1
Aroclor-1248	2	8.563	-0.014	37853	100.0	2	8.703	-0.007	20181	165.0
Aroclor-1248	3	8.981	-0.015	111203	207.9	3	9.136	-0.020	29167	206.4
Aroclor-1248	4	9.284	-0.008	120547	356.4	4	9.530	-0.050	30009	175.1
		Total Col1Ave (4 peaks):			204.1	Total Col2Ave (4 peaks):				195.1 RPD = 4
		Corrected Ave (3 peaks):			153.4	Corrected Ave (3 peaks):				182.2 RPD = 17
										201.83
Aroclor-1254	1	9.284	-0.011	120547	200.3	1	9.435	-0.010	52472	288.8
Aroclor-1254	2	9.359	-0.014	51648	218.0	2	9.953	-0.012	25699	175.1
Aroclor-1254	3	9.659	-0.006	104287	272.0	3	10.102	-0.016	89135	278.8
Aroclor-1254	4	9.784	-0.019	171235	224.3	4	10.349	-0.019	120185	381.0
Aroclor-1254	5	10.119	-0.049	213099	457.7	5	10.552	-0.012	78721	494.0
		Total Col1Ave (5 peaks):			274.5	Total Col2Ave (5 peaks):				323.6 RPD = 16
		Corrected Ave (4 peaks):			228.7	Corrected Ave (4 peaks):				281.0 RPD = 21
Aroclor-1260	1	11.031	-0.010	64895	307.9	1	11.641	-0.008	45641	296.7
Aroclor-1260	2	11.345	-0.012	49421	229.2	2	11.902	-0.011	86143	223.2
Aroclor-1260	3	11.717	-0.014	160993	281.9	3	12.420	-0.012	38070	363.3
Aroclor-1260	4	12.117	-0.017	78833	271.9	4	12.485	-0.013	61342	235.5
Aroclor-1260	5	12.232	-0.008	38389	308.7	NS	---			----
		Total Col1Ave (5 peaks):			279.9	Total Col2Ave (4 peaks):				279.7 RPD = 0
		Corrected Ave (4 peaks):			272.7	Corrected Ave (3 peaks):				251.8 RPD = 8
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks				Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks				Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (5.908 - 13.791) = 3522784 Col1 Total PCB = 0.5 ppm*

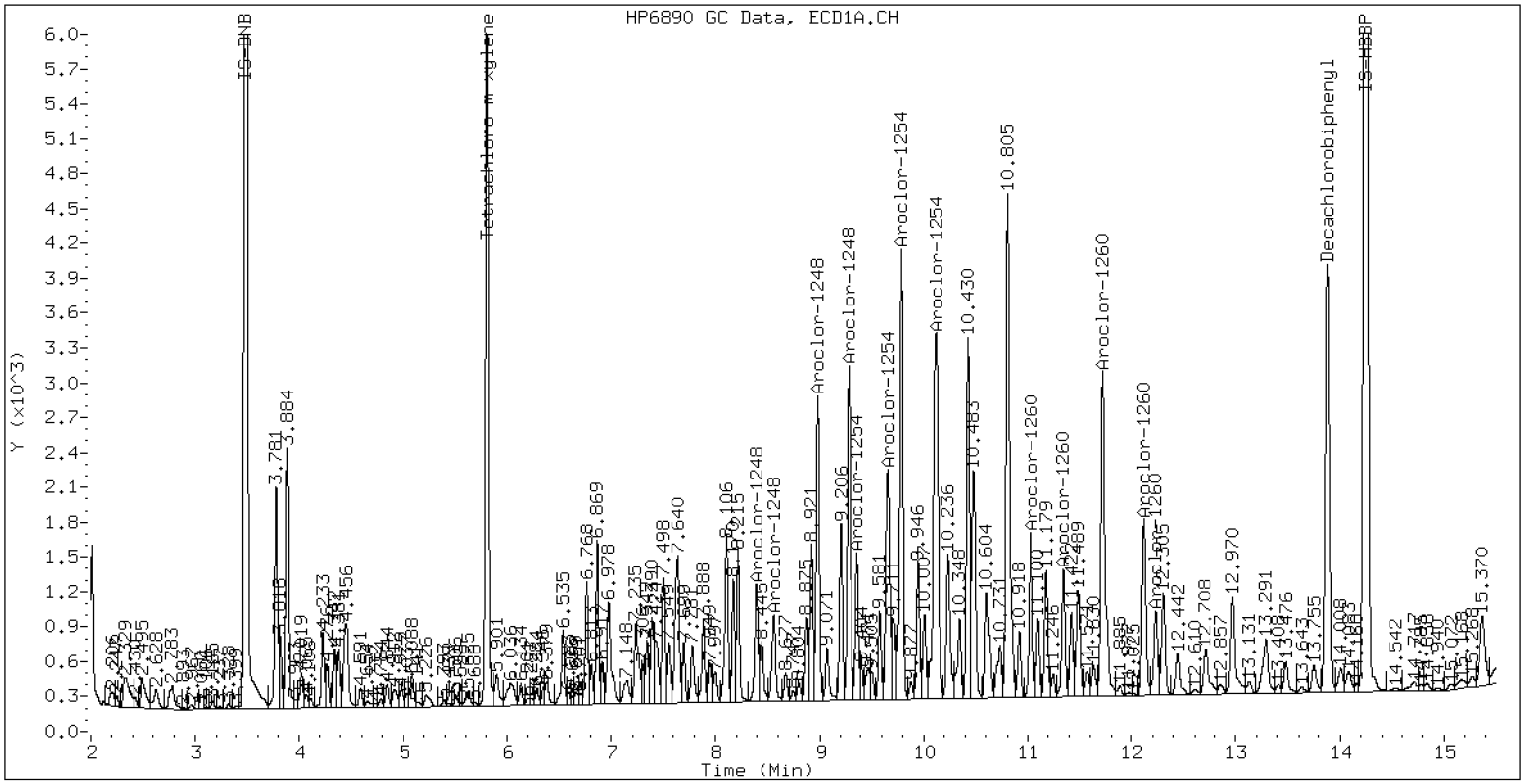
Total PCB Area Col2 (5.785 - 14.017) = 1805785 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

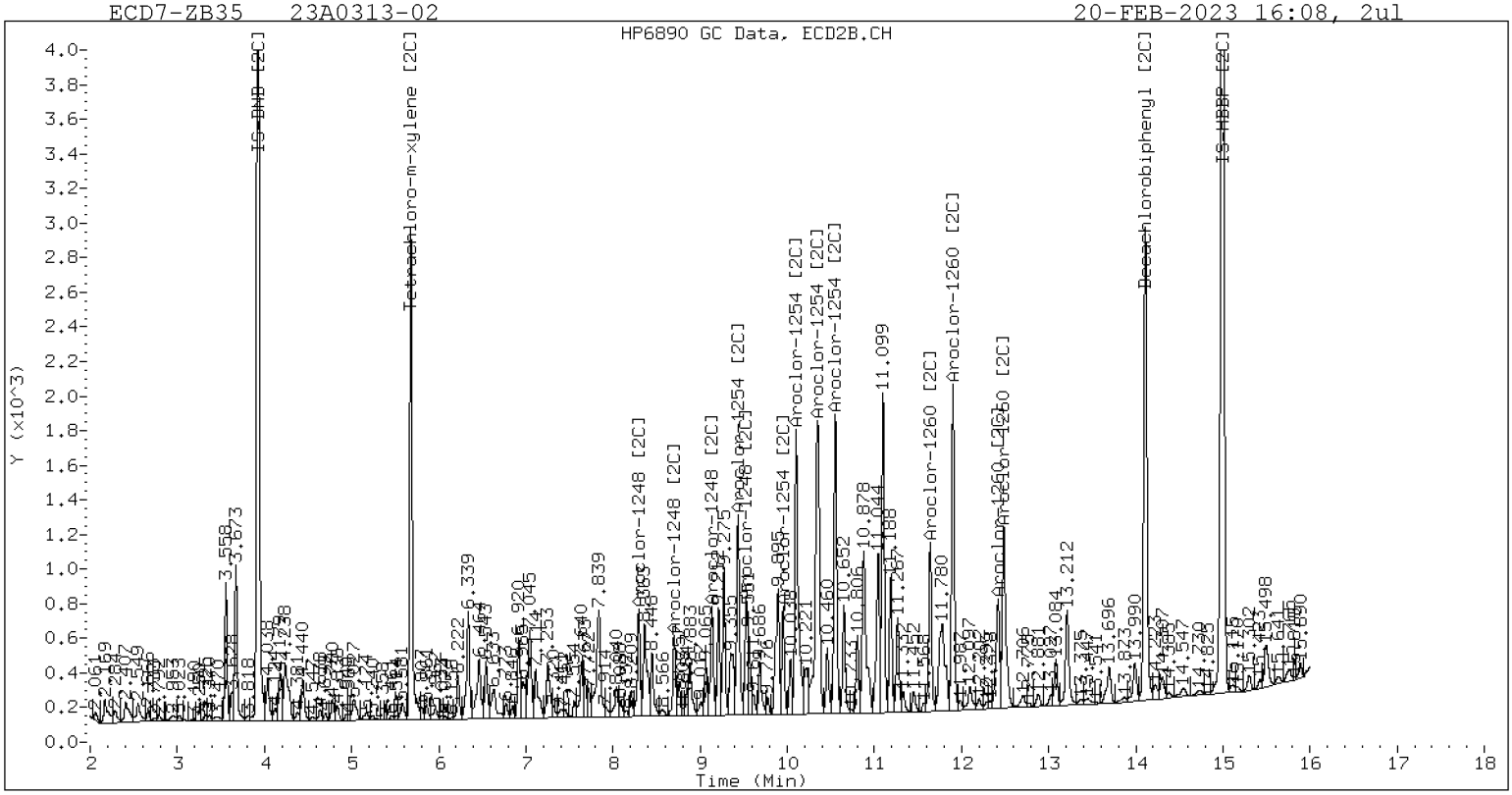
PCB Dual Column Chromatograms

ECD7-ZB5 23A0313-02 20-FEB-2023 16:08, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0313-02 20-FEB-2023 16:08, 2ul

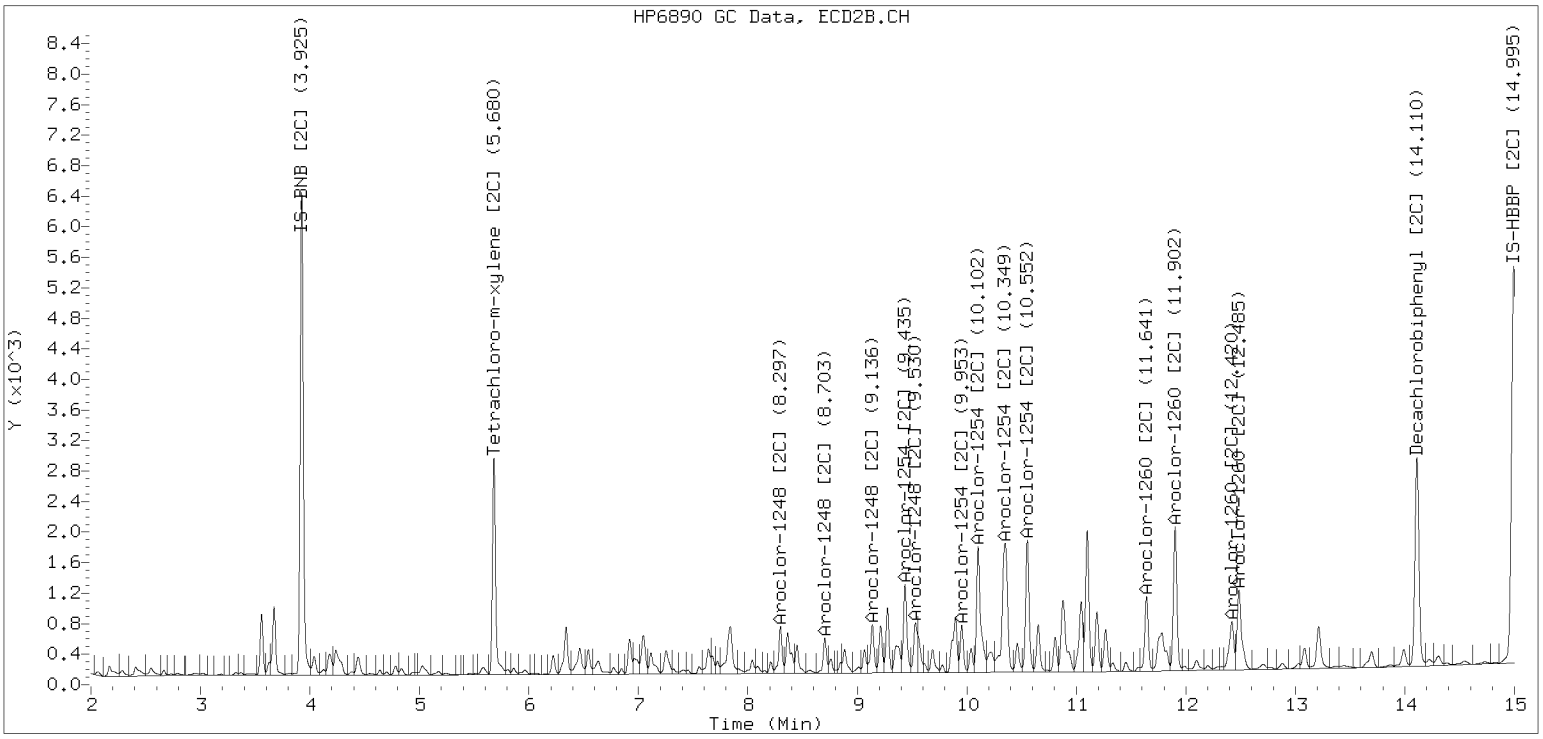


ZB-35 Manual Integration: YES

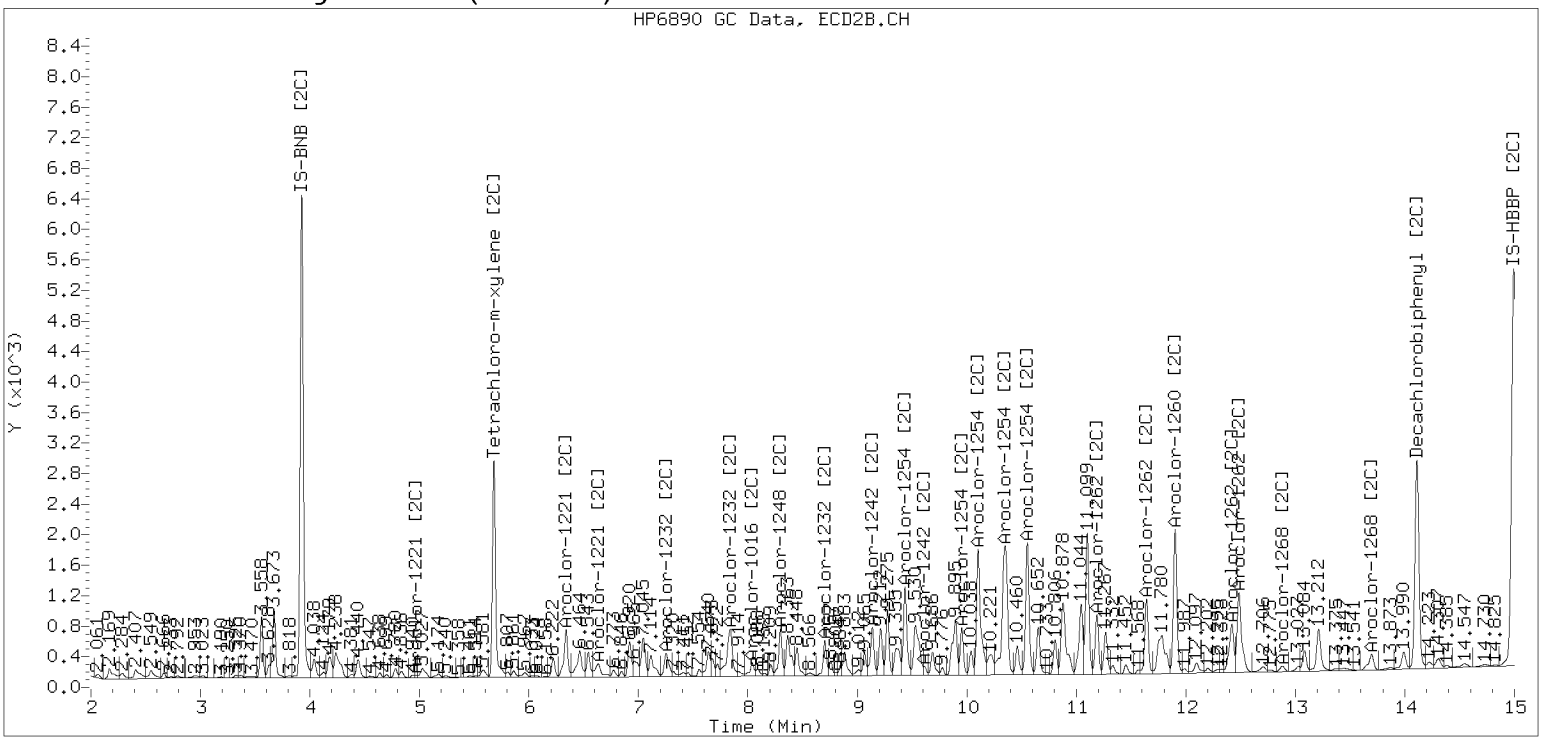
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230220.b/230220.b/02202318ECD7.D Injection Date: 20-FEB-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-IT1114

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-03 A	File ID:	02202319ECD7.D
Sampled:	01/16/23 08:42	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 16:29
% Solids:	62.68	Preparation:	EPA 3546 (Microwave)	Initial/Final:	19.94 g Wet / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0274	Calibration:	GB00045
Instrument:	ECD7	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	50	200	78.0	200	U
11104-28-2	Aroclor 1221	1	50	200	78.0	200	U
11141-16-5	Aroclor 1232	1	50	200	78.0	200	U
53469-21-9	Aroclor 1242	1	50	200	78.0	200	U
12672-29-6	Aroclor 1248	1	50	1800	78.0	200	D
11097-69-1	Aroclor 1254	1	50	1720	78.0	200	D
11096-82-5	Aroclor 1260	1	50	1120	29.5	200	D

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*8.0010*	*9.86*	*123*	*40 - 126*	
Tetrachlorometaxylene	*1*	*8.0010*	*7.84*	*98.0*	*44 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202319ECD7.D
Data file 2: /230220.b/230220.b/02202319ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0313-03RE2
Client ID:
Injection Date: 20-FEB-2023 16:29
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 50.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.804	-0.004	7083	5.682	-0.003	2952	0.8	0.8	2.7	Tetrachloro-m-xylene
13.885	-0.006	7642	14.113	-0.004	7142	1.0	1.5	39.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	636556	48.0
Hexabromobiphenyl	975457	880028	-9.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	274863	-25.1
Hexabromobiphenyl	646884	359218	-44.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks				Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
		Col1Ave: <3 Quant Peaks				Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks				Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks				Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	8.398	-0.005	54809	178.5	1	8.300	-0.004	30077	242.6
Aroclor-1248	2	8.567	-0.010	47686	123.1	2	8.706	-0.004	25778	197.6
Aroclor-1248	3	8.987	-0.009	96747	176.7	3	9.145	-0.012	15261	101.2
Aroclor-1248	4	9.288	-0.004	83361	240.7	4	9.533	-0.047	18606	101.8
		Total Col1Ave (4 peaks):			179.8	Total Col2Ave (4 peaks):				160.8 RPD = 11
		Corrected Ave (3 peaks):			159.4	Corrected Ave (3 peaks):				133.5 RPD = 18
Aroclor-1254	1	9.288	-0.007	83361	135.3	1	9.440	-0.005	29523	152.3
Aroclor-1254	2	9.365	-0.009	42996	177.3	2	9.958	-0.007	12936	82.6
Aroclor-1254	3	9.669	0.004	82541	210.2	3	10.109	-0.009	57730	169.3
Aroclor-1254	4	9.792	-0.011	127694	163.4	4	10.359	-0.008	57621	171.3
Aroclor-1254	5	10.113	-0.055	124330	260.8	5	10.556	-0.008	37914	223.0
		Total Col1Ave (5 peaks):			189.4	Total Col2Ave (5 peaks):				159.7 RPD = 17
		Corrected Ave (4 peaks):			171.6	Corrected Ave (4 peaks):				143.9 RPD = 18
Aroclor-1260	1	11.035	-0.006	40438	133.3	1	11.645	-0.004	25299	135.5
Aroclor-1260	2	11.351	-0.006	34266	110.4	2	11.907	-0.007	45788	97.8
Aroclor-1260	3	11.722	-0.008	83493	101.6	3	12.426	-0.007	13941	109.6
Aroclor-1260	4	12.124	-0.010	44850	107.5	4	12.490	-0.009	31254	98.9
Aroclor-1260	5	12.236	-0.004	19436	108.6	NS	---			----
		Total Col1Ave (5 peaks):			112.3	Total Col2Ave (4 peaks):				110.4 RPD = 2
		Corrected Ave (4 peaks):			107.0	Corrected Ave (3 peaks):				102.1 RPD = 5
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks				Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks				Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (5.908 - 13.791) = 2171747 Col1 Total PCB = 0.3 ppm*

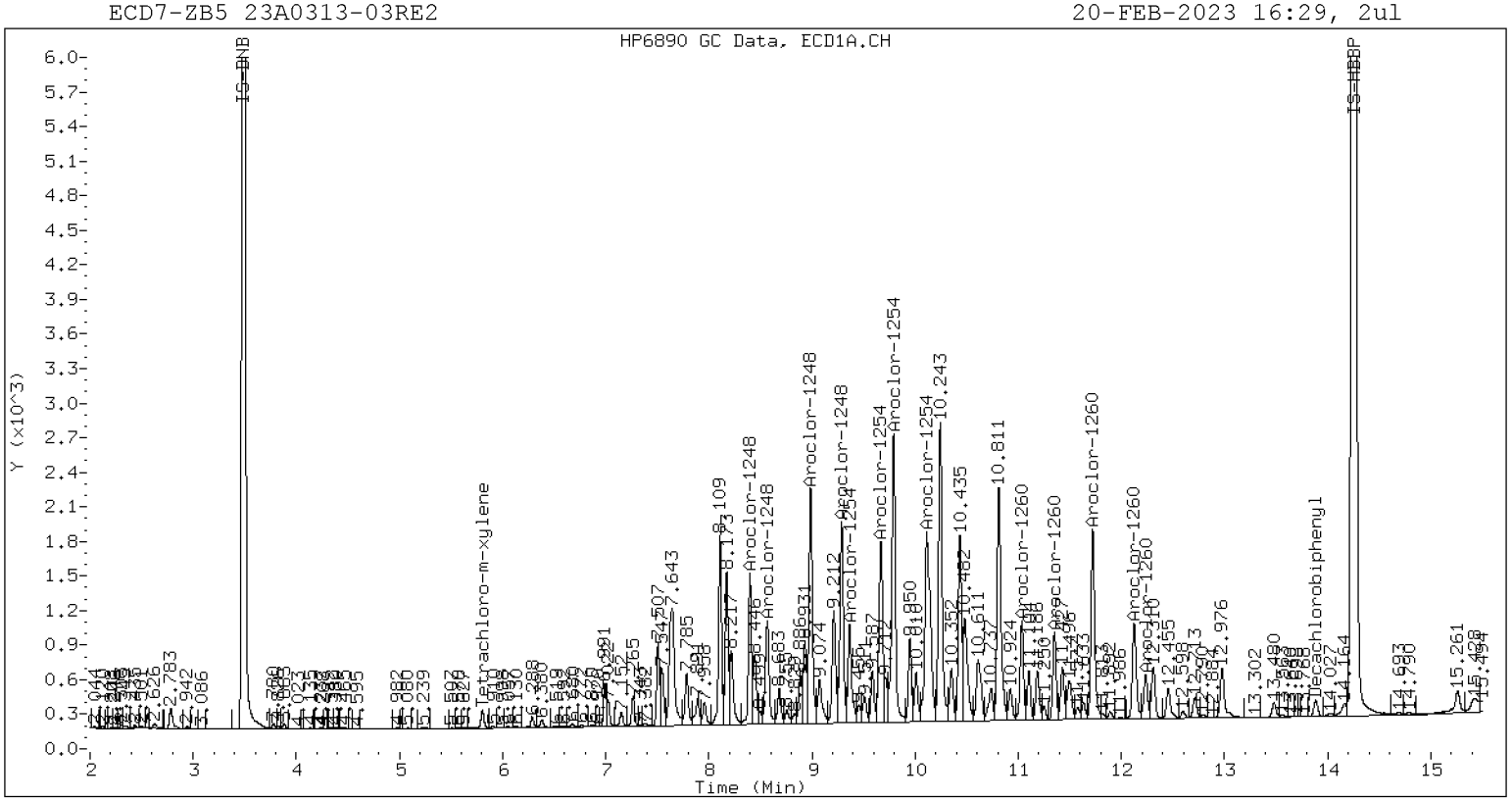
Total PCB Area Col2 (5.785 - 14.017) = 1012850 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

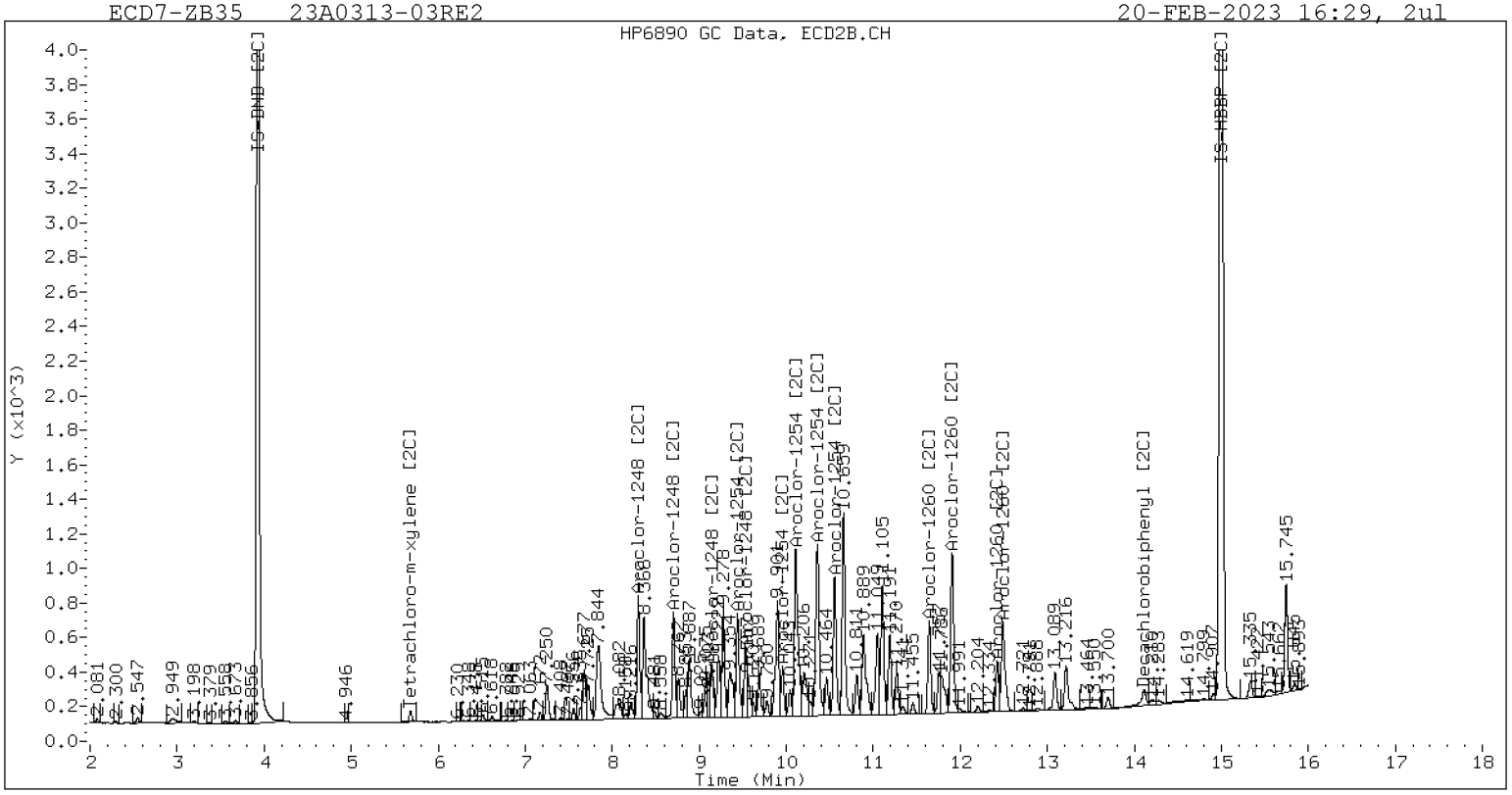
PCB Dual Column Chromatograms

ECD7-ZB5 23A0313-03RE2 20-FEB-2023 16:29, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 23A0313-03RE2 20-FEB-2023 16:29, 2ul

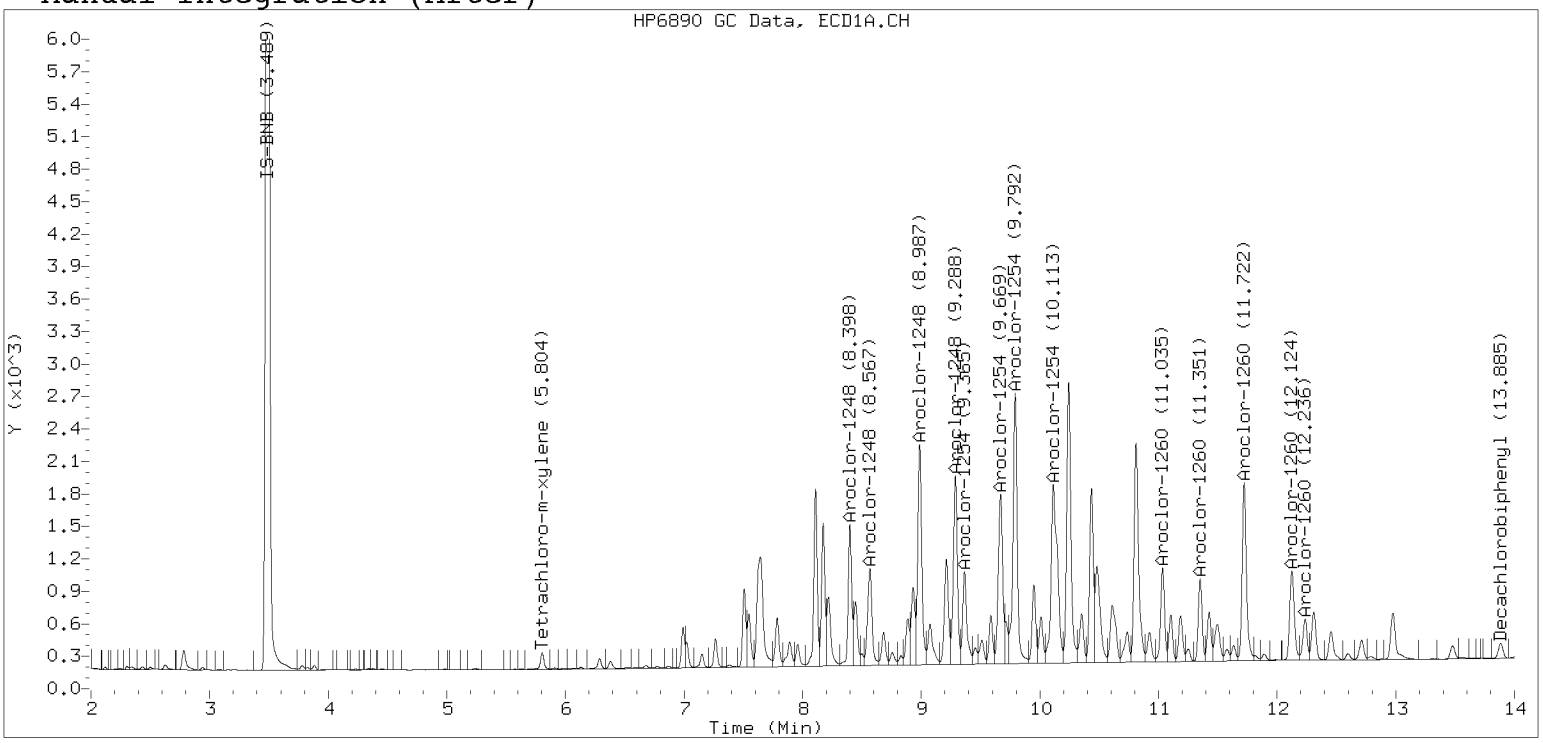


ZB-35 Manual Integration: YES

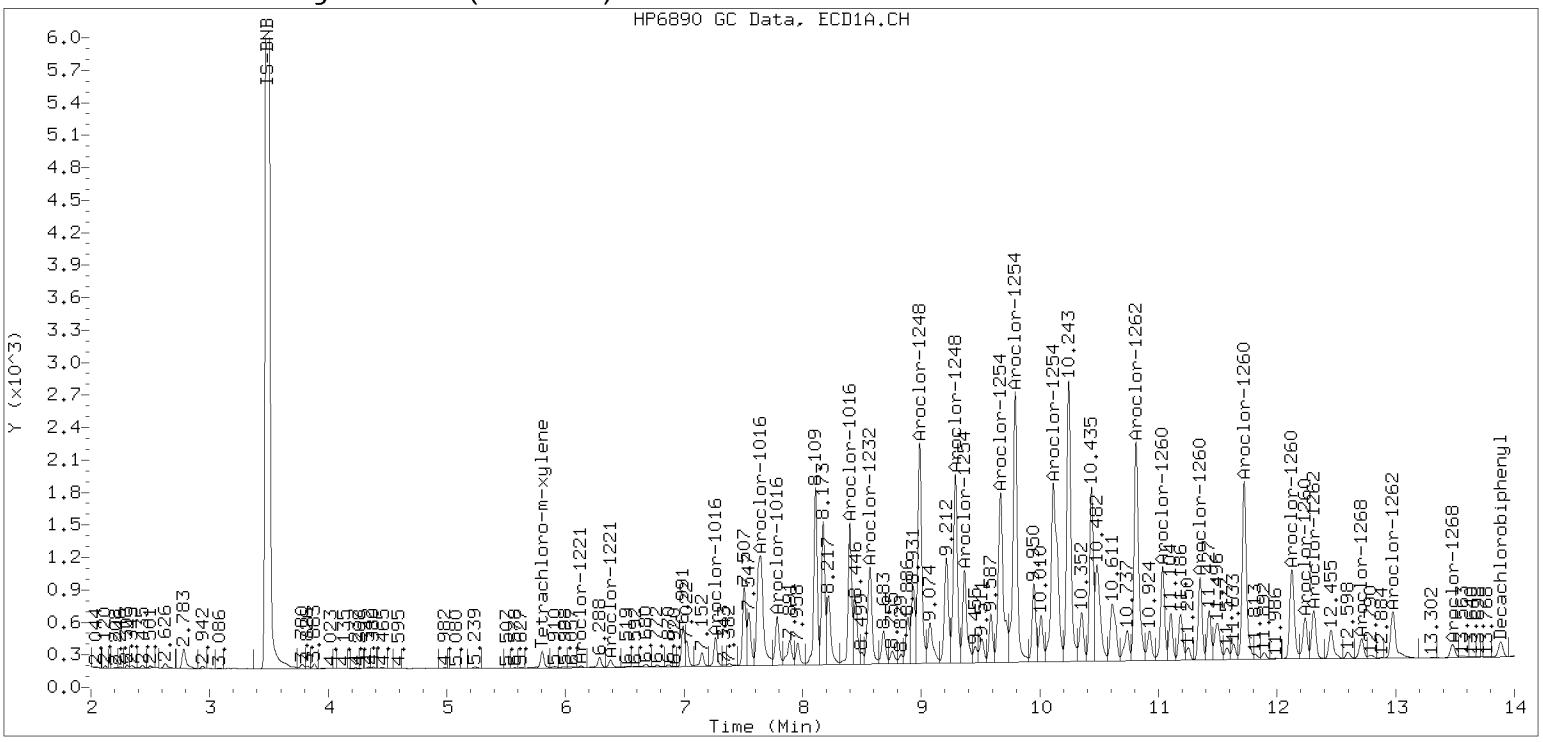
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/230220.b/02202319ECD7.D Injection Date: 20-FEB-2023 16:29

Manual Integration (After)



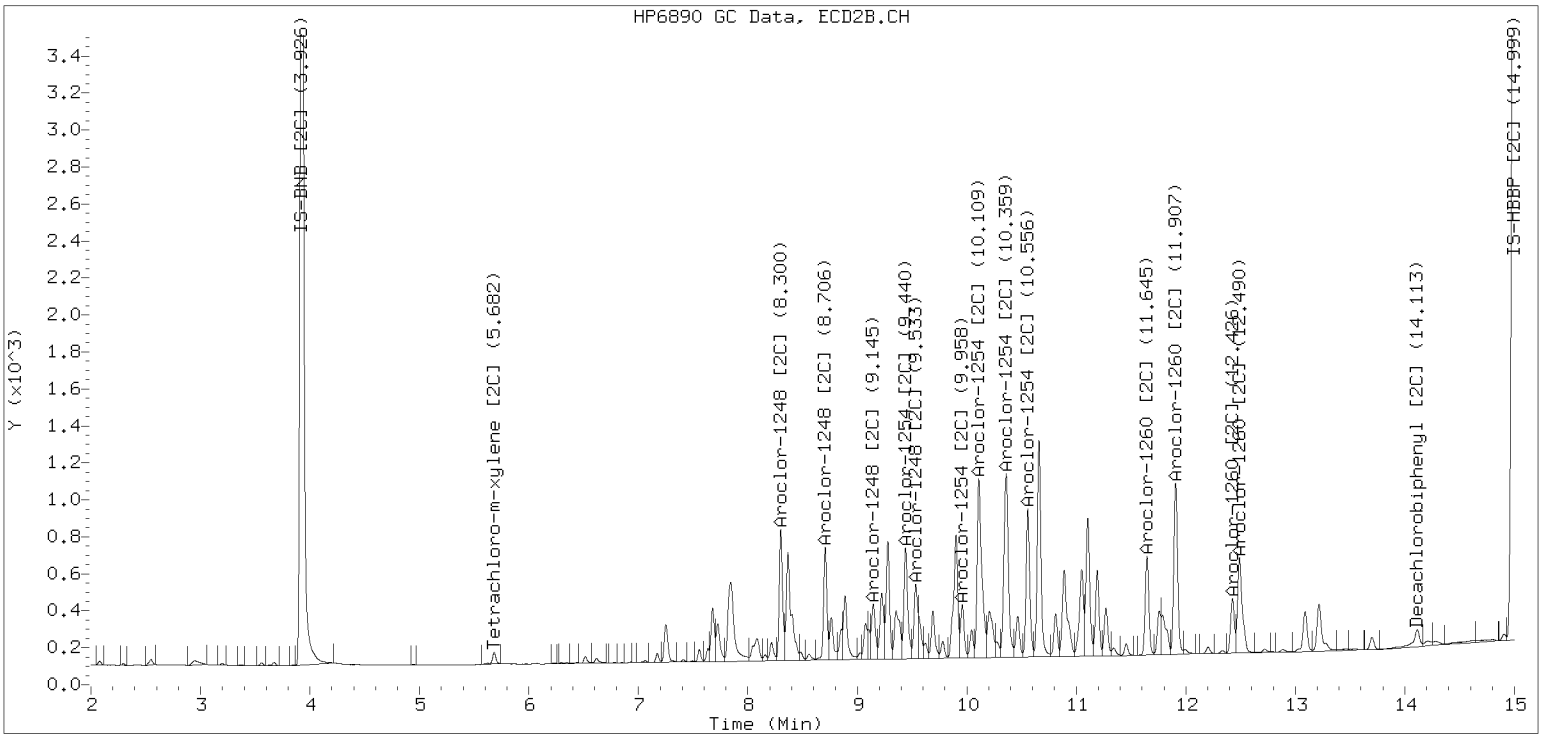
Processed Integration (Before)



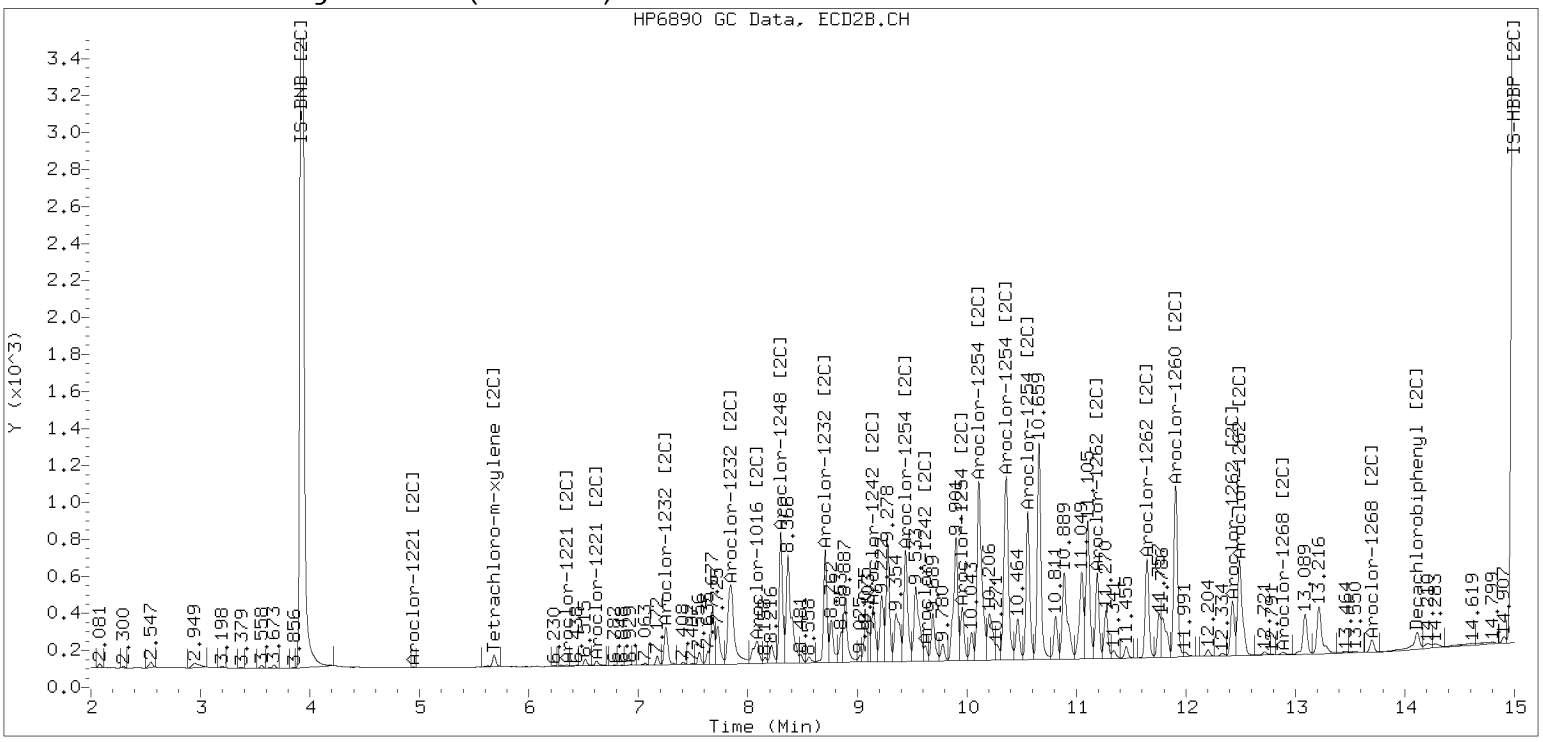
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230220.b/230220.b/02202319ECD7.D Injection Date: 20-FEB-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-IT1120

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-04 A	File ID:	02202320ECD7.D
Sampled:	01/16/23 08:57	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 16:50
% Solids:	69.56	Preparation:	EPA 3546 (Microwave)	Initial/Final:	17.97 g Wet / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0274	Calibration:	GB00045
Instrument:	ECD7	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	10	40.0	15.6	40.0	U
11104-28-2	Aroclor 1221	1	10	40.0	15.6	40.0	U
11141-16-5	Aroclor 1232	1	10	40.0	15.6	40.0	U
53469-21-9	Aroclor 1242	1	10	40.0	15.6	40.0	U
12672-29-6	Aroclor 1248	1	10	574	15.6	40.0	D
11097-69-1	Aroclor 1254	2	10	663	15.6	40.0	D
11096-82-5	Aroclor 1260	2	10	319	5.9	40.0	D

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*8.0000*	*11.1*	*139*	*40 - 126*	*
Tetrachlorometaxylene	*1*	*8.0000*	*6.33*	*79.1*	*44 - 120*	
Decachlorobiphenyl	*2*	*8.0000*	*9.85*	*123*	*40 - 126*	
Tetrachlorometaxylene	*2*	*8.0000*	*7.71*	*96.3*	*44 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202320ECD7.D
Data file 2: /230220.b/230220.b/02202320ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0313-04RE2
Client ID:
Injection Date: 20-FEB-2023 16:50
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 10.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.803	-0.005	28958	5.680	-0.005	13988	3.2	3.9	19.7	Tetrachloro-m-xylene
13.883	-0.008	40271	14.112	-0.004	23234	5.6	4.9	12.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	645257	50.0
Hexabromobiphenyl	975457	822139	-15.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	272202	-25.8
Hexabromobiphenyl	646884	350558	-45.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1248	1	8.395	-0.008	61828	198.7	1	8.297	-0.007	36997	301.3
Aroclor-1248	2	8.564	-0.013	50015	127.4	2	8.704	-0.006	31167	241.2
Aroclor-1248	3	8.983	-0.013	169698	305.7	3	9.139	-0.018	35635	238.7
Aroclor-1248	4	9.286	-0.006	181070	515.8	4	9.529	-0.050	55128	3~~04~~.5
		Total Col1Ave (4 peaks):			286.9		Total Col2Ave (4 peaks):			~~271~~.4 RPD = 6
		Corrected Ave (3 peaks):			210.6		Corrected Ave (3 peaks):			260.4 RPD = 21
Aroclor-1254	1	9.286	-0.009	181070	290.0	1	9.436	-0.009	68428	356.6
Aroclor-1254	2	9.362	-0.012	93519	380.3	2	9.954	-0.011	26849	173.2
Aroclor-1254	3	9.667	0.002	184738	464.2	3	10.105	-0.013	115804	342.9
Aroclor-1254	4	9.787	-0.016	248679	313.9	4	10.350	-0.018	122081	366.4
Aroclor-1254	5	10.131	-0.037	262601	543.5	5	10.553	-0.011	70463	418.6
		Total Col1Ave (5 peaks):			398.4		Total Col2Ave (5 peaks):			331.5 RPD = 18
		Corrected Ave (4 peaks):			362.1		Corrected Ave (4 peaks):			309.8 RPD = 16
Aroclor-1260	1	11.032	-0.008	47165	166.4	1	11.642	-0.007	40747	223.7
Aroclor-1260	2	11.349	-0.008	42060	145.1	2	11.904	-0.010	62232	136.2
Aroclor-1260	3	11.719	-0.012	110342	143.7	3	12.422	-0.010	17712	142.7
Aroclor-1260	4	12.121	-0.014	63265	162.3	4	12.487	-0.012	41780	135.4
Aroclor-1260	5	12.234	-0.006	24106	144.2	NS	---			----
		Total Col1Ave (5 peaks):			152.3		Total Col2Ave (4 peaks):			159.5 RPD = 5
		Corrected Ave (4 peaks):			148.8		Corrected Ave (3 peaks):			138.1 RPD = 7
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			

Total PCB Area Col1 (5.908 - 13.791) = 3534951 Col1 Total PCB = 0.5 ppm*

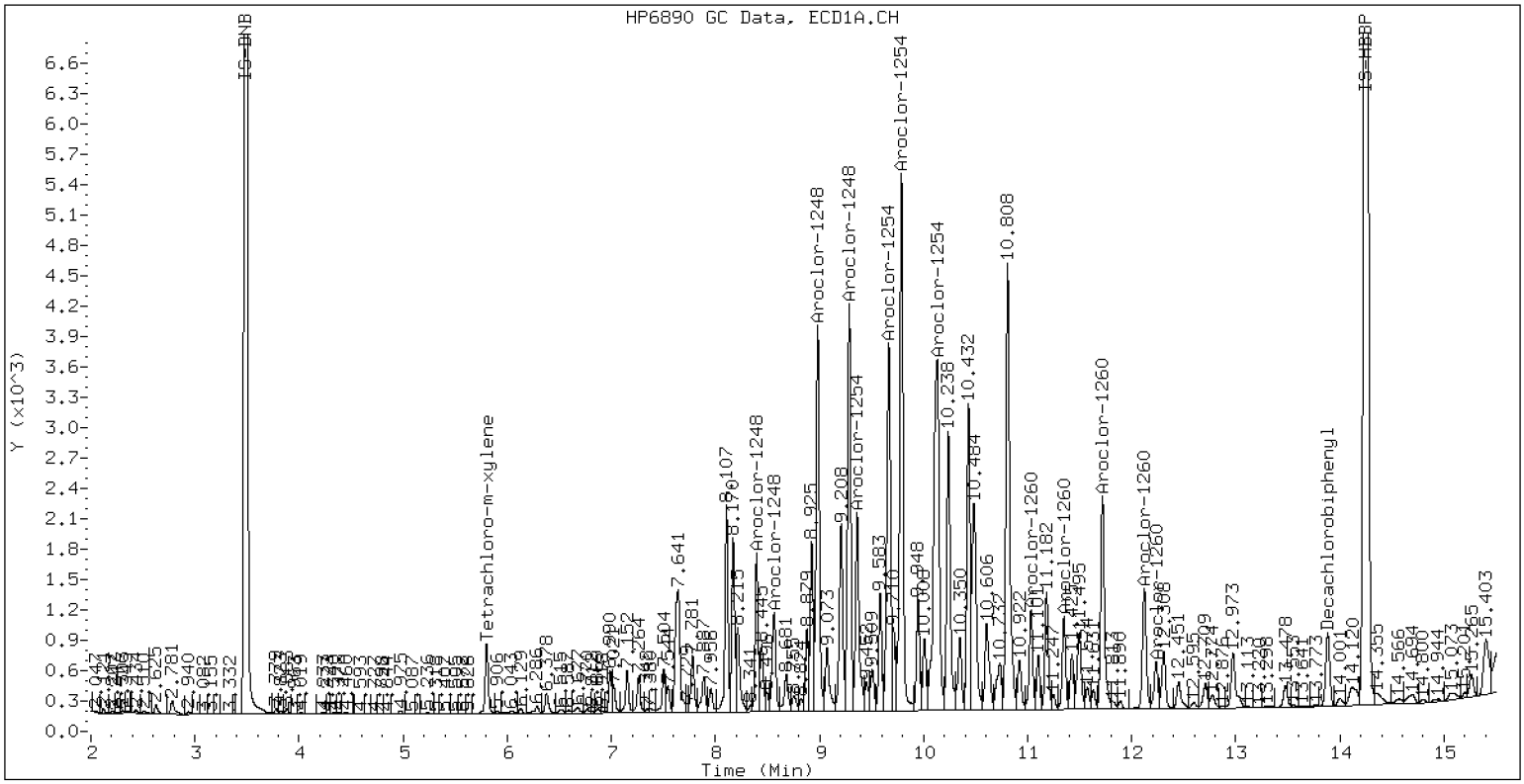
Total PCB Area Col2 (5.785 - 14.017) = 1652746 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

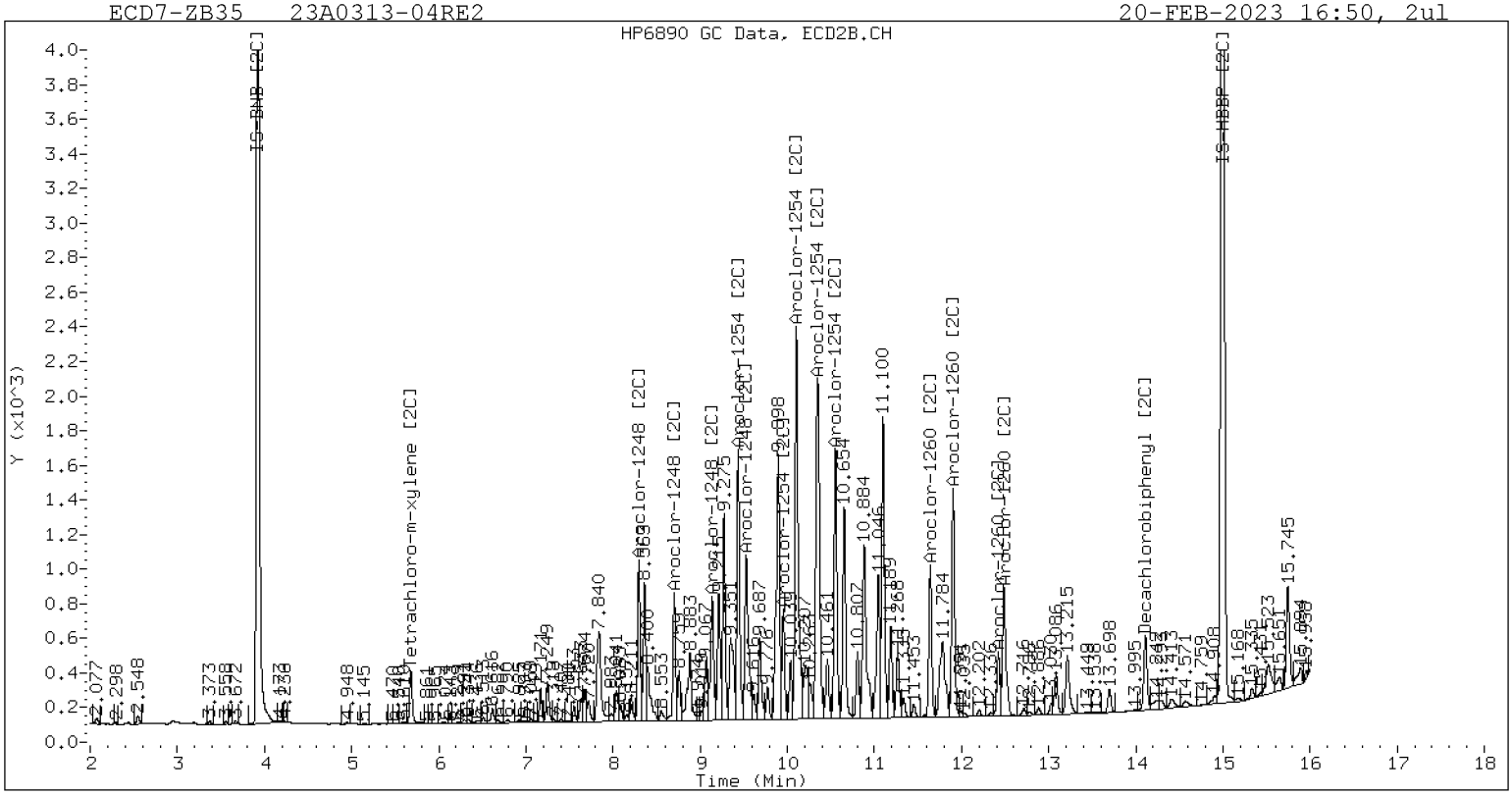
PCB Dual Column Chromatograms

ECD7-ZB5 23A0313-04RE2 20-FEB-2023 16:50, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0313-04RE2 20-FEB-2023 16:50, 2ul

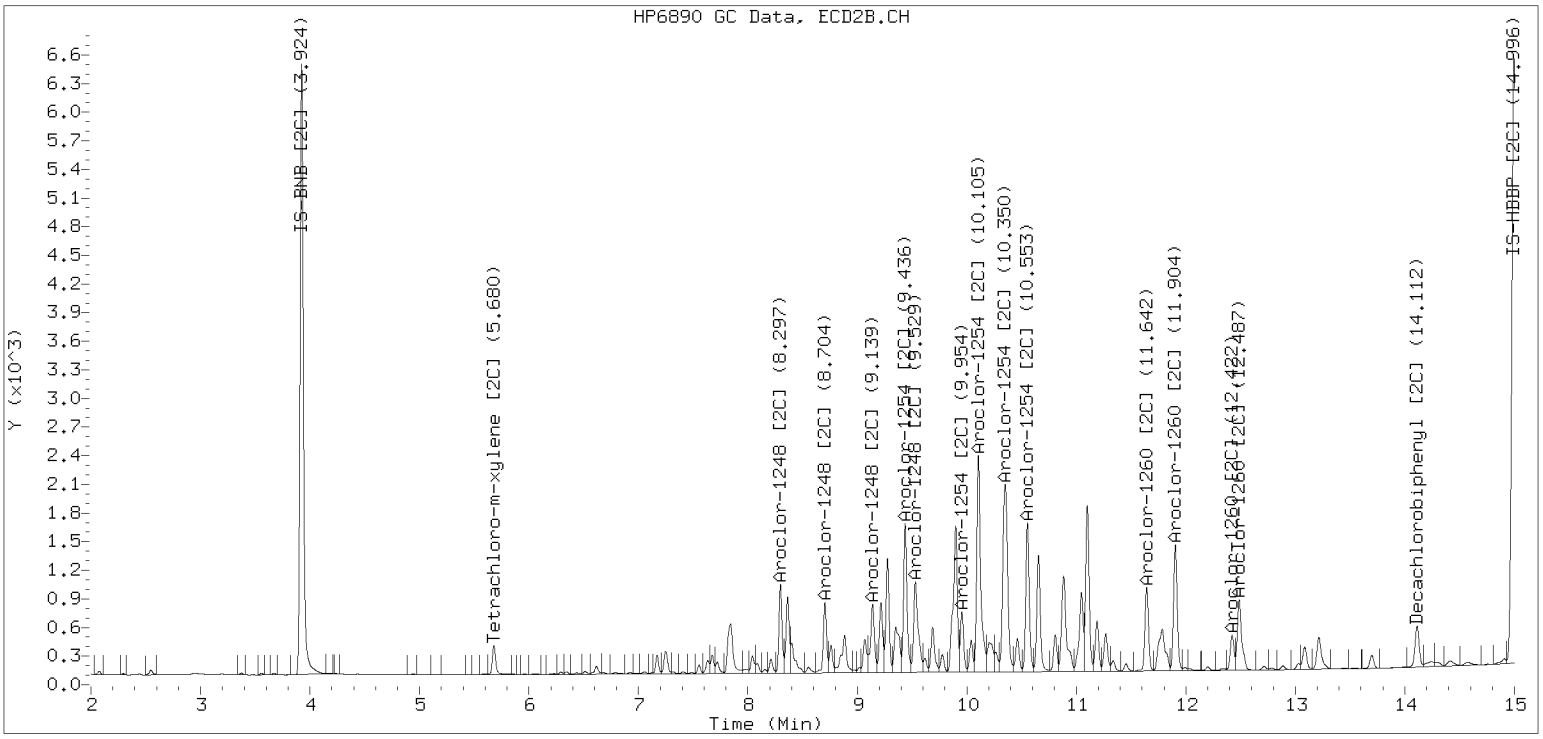


ZB-35 Manual Integration: YES

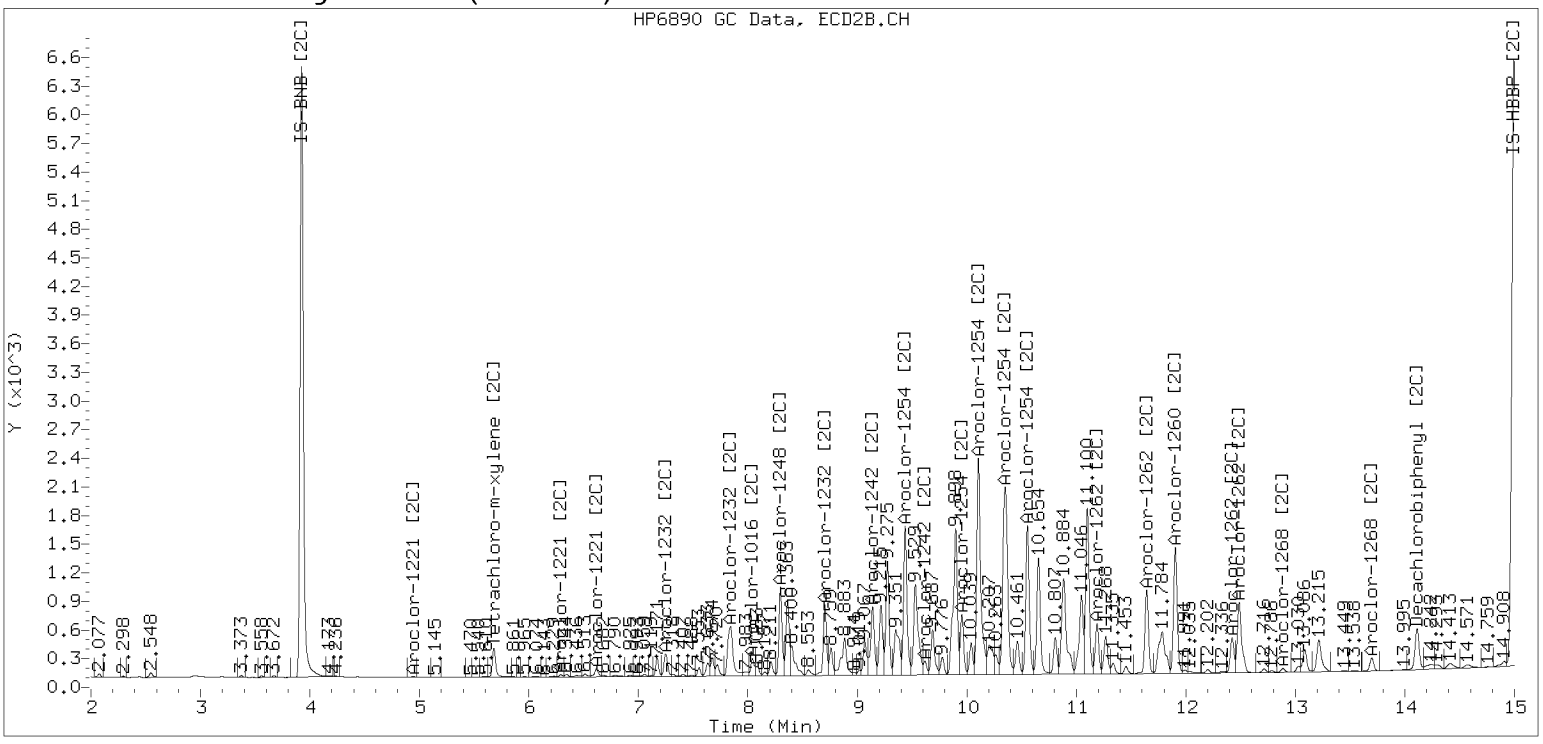
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230220.b/230220.b/02202320ECD7.D Injection Date: 20-FEB-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1090

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-05 A	File ID:	02202321ECD7.D
Sampled:	01/16/23 09:21	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 17:12
% Solids:	49.57	Preparation:	EPA 3546 (Microwave)	Initial/Final:	25.24 g Wet / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0274	Calibration:	GB00045
Instrument:	ECD7	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	30.5	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	43.2	1.6	4.0	
11096-82-5	Aroclor 1260	1	1	46.7	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*7.9927*	*7.61*	*95.2*	*40 - 126*	
Tetrachlorometaxylene	*1*	*7.9927*	*5.89*	*73.7*	*44 - 120*	
Decachlorobiphenyl	*2*	*7.9927*	*7.54*	*94.4*	*40 - 126*	
Tetrachlorometaxylene	*2*	*7.9927*	*7.30*	*91.4*	*44 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202321ECD7.D
Data file 2: /230220.b/230220.b/02202321ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0313-05
Client ID:
Injection Date: 20-FEB-2023 17:12
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.804	-0.005	258120	5.680	-0.006	126593	29.5	36.6	21.4	Tetrachloro-m-xylene
13.885	-0.006	229080	14.111	-0.005	156644	38.1	37.8	0.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	617129	43.5
Hexabromobiphenyl	975457	683019	-30.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	259698	-29.2
Hexabromobiphenyl	646884	308337	-52.3 <-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1248	1	8.394	-0.009	36250	121.8	1	8.296	-0.008	21431	182.9
Aroclor-1248	2	8.564	-0.013	32052	85.3	2	8.702	-0.008	15416	125.1
Aroclor-1248	3	8.982	-0.014	81088	152.7	3	9.137	-0.020	21552	151.3
Aroclor-1248	4	9.285	-0.007	84153	250.6	4	9.530	-0.049	19234	111.3
		Total Col1Ave (4 peaks):			152.6		Total Col2Ave (4 peaks):			142.7 RPD = 7
		Corrected Ave (3 peaks):			120.0		Corrected Ave (3 peaks):			129.2 RPD = 7
Aroclor-1254	1	9.285	-0.010	84153	140.9	1	9.435	-0.010	37062	202.4
Aroclor-1254	2	9.360	-0.013	35584	151.3	2	9.953	-0.012	17603	119.0
Aroclor-1254	3	9.662	-0.003	81281	213.5	3	10.102	-0.016	60570	188.0
Aroclor-1254	4	9.785	-0.018	123547	163.1	4	10.351	-0.016	73510	231.2
Aroclor-1254	5	10.115	-0.052	148609	~~321~~.6	5	10.551	-0.013	54685	340.5
		Total Col1Ave (5 peaks):			~~198~~.1		Total Col2Ave (5 peaks):			216.2 RPD = 9
		Corrected Ave (4 peaks):			167.2		Corrected Ave (4 peaks):			185.2 RPD = 10
Aroclor-1260	1	11.031	-0.009	54995	233.6	1	11.641	-0.009	36234	226.1
Aroclor-1260	2	11.345	-0.012	43788	181.8	2	11.901	-0.012	77285	192.3
Aroclor-1260	3	11.717	-0.014	146401	229.5	3	12.421	-0.012	32956	301.8
Aroclor-1260	4	12.118	-0.016	75701	233.7	4	12.486	-0.013	57785	212.9
Aroclor-1260	5	12.232	-0.008	40173	289.2	NS	---			----
		Total Col1Ave (5 peaks):			233.5		Total Col2Ave (4 peaks):			233.3 RPD = 0
		Corrected Ave (4 peaks):			219.6		Corrected Ave (3 peaks):			210.4 RPD = 4
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			

Total PCB Area Col1 (5.908 - 13.791) = 2990869 Col1 Total PCB = 0.4 ppm*

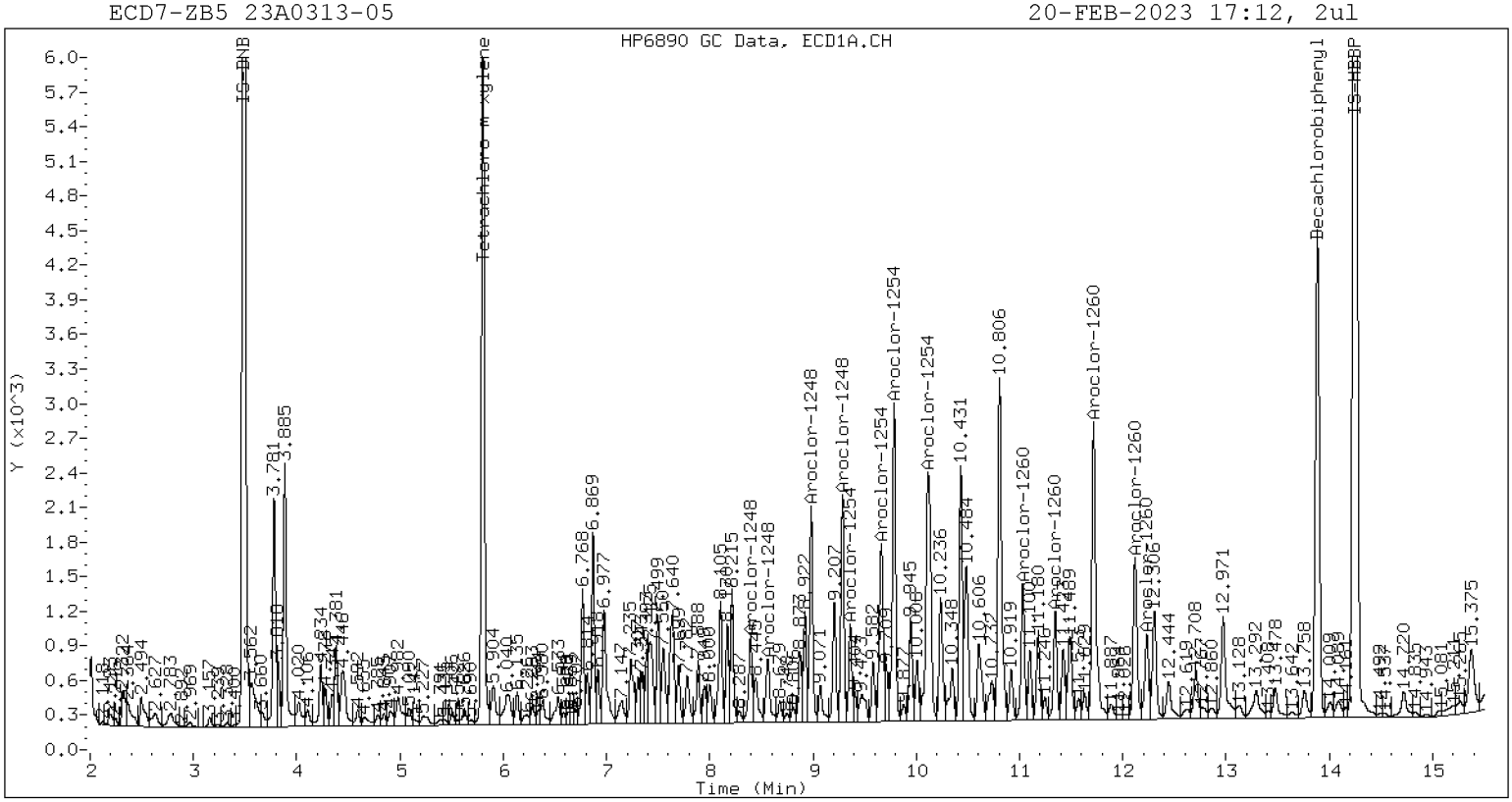
Total PCB Area Col2 (5.785 - 14.017) = 1449982 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

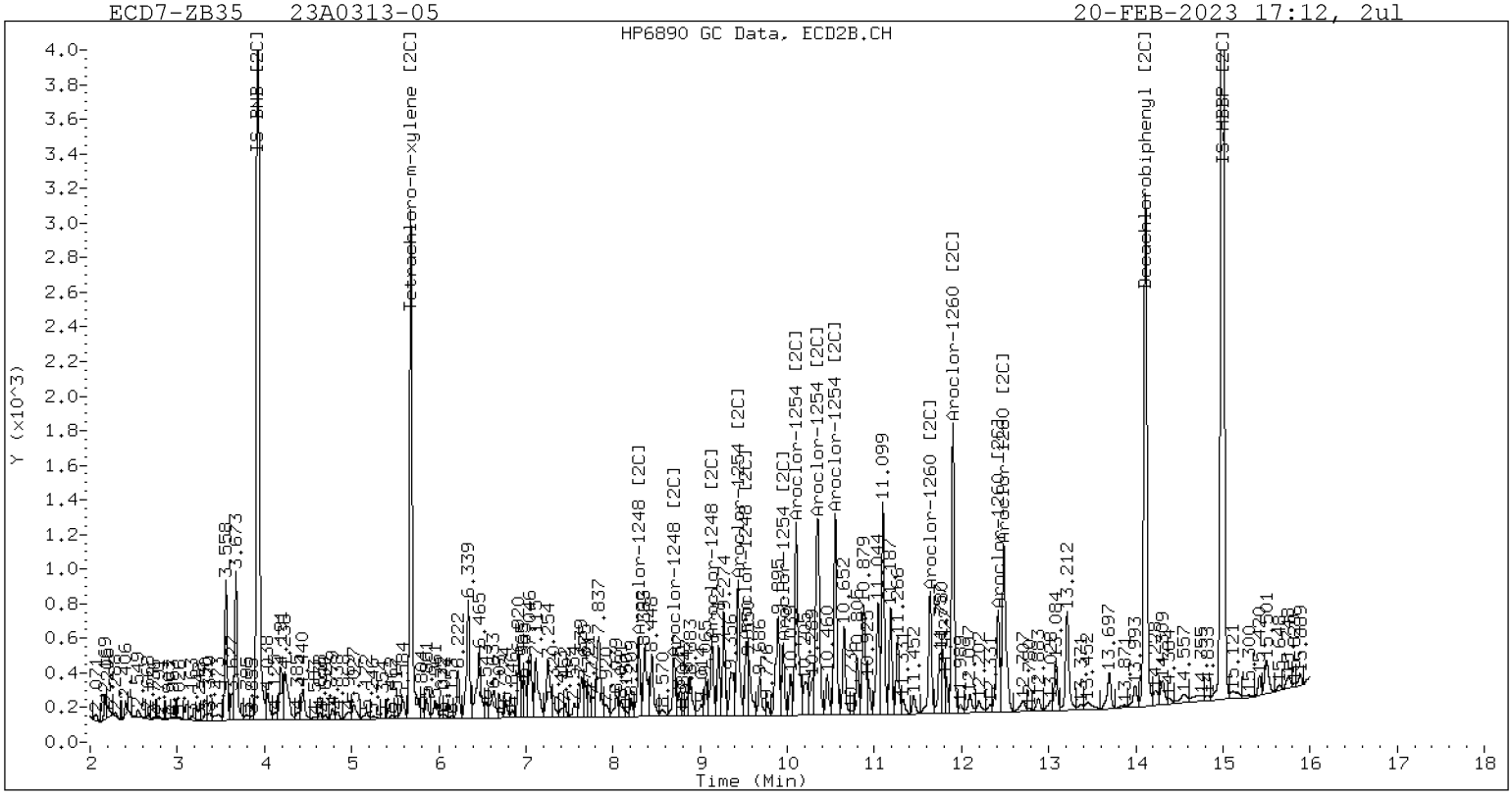
PCB Dual Column Chromatograms

ECD7-ZB5 23A0313-05 20-FEB-2023 17:12, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0313-05 20-FEB-2023 17:12, 2ul

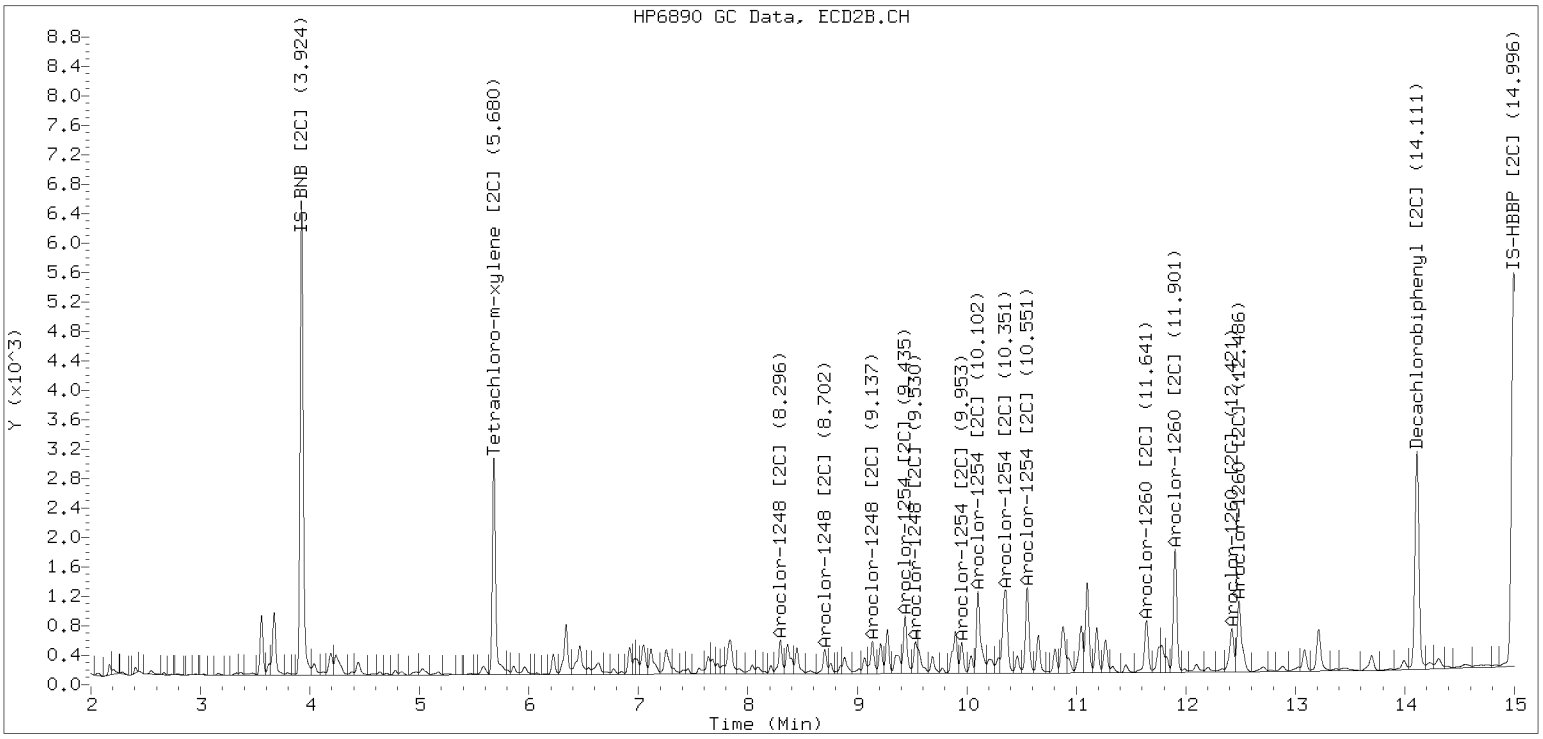


ZB-35 Manual Integration: YES

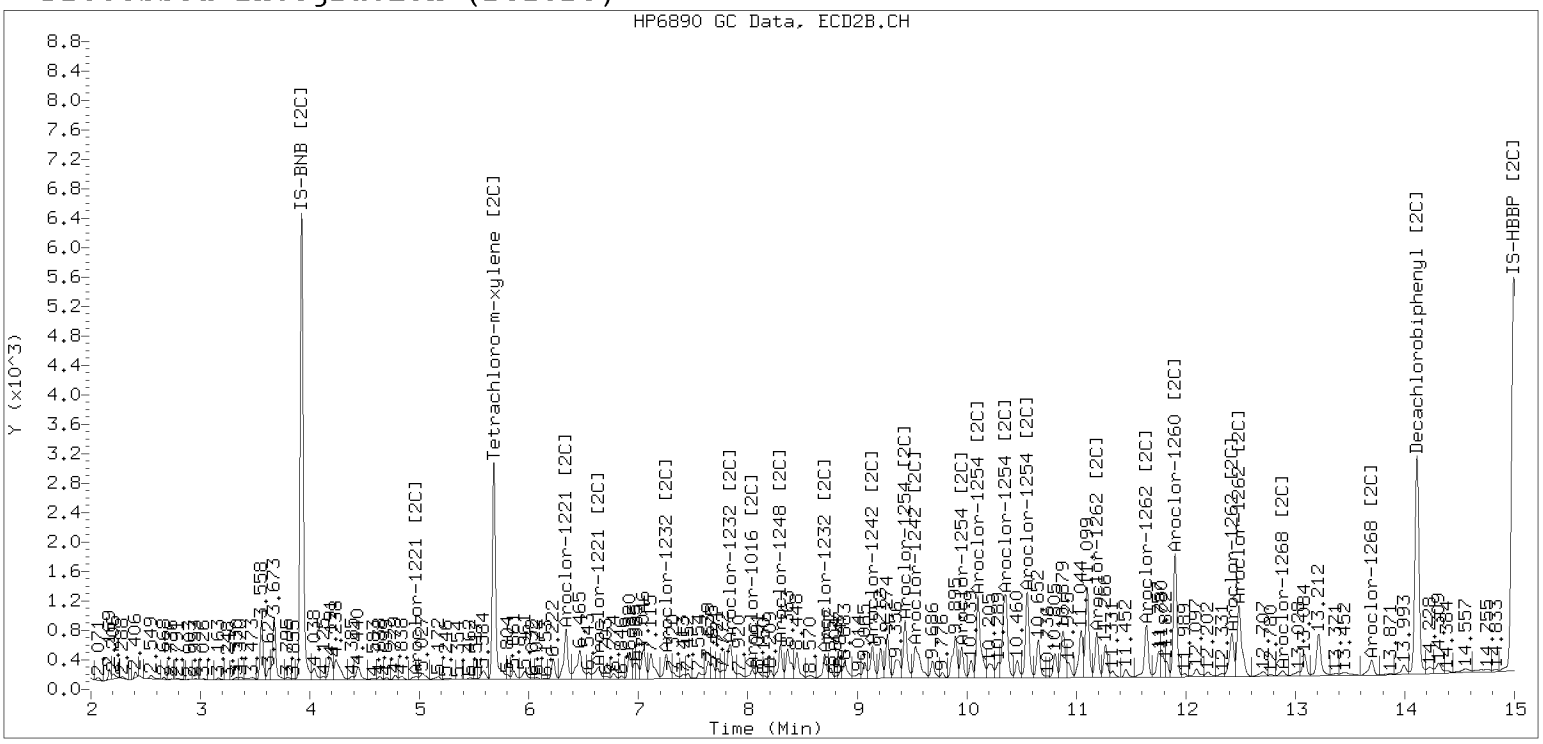
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230220.b/230220.b/02202321ECD7.D Injection Date: 20-FEB-2023

Manual Integration (After)



Processed Integration (Before)



Dual Column

LDW23-SC1095

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-06 A	File ID:	02202322ECD7.D
Sampled:	01/16/23 09:42	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 17:33
% Solids:	55.30	Preparation:	EPA 3546 (Microwave)	Initial/Final:	22.6 g Wet / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0274	Calibration:	GB00045
Instrument:	ECD7	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	45.8	1.6	4.0	
11097-69-1	Aroclor 1254	1	1	52.8	1.6	4.0	
11096-82-5	Aroclor 1260	1	1	52.5	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*8.0014*	*1.85*	*23.1*	*40 - 126*	*
Tetrachlorometaxylene	*1*	*8.0014*	*1.02*	*12.7*	*44 - 120*	*

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202322ECD7.D
Data file 2: /230220.b/230220.b/02202322ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0313-06
Client ID:
Injection Date: 20-FEB-2023 17:33
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.802	-0.006	47628	5.679	-0.006	24991	5.1	6.8	28.5	Tetrachloro-m-xylene
13.883	-0.008	58191	14.110	-0.006	44515	9.3	10.0	7.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	658200	53.1
Hexabromobiphenyl	975457	714084	-26.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	275691	-24.8
Hexabromobiphenyl	646884	331814	-48.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1248	1	8.393	-0.010	50726	159.8	1	8.295	-0.009	25831	207.7
Aroclor-1248	2	8.562	-0.015	54598	136.3	2	8.703	-0.008	24977	190.9
Aroclor-1248	3	8.980	-0.016	140757	248.6	3	9.135	-0.022	38665	255.7
Aroclor-1248	4	9.283	-0.009	132830	370.9	4	9.531	-0.048	24176	131.8
		Total Col1Ave (4 peaks):			228.9		Total Col2Ave (4 peaks):			196.5 RPD = 15
		Corrected Ave (3 peaks):			181.6		Corrected Ave (3 peaks):			176.8 RPD = 3
Aroclor-1254	1	9.283	-0.012	132830	208.5	1	9.434	-0.011	54695	281.4
Aroclor-1254	2	9.359	-0.015	52394	208.9	2	9.953	-0.012	33741	214.9
Aroclor-1254	3	9.653	-0.012	89282	219.9	3	10.101	-0.016	103137	301.6
Aroclor-1254	4	9.784	-0.019	178915	221.4	4	10.348	-0.019	121101	358.9
Aroclor-1254	5	10.118	-0.049	227264	461.1	5	10.551	-0.013	82202	482.1
		Total Col1Ave (5 peaks):			264.0		Total Col2Ave (5 peaks):			327.8 RPD = 22
		Corrected Ave (4 peaks):			214.7		Corrected Ave (4 peaks):			289.2 RPD = 30
Aroclor-1260	1	11.031	-0.010	65802	267.3	1	11.641	-0.009	55790	323.5
Aroclor-1260	2	11.347	-0.010	63551	252.3	2	11.902	-0.012	98479	227.6
Aroclor-1260	3	11.717	-0.014	161345	241.9	3	12.421	-0.012	30392	258.7
Aroclor-1260	4	12.117	-0.017	94253	278.3	4	12.485	-0.014	68586	234.8
Aroclor-1260	5	12.232	-0.008	39719	273.5	NS	---			----
		Total Col1Ave (5 peaks):			262.7		Total Col2Ave (4 peaks):			261.2 RPD = 1
		Corrected Ave (4 peaks):			258.8		Corrected Ave (3 peaks):			240.4 RPD = 7
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			

Total PCB Area Col1 (5.908 - 13.791) = 3434255 Col1 Total PCB = 0.5 ppm*

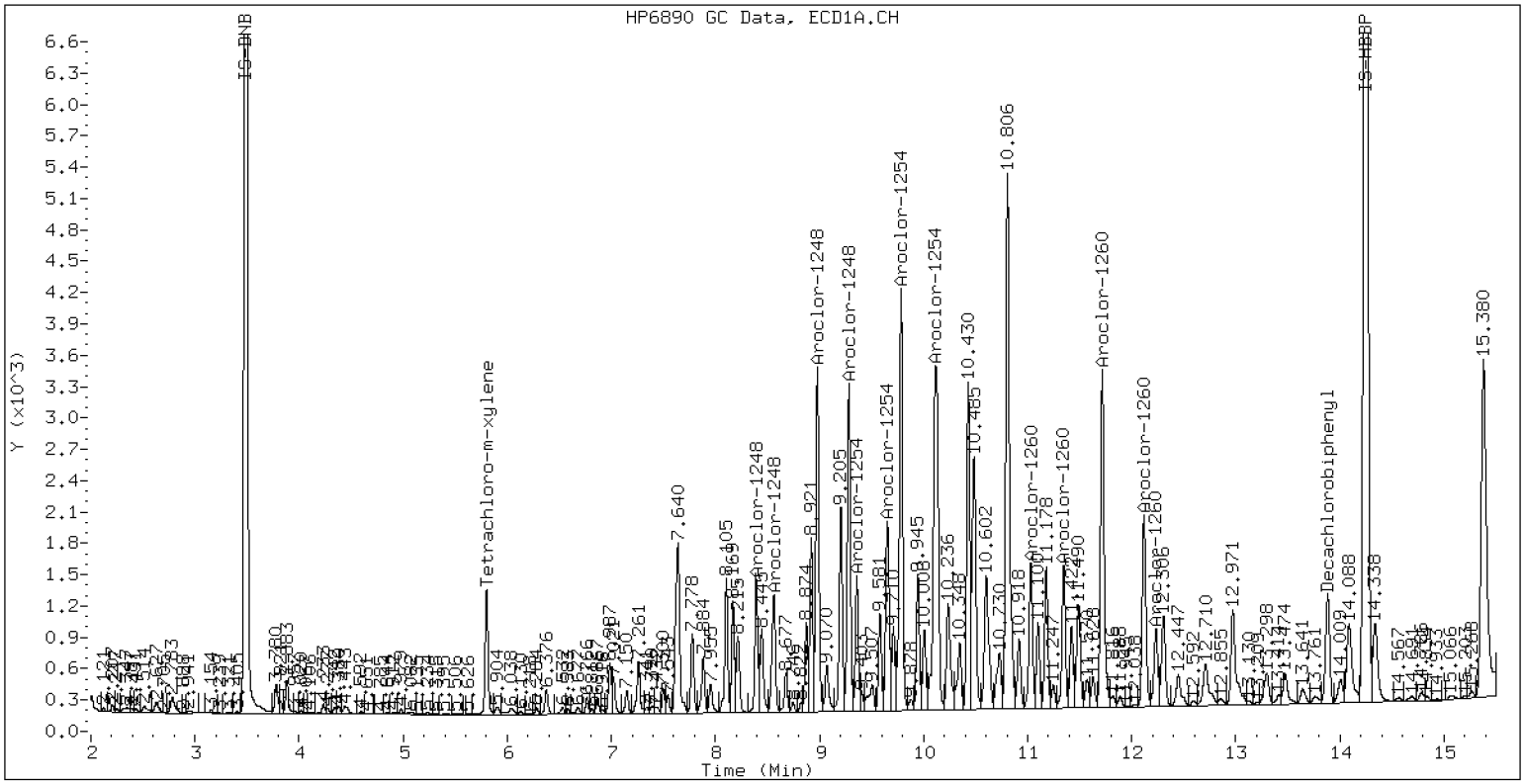
Total PCB Area Col2 (5.785 - 14.017) = 1782673 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

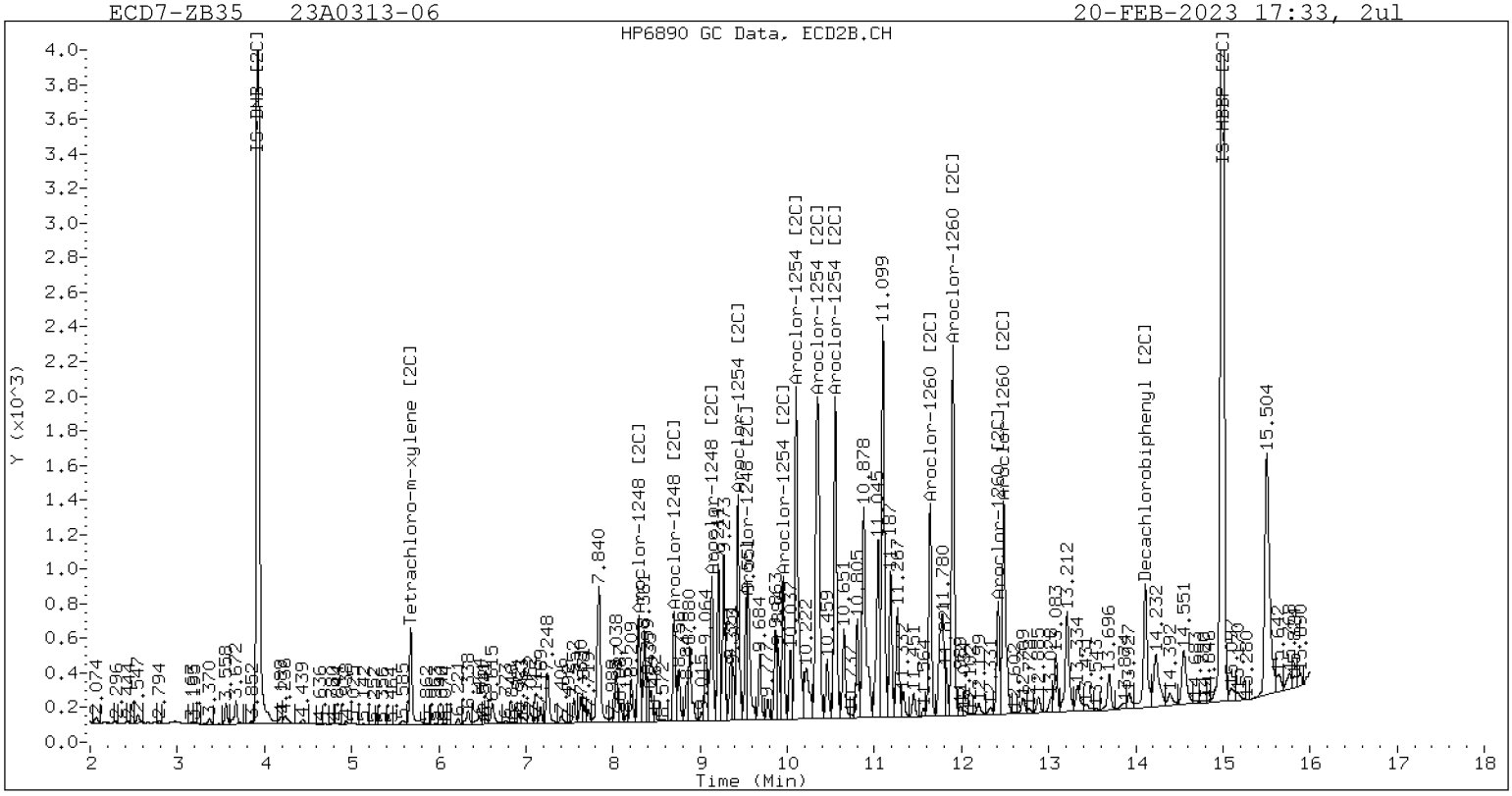
PCB Dual Column Chromatograms

ECD7-ZB5 23A0313-06 20-FEB-2023 17:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0313-06 20-FEB-2023 17:33, 2ul

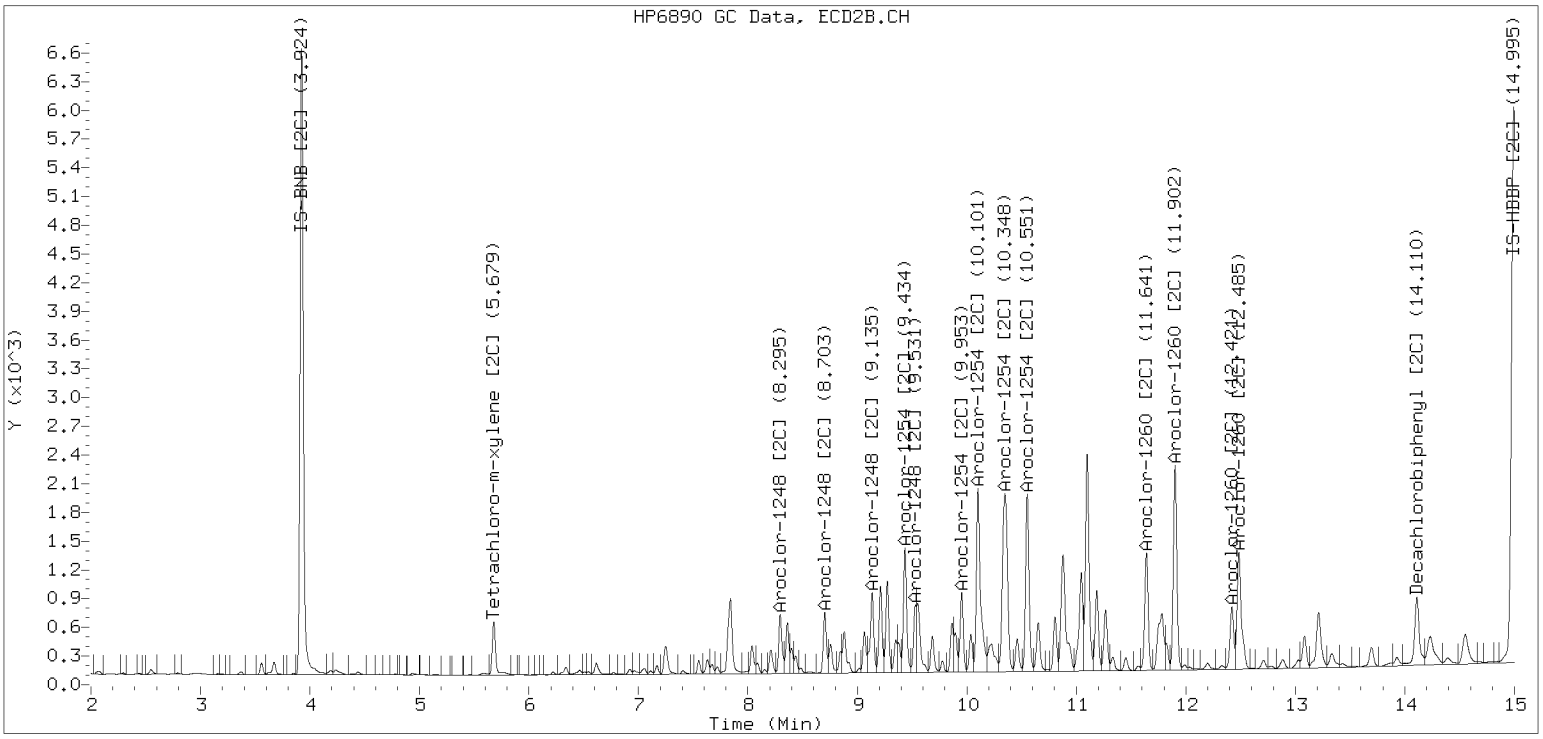


ZB-35 Manual Integration: YES

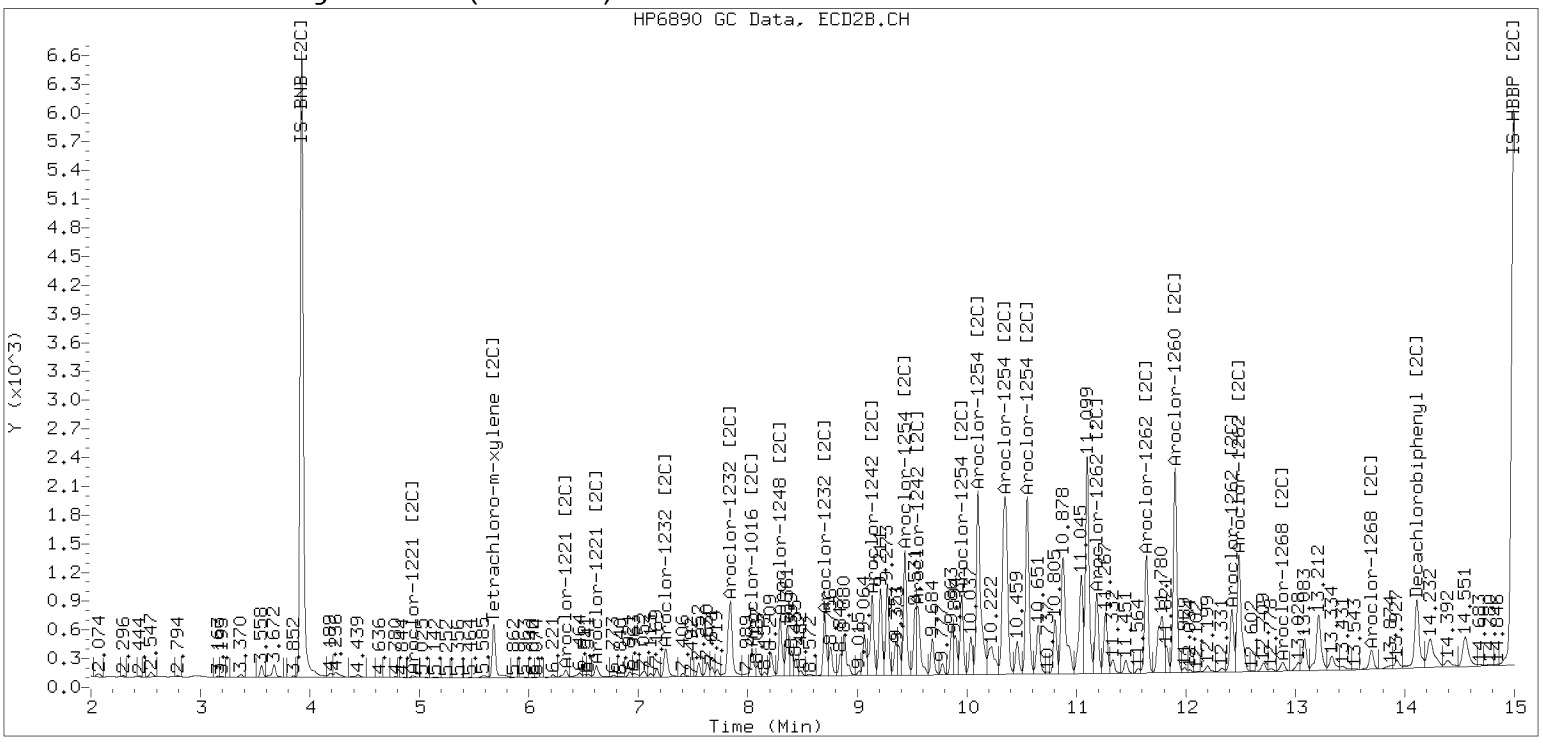
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230220.b/230220.b/02202322ECD7.D Injection Date: 20-FEB-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1076

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-07 A	File ID:	02202323ECD7.D
Sampled:	01/16/23 10:03	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 17:54
% Solids:	73.03	Preparation:	EPA 3546 (Microwave)	Initial/Final:	17.12 g Wet / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0274	Calibration:	GB00045
Instrument:	ECD7	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	26.3	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	30.7	1.6	4.0	
11096-82-5	Aroclor 1260	1	1	28.8	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*7.9982*	*7.68*	*96.0*	*40 - 126*	
Tetrachlorometaxylene	*1*	*7.9982*	*6.04*	*75.5*	*44 - 120*	
Decachlorobiphenyl	*2*	*7.9982*	*7.70*	*96.2*	*40 - 126*	
Tetrachlorometaxylene	*2*	*7.9982*	*7.28*	*91.0*	*44 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202323ECD7.D
Data file 2: /230220.b/230220.b/02202323ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0313-07
Client ID:
Injection Date: 20-FEB-2023 17:54
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.804	-0.004	282003	5.680	-0.005	133993	30.2	36.4	18.6	Tetrachloro-m-xylene
13.885	-0.006	244583	14.111	-0.006	165991	38.4	38.5	0.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	657877	53.0
Hexabromobiphenyl	975457	723119	-25.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	275971	-24.8
Hexabromobiphenyl	646884	320499	-50.5 <-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1248	1	8.395	-0.008	32337	101.9	1	8.297	-0.007	15400	123.7
Aroclor-1248	2	8.564	-0.013	28274	70.6	2	8.703	-0.008	14008	106.9
Aroclor-1248	3	8.982	-0.014	77921	137.7	3	9.137	-0.020	19188	126.8
Aroclor-1248	4	9.284	-0.008	77402	216.3	4	9.530	-0.050	16484	89.8
		Total Col1Ave (4 peaks):			131.6		Total Col2Ave (4 peaks):			111.8 RPD = 16
		Corrected Ave (3 peaks):			103.4		Corrected Ave (3 peaks):			106.8 RPD = 3
										119.13
Aroclor-1254	1	9.284	-0.011	77402	121.6	1	9.435	-0.011	31989	164.4
Aroclor-1254	2	9.360	-0.013	36311	144.8	2	9.953	-0.012	15283	97.2
Aroclor-1254	3	9.654	-0.011	50190	123.7	3	10.103	-0.015	55106	161.0
Aroclor-1254	4	9.785	-0.018	105159	130.2	4	10.352	-0.016	64521	191.0
Aroclor-1254	5	10.114	-0.054	130342	264.6	5	10.552	-0.012	46464	272.2
		Total Col1Ave (5 peaks):			157.0		Total Col2Ave (5 peaks):			177.2 RPD = 12
		Corrected Ave (4 peaks):			130.1		Corrected Ave (4 peaks):			153.4 RPD = 16
Aroclor-1260	1	11.032	-0.009	40021	160.5	1	11.641	-0.008	29230	175.5
Aroclor-1260	2	11.348	-0.009	33785	132.5	2	11.902	-0.012	48787	116.8
Aroclor-1260	3	11.718	-0.013	86976	128.8	3	12.421	-0.012	18112	159.6
Aroclor-1260	4	12.118	-0.016	50578	147.5	4	12.485	-0.014	35810	126.9
Aroclor-1260	5	12.233	-0.007	22092	150.2	NS	---			----
		Total Col1Ave (5 peaks):			143.9		Total Col2Ave (4 peaks):			144.7 RPD = 1
		Corrected Ave (4 peaks):			139.7		Corrected Ave (3 peaks):			134.4 RPD = 4
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			

Total PCB Area Col1 (5.908 - 13.791) = 2060807 Col1 Total PCB = 0.3 ppm*

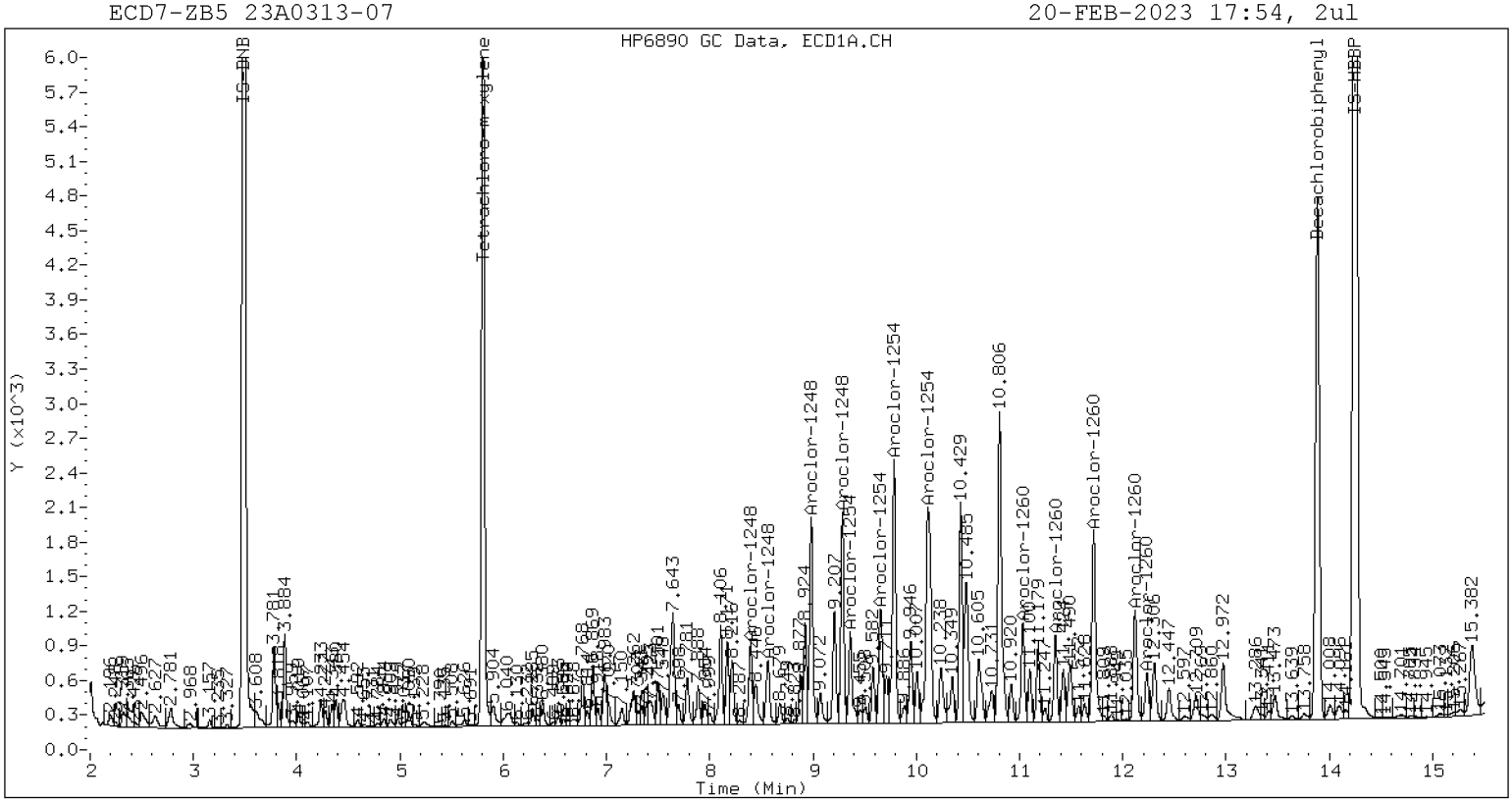
Total PCB Area Col2 (5.785 - 14.017) = 1017535 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

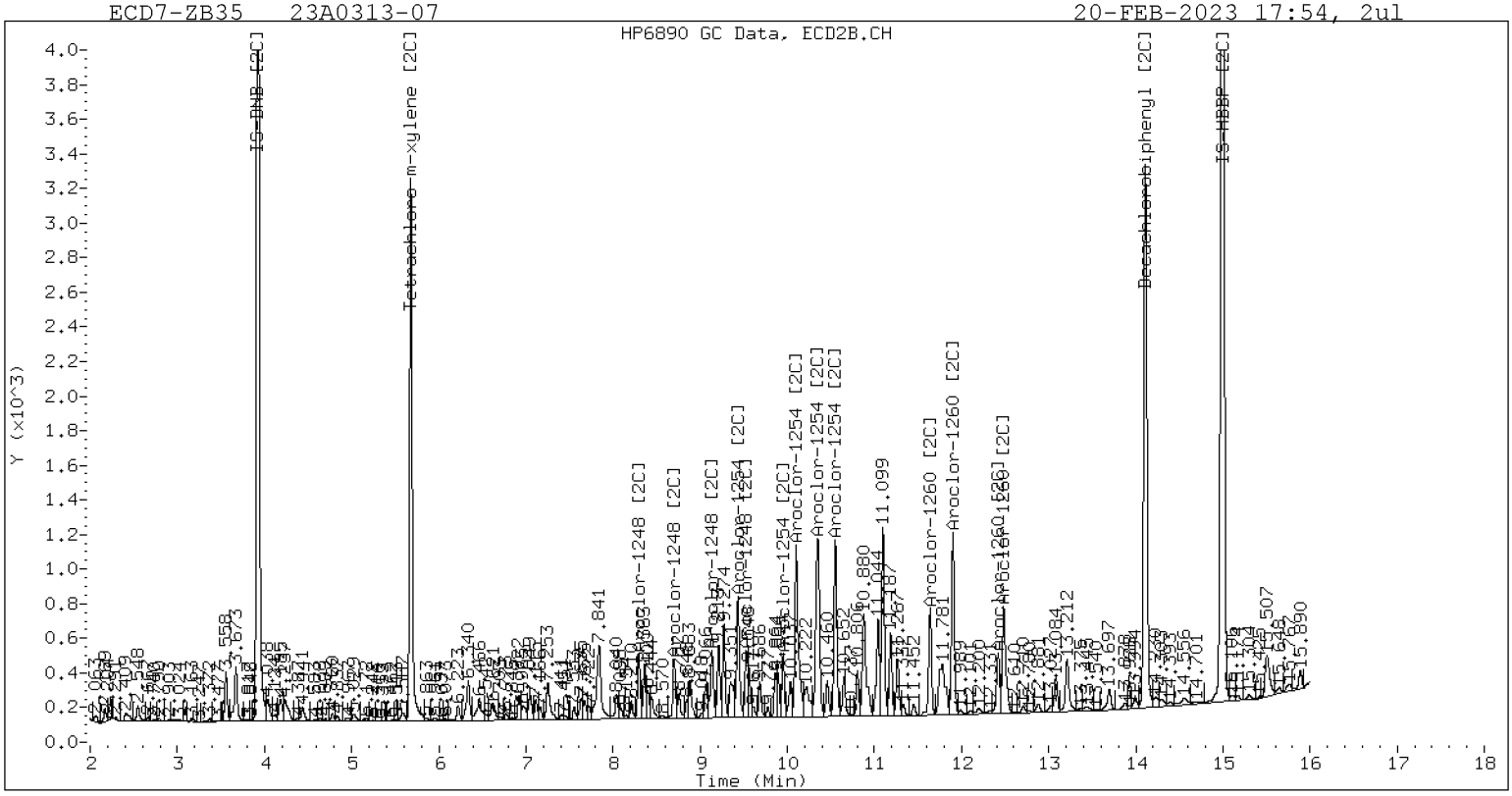
PCB Dual Column Chromatograms

ECD7-ZB5 23A0313-07 20-FEB-2023 17:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0313-07 20-FEB-2023 17:54, 2ul

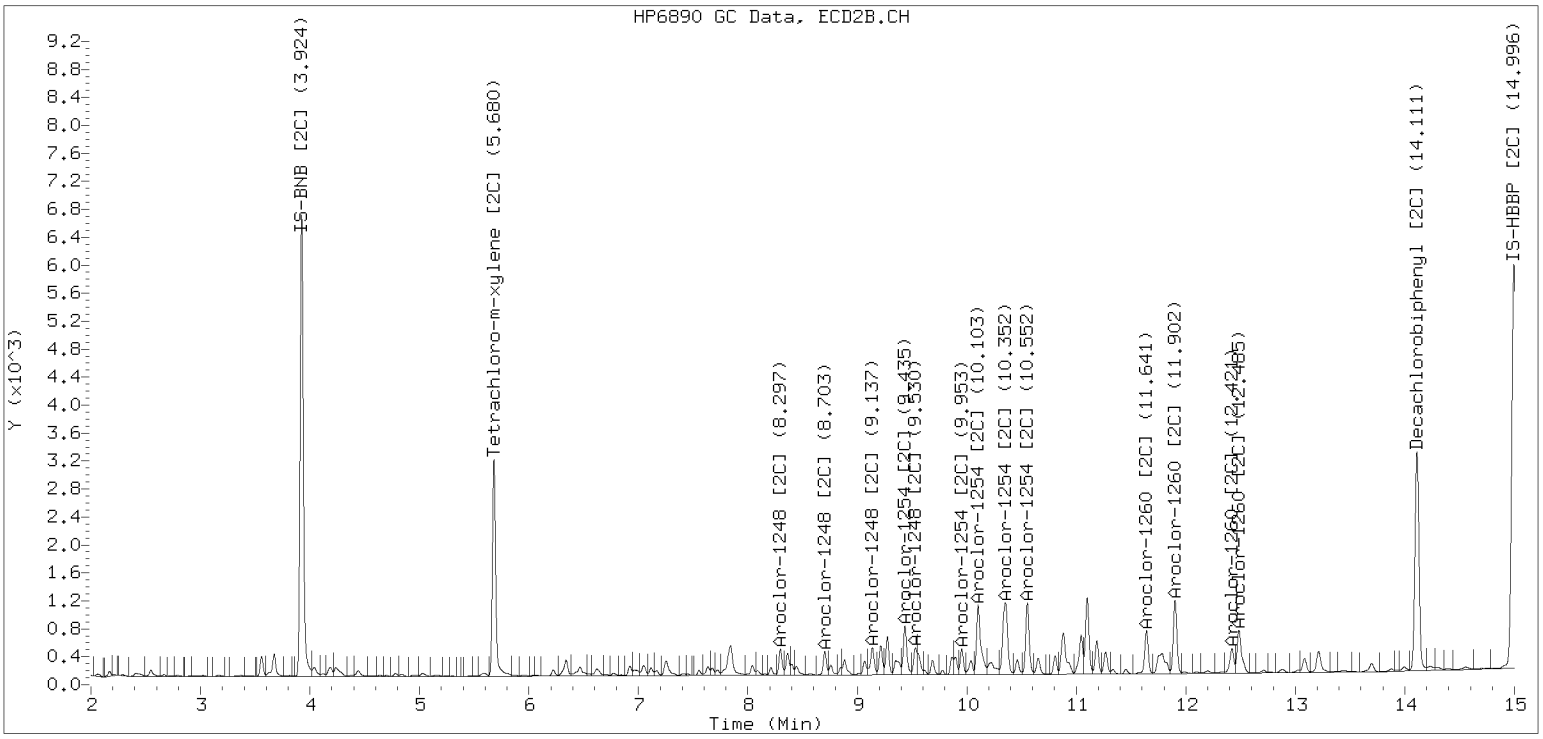


ZB-35 Manual Integration: YES

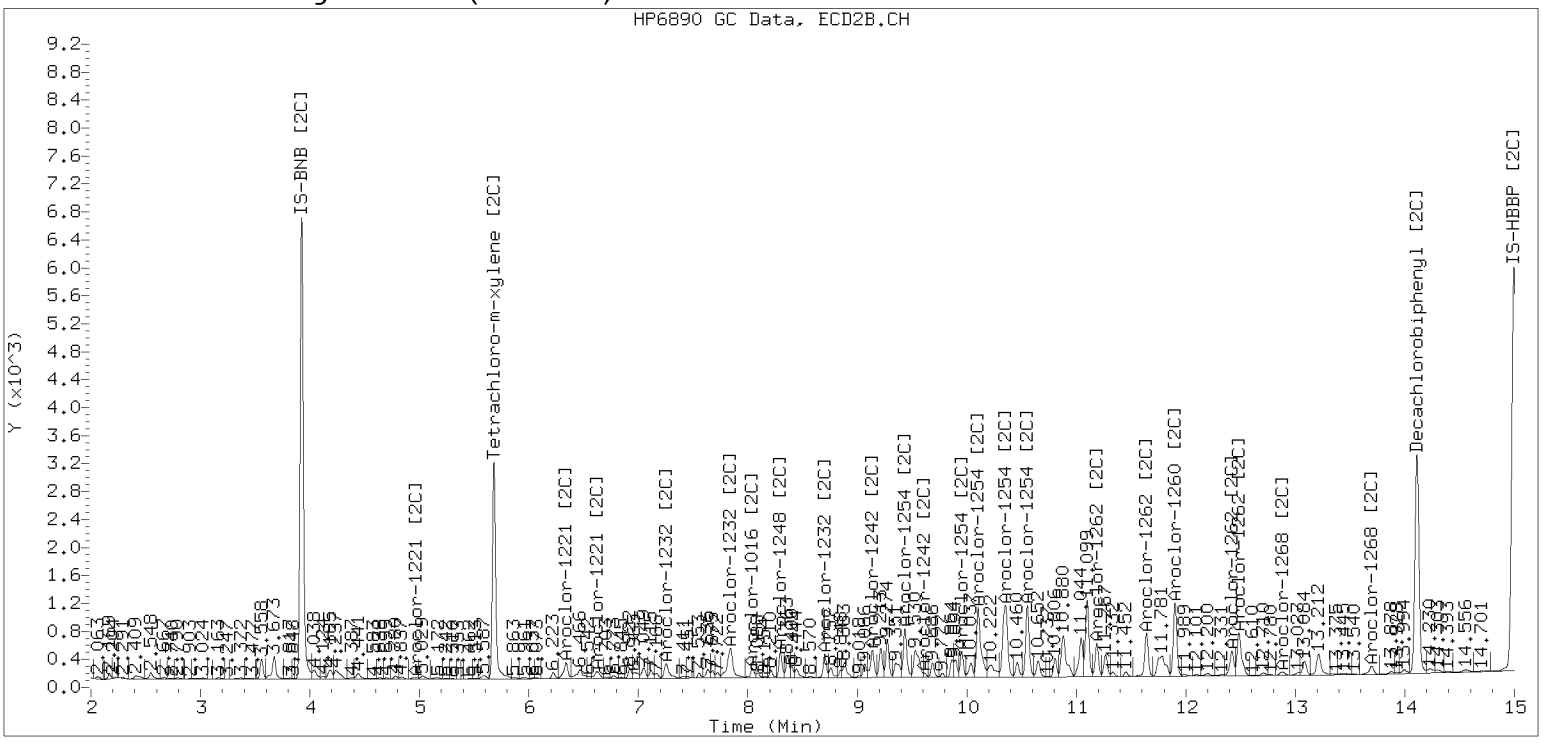
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230220.b/230220.b/02202323ECD7.D Injection Date: 20-FEB-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1016A

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-08 A	File ID:	02202326ECD7.D
Sampled:	01/16/23 11:11	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 18:57
% Solids:	56.05	Preparation:	EPA 3546 (Microwave)	Initial/Final:	22.38 g Wet / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0274	Calibration:	GB00045
Instrument:	ECD7	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	37.4	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	51.1	1.6	4.0	
11096-82-5	Aroclor 1260	1	1	72.9	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*7.9719*	*7.52*	*94.4*	*40 - 126*	
Tetrachlorometaxylene	*1*	*7.9719*	*5.52*	*69.3*	*44 - 120*	
Decachlorobiphenyl	*2*	*7.9719*	*7.22*	*90.6*	*40 - 126*	
Tetrachlorometaxylene	*2*	*7.9719*	*7.02*	*88.1*	*44 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202326ECD7.D
Data file 2: /230220.b/230220.b/02202326ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0313-08
Client ID:
Injection Date: 20-FEB-2023 18:57
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.804	-0.004	248365	5.680	-0.005	121721	27.7	35.2	23.9	Tetrachloro-m-xylene
13.884	-0.007	212436	14.111	-0.006	148469	37.7	36.2	4.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	631643	46.9
Hexabromobiphenyl	975457	639057	-34.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	259158	-29.3
Hexabromobiphenyl	646884	304457	-52.9 <-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1248	1	8.394	-0.009	42358	139.1	1	8.296	-0.008	24721	211.4
Aroclor-1248	2	8.563	-0.015	34990	91.0	2	8.702	-0.008	18504	150.4
Aroclor-1248	3	8.982	-0.014	102650	188.9	3	9.135	-0.022	26068	183.4
Aroclor-1248	4	9.284	-0.007	114048	331.9	4	9.529	-0.050	41493	240.7
		Total Col1Ave (4 peaks):			187.7		Total Col2Ave (4 peaks):			196.5 RPD = 5
		Corrected Ave (3 peaks):			139.7		Corrected Ave (3 peaks):			181.8 RPD = 26
Aroclor-1254	1	9.284	-0.011	114048	186.6	1	9.435	-0.011	48549	265.7
Aroclor-1254	2	9.359	-0.014	49392	205.2	2	9.952	-0.013	22622	153.3
Aroclor-1254	3	9.657	-0.008	85855	220.4	3	10.101	-0.016	84165	261.8
Aroclor-1254	4	9.785	-0.018	161180	207.8	4	10.352	-0.016	109706	345.8
Aroclor-1254	5	10.112	-0.055	219648	464.4	5	10.551	-0.013	87663	547.0
		Total Col1Ave (5 peaks):			256.9		Total Col2Ave (5 peaks):			314.7 RPD = 20
		Corrected Ave (4 peaks):			205.0		Corrected Ave (4 peaks):			256.6 RPD = 22
Aroclor-1260	1	11.031	-0.010	90188	409.4	1	11.640	-0.009	57721	364.8
Aroclor-1260	2	11.346	-0.012	66311	294.2	2	11.902	-0.012	120022	302.4
Aroclor-1260	3	11.717	-0.013	204217	342.1	3	12.421	-0.012	46697	433.2
Aroclor-1260	4	12.117	-0.017	110419	364.4	4	12.485	-0.014	86499	322.8
Aroclor-1260	5	12.234	-0.007	54305	417.8	NS	---			----
		Total Col1Ave (5 peaks):			365.6		Total Col2Ave (4 peaks):			355.8 RPD = 3
		Corrected Ave (4 peaks):			352.5		Corrected Ave (3 peaks):			330.0 RPD = 7
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			

Total PCB Area Col1 (5.908 - 13.791) = 3633768 Col1 Total PCB = 0.5 ppm*

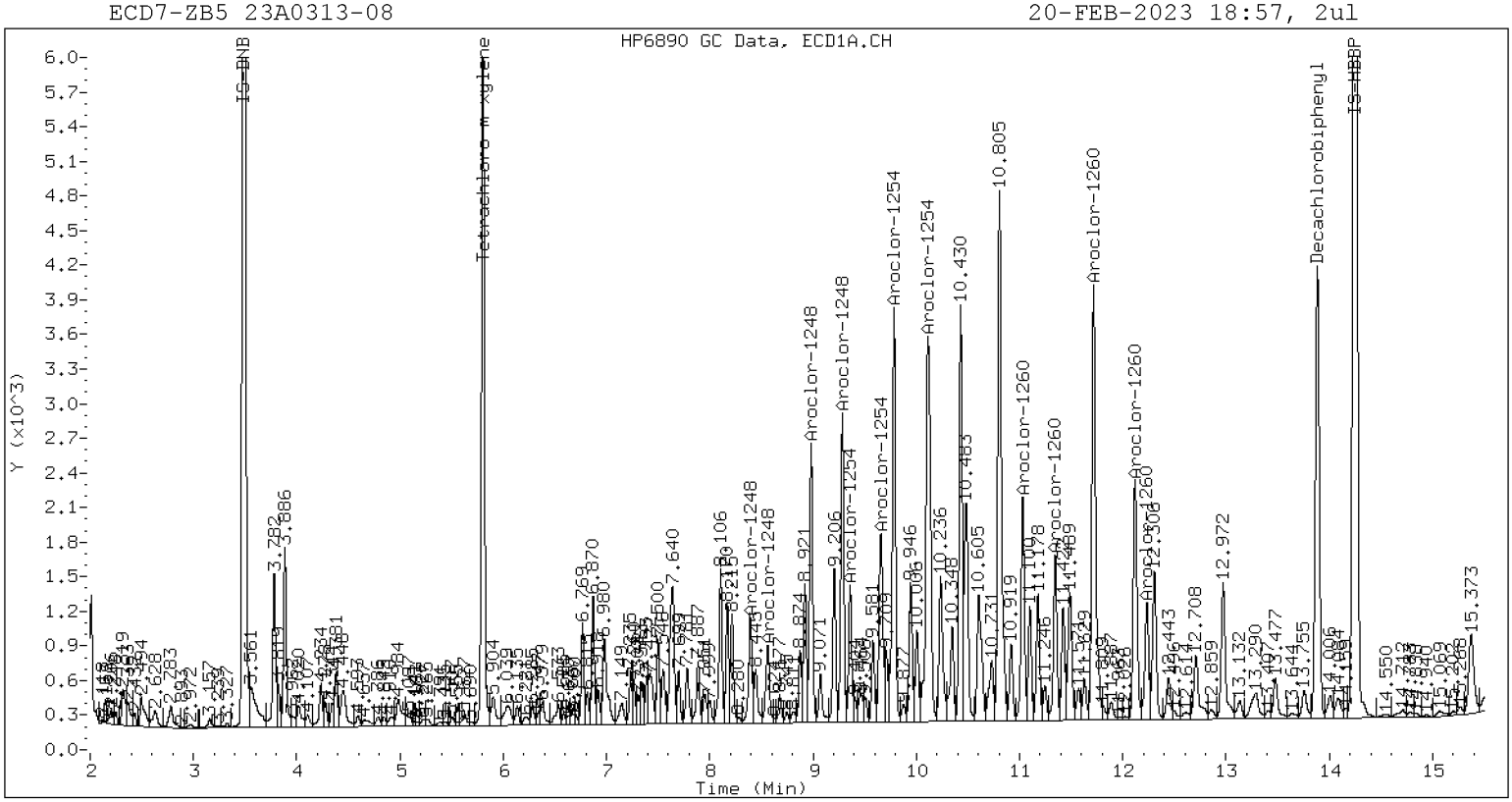
Total PCB Area Col2 (5.785 - 14.017) = 1828054 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

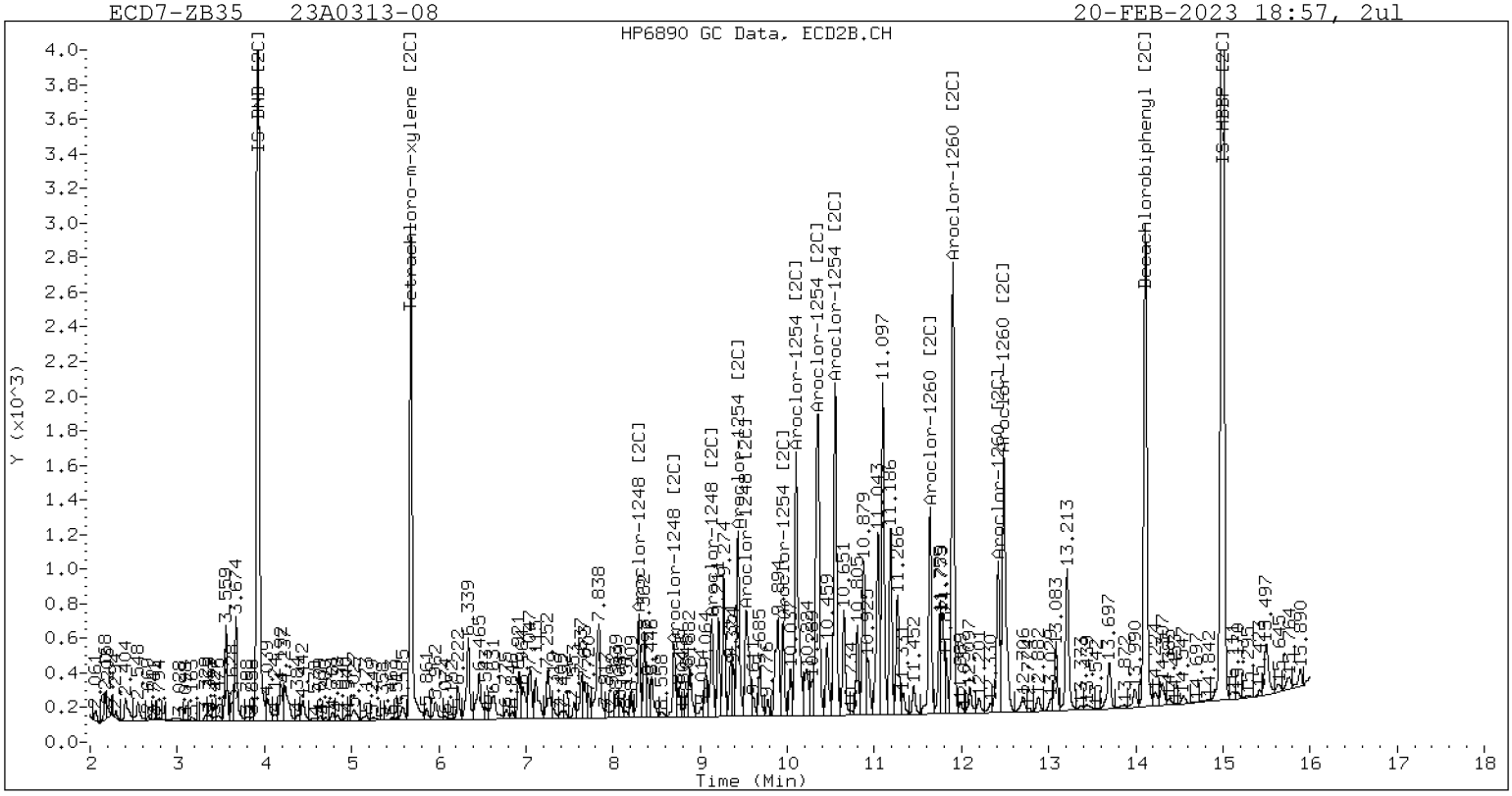
PCB Dual Column Chromatograms

ECD7-ZB5 23A0313-08 20-FEB-2023 18:57, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0313-08 20-FEB-2023 18:57, 2ul

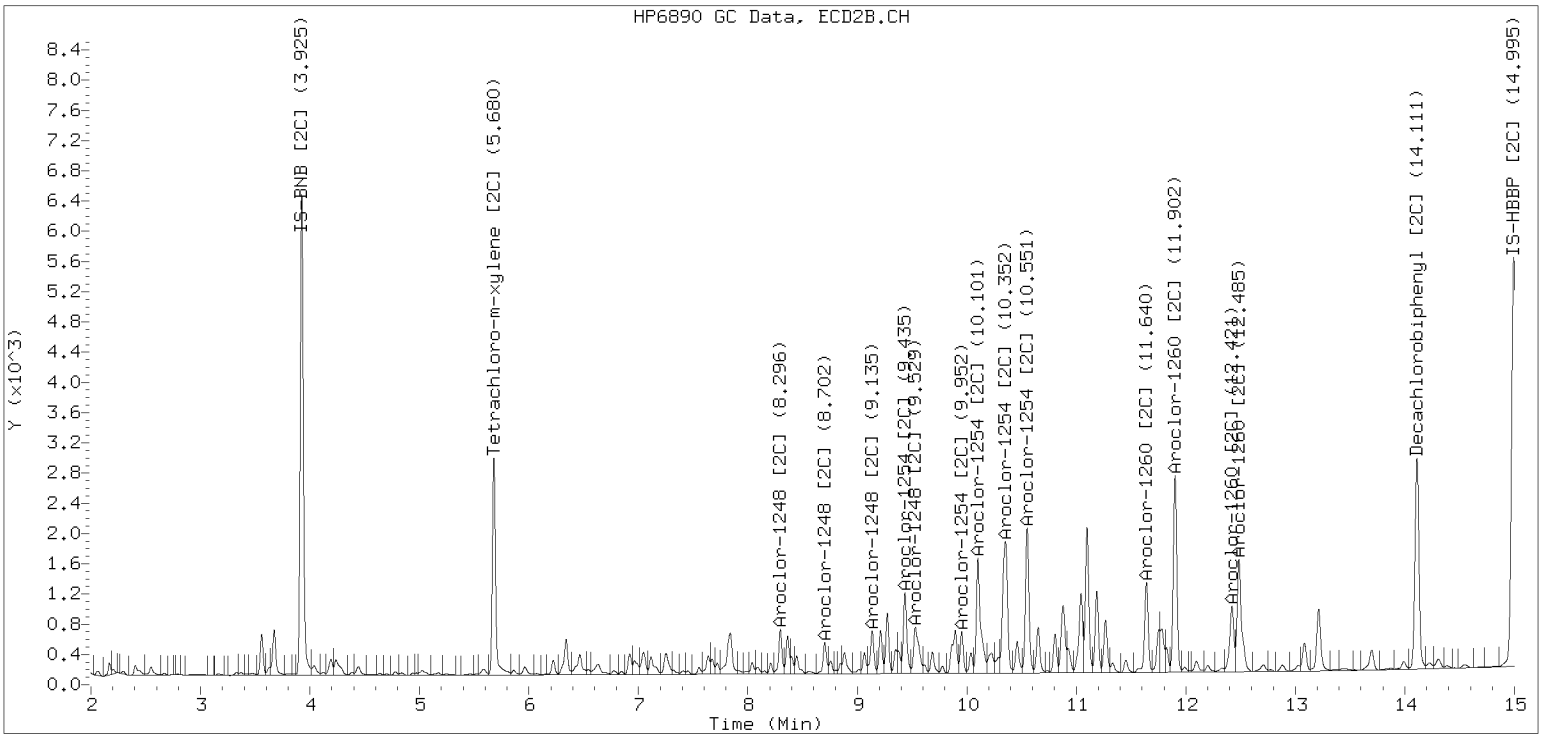


ZB-35 Manual Integration: YES

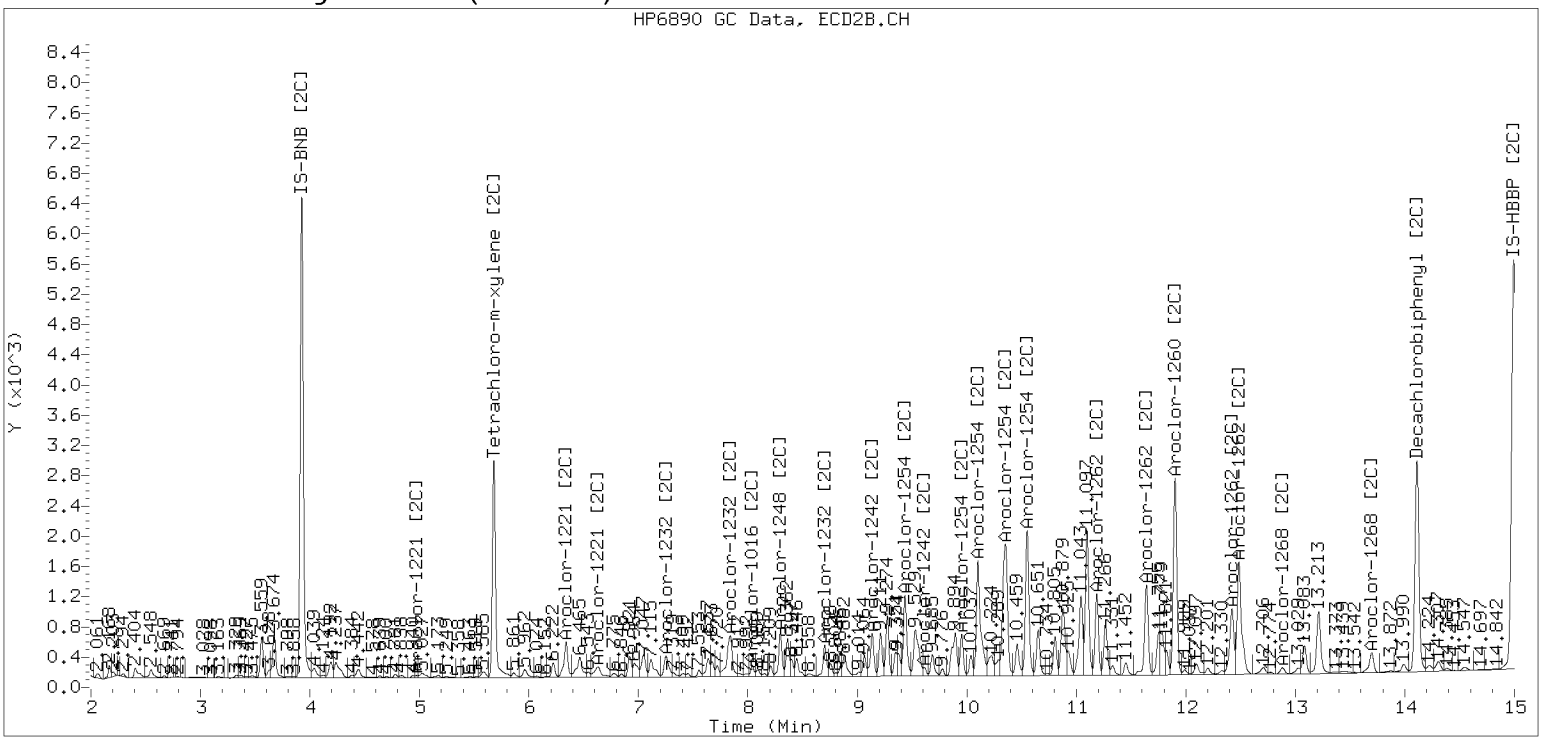
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230220.b/230220.b/02202326ECD7.D Injection Date: 20-FEB-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1011A

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-09 A	File ID:	02202327ECD7.D
Sampled:	01/16/23 11:46	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 19:18
% Solids:	52.32	Preparation:	EPA 3546 (Microwave)	Initial/Final:	23.91 g Wet / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0274	Calibration:	GB00045
Instrument:	ECD7	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	36.2	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	45.2	1.6	4.0	
11096-82-5	Aroclor 1260	1	1	55.0	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*7.9938*	*7.65*	*95.7*	*40 - 126*	
Tetrachlorometaxylene	*1*	*7.9938*	*5.71*	*71.4*	*44 - 120*	
Decachlorobiphenyl	*2*	*7.9938*	*7.39*	*92.4*	*40 - 126*	
Tetrachlorometaxylene	*2*	*7.9938*	*7.14*	*89.3*	*44 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202327ECD7.D
Data file 2: /230220.b/230220.b/02202327ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0313-09
Client ID:
Injection Date: 20-FEB-2023 19:18
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.804	-0.004	250813	5.681	-0.005	123368	28.6	35.7	22.3	Tetrachloro-m-xylene
13.884	-0.007	208346	14.110	-0.006	150019	38.3	37.0	3.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	618750	43.9
Hexabromobiphenyl	975457	618073	-36.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	258939	-29.4
Hexabromobiphenyl	646884	301469	-53.4 <-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1248	1	8.395	-0.008	41105	137.8	1	8.297	-0.007	22743	194.7
Aroclor-1248	2	8.563	-0.014	34509	91.6	2	8.702	-0.008	18213	148.2
Aroclor-1248	3	8.981	-0.015	98003	184.1	3	9.135	-0.022	25454	179.2
Aroclor-1248	4	9.284	-0.008	104785	311.3	4	9.529	-0.050	40811	236.9
		Total Col1Ave (4 peaks):			181.2		Total Col2Ave (4 peaks):			189.8 RPD = 5
		Corrected Ave (3 peaks):			137.8		Corrected Ave (3 peaks):			174.0 RPD = 23
Aroclor-1254	1	9.284	-0.011	104785	175.0	1	9.434	-0.011	45198	247.6
Aroclor-1254	2	9.359	-0.015	45234	191.8	2	9.952	-0.014	21560	146.2
Aroclor-1254	3	9.656	-0.009	84097	220.4	3	10.098	-0.020	66637	207.4
Aroclor-1254	4	9.783	-0.020	150336	197.9	4	10.349	-0.019	96244	303.7
Aroclor-1254	5	10.116	-0.052	187439	404.5	5	10.550	-0.014	70263	438.8
		Total Col1Ave (5 peaks):			237.9		Total Col2Ave (5 peaks):			268.7 RPD = 12
		Corrected Ave (4 peaks):			196.3		Corrected Ave (4 peaks):			226.2 RPD = 14
Aroclor-1260	1	11.031	-0.010	62959	295.5	1	11.639	-0.010	43309	276.4
Aroclor-1260	2	11.345	-0.012	47350	217.2	2	11.901	-0.013	82653	210.3
Aroclor-1260	3	11.717	-0.014	150557	260.8	3	12.420	-0.013	37406	350.4
Aroclor-1260	4	12.117	-0.017	74989	255.8	4	12.484	-0.014	62522	235.6
Aroclor-1260	5	12.232	-0.008	43679	347.5	NS	---			----
		Total Col1Ave (5 peaks):			275.4		Total Col2Ave (4 peaks):			268.2 RPD = 3
		Corrected Ave (4 peaks):			257.3		Corrected Ave (3 peaks):			240.8 RPD = 7
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			

Total PCB Area Col1 (5.908 - 13.791) = 3053792 Col1 Total PCB = 0.4 ppm*

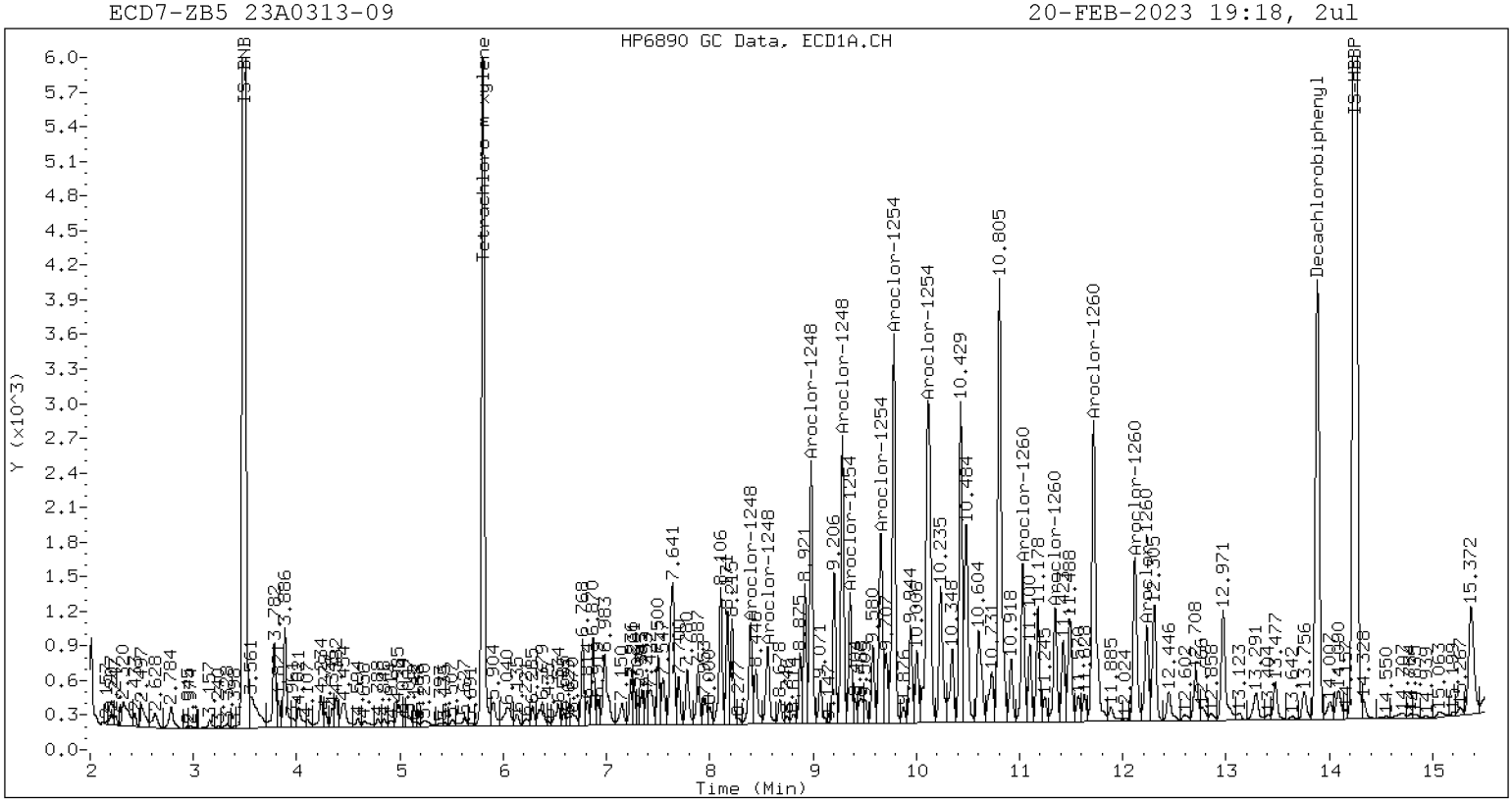
Total PCB Area Col2 (5.785 - 14.017) = 1557566 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

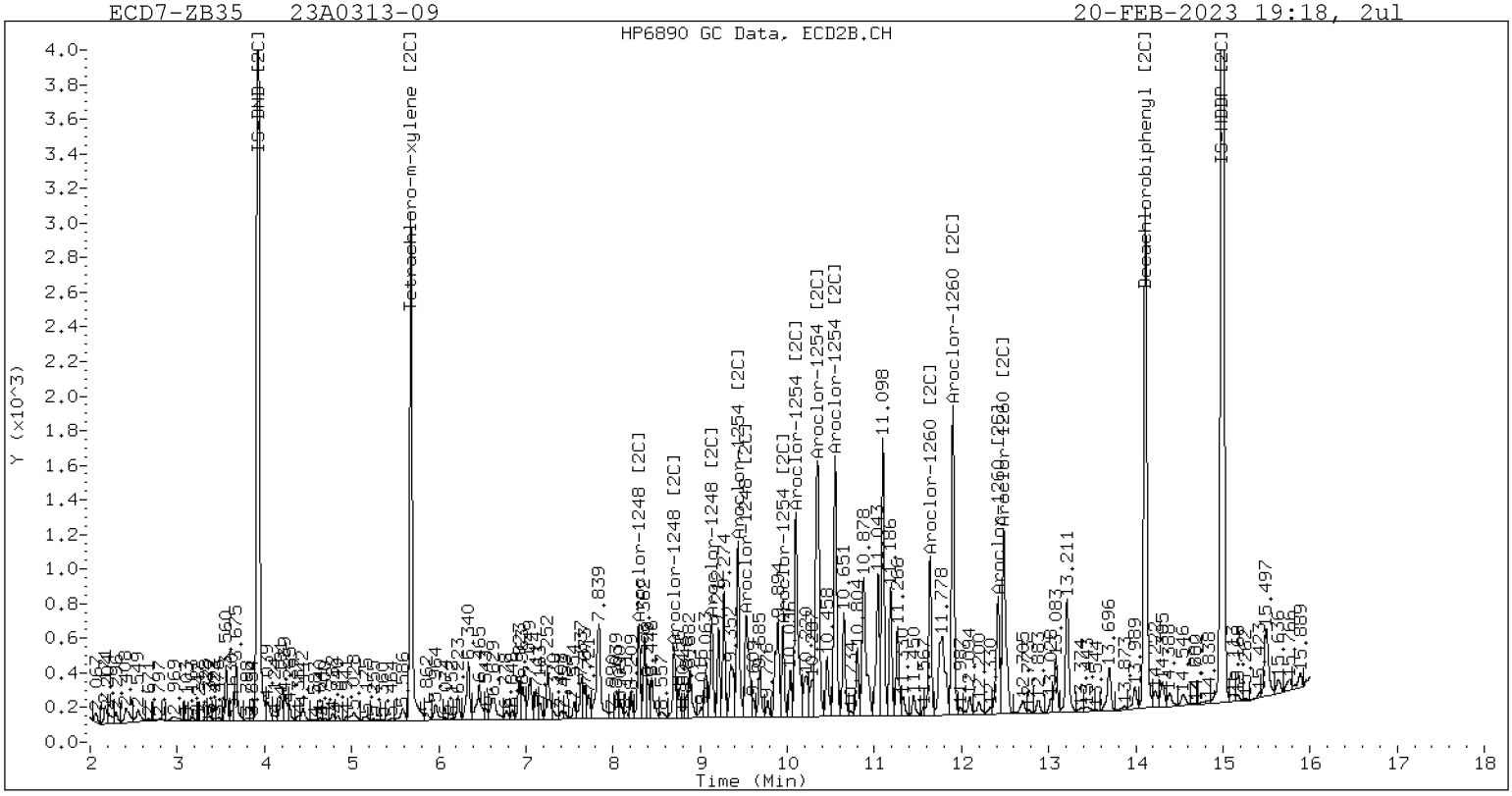
PCB Dual Column Chromatograms

ECD7-ZB5 23A0313-09 20-FEB-2023 19:18, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0313-09 20-FEB-2023 19:18, 2ul

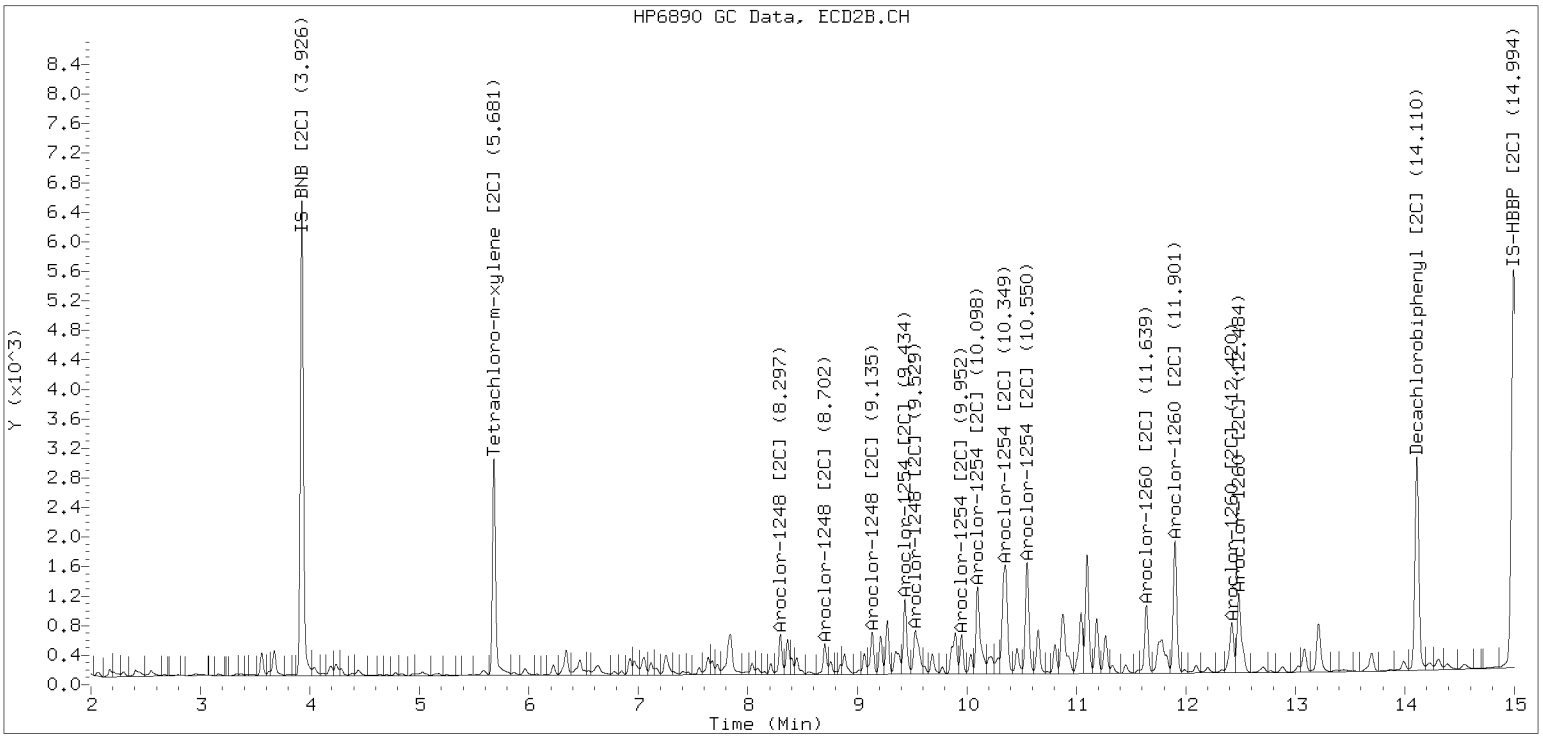


ZB-35 Manual Integration: YES

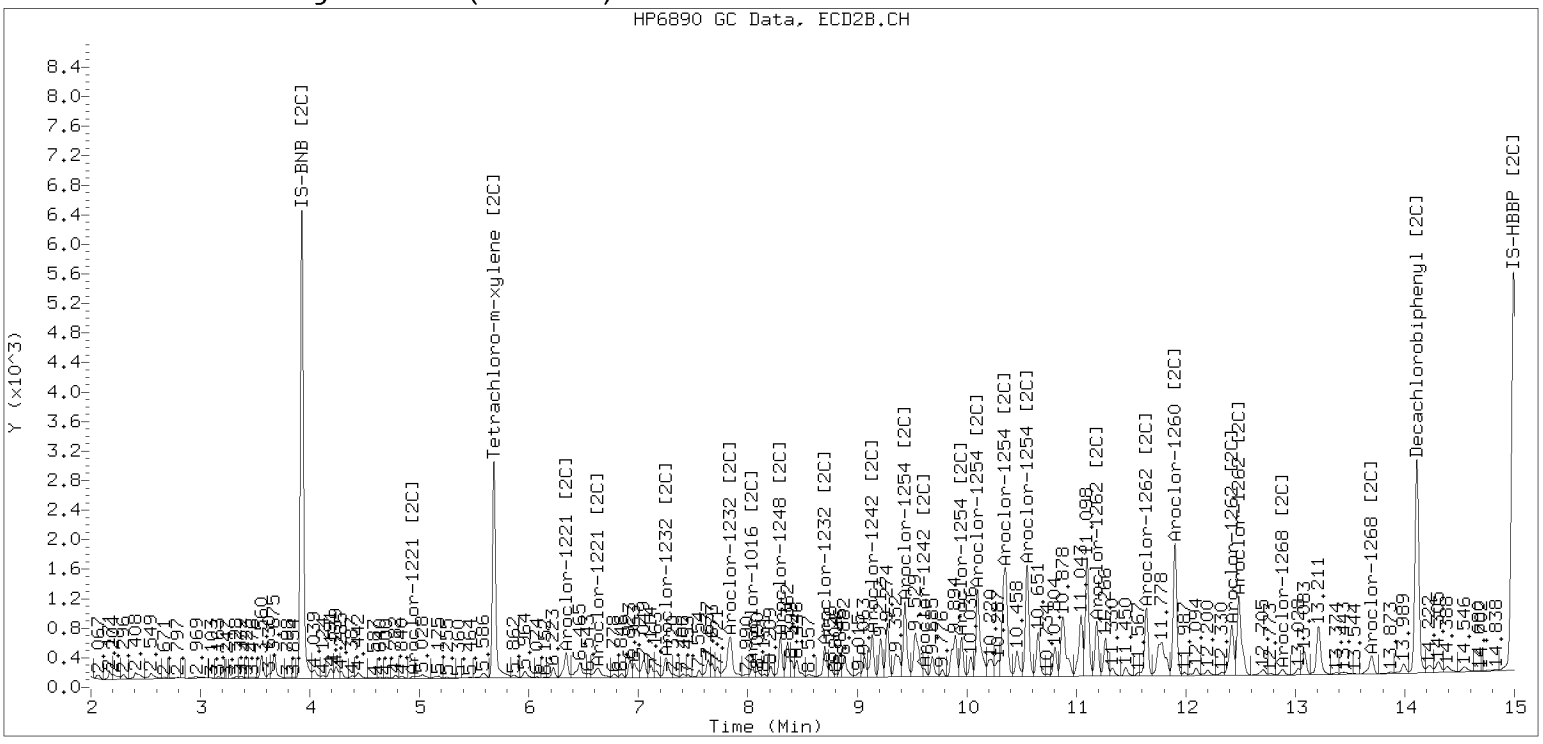
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230220.b/230220.b/02202327ECD7.D Injection Date: 20-FEB-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1006A

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-10 A	File ID:	02202328ECD7.D
Sampled:	01/16/23 12:29	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 19:39
% Solids:	54.11	Preparation:	EPA 3546 (Microwave)	Initial/Final:	23.16 g Wet / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0274	Calibration:	GB00045
Instrument:	ECD7	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	49.8	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	82.6	1.6	4.0	
11096-82-5	Aroclor 1260	1	1	66.2	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*7.9797*	*7.79*	*97.6*	*40 - 126*	
Tetrachlorometaxylene	*1*	*7.9797*	*5.46*	*68.4*	*44 - 120*	
Decachlorobiphenyl	*2*	*7.9797*	*7.50*	*93.9*	*40 - 126*	
Tetrachlorometaxylene	*2*	*7.9797*	*7.17*	*89.8*	*44 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202328ECD7.D
Data file 2: /230220.b/230220.b/02202328ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0313-10
Client ID:
Injection Date: 20-FEB-2023 19:39
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.804	-0.004	256771	5.680	-0.006	128227	27.4	35.9	27.0	Tetrachloro-m-xylene
13.884	-0.007	213369	14.111	-0.005	157367	39.0	37.6	3.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	661146	53.7
Hexabromobiphenyl	975457	620522	-36.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	267656	-27.0
Hexabromobiphenyl	646884	311185	-51.9 <-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	8.395	-0.009	56062	175.8	1	8.296	-0.008	32732	271.1
Aroclor-1248	2	8.564	-0.014	43813	108.9	2	8.703	-0.007	25803	203.1
Aroclor-1248	3	8.982	-0.014	144092	253.4	3	9.136	-0.021	38223	260.4
Aroclor-1248	4	9.285	-0.007	165980	461.4	4	9.529	-0.050	58001	325.8
	Total Col1Ave (4 peaks):				249.9	Total Col2Ave (4 peaks):				265.1 RPD = 6
	Corrected Ave (3 peaks):				179.4	Corrected Ave (3 peaks):				244.9 RPD = 31
Aroclor-1254	1	9.285	-0.010	165980	259.4	1	9.434	-0.011	70090	371.4
Aroclor-1254	2	9.360	-0.013	67925	269.6	2	9.953	-0.013	39054	256.2
Aroclor-1254	3	9.655	-0.010	126608	310.5	3	10.102	-0.016	120596	363.2
Aroclor-1254	4	9.785	-0.018	225485	277.8	4	10.345	-0.022	158594	484.1
Aroclor-1254	5	10.122	-0.045	281193	567.9	5	10.551	-0.013	98758	596.6
	Total Col1Ave (5 peaks):				337.0	Total Col2Ave (5 peaks):				414.3 RPD = 21
	Corrected Ave (4 peaks):				279.3	Corrected Ave (4 peaks):				368.7 RPD = 28
Aroclor-1260	1	11.031	-0.009	77878	364.0	1	11.640	-0.010	58823	363.7
Aroclor-1260	2	11.346	-0.012	72596	331.7	2	11.901	-0.012	105041	258.9
Aroclor-1260	3	11.717	-0.013	176615	304.7	3	12.421	-0.012	42036	381.5
Aroclor-1260	4	12.118	-0.017	96271	327.2	4	12.485	-0.013	83730	305.7
Aroclor-1260	5	12.249	0.008	108802	862.2	NS	---			----
	Total Col1Ave (5 peaks):				438.0	Total Col2Ave (4 peaks):				327.5 RPD = 29
	Corrected Ave (4 peaks):				331.9	Corrected Ave (3 peaks):				309.4 RPD = 7
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (5.908 - 13.791) = 4206686 Col1 Total PCB = 0.6 ppm*

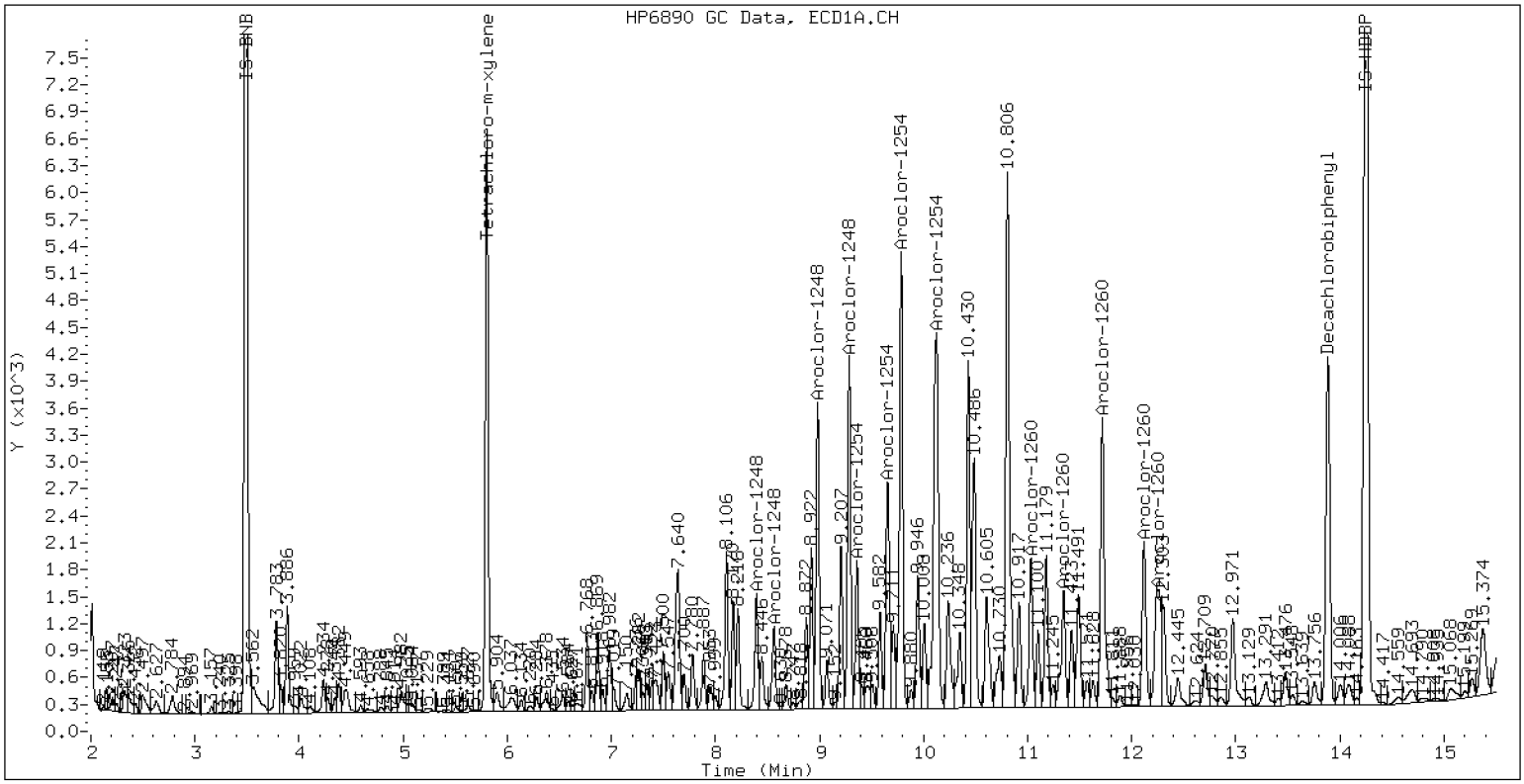
Total PCB Area Col2 (5.785 - 14.017) = 2169271 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

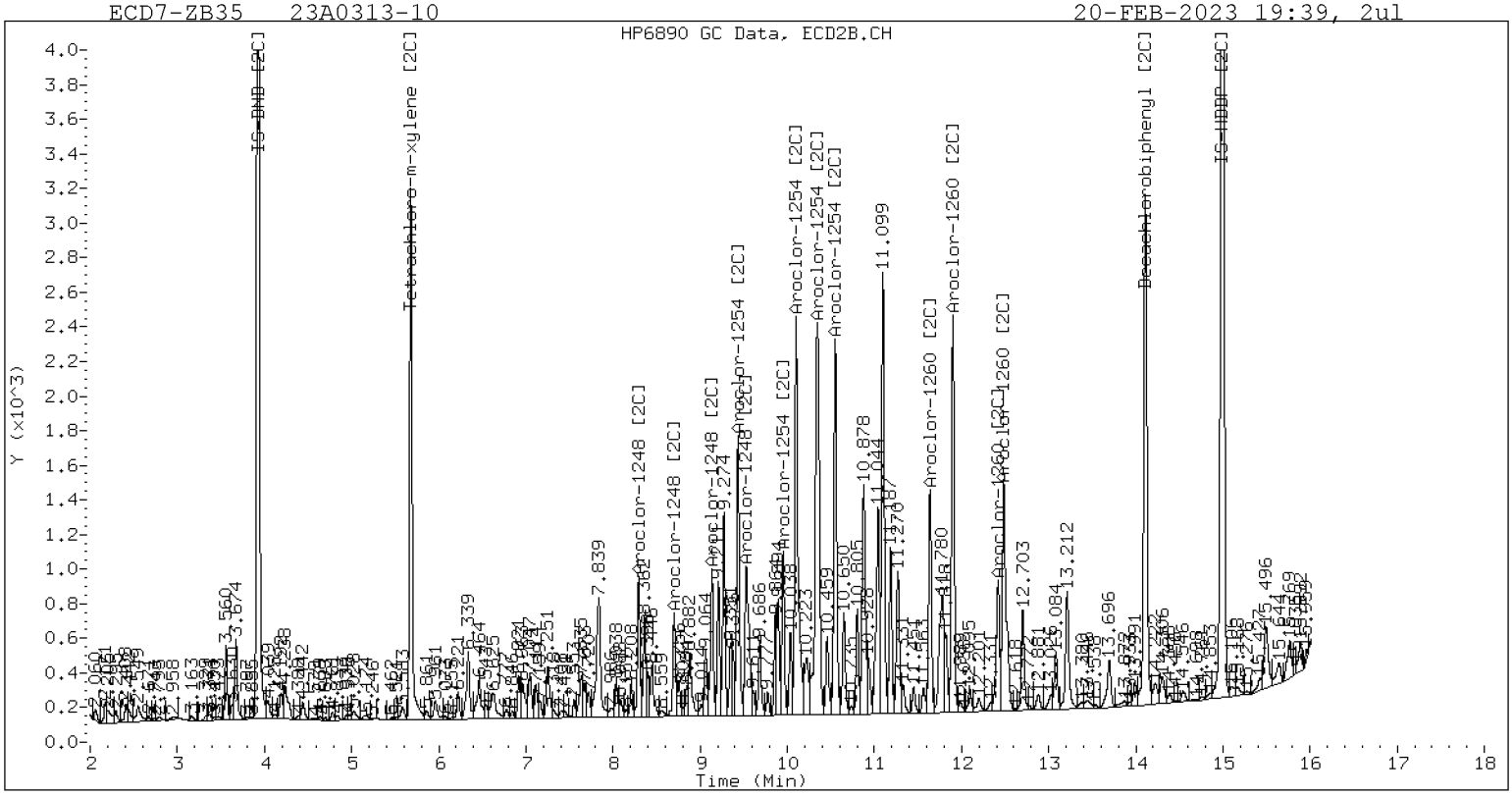
PCB Dual Column Chromatograms

ECD7-ZB5 23A0313-10 20-FEB-2023 19:39, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0313-10 20-FEB-2023 19:39, 2ul

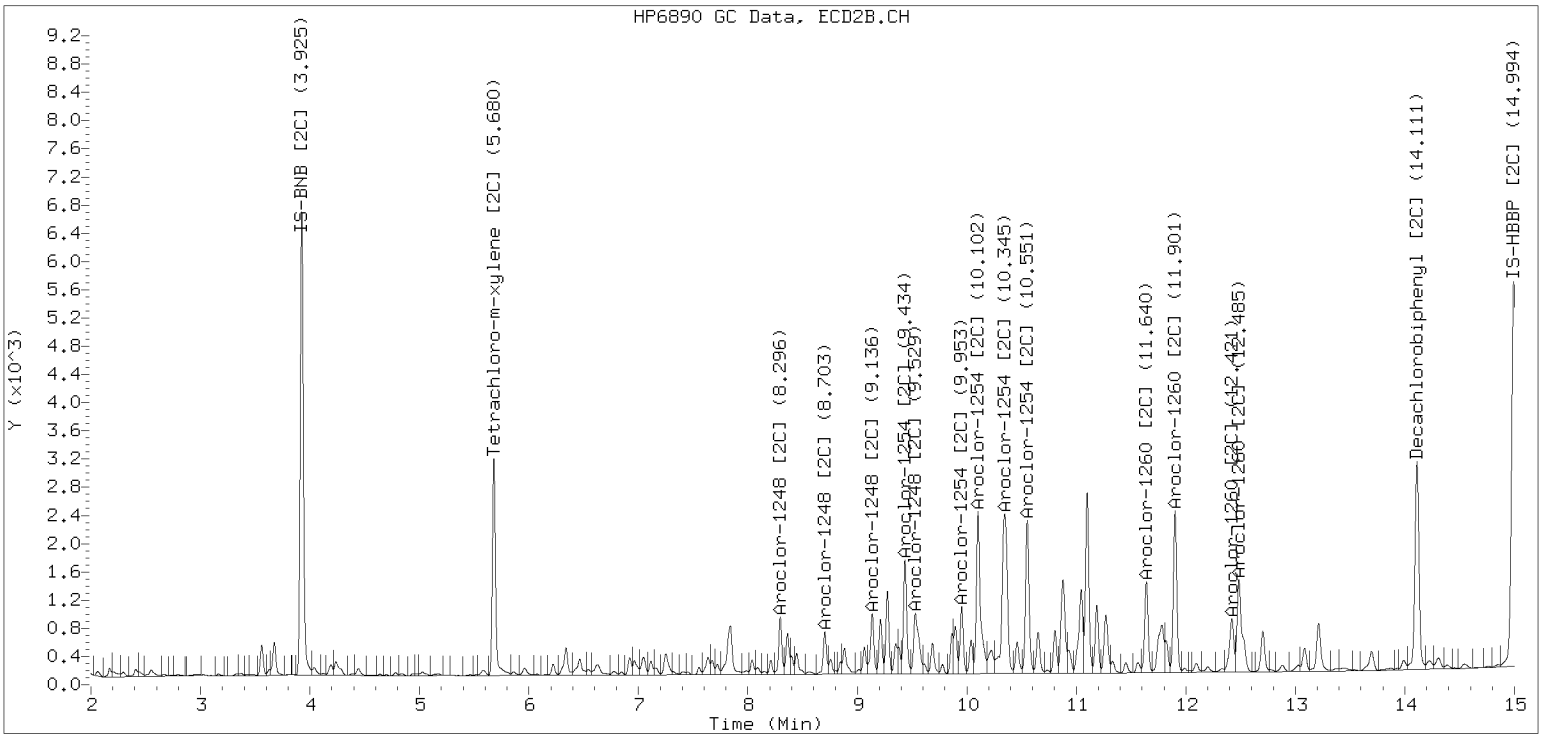


ZB-35 Manual Integration: YES

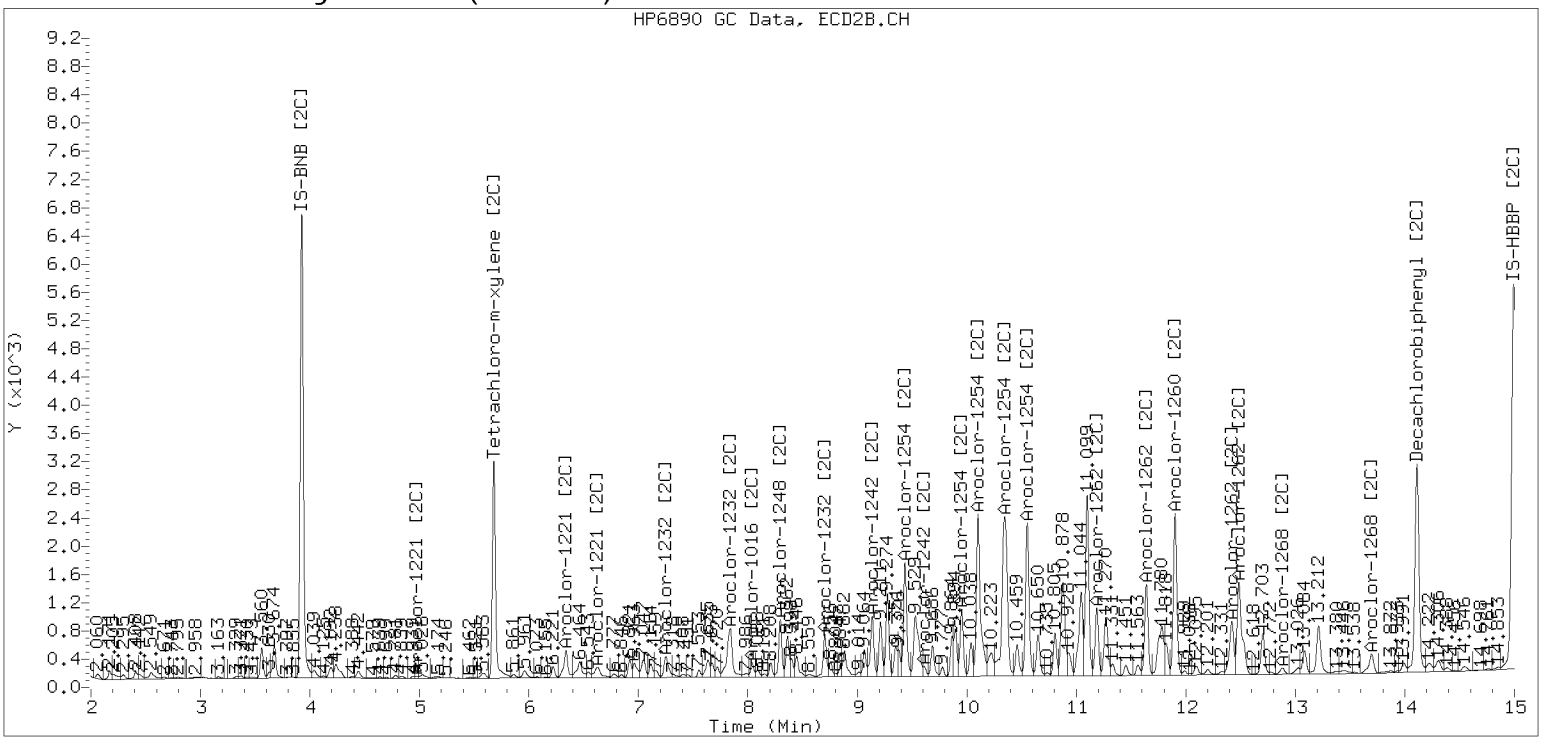
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230220.b/230220.b/02202328ECD7.D Injection Date: 20-FEB-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1012B

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-11 A	File ID:	02132344ECD7.D
Sampled:	01/16/23 13:13	Prepared:	02/01/23 15:58	Analyzed:	02/14/23 00:58
% Solids:	58.66	Preparation:	EPA 3546 (Microwave)	Initial/Final:	21.39 g Wet / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0168	Calibration:	GA00061
Instrument:	ECD7	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	2	1	38.2	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	63.9	1.6	4.0	
11096-82-5	Aroclor 1260	2	1	48.6	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*7.9698*	*6.46*	*81.1*	*40 - 126*	
Tetrachlorometaxylene	*1*	*7.9698*	*5.19*	*65.1*	*44 - 120*	
Decachlorobiphenyl	*2*	*7.9698*	*6.27*	*78.6*	*40 - 126*	
Tetrachlorometaxylene	*2*	*7.9698*	*6.26*	*78.5*	*44 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230213.b/02132344ECD7.D
Data file 2: /230213.b/230213.b/02132344ECD7.D
Method: \\target\share\chem4\ecd7.i\230213.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0313-11
Client ID:
Injection Date: 14-FEB-2023 00:58
Report Date: 02/14/2023 10:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.802	-0.006	154672	5.679	-0.005	136355	26.0	31.4	18.7	Tetrachloro-m-xylene
13.885	-0.004	123007	14.112	-0.005	157881	32.4	31.4	3.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	420488	-16.5
Hexabromobiphenyl	647433	354663	-45.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	321246	-4.6
Hexabromobiphenyl	382032	316327	-17.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	8.392	-0.013	35040	166.6	1	8.296	-0.007	30516	210.1
Aroclor-1248	2	8.562	-0.018	29027	108.2	2	8.702	-0.007	29284	187.4
Aroclor-1248	3	8.980	-0.019	86142	167.8	3	9.135	-0.018	41117	215.3
Aroclor-1248	4	9.283	-0.010	87651	345.0	4	9.529	-0.049	36270	153.6
	Total Col1Ave (4 peaks):				196.9	Total Col2Ave (4 peaks):				191.6 RPD = 3
	Corrected Ave (3 peaks):				147.5	Corrected Ave (3 peaks):				183.7 RPD = 22
Aroclor-1254	1	9.283	-0.009	87651	204.5	1	9.434	-0.010	69177	296.8
Aroclor-1254	2	9.359	-0.012	36000	196.7	2	9.953	-0.011	35384	187.8
Aroclor-1254	3	9.654	-0.007	64713	235.7	3	10.101	-0.014	122589	298.3
Aroclor-1254	4	9.783	-0.016	122697	228.0	4	10.350	-0.015	146327	356.1
Aroclor-1254	5	10.116	-0.048	80805	231.0	5	10.551	-0.012	106239	464.2
	Total Col1Ave (5 peaks):				219.2	Total Col2Ave (5 peaks):				320.7 RPD = 38
	Corrected Ave (4 peaks):				215.1	Corrected Ave (4 peaks):				284.8 RPD = 28
Aroclor-1260	1	11.031	-0.009	48001	241.2	1	11.640	-0.008	59216	259.5
Aroclor-1260	2	11.347	-0.009	42760	209.0	2	11.902	-0.011	118627	205.5
Aroclor-1260	3	11.716	-0.012	112144	208.3	3	12.421	-0.010	40882	284.1
Aroclor-1260	4	12.117	-0.016	64608	232.2	4	12.485	-0.011	85052	227.6
Aroclor-1260	5	12.234	-0.007	28143	232.0	NS	---			----
	Total Col1Ave (5 peaks):				224.6	Total Col2Ave (4 peaks):				244.2 RPD = 8
	Corrected Ave (4 peaks):				220.4	Corrected Ave (3 peaks):				230.9 RPD = 5
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (5.908 - 13.788) = 2433979 Col1 Total PCB = 0.5 ppm*

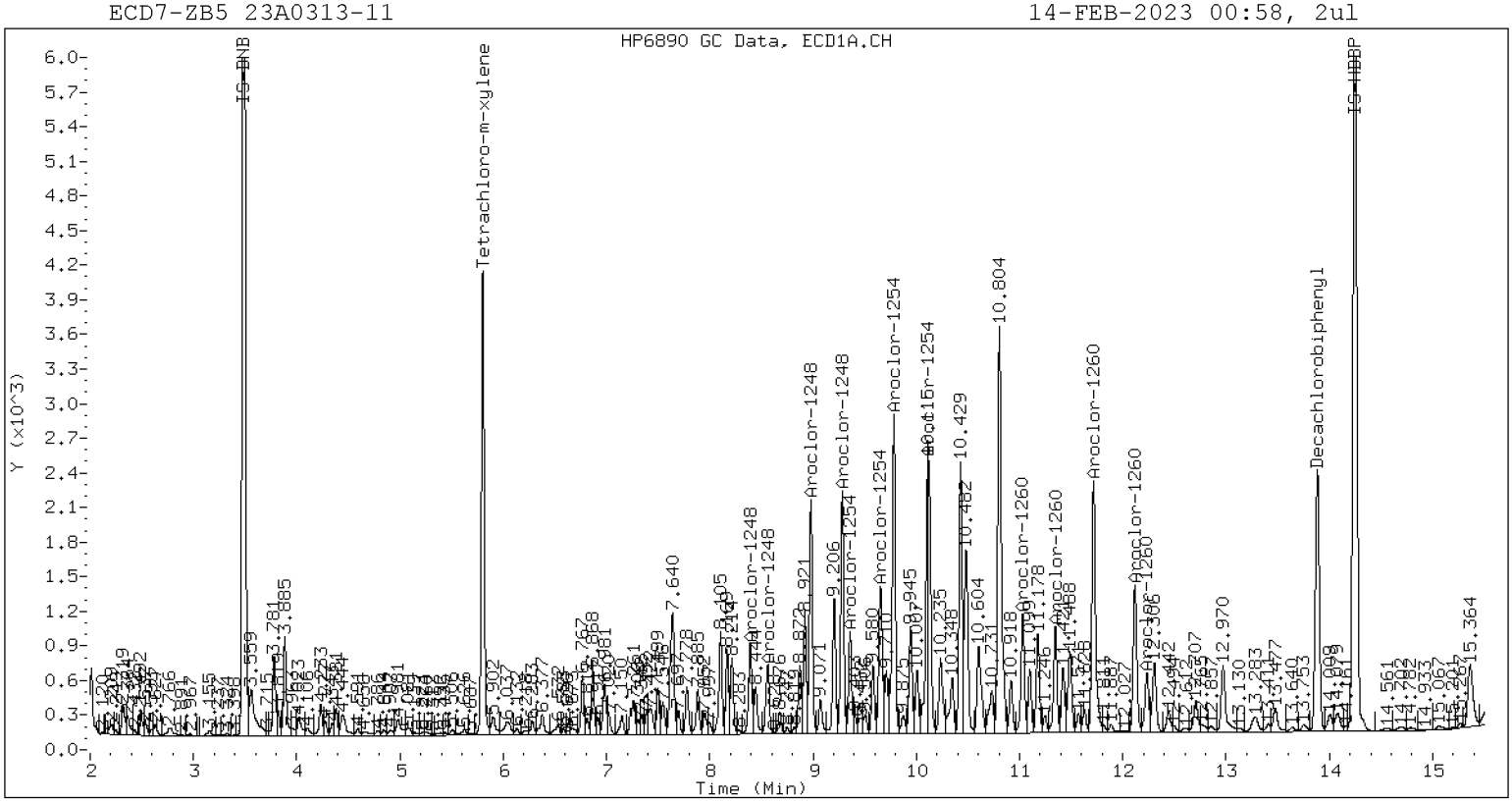
Total PCB Area Col2 (5.784 - 14.017) = 2215888 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

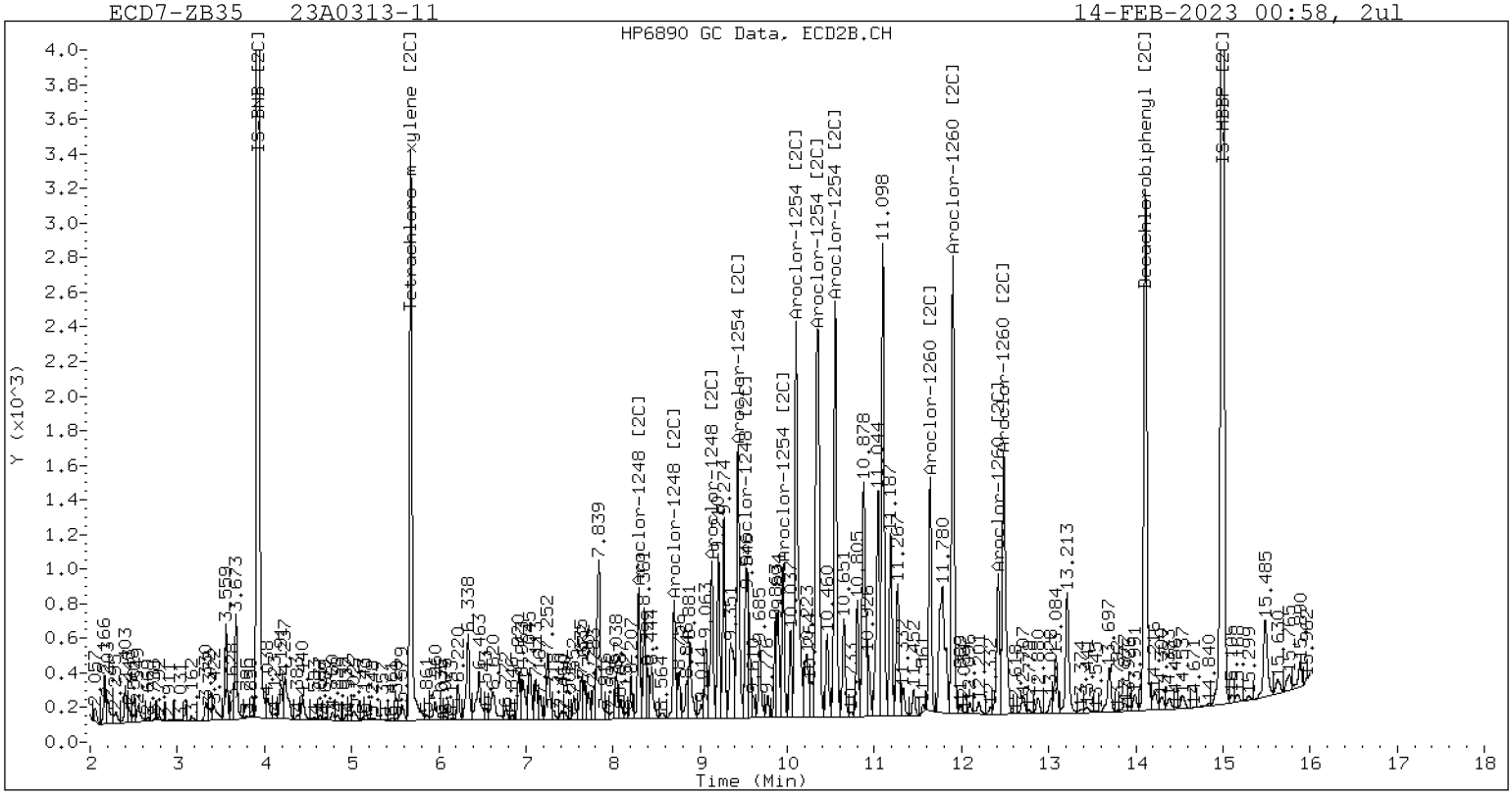
PCB Dual Column Chromatograms

ECD7-ZB5 23A0313-11 14-FEB-2023 00:58, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 23A0313-11 14-FEB-2023 00:58, 2ul

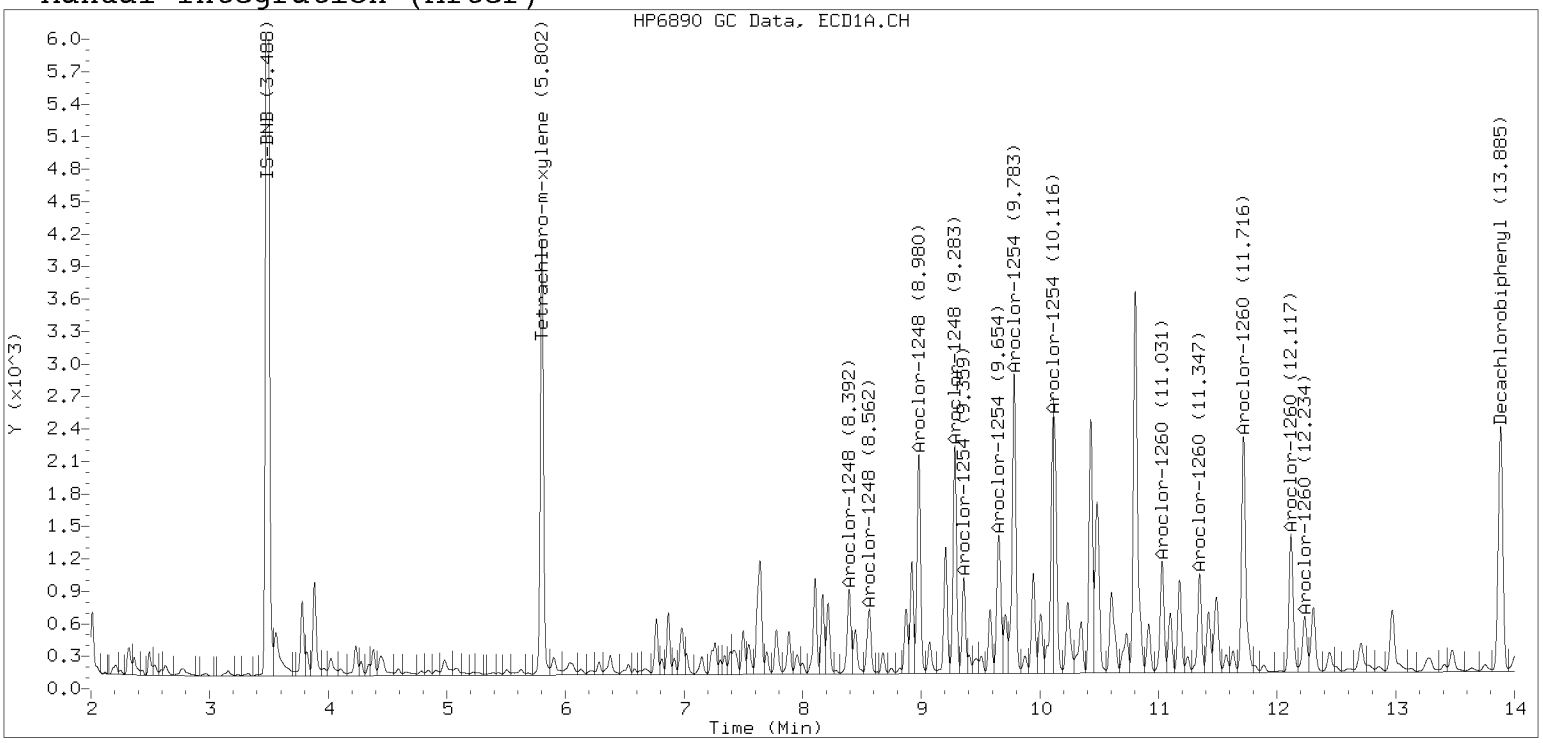


ZB-35 Manual Integration: YES

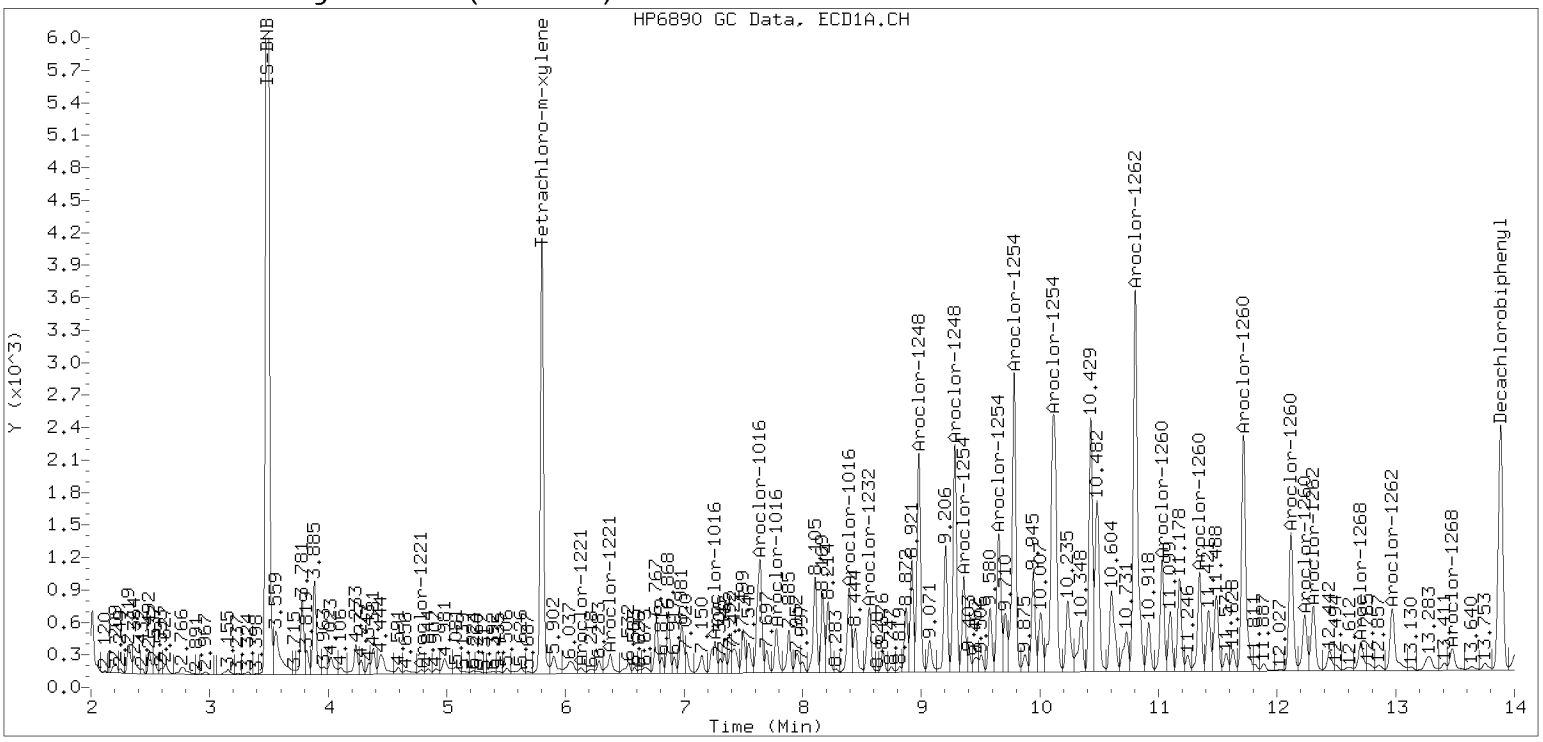
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/230213.b/02132344ECD7.D Injection Date: 14-FEB-2023 00:58

Manual Integration (After)



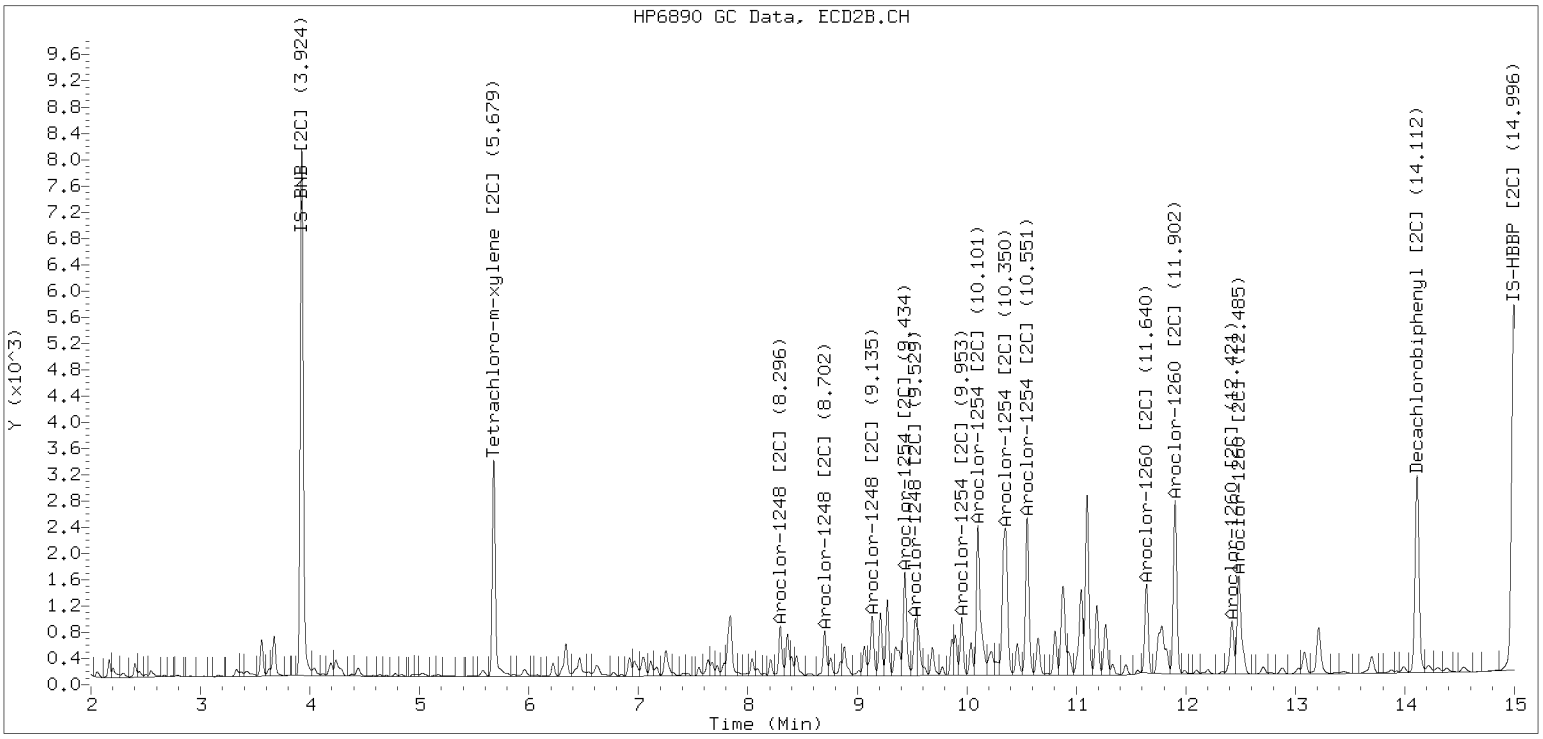
Processed Integration (Before)



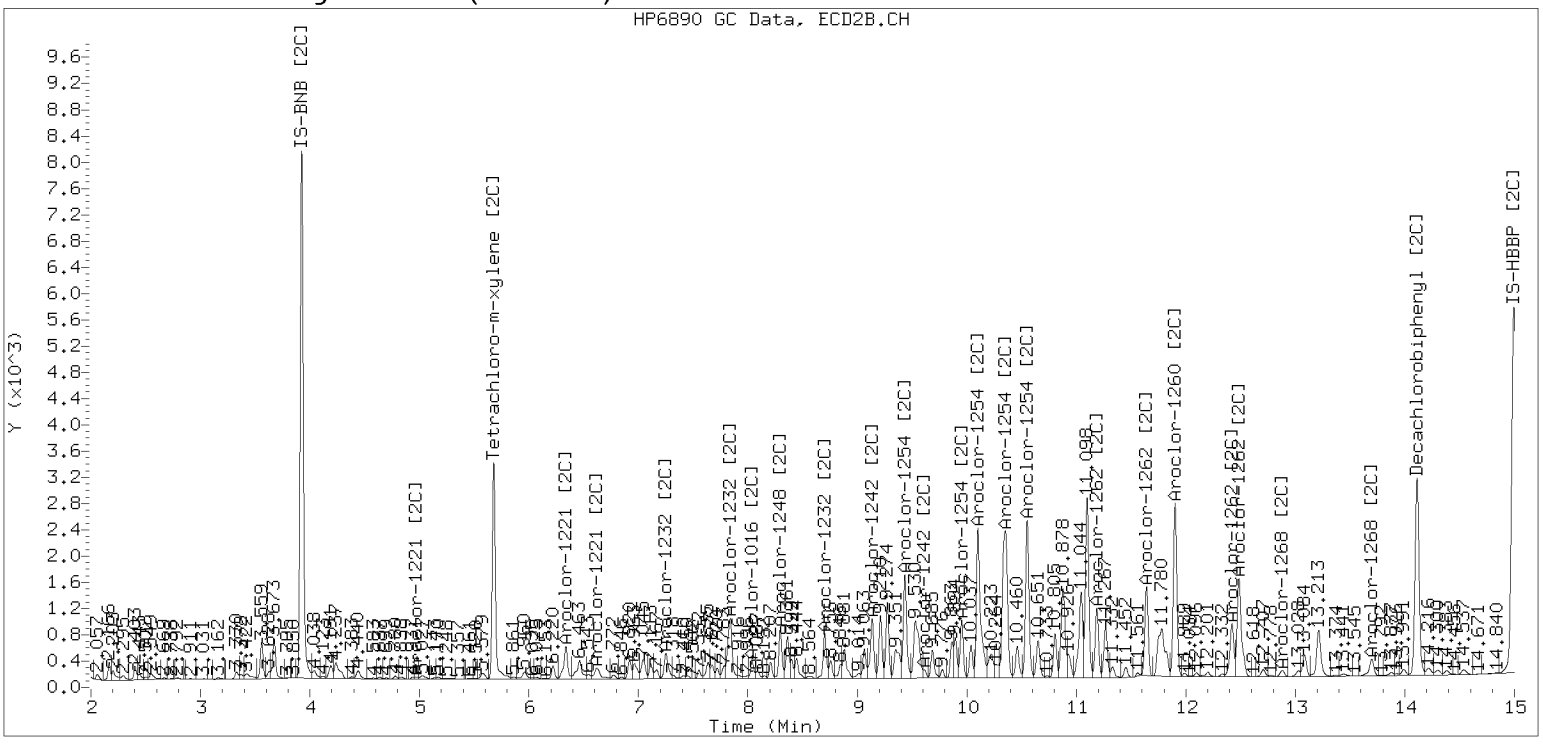
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230213.b/230213.b/02132344ECD7.D Injection Date: 14-FEB-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-IT1148

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-12 A	File ID:	02132345ECD7.D
Sampled:	01/16/23 14:44	Prepared:	02/01/23 15:58	Analyzed:	02/14/23 01:20
% Solids:	50.04	Preparation:	EPA 3546 (Microwave)	Initial/Final:	24.98 g Wet / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0168	Calibration:	GA00061
Instrument:	ECD7	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	2	1	6.3	1.6	4.0	P1
11097-69-1	Aroclor 1254	2	1	15.5	1.6	4.0	P1
11096-82-5	Aroclor 1260	2	1	10.6	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*8.0000*	*6.68*	*83.6*	*40 - 126*	
Tetrachlorometaxylene	*1*	*8.0000*	*6.76*	*84.5*	*44 - 120*	
Decachlorobiphenyl	*2*	*8.0000*	*6.44*	*80.5*	*40 - 126*	
Tetrachlorometaxylene	*2*	*8.0000*	*6.98*	*87.2*	*44 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230213.b/02132345ECD7.D
Data file 2: /230213.b/230213.b/02132345ECD7.D
Method: \\target\share\chem4\ecd7.i\230213.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0313-12
Client ID:
Injection Date: 14-FEB-2023 01:20
Report Date: 02/14/2023 10:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.804	-0.004	202462	5.681	-0.004	168003	33.8	34.9	3.1	Tetrachloro-m-xylene
13.885	-0.004	150477	14.112	-0.005	179237	33.4	32.2	3.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	423714	-15.8
Hexabromobiphenyl	647433	420957	-35.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	356274	5.7
Hexabromobiphenyl	382032	350816	-8.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1248	1	8.395	-0.010	6575	31.0	1	8.298	-0.004	5889	36.6
Aroclor-1248	2	8.565	-0.015	4698	17.4	2	8.707	-0.003	6074	35.0
Aroclor-1248	3	8.986	-0.013	15510	30.0	3	9.140	-0.013	6898	32.6
Aroclor-1248	4	9.286	-0.008	24241	94.7	4	9.533	-0.045	5773	22.0
		Total Col1Ave (4 peaks):			43.3		Total Col2Ave (4 peaks):			31.6 RPD = 31
		Corrected Ave (3 peaks):			26.1		Corrected Ave (3 peaks):			29.9 RPD = 13
Aroclor-1254	1	9.286	-0.007	24241	56.1	1	9.442	-0.002	25281	97.8
Aroclor-1254	2	9.364	-0.007	6892	37.4	2	9.956	-0.008	8875	42.5
Aroclor-1254	3	9.657	-0.004	16451	59.5	3	10.106	-0.009	29223	64.1
Aroclor-1254	4	9.788	-0.011	29204	53.9	4	10.356	-0.010	35330	77.5
Aroclor-1254	5	10.120	-0.044	19091	54.1	5	10.556	-0.007	26744	105.4
		Total Col1Ave (5 peaks):			52.2		Total Col2Ave (5 peaks):			77.5 RPD = 39
		Corrected Ave (4 peaks):			50.4		Corrected Ave (4 peaks):			70.5 RPD = 33
Aroclor-1260	1	11.033	-0.006	11111	47.0	1	11.644	-0.005	14296	56.5
Aroclor-1260	2	11.350	-0.006	9857	40.6	2	11.904	-0.008	24904	38.9
Aroclor-1260	3	11.719	-0.009	29266	45.8	3	12.421	-0.010	11755	73.7
Aroclor-1260	4	12.121	-0.011	16795	50.9	4	12.488	-0.008	17618	42.5
Aroclor-1260	5	12.235	-0.006	6649	46.2	NS	---			----
		Total Col1Ave (5 peaks):			46.1		Total Col2Ave (4 peaks):			52.9 RPD = 14
		Corrected Ave (4 peaks):			44.9		Corrected Ave (3 peaks):			46.0 RPD = 2
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			

Total PCB Area Col1 (5.908 - 13.788) = 636395 Col1 Total PCB = 0.1 ppm*

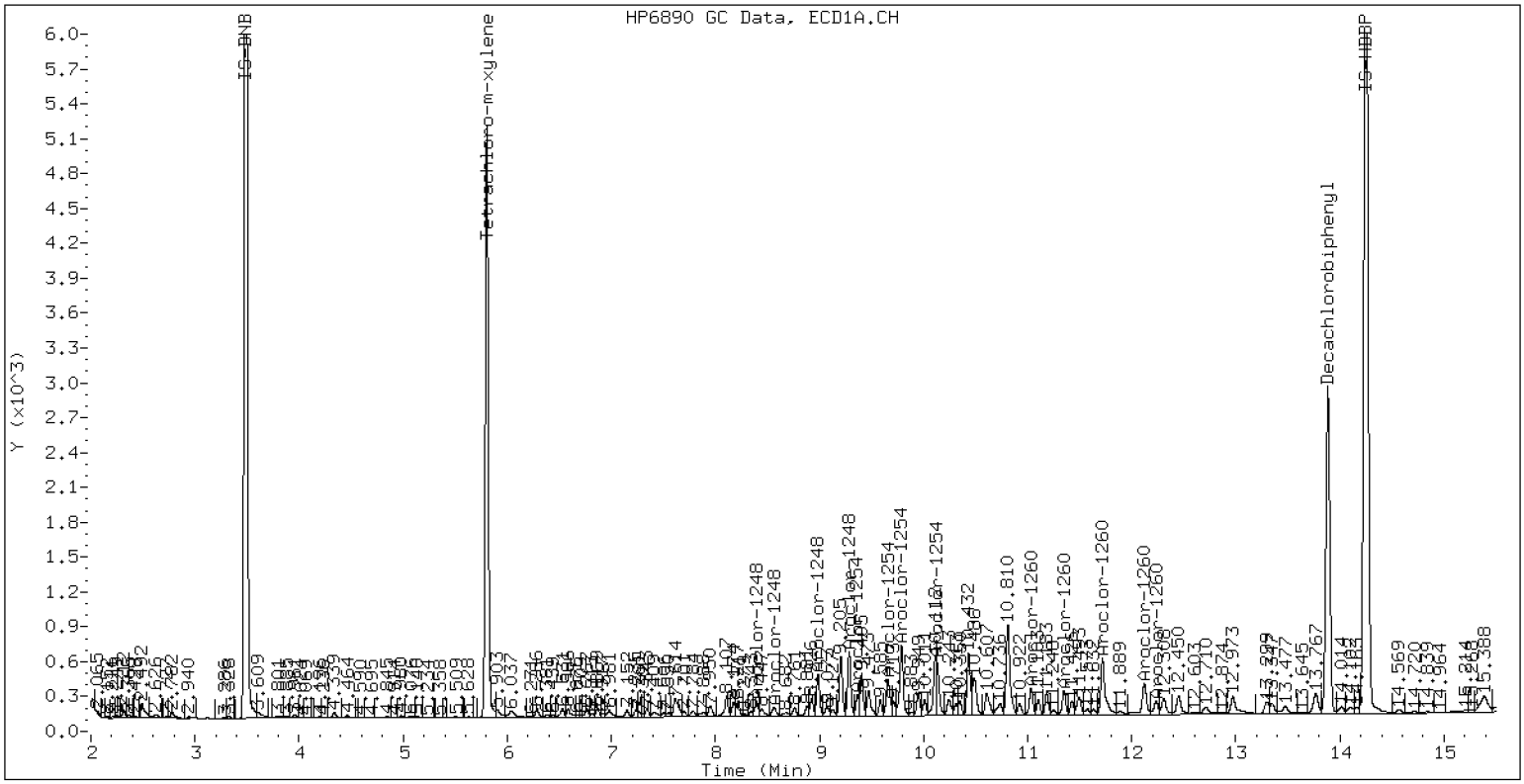
Total PCB Area Col2 (5.784 - 14.017) = 527679 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

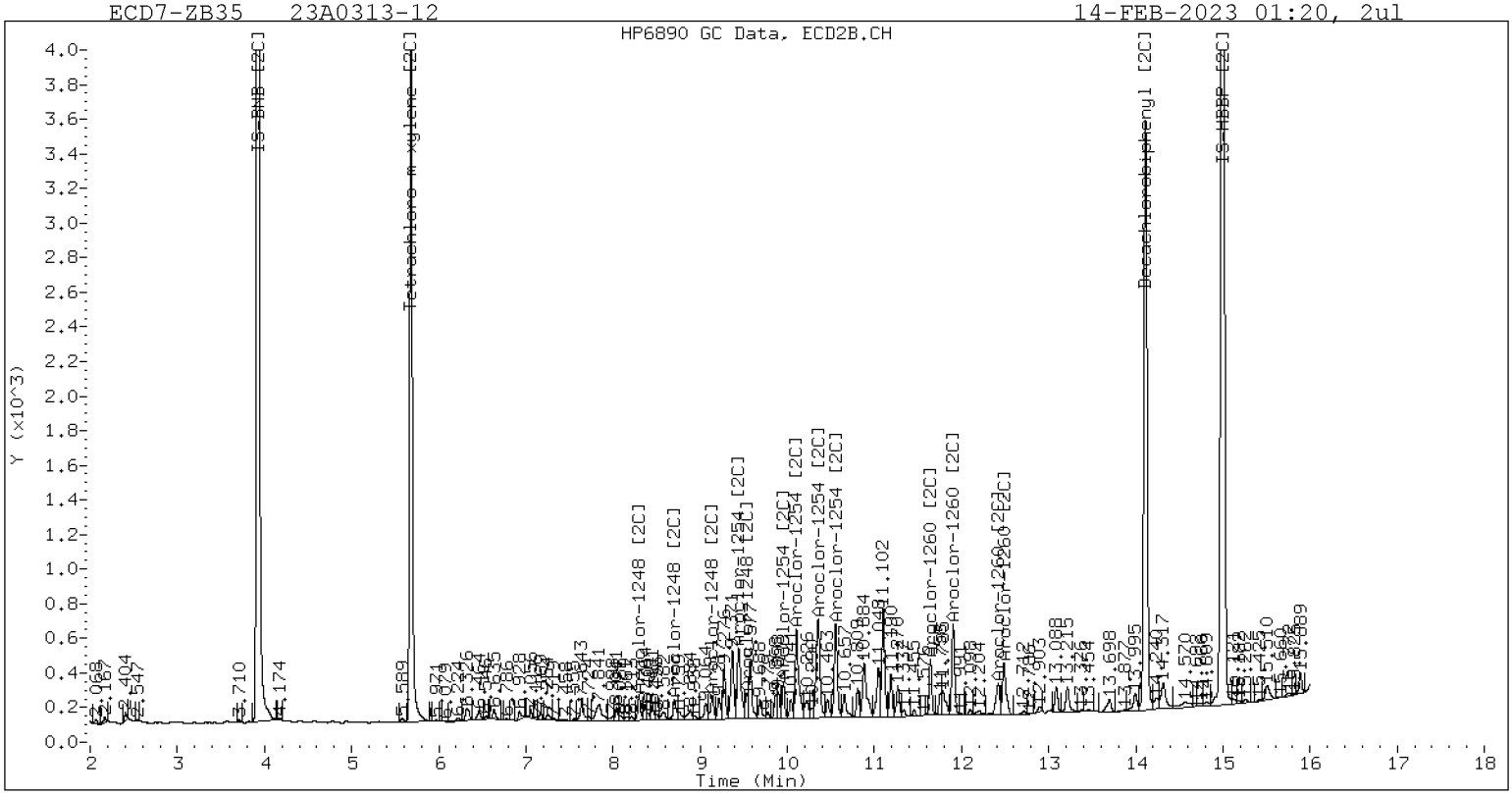
PCB Dual Column Chromatograms

ECD7-ZB5 23A0313-12 14-FEB-2023 01:20, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 23A0313-12 14-FEB-2023 01:20, 2ul

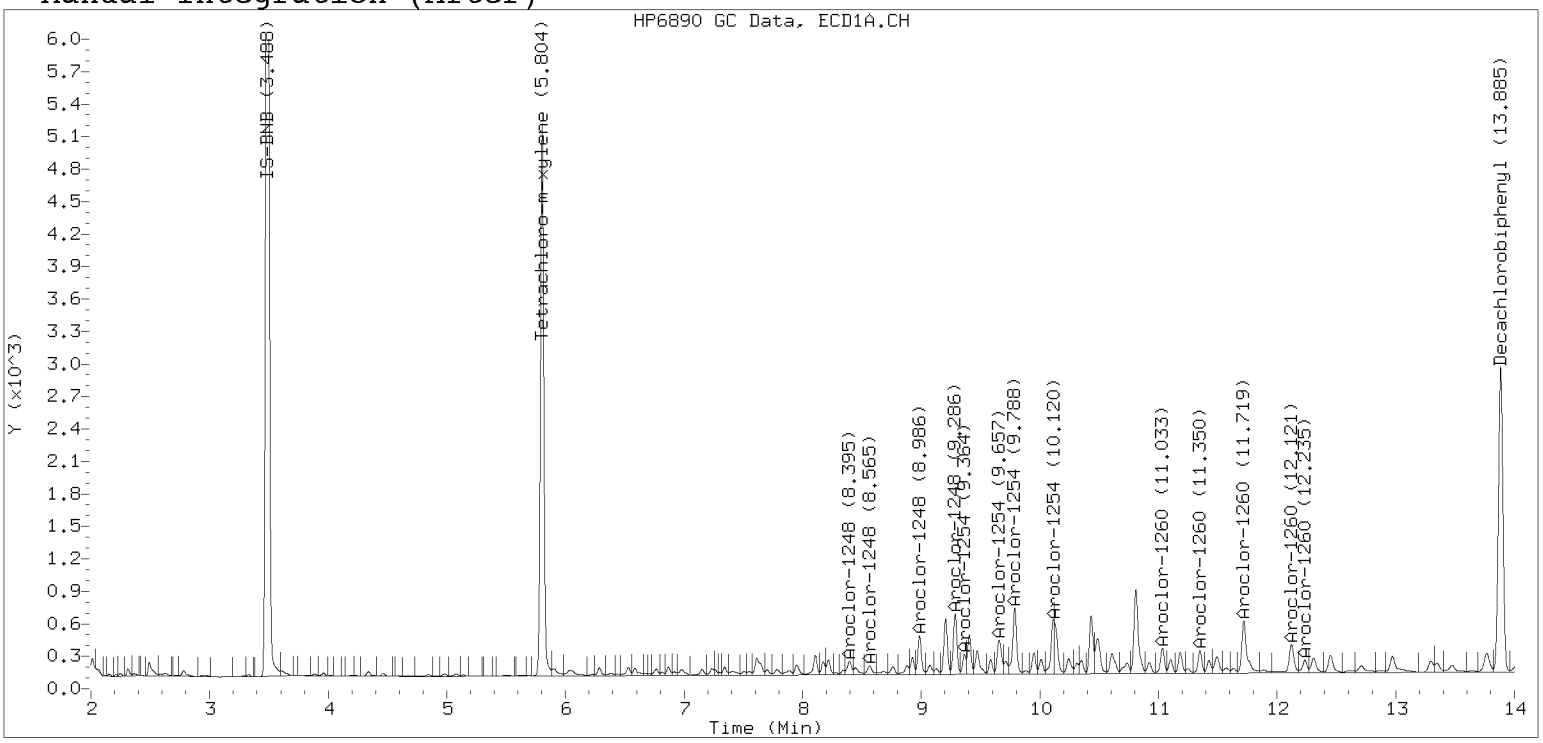


ZB-35 Manual Integration: YES

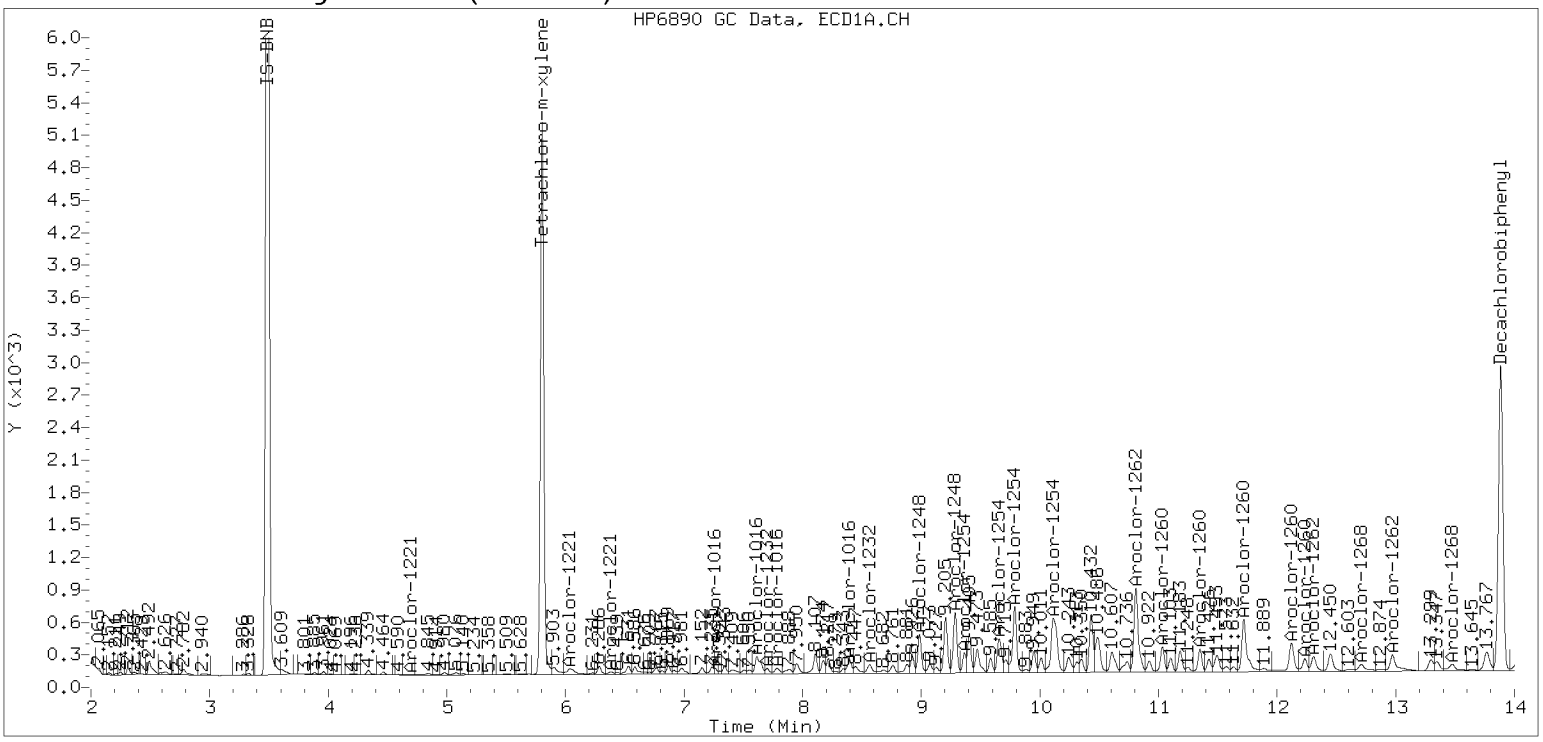
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/230213.b/02132345ECD7.D Injection Date: 14-FEB-2023 01:20

Manual Integration (After)



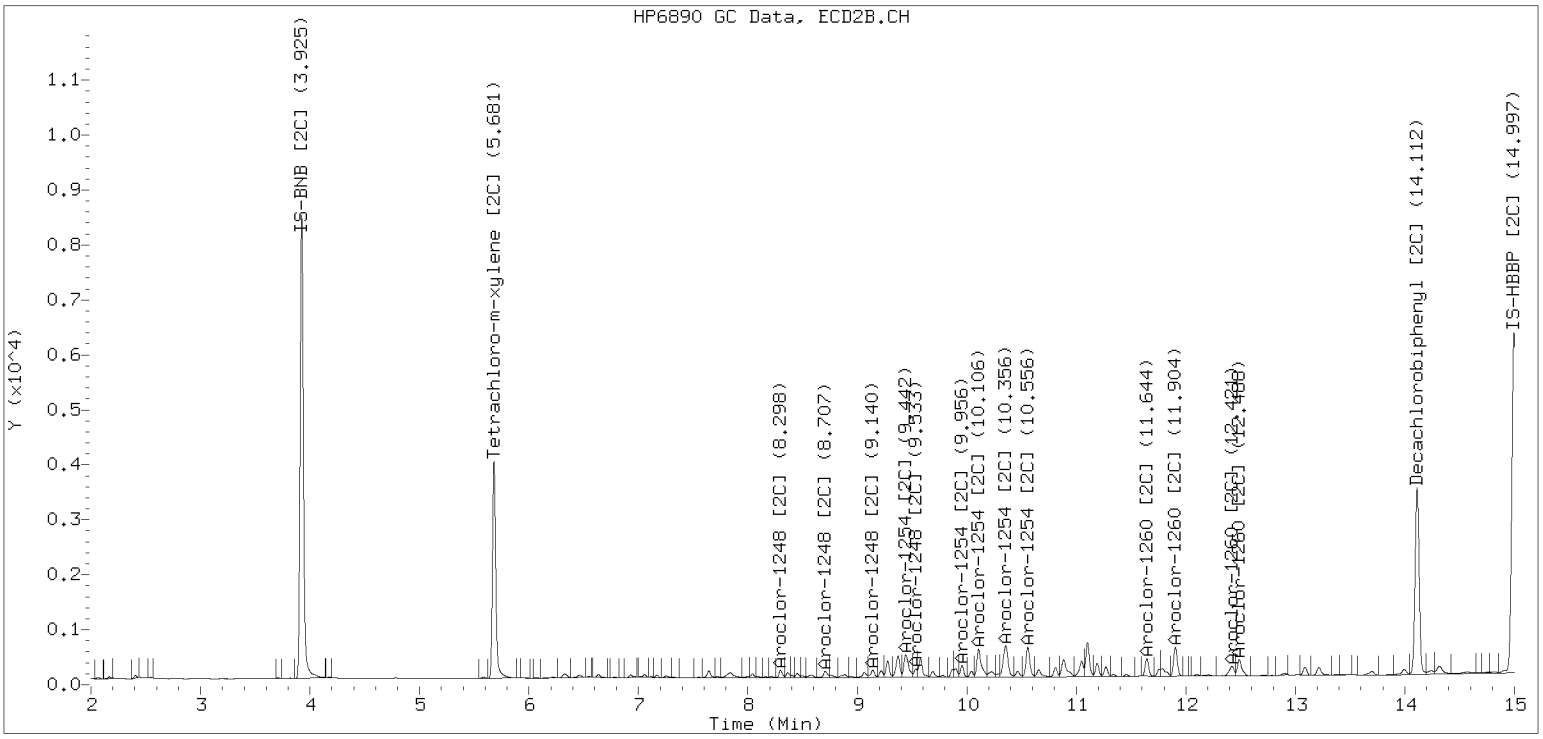
Processed Integration (Before)



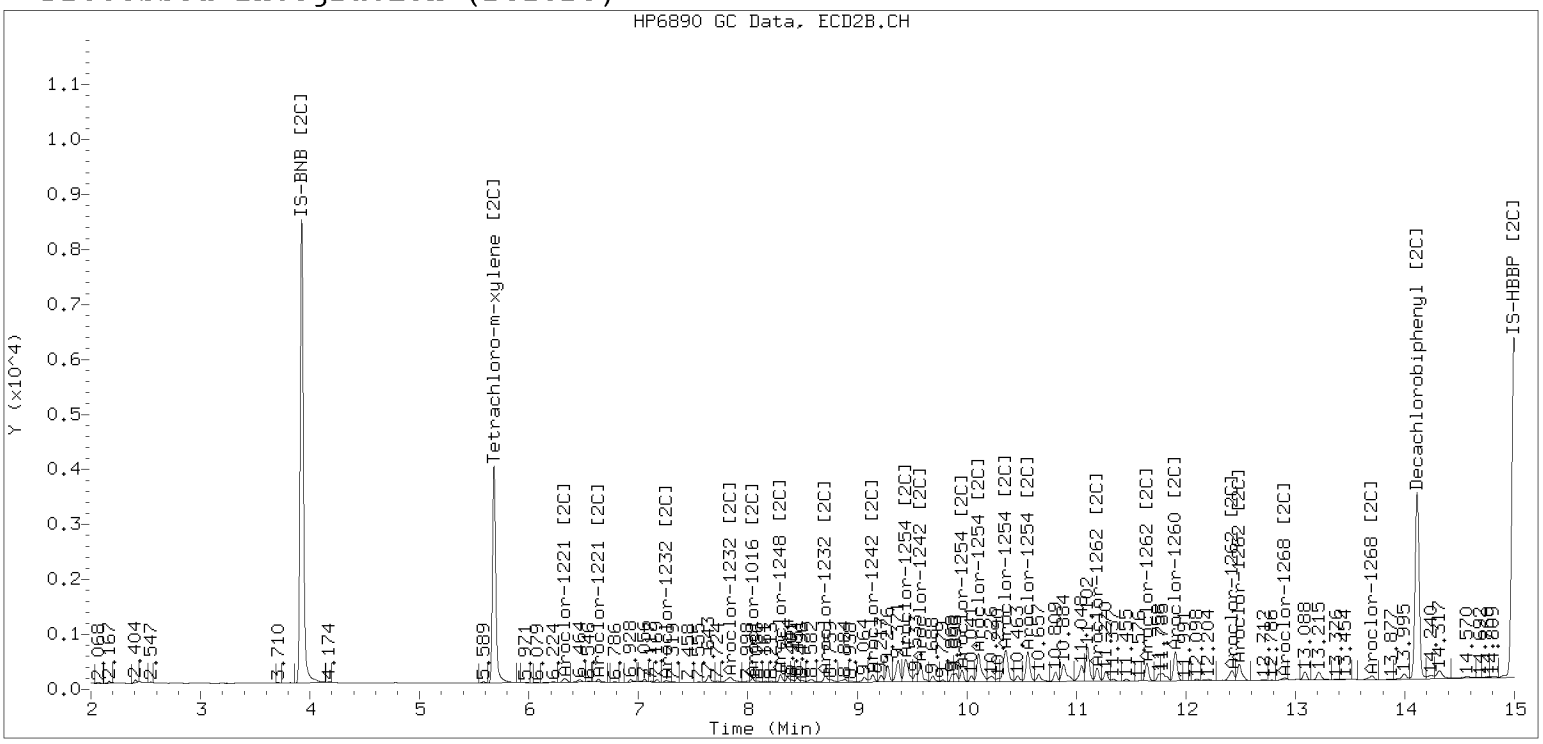
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230213.b/230213.b/02132345ECD7.D Injection Date: 14-FEB-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

LDW23-SC1159

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-13 A	File ID:	02132346ECD7.D
Sampled:	01/16/23 14:26	Prepared:	02/01/23 15:58	Analyzed:	02/14/23 01:41
% Solids:	84.73	Preparation:	EPA 3546 (Microwave)	Initial/Final:	14.77 g Wet / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0168	Calibration:	GA00061
Instrument:	ECD7	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	2	1	25.4	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	44.7	1.6	4.0	
11096-82-5	Aroclor 1260	2	1	40.4	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*7.9907*	*6.96*	*87.1*	*40 - 126*	
Tetrachlorometaxylene	*1*	*7.9907*	*6.16*	*77.1*	*44 - 120*	
Decachlorobiphenyl	*2*	*7.9907*	*6.65*	*83.2*	*40 - 126*	
Tetrachlorometaxylene	*2*	*7.9907*	*7.19*	*90.0*	*44 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230213.b/02132346ECD7.D
Data file 2: /230213.b/230213.b/02132346ECD7.D
Method: \\target\share\chem4\ecd7.i\230213.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0313-13
Client ID:
Injection Date: 14-FEB-2023 01:41
Report Date: 02/14/2023 10:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.803	-0.004	173364	5.680	-0.004	155598	30.8	36.0	15.4	Tetrachloro-m-xylene
13.885	-0.003	139116	14.112	-0.005	174238	34.8	33.3	4.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	397807	-21.0
Hexabromobiphenyl	647433	373457	-42.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	319789	-5.1
Hexabromobiphenyl	382032	329934	-13.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	8.393	-0.012	23077	116.0	1	8.296	-0.006	22368	154.7
Aroclor-1248	2	8.562	-0.018	16503	65.0	2	8.702	-0.007	18526	119.1
Aroclor-1248	3	8.982	-0.017	52881	108.9	3	9.136	-0.017	25128	132.2
Aroclor-1248	4	9.284	-0.010	60335	251.0	4	9.530	-0.048	23910	101.7
	Total Col1Ave (4 peaks):				135.2	Total Col2Ave (4 peaks):				126.9 RPD = 6
	Corrected Ave (3 peaks):				96.6	Corrected Ave (3 peaks):				117.6 RPD = 20
Aroclor-1254	1	9.284	-0.009	60335	148.8	1	9.435	-0.008	47358	204.1
Aroclor-1254	2	9.360	-0.011	23622	136.5	2	9.954	-0.010	24896	132.8
Aroclor-1254	3	9.655	-0.006	45924	176.8	3	10.103	-0.013	80837	197.6
Aroclor-1254	4	9.784	-0.015	83729	164.5	4	10.349	-0.016	107320	262.4
Aroclor-1254	5	10.120	-0.044	51578	155.8	5	10.552	-0.011	73411	322.2
	Total Col1Ave (5 peaks):				156.5	Total Col2Ave (5 peaks):				223.8 RPD = 35
	Corrected Ave (4 peaks):				151.4	Corrected Ave (4 peaks):				199.2 RPD = 27
Aroclor-1260	1	11.031	-0.008	39904	190.4	1	11.642	-0.007	41622	174.9
Aroclor-1260	2	11.346	-0.009	29971	139.1	2	11.903	-0.010	95871	159.2
Aroclor-1260	3	11.718	-0.011	100160	176.6	3	12.421	-0.010	42602	283.8
Aroclor-1260	4	12.119	-0.014	49937	170.4	4	12.487	-0.009	74171	190.3
Aroclor-1260	5	12.233	-0.008	28527	223.4	NS	---			----
	Total Col1Ave (5 peaks):				180.0	Total Col2Ave (4 peaks):				202.1 RPD = 12
	Corrected Ave (4 peaks):				169.2	Corrected Ave (3 peaks):				174.8 RPD = 3
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (5.908 - 13.788) = 1673103 Col1 Total PCB = 0.4 ppm*

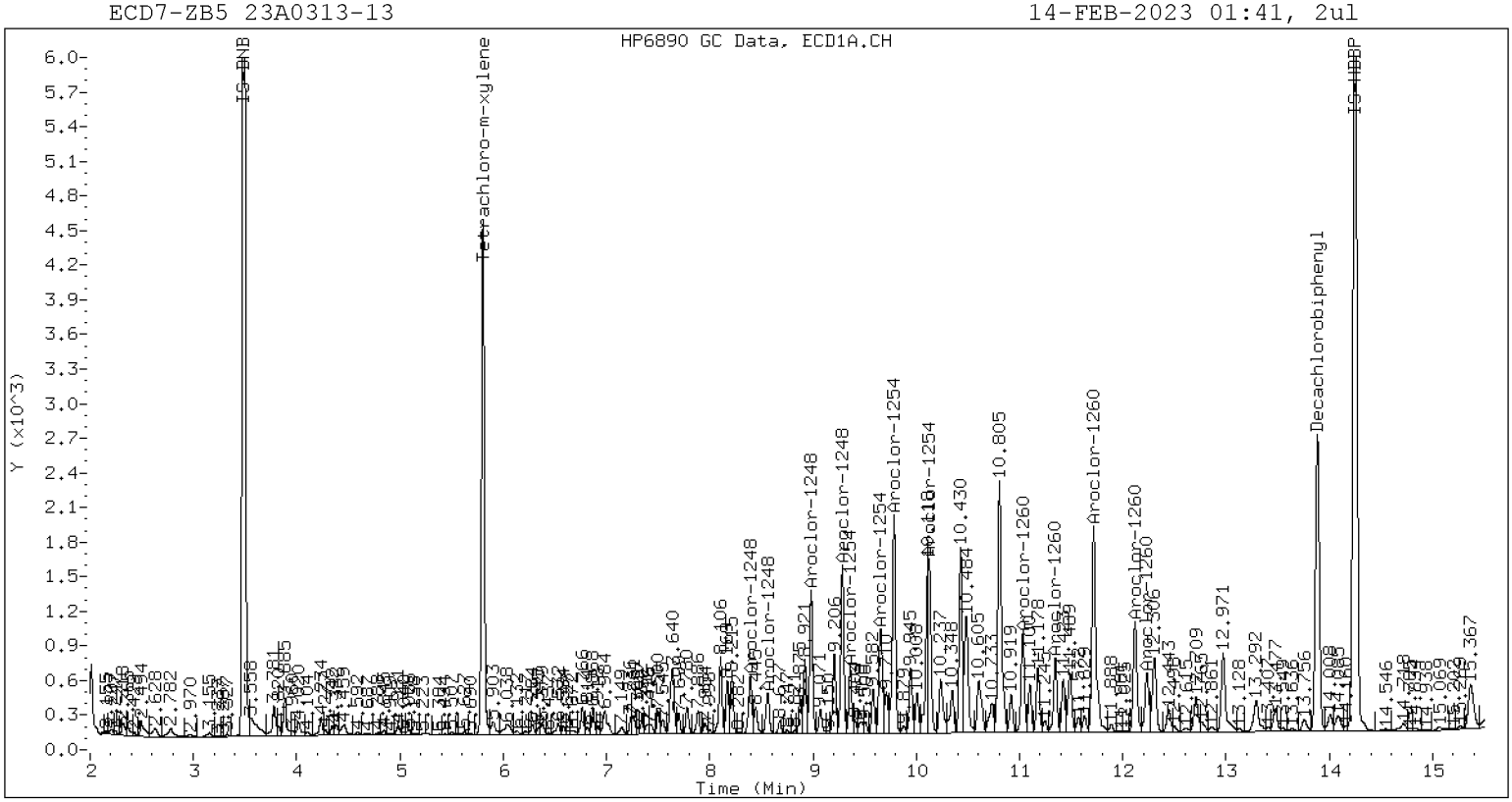
Total PCB Area Col2 (5.784 - 14.017) = 1568003 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

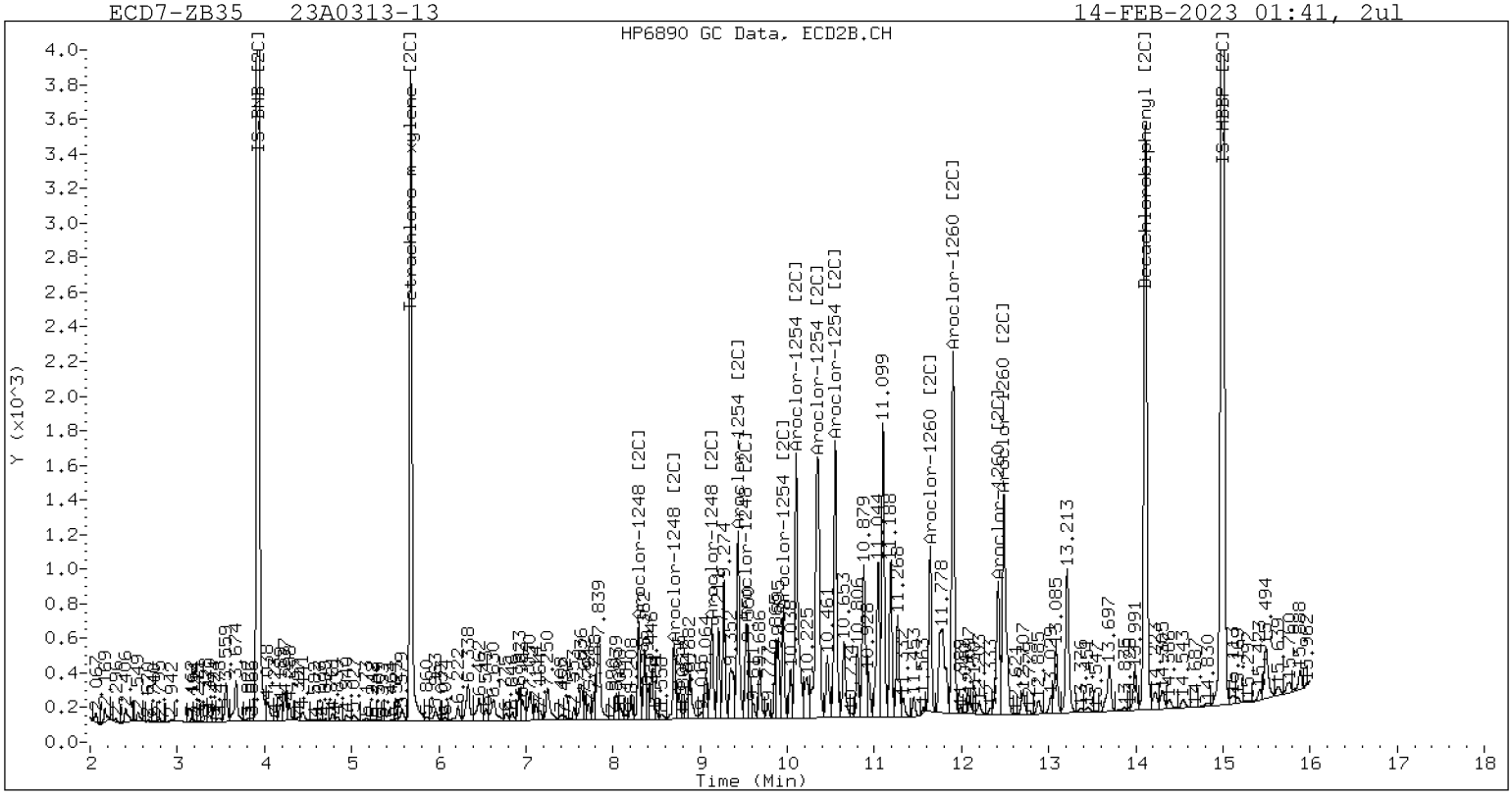
PCB Dual Column Chromatograms

ECD7-ZB5 23A0313-13 14-FEB-2023 01:41, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 23A0313-13 14-FEB-2023 01:41, 2ul

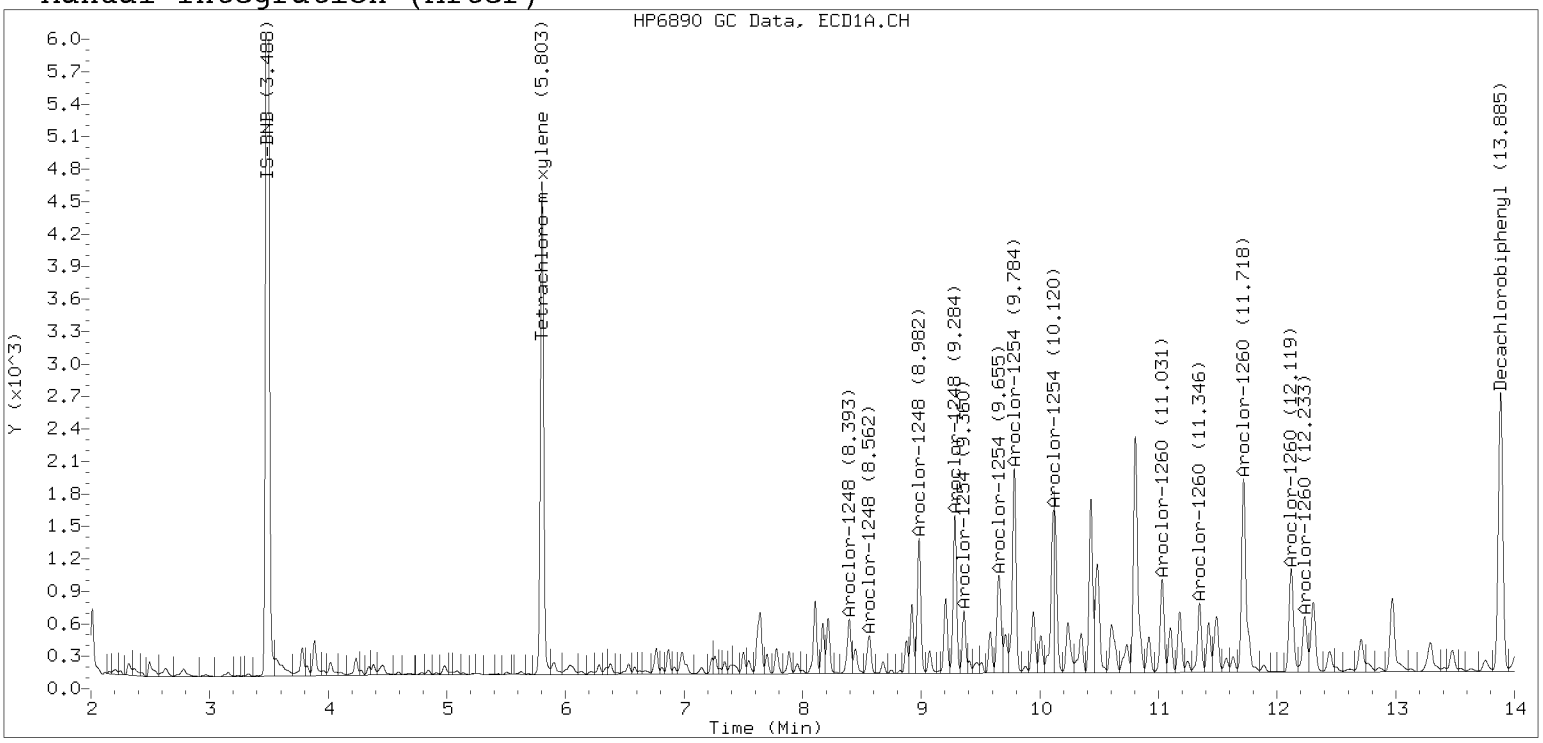


ZB-35 Manual Integration: YES

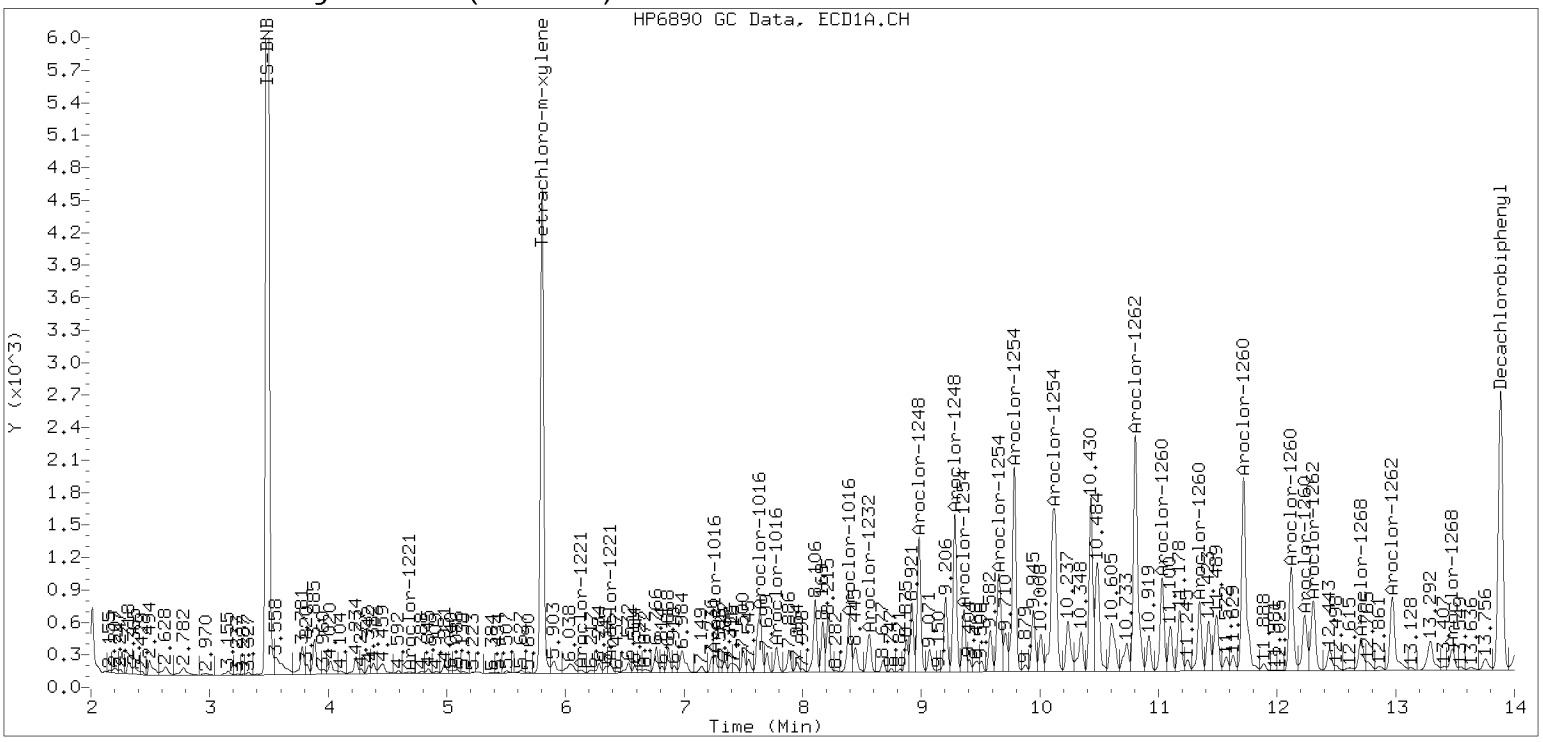
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/230213.b/02132346ECD7.D Injection Date: 14-FEB-2023 01:41

Manual Integration (After)



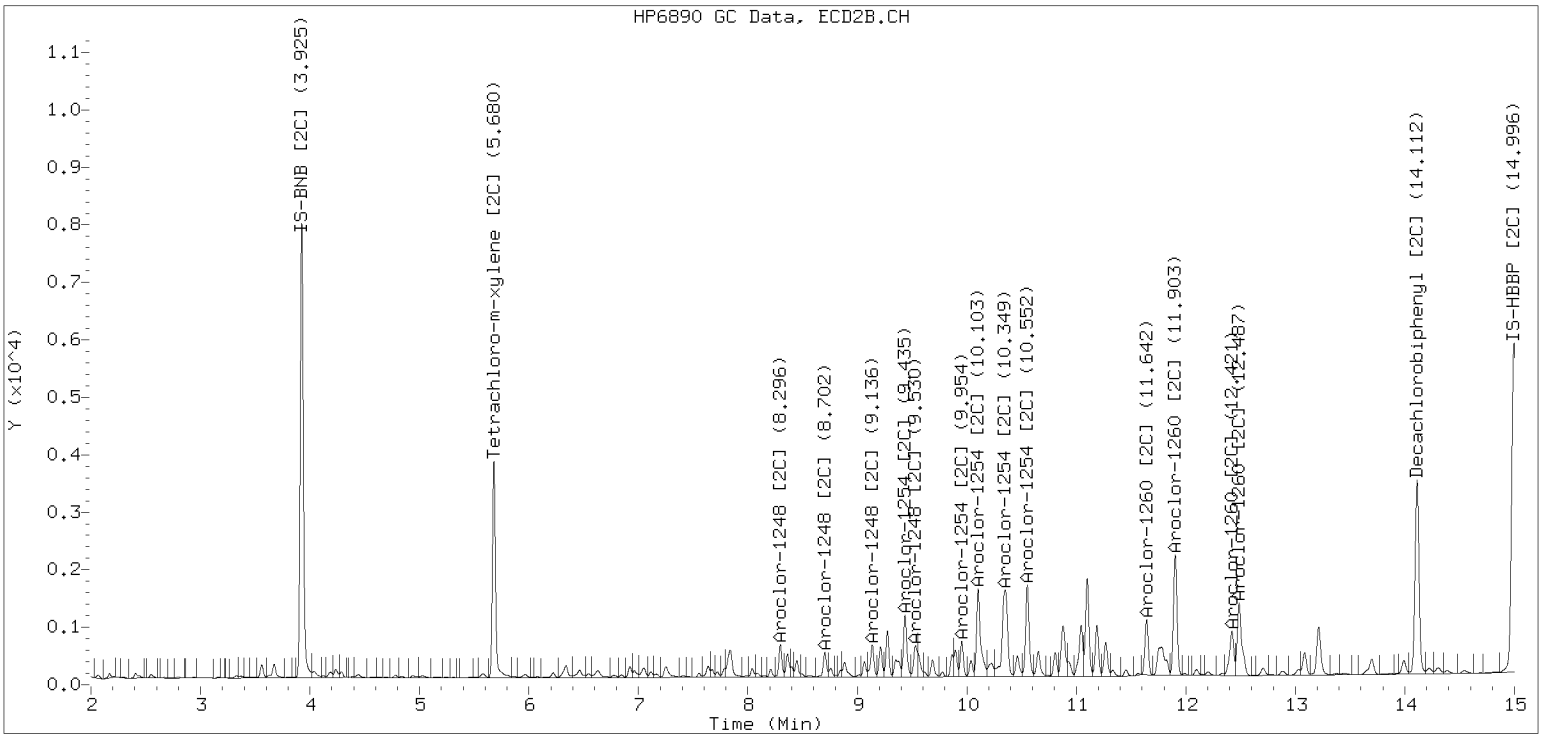
Processed Integration (Before)



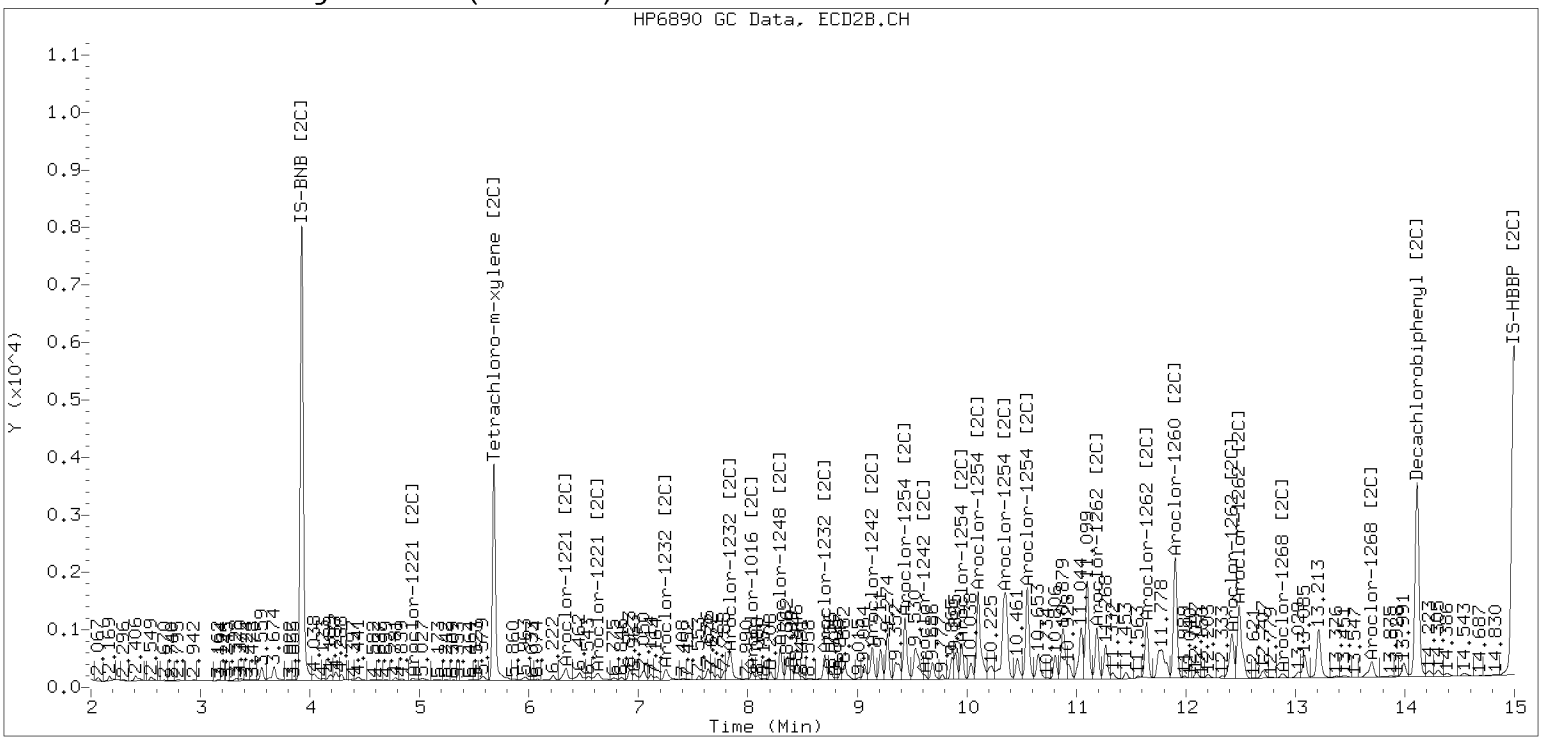
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230213.b/230213.b/02132346ECD7.D Injection Date: 14-FEB-2023

Manual Integration (After)



Processed Integration (Before)



PREPARATION BATCH SUMMARY

EPA 8082A

Laboratory: Analytical Resources, LLC SDG: 23A0313

Client: Anchor QEA, LLC Project: AOC5 MR Phase 1

Batch: BLA0686 Batch Matrix: Solid Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1108	23A0313-01	02202317ECD7.D	02/01/23 15:58	
LDW23-SC1115	23A0313-02	02202318ECD7.D	02/01/23 15:58	
LDW23-IT1114	23A0313-03	02202319ECD7.D	02/01/23 15:58	
LDW23-IT1120	23A0313-04	02202320ECD7.D	02/01/23 15:58	
LDW23-SC1090	23A0313-05	02202321ECD7.D	02/01/23 15:58	
LDW23-SC1095	23A0313-06	02202322ECD7.D	02/01/23 15:58	
LDW23-SC1076	23A0313-07	02202323ECD7.D	02/01/23 15:58	
LDW23-SC1016A	23A0313-08	02202326ECD7.D	02/01/23 15:58	
LDW23-SC1011A	23A0313-09	02202327ECD7.D	02/01/23 15:58	
LDW23-SC1006A	23A0313-10	02202328ECD7.D	02/01/23 15:58	
LDW23-SC1012B	23A0313-11	02132344ECD7.D	02/01/23 15:58	
LDW23-IT1148	23A0313-12	02132345ECD7.D	02/01/23 15:58	
LDW23-SC1159	23A0313-13	02132346ECD7.D	02/01/23 15:58	
Blank	BLA0686-BLK1	02202313ECD7.D	02/01/23 15:58	
LCS	BLA0686-BS1	02202314ECD7.D	02/01/23 15:58	
LCS Dup	BLA0686-BSD1	02202315ECD7.D	02/01/23 15:58	
LDW23-SC1076	BLA0686-MS1	02202324ECD7.D	02/01/23 15:58	
LDW23-SC1076	BLA0686-MSD1	02202325ECD7.D	02/01/23 15:58	
Reference	BLA0686-SRM1	02202316ECD7.D	02/01/23 15:58	

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0686

Prepared using: EPA 3546 (Microwave)

8082A PCB Solid 4 in Solid (Version:7 Aroclors)

Matrix: Solid **Date Prepared:** 02/01/23 **Balance ID:** 3146462614 **Set Up By:** CTD 1/28/23

WO Comments
23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

The following standards may be missing from this batch!

Designator	Description
QLS 5	QLS Spike

Analysis: 8082A PCB Solid 4

Lab Number & Container	% Solids	Initial (g) Target Dry: 12.5 (Wet) Actual	(REQ) Acid C/U (5mL)	(REQ) Sulfur C/U (5mL) 1 2 3	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
23A0313-01 A	52.0	(24.02) 24.45	5mL	5mL	2mL	2.5	1.0	
23A0313-02 A	53.2	(23.49) 23.57	5mL	5mL	2mL	2.5	1.0	
23A0313-03 A	62.7	(19.94) 19.94	5mL	5mL	2mL	2.5	1.0	
23A0313-04 A	69.6	(17.97) 17.97	5mL	5mL	2mL	2.5	1.0	
23A0313-05 A	49.6	(25.22) 25.24	5mL	5mL	2mL	2.5	1.0	
23A0313-06 A	55.3	(22.60) 22.60	5mL	5mL	2mL	2.5	1.0	
23A0313-07 A	73.0	(17.12) 17.12	5mL	5mL	2mL	2.5	1.0	
23A0313-08 A	56.1	(22.30) 22.38	5mL	5mL	2mL	2.5	1.0	
23A0313-09 A	52.3	(23.89) 23.91	5mL	5mL	2mL	2.5	1.0	
23A0313-10 A	54.1	(23.10) 23.16	5mL	5mL	2mL	2.5	1.0	
23A0313-11 A	58.7	(21.31) 21.34	5mL	5mL	2mL	2.5	1.0	
23A0313-12 A	50.0	(24.98) 24.98	5mL	5mL	2mL	2.5	1.0	
23A0313-13 A	84.7	(14.75) 14.77	5mL	5mL	2mL	2.5	1.0	

Batch QC

Lab Number	% Solids	Initial (g) Target Dry: 12.5 (Wet) Actual	(REQ) Acid C/U (5mL)	(REQ) Sulfur C/U (5mL) 1 2 3	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BLA0686-BLK1	100.0	(12.50) 12.54	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BLA0686-BS1	100.0	(12.50) 12.54	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BLA0686-BSD1	100.0	(12.50) 12.54	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BLA0686-MS1	73.0	(17.12) 12.54	5mL	5mL	2mL	2.5	1.0	Use 23A0313-07
BLA0686-MSD1	73.0	(17.12) 17.12	5mL	5mL	2mL	2.5	1.0	Use 23A0313-07
BLA0686-SRM1	100.0	~~(12.50)~~ (2.50) 25.00	5mL	5mL	2mL	2.5	1.0	Use ~~K011477~~ K010817

+1g DI WATER

CTD 2/1/23

02/01/23
Client ID verified By Date

LJ 2/12/23
Preparation Reviewed By Date

02/01/23 15:58
Extraction Date and Time

Printed: 1/28/2023 12:15:27PM

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0686

Prepared using: EPA 3546 (Microwave)

8082A PCB Solid 4 in Solid (Version:7 Aroclors)

WO Comments

23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Steps

Microwave
1 2 3
Analyst/Date: CT 02/02/23

KD
100°C
Hexane Exchange
(2 X 20 mL)
1 2 3 4 5 6
Analyst/Date: LO/AV 2-9-23

TurboVap
Pre Cleanups
1 2 3 4 5
Analyst/Date: LJ 2/12/23

TurboVap
Post Cleanups
1 2 3 4 5
Analyst/Date: LJ 2/12/23

Vialing
Analyst/Date: LJ 2/12/23

Reagents Used

Station/Reagent	Standard ID
Microwave Analyst: CT/LG Date: 02/02/23	
Neutral Glass Wool	L006350
1:1 Hexane/Acetone	L000879
Hexane	K011373
Anhydrous Sodium Sulfate	L006759
KD Analyst: LO/AV Date: 2-9-23	
Anhydrous Sodium Sulfate	
Hexane	K011747
Vialing Analyst: LJ Date: 2/12/23	
Hexane	K011373
Concentrated Sulfuric Acid	L001033
Silica Gel (SPE) Darts	K011573
Sodium Sulfite	K010363
Tetrabutylammonium hydrogensulfate (TBAS)	L000840

Surrogates & Spike Standards Used

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Surrogate 2µg/mL	N L000773 Exp Date: 7/21/2023	50µL	CT	Y
Spike 20µg/mL	1 K008150 Exp Date: 3/5/2023	63µL	CT	Y

MANUALLY ENTER EXPIRATION DATES!

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0686

Prepared using: EPA 3546 (Microwave)

8082A PCB Solid 4 in Solid (Version:7 Aroclors)

WO Comments

23A0313: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Weigh soil/sed into beakers-lightly dry with sodium sulfate. 2. Transfer to microwave vessel(s). Note: (do not fill vessels more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 Hexane/Acetone until the solvent layer is 3 inches above the soil layer after homogenization. 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-Re-homogenize while hot then cool vessels in R-05 15 minutes. Re-homogenize while cool. 7. Decant 1:1 Hex/Ace into Erlenmeyer flask with sodium sulfate in bottom and funnel with neutral glasswool plug. 8. Re-homogenize and rinse with 1:1 Hexane/Acetone. 9. Let cool and decant solvent then empty the soil into the funnel and rinse with Hexane. 10. KD on 100° bath. 11. Exchange (2 X with 20mL) Hexane. 12. TurboVap. 13. Clean-ups. 14. TurboVap. 15. Vial with Hexane. A. Need Total Solids Y (N) B. Archive/Freeze (Y) N	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

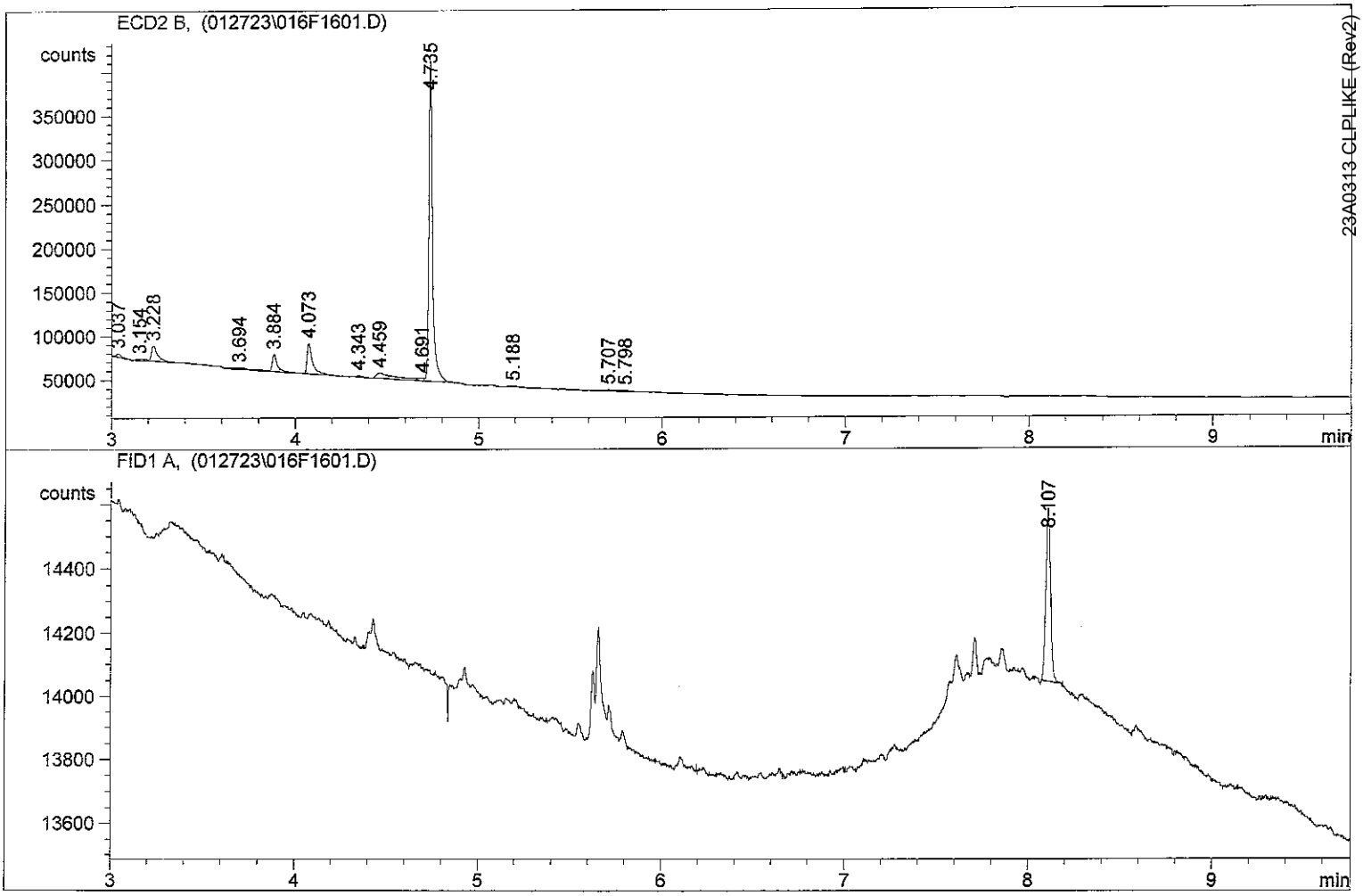
Extraction Parameter: PUB Extraction Batch: BLA0686

Total Solids Batch: BLA0619 Work Order(s): LSA0313

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
[x] No Anomalies (standard soil/wet sediment/sand/gravel)= #1, #3	VJ #1/27/23
[x] Standing Water Decanted (Not shared)= #1, #2, #5-11, 13 #12 #23	VJ #1/27/23
[ ] Standing Water Homogenized (Shared samples)=	
[ ] Clay/Clumps (Difficult to homogenize)=	
[ ] Rocks (%+size)?	
[ ] Organics (Leaves/sticks/grass)=	
[x] Oily, obvious fuel/sulfur odors= sulfur odor #1, #2, #5—11, 13 #3, #4 fuel odor	VJ #1/27/23
[ ] Received in 32oz jar(s)=Homogenized in Pyrex dish=	
[ ] Previously Frozen =	
[ ] Other (Details)=	
Aqueous:	
[-] No Anomalies	
[ ] Turbid/Color=	
[ ] Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
[ ] Emulsions (%)=	
[ ] Oily, obvious fuel/sulfur odors=	
[ ] Other (Details)=	
[ ] Received in 1.0L Bottle(s)=No Bottle Rinse=	
[x] Other Notes/Comments= (Note problems, concerns, corrective actions).	
SPH < 5:1 of sample used	LO 2/9/23
[x] Share Samples Y / N	VJ #1/27/23
[x] Multiple Jars Y / N	VJ #1/27/23
[ ] Sample Pre-Screens indicate analyte activity=	
[ ] Sample weights/volumes reduced based on Pre-Screen=	

Injection Date : 1/27/2023 8:16:01 PM Seq. Line : 16
Sample Name : 23A0313 01 Location : Vial 16
Acq. Operator : YL Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\012723.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD

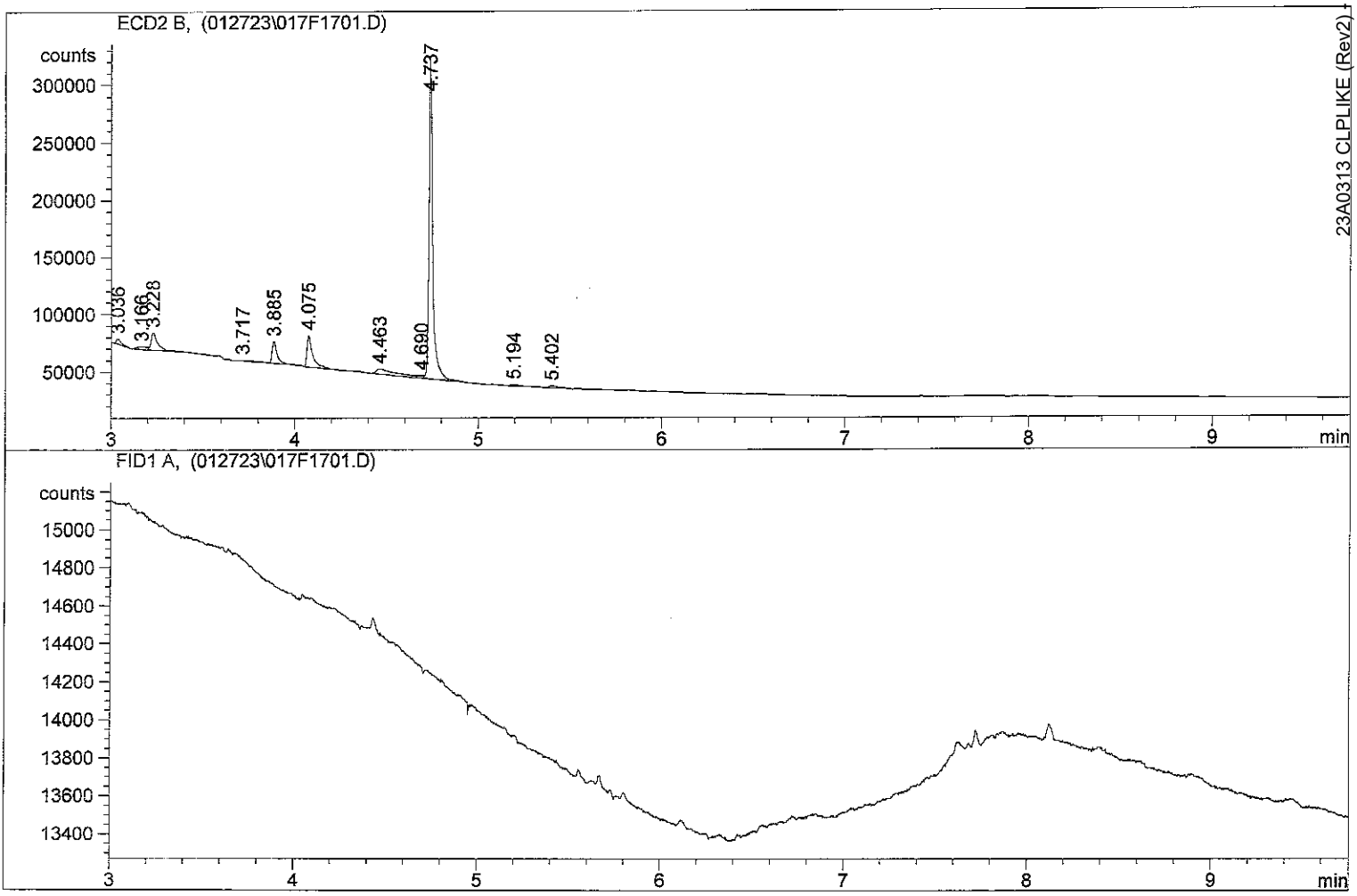


*** End of Report ***

Injection Date : 1/27/2023 8:30:29 PM
Sample Name : 23A0313 02
Acq. Operator : YL

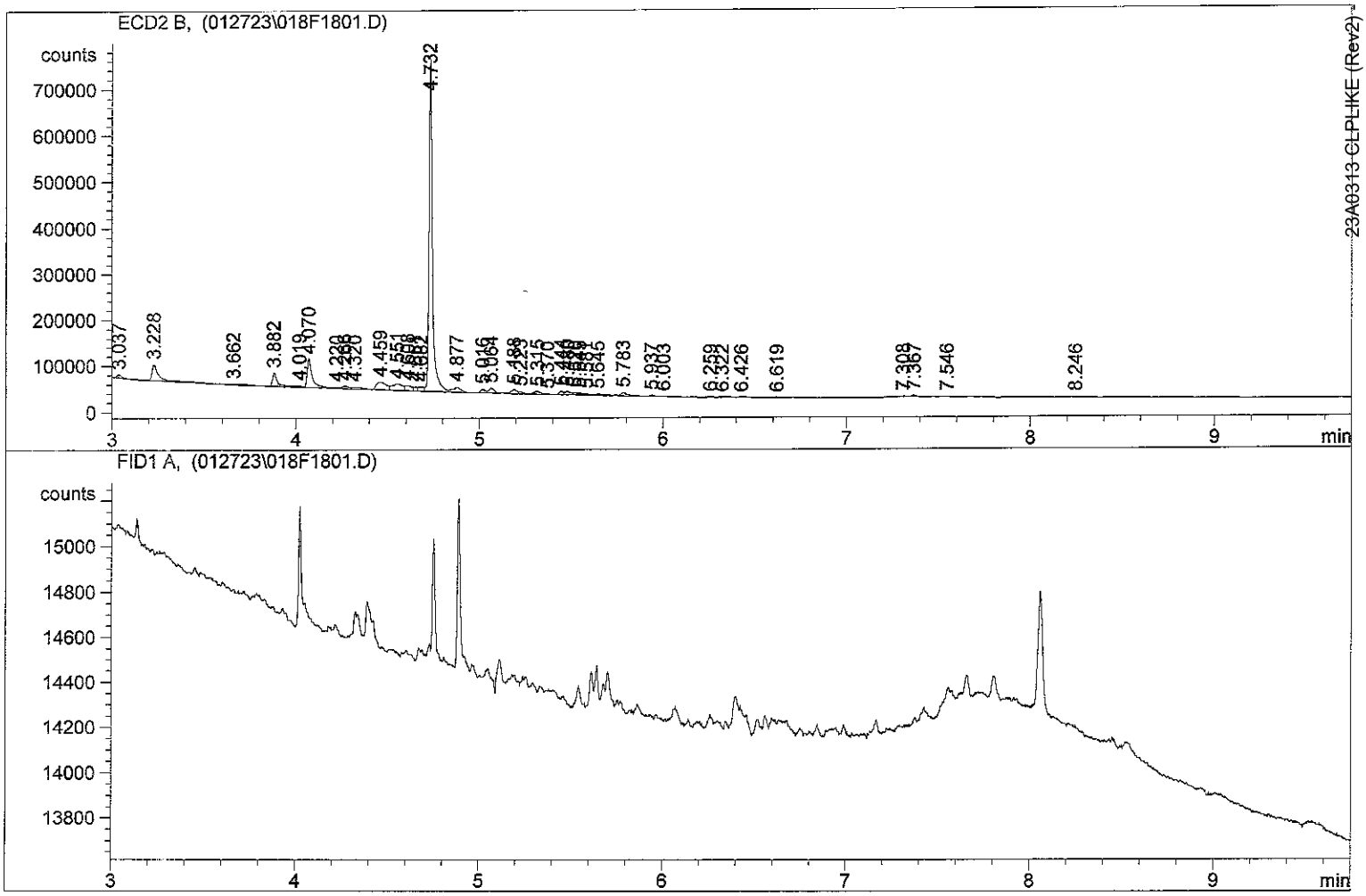
Seq. Line : 17
Location : Vial 17
Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\012723.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD



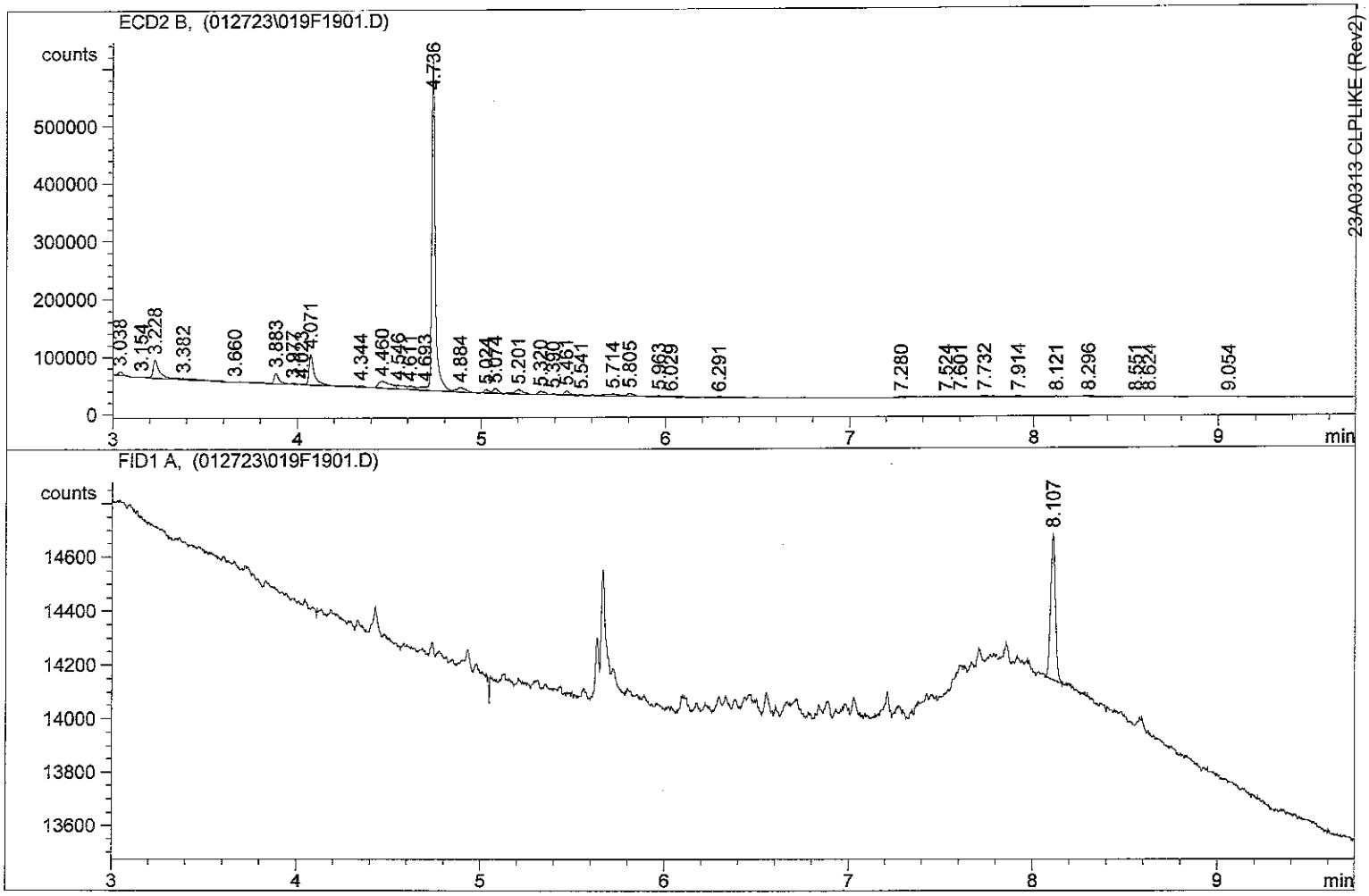
*** End of Report ***

Injection Date	: 1/27/2023 8:44:25 PM	Seq. Line	: 18
Sample Name	: 23A0313 03	Location	: Vial 18
Acq. Operator	: YL	Inj	: 1
		Inj Volume	: 1 µl
Sequence File	: C:\HPCHEM\1\SEQUENCE\012723.S		
Method	: C:\HPCHEM\1\METHODS\SCREEN.M		
Last changed	: 7/9/2021 3:37:33 AM by TW		
SCREEN METHOD			



*** End of Report ***

Injection Date	: 1/27/2023 8:59:05 PM	Seq. Line	: 19
Sample Name	: 23A0313 04	Location	: Vial 19
Acq. Operator	: YL	Inj	: 1
		Inj Volume	: 1 µl
Sequence File	: C:\HPCHEM\1\SEQUENCE\012723.S		
Method	: C:\HPCHEM\1\METHODS\SCREEN.M		
Last changed	: 7/9/2021 3:37:33 AM by TW		
SCREEN METHOD			

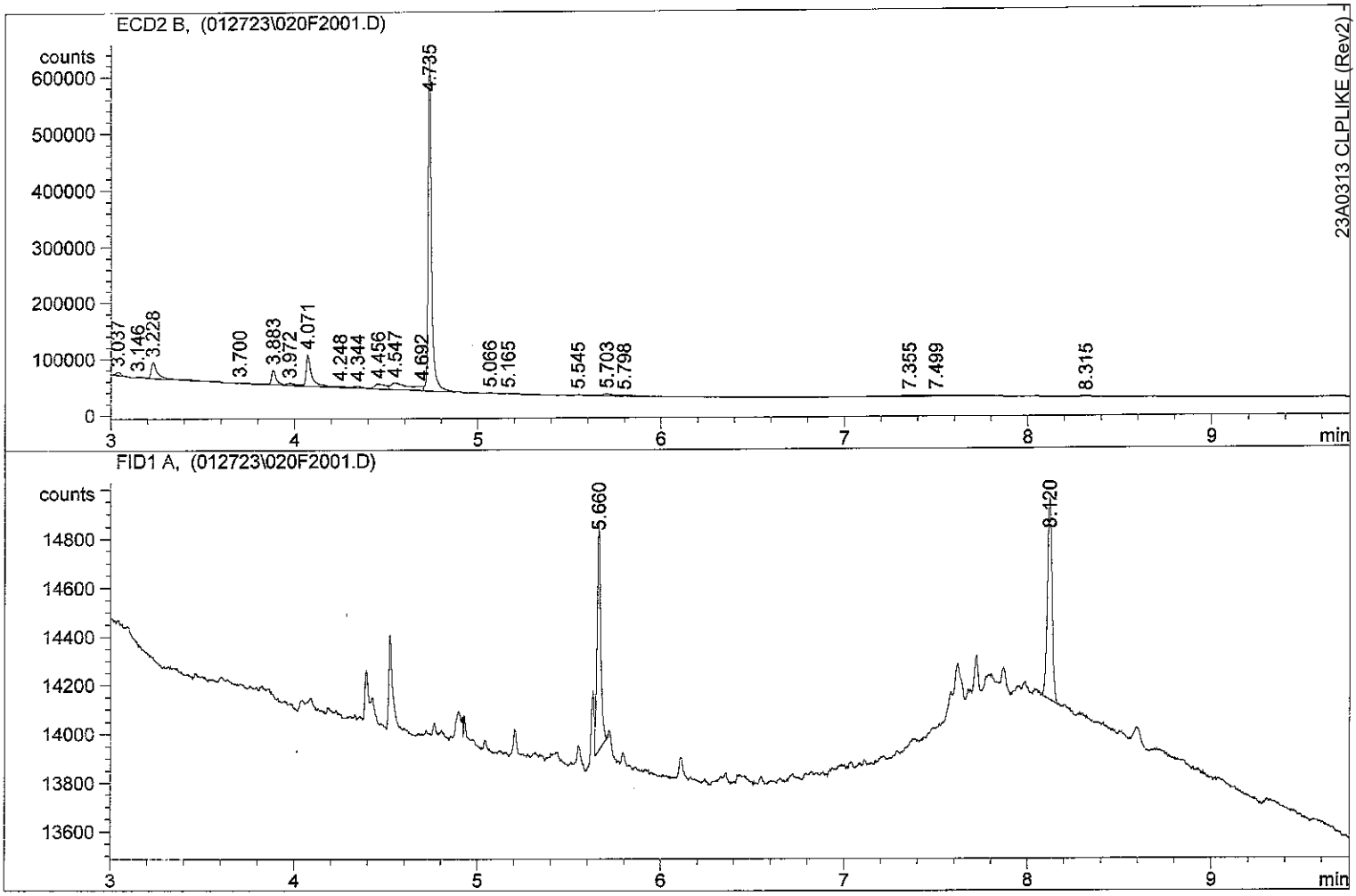


*** End of Report ***

Injection Date : 1/27/2023 9:13:03 PM
Sample Name : 23A0313 05
Acq. Operator : YL

Seq. Line : 20
Location : Vial 20
Inj : 1
Inj Volume : 1 µl

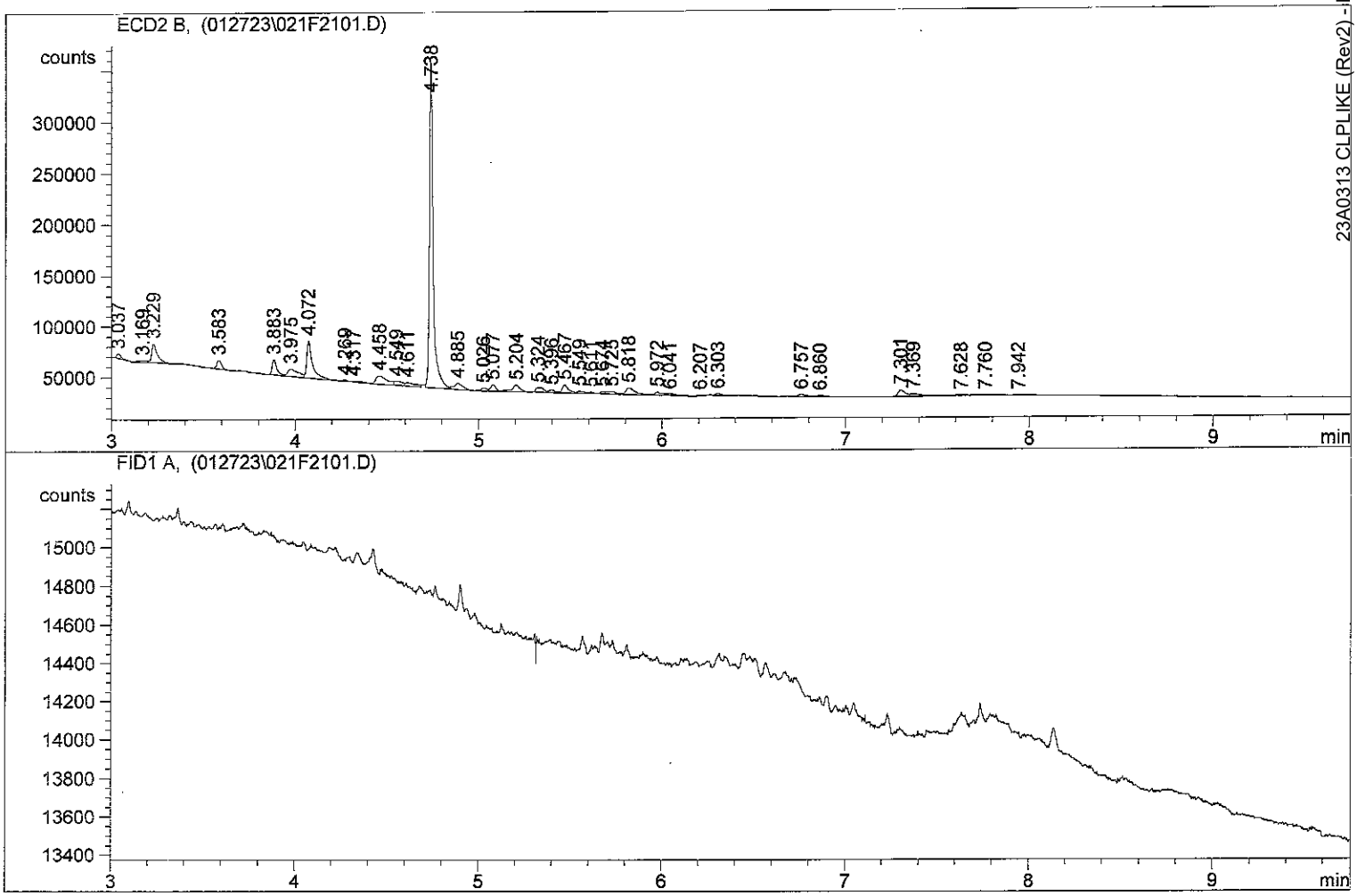
Sequence File : C:\HPCHEM\1\SEQUENCE\012723.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD



*** End of Report ***

Injection Date : 1/27/2023 9:27:39 PM Seq. Line : 21
Sample Name : 23A0313 06 Location : Vial 21
Acq. Operator : YL Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\012723.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD

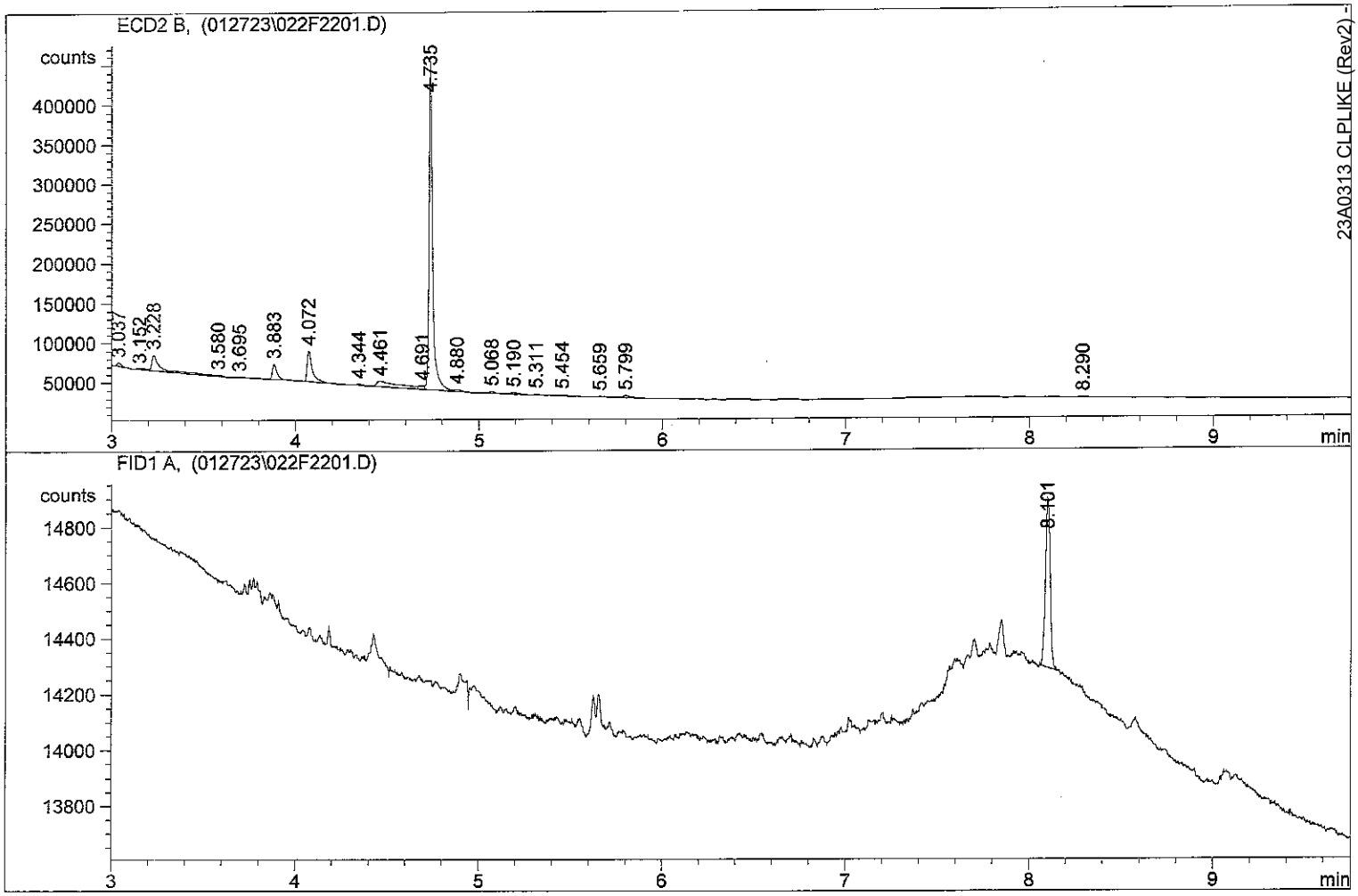


*** End of Report ***

Injection Date : 1/27/2023 9:41:34 PM
Sample Name : 23A0313 07
Acq. Operator : YL

Seq. Line : 22
Location : Vial 22
Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\012723.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD



*** End of Report ***

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0099	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup - uL	Analysis:	EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1159	23A0313-13	02132346ECD7.D	02/12/2023	
LDW23-IT1120	23A0313-04	02202320ECD7.D	02/12/2023	
LDW23-SC1006A	23A0313-10	02202328ECD7.D	02/12/2023	
LDW23-SC1011A	23A0313-09	02202327ECD7.D	02/12/2023	
LDW23-SC1012B	23A0313-11	02132344ECD7.D	02/12/2023	
LDW23-SC1016A	23A0313-08	02202326ECD7.D	02/12/2023	
LDW23-SC1076	23A0313-07	02202323ECD7.D	02/12/2023	
LDW23-SC1090	23A0313-05	02202321ECD7.D	02/12/2023	
LDW23-IT1114	23A0313-03	02202319ECD7.D	02/12/2023	
LDW23-SC1108	23A0313-01	02202317ECD7.D	02/12/2023	
LDW23-SC1115	23A0313-02	02202318ECD7.D	02/12/2023	
Matrix Spike Dup	BLA0686-MSD1	02202325ECD7.D	02/12/2023	
Matrix Spike	BLA0686-MS1	02202324ECD7.D	02/12/2023	
Reference	BLA0686-SRM1	02202316ECD7.D	02/12/2023	
Blank	BLA0686-BLK1	02202313ECD7.D	02/12/2023	
LCS	BLA0686-BS1	02202314ECD7.D	02/12/2023	
LDW23-IT1148	23A0313-12	02132345ECD7.D	02/12/2023	
LCS Dup	BLA0686-BSD1	02202315ECD7.D	02/12/2023	
LDW23-SC1095	23A0313-06	02202322ECD7.D	02/12/2023	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0099

Matrix: Solid **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup - uL** **Printed: 2/12/2023 5:03:25PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0313-01	A	LDW23-SC1108	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-02	A	LDW23-SC1115	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-03	A	LDW23-IT1114	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-04	A	LDW23-IT1120	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-05	A	LDW23-SC1090	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-06	A	LDW23-SC1095	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-07	A	LDW23-SC1076	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-08	A	LDW23-SC1016A	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-09	A	LDW23-SC1011A	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-10	A	LDW23-SC1006A	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-11	A	LDW23-SC1012B	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-12	A	LDW23-IT1148	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-13	A	LDW23-SC1159	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
BLA0686-BLK1	-	Blank	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-BS1	-	LCS	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-BSD1	-	LCS Dup	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-MS1	-	Matrix Spike	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-SRM1	-	Reference	-	2.5	2.5	-	2/12/2023	LMJ	

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0100	Cleanup Type:	Sulfur
Cleanup Method:	EPA 3660B Sulfur Cleanup - uL	Analysis:	EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1095	23A0313-06	02202322ECD7.D	02/12/2023	
LDW23-SC1012B	23A0313-11	02132344ECD7.D	02/12/2023	
LDW23-SC1011A	23A0313-09	02202327ECD7.D	02/12/2023	
LDW23-SC1076	23A0313-07	02202323ECD7.D	02/12/2023	
LDW23-IT1148	23A0313-12	02132345ECD7.D	02/12/2023	
LDW23-SC1159	23A0313-13	02132346ECD7.D	02/12/2023	
LDW23-IT1120	23A0313-04	02202320ECD7.D	02/12/2023	
LDW23-IT1114	23A0313-03	02202319ECD7.D	02/12/2023	
LDW23-SC1016A	23A0313-08	02202326ECD7.D	02/12/2023	
LDW23-SC1090	23A0313-05	02202321ECD7.D	02/12/2023	
LDW23-SC1108	23A0313-01	02202317ECD7.D	02/12/2023	
LDW23-SC1115	23A0313-02	02202318ECD7.D	02/12/2023	
Blank	BLA0686-BLK1	02202313ECD7.D	02/12/2023	
LCS	BLA0686-BS1	02202314ECD7.D	02/12/2023	
LCS Dup	BLA0686-BSD1	02202315ECD7.D	02/12/2023	
Matrix Spike	BLA0686-MS1	02202324ECD7.D	02/12/2023	
Matrix Spike Dup	BLA0686-MSD1	02202325ECD7.D	02/12/2023	
Reference	BLA0686-SRM1	02202316ECD7.D	02/12/2023	
LDW23-SC1006A	23A0313-10	02202328ECD7.D	02/12/2023	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0100

Matrix: Solid **Cleanup using: Organics - EPA 3660B Sulfur Cleanup - uL** **Printed: 2/12/2023 5:04:31PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0313-01	A	LDW23-SC1108	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-02	A	LDW23-SC1115	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-03	A	LDW23-IT1114	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-04	A	LDW23-IT1120	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-05	A	LDW23-SC1090	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-06	A	LDW23-SC1095	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-07	A	LDW23-SC1076	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-08	A	LDW23-SC1016A	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-09	A	LDW23-SC1011A	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-10	A	LDW23-SC1006A	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-11	A	LDW23-SC1012B	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-12	A	LDW23-IT1148	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-13	A	LDW23-SC1159	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
BLA0686-BLK1	-	Blank	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-BS1	-	LCS	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-BSD1	-	LCS Dup	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-MS1	-	Matrix Spike	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-SRM1	-	Reference	-	2.5	2.5	-	2/12/2023	LMJ	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0101	Cleanup Type:	Sulfuric Acid
Cleanup Method:	EPA 3665 Sulfuric Acid Cleanup - uL	Analysis:	EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1114	23A0313-03	02202319ECD7.D	02/12/2023	
LDW23-SC1090	23A0313-05	02202321ECD7.D	02/12/2023	
Blank	BLA0686-BLK1	02202313ECD7.D	02/12/2023	
LCS	BLA0686-BS1	02202314ECD7.D	02/12/2023	
LCS Dup	BLA0686-BSD1	02202315ECD7.D	02/12/2023	
Matrix Spike	BLA0686-MS1	02202324ECD7.D	02/12/2023	
Matrix Spike Dup	BLA0686-MSD1	02202325ECD7.D	02/12/2023	
Reference	BLA0686-SRM1	02202316ECD7.D	02/12/2023	
LDW23-SC1159	23A0313-13	02132346ECD7.D	02/12/2023	
LDW23-SC1095	23A0313-06	02202322ECD7.D	02/12/2023	
LDW23-SC1115	23A0313-02	02202318ECD7.D	02/12/2023	
LDW23-SC1076	23A0313-07	02202323ECD7.D	02/12/2023	
LDW23-SC1016A	23A0313-08	02202326ECD7.D	02/12/2023	
LDW23-SC1012B	23A0313-11	02132344ECD7.D	02/12/2023	
LDW23-SC1011A	23A0313-09	02202327ECD7.D	02/12/2023	
LDW23-SC1006A	23A0313-10	02202328ECD7.D	02/12/2023	
LDW23-IT1148	23A0313-12	02132345ECD7.D	02/12/2023	
LDW23-IT1120	23A0313-04	02202320ECD7.D	02/12/2023	
LDW23-SC1108	23A0313-01	02202317ECD7.D	02/12/2023	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0101

Matrix: Solid **Cleanup using: Organics - EPA 3665 Sulfuric Acid Cleanup - uL** **Printed: 2/12/2023 5:05:14PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0313-01	A	LDW23-SC1108	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-02	A	LDW23-SC1115	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-03	A	LDW23-IT1114	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-04	A	LDW23-IT1120	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-05	A	LDW23-SC1090	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-06	A	LDW23-SC1095	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-07	A	LDW23-SC1076	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-08	A	LDW23-SC1016A	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-09	A	LDW23-SC1011A	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-10	A	LDW23-SC1006A	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-11	A	LDW23-SC1012B	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-12	A	LDW23-IT1148	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
23A0313-13	A	LDW23-SC1159	A 03	2.5	2.5	8082A PCB Solid 4	2/12/2023	LMJ	
BLA0686-BLK1	-	Blank	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-BS1	-	LCS	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-BSD1	-	LCS Dup	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-MS1	-	Matrix Spike	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	2/12/2023	LMJ	
BLA0686-SRM1	-	Reference	-	2.5	2.5	-	2/12/2023	LMJ	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I

METHOD BLANK DATA SHEET

EPA 8082A

Blank

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	BLA0686-BLK1	File ID:	02202313ECD7.D
Sampled:	N/A	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 14:23
Solids:		Preparation:	EPA 3546 (Microwave)	Initial/Final:	12.5 g / 2.5 mL
Batch:	BLA0686	Sequence:	SLB0274	Calibration:	GB00045
Instrument:	ECD7	Column:	ZB5	Cleanups:	Silica Gel, Sulfur, Sulfuric Acid

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
12674-11-2	Aroclor 1016	1	4.0	U	1.6	4.0
11104-28-2	Aroclor 1221	1	4.0	U	1.6	4.0
11141-16-5	Aroclor 1232	1	4.0	U	1.6	4.0
53469-21-9	Aroclor 1242	1	4.0	U	1.6	4.0
12672-29-6	Aroclor 1248	1	4.0	U	1.6	4.0
11097-69-1	Aroclor 1254	1	4.0	U	1.6	4.0
11096-82-5	Aroclor 1260	1	4.0	U	0.6	4.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Decachlorobiphenyl	8.0000	8.02	100	40 - 126	
Tetrachlorometaxylene	8.0000	6.53	81.6	44 - 120	
Decachlorobiphenyl [2C]	8.0000	8.12	101	40 - 126	
Tetrachlorometaxylene [2C]	8.0000	7.12	89.0	44 - 120	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202313ECD7.D
Data file 2: /230220.b/230220.b/02202313ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLA0686-BLK1
Client ID:
Injection Date: 20-FEB-2023 14:23
Report Date: 02/21/2023 09:38
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.806	-0.002	252823	5.684	-0.002	116433	32.6	35.6	8.7	Tetrachloro-m-xylene
13.890	-0.002	374177	14.116	-0.000	207867	40.1	40.6	1.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	546029	27.0
Hexabromobiphenyl	975457	1058807	8.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	245254	-33.1
Hexabromobiphenyl	646884	380605	-41.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	---			0.0	2	---			0.0
Aroclor-1260	3	---			0.0	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (5.908 - 13.791) = 159752 Col1 Total PCB = 0.0 ppm*

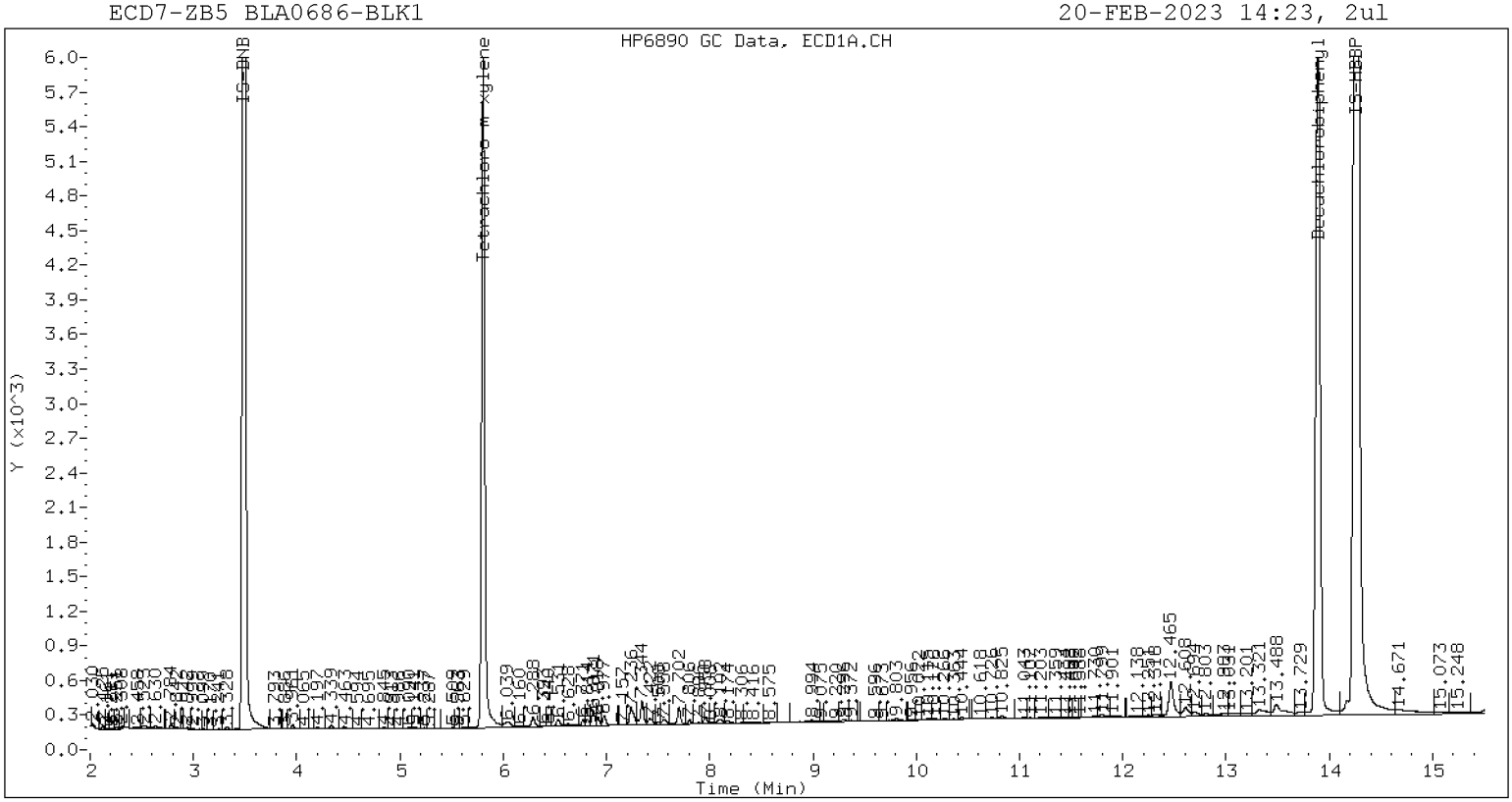
Total PCB Area Col2 (5.785 - 14.017) = 44668 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

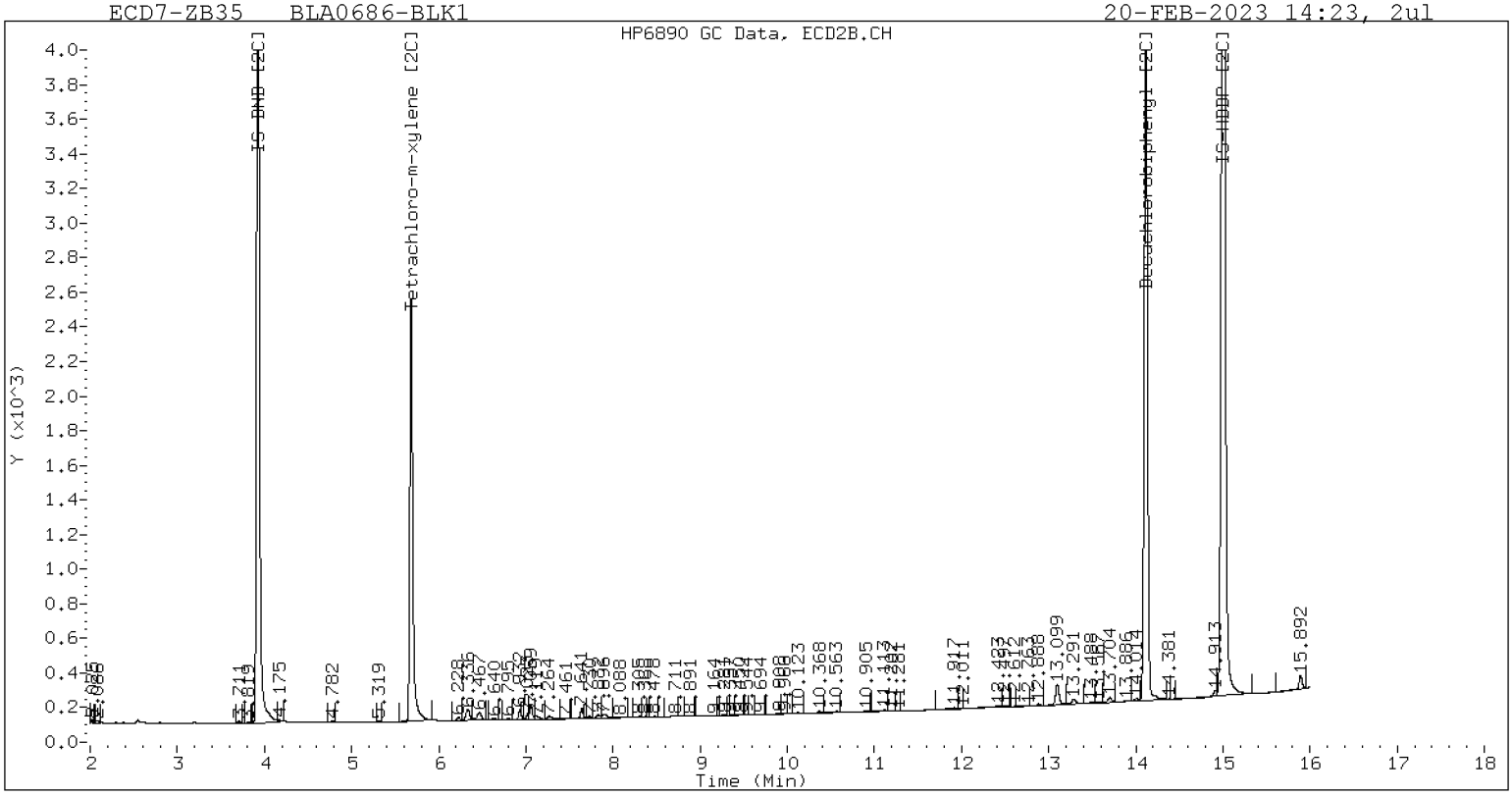
PCB Dual Column Chromatograms

ECD7-ZB5 BLA0686-BLK1 20-FEB-2023 14:23, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 BLA0686-BLK1 20-FEB-2023 14:23, 2ul



ZB-35 Manual Integration: NO

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	02/20/23 14:44
Batch:	BLA0686	Laboratory ID:	BLA0686-BS1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	LCS
Initial/Final:	12.5 g / 2.5 mL		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	101	93.4		92.6	56 - 120
Aroclor 1260	101	103		102	58 - 120

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Aroclor 1016 [2C]	101	94.6		93.9	3.46	30	56 - 120
Aroclor 1260 [2C]	101	109		108	6.07	30	58 - 120

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202314ECD7.D
Data file 2: /230220.b/230220.b/02202314ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLA0686-BS1
Client ID:
Injection Date: 20-FEB-2023 14:44
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.805	-0.003	271819	5.683	-0.002	122644	34.5	37.5	8.4	Tetrachloro-m-xylene
13.891	-0.000	400216	14.116	-0.001	229822	41.6	44.3	6.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	555846	29.2
Hexabromobiphenyl	975457	1093517	12.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	245285	-33.1
Hexabromobiphenyl	646884	385632	-40.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	7.266	-0.003	107134	529.3	1	7.251	-0.002	62184	466.0
Aroclor-1016	2	7.646	-0.004	299830	462.6	2	7.846	-0.006	134674	478.8
Aroclor-1016	3	7.785	-0.002	123909	415.7	3	8.047	-0.004	53876	464.7
Aroclor-1016	4	8.400	-0.002	90187	459.7	4	8.302	-0.002	39730	418.8
	Total Col1Ave (4 peaks):				466.8	Total Col2Ave (4 peaks):				457.1 RPD = 2
	Corrected Ave (3 peaks):				446.0	Corrected Ave (3 peaks):				449.8 RPD = 1
Aroclor-1221	1	4.730	-0.002	921	21.3	1	4.953	-0.004	171	9.4
Aroclor-1221	2	6.128	-0.005	11131	138.2	2	6.296	-0.001	4167	106.4
Aroclor-1221	3	6.380	-0.004	58225	312.6	3	6.618	-0.004	25529	389.4
	Total Col1Ave (3 peaks):				157.4	Total Col2Ave (3 peaks):				168.4 RPD = 7
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.730	-0.002	921	34.5	1	4.953	-0.005	171	15.7
Aroclor-1232	2	6.128	-0.005	11131	197.8	2	7.251	-0.003	62184	1020.0
Aroclor-1232	3	7.646	-0.008	299830	1109.4	3	7.846	-0.009	134674	1105.6
Aroclor-1232	4	8.572	-0.006	110270	986.7	4	8.708	-0.004	40332	1182.9
	Total Col1Ave (4 peaks):				582.1	Total Col2Ave (4 peaks):				831.0 RPD = 35
	Corrected Ave (3 peaks):				406.4	Corrected Ave (3 peaks):				713.8 RPD = 55*
Aroclor-1242	1	7.266	-0.003	107134	647.0	1	7.251	-0.001	62184	586.1
Aroclor-1242	2	7.646	-0.006	299830	572.2	2	7.846	-0.007	134674	585.9
Aroclor-1242	3	8.400	-0.003	90187	569.5	3	9.151	-0.010	7039	96.9
Aroclor-1242	4	8.572	-0.005	110270	471.5	4	9.576	-0.010	3965	45.0
	Total Col1Ave (4 peaks):				565.1	Total Col2Ave (4 peaks):				328.5 RPD = 53*
	Corrected Ave (3 peaks):				537.7	Corrected Ave (3 peaks):				242.6 RPD = 76*
Aroclor-1248	1	8.400	-0.003	90187	336.5	1	8.302	-0.002	39730	359.0
Aroclor-1248	2	8.572	-0.005	110270	326.0	2	8.708	-0.002	40332	346.4
Aroclor-1248	3	8.989	-0.006	86669	181.3	3	9.151	-0.006	7039	52.3
Aroclor-1248	4	9.293	0.001	88382	292.3	4	9.576	-0.004	3965	24.3
	Total Col1Ave (4 peaks):				284.0	Total Col2Ave (4 peaks):				195.5 RPD = 37
	Corrected Ave (3 peaks):				266.5	Corrected Ave (3 peaks):				141.0 RPD = 62*
Aroclor-1254	1	9.293	-0.002	88382	164.3	1	9.443	-0.003	33845	195.7
Aroclor-1254	2	---			0.0	2	9.964	-0.002	7853	56.2
Aroclor-1254	3	9.660	-0.005	16947	49.4	3	10.141	0.023	76636	251.8
Aroclor-1254	4	9.797	-0.006	50417	73.9	4	10.365	-0.003	98986	329.7
Aroclor-1254	5	10.115	-0.052	234125	562.5	5	10.561	-0.003	131608	867.6
	Total Col1Ave (4 peaks):				212.5	Total Col2Ave (5 peaks):				340.2 RPD = 46*
	Corrected Ave (3 peaks):				95.9	Corrected Ave (4 peaks):				208.4 RPD = 74*
Aroclor-1260	1	11.039	-0.001	189569	502.8	1	11.648	-0.002	100193	499.9
Aroclor-1260	2	11.355	-0.002	198803	515.5	2	11.912	-0.002	250540	498.3
Aroclor-1260	3	11.729	-0.001	509729	499.1	3	12.431	-0.001	72485	530.8
Aroclor-1260	4	12.131	-0.003	276426	533.1	4	12.497	-0.002	176940	521.3
Aroclor-1260	5	12.240	-0.001	114313	514.0	NS	---			----
	Total Col1Ave (5 peaks):				512.9	Total Col2Ave (4 peaks):				512.6 RPD = 0
	Corrected Ave (4 peaks):				507.9	Corrected Ave (3 peaks):				506.5 RPD = 0
Aroclor-1262	1	10.818	-0.006	370906	1160.8	1	11.194	-0.004	93680	324.2
Aroclor-1262	2	12.240	-0.002	114313	218.3	2	11.648	-0.001	100193	400.3
Aroclor-1262	3	12.314	-0.003	136506	241.7	3	12.431	0.000	72485	266.6
Aroclor-1262	4	12.982	-0.002	134935	276.3	4	12.497	-0.003	176940	408.1
	Total Col1Ave (4 peaks):				474.3	Total Col2Ave (4 peaks):				349.8 RPD = 30
	Corrected Ave (3 peaks):				245.4	Corrected Ave (3 peaks):				330.4 RPD = 30
Aroclor-1268	1	12.240	-0.003	114313	83.3	1	12.431	0.001	72485	103.3
Aroclor-1268	2	12.314	-0.000	136506	100.1	2	12.497	-0.001	176940	238.2
Aroclor-1268	3	12.718	0.020	65496	56.6	3	12.888	-0.002	5181	8.2
Aroclor-1268	4	13.483	-0.003	47189	13.3	4	13.704	-0.002	22577	11.1
	Total Col1Ave (4 peaks):				63.3	Total Col2Ave (4 peaks):				90.2 RPD = 35

Corrected Ave (3 peaks): 51.1 Corrected Ave (3 peaks): 40.9 RPD = 22

Total PCB Area Col1 (5.908 - 13.791) = 5546058 Col1 Total PCB = 0.9 ppm*

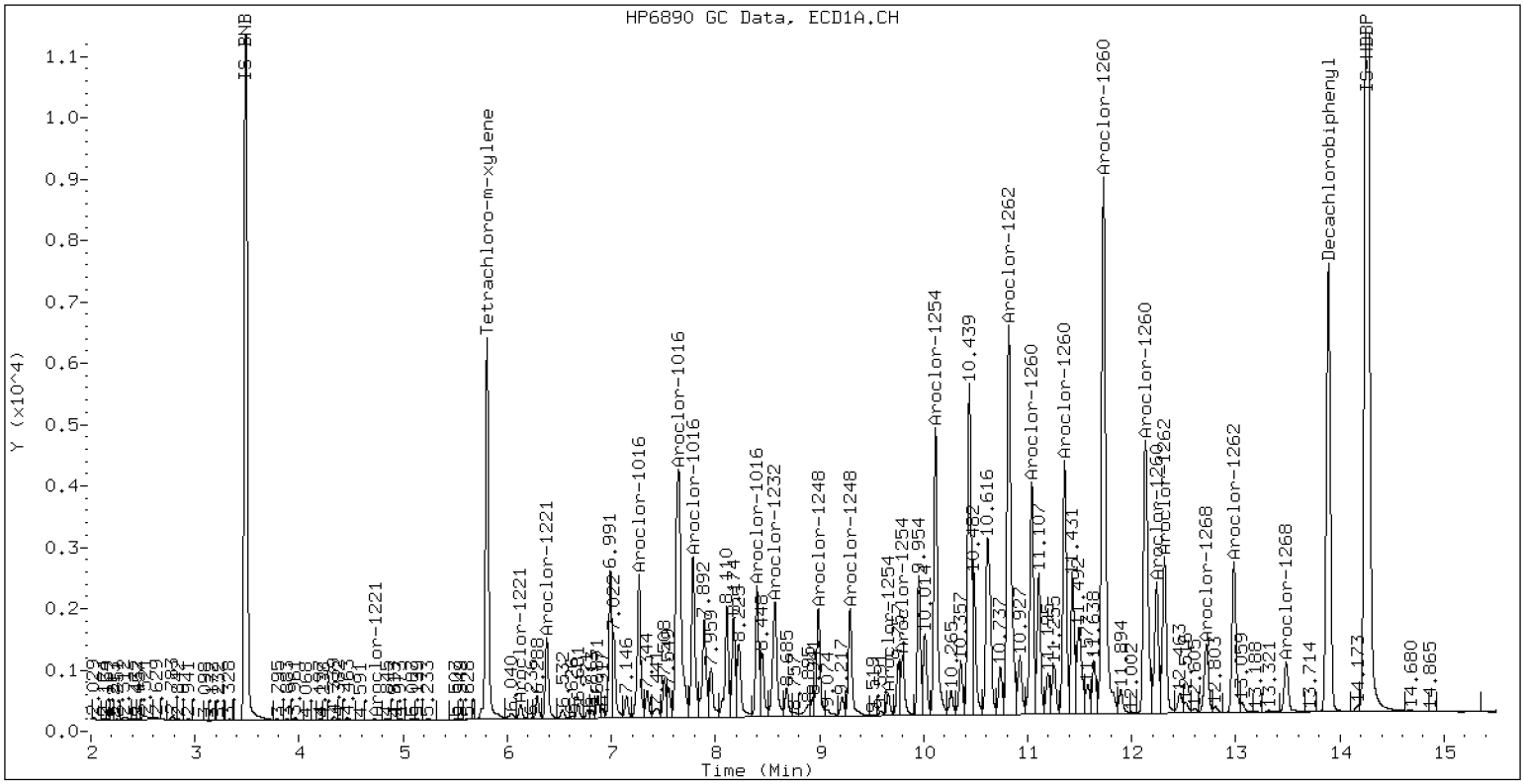
Total PCB Area Col2 (5.785 - 14.017) = 2472263 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

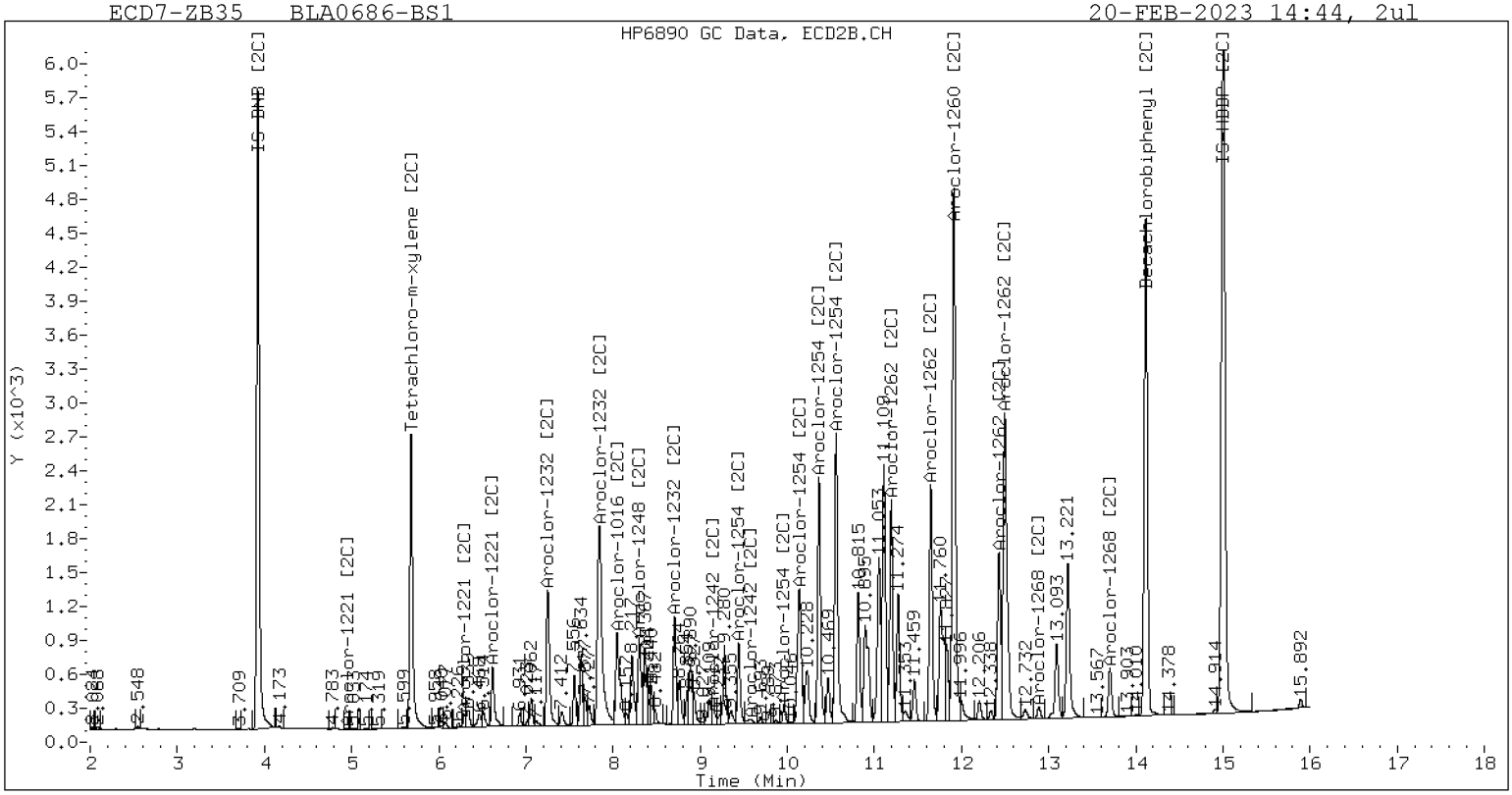
PCB Dual Column Chromatograms

ECD7-ZB5 BLA0686-BS1 20-FEB-2023 14:44, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 BLA0686-BS1 20-FEB-2023 14:44, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202315ECD7.D
Data file 2: /230220.b/230220.b/02202315ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLA0686-BSD1
Client ID:
Injection Date: 20-FEB-2023 15:05
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.805	-0.004	266821	5.682	-0.003	117144	33.2	35.0	5.2	Tetrachloro-m-xylene
13.890	-0.001	403930	14.115	-0.001	228903	40.3	43.2	7.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	566166	31.6
Hexabromobiphenyl	975457	1138633	16.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	251178	-31.5
Hexabromobiphenyl	646884	393592	-39.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.266	-0.003	96820	469.6	1	7.250	-0.004	63781	466.7
Aroclor-1016	2	7.646	-0.004	315144	477.3	2	7.847	-0.005	142080	493.2
Aroclor-1016	3	7.785	-0.002	131456	432.9	3	8.047	-0.004	58261	490.7
Aroclor-1016	4	8.400	-0.003	97583	488.3	4	8.301	-0.003	42923	441.8
Total Col1Ave (4 peaks):					467.0	Total Col2Ave (4 peaks):				473.1 RPD = 1
Corrected Ave (3 peaks):					460.0	Corrected Ave (3 peaks):				466.4 RPD = 1
Aroclor-1221	1	4.730	-0.002	700	15.9	1	4.952	-0.005	302	16.2
Aroclor-1221	2	6.127	-0.006	12165	148.3	2	6.294	-0.004	6499	162.1
Aroclor-1221	3	6.379	-0.005	62513	329.5	3	6.617	-0.004	27528	410.0
Total Col1Ave (3 peaks):					164.6	Total Col2Ave (3 peaks):				196.1 RPD = 17
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.730	-0.002	700	25.8	1	4.952	-0.006	302	27.1
Aroclor-1232	2	6.127	-0.006	12165	212.3	2	7.250	-0.005	63781	1021.6
Aroclor-1232	3	7.646	-0.008	315144	1144.8	3	7.847	-0.008	142080	1139.0
Aroclor-1232	4	8.573	-0.006	120410	1057.8	4	8.708	-0.004	43256	1238.9
Total Col1Ave (4 peaks):					610.2	Total Col2Ave (4 peaks):				856.7 RPD = 34
Corrected Ave (3 peaks):					432.0	Corrected Ave (3 peaks):				729.3 RPD = 51*
Aroclor-1242	1	7.266	-0.003	96820	574.0	1	7.250	-0.002	63781	587.1
Aroclor-1242	2	7.646	-0.006	315144	590.5	2	7.847	-0.006	142080	603.6
Aroclor-1242	3	8.400	-0.003	97583	605.0	3	9.150	-0.011	7600	102.1
Aroclor-1242	4	8.573	-0.005	120410	505.5	4	9.575	-0.011	4262	47.2
Total Col1Ave (4 peaks):					568.7	Total Col2Ave (4 peaks):				335.0 RPD = 52*
Corrected Ave (3 peaks):					556.7	Corrected Ave (3 peaks):				245.5 RPD = 78*
Aroclor-1248	1	8.400	-0.003	97583	357.4	1	8.301	-0.003	42923	378.8
Aroclor-1248	2	8.573	-0.005	120410	349.4	2	8.708	-0.002	43256	362.8
Aroclor-1248	3	8.989	-0.007	95037	195.1	3	9.150	-0.007	7600	55.2
Aroclor-1248	4	9.294	0.002	99472	322.9	4	9.575	-0.004	4262	25.5
Total Col1Ave (4 peaks):					306.2	Total Col2Ave (4 peaks):				205.6 RPD = 39
Corrected Ave (3 peaks):					289.2	Corrected Ave (3 peaks):				147.8 RPD = 65*
Aroclor-1254	1	9.294	-0.001	99472	181.5	1	9.443	-0.003	36911	208.4
Aroclor-1254	2	---			0.0	2	9.963	-0.002	8555	59.8
Aroclor-1254	3	9.661	-0.004	19472	55.8	3	10.139	0.021	83299	267.3
Aroclor-1254	4	9.797	-0.006	56733	81.6	4	10.365	-0.002	107397	349.3
Aroclor-1254	5	10.114	-0.053	258719	610.2	5	10.560	-0.004	143050	920.9
Total Col1Ave (4 peaks):					232.3	Total Col2Ave (5 peaks):				361.1 RPD = 43*
Corrected Ave (3 peaks):					106.3	Corrected Ave (4 peaks):				221.2 RPD = 70*
Aroclor-1260	1	11.040	-0.001	210240	535.6	1	11.648	-0.001	109050	533.1
Aroclor-1260	2	11.356	-0.001	218785	544.8	2	11.913	-0.001	272400	530.9
Aroclor-1260	3	11.729	-0.002	565429	531.7	3	12.432	-0.001	79156	568.0
Aroclor-1260	4	12.131	-0.003	305255	565.3	4	12.497	-0.002	189394	546.7
Aroclor-1260	5	12.239	-0.001	125410	541.6	NS	---			----
Total Col1Ave (5 peaks):					543.8	Total Col2Ave (4 peaks):				544.7 RPD = 0
Corrected Ave (4 peaks):					538.4	Corrected Ave (3 peaks):				536.9 RPD = 0
Aroclor-1262	1	10.818	-0.006	409025	1229.3	1	11.195	-0.003	102584	347.8
Aroclor-1262	2	12.239	-0.003	125410	230.0	2	11.648	-0.001	109050	426.9
Aroclor-1262	3	12.313	-0.003	150281	255.5	3	12.432	0.001	79156	285.3
Aroclor-1262	4	12.980	-0.004	147948	290.9	4	12.497	-0.003	189394	428.0
Total Col1Ave (4 peaks):					501.4	Total Col2Ave (4 peaks):				372.0 RPD = 30
Corrected Ave (3 peaks):					258.8	Corrected Ave (3 peaks):				353.3 RPD = 31
Aroclor-1268	1	12.239	-0.004	125410	87.8	1	12.432	0.001	79156	110.5
Aroclor-1268	2	12.313	-0.001	150281	105.8	2	12.497	-0.001	189394	249.8
Aroclor-1268	3	12.718	0.021	73775	61.2	3	12.888	-0.002	5618	8.7
Aroclor-1268	4	13.483	-0.004	48464	13.1	4	13.704	-0.003	24631	11.9
Total Col1Ave (4 peaks):					67.0	Total Col2Ave (4 peaks):				95.2 RPD = 35

Corrected Ave (3 peaks): 54.0 Corrected Ave (3 peaks): 43.7 RPD = 21

Total PCB Area Col1 (5.908 - 13.791) = 5983228 Col1 Total PCB = 0.9 ppm*

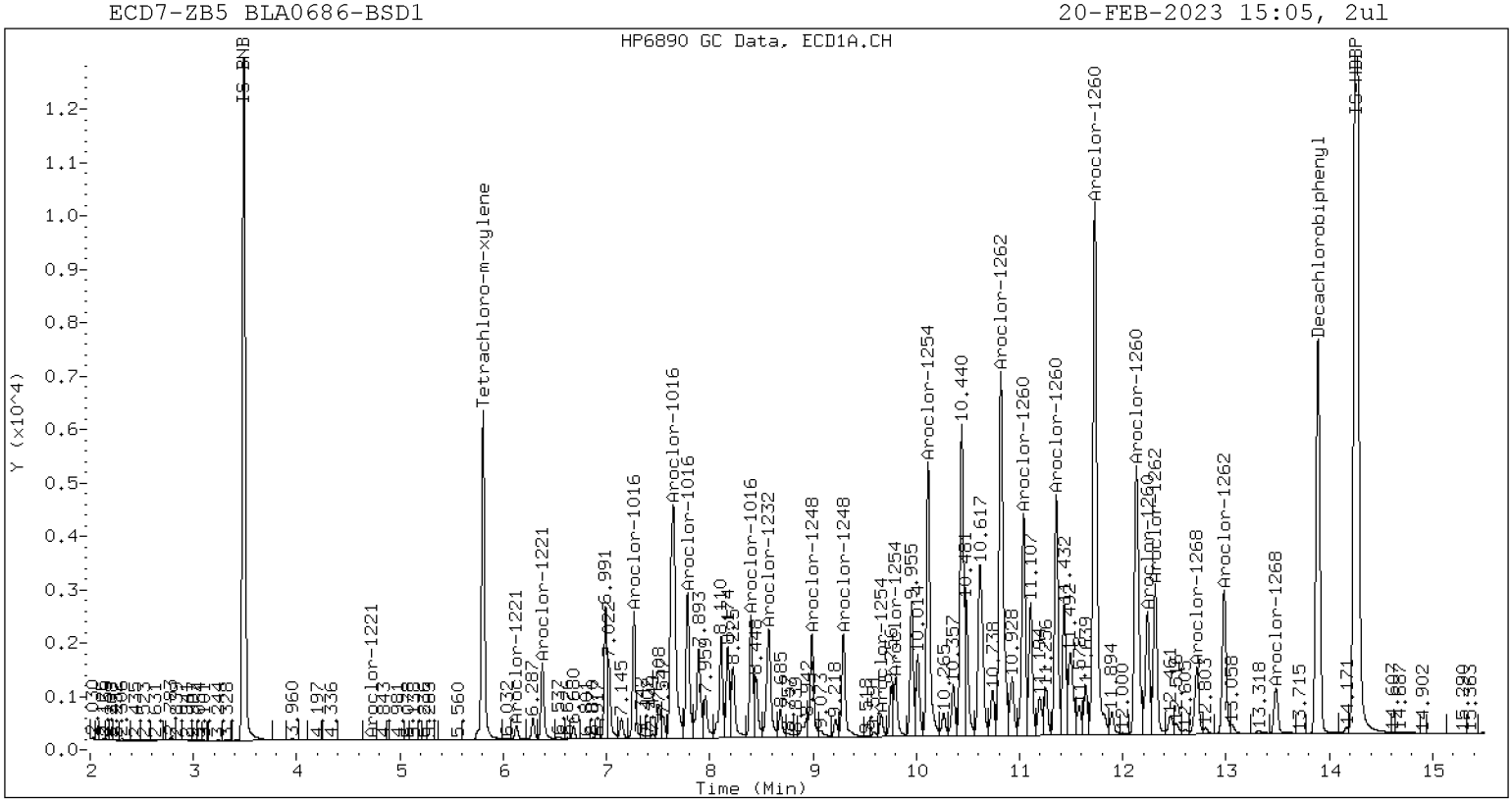
Total PCB Area Col2 (5.785 - 14.017) = 2642365 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

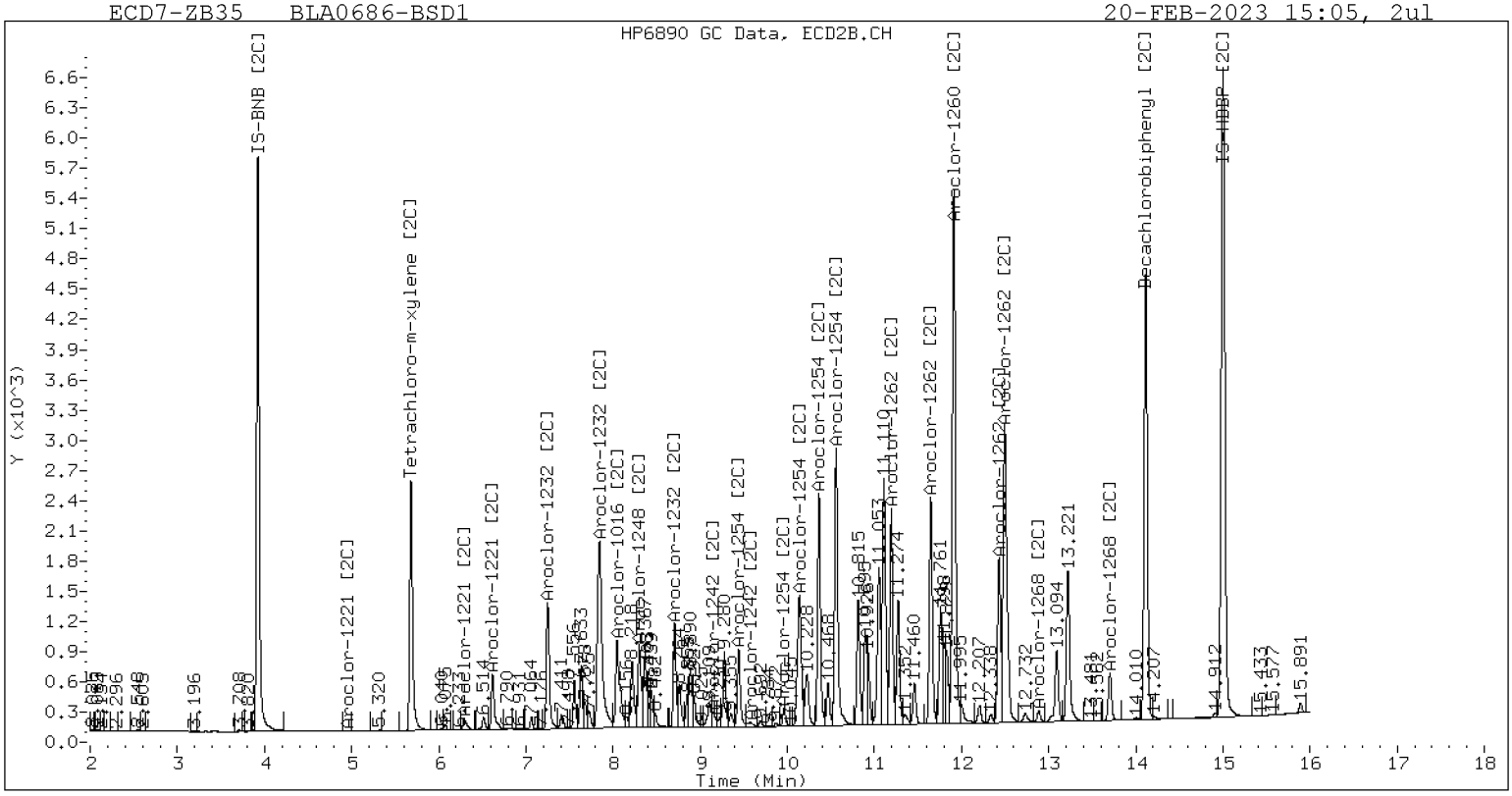
PCB Dual Column Chromatograms

ECD7-ZB5 BLA0686-BSD1 20-FEB-2023 15:05, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 BLA0686-BSD1 20-FEB-2023 15:05, 2ul



ZB-35 Manual Integration: NO

MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	02/20/23 18:15
Batch:	BLA0686	Laboratory ID:	BLA0686-MS1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	Matrix Spike
Initial/Final:	17.12 g / 2.5 mL	Source Sample:	LDW23-SC1076

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Aroclor 1016	101	ND	U	98.2		97.4	56 - 120
Aroclor 1260	101	28.8		149		119	58 - 120

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	02/20/23 18:36
Batch:	BLA0686	Laboratory ID:	BLA0686-MSD1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	Matrix Spike Dup
Initial/Final:	17.12 g / 2.5 mL	Source Sample:	LDW23-SC1076

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor 1016	101	91.0		90.3	7.63	30	56 - 120
Aroclor 1260	101	313	*, E	282 *	71.3 *	30	58 - 120

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202324ECD7.D
Data file 2: /230220.b/230220.b/02202324ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLA0686-MS1
Client ID:
Injection Date: 20-FEB-2023 18:15
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.804	-0.004	316165	5.680	-0.006	148043	34.0	41.2	19.2	Tetrachloro-m-xylene
13.886	-0.005	261729	14.112	-0.005	178276	42.6	42.6	0.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	656193	52.6
Hexabromobiphenyl	975457	697792	-28.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	269640	-26.5
Hexabromobiphenyl	646884	310975	-51.9 <-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	7.264	-0.005	128493	537.7	1	7.248	-0.005	81307	554.2
Aroclor-1016	2	7.641	-0.009	382850	500.3	2	7.840	-0.012	174264	563.6
Aroclor-1016	3	7.780	-0.007	141241	401.4	3	8.040	-0.011	65312	512.5
Aroclor-1016	4	8.395	-0.008	121511	524.7	4	8.296	-0.008	53585	513.8
	Total Col1Ave (4 peaks):				491.0	Total Col2Ave (4 peaks):				536.0 RPD = 9
	Corrected Ave (3 peaks):				475.4	Corrected Ave (3 peaks):				526.8 RPD = 10
Aroclor-1221	1	4.730	-0.002	2258	44.3	1	4.946	-0.012	1894	94.5
Aroclor-1221	2	6.126	-0.007	15500	163.0	2	6.295	-0.003	6855	159.3
Aroclor-1221	3	6.377	-0.006	78019	354.8	3	6.615	-0.007	37751	523.7
	Total Col1Ave (3 peaks):				187.4	Total Col2Ave (3 peaks):				259.2 RPD = 32
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.730	-0.002	2258	71.7	1	4.946	-0.013	1894	158.4
Aroclor-1232	2	6.126	-0.007	15500	233.4	2	7.248	-0.006	81307	1213.2
Aroclor-1232	3	7.641	-0.013	382850	1200.0	3	7.840	-0.015	174264	1301.4
Aroclor-1232	4	8.565	-0.014	128258	972.2	4	8.703	-0.010	56603	1510.1
	Total Col1Ave (4 peaks):				619.3	Total Col2Ave (4 peaks):				1045.8 RPD = 51*
	Corrected Ave (3 peaks):				425.8	Corrected Ave (3 peaks):				891.0 RPD = 71*
Aroclor-1242	1	7.264	-0.005	128493	657.3	1	7.248	-0.003	81307	697.2
Aroclor-1242	2	7.641	-0.011	382850	618.9	2	7.840	-0.013	174264	689.6
Aroclor-1242	3	8.395	-0.008	121511	650.0	3	9.137	-0.024	26371	330.2
Aroclor-1242	4	8.565	-0.012	128258	464.5	4	9.531	-0.056	34615	357.4
	Total Col1Ave (4 peaks):				597.7	Total Col2Ave (4 peaks):				518.6 RPD = 14
	Corrected Ave (3 peaks):				577.8	Corrected Ave (3 peaks):				459.1 RPD = 23
Aroclor-1248	1	8.395	-0.008	121511	384.0	1	8.296	-0.008	53585	440.5
Aroclor-1248	2	8.565	-0.013	128258	321.2	2	8.703	-0.008	56603	442.3
Aroclor-1248	3	8.983	-0.013	146047	258.7	3	9.137	-0.020	26371	178.3
Aroclor-1248	4	9.285	-0.007	149140	417.7	4	9.531	-0.049	34615	193.0
	Total Col1Ave (4 peaks):				345.4	Total Col2Ave (4 peaks):				313.5 RPD = 10
	Corrected Ave (3 peaks):				321.3	Corrected Ave (3 peaks):				270.6 RPD = 17
Aroclor-1254	1	9.285	-0.010	149140	234.8	1	9.435	-0.011	63570	334.4
Aroclor-1254	2	9.360	-0.013	40443	161.7	2	9.953	-0.012	22388	145.8
Aroclor-1254	3	9.654	-0.011	68675	169.7	3	10.130	0.012	63113	188.7
Aroclor-1254	4	9.785	-0.018	183215	227.4	4	10.356	-0.011	156168	473.2
Aroclor-1254	5	10.109	-0.058	329823	671.2	5	10.552	-0.013	162072	971.9
	Total Col1Ave (5 peaks):				293.0	Total Col2Ave (5 peaks):				422.8 RPD = 36
	Corrected Ave (4 peaks):				198.4	Corrected Ave (4 peaks):				285.5 RPD = 36
Aroclor-1260	1	11.032	-0.009	187776	780.6	1	11.641	-0.009	112071	693.5
Aroclor-1260	2	11.348	-0.009	185490	753.7	2	11.901	-0.012	268654	662.6
Aroclor-1260	3	11.719	-0.012	469188	719.9	3	12.422	-0.011	82421	748.5
Aroclor-1260	4	12.119	-0.015	253203	765.2	4	12.485	-0.014	177718	649.3
Aroclor-1260	5	12.233	-0.008	98513	694.2	NS	---			----
	Total Col1Ave (5 peaks):				742.7	Total Col2Ave (4 peaks):				688.5 RPD = 8
	Corrected Ave (4 peaks):				733.2	Corrected Ave (3 peaks):				668.5 RPD = 9
Aroclor-1262	1	10.807	-0.017	445286	2183.8	1	11.187	-0.010	99163	425.5
Aroclor-1262	2	12.233	-0.009	98513	294.8	2	11.641	-0.008	112071	555.3
Aroclor-1262	3	12.307	-0.010	117365	325.7	3	12.422	-0.009	82421	376.0
Aroclor-1262	4	12.973	-0.012	116483	373.8	4	12.485	-0.015	177718	508.3
	Total Col1Ave (4 peaks):				794.5	Total Col2Ave (4 peaks):				466.3 RPD = 52*
	Corrected Ave (3 peaks):				331.4	Corrected Ave (3 peaks):				436.6 RPD = 27
Aroclor-1268	1	12.233	-0.010	98513	112.5	1	12.422	-0.009	82421	145.6
Aroclor-1268	2	12.307	-0.008	117365	134.9	2	12.485	-0.013	177718	296.7
Aroclor-1268	3	12.708	0.010	56472	76.5	3	12.882	-0.008	6840	13.4
Aroclor-1268	4	13.476	-0.011	37934	16.8	4	13.697	-0.009	24722	15.1
	Total Col1Ave (4 peaks):				85.2	Total Col2Ave (4 peaks):				117.7 RPD = 32

Corrected Ave (3 peaks): 68.6 Corrected Ave (3 peaks): 58.0 RPD = 17

Total PCB Area Col1 (5.908 - 13.791) = 6687370 Col1 Total PCB = 0.9 ppm*

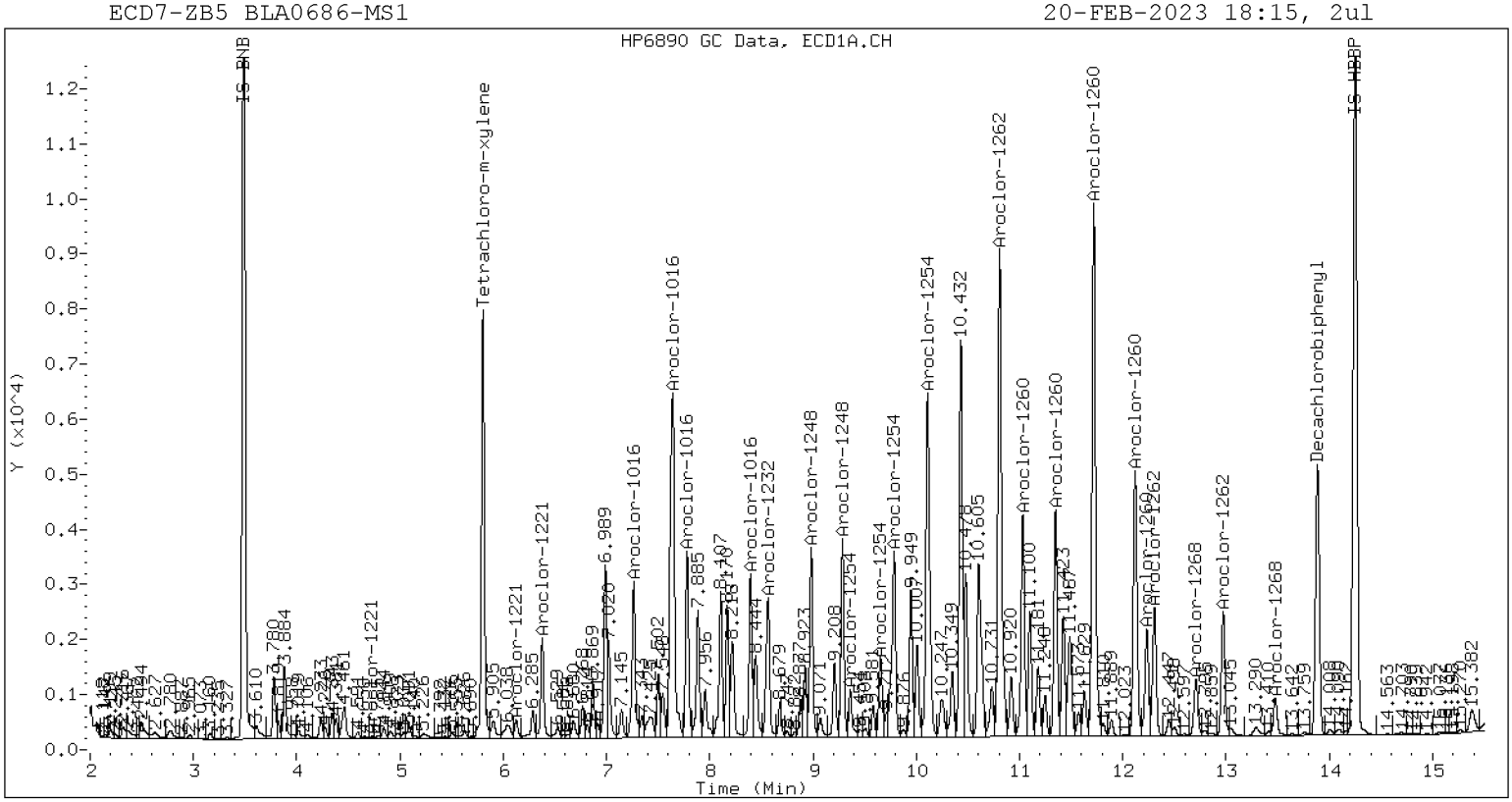
Total PCB Area Col2 (5.785 - 14.017) = 3258557 Col2 Total PCB = 1.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

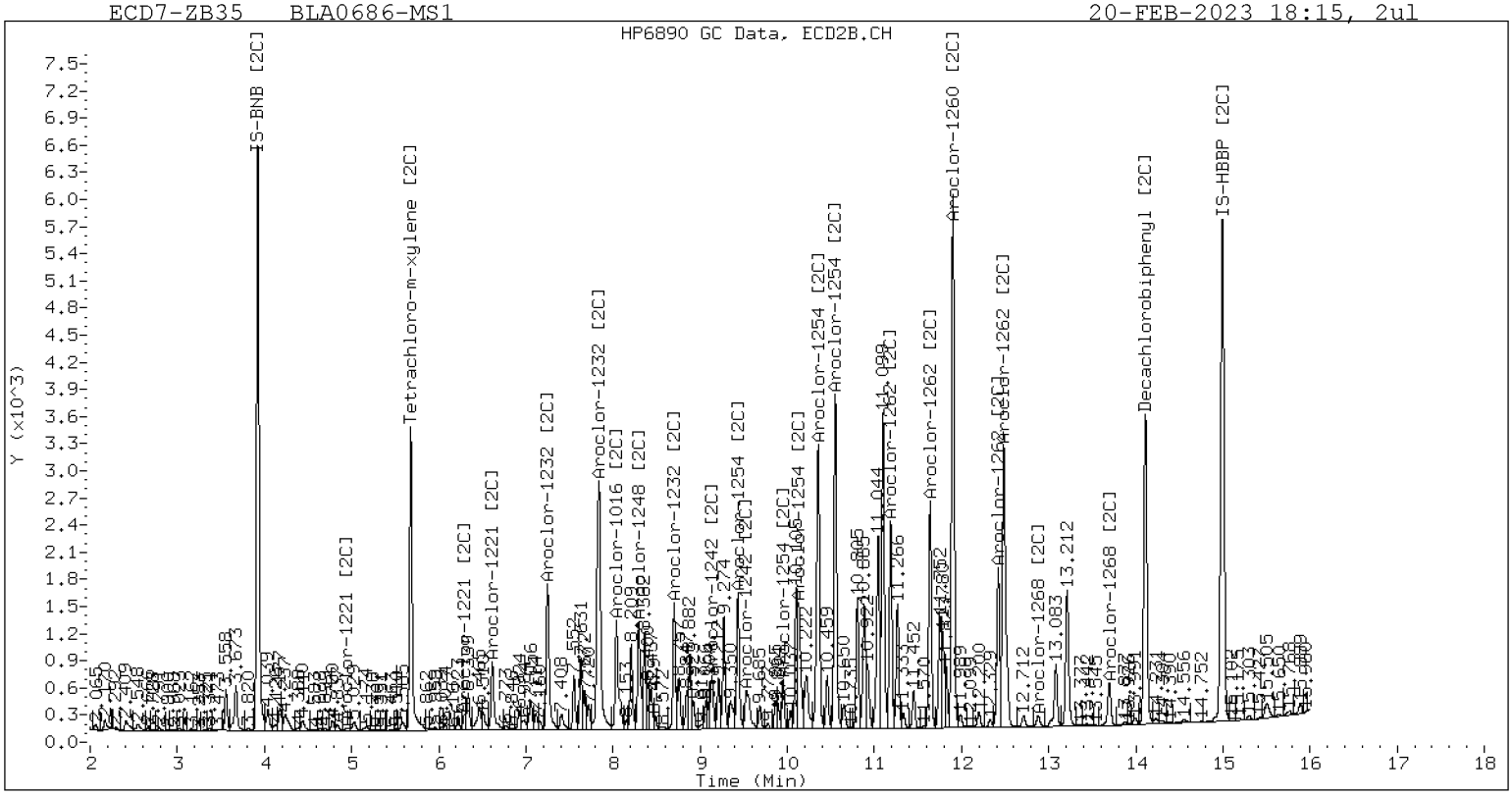
PCB Dual Column Chromatograms

ECD7-ZB5 BLA0686-MS1 20-FEB-2023 18:15, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 BLA0686-MS1 20-FEB-2023 18:15, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202325ECD7.D
Data file 2: /230220.b/230220.b/02202325ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLA0686-MSD1
Client ID:
Injection Date: 20-FEB-2023 18:36
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.807	-0.001	302462	5.683	-0.003	139128	31.3	37.7	18.5	Tetrachloro-m-xylene
13.885	-0.006	253603	14.111	-0.006	174738	40.1	40.5	1.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	681012	58.4
Hexabromobiphenyl	975457	718783	-26.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	276736	-24.5
Hexabromobiphenyl	646884	320542	-50.4 <-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.266	-0.003	119536	482.0	1	7.250	-0.004	78316	520.2
Aroclor-1016	2	7.643	-0.007	370461	466.5	2	7.841	-0.011	169436	533.9
Aroclor-1016	3	7.781	-0.006	137521	376.5	3	8.041	-0.010	63941	488.8
Aroclor-1016	4	8.396	-0.006	118877	494.6	4	8.298	-0.006	52738	492.7
Total Col1Ave (4 peaks):					454.9	Total Col2Ave (4 peaks):				508.9 RPD = 11
Corrected Ave (3 peaks):					441.7	Corrected Ave (3 peaks):				500.6 RPD = 13
Aroclor-1221	1	4.733	0.000	1638	31.0	1	4.944	-0.013	3115	151.4
Aroclor-1221	2	6.128	-0.005	14140	143.3	2	6.297	-0.001	6871	155.6
Aroclor-1221	3	6.380	-0.004	75436	330.5	3	6.617	-0.005	36326	491.1
Total Col1Ave (3 peaks):					168.3	Total Col2Ave (3 peaks):				266.0 RPD = 45*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.733	0.001	1638	50.1	1	4.944	-0.014	3115	253.8
Aroclor-1232	2	6.128	-0.005	14140	205.1	2	7.250	-0.005	78316	1138.6
Aroclor-1232	3	7.643	-0.011	370461	1118.8	3	7.841	-0.014	169436	1232.9
Aroclor-1232	4	8.566	-0.013	124404	908.6	4	8.703	-0.009	55352	1438.9
Total Col1Ave (4 peaks):					570.7	Total Col2Ave (4 peaks):				1016.0 RPD = 56*
Corrected Ave (3 peaks):					388.0	Corrected Ave (3 peaks):				875.1 RPD = 77*
Aroclor-1242	1	7.266	-0.003	119536	589.2	1	7.250	-0.002	78316	654.3
Aroclor-1242	2	7.643	-0.009	370461	577.1	2	7.841	-0.012	169436	653.3
Aroclor-1242	3	8.396	-0.007	118877	612.7	3	9.137	-0.023	34313	418.6
Aroclor-1242	4	8.566	-0.011	124404	434.2	4	9.613	0.027	2792	28.1
Total Col1Ave (4 peaks):					553.3	Total Col2Ave (4 peaks):				438.6 RPD = 23
Corrected Ave (3 peaks):					533.5	Corrected Ave (3 peaks):				366.7 RPD = 37
Aroclor-1248	1	8.396	-0.007	118877	362.0	1	8.298	-0.006	52738	422.4
Aroclor-1248	2	8.566	-0.011	124404	300.2	2	8.703	-0.007	55352	421.4
Aroclor-1248	3	8.984	-0.012	144157	246.1	3	9.137	-0.020	34313	226.1
Aroclor-1248	4	9.286	-0.006	154949	418.2	4	9.613	0.034	2792	15.2
Total Col1Ave (4 peaks):					331.6	Total Col2Ave (4 peaks):				271.3 RPD = 20
Corrected Ave (3 peaks):					302.7	Corrected Ave (3 peaks):				220.9 RPD = 31
Aroclor-1254	1	9.286	-0.009	154949	235.1	1	9.436	-0.010	66015	338.3
Aroclor-1254	2	9.361	-0.013	42588	164.1	2	9.954	-0.011	22633	143.6
Aroclor-1254	3	9.654	-0.011	69122	164.6	3	10.132	0.015	151013	439.9
Aroclor-1254	4	9.785	-0.018	195958	234.4	4	10.358	-0.009	207142	611.5
Aroclor-1254	5	10.109	-0.058	436491	855.9	5	10.552	-0.012	259978	1519.0
Total Col1Ave (5 peaks):					330.8	Total Col2Ave (5 peaks):				610.5 RPD = 59*
Corrected Ave (4 peaks):					199.5	Corrected Ave (4 peaks):				383.3 RPD = 63*
Aroclor-1260	1	11.033	-0.007	401558	1620.5	1	11.641	-0.009	221164	1327.6
Aroclor-1260	2	11.349	-0.009	387383	1528.1	2	11.903	-0.011	605910	1449.9
Aroclor-1260	3	11.720	-0.010	1080886	1610.0	3	12.422	-0.011	184619	1626.6
Aroclor-1260	4	12.120	-0.014	524191	1537.8	4	12.486	-0.012	384352	1362.3
Aroclor-1260	5	12.234	-0.007	224071	1532.8	NS	---			----
Total Col1Ave (5 peaks):					1565.9	Total Col2Ave (4 peaks):				1441.6 RPD = 8
Corrected Ave (4 peaks):					1552.2	Corrected Ave (3 peaks):				1380.0 RPD = 12
Aroclor-1262	1	10.808	-0.017	678222	3229.1	1	11.188	-0.010	215707	898.0
Aroclor-1262	2	12.234	-0.008	224071	650.9	2	11.641	-0.008	221164	1063.1
Aroclor-1262	3	12.307	-0.010	265941	716.4	3	12.422	-0.009	184619	817.1
Aroclor-1262	4	12.973	-0.011	250219	779.4	4	12.486	-0.014	384352	1066.5
Total Col1Ave (4 peaks):					1344.0	Total Col2Ave (4 peaks):				961.1 RPD = 33
Corrected Ave (3 peaks):					715.6	Corrected Ave (3 peaks):				926.0 RPD = 26
Aroclor-1268	1	12.234	-0.009	224071	248.4	1	12.422	-0.009	184619	316.5
Aroclor-1268	2	12.307	-0.008	265941	296.7	2	12.486	-0.012	384352	622.6
Aroclor-1268	3	12.709	0.012	122814	161.4	3	12.882	-0.008	9413	17.9
Aroclor-1268	4	13.476	-0.011	59997	25.7	4	13.697	-0.009	40497	23.9
Total Col1Ave (4 peaks):					183.1	Total Col2Ave (4 peaks):				245.2 RPD = 29

Corrected Ave (3 peaks): 145.2 Corrected Ave (3 peaks): 119.4 RPD = 19

Total PCB Area Col1 (5.908 - 13.791) = 9811389 Col1 Total PCB = 1.3 ppm*

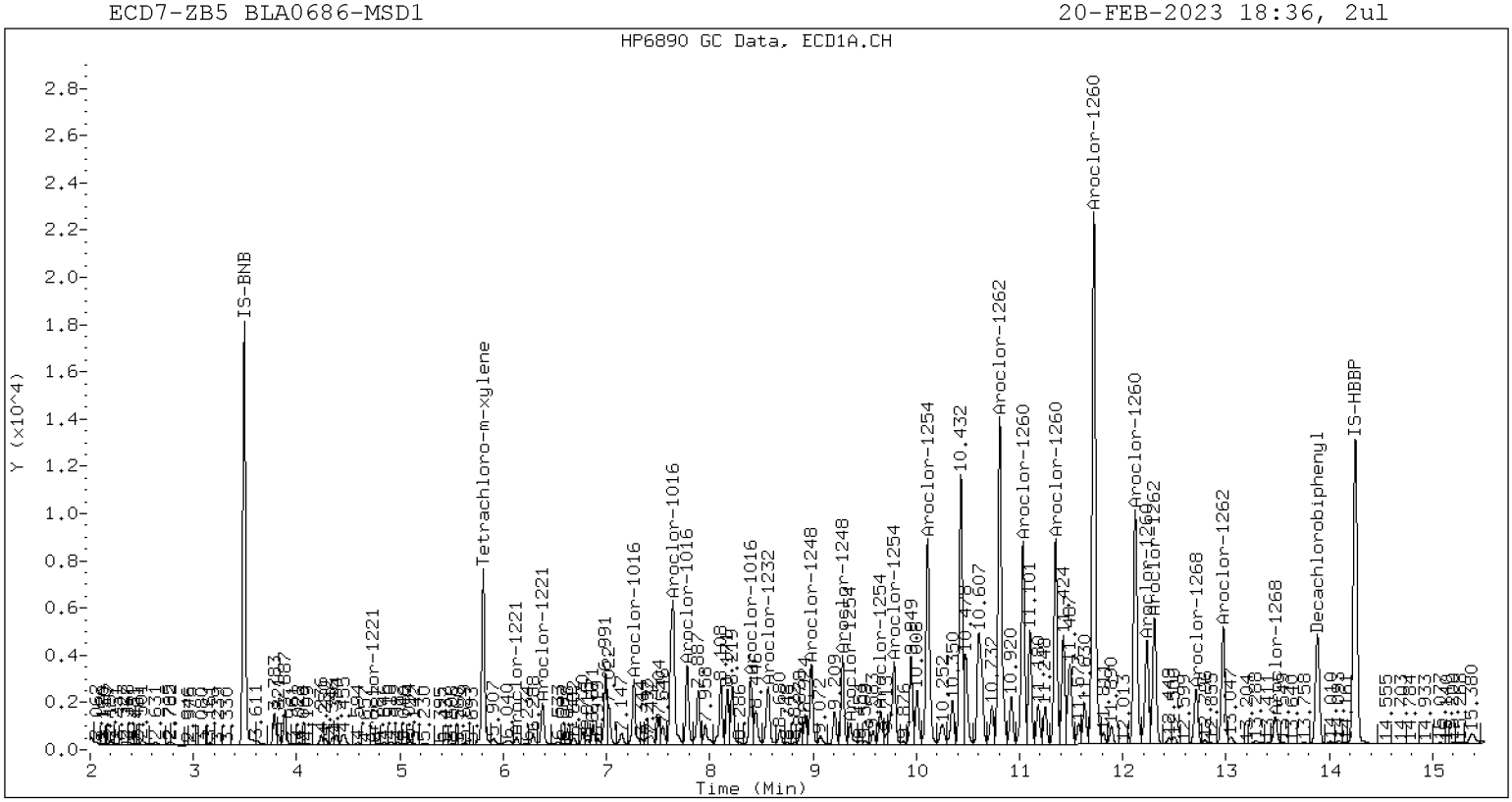
Total PCB Area Col2 (5.785 - 14.017) = 4931111 Col2 Total PCB = 1.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

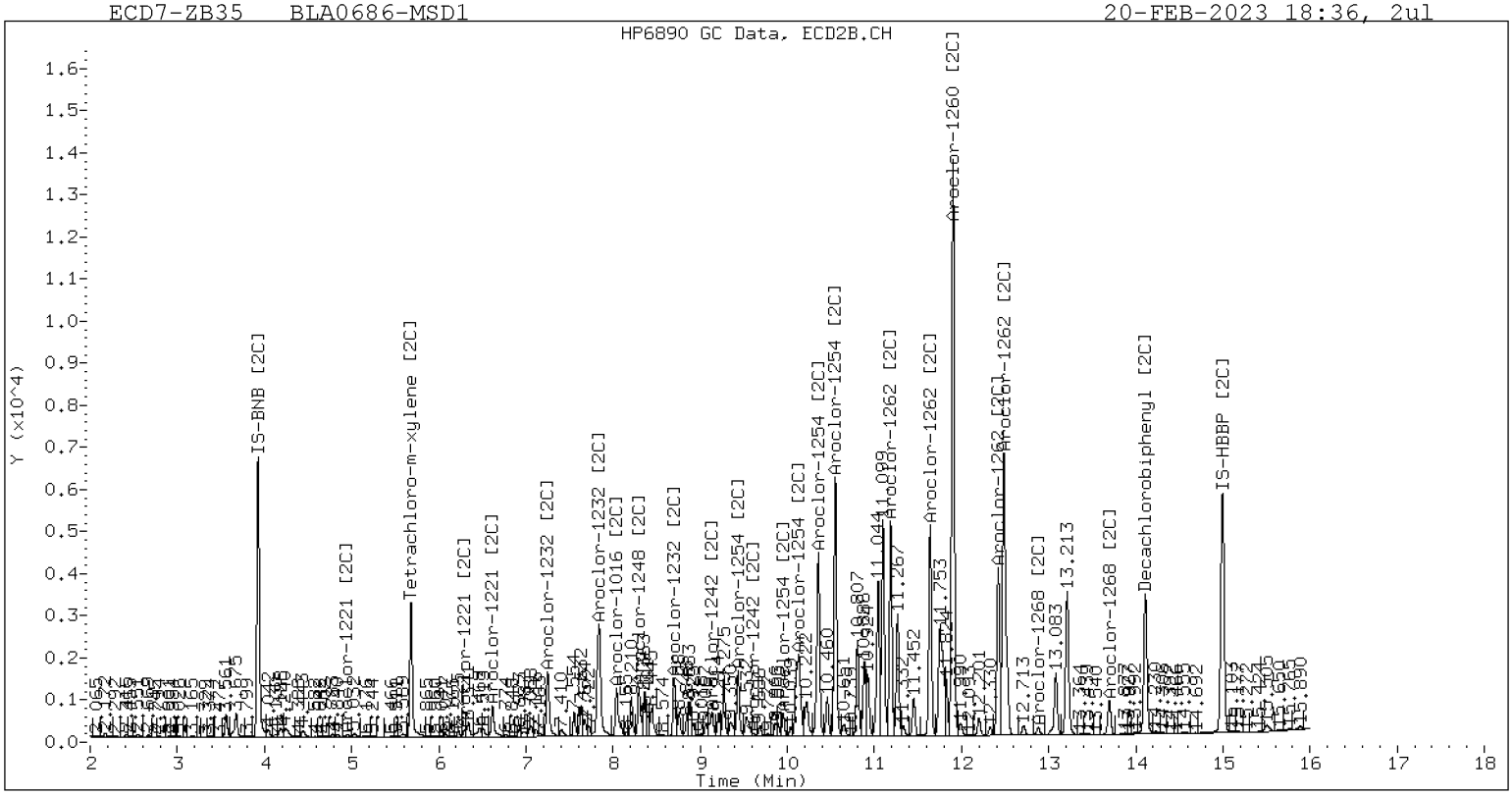
PCB Dual Column Chromatograms

ECD7-ZB5 BLA0686-MSD1 20-FEB-2023 18:36, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 BLA0686-MSD1 20-FEB-2023 18:36, 2ul

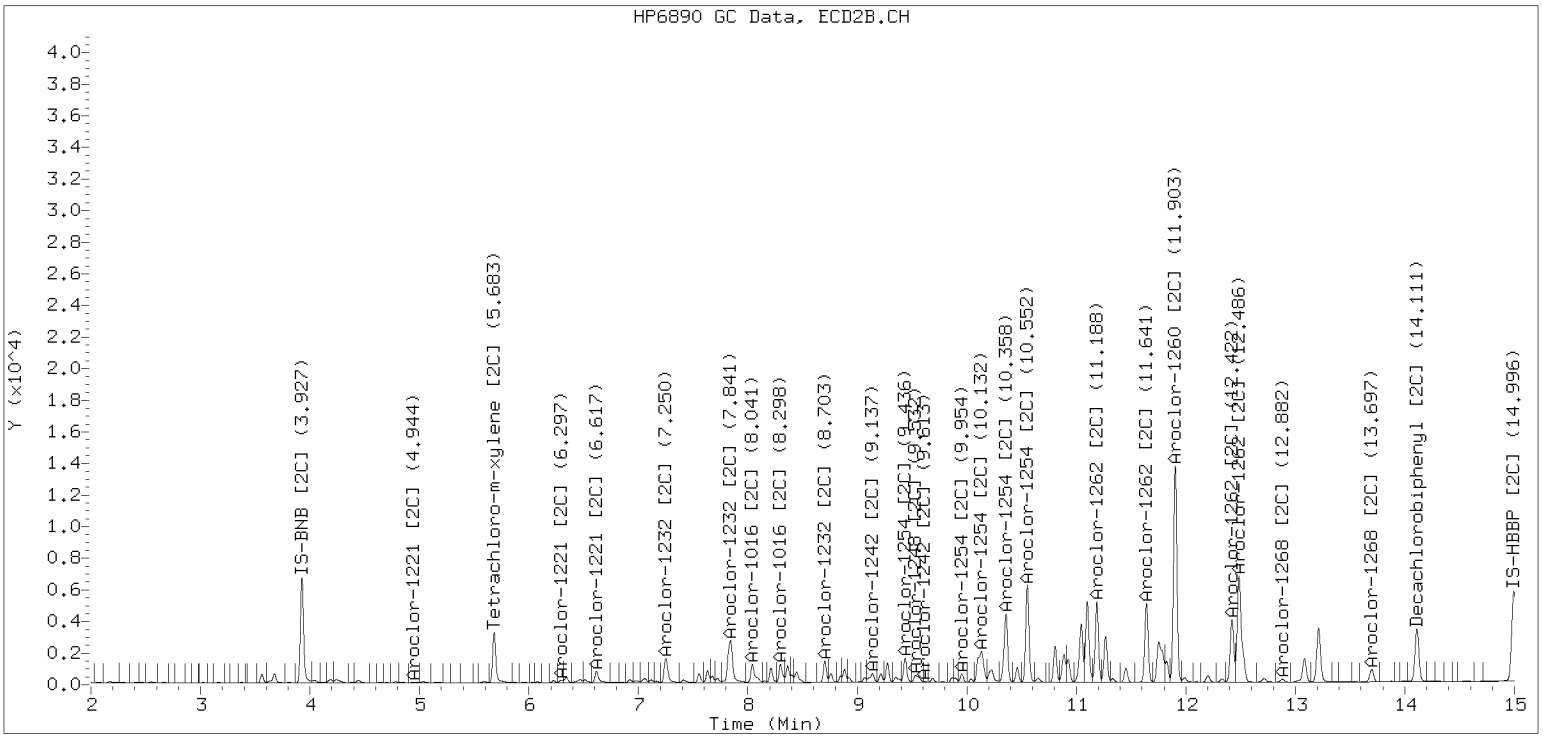


ZB-35 Manual Integration: NO

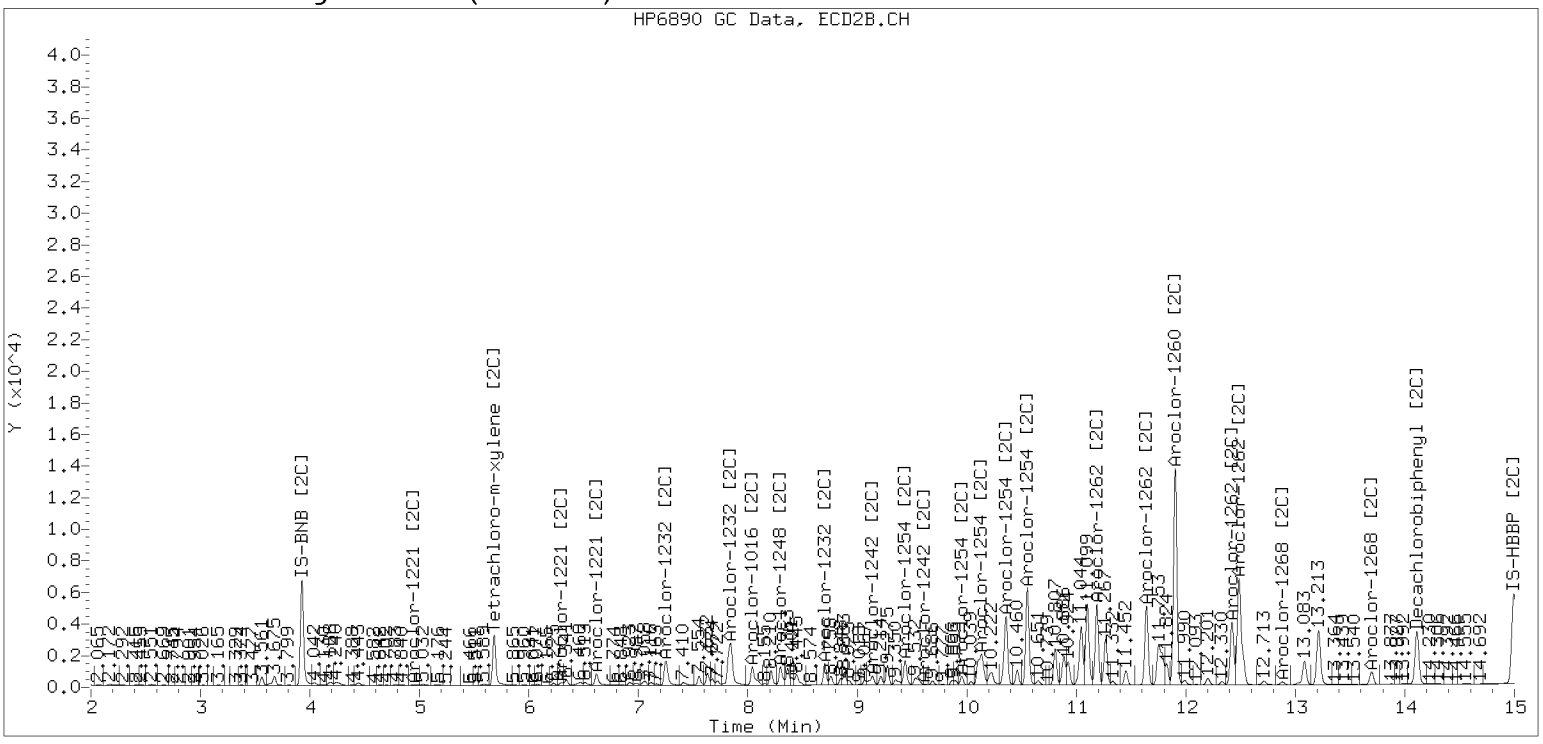
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230220.b/230220.b/02202325ECD7.D Injection Date: 20-FEB-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources, LLC
Analytical Chemists and Consultants

STANDARD REFERENCE MATERIAL RECOVERY

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Laboratory ID: BLA0686-SRM1
Batch: BLA0686
Initial/Final: 2.5 g / 2.5 mL
Preparation: EPA 3546 (Microwave)
Analyzed: 02/20/2023 15:26
Standard ID: K011477
Expires: 06/11/2023
Standard Lot#: PSRM0168
Description: Puget Sound reference-SRM

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Aroclor 1260	108.00	145	2.9	20.0		134	38 - 167
Aroclor 1260 [2C]	108.00	148	2.9	20.0		137	38 - 167

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202316ECD7.D
Data file 2: /230220.b/230220.b/02202316ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLA0686-SRM1
Client ID:
Injection Date: 20-FEB-2023 15:26
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.804	-0.004	252492	5.681	-0.004	120177	29.4	34.6	16.3	Tetrachloro-m-xylene
13.886	-0.005	321019	14.113	-0.004	188064	37.2	37.3	0.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	605444	40.8
Hexabromobiphenyl	975457	978975	0.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	260324	-29.0
Hexabromobiphenyl	646884	374686	-42.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.301	0.032	4356	19.8	1	7.258	0.005	6802	48.0
Aroclor-1016	2	7.645	-0.005	10968	15.5	2	7.834	-0.018	9943	33.3
Aroclor-1016	3	7.792	0.005	6809	21.0	3	8.044	-0.007	875	7.1
Aroclor-1016	4	8.398	-0.005	11094	51.9	4	8.299	-0.005	4761	47.3
Total Col1Ave (4 peaks):					27.0	Total Col2Ave (4 peaks):				33.9 RPD = 23
Corrected Ave (3 peaks):					18.8	Corrected Ave (3 peaks):				29.2 RPD = 44*
Aroclor-1221	1	4.737	0.005	1072	22.8	1	4.939	-0.019	420	21.7
Aroclor-1221	2	6.161	0.028	816	9.3	2	6.340	0.042	8877	213.7
Aroclor-1221	3	6.390	0.007	3287	16.2	3	6.634	0.012	2763	39.7
Total Col1Ave (3 peaks):					16.1	Total Col2Ave (3 peaks):				91.7 RPD = 140*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.737	0.005	1072	36.9	1	4.939	-0.020	420	36.4
Aroclor-1232	2	6.161	0.028	816	13.3	2	7.258	0.004	6802	105.1
Aroclor-1232	3	7.645	-0.009	10968	37.3	3	7.834	-0.021	9943	76.9
Aroclor-1232	4	8.567	-0.012	7708	63.3	4	8.706	-0.007	3592	99.3
Total Col1Ave (4 peaks):					37.7	Total Col2Ave (4 peaks):				79.4 RPD = 71*
Corrected Ave (3 peaks):					29.2	Corrected Ave (3 peaks):				70.9 RPD = 83*
Aroclor-1242	1	7.301	0.032	4356	24.2	1	7.258	0.006	6802	60.4
Aroclor-1242	2	7.645	-0.007	10968	19.2	2	7.834	-0.019	9943	40.8
Aroclor-1242	3	8.398	-0.005	11094	64.3	3	9.142	-0.019	4900	63.5
Aroclor-1242	4	8.567	-0.010	7708	30.3	4	9.533	-0.053	8207	87.8
Total Col1Ave (4 peaks):					34.5	Total Col2Ave (4 peaks):				63.1 RPD = 59*
Corrected Ave (3 peaks):					24.5	Corrected Ave (3 peaks):				54.9 RPD = 76*
Aroclor-1248	1	8.398	-0.006	11094	38.0	1	8.299	-0.005	4761	40.5
Aroclor-1248	2	8.567	-0.010	7708	20.9	2	8.706	-0.005	3592	29.1
Aroclor-1248	3	8.986	-0.010	29796	57.2	3	9.142	-0.015	4900	34.3
Aroclor-1248	4	9.287	-0.005	37445	113.7	4	9.533	-0.046	8207	47.4
Total Col1Ave (4 peaks):					57.5	Total Col2Ave (4 peaks):				37.8 RPD = 41*
Corrected Ave (3 peaks):					38.7	Corrected Ave (3 peaks):				34.6 RPD = 11
Aroclor-1254	1	9.287	-0.008	37445	63.9	1	9.438	-0.007	14008	76.3
Aroclor-1254	2	9.363	-0.010	14987	65.0	2	9.957	-0.009	6476	43.7
Aroclor-1254	3	9.658	-0.007	22405	60.0	3	10.109	-0.009	29205	90.4
Aroclor-1254	4	9.789	-0.014	50682	68.2	4	10.360	-0.008	36367	114.1
Aroclor-1254	5	10.111	-0.056	82527	182.0	5	10.555	-0.009	37329	231.9
Total Col1Ave (5 peaks):					87.8	Total Col2Ave (5 peaks):				111.3 RPD = 24
Corrected Ave (4 peaks):					64.3	Corrected Ave (4 peaks):				81.1 RPD = 23
Aroclor-1260	1	11.034	-0.007	51513	152.6	1	11.643	-0.006	30318	155.7
Aroclor-1260	2	11.348	-0.009	45286	131.2	2	11.905	-0.009	63879	130.8
Aroclor-1260	3	11.720	-0.010	132355	144.8	3	12.423	-0.010	23148	174.5
Aroclor-1260	4	12.121	-0.014	70242	151.3	4	12.488	-0.011	42801	129.8
Aroclor-1260	5	12.234	-0.006	28748	144.4	NS	---			----
Total Col1Ave (5 peaks):					144.8	Total Col2Ave (4 peaks):				147.7 RPD = 2
Corrected Ave (4 peaks):					142.9	Corrected Ave (3 peaks):				138.8 RPD = 3
Aroclor-1262	1	10.810	-0.015	113045	395.2	1	11.189	-0.008	24599	87.6
Aroclor-1262	2	12.234	-0.008	28748	61.3	2	11.643	-0.006	30318	124.7
Aroclor-1262	3	12.308	-0.009	35655	70.5	3	12.423	-0.008	23148	87.6
Aroclor-1262	4	12.974	-0.011	38860	88.9	4	12.488	-0.012	42801	101.6
Total Col1Ave (4 peaks):					154.0	Total Col2Ave (4 peaks):				100.4 RPD = 42*
Corrected Ave (3 peaks):					73.6	Corrected Ave (3 peaks):				92.3 RPD = 23
Aroclor-1268	1	12.234	-0.008	28748	23.4	1	12.423	-0.007	23148	33.9
Aroclor-1268	2	12.308	-0.006	35655	29.2	2	12.488	-0.010	42801	59.3
Aroclor-1268	3	12.711	0.014	18540	17.9	3	12.887	-0.003	2563	4.2
Aroclor-1268	4	13.477	-0.010	9004	2.8	4	13.699	-0.008	8966	4.5
Total Col1Ave (4 peaks):					18.3	Total Col2Ave (4 peaks):				25.5 RPD = 33

Corrected Ave (3 peaks): 14.7 Corrected Ave (3 peaks): 14.2 RPD = 3

Total PCB Area Col1 (5.908 - 13.791) = 1582227 Col1 Total PCB = 0.2 ppm*

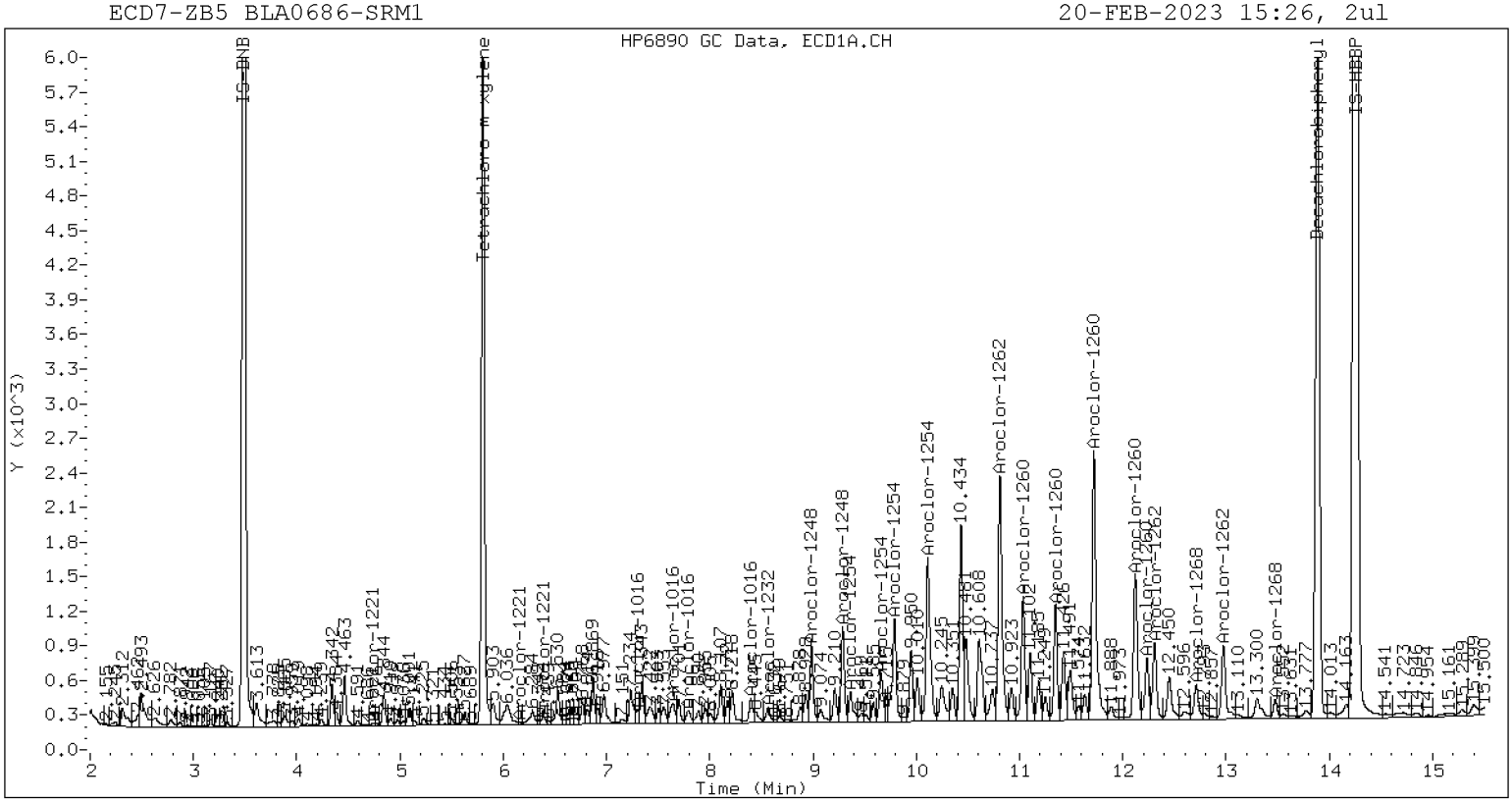
Total PCB Area Col2 (5.785 - 14.017) = 706110 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

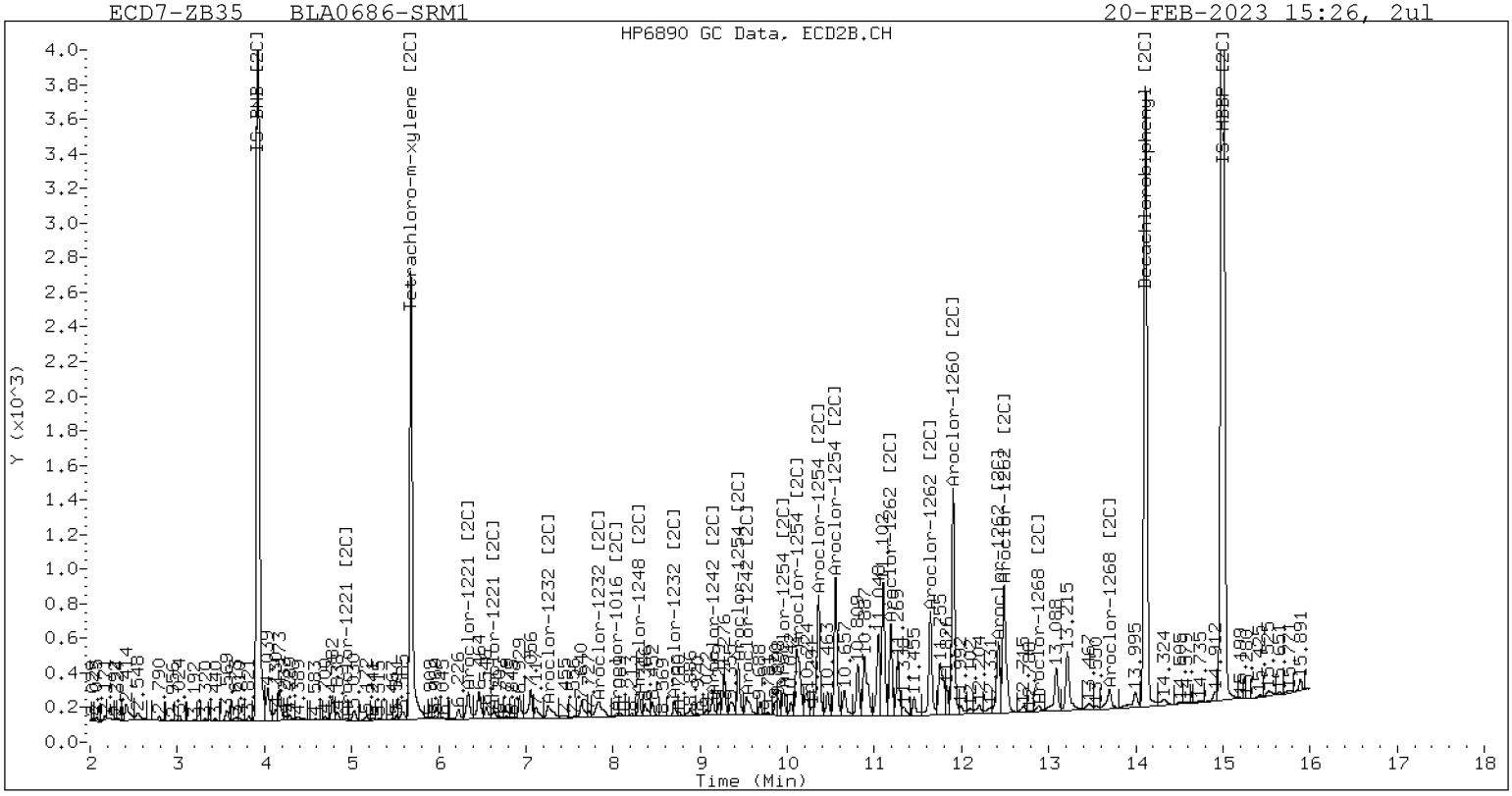
PCB Dual Column Chromatograms

ECD7-ZB5 BLA0686-SRM1 20-FEB-2023 15:26, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 BLA0686-SRM1 20-FEB-2023 15:26, 2ul



ZB-35 Manual Integration: NO

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (1):	ZB5

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor 1016	250	5.167707E-02	20	4.942809E-02	50	5.153925E-02	1000	4.662732E-02	100	5.549196E-02	500	4.928929E-02
Aroclor-1016 (1)	250	3.017861E-02	20	2.947465E-02	50	3.102226E-02	1000	2.635254E-02	100	3.309682E-02	500	2.824148E-02
Aroclor-1016 (2)	250	0.1020346	20	9.270426E-02	50	9.811961E-02	1000	9.356138E-02	100	0.1059789	500	0.0986114
Aroclor-1016 (3)	250	4.399859E-02	20	4.877736E-02	50	4.899883E-02	1000	3.795541E-02	100	0.0512744	500	4.091133E-02
Aroclor-1016 (4)	250	3.049651E-02	20	2.675607E-02	50	2.801628E-02	1000	2.863996E-02	100	3.161774E-02	500	2.939295E-02
Aroclor 1260	250	6.608884E-02	20	6.779653E-02	50	6.325495E-02	1000	5.469674E-02	100	5.850835E-02	500	5.278897E-02
Aroclor-1260 (1)	250	5.181373E-02	20	4.727423E-02	50	4.542797E-02	1000	0.0403981	100	0.0442757	500	0.0401323
Aroclor-1260 (2)	250	5.350015E-02	20	4.939797E-02	50	4.636355E-02	1000	4.208491E-02	100	4.449674E-02	500	4.100371E-02
Aroclor-1260 (3)	250	0.1331674	20	0.1373712	50	0.1282887	1000	0.1078965	100	0.1173998	500	0.1046798
Aroclor-1260 (4)	250	6.473121E-02	20	7.197922E-02	50	0.0663805	1000	5.863707E-02	100	5.997377E-02	500	5.485394E-02
Aroclor-1260 (5)	250	2.723173E-02	20	3.295998E-02	50	2.981405E-02	1000	2.446709E-02	100	2.639578E-02	500	2.327509E-02
Decachlorobiphenyl	40	0.8481341	3.2	0.8644195	8	0.9030151	160	0.7914512	16	0.9308139	80	0.7957625
Tetrachlorometaxylene	40	1.149655	3.2	1.100393	8	1.102173	160	1.094607	16	1.219974	80	1.117921

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (1):	ZB5

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor 1221							250	0.0153579				
Aroclor-1221 (1)							250	5.913051E-03				
Aroclor-1221 (2)							250	1.209121E-02				
Aroclor-1221 (3)							250	2.806945E-02				
Aroclor 1232									250	1.785602E-02		
Aroclor-1232 (1)									250	3.691407E-03		
Aroclor-1232 (2)									250	8.319285E-03		
Aroclor-1232 (3)									250	4.160486E-02		
Aroclor-1232 (4)									250	1.780851E-02		
Aroclor 1242	250	0.0411165										
Aroclor-1242 (1)	250	2.449677E-02										
Aroclor-1242 (2)	250	8.016926E-02										
Aroclor-1242 (3)	250	2.381903E-02										
Aroclor-1242 (4)	250	3.598092E-02										
Aroclor 1248			250	0.0592639								
Aroclor-1248 (1)			250	4.001993E-02								
Aroclor-1248 (2)			250	5.105008E-02								
Aroclor-1248 (3)			250	9.765126E-02								
Aroclor-1248 (4)			250	4.833435E-02								
Aroclor 1254					250	6.750332E-02						
Aroclor-1254 (1)					250	8.153293E-02						
Aroclor-1254 (2)					250	0.0348121						
Aroclor-1254 (3)					250	5.224052E-02						
Aroclor-1254 (4)					250	0.1023658						
Aroclor-1254 (5)					250	6.656523E-02						
Aroclor-1262 (1)							250	3.235265E-02				
Aroclor-1262 (2)							250	5.106336E-02				
Aroclor-1262 (3)							250	5.543866E-02				

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (1):	ZB5

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor-1262 (4)							250	5.051654E-02				
Aroclor-1268 (1)									250	0.132157		
Aroclor-1268 (2)									250	0.1317955		
Aroclor-1268 (3)									250	0.1091938		
Aroclor-1268 (4)									250	0.3237404		

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (1):	ZB5

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor 1016	0.0506755	5.9			RSD (20)	
Aroclor-1016 (1)	2.972773E-02	7.8			RSD (20)	
Aroclor-1016 (2)	9.850169E-02	5.1			RSD (20)	
Aroclor-1016 (3)	4.531932E-02	11.5			RSD (20)	
Aroclor-1016 (4)	2.915325E-02	6.0			RSD (20)	
Aroclor 1221		0.0			RSD (20)	
Aroclor-1221 (1)		0.0			RSD (20)	
Aroclor-1221 (2)		0.0			RSD (20)	
Aroclor-1221 (3)		0.0			RSD (20)	
Aroclor 1232		0.0			RSD (20)	
Aroclor-1232 (1)		0.0			RSD (20)	
Aroclor-1232 (2)		0.0			RSD (20)	
Aroclor-1232 (3)		0.0			RSD (20)	
Aroclor-1232 (4)		0.0			RSD (20)	
Aroclor 1242		0.0			RSD (20)	
Aroclor-1242 (1)		0.0			RSD (20)	
Aroclor-1242 (2)		0.0			RSD (20)	
Aroclor-1242 (3)		0.0			RSD (20)	
Aroclor-1242 (4)		0.0			RSD (20)	
Aroclor 1248		0.0			RSD (20)	
Aroclor-1248 (1)		0.0			RSD (20)	
Aroclor-1248 (2)		0.0			RSD (20)	
Aroclor-1248 (3)		0.0			RSD (20)	
Aroclor-1248 (4)		0.0			RSD (20)	
Aroclor 1254		0.0			RSD (20)	
Aroclor-1254 (1)		0.0			RSD (20)	
Aroclor-1254 (2)		0.0			RSD (20)	
Aroclor-1254 (3)		0.0			RSD (20)	
Aroclor-1254 (4)		0.0			RSD (20)	
Aroclor-1254 (5)		0.0			RSD (20)	
Aroclor 1260	0.0605224	10.2			RSD (20)	

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (1):	ZB5

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor-1260 (1)	0.044887	9.8			RSD (20)	
Aroclor-1260 (2)	4.614117E-02	10.2			RSD (20)	
Aroclor-1260 (3)	0.1214672	11.2			RSD (20)	
Aroclor-1260 (4)	6.275928E-02	9.8			RSD (20)	
Aroclor-1260 (5)	2.735729E-02	13.0			RSD (20)	
Aroclor-1262 (1)		0.0			RSD (20)	
Aroclor-1262 (2)		0.0			RSD (20)	
Aroclor-1262 (3)		0.0			RSD (20)	
Aroclor-1262 (4)		0.0			RSD (20)	
Aroclor-1268 (1)		0.0			RSD (20)	
Aroclor-1268 (2)		0.0			RSD (20)	
Aroclor-1268 (3)		0.0			RSD (20)	
Aroclor-1268 (4)		0.0			RSD (20)	
Decachlorobiphenyl	0.8555994	6.6			RSD (20)	
Tetrachlorometaxylene	1.130787	4.2			RSD (20)	

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (2):	ZB35

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	**RRF**	Conc	RRF	Conc	RRF	Conc	**RRF**	Conc	**RRF**
Aroclor 1016 [2C]	250	5.292579E-02	20	4.676037E-02	50	5.470557E-02	1000	4.853417E-02	100	5.747899E-02	500	5.114174E-02
Aroclor-1016 (1) [2C]	250	4.314113E-02	20	4.423802E-02	50	4.724251E-02	1000	3.795138E-02	100	4.677646E-02	500	4.099489E-02
Aroclor-1016 (2) [2C]	250	9.823746E-02	20	8.511696E-02	50	9.615173E-02	1000	9.129912E-02	100	0.1041709	500	9.554107E-02
Aroclor-1016 (3) [2C]	250	4.028886E-02	20	2.918885E-02	50	0.0416533	1000	3.764267E-02	100	4.478001E-02	500	3.925449E-02
Aroclor-1016 (4) [2C]	250	3.003571E-02	20	2.849763E-02	50	3.377476E-02	1000	2.724351E-02	100	3.418865E-02	500	0.0287764
Aroclor 1260 [2C]	250	0.0868269	20	8.456297E-02	50	8.682148E-02	1000	7.954321E-02	100	8.639013E-02	500	7.778218E-02
Aroclor-1260 (1) [2C]	250	6.129497E-02	20	6.075052E-02	50	5.973709E-02	1000	5.307059E-02	100	5.911734E-02	500	5.231082E-02
Aroclor-1260 (2) [2C]	250	0.1536701	20	0.147481	50	0.1510614	1000	0.1380864	100	0.1518107	500	0.1339581
Aroclor-1260 (3) [2C]	250	3.647192E-02	20	3.683006E-02	50	3.729426E-02	1000	3.693906E-02	100	3.582131E-02	500	3.500995E-02
Aroclor-1260 (4) [2C]	250	0.0958705	20	9.319031E-02	50	9.919317E-02	1000	9.007677E-02	100	9.881117E-02	500	8.984983E-02
Decachlorobiphenyl [2C]	40	1.292085	3.2	1.209146	8	1.271224	160	1.30389	16	1.311901	80	1.229614
Tetrachlorometaxylene [2C]	40	1.096753	3.2	1.043423	8	1.105211	160	1.038509	16	1.153217	80	1.051873

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (2):	ZB35

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor 1221 [2C]							250	1.346872E-02				
Aroclor-1221 (1) [2C]							250	5.864614E-03				
Aroclor-1221 (2) [2C]							250	1.285084E-02				
Aroclor-1221 (3) [2C]							250	2.169068E-02				
Aroclor 1232 [2C]									250	0.0188178		
Aroclor-1232 (1) [2C]									250	3.556924E-03		
Aroclor-1232 (2) [2C]									250	1.990636E-02		
Aroclor-1232 (3) [2C]									250	4.054321E-02		
Aroclor-1232 (4) [2C]									250	1.126471E-02		
Aroclor 1242 [2C]	250	4.232355E-02										
Aroclor-1242 (1) [2C]	250	3.498756E-02										
Aroclor-1242 (2) [2C]	250	7.771274E-02										
Aroclor-1242 (3) [2C]	250	2.433789E-02										
Aroclor-1242 (4) [2C]	250	3.225599E-02										
Aroclor 1248 [2C]			250	4.536727E-02								
Aroclor-1248 (1) [2C]			250	0.036162								
Aroclor-1248 (2) [2C]			250	3.892353E-02								
Aroclor-1248 (3) [2C]			250	4.756205E-02								
Aroclor-1248 (4) [2C]			250	5.882148E-02								
Aroclor 1254 [2C]					250	7.332193E-02						
Aroclor-1254 (1) [2C]					250	5.803883E-02						
Aroclor-1254 (2) [2C]					250	4.691175E-02						
Aroclor-1254 (3) [2C]					250	0.1023304						
Aroclor-1254 (4) [2C]					250	0.1023323						
Aroclor-1254 (5) [2C]					250	5.699633E-02						
Aroclor-1262 (1) [2C]							250	7.829705E-02				
Aroclor-1262 (2) [2C]							250	6.658267E-02				
Aroclor-1262 (3) [2C]							250	7.090313E-02				

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (2):	ZB35

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor-1262 (4) [2C]							250	0.1135497				
Aroclor-1268 (1) [2C]									250	0.1868176		
Aroclor-1268 (2) [2C]									250	0.1988025		
Aroclor-1268 (3) [2C]									250	0.1654822		
Aroclor-1268 (4) [2C]									250	0.5111759		

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (2):	ZB35

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor 1016 [2C]	5.192444E-02	7.6			RSD (20)	
Aroclor-1016 (1) [2C]	4.339073E-02	8.1			RSD (20)	
Aroclor-1016 (2) [2C]	9.508621E-02	6.8			RSD (20)	
Aroclor-1016 (3) [2C]	3.880136E-02	13.6			RSD (20)	
Aroclor-1016 (4) [2C]	3.041944E-02	9.5			RSD (20)	
Aroclor 1221 [2C]		0.0			RSD (20)	
Aroclor-1221 (1) [2C]		0.0			RSD (20)	
Aroclor-1221 (2) [2C]		0.0			RSD (20)	
Aroclor-1221 (3) [2C]		0.0			RSD (20)	
Aroclor 1232 [2C]		0.0			RSD (20)	
Aroclor-1232 (1) [2C]		0.0			RSD (20)	
Aroclor-1232 (2) [2C]		0.0			RSD (20)	
Aroclor-1232 (3) [2C]		0.0			RSD (20)	
Aroclor-1232 (4) [2C]		0.0			RSD (20)	
Aroclor 1242 [2C]		0.0			RSD (20)	
Aroclor-1242 (1) [2C]		0.0			RSD (20)	
Aroclor-1242 (2) [2C]		0.0			RSD (20)	
Aroclor-1242 (3) [2C]		0.0			RSD (20)	
Aroclor-1242 (4) [2C]		0.0			RSD (20)	
Aroclor 1248 [2C]		0.0			RSD (20)	
Aroclor-1248 (1) [2C]		0.0			RSD (20)	
Aroclor-1248 (2) [2C]		0.0			RSD (20)	
Aroclor-1248 (3) [2C]		0.0			RSD (20)	
Aroclor-1248 (4) [2C]		0.0			RSD (20)	
Aroclor 1254 [2C]		0.0			RSD (20)	
Aroclor-1254 (1) [2C]		0.0			RSD (20)	
Aroclor-1254 (2) [2C]		0.0			RSD (20)	
Aroclor-1254 (3) [2C]		0.0			RSD (20)	
Aroclor-1254 (4) [2C]		0.0			RSD (20)	
Aroclor-1254 (5) [2C]		0.0			RSD (20)	
Aroclor 1260 [2C]	8.365448E-02	4.8			RSD (20)	

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (2):	ZB35

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor-1260 (1) [2C]	5.771356E-02	6.9			RSD (20)	
Aroclor-1260 (2) [2C]	0.1460113	5.5			RSD (20)	
Aroclor-1260 (3) [2C]	3.639443E-02	2.3			RSD (20)	
Aroclor-1260 (4) [2C]	9.449863E-02	4.4			RSD (20)	
Aroclor-1262 (1) [2C]		0.0			RSD (20)	
Aroclor-1262 (2) [2C]		0.0			RSD (20)	
Aroclor-1262 (3) [2C]		0.0			RSD (20)	
Aroclor-1262 (4) [2C]		0.0			RSD (20)	
Aroclor-1268 (1) [2C]		0.0			RSD (20)	
Aroclor-1268 (2) [2C]		0.0			RSD (20)	
Aroclor-1268 (3) [2C]		0.0			RSD (20)	
Aroclor-1268 (4) [2C]		0.0			RSD (20)	
Decachlorobiphenyl [2C]	1.269643	3.3			RSD (20)	
Tetrachlorometaxylene [2C]	1.081498	4.2			RSD (20)	

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLA0281

Instrument: ECD7
Calibration ID: GA00061

Printed: 1/26/2023 11:51:52AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLA0281-CAL1	QC		1		L000856	K006953		
SLA0281-CAL2	QC		2		L000859	K006953		
SLA0281-CAL3	QC		3		L000858	K006953		
SLA0281-CAL4	QC		4		L000731	K006953		
SLA0281-CAL5	QC		5		L000857	K006953		
SLA0281-CAL6	QC		6		L000855	K006953		
SLA0281-CAL7	QC		7		L000860	K006953		
SLA0281-CAL8	QC		8		L000861	K006953		
SLA0281-CAL9	QC		9		L000862	K006953		
SLA0281-CALA	QC		10		L000863	K006953		
SLA0281-CALB	QC		11		L000864	K006953		
SLA0281-SCV1	QC		12		K007655	K006953		
SLA0281-SCV2	QC		13		K007656	K006953		
SLA0281-SCV3	QC		14		K007657	K006953		
SLA0281-SCV4	QC		15		K007658	K006953		
SLA0281-SCV5	QC		16		K007659	K006953		
SLA0281-SCV6	QC		17		K007660	K006953		

Samples Loaded By Date

Data Processed By Date

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230124.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	24-JAN-2023 15:39	01242312ECD7.D	1	IB	
2	24-JAN-2023 16:00	01242313ECD7.D	1	0.25PPM AR1660	
3	24-JAN-2023 16:21	01242314ECD7.D	1	0.02PPM AR1660	
4	24-JAN-2023 16:42	01242315ECD7.D	1	0.05PPM AR1660	
5	24-JAN-2023 17:03	01242316ECD7.D	1	1.0PPM AR1660	
6	24-JAN-2023 17:24	01242317ECD7.D	1	0.1PPM AR1660	
7	24-JAN-2023 17:45	01242318ECD7.D	1	0.5PPM AR1660	
8	24-JAN-2023 18:06	01242319ECD7.D	1	0.25PPM 1242	
9	24-JAN-2023 18:27	01242320ECD7.D	1	0.25PPM 1248	
10	24-JAN-2023 18:48	01242321ECD7.D	1	0.25PPM 1254	
11	24-JAN-2023 19:09	01242322ECD7.D	1	0.25PPM 2162	
12	24-JAN-2023 19:30	01242323ECD7.D	1	0.25PPM 3268	
13	24-JAN-2023 19:51	01242324ECD7.D	1	AR1660 SCV	
14	24-JAN-2023 20:12	01242325ECD7.D	1	AR1242 SCV	
15	24-JAN-2023 20:33	01242326ECD7.D	1	AR1248 SCV	
16	24-JAN-2023 20:54	01242327ECD7.D	1	AR1254 SCV	
17	24-JAN-2023 21:15	01242328ECD7.D	1	AR2162 SCV	
18	24-JAN-2023 21:36	01242329ECD7.D	1	AR3268 SCV	
19	24-JAN-2023 21:57	01242330ECD7.D	1	DDTS	
20	24-JAN-2023 22:18	01242331ECD7.D	1	DDT BD	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230124.b

ARI Job No.: IB Method: PCB.m Instrument: ecd7.i Date: 24-JAN-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1539	01242312ECD7.D	IB		1	NO MANUAL INTEGRATION
1600	01242313ECD7.D	0.25PPM	AR1660	1	NO MANUAL INTEGRATION
1621	01242314ECD7.D	0.02PPM	AR1660	1	NO MANUAL INTEGRATION
1642	01242315ECD7.D	0.05PPM	AR1660	1	NO MANUAL INTEGRATION
1703	01242316ECD7.D	1.0PPM	AR1660	1	NO MANUAL INTEGRATION
1724	01242317ECD7.D	0.1PPM	AR1660	1	NO MANUAL INTEGRATION
1745	01242318ECD7.D	0.5PPM	AR1660	1	NO MANUAL INTEGRATION
1806	01242319ECD7.D	0.25PPM	1242	1	NO MANUAL INTEGRATION
1827	01242320ECD7.D	0.25PPM	1248	1	NO MANUAL INTEGRATION
1848	01242321ECD7.D	0.25PPM	1254	1	NO MANUAL INTEGRATION
1909	01242322ECD7.D	0.25PPM	2162	1	NO MANUAL INTEGRATION
1930	01242323ECD7.D	0.25PPM	3268	1	NO MANUAL INTEGRATION
1951	01242324ECD7.D	AR1660	SCV	1	NO MANUAL INTEGRATION
2012	01242325ECD7.D	AR1242	SCV	1	NO MANUAL INTEGRATION
2033	01242326ECD7.D	AR1248	SCV	1	NO MANUAL INTEGRATION
2054	01242327ECD7.D	AR1254	SCV	1	NO MANUAL INTEGRATION
2115	01242328ECD7.D	AR2162	SCV	1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230124.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2136	01242329ECD7.D	AR3268 SCV		1	NO MANUAL INTEGRATION
2157	01242330ECD7.D	DDTS		1	NO MANUAL INTEGRATION
2218	01242331ECD7.D	DDT BD		1	NO MANUAL INTEGRATION

Security Status Report

Date: 26-Jan-2023 11:55

01242301ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242302ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242303ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242304ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242305ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242306ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242307ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242308ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242309ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242310ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242311ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242312ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242313ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242314ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242315ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242316ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242317ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242318ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242319ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242320ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242321ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242322ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242323ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242324ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242325ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242326ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242327ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242328ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242329ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242330ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242331ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd7.i\230124.b\01242314ECD7.D
Level 2: \\target\share\chem4\ecd7.i\230124.b\01242315ECD7.D
Level 3: \\target\share\chem4\ecd7.i\230124.b\01242317ECD7.D
Level 4: \\target\share\chem4\ecd7.i\230124.b\01242313ECD7.D
Level 5: \\target\share\chem4\ecd7.i\230124.b\01242318ECD7.D
Level 6: \\target\share\chem4\ecd7.i\230124.b\01242316ECD7.D
Level 7: \\target\share\chem4\ecd7.i\230124.b\01242323ECD7.D
Level 8: \\target\share\chem4\ecd7.i\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00591	+++++	0.00591	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01209	+++++	0.01209	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02807	+++++	0.02807	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.02450	+++++	0.02450	0.000

(2)	+++++	+++++	+++++	+++++	+++++	+++++			
	0.08017	+++++					0.08017	0.000	
(3)	+++++	+++++	+++++	+++++	+++++	+++++			
	0.02382	+++++					0.02382	0.000	
(4)	+++++	+++++	+++++	+++++	+++++	+++++			
	0.03598	+++++					0.03598	0.000	
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++			
	0.00369	+++++					0.00369	0.000	

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.00832	+++++							0.00832	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04160	+++++							0.04160	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.01781	+++++							0.01781	0.000
7 Aroclor-1016(1)	0.02947	0.03102	0.03310	0.03018	0.02824	0.02635				
	+++++	+++++							0.02973	7.802
(2)	0.09270	0.09812	0.10598	0.10203	0.09861	0.09356				
	+++++	+++++							0.09850	5.108
(3)	0.04878	0.04900	0.05127	0.04400	0.04091	0.03796				
	+++++	+++++							0.04532	11.523
(4)	0.02676	0.02802	0.03162	0.03050	0.02939	0.02864				
	+++++	+++++							0.02915	5.988
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++				

	0.04002	+++++				0.04002	0.000	
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05105	+++++				0.05105	0.000	
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.09765	+++++				0.09765	0.000	
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04833	+++++				0.04833	0.000	

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
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Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.08153	+++++					0.08153	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03481	+++++					0.03481	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05224	+++++					0.05224	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.10237	+++++					0.10237	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06657	+++++					0.06657	0.000
9 Aroclor-1260(1)	0.04727	0.04543	0.04428	0.05181	0.04013	0.04040		
	+++++	+++++					0.04489	9.818
(2)	0.04940	0.04636	0.04450	0.05350	0.04100	0.04208		
	+++++	+++++					0.04614	10.182
(3)	0.13737	0.12829	0.11740	0.13317	0.10468	0.10790		

	+++++	+++++					0.12147	11.161
(4)	0.07198	0.06638	0.05997	0.06473	0.05485	0.05864		
	+++++	+++++					0.06276	9.803
(5)	0.03296	0.02981	0.02640	0.02723	0.02328	0.02447		
	+++++	+++++					0.02736	13.015
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03235	+++++					0.03235	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05106	+++++							0.05106	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05544	+++++							0.05544	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05052	+++++							0.05052	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.13216	+++++							0.13216	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.13180	+++++							0.13180	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.10919	+++++							0.10919	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.32374	+++++							0.32374	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++				

	+++++	904					904	0.000
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1034					1034	0.000
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	2557					2557	0.000
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1539					1539	0.000

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INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1484	1484	0.000
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 1 Tetrachloro-m-xylene	1.10039	1.10217	1.21997	1.14965	1.11792	1.09461	+++++	+++++	1.13079	4.246
$ 13 Decachlorobiphenyl	0.86442	0.90302	0.93081	0.84813	0.79576	0.79145	+++++	+++++	0.85560	6.556

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242314ECD7.D
Level 2: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242315ECD7.D
Level 3: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242317ECD7.D
Level 4: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242313ECD7.D
Level 5: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242318ECD7.D
Level 6: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242316ECD7.D
Level 7: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242323ECD7.D
Level 8: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
1 Aroclor-1221 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00586	+++++	0.00586	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01285	+++++	0.01285	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02169	+++++	0.02169	0.000
4 Aroclor-1232 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00356	+++++	0.00356	0.000

	(2)	+++++	+++++	+++++	+++++	+++++	+++++		
		0.01991	+++++					0.01991	0.000
	(3)	+++++	+++++	+++++	+++++	+++++	+++++		
		0.04054	+++++					0.04054	0.000
	(4)	+++++	+++++	+++++	+++++	+++++	+++++		
		0.01126	+++++					0.01126	0.000
3	Aroclor-1242 [2C]	(1)	+++++	+++++	+++++	+++++	+++++	+++++		
			0.03499	+++++					0.03499	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.07771	+++++					0.07771	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02434	+++++					0.02434	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03226	+++++					0.03226	0.000
6 Aroclor-1248 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03616	+++++					0.03616	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03892	+++++					0.03892	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04756	+++++					0.04756	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05882	+++++					0.05882	0.000
7 Aroclor-1016 [2C](1)	0.04424	0.04724	0.04678	0.04314	0.04099	0.03795		

	+++++	+++++				0.04339	8.142	
(2)	0.08512	0.09615	0.10417	0.09824	0.09554	0.09130		
	+++++	+++++				0.09509	6.775	
(3)	0.02919	0.04165	0.04478	0.04029	0.03925	0.03764		
	+++++	+++++				0.03880	13.639	
(4)	0.02850	0.03377	0.03419	0.03004	0.02878	0.02724		
	+++++	+++++				0.03042	9.538	

ARI Labs, Inc.

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Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
8 Aroclor-1254 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05804	+++++					0.05804	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04691	+++++					0.04691	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.10233	+++++					0.10233	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.10233	+++++					0.10233	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05700	+++++					0.05700	0.000
10 Aroclor-1262 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.07830	+++++					0.07830	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06658	+++++					0.06658	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		

	0.07090	+++++					0.07090	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.11355	+++++					0.11355	0.000
9 Aroclor-1260 [2C] (1)	0.06075	0.05974	0.05912	0.06129	0.05231	0.05307		
	+++++	+++++					0.05771	6.881
(2)	0.14748	0.15106	0.15181	0.15367	0.13396	0.13809		
	+++++	+++++					0.14601	5.547

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(3)	0.03683	0.03729	0.03582	0.03647	0.03501	0.03694		
	*****	*****					0.03639	2.314
(4)	0.09319	0.09919	0.09881	0.09587	0.08985	0.09008		
	*****	*****					0.09450	4.373
11 Aroclor-1268 [2C] (1)	*****	*****	*****	*****	*****	*****		
	0.18682	*****					0.18682	0.000
(2)	*****	*****	*****	*****	*****	*****		
	0.19880	*****					0.19880	0.000
(3)	*****	*****	*****	*****	*****	*****		
	0.16548	*****					0.16548	0.000
(4)	*****	*****	*****	*****	*****	*****		
	0.51118	*****					0.51118	0.000
41 2,4-DDE [2C]	*****	*****	*****	*****	*****	*****		
	*****	1528					1528	0.000
42 2,4-DDD [2C]	*****	*****	*****	*****	*****	*****		

	+++++	866					866	0.000
44 4,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	863					863	0.000
45 4,4-DDD/2,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1162					1162	0.000
46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1277					1277	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 2 Tetrachloro-m-xylene [2C]	1.04342	1.10521	1.15322	1.09675	1.05187	1.03851	+++++	+++++	1.08150	4.159
$ 13 Decachlorobiphenyl [2C]	1.20915	1.27122	1.31190	1.29209	1.22961	1.30389	+++++	+++++	1.26964	3.291

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230124.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	01242313ECD7	01242314ECD7	01242315ECD7	01242316ECD7	01242317ECD7	01242318ECD7
INJ.DATE:	24-JAN-2023	24-JAN-2023	24-JAN-2023	24-JAN-2023	24-JAN-2023	24-JAN-2023
INJ.TIME:	16:00	16:21	16:42	17:03	17:24	17:45

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	3.493	3.492	3.492	3.492	3.492	3.493	3.492	3.392-3.592	3.492	0.000
$ 1 Tetrachloro-m-xylene	5.810	5.809	5.809	5.809	5.808	5.809	5.809	5.709-5.909	5.809	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	4.733	4.633-4.833	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	7.271	7.171-7.371	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	4.733	4.633-4.833	+++++	+++++
7 Aroclor-1016	7.272	7.272	7.271	7.270	7.271	7.270	7.270	7.170-7.370	7.271	0.001
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	8.406	8.306-8.505	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	9.299	9.199-9.399	+++++	+++++
9 Aroclor-1260	11.047	11.049	11.048	11.043	11.046	11.044	11.044	10.944-11.144	11.046	0.002
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.832	10.732-10.932	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	12.245	12.145-12.345	+++++	+++++
$ 13 Decachlorobiphenyl	13.894	13.892	13.893	13.892	13.892	13.891	13.892	13.792-13.992	13.892	0.001
* 12 IS-HBBP	14.267	14.265	14.265	14.264	14.264	14.264	14.266	14.166-14.366	14.265	0.001
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.263	9.213-9.313	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.805	9.755-9.855	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.296	10.246-10.346	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.687	9.587-9.787	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230124.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	10.281	10.181-10.381	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.758	10.658-10.858	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230124.b\230124.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	01242313ECD7	01242314ECD7	01242315ECD7	01242316ECD7	01242317ECD7	01242318ECD7
INJ.DATE:	24-JAN-2023	24-JAN-2023	24-JAN-2023	24-JAN-2023	24-JAN-2023	24-JAN-2023
INJ.TIME:	16:00	16:21	16:42	17:03	17:24	17:45

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB [2C]	3.928	3.929	3.929	3.929	3.928	3.929	3.929	3.829-4.029	3.929	0.001
$ 2 Tetrachloro-m-xylene [	5.685	5.686	5.687	5.685	5.686	5.686	5.687	5.587-5.787	5.686	0.001
1 Aroclor-1221 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.959	4.859-5.059	+++++	+++++
4 Aroclor-1232 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.960	4.860-5.060	+++++	+++++
3 Aroclor-1242 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	7.256	7.156-7.356	+++++	+++++
6 Aroclor-1248 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	8.305	8.205-8.405	+++++	+++++
7 Aroclor-1016 [2C]	7.255	7.257	7.256	7.254	7.255	7.254	7.255	7.155-7.355	7.255	0.001
8 Aroclor-1254 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.448	9.348-9.548	+++++	+++++
10 Aroclor-1262 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.200	11.100-11.300	+++++	+++++
9 Aroclor-1260 [2C]	11.653	11.655	11.655	11.653	11.655	11.653	11.653	11.553-11.753	11.654	0.001
11 Aroclor-1268 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	12.434	12.334-12.534	+++++	+++++
$ 13 Decachlorobiphenyl [2C	14.120	14.121	14.120	14.122	14.119	14.120	14.120	14.020-14.220	14.120	0.001
* 12 IS-HBBP [2C]	15.008	15.008	15.009	15.007	15.008	15.009	15.009	14.909-15.109	15.008	0.000
41 2,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.912	9.862-9.962	+++++	+++++
42 2,4-DDD [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.538	9.488-9.588	+++++	+++++
44 4,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.211	10.111-10.311	+++++	+++++
45 4,4-DDD/2,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.666	10.566-10.766	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230124.b\230124.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.095	10.995-11.195	+++++	+++++
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.703	1.603-1.803	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	7.178	7.078-7.278	+++++	+++++

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242312ECD7.D
Data file 2: /230124.b/230124.b/01242312ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 24-JAN-2023 15:39
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.822	0.013	272340	5.680	-0.007	171573	36.5	36.4	0.1	Tetrachloro-m-xylene
13.900	0.008	252989	14.120	-0.000	223176	37.3	38.6	3.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	528068	4.9
Hexabromobiphenyl	647433	634177	-2.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	348301	3.4
Hexabromobiphenyl	382032	364259	-4.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	7.852	0.064	162	0.5	3	---			0.0
Aroclor-1016	4	8.431	0.027	495	2.6	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	6.317	0.019	1908	34.1
Aroclor-1221	3	---			0.0	3	6.630	0.007	299	3.2
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	7.208	-0.049	26	0.3
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	8.730	0.017	33	0.7
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	7.208	-0.048	26	0.2
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	8.431	0.024	495	3.1	3	9.151	-0.008	93	0.9
Aroclor-1242	4	8.630	0.049	1101	4.6	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	8.431	0.025	495	1.9	1	---			0.0
Aroclor-1248	2	8.630	0.050	1101	3.3	2	8.730	0.018	33	0.2
Aroclor-1248	3	---			0.0	3	9.151	-0.005	93	0.4
Aroclor-1248	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	9.474	0.026	9010	35.7
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	9.571	-0.099	114	0.3	3	---			0.0
Aroclor-1254	4	9.770	-0.038	104	0.2	4	---			0.0
Aroclor-1254	5	---			0.0	5	10.525	-0.044	482	1.9
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	11.066	0.023	262	0.7	1	11.703	0.050	189	0.7
Aroclor-1260	2	---			0.0	2	11.832	-0.086	97	0.1
Aroclor-1260	3	11.803	0.069	4470	4.6	3	12.414	-0.022	2209	13.3
Aroclor-1260	4	12.089	-0.051	661	1.3	4	---			0.0
Aroclor-1260	5	12.282	0.038	5183	23.9	NS	---			----
	Total Col1Ave (4 peaks):				7.7	Total Col2Ave (3 peaks):				4.7 RPD = 47*
	Corrected Ave (3 peaks):				2.2	Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.789	-0.043	941	3.7	1	---			0.0
Aroclor-1262	2	12.282	0.036	5183	12.8	2	11.703	0.051	189	0.6
Aroclor-1262	3	---			0.0	3	12.414	-0.020	2209	6.8
Aroclor-1262	4	12.982	-0.007	2811	7.0	4	---			0.0
	Total Col1Ave (3 peaks):				7.8	Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	12.282	0.037	5183	4.9	1	12.414	-0.020	2209	2.6
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.705	0.006	3092	3.6	3	12.894	0.001	724	1.0
Aroclor-1268	4	13.500	0.011	13310	5.2	4	13.708	-0.000	2974	1.3
	Total Col1Ave (3 peaks):				4.6	Total Col2Ave (3 peaks):				1.6 RPD = 96*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.909 - 13.792) = 89790 Col1 Total PCB = 0.0 ppm*

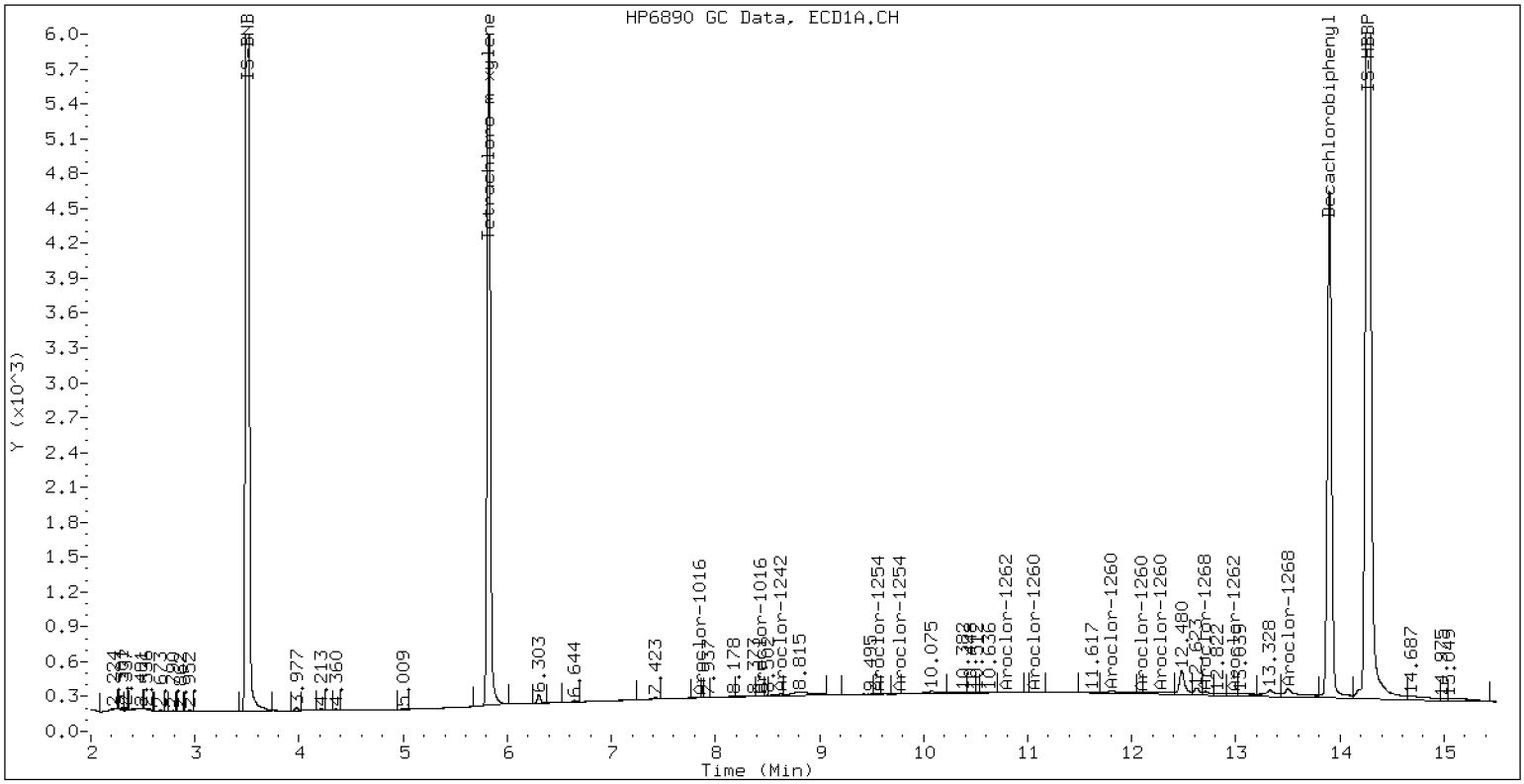
Total PCB Area Col2 (5.787 - 14.020) = 40020 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

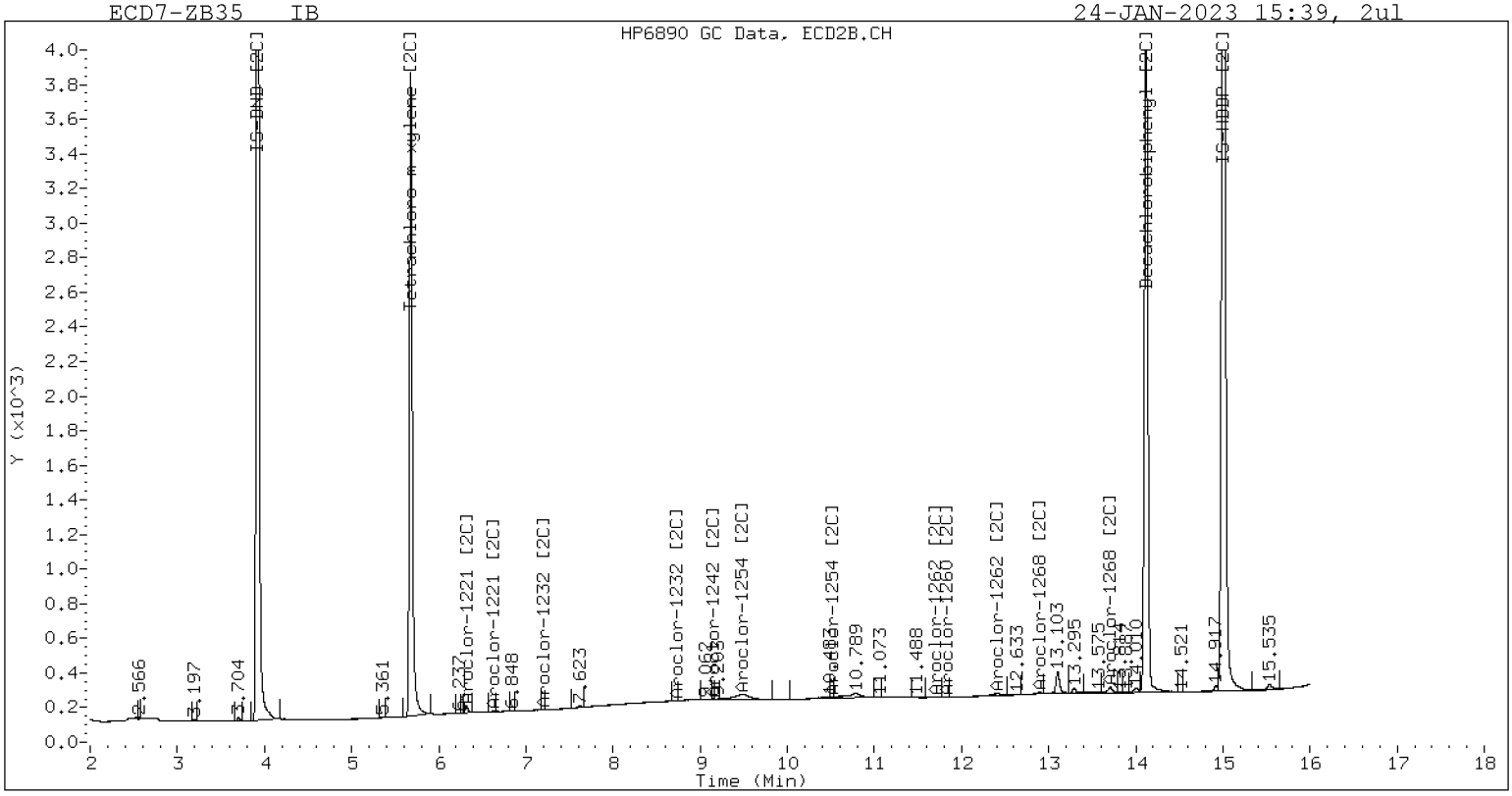
PCB Dual Column Chromatograms

ECD7-ZB5 IB 24-JAN-2023 15:39, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 IB 24-JAN-2023 15:39, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242313ECD7.D
Data file 2: /230124.b/230124.b/01242313ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM AR1660
Client ID:
Injection Date: 24-JAN-2023 16:00
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	289321	5.685	-0.002	184754	40.7	40.6	0.3	Tetrachloro-m-xylene
13.894	0.002	274555	14.120	0.000	246809	39.7	40.7	2.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503318	0.0
Hexabromobiphenyl	647433	647433	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	336911	0.0
Hexabromobiphenyl	382032	382032	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	7.272	0.002	47467	253.8	1	7.255	0.000	45421	248.6
Aroclor-1016	2	7.654	0.004	160487	259.0	2	7.851	0.000	103429	258.3
Aroclor-1016	3	7.791	0.003	69204	242.7	3	8.050	0.000	42418	259.6
Aroclor-1016	4	8.406	0.003	47967	261.5	4	8.305	0.000	31623	246.8
	Total Col1Ave (4 peaks):				254.2	Total Col2Ave (4 peaks):				253.3 RPD = 0
	Corrected Ave (3 peaks):				251.8	Corrected Ave (3 peaks):				251.2 RPD = 0
		CalAmt %D:			1.7		CalAmt %D:			1.3
Aroclor-1260	1	11.047	0.003	104831	288.6	1	11.653	0.000	73177	265.5
Aroclor-1260	2	11.362	0.002	108243	289.9	2	11.918	0.000	183459	263.1
Aroclor-1260	3	11.738	0.004	269428	274.1	3	12.436	0.000	43542	250.5
Aroclor-1260	4	12.142	0.002	130966	257.9	4	12.502	0.000	114455	253.6
Aroclor-1260	5	12.246	0.002	55096	248.9	NS	---			----
	Total Col1Ave (5 peaks):				271.8	Total Col2Ave (4 peaks):				258.2 RPD = 5
	Corrected Ave (4 peaks):				267.3	Corrected Ave (3 peaks):				255.8 RPD = 4
		CalAmt %D:			8.7		CalAmt %D:			3.3

Total PCB Area Col1 (5.909 - 13.792) = 2930230 Col1 Total PCB = 0.5 ppm*

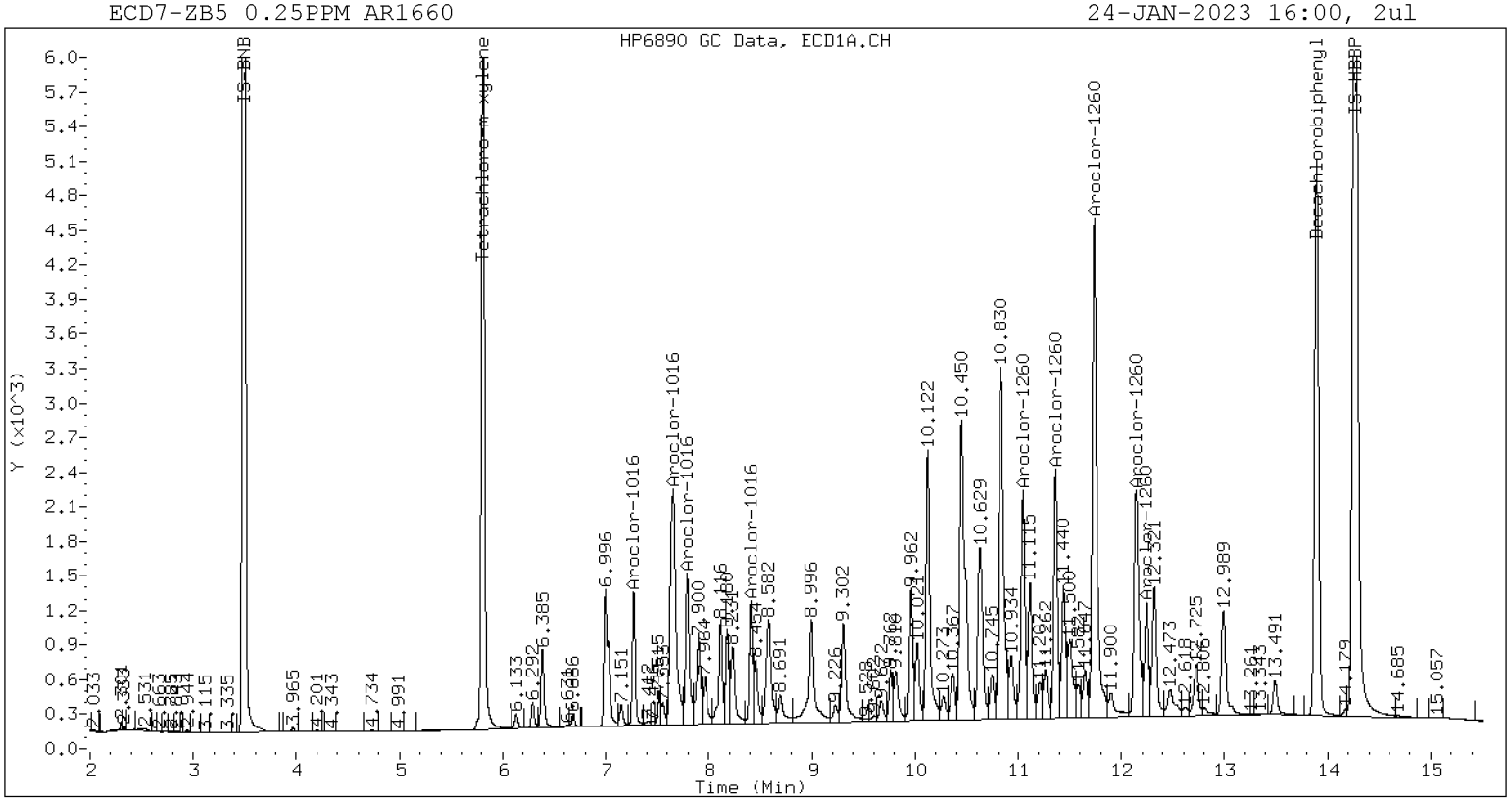
Total PCB Area Col2 (5.787 - 14.020) = 1777050 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

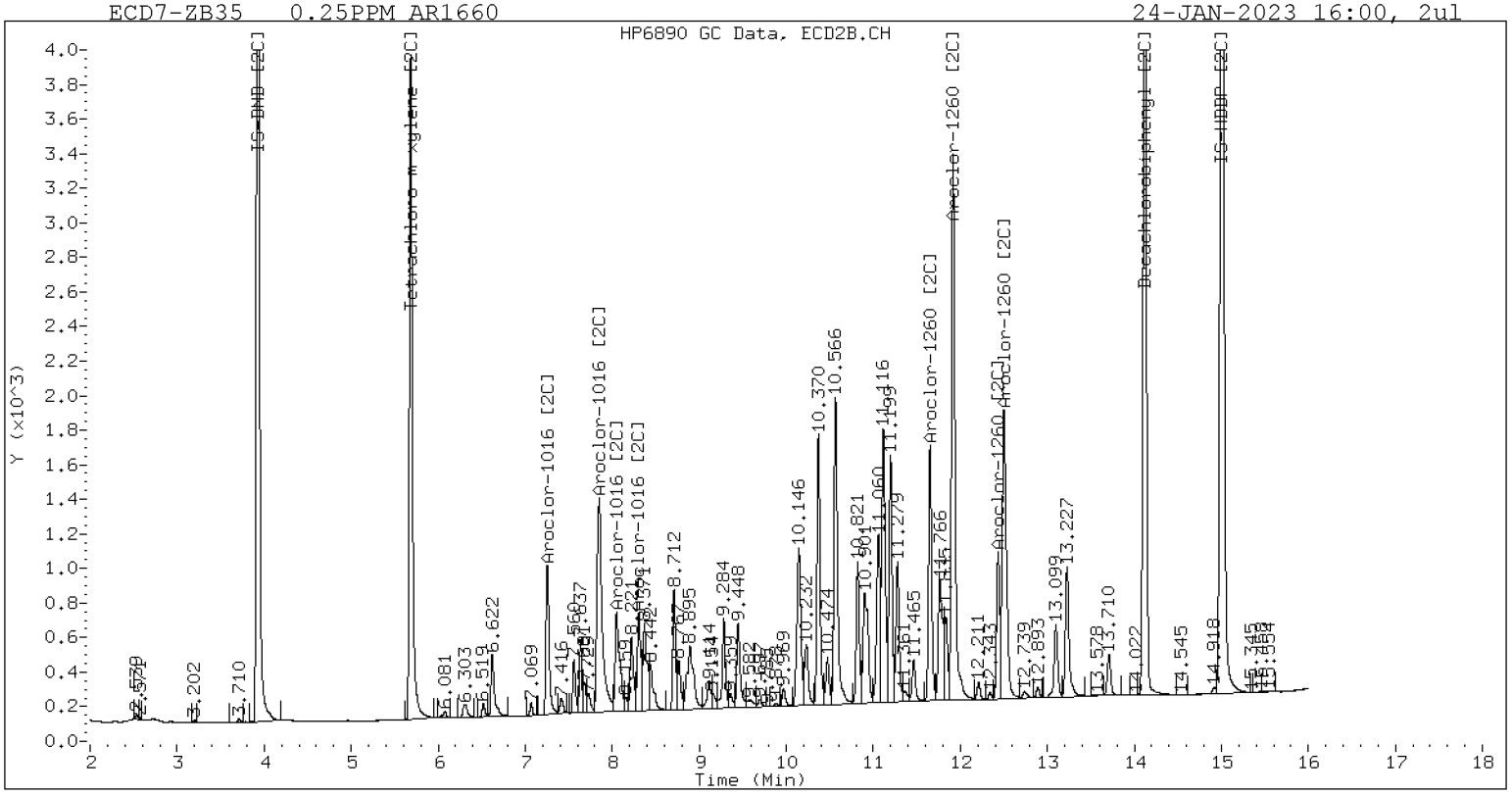
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPM AR1660 24-JAN-2023 16:00, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPM AR1660 24-JAN-2023 16:00, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242314ECD7.D
Data file 2: /230124.b/230124.b/01242314ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02PPM AR1660
Client ID:
Injection Date: 24-JAN-2023 16:21
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	21307	5.686	-0.000	13767	3.1	3.1	0.9	Tetrachloro-m-xylene
13.892	0.000	23054	14.121	0.001	19257	3.2	3.0	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	484077	-3.8
Hexabromobiphenyl	647433	666748	3.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	329852	-2.1
Hexabromobiphenyl	382032	398153	4.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.272	0.002	3567	19.8	1	7.257	0.002	3648	20.4
Aroclor-1016	2	7.663	0.012	11219	18.8	2	7.858	0.007	7019	17.9
Aroclor-1016	3	7.796	0.008	5903	21.5	3	8.058	0.007	2407	15.0
Aroclor-1016	4	8.410	0.006	3238	18.4	4	8.308	0.003	2350	18.7
Total Col1Ave (4 peaks):					19.6	Total Col2Ave (4 peaks):				18.0 RPD = 9
Corrected Ave (3 peaks):					19.0	Corrected Ave (3 peaks):				17.2 RPD = 10
CalAmt %D:					-1.8	CalAmt %D:				-9.9
Aroclor-1260	1	11.049	0.005	7880	21.1	1	11.655	0.002	6047	21.1
Aroclor-1260	2	11.365	0.005	8234	21.4	2	11.923	0.005	14680	20.2
Aroclor-1260	3	11.742	0.008	22898	22.6	3	12.438	0.002	3666	20.2
Aroclor-1260	4	12.149	0.009	11998	22.9	4	12.506	0.004	9276	19.7
Aroclor-1260	5	12.247	0.003	5494	24.1	NS	---			----
Total Col1Ave (5 peaks):					22.4	Total Col2Ave (4 peaks):				20.3 RPD = 10
Corrected Ave (4 peaks):					22.0	Corrected Ave (3 peaks):				20.1 RPD = 9
CalAmt %D:					12.1	CalAmt %D:				1.5

Total PCB Area Col1 (5.909 - 13.792) = 256211 Col1 Total PCB = 0.0 ppm*

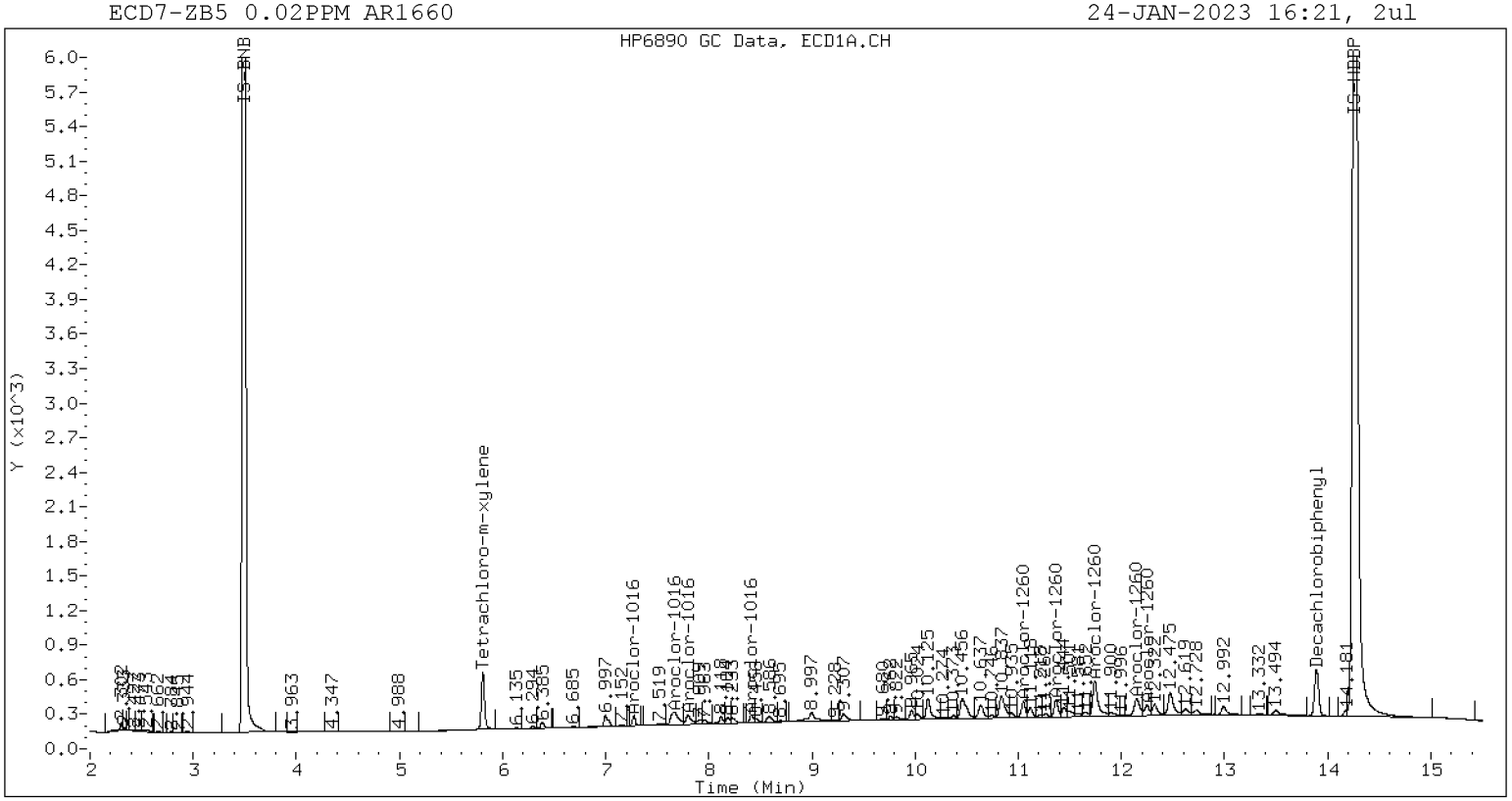
Total PCB Area Col2 (5.787 - 14.020) = 146434 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

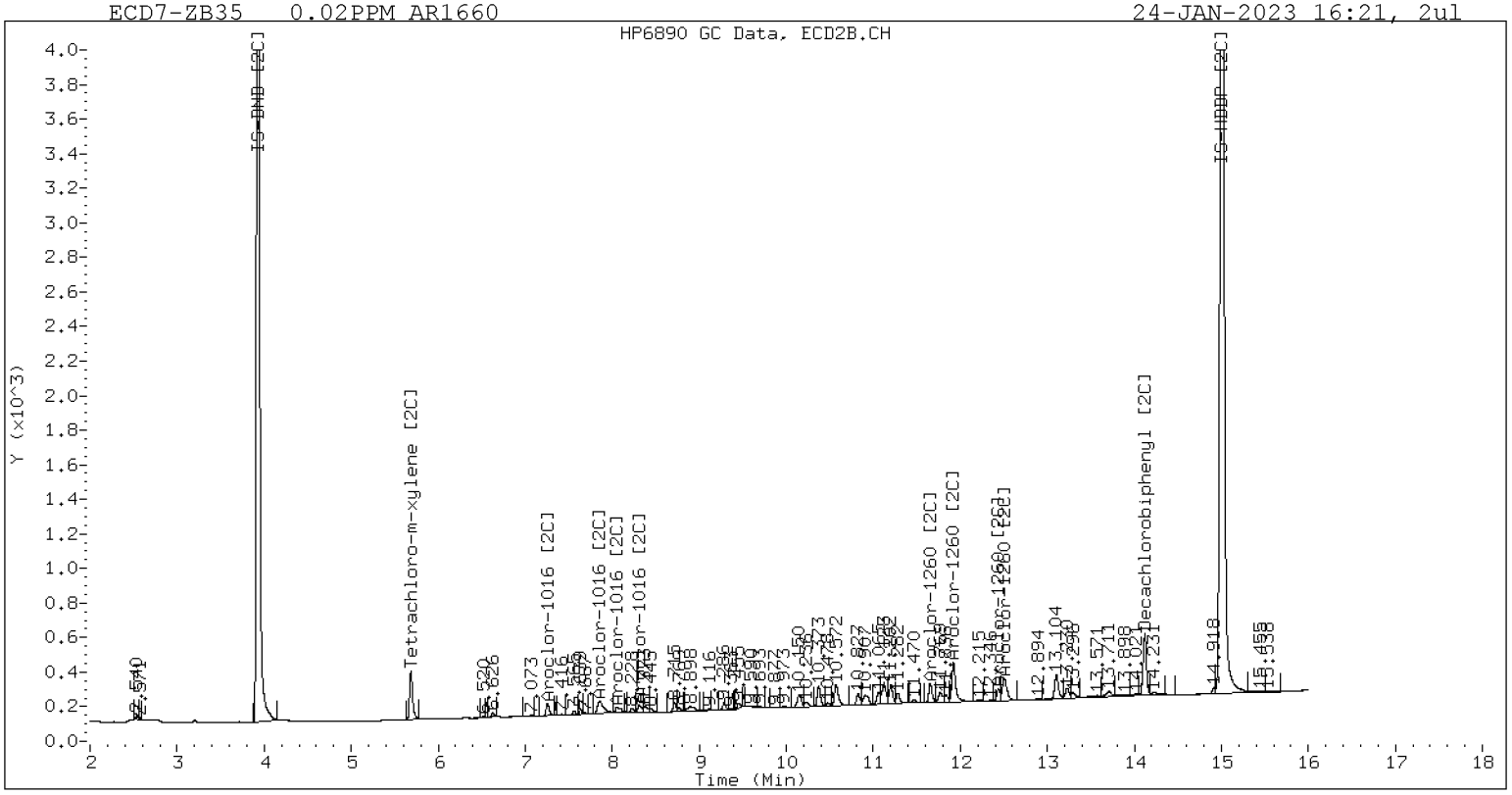
PCB Dual Column Chromatograms

ECD7-ZB5 0.02PPM AR1660 24-JAN-2023 16:21, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.02PPM AR1660 24-JAN-2023 16:21, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242315ECD7.D
Data file 2: /230124.b/230124.b/01242315ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05PPM AR1660
Client ID:
Injection Date: 24-JAN-2023 16:42
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	53503	5.687	-0.000	36922	7.8	8.2	4.7	Tetrachloro-m-xylene
13.893	0.001	62544	14.120	-0.000	52782	8.4	8.0	5.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	485432	-3.6
Hexabromobiphenyl	647433	692613	7.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	334072	-0.8
Hexabromobiphenyl	382032	415206	8.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.002	9412	52.2	1	7.256	0.001	9864	54.4
Aroclor-1016	2	7.657	0.007	29769	49.8	2	7.855	0.004	20076	50.6
Aroclor-1016	3	7.795	0.006	14866	54.1	3	8.055	0.004	8697	53.7
Aroclor-1016	4	8.409	0.005	8500	48.1	4	8.308	0.003	7052	55.5
Total Col1Ave (4 peaks):					51.0	Total Col2Ave (4 peaks):				53.5 RPD = 5
Corrected Ave (3 peaks):					50.0	Corrected Ave (3 peaks):				52.9 RPD = 6
CalAmt %D:					2.0	CalAmt %D:				7.1
Aroclor-1260	1	11.048	0.005	19665	50.6	1	11.655	0.002	15502	51.8
Aroclor-1260	2	11.364	0.003	20070	50.2	2	11.921	0.003	39201	51.7
Aroclor-1260	3	11.740	0.006	55534	52.8	3	12.439	0.003	9678	51.2
Aroclor-1260	4	12.145	0.006	28735	52.9	4	12.506	0.004	25741	52.5
Aroclor-1260	5	12.246	0.002	12906	54.5	NS	---			----
Total Col1Ave (5 peaks):					52.2	Total Col2Ave (4 peaks):				51.8 RPD = 1
Corrected Ave (4 peaks):					51.6	Corrected Ave (3 peaks):				51.6 RPD = 0
CalAmt %D:					4.4	CalAmt %D:				3.6

Total PCB Area Col1 (5.909 - 13.792) = 600311 Col1 Total PCB = 0.1 ppm*

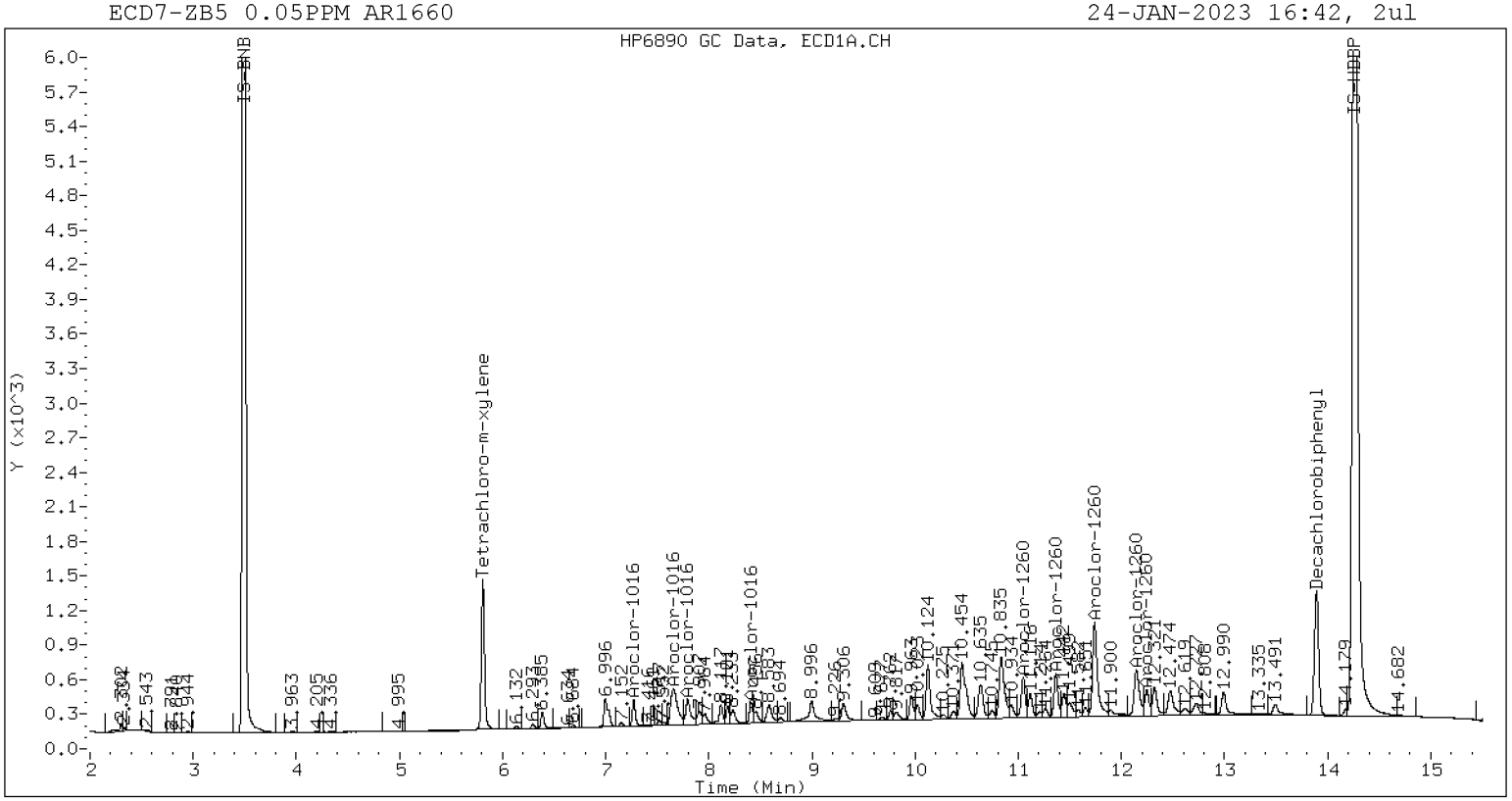
Total PCB Area Col2 (5.787 - 14.020) = 383666 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

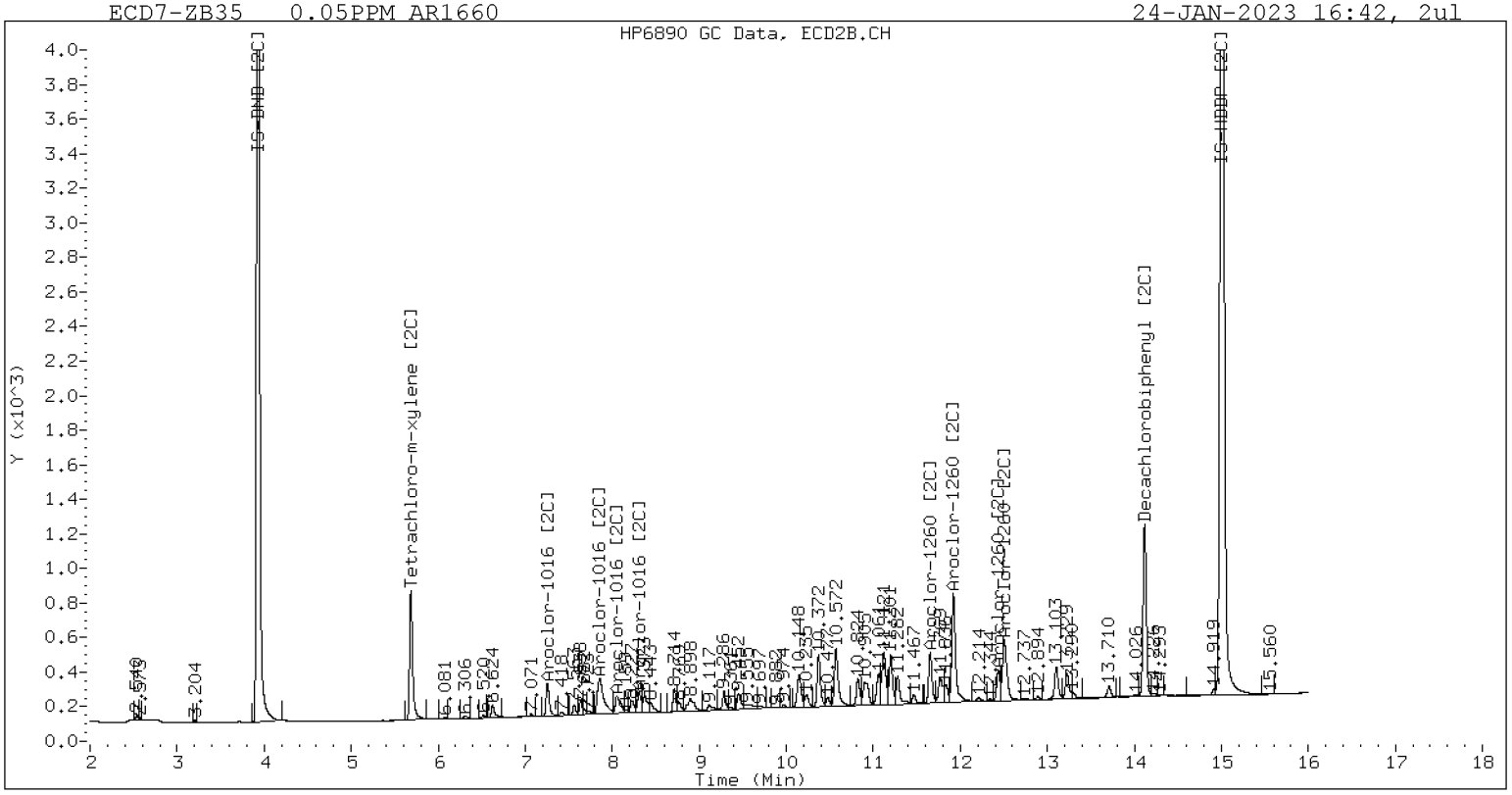
PCB Dual Column Chromatograms

ECD7-ZB5 0.05PPM AR1660 24-JAN-2023 16:42, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.05PPM AR1660 24-JAN-2023 16:42, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242316ECD7.D
Data file 2: /230124.b/230124.b/01242316ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 1.0PPM AR1660
Client ID:
Injection Date: 24-JAN-2023 17:03
Report Date: 01/25/2023 11:34
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	1033475	5.685	-0.002	672800	154.9	153.6	0.8	Tetrachloro-m-xylene
13.892	0.000	1125556	14.122	0.002	1078539	148.0	164.3	10.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	472076	-6.2
Hexabromobiphenyl	647433	711071	9.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	323926	-3.9
Hexabromobiphenyl	382032	413585	8.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	7.270	-0.000	155505	886.5	1	7.254	-0.001	153668	874.6
Aroclor-1016	2	7.649	-0.001	552101	949.8	2	7.849	-0.002	369677	960.2
Aroclor-1016	3	7.786	-0.002	223973	837.5	3	8.048	-0.003	152418	970.1
Aroclor-1016	4	8.402	-0.001	169003	982.4	4	8.304	-0.001	110311	895.6
Total Col1Ave (4 peaks):					914.1	Total Col2Ave (4 peaks):				925.1 RPD = 1
Corrected Ave (3 peaks):					891.3	Corrected Ave (3 peaks):				910.1 RPD = 2
CalAmt %D:					-8.6	CalAmt %D:				-7.5
Aroclor-1260	1	11.043	-0.001	359074	900.0	1	11.653	-0.001	274365	919.6
Aroclor-1260	2	11.360	-0.000	374067	912.1	2	11.917	-0.000	713881	945.7
Aroclor-1260	3	11.733	-0.001	959026	888.3	3	12.436	-0.000	190968	1015.0
Aroclor-1260	4	12.137	-0.002	521189	934.3	4	12.502	-0.000	465680	953.2
Aroclor-1260	5	12.242	-0.002	217473	894.4	NS	---			----
Total Col1Ave (5 peaks):					905.8	Total Col2Ave (4 peaks):				958.4 RPD = 6
Corrected Ave (4 peaks):					898.7	Corrected Ave (3 peaks):				939.5 RPD = 4
CalAmt %D:					-9.4	CalAmt %D:				-4.2

Total PCB Area Col1 (5.909 - 13.792) = 10234908 Col1 Total PCB = 1.9 ppm*

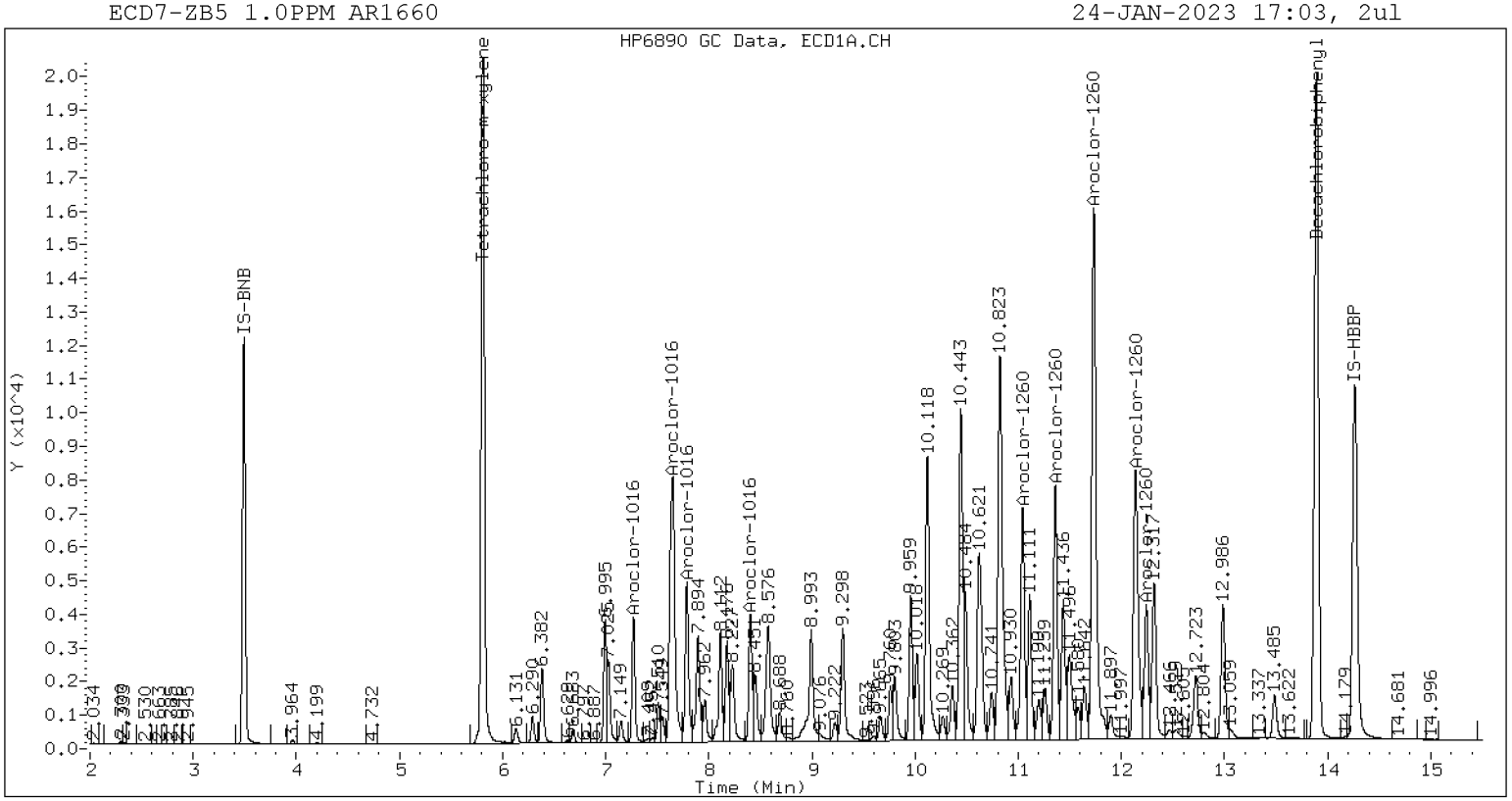
Total PCB Area Col2 (5.787 - 14.020) = 6685547 Col2 Total PCB = 2.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

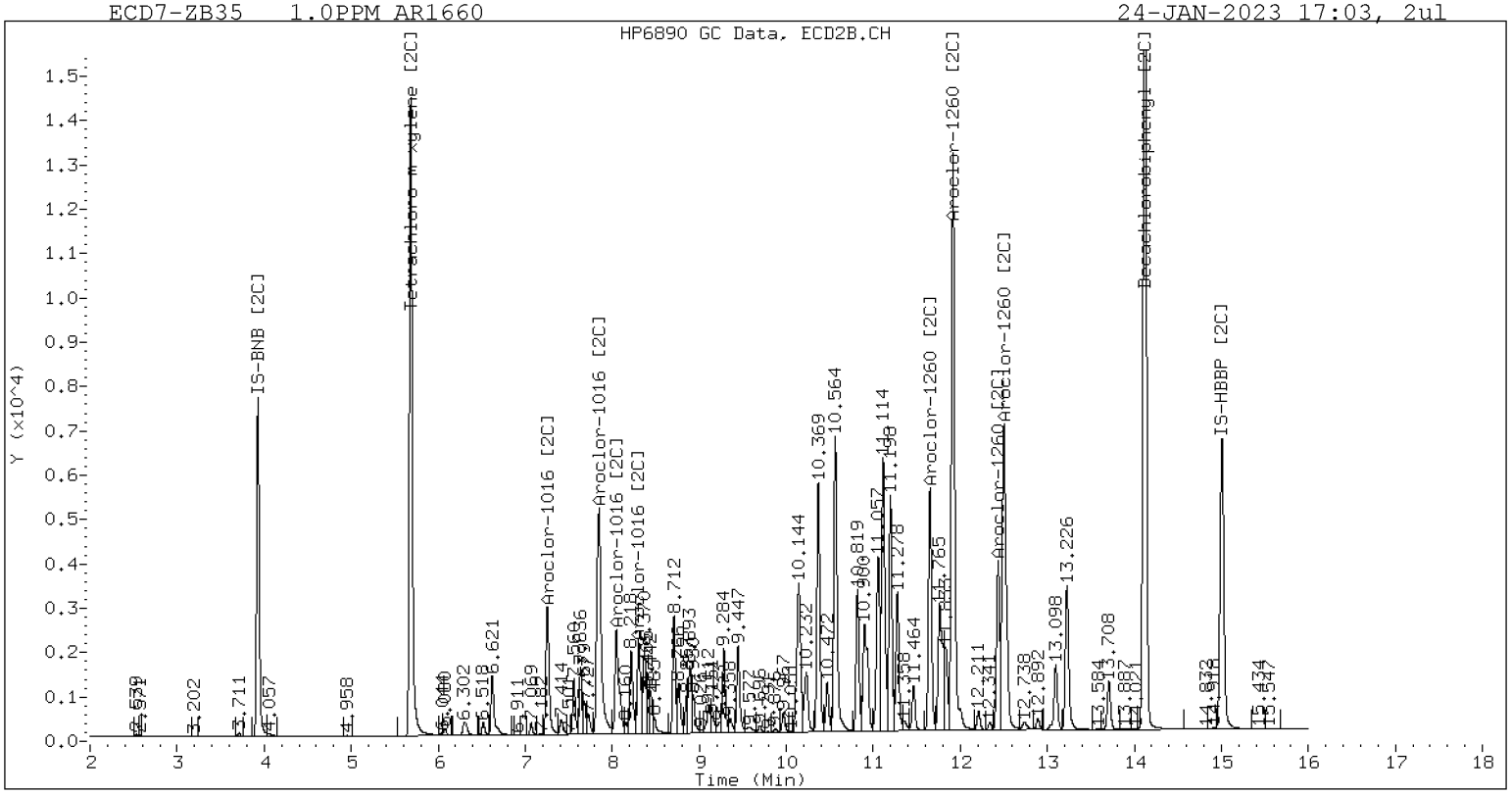
PCB Dual Column Chromatograms

ECD7-ZB5 1.0PPM AR1660 24-JAN-2023 17:03, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 1.0PPM AR1660 24-JAN-2023 17:03, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242317ECD7.D
Data file 2: /230124.b/230124.b/01242317ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1PPM AR1660
Client ID:
Injection Date: 24-JAN-2023 17:24
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.001	117058	5.686	-0.001	76340	17.3	17.1	1.2	Tetrachloro-m-xylene
13.892	0.000	140818	14.119	-0.001	113773	17.4	16.5	5.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	479756	-4.7
Hexabromobiphenyl	647433	756424	16.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	330987	-1.8
Hexabromobiphenyl	382032	433619	13.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	19848	111.3	1	7.255	0.000	19353	107.8
Aroclor-1016	2	7.656	0.005	63555	107.6	2	7.853	0.002	43099	109.6
Aroclor-1016	3	7.793	0.004	30749	113.1	3	8.053	0.003	18527	115.4
Aroclor-1016	4	8.406	0.003	18961	108.5	4	8.307	0.002	14145	112.4
Total Col1Ave (4 peaks):					110.1	Total Col2Ave (4 peaks):				111.3 RPD = 1
Corrected Ave (3 peaks):					109.1	Corrected Ave (3 peaks):				109.9 RPD = 1
CalAmt %D:					10.1	CalAmt %D:				11.3
Aroclor-1260	1	11.046	0.002	41864	98.6	1	11.655	0.001	32043	102.4
Aroclor-1260	2	11.362	0.001	42073	96.4	2	11.920	0.002	82285	104.0
Aroclor-1260	3	11.739	0.004	111005	96.7	3	12.437	0.001	19416	98.4
Aroclor-1260	4	12.144	0.004	56707	95.6	4	12.504	0.002	53558	104.6
Aroclor-1260	5	12.245	0.001	24958	96.5	NS	---			----
Total Col1Ave (5 peaks):					96.8	Total Col2Ave (4 peaks):				102.3 RPD = 6
Corrected Ave (4 peaks):					96.3	Corrected Ave (3 peaks):				101.6 RPD = 5
CalAmt %D:					-3.2	CalAmt %D:				2.3

Total PCB Area Col1 (5.909 - 13.792) = 1238855 Col1 Total PCB = 0.2 ppm*

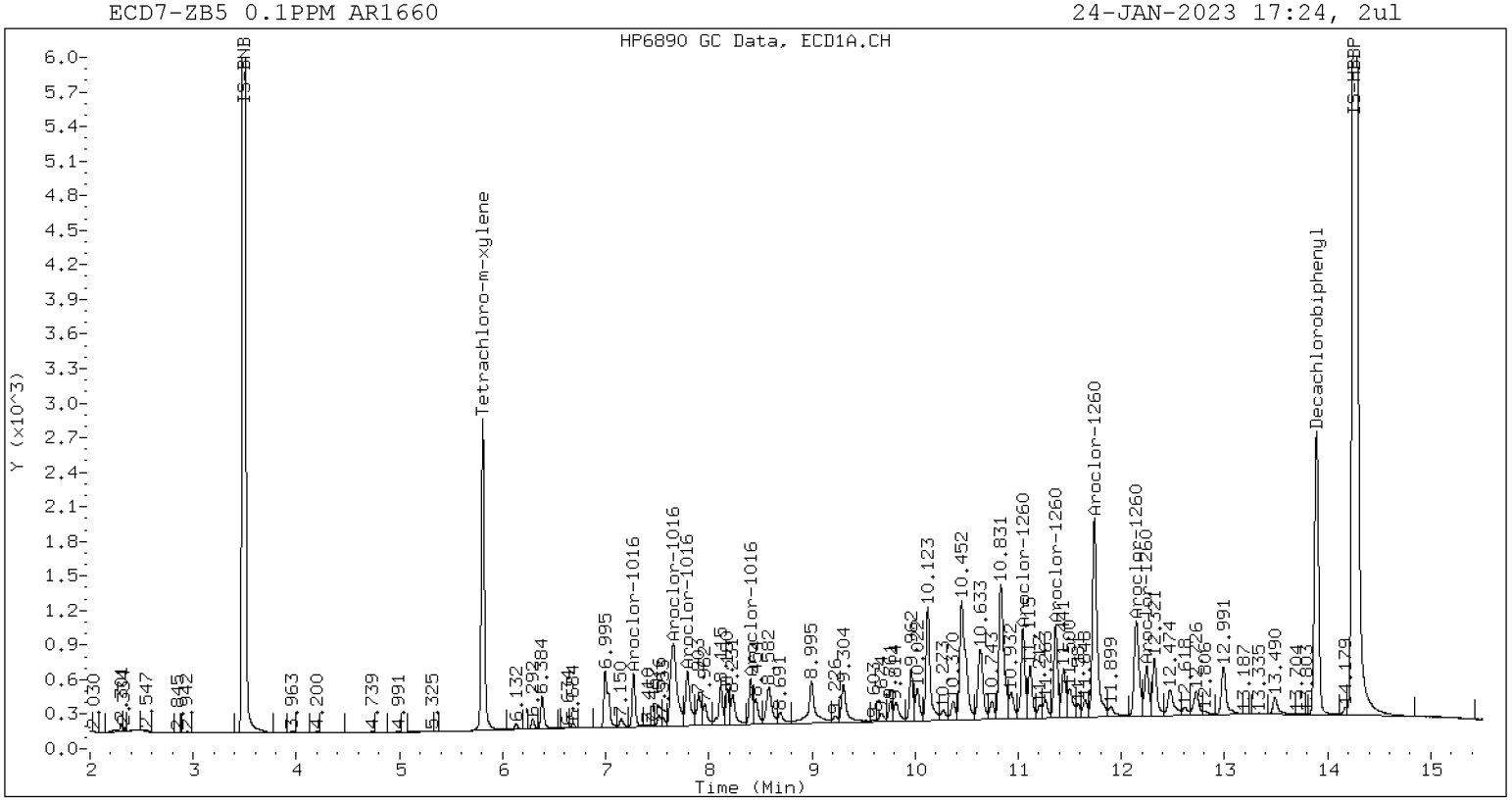
Total PCB Area Col2 (5.787 - 14.020) = 777713 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

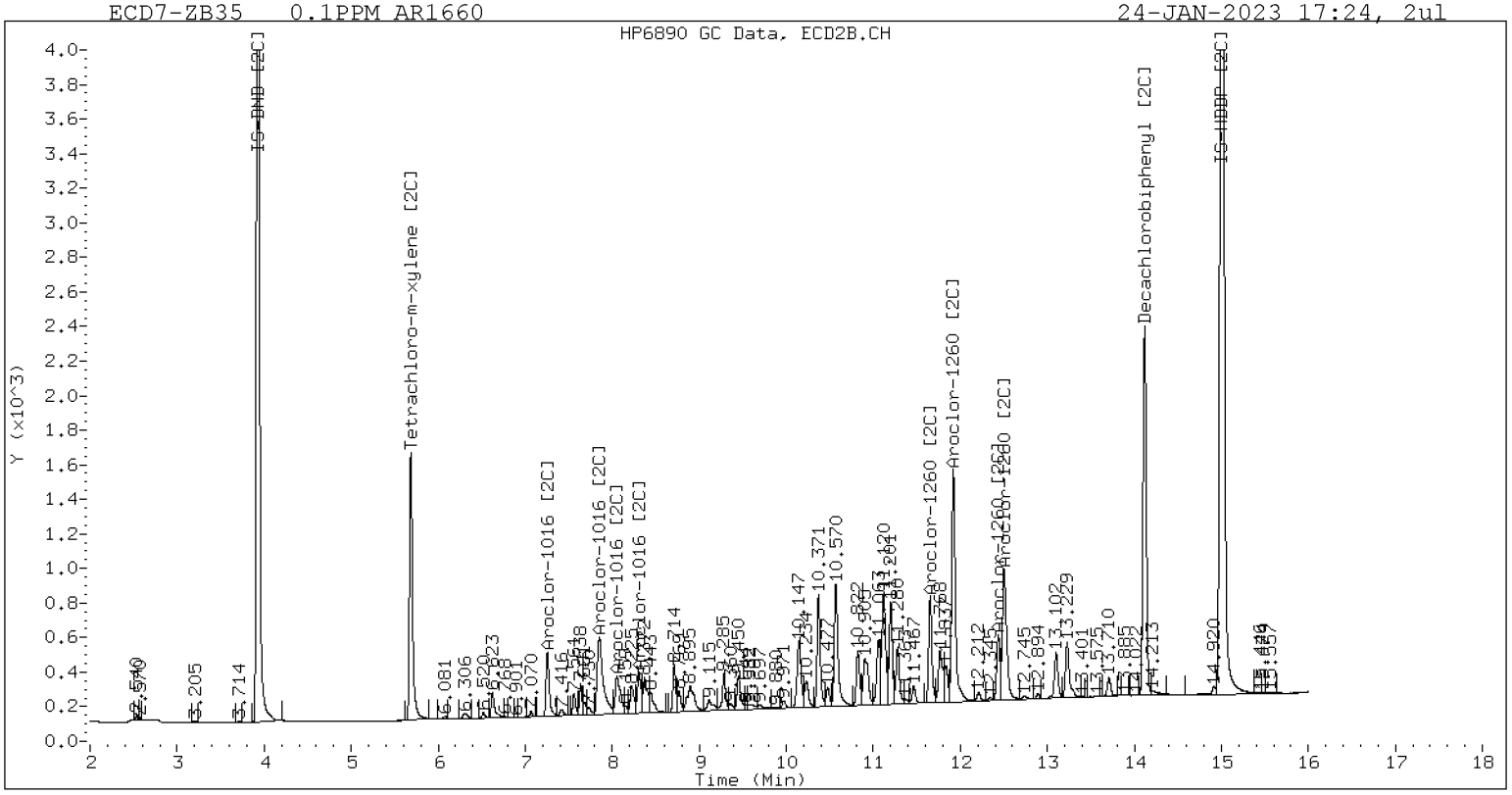
PCB Dual Column Chromatograms

ECD7-ZB5 0.1PPM AR1660 24-JAN-2023 17:24, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.1PPM AR1660 24-JAN-2023 17:24, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242318ECD7.D
Data file 2: /230124.b/230124.b/01242318ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5PPM AR1660
Client ID:
Injection Date: 24-JAN-2023 17:45
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	534053	5.686	-0.000	348900	79.1	77.8	1.6	Tetrachloro-m-xylene
13.891	-0.001	614978	14.120	0.000	552784	74.4	77.5	4.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	477720	-5.1
Hexabromobiphenyl	647433	772816	19.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	331694	-1.5
Hexabromobiphenyl	382032	449559	17.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.000	84322	475.0	1	7.254	-0.000	84986	472.4
Aroclor-1016	2	7.650	0.000	294429	500.6	2	7.850	-0.001	198065	502.4
Aroclor-1016	3	7.789	0.000	122151	451.4	3	8.050	-0.000	81378	505.8
Aroclor-1016	4	8.404	0.000	87760	504.1	4	8.305	-0.000	59656	473.0
Total Col1Ave (4 peaks):				482.8		Total Col2Ave (4 peaks):			488.4	RPD = 1
Corrected Ave (3 peaks):				475.6		Corrected Ave (3 peaks):			482.6	RPD = 1
CalAmt %D:				-3.4		CalAmt %D:			-2.3	
Aroclor-1260	1	11.044	0.000	193843	447.0	1	11.653	-0.000	146980	453.2
Aroclor-1260	2	11.361	0.000	198052	444.3	2	11.917	-0.001	376388	458.7
Aroclor-1260	3	11.734	0.000	505614	430.9	3	12.436	-0.000	98369	481.0
Aroclor-1260	4	12.139	0.000	264950	437.0	4	12.501	-0.001	252455	475.4
Aroclor-1260	5	12.244	0.000	112421	425.4	NS	---			----
Total Col1Ave (5 peaks):				436.9		Total Col2Ave (4 peaks):			467.1	RPD = 7
Corrected Ave (4 peaks):				434.4		Corrected Ave (3 peaks):			462.4	RPD = 6
CalAmt %D:				-12.6		CalAmt %D:			-6.6	

Total PCB Area Col1 (5.909 - 13.792) = 5412241 Col1 Total PCB = 1.0 ppm*

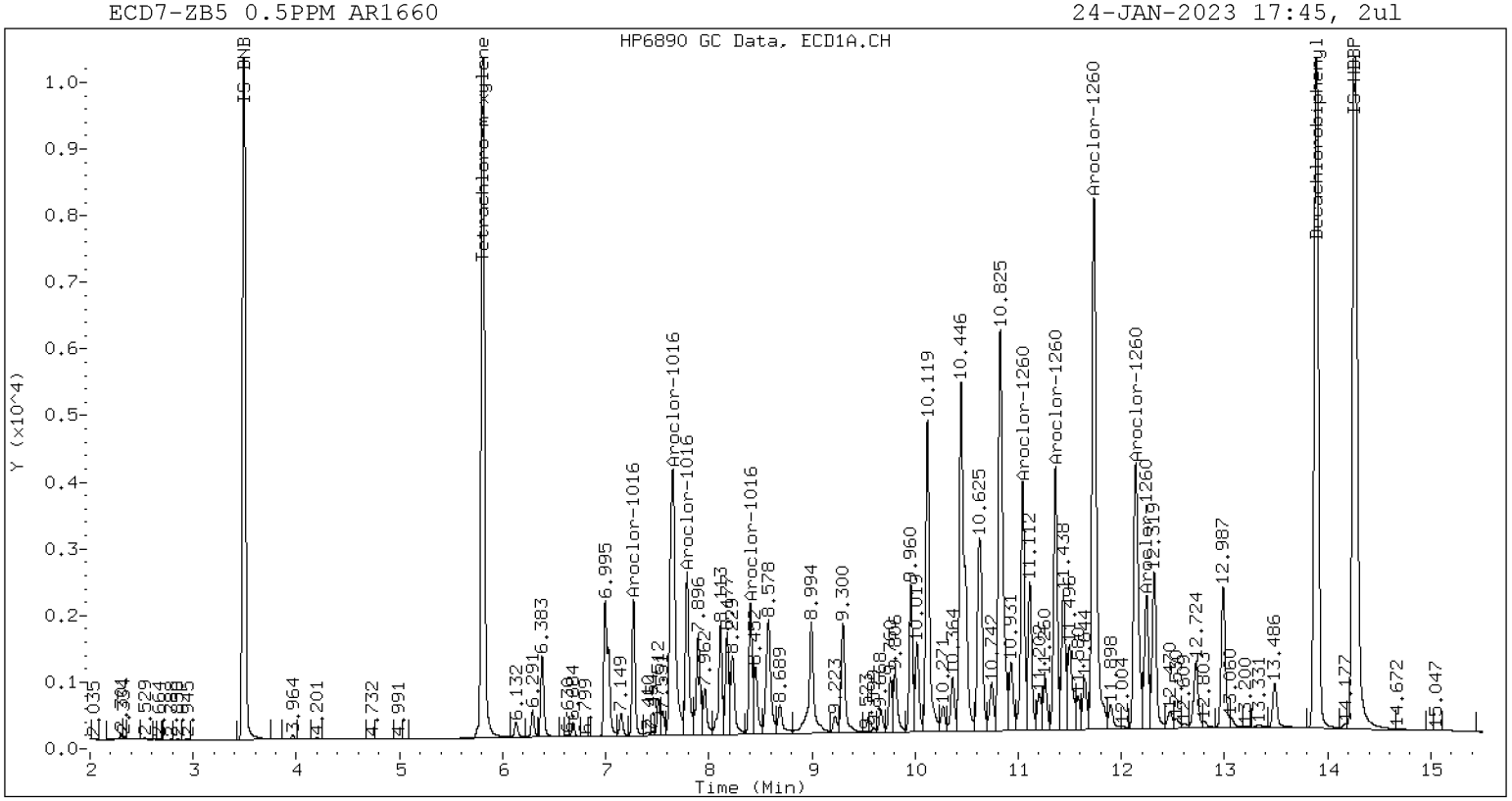
Total PCB Area Col2 (5.787 - 14.020) = 3551064 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

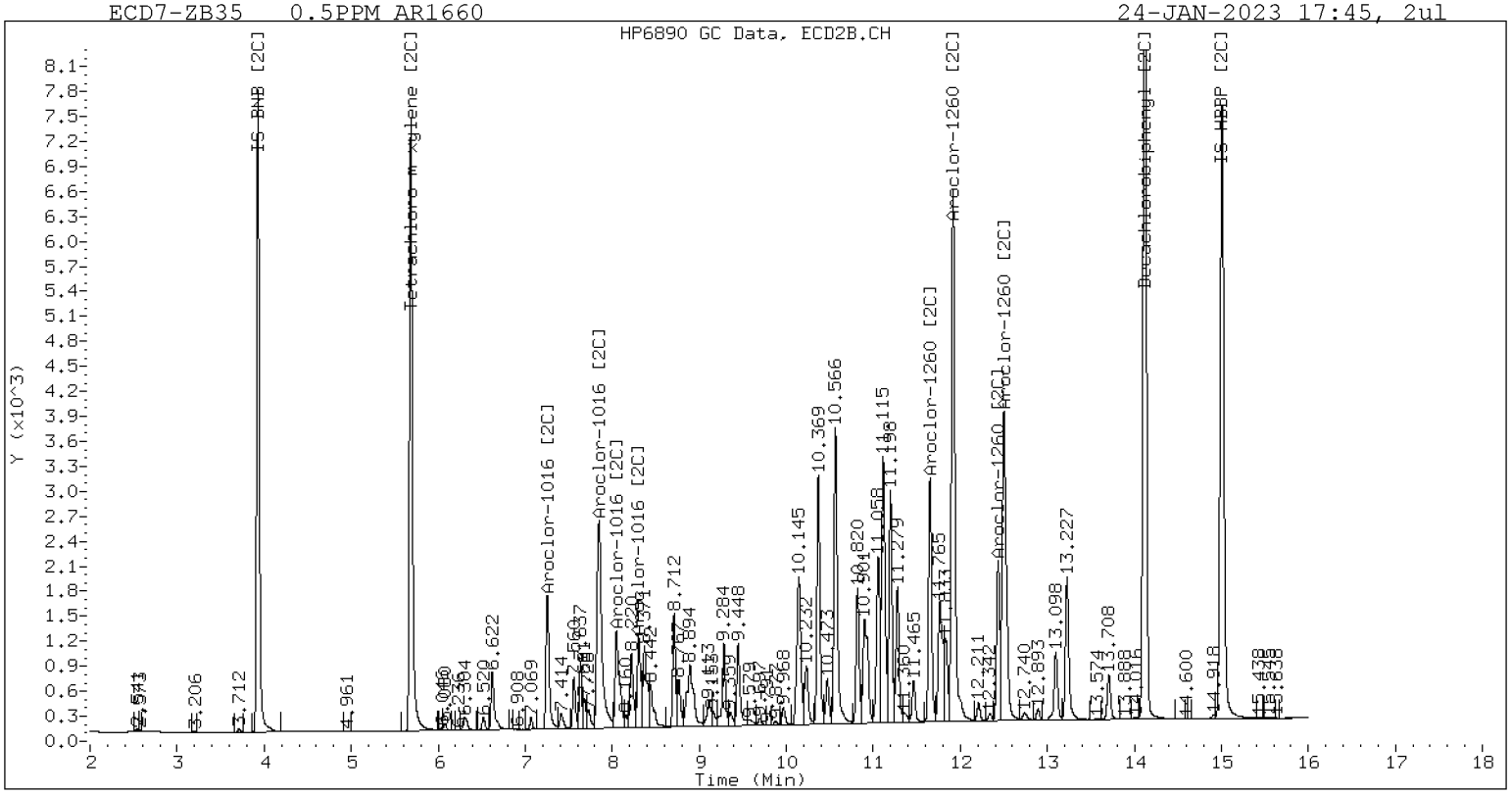
PCB Dual Column Chromatograms

ECD7-ZB5 0.5PPM AR1660 24-JAN-2023 17:45, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.5PPM AR1660 24-JAN-2023 17:45, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242319ECD7.D
Data file 2: /230124.b/230124.b/01242319ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM 1242
Client ID:
Injection Date: 24-JAN-2023 18:06
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	317773	5.686	-0.000	205627	47.7	46.6	2.2	Tetrachloro-m-xylene
13.892	-0.000	322814	14.121	0.001	269935	36.0	36.5	1.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	471690	-6.3
Hexabromobiphenyl	647433	839322	29.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	326260	-3.2
Hexabromobiphenyl	382032	466396	22.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.271	0.000	36109	250.0	1	7.256	0.000	35672	250.0
Aroclor-1242	2	7.655	0.000	118172	250.0	2	7.853	0.000	79233	250.0
Aroclor-1242	3	8.407	0.000	35110	250.0	3	9.160	0.000	24814	250.0
Aroclor-1242	4	8.581	0.000	53037	250.0	4	9.587	0.000	32887	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.909 - 13.792) = 930958 Col1 Total PCB = 0.2 ppm*

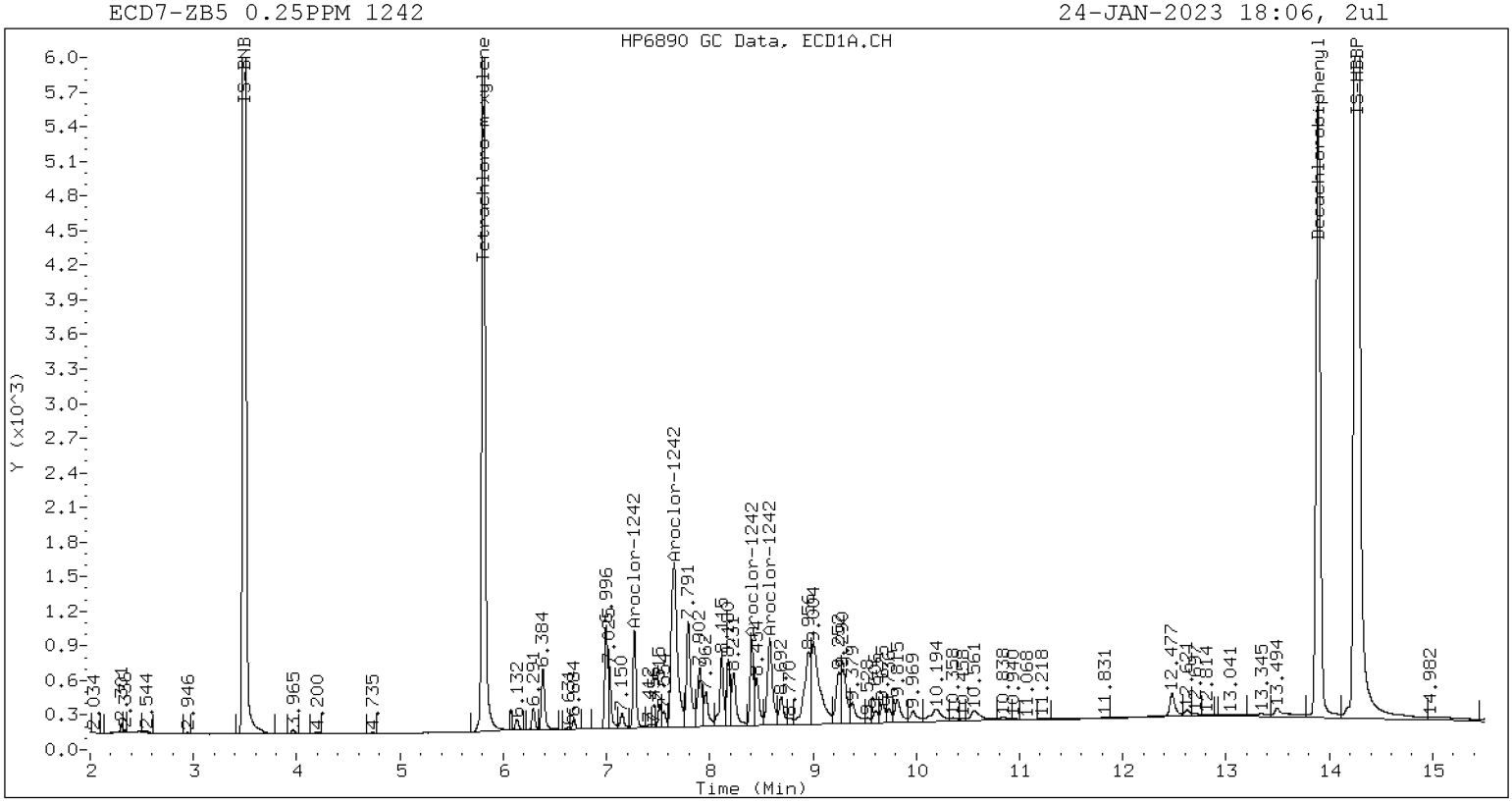
Total PCB Area Col2 (5.787 - 14.020) = 567613 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

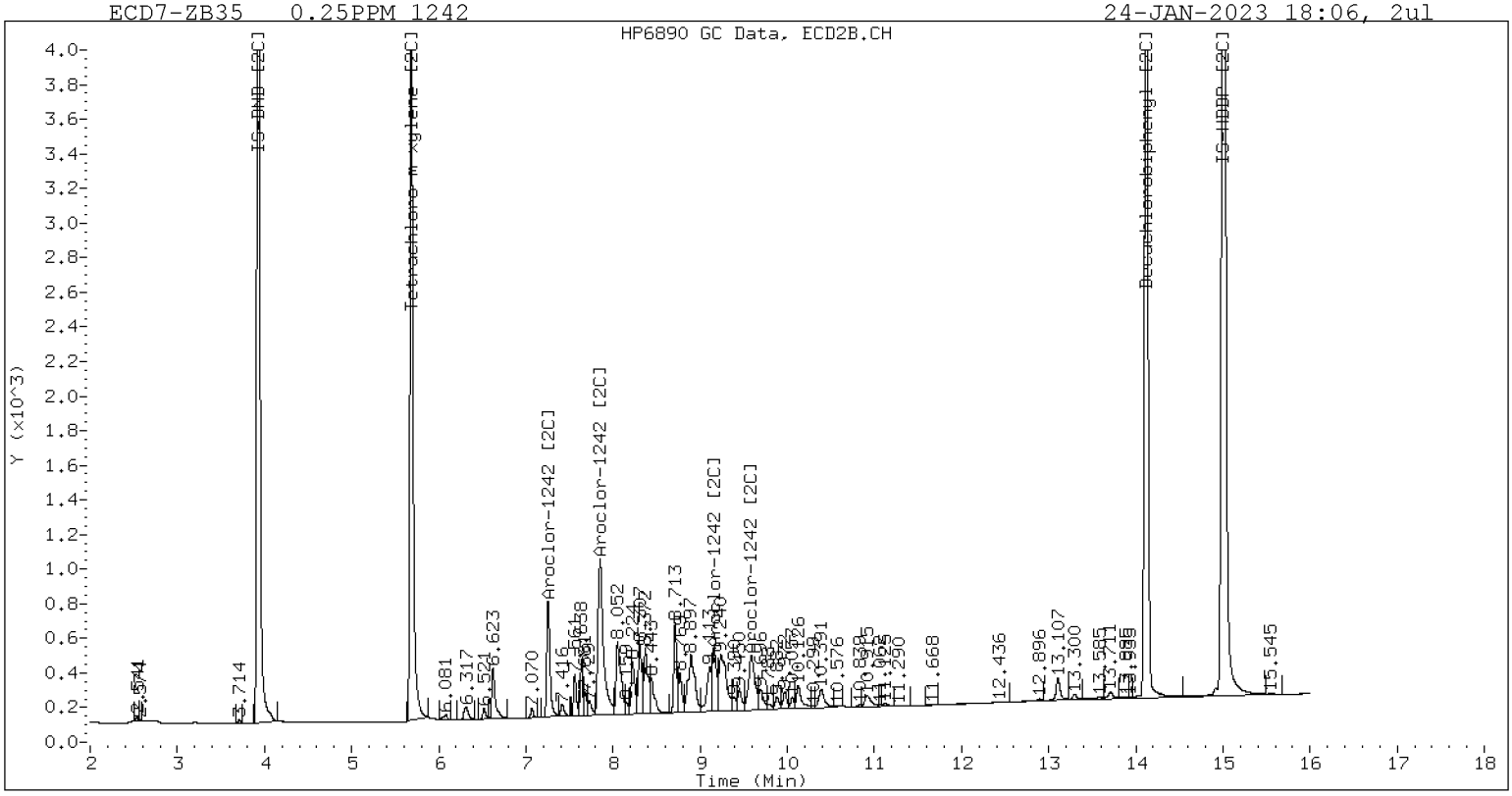
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPM 1242 24-JAN-2023 18:06, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPM 1242 24-JAN-2023 18:06, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242320ECD7.D
Data file 2: /230124.b/230124.b/01242320ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM 1248
Client ID:
Injection Date: 24-JAN-2023 18:27
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	266561	5.686	-0.001	171841	38.5	38.0	1.3	Tetrachloro-m-xylene
13.892	0.001	334524	14.120	0.000	281569	36.6	37.7	3.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	489828	-2.7
Hexabromobiphenyl	647433	855612	32.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	334539	-0.7
Hexabromobiphenyl	382032	470415	23.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.406	0.000	61259	250.0	1	8.305	0.000	37805	250.0
Aroclor-1248	2	8.580	0.000	78143	250.0	2	8.712	0.000	40692	250.0
Aroclor-1248	3	8.999	0.000	149476	250.0	3	9.156	0.000	49723	250.0
Aroclor-1248	4	9.294	0.000	73986	250.0	4	9.582	0.000	61494	250.0

Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.909 - 13.792) = 1237662 Col1 Total PCB = 0.2 ppm*

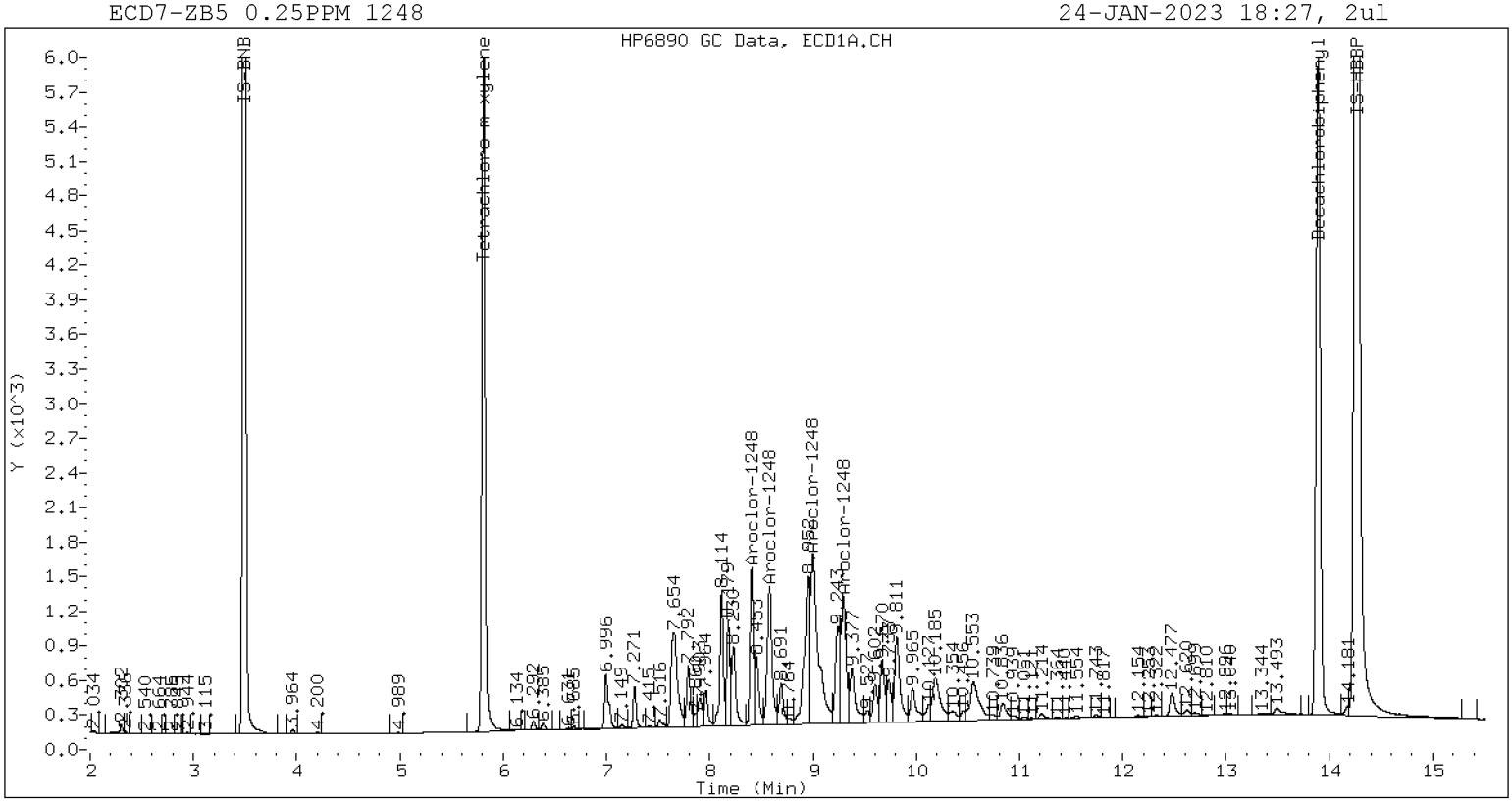
Total PCB Area Col2 (5.787 - 14.020) = 773955 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

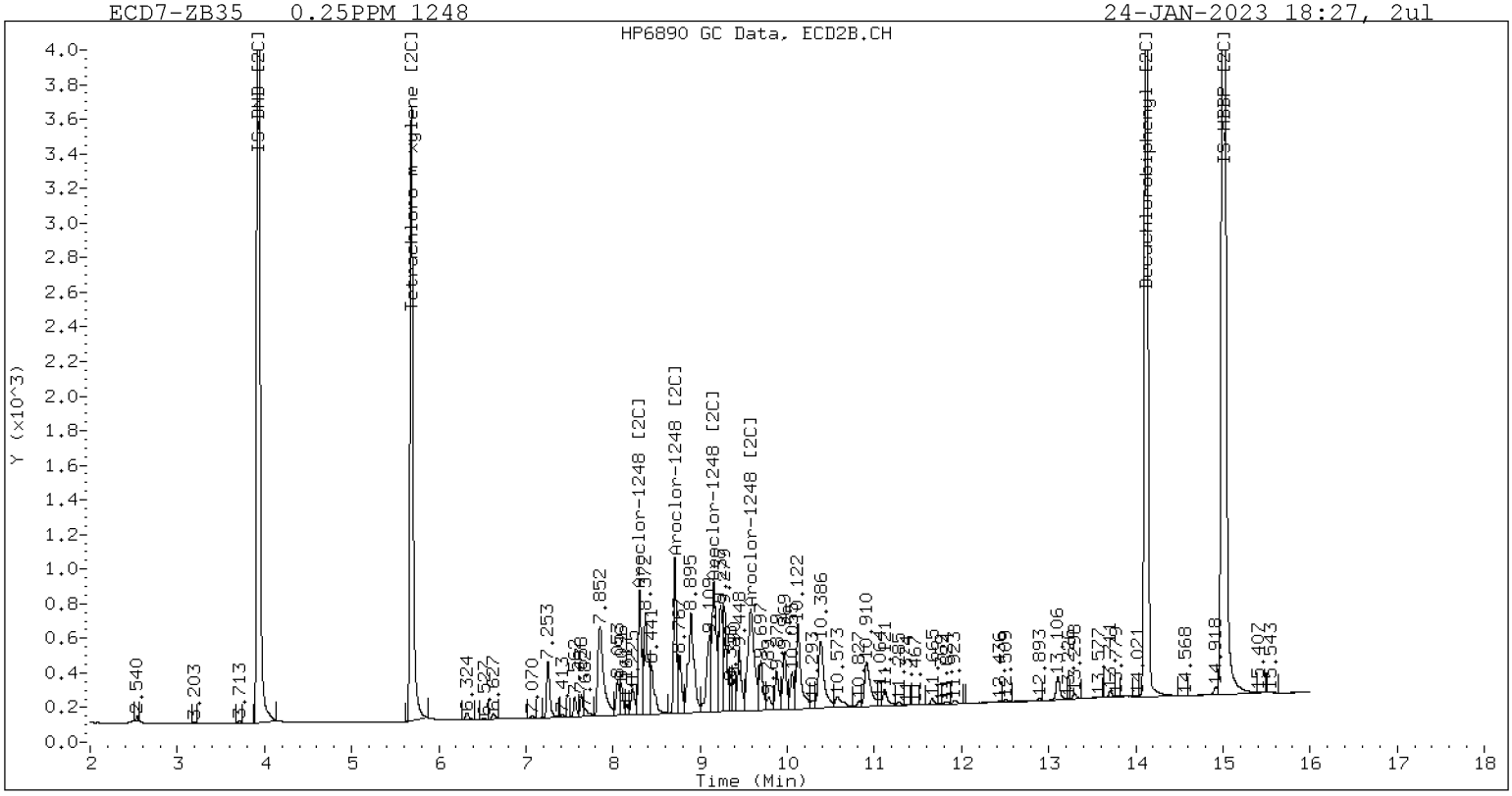
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPM 1248 24-JAN-2023 18:27, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPM 1248 24-JAN-2023 18:27, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242321ECD7.D
Data file 2: /230124.b/230124.b/01242321ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM 1254
Client ID:
Injection Date: 24-JAN-2023 18:48
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.001	258819	5.684	-0.002	171764	37.7	38.1	1.1	Tetrachloro-m-xylene
13.893	0.001	343162	14.119	-0.001	283996	36.8	37.9	2.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	486231	-3.4
Hexabromobiphenyl	647433	871523	34.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	333658	-1.0
Hexabromobiphenyl	382032	471925	23.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	9.299	0.000	123887	250.0	1	9.448	0.000	60516	250.0
Aroclor-1254	2	9.378	0.000	52896	250.0	2	9.969	0.000	48914	250.0
Aroclor-1254	3	9.669	0.000	79378	250.0	3	10.121	0.000	106698	250.0
Aroclor-1254	4	9.808	0.000	155542	250.0	4	10.372	0.000	106700	250.0
Aroclor-1254	5	10.177	0.000	101144	250.0	5	10.569	0.000	59429	250.0

Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.909 - 13.792) = 1659821 Col1 Total PCB = 0.3 ppm*

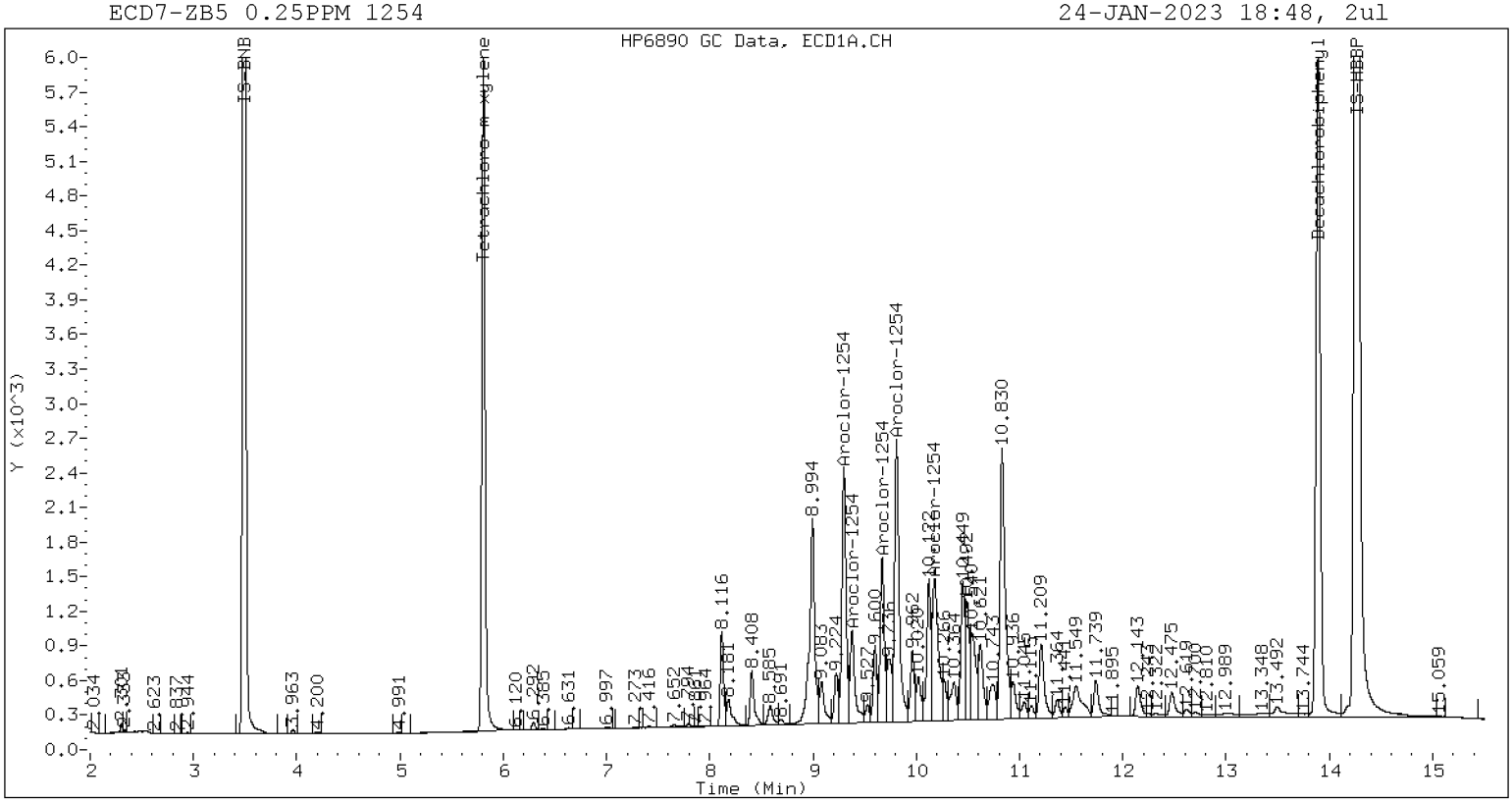
Total PCB Area Col2 (5.787 - 14.020) = 1016659 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

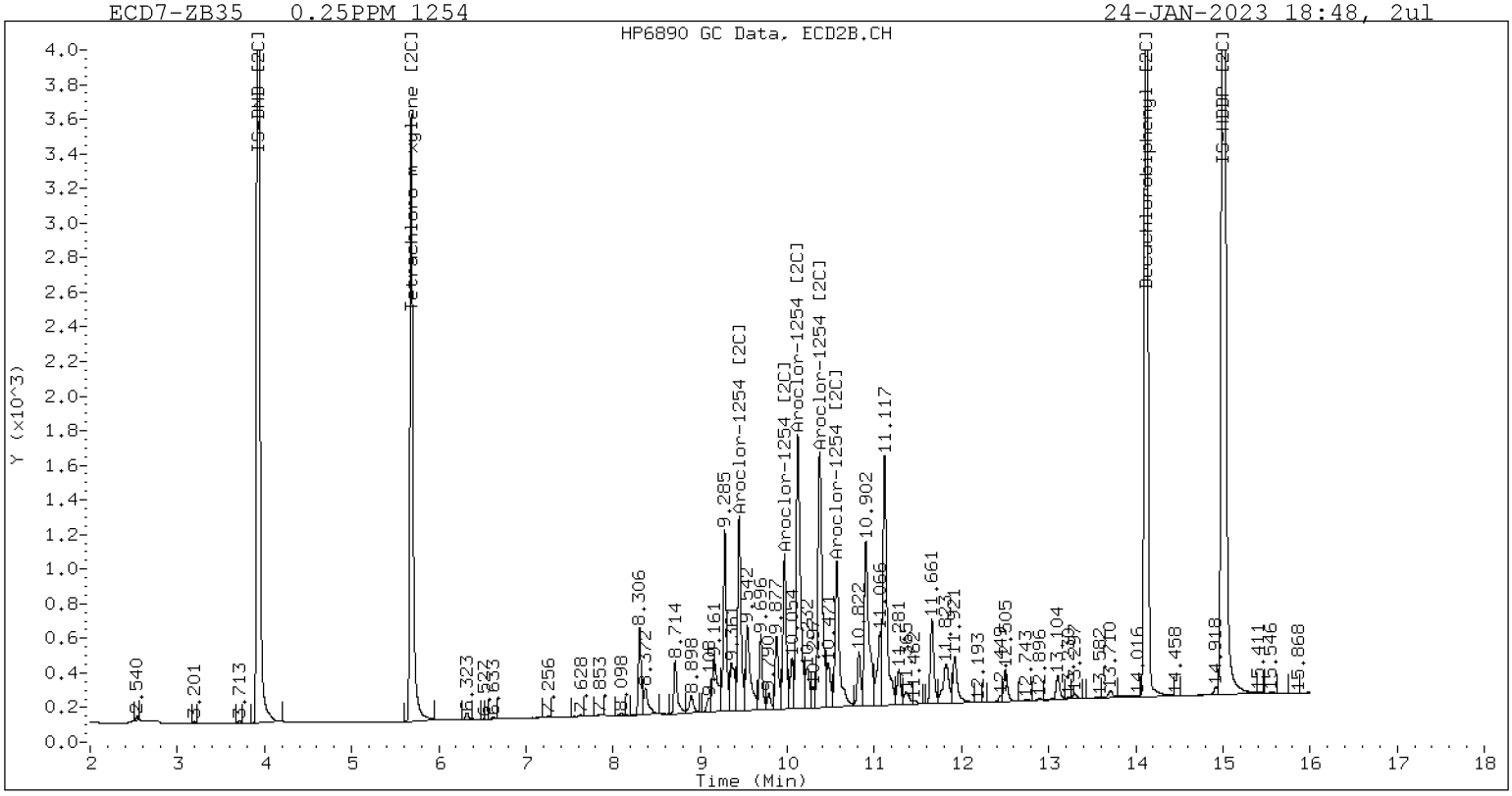
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPM 1254 24-JAN-2023 18:48, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPM 1254 24-JAN-2023 18:48, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242322ECD7.D
Data file 2: /230124.b/230124.b/01242322ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR2162.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM 2162
Client ID:
Injection Date: 24-JAN-2023 19:09
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	272296	5.686	-0.001	173237	39.1	38.6	1.3	Tetrachloro-m-xylene
13.893	0.001	347331	14.120	-0.000	282892	36.8	37.2	1.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	492470	-2.2
Hexabromobiphenyl	647433	883652	36.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	331807	-1.5
Hexabromobiphenyl	382032	479356	25.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1221	1	4.733	0.000	9100	250.0	1	4.959	0.000	6081	250.0
Aroclor-1221	2	6.134	0.000	18608	250.0	2	6.298	0.000	13325	250.0
Aroclor-1221	3	6.384	0.000	43198	250.0	3	6.623	0.000	22491	250.0
	Total Col1Ave (3 peaks):				250.0	Total Col2Ave (3 peaks):				250.0 RPD = 0
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.832	0.000	89339	250.0	1	11.200	0.000	117288	250.0
Aroclor-1262	2	12.246	0.000	141007	250.0	2	11.653	0.000	99740	250.0
Aroclor-1262	3	12.321	0.000	153089	250.0	3	12.434	0.000	106212	250.0
Aroclor-1262	4	12.989	0.000	139497	250.0	4	12.504	0.000	170096	250.0
	Total Col1Ave (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
	Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.909 - 13.792) = 2446612 Col1 Total PCB = 0.4 ppm*

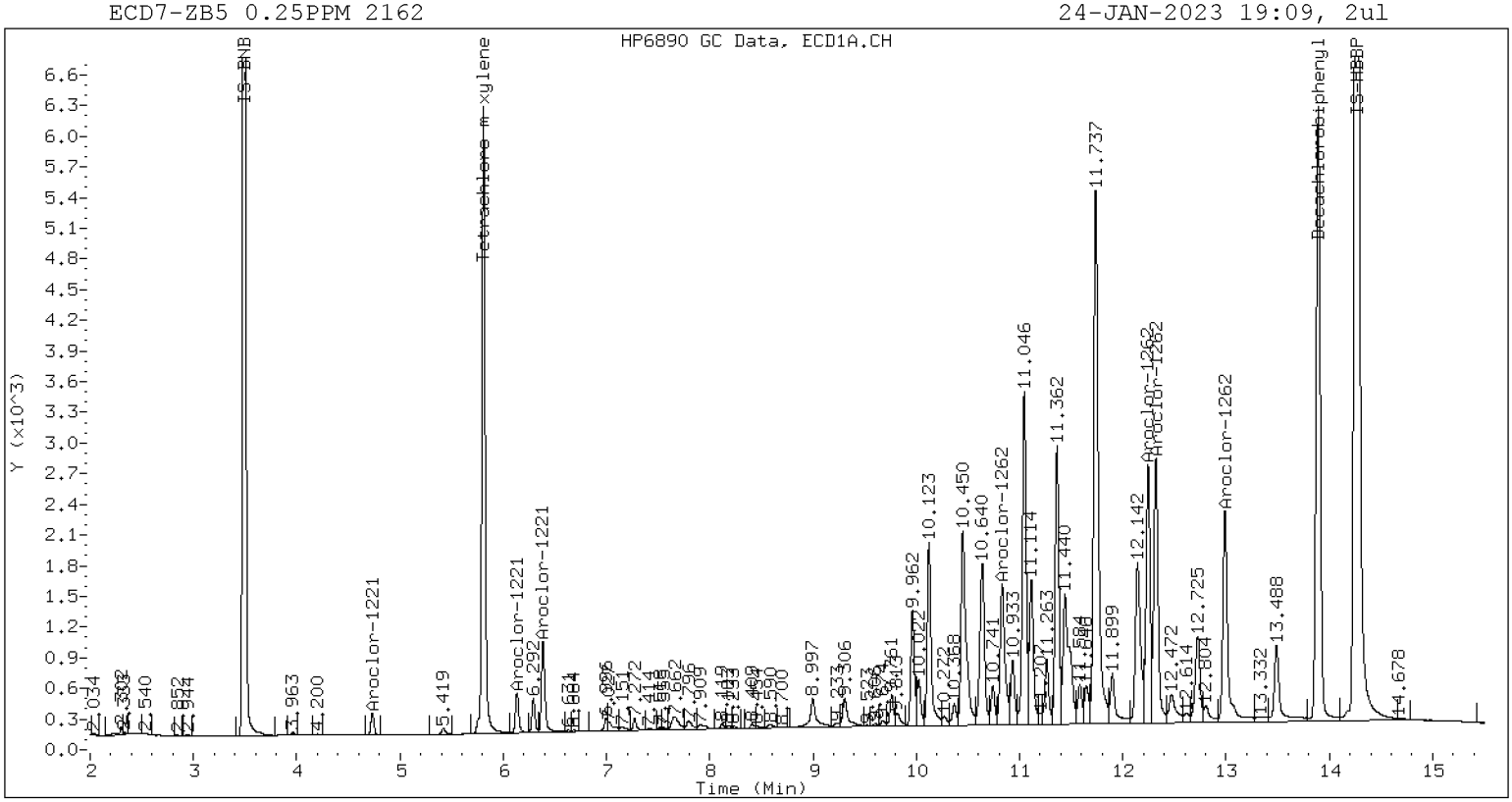
Total PCB Area Col2 (5.787 - 14.020) = 1558387 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

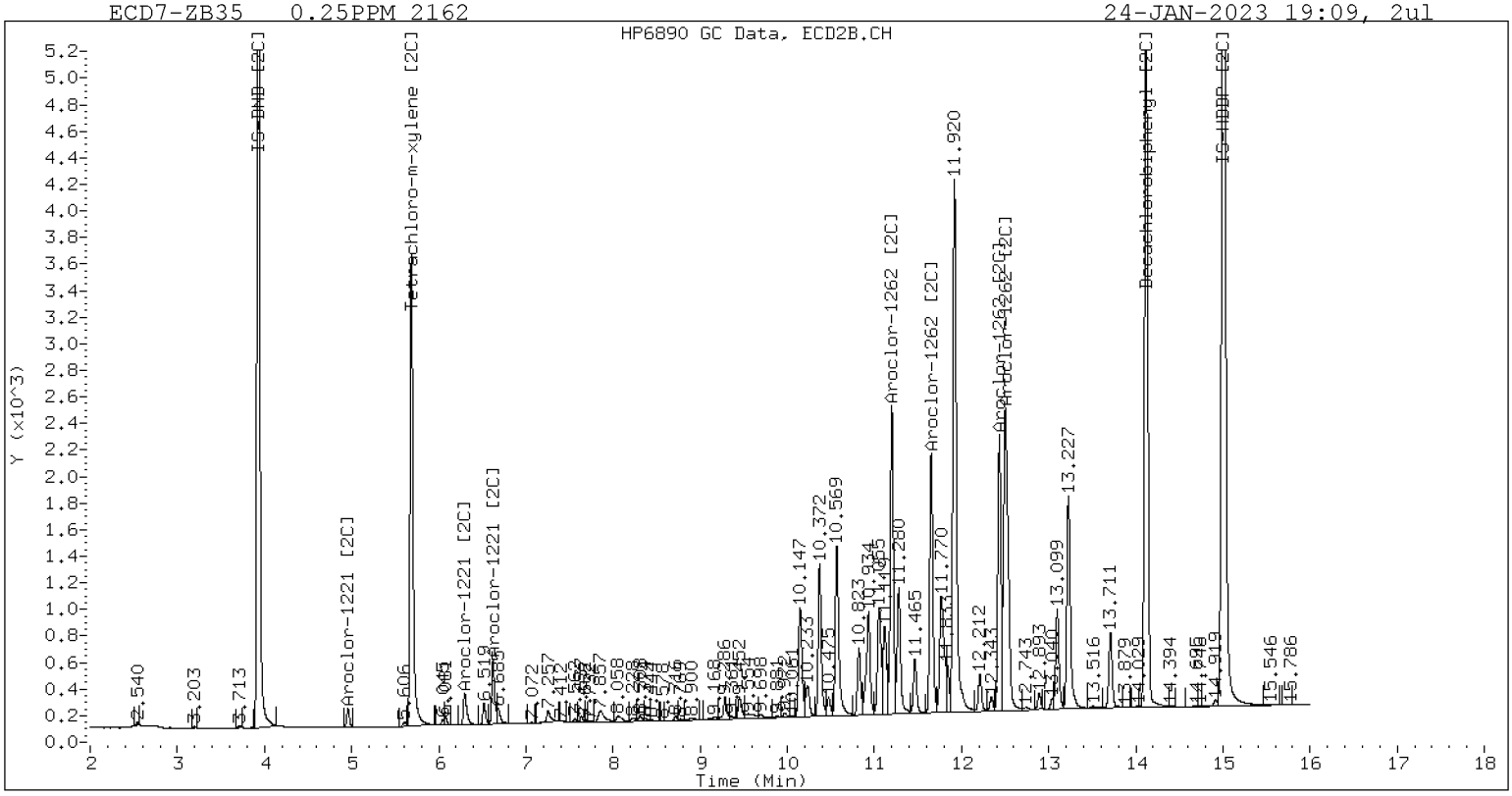
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPM 2162 24-JAN-2023 19:09, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPM 2162 24-JAN-2023 19:09, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242323ECD7.D
Data file 2: /230124.b/230124.b/01242323ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR3268.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM 3268
Client ID:
Injection Date: 24-JAN-2023 19:30
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	277108	5.687	0.000	177359	39.7	39.1	1.5	Tetrachloro-m-xylene
13.892	0.000	525503	14.120	0.000	438987	53.8	57.7	7.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	493427	-2.0
Hexabromobiphenyl	647433	913614	41.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	335121	-0.5
Hexabromobiphenyl	382032	479458	25.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	4.733	0.000	5692	250.0	1	4.960	0.000	3725	250.0
Aroclor-1232	2	6.133	0.000	12828	250.0	2	7.257	0.000	20847	250.0
Aroclor-1232	3	7.658	0.000	64153	250.0	3	7.854	0.000	42459	250.0
Aroclor-1232	4	8.584	0.000	27460	250.0	4	8.714	0.000	11797	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	12.245	0.000	377314	250.0	1	12.434	0.000	279910	250.0
Aroclor-1268	2	12.318	0.000	376282	250.0	2	12.501	0.000	297867	250.0
Aroclor-1268	3	12.699	0.000	311753	250.0	3	12.893	0.000	247943	250.0
Aroclor-1268	4	13.489	0.000	924293	250.0	4	13.709	0.000	765898	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.909 - 13.792) = 3136879 Col1 Total PCB = 0.5 ppm*

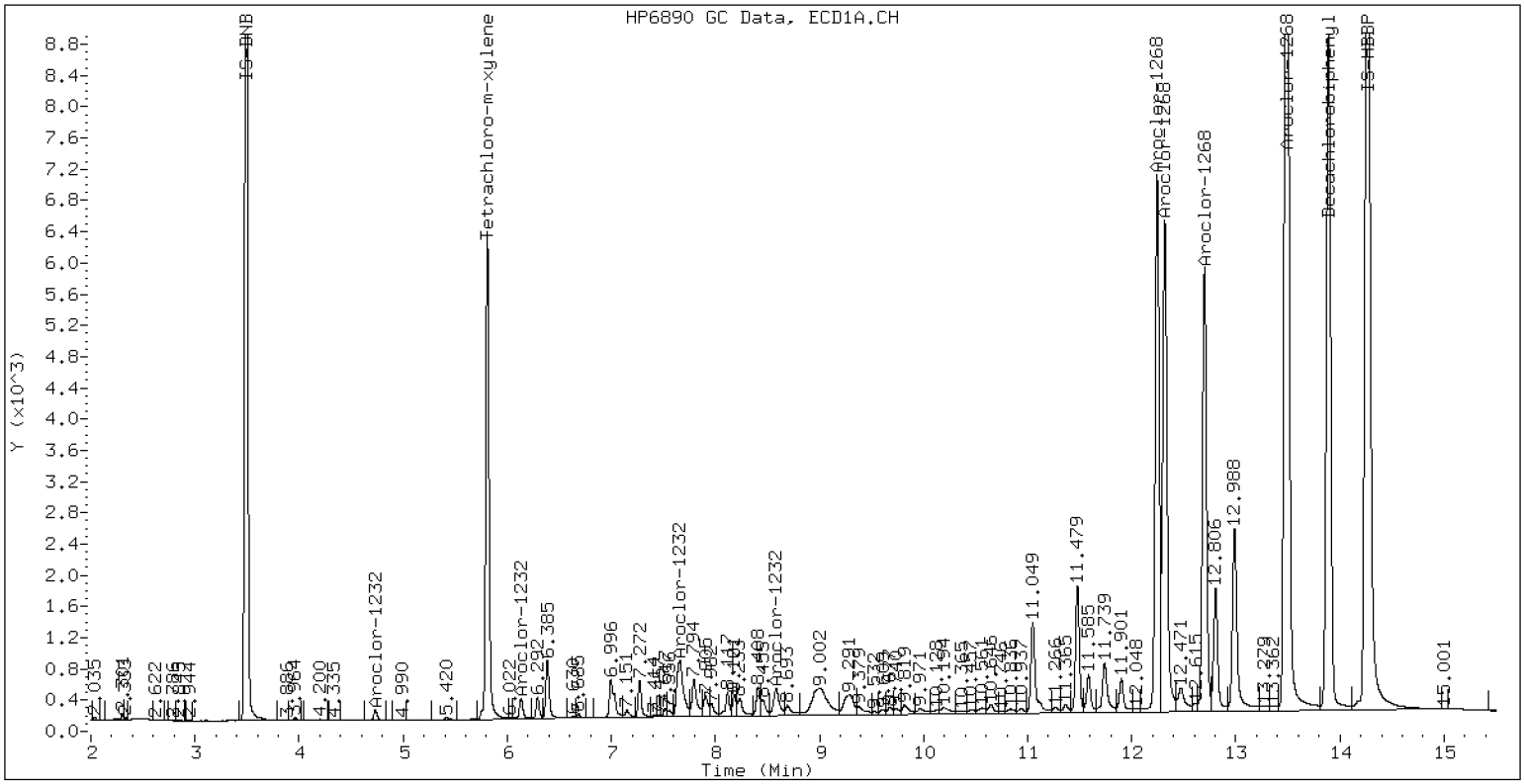
Total PCB Area Col2 (5.787 - 14.020) = 2269104 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

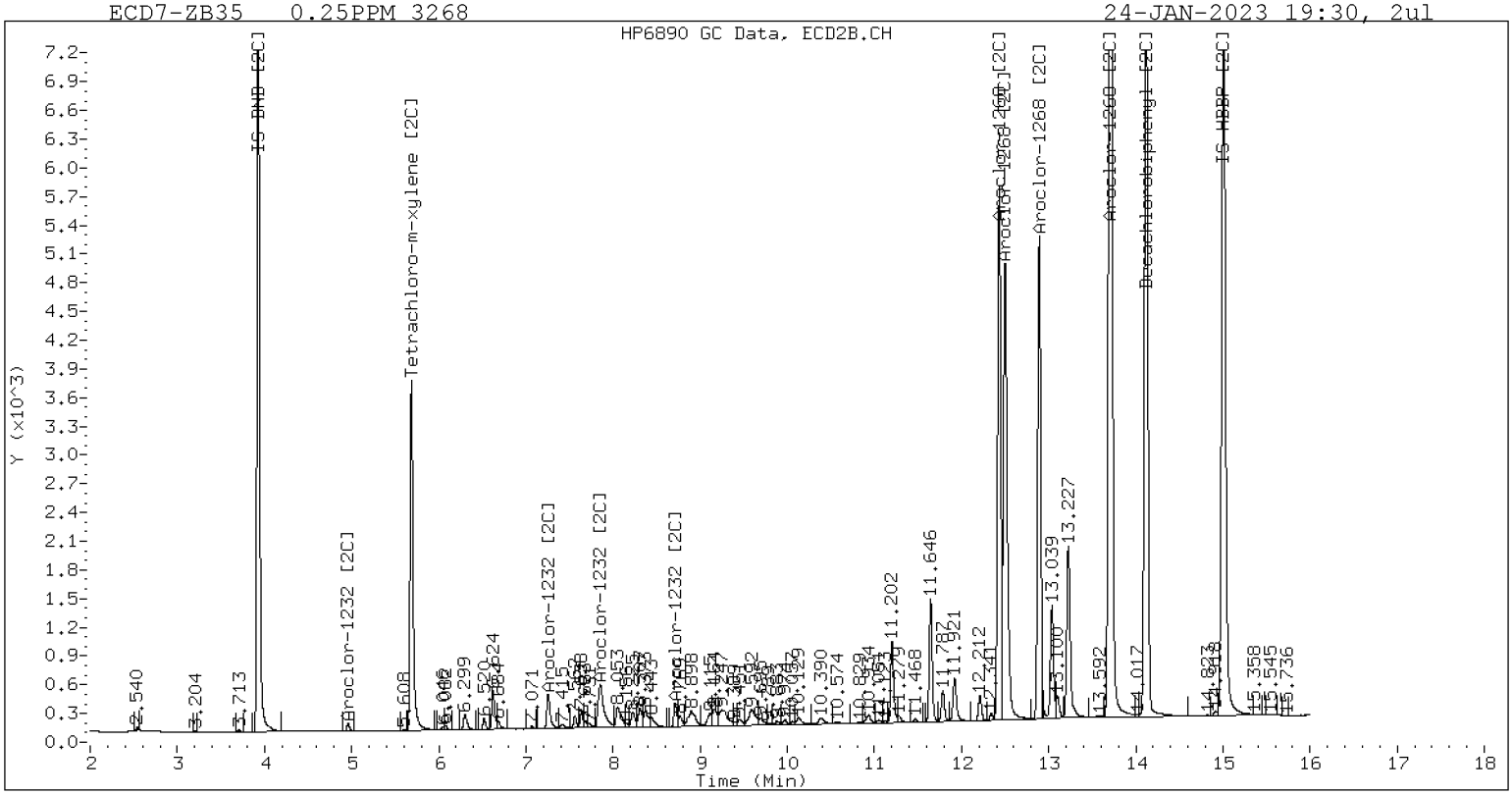
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPM 3268 24-JAN-2023 19:30, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPM 3268 24-JAN-2023 19:30, 2ul

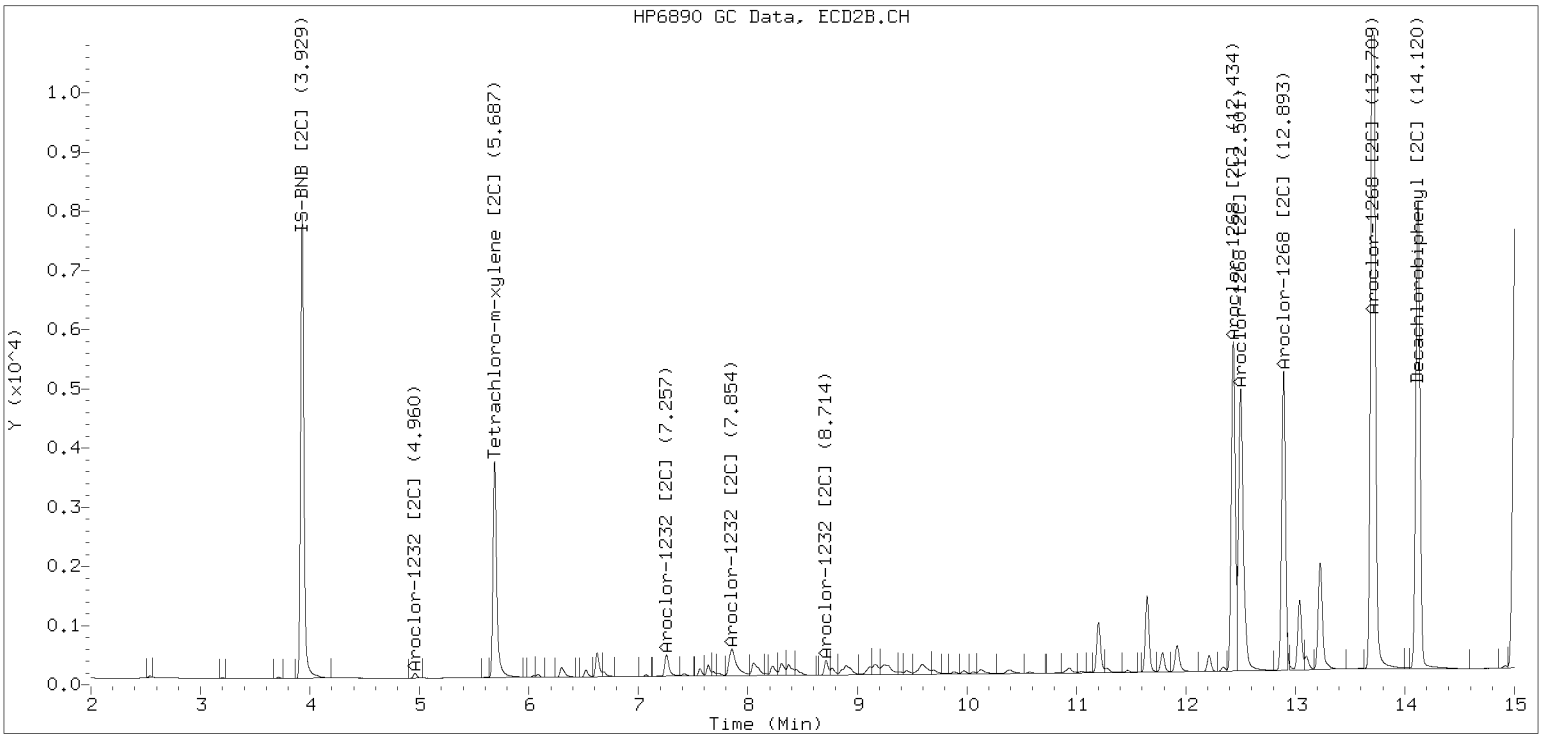


ZB-35 Manual Integration: YES

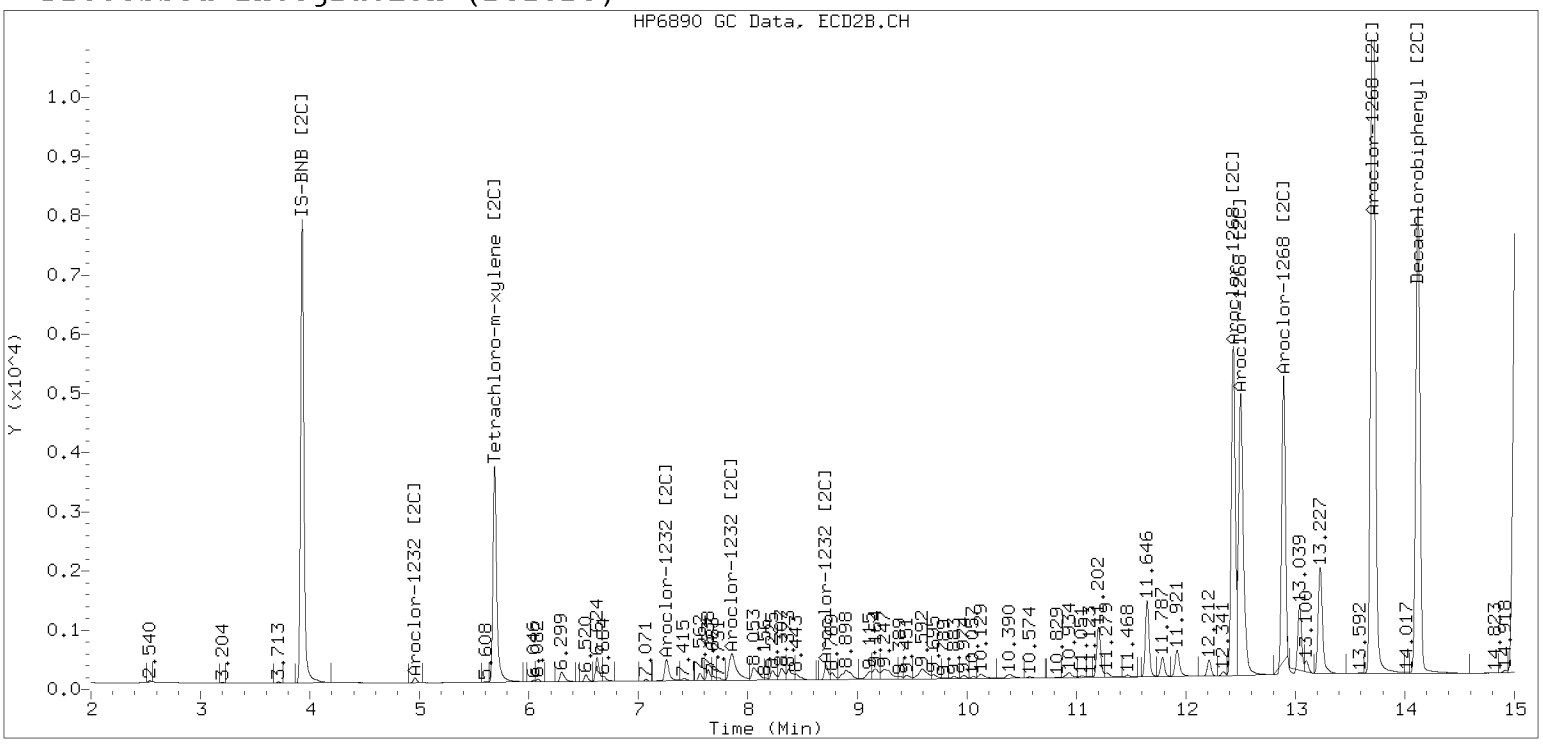
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230124.b/230124.b/01242323ECD7.D Injection Date: 24-JAN-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242324ECD7.D
Data file 2: /230124.b/230124.b/01242324ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 SCV
Client ID:
Injection Date: 24-JAN-2023 19:51
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	268739	5.686	-0.001	172961	37.5	37.3	0.6	Tetrachloro-m-xylene
13.891	-0.000	381489	14.121	0.001	320416	37.9	40.2	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	506576	0.6
Hexabromobiphenyl	647433	940129	45.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	343102	1.8
Hexabromobiphenyl	382032	501702	31.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	40958	217.6	1	7.255	0.001	40190	216.0
Aroclor-1016	2	7.655	0.004	135282	216.9	2	7.852	0.001	90338	221.5
Aroclor-1016	3	7.791	0.003	61557	214.5	3	8.052	0.002	37810	227.2
Aroclor-1016	4	8.406	0.002	40372	218.7	4	8.306	0.000	28171	215.9
Total Col1Ave (4 peaks):					216.9	Total Col2Ave (4 peaks):				220.2 RPD = 1
Corrected Ave (3 peaks):					216.3	Corrected Ave (3 peaks):				217.8 RPD = 1
Aroclor-1221	1	4.732	-0.001	256	6.8	1	---			0.0
Aroclor-1221	2	6.131	-0.002	4742	61.9	2	6.302	0.004	5037	91.4
Aroclor-1221	3	6.384	-0.000	27448	154.4	3	6.623	-0.000	18931	203.5
Total Col1Ave (3 peaks):					74.4	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.732	-0.001	256	11.0	1	---			0.0
Aroclor-1232	2	6.131	-0.002	4742	90.0	2	7.255	-0.001	40190	470.8
Aroclor-1232	3	7.655	-0.004	135282	513.5	3	7.852	-0.002	90338	519.5
Aroclor-1232	4	8.581	-0.003	56938	504.9	4	8.713	-0.001	27776	574.9
Total Col1Ave (4 peaks):					279.8	Total Col2Ave (3 peaks):				521.7 RPD = 60*
Corrected Ave (3 peaks):					202.0	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	-0.000	40958	264.0	1	7.255	-0.000	40190	267.8
Aroclor-1242	2	7.655	-0.001	135282	266.5	2	7.852	-0.001	90338	271.0
Aroclor-1242	3	8.406	-0.001	40372	267.7	3	9.115	-0.045	15827	151.6
Aroclor-1242	4	8.581	-0.000	56938	249.9	4	9.587	0.001	3186	23.0
Total Col1Ave (4 peaks):					262.0	Total Col2Ave (4 peaks):				178.4 RPD = 38
Corrected Ave (3 peaks):					260.1	Corrected Ave (3 peaks):				147.5 RPD = 55*
Aroclor-1248	1	8.406	0.000	40372	159.3	1	8.306	0.000	28171	181.6
Aroclor-1248	2	8.581	0.001	56938	176.1	2	8.713	0.000	27776	166.4
Aroclor-1248	3	8.995	-0.004	58213	94.1	3	9.115	-0.042	15827	77.6
Aroclor-1248	4	9.304	0.010	36620	119.6	4	9.587	0.006	3186	12.6
Total Col1Ave (4 peaks):					137.3	Total Col2Ave (4 peaks):				109.6 RPD = 22
Corrected Ave (3 peaks):					124.4	Corrected Ave (3 peaks):				85.5 RPD = 37
Aroclor-1254	1	9.304	0.005	36620	70.9	1	9.450	0.002	20792	83.5
Aroclor-1254	2	---			0.0	2	9.972	0.003	2640	13.1
Aroclor-1254	3	9.673	0.003	4075	12.3	3	10.148	0.027	52902	120.5
Aroclor-1254	4	9.813	0.004	14733	22.7	4	10.372	0.000	71680	163.3
Aroclor-1254	5	10.122	-0.055	119528	283.6	5	10.569	-0.000	98559	403.2
Total Col1Ave (4 peaks):					97.4	Total Col2Ave (5 peaks):				156.7 RPD = 47*
Corrected Ave (3 peaks):					35.3	Corrected Ave (4 peaks):				95.1 RPD = 92*
Aroclor-1260	1	11.045	0.002	116435	220.7	1	11.654	0.000	81795	226.0
Aroclor-1260	2	11.362	0.001	116918	215.6	2	11.920	0.002	217887	238.0
Aroclor-1260	3	11.738	0.003	303264	212.5	3	12.437	0.001	56212	246.3
Aroclor-1260	4	12.143	0.004	141534	191.9	4	12.502	0.000	142689	240.8
Aroclor-1260	5	12.246	0.002	68446	212.9	NS	---			----
Total Col1Ave (5 peaks):					210.7	Total Col2Ave (4 peaks):				237.8 RPD = 12
Corrected Ave (4 peaks):					208.2	Corrected Ave (3 peaks):				234.9 RPD = 12
Aroclor-1262	1	10.830	-0.002	169725	446.4	1	11.200	0.000	83995	171.1
Aroclor-1262	2	12.246	0.000	68446	114.1	2	11.654	0.001	81795	195.9
Aroclor-1262	3	12.320	-0.000	84201	129.2	3	12.437	0.003	56212	126.4
Aroclor-1262	4	12.989	-0.000	78065	131.5	4	12.502	-0.001	142689	200.4
Total Col1Ave (4 peaks):					205.3	Total Col2Ave (4 peaks):				173.4 RPD = 17
Corrected Ave (3 peaks):					124.9	Corrected Ave (3 peaks):				164.5 RPD = 27
Aroclor-1268	1	12.246	0.001	68446	44.1	1	12.437	0.003	56212	48.0
Aroclor-1268	2	12.320	0.002	84201	54.4	2	12.502	0.001	142689	114.4
Aroclor-1268	3	12.726	0.027	33020	25.7	3	12.894	0.001	1495	1.4
Aroclor-1268	4	13.490	0.001	16019	4.2	4	13.709	0.001	10120	3.2
Total Col1Ave (4 peaks):					32.1	Total Col2Ave (4 peaks):				41.8 RPD = 26
Corrected Ave (3 peaks):					24.7	Corrected Ave (3 peaks):				17.5 RPD = 34

Total PCB Area Col1 (5.909 - 13.792) = 2789370 Col1 Total PCB = 0.5 ppm*

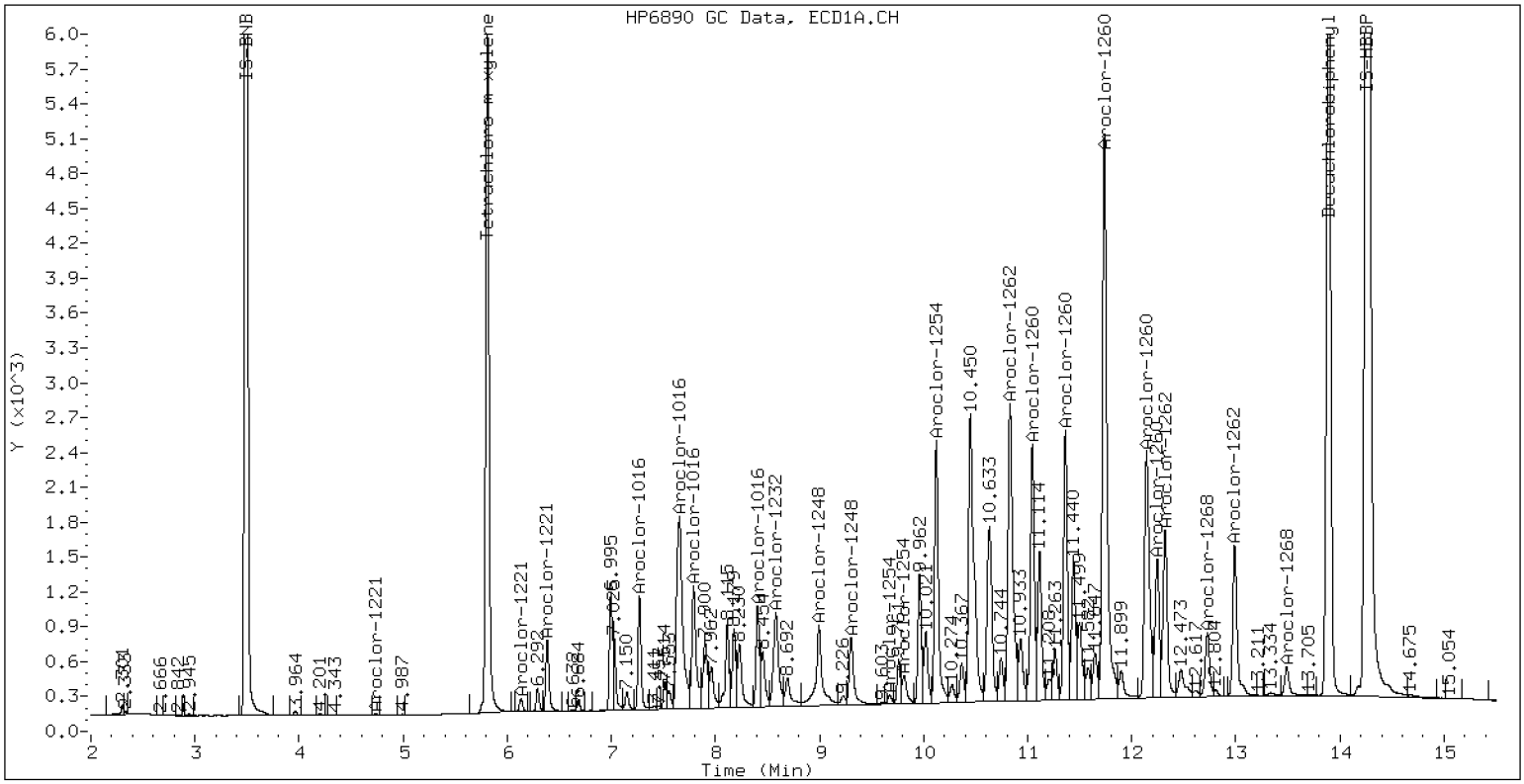
Total PCB Area Col2 (5.787 - 14.020) = 1810543 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

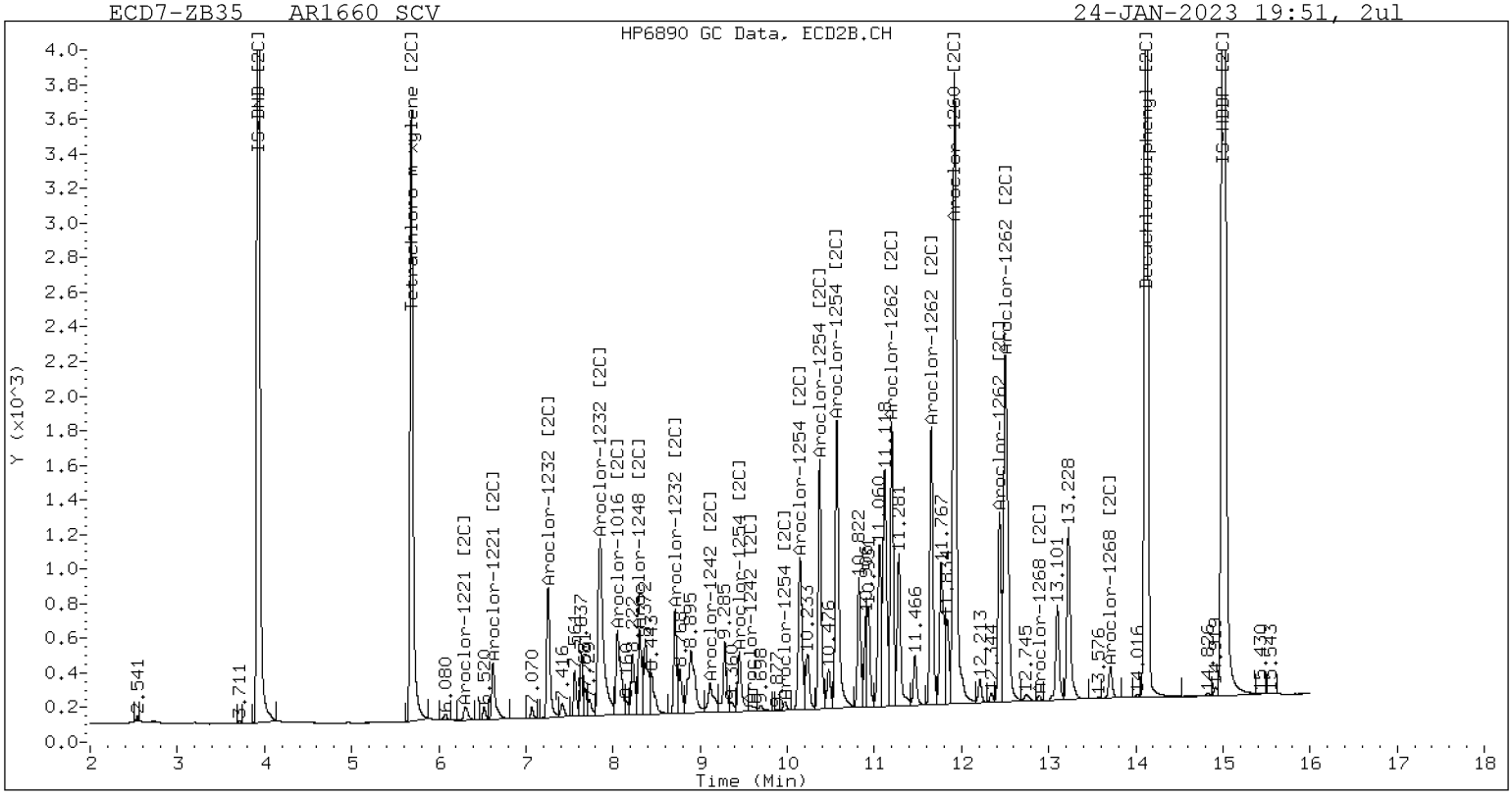
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660 SCV 24-JAN-2023 19:51, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660 SCV 24-JAN-2023 19:51, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242325ECD7.D
Data file 2: /230124.b/230124.b/01242325ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242 SCV
Client ID:
Injection Date: 24-JAN-2023 20:12
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	268580	5.686	-0.001	172592	37.8	37.4	1.1	Tetrachloro-m-xylene
13.892	0.001	392918	14.121	0.001	323869	38.5	40.3	4.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503089	-0.0
Hexabromobiphenyl	647433	953137	47.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	341704	1.4
Hexabromobiphenyl	382032	505860	32.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	29901	159.9	1	7.255	0.000	32077	173.1
Aroclor-1016	2	7.653	0.003	107333	173.3	2	7.851	-0.000	71438	175.9
Aroclor-1016	3	7.790	0.002	45013	157.9	3	8.051	0.001	29072	175.4
Aroclor-1016	4	8.406	0.002	32958	179.8	4	8.306	0.001	21761	167.5
Total Col1Ave (4 peaks):					167.7	Total Col2Ave (4 peaks):				173.0 RPD = 3
Corrected Ave (3 peaks):					163.7	Corrected Ave (3 peaks):				172.0 RPD = 5
Aroclor-1221	1	4.737	0.004	141	3.8	1	---			0.0
Aroclor-1221	2	6.133	-0.001	3649	48.0	2	6.317	0.018	4290	78.2
Aroclor-1221	3	6.384	-0.000	21189	120.0	3	6.624	0.001	14613	157.7
Total Col1Ave (3 peaks):					57.3	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.737	0.003	141	6.1	1	---			0.0
Aroclor-1232	2	6.133	-0.001	3649	69.7	2	7.255	-0.002	32077	377.3
Aroclor-1232	3	7.653	-0.005	107333	410.2	3	7.851	-0.004	71438	412.5
Aroclor-1232	4	8.581	-0.003	59617	532.3	4	8.713	-0.000	22563	468.9
Total Col1Ave (4 peaks):					254.6	Total Col2Ave (3 peaks):				419.6 RPD = 49*
Corrected Ave (3 peaks):					162.0	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	0.000	29901	194.1	1	7.255	-0.001	32077	214.6
Aroclor-1242	2	7.653	-0.002	107333	212.9	2	7.851	-0.002	71438	215.2
Aroclor-1242	3	8.406	-0.000	32958	220.0	3	9.156	-0.004	27374	263.3
Aroclor-1242	4	8.581	-0.000	59617	263.5	4	9.581	-0.006	34156	247.9
Total Col1Ave (4 peaks):					222.6	Total Col2Ave (4 peaks):				235.3 RPD = 6
Corrected Ave (3 peaks):					209.0	Corrected Ave (3 peaks):				225.9 RPD = 8
Aroclor-1248	1	8.406	0.001	32958	131.0	1	8.306	0.001	21761	140.9
Aroclor-1248	2	8.581	0.001	59617	185.7	2	8.713	0.001	22563	135.7
Aroclor-1248	3	9.003	0.004	72557	118.2	3	9.156	-0.000	27374	134.7
Aroclor-1248	4	9.296	0.003	28122	92.5	4	9.581	-0.001	34156	135.9
Total Col1Ave (4 peaks):					131.8	Total Col2Ave (4 peaks):				136.8 RPD = 4
Corrected Ave (3 peaks):					113.9	Corrected Ave (3 peaks):				135.5 RPD = 17
Aroclor-1254	1	9.296	-0.002	28122	54.8	1	9.448	0.000	11650	47.0
Aroclor-1254	2	9.380	0.002	9292	42.4	2	9.968	-0.001	7642	38.1
Aroclor-1254	3	9.671	0.001	12871	39.2	3	10.120	-0.001	16012	36.6
Aroclor-1254	4	9.808	-0.000	22113	34.4	4	10.378	0.007	16300	37.3
Aroclor-1254	5	10.176	-0.001	17771	42.5	5	10.572	0.004	4439	18.2
Total Col1Ave (5 peaks):					42.7	Total Col2Ave (5 peaks):				35.5 RPD = 18
Corrected Ave (4 peaks):					39.6	Corrected Ave (4 peaks):				32.6 RPD = 19
Aroclor-1260	1	11.047	0.003	741	1.4	1	11.663	0.010	1794	4.9
Aroclor-1260	2	11.366	0.006	379	0.7	2	11.923	0.005	1208	1.3
Aroclor-1260	3	11.745	0.011	860	0.6	3	12.507	0.071	977	4.2
Aroclor-1260	4	12.154	0.014	1536	2.1	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
Total Col1Ave (4 peaks):					1.2	Total Col2Ave (3 peaks):				3.5 RPD = 99*
Corrected Ave (3 peaks):					0.9	Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.836	0.004	10654	27.6	1	11.120	-0.080	8071	16.3
Aroclor-1262	2	12.154	-0.092	1536	2.5	2	11.663	0.010	1794	4.3
Aroclor-1262	3	---			0.0	3	12.507	0.073	977	2.2
Aroclor-1262	4	13.040	0.051	1739	2.9	4	---			0.0
Total Col1Ave (3 peaks):					11.0	Total Col2Ave (3 peaks):				7.6 RPD = 37
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.154	-0.091	1536	1.0	1	12.507	0.073	977	0.8
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.623	-0.076	5080	3.9	3	12.894	0.001	98	0.1
Aroclor-1268	4	13.501	0.012	2725	0.7	4	13.707	-0.001	1566	0.5
Total Col1Ave (3 peaks):					1.9	Total Col2Ave (3 peaks):				0.5 RPD = 120*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.909 - 13.792) = 915887 Col1 Total PCB = 0.2 ppm*

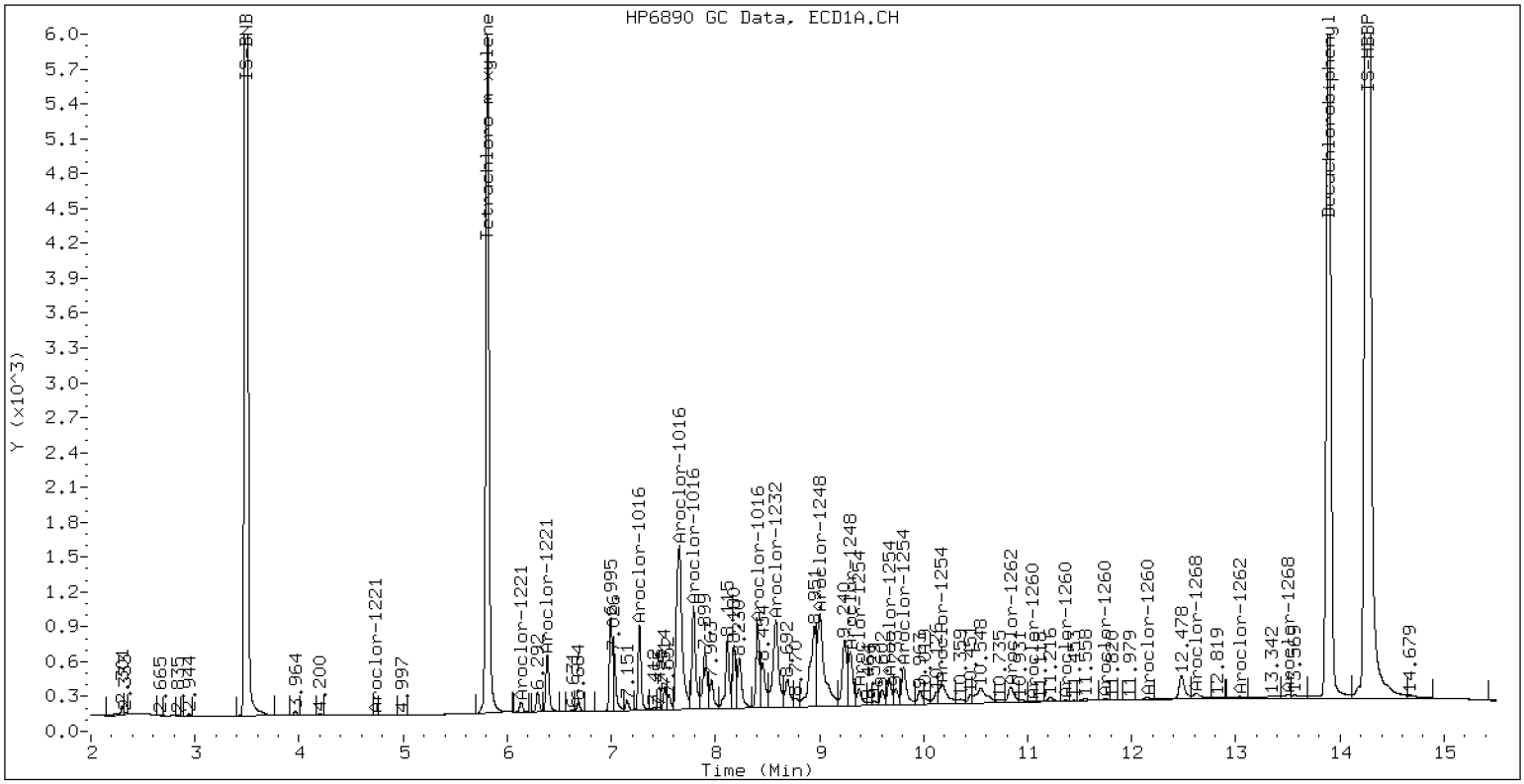
Total PCB Area Col2 (5.787 - 14.020) = 575897 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

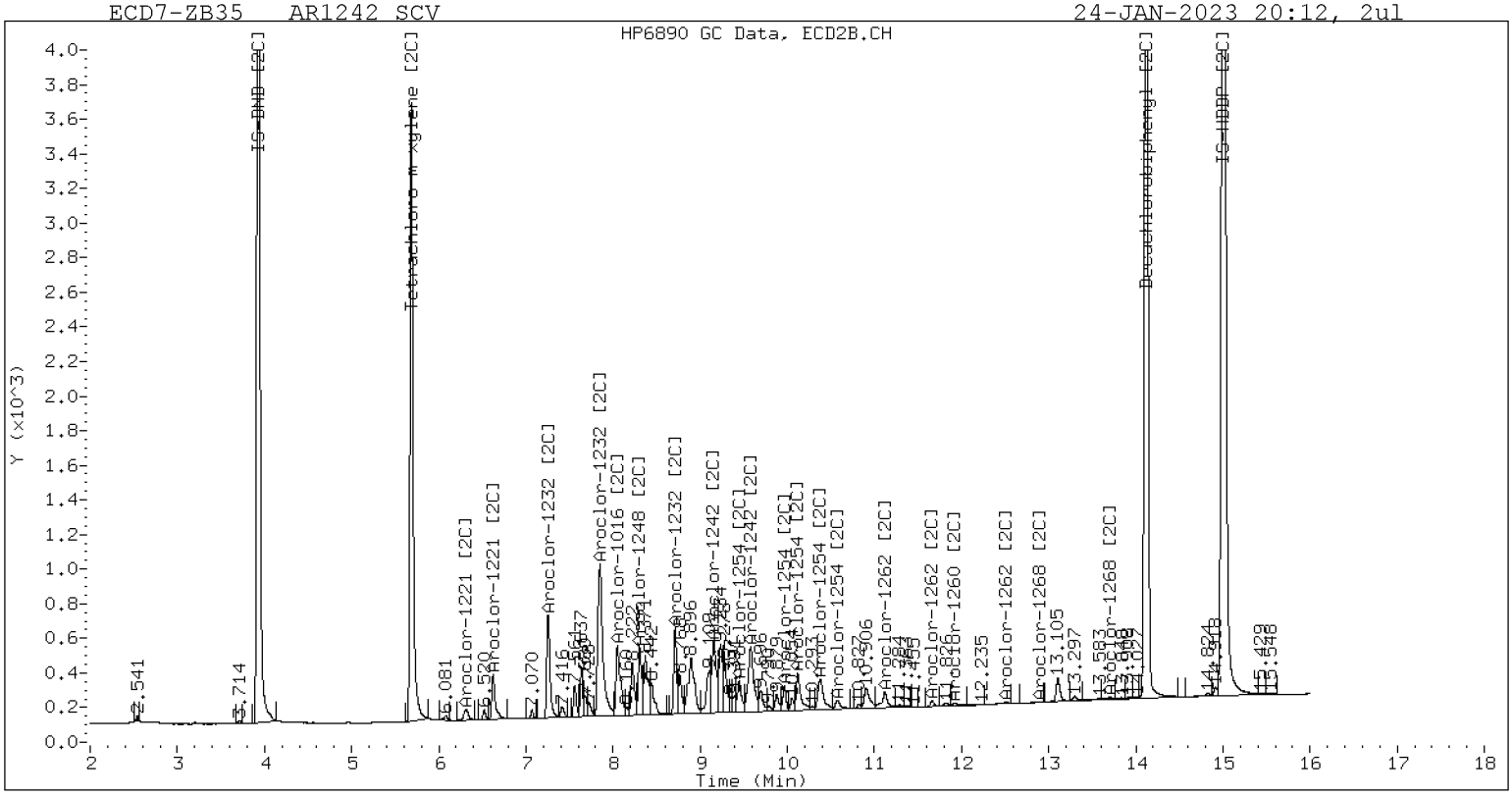
PCB Dual Column Chromatograms

ECD7-ZB5 AR1242 SCV 24-JAN-2023 20:12, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242 SCV 24-JAN-2023 20:12, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242326ECD7.D
Data file 2: /230124.b/230124.b/01242326ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248 SCV
Client ID:
Injection Date: 24-JAN-2023 20:33
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	263982	5.686	-0.001	169991	36.8	36.5	0.6	Tetrachloro-m-xylene
13.892	0.001	400655	14.121	0.001	316171	38.3	39.6	3.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	508189	1.0
Hexabromobiphenyl	647433	979067	51.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	344105	2.1
Hexabromobiphenyl	382032	503378	31.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	14777	78.3	1	7.254	-0.001	16100	86.3
Aroclor-1016	2	7.655	0.004	70114	112.1	2	7.853	0.002	47184	115.4
Aroclor-1016	3	7.794	0.006	27212	94.5	3	8.053	0.003	9427	56.5
Aroclor-1016	4	8.406	0.003	59884	323.4	4	8.306	0.001	36680	280.3
Total Col1Ave (4 peaks):					152.0	Total Col2Ave (4 peaks):				134.6 RPD = 12
Corrected Ave (3 peaks):					94.9	Corrected Ave (3 peaks):				86.0 RPD = 10
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.133	-0.000	591	7.7	2	6.323	0.025	1820	32.9
Aroclor-1221	3	6.386	0.001	2453	13.8	3	6.627	0.004	1477	15.8
Col1Ave: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.133	-0.000	591	11.2	2	7.254	-0.002	16100	188.0
Aroclor-1232	3	7.655	-0.004	70114	265.3	3	7.853	-0.001	47184	270.6
Aroclor-1232	4	8.581	-0.003	76286	674.3	4	8.714	0.000	39330	811.7
Total Col1Ave (3 peaks):					316.9	Total Col2Ave (3 peaks):				423.4 RPD = 29
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	0.000	14777	95.0	1	7.254	-0.002	16100	107.0
Aroclor-1242	2	7.655	-0.001	70114	137.7	2	7.853	0.000	47184	141.2
Aroclor-1242	3	8.406	-0.000	59884	395.8	3	9.159	-0.001	46988	448.9
Aroclor-1242	4	8.581	-0.000	76286	333.8	4	9.584	-0.003	56615	408.1
Total Col1Ave (4 peaks):					240.5	Total Col2Ave (4 peaks):				276.3 RPD = 14
Corrected Ave (3 peaks):					188.8	Corrected Ave (3 peaks):				218.7 RPD = 15
Aroclor-1248	1	8.406	0.001	59884	235.6	1	8.306	0.001	36680	235.8
Aroclor-1248	2	8.581	0.001	76286	235.2	2	8.714	0.002	39330	234.9
Aroclor-1248	3	9.000	0.001	148805	239.9	3	9.159	0.003	46988	229.7
Aroclor-1248	4	9.295	0.001	73114	238.1	4	9.584	0.002	56615	223.8
Total Col1Ave (4 peaks):					237.2	Total Col2Ave (4 peaks):				231.0 RPD = 3
Corrected Ave (3 peaks):					236.3	Corrected Ave (3 peaks):				229.5 RPD = 3
Aroclor-1254	1	9.295	-0.004	73114	141.2	1	9.449	0.001	20314	81.4
Aroclor-1254	2	9.378	0.000	36561	165.3	2	9.970	0.000	18678	92.6
Aroclor-1254	3	9.672	0.003	30736	92.6	3	10.124	0.003	35321	80.2
Aroclor-1254	4	9.813	0.004	53537	82.3	4	10.387	0.015	35188	79.9
Aroclor-1254	5	10.192	0.015	40119	94.9	5	10.575	0.006	7386	30.1
Total Col1Ave (5 peaks):					115.3	Total Col2Ave (5 peaks):				72.9 RPD = 45*
Corrected Ave (4 peaks):					102.7	Corrected Ave (4 peaks):				67.9 RPD = 41*
Aroclor-1260	1	11.054	0.010	1868	3.4	1	11.664	0.011	2055	5.7
Aroclor-1260	2	11.366	0.005	1375	2.4	2	11.926	0.009	1303	1.4
Aroclor-1260	3	11.745	0.010	2137	1.4	3	12.439	0.003	395	1.7
Aroclor-1260	4	12.147	0.008	1650	2.1	4	12.507	0.005	890	1.5
Aroclor-1260	5	12.255	0.011	558	1.7	NS	---			----
Total Col1Ave (5 peaks):					2.2	Total Col2Ave (4 peaks):				2.6 RPD = 15
Corrected Ave (4 peaks):					1.9	Corrected Ave (3 peaks):				1.5 RPD = 22
Aroclor-1262	1	10.837	0.005	12736	32.2	1	11.122	-0.078	7136	14.5
Aroclor-1262	2	12.255	0.010	558	0.9	2	11.664	0.011	2055	4.9
Aroclor-1262	3	12.327	0.006	596	0.9	3	12.439	0.004	395	0.9
Aroclor-1262	4	12.996	0.007	1113	1.8	4	12.507	0.003	890	1.2
Total Col1Ave (4 peaks):					8.9	Total Col2Ave (4 peaks):				5.4 RPD = 50*
Corrected Ave (3 peaks):					1.2	Corrected Ave (3 peaks):				2.3 RPD = 65*
Aroclor-1268	1	12.255	0.010	558	0.3	1	12.439	0.005	395	0.3
Aroclor-1268	2	12.327	0.009	596	0.4	2	12.507	0.005	890	0.7
Aroclor-1268	3	12.706	0.007	1161	0.9	3	12.896	0.003	166	0.2
Aroclor-1268	4	13.504	0.016	3330	0.8	4	13.717	0.009	469	0.1
Total Col1Ave (4 peaks):					0.6	Total Col2Ave (4 peaks):				0.3 RPD = 57*
Corrected Ave (3 peaks):					0.5	Corrected Ave (3 peaks):				0.2 RPD = 83*

Total PCB Area Col1 (5.909 - 13.792) = 1230760 Col1 Total PCB = 0.2 ppm*

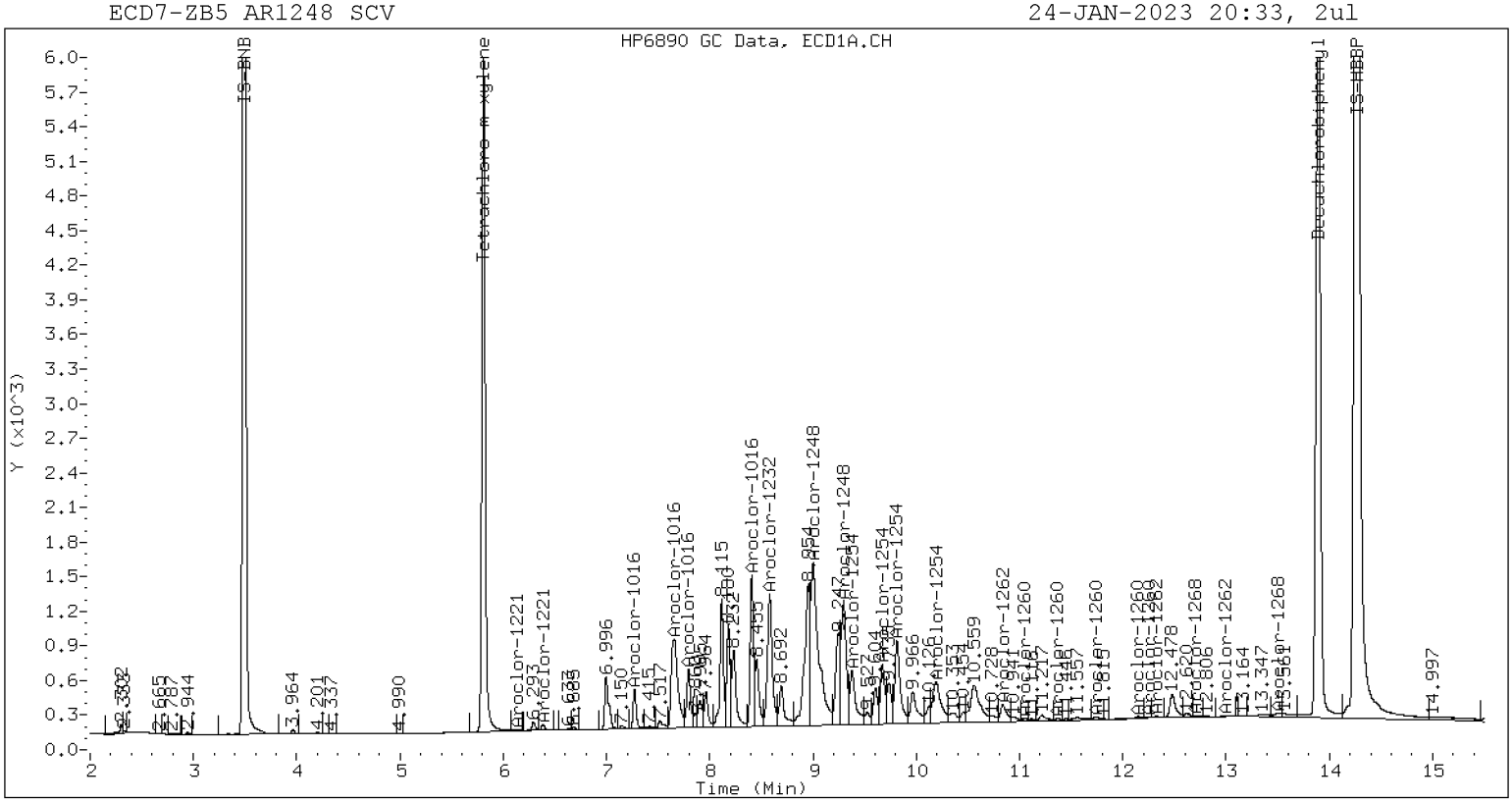
Total PCB Area Col2 (5.787 - 14.020) = 742749 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

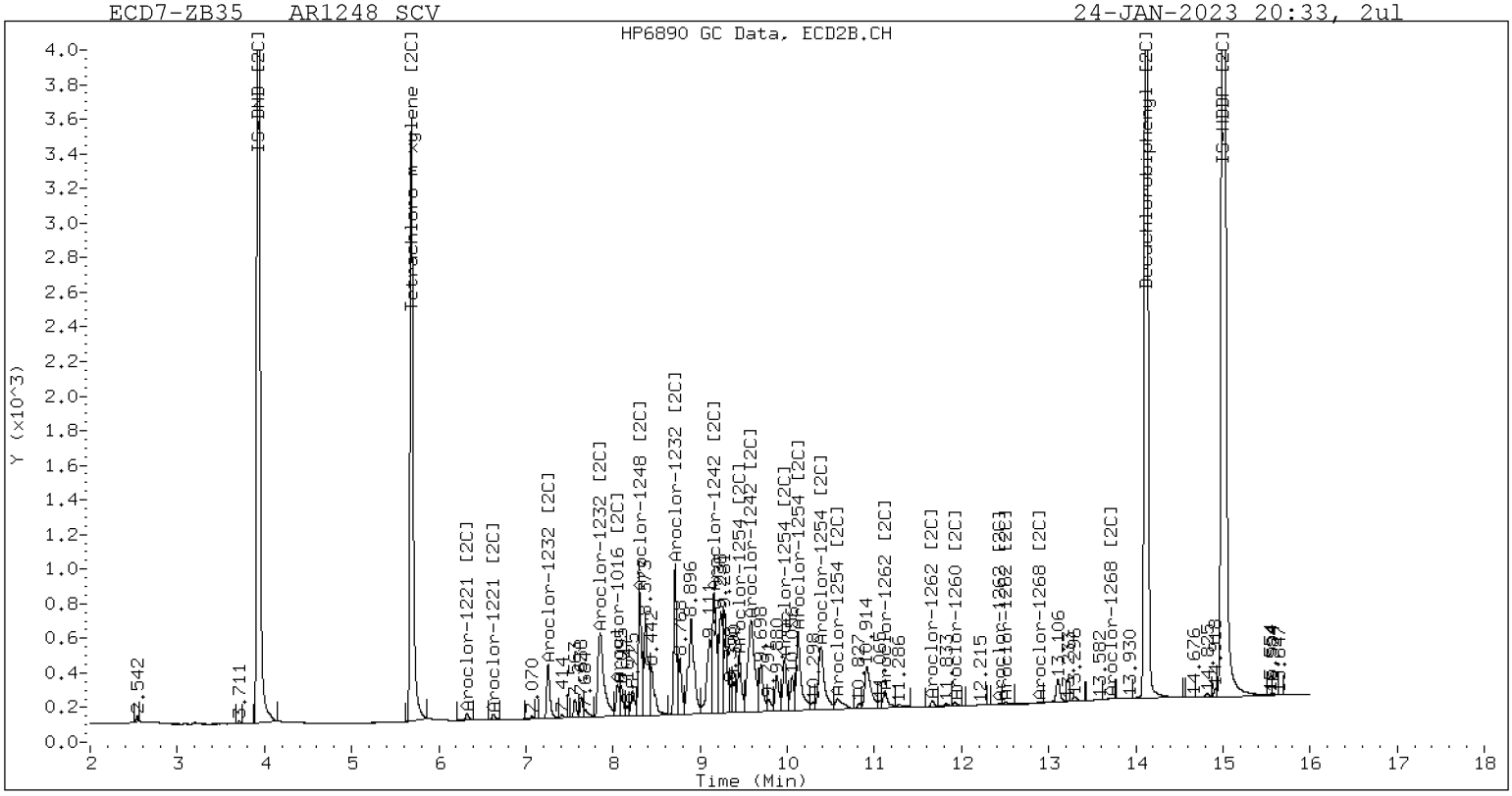
PCB Dual Column Chromatograms

ECD7-ZB5 AR1248 SCV 24-JAN-2023 20:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248 SCV 24-JAN-2023 20:33, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242327ECD7.D
Data file 2: /230124.b/230124.b/01242327ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254 SCV
Client ID:
Injection Date: 24-JAN-2023 20:54
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	261398	5.686	-0.001	169839	36.7	36.6	0.1	Tetrachloro-m-xylene
13.892	0.001	383983	14.121	0.001	323233	37.1	39.5	6.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	504424	0.2
Hexabromobiphenyl	647433	968338	49.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	342969	1.8
Hexabromobiphenyl	382032	515045	34.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.273	0.003	320	1.7	1	7.258	0.003	332	1.8
Aroclor-1016	2	7.658	0.008	991	1.6	2	---			0.0
Aroclor-1016	3	7.795	0.007	662	2.3	3	8.097	0.047	515	3.1
Aroclor-1016	4	8.408	0.005	21378	116.3	4	8.307	0.002	20446	156.8
	Total Col1Ave (4 peaks):				30.5	Total Col2Ave (3 peaks):				53.9 RPD = 55*
	Corrected Ave (3 peaks):				1.9	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	6.325	0.026	1749	31.7
Aroclor-1221	3	---			0.0	3	6.633	0.011	321	3.5
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	7.258	0.001	332	3.9
Aroclor-1232	3	7.658	-0.000	991	3.8	3	---			0.0
Aroclor-1232	4	8.587	0.003	8887	79.1	4	8.715	0.001	14030	290.5
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	7.273	0.002	320	2.1	1	7.258	0.002	332	2.2
Aroclor-1242	2	7.658	0.003	991	2.0	2	---			0.0
Aroclor-1242	3	8.408	0.002	21378	142.3	3	9.164	0.004	26593	254.9
Aroclor-1242	4	8.587	0.006	8887	39.2	4	9.543	-0.043	34385	248.7
	Total Col1Ave (4 peaks):				46.4	Total Col2Ave (3 peaks):				168.6 RPD = 114*
	Corrected Ave (3 peaks):				14.4	Corrected Ave: < 3 Peaks				
Aroclor-1248	1	8.408	0.003	21378	84.7	1	8.307	0.001	20446	131.9
Aroclor-1248	2	8.587	0.007	8887	27.6	2	8.715	0.003	14030	84.1
Aroclor-1248	3	8.995	-0.004	110289	179.1	3	9.164	0.007	26593	130.4
Aroclor-1248	4	9.300	0.007	113143	371.2	4	9.543	-0.038	34385	136.4
	Total Col1Ave (4 peaks):				165.7	Total Col2Ave (4 peaks):				120.7 RPD = 31
	Corrected Ave (3 peaks):				97.2	Corrected Ave (3 peaks):				115.5 RPD = 17
Aroclor-1254	1	9.300	0.002	113143	220.1	1	9.449	0.001	56453	226.9
Aroclor-1254	2	9.379	0.001	49468	225.4	2	9.970	0.001	45325	225.4
Aroclor-1254	3	9.671	0.002	72811	221.0	3	10.122	0.002	97044	221.2
Aroclor-1254	4	9.811	0.002	140530	217.7	4	10.374	0.002	98778	225.2
Aroclor-1254	5	10.182	0.005	92254	219.8	5	10.570	0.001	57171	234.0
	Total Col1Ave (5 peaks):				220.8	Total Col2Ave (5 peaks):				226.5 RPD = 3
	Corrected Ave (4 peaks):				219.7	Corrected Ave (4 peaks):				224.7 RPD = 2
Aroclor-1260	1	11.045	0.002	8960	16.5	1	11.661	0.008	26985	72.6
Aroclor-1260	2	11.364	0.004	9237	16.5	2	11.923	0.006	19882	21.2
Aroclor-1260	3	11.741	0.007	21268	14.5	3	12.505	0.069	13190	56.3
Aroclor-1260	4	12.146	0.007	19041	25.1	4	---			0.0
Aroclor-1260	5	12.321	0.077	1835	5.5	NS	---			----
	Total Col1Ave (5 peaks):				15.6	Total Col2Ave (3 peaks):				50.0 RPD = 105*
	Corrected Ave (4 peaks):				13.3	Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.832	0.000	157590	402.4	1	11.119	-0.081	92414	183.3
Aroclor-1262	2	12.321	0.075	1835	3.0	2	11.661	0.008	26985	63.0
Aroclor-1262	3	---			0.0	3	12.505	0.071	13190	28.9
Aroclor-1262	4	12.995	0.006	843	1.4	4	---			0.0
	Total Col1Ave (3 peaks):				135.6	Total Col2Ave (3 peaks):				91.7 RPD = 39
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.321	0.076	1835	1.1	1	12.505	0.072	13190	11.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.720	0.021	1314	1.0	3	12.891	-0.002	169	0.2
Aroclor-1268	4	13.504	0.016	1169	0.3	4	13.706	-0.002	1132	0.3
	Total Col1Ave (3 peaks):				0.8	Total Col2Ave (3 peaks):				3.8 RPD = 130*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.909 - 13.792) = 1507519 Col1 Total PCB = 0.3 ppm*

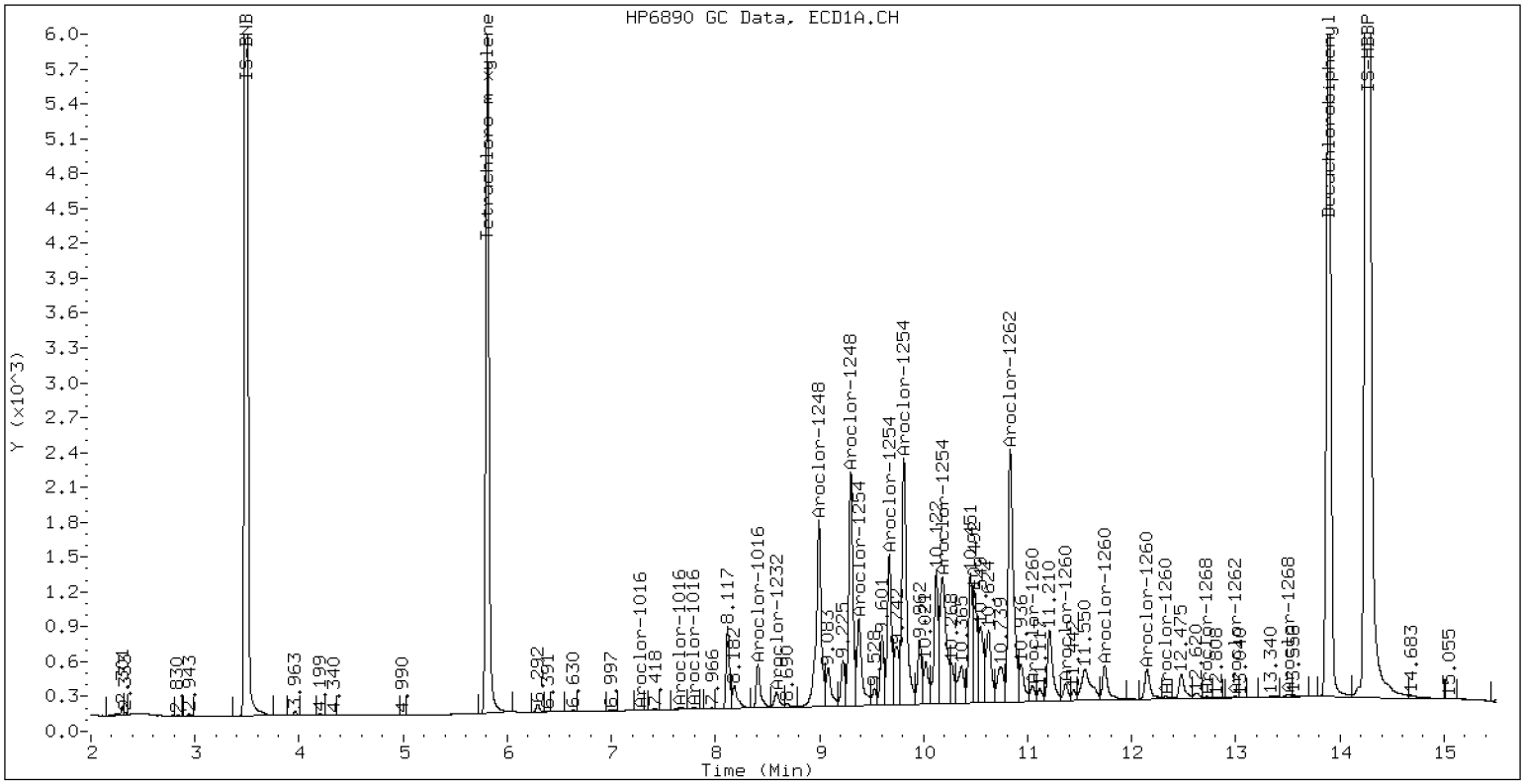
Total PCB Area Col2 (5.787 - 14.020) = 951047 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

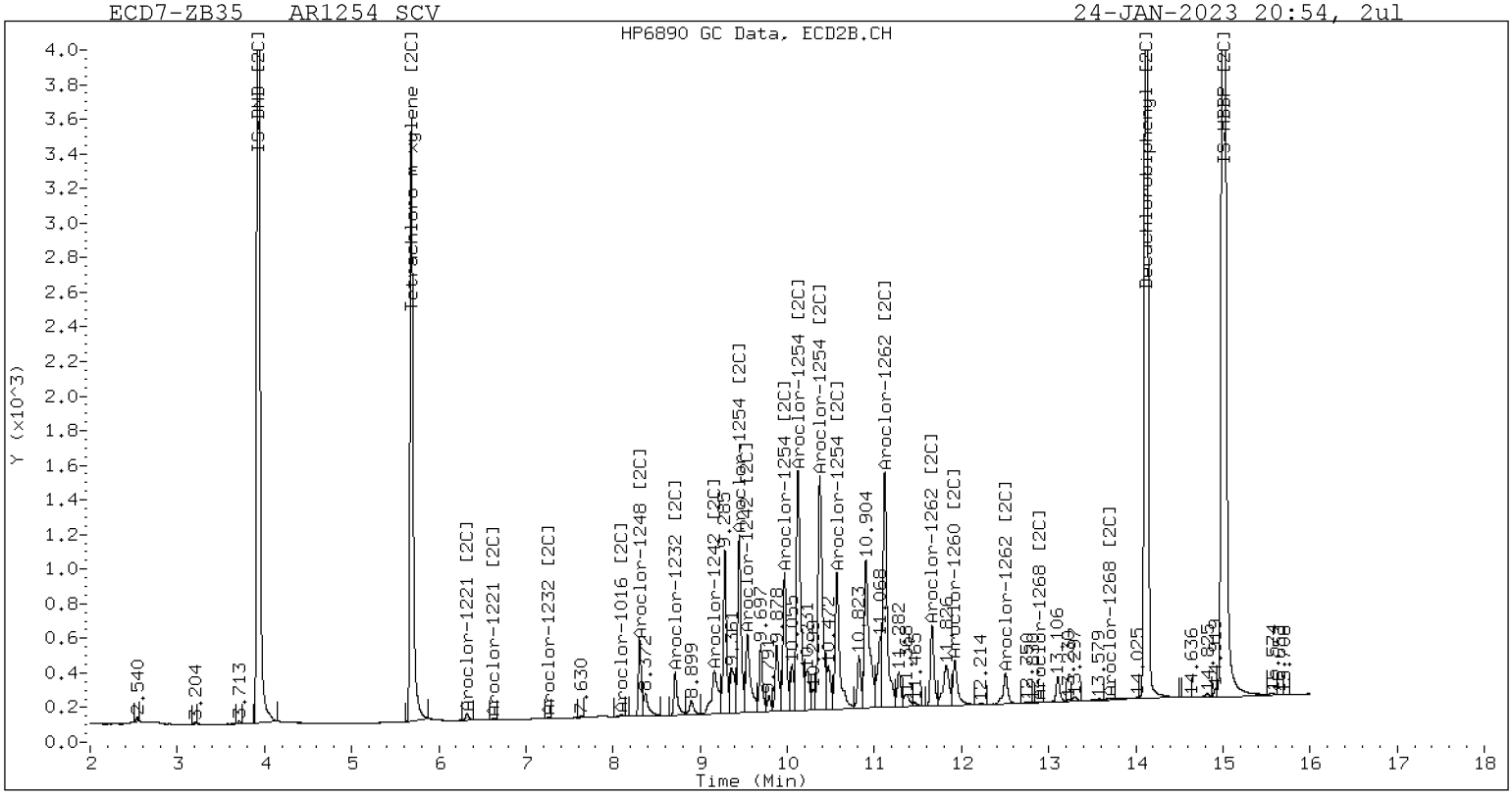
PCB Dual Column Chromatograms

ECD7-ZB5 AR1254 SCV 24-JAN-2023 20:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254 SCV 24-JAN-2023 20:54, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242328ECD7.D
Data file 2: /230124.b/230124.b/01242328ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162 SCV
Client ID:
Injection Date: 24-JAN-2023 21:15
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	265357	5.685	-0.001	170984	37.3	37.2	0.3	Tetrachloro-m-xylene
13.891	-0.001	397332	14.119	-0.001	326981	37.5	39.5	5.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503473	0.0
Hexabromobiphenyl	647433	991997	53.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	340361	1.0
Hexabromobiphenyl	382032	521975	36.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.272	0.002	5326	28.5	1	7.257	0.002	6708	36.3
Aroclor-1016	2	7.664	0.013	11965	19.3	2	7.856	0.005	7233	17.9
Aroclor-1016	3	7.797	0.009	6015	21.1	3	8.058	0.008	2997	18.2
Aroclor-1016	4	8.410	0.006	3771	20.6	4	8.308	0.002	2065	16.0
Total Col1Ave (4 peaks):					22.4	Total Col2Ave (4 peaks):				22.1 RPD = 1
Corrected Ave (3 peaks):					20.3	Corrected Ave (3 peaks):				17.3 RPD = 16
Aroclor-1221	1	4.732	-0.000	9097	244.5	1	4.959	-0.000	6157	246.8
Aroclor-1221	2	6.133	-0.000	16114	211.8	2	6.297	-0.001	12807	234.2
Aroclor-1221	3	6.384	0.000	40299	228.1	3	6.622	-0.000	21707	235.2
Total Col1Ave (3 peaks):					228.1	Total Col2Ave (3 peaks):				238.7 RPD = 5
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.732	-0.001	9097	391.6	1	4.959	-0.001	6157	406.9
Aroclor-1232	2	6.133	0.000	16114	307.8	2	7.257	0.000	6708	79.2
Aroclor-1232	3	7.664	0.005	11965	45.7	3	7.856	0.001	7233	41.9
Aroclor-1232	4	8.589	0.004	2837	25.3	4	8.716	0.002	1869	39.0
Total Col1Ave (4 peaks):					192.6	Total Col2Ave (4 peaks):				141.7 RPD = 30
Corrected Ave (3 peaks):					126.3	Corrected Ave (3 peaks):				53.4 RPD = 81*
Aroclor-1242	1	7.272	0.001	5326	34.5	1	7.257	0.001	6708	45.1
Aroclor-1242	2	7.664	0.008	11965	23.7	2	7.856	0.003	7233	21.9
Aroclor-1242	3	8.410	0.004	3771	25.2	3	9.169	0.009	1956	18.9
Aroclor-1242	4	8.589	0.007	2837	12.5	4	9.544	-0.043	5978	43.6
Total Col1Ave (4 peaks):					24.0	Total Col2Ave (4 peaks):				32.3 RPD = 30
Corrected Ave (3 peaks):					20.5	Corrected Ave (3 peaks):				28.1 RPD = 31
Aroclor-1248	1	8.410	0.005	3771	15.0	1	8.308	0.002	2065	13.4
Aroclor-1248	2	8.589	0.008	2837	8.8	2	8.716	0.004	1869	11.3
Aroclor-1248	3	8.997	-0.002	36022	58.6	3	9.169	0.012	1956	9.7
Aroclor-1248	4	9.305	0.011	30853	101.4	4	9.544	-0.038	5978	23.9
Total Col1Ave (4 peaks):					46.0	Total Col2Ave (4 peaks):				14.6 RPD = 104*
Corrected Ave (3 peaks):					27.5	Corrected Ave (3 peaks):				11.5 RPD = 82*
Aroclor-1254	1	9.305	0.006	30853	60.1	1	9.451	0.003	17617	71.3
Aroclor-1254	2	9.376	-0.002	5370	24.5	2	9.970	0.001	2849	14.3
Aroclor-1254	3	9.673	0.003	5543	16.9	3	10.146	0.026	88151	202.5
Aroclor-1254	4	9.810	0.002	14544	22.6	4	10.370	-0.002	107074	245.9
Aroclor-1254	5	10.121	-0.056	180016	429.7	5	10.567	-0.002	141725	584.5
Total Col1Ave (5 peaks):					110.8	Total Col2Ave (5 peaks):				223.7 RPD = 68*
Corrected Ave (4 peaks):					31.0	Corrected Ave (4 peaks):				133.5 RPD = 125*
Aroclor-1260	1	11.044	0.001	310806	558.4	1	11.652	-0.001	187682	498.4
Aroclor-1260	2	11.361	0.000	263161	460.0	2	11.917	-0.000	450612	473.0
Aroclor-1260	3	11.735	0.000	629605	418.0	3	12.433	-0.003	206042	867.7
Aroclor-1260	4	12.141	0.001	210012	269.9	4	12.502	-0.000	326457	529.5
Aroclor-1260	5	12.244	-0.000	268425	791.3	NS	---			----
Total Col1Ave (5 peaks):					499.5	Total Col2Ave (4 peaks):				592.1 RPD = 17
Corrected Ave (4 peaks):					426.6	Corrected Ave (3 peaks):				500.3 RPD = 16
Aroclor-1262	1	10.828	-0.005	171094	426.5	1	11.200	0.000	219731	430.1
Aroclor-1262	2	12.244	-0.002	268425	423.9	2	11.652	-0.001	187682	432.0
Aroclor-1262	3	12.319	-0.002	291581	424.2	3	12.433	-0.001	206042	445.4
Aroclor-1262	4	12.988	-0.001	257735	411.5	4	12.502	-0.002	326457	440.6
Total Col1Ave (4 peaks):					421.5	Total Col2Ave (4 peaks):				437.0 RPD = 4
Corrected Ave (3 peaks):					419.8	Corrected Ave (3 peaks):				434.3 RPD = 3
Aroclor-1268	1	12.244	-0.001	268425	163.8	1	12.433	-0.000	206042	169.0
Aroclor-1268	2	12.319	0.001	291581	178.4	2	12.502	0.000	326457	251.7
Aroclor-1268	3	12.725	0.026	108693	80.3	3	12.892	-0.001	10062	9.3
Aroclor-1268	4	13.486	-0.003	95646	23.8	4	13.710	0.001	59437	17.8
Total Col1Ave (4 peaks):					111.6	Total Col2Ave (4 peaks):				112.0 RPD = 0

Corrected Ave (3 peaks): 89.3 Corrected Ave (3 peaks): 65.4 RPD = 31

Total PCB Area Col1 (5.909 - 13.792) = 4409992 Col1 Total PCB = 0.8 ppm*

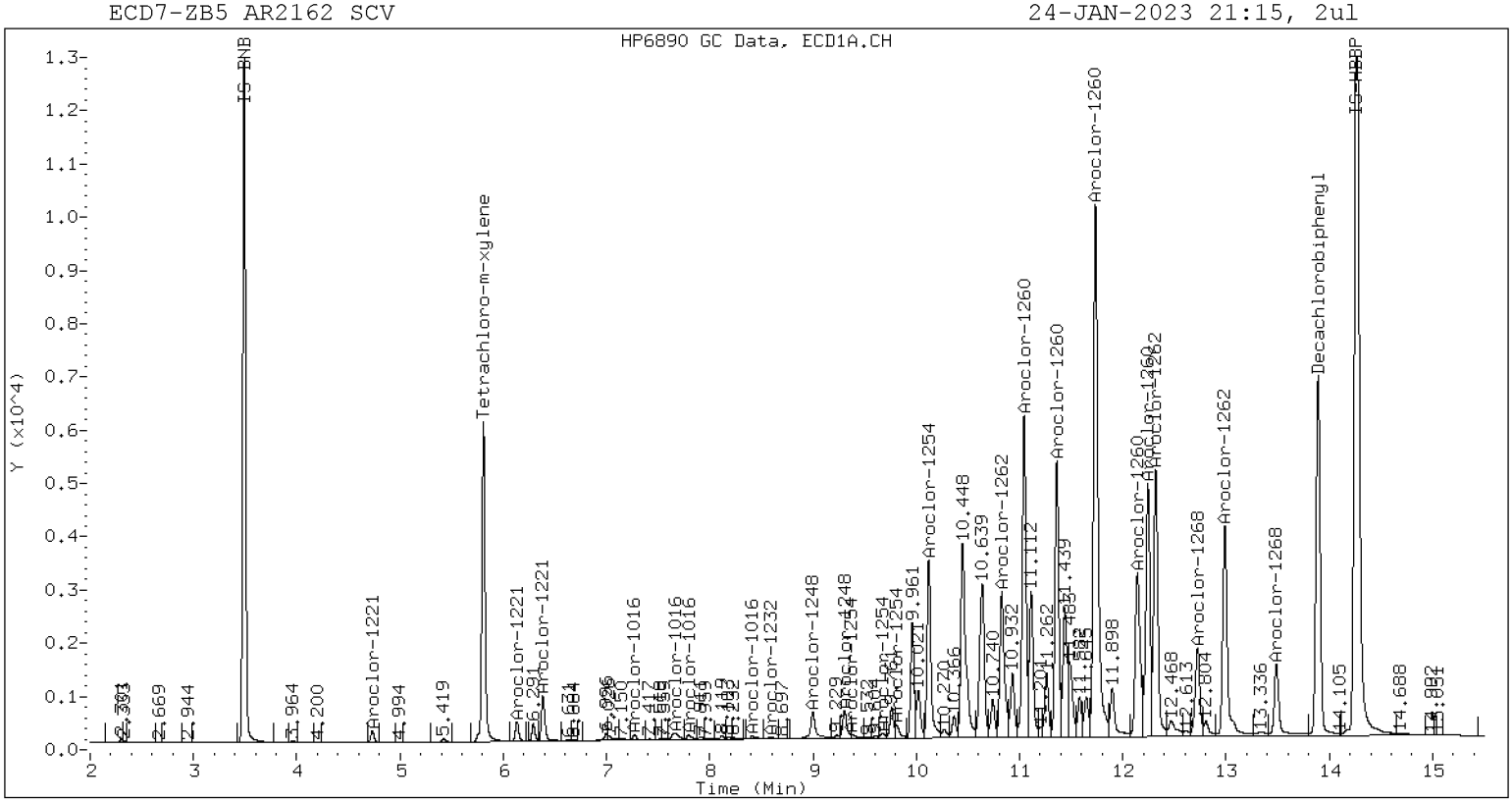
Total PCB Area Col2 (5.787 - 14.020) = 2874073 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

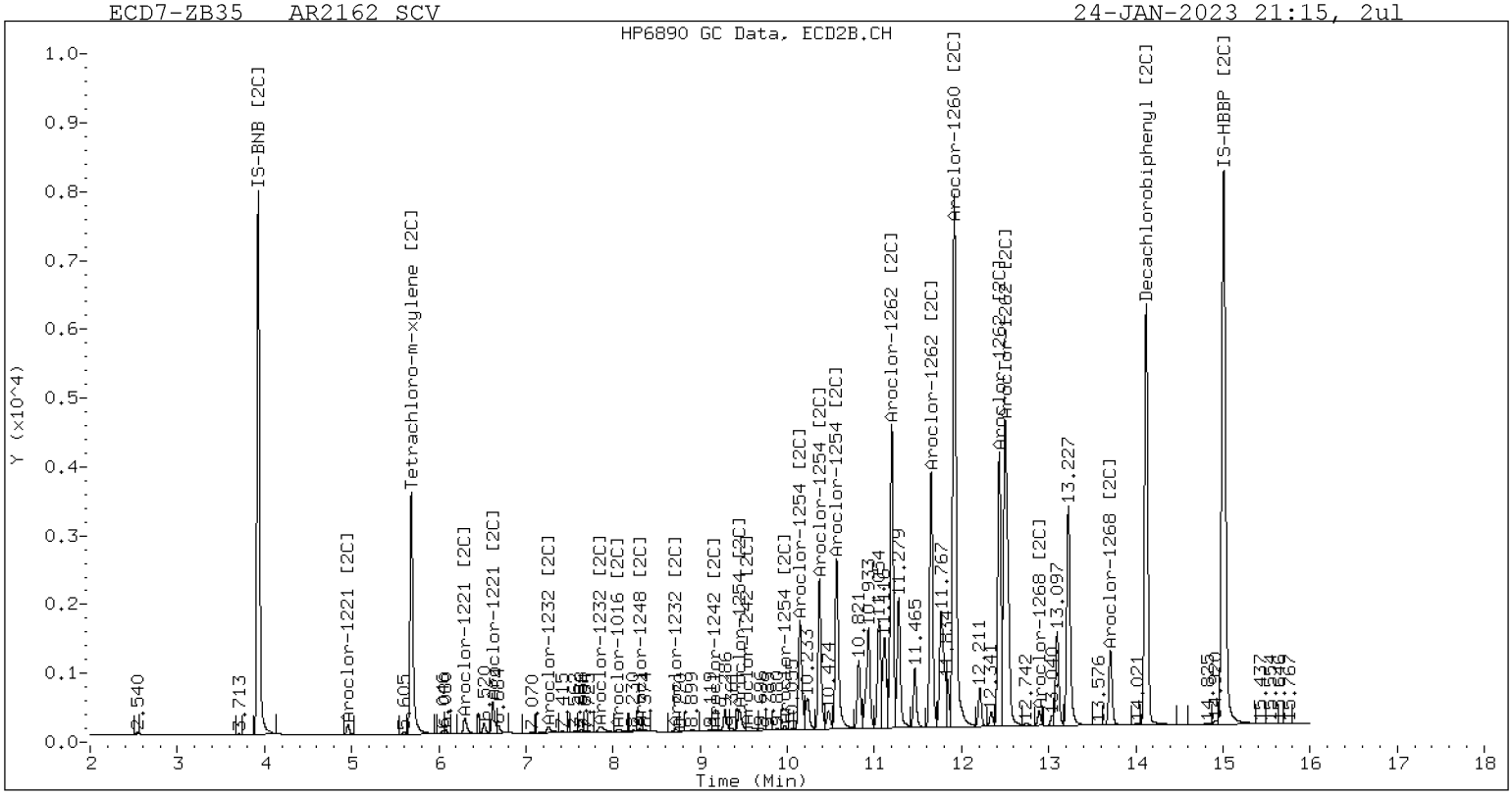
PCB Dual Column Chromatograms

ECD7-ZB5 AR2162 SCV 24-JAN-2023 21:15, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162 SCV 24-JAN-2023 21:15, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242329ECD7.D
Data file 2: /230124.b/230124.b/01242329ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268 SCV
Client ID:
Injection Date: 24-JAN-2023 21:36
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	250455	5.687	0.000	162795	36.4	36.3	0.2	Tetrachloro-m-xylene
13.892	0.000	551946	14.120	0.000	461901	54.6	57.9	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	487061	-3.2
Hexabromobiphenyl	647433	944934	46.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	331721	-1.5
Hexabromobiphenyl	382032	502401	31.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.272	0.002	19363	107.0	1	7.256	0.001	19791	110.0
Aroclor-1016	2	7.659	0.009	58630	97.8	2	7.856	0.005	40139	101.8
Aroclor-1016	3	7.794	0.006	28286	102.5	3	8.055	0.005	17412	108.2
Aroclor-1016	4	8.408	0.004	17373	97.9	4	8.308	0.003	11962	94.8
Total Col1Ave (4 peaks):		101.3				Total Col2Ave (4 peaks):		103.7	RPD = 2	
Corrected Ave (3 peaks):		99.4				Corrected Ave (3 peaks):		101.6	RPD = 2	
Aroclor-1221	1	4.735	0.002	5022	139.5	1	4.961	0.002	3409	140.2
Aroclor-1221	2	6.134	0.001	8987	122.1	2	6.299	0.001	7677	144.1
Aroclor-1221	3	6.385	0.001	29368	171.8	3	6.624	0.001	16198	180.1
Total Col1Ave (3 peaks):		144.5				Total Col2Ave (3 peaks):		154.8	RPD = 7	
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.735	0.002	5022	223.5	1	4.961	0.002	3409	231.1
Aroclor-1232	2	6.134	0.001	8987	177.4	2	7.256	-0.001	19791	239.8
Aroclor-1232	3	7.659	0.001	58630	231.5	3	7.856	0.001	40139	238.8
Aroclor-1232	4	8.585	0.000	24991	230.5	4	8.715	0.001	11476	245.7
Total Col1Ave (4 peaks):		215.7				Total Col2Ave (4 peaks):		238.8	RPD = 10	
Corrected Ave (3 peaks):		210.5				Corrected Ave (3 peaks):		236.6	RPD = 12	
Aroclor-1242	1	7.272	0.001	19363	129.8	1	7.256	0.000	19791	136.4
Aroclor-1242	2	7.659	0.004	58630	120.1	2	7.856	0.002	40139	124.6
Aroclor-1242	3	8.408	0.001	17373	119.8	3	9.166	0.006	11813	117.1
Aroclor-1242	4	8.585	0.003	24991	114.1	4	9.595	0.009	16549	123.7
Total Col1Ave (4 peaks):		121.0				Total Col2Ave (4 peaks):		125.4	RPD = 4	
Corrected Ave (3 peaks):		118.0				Corrected Ave (3 peaks):		121.8	RPD = 3	
Aroclor-1248	1	8.408	0.002	17373	71.3	1	8.308	0.003	11962	79.8
Aroclor-1248	2	8.585	0.005	24991	80.4	2	8.715	0.003	11476	71.1
Aroclor-1248	3	9.001	0.002	67631	113.8	3	9.166	0.009	11813	59.9
Aroclor-1248	4	9.293	-0.001	30983	105.3	4	9.595	0.014	16549	67.9
Total Col1Ave (4 peaks):		92.7				Total Col2Ave (4 peaks):		69.7	RPD = 28	
Corrected Ave (3 peaks):		85.7				Corrected Ave (3 peaks):		66.3	RPD = 26	
Aroclor-1254	1	9.293	-0.006	30983	62.4	1	9.451	0.003	3749	15.6
Aroclor-1254	2	9.381	0.003	9071	42.8	2	9.974	0.005	2452	12.6
Aroclor-1254	3	9.678	0.009	5199	16.3	3	10.131	0.010	4718	11.1
Aroclor-1254	4	9.820	0.012	8864	14.2	4	10.389	0.018	4224	10.0
Aroclor-1254	5	10.195	0.018	8085	19.9	5	10.573	0.004	1573	6.7
Total Col1Ave (5 peaks):		31.1				Total Col2Ave (5 peaks):		11.2	RPD = 94*	
Corrected Ave (4 peaks):		23.3				Corrected Ave (4 peaks):		10.1	RPD = 79*	
Aroclor-1260	1	11.050	0.006	66852	126.1	1	11.647	-0.006	57235	157.9
Aroclor-1260	2	11.366	0.006	6269	11.5	2	11.919	0.002	25368	27.7
Aroclor-1260	3	11.741	0.007	41446	28.9	3	12.434	-0.002	262014	1146.4
Aroclor-1260	4	12.052	-0.088	2691	3.6	4	12.502	-0.000	277060	466.9
Aroclor-1260	5	12.245	0.002	349286	1080.9	NS	---			----
Total Col1Ave (5 peaks):		250.2				Total Col2Ave (4 peaks):		449.7	RPD = 57*	
Corrected Ave (4 peaks):		42.5				Corrected Ave (3 peaks):		217.5	RPD = 135*	
Aroclor-1262	1	10.838	0.006	4520	11.8	1	11.203	0.003	40576	82.5
Aroclor-1262	2	12.245	-0.000	349286	579.1	2	11.647	-0.006	57235	136.9
Aroclor-1262	3	12.318	-0.002	349715	534.1	3	12.434	-0.001	262014	588.4
Aroclor-1262	4	12.988	-0.001	141905	237.8	4	12.502	-0.002	277060	388.5
Total Col1Ave (4 peaks):		340.7				Total Col2Ave (4 peaks):		299.1	RPD = 13	
Corrected Ave (3 peaks):		261.2				Corrected Ave (3 peaks):		202.6	RPD = 25	
Aroclor-1268	1	12.245	0.001	349286	223.8	1	12.434	0.000	262014	223.3
Aroclor-1268	2	12.318	0.000	349715	224.6	2	12.502	0.000	277060	221.9
Aroclor-1268	3	12.699	0.000	289328	224.3	3	12.893	-0.000	208928	201.0
Aroclor-1268	4	13.490	0.001	849299	222.1	4	13.710	0.002	725831	226.1
Total Col1Ave (4 peaks):		223.7				Total Col2Ave (4 peaks):		218.1	RPD = 3	

Corrected Ave (3 peaks): 223.4 Corrected Ave (3 peaks): 215.4 RPD = 4

Total PCB Area Col1 (5.909 - 13.792) = 2866092 Col1 Total PCB = 0.5 ppm*

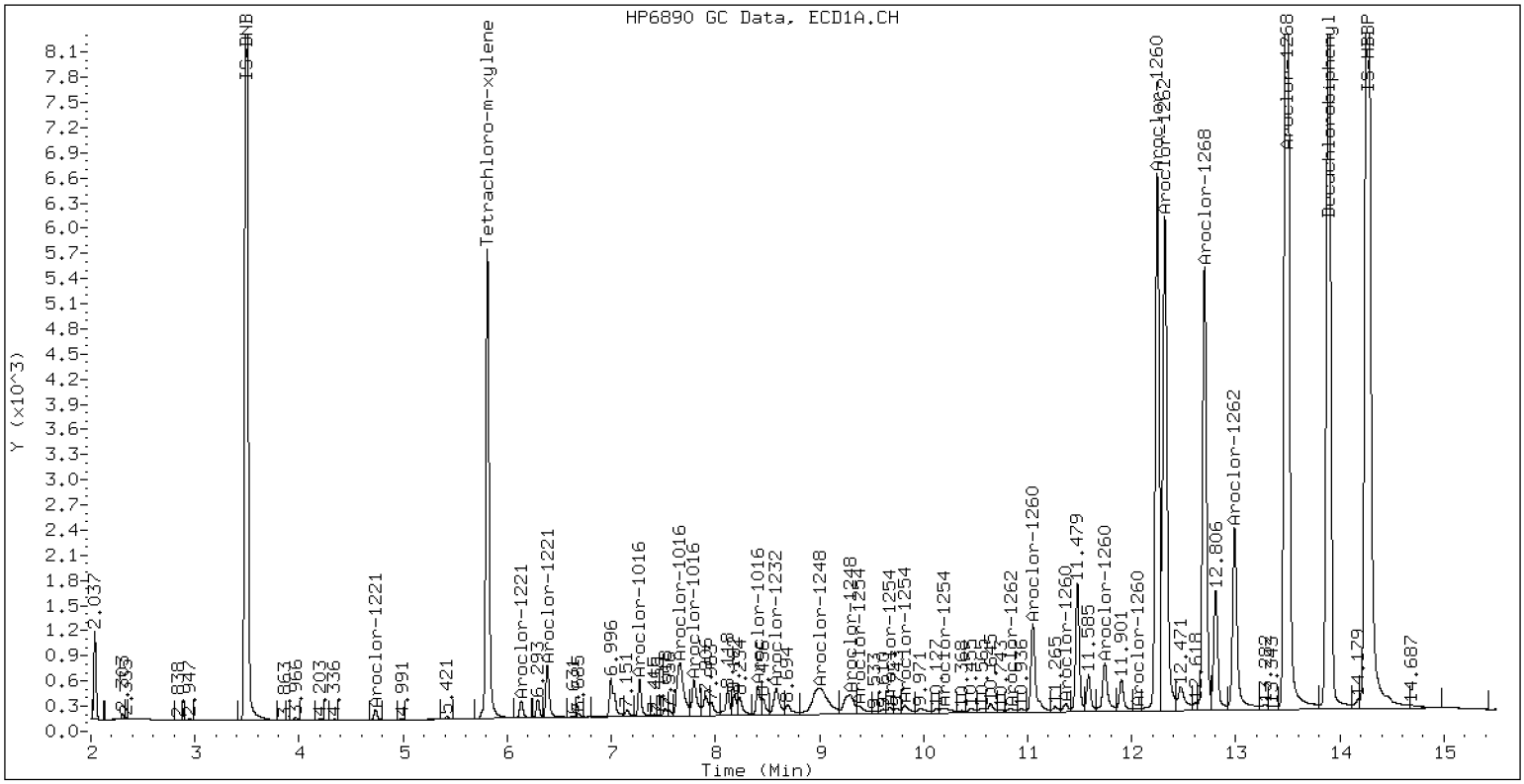
Total PCB Area Col2 (5.787 - 14.020) = 2084481 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

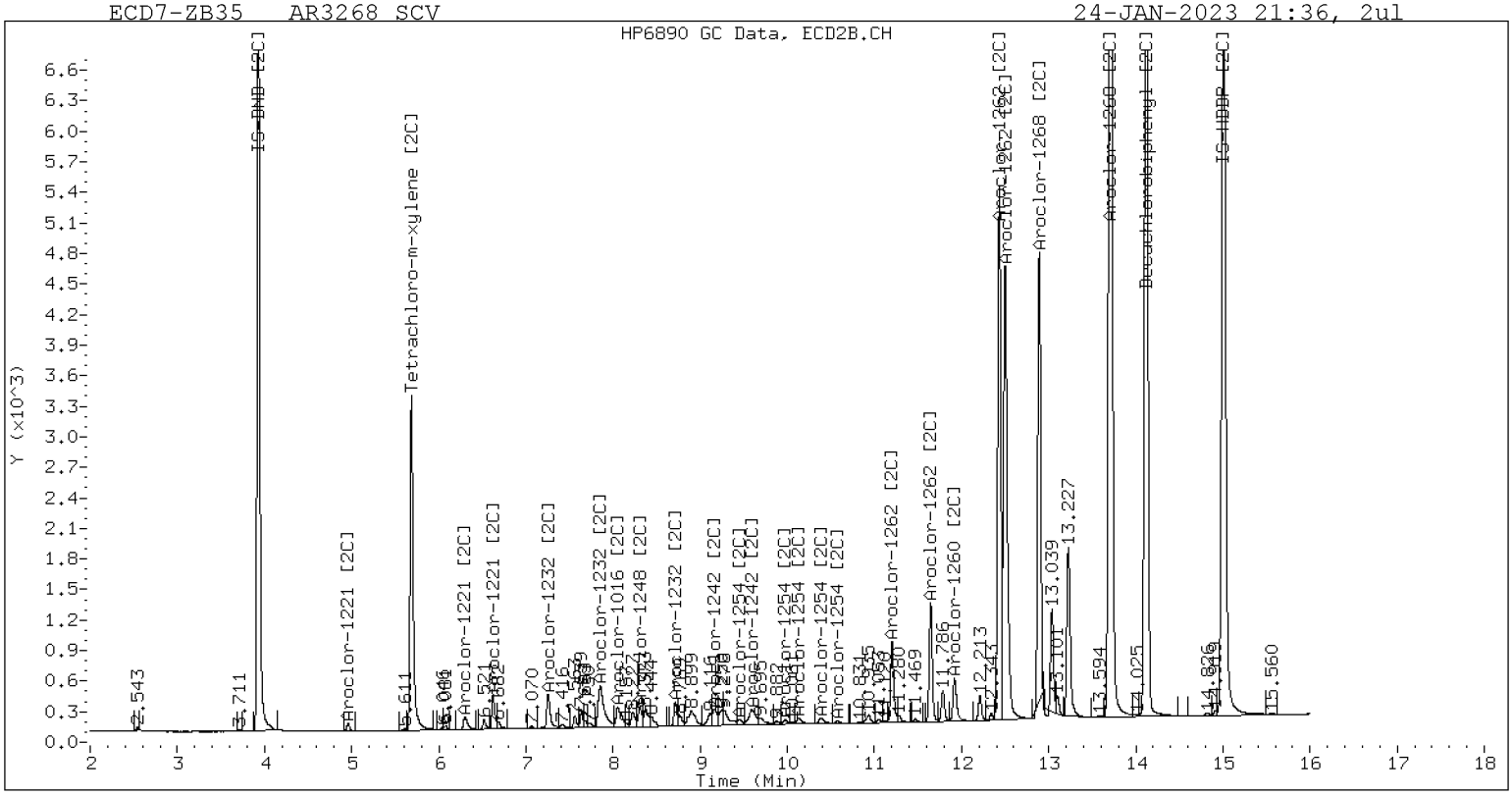
PCB Dual Column Chromatograms

ECD7-ZB5 AR3268 SCV 24-JAN-2023 21:36, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268 SCV 24-JAN-2023 21:36, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230124.b/01242330ECD7.D ARI ID: DDTS

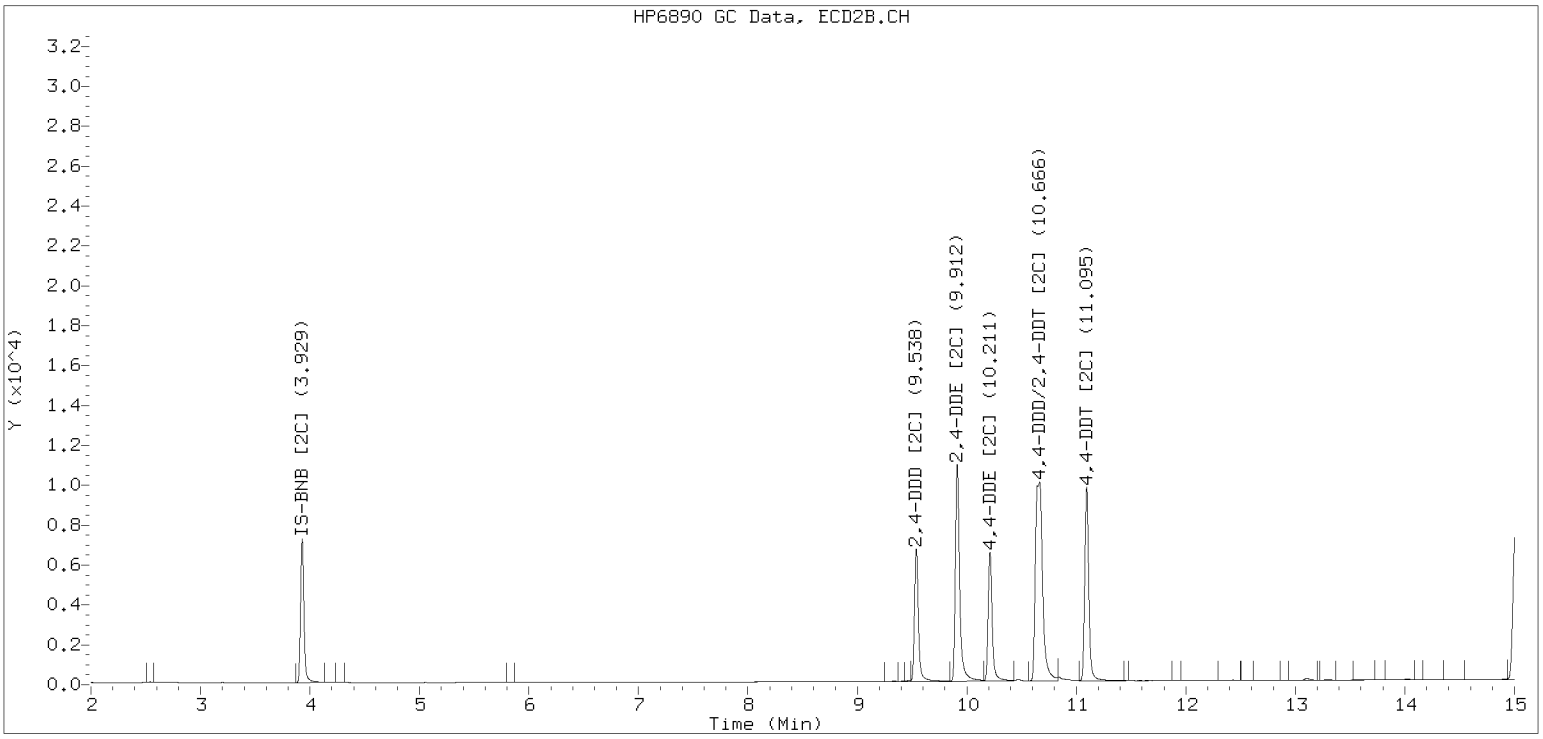
ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
9.263	0.000	519078	9.912	0.000	601473	0.100	0.100	0.0	2,4-DDE
10.296	0.000	1468204	10.666	0.000	915087	0.100	0.200#	66.7*	2,4-DDT
9.687	0.000	883988	10.211	0.000	339715	0.100	0.100	0.0	4,4-DDE
0.000	-10.281	0	10.666	0.000	915087	0.000	0.200#	----	4,4-DDD

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

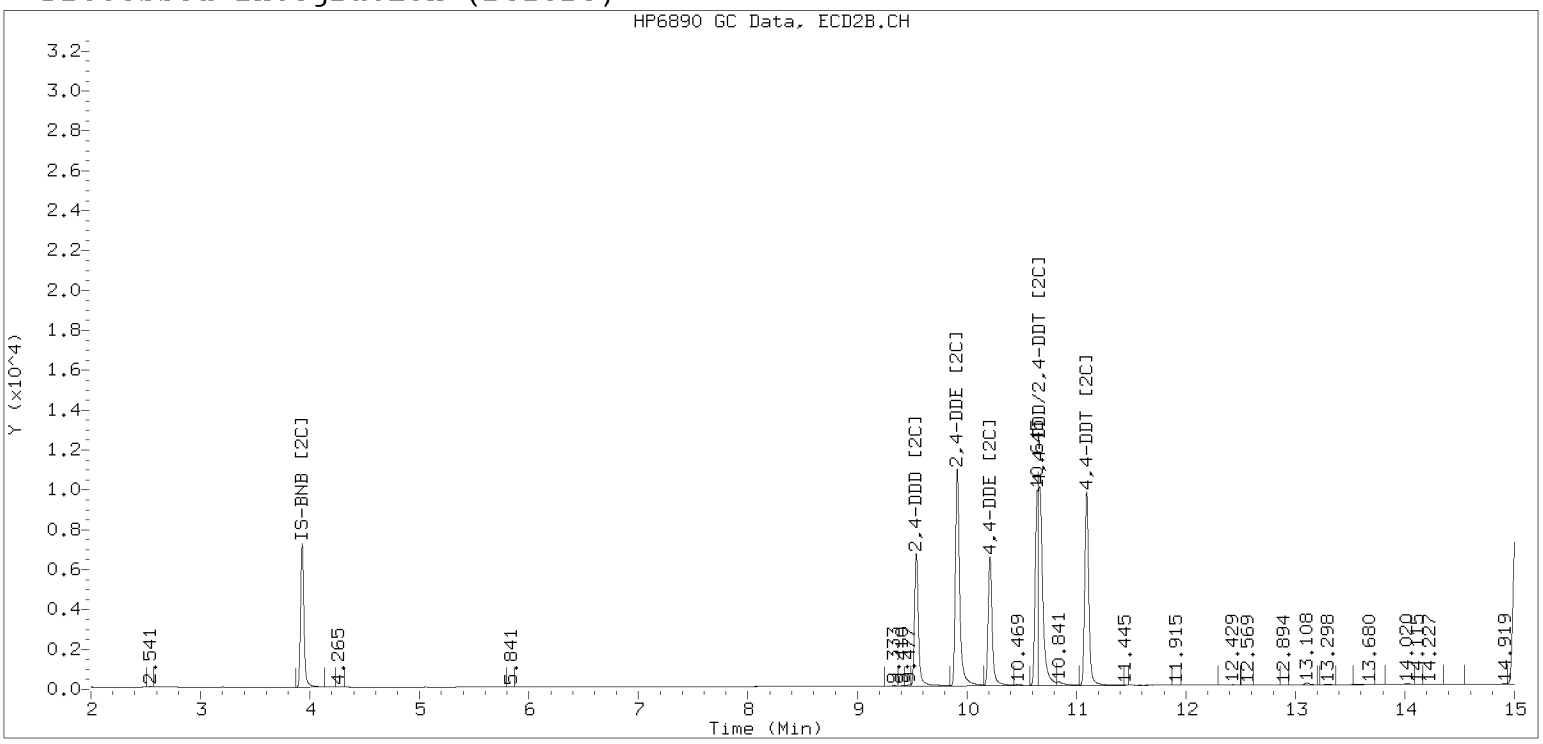
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230124.b/230124.b/01242330ECD7.D Injection Date: 24-JAN-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242331ECD7.D
Data file 2: /230124.b/230124.b/01242331ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: DDT BD
Client ID:
Injection Date: 24-JAN-2023 22:18
Report Date: 01/25/2023 10:54
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	249607	0.000	0.000	0	36.2	0.1	198.6*	Tetrachloro-m-xylene
13.893	0.001	342925	0.000	0.000	0	33.3	0.1	198.4*	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	488086	-3.0
Hexabromobiphenyl	647433	963404	48.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	334787	-0.6
Hexabromobiphenyl	382032	334787	-12.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	3.929	-0.000	334787	80.0
Aroclor-1016	2	---			0.0	NS	---			----
Aroclor-1016	3	---			0.0	NS	---			----
Aroclor-1016	4	---			0.0	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	9.924	0.012	8335	0.0
Aroclor-1221	2	---			0.0	NS	---			----
Aroclor-1221	3	---			0.0	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	NS	---			----
Aroclor-1232	3	---			0.0	NS	---			----
Aroclor-1232	4	---			0.0	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	NS	---			----
Aroclor-1242	3	---			0.0	NS	---			----
Aroclor-1242	4	---			0.0	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	10.681	0.016	29738	0.0
Aroclor-1248	2	---			0.0	NS	---			----
Aroclor-1248	3	8.973	-0.026	2304	3.9	NS	---			----
Aroclor-1248	4	9.235	-0.059	1484	5.0	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	9.235	-0.064	1484	3.0	1	11.098	0.003	696435	0.1
Aroclor-1254	2	9.378	-0.000	295	1.4	NS	---			----
Aroclor-1254	3	9.703	0.034	11396	35.8	NS	---			----
Aroclor-1254	4	---			0.0	NS	---			----
Aroclor-1254	5	10.272	0.095	32481	80.0	NS	---			----
	Total Col1Ave (4 peaks):			30.0		Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	11.115	0.071	9308	17.2	1	---			0.0
Aroclor-1260	2	11.344	-0.016	232461	418.4	NS	---			----
Aroclor-1260	3	11.698	-0.036	294	0.2	NS	---			----
Aroclor-1260	4	---			0.0	NS	---			----
Aroclor-1260	5	---			0.0	NS	---			----
	Total Col1Ave (3 peaks):			145.3		Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	10.763	-0.070	892438	2290.6	1	---			0.0
Aroclor-1262	2	---			0.0	NS	---			----
Aroclor-1262	3	---			0.0	NS	---			----
Aroclor-1262	4	12.990	0.001	748	1.2	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	NS	---			----
Aroclor-1268	3	12.620	-0.079	4678	3.6	NS	---			----
Aroclor-1268	4	13.510	0.021	3115	0.8	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (5.909 - 13.792) = 1961348 Col1 Total PCB = 0.3 ppm*

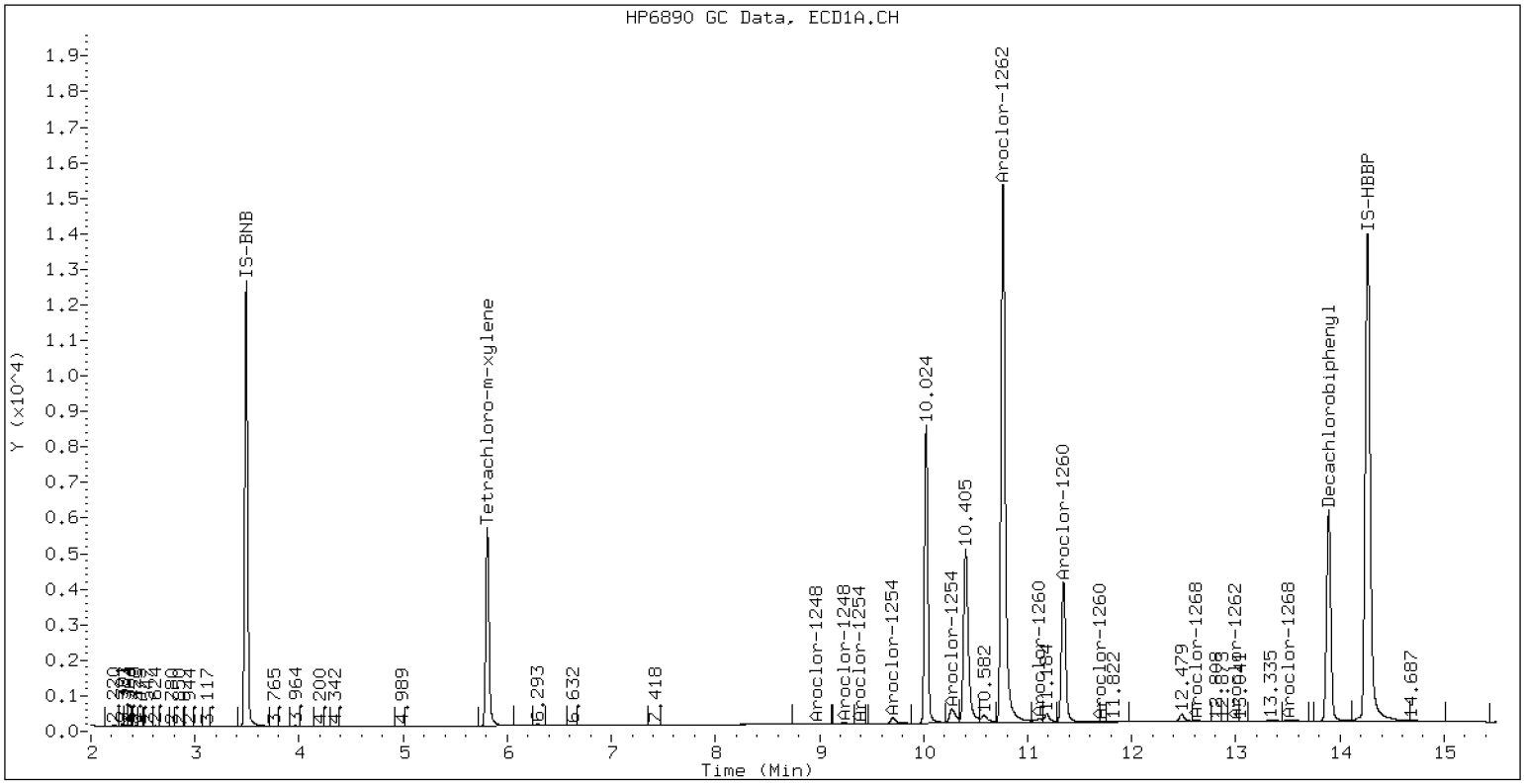
Total PCB Area Col2 (5.909 - 13.792) = 1177441 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

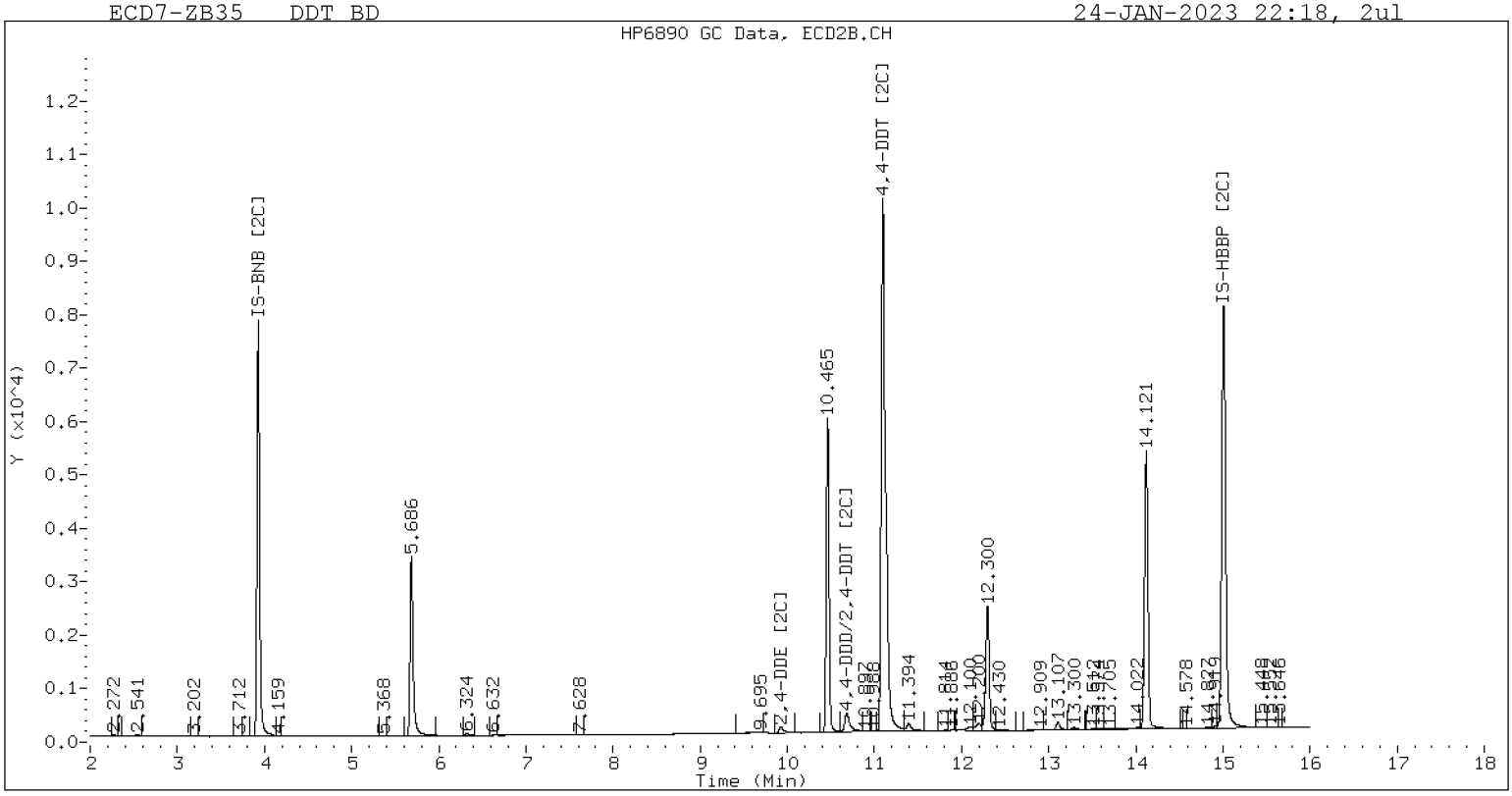
PCB Dual Column Chromatograms

ECD7-ZB5 DDT BD 24-JAN-2023 22:18, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 DDT BD 24-JAN-2023 22:18, 2ul



ZB-35 Manual Integration: NO

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00045	Instrument:	ECD7
Calibration Date:	02/16/2023	Column (1):	ZB5

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor 1016	250	0.04907	20	0.0512752	50	4.958448E-02	1000	4.419372E-02	100	4.871991E-02	500	4.750494E-02
Aroclor-1016 (1)	250	2.945037E-02	20	3.168647E-02	50	3.098794E-02	1000	2.542068E-02	100	2.927898E-02	500	2.797459E-02
Aroclor-1016 (2)	250	9.646915E-02	20	9.586387E-02	50	9.290724E-02	1000	8.784361E-02	100	9.260076E-02	500	0.0940753
Aroclor-1016 (3)	250	4.135434E-02	20	4.882631E-02	50	4.638572E-02	1000	3.629342E-02	100	4.499654E-02	500	3.956515E-02
Aroclor-1016 (4)	250	2.900615E-02	20	2.872414E-02	50	2.805701E-02	1000	2.721718E-02	100	2.800337E-02	500	2.840463E-02
Aroclor 1260	250	3.825971E-02	20	3.808158E-02	50	3.658267E-02	1000	3.525686E-02	100	3.693134E-02	500	3.655449E-02
Aroclor-1260 (1)	250	0.0285946	20	2.788076E-02	50	2.775827E-02	1000	2.624971E-02	100	2.776583E-02	500	2.723126E-02
Aroclor-1260 (2)	250	2.938651E-02	20	2.805802E-02	50	2.792735E-02	1000	2.734406E-02	100	2.845124E-02	500	2.812096E-02
Aroclor-1260 (3)	250	0.0770527	20	7.961042E-02	50	7.479251E-02	1000	6.905711E-02	100	7.515635E-02	500	0.07265
Aroclor-1260 (4)	250	3.969126E-02	20	3.779959E-02	50	3.646545E-02	1000	3.777057E-02	100	3.728512E-02	500	0.0386139
Aroclor-1260 (5)	250	1.657348E-02	20	1.705908E-02	50	1.596974E-02	1000	1.586283E-02	100	1.599818E-02	500	1.615634E-02
Decachlorobiphenyl	40	0.7210364	3.2	0.7337868	8	0.7402813	160	0.6326452	16	0.7316827	80	0.6681226
Tetrachlorometaxylene	40	1.155206	3.2	1.165765	8	1.15771	160	1.072859	16	1.144775	80	1.114202

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00045	Instrument:	ECD7
Calibration Date:	02/16/2023	Column (1):	ZB5

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor 1221							250	1.487247E-02				
Aroclor-1221 (1)							250	6.214509E-03				
Aroclor-1221 (2)							250	0.0115934				
Aroclor-1221 (3)							250	2.680951E-02				
Aroclor 1232									250	1.672899E-02		
Aroclor-1232 (1)									250	3.837064E-03		
Aroclor-1232 (2)									250	8.097789E-03		
Aroclor-1232 (3)									250	3.889729E-02		
Aroclor-1232 (4)									250	1.608382E-02		
Aroclor 1242	250	3.892486E-02										
Aroclor-1242 (1)	250	2.383222E-02										
Aroclor-1242 (2)	250	7.541607E-02										
Aroclor-1242 (3)	250	2.279044E-02										
Aroclor-1242 (4)	250	3.366071E-02										
Aroclor 1248			250	4.990328E-02								
Aroclor-1248 (1)			250	3.857956E-02								
Aroclor-1248 (2)			250	0.0486889								
Aroclor-1248 (3)			250	6.881947E-02								
Aroclor-1248 (4)			250	4.352518E-02								
Aroclor 1254					250	6.307474E-02						
Aroclor-1254 (1)					250	7.742293E-02						
Aroclor-1254 (2)					250	3.048445E-02						
Aroclor-1254 (3)					250	0.0493409						
Aroclor-1254 (4)					250	9.821653E-02						
Aroclor-1254 (5)					250	5.990888E-02						
Aroclor 1262							250	3.468498E-02				
Aroclor-1262 (1)							250	2.337659E-02				
Aroclor-1262 (2)							250	3.831519E-02				

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00045	Instrument:	ECD7
Calibration Date:	02/16/2023	Column (1):	ZB5

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor-1262 (3)							250	4.131812E-02				
Aroclor-1262 (4)							250	3.573002E-02				
Aroclor 1268									250	0.1360545		
Aroclor-1268 (1)									250	0.100387		
Aroclor-1268 (2)									250	9.977243E-02		
Aroclor-1268 (3)									250	8.466871E-02		
Aroclor-1268 (4)									250	0.2593896		

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00045	Instrument:	ECD7
Calibration Date:	02/16/2023	Column (1):	ZB5

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor 1016	4.839137E-02	5.0			RSD (20)	
Aroclor-1016 (1)	2.913317E-02	7.7			RSD (20)	
Aroclor-1016 (2)	9.329332E-02	3.3			RSD (20)	
Aroclor-1016 (3)	4.290358E-02	10.9			RSD (20)	
Aroclor-1016 (4)	2.823541E-02	2.2			RSD (20)	
Aroclor 1221		0.0			RSD (20)	
Aroclor-1221 (1)		0.0			RSD (20)	
Aroclor-1221 (2)		0.0			RSD (20)	
Aroclor-1221 (3)		0.0			RSD (20)	
Aroclor 1232		0.0			RSD (20)	
Aroclor-1232 (1)		0.0			RSD (20)	
Aroclor-1232 (2)		0.0			RSD (20)	
Aroclor-1232 (3)		0.0			RSD (20)	
Aroclor-1232 (4)		0.0			RSD (20)	
Aroclor 1242		0.0			RSD (20)	
Aroclor-1242 (1)		0.0			RSD (20)	
Aroclor-1242 (2)		0.0			RSD (20)	
Aroclor-1242 (3)		0.0			RSD (20)	
Aroclor-1242 (4)		0.0			RSD (20)	
Aroclor 1248		0.0			RSD (20)	
Aroclor-1248 (1)		0.0			RSD (20)	
Aroclor-1248 (2)		0.0			RSD (20)	
Aroclor-1248 (3)		0.0			RSD (20)	
Aroclor-1248 (4)		0.0			RSD (20)	
Aroclor 1254		0.0			RSD (20)	
Aroclor-1254 (1)		0.0			RSD (20)	
Aroclor-1254 (2)		0.0			RSD (20)	
Aroclor-1254 (3)		0.0			RSD (20)	
Aroclor-1254 (4)		0.0			RSD (20)	
Aroclor-1254 (5)		0.0			RSD (20)	
Aroclor 1260	3.694444E-02	3.0			RSD (20)	

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00045	Instrument:	ECD7
Calibration Date:	02/16/2023	Column (1):	ZB5

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor-1260 (1)	2.758007E-02	2.8			RSD (20)	
Aroclor-1260 (2)	2.821469E-02	2.4			RSD (20)	
Aroclor-1260 (3)	7.471985E-02	4.9			RSD (20)	
Aroclor-1260 (4)	3.793765E-02	2.9			RSD (20)	
Aroclor-1260 (5)	1.626994E-02	2.8			RSD (20)	
Aroclor 1262		0.0			RSD (20)	
Aroclor-1262 (1)		0.0			RSD (20)	
Aroclor-1262 (2)		0.0			RSD (20)	
Aroclor-1262 (3)		0.0			RSD (20)	
Aroclor-1262 (4)		0.0			RSD (20)	
Aroclor 1268		0.0			RSD (20)	
Aroclor-1268 (1)		0.0			RSD (20)	
Aroclor-1268 (2)		0.0			RSD (20)	
Aroclor-1268 (3)		0.0			RSD (20)	
Aroclor-1268 (4)		0.0			RSD (20)	
Decachlorobiphenyl	0.7045925	6.2			RSD (20)	
Tetrachlorometaxylene	1.135086	3.1			RSD (20)	

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00045	Instrument:	ECD7
Calibration Date:	02/16/2023	Column (2):	ZB35

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor 1016 [2C]	250	5.242468E-02	20	4.822291E-02	50	5.316173E-02	1000	4.766986E-02	100	5.409618E-02	500	5.046171E-02
Aroclor-1016 (1) [2C]	250	4.295239E-02	20	4.820627E-02	50	4.701692E-02	1000	0.0372373	100	0.0449378	500	4.079967E-02
Aroclor-1016 (2) [2C]	250	9.587157E-02	20	8.511819E-02	50	0.0916268	1000	8.872119E-02	100	9.594425E-02	500	9.318254E-02
Aroclor-1016 (3) [2C]	250	3.996314E-02	20	2.855764E-02	50	4.028694E-02	1000	0.0372925	100	4.194667E-02	500	3.882979E-02
Aroclor-1016 (4) [2C]	250	3.091162E-02	20	3.100956E-02	50	3.371625E-02	1000	2.742844E-02	100	3.355601E-02	500	2.903485E-02
Aroclor 1260 [2C]	250	6.191839E-02	20	6.663043E-02	50	6.155478E-02	1000	5.543383E-02	100	6.101171E-02	500	5.908963E-02
Aroclor-1260 (1) [2C]	250	4.183204E-02	20	4.619225E-02	50	4.217161E-02	1000	3.729712E-02	100	0.041652	500	3.956886E-02
Aroclor-1260 (2) [2C]	250	0.1072143	20	0.1115907	50	0.1060119	1000	0.0920396	100	0.1064311	500	0.1009206
Aroclor-1260 (3) [2C]	250	2.740572E-02	20	3.353389E-02	50	2.800208E-02	1000	2.707068E-02	100	2.592532E-02	500	2.726669E-02
Aroclor-1260 (4) [2C]	250	7.122142E-02	20	7.520485E-02	50	0.0700335	1000	0.0653279	100	7.003843E-02	500	6.860242E-02
Decachlorobiphenyl [2C]	40	1.135128	3.2	1.021793	8	1.035966	160	1.077976	16	1.076407	80	1.11204
Tetrachlorometaxylene [2C]	40	1.088861	3.2	1.075003	8	1.074789	160	1.031311	16	1.077221	80	1.053677

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00045	Instrument:	ECD7
Calibration Date:	02/16/2023	Column (2):	ZB35

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor 1221 [2C]							250	1.336668E-02				
Aroclor-1221 (1) [2C]							250	5.946954E-03				
Aroclor-1221 (2) [2C]							250	1.276792E-02				
Aroclor-1221 (3) [2C]							250	2.138517E-02				
Aroclor 1232 [2C]									250	0.0185704		
Aroclor-1232 (1) [2C]									250	3.547925E-03		
Aroclor-1232 (2) [2C]									250	1.988419E-02		
Aroclor-1232 (3) [2C]									250	3.972886E-02		
Aroclor-1232 (4) [2C]									250	1.112064E-02		
Aroclor 1242 [2C]	250	4.050233E-02										
Aroclor-1242 (1) [2C]	250	3.460225E-02										
Aroclor-1242 (2) [2C]	250	7.497184E-02										
Aroclor-1242 (3) [2C]	250	2.369829E-02										
Aroclor-1242 (4) [2C]	250	2.873695E-02										
Aroclor 1248 [2C]			250	4.278778E-02								
Aroclor-1248 (1) [2C]			250	0.0360904								
Aroclor-1248 (2) [2C]			250	3.796962E-02								
Aroclor-1248 (3) [2C]			250	4.387476E-02								
Aroclor-1248 (4) [2C]			250	5.321633E-02								
Aroclor 1254 [2C]					250	6.972187E-02						
Aroclor-1254 (1) [2C]					250	5.640367E-02						
Aroclor-1254 (2) [2C]					250	4.556075E-02						
Aroclor-1254 (3) [2C]					250	9.924571E-02						
Aroclor-1254 (4) [2C]					250	9.792345E-02						
Aroclor-1254 (5) [2C]					250	0.0494758						
Aroclor 1262 [2C]							250	0.0642615				
Aroclor-1262 (1) [2C]							250	5.979289E-02				
Aroclor-1262 (2) [2C]							250	5.161804E-02				

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00045	Instrument:	ECD7
Calibration Date:	02/16/2023	Column (2):	ZB35

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor-1262 (3) [2C]							250	5.619882E-02				
Aroclor-1262 (4) [2C]							250	8.943618E-02				
Aroclor 1268 [2C]									250	0.2093144		
Aroclor-1268 (1) [2C]									250	0.145467		
Aroclor-1268 (2) [2C]									250	0.1530224		
Aroclor-1268 (3) [2C]									250	0.1198716		
Aroclor-1268 (4) [2C]									250	0.4188969		

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00045	Instrument:	ECD7
Calibration Date:	02/16/2023	Column (2):	ZB35

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor 1016 [2C]	5.100618E-02	5.2			RSD (20)	
Aroclor-1016 (1) [2C]	4.352506E-02	9.4			RSD (20)	
Aroclor-1016 (2) [2C]	9.174409E-02	4.6			RSD (20)	
Aroclor-1016 (3) [2C]	3.781278E-02	12.7			RSD (20)	
Aroclor-1016 (4) [2C]	3.094279E-02	8.0			RSD (20)	
Aroclor 1221 [2C]		0.0			RSD (20)	
Aroclor-1221 (1) [2C]		0.0			RSD (20)	
Aroclor-1221 (2) [2C]		0.0			RSD (20)	
Aroclor-1221 (3) [2C]		0.0			RSD (20)	
Aroclor 1232 [2C]		0.0			RSD (20)	
Aroclor-1232 (1) [2C]		0.0			RSD (20)	
Aroclor-1232 (2) [2C]		0.0			RSD (20)	
Aroclor-1232 (3) [2C]		0.0			RSD (20)	
Aroclor-1232 (4) [2C]		0.0			RSD (20)	
Aroclor 1242 [2C]		0.0			RSD (20)	
Aroclor-1242 (1) [2C]		0.0			RSD (20)	
Aroclor-1242 (2) [2C]		0.0			RSD (20)	
Aroclor-1242 (3) [2C]		0.0			RSD (20)	
Aroclor-1242 (4) [2C]		0.0			RSD (20)	
Aroclor 1248 [2C]		0.0			RSD (20)	
Aroclor-1248 (1) [2C]		0.0			RSD (20)	
Aroclor-1248 (2) [2C]		0.0			RSD (20)	
Aroclor-1248 (3) [2C]		0.0			RSD (20)	
Aroclor-1248 (4) [2C]		0.0			RSD (20)	
Aroclor 1254 [2C]		0.0			RSD (20)	
Aroclor-1254 (1) [2C]		0.0			RSD (20)	
Aroclor-1254 (2) [2C]		0.0			RSD (20)	
Aroclor-1254 (3) [2C]		0.0			RSD (20)	
Aroclor-1254 (4) [2C]		0.0			RSD (20)	
Aroclor-1254 (5) [2C]		0.0			RSD (20)	
Aroclor 1260 [2C]	6.093979E-02	6.0			RSD (20)	

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00045	Instrument:	ECD7
Calibration Date:	02/16/2023	Column (2):	ZB35

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor-1260 (1) [2C]	4.145231E-02	7.2			RSD (20)	
Aroclor-1260 (2) [2C]	0.1040347	6.5			RSD (20)	
Aroclor-1260 (3) [2C]	2.820073E-02	9.6			RSD (20)	
Aroclor-1260 (4) [2C]	7.007142E-02	4.6			RSD (20)	
Aroclor 1262 [2C]		0.0			RSD (20)	
Aroclor-1262 (1) [2C]		0.0			RSD (20)	
Aroclor-1262 (2) [2C]		0.0			RSD (20)	
Aroclor-1262 (3) [2C]		0.0			RSD (20)	
Aroclor-1262 (4) [2C]		0.0			RSD (20)	
Aroclor 1268 [2C]		0.0			RSD (20)	
Aroclor-1268 (1) [2C]		0.0			RSD (20)	
Aroclor-1268 (2) [2C]		0.0			RSD (20)	
Aroclor-1268 (3) [2C]		0.0			RSD (20)	
Aroclor-1268 (4) [2C]		0.0			RSD (20)	
Decachlorobiphenyl [2C]	1.076552	4.0			RSD (20)	
Tetrachlorometaxylene [2C]	1.06681	1.9			RSD (20)	

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLB0222

Instrument: ECD7
Calibration ID: FJ00100

Printed: 2/17/2023 9:56:55AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLB0222-CAL1	QC		1		L000856	L000844		
SLB0222-CAL2	QC		2		L000859	L000844		
SLB0222-CAL3	QC		3		L000858	L000844		
SLB0222-CAL4	QC		4		L000731	L000844		
SLB0222-CAL5	QC		5		L000857	L000844		
SLB0222-CAL6	QC		6		L000855	L000844		
SLB0222-CAL7	QC		7		L000860	L000844		
SLB0222-CAL8	QC		8		L000861	L000844		
SLB0222-CAL9	QC		9		L000862	L000844		
SLB0222-CALA	QC		10		L000863	L000844		
SLB0222-CALB	QC		11		L000864	L000844		
SLB0222-SCV1	QC		12		K007655	L000844		
SLB0222-SCV2	QC		13		K007656	L000844		
SLB0222-SCV3	QC		14		K007657	L000844		
SLB0222-SCV4	QC		15		K007658	L000844		
SLB0222-SCV5	QC		16		K007659	L000844		
SLB0222-SCV6	QC		17		K007660	L000844		

Samples Loaded By Date

Data Processed By Date

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	16-FEB-2023 11:02	02162301ECD7.D	1	IB	
2	16-FEB-2023 11:23	02162302ECD7.D	1	0.25PPMAR1660	
3	16-FEB-2023 11:44	02162303ECD7.D	1	0.02PPMAR1660	
4	16-FEB-2023 12:05	02162304ECD7.D	1	0.05PPMAR1660	
5	16-FEB-2023 12:27	02162305ECD7.D	1	1.0PPMAR1660	
6	16-FEB-2023 12:48	02162306ECD7.D	1	0.1PPMAR1660	
7	16-FEB-2023 13:09	02162307ECD7.D	1	0.5PPMAR1660	
8	16-FEB-2023 13:30	02162308ECD7.D	1	0.25PPMAR1242	
9	16-FEB-2023 13:51	02162309ECD7.D	1	0.25PPMAR1248	
10	16-FEB-2023 14:12	02162310ECD7.D	1	0.25PPMAR1254	
11	16-FEB-2023 14:33	02162311ECD7.D	1	0.25PPMAR2168	
12	16-FEB-2023 14:54	02162312ECD7.D	1	0.25PPMAR3268	
13	16-FEB-2023 15:15	02162313ECD7.D	1	AR1660SCV	
14	16-FEB-2023 15:36	02162314ECD7.D	1	AR1242SCV	
15	16-FEB-2023 15:57	02162315ECD7.D	1	AR1248SCV	
16	16-FEB-2023 16:18	02162316ECD7.D	1	AR1254SCV	
17	16-FEB-2023 16:39	02162317ECD7.D	1	AR2162SCV	
18	16-FEB-2023 17:00	02162318ECD7.D	1	AR3268SCV	
19	16-FEB-2023 17:21	02162319ECD7.D	1	DDTS	
20	16-FEB-2023 17:42	02162320ECD7.D	1	DDT BD	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

ARI Job No.: IB Method: PCB.m Instrument: ecd7.i Date: 16-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1102	02162301ECD7.D	IB		1	NO MANUAL INTEGRATION
1123	02162302ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
1144	02162303ECD7.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
1205	02162304ECD7.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
1227	02162305ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1248	02162306ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1309	02162307ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1330	02162308ECD7.D	0.25PPMAR1242		1	NO MANUAL INTEGRATION
1351	02162309ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
1412	02162310ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
1433	02162311ECD7.D	0.25PPMAR2168		1	NO MANUAL INTEGRATION
1454	02162312ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1515	02162313ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1536	02162314ECD7.D	AR1242SCV		1	NO MANUAL INTEGRATION
1557	02162315ECD7.D	AR1248SCV		1	Aroclor-1248,
1618	02162316ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION
1639	02162317ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1700	02162318ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
1721	02162319ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1742	02162320ECD7.D	DDT BD		1	NO MANUAL INTEGRATION
1803	02162321ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1824	02162322ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1845	02162323ECD7.D	BLB0303-BLK1		1	NO MANUAL INTEGRATION
1906	02162324ECD7.D	BLB0303-BS1		1	NO MANUAL INTEGRATION
1927	02162325ECD7.D	BLB0303-BSD1		1	NO MANUAL INTEGRATION
1948	02162326ECD7.D	23B0153-01		1	NO MANUAL INTEGRATION
2009	02162327ECD7.D	23B0179-01		1	NO MANUAL INTEGRATION
2030	02162328ECD7.D	23B0179-03		1	NO MANUAL INTEGRATION
2051	02162329ECD7.D	23B0218-01		1	NO MANUAL INTEGRATION
2112	02162330ECD7.D	23B0243-01		1	NO MANUAL INTEGRATION
2133	02162331ECD7.D	23B0250-03		1	NO MANUAL INTEGRATION
2154	02162332ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
2215	02162333ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1102	02162301ECD7.D	IB		1	NO MANUAL INTEGRATION
1123	02162302ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1144	02162303ECD7.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
1205	02162304ECD7.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
1227	02162305ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1248	02162306ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1309	02162307ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1330	02162308ECD7.D	0.25PPMAR1242		1	NO MANUAL INTEGRATION
1351	02162309ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
1412	02162310ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
1433	02162311ECD7.D	0.25PPMAR2168		1	NO MANUAL INTEGRATION
1454	02162312ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1515	02162313ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1536	02162314ECD7.D	AR1242SCV		1	NO MANUAL INTEGRATION
1557	02162315ECD7.D	AR1248SCV		1	NO MANUAL INTEGRATION
1618	02162316ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION
1639	02162317ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
1700	02162318ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
1721	02162319ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1742	02162320ECD7.D	DDT BD		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1803	02162321ECD7.D			1	NO MANUAL INTEGRATION
1824	02162322ECD7.D			1	NO MANUAL INTEGRATION
1845	02162323ECD7.D			1	NO MANUAL INTEGRATION
1906	02162324ECD7.D			1	NO MANUAL INTEGRATION
1927	02162325ECD7.D			1	NO MANUAL INTEGRATION
1948	02162326ECD7.D			1	NO MANUAL INTEGRATION
2009	02162327ECD7.D			1	NO MANUAL INTEGRATION
2030	02162328ECD7.D			1	NO MANUAL INTEGRATION
2051	02162329ECD7.D			1	NO MANUAL INTEGRATION
2112	02162330ECD7.D			1	NO MANUAL INTEGRATION
2133	02162331ECD7.D			1	NO MANUAL INTEGRATION
2154	02162332ECD7.D			1	NO MANUAL INTEGRATION
2215	02162333ECD7.D			1	NO MANUAL INTEGRATION

Security Status Report

Date: 17-Feb-2023 09:11

02162301ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162302ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162303ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162304ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162305ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162306ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162307ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162308ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162309ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162310ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162311ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162312ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162313ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162314ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162315ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162316ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162317ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162318ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162319ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162320ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd7.i\230124.b\01242314ECD7.D
Level 2: \\target\share\chem4\ecd7.i\230124.b\01242315ECD7.D
Level 3: \\target\share\chem4\ecd7.i\230124.b\01242317ECD7.D
Level 4: \\target\share\chem4\ecd7.i\230124.b\01242313ECD7.D
Level 5: \\target\share\chem4\ecd7.i\230124.b\01242318ECD7.D
Level 6: \\target\share\chem4\ecd7.i\230124.b\01242316ECD7.D
Level 7: \\target\share\chem4\ecd7.i\230124.b\01242323ECD7.D
Level 8: \\target\share\chem4\ecd7.i\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00591	+++++	0.00591	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01209	+++++	0.01209	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02807	+++++	0.02807	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.02450	+++++	0.02450	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.08017	+++++	0.08017	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02382	+++++	0.02382	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03598	+++++	0.03598	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00369	+++++	0.00369	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.00832	+++++							0.00832	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04160	+++++							0.04160	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.01781	+++++							0.01781	0.000
7 Aroclor-1016(1)	0.02947	0.03102	0.03310	0.03018	0.02824	0.02635				
	+++++	+++++							0.02973	7.802
(2)	0.09270	0.09812	0.10598	0.10203	0.09861	0.09356				
	+++++	+++++							0.09850	5.108
(3)	0.04878	0.04900	0.05127	0.04400	0.04091	0.03796				
	+++++	+++++							0.04532	11.523
(4)	0.02676	0.02802	0.03162	0.03050	0.02939	0.02864				
	+++++	+++++							0.02915	5.988
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04002	+++++							0.04002	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05105	+++++							0.05105	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.09765	+++++							0.09765	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04833	+++++							0.04833	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.08153	+++++							0.08153	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03481	+++++							0.03481	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05224	+++++							0.05224	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.10237	+++++							0.10237	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.06657	+++++							0.06657	0.000
9 Aroclor-1260(1)	0.04727	0.04543	0.04428	0.05181	0.04013	0.04040				
	+++++	+++++							0.04489	9.818
(2)	0.04940	0.04636	0.04450	0.05350	0.04100	0.04208				
	+++++	+++++							0.04614	10.182
(3)	0.13737	0.12829	0.11740	0.13317	0.10468	0.10790				
	+++++	+++++							0.12147	11.161
(4)	0.07198	0.06638	0.05997	0.06473	0.05485	0.05864				
	+++++	+++++							0.06276	9.803
(5)	0.03296	0.02981	0.02640	0.02723	0.02328	0.02447				
	+++++	+++++							0.02736	13.015
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03235	+++++							0.03235	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(2)	*****	*****	*****	*****	*****	*****				
	0.05106	*****							0.05106	0.000
(3)	*****	*****	*****	*****	*****	*****				
	0.05544	*****							0.05544	0.000
(4)	*****	*****	*****	*****	*****	*****				
	0.05052	*****							0.05052	0.000
11 Aroclor-1268(1)	*****	*****	*****	*****	*****	*****				
	0.13216	*****							0.13216	0.000
(2)	*****	*****	*****	*****	*****	*****				
	0.13180	*****							0.13180	0.000
(3)	*****	*****	*****	*****	*****	*****				
	0.10919	*****							0.10919	0.000
(4)	*****	*****	*****	*****	*****	*****				
	0.32374	*****							0.32374	0.000
42 2,4-DDE	*****	*****	*****	*****	*****	*****				
	*****	904							904	0.000
43 2,4-DDD	*****	*****	*****	*****	*****	*****				
	*****	1034							1034	0.000
44 2,4-DDT	*****	*****	*****	*****	*****	*****				
	*****	2557							2557	0.000
46 4,4-DDE	*****	*****	*****	*****	*****	*****				
	*****	1539							1539	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1484	1484	0.000
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 1 Tetrachloro-m-xylene	1.10039	1.10217	1.21997	1.14965	1.11792	1.09461	+++++	+++++	1.13079	4.246
$ 13 Decachlorobiphenyl	0.86442	0.90302	0.93081	0.84813	0.79576	0.79145	+++++	+++++	0.85560	6.556

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242314ECD7.D
Level 2: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242315ECD7.D
Level 3: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242317ECD7.D
Level 4: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242313ECD7.D
Level 5: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242318ECD7.D
Level 6: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242316ECD7.D
Level 7: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242323ECD7.D
Level 8: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
1 Aroclor-1221 [2C](1)	*****	*****	*****	*****	*****	*****	0.00586	*****	0.00586	0.000
(2)	*****	*****	*****	*****	*****	*****	0.01285	*****	0.01285	0.000
(3)	*****	*****	*****	*****	*****	*****	0.02169	*****	0.02169	0.000
4 Aroclor-1232 [2C](1)	*****	*****	*****	*****	*****	*****	0.00356	*****	0.00356	0.000
(2)	*****	*****	*****	*****	*****	*****	0.01991	*****	0.01991	0.000
(3)	*****	*****	*****	*****	*****	*****	0.04054	*****	0.04054	0.000
(4)	*****	*****	*****	*****	*****	*****	0.01126	*****	0.01126	0.000
3 Aroclor-1242 [2C](1)	*****	*****	*****	*****	*****	*****	0.03499	*****	0.03499	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.07771	+++++							0.07771	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.02434	+++++							0.02434	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03226	+++++							0.03226	0.000
6 Aroclor-1248 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03616	+++++							0.03616	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03892	+++++							0.03892	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04756	+++++							0.04756	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05882	+++++							0.05882	0.000
7 Aroclor-1016 [2C](1)	0.04424	0.04724	0.04678	0.04314	0.04099	0.03795				
	+++++	+++++							0.04339	8.142
(2)	0.08512	0.09615	0.10417	0.09824	0.09554	0.09130				
	+++++	+++++							0.09509	6.775
(3)	0.02919	0.04165	0.04478	0.04029	0.03925	0.03764				
	+++++	+++++							0.03880	13.639
(4)	0.02850	0.03377	0.03419	0.03004	0.02878	0.02724				
	+++++	+++++							0.03042	9.538

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
8 Aroclor-1254 [2C](1)	*****	*****	*****	*****	*****	*****	0.05804	*****	0.05804	0.000
(2)	*****	*****	*****	*****	*****	*****	0.04691	*****	0.04691	0.000
(3)	*****	*****	*****	*****	*****	*****	0.10233	*****	0.10233	0.000
(4)	*****	*****	*****	*****	*****	*****	0.10233	*****	0.10233	0.000
(5)	*****	*****	*****	*****	*****	*****	0.05700	*****	0.05700	0.000
10 Aroclor-1262 [2C](1)	*****	*****	*****	*****	*****	*****	0.07830	*****	0.07830	0.000
(2)	*****	*****	*****	*****	*****	*****	0.06658	*****	0.06658	0.000
(3)	*****	*****	*****	*****	*****	*****	0.07090	*****	0.07090	0.000
(4)	*****	*****	*****	*****	*****	*****	0.11355	*****	0.11355	0.000
9 Aroclor-1260 [2C](1)	0.06075	0.05974	0.05912	0.06129	0.05231	0.05307	*****	*****	0.05771	6.881
(2)	0.14748	0.15106	0.15181	0.15367	0.13396	0.13809	*****	*****	0.14601	5.547

ARI Labs, Inc.

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Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(3)	0.03683	0.03729	0.03582	0.03647	0.03501	0.03694	#####	#####	0.03639	2.314
(4)	0.09319	0.09919	0.09881	0.09587	0.08985	0.09008	#####	#####	0.09450	4.373
11 Aroclor-1268 [2C](1)	#####	#####	#####	#####	#####	#####	0.18682	#####	0.18682	0.000
(2)	#####	#####	#####	#####	#####	#####	0.19880	#####	0.19880	0.000
(3)	#####	#####	#####	#####	#####	#####	0.16548	#####	0.16548	0.000
(4)	#####	#####	#####	#####	#####	#####	0.51118	#####	0.51118	0.000
41 2,4-DDE [2C]	#####	#####	#####	#####	#####	#####	#####	1528	1528	0.000
42 2,4-DDD [2C]	#####	#####	#####	#####	#####	#####	#####	866	866	0.000
44 4,4-DDE [2C]	#####	#####	#####	#####	#####	#####	#####	863	863	0.000
45 4,4-DDD/2,4-DDT [2C]	#####	#####	#####	#####	#####	#####	#####	1162	1162	0.000
46 4,4-DDT [2C]	#####	#####	#####	#####	#####	#####	#####	1277	1277	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 2 Tetrachloro-m-xylene [2C]	1.04342	1.10521	1.15322	1.09675	1.05187	1.03851	+++++	+++++	1.08150	4.159
$ 13 Decachlorobiphenyl [2C]	1.20915	1.27122	1.31190	1.29209	1.22961	1.30389	+++++	+++++	1.26964	3.291

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230216.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	02162302ECD7	02162303ECD7	02162304ECD7	02162305ECD7	02162306ECD7	02162307ECD7
INJ.DATE:	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023
INJ.TIME:	11:23	11:44	12:05	12:27	12:48	13:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	3.492	3.492	3.491	3.493	3.492	3.491	3.492	3.392-3.592	3.492	0.001
$ 1 Tetrachloro-m-xylene	5.810	5.808	5.808	5.811	5.808	5.809	5.810	5.710-5.910	5.809	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	4.732	4.632-4.832	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	7.269	7.169-7.369	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	4.732	4.632-4.832	+++++	+++++
7 Aroclor-1016	7.271	7.271	7.270	7.270	7.270	7.269	7.271	7.171-7.371	7.270	0.001
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	8.403	8.303-8.503	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	9.295	9.195-9.395	+++++	+++++
9 Aroclor-1260	11.043	11.044	11.043	11.040	11.042	11.041	11.043	10.943-11.143	11.042	0.001
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.824	10.724-10.924	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	12.243	12.143-12.343	+++++	+++++
$ 13 Decachlorobiphenyl	13.894	13.892	13.891	13.892	13.890	13.890	13.894	13.794-13.994	13.892	0.002
* 12 IS-HBBP	14.263	14.263	14.261	14.261	14.262	14.262	14.263	14.163-14.363	14.262	0.001
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.263	9.213-9.313	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.805	9.755-9.855	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.296	10.246-10.346	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.687	9.587-9.787	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230216.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	10.281	10.181-10.381	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.758	10.658-10.858	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230216.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	02162302ECD7	02162303ECD7	02162304ECD7	02162305ECD7	02162306ECD7	02162307ECD7
INJ.DATE:	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023
INJ.TIME:	11:23	11:44	12:05	12:27	12:48	13:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	3.492	3.492	3.491	3.493	3.492	3.491	3.492	3.392-3.592	3.492	0.001
$ 1 Tetrachloro-m-xylene	5.810	5.808	5.808	5.811	5.808	5.809	5.810	5.710-5.910	5.809	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	4.732	4.632-4.832	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	7.269	7.169-7.369	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	4.732	4.632-4.832	+++++	+++++
7 Aroclor-1016	7.271	7.271	7.270	7.270	7.270	7.269	7.271	7.171-7.371	7.270	0.001
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	8.403	8.303-8.503	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	9.295	9.195-9.395	+++++	+++++
9 Aroclor-1260	11.043	11.044	11.043	11.040	11.042	11.041	11.043	10.943-11.143	11.042	0.001
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.824	10.724-10.924	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	12.243	12.143-12.343	+++++	+++++
$ 13 Decachlorobiphenyl	13.894	13.892	13.891	13.892	13.890	13.890	13.894	13.794-13.994	13.892	0.002
* 12 IS-HBBP	14.263	14.263	14.261	14.261	14.262	14.262	14.263	14.163-14.363	14.262	0.001
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.263	9.213-9.313	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.805	9.755-9.855	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.296	10.246-10.346	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.687	9.587-9.787	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230216.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	10.281	10.181-10.381	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.758	10.658-10.858	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230216.b\230216.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	02162302ECD7	02162303ECD7	02162304ECD7	02162305ECD7	02162306ECD7	02162307ECD7
INJ.DATE:	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023
INJ.TIME:	11:23	11:44	12:05	12:27	12:48	13:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB [2C]	3.928	3.929	3.928	3.930	3.929	3.929	3.928	3.828-4.028	3.929	0.001
$ 2 Tetrachloro-m-xylene [	5.685	5.686	5.685	5.688	5.687	5.686	5.685	5.585-5.785	5.686	0.001
1 Aroclor-1221 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.958	4.858-5.058	+++++	+++++
4 Aroclor-1232 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.958	4.859-5.059	+++++	+++++
3 Aroclor-1242 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	7.254	7.154-7.354	+++++	+++++
6 Aroclor-1248 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	8.305	8.205-8.405	+++++	+++++
7 Aroclor-1016 [2C]	7.254	7.255	7.254	7.254	7.254	7.254	7.254	7.154-7.354	7.254	0.000
8 Aroclor-1254 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.447	9.347-9.547	+++++	+++++
10 Aroclor-1262 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.198	11.098-11.298	+++++	+++++
9 Aroclor-1260 [2C]	11.651	11.652	11.652	11.650	11.651	11.650	11.651	11.551-11.751	11.651	0.001
11 Aroclor-1268 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	12.431	12.331-12.531	+++++	+++++
$ 13 Decachlorobiphenyl [2C	14.117	14.118	14.117	14.120	14.117	14.118	14.117	14.017-14.217	14.118	0.001
* 12 IS-HBBP [2C]	15.006	15.006	15.004	15.005	15.005	15.005	15.006	14.906-15.106	15.005	0.001
41 2,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.912	9.862-9.962	+++++	+++++
42 2,4-DDD [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.538	9.488-9.588	+++++	+++++
44 4,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.211	10.111-10.311	+++++	+++++
45 4,4-DDD/2,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.666	10.566-10.766	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230216.b\230216.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.095	10.995-11.195	+++++	+++++
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.703	1.603-1.803	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	7.178	7.078-7.278	+++++	+++++

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162302ECD7.D
Data file 2: /230216.b/230216.b/02162302ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 11:23
Report Date: 02/17/2023 08:58
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	248401	5.685	-0.001	199672	40.7	40.3	0.9	Tetrachloro-m-xylene
13.894	0.003	351670	14.117	-0.001	367148	40.9	40.7	0.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	430055	-14.6
Hexabromobiphenyl	647433	975457	50.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	366754	8.9
Hexabromobiphenyl	382032	646884	69.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.002	39579	252.7	1	7.254	-0.000	49228	245.0
Aroclor-1016	2	7.652	0.002	129647	258.5	2	7.850	-0.002	109879	257.4
Aroclor-1016	3	7.790	0.003	55577	241.0	3	8.050	0.000	45802	261.0
Aroclor-1016	4	8.404	0.001	38982	256.8	4	8.304	-0.000	35428	248.9
Total Col1Ave (4 peaks):					252.3	Total Col2Ave (4 peaks):				253.1 RPD = 0
Corrected Ave (3 peaks):					250.2	Corrected Ave (3 peaks):				250.4 RPD = 0
CalAmt %D:					0.9	CalAmt %D:				1.2
Aroclor-1260	1	11.043	0.002	87165	259.2	1	11.651	0.001	84564	235.7
Aroclor-1260	2	11.360	0.003	89579	260.4	2	11.916	0.001	216735	240.2
Aroclor-1260	3	11.733	0.003	234880	257.8	3	12.434	0.001	55401	229.5
Aroclor-1260	4	12.137	0.002	120991	261.6	4	12.499	0.001	143975	237.8
Aroclor-1260	5	12.243	0.003	50521	254.7	NS	---			----
Total Col1Ave (5 peaks):					258.7	Total Col2Ave (4 peaks):				235.8 RPD = 9
Corrected Ave (4 peaks):					258.0	Corrected Ave (3 peaks):				234.4 RPD = 10
CalAmt %D:					3.5	CalAmt %D:				-5.7

Total PCB Area Col1 (5.908 - 13.791) = 2424171 Col1 Total PCB = 0.5 ppm*

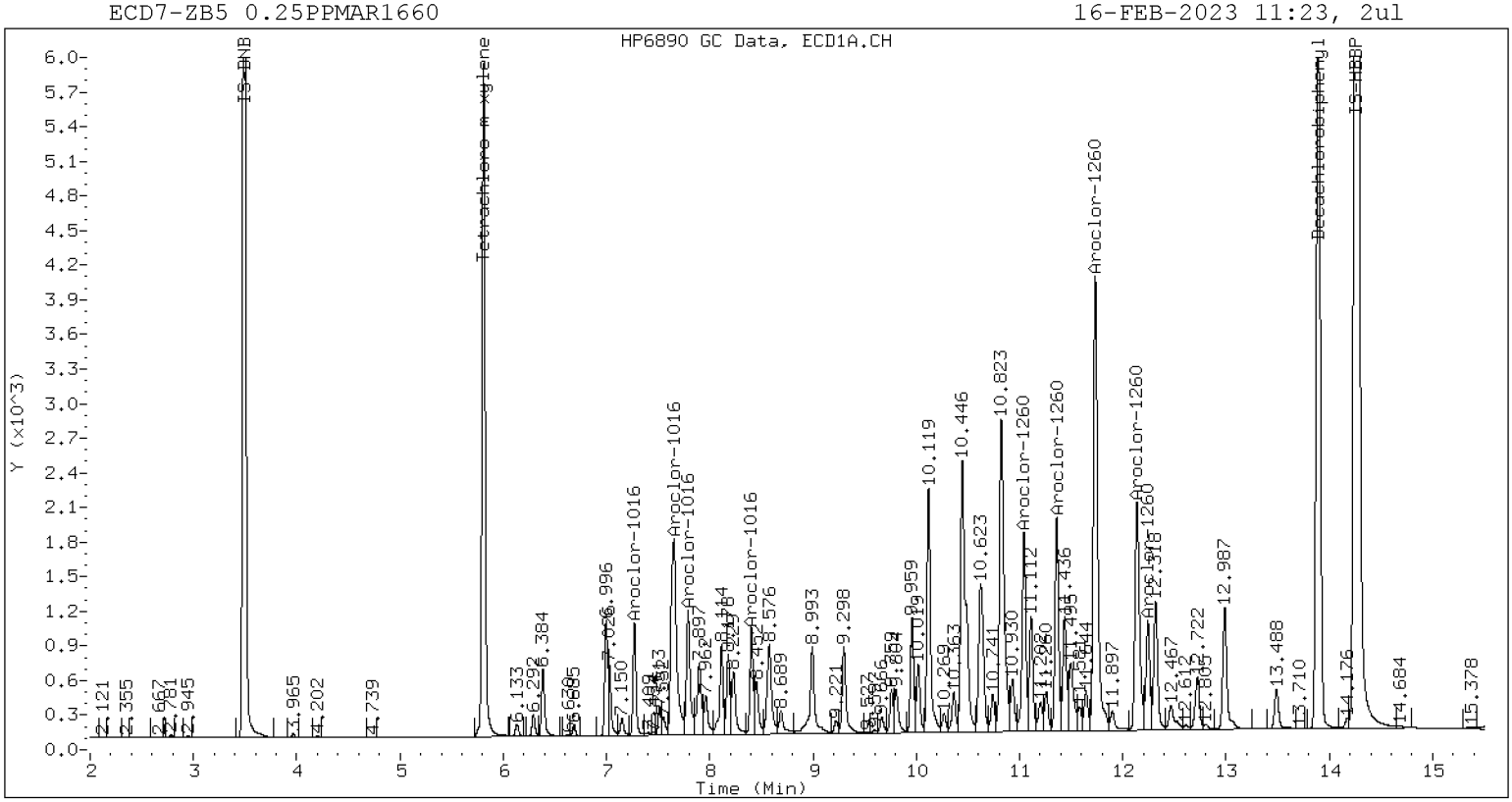
Total PCB Area Col2 (5.786 - 14.018) = 2014487 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

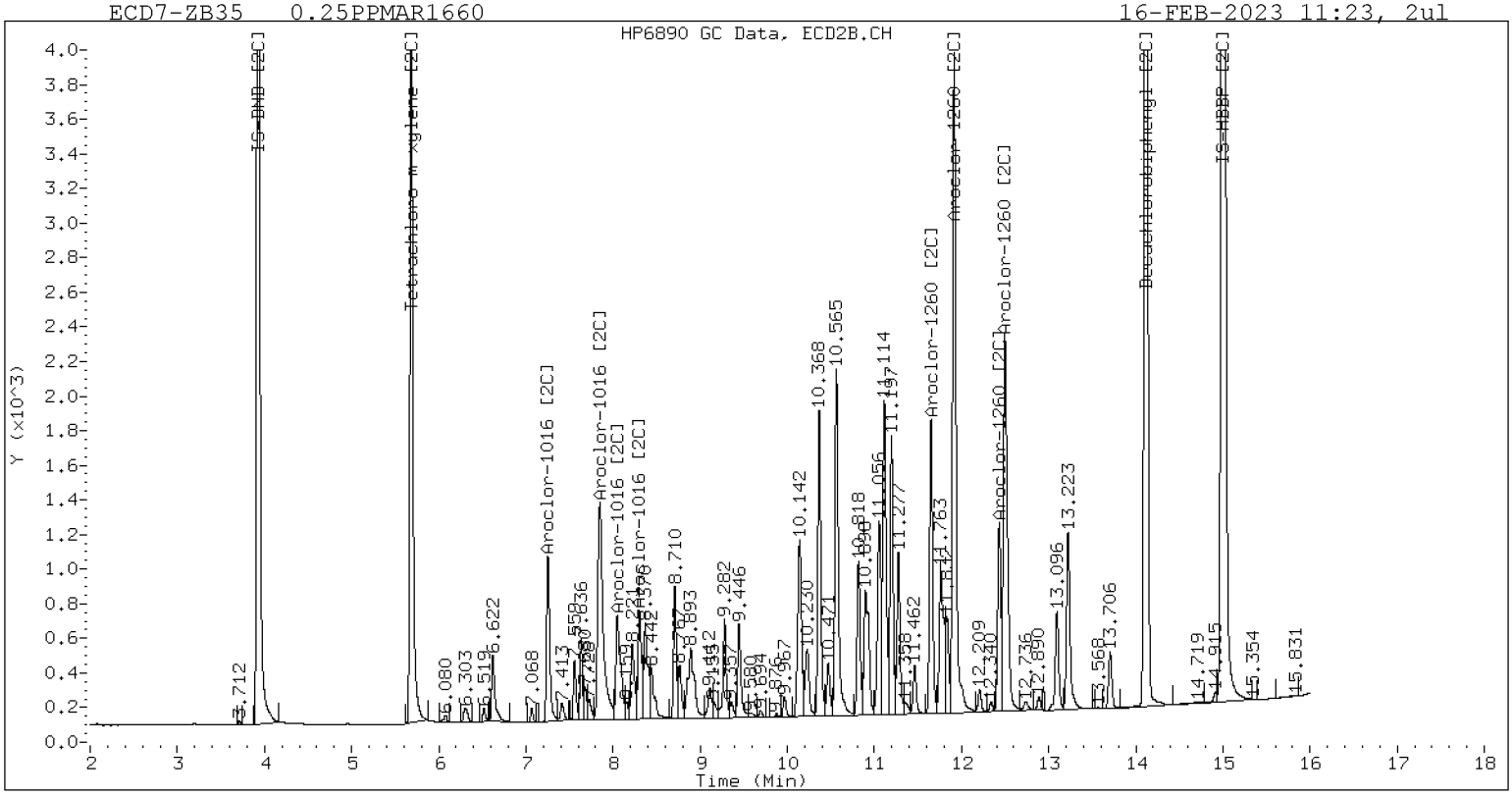
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1660 16-FEB-2023 11:23, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1660 16-FEB-2023 11:23, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162303ECD7.D
Data file 2: /230216.b/230216.b/02162303ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 11:44
Report Date: 02/17/2023 08:58
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	19708	5.686	0.000	15503	3.3	3.2	3.1	Tetrachloro-m-xylene
13.892	0.001	28479	14.118	-0.000	26541	3.3	2.9	12.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	422641	-16.0
Hexabromobiphenyl	647433	970275	49.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	360534	7.0
Hexabromobiphenyl	382032	649373	70.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.002	3348	21.8	1	7.255	0.001	4345	22.0
Aroclor-1016	2	7.655	0.005	10129	20.6	2	7.856	0.005	7672	18.3
Aroclor-1016	3	7.792	0.005	5159	22.8	3	8.056	0.007	2574	14.9
Aroclor-1016	4	8.405	0.003	3035	20.3	4	8.307	0.003	2795	20.0
Total Col1Ave (4 peaks):					21.4	Total Col2Ave (4 peaks):				18.8 RPD = 13
Corrected Ave (3 peaks):					20.9	Corrected Ave (3 peaks):				17.7 RPD = 16
CalAmt %D:					6.8	CalAmt %D:				-6.0
Aroclor-1260	1	11.044	0.003	6763	20.2	1	11.652	0.002	7499	20.8
Aroclor-1260	2	11.360	0.003	6806	19.9	2	11.918	0.003	18116	20.0
Aroclor-1260	3	11.737	0.006	19311	21.3	3	12.434	0.002	5444	22.5
Aroclor-1260	4	12.141	0.006	9169	19.9	4	12.502	0.004	12209	20.1
Aroclor-1260	5	12.243	0.003	4138	21.0	NS	---			----
Total Col1Ave (5 peaks):					20.5	Total Col2Ave (4 peaks):				20.8 RPD = 2
Corrected Ave (4 peaks):					20.3	Corrected Ave (3 peaks):				20.3 RPD = 0
CalAmt %D:					2.3	CalAmt %D:				4.2

Total PCB Area Col1 (5.908 - 13.791) = 207302 Col1 Total PCB = 0.0 ppm*

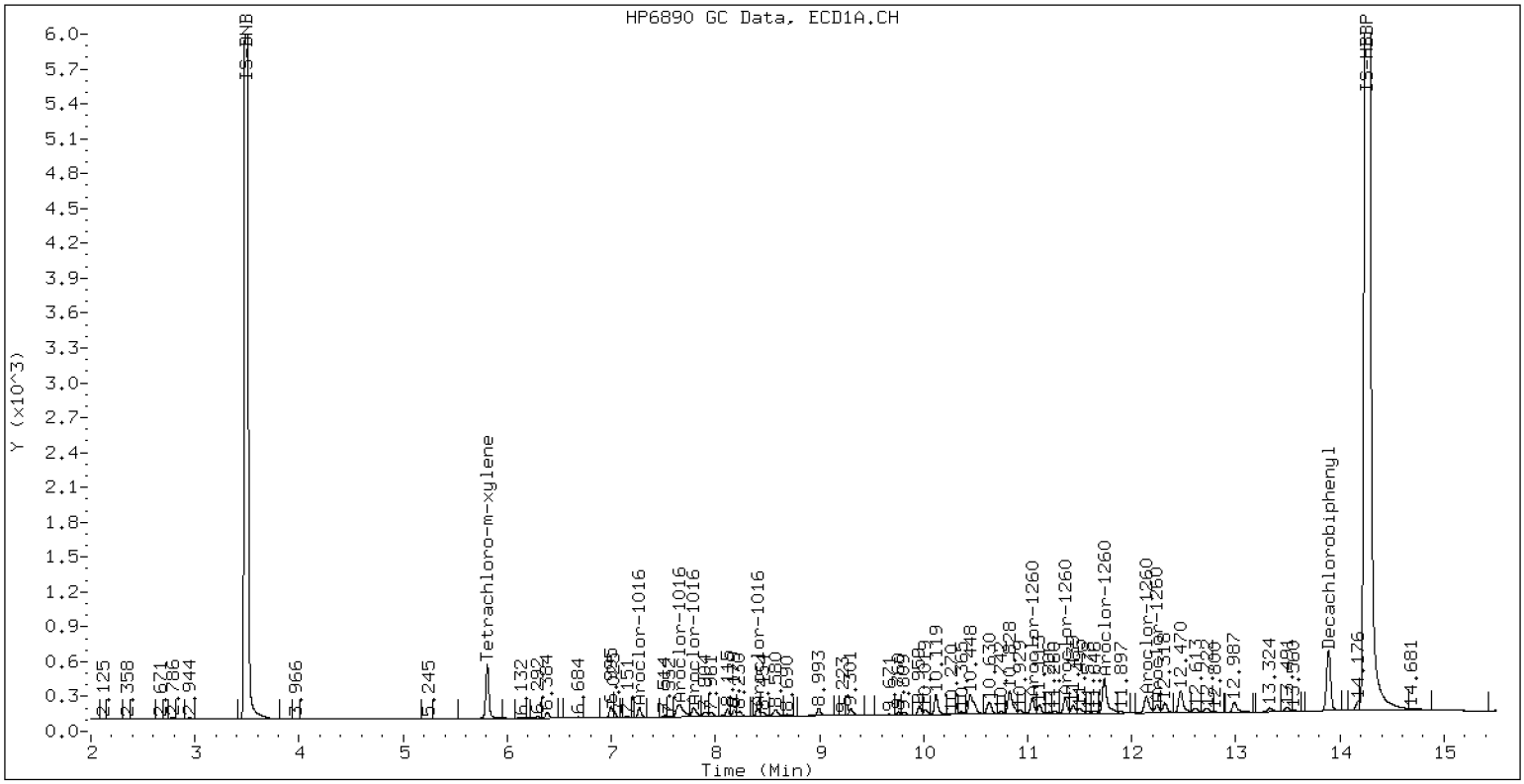
Total PCB Area Col2 (5.786 - 14.018) = 173637 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

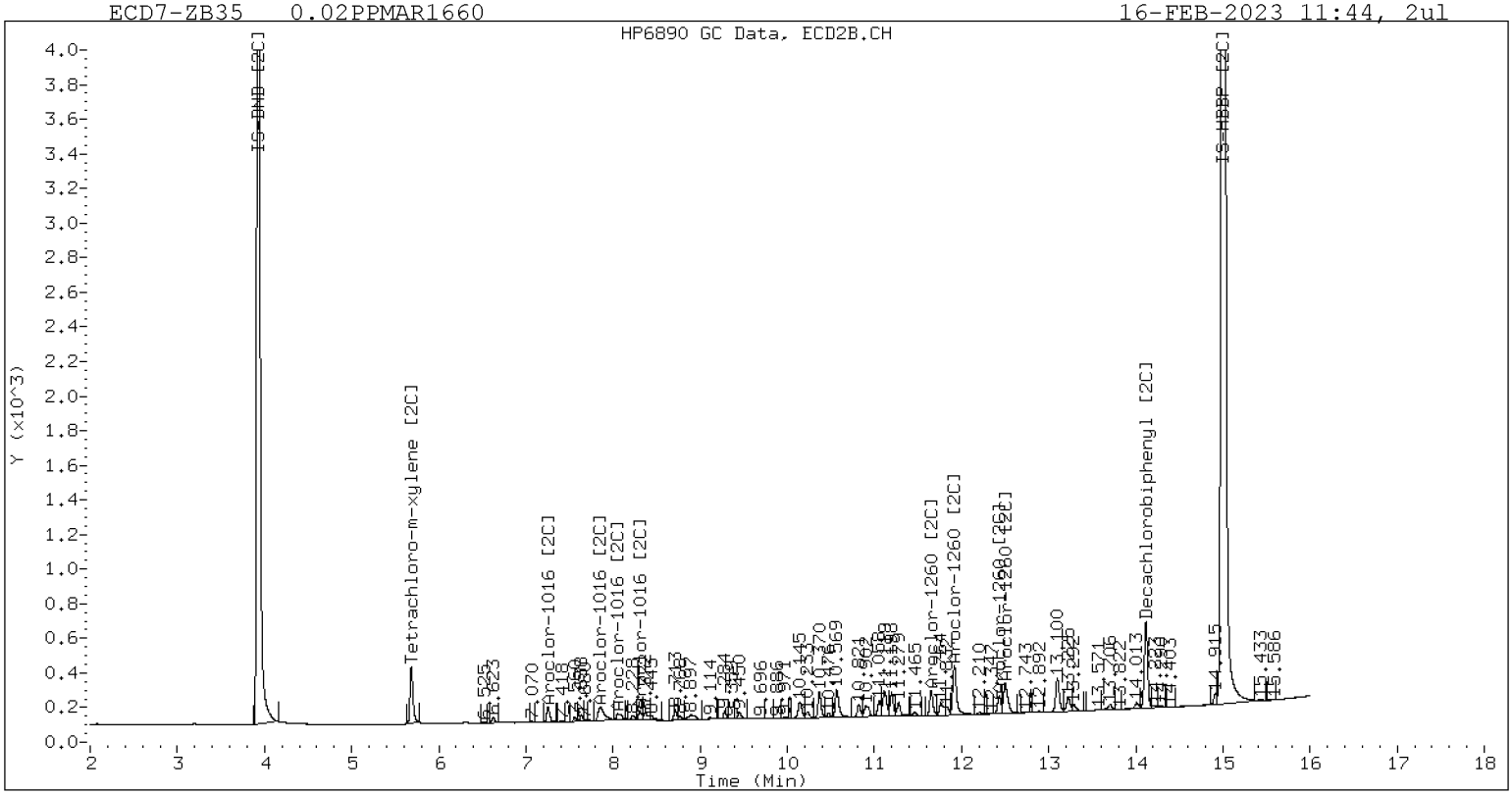
PCB Dual Column Chromatograms

ECD7-ZB5 0.02PPMAR1660 16-FEB-2023 11:44, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.02PPMAR1660 16-FEB-2023 11:44, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162304ECD7.D
Data file 2: /230216.b/230216.b/02162304ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:05
Report Date: 02/17/2023 08:58
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.001	49106	5.685	-0.001	38865	8.2	8.0	2.4	Tetrachloro-m-xylene
13.891	0.000	72151	14.117	-0.001	67392	8.4	7.4	12.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	424165	-15.7
Hexabromobiphenyl	647433	974643	50.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	361606	7.3
Hexabromobiphenyl	382032	650523	70.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	8215	53.2	1	7.254	-0.000	10626	53.6
Aroclor-1016	2	7.653	0.003	24630	49.8	2	7.855	0.003	20708	49.2
Aroclor-1016	3	7.791	0.004	12297	54.1	3	8.055	0.006	9105	52.6
Aroclor-1016	4	8.404	0.001	7438	49.7	4	8.306	0.001	7620	54.3
Total Col1Ave (4 peaks):					51.7	Total Col2Ave (4 peaks):				52.4 RPD = 1
Corrected Ave (3 peaks):					50.9	Corrected Ave (3 peaks):				51.8 RPD = 2
CalAmt %D:					3.4	CalAmt %D:				4.9
Aroclor-1260	1	11.043	0.002	16909	50.3	1	11.652	0.002	17146	47.5
Aroclor-1260	2	11.359	0.002	17012	49.5	2	11.917	0.003	43102	47.5
Aroclor-1260	3	11.734	0.003	45560	50.0	3	12.435	0.003	11385	46.9
Aroclor-1260	4	12.138	0.003	22213	48.1	4	12.501	0.003	28474	46.8
Aroclor-1260	5	12.241	0.001	9728	49.1	NS	---			----
Total Col1Ave (5 peaks):					49.4	Total Col2Ave (4 peaks):				47.2 RPD = 5
Corrected Ave (4 peaks):					49.2	Corrected Ave (3 peaks):				47.1 RPD = 4
CalAmt %D:					-1.2	CalAmt %D:				-5.6

Total PCB Area Col1 (5.908 - 13.791) = 481905 Col1 Total PCB = 0.1 ppm*

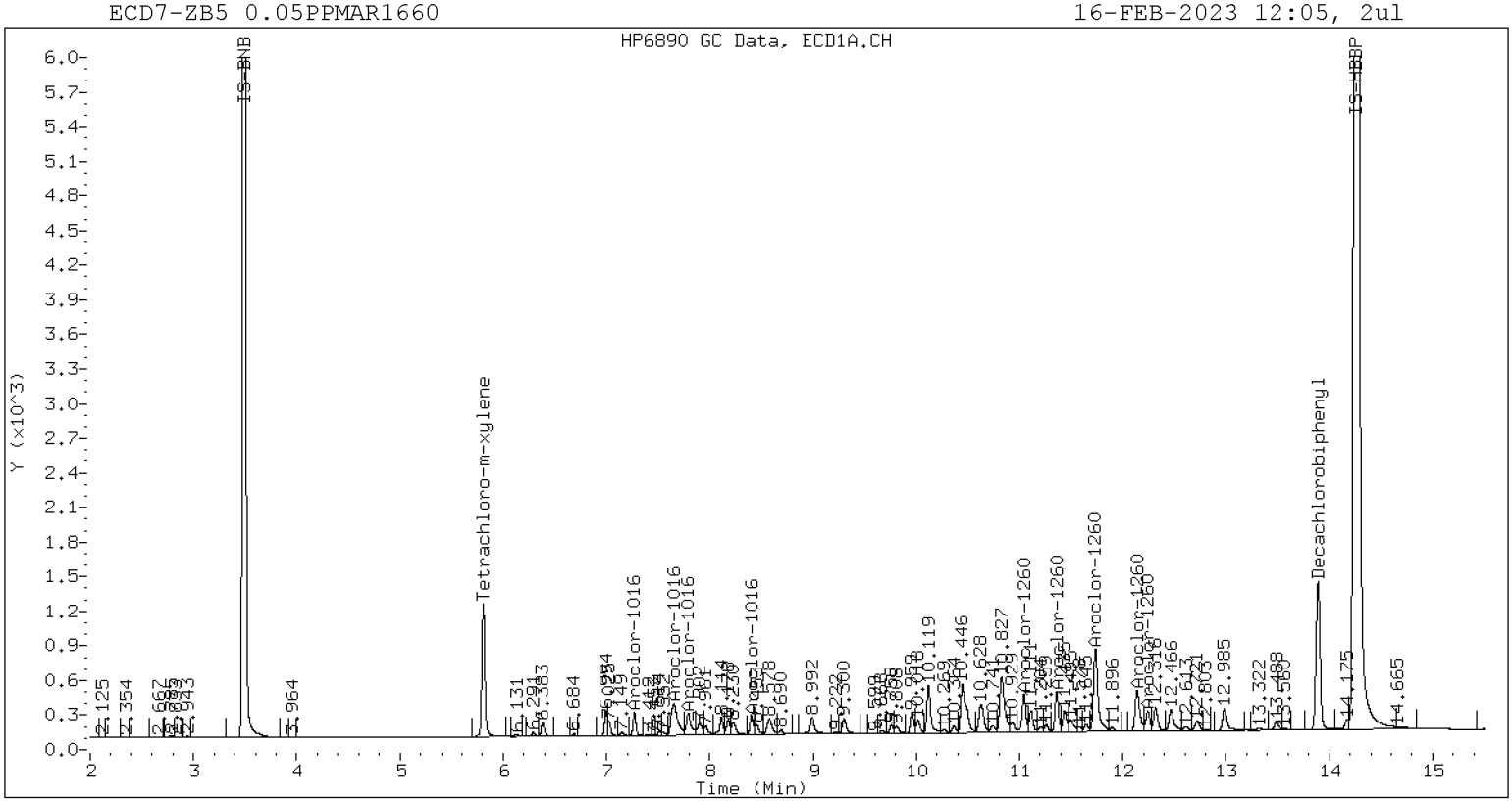
Total PCB Area Col2 (5.786 - 14.018) = 410066 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

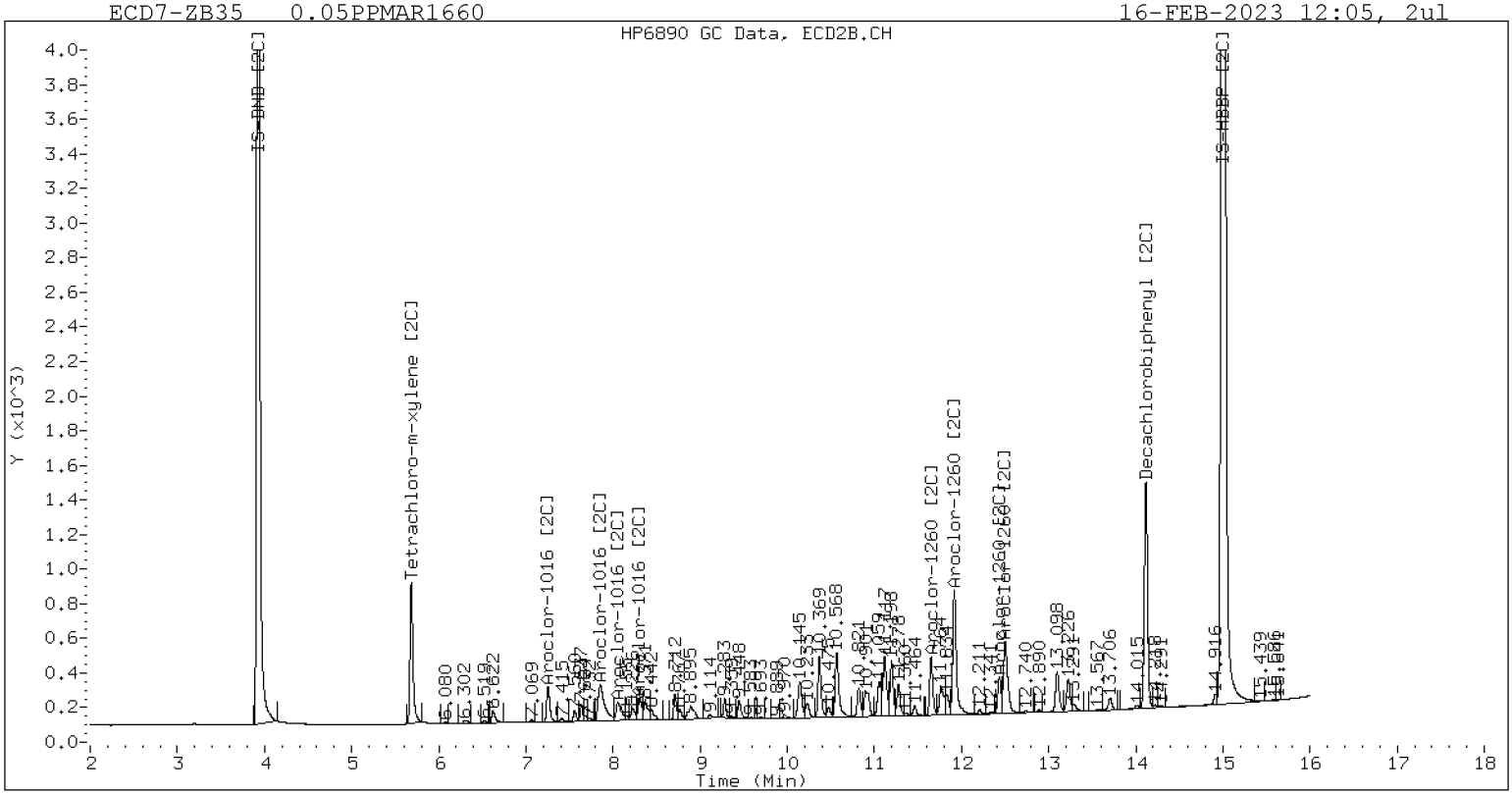
PCB Dual Column Chromatograms

ECD7-ZB5 0.05PPMAR1660 16-FEB-2023 12:05, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.05PPMAR1660 16-FEB-2023 12:05, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162305ECD7.D
Data file 2: /230216.b/230216.b/02162305ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 1.0PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:27
Report Date: 02/17/2023 08:58
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.811	0.003	891683	5.688	0.002	726379	151.2	152.9	1.1	Tetrachloro-m-xylene
13.892	0.001	1202823	14.120	0.002	1376073	143.7	154.6	7.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	415564	-17.4
Hexabromobiphenyl	647433	950630	46.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	352163	4.5
Hexabromobiphenyl	382032	638267	67.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	132049	872.6	1	7.254	0.000	163920	849.6
Aroclor-1016	2	7.649	-0.001	456308	941.6	2	7.849	-0.003	390554	952.8
Aroclor-1016	3	7.787	-0.000	188528	845.9	3	8.049	-0.000	164163	974.1
Aroclor-1016	4	8.403	0.000	141381	963.9	4	8.304	0.000	120741	883.4
Total Col1Ave (4 peaks):					906.0	Total Col2Ave (4 peaks):				915.0 RPD = 1
Corrected Ave (3 peaks):					886.7	Corrected Ave (3 peaks):				895.3 RPD = 1
CalAmt %D:					-9.4	CalAmt %D:				-8.5
Aroclor-1260	1	11.040	-0.000	311922	951.8	1	11.650	-0.000	297569	840.7
Aroclor-1260	2	11.356	-0.001	324926	969.1	2	11.914	-0.001	734323	824.7
Aroclor-1260	3	11.729	-0.001	820597	924.2	3	12.432	0.000	215979	906.9
Aroclor-1260	4	12.131	-0.003	448823	995.6	4	12.498	0.000	521208	872.6
Aroclor-1260	5	12.240	0.000	188496	975.0	NS	---			----
Total Col1Ave (5 peaks):					963.1	Total Col2Ave (4 peaks):				861.2 RPD = 11
Corrected Ave (4 peaks):					955.0	Corrected Ave (3 peaks):				846.0 RPD = 12
CalAmt %D:					-3.7	CalAmt %D:				-13.9

Total PCB Area Col1 (5.908 - 13.791) = 8716327 Col1 Total PCB = 1.8 ppm*

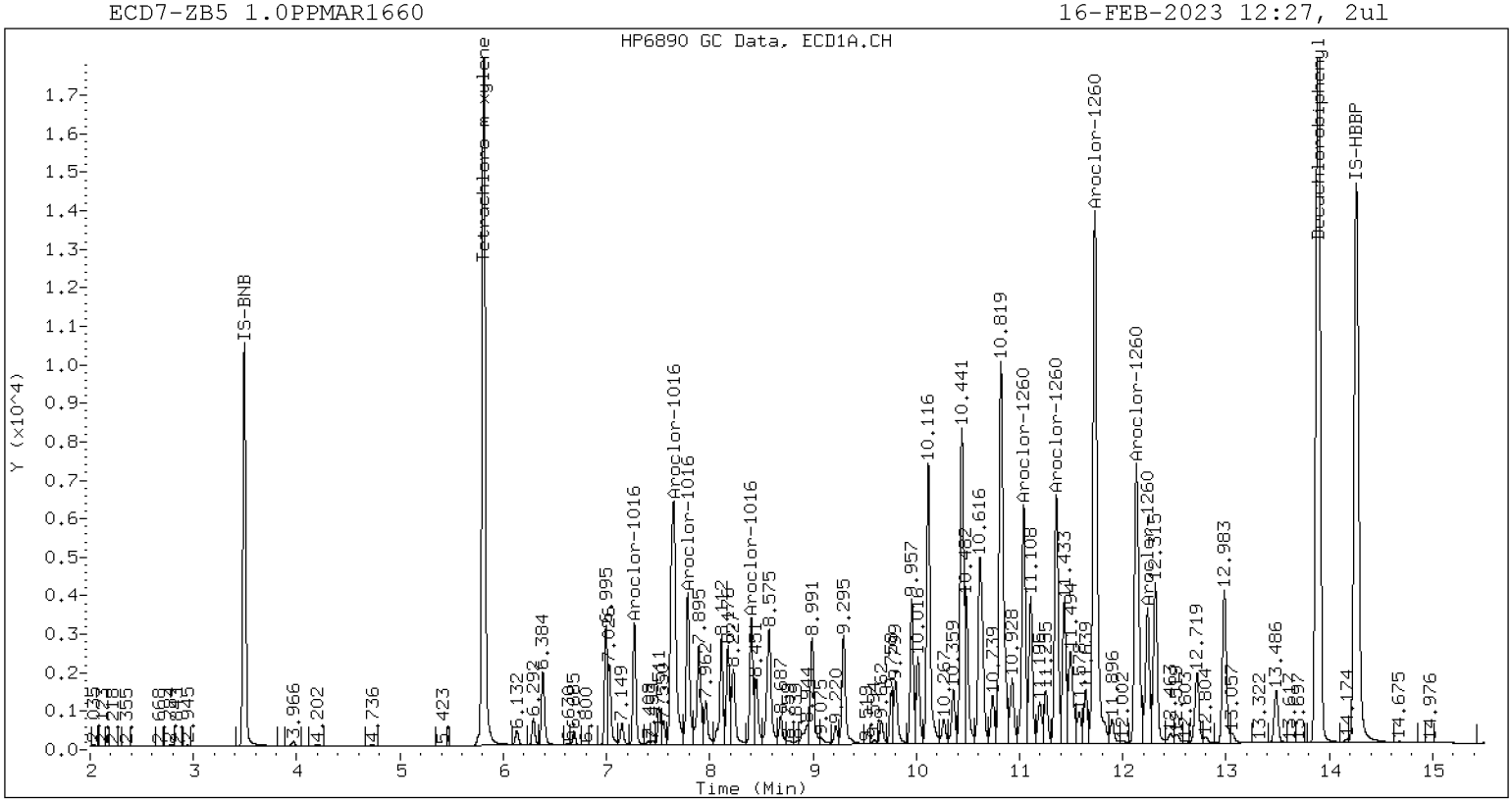
Total PCB Area Col2 (5.786 - 14.018) = 7274392 Col2 Total PCB = 2.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

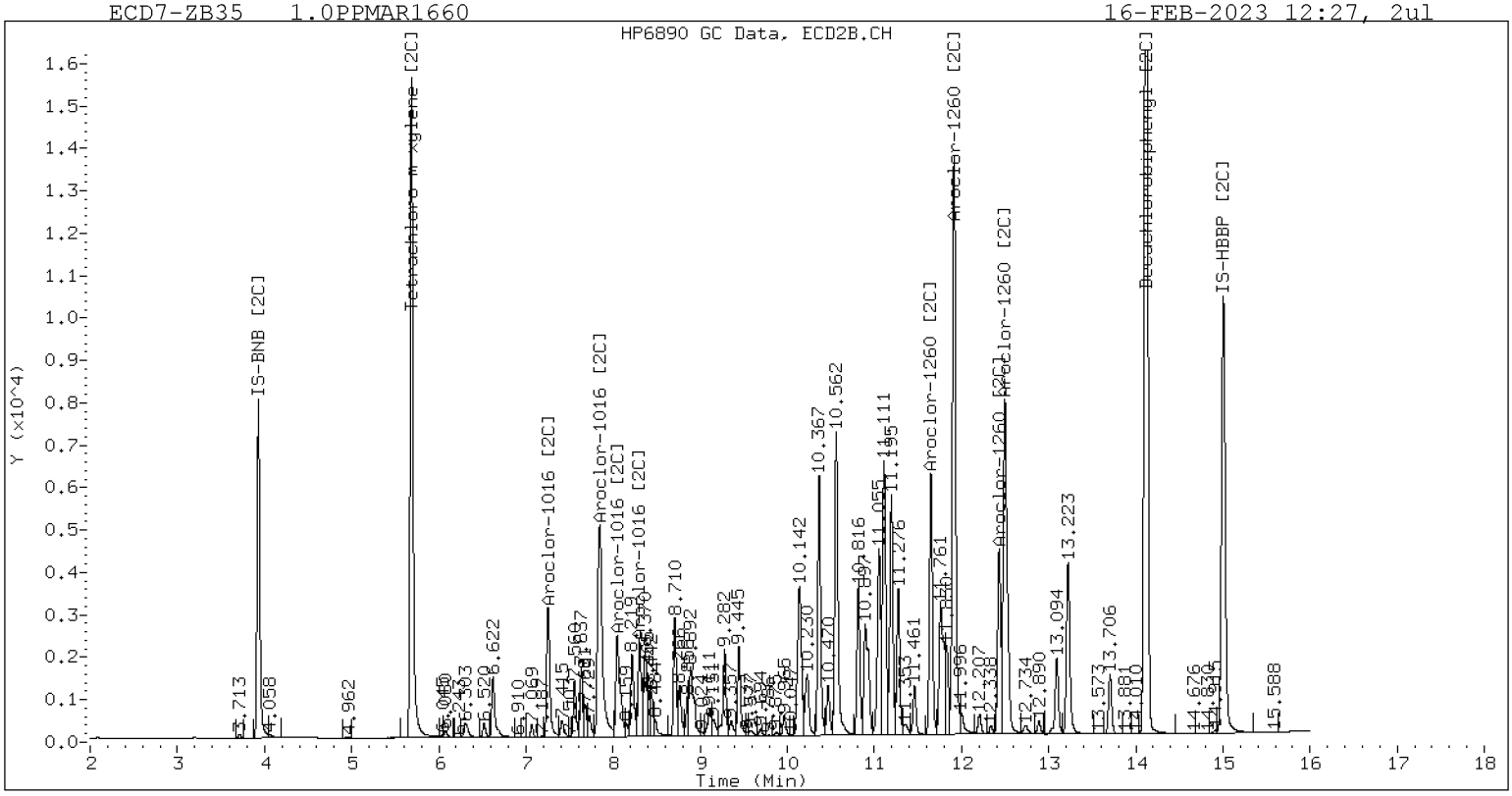
PCB Dual Column Chromatograms

ECD7-ZB5 1.0PPMAR1660 16-FEB-2023 12:27, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 1.0PPMAR1660 16-FEB-2023 12:27, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162306ECD7.D
Data file 2: /230216.b/230216.b/02162306ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:48
Report Date: 02/17/2023 08:58
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	97353	5.687	0.001	77790	16.1	16.0	1.1	Tetrachloro-m-xylene
13.890	-0.001	143814	14.117	-0.001	141007	16.6	15.4	7.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	425206	-15.5
Hexabromobiphenyl	647433	982762	51.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	361068	7.2
Hexabromobiphenyl	382032	654989	71.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	15562	100.5	1	7.254	-0.000	20282	102.5
Aroclor-1016	2	7.653	0.003	49218	99.3	2	7.855	0.004	43303	103.0
Aroclor-1016	3	7.790	0.003	23916	104.9	3	8.054	0.005	18932	109.6
Aroclor-1016	4	8.404	0.002	14884	99.2	4	8.306	0.002	15145	108.1
Total Col1Ave (4 peaks):					101.0	Total Col2Ave (4 peaks):				105.8 RPD = 5
Corrected Ave (3 peaks):					99.6	Corrected Ave (3 peaks):				104.5 RPD = 5
CalAmt %D:					1.0	CalAmt %D:				5.8
Aroclor-1260	1	11.042	0.002	34109	100.7	1	11.651	0.001	34102	93.9
Aroclor-1260	2	11.358	0.001	34951	100.8	2	11.917	0.002	87139	95.4
Aroclor-1260	3	11.733	0.003	92326	100.6	3	12.434	0.001	21226	86.9
Aroclor-1260	4	12.137	0.003	45803	98.3	4	12.500	0.002	57343	93.6
Aroclor-1260	5	12.241	0.001	19653	98.3	NS	---			----
Total Col1Ave (5 peaks):					99.7	Total Col2Ave (4 peaks):				92.4 RPD = 8
Corrected Ave (4 peaks):					99.5	Corrected Ave (3 peaks):				91.4 RPD = 8
CalAmt %D:					-0.3	CalAmt %D:				-7.6

Total PCB Area Col1 (5.908 - 13.791) = 948624 Col1 Total PCB = 0.2 ppm*

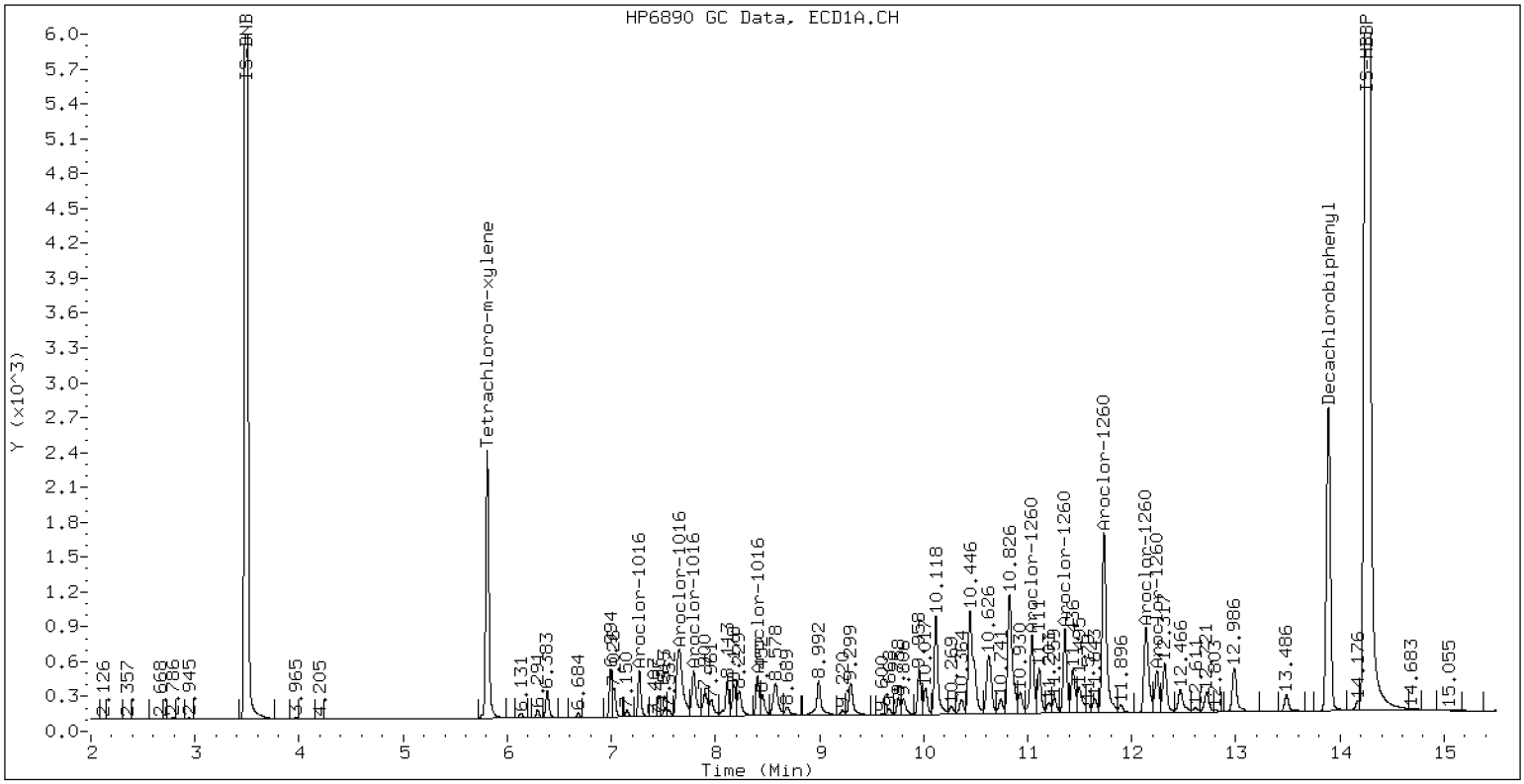
Total PCB Area Col2 (5.786 - 14.018) = 817080 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

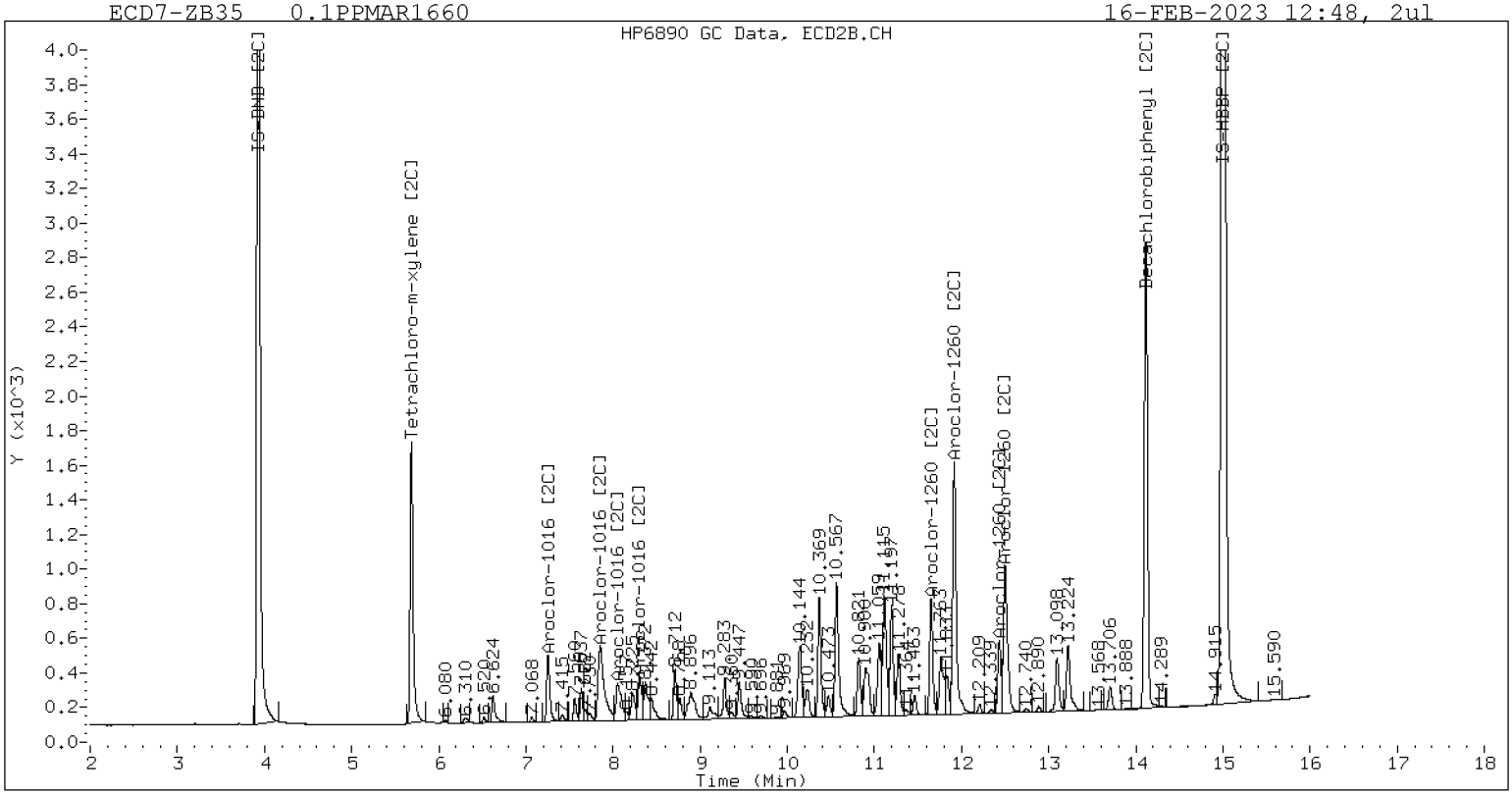
PCB Dual Column Chromatograms

ECD7-ZB5 0.1PPMAR1660 16-FEB-2023 12:48, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.1PPMAR1660 16-FEB-2023 12:48, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162307ECD7.D
Data file 2: /230216.b/230216.b/02162307ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 13:09
Report Date: 02/17/2023 08:58
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	472991	5.686	0.001	380587	78.5	78.1	0.6	Tetrachloro-m-xylene
13.890	-0.001	654829	14.118	-0.000	723440	75.9	79.7	5.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	424511	-15.7
Hexabromobiphenyl	647433	980103	51.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	361199	7.2
Hexabromobiphenyl	382032	650552	70.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	74222	480.1	1	7.254	0.000	92105	465.4
Aroclor-1016	2	7.650	0.000	249600	504.2	2	7.851	0.000	210359	500.4
Aroclor-1016	3	7.787	0.000	104974	461.1	3	8.049	0.000	87658	507.1
Aroclor-1016	4	8.402	0.000	75363	503.0	4	8.304	0.000	65546	467.6
Total Col1Ave (4 peaks):					487.1	Total Col2Ave (4 peaks):				485.1 RPD = 0
Corrected Ave (3 peaks):					481.4	Corrected Ave (3 peaks):				477.8 RPD = 1
CalAmt %D:					-2.6	CalAmt %D:				-3.0
Aroclor-1260	1	11.041	0.000	166809	493.7	1	11.650	0.000	160885	446.0
Aroclor-1260	2	11.357	0.000	172259	498.3	2	11.915	0.000	410338	452.2
Aroclor-1260	3	11.731	0.000	445028	486.1	3	12.432	0.000	110865	456.7
Aroclor-1260	4	12.134	0.000	236535	508.9	4	12.498	0.000	278934	458.2
Aroclor-1260	5	12.240	0.000	98968	496.5	NS	---			----
Total Col1Ave (5 peaks):					496.7	Total Col2Ave (4 peaks):				453.3 RPD = 9
Corrected Ave (4 peaks):					493.7	Corrected Ave (3 peaks):				451.6 RPD = 9
CalAmt %D:					-0.7	CalAmt %D:				-9.3

Total PCB Area Col1 (5.908 - 13.791) = 4638448 Col1 Total PCB = 0.9 ppm*

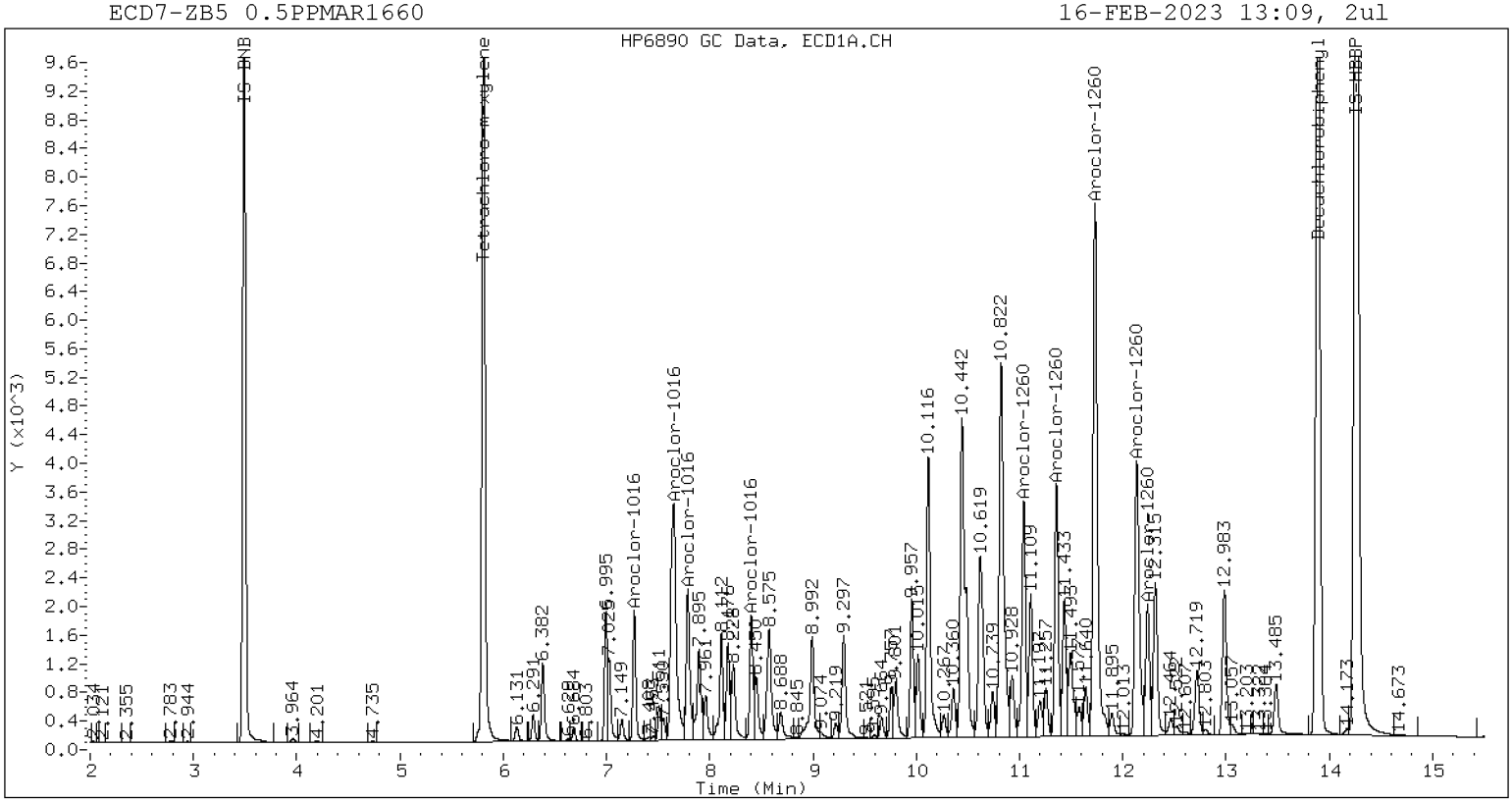
Total PCB Area Col2 (5.786 - 14.018) = 3867644 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

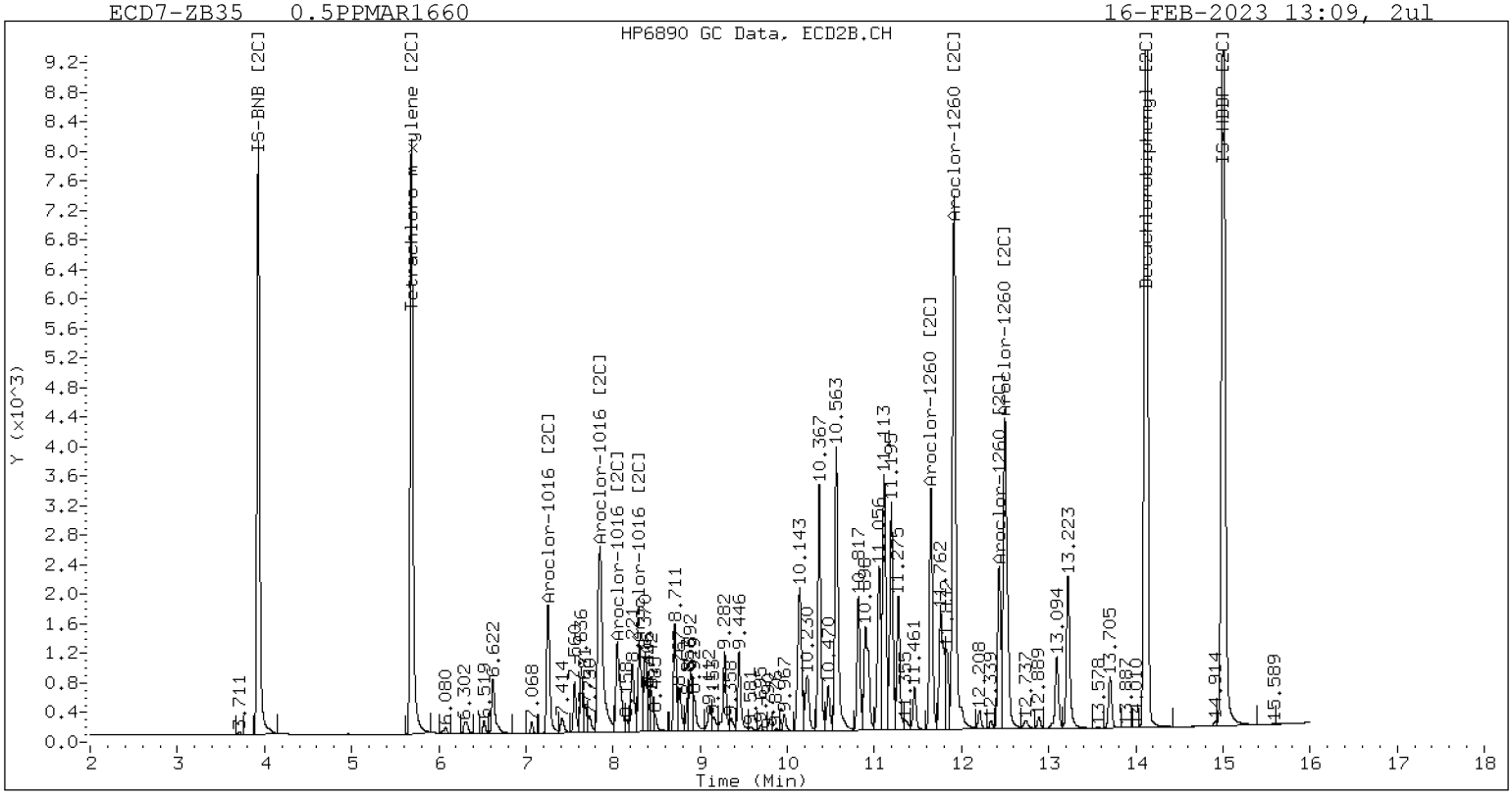
PCB Dual Column Chromatograms

ECD7-ZB5 0.5PPMAR1660 16-FEB-2023 13:09, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.5PPMAR1660 16-FEB-2023 13:09, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162308ECD7.D
Data file 2: /230216.b/230216.b/02162308ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1242
Client ID:
Injection Date: 16-FEB-2023 13:30
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	287664	5.686	0.000	229806	46.8	46.6	0.6	Tetrachloro-m-xylene
13.891	0.000	335023	14.117	-0.001	345735	37.9	37.1	2.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	432799	-14.0
Hexabromobiphenyl	647433	1004715	55.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	365812	8.6
Hexabromobiphenyl	382032	667992	74.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.269	0.000	32233	250.0	1	7.254	0.000	39556	250.0
Aroclor-1242	2	7.652	0.000	102000	250.0	2	7.853	0.000	85705	250.0
Aroclor-1242	3	8.403	0.000	30824	250.0	3	9.160	0.000	27091	250.0
Aroclor-1242	4	8.577	0.000	45526	250.0	4	9.587	0.000	32851	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 766603 Col1 Total PCB = 0.2 ppm*

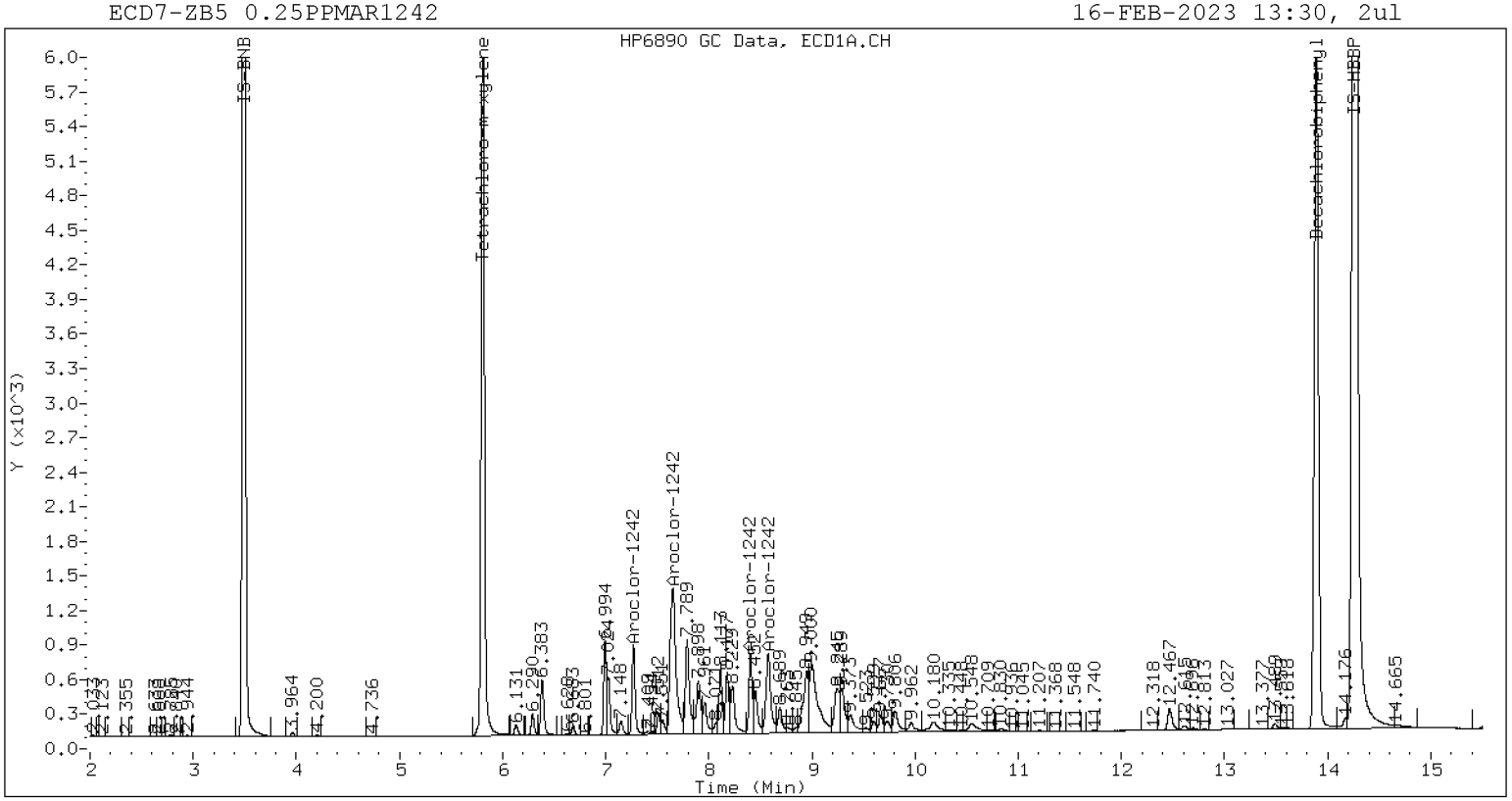
Total PCB Area Col2 (5.786 - 14.018) = 618238 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

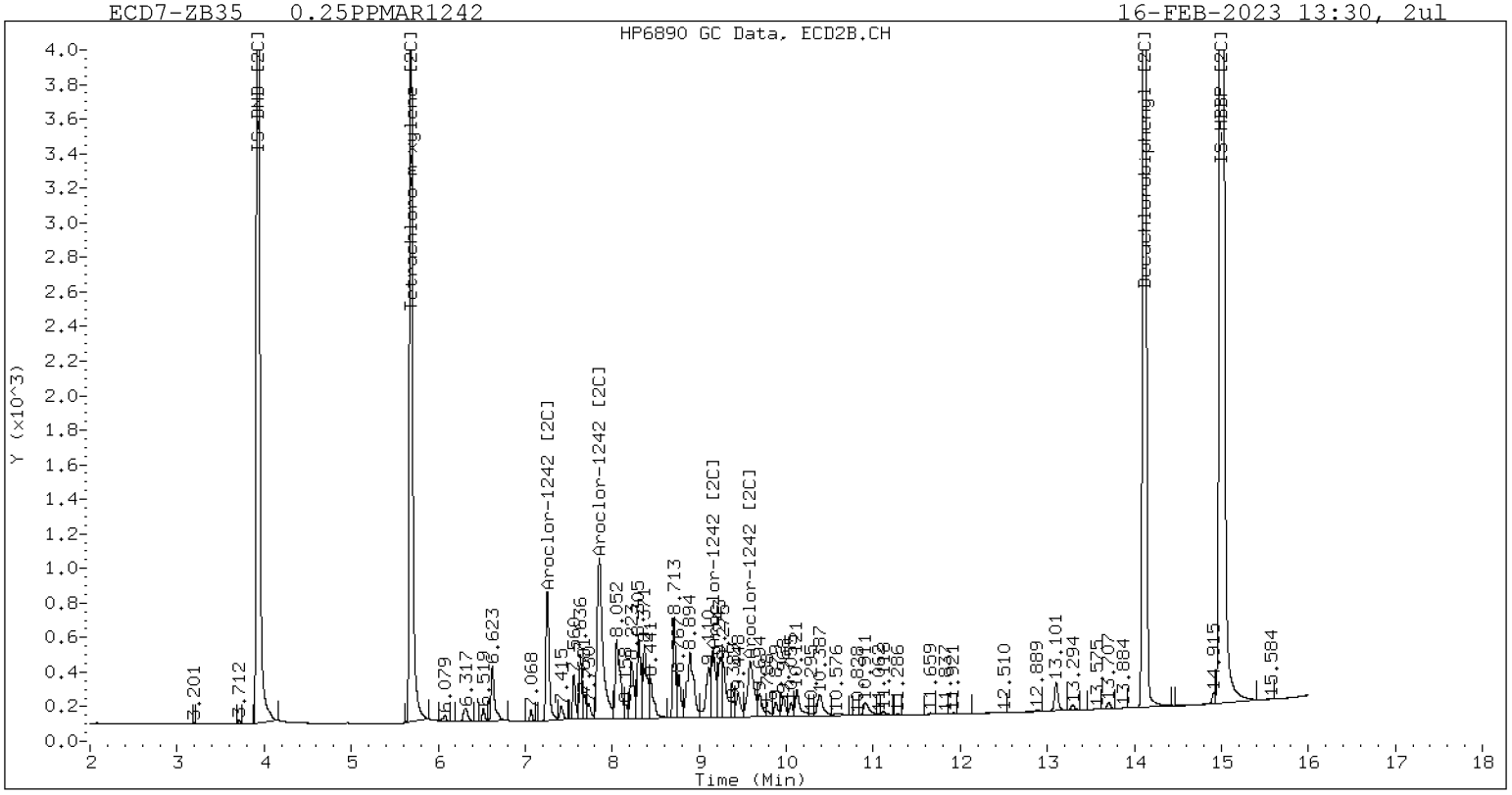
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1242 16-FEB-2023 13:30, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1242 16-FEB-2023 13:30, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162309ECD7.D
Data file 2: /230216.b/230216.b/02162309ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1248
Client ID:
Injection Date: 16-FEB-2023 13:51
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	235858	5.688	0.002	191205	38.1	38.3	0.5	Tetrachloro-m-xylene
13.889	-0.002	339581	14.117	-0.001	351690	38.5	38.0	1.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	435779	-13.4
Hexabromobiphenyl	647433	1000233	54.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	369685	9.7
Hexabromobiphenyl	382032	662877	73.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.403	0.000	52538	250.0	1	8.305	0.000	41694	250.0
Aroclor-1248	2	8.577	0.000	66305	250.0	2	8.712	0.000	43865	250.0
Aroclor-1248	3	8.996	0.000	93719	250.0	3	9.159	0.000	50687	250.0
Aroclor-1248	4	9.292	0.000	59273	250.0	4	9.581	0.000	61479	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1025602 Col1 Total PCB = 0.2 ppm*

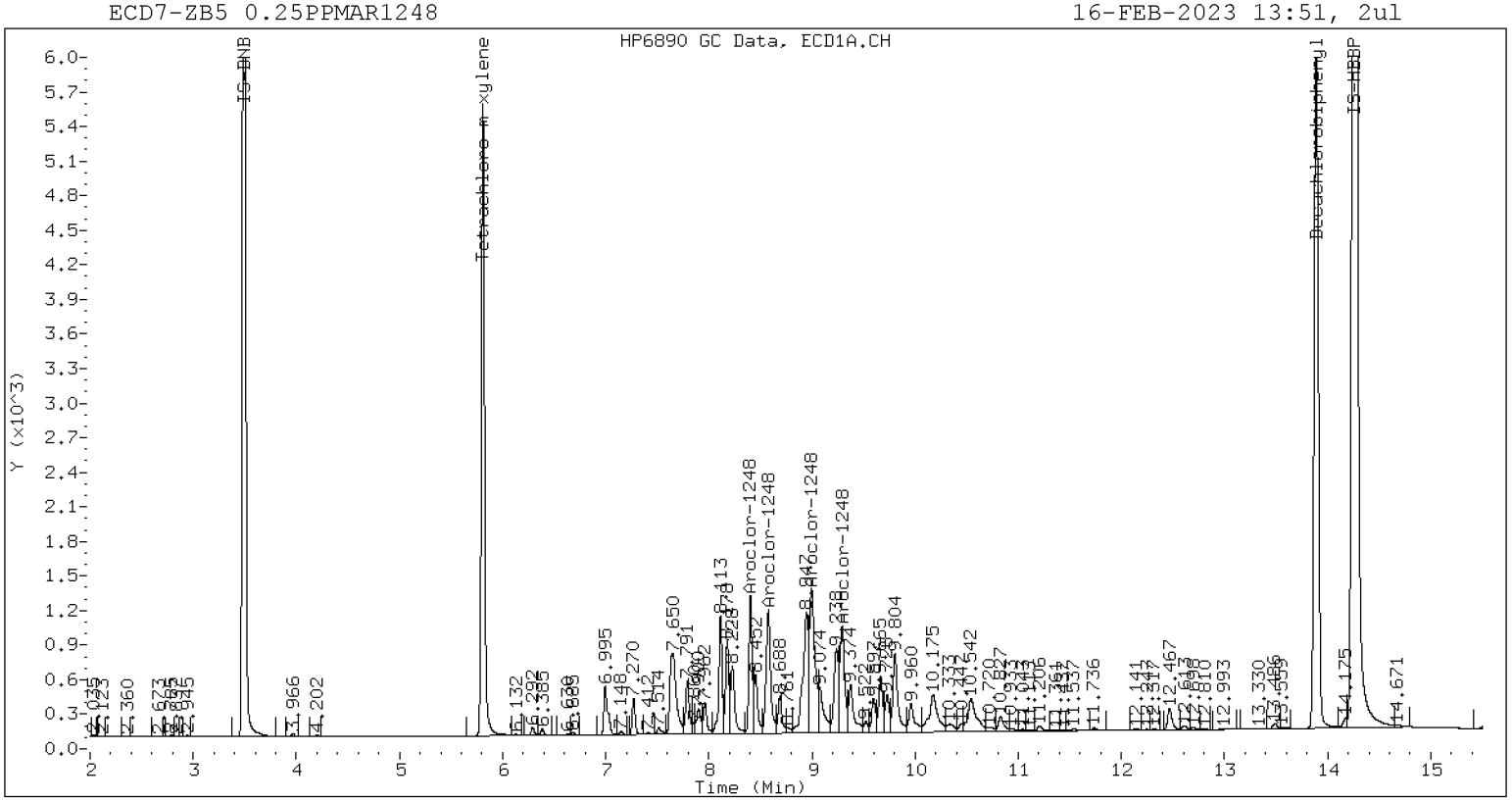
Total PCB Area Col2 (5.786 - 14.018) = 824415 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

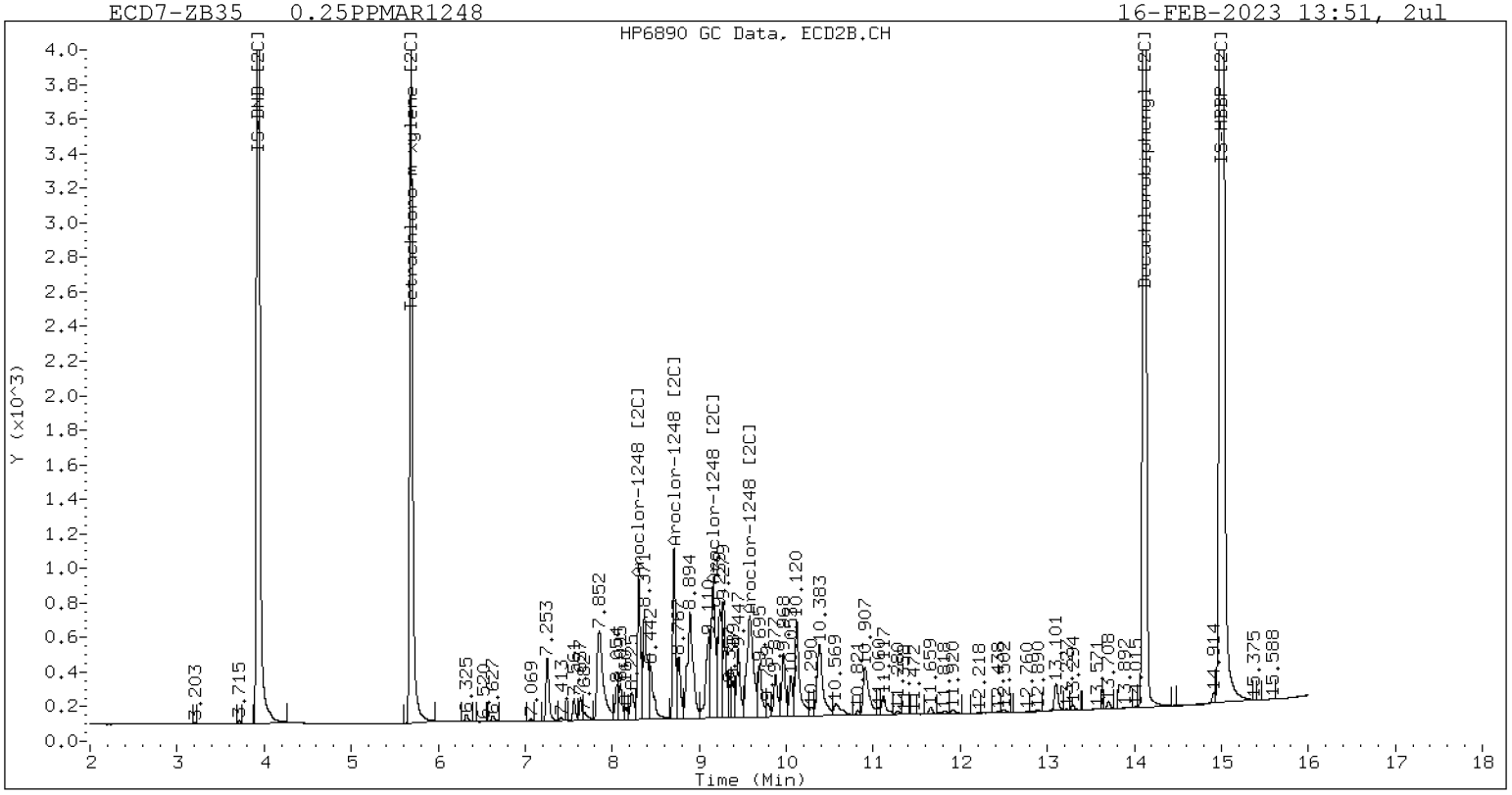
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1248 16-FEB-2023 13:51, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1248 16-FEB-2023 13:51, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162310ECD7.D
Data file 2: /230216.b/230216.b/02162310ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1254
Client ID:
Injection Date: 16-FEB-2023 14:12
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	235903	5.686	0.001	191667	38.0	38.3	0.7	Tetrachloro-m-xylene
13.891	0.000	345464	14.117	-0.001	355579	38.7	38.0	1.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	437427	-13.1
Hexabromobiphenyl	647433	1013635	56.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	371000	10.1
Hexabromobiphenyl	382032	671465	75.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	9.295	0.000	105834	250.0	1	9.447	0.000	65393	250.0
Aroclor-1254	2	9.374	0.000	41671	250.0	2	9.967	0.000	52822	250.0
Aroclor-1254	3	9.665	0.000	67447	250.0	3	10.120	0.000	115063	250.0
Aroclor-1254	4	9.803	0.000	134258	250.0	4	10.370	0.000	113530	250.0
Aroclor-1254	5	10.167	0.000	81893	250.0	5	10.566	0.000	57361	250.0

Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1385653 Col1 Total PCB = 0.3 ppm*

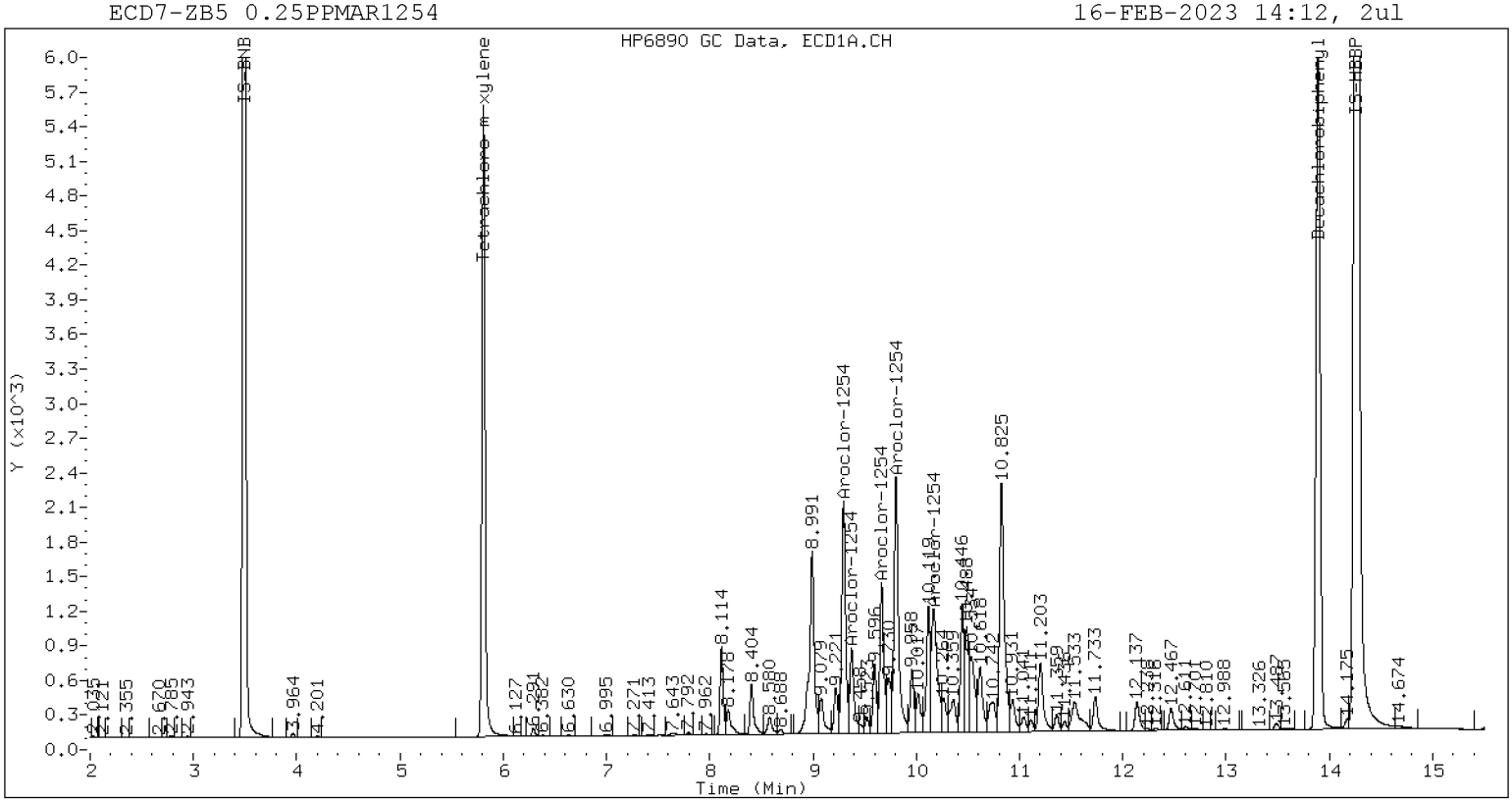
Total PCB Area Col2 (5.786 - 14.018) = 1106329 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

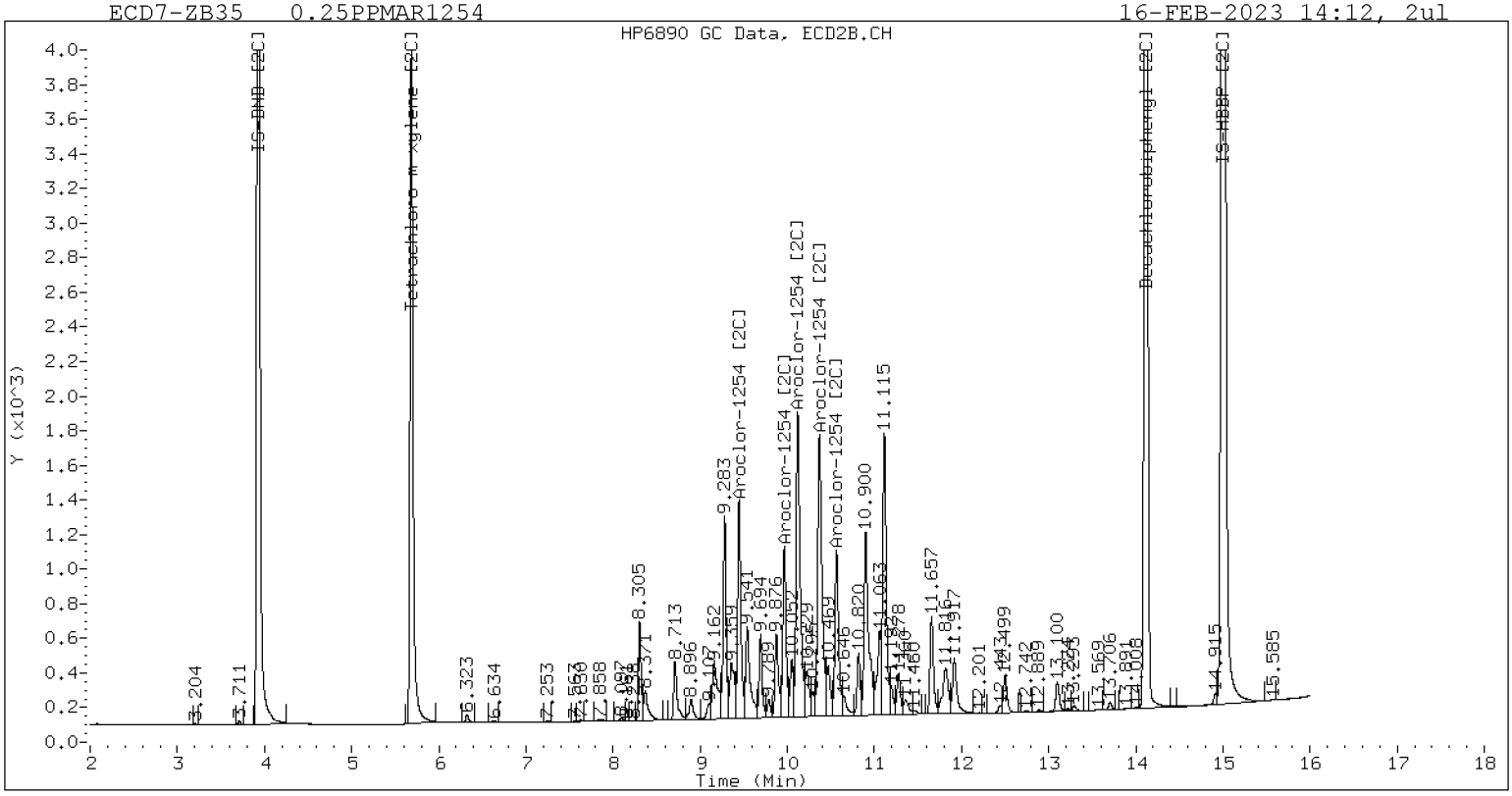
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1254 16-FEB-2023 14:12, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1254 16-FEB-2023 14:12, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

2162

Data file 1: /230216.b/02162311ECD7.D
Data file 2: /230216.b/230216.b/02162311ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR2162.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR2~~168~~
Client ID:
Injection Date: 16-FEB-2023 14:33
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	241501	5.686	-0.000	189710	38.6	38.6	0.2	Tetrachloro-m-xylene
13.891	0.000	336556	14.118	0.000	345795	38.0	37.2	2.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	440775	-12.4
Hexabromobiphenyl	647433	1005738	55.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	364664	8.2
Hexabromobiphenyl	382032	666787	74.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1221	1	4.732	0.000	8560	250.0	1	4.958	0.000	6777	250.0
Aroclor-1221	2	6.133	0.000	15969	250.0	2	6.298	0.000	14550	250.0
Aroclor-1221	3	6.383	0.000	36928	250.0	3	6.622	0.000	24370	250.0
	Total Col1Ave (3 peaks):				250.0	Total Col2Ave (3 peaks):				250.0 RPD = 0
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.824	0.000	73471	250.0	1	11.198	0.000	124591	250.0
Aroclor-1262	2	12.242	0.000	120422	250.0	2	11.649	0.000	107557	250.0
Aroclor-1262	3	12.317	0.000	129860	250.0	3	12.431	0.000	117102	250.0
Aroclor-1262	4	12.984	0.000	112297	250.0	4	12.500	0.000	186359	250.0
	Total Col1Ave (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
	Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1985753 Col1 Total PCB = 0.4 ppm*

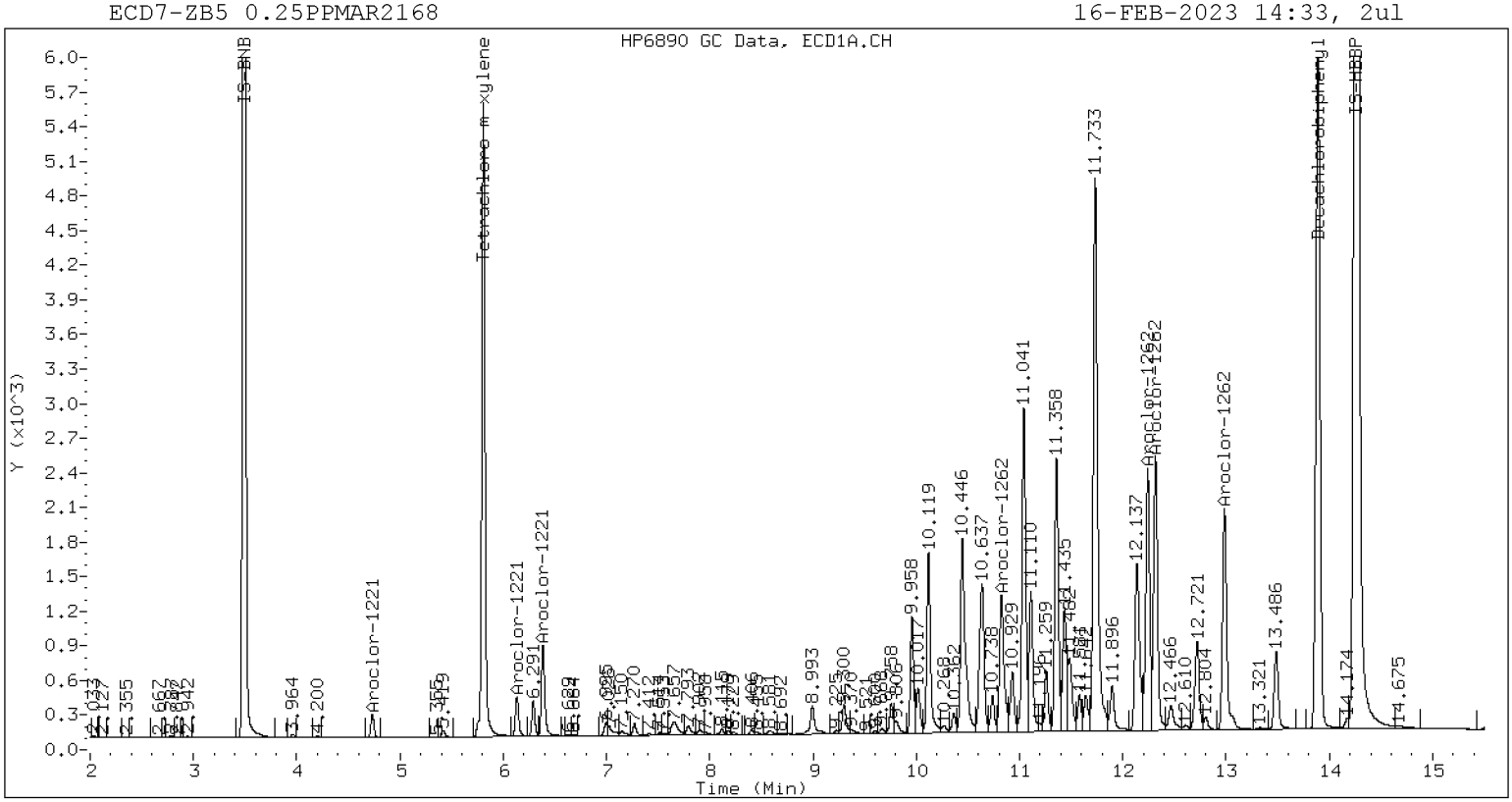
Total PCB Area Col2 (5.786 - 14.018) = 1689172 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

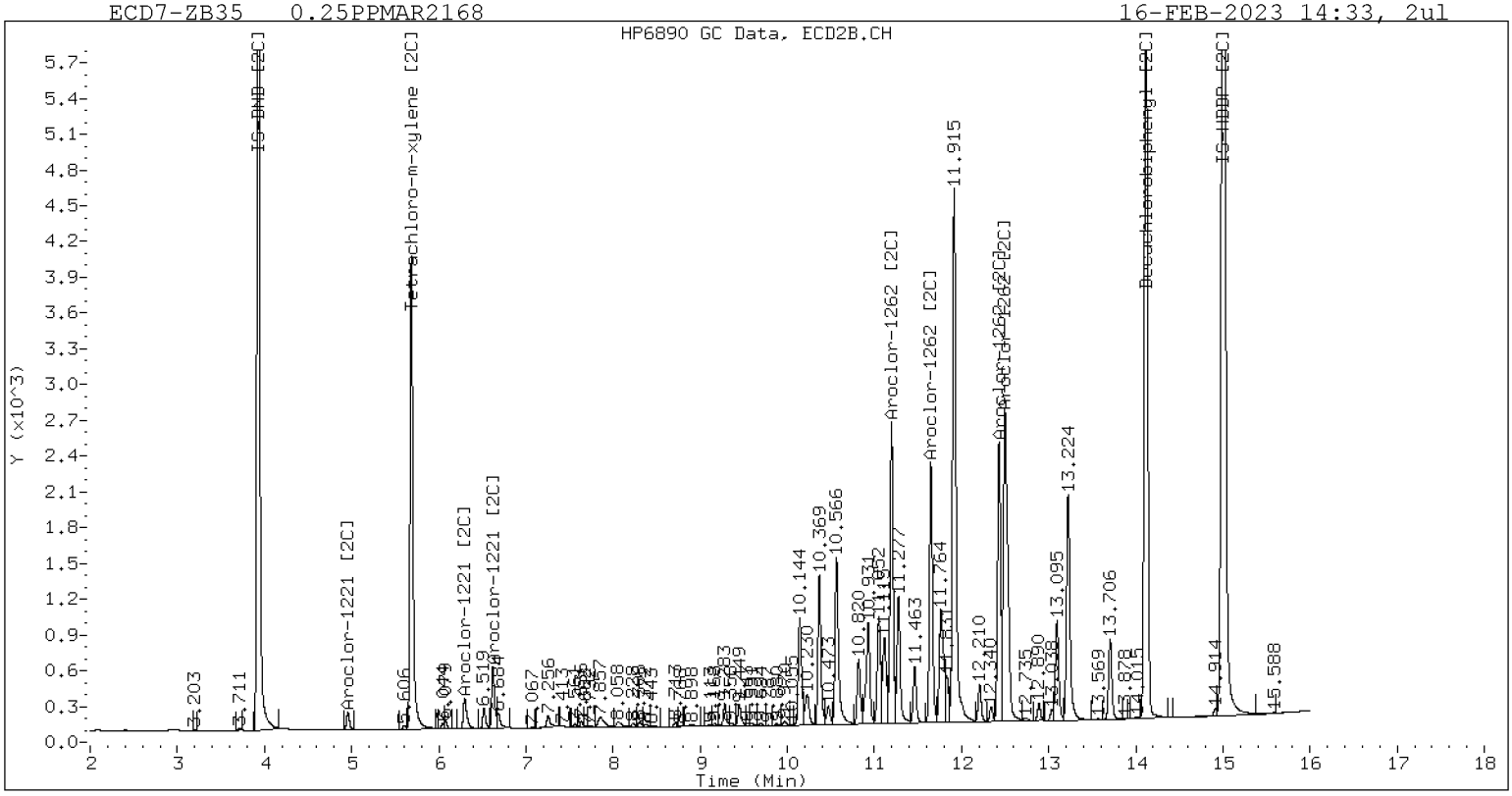
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR2168 16-FEB-2023 14:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR2168 16-FEB-2023 14:33, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162312ECD7.D
Data file 2: /230216.b/230216.b/02162312ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR3268.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR3268
Client ID:
Injection Date: 16-FEB-2023 14:54
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	244394	5.686	0.000	193636	39.3	39.4	0.2	Tetrachloro-m-xylene
13.891	0.000	497881	14.118	0.000	532832	55.7	57.0	2.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	438085	-13.0
Hexabromobiphenyl	647433	1014892	56.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	364382	8.2
Hexabromobiphenyl	382032	669957	75.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	4.732	0.000	5253	250.0	1	4.958	0.000	4040	250.0
Aroclor-1232	2	6.133	0.000	11086	250.0	2	7.254	0.000	22642	250.0
Aroclor-1232	3	7.654	0.000	53251	250.0	3	7.855	0.000	45239	250.0
Aroclor-1232	4	8.579	0.000	22019	250.0	4	8.712	0.000	12663	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	12.243	0.000	318381	250.0	1	12.431	0.000	304552	250.0
Aroclor-1268	2	12.314	0.000	316432	250.0	2	12.498	0.000	320370	250.0
Aroclor-1268	3	12.697	0.000	268530	250.0	3	12.890	0.000	250965	250.0
Aroclor-1268	4	13.487	0.000	822664	250.0	4	13.707	0.000	877009	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 2577331 Col1 Total PCB = 0.5 ppm*

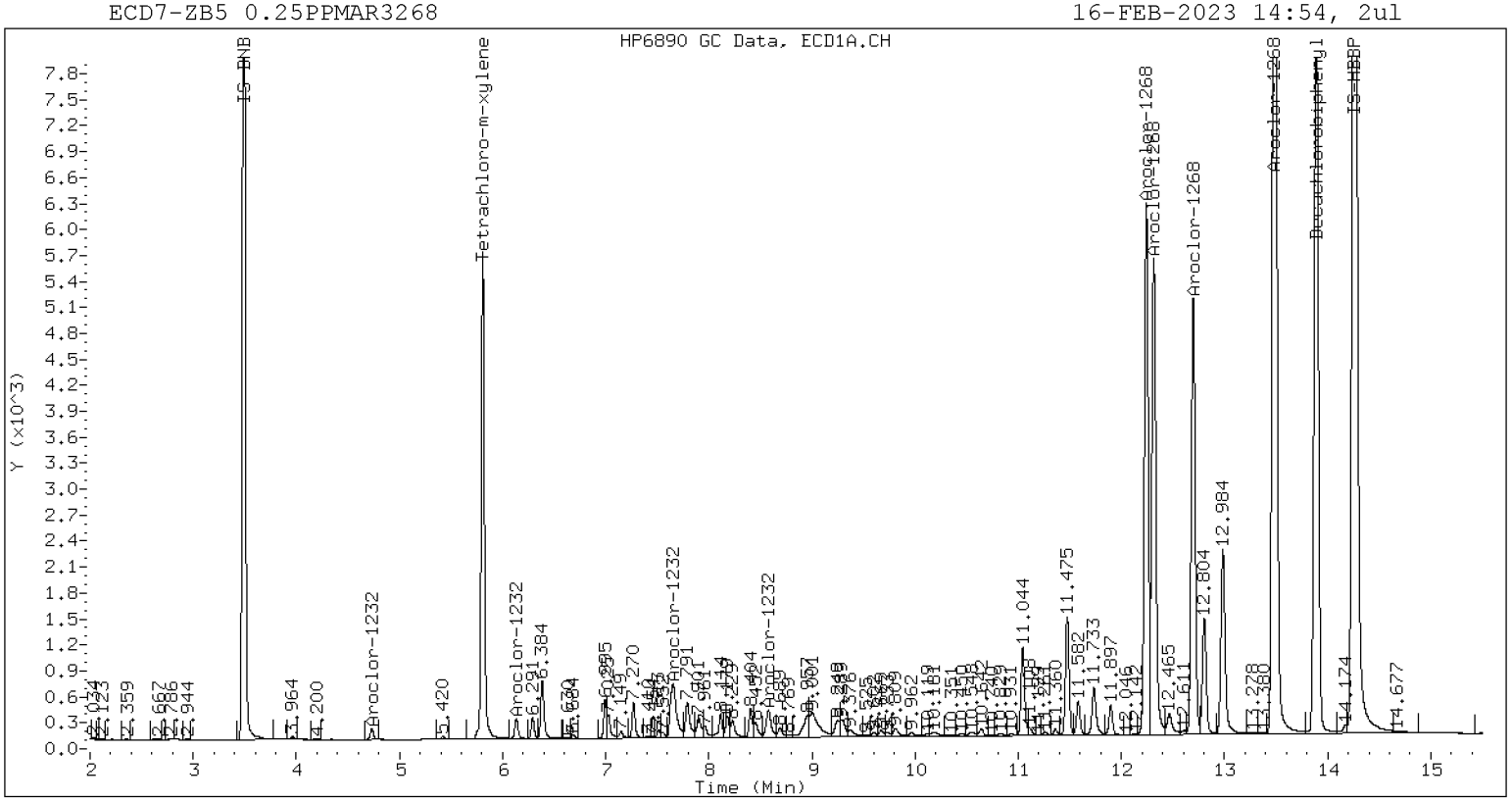
Total PCB Area Col2 (5.786 - 14.018) = 2462840 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

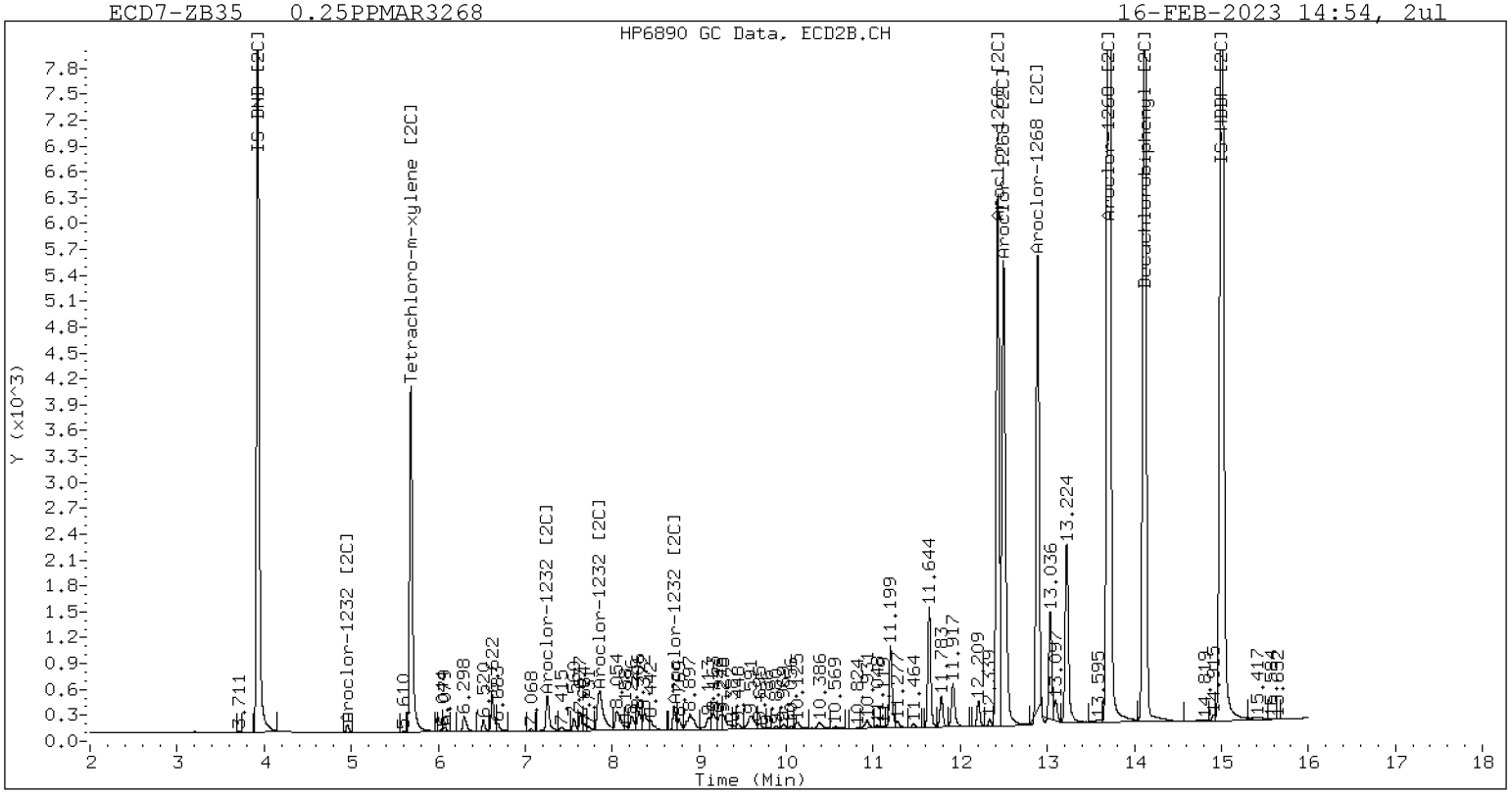
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR3268 16-FEB-2023 14:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR3268 16-FEB-2023 14:54, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162313ECD7.D
Data file 2: /230216.b/230216.b/02162313ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV
Client ID:
Injection Date: 16-FEB-2023 15:15
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.001	242919	5.685	-0.001	193061	37.3	37.2	0.3	Tetrachloro-m-xylene
13.891	-0.000	374845	14.118	0.000	388292	40.4	40.0	1.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	458820	-8.8
Hexabromobiphenyl	647433	1052678	62.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	384524	14.1
Hexabromobiphenyl	382032	695386	82.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	36442	218.1	1	7.253	-0.001	45357	215.3
Aroclor-1016	2	7.652	0.002	116510	217.8	2	7.853	0.002	99069	221.4
Aroclor-1016	3	7.789	0.002	51841	210.7	3	8.052	0.003	42476	230.8
Aroclor-1016	4	8.403	0.001	35760	220.8	4	8.305	0.001	32151	215.4
Total Col1Ave (4 peaks):		216.8				Total Col2Ave (4 peaks):			220.7	RPD = 2
Corrected Ave (3 peaks):		215.5				Corrected Ave (3 peaks):			217.4	RPD = 1
Aroclor-1221	1	4.732	0.000	272	7.6	1	---			0.0
Aroclor-1221	2	6.131	-0.002	4384	65.9	2	6.302	0.004	5219	85.0
Aroclor-1221	3	6.383	-0.000	24508	159.4	3	6.622	0.001	21028	204.6
Total Col1Ave (3 peaks):		77.7				Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.732	0.000	272	12.4	1	---			0.0
Aroclor-1232	2	6.131	-0.002	4384	94.4	2	7.253	-0.001	45357	474.6
Aroclor-1232	3	7.652	-0.002	116510	522.3	3	7.853	-0.002	99069	518.8
Aroclor-1232	4	8.577	-0.002	49511	536.7	4	8.712	-0.001	31220	584.1
Total Col1Ave (4 peaks):		291.4				Total Col2Ave (3 peaks):			525.8	RPD = 57*
Corrected Ave (3 peaks):		209.7				Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	36442	266.6	1	7.253	-0.001	45357	272.7
Aroclor-1242	2	7.652	0.000	116510	269.4	2	7.853	0.000	99069	274.9
Aroclor-1242	3	8.403	0.000	35760	273.6	3	9.113	-0.047	17818	156.4
Aroclor-1242	4	8.577	-0.000	49511	256.5	4	9.582	-0.005	1661	12.0
Total Col1Ave (4 peaks):		266.5				Total Col2Ave (4 peaks):			179.0	RPD = 39
Corrected Ave (3 peaks):		264.1				Corrected Ave (3 peaks):			147.1	RPD = 57*
Aroclor-1248	1	8.403	0.000	35760	161.6	1	8.305	-0.001	32151	185.3
Aroclor-1248	2	8.577	-0.000	49511	177.3	2	8.712	0.000	31220	171.1
Aroclor-1248	3	8.992	-0.004	46666	118.2	3	9.113	-0.046	17818	84.5
Aroclor-1248	4	9.299	0.007	30647	122.8	4	9.582	0.001	1661	6.5
Total Col1Ave (4 peaks):		145.0				Total Col2Ave (4 peaks):			111.8	RPD = 26
Corrected Ave (3 peaks):		134.2				Corrected Ave (3 peaks):			87.4	RPD = 42*
Aroclor-1254	1	9.299	0.004	30647	69.0	1	9.447	0.001	22012	81.2
Aroclor-1254	2	---			0.0	2	9.969	0.002	2772	12.7
Aroclor-1254	3	9.667	0.002	3608	12.7	3	10.144	0.025	57546	120.6
Aroclor-1254	4	9.805	0.002	12639	22.4	4	10.369	-0.002	77590	164.8
Aroclor-1254	5	10.117	-0.050	100524	292.6	5	10.566	-0.000	106735	448.8
Total Col1Ave (4 peaks):		99.2				Total Col2Ave (5 peaks):			165.6	RPD = 50*
Corrected Ave (3 peaks):		34.7				Corrected Ave (4 peaks):			94.8	RPD = 93*
Aroclor-1260	1	11.042	0.002	99629	274.5	1	11.651	0.001	89434	231.9
Aroclor-1260	2	11.359	0.002	100112	269.7	2	11.915	0.001	237947	245.3
Aroclor-1260	3	11.732	0.002	260880	265.3	3	12.433	0.001	63686	245.4
Aroclor-1260	4	12.137	0.003	124998	250.4	4	12.500	0.002	157792	242.5
Aroclor-1260	5	12.242	0.001	58944	275.3	NS	---			----
Total Col1Ave (5 peaks):		267.0				Total Col2Ave (4 peaks):			241.3	RPD = 10
Corrected Ave (4 peaks):		265.0				Corrected Ave (3 peaks):			239.9	RPD = 10
Aroclor-1262	1	10.824	-0.001	144319	469.2	1	11.197	-0.000	90434	174.0
Aroclor-1262	2	12.242	-0.000	58944	116.9	2	11.651	0.002	89434	199.3
Aroclor-1262	3	12.316	-0.001	73272	134.8	3	12.433	0.002	63686	130.4
Aroclor-1262	4	12.985	0.001	66451	141.3	4	12.500	-0.000	157792	203.0
Total Col1Ave (4 peaks):		215.5				Total Col2Ave (4 peaks):			176.7	RPD = 20
Corrected Ave (3 peaks):		131.0				Corrected Ave (3 peaks):			167.9	RPD = 25
Aroclor-1268	1	12.242	-0.001	58944	44.6	1	12.433	0.002	63686	50.4
Aroclor-1268	2	12.316	0.002	73272	55.8	2	12.500	0.002	157792	118.6
Aroclor-1268	3	12.722	0.025	29543	26.5	3	12.890	0.000	1866	1.8
Aroclor-1268	4	13.486	-0.001	13453	3.9	4	13.707	0.000	11995	3.3
Total Col1Ave (4 peaks):		32.7				Total Col2Ave (4 peaks):			43.5	RPD = 28
Corrected Ave (3 peaks):		25.0				Corrected Ave (3 peaks):			18.5	RPD = 30

Total PCB Area Col1 (5.908 - 13.791) = 2405704 Col1 Total PCB = 0.5 ppm*

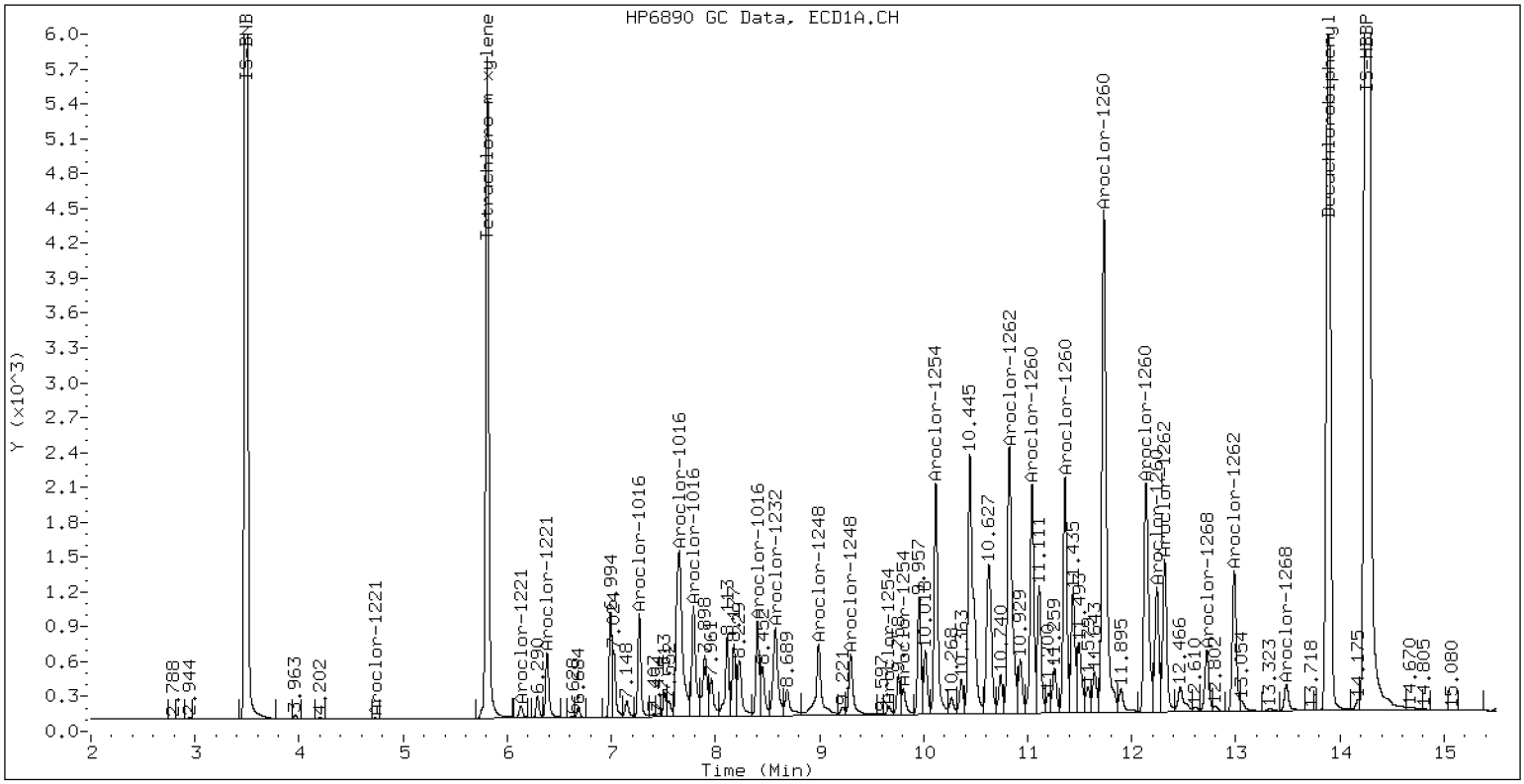
Total PCB Area Col2 (5.786 - 14.018) = 1998655 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

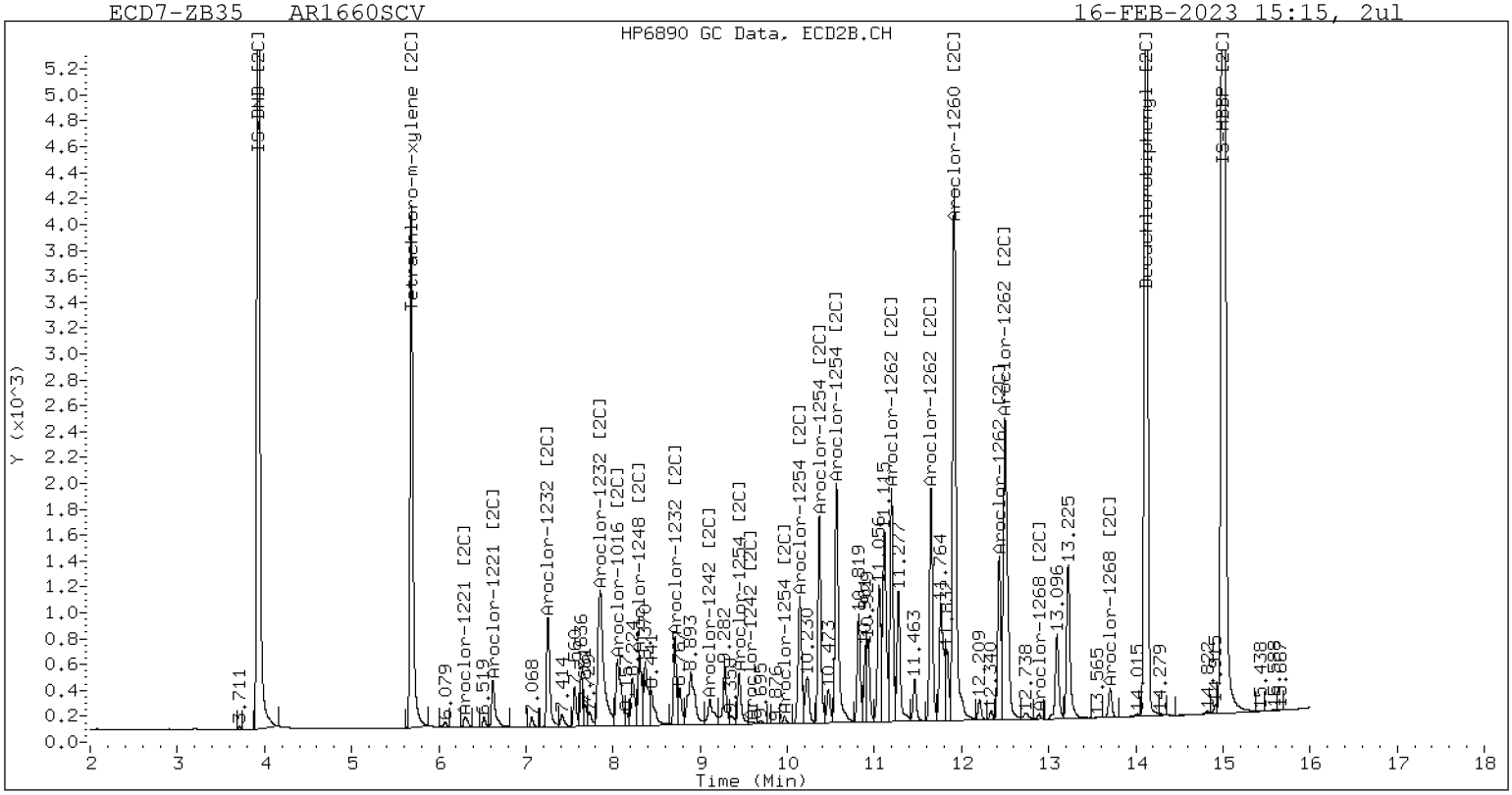
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660SCV 16-FEB-2023 15:15, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660SCV 16-FEB-2023 15:15, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162314ECD7.D
Data file 2: /230216.b/230216.b/02162314ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV
Client ID:
Injection Date: 16-FEB-2023 15:36
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	240392	5.686	0.000	191518	36.8	36.8	0.0	Tetrachloro-m-xylene
13.891	0.000	372444	14.118	-0.000	384306	40.3	39.9	1.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	460847	-8.4
Hexabromobiphenyl	647433	1048824	62.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	386112	14.6
Hexabromobiphenyl	382032	690141	80.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	26450	157.6	1	7.253	-0.001	35202	166.4
Aroclor-1016	2	7.651	0.001	91590	170.4	2	7.851	-0.000	76062	169.2
Aroclor-1016	3	7.789	0.002	38405	155.4	3	8.051	0.002	31745	171.8
Aroclor-1016	4	8.403	0.001	28918	177.8	4	8.304	0.000	24379	162.7
Total Col1Ave (4 peaks):		165.3				Total Col2Ave (4 peaks):			167.5	RPD = 1
Corrected Ave (3 peaks):		161.1				Corrected Ave (3 peaks):			166.1	RPD = 3
Aroclor-1221	1	4.736	0.004	158	4.4	1	---			0.0
Aroclor-1221	2	6.131	-0.002	3413	51.1	2	6.318	0.020	4305	69.9
Aroclor-1221	3	6.383	-0.000	18978	122.9	3	6.623	0.001	15561	150.8
Total Col1Ave (3 peaks):		59.5				Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.736	0.004	158	7.1	1	---			0.0
Aroclor-1232	2	6.131	-0.002	3413	73.2	2	7.253	-0.001	35202	366.8
Aroclor-1232	3	7.651	-0.003	91590	408.8	3	7.851	-0.004	76062	396.7
Aroclor-1232	4	8.577	-0.002	48090	519.0	4	8.712	-0.001	24445	455.4
Total Col1Ave (4 peaks):		252.0				Total Col2Ave (3 peaks):			406.3	RPD = 47*
Corrected Ave (3 peaks):		163.0				Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	26450	192.7	1	7.253	-0.000	35202	210.8
Aroclor-1242	2	7.651	-0.001	91590	210.8	2	7.851	-0.002	76062	210.2
Aroclor-1242	3	8.403	-0.000	28918	220.3	3	9.156	-0.004	26140	228.5
Aroclor-1242	4	8.577	-0.000	48090	248.0	4	9.580	-0.007	33659	242.7
Total Col1Ave (4 peaks):		217.9				Total Col2Ave (4 peaks):			223.1	RPD = 2
Corrected Ave (3 peaks):		207.9				Corrected Ave (3 peaks):			216.5	RPD = 4
Aroclor-1248	1	8.403	-0.000	28918	130.1	1	8.304	-0.001	24379	140.0
Aroclor-1248	2	8.577	-0.000	48090	171.5	2	8.712	0.000	24445	133.4
Aroclor-1248	3	8.997	0.001	47230	119.1	3	9.156	-0.003	26140	123.4
Aroclor-1248	4	9.292	0.001	23789	94.9	4	9.580	-0.001	33659	131.0
Total Col1Ave (4 peaks):		128.9				Total Col2Ave (4 peaks):			132.0	RPD = 2
Corrected Ave (3 peaks):		114.7				Corrected Ave (3 peaks):			129.3	RPD = 12
Aroclor-1254	1	9.292	-0.003	23789	53.3	1	9.446	-0.000	12605	46.3
Aroclor-1254	2	9.374	0.001	9634	54.9	2	9.967	-0.000	8527	38.8
Aroclor-1254	3	9.666	0.001	10685	37.6	3	10.119	-0.001	16959	35.4
Aroclor-1254	4	9.803	-0.000	18245	32.2	4	10.375	0.005	17612	37.3
Aroclor-1254	5	10.169	0.001	13394	38.8	5	10.568	0.003	5160	21.6
Total Col1Ave (5 peaks):		43.4				Total Col2Ave (5 peaks):			35.9	RPD = 19
Corrected Ave (4 peaks):		40.5				Corrected Ave (4 peaks):			33.3	RPD = 20
Aroclor-1260	1	11.043	0.002	200	0.6	1	11.659	0.009	1919	5.0
Aroclor-1260	2	11.361	0.004	305	0.8	2	11.922	0.007	1126	1.2
Aroclor-1260	3	11.735	0.004	595	0.6	3	12.438	0.006	127	0.5
Aroclor-1260	4	12.143	0.009	717	1.4	4	12.501	0.003	670	1.0
Aroclor-1260	5	12.318	0.078	265	1.2	NS	---			----
Total Col1Ave (5 peaks):		0.9				Total Col2Ave (4 peaks):			1.9	RPD = 70*
Corrected Ave (4 peaks):		0.8				Corrected Ave (3 peaks):			0.9	RPD = 11
Aroclor-1262	1	10.827	0.003	7919	25.8	1	11.117	-0.081	6747	13.1
Aroclor-1262	2	12.318	0.076	265	0.5	2	11.659	0.010	1919	4.3
Aroclor-1262	3	---			0.0	3	12.438	0.007	127	0.3
Aroclor-1262	4	13.032	0.048	704	1.5	4	12.501	0.001	670	0.9
Total Col1Ave (3 peaks):		9.3				Total Col2Ave (4 peaks):			4.6	RPD = 67*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			1.8	
Aroclor-1268	1	12.318	0.075	265	0.2	1	12.438	0.007	127	0.1
Aroclor-1268	2	---			0.0	2	12.501	0.003	670	0.5
Aroclor-1268	3	12.613	-0.084	2956	2.7	3	---			0.0
Aroclor-1268	4	13.493	0.006	820	0.2	4	13.707	0.000	334	0.1
Total Col1Ave (3 peaks):		1.0				Total Col2Ave (3 peaks):			0.2	RPD = 126*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.908 - 13.791) = 754431 Col1 Total PCB = 0.1 ppm*

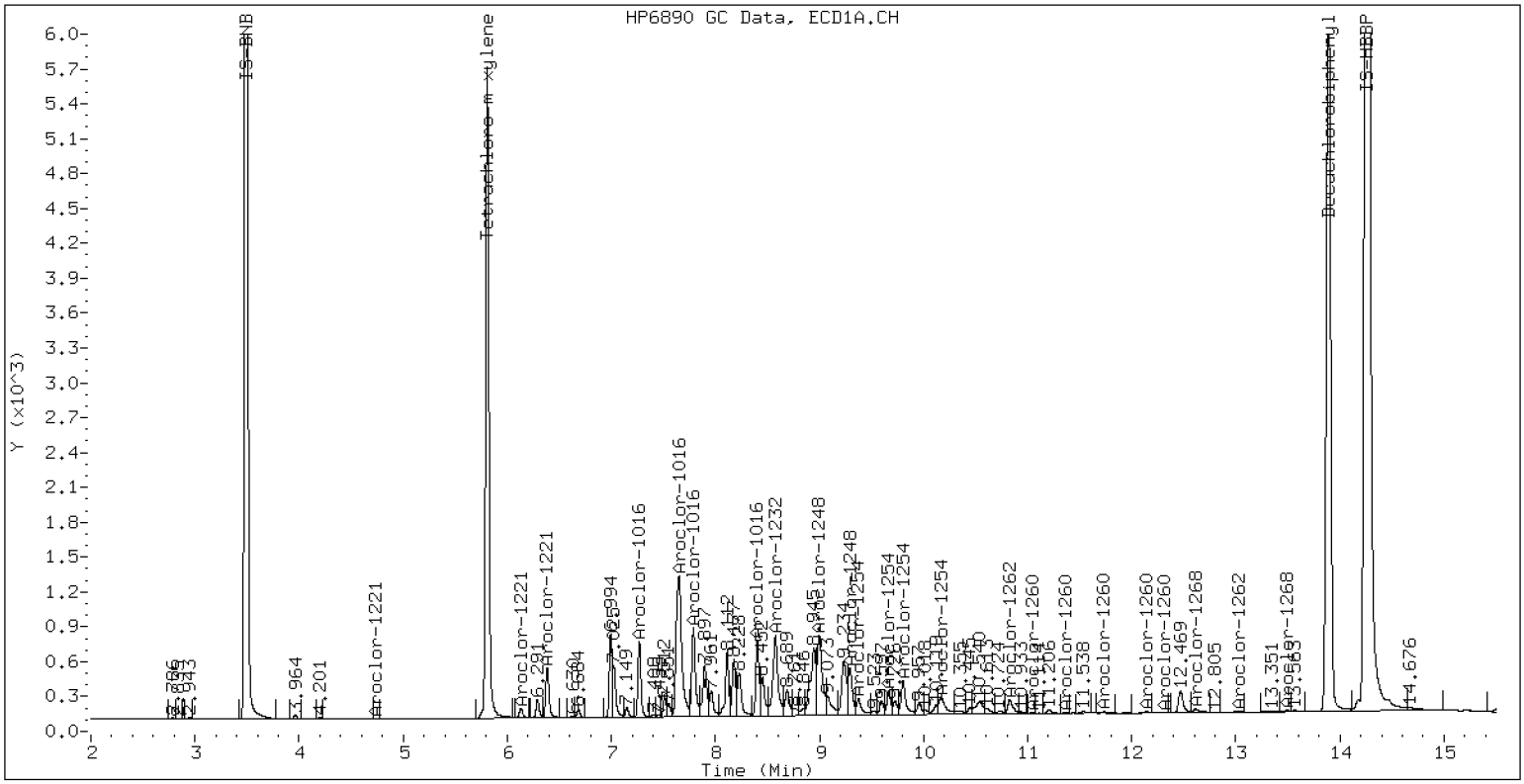
Total PCB Area Col2 (5.786 - 14.018) = 609458 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

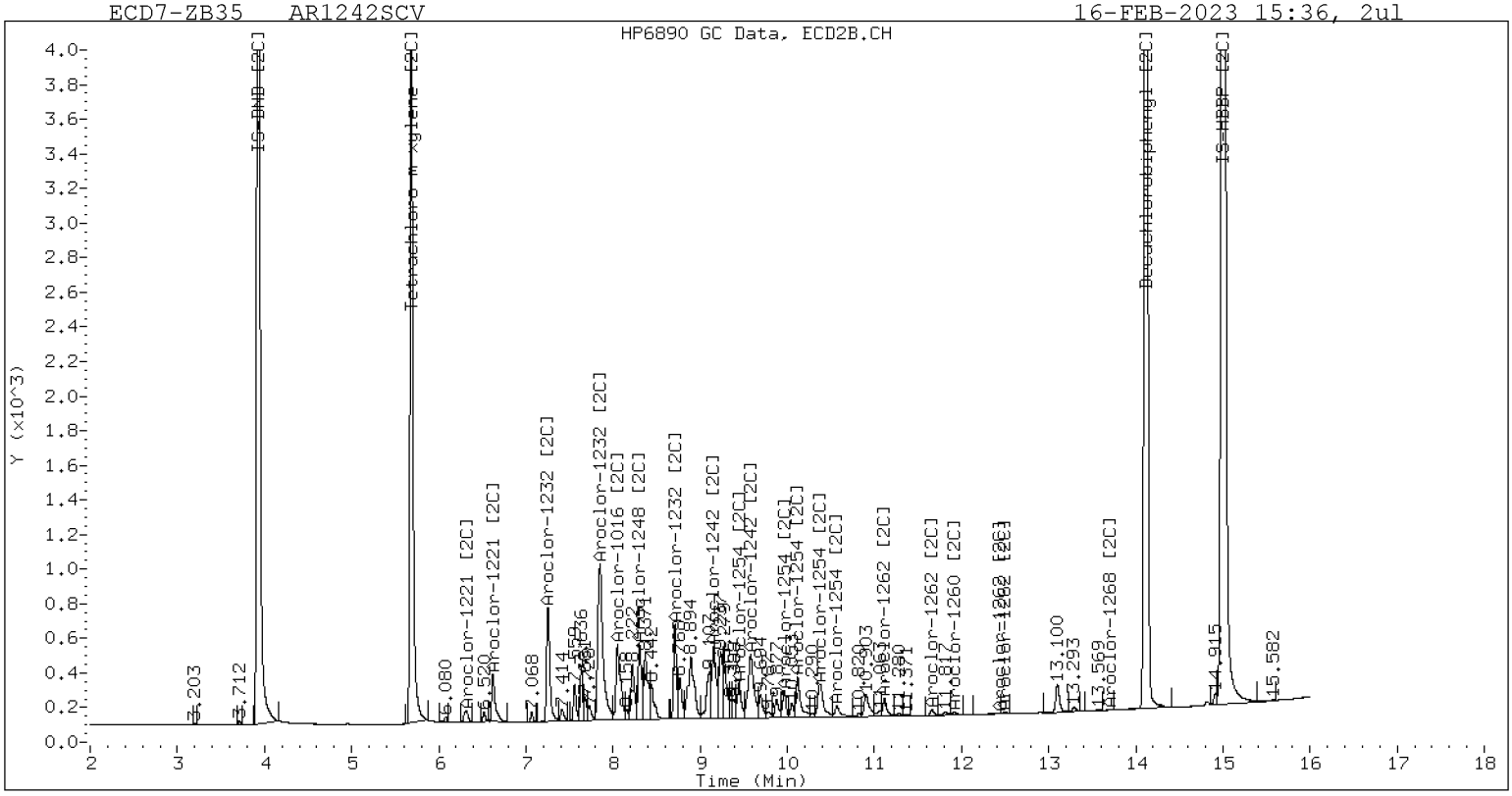
PCB Dual Column Chromatograms

ECD7-ZB5 AR1242SCV 16-FEB-2023 15:36, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242SCV 16-FEB-2023 15:36, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162315ECD7.D
Data file 2: /230216.b/230216.b/02162315ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV
Client ID:
Injection Date: 16-FEB-2023 15:57
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	235232	5.686	0.000	187353	36.5	36.5	0.1	Tetrachloro-m-xylene
13.891	0.000	371896	14.118	0.000	374279	41.4	40.1	3.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	454293	-9.7
Hexabromobiphenyl	647433	1020262	57.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	380923	13.1
Hexabromobiphenyl	382032	669927	75.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	12869	77.8	1	7.252	-0.002	17659	84.6
Aroclor-1016	2	7.649	-0.001	59048	111.5	2	7.852	0.001	49924	112.6
Aroclor-1016	3	7.791	0.004	23385	96.0	3	8.054	0.004	9755	53.5
Aroclor-1016	4	8.403	0.001	51659	322.2	4	8.305	0.001	40334	272.8
Total Col1Ave (4 peaks):					151.9	Total Col2Ave (4 peaks):				130.9 RPD = 15
Corrected Ave (3 peaks):					95.1	Corrected Ave (3 peaks):				83.6 RPD = 13
Aroclor-1221	1	4.639	-0.093	125	3.5	1	---			0.0
Aroclor-1221	2	6.133	-0.000	396	6.0	2	6.324	0.026	2135	35.1
Aroclor-1221	3	6.384	0.001	2262	14.9	3	6.626	0.005	1703	16.7
Total Col1Ave (3 peaks):					8.1	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.639	-0.093	125	5.7	1	---			0.0
Aroclor-1232	2	6.133	0.000	396	8.6	2	7.252	-0.003	17659	186.5
Aroclor-1232	3	7.649	-0.005	59048	267.3	3	7.852	-0.003	49924	263.9
Aroclor-1232	4	8.577	-0.002	65165	713.5	4	8.712	-0.000	42481	802.3
Total Col1Ave (4 peaks):					248.8	Total Col2Ave (3 peaks):				417.6 RPD = 51*
Corrected Ave (3 peaks):					93.9	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	12869	95.1	1	7.252	-0.002	17659	107.2
Aroclor-1242	2	7.649	-0.003	59048	137.9	2	7.852	-0.000	49924	139.9
Aroclor-1242	3	8.403	0.000	51659	399.2	3	9.160	0.001	49159	435.7
Aroclor-1242	4	8.577	-0.000	65165	340.9	4	9.582	-0.005	57018	416.7
Total Col1Ave (4 peaks):					243.3	Total Col2Ave (4 peaks):				274.8 RPD = 12
Corrected Ave (3 peaks):					191.3	Corrected Ave (3 peaks):				221.2 RPD = 15
Aroclor-1248	1	8.403	0.000	51659	235.8	1	8.305	-0.000	40334	234.7
Aroclor-1248	2	8.577	-0.000	65165	235.7	2	8.712	0.000	42481	235.0
Aroclor-1248	3	8.997	0.001	90358	231.2	3	9.160	0.002	49159	235.3
Aroclor-1248	4	9.292	0.000	60263	243.8	4	9.582	0.001	57018	225.0
Total Col1Ave (4 peaks):					236.6	Total Col2Ave (4 peaks):				232.5 RPD = 2
Corrected Ave (3 peaks):					234.2	Corrected Ave (3 peaks):				231.6 RPD = 1
Aroclor-1254	1	9.292	-0.003	60263	137.1	1	9.447	0.001	22366	83.3
Aroclor-1254	2	9.373	-0.000	30778	177.8	2	9.968	0.001	20179	93.0
Aroclor-1254	3	9.666	0.001	25929	92.5	3	10.121	0.001	37594	79.6
Aroclor-1254	4	9.806	0.003	44678	80.1	4	10.384	0.014	37032	79.4
Aroclor-1254	5	10.177	0.010	31103	91.4	5	10.571	0.005	8221	34.9
Total Col1Ave (5 peaks):					115.8	Total Col2Ave (5 peaks):				74.0 RPD = 44*
Corrected Ave (4 peaks):					100.3	Corrected Ave (4 peaks):				69.3 RPD = 37
Aroclor-1260	1	11.045	0.004	1084	3.1	1	11.659	0.009	1947	5.2
Aroclor-1260	2	11.359	0.002	556	1.5	2	11.920	0.006	1354	1.4
Aroclor-1260	3	11.734	0.003	872	0.9	3	12.426	-0.006	2386	9.5
Aroclor-1260	4	12.143	0.009	431	0.9	4	12.501	0.004	1186	1.9
Aroclor-1260	5	12.243	0.003	275	1.3	NS	---			----
Total Col1Ave (5 peaks):					1.6	Total Col2Ave (4 peaks):				4.5 RPD = 98*
Corrected Ave (4 peaks):					1.2	Corrected Ave (3 peaks):				2.9 RPD = 84*
Aroclor-1262	1	10.828	0.003	9454	31.7	1	11.119	-0.079	7326	14.6
Aroclor-1262	2	12.243	0.001	275	0.6	2	11.659	0.010	1947	4.5
Aroclor-1262	3	12.321	0.005	357	0.7	3	12.426	-0.005	2386	5.1
Aroclor-1262	4	12.984	-0.001	1676	3.7	4	12.501	0.002	1186	1.6
Total Col1Ave (4 peaks):					9.2	Total Col2Ave (4 peaks):				6.4 RPD = 35
Corrected Ave (3 peaks):					1.6	Corrected Ave (3 peaks):				3.7 RPD = 78*
Aroclor-1268	1	12.243	0.000	275	0.2	1	12.426	-0.004	2386	2.0
Aroclor-1268	2	12.321	0.007	357	0.3	2	12.501	0.004	1186	0.9
Aroclor-1268	3	12.614	-0.084	992	0.9	3	12.898	0.008	102	0.1
Aroclor-1268	4	13.493	0.006	969	0.3	4	13.674	-0.032	1135	0.3
Total Col1Ave (4 peaks):					0.4	Total Col2Ave (4 peaks):				0.8 RPD = 64*
Corrected Ave (3 peaks):					0.3	Corrected Ave (3 peaks):				0.5 RPD = 53*

Total PCB Area Col1 (5.908 - 13.791) = 1015830 Col1 Total PCB = 0.2 ppm*

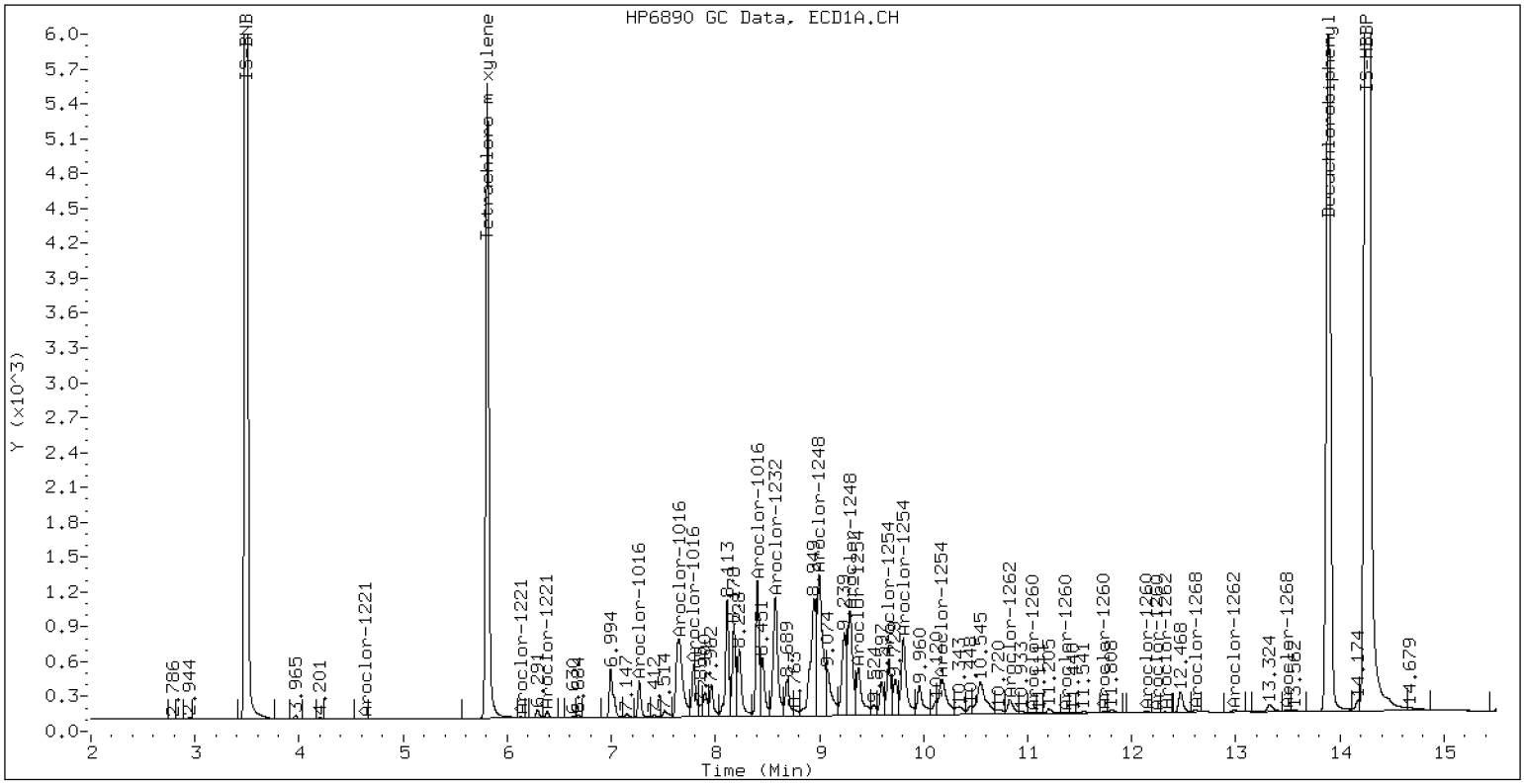
Total PCB Area Col2 (5.786 - 14.018) = 794946 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

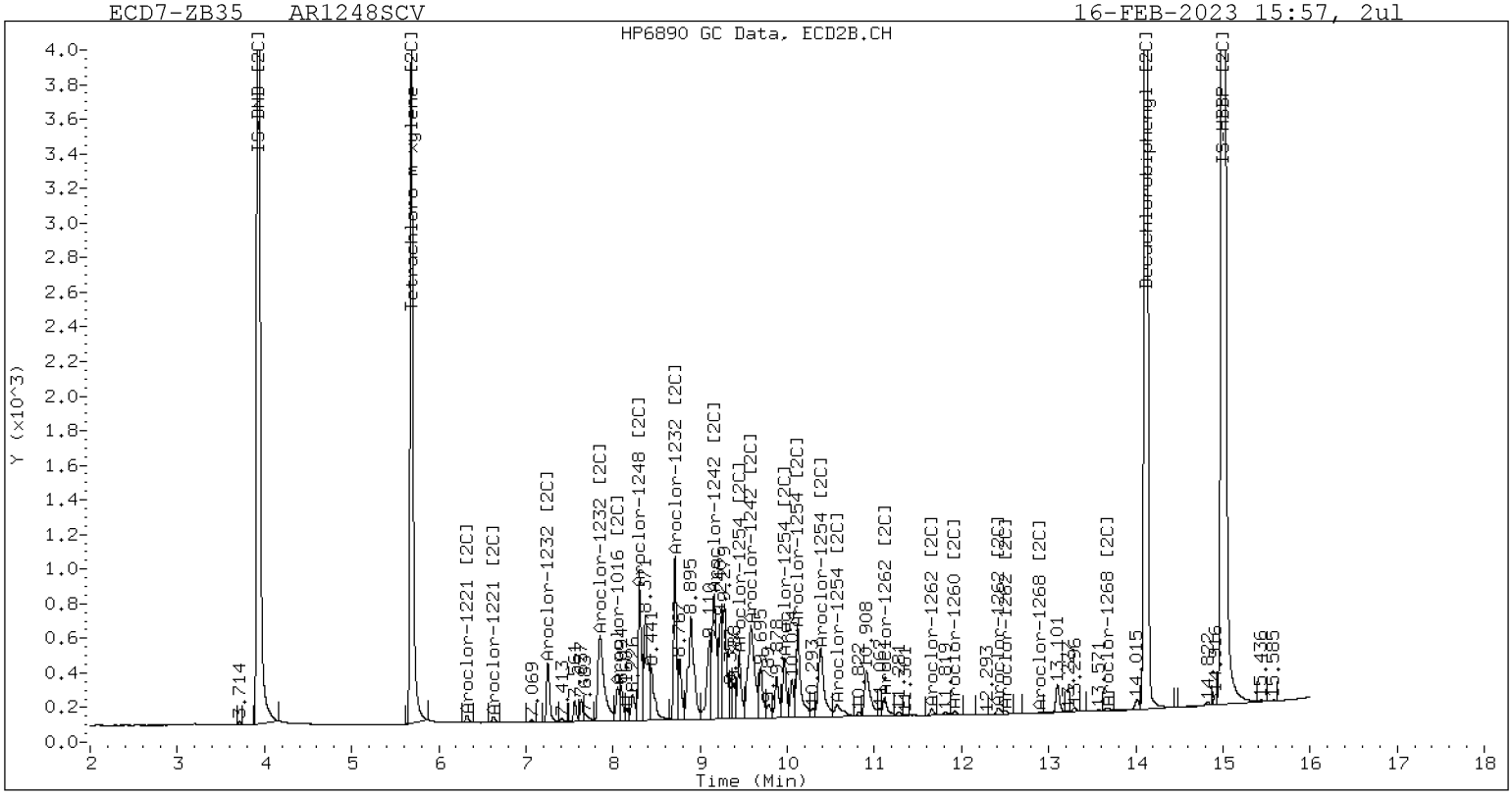
PCB Dual Column Chromatograms

ECD7-ZB5 AR1248SCV 16-FEB-2023 15:57, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1248SCV 16-FEB-2023 15:57, 2ul

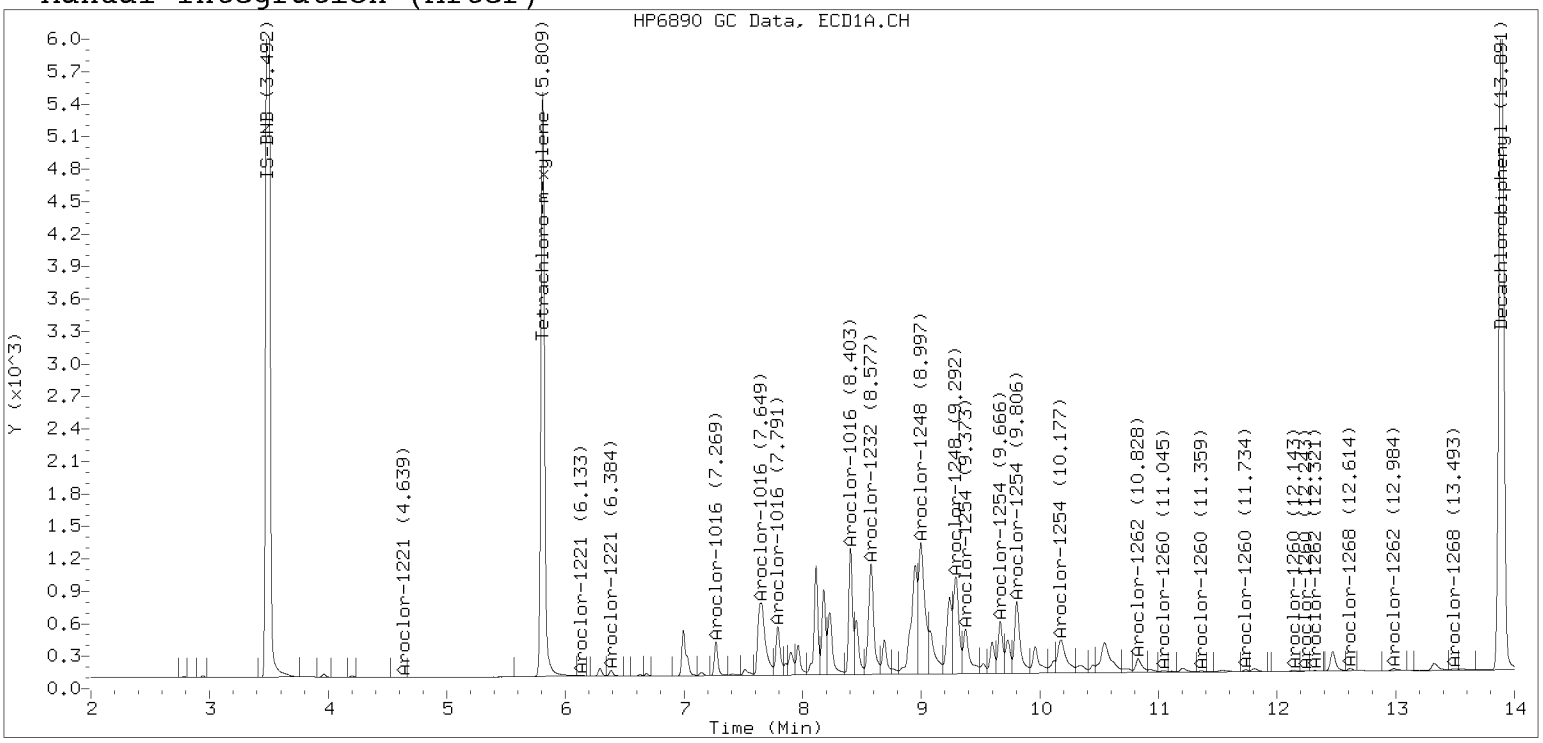


ZB-35 Manual Integration: NO

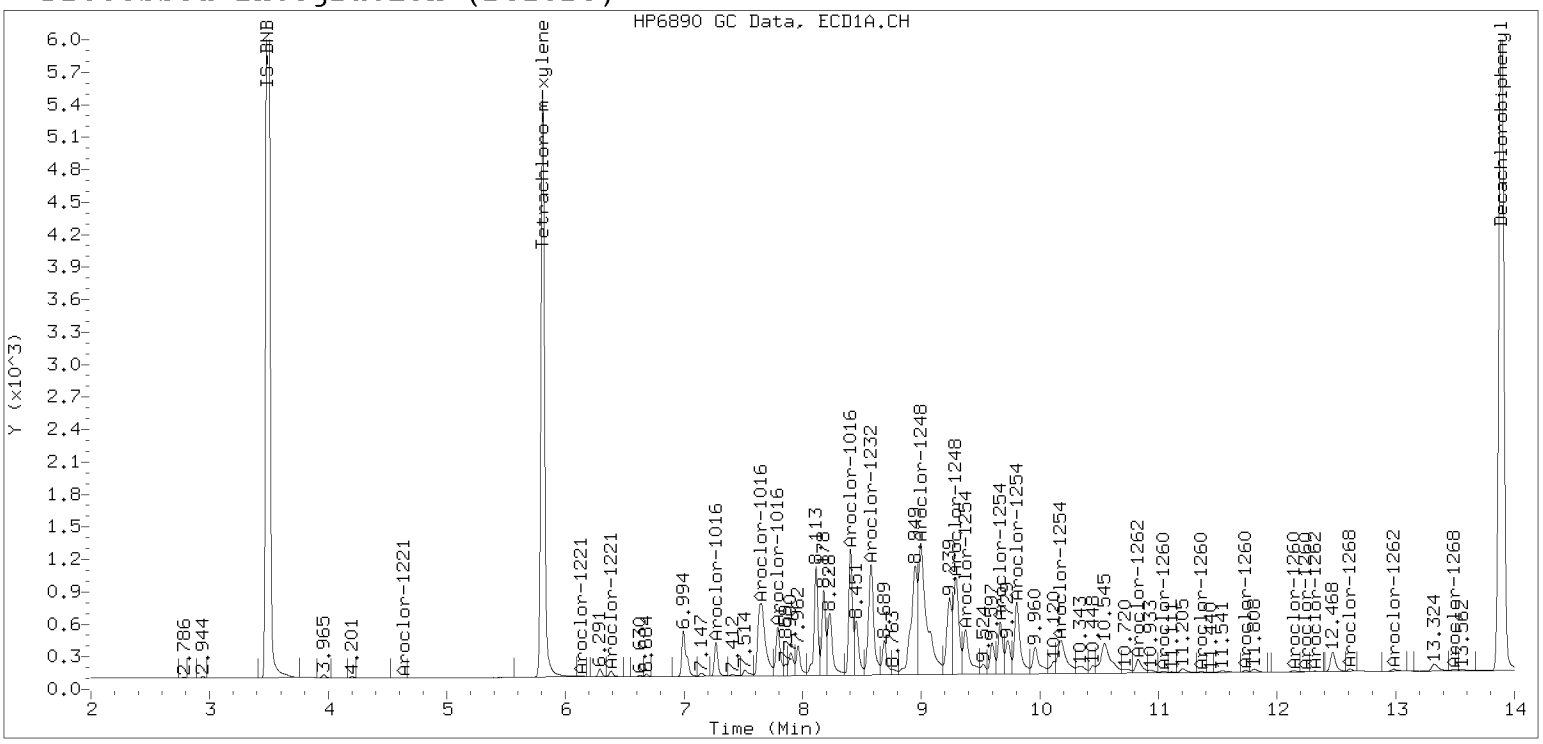
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/230216.b/02162315ECD7.D Injection Date: 16-FEB-2023 15:57

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162316ECD7.D
Data file 2: /230216.b/230216.b/02162316ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV
Client ID:
Injection Date: 16-FEB-2023 16:18
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.807	-0.001	242127	5.685	-0.000	193580	36.7	37.0	0.9	Tetrachloro-m-xylene
13.890	-0.001	377360	14.118	0.000	394229	40.3	40.4	0.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	465227	-7.6
Hexabromobiphenyl	647433	1063495	64.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	387434	15.0
Hexabromobiphenyl	382032	700154	83.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	281	1.7	1	7.256	0.002	379	1.8
Aroclor-1016	2	7.655	0.005	996	1.8	2	---			0.0
Aroclor-1016	3	7.792	0.005	684	2.7	3	8.097	0.048	526	2.8
Aroclor-1016	4	8.404	0.002	18193	110.8	4	8.305	0.001	23002	153.0
Total Col1Ave (4 peaks):					29.3	Total Col2Ave (3 peaks):				52.5 RPD = 57*
Corrected Ave (3 peaks):					2.1	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	6.323	0.026	2104	34.0
Aroclor-1221	3	---			0.0	3	6.632	0.010	433	4.2
Col1Ave: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	7.256	0.001	379	3.9
Aroclor-1232	3	7.655	0.001	996	4.4	3	---			0.0
Aroclor-1232	4	8.580	0.002	7144	76.4	4	8.714	0.001	15174	281.7
Col1Ave: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	7.270	0.001	281	2.0	1	7.256	0.002	379	2.3
Aroclor-1242	2	7.655	0.003	996	2.3	2	---			0.0
Aroclor-1242	3	8.404	0.001	18193	137.3	3	9.163	0.004	23373	203.7
Aroclor-1242	4	8.580	0.003	7144	36.5	4	9.541	-0.046	35054	251.9
Total Col1Ave (4 peaks):					44.5	Total Col2Ave (3 peaks):				152.6 RPD = 110*
Corrected Ave (3 peaks):					13.6	Corrected Ave: < 3 Peaks				
Aroclor-1248	1	8.404	0.001	18193	81.1	1	8.305	-0.000	23002	131.6
Aroclor-1248	2	8.580	0.003	7144	25.2	2	8.714	0.002	15174	82.5
Aroclor-1248	3	8.992	-0.004	93928	234.7	3	9.163	0.005	23373	110.0
Aroclor-1248	4	9.296	0.004	99099	391.5	4	9.541	-0.040	35054	136.0
Total Col1Ave (4 peaks):					183.1	Total Col2Ave (4 peaks):				115.0 RPD = 46*
Corrected Ave (3 peaks):					113.7	Corrected Ave (3 peaks):				108.0 RPD = 5
Aroclor-1254	1	9.296	0.001	99099	220.1	1	9.447	0.001	61772	226.1
Aroclor-1254	2	9.374	0.001	43324	244.4	2	9.966	-0.001	49637	225.0
Aroclor-1254	3	9.666	0.001	63930	222.8	3	10.119	-0.000	106246	221.1
Aroclor-1254	4	9.803	0.000	123663	216.5	4	10.369	-0.001	107021	225.7
Aroclor-1254	5	10.171	0.004	76902	220.7	5	10.565	-0.000	55207	230.4
Total Col1Ave (5 peaks):					224.9	Total Col2Ave (5 peaks):				225.6 RPD = 0
Corrected Ave (4 peaks):					220.0	Corrected Ave (4 peaks):				224.5 RPD = 2
Aroclor-1260	1	11.041	0.000	8242	22.5	1	11.657	0.007	30319	78.1
Aroclor-1260	2	11.360	0.003	8312	22.2	2	11.918	0.004	22042	22.6
Aroclor-1260	3	11.734	0.003	19109	19.2	3	12.445	0.012	1692	6.5
Aroclor-1260	4	12.137	0.002	15342	30.4	4	12.500	0.002	12899	19.7
Aroclor-1260	5	12.238	-0.002	582	2.7	NS	---			----
Total Col1Ave (5 peaks):					19.4	Total Col2Ave (4 peaks):				31.7 RPD = 48*
Corrected Ave (4 peaks):					16.6	Corrected Ave (3 peaks):				16.2 RPD = 2
Aroclor-1262	1	10.824	-0.000	138302	445.0	1	11.278	0.081	13621	26.0
Aroclor-1262	2	12.238	-0.004	582	1.1	2	11.657	0.008	30319	67.1
Aroclor-1262	3	12.316	-0.001	714	1.3	3	12.445	0.013	1692	3.4
Aroclor-1262	4	12.988	0.003	961	2.0	4	12.500	0.000	12899	16.5
Total Col1Ave (4 peaks):					112.4	Total Col2Ave (4 peaks):				28.3 RPD = 120*
Corrected Ave (3 peaks):					1.5	Corrected Ave (3 peaks):				15.3 RPD = 165*
Aroclor-1268	1	12.238	-0.005	582	0.4	1	12.445	0.014	1692	1.3
Aroclor-1268	2	12.316	0.002	714	0.5	2	12.500	0.002	12899	9.6
Aroclor-1268	3	12.719	0.022	539	0.5	3	12.892	0.002	76	0.1
Aroclor-1268	4	13.497	0.010	695	0.2	4	13.700	-0.007	290	0.1
Total Col1Ave (4 peaks):					0.4	Total Col2Ave (4 peaks):				2.8 RPD = 148*
Corrected Ave (3 peaks):					0.4	Corrected Ave (3 peaks):				0.5 RPD = 28

Total PCB Area Col1 (5.908 - 13.791) = 1311525 Col1 Total PCB = 0.2 ppm*

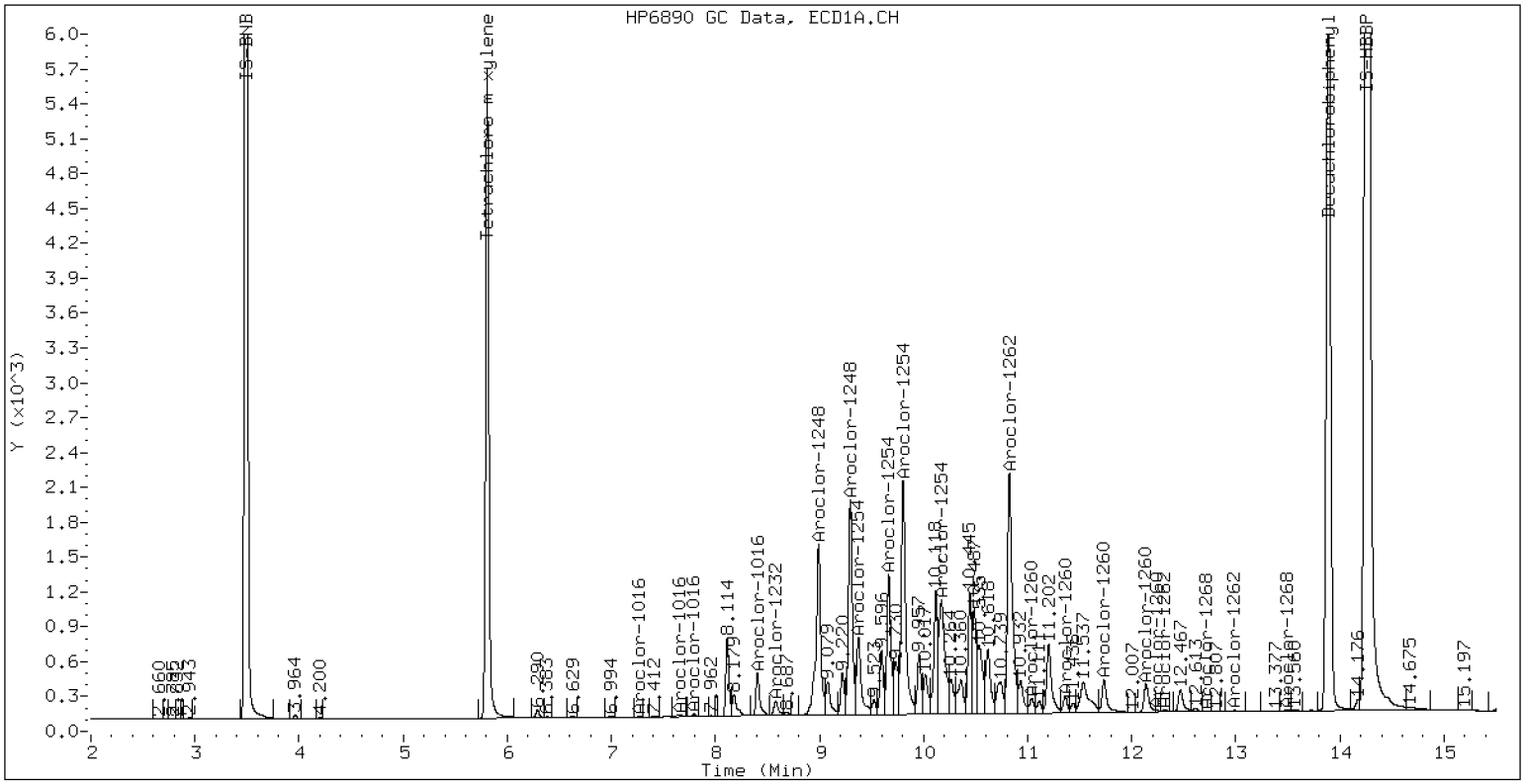
Total PCB Area Col2 (5.786 - 14.018) = 1040357 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

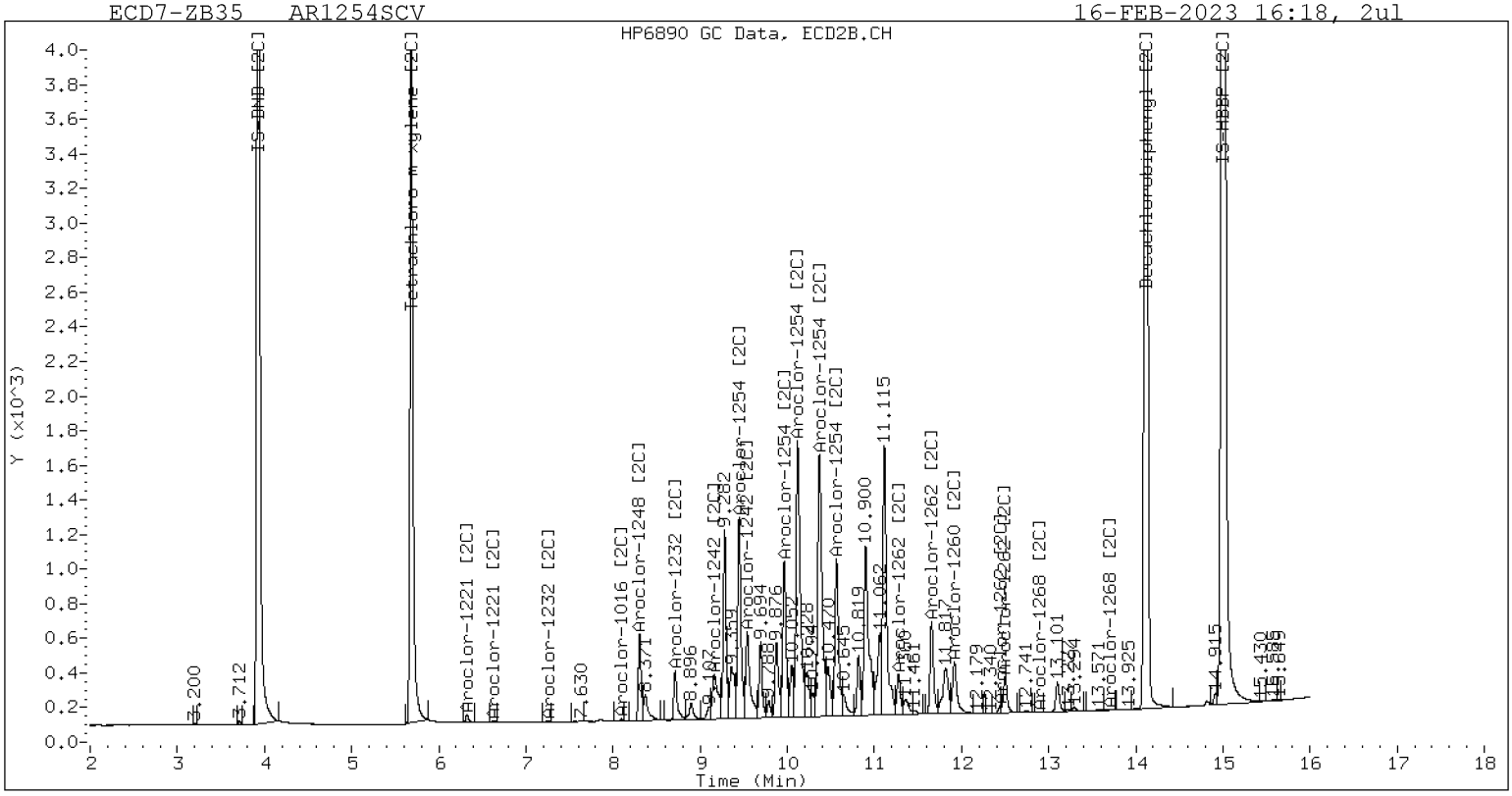
PCB Dual Column Chromatograms

ECD7-ZB5 AR1254SCV 16-FEB-2023 16:18, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254SCV 16-FEB-2023 16:18, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162317ECD7.D
Data file 2: /230216.b/230216.b/02162317ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV
Client ID:
Injection Date: 16-FEB-2023 16:39
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	245197	5.686	-0.000	191474	37.2	37.2	0.0	Tetrachloro-m-xylene
13.890	-0.001	375224	14.118	0.000	392997	40.4	40.5	0.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	464367	-7.7
Hexabromobiphenyl	647433	1054321	62.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	381247	13.2
Hexabromobiphenyl	382032	695925	82.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	4790	28.3	1	7.255	0.001	5664	27.1
Aroclor-1016	2	7.656	0.006	10623	19.6	2	7.858	0.007	8417	19.0
Aroclor-1016	3	7.793	0.006	5360	21.5	3	8.058	0.009	4104	22.5
Aroclor-1016	4	8.405	0.003	2485	15.2	4	8.306	0.002	3192	21.6
Total Col1Ave (4 peaks):					21.2	Total Col2Ave (4 peaks):				22.5 RPD = 6
Corrected Ave (3 peaks):					18.8	Corrected Ave (3 peaks):				21.0 RPD = 11
Aroclor-1221	1	4.733	0.000	9001	249.5	1	4.958	0.000	7198	254.0
Aroclor-1221	2	6.133	-0.000	16485	245.0	2	6.297	-0.001	14187	233.2
Aroclor-1221	3	6.383	-0.000	37665	242.0	3	6.621	-0.000	23991	235.4
Total Col1Ave (3 peaks):					245.5	Total Col2Ave (3 peaks):				240.8 RPD = 2
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.733	0.001	9001	404.1	1	4.958	-0.000	7198	425.7
Aroclor-1232	2	6.133	-0.000	16485	350.7	2	7.255	0.001	5664	59.8
Aroclor-1232	3	7.656	0.002	10623	47.0	3	7.858	0.003	8417	44.5
Aroclor-1232	4	8.581	0.002	2585	27.7	4	8.714	0.001	2167	40.9
Total Col1Ave (4 peaks):					207.4	Total Col2Ave (4 peaks):				142.7 RPD = 37
Corrected Ave (3 peaks):					141.8	Corrected Ave (3 peaks):				48.4 RPD = 98*
Aroclor-1242	1	7.270	0.001	4790	34.6	1	7.255	0.001	5664	34.3
Aroclor-1242	2	7.656	0.004	10623	24.3	2	7.858	0.005	8417	23.6
Aroclor-1242	3	8.405	0.002	2485	18.8	3	9.168	0.009	2109	18.7
Aroclor-1242	4	8.581	0.003	2585	13.2	4	9.541	-0.046	4209	30.7
Total Col1Ave (4 peaks):					22.7	Total Col2Ave (4 peaks):				26.8 RPD = 17
Corrected Ave (3 peaks):					18.8	Corrected Ave (3 peaks):				24.3 RPD = 26
Aroclor-1248	1	8.405	0.002	2485	11.1	1	8.306	0.001	3192	18.6
Aroclor-1248	2	8.581	0.003	2585	9.1	2	8.714	0.002	2167	12.0
Aroclor-1248	3	8.992	-0.004	27170	68.0	3	9.168	0.010	2109	10.1
Aroclor-1248	4	9.299	0.007	25808	102.2	4	9.541	-0.040	4209	16.6
Total Col1Ave (4 peaks):					47.6	Total Col2Ave (4 peaks):				14.3 RPD = 108*
Corrected Ave (3 peaks):					29.4	Corrected Ave (3 peaks):				12.9 RPD = 78*
Aroclor-1254	1	9.299	0.004	25808	57.4	1	9.448	0.001	19163	71.3
Aroclor-1254	2	9.371	-0.003	3696	20.9	2	9.969	0.002	3305	15.2
Aroclor-1254	3	9.667	0.002	4053	14.2	3	10.144	0.024	96736	204.5
Aroclor-1254	4	9.803	0.000	10960	19.2	4	10.368	-0.002	117175	251.1
Aroclor-1254	5	10.117	-0.050	153073	440.2	5	10.565	-0.001	154306	654.4
Total Col1Ave (5 peaks):					110.4	Total Col2Ave (5 peaks):				239.3 RPD = 74*
Corrected Ave (4 peaks):					27.9	Corrected Ave (4 peaks):				135.5 RPD = 132*
Aroclor-1260	1	11.041	0.001	267479	735.9	1	11.649	-0.001	203895	528.3
Aroclor-1260	2	11.358	0.000	225792	607.2	2	11.914	-0.000	486211	500.8
Aroclor-1260	3	11.730	-0.000	549436	558.0	3	12.431	-0.001	236526	910.9
Aroclor-1260	4	12.135	0.001	182085	364.2	4	12.499	0.001	362057	555.9
Aroclor-1260	5	12.241	0.000	234096	1091.8	NS	---			----
Total Col1Ave (5 peaks):					671.4	Total Col2Ave (4 peaks):				624.0 RPD = 7
Corrected Ave (4 peaks):					566.3	Corrected Ave (3 peaks):				528.4 RPD = 7
Aroclor-1262	1	10.823	-0.002	146525	475.6	1	11.197	-0.001	236244	454.2
Aroclor-1262	2	12.241	-0.001	234096	463.6	2	11.649	0.001	203895	454.1
Aroclor-1262	3	12.314	-0.002	250166	459.4	3	12.431	-0.000	236526	483.8
Aroclor-1262	4	12.984	-0.000	210767	447.6	4	12.499	-0.001	362057	465.4
Total Col1Ave (4 peaks):					461.6	Total Col2Ave (4 peaks):				464.4 RPD = 1
Corrected Ave (3 peaks):					456.9	Corrected Ave (3 peaks):				457.9 RPD = 0
Aroclor-1268	1	12.241	-0.002	234096	176.9	1	12.431	0.000	236526	186.9
Aroclor-1268	2	12.314	0.000	250166	190.3	2	12.499	0.001	362057	272.0
Aroclor-1268	3	12.719	0.022	91155	81.7	3	12.889	-0.001	11970	11.5
Aroclor-1268	4	13.485	-0.002	72883	21.3	4	13.706	-0.001	72588	19.9
Total Col1Ave (4 peaks):					117.6	Total Col2Ave (4 peaks):				122.6 RPD = 4

Corrected Ave (3 peaks): 93.3 Corrected Ave (3 peaks): 72.8 RPD = 25

Total PCB Area Col1 (5.908 - 13.791) = 3768590 Col1 Total PCB = 0.7 ppm*

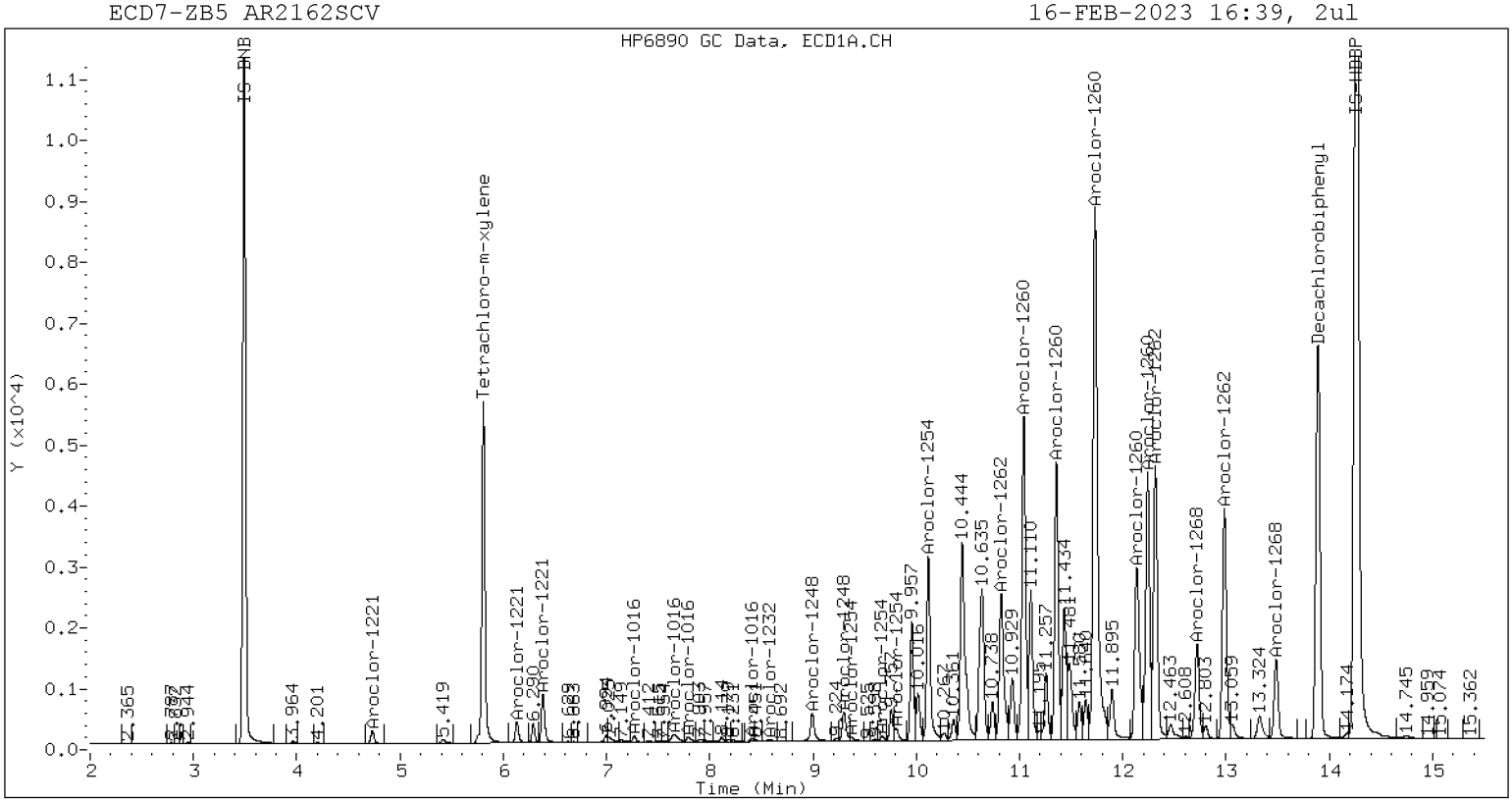
Total PCB Area Col2 (5.786 - 14.018) = 3174752 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

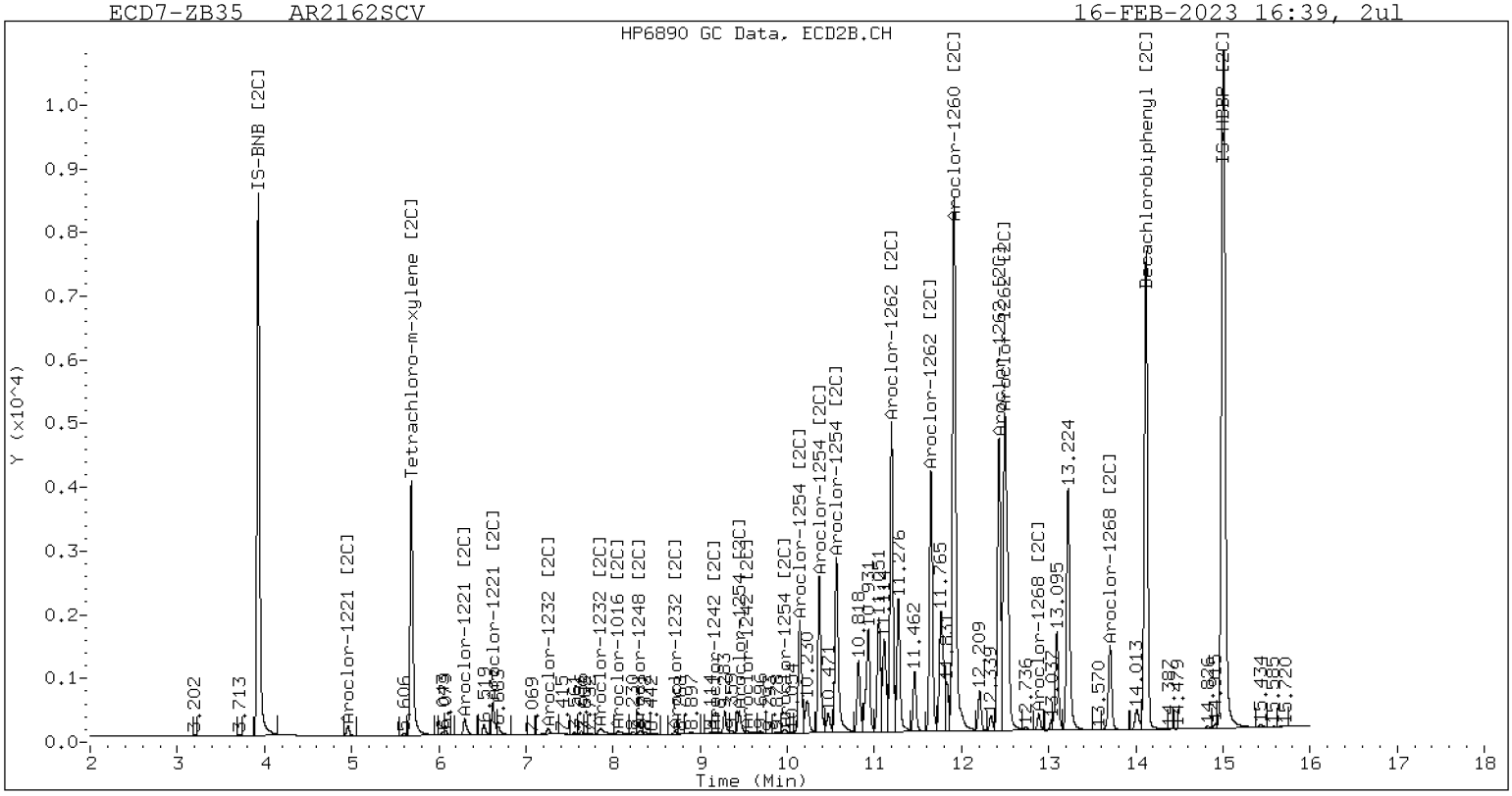
PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV 16-FEB-2023 16:39, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV 16-FEB-2023 16:39, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162318ECD7.D
Data file 2: /230216.b/230216.b/02162318ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV
Client ID:
Injection Date: 16-FEB-2023 17:00
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	232649	5.686	0.000	184511	35.5	35.9	1.3	Tetrachloro-m-xylene
13.892	0.001	534256	14.118	0.000	561270	58.0	58.0	0.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	462340	-8.1
Hexabromobiphenyl	647433	1046529	61.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	380640	13.0
Hexabromobiphenyl	382032	694272	81.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	17406	103.4	1	7.255	0.001	21798	104.5
Aroclor-1016	2	7.654	0.004	51620	95.7	2	7.856	0.005	43831	98.9
Aroclor-1016	3	7.791	0.004	24787	100.0	3	8.054	0.005	19284	105.9
Aroclor-1016	4	8.404	0.002	15491	94.9	4	8.306	0.002	13712	92.8
Total Col1Ave (4 peaks):					98.5	Total Col2Ave (4 peaks):				100.5 RPD = 2
Corrected Ave (3 peaks):					96.9	Corrected Ave (3 peaks):				98.8 RPD = 2
Aroclor-1221	1	4.732	-0.000	4903	136.5	1	4.959	0.001	3678	130.0
Aroclor-1221	2	6.133	-0.000	8309	124.0	2	6.298	0.001	8756	144.1
Aroclor-1221	3	6.383	-0.000	26751	172.7	3	6.622	0.001	18239	179.3
Total Col1Ave (3 peaks):					144.4	Total Col2Ave (3 peaks):				151.1 RPD = 5
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.732	0.000	4903	221.1	1	4.959	0.000	3678	217.9
Aroclor-1232	2	6.133	-0.000	8309	177.5	2	7.255	0.000	21798	230.4
Aroclor-1232	3	7.654	-0.000	51620	229.6	3	7.856	0.001	43831	231.9
Aroclor-1232	4	8.579	0.000	21552	231.9	4	8.712	-0.000	12876	243.3
Total Col1Ave (4 peaks):					215.0	Total Col2Ave (4 peaks):				230.9 RPD = 7
Corrected Ave (3 peaks):					209.4	Corrected Ave (3 peaks):				226.7 RPD = 8
Aroclor-1242	1	7.269	0.000	17406	126.4	1	7.255	0.001	21798	132.4
Aroclor-1242	2	7.654	0.002	51620	118.4	2	7.856	0.004	43831	122.9
Aroclor-1242	3	8.404	0.001	15491	117.6	3	9.165	0.005	12931	114.7
Aroclor-1242	4	8.579	0.002	21552	110.8	4	9.594	0.007	15412	112.7
Total Col1Ave (4 peaks):					118.3	Total Col2Ave (4 peaks):				120.7 RPD = 2
Corrected Ave (3 peaks):					115.6	Corrected Ave (3 peaks):				116.8 RPD = 1
Aroclor-1248	1	8.404	0.001	15491	69.5	1	8.306	0.001	13712	79.9
Aroclor-1248	2	8.579	0.002	21552	76.6	2	8.712	0.001	12876	71.3
Aroclor-1248	3	9.000	0.004	33860	85.1	3	9.165	0.007	12931	61.9
Aroclor-1248	4	9.290	-0.001	24418	97.1	4	9.594	0.012	15412	60.9
Total Col1Ave (4 peaks):					82.1	Total Col2Ave (4 peaks):				68.5 RPD = 18
Corrected Ave (3 peaks):					77.1	Corrected Ave (3 peaks):				64.7 RPD = 17
Aroclor-1254	1	9.290	-0.005	24418	54.6	1	9.448	0.001	4331	16.1
Aroclor-1254	2	9.376	0.002	6352	36.1	2	9.971	0.003	2773	12.8
Aroclor-1254	3	9.670	0.005	3662	12.8	3	10.125	0.006	5733	12.1
Aroclor-1254	4	9.810	0.007	5791	10.2	4	10.384	0.014	5128	11.0
Aroclor-1254	5	10.182	0.014	3705	10.7	5	10.569	0.004	1684	7.2
Total Col1Ave (5 peaks):					24.9	Total Col2Ave (5 peaks):				11.8 RPD = 71*
Corrected Ave (4 peaks):					17.5	Corrected Ave (4 peaks):				10.8 RPD = 47*
Aroclor-1260	1	11.044	0.003	48916	135.6	1	11.643	-0.006	62935	163.5
Aroclor-1260	2	11.360	0.003	3252	8.8	2	11.917	0.002	28103	29.0
Aroclor-1260	3	11.734	0.004	29505	30.2	3	12.431	-0.001	298982	1154.1
Aroclor-1260	4	12.140	0.005	787	1.6	4	12.498	-0.000	314634	484.3
Aroclor-1260	5	12.242	0.002	307715	1445.8	NS	---			----
Total Col1Ave (5 peaks):					324.4	Total Col2Ave (4 peaks):				457.7 RPD = 34
Corrected Ave (4 peaks):					44.0	Corrected Ave (3 peaks):				225.6 RPD = 135*
Aroclor-1262	1	10.828	0.003	1495	4.9	1	11.199	0.001	44764	86.3
Aroclor-1262	2	12.242	0.000	307715	613.9	2	11.643	-0.005	62935	140.5
Aroclor-1262	3	12.314	-0.002	306654	567.3	3	12.431	0.000	298982	613.0
Aroclor-1262	4	12.985	0.001	125311	268.1	4	12.498	-0.002	314634	405.4
Total Col1Ave (4 peaks):					363.6	Total Col2Ave (4 peaks):				311.3 RPD = 15
Corrected Ave (3 peaks):					280.1	Corrected Ave (3 peaks):				210.7 RPD = 28
Aroclor-1268	1	12.242	-0.000	307715	234.3	1	12.431	0.001	298982	236.8
Aroclor-1268	2	12.314	0.000	306654	235.0	2	12.498	-0.000	314634	236.9
Aroclor-1268	3	12.698	0.000	256747	231.8	3	12.891	0.001	246279	236.7
Aroclor-1268	4	13.487	-0.000	801249	236.1	4	13.707	0.001	846369	232.8
Total Col1Ave (4 peaks):					234.3	Total Col2Ave (4 peaks):				235.8 RPD = 1

Corrected Ave (3 peaks): 233.7 Corrected Ave (3 peaks): 235.5 RPD = 1

Total PCB Area Col1 (5.908 - 13.791) = 2519204 Col1 Total PCB = 0.5 ppm*

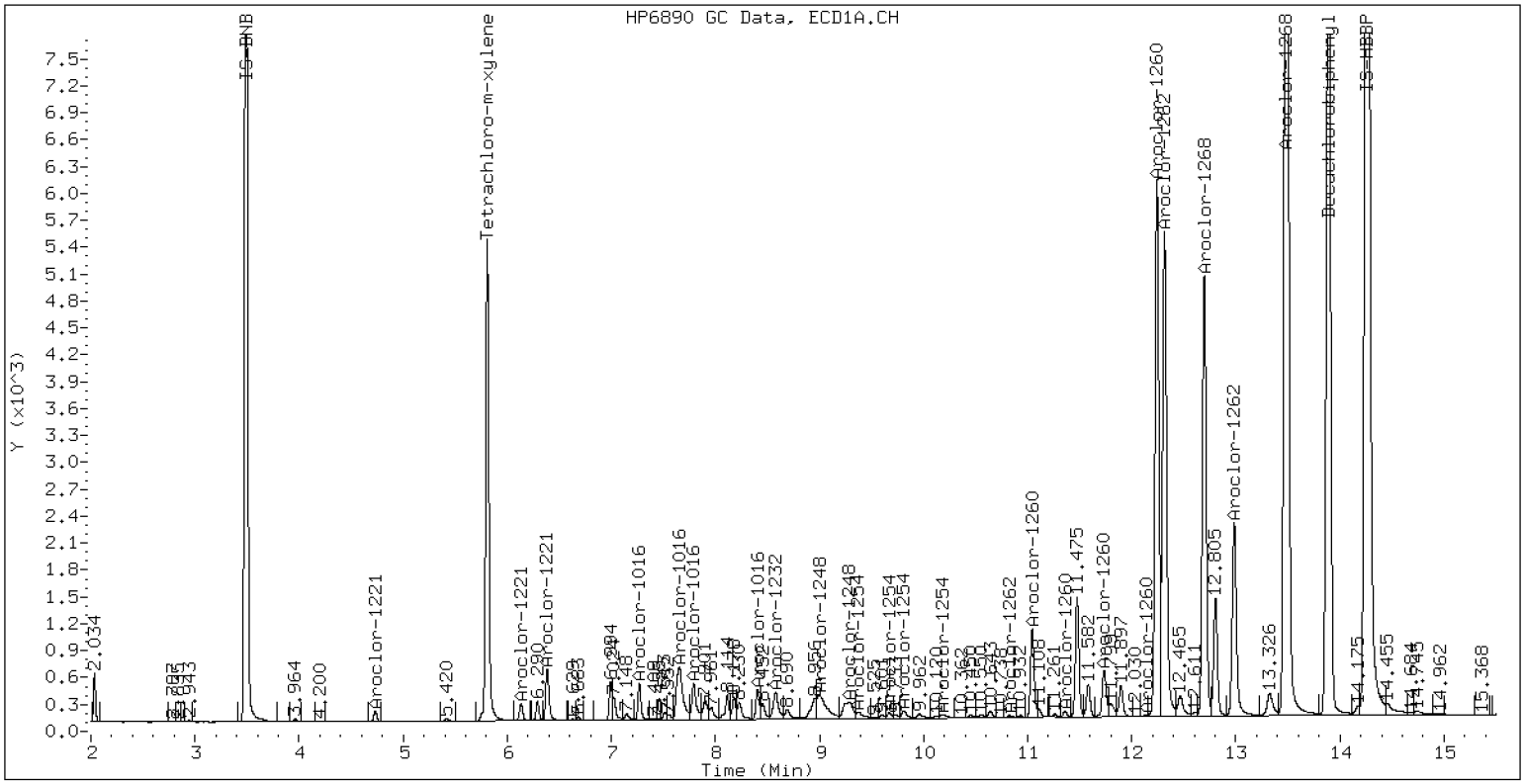
Total PCB Area Col2 (5.786 - 14.018) = 2392191 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

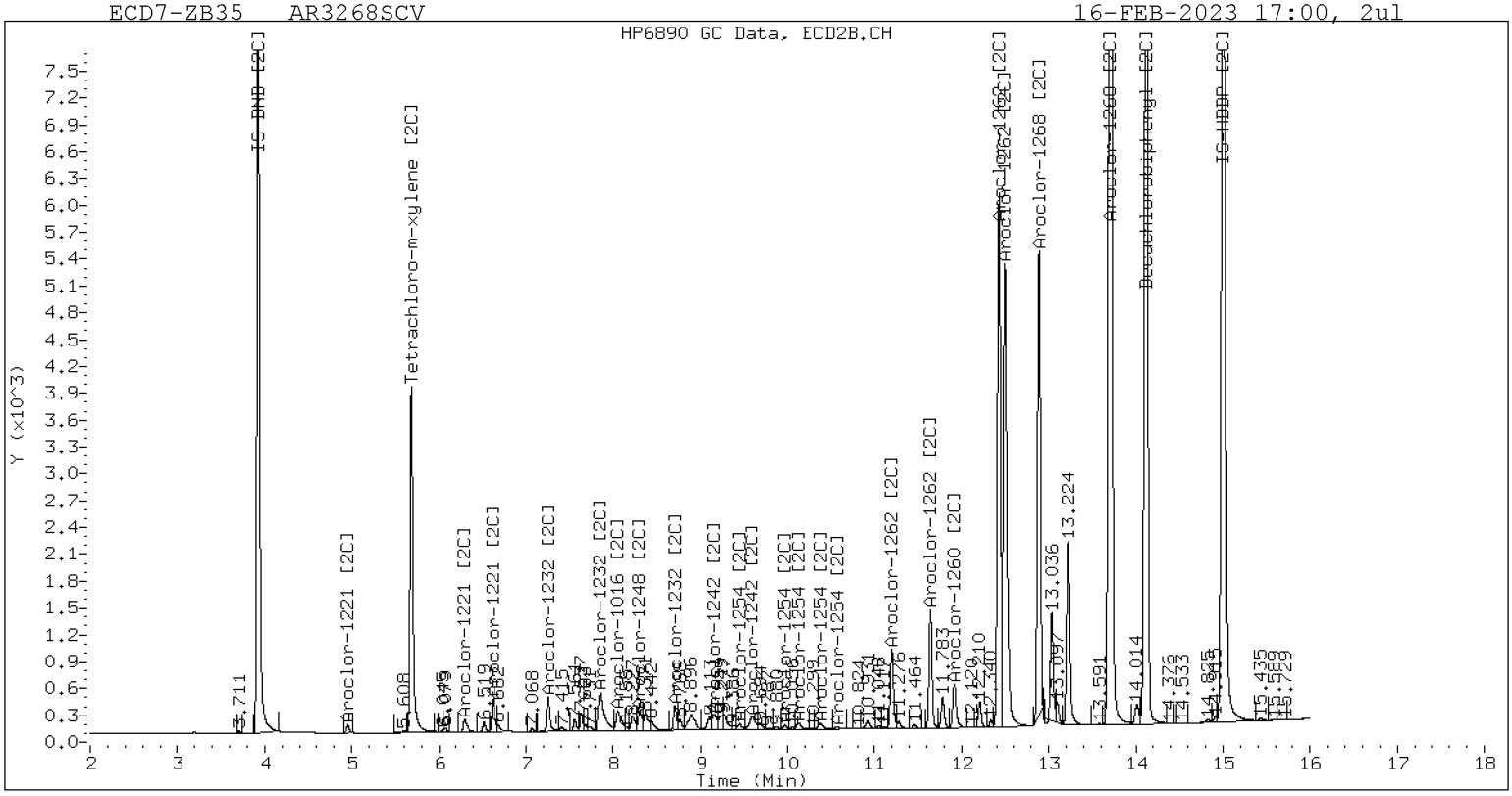
PCB Dual Column Chromatograms

ECD7-ZB5 AR3268SCV 16-FEB-2023 17:00, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268SCV 16-FEB-2023 17:00, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230216.b/02162319ECD7.D ARI ID: DDTS

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
9.260	-0.003	442624	9.911	-0.001	632750	0.085	0.087	2.1	2,4-DDE
10.293	-0.003	576653	10.667	0.002	928581	0.039	0.168#	124.2*	2,4-DDT
9.683	-0.004	755059	10.209	-0.002	423742	0.086	0.103	18.9	4,4-DDE
10.254	-0.027	674155	10.667	0.002	928581	0.000	0.168#	----	4,4-DDD

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230216.b/02162320ECD7.D ARI ID: DDT BD

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
9.284	0.021	2688	9.920	0.008	10374	0.001	0.001	93.2*	2,4-DDE
0.000	-10.296	0	10.673	0.007	190492	0.000	0.035#	----	2,4-DDT
9.692	0.005	7700	10.234	0.022	295	0.001	0.000	169.6*	4,4-DDE
10.259	-0.022	174757	10.673	0.007	190492	0.000	0.035#	----	4,4-DDD

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLB0222

Instrument: ECD7
Calibration ID: FJ00100

Printed: 2/17/2023 9:56:55AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLB0222-CAL1	QC		1		L000856	L000844		
SLB0222-CAL2	QC		2		L000859	L000844		
SLB0222-CAL3	QC		3		L000858	L000844		
SLB0222-CAL4	QC		4		L000731	L000844		
SLB0222-CAL5	QC		5		L000857	L000844		
SLB0222-CAL6	QC		6		L000855	L000844		
SLB0222-CAL7	QC		7		L000860	L000844		
SLB0222-CAL8	QC		8		L000861	L000844		
SLB0222-CAL9	QC		9		L000862	L000844		
SLB0222-CALA	QC		10		L000863	L000844		
SLB0222-CALB	QC		11		L000864	L000844		
SLB0222-SCV1	QC		12		K007655	L000844		
SLB0222-SCV2	QC		13		K007656	L000844		
SLB0222-SCV3	QC		14		K007657	L000844		
SLB0222-SCV4	QC		15		K007658	L000844		
SLB0222-SCV5	QC		16		K007659	L000844		
SLB0222-SCV6	QC		17		K007660	L000844		

Samples Loaded By Date

Data Processed By Date

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	16-FEB-2023 11:02	02162301ECD7.D	1	IB	
2	16-FEB-2023 11:23	02162302ECD7.D	1	0.25PPMAR1660	
3	16-FEB-2023 11:44	02162303ECD7.D	1	0.02PPMAR1660	
4	16-FEB-2023 12:05	02162304ECD7.D	1	0.05PPMAR1660	
5	16-FEB-2023 12:27	02162305ECD7.D	1	1.0PPMAR1660	
6	16-FEB-2023 12:48	02162306ECD7.D	1	0.1PPMAR1660	
7	16-FEB-2023 13:09	02162307ECD7.D	1	0.5PPMAR1660	
8	16-FEB-2023 13:30	02162308ECD7.D	1	0.25PPMAR1242	
9	16-FEB-2023 13:51	02162309ECD7.D	1	0.25PPMAR1248	
10	16-FEB-2023 14:12	02162310ECD7.D	1	0.25PPMAR1254	
11	16-FEB-2023 14:33	02162311ECD7.D	1	0.25PPMAR2168	
12	16-FEB-2023 14:54	02162312ECD7.D	1	0.25PPMAR3268	
13	16-FEB-2023 15:15	02162313ECD7.D	1	AR1660SCV	
14	16-FEB-2023 15:36	02162314ECD7.D	1	AR1242SCV	
15	16-FEB-2023 15:57	02162315ECD7.D	1	AR1248SCV	
16	16-FEB-2023 16:18	02162316ECD7.D	1	AR1254SCV	
17	16-FEB-2023 16:39	02162317ECD7.D	1	AR2162SCV	
18	16-FEB-2023 17:00	02162318ECD7.D	1	AR3268SCV	
19	16-FEB-2023 17:21	02162319ECD7.D	1	DDTS	
20	16-FEB-2023 17:42	02162320ECD7.D	1	DDT BD	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

ARI Job No.: IB Method: PCB.m Instrument: ecd7.i Date: 16-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1102	02162301ECD7.D	IB		1	NO MANUAL INTEGRATION
1123	02162302ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
1144	02162303ECD7.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
1205	02162304ECD7.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
1227	02162305ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1248	02162306ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1309	02162307ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1330	02162308ECD7.D	0.25PPMAR1242		1	NO MANUAL INTEGRATION
1351	02162309ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
1412	02162310ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
1433	02162311ECD7.D	0.25PPMAR2168		1	NO MANUAL INTEGRATION
1454	02162312ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1515	02162313ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1536	02162314ECD7.D	AR1242SCV		1	NO MANUAL INTEGRATION
1557	02162315ECD7.D	AR1248SCV		1	Aroclor-1248,
1618	02162316ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION
1639	02162317ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1700	02162318ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
1721	02162319ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1742	02162320ECD7.D	DDT BD		1	NO MANUAL INTEGRATION
1803	02162321ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1824	02162322ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1845	02162323ECD7.D	BLB0303-BLK1		1	NO MANUAL INTEGRATION
1906	02162324ECD7.D	BLB0303-BS1		1	NO MANUAL INTEGRATION
1927	02162325ECD7.D	BLB0303-BSD1		1	NO MANUAL INTEGRATION
1948	02162326ECD7.D	23B0153-01		1	NO MANUAL INTEGRATION
2009	02162327ECD7.D	23B0179-01		1	NO MANUAL INTEGRATION
2030	02162328ECD7.D	23B0179-03		1	NO MANUAL INTEGRATION
2051	02162329ECD7.D	23B0218-01		1	NO MANUAL INTEGRATION
2112	02162330ECD7.D	23B0243-01		1	NO MANUAL INTEGRATION
2133	02162331ECD7.D	23B0250-03		1	NO MANUAL INTEGRATION
2154	02162332ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
2215	02162333ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1102	02162301ECD7.D	IB		1	NO MANUAL INTEGRATION
1123	02162302ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1144	02162303ECD7.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
1205	02162304ECD7.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
1227	02162305ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1248	02162306ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1309	02162307ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1330	02162308ECD7.D	0.25PPMAR1242		1	NO MANUAL INTEGRATION
1351	02162309ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
1412	02162310ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
1433	02162311ECD7.D	0.25PPMAR2168		1	NO MANUAL INTEGRATION
1454	02162312ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1515	02162313ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1536	02162314ECD7.D	AR1242SCV		1	NO MANUAL INTEGRATION
1557	02162315ECD7.D	AR1248SCV		1	NO MANUAL INTEGRATION
1618	02162316ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION
1639	02162317ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
1700	02162318ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
1721	02162319ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1742	02162320ECD7.D	DDT BD		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1803	02162321ECD7.D			1	NO MANUAL INTEGRATION
1824	02162322ECD7.D			1	NO MANUAL INTEGRATION
1845	02162323ECD7.D			1	NO MANUAL INTEGRATION
1906	02162324ECD7.D			1	NO MANUAL INTEGRATION
1927	02162325ECD7.D			1	NO MANUAL INTEGRATION
1948	02162326ECD7.D			1	NO MANUAL INTEGRATION
2009	02162327ECD7.D			1	NO MANUAL INTEGRATION
2030	02162328ECD7.D			1	NO MANUAL INTEGRATION
2051	02162329ECD7.D			1	NO MANUAL INTEGRATION
2112	02162330ECD7.D			1	NO MANUAL INTEGRATION
2133	02162331ECD7.D			1	NO MANUAL INTEGRATION
2154	02162332ECD7.D			1	NO MANUAL INTEGRATION
2215	02162333ECD7.D			1	NO MANUAL INTEGRATION

Security Status Report

Date: 17-Feb-2023 09:11

02162301ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162302ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162303ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162304ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162305ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162306ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162307ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162308ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162309ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162310ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162311ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162312ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162313ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162314ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162315ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162316ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162317ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162318ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162319ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10
02162320ECD7.D	Data Locked	richardl, 17-Feb-2023 09:10

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd7.i\230124.b\01242314ECD7.D
Level 2: \\target\share\chem4\ecd7.i\230124.b\01242315ECD7.D
Level 3: \\target\share\chem4\ecd7.i\230124.b\01242317ECD7.D
Level 4: \\target\share\chem4\ecd7.i\230124.b\01242313ECD7.D
Level 5: \\target\share\chem4\ecd7.i\230124.b\01242318ECD7.D
Level 6: \\target\share\chem4\ecd7.i\230124.b\01242316ECD7.D
Level 7: \\target\share\chem4\ecd7.i\230124.b\01242323ECD7.D
Level 8: \\target\share\chem4\ecd7.i\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00591	+++++	0.00591	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01209	+++++	0.01209	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02807	+++++	0.02807	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.02450	+++++	0.02450	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.08017	+++++	0.08017	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02382	+++++	0.02382	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03598	+++++	0.03598	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00369	+++++	0.00369	0.000

ARI Labs, Inc.

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Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.00832	+++++							0.00832	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04160	+++++							0.04160	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.01781	+++++							0.01781	0.000
7 Aroclor-1016(1)	0.02947	0.03102	0.03310	0.03018	0.02824	0.02635				
	+++++	+++++							0.02973	7.802
(2)	0.09270	0.09812	0.10598	0.10203	0.09861	0.09356				
	+++++	+++++							0.09850	5.108
(3)	0.04878	0.04900	0.05127	0.04400	0.04091	0.03796				
	+++++	+++++							0.04532	11.523
(4)	0.02676	0.02802	0.03162	0.03050	0.02939	0.02864				
	+++++	+++++							0.02915	5.988
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04002	+++++							0.04002	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05105	+++++							0.05105	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.09765	+++++							0.09765	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04833	+++++							0.04833	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.08153	+++++							0.08153	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03481	+++++							0.03481	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05224	+++++							0.05224	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.10237	+++++							0.10237	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.06657	+++++							0.06657	0.000
9 Aroclor-1260(1)	0.04727	0.04543	0.04428	0.05181	0.04013	0.04040				
	+++++	+++++							0.04489	9.818
(2)	0.04940	0.04636	0.04450	0.05350	0.04100	0.04208				
	+++++	+++++							0.04614	10.182
(3)	0.13737	0.12829	0.11740	0.13317	0.10468	0.10790				
	+++++	+++++							0.12147	11.161
(4)	0.07198	0.06638	0.05997	0.06473	0.05485	0.05864				
	+++++	+++++							0.06276	9.803
(5)	0.03296	0.02981	0.02640	0.02723	0.02328	0.02447				
	+++++	+++++							0.02736	13.015
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03235	+++++							0.03235	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.05106	+++++	0.05106	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.05544	+++++	0.05544	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05052	+++++	0.05052	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.13216	+++++	0.13216	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.13180	+++++	0.13180	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.10919	+++++	0.10919	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.32374	+++++	0.32374	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	904	904	0.000
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1034	1034	0.000
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2557	2557	0.000
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1539	1539	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
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Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1484	1484	0.000
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 1 Tetrachloro-m-xylene	1.10039	1.10217	1.21997	1.14965	1.11792	1.09461	+++++	+++++	1.13079	4.246
$ 13 Decachlorobiphenyl	0.86442	0.90302	0.93081	0.84813	0.79576	0.79145	+++++	+++++	0.85560	6.556

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242314ECD7.D
Level 2: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242315ECD7.D
Level 3: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242317ECD7.D
Level 4: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242313ECD7.D
Level 5: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242318ECD7.D
Level 6: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242316ECD7.D
Level 7: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242323ECD7.D
Level 8: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
1 Aroclor-1221 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00586	+++++	0.00586	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01285	+++++	0.01285	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02169	+++++	0.02169	0.000
4 Aroclor-1232 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00356	+++++	0.00356	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01991	+++++	0.01991	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04054	+++++	0.04054	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01126	+++++	0.01126	0.000
3 Aroclor-1242 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03499	+++++	0.03499	0.000

ARI Labs, Inc.

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Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.07771	+++++	0.07771	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02434	+++++	0.02434	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03226	+++++	0.03226	0.000
6 Aroclor-1248 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03616	+++++	0.03616	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03892	+++++	0.03892	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04756	+++++	0.04756	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05882	+++++	0.05882	0.000
7 Aroclor-1016 [2C](1)	0.04424	0.04724	0.04678	0.04314	0.04099	0.03795	+++++	+++++	0.04339	8.142
(2)	0.08512	0.09615	0.10417	0.09824	0.09554	0.09130	+++++	+++++	0.09509	6.775
(3)	0.02919	0.04165	0.04478	0.04029	0.03925	0.03764	+++++	+++++	0.03880	13.639
(4)	0.02850	0.03377	0.03419	0.03004	0.02878	0.02724	+++++	+++++	0.03042	9.538

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
8 Aroclor-1254 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.05804	+++++	0.05804	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04691	+++++	0.04691	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.10233	+++++	0.10233	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.10233	+++++	0.10233	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.05700	+++++	0.05700	0.000
10 Aroclor-1262 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.07830	+++++	0.07830	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.06658	+++++	0.06658	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.07090	+++++	0.07090	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.11355	+++++	0.11355	0.000
9 Aroclor-1260 [2C](1)	0.06075	0.05974	0.05912	0.06129	0.05231	0.05307	+++++	+++++	0.05771	6.881
(2)	0.14748	0.15106	0.15181	0.15367	0.13396	0.13809	+++++	+++++	0.14601	5.547

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(3)	0.03683	0.03729	0.03582	0.03647	0.03501	0.03694	#####	#####	0.03639	2.314
(4)	0.09319	0.09919	0.09881	0.09587	0.08985	0.09008	#####	#####	0.09450	4.373
11 Aroclor-1268 [2C](1)	#####	#####	#####	#####	#####	#####	0.18682	#####	0.18682	0.000
(2)	#####	#####	#####	#####	#####	#####	0.19880	#####	0.19880	0.000
(3)	#####	#####	#####	#####	#####	#####	0.16548	#####	0.16548	0.000
(4)	#####	#####	#####	#####	#####	#####	0.51118	#####	0.51118	0.000
41 2,4-DDE [2C]	#####	#####	#####	#####	#####	#####	#####	1528	1528	0.000
42 2,4-DDD [2C]	#####	#####	#####	#####	#####	#####	#####	866	866	0.000
44 4,4-DDE [2C]	#####	#####	#####	#####	#####	#####	#####	863	863	0.000
45 4,4-DDD/2,4-DDT [2C]	#####	#####	#####	#####	#####	#####	#####	1162	1162	0.000
46 4,4-DDT [2C]	#####	#####	#####	#####	#####	#####	#####	1277	1277	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 2 Tetrachloro-m-xylene [2C]	1.04342	1.10521	1.15322	1.09675	1.05187	1.03851	+++++	+++++	1.08150	4.159
$ 13 Decachlorobiphenyl [2C]	1.20915	1.27122	1.31190	1.29209	1.22961	1.30389	+++++	+++++	1.26964	3.291

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230216.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	02162302ECD7	02162303ECD7	02162304ECD7	02162305ECD7	02162306ECD7	02162307ECD7
INJ.DATE:	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023
INJ.TIME:	11:23	11:44	12:05	12:27	12:48	13:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	3.492	3.492	3.491	3.493	3.492	3.491	3.492	3.392-3.592	3.492	0.001
$ 1 Tetrachloro-m-xylene	5.810	5.808	5.808	5.811	5.808	5.809	5.810	5.710-5.910	5.809	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	4.732	4.632-4.832	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	7.269	7.169-7.369	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	4.732	4.632-4.832	+++++	+++++
7 Aroclor-1016	7.271	7.271	7.270	7.270	7.270	7.269	7.271	7.171-7.371	7.270	0.001
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	8.403	8.303-8.503	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	9.295	9.195-9.395	+++++	+++++
9 Aroclor-1260	11.043	11.044	11.043	11.040	11.042	11.041	11.043	10.943-11.143	11.042	0.001
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.824	10.724-10.924	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	12.243	12.143-12.343	+++++	+++++
$ 13 Decachlorobiphenyl	13.894	13.892	13.891	13.892	13.890	13.890	13.894	13.794-13.994	13.892	0.002
* 12 IS-HBBP	14.263	14.263	14.261	14.261	14.262	14.262	14.263	14.163-14.363	14.262	0.001
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.263	9.213-9.313	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.805	9.755-9.855	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.296	10.246-10.346	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.687	9.587-9.787	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230216.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	10.281	10.181-10.381	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.758	10.658-10.858	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230216.b\230216.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	02162302ECD7	02162303ECD7	02162304ECD7	02162305ECD7	02162306ECD7	02162307ECD7
INJ.DATE:	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023
INJ.TIME:	11:23	11:44	12:05	12:27	12:48	13:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB [2C]	3.928	3.929	3.928	3.930	3.929	3.929	3.928	3.828-4.028	3.929	0.001
$ 2 Tetrachloro-m-xylene [	5.685	5.686	5.685	5.688	5.687	5.686	5.685	5.585-5.785	5.686	0.001
1 Aroclor-1221 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.958	4.858-5.058	+++++	+++++
4 Aroclor-1232 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.958	4.859-5.059	+++++	+++++
3 Aroclor-1242 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	7.254	7.154-7.354	+++++	+++++
6 Aroclor-1248 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	8.305	8.205-8.405	+++++	+++++
7 Aroclor-1016 [2C]	7.254	7.255	7.254	7.254	7.254	7.254	7.254	7.154-7.354	7.254	0.000
8 Aroclor-1254 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.447	9.347-9.547	+++++	+++++
10 Aroclor-1262 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.198	11.098-11.298	+++++	+++++
9 Aroclor-1260 [2C]	11.651	11.652	11.652	11.650	11.651	11.650	11.651	11.551-11.751	11.651	0.001
11 Aroclor-1268 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	12.431	12.331-12.531	+++++	+++++
$ 13 Decachlorobiphenyl [2C	14.117	14.118	14.117	14.120	14.117	14.118	14.117	14.017-14.217	14.118	0.001
* 12 IS-HBBP [2C]	15.006	15.006	15.004	15.005	15.005	15.005	15.006	14.906-15.106	15.005	0.001
41 2,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.912	9.862-9.962	+++++	+++++
42 2,4-DDD [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.538	9.488-9.588	+++++	+++++
44 4,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.211	10.111-10.311	+++++	+++++
45 4,4-DDD/2,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.666	10.566-10.766	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230216.b\230216.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.095	10.995-11.195	+++++	+++++
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.703	1.603-1.803	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	7.178	7.078-7.278	+++++	+++++

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162301ECD7.D
Data file 2: /230216.b/230216.b/02162301ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 16-FEB-2023 11:02
Report Date: 02/17/2023 08:58
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.823	0.015	232765	5.680	-0.005	190174	39.3	39.2	0.1	Tetrachloro-m-xylene
13.900	0.009	322325	14.118	0.000	335746	40.3	39.2	2.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	417912	-17.0
Hexabromobiphenyl	647433	908024	40.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	359487	6.7
Hexabromobiphenyl	382032	614725	60.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	11.361	0.004	128	0.4	2	---			0.0
Aroclor-1260	3	11.801	0.071	128	0.2	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.705	0.008	993	1.0	3	---			0.0
Aroclor-1268	4	13.493	0.006	2534	0.9	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (5.908 - 13.791) = 24426 Col1 Total PCB = 0.0 ppm*

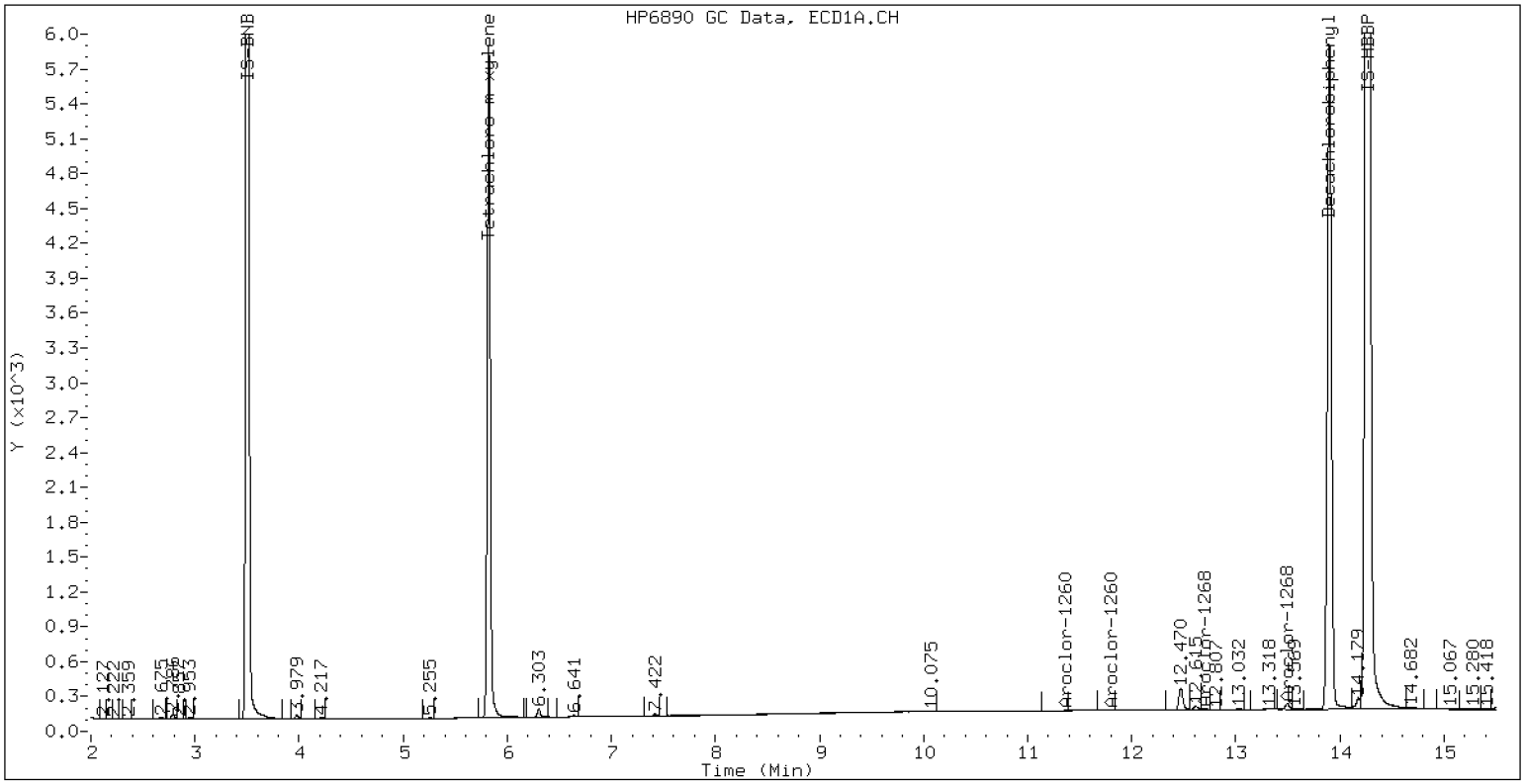
Total PCB Area Col2 (5.786 - 14.018) = 13907 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

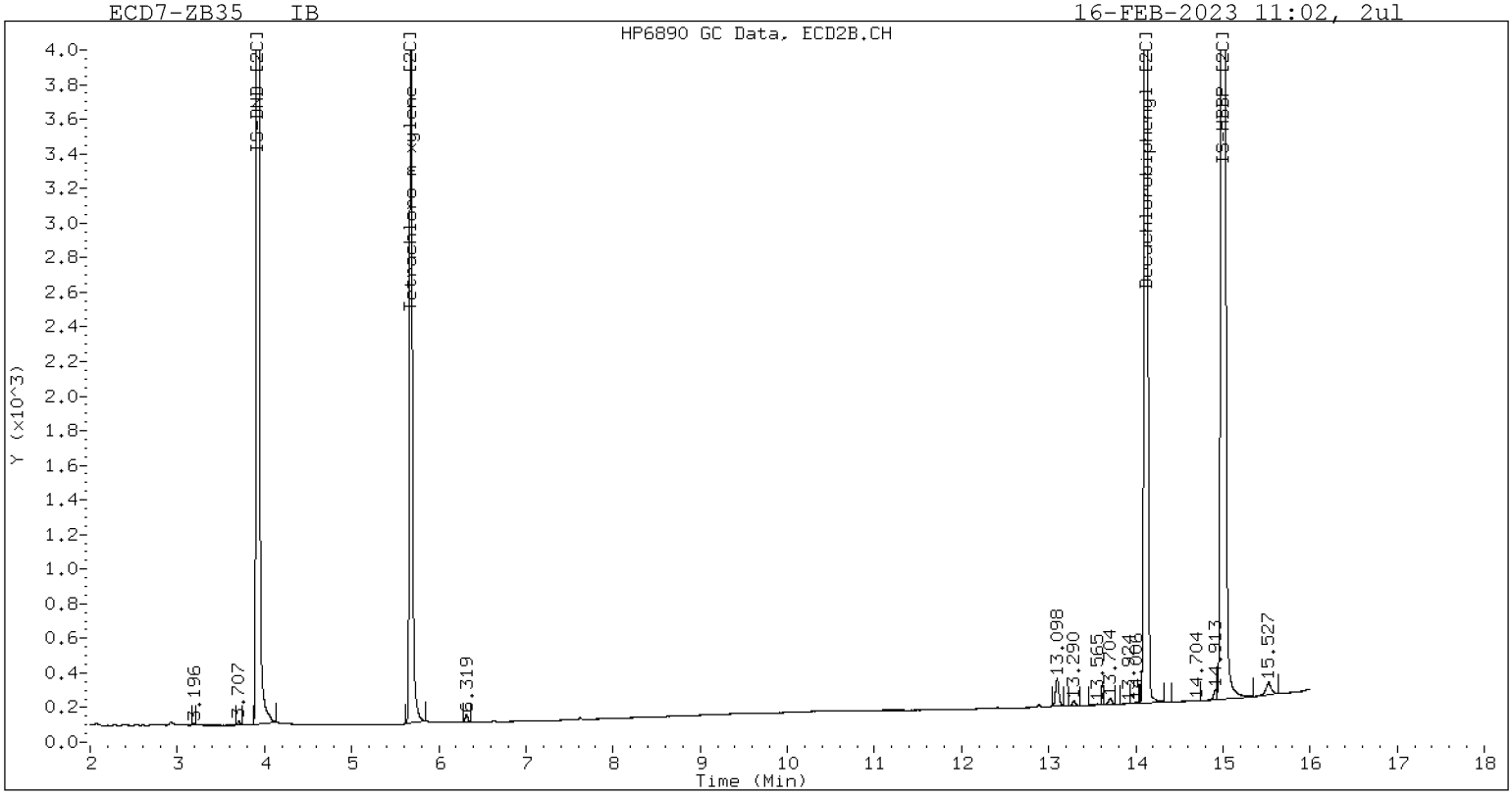
PCB Dual Column Chromatograms

ECD7-ZB5 IB 16-FEB-2023 11:02, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 IB 16-FEB-2023 11:02, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162302ECD7.D
Data file 2: /230216.b/230216.b/02162302ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 11:23
Report Date: 02/17/2023 08:58
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	248401	5.685	-0.001	199672	40.7	40.3	0.9	Tetrachloro-m-xylene
13.894	0.003	351670	14.117	-0.001	367148	40.9	40.7	0.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	430055	-14.6
Hexabromobiphenyl	647433	975457	50.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	366754	8.9
Hexabromobiphenyl	382032	646884	69.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.002	39579	252.7	1	7.254	-0.000	49228	245.0
Aroclor-1016	2	7.652	0.002	129647	258.5	2	7.850	-0.002	109879	257.4
Aroclor-1016	3	7.790	0.003	55577	241.0	3	8.050	0.000	45802	261.0
Aroclor-1016	4	8.404	0.001	38982	256.8	4	8.304	-0.000	35428	248.9
Total Col1Ave (4 peaks):					252.3	Total Col2Ave (4 peaks):				253.1 RPD = 0
Corrected Ave (3 peaks):					250.2	Corrected Ave (3 peaks):				250.4 RPD = 0
CalAmt %D:					0.9	CalAmt %D:				1.2
Aroclor-1260	1	11.043	0.002	87165	259.2	1	11.651	0.001	84564	235.7
Aroclor-1260	2	11.360	0.003	89579	260.4	2	11.916	0.001	216735	240.2
Aroclor-1260	3	11.733	0.003	234880	257.8	3	12.434	0.001	55401	229.5
Aroclor-1260	4	12.137	0.002	120991	261.6	4	12.499	0.001	143975	237.8
Aroclor-1260	5	12.243	0.003	50521	254.7	NS	---			----
Total Col1Ave (5 peaks):					258.7	Total Col2Ave (4 peaks):				235.8 RPD = 9
Corrected Ave (4 peaks):					258.0	Corrected Ave (3 peaks):				234.4 RPD = 10
CalAmt %D:					3.5	CalAmt %D:				-5.7

Total PCB Area Col1 (5.908 - 13.791) = 2424171 Col1 Total PCB = 0.5 ppm*

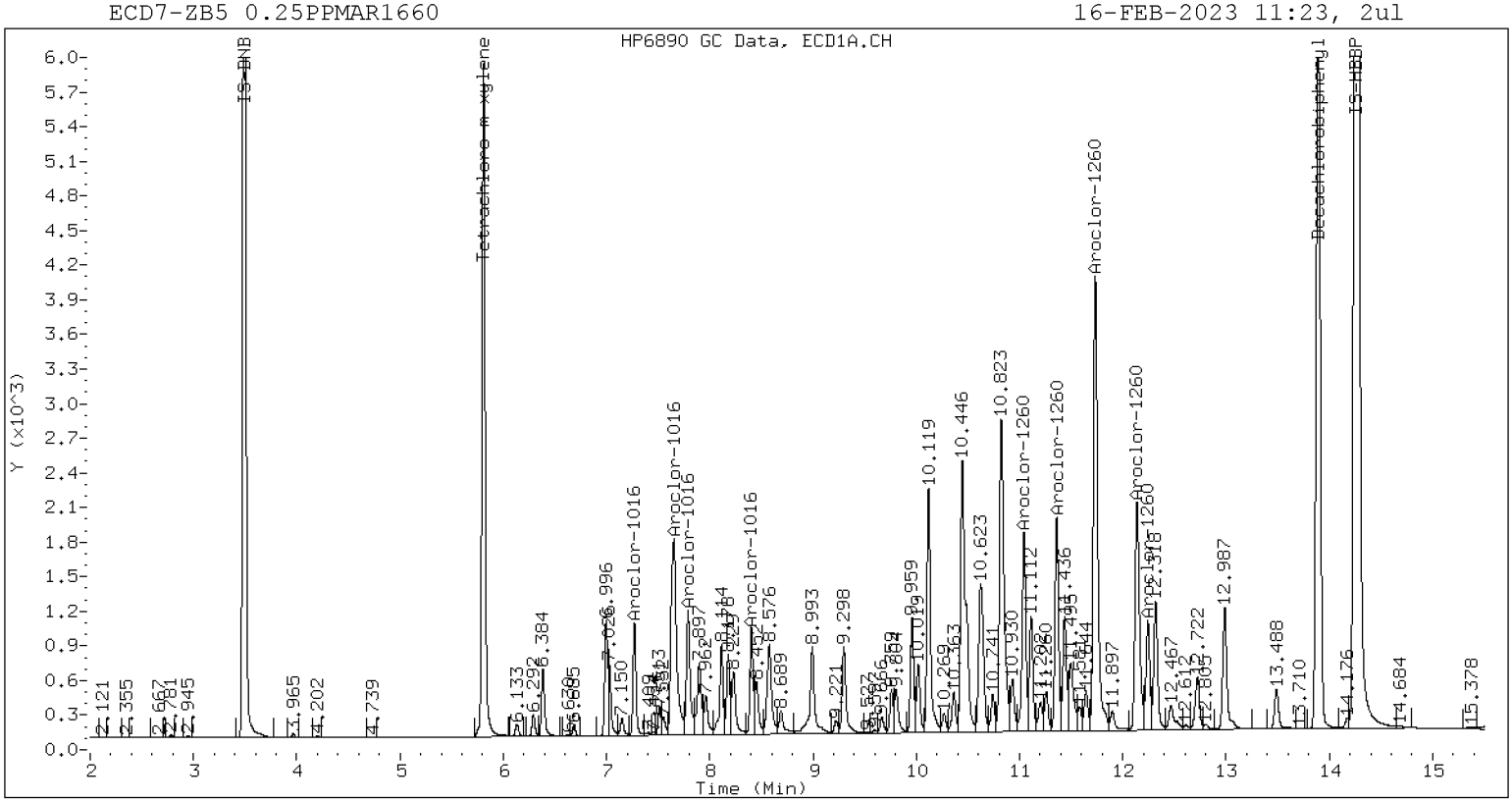
Total PCB Area Col2 (5.786 - 14.018) = 2014487 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

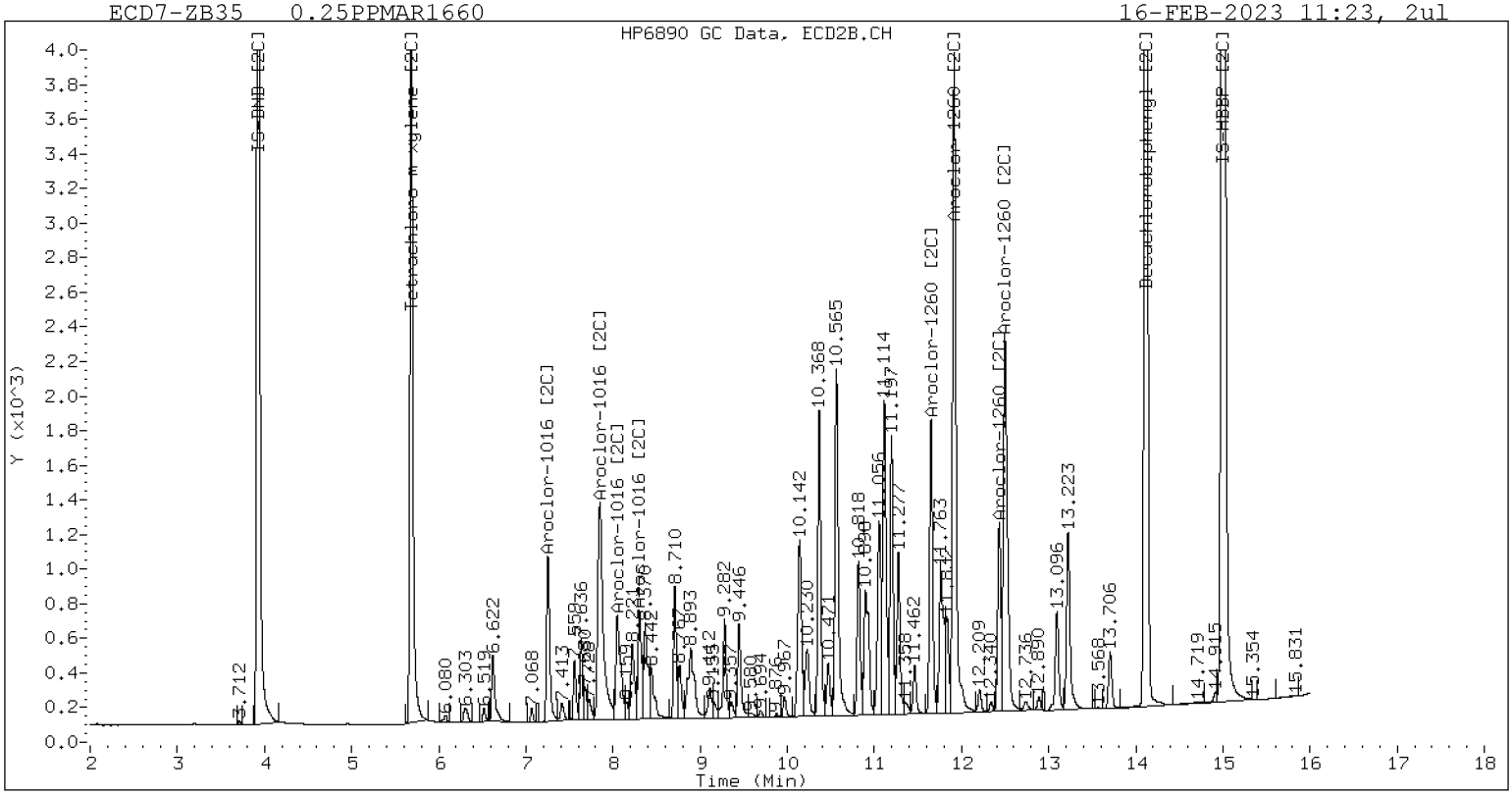
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1660 16-FEB-2023 11:23, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1660 16-FEB-2023 11:23, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162303ECD7.D
Data file 2: /230216.b/230216.b/02162303ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 11:44
Report Date: 02/17/2023 08:58
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	19708	5.686	0.000	15503	3.3	3.2	3.1	Tetrachloro-m-xylene
13.892	0.001	28479	14.118	-0.000	26541	3.3	2.9	12.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	422641	-16.0
Hexabromobiphenyl	647433	970275	49.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	360534	7.0
Hexabromobiphenyl	382032	649373	70.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.002	3348	21.8	1	7.255	0.001	4345	22.0
Aroclor-1016	2	7.655	0.005	10129	20.6	2	7.856	0.005	7672	18.3
Aroclor-1016	3	7.792	0.005	5159	22.8	3	8.056	0.007	2574	14.9
Aroclor-1016	4	8.405	0.003	3035	20.3	4	8.307	0.003	2795	20.0
Total Col1Ave (4 peaks):					21.4	Total Col2Ave (4 peaks):				18.8 RPD = 13
Corrected Ave (3 peaks):					20.9	Corrected Ave (3 peaks):				17.7 RPD = 16
CalAmt %D:					6.8	CalAmt %D:				-6.0
Aroclor-1260	1	11.044	0.003	6763	20.2	1	11.652	0.002	7499	20.8
Aroclor-1260	2	11.360	0.003	6806	19.9	2	11.918	0.003	18116	20.0
Aroclor-1260	3	11.737	0.006	19311	21.3	3	12.434	0.002	5444	22.5
Aroclor-1260	4	12.141	0.006	9169	19.9	4	12.502	0.004	12209	20.1
Aroclor-1260	5	12.243	0.003	4138	21.0	NS	---			----
Total Col1Ave (5 peaks):					20.5	Total Col2Ave (4 peaks):				20.8 RPD = 2
Corrected Ave (4 peaks):					20.3	Corrected Ave (3 peaks):				20.3 RPD = 0
CalAmt %D:					2.3	CalAmt %D:				4.2

Total PCB Area Col1 (5.908 - 13.791) = 207302 Col1 Total PCB = 0.0 ppm*

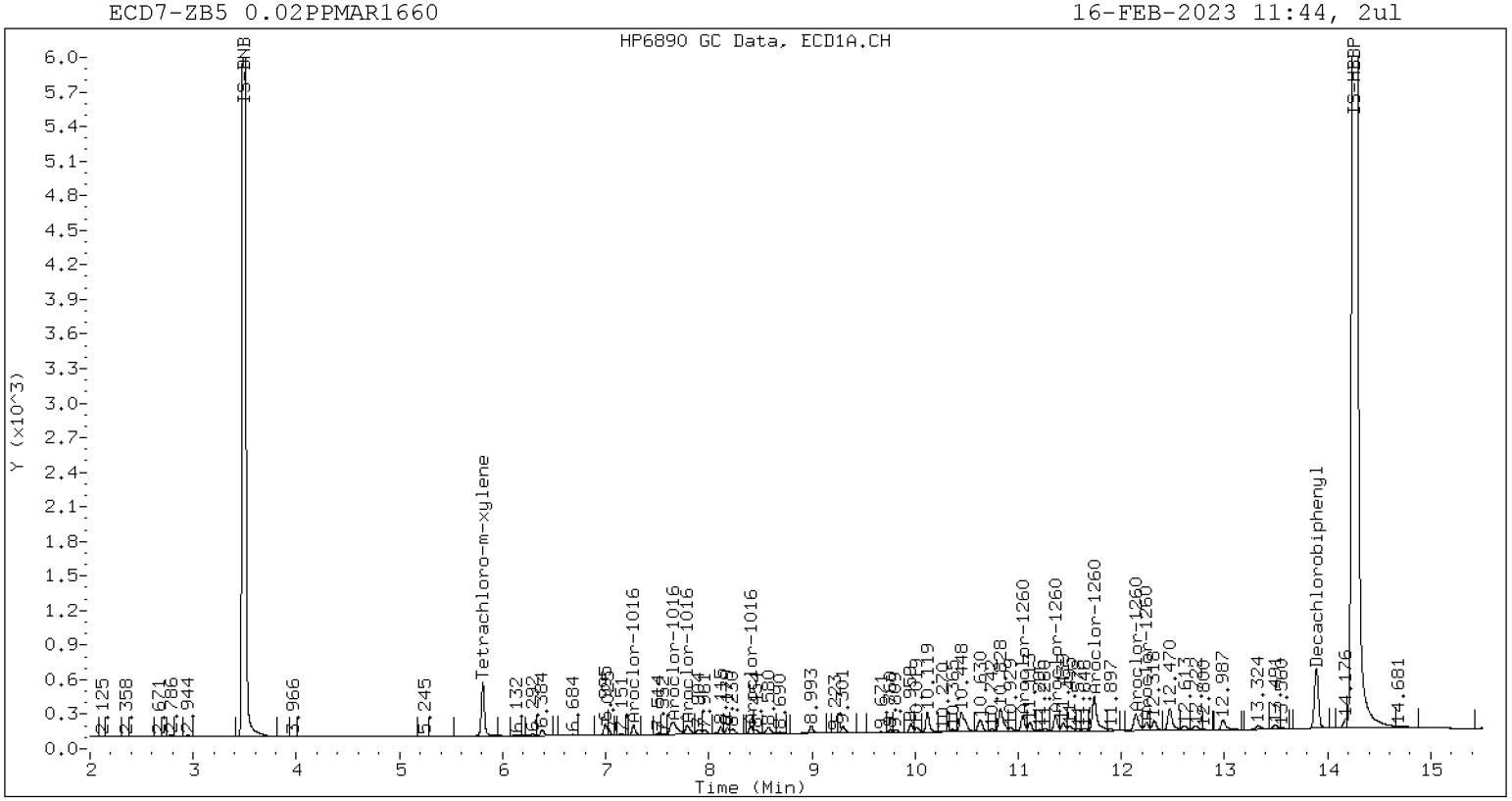
Total PCB Area Col2 (5.786 - 14.018) = 173637 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

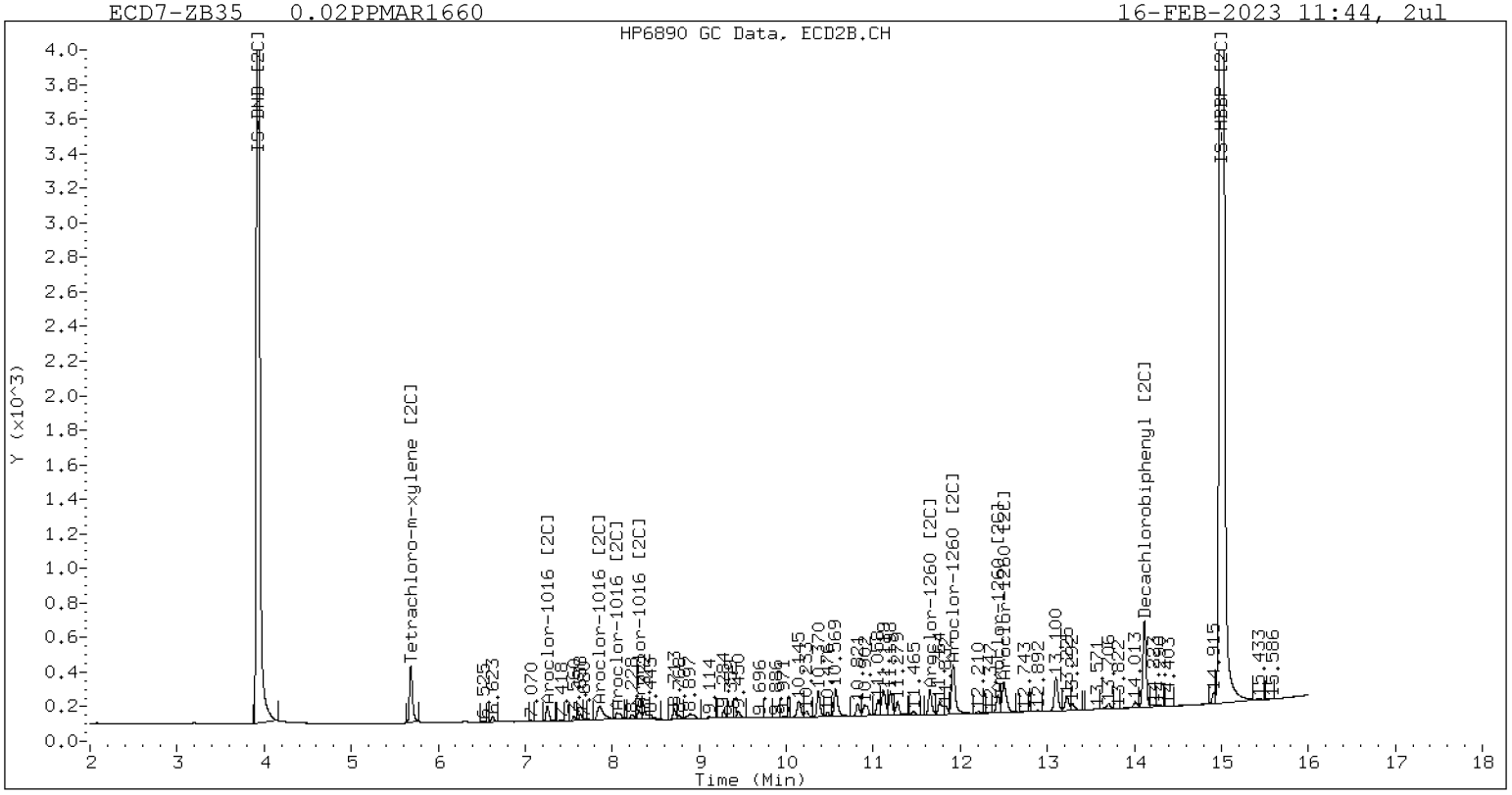
PCB Dual Column Chromatograms

ECD7-ZB5 0.02PPMAR1660 16-FEB-2023 11:44, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.02PPMAR1660 16-FEB-2023 11:44, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162304ECD7.D
Data file 2: /230216.b/230216.b/02162304ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:05
Report Date: 02/17/2023 08:58
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.001	49106	5.685	-0.001	38865	8.2	8.0	2.4	Tetrachloro-m-xylene
13.891	0.000	72151	14.117	-0.001	67392	8.4	7.4	12.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	424165	-15.7
Hexabromobiphenyl	647433	974643	50.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	361606	7.3
Hexabromobiphenyl	382032	650523	70.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	8215	53.2	1	7.254	-0.000	10626	53.6
Aroclor-1016	2	7.653	0.003	24630	49.8	2	7.855	0.003	20708	49.2
Aroclor-1016	3	7.791	0.004	12297	54.1	3	8.055	0.006	9105	52.6
Aroclor-1016	4	8.404	0.001	7438	49.7	4	8.306	0.001	7620	54.3
Total Col1Ave (4 peaks):					51.7	Total Col2Ave (4 peaks):				52.4 RPD = 1
Corrected Ave (3 peaks):					50.9	Corrected Ave (3 peaks):				51.8 RPD = 2
CalAmt %D:					3.4	CalAmt %D:				4.9
Aroclor-1260	1	11.043	0.002	16909	50.3	1	11.652	0.002	17146	47.5
Aroclor-1260	2	11.359	0.002	17012	49.5	2	11.917	0.003	43102	47.5
Aroclor-1260	3	11.734	0.003	45560	50.0	3	12.435	0.003	11385	46.9
Aroclor-1260	4	12.138	0.003	22213	48.1	4	12.501	0.003	28474	46.8
Aroclor-1260	5	12.241	0.001	9728	49.1	NS	---			----
Total Col1Ave (5 peaks):					49.4	Total Col2Ave (4 peaks):				47.2 RPD = 5
Corrected Ave (4 peaks):					49.2	Corrected Ave (3 peaks):				47.1 RPD = 4
CalAmt %D:					-1.2	CalAmt %D:				-5.6

Total PCB Area Col1 (5.908 - 13.791) = 481905 Col1 Total PCB = 0.1 ppm*

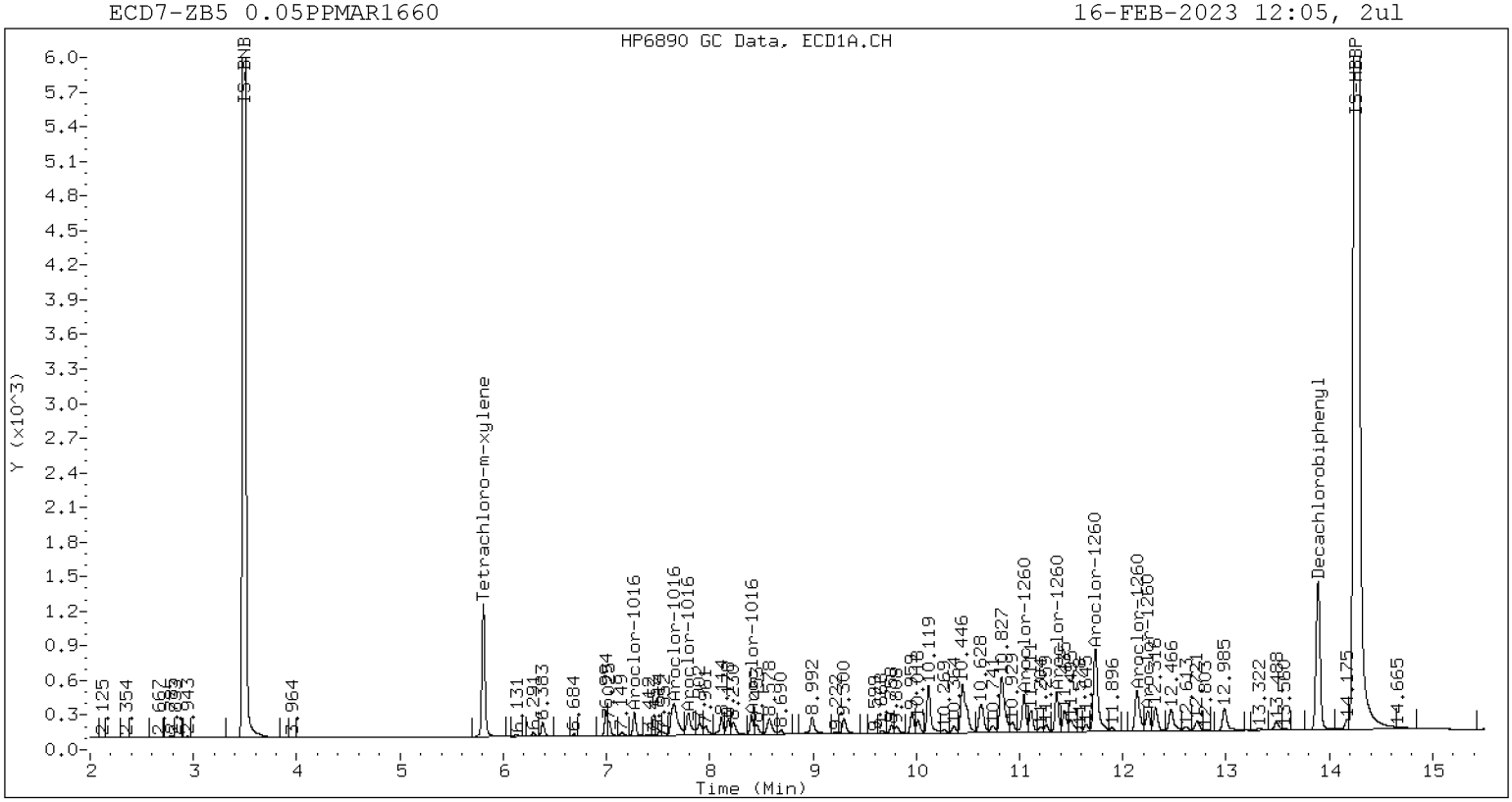
Total PCB Area Col2 (5.786 - 14.018) = 410066 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

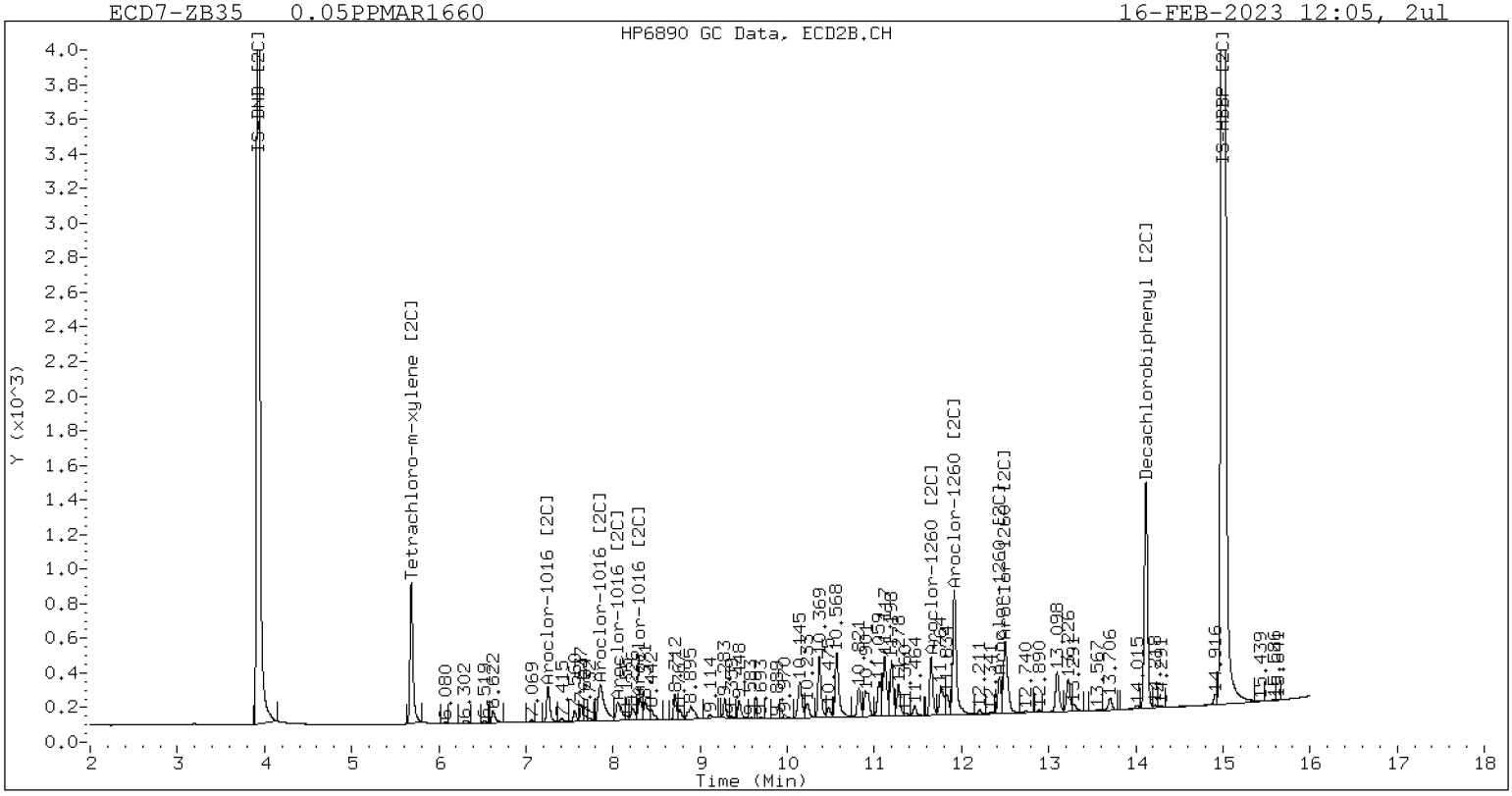
PCB Dual Column Chromatograms

ECD7-ZB5 0.05PPMAR1660 16-FEB-2023 12:05, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.05PPMAR1660 16-FEB-2023 12:05, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162305ECD7.D
Data file 2: /230216.b/230216.b/02162305ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 1.0PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:27
Report Date: 02/17/2023 08:58
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.811	0.003	891683	5.688	0.002	726379	151.2	152.9	1.1	Tetrachloro-m-xylene
13.892	0.001	1202823	14.120	0.002	1376073	143.7	154.6	7.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	415564	-17.4
Hexabromobiphenyl	647433	950630	46.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	352163	4.5
Hexabromobiphenyl	382032	638267	67.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	132049	872.6	1	7.254	0.000	163920	849.6
Aroclor-1016	2	7.649	-0.001	456308	941.6	2	7.849	-0.003	390554	952.8
Aroclor-1016	3	7.787	-0.000	188528	845.9	3	8.049	-0.000	164163	974.1
Aroclor-1016	4	8.403	0.000	141381	963.9	4	8.304	0.000	120741	883.4
Total Col1Ave (4 peaks):					906.0	Total Col2Ave (4 peaks):				915.0 RPD = 1
Corrected Ave (3 peaks):					886.7	Corrected Ave (3 peaks):				895.3 RPD = 1
CalAmt %D:					-9.4	CalAmt %D:				-8.5
Aroclor-1260	1	11.040	-0.000	311922	951.8	1	11.650	-0.000	297569	840.7
Aroclor-1260	2	11.356	-0.001	324926	969.1	2	11.914	-0.001	734323	824.7
Aroclor-1260	3	11.729	-0.001	820597	924.2	3	12.432	0.000	215979	906.9
Aroclor-1260	4	12.131	-0.003	448823	995.6	4	12.498	0.000	521208	872.6
Aroclor-1260	5	12.240	0.000	188496	975.0	NS	---			----
Total Col1Ave (5 peaks):					963.1	Total Col2Ave (4 peaks):				861.2 RPD = 11
Corrected Ave (4 peaks):					955.0	Corrected Ave (3 peaks):				846.0 RPD = 12
CalAmt %D:					-3.7	CalAmt %D:				-13.9

Total PCB Area Col1 (5.908 - 13.791) = 8716327 Col1 Total PCB = 1.8 ppm*

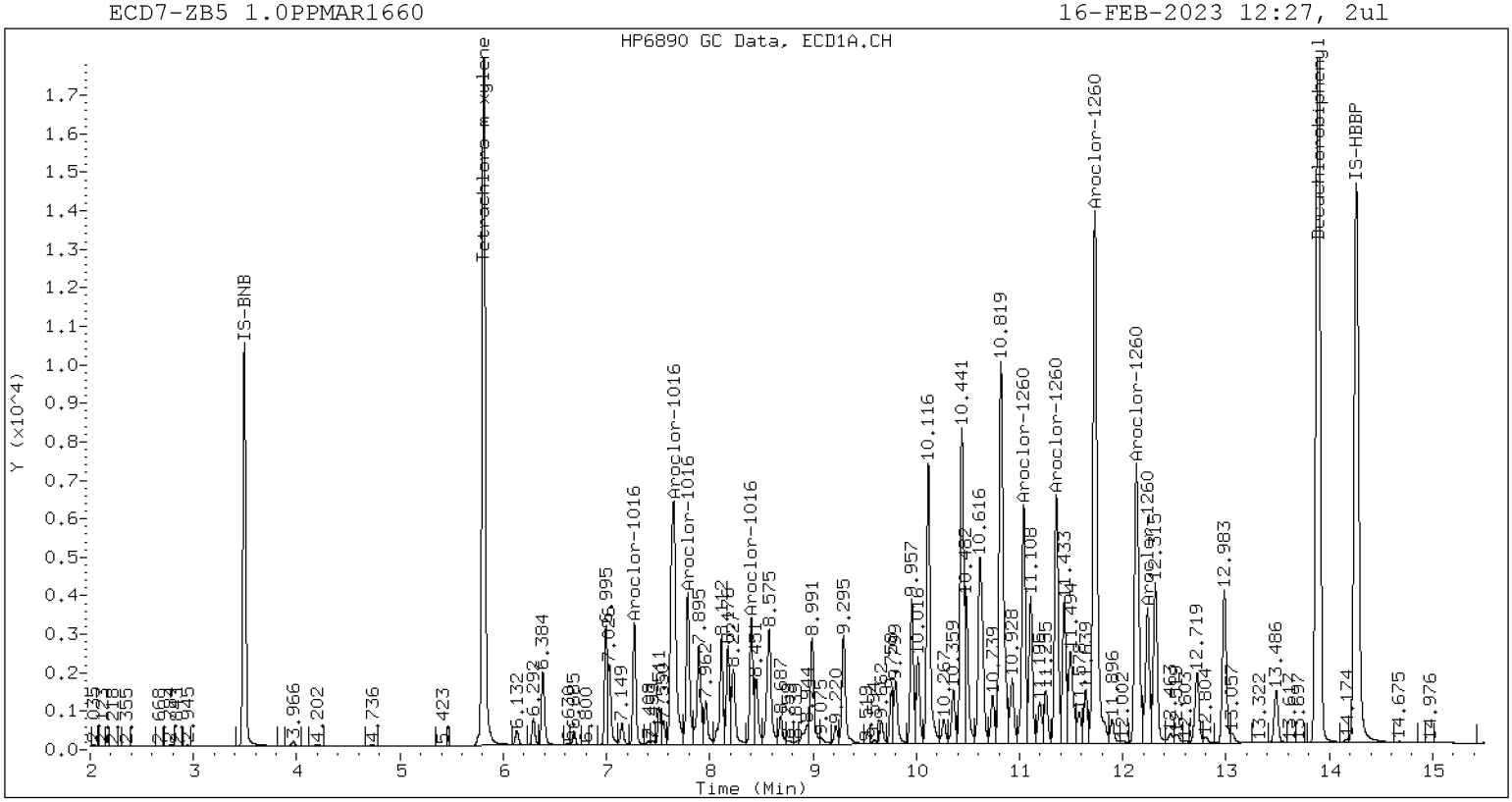
Total PCB Area Col2 (5.786 - 14.018) = 7274392 Col2 Total PCB = 2.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

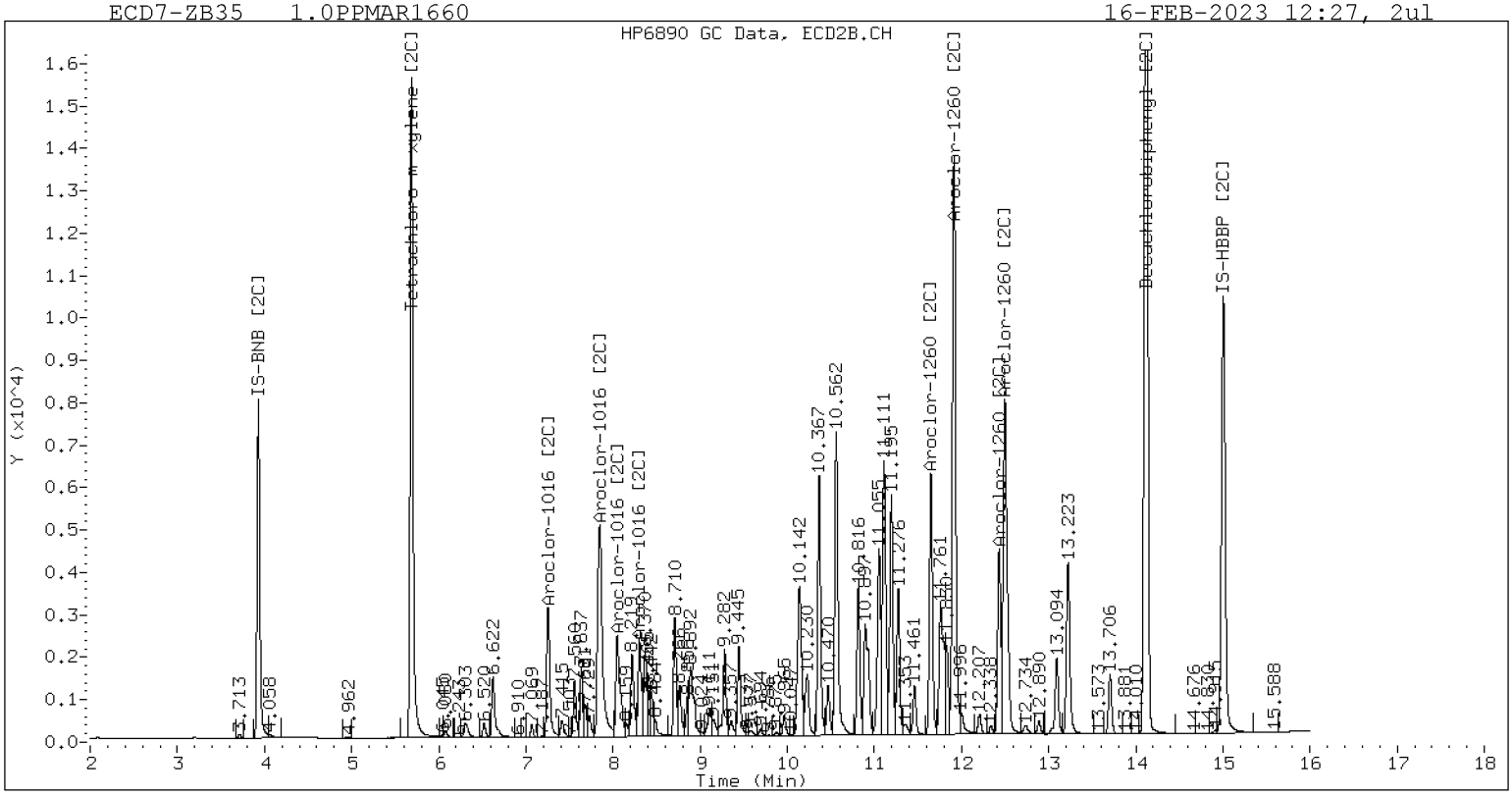
PCB Dual Column Chromatograms

ECD7-ZB5 1.0PPMAR1660 16-FEB-2023 12:27, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 1.0PPMAR1660 16-FEB-2023 12:27, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162306ECD7.D
Data file 2: /230216.b/230216.b/02162306ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:48
Report Date: 02/17/2023 08:58
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	97353	5.687	0.001	77790	16.1	16.0	1.1	Tetrachloro-m-xylene
13.890	-0.001	143814	14.117	-0.001	141007	16.6	15.4	7.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	425206	-15.5
Hexabromobiphenyl	647433	982762	51.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	361068	7.2
Hexabromobiphenyl	382032	654989	71.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	15562	100.5	1	7.254	-0.000	20282	102.5
Aroclor-1016	2	7.653	0.003	49218	99.3	2	7.855	0.004	43303	103.0
Aroclor-1016	3	7.790	0.003	23916	104.9	3	8.054	0.005	18932	109.6
Aroclor-1016	4	8.404	0.002	14884	99.2	4	8.306	0.002	15145	108.1
Total Col1Ave (4 peaks):					101.0	Total Col2Ave (4 peaks):				105.8 RPD = 5
Corrected Ave (3 peaks):					99.6	Corrected Ave (3 peaks):				104.5 RPD = 5
CalAmt %D:					1.0	CalAmt %D:				5.8
Aroclor-1260	1	11.042	0.002	34109	100.7	1	11.651	0.001	34102	93.9
Aroclor-1260	2	11.358	0.001	34951	100.8	2	11.917	0.002	87139	95.4
Aroclor-1260	3	11.733	0.003	92326	100.6	3	12.434	0.001	21226	86.9
Aroclor-1260	4	12.137	0.003	45803	98.3	4	12.500	0.002	57343	93.6
Aroclor-1260	5	12.241	0.001	19653	98.3	NS	---			----
Total Col1Ave (5 peaks):					99.7	Total Col2Ave (4 peaks):				92.4 RPD = 8
Corrected Ave (4 peaks):					99.5	Corrected Ave (3 peaks):				91.4 RPD = 8
CalAmt %D:					-0.3	CalAmt %D:				-7.6

Total PCB Area Col1 (5.908 - 13.791) = 948624 Col1 Total PCB = 0.2 ppm*

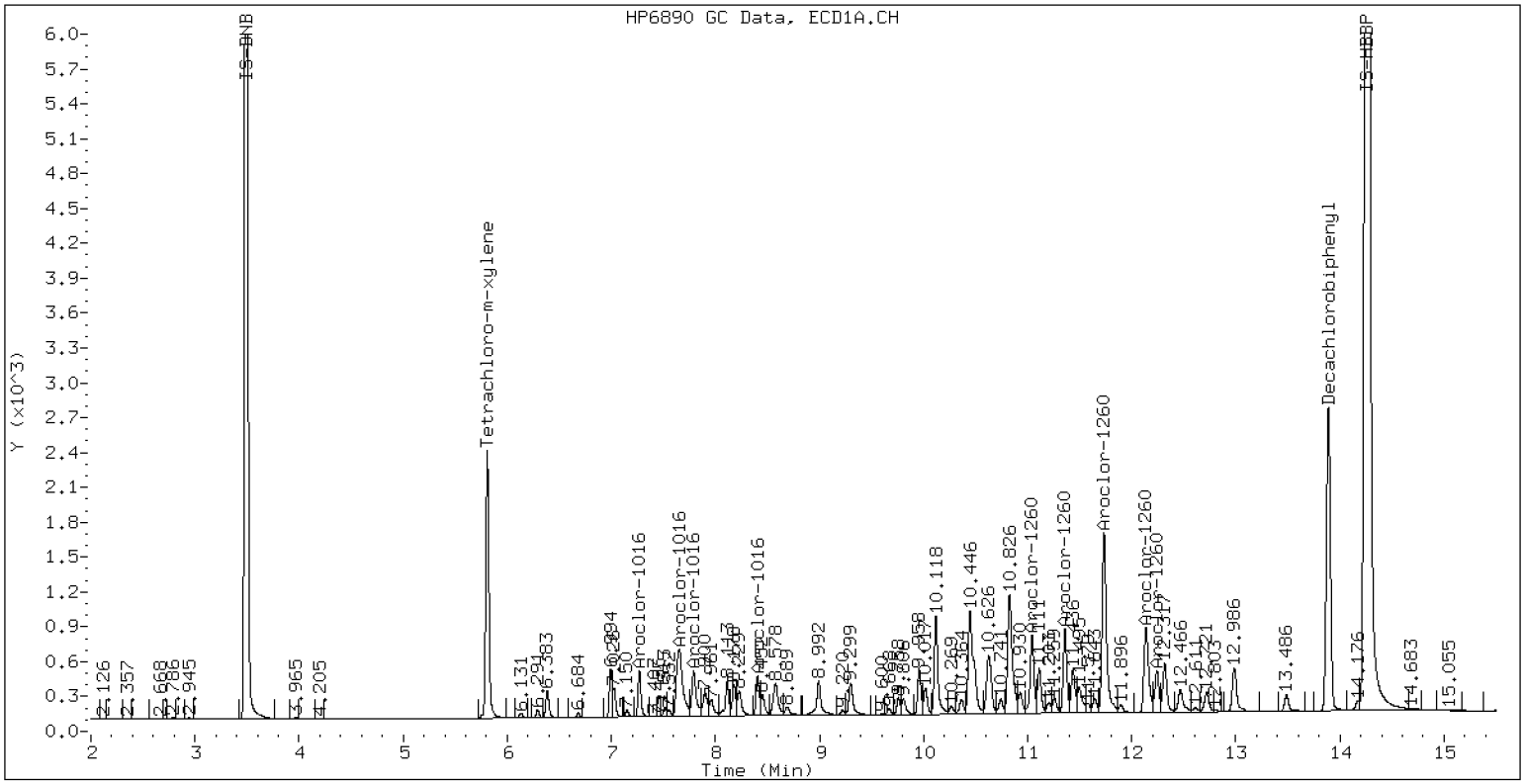
Total PCB Area Col2 (5.786 - 14.018) = 817080 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

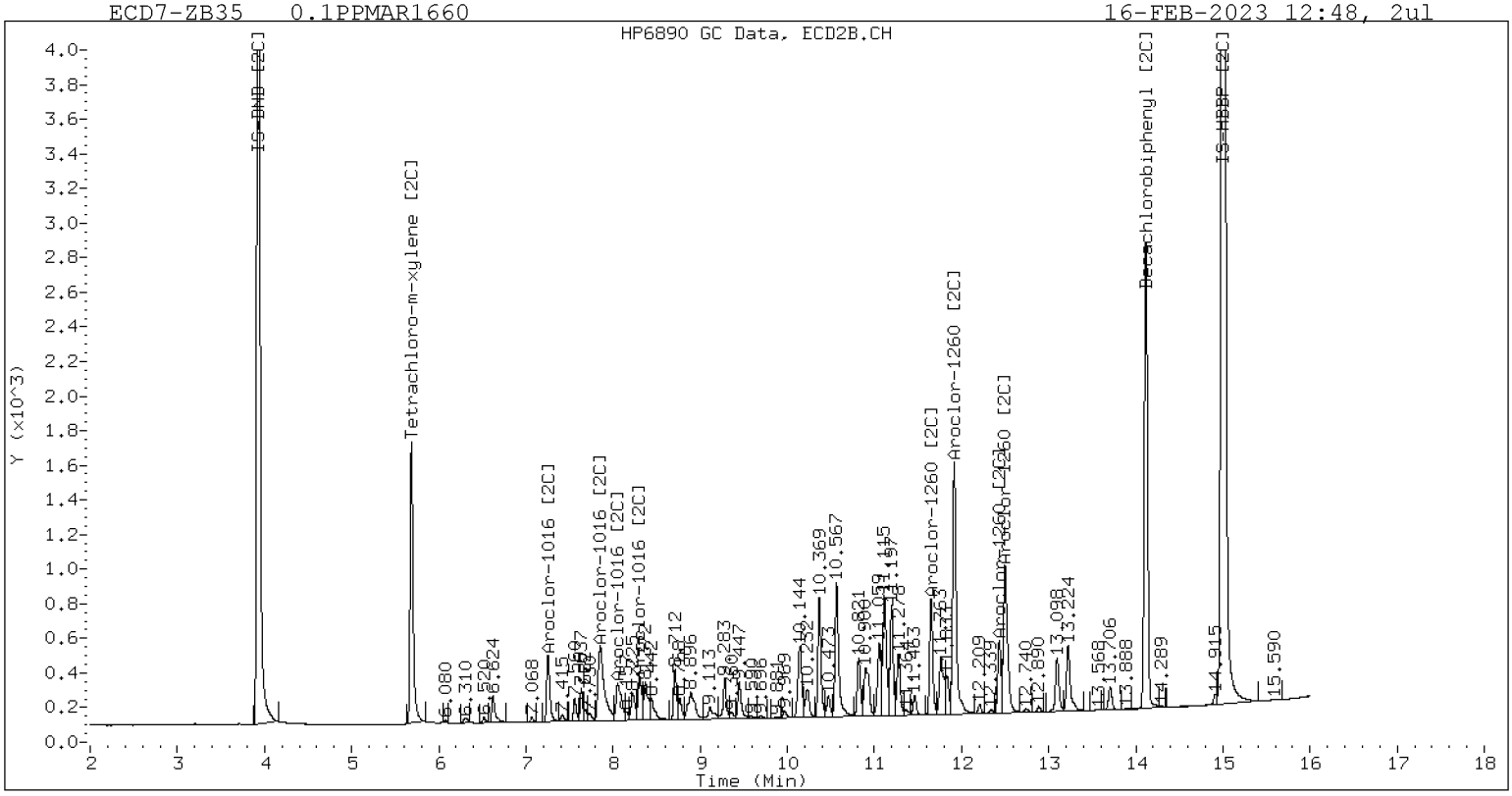
PCB Dual Column Chromatograms

ECD7-ZB5 0.1PPMAR1660 16-FEB-2023 12:48, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.1PPMAR1660 16-FEB-2023 12:48, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162307ECD7.D
Data file 2: /230216.b/230216.b/02162307ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 13:09
Report Date: 02/17/2023 08:58
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	472991	5.686	0.001	380587	78.5	78.1	0.6	Tetrachloro-m-xylene
13.890	-0.001	654829	14.118	-0.000	723440	75.9	79.7	5.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	424511	-15.7
Hexabromobiphenyl	647433	980103	51.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	361199	7.2
Hexabromobiphenyl	382032	650552	70.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	74222	480.1	1	7.254	0.000	92105	465.4
Aroclor-1016	2	7.650	0.000	249600	504.2	2	7.851	0.000	210359	500.4
Aroclor-1016	3	7.787	0.000	104974	461.1	3	8.049	0.000	87658	507.1
Aroclor-1016	4	8.402	0.000	75363	503.0	4	8.304	0.000	65546	467.6
Total Col1Ave (4 peaks):					487.1	Total Col2Ave (4 peaks):				485.1 RPD = 0
Corrected Ave (3 peaks):					481.4	Corrected Ave (3 peaks):				477.8 RPD = 1
CalAmt %D:					-2.6	CalAmt %D:				-3.0
Aroclor-1260	1	11.041	0.000	166809	493.7	1	11.650	0.000	160885	446.0
Aroclor-1260	2	11.357	0.000	172259	498.3	2	11.915	0.000	410338	452.2
Aroclor-1260	3	11.731	0.000	445028	486.1	3	12.432	0.000	110865	456.7
Aroclor-1260	4	12.134	0.000	236535	508.9	4	12.498	0.000	278934	458.2
Aroclor-1260	5	12.240	0.000	98968	496.5	NS	---			----
Total Col1Ave (5 peaks):					496.7	Total Col2Ave (4 peaks):				453.3 RPD = 9
Corrected Ave (4 peaks):					493.7	Corrected Ave (3 peaks):				451.6 RPD = 9
CalAmt %D:					-0.7	CalAmt %D:				-9.3

Total PCB Area Col1 (5.908 - 13.791) = 4638448 Col1 Total PCB = 0.9 ppm*

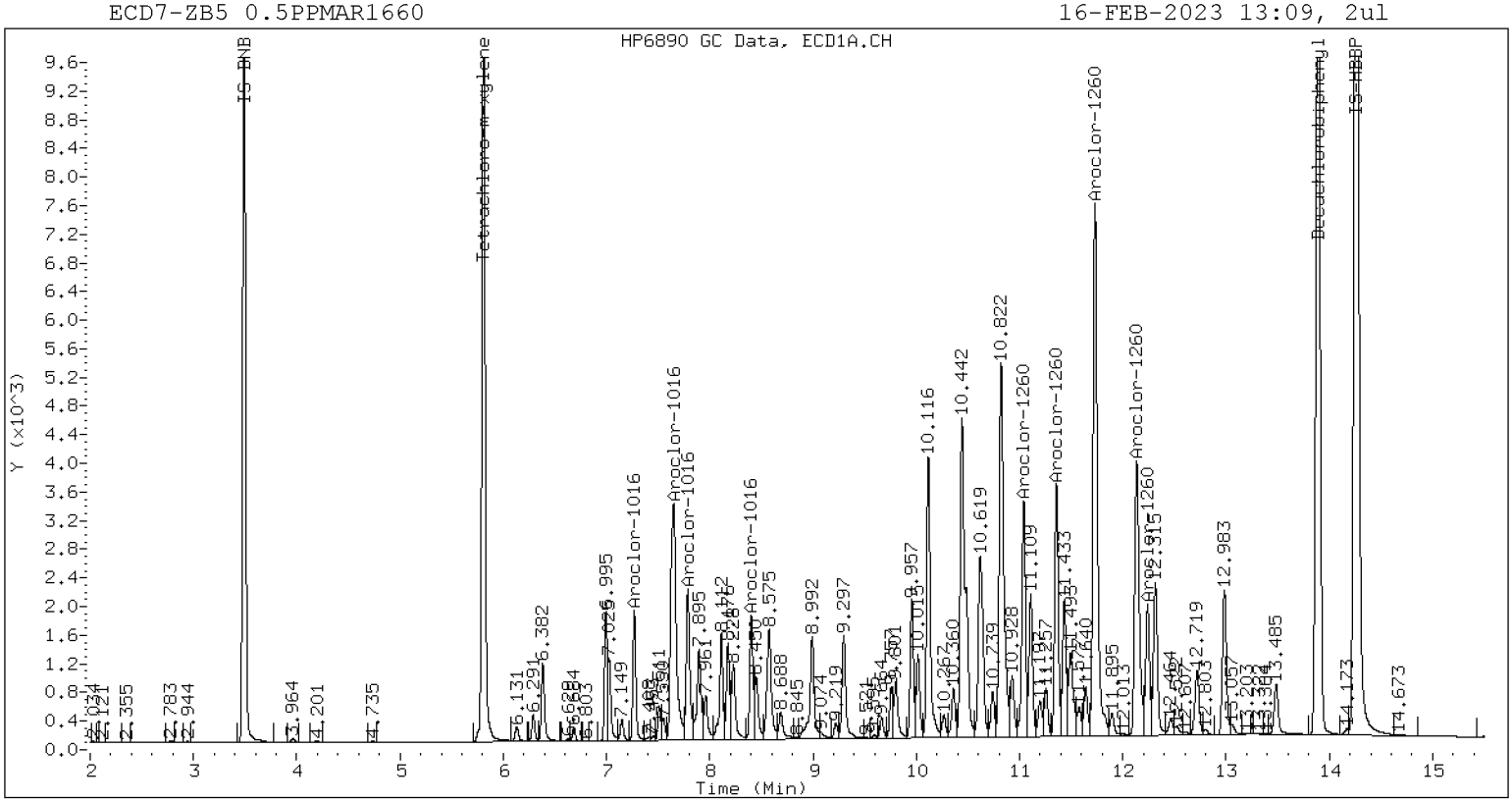
Total PCB Area Col2 (5.786 - 14.018) = 3867644 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

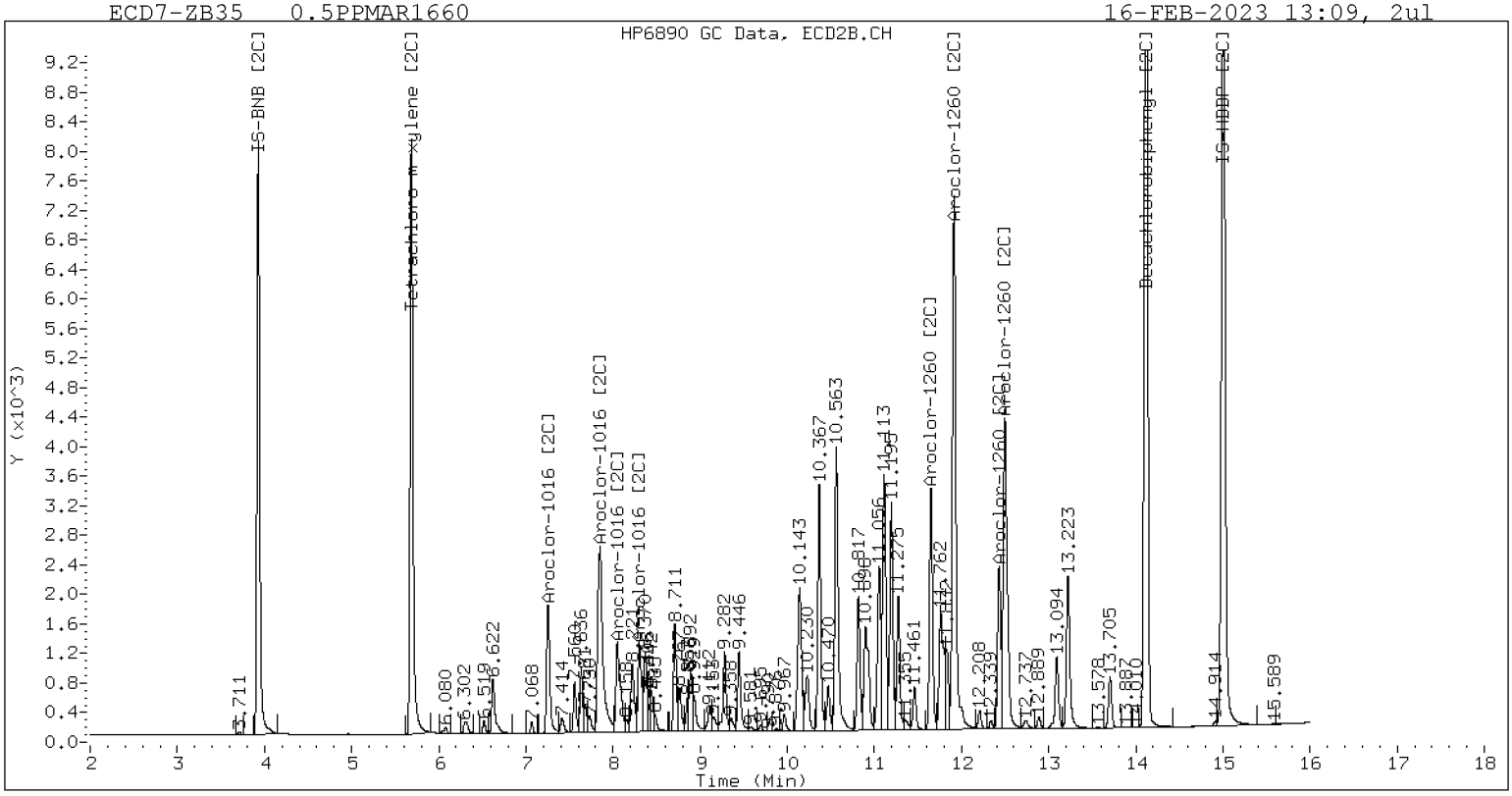
PCB Dual Column Chromatograms

ECD7-ZB5 0.5PPMAR1660 16-FEB-2023 13:09, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.5PPMAR1660 16-FEB-2023 13:09, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162308ECD7.D
Data file 2: /230216.b/230216.b/02162308ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1242
Client ID:
Injection Date: 16-FEB-2023 13:30
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	287664	5.686	0.000	229806	46.8	46.6	0.6	Tetrachloro-m-xylene
13.891	0.000	335023	14.117	-0.001	345735	37.9	37.1	2.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	432799	-14.0
Hexabromobiphenyl	647433	1004715	55.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	365812	8.6
Hexabromobiphenyl	382032	667992	74.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.269	0.000	32233	250.0	1	7.254	0.000	39556	250.0
Aroclor-1242	2	7.652	0.000	102000	250.0	2	7.853	0.000	85705	250.0
Aroclor-1242	3	8.403	0.000	30824	250.0	3	9.160	0.000	27091	250.0
Aroclor-1242	4	8.577	0.000	45526	250.0	4	9.587	0.000	32851	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 766603 Col1 Total PCB = 0.2 ppm*

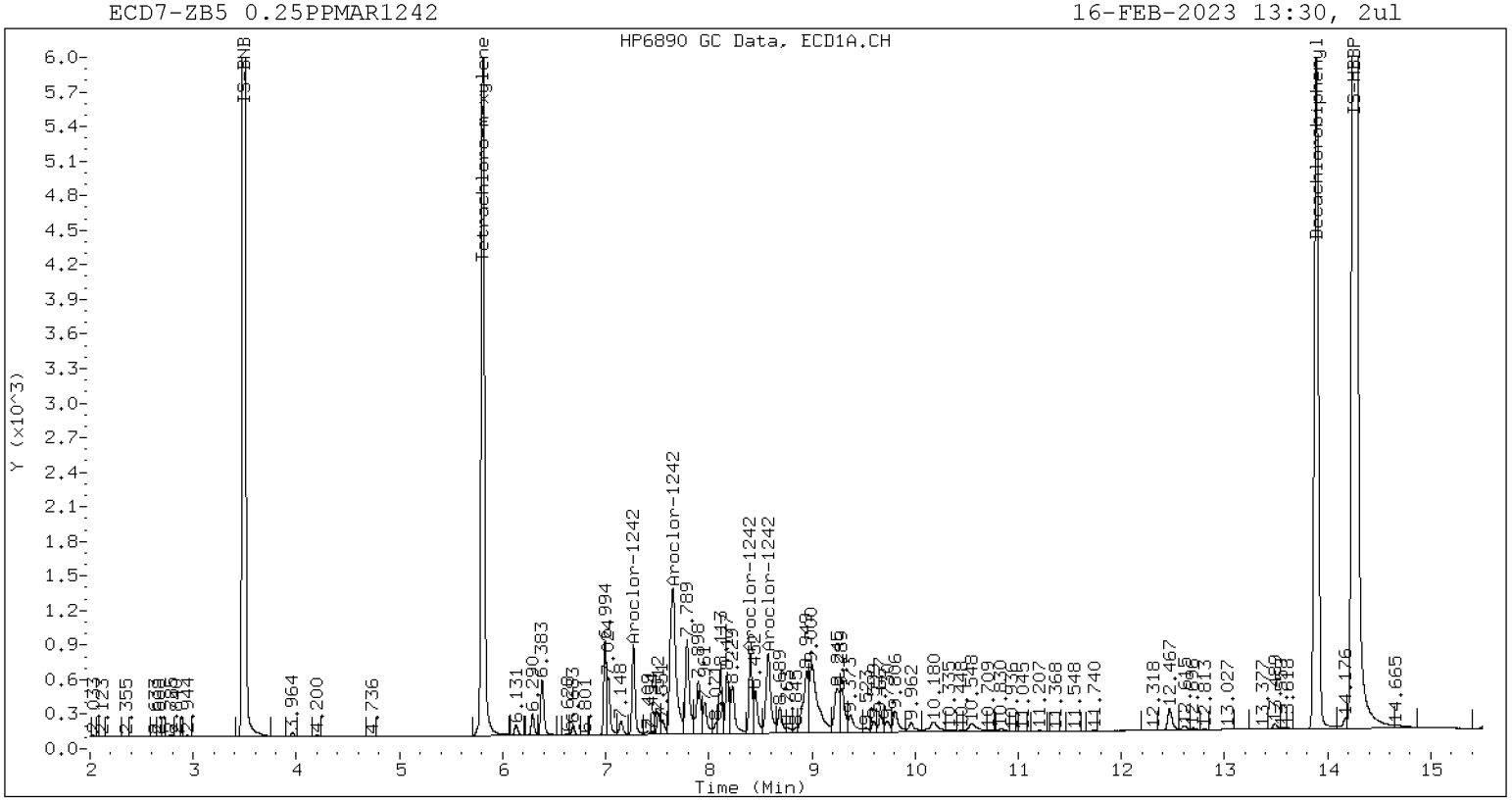
Total PCB Area Col2 (5.786 - 14.018) = 618238 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

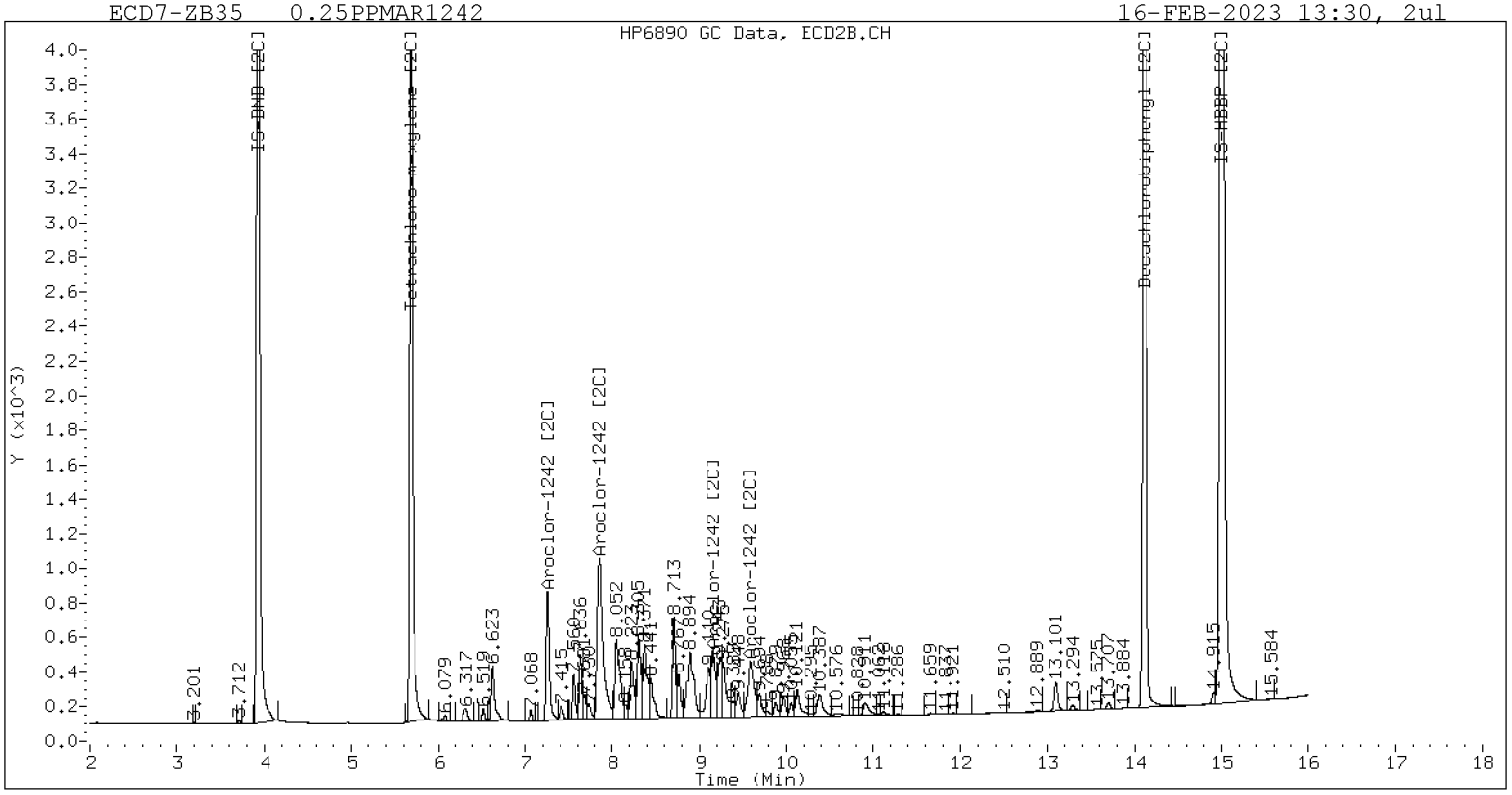
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1242 16-FEB-2023 13:30, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1242 16-FEB-2023 13:30, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162309ECD7.D
Data file 2: /230216.b/230216.b/02162309ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1248
Client ID:
Injection Date: 16-FEB-2023 13:51
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	235858	5.688	0.002	191205	38.1	38.3	0.5	Tetrachloro-m-xylene
13.889	-0.002	339581	14.117	-0.001	351690	38.5	38.0	1.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	435779	-13.4
Hexabromobiphenyl	647433	1000233	54.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	369685	9.7
Hexabromobiphenyl	382032	662877	73.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.403	0.000	52538	250.0	1	8.305	0.000	41694	250.0
Aroclor-1248	2	8.577	0.000	66305	250.0	2	8.712	0.000	43865	250.0
Aroclor-1248	3	8.996	0.000	93719	250.0	3	9.159	0.000	50687	250.0
Aroclor-1248	4	9.292	0.000	59273	250.0	4	9.581	0.000	61479	250.0

Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1025602 Col1 Total PCB = 0.2 ppm*

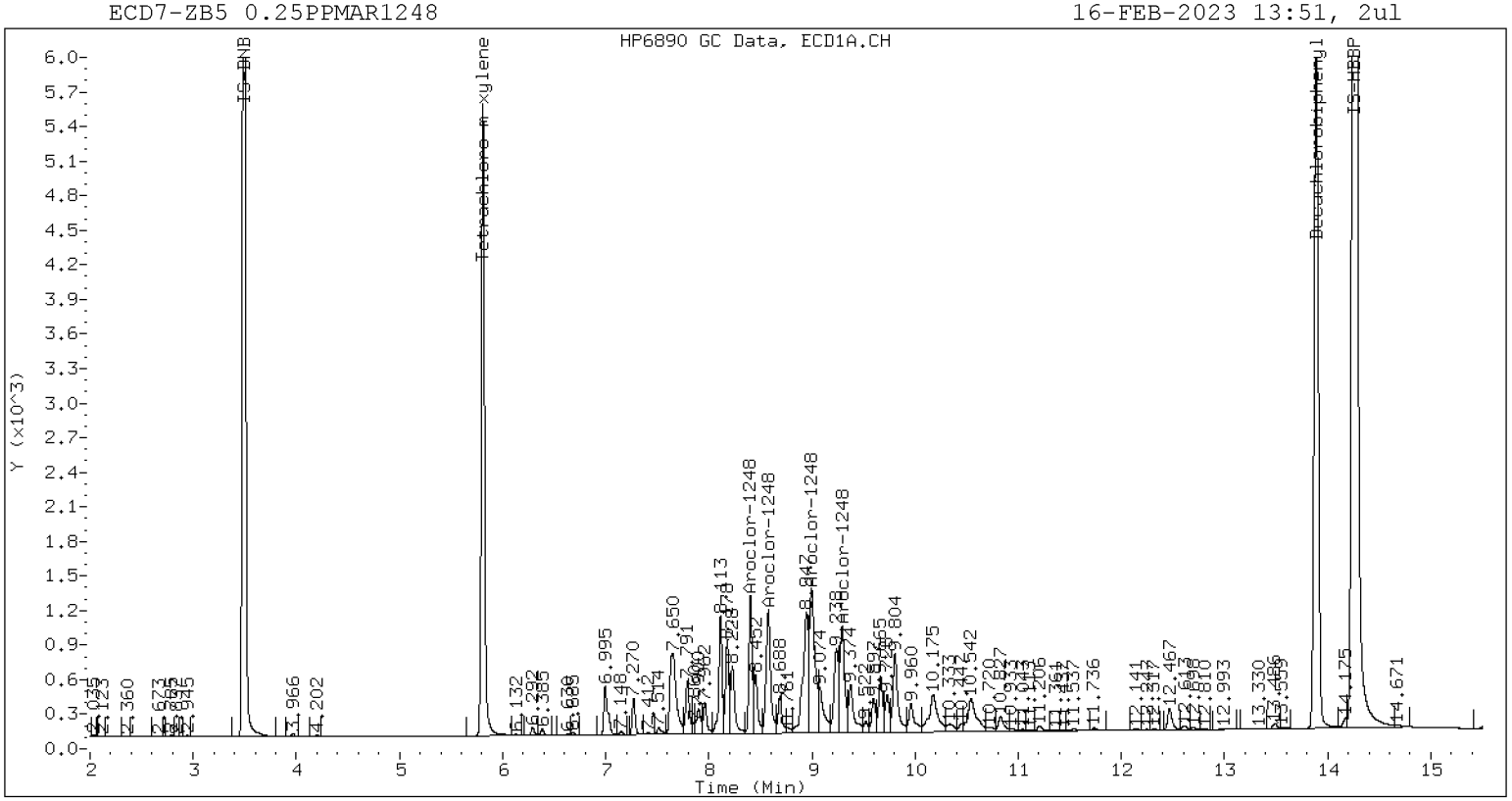
Total PCB Area Col2 (5.786 - 14.018) = 824415 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

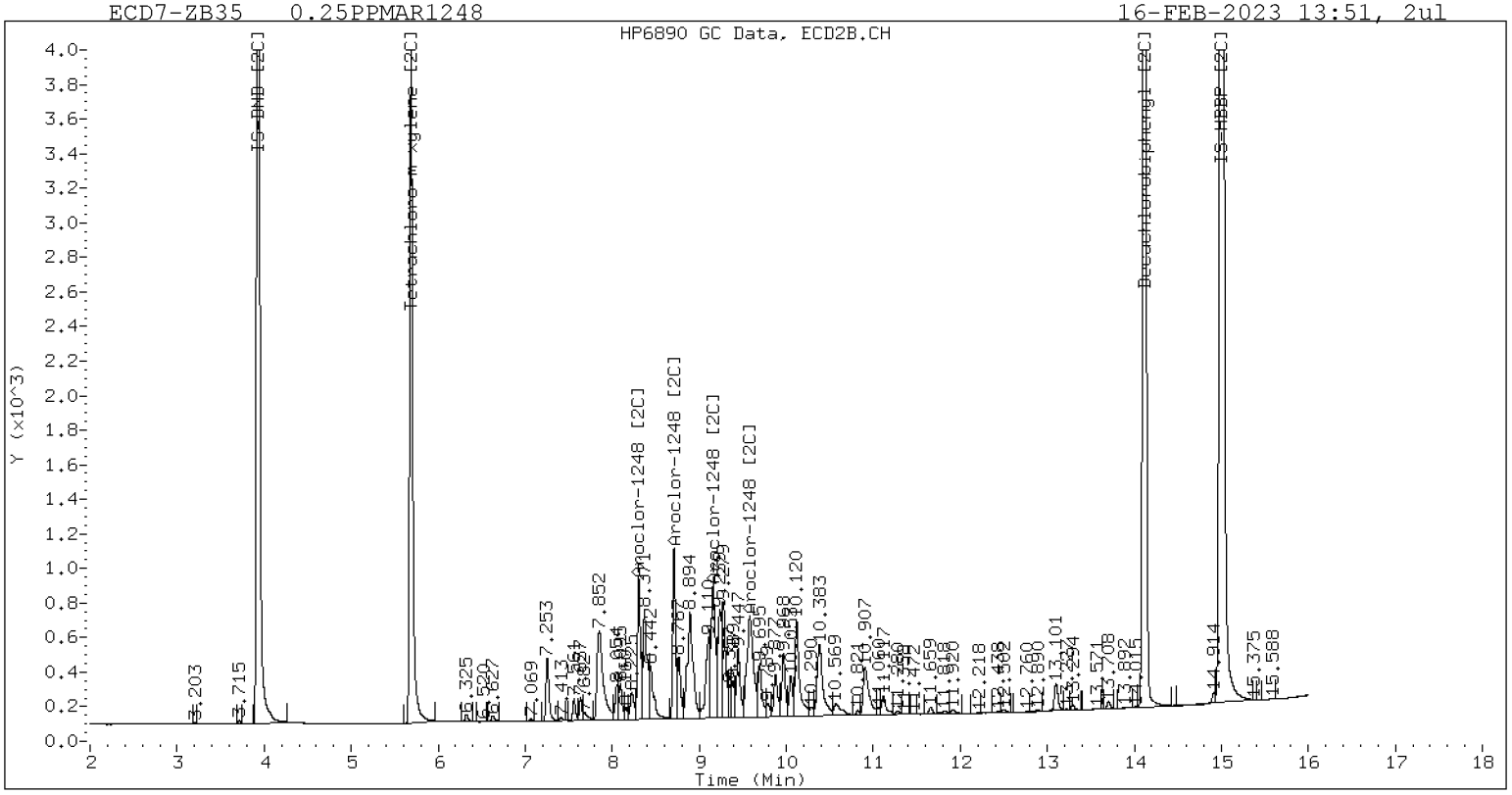
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1248 16-FEB-2023 13:51, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1248 16-FEB-2023 13:51, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162310ECD7.D
Data file 2: /230216.b/230216.b/02162310ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1254
Client ID:
Injection Date: 16-FEB-2023 14:12
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	235903	5.686	0.001	191667	38.0	38.3	0.7	Tetrachloro-m-xylene
13.891	0.000	345464	14.117	-0.001	355579	38.7	38.0	1.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	437427	-13.1
Hexabromobiphenyl	647433	1013635	56.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	371000	10.1
Hexabromobiphenyl	382032	671465	75.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	9.295	0.000	105834	250.0	1	9.447	0.000	65393	250.0
Aroclor-1254	2	9.374	0.000	41671	250.0	2	9.967	0.000	52822	250.0
Aroclor-1254	3	9.665	0.000	67447	250.0	3	10.120	0.000	115063	250.0
Aroclor-1254	4	9.803	0.000	134258	250.0	4	10.370	0.000	113530	250.0
Aroclor-1254	5	10.167	0.000	81893	250.0	5	10.566	0.000	57361	250.0

Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1385653 Col1 Total PCB = 0.3 ppm*

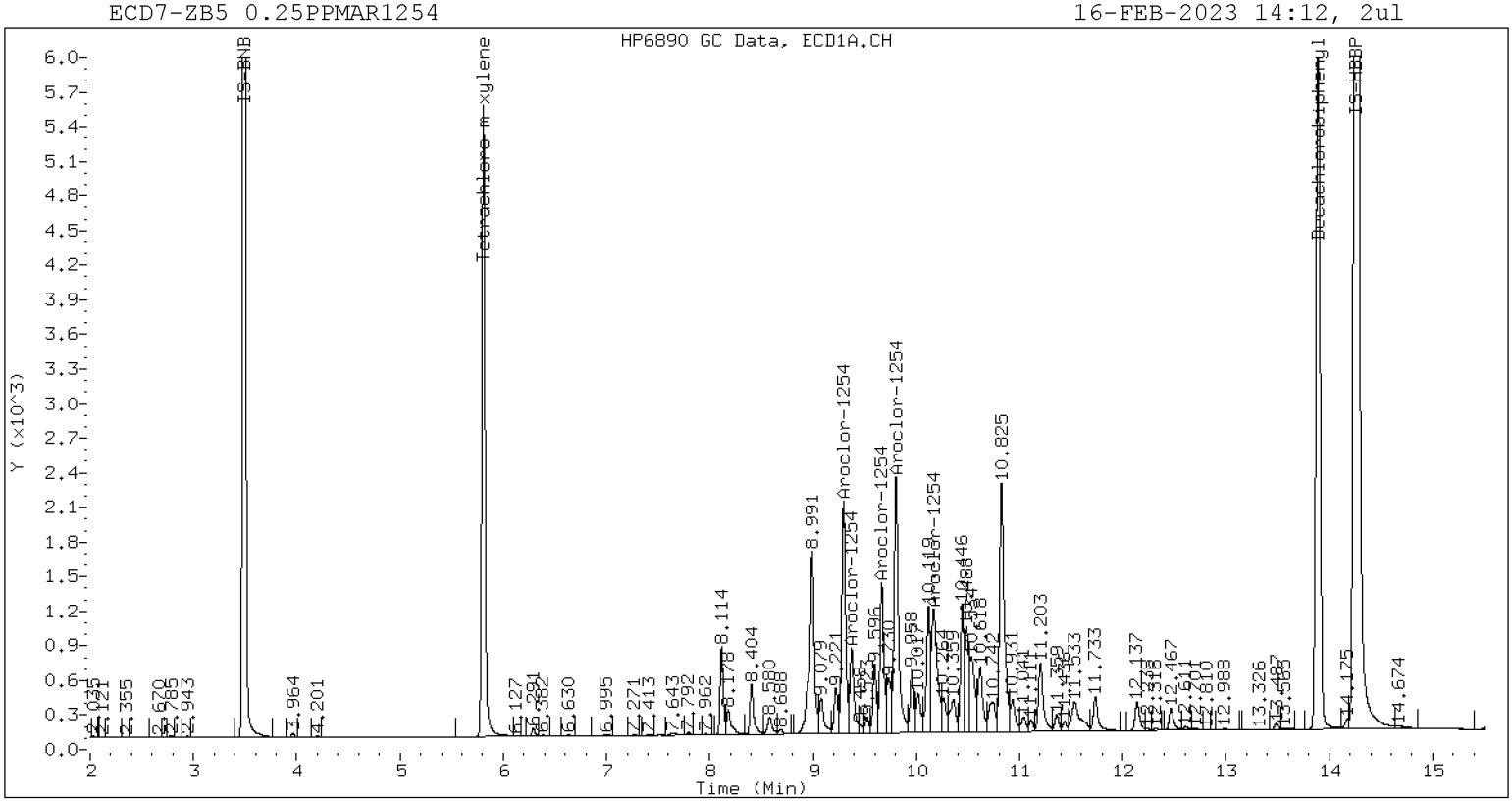
Total PCB Area Col2 (5.786 - 14.018) = 1106329 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

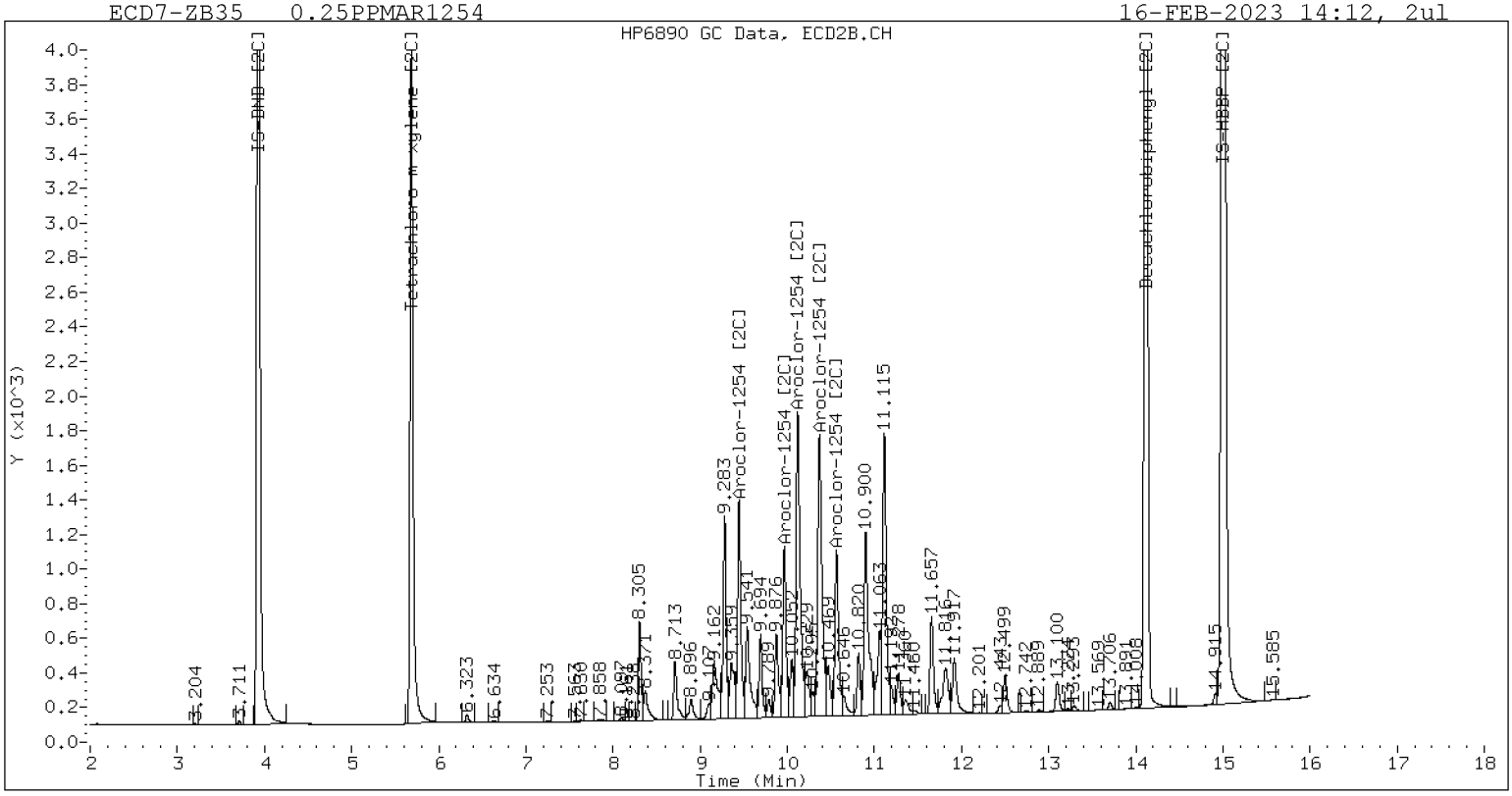
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1254 16-FEB-2023 14:12, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1254 16-FEB-2023 14:12, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

2162

Data file 1: /230216.b/02162311ECD7.D
Data file 2: /230216.b/230216.b/02162311ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR2162.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR2~~168~~
Client ID:
Injection Date: 16-FEB-2023 14:33
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	241501	5.686	-0.000	189710	38.6	38.6	0.2	Tetrachloro-m-xylene
13.891	0.000	336556	14.118	0.000	345795	38.0	37.2	2.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	440775	-12.4
Hexabromobiphenyl	647433	1005738	55.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	364664	8.2
Hexabromobiphenyl	382032	666787	74.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1221	1	4.732	0.000	8560	250.0	1	4.958	0.000	6777	250.0
Aroclor-1221	2	6.133	0.000	15969	250.0	2	6.298	0.000	14550	250.0
Aroclor-1221	3	6.383	0.000	36928	250.0	3	6.622	0.000	24370	250.0
	Total Col1Ave (3 peaks):				250.0	Total Col2Ave (3 peaks):				250.0 RPD = 0
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.824	0.000	73471	250.0	1	11.198	0.000	124591	250.0
Aroclor-1262	2	12.242	0.000	120422	250.0	2	11.649	0.000	107557	250.0
Aroclor-1262	3	12.317	0.000	129860	250.0	3	12.431	0.000	117102	250.0
Aroclor-1262	4	12.984	0.000	112297	250.0	4	12.500	0.000	186359	250.0
	Total Col1Ave (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
	Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1985753 Col1 Total PCB = 0.4 ppm*

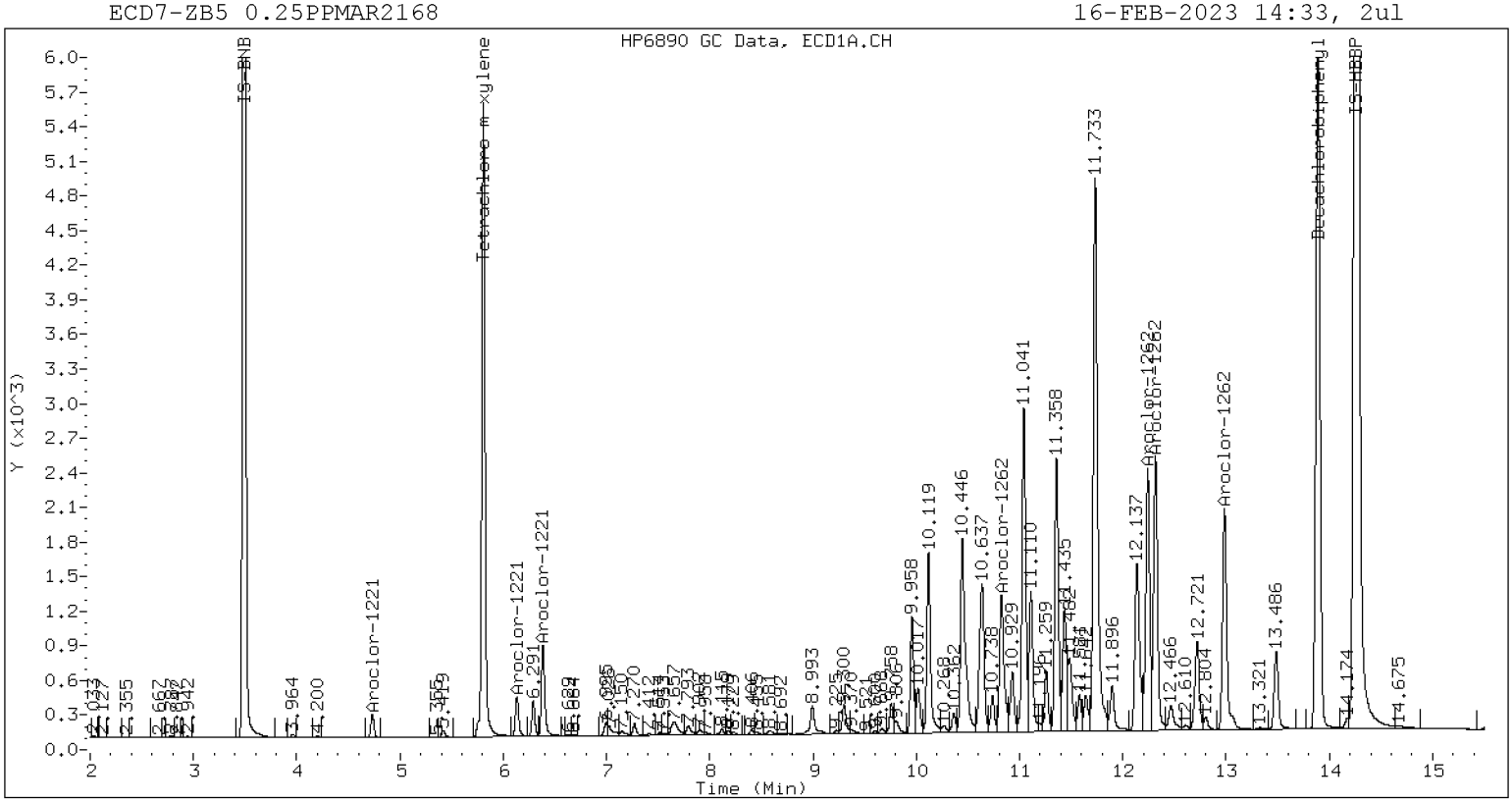
Total PCB Area Col2 (5.786 - 14.018) = 1689172 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

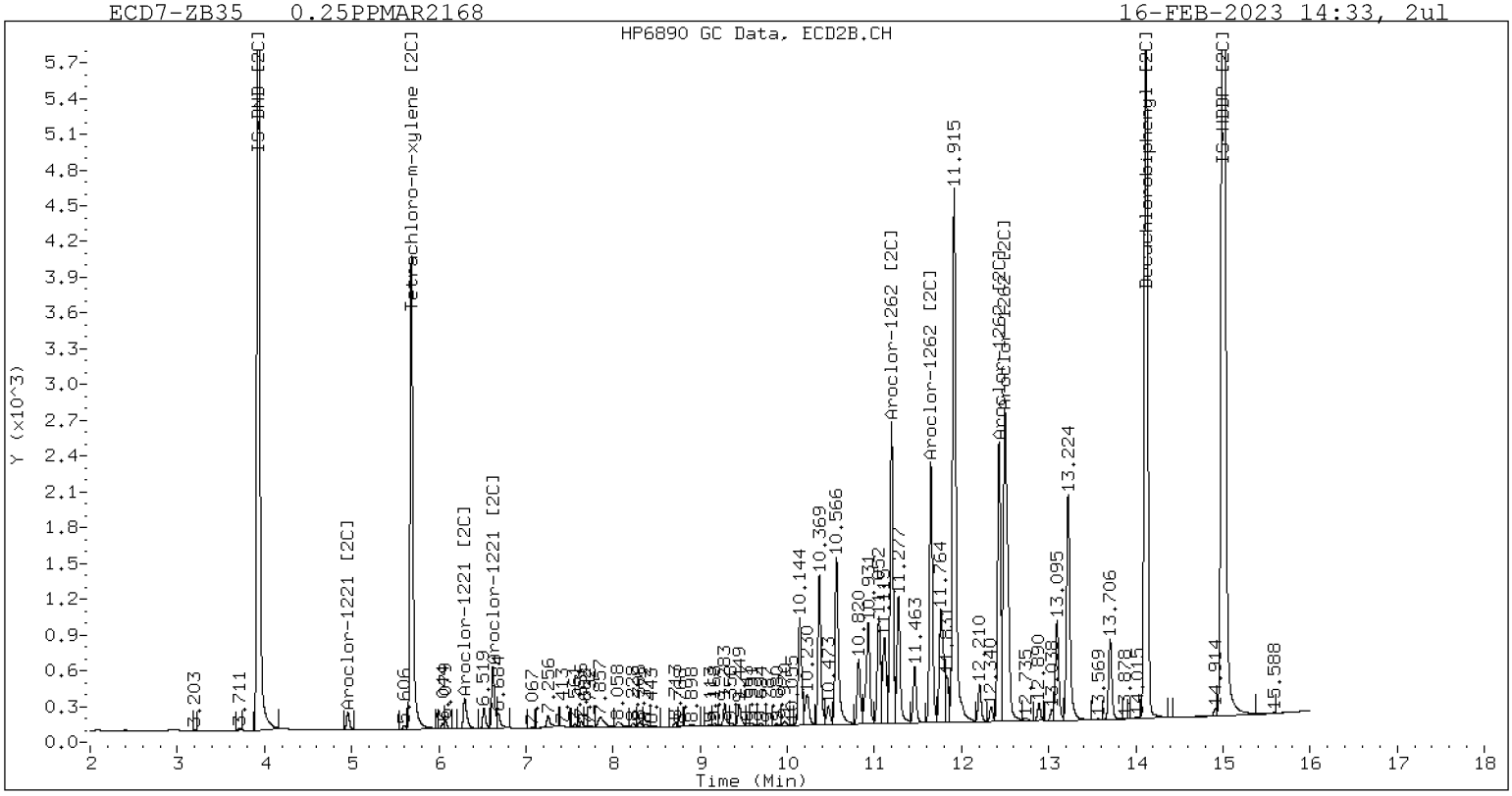
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR2168 16-FEB-2023 14:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR2168 16-FEB-2023 14:33, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162312ECD7.D
Data file 2: /230216.b/230216.b/02162312ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR3268.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR3268
Client ID:
Injection Date: 16-FEB-2023 14:54
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	244394	5.686	0.000	193636	39.3	39.4	0.2	Tetrachloro-m-xylene
13.891	0.000	497881	14.118	0.000	532832	55.7	57.0	2.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	438085	-13.0
Hexabromobiphenyl	647433	1014892	56.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	364382	8.2
Hexabromobiphenyl	382032	669957	75.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	4.732	0.000	5253	250.0	1	4.958	0.000	4040	250.0
Aroclor-1232	2	6.133	0.000	11086	250.0	2	7.254	0.000	22642	250.0
Aroclor-1232	3	7.654	0.000	53251	250.0	3	7.855	0.000	45239	250.0
Aroclor-1232	4	8.579	0.000	22019	250.0	4	8.712	0.000	12663	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	12.243	0.000	318381	250.0	1	12.431	0.000	304552	250.0
Aroclor-1268	2	12.314	0.000	316432	250.0	2	12.498	0.000	320370	250.0
Aroclor-1268	3	12.697	0.000	268530	250.0	3	12.890	0.000	250965	250.0
Aroclor-1268	4	13.487	0.000	822664	250.0	4	13.707	0.000	877009	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 2577331 Col1 Total PCB = 0.5 ppm*

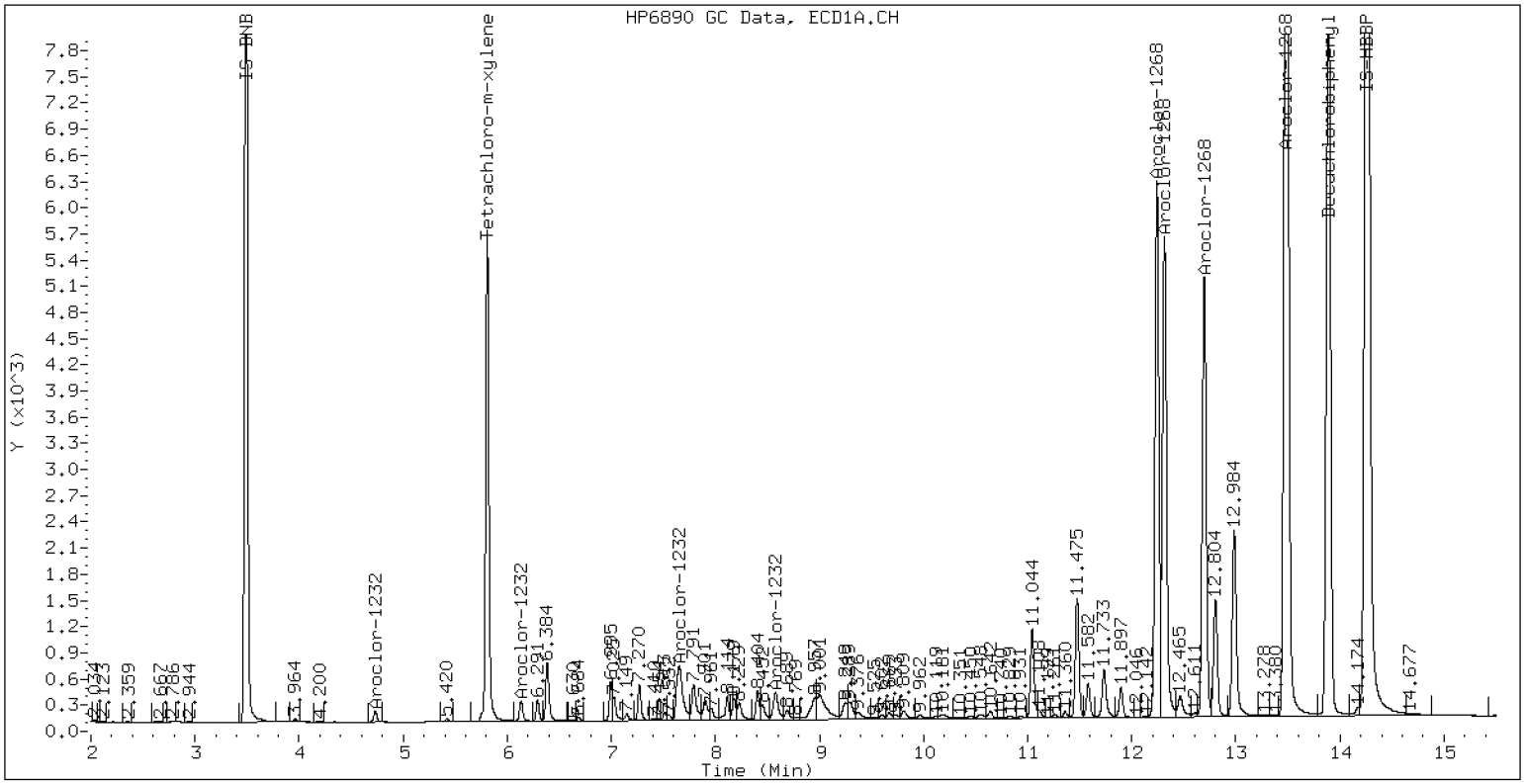
Total PCB Area Col2 (5.786 - 14.018) = 2462840 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

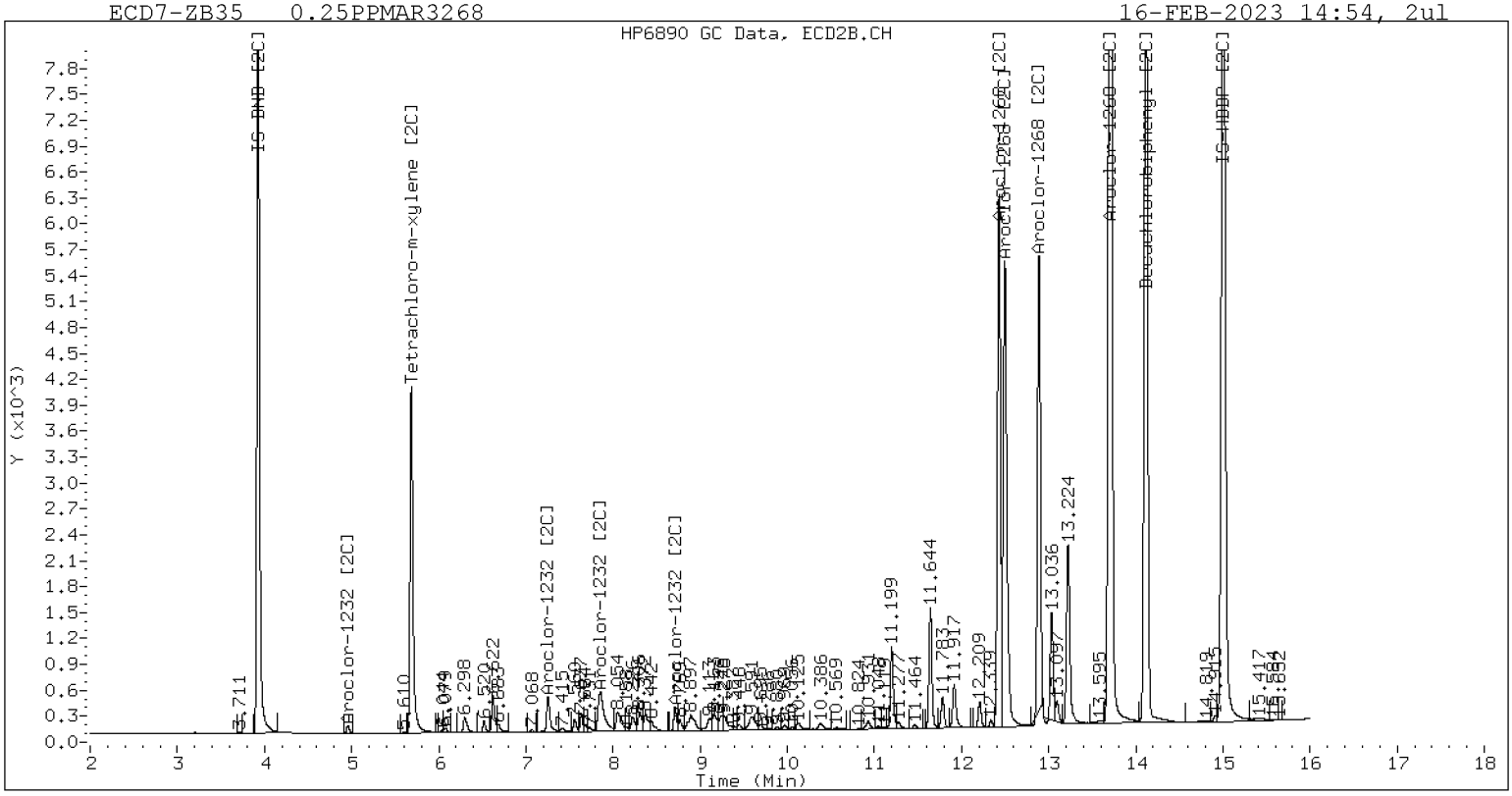
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR3268 16-FEB-2023 14:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR3268 16-FEB-2023 14:54, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162313ECD7.D
Data file 2: /230216.b/230216.b/02162313ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV
Client ID:
Injection Date: 16-FEB-2023 15:15
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.001	242919	5.685	-0.001	193061	37.3	37.2	0.3	Tetrachloro-m-xylene
13.891	-0.000	374845	14.118	0.000	388292	40.4	40.0	1.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	458820	-8.8
Hexabromobiphenyl	647433	1052678	62.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	384524	14.1
Hexabromobiphenyl	382032	695386	82.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	36442	218.1	1	7.253	-0.001	45357	215.3
Aroclor-1016	2	7.652	0.002	116510	217.8	2	7.853	0.002	99069	221.4
Aroclor-1016	3	7.789	0.002	51841	210.7	3	8.052	0.003	42476	230.8
Aroclor-1016	4	8.403	0.001	35760	220.8	4	8.305	0.001	32151	215.4
Total Col1Ave (4 peaks):					216.8	Total Col2Ave (4 peaks):				220.7 RPD = 2
Corrected Ave (3 peaks):					215.5	Corrected Ave (3 peaks):				217.4 RPD = 1
Aroclor-1221	1	4.732	0.000	272	7.6	1	---			0.0
Aroclor-1221	2	6.131	-0.002	4384	65.9	2	6.302	0.004	5219	85.0
Aroclor-1221	3	6.383	-0.000	24508	159.4	3	6.622	0.001	21028	204.6
Total Col1Ave (3 peaks):					77.7	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.732	0.000	272	12.4	1	---			0.0
Aroclor-1232	2	6.131	-0.002	4384	94.4	2	7.253	-0.001	45357	474.6
Aroclor-1232	3	7.652	-0.002	116510	522.3	3	7.853	-0.002	99069	518.8
Aroclor-1232	4	8.577	-0.002	49511	536.7	4	8.712	-0.001	31220	584.1
Total Col1Ave (4 peaks):					291.4	Total Col2Ave (3 peaks):				525.8 RPD = 57*
Corrected Ave (3 peaks):					209.7	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	36442	266.6	1	7.253	-0.001	45357	272.7
Aroclor-1242	2	7.652	0.000	116510	269.4	2	7.853	0.000	99069	274.9
Aroclor-1242	3	8.403	0.000	35760	273.6	3	9.113	-0.047	17818	156.4
Aroclor-1242	4	8.577	-0.000	49511	256.5	4	9.582	-0.005	1661	12.0
Total Col1Ave (4 peaks):					266.5	Total Col2Ave (4 peaks):				179.0 RPD = 39
Corrected Ave (3 peaks):					264.1	Corrected Ave (3 peaks):				147.1 RPD = 57*
Aroclor-1248	1	8.403	0.000	35760	161.6	1	8.305	-0.001	32151	185.3
Aroclor-1248	2	8.577	-0.000	49511	177.3	2	8.712	0.000	31220	171.1
Aroclor-1248	3	8.992	-0.004	46666	118.2	3	9.113	-0.046	17818	84.5
Aroclor-1248	4	9.299	0.007	30647	122.8	4	9.582	0.001	1661	6.5
Total Col1Ave (4 peaks):					145.0	Total Col2Ave (4 peaks):				111.8 RPD = 26
Corrected Ave (3 peaks):					134.2	Corrected Ave (3 peaks):				87.4 RPD = 42*
Aroclor-1254	1	9.299	0.004	30647	69.0	1	9.447	0.001	22012	81.2
Aroclor-1254	2	---			0.0	2	9.969	0.002	2772	12.7
Aroclor-1254	3	9.667	0.002	3608	12.7	3	10.144	0.025	57546	120.6
Aroclor-1254	4	9.805	0.002	12639	22.4	4	10.369	-0.002	77590	164.8
Aroclor-1254	5	10.117	-0.050	100524	292.6	5	10.566	-0.000	106735	448.8
Total Col1Ave (4 peaks):					99.2	Total Col2Ave (5 peaks):				165.6 RPD = 50*
Corrected Ave (3 peaks):					34.7	Corrected Ave (4 peaks):				94.8 RPD = 93*
Aroclor-1260	1	11.042	0.002	99629	274.5	1	11.651	0.001	89434	231.9
Aroclor-1260	2	11.359	0.002	100112	269.7	2	11.915	0.001	237947	245.3
Aroclor-1260	3	11.732	0.002	260880	265.3	3	12.433	0.001	63686	245.4
Aroclor-1260	4	12.137	0.003	124998	250.4	4	12.500	0.002	157792	242.5
Aroclor-1260	5	12.242	0.001	58944	275.3	NS	---			----
Total Col1Ave (5 peaks):					267.0	Total Col2Ave (4 peaks):				241.3 RPD = 10
Corrected Ave (4 peaks):					265.0	Corrected Ave (3 peaks):				239.9 RPD = 10
Aroclor-1262	1	10.824	-0.001	144319	469.2	1	11.197	-0.000	90434	174.0
Aroclor-1262	2	12.242	-0.000	58944	116.9	2	11.651	0.002	89434	199.3
Aroclor-1262	3	12.316	-0.001	73272	134.8	3	12.433	0.002	63686	130.4
Aroclor-1262	4	12.985	0.001	66451	141.3	4	12.500	-0.000	157792	203.0
Total Col1Ave (4 peaks):					215.5	Total Col2Ave (4 peaks):				176.7 RPD = 20
Corrected Ave (3 peaks):					131.0	Corrected Ave (3 peaks):				167.9 RPD = 25
Aroclor-1268	1	12.242	-0.001	58944	44.6	1	12.433	0.002	63686	50.4
Aroclor-1268	2	12.316	0.002	73272	55.8	2	12.500	0.002	157792	118.6
Aroclor-1268	3	12.722	0.025	29543	26.5	3	12.890	0.000	1866	1.8
Aroclor-1268	4	13.486	-0.001	13453	3.9	4	13.707	0.000	11995	3.3
Total Col1Ave (4 peaks):					32.7	Total Col2Ave (4 peaks):				43.5 RPD = 28
Corrected Ave (3 peaks):					25.0	Corrected Ave (3 peaks):				18.5 RPD = 30

Total PCB Area Col1 (5.908 - 13.791) = 2405704 Col1 Total PCB = 0.5 ppm*

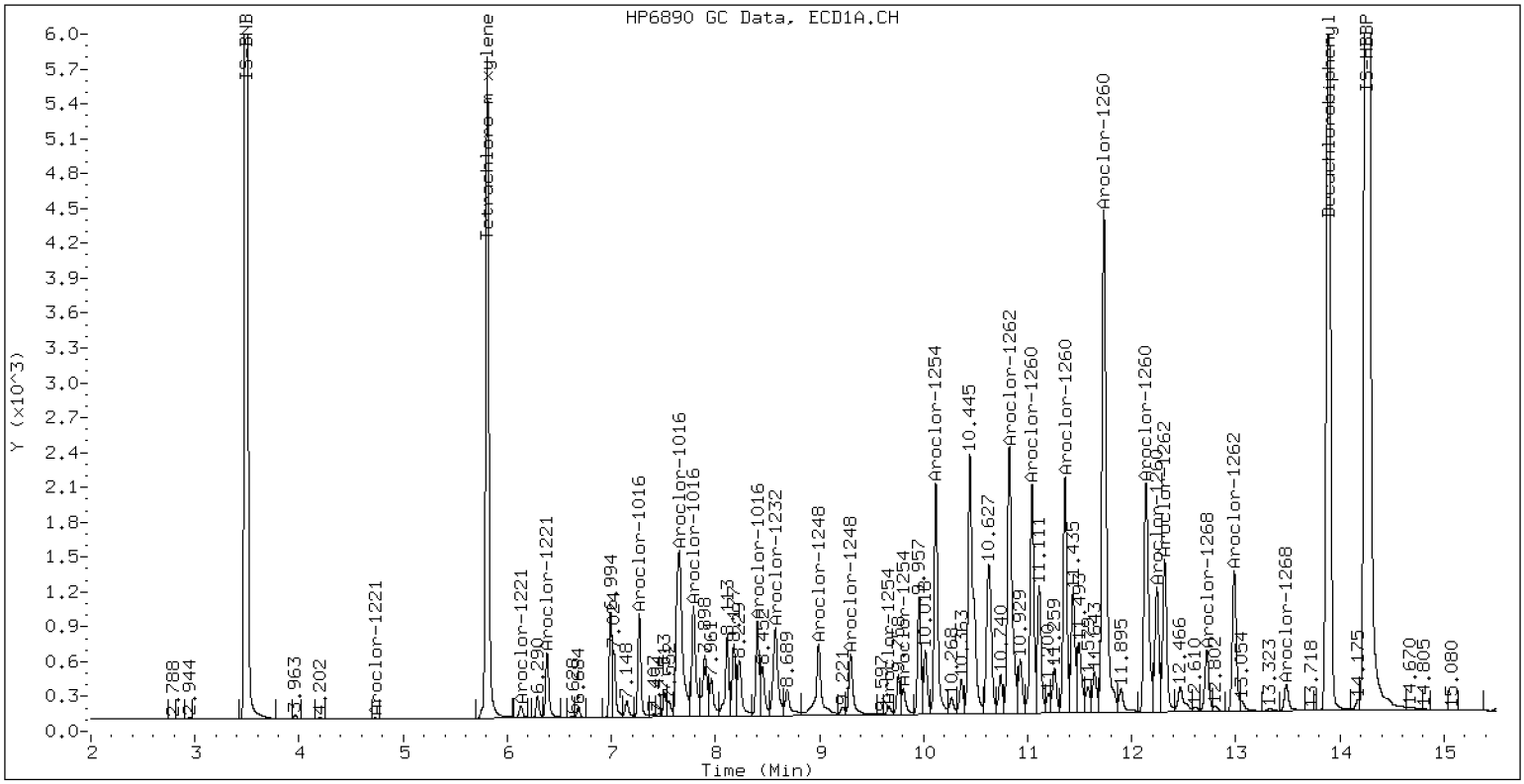
Total PCB Area Col2 (5.786 - 14.018) = 1998655 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

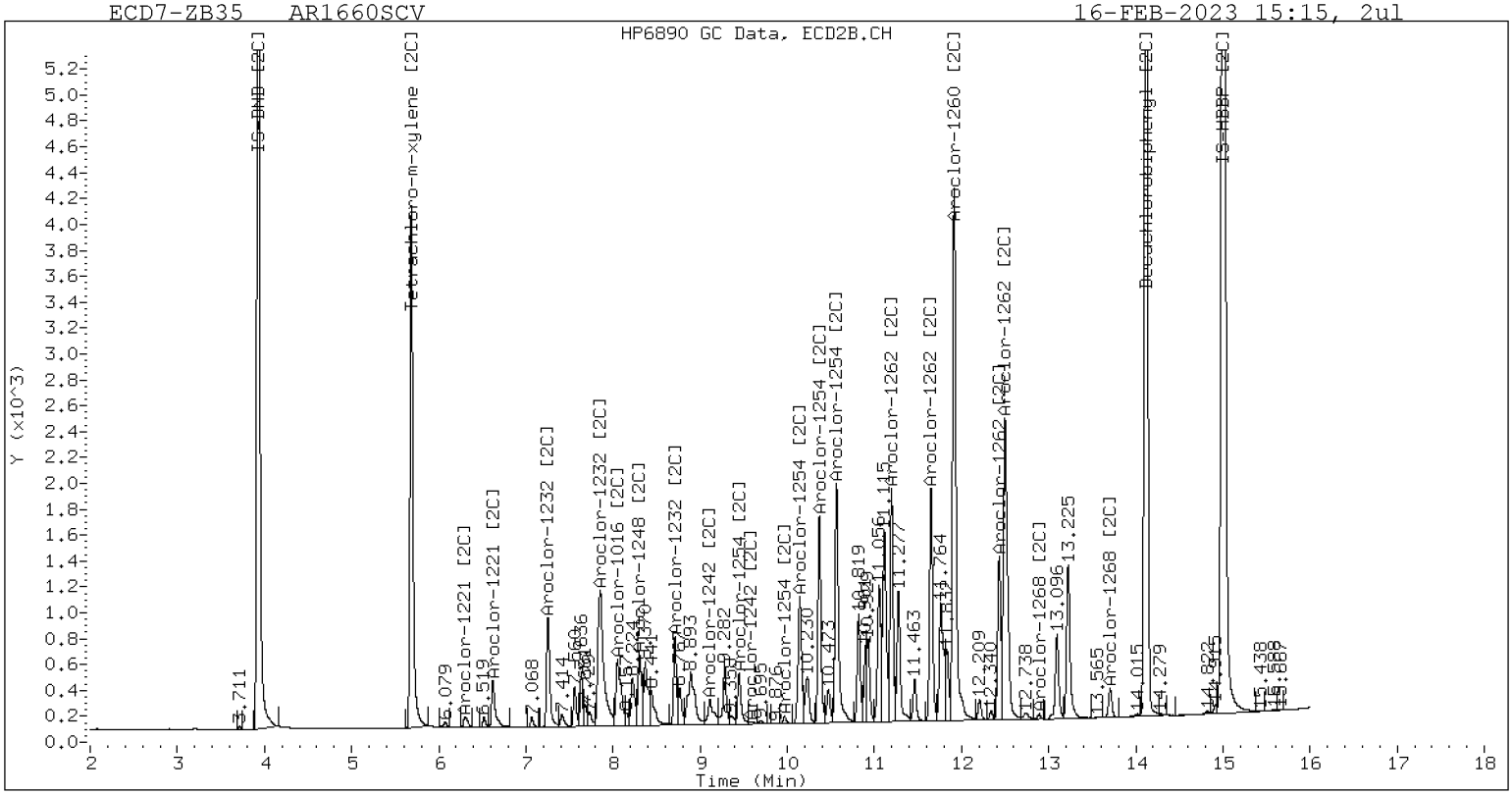
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660SCV 16-FEB-2023 15:15, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660SCV 16-FEB-2023 15:15, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162314ECD7.D
Data file 2: /230216.b/230216.b/02162314ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV
Client ID:
Injection Date: 16-FEB-2023 15:36
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	240392	5.686	0.000	191518	36.8	36.8	0.0	Tetrachloro-m-xylene
13.891	0.000	372444	14.118	-0.000	384306	40.3	39.9	1.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	460847	-8.4
Hexabromobiphenyl	647433	1048824	62.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	386112	14.6
Hexabromobiphenyl	382032	690141	80.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	7.269	0.000	26450	157.6	1	7.253	-0.001	35202	166.4
Aroclor-1016	2	7.651	0.001	91590	170.4	2	7.851	-0.000	76062	169.2
Aroclor-1016	3	7.789	0.002	38405	155.4	3	8.051	0.002	31745	171.8
Aroclor-1016	4	8.403	0.001	28918	177.8	4	8.304	0.000	24379	162.7
Total Col1Ave (4 peaks):					165.3	Total Col2Ave (4 peaks):				167.5 RPD = 1
Corrected Ave (3 peaks):					161.1	Corrected Ave (3 peaks):				166.1 RPD = 3
Aroclor-1221	1	4.736	0.004	158	4.4	1	---			0.0
Aroclor-1221	2	6.131	-0.002	3413	51.1	2	6.318	0.020	4305	69.9
Aroclor-1221	3	6.383	-0.000	18978	122.9	3	6.623	0.001	15561	150.8
Total Col1Ave (3 peaks):					59.5	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.736	0.004	158	7.1	1	---			0.0
Aroclor-1232	2	6.131	-0.002	3413	73.2	2	7.253	-0.001	35202	366.8
Aroclor-1232	3	7.651	-0.003	91590	408.8	3	7.851	-0.004	76062	396.7
Aroclor-1232	4	8.577	-0.002	48090	519.0	4	8.712	-0.001	24445	455.4
Total Col1Ave (4 peaks):					252.0	Total Col2Ave (3 peaks):				406.3 RPD = 47*
Corrected Ave (3 peaks):					163.0	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	26450	192.7	1	7.253	-0.000	35202	210.8
Aroclor-1242	2	7.651	-0.001	91590	210.8	2	7.851	-0.002	76062	210.2
Aroclor-1242	3	8.403	-0.000	28918	220.3	3	9.156	-0.004	26140	228.5
Aroclor-1242	4	8.577	-0.000	48090	248.0	4	9.580	-0.007	33659	242.7
Total Col1Ave (4 peaks):					217.9	Total Col2Ave (4 peaks):				223.1 RPD = 2
Corrected Ave (3 peaks):					207.9	Corrected Ave (3 peaks):				216.5 RPD = 4
Aroclor-1248	1	8.403	-0.000	28918	130.1	1	8.304	-0.001	24379	140.0
Aroclor-1248	2	8.577	-0.000	48090	171.5	2	8.712	0.000	24445	133.4
Aroclor-1248	3	8.997	0.001	47230	119.1	3	9.156	-0.003	26140	123.4
Aroclor-1248	4	9.292	0.001	23789	94.9	4	9.580	-0.001	33659	131.0
Total Col1Ave (4 peaks):					128.9	Total Col2Ave (4 peaks):				132.0 RPD = 2
Corrected Ave (3 peaks):					114.7	Corrected Ave (3 peaks):				129.3 RPD = 12
Aroclor-1254	1	9.292	-0.003	23789	53.3	1	9.446	-0.000	12605	46.3
Aroclor-1254	2	9.374	0.001	9634	54.9	2	9.967	-0.000	8527	38.8
Aroclor-1254	3	9.666	0.001	10685	37.6	3	10.119	-0.001	16959	35.4
Aroclor-1254	4	9.803	-0.000	18245	32.2	4	10.375	0.005	17612	37.3
Aroclor-1254	5	10.169	0.001	13394	38.8	5	10.568	0.003	5160	21.6
Total Col1Ave (5 peaks):					43.4	Total Col2Ave (5 peaks):				35.9 RPD = 19
Corrected Ave (4 peaks):					40.5	Corrected Ave (4 peaks):				33.3 RPD = 20
Aroclor-1260	1	11.043	0.002	200	0.6	1	11.659	0.009	1919	5.0
Aroclor-1260	2	11.361	0.004	305	0.8	2	11.922	0.007	1126	1.2
Aroclor-1260	3	11.735	0.004	595	0.6	3	12.438	0.006	127	0.5
Aroclor-1260	4	12.143	0.009	717	1.4	4	12.501	0.003	670	1.0
Aroclor-1260	5	12.318	0.078	265	1.2	NS	---			----
Total Col1Ave (5 peaks):					0.9	Total Col2Ave (4 peaks):				1.9 RPD = 70*
Corrected Ave (4 peaks):					0.8	Corrected Ave (3 peaks):				0.9 RPD = 11
Aroclor-1262	1	10.827	0.003	7919	25.8	1	11.117	-0.081	6747	13.1
Aroclor-1262	2	12.318	0.076	265	0.5	2	11.659	0.010	1919	4.3
Aroclor-1262	3	---			0.0	3	12.438	0.007	127	0.3
Aroclor-1262	4	13.032	0.048	704	1.5	4	12.501	0.001	670	0.9
Total Col1Ave (3 peaks):					9.3	Total Col2Ave (4 peaks):				4.6 RPD = 67*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				1.8
Aroclor-1268	1	12.318	0.075	265	0.2	1	12.438	0.007	127	0.1
Aroclor-1268	2	---			0.0	2	12.501	0.003	670	0.5
Aroclor-1268	3	12.613	-0.084	2956	2.7	3	---			0.0
Aroclor-1268	4	13.493	0.006	820	0.2	4	13.707	0.000	334	0.1
Total Col1Ave (3 peaks):					1.0	Total Col2Ave (3 peaks):				0.2 RPD = 126*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.908 - 13.791) = 754431 Col1 Total PCB = 0.1 ppm*

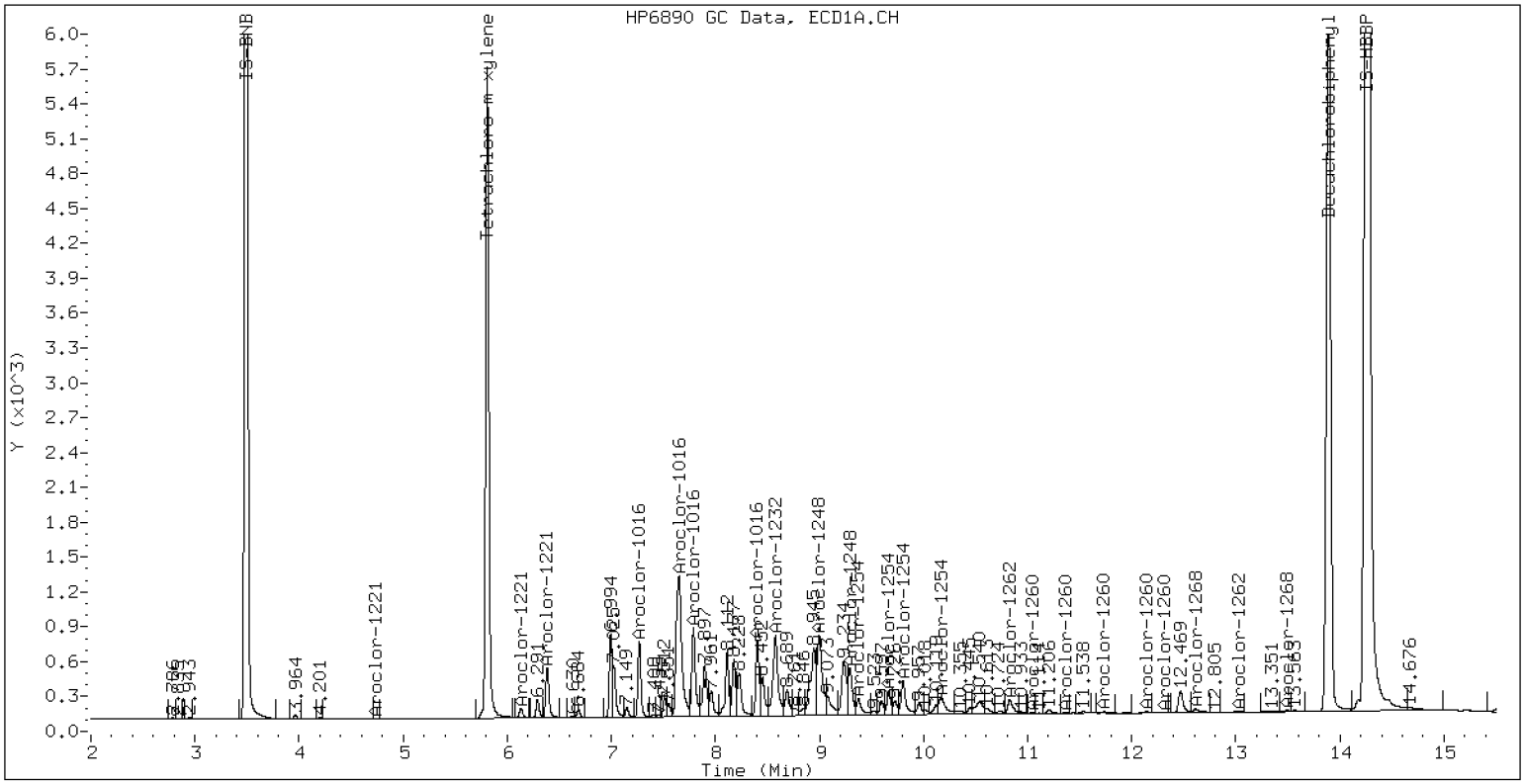
Total PCB Area Col2 (5.786 - 14.018) = 609458 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

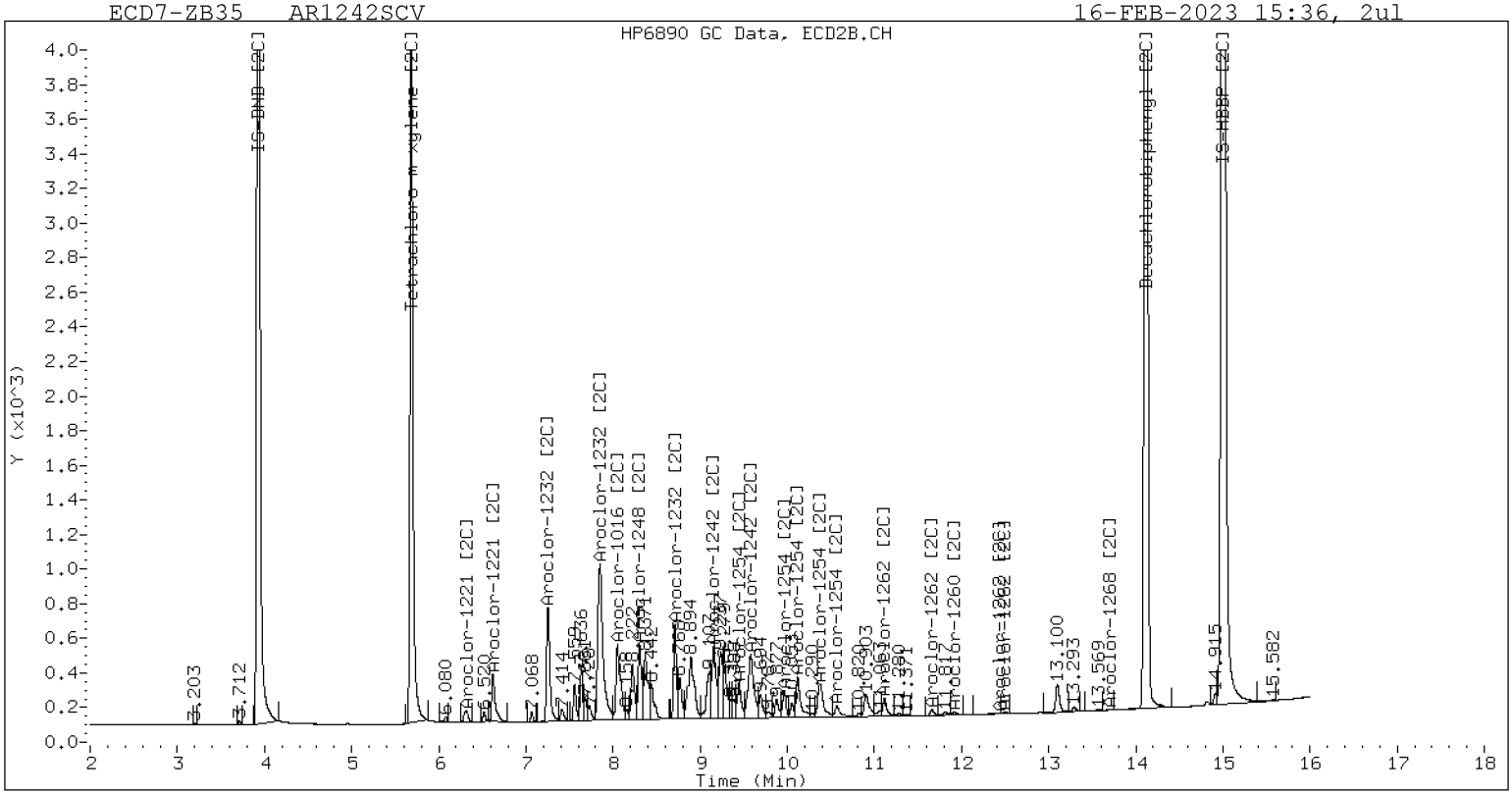
PCB Dual Column Chromatograms

ECD7-ZB5 AR1242SCV 16-FEB-2023 15:36, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242SCV 16-FEB-2023 15:36, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162315ECD7.D
Data file 2: /230216.b/230216.b/02162315ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV
Client ID:
Injection Date: 16-FEB-2023 15:57
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	235232	5.686	0.000	187353	36.5	36.5	0.1	Tetrachloro-m-xylene
13.891	0.000	371896	14.118	0.000	374279	41.4	40.1	3.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	454293	-9.7
Hexabromobiphenyl	647433	1020262	57.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	380923	13.1
Hexabromobiphenyl	382032	669927	75.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	12869	77.8	1	7.252	-0.002	17659	84.6
Aroclor-1016	2	7.649	-0.001	59048	111.5	2	7.852	0.001	49924	112.6
Aroclor-1016	3	7.791	0.004	23385	96.0	3	8.054	0.004	9755	53.5
Aroclor-1016	4	8.403	0.001	51659	322.2	4	8.305	0.001	40334	272.8
Total Col1Ave (4 peaks):					151.9	Total Col2Ave (4 peaks):				130.9 RPD = 15
Corrected Ave (3 peaks):					95.1	Corrected Ave (3 peaks):				83.6 RPD = 13
Aroclor-1221	1	4.639	-0.093	125	3.5	1	---			0.0
Aroclor-1221	2	6.133	-0.000	396	6.0	2	6.324	0.026	2135	35.1
Aroclor-1221	3	6.384	0.001	2262	14.9	3	6.626	0.005	1703	16.7
Total Col1Ave (3 peaks):					8.1	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.639	-0.093	125	5.7	1	---			0.0
Aroclor-1232	2	6.133	0.000	396	8.6	2	7.252	-0.003	17659	186.5
Aroclor-1232	3	7.649	-0.005	59048	267.3	3	7.852	-0.003	49924	263.9
Aroclor-1232	4	8.577	-0.002	65165	713.5	4	8.712	-0.000	42481	802.3
Total Col1Ave (4 peaks):					248.8	Total Col2Ave (3 peaks):				417.6 RPD = 51*
Corrected Ave (3 peaks):					93.9	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	12869	95.1	1	7.252	-0.002	17659	107.2
Aroclor-1242	2	7.649	-0.003	59048	137.9	2	7.852	-0.000	49924	139.9
Aroclor-1242	3	8.403	0.000	51659	399.2	3	9.160	0.001	49159	435.7
Aroclor-1242	4	8.577	-0.000	65165	340.9	4	9.582	-0.005	57018	416.7
Total Col1Ave (4 peaks):					243.3	Total Col2Ave (4 peaks):				274.8 RPD = 12
Corrected Ave (3 peaks):					191.3	Corrected Ave (3 peaks):				221.2 RPD = 15
Aroclor-1248	1	8.403	0.000	51659	235.8	1	8.305	-0.000	40334	234.7
Aroclor-1248	2	8.577	-0.000	65165	235.7	2	8.712	0.000	42481	235.0
Aroclor-1248	3	8.997	0.001	90358	231.2	3	9.160	0.002	49159	235.3
Aroclor-1248	4	9.292	0.000	60263	243.8	4	9.582	0.001	57018	225.0
Total Col1Ave (4 peaks):					236.6	Total Col2Ave (4 peaks):				232.5 RPD = 2
Corrected Ave (3 peaks):					234.2	Corrected Ave (3 peaks):				231.6 RPD = 1
Aroclor-1254	1	9.292	-0.003	60263	137.1	1	9.447	0.001	22366	83.3
Aroclor-1254	2	9.373	-0.000	30778	177.8	2	9.968	0.001	20179	93.0
Aroclor-1254	3	9.666	0.001	25929	92.5	3	10.121	0.001	37594	79.6
Aroclor-1254	4	9.806	0.003	44678	80.1	4	10.384	0.014	37032	79.4
Aroclor-1254	5	10.177	0.010	31103	91.4	5	10.571	0.005	8221	34.9
Total Col1Ave (5 peaks):					115.8	Total Col2Ave (5 peaks):				74.0 RPD = 44*
Corrected Ave (4 peaks):					100.3	Corrected Ave (4 peaks):				69.3 RPD = 37
Aroclor-1260	1	11.045	0.004	1084	3.1	1	11.659	0.009	1947	5.2
Aroclor-1260	2	11.359	0.002	556	1.5	2	11.920	0.006	1354	1.4
Aroclor-1260	3	11.734	0.003	872	0.9	3	12.426	-0.006	2386	9.5
Aroclor-1260	4	12.143	0.009	431	0.9	4	12.501	0.004	1186	1.9
Aroclor-1260	5	12.243	0.003	275	1.3	NS	---			----
Total Col1Ave (5 peaks):					1.6	Total Col2Ave (4 peaks):				4.5 RPD = 98*
Corrected Ave (4 peaks):					1.2	Corrected Ave (3 peaks):				2.9 RPD = 84*
Aroclor-1262	1	10.828	0.003	9454	31.7	1	11.119	-0.079	7326	14.6
Aroclor-1262	2	12.243	0.001	275	0.6	2	11.659	0.010	1947	4.5
Aroclor-1262	3	12.321	0.005	357	0.7	3	12.426	-0.005	2386	5.1
Aroclor-1262	4	12.984	-0.001	1676	3.7	4	12.501	0.002	1186	1.6
Total Col1Ave (4 peaks):					9.2	Total Col2Ave (4 peaks):				6.4 RPD = 35
Corrected Ave (3 peaks):					1.6	Corrected Ave (3 peaks):				3.7 RPD = 78*
Aroclor-1268	1	12.243	0.000	275	0.2	1	12.426	-0.004	2386	2.0
Aroclor-1268	2	12.321	0.007	357	0.3	2	12.501	0.004	1186	0.9
Aroclor-1268	3	12.614	-0.084	992	0.9	3	12.898	0.008	102	0.1
Aroclor-1268	4	13.493	0.006	969	0.3	4	13.674	-0.032	1135	0.3
Total Col1Ave (4 peaks):					0.4	Total Col2Ave (4 peaks):				0.8 RPD = 64*
Corrected Ave (3 peaks):					0.3	Corrected Ave (3 peaks):				0.5 RPD = 53*

Total PCB Area Col1 (5.908 - 13.791) = 1015830 Col1 Total PCB = 0.2 ppm*

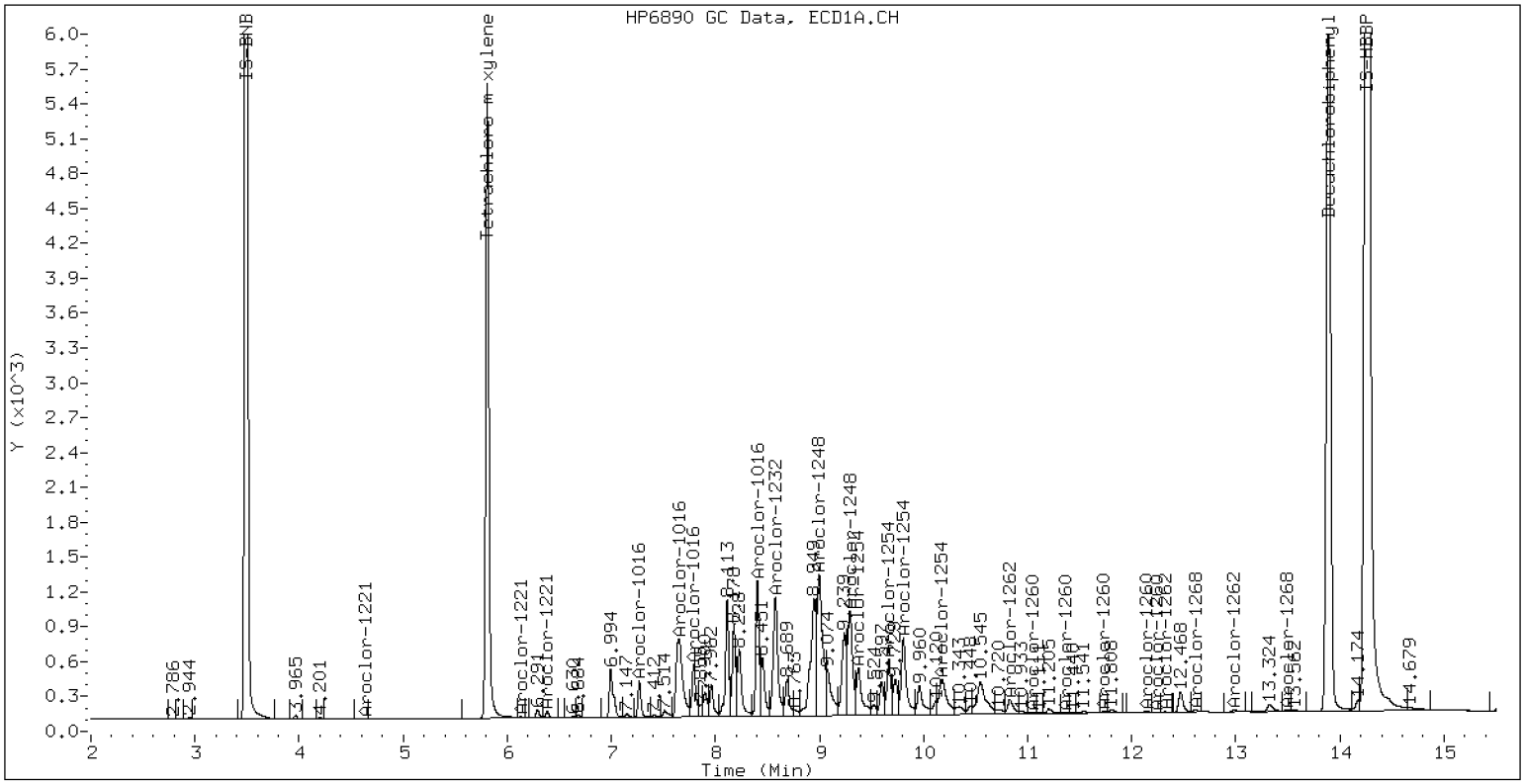
Total PCB Area Col2 (5.786 - 14.018) = 794946 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

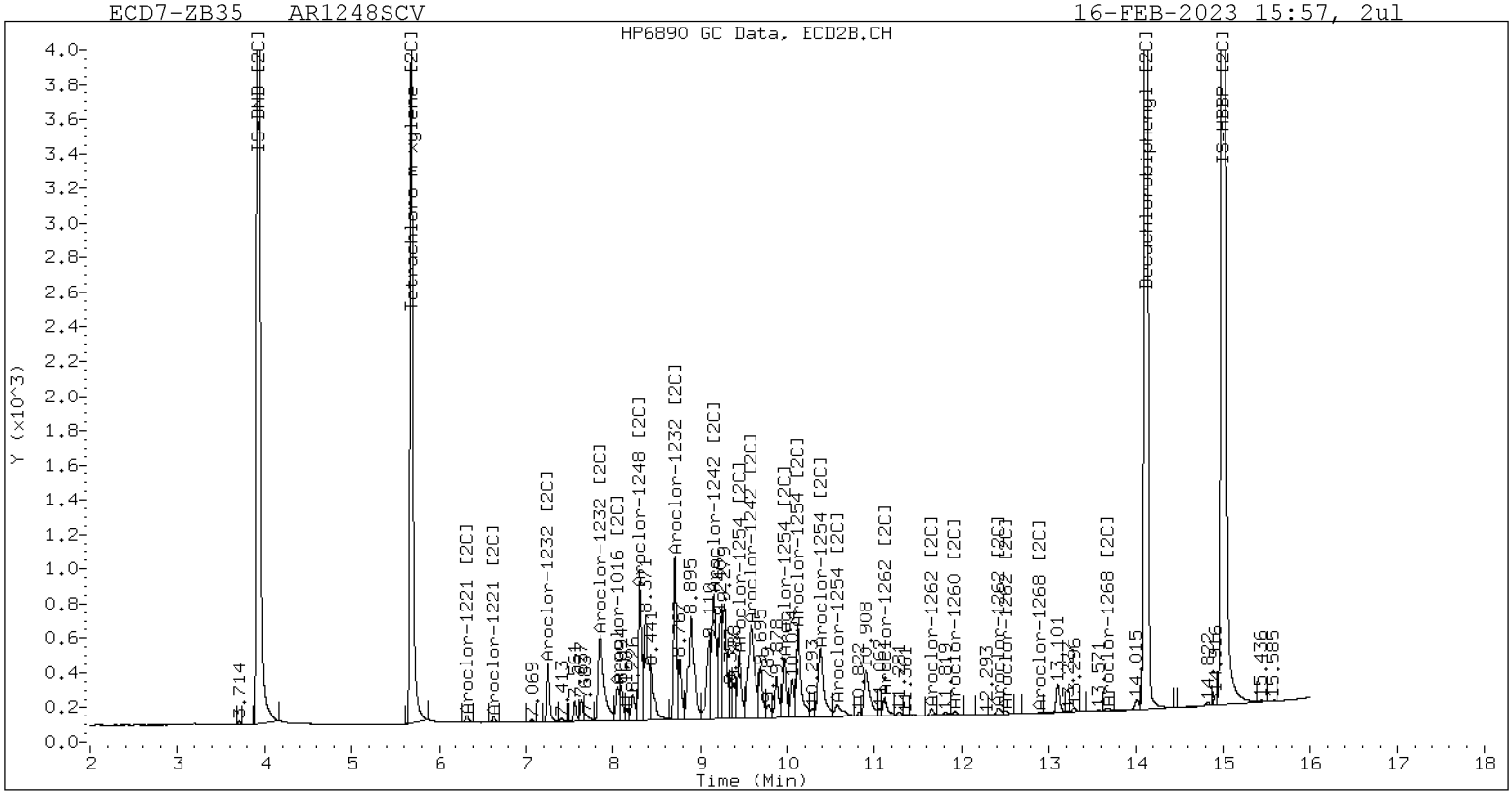
PCB Dual Column Chromatograms

ECD7-ZB5 AR1248SCV 16-FEB-2023 15:57, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1248SCV 16-FEB-2023 15:57, 2ul

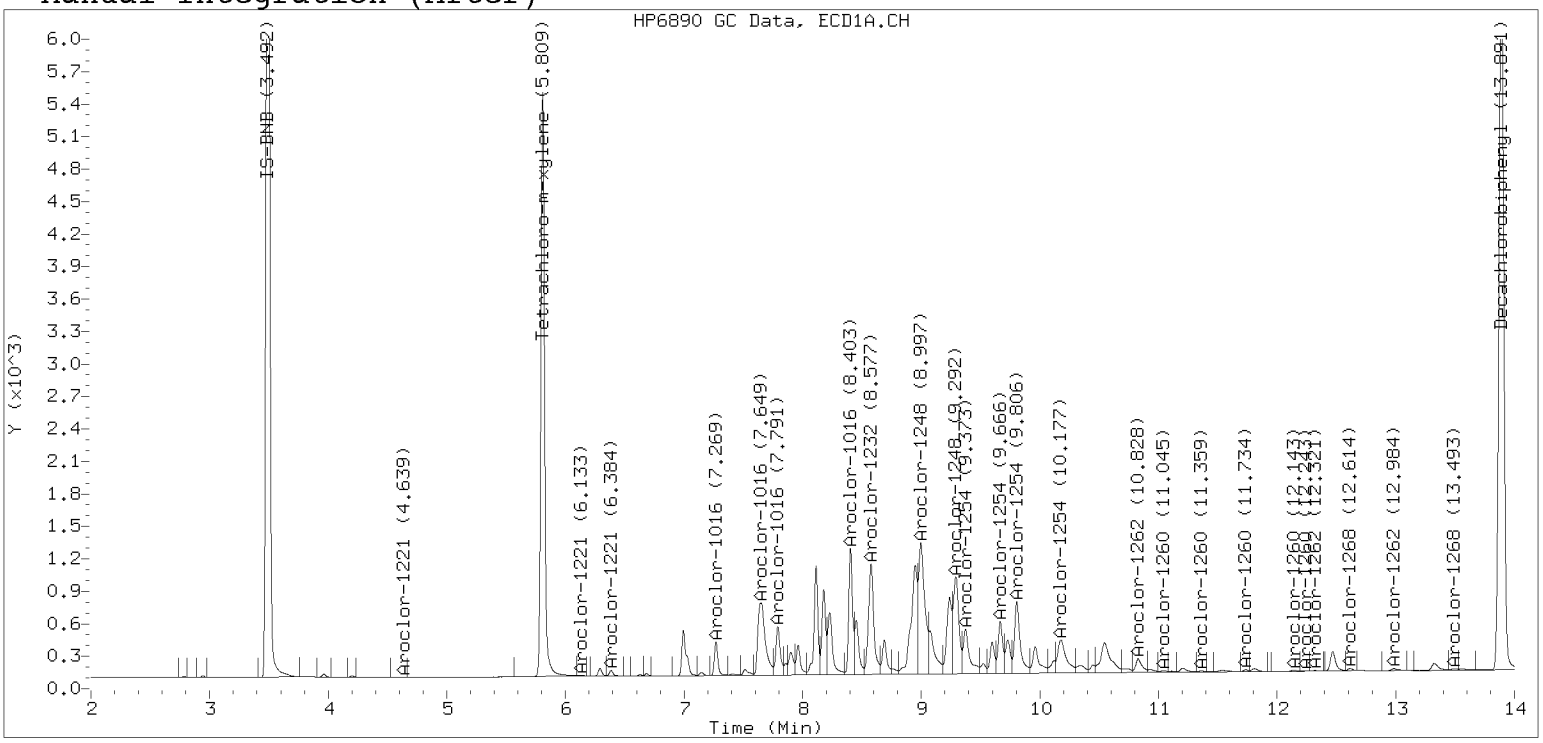


ZB-35 Manual Integration: NO

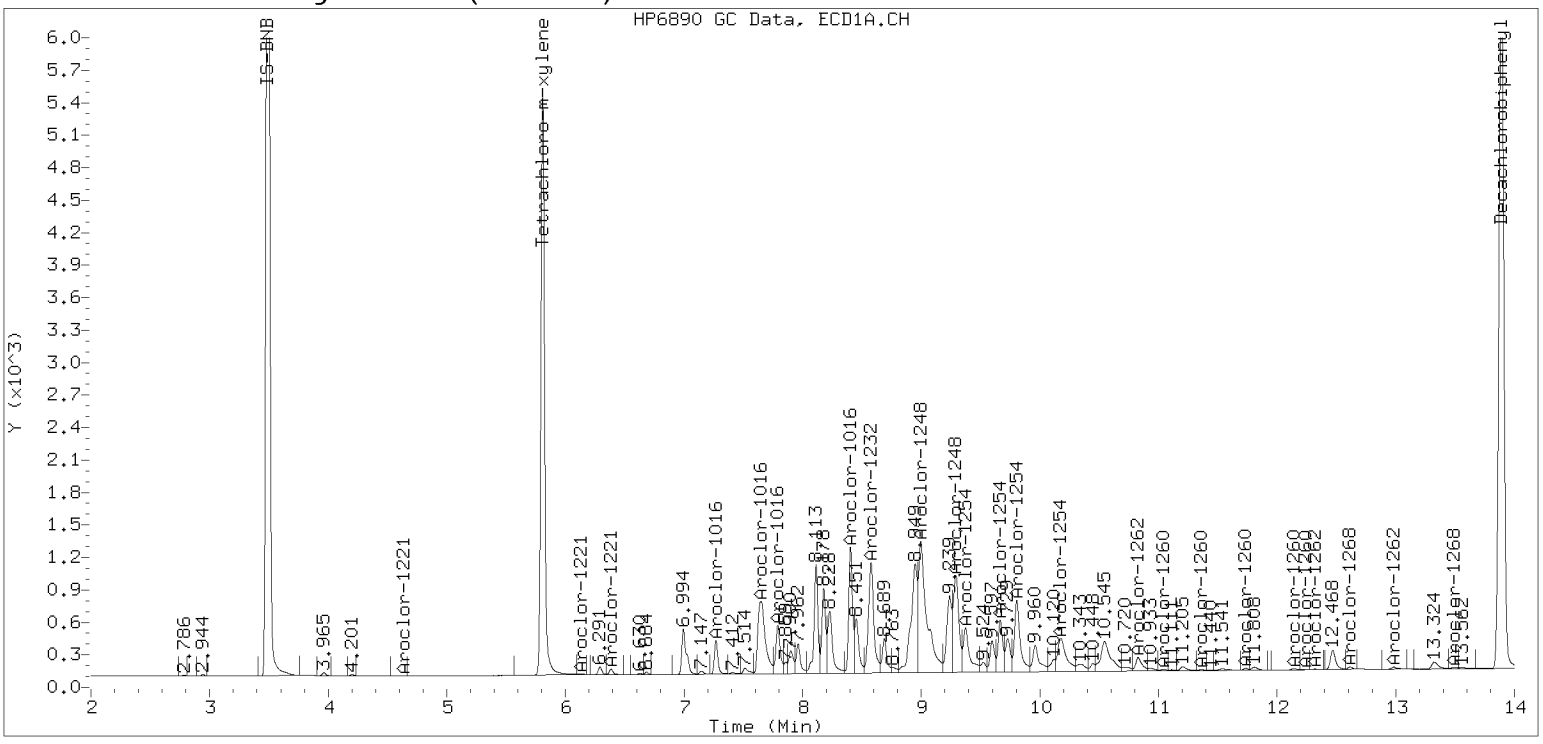
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/230216.b/02162315ECD7.D Injection Date: 16-FEB-2023 15:57

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162316ECD7.D
Data file 2: /230216.b/230216.b/02162316ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV
Client ID:
Injection Date: 16-FEB-2023 16:18
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.807	-0.001	242127	5.685	-0.000	193580	36.7	37.0	0.9	Tetrachloro-m-xylene
13.890	-0.001	377360	14.118	0.000	394229	40.3	40.4	0.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	465227	-7.6
Hexabromobiphenyl	647433	1063495	64.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	387434	15.0
Hexabromobiphenyl	382032	700154	83.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	281	1.7	1	7.256	0.002	379	1.8
Aroclor-1016	2	7.655	0.005	996	1.8	2	---			0.0
Aroclor-1016	3	7.792	0.005	684	2.7	3	8.097	0.048	526	2.8
Aroclor-1016	4	8.404	0.002	18193	110.8	4	8.305	0.001	23002	153.0
	Total Col1Ave (4 peaks):				29.3	Total Col2Ave (3 peaks):				52.5 RPD = 57*
	Corrected Ave (3 peaks):				2.1	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	6.323	0.026	2104	34.0
Aroclor-1221	3	---			0.0	3	6.632	0.010	433	4.2
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	7.256	0.001	379	3.9
Aroclor-1232	3	7.655	0.001	996	4.4	3	---			0.0
Aroclor-1232	4	8.580	0.002	7144	76.4	4	8.714	0.001	15174	281.7
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	7.270	0.001	281	2.0	1	7.256	0.002	379	2.3
Aroclor-1242	2	7.655	0.003	996	2.3	2	---			0.0
Aroclor-1242	3	8.404	0.001	18193	137.3	3	9.163	0.004	23373	203.7
Aroclor-1242	4	8.580	0.003	7144	36.5	4	9.541	-0.046	35054	251.9
	Total Col1Ave (4 peaks):				44.5	Total Col2Ave (3 peaks):				152.6 RPD = 110*
	Corrected Ave (3 peaks):				13.6	Corrected Ave: < 3 Peaks				
Aroclor-1248	1	8.404	0.001	18193	81.1	1	8.305	-0.000	23002	131.6
Aroclor-1248	2	8.580	0.003	7144	25.2	2	8.714	0.002	15174	82.5
Aroclor-1248	3	8.992	-0.004	93928	234.7	3	9.163	0.005	23373	110.0
Aroclor-1248	4	9.296	0.004	99099	391.5	4	9.541	-0.040	35054	136.0
	Total Col1Ave (4 peaks):				183.1	Total Col2Ave (4 peaks):				115.0 RPD = 46*
	Corrected Ave (3 peaks):				113.7	Corrected Ave (3 peaks):				108.0 RPD = 5
Aroclor-1254	1	9.296	0.001	99099	220.1	1	9.447	0.001	61772	226.1
Aroclor-1254	2	9.374	0.001	43324	244.4	2	9.966	-0.001	49637	225.0
Aroclor-1254	3	9.666	0.001	63930	222.8	3	10.119	-0.000	106246	221.1
Aroclor-1254	4	9.803	0.000	123663	216.5	4	10.369	-0.001	107021	225.7
Aroclor-1254	5	10.171	0.004	76902	220.7	5	10.565	-0.000	55207	230.4
	Total Col1Ave (5 peaks):				224.9	Total Col2Ave (5 peaks):				225.6 RPD = 0
	Corrected Ave (4 peaks):				220.0	Corrected Ave (4 peaks):				224.5 RPD = 2
Aroclor-1260	1	11.041	0.000	8242	22.5	1	11.657	0.007	30319	78.1
Aroclor-1260	2	11.360	0.003	8312	22.2	2	11.918	0.004	22042	22.6
Aroclor-1260	3	11.734	0.003	19109	19.2	3	12.445	0.012	1692	6.5
Aroclor-1260	4	12.137	0.002	15342	30.4	4	12.500	0.002	12899	19.7
Aroclor-1260	5	12.238	-0.002	582	2.7	NS	---			----
	Total Col1Ave (5 peaks):				19.4	Total Col2Ave (4 peaks):				31.7 RPD = 48*
	Corrected Ave (4 peaks):				16.6	Corrected Ave (3 peaks):				16.2 RPD = 2
Aroclor-1262	1	10.824	-0.000	138302	445.0	1	11.278	0.081	13621	26.0
Aroclor-1262	2	12.238	-0.004	582	1.1	2	11.657	0.008	30319	67.1
Aroclor-1262	3	12.316	-0.001	714	1.3	3	12.445	0.013	1692	3.4
Aroclor-1262	4	12.988	0.003	961	2.0	4	12.500	0.000	12899	16.5
	Total Col1Ave (4 peaks):				112.4	Total Col2Ave (4 peaks):				28.3 RPD = 120*
	Corrected Ave (3 peaks):				1.5	Corrected Ave (3 peaks):				15.3 RPD = 165*
Aroclor-1268	1	12.238	-0.005	582	0.4	1	12.445	0.014	1692	1.3
Aroclor-1268	2	12.316	0.002	714	0.5	2	12.500	0.002	12899	9.6
Aroclor-1268	3	12.719	0.022	539	0.5	3	12.892	0.002	76	0.1
Aroclor-1268	4	13.497	0.010	695	0.2	4	13.700	-0.007	290	0.1
	Total Col1Ave (4 peaks):				0.4	Total Col2Ave (4 peaks):				2.8 RPD = 148*
	Corrected Ave (3 peaks):				0.4	Corrected Ave (3 peaks):				0.5 RPD = 28

Total PCB Area Col1 (5.908 - 13.791) = 1311525 Col1 Total PCB = 0.2 ppm*

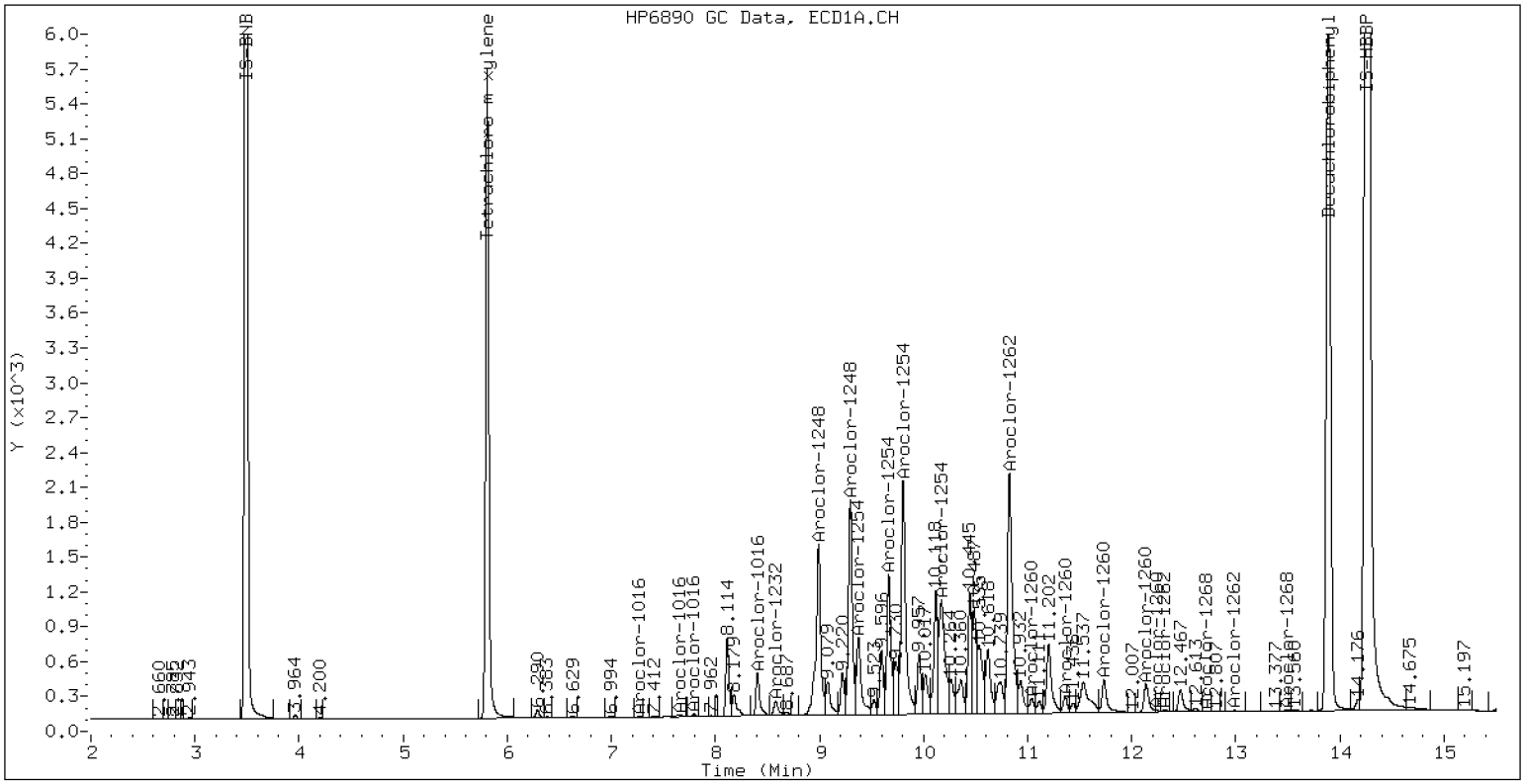
Total PCB Area Col2 (5.786 - 14.018) = 1040357 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

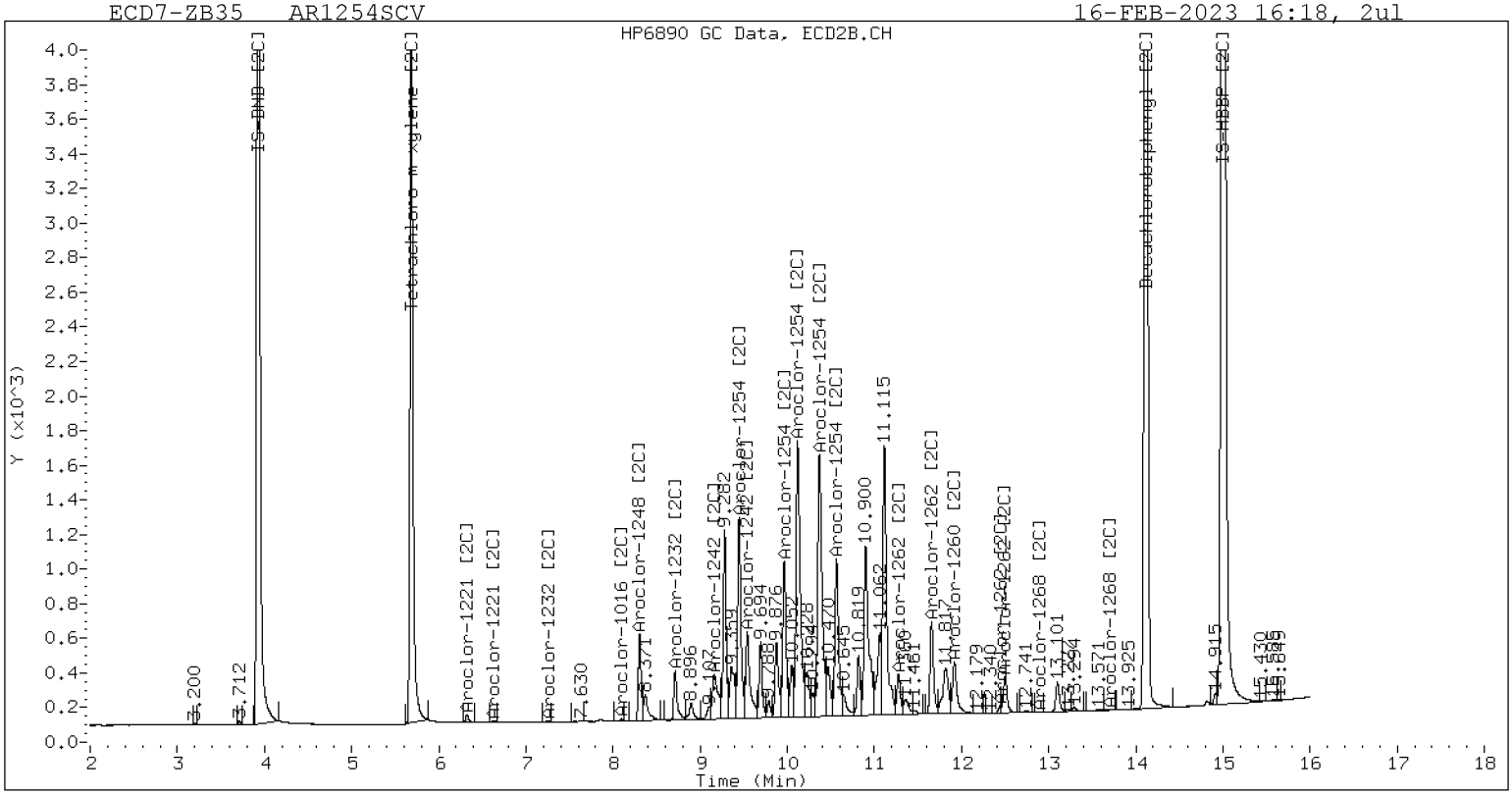
PCB Dual Column Chromatograms

ECD7-ZB5 AR1254SCV 16-FEB-2023 16:18, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254SCV 16-FEB-2023 16:18, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162317ECD7.D
Data file 2: /230216.b/230216.b/02162317ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV
Client ID:
Injection Date: 16-FEB-2023 16:39
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	245197	5.686	-0.000	191474	37.2	37.2	0.0	Tetrachloro-m-xylene
13.890	-0.001	375224	14.118	0.000	392997	40.4	40.5	0.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	464367	-7.7
Hexabromobiphenyl	647433	1054321	62.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	381247	13.2
Hexabromobiphenyl	382032	695925	82.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	4790	28.3	1	7.255	0.001	5664	27.1
Aroclor-1016	2	7.656	0.006	10623	19.6	2	7.858	0.007	8417	19.0
Aroclor-1016	3	7.793	0.006	5360	21.5	3	8.058	0.009	4104	22.5
Aroclor-1016	4	8.405	0.003	2485	15.2	4	8.306	0.002	3192	21.6
Total Col1Ave (4 peaks):					21.2	Total Col2Ave (4 peaks):				22.5 RPD = 6
Corrected Ave (3 peaks):					18.8	Corrected Ave (3 peaks):				21.0 RPD = 11
Aroclor-1221	1	4.733	0.000	9001	249.5	1	4.958	0.000	7198	254.0
Aroclor-1221	2	6.133	-0.000	16485	245.0	2	6.297	-0.001	14187	233.2
Aroclor-1221	3	6.383	-0.000	37665	242.0	3	6.621	-0.000	23991	235.4
Total Col1Ave (3 peaks):					245.5	Total Col2Ave (3 peaks):				240.8 RPD = 2
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.733	0.001	9001	404.1	1	4.958	-0.000	7198	425.7
Aroclor-1232	2	6.133	-0.000	16485	350.7	2	7.255	0.001	5664	59.8
Aroclor-1232	3	7.656	0.002	10623	47.0	3	7.858	0.003	8417	44.5
Aroclor-1232	4	8.581	0.002	2585	27.7	4	8.714	0.001	2167	40.9
Total Col1Ave (4 peaks):					207.4	Total Col2Ave (4 peaks):				142.7 RPD = 37
Corrected Ave (3 peaks):					141.8	Corrected Ave (3 peaks):				48.4 RPD = 98*
Aroclor-1242	1	7.270	0.001	4790	34.6	1	7.255	0.001	5664	34.3
Aroclor-1242	2	7.656	0.004	10623	24.3	2	7.858	0.005	8417	23.6
Aroclor-1242	3	8.405	0.002	2485	18.8	3	9.168	0.009	2109	18.7
Aroclor-1242	4	8.581	0.003	2585	13.2	4	9.541	-0.046	4209	30.7
Total Col1Ave (4 peaks):					22.7	Total Col2Ave (4 peaks):				26.8 RPD = 17
Corrected Ave (3 peaks):					18.8	Corrected Ave (3 peaks):				24.3 RPD = 26
Aroclor-1248	1	8.405	0.002	2485	11.1	1	8.306	0.001	3192	18.6
Aroclor-1248	2	8.581	0.003	2585	9.1	2	8.714	0.002	2167	12.0
Aroclor-1248	3	8.992	-0.004	27170	68.0	3	9.168	0.010	2109	10.1
Aroclor-1248	4	9.299	0.007	25808	102.2	4	9.541	-0.040	4209	16.6
Total Col1Ave (4 peaks):					47.6	Total Col2Ave (4 peaks):				14.3 RPD = 108*
Corrected Ave (3 peaks):					29.4	Corrected Ave (3 peaks):				12.9 RPD = 78*
Aroclor-1254	1	9.299	0.004	25808	57.4	1	9.448	0.001	19163	71.3
Aroclor-1254	2	9.371	-0.003	3696	20.9	2	9.969	0.002	3305	15.2
Aroclor-1254	3	9.667	0.002	4053	14.2	3	10.144	0.024	96736	204.5
Aroclor-1254	4	9.803	0.000	10960	19.2	4	10.368	-0.002	117175	251.1
Aroclor-1254	5	10.117	-0.050	153073	440.2	5	10.565	-0.001	154306	654.4
Total Col1Ave (5 peaks):					110.4	Total Col2Ave (5 peaks):				239.3 RPD = 74*
Corrected Ave (4 peaks):					27.9	Corrected Ave (4 peaks):				135.5 RPD = 132*
Aroclor-1260	1	11.041	0.001	267479	735.9	1	11.649	-0.001	203895	528.3
Aroclor-1260	2	11.358	0.000	225792	607.2	2	11.914	-0.000	486211	500.8
Aroclor-1260	3	11.730	-0.000	549436	558.0	3	12.431	-0.001	236526	910.9
Aroclor-1260	4	12.135	0.001	182085	364.2	4	12.499	0.001	362057	555.9
Aroclor-1260	5	12.241	0.000	234096	1091.8	NS	---			----
Total Col1Ave (5 peaks):					671.4	Total Col2Ave (4 peaks):				624.0 RPD = 7
Corrected Ave (4 peaks):					566.3	Corrected Ave (3 peaks):				528.4 RPD = 7
Aroclor-1262	1	10.823	-0.002	146525	475.6	1	11.197	-0.001	236244	454.2
Aroclor-1262	2	12.241	-0.001	234096	463.6	2	11.649	0.001	203895	454.1
Aroclor-1262	3	12.314	-0.002	250166	459.4	3	12.431	-0.000	236526	483.8
Aroclor-1262	4	12.984	-0.000	210767	447.6	4	12.499	-0.001	362057	465.4
Total Col1Ave (4 peaks):					461.6	Total Col2Ave (4 peaks):				464.4 RPD = 1
Corrected Ave (3 peaks):					456.9	Corrected Ave (3 peaks):				457.9 RPD = 0
Aroclor-1268	1	12.241	-0.002	234096	176.9	1	12.431	0.000	236526	186.9
Aroclor-1268	2	12.314	0.000	250166	190.3	2	12.499	0.001	362057	272.0
Aroclor-1268	3	12.719	0.022	91155	81.7	3	12.889	-0.001	11970	11.5
Aroclor-1268	4	13.485	-0.002	72883	21.3	4	13.706	-0.001	72588	19.9
Total Col1Ave (4 peaks):					117.6	Total Col2Ave (4 peaks):				122.6 RPD = 4

Corrected Ave (3 peaks): 93.3 Corrected Ave (3 peaks): 72.8 RPD = 25

Total PCB Area Col1 (5.908 - 13.791) = 3768590 Col1 Total PCB = 0.7 ppm*

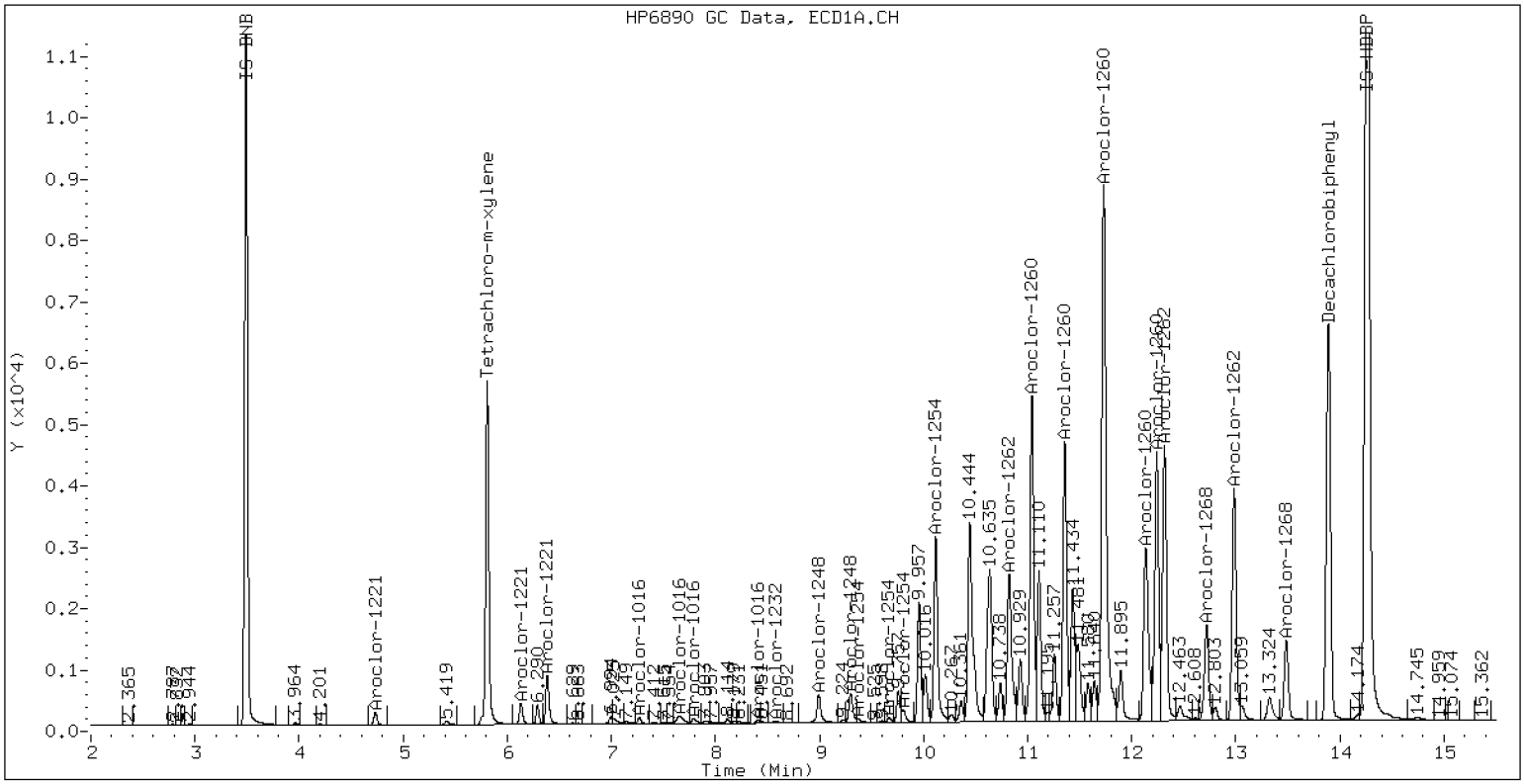
Total PCB Area Col2 (5.786 - 14.018) = 3174752 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

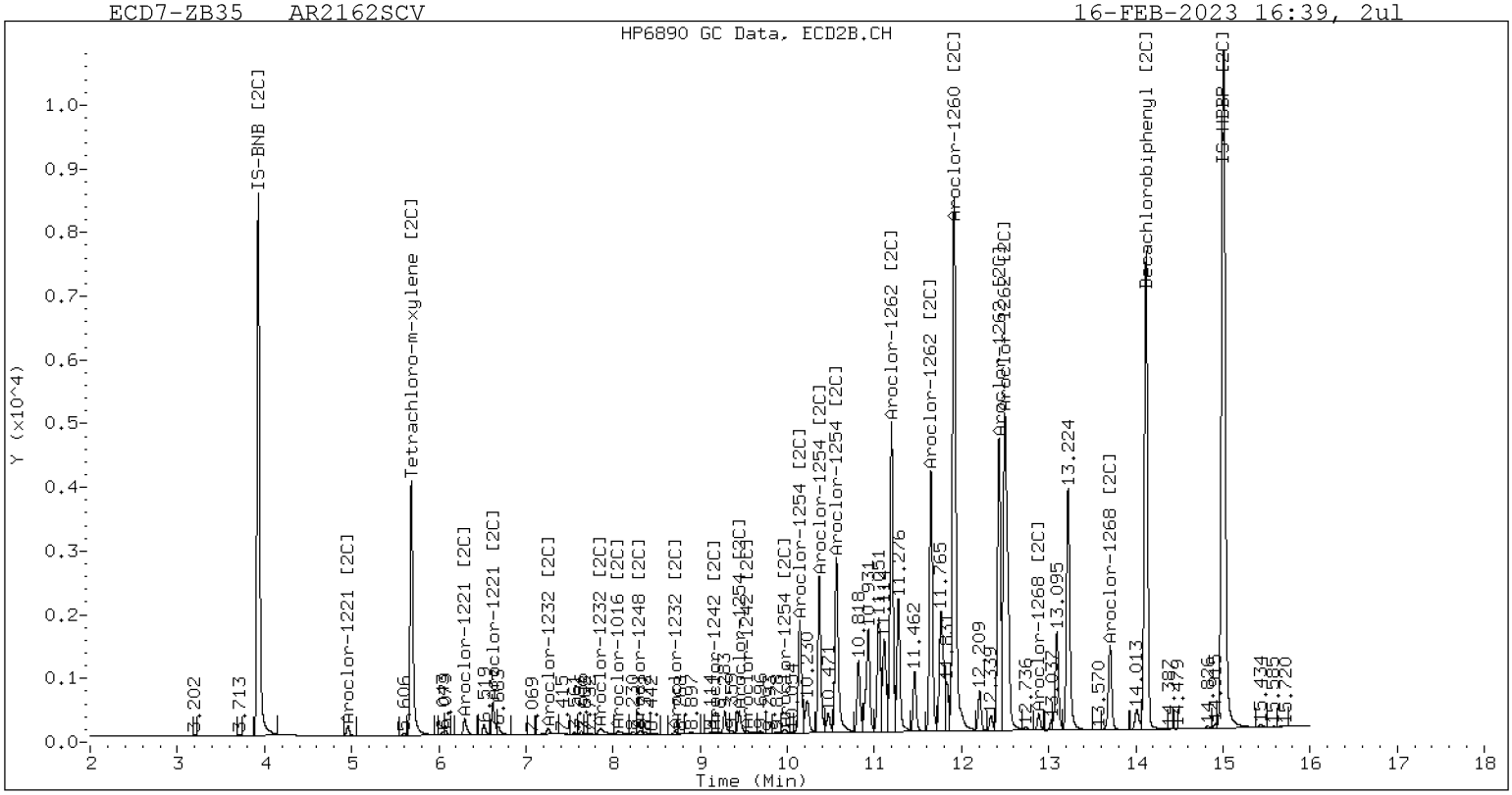
PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV 16-FEB-2023 16:39, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV 16-FEB-2023 16:39, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162318ECD7.D
Data file 2: /230216.b/230216.b/02162318ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV
Client ID:
Injection Date: 16-FEB-2023 17:00
Report Date: 02/17/2023 08:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	232649	5.686	0.000	184511	35.5	35.9	1.3	Tetrachloro-m-xylene
13.892	0.001	534256	14.118	0.000	561270	58.0	58.0	0.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	462340	-8.1
Hexabromobiphenyl	647433	1046529	61.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	380640	13.0
Hexabromobiphenyl	382032	694272	81.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	17406	103.4	1	7.255	0.001	21798	104.5
Aroclor-1016	2	7.654	0.004	51620	95.7	2	7.856	0.005	43831	98.9
Aroclor-1016	3	7.791	0.004	24787	100.0	3	8.054	0.005	19284	105.9
Aroclor-1016	4	8.404	0.002	15491	94.9	4	8.306	0.002	13712	92.8
	Total Col1Ave (4 peaks):				98.5	Total Col2Ave (4 peaks):				100.5 RPD = 2
	Corrected Ave (3 peaks):				96.9	Corrected Ave (3 peaks):				98.8 RPD = 2
Aroclor-1221	1	4.732	-0.000	4903	136.5	1	4.959	0.001	3678	130.0
Aroclor-1221	2	6.133	-0.000	8309	124.0	2	6.298	0.001	8756	144.1
Aroclor-1221	3	6.383	-0.000	26751	172.7	3	6.622	0.001	18239	179.3
	Total Col1Ave (3 peaks):				144.4	Total Col2Ave (3 peaks):				151.1 RPD = 5
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.732	0.000	4903	221.1	1	4.959	0.000	3678	217.9
Aroclor-1232	2	6.133	-0.000	8309	177.5	2	7.255	0.000	21798	230.4
Aroclor-1232	3	7.654	-0.000	51620	229.6	3	7.856	0.001	43831	231.9
Aroclor-1232	4	8.579	0.000	21552	231.9	4	8.712	-0.000	12876	243.3
	Total Col1Ave (4 peaks):				215.0	Total Col2Ave (4 peaks):				230.9 RPD = 7
	Corrected Ave (3 peaks):				209.4	Corrected Ave (3 peaks):				226.7 RPD = 8
Aroclor-1242	1	7.269	0.000	17406	126.4	1	7.255	0.001	21798	132.4
Aroclor-1242	2	7.654	0.002	51620	118.4	2	7.856	0.004	43831	122.9
Aroclor-1242	3	8.404	0.001	15491	117.6	3	9.165	0.005	12931	114.7
Aroclor-1242	4	8.579	0.002	21552	110.8	4	9.594	0.007	15412	112.7
	Total Col1Ave (4 peaks):				118.3	Total Col2Ave (4 peaks):				120.7 RPD = 2
	Corrected Ave (3 peaks):				115.6	Corrected Ave (3 peaks):				116.8 RPD = 1
Aroclor-1248	1	8.404	0.001	15491	69.5	1	8.306	0.001	13712	79.9
Aroclor-1248	2	8.579	0.002	21552	76.6	2	8.712	0.001	12876	71.3
Aroclor-1248	3	9.000	0.004	33860	85.1	3	9.165	0.007	12931	61.9
Aroclor-1248	4	9.290	-0.001	24418	97.1	4	9.594	0.012	15412	60.9
	Total Col1Ave (4 peaks):				82.1	Total Col2Ave (4 peaks):				68.5 RPD = 18
	Corrected Ave (3 peaks):				77.1	Corrected Ave (3 peaks):				64.7 RPD = 17
Aroclor-1254	1	9.290	-0.005	24418	54.6	1	9.448	0.001	4331	16.1
Aroclor-1254	2	9.376	0.002	6352	36.1	2	9.971	0.003	2773	12.8
Aroclor-1254	3	9.670	0.005	3662	12.8	3	10.125	0.006	5733	12.1
Aroclor-1254	4	9.810	0.007	5791	10.2	4	10.384	0.014	5128	11.0
Aroclor-1254	5	10.182	0.014	3705	10.7	5	10.569	0.004	1684	7.2
	Total Col1Ave (5 peaks):				24.9	Total Col2Ave (5 peaks):				11.8 RPD = 71*
	Corrected Ave (4 peaks):				17.5	Corrected Ave (4 peaks):				10.8 RPD = 47*
Aroclor-1260	1	11.044	0.003	48916	135.6	1	11.643	-0.006	62935	163.5
Aroclor-1260	2	11.360	0.003	3252	8.8	2	11.917	0.002	28103	29.0
Aroclor-1260	3	11.734	0.004	29505	30.2	3	12.431	-0.001	298982	1154.1
Aroclor-1260	4	12.140	0.005	787	1.6	4	12.498	-0.000	314634	484.3
Aroclor-1260	5	12.242	0.002	307715	1445.8	NS	---			----
	Total Col1Ave (5 peaks):				324.4	Total Col2Ave (4 peaks):				457.7 RPD = 34
	Corrected Ave (4 peaks):				44.0	Corrected Ave (3 peaks):				225.6 RPD = 135*
Aroclor-1262	1	10.828	0.003	1495	4.9	1	11.199	0.001	44764	86.3
Aroclor-1262	2	12.242	0.000	307715	613.9	2	11.643	-0.005	62935	140.5
Aroclor-1262	3	12.314	-0.002	306654	567.3	3	12.431	0.000	298982	613.0
Aroclor-1262	4	12.985	0.001	125311	268.1	4	12.498	-0.002	314634	405.4
	Total Col1Ave (4 peaks):				363.6	Total Col2Ave (4 peaks):				311.3 RPD = 15
	Corrected Ave (3 peaks):				280.1	Corrected Ave (3 peaks):				210.7 RPD = 28
Aroclor-1268	1	12.242	-0.000	307715	234.3	1	12.431	0.001	298982	236.8
Aroclor-1268	2	12.314	0.000	306654	235.0	2	12.498	-0.000	314634	236.9
Aroclor-1268	3	12.698	0.000	256747	231.8	3	12.891	0.001	246279	236.7
Aroclor-1268	4	13.487	-0.000	801249	236.1	4	13.707	0.001	846369	232.8
	Total Col1Ave (4 peaks):				234.3	Total Col2Ave (4 peaks):				235.8 RPD = 1

Corrected Ave (3 peaks): 233.7 Corrected Ave (3 peaks): 235.5 RPD = 1

Total PCB Area Col1 (5.908 - 13.791) = 2519204 Col1 Total PCB = 0.5 ppm*

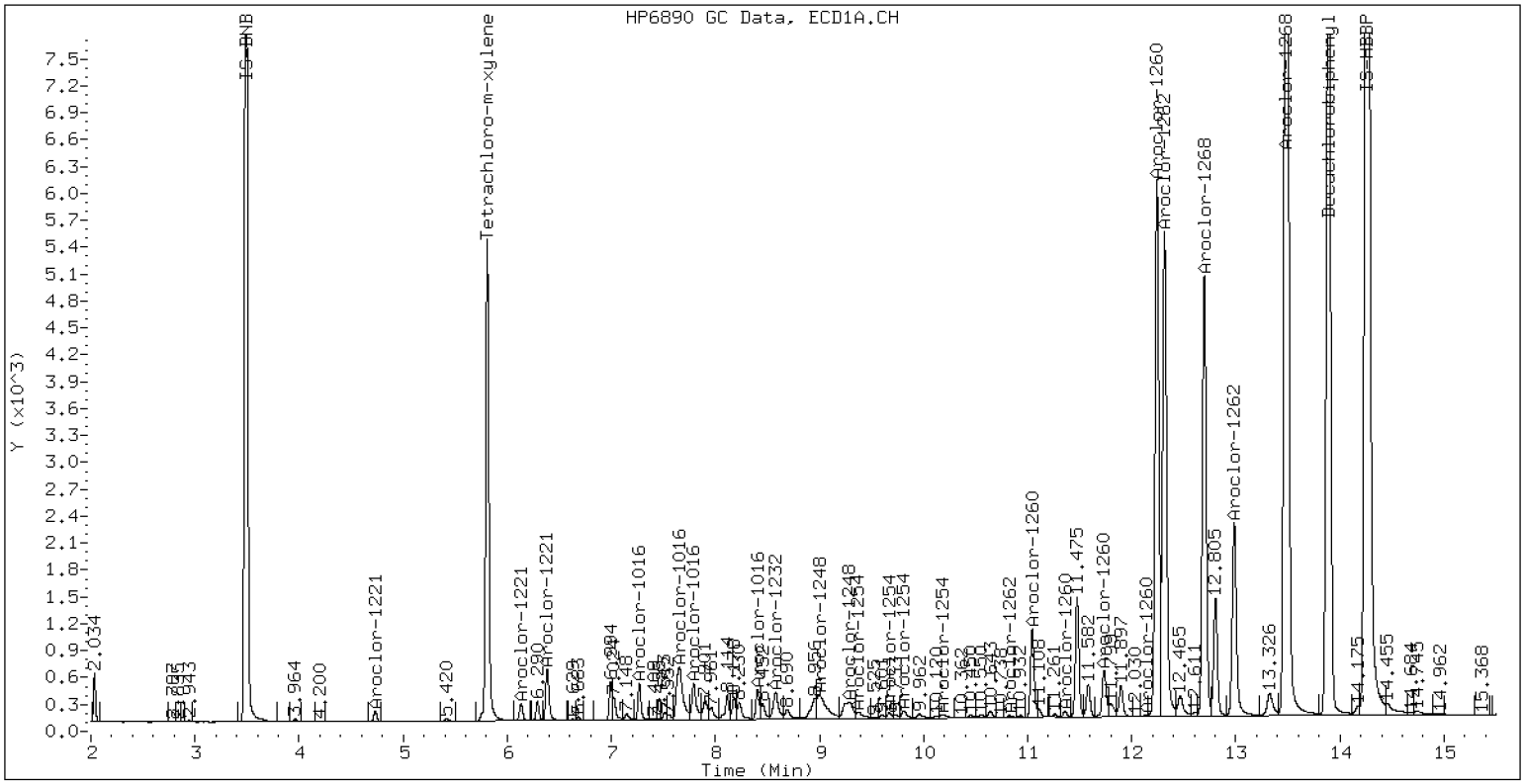
Total PCB Area Col2 (5.786 - 14.018) = 2392191 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

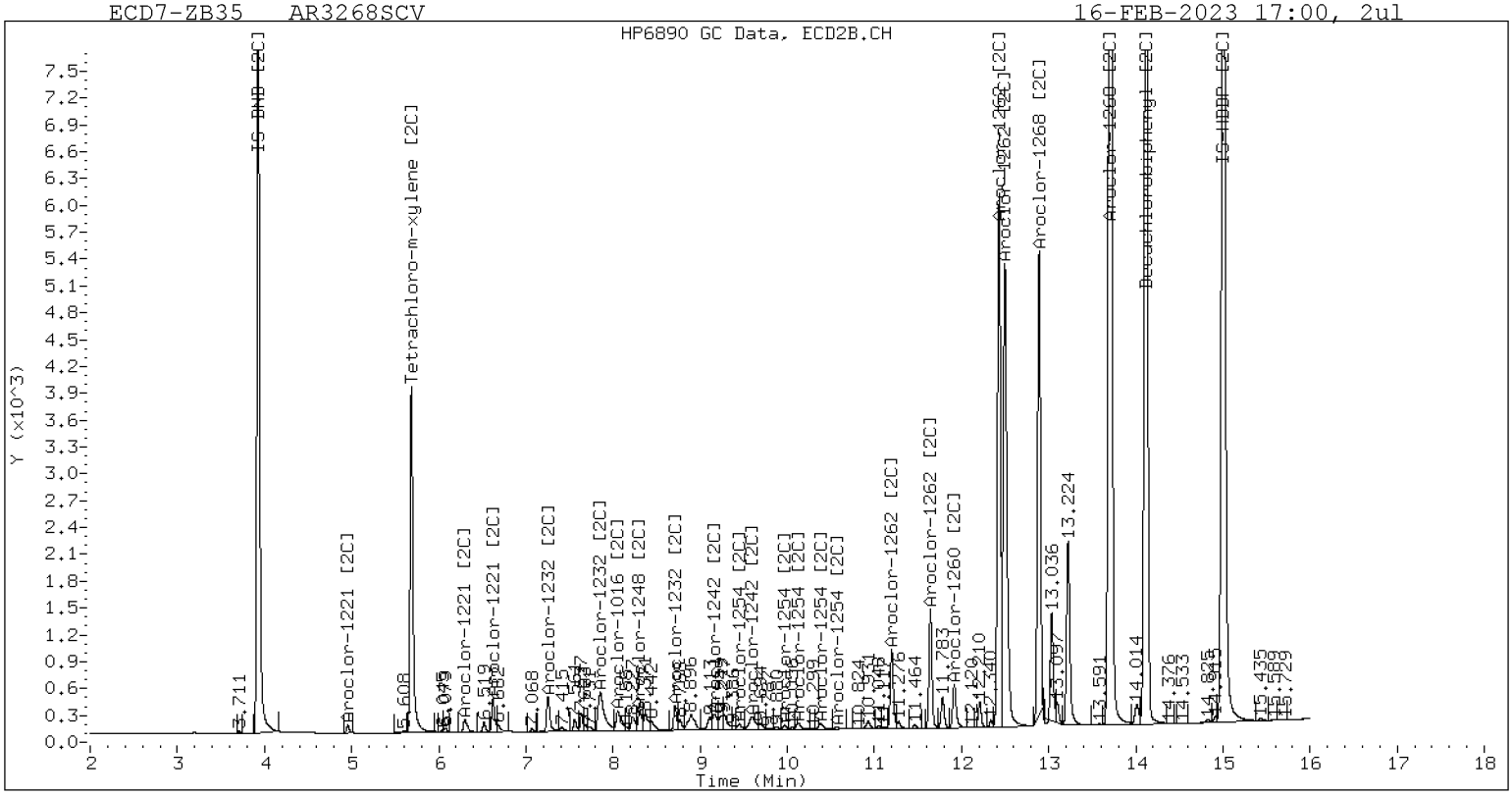
PCB Dual Column Chromatograms

ECD7-ZB5 AR3268SCV 16-FEB-2023 17:00, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268SCV 16-FEB-2023 17:00, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230216.b/02162319ECD7.D ARI ID: DDTS

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
9.260	-0.003	442624	9.911	-0.001	632750	0.085	0.087	2.1	2,4-DDE
10.293	-0.003	576653	10.667	0.002	928581	0.039	0.168#	124.2*	2,4-DDT
9.683	-0.004	755059	10.209	-0.002	423742	0.086	0.103	18.9	4,4-DDE
10.254	-0.027	674155	10.667	0.002	928581	0.000	0.168#	----	4,4-DDD

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230216.b/02162320ECD7.D ARI ID: DDT BD

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
9.284	0.021	2688	9.920	0.008	10374	0.001	0.001	93.2*	2,4-DDE
0.000	-10.296	0	10.673	0.007	190492	0.000	0.035#	----	2,4-DDT
9.692	0.005	7700	10.234	0.022	295	0.001	0.000	169.6*	4,4-DDE
10.259	-0.022	174757	10.673	0.007	190492	0.000	0.035#	----	4,4-DDD

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLB0222

Instrument: ECD7
Calibration ID: FJ00100

Printed: 2/17/2023 9:56:55AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLB0222-CAL1	QC		1		L000856	L000844		
SLB0222-CAL2	QC		2		L000859	L000844		
SLB0222-CAL3	QC		3		L000858	L000844		
SLB0222-CAL4	QC		4		L000731	L000844		
SLB0222-CAL5	QC		5		L000857	L000844		
SLB0222-CAL6	QC		6		L000855	L000844		
SLB0222-CAL7	QC		7		L000860	L000844		
SLB0222-CAL8	QC		8		L000861	L000844		
SLB0222-CAL9	QC		9		L000862	L000844		
SLB0222-CALA	QC		10		L000863	L000844		
SLB0222-CALB	QC		11		L000864	L000844		
SLB0222-SCV1	QC		12		K007655	L000844		
SLB0222-SCV2	QC		13		K007656	L000844		
SLB0222-SCV3	QC		14		K007657	L000844		
SLB0222-SCV4	QC		15		K007658	L000844		
SLB0222-SCV5	QC		16		K007659	L000844		
SLB0222-SCV6	QC		17		K007660	L000844		

Samples Loaded By Date

Data Processed By Date

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	16-FEB-2023 11:02	02162301ECD7.D	1	IB	
2	16-FEB-2023 11:23	02162302ECD7.D	1	0.25PPMAR1660	
3	16-FEB-2023 11:44	02162303ECD7.D	1	0.02PPMAR1660	
4	16-FEB-2023 12:05	02162304ECD7.D	1	0.05PPMAR1660	
5	16-FEB-2023 12:27	02162305ECD7.D	1	1.0PPMAR1660	
6	16-FEB-2023 12:48	02162306ECD7.D	1	0.1PPMAR1660	
7	16-FEB-2023 13:09	02162307ECD7.D	1	0.5PPMAR1660	
8	16-FEB-2023 13:30	02162308ECD7.D	1	0.25PPMAR1242	
9	16-FEB-2023 13:51	02162309ECD7.D	1	0.25PPMAR1248	
10	16-FEB-2023 14:12	02162310ECD7.D	1	0.25PPMAR1254	
11	16-FEB-2023 14:33	02162311ECD7.D	1	0.25PPMAR2168	
12	16-FEB-2023 14:54	02162312ECD7.D	1	0.25PPMAR3268	
13	16-FEB-2023 15:15	02162313ECD7.D	1	AR1660SCV	
14	16-FEB-2023 15:36	02162314ECD7.D	1	AR1242SCV	
15	16-FEB-2023 15:57	02162315ECD7.D	1	AR1248SCV	
16	16-FEB-2023 16:18	02162316ECD7.D	1	AR1254SCV	
17	16-FEB-2023 16:39	02162317ECD7.D	1	AR2162SCV	
18	16-FEB-2023 17:00	02162318ECD7.D	1	AR3268SCV	
19	16-FEB-2023 17:21	02162319ECD7.D	1	DDTS	
20	16-FEB-2023 17:42	02162320ECD7.D	1	DDT BD	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

ARI Job No.: IB Method: PCB.m Instrument: ecd7.i Date: 16-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1102	02162301ECD7.D	IB		1	NO MANUAL INTEGRATION
1123	02162302ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
1144	02162303ECD7.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
1205	02162304ECD7.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
1227	02162305ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1248	02162306ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1309	02162307ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1330	02162308ECD7.D	0.25PPMAR1242		1	NO MANUAL INTEGRATION
1351	02162309ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
1412	02162310ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
1433	02162311ECD7.D	0.25PPMAR2168		1	NO MANUAL INTEGRATION
1454	02162312ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1515	02162313ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1536	02162314ECD7.D	AR1242SCV		1	NO MANUAL INTEGRATION
1557	02162315ECD7.D	AR1248SCV		1	Aroclor-1248,
1618	02162316ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION
1639	02162317ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1700	02162318ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
1721	02162319ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1742	02162320ECD7.D	DDT BD		1	NO MANUAL INTEGRATION
1803	02162321ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1824	02162322ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1845	02162323ECD7.D	BLB0303-BLK1		1	NO MANUAL INTEGRATION
1906	02162324ECD7.D	BLB0303-BS1		1	NO MANUAL INTEGRATION
1927	02162325ECD7.D	BLB0303-BSD1		1	NO MANUAL INTEGRATION
1948	02162326ECD7.D	23B0153-01		1	NO MANUAL INTEGRATION
2009	02162327ECD7.D	23B0179-01		1	NO MANUAL INTEGRATION
2030	02162328ECD7.D	23B0179-03		1	NO MANUAL INTEGRATION
2051	02162329ECD7.D	23B0218-01		1	NO MANUAL INTEGRATION
2112	02162330ECD7.D	23B0243-01		1	NO MANUAL INTEGRATION
2133	02162331ECD7.D	23B0250-03		1	NO MANUAL INTEGRATION
2154	02162332ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
2215	02162333ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1102	02162301ECD7.D	IB		1	NO MANUAL INTEGRATION
1123	02162302ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1144	02162303ECD7.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
1205	02162304ECD7.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
1227	02162305ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1248	02162306ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1309	02162307ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1330	02162308ECD7.D	0.25PPMAR1242		1	NO MANUAL INTEGRATION
1351	02162309ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
1412	02162310ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
1433	02162311ECD7.D	0.25PPMAR2168		1	NO MANUAL INTEGRATION
1454	02162312ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1515	02162313ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1536	02162314ECD7.D	AR1242SCV		1	NO MANUAL INTEGRATION
1557	02162315ECD7.D	AR1248SCV		1	NO MANUAL INTEGRATION
1618	02162316ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION
1639	02162317ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
1700	02162318ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
1721	02162319ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1742	02162320ECD7.D	DDT BD		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1803	02162321ECD7.D			1	NO MANUAL INTEGRATION
1824	02162322ECD7.D			1	NO MANUAL INTEGRATION
1845	02162323ECD7.D			1	NO MANUAL INTEGRATION
1906	02162324ECD7.D			1	NO MANUAL INTEGRATION
1927	02162325ECD7.D			1	NO MANUAL INTEGRATION
1948	02162326ECD7.D			1	NO MANUAL INTEGRATION
2009	02162327ECD7.D			1	NO MANUAL INTEGRATION
2030	02162328ECD7.D			1	NO MANUAL INTEGRATION
2051	02162329ECD7.D			1	NO MANUAL INTEGRATION
2112	02162330ECD7.D			1	NO MANUAL INTEGRATION
2133	02162331ECD7.D			1	NO MANUAL INTEGRATION
2154	02162332ECD7.D			1	NO MANUAL INTEGRATION
2215	02162333ECD7.D			1	NO MANUAL INTEGRATION

Security Status Report

Date: 17-Feb-2023 12:03

02162301ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162302ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162303ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162304ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
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02162309ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
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02162314ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162315ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162316ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162317ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162318ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162319ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162320ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd7.i\230124.b\01242314ECD7.D
Level 2: \\target\share\chem4\ecd7.i\230124.b\01242315ECD7.D
Level 3: \\target\share\chem4\ecd7.i\230124.b\01242317ECD7.D
Level 4: \\target\share\chem4\ecd7.i\230124.b\01242313ECD7.D
Level 5: \\target\share\chem4\ecd7.i\230124.b\01242318ECD7.D
Level 6: \\target\share\chem4\ecd7.i\230124.b\01242316ECD7.D
Level 7: \\target\share\chem4\ecd7.i\230124.b\01242323ECD7.D
Level 8: \\target\share\chem4\ecd7.i\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00591	+++++	0.00591	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01209	+++++	0.01209	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02807	+++++	0.02807	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.02450	+++++	0.02450	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.08017	+++++	0.08017	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02382	+++++	0.02382	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03598	+++++	0.03598	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00369	+++++	0.00369	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.00832	+++++	0.00832	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04160	+++++	0.04160	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01781	+++++	0.01781	0.000
7 Aroclor-1016(1)	0.02947	0.03102	0.03310	0.03018	0.02824	0.02635	+++++	+++++	0.02973	7.802
(2)	0.09270	0.09812	0.10598	0.10203	0.09861	0.09356	+++++	+++++	0.09850	5.108
(3)	0.04878	0.04900	0.05127	0.04400	0.04091	0.03796	+++++	+++++	0.04532	11.523
(4)	0.02676	0.02802	0.03162	0.03050	0.02939	0.02864	+++++	+++++	0.02915	5.988
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.04002	+++++	0.04002	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.05105	+++++	0.05105	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.09765	+++++	0.09765	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.04833	+++++	0.04833	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.08153	+++++							0.08153	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03481	+++++							0.03481	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05224	+++++							0.05224	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.10237	+++++							0.10237	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.06657	+++++							0.06657	0.000
9 Aroclor-1260(1)	0.04727	0.04543	0.04428	0.05181	0.04013	0.04040				
	+++++	+++++							0.04489	9.818
(2)	0.04940	0.04636	0.04450	0.05350	0.04100	0.04208				
	+++++	+++++							0.04614	10.182
(3)	0.13737	0.12829	0.11740	0.13317	0.10468	0.10790				
	+++++	+++++							0.12147	11.161
(4)	0.07198	0.06638	0.05997	0.06473	0.05485	0.05864				
	+++++	+++++							0.06276	9.803
(5)	0.03296	0.02981	0.02640	0.02723	0.02328	0.02447				
	+++++	+++++							0.02736	13.015
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03235	+++++							0.03235	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
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Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(2)	*****	*****	*****	*****	*****	*****	*****	0.05106	0.05106	0.000
(3)	*****	*****	*****	*****	*****	*****	*****	0.05544	0.05544	0.000
(4)	*****	*****	*****	*****	*****	*****	*****	0.05052	0.05052	0.000
11 Aroclor-1268(1)	*****	*****	*****	*****	*****	*****	*****	0.13216	0.13216	0.000
(2)	*****	*****	*****	*****	*****	*****	*****	0.13180	0.13180	0.000
(3)	*****	*****	*****	*****	*****	*****	*****	0.10919	0.10919	0.000
(4)	*****	*****	*****	*****	*****	*****	*****	0.32374	0.32374	0.000
42 2,4-DDE	*****	*****	*****	*****	*****	*****	*****	904	904	0.000
43 2,4-DDD	*****	*****	*****	*****	*****	*****	*****	1034	1034	0.000
44 2,4-DDT	*****	*****	*****	*****	*****	*****	*****	2557	2557	0.000
46 4,4-DDE	*****	*****	*****	*****	*****	*****	*****	1539	1539	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1484	1484	0.000
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 1 Tetrachloro-m-xylene	1.10039	1.10217	1.21997	1.14965	1.11792	1.09461	+++++	+++++	1.13079	4.246
$ 13 Decachlorobiphenyl	0.86442	0.90302	0.93081	0.84813	0.79576	0.79145	+++++	+++++	0.85560	6.556

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
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Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242314ECD7.D
Level 2: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242315ECD7.D
Level 3: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242317ECD7.D
Level 4: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242313ECD7.D
Level 5: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242318ECD7.D
Level 6: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242316ECD7.D
Level 7: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242323ECD7.D
Level 8: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
1 Aroclor-1221 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00586	+++++	0.00586	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01285	+++++	0.01285	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02169	+++++	0.02169	0.000
4 Aroclor-1232 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00356	+++++	0.00356	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01991	+++++	0.01991	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04054	+++++	0.04054	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01126	+++++	0.01126	0.000
3 Aroclor-1242 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03499	+++++	0.03499	0.000

ARI Labs, Inc.

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Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.07771	+++++	0.07771	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02434	+++++	0.02434	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03226	+++++	0.03226	0.000
6 Aroclor-1248 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03616	+++++	0.03616	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03892	+++++	0.03892	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04756	+++++	0.04756	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05882	+++++	0.05882	0.000
7 Aroclor-1016 [2C](1)	0.04424	0.04724	0.04678	0.04314	0.04099	0.03795	+++++	+++++	0.04339	8.142
(2)	0.08512	0.09615	0.10417	0.09824	0.09554	0.09130	+++++	+++++	0.09509	6.775
(3)	0.02919	0.04165	0.04478	0.04029	0.03925	0.03764	+++++	+++++	0.03880	13.639
(4)	0.02850	0.03377	0.03419	0.03004	0.02878	0.02724	+++++	+++++	0.03042	9.538

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
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Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
8 Aroclor-1254 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.05804	+++++	0.05804	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04691	+++++	0.04691	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.10233	+++++	0.10233	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.10233	+++++	0.10233	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.05700	+++++	0.05700	0.000
10 Aroclor-1262 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.07830	+++++	0.07830	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.06658	+++++	0.06658	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.07090	+++++	0.07090	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.11355	+++++	0.11355	0.000
9 Aroclor-1260 [2C](1)	0.06075	0.05974	0.05912	0.06129	0.05231	0.05307	+++++	+++++	0.05771	6.881
(2)	0.14748	0.15106	0.15181	0.15367	0.13396	0.13809	+++++	+++++	0.14601	5.547

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(3)	0.03683	0.03729	0.03582	0.03647	0.03501	0.03694	#####	#####	0.03639	2.314
(4)	0.09319	0.09919	0.09881	0.09587	0.08985	0.09008	#####	#####	0.09450	4.373
11 Aroclor-1268 [2C](1)	#####	#####	#####	#####	#####	#####	0.18682	#####	0.18682	0.000
(2)	#####	#####	#####	#####	#####	#####	0.19880	#####	0.19880	0.000
(3)	#####	#####	#####	#####	#####	#####	0.16548	#####	0.16548	0.000
(4)	#####	#####	#####	#####	#####	#####	0.51118	#####	0.51118	0.000
41 2,4-DDE [2C]	#####	#####	#####	#####	#####	#####	#####	1528	1528	0.000
42 2,4-DDD [2C]	#####	#####	#####	#####	#####	#####	#####	866	866	0.000
44 4,4-DDE [2C]	#####	#####	#####	#####	#####	#####	#####	863	863	0.000
45 4,4-DDD/2,4-DDT [2C]	#####	#####	#####	#####	#####	#####	#####	1162	1162	0.000
46 4,4-DDT [2C]	#####	#####	#####	#####	#####	#####	#####	1277	1277	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 2 Tetrachloro-m-xylene [2C]	1.04342	1.10521	1.15322	1.09675	1.05187	1.03851	+++++	+++++	1.08150	4.159
$ 13 Decachlorobiphenyl [2C]	1.20915	1.27122	1.31190	1.29209	1.22961	1.30389	+++++	+++++	1.26964	3.291

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230216.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	02162302ECD7	02162303ECD7	02162304ECD7	02162305ECD7	02162306ECD7	02162307ECD7
INJ.DATE:	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023
INJ.TIME:	11:23	11:44	12:05	12:27	12:48	13:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	3.492	3.492	3.491	3.493	3.492	3.491	3.492	3.392-3.592	3.492	0.001
$ 1 Tetrachloro-m-xylene	5.810	5.808	5.808	5.811	5.808	5.809	5.810	5.710-5.910	5.809	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	4.732	4.632-4.832	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	7.269	7.169-7.369	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	4.732	4.632-4.832	+++++	+++++
7 Aroclor-1016	7.271	7.271	7.270	7.270	7.270	7.269	7.271	7.171-7.371	7.270	0.001
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	8.403	8.303-8.503	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	9.295	9.195-9.395	+++++	+++++
9 Aroclor-1260	11.043	11.044	11.043	11.040	11.042	11.041	11.043	10.943-11.143	11.042	0.001
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.824	10.724-10.924	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	12.243	12.143-12.343	+++++	+++++
$ 13 Decachlorobiphenyl	13.894	13.892	13.891	13.892	13.890	13.890	13.894	13.794-13.994	13.892	0.002
* 12 IS-HBBP	14.263	14.263	14.261	14.261	14.262	14.262	14.263	14.163-14.363	14.262	0.001
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.263	9.213-9.313	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.805	9.755-9.855	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.296	10.246-10.346	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.687	9.587-9.787	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230216.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	10.281	10.181-10.381	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.758	10.658-10.858	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230216.b\230216.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	02162302ECD7	02162303ECD7	02162304ECD7	02162305ECD7	02162306ECD7	02162307ECD7
INJ.DATE:	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023
INJ.TIME:	11:23	11:44	12:05	12:27	12:48	13:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB [2C]	3.928	3.929	3.928	3.930	3.929	3.929	3.928	3.828-4.028	3.929	0.001
$ 2 Tetrachloro-m-xylene [	5.685	5.686	5.685	5.688	5.687	5.686	5.685	5.585-5.785	5.686	0.001
1 Aroclor-1221 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.958	4.858-5.058	+++++	+++++
4 Aroclor-1232 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.958	4.859-5.059	+++++	+++++
3 Aroclor-1242 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	7.254	7.154-7.354	+++++	+++++
6 Aroclor-1248 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	8.305	8.205-8.405	+++++	+++++
7 Aroclor-1016 [2C]	7.254	7.255	7.254	7.254	7.254	7.254	7.254	7.154-7.354	7.254	0.000
8 Aroclor-1254 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.447	9.347-9.547	+++++	+++++
10 Aroclor-1262 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.198	11.098-11.298	+++++	+++++
9 Aroclor-1260 [2C]	11.651	11.652	11.652	11.650	11.651	11.650	11.651	11.551-11.751	11.651	0.001
11 Aroclor-1268 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	12.431	12.331-12.531	+++++	+++++
$ 13 Decachlorobiphenyl [2C	14.117	14.118	14.117	14.120	14.117	14.118	14.117	14.017-14.217	14.118	0.001
* 12 IS-HBBP [2C]	15.006	15.006	15.004	15.005	15.005	15.005	15.006	14.906-15.106	15.005	0.001
41 2,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.912	9.862-9.962	+++++	+++++
42 2,4-DDD [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.538	9.488-9.588	+++++	+++++
44 4,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.211	10.111-10.311	+++++	+++++
45 4,4-DDD/2,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.666	10.566-10.766	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230216.b\230216.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.095	10.995-11.195	+++++	+++++
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.703	1.603-1.803	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	7.178	7.078-7.278	+++++	+++++

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162301ECD7.D
Data file 2: /230216.b/230216.b/02162301ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 16-FEB-2023 11:02
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.823	0.015	232765	5.680	-0.005	190174	39.3	39.2	0.1	Tetrachloro-m-xylene
13.900	0.009	322325	14.118	0.000	335746	40.3	39.2	2.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	417912	-2.8
Hexabromobiphenyl	975457	908024	-6.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	359487	-2.0
Hexabromobiphenyl	646884	614725	-5.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	11.361	0.004	128	0.4	2	---			0.0
Aroclor-1260	3	11.801	0.071	128	0.2	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.705	0.008	993	1.0	3	---			0.0
Aroclor-1268	4	13.493	0.006	2534	0.9	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (5.908 - 13.791) = 24426 Col1 Total PCB = 0.0 ppm*

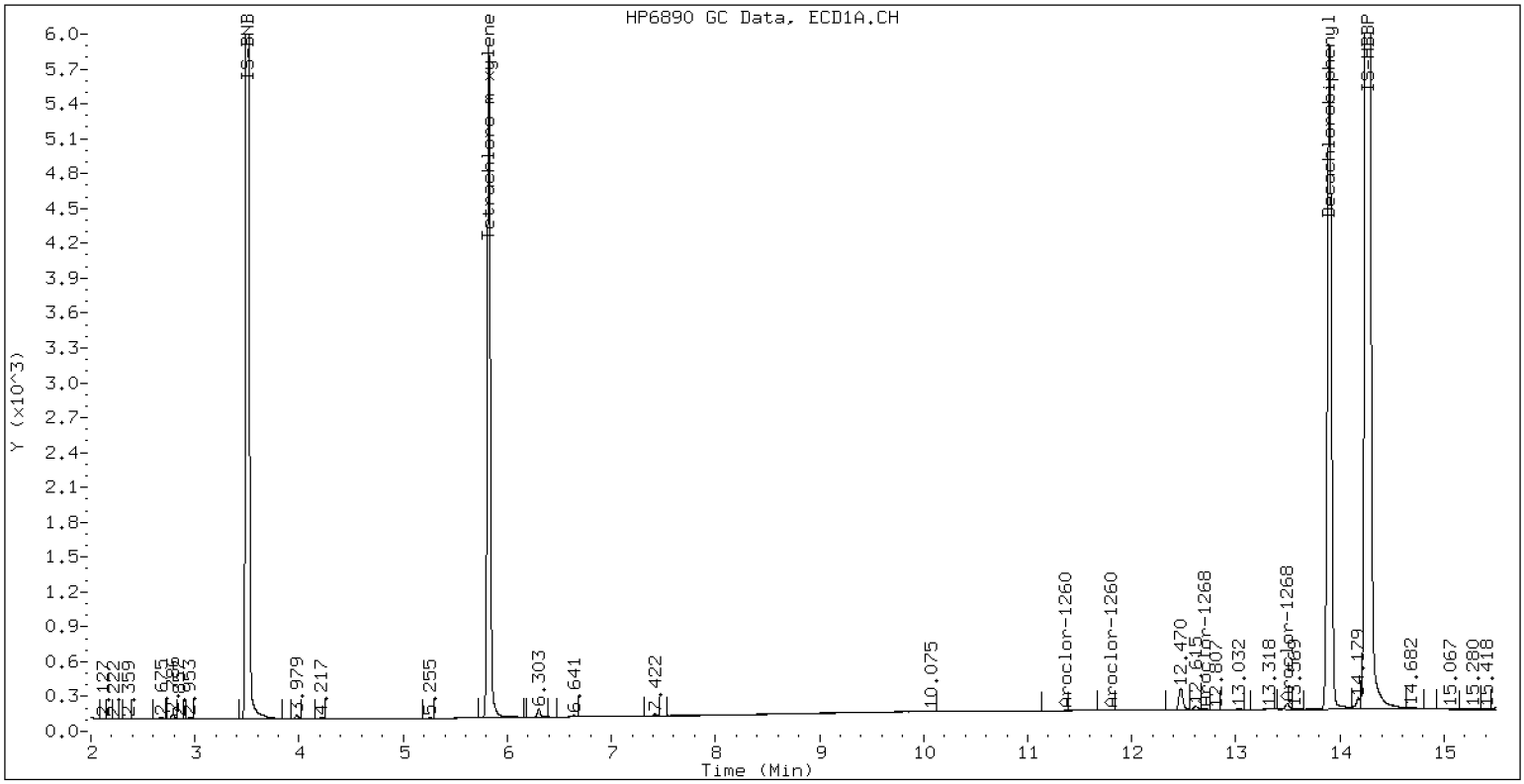
Total PCB Area Col2 (5.786 - 14.018) = 13907 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

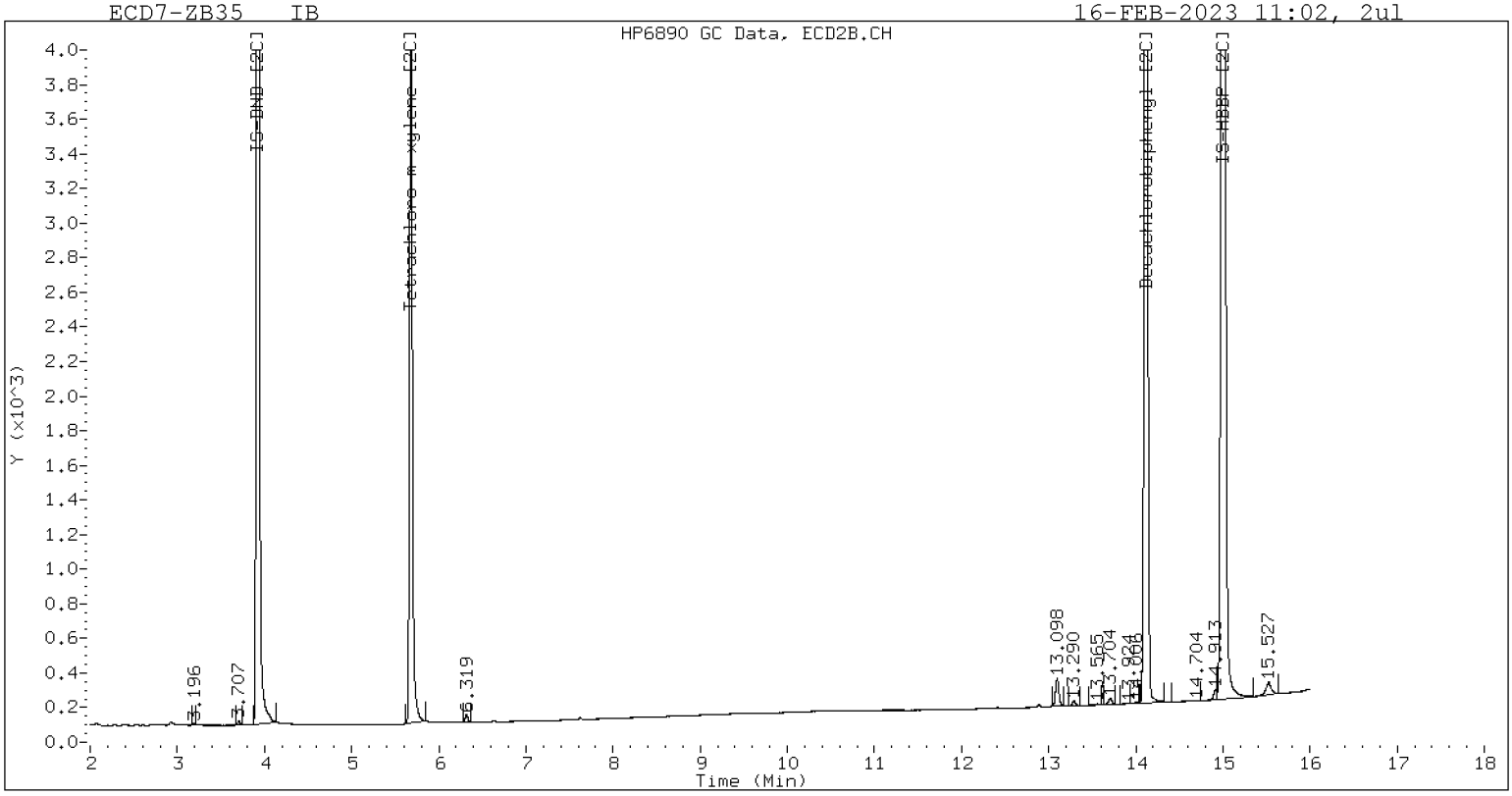
PCB Dual Column Chromatograms

ECD7-ZB5 IB 16-FEB-2023 11:02, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 IB 16-FEB-2023 11:02, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162302ECD7.D
Data file 2: /230216.b/230216.b/02162302ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 11:23
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	248401	5.685	-0.001	199672	40.7	40.3	0.9	Tetrachloro-m-xylene
13.894	0.003	351670	14.117	-0.001	367148	40.9	40.7	0.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	430055	0.0
Hexabromobiphenyl	975457	975457	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	366754	0.0
Hexabromobiphenyl	646884	646884	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.002	39579	252.7	1	7.254	-0.000	49228	245.0
Aroclor-1016	2	7.652	0.002	129647	258.5	2	7.850	-0.002	109879	257.4
Aroclor-1016	3	7.790	0.003	55577	241.0	3	8.050	0.000	45802	261.0
Aroclor-1016	4	8.404	0.001	38982	256.8	4	8.304	-0.000	35428	248.9
Total Col1Ave (4 peaks):					252.3	Total Col2Ave (4 peaks):				253.1 RPD = 0
Corrected Ave (3 peaks):					250.2	Corrected Ave (3 peaks):				250.4 RPD = 0
CalAmt %D:					0.9	CalAmt %D:				1.2
Aroclor-1260	1	11.043	0.002	87165	259.2	1	11.651	0.001	84564	235.7
Aroclor-1260	2	11.360	0.003	89579	260.4	2	11.916	0.001	216735	240.2
Aroclor-1260	3	11.733	0.003	234880	257.8	3	12.434	0.001	55401	229.5
Aroclor-1260	4	12.137	0.002	120991	261.6	4	12.499	0.001	143975	237.8
Aroclor-1260	5	12.243	0.003	50521	254.7	NS	---			----
Total Col1Ave (5 peaks):					258.7	Total Col2Ave (4 peaks):				235.8 RPD = 9
Corrected Ave (4 peaks):					258.0	Corrected Ave (3 peaks):				234.4 RPD = 10
CalAmt %D:					3.5	CalAmt %D:				-5.7

Total PCB Area Col1 (5.908 - 13.791) = 2424171 Col1 Total PCB = 0.5 ppm*

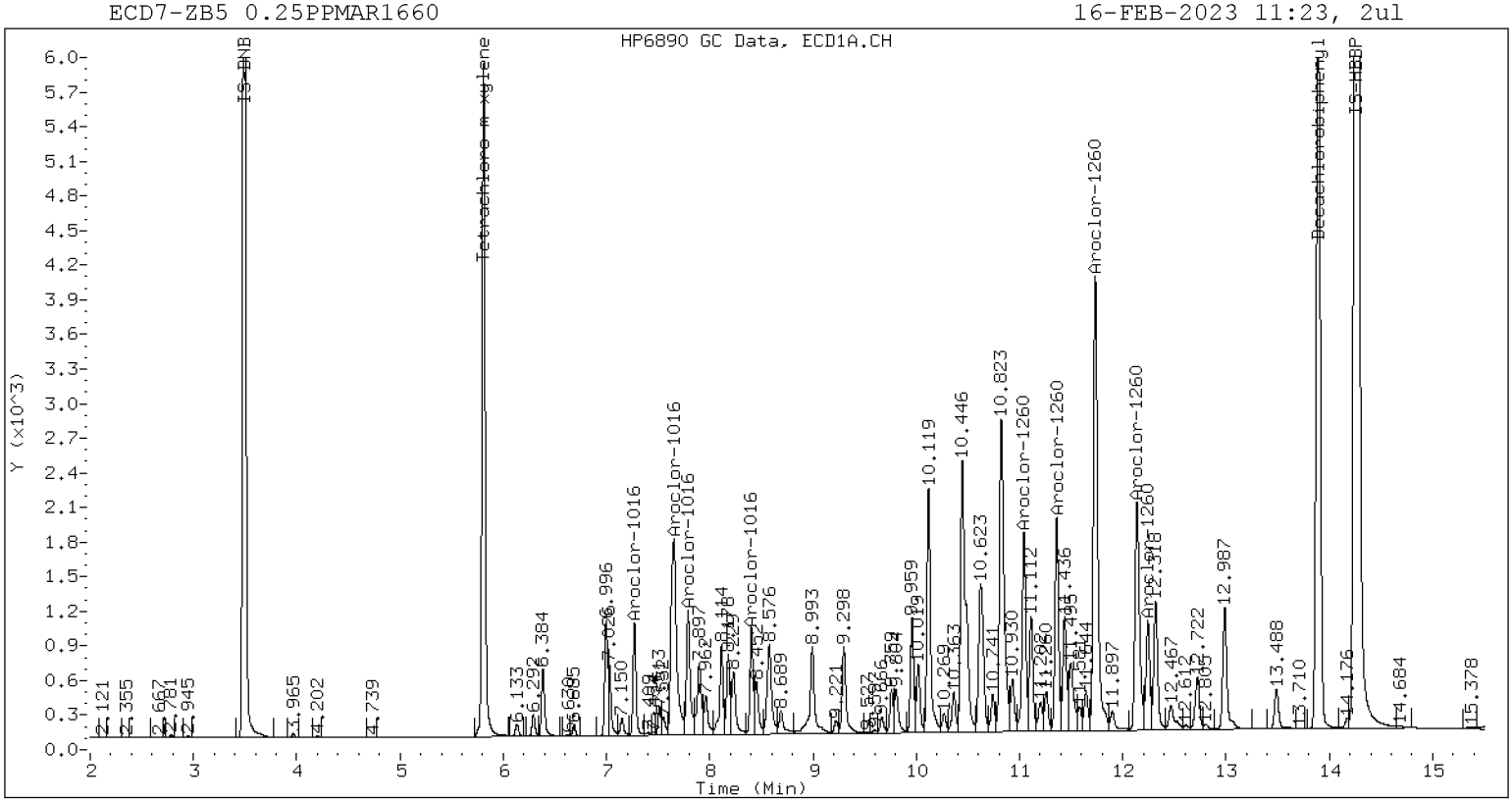
Total PCB Area Col2 (5.786 - 14.018) = 2014487 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

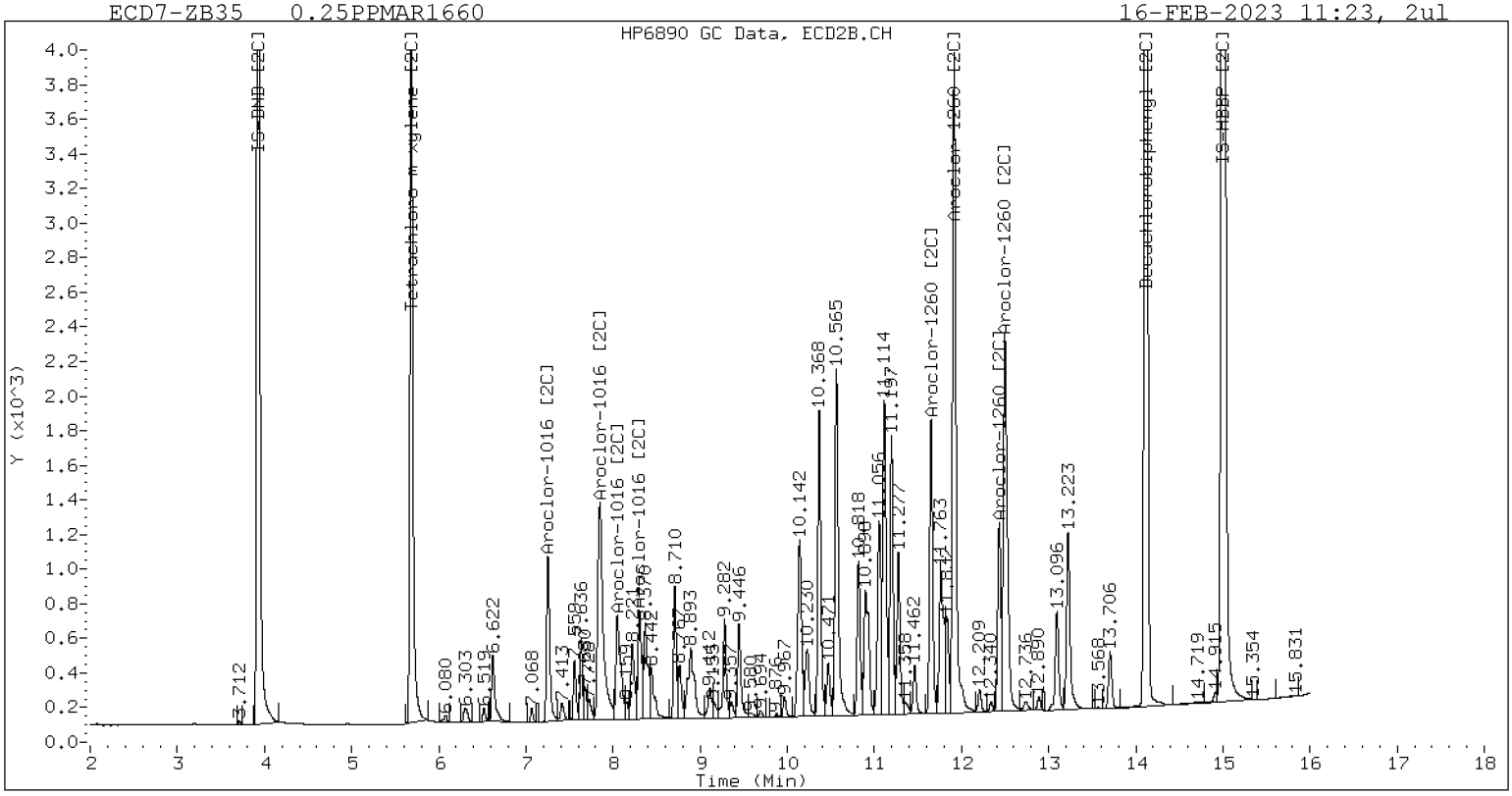
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1660 16-FEB-2023 11:23, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1660 16-FEB-2023 11:23, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162303ECD7.D
Data file 2: /230216.b/230216.b/02162303ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 11:44
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	19708	5.686	0.000	15503	3.3	3.2	3.1	Tetrachloro-m-xylene
13.892	0.001	28479	14.118	-0.000	26541	3.3	2.9	12.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	422641	-1.7
Hexabromobiphenyl	975457	970275	-0.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	360534	-1.7
Hexabromobiphenyl	646884	649373	0.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.002	3348	21.8	1	7.255	0.001	4345	22.0
Aroclor-1016	2	7.655	0.005	10129	20.6	2	7.856	0.005	7672	18.3
Aroclor-1016	3	7.792	0.005	5159	22.8	3	8.056	0.007	2574	14.9
Aroclor-1016	4	8.405	0.003	3035	20.3	4	8.307	0.003	2795	20.0
Total Col1Ave (4 peaks):					21.4	Total Col2Ave (4 peaks):				18.8 RPD = 13
Corrected Ave (3 peaks):					20.9	Corrected Ave (3 peaks):				17.7 RPD = 16
CalAmt %D:					6.8	CalAmt %D:				-6.0
Aroclor-1260	1	11.044	0.003	6763	20.2	1	11.652	0.002	7499	20.8
Aroclor-1260	2	11.360	0.003	6806	19.9	2	11.918	0.003	18116	20.0
Aroclor-1260	3	11.737	0.006	19311	21.3	3	12.434	0.002	5444	22.5
Aroclor-1260	4	12.141	0.006	9169	19.9	4	12.502	0.004	12209	20.1
Aroclor-1260	5	12.243	0.003	4138	21.0	NS	---			----
Total Col1Ave (5 peaks):					20.5	Total Col2Ave (4 peaks):				20.8 RPD = 2
Corrected Ave (4 peaks):					20.3	Corrected Ave (3 peaks):				20.3 RPD = 0
CalAmt %D:					2.3	CalAmt %D:				4.2

Total PCB Area Col1 (5.908 - 13.791) = 207302 Col1 Total PCB = 0.0 ppm*

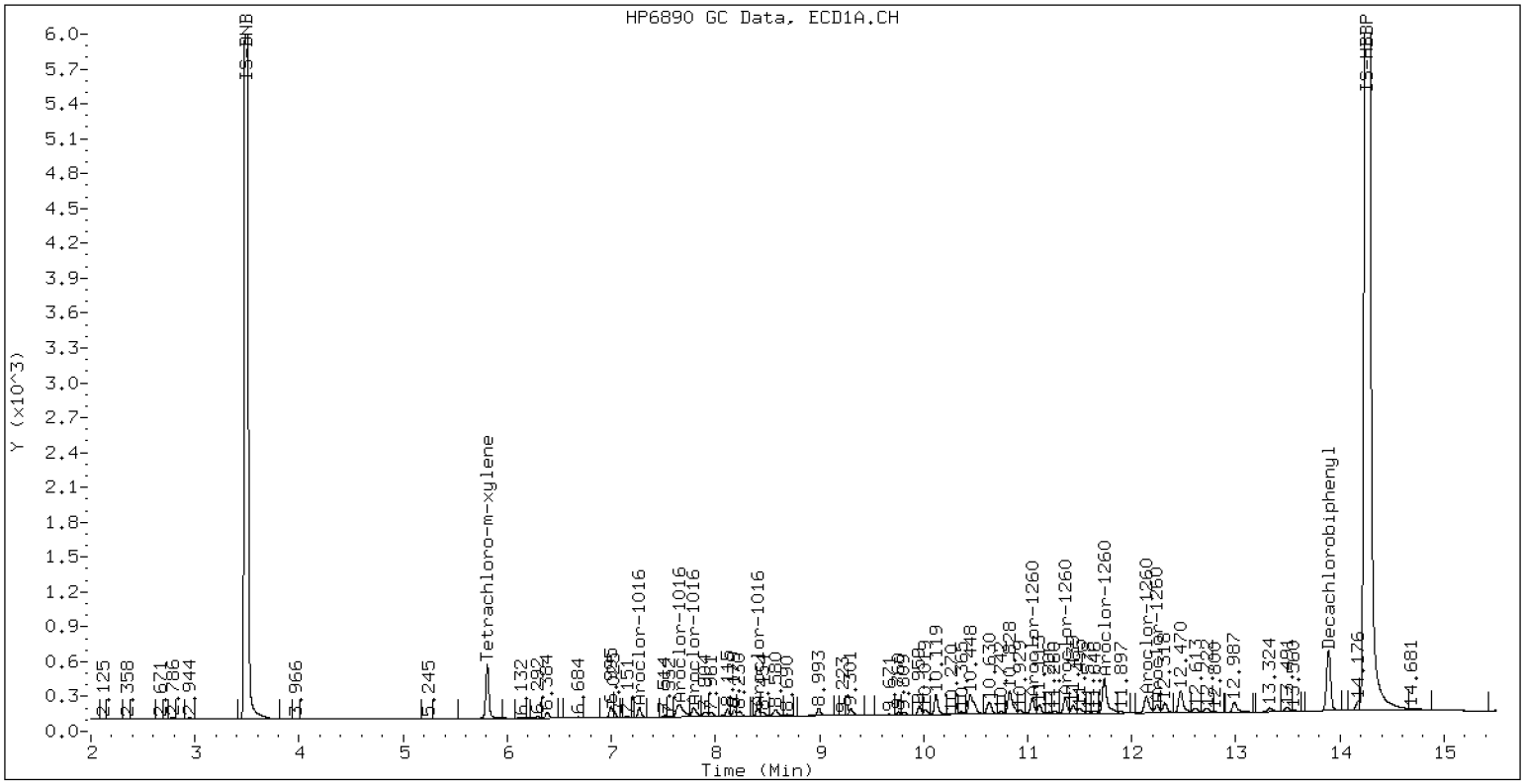
Total PCB Area Col2 (5.786 - 14.018) = 173637 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

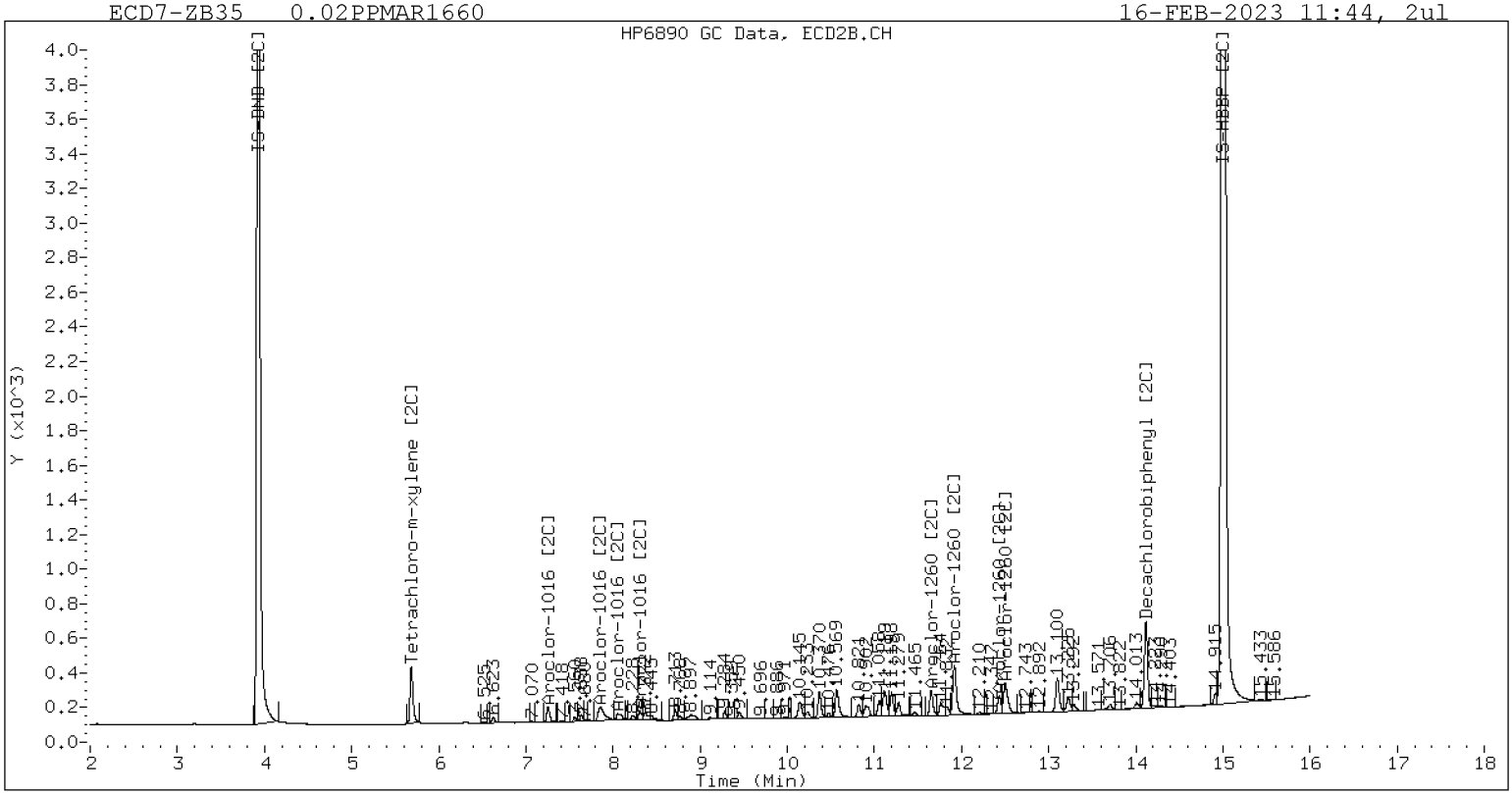
PCB Dual Column Chromatograms

ECD7-ZB5 0.02PPMAR1660 16-FEB-2023 11:44, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.02PPMAR1660 16-FEB-2023 11:44, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162304ECD7.D
Data file 2: /230216.b/230216.b/02162304ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:05
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.001	49106	5.685	-0.001	38865	8.2	8.0	2.4	Tetrachloro-m-xylene
13.891	0.000	72151	14.117	-0.001	67392	8.4	7.4	12.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	424165	-1.4
Hexabromobiphenyl	975457	974643	-0.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	361606	-1.4
Hexabromobiphenyl	646884	650523	0.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	7.270	0.001	8215	53.2	1	7.254	-0.000	10626	53.6
Aroclor-1016	2	7.653	0.003	24630	49.8	2	7.855	0.003	20708	49.2
Aroclor-1016	3	7.791	0.004	12297	54.1	3	8.055	0.006	9105	52.6
Aroclor-1016	4	8.404	0.001	7438	49.7	4	8.306	0.001	7620	54.3
Total Col1Ave (4 peaks):					51.7	Total Col2Ave (4 peaks):				52.4 RPD = 1
Corrected Ave (3 peaks):					50.9	Corrected Ave (3 peaks):				51.8 RPD = 2
CalAmt %D:					3.4	CalAmt %D:				4.9
Aroclor-1260	1	11.043	0.002	16909	50.3	1	11.652	0.002	17146	47.5
Aroclor-1260	2	11.359	0.002	17012	49.5	2	11.917	0.003	43102	47.5
Aroclor-1260	3	11.734	0.003	45560	50.0	3	12.435	0.003	11385	46.9
Aroclor-1260	4	12.138	0.003	22213	48.1	4	12.501	0.003	28474	46.8
Aroclor-1260	5	12.241	0.001	9728	49.1	NS	---			----
Total Col1Ave (5 peaks):					49.4	Total Col2Ave (4 peaks):				47.2 RPD = 5
Corrected Ave (4 peaks):					49.2	Corrected Ave (3 peaks):				47.1 RPD = 4
CalAmt %D:					-1.2	CalAmt %D:				-5.6

Total PCB Area Col1 (5.908 - 13.791) = 481905 Col1 Total PCB = 0.1 ppm*

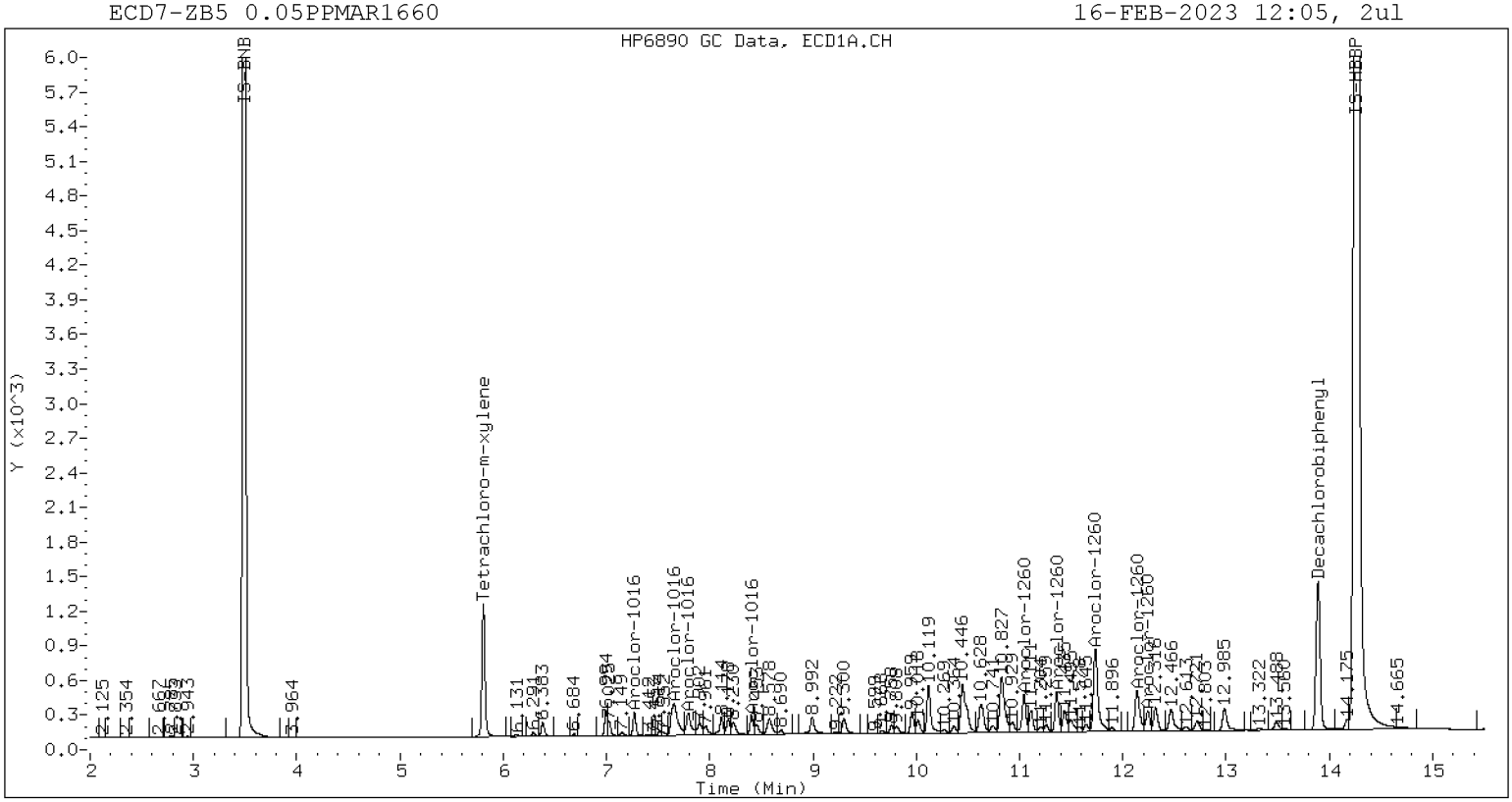
Total PCB Area Col2 (5.786 - 14.018) = 410066 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

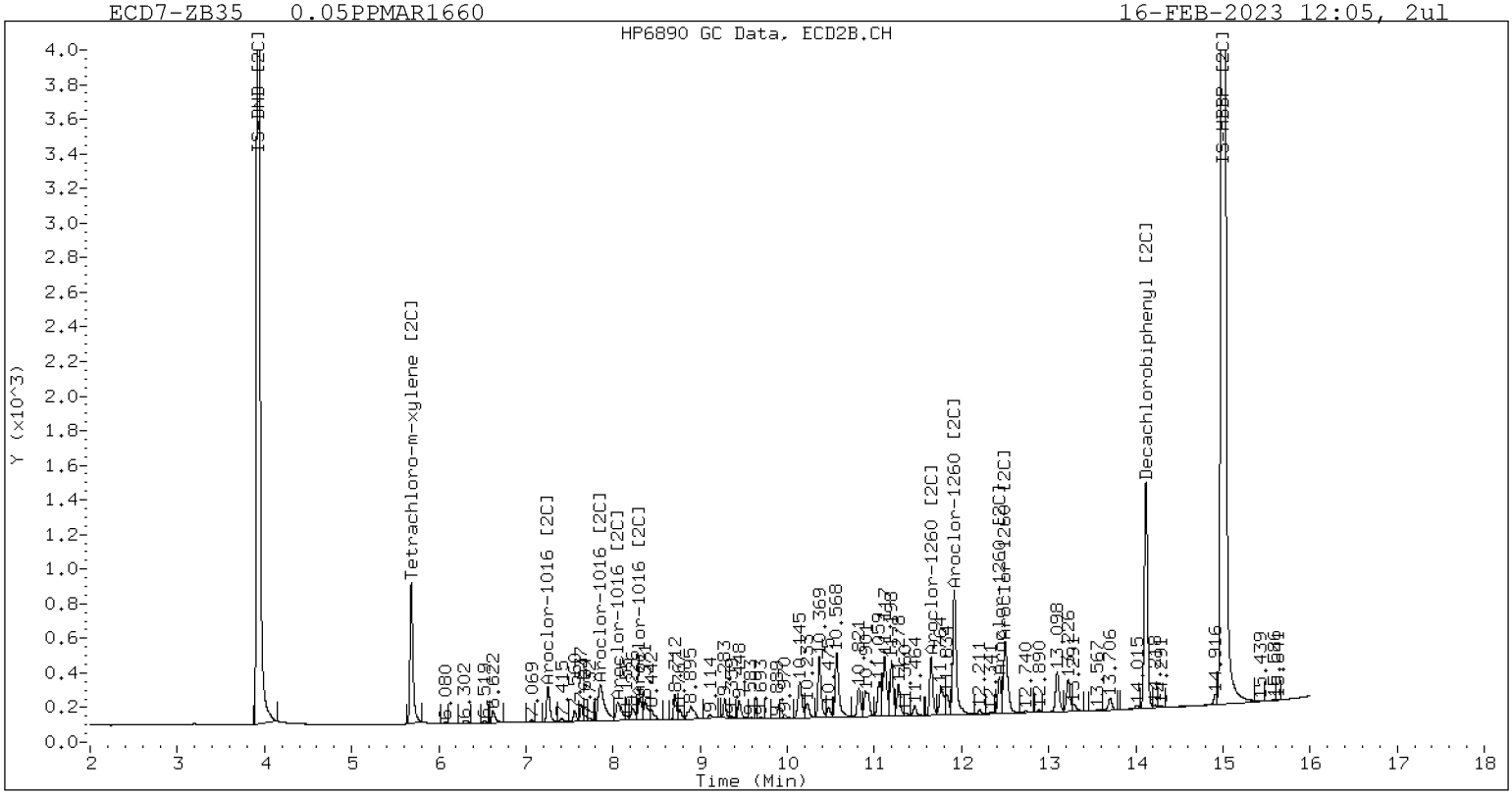
PCB Dual Column Chromatograms

ECD7-ZB5 0.05PPMAR1660 16-FEB-2023 12:05, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.05PPMAR1660 16-FEB-2023 12:05, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162305ECD7.D
Data file 2: /230216.b/230216.b/02162305ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 1.0PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:27
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.811	0.003	891683	5.688	0.002	726379	151.2	152.9	1.1	Tetrachloro-m-xylene
13.892	0.001	1202823	14.120	0.002	1376073	143.7	154.6	7.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	415564	-3.4
Hexabromobiphenyl	975457	950630	-2.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	352163	-4.0
Hexabromobiphenyl	646884	638267	-1.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	132049	872.6	1	7.254	0.000	163920	849.6
Aroclor-1016	2	7.649	-0.001	456308	941.6	2	7.849	-0.003	390554	952.8
Aroclor-1016	3	7.787	-0.000	188528	845.9	3	8.049	-0.000	164163	974.1
Aroclor-1016	4	8.403	0.000	141381	963.9	4	8.304	0.000	120741	883.4
Total Col1Ave (4 peaks):					906.0	Total Col2Ave (4 peaks):				915.0 RPD = 1
Corrected Ave (3 peaks):					886.7	Corrected Ave (3 peaks):				895.3 RPD = 1
CalAmt %D:					-9.4	CalAmt %D:				-8.5
Aroclor-1260	1	11.040	-0.000	311922	951.8	1	11.650	-0.000	297569	840.7
Aroclor-1260	2	11.356	-0.001	324926	969.1	2	11.914	-0.001	734323	824.7
Aroclor-1260	3	11.729	-0.001	820597	924.2	3	12.432	0.000	215979	906.9
Aroclor-1260	4	12.131	-0.003	448823	995.6	4	12.498	0.000	521208	872.6
Aroclor-1260	5	12.240	0.000	188496	975.0	NS	---			----
Total Col1Ave (5 peaks):					963.1	Total Col2Ave (4 peaks):				861.2 RPD = 11
Corrected Ave (4 peaks):					955.0	Corrected Ave (3 peaks):				846.0 RPD = 12
CalAmt %D:					-3.7	CalAmt %D:				-13.9

Total PCB Area Col1 (5.908 - 13.791) = 8716327 Col1 Total PCB = 1.9 ppm*

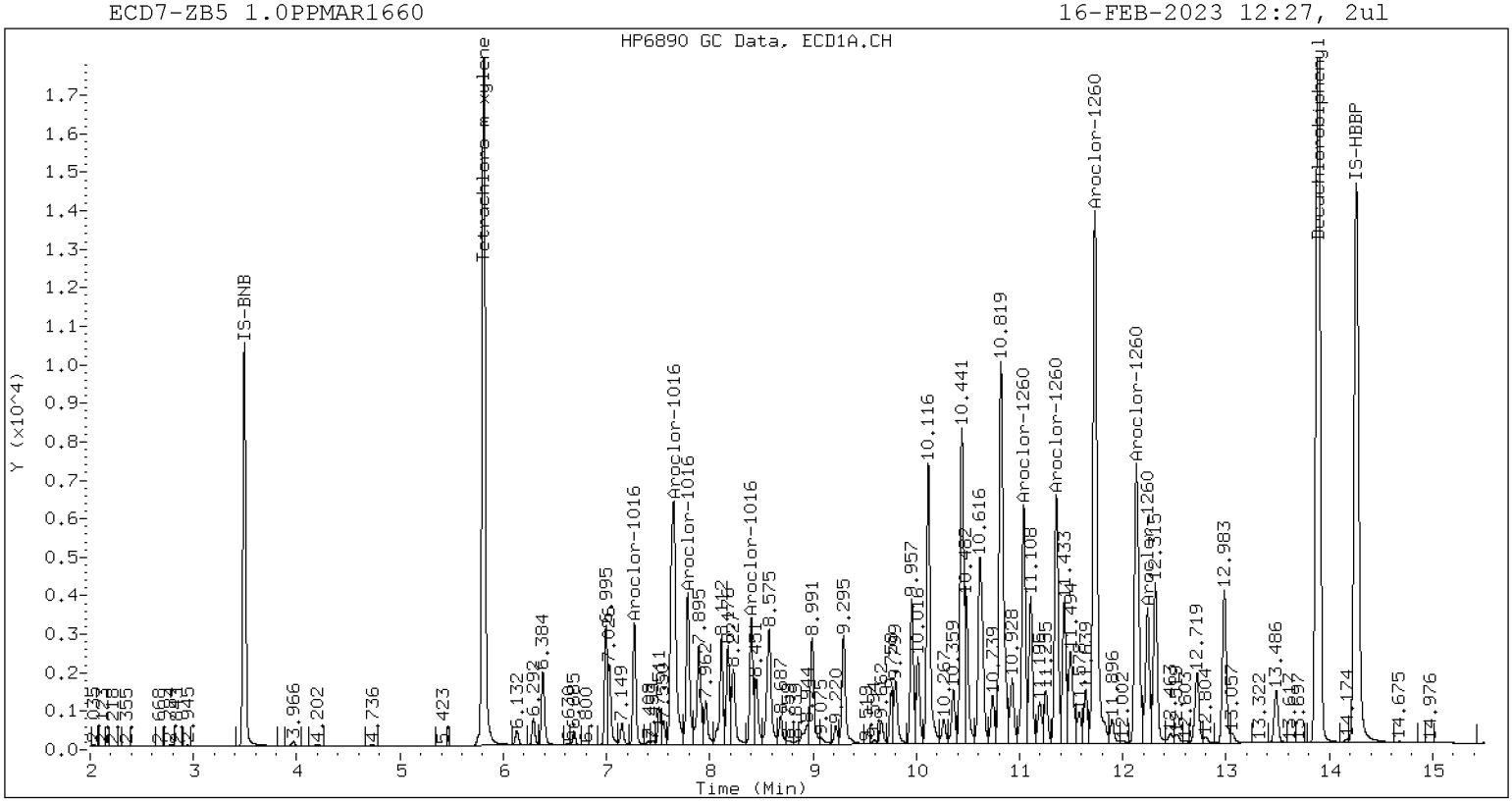
Total PCB Area Col2 (5.786 - 14.018) = 7274392 Col2 Total PCB = 1.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

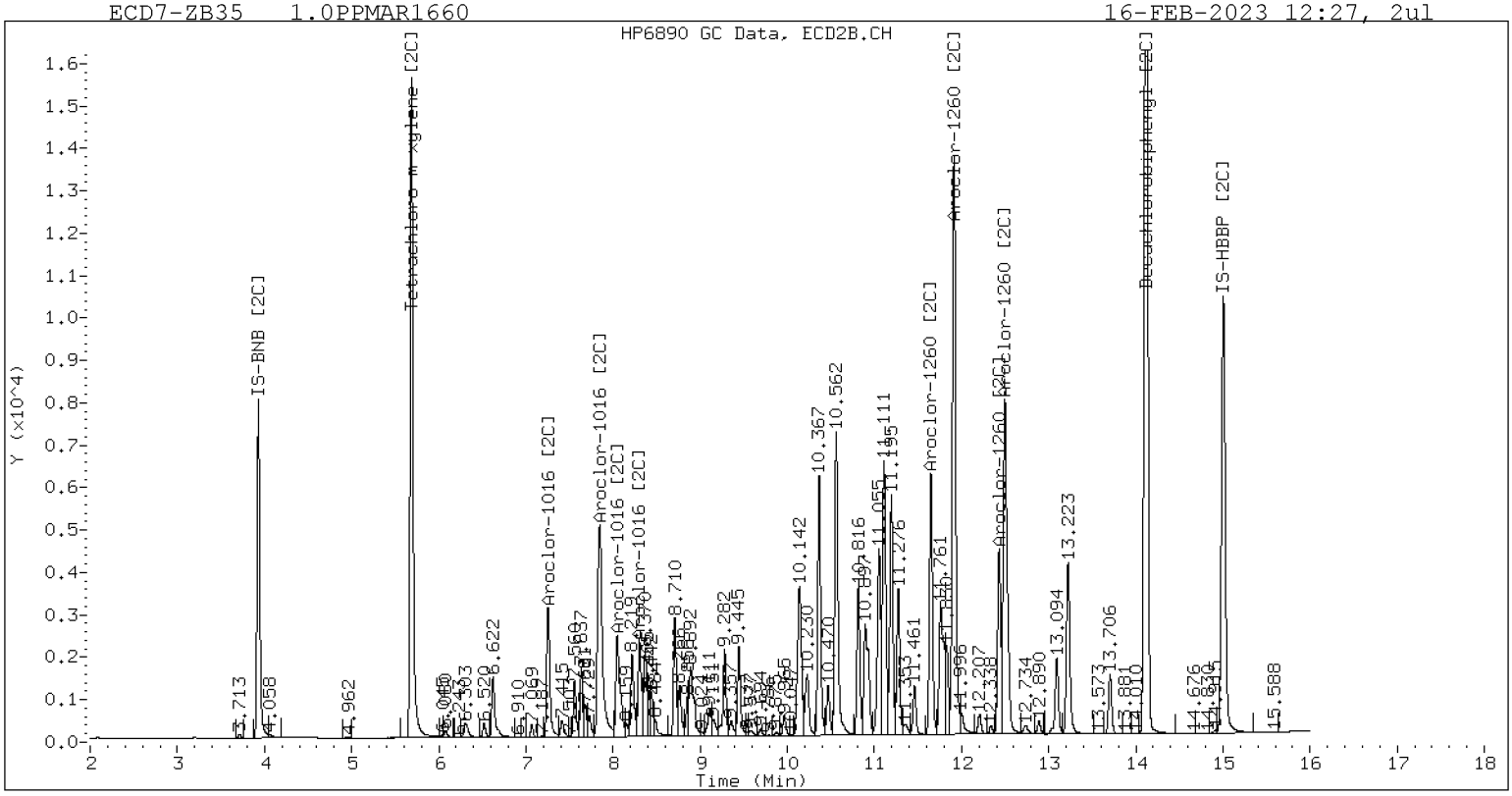
PCB Dual Column Chromatograms

ECD7-ZB5 1.0PPMAR1660 16-FEB-2023 12:27, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 1.0PPMAR1660 16-FEB-2023 12:27, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162306ECD7.D
Data file 2: /230216.b/230216.b/02162306ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:48
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	97353	5.687	0.001	77790	16.1	16.0	1.1	Tetrachloro-m-xylene
13.890	-0.001	143814	14.117	-0.001	141007	16.6	15.4	7.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	425206	-1.1
Hexabromobiphenyl	975457	982762	0.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	361068	-1.6
Hexabromobiphenyl	646884	654989	1.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	15562	100.5	1	7.254	-0.000	20282	102.5
Aroclor-1016	2	7.653	0.003	49218	99.3	2	7.855	0.004	43303	103.0
Aroclor-1016	3	7.790	0.003	23916	104.9	3	8.054	0.005	18932	109.6
Aroclor-1016	4	8.404	0.002	14884	99.2	4	8.306	0.002	15145	108.1
Total Col1Ave (4 peaks):					101.0	Total Col2Ave (4 peaks):				105.8 RPD = 5
Corrected Ave (3 peaks):					99.6	Corrected Ave (3 peaks):				104.5 RPD = 5
CalAmt %D:					1.0	CalAmt %D:				5.8
Aroclor-1260	1	11.042	0.002	34109	100.7	1	11.651	0.001	34102	93.9
Aroclor-1260	2	11.358	0.001	34951	100.8	2	11.917	0.002	87139	95.4
Aroclor-1260	3	11.733	0.003	92326	100.6	3	12.434	0.001	21226	86.9
Aroclor-1260	4	12.137	0.003	45803	98.3	4	12.500	0.002	57343	93.6
Aroclor-1260	5	12.241	0.001	19653	98.3	NS	---			----
Total Col1Ave (5 peaks):					99.7	Total Col2Ave (4 peaks):				92.4 RPD = 8
Corrected Ave (4 peaks):					99.5	Corrected Ave (3 peaks):				91.4 RPD = 8
CalAmt %D:					-0.3	CalAmt %D:				-7.6

Total PCB Area Col1 (5.908 - 13.791) = 948624 Col1 Total PCB = 0.2 ppm*

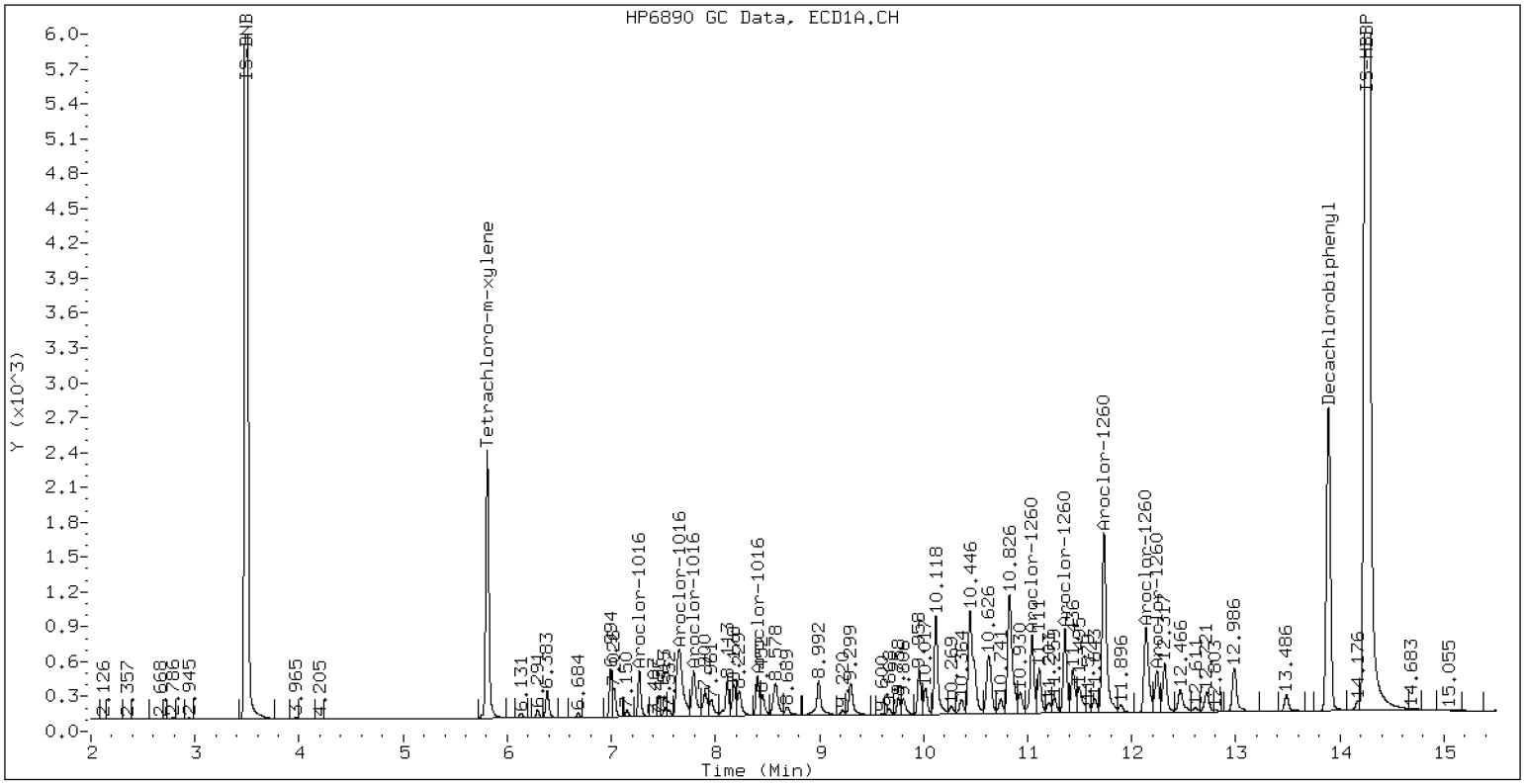
Total PCB Area Col2 (5.786 - 14.018) = 817080 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

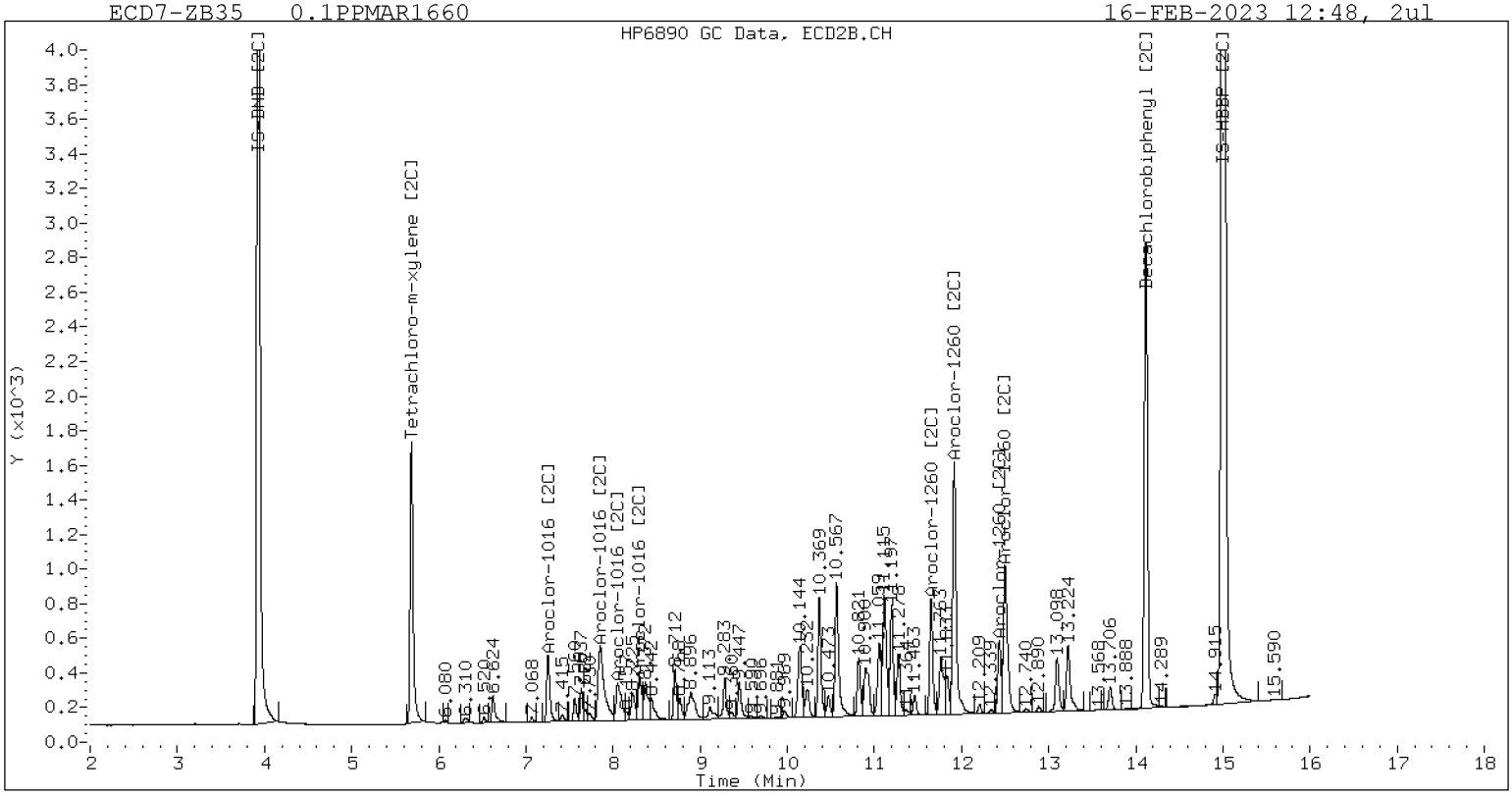
PCB Dual Column Chromatograms

ECD7-ZB5 0.1PPMAR1660 16-FEB-2023 12:48, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.1PPMAR1660 16-FEB-2023 12:48, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162307ECD7.D
Data file 2: /230216.b/230216.b/02162307ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 13:09
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	472991	5.686	0.001	380587	78.5	78.1	0.6	Tetrachloro-m-xylene
13.890	-0.001	654829	14.118	-0.000	723440	75.9	79.7	5.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	424511	-1.3
Hexabromobiphenyl	975457	980103	0.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	361199	-1.5
Hexabromobiphenyl	646884	650552	0.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	74222	480.1	1	7.254	0.000	92105	465.4
Aroclor-1016	2	7.650	0.000	249600	504.2	2	7.851	0.000	210359	500.4
Aroclor-1016	3	7.787	0.000	104974	461.1	3	8.049	0.000	87658	507.1
Aroclor-1016	4	8.402	0.000	75363	503.0	4	8.304	0.000	65546	467.6
Total Col1Ave (4 peaks):				487.1		Total Col2Ave (4 peaks):			485.1	RPD = 0
Corrected Ave (3 peaks):				481.4		Corrected Ave (3 peaks):			477.8	RPD = 1
		CalAmt %D:		-2.6			CalAmt %D:		-3.0	
Aroclor-1260	1	11.041	0.000	166809	493.7	1	11.650	0.000	160885	446.0
Aroclor-1260	2	11.357	0.000	172259	498.3	2	11.915	0.000	410338	452.2
Aroclor-1260	3	11.731	0.000	445028	486.1	3	12.432	0.000	110865	456.7
Aroclor-1260	4	12.134	0.000	236535	508.9	4	12.498	0.000	278934	458.2
Aroclor-1260	5	12.240	0.000	98968	496.5	NS	---			----
Total Col1Ave (5 peaks):				496.7		Total Col2Ave (4 peaks):			453.3	RPD = 9
Corrected Ave (4 peaks):				493.7		Corrected Ave (3 peaks):			451.6	RPD = 9
		CalAmt %D:		-0.7			CalAmt %D:		-9.3	

Total PCB Area Col1 (5.908 - 13.791) = 4638448 Col1 Total PCB = 1.0 ppm*

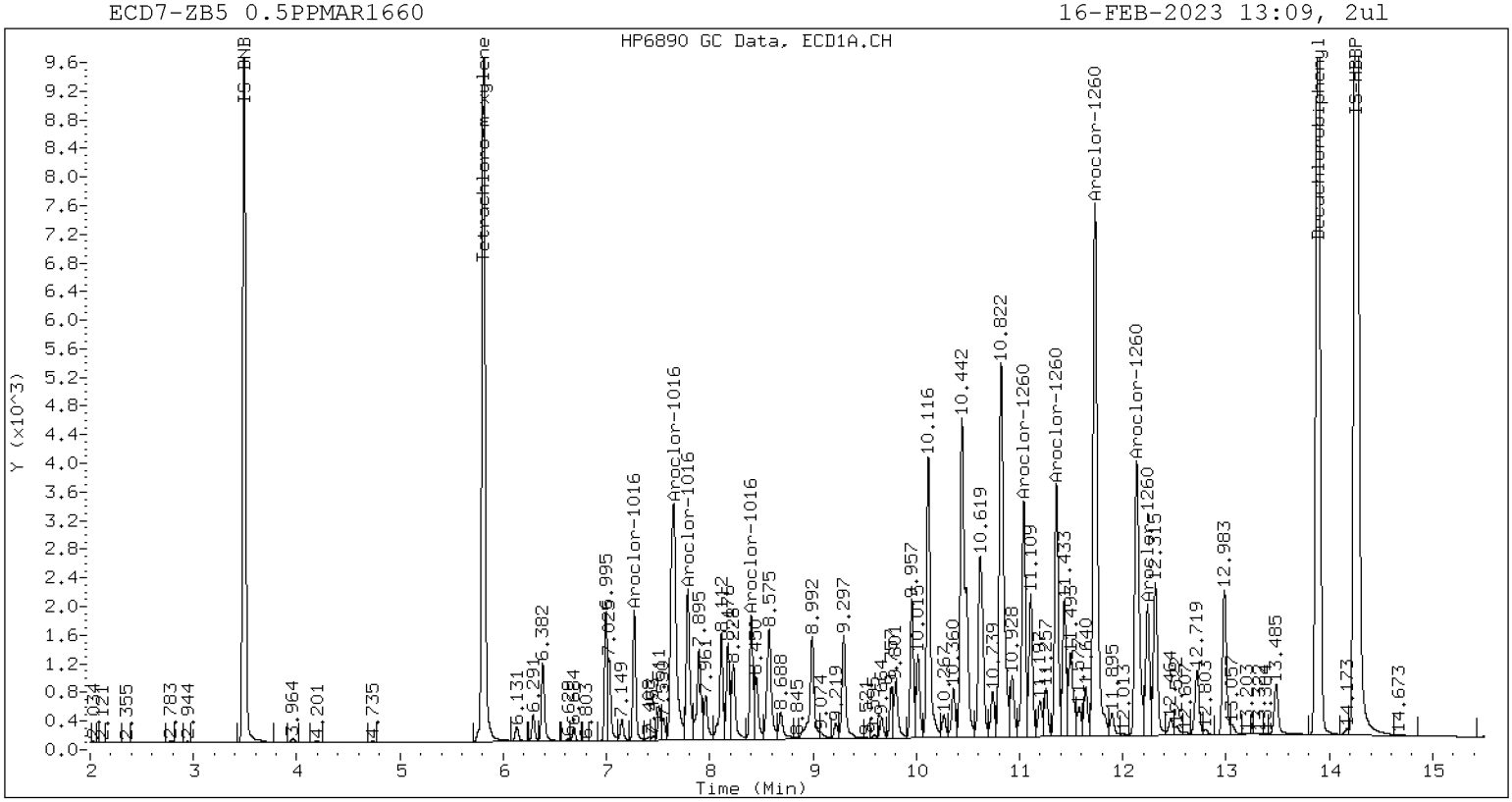
Total PCB Area Col2 (5.786 - 14.018) = 3867644 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

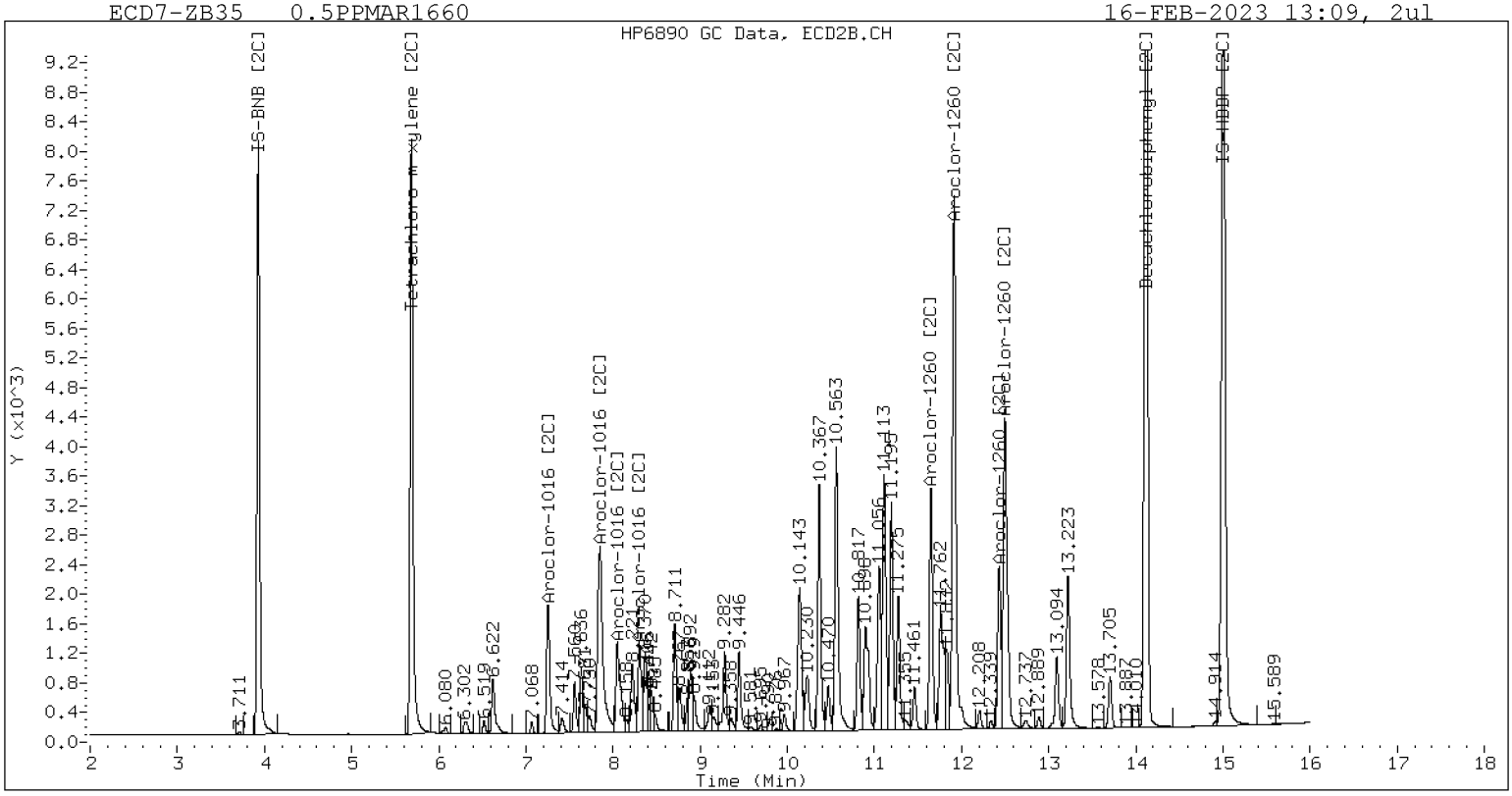
PCB Dual Column Chromatograms

ECD7-ZB5 0.5PPMAR1660 16-FEB-2023 13:09, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.5PPMAR1660 16-FEB-2023 13:09, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162308ECD7.D
Data file 2: /230216.b/230216.b/02162308ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1242
Client ID:
Injection Date: 16-FEB-2023 13:30
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	287664	5.686	0.000	229806	46.8	46.6	0.6	Tetrachloro-m-xylene
13.891	0.000	335023	14.117	-0.001	345735	37.9	37.1	2.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	432799	0.6
Hexabromobiphenyl	975457	1004715	3.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	365812	-0.3
Hexabromobiphenyl	646884	667992	3.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.269	0.000	32233	250.0	1	7.254	0.000	39556	250.0
Aroclor-1242	2	7.652	0.000	102000	250.0	2	7.853	0.000	85705	250.0
Aroclor-1242	3	8.403	0.000	30824	250.0	3	9.160	0.000	27091	250.0
Aroclor-1242	4	8.577	0.000	45526	250.0	4	9.587	0.000	32851	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 766603 Col1 Total PCB = 0.2 ppm*

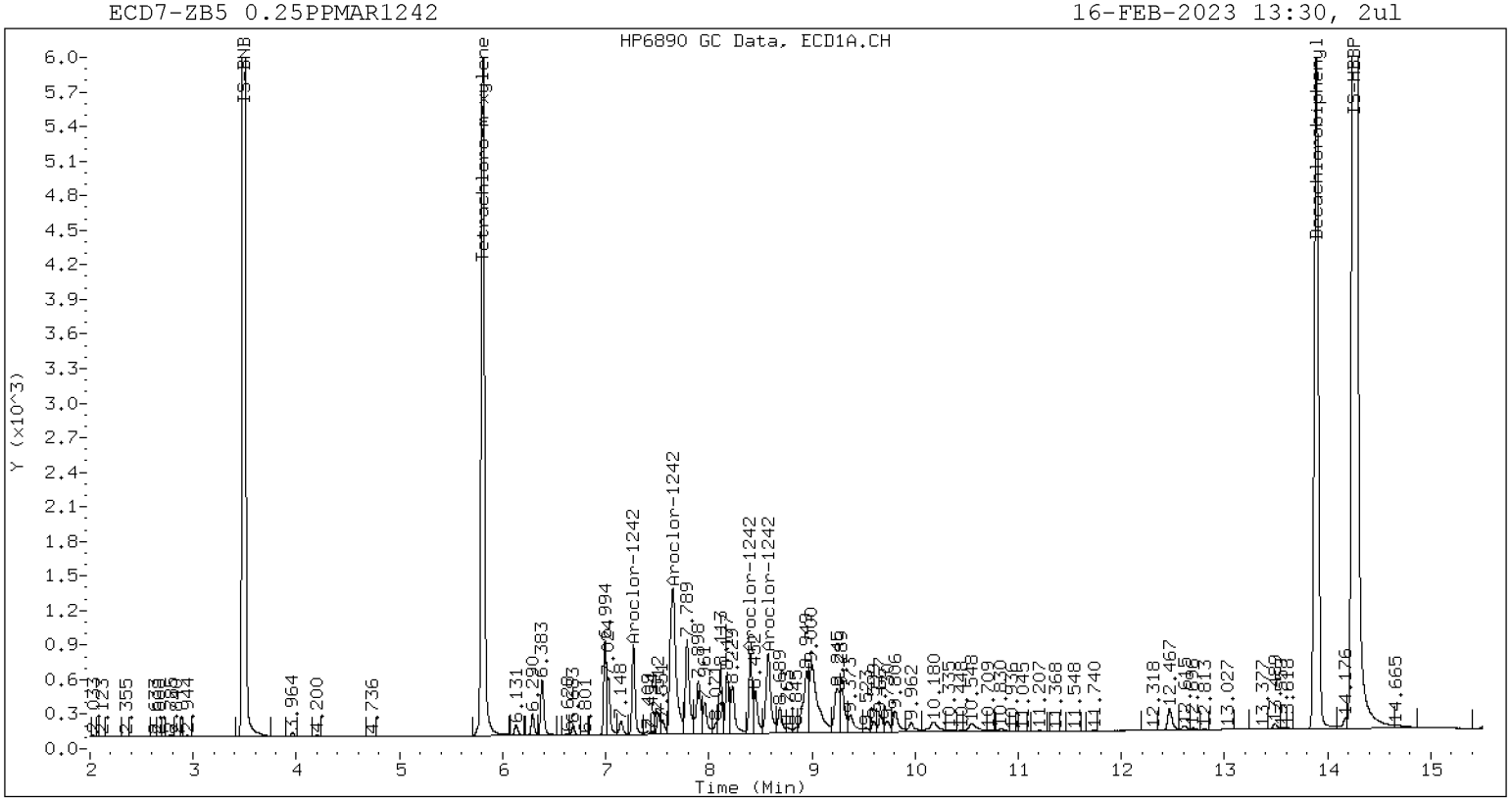
Total PCB Area Col2 (5.786 - 14.018) = 618238 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

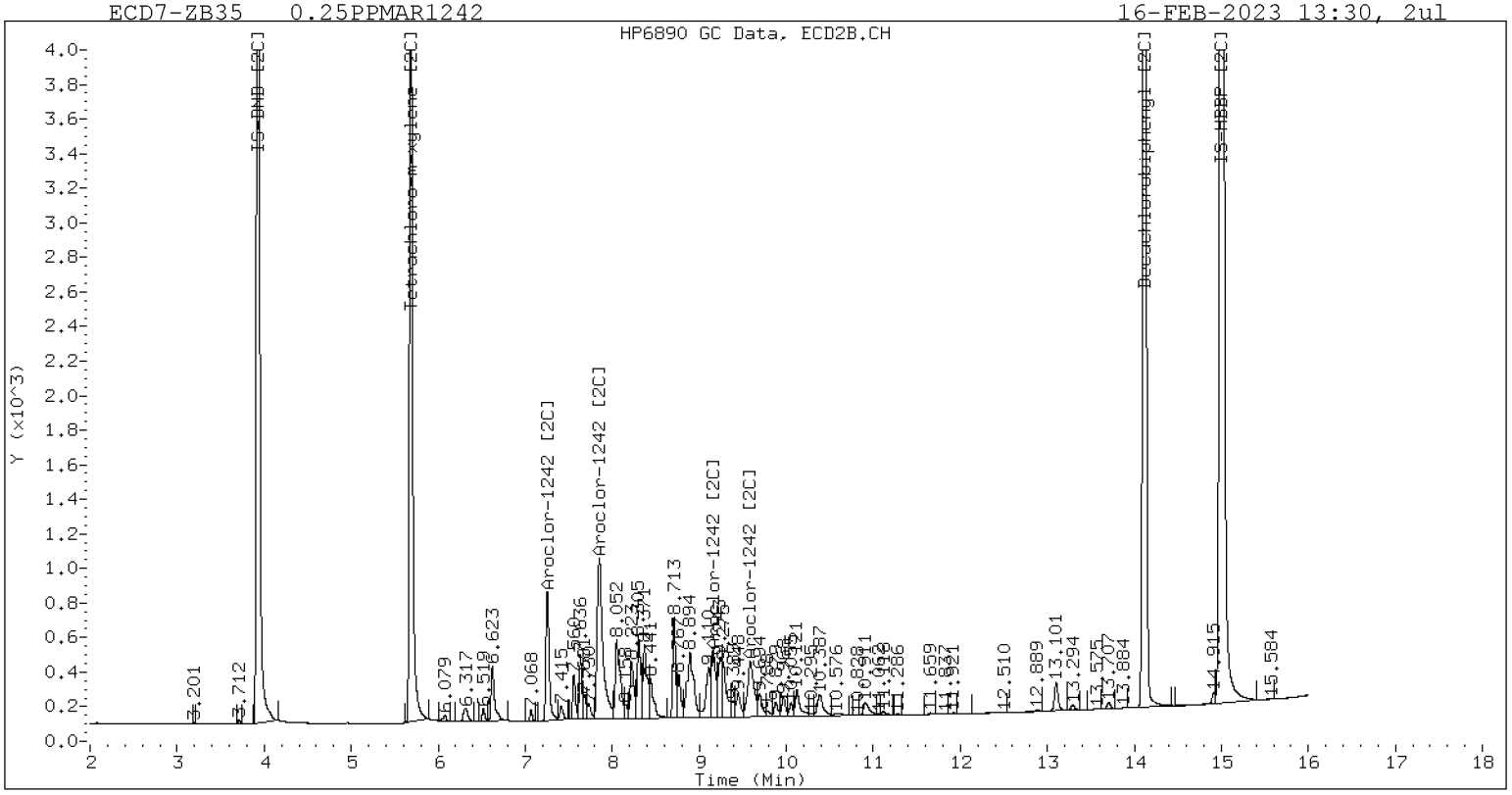
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1242 16-FEB-2023 13:30, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1242 16-FEB-2023 13:30, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162309ECD7.D
Data file 2: /230216.b/230216.b/02162309ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1248
Client ID:
Injection Date: 16-FEB-2023 13:51
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	235858	5.688	0.002	191205	38.1	38.3	0.5	Tetrachloro-m-xylene
13.889	-0.002	339581	14.117	-0.001	351690	38.5	38.0	1.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	435779	1.3
Hexabromobiphenyl	975457	1000233	2.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	369685	0.8
Hexabromobiphenyl	646884	662877	2.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.403	0.000	52538	250.0	1	8.305	0.000	41694	250.0
Aroclor-1248	2	8.577	0.000	66305	250.0	2	8.712	0.000	43865	250.0
Aroclor-1248	3	8.996	0.000	93719	250.0	3	9.159	0.000	50687	250.0
Aroclor-1248	4	9.292	0.000	59273	250.0	4	9.581	0.000	61479	250.0

Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1025602 Col1 Total PCB = 0.2 ppm*

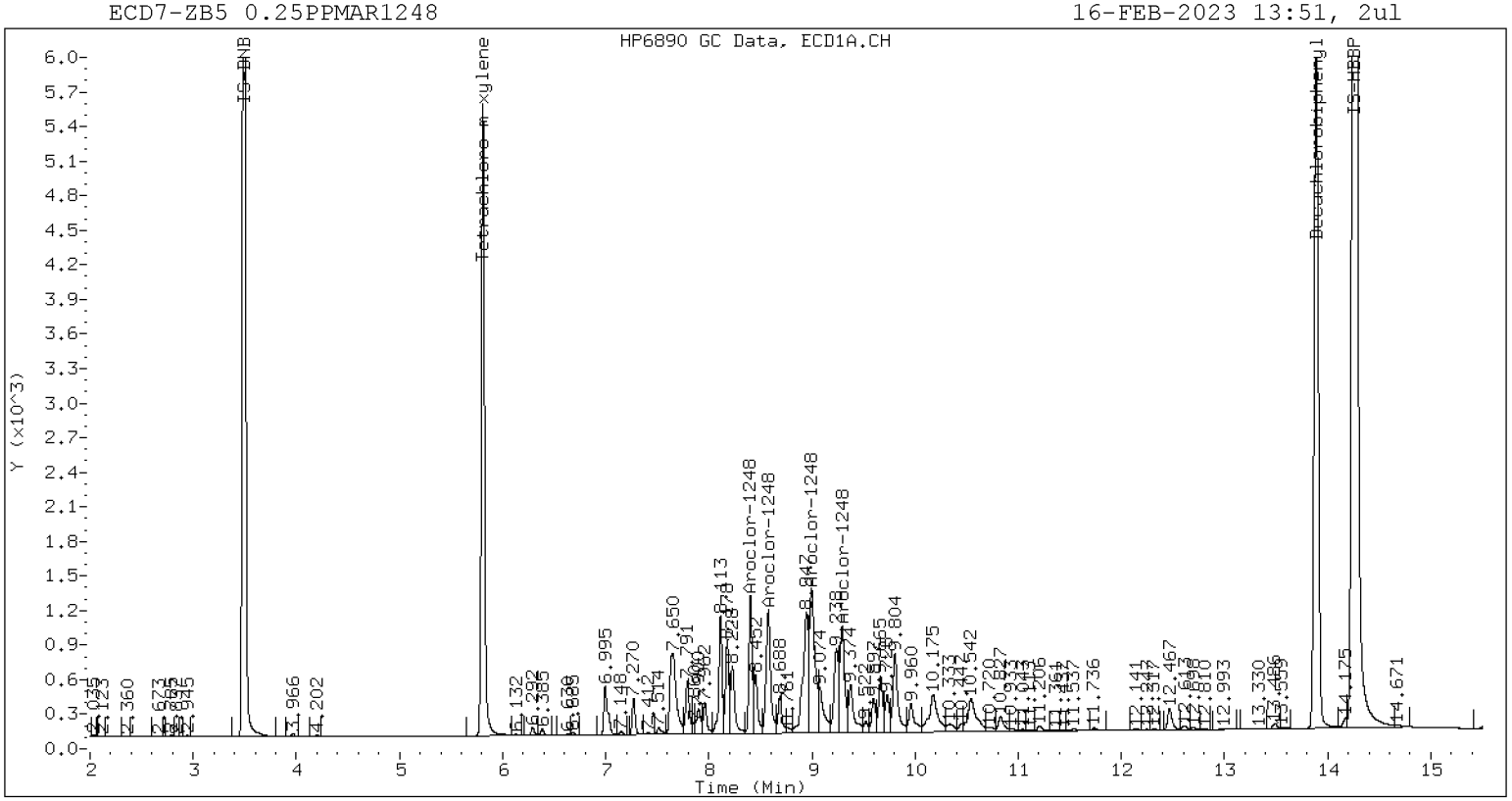
Total PCB Area Col2 (5.786 - 14.018) = 824415 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

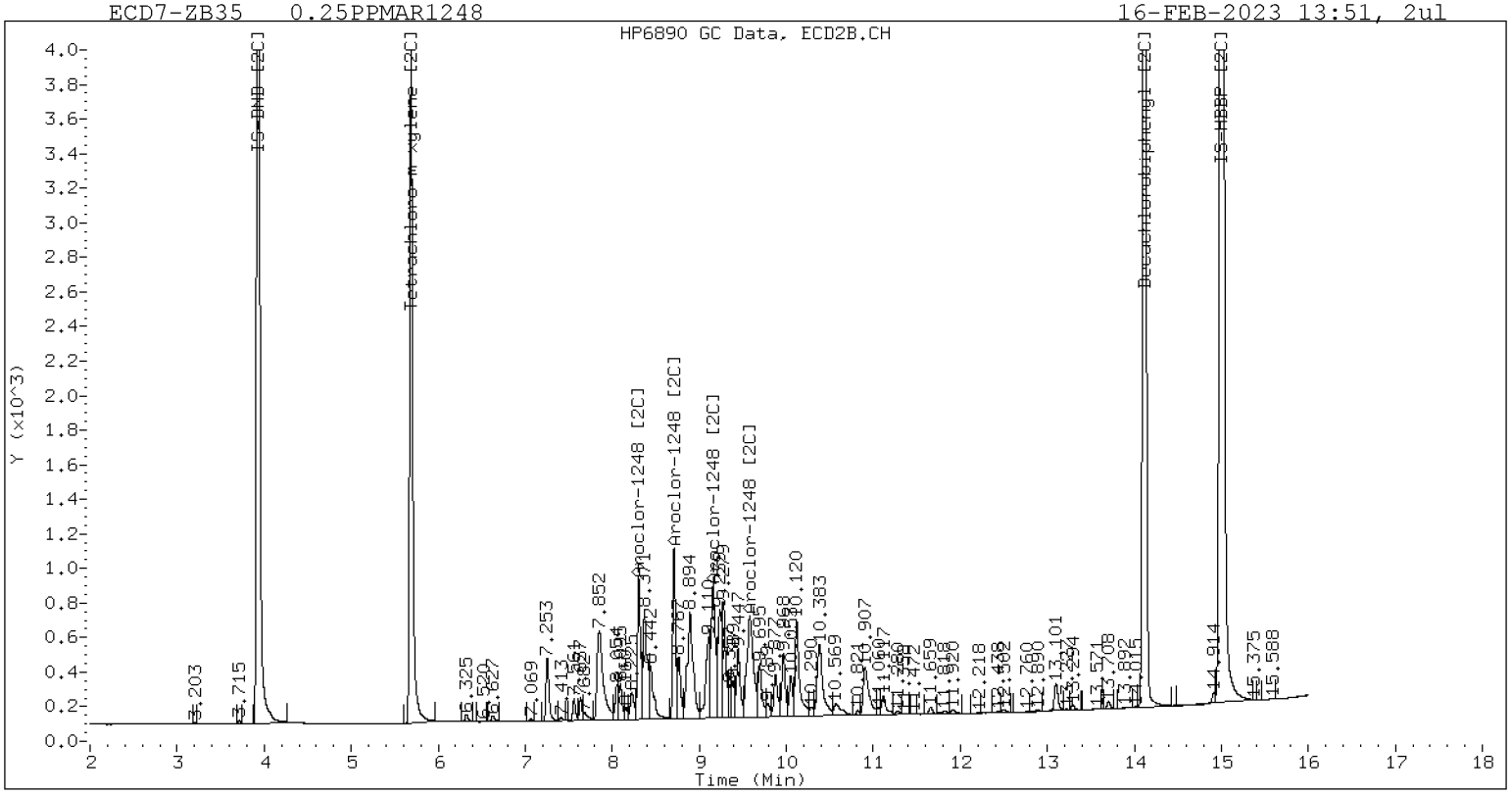
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1248 16-FEB-2023 13:51, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1248 16-FEB-2023 13:51, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162310ECD7.D
Data file 2: /230216.b/230216.b/02162310ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1254
Client ID:
Injection Date: 16-FEB-2023 14:12
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	235903	5.686	0.001	191667	38.0	38.3	0.7	Tetrachloro-m-xylene
13.891	0.000	345464	14.117	-0.001	355579	38.7	38.0	1.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	437427	1.7
Hexabromobiphenyl	975457	1013635	3.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	371000	1.2
Hexabromobiphenyl	646884	671465	3.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	9.295	0.000	105834	250.0	1	9.447	0.000	65393	250.0
Aroclor-1254	2	9.374	0.000	41671	250.0	2	9.967	0.000	52822	250.0
Aroclor-1254	3	9.665	0.000	67447	250.0	3	10.120	0.000	115063	250.0
Aroclor-1254	4	9.803	0.000	134258	250.0	4	10.370	0.000	113530	250.0
Aroclor-1254	5	10.167	0.000	81893	250.0	5	10.566	0.000	57361	250.0

Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1385653 Col1 Total PCB = 0.3 ppm*

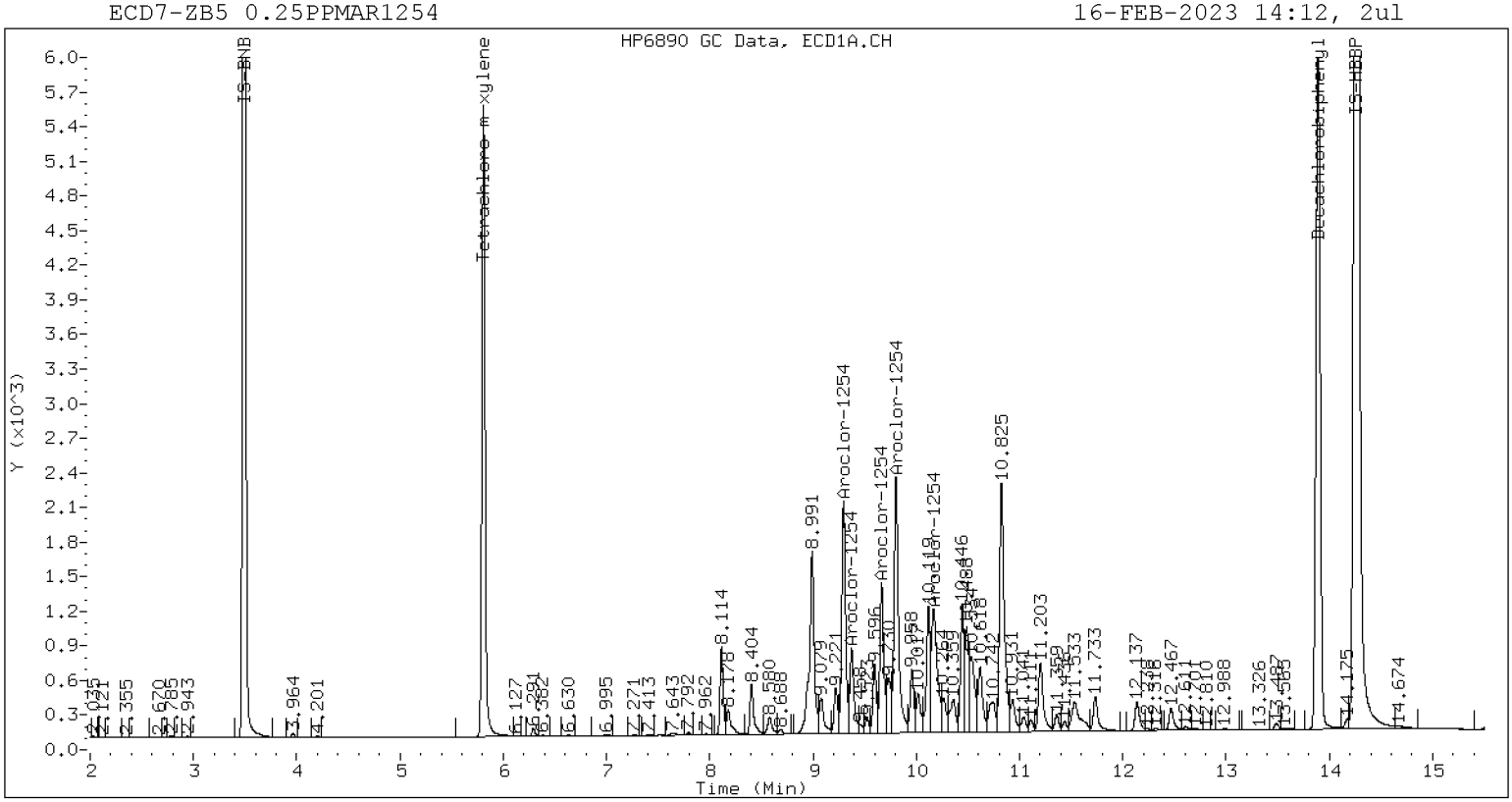
Total PCB Area Col2 (5.786 - 14.018) = 1106329 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

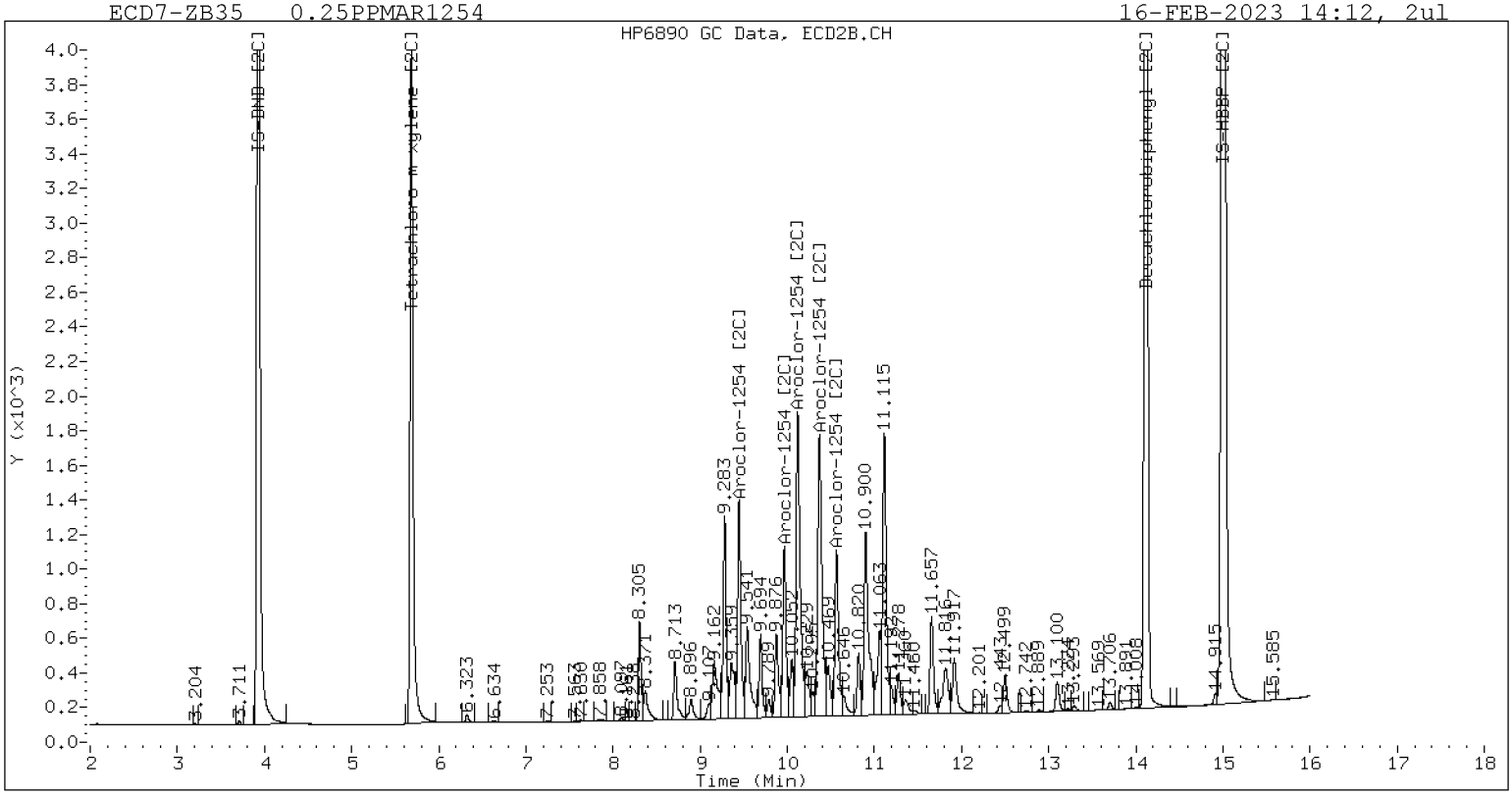
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1254 16-FEB-2023 14:12, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1254 16-FEB-2023 14:12, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162311ECD7.D
Data file 2: /230216.b/230216.b/02162311ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR2162.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR2168
Client ID:
Injection Date: 16-FEB-2023 14:33
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	241501	5.686	-0.000	189710	38.6	38.6	0.2	Tetrachloro-m-xylene
13.891	0.000	336556	14.118	0.000	345795	38.0	37.2	2.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	440775	2.5
Hexabromobiphenyl	975457	1005738	3.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	364664	-0.6
Hexabromobiphenyl	646884	666787	3.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1221	1	4.732	0.000	8560	250.0	1	4.958	0.000	6777	250.0
Aroclor-1221	2	6.133	0.000	15969	250.0	2	6.298	0.000	14550	250.0
Aroclor-1221	3	6.383	0.000	36928	250.0	3	6.622	0.000	24370	250.0
	Total Col1Ave (3 peaks):				250.0	Total Col2Ave (3 peaks):				250.0 RPD = 0
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.824	0.000	73471	250.0	1	11.198	0.000	124591	250.0
Aroclor-1262	2	12.242	0.000	120422	250.0	2	11.649	0.000	107557	250.0
Aroclor-1262	3	12.317	0.000	129860	250.0	3	12.431	0.000	117102	250.0
Aroclor-1262	4	12.984	0.000	112297	250.0	4	12.500	0.000	186359	250.0
	Total Col1Ave (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
	Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1985753 Col1 Total PCB = 0.4 ppm*

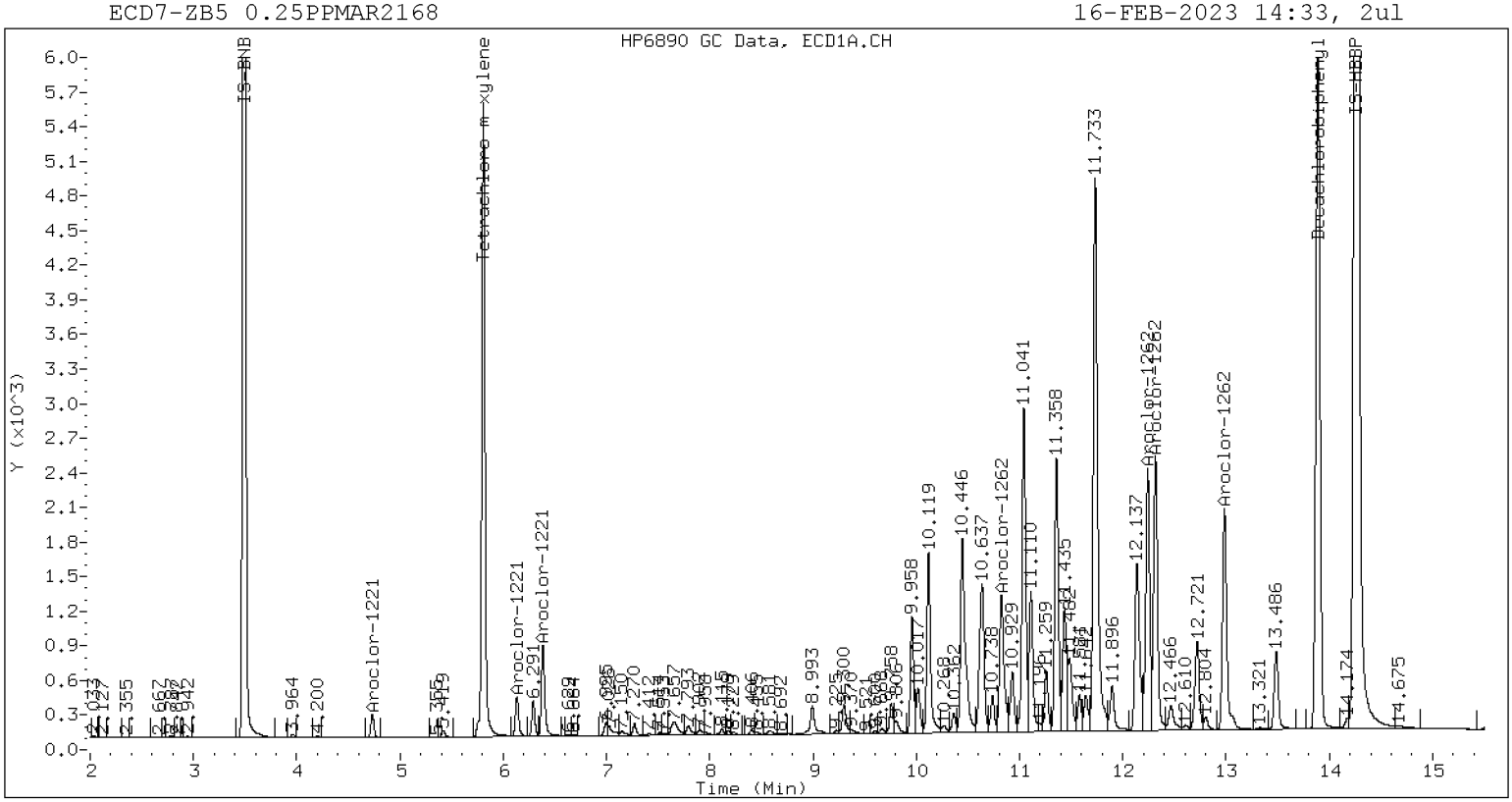
Total PCB Area Col2 (5.786 - 14.018) = 1689172 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

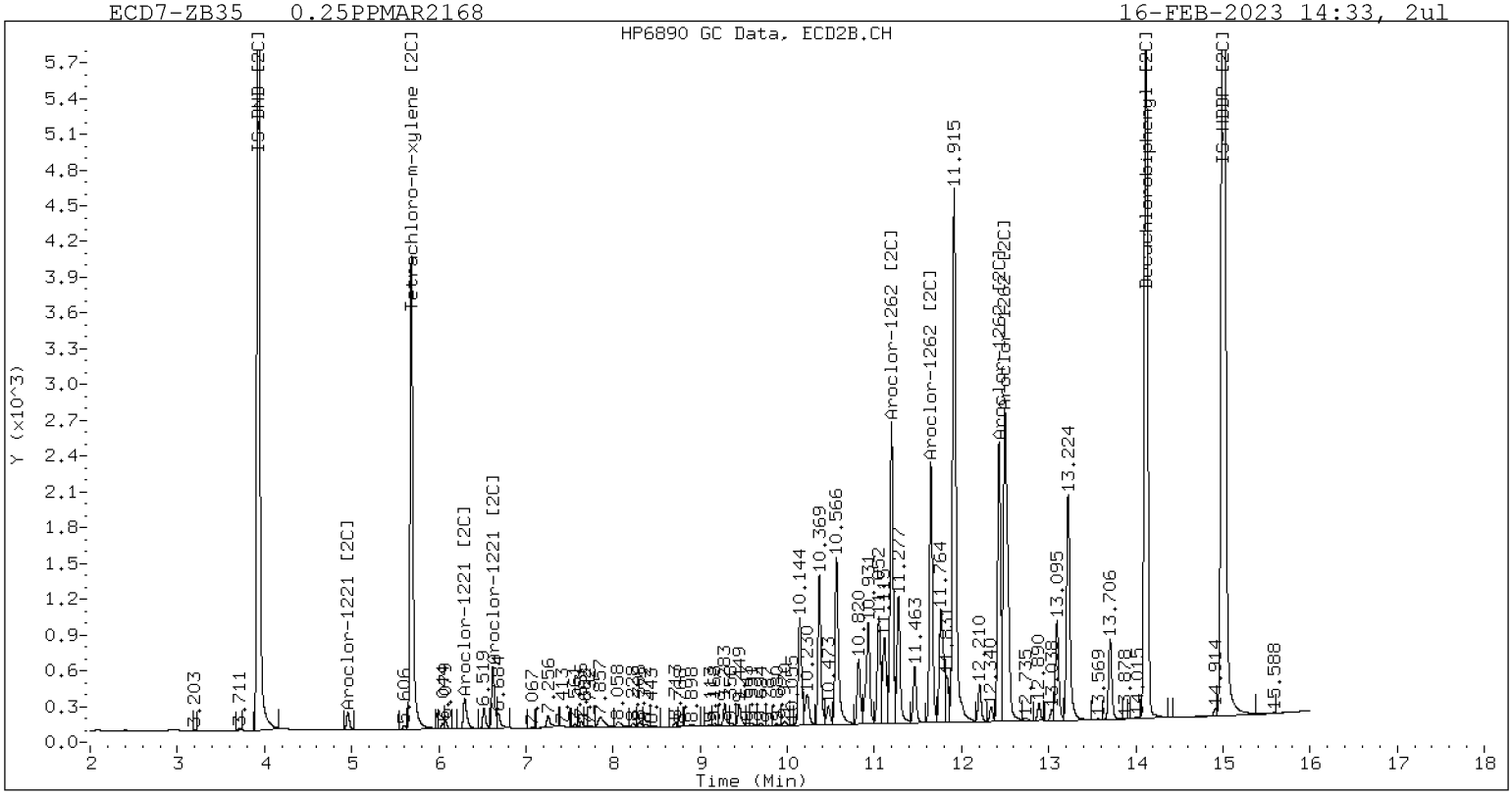
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR2168 16-FEB-2023 14:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR2168 16-FEB-2023 14:33, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162312ECD7.D
Data file 2: /230216.b/230216.b/02162312ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR3268.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR3268
Client ID:
Injection Date: 16-FEB-2023 14:54
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	244394	5.686	0.000	193636	39.3	39.4	0.2	Tetrachloro-m-xylene
13.891	0.000	497881	14.118	0.000	532832	55.7	57.0	2.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	438085	1.9
Hexabromobiphenyl	975457	1014892	4.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	364382	-0.6
Hexabromobiphenyl	646884	669957	3.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount
Aroclor-1232	1	4.732	0.000	5253	250.0	1	4.958	0.000	4040	250.0
Aroclor-1232	2	6.133	0.000	11086	250.0	2	7.254	0.000	22642	250.0
Aroclor-1232	3	7.654	0.000	53251	250.0	3	7.855	0.000	45239	250.0
Aroclor-1232	4	8.579	0.000	22019	250.0	4	8.712	0.000	12663	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	12.243	0.000	318381	250.0	1	12.431	0.000	304552	250.0
Aroclor-1268	2	12.314	0.000	316432	250.0	2	12.498	0.000	320370	250.0
Aroclor-1268	3	12.697	0.000	268530	250.0	3	12.890	0.000	250965	250.0
Aroclor-1268	4	13.487	0.000	822664	250.0	4	13.707	0.000	877009	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 2577331 Col1 Total PCB = 0.5 ppm*

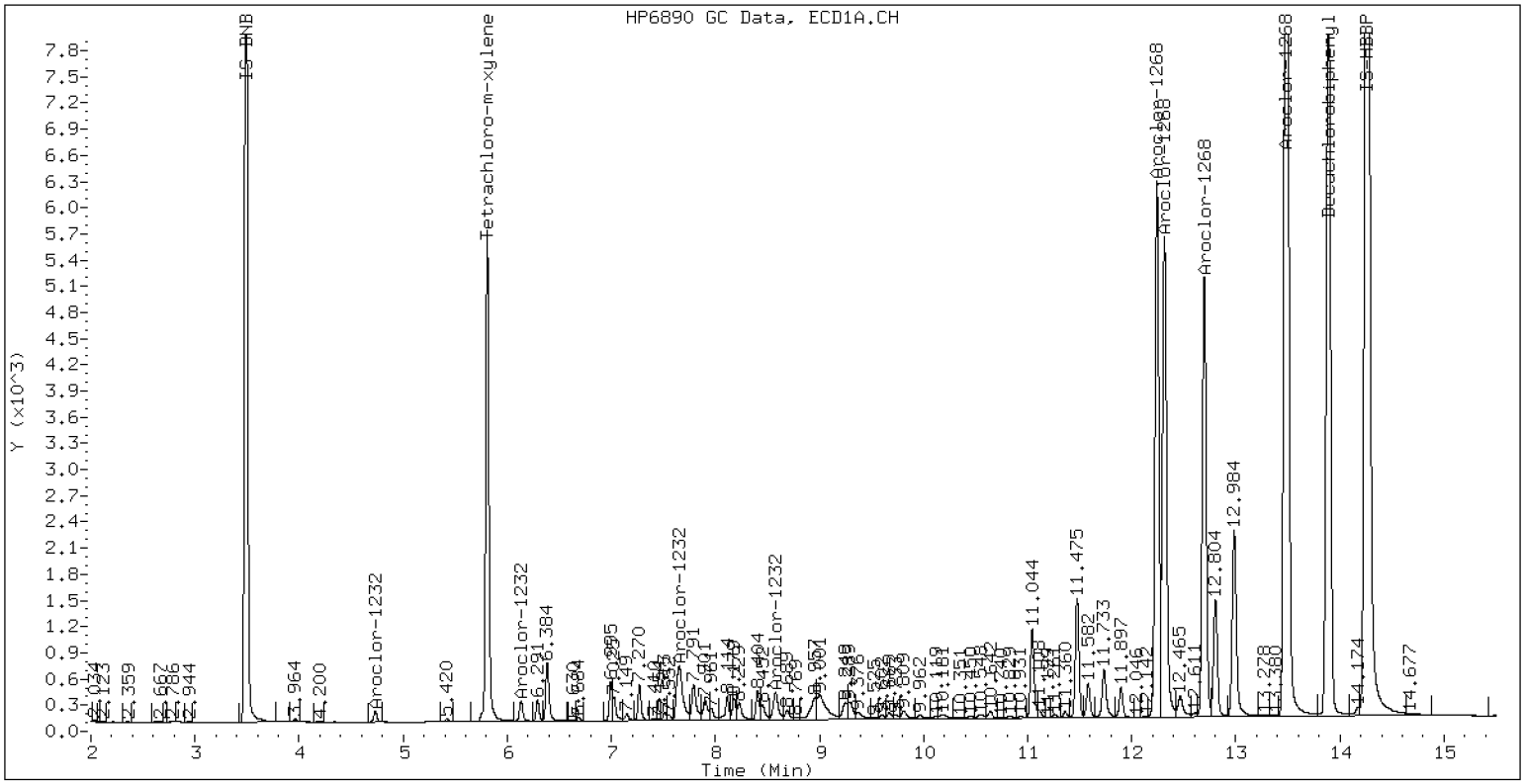
Total PCB Area Col2 (5.786 - 14.018) = 2462840 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

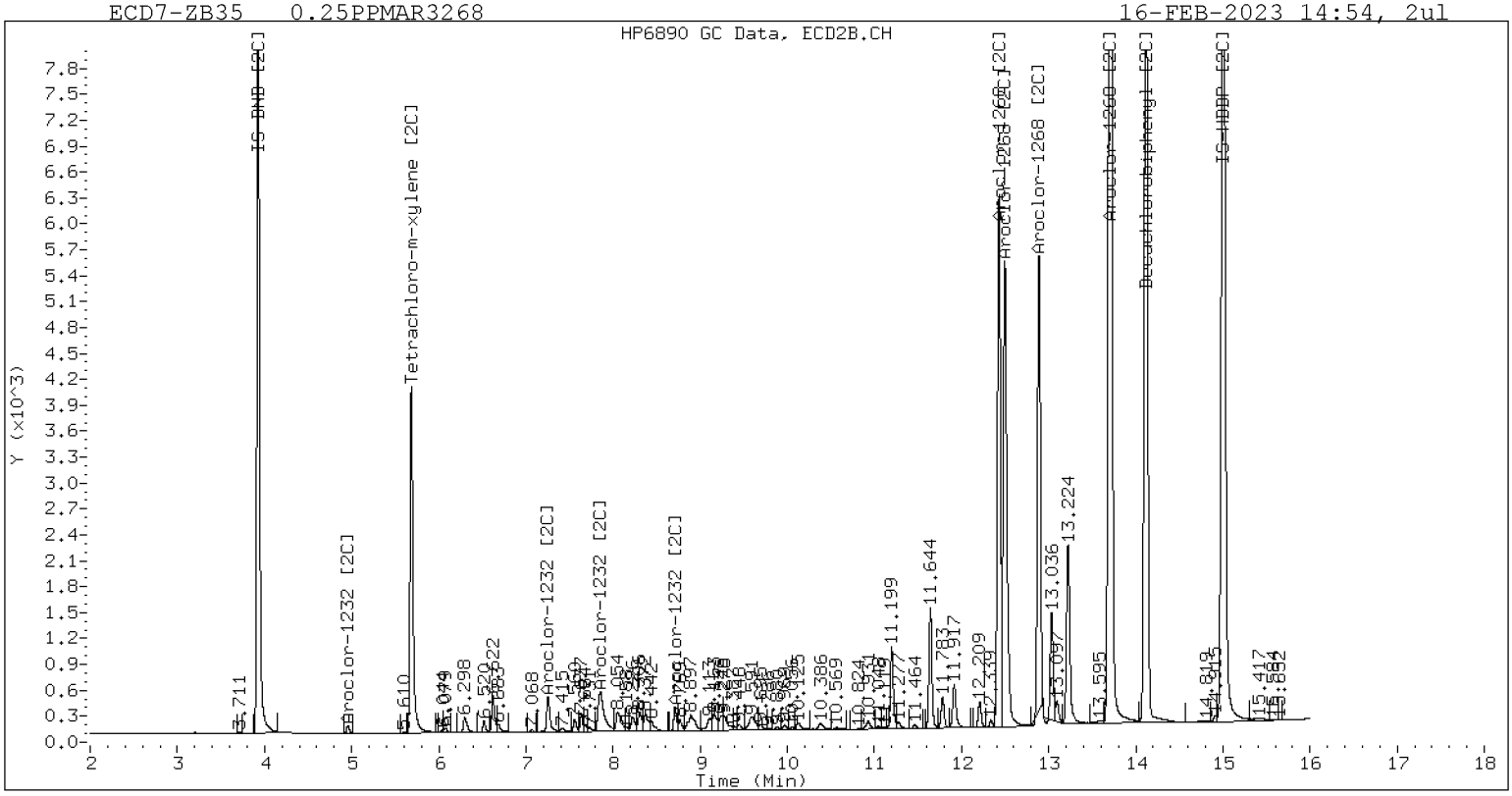
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR3268 16-FEB-2023 14:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR3268 16-FEB-2023 14:54, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162313ECD7.D
Data file 2: /230216.b/230216.b/02162313ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV
Client ID:
Injection Date: 16-FEB-2023 15:15
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.001	242919	5.685	-0.001	193061	37.3	37.2	0.3	Tetrachloro-m-xylene
13.891	-0.000	374845	14.118	0.000	388292	40.4	40.0	1.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	458820	6.7
Hexabromobiphenyl	975457	1052678	7.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	384524	4.8
Hexabromobiphenyl	646884	695386	7.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	36442	218.1	1	7.253	-0.001	45357	215.3
Aroclor-1016	2	7.652	0.002	116510	217.8	2	7.853	0.002	99069	221.4
Aroclor-1016	3	7.789	0.002	51841	210.7	3	8.052	0.003	42476	230.8
Aroclor-1016	4	8.403	0.001	35760	220.8	4	8.305	0.001	32151	215.4
Total Col1Ave (4 peaks):					216.8	Total Col2Ave (4 peaks):				220.7 RPD = 2
Corrected Ave (3 peaks):					215.5	Corrected Ave (3 peaks):				217.4 RPD = 1
Aroclor-1221	1	4.732	0.000	272	7.6	1	---			0.0
Aroclor-1221	2	6.131	-0.002	4384	65.9	2	6.302	0.004	5219	85.0
Aroclor-1221	3	6.383	-0.000	24508	159.4	3	6.622	0.001	21028	204.6
Total Col1Ave (3 peaks):					77.7	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.732	0.000	272	12.4	1	---			0.0
Aroclor-1232	2	6.131	-0.002	4384	94.4	2	7.253	-0.001	45357	474.6
Aroclor-1232	3	7.652	-0.002	116510	522.3	3	7.853	-0.002	99069	518.8
Aroclor-1232	4	8.577	-0.002	49511	536.7	4	8.712	-0.001	31220	584.1
Total Col1Ave (4 peaks):					291.4	Total Col2Ave (3 peaks):				525.8 RPD = 57*
Corrected Ave (3 peaks):					209.7	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	36442	266.6	1	7.253	-0.001	45357	272.7
Aroclor-1242	2	7.652	0.000	116510	269.4	2	7.853	0.000	99069	274.9
Aroclor-1242	3	8.403	0.000	35760	273.6	3	9.113	-0.047	17818	156.4
Aroclor-1242	4	8.577	-0.000	49511	256.5	4	9.582	-0.005	1661	12.0
Total Col1Ave (4 peaks):					266.5	Total Col2Ave (4 peaks):				179.0 RPD = 39
Corrected Ave (3 peaks):					264.1	Corrected Ave (3 peaks):				147.1 RPD = 57*
Aroclor-1248	1	8.403	0.000	35760	161.6	1	8.305	-0.001	32151	185.3
Aroclor-1248	2	8.577	-0.000	49511	177.3	2	8.712	0.000	31220	171.1
Aroclor-1248	3	8.992	-0.004	46666	118.2	3	9.113	-0.046	17818	84.5
Aroclor-1248	4	9.299	0.007	30647	122.8	4	9.582	0.001	1661	6.5
Total Col1Ave (4 peaks):					145.0	Total Col2Ave (4 peaks):				111.8 RPD = 26
Corrected Ave (3 peaks):					134.2	Corrected Ave (3 peaks):				87.4 RPD = 42*
Aroclor-1254	1	9.299	0.004	30647	69.0	1	9.447	0.001	22012	81.2
Aroclor-1254	2	---			0.0	2	9.969	0.002	2772	12.7
Aroclor-1254	3	9.667	0.002	3608	12.7	3	10.144	0.025	57546	120.6
Aroclor-1254	4	9.805	0.002	12639	22.4	4	10.369	-0.002	77590	164.8
Aroclor-1254	5	10.117	-0.050	100524	292.6	5	10.566	-0.000	106735	448.8
Total Col1Ave (4 peaks):					99.2	Total Col2Ave (5 peaks):				165.6 RPD = 50*
Corrected Ave (3 peaks):					34.7	Corrected Ave (4 peaks):				94.8 RPD = 93*
Aroclor-1260	1	11.042	0.002	99629	274.5	1	11.651	0.001	89434	231.9
Aroclor-1260	2	11.359	0.002	100112	269.7	2	11.915	0.001	237947	245.3
Aroclor-1260	3	11.732	0.002	260880	265.3	3	12.433	0.001	63686	245.4
Aroclor-1260	4	12.137	0.003	124998	250.4	4	12.500	0.002	157792	242.5
Aroclor-1260	5	12.242	0.001	58944	275.3	NS	---			----
Total Col1Ave (5 peaks):					267.0	Total Col2Ave (4 peaks):				241.3 RPD = 10
Corrected Ave (4 peaks):					265.0	Corrected Ave (3 peaks):				239.9 RPD = 10
Aroclor-1262	1	10.824	-0.001	144319	469.2	1	11.197	-0.000	90434	174.0
Aroclor-1262	2	12.242	-0.000	58944	116.9	2	11.651	0.002	89434	199.3
Aroclor-1262	3	12.316	-0.001	73272	134.8	3	12.433	0.002	63686	130.4
Aroclor-1262	4	12.985	0.001	66451	141.3	4	12.500	-0.000	157792	203.0
Total Col1Ave (4 peaks):					215.5	Total Col2Ave (4 peaks):				176.7 RPD = 20
Corrected Ave (3 peaks):					131.0	Corrected Ave (3 peaks):				167.9 RPD = 25
Aroclor-1268	1	12.242	-0.001	58944	44.6	1	12.433	0.002	63686	50.4
Aroclor-1268	2	12.316	0.002	73272	55.8	2	12.500	0.002	157792	118.6
Aroclor-1268	3	12.722	0.025	29543	26.5	3	12.890	0.000	1866	1.8
Aroclor-1268	4	13.486	-0.001	13453	3.9	4	13.707	0.000	11995	3.3
Total Col1Ave (4 peaks):					32.7	Total Col2Ave (4 peaks):				43.5 RPD = 28
Corrected Ave (3 peaks):					25.0	Corrected Ave (3 peaks):				18.5 RPD = 30

Total PCB Area Col1 (5.908 - 13.791) = 2405704 Col1 Total PCB = 0.5 ppm*

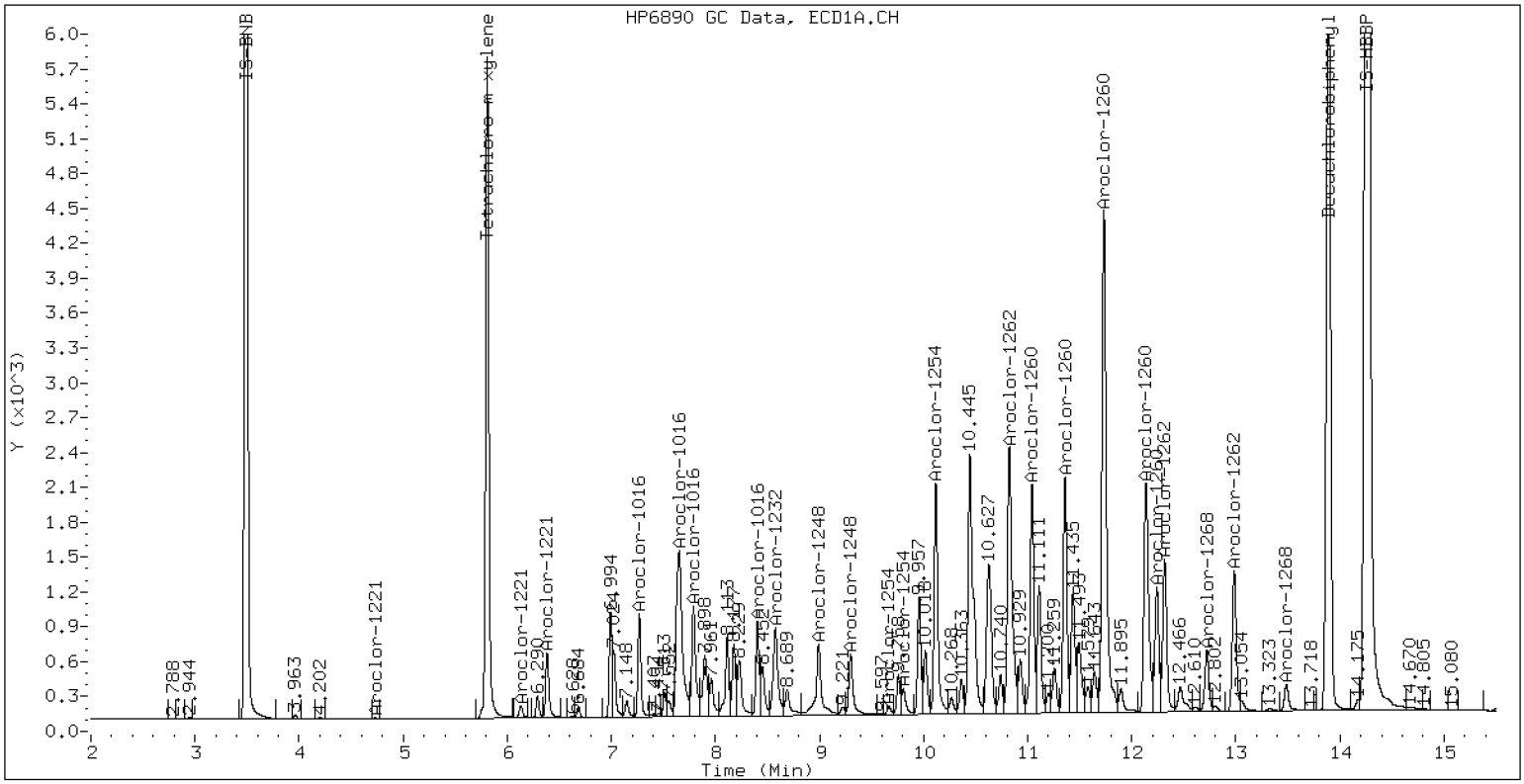
Total PCB Area Col2 (5.786 - 14.018) = 1998655 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

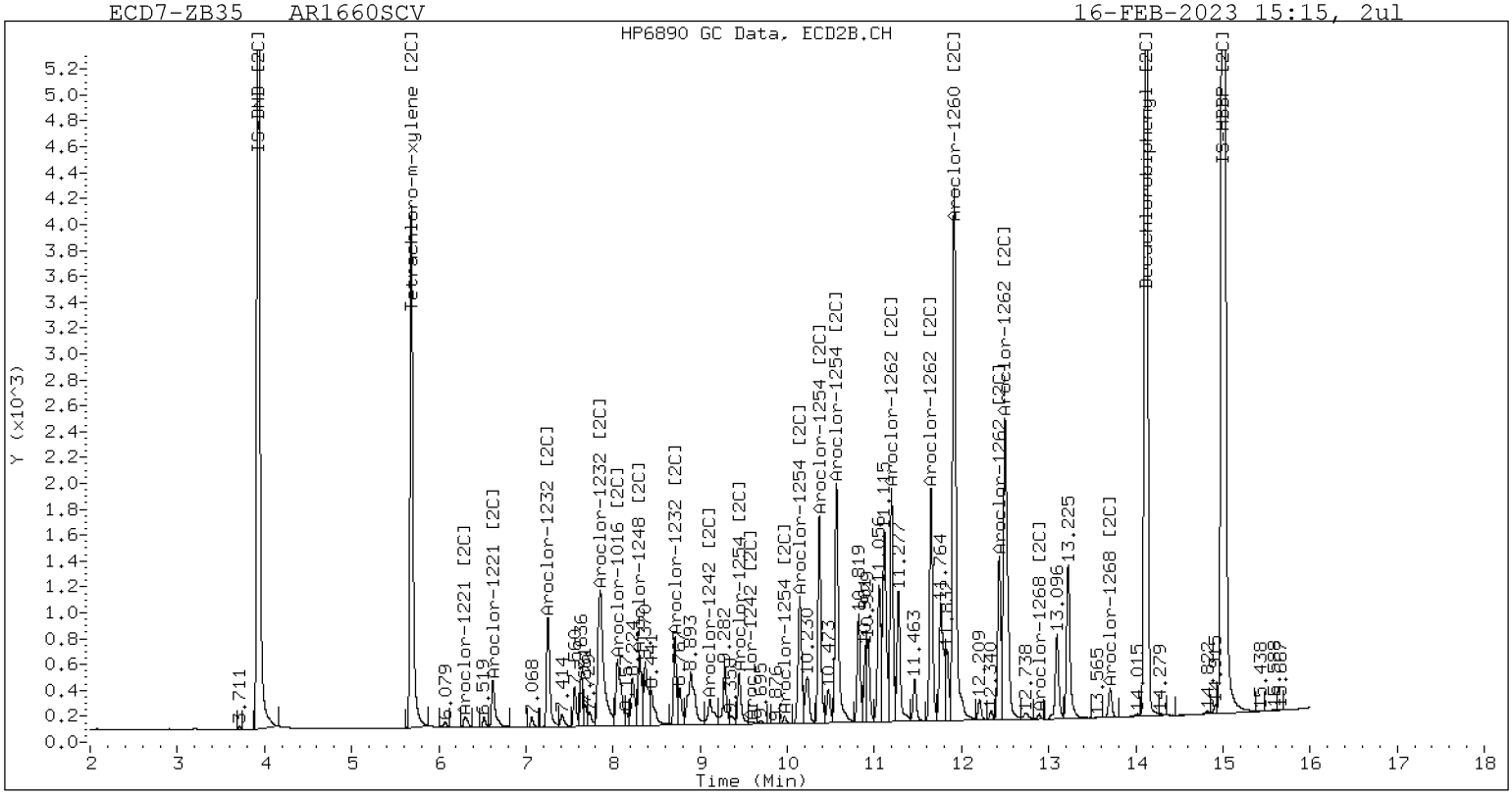
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660SCV 16-FEB-2023 15:15, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660SCV 16-FEB-2023 15:15, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162314ECD7.D
Data file 2: /230216.b/230216.b/02162314ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV
Client ID:
Injection Date: 16-FEB-2023 15:36
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	240392	5.686	0.000	191518	36.8	36.8	0.0	Tetrachloro-m-xylene
13.891	0.000	372444	14.118	-0.000	384306	40.3	39.9	1.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	460847	7.2
Hexabromobiphenyl	975457	1048824	7.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	386112	5.3
Hexabromobiphenyl	646884	690141	6.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	26450	157.6	1	7.253	-0.001	35202	166.4
Aroclor-1016	2	7.651	0.001	91590	170.4	2	7.851	-0.000	76062	169.2
Aroclor-1016	3	7.789	0.002	38405	155.4	3	8.051	0.002	31745	171.8
Aroclor-1016	4	8.403	0.001	28918	177.8	4	8.304	0.000	24379	162.7
Total Col1Ave (4 peaks):					165.3	Total Col2Ave (4 peaks):				167.5 RPD = 1
Corrected Ave (3 peaks):					161.1	Corrected Ave (3 peaks):				166.1 RPD = 3
Aroclor-1221	1	4.736	0.004	158	4.4	1	---			0.0
Aroclor-1221	2	6.131	-0.002	3413	51.1	2	6.318	0.020	4305	69.9
Aroclor-1221	3	6.383	-0.000	18978	122.9	3	6.623	0.001	15561	150.8
Total Col1Ave (3 peaks):					59.5	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.736	0.004	158	7.1	1	---			0.0
Aroclor-1232	2	6.131	-0.002	3413	73.2	2	7.253	-0.001	35202	366.8
Aroclor-1232	3	7.651	-0.003	91590	408.8	3	7.851	-0.004	76062	396.7
Aroclor-1232	4	8.577	-0.002	48090	519.0	4	8.712	-0.001	24445	455.4
Total Col1Ave (4 peaks):					252.0	Total Col2Ave (3 peaks):				406.3 RPD = 47*
Corrected Ave (3 peaks):					163.0	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	26450	192.7	1	7.253	-0.000	35202	210.8
Aroclor-1242	2	7.651	-0.001	91590	210.8	2	7.851	-0.002	76062	210.2
Aroclor-1242	3	8.403	-0.000	28918	220.3	3	9.156	-0.004	26140	228.5
Aroclor-1242	4	8.577	-0.000	48090	248.0	4	9.580	-0.007	33659	242.7
Total Col1Ave (4 peaks):					217.9	Total Col2Ave (4 peaks):				223.1 RPD = 2
Corrected Ave (3 peaks):					207.9	Corrected Ave (3 peaks):				216.5 RPD = 4
Aroclor-1248	1	8.403	-0.000	28918	130.1	1	8.304	-0.001	24379	140.0
Aroclor-1248	2	8.577	-0.000	48090	171.5	2	8.712	0.000	24445	133.4
Aroclor-1248	3	8.997	0.001	47230	119.1	3	9.156	-0.003	26140	123.4
Aroclor-1248	4	9.292	0.001	23789	94.9	4	9.580	-0.001	33659	131.0
Total Col1Ave (4 peaks):					128.9	Total Col2Ave (4 peaks):				132.0 RPD = 2
Corrected Ave (3 peaks):					114.7	Corrected Ave (3 peaks):				129.3 RPD = 12
Aroclor-1254	1	9.292	-0.003	23789	53.3	1	9.446	-0.000	12605	46.3
Aroclor-1254	2	9.374	0.001	9634	54.9	2	9.967	-0.000	8527	38.8
Aroclor-1254	3	9.666	0.001	10685	37.6	3	10.119	-0.001	16959	35.4
Aroclor-1254	4	9.803	-0.000	18245	32.2	4	10.375	0.005	17612	37.3
Aroclor-1254	5	10.169	0.001	13394	38.8	5	10.568	0.003	5160	21.6
Total Col1Ave (5 peaks):					43.4	Total Col2Ave (5 peaks):				35.9 RPD = 19
Corrected Ave (4 peaks):					40.5	Corrected Ave (4 peaks):				33.3 RPD = 20
Aroclor-1260	1	11.043	0.002	200	0.6	1	11.659	0.009	1919	5.0
Aroclor-1260	2	11.361	0.004	305	0.8	2	11.922	0.007	1126	1.2
Aroclor-1260	3	11.735	0.004	595	0.6	3	12.438	0.006	127	0.5
Aroclor-1260	4	12.143	0.009	717	1.4	4	12.501	0.003	670	1.0
Aroclor-1260	5	12.318	0.078	265	1.2	NS	---			----
Total Col1Ave (5 peaks):					0.9	Total Col2Ave (4 peaks):				1.9 RPD = 70*
Corrected Ave (4 peaks):					0.8	Corrected Ave (3 peaks):				0.9 RPD = 11
Aroclor-1262	1	10.827	0.003	7919	25.8	1	11.117	-0.081	6747	13.1
Aroclor-1262	2	12.318	0.076	265	0.5	2	11.659	0.010	1919	4.3
Aroclor-1262	3	---			0.0	3	12.438	0.007	127	0.3
Aroclor-1262	4	13.032	0.048	704	1.5	4	12.501	0.001	670	0.9
Total Col1Ave (3 peaks):					9.3	Total Col2Ave (4 peaks):				4.6 RPD = 67*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				1.8
Aroclor-1268	1	12.318	0.075	265	0.2	1	12.438	0.007	127	0.1
Aroclor-1268	2	---			0.0	2	12.501	0.003	670	0.5
Aroclor-1268	3	12.613	-0.084	2956	2.7	3	---			0.0
Aroclor-1268	4	13.493	0.006	820	0.2	4	13.707	0.000	334	0.1
Total Col1Ave (3 peaks):					1.0	Total Col2Ave (3 peaks):				0.2 RPD = 126*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.908 - 13.791) = 754431 Col1 Total PCB = 0.1 ppm*

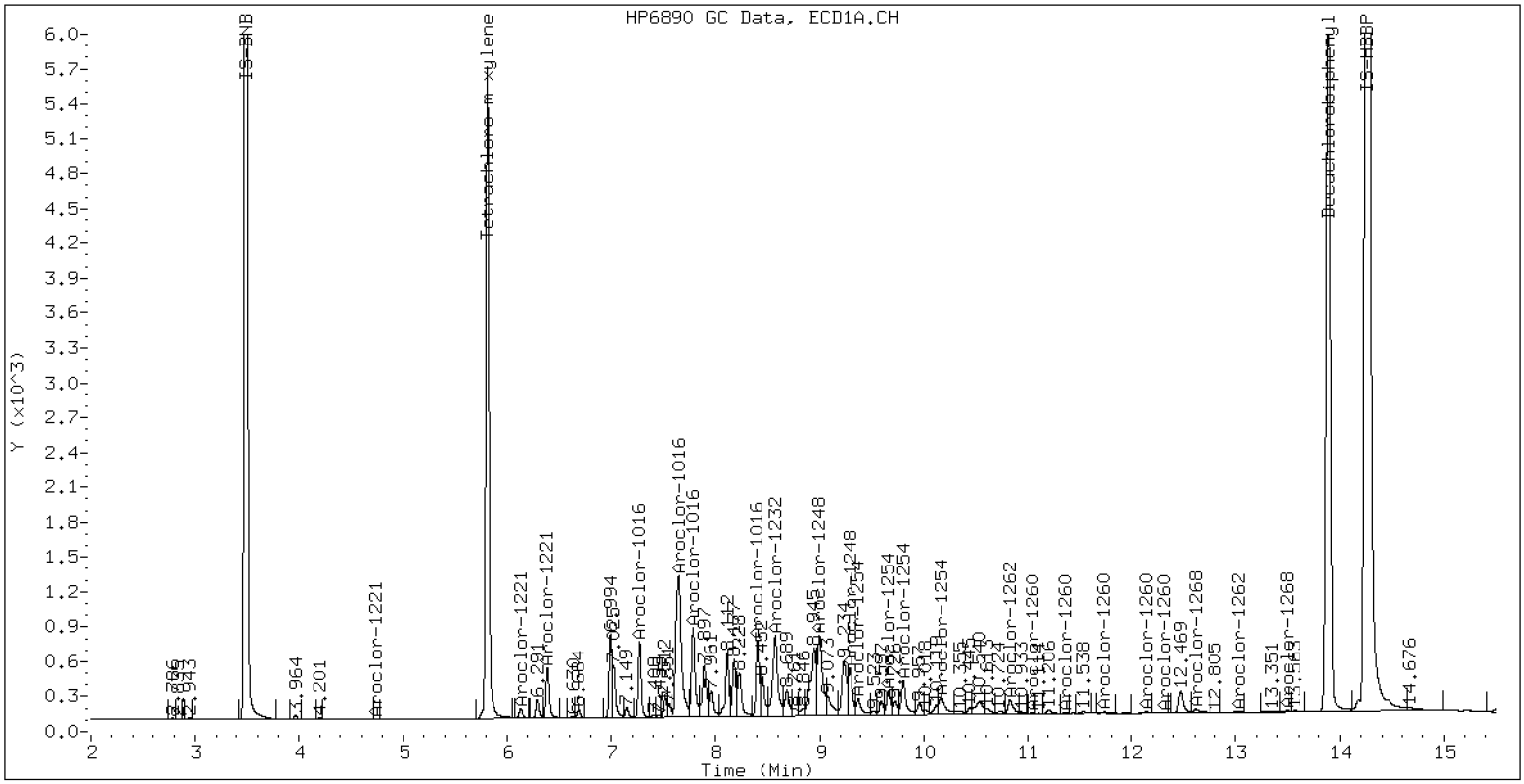
Total PCB Area Col2 (5.786 - 14.018) = 609458 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

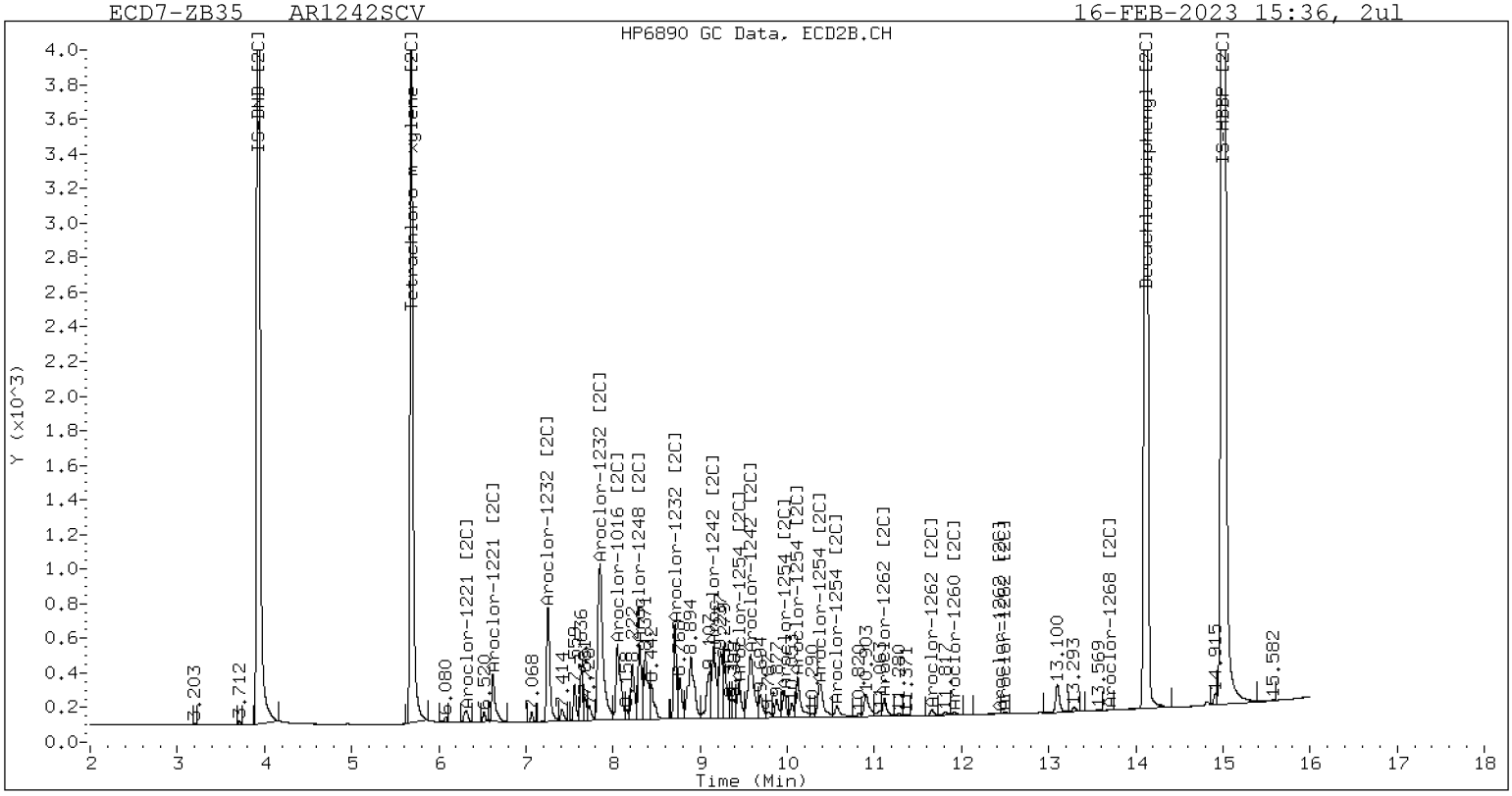
PCB Dual Column Chromatograms

ECD7-ZB5 AR1242SCV 16-FEB-2023 15:36, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242SCV 16-FEB-2023 15:36, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162315ECD7.D
Data file 2: /230216.b/230216.b/02162315ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV
Client ID:
Injection Date: 16-FEB-2023 15:57
Report Date: 02/17/2023 11:56
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	235232	5.686	0.000	187353	36.5	36.5	0.1	Tetrachloro-m-xylene
13.891	0.000	371896	14.118	0.000	374279	41.4	40.1	3.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	454293	5.6
Hexabromobiphenyl	975457	1020262	4.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	380923	3.9
Hexabromobiphenyl	646884	669927	3.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016 1	7.269	0.000	12869	77.8	1	7.252	-0.002	17659	84.6
Aroclor-1016 2	7.649	-0.001	59048	111.5	2	7.852	0.001	49924	112.6
Aroclor-1016 3	7.791	0.004	23385	96.0	3	8.054	0.004	9755	53.5
Aroclor-1016 4	8.403	0.001	51659	322.2	4	8.305	0.001	40334	272.8
Total Col1Ave (4 peaks):				151.9	Total Col2Ave (4 peaks):				130.9 RPD = 15
Corrected Ave (3 peaks):				95.1	Corrected Ave (3 peaks):				83.6 RPD = 13
Aroclor-1221 1	4.639	-0.093	125	3.5	1	---			0.0
Aroclor-1221 2	6.133	-0.000	396	6.0	2	6.324	0.026	2135	35.1
Aroclor-1221 3	6.384	0.001	2262	14.9	3	6.626	0.005	1703	16.7
Total Col1Ave (3 peaks):				8.1	Col2Ave: <3 Quant Peaks				
Aroclor-1232 1	4.639	-0.093	125	5.7	1	---			0.0
Aroclor-1232 2	6.133	0.000	396	8.6	2	7.252	-0.003	17659	186.5
Aroclor-1232 3	7.649	-0.005	59048	267.3	3	7.852	-0.003	49924	263.9
Aroclor-1232 4	8.577	-0.002	65165	713.5	4	8.712	-0.000	42481	802.3
Total Col1Ave (4 peaks):				248.8	Total Col2Ave (3 peaks):				417.6 RPD = 51*
Corrected Ave (3 peaks):				93.9	Corrected Ave: < 3 Peaks				
Aroclor-1242 1	7.269	0.000	12869	95.1	1	7.252	-0.002	17659	107.2
Aroclor-1242 2	7.649	-0.003	59048	137.9	2	7.852	-0.000	49924	139.9
Aroclor-1242 3	8.403	0.000	51659	399.2	3	9.160	0.001	49159	435.7
Aroclor-1242 4	8.577	-0.000	65165	340.9	4	9.582	-0.005	57018	416.7
Total Col1Ave (4 peaks):				243.3	Total Col2Ave (4 peaks):				274.8 RPD = 12
Corrected Ave (3 peaks):				191.3	Corrected Ave (3 peaks):				221.2 RPD = 15
Aroclor-1248 1	8.403	0.000	51659	235.8	1	8.305	-0.000	40334	234.7
Aroclor-1248 2	8.577	-0.000	65165	235.7	2	8.712	0.000	42481	235.0
Aroclor-1248 3	8.997	0.001	90358	231.2	3	9.160	0.002	49159	235.3
Aroclor-1248 4	9.292	0.000	60263	243.8	4	9.582	0.001	57018	225.0
Total Col1Ave (4 peaks):				236.6	Total Col2Ave (4 peaks):				232.5 RPD = 2
Corrected Ave (3 peaks):				234.2	Corrected Ave (3 peaks):				231.6 RPD = 1
Aroclor-1254 1	9.292	-0.003	60263	137.1	1	9.447	0.001	22366	83.3
Aroclor-1254 2	9.373	-0.000	30778	177.8	2	9.968	0.001	20179	93.0
Aroclor-1254 3	9.666	0.001	25929	92.5	3	10.121	0.001	37594	79.6
Aroclor-1254 4	9.806	0.003	44678	80.1	4	10.384	0.014	37032	79.4
Aroclor-1254 5	10.177	0.010	31103	91.4	5	10.571	0.005	8221	34.9
Total Col1Ave (5 peaks):				115.8	Total Col2Ave (5 peaks):				74.0 RPD = 44*
Corrected Ave (4 peaks):				100.3	Corrected Ave (4 peaks):				69.3 RPD = 37
Aroclor-1260 1	11.045	0.004	1084	3.1	1	11.659	0.009	1947	5.2
Aroclor-1260 2	11.359	0.002	556	1.5	2	11.920	0.006	1354	1.4
Aroclor-1260 3	11.734	0.003	872	0.9	3	12.426	-0.006	2386	9.5
Aroclor-1260 4	12.143	0.009	431	0.9	4	12.501	0.004	1186	1.9
Aroclor-1260 5	12.243	0.003	275	1.3	NS	---			----
Total Col1Ave (5 peaks):				1.6	Total Col2Ave (4 peaks):				4.5 RPD = 98*
Corrected Ave (4 peaks):				1.2	Corrected Ave (3 peaks):				2.9 RPD = 84*
Aroclor-1262 1	10.828	0.003	9454	31.7	1	11.119	-0.079	7326	14.6
Aroclor-1262 2	12.243	0.001	275	0.6	2	11.659	0.010	1947	4.5
Aroclor-1262 3	12.321	0.005	357	0.7	3	12.426	-0.005	2386	5.1
Aroclor-1262 4	12.984	-0.001	1676	3.7	4	12.501	0.002	1186	1.6
Total Col1Ave (4 peaks):				9.2	Total Col2Ave (4 peaks):				6.4 RPD = 35
Corrected Ave (3 peaks):				1.6	Corrected Ave (3 peaks):				3.7 RPD = 78*
Aroclor-1268 1	12.243	0.000	275	0.2	1	12.426	-0.004	2386	2.0
Aroclor-1268 2	12.321	0.007	357	0.3	2	12.501	0.004	1186	0.9
Aroclor-1268 3	12.614	-0.084	992	0.9	3	12.898	0.008	102	0.1
Aroclor-1268 4	13.493	0.006	969	0.3	4	13.674	-0.032	1135	0.3
Total Col1Ave (4 peaks):				0.4	Total Col2Ave (4 peaks):				0.8 RPD = 64*
Corrected Ave (3 peaks):				0.3	Corrected Ave (3 peaks):				0.5 RPD = 53*

Total PCB Area Col1 (5.908 - 13.791) = 1015830 Col1 Total PCB = 0.2 ppm*

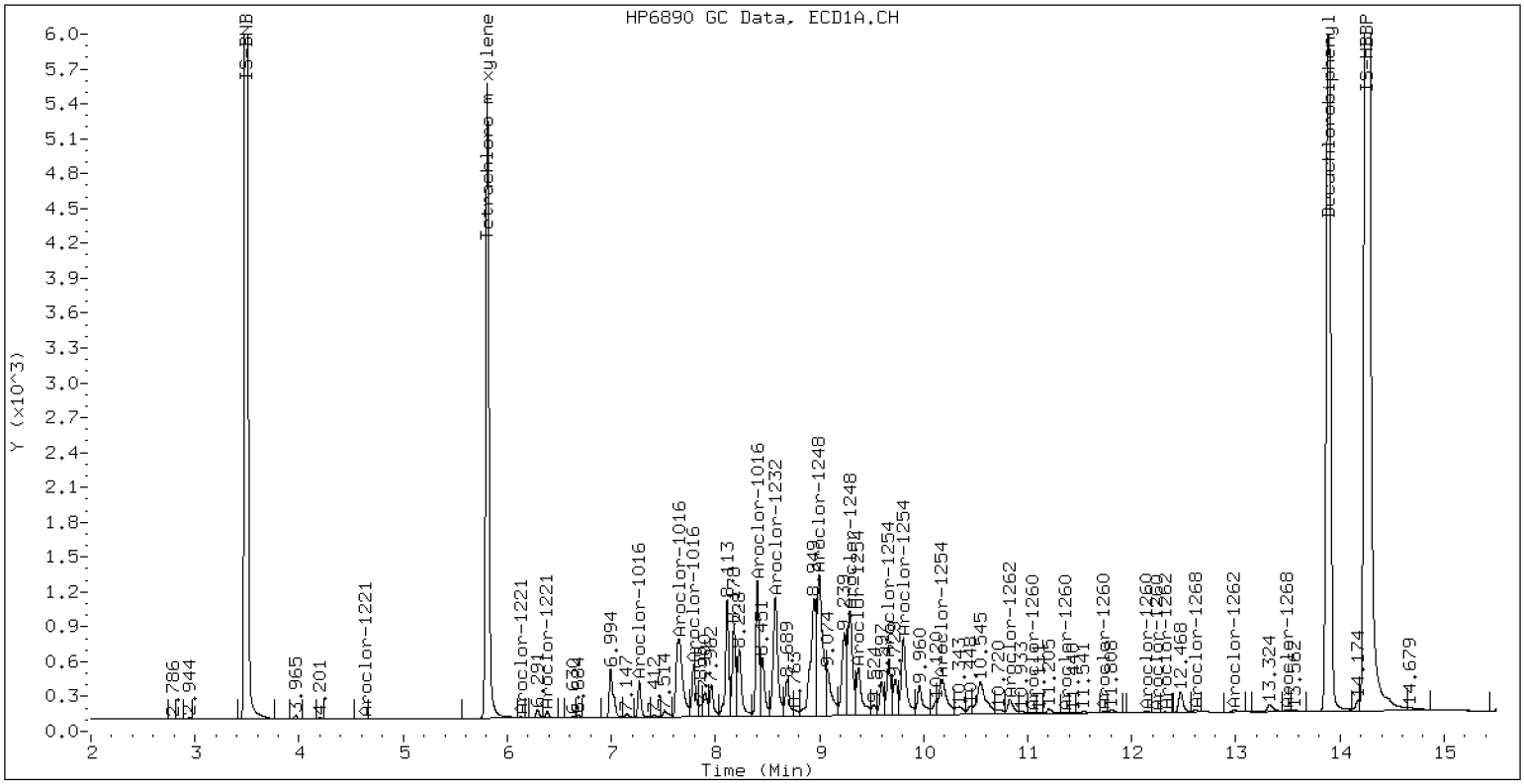
Total PCB Area Col2 (5.786 - 14.018) = 794946 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

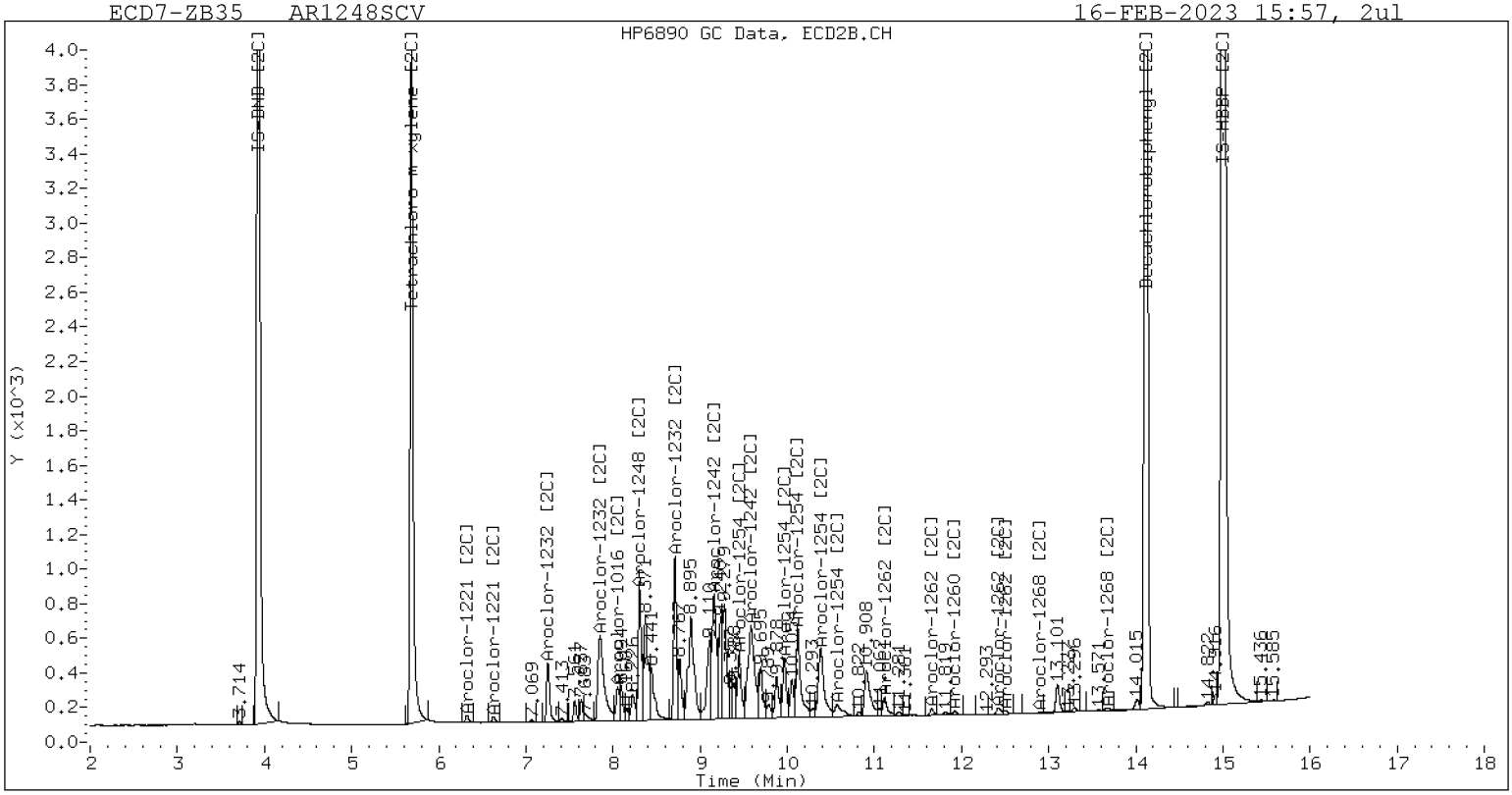
PCB Dual Column Chromatograms

ECD7-ZB5 AR1248SCV 16-FEB-2023 15:57, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1248SCV 16-FEB-2023 15:57, 2ul

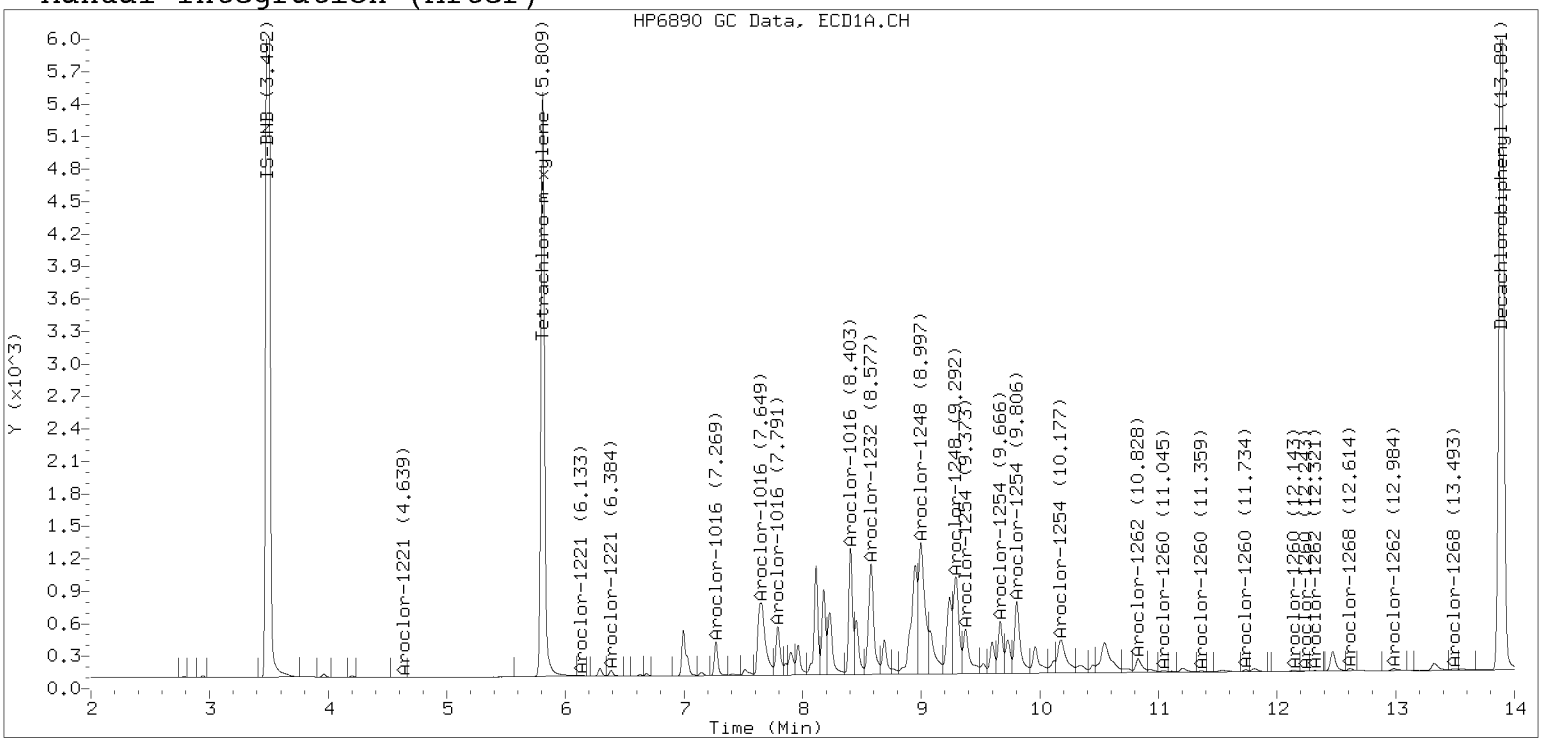


ZB-35 Manual Integration: NO

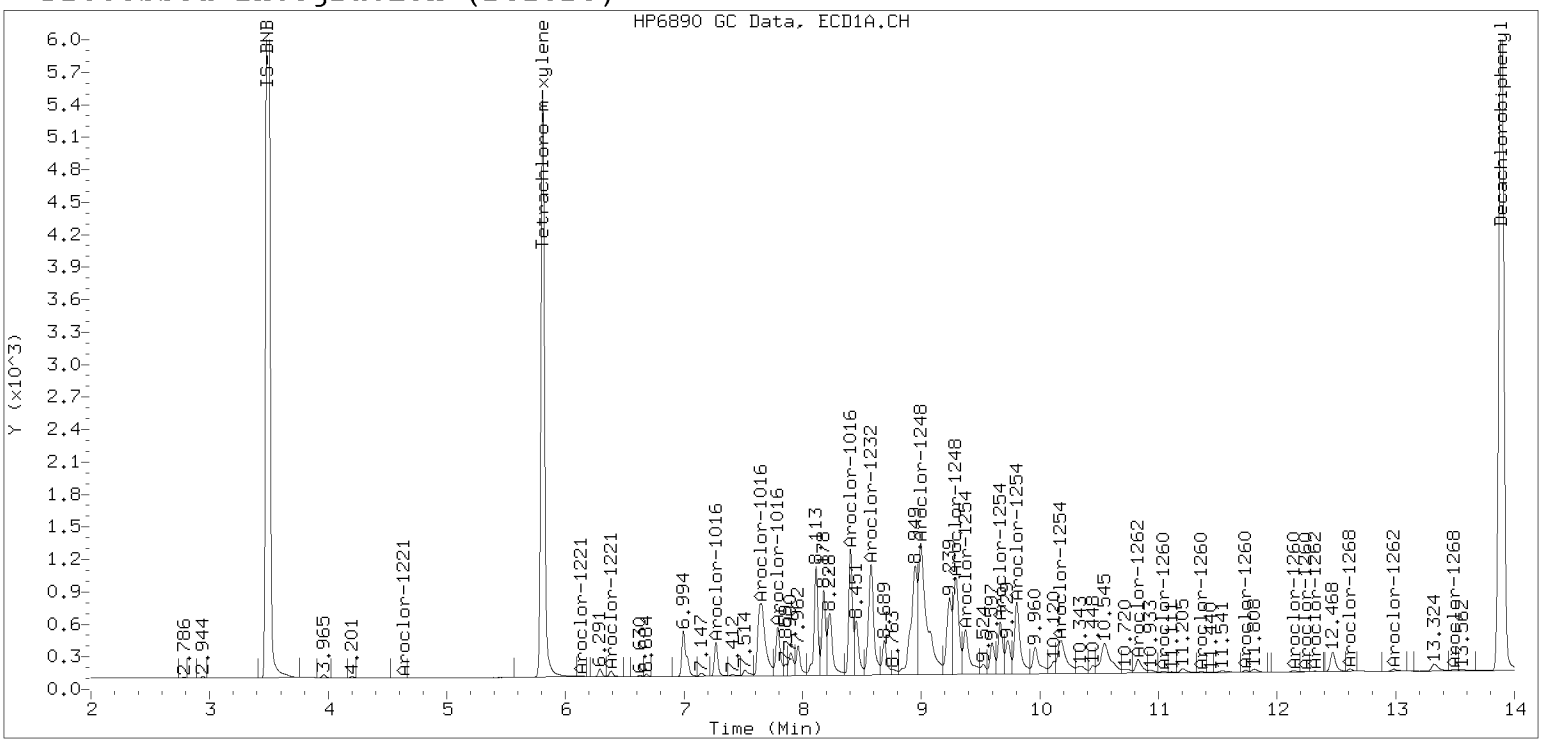
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/230216.b/02162315ECD7.D Injection Date: 16-FEB-2023 15:57

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162316ECD7.D
Data file 2: /230216.b/230216.b/02162316ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV
Client ID:
Injection Date: 16-FEB-2023 16:18
Report Date: 02/17/2023 11:56
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.807	-0.001	242127	5.685	-0.000	193580	36.7	37.0	0.9	Tetrachloro-m-xylene
13.890	-0.001	377360	14.118	0.000	394229	40.3	40.4	0.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	465227	8.2
Hexabromobiphenyl	975457	1063495	9.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	387434	5.6
Hexabromobiphenyl	646884	700154	8.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	281	1.7	1	7.256	0.002	379	1.8
Aroclor-1016	2	7.655	0.005	996	1.8	2	---			0.0
Aroclor-1016	3	7.792	0.005	684	2.7	3	8.097	0.048	526	2.8
Aroclor-1016	4	8.404	0.002	18193	110.8	4	8.305	0.001	23002	153.0
	Total Col1Ave (4 peaks):				29.3	Total Col2Ave (3 peaks):				52.5 RPD = 57*
	Corrected Ave (3 peaks):				2.1	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	6.323	0.026	2104	34.0
Aroclor-1221	3	---			0.0	3	6.632	0.010	433	4.2
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	7.256	0.001	379	3.9
Aroclor-1232	3	7.655	0.001	996	4.4	3	---			0.0
Aroclor-1232	4	8.580	0.002	7144	76.4	4	8.714	0.001	15174	281.7
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	7.270	0.001	281	2.0	1	7.256	0.002	379	2.3
Aroclor-1242	2	7.655	0.003	996	2.3	2	---			0.0
Aroclor-1242	3	8.404	0.001	18193	137.3	3	9.163	0.004	23373	203.7
Aroclor-1242	4	8.580	0.003	7144	36.5	4	9.541	-0.046	35054	251.9
	Total Col1Ave (4 peaks):				44.5	Total Col2Ave (3 peaks):				152.6 RPD = 110*
	Corrected Ave (3 peaks):				13.6	Corrected Ave: < 3 Peaks				
Aroclor-1248	1	8.404	0.001	18193	81.1	1	8.305	-0.000	23002	131.6
Aroclor-1248	2	8.580	0.003	7144	25.2	2	8.714	0.002	15174	82.5
Aroclor-1248	3	8.992	-0.004	93928	234.7	3	9.163	0.005	23373	110.0
Aroclor-1248	4	9.296	0.004	99099	391.5	4	9.541	-0.040	35054	136.0
	Total Col1Ave (4 peaks):				183.1	Total Col2Ave (4 peaks):				115.0 RPD = 46*
	Corrected Ave (3 peaks):				113.7	Corrected Ave (3 peaks):				108.0 RPD = 5
Aroclor-1254	1	9.296	0.001	99099	220.1	1	9.447	0.001	61772	226.1
Aroclor-1254	2	9.374	0.001	43324	244.4	2	9.966	-0.001	49637	225.0
Aroclor-1254	3	9.666	0.001	63930	222.8	3	10.119	-0.000	106246	221.1
Aroclor-1254	4	9.803	0.000	123663	216.5	4	10.369	-0.001	107021	225.7
Aroclor-1254	5	10.171	0.004	76902	220.7	5	10.565	-0.000	55207	230.4
	Total Col1Ave (5 peaks):				224.9	Total Col2Ave (5 peaks):				225.6 RPD = 0
	Corrected Ave (4 peaks):				220.0	Corrected Ave (4 peaks):				224.5 RPD = 2
Aroclor-1260	1	11.041	0.000	8242	22.5	1	11.657	0.007	30319	78.1
Aroclor-1260	2	11.360	0.003	8312	22.2	2	11.918	0.004	22042	22.6
Aroclor-1260	3	11.734	0.003	19109	19.2	3	12.445	0.012	1692	6.5
Aroclor-1260	4	12.137	0.002	15342	30.4	4	12.500	0.002	12899	19.7
Aroclor-1260	5	12.238	-0.002	582	2.7	NS	---			----
	Total Col1Ave (5 peaks):				19.4	Total Col2Ave (4 peaks):				31.7 RPD = 48*
	Corrected Ave (4 peaks):				16.6	Corrected Ave (3 peaks):				16.2 RPD = 2
Aroclor-1262	1	10.824	-0.000	138302	445.0	1	11.278	0.081	13621	26.0
Aroclor-1262	2	12.238	-0.004	582	1.1	2	11.657	0.008	30319	67.1
Aroclor-1262	3	12.316	-0.001	714	1.3	3	12.445	0.013	1692	3.4
Aroclor-1262	4	12.988	0.003	961	2.0	4	12.500	0.000	12899	16.5
	Total Col1Ave (4 peaks):				112.4	Total Col2Ave (4 peaks):				28.3 RPD = 120*
	Corrected Ave (3 peaks):				1.5	Corrected Ave (3 peaks):				15.3 RPD = 165*
Aroclor-1268	1	12.238	-0.005	582	0.4	1	12.445	0.014	1692	1.3
Aroclor-1268	2	12.316	0.002	714	0.5	2	12.500	0.002	12899	9.6
Aroclor-1268	3	12.719	0.022	539	0.5	3	12.892	0.002	76	0.1
Aroclor-1268	4	13.497	0.010	695	0.2	4	13.700	-0.007	290	0.1
	Total Col1Ave (4 peaks):				0.4	Total Col2Ave (4 peaks):				2.8 RPD = 148*
	Corrected Ave (3 peaks):				0.4	Corrected Ave (3 peaks):				0.5 RPD = 28

Total PCB Area Col1 (5.908 - 13.791) = 1311525 Col1 Total PCB = 0.3 ppm*

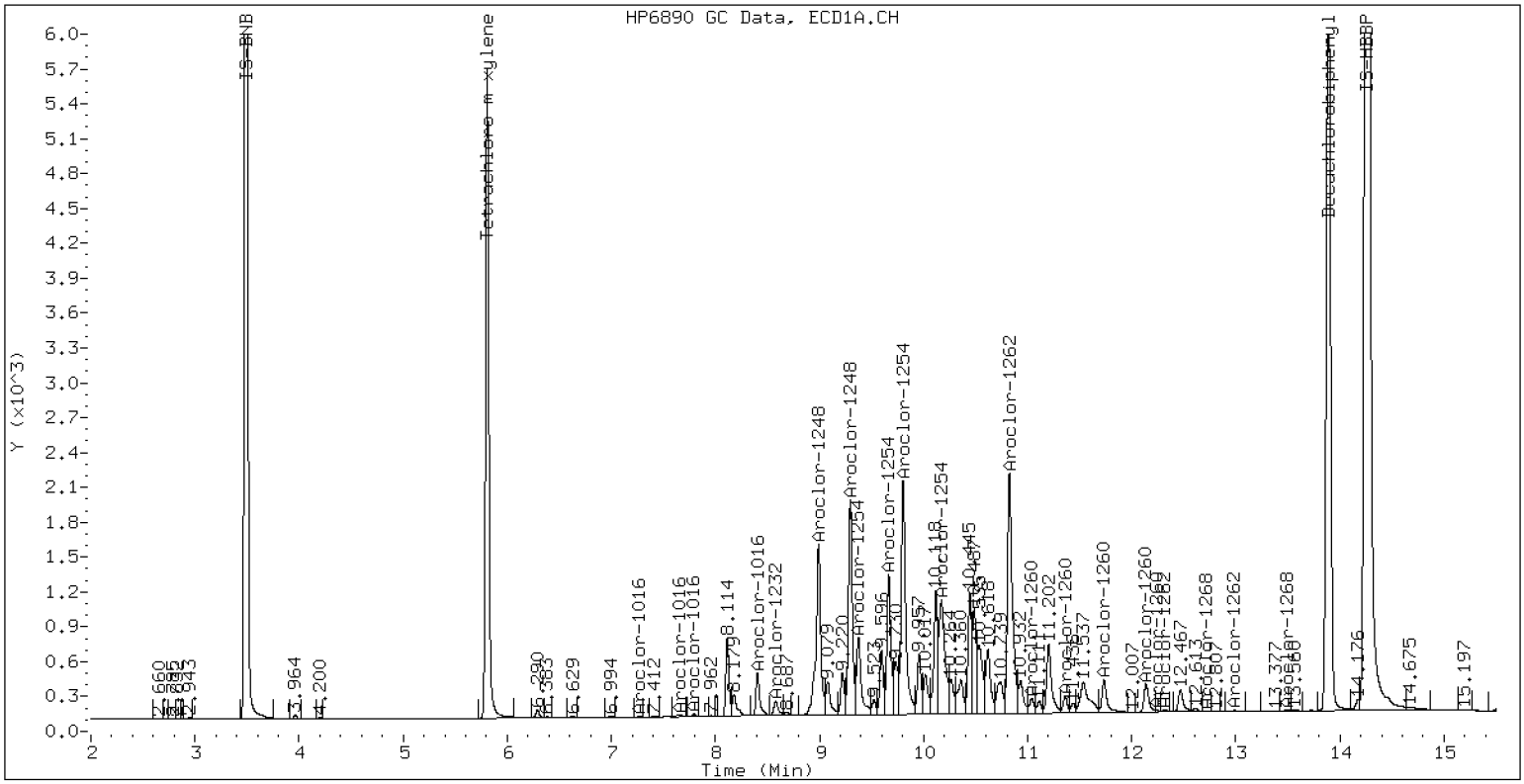
Total PCB Area Col2 (5.786 - 14.018) = 1040357 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

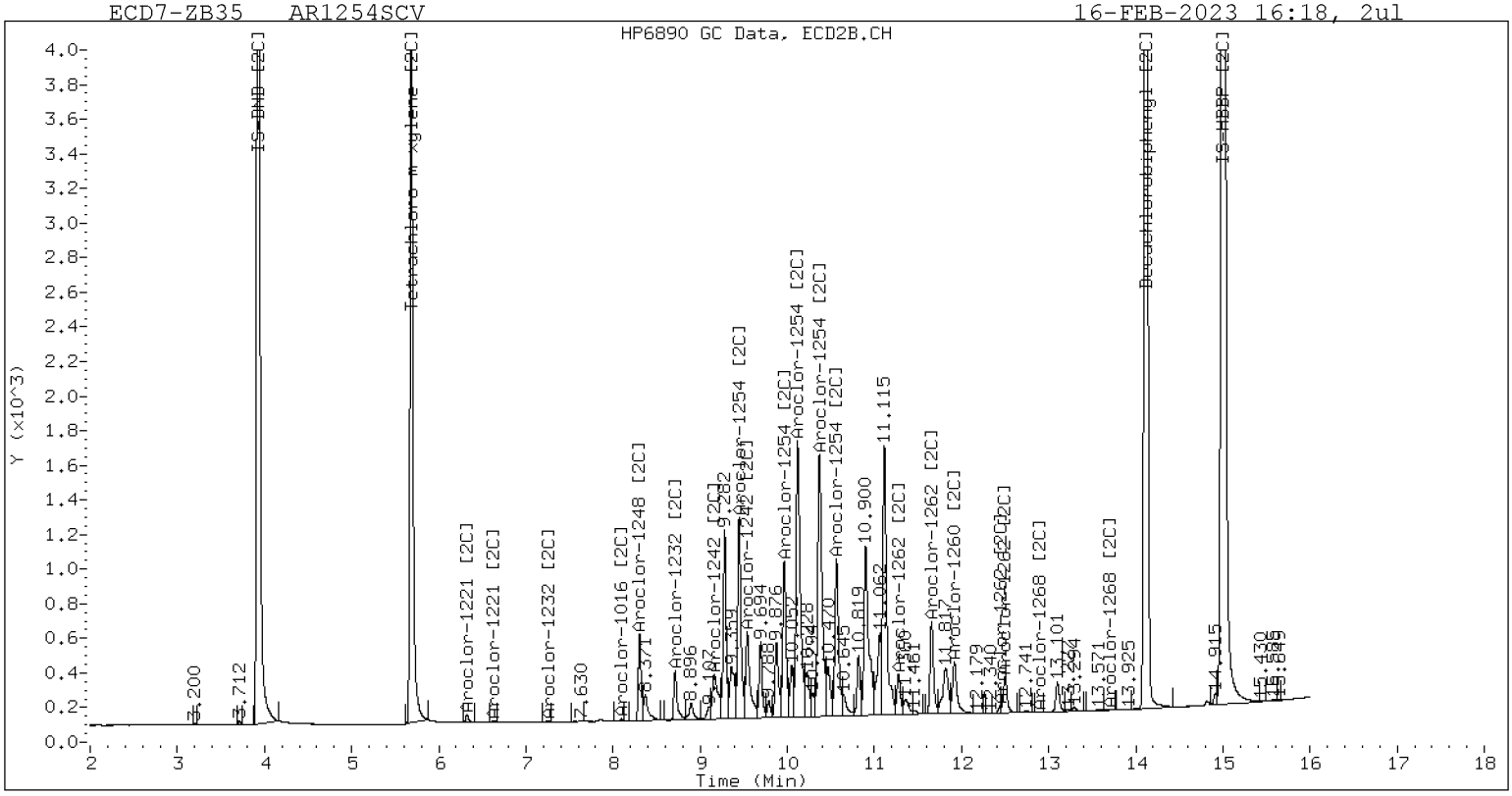
PCB Dual Column Chromatograms

ECD7-ZB5 AR1254SCV 16-FEB-2023 16:18, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254SCV 16-FEB-2023 16:18, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162317ECD7.D
Data file 2: /230216.b/230216.b/02162317ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV
Client ID:
Injection Date: 16-FEB-2023 16:39
Report Date: 02/17/2023 11:56
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	245197	5.686	-0.000	191474	37.2	37.2	0.0	Tetrachloro-m-xylene
13.890	-0.001	375224	14.118	0.000	392997	40.4	40.5	0.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	464367	8.0
Hexabromobiphenyl	975457	1054321	8.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	381247	4.0
Hexabromobiphenyl	646884	695925	7.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	4790	28.3	1	7.255	0.001	5664	27.1
Aroclor-1016	2	7.656	0.006	10623	19.6	2	7.858	0.007	8417	19.0
Aroclor-1016	3	7.793	0.006	5360	21.5	3	8.058	0.009	4104	22.5
Aroclor-1016	4	8.405	0.003	2485	15.2	4	8.306	0.002	3192	21.6
Total Col1Ave (4 peaks):					21.2	Total Col2Ave (4 peaks):				22.5 RPD = 6
Corrected Ave (3 peaks):					18.8	Corrected Ave (3 peaks):				21.0 RPD = 11
Aroclor-1221	1	4.733	0.000	9001	249.5	1	4.958	0.000	7198	254.0
Aroclor-1221	2	6.133	-0.000	16485	245.0	2	6.297	-0.001	14187	233.2
Aroclor-1221	3	6.383	-0.000	37665	242.0	3	6.621	-0.000	23991	235.4
Total Col1Ave (3 peaks):					245.5	Total Col2Ave (3 peaks):				240.8 RPD = 2
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.733	0.001	9001	404.1	1	4.958	-0.000	7198	425.7
Aroclor-1232	2	6.133	-0.000	16485	350.7	2	7.255	0.001	5664	59.8
Aroclor-1232	3	7.656	0.002	10623	47.0	3	7.858	0.003	8417	44.5
Aroclor-1232	4	8.581	0.002	2585	27.7	4	8.714	0.001	2167	40.9
Total Col1Ave (4 peaks):					207.4	Total Col2Ave (4 peaks):				142.7 RPD = 37
Corrected Ave (3 peaks):					141.8	Corrected Ave (3 peaks):				48.4 RPD = 98*
Aroclor-1242	1	7.270	0.001	4790	34.6	1	7.255	0.001	5664	34.3
Aroclor-1242	2	7.656	0.004	10623	24.3	2	7.858	0.005	8417	23.6
Aroclor-1242	3	8.405	0.002	2485	18.8	3	9.168	0.009	2109	18.7
Aroclor-1242	4	8.581	0.003	2585	13.2	4	9.541	-0.046	4209	30.7
Total Col1Ave (4 peaks):					22.7	Total Col2Ave (4 peaks):				26.8 RPD = 17
Corrected Ave (3 peaks):					18.8	Corrected Ave (3 peaks):				24.3 RPD = 26
Aroclor-1248	1	8.405	0.002	2485	11.1	1	8.306	0.001	3192	18.6
Aroclor-1248	2	8.581	0.003	2585	9.1	2	8.714	0.002	2167	12.0
Aroclor-1248	3	8.992	-0.004	27170	68.0	3	9.168	0.010	2109	10.1
Aroclor-1248	4	9.299	0.007	25808	102.2	4	9.541	-0.040	4209	16.6
Total Col1Ave (4 peaks):					47.6	Total Col2Ave (4 peaks):				14.3 RPD = 108*
Corrected Ave (3 peaks):					29.4	Corrected Ave (3 peaks):				12.9 RPD = 78*
Aroclor-1254	1	9.299	0.004	25808	57.4	1	9.448	0.001	19163	71.3
Aroclor-1254	2	9.371	-0.003	3696	20.9	2	9.969	0.002	3305	15.2
Aroclor-1254	3	9.667	0.002	4053	14.2	3	10.144	0.024	96736	204.5
Aroclor-1254	4	9.803	0.000	10960	19.2	4	10.368	-0.002	117175	251.1
Aroclor-1254	5	10.117	-0.050	153073	440.2	5	10.565	-0.001	154306	654.4
Total Col1Ave (5 peaks):					110.4	Total Col2Ave (5 peaks):				239.3 RPD = 74*
Corrected Ave (4 peaks):					27.9	Corrected Ave (4 peaks):				135.5 RPD = 132*
Aroclor-1260	1	11.041	0.001	267479	735.9	1	11.649	-0.001	203895	528.3
Aroclor-1260	2	11.358	0.000	225792	607.2	2	11.914	-0.000	486211	500.8
Aroclor-1260	3	11.730	-0.000	549436	558.0	3	12.431	-0.001	236526	910.9
Aroclor-1260	4	12.135	0.001	182085	364.2	4	12.499	0.001	362057	555.9
Aroclor-1260	5	12.241	0.000	234096	1091.8	NS	---			----
Total Col1Ave (5 peaks):					671.4	Total Col2Ave (4 peaks):				624.0 RPD = 7
Corrected Ave (4 peaks):					566.3	Corrected Ave (3 peaks):				528.4 RPD = 7
Aroclor-1262	1	10.823	-0.002	146525	475.6	1	11.197	-0.001	236244	454.2
Aroclor-1262	2	12.241	-0.001	234096	463.6	2	11.649	0.001	203895	454.1
Aroclor-1262	3	12.314	-0.002	250166	459.4	3	12.431	-0.000	236526	483.8
Aroclor-1262	4	12.984	-0.000	210767	447.6	4	12.499	-0.001	362057	465.4
Total Col1Ave (4 peaks):					461.6	Total Col2Ave (4 peaks):				464.4 RPD = 1
Corrected Ave (3 peaks):					456.9	Corrected Ave (3 peaks):				457.9 RPD = 0
Aroclor-1268	1	12.241	-0.002	234096	176.9	1	12.431	0.000	236526	186.9
Aroclor-1268	2	12.314	0.000	250166	190.3	2	12.499	0.001	362057	272.0
Aroclor-1268	3	12.719	0.022	91155	81.7	3	12.889	-0.001	11970	11.5
Aroclor-1268	4	13.485	-0.002	72883	21.3	4	13.706	-0.001	72588	19.9
Total Col1Ave (4 peaks):					117.6	Total Col2Ave (4 peaks):				122.6 RPD = 4

Corrected Ave (3 peaks): 93.3 Corrected Ave (3 peaks): 72.8 RPD = 25

Total PCB Area Col1 (5.908 - 13.791) = 3768590 Col1 Total PCB = 0.7 ppm*

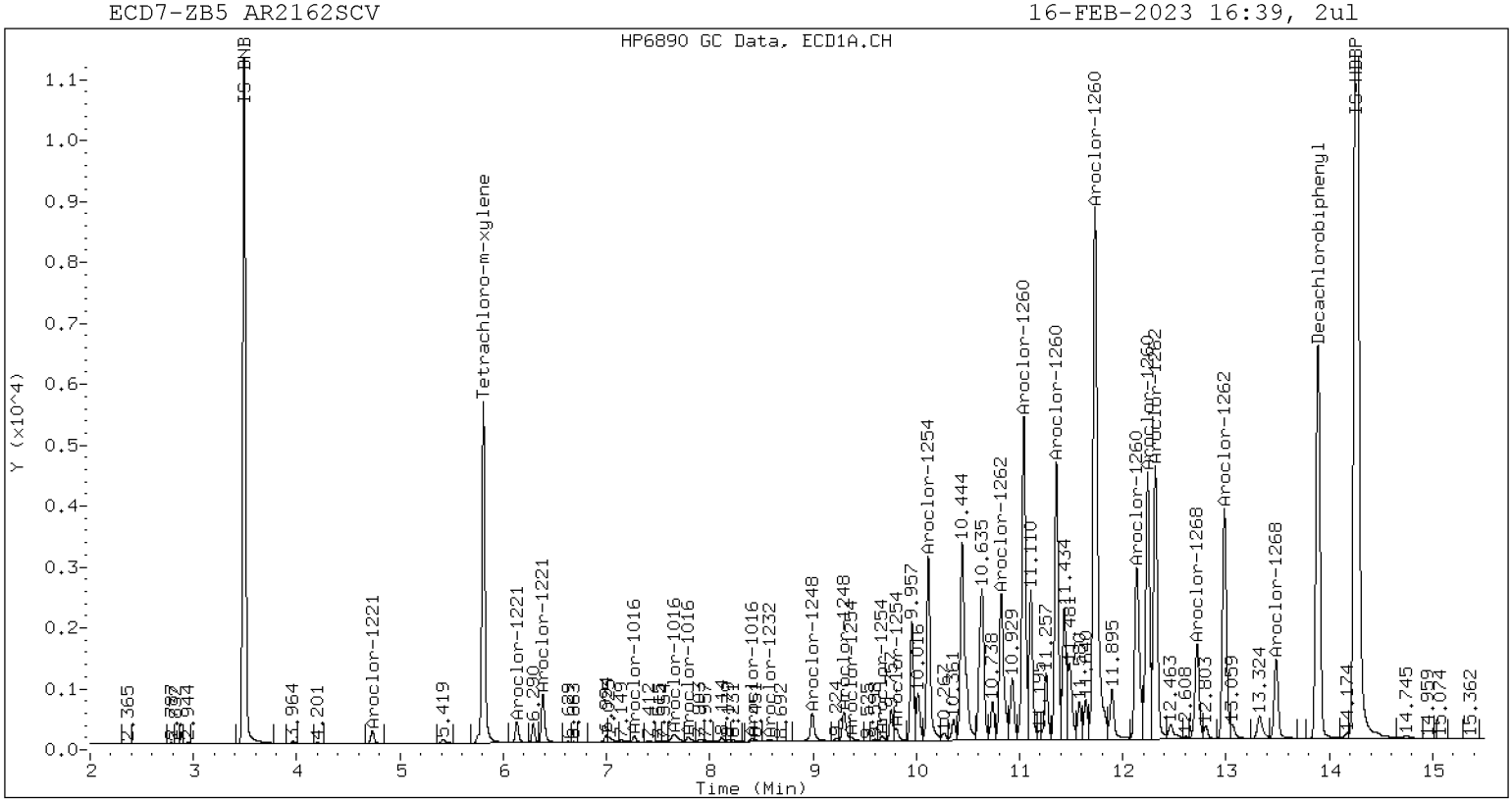
Total PCB Area Col2 (5.786 - 14.018) = 3174752 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

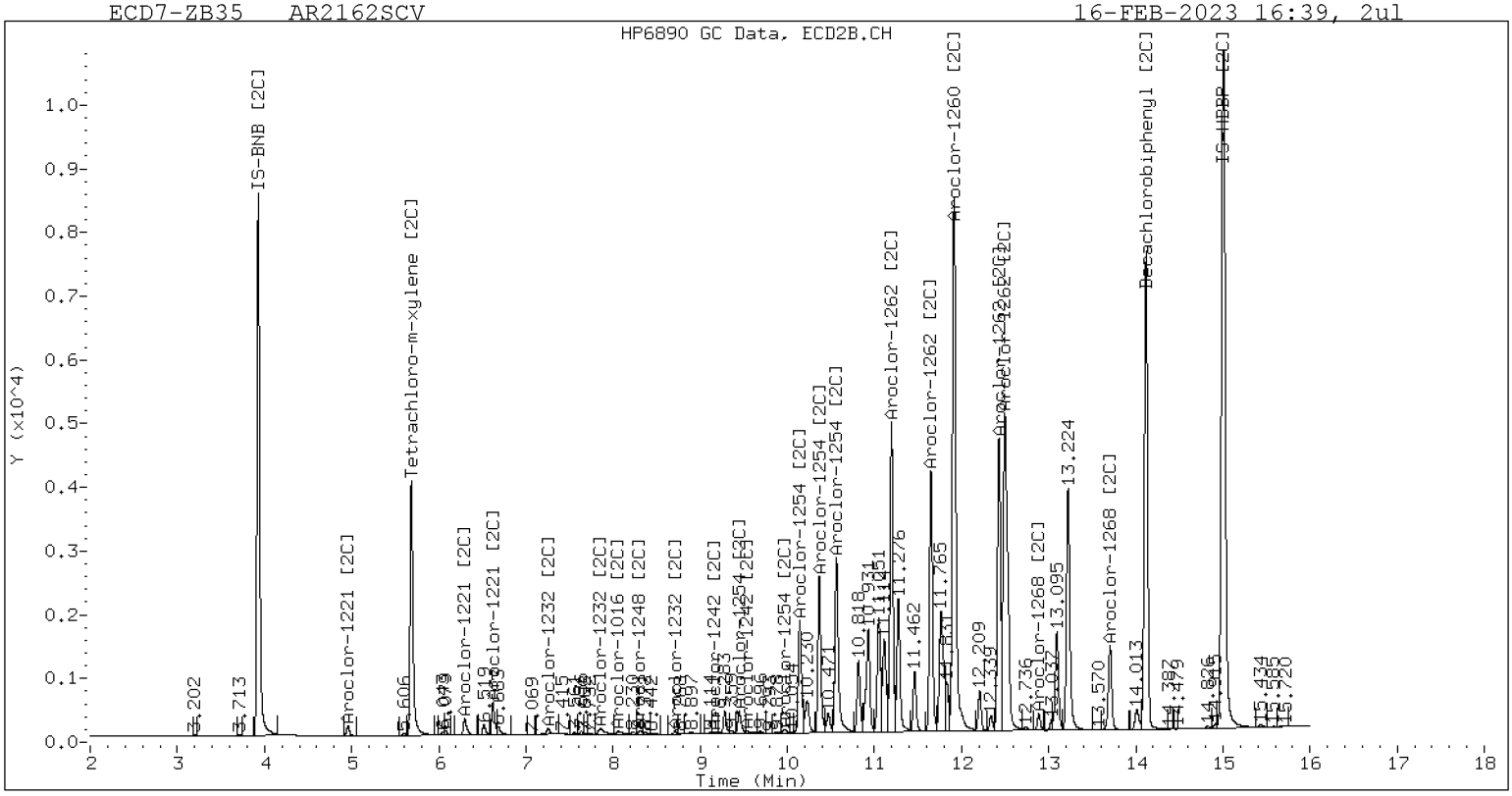
PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV 16-FEB-2023 16:39, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV 16-FEB-2023 16:39, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162318ECD7.D
Data file 2: /230216.b/230216.b/02162318ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV
Client ID:
Injection Date: 16-FEB-2023 17:00
Report Date: 02/17/2023 11:56
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	232649	5.686	0.000	184511	35.5	35.9	1.3	Tetrachloro-m-xylene
13.892	0.001	534256	14.118	0.000	561270	58.0	58.0	0.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	462340	7.5
Hexabromobiphenyl	975457	1046529	7.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	380640	3.8
Hexabromobiphenyl	646884	694272	7.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	17406	103.4	1	7.255	0.001	21798	104.5
Aroclor-1016	2	7.654	0.004	51620	95.7	2	7.856	0.005	43831	98.9
Aroclor-1016	3	7.791	0.004	24787	100.0	3	8.054	0.005	19284	105.9
Aroclor-1016	4	8.404	0.002	15491	94.9	4	8.306	0.002	13712	92.8
Total Col1Ave (4 peaks):					98.5	Total Col2Ave (4 peaks):				100.5 RPD = 2
Corrected Ave (3 peaks):					96.9	Corrected Ave (3 peaks):				98.8 RPD = 2
Aroclor-1221	1	4.732	-0.000	4903	136.5	1	4.959	0.001	3678	130.0
Aroclor-1221	2	6.133	-0.000	8309	124.0	2	6.298	0.001	8756	144.1
Aroclor-1221	3	6.383	-0.000	26751	172.7	3	6.622	0.001	18239	179.3
Total Col1Ave (3 peaks):					144.4	Total Col2Ave (3 peaks):				151.1 RPD = 5
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.732	0.000	4903	221.1	1	4.959	0.000	3678	217.9
Aroclor-1232	2	6.133	-0.000	8309	177.5	2	7.255	0.000	21798	230.4
Aroclor-1232	3	7.654	-0.000	51620	229.6	3	7.856	0.001	43831	231.9
Aroclor-1232	4	8.579	0.000	21552	231.9	4	8.712	-0.000	12876	243.3
Total Col1Ave (4 peaks):					215.0	Total Col2Ave (4 peaks):				230.9 RPD = 7
Corrected Ave (3 peaks):					209.4	Corrected Ave (3 peaks):				226.7 RPD = 8
Aroclor-1242	1	7.269	0.000	17406	126.4	1	7.255	0.001	21798	132.4
Aroclor-1242	2	7.654	0.002	51620	118.4	2	7.856	0.004	43831	122.9
Aroclor-1242	3	8.404	0.001	15491	117.6	3	9.165	0.005	12931	114.7
Aroclor-1242	4	8.579	0.002	21552	110.8	4	9.594	0.007	15412	112.7
Total Col1Ave (4 peaks):					118.3	Total Col2Ave (4 peaks):				120.7 RPD = 2
Corrected Ave (3 peaks):					115.6	Corrected Ave (3 peaks):				116.8 RPD = 1
Aroclor-1248	1	8.404	0.001	15491	69.5	1	8.306	0.001	13712	79.9
Aroclor-1248	2	8.579	0.002	21552	76.6	2	8.712	0.001	12876	71.3
Aroclor-1248	3	9.000	0.004	33860	85.1	3	9.165	0.007	12931	61.9
Aroclor-1248	4	9.290	-0.001	24418	97.1	4	9.594	0.012	15412	60.9
Total Col1Ave (4 peaks):					82.1	Total Col2Ave (4 peaks):				68.5 RPD = 18
Corrected Ave (3 peaks):					77.1	Corrected Ave (3 peaks):				64.7 RPD = 17
Aroclor-1254	1	9.290	-0.005	24418	54.6	1	9.448	0.001	4331	16.1
Aroclor-1254	2	9.376	0.002	6352	36.1	2	9.971	0.003	2773	12.8
Aroclor-1254	3	9.670	0.005	3662	12.8	3	10.125	0.006	5733	12.1
Aroclor-1254	4	9.810	0.007	5791	10.2	4	10.384	0.014	5128	11.0
Aroclor-1254	5	10.182	0.014	3705	10.7	5	10.569	0.004	1684	7.2
Total Col1Ave (5 peaks):					24.9	Total Col2Ave (5 peaks):				11.8 RPD = 71*
Corrected Ave (4 peaks):					17.5	Corrected Ave (4 peaks):				10.8 RPD = 47*
Aroclor-1260	1	11.044	0.003	48916	135.6	1	11.643	-0.006	62935	163.5
Aroclor-1260	2	11.360	0.003	3252	8.8	2	11.917	0.002	28103	29.0
Aroclor-1260	3	11.734	0.004	29505	30.2	3	12.431	-0.001	298982	1154.1
Aroclor-1260	4	12.140	0.005	787	1.6	4	12.498	-0.000	314634	484.3
Aroclor-1260	5	12.242	0.002	307715	1445.8	NS	---			----
Total Col1Ave (5 peaks):					324.4	Total Col2Ave (4 peaks):				457.7 RPD = 34
Corrected Ave (4 peaks):					44.0	Corrected Ave (3 peaks):				225.6 RPD = 135*
Aroclor-1262	1	10.828	0.003	1495	4.9	1	11.199	0.001	44764	86.3
Aroclor-1262	2	12.242	0.000	307715	613.9	2	11.643	-0.005	62935	140.5
Aroclor-1262	3	12.314	-0.002	306654	567.3	3	12.431	0.000	298982	613.0
Aroclor-1262	4	12.985	0.001	125311	268.1	4	12.498	-0.002	314634	405.4
Total Col1Ave (4 peaks):					363.6	Total Col2Ave (4 peaks):				311.3 RPD = 15
Corrected Ave (3 peaks):					280.1	Corrected Ave (3 peaks):				210.7 RPD = 28
Aroclor-1268	1	12.242	-0.000	307715	234.3	1	12.431	0.001	298982	236.8
Aroclor-1268	2	12.314	0.000	306654	235.0	2	12.498	-0.000	314634	236.9
Aroclor-1268	3	12.698	0.000	256747	231.8	3	12.891	0.001	246279	236.7
Aroclor-1268	4	13.487	-0.000	801249	236.1	4	13.707	0.001	846369	232.8
Total Col1Ave (4 peaks):					234.3	Total Col2Ave (4 peaks):				235.8 RPD = 1

Corrected Ave (3 peaks): 233.7 Corrected Ave (3 peaks): 235.5 RPD = 1

Total PCB Area Col1 (5.908 - 13.791) = 2519204 Col1 Total PCB = 0.5 ppm*

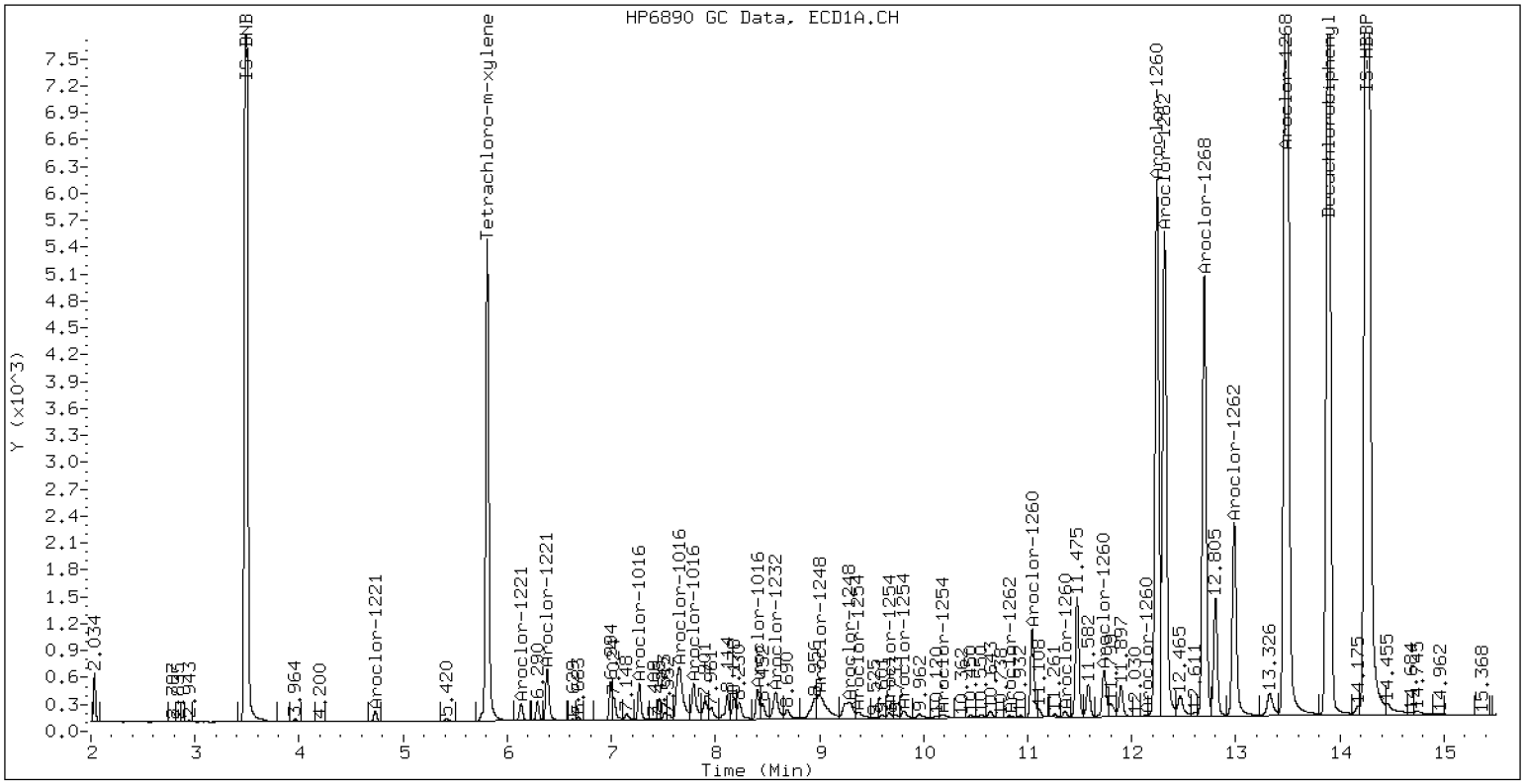
Total PCB Area Col2 (5.786 - 14.018) = 2392191 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

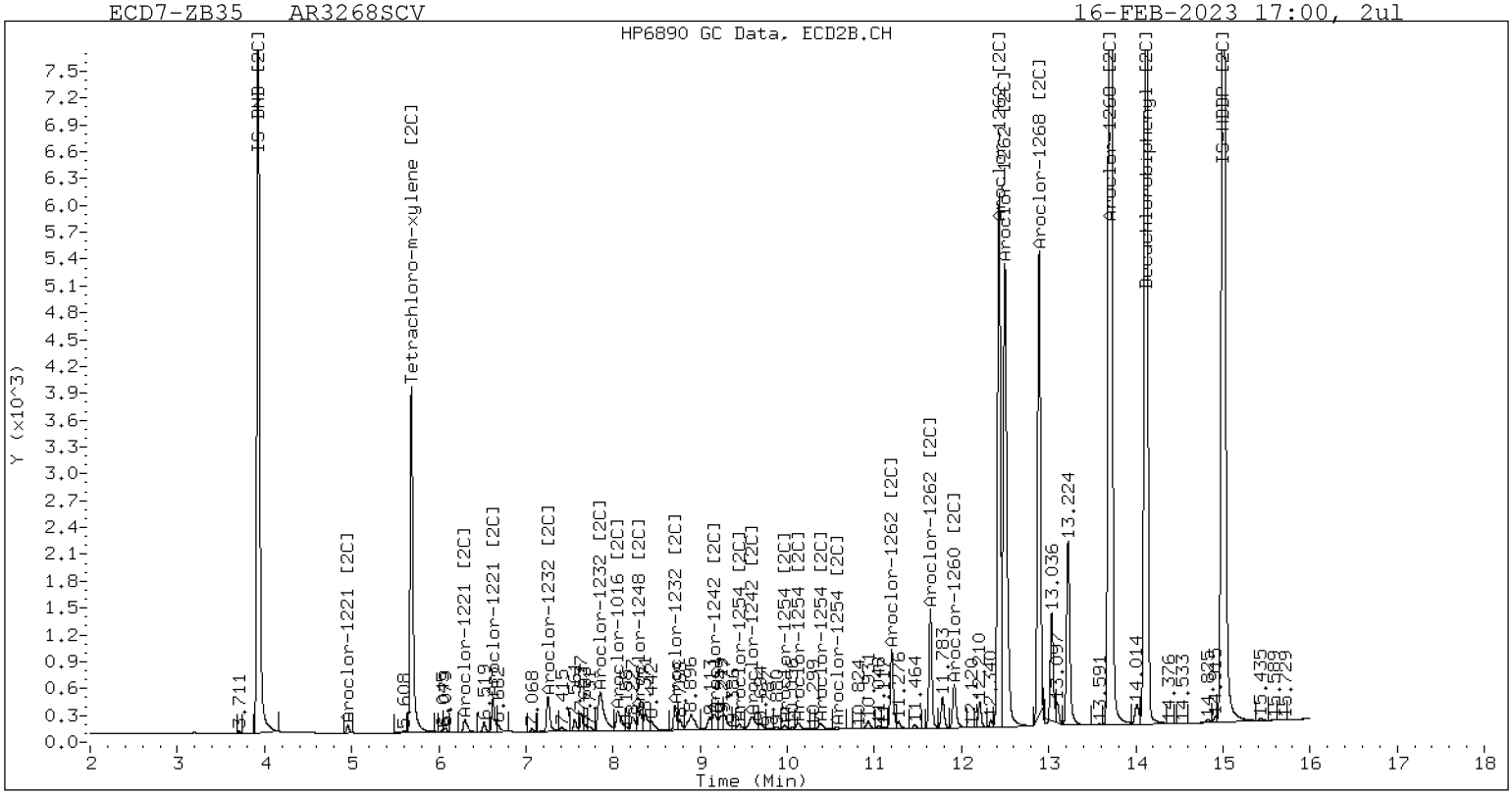
PCB Dual Column Chromatograms

ECD7-ZB5 AR3268SCV 16-FEB-2023 17:00, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268SCV 16-FEB-2023 17:00, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230216.b/02162319ECD7.D ARI ID: DDTS

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
9.260	-0.003	442624	9.911	-0.001	632750	0.085	0.087	2.1	2,4-DDE
10.293	-0.003	576653	10.667	0.002	928581	0.039	0.168#	124.2*	2,4-DDT
9.683	-0.004	755059	10.209	-0.002	423742	0.086	0.103	18.9	4,4-DDE
10.254	-0.027	674155	10.667	0.002	928581	0.000	0.168#	----	4,4-DDD

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230216.b/02162320ECD7.D ARI ID: DDT BD

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
9.284	0.021	2688	9.920	0.008	10374	0.001	0.001	93.2*	2,4-DDE
0.000	-10.296	0	10.673	0.007	190492	0.000	0.035#	----	2,4-DDT
9.692	0.005	7700	10.234	0.022	295	0.001	0.000	169.6*	4,4-DDE
10.259	-0.022	174757	10.673	0.007	190492	0.000	0.035#	----	4,4-DDD

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLB0222

Instrument: ECD7
Calibration ID: GB00045

Printed: 2/17/2023 12:18:06PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLB0222-CAL1	QC		1		L000856	L000844		
SLB0222-CAL2	QC		2		L000859	L000844		
SLB0222-CAL3	QC		3		L000858	L000844		
SLB0222-CAL4	QC		4		L000731	L000844		
SLB0222-CAL5	QC		5		L000857	L000844		
SLB0222-CAL6	QC		6		L000855	L000844		
SLB0222-CAL7	QC		7		L000860	L000844		
SLB0222-CAL8	QC		8		L000861	L000844		
SLB0222-CAL9	QC		9		L000862	L000844		
SLB0222-CALA	QC		10		L000863	L000844		
SLB0222-CALB	QC		11		L000864	L000844		
SLB0222-SCV1	QC		12		K007655	L000844		
SLB0222-SCV2	QC		13		K007656	L000844		
SLB0222-SCV3	QC		14		K007657	L000844		
SLB0222-SCV4	QC		15		K007658	L000844		
SLB0222-SCV5	QC		16		K007659	L000844		
SLB0222-SCV6	QC		17		K007660	L000844		

Samples Loaded By Date

Data Processed By Date

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	16-FEB-2023 11:02	02162301ECD7.D	1	IB	
2	16-FEB-2023 11:23	02162302ECD7.D	1	0.25PPMAR1660	
3	16-FEB-2023 11:44	02162303ECD7.D	1	0.02PPMAR1660	
4	16-FEB-2023 12:05	02162304ECD7.D	1	0.05PPMAR1660	
5	16-FEB-2023 12:27	02162305ECD7.D	1	1.0PPMAR1660	
6	16-FEB-2023 12:48	02162306ECD7.D	1	0.1PPMAR1660	
7	16-FEB-2023 13:09	02162307ECD7.D	1	0.5PPMAR1660	
8	16-FEB-2023 13:30	02162308ECD7.D	1	0.25PPMAR1242	
9	16-FEB-2023 13:51	02162309ECD7.D	1	0.25PPMAR1248	
10	16-FEB-2023 14:12	02162310ECD7.D	1	0.25PPMAR1254	
11	16-FEB-2023 14:33	02162311ECD7.D	1	0.25PPMAR2168	
12	16-FEB-2023 14:54	02162312ECD7.D	1	0.25PPMAR3268	
13	16-FEB-2023 15:15	02162313ECD7.D	1	AR1660SCV	
14	16-FEB-2023 15:36	02162314ECD7.D	1	AR1242SCV	
15	16-FEB-2023 15:57	02162315ECD7.D	1	AR1248SCV	
16	16-FEB-2023 16:18	02162316ECD7.D	1	AR1254SCV	
17	16-FEB-2023 16:39	02162317ECD7.D	1	AR2162SCV	
18	16-FEB-2023 17:00	02162318ECD7.D	1	AR3268SCV	
19	16-FEB-2023 17:21	02162319ECD7.D	1	DDTS	
20	16-FEB-2023 17:42	02162320ECD7.D	1	DDT BD	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

ARI Job No.: IB Method: PCB.m Instrument: ecd7.i Date: 16-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1102	02162301ECD7.D	IB		1	NO MANUAL INTEGRATION
1123	02162302ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
1144	02162303ECD7.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
1205	02162304ECD7.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
1227	02162305ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1248	02162306ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1309	02162307ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1330	02162308ECD7.D	0.25PPMAR1242		1	NO MANUAL INTEGRATION
1351	02162309ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
1412	02162310ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
1433	02162311ECD7.D	0.25PPMAR2168		1	NO MANUAL INTEGRATION
1454	02162312ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1515	02162313ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1536	02162314ECD7.D	AR1242SCV		1	NO MANUAL INTEGRATION
1557	02162315ECD7.D	AR1248SCV		1	Aroclor-1248,
1618	02162316ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION
1639	02162317ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1700	02162318ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
1721	02162319ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1742	02162320ECD7.D	DDT BD		1	NO MANUAL INTEGRATION
1803	02162321ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1824	02162322ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1845	02162323ECD7.D	BLB0303-BLK1		1	NO MANUAL INTEGRATION
1906	02162324ECD7.D	BLB0303-BS1		1	NO MANUAL INTEGRATION
1927	02162325ECD7.D	BLB0303-BSD1		1	NO MANUAL INTEGRATION
1948	02162326ECD7.D	23B0153-01		1	NO MANUAL INTEGRATION
2009	02162327ECD7.D	23B0179-01		1	NO MANUAL INTEGRATION
2030	02162328ECD7.D	23B0179-03		1	NO MANUAL INTEGRATION
2051	02162329ECD7.D	23B0218-01		1	NO MANUAL INTEGRATION
2112	02162330ECD7.D	23B0243-01		1	NO MANUAL INTEGRATION
2133	02162331ECD7.D	23B0250-03		1	NO MANUAL INTEGRATION
2154	02162332ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
2215	02162333ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1102	02162301ECD7.D	IB		1	NO MANUAL INTEGRATION
1123	02162302ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1144	02162303ECD7.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
1205	02162304ECD7.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
1227	02162305ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1248	02162306ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1309	02162307ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1330	02162308ECD7.D	0.25PPMAR1242		1	NO MANUAL INTEGRATION
1351	02162309ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
1412	02162310ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
1433	02162311ECD7.D	0.25PPMAR2168		1	NO MANUAL INTEGRATION
1454	02162312ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1515	02162313ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1536	02162314ECD7.D	AR1242SCV		1	NO MANUAL INTEGRATION
1557	02162315ECD7.D	AR1248SCV		1	NO MANUAL INTEGRATION
1618	02162316ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION
1639	02162317ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
1700	02162318ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
1721	02162319ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1742	02162320ECD7.D	DDT BD		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1803	02162321ECD7.D			1	NO MANUAL INTEGRATION
1824	02162322ECD7.D			1	NO MANUAL INTEGRATION
1845	02162323ECD7.D			1	NO MANUAL INTEGRATION
1906	02162324ECD7.D			1	NO MANUAL INTEGRATION
1927	02162325ECD7.D			1	NO MANUAL INTEGRATION
1948	02162326ECD7.D			1	NO MANUAL INTEGRATION
2009	02162327ECD7.D			1	NO MANUAL INTEGRATION
2030	02162328ECD7.D			1	NO MANUAL INTEGRATION
2051	02162329ECD7.D			1	NO MANUAL INTEGRATION
2112	02162330ECD7.D			1	NO MANUAL INTEGRATION
2133	02162331ECD7.D			1	NO MANUAL INTEGRATION
2154	02162332ECD7.D			1	NO MANUAL INTEGRATION
2215	02162333ECD7.D			1	NO MANUAL INTEGRATION

Security Status Report

Date: 17-Feb-2023 12:03

02162301ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162302ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162303ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162304ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162305ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162306ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162307ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162308ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162309ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162310ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162311ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162312ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162313ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162314ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162315ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162316ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162317ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162318ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162319ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03
02162320ECD7.D	Data Locked	richardl, 17-Feb-2023 12:03

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd7.i\230124.b\01242314ECD7.D
Level 2: \\target\share\chem4\ecd7.i\230124.b\01242315ECD7.D
Level 3: \\target\share\chem4\ecd7.i\230124.b\01242317ECD7.D
Level 4: \\target\share\chem4\ecd7.i\230124.b\01242313ECD7.D
Level 5: \\target\share\chem4\ecd7.i\230124.b\01242318ECD7.D
Level 6: \\target\share\chem4\ecd7.i\230124.b\01242316ECD7.D
Level 7: \\target\share\chem4\ecd7.i\230124.b\01242323ECD7.D
Level 8: \\target\share\chem4\ecd7.i\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00591	+++++	0.00591	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01209	+++++	0.01209	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02807	+++++	0.02807	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.02450	+++++	0.02450	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.08017	+++++	0.08017	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02382	+++++	0.02382	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03598	+++++	0.03598	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00369	+++++	0.00369	0.000

ARI Labs, Inc.

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Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(2)	*****	*****	*****	*****	*****	*****	0.00832	*****	0.00832	0.000
(3)	*****	*****	*****	*****	*****	*****	0.04160	*****	0.04160	0.000
(4)	*****	*****	*****	*****	*****	*****	0.01781	*****	0.01781	0.000
7 Aroclor-1016(1)	0.02947	0.03102	0.03310	0.03018	0.02824	0.02635	*****	*****	0.02973	7.802
(2)	0.09270	0.09812	0.10598	0.10203	0.09861	0.09356	*****	*****	0.09850	5.108
(3)	0.04878	0.04900	0.05127	0.04400	0.04091	0.03796	*****	*****	0.04532	11.523
(4)	0.02676	0.02802	0.03162	0.03050	0.02939	0.02864	*****	*****	0.02915	5.988
6 Aroclor-1248(1)	*****	*****	*****	*****	*****	*****	0.04002	*****	0.04002	0.000
(2)	*****	*****	*****	*****	*****	*****	0.05105	*****	0.05105	0.000
(3)	*****	*****	*****	*****	*****	*****	0.09765	*****	0.09765	0.000
(4)	*****	*****	*****	*****	*****	*****	0.04833	*****	0.04833	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
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Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.08153	+++++							0.08153	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03481	+++++							0.03481	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05224	+++++							0.05224	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.10237	+++++							0.10237	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.06657	+++++							0.06657	0.000
9 Aroclor-1260(1)	0.04727	0.04543	0.04428	0.05181	0.04013	0.04040				
	+++++	+++++							0.04489	9.818
(2)	0.04940	0.04636	0.04450	0.05350	0.04100	0.04208				
	+++++	+++++							0.04614	10.182
(3)	0.13737	0.12829	0.11740	0.13317	0.10468	0.10790				
	+++++	+++++							0.12147	11.161
(4)	0.07198	0.06638	0.05997	0.06473	0.05485	0.05864				
	+++++	+++++							0.06276	9.803
(5)	0.03296	0.02981	0.02640	0.02723	0.02328	0.02447				
	+++++	+++++							0.02736	13.015
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03235	+++++							0.03235	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
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Quant Method : ISTD
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Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(2)	*****	*****	*****	*****	*****	*****	0.05106	*****	0.05106	0.000
(3)	*****	*****	*****	*****	*****	*****	0.05544	*****	0.05544	0.000
(4)	*****	*****	*****	*****	*****	*****	0.05052	*****	0.05052	0.000
11 Aroclor-1268(1)	*****	*****	*****	*****	*****	*****	0.13216	*****	0.13216	0.000
(2)	*****	*****	*****	*****	*****	*****	0.13180	*****	0.13180	0.000
(3)	*****	*****	*****	*****	*****	*****	0.10919	*****	0.10919	0.000
(4)	*****	*****	*****	*****	*****	*****	0.32374	*****	0.32374	0.000
42 2,4-DDE	*****	*****	*****	*****	*****	*****	*****	904	904	0.000
43 2,4-DDD	*****	*****	*****	*****	*****	*****	*****	1034	1034	0.000
44 2,4-DDT	*****	*****	*****	*****	*****	*****	*****	2557	2557	0.000
46 4,4-DDE	*****	*****	*****	*****	*****	*****	*****	1539	1539	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
Last Edit : 25-Jan-2023 10:02 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1484	1484	0.000
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 1 Tetrachloro-m-xylene	1.10039	1.10217	1.21997	1.14965	1.11792	1.09461	+++++	+++++	1.13079	4.246
$ 13 Decachlorobiphenyl	0.86442	0.90302	0.93081	0.84813	0.79576	0.79145	+++++	+++++	0.85560	6.556

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242314ECD7.D
Level 2: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242315ECD7.D
Level 3: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242317ECD7.D
Level 4: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242313ECD7.D
Level 5: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242318ECD7.D
Level 6: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242316ECD7.D
Level 7: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242323ECD7.D
Level 8: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
1 Aroclor-1221 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00586	+++++	0.00586	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01285	+++++	0.01285	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02169	+++++	0.02169	0.000
4 Aroclor-1232 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00356	+++++	0.00356	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01991	+++++	0.01991	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04054	+++++	0.04054	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01126	+++++	0.01126	0.000
3 Aroclor-1242 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03499	+++++	0.03499	0.000

ARI Labs, Inc.

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Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.07771	+++++	0.07771	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02434	+++++	0.02434	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03226	+++++	0.03226	0.000
6 Aroclor-1248 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03616	+++++	0.03616	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03892	+++++	0.03892	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.04756	+++++	0.04756	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05882	+++++	0.05882	0.000
7 Aroclor-1016 [2C](1)	0.04424	0.04724	0.04678	0.04314	0.04099	0.03795	+++++	+++++	0.04339	8.142
(2)	0.08512	0.09615	0.10417	0.09824	0.09554	0.09130	+++++	+++++	0.09509	6.775
(3)	0.02919	0.04165	0.04478	0.04029	0.03925	0.03764	+++++	+++++	0.03880	13.639
(4)	0.02850	0.03377	0.03419	0.03004	0.02878	0.02724	+++++	+++++	0.03042	9.538

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
8 Aroclor-1254 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.05804	+++++	0.05804	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04691	+++++	0.04691	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.10233	+++++	0.10233	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.10233	+++++	0.10233	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.05700	+++++	0.05700	0.000
10 Aroclor-1262 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.07830	+++++	0.07830	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.06658	+++++	0.06658	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.07090	+++++	0.07090	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.11355	+++++	0.11355	0.000
9 Aroclor-1260 [2C](1)	0.06075	0.05974	0.05912	0.06129	0.05231	0.05307	+++++	+++++	0.05771	6.881
(2)	0.14748	0.15106	0.15181	0.15367	0.13396	0.13809	+++++	+++++	0.14601	5.547

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(3)	0.03683	0.03729	0.03582	0.03647	0.03501	0.03694	#####	#####	0.03639	2.314
(4)	0.09319	0.09919	0.09881	0.09587	0.08985	0.09008	#####	#####	0.09450	4.373
11 Aroclor-1268 [2C](1)	#####	#####	#####	#####	#####	#####	0.18682	#####	0.18682	0.000
(2)	#####	#####	#####	#####	#####	#####	0.19880	#####	0.19880	0.000
(3)	#####	#####	#####	#####	#####	#####	0.16548	#####	0.16548	0.000
(4)	#####	#####	#####	#####	#####	#####	0.51118	#####	0.51118	0.000
41 2,4-DDE [2C]	#####	#####	#####	#####	#####	#####	#####	1528	1528	0.000
42 2,4-DDD [2C]	#####	#####	#####	#####	#####	#####	#####	866	866	0.000
44 4,4-DDE [2C]	#####	#####	#####	#####	#####	#####	#####	863	863	0.000
45 4,4-DDD/2,4-DDT [2C]	#####	#####	#####	#####	#####	#####	#####	1162	1162	0.000
46 4,4-DDT [2C]	#####	#####	#####	#####	#####	#####	#####	1277	1277	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 24-JAN-2023 21:57
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Last Edit : 25-Jan-2023 09:58 JoshuaR
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 2 Tetrachloro-m-xylene [2C]	1.04342	1.10521	1.15322	1.09675	1.05187	1.03851	+++++	+++++	1.08150	4.159
$ 13 Decachlorobiphenyl [2C]	1.20915	1.27122	1.31190	1.29209	1.22961	1.30389	+++++	+++++	1.26964	3.291

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230216.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	02162302ECD7	02162303ECD7	02162304ECD7	02162305ECD7	02162306ECD7	02162307ECD7
INJ.DATE:	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023
INJ.TIME:	11:23	11:44	12:05	12:27	12:48	13:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	3.492	3.492	3.491	3.493	3.492	3.491	3.492	3.392-3.592	3.492	0.001
$ 1 Tetrachloro-m-xylene	5.810	5.808	5.808	5.811	5.808	5.809	5.810	5.710-5.910	5.809	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	4.732	4.632-4.832	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	7.269	7.169-7.369	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	4.732	4.632-4.832	+++++	+++++
7 Aroclor-1016	7.271	7.271	7.270	7.270	7.270	7.269	7.271	7.171-7.371	7.270	0.001
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	8.403	8.303-8.503	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	9.295	9.195-9.395	+++++	+++++
9 Aroclor-1260	11.043	11.044	11.043	11.040	11.042	11.041	11.043	10.943-11.143	11.042	0.001
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.824	10.724-10.924	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	12.243	12.143-12.343	+++++	+++++
$ 13 Decachlorobiphenyl	13.894	13.892	13.891	13.892	13.890	13.890	13.894	13.794-13.994	13.892	0.002
* 12 IS-HBBP	14.263	14.263	14.261	14.261	14.262	14.262	14.263	14.163-14.363	14.262	0.001
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.263	9.213-9.313	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.805	9.755-9.855	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.296	10.246-10.346	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.687	9.587-9.787	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230216.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	10.281	10.181-10.381	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.758	10.658-10.858	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230216.b\230216.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	02162302ECD7	02162303ECD7	02162304ECD7	02162305ECD7	02162306ECD7	02162307ECD7
INJ.DATE:	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023
INJ.TIME:	11:23	11:44	12:05	12:27	12:48	13:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB [2C]	3.928	3.929	3.928	3.930	3.929	3.929	3.928	3.828-4.028	3.929	0.001
$ 2 Tetrachloro-m-xylene [	5.685	5.686	5.685	5.688	5.687	5.686	5.685	5.585-5.785	5.686	0.001
1 Aroclor-1221 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.958	4.858-5.058	+++++	+++++
4 Aroclor-1232 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.958	4.859-5.059	+++++	+++++
3 Aroclor-1242 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	7.254	7.154-7.354	+++++	+++++
6 Aroclor-1248 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	8.305	8.205-8.405	+++++	+++++
7 Aroclor-1016 [2C]	7.254	7.255	7.254	7.254	7.254	7.254	7.254	7.154-7.354	7.254	0.000
8 Aroclor-1254 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.447	9.347-9.547	+++++	+++++
10 Aroclor-1262 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.198	11.098-11.298	+++++	+++++
9 Aroclor-1260 [2C]	11.651	11.652	11.652	11.650	11.651	11.650	11.651	11.551-11.751	11.651	0.001
11 Aroclor-1268 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	12.431	12.331-12.531	+++++	+++++
$ 13 Decachlorobiphenyl [2C	14.117	14.118	14.117	14.120	14.117	14.118	14.117	14.017-14.217	14.118	0.001
* 12 IS-HBBP [2C]	15.006	15.006	15.004	15.005	15.005	15.005	15.006	14.906-15.106	15.005	0.001
41 2,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.912	9.862-9.962	+++++	+++++
42 2,4-DDD [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.538	9.488-9.588	+++++	+++++
44 4,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.211	10.111-10.311	+++++	+++++
45 4,4-DDD/2,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.666	10.566-10.766	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230216.b\230216.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.095	10.995-11.195	+++++	+++++
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.703	1.603-1.803	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	7.178	7.078-7.278	+++++	+++++

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162301ECD7.D
Data file 2: /230216.b/230216.b/02162301ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 16-FEB-2023 11:02
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.823	0.015	232765	5.680	-0.005	190174	39.3	39.2	0.1	Tetrachloro-m-xylene
13.900	0.009	322325	14.118	0.000	335746	40.3	39.2	2.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	417912	-2.8
Hexabromobiphenyl	975457	908024	-6.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	359487	-2.0
Hexabromobiphenyl	646884	614725	-5.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	11.361	0.004	128	0.4	2	---			0.0
Aroclor-1260	3	11.801	0.071	128	0.2	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.705	0.008	993	1.0	3	---			0.0
Aroclor-1268	4	13.493	0.006	2534	0.9	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (5.908 - 13.791) = 24426 Col1 Total PCB = 0.0 ppm*

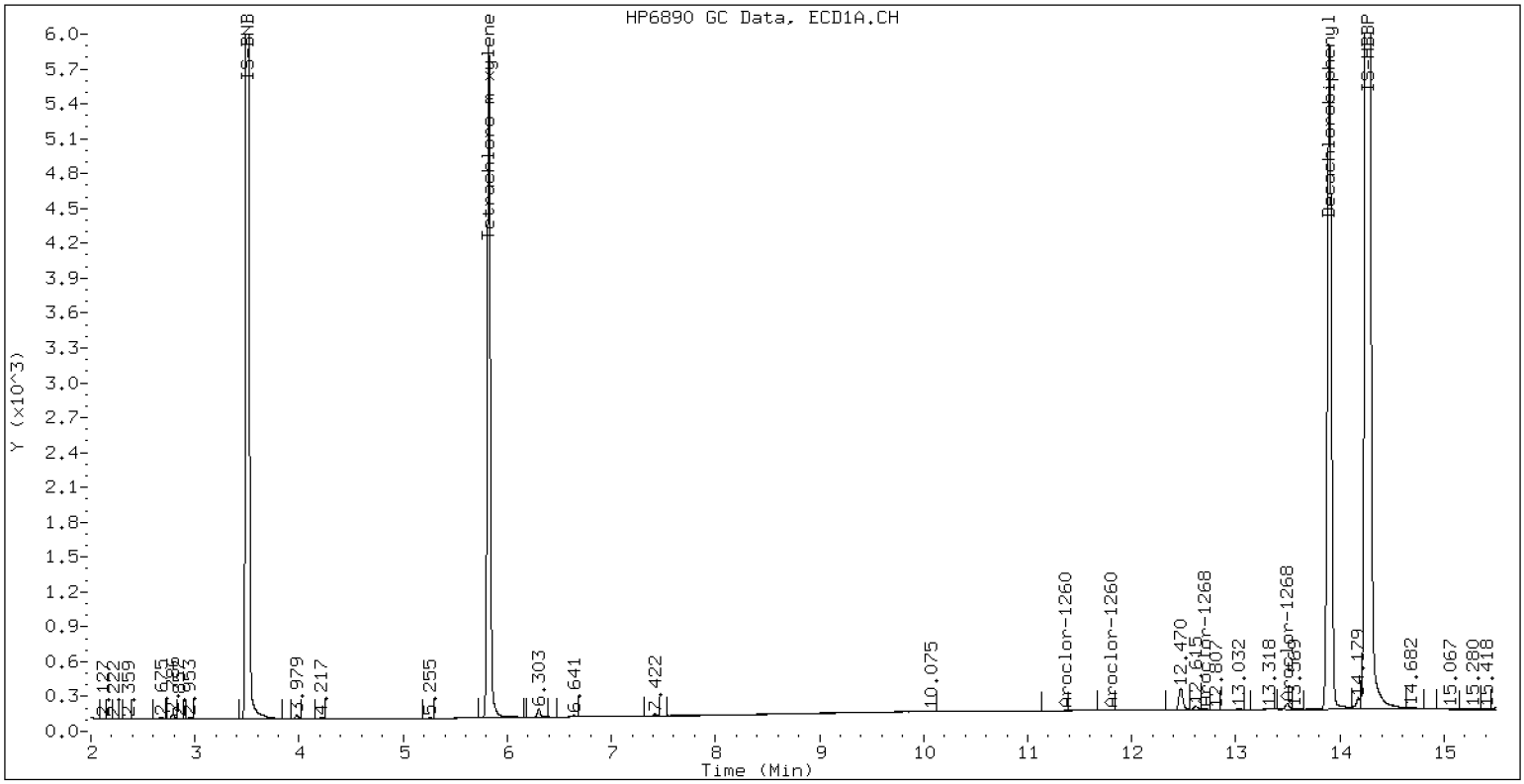
Total PCB Area Col2 (5.786 - 14.018) = 13907 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

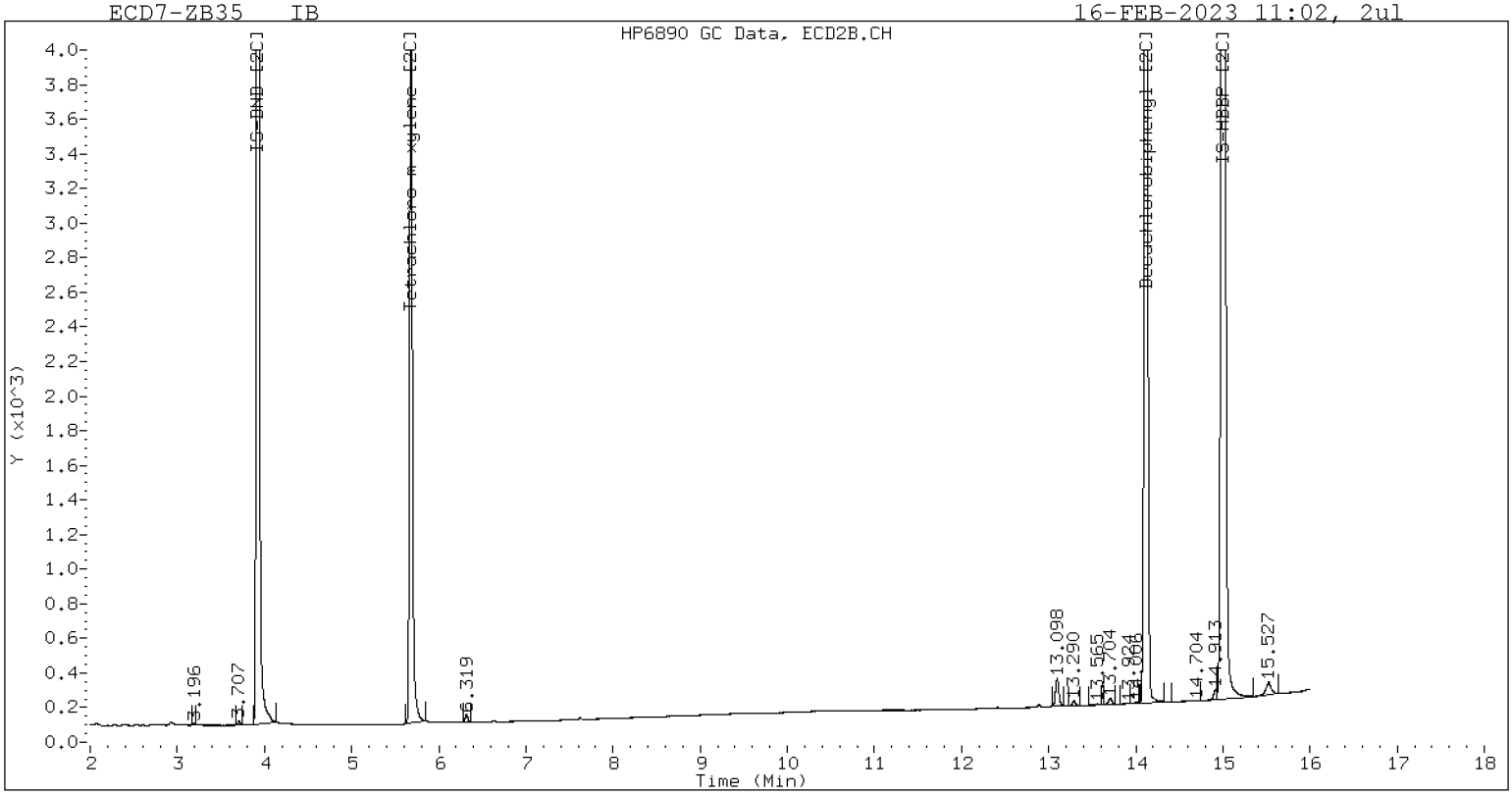
PCB Dual Column Chromatograms

ECD7-ZB5 IB 16-FEB-2023 11:02, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 IB 16-FEB-2023 11:02, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162302ECD7.D
Data file 2: /230216.b/230216.b/02162302ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 11:23
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	248401	5.685	-0.001	199672	40.7	40.3	0.9	Tetrachloro-m-xylene
13.894	0.003	351670	14.117	-0.001	367148	40.9	40.7	0.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	430055	0.0
Hexabromobiphenyl	975457	975457	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	366754	0.0
Hexabromobiphenyl	646884	646884	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.002	39579	252.7	1	7.254	-0.000	49228	245.0
Aroclor-1016	2	7.652	0.002	129647	258.5	2	7.850	-0.002	109879	257.4
Aroclor-1016	3	7.790	0.003	55577	241.0	3	8.050	0.000	45802	261.0
Aroclor-1016	4	8.404	0.001	38982	256.8	4	8.304	-0.000	35428	248.9
Total Col1Ave (4 peaks):					252.3	Total Col2Ave (4 peaks):				253.1 RPD = 0
Corrected Ave (3 peaks):					250.2	Corrected Ave (3 peaks):				250.4 RPD = 0
CalAmt %D:					0.9	CalAmt %D:				1.2
Aroclor-1260	1	11.043	0.002	87165	259.2	1	11.651	0.001	84564	235.7
Aroclor-1260	2	11.360	0.003	89579	260.4	2	11.916	0.001	216735	240.2
Aroclor-1260	3	11.733	0.003	234880	257.8	3	12.434	0.001	55401	229.5
Aroclor-1260	4	12.137	0.002	120991	261.6	4	12.499	0.001	143975	237.8
Aroclor-1260	5	12.243	0.003	50521	254.7	NS	---			----
Total Col1Ave (5 peaks):					258.7	Total Col2Ave (4 peaks):				235.8 RPD = 9
Corrected Ave (4 peaks):					258.0	Corrected Ave (3 peaks):				234.4 RPD = 10
CalAmt %D:					3.5	CalAmt %D:				-5.7

Total PCB Area Col1 (5.908 - 13.791) = 2424171 Col1 Total PCB = 0.5 ppm*

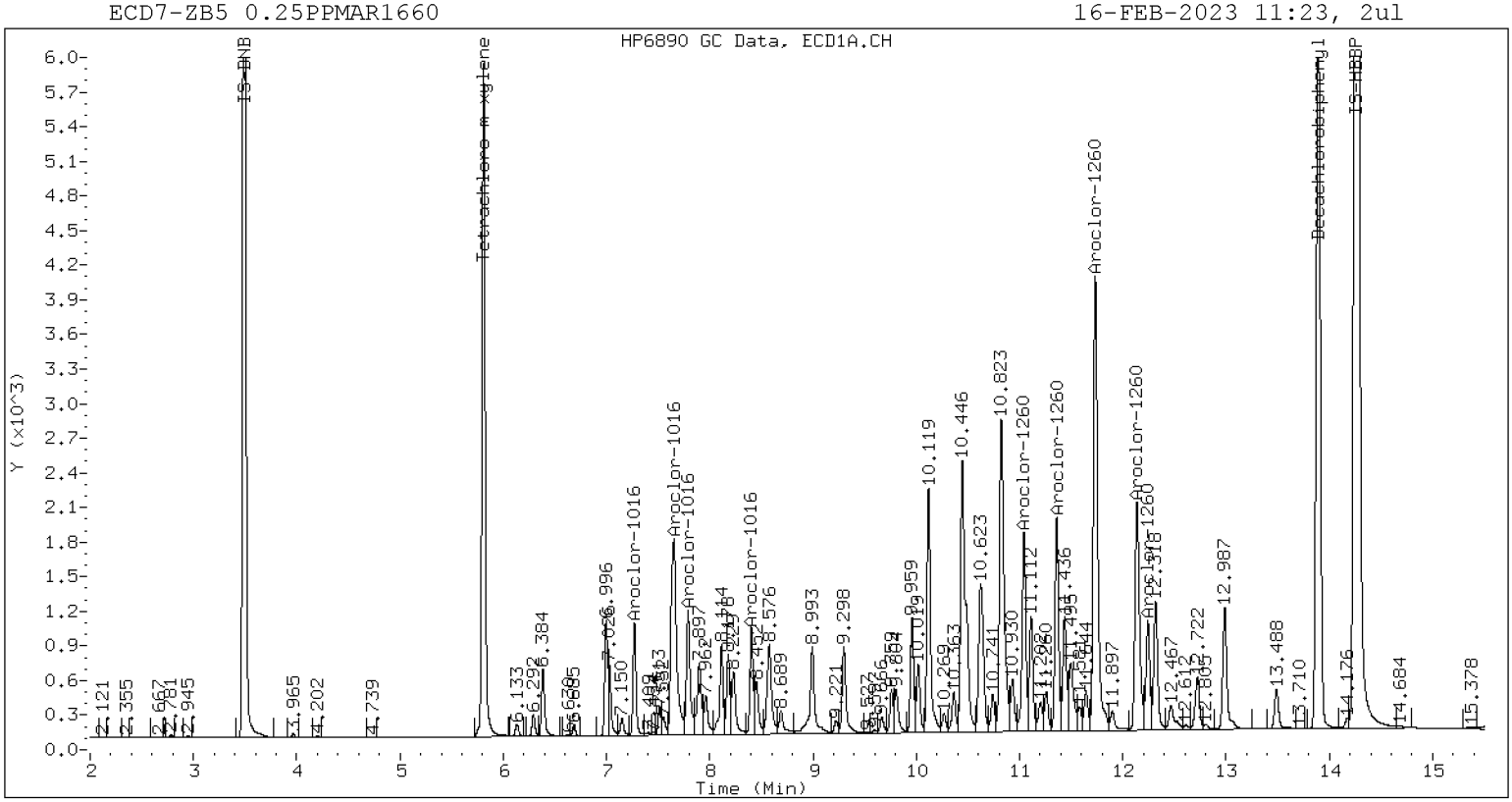
Total PCB Area Col2 (5.786 - 14.018) = 2014487 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

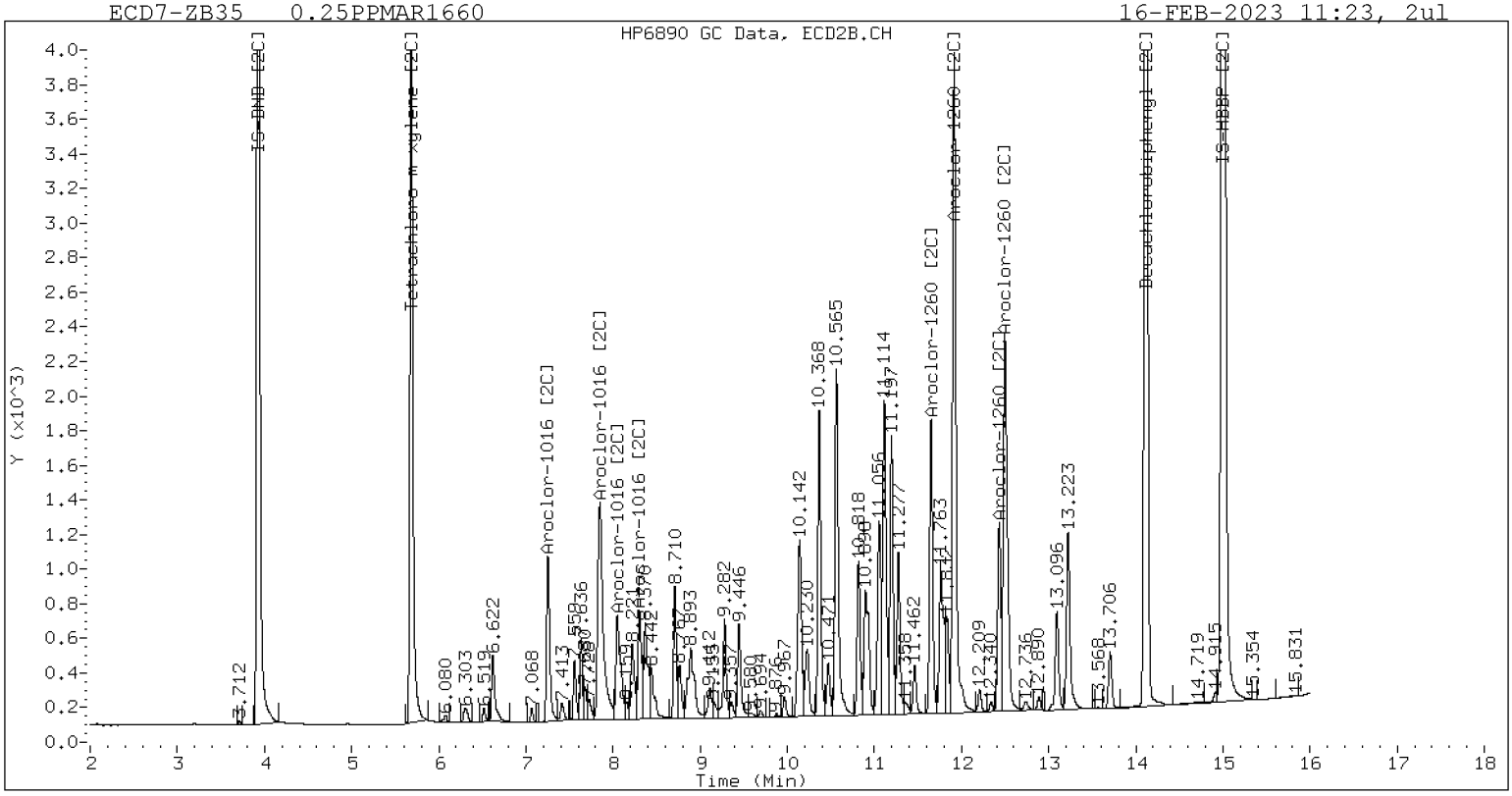
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1660 16-FEB-2023 11:23, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1660 16-FEB-2023 11:23, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162303ECD7.D
Data file 2: /230216.b/230216.b/02162303ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 11:44
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	19708	5.686	0.000	15503	3.3	3.2	3.1	Tetrachloro-m-xylene
13.892	0.001	28479	14.118	-0.000	26541	3.3	2.9	12.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	422641	-1.7
Hexabromobiphenyl	975457	970275	-0.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	360534	-1.7
Hexabromobiphenyl	646884	649373	0.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.002	3348	21.8	1	7.255	0.001	4345	22.0
Aroclor-1016	2	7.655	0.005	10129	20.6	2	7.856	0.005	7672	18.3
Aroclor-1016	3	7.792	0.005	5159	22.8	3	8.056	0.007	2574	14.9
Aroclor-1016	4	8.405	0.003	3035	20.3	4	8.307	0.003	2795	20.0
Total Col1Ave (4 peaks):					21.4	Total Col2Ave (4 peaks):				18.8 RPD = 13
Corrected Ave (3 peaks):					20.9	Corrected Ave (3 peaks):				17.7 RPD = 16
CalAmt %D:					6.8	CalAmt %D:				-6.0
Aroclor-1260	1	11.044	0.003	6763	20.2	1	11.652	0.002	7499	20.8
Aroclor-1260	2	11.360	0.003	6806	19.9	2	11.918	0.003	18116	20.0
Aroclor-1260	3	11.737	0.006	19311	21.3	3	12.434	0.002	5444	22.5
Aroclor-1260	4	12.141	0.006	9169	19.9	4	12.502	0.004	12209	20.1
Aroclor-1260	5	12.243	0.003	4138	21.0	NS	---			----
Total Col1Ave (5 peaks):					20.5	Total Col2Ave (4 peaks):				20.8 RPD = 2
Corrected Ave (4 peaks):					20.3	Corrected Ave (3 peaks):				20.3 RPD = 0
CalAmt %D:					2.3	CalAmt %D:				4.2

Total PCB Area Col1 (5.908 - 13.791) = 207302 Col1 Total PCB = 0.0 ppm*

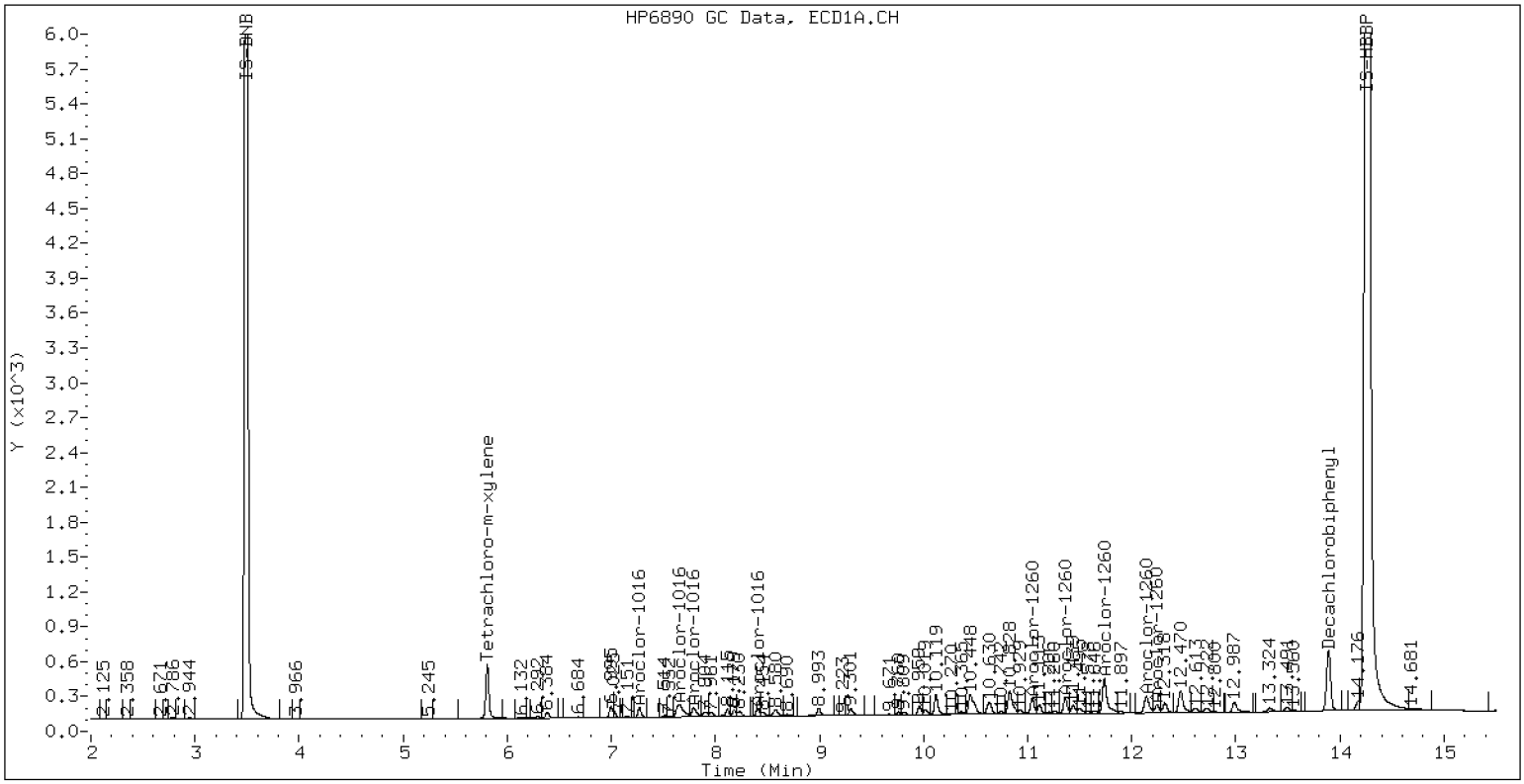
Total PCB Area Col2 (5.786 - 14.018) = 173637 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

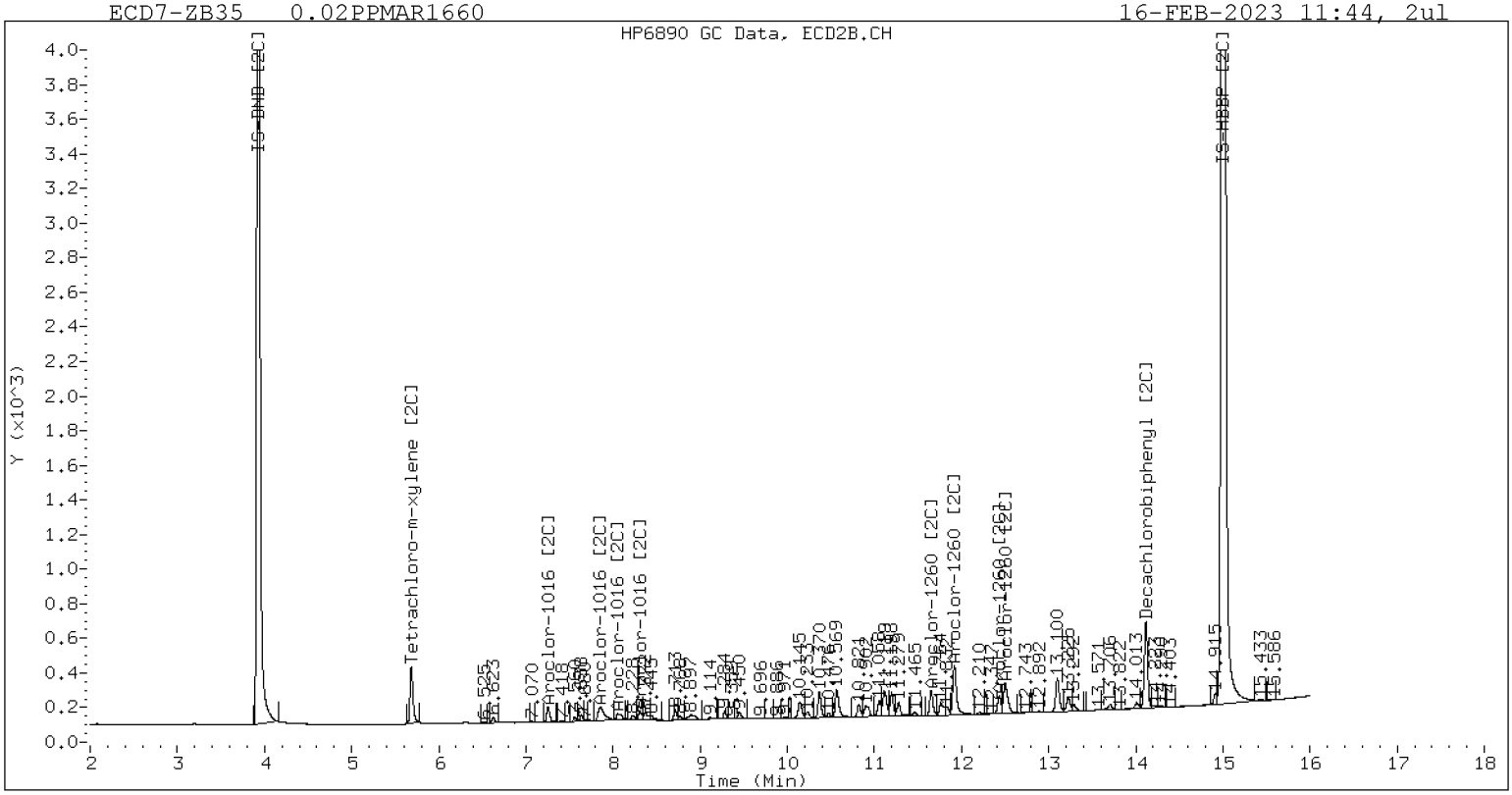
PCB Dual Column Chromatograms

ECD7-ZB5 0.02PPMAR1660 16-FEB-2023 11:44, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.02PPMAR1660 16-FEB-2023 11:44, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162304ECD7.D
Data file 2: /230216.b/230216.b/02162304ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:05
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.001	49106	5.685	-0.001	38865	8.2	8.0	2.4	Tetrachloro-m-xylene
13.891	0.000	72151	14.117	-0.001	67392	8.4	7.4	12.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	424165	-1.4
Hexabromobiphenyl	975457	974643	-0.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	361606	-1.4
Hexabromobiphenyl	646884	650523	0.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	8215	53.2	1	7.254	-0.000	10626	53.6
Aroclor-1016	2	7.653	0.003	24630	49.8	2	7.855	0.003	20708	49.2
Aroclor-1016	3	7.791	0.004	12297	54.1	3	8.055	0.006	9105	52.6
Aroclor-1016	4	8.404	0.001	7438	49.7	4	8.306	0.001	7620	54.3
Total Col1Ave (4 peaks):					51.7	Total Col2Ave (4 peaks):				52.4 RPD = 1
Corrected Ave (3 peaks):					50.9	Corrected Ave (3 peaks):				51.8 RPD = 2
CalAmt %D:					3.4	CalAmt %D:				4.9
Aroclor-1260	1	11.043	0.002	16909	50.3	1	11.652	0.002	17146	47.5
Aroclor-1260	2	11.359	0.002	17012	49.5	2	11.917	0.003	43102	47.5
Aroclor-1260	3	11.734	0.003	45560	50.0	3	12.435	0.003	11385	46.9
Aroclor-1260	4	12.138	0.003	22213	48.1	4	12.501	0.003	28474	46.8
Aroclor-1260	5	12.241	0.001	9728	49.1	NS	---			----
Total Col1Ave (5 peaks):					49.4	Total Col2Ave (4 peaks):				47.2 RPD = 5
Corrected Ave (4 peaks):					49.2	Corrected Ave (3 peaks):				47.1 RPD = 4
CalAmt %D:					-1.2	CalAmt %D:				-5.6

Total PCB Area Col1 (5.908 - 13.791) = 481905 Col1 Total PCB = 0.1 ppm*

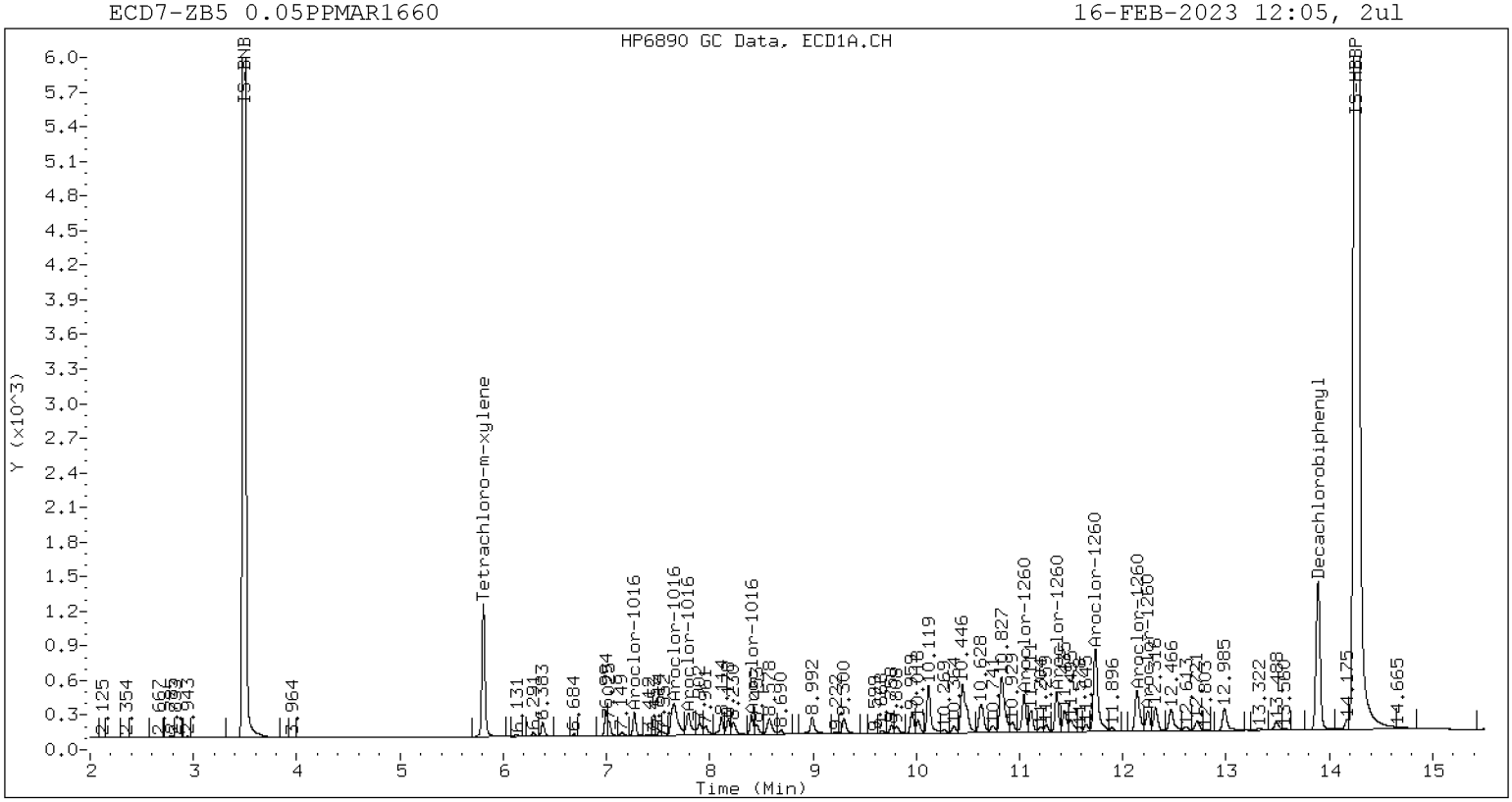
Total PCB Area Col2 (5.786 - 14.018) = 410066 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

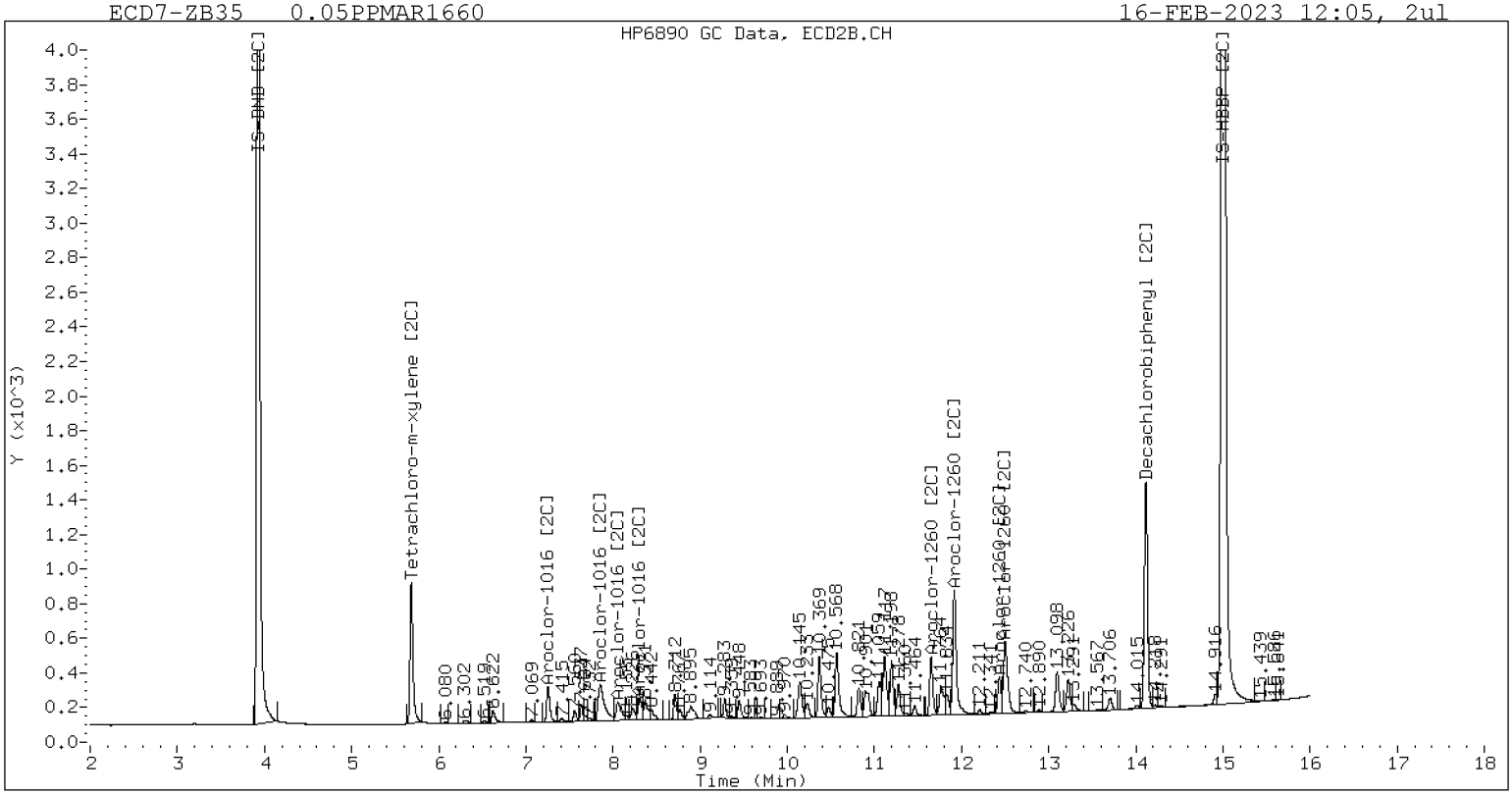
PCB Dual Column Chromatograms

ECD7-ZB5 0.05PPMAR1660 16-FEB-2023 12:05, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.05PPMAR1660 16-FEB-2023 12:05, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162305ECD7.D
Data file 2: /230216.b/230216.b/02162305ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 1.0PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:27
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.811	0.003	891683	5.688	0.002	726379	151.2	152.9	1.1	Tetrachloro-m-xylene
13.892	0.001	1202823	14.120	0.002	1376073	143.7	154.6	7.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	415564	-3.4
Hexabromobiphenyl	975457	950630	-2.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	352163	-4.0
Hexabromobiphenyl	646884	638267	-1.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	132049	872.6	1	7.254	0.000	163920	849.6
Aroclor-1016	2	7.649	-0.001	456308	941.6	2	7.849	-0.003	390554	952.8
Aroclor-1016	3	7.787	-0.000	188528	845.9	3	8.049	-0.000	164163	974.1
Aroclor-1016	4	8.403	0.000	141381	963.9	4	8.304	0.000	120741	883.4
Total Col1Ave (4 peaks):					906.0	Total Col2Ave (4 peaks):				915.0 RPD = 1
Corrected Ave (3 peaks):					886.7	Corrected Ave (3 peaks):				895.3 RPD = 1
CalAmt %D:					-9.4	CalAmt %D:				-8.5
Aroclor-1260	1	11.040	-0.000	311922	951.8	1	11.650	-0.000	297569	840.7
Aroclor-1260	2	11.356	-0.001	324926	969.1	2	11.914	-0.001	734323	824.7
Aroclor-1260	3	11.729	-0.001	820597	924.2	3	12.432	0.000	215979	906.9
Aroclor-1260	4	12.131	-0.003	448823	995.6	4	12.498	0.000	521208	872.6
Aroclor-1260	5	12.240	0.000	188496	975.0	NS	---			----
Total Col1Ave (5 peaks):					963.1	Total Col2Ave (4 peaks):				861.2 RPD = 11
Corrected Ave (4 peaks):					955.0	Corrected Ave (3 peaks):				846.0 RPD = 12
CalAmt %D:					-3.7	CalAmt %D:				-13.9

Total PCB Area Col1 (5.908 - 13.791) = 8716327 Col1 Total PCB = 1.9 ppm*

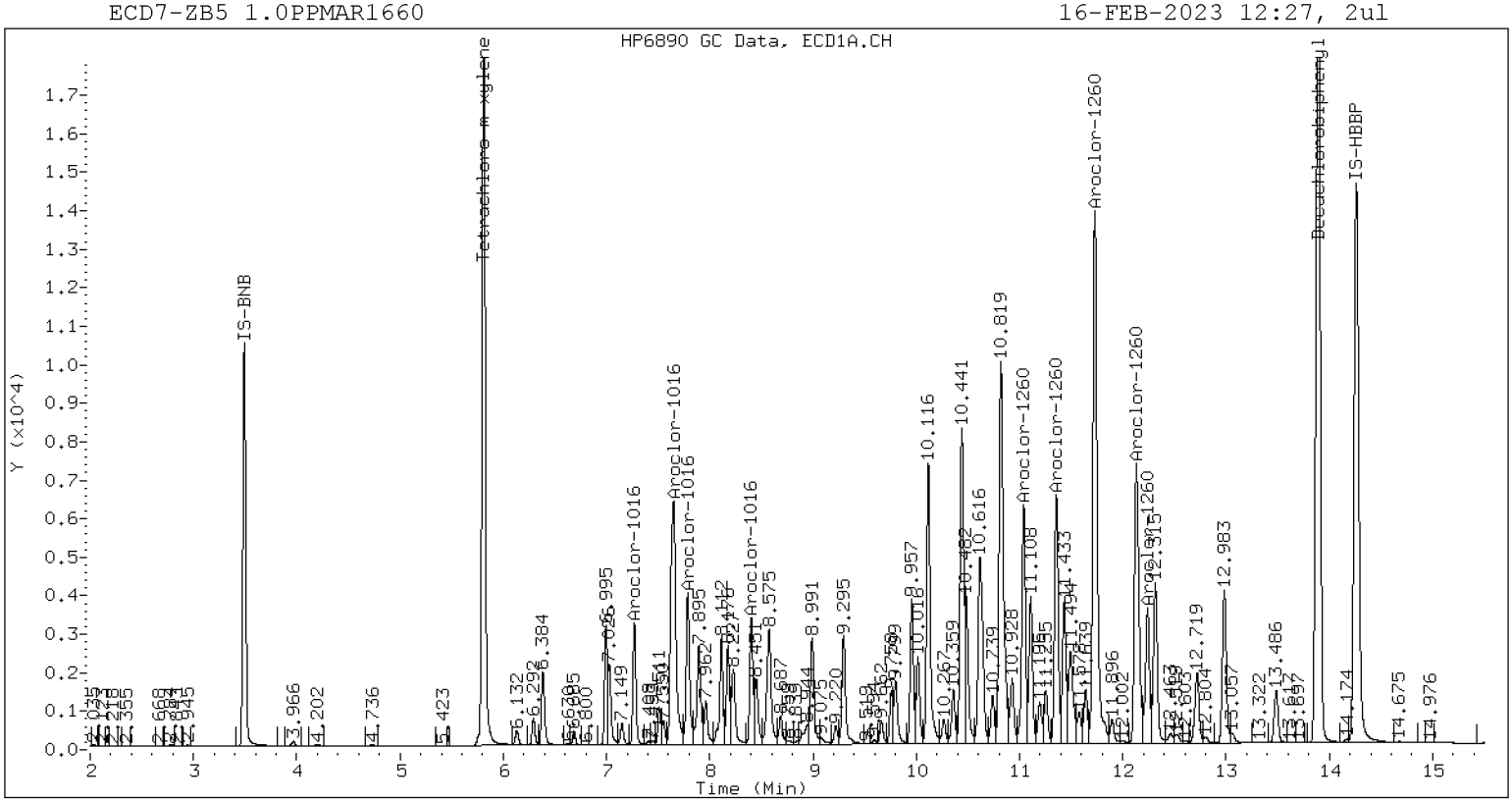
Total PCB Area Col2 (5.786 - 14.018) = 7274392 Col2 Total PCB = 1.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

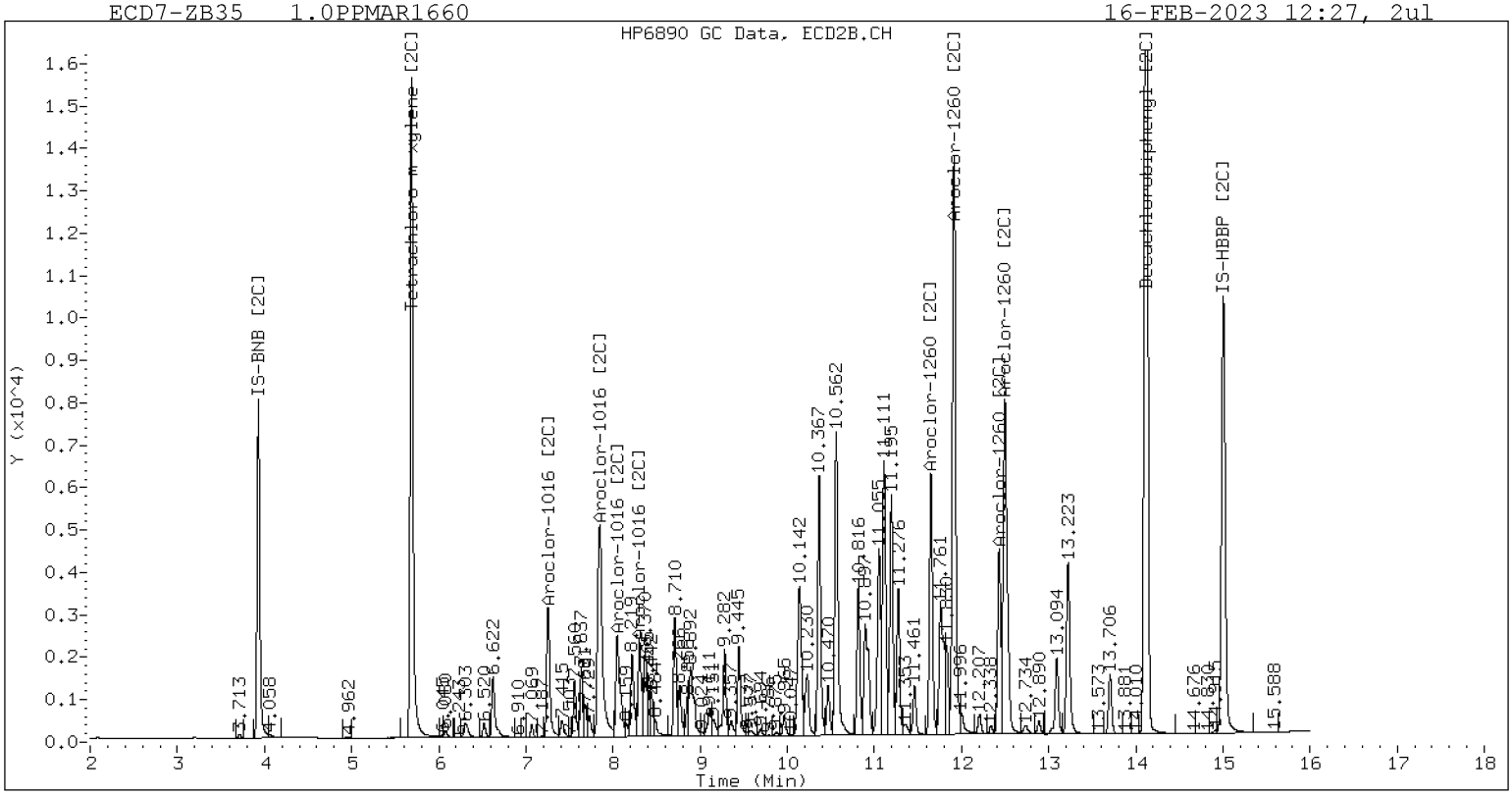
PCB Dual Column Chromatograms

ECD7-ZB5 1.0PPMAR1660 16-FEB-2023 12:27, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 1.0PPMAR1660 16-FEB-2023 12:27, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162306ECD7.D
Data file 2: /230216.b/230216.b/02162306ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:48
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	97353	5.687	0.001	77790	16.1	16.0	1.1	Tetrachloro-m-xylene
13.890	-0.001	143814	14.117	-0.001	141007	16.6	15.4	7.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	425206	-1.1
Hexabromobiphenyl	975457	982762	0.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	361068	-1.6
Hexabromobiphenyl	646884	654989	1.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	15562	100.5	1	7.254	-0.000	20282	102.5
Aroclor-1016	2	7.653	0.003	49218	99.3	2	7.855	0.004	43303	103.0
Aroclor-1016	3	7.790	0.003	23916	104.9	3	8.054	0.005	18932	109.6
Aroclor-1016	4	8.404	0.002	14884	99.2	4	8.306	0.002	15145	108.1
Total Col1Ave (4 peaks):					101.0	Total Col2Ave (4 peaks):				105.8 RPD = 5
Corrected Ave (3 peaks):					99.6	Corrected Ave (3 peaks):				104.5 RPD = 5
CalAmt %D:					1.0	CalAmt %D:				5.8
Aroclor-1260	1	11.042	0.002	34109	100.7	1	11.651	0.001	34102	93.9
Aroclor-1260	2	11.358	0.001	34951	100.8	2	11.917	0.002	87139	95.4
Aroclor-1260	3	11.733	0.003	92326	100.6	3	12.434	0.001	21226	86.9
Aroclor-1260	4	12.137	0.003	45803	98.3	4	12.500	0.002	57343	93.6
Aroclor-1260	5	12.241	0.001	19653	98.3	NS	---			----
Total Col1Ave (5 peaks):					99.7	Total Col2Ave (4 peaks):				92.4 RPD = 8
Corrected Ave (4 peaks):					99.5	Corrected Ave (3 peaks):				91.4 RPD = 8
CalAmt %D:					-0.3	CalAmt %D:				-7.6

Total PCB Area Col1 (5.908 - 13.791) = 948624 Col1 Total PCB = 0.2 ppm*

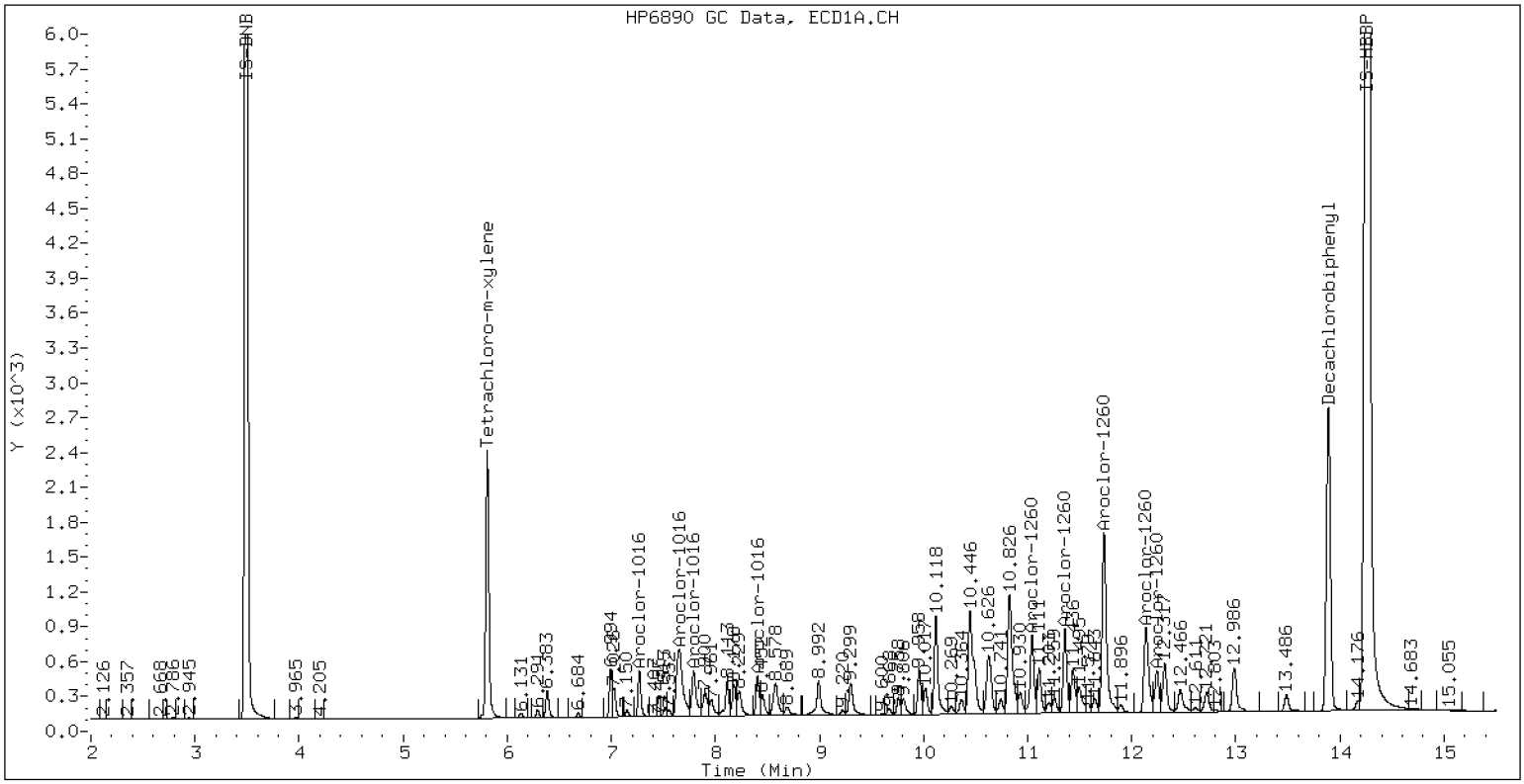
Total PCB Area Col2 (5.786 - 14.018) = 817080 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

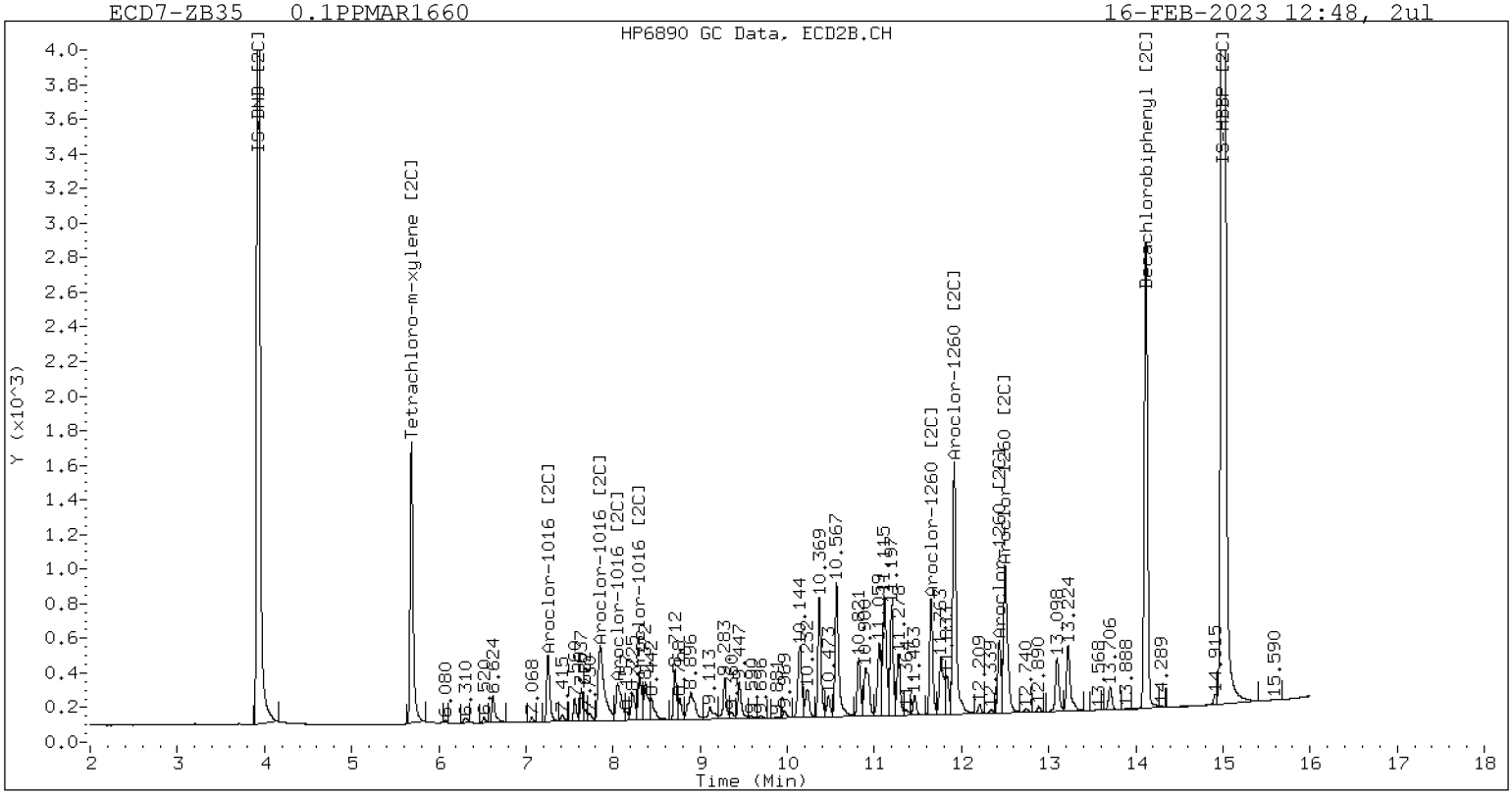
PCB Dual Column Chromatograms

ECD7-ZB5 0.1PPMAR1660 16-FEB-2023 12:48, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.1PPMAR1660 16-FEB-2023 12:48, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162307ECD7.D
Data file 2: /230216.b/230216.b/02162307ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 13:09
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	472991	5.686	0.001	380587	78.5	78.1	0.6	Tetrachloro-m-xylene
13.890	-0.001	654829	14.118	-0.000	723440	75.9	79.7	5.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	424511	-1.3
Hexabromobiphenyl	975457	980103	0.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	361199	-1.5
Hexabromobiphenyl	646884	650552	0.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	74222	480.1	1	7.254	0.000	92105	465.4
Aroclor-1016	2	7.650	0.000	249600	504.2	2	7.851	0.000	210359	500.4
Aroclor-1016	3	7.787	0.000	104974	461.1	3	8.049	0.000	87658	507.1
Aroclor-1016	4	8.402	0.000	75363	503.0	4	8.304	0.000	65546	467.6
Total Col1Ave (4 peaks):				487.1		Total Col2Ave (4 peaks):			485.1	RPD = 0
Corrected Ave (3 peaks):				481.4		Corrected Ave (3 peaks):			477.8	RPD = 1
		CalAmt %D:		-2.6			CalAmt %D:		-3.0	
Aroclor-1260	1	11.041	0.000	166809	493.7	1	11.650	0.000	160885	446.0
Aroclor-1260	2	11.357	0.000	172259	498.3	2	11.915	0.000	410338	452.2
Aroclor-1260	3	11.731	0.000	445028	486.1	3	12.432	0.000	110865	456.7
Aroclor-1260	4	12.134	0.000	236535	508.9	4	12.498	0.000	278934	458.2
Aroclor-1260	5	12.240	0.000	98968	496.5	NS	---			----
Total Col1Ave (5 peaks):				496.7		Total Col2Ave (4 peaks):			453.3	RPD = 9
Corrected Ave (4 peaks):				493.7		Corrected Ave (3 peaks):			451.6	RPD = 9
		CalAmt %D:		-0.7			CalAmt %D:		-9.3	

Total PCB Area Col1 (5.908 - 13.791) = 4638448 Col1 Total PCB = 1.0 ppm*

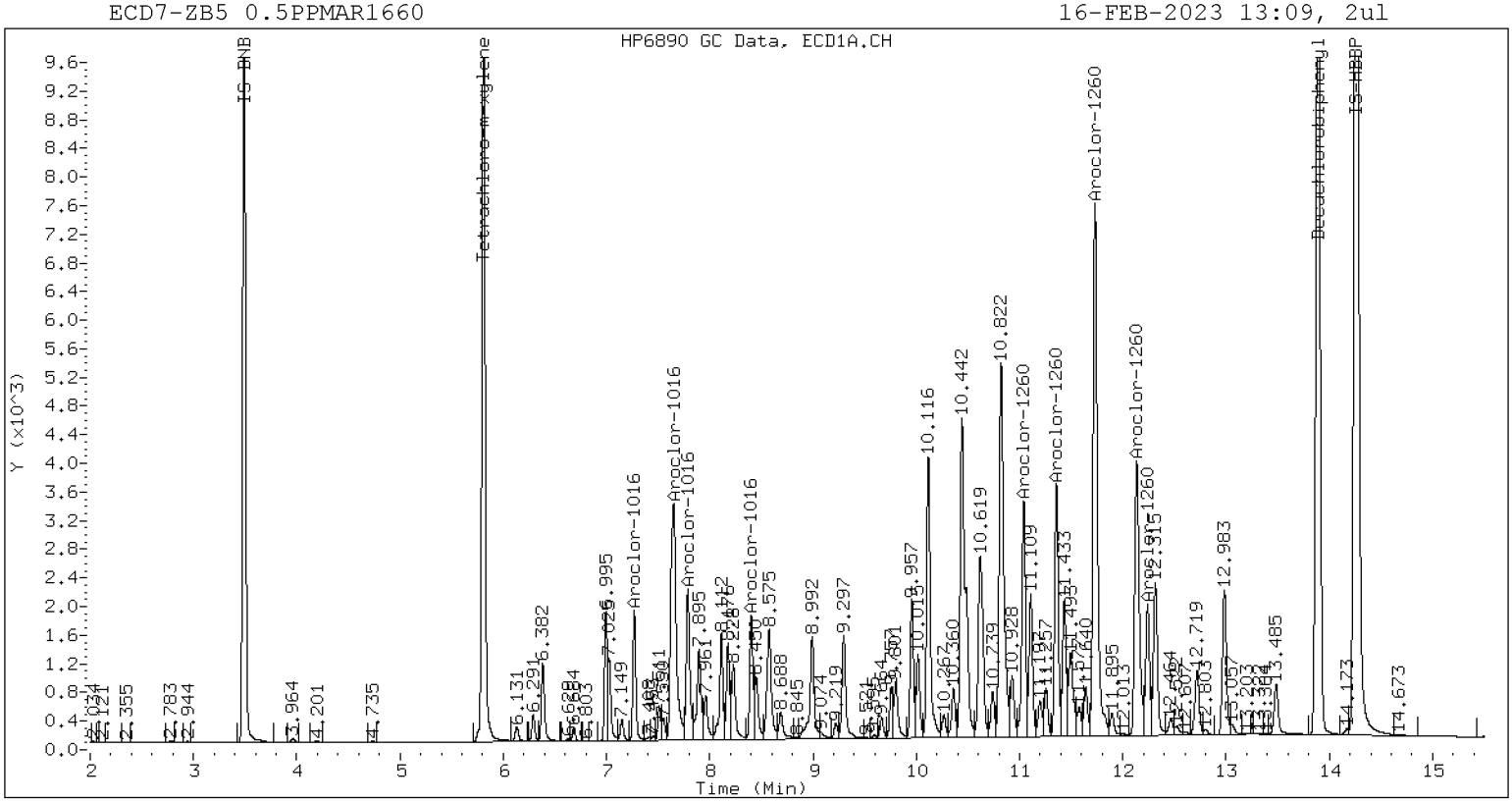
Total PCB Area Col2 (5.786 - 14.018) = 3867644 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

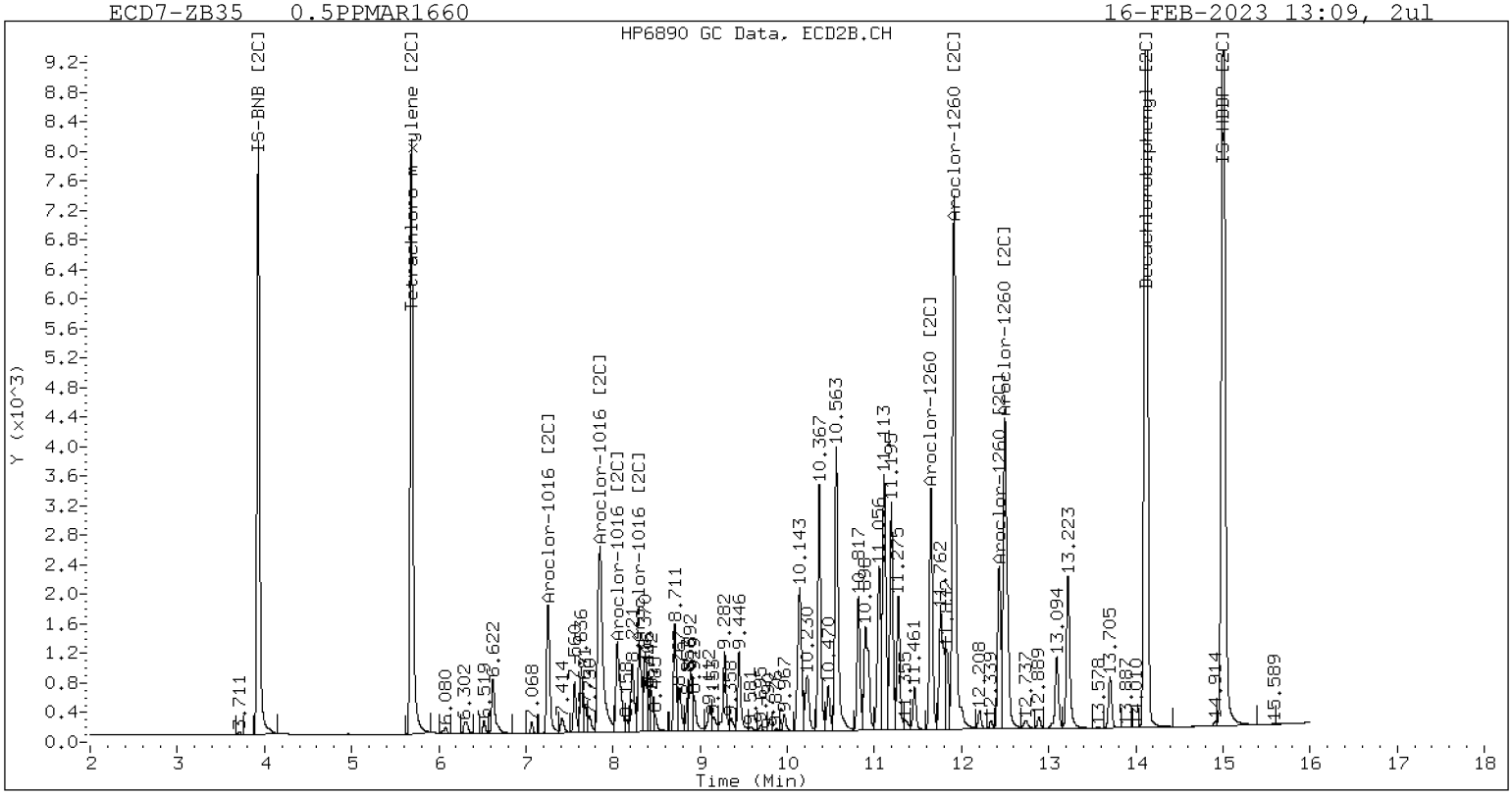
PCB Dual Column Chromatograms

ECD7-ZB5 0.5PPMAR1660 16-FEB-2023 13:09, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.5PPMAR1660 16-FEB-2023 13:09, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162308ECD7.D
Data file 2: /230216.b/230216.b/02162308ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1242
Client ID:
Injection Date: 16-FEB-2023 13:30
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	287664	5.686	0.000	229806	46.8	46.6	0.6	Tetrachloro-m-xylene
13.891	0.000	335023	14.117	-0.001	345735	37.9	37.1	2.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	432799	0.6
Hexabromobiphenyl	975457	1004715	3.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	365812	-0.3
Hexabromobiphenyl	646884	667992	3.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.269	0.000	32233	250.0	1	7.254	0.000	39556	250.0
Aroclor-1242	2	7.652	0.000	102000	250.0	2	7.853	0.000	85705	250.0
Aroclor-1242	3	8.403	0.000	30824	250.0	3	9.160	0.000	27091	250.0
Aroclor-1242	4	8.577	0.000	45526	250.0	4	9.587	0.000	32851	250.0

Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 766603 Col1 Total PCB = 0.2 ppm*

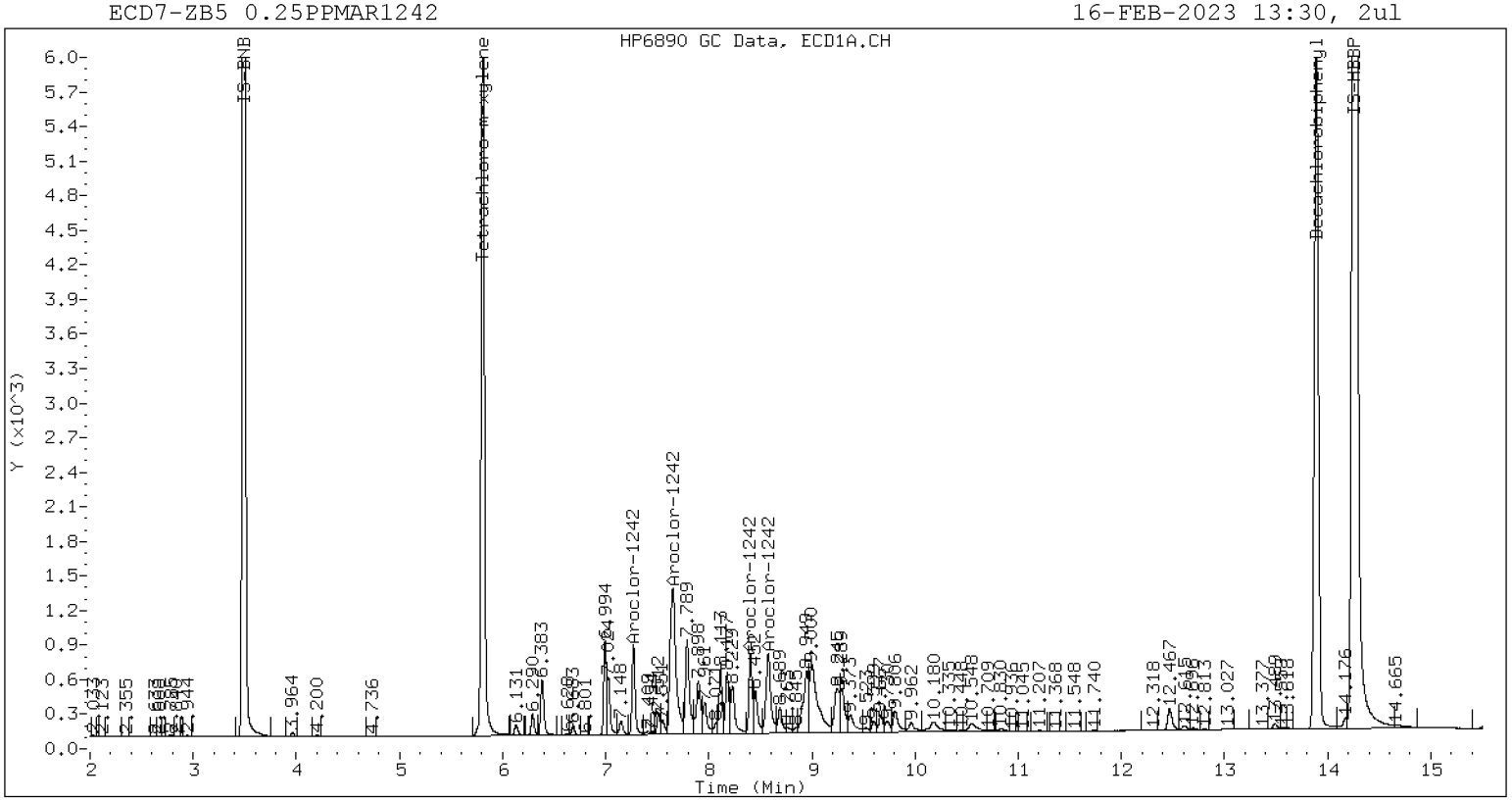
Total PCB Area Col2 (5.786 - 14.018) = 618238 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

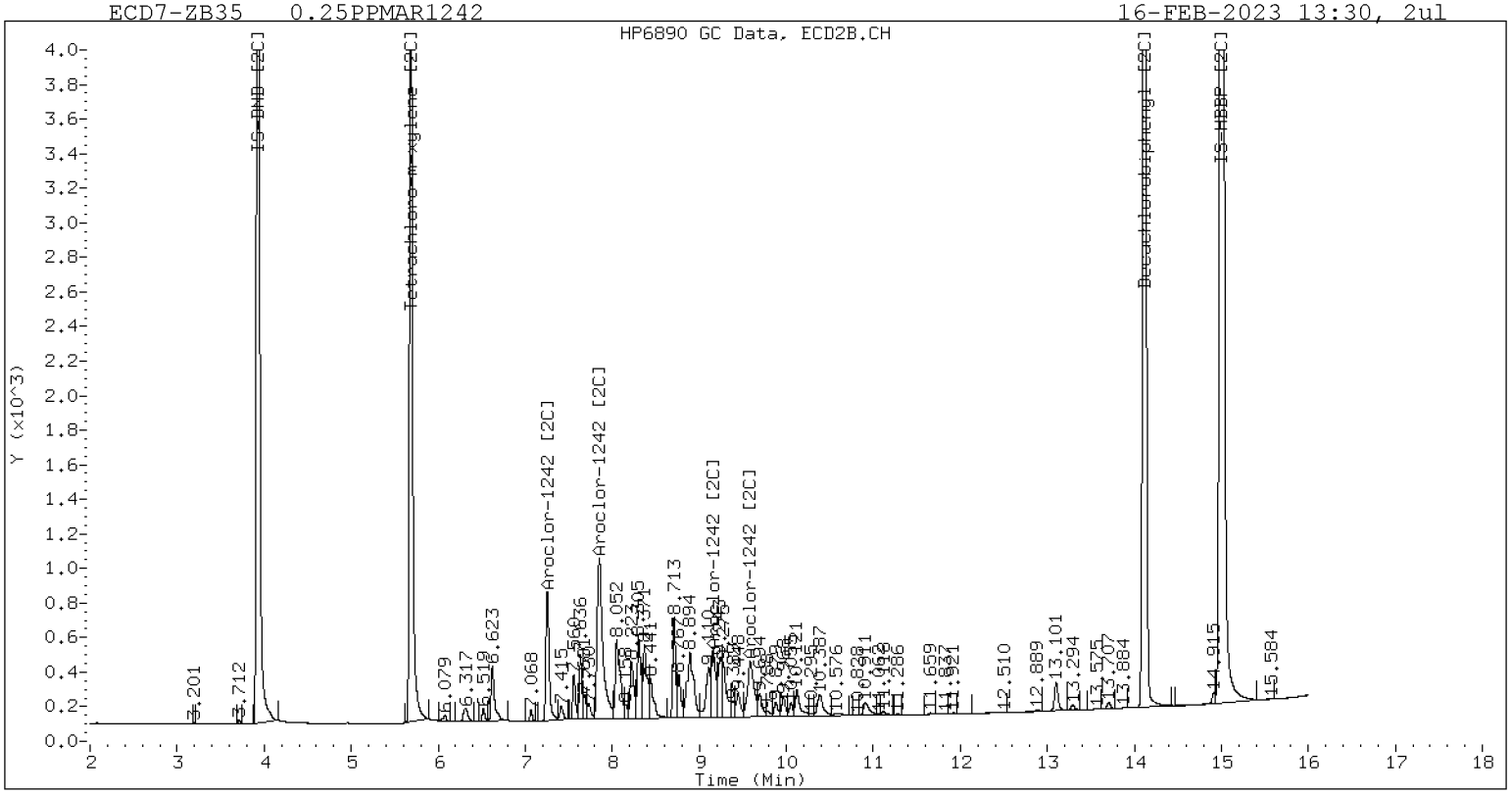
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1242 16-FEB-2023 13:30, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1242 16-FEB-2023 13:30, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162309ECD7.D
Data file 2: /230216.b/230216.b/02162309ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1248
Client ID:
Injection Date: 16-FEB-2023 13:51
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	235858	5.688	0.002	191205	38.1	38.3	0.5	Tetrachloro-m-xylene
13.889	-0.002	339581	14.117	-0.001	351690	38.5	38.0	1.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	435779	1.3
Hexabromobiphenyl	975457	1000233	2.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	369685	0.8
Hexabromobiphenyl	646884	662877	2.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.403	0.000	52538	250.0	1	8.305	0.000	41694	250.0
Aroclor-1248	2	8.577	0.000	66305	250.0	2	8.712	0.000	43865	250.0
Aroclor-1248	3	8.996	0.000	93719	250.0	3	9.159	0.000	50687	250.0
Aroclor-1248	4	9.292	0.000	59273	250.0	4	9.581	0.000	61479	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1025602 Col1 Total PCB = 0.2 ppm*

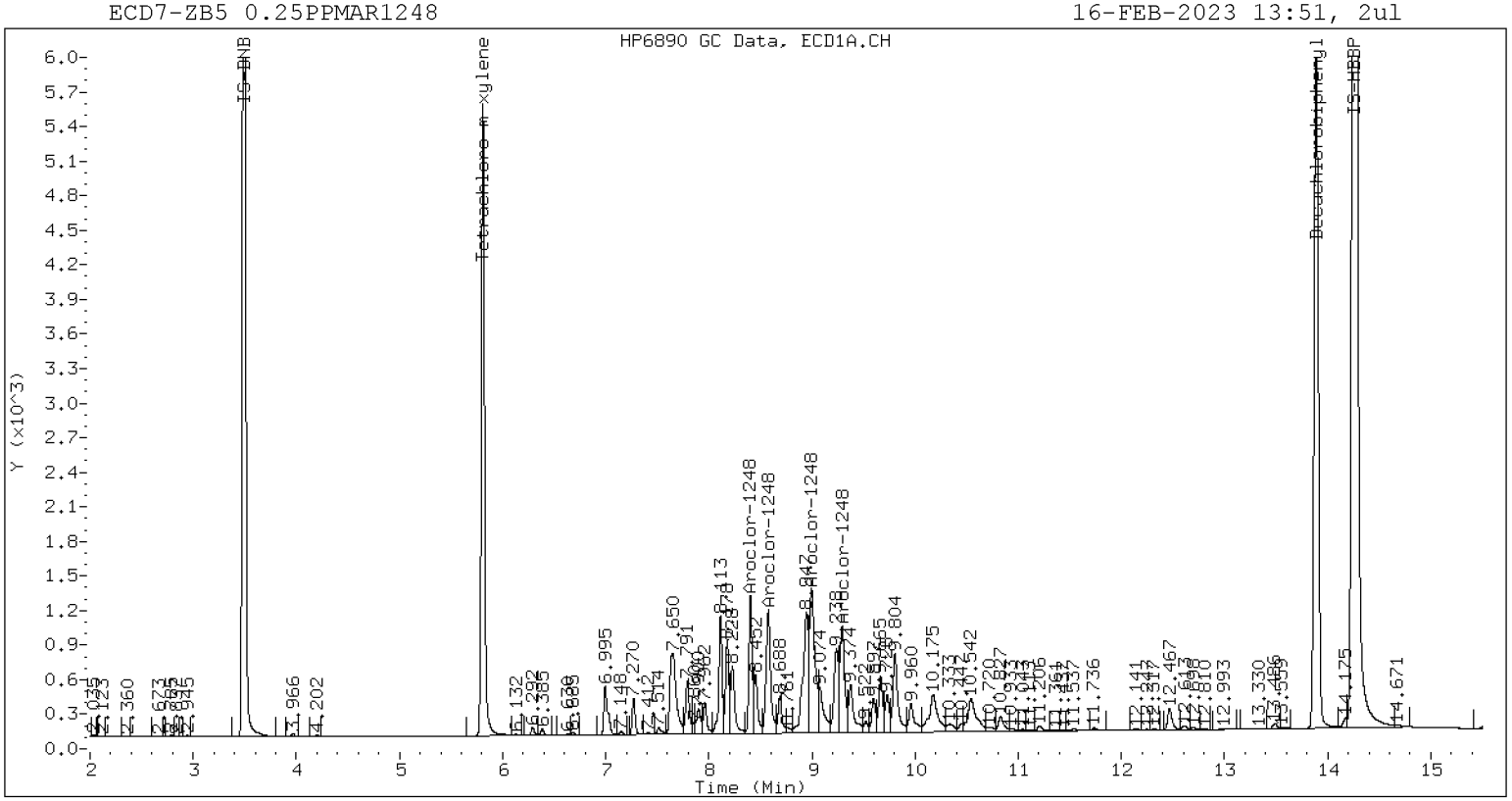
Total PCB Area Col2 (5.786 - 14.018) = 824415 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

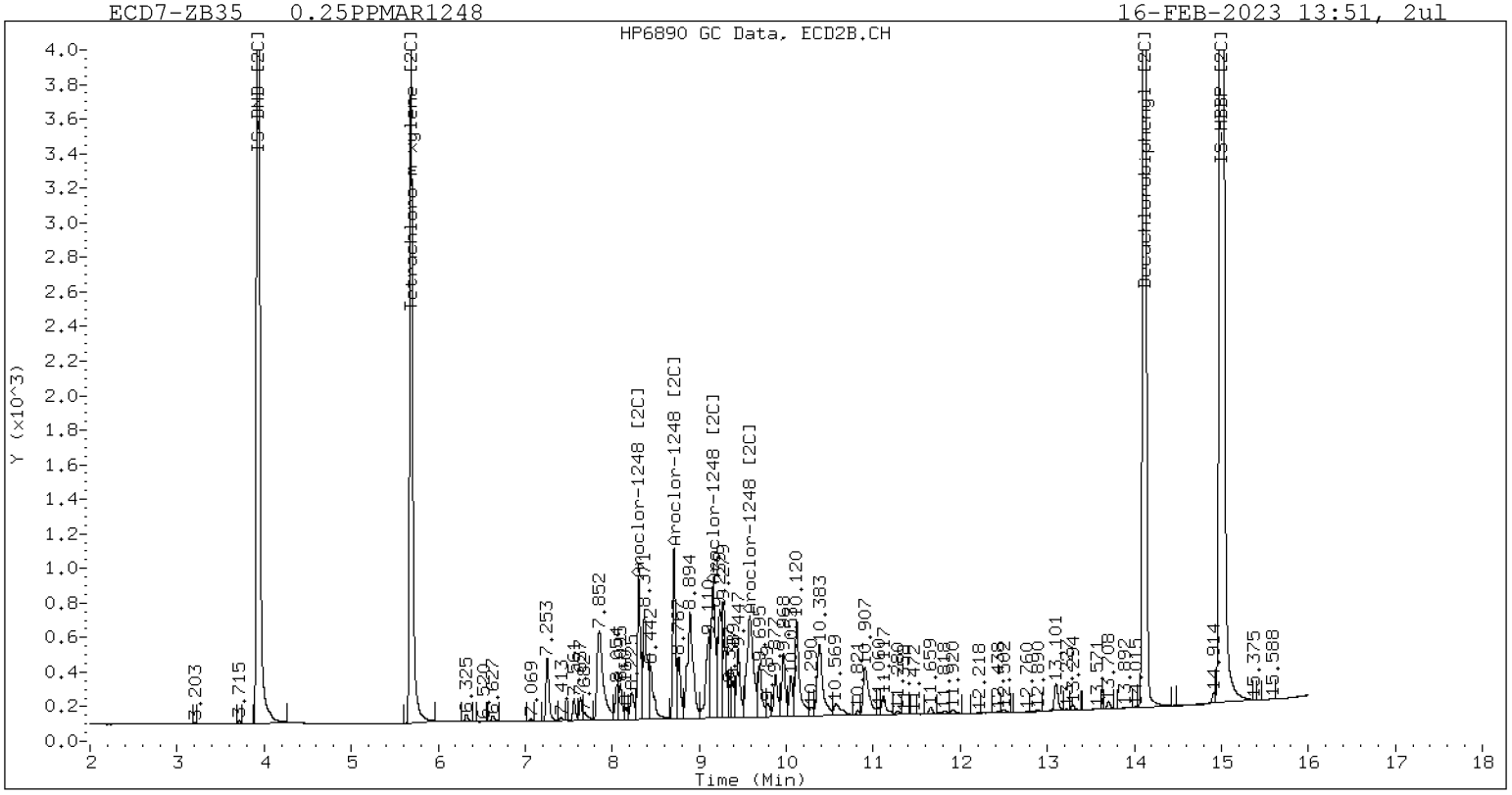
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1248 16-FEB-2023 13:51, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1248 16-FEB-2023 13:51, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162310ECD7.D
Data file 2: /230216.b/230216.b/02162310ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1254
Client ID:
Injection Date: 16-FEB-2023 14:12
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	235903	5.686	0.001	191667	38.0	38.3	0.7	Tetrachloro-m-xylene
13.891	0.000	345464	14.117	-0.001	355579	38.7	38.0	1.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	437427	1.7
Hexabromobiphenyl	975457	1013635	3.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	371000	1.2
Hexabromobiphenyl	646884	671465	3.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	9.295	0.000	105834	250.0	1	9.447	0.000	65393	250.0
Aroclor-1254	2	9.374	0.000	41671	250.0	2	9.967	0.000	52822	250.0
Aroclor-1254	3	9.665	0.000	67447	250.0	3	10.120	0.000	115063	250.0
Aroclor-1254	4	9.803	0.000	134258	250.0	4	10.370	0.000	113530	250.0
Aroclor-1254	5	10.167	0.000	81893	250.0	5	10.566	0.000	57361	250.0

Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1385653 Col1 Total PCB = 0.3 ppm*

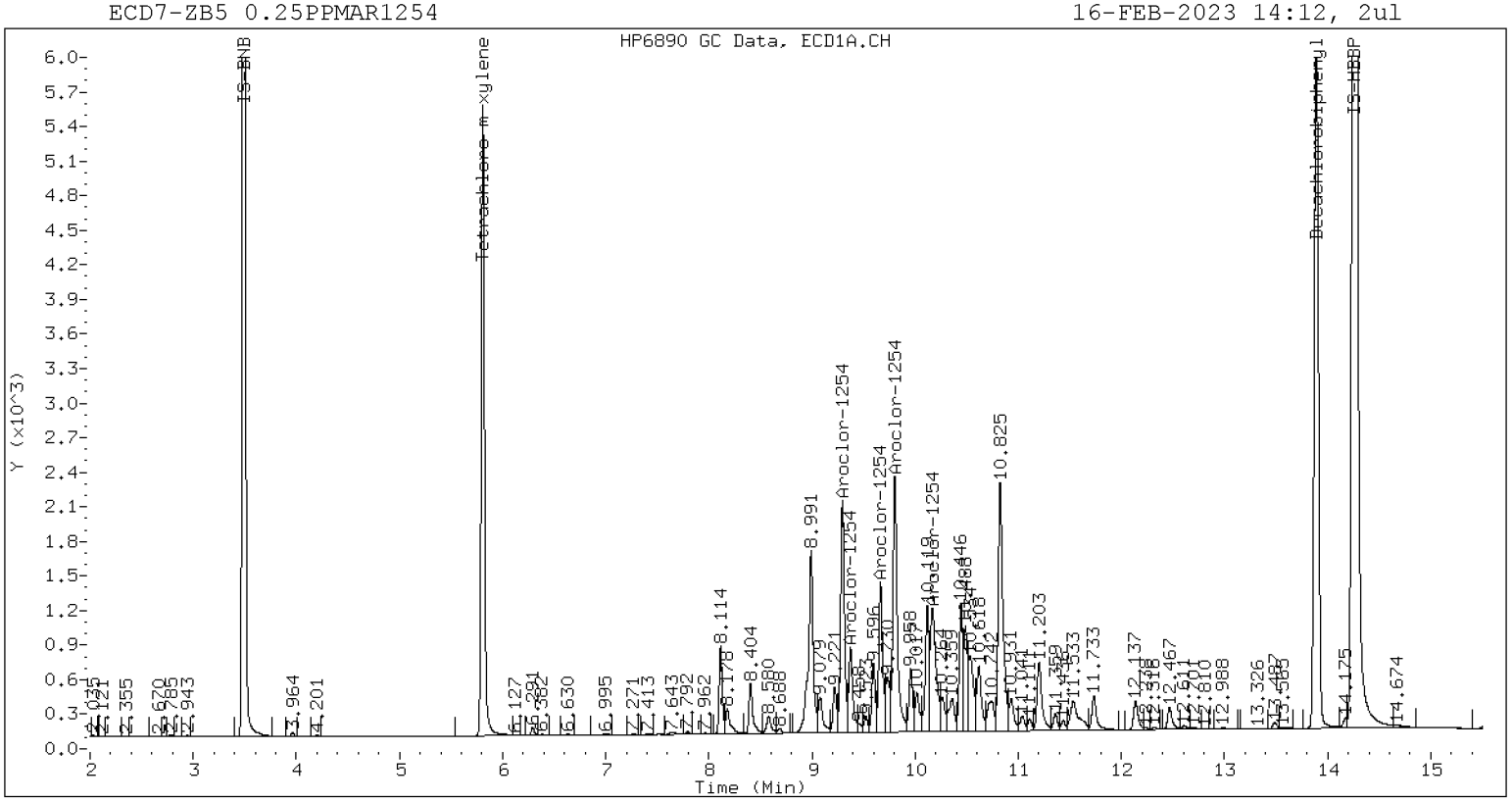
Total PCB Area Col2 (5.786 - 14.018) = 1106329 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

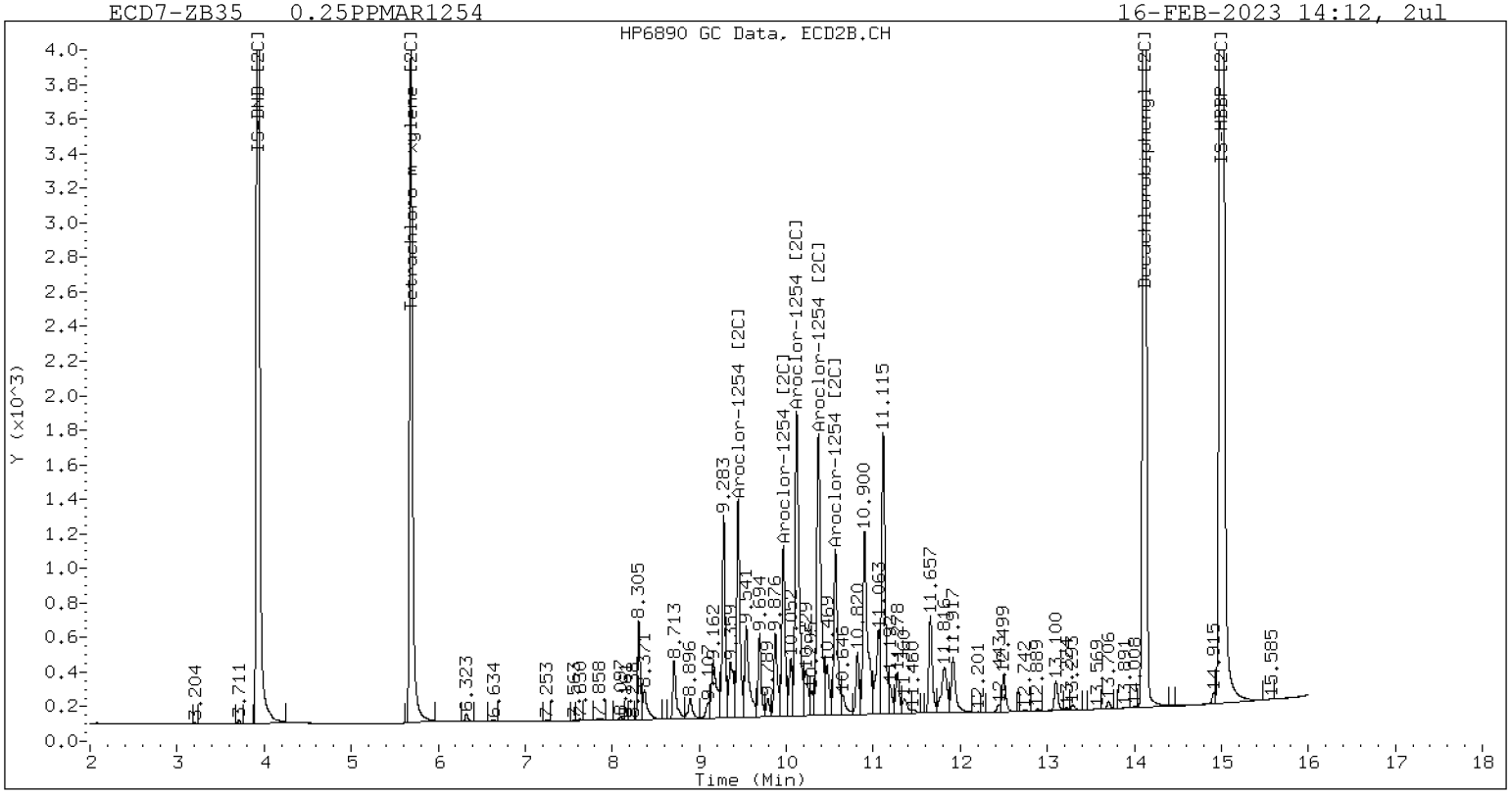
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1254 16-FEB-2023 14:12, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1254 16-FEB-2023 14:12, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162311ECD7.D
Data file 2: /230216.b/230216.b/02162311ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR2162.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR2168
Client ID:
Injection Date: 16-FEB-2023 14:33
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	241501	5.686	-0.000	189710	38.6	38.6	0.2	Tetrachloro-m-xylene
13.891	0.000	336556	14.118	0.000	345795	38.0	37.2	2.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	440775	2.5
Hexabromobiphenyl	975457	1005738	3.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	364664	-0.6
Hexabromobiphenyl	646884	666787	3.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1221	1	4.732	0.000	8560	250.0	1	4.958	0.000	6777	250.0
Aroclor-1221	2	6.133	0.000	15969	250.0	2	6.298	0.000	14550	250.0
Aroclor-1221	3	6.383	0.000	36928	250.0	3	6.622	0.000	24370	250.0
	Total Col1Ave (3 peaks):				250.0	Total Col2Ave (3 peaks):				250.0 RPD = 0
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.824	0.000	73471	250.0	1	11.198	0.000	124591	250.0
Aroclor-1262	2	12.242	0.000	120422	250.0	2	11.649	0.000	107557	250.0
Aroclor-1262	3	12.317	0.000	129860	250.0	3	12.431	0.000	117102	250.0
Aroclor-1262	4	12.984	0.000	112297	250.0	4	12.500	0.000	186359	250.0
	Total Col1Ave (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
	Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1985753 Col1 Total PCB = 0.4 ppm*

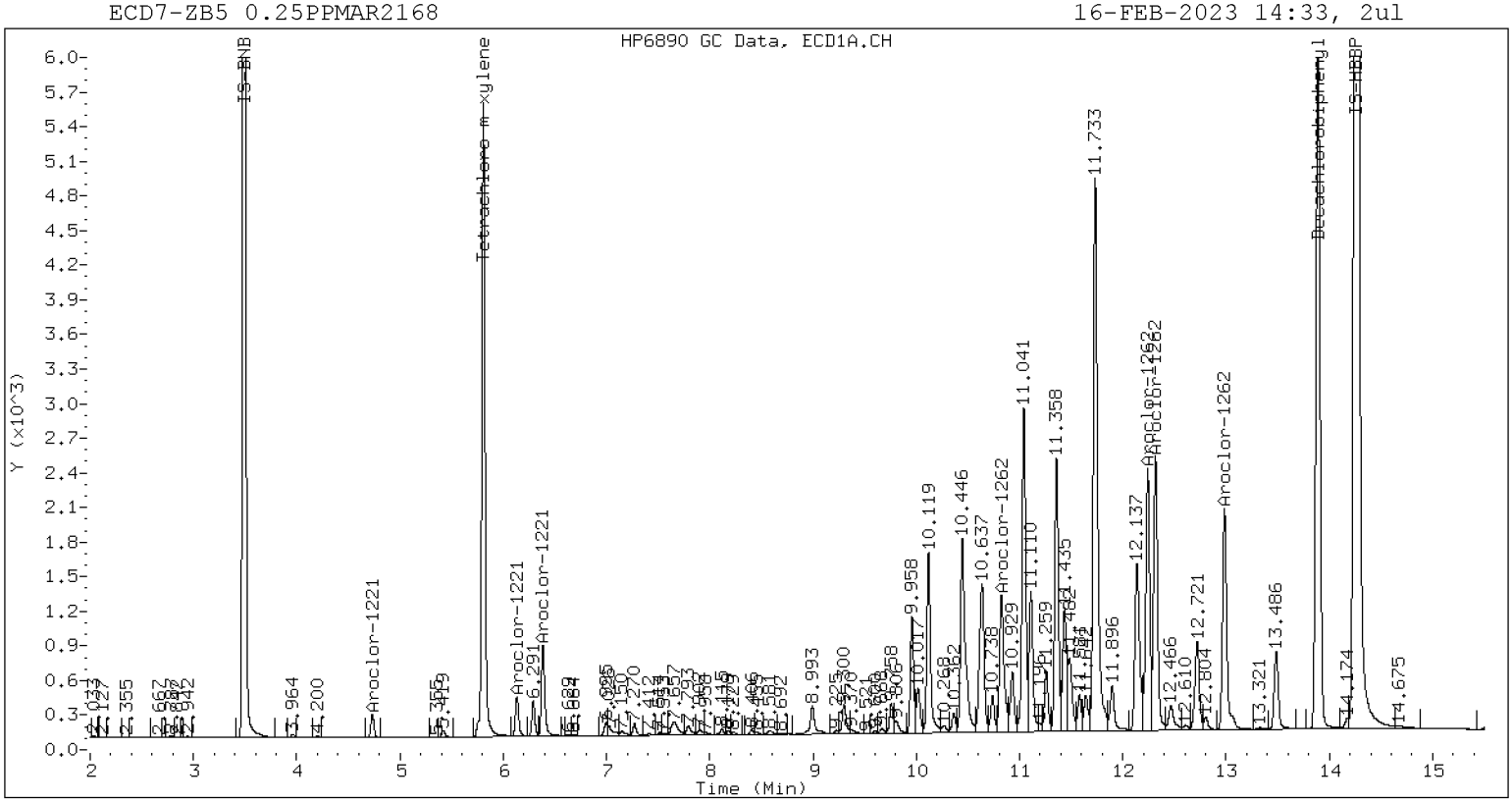
Total PCB Area Col2 (5.786 - 14.018) = 1689172 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

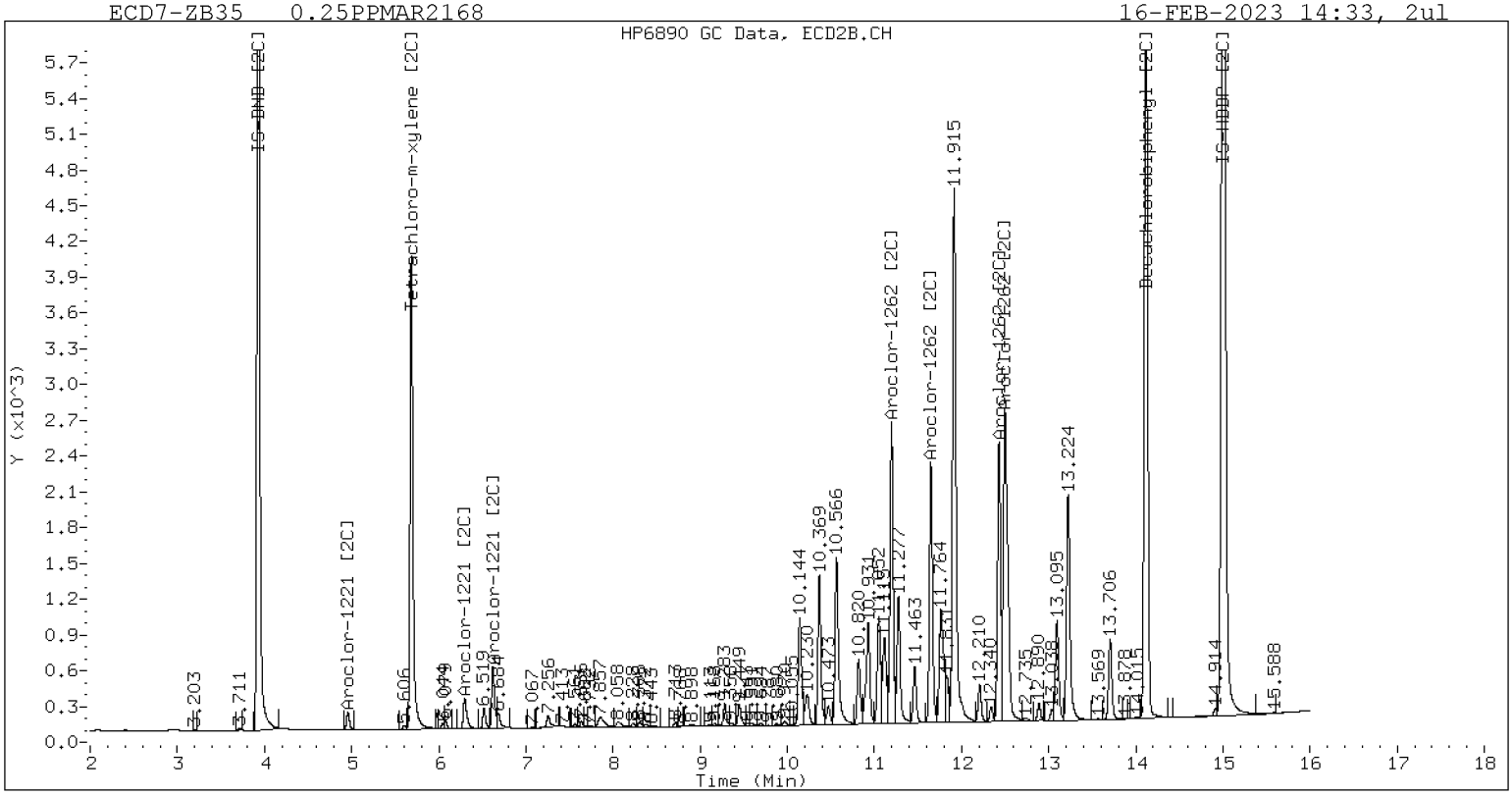
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR2168 16-FEB-2023 14:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR2168 16-FEB-2023 14:33, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162312ECD7.D
Data file 2: /230216.b/230216.b/02162312ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR3268.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR3268
Client ID:
Injection Date: 16-FEB-2023 14:54
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	244394	5.686	0.000	193636	39.3	39.4	0.2	Tetrachloro-m-xylene
13.891	0.000	497881	14.118	0.000	532832	55.7	57.0	2.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	438085	1.9
Hexabromobiphenyl	975457	1014892	4.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	364382	-0.6
Hexabromobiphenyl	646884	669957	3.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount
Aroclor-1232	1	4.732	0.000	5253	250.0	1	4.958	0.000	4040	250.0
Aroclor-1232	2	6.133	0.000	11086	250.0	2	7.254	0.000	22642	250.0
Aroclor-1232	3	7.654	0.000	53251	250.0	3	7.855	0.000	45239	250.0
Aroclor-1232	4	8.579	0.000	22019	250.0	4	8.712	0.000	12663	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	12.243	0.000	318381	250.0	1	12.431	0.000	304552	250.0
Aroclor-1268	2	12.314	0.000	316432	250.0	2	12.498	0.000	320370	250.0
Aroclor-1268	3	12.697	0.000	268530	250.0	3	12.890	0.000	250965	250.0
Aroclor-1268	4	13.487	0.000	822664	250.0	4	13.707	0.000	877009	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 2577331 Col1 Total PCB = 0.5 ppm*

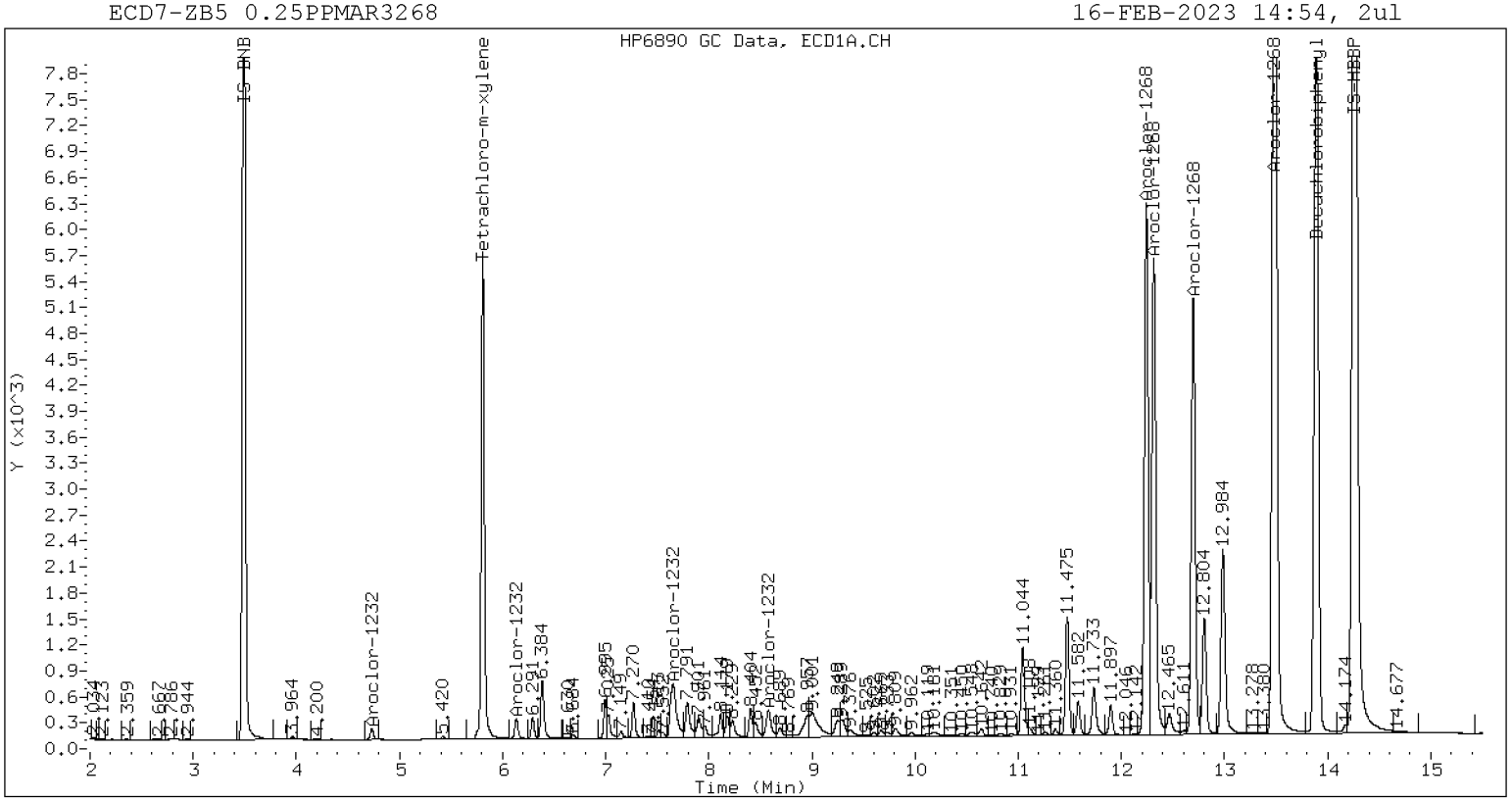
Total PCB Area Col2 (5.786 - 14.018) = 2462840 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

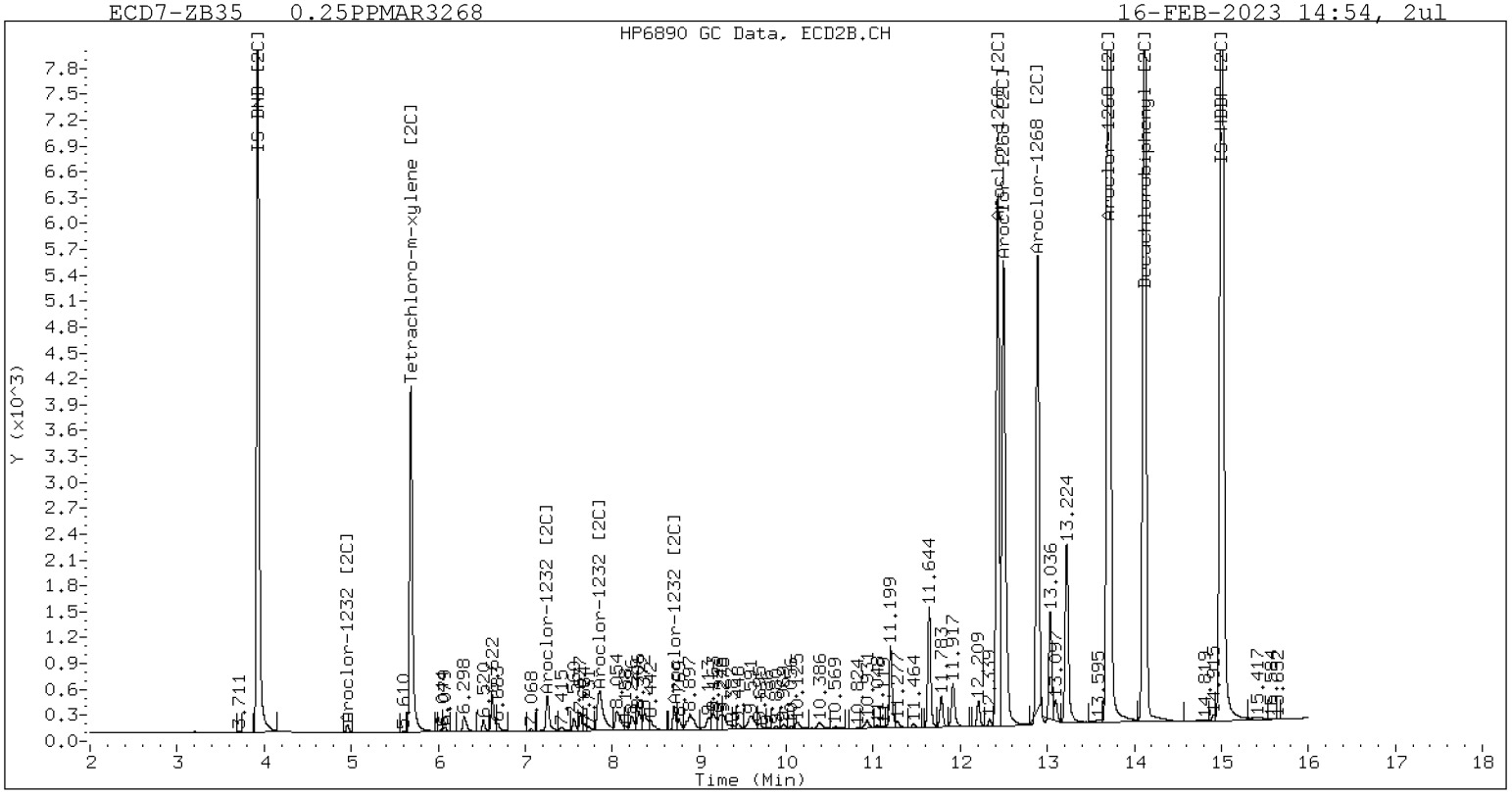
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR3268 16-FEB-2023 14:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR3268 16-FEB-2023 14:54, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162313ECD7.D
Data file 2: /230216.b/230216.b/02162313ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV
Client ID:
Injection Date: 16-FEB-2023 15:15
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.001	242919	5.685	-0.001	193061	37.3	37.2	0.3	Tetrachloro-m-xylene
13.891	-0.000	374845	14.118	0.000	388292	40.4	40.0	1.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	458820	6.7
Hexabromobiphenyl	975457	1052678	7.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	384524	4.8
Hexabromobiphenyl	646884	695386	7.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	36442	218.1	1	7.253	-0.001	45357	215.3
Aroclor-1016	2	7.652	0.002	116510	217.8	2	7.853	0.002	99069	221.4
Aroclor-1016	3	7.789	0.002	51841	210.7	3	8.052	0.003	42476	230.8
Aroclor-1016	4	8.403	0.001	35760	220.8	4	8.305	0.001	32151	215.4
Total Col1Ave (4 peaks):					216.8	Total Col2Ave (4 peaks):				220.7 RPD = 2
Corrected Ave (3 peaks):					215.5	Corrected Ave (3 peaks):				217.4 RPD = 1
Aroclor-1221	1	4.732	0.000	272	7.6	1	---			0.0
Aroclor-1221	2	6.131	-0.002	4384	65.9	2	6.302	0.004	5219	85.0
Aroclor-1221	3	6.383	-0.000	24508	159.4	3	6.622	0.001	21028	204.6
Total Col1Ave (3 peaks):					77.7	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.732	0.000	272	12.4	1	---			0.0
Aroclor-1232	2	6.131	-0.002	4384	94.4	2	7.253	-0.001	45357	474.6
Aroclor-1232	3	7.652	-0.002	116510	522.3	3	7.853	-0.002	99069	518.8
Aroclor-1232	4	8.577	-0.002	49511	536.7	4	8.712	-0.001	31220	584.1
Total Col1Ave (4 peaks):					291.4	Total Col2Ave (3 peaks):				525.8 RPD = 57*
Corrected Ave (3 peaks):					209.7	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	36442	266.6	1	7.253	-0.001	45357	272.7
Aroclor-1242	2	7.652	0.000	116510	269.4	2	7.853	0.000	99069	274.9
Aroclor-1242	3	8.403	0.000	35760	273.6	3	9.113	-0.047	17818	156.4
Aroclor-1242	4	8.577	-0.000	49511	256.5	4	9.582	-0.005	1661	12.0
Total Col1Ave (4 peaks):					266.5	Total Col2Ave (4 peaks):				179.0 RPD = 39
Corrected Ave (3 peaks):					264.1	Corrected Ave (3 peaks):				147.1 RPD = 57*
Aroclor-1248	1	8.403	0.000	35760	161.6	1	8.305	-0.001	32151	185.3
Aroclor-1248	2	8.577	-0.000	49511	177.3	2	8.712	0.000	31220	171.1
Aroclor-1248	3	8.992	-0.004	46666	118.2	3	9.113	-0.046	17818	84.5
Aroclor-1248	4	9.299	0.007	30647	122.8	4	9.582	0.001	1661	6.5
Total Col1Ave (4 peaks):					145.0	Total Col2Ave (4 peaks):				111.8 RPD = 26
Corrected Ave (3 peaks):					134.2	Corrected Ave (3 peaks):				87.4 RPD = 42*
Aroclor-1254	1	9.299	0.004	30647	69.0	1	9.447	0.001	22012	81.2
Aroclor-1254	2	---			0.0	2	9.969	0.002	2772	12.7
Aroclor-1254	3	9.667	0.002	3608	12.7	3	10.144	0.025	57546	120.6
Aroclor-1254	4	9.805	0.002	12639	22.4	4	10.369	-0.002	77590	164.8
Aroclor-1254	5	10.117	-0.050	100524	292.6	5	10.566	-0.000	106735	448.8
Total Col1Ave (4 peaks):					99.2	Total Col2Ave (5 peaks):				165.6 RPD = 50*
Corrected Ave (3 peaks):					34.7	Corrected Ave (4 peaks):				94.8 RPD = 93*
Aroclor-1260	1	11.042	0.002	99629	274.5	1	11.651	0.001	89434	231.9
Aroclor-1260	2	11.359	0.002	100112	269.7	2	11.915	0.001	237947	245.3
Aroclor-1260	3	11.732	0.002	260880	265.3	3	12.433	0.001	63686	245.4
Aroclor-1260	4	12.137	0.003	124998	250.4	4	12.500	0.002	157792	242.5
Aroclor-1260	5	12.242	0.001	58944	275.3	NS	---			----
Total Col1Ave (5 peaks):					267.0	Total Col2Ave (4 peaks):				241.3 RPD = 10
Corrected Ave (4 peaks):					265.0	Corrected Ave (3 peaks):				239.9 RPD = 10
Aroclor-1262	1	10.824	-0.001	144319	469.2	1	11.197	-0.000	90434	174.0
Aroclor-1262	2	12.242	-0.000	58944	116.9	2	11.651	0.002	89434	199.3
Aroclor-1262	3	12.316	-0.001	73272	134.8	3	12.433	0.002	63686	130.4
Aroclor-1262	4	12.985	0.001	66451	141.3	4	12.500	-0.000	157792	203.0
Total Col1Ave (4 peaks):					215.5	Total Col2Ave (4 peaks):				176.7 RPD = 20
Corrected Ave (3 peaks):					131.0	Corrected Ave (3 peaks):				167.9 RPD = 25
Aroclor-1268	1	12.242	-0.001	58944	44.6	1	12.433	0.002	63686	50.4
Aroclor-1268	2	12.316	0.002	73272	55.8	2	12.500	0.002	157792	118.6
Aroclor-1268	3	12.722	0.025	29543	26.5	3	12.890	0.000	1866	1.8
Aroclor-1268	4	13.486	-0.001	13453	3.9	4	13.707	0.000	11995	3.3
Total Col1Ave (4 peaks):					32.7	Total Col2Ave (4 peaks):				43.5 RPD = 28
Corrected Ave (3 peaks):					25.0	Corrected Ave (3 peaks):				18.5 RPD = 30

Total PCB Area Col1 (5.908 - 13.791) = 2405704 Col1 Total PCB = 0.5 ppm*

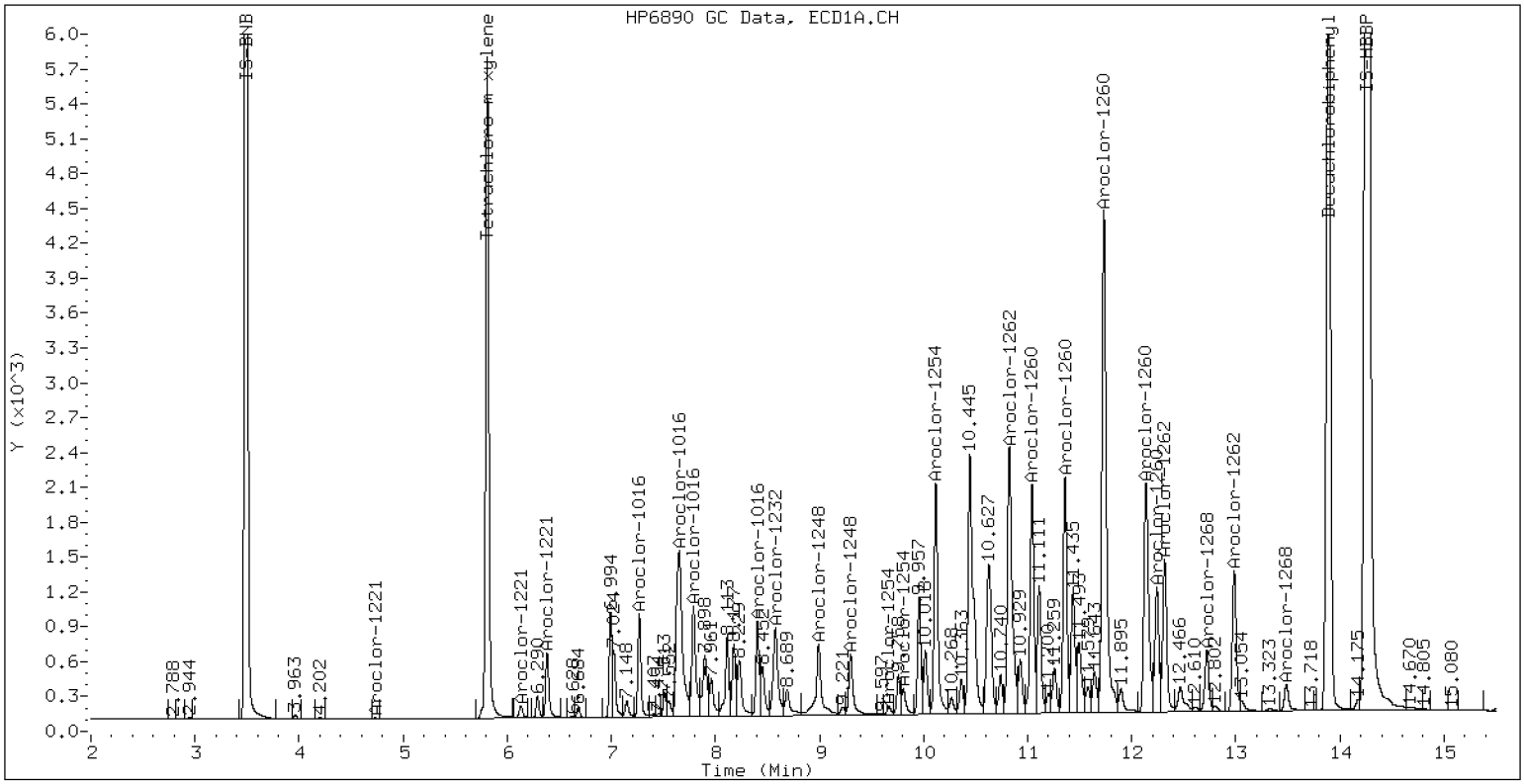
Total PCB Area Col2 (5.786 - 14.018) = 1998655 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

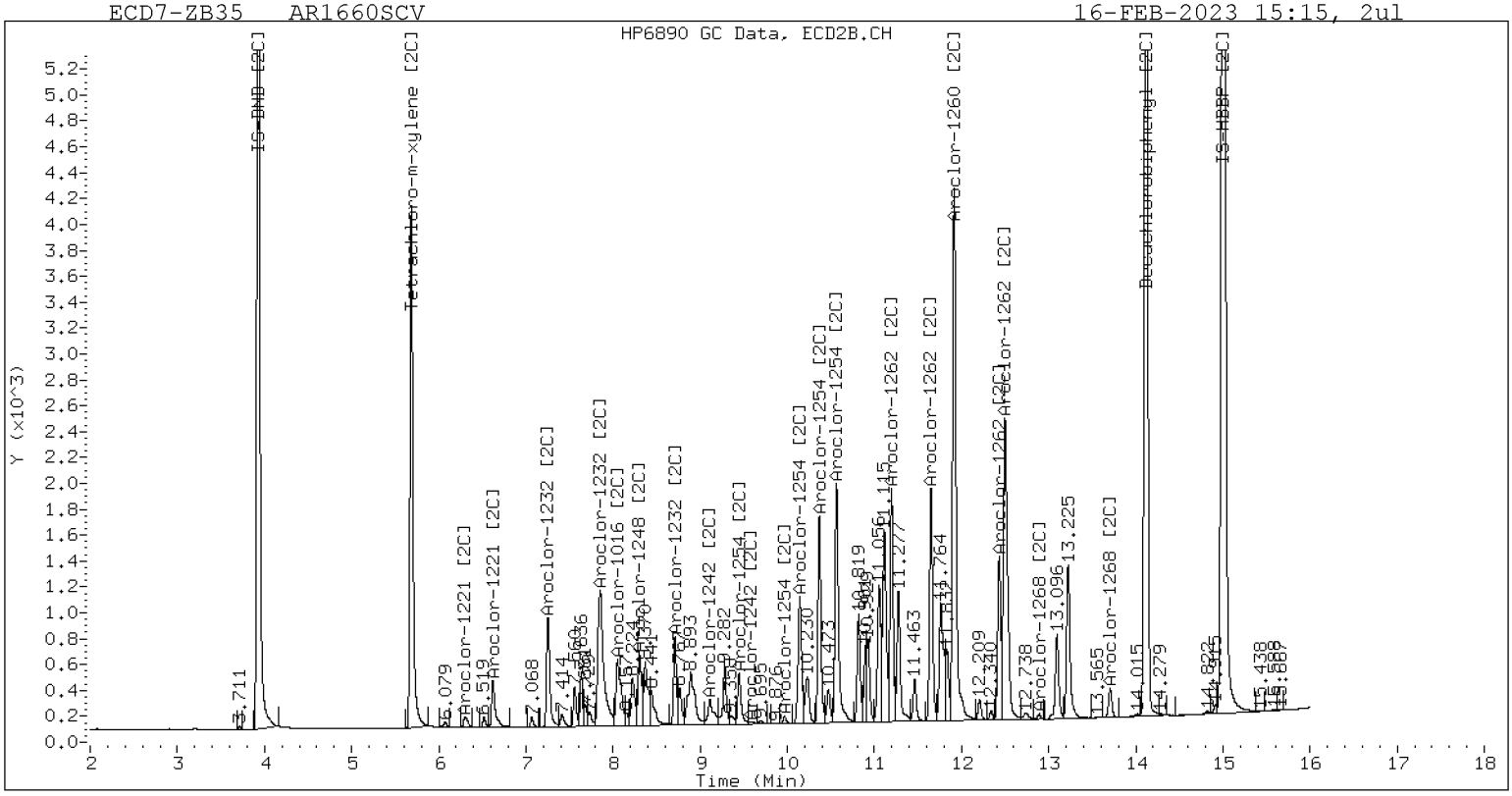
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660SCV 16-FEB-2023 15:15, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660SCV 16-FEB-2023 15:15, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162314ECD7.D
Data file 2: /230216.b/230216.b/02162314ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV
Client ID:
Injection Date: 16-FEB-2023 15:36
Report Date: 02/17/2023 11:55
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	240392	5.686	0.000	191518	36.8	36.8	0.0	Tetrachloro-m-xylene
13.891	0.000	372444	14.118	-0.000	384306	40.3	39.9	1.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	460847	7.2
Hexabromobiphenyl	975457	1048824	7.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	386112	5.3
Hexabromobiphenyl	646884	690141	6.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	26450	157.6	1	7.253	-0.001	35202	166.4
Aroclor-1016	2	7.651	0.001	91590	170.4	2	7.851	-0.000	76062	169.2
Aroclor-1016	3	7.789	0.002	38405	155.4	3	8.051	0.002	31745	171.8
Aroclor-1016	4	8.403	0.001	28918	177.8	4	8.304	0.000	24379	162.7
Total Col1Ave (4 peaks):		165.3				Total Col2Ave (4 peaks):			167.5	RPD = 1
Corrected Ave (3 peaks):		161.1				Corrected Ave (3 peaks):			166.1	RPD = 3
Aroclor-1221	1	4.736	0.004	158	4.4	1	---			0.0
Aroclor-1221	2	6.131	-0.002	3413	51.1	2	6.318	0.020	4305	69.9
Aroclor-1221	3	6.383	-0.000	18978	122.9	3	6.623	0.001	15561	150.8
Total Col1Ave (3 peaks):		59.5				Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.736	0.004	158	7.1	1	---			0.0
Aroclor-1232	2	6.131	-0.002	3413	73.2	2	7.253	-0.001	35202	366.8
Aroclor-1232	3	7.651	-0.003	91590	408.8	3	7.851	-0.004	76062	396.7
Aroclor-1232	4	8.577	-0.002	48090	519.0	4	8.712	-0.001	24445	455.4
Total Col1Ave (4 peaks):		252.0				Total Col2Ave (3 peaks):			406.3	RPD = 47*
Corrected Ave (3 peaks):		163.0				Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	26450	192.7	1	7.253	-0.000	35202	210.8
Aroclor-1242	2	7.651	-0.001	91590	210.8	2	7.851	-0.002	76062	210.2
Aroclor-1242	3	8.403	-0.000	28918	220.3	3	9.156	-0.004	26140	228.5
Aroclor-1242	4	8.577	-0.000	48090	248.0	4	9.580	-0.007	33659	242.7
Total Col1Ave (4 peaks):		217.9				Total Col2Ave (4 peaks):			223.1	RPD = 2
Corrected Ave (3 peaks):		207.9				Corrected Ave (3 peaks):			216.5	RPD = 4
Aroclor-1248	1	8.403	-0.000	28918	130.1	1	8.304	-0.001	24379	140.0
Aroclor-1248	2	8.577	-0.000	48090	171.5	2	8.712	0.000	24445	133.4
Aroclor-1248	3	8.997	0.001	47230	119.1	3	9.156	-0.003	26140	123.4
Aroclor-1248	4	9.292	0.001	23789	94.9	4	9.580	-0.001	33659	131.0
Total Col1Ave (4 peaks):		128.9				Total Col2Ave (4 peaks):			132.0	RPD = 2
Corrected Ave (3 peaks):		114.7				Corrected Ave (3 peaks):			129.3	RPD = 12
Aroclor-1254	1	9.292	-0.003	23789	53.3	1	9.446	-0.000	12605	46.3
Aroclor-1254	2	9.374	0.001	9634	54.9	2	9.967	-0.000	8527	38.8
Aroclor-1254	3	9.666	0.001	10685	37.6	3	10.119	-0.001	16959	35.4
Aroclor-1254	4	9.803	-0.000	18245	32.2	4	10.375	0.005	17612	37.3
Aroclor-1254	5	10.169	0.001	13394	38.8	5	10.568	0.003	5160	21.6
Total Col1Ave (5 peaks):		43.4				Total Col2Ave (5 peaks):			35.9	RPD = 19
Corrected Ave (4 peaks):		40.5				Corrected Ave (4 peaks):			33.3	RPD = 20
Aroclor-1260	1	11.043	0.002	200	0.6	1	11.659	0.009	1919	5.0
Aroclor-1260	2	11.361	0.004	305	0.8	2	11.922	0.007	1126	1.2
Aroclor-1260	3	11.735	0.004	595	0.6	3	12.438	0.006	127	0.5
Aroclor-1260	4	12.143	0.009	717	1.4	4	12.501	0.003	670	1.0
Aroclor-1260	5	12.318	0.078	265	1.2	NS	---			----
Total Col1Ave (5 peaks):		0.9				Total Col2Ave (4 peaks):			1.9	RPD = 70*
Corrected Ave (4 peaks):		0.8				Corrected Ave (3 peaks):			0.9	RPD = 11
Aroclor-1262	1	10.827	0.003	7919	25.8	1	11.117	-0.081	6747	13.1
Aroclor-1262	2	12.318	0.076	265	0.5	2	11.659	0.010	1919	4.3
Aroclor-1262	3	---			0.0	3	12.438	0.007	127	0.3
Aroclor-1262	4	13.032	0.048	704	1.5	4	12.501	0.001	670	0.9
Total Col1Ave (3 peaks):		9.3				Total Col2Ave (4 peaks):			4.6	RPD = 67*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			1.8	
Aroclor-1268	1	12.318	0.075	265	0.2	1	12.438	0.007	127	0.1
Aroclor-1268	2	---			0.0	2	12.501	0.003	670	0.5
Aroclor-1268	3	12.613	-0.084	2956	2.7	3	---			0.0
Aroclor-1268	4	13.493	0.006	820	0.2	4	13.707	0.000	334	0.1
Total Col1Ave (3 peaks):		1.0				Total Col2Ave (3 peaks):			0.2	RPD = 126*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.908 - 13.791) = 754431 Col1 Total PCB = 0.1 ppm*

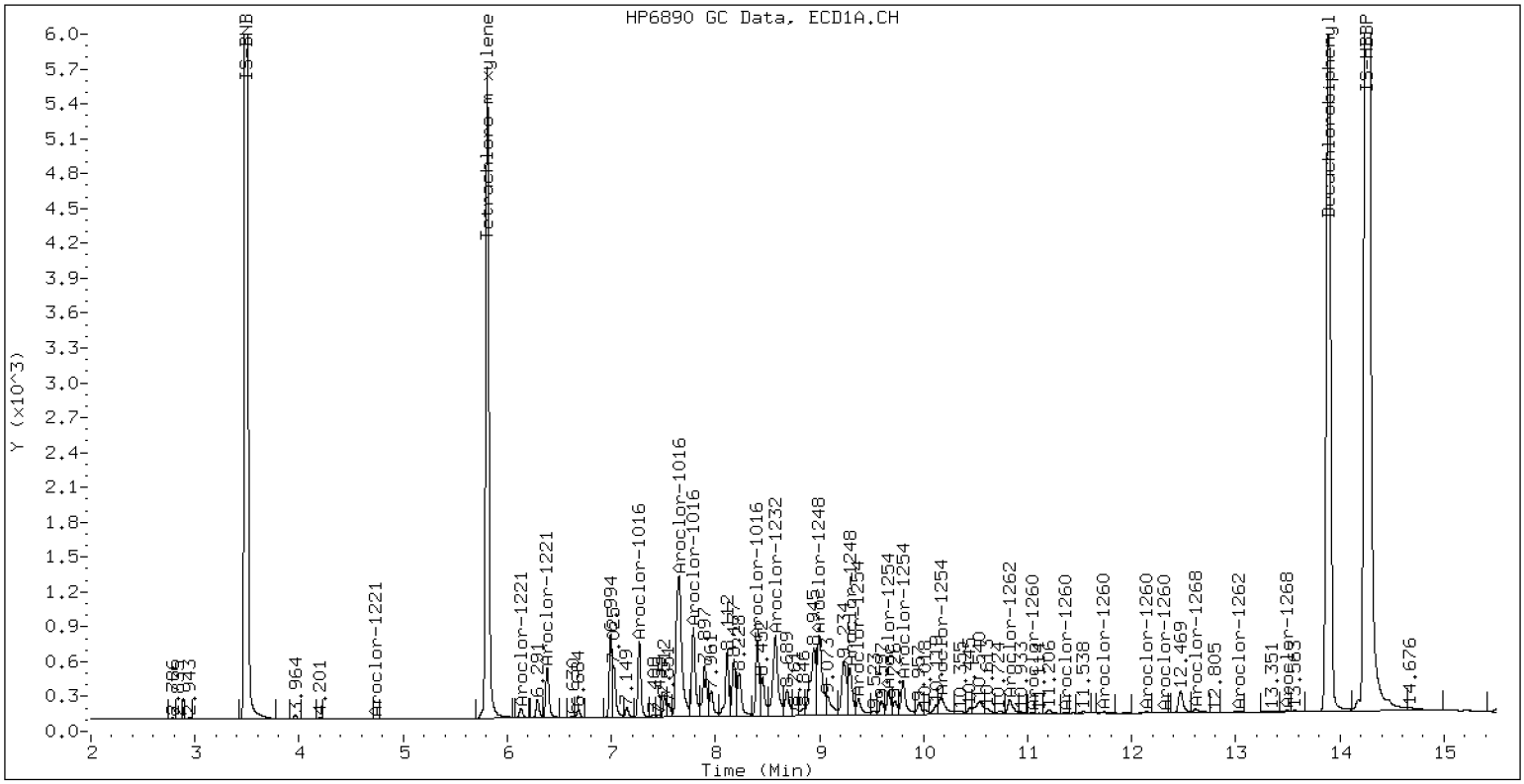
Total PCB Area Col2 (5.786 - 14.018) = 609458 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

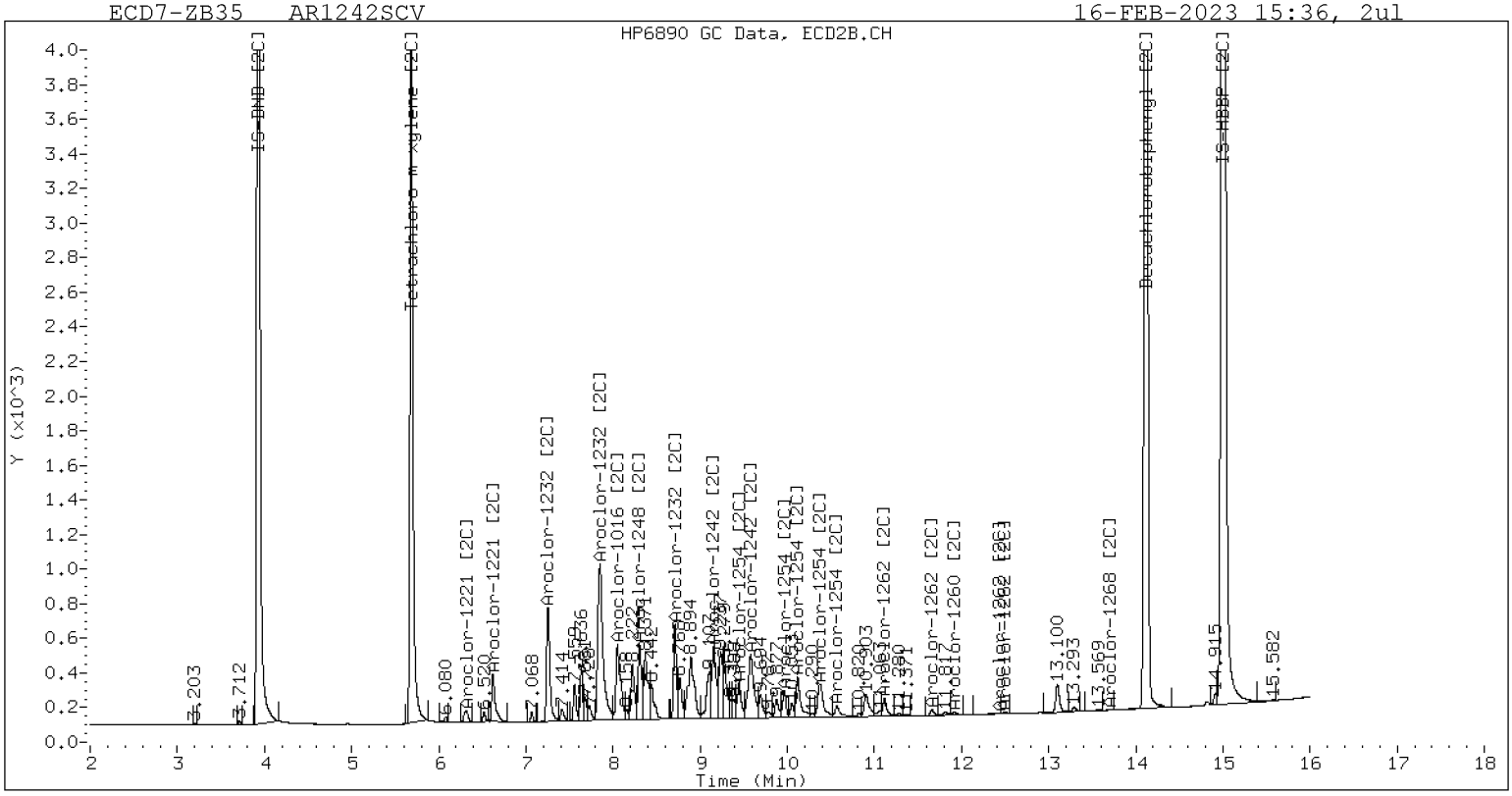
PCB Dual Column Chromatograms

ECD7-ZB5 AR1242SCV 16-FEB-2023 15:36, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242SCV 16-FEB-2023 15:36, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162315ECD7.D
Data file 2: /230216.b/230216.b/02162315ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV
Client ID:
Injection Date: 16-FEB-2023 15:57
Report Date: 02/17/2023 11:56
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	235232	5.686	0.000	187353	36.5	36.5	0.1	Tetrachloro-m-xylene
13.891	0.000	371896	14.118	0.000	374279	41.4	40.1	3.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	454293	5.6
Hexabromobiphenyl	975457	1020262	4.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	380923	3.9
Hexabromobiphenyl	646884	669927	3.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	7.269	0.000	12869	77.8	1	7.252	-0.002	17659	84.6
Aroclor-1016	2	7.649	-0.001	59048	111.5	2	7.852	0.001	49924	112.6
Aroclor-1016	3	7.791	0.004	23385	96.0	3	8.054	0.004	9755	53.5
Aroclor-1016	4	8.403	0.001	51659	322.2	4	8.305	0.001	40334	272.8
Total Col1Ave (4 peaks):					151.9	Total Col2Ave (4 peaks):				130.9 RPD = 15
Corrected Ave (3 peaks):					95.1	Corrected Ave (3 peaks):				83.6 RPD = 13
Aroclor-1221	1	4.639	-0.093	125	3.5	1	---			0.0
Aroclor-1221	2	6.133	-0.000	396	6.0	2	6.324	0.026	2135	35.1
Aroclor-1221	3	6.384	0.001	2262	14.9	3	6.626	0.005	1703	16.7
Total Col1Ave (3 peaks):					8.1	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.639	-0.093	125	5.7	1	---			0.0
Aroclor-1232	2	6.133	0.000	396	8.6	2	7.252	-0.003	17659	186.5
Aroclor-1232	3	7.649	-0.005	59048	267.3	3	7.852	-0.003	49924	263.9
Aroclor-1232	4	8.577	-0.002	65165	713.5	4	8.712	-0.000	42481	802.3
Total Col1Ave (4 peaks):					248.8	Total Col2Ave (3 peaks):				417.6 RPD = 51*
Corrected Ave (3 peaks):					93.9	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	12869	95.1	1	7.252	-0.002	17659	107.2
Aroclor-1242	2	7.649	-0.003	59048	137.9	2	7.852	-0.000	49924	139.9
Aroclor-1242	3	8.403	0.000	51659	399.2	3	9.160	0.001	49159	435.7
Aroclor-1242	4	8.577	-0.000	65165	340.9	4	9.582	-0.005	57018	416.7
Total Col1Ave (4 peaks):					243.3	Total Col2Ave (4 peaks):				274.8 RPD = 12
Corrected Ave (3 peaks):					191.3	Corrected Ave (3 peaks):				221.2 RPD = 15
Aroclor-1248	1	8.403	0.000	51659	235.8	1	8.305	-0.000	40334	234.7
Aroclor-1248	2	8.577	-0.000	65165	235.7	2	8.712	0.000	42481	235.0
Aroclor-1248	3	8.997	0.001	90358	231.2	3	9.160	0.002	49159	235.3
Aroclor-1248	4	9.292	0.000	60263	243.8	4	9.582	0.001	57018	225.0
Total Col1Ave (4 peaks):					236.6	Total Col2Ave (4 peaks):				232.5 RPD = 2
Corrected Ave (3 peaks):					234.2	Corrected Ave (3 peaks):				231.6 RPD = 1
Aroclor-1254	1	9.292	-0.003	60263	137.1	1	9.447	0.001	22366	83.3
Aroclor-1254	2	9.373	-0.000	30778	177.8	2	9.968	0.001	20179	93.0
Aroclor-1254	3	9.666	0.001	25929	92.5	3	10.121	0.001	37594	79.6
Aroclor-1254	4	9.806	0.003	44678	80.1	4	10.384	0.014	37032	79.4
Aroclor-1254	5	10.177	0.010	31103	91.4	5	10.571	0.005	8221	34.9
Total Col1Ave (5 peaks):					115.8	Total Col2Ave (5 peaks):				74.0 RPD = 44*
Corrected Ave (4 peaks):					100.3	Corrected Ave (4 peaks):				69.3 RPD = 37
Aroclor-1260	1	11.045	0.004	1084	3.1	1	11.659	0.009	1947	5.2
Aroclor-1260	2	11.359	0.002	556	1.5	2	11.920	0.006	1354	1.4
Aroclor-1260	3	11.734	0.003	872	0.9	3	12.426	-0.006	2386	9.5
Aroclor-1260	4	12.143	0.009	431	0.9	4	12.501	0.004	1186	1.9
Aroclor-1260	5	12.243	0.003	275	1.3	NS	---			----
Total Col1Ave (5 peaks):					1.6	Total Col2Ave (4 peaks):				4.5 RPD = 98*
Corrected Ave (4 peaks):					1.2	Corrected Ave (3 peaks):				2.9 RPD = 84*
Aroclor-1262	1	10.828	0.003	9454	31.7	1	11.119	-0.079	7326	14.6
Aroclor-1262	2	12.243	0.001	275	0.6	2	11.659	0.010	1947	4.5
Aroclor-1262	3	12.321	0.005	357	0.7	3	12.426	-0.005	2386	5.1
Aroclor-1262	4	12.984	-0.001	1676	3.7	4	12.501	0.002	1186	1.6
Total Col1Ave (4 peaks):					9.2	Total Col2Ave (4 peaks):				6.4 RPD = 35
Corrected Ave (3 peaks):					1.6	Corrected Ave (3 peaks):				3.7 RPD = 78*
Aroclor-1268	1	12.243	0.000	275	0.2	1	12.426	-0.004	2386	2.0
Aroclor-1268	2	12.321	0.007	357	0.3	2	12.501	0.004	1186	0.9
Aroclor-1268	3	12.614	-0.084	992	0.9	3	12.898	0.008	102	0.1
Aroclor-1268	4	13.493	0.006	969	0.3	4	13.674	-0.032	1135	0.3
Total Col1Ave (4 peaks):					0.4	Total Col2Ave (4 peaks):				0.8 RPD = 64*
Corrected Ave (3 peaks):					0.3	Corrected Ave (3 peaks):				0.5 RPD = 53*

Total PCB Area Col1 (5.908 - 13.791) = 1015830 Col1 Total PCB = 0.2 ppm*

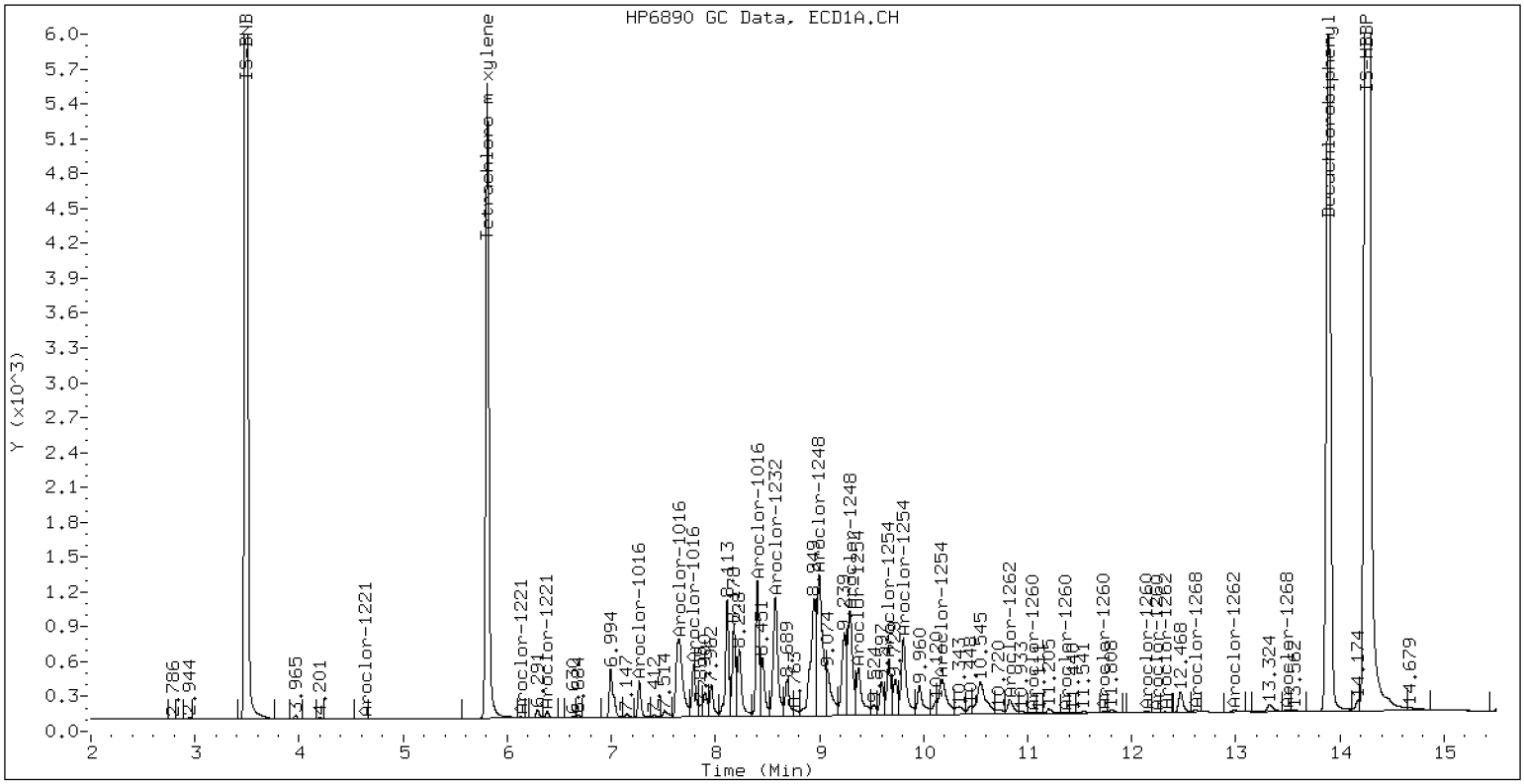
Total PCB Area Col2 (5.786 - 14.018) = 794946 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

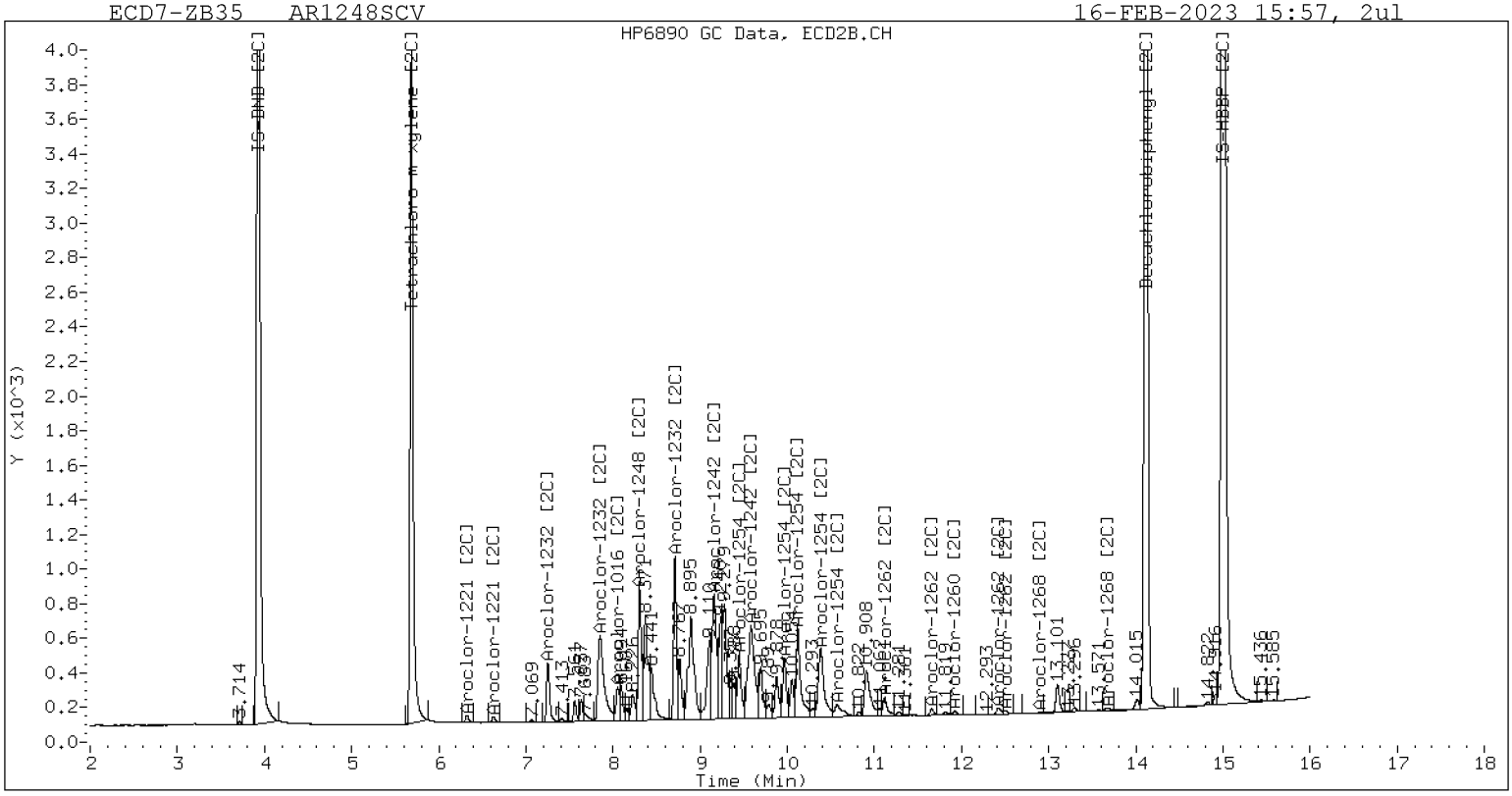
PCB Dual Column Chromatograms

ECD7-ZB5 AR1248SCV 16-FEB-2023 15:57, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1248SCV 16-FEB-2023 15:57, 2ul

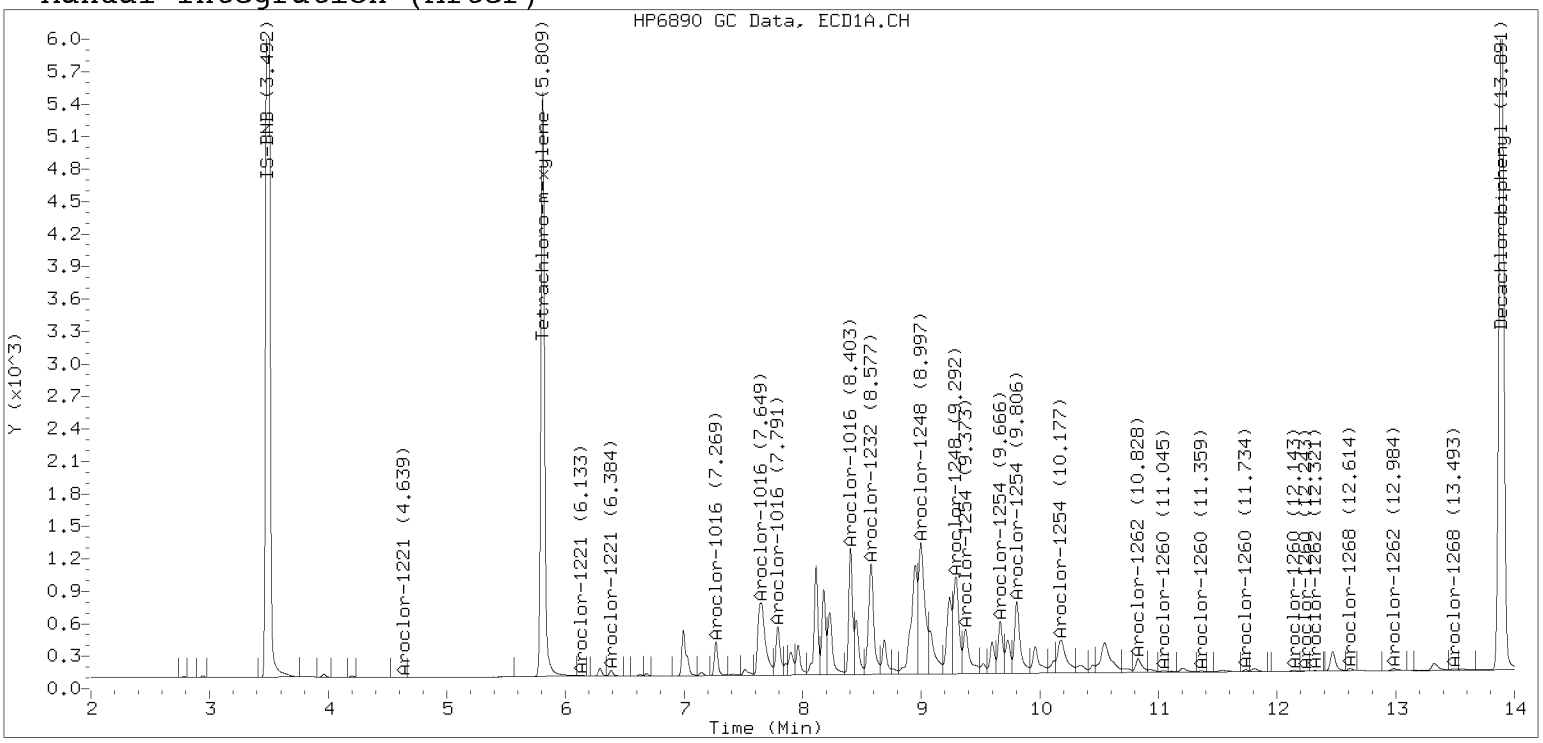


ZB-35 Manual Integration: NO

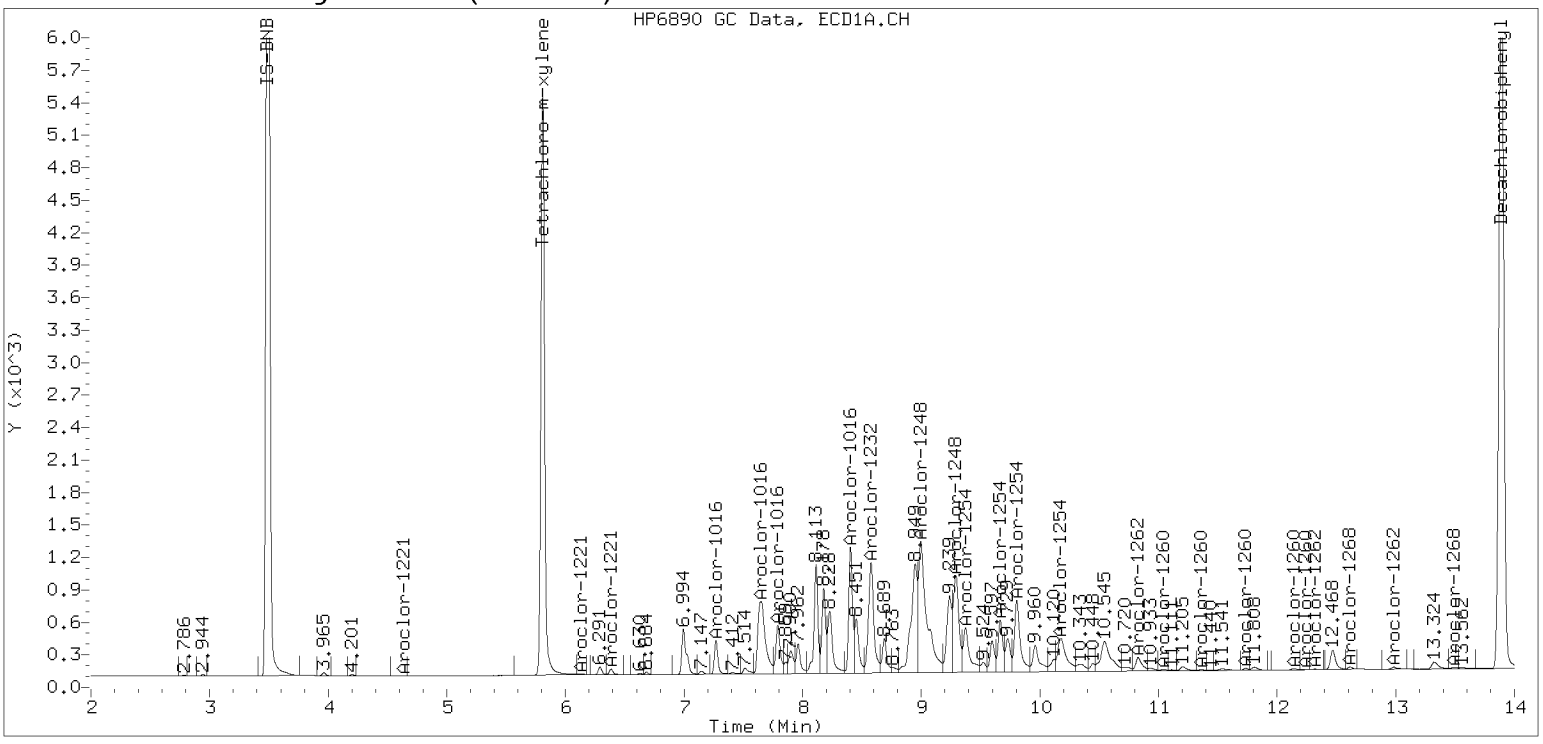
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/230216.b/02162315ECD7.D Injection Date: 16-FEB-2023 15:57

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162316ECD7.D
Data file 2: /230216.b/230216.b/02162316ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV
Client ID:
Injection Date: 16-FEB-2023 16:18
Report Date: 02/17/2023 11:56
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.807	-0.001	242127	5.685	-0.000	193580	36.7	37.0	0.9	Tetrachloro-m-xylene
13.890	-0.001	377360	14.118	0.000	394229	40.3	40.4	0.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	465227	8.2
Hexabromobiphenyl	975457	1063495	9.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	387434	5.6
Hexabromobiphenyl	646884	700154	8.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	281	1.7	1	7.256	0.002	379	1.8
Aroclor-1016	2	7.655	0.005	996	1.8	2	---			0.0
Aroclor-1016	3	7.792	0.005	684	2.7	3	8.097	0.048	526	2.8
Aroclor-1016	4	8.404	0.002	18193	110.8	4	8.305	0.001	23002	153.0
	Total Col1Ave (4 peaks):				29.3	Total Col2Ave (3 peaks):				52.5 RPD = 57*
	Corrected Ave (3 peaks):				2.1	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	6.323	0.026	2104	34.0
Aroclor-1221	3	---			0.0	3	6.632	0.010	433	4.2
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	7.256	0.001	379	3.9
Aroclor-1232	3	7.655	0.001	996	4.4	3	---			0.0
Aroclor-1232	4	8.580	0.002	7144	76.4	4	8.714	0.001	15174	281.7
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	7.270	0.001	281	2.0	1	7.256	0.002	379	2.3
Aroclor-1242	2	7.655	0.003	996	2.3	2	---			0.0
Aroclor-1242	3	8.404	0.001	18193	137.3	3	9.163	0.004	23373	203.7
Aroclor-1242	4	8.580	0.003	7144	36.5	4	9.541	-0.046	35054	251.9
	Total Col1Ave (4 peaks):				44.5	Total Col2Ave (3 peaks):				152.6 RPD = 110*
	Corrected Ave (3 peaks):				13.6	Corrected Ave: < 3 Peaks				
Aroclor-1248	1	8.404	0.001	18193	81.1	1	8.305	-0.000	23002	131.6
Aroclor-1248	2	8.580	0.003	7144	25.2	2	8.714	0.002	15174	82.5
Aroclor-1248	3	8.992	-0.004	93928	234.7	3	9.163	0.005	23373	110.0
Aroclor-1248	4	9.296	0.004	99099	391.5	4	9.541	-0.040	35054	136.0
	Total Col1Ave (4 peaks):				183.1	Total Col2Ave (4 peaks):				115.0 RPD = 46*
	Corrected Ave (3 peaks):				113.7	Corrected Ave (3 peaks):				108.0 RPD = 5
Aroclor-1254	1	9.296	0.001	99099	220.1	1	9.447	0.001	61772	226.1
Aroclor-1254	2	9.374	0.001	43324	244.4	2	9.966	-0.001	49637	225.0
Aroclor-1254	3	9.666	0.001	63930	222.8	3	10.119	-0.000	106246	221.1
Aroclor-1254	4	9.803	0.000	123663	216.5	4	10.369	-0.001	107021	225.7
Aroclor-1254	5	10.171	0.004	76902	220.7	5	10.565	-0.000	55207	230.4
	Total Col1Ave (5 peaks):				224.9	Total Col2Ave (5 peaks):				225.6 RPD = 0
	Corrected Ave (4 peaks):				220.0	Corrected Ave (4 peaks):				224.5 RPD = 2
Aroclor-1260	1	11.041	0.000	8242	22.5	1	11.657	0.007	30319	78.1
Aroclor-1260	2	11.360	0.003	8312	22.2	2	11.918	0.004	22042	22.6
Aroclor-1260	3	11.734	0.003	19109	19.2	3	12.445	0.012	1692	6.5
Aroclor-1260	4	12.137	0.002	15342	30.4	4	12.500	0.002	12899	19.7
Aroclor-1260	5	12.238	-0.002	582	2.7	NS	---			----
	Total Col1Ave (5 peaks):				19.4	Total Col2Ave (4 peaks):				31.7 RPD = 48*
	Corrected Ave (4 peaks):				16.6	Corrected Ave (3 peaks):				16.2 RPD = 2
Aroclor-1262	1	10.824	-0.000	138302	445.0	1	11.278	0.081	13621	26.0
Aroclor-1262	2	12.238	-0.004	582	1.1	2	11.657	0.008	30319	67.1
Aroclor-1262	3	12.316	-0.001	714	1.3	3	12.445	0.013	1692	3.4
Aroclor-1262	4	12.988	0.003	961	2.0	4	12.500	0.000	12899	16.5
	Total Col1Ave (4 peaks):				112.4	Total Col2Ave (4 peaks):				28.3 RPD = 120*
	Corrected Ave (3 peaks):				1.5	Corrected Ave (3 peaks):				15.3 RPD = 165*
Aroclor-1268	1	12.238	-0.005	582	0.4	1	12.445	0.014	1692	1.3
Aroclor-1268	2	12.316	0.002	714	0.5	2	12.500	0.002	12899	9.6
Aroclor-1268	3	12.719	0.022	539	0.5	3	12.892	0.002	76	0.1
Aroclor-1268	4	13.497	0.010	695	0.2	4	13.700	-0.007	290	0.1
	Total Col1Ave (4 peaks):				0.4	Total Col2Ave (4 peaks):				2.8 RPD = 148*
	Corrected Ave (3 peaks):				0.4	Corrected Ave (3 peaks):				0.5 RPD = 28

Total PCB Area Col1 (5.908 - 13.791) = 1311525 Col1 Total PCB = 0.3 ppm*

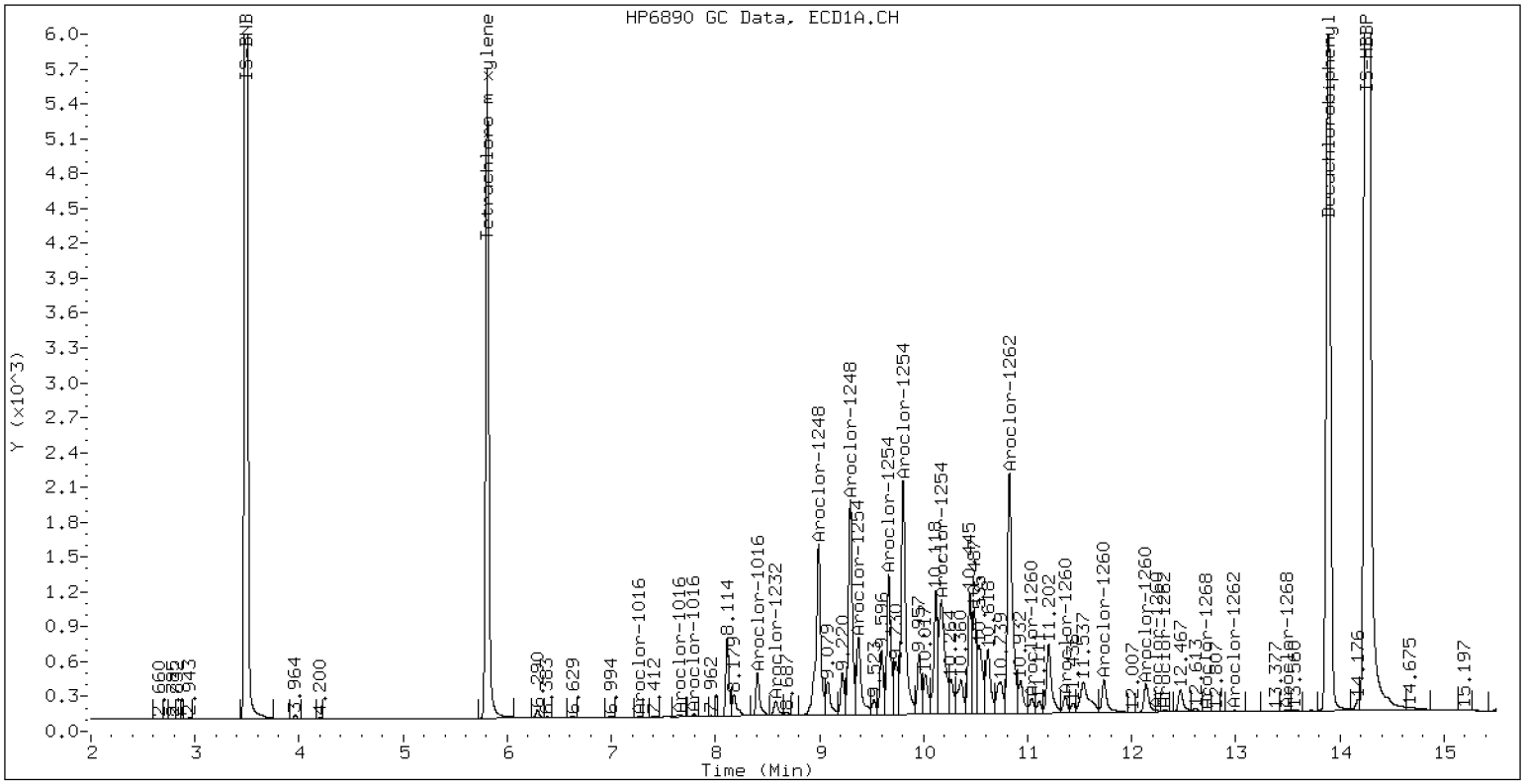
Total PCB Area Col2 (5.786 - 14.018) = 1040357 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

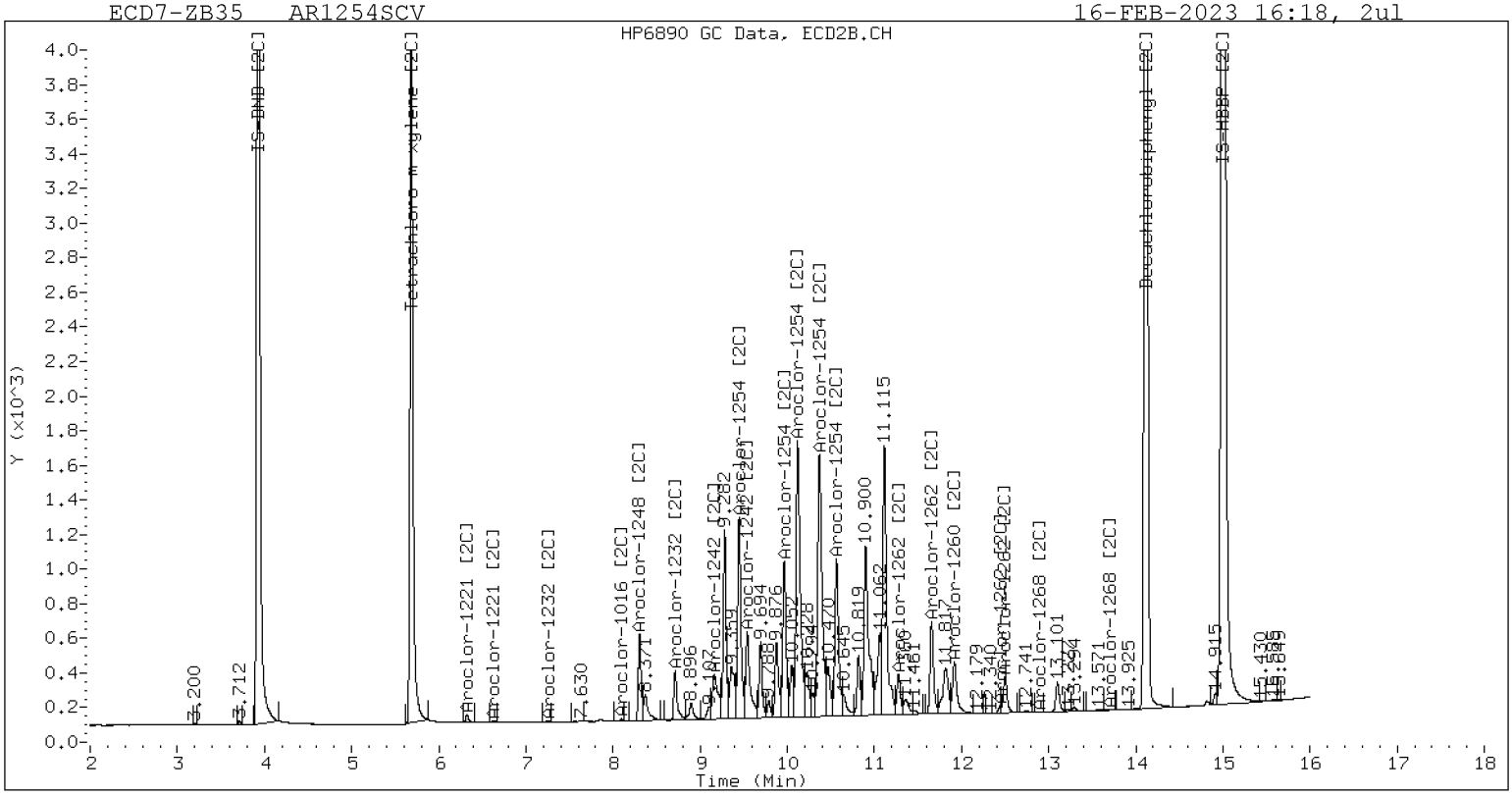
PCB Dual Column Chromatograms

ECD7-ZB5 AR1254SCV 16-FEB-2023 16:18, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254SCV 16-FEB-2023 16:18, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162317ECD7.D
Data file 2: /230216.b/230216.b/02162317ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV
Client ID:
Injection Date: 16-FEB-2023 16:39
Report Date: 02/17/2023 11:56
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	245197	5.686	-0.000	191474	37.2	37.2	0.0	Tetrachloro-m-xylene
13.890	-0.001	375224	14.118	0.000	392997	40.4	40.5	0.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	464367	8.0
Hexabromobiphenyl	975457	1054321	8.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	381247	4.0
Hexabromobiphenyl	646884	695925	7.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	4790	28.3	1	7.255	0.001	5664	27.1
Aroclor-1016	2	7.656	0.006	10623	19.6	2	7.858	0.007	8417	19.0
Aroclor-1016	3	7.793	0.006	5360	21.5	3	8.058	0.009	4104	22.5
Aroclor-1016	4	8.405	0.003	2485	15.2	4	8.306	0.002	3192	21.6
Total Col1Ave (4 peaks):					21.2	Total Col2Ave (4 peaks):				22.5 RPD = 6
Corrected Ave (3 peaks):					18.8	Corrected Ave (3 peaks):				21.0 RPD = 11
Aroclor-1221	1	4.733	0.000	9001	249.5	1	4.958	0.000	7198	254.0
Aroclor-1221	2	6.133	-0.000	16485	245.0	2	6.297	-0.001	14187	233.2
Aroclor-1221	3	6.383	-0.000	37665	242.0	3	6.621	-0.000	23991	235.4
Total Col1Ave (3 peaks):					245.5	Total Col2Ave (3 peaks):				240.8 RPD = 2
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.733	0.001	9001	404.1	1	4.958	-0.000	7198	425.7
Aroclor-1232	2	6.133	-0.000	16485	350.7	2	7.255	0.001	5664	59.8
Aroclor-1232	3	7.656	0.002	10623	47.0	3	7.858	0.003	8417	44.5
Aroclor-1232	4	8.581	0.002	2585	27.7	4	8.714	0.001	2167	40.9
Total Col1Ave (4 peaks):					207.4	Total Col2Ave (4 peaks):				142.7 RPD = 37
Corrected Ave (3 peaks):					141.8	Corrected Ave (3 peaks):				48.4 RPD = 98*
Aroclor-1242	1	7.270	0.001	4790	34.6	1	7.255	0.001	5664	34.3
Aroclor-1242	2	7.656	0.004	10623	24.3	2	7.858	0.005	8417	23.6
Aroclor-1242	3	8.405	0.002	2485	18.8	3	9.168	0.009	2109	18.7
Aroclor-1242	4	8.581	0.003	2585	13.2	4	9.541	-0.046	4209	30.7
Total Col1Ave (4 peaks):					22.7	Total Col2Ave (4 peaks):				26.8 RPD = 17
Corrected Ave (3 peaks):					18.8	Corrected Ave (3 peaks):				24.3 RPD = 26
Aroclor-1248	1	8.405	0.002	2485	11.1	1	8.306	0.001	3192	18.6
Aroclor-1248	2	8.581	0.003	2585	9.1	2	8.714	0.002	2167	12.0
Aroclor-1248	3	8.992	-0.004	27170	68.0	3	9.168	0.010	2109	10.1
Aroclor-1248	4	9.299	0.007	25808	102.2	4	9.541	-0.040	4209	16.6
Total Col1Ave (4 peaks):					47.6	Total Col2Ave (4 peaks):				14.3 RPD = 108*
Corrected Ave (3 peaks):					29.4	Corrected Ave (3 peaks):				12.9 RPD = 78*
Aroclor-1254	1	9.299	0.004	25808	57.4	1	9.448	0.001	19163	71.3
Aroclor-1254	2	9.371	-0.003	3696	20.9	2	9.969	0.002	3305	15.2
Aroclor-1254	3	9.667	0.002	4053	14.2	3	10.144	0.024	96736	204.5
Aroclor-1254	4	9.803	0.000	10960	19.2	4	10.368	-0.002	117175	251.1
Aroclor-1254	5	10.117	-0.050	153073	440.2	5	10.565	-0.001	154306	654.4
Total Col1Ave (5 peaks):					110.4	Total Col2Ave (5 peaks):				239.3 RPD = 74*
Corrected Ave (4 peaks):					27.9	Corrected Ave (4 peaks):				135.5 RPD = 132*
Aroclor-1260	1	11.041	0.001	267479	735.9	1	11.649	-0.001	203895	528.3
Aroclor-1260	2	11.358	0.000	225792	607.2	2	11.914	-0.000	486211	500.8
Aroclor-1260	3	11.730	-0.000	549436	558.0	3	12.431	-0.001	236526	910.9
Aroclor-1260	4	12.135	0.001	182085	364.2	4	12.499	0.001	362057	555.9
Aroclor-1260	5	12.241	0.000	234096	1091.8	NS	---			----
Total Col1Ave (5 peaks):					671.4	Total Col2Ave (4 peaks):				624.0 RPD = 7
Corrected Ave (4 peaks):					566.3	Corrected Ave (3 peaks):				528.4 RPD = 7
Aroclor-1262	1	10.823	-0.002	146525	475.6	1	11.197	-0.001	236244	454.2
Aroclor-1262	2	12.241	-0.001	234096	463.6	2	11.649	0.001	203895	454.1
Aroclor-1262	3	12.314	-0.002	250166	459.4	3	12.431	-0.000	236526	483.8
Aroclor-1262	4	12.984	-0.000	210767	447.6	4	12.499	-0.001	362057	465.4
Total Col1Ave (4 peaks):					461.6	Total Col2Ave (4 peaks):				464.4 RPD = 1
Corrected Ave (3 peaks):					456.9	Corrected Ave (3 peaks):				457.9 RPD = 0
Aroclor-1268	1	12.241	-0.002	234096	176.9	1	12.431	0.000	236526	186.9
Aroclor-1268	2	12.314	0.000	250166	190.3	2	12.499	0.001	362057	272.0
Aroclor-1268	3	12.719	0.022	91155	81.7	3	12.889	-0.001	11970	11.5
Aroclor-1268	4	13.485	-0.002	72883	21.3	4	13.706	-0.001	72588	19.9
Total Col1Ave (4 peaks):					117.6	Total Col2Ave (4 peaks):				122.6 RPD = 4

Corrected Ave (3 peaks): 93.3 Corrected Ave (3 peaks): 72.8 RPD = 25

Total PCB Area Col1 (5.908 - 13.791) = 3768590 Col1 Total PCB = 0.7 ppm*

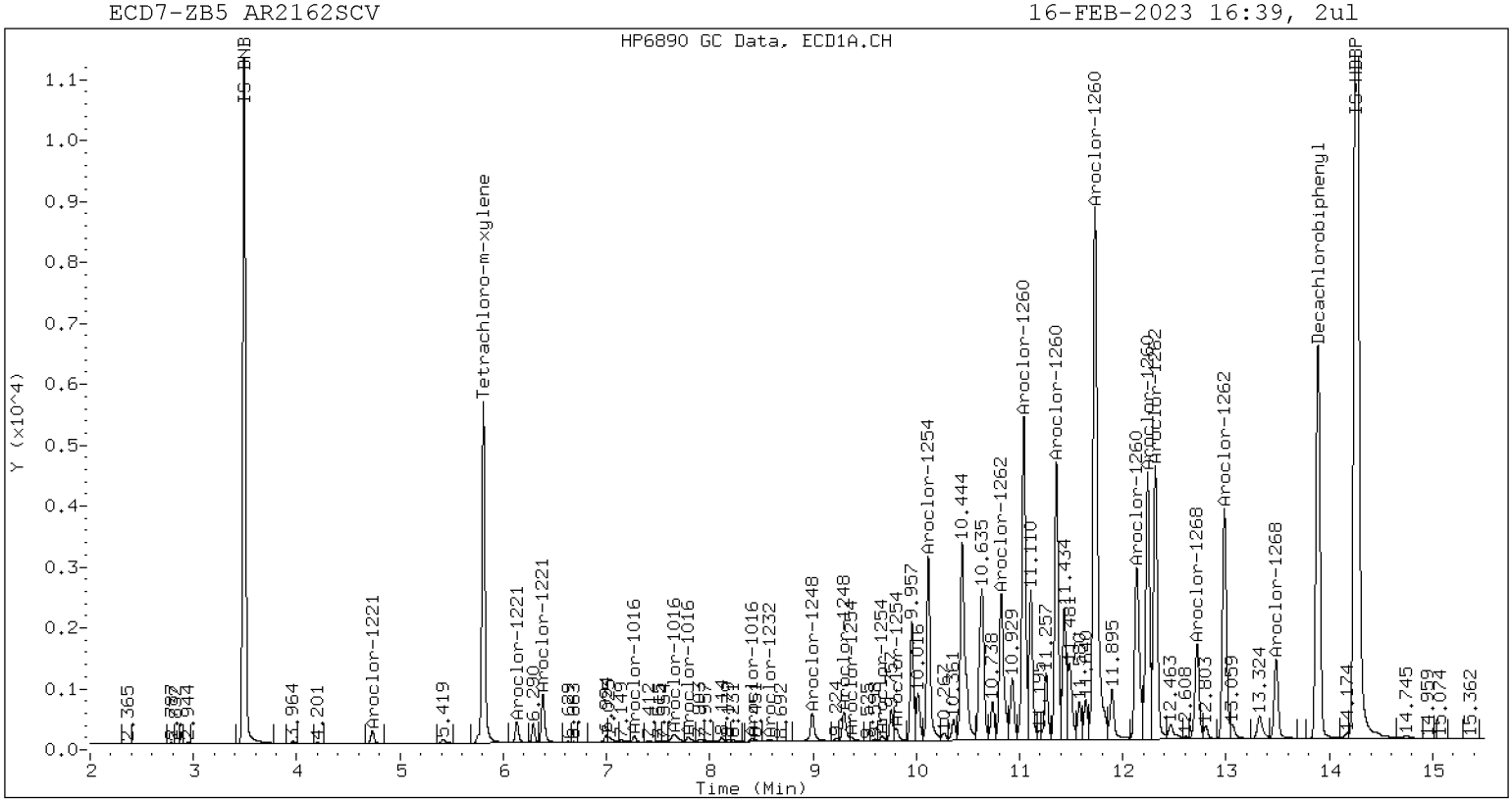
Total PCB Area Col2 (5.786 - 14.018) = 3174752 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

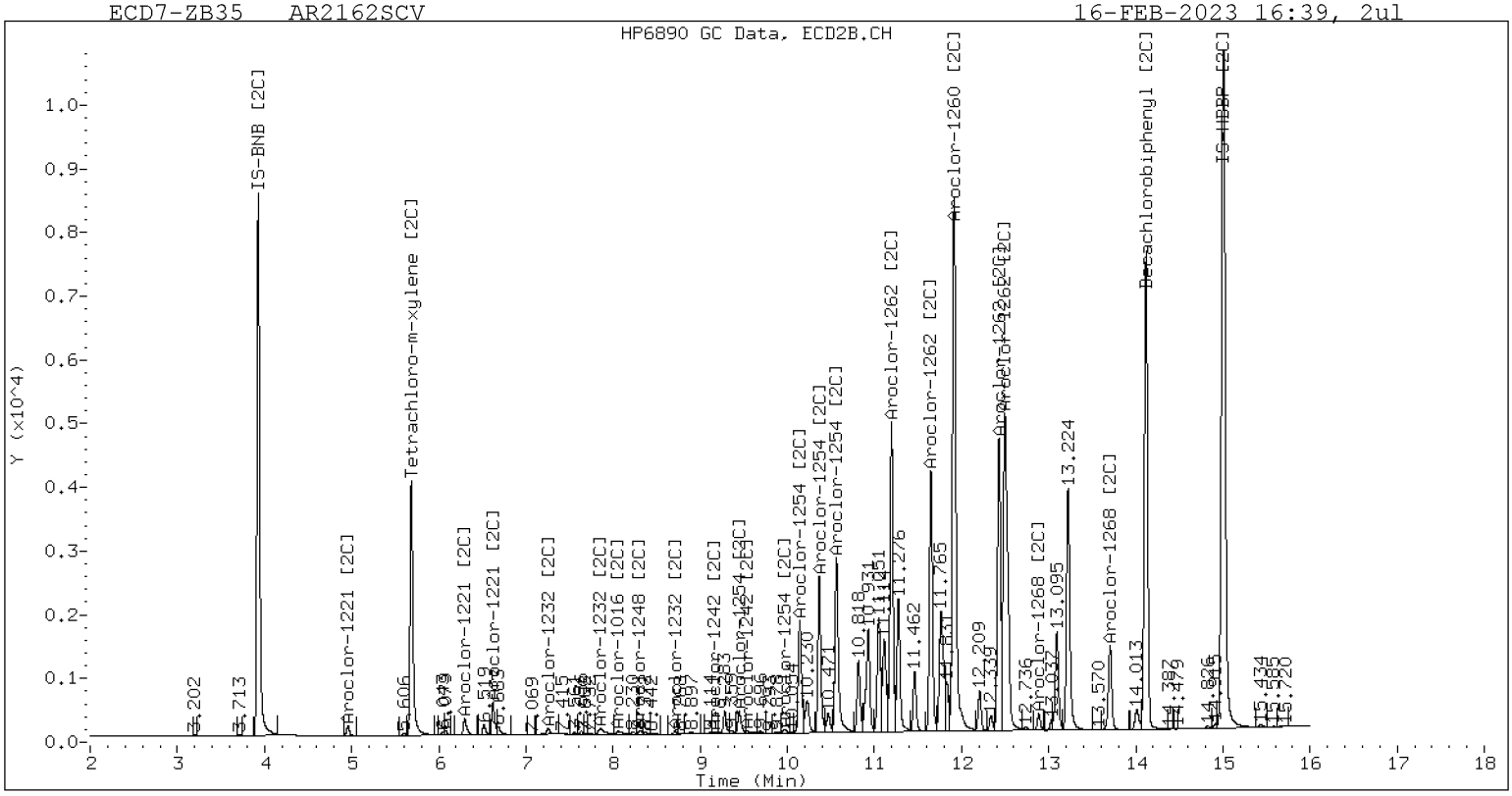
PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV 16-FEB-2023 16:39, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV 16-FEB-2023 16:39, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162318ECD7.D
Data file 2: /230216.b/230216.b/02162318ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV
Client ID:
Injection Date: 16-FEB-2023 17:00
Report Date: 02/17/2023 11:56
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	232649	5.686	0.000	184511	35.5	35.9	1.3	Tetrachloro-m-xylene
13.892	0.001	534256	14.118	0.000	561270	58.0	58.0	0.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	462340	7.5
Hexabromobiphenyl	975457	1046529	7.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	380640	3.8
Hexabromobiphenyl	646884	694272	7.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	17406	103.4	1	7.255	0.001	21798	104.5
Aroclor-1016	2	7.654	0.004	51620	95.7	2	7.856	0.005	43831	98.9
Aroclor-1016	3	7.791	0.004	24787	100.0	3	8.054	0.005	19284	105.9
Aroclor-1016	4	8.404	0.002	15491	94.9	4	8.306	0.002	13712	92.8
Total Col1Ave (4 peaks):		98.5		Total Col2Ave (4 peaks):		100.5	RPD = 2			
Corrected Ave (3 peaks):		96.9		Corrected Ave (3 peaks):		98.8	RPD = 2			
Aroclor-1221	1	4.732	-0.000	4903	136.5	1	4.959	0.001	3678	130.0
Aroclor-1221	2	6.133	-0.000	8309	124.0	2	6.298	0.001	8756	144.1
Aroclor-1221	3	6.383	-0.000	26751	172.7	3	6.622	0.001	18239	179.3
Total Col1Ave (3 peaks):		144.4		Total Col2Ave (3 peaks):		151.1	RPD = 5			
Corrected Ave: < 3 Peaks				Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.732	0.000	4903	221.1	1	4.959	0.000	3678	217.9
Aroclor-1232	2	6.133	-0.000	8309	177.5	2	7.255	0.000	21798	230.4
Aroclor-1232	3	7.654	-0.000	51620	229.6	3	7.856	0.001	43831	231.9
Aroclor-1232	4	8.579	0.000	21552	231.9	4	8.712	-0.000	12876	243.3
Total Col1Ave (4 peaks):		215.0		Total Col2Ave (4 peaks):		230.9	RPD = 7			
Corrected Ave (3 peaks):		209.4		Corrected Ave (3 peaks):		226.7	RPD = 8			
Aroclor-1242	1	7.269	0.000	17406	126.4	1	7.255	0.001	21798	132.4
Aroclor-1242	2	7.654	0.002	51620	118.4	2	7.856	0.004	43831	122.9
Aroclor-1242	3	8.404	0.001	15491	117.6	3	9.165	0.005	12931	114.7
Aroclor-1242	4	8.579	0.002	21552	110.8	4	9.594	0.007	15412	112.7
Total Col1Ave (4 peaks):		118.3		Total Col2Ave (4 peaks):		120.7	RPD = 2			
Corrected Ave (3 peaks):		115.6		Corrected Ave (3 peaks):		116.8	RPD = 1			
Aroclor-1248	1	8.404	0.001	15491	69.5	1	8.306	0.001	13712	79.9
Aroclor-1248	2	8.579	0.002	21552	76.6	2	8.712	0.001	12876	71.3
Aroclor-1248	3	9.000	0.004	33860	85.1	3	9.165	0.007	12931	61.9
Aroclor-1248	4	9.290	-0.001	24418	97.1	4	9.594	0.012	15412	60.9
Total Col1Ave (4 peaks):		82.1		Total Col2Ave (4 peaks):		68.5	RPD = 18			
Corrected Ave (3 peaks):		77.1		Corrected Ave (3 peaks):		64.7	RPD = 17			
Aroclor-1254	1	9.290	-0.005	24418	54.6	1	9.448	0.001	4331	16.1
Aroclor-1254	2	9.376	0.002	6352	36.1	2	9.971	0.003	2773	12.8
Aroclor-1254	3	9.670	0.005	3662	12.8	3	10.125	0.006	5733	12.1
Aroclor-1254	4	9.810	0.007	5791	10.2	4	10.384	0.014	5128	11.0
Aroclor-1254	5	10.182	0.014	3705	10.7	5	10.569	0.004	1684	7.2
Total Col1Ave (5 peaks):		24.9		Total Col2Ave (5 peaks):		11.8	RPD = 71*			
Corrected Ave (4 peaks):		17.5		Corrected Ave (4 peaks):		10.8	RPD = 47*			
Aroclor-1260	1	11.044	0.003	48916	135.6	1	11.643	-0.006	62935	163.5
Aroclor-1260	2	11.360	0.003	3252	8.8	2	11.917	0.002	28103	29.0
Aroclor-1260	3	11.734	0.004	29505	30.2	3	12.431	-0.001	298982	1154.1
Aroclor-1260	4	12.140	0.005	787	1.6	4	12.498	-0.000	314634	484.3
Aroclor-1260	5	12.242	0.002	307715	1445.8	NS	---			----
Total Col1Ave (5 peaks):		324.4		Total Col2Ave (4 peaks):		457.7	RPD = 34			
Corrected Ave (4 peaks):		44.0		Corrected Ave (3 peaks):		225.6	RPD = 135*			
Aroclor-1262	1	10.828	0.003	1495	4.9	1	11.199	0.001	44764	86.3
Aroclor-1262	2	12.242	0.000	307715	613.9	2	11.643	-0.005	62935	140.5
Aroclor-1262	3	12.314	-0.002	306654	567.3	3	12.431	0.000	298982	613.0
Aroclor-1262	4	12.985	0.001	125311	268.1	4	12.498	-0.002	314634	405.4
Total Col1Ave (4 peaks):		363.6		Total Col2Ave (4 peaks):		311.3	RPD = 15			
Corrected Ave (3 peaks):		280.1		Corrected Ave (3 peaks):		210.7	RPD = 28			
Aroclor-1268	1	12.242	-0.000	307715	234.3	1	12.431	0.001	298982	236.8
Aroclor-1268	2	12.314	0.000	306654	235.0	2	12.498	-0.000	314634	236.9
Aroclor-1268	3	12.698	0.000	256747	231.8	3	12.891	0.001	246279	236.7
Aroclor-1268	4	13.487	-0.000	801249	236.1	4	13.707	0.001	846369	232.8
Total Col1Ave (4 peaks):		234.3		Total Col2Ave (4 peaks):		235.8	RPD = 1			

Corrected Ave (3 peaks): 233.7 Corrected Ave (3 peaks): 235.5 RPD = 1

Total PCB Area Col1 (5.908 - 13.791) = 2519204 Col1 Total PCB = 0.5 ppm*

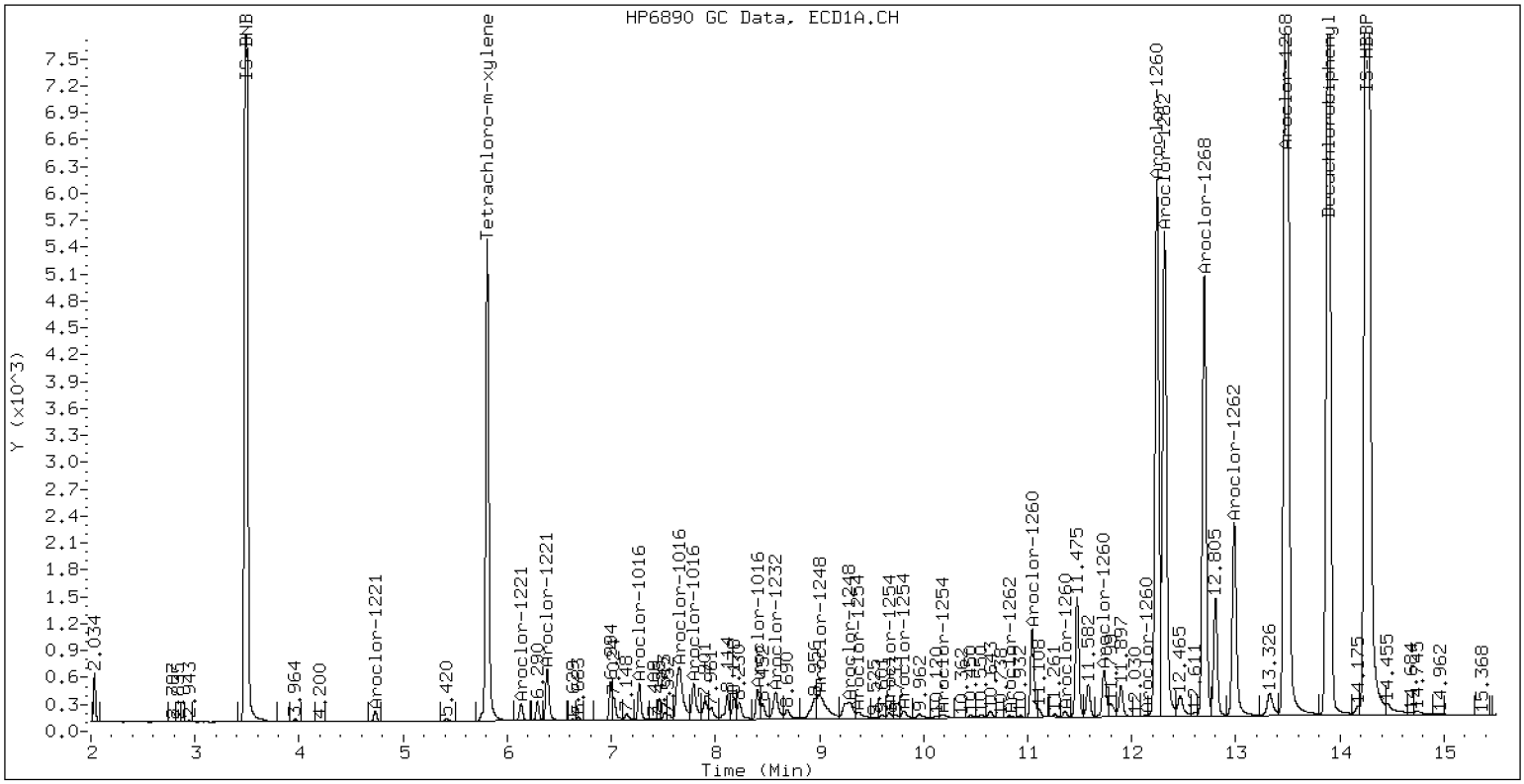
Total PCB Area Col2 (5.786 - 14.018) = 2392191 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

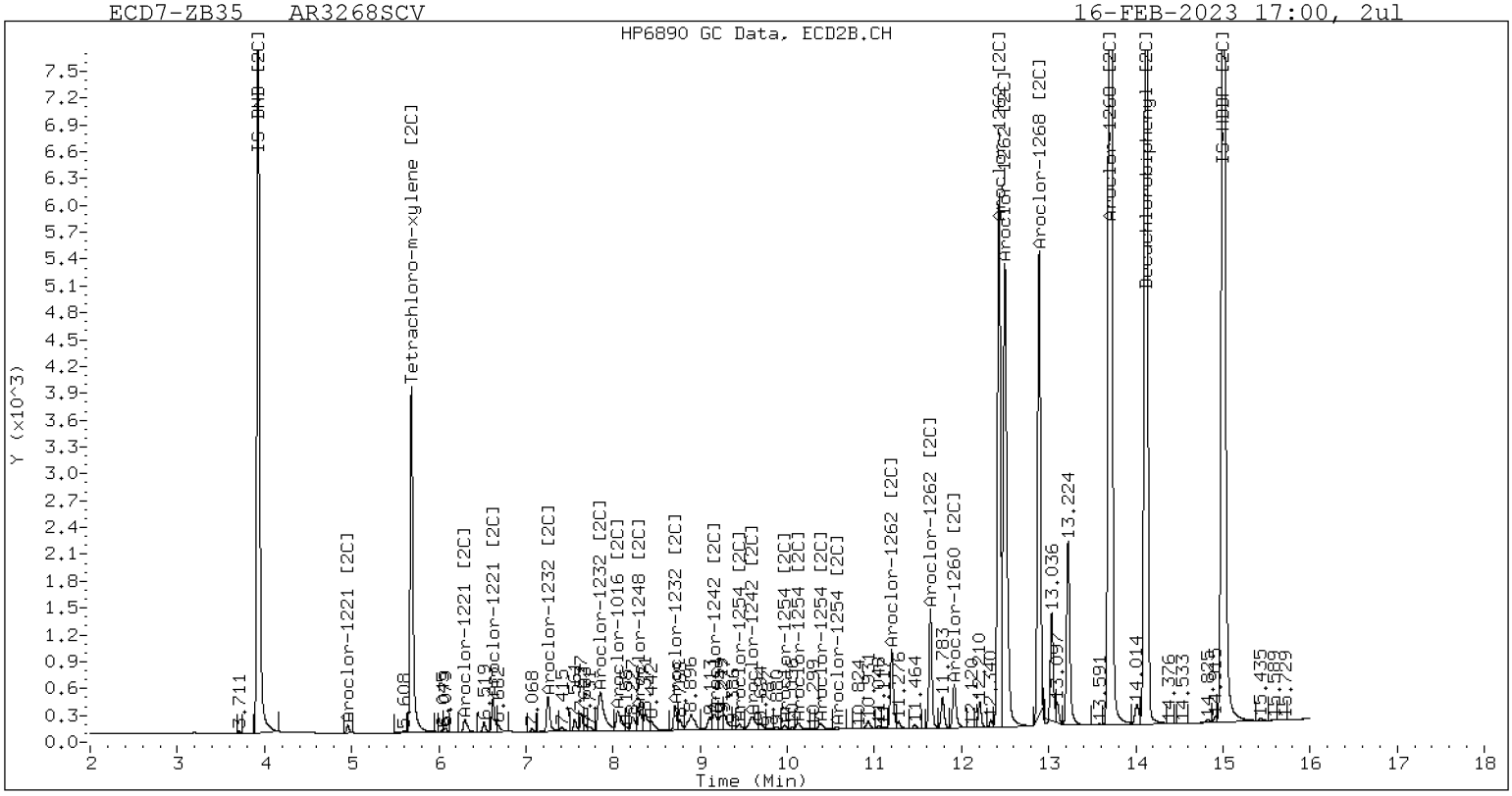
PCB Dual Column Chromatograms

ECD7-ZB5 AR3268SCV 16-FEB-2023 17:00, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268SCV 16-FEB-2023 17:00, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230216.b/02162319ECD7.D ARI ID: DDTS

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
9.260	-0.003	442624	9.911	-0.001	632750	0.085	0.087	2.1	2,4-DDE
10.293	-0.003	576653	10.667	0.002	928581	0.039	0.168#	124.2*	2,4-DDT
9.683	-0.004	755059	10.209	-0.002	423742	0.086	0.103	18.9	4,4-DDE
10.254	-0.027	674155	10.667	0.002	928581	0.000	0.168#	----	4,4-DDD

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230216.b/02162320ECD7.D ARI ID: DDT BD

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
9.284	0.021	2688	9.920	0.008	10374	0.001	0.001	93.2*	2,4-DDE
0.000	-10.296	0	10.673	0.007	190492	0.000	0.035#	----	2,4-DDT
9.692	0.005	7700	10.234	0.022	295	0.001	0.000	169.6*	4,4-DDE
10.259	-0.022	174757	10.673	0.007	190492	0.000	0.035#	----	4,4-DDD

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLB0222

Instrument: ECD7
Calibration ID: GB00045

Printed: 2/17/2023 12:18:06PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLB0222-CAL1	QC		1		L000856	L000844		
SLB0222-CAL2	QC		2		L000859	L000844		
SLB0222-CAL3	QC		3		L000858	L000844		
SLB0222-CAL4	QC		4		L000731	L000844		
SLB0222-CAL5	QC		5		L000857	L000844		
SLB0222-CAL6	QC		6		L000855	L000844		
SLB0222-CAL7	QC		7		L000860	L000844		
SLB0222-CAL8	QC		8		L000861	L000844		
SLB0222-CAL9	QC		9		L000862	L000844		
SLB0222-CALA	QC		10		L000863	L000844		
SLB0222-CALB	QC		11		L000864	L000844		
SLB0222-SCV1	QC		12		K007655	L000844		
SLB0222-SCV2	QC		13		K007656	L000844		
SLB0222-SCV3	QC		14		K007657	L000844		
SLB0222-SCV4	QC		15		K007658	L000844		
SLB0222-SCV5	QC		16		K007659	L000844		
SLB0222-SCV6	QC		17		K007660	L000844		

Samples Loaded By Date

Data Processed By Date

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	16-FEB-2023 11:02	02162301ECD7.D	1	IB	
2	16-FEB-2023 11:23	02162302ECD7.D	1	0.25PPMAR1660	
3	16-FEB-2023 11:44	02162303ECD7.D	1	0.02PPMAR1660	
4	16-FEB-2023 12:05	02162304ECD7.D	1	0.05PPMAR1660	
5	16-FEB-2023 12:27	02162305ECD7.D	1	1.0PPMAR1660	
6	16-FEB-2023 12:48	02162306ECD7.D	1	0.1PPMAR1660	
7	16-FEB-2023 13:09	02162307ECD7.D	1	0.5PPMAR1660	
8	16-FEB-2023 13:30	02162308ECD7.D	1	0.25PPMAR1242	
9	16-FEB-2023 13:51	02162309ECD7.D	1	0.25PPMAR1248	
10	16-FEB-2023 14:12	02162310ECD7.D	1	0.25PPMAR1254	
11	16-FEB-2023 14:33	02162311ECD7.D	1	0.25PPMAR2168	
12	16-FEB-2023 14:54	02162312ECD7.D	1	0.25PPMAR3268	
13	16-FEB-2023 15:15	02162313ECD7.D	1	AR1660SCV	
14	16-FEB-2023 15:36	02162314ECD7.D	1	AR1242SCV	
15	16-FEB-2023 15:57	02162315ECD7.D	1	AR1248SCV	
16	16-FEB-2023 16:18	02162316ECD7.D	1	AR1254SCV	
17	16-FEB-2023 16:39	02162317ECD7.D	1	AR2162SCV	
18	16-FEB-2023 17:00	02162318ECD7.D	1	AR3268SCV	
19	16-FEB-2023 17:21	02162319ECD7.D	1	DDTS	
20	16-FEB-2023 17:42	02162320ECD7.D	1	DDT BD	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

ARI Job No.: IB Method: PCB.m Instrument: ecd7.i Date: 16-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1102	02162301ECD7.D	IB		1	NO MANUAL INTEGRATION
1123	02162302ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
1144	02162303ECD7.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
1205	02162304ECD7.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
1227	02162305ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1248	02162306ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1309	02162307ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1330	02162308ECD7.D	0.25PPMAR1242		1	NO MANUAL INTEGRATION
1351	02162309ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
1412	02162310ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
1433	02162311ECD7.D	0.25PPMAR2168		1	NO MANUAL INTEGRATION
1454	02162312ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1515	02162313ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1536	02162314ECD7.D	AR1242SCV		1	NO MANUAL INTEGRATION
1557	02162315ECD7.D	AR1248SCV		1	Aroclor-1248,
1618	02162316ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION
1639	02162317ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1700	02162318ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
1721	02162319ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1742	02162320ECD7.D	DDT BD		1	NO MANUAL INTEGRATION
1803	02162321ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1824	02162322ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1845	02162323ECD7.D	BLB0303-BLK1		1	NO MANUAL INTEGRATION
1906	02162324ECD7.D	BLB0303-BS1		1	NO MANUAL INTEGRATION
1927	02162325ECD7.D	BLB0303-BSD1		1	NO MANUAL INTEGRATION
1948	02162326ECD7.D	23B0153-01		1	NO MANUAL INTEGRATION
2009	02162327ECD7.D	23B0179-01		1	NO MANUAL INTEGRATION
2030	02162328ECD7.D	23B0179-03		1	NO MANUAL INTEGRATION
2051	02162329ECD7.D	23B0218-01		1	NO MANUAL INTEGRATION
2112	02162330ECD7.D	23B0243-01		1	NO MANUAL INTEGRATION
2133	02162331ECD7.D	23B0250-03		1	NO MANUAL INTEGRATION
2154	02162332ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
2215	02162333ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1102	02162301ECD7.D	IB		1	NO MANUAL INTEGRATION
1123	02162302ECD7.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1144	02162303ECD7.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
1205	02162304ECD7.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
1227	02162305ECD7.D	1.0PPMAR1660		1	NO MANUAL INTEGRATION
1248	02162306ECD7.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1309	02162307ECD7.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1330	02162308ECD7.D	0.25PPMAR1242		1	NO MANUAL INTEGRATION
1351	02162309ECD7.D	0.25PPMAR1248		1	NO MANUAL INTEGRATION
1412	02162310ECD7.D	0.25PPMAR1254		1	NO MANUAL INTEGRATION
1433	02162311ECD7.D	0.25PPMAR2162		1	NO MANUAL INTEGRATION
1454	02162312ECD7.D	0.25PPMAR3268		1	NO MANUAL INTEGRATION
1515	02162313ECD7.D	AR1660SCV		1	NO MANUAL INTEGRATION
1536	02162314ECD7.D	AR1242SCV		1	NO MANUAL INTEGRATION
1557	02162315ECD7.D	AR1248SCV		1	NO MANUAL INTEGRATION
1618	02162316ECD7.D	AR1254SCV		1	NO MANUAL INTEGRATION
1639	02162317ECD7.D	AR2162SCV		1	NO MANUAL INTEGRATION
1700	02162318ECD7.D	AR3268SCV		1	NO MANUAL INTEGRATION
1721	02162319ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1742	02162320ECD7.D	DDT BD		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230216.b\230216.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1803	02162321ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1824	02162322ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1845	02162323ECD7.D	BLB0303-BLK1		1	NO MANUAL INTEGRATION
1906	02162324ECD7.D	BLB0303-BS1		1	NO MANUAL INTEGRATION
1927	02162325ECD7.D	BLB0303-BSD1		1	NO MANUAL INTEGRATION
1948	02162326ECD7.D	23B0153-01		1	NO MANUAL INTEGRATION
2009	02162327ECD7.D	23B0179-01		1	NO MANUAL INTEGRATION
2030	02162328ECD7.D	23B0179-03		1	NO MANUAL INTEGRATION
2051	02162329ECD7.D	23B0218-01		1	NO MANUAL INTEGRATION
2112	02162330ECD7.D	23B0243-01		1	NO MANUAL INTEGRATION
2133	02162331ECD7.D	23B0250-03		1	NO MANUAL INTEGRATION
2154	02162332ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
2215	02162333ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION

Security Status Report

Date: 17-Feb-2023 18:28

02162301ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
02162302ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
02162303ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
02162304ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
02162305ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
02162306ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
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02162311ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
02162312ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
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02162314ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
02162315ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
02162316ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
02162317ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
02162318ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
02162319ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28
02162320ECD7.D	Data Locked	richardl, 17-Feb-2023 18:28

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 16-FEB-2023 14:54
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230216.b\PCB.m
Last Edit : 17-Feb-2023 11:52 richardl
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd7.i\230216.b\02162303ECD7.D
Level 2: \\target\share\chem4\ecd7.i\230216.b\02162304ECD7.D
Level 3: \\target\share\chem4\ecd7.i\230216.b\02162306ECD7.D
Level 4: \\target\share\chem4\ecd7.i\230216.b\02162302ECD7.D
Level 5: \\target\share\chem4\ecd7.i\230216.b\02162307ECD7.D
Level 6: \\target\share\chem4\ecd7.i\230216.b\02162305ECD7.D
Level 7: \\target\share\chem4\ecd7.i\230216.b\02162312ECD7.D
Level 8: \\target\share\chem4\ecd7.i\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00621	+++++	0.00621	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01159	+++++	0.01159	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02681	+++++	0.02681	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.02383	+++++	0.02383	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.07542	+++++	0.07542	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02279	+++++	0.02279	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03366	+++++	0.03366	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00384	+++++	0.00384	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 16-FEB-2023 14:54
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230216.b\PCB.m
Last Edit : 17-Feb-2023 11:52 richardl
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.00810	+++++							0.00810	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03890	+++++							0.03890	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.01608	+++++							0.01608	0.000
7 Aroclor-1016(1)	0.03169	0.03099	0.02928	0.02945	0.02797	0.02542				
	+++++	+++++							0.02913	7.707
(2)	0.09586	0.09291	0.09260	0.09647	0.09408	0.08784				
	+++++	+++++							0.09329	3.308
(3)	0.04883	0.04639	0.04500	0.04135	0.03957	0.03629				
	+++++	+++++							0.04290	10.874
(4)	0.02872	0.02806	0.02800	0.02901	0.02840	0.02722				
	+++++	+++++							0.02824	2.231
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03858	+++++							0.03858	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04869	+++++							0.04869	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.06882	+++++							0.06882	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04353	+++++							0.04353	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 16-FEB-2023 14:54
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230216.b\PCB.m
Last Edit : 17-Feb-2023 11:52 richardl
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.07742	+++++							0.07742	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03048	+++++							0.03048	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04934	+++++							0.04934	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.09822	+++++							0.09822	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05991	+++++							0.05991	0.000
9 Aroclor-1260(1)	0.02788	0.02776	0.02777	0.02859	0.02723	0.02625				
	+++++	+++++							0.02758	2.845
(2)	0.02806	0.02793	0.02845	0.02939	0.02812	0.02734				
	+++++	+++++							0.02821	2.405
(3)	0.07961	0.07479	0.07516	0.07705	0.07265	0.06906				
	+++++	+++++							0.07472	4.859
(4)	0.03780	0.03647	0.03729	0.03969	0.03861	0.03777				
	+++++	+++++							0.03794	2.929
(5)	0.01706	0.01597	0.01600	0.01657	0.01616	0.01586				
	+++++	+++++							0.01627	2.827
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.02338	+++++							0.02338	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 16-FEB-2023 14:54
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230216.b\PCB.m
Last Edit : 17-Feb-2023 11:52 richardl
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03832	+++++							0.03832	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04132	+++++							0.04132	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03573	+++++							0.03573	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.10039	+++++							0.10039	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.09977	+++++							0.09977	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.08467	+++++							0.08467	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.25939	+++++							0.25939	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++				
	+++++	904							904	0.000
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++				
	+++++	1034							1034	0.000
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++				
	+++++	2557							2557	0.000
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++				
	+++++	1539							1539	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 16-FEB-2023 14:54
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230216.b\PCB.m
Last Edit : 17-Feb-2023 11:52 richardl
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1484	1484	0.000
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 1 Tetrachloro-m-xylene	1.16576	1.15771	1.14477	1.15521	1.11420	1.07286	+++++	+++++	1.13509	3.117
$ 13 Decachlorobiphenyl	0.73379	0.74028	0.73168	0.72104	0.66812	0.63265	+++++	+++++	0.70459	6.231

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 16-FEB-2023 14:54
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Last Edit : 17-Feb-2023 17:17 jrains
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd7.i\230216.b\230216.b\02162303ECD7.D
Level 2: \\target\share\chem4\ecd7.i\230216.b\230216.b\02162304ECD7.D
Level 3: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242317ECD7.D
Level 4: \\target\share\chem4\ecd7.i\230216.b\230216.b\02162302ECD7.D
Level 5: \\target\share\chem4\ecd7.i\230216.b\230216.b\02162307ECD7.D
Level 6: \\target\share\chem4\ecd7.i\230216.b\230216.b\02162305ECD7.D
Level 7: \\target\share\chem4\ecd7.i\230216.b\230216.b\02162312ECD7.D
Level 8: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
1 Aroclor-1221 [2C](1)	*****	*****	*****	*****	*****	*****	0.00595	*****	0.00595	0.000
(2)	*****	*****	*****	*****	*****	*****	0.01277	*****	0.01277	0.000
(3)	*****	*****	*****	*****	*****	*****	0.02139	*****	0.02139	0.000
4 Aroclor-1232 [2C](1)	*****	*****	*****	*****	*****	*****	0.00355	*****	0.00355	0.000
(2)	*****	*****	*****	*****	*****	*****	0.01988	*****	0.01988	0.000
(3)	*****	*****	*****	*****	*****	*****	0.03973	*****	0.03973	0.000
(4)	*****	*****	*****	*****	*****	*****	0.01112	*****	0.01112	0.000
3 Aroclor-1242 [2C](1)	*****	*****	*****	*****	*****	*****	0.03460	*****	0.03460	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 16-FEB-2023 14:54
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Last Edit : 17-Feb-2023 17:17 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(2)	*****	*****	*****	*****	*****	*****				
	0.07497	*****							0.07497	0.000
(3)	*****	*****	*****	*****	*****	*****				
	0.02370	*****							0.02370	0.000
(4)	*****	*****	*****	*****	*****	*****				
	0.02874	*****							0.02874	0.000
6 Aroclor-1248 [2C](1)	*****	*****	*****	*****	*****	*****				
	0.03609	*****							0.03609	0.000
(2)	*****	*****	*****	*****	*****	*****				
	0.03797	*****							0.03797	0.000
(3)	*****	*****	*****	*****	*****	*****				
	0.04387	*****							0.04387	0.000
(4)	*****	*****	*****	*****	*****	*****				
	0.05322	*****							0.05322	0.000
7 Aroclor-1016 [2C](1)	0.04821	0.04702	0.04678	0.04295	0.04080	0.03724				
	*****	*****							0.04383	9.755
(2)	0.08512	0.09163	0.10417	0.09587	0.09318	0.08872				
	*****	*****							0.09312	7.047
(3)	0.02856	0.04029	0.04478	0.03996	0.03883	0.03729				
	*****	*****							0.03829	14.062
(4)	0.03101	0.03372	0.03419	0.03091	0.02903	0.02743				
	*****	*****							0.03105	8.418

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 16-FEB-2023 14:54
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Last Edit : 17-Feb-2023 17:17 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
8 Aroclor-1254 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.05640	+++++	0.05640	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04556	+++++	0.04556	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.09925	+++++	0.09925	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.09792	+++++	0.09792	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.04948	+++++	0.04948	0.000
10 Aroclor-1262 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.05979	+++++	0.05979	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.05162	+++++	0.05162	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.05620	+++++	0.05620	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.08944	+++++	0.08944	0.000
9 Aroclor-1260 [2C](1)	0.04619	0.04217	0.05912	0.04183	0.03957	0.03730	+++++	+++++	0.04436	17.610
(2)	0.11159	0.10601	0.15181	0.10721	0.10092	0.09204	+++++	+++++	0.11160	18.642

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 16-FEB-2023 14:54
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Last Edit : 17-Feb-2023 17:17 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(3)	0.03353	0.02800	0.03582	0.02741	0.02727	0.02707	+++++	+++++	0.02985	12.802
(4)	0.07520	0.07003	0.09881	0.07122	0.06860	0.06533	+++++	+++++	0.07487	16.253
11 Aroclor-1268 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.14547	+++++	0.14547	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.15302	+++++	0.15302	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.11987	+++++	0.11987	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.41890	+++++	0.41890	0.000
41 2,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1528	1528	0.000
42 2,4-DDD [2C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	866	866	0.000
44 4,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	863	863	0.000
45 4,4-DDD/2,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1162	1162	0.000
46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1277	1277	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
End Cal Date : 16-FEB-2023 14:54
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Last Edit : 17-Feb-2023 17:17 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 2 Tetrachloro-m-xylene [2C]	1.07500	1.07479	1.15322	1.08886	1.05368	1.03131	+++++	+++++	1.07948	3.832
$ 13 Decachlorobiphenyl [2C]	1.02179	1.03597	1.31190	1.13513	1.11204	1.07798	+++++	+++++	1.11580	9.441

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230216.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	02162302ECD7	02162303ECD7	02162304ECD7	02162305ECD7	02162306ECD7	02162307ECD7
INJ.DATE:	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023
INJ.TIME:	11:23	11:44	12:05	12:27	12:48	13:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	3.492	3.492	3.491	3.493	3.492	3.491	3.492	3.392-3.592	3.492	0.001
$ 1 Tetrachloro-m-xylene	5.810	5.808	5.808	5.811	5.808	5.809	5.810	5.710-5.910	5.809	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	4.732	4.632-4.832	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	7.269	7.169-7.369	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	4.732	4.632-4.832	+++++	+++++
7 Aroclor-1016	7.271	7.271	7.270	7.270	7.270	7.269	7.271	7.171-7.371	7.270	0.001
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	8.403	8.303-8.503	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	9.295	9.195-9.395	+++++	+++++
9 Aroclor-1260	11.043	11.044	11.043	11.040	11.042	11.041	11.043	10.943-11.143	11.042	0.001
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	10.824	10.724-10.924	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	12.243	12.143-12.343	+++++	+++++
$ 13 Decachlorobiphenyl	13.894	13.892	13.891	13.892	13.890	13.890	13.894	13.794-13.994	13.892	0.002
* 12 IS-HBBP	14.263	14.263	14.261	14.261	14.262	14.262	14.263	14.163-14.363	14.262	0.001
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.260	9.210-9.310	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.801	9.751-9.851	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.293	10.243-10.343	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.683	9.583-9.783	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230216.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	10.254	10.154-10.354	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.754	10.654-10.854	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230216.b\230216.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	02162302ECD7	02162303ECD7	02162304ECD7	02162305ECD7	02162306ECD7	02162307ECD7
INJ.DATE:	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023	16-FEB-2023
INJ.TIME:	11:23	11:44	12:05	12:27	12:48	13:09

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB [2C]	3.928	3.929	3.928	3.930	3.929	3.929	3.928	3.828-4.028	3.929	0.001
$ 2 Tetrachloro-m-xylene [	5.685	5.686	5.685	5.688	5.687	5.686	5.685	5.585-5.785	5.686	0.001
1 Aroclor-1221 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.958	4.858-5.058	+++++	+++++
4 Aroclor-1232 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.958	4.859-5.059	+++++	+++++
3 Aroclor-1242 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	7.254	7.154-7.354	+++++	+++++
6 Aroclor-1248 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	8.305	8.205-8.405	+++++	+++++
7 Aroclor-1016 [2C]	7.254	7.255	7.254	7.254	7.254	7.254	7.254	7.154-7.354	7.254	0.000
8 Aroclor-1254 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.447	9.347-9.547	+++++	+++++
10 Aroclor-1262 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.198	11.098-11.298	+++++	+++++
9 Aroclor-1260 [2C]	11.651	11.652	11.652	11.650	11.651	11.650	11.651	11.551-11.751	11.651	0.001
11 Aroclor-1268 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	12.431	12.331-12.531	+++++	+++++
$ 13 Decachlorobiphenyl [2C	14.117	14.118	14.117	14.120	14.117	14.118	14.117	14.017-14.217	14.118	0.001
* 12 IS-HBBP [2C]	15.006	15.006	15.004	15.005	15.005	15.005	15.006	14.906-15.106	15.005	0.001
41 2,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.911	9.861-9.961	+++++	+++++
42 2,4-DDD [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.536	9.486-9.586	+++++	+++++
44 4,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.209	10.109-10.309	+++++	+++++
45 4,4-DDD/2,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.667	10.567-10.767	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230216.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230216.b\230216.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.092	10.992-11.192	+++++	+++++
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.703	1.603-1.803	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	7.178	7.078-7.278	+++++	+++++

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162301ECD7.D
Data file 2: /230216.b/230216.b/02162301ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 16-FEB-2023 11:02
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.823	0.015	232765	5.680	-0.005	190174	39.3	39.7	1.1	Tetrachloro-m-xylene
13.900	0.009	322325	14.118	0.000	335746	40.3	40.6	0.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	417912	-2.8
Hexabromobiphenyl	975457	908024	-6.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	359487	-2.0
Hexabromobiphenyl	646884	614725	-5.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	11.361	0.004	128	0.4	2	---			0.0
Aroclor-1260	3	11.801	0.071	128	0.2	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.705	0.008	993	1.0	3	---			0.0
Aroclor-1268	4	13.493	0.006	2534	0.9	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (5.908 - 13.791) = 24426 Col1 Total PCB = 0.0 ppm*

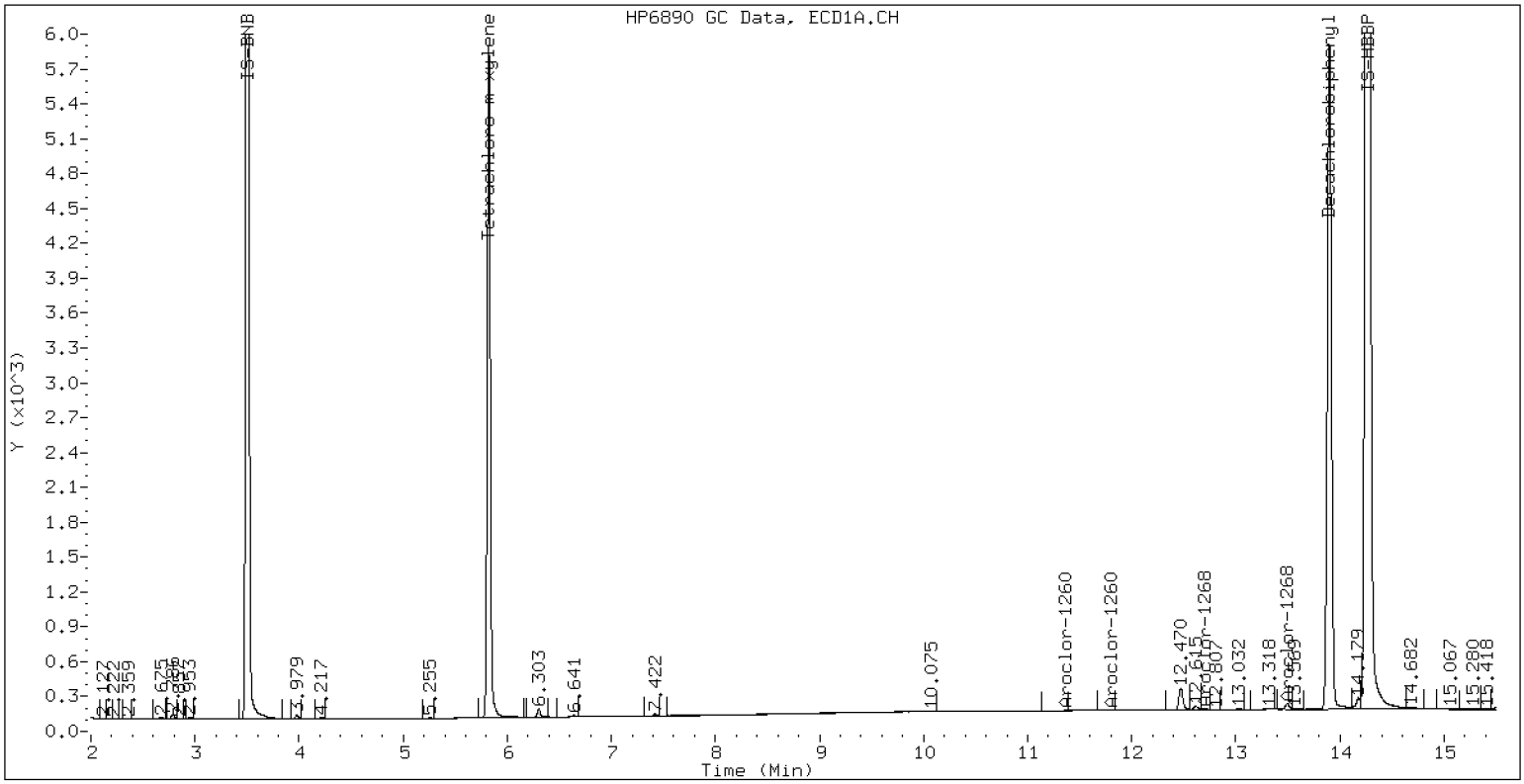
Total PCB Area Col2 (5.786 - 14.018) = 13889 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

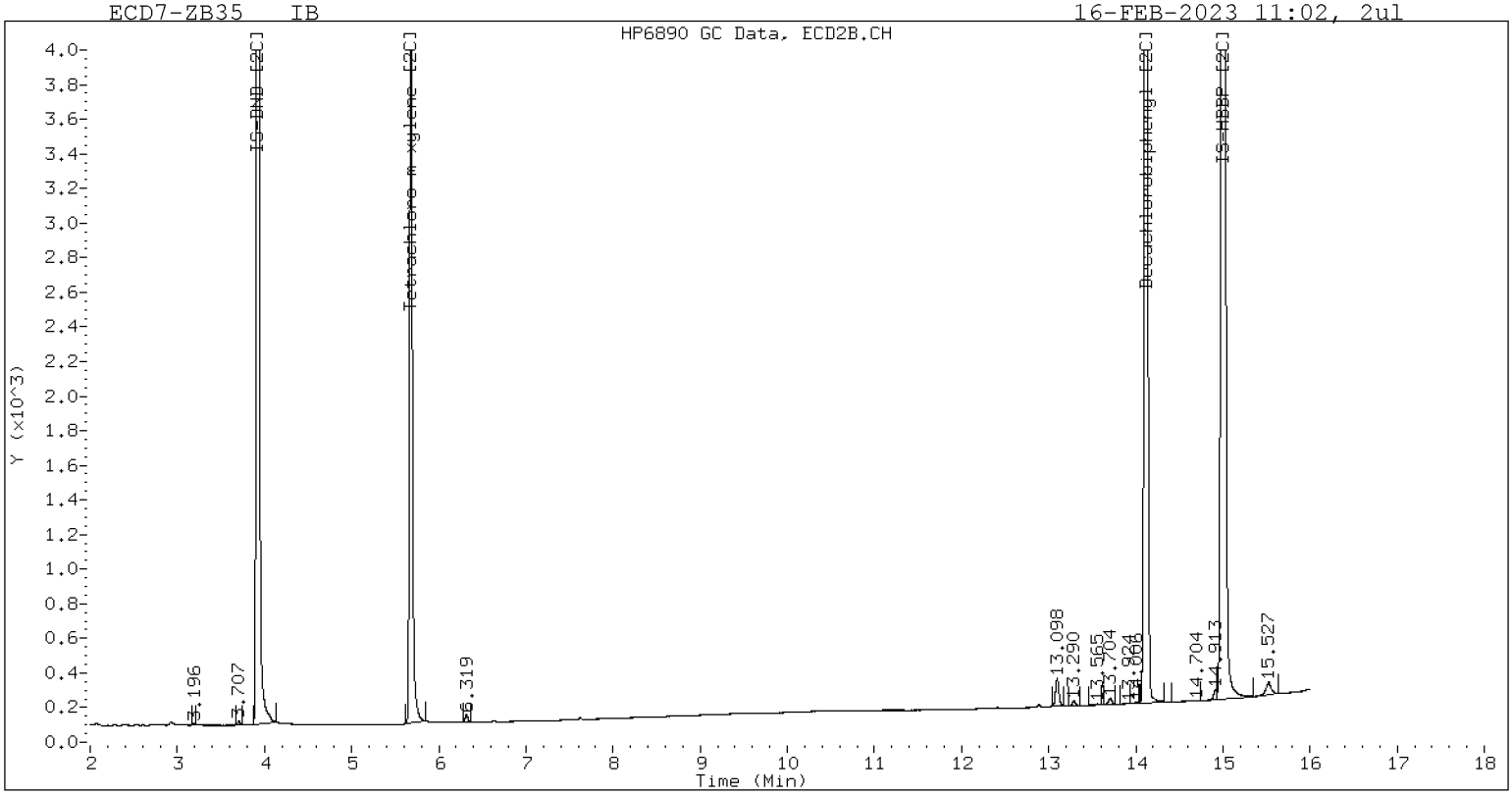
PCB Dual Column Chromatograms

ECD7-ZB5 IB 16-FEB-2023 11:02, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 IB 16-FEB-2023 11:02, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162302ECD7.D
Data file 2: /230216.b/230216.b/02162302ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 11:23
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	248401	5.685	-0.001	199672	40.7	40.8	0.3	Tetrachloro-m-xylene
13.894	0.003	351670	14.117	-0.001	367148	40.9	42.2	3.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	430055	0.0
Hexabromobiphenyl	975457	975457	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	366754	0.0
Hexabromobiphenyl	646884	646884	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	7.271	0.002	39579	252.7	1	7.254	-0.000	49228	246.7
Aroclor-1016	2	7.652	0.002	129647	258.5	2	7.850	-0.002	109879	261.2
Aroclor-1016	3	7.790	0.003	55577	241.0	3	8.050	0.000	45802	264.2
Aroclor-1016	4	8.404	0.001	38982	256.8	4	8.304	-0.000	35428	249.7
Total Col1Ave (4 peaks):					252.3	Total Col2Ave (4 peaks):				255.5 RPD = 1
Corrected Ave (3 peaks):					250.2	Corrected Ave (3 peaks):				252.6 RPD = 1
CalAmt %D:					0.9	CalAmt %D:				2.2
Aroclor-1260	1	11.043	0.002	87165	259.2	1	11.651	0.001	84745	252.1
Aroclor-1260	2	11.360	0.003	89579	260.4	2	11.916	0.001	217336	257.7
Aroclor-1260	3	11.733	0.003	234880	257.8	3	12.434	0.001	55703	243.2
Aroclor-1260	4	12.137	0.002	120991	261.6	4	12.499	0.001	144903	254.5
Aroclor-1260	5	12.243	0.003	50521	254.7	NS	---			----
Total Col1Ave (5 peaks):					258.7	Total Col2Ave (4 peaks):				251.9 RPD = 3
Corrected Ave (4 peaks):					258.0	Corrected Ave (3 peaks):				249.9 RPD = 3
CalAmt %D:					3.5	CalAmt %D:				0.7

Total PCB Area Col1 (5.908 - 13.791) = 2424171 Col1 Total PCB = 0.5 ppm*

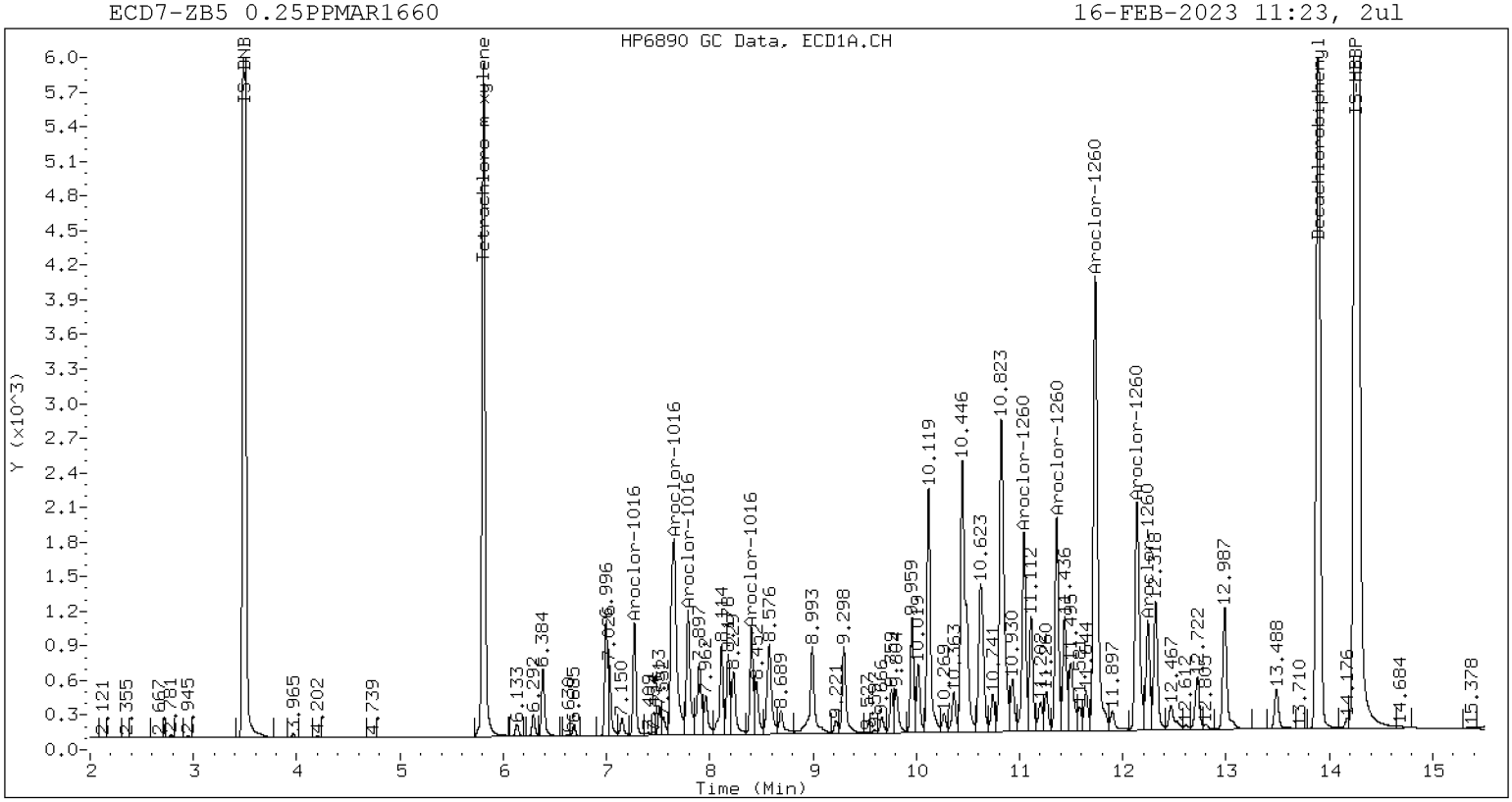
Total PCB Area Col2 (5.786 - 14.018) = 2020270 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

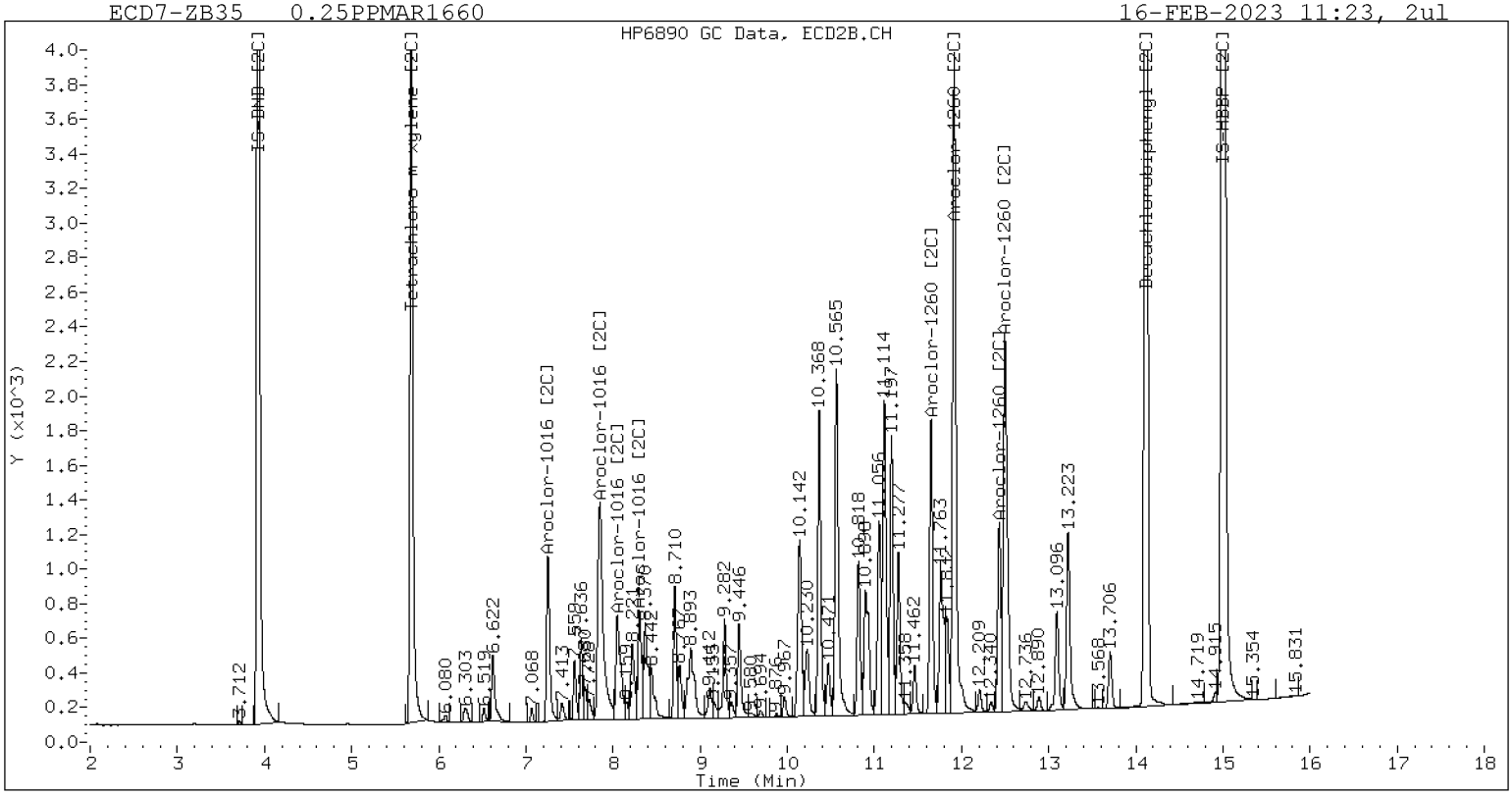
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1660 16-FEB-2023 11:23, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1660 16-FEB-2023 11:23, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162303ECD7.D
Data file 2: /230216.b/230216.b/02162303ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 11:44
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	19708	5.686	0.000	15503	3.3	3.2	1.9	Tetrachloro-m-xylene
13.892	0.001	28479	14.118	-0.000	26541	3.3	3.0	9.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	422641	-1.7
Hexabromobiphenyl	975457	970275	-0.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	360534	-1.7
Hexabromobiphenyl	646884	649373	0.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.002	3348	21.8	1	7.255	0.001	4345	22.2
Aroclor-1016	2	7.655	0.005	10129	20.6	2	7.856	0.005	7672	18.6
Aroclor-1016	3	7.792	0.005	5159	22.8	3	8.056	0.007	2574	15.1
Aroclor-1016	4	8.405	0.003	3035	20.3	4	8.307	0.003	2795	20.0
Total Col1Ave (4 peaks):					21.4	Total Col2Ave (4 peaks):				19.0 RPD = 12
Corrected Ave (3 peaks):					20.9	Corrected Ave (3 peaks):				17.9 RPD = 15
CalAmt %D:					6.8	CalAmt %D:				-5.2
Aroclor-1260	1	11.044	0.003	6763	20.2	1	11.652	0.002	7423	22.0
Aroclor-1260	2	11.360	0.003	6806	19.9	2	11.918	0.003	18049	21.3
Aroclor-1260	3	11.737	0.006	19311	21.3	3	12.434	0.002	5444	23.7
Aroclor-1260	4	12.141	0.006	9169	19.9	4	12.502	0.004	12209	21.4
Aroclor-1260	5	12.243	0.003	4138	21.0	NS	---			----
Total Col1Ave (5 peaks):					20.5	Total Col2Ave (4 peaks):				22.1 RPD = 8
Corrected Ave (4 peaks):					20.3	Corrected Ave (3 peaks):				21.6 RPD = 6
CalAmt %D:					2.3	CalAmt %D:				10.4

Total PCB Area Col1 (5.908 - 13.791) = 207302 Col1 Total PCB = 0.0 ppm*

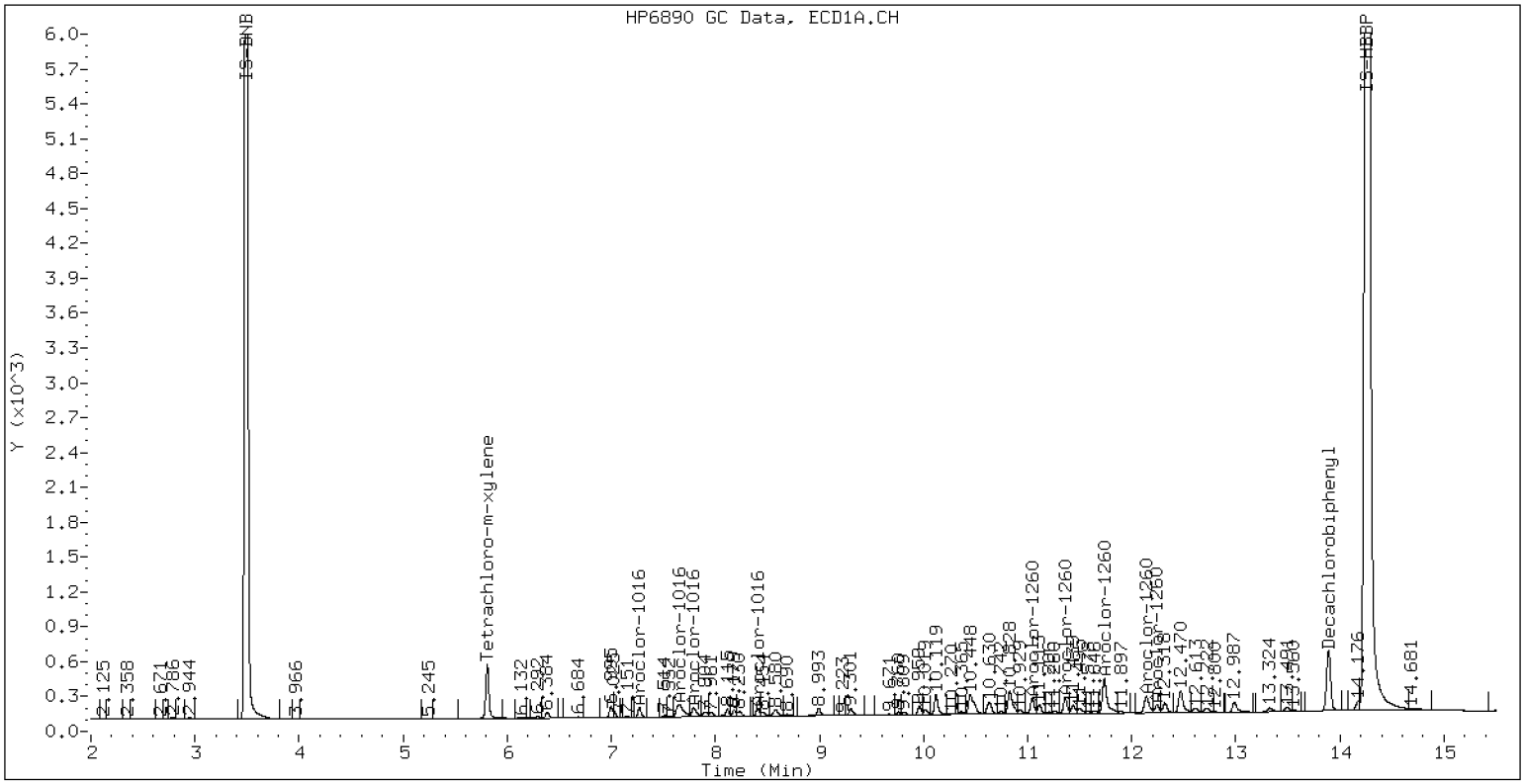
Total PCB Area Col2 (5.786 - 14.018) = 173646 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

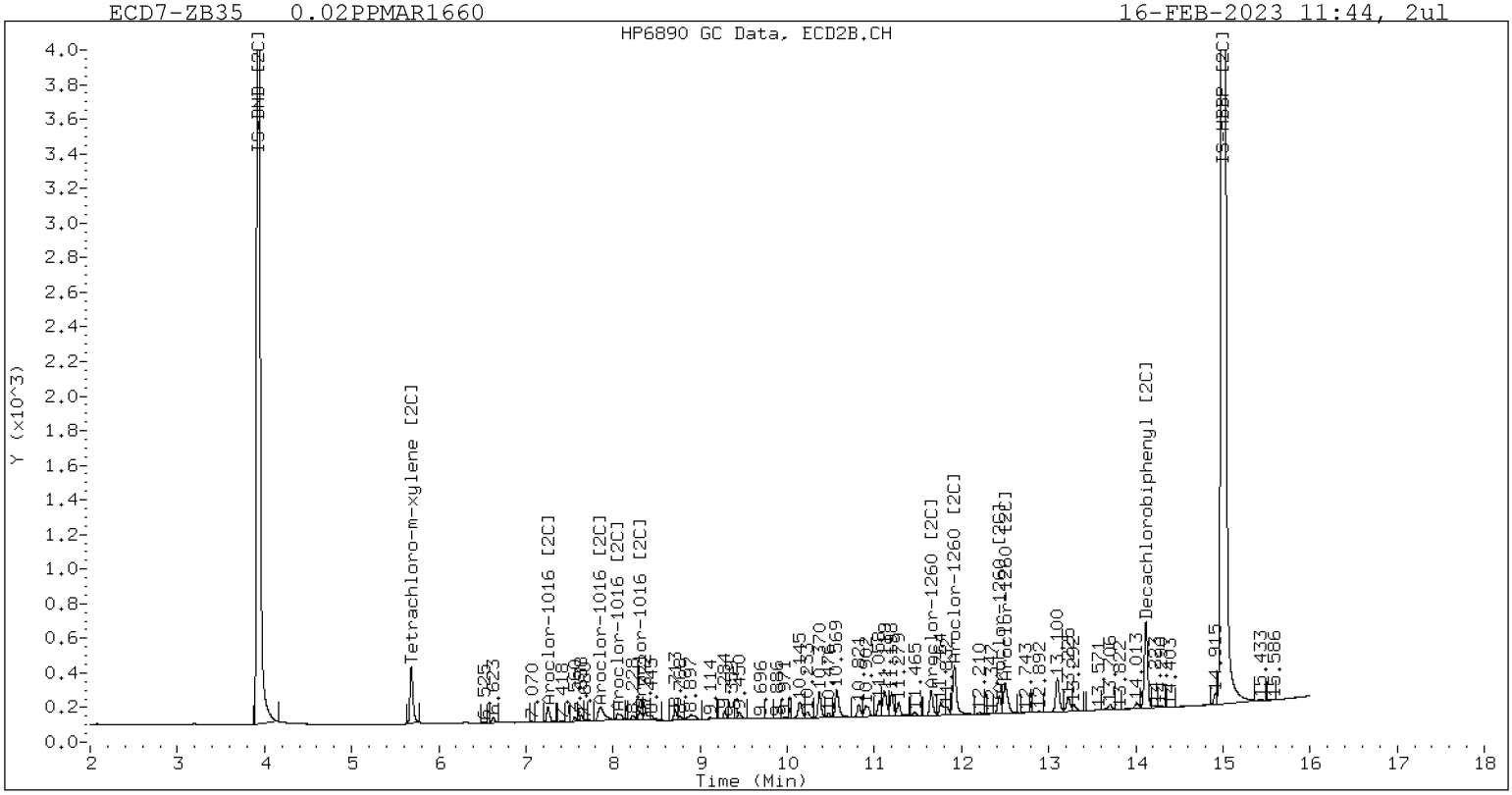
PCB Dual Column Chromatograms

ECD7-ZB5 0.02PPMAR1660 16-FEB-2023 11:44, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.02PPMAR1660 16-FEB-2023 11:44, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162304ECD7.D
Data file 2: /230216.b/230216.b/02162304ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:05
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.001	49106	5.685	-0.001	38865	8.2	8.1	1.2	Tetrachloro-m-xylene
13.891	0.000	72151	14.117	-0.001	67392	8.4	7.7	8.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	424165	-1.4
Hexabromobiphenyl	975457	974643	-0.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	361606	-1.4
Hexabromobiphenyl	646884	650523	0.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	7.270	0.001	8215	53.2	1	7.254	-0.000	10626	54.0
Aroclor-1016	2	7.653	0.003	24630	49.8	2	7.855	0.003	20708	49.9
Aroclor-1016	3	7.791	0.004	12297	54.1	3	8.055	0.006	9105	53.3
Aroclor-1016	4	8.404	0.001	7438	49.7	4	8.306	0.001	7620	54.5
Total Col1Ave (4 peaks):					51.7	Total Col2Ave (4 peaks):				52.9 RPD = 2
Corrected Ave (3 peaks):					50.9	Corrected Ave (3 peaks):				52.4 RPD = 3
CalAmt %D:					3.4	CalAmt %D:				5.9
Aroclor-1260	1	11.043	0.002	16909	50.3	1	11.652	0.002	17256	51.0
Aroclor-1260	2	11.359	0.002	17012	49.5	2	11.917	0.003	43189	50.9
Aroclor-1260	3	11.734	0.003	45560	50.0	3	12.435	0.003	11385	49.4
Aroclor-1260	4	12.138	0.003	22213	48.1	4	12.501	0.003	28474	49.7
Aroclor-1260	5	12.241	0.001	9728	49.1	NS	---			----
Total Col1Ave (5 peaks):					49.4	Total Col2Ave (4 peaks):				50.3 RPD = 2
Corrected Ave (4 peaks):					49.2	Corrected Ave (3 peaks):				50.0 RPD = 2
CalAmt %D:					-1.2	CalAmt %D:				0.6

Total PCB Area Col1 (5.908 - 13.791) = 481905 Col1 Total PCB = 0.1 ppm*

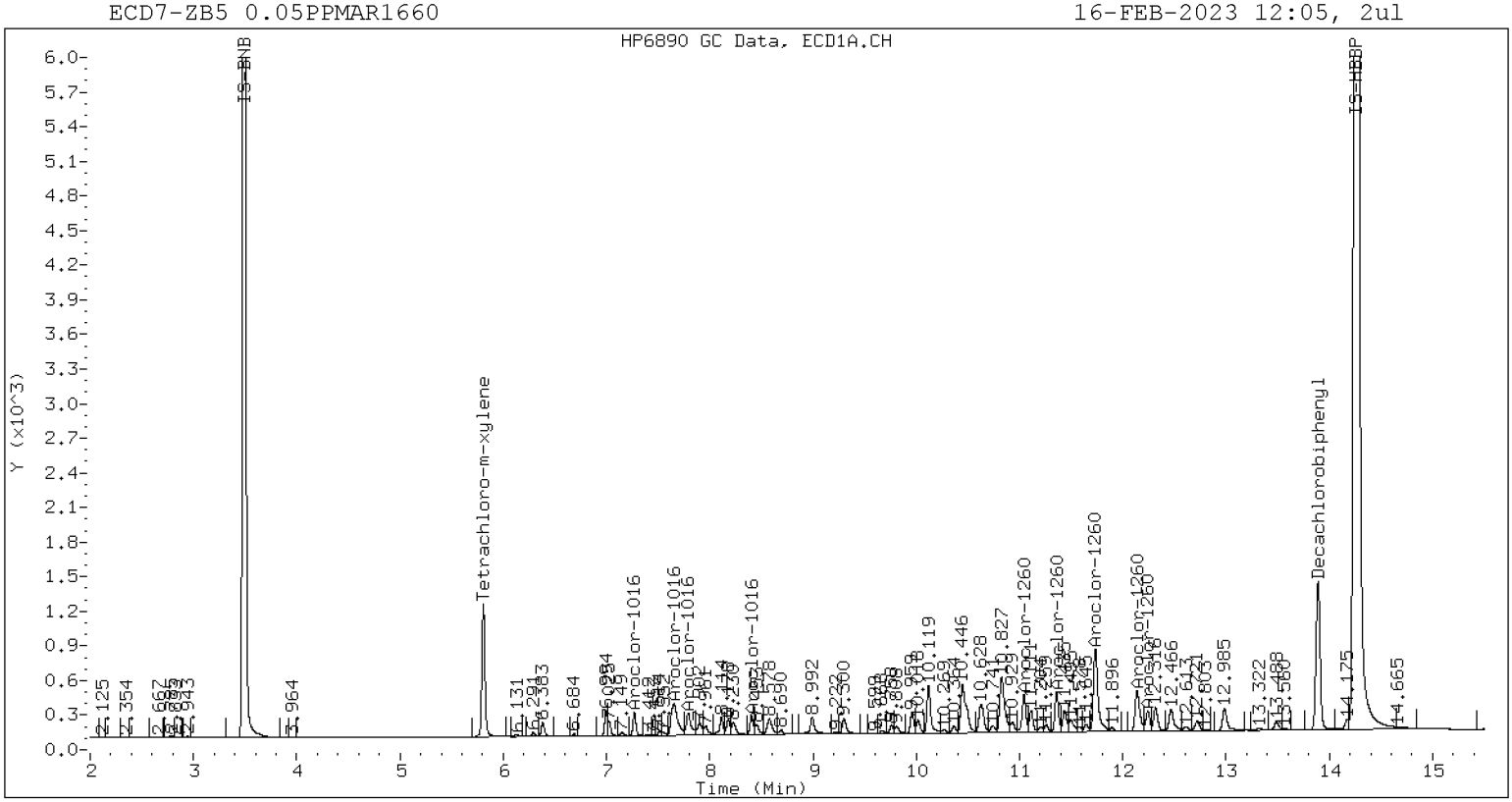
Total PCB Area Col2 (5.786 - 14.018) = 410803 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

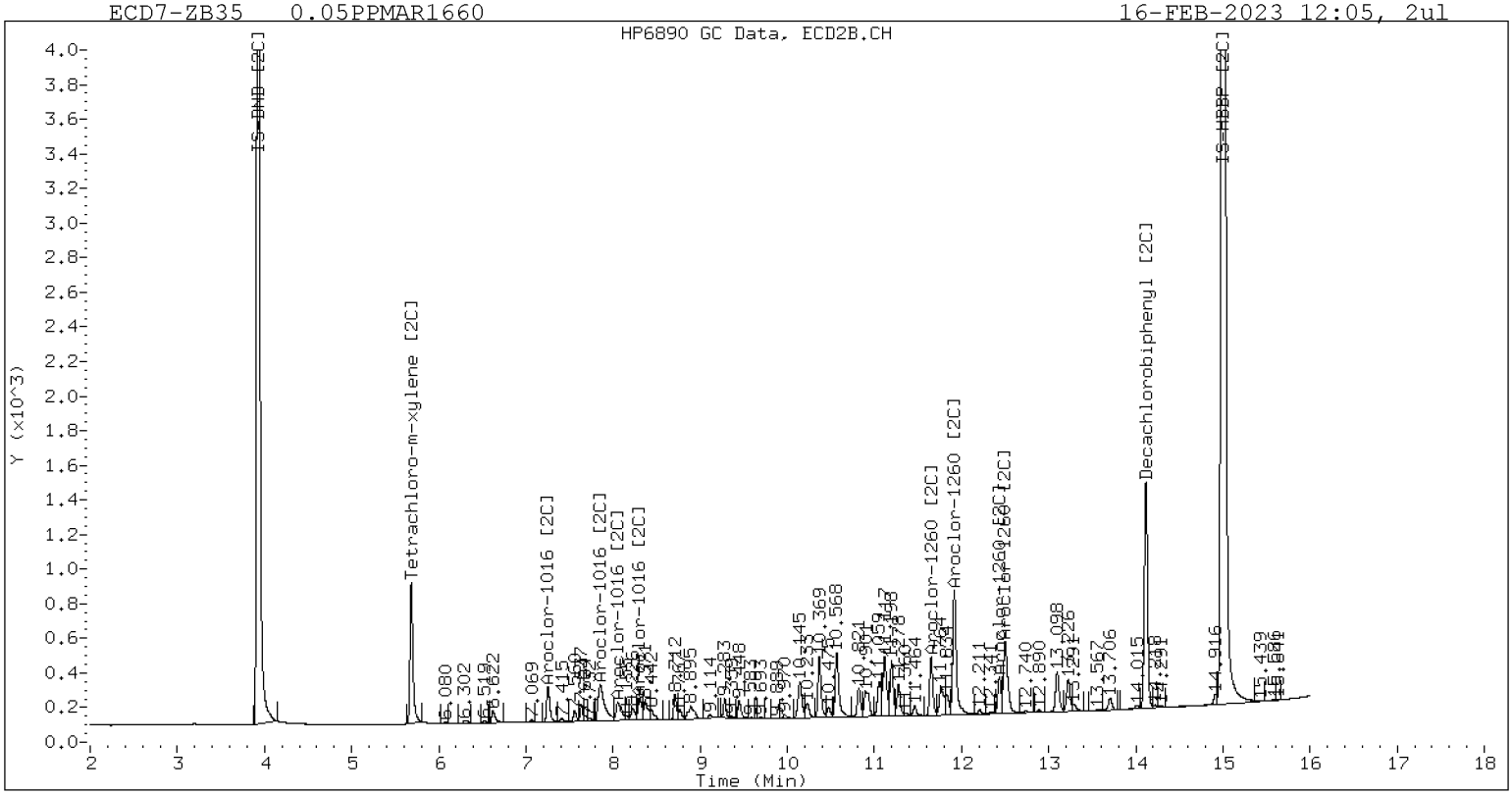
PCB Dual Column Chromatograms

ECD7-ZB5 0.05PPMAR1660 16-FEB-2023 12:05, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.05PPMAR1660 16-FEB-2023 12:05, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162305ECD7.D
Data file 2: /230216.b/230216.b/02162305ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 1.0PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:27
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.811	0.003	891683	5.688	0.002	726379	151.2	154.7	2.3	Tetrachloro-m-xylene
13.892	0.001	1202823	14.120	0.002	1376073	143.7	160.2	10.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	415564	-3.4
Hexabromobiphenyl	975457	950630	-2.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	352163	-4.0
Hexabromobiphenyl	646884	638267	-1.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	132049	872.6	1	7.254	0.000	163920	855.5
Aroclor-1016	2	7.649	-0.001	456308	941.6	2	7.849	-0.003	390554	967.1
Aroclor-1016	3	7.787	-0.000	188528	845.9	3	8.049	-0.000	164163	986.2
Aroclor-1016	4	8.403	0.000	141381	963.9	4	8.304	0.000	120741	886.4
Total Col1Ave (4 peaks):					906.0	Total Col2Ave (4 peaks):				923.8 RPD = 2
Corrected Ave (3 peaks):					886.7	Corrected Ave (3 peaks):				903.0 RPD = 2
CalAmt %D:					-9.4	CalAmt %D:				-7.6
Aroclor-1260	1	11.040	-0.000	311922	951.8	1	11.650	-0.000	300342	905.5
Aroclor-1260	2	11.356	-0.001	324926	969.1	2	11.914	-0.001	736751	885.4
Aroclor-1260	3	11.729	-0.001	820597	924.2	3	12.432	0.000	217636	963.0
Aroclor-1260	4	12.131	-0.003	448823	995.6	4	12.498	0.000	525525	935.5
Aroclor-1260	5	12.240	0.000	188496	975.0	NS	---			----
Total Col1Ave (5 peaks):					963.1	Total Col2Ave (4 peaks):				922.3 RPD = 4
Corrected Ave (4 peaks):					955.0	Corrected Ave (3 peaks):				908.8 RPD = 5
CalAmt %D:					-3.7	CalAmt %D:				-7.8

Total PCB Area Col1 (5.908 - 13.791) = 8716327 Col1 Total PCB = 1.9 ppm*

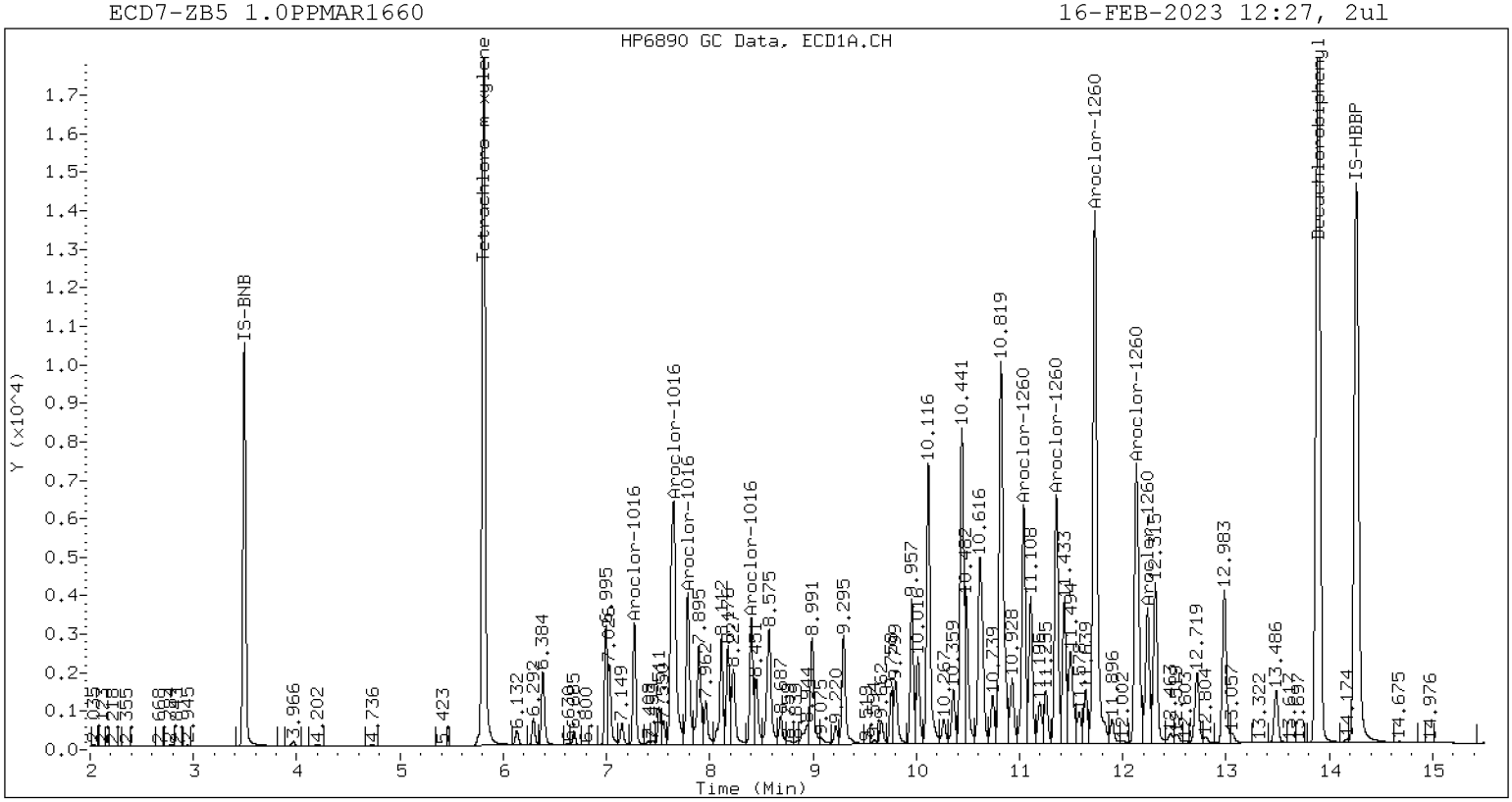
Total PCB Area Col2 (5.786 - 14.018) = 7321222 Col2 Total PCB = 1.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

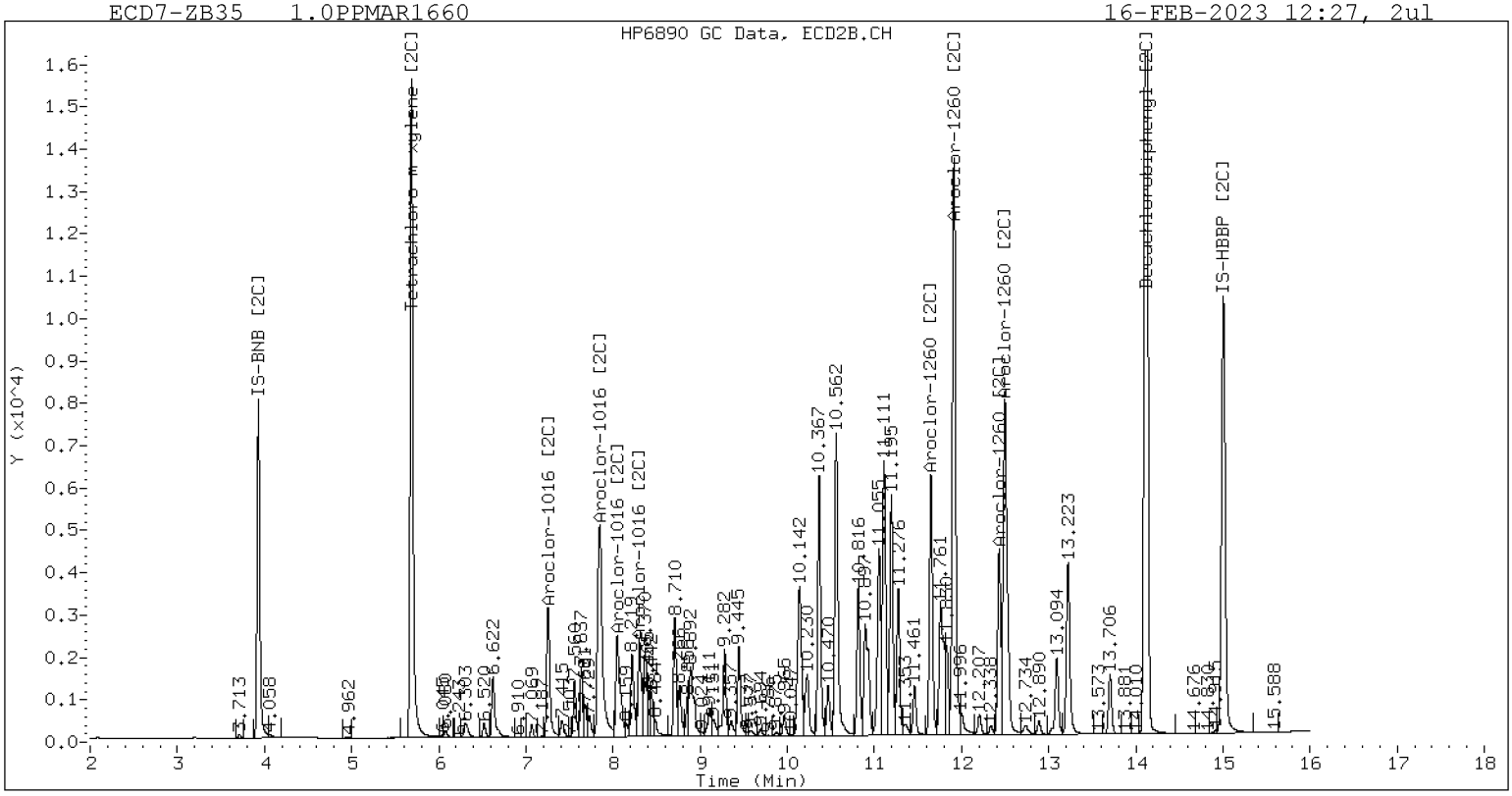
PCB Dual Column Chromatograms

ECD7-ZB5 1.0PPMAR1660 16-FEB-2023 12:27, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 1.0PPMAR1660 16-FEB-2023 12:27, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162306ECD7.D
Data file 2: /230216.b/230216.b/02162306ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 12:48
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	97353	5.687	0.001	77790	16.1	16.2	0.1	Tetrachloro-m-xylene
13.890	-0.001	143814	14.117	-0.001	141007	16.6	16.0	3.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	425206	-1.1
Hexabromobiphenyl	975457	982762	0.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	361068	-1.6
Hexabromobiphenyl	646884	654989	1.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	15562	100.5	1	7.254	-0.000	20282	103.2
Aroclor-1016	2	7.653	0.003	49218	99.3	2	7.855	0.004	43303	104.6
Aroclor-1016	3	7.790	0.003	23916	104.9	3	8.054	0.005	18932	110.9
Aroclor-1016	4	8.404	0.002	14884	99.2	4	8.306	0.002	15145	108.4
Total Col1Ave (4 peaks):					101.0	Total Col2Ave (4 peaks):				106.8 RPD = 6
Corrected Ave (3 peaks):					99.6	Corrected Ave (3 peaks):				105.4 RPD = 6
CalAmt %D:					1.0	CalAmt %D:				6.8
Aroclor-1260	1	11.042	0.002	34109	100.7	1	11.651	0.001	34253	100.6
Aroclor-1260	2	11.358	0.001	34951	100.8	2	11.917	0.002	87588	102.6
Aroclor-1260	3	11.733	0.003	92326	100.6	3	12.434	0.001	21412	92.3
Aroclor-1260	4	12.137	0.003	45803	98.3	4	12.500	0.002	57826	100.3
Aroclor-1260	5	12.241	0.001	19653	98.3	NS	---			----
Total Col1Ave (5 peaks):					99.7	Total Col2Ave (4 peaks):				99.0 RPD = 1
Corrected Ave (4 peaks):					99.5	Corrected Ave (3 peaks):				97.8 RPD = 2
CalAmt %D:					-0.3	CalAmt %D:				-1.0

Total PCB Area Col1 (5.908 - 13.791) = 948624 Col1 Total PCB = 0.2 ppm*

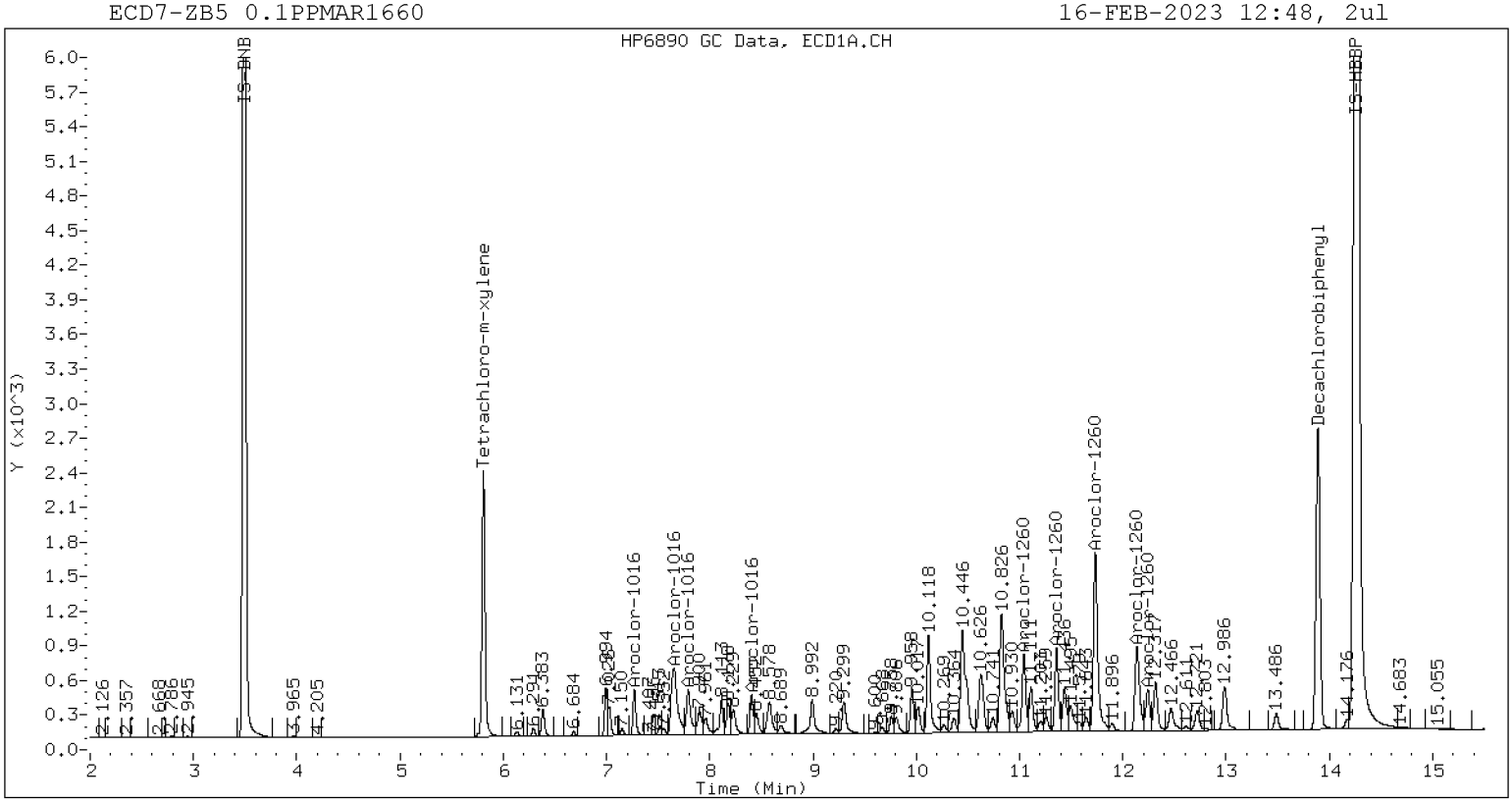
Total PCB Area Col2 (5.786 - 14.018) = 820966 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

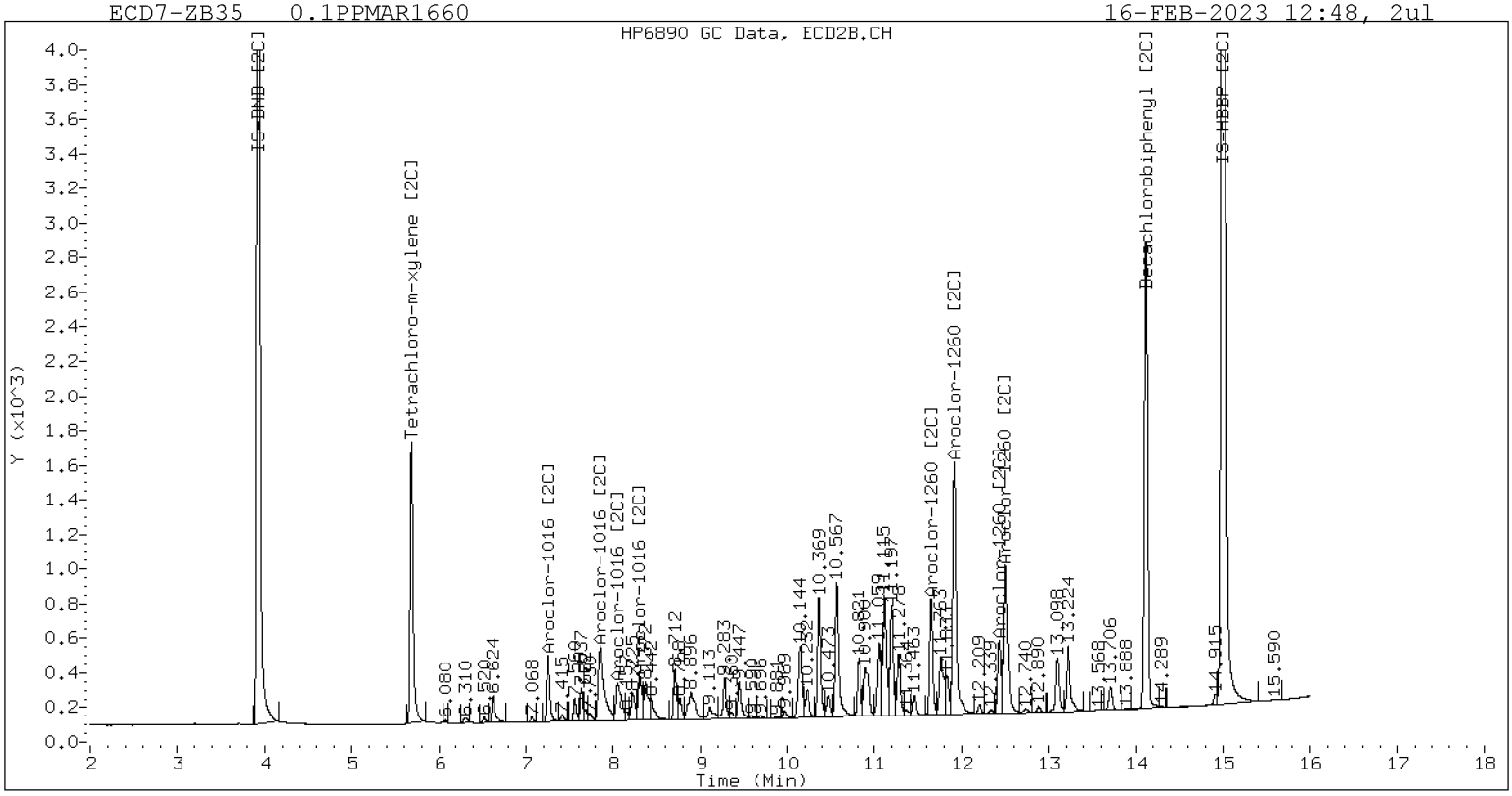
PCB Dual Column Chromatograms

ECD7-ZB5 0.1PPMAR1660 16-FEB-2023 12:48, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.1PPMAR1660 16-FEB-2023 12:48, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162307ECD7.D
Data file 2: /230216.b/230216.b/02162307ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5PPMAR1660
Client ID:
Injection Date: 16-FEB-2023 13:09
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	472991	5.686	0.001	380587	78.5	79.0	0.6	Tetrachloro-m-xylene
13.890	-0.001	654829	14.118	-0.000	723440	75.9	82.6	8.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	424511	-1.3
Hexabromobiphenyl	975457	980103	0.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	361199	-1.5
Hexabromobiphenyl	646884	650552	0.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	74222	480.1	1	7.254	0.000	92105	468.7
Aroclor-1016	2	7.650	0.000	249600	504.2	2	7.851	0.000	210359	507.8
Aroclor-1016	3	7.787	0.000	104974	461.1	3	8.049	0.000	87658	513.4
Aroclor-1016	4	8.402	0.000	75363	503.0	4	8.304	0.000	65546	469.2
Total Col1Ave (4 peaks):					487.1	Total Col2Ave (4 peaks):				489.8 RPD = 1
Corrected Ave (3 peaks):					481.4	Corrected Ave (3 peaks):				481.9 RPD = 0
CalAmt %D:					-2.6	CalAmt %D:				-2.0
Aroclor-1260	1	11.041	0.000	166809	493.7	1	11.650	0.000	162166	479.7
Aroclor-1260	2	11.357	0.000	172259	498.3	2	11.915	0.000	412895	486.8
Aroclor-1260	3	11.731	0.000	445028	486.1	3	12.432	0.000	111590	484.4
Aroclor-1260	4	12.134	0.000	236535	508.9	4	12.498	0.000	280820	490.4
Aroclor-1260	5	12.240	0.000	98968	496.5	NS	---			----
Total Col1Ave (5 peaks):					496.7	Total Col2Ave (4 peaks):				485.3 RPD = 2
Corrected Ave (4 peaks):					493.7	Corrected Ave (3 peaks):				483.6 RPD = 2
CalAmt %D:					-0.7	CalAmt %D:				-2.9

Total PCB Area Col1 (5.908 - 13.791) = 4638448 Col1 Total PCB = 1.0 ppm*

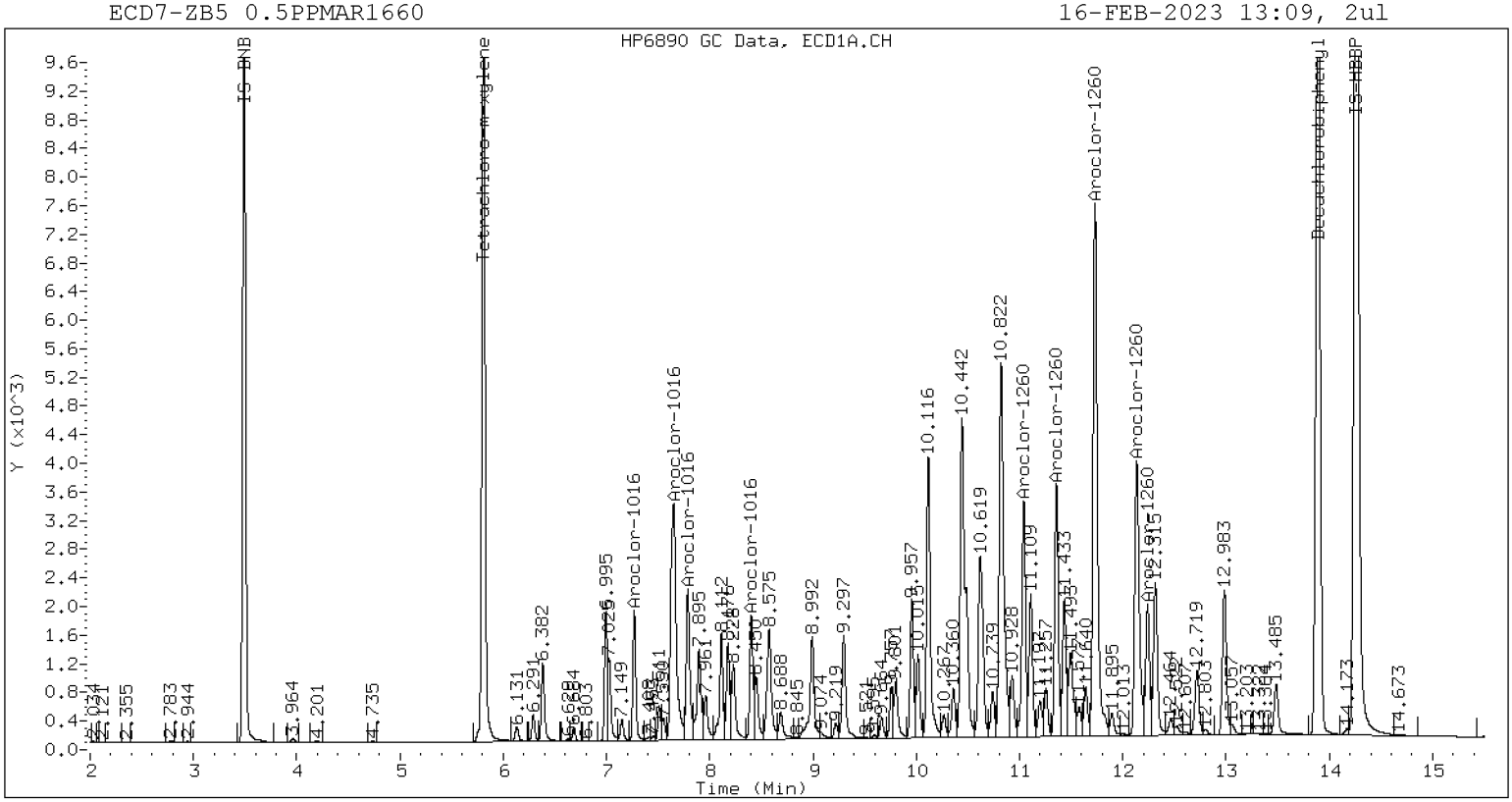
Total PCB Area Col2 (5.786 - 14.018) = 3887359 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

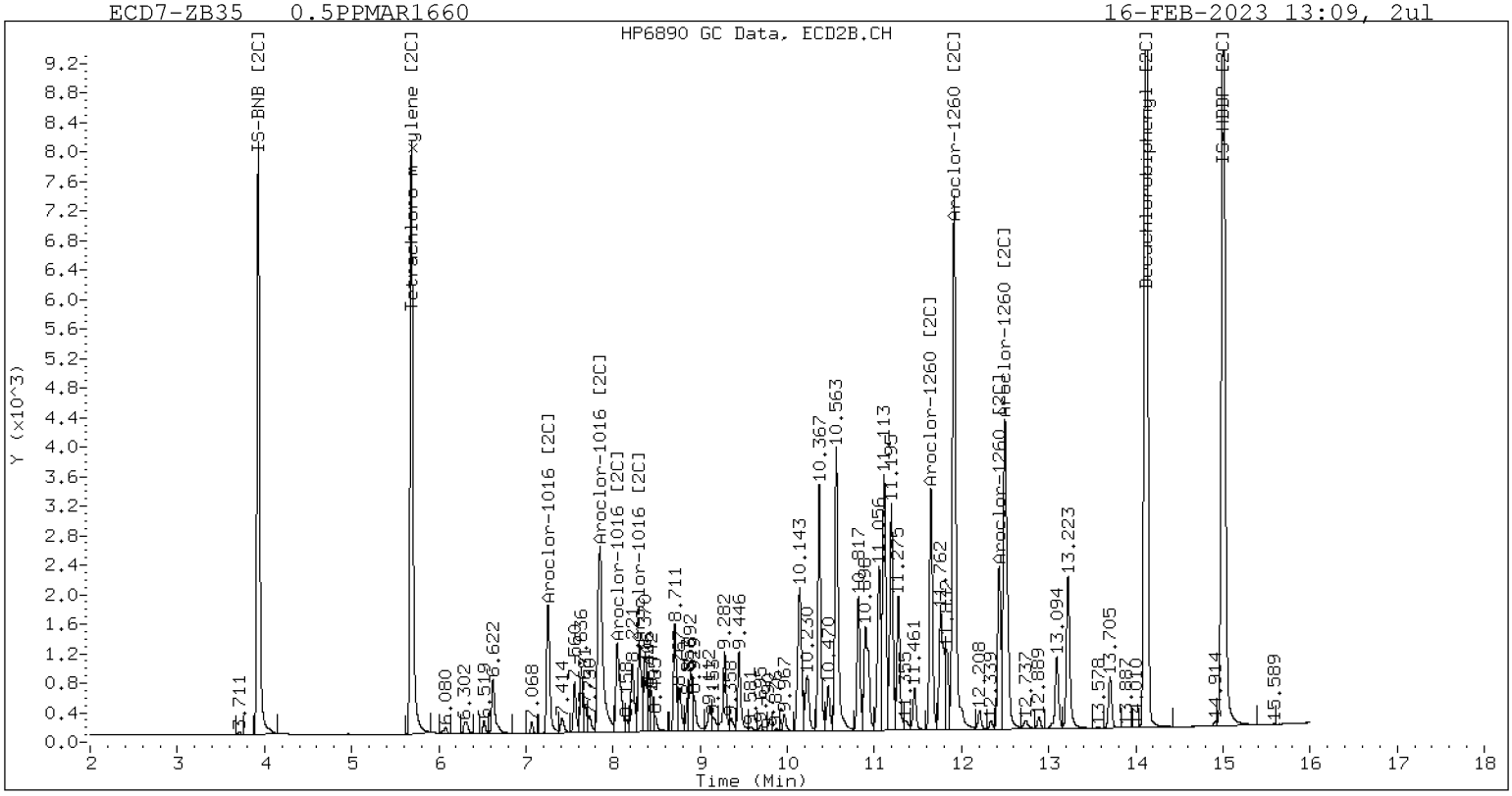
PCB Dual Column Chromatograms

ECD7-ZB5 0.5PPMAR1660 16-FEB-2023 13:09, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.5PPMAR1660 16-FEB-2023 13:09, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162308ECD7.D
Data file 2: /230216.b/230216.b/02162308ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1242
Client ID:
Injection Date: 16-FEB-2023 13:30
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	287664	5.686	0.000	229806	46.8	47.1	0.6	Tetrachloro-m-xylene
13.891	0.000	335023	14.117	-0.001	345735	37.9	38.5	1.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	432799	0.6
Hexabromobiphenyl	975457	1004715	3.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	365812	-0.3
Hexabromobiphenyl	646884	667992	3.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.269	0.000	32233	250.0	1	7.254	0.000	39556	250.0
Aroclor-1242	2	7.652	0.000	102000	250.0	2	7.853	0.000	85705	250.0
Aroclor-1242	3	8.403	0.000	30824	250.0	3	9.160	0.000	27091	250.0
Aroclor-1242	4	8.577	0.000	45526	250.0	4	9.587	0.000	32851	250.0

Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 766603 Col1 Total PCB = 0.2 ppm*

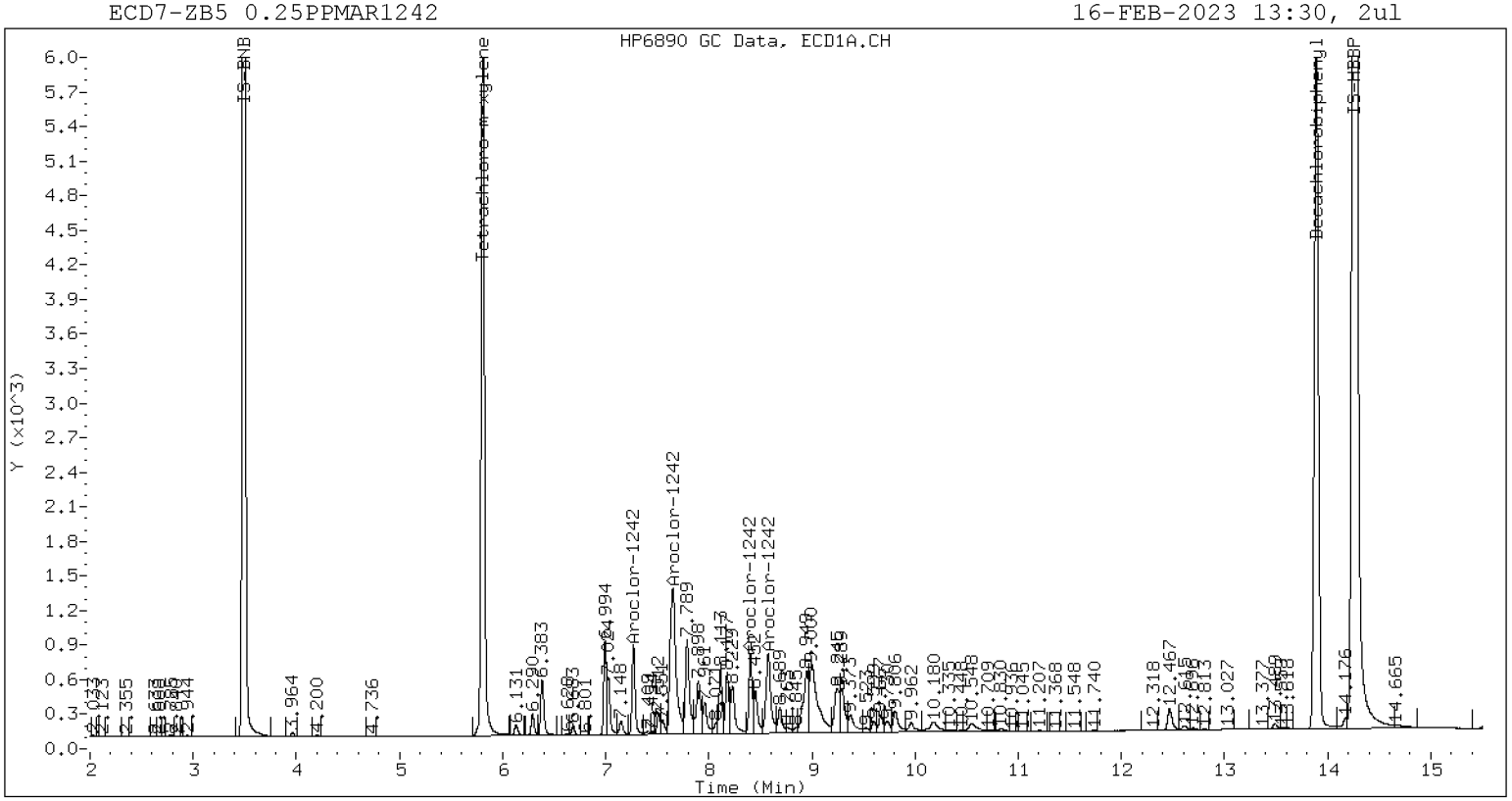
Total PCB Area Col2 (5.786 - 14.018) = 619257 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

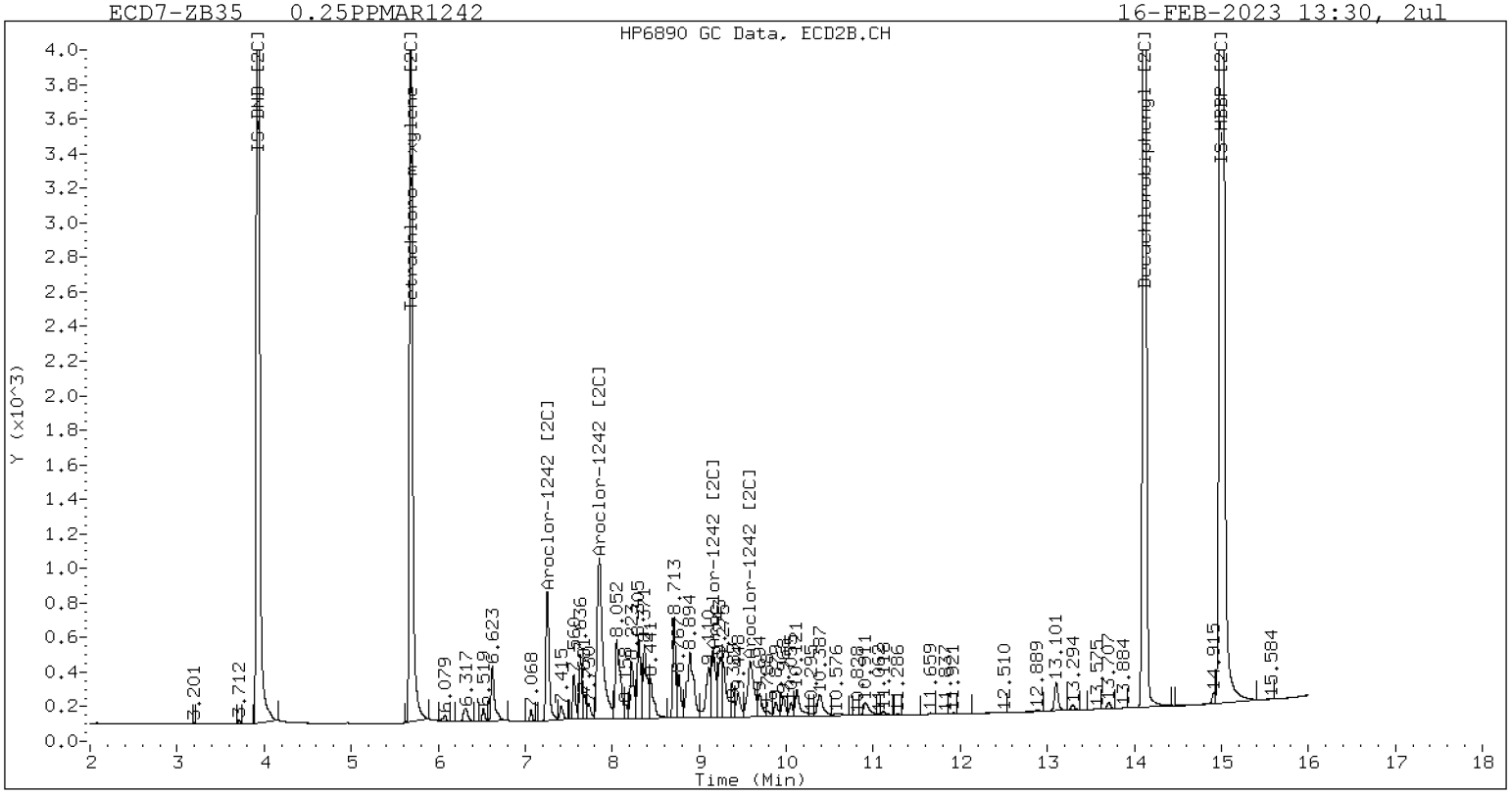
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1242 16-FEB-2023 13:30, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1242 16-FEB-2023 13:30, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162309ECD7.D
Data file 2: /230216.b/230216.b/02162309ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1248
Client ID:
Injection Date: 16-FEB-2023 13:51
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	235858	5.688	0.002	191205	38.1	38.8	1.7	Tetrachloro-m-xylene
13.889	-0.002	339581	14.117	-0.001	351690	38.5	39.4	2.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	435779	1.3
Hexabromobiphenyl	975457	1000233	2.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	369685	0.8
Hexabromobiphenyl	646884	662877	2.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.403	0.000	52538	250.0	1	8.305	0.000	41694	250.0
Aroclor-1248	2	8.577	0.000	66305	250.0	2	8.712	0.000	43865	250.0
Aroclor-1248	3	8.996	0.000	93719	250.0	3	9.159	0.000	50687	250.0
Aroclor-1248	4	9.292	0.000	59273	250.0	4	9.581	0.000	61479	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1025602 Col1 Total PCB = 0.2 ppm*

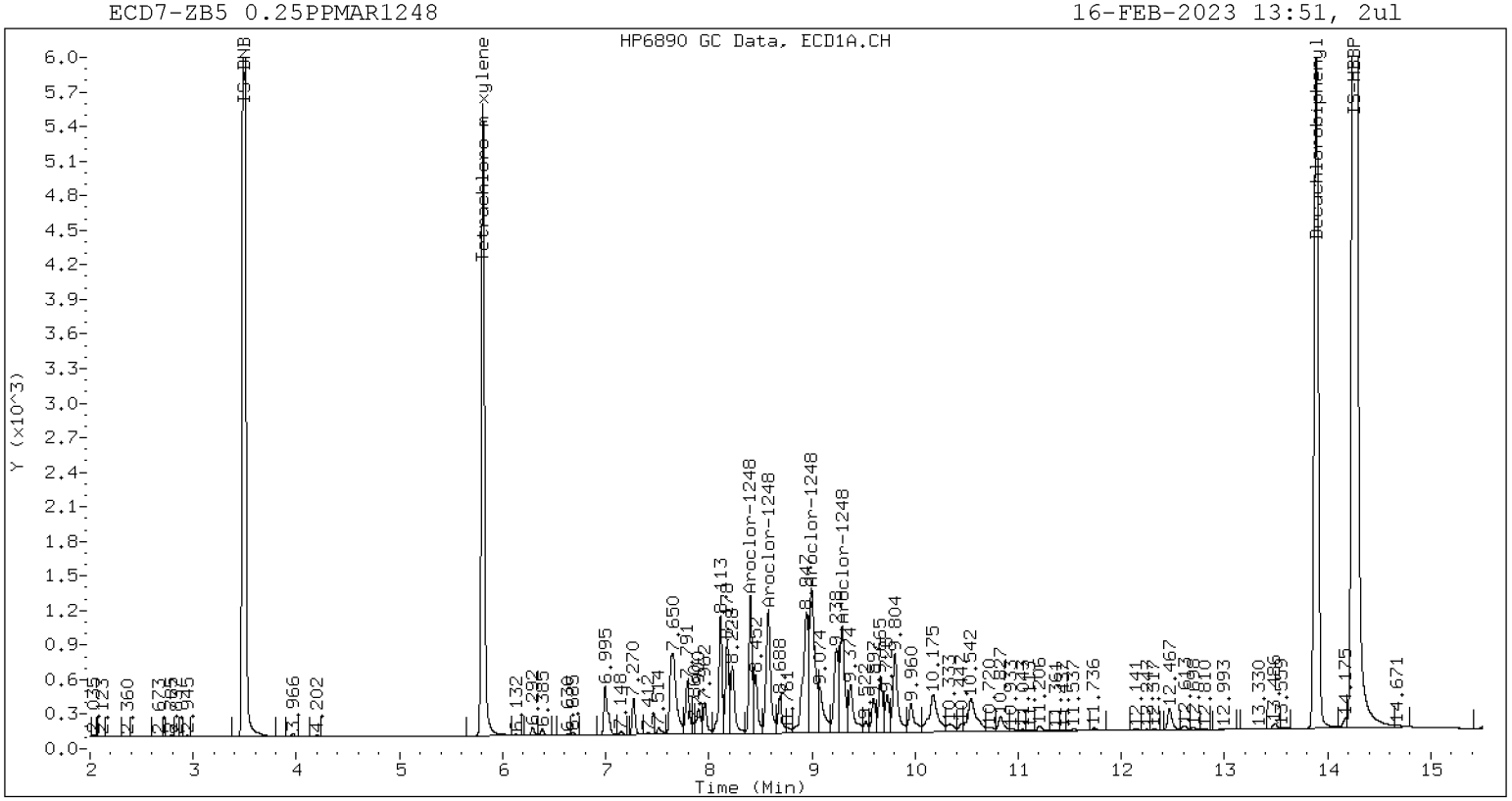
Total PCB Area Col2 (5.786 - 14.018) = 824656 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

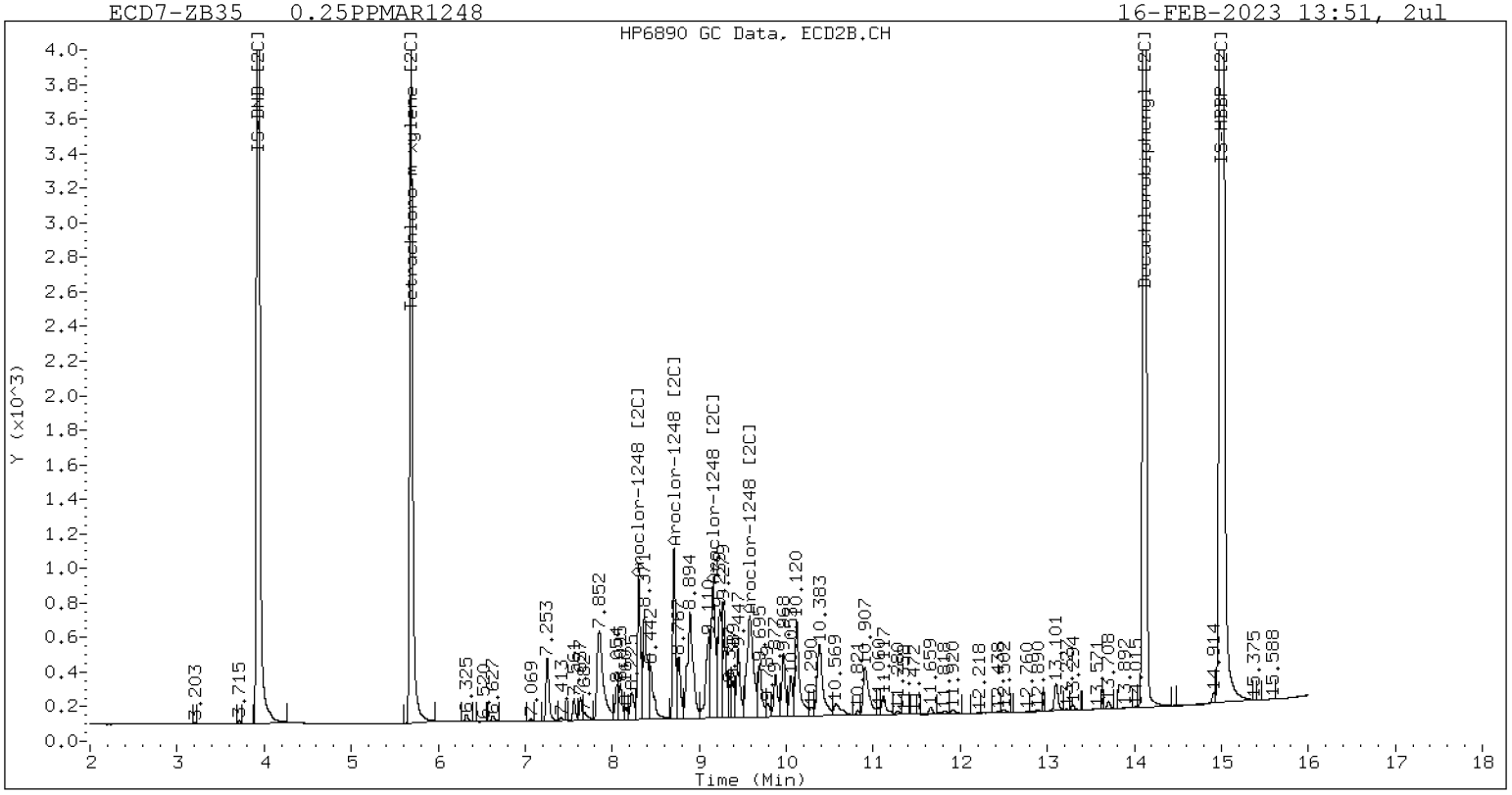
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1248 16-FEB-2023 13:51, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1248 16-FEB-2023 13:51, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162310ECD7.D
Data file 2: /230216.b/230216.b/02162310ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1254
Client ID:
Injection Date: 16-FEB-2023 14:12
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	235903	5.686	0.001	191667	38.0	38.7	1.9	Tetrachloro-m-xylene
13.891	0.000	345464	14.117	-0.001	355579	38.7	39.4	1.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	437427	1.7
Hexabromobiphenyl	975457	1013635	3.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	371000	1.2
Hexabromobiphenyl	646884	671465	3.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	9.295	0.000	105834	250.0	1	9.447	0.000	65393	250.0
Aroclor-1254	2	9.374	0.000	41671	250.0	2	9.967	0.000	52822	250.0
Aroclor-1254	3	9.665	0.000	67447	250.0	3	10.120	0.000	115063	250.0
Aroclor-1254	4	9.803	0.000	134258	250.0	4	10.370	0.000	113530	250.0
Aroclor-1254	5	10.167	0.000	81893	250.0	5	10.566	0.000	57361	250.0

Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1385653 Col1 Total PCB = 0.3 ppm*

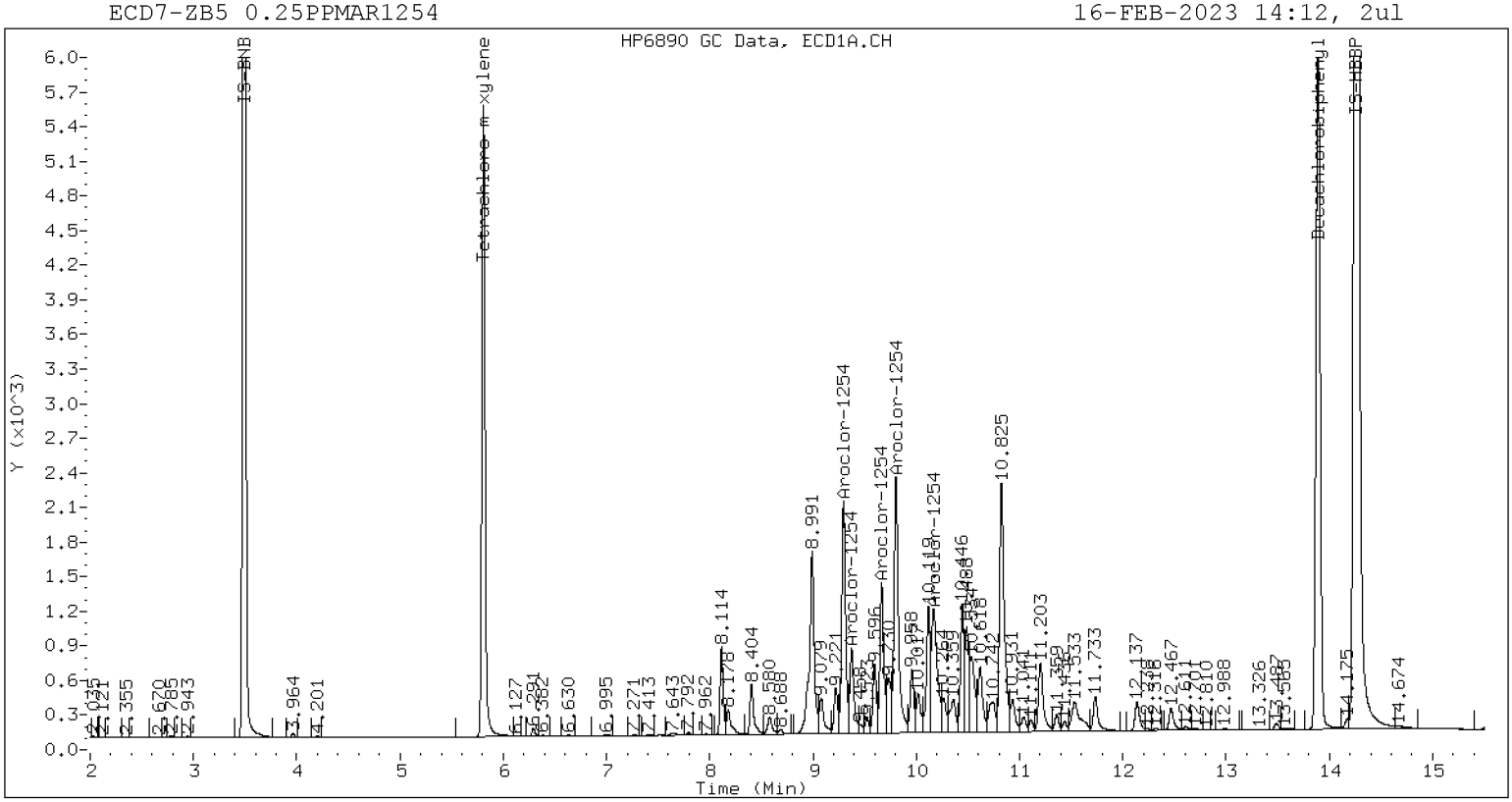
Total PCB Area Col2 (5.786 - 14.018) = 1106767 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

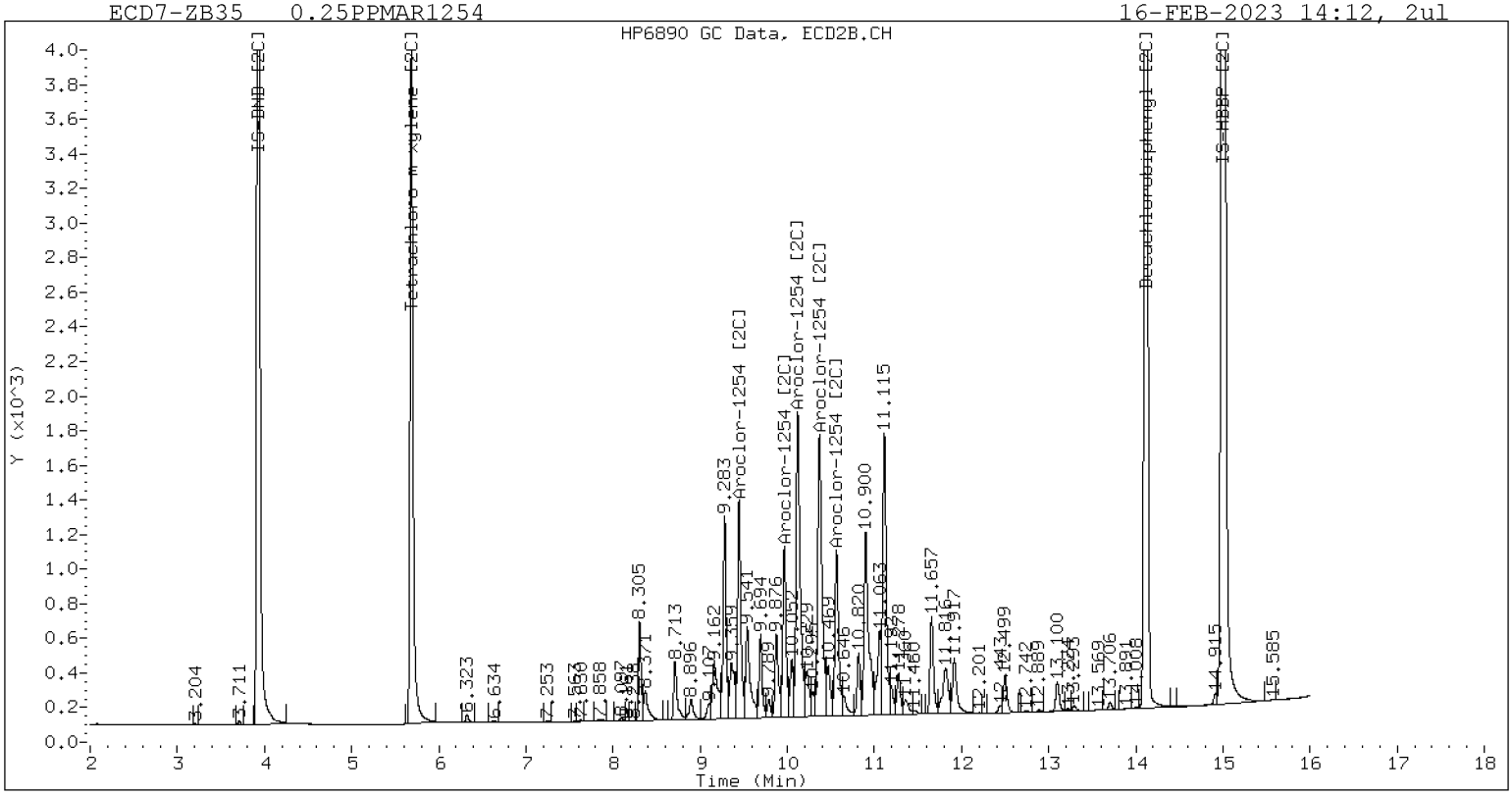
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR1254 16-FEB-2023 14:12, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR1254 16-FEB-2023 14:12, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162311ECD7.D
Data file 2: /230216.b/230216.b/02162311ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR2162.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR2168
Client ID:
Injection Date: 16-FEB-2023 14:33
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	241501	5.686	-0.000	189710	38.6	39.0	1.0	Tetrachloro-m-xylene
13.891	0.000	336556	14.118	0.000	345795	38.0	38.5	1.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	440775	2.5
Hexabromobiphenyl	975457	1005738	3.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	364664	-0.6
Hexabromobiphenyl	646884	666787	3.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1221	1	4.732	0.000	8560	250.0	1	4.958	0.000	6777	250.0
Aroclor-1221	2	6.133	0.000	15969	250.0	2	6.298	0.000	14550	250.0
Aroclor-1221	3	6.383	0.000	36928	250.0	3	6.622	0.000	24370	250.0
	Total Col1Ave (3 peaks):				250.0	Total Col2Ave (3 peaks):				250.0 RPD = 0
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.824	0.000	73471	250.0	1	11.198	0.000	124925	250.0
Aroclor-1262	2	12.242	0.000	120422	250.0	2	11.649	0.000	108193	250.0
Aroclor-1262	3	12.317	0.000	129860	250.0	3	12.431	0.000	117508	250.0
Aroclor-1262	4	12.984	0.000	112297	250.0	4	12.500	0.000	187426	250.0
	Total Col1Ave (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
	Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 1985753 Col1 Total PCB = 0.4 ppm*

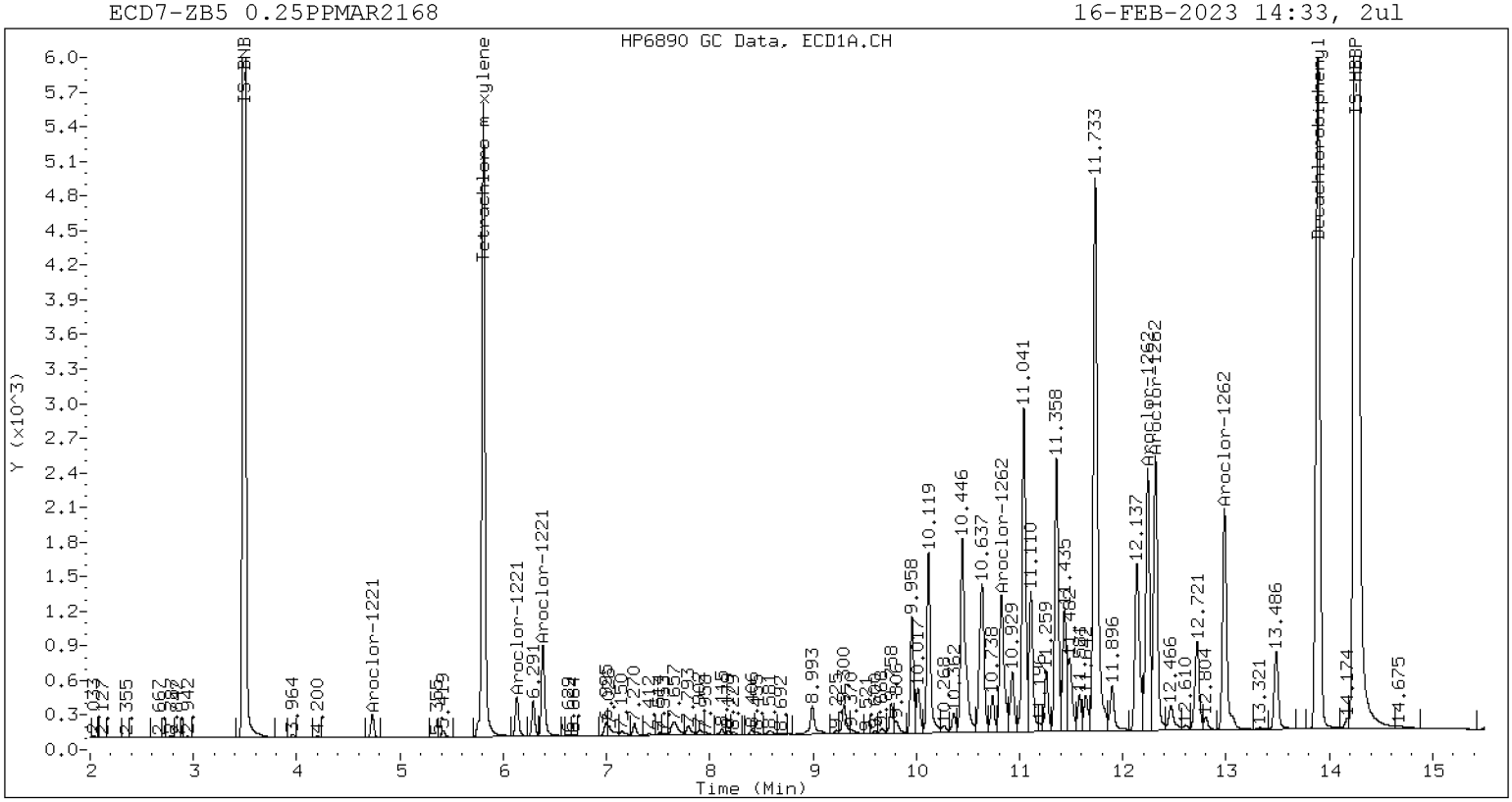
Total PCB Area Col2 (5.786 - 14.018) = 1701530 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

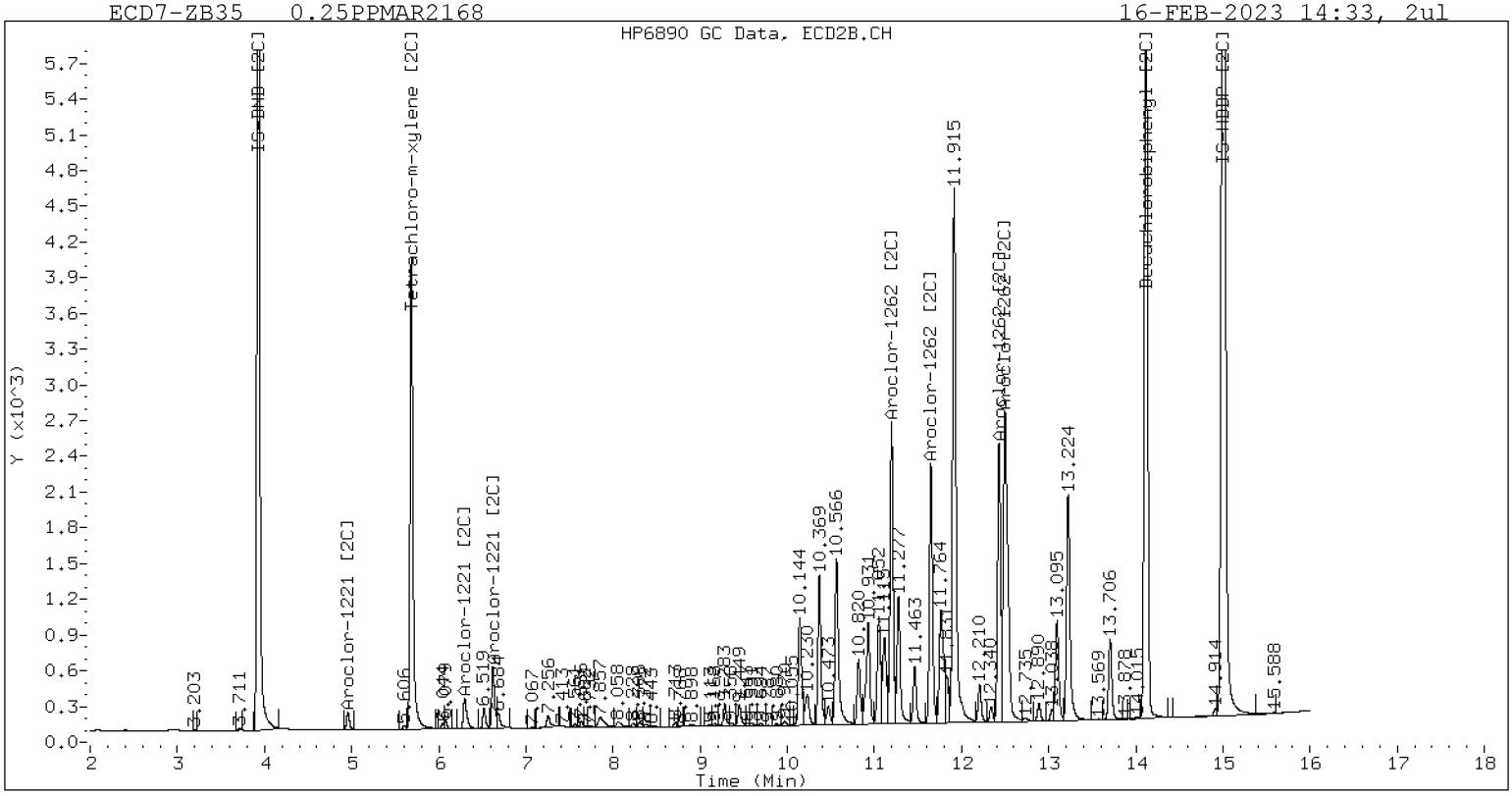
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR2168 16-FEB-2023 14:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR2168 16-FEB-2023 14:33, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162312ECD7.D
Data file 2: /230216.b/230216.b/02162312ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: AR3268.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR3268
Client ID:
Injection Date: 16-FEB-2023 14:54
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	244394	5.686	0.000	193636	39.3	39.9	1.3	Tetrachloro-m-xylene
13.891	0.000	497881	14.118	0.000	536206	55.7	59.5	6.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	438085	1.9
Hexabromobiphenyl	975457	1014892	4.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	364382	-0.6
Hexabromobiphenyl	646884	669957	3.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount
Aroclor-1232	1	4.732	0.000	5253	250.0	1	4.958	0.000	4040	250.0
Aroclor-1232	2	6.133	0.000	11086	250.0	2	7.254	0.000	22642	250.0
Aroclor-1232	3	7.654	0.000	53251	250.0	3	7.855	0.000	45239	250.0
Aroclor-1232	4	8.579	0.000	22019	250.0	4	8.712	0.000	12663	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	12.243	0.000	318381	250.0	1	12.431	0.000	304790	250.0
Aroclor-1268	2	12.314	0.000	316432	250.0	2	12.498	0.000	322594	250.0
Aroclor-1268	3	12.697	0.000	268530	250.0	3	12.890	0.000	275533	250.0
Aroclor-1268	4	13.487	0.000	822664	250.0	4	13.707	0.000	883899	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 2577331 Col1 Total PCB = 0.5 ppm*

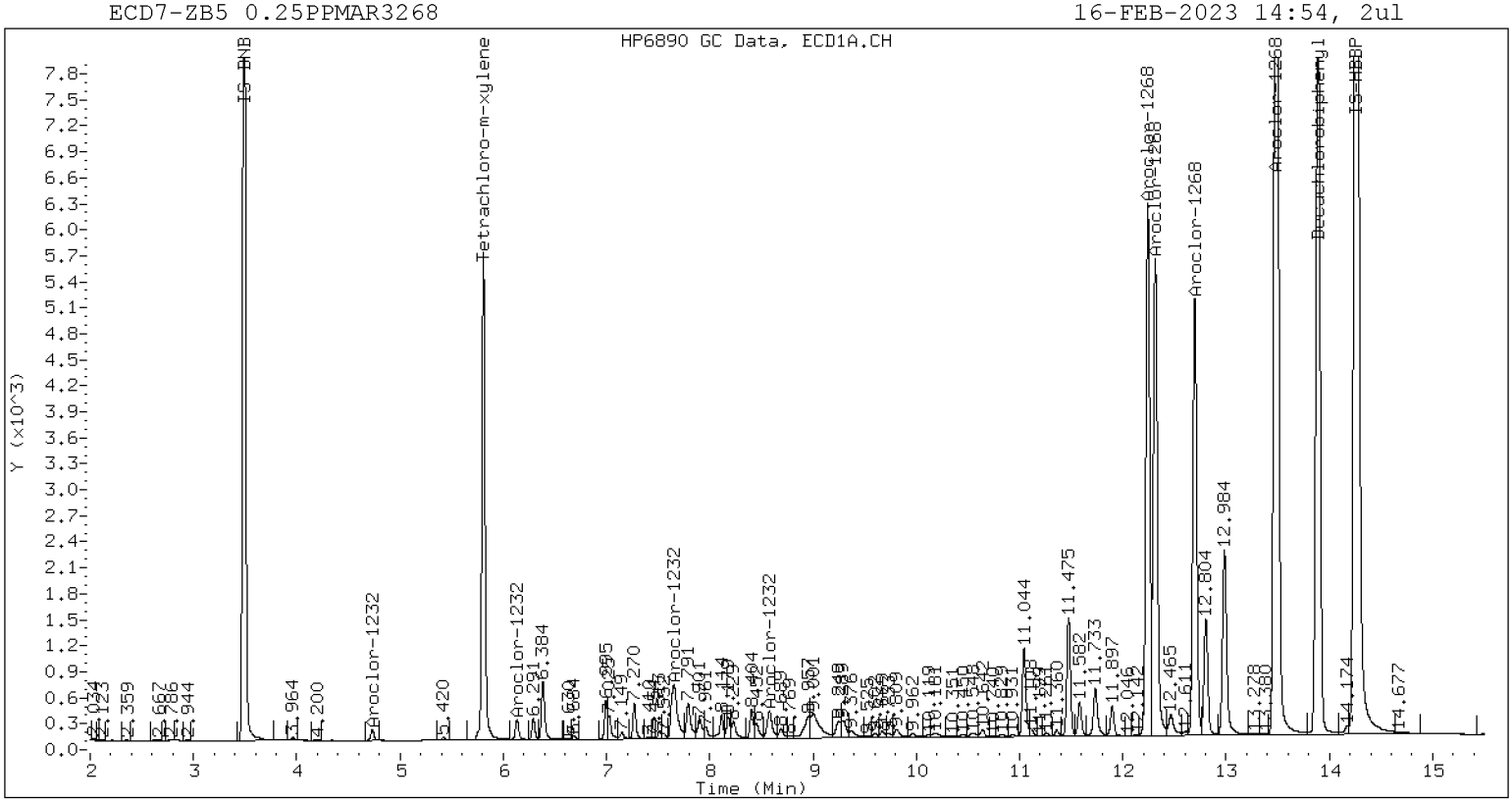
Total PCB Area Col2 (5.786 - 14.018) = 2525066 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

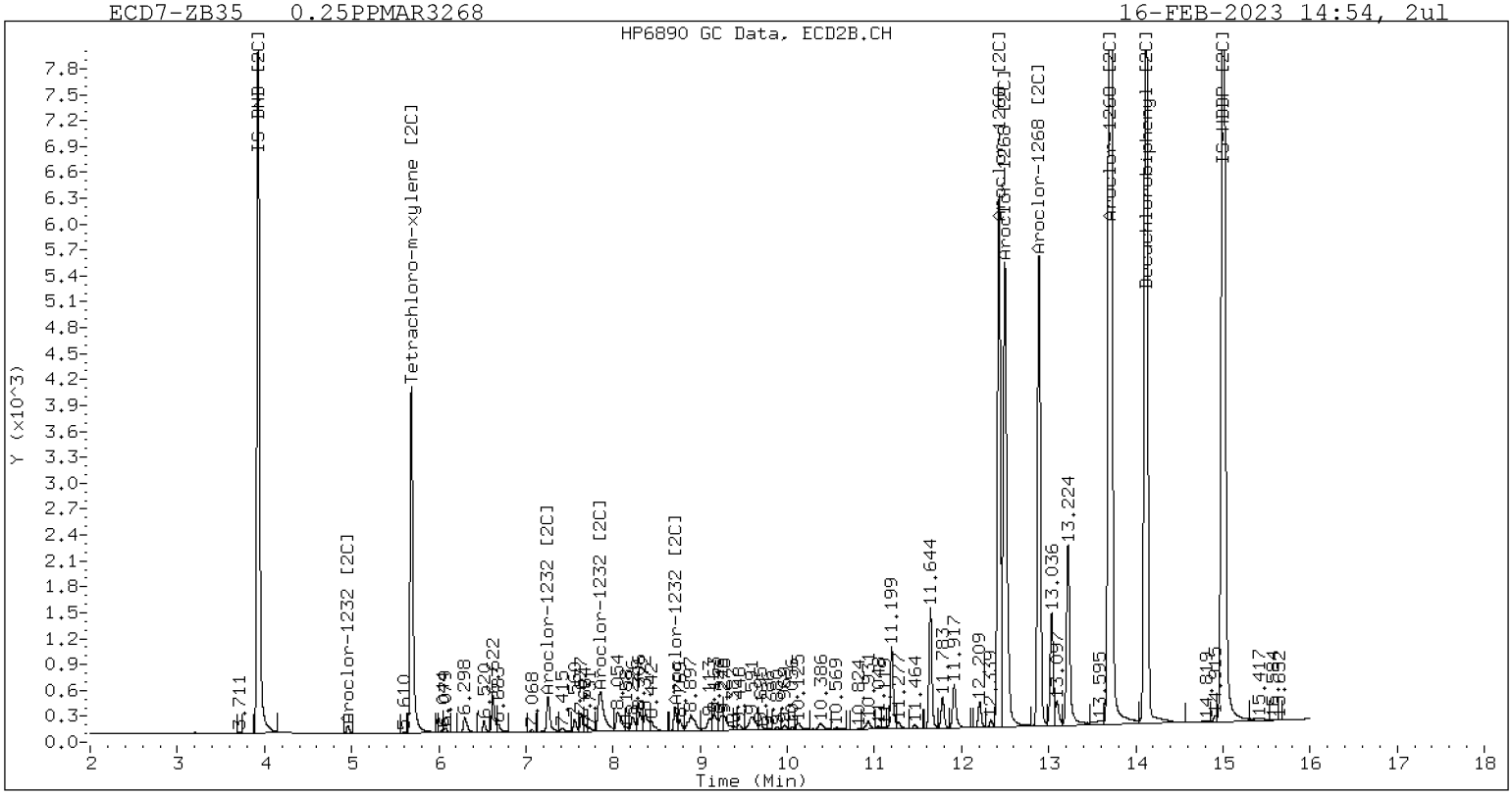
PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPMAR3268 16-FEB-2023 14:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPMAR3268 16-FEB-2023 14:54, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162313ECD7.D
Data file 2: /230216.b/230216.b/02162313ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV
Client ID:
Injection Date: 16-FEB-2023 15:15
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.001	242919	5.685	-0.001	193061	37.3	37.7	0.9	Tetrachloro-m-xylene
13.891	-0.000	374845	14.118	0.000	388292	40.4	41.5	2.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	458820	6.7
Hexabromobiphenyl	975457	1052678	7.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	384524	4.8
Hexabromobiphenyl	646884	695386	7.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	36442	218.1	1	7.253	-0.001	45357	216.8
Aroclor-1016	2	7.652	0.002	116510	217.8	2	7.853	0.002	99069	224.7
Aroclor-1016	3	7.789	0.002	51841	210.7	3	8.052	0.003	42476	233.7
Aroclor-1016	4	8.403	0.001	35760	220.8	4	8.305	0.001	32151	216.2
Total Col1Ave (4 peaks):					216.8	Total Col2Ave (4 peaks):				222.8 RPD = 3
Corrected Ave (3 peaks):					215.5	Corrected Ave (3 peaks):				219.2 RPD = 2
Aroclor-1221	1	4.732	0.000	272	7.6	1	---			0.0
Aroclor-1221	2	6.131	-0.002	4384	65.9	2	6.302	0.004	5219	85.0
Aroclor-1221	3	6.383	-0.000	24508	159.4	3	6.622	0.001	21028	204.6
Total Col1Ave (3 peaks):					77.7	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.732	0.000	272	12.4	1	---			0.0
Aroclor-1232	2	6.131	-0.002	4384	94.4	2	7.253	-0.001	45357	474.6
Aroclor-1232	3	7.652	-0.002	116510	522.3	3	7.853	-0.002	99069	518.8
Aroclor-1232	4	8.577	-0.002	49511	536.7	4	8.712	-0.001	31220	584.1
Total Col1Ave (4 peaks):					291.4	Total Col2Ave (3 peaks):				525.8 RPD = 57*
Corrected Ave (3 peaks):					209.7	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	36442	266.6	1	7.253	-0.001	45357	272.7
Aroclor-1242	2	7.652	0.000	116510	269.4	2	7.853	0.000	99069	274.9
Aroclor-1242	3	8.403	0.000	35760	273.6	3	9.113	-0.047	17818	156.4
Aroclor-1242	4	8.577	-0.000	49511	256.5	4	9.582	-0.005	1661	12.0
Total Col1Ave (4 peaks):					266.5	Total Col2Ave (4 peaks):				179.0 RPD = 39
Corrected Ave (3 peaks):					264.1	Corrected Ave (3 peaks):				147.1 RPD = 57*
Aroclor-1248	1	8.403	0.000	35760	161.6	1	8.305	-0.001	32151	185.3
Aroclor-1248	2	8.577	-0.000	49511	177.3	2	8.712	0.000	31220	171.1
Aroclor-1248	3	8.992	-0.004	46666	118.2	3	9.113	-0.046	17818	84.5
Aroclor-1248	4	9.299	0.007	30647	122.8	4	9.582	0.001	1661	6.5
Total Col1Ave (4 peaks):					145.0	Total Col2Ave (4 peaks):				111.8 RPD = 26
Corrected Ave (3 peaks):					134.2	Corrected Ave (3 peaks):				87.4 RPD = 42*
Aroclor-1254	1	9.299	0.004	30647	69.0	1	9.447	0.001	22012	81.2
Aroclor-1254	2	---			0.0	2	9.969	0.002	2772	12.7
Aroclor-1254	3	9.667	0.002	3608	12.7	3	10.144	0.025	57572	120.7
Aroclor-1254	4	9.805	0.002	12639	22.4	4	10.369	-0.002	77699	165.1
Aroclor-1254	5	10.117	-0.050	100524	292.6	5	10.566	-0.000	107143	450.5
Total Col1Ave (4 peaks):					99.2	Total Col2Ave (5 peaks):				166.0 RPD = 50*
Corrected Ave (3 peaks):					34.7	Corrected Ave (4 peaks):				94.9 RPD = 93*
Aroclor-1260	1	11.042	0.002	99629	274.5	1	11.651	0.001	90044	249.2
Aroclor-1260	2	11.359	0.002	100112	269.7	2	11.915	0.001	239120	263.8
Aroclor-1260	3	11.732	0.002	260880	265.3	3	12.433	0.001	64011	260.0
Aroclor-1260	4	12.137	0.003	124998	250.4	4	12.500	0.002	158594	259.1
Aroclor-1260	5	12.242	0.001	58944	275.3	NS	---			----
Total Col1Ave (5 peaks):					267.0	Total Col2Ave (4 peaks):				258.0 RPD = 3
Corrected Ave (4 peaks):					265.0	Corrected Ave (3 peaks):				256.1 RPD = 3
Aroclor-1262	1	10.824	-0.001	144319	469.2	1	11.197	-0.000	90698	174.0
Aroclor-1262	2	12.242	-0.000	58944	116.9	2	11.651	0.002	90044	199.5
Aroclor-1262	3	12.316	-0.001	73272	134.8	3	12.433	0.002	64011	130.6
Aroclor-1262	4	12.985	0.001	66451	141.3	4	12.500	-0.000	158594	202.8
Total Col1Ave (4 peaks):					215.5	Total Col2Ave (4 peaks):				176.7 RPD = 20
Corrected Ave (3 peaks):					131.0	Corrected Ave (3 peaks):				168.0 RPD = 25
Aroclor-1268	1	12.242	-0.001	58944	44.6	1	12.433	0.002	64011	50.6
Aroclor-1268	2	12.316	0.002	73272	55.8	2	12.500	0.002	158594	118.4
Aroclor-1268	3	12.722	0.025	29543	26.5	3	12.890	0.000	2263	2.0
Aroclor-1268	4	13.486	-0.001	13453	3.9	4	13.707	0.000	11996	3.3
Total Col1Ave (4 peaks):					32.7	Total Col2Ave (4 peaks):				43.6 RPD = 28
Corrected Ave (3 peaks):					25.0	Corrected Ave (3 peaks):				18.6 RPD = 29

Total PCB Area Col1 (5.908 - 13.791) = 2405704 Col1 Total PCB = 0.5 ppm*

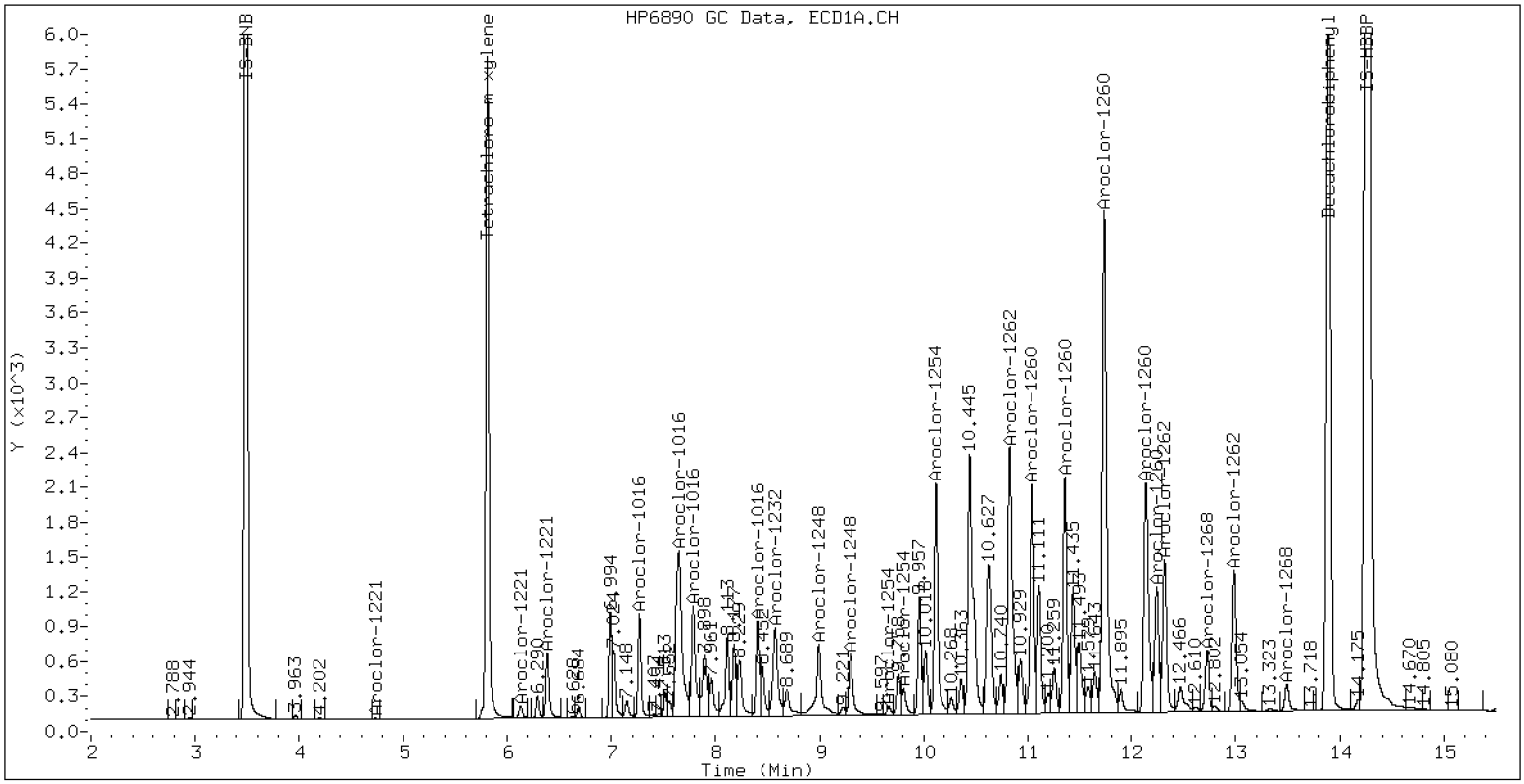
Total PCB Area Col2 (5.786 - 14.018) = 2007876 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

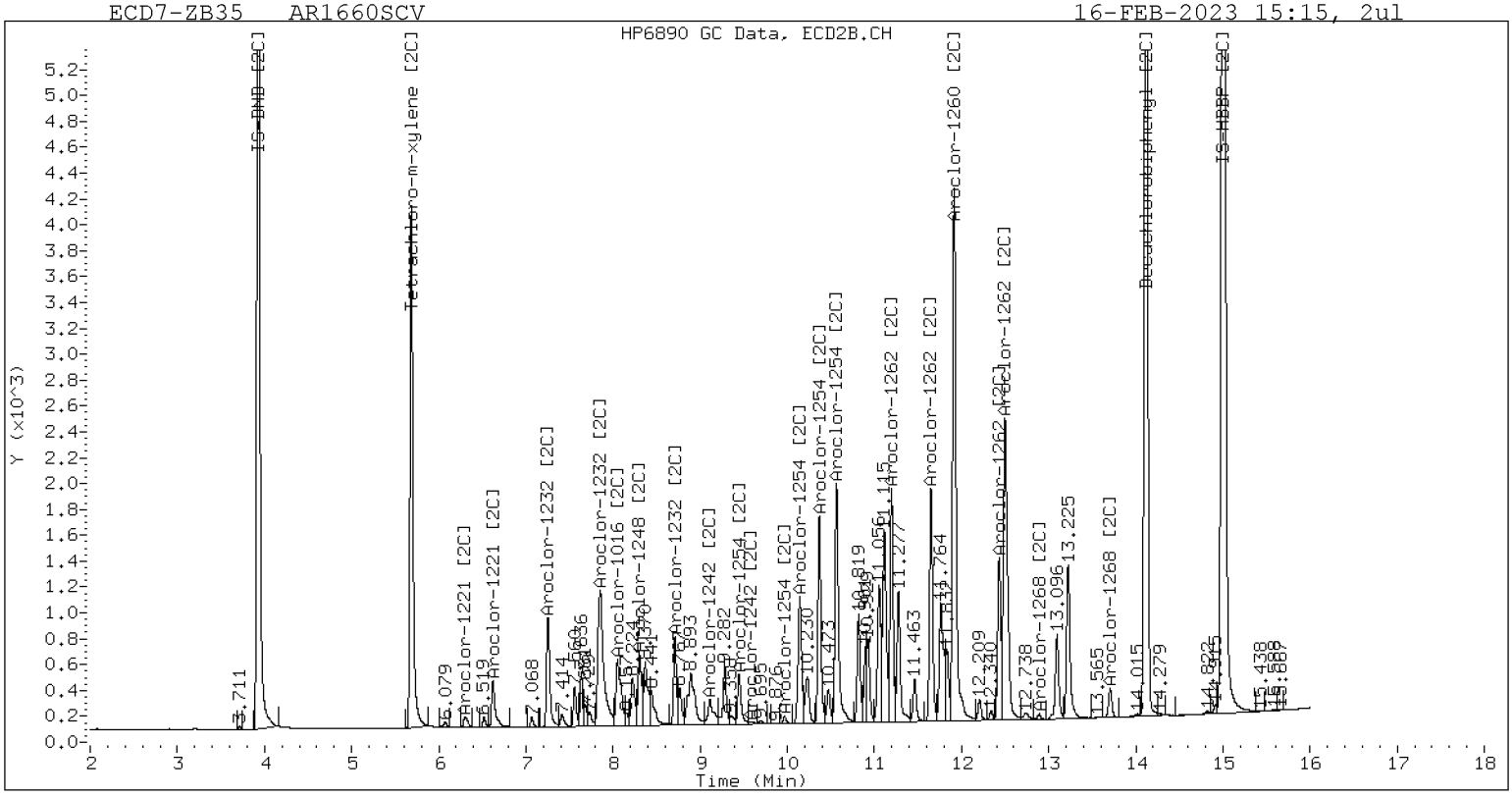
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660SCV 16-FEB-2023 15:15, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660SCV 16-FEB-2023 15:15, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162314ECD7.D
Data file 2: /230216.b/230216.b/02162314ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV
Client ID:
Injection Date: 16-FEB-2023 15:36
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	240392	5.686	0.000	191518	36.8	37.2	1.2	Tetrachloro-m-xylene
13.891	0.000	372444	14.118	-0.000	384306	40.3	41.4	2.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	460847	7.2
Hexabromobiphenyl	975457	1048824	7.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	386112	5.3
Hexabromobiphenyl	646884	690141	6.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	26450	157.6	1	7.253	-0.001	35202	167.6
Aroclor-1016	2	7.651	0.001	91590	170.4	2	7.851	-0.000	76062	171.8
Aroclor-1016	3	7.789	0.002	38405	155.4	3	8.051	0.002	31745	173.9
Aroclor-1016	4	8.403	0.001	28918	177.8	4	8.304	0.000	24379	163.2
Total Col1Ave (4 peaks):		165.3				Total Col2Ave (4 peaks):			169.1	RPD = 2
Corrected Ave (3 peaks):		161.1				Corrected Ave (3 peaks):			167.5	RPD = 4
Aroclor-1221	1	4.736	0.004	158	4.4	1	---			0.0
Aroclor-1221	2	6.131	-0.002	3413	51.1	2	6.318	0.020	4305	69.9
Aroclor-1221	3	6.383	-0.000	18978	122.9	3	6.623	0.001	15561	150.8
Total Col1Ave (3 peaks):		59.5				Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.736	0.004	158	7.1	1	---			0.0
Aroclor-1232	2	6.131	-0.002	3413	73.2	2	7.253	-0.001	35202	366.8
Aroclor-1232	3	7.651	-0.003	91590	408.8	3	7.851	-0.004	76062	396.7
Aroclor-1232	4	8.577	-0.002	48090	519.0	4	8.712	-0.001	24445	455.4
Total Col1Ave (4 peaks):		252.0				Total Col2Ave (3 peaks):			406.3	RPD = 47*
Corrected Ave (3 peaks):		163.0				Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	26450	192.7	1	7.253	-0.000	35202	210.8
Aroclor-1242	2	7.651	-0.001	91590	210.8	2	7.851	-0.002	76062	210.2
Aroclor-1242	3	8.403	-0.000	28918	220.3	3	9.156	-0.004	26140	228.5
Aroclor-1242	4	8.577	-0.000	48090	248.0	4	9.580	-0.007	33659	242.7
Total Col1Ave (4 peaks):		217.9				Total Col2Ave (4 peaks):			223.1	RPD = 2
Corrected Ave (3 peaks):		207.9				Corrected Ave (3 peaks):			216.5	RPD = 4
Aroclor-1248	1	8.403	-0.000	28918	130.1	1	8.304	-0.001	24379	140.0
Aroclor-1248	2	8.577	-0.000	48090	171.5	2	8.712	0.000	24445	133.4
Aroclor-1248	3	8.997	0.001	47230	119.1	3	9.156	-0.003	26140	123.4
Aroclor-1248	4	9.292	0.001	23789	94.9	4	9.580	-0.001	33659	131.0
Total Col1Ave (4 peaks):		128.9				Total Col2Ave (4 peaks):			132.0	RPD = 2
Corrected Ave (3 peaks):		114.7				Corrected Ave (3 peaks):			129.3	RPD = 12
Aroclor-1254	1	9.292	-0.003	23789	53.3	1	9.446	-0.000	12605	46.3
Aroclor-1254	2	9.374	0.001	9634	54.9	2	9.967	-0.000	8527	38.8
Aroclor-1254	3	9.666	0.001	10685	37.6	3	10.119	-0.001	16959	35.4
Aroclor-1254	4	9.803	-0.000	18245	32.2	4	10.375	0.005	17612	37.3
Aroclor-1254	5	10.169	0.001	13394	38.8	5	10.568	0.003	5160	21.6
Total Col1Ave (5 peaks):		43.4				Total Col2Ave (5 peaks):			35.9	RPD = 19
Corrected Ave (4 peaks):		40.5				Corrected Ave (4 peaks):			33.3	RPD = 20
Aroclor-1260	1	11.043	0.002	200	0.6	1	11.659	0.009	1883	5.3
Aroclor-1260	2	11.361	0.004	305	0.8	2	11.922	0.007	1118	1.2
Aroclor-1260	3	11.735	0.004	595	0.6	3	12.438	0.006	127	0.5
Aroclor-1260	4	12.143	0.009	717	1.4	4	12.501	0.003	670	1.1
Aroclor-1260	5	12.318	0.078	265	1.2	NS	---			----
Total Col1Ave (5 peaks):		0.9				Total Col2Ave (4 peaks):			2.0	RPD = 74*
Corrected Ave (4 peaks):		0.8				Corrected Ave (3 peaks):			1.0	RPD = 17
Aroclor-1262	1	10.827	0.003	7919	25.8	1	11.117	-0.081	6747	13.0
Aroclor-1262	2	12.318	0.076	265	0.5	2	11.659	0.010	1883	4.2
Aroclor-1262	3	---			0.0	3	12.438	0.007	127	0.3
Aroclor-1262	4	13.032	0.048	704	1.5	4	12.501	0.001	670	0.9
Total Col1Ave (3 peaks):		9.3				Total Col2Ave (4 peaks):			4.6	RPD = 68*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			1.8	
Aroclor-1268	1	12.318	0.075	265	0.2	1	12.438	0.007	127	0.1
Aroclor-1268	2	---			0.0	2	12.501	0.003	670	0.5
Aroclor-1268	3	12.613	-0.084	2956	2.7	3	12.895	0.005	26	0.0
Aroclor-1268	4	13.493	0.006	820	0.2	4	13.707	0.000	334	0.1
Total Col1Ave (3 peaks):		1.0				Total Col2Ave (4 peaks):			0.2	RPD = 141*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			0.1	

Total PCB Area Col1 (5.908 - 13.791) = 754431 Col1 Total PCB = 0.1 ppm*

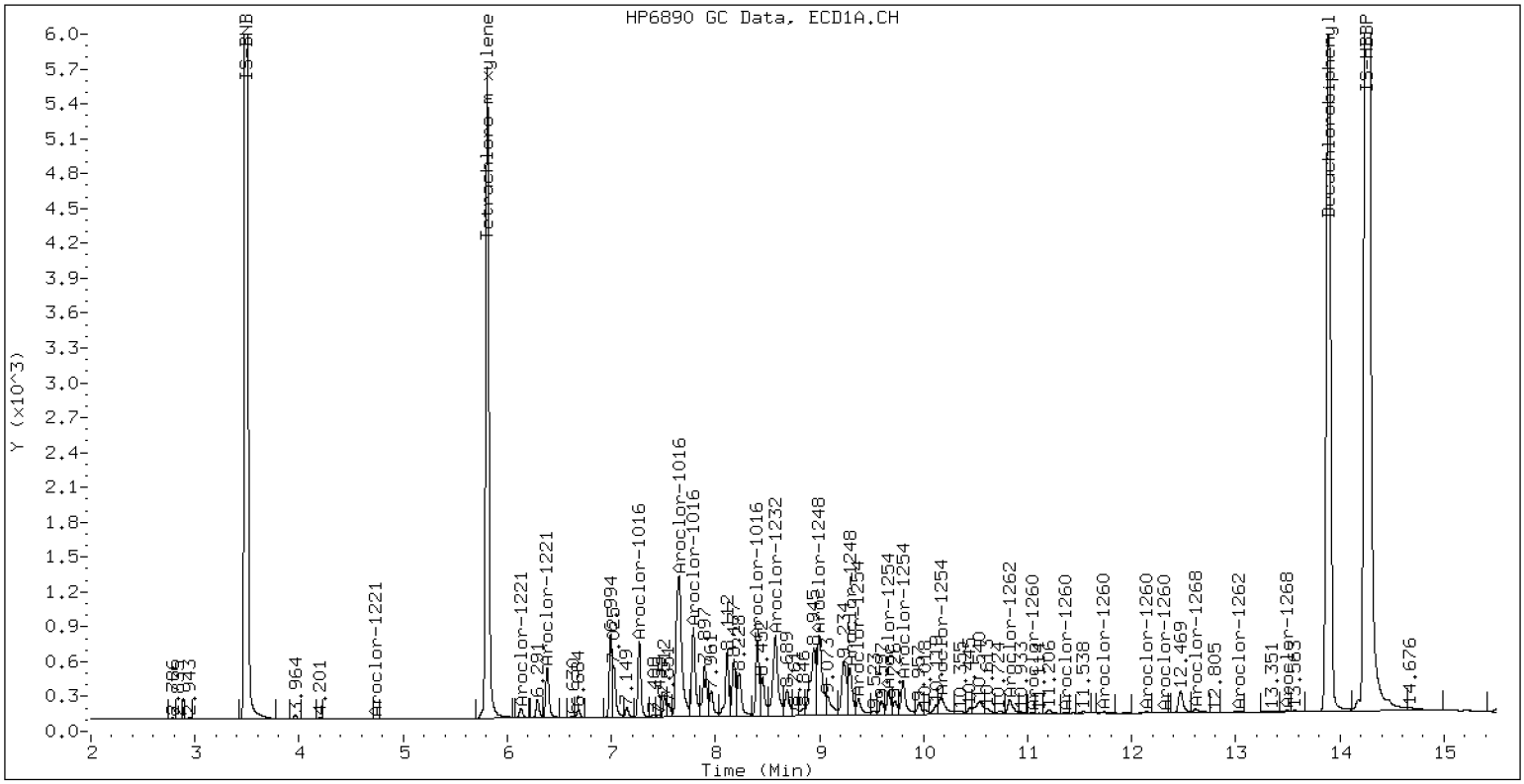
Total PCB Area Col2 (5.786 - 14.018) = 609528 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

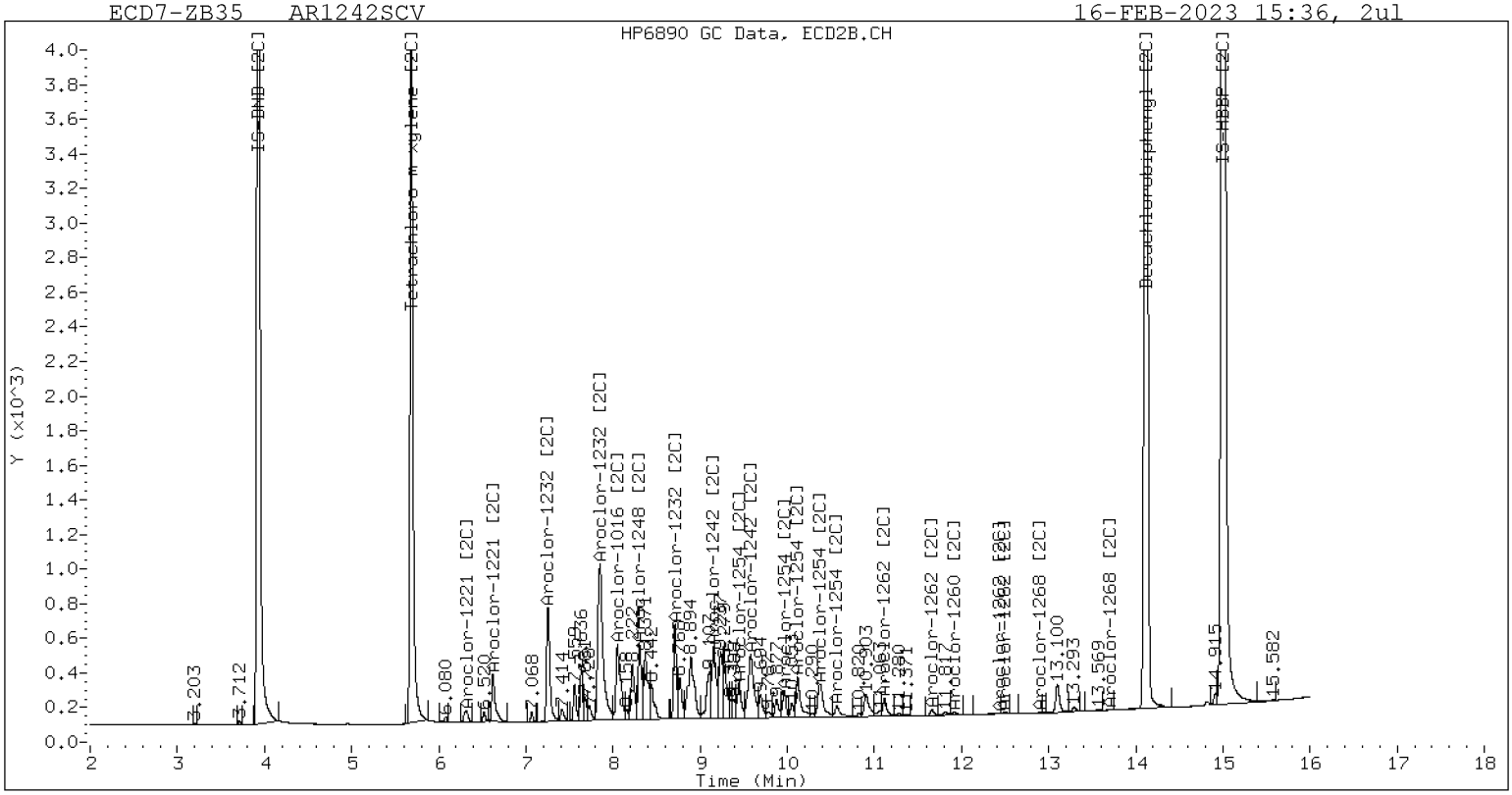
PCB Dual Column Chromatograms

ECD7-ZB5 AR1242SCV 16-FEB-2023 15:36, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242SCV 16-FEB-2023 15:36, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162315ECD7.D
Data file 2: /230216.b/230216.b/02162315ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV
Client ID:
Injection Date: 16-FEB-2023 15:57
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	235232	5.686	0.000	187353	36.5	36.9	1.1	Tetrachloro-m-xylene
13.891	0.000	371896	14.118	0.000	374279	41.4	41.5	0.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	454293	5.6
Hexabromobiphenyl	975457	1020262	4.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	380923	3.9
Hexabromobiphenyl	646884	669927	3.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	7.269	0.000	12869	77.8	1	7.252	-0.002	17659	85.2
Aroclor-1016	2	7.649	-0.001	59048	111.5	2	7.852	0.001	49924	114.3
Aroclor-1016	3	7.791	0.004	23385	96.0	3	8.054	0.004	9755	54.2
Aroclor-1016	4	8.403	0.001	51659	322.2	4	8.305	0.001	40334	273.8
Total Col1Ave (4 peaks):					151.9	Total Col2Ave (4 peaks):				131.9 RPD = 14
Corrected Ave (3 peaks):					95.1	Corrected Ave (3 peaks):				84.6 RPD = 12
Aroclor-1221	1	4.639	-0.093	125	3.5	1	---			0.0
Aroclor-1221	2	6.133	-0.000	396	6.0	2	6.324	0.026	2135	35.1
Aroclor-1221	3	6.384	0.001	2262	14.9	3	6.626	0.005	1703	16.7
Total Col1Ave (3 peaks):					8.1	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.639	-0.093	125	5.7	1	---			0.0
Aroclor-1232	2	6.133	0.000	396	8.6	2	7.252	-0.003	17659	186.5
Aroclor-1232	3	7.649	-0.005	59048	267.3	3	7.852	-0.003	49924	263.9
Aroclor-1232	4	8.577	-0.002	65165	713.5	4	8.712	-0.000	42481	802.3
Total Col1Ave (4 peaks):					248.8	Total Col2Ave (3 peaks):				417.6 RPD = 51*
Corrected Ave (3 peaks):					93.9	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.269	0.000	12869	95.1	1	7.252	-0.002	17659	107.2
Aroclor-1242	2	7.649	-0.003	59048	137.9	2	7.852	-0.000	49924	139.9
Aroclor-1242	3	8.403	0.000	51659	399.2	3	9.160	0.001	49159	435.7
Aroclor-1242	4	8.577	-0.000	65165	340.9	4	9.582	-0.005	57018	416.7
Total Col1Ave (4 peaks):					243.3	Total Col2Ave (4 peaks):				274.8 RPD = 12
Corrected Ave (3 peaks):					191.3	Corrected Ave (3 peaks):				221.2 RPD = 15
Aroclor-1248	1	8.403	0.000	51659	235.8	1	8.305	-0.000	40334	234.7
Aroclor-1248	2	8.577	-0.000	65165	235.7	2	8.712	0.000	42481	235.0
Aroclor-1248	3	8.997	0.001	90358	231.2	3	9.160	0.002	49159	235.3
Aroclor-1248	4	9.292	0.000	60263	243.8	4	9.582	0.001	57018	225.0
Total Col1Ave (4 peaks):					236.6	Total Col2Ave (4 peaks):				232.5 RPD = 2
Corrected Ave (3 peaks):					234.2	Corrected Ave (3 peaks):				231.6 RPD = 1
Aroclor-1254	1	9.292	-0.003	60263	137.1	1	9.447	0.001	22366	83.3
Aroclor-1254	2	9.373	-0.000	30778	177.8	2	9.968	0.001	20179	93.0
Aroclor-1254	3	9.666	0.001	25929	92.5	3	10.121	0.001	37594	79.6
Aroclor-1254	4	9.806	0.003	44678	80.1	4	10.384	0.014	37032	79.4
Aroclor-1254	5	10.177	0.010	31103	91.4	5	10.571	0.005	8221	34.9
Total Col1Ave (5 peaks):					115.8	Total Col2Ave (5 peaks):				74.0 RPD = 44*
Corrected Ave (4 peaks):					100.3	Corrected Ave (4 peaks):				69.3 RPD = 37
Aroclor-1260	1	11.045	0.004	1084	3.1	1	11.659	0.009	2037	5.9
Aroclor-1260	2	11.359	0.002	556	1.5	2	11.920	0.006	1374	1.6
Aroclor-1260	3	11.734	0.003	872	0.9	3	12.426	-0.006	2386	10.1
Aroclor-1260	4	12.143	0.009	431	0.9	4	12.501	0.004	1186	2.0
Aroclor-1260	5	12.243	0.003	275	1.3	NS	---			----
Total Col1Ave (5 peaks):					1.6	Total Col2Ave (4 peaks):				4.9 RPD = 103*
Corrected Ave (4 peaks):					1.2	Corrected Ave (3 peaks):				3.1 RPD = 92*
Aroclor-1262	1	10.828	0.003	9454	31.7	1	11.119	-0.079	7326	14.6
Aroclor-1262	2	12.243	0.001	275	0.6	2	11.659	0.010	2037	4.7
Aroclor-1262	3	12.321	0.005	357	0.7	3	12.426	-0.005	2386	5.1
Aroclor-1262	4	12.984	-0.001	1676	3.7	4	12.501	0.002	1186	1.6
Total Col1Ave (4 peaks):					9.2	Total Col2Ave (4 peaks):				6.5 RPD = 34
Corrected Ave (3 peaks):					1.6	Corrected Ave (3 peaks):				3.8 RPD = 79*
Aroclor-1268	1	12.243	0.000	275	0.2	1	12.426	-0.004	2386	2.0
Aroclor-1268	2	12.321	0.007	357	0.3	2	12.501	0.004	1186	0.9
Aroclor-1268	3	12.614	-0.084	992	0.9	3	12.898	0.008	80	0.1
Aroclor-1268	4	13.493	0.006	969	0.3	4	13.674	-0.032	1135	0.3
Total Col1Ave (4 peaks):					0.4	Total Col2Ave (4 peaks):				0.8 RPD = 63*
Corrected Ave (3 peaks):					0.3	Corrected Ave (3 peaks):				0.4 RPD = 50*

Total PCB Area Col1 (5.908 - 13.791) = 1015830 Col1 Total PCB = 0.2 ppm*

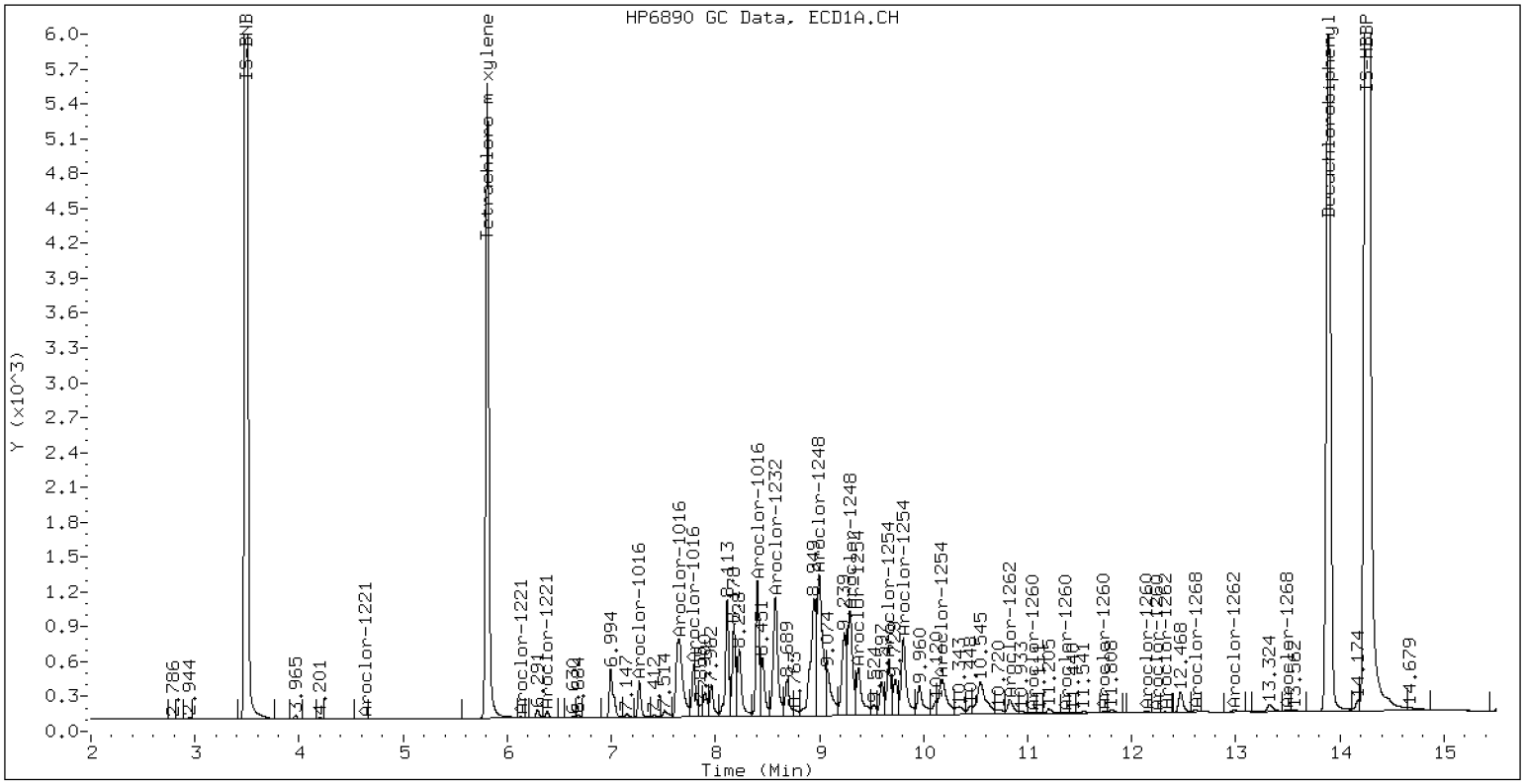
Total PCB Area Col2 (5.786 - 14.018) = 795098 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

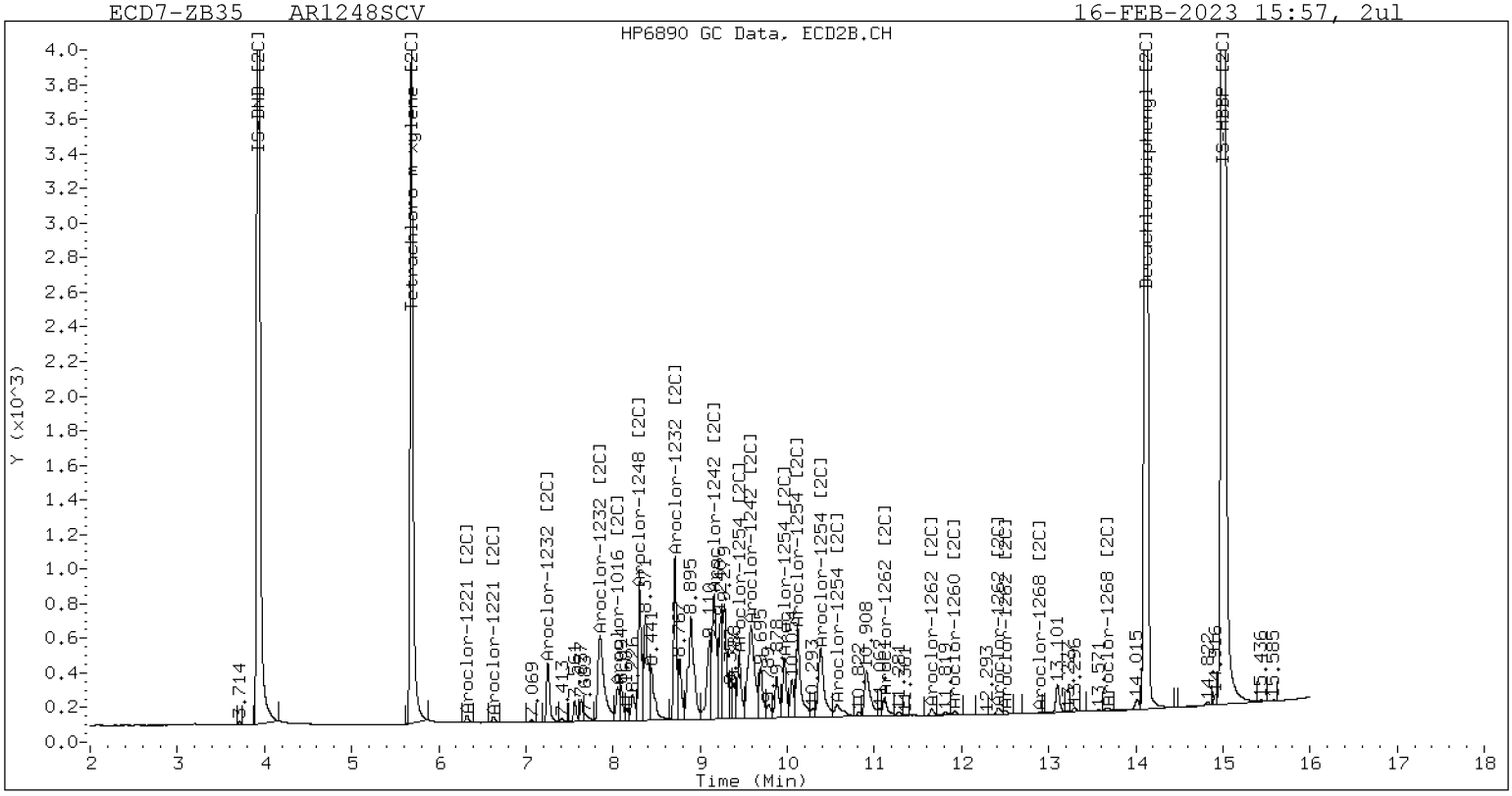
PCB Dual Column Chromatograms

ECD7-ZB5 AR1248SCV 16-FEB-2023 15:57, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1248SCV 16-FEB-2023 15:57, 2ul

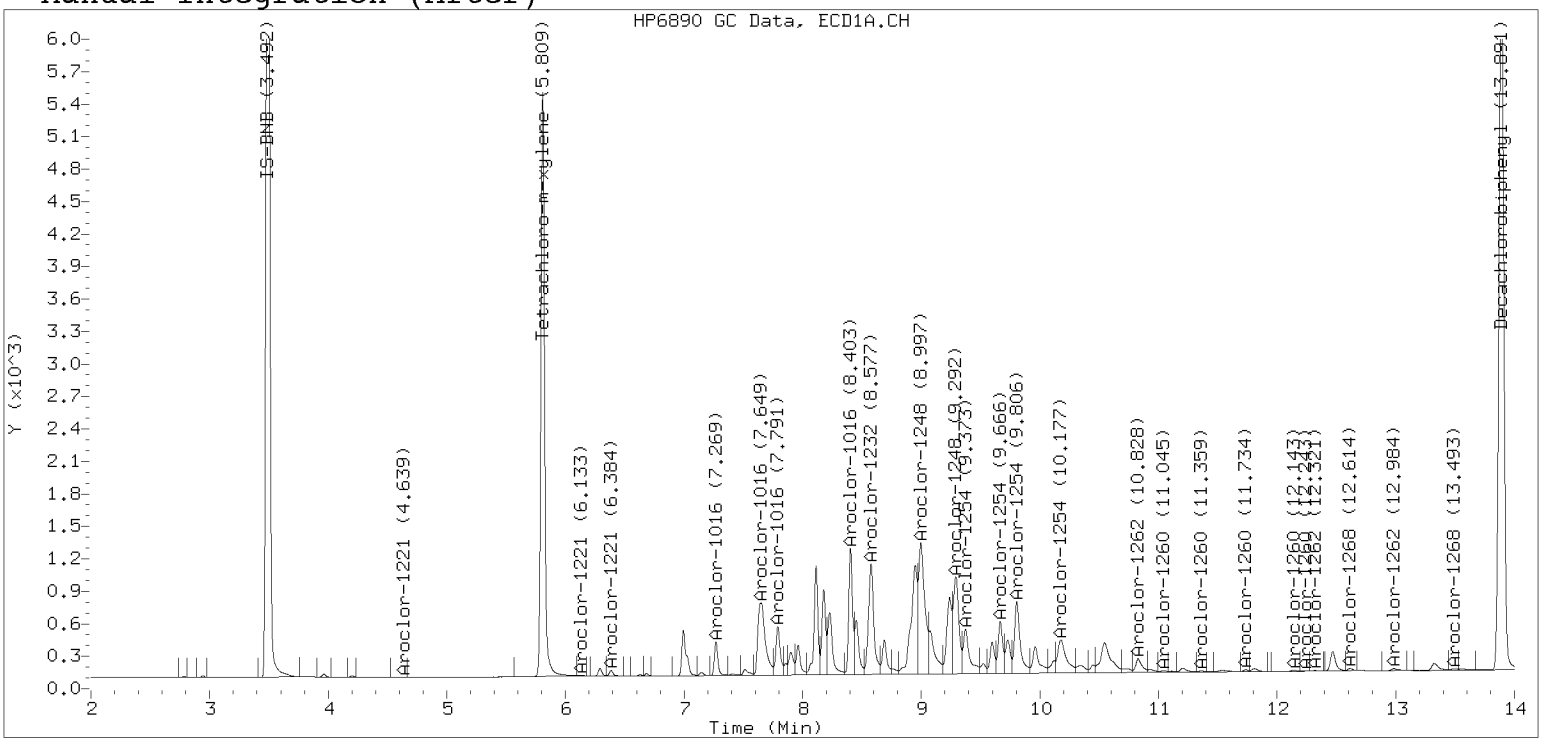


ZB-35 Manual Integration: NO

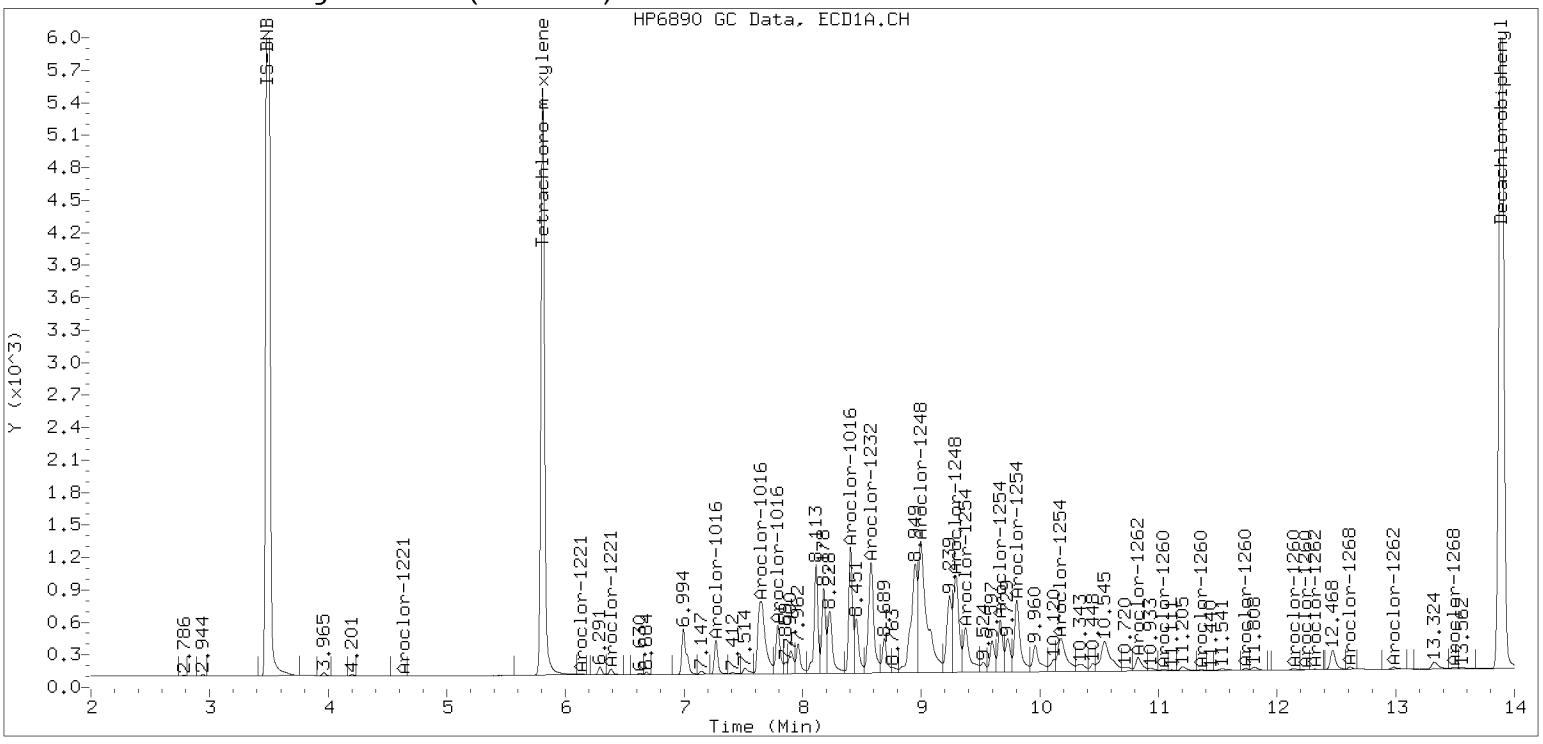
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/230216.b/02162315ECD7.D Injection Date: 16-FEB-2023 15:57

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162316ECD7.D
Data file 2: /230216.b/230216.b/02162316ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV
Client ID:
Injection Date: 16-FEB-2023 16:18
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.807	-0.001	242127	5.685	-0.000	193580	36.7	37.5	2.1	Tetrachloro-m-xylene
13.890	-0.001	377360	14.118	0.000	394229	40.3	41.8	3.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	465227	8.2
Hexabromobiphenyl	975457	1063495	9.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	387434	5.6
Hexabromobiphenyl	646884	700154	8.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.001	281	1.7	1	7.256	0.002	379	1.8
Aroclor-1016	2	7.655	0.005	996	1.8	2	---			0.0
Aroclor-1016	3	7.792	0.005	684	2.7	3	8.097	0.048	526	2.9
Aroclor-1016	4	8.404	0.002	18193	110.8	4	8.305	0.001	23002	153.5
	Total Col1Ave (4 peaks):				29.3	Total Col2Ave (3 peaks):				52.7 RPD = 57*
	Corrected Ave (3 peaks):				2.1	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	6.323	0.026	2104	34.0
Aroclor-1221	3	---			0.0	3	6.632	0.010	433	4.2
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	7.256	0.001	379	3.9
Aroclor-1232	3	7.655	0.001	996	4.4	3	---			0.0
Aroclor-1232	4	8.580	0.002	7144	76.4	4	8.714	0.001	15174	281.7
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	7.270	0.001	281	2.0	1	7.256	0.002	379	2.3
Aroclor-1242	2	7.655	0.003	996	2.3	2	---			0.0
Aroclor-1242	3	8.404	0.001	18193	137.3	3	9.163	0.004	23373	203.7
Aroclor-1242	4	8.580	0.003	7144	36.5	4	9.541	-0.046	35054	251.9
	Total Col1Ave (4 peaks):				44.5	Total Col2Ave (3 peaks):				152.6 RPD = 110*
	Corrected Ave (3 peaks):				13.6	Corrected Ave: < 3 Peaks				
Aroclor-1248	1	8.404	0.001	18193	81.1	1	8.305	-0.000	23002	131.6
Aroclor-1248	2	8.580	0.003	7144	25.2	2	8.714	0.002	15174	82.5
Aroclor-1248	3	8.992	-0.004	93928	234.7	3	9.163	0.005	23373	110.0
Aroclor-1248	4	9.296	0.004	99099	391.5	4	9.541	-0.040	35054	136.0
	Total Col1Ave (4 peaks):				183.1	Total Col2Ave (4 peaks):				115.0 RPD = 46*
	Corrected Ave (3 peaks):				113.7	Corrected Ave (3 peaks):				108.0 RPD = 5
Aroclor-1254	1	9.296	0.001	99099	220.1	1	9.447	0.001	61772	226.1
Aroclor-1254	2	9.374	0.001	43324	244.4	2	9.966	-0.001	49637	225.0
Aroclor-1254	3	9.666	0.001	63930	222.8	3	10.119	-0.000	106246	221.1
Aroclor-1254	4	9.803	0.000	123663	216.5	4	10.369	-0.001	107021	225.7
Aroclor-1254	5	10.171	0.004	76902	220.7	5	10.565	-0.000	55207	230.4
	Total Col1Ave (5 peaks):				224.9	Total Col2Ave (5 peaks):				225.6 RPD = 0
	Corrected Ave (4 peaks):				220.0	Corrected Ave (4 peaks):				224.5 RPD = 2
Aroclor-1260	1	11.041	0.000	8242	22.5	1	11.657	0.007	30310	83.3
Aroclor-1260	2	11.360	0.003	8312	22.2	2	11.918	0.004	22031	24.1
Aroclor-1260	3	11.734	0.003	19109	19.2	3	12.445	0.012	1692	6.8
Aroclor-1260	4	12.137	0.002	15342	30.4	4	12.500	0.002	12899	20.9
Aroclor-1260	5	12.238	-0.002	582	2.7	NS	---			----
	Total Col1Ave (5 peaks):				19.4	Total Col2Ave (4 peaks):				33.8 RPD = 54*
	Corrected Ave (4 peaks):				16.6	Corrected Ave (3 peaks):				17.3 RPD = 4
Aroclor-1262	1	10.824	-0.000	138302	445.0	1	11.278	0.081	13621	26.0
Aroclor-1262	2	12.238	-0.004	582	1.1	2	11.657	0.008	30310	66.7
Aroclor-1262	3	12.316	-0.001	714	1.3	3	12.445	0.013	1692	3.4
Aroclor-1262	4	12.988	0.003	961	2.0	4	12.500	0.000	12899	16.4
	Total Col1Ave (4 peaks):				112.4	Total Col2Ave (4 peaks):				28.1 RPD = 120*
	Corrected Ave (3 peaks):				1.5	Corrected Ave (3 peaks):				15.3 RPD = 164*
Aroclor-1268	1	12.238	-0.005	582	0.4	1	12.445	0.014	1692	1.3
Aroclor-1268	2	12.316	0.002	714	0.5	2	12.500	0.002	12899	9.6
Aroclor-1268	3	12.719	0.022	539	0.5	3	12.892	0.002	60	0.1
Aroclor-1268	4	13.497	0.010	695	0.2	4	13.700	-0.007	290	0.1
	Total Col1Ave (4 peaks):				0.4	Total Col2Ave (4 peaks):				2.8 RPD = 148*
	Corrected Ave (3 peaks):				0.4	Corrected Ave (3 peaks):				0.5 RPD = 27

Total PCB Area Col1 (5.908 - 13.791) = 1311525 Col1 Total PCB = 0.3 ppm*

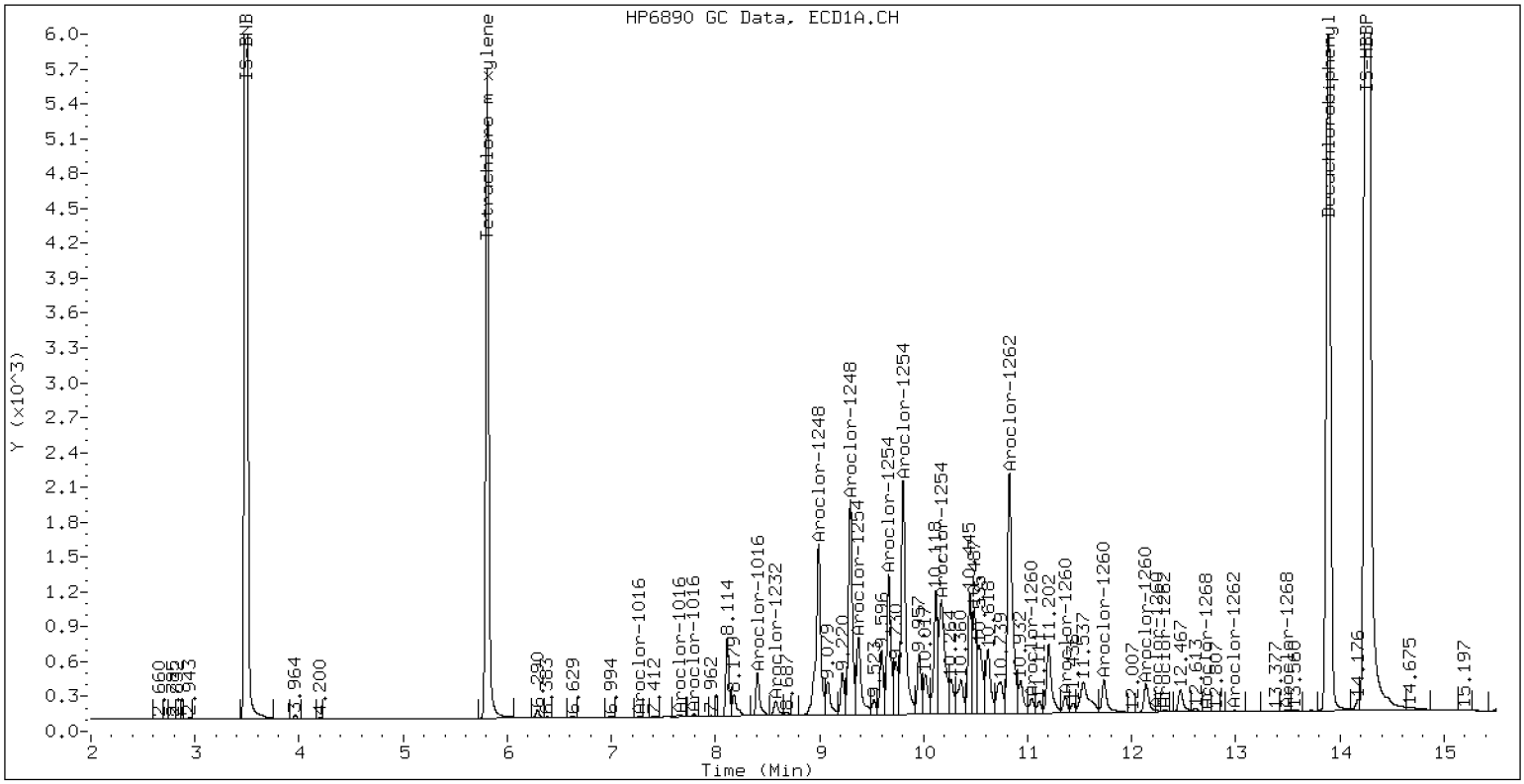
Total PCB Area Col2 (5.786 - 14.018) = 1040417 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

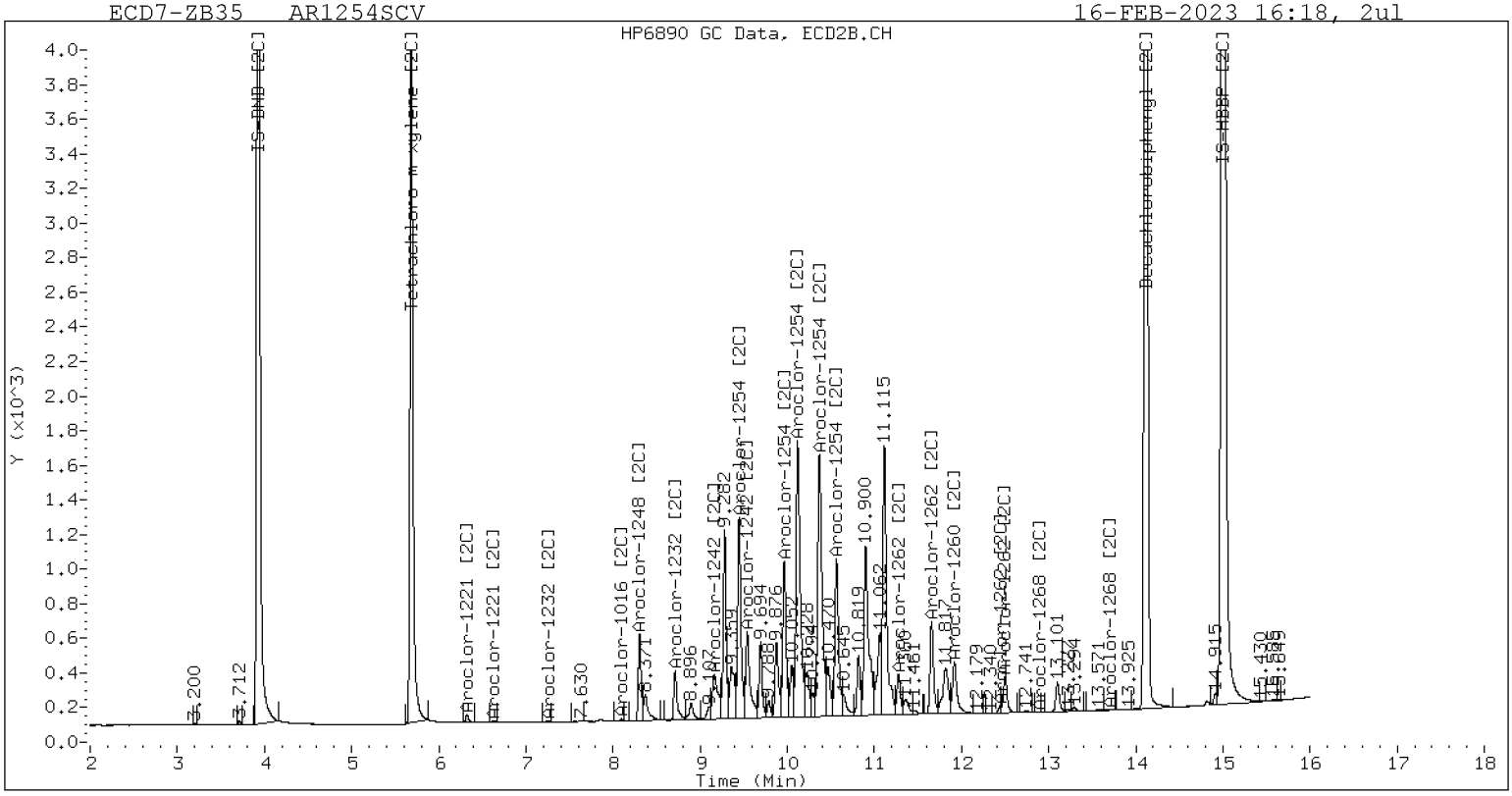
PCB Dual Column Chromatograms

ECD7-ZB5 AR1254SCV 16-FEB-2023 16:18, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254SCV 16-FEB-2023 16:18, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162317ECD7.D
Data file 2: /230216.b/230216.b/02162317ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV
Client ID:
Injection Date: 16-FEB-2023 16:39
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	245197	5.686	-0.000	191474	37.2	37.7	1.2	Tetrachloro-m-xylene
13.890	-0.001	375224	14.118	0.000	392997	40.4	42.0	3.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	464367	8.0
Hexabromobiphenyl	975457	1054321	8.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	381247	4.0
Hexabromobiphenyl	646884	695925	7.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	7.270	0.001	4790	28.3	1	7.255	0.001	5664	27.3
Aroclor-1016	2	7.656	0.006	10623	19.6	2	7.858	0.007	8417	19.3
Aroclor-1016	3	7.793	0.006	5360	21.5	3	8.058	0.009	4104	22.8
Aroclor-1016	4	8.405	0.003	2485	15.2	4	8.306	0.002	3192	21.6
Total Col1Ave (4 peaks):					21.2	Total Col2Ave (4 peaks):				22.7 RPD = 7
Corrected Ave (3 peaks):					18.8	Corrected Ave (3 peaks):				21.2 RPD = 12
Aroclor-1221	1	4.733	0.000	9001	249.5	1	4.958	0.000	7198	254.0
Aroclor-1221	2	6.133	-0.000	16485	245.0	2	6.297	-0.001	14187	233.2
Aroclor-1221	3	6.383	-0.000	37665	242.0	3	6.621	-0.000	23991	235.4
Total Col1Ave (3 peaks):					245.5	Total Col2Ave (3 peaks):				240.8 RPD = 2
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.733	0.001	9001	404.1	1	4.958	-0.000	7198	425.7
Aroclor-1232	2	6.133	-0.000	16485	350.7	2	7.255	0.001	5664	59.8
Aroclor-1232	3	7.656	0.002	10623	47.0	3	7.858	0.003	8417	44.5
Aroclor-1232	4	8.581	0.002	2585	27.7	4	8.714	0.001	2167	40.9
Total Col1Ave (4 peaks):					207.4	Total Col2Ave (4 peaks):				142.7 RPD = 37
Corrected Ave (3 peaks):					141.8	Corrected Ave (3 peaks):				48.4 RPD = 98*
Aroclor-1242	1	7.270	0.001	4790	34.6	1	7.255	0.001	5664	34.3
Aroclor-1242	2	7.656	0.004	10623	24.3	2	7.858	0.005	8417	23.6
Aroclor-1242	3	8.405	0.002	2485	18.8	3	9.168	0.009	2109	18.7
Aroclor-1242	4	8.581	0.003	2585	13.2	4	9.541	-0.046	4209	30.7
Total Col1Ave (4 peaks):					22.7	Total Col2Ave (4 peaks):				26.8 RPD = 17
Corrected Ave (3 peaks):					18.8	Corrected Ave (3 peaks):				24.3 RPD = 26
Aroclor-1248	1	8.405	0.002	2485	11.1	1	8.306	0.001	3192	18.6
Aroclor-1248	2	8.581	0.003	2585	9.1	2	8.714	0.002	2167	12.0
Aroclor-1248	3	8.992	-0.004	27170	68.0	3	9.168	0.010	2109	10.1
Aroclor-1248	4	9.299	0.007	25808	102.2	4	9.541	-0.040	4209	16.6
Total Col1Ave (4 peaks):					47.6	Total Col2Ave (4 peaks):				14.3 RPD = 108*
Corrected Ave (3 peaks):					29.4	Corrected Ave (3 peaks):				12.9 RPD = 78*
Aroclor-1254	1	9.299	0.004	25808	57.4	1	9.448	0.001	19163	71.3
Aroclor-1254	2	9.371	-0.003	3696	20.9	2	9.969	0.002	3379	15.6
Aroclor-1254	3	9.667	0.002	4053	14.2	3	10.144	0.024	96918	204.9
Aroclor-1254	4	9.803	0.000	10960	19.2	4	10.368	-0.002	117515	251.8
Aroclor-1254	5	10.117	-0.050	153073	440.2	5	10.565	-0.001	155303	658.7
Total Col1Ave (5 peaks):					110.4	Total Col2Ave (5 peaks):				240.5 RPD = 74*
Corrected Ave (4 peaks):					27.9	Corrected Ave (4 peaks):				135.9 RPD = 132*
Aroclor-1260	1	11.041	0.001	267479	735.9	1	11.649	-0.001	205344	567.8
Aroclor-1260	2	11.358	0.000	225792	607.2	2	11.914	-0.000	489297	539.3
Aroclor-1260	3	11.730	-0.000	549436	558.0	3	12.431	-0.001	237419	963.5
Aroclor-1260	4	12.135	0.001	182085	364.2	4	12.499	0.001	364340	594.8
Aroclor-1260	5	12.241	0.000	234096	1091.8	NS	---			----
Total Col1Ave (5 peaks):					671.4	Total Col2Ave (4 peaks):				666.3 RPD = 1
Corrected Ave (4 peaks):					566.3	Corrected Ave (3 peaks):				567.3 RPD = 0
Aroclor-1262	1	10.823	-0.002	146525	475.6	1	11.197	-0.001	236850	454.1
Aroclor-1262	2	12.241	-0.001	234096	463.6	2	11.649	0.001	205344	454.6
Aroclor-1262	3	12.314	-0.002	250166	459.4	3	12.431	-0.000	237419	484.0
Aroclor-1262	4	12.984	-0.000	210767	447.6	4	12.499	-0.001	364340	465.6
Total Col1Ave (4 peaks):					461.6	Total Col2Ave (4 peaks):				464.6 RPD = 1
Corrected Ave (3 peaks):					456.9	Corrected Ave (3 peaks):				458.1 RPD = 0
Aroclor-1268	1	12.241	-0.002	234096	176.9	1	12.431	0.000	237419	187.5
Aroclor-1268	2	12.314	0.000	250166	190.3	2	12.499	0.001	364340	271.8
Aroclor-1268	3	12.719	0.022	91155	81.7	3	12.889	-0.001	13334	11.6
Aroclor-1268	4	13.485	-0.002	72883	21.3	4	13.706	-0.001	72610	19.8
Total Col1Ave (4 peaks):					117.6	Total Col2Ave (4 peaks):				122.7 RPD = 4

Corrected Ave (3 peaks): 93.3 Corrected Ave (3 peaks): 73.0 RPD = 24

Total PCB Area Col1 (5.908 - 13.791) = 3768590 Col1 Total PCB = 0.7 ppm*

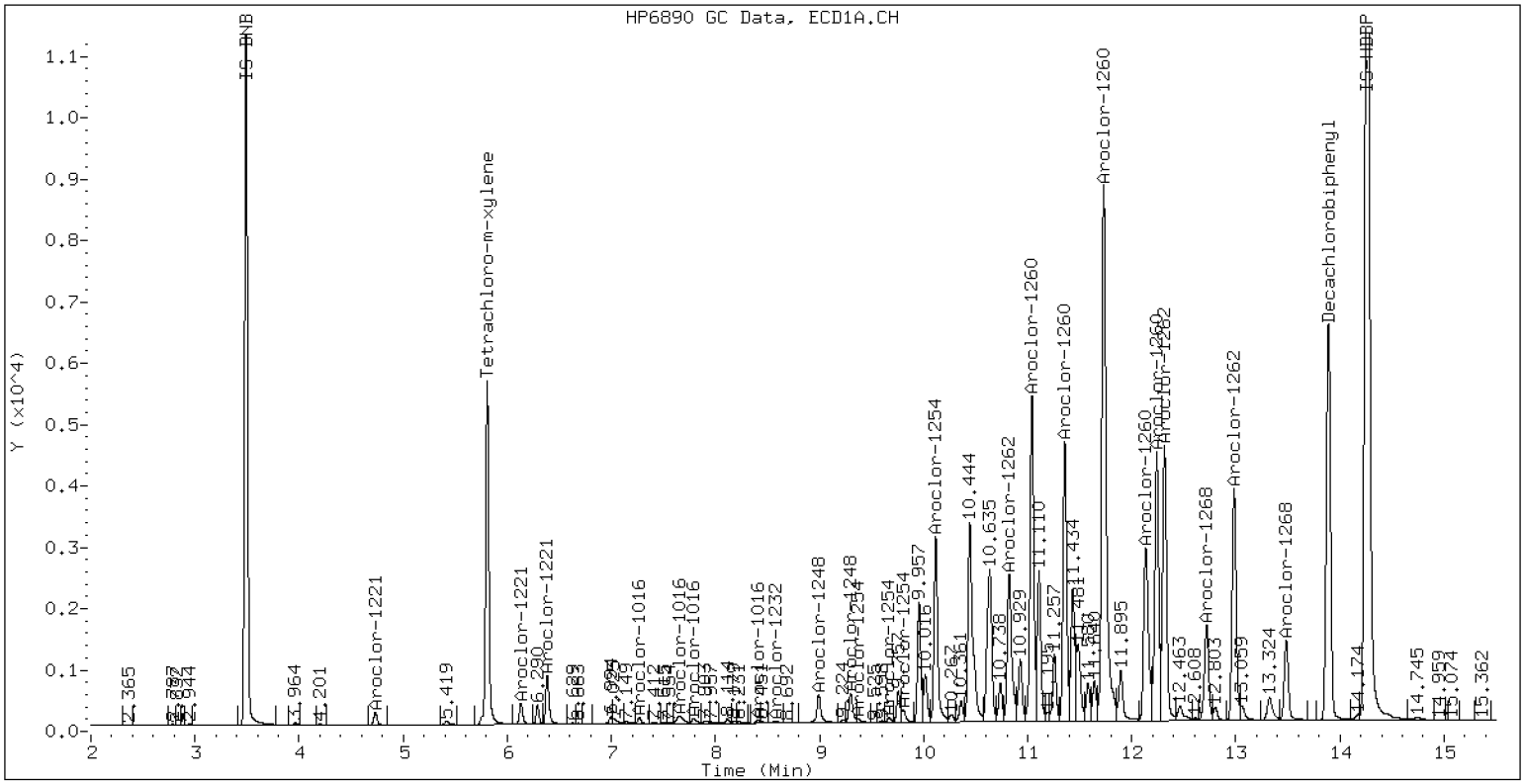
Total PCB Area Col2 (5.786 - 14.018) = 3198649 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

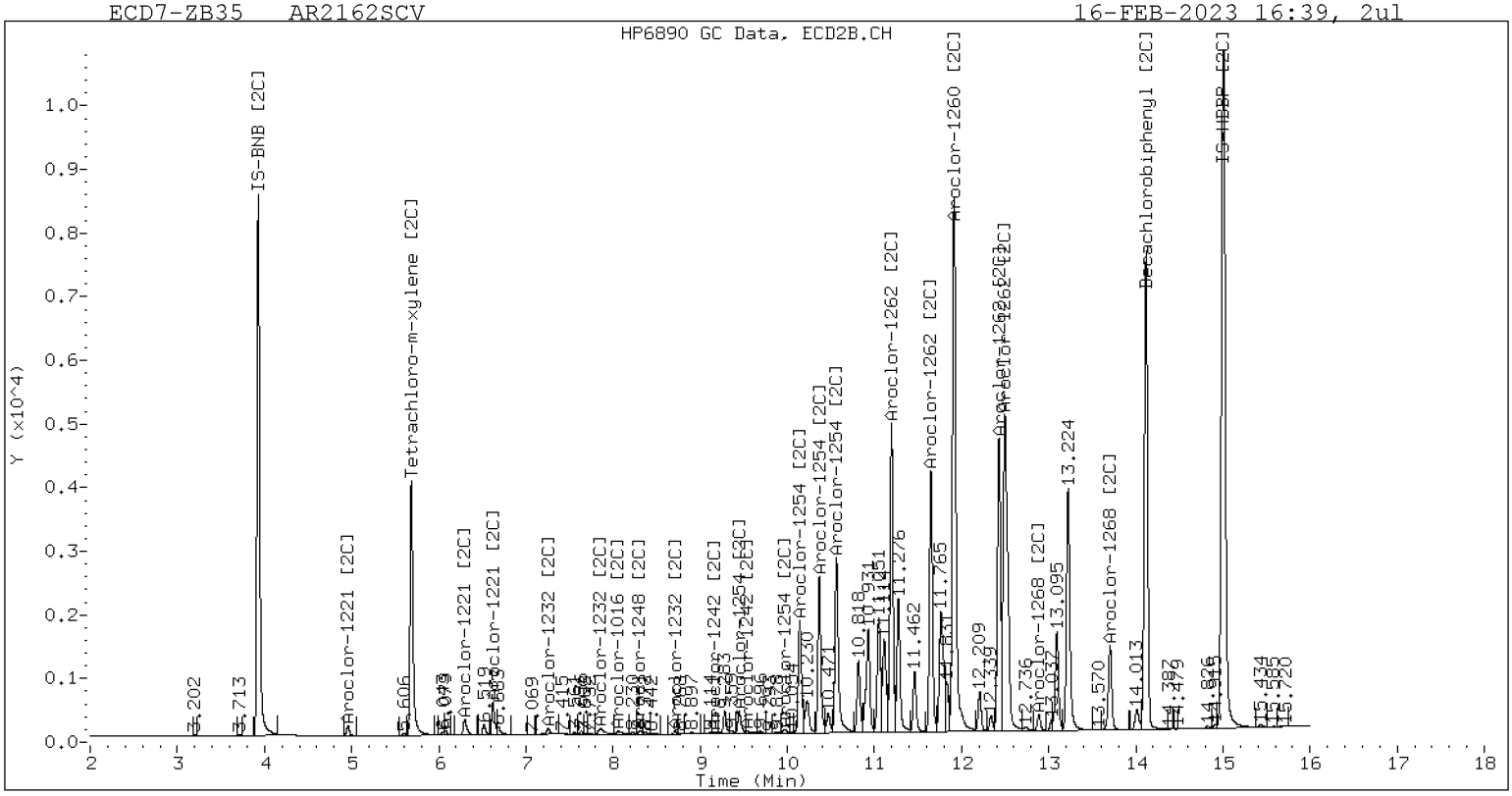
PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV 16-FEB-2023 16:39, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV 16-FEB-2023 16:39, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230216.b/02162318ECD7.D
Data file 2: /230216.b/230216.b/02162318ECD7.D
Method: \\target\share\chem4\ecd7.i\230216.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV
Client ID:
Injection Date: 16-FEB-2023 17:00
Report Date: 02/17/2023 18:12
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	232649	5.686	0.000	184511	35.5	36.4	2.5	Tetrachloro-m-xylene
13.892	0.001	534256	14.118	0.000	561270	58.0	60.1	3.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	462340	7.5
Hexabromobiphenyl	975457	1046529	7.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	380640	3.8
Hexabromobiphenyl	646884	694272	7.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	17406	103.4	1	7.255	0.001	21798	105.3
Aroclor-1016	2	7.654	0.004	51620	95.7	2	7.856	0.005	43831	100.4
Aroclor-1016	3	7.791	0.004	24787	100.0	3	8.054	0.005	19284	107.2
Aroclor-1016	4	8.404	0.002	15491	94.9	4	8.306	0.002	13712	93.1
Total Col1Ave (4 peaks):		98.5		Total Col2Ave (4 peaks):		101.5	RPD = 3			
Corrected Ave (3 peaks):		96.9		Corrected Ave (3 peaks):		99.6	RPD = 3			
Aroclor-1221	1	4.732	-0.000	4903	136.5	1	4.959	0.001	3678	130.0
Aroclor-1221	2	6.133	-0.000	8309	124.0	2	6.298	0.001	8756	144.1
Aroclor-1221	3	6.383	-0.000	26751	172.7	3	6.622	0.001	18239	179.3
Total Col1Ave (3 peaks):		144.4		Total Col2Ave (3 peaks):		151.1	RPD = 5			
Corrected Ave: < 3 Peaks				Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.732	0.000	4903	221.1	1	4.959	0.000	3678	217.9
Aroclor-1232	2	6.133	-0.000	8309	177.5	2	7.255	0.000	21798	230.4
Aroclor-1232	3	7.654	-0.000	51620	229.6	3	7.856	0.001	43831	231.9
Aroclor-1232	4	8.579	0.000	21552	231.9	4	8.712	-0.000	12876	243.3
Total Col1Ave (4 peaks):		215.0		Total Col2Ave (4 peaks):		230.9	RPD = 7			
Corrected Ave (3 peaks):		209.4		Corrected Ave (3 peaks):		226.7	RPD = 8			
Aroclor-1242	1	7.269	0.000	17406	126.4	1	7.255	0.001	21798	132.4
Aroclor-1242	2	7.654	0.002	51620	118.4	2	7.856	0.004	43831	122.9
Aroclor-1242	3	8.404	0.001	15491	117.6	3	9.165	0.005	12931	114.7
Aroclor-1242	4	8.579	0.002	21552	110.8	4	9.594	0.007	15412	112.7
Total Col1Ave (4 peaks):		118.3		Total Col2Ave (4 peaks):		120.7	RPD = 2			
Corrected Ave (3 peaks):		115.6		Corrected Ave (3 peaks):		116.8	RPD = 1			
Aroclor-1248	1	8.404	0.001	15491	69.5	1	8.306	0.001	13712	79.9
Aroclor-1248	2	8.579	0.002	21552	76.6	2	8.712	0.001	12876	71.3
Aroclor-1248	3	9.000	0.004	33860	85.1	3	9.165	0.007	12931	61.9
Aroclor-1248	4	9.290	-0.001	24418	97.1	4	9.594	0.012	15412	60.9
Total Col1Ave (4 peaks):		82.1		Total Col2Ave (4 peaks):		68.5	RPD = 18			
Corrected Ave (3 peaks):		77.1		Corrected Ave (3 peaks):		64.7	RPD = 17			
Aroclor-1254	1	9.290	-0.005	24418	54.6	1	9.448	0.001	4331	16.1
Aroclor-1254	2	9.376	0.002	6352	36.1	2	9.971	0.003	2773	12.8
Aroclor-1254	3	9.670	0.005	3662	12.8	3	10.125	0.006	5733	12.1
Aroclor-1254	4	9.810	0.007	5791	10.2	4	10.384	0.014	5128	11.0
Aroclor-1254	5	10.182	0.014	3705	10.7	5	10.569	0.004	1684	7.2
Total Col1Ave (5 peaks):		24.9		Total Col2Ave (5 peaks):		11.8	RPD = 71*			
Corrected Ave (4 peaks):		17.5		Corrected Ave (4 peaks):		10.8	RPD = 47*			
Aroclor-1260	1	11.044	0.003	48916	135.6	1	11.643	-0.006	63356	175.6
Aroclor-1260	2	11.360	0.003	3252	8.8	2	11.917	0.002	28356	31.3
Aroclor-1260	3	11.734	0.004	29505	30.2	3	12.431	-0.001	299116	1216.7
Aroclor-1260	4	12.140	0.005	787	1.6	4	12.498	-0.000	316006	517.1
Aroclor-1260	5	12.242	0.002	307715	1445.8	NS	---			----
Total Col1Ave (5 peaks):		324.4		Total Col2Ave (4 peaks):		485.2	RPD = 40			
Corrected Ave (4 peaks):		44.0		Corrected Ave (3 peaks):		241.4	RPD = 138*			
Aroclor-1262	1	10.828	0.003	1495	4.9	1	11.199	0.001	44764	86.0
Aroclor-1262	2	12.242	0.000	307715	613.9	2	11.643	-0.005	63356	140.6
Aroclor-1262	3	12.314	-0.002	306654	567.3	3	12.431	0.000	299116	611.2
Aroclor-1262	4	12.985	0.001	125311	268.1	4	12.498	-0.002	316006	404.8
Total Col1Ave (4 peaks):		363.6		Total Col2Ave (4 peaks):		310.7	RPD = 16			
Corrected Ave (3 peaks):		280.1		Corrected Ave (3 peaks):		210.5	RPD = 28			
Aroclor-1268	1	12.242	-0.000	307715	234.3	1	12.431	0.001	299116	236.8
Aroclor-1268	2	12.314	0.000	306654	235.0	2	12.498	-0.000	316006	236.3
Aroclor-1268	3	12.698	0.000	256747	231.8	3	12.891	0.001	264455	231.5
Aroclor-1268	4	13.487	-0.000	801249	236.1	4	13.707	0.001	846369	231.0
Total Col1Ave (4 peaks):		234.3		Total Col2Ave (4 peaks):		233.9	RPD = 0			

Corrected Ave (3 peaks): 233.7 Corrected Ave (3 peaks): 233.0 RPD = 0

Total PCB Area Col1 (5.908 - 13.791) = 2519204 Col1 Total PCB = 0.5 ppm*

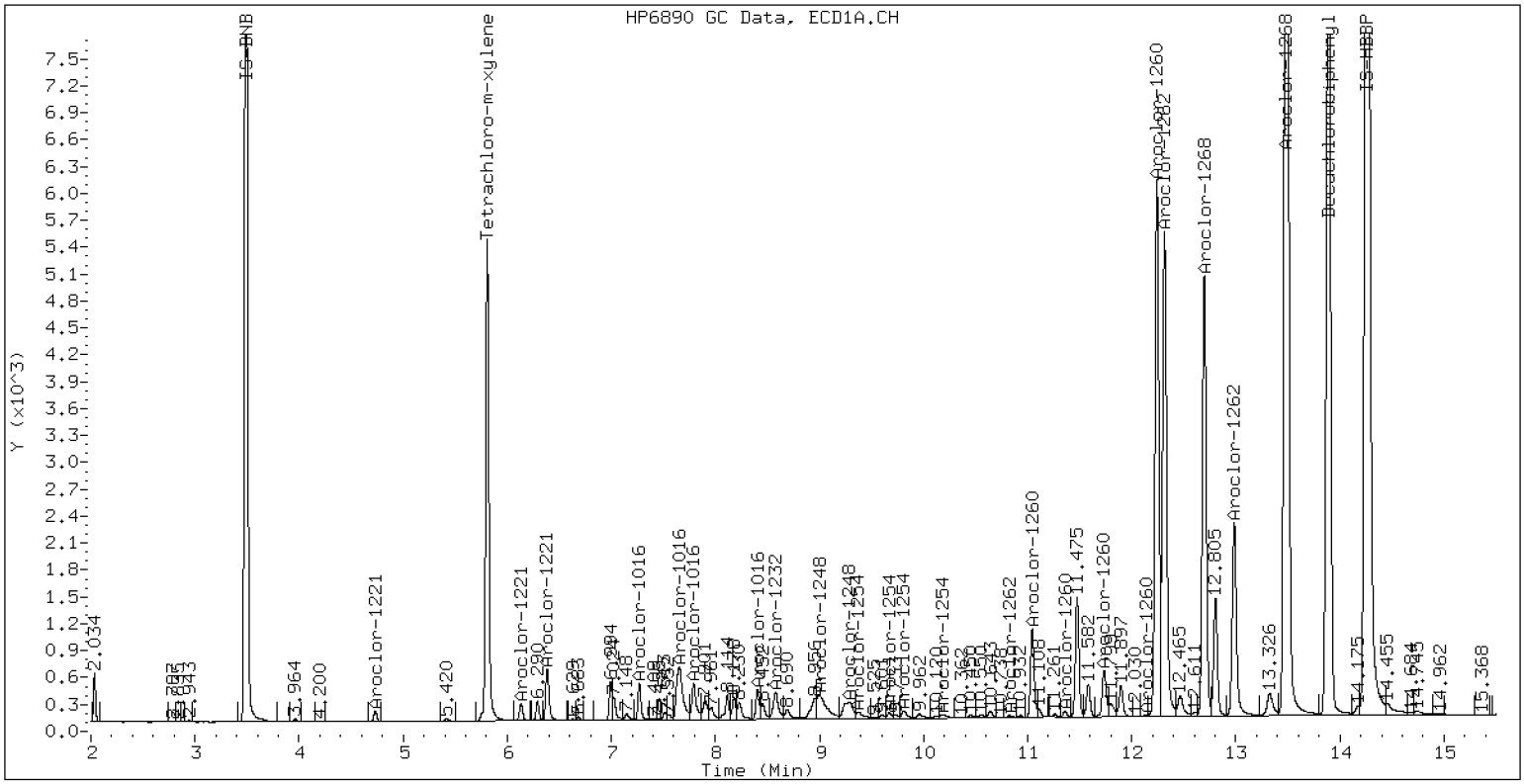
Total PCB Area Col2 (5.786 - 14.018) = 2428029 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

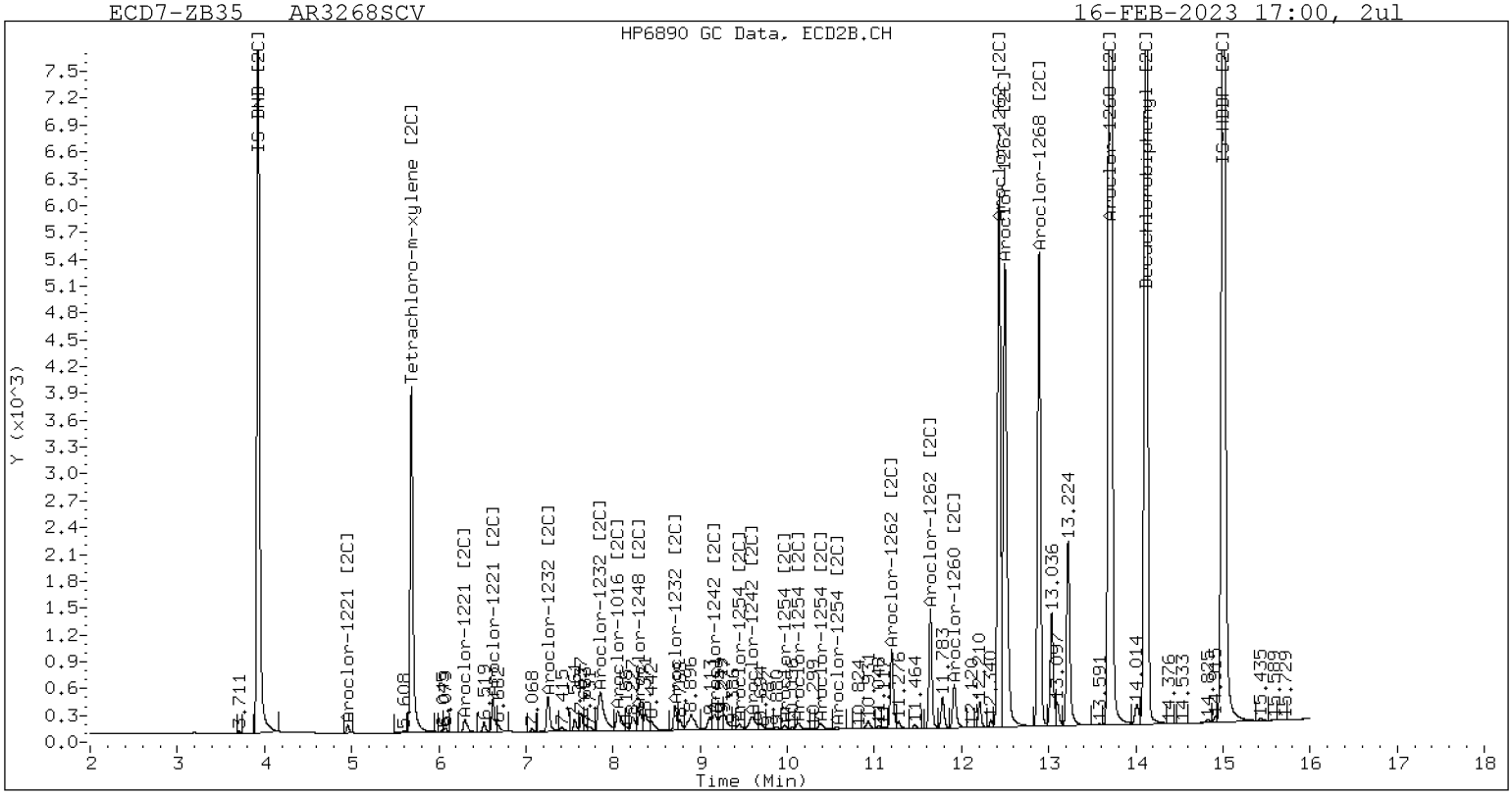
PCB Dual Column Chromatograms

ECD7-ZB5 AR3268SCV 16-FEB-2023 17:00, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268SCV 16-FEB-2023 17:00, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230216.b/02162319ECD7.D ARI ID: DDTS

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
9.260	0.000	442624	9.911	0.000	632750	0.100	0.100	0.0	2,4-DDE
10.293	0.000	576653	10.667	0.000	928581	0.100	0.200#	66.7*	2,4-DDT
9.683	0.000	755059	10.209	0.000	423742	0.100	0.100	0.0	4,4-DDE
10.254	0.000	674155	10.667	0.000	928581	0.100	0.200#	66.7*	4,4-DDD

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230216.b/02162320ECD7.D ARI ID: DDT BD

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
9.284	0.024	2688	9.920	0.009	10374	0.001	0.002	91.6*	2,4-DDE
0.000	-10.293	0	10.673	0.006	192594	0.000	0.042#	----	2,4-DDT
9.692	0.009	7700	10.234	0.024	295	0.001	0.000	174.5*	4,4-DDE
10.259	0.005	174757	10.673	0.006	192594	0.026	0.042#	45.8*	4,4-DDD

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GA00061
Laboratory ID: SLA0281-SCV1
Sequence: SLA0281
Sequence Name: AR1660SCV1
Standard ID: K007655

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1016	250.00	217	-13.2	20.00
Aroclor 1016 [2C]	250.00	220	-11.9	20.00
Aroclor 1260	250.00	211	-15.7	20.00
Aroclor 1260 [2C]	250.00	238	-4.9	20.00
Decachlorobiphenyl	40.000	37.9	-5.1	20.00
Tetrachlorometaxylene	40.000	37.5	-6.2	20.00
Decachlorobiphenyl [2C]	40.000	40.2	0.6	20.00
Tetrachlorometaxylene [2C]	40.000	37.3	-6.8	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242324ECD7.D
Data file 2: /230124.b/230124.b/01242324ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 SCV
Client ID:
Injection Date: 24-JAN-2023 19:51
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	268739	5.686	-0.001	172961	37.5	37.3	0.6	Tetrachloro-m-xylene
13.891	-0.000	381489	14.121	0.001	320416	37.9	40.2	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	506576	0.6
Hexabromobiphenyl	647433	940129	45.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	343102	1.8
Hexabromobiphenyl	382032	501702	31.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	40958	217.6	1	7.255	0.001	40190	216.0
Aroclor-1016	2	7.655	0.004	135282	216.9	2	7.852	0.001	90338	221.5
Aroclor-1016	3	7.791	0.003	61557	214.5	3	8.052	0.002	37810	227.2
Aroclor-1016	4	8.406	0.002	40372	218.7	4	8.306	0.000	28171	215.9
Total Col1Ave (4 peaks):					216.9	Total Col2Ave (4 peaks):				220.2 RPD = 1
Corrected Ave (3 peaks):					216.3	Corrected Ave (3 peaks):				217.8 RPD = 1
Aroclor-1221	1	4.732	-0.001	256	6.8	1	---			0.0
Aroclor-1221	2	6.131	-0.002	4742	61.9	2	6.302	0.004	5037	91.4
Aroclor-1221	3	6.384	-0.000	27448	154.4	3	6.623	-0.000	18931	203.5
Total Col1Ave (3 peaks):					74.4	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.732	-0.001	256	11.0	1	---			0.0
Aroclor-1232	2	6.131	-0.002	4742	90.0	2	7.255	-0.001	40190	470.8
Aroclor-1232	3	7.655	-0.004	135282	513.5	3	7.852	-0.002	90338	519.5
Aroclor-1232	4	8.581	-0.003	56938	504.9	4	8.713	-0.001	27776	574.9
Total Col1Ave (4 peaks):					279.8	Total Col2Ave (3 peaks):				521.7 RPD = 60*
Corrected Ave (3 peaks):					202.0	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	-0.000	40958	264.0	1	7.255	-0.000	40190	267.8
Aroclor-1242	2	7.655	-0.001	135282	266.5	2	7.852	-0.001	90338	271.0
Aroclor-1242	3	8.406	-0.001	40372	267.7	3	9.115	-0.045	15827	151.6
Aroclor-1242	4	8.581	-0.000	56938	249.9	4	9.587	0.001	3186	23.0
Total Col1Ave (4 peaks):					262.0	Total Col2Ave (4 peaks):				178.4 RPD = 38
Corrected Ave (3 peaks):					260.1	Corrected Ave (3 peaks):				147.5 RPD = 55*
Aroclor-1248	1	8.406	0.000	40372	159.3	1	8.306	0.000	28171	181.6
Aroclor-1248	2	8.581	0.001	56938	176.1	2	8.713	0.000	27776	166.4
Aroclor-1248	3	8.995	-0.004	58213	94.1	3	9.115	-0.042	15827	77.6
Aroclor-1248	4	9.304	0.010	36620	119.6	4	9.587	0.006	3186	12.6
Total Col1Ave (4 peaks):					137.3	Total Col2Ave (4 peaks):				109.6 RPD = 22
Corrected Ave (3 peaks):					124.4	Corrected Ave (3 peaks):				85.5 RPD = 37
Aroclor-1254	1	9.304	0.005	36620	70.9	1	9.450	0.002	20792	83.5
Aroclor-1254	2	---			0.0	2	9.972	0.003	2640	13.1
Aroclor-1254	3	9.673	0.003	4075	12.3	3	10.148	0.027	52902	120.5
Aroclor-1254	4	9.813	0.004	14733	22.7	4	10.372	0.000	71680	163.3
Aroclor-1254	5	10.122	-0.055	119528	283.6	5	10.569	-0.000	98559	403.2
Total Col1Ave (4 peaks):					97.4	Total Col2Ave (5 peaks):				156.7 RPD = 47*
Corrected Ave (3 peaks):					35.3	Corrected Ave (4 peaks):				95.1 RPD = 92*
Aroclor-1260	1	11.045	0.002	116435	220.7	1	11.654	0.000	81795	226.0
Aroclor-1260	2	11.362	0.001	116918	215.6	2	11.920	0.002	217887	238.0
Aroclor-1260	3	11.738	0.003	303264	212.5	3	12.437	0.001	56212	246.3
Aroclor-1260	4	12.143	0.004	141534	191.9	4	12.502	0.000	142689	240.8
Aroclor-1260	5	12.246	0.002	68446	212.9	NS	---			----
Total Col1Ave (5 peaks):					210.7	Total Col2Ave (4 peaks):				237.8 RPD = 12
Corrected Ave (4 peaks):					208.2	Corrected Ave (3 peaks):				234.9 RPD = 12
Aroclor-1262	1	10.830	-0.002	169725	446.4	1	11.200	0.000	83995	171.1
Aroclor-1262	2	12.246	0.000	68446	114.1	2	11.654	0.001	81795	195.9
Aroclor-1262	3	12.320	-0.000	84201	129.2	3	12.437	0.003	56212	126.4
Aroclor-1262	4	12.989	-0.000	78065	131.5	4	12.502	-0.001	142689	200.4
Total Col1Ave (4 peaks):					205.3	Total Col2Ave (4 peaks):				173.4 RPD = 17
Corrected Ave (3 peaks):					124.9	Corrected Ave (3 peaks):				164.5 RPD = 27
Aroclor-1268	1	12.246	0.001	68446	44.1	1	12.437	0.003	56212	48.0
Aroclor-1268	2	12.320	0.002	84201	54.4	2	12.502	0.001	142689	114.4
Aroclor-1268	3	12.726	0.027	33020	25.7	3	12.894	0.001	1495	1.4
Aroclor-1268	4	13.490	0.001	16019	4.2	4	13.709	0.001	10120	3.2
Total Col1Ave (4 peaks):					32.1	Total Col2Ave (4 peaks):				41.8 RPD = 26
Corrected Ave (3 peaks):					24.7	Corrected Ave (3 peaks):				17.5 RPD = 34

Total PCB Area Col1 (5.909 - 13.792) = 2789370 Col1 Total PCB = 0.5 ppm*

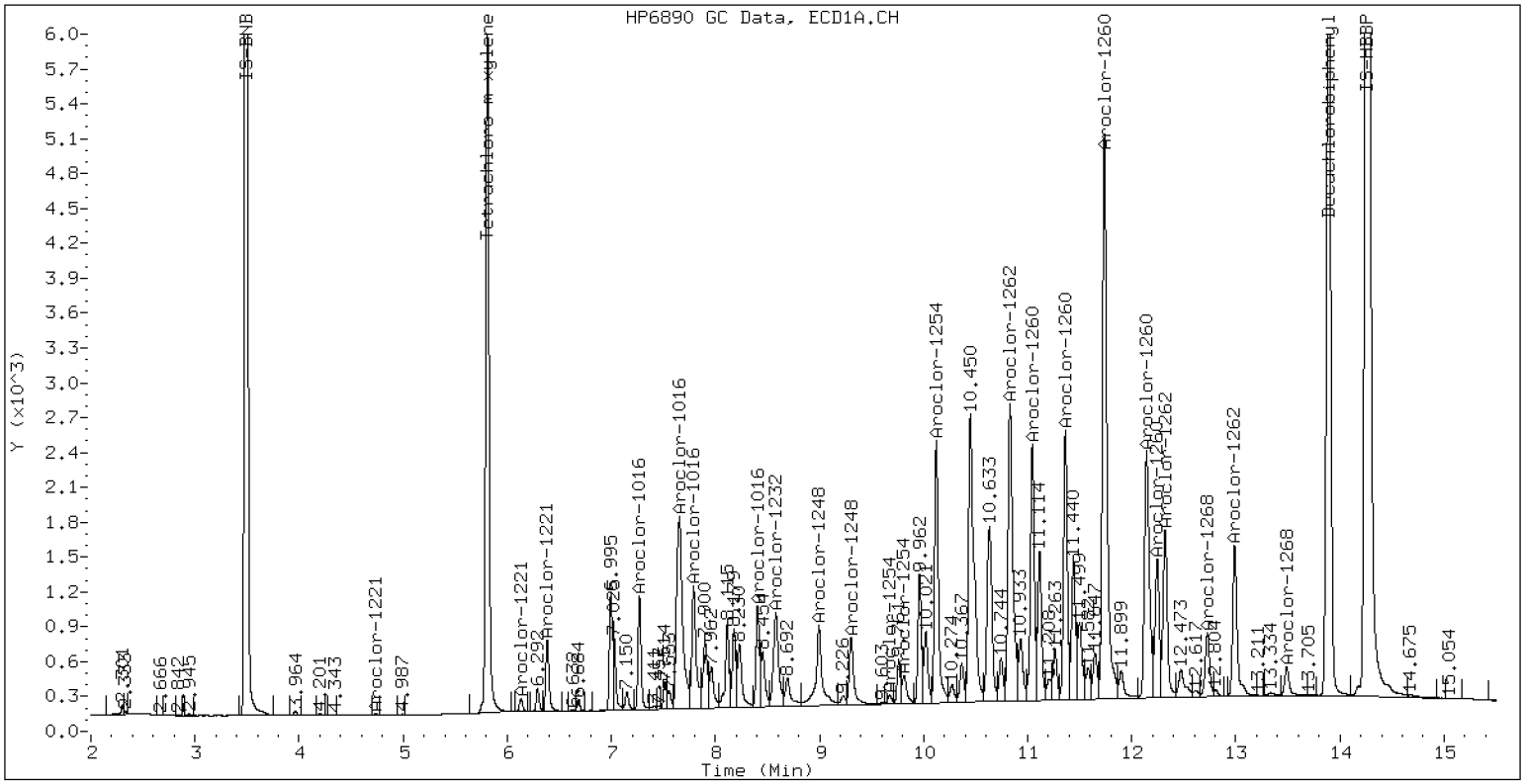
Total PCB Area Col2 (5.787 - 14.020) = 1810543 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

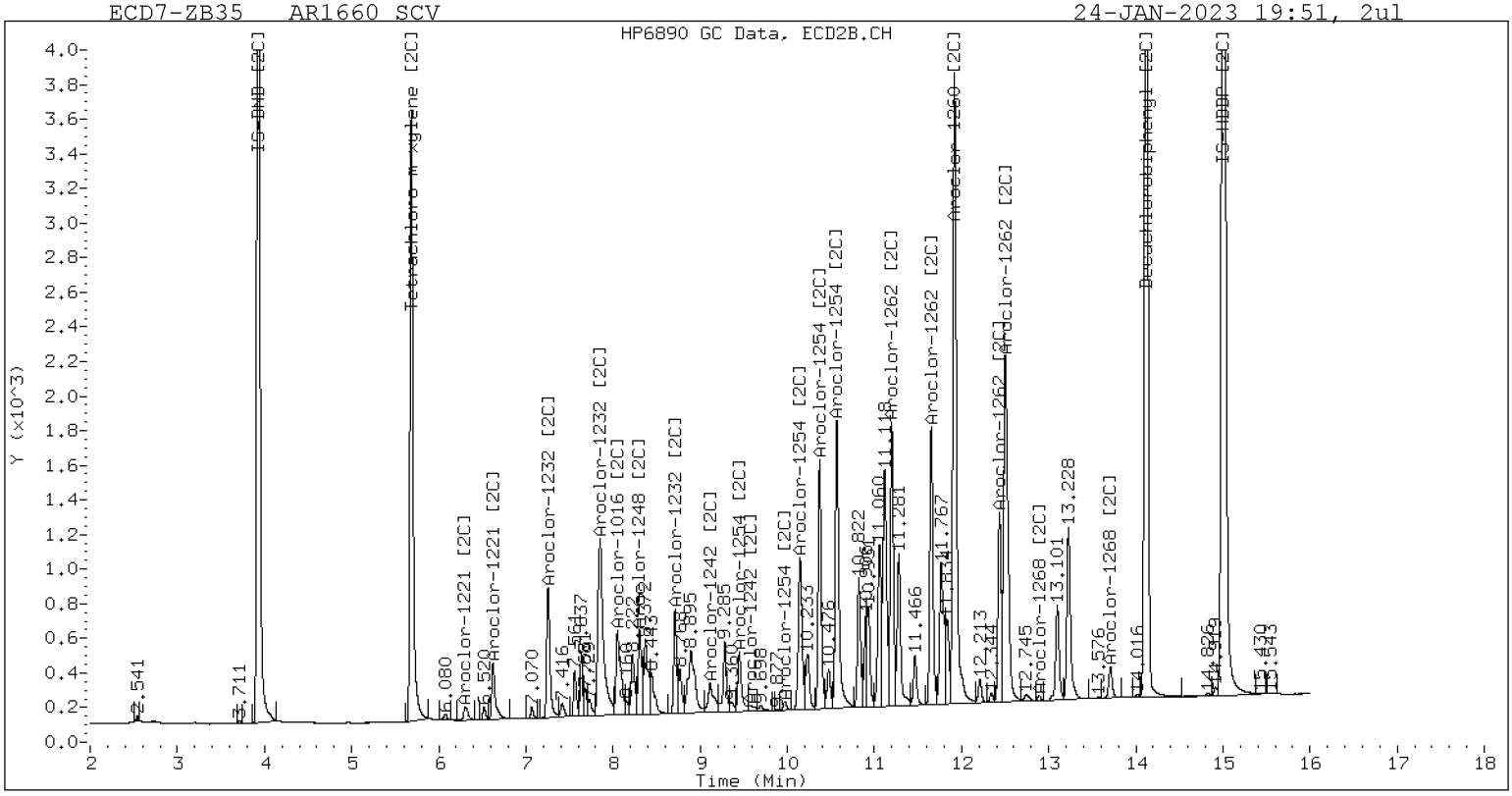
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660 SCV 24-JAN-2023 19:51, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660 SCV 24-JAN-2023 19:51, 2ul



ZB-35 Manual Integration: NO

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GA00061
Laboratory ID: SLA0281-SCV2
Sequence: SLA0281
Sequence Name: AR1242SCV2
Standard ID: K007656

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1242	250.00	223	-10.9	20.00
Aroclor 1242 [2C]	250.00	235	-5.9	20.00
Decachlorobiphenyl	40.000	38.5	-3.6	20.00
Tetrachlorometaxylene	40.000	37.8	-5.6	20.00
Decachlorobiphenyl [2C]	40.000	40.3	0.9	20.00
Tetrachlorometaxylene [2C]	40.000	37.4	-6.6	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242325ECD7.D
Data file 2: /230124.b/230124.b/01242325ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242 SCV
Client ID:
Injection Date: 24-JAN-2023 20:12
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	268580	5.686	-0.001	172592	37.8	37.4	1.1	Tetrachloro-m-xylene
13.892	0.001	392918	14.121	0.001	323869	38.5	40.3	4.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503089	-0.0
Hexabromobiphenyl	647433	953137	47.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	341704	1.4
Hexabromobiphenyl	382032	505860	32.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	29901	159.9	1	7.255	0.000	32077	173.1
Aroclor-1016	2	7.653	0.003	107333	173.3	2	7.851	-0.000	71438	175.9
Aroclor-1016	3	7.790	0.002	45013	157.9	3	8.051	0.001	29072	175.4
Aroclor-1016	4	8.406	0.002	32958	179.8	4	8.306	0.001	21761	167.5
Total Col1Ave (4 peaks):		167.7				Total Col2Ave (4 peaks):		173.0	RPD = 3	
Corrected Ave (3 peaks):		163.7				Corrected Ave (3 peaks):		172.0	RPD = 5	
Aroclor-1221	1	4.737	0.004	141	3.8	1	---			0.0
Aroclor-1221	2	6.133	-0.001	3649	48.0	2	6.317	0.018	4290	78.2
Aroclor-1221	3	6.384	-0.000	21189	120.0	3	6.624	0.001	14613	157.7
Total Col1Ave (3 peaks):		57.3				Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.737	0.003	141	6.1	1	---			0.0
Aroclor-1232	2	6.133	-0.001	3649	69.7	2	7.255	-0.002	32077	377.3
Aroclor-1232	3	7.653	-0.005	107333	410.2	3	7.851	-0.004	71438	412.5
Aroclor-1232	4	8.581	-0.003	59617	532.3	4	8.713	-0.000	22563	468.9
Total Col1Ave (4 peaks):		254.6				Total Col2Ave (3 peaks):		419.6	RPD = 49*	
Corrected Ave (3 peaks):		162.0				Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	0.000	29901	194.1	1	7.255	-0.001	32077	214.6
Aroclor-1242	2	7.653	-0.002	107333	212.9	2	7.851	-0.002	71438	215.2
Aroclor-1242	3	8.406	-0.000	32958	220.0	3	9.156	-0.004	27374	263.3
Aroclor-1242	4	8.581	-0.000	59617	263.5	4	9.581	-0.006	34156	247.9
Total Col1Ave (4 peaks):		222.6				Total Col2Ave (4 peaks):		235.3	RPD = 6	
Corrected Ave (3 peaks):		209.0				Corrected Ave (3 peaks):		225.9	RPD = 8	
Aroclor-1248	1	8.406	0.001	32958	131.0	1	8.306	0.001	21761	140.9
Aroclor-1248	2	8.581	0.001	59617	185.7	2	8.713	0.001	22563	135.7
Aroclor-1248	3	9.003	0.004	72557	118.2	3	9.156	-0.000	27374	134.7
Aroclor-1248	4	9.296	0.003	28122	92.5	4	9.581	-0.001	34156	135.9
Total Col1Ave (4 peaks):		131.8				Total Col2Ave (4 peaks):		136.8	RPD = 4	
Corrected Ave (3 peaks):		113.9				Corrected Ave (3 peaks):		135.5	RPD = 17	
Aroclor-1254	1	9.296	-0.002	28122	54.8	1	9.448	0.000	11650	47.0
Aroclor-1254	2	9.380	0.002	9292	42.4	2	9.968	-0.001	7642	38.1
Aroclor-1254	3	9.671	0.001	12871	39.2	3	10.120	-0.001	16012	36.6
Aroclor-1254	4	9.808	-0.000	22113	34.4	4	10.378	0.007	16300	37.3
Aroclor-1254	5	10.176	-0.001	17771	42.5	5	10.572	0.004	4439	18.2
Total Col1Ave (5 peaks):		42.7				Total Col2Ave (5 peaks):		35.5	RPD = 18	
Corrected Ave (4 peaks):		39.6				Corrected Ave (4 peaks):		32.6	RPD = 19	
Aroclor-1260	1	11.047	0.003	741	1.4	1	11.663	0.010	1794	4.9
Aroclor-1260	2	11.366	0.006	379	0.7	2	11.923	0.005	1208	1.3
Aroclor-1260	3	11.745	0.011	860	0.6	3	12.507	0.071	977	4.2
Aroclor-1260	4	12.154	0.014	1536	2.1	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
Total Col1Ave (4 peaks):		1.2				Total Col2Ave (3 peaks):		3.5	RPD = 99*	
Corrected Ave (3 peaks):		0.9				Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.836	0.004	10654	27.6	1	11.120	-0.080	8071	16.3
Aroclor-1262	2	12.154	-0.092	1536	2.5	2	11.663	0.010	1794	4.3
Aroclor-1262	3	---			0.0	3	12.507	0.073	977	2.2
Aroclor-1262	4	13.040	0.051	1739	2.9	4	---			0.0
Total Col1Ave (3 peaks):		11.0				Total Col2Ave (3 peaks):		7.6	RPD = 37	
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.154	-0.091	1536	1.0	1	12.507	0.073	977	0.8
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.623	-0.076	5080	3.9	3	12.894	0.001	98	0.1
Aroclor-1268	4	13.501	0.012	2725	0.7	4	13.707	-0.001	1566	0.5
Total Col1Ave (3 peaks):		1.9				Total Col2Ave (3 peaks):		0.5	RPD = 120*	
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.909 - 13.792) = 915887 Col1 Total PCB = 0.2 ppm*

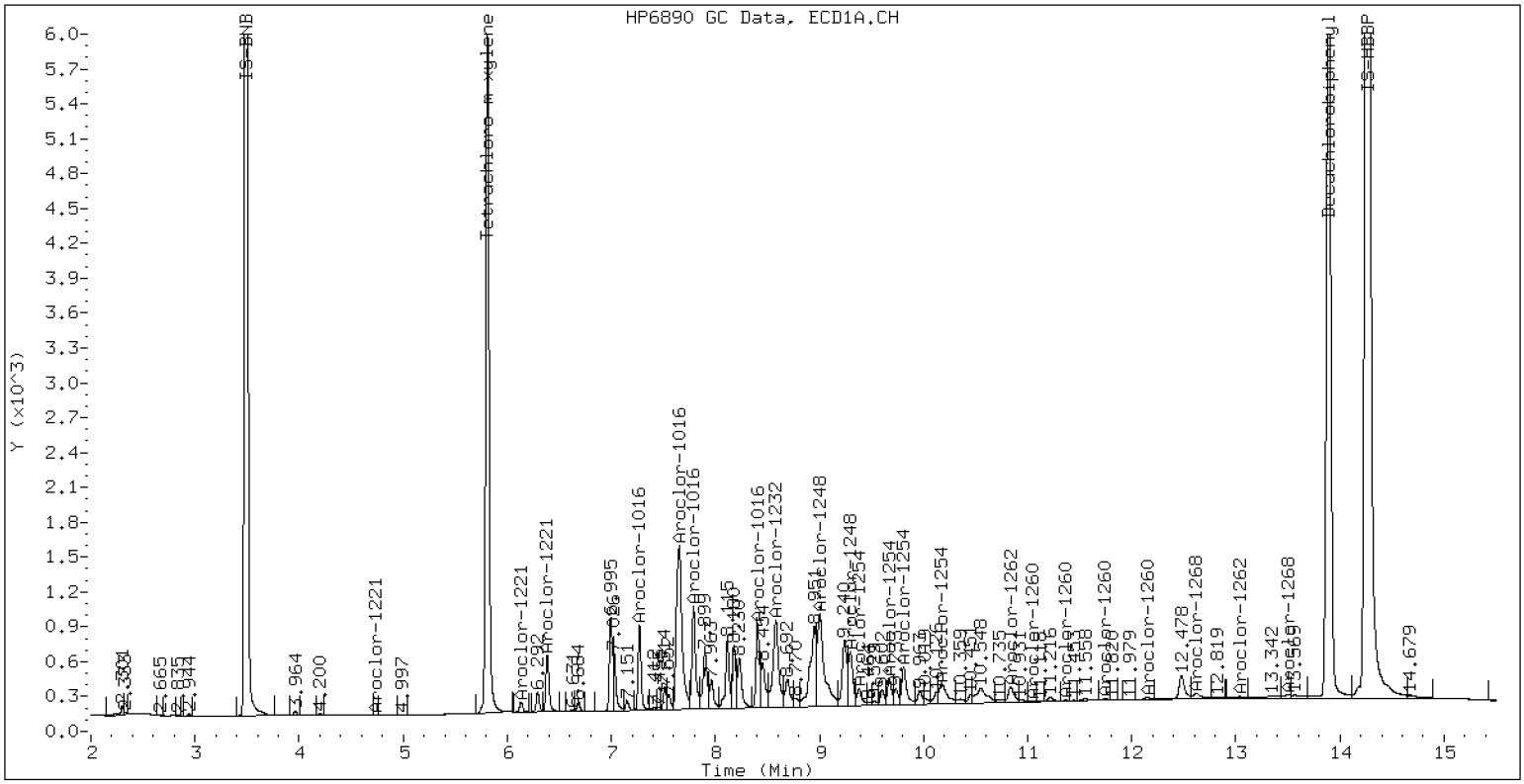
Total PCB Area Col2 (5.787 - 14.020) = 575897 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

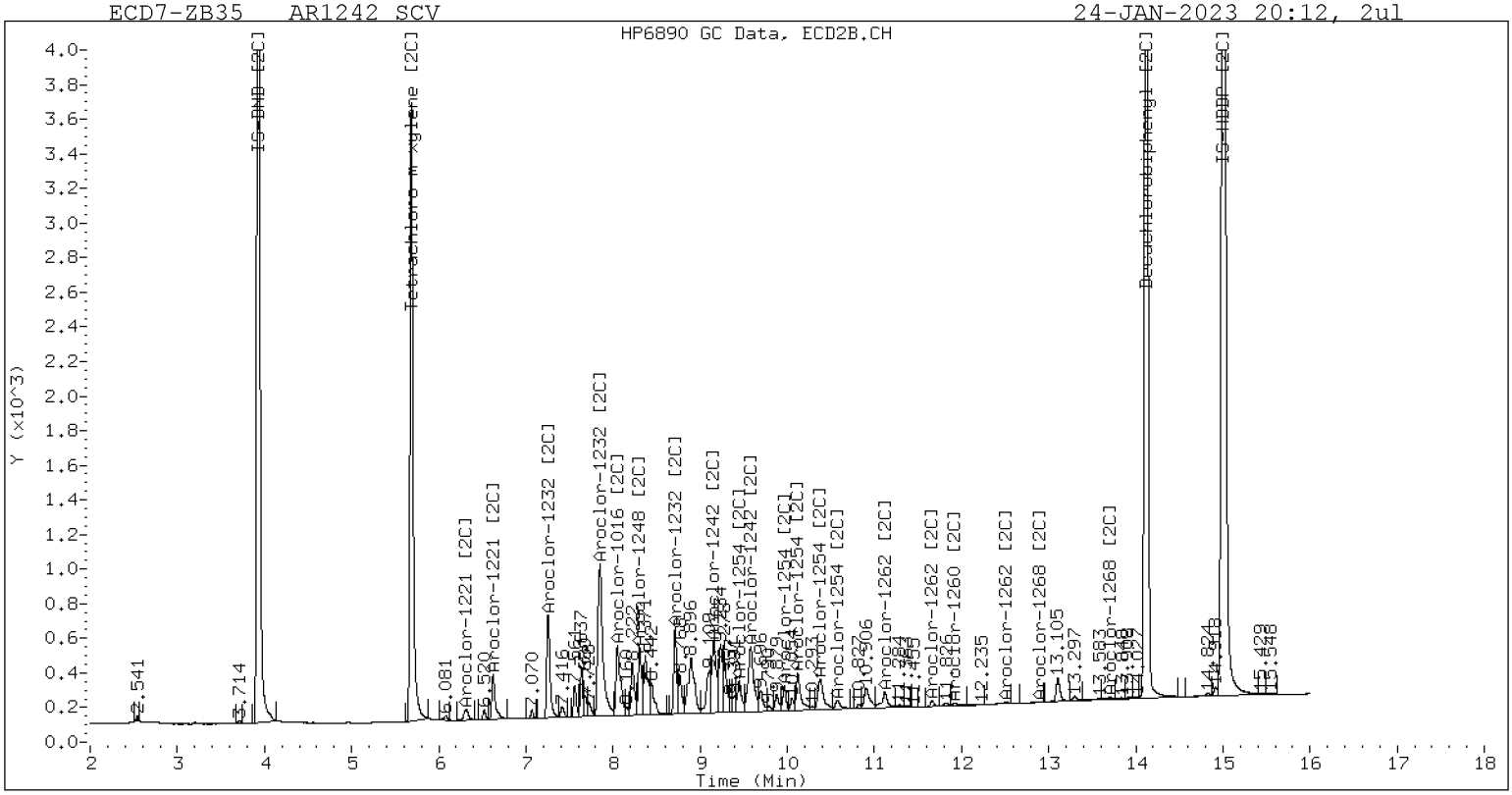
PCB Dual Column Chromatograms

ECD7-ZB5 AR1242 SCV 24-JAN-2023 20:12, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242 SCV 24-JAN-2023 20:12, 2ul



ZB-35 Manual Integration: NO

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GA00061
Laboratory ID: SLA0281-SCV3
Sequence: SLA0281
Sequence Name: AR1248SCV3
Standard ID: K007657

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1248	250.00	237	-5.1	20.00
Aroclor 1248 [2C]	250.00	231	-7.6	20.00
Decachlorobiphenyl	40.000	38.3	-4.3	20.00
Tetrachlorometaxylene	40.000	36.8	-8.1	20.00
Decachlorobiphenyl [2C]	40.000	39.6	-1.1	20.00
Tetrachlorometaxylene [2C]	40.000	36.5	-8.6	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242326ECD7.D
Data file 2: /230124.b/230124.b/01242326ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248 SCV
Client ID:
Injection Date: 24-JAN-2023 20:33
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	263982	5.686	-0.001	169991	36.8	36.5	0.6	Tetrachloro-m-xylene
13.892	0.001	400655	14.121	0.001	316171	38.3	39.6	3.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	508189	1.0
Hexabromobiphenyl	647433	979067	51.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	344105	2.1
Hexabromobiphenyl	382032	503378	31.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	14777	78.3	1	7.254	-0.001	16100	86.3
Aroclor-1016	2	7.655	0.004	70114	112.1	2	7.853	0.002	47184	115.4
Aroclor-1016	3	7.794	0.006	27212	94.5	3	8.053	0.003	9427	56.5
Aroclor-1016	4	8.406	0.003	59884	323.4	4	8.306	0.001	36680	280.3
Total Col1Ave (4 peaks):					152.0	Total Col2Ave (4 peaks):				134.6 RPD = 12
Corrected Ave (3 peaks):					94.9	Corrected Ave (3 peaks):				86.0 RPD = 10
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.133	-0.000	591	7.7	2	6.323	0.025	1820	32.9
Aroclor-1221	3	6.386	0.001	2453	13.8	3	6.627	0.004	1477	15.8
Col1Ave: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.133	-0.000	591	11.2	2	7.254	-0.002	16100	188.0
Aroclor-1232	3	7.655	-0.004	70114	265.3	3	7.853	-0.001	47184	270.6
Aroclor-1232	4	8.581	-0.003	76286	674.3	4	8.714	0.000	39330	811.7
Total Col1Ave (3 peaks):					316.9	Total Col2Ave (3 peaks):				423.4 RPD = 29
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	0.000	14777	95.0	1	7.254	-0.002	16100	107.0
Aroclor-1242	2	7.655	-0.001	70114	137.7	2	7.853	0.000	47184	141.2
Aroclor-1242	3	8.406	-0.000	59884	395.8	3	9.159	-0.001	46988	448.9
Aroclor-1242	4	8.581	-0.000	76286	333.8	4	9.584	-0.003	56615	408.1
Total Col1Ave (4 peaks):					240.5	Total Col2Ave (4 peaks):				276.3 RPD = 14
Corrected Ave (3 peaks):					188.8	Corrected Ave (3 peaks):				218.7 RPD = 15
Aroclor-1248	1	8.406	0.001	59884	235.6	1	8.306	0.001	36680	235.8
Aroclor-1248	2	8.581	0.001	76286	235.2	2	8.714	0.002	39330	234.9
Aroclor-1248	3	9.000	0.001	148805	239.9	3	9.159	0.003	46988	229.7
Aroclor-1248	4	9.295	0.001	73114	238.1	4	9.584	0.002	56615	223.8
Total Col1Ave (4 peaks):					237.2	Total Col2Ave (4 peaks):				231.0 RPD = 3
Corrected Ave (3 peaks):					236.3	Corrected Ave (3 peaks):				229.5 RPD = 3
Aroclor-1254	1	9.295	-0.004	73114	141.2	1	9.449	0.001	20314	81.4
Aroclor-1254	2	9.378	0.000	36561	165.3	2	9.970	0.000	18678	92.6
Aroclor-1254	3	9.672	0.003	30736	92.6	3	10.124	0.003	35321	80.2
Aroclor-1254	4	9.813	0.004	53537	82.3	4	10.387	0.015	35188	79.9
Aroclor-1254	5	10.192	0.015	40119	94.9	5	10.575	0.006	7386	30.1
Total Col1Ave (5 peaks):					115.3	Total Col2Ave (5 peaks):				72.9 RPD = 45*
Corrected Ave (4 peaks):					102.7	Corrected Ave (4 peaks):				67.9 RPD = 41*
Aroclor-1260	1	11.054	0.010	1868	3.4	1	11.664	0.011	2055	5.7
Aroclor-1260	2	11.366	0.005	1375	2.4	2	11.926	0.009	1303	1.4
Aroclor-1260	3	11.745	0.010	2137	1.4	3	12.439	0.003	395	1.7
Aroclor-1260	4	12.147	0.008	1650	2.1	4	12.507	0.005	890	1.5
Aroclor-1260	5	12.255	0.011	558	1.7	NS	---			----
Total Col1Ave (5 peaks):					2.2	Total Col2Ave (4 peaks):				2.6 RPD = 15
Corrected Ave (4 peaks):					1.9	Corrected Ave (3 peaks):				1.5 RPD = 22
Aroclor-1262	1	10.837	0.005	12736	32.2	1	11.122	-0.078	7136	14.5
Aroclor-1262	2	12.255	0.010	558	0.9	2	11.664	0.011	2055	4.9
Aroclor-1262	3	12.327	0.006	596	0.9	3	12.439	0.004	395	0.9
Aroclor-1262	4	12.996	0.007	1113	1.8	4	12.507	0.003	890	1.2
Total Col1Ave (4 peaks):					8.9	Total Col2Ave (4 peaks):				5.4 RPD = 50*
Corrected Ave (3 peaks):					1.2	Corrected Ave (3 peaks):				2.3 RPD = 65*
Aroclor-1268	1	12.255	0.010	558	0.3	1	12.439	0.005	395	0.3
Aroclor-1268	2	12.327	0.009	596	0.4	2	12.507	0.005	890	0.7
Aroclor-1268	3	12.706	0.007	1161	0.9	3	12.896	0.003	166	0.2
Aroclor-1268	4	13.504	0.016	3330	0.8	4	13.717	0.009	469	0.1
Total Col1Ave (4 peaks):					0.6	Total Col2Ave (4 peaks):				0.3 RPD = 57*
Corrected Ave (3 peaks):					0.5	Corrected Ave (3 peaks):				0.2 RPD = 83*

Total PCB Area Col1 (5.909 - 13.792) = 1230760 Col1 Total PCB = 0.2 ppm*

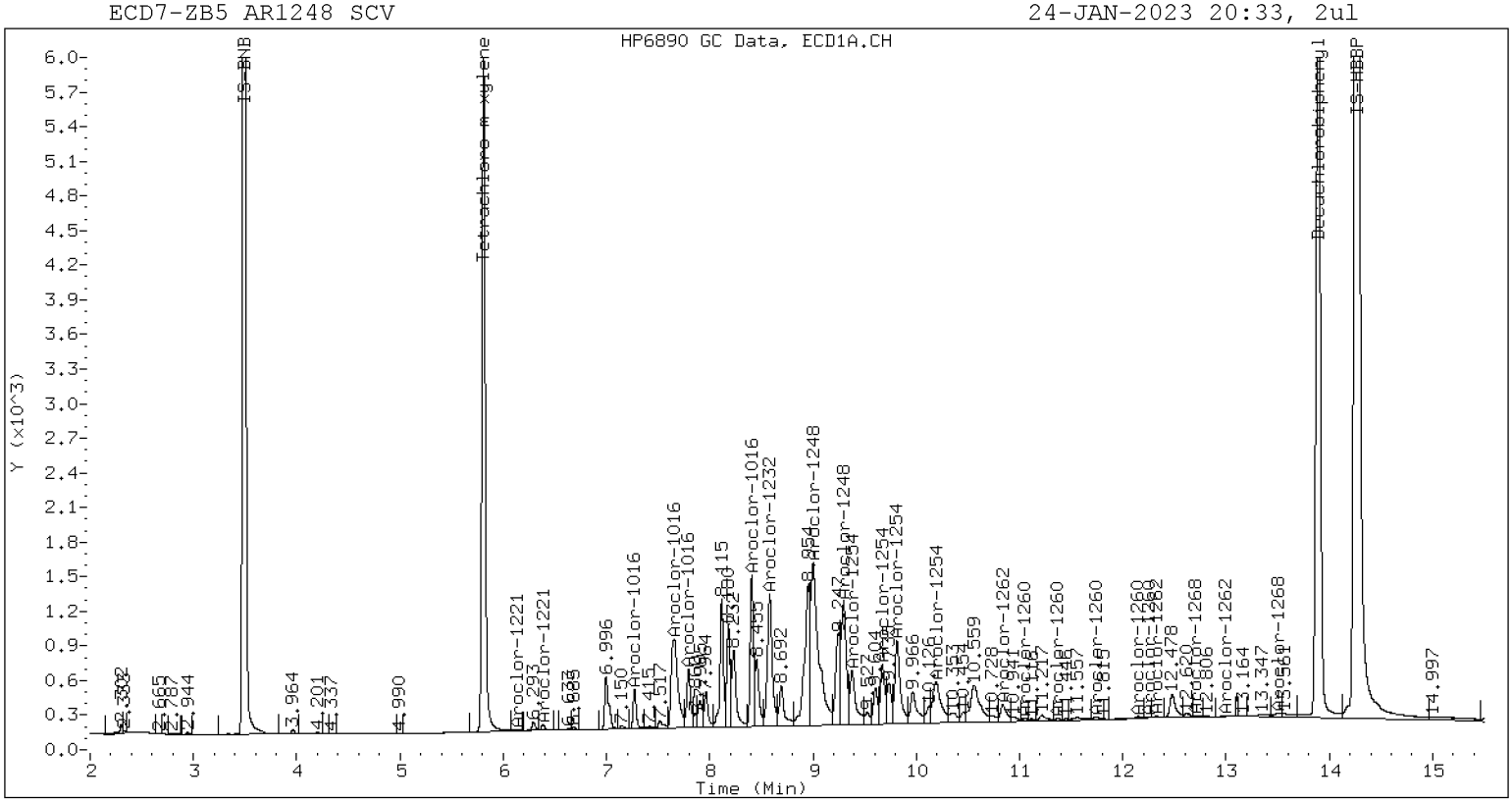
Total PCB Area Col2 (5.787 - 14.020) = 742749 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

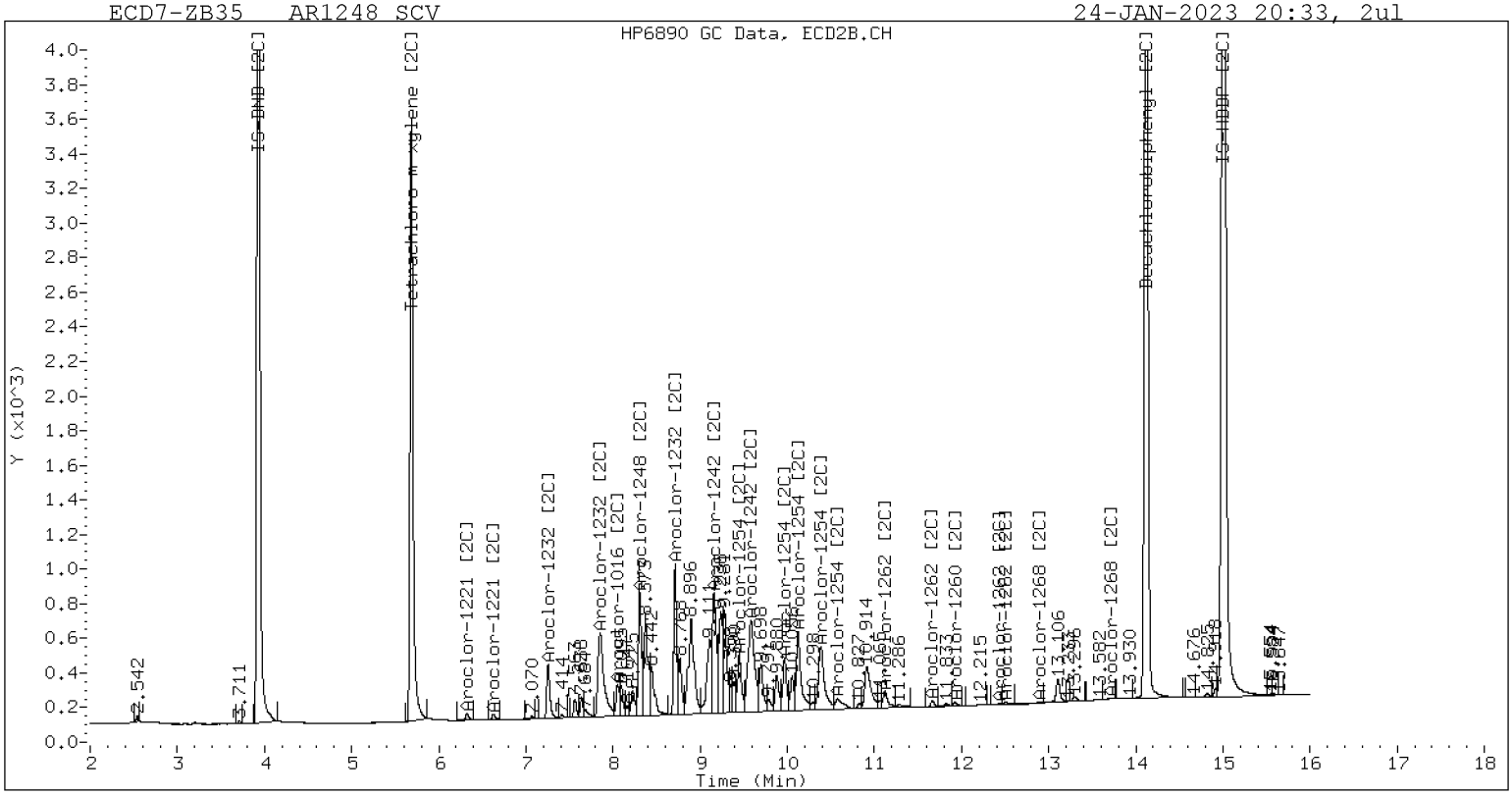
PCB Dual Column Chromatograms

ECD7-ZB5 AR1248 SCV 24-JAN-2023 20:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248 SCV 24-JAN-2023 20:33, 2ul



ZB-35 Manual Integration: NO

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GA00061
Laboratory ID: SLA0281-SCV4
Sequence: SLA0281
Sequence Name: AR1254SCV4
Standard ID: K007658

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1254	250.00	221	-11.7	20.00
Aroclor 1254 [2C]	250.00	227	-9.4	20.00
Decachlorobiphenyl	40.000	37.1	-7.3	20.00
Tetrachlorometaxylene	40.000	36.7	-8.3	20.00
Decachlorobiphenyl [2C]	40.000	39.5	-1.1	20.00
Tetrachlorometaxylene [2C]	40.000	36.6	-8.4	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242327ECD7.D
Data file 2: /230124.b/230124.b/01242327ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254 SCV
Client ID:
Injection Date: 24-JAN-2023 20:54
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	261398	5.686	-0.001	169839	36.7	36.6	0.1	Tetrachloro-m-xylene
13.892	0.001	383983	14.121	0.001	323233	37.1	39.5	6.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	504424	0.2
Hexabromobiphenyl	647433	968338	49.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	342969	1.8
Hexabromobiphenyl	382032	515045	34.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.273	0.003	320	1.7	1	7.258	0.003	332	1.8
Aroclor-1016	2	7.658	0.008	991	1.6	2	---			0.0
Aroclor-1016	3	7.795	0.007	662	2.3	3	8.097	0.047	515	3.1
Aroclor-1016	4	8.408	0.005	21378	116.3	4	8.307	0.002	20446	156.8
	Total Col1Ave (4 peaks):				30.5	Total Col2Ave (3 peaks):				53.9 RPD = 55*
	Corrected Ave (3 peaks):				1.9	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	6.325	0.026	1749	31.7
Aroclor-1221	3	---			0.0	3	6.633	0.011	321	3.5
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	7.258	0.001	332	3.9
Aroclor-1232	3	7.658	-0.000	991	3.8	3	---			0.0
Aroclor-1232	4	8.587	0.003	8887	79.1	4	8.715	0.001	14030	290.5
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	7.273	0.002	320	2.1	1	7.258	0.002	332	2.2
Aroclor-1242	2	7.658	0.003	991	2.0	2	---			0.0
Aroclor-1242	3	8.408	0.002	21378	142.3	3	9.164	0.004	26593	254.9
Aroclor-1242	4	8.587	0.006	8887	39.2	4	9.543	-0.043	34385	248.7
	Total Col1Ave (4 peaks):				46.4	Total Col2Ave (3 peaks):				168.6 RPD = 114*
	Corrected Ave (3 peaks):				14.4	Corrected Ave: < 3 Peaks				
Aroclor-1248	1	8.408	0.003	21378	84.7	1	8.307	0.001	20446	131.9
Aroclor-1248	2	8.587	0.007	8887	27.6	2	8.715	0.003	14030	84.1
Aroclor-1248	3	8.995	-0.004	110289	179.1	3	9.164	0.007	26593	130.4
Aroclor-1248	4	9.300	0.007	113143	371.2	4	9.543	-0.038	34385	136.4
	Total Col1Ave (4 peaks):				165.7	Total Col2Ave (4 peaks):				120.7 RPD = 31
	Corrected Ave (3 peaks):				97.2	Corrected Ave (3 peaks):				115.5 RPD = 17
Aroclor-1254	1	9.300	0.002	113143	220.1	1	9.449	0.001	56453	226.9
Aroclor-1254	2	9.379	0.001	49468	225.4	2	9.970	0.001	45325	225.4
Aroclor-1254	3	9.671	0.002	72811	221.0	3	10.122	0.002	97044	221.2
Aroclor-1254	4	9.811	0.002	140530	217.7	4	10.374	0.002	98778	225.2
Aroclor-1254	5	10.182	0.005	92254	219.8	5	10.570	0.001	57171	234.0
	Total Col1Ave (5 peaks):				220.8	Total Col2Ave (5 peaks):				226.5 RPD = 3
	Corrected Ave (4 peaks):				219.7	Corrected Ave (4 peaks):				224.7 RPD = 2
Aroclor-1260	1	11.045	0.002	8960	16.5	1	11.661	0.008	26985	72.6
Aroclor-1260	2	11.364	0.004	9237	16.5	2	11.923	0.006	19882	21.2
Aroclor-1260	3	11.741	0.007	21268	14.5	3	12.505	0.069	13190	56.3
Aroclor-1260	4	12.146	0.007	19041	25.1	4	---			0.0
Aroclor-1260	5	12.321	0.077	1835	5.5	NS	---			----
	Total Col1Ave (5 peaks):				15.6	Total Col2Ave (3 peaks):				50.0 RPD = 105*
	Corrected Ave (4 peaks):				13.3	Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.832	0.000	157590	402.4	1	11.119	-0.081	92414	183.3
Aroclor-1262	2	12.321	0.075	1835	3.0	2	11.661	0.008	26985	63.0
Aroclor-1262	3	---			0.0	3	12.505	0.071	13190	28.9
Aroclor-1262	4	12.995	0.006	843	1.4	4	---			0.0
	Total Col1Ave (3 peaks):				135.6	Total Col2Ave (3 peaks):				91.7 RPD = 39
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.321	0.076	1835	1.1	1	12.505	0.072	13190	11.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.720	0.021	1314	1.0	3	12.891	-0.002	169	0.2
Aroclor-1268	4	13.504	0.016	1169	0.3	4	13.706	-0.002	1132	0.3
	Total Col1Ave (3 peaks):				0.8	Total Col2Ave (3 peaks):				3.8 RPD = 130*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.909 - 13.792) = 1507519 Col1 Total PCB = 0.3 ppm*

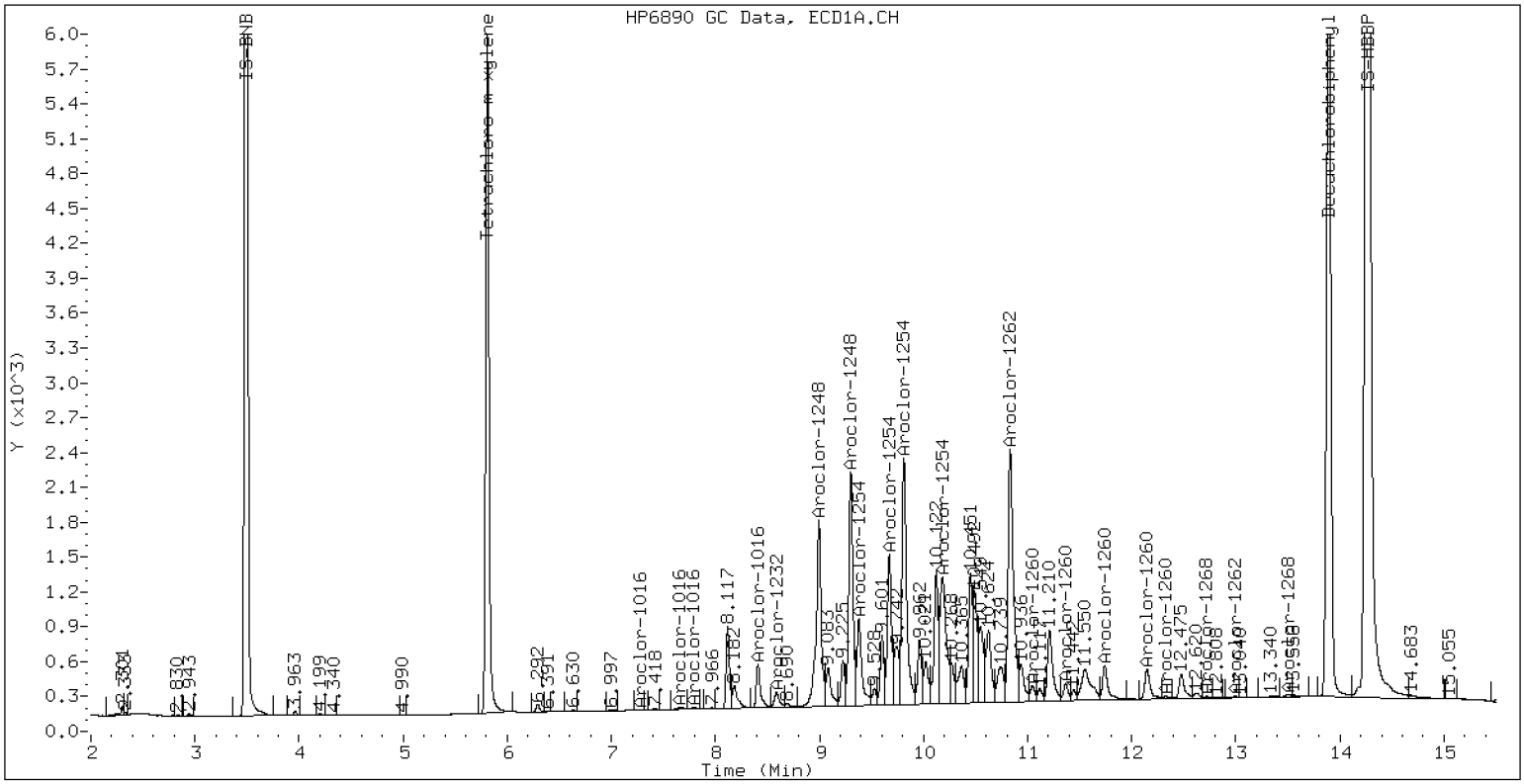
Total PCB Area Col2 (5.787 - 14.020) = 951047 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

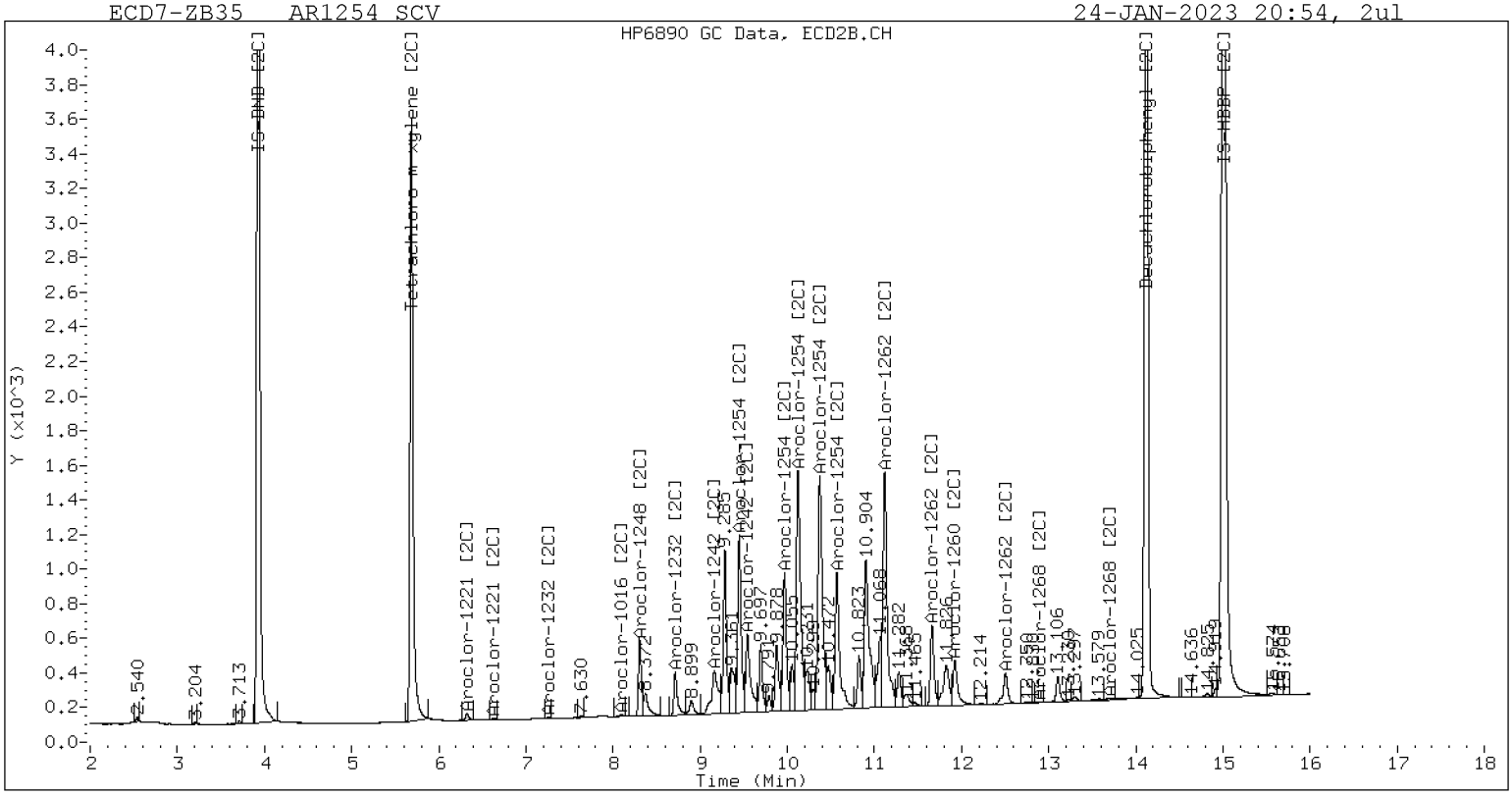
PCB Dual Column Chromatograms

ECD7-ZB5 AR1254 SCV 24-JAN-2023 20:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254 SCV 24-JAN-2023 20:54, 2ul



ZB-35 Manual Integration: NO

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GA00061
Laboratory ID: SLA0281-SCV5
Sequence: SLA0281
Sequence Name: AR2162SCV5
Standard ID: K007659

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1221	250.00	228	-8.8	20.00
Aroclor 1221 [2C]	250.00	239	-4.5	20.00
Decachlorobiphenyl	40.000	37.5	-6.4	20.00
Tetrachlorometaxylene	40.000	37.3	-6.8	20.00
Decachlorobiphenyl [2C]	40.000	39.5	-1.3	20.00
Tetrachlorometaxylene [2C]	40.000	37.2	-7.1	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242328ECD7.D
Data file 2: /230124.b/230124.b/01242328ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162 SCV
Client ID:
Injection Date: 24-JAN-2023 21:15
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	265357	5.685	-0.001	170984	37.3	37.2	0.3	Tetrachloro-m-xylene
13.891	-0.001	397332	14.119	-0.001	326981	37.5	39.5	5.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503473	0.0
Hexabromobiphenyl	647433	991997	53.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	340361	1.0
Hexabromobiphenyl	382032	521975	36.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.272	0.002	5326	28.5	1	7.257	0.002	6708	36.3
Aroclor-1016	2	7.664	0.013	11965	19.3	2	7.856	0.005	7233	17.9
Aroclor-1016	3	7.797	0.009	6015	21.1	3	8.058	0.008	2997	18.2
Aroclor-1016	4	8.410	0.006	3771	20.6	4	8.308	0.002	2065	16.0
Total Col1Ave (4 peaks):					22.4	Total Col2Ave (4 peaks):				22.1 RPD = 1
Corrected Ave (3 peaks):					20.3	Corrected Ave (3 peaks):				17.3 RPD = 16
Aroclor-1221	1	4.732	-0.000	9097	244.5	1	4.959	-0.000	6157	246.8
Aroclor-1221	2	6.133	-0.000	16114	211.8	2	6.297	-0.001	12807	234.2
Aroclor-1221	3	6.384	0.000	40299	228.1	3	6.622	-0.000	21707	235.2
Total Col1Ave (3 peaks):					228.1	Total Col2Ave (3 peaks):				238.7 RPD = 5
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.732	-0.001	9097	391.6	1	4.959	-0.001	6157	406.9
Aroclor-1232	2	6.133	0.000	16114	307.8	2	7.257	0.000	6708	79.2
Aroclor-1232	3	7.664	0.005	11965	45.7	3	7.856	0.001	7233	41.9
Aroclor-1232	4	8.589	0.004	2837	25.3	4	8.716	0.002	1869	39.0
Total Col1Ave (4 peaks):					192.6	Total Col2Ave (4 peaks):				141.7 RPD = 30
Corrected Ave (3 peaks):					126.3	Corrected Ave (3 peaks):				53.4 RPD = 81*
Aroclor-1242	1	7.272	0.001	5326	34.5	1	7.257	0.001	6708	45.1
Aroclor-1242	2	7.664	0.008	11965	23.7	2	7.856	0.003	7233	21.9
Aroclor-1242	3	8.410	0.004	3771	25.2	3	9.169	0.009	1956	18.9
Aroclor-1242	4	8.589	0.007	2837	12.5	4	9.544	-0.043	5978	43.6
Total Col1Ave (4 peaks):					24.0	Total Col2Ave (4 peaks):				32.3 RPD = 30
Corrected Ave (3 peaks):					20.5	Corrected Ave (3 peaks):				28.1 RPD = 31
Aroclor-1248	1	8.410	0.005	3771	15.0	1	8.308	0.002	2065	13.4
Aroclor-1248	2	8.589	0.008	2837	8.8	2	8.716	0.004	1869	11.3
Aroclor-1248	3	8.997	-0.002	36022	58.6	3	9.169	0.012	1956	9.7
Aroclor-1248	4	9.305	0.011	30853	101.4	4	9.544	-0.038	5978	23.9
Total Col1Ave (4 peaks):					46.0	Total Col2Ave (4 peaks):				14.6 RPD = 104*
Corrected Ave (3 peaks):					27.5	Corrected Ave (3 peaks):				11.5 RPD = 82*
Aroclor-1254	1	9.305	0.006	30853	60.1	1	9.451	0.003	17617	71.3
Aroclor-1254	2	9.376	-0.002	5370	24.5	2	9.970	0.001	2849	14.3
Aroclor-1254	3	9.673	0.003	5543	16.9	3	10.146	0.026	88151	202.5
Aroclor-1254	4	9.810	0.002	14544	22.6	4	10.370	-0.002	107074	245.9
Aroclor-1254	5	10.121	-0.056	180016	429.7	5	10.567	-0.002	141725	584.5
Total Col1Ave (5 peaks):					110.8	Total Col2Ave (5 peaks):				223.7 RPD = 68*
Corrected Ave (4 peaks):					31.0	Corrected Ave (4 peaks):				133.5 RPD = 125*
Aroclor-1260	1	11.044	0.001	310806	558.4	1	11.652	-0.001	187682	498.4
Aroclor-1260	2	11.361	0.000	263161	460.0	2	11.917	-0.000	450612	473.0
Aroclor-1260	3	11.735	0.000	629605	418.0	3	12.433	-0.003	206042	867.7
Aroclor-1260	4	12.141	0.001	210012	269.9	4	12.502	-0.000	326457	529.5
Aroclor-1260	5	12.244	-0.000	268425	791.3	NS	---			----
Total Col1Ave (5 peaks):					499.5	Total Col2Ave (4 peaks):				592.1 RPD = 17
Corrected Ave (4 peaks):					426.6	Corrected Ave (3 peaks):				500.3 RPD = 16
Aroclor-1262	1	10.828	-0.005	171094	426.5	1	11.200	0.000	219731	430.1
Aroclor-1262	2	12.244	-0.002	268425	423.9	2	11.652	-0.001	187682	432.0
Aroclor-1262	3	12.319	-0.002	291581	424.2	3	12.433	-0.001	206042	445.4
Aroclor-1262	4	12.988	-0.001	257735	411.5	4	12.502	-0.002	326457	440.6
Total Col1Ave (4 peaks):					421.5	Total Col2Ave (4 peaks):				437.0 RPD = 4
Corrected Ave (3 peaks):					419.8	Corrected Ave (3 peaks):				434.3 RPD = 3
Aroclor-1268	1	12.244	-0.001	268425	163.8	1	12.433	-0.000	206042	169.0
Aroclor-1268	2	12.319	0.001	291581	178.4	2	12.502	0.000	326457	251.7
Aroclor-1268	3	12.725	0.026	108693	80.3	3	12.892	-0.001	10062	9.3
Aroclor-1268	4	13.486	-0.003	95646	23.8	4	13.710	0.001	59437	17.8
Total Col1Ave (4 peaks):					111.6	Total Col2Ave (4 peaks):				112.0 RPD = 0

Corrected Ave (3 peaks): 89.3 Corrected Ave (3 peaks): 65.4 RPD = 31

Total PCB Area Col1 (5.909 - 13.792) = 4409992 Col1 Total PCB = 0.8 ppm*

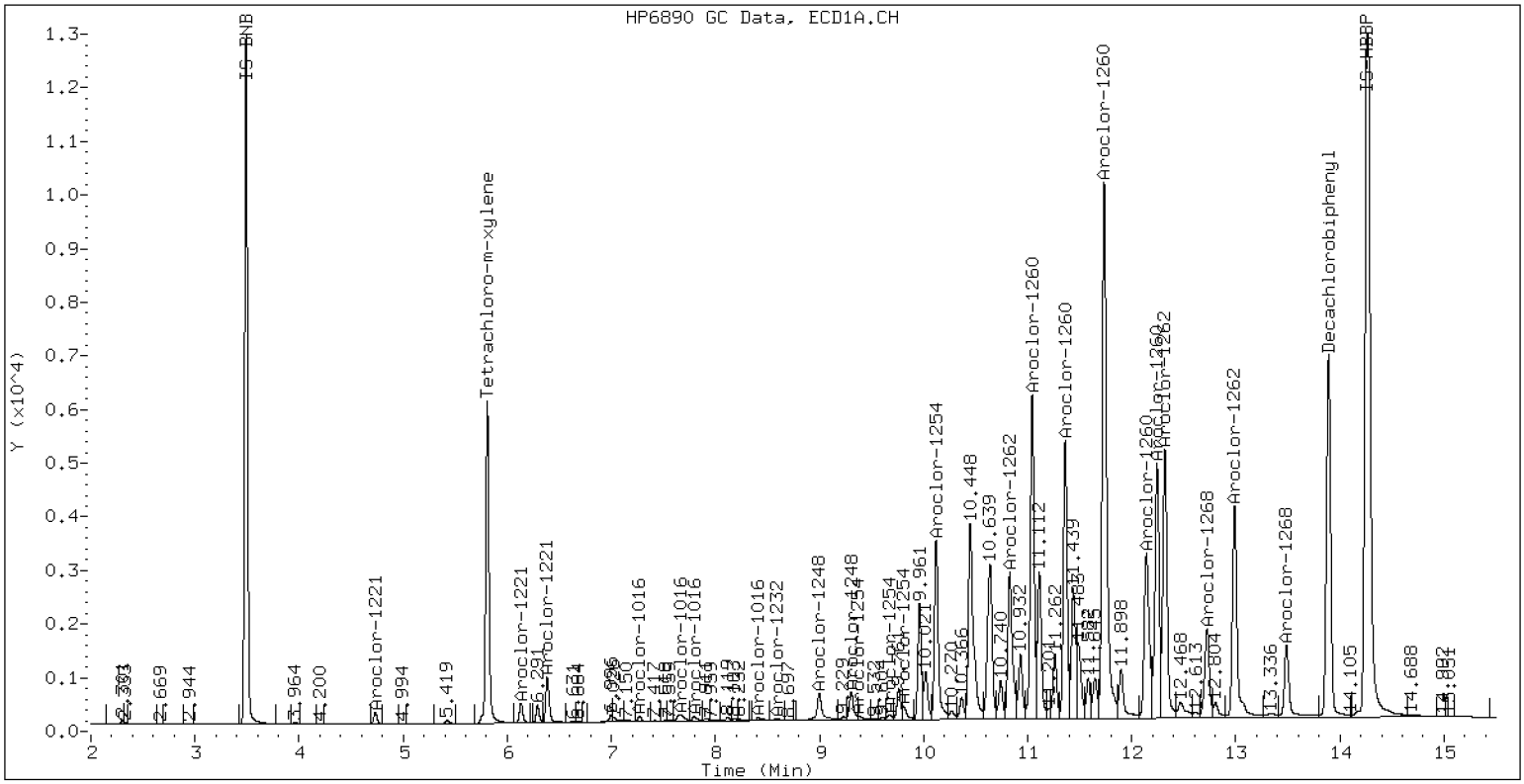
Total PCB Area Col2 (5.787 - 14.020) = 2874073 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

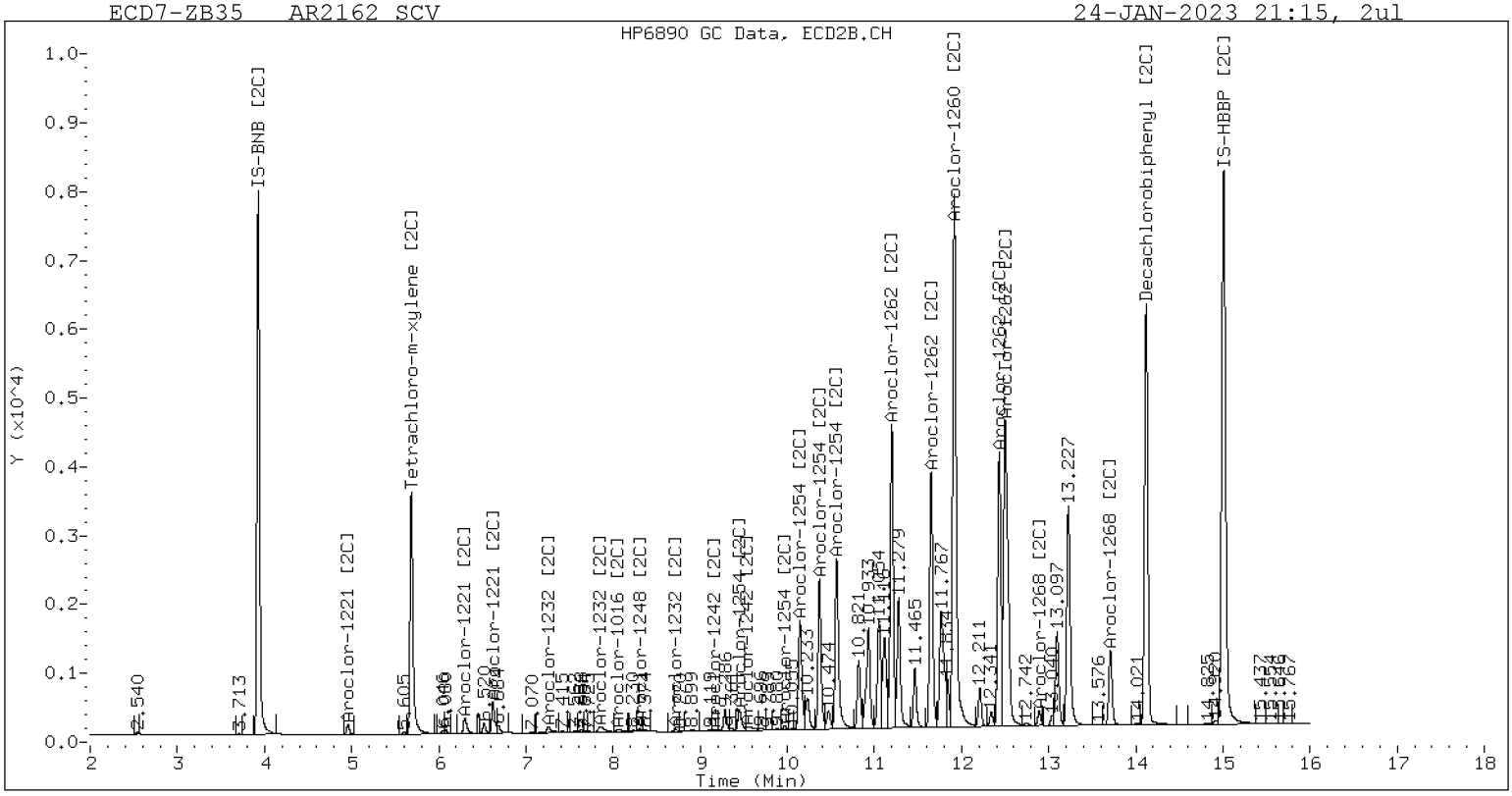
PCB Dual Column Chromatograms

ECD7-ZB5 AR2162 SCV 24-JAN-2023 21:15, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162 SCV 24-JAN-2023 21:15, 2ul



ZB-35 Manual Integration: NO

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GA00061
Laboratory ID: SLA0281-SCV6
Sequence: SLA0281
Sequence Name: AR3268SCV6
Standard ID: K007660

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1232	250.00	216	-13.7	20.00
Aroclor 1232 [2C]	250.00	239	-4.5	20.00
Decachlorobiphenyl	40.000	54.6	36.5	20.00
Tetrachlorometaxylene	40.000	36.4	-9.1	20.00
Decachlorobiphenyl [2C]	40.000	57.9	44.8	20.00
Tetrachlorometaxylene [2C]	40.000	36.3	-9.2	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242329ECD7.D
Data file 2: /230124.b/230124.b/01242329ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268 SCV
Client ID:
Injection Date: 24-JAN-2023 21:36
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	250455	5.687	0.000	162795	36.4	36.3	0.2	Tetrachloro-m-xylene
13.892	0.000	551946	14.120	0.000	461901	54.6	57.9	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	487061	-3.2
Hexabromobiphenyl	647433	944934	46.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	331721	-1.5
Hexabromobiphenyl	382032	502401	31.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.272	0.002	19363	107.0	1	7.256	0.001	19791	110.0
Aroclor-1016	2	7.659	0.009	58630	97.8	2	7.856	0.005	40139	101.8
Aroclor-1016	3	7.794	0.006	28286	102.5	3	8.055	0.005	17412	108.2
Aroclor-1016	4	8.408	0.004	17373	97.9	4	8.308	0.003	11962	94.8
Total Col1Ave (4 peaks):		101.3				Total Col2Ave (4 peaks):		103.7	RPD = 2	
Corrected Ave (3 peaks):		99.4				Corrected Ave (3 peaks):		101.6	RPD = 2	
Aroclor-1221	1	4.735	0.002	5022	139.5	1	4.961	0.002	3409	140.2
Aroclor-1221	2	6.134	0.001	8987	122.1	2	6.299	0.001	7677	144.1
Aroclor-1221	3	6.385	0.001	29368	171.8	3	6.624	0.001	16198	180.1
Total Col1Ave (3 peaks):		144.5				Total Col2Ave (3 peaks):		154.8	RPD = 7	
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.735	0.002	5022	223.5	1	4.961	0.002	3409	231.1
Aroclor-1232	2	6.134	0.001	8987	177.4	2	7.256	-0.001	19791	239.8
Aroclor-1232	3	7.659	0.001	58630	231.5	3	7.856	0.001	40139	238.8
Aroclor-1232	4	8.585	0.000	24991	230.5	4	8.715	0.001	11476	245.7
Total Col1Ave (4 peaks):		215.7				Total Col2Ave (4 peaks):		238.8	RPD = 10	
Corrected Ave (3 peaks):		210.5				Corrected Ave (3 peaks):		236.6	RPD = 12	
Aroclor-1242	1	7.272	0.001	19363	129.8	1	7.256	0.000	19791	136.4
Aroclor-1242	2	7.659	0.004	58630	120.1	2	7.856	0.002	40139	124.6
Aroclor-1242	3	8.408	0.001	17373	119.8	3	9.166	0.006	11813	117.1
Aroclor-1242	4	8.585	0.003	24991	114.1	4	9.595	0.009	16549	123.7
Total Col1Ave (4 peaks):		121.0				Total Col2Ave (4 peaks):		125.4	RPD = 4	
Corrected Ave (3 peaks):		118.0				Corrected Ave (3 peaks):		121.8	RPD = 3	
Aroclor-1248	1	8.408	0.002	17373	71.3	1	8.308	0.003	11962	79.8
Aroclor-1248	2	8.585	0.005	24991	80.4	2	8.715	0.003	11476	71.1
Aroclor-1248	3	9.001	0.002	67631	113.8	3	9.166	0.009	11813	59.9
Aroclor-1248	4	9.293	-0.001	30983	105.3	4	9.595	0.014	16549	67.9
Total Col1Ave (4 peaks):		92.7				Total Col2Ave (4 peaks):		69.7	RPD = 28	
Corrected Ave (3 peaks):		85.7				Corrected Ave (3 peaks):		66.3	RPD = 26	
Aroclor-1254	1	9.293	-0.006	30983	62.4	1	9.451	0.003	3749	15.6
Aroclor-1254	2	9.381	0.003	9071	42.8	2	9.974	0.005	2452	12.6
Aroclor-1254	3	9.678	0.009	5199	16.3	3	10.131	0.010	4718	11.1
Aroclor-1254	4	9.820	0.012	8864	14.2	4	10.389	0.018	4224	10.0
Aroclor-1254	5	10.195	0.018	8085	19.9	5	10.573	0.004	1573	6.7
Total Col1Ave (5 peaks):		31.1				Total Col2Ave (5 peaks):		11.2	RPD = 94*	
Corrected Ave (4 peaks):		23.3				Corrected Ave (4 peaks):		10.1	RPD = 79*	
Aroclor-1260	1	11.050	0.006	66852	126.1	1	11.647	-0.006	57235	157.9
Aroclor-1260	2	11.366	0.006	6269	11.5	2	11.919	0.002	25368	27.7
Aroclor-1260	3	11.741	0.007	41446	28.9	3	12.434	-0.002	262014	1146.4
Aroclor-1260	4	12.052	-0.088	2691	3.6	4	12.502	-0.000	277060	466.9
Aroclor-1260	5	12.245	0.002	349286	1080.9	NS	---			----
Total Col1Ave (5 peaks):		250.2				Total Col2Ave (4 peaks):		449.7	RPD = 57*	
Corrected Ave (4 peaks):		42.5				Corrected Ave (3 peaks):		217.5	RPD = 135*	
Aroclor-1262	1	10.838	0.006	4520	11.8	1	11.203	0.003	40576	82.5
Aroclor-1262	2	12.245	-0.000	349286	579.1	2	11.647	-0.006	57235	136.9
Aroclor-1262	3	12.318	-0.002	349715	534.1	3	12.434	-0.001	262014	588.4
Aroclor-1262	4	12.988	-0.001	141905	237.8	4	12.502	-0.002	277060	388.5
Total Col1Ave (4 peaks):		340.7				Total Col2Ave (4 peaks):		299.1	RPD = 13	
Corrected Ave (3 peaks):		261.2				Corrected Ave (3 peaks):		202.6	RPD = 25	
Aroclor-1268	1	12.245	0.001	349286	223.8	1	12.434	0.000	262014	223.3
Aroclor-1268	2	12.318	0.000	349715	224.6	2	12.502	0.000	277060	221.9
Aroclor-1268	3	12.699	0.000	289328	224.3	3	12.893	-0.000	208928	201.0
Aroclor-1268	4	13.490	0.001	849299	222.1	4	13.710	0.002	725831	226.1
Total Col1Ave (4 peaks):		223.7				Total Col2Ave (4 peaks):		218.1	RPD = 3	

Corrected Ave (3 peaks): 223.4 Corrected Ave (3 peaks): 215.4 RPD = 4

Total PCB Area Col1 (5.909 - 13.792) = 2866092 Col1 Total PCB = 0.5 ppm*

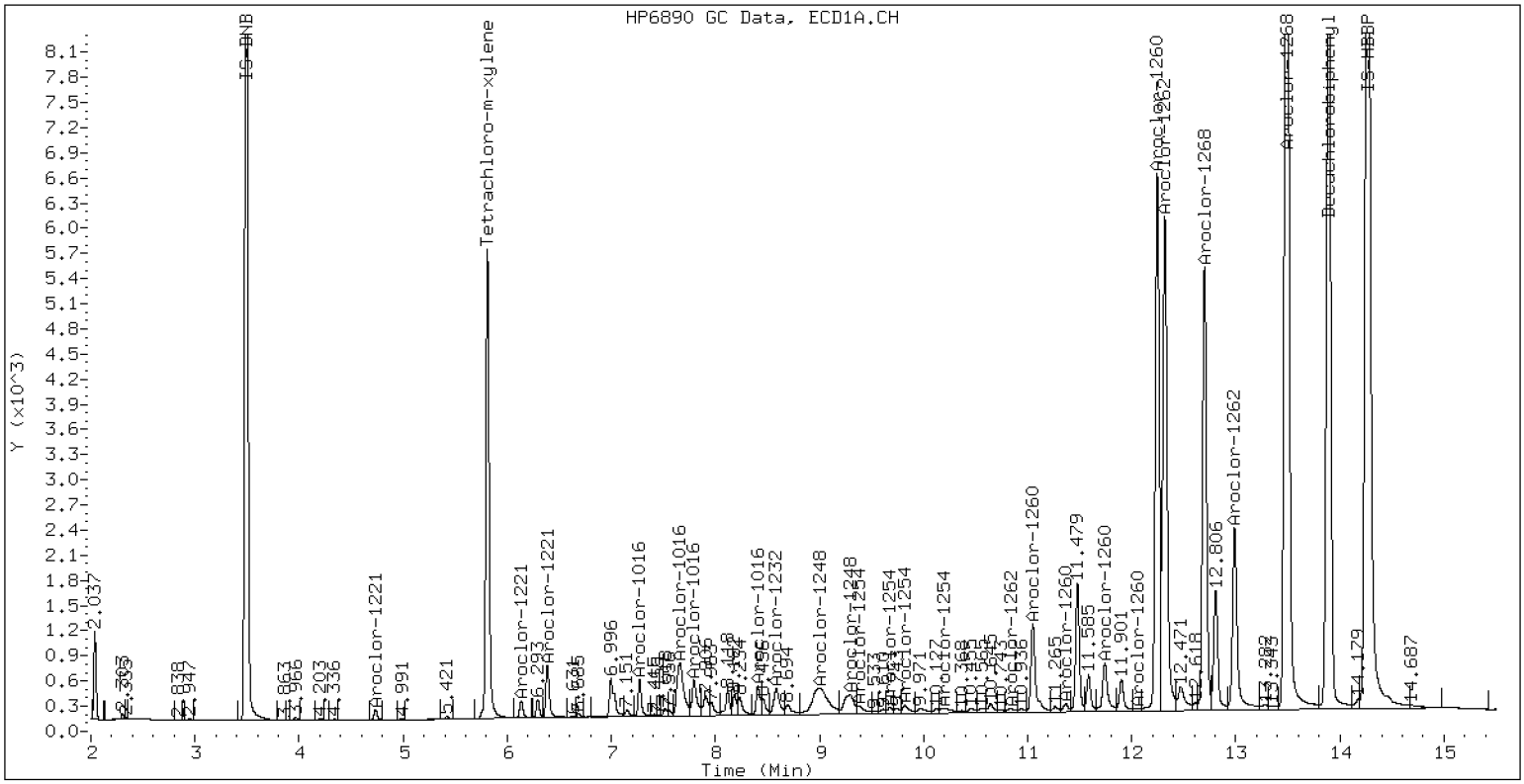
Total PCB Area Col2 (5.787 - 14.020) = 2084481 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

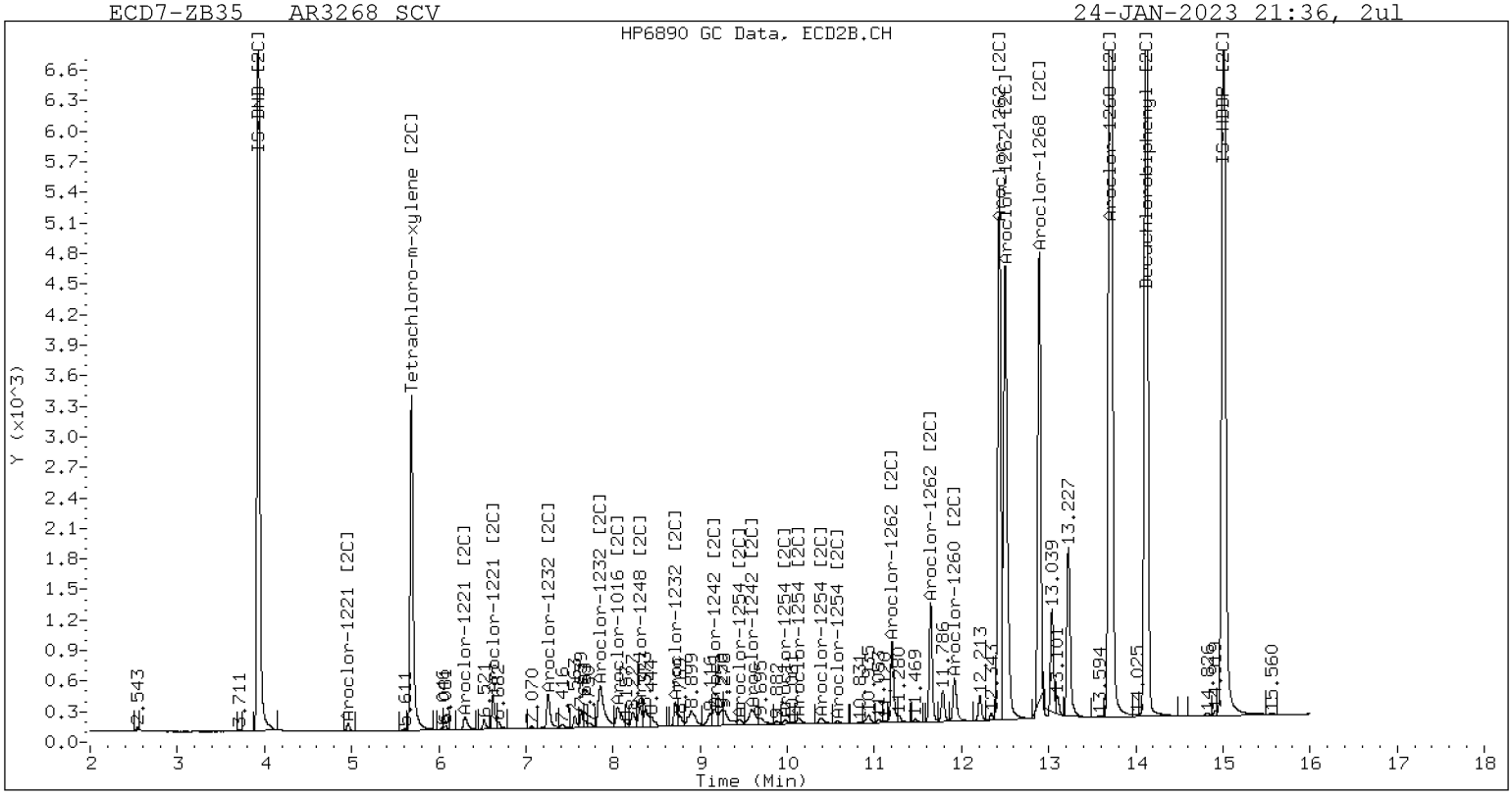
PCB Dual Column Chromatograms

ECD7-ZB5 AR3268 SCV 24-JAN-2023 21:36, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268 SCV 24-JAN-2023 21:36, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GB00045
Laboratory ID: SLB0222-SCV1
Sequence: SLB0222
Sequence Name: AR1660SCV1
Standard ID: K007655

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1016	250.00	217	-13.3	20.00
Aroclor 1016 [2C]	250.00	223	-10.9	20.00
Aroclor 1260	250.00	267	6.8	20.00
Aroclor 1260 [2C]	250.00	258	3.2	20.00
Decachlorobiphenyl	40.000	40.4	1.1	20.00
Tetrachlorometaxylene	40.000	37.3	-6.7	20.00
Decachlorobiphenyl [2C]	40.000	41.5	3.7	20.00
Tetrachlorometaxylene [2C]	40.000	37.7	-5.9	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GB00045
Laboratory ID: SLB0222-SCV2
Sequence: SLB0222
Sequence Name: AR1242SCV2
Standard ID: K007656

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1242	250.00	218	-12.8	20.00
Aroclor 1242 [2C]	250.00	223	-10.8	20.00
Decachlorobiphenyl	40.000	40.3	0.8	20.00
Tetrachlorometaxylene	40.000	36.8	-8.1	20.00
Decachlorobiphenyl [2C]	40.000	41.4	3.5	20.00
Tetrachlorometaxylene [2C]	40.000	37.2	-7.0	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GB00045
Laboratory ID: SLB0222-SCV3
Sequence: SLB0222
Sequence Name: AR1248SCV3
Standard ID: K007657

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1248	250.00	237	-5.3	20.00
Aroclor 1248 [2C]	250.00	233	-7.0	20.00
Decachlorobiphenyl	40.000	41.4	3.5	20.00
Tetrachlorometaxylene	40.000	36.5	-8.8	20.00
Decachlorobiphenyl [2C]	40.000	41.5	3.8	20.00
Tetrachlorometaxylene [2C]	40.000	36.9	-7.8	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GB00045
Laboratory ID: SLB0222-SCV4
Sequence: SLB0222
Sequence Name: AR1254SCV4
Standard ID: K007658

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1254	250.00	225	-10.0	20.00
Aroclor 1254 [2C]	250.00	226	-9.7	20.00
Decachlorobiphenyl	40.000	40.3	0.7	20.00
Tetrachlorometaxylene	40.000	36.7	-8.3	20.00
Decachlorobiphenyl [2C]	40.000	41.8	4.6	20.00
Tetrachlorometaxylene [2C]	40.000	37.5	-6.3	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GB00045
Laboratory ID: SLB0222-SCV5
Sequence: SLB0222
Sequence Name: AR2162SCV5
Standard ID: K007659

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1221	250.00	246	-1.8	20.00
Aroclor 1221 [2C]	250.00	241	-3.7	20.00
Aroclor 1262	500.00	462	-7.7	20.00
Aroclor 1262 [2C]	500.00	465	-7.1	20.00
Decachlorobiphenyl	40.000	40.4	1.0	20.00
Tetrachlorometaxylene	40.000	37.2	-7.0	20.00
Decachlorobiphenyl [2C]	40.000	42.0	4.9	20.00
Tetrachlorometaxylene [2C]	40.000	37.7	-5.8	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GB00045
Laboratory ID: SLB0222-SCV6
Sequence: SLB0222
Sequence Name: AR3268SCV6
Standard ID: K007660

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1232	250.00	215	-14.0	20.00
Aroclor 1232 [2C]	250.00	231	-7.7	20.00
Aroclor 1268	250.00	234	-6.3	20.00
Aroclor 1268 [2C]	250.00	234	-6.4	20.00
Decachlorobiphenyl	40.000	58.0	44.9	20.00
Tetrachlorometaxylene	40.000	35.5	-11.3	20.00
Decachlorobiphenyl [2C]	40.000	60.1	50.2	20.00
Tetrachlorometaxylene [2C]	40.000	36.4	-9.1	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02202311ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0274	Injection Date:	02/20/23
Lab Sample ID:	SLB0274-ICV1	Injection Time:	13:41
Sequence Name:	AR1254ICV1		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1254	A	250.00	239	0.0675033	0.0592480		-4.5	+/-20
Aroclor-1254 (1)	A	250.00	227	0.0774229	0.0703693			
Aroclor-1254 (2)	A	250.00	265	0.0304845	0.0322912			
Aroclor-1254 (3)	A	250.00	235	0.0493409	0.0463073			
Aroclor-1254 (4)	A	250.00	232	0.0982165	0.0910418			
Aroclor-1254 (5)	A	250.00	235	0.0599089	0.0562303			
Aroclor 1254 [2C]	A	250.00	235	0.0733219	0.0653298		-5.8	+/-20
Aroclor-1254 (1) [2C]	A	250.00	234	0.0564037	0.0526823			
Aroclor-1254 (2) [2C]	A	250.00	238	0.0455608	0.0432918			
Aroclor-1254 (3) [2C]	A	250.00	231	0.0992457	0.0916748			
Aroclor-1254 (4) [2C]	A	250.00	232	0.0979235	0.0910082			
Aroclor-1254 (5) [2C]	A	250.00	242	0.0494758	0.0479916			
Decachlorobiphenyl	A	40.000	37.6	0.7045925	0.6631633		-6.0	+/-20
Tetrachlorometaxylene	A	40.000	35.2	1.1350860	1.0003400		-12.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	41.2	1.0765520	1.1076560		3.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	38.5	1.0668100	1.0267900		-3.8	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202311ECD7.D
Data file 2: /230220.b/230220.b/02202311ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254ICV1
Client ID:
Injection Date: 20-FEB-2023 13:41
Report Date: 02/21/2023 09:38
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.807	-0.001	376335	5.685	-0.000	164120	35.3	38.5	8.8	Tetrachloro-m-xylene
13.892	0.001	524976	14.117	-0.000	279898	37.6	41.2	8.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	752414	75.0
Hexabromobiphenyl	975457	1583248	62.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	319676	-12.8
Hexabromobiphenyl	646884	505388	-21.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	9.297	0.002	165459	227.2	1	9.448	0.002	52629	233.5
Aroclor-1254	2	9.375	0.001	75926	264.8	2	9.967	0.002	43248	237.6
Aroclor-1254	3	9.667	0.002	108882	234.6	3	10.121	0.003	91582	230.9
Aroclor-1254	4	9.805	0.002	214066	231.7	4	10.371	0.003	90916	232.3
Aroclor-1254	5	10.172	0.005	132214	234.6	5	10.566	0.002	47943	242.5

Total Col1Ave (5 peaks): 238.6 Total Col2Ave (5 peaks): 235.4 RPD = 1

Corrected Ave (4 peaks): 232.1 Corrected Ave (4 peaks): 233.6 RPD = 1

CalAmt %D: -4.6 CalAmt %D: -5.9

Total PCB Area Col1 (5.908 - 13.791) = 2336630 Col1 Total PCB = 0.3 ppm*

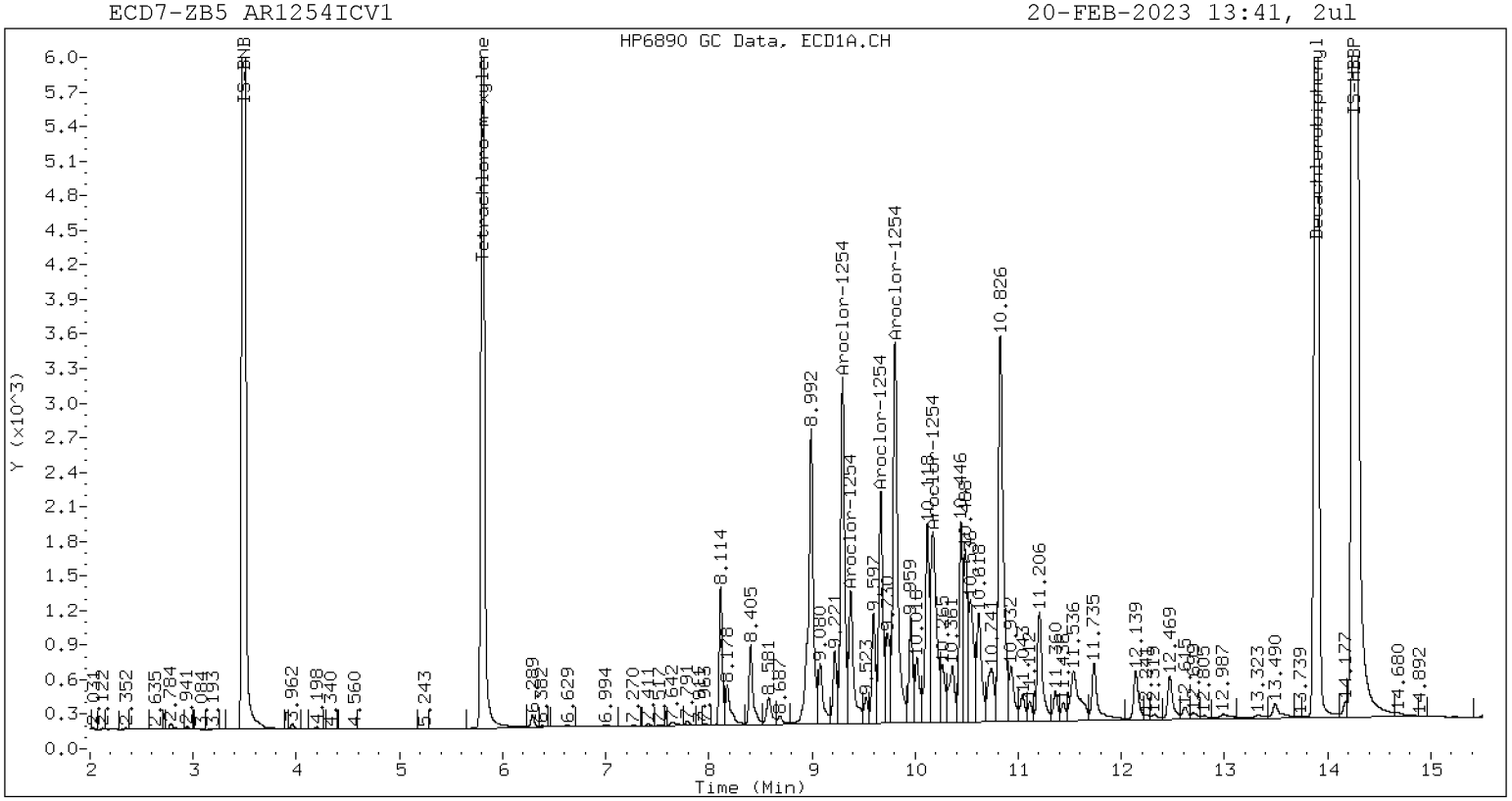
Total PCB Area Col2 (5.785 - 14.017) = 918211 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

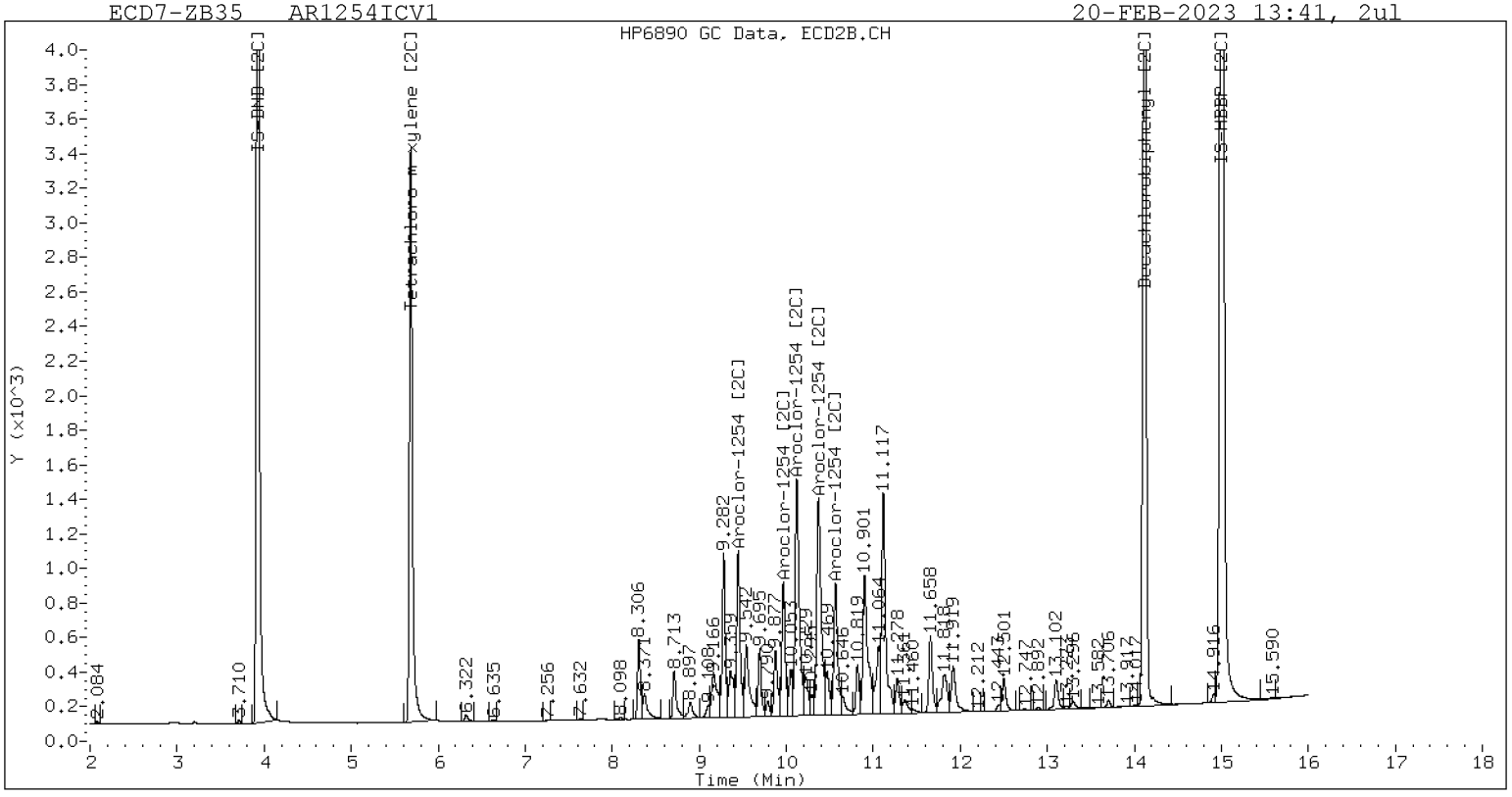
PCB Dual Column Chromatograms

ECD7-ZB5 AR1254ICV1 20-FEB-2023 13:41, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254ICV1 20-FEB-2023 13:41, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02202312ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0274	Injection Date:	02/20/23
Lab Sample ID:	SLB0274-ICV2	Injection Time:	14:02
Sequence Name:	AR1660ICV2		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1016	A	250.00	213	0.0483914	0.0409882		-14.9	+/-20
Aroclor-1016 (1)	A	250.00	219	0.0291332	0.0255711		-12.4	
Aroclor-1016 (2)	A	250.00	211	0.0932933	0.0787764		-15.6	
Aroclor-1016 (3)	A	250.00	206	0.0429036	0.0353167		-17.6	
Aroclor-1016 (4)	A	250.00	215	0.0282354	0.0242885		-14.0	
Aroclor 1016 [2C]	A	250.00	219	0.0510062	0.0445696		-12.6	+/-20
Aroclor-1016 (1) [2C]	A	250.00	216	0.0435251	0.0375992		-13.6	
Aroclor-1016 (2) [2C]	A	250.00	218	0.0917441	0.0799003		-12.8	
Aroclor-1016 (3) [2C]	A	250.00	228	0.0378128	0.0344956		-8.8	
Aroclor-1016 (4) [2C]	A	250.00	212	0.0309428	0.0262831		-15.2	
Aroclor 1260	A	250.00	239	0.0369444	0.0349563		-4.5	+/-20
Aroclor-1260 (1)	A	250.00	237	0.0275801	0.0261601		-5.2	
Aroclor-1260 (2)	A	250.00	239	0.0282147	0.0270039		-4.4	
Aroclor-1260 (3)	A	250.00	230	0.0747199	0.0687013		-8.0	
Aroclor-1260 (4)	A	250.00	244	0.0379377	0.0369993		-2.4	
Aroclor-1260 (5)	A	250.00	244	0.0162699	0.0159167		-2.4	
Aroclor 1260 [2C]	A	250.00	235	0.0609398	0.0581845		-5.9	+/-20
Aroclor-1260 (1) [2C]	A	250.00	226	0.0414523	0.0376144		-9.6	
Aroclor-1260 (2) [2C]	A	250.00	242	0.1040347	0.1009812		-3.2	
Aroclor-1260 (3) [2C]	A	250.00	232	0.0282007	0.0263288		-7.2	
Aroclor-1260 (4) [2C]	A	250.00	241	0.0700714	0.0678137		-3.6	
Decachlorobiphenyl	A	40.000	37.8	0.7045925	0.6651421		-5.5	+/-20
Tetrachlorometaxylene	A	40.000	34.0	1.1350860	0.9648840		-15.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.2	1.0765520	1.0827660		0.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.5	1.0668100	0.9733037		-8.8	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202312ECD7.D
Data file 2: /230220.b/230220.b/02202312ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660ICV2
Client ID:
Injection Date: 20-FEB-2023 14:02
Report Date: 02/21/2023 09:38
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.806	-0.002	286091	5.684	-0.002	132016	34.0	36.5	7.1	Tetrachloro-m-xylene
13.891	-0.000	393518	14.117	0.001	223660	37.8	40.2	6.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	593006	37.9
Hexabromobiphenyl	975457	1183260	21.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	271274	-26.0
Hexabromobiphenyl	646884	413127	-36.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.268	-0.001	47387	219.4	1	7.252	-0.001	31874	216.0
Aroclor-1016	2	7.651	0.001	145984	211.1	2	7.851	-0.001	67734	217.7
Aroclor-1016	3	7.789	0.002	65447	205.8	3	8.051	0.001	29243	228.1
Aroclor-1016	4	8.403	0.000	45010	215.1	4	8.304	0.000	22281	212.4
Total Col1Ave (4 peaks):					212.8	Total Col2Ave (4 peaks):				218.5 RPD = 3
Corrected Ave (3 peaks):					210.6	Corrected Ave (3 peaks):				215.3 RPD = 2
CalAmt %D:					-14.9	CalAmt %D:				-12.6
Aroclor-1260	1	11.043	0.002	96732	237.1	1	11.651	0.002	48561	226.2
Aroclor-1260	2	11.359	0.002	99852	239.3	2	11.916	0.002	130369	242.0
Aroclor-1260	3	11.733	0.003	254036	229.9	3	12.434	0.001	33991	232.4
Aroclor-1260	4	12.137	0.002	136812	243.8	4	12.500	0.001	87549	240.8
Aroclor-1260	5	12.242	0.002	58855	244.6	NS	---			----
Total Col1Ave (5 peaks):					238.9	Total Col2Ave (4 peaks):				235.3 RPD = 2
Corrected Ave (4 peaks):					237.5	Corrected Ave (3 peaks):				233.1 RPD = 2
CalAmt %D:					-4.4	CalAmt %D:				-5.9

Total PCB Area Col1 (5.908 - 13.791) = 2824959 Col1 Total PCB = 0.4 ppm*

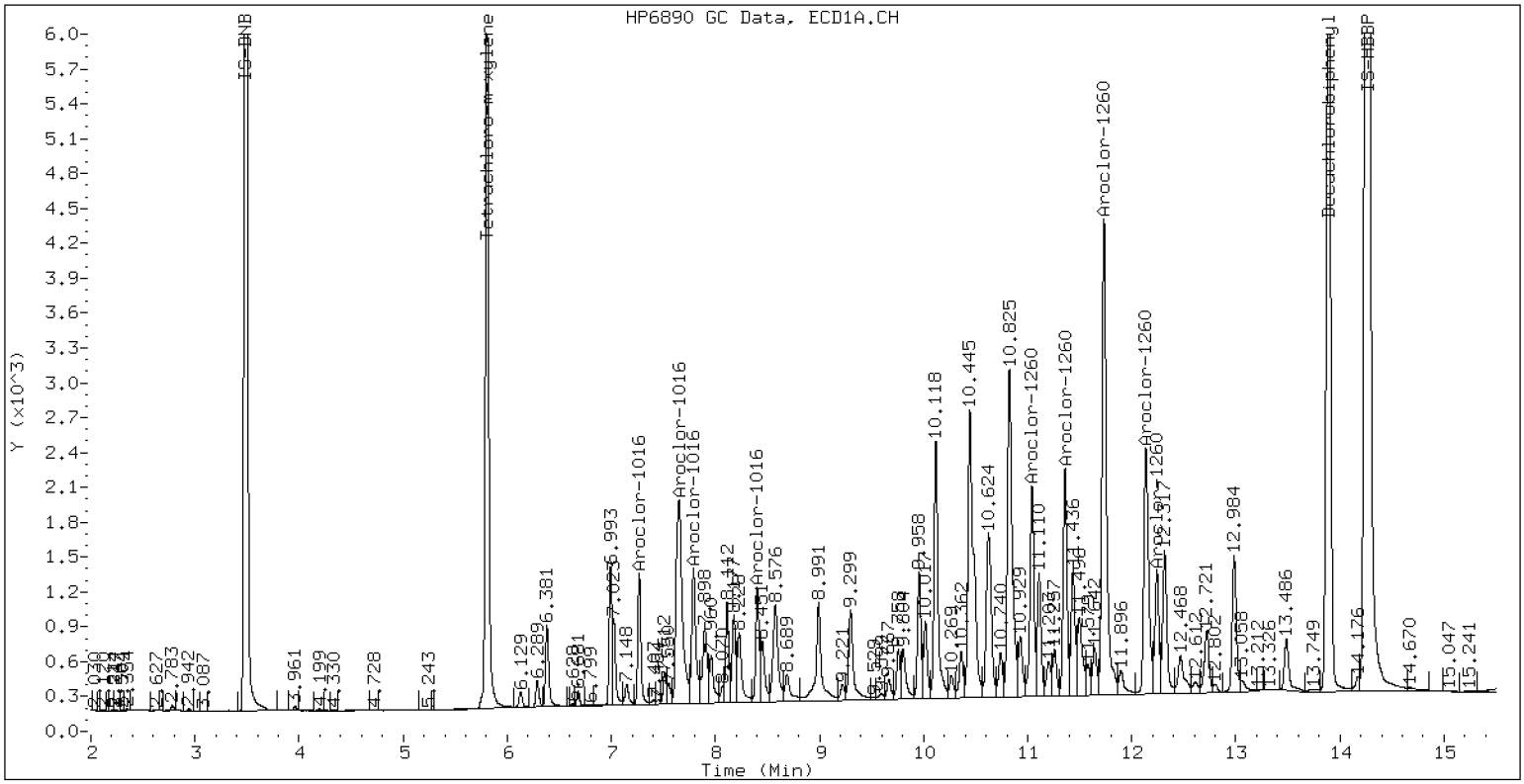
Total PCB Area Col2 (5.785 - 14.017) = 1230864 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

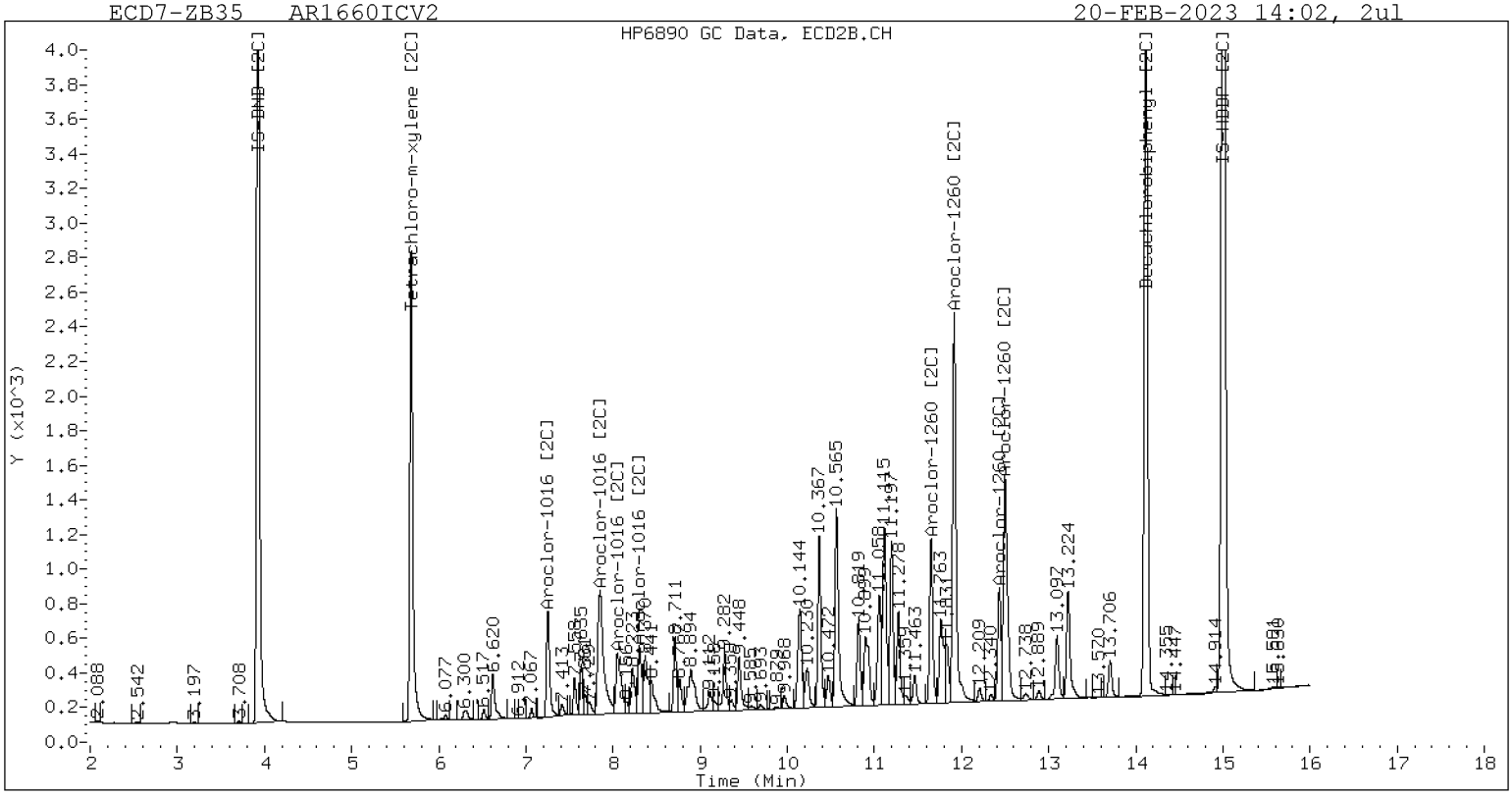
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660ICV2 20-FEB-2023 14:02, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660ICV2 20-FEB-2023 14:02, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	01242324ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLA0281	Injection Date:	01/24/23
Lab Sample ID:	SLA0281-SCV1	Injection Time:	19:51
Sequence Name:	AR1660SCV1		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	217	0.0506755	0.0439293		-13.2	+/-20
Aroclor 1016 [2C]	A	250.00	220	0.0519244	0.0458194		-11.9	+/-20
Aroclor 1260	A	250.00	211	0.0605224	0.0508252		-15.7	+/-20
Aroclor 1260 [2C]	A	250.00	238	0.0836545	0.0795027		-4.9	+/-20
Decachlorobiphenyl	A	40.000	37.9	0.8555994	0.8115673		-5.1	+/-20
Tetrachlorometaxylene	A	40.000	37.5	1.1307870	1.0610020		-6.2	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.2	1.2696430	1.2773160		0.6	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.3	1.0814980	1.0082190		-6.8	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242324ECD7.D
Data file 2: /230124.b/230124.b/01242324ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 SCV
Client ID:
Injection Date: 24-JAN-2023 19:51
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	268739	5.686	-0.001	172961	37.5	37.3	0.6	Tetrachloro-m-xylene
13.891	-0.000	381489	14.121	0.001	320416	37.9	40.2	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	506576	0.6
Hexabromobiphenyl	647433	940129	45.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	343102	1.8
Hexabromobiphenyl	382032	501702	31.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	40958	217.6	1	7.255	0.001	40190	216.0
Aroclor-1016	2	7.655	0.004	135282	216.9	2	7.852	0.001	90338	221.5
Aroclor-1016	3	7.791	0.003	61557	214.5	3	8.052	0.002	37810	227.2
Aroclor-1016	4	8.406	0.002	40372	218.7	4	8.306	0.000	28171	215.9
Total Col1Ave (4 peaks):					216.9	Total Col2Ave (4 peaks):				220.2 RPD = 1
Corrected Ave (3 peaks):					216.3	Corrected Ave (3 peaks):				217.8 RPD = 1
Aroclor-1221	1	4.732	-0.001	256	6.8	1	---			0.0
Aroclor-1221	2	6.131	-0.002	4742	61.9	2	6.302	0.004	5037	91.4
Aroclor-1221	3	6.384	-0.000	27448	154.4	3	6.623	-0.000	18931	203.5
Total Col1Ave (3 peaks):					74.4	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.732	-0.001	256	11.0	1	---			0.0
Aroclor-1232	2	6.131	-0.002	4742	90.0	2	7.255	-0.001	40190	470.8
Aroclor-1232	3	7.655	-0.004	135282	513.5	3	7.852	-0.002	90338	519.5
Aroclor-1232	4	8.581	-0.003	56938	504.9	4	8.713	-0.001	27776	574.9
Total Col1Ave (4 peaks):					279.8	Total Col2Ave (3 peaks):				521.7 RPD = 60*
Corrected Ave (3 peaks):					202.0	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	-0.000	40958	264.0	1	7.255	-0.000	40190	267.8
Aroclor-1242	2	7.655	-0.001	135282	266.5	2	7.852	-0.001	90338	271.0
Aroclor-1242	3	8.406	-0.001	40372	267.7	3	9.115	-0.045	15827	151.6
Aroclor-1242	4	8.581	-0.000	56938	249.9	4	9.587	0.001	3186	23.0
Total Col1Ave (4 peaks):					262.0	Total Col2Ave (4 peaks):				178.4 RPD = 38
Corrected Ave (3 peaks):					260.1	Corrected Ave (3 peaks):				147.5 RPD = 55*
Aroclor-1248	1	8.406	0.000	40372	159.3	1	8.306	0.000	28171	181.6
Aroclor-1248	2	8.581	0.001	56938	176.1	2	8.713	0.000	27776	166.4
Aroclor-1248	3	8.995	-0.004	58213	94.1	3	9.115	-0.042	15827	77.6
Aroclor-1248	4	9.304	0.010	36620	119.6	4	9.587	0.006	3186	12.6
Total Col1Ave (4 peaks):					137.3	Total Col2Ave (4 peaks):				109.6 RPD = 22
Corrected Ave (3 peaks):					124.4	Corrected Ave (3 peaks):				85.5 RPD = 37
Aroclor-1254	1	9.304	0.005	36620	70.9	1	9.450	0.002	20792	83.5
Aroclor-1254	2	---			0.0	2	9.972	0.003	2640	13.1
Aroclor-1254	3	9.673	0.003	4075	12.3	3	10.148	0.027	52902	120.5
Aroclor-1254	4	9.813	0.004	14733	22.7	4	10.372	0.000	71680	163.3
Aroclor-1254	5	10.122	-0.055	119528	283.6	5	10.569	-0.000	98559	403.2
Total Col1Ave (4 peaks):					97.4	Total Col2Ave (5 peaks):				156.7 RPD = 47*
Corrected Ave (3 peaks):					35.3	Corrected Ave (4 peaks):				95.1 RPD = 92*
Aroclor-1260	1	11.045	0.002	116435	220.7	1	11.654	0.000	81795	226.0
Aroclor-1260	2	11.362	0.001	116918	215.6	2	11.920	0.002	217887	238.0
Aroclor-1260	3	11.738	0.003	303264	212.5	3	12.437	0.001	56212	246.3
Aroclor-1260	4	12.143	0.004	141534	191.9	4	12.502	0.000	142689	240.8
Aroclor-1260	5	12.246	0.002	68446	212.9	NS	---			----
Total Col1Ave (5 peaks):					210.7	Total Col2Ave (4 peaks):				237.8 RPD = 12
Corrected Ave (4 peaks):					208.2	Corrected Ave (3 peaks):				234.9 RPD = 12
Aroclor-1262	1	10.830	-0.002	169725	446.4	1	11.200	0.000	83995	171.1
Aroclor-1262	2	12.246	0.000	68446	114.1	2	11.654	0.001	81795	195.9
Aroclor-1262	3	12.320	-0.000	84201	129.2	3	12.437	0.003	56212	126.4
Aroclor-1262	4	12.989	-0.000	78065	131.5	4	12.502	-0.001	142689	200.4
Total Col1Ave (4 peaks):					205.3	Total Col2Ave (4 peaks):				173.4 RPD = 17
Corrected Ave (3 peaks):					124.9	Corrected Ave (3 peaks):				164.5 RPD = 27
Aroclor-1268	1	12.246	0.001	68446	44.1	1	12.437	0.003	56212	48.0
Aroclor-1268	2	12.320	0.002	84201	54.4	2	12.502	0.001	142689	114.4
Aroclor-1268	3	12.726	0.027	33020	25.7	3	12.894	0.001	1495	1.4
Aroclor-1268	4	13.490	0.001	16019	4.2	4	13.709	0.001	10120	3.2
Total Col1Ave (4 peaks):					32.1	Total Col2Ave (4 peaks):				41.8 RPD = 26
Corrected Ave (3 peaks):					24.7	Corrected Ave (3 peaks):				17.5 RPD = 34

Total PCB Area Col1 (5.909 - 13.792) = 2789370 Col1 Total PCB = 0.5 ppm*

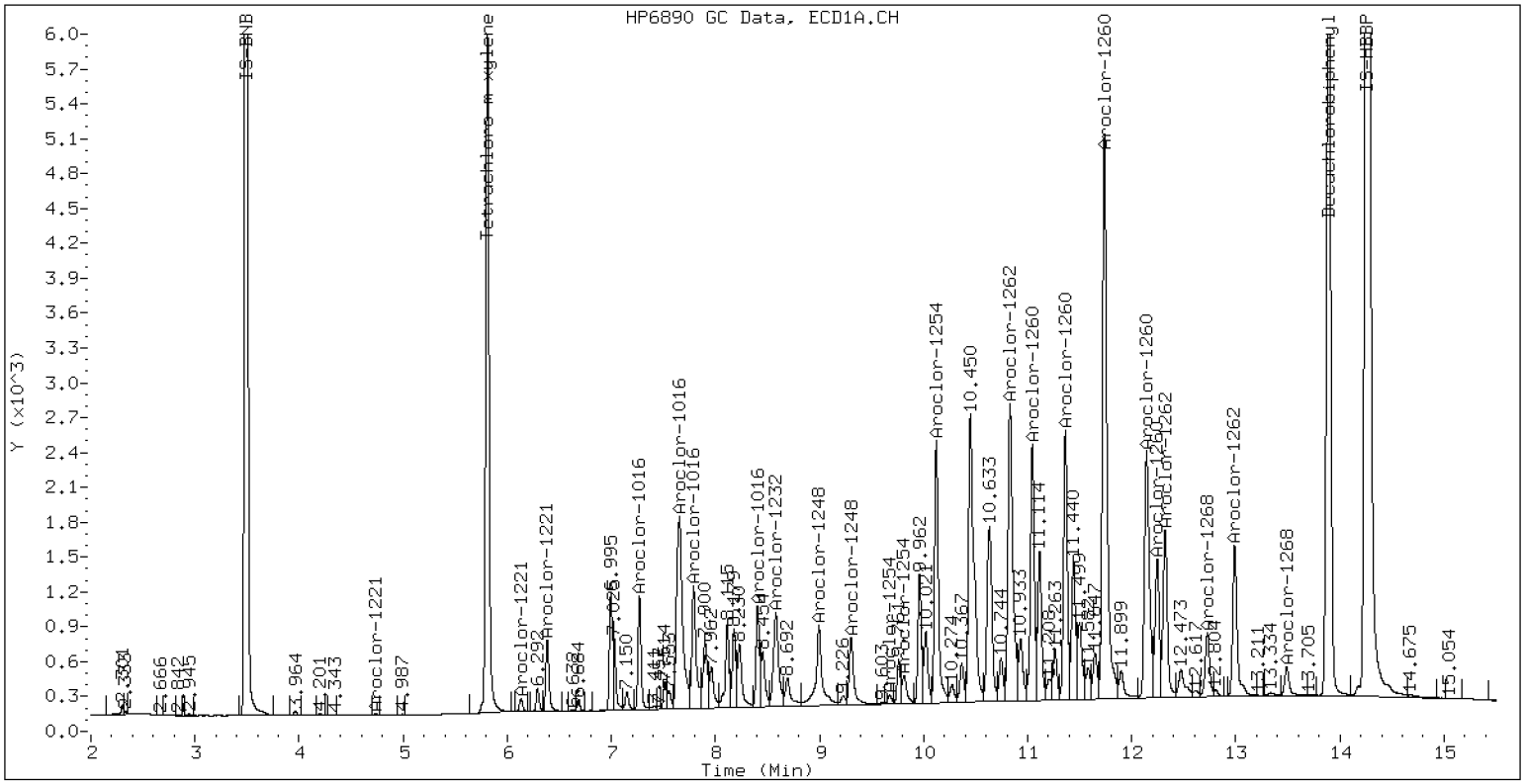
Total PCB Area Col2 (5.787 - 14.020) = 1810543 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

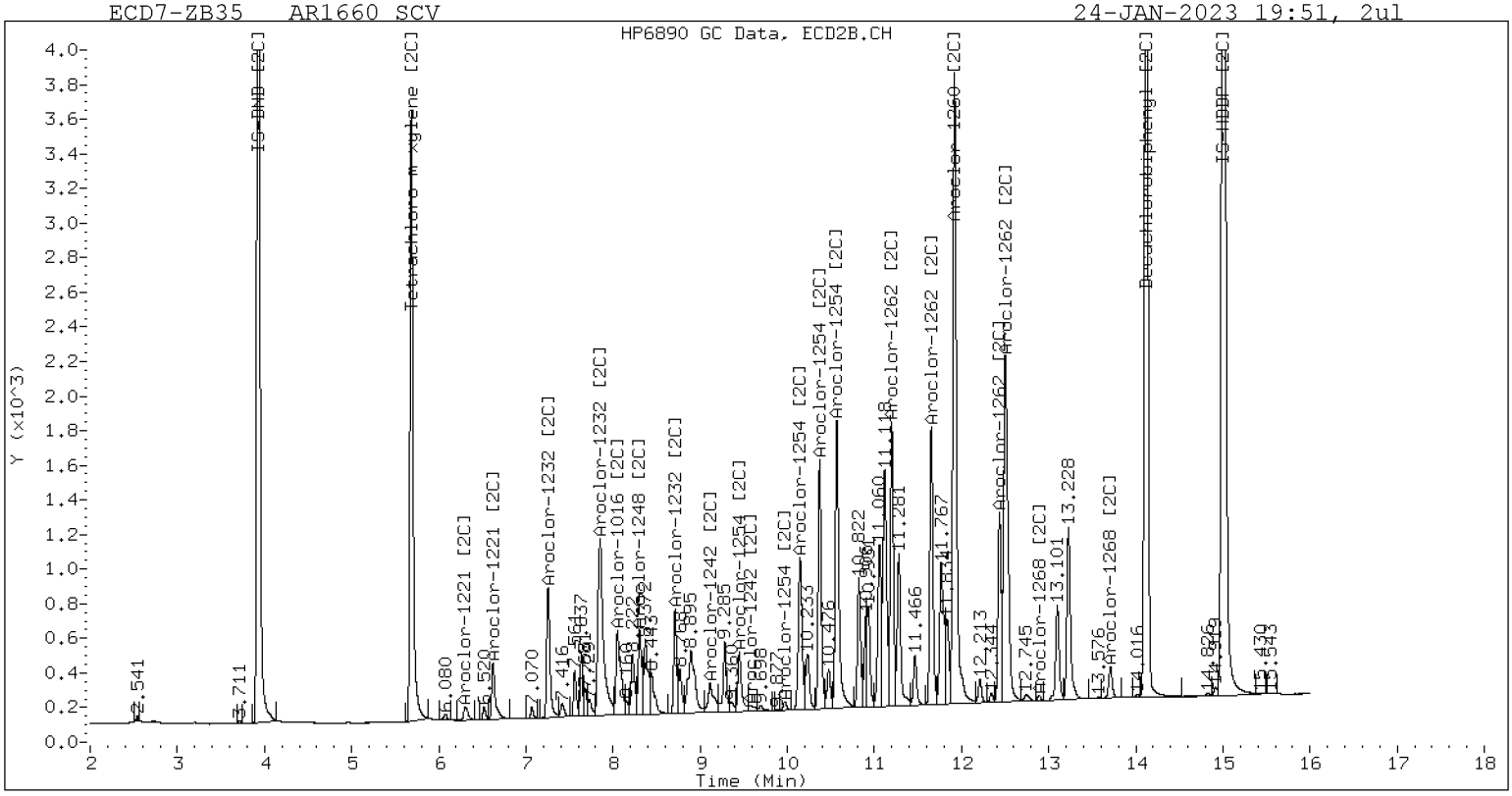
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660 SCV 24-JAN-2023 19:51, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660 SCV 24-JAN-2023 19:51, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	01242325ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLA0281	Injection Date:	01/24/23
Lab Sample ID:	SLA0281-SCV2	Injection Time:	20:12
Sequence Name:	AR1242SCV2		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	223	0.0411165	0.0365437		-10.9	+/-20
Aroclor 1242 [2C]	A	250.00	235	0.0423236	0.0386405		-5.9	+/-20
Decachlorobiphenyl	A	40.000	38.5	0.8555994	0.8244733		-3.6	+/-20
Tetrachlorometaxylene	A	40.000	37.8	1.1307870	1.0677240		-5.6	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.3	1.2696430	1.2804690		0.9	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.4	1.0814980	1.0101840		-6.6	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242325ECD7.D
Data file 2: /230124.b/230124.b/01242325ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242 SCV
Client ID:
Injection Date: 24-JAN-2023 20:12
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	268580	5.686	-0.001	172592	37.8	37.4	1.1	Tetrachloro-m-xylene
13.892	0.001	392918	14.121	0.001	323869	38.5	40.3	4.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503089	-0.0
Hexabromobiphenyl	647433	953137	47.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	341704	1.4
Hexabromobiphenyl	382032	505860	32.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	29901	159.9	1	7.255	0.000	32077	173.1
Aroclor-1016	2	7.653	0.003	107333	173.3	2	7.851	-0.000	71438	175.9
Aroclor-1016	3	7.790	0.002	45013	157.9	3	8.051	0.001	29072	175.4
Aroclor-1016	4	8.406	0.002	32958	179.8	4	8.306	0.001	21761	167.5
Total Col1Ave (4 peaks):					167.7	Total Col2Ave (4 peaks):				173.0 RPD = 3
Corrected Ave (3 peaks):					163.7	Corrected Ave (3 peaks):				172.0 RPD = 5
Aroclor-1221	1	4.737	0.004	141	3.8	1	---			0.0
Aroclor-1221	2	6.133	-0.001	3649	48.0	2	6.317	0.018	4290	78.2
Aroclor-1221	3	6.384	-0.000	21189	120.0	3	6.624	0.001	14613	157.7
Total Col1Ave (3 peaks):					57.3	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.737	0.003	141	6.1	1	---			0.0
Aroclor-1232	2	6.133	-0.001	3649	69.7	2	7.255	-0.002	32077	377.3
Aroclor-1232	3	7.653	-0.005	107333	410.2	3	7.851	-0.004	71438	412.5
Aroclor-1232	4	8.581	-0.003	59617	532.3	4	8.713	-0.000	22563	468.9
Total Col1Ave (4 peaks):					254.6	Total Col2Ave (3 peaks):				419.6 RPD = 49*
Corrected Ave (3 peaks):					162.0	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	0.000	29901	194.1	1	7.255	-0.001	32077	214.6
Aroclor-1242	2	7.653	-0.002	107333	212.9	2	7.851	-0.002	71438	215.2
Aroclor-1242	3	8.406	-0.000	32958	220.0	3	9.156	-0.004	27374	263.3
Aroclor-1242	4	8.581	-0.000	59617	263.5	4	9.581	-0.006	34156	247.9
Total Col1Ave (4 peaks):					222.6	Total Col2Ave (4 peaks):				235.3 RPD = 6
Corrected Ave (3 peaks):					209.0	Corrected Ave (3 peaks):				225.9 RPD = 8
Aroclor-1248	1	8.406	0.001	32958	131.0	1	8.306	0.001	21761	140.9
Aroclor-1248	2	8.581	0.001	59617	185.7	2	8.713	0.001	22563	135.7
Aroclor-1248	3	9.003	0.004	72557	118.2	3	9.156	-0.000	27374	134.7
Aroclor-1248	4	9.296	0.003	28122	92.5	4	9.581	-0.001	34156	135.9
Total Col1Ave (4 peaks):					131.8	Total Col2Ave (4 peaks):				136.8 RPD = 4
Corrected Ave (3 peaks):					113.9	Corrected Ave (3 peaks):				135.5 RPD = 17
Aroclor-1254	1	9.296	-0.002	28122	54.8	1	9.448	0.000	11650	47.0
Aroclor-1254	2	9.380	0.002	9292	42.4	2	9.968	-0.001	7642	38.1
Aroclor-1254	3	9.671	0.001	12871	39.2	3	10.120	-0.001	16012	36.6
Aroclor-1254	4	9.808	-0.000	22113	34.4	4	10.378	0.007	16300	37.3
Aroclor-1254	5	10.176	-0.001	17771	42.5	5	10.572	0.004	4439	18.2
Total Col1Ave (5 peaks):					42.7	Total Col2Ave (5 peaks):				35.5 RPD = 18
Corrected Ave (4 peaks):					39.6	Corrected Ave (4 peaks):				32.6 RPD = 19
Aroclor-1260	1	11.047	0.003	741	1.4	1	11.663	0.010	1794	4.9
Aroclor-1260	2	11.366	0.006	379	0.7	2	11.923	0.005	1208	1.3
Aroclor-1260	3	11.745	0.011	860	0.6	3	12.507	0.071	977	4.2
Aroclor-1260	4	12.154	0.014	1536	2.1	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
Total Col1Ave (4 peaks):					1.2	Total Col2Ave (3 peaks):				3.5 RPD = 99*
Corrected Ave (3 peaks):					0.9	Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.836	0.004	10654	27.6	1	11.120	-0.080	8071	16.3
Aroclor-1262	2	12.154	-0.092	1536	2.5	2	11.663	0.010	1794	4.3
Aroclor-1262	3	---			0.0	3	12.507	0.073	977	2.2
Aroclor-1262	4	13.040	0.051	1739	2.9	4	---			0.0
Total Col1Ave (3 peaks):					11.0	Total Col2Ave (3 peaks):				7.6 RPD = 37
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.154	-0.091	1536	1.0	1	12.507	0.073	977	0.8
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.623	-0.076	5080	3.9	3	12.894	0.001	98	0.1
Aroclor-1268	4	13.501	0.012	2725	0.7	4	13.707	-0.001	1566	0.5
Total Col1Ave (3 peaks):					1.9	Total Col2Ave (3 peaks):				0.5 RPD = 120*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.909 - 13.792) = 915887 Col1 Total PCB = 0.2 ppm*

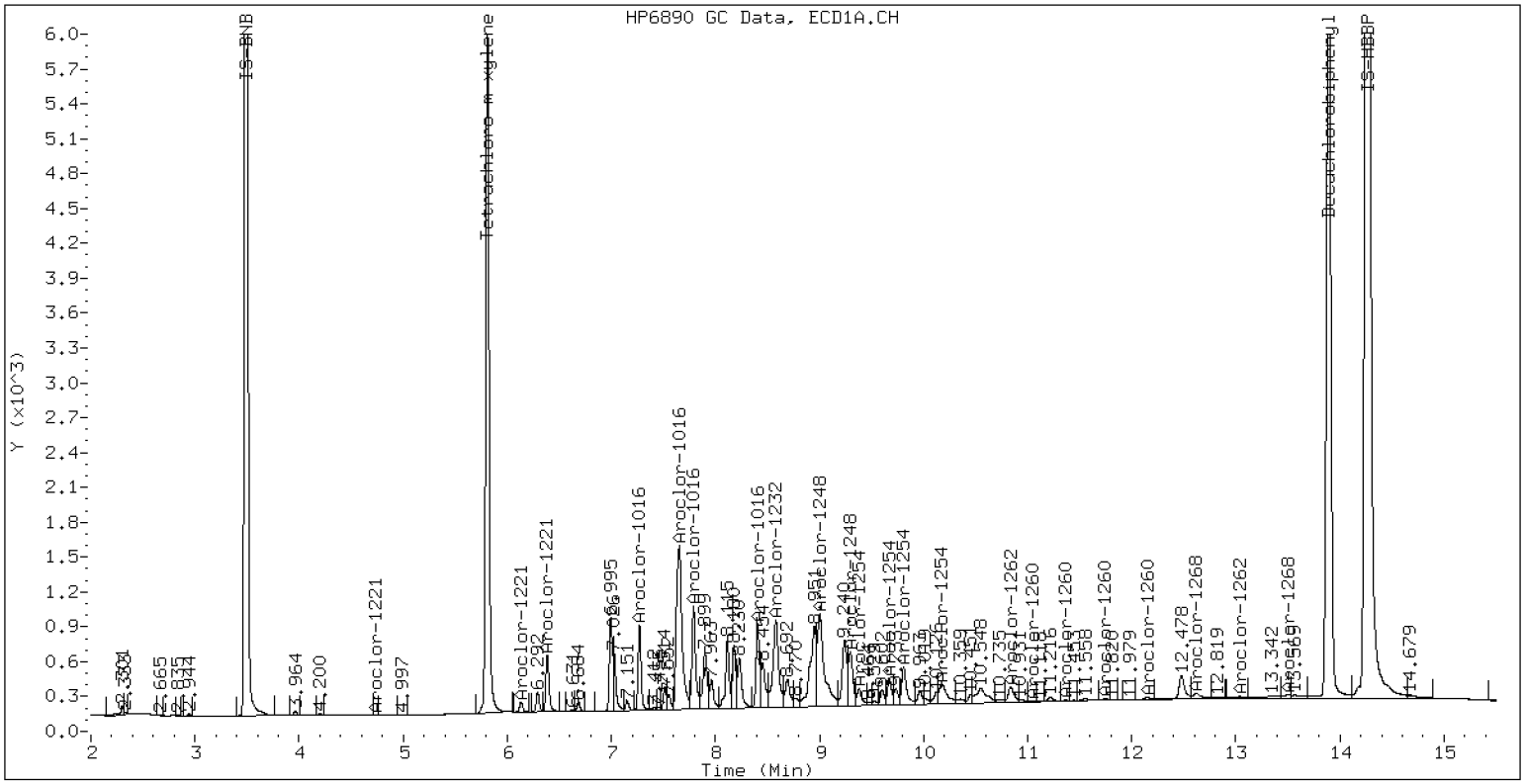
Total PCB Area Col2 (5.787 - 14.020) = 575897 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

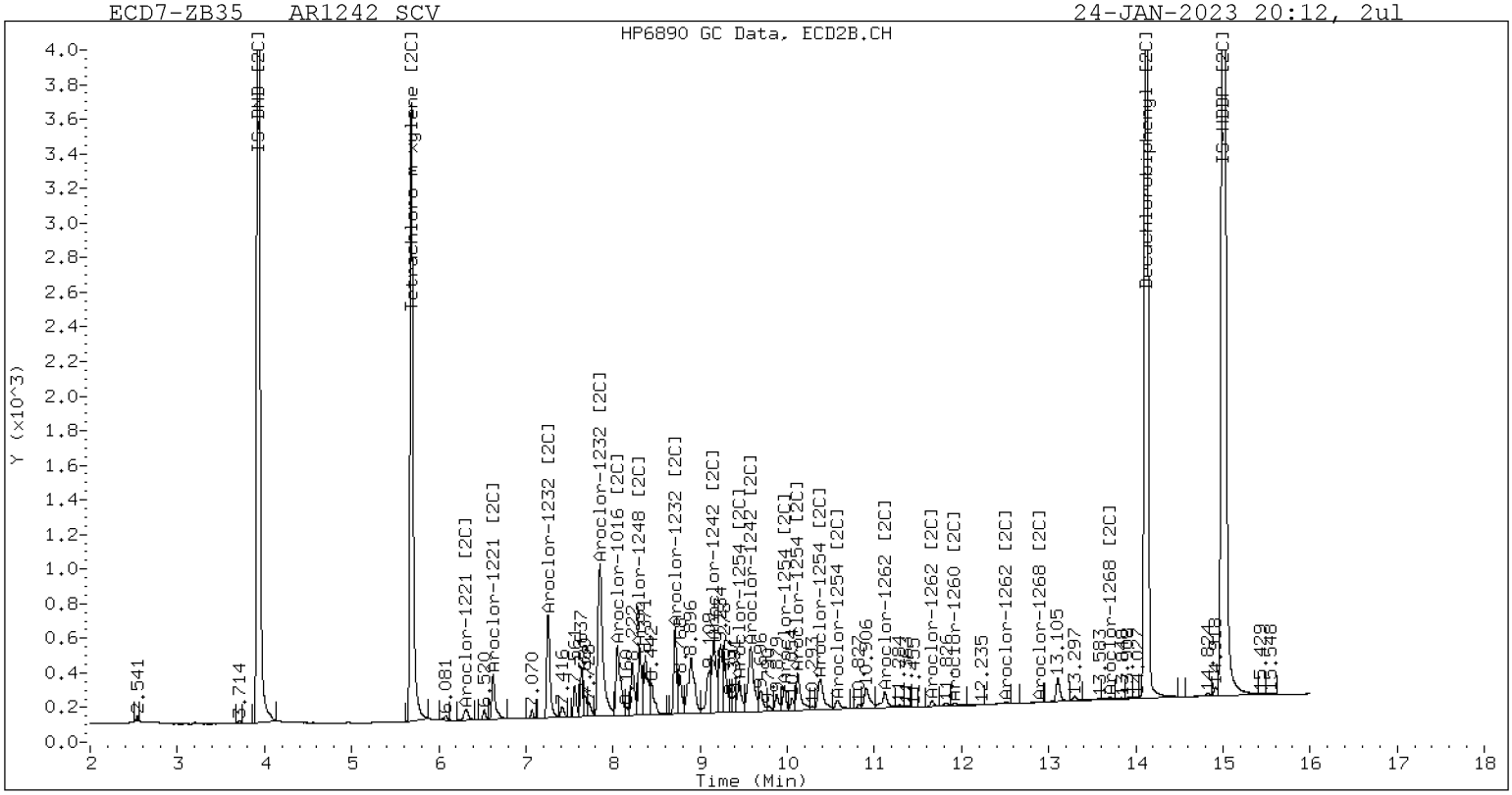
PCB Dual Column Chromatograms

ECD7-ZB5 AR1242 SCV 24-JAN-2023 20:12, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242 SCV 24-JAN-2023 20:12, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	01242326ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLA0281	Injection Date:	01/24/23
Lab Sample ID:	SLA0281-SCV3	Injection Time:	20:33
Sequence Name:	AR1248SCV3		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	237	0.0592639	0.0563710		-5.1	+/-20
Aroclor 1248 [2C]	A	250.00	231	0.0453673	0.0417577		-7.6	+/-20
Decachlorobiphenyl	A	40.000	38.3	0.8555994	0.8184425		-4.3	+/-20
Tetrachlorometaxylene	A	40.000	36.8	1.1307870	1.0389130		-8.1	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.6	1.2696430	1.2561970		-1.1	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.5	1.0814980	0.9880182		-8.6	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242326ECD7.D
Data file 2: /230124.b/230124.b/01242326ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248 SCV
Client ID:
Injection Date: 24-JAN-2023 20:33
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	263982	5.686	-0.001	169991	36.8	36.5	0.6	Tetrachloro-m-xylene
13.892	0.001	400655	14.121	0.001	316171	38.3	39.6	3.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	508189	1.0
Hexabromobiphenyl	647433	979067	51.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	344105	2.1
Hexabromobiphenyl	382032	503378	31.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	14777	78.3	1	7.254	-0.001	16100	86.3
Aroclor-1016	2	7.655	0.004	70114	112.1	2	7.853	0.002	47184	115.4
Aroclor-1016	3	7.794	0.006	27212	94.5	3	8.053	0.003	9427	56.5
Aroclor-1016	4	8.406	0.003	59884	323.4	4	8.306	0.001	36680	280.3
Total Col1Ave (4 peaks):					152.0	Total Col2Ave (4 peaks):				134.6 RPD = 12
Corrected Ave (3 peaks):					94.9	Corrected Ave (3 peaks):				86.0 RPD = 10
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.133	-0.000	591	7.7	2	6.323	0.025	1820	32.9
Aroclor-1221	3	6.386	0.001	2453	13.8	3	6.627	0.004	1477	15.8
Col1Ave: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.133	-0.000	591	11.2	2	7.254	-0.002	16100	188.0
Aroclor-1232	3	7.655	-0.004	70114	265.3	3	7.853	-0.001	47184	270.6
Aroclor-1232	4	8.581	-0.003	76286	674.3	4	8.714	0.000	39330	811.7
Total Col1Ave (3 peaks):					316.9	Total Col2Ave (3 peaks):				423.4 RPD = 29
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	0.000	14777	95.0	1	7.254	-0.002	16100	107.0
Aroclor-1242	2	7.655	-0.001	70114	137.7	2	7.853	0.000	47184	141.2
Aroclor-1242	3	8.406	-0.000	59884	395.8	3	9.159	-0.001	46988	448.9
Aroclor-1242	4	8.581	-0.000	76286	333.8	4	9.584	-0.003	56615	408.1
Total Col1Ave (4 peaks):					240.5	Total Col2Ave (4 peaks):				276.3 RPD = 14
Corrected Ave (3 peaks):					188.8	Corrected Ave (3 peaks):				218.7 RPD = 15
Aroclor-1248	1	8.406	0.001	59884	235.6	1	8.306	0.001	36680	235.8
Aroclor-1248	2	8.581	0.001	76286	235.2	2	8.714	0.002	39330	234.9
Aroclor-1248	3	9.000	0.001	148805	239.9	3	9.159	0.003	46988	229.7
Aroclor-1248	4	9.295	0.001	73114	238.1	4	9.584	0.002	56615	223.8
Total Col1Ave (4 peaks):					237.2	Total Col2Ave (4 peaks):				231.0 RPD = 3
Corrected Ave (3 peaks):					236.3	Corrected Ave (3 peaks):				229.5 RPD = 3
Aroclor-1254	1	9.295	-0.004	73114	141.2	1	9.449	0.001	20314	81.4
Aroclor-1254	2	9.378	0.000	36561	165.3	2	9.970	0.000	18678	92.6
Aroclor-1254	3	9.672	0.003	30736	92.6	3	10.124	0.003	35321	80.2
Aroclor-1254	4	9.813	0.004	53537	82.3	4	10.387	0.015	35188	79.9
Aroclor-1254	5	10.192	0.015	40119	94.9	5	10.575	0.006	7386	30.1
Total Col1Ave (5 peaks):					115.3	Total Col2Ave (5 peaks):				72.9 RPD = 45*
Corrected Ave (4 peaks):					102.7	Corrected Ave (4 peaks):				67.9 RPD = 41*
Aroclor-1260	1	11.054	0.010	1868	3.4	1	11.664	0.011	2055	5.7
Aroclor-1260	2	11.366	0.005	1375	2.4	2	11.926	0.009	1303	1.4
Aroclor-1260	3	11.745	0.010	2137	1.4	3	12.439	0.003	395	1.7
Aroclor-1260	4	12.147	0.008	1650	2.1	4	12.507	0.005	890	1.5
Aroclor-1260	5	12.255	0.011	558	1.7	NS	---			----
Total Col1Ave (5 peaks):					2.2	Total Col2Ave (4 peaks):				2.6 RPD = 15
Corrected Ave (4 peaks):					1.9	Corrected Ave (3 peaks):				1.5 RPD = 22
Aroclor-1262	1	10.837	0.005	12736	32.2	1	11.122	-0.078	7136	14.5
Aroclor-1262	2	12.255	0.010	558	0.9	2	11.664	0.011	2055	4.9
Aroclor-1262	3	12.327	0.006	596	0.9	3	12.439	0.004	395	0.9
Aroclor-1262	4	12.996	0.007	1113	1.8	4	12.507	0.003	890	1.2
Total Col1Ave (4 peaks):					8.9	Total Col2Ave (4 peaks):				5.4 RPD = 50*
Corrected Ave (3 peaks):					1.2	Corrected Ave (3 peaks):				2.3 RPD = 65*
Aroclor-1268	1	12.255	0.010	558	0.3	1	12.439	0.005	395	0.3
Aroclor-1268	2	12.327	0.009	596	0.4	2	12.507	0.005	890	0.7
Aroclor-1268	3	12.706	0.007	1161	0.9	3	12.896	0.003	166	0.2
Aroclor-1268	4	13.504	0.016	3330	0.8	4	13.717	0.009	469	0.1
Total Col1Ave (4 peaks):					0.6	Total Col2Ave (4 peaks):				0.3 RPD = 57*
Corrected Ave (3 peaks):					0.5	Corrected Ave (3 peaks):				0.2 RPD = 83*

Total PCB Area Col1 (5.909 - 13.792) = 1230760 Col1 Total PCB = 0.2 ppm*

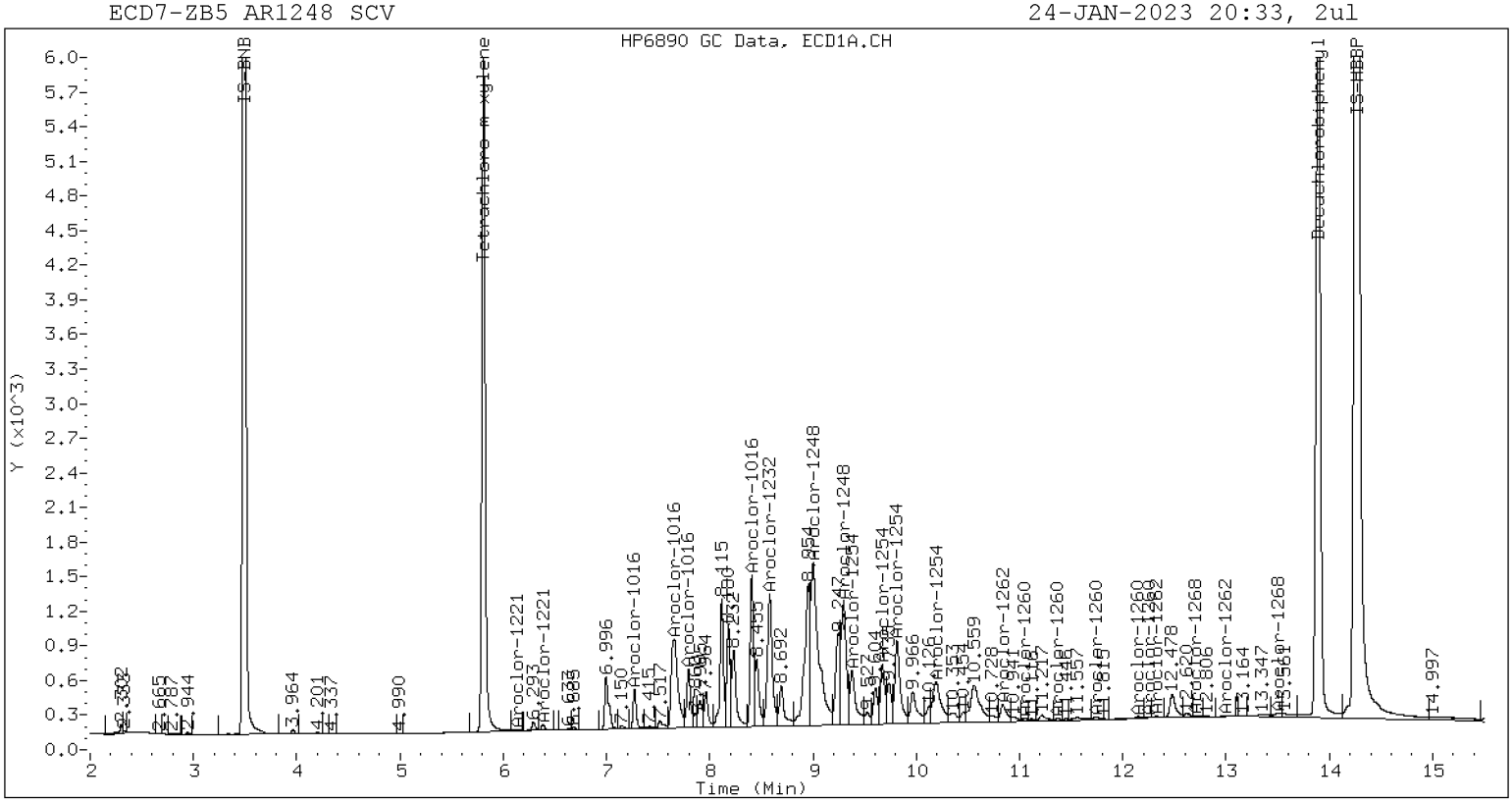
Total PCB Area Col2 (5.787 - 14.020) = 742749 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

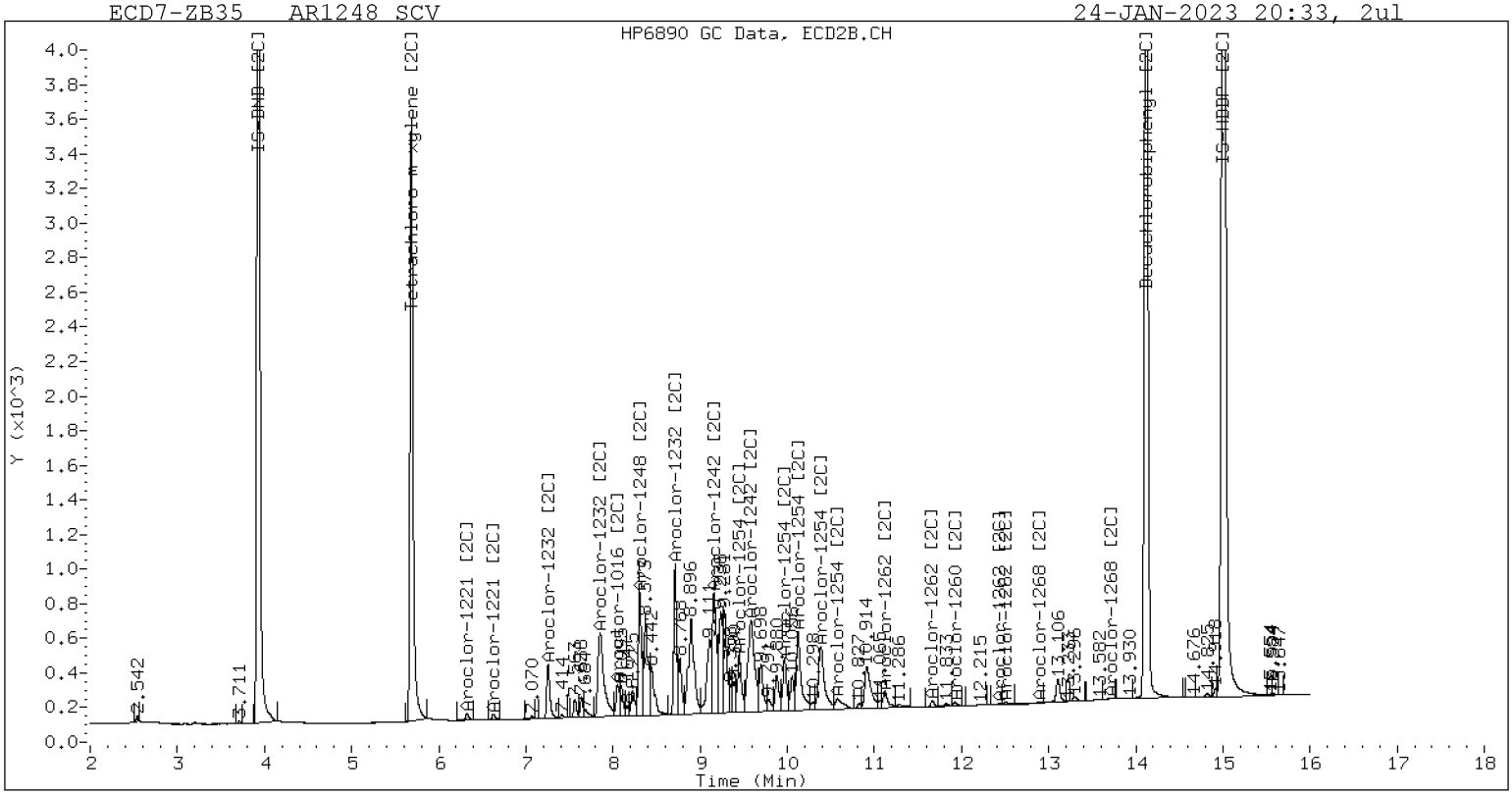
PCB Dual Column Chromatograms

ECD7-ZB5 AR1248 SCV 24-JAN-2023 20:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248 SCV 24-JAN-2023 20:33, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	01242327ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLA0281	Injection Date:	01/24/23
Lab Sample ID:	SLA0281-SCV4	Injection Time:	20:54
Sequence Name:	AR1254SCV4		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	221	0.0675033	0.0594048		-11.7	+/-20
Aroclor 1254 [2C]	A	250.00	227	0.0733219	0.0662023		-9.4	+/-20
Decachlorobiphenyl	A	40.000	37.1	0.8555994	0.7930764		-7.3	+/-20
Tetrachlorometaxylene	A	40.000	36.7	1.1307870	1.0364220		-8.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.5	1.2696430	1.2551640		-1.1	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.6	1.0814980	0.9904044		-8.4	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242327ECD7.D
Data file 2: /230124.b/230124.b/01242327ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254 SCV
Client ID:
Injection Date: 24-JAN-2023 20:54
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	261398	5.686	-0.001	169839	36.7	36.6	0.1	Tetrachloro-m-xylene
13.892	0.001	383983	14.121	0.001	323233	37.1	39.5	6.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	504424	0.2
Hexabromobiphenyl	647433	968338	49.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	342969	1.8
Hexabromobiphenyl	382032	515045	34.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.273	0.003	320	1.7	1	7.258	0.003	332	1.8
Aroclor-1016	2	7.658	0.008	991	1.6	2	---			0.0
Aroclor-1016	3	7.795	0.007	662	2.3	3	8.097	0.047	515	3.1
Aroclor-1016	4	8.408	0.005	21378	116.3	4	8.307	0.002	20446	156.8
	Total Col1Ave (4 peaks):				30.5	Total Col2Ave (3 peaks):				53.9 RPD = 55*
	Corrected Ave (3 peaks):				1.9	Corrected Ave: < 3 Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	6.325	0.026	1749	31.7
Aroclor-1221	3	---			0.0	3	6.633	0.011	321	3.5
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	7.258	0.001	332	3.9
Aroclor-1232	3	7.658	-0.000	991	3.8	3	---			0.0
Aroclor-1232	4	8.587	0.003	8887	79.1	4	8.715	0.001	14030	290.5
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	7.273	0.002	320	2.1	1	7.258	0.002	332	2.2
Aroclor-1242	2	7.658	0.003	991	2.0	2	---			0.0
Aroclor-1242	3	8.408	0.002	21378	142.3	3	9.164	0.004	26593	254.9
Aroclor-1242	4	8.587	0.006	8887	39.2	4	9.543	-0.043	34385	248.7
	Total Col1Ave (4 peaks):				46.4	Total Col2Ave (3 peaks):				168.6 RPD = 114*
	Corrected Ave (3 peaks):				14.4	Corrected Ave: < 3 Peaks				
Aroclor-1248	1	8.408	0.003	21378	84.7	1	8.307	0.001	20446	131.9
Aroclor-1248	2	8.587	0.007	8887	27.6	2	8.715	0.003	14030	84.1
Aroclor-1248	3	8.995	-0.004	110289	179.1	3	9.164	0.007	26593	130.4
Aroclor-1248	4	9.300	0.007	113143	371.2	4	9.543	-0.038	34385	136.4
	Total Col1Ave (4 peaks):				165.7	Total Col2Ave (4 peaks):				120.7 RPD = 31
	Corrected Ave (3 peaks):				97.2	Corrected Ave (3 peaks):				115.5 RPD = 17
Aroclor-1254	1	9.300	0.002	113143	220.1	1	9.449	0.001	56453	226.9
Aroclor-1254	2	9.379	0.001	49468	225.4	2	9.970	0.001	45325	225.4
Aroclor-1254	3	9.671	0.002	72811	221.0	3	10.122	0.002	97044	221.2
Aroclor-1254	4	9.811	0.002	140530	217.7	4	10.374	0.002	98778	225.2
Aroclor-1254	5	10.182	0.005	92254	219.8	5	10.570	0.001	57171	234.0
	Total Col1Ave (5 peaks):				220.8	Total Col2Ave (5 peaks):				226.5 RPD = 3
	Corrected Ave (4 peaks):				219.7	Corrected Ave (4 peaks):				224.7 RPD = 2
Aroclor-1260	1	11.045	0.002	8960	16.5	1	11.661	0.008	26985	72.6
Aroclor-1260	2	11.364	0.004	9237	16.5	2	11.923	0.006	19882	21.2
Aroclor-1260	3	11.741	0.007	21268	14.5	3	12.505	0.069	13190	56.3
Aroclor-1260	4	12.146	0.007	19041	25.1	4	---			0.0
Aroclor-1260	5	12.321	0.077	1835	5.5	NS	---			----
	Total Col1Ave (5 peaks):				15.6	Total Col2Ave (3 peaks):				50.0 RPD = 105*
	Corrected Ave (4 peaks):				13.3	Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.832	0.000	157590	402.4	1	11.119	-0.081	92414	183.3
Aroclor-1262	2	12.321	0.075	1835	3.0	2	11.661	0.008	26985	63.0
Aroclor-1262	3	---			0.0	3	12.505	0.071	13190	28.9
Aroclor-1262	4	12.995	0.006	843	1.4	4	---			0.0
	Total Col1Ave (3 peaks):				135.6	Total Col2Ave (3 peaks):				91.7 RPD = 39
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.321	0.076	1835	1.1	1	12.505	0.072	13190	11.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.720	0.021	1314	1.0	3	12.891	-0.002	169	0.2
Aroclor-1268	4	13.504	0.016	1169	0.3	4	13.706	-0.002	1132	0.3
	Total Col1Ave (3 peaks):				0.8	Total Col2Ave (3 peaks):				3.8 RPD = 130*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.909 - 13.792) = 1507519 Col1 Total PCB = 0.3 ppm*

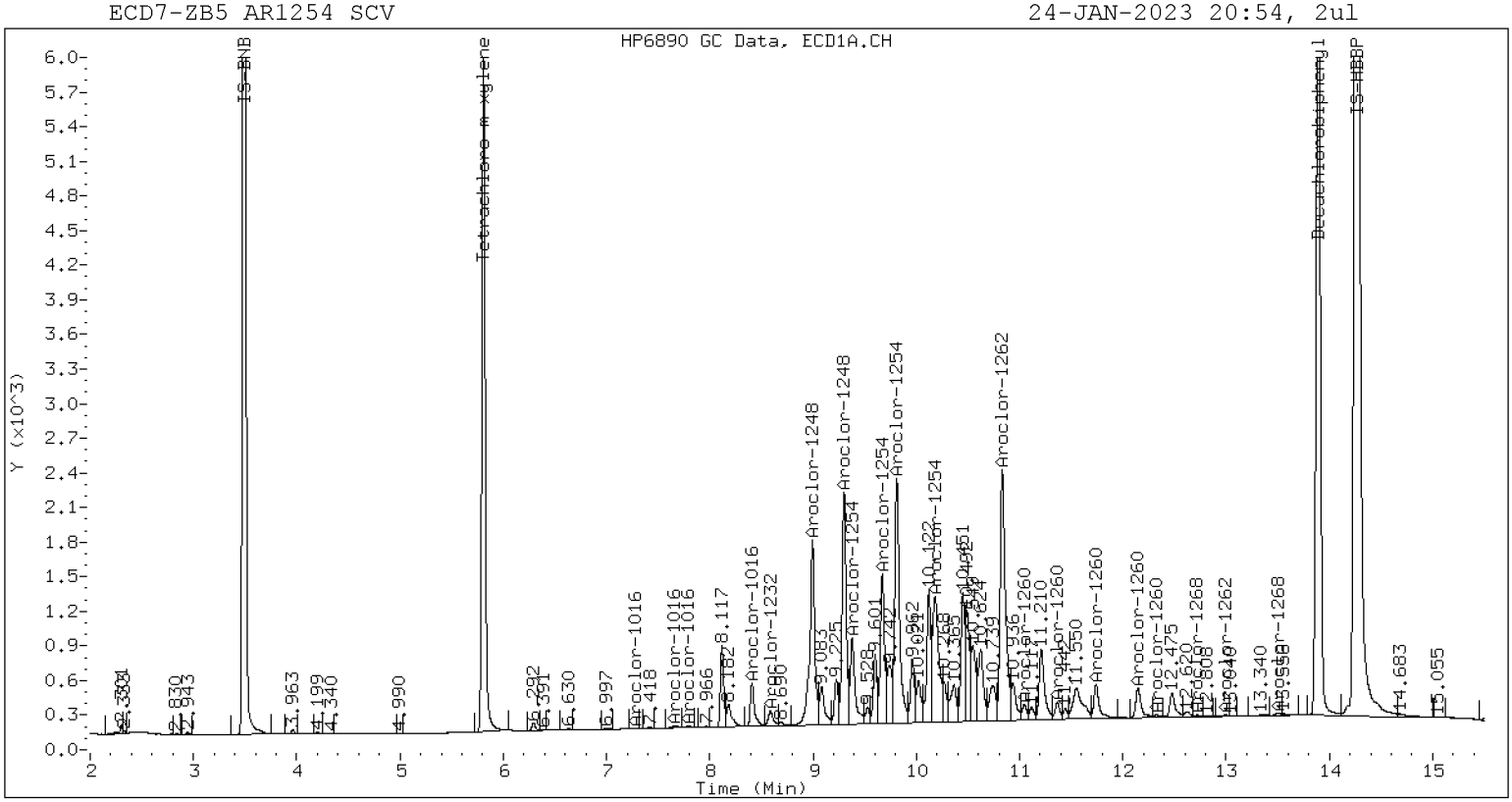
Total PCB Area Col2 (5.787 - 14.020) = 951047 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

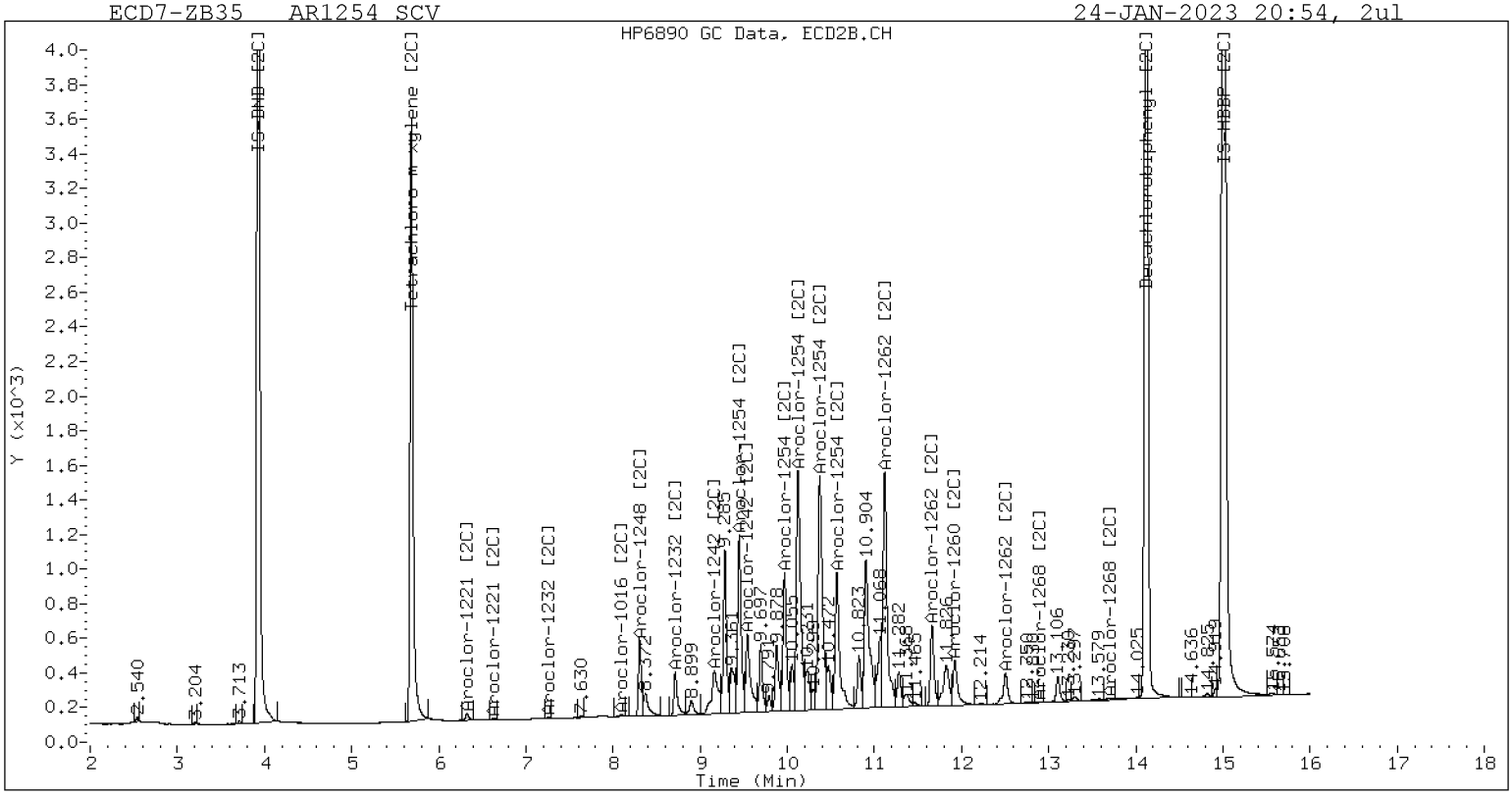
PCB Dual Column Chromatograms

ECD7-ZB5 AR1254 SCV 24-JAN-2023 20:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254 SCV 24-JAN-2023 20:54, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	01242328ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLA0281	Injection Date:	01/24/23
Lab Sample ID:	SLA0281-SCV5	Injection Time:	21:15
Sequence Name:	AR2162SCV5		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1221	A	250.00	228	0.0153579	0.0138791		-8.8	+/-20
Aroclor 1221 [2C]	A	250.00	239	0.0134687	0.0127460		-4.5	+/-20
Decachlorobiphenyl	A	40.000	37.5	0.8555994	0.8010750		-6.4	+/-20
Tetrachlorometaxylene	A	40.000	37.3	1.1307870	1.0541060		-6.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.5	1.2696430	1.2528610		-1.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.2	1.0814980	1.0047210		-7.1	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242328ECD7.D
Data file 2: /230124.b/230124.b/01242328ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162 SCV
Client ID:
Injection Date: 24-JAN-2023 21:15
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	-0.000	265357	5.685	-0.001	170984	37.3	37.2	0.3	Tetrachloro-m-xylene
13.891	-0.001	397332	14.119	-0.001	326981	37.5	39.5	5.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503473	0.0
Hexabromobiphenyl	647433	991997	53.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	340361	1.0
Hexabromobiphenyl	382032	521975	36.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.272	0.002	5326	28.5	1	7.257	0.002	6708	36.3
Aroclor-1016	2	7.664	0.013	11965	19.3	2	7.856	0.005	7233	17.9
Aroclor-1016	3	7.797	0.009	6015	21.1	3	8.058	0.008	2997	18.2
Aroclor-1016	4	8.410	0.006	3771	20.6	4	8.308	0.002	2065	16.0
Total Col1Ave (4 peaks):					22.4	Total Col2Ave (4 peaks):				22.1 RPD = 1
Corrected Ave (3 peaks):					20.3	Corrected Ave (3 peaks):				17.3 RPD = 16
Aroclor-1221	1	4.732	-0.000	9097	244.5	1	4.959	-0.000	6157	246.8
Aroclor-1221	2	6.133	-0.000	16114	211.8	2	6.297	-0.001	12807	234.2
Aroclor-1221	3	6.384	0.000	40299	228.1	3	6.622	-0.000	21707	235.2
Total Col1Ave (3 peaks):					228.1	Total Col2Ave (3 peaks):				238.7 RPD = 5
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.732	-0.001	9097	391.6	1	4.959	-0.001	6157	406.9
Aroclor-1232	2	6.133	0.000	16114	307.8	2	7.257	0.000	6708	79.2
Aroclor-1232	3	7.664	0.005	11965	45.7	3	7.856	0.001	7233	41.9
Aroclor-1232	4	8.589	0.004	2837	25.3	4	8.716	0.002	1869	39.0
Total Col1Ave (4 peaks):					192.6	Total Col2Ave (4 peaks):				141.7 RPD = 30
Corrected Ave (3 peaks):					126.3	Corrected Ave (3 peaks):				53.4 RPD = 81*
Aroclor-1242	1	7.272	0.001	5326	34.5	1	7.257	0.001	6708	45.1
Aroclor-1242	2	7.664	0.008	11965	23.7	2	7.856	0.003	7233	21.9
Aroclor-1242	3	8.410	0.004	3771	25.2	3	9.169	0.009	1956	18.9
Aroclor-1242	4	8.589	0.007	2837	12.5	4	9.544	-0.043	5978	43.6
Total Col1Ave (4 peaks):					24.0	Total Col2Ave (4 peaks):				32.3 RPD = 30
Corrected Ave (3 peaks):					20.5	Corrected Ave (3 peaks):				28.1 RPD = 31
Aroclor-1248	1	8.410	0.005	3771	15.0	1	8.308	0.002	2065	13.4
Aroclor-1248	2	8.589	0.008	2837	8.8	2	8.716	0.004	1869	11.3
Aroclor-1248	3	8.997	-0.002	36022	58.6	3	9.169	0.012	1956	9.7
Aroclor-1248	4	9.305	0.011	30853	101.4	4	9.544	-0.038	5978	23.9
Total Col1Ave (4 peaks):					46.0	Total Col2Ave (4 peaks):				14.6 RPD = 104*
Corrected Ave (3 peaks):					27.5	Corrected Ave (3 peaks):				11.5 RPD = 82*
Aroclor-1254	1	9.305	0.006	30853	60.1	1	9.451	0.003	17617	71.3
Aroclor-1254	2	9.376	-0.002	5370	24.5	2	9.970	0.001	2849	14.3
Aroclor-1254	3	9.673	0.003	5543	16.9	3	10.146	0.026	88151	202.5
Aroclor-1254	4	9.810	0.002	14544	22.6	4	10.370	-0.002	107074	245.9
Aroclor-1254	5	10.121	-0.056	180016	429.7	5	10.567	-0.002	141725	584.5
Total Col1Ave (5 peaks):					110.8	Total Col2Ave (5 peaks):				223.7 RPD = 68*
Corrected Ave (4 peaks):					31.0	Corrected Ave (4 peaks):				133.5 RPD = 125*
Aroclor-1260	1	11.044	0.001	310806	558.4	1	11.652	-0.001	187682	498.4
Aroclor-1260	2	11.361	0.000	263161	460.0	2	11.917	-0.000	450612	473.0
Aroclor-1260	3	11.735	0.000	629605	418.0	3	12.433	-0.003	206042	867.7
Aroclor-1260	4	12.141	0.001	210012	269.9	4	12.502	-0.000	326457	529.5
Aroclor-1260	5	12.244	-0.000	268425	791.3	NS	---			----
Total Col1Ave (5 peaks):					499.5	Total Col2Ave (4 peaks):				592.1 RPD = 17
Corrected Ave (4 peaks):					426.6	Corrected Ave (3 peaks):				500.3 RPD = 16
Aroclor-1262	1	10.828	-0.005	171094	426.5	1	11.200	0.000	219731	430.1
Aroclor-1262	2	12.244	-0.002	268425	423.9	2	11.652	-0.001	187682	432.0
Aroclor-1262	3	12.319	-0.002	291581	424.2	3	12.433	-0.001	206042	445.4
Aroclor-1262	4	12.988	-0.001	257735	411.5	4	12.502	-0.002	326457	440.6
Total Col1Ave (4 peaks):					421.5	Total Col2Ave (4 peaks):				437.0 RPD = 4
Corrected Ave (3 peaks):					419.8	Corrected Ave (3 peaks):				434.3 RPD = 3
Aroclor-1268	1	12.244	-0.001	268425	163.8	1	12.433	-0.000	206042	169.0
Aroclor-1268	2	12.319	0.001	291581	178.4	2	12.502	0.000	326457	251.7
Aroclor-1268	3	12.725	0.026	108693	80.3	3	12.892	-0.001	10062	9.3
Aroclor-1268	4	13.486	-0.003	95646	23.8	4	13.710	0.001	59437	17.8
Total Col1Ave (4 peaks):					111.6	Total Col2Ave (4 peaks):				112.0 RPD = 0

Corrected Ave (3 peaks): 89.3 Corrected Ave (3 peaks): 65.4 RPD = 31

Total PCB Area Col1 (5.909 - 13.792) = 4409992 Col1 Total PCB = 0.8 ppm*

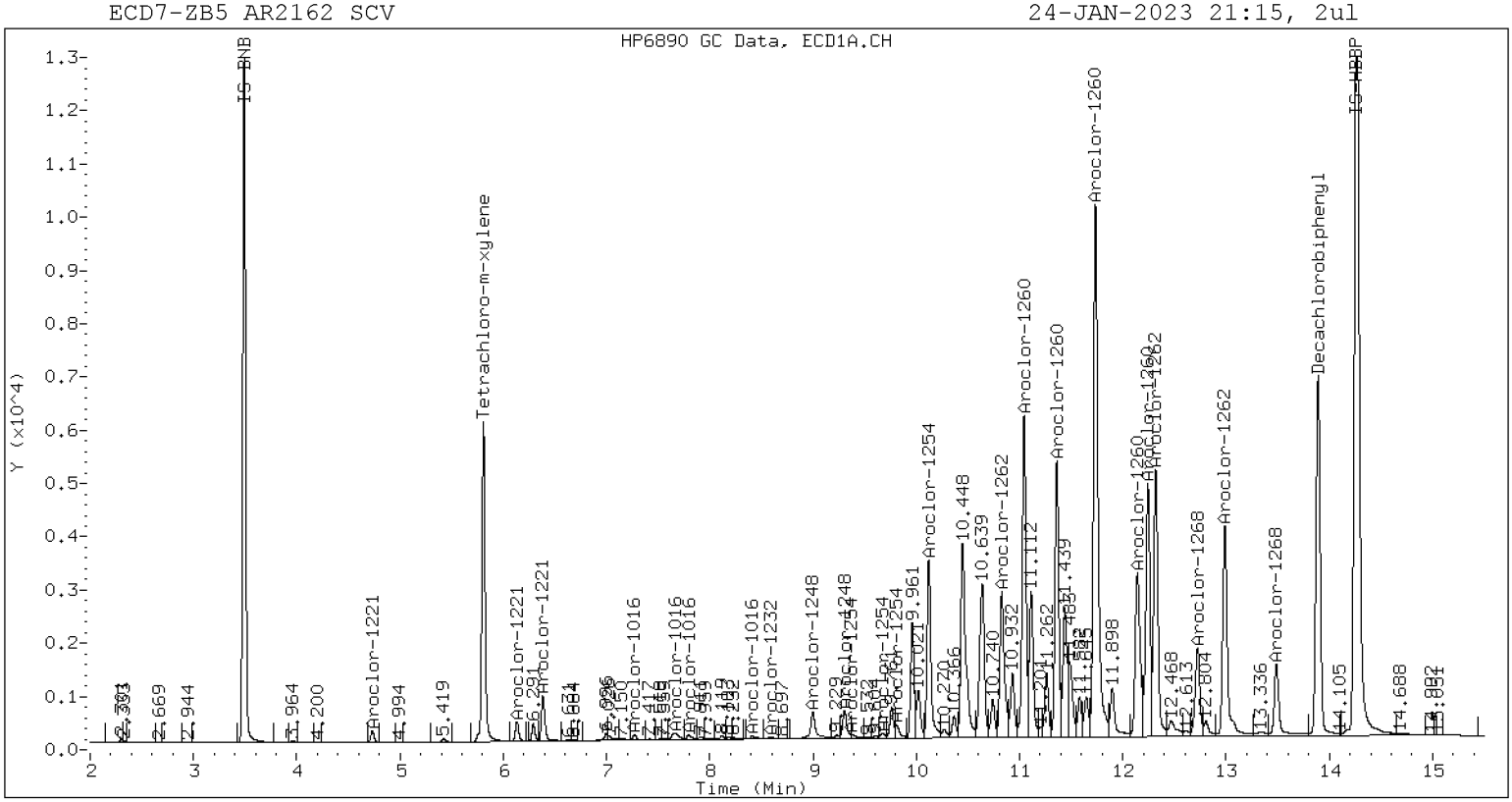
Total PCB Area Col2 (5.787 - 14.020) = 2874073 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

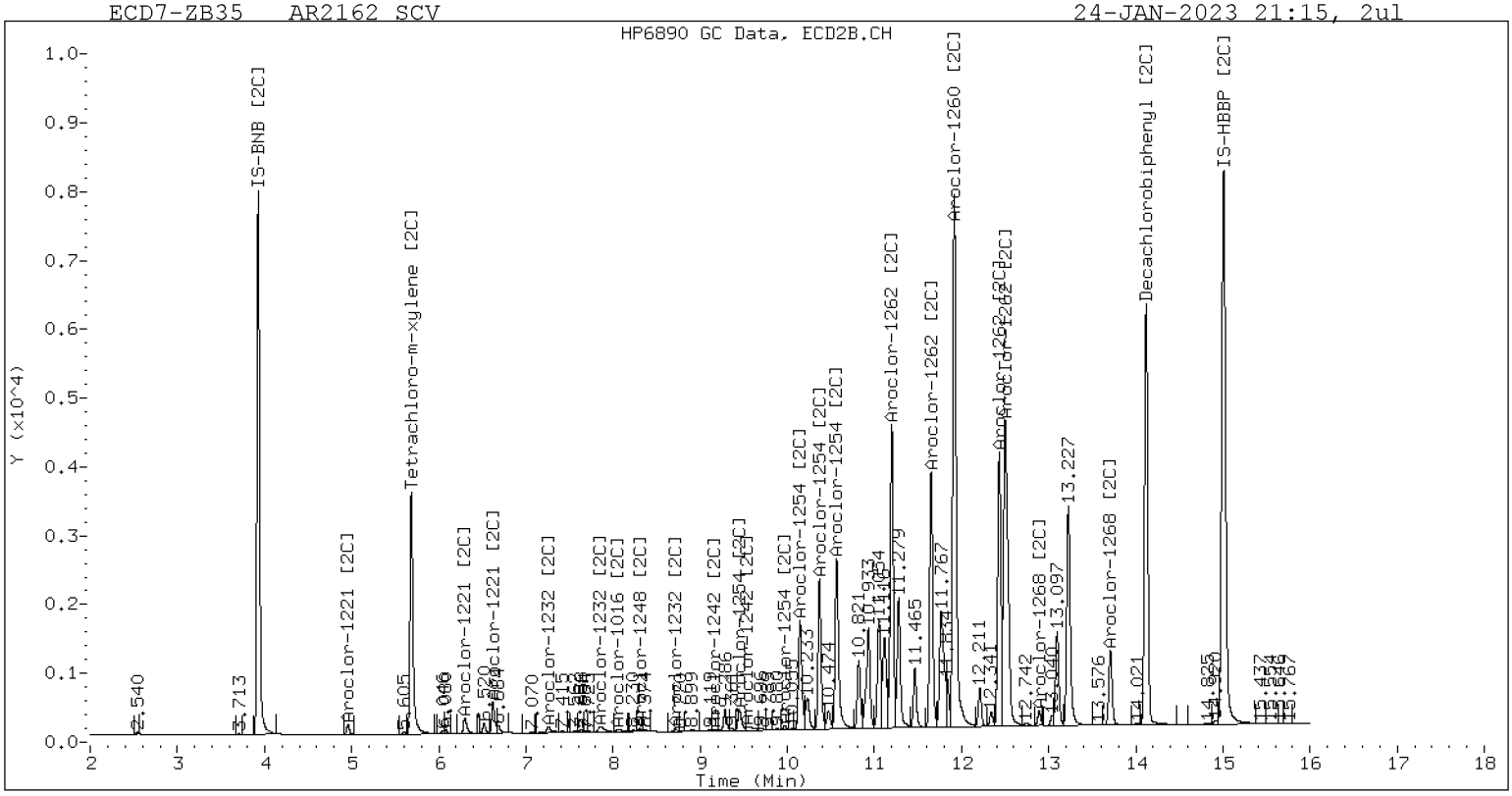
PCB Dual Column Chromatograms

ECD7-ZB5 AR2162 SCV 24-JAN-2023 21:15, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162 SCV 24-JAN-2023 21:15, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	01242329ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLA0281	Injection Date:	01/24/23
Lab Sample ID:	SLA0281-SCV6	Injection Time:	21:36
Sequence Name:	AR3268SCV6		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1232	A	250.00	216	0.0178560	0.0160358		-13.7	+/-20
Aroclor 1232 [2C]	A	250.00	239	0.0188178	0.0180429		-4.5	+/-20
Decachlorobiphenyl	A	40.000	54.6	0.8555994	1.1682210		36.5	+/-20
Tetrachlorometaxylene	A	40.000	36.4	1.1307870	1.0284340		-9.1	+/-20
Decachlorobiphenyl [2C]	A	40.000	57.9	1.2696430	1.8387740		44.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.3	1.0814980	0.9815176		-9.2	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242329ECD7.D
Data file 2: /230124.b/230124.b/01242329ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268 SCV
Client ID:
Injection Date: 24-JAN-2023 21:36
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.810	0.001	250455	5.687	0.000	162795	36.4	36.3	0.2	Tetrachloro-m-xylene
13.892	0.000	551946	14.120	0.000	461901	54.6	57.9	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	487061	-3.2
Hexabromobiphenyl	647433	944934	46.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	331721	-1.5
Hexabromobiphenyl	382032	502401	31.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016 1	7.272	0.002	19363	107.0	1	7.256	0.001	19791	110.0
Aroclor-1016 2	7.659	0.009	58630	97.8	2	7.856	0.005	40139	101.8
Aroclor-1016 3	7.794	0.006	28286	102.5	3	8.055	0.005	17412	108.2
Aroclor-1016 4	8.408	0.004	17373	97.9	4	8.308	0.003	11962	94.8
Total Col1Ave (4 peaks):				101.3	Total Col2Ave (4 peaks):				103.7 RPD = 2
Corrected Ave (3 peaks):				99.4	Corrected Ave (3 peaks):				101.6 RPD = 2
Aroclor-1221 1	4.735	0.002	5022	139.5	1	4.961	0.002	3409	140.2
Aroclor-1221 2	6.134	0.001	8987	122.1	2	6.299	0.001	7677	144.1
Aroclor-1221 3	6.385	0.001	29368	171.8	3	6.624	0.001	16198	180.1
Total Col1Ave (3 peaks):				144.5	Total Col2Ave (3 peaks):				154.8 RPD = 7
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232 1	4.735	0.002	5022	223.5	1	4.961	0.002	3409	231.1
Aroclor-1232 2	6.134	0.001	8987	177.4	2	7.256	-0.001	19791	239.8
Aroclor-1232 3	7.659	0.001	58630	231.5	3	7.856	0.001	40139	238.8
Aroclor-1232 4	8.585	0.000	24991	230.5	4	8.715	0.001	11476	245.7
Total Col1Ave (4 peaks):				215.7	Total Col2Ave (4 peaks):				238.8 RPD = 10
Corrected Ave (3 peaks):				210.5	Corrected Ave (3 peaks):				236.6 RPD = 12
Aroclor-1242 1	7.272	0.001	19363	129.8	1	7.256	0.000	19791	136.4
Aroclor-1242 2	7.659	0.004	58630	120.1	2	7.856	0.002	40139	124.6
Aroclor-1242 3	8.408	0.001	17373	119.8	3	9.166	0.006	11813	117.1
Aroclor-1242 4	8.585	0.003	24991	114.1	4	9.595	0.009	16549	123.7
Total Col1Ave (4 peaks):				121.0	Total Col2Ave (4 peaks):				125.4 RPD = 4
Corrected Ave (3 peaks):				118.0	Corrected Ave (3 peaks):				121.8 RPD = 3
Aroclor-1248 1	8.408	0.002	17373	71.3	1	8.308	0.003	11962	79.8
Aroclor-1248 2	8.585	0.005	24991	80.4	2	8.715	0.003	11476	71.1
Aroclor-1248 3	9.001	0.002	67631	113.8	3	9.166	0.009	11813	59.9
Aroclor-1248 4	9.293	-0.001	30983	105.3	4	9.595	0.014	16549	67.9
Total Col1Ave (4 peaks):				92.7	Total Col2Ave (4 peaks):				69.7 RPD = 28
Corrected Ave (3 peaks):				85.7	Corrected Ave (3 peaks):				66.3 RPD = 26
Aroclor-1254 1	9.293	-0.006	30983	62.4	1	9.451	0.003	3749	15.6
Aroclor-1254 2	9.381	0.003	9071	42.8	2	9.974	0.005	2452	12.6
Aroclor-1254 3	9.678	0.009	5199	16.3	3	10.131	0.010	4718	11.1
Aroclor-1254 4	9.820	0.012	8864	14.2	4	10.389	0.018	4224	10.0
Aroclor-1254 5	10.195	0.018	8085	19.9	5	10.573	0.004	1573	6.7
Total Col1Ave (5 peaks):				31.1	Total Col2Ave (5 peaks):				11.2 RPD = 94*
Corrected Ave (4 peaks):				23.3	Corrected Ave (4 peaks):				10.1 RPD = 79*
Aroclor-1260 1	11.050	0.006	66852	126.1	1	11.647	-0.006	57235	157.9
Aroclor-1260 2	11.366	0.006	6269	11.5	2	11.919	0.002	25368	27.7
Aroclor-1260 3	11.741	0.007	41446	28.9	3	12.434	-0.002	262014	1146.4
Aroclor-1260 4	12.052	-0.088	2691	3.6	4	12.502	-0.000	277060	466.9
Aroclor-1260 5	12.245	0.002	349286	1080.9	NS	---			----
Total Col1Ave (5 peaks):				250.2	Total Col2Ave (4 peaks):				449.7 RPD = 57*
Corrected Ave (4 peaks):				42.5	Corrected Ave (3 peaks):				217.5 RPD = 135*
Aroclor-1262 1	10.838	0.006	4520	11.8	1	11.203	0.003	40576	82.5
Aroclor-1262 2	12.245	-0.000	349286	579.1	2	11.647	-0.006	57235	136.9
Aroclor-1262 3	12.318	-0.002	349715	534.1	3	12.434	-0.001	262014	588.4
Aroclor-1262 4	12.988	-0.001	141905	237.8	4	12.502	-0.002	277060	388.5
Total Col1Ave (4 peaks):				340.7	Total Col2Ave (4 peaks):				299.1 RPD = 13
Corrected Ave (3 peaks):				261.2	Corrected Ave (3 peaks):				202.6 RPD = 25
Aroclor-1268 1	12.245	0.001	349286	223.8	1	12.434	0.000	262014	223.3
Aroclor-1268 2	12.318	0.000	349715	224.6	2	12.502	0.000	277060	221.9
Aroclor-1268 3	12.699	0.000	289328	224.3	3	12.893	-0.000	208928	201.0
Aroclor-1268 4	13.490	0.001	849299	222.1	4	13.710	0.002	725831	226.1
Total Col1Ave (4 peaks):				223.7	Total Col2Ave (4 peaks):				218.1 RPD = 3

Corrected Ave (3 peaks): 223.4 Corrected Ave (3 peaks): 215.4 RPD = 4

Total PCB Area Col1 (5.909 - 13.792) = 2866092 Col1 Total PCB = 0.5 ppm*

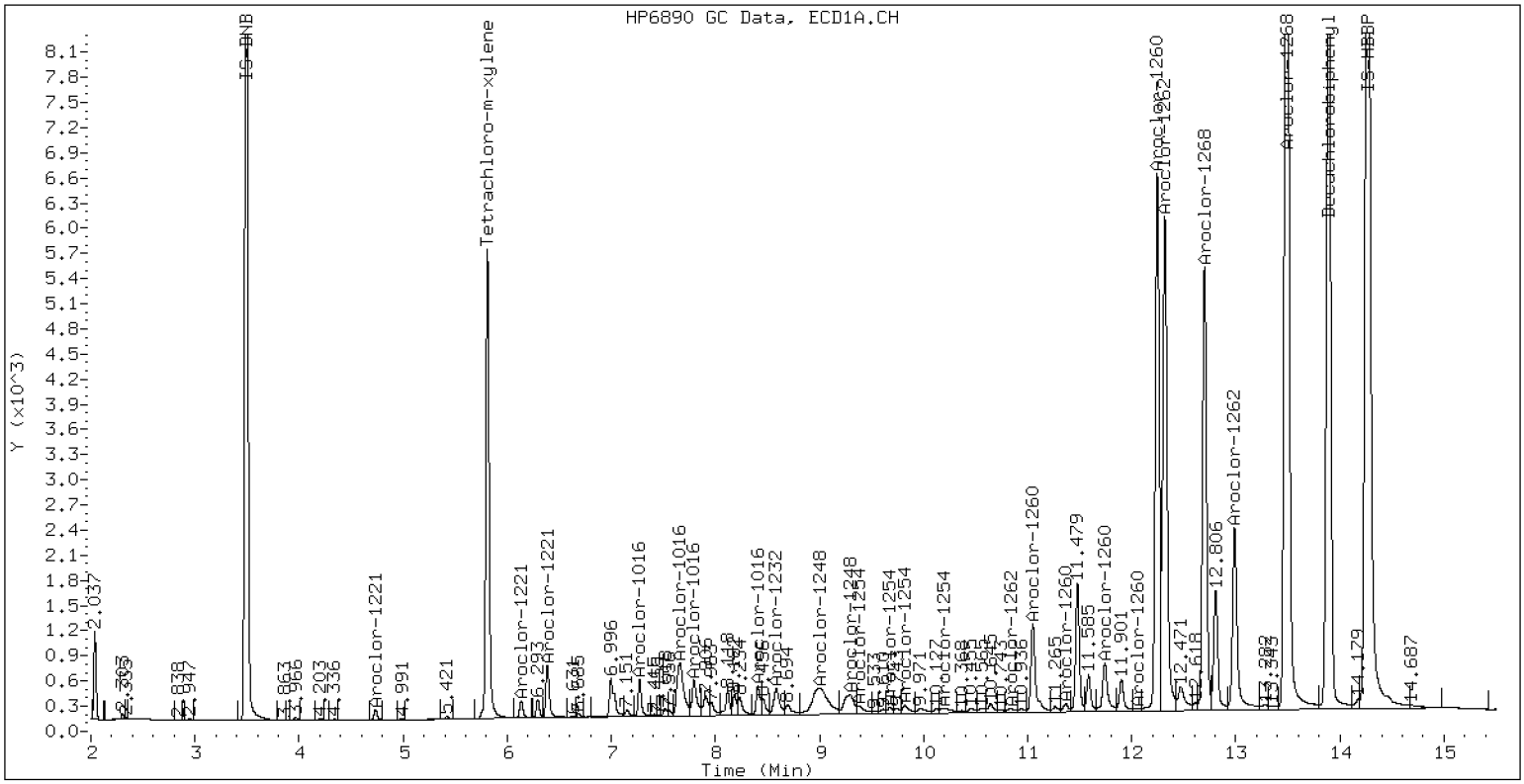
Total PCB Area Col2 (5.787 - 14.020) = 2084481 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

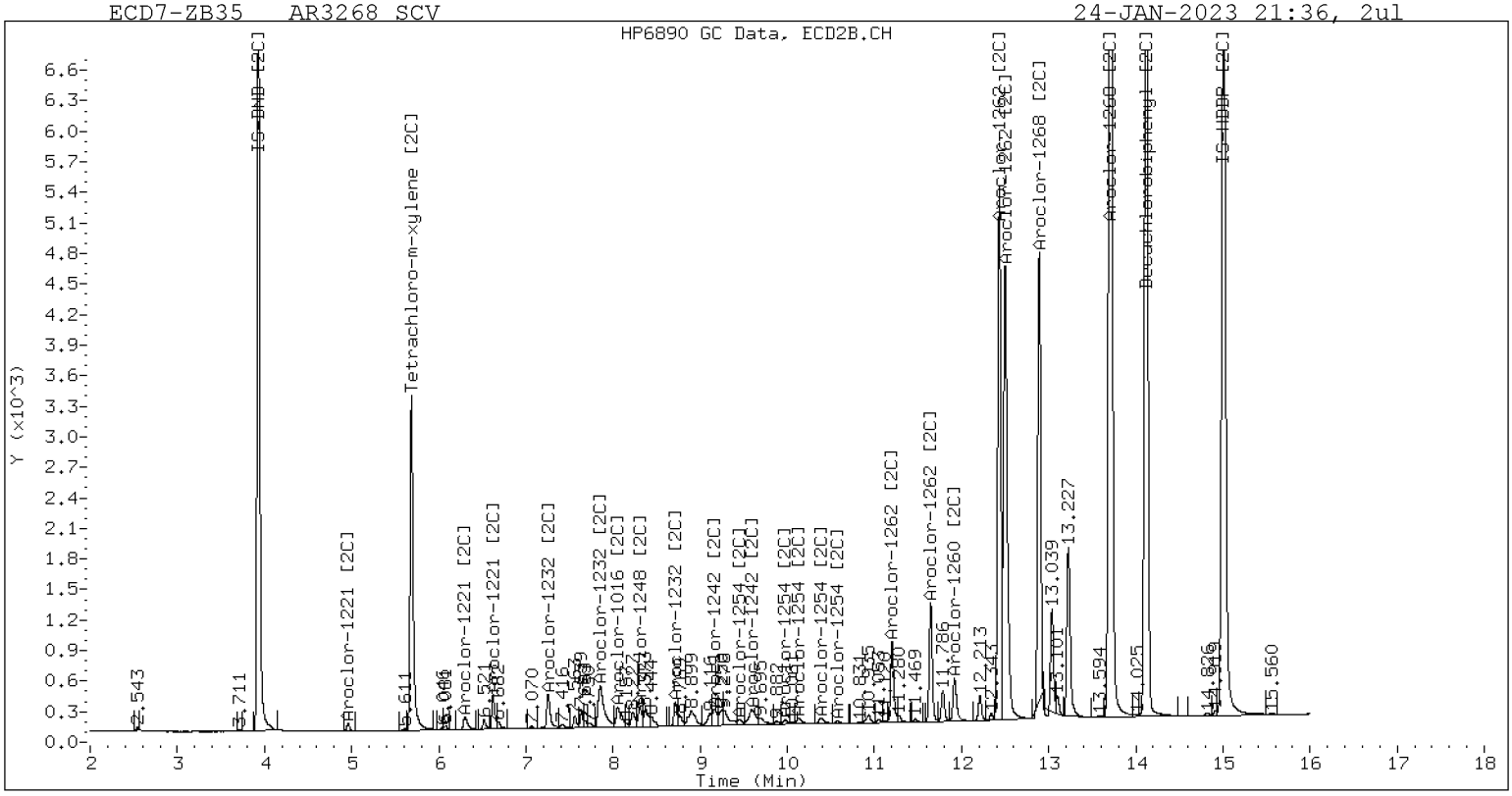
PCB Dual Column Chromatograms

ECD7-ZB5 AR3268 SCV 24-JAN-2023 21:36, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268 SCV 24-JAN-2023 21:36, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	02132324ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLB0168	Injection Date:	02/13/23
Lab Sample ID:	SLB0168-CCV3	Injection Time:	17:58
Sequence Name:	AR1242CCV3		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	234	0.0389249	0.0384356		-6.4	
Aroclor-1242 (1)	A	250.00	237		0.0232694			
Aroclor-1242 (2)	A	250.00	233		0.0747668			
Aroclor-1242 (3)	A	250.00	236		0.0225328			
Aroclor-1242 (4)	A	250.00	230		0.0331735			
Aroclor 1242 [2C]	A	250.00	236	0.0405023	0.0399911		-5.6	
Aroclor-1242 (1) [2C]	A	250.00	245		0.0342834			
Aroclor-1242 (2) [2C]	A	250.00	236		0.0734751			
Aroclor-1242 (3) [2C]	A	250.00	240		0.0233706			
Aroclor-1242 (4) [2C]	A	250.00	223		0.0288352			
Decachlorobiphenyl	A	40.000	30.6	0.8555994	0.6552115		-23.5	
Tetrachlorometaxylene	A	40.000	46.3	1.1307870	1.3094560		15.8	
Decachlorobiphenyl [2C]	A	40.000	32.7	1.2696430	1.0393810		-18.3	
Tetrachlorometaxylene [2C]	A	40.000	45.6	1.0814980	1.2319680		14.0	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230213.b/02132324ECD7.D
Data file 2: /230213.b/230213.b/02132324ECD7.D
Method: \\target\share\chem4\ecd7.i\230213.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV3
Client ID:
Injection Date: 13-FEB-2023 17:58
Report Date: 02/14/2023 10:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.807	-0.001	289814	5.683	-0.001	226740	46.3	45.6	1.6	Tetrachloro-m-xylene
13.890	0.002	312930	14.117	0.000	315900	30.6	32.7	6.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	442648	-12.1
Hexabromobiphenyl	647433	955203	47.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	368094	9.3
Hexabromobiphenyl	382032	607862	59.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.268	-0.002	32188	237.5	1	7.251	-0.001	39436	245.0
Aroclor-1242	2	7.651	-0.004	103423	233.2	2	7.849	-0.000	84518	236.4
Aroclor-1242	3	8.402	-0.004	31169	236.5	3	9.155	0.001	26883	240.1
Aroclor-1242	4	8.576	-0.006	45888	230.5	4	9.582	0.003	33169	223.5
Total Col1Ave (4 peaks):					234.4	Total Col2Ave (4 peaks):				236.2 RPD = 1
Corrected Ave (3 peaks):					233.4	Corrected Ave (3 peaks):				233.3 RPD = 0
CalAmt %D:					-6.2	CalAmt %D:				-5.5

Total PCB Area Col1 (5.908 - 13.788) = 784162 Col1 Total PCB = 0.2 ppm*

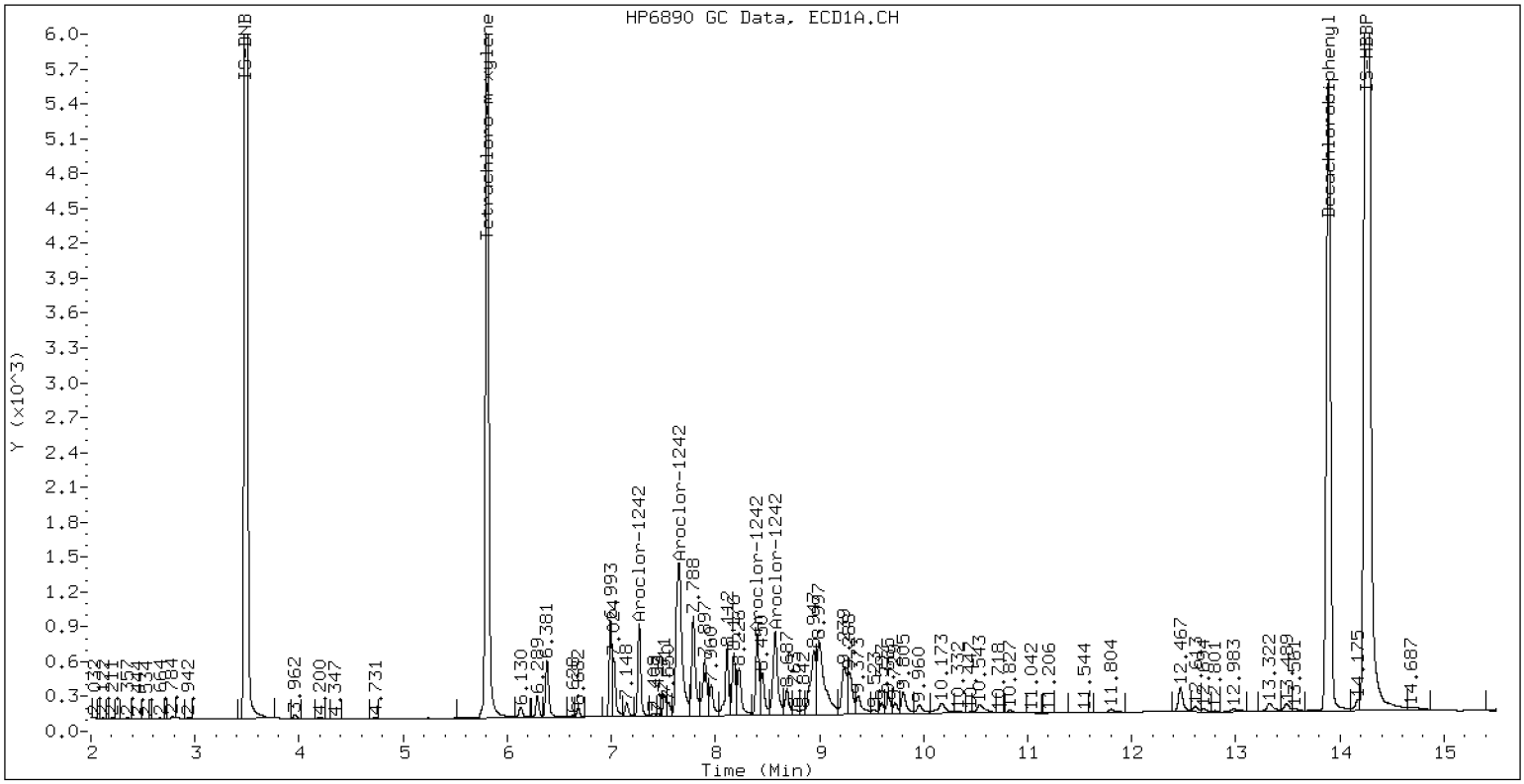
Total PCB Area Col2 (5.784 - 14.017) = 626247 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

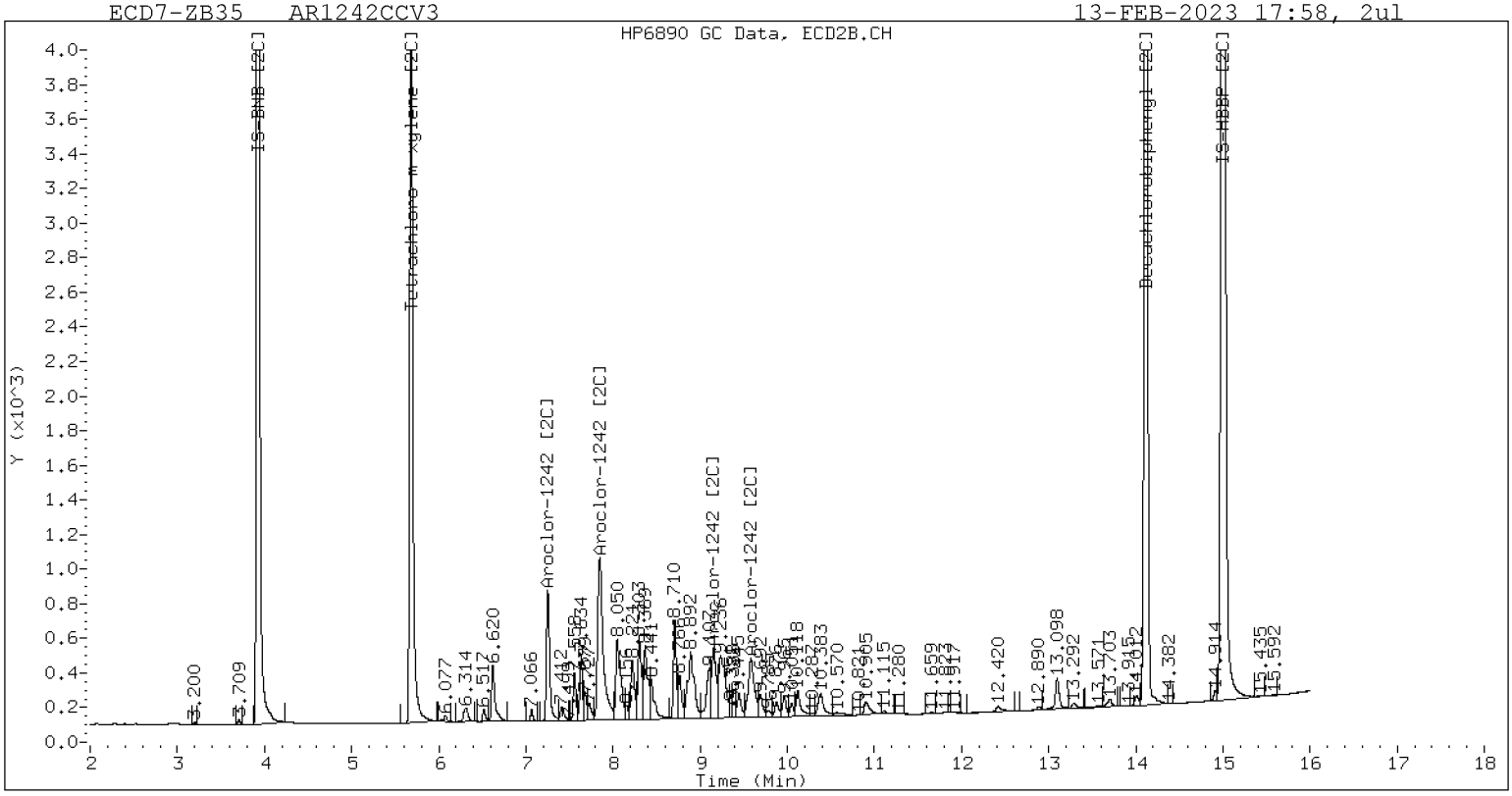
PCB Dual Column Chromatograms

ECD7-ZB5 AR1242CCV3 13-FEB-2023 17:58, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242CCV3 13-FEB-2023 17:58, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	02132325ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLB0168	Injection Date:	02/13/23
Lab Sample ID:	SLB0168-CCV4	Injection Time:	18:19
Sequence Name:	AR1660CCV4		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	238	0.0506755	0.0482245		-4.7	
Aroclor-1016 (1)	A	250.00	244	0.0297277	0.0289866		-2.4	
Aroclor-1016 (2)	A	250.00	240	0.0985017	0.0946869		-4.0	
Aroclor-1016 (3)	A	250.00	225	0.0453193	0.0407465		-10.0	
Aroclor-1016 (4)	A	250.00	244	0.0291533	0.0284779		-2.4	
Aroclor 1016 [2C]	A	250.00	244	0.0519244	0.0505058		-2.4	
Aroclor-1016 (1) [2C]	A	250.00	241	0.0433907	0.0417836		-3.6	
Aroclor-1016 (2) [2C]	A	250.00	241	0.0950862	0.0917974		-3.6	
Aroclor-1016 (3) [2C]	A	250.00	250	0.0388014	0.0387647		0.0	
Aroclor-1016 (4) [2C]	A	250.00	244	0.0304194	0.0296773		-2.4	
Aroclor 1260	A	250.00	163	0.0605224	0.0397175		-34.7	
Aroclor-1260 (1)	A	250.00	163	0.0448870	0.0292077		-34.8	
Aroclor-1260 (2)	A	250.00	166	0.0461412	0.0305469		-33.6	
Aroclor-1260 (3)	A	250.00	166	0.1214672	0.0804395		-33.6	
Aroclor-1260 (4)	A	250.00	165	0.0627593	0.0413488		-34.0	
Aroclor-1260 (5)	A	250.00	156	0.0273573	0.0170445		-37.6	
Aroclor 1260 [2C]	A	250.00	188	0.0836545	0.0624628		-25.0	
Aroclor-1260 (1) [2C]	A	250.00	180	0.0577136	0.0415950		-28.0	
Aroclor-1260 (2) [2C]	A	250.00	185	0.1460113	0.1082290		-26.0	
Aroclor-1260 (3) [2C]	A	250.00	196	0.0363944	0.0285366		-21.6	
Aroclor-1260 (4) [2C]	A	250.00	189	0.0944986	0.0714904		-24.4	
Decachlorobiphenyl	A	40.000	33.5	0.8555994	0.7165933		-16.3	
Tetrachlorometaxylene	A	40.000	40.0	1.1307870	1.1306110		0.0	
Decachlorobiphenyl [2C]	A	40.000	35.2	1.2696430	1.1163560		-12.0	
Tetrachlorometaxylene [2C]	A	40.000	39.0	1.0814980	1.0555350		-2.5	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230213.b/02132325ECD7.D
Data file 2: /230213.b/230213.b/02132325ECD7.D
Method: \\target\share\chem4\ecd7.i\230213.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV4
Client ID:
Injection Date: 13-FEB-2023 18:19
Report Date: 02/14/2023 10:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.806	-0.002	251414	5.683	-0.002	193280	40.0	39.0	2.4	Tetrachloro-m-xylene
13.890	0.001	338002	14.116	-0.001	340877	33.5	35.2	4.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	444740	-11.6
Hexabromobiphenyl	647433	943358	45.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	366222	8.7
Hexabromobiphenyl	382032	610696	59.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.268	-0.000	40286	243.8	1	7.251	-0.001	47819	240.7	
Aroclor-1016	2	7.650	0.001	131597	240.3	2	7.848	-0.000	105057	241.4	
Aroclor-1016	3	7.787	-0.000	56630	224.8	3	8.049	-0.000	44364	249.8	
Aroclor-1016	4	8.401	-0.000	39579	244.2	4	8.302	-0.001	33964	243.9	
Total Col1Ave (4 peaks):					238.3	Total Col2Ave (4 peaks):				243.9	RPD = 2
Corrected Ave (3 peaks):					236.3	Corrected Ave (3 peaks):				242.0	RPD = 2
CalAmt %D:					-4.7	CalAmt %D:				-2.4	
Aroclor-1260	1	11.041	0.001	86104	162.7	1	11.649	0.000	79381	180.2	
Aroclor-1260	2	11.357	0.002	90052	165.5	2	11.913	0.000	206547	185.3	
Aroclor-1260	3	11.731	0.003	237135	165.6	3	12.431	-0.000	54460	196.0	
Aroclor-1260	4	12.135	0.002	121896	164.7	4	12.498	0.002	136434	189.1	
Aroclor-1260	5	12.241	0.000	50247	155.8	NS	---			----	
Total Col1Ave (5 peaks):					162.8	Total Col2Ave (4 peaks):				187.7	RPD = 14
Corrected Ave (4 peaks):					162.2	Corrected Ave (3 peaks):				184.9	RPD = 13
CalAmt %D:					-34.9	CalAmt %D:				-24.9	

Total PCB Area Col1 (5.908 - 13.788) = 2467607 Col1 Total PCB = 0.5 ppm*

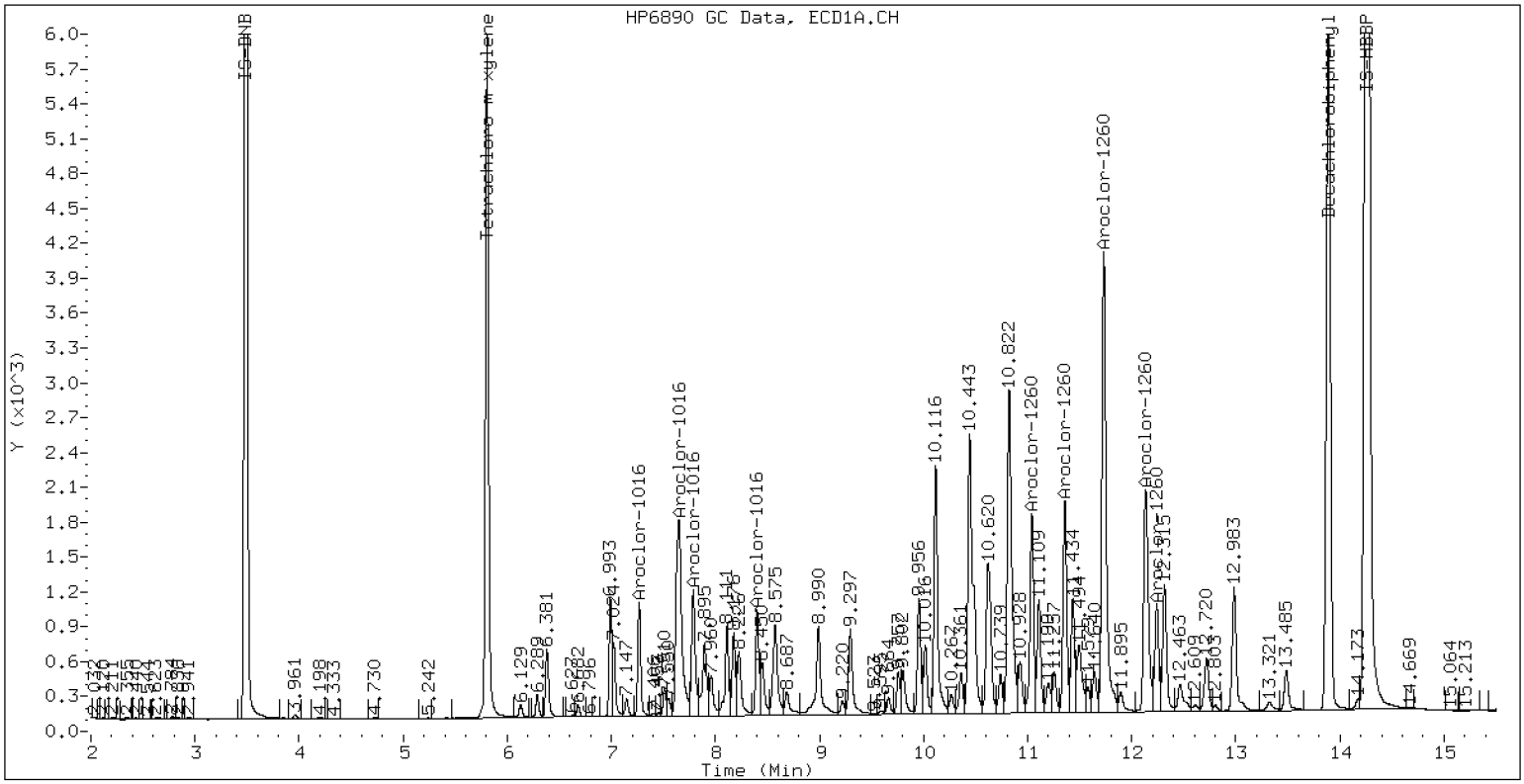
Total PCB Area Col2 (5.784 - 14.017) = 1911086 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

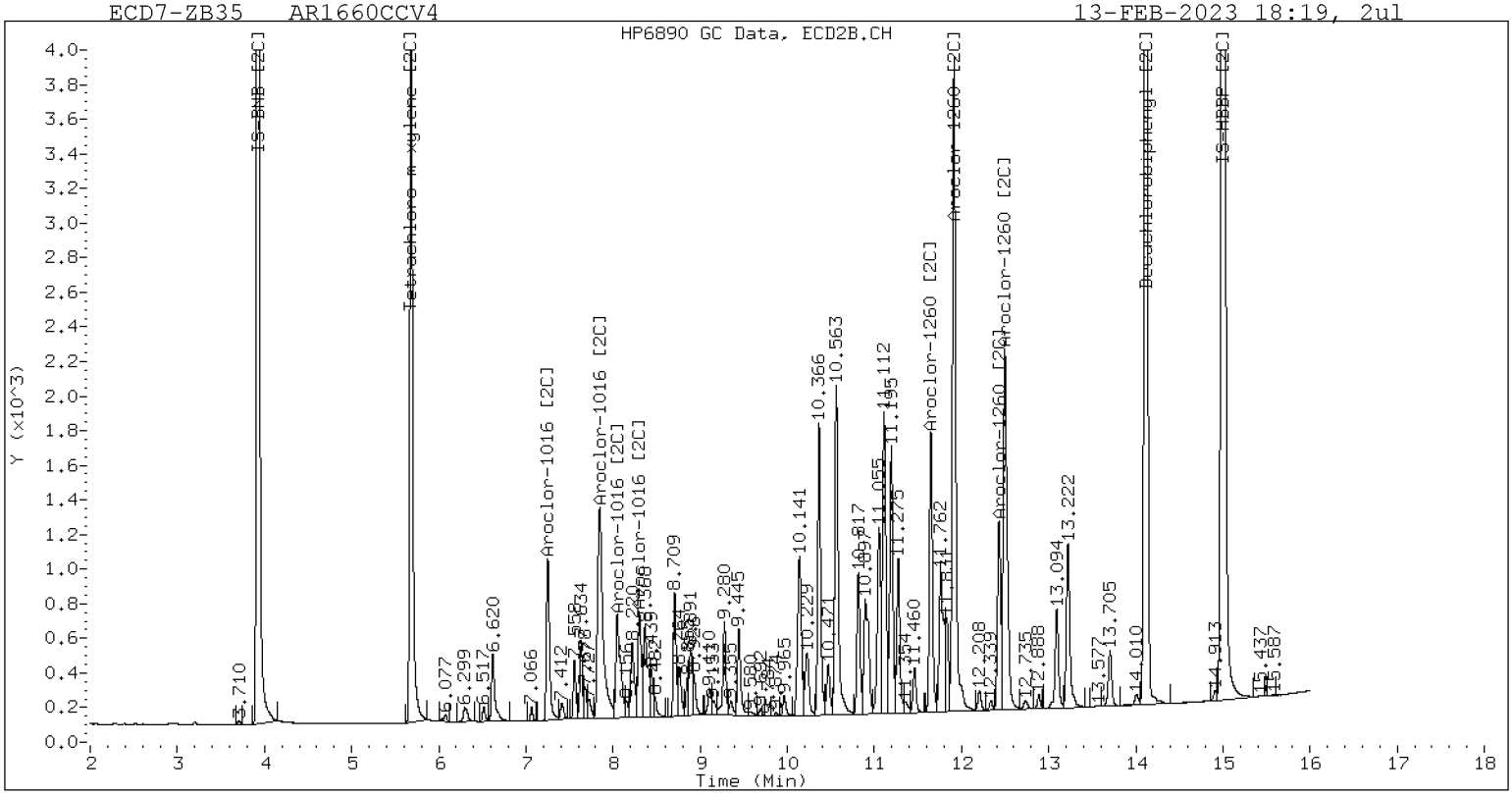
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV4 13-FEB-2023 18:19, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV4 13-FEB-2023 18:19, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	02132342ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLB0168	Injection Date:	02/14/23
Lab Sample ID:	SLB0168-CCV5	Injection Time:	00:16
Sequence Name:	AR1254CCV5		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	193	0.0630747	0.0521140		-22.7	
Aroclor-1254 (1)	A	250.00	201		0.0656569			
Aroclor-1254 (2)	A	250.00	205		0.0285112			
Aroclor-1254 (3)	A	250.00	182		0.0381009			
Aroclor-1254 (4)	A	250.00	194		0.0793688			
Aroclor-1254 (5)	A	250.00	184		0.0489321			
Aroclor 1254 [2C]	A	250.00	200	0.0697219	0.0587725		-19.8	
Aroclor-1254 (1) [2C]	A	250.00	210		0.0488633			
Aroclor-1254 (2) [2C]	A	250.00	212		0.0397805			
Aroclor-1254 (3) [2C]	A	250.00	196		0.0801244			
Aroclor-1254 (4) [2C]	A	250.00	207		0.0847329			
Aroclor-1254 (5) [2C]	A	250.00	177		0.0403615			
Decachlorobiphenyl	A	40.000	32.4	0.8555994	0.6937590		-19.0	
Tetrachlorometaxylene	A	40.000	37.6	1.1307870	1.0626820		-6.0	
Decachlorobiphenyl [2C]	A	40.000	34.5	1.2696430	1.0948540		-13.8	
Tetrachlorometaxylene [2C]	A	40.000	38.1	1.0814980	1.0294000		-4.8	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230213.b/02132342ECD7.D
Data file 2: /230213.b/230213.b/02132342ECD7.D
Method: \\target\share\chem4\ecd7.i\230213.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254CCV5
Client ID:
Injection Date: 14-FEB-2023 00:16
Report Date: 02/14/2023 10:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.806	-0.002	227481	5.682	-0.002	187954	37.6	38.1	1.3	Tetrachloro-m-xylene
13.889	0.001	157604	14.116	-0.001	199576	32.4	34.5	6.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	428126	-14.9
Hexabromobiphenyl	647433	454348	-29.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	365172	8.4
Hexabromobiphenyl	382032	364571	-4.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	9.293	0.000	87842	201.3	1	9.444	0.000	55761	210.5
Aroclor-1254	2	9.371	-0.000	38145	204.8	2	9.964	0.000	45396	212.0
Aroclor-1254	3	9.661	0.000	50975	182.3	3	10.116	0.000	91435	195.7
Aroclor-1254	4	9.799	-0.001	106187	193.8	4	10.365	0.000	96694	207.0
Aroclor-1254	5	10.160	-0.004	65466	183.8	5	10.563	0.000	46059	177.0

Total Col1Ave (5 peaks): 193.2 Total Col2Ave (5 peaks): 200.5 RPD = 4

Corrected Ave (4 peaks): 190.3 Corrected Ave (4 peaks): 197.6 RPD = 4

CalAmt %D: -22.7 CalAmt %D: -19.8

Total PCB Area Col1 (5.908 - 13.788) = 1165653 Col1 Total PCB = 0.2 ppm*

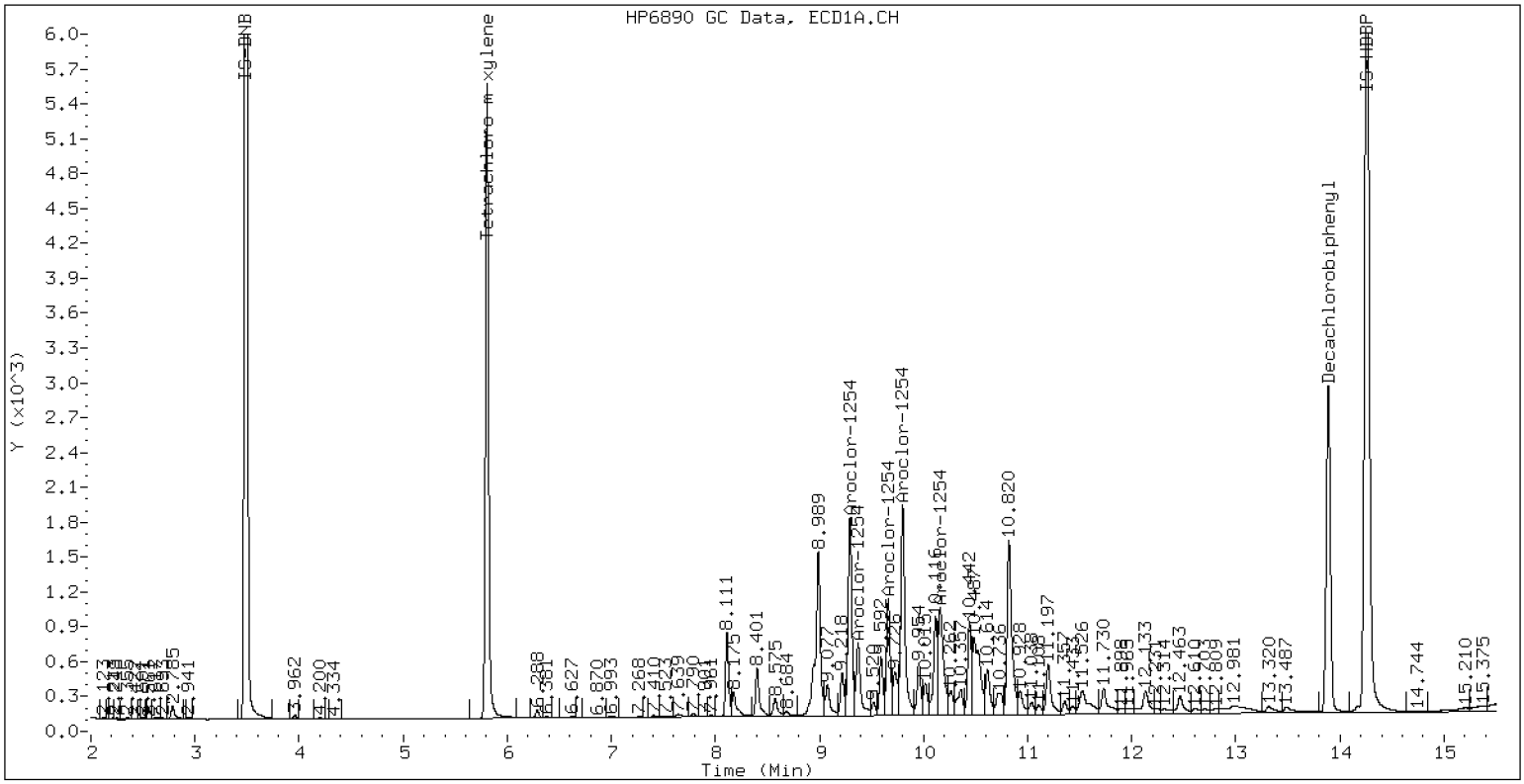
Total PCB Area Col2 (5.784 - 14.017) = 928439 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

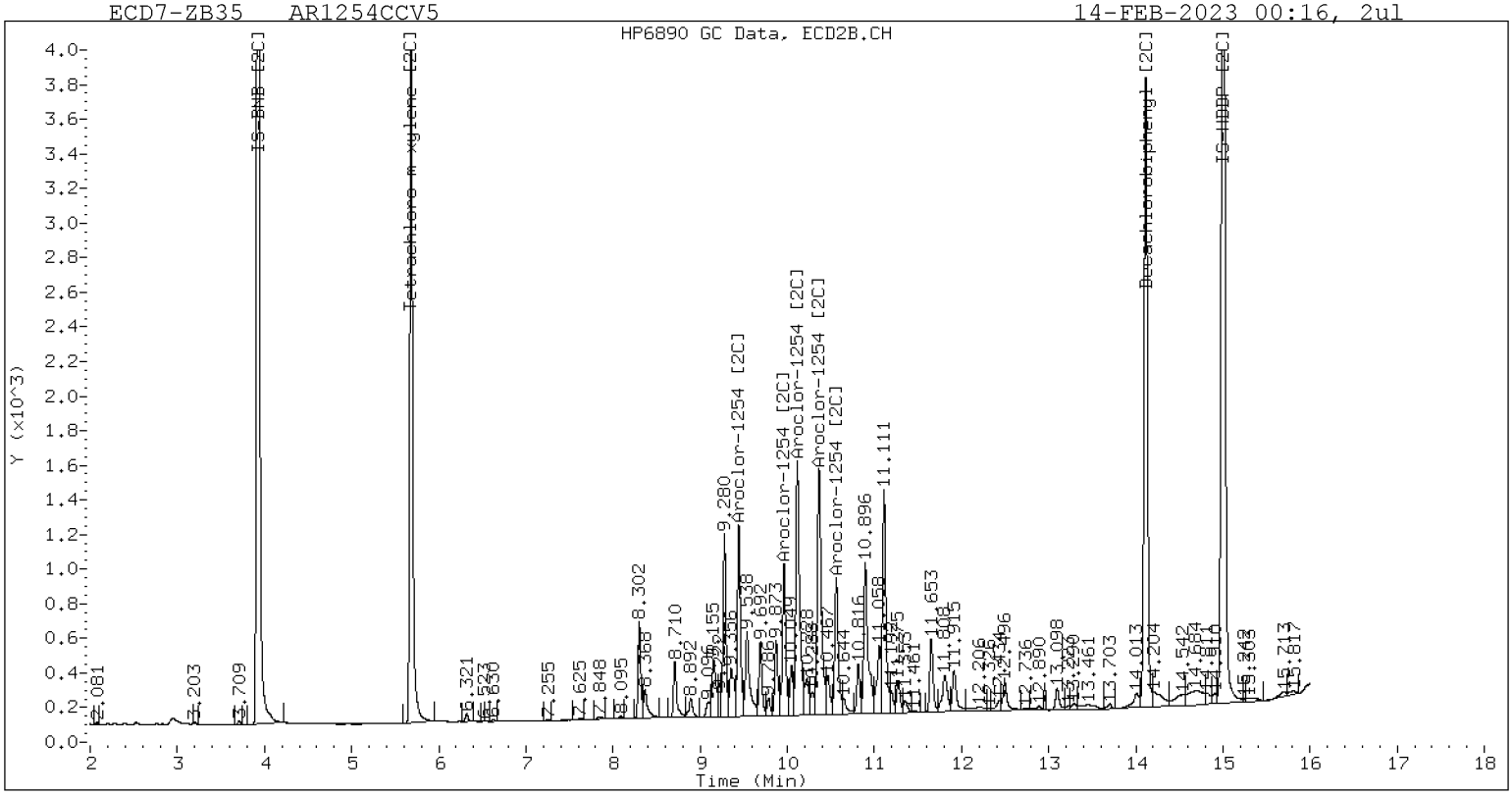
PCB Dual Column Chromatograms

ECD7-ZB5 AR1254CCV5 14-FEB-2023 00:16, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254CCV5 14-FEB-2023 00:16, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	02132343ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLB0168	Injection Date:	02/14/23
Lab Sample ID:	SLB0168-CCV6	Injection Time:	00:37
Sequence Name:	AR1660CCV6		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	234	0.0506755	0.0475376		-6.3	
Aroclor-1016 (1)	A	250.00	242	0.0297277	0.0287220		-3.2	
Aroclor-1016 (2)	A	250.00	238	0.0985017	0.0939217		-4.8	
Aroclor-1016 (3)	A	250.00	219	0.0453193	0.0397545		-12.4	
Aroclor-1016 (4)	A	250.00	238	0.0291533	0.0277521		-4.8	
Aroclor 1016 [2C]	A	250.00	243	0.0519244	0.0503031		-3.0	
Aroclor-1016 (1) [2C]	A	250.00	241	0.0433907	0.0418067		-3.6	
Aroclor-1016 (2) [2C]	A	250.00	242	0.0950862	0.0918679		-3.2	
Aroclor-1016 (3) [2C]	A	250.00	248	0.0388014	0.0385045		-0.8	
Aroclor-1016 (4) [2C]	A	250.00	239	0.0304194	0.0290335		-4.4	
Aroclor 1260	A	250.00	209	0.0605224	0.0507795		-16.3	
Aroclor-1260 (1)	A	250.00	225	0.0448870	0.0403502		-10.0	
Aroclor-1260 (2)	A	250.00	217	0.0461412	0.0400902		-13.2	
Aroclor-1260 (3)	A	250.00	209	0.1214672	0.1014653		-16.4	
Aroclor-1260 (4)	A	250.00	203	0.0627593	0.0509800		-18.8	
Aroclor-1260 (5)	A	250.00	192	0.0273573	0.0210120		-23.2	
Aroclor 1260 [2C]	A	250.00	229	0.0836545	0.0759093		-8.6	
Aroclor-1260 (1) [2C]	A	250.00	226	0.0577136	0.0520762		-9.6	
Aroclor-1260 (2) [2C]	A	250.00	226	0.1460113	0.1322466		-9.6	
Aroclor-1260 (3) [2C]	A	250.00	239	0.0363944	0.0348453		-4.4	
Aroclor-1260 (4) [2C]	A	250.00	223	0.0944986	0.0844690		-10.8	
Decachlorobiphenyl	A	40.000	34.7	0.8555994	0.7416927		-13.3	
Tetrachlorometaxylene	A	40.000	39.5	1.1307870	1.1169290		-1.3	
Decachlorobiphenyl [2C]	A	40.000	35.5	1.2696430	1.1273540		-11.3	
Tetrachlorometaxylene [2C]	A	40.000	38.9	1.0814980	1.0510110		-2.8	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230213.b/02132343ECD7.D
Data file 2: /230213.b/230213.b/02132343ECD7.D
Method: \\target\share\chem4\ecd7.i\230213.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV6
Client ID:
Injection Date: 14-FEB-2023 00:37
Report Date: 02/14/2023 10:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.806	-0.002	241551	5.683	-0.001	191883	39.5	38.9	1.6	Tetrachloro-m-xylene
13.889	0.001	201710	14.117	-0.000	232342	34.7	35.5	2.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	432527	-14.1
Hexabromobiphenyl	647433	543918	-16.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	365140	8.4
Hexabromobiphenyl	382032	412190	7.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.267	-0.001	38822	241.5	1	7.251	-0.002	47704	240.9
Aroclor-1016	2	7.647	-0.002	126949	238.4	2	7.848	-0.000	104827	241.5
Aroclor-1016	3	7.786	-0.002	53734	219.3	3	8.047	-0.002	43936	248.1
Aroclor-1016	4	8.400	-0.002	37511	238.0	4	8.302	-0.002	33129	238.6
Total Col1Ave (4 peaks):					234.3	Total Col2Ave (4 peaks):				242.3 RPD = 3
Corrected Ave (3 peaks):					231.9	Corrected Ave (3 peaks):				240.3 RPD = 4
CalAmt %D:					-6.3	CalAmt %D:				-3.1
Aroclor-1260	1	11.039	-0.000	68585	224.7	1	11.648	-0.000	67079	225.6
Aroclor-1260	2	11.356	0.000	68143	217.2	2	11.914	0.001	170346	226.4
Aroclor-1260	3	11.729	0.000	172465	208.8	3	12.432	0.000	44884	239.4
Aroclor-1260	4	12.133	0.000	86653	203.1	4	12.496	-0.000	108804	223.5
Aroclor-1260	5	12.239	-0.001	35715	192.0	NS	---			----
Total Col1Ave (5 peaks):					209.2	Total Col2Ave (4 peaks):				228.7 RPD = 9
Corrected Ave (4 peaks):					205.3	Corrected Ave (3 peaks):				225.2 RPD = 9
CalAmt %D:					-16.3	CalAmt %D:				-8.5

Total PCB Area Col1 (5.908 - 13.788) = 2056304 Col1 Total PCB = 0.4 ppm*

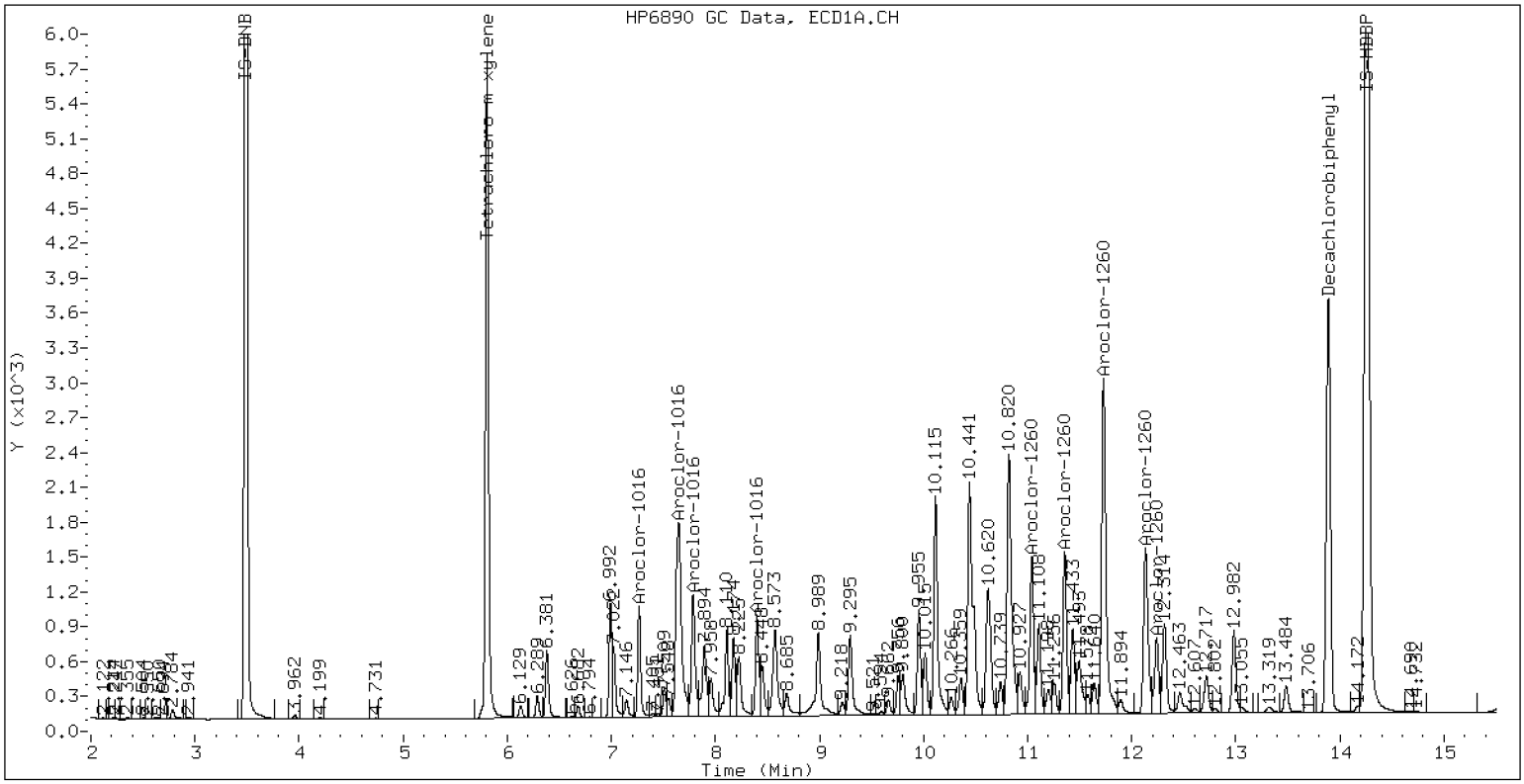
Total PCB Area Col2 (5.784 - 14.017) = 1715393 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

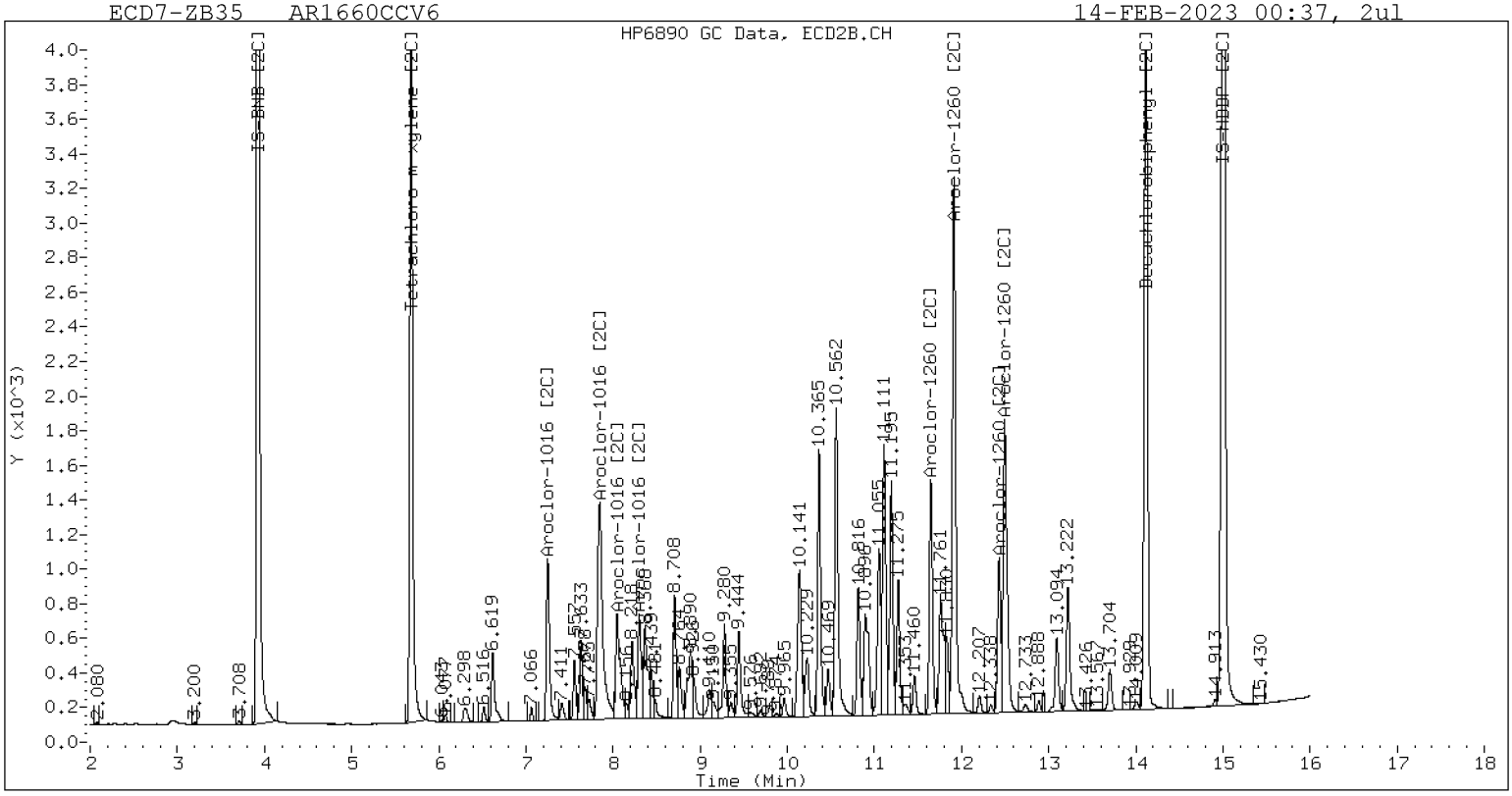
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV6 14-FEB-2023 00:37, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV6 14-FEB-2023 00:37, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	02132358ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLB0168	Injection Date:	02/14/23
Lab Sample ID:	SLB0168-CCV7	Injection Time:	05:53
Sequence Name:	AR1248CCV7		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	198	0.0499033	0.0450846		-20.7	
Aroclor-1248 (1)	A	250.00	236		0.0378284			
Aroclor-1248 (2)	A	250.00	234		0.0476868			
Aroclor-1248 (3)	A	250.00	165		0.0643512			
Aroclor-1248 (4)	A	250.00	158		0.0304719			
Aroclor 1248 [2C]	A	250.00	217	0.0427878	0.0390266		-13.1	
Aroclor-1248 (1) [2C]	A	250.00	242		0.0350518			
Aroclor-1248 (2) [2C]	A	250.00	205		0.0319724			
Aroclor-1248 (3) [2C]	A	250.00	224		0.0425494			
Aroclor-1248 (4) [2C]	A	250.00	198		0.0465329			
Decachlorobiphenyl	A	40.000	34.0	0.8555994	0.7277638		-15.0	
Tetrachlorometaxylene	A	40.000	37.3	1.1307870	1.0533470		-6.8	
Decachlorobiphenyl [2C]	A	40.000	43.8	1.2696430	1.3890610		9.5	
Tetrachlorometaxylene [2C]	A	40.000	37.7	1.0814980	1.0204730		-5.8	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230213.b/02132358ECD7.D
Data file 2: /230213.b/230213.b/02132358ECD7.D
Method: \\target\share\chem4\ecd7.i\230213.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV7
Client ID:
Injection Date: 14-FEB-2023 05:53
Report Date: 02/14/2023 10:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.804	-0.003	234209	5.682	-0.002	193424	37.3	37.7	1.3	Tetrachloro-m-xylene
13.889	0.000	209783	14.116	-0.000	306297	34.0	43.8	25.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	444695	-11.6
Hexabromobiphenyl	647433	576514	-11.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	379087	12.5
Hexabromobiphenyl	382032	441013	15.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.400	-0.005	52569	236.3	1	8.303	0.000	41524	242.3
Aroclor-1248	2	8.572	-0.008	66269	233.5	2	8.709	0.000	37876	205.4
Aroclor-1248	3	8.992	-0.007	89427	164.7	3	9.153	0.000	50406	223.7
Aroclor-1248	4	9.292	-0.001	42346	157.6	4	9.577	0.000	55125	197.8
Total Col1Ave (4 peaks):					198.0	Total Col2Ave (4 peaks):				217.3 RPD = 9
Corrected Ave (3 peaks):					185.3	Corrected Ave (3 peaks):				208.9 RPD = 12
CalAmt %D:					-20.8	CalAmt %D:				-13.1

Total PCB Area Col1 (5.908 - 13.788) = 1619514 Col1 Total PCB = 0.3 ppm*

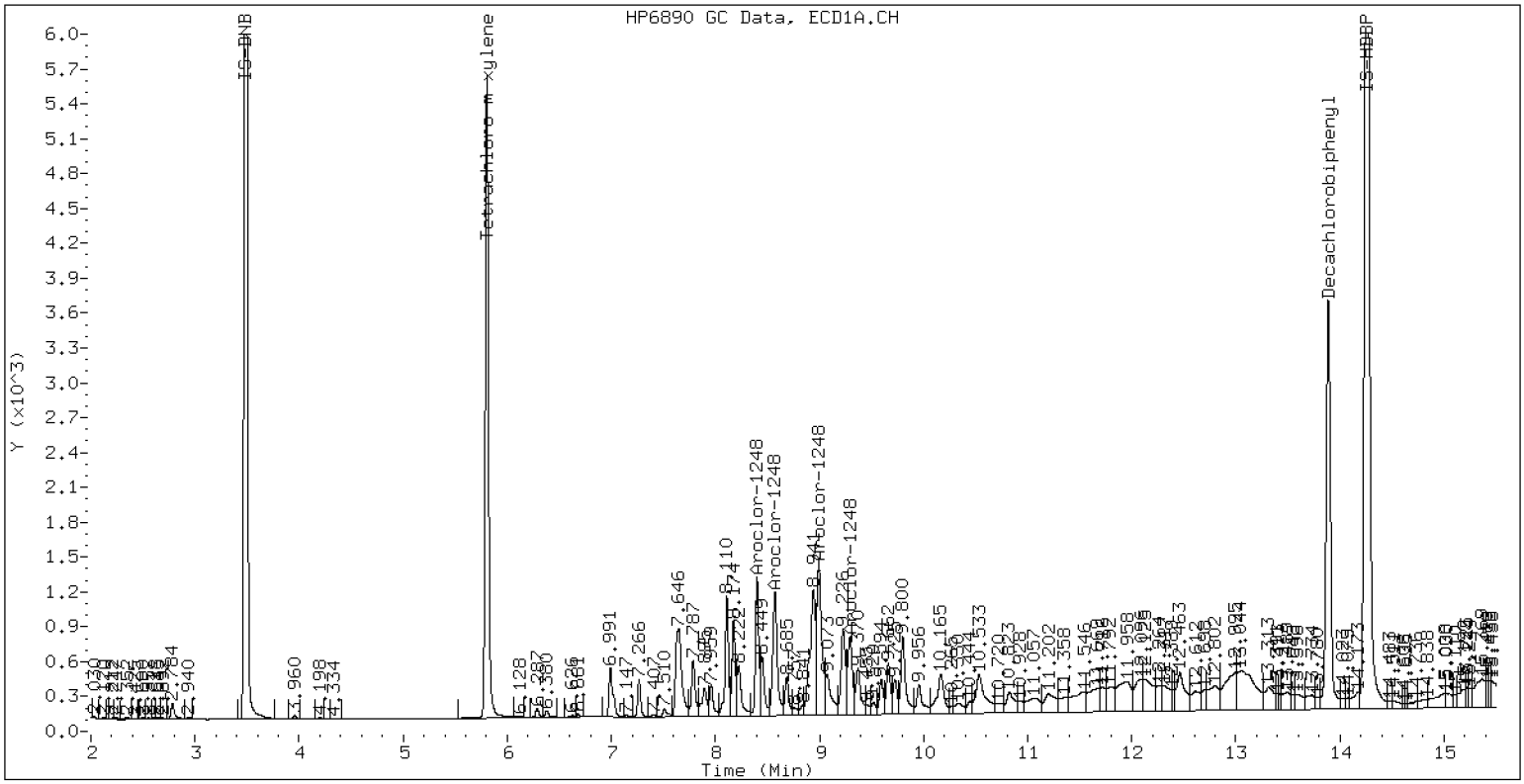
Total PCB Area Col2 (5.784 - 14.017) = 923512 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

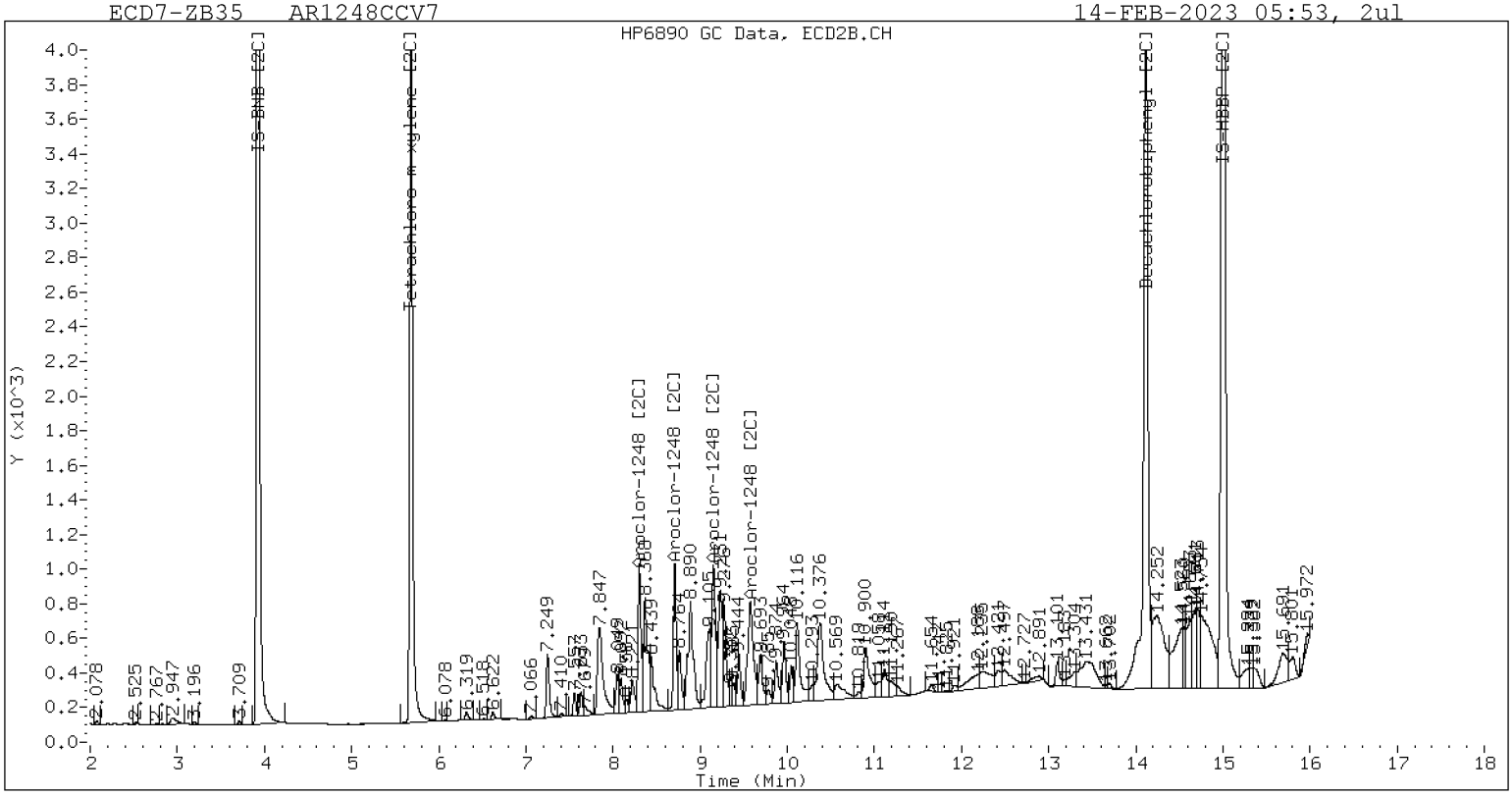
PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV7 14-FEB-2023 05:53, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248CCV7 14-FEB-2023 05:53, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	02132359ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLB0168	Injection Date:	02/14/23
Lab Sample ID:	SLB0168-CCV8	Injection Time:	06:14
Sequence Name:	AR1660CCV8		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	236	0.0506755	0.0476325		-5.8	
Aroclor-1016 (1)	A	250.00	241	0.0297277	0.0286199		-3.6	
Aroclor-1016 (2)	A	250.00	237	0.0985017	0.0935094		-5.2	
Aroclor-1016 (3)	A	250.00	222	0.0453193	0.0401950		-11.2	
Aroclor-1016 (4)	A	250.00	242	0.0291533	0.0282057		-3.2	
Aroclor 1016 [2C]	A	250.00	241	0.0519244	0.0501783		-3.5	
Aroclor-1016 (1) [2C]	A	250.00	239	0.0433907	0.0415387		-4.4	
Aroclor-1016 (2) [2C]	A	250.00	242	0.0950862	0.0918996		-3.2	
Aroclor-1016 (3) [2C]	A	250.00	246	0.0388014	0.0382542		-1.6	
Aroclor-1016 (4) [2C]	A	250.00	238	0.0304194	0.0290206		-4.8	
Aroclor 1260	A	250.00	207	0.0605224	0.0505982		-17.0	
Aroclor-1260 (1)	A	250.00	220	0.0448870	0.0394809		-12.0	
Aroclor-1260 (2)	A	250.00	218	0.0461412	0.0401928		-12.8	
Aroclor-1260 (3)	A	250.00	210	0.1214672	0.1022327		-16.0	
Aroclor-1260 (4)	A	250.00	201	0.0627593	0.0504730		-19.6	
Aroclor-1260 (5)	A	250.00	188	0.0273573	0.0206115		-24.8	
Aroclor 1260 [2C]	A	250.00	225	0.0836545	0.0747435		-10.1	
Aroclor-1260 (1) [2C]	A	250.00	222	0.0577136	0.0513548		-11.2	
Aroclor-1260 (2) [2C]	A	250.00	224	0.1460113	0.1307719		-10.4	
Aroclor-1260 (3) [2C]	A	250.00	234	0.0363944	0.0340549		-6.4	
Aroclor-1260 (4) [2C]	A	250.00	219	0.0944986	0.0827925		-12.4	
Decachlorobiphenyl	A	40.000	33.6	0.8555994	0.7180105		-16.0	
Tetrachlorometaxylene	A	40.000	39.5	1.1307870	1.1160560		-1.3	
Decachlorobiphenyl [2C]	A	40.000	36.8	1.2696430	1.1677720		-8.0	
Tetrachlorometaxylene [2C]	A	40.000	39.3	1.0814980	1.0620010		-1.8	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230213.b/02132359ECD7.D
Data file 2: /230213.b/230213.b/02132359ECD7.D
Method: \\target\share\chem4\ecd7.i\230213.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV8
Client ID:
Injection Date: 14-FEB-2023 06:14
Report Date: 02/14/2023 10:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.804	-0.003	245692	5.682	-0.002	197881	39.5	39.3	0.5	Tetrachloro-m-xylene
13.890	0.001	219792	14.117	0.001	261000	33.6	36.8	9.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	440286	-12.5
Hexabromobiphenyl	647433	612225	-5.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	372657	10.6
Hexabromobiphenyl	382032	447005	17.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	7.267	-0.001	39378	240.7	1	7.251	-0.002	48374	239.3
Aroclor-1016	2	7.648	-0.002	128659	237.3	2	7.848	-0.001	107022	241.6
Aroclor-1016	3	7.786	-0.001	55304	221.7	3	8.048	-0.001	44549	246.5
Aroclor-1016	4	8.401	-0.001	38808	241.9	4	8.303	-0.001	33796	238.5
Total Col1Ave (4 peaks):					235.4	Total Col2Ave (4 peaks):				241.5 RPD = 3
Corrected Ave (3 peaks):					233.2	Corrected Ave (3 peaks):				239.8 RPD = 3
CalAmt %D:					-5.8	CalAmt %D:				-3.4
Aroclor-1260	1	11.039	-0.000	75535	219.9	1	11.649	-0.000	71737	222.5
Aroclor-1260	2	11.356	0.001	76897	217.8	2	11.913	0.000	182674	223.9
Aroclor-1260	3	11.730	0.001	195592	210.4	3	12.431	-0.000	47571	233.9
Aroclor-1260	4	12.134	0.001	96565	201.1	4	12.497	0.001	115652	219.0
Aroclor-1260	5	12.240	-0.000	39434	188.4	NS	---			----
Total Col1Ave (5 peaks):					207.5	Total Col2Ave (4 peaks):				224.8 RPD = 8
Corrected Ave (4 peaks):					204.4	Corrected Ave (3 peaks):				221.8 RPD = 8
CalAmt %D:					-17.0	CalAmt %D:				-10.1

Total PCB Area Col1 (5.908 - 13.788) = 2193376 Col1 Total PCB = 0.4 ppm*

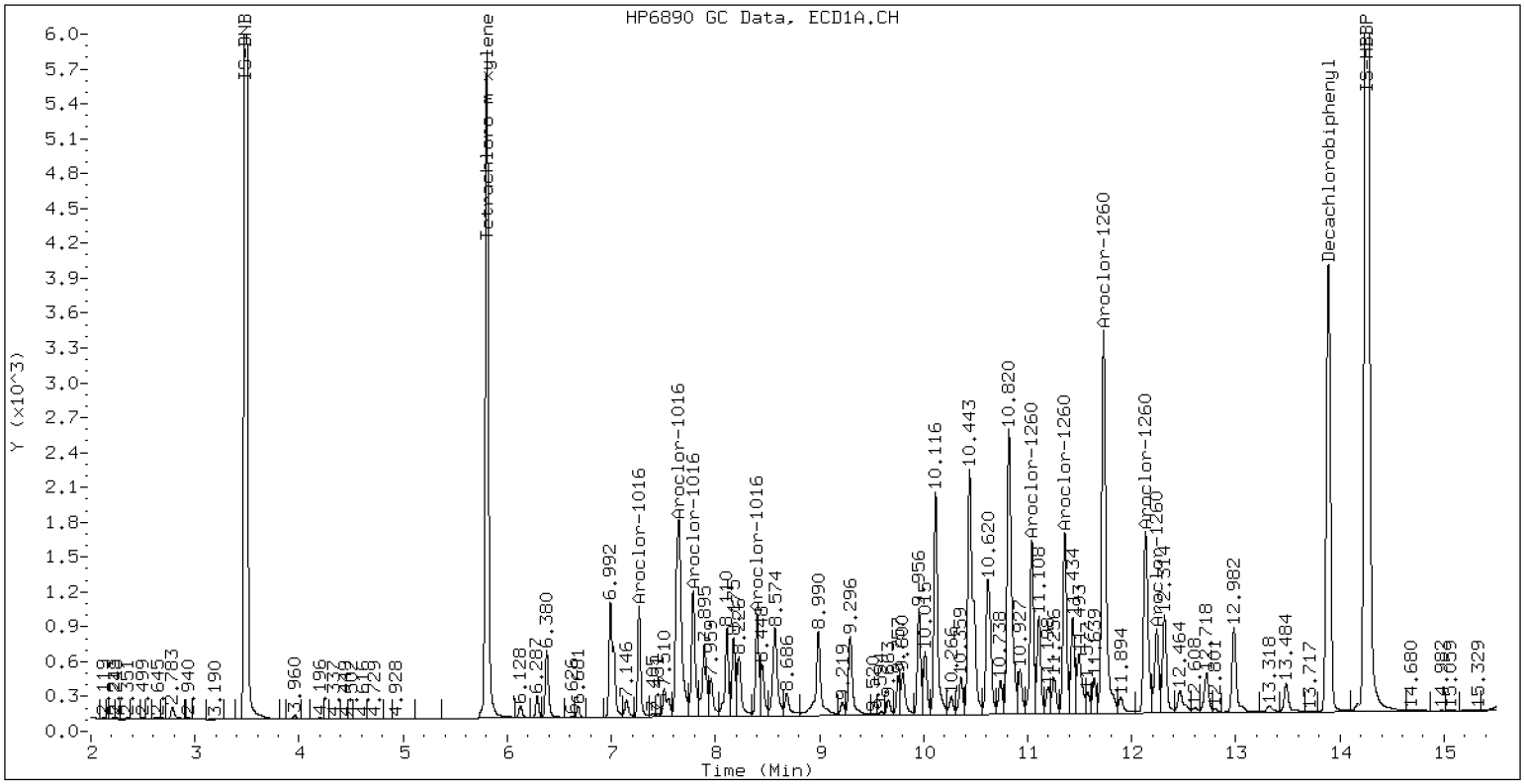
Total PCB Area Col2 (5.784 - 14.017) = 1805340 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

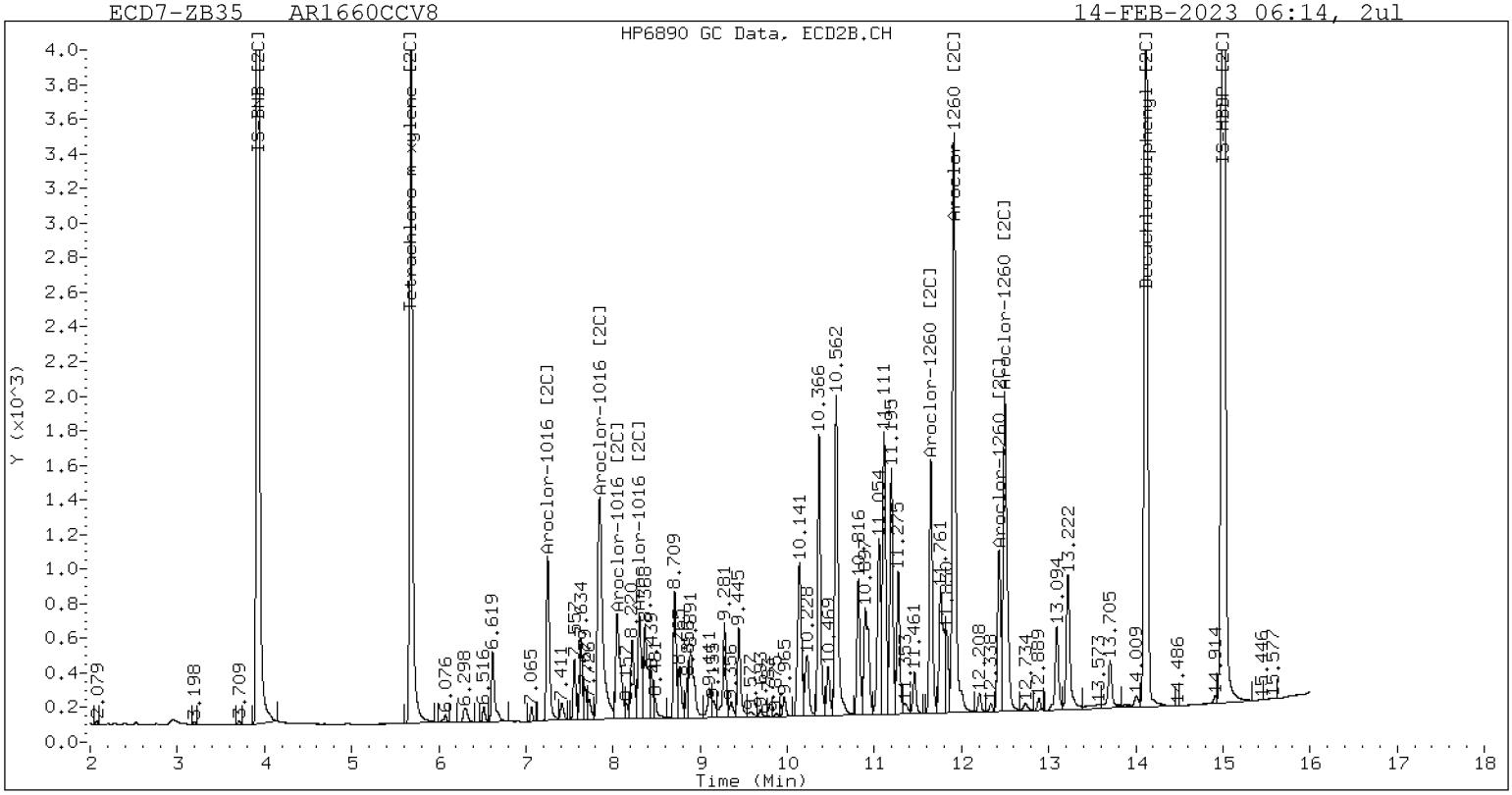
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV8 14-FEB-2023 06:14, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV8 14-FEB-2023 06:14, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	02132367ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLB0168	Injection Date:	02/14/23
Lab Sample ID:	SLB0168-CCV9	Injection Time:	09:02
Sequence Name:	AR1242CCV9		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	217	0.0389249	0.0359362		-13.2	
Aroclor-1242 (1)	A	250.00	227		0.0222618			
Aroclor-1242 (2)	A	250.00	223		0.0715100			
Aroclor-1242 (3)	A	250.00	212		0.0202550			
Aroclor-1242 (4)	A	250.00	206		0.0297181			
Aroclor 1242 [2C]	A	250.00	216	0.0405023	0.0368425		-13.7	
Aroclor-1242 (1) [2C]	A	250.00	232		0.0325026			
Aroclor-1242 (2) [2C]	A	250.00	221		0.0687566			
Aroclor-1242 (3) [2C]	A	250.00	214		0.0208860			
Aroclor-1242 (4) [2C]	A	250.00	196		0.0252251			
Decachlorobiphenyl	A	40.000	29.9	0.8555994	0.6402943		-25.3	
Tetrachlorometaxylene	A	40.000	44.6	1.1307870	1.2619250		11.5	
Decachlorobiphenyl [2C]	A	40.000	32.6	1.2696430	1.0359600		-18.5	
Tetrachlorometaxylene [2C]	A	40.000	44.9	1.0814980	1.2148700		12.3	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230213.b/02132367ECD7.D
Data file 2: /230213.b/230213.b/02132367ECD7.D
Method: \\target\share\chem4\ecd7.i\230213.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV9
Client ID:
Injection Date: 14-FEB-2023 09:02
Report Date: 02/14/2023 10:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	270440	5.685	0.001	224254	44.6	44.9	0.7	Tetrachloro-m-xylene
13.889	0.001	143529	14.116	-0.001	187302	29.9	32.6	8.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	428615	-14.8
Hexabromobiphenyl	647433	448322	-30.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	369182	9.6
Hexabromobiphenyl	382032	361601	-5.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.269	-0.002	29818	227.2	1	7.252	0.000	37498	232.2
Aroclor-1242	2	7.649	-0.006	95782	223.0	2	7.849	0.000	79324	221.2
Aroclor-1242	3	8.402	-0.004	27130	212.6	3	9.154	0.000	24096	214.5
Aroclor-1242	4	8.575	-0.006	39805	206.5	4	9.579	0.000	29102	195.5
Total Col1Ave (4 peaks):					217.3	Total Col2Ave (4 peaks):				215.9 RPD = 1
Corrected Ave (3 peaks):					214.0	Corrected Ave (3 peaks):				210.4 RPD = 2
CalAmt %D:					-13.1	CalAmt %D:				-13.7

Total PCB Area Col1 (5.908 - 13.788) = 683419 Col1 Total PCB = 0.1 ppm*

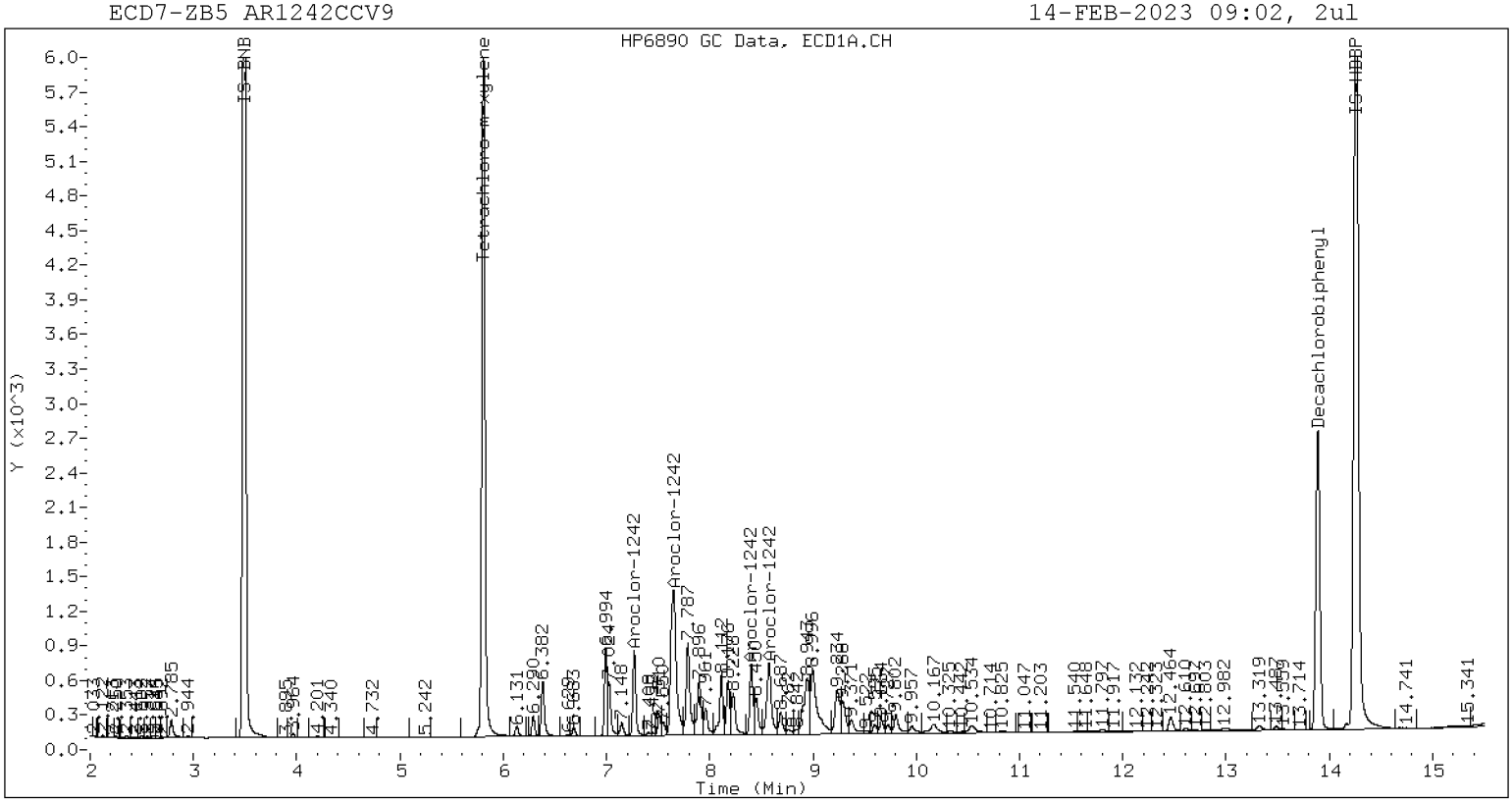
Total PCB Area Col2 (5.784 - 14.017) = 548384 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

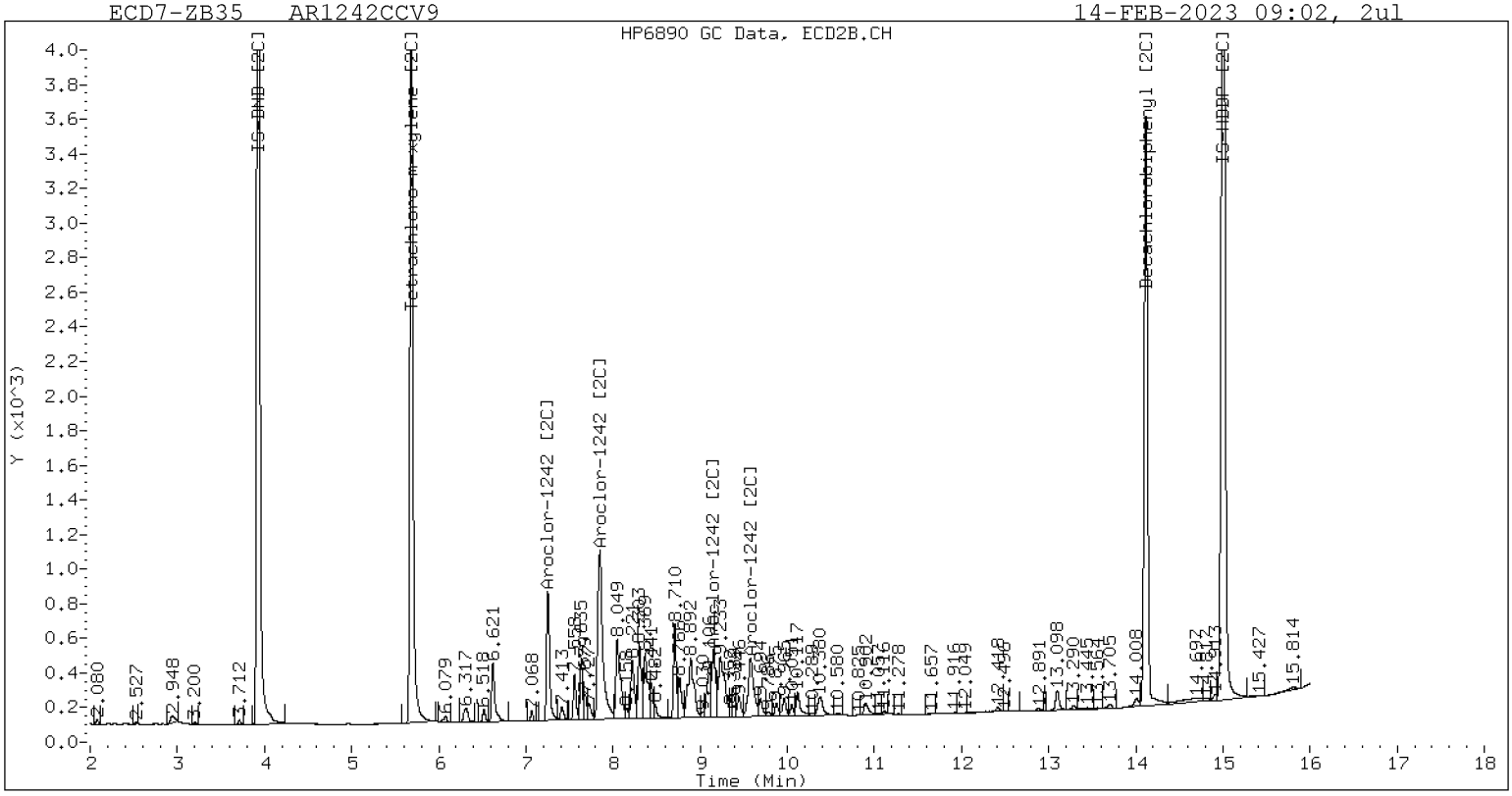
PCB Dual Column Chromatograms

ECD7-ZB5 AR1242CCV9 14-FEB-2023 09:02, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242CCV9 14-FEB-2023 09:02, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	02132368ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLB0168	Injection Date:	02/14/23
Lab Sample ID:	SLB0168-CCVA	Injection Time:	09:23
Sequence Name:	AR1660CCVA		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	232	0.0506755	0.0470378		-7.4	
Aroclor-1016 (1)	A	250.00	239	0.0297277	0.0283884		-4.4	
Aroclor-1016 (2)	A	250.00	237	0.0985017	0.0933482		-5.2	
Aroclor-1016 (3)	A	250.00	216	0.0453193	0.0390996		-13.6	
Aroclor-1016 (4)	A	250.00	234	0.0291533	0.0273150		-6.4	
Aroclor 1016 [2C]	A	250.00	241	0.0519244	0.0499861		-3.8	
Aroclor-1016 (1) [2C]	A	250.00	239	0.0433907	0.0415442		-4.4	
Aroclor-1016 (2) [2C]	A	250.00	241	0.0950862	0.0915296		-3.6	
Aroclor-1016 (3) [2C]	A	250.00	246	0.0388014	0.0381399		-1.6	
Aroclor-1016 (4) [2C]	A	250.00	236	0.0304194	0.0287305		-5.6	
Aroclor 1260	A	250.00	213	0.0605224	0.0519094		-14.6	
Aroclor-1260 (1)	A	250.00	234	0.0448870	0.0419567		-6.4	
Aroclor-1260 (2)	A	250.00	228	0.0461412	0.0420390		-8.8	
Aroclor-1260 (3)	A	250.00	215	0.1214672	0.1043884		-14.0	
Aroclor-1260 (4)	A	250.00	202	0.0627593	0.0506320		-19.2	
Aroclor-1260 (5)	A	250.00	188	0.0273573	0.0205307		-24.8	
Aroclor 1260 [2C]	A	250.00	230	0.0836545	0.0763834		-7.9	
Aroclor-1260 (1) [2C]	A	250.00	228	0.0577136	0.0527047		-8.8	
Aroclor-1260 (2) [2C]	A	250.00	228	0.1460113	0.1329849		-8.8	
Aroclor-1260 (3) [2C]	A	250.00	241	0.0363944	0.0351465		-3.6	
Aroclor-1260 (4) [2C]	A	250.00	224	0.0944986	0.0846974		-10.4	
Decachlorobiphenyl	A	40.000	34.6	0.8555994	0.7409184		-13.5	
Tetrachlorometaxylene	A	40.000	39.6	1.1307870	1.1207190		-1.0	
Decachlorobiphenyl [2C]	A	40.000	35.8	1.2696430	1.1347610		-10.5	
Tetrachlorometaxylene [2C]	A	40.000	39.4	1.0814980	1.0643830		-1.5	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230213.b/02132368ECD7.D
Data file 2: /230213.b/230213.b/02132368ECD7.D
Method: \\target\share\chem4\ecd7.i\230213.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCVA
Client ID:
Injection Date: 14-FEB-2023 09:23
Report Date: 02/14/2023 10:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.807	-0.001	244050	5.684	0.000	198401	39.6	39.4	0.7	Tetrachloro-m-xylene
13.889	0.001	200178	14.117	0.000	236550	34.6	35.8	3.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	435524	-13.5
Hexabromobiphenyl	647433	540351	-16.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	372800	10.7
Hexabromobiphenyl	382032	416916	9.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.000	38637	238.7	1	7.252	0.000	48399	239.4
Aroclor-1016	2	7.650	0.000	127048	236.9	2	7.849	0.000	106632	240.6
Aroclor-1016	3	7.787	-0.000	53215	215.7	3	8.049	0.000	44433	245.7
Aroclor-1016	4	8.402	-0.000	37176	234.2	4	8.304	0.000	33471	236.1
Total Col1Ave (4 peaks):					231.4	Total Col2Ave (4 peaks):				240.5 RPD = 4
Corrected Ave (3 peaks):					228.9	Corrected Ave (3 peaks):				238.7 RPD = 4
CalAmt %D:					-7.4	CalAmt %D:				-3.8
Aroclor-1260	1	11.041	0.001	70848	233.7	1	11.649	0.000	68667	228.3
Aroclor-1260	2	11.356	0.000	70987	227.8	2	11.913	0.000	173261	227.7
Aroclor-1260	3	11.730	0.001	176270	214.8	3	12.431	0.000	45791	241.4
Aroclor-1260	4	12.133	0.000	85497	201.7	4	12.496	0.000	110349	224.1
Aroclor-1260	5	12.239	-0.001	34668	187.6	NS	---			----
Total Col1Ave (5 peaks):					213.1	Total Col2Ave (4 peaks):				230.4 RPD = 8
Corrected Ave (4 peaks):					208.0	Corrected Ave (3 peaks):				226.7 RPD = 9
CalAmt %D:					-14.8	CalAmt %D:				-7.9

Total PCB Area Col1 (5.908 - 13.788) = 2049302 Col1 Total PCB = 0.4 ppm*

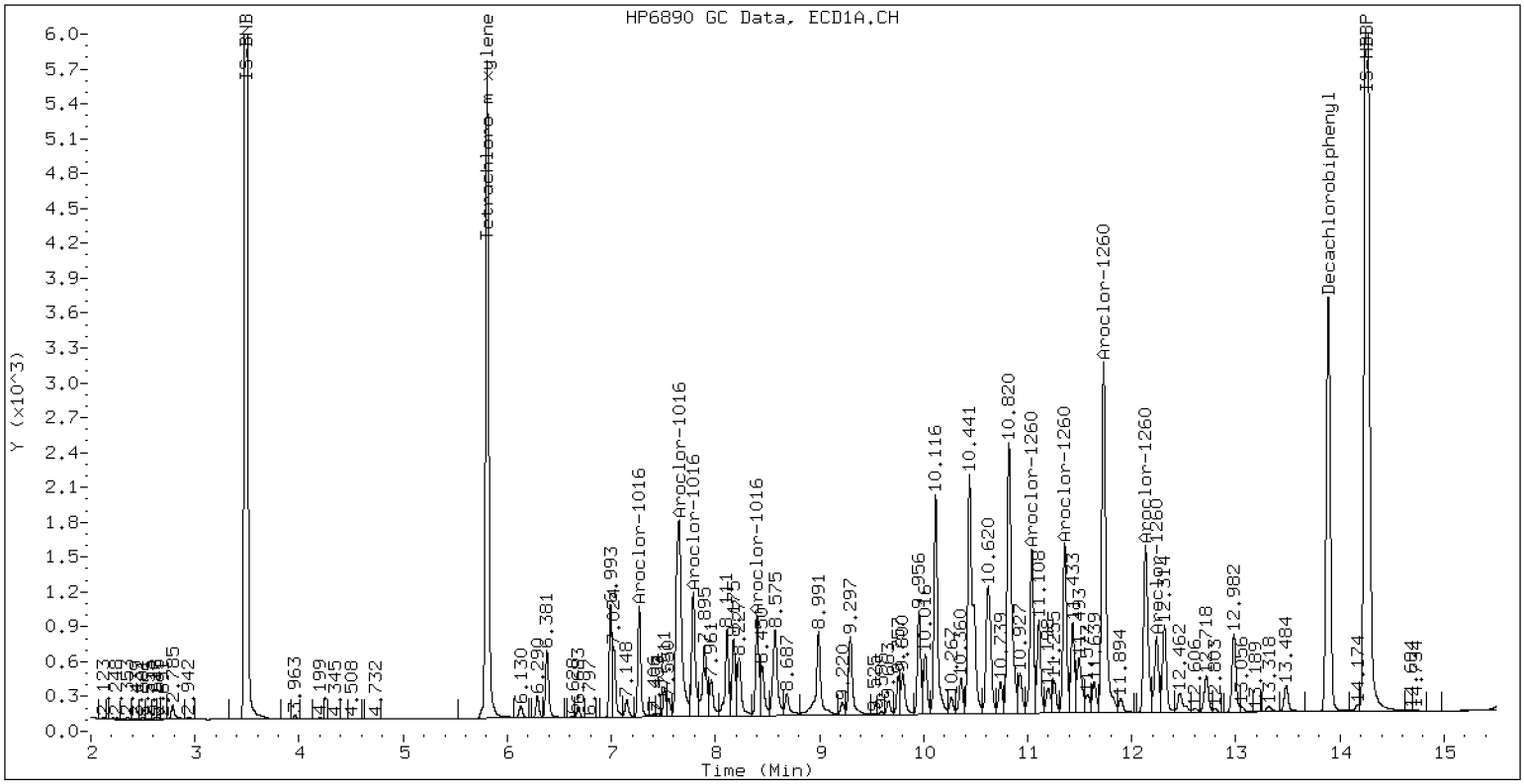
Total PCB Area Col2 (5.784 - 14.017) = 1742433 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

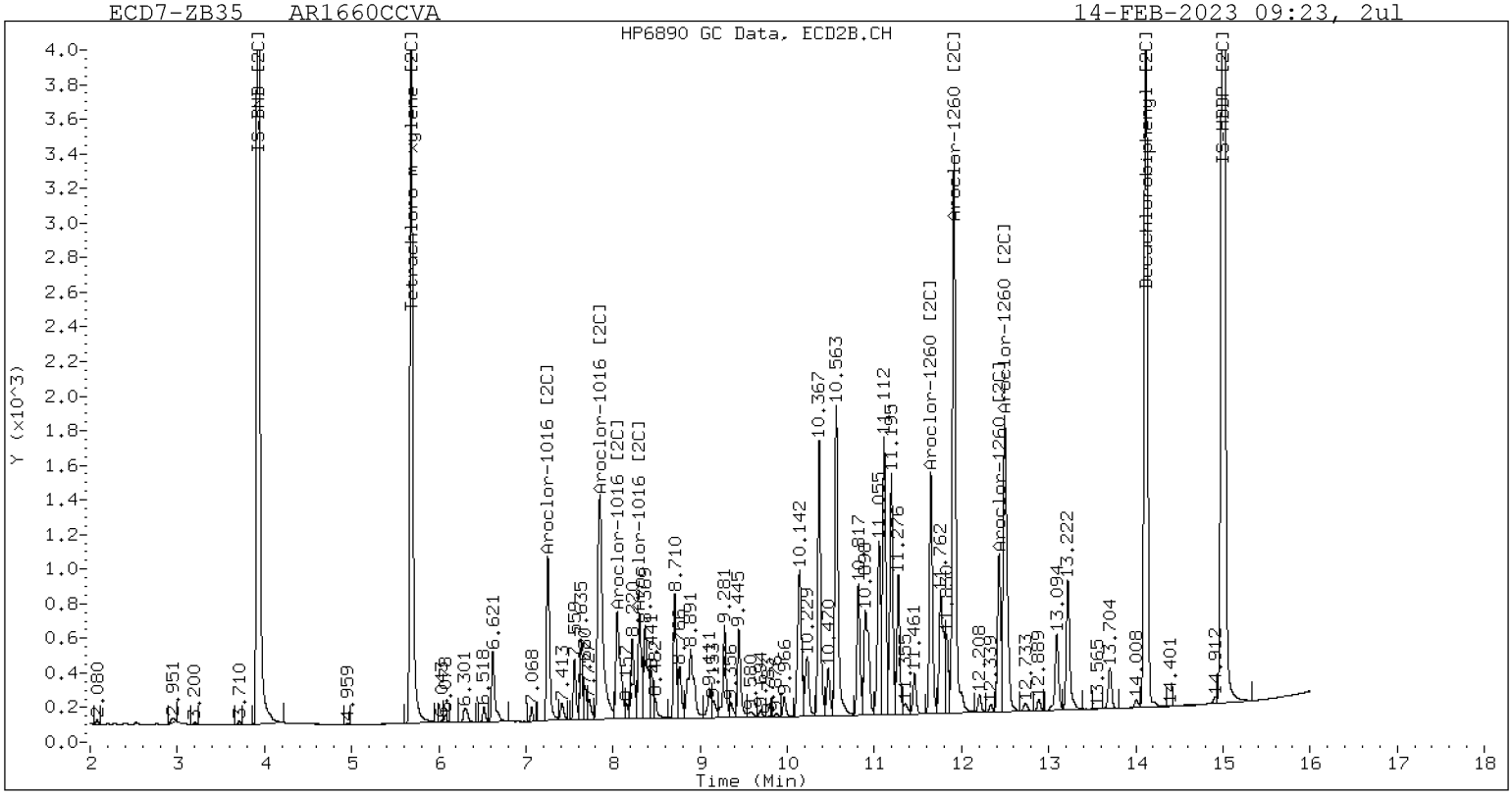
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCVA 14-FEB-2023 09:23, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCVA 14-FEB-2023 09:23, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	02132378ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLB0168	Injection Date:	02/14/23
Lab Sample ID:	SLB0168-CCVB	Injection Time:	12:53
Sequence Name:	AR1254CCVB		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	226	0.0630747	0.0615862		-9.7	
Aroclor-1254 (1)	A	250.00	230		0.0750121			
Aroclor-1254 (2)	A	250.00	216		0.0301389			
Aroclor-1254 (3)	A	250.00	216		0.0450668			
Aroclor-1254 (4)	A	250.00	234		0.0956935			
Aroclor-1254 (5)	A	250.00	233		0.0620198			
Aroclor 1254 [2C]	A	250.00	231	0.0697219	0.0676867		-7.7	
Aroclor-1254 (1) [2C]	A	250.00	232		0.0539326			
Aroclor-1254 (2) [2C]	A	250.00	243		0.0455774			
Aroclor-1254 (3) [2C]	A	250.00	222		0.0906835			
Aroclor-1254 (4) [2C]	A	250.00	243		0.0993518			
Aroclor-1254 (5) [2C]	A	250.00	214		0.0488880			
Decachlorobiphenyl	A	40.000	32.1	0.8555994	0.6865345		-19.8	
Tetrachlorometaxylene	A	40.000	38.0	1.1307870	1.0738500		-5.0	
Decachlorobiphenyl [2C]	A	40.000	34.4	1.2696430	1.0908100		-14.0	
Tetrachlorometaxylene [2C]	A	40.000	37.9	1.0814980	1.0242750		-5.3	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230213.b/02132378ECD7.D
Data file 2: /230213.b/230213.b/02132378ECD7.D
Method: \\target\share\chem4\ecd7.i\230213.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254CCVB
Client ID:
Injection Date: 14-FEB-2023 12:53
Report Date: 02/14/2023 13:18
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	239679	5.685	0.000	192616	38.0	37.9	0.3	Tetrachloro-m-xylene
13.890	0.000	276774	14.116	0.000	301483	32.1	34.4	6.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	446392	-11.3
Hexabromobiphenyl	647433	806293	24.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	376102	11.6
Hexabromobiphenyl	382032	552769	44.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1254	1	9.294	0.000	104640	230.0	1	9.445	0.000	63388	232.3
Aroclor-1254	2	9.371	0.000	42043	216.4	2	9.965	0.000	53568	242.9
Aroclor-1254	3	9.662	0.000	62867	215.7	3	10.117	0.000	106582	221.5
Aroclor-1254	4	9.800	0.000	133490	233.7	4	10.367	0.000	116770	242.7
Aroclor-1254	5	10.162	0.000	86516	232.9	5	10.564	0.000	57459	214.4

Total Col1Ave (5 peaks): 225.7 Total Col2Ave (5 peaks): 230.8 RPD = 2

Corrected Ave (4 peaks): 223.8 Corrected Ave (4 peaks): 227.8 RPD = 2

CalAmt %D: -9.7 CalAmt %D: -7.7

Total PCB Area Col1 (5.908 - 13.790) = 1422974 Col1 Total PCB = 0.3 ppm*

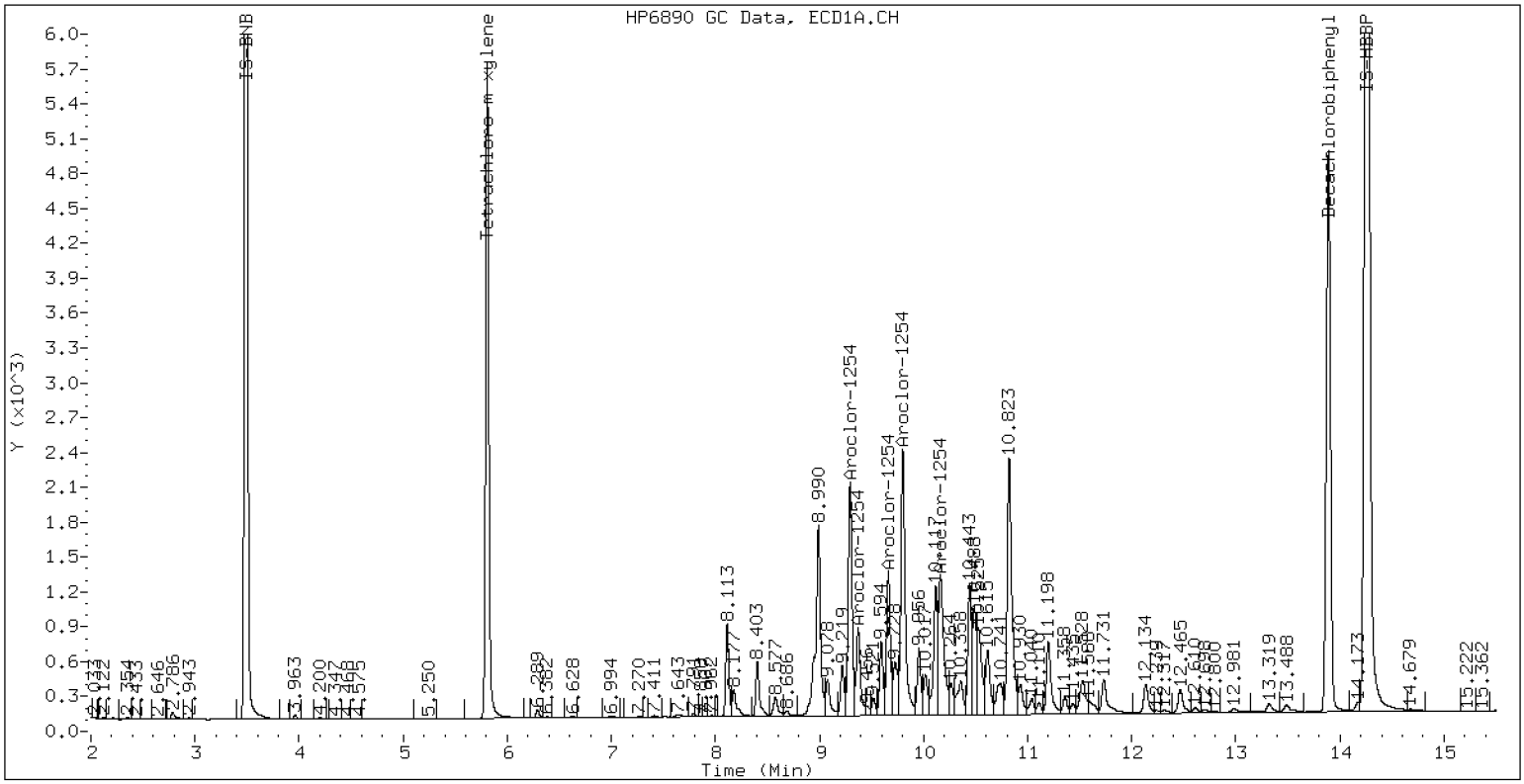
Total PCB Area Col2 (5.785 - 14.016) = 1099209 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

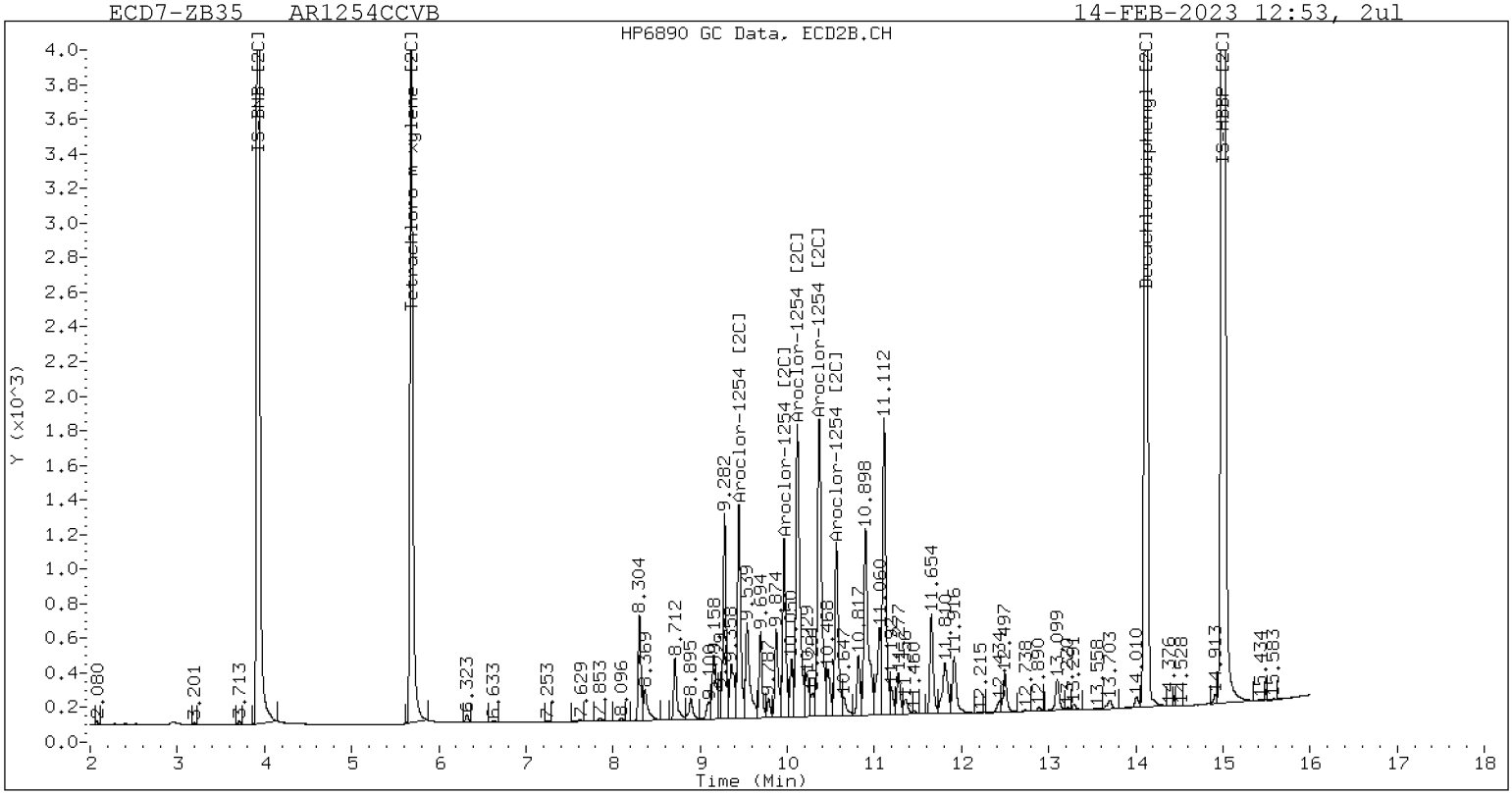
PCB Dual Column Chromatograms

ECD7-ZB5 AR1254CCVB 14-FEB-2023 12:53, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254CCVB 14-FEB-2023 12:53, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GA00061
Lab File ID:	02132379ECD7.D	Calibration Date:	01/24/2023
Sequence:	SLB0168	Injection Date:	02/14/23
Lab Sample ID:	SLB0168-CCVC	Injection Time:	13:14
Sequence Name:	AR1660CCVC		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	236	0.0506755	0.0478404		-5.5	
Aroclor-1016 (1)	A	250.00	242	0.0297277	0.0287209		-3.2	
Aroclor-1016 (2)	A	250.00	239	0.0985017	0.0942287		-4.4	
Aroclor-1016 (3)	A	250.00	222	0.0453193	0.0402016		-11.2	
Aroclor-1016 (4)	A	250.00	242	0.0291533	0.0282104		-3.2	
Aroclor 1016 [2C]	A	250.00	243	0.0519244	0.0502912		-3.0	
Aroclor-1016 (1) [2C]	A	250.00	239	0.0433907	0.0415550		-4.4	
Aroclor-1016 (2) [2C]	A	250.00	242	0.0950862	0.0918698		-3.2	
Aroclor-1016 (3) [2C]	A	250.00	248	0.0388014	0.0384399		-0.8	
Aroclor-1016 (4) [2C]	A	250.00	241	0.0304194	0.0293001		-3.6	
Aroclor 1260	A	250.00	178	0.0605224	0.0433313		-28.7	
Aroclor-1260 (1)	A	250.00	184	0.0448870	0.0330083		-26.4	
Aroclor-1260 (2)	A	250.00	184	0.0461412	0.0339039		-26.4	
Aroclor-1260 (3)	A	250.00	180	0.1214672	0.0872718		-28.0	
Aroclor-1260 (4)	A	250.00	176	0.0627593	0.0442084		-29.6	
Aroclor-1260 (5)	A	250.00	167	0.0273573	0.0182641		-33.2	
Aroclor 1260 [2C]	A	250.00	205	0.0836545	0.0681009		-18.0	
Aroclor-1260 (1) [2C]	A	250.00	198	0.0577136	0.0458285		-20.8	
Aroclor-1260 (2) [2C]	A	250.00	203	0.1460113	0.1183659		-18.8	
Aroclor-1260 (3) [2C]	A	250.00	215	0.0363944	0.0312722		-14.0	
Aroclor-1260 (4) [2C]	A	250.00	204	0.0944986	0.0769369		-18.4	
Decachlorobiphenyl	A	40.000	33.6	0.8555994	0.7185244		-16.0	
Tetrachlorometaxylene	A	40.000	39.6	1.1307870	1.1203440		-1.0	
Decachlorobiphenyl [2C]	A	40.000	35.2	1.2696430	1.1172490		-12.0	
Tetrachlorometaxylene [2C]	A	40.000	39.2	1.0814980	1.0610470		-2.0	

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230213.b/02132379ECD7.D
Data file 2: /230213.b/230213.b/02132379ECD7.D
Method: \\target\share\chem4\ecd7.i\230213.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCVC
Client ID:
Injection Date: 14-FEB-2023 13:14
Report Date: 02/14/2023 13:32
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	248615	5.685	-0.000	199305	39.6	39.2	1.0	Tetrachloro-m-xylene
13.890	-0.000	293565	14.117	0.001	309987	33.6	35.2	4.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	443819	-11.8
Hexabromobiphenyl	647433	817133	26.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	375676	11.5
Hexabromobiphenyl	382032	554911	45.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	0.001	39834	241.5	1	7.253	0.001	48785	239.4
Aroclor-1016	2	7.650	0.000	130689	239.2	2	7.850	0.002	107854	241.5
Aroclor-1016	3	7.788	0.001	55757	221.8	3	8.050	0.001	45128	247.7
Aroclor-1016	4	8.402	0.000	39126	241.9	4	8.304	-0.000	34398	240.8
Total Col1Ave (4 peaks):					236.1	Total Col2Ave (4 peaks):				242.4 RPD = 3
Corrected Ave (3 peaks):					234.2	Corrected Ave (3 peaks):				240.6 RPD = 3
CalAmt %D:					-5.6	CalAmt %D:				-3.1
Aroclor-1260	1	11.041	0.001	84288	183.8	1	11.650	0.001	79471	198.5
Aroclor-1260	2	11.357	0.002	86575	183.7	2	11.913	0.001	205258	202.7
Aroclor-1260	3	11.731	0.002	222852	179.6	3	12.432	0.001	54229	214.8
Aroclor-1260	4	12.134	0.001	112888	176.1	4	12.497	0.001	133416	203.5
Aroclor-1260	5	12.241	0.001	46638	166.9	NS	---			----
Total Col1Ave (5 peaks):					178.0	Total Col2Ave (4 peaks):				204.9 RPD = 14
Corrected Ave (4 peaks):					176.6	Corrected Ave (3 peaks):				201.6 RPD = 13
CalAmt %D:					-28.8	CalAmt %D:				-18.0

Total PCB Area Col1 (5.908 - 13.790) = 2422965 Col1 Total PCB = 0.5 ppm*

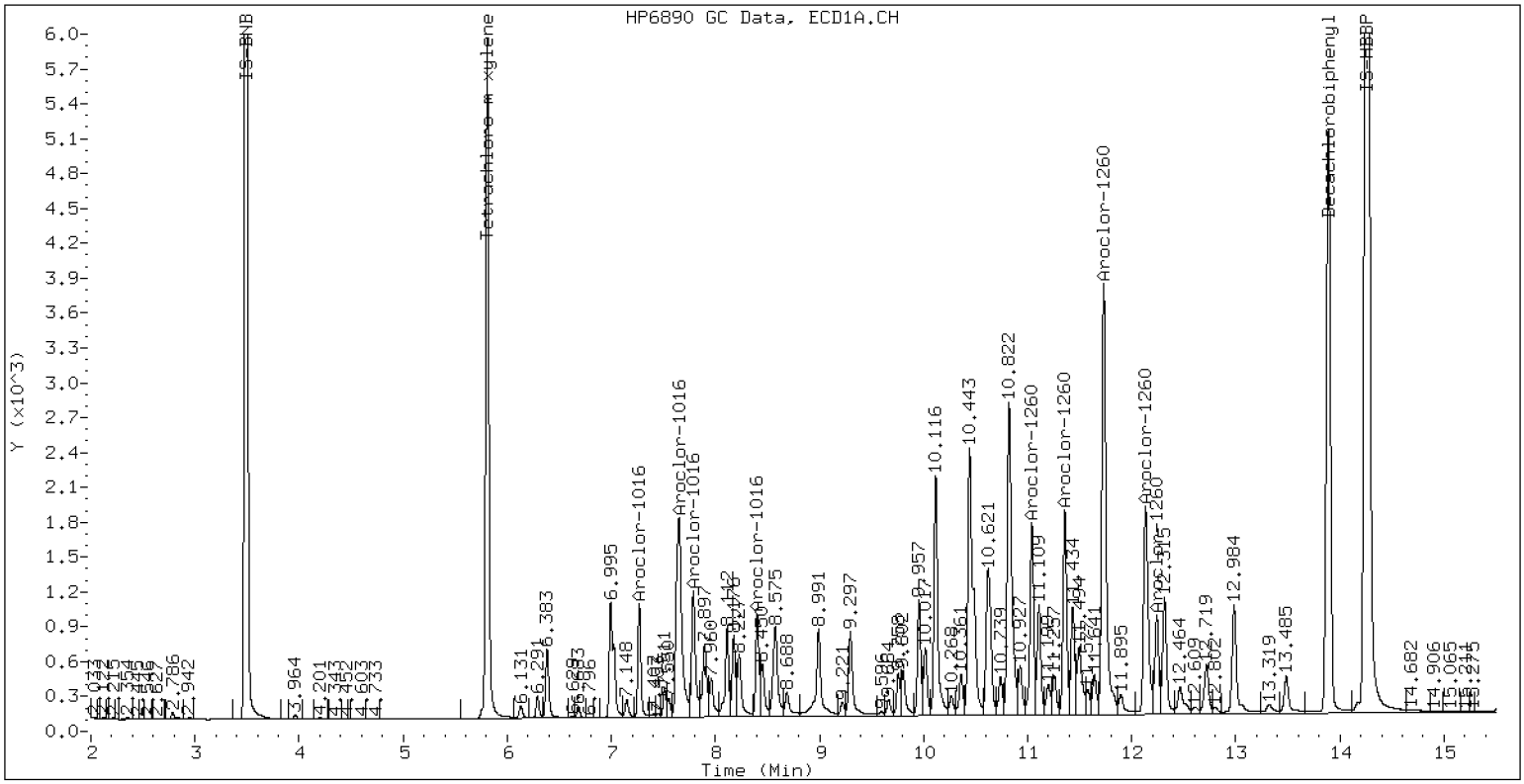
Total PCB Area Col2 (5.785 - 14.016) = 1933444 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

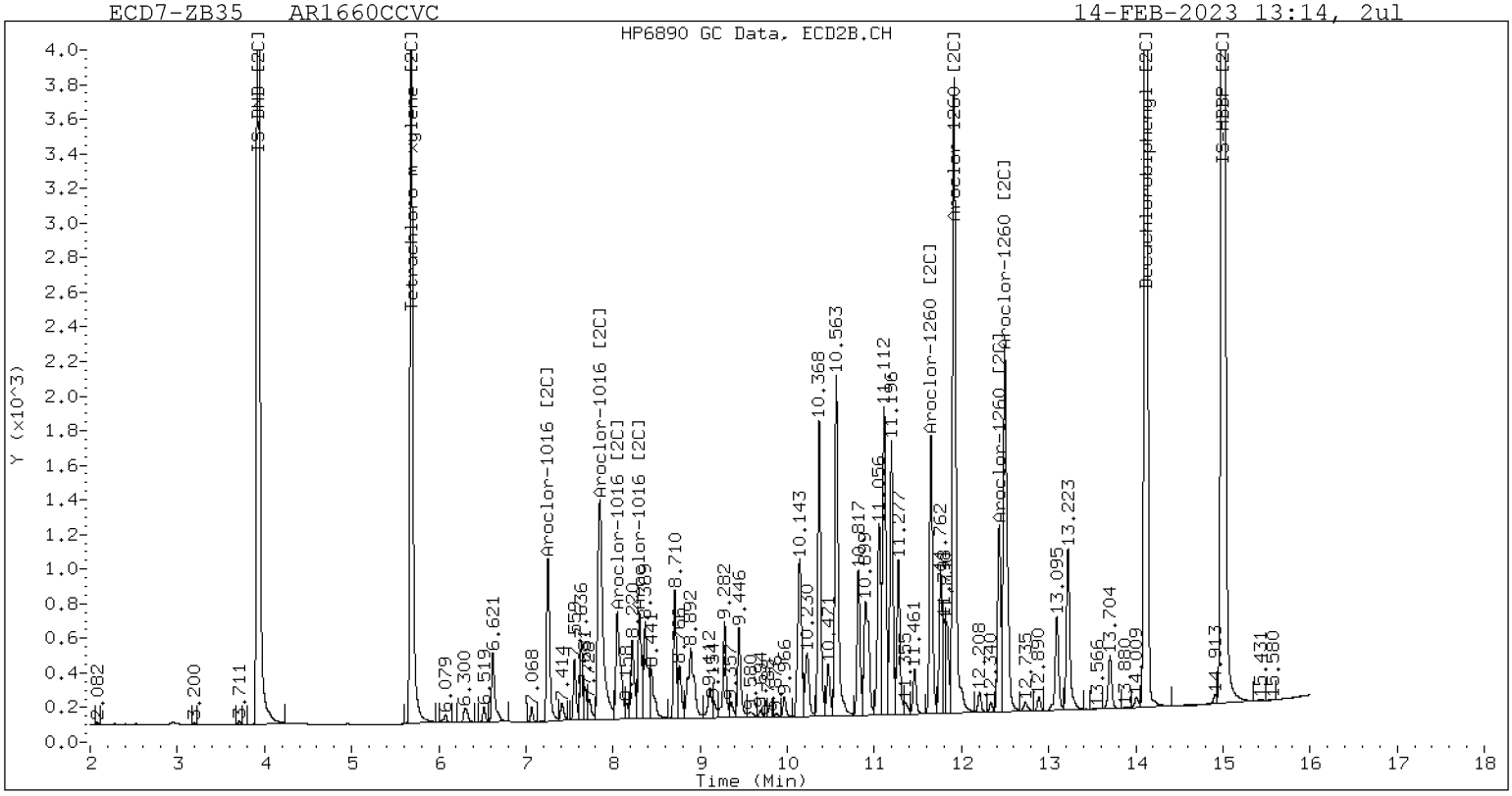
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCVC 14-FEB-2023 13:14, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCVC 14-FEB-2023 13:14, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02162313ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0222	Injection Date:	02/16/23
Lab Sample ID:	SLB0222-SCV1	Injection Time:	15:15
Sequence Name:	AR1660SCV1		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	217	0.0483914	0.0419429		-13.3	+/-20
Aroclor 1016 [2C]	A	250.00	223	0.0510062	0.0455739		-10.9	+/-20
Aroclor 1260	A	250.00	267	0.0369444	0.0391877		6.8	+/-20
Aroclor 1260 [2C]	A	250.00	258	0.0609398	0.0634778		3.2	+/-20
Decachlorobiphenyl	A	40.000	40.4	0.7045925	0.7121741		1.1	+/-20
Tetrachlorometaxylene	A	40.000	37.3	1.1350860	1.0588860		-6.7	+/-20
Decachlorobiphenyl [2C]	A	40.000	41.5	1.0765520	1.1167670		3.7	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.7	1.0668100	1.0041560		-5.9	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02162314ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0222	Injection Date:	02/16/23
Lab Sample ID:	SLB0222-SCV2	Injection Time:	15:36
Sequence Name:	AR1242SCV2		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	218	0.0389249	0.0338591		-12.8	+/-20
Aroclor 1242 [2C]	A	250.00	223	0.0405023	0.0354432		-10.8	+/-20
Decachlorobiphenyl	A	40.000	40.3	0.7045925	0.7102126		0.8	+/-20
Tetrachlorometaxylene	A	40.000	36.8	1.1350860	1.0432620		-8.1	+/-20
Decachlorobiphenyl [2C]	A	40.000	41.4	1.0765520	1.1137030		3.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.2	1.0668100	0.9920334		-7.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02162315ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0222	Injection Date:	02/16/23
Lab Sample ID:	SLB0222-SCV3	Injection Time:	15:57
Sequence Name:	AR1248SCV3		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	237	0.0499033	0.0470965		-5.3	+/-20
Aroclor 1248 [2C]	A	250.00	233	0.0427878	0.0396914		-7.0	+/-20
Decachlorobiphenyl	A	40.000	41.4	0.7045925	0.7290206		3.5	+/-20
Tetrachlorometaxylene	A	40.000	36.5	1.1350860	1.0355960		-8.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	41.5	1.0765520	1.1173720		3.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.9	1.0668100	0.9836791		-7.8	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02162316ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0222	Injection Date:	02/16/23
Lab Sample ID:	SLB0222-SCV4	Injection Time:	16:18
Sequence Name:	AR1254SCV4		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	225	0.0630747	0.0559786		-10.0	+/-20
Aroclor 1254 [2C]	A	250.00	226	0.0697219	0.0627527		-9.7	+/-20
Decachlorobiphenyl	A	40.000	40.3	0.7045925	0.7096601		0.7	+/-20
Tetrachlorometaxylene	A	40.000	36.7	1.1350860	1.0408980		-8.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	41.8	1.0765520	1.1261210		4.6	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.5	1.0668100	0.9992928		-6.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02162317ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0222	Injection Date:	02/16/23
Lab Sample ID:	SLB0222-SCV5	Injection Time:	16:39
Sequence Name:	AR2162SCV5		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1221	A	250.00	246	0.0148725	0.0145060		-1.8	+/-20
Aroclor 1221 [2C]	A	250.00	241	0.0133667	0.0126955		-3.7	+/-20
Aroclor 1262	A	500.00	462	0.0346850	0.0319278		-7.7	+/-20
Aroclor 1262 [2C]	A	500.00	465	0.0642615	0.0600038		-7.1	+/-20
Decachlorobiphenyl	A	40.000	40.4	0.7045925	0.7117832		1.0	+/-20
Tetrachlorometaxylene	A	40.000	37.2	1.1350860	1.0560480		-7.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	42.0	1.0765520	1.1294230		4.9	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.7	1.0668100	1.0044620		-5.8	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02162318ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0222	Injection Date:	02/16/23
Lab Sample ID:	SLB0222-SCV6	Injection Time:	17:00
Sequence Name:	AR3268SCV6		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1232	A	250.00	215	0.0167290	0.0149473		-14.0	+/-20
Aroclor 1232 [2C]	A	250.00	231	0.0185704	0.0172726		-7.7	+/-20
Aroclor 1268	A	250.00	234	0.1360545	0.1278409		-6.3	+/-20
Aroclor 1268 [2C]	A	250.00	234	0.2093144	0.1988784		-6.4	+/-20
Decachlorobiphenyl	A	40.000	58.0	0.7045925	1.0210060		44.9	+/-20
Tetrachlorometaxylene	A	40.000	35.5	1.1350860	1.0063980		-11.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	60.1	1.0765520	1.6168590		50.2	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.4	1.0668100	0.9694777		-9.1	+/-20

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02202329ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0274	Injection Date:	02/20/23
Lab Sample ID:	SLB0274-CCV1	Injection Time:	20:00
Sequence Name:	AR1248CCV1		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	213	0.0592639	0.0426175		-14.7	+/-20
Aroclor-1248 (1)	A	250.00	226		0.0348550			
Aroclor-1248 (2)	A	250.00	224		0.0437253			
Aroclor-1248 (3)	A	250.00	215		0.0592149			
Aroclor-1248 (4)	A	250.00	188		0.0326748			
Aroclor 1248 [2C]	A	250.00	237	0.0453673	0.0404816		-5.4	+/-20
Aroclor-1248 (1) [2C]	A	250.00	240		0.0346808			
Aroclor-1248 (2) [2C]	A	250.00	230		0.0349874			
Aroclor-1248 (3) [2C]	A	250.00	240		0.0420614			
Aroclor-1248 (4) [2C]	A	250.00	236		0.0501969			
Decachlorobiphenyl	A	40.000	38.3	0.7045925	0.6750381		-4.3	+/-20
Tetrachlorometaxylene	A	40.000	35.7	1.1350860	1.0126740		-10.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	41.8	1.0765520	1.1257940		4.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.1	1.0668100	1.0688180		0.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202329ECD7.D
Data file 2: /230220.b/230220.b/02202329ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV1
Client ID:
Injection Date: 20-FEB-2023 20:00
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.807	-0.002	378059	5.683	-0.002	164000	35.7	40.1	11.6	Tetrachloro-m-xylene
13.890	-0.001	329667	14.116	-0.000	224883	38.3	41.8	8.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	746655	73.6
Hexabromobiphenyl	975457	976736	0.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	306881	-16.3
Hexabromobiphenyl	646884	399510	-38.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.403	-0.000	81327	225.9	1	8.304	0.000	33259	240.2
Aroclor-1248	2	8.576	-0.001	102024	224.5	2	8.710	0.000	33553	230.4
Aroclor-1248	3	8.995	-0.001	138166	215.1	3	9.157	0.000	40337	239.7
Aroclor-1248	4	9.292	0.001	76240	187.7	4	9.580	0.000	48139	235.8
Total Col1Ave (4 peaks):					213.3	Total Col2Ave (4 peaks):				236.5 RPD = 10
Corrected Ave (3 peaks):					209.1	Corrected Ave (3 peaks):				235.3 RPD = 12
CalAmt %D:					-14.7	CalAmt %D:				-5.4

Total PCB Area Col1 (5.908 - 13.791) = 1650975 Col1 Total PCB = 0.2 ppm*

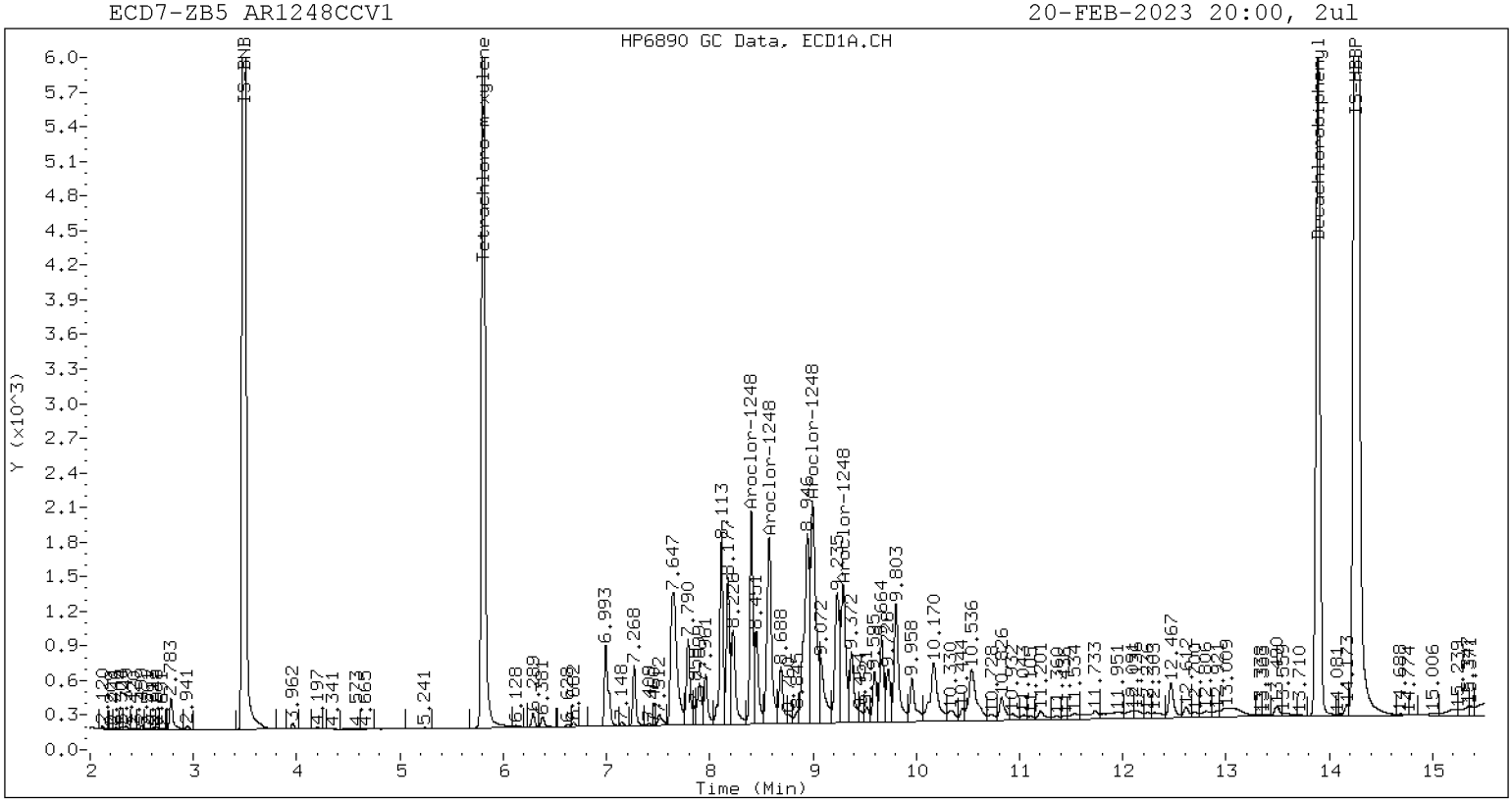
Total PCB Area Col2 (5.785 - 14.017) = 679649 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

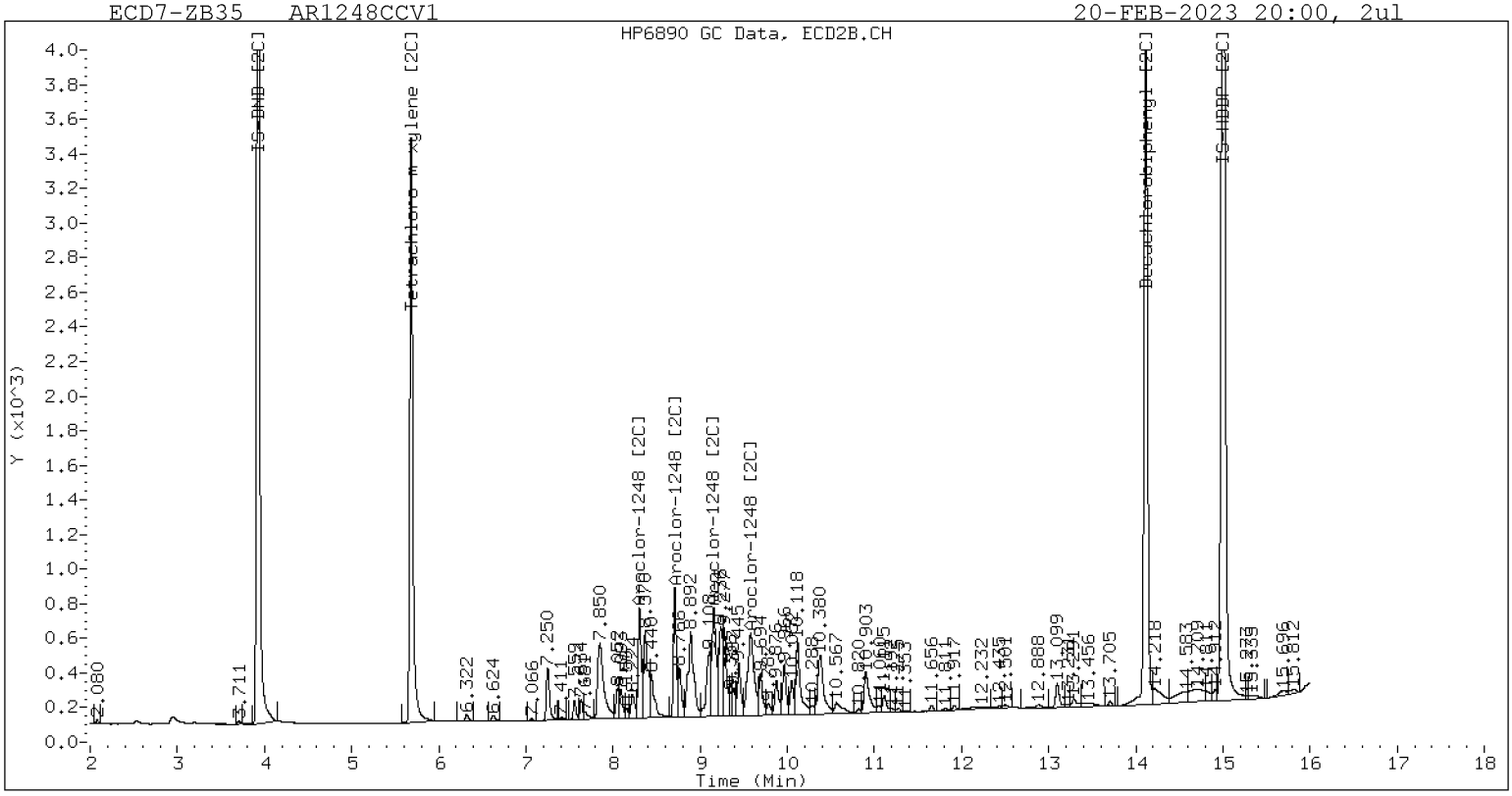
PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV1 20-FEB-2023 20:00, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248CCV1 20-FEB-2023 20:00, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02202330ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0274	Injection Date:	02/20/23
Lab Sample ID:	SLB0274-CCV2	Injection Time:	20:21
Sequence Name:	AR1660CCV2		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	236	0.0483914	0.0457556		-5.5	+/-20
Aroclor-1016 (1)	A	250.00	240	0.0291332	0.0279953		-4.0	
Aroclor-1016 (2)	A	250.00	237	0.0932933	0.0884444		-5.2	
Aroclor-1016 (3)	A	250.00	234	0.0429036	0.0401325		-6.4	
Aroclor-1016 (4)	A	250.00	234	0.0282354	0.0264503		-6.4	
Aroclor 1016 [2C]	A	250.00	253	0.0510062	0.0516959		1.2	+/-20
Aroclor-1016 (1) [2C]	A	250.00	251	0.0435251	0.0437099		0.4	
Aroclor-1016 (2) [2C]	A	250.00	253	0.0917441	0.0929529		1.2	
Aroclor-1016 (3) [2C]	A	250.00	262	0.0378128	0.0396908		4.8	
Aroclor-1016 (4) [2C]	A	250.00	246	0.0309428	0.0304299		-1.6	
Aroclor 1260	A	250.00	289	0.0369444	0.0425215		15.7	+/-20
Aroclor-1260 (1)	A	250.00	298	0.0275801	0.0329076		19.2	
Aroclor-1260 (2)	A	250.00	296	0.0282147	0.0334437		18.4	
Aroclor-1260 (3)	A	250.00	282	0.0747199	0.0843229		12.8	
Aroclor-1260 (4)	A	250.00	287	0.0379377	0.0435122		14.8	
Aroclor-1260 (5)	A	250.00	283	0.0162699	0.0184211		13.2	
Aroclor 1260 [2C]	A	250.00	270	0.0609398	0.0668601		7.9	+/-20
Aroclor-1260 (1) [2C]	A	250.00	260	0.0414523	0.0433086		4.0	
Aroclor-1260 (2) [2C]	A	250.00	281	0.1040347	0.1170951		12.4	
Aroclor-1260 (3) [2C]	A	250.00	264	0.0282007	0.0299048		5.6	
Aroclor-1260 (4) [2C]	A	250.00	274	0.0700714	0.0771319		9.6	
Decachlorobiphenyl	A	40.000	39.3	0.7045925	0.6918761		-1.8	+/-20
Tetrachlorometaxylene	A	40.000	37.6	1.1350860	1.0671790		-6.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	42.1	1.0765520	1.1324340		5.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	41.3	1.0668100	1.1020780		3.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202330ECD7.D
Data file 2: /230220.b/230220.b/02202330ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV2
Client ID:
Injection Date: 20-FEB-2023 20:21
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.807	-0.001	395965	5.684	-0.001	166546	37.6	41.3	9.4	Tetrachloro-m-xylene
13.891	-0.000	432233	14.116	-0.001	244373	39.3	42.1	6.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	742078	72.6
Hexabromobiphenyl	975457	1249452	28.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	302240	-17.6
Hexabromobiphenyl	646884	431589	-33.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.268	-0.000	64921	240.2	1	7.252	-0.002	41284	251.1
Aroclor-1016	2	7.650	-0.000	205102	237.0	2	7.852	0.000	87794	253.3
Aroclor-1016	3	7.789	0.002	93067	233.9	3	8.051	-0.000	37488	262.4
Aroclor-1016	4	8.402	-0.000	61338	234.2	4	8.304	-0.000	28741	245.9
Total Col1Ave (4 peaks):					236.3	Total Col2Ave (4 peaks):				253.2 RPD = 7
Corrected Ave (3 peaks):					235.0	Corrected Ave (3 peaks):				250.1 RPD = 6
CalAmt %D:					-5.5	CalAmt %D:				1.3
Aroclor-1260	1	11.042	0.002	128489	298.3	1	11.650	0.001	58411	260.4
Aroclor-1260	2	11.359	0.001	130582	296.3	2	11.914	0.000	157928	280.7
Aroclor-1260	3	11.733	0.002	329242	282.1	3	12.432	-0.000	40333	263.9
Aroclor-1260	4	12.137	0.003	169895	286.7	4	12.498	-0.000	104029	273.9
Aroclor-1260	5	12.242	0.002	71926	283.1	NS	---			----
Total Col1Ave (5 peaks):					289.3	Total Col2Ave (4 peaks):				269.7 RPD = 7
Corrected Ave (4 peaks):					287.1	Corrected Ave (3 peaks):				266.1 RPD = 8
CalAmt %D:					15.7	CalAmt %D:				7.9

Total PCB Area Col1 (5.908 - 13.791) = 3763084 Col1 Total PCB = 0.4 ppm*

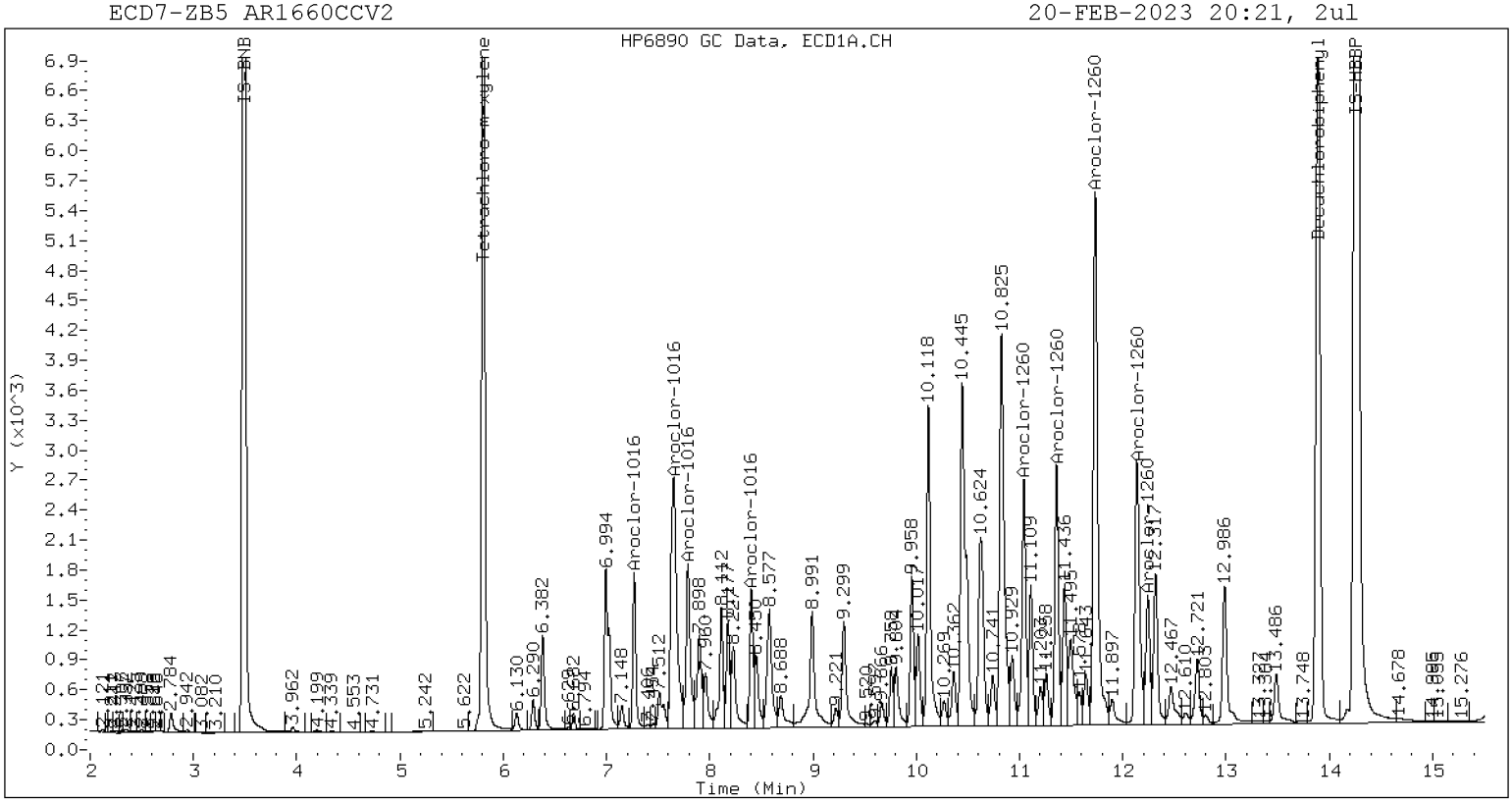
Total PCB Area Col2 (5.785 - 14.017) = 1526928 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

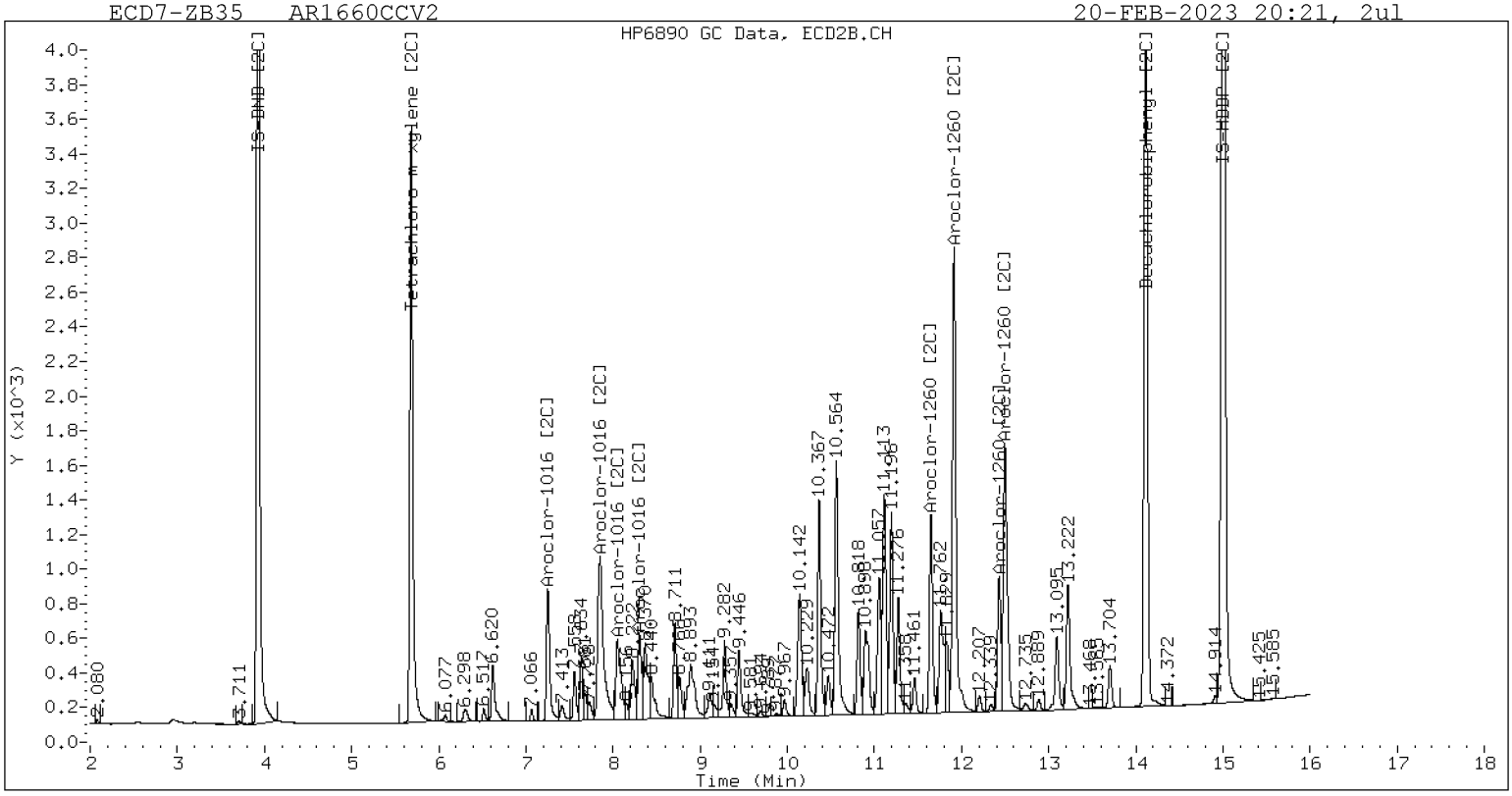
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV2 20-FEB-2023 20:21, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1660CCV2 20-FEB-2023 20:21, 2ul

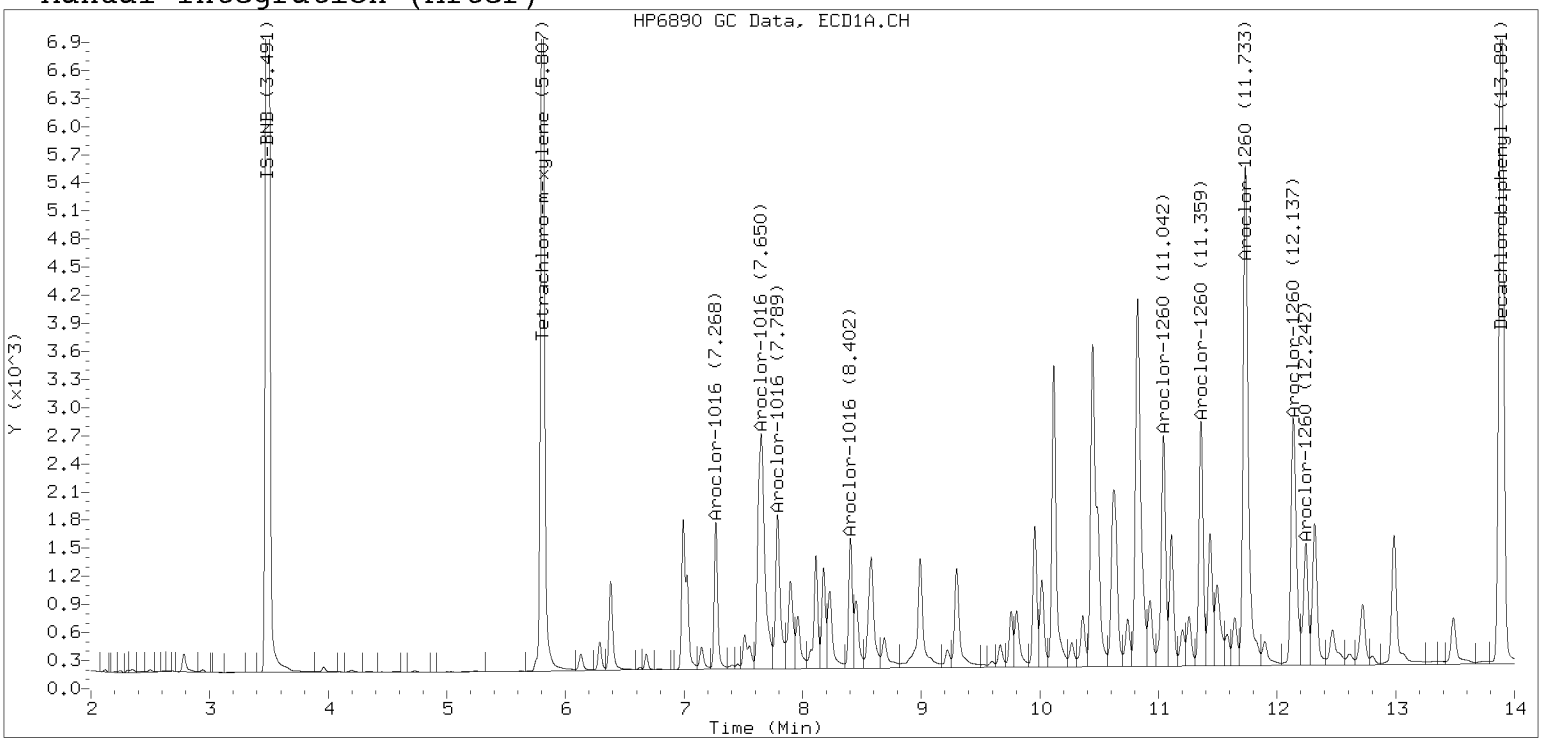


ZB-35 Manual Integration: NO

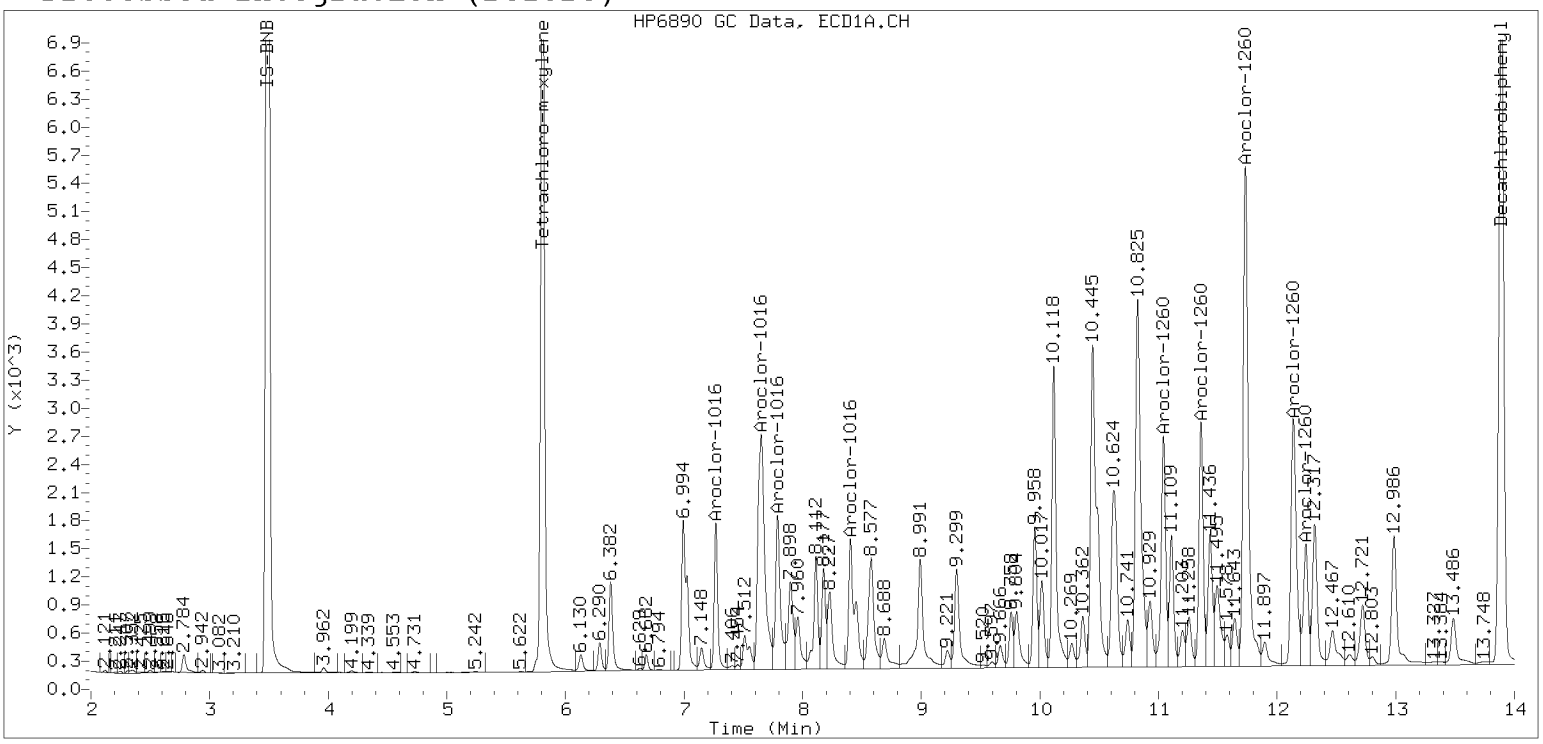
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/230220.b/02202330ECD7.D Injection Date: 20-FEB-2023 20:21

Manual Integration (After)



Processed Integration (Before)



Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02202343ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0274	Injection Date:	02/21/23
Lab Sample ID:	SLB0274-CCV3	Injection Time:	00:54
Sequence Name:	AR1242CCV3		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
Aroclor 1242	A	250.00	237	0.0411165	0.0367723		-5.4	+/-20	
Aroclor-1242 (1)	A	250.00	236		0.0225081				
Aroclor-1242 (2)	A	250.00	235		0.0708504				
Aroclor-1242 (3)	A	250.00	236		0.0215591				
Aroclor-1242 (4)	A	250.00	239		0.0321717				
Aroclor 1242 [2C]	A	250.00	245	0.0423236	0.0396974		-2.1	+/-20	
Aroclor-1242 (1) [2C]	A	250.00	250		0.0346036				
Aroclor-1242 (2) [2C]	A	250.00	244		0.0732615				
Aroclor-1242 (3) [2C]	A	250.00	243		0.0230404				
Aroclor-1242 (4) [2C]	A	250.00	242		0.0278842				
Decachlorobiphenyl	A	40.000	31.4	0.7045925	0.5534826		-21.5	+/-20	*
Tetrachlorometaxylene	A	40.000	44.0	1.1350860	1.2490740		10.0	+/-20	
Decachlorobiphenyl [2C]	A	40.000	39.0	1.0765520	1.0499460		-2.5	+/-20	
Tetrachlorometaxylene [2C]	A	40.000	47.3	1.0668100	1.2617030		18.3	+/-20	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202343ECD7.D
Data file 2: /230220.b/230220.b/02202343ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV3
Client ID:
Injection Date: 21-FEB-2023 00:54
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	-0.000	534043	5.683	-0.002	216343	44.0	47.3	7.2	Tetrachloro-m-xylene
13.892	0.001	613011	14.116	-0.000	302293	31.4	39.0	21.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D	
Bromo-Nitrobenzene	430055	855102	98.8	
Hexabromobiphenyl	975457	2215105	127.1	<-

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	342938	-6.5
Hexabromobiphenyl	646884	575826	-11.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.268	-0.001	60146	236.1	1	7.252	0.000	37084	250.0
Aroclor-1242	2	7.651	-0.000	189326	234.9	2	7.853	0.000	78513	244.3
Aroclor-1242	3	8.402	-0.001	57610	236.5	3	9.161	0.000	24692	243.1
Aroclor-1242	4	8.577	-0.000	85969	238.9	4	9.586	0.000	29883	242.6
Total Col1Ave (4 peaks):					236.6	Total Col2Ave (4 peaks):				245.0 RPD = 3
Corrected Ave (3 peaks):					235.8	Corrected Ave (3 peaks):				243.3 RPD = 3
CalAmt %D:					-5.4	CalAmt %D:				-2.0

Total PCB Area Col1 (5.908 - 13.791) = 1491915 Col1 Total PCB = 0.2 ppm*

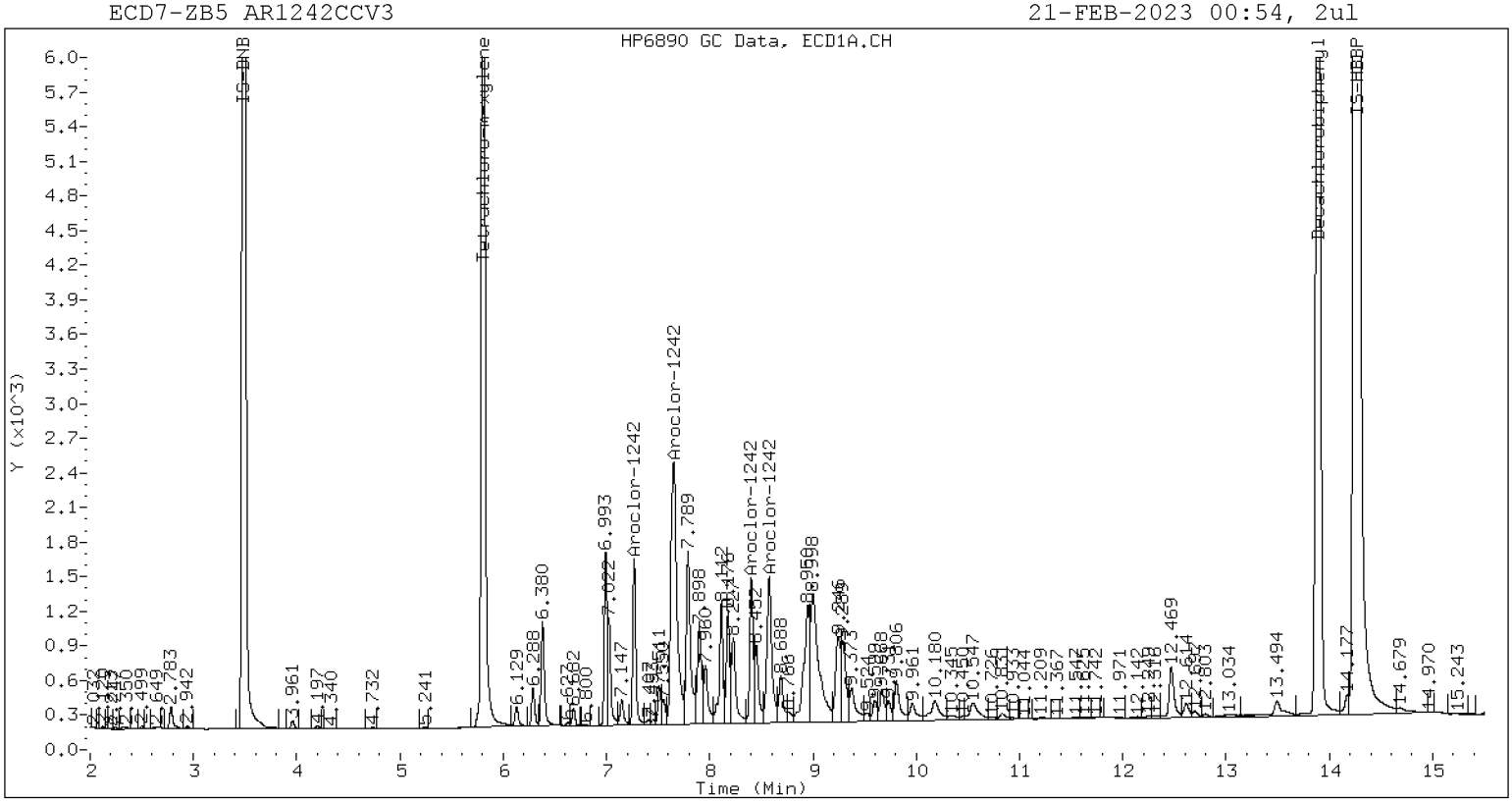
Total PCB Area Col2 (5.785 - 14.017) = 575108 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

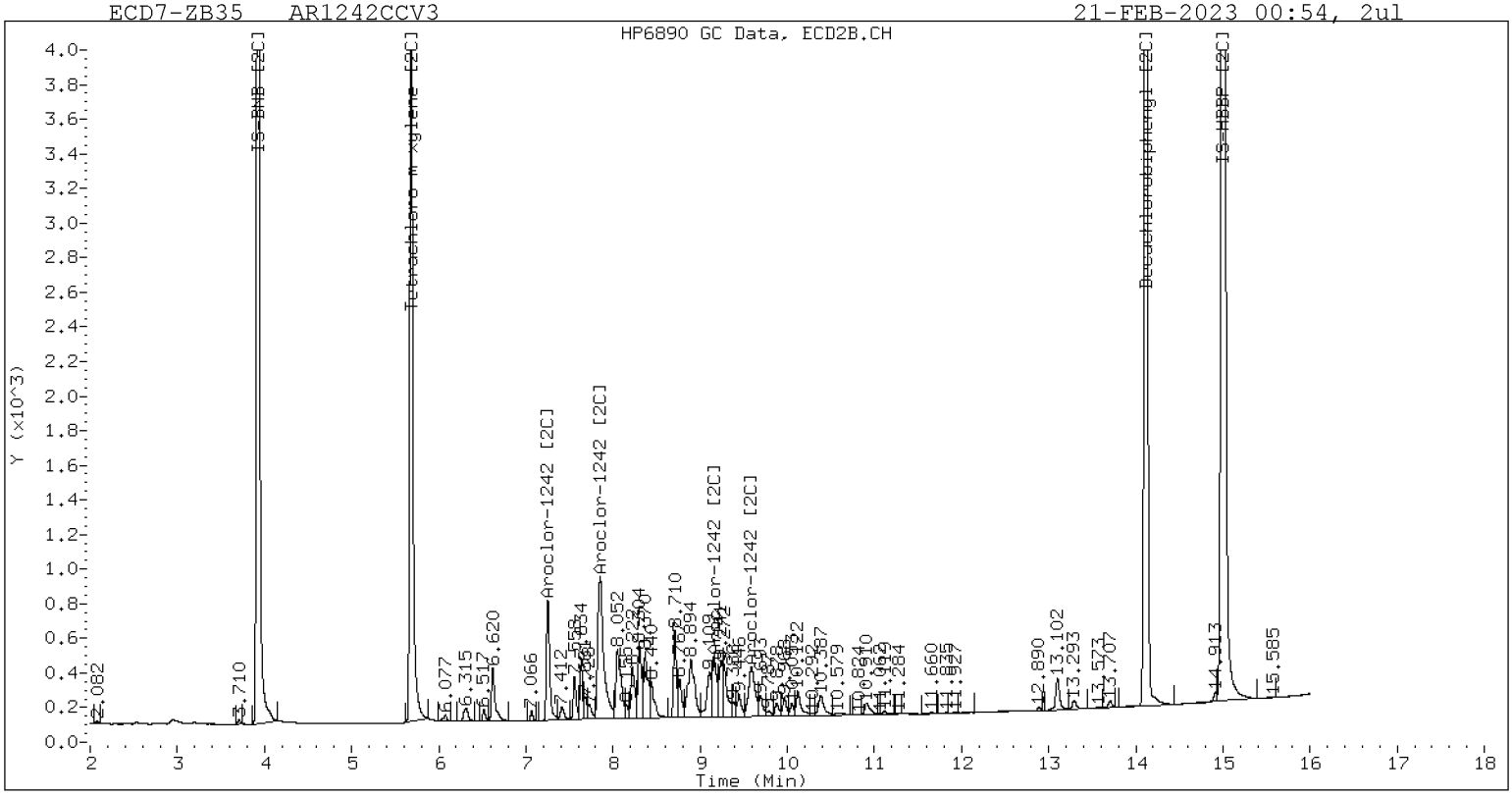
PCB Dual Column Chromatograms

ECD7-ZB5 AR1242CCV3 21-FEB-2023 00:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242CCV3 21-FEB-2023 00:54, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02202344ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0274	Injection Date:	02/21/23
Lab Sample ID:	SLB0274-CCV4	Injection Time:	01:15
Sequence Name:	AR1660CCV4		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	237	0.0483914	0.0457472		-5.4	+/-20
Aroclor-1016 (1)	A	250.00	238	0.0291332	0.0277517		-4.8	
Aroclor-1016 (2)	A	250.00	238	0.0932933	0.0888231		-4.8	
Aroclor-1016 (3)	A	250.00	229	0.0429036	0.0392388		-8.4	
Aroclor-1016 (4)	A	250.00	241	0.0282354	0.0271750		-3.6	
Aroclor 1016 [2C]	A	250.00	245	0.0510062	0.0500077		-2.1	+/-20
Aroclor-1016 (1) [2C]	A	250.00	241	0.0435251	0.0419255		-3.6	
Aroclor-1016 (2) [2C]	A	250.00	246	0.0917441	0.0903771		-1.6	
Aroclor-1016 (3) [2C]	A	250.00	252	0.0378128	0.0380828		0.8	
Aroclor-1016 (4) [2C]	A	250.00	240	0.0309428	0.0296452		-4.0	
Aroclor 1260	A	250.00	209	0.0369444	0.0307641		-16.5	+/-20
Aroclor-1260 (1)	A	250.00	208	0.0275801	0.0229242		-16.8	
Aroclor-1260 (2)	A	250.00	212	0.0282147	0.0239337		-15.2	
Aroclor-1260 (3)	A	250.00	206	0.0747199	0.0615142		-17.6	
Aroclor-1260 (4)	A	250.00	211	0.0379377	0.0319759		-15.6	
Aroclor-1260 (5)	A	250.00	207	0.0162699	0.0134725		-17.2	
Aroclor 1260 [2C]	A	250.00	243	0.0609398	0.0602601		-3.0	+/-20
Aroclor-1260 (1) [2C]	A	250.00	230	0.0414523	0.0383316		-8.0	
Aroclor-1260 (2) [2C]	A	250.00	253	0.1040347	0.1056599		1.2	
Aroclor-1260 (3) [2C]	A	250.00	238	0.0282007	0.0269179		-4.8	
Aroclor-1260 (4) [2C]	A	250.00	249	0.0700714	0.0701310		-0.4	
Decachlorobiphenyl	A	40.000	33.3	0.7045925	0.5859814		-16.8	+/-20
Tetrachlorometaxylene	A	40.000	37.3	1.1350860	1.0586150		-6.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.5	1.0765520	1.0902500		1.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.8	1.0668100	1.0869670		2.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202344ECD7.D
Data file 2: /230220.b/230220.b/02202344ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV4
Client ID:
Injection Date: 21-FEB-2023 01:15
Report Date: 02/21/2023 09:39
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.806	-0.002	431440	5.683	-0.002	177592	37.3	40.8	8.8	Tetrachloro-m-xylene
13.892	0.001	627657	14.117	0.000	299066	33.3	40.5	19.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	815103	89.5
Hexabromobiphenyl	975457	2142242	119.6 <-

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	326766	-10.9
Hexabromobiphenyl	646884	548619	-15.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.268	-0.001	70689	238.1	1	7.252	-0.002	42812	240.8
Aroclor-1016	2	7.651	0.001	226250	238.0	2	7.851	-0.001	92288	246.3
Aroclor-1016	3	7.788	0.001	99949	228.6	3	8.051	0.000	38888	251.8
Aroclor-1016	4	8.402	-0.000	69220	240.6	4	8.303	-0.001	30272	239.5
Total Col1Ave (4 peaks):					236.4	Total Col2Ave (4 peaks):				244.6 RPD = 3
Corrected Ave (3 peaks):					234.9	Corrected Ave (3 peaks):				242.2 RPD = 3
CalAmt %D:					-5.5	CalAmt %D:				-2.2
Aroclor-1260	1	11.043	0.003	153466	207.8	1	11.651	0.001	65717	230.5
Aroclor-1260	2	11.359	0.002	160224	212.1	2	11.915	0.001	181147	253.3
Aroclor-1260	3	11.733	0.003	411807	205.8	3	12.434	0.001	46149	237.6
Aroclor-1260	4	12.138	0.004	214063	210.7	4	12.500	0.001	120235	249.0
Aroclor-1260	5	12.243	0.002	90192	207.0	NS	---			----
Total Col1Ave (5 peaks):					208.7	Total Col2Ave (4 peaks):				242.6 RPD = 15
Corrected Ave (4 peaks):					207.8	Corrected Ave (3 peaks):				239.0 RPD = 14
CalAmt %D:					-16.5	CalAmt %D:				-3.0

Total PCB Area Col1 (5.908 - 13.791) = 4368080 Col1 Total PCB = 0.5 ppm*

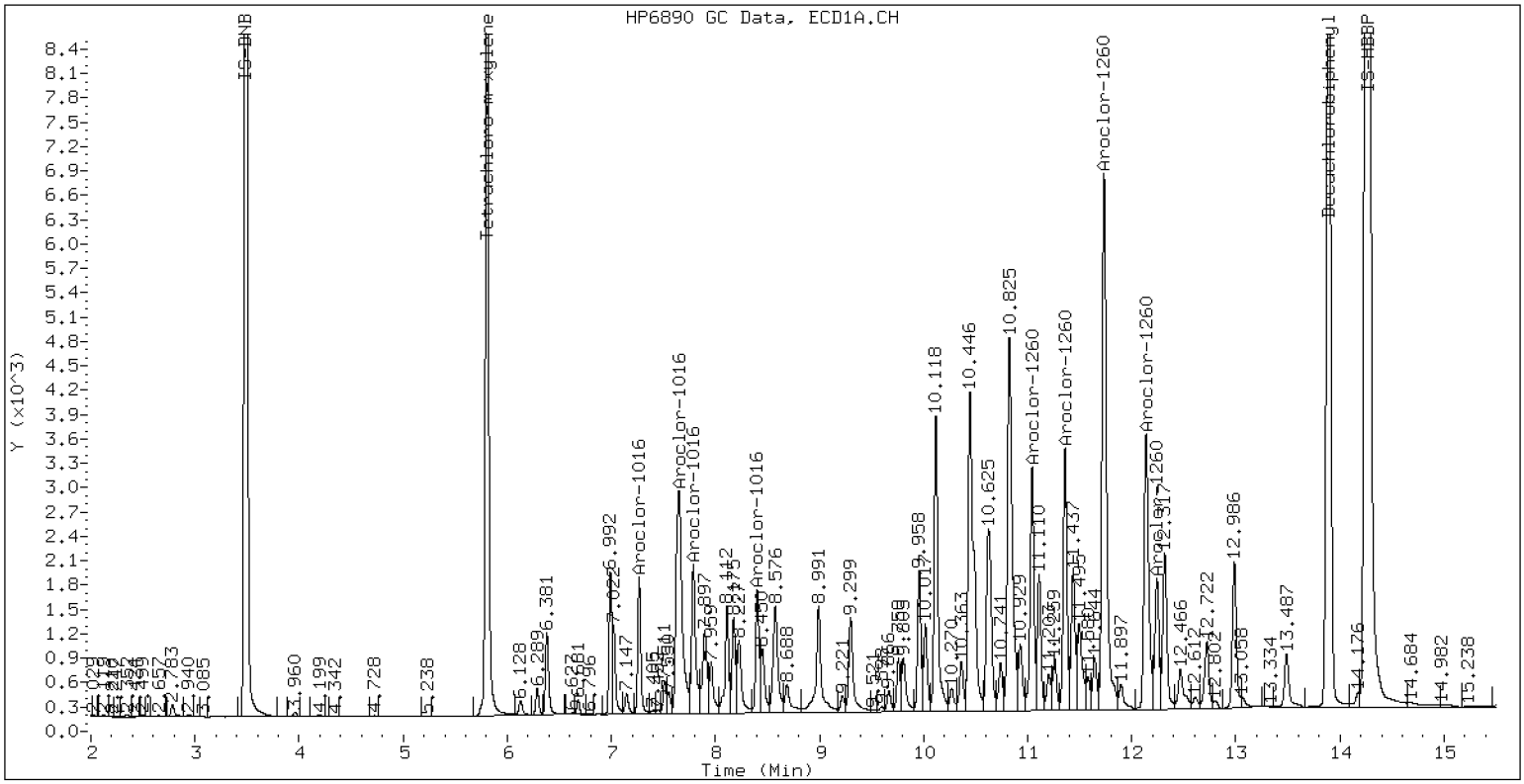
Total PCB Area Col2 (5.785 - 14.017) = 1677582 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

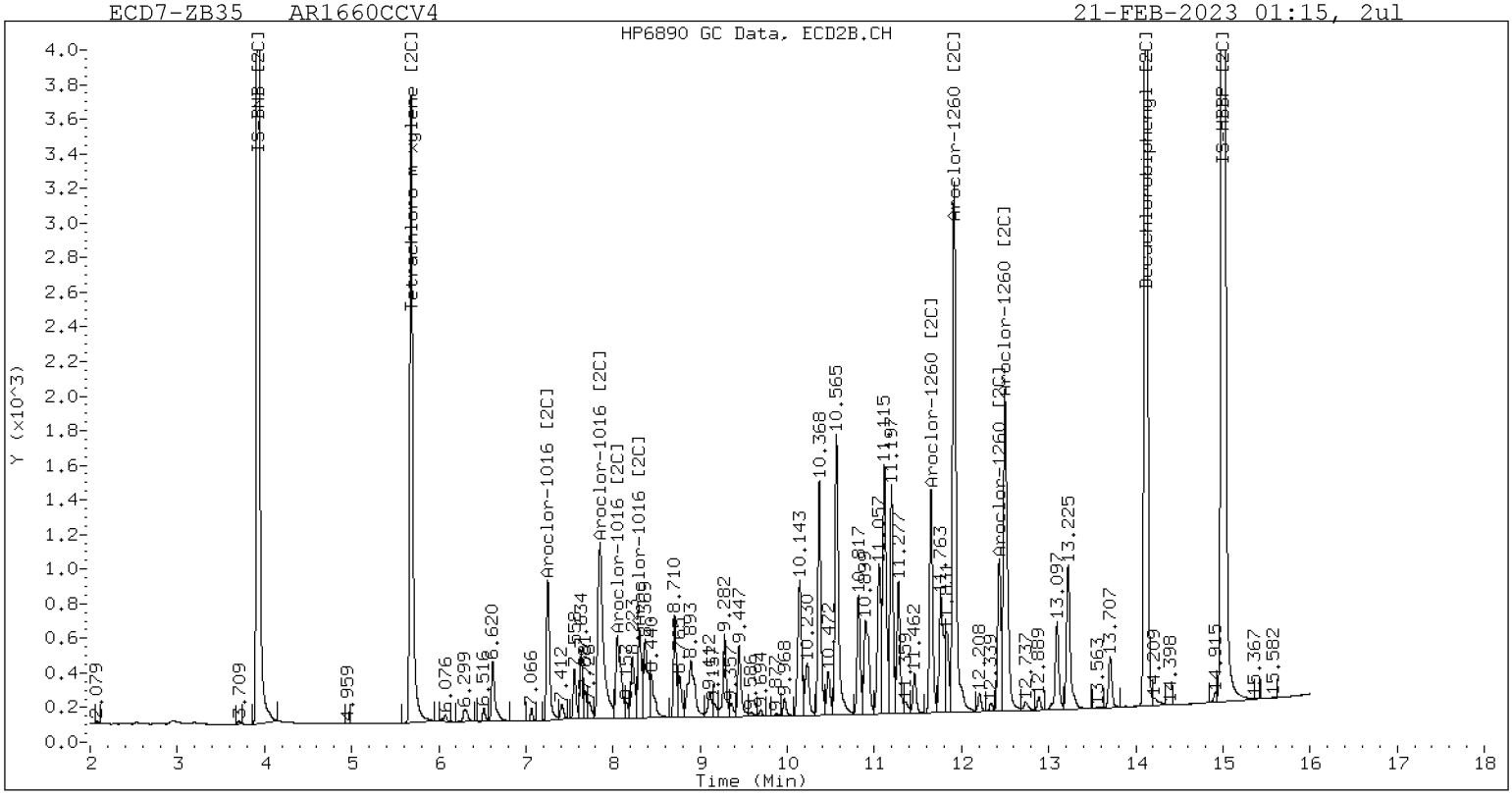
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV4 21-FEB-2023 01:15, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV4 21-FEB-2023 01:15, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02202359ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0274	Injection Date:	02/21/23
Lab Sample ID:	SLB0274-CCV5	Injection Time:	06:31
Sequence Name:	AR1254CCV5		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	228	0.0675033	0.0570172		-8.9	+/-20
Aroclor-1254 (1)	A	250.00	223		0.0692078			
Aroclor-1254 (2)	A	250.00	236		0.0288382			
Aroclor-1254 (3)	A	250.00	227		0.0447640			
Aroclor-1254 (4)	A	250.00	221		0.0867924			
Aroclor-1254 (5)	A	250.00	232		0.0554836			
Aroclor 1254 [2C]	A	250.00	235	0.0733219	0.0654768		-5.9	+/-20
Aroclor-1254 (1) [2C]	A	250.00	236		0.0533423			
Aroclor-1254 (2) [2C]	A	250.00	239		0.0435373			
Aroclor-1254 (3) [2C]	A	250.00	231		0.0916180			
Aroclor-1254 (4) [2C]	A	250.00	237		0.0928251			
Aroclor-1254 (5) [2C]	A	250.00	233		0.0460613			
Decachlorobiphenyl	A	40.000	37.9	0.7045925	0.6671059		-5.3	+/-20
Tetrachlorometaxylene	A	40.000	36.3	1.1350860	1.0293770		-9.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	41.1	1.0765520	1.1067700		2.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.3	1.0668100	1.0488160		-1.8	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202359ECD7.D
Data file 2: /230220.b/230220.b/02202359ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254CCV5
Client ID:
Injection Date: 21-FEB-2023 06:31
Report Date: 02/21/2023 09:40
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.809	0.000	397321	5.685	-0.000	171267	36.3	39.3	8.1	Tetrachloro-m-xylene
13.891	-0.000	380189	14.116	-0.000	244045	37.9	41.1	8.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	771964	79.5
Hexabromobiphenyl	975457	1139816	16.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	326591	-11.0
Hexabromobiphenyl	646884	441004	-31.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1254	1	9.295	0.000	166956	223.5	1	9.445	0.000	54441	236.4
Aroclor-1254	2	9.373	-0.001	69569	236.5	2	9.965	0.000	44434	238.9
Aroclor-1254	3	9.664	-0.001	107988	226.8	3	10.118	0.000	93505	230.8
Aroclor-1254	4	9.803	0.000	209377	220.9	4	10.367	0.000	94737	237.0
Aroclor-1254	5	10.166	-0.001	133848	231.5	5	10.564	0.000	47010	232.7
	Total Col1Ave (5 peaks):				227.8		Total Col2Ave (5 peaks):			235.2 RPD = 3
	Corrected Ave (4 peaks):				225.7		Corrected Ave (4 peaks):			234.2 RPD = 4
			CalAmt %D:		-8.9			CalAmt %D:		-5.9

Total PCB Area Col1 (5.908 - 13.791) = 2235783 Col1 Total PCB = 0.3 ppm*

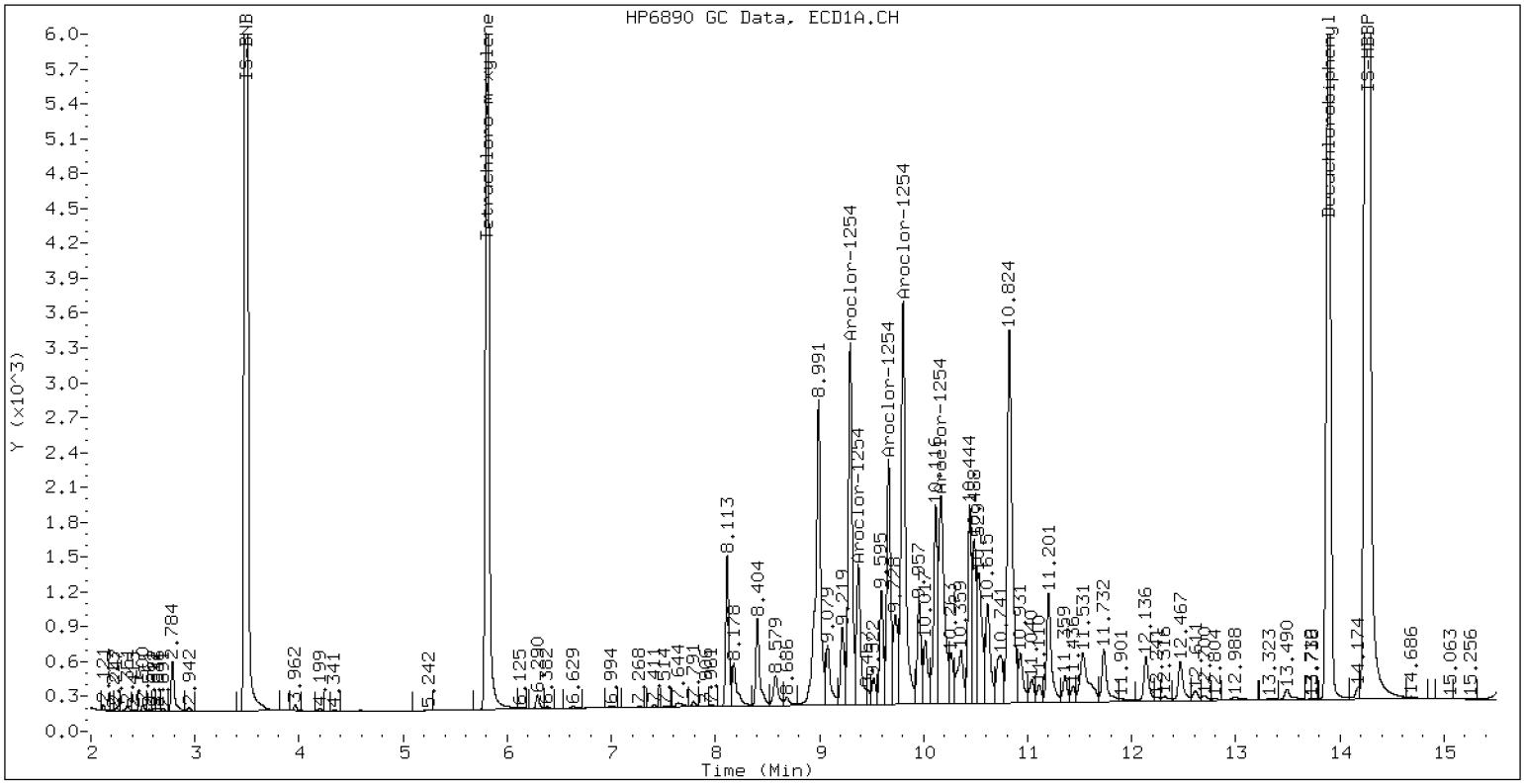
Total PCB Area Col2 (5.785 - 14.017) = 923776 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

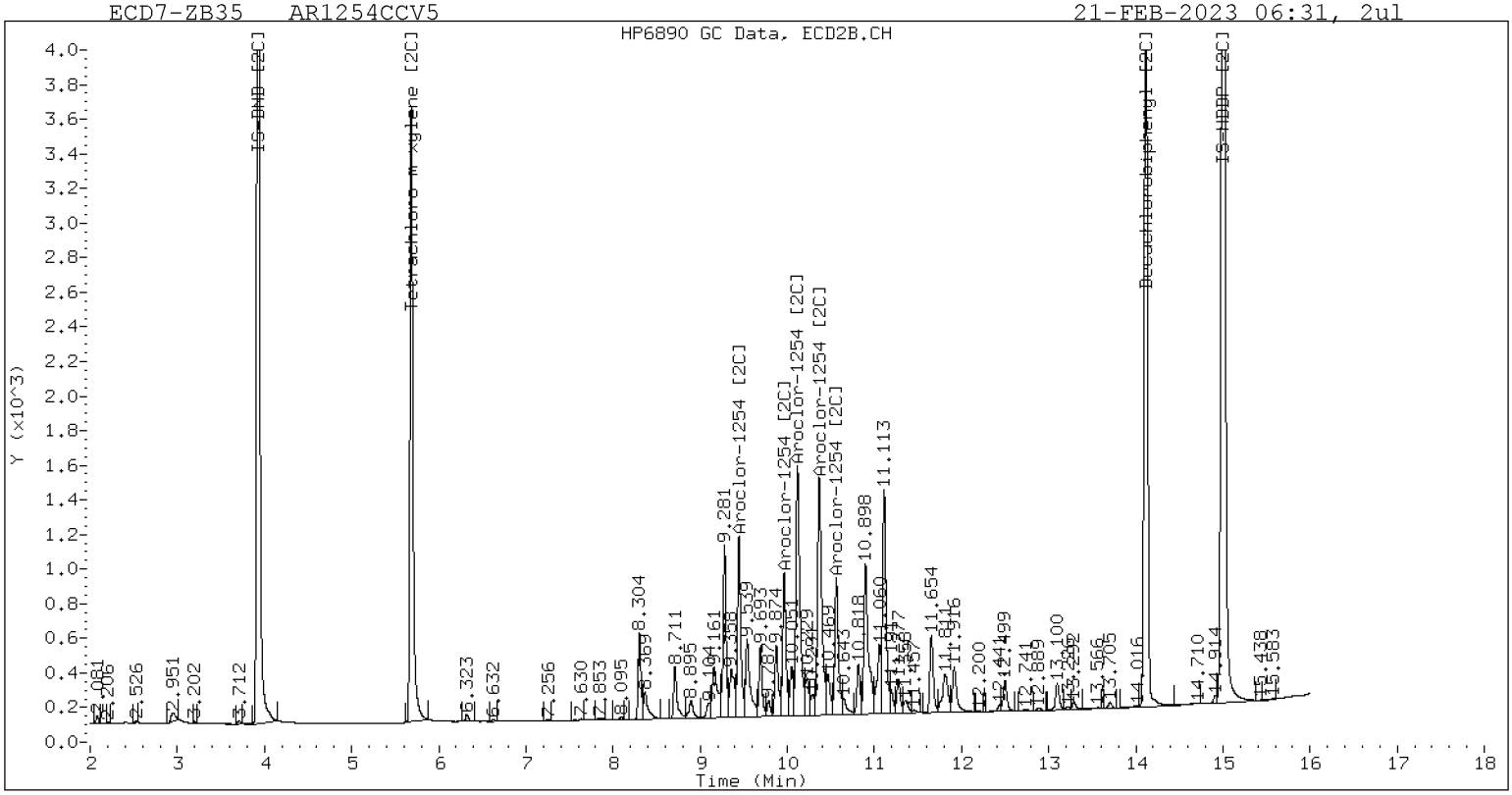
PCB Dual Column Chromatograms

ECD7-ZB5 AR1254CCV5 21-FEB-2023 06:31, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254CCV5 21-FEB-2023 06:31, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02202360ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0274	Injection Date:	02/21/23
Lab Sample ID:	SLB0274-CCV6	Injection Time:	06:52
Sequence Name:	AR1660CCV6		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	244	0.0483914	0.0472745		-2.4	+/-20
Aroclor-1016 (1)	A	250.00	248	0.0291332	0.0289382		-0.8	
Aroclor-1016 (2)	A	250.00	246	0.0932933	0.0919602		-1.6	
Aroclor-1016 (3)	A	250.00	235	0.0429036	0.0403033		-6.0	
Aroclor-1016 (4)	A	250.00	247	0.0282354	0.0278960		-1.2	
Aroclor 1016 [2C]	A	250.00	250	0.0510062	0.0510843		-0.1	+/-20
Aroclor-1016 (1) [2C]	A	250.00	246	0.0435251	0.0429076		-1.6	
Aroclor-1016 (2) [2C]	A	250.00	252	0.0917441	0.0924107		0.8	
Aroclor-1016 (3) [2C]	A	250.00	258	0.0378128	0.0389497		3.2	
Aroclor-1016 (4) [2C]	A	250.00	243	0.0309428	0.0300693		-2.8	
Aroclor 1260	A	250.00	298	0.0369444	0.0439360		19.3	+/-20
Aroclor-1260 (1)	A	250.00	303	0.0275801	0.0334777		21.2	
Aroclor-1260 (2)	A	250.00	305	0.0282147	0.0344109		22.0	
Aroclor-1260 (3)	A	250.00	292	0.0747199	0.0874238		16.8	
Aroclor-1260 (4)	A	250.00	299	0.0379377	0.0453843		19.6	
Aroclor-1260 (5)	A	250.00	292	0.0162699	0.0189830		16.8	
Aroclor 1260 [2C]	A	250.00	267	0.0609398	0.0661611		6.6	+/-20
Aroclor-1260 (1) [2C]	A	250.00	258	0.0414523	0.0429495		3.2	
Aroclor-1260 (2) [2C]	A	250.00	279	0.1040347	0.1164453		11.6	
Aroclor-1260 (3) [2C]	A	250.00	260	0.0282007	0.0294429		4.0	
Aroclor-1260 (4) [2C]	A	250.00	269	0.0700714	0.0758069		7.6	
Decachlorobiphenyl	A	40.000	39.4	0.7045925	0.6948366		-1.5	+/-20
Tetrachlorometaxylene	A	40.000	38.6	1.1350860	1.0963620		-3.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	41.4	1.0765520	1.1133130		3.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	41.6	1.0668100	1.1095260		4.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202360ECD7.D
Data file 2: /230220.b/230220.b/02202360ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV6
Client ID:
Injection Date: 21-FEB-2023 06:52
Report Date: 02/21/2023 09:40
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.808	0.000	422805	5.685	0.000	181655	38.6	41.6	7.4	Tetrachloro-m-xylene
13.891	0.000	454001	14.117	0.000	262831	39.4	41.4	4.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	771287	79.3
Hexabromobiphenyl	975457	1306785	34.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	327446	-10.7
Hexabromobiphenyl	646884	472160	-27.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	-0.000	69749	248.3	1	7.253	0.000	43906	246.5
Aroclor-1016	2	7.652	0.002	221649	246.4	2	7.852	0.000	94561	251.8
Aroclor-1016	3	7.788	0.001	97142	234.8	3	8.051	0.000	39856	257.5
Aroclor-1016	4	8.402	0.000	67237	247.0	4	8.304	0.000	30769	242.9
Total Col1Ave (4 peaks):					244.1	Total Col2Ave (4 peaks):				249.7 RPD = 2
Corrected Ave (3 peaks):					242.8	Corrected Ave (3 peaks):				247.1 RPD = 2
CalAmt %D:					-2.3	CalAmt %D:				-0.1
Aroclor-1260	1	11.041	0.001	136713	303.5	1	11.649	0.000	63372	258.3
Aroclor-1260	2	11.357	0.000	140524	304.9	2	11.914	0.000	171815	279.1
Aroclor-1260	3	11.732	0.002	357013	292.5	3	12.433	0.000	43443	259.8
Aroclor-1260	4	12.136	0.001	185336	299.1	4	12.498	0.000	111853	269.1
Aroclor-1260	5	12.241	0.001	77521	291.7	NS	---			----
Total Col1Ave (5 peaks):					298.3	Total Col2Ave (4 peaks):				266.6 RPD = 11
Corrected Ave (4 peaks):					296.7	Corrected Ave (3 peaks):				262.4 RPD = 12
CalAmt %D:					19.3	CalAmt %D:				6.6

Total PCB Area Col1 (5.908 - 13.791) = 4001244 Col1 Total PCB = 0.5 ppm*

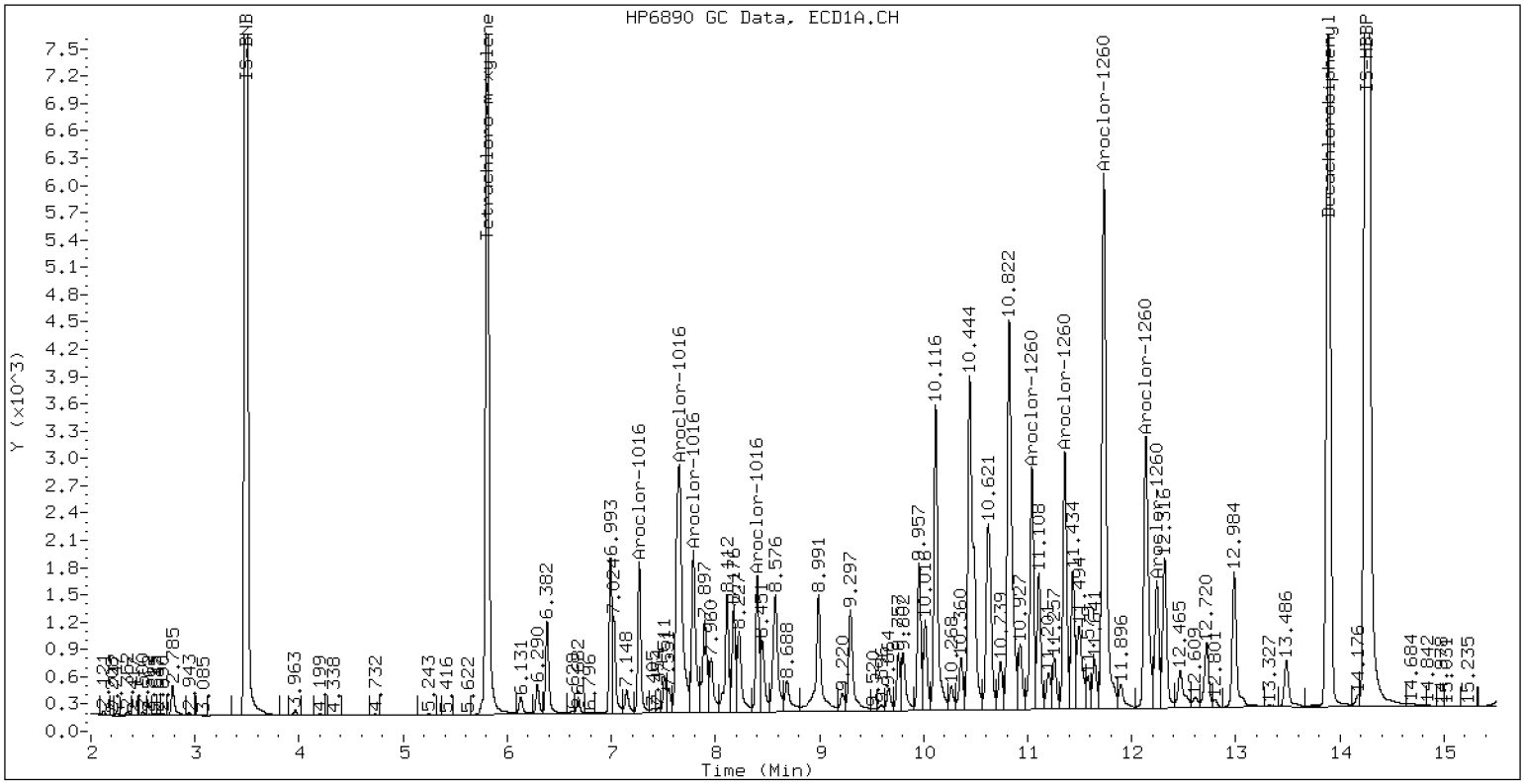
Total PCB Area Col2 (5.785 - 14.017) = 1648566 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

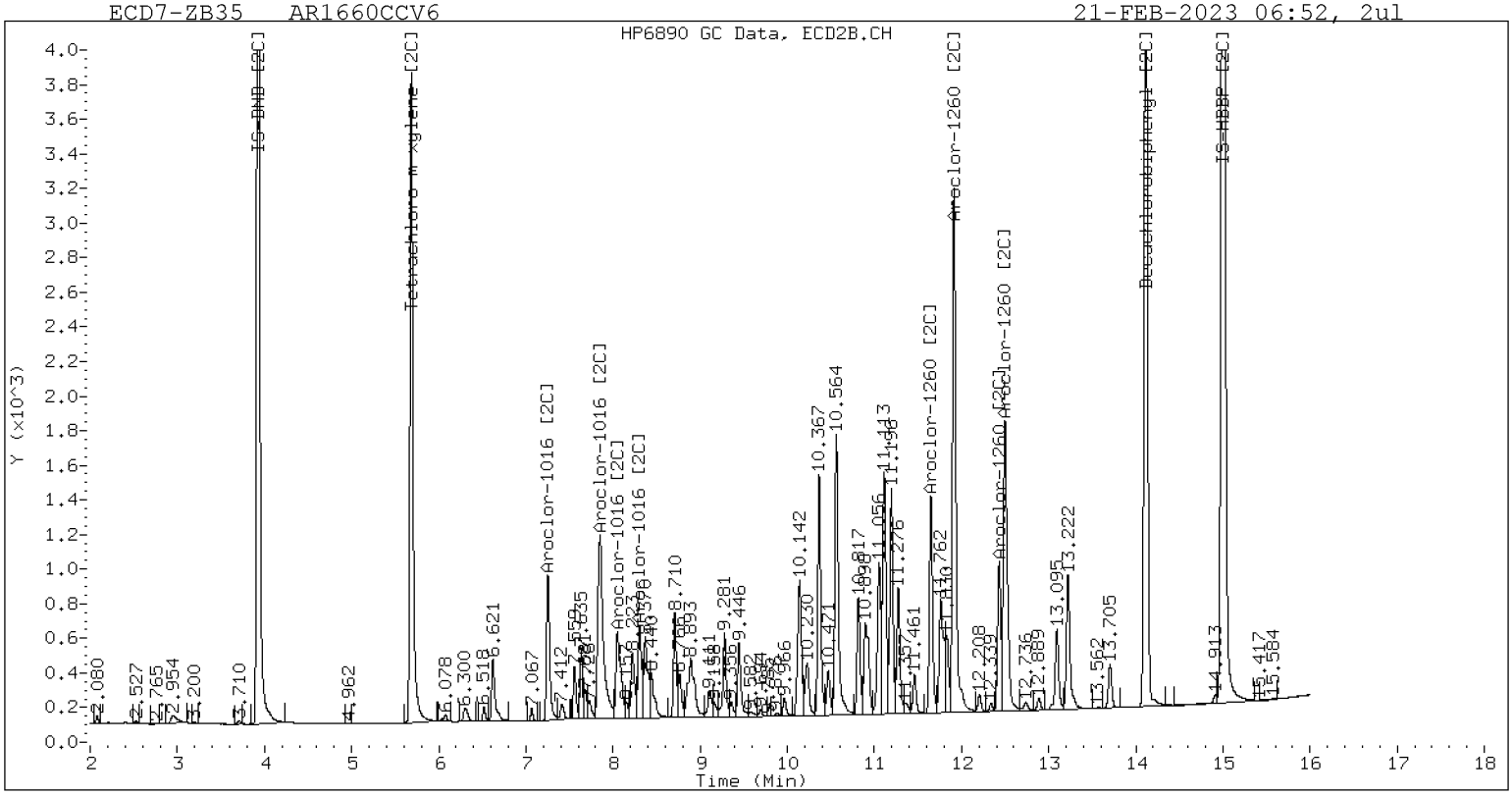
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV6 21-FEB-2023 06:52, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV6 21-FEB-2023 06:52, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02202378ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0274	Injection Date:	02/21/23
Lab Sample ID:	SLB0274-CCV7	Injection Time:	13:12
Sequence Name:	AR1248CCV7		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	209	0.0592639	0.0418170		-16.5	+/-20
Aroclor-1248 (1)	A	250.00	224		0.0345239			
Aroclor-1248 (2)	A	250.00	222		0.0432405			
Aroclor-1248 (3)	A	250.00	214		0.0589548			
Aroclor-1248 (4)	A	250.00	175		0.0305489			
Aroclor 1248 [2C]	A	250.00	234	0.0453673	0.0401137		-6.4	+/-20
Aroclor-1248 (1) [2C]	A	250.00	236		0.0340199			
Aroclor-1248 (2) [2C]	A	250.00	225		0.0342251			
Aroclor-1248 (3) [2C]	A	250.00	240		0.0421778			
Aroclor-1248 (4) [2C]	A	250.00	235		0.0500322			
Decachlorobiphenyl	A	40.000	36.4	0.7045925	0.6413519		-9.0	+/-20
Tetrachlorometaxylene	A	40.000	35.9	1.1350860	1.0179330		-10.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.7	1.0765520	1.0683960		-0.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.0	1.0668100	1.0676060		0.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202378ECD7.D
Data file 2: /230220.b/230220.b/02202378ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV7
Client ID:
Injection Date: 21-FEB-2023 13:12
Report Date: 02/21/2023 13:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.807	-0.001	411165	5.684	0.000	180639	35.9	40.0	11.0	Tetrachloro-m-xylene
13.891	-0.000	318800	14.115	0.000	215606	36.4	39.7	8.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	807843	87.8
Hexabromobiphenyl	975457	994150	1.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	338400	-7.7
Hexabromobiphenyl	646884	403607	-37.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.401	-0.002	87156	223.7	1	8.302	0.000	35976	235.7
Aroclor-1248	2	8.575	-0.003	109161	222.0	2	8.709	0.000	36193	225.3
Aroclor-1248	3	8.995	-0.001	148832	214.2	3	9.155	0.000	44603	240.3
Aroclor-1248	4	9.291	-0.001	77121	175.5	4	9.578	0.000	52909	235.0
Total Col1Ave (4 peaks):					208.8	Total Col2Ave (4 peaks):				234.1 RPD = 11
Corrected Ave (3 peaks):					203.9	Corrected Ave (3 peaks):				232.0 RPD = 13
CalAmt %D:					-16.5	CalAmt %D:				-6.4

Total PCB Area Col1 (5.908 - 13.791) = 1649174 Col1 Total PCB = 0.2 ppm*

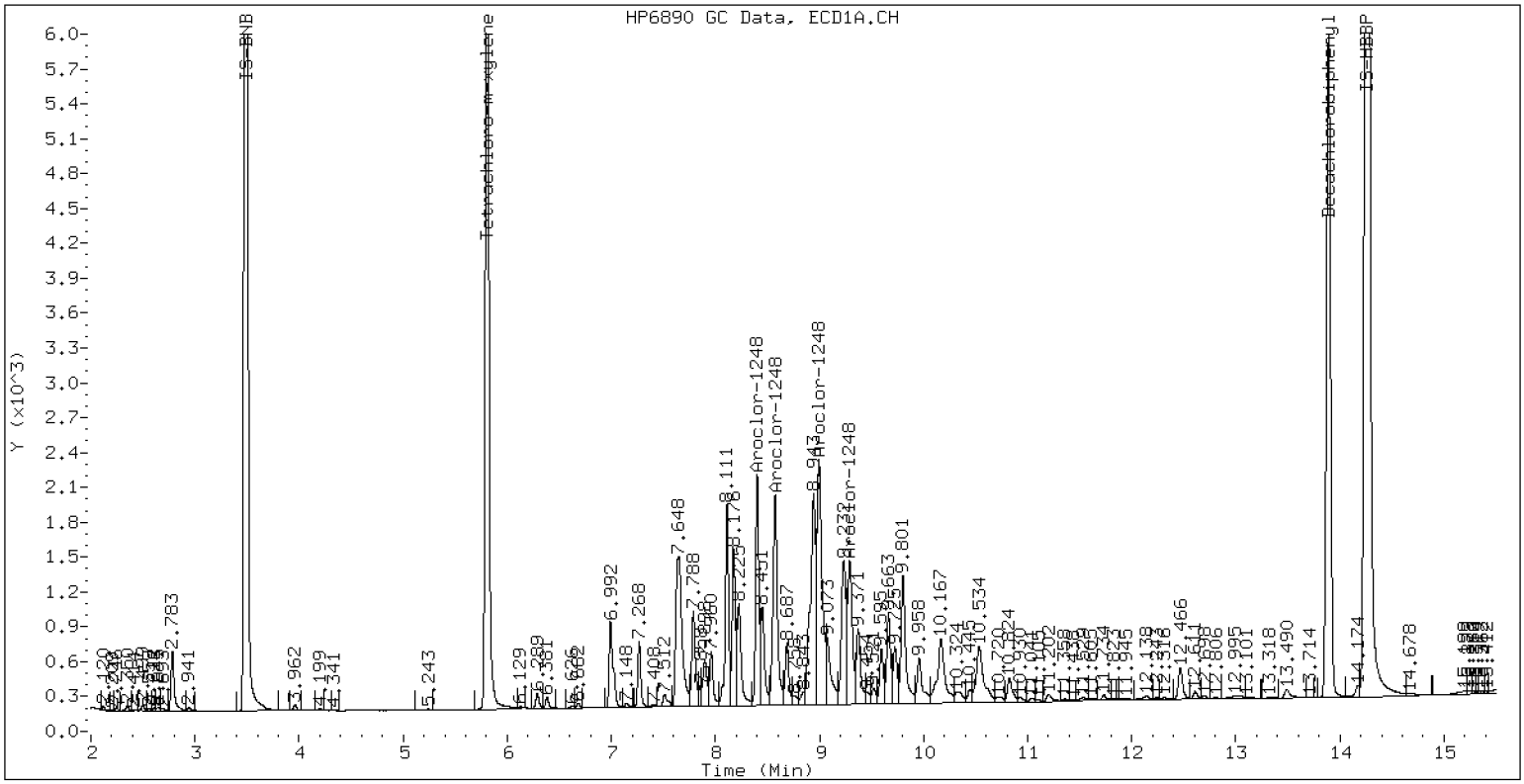
Total PCB Area Col2 (5.784 - 14.015) = 715058 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

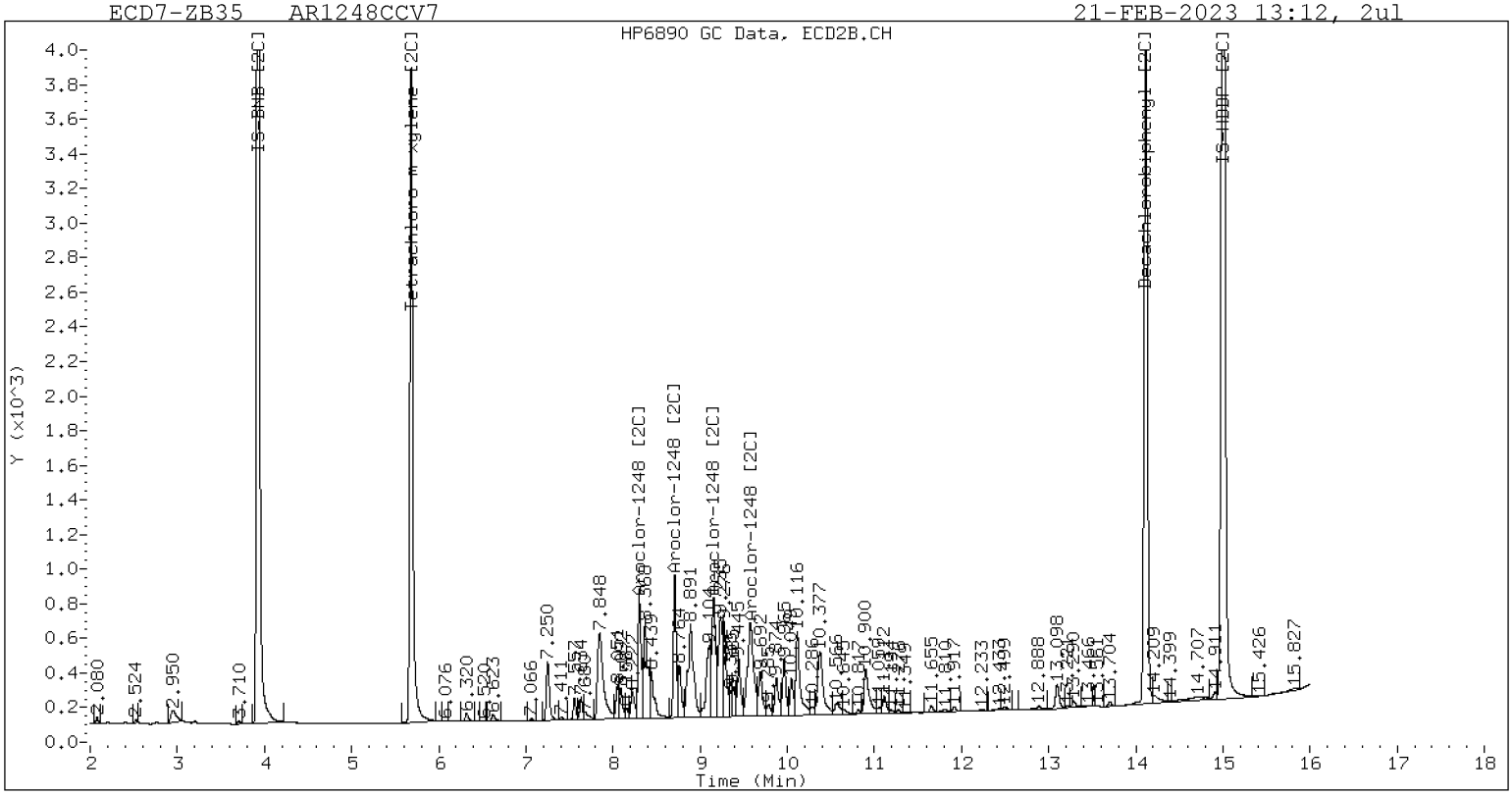
PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV7 21-FEB-2023 13:12, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248CCV7 21-FEB-2023 13:12, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02202379ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0274	Injection Date:	02/21/23
Lab Sample ID:	SLB0274-CCV8	Injection Time:	13:33
Sequence Name:	AR1660CCV8		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	240	0.0483914	0.0464627		-4.1	+/-20
Aroclor-1016 (1)	A	250.00	244	0.0291332	0.0284422		-2.4	
Aroclor-1016 (2)	A	250.00	242	0.0932933	0.0904618		-3.2	
Aroclor-1016 (3)	A	250.00	230	0.0429036	0.0394626		-8.0	
Aroclor-1016 (4)	A	250.00	243	0.0282354	0.0274842		-2.8	
Aroclor 1016 [2C]	A	250.00	247	0.0510062	0.0505890		-1.3	+/-20
Aroclor-1016 (1) [2C]	A	250.00	246	0.0435251	0.0427641		-1.6	
Aroclor-1016 (2) [2C]	A	250.00	250	0.0917441	0.0918324		0.0	
Aroclor-1016 (3) [2C]	A	250.00	253	0.0378128	0.0382536		1.2	
Aroclor-1016 (4) [2C]	A	250.00	238	0.0309428	0.0295060		-4.8	
Aroclor 1260	A	250.00	300	0.0369444	0.0442769		19.8	+/-20
Aroclor-1260 (1)	A	250.00	314	0.0275801	0.0346687		25.6	
Aroclor-1260 (2)	A	250.00	313	0.0282147	0.0353613		25.2	
Aroclor-1260 (3)	A	250.00	296	0.0747199	0.0886461		18.4	
Aroclor-1260 (4)	A	250.00	292	0.0379377	0.0442879		16.8	
Aroclor-1260 (5)	A	250.00	283	0.0162699	0.0184207		13.2	
Aroclor 1260 [2C]	A	250.00	279	0.0609398	0.0692157		11.7	+/-20
Aroclor-1260 (1) [2C]	A	250.00	272	0.0414523	0.0452760		8.8	
Aroclor-1260 (2) [2C]	A	250.00	292	0.1040347	0.1217678		16.8	
Aroclor-1260 (3) [2C]	A	250.00	273	0.0282007	0.0308958		9.2	
Aroclor-1260 (4) [2C]	A	250.00	280	0.0700714	0.0789231		12.0	
Decachlorobiphenyl	A	40.000	38.1	0.7045925	0.6715886		-4.8	+/-20
Tetrachlorometaxylene	A	40.000	38.2	1.1350860	1.0828090		-4.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	41.7	1.0765520	1.1218470		4.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.9	1.0668100	1.0915930		2.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202379ECD7.D
Data file 2: /230220.b/230220.b/02202379ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV8
Client ID:
Injection Date: 21-FEB-2023 13:33
Report Date: 02/21/2023 13:51
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.806	-0.002	464411	5.683	-0.000	193070	38.2	40.9	7.0	Tetrachloro-m-xylene
13.891	-0.000	452598	14.115	0.000	268141	38.1	41.7	8.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	857789	99.5
Hexabromobiphenyl	975457	1347843	38.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	353740	-3.5
Hexabromobiphenyl	646884	478035	-26.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.268	-0.001	76242	244.1	1	7.252	-0.001	47273	245.6
Aroclor-1016	2	7.649	-0.001	242491	242.4	2	7.850	-0.002	101515	250.2
Aroclor-1016	3	7.788	0.000	105783	229.9	3	8.049	-0.002	42287	252.9
Aroclor-1016	4	8.402	-0.000	73674	243.3	4	8.302	-0.002	32617	238.4
Total Col1Ave (4 peaks):					239.9	Total Col2Ave (4 peaks):				246.8 RPD = 3
Corrected Ave (3 peaks):					238.6	Corrected Ave (3 peaks):				244.8 RPD = 3
CalAmt %D:					-4.0	CalAmt %D:				-1.3
Aroclor-1260	1	11.042	0.001	146025	314.3	1	11.649	0.000	67636	272.3
Aroclor-1260	2	11.358	0.001	148942	313.3	2	11.913	-0.001	181904	291.9
Aroclor-1260	3	11.732	0.001	373378	296.6	3	12.432	-0.001	46154	272.7
Aroclor-1260	4	12.135	0.001	186541	291.8	4	12.498	-0.001	117900	280.2
Aroclor-1260	5	12.241	0.000	77588	283.0	NS	---			----
Total Col1Ave (5 peaks):					299.8	Total Col2Ave (4 peaks):				279.3 RPD = 7
Corrected Ave (4 peaks):					296.2	Corrected Ave (3 peaks):				275.0 RPD = 7
CalAmt %D:					19.9	CalAmt %D:				11.7

Total PCB Area Col1 (5.908 - 13.791) = 4266282 Col1 Total PCB = 0.4 ppm*

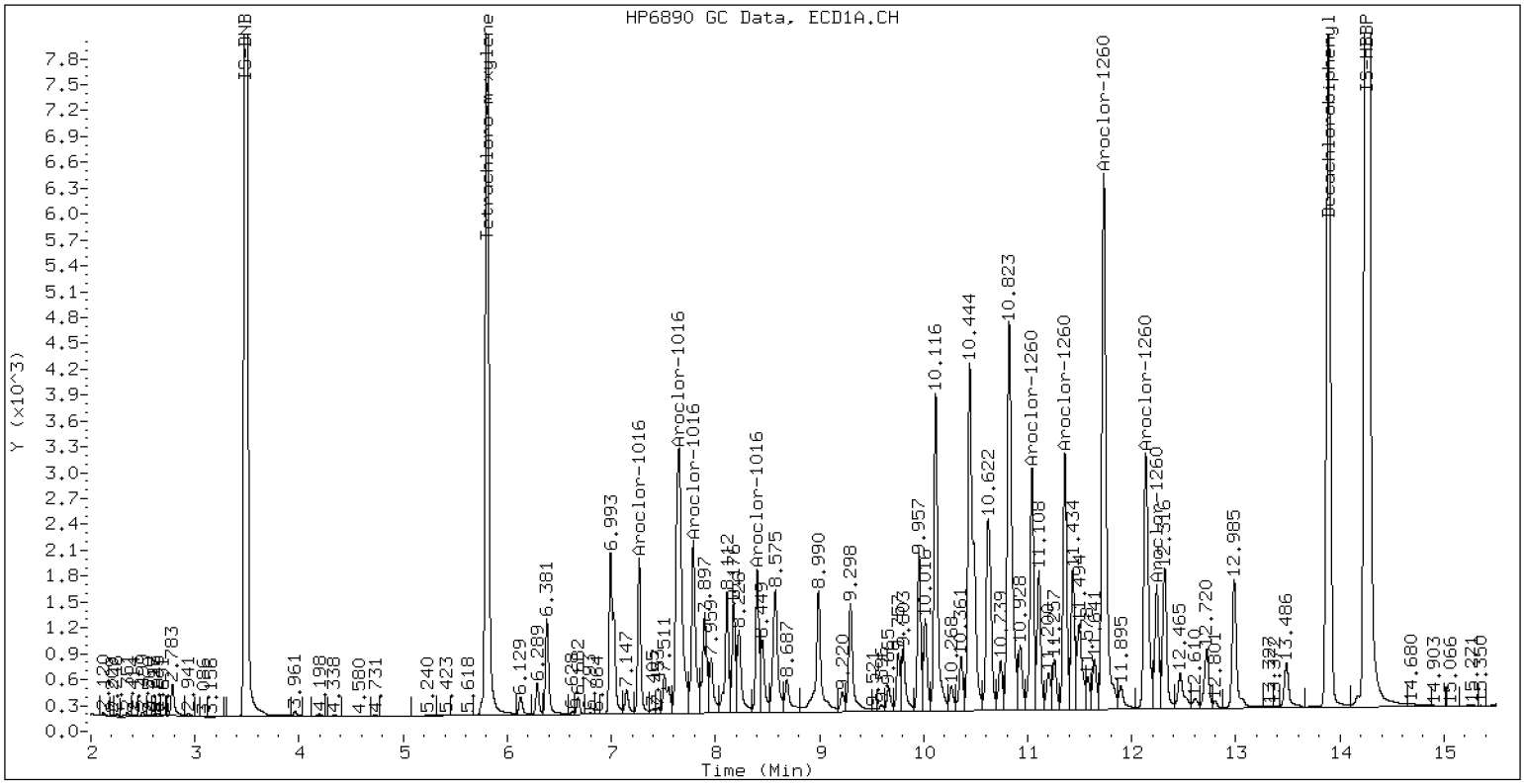
Total PCB Area Col2 (5.784 - 14.015) = 1750358 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

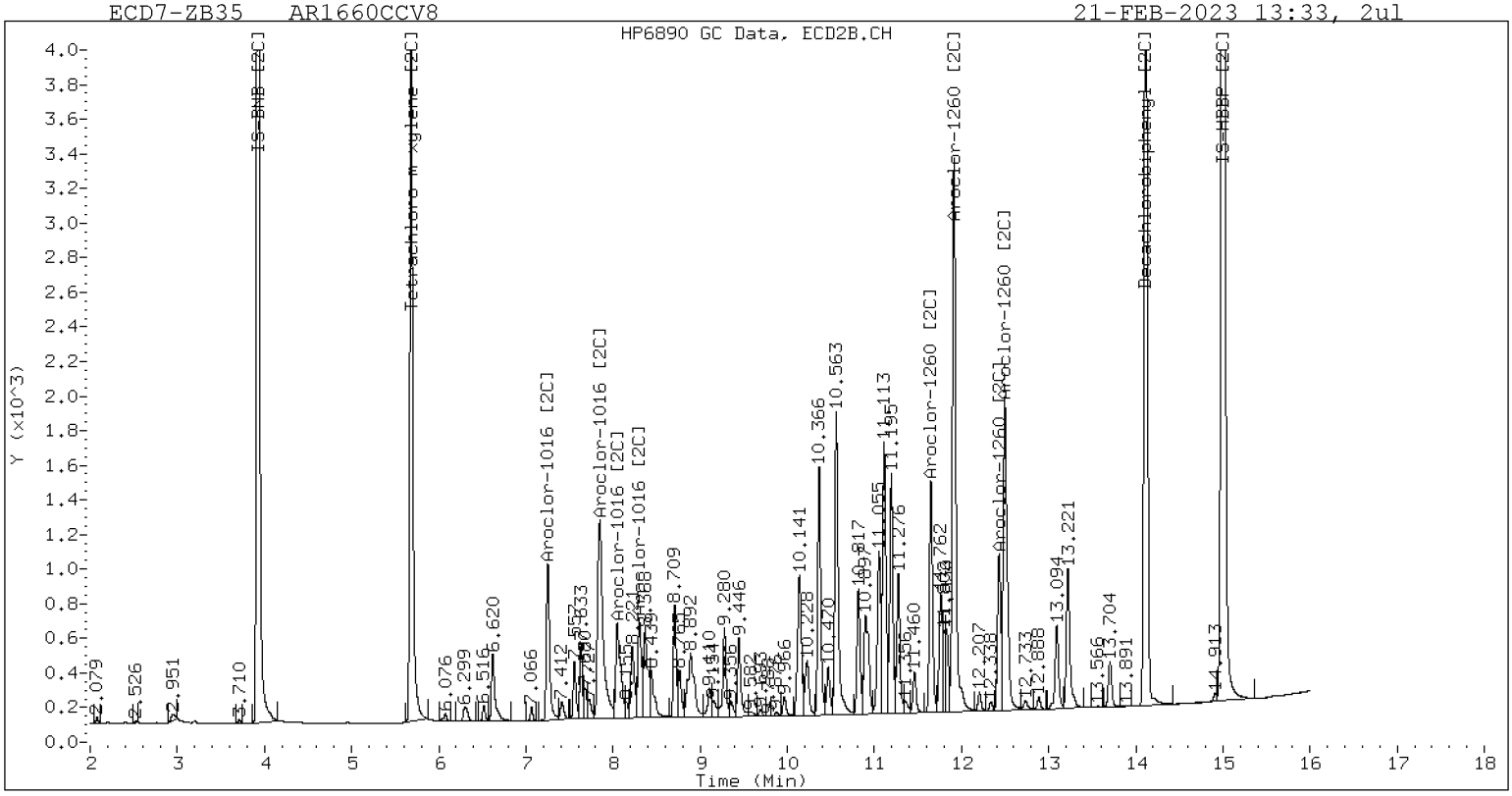
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV8 21-FEB-2023 13:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV8 21-FEB-2023 13:33, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02202389ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0274	Injection Date:	02/21/23
Lab Sample ID:	SLB0274-CCV9	Injection Time:	17:04
Sequence Name:	AR1242CCV9		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	230	0.0411165	0.0359832		-8.1	+/-20
Aroclor-1242 (1)	A	250.00	235		0.0223667			
Aroclor-1242 (2)	A	250.00	234		0.0705969			
Aroclor-1242 (3)	A	250.00	224		0.0204658			
Aroclor-1242 (4)	A	250.00	226		0.0305033			
Aroclor 1242 [2C]	A	250.00	239	0.0423236	0.0389595		-4.5	+/-20
Aroclor-1242 (1) [2C]	A	250.00	249		0.0344898			
Aroclor-1242 (2) [2C]	A	250.00	242		0.0726678			
Aroclor-1242 (3) [2C]	A	250.00	234		0.0221891			
Aroclor-1242 (4) [2C]	A	250.00	230		0.0264914			
Decachlorobiphenyl	A	40.000	36.4	0.7045925	0.6419386		-9.0	+/-20
Tetrachlorometaxylene	A	40.000	43.7	1.1350860	1.2405600		9.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.4	1.0765520	1.0602240		-1.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	48.3	1.0668100	1.2871310		20.8	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202389ECD7.D
Data file 2: /230220.b/230220.b/02202389ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV9
Client ID:
Injection Date: 21-FEB-2023 17:04
Report Date: 02/22/2023 08:42
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.806	-0.002	492436	5.684	0.000	208223	43.7	48.3	9.9	Tetrachloro-m-xylene
13.891	0.000	295597	14.115	-0.000	203176	36.4	39.4	7.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	793893	84.6
Hexabromobiphenyl	975457	920951	-5.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	323546	-11.8
Hexabromobiphenyl	646884	383270	-40.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.267	-0.002	55490	234.6	1	7.251	-0.001	34872	249.2
Aroclor-1242	2	7.650	-0.002	175145	234.0	2	7.850	-0.003	73473	242.3
Aroclor-1242	3	8.401	-0.002	50774	224.5	3	9.156	-0.004	22435	234.1
Aroclor-1242	4	8.574	-0.003	75676	226.5	4	9.584	-0.003	26785	230.5
Total Col1Ave (4 peaks):					229.9	Total Col2Ave (4 peaks):				239.0 RPD = 4
Corrected Ave (3 peaks):					228.4	Corrected Ave (3 peaks):				235.6 RPD = 3
CalAmt %D:					-8.0	CalAmt %D:				-4.4

Total PCB Area Col1 (5.908 - 13.791) = 1289257 Col1 Total PCB = 0.1 ppm*

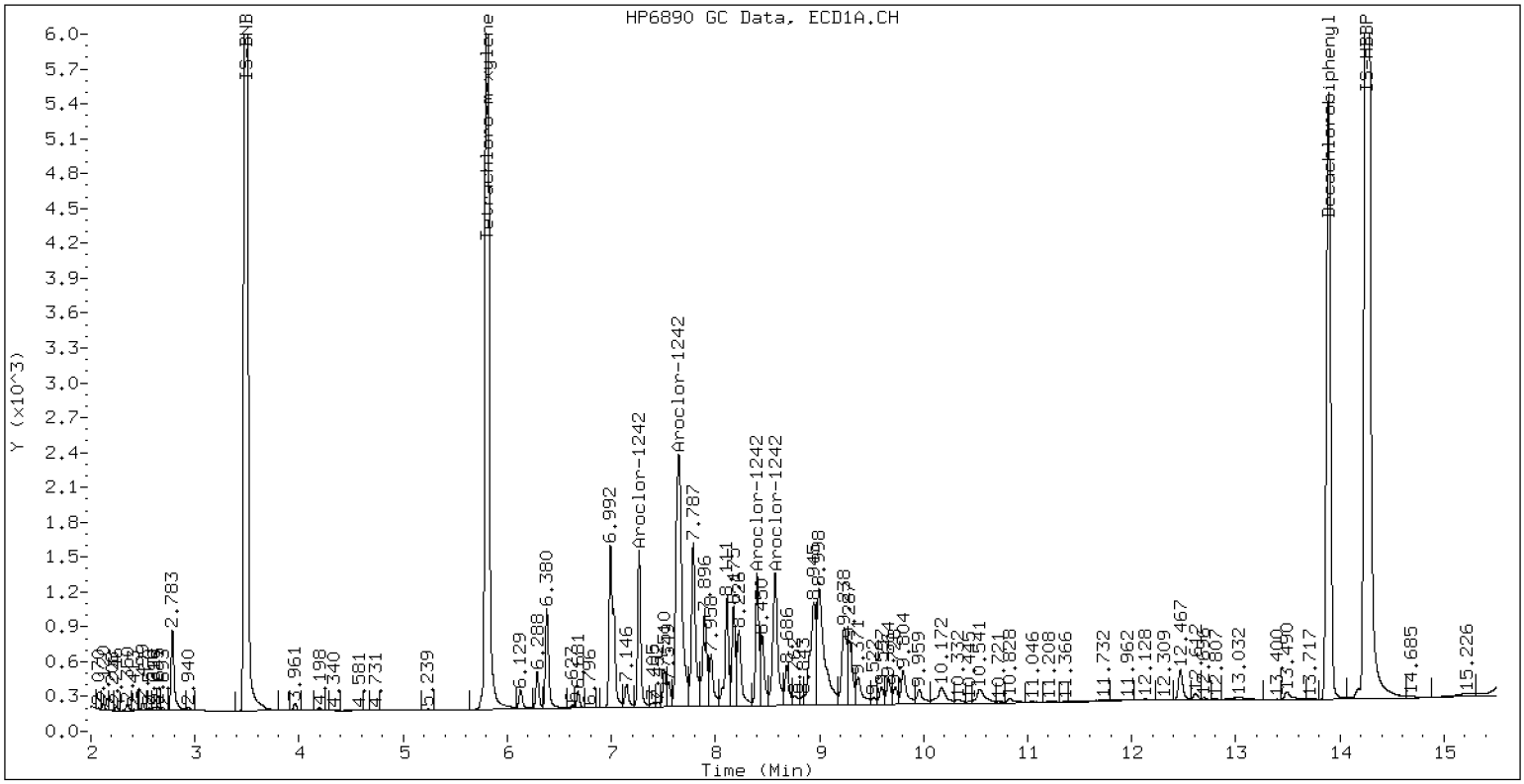
Total PCB Area Col2 (5.784 - 14.015) = 514835 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

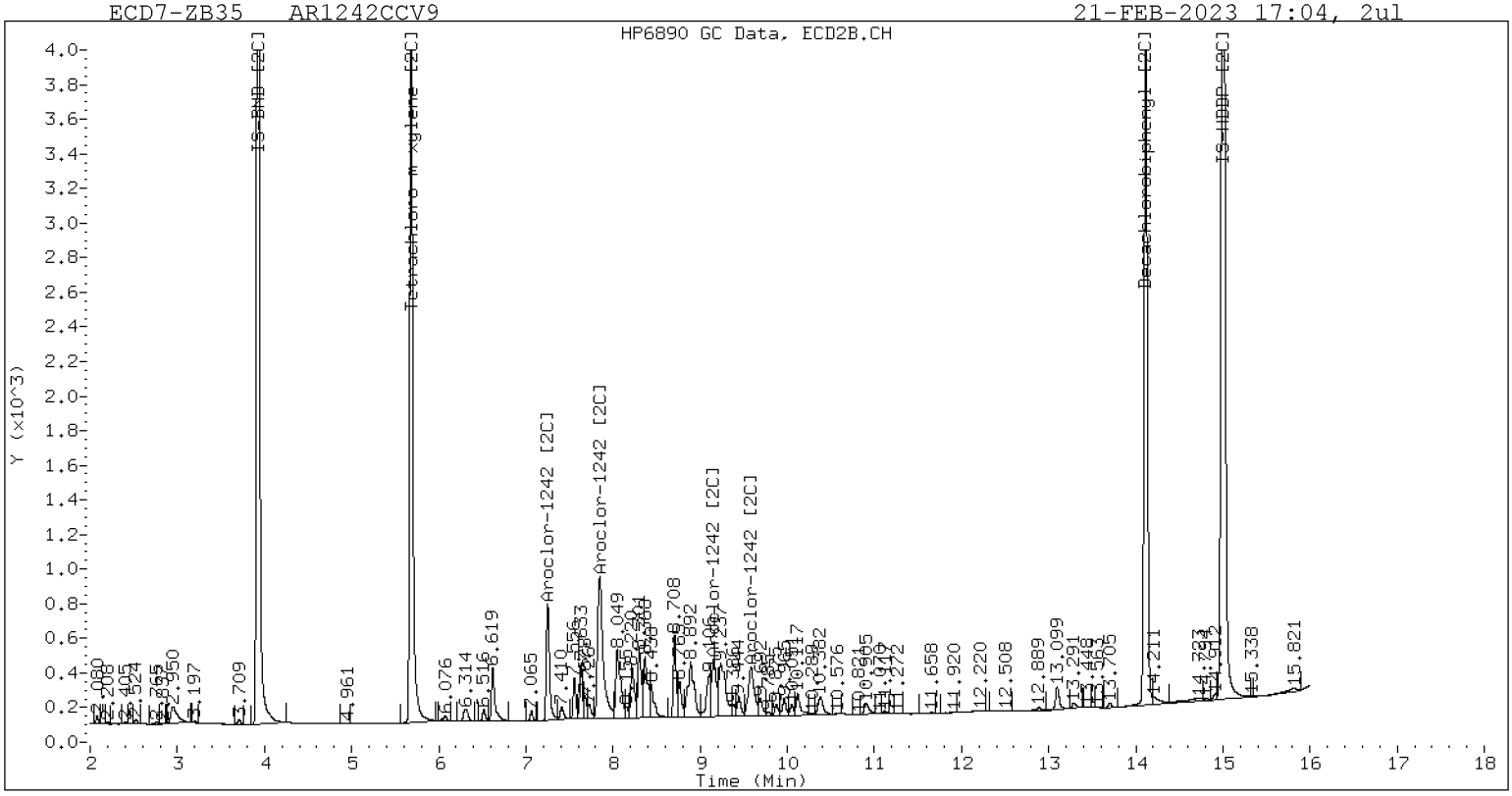
PCB Dual Column Chromatograms

ECD7-ZB5 AR1242CCV9 21-FEB-2023 17:04, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242CCV9 21-FEB-2023 17:04, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	ECD7	Calibration:	GB00045
Lab File ID:	02202390ECD7.D	Calibration Date:	02/16/2023
Sequence:	SLB0274	Injection Date:	02/21/23
Lab Sample ID:	SLB0274-CCVA	Injection Time:	17:25
Sequence Name:	AR1660CCVA		

		CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
Aroclor 1016	A	250.00	244	0.0483914	0.0472925		-2.4	+/-20	
Aroclor-1016 (1)	A	250.00	250	0.0291332	0.0291408		0.0		
Aroclor-1016 (2)	A	250.00	247	0.0932933	0.0922881		-1.2		
Aroclor-1016 (3)	A	250.00	233	0.0429036	0.0400097		-6.8		
Aroclor-1016 (4)	A	250.00	246	0.0282354	0.0277315		-1.6		
Aroclor 1016 [2C]	A	250.00	251	0.0510062	0.0513016		0.3	+/-20	
Aroclor-1016 (1) [2C]	A	250.00	250	0.0435251	0.0435350		0.0		
Aroclor-1016 (2) [2C]	A	250.00	252	0.0917441	0.0926866		0.8		
Aroclor-1016 (3) [2C]	A	250.00	257	0.0378128	0.0388288		2.8		
Aroclor-1016 (4) [2C]	A	250.00	244	0.0309428	0.0301560		-2.4		
Aroclor 1260	A	250.00	331	0.0369444	0.0487949		32.4	+/-20	*
Aroclor-1260 (1)	A	250.00	348	0.0275801	0.0383594		39.2		
Aroclor-1260 (2)	A	250.00	346	0.0282147	0.0390344		38.4		
Aroclor-1260 (3)	A	250.00	325	0.0747199	0.0971181		30.0		
Aroclor-1260 (4)	A	250.00	324	0.0379377	0.0491301		29.6		
Aroclor-1260 (5)	A	250.00	312	0.0162699	0.0203322		24.8		
Aroclor 1260 [2C]	A	250.00	285	0.0609398	0.0705489		13.8	+/-20	
Aroclor-1260 (1) [2C]	A	250.00	276	0.0414523	0.0458185		10.4		
Aroclor-1260 (2) [2C]	A	250.00	298	0.1040347	0.1244317		19.2		
Aroclor-1260 (3) [2C]	A	250.00	279	0.0282007	0.0315964		11.6		
Aroclor-1260 (4) [2C]	A	250.00	285	0.0700714	0.0803490		14.0		
Decachlorobiphenyl	A	40.000	39.8	0.7045925	0.7005870		-0.5	+/-20	
Tetrachlorometaxylene	A	40.000	38.8	1.1350860	1.1014990		-3.0	+/-20	
Decachlorobiphenyl [2C]	A	40.000	42.1	1.0765520	1.1343780		5.3	+/-20	
Tetrachlorometaxylene [2C]	A	40.000	42.1	1.0668100	1.1221160		5.3	+/-20	

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230220.b/02202390ECD7.D
Data file 2: /230220.b/230220.b/02202390ECD7.D
Method: \\target\share\chem4\ecd7.i\230220.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCVA
Client ID:
Injection Date: 21-FEB-2023 17:25
Report Date: 02/22/2023 08:42
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.806	-0.002	413306	5.683	-0.001	172132	38.8	42.1	8.1	Tetrachloro-m-xylene
13.891	0.000	373966	14.116	0.001	230670	39.8	42.1	5.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	430055	750443	74.5
Hexabromobiphenyl	975457	1067579	9.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	366754	306799	-16.3
Hexabromobiphenyl	646884	406690	-37.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 16-FEB-2023
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.267	-0.002	68339	250.1	1	7.251	-0.002	41739	250.1
Aroclor-1016	2	7.650	-0.000	216428	247.3	2	7.849	-0.003	88863	252.6
Aroclor-1016	3	7.787	-0.000	93828	233.1	3	8.049	-0.002	37227	256.7
Aroclor-1016	4	8.401	-0.001	65034	245.5	4	8.302	-0.002	28912	243.6
Total Col1Ave (4 peaks):					244.0	Total Col2Ave (4 peaks):				250.7 RPD = 3
Corrected Ave (3 peaks):					242.0	Corrected Ave (3 peaks):				248.8 RPD = 3
CalAmt %D:					-2.4	CalAmt %D:				0.3
Aroclor-1260	1	11.041	0.001	127974	347.7	1	11.648	-0.001	58231	275.5
Aroclor-1260	2	11.357	0.000	130226	345.9	2	11.912	-0.002	158141	298.3
Aroclor-1260	3	11.731	0.000	324004	324.9	3	12.431	-0.002	40156	278.8
Aroclor-1260	4	12.135	0.000	163907	323.8	4	12.496	-0.002	102116	285.3
Aroclor-1260	5	12.242	0.002	67832	312.4	NS	---			----
Total Col1Ave (5 peaks):					330.9	Total Col2Ave (4 peaks):				284.5 RPD = 15
Corrected Ave (4 peaks):					326.7	Corrected Ave (3 peaks):				279.9 RPD = 15
CalAmt %D:					32.4	CalAmt %D:				13.8

Total PCB Area Col1 (5.908 - 13.791) = 3745869 Col1 Total PCB = 0.4 ppm*

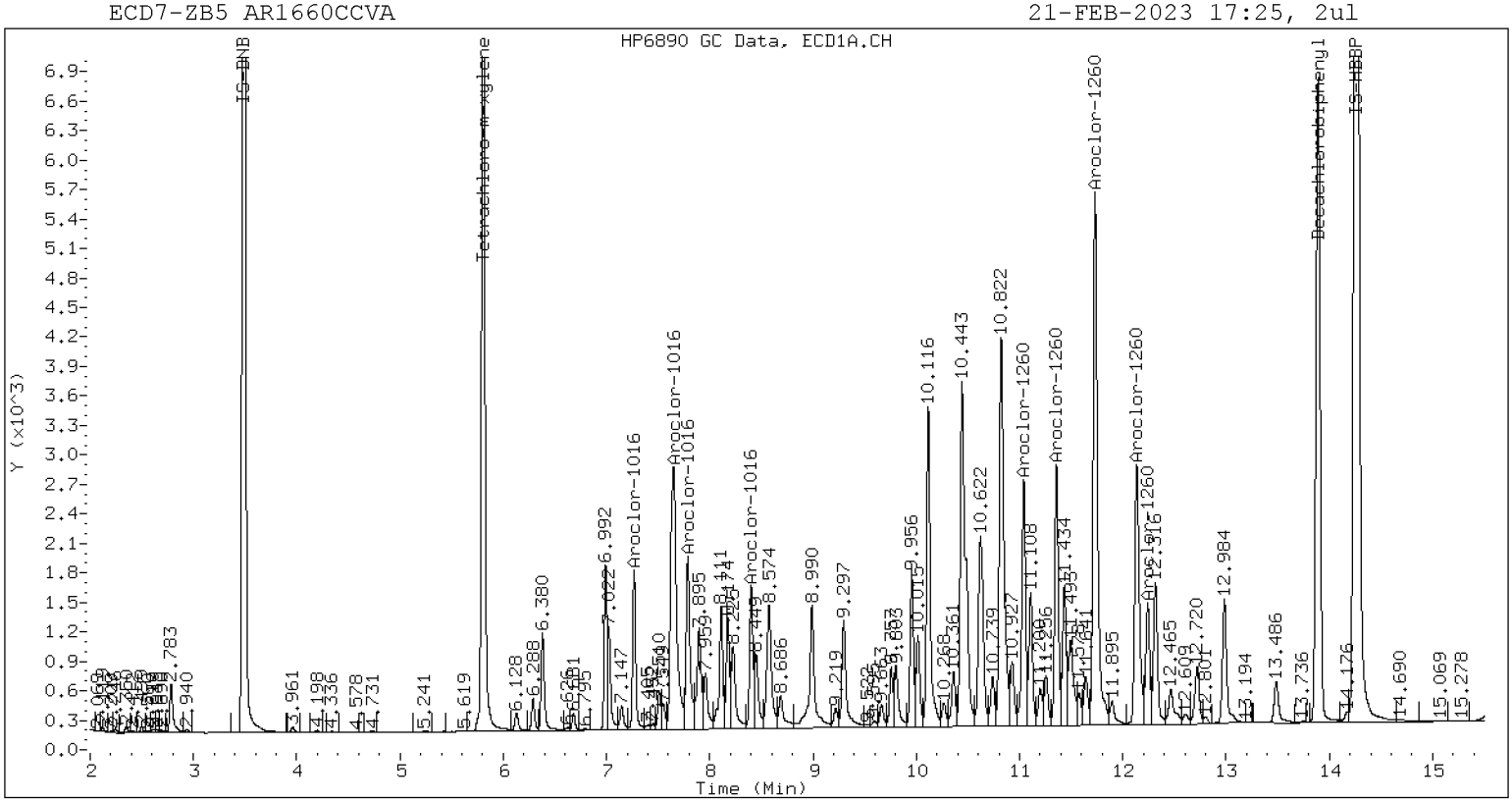
Total PCB Area Col2 (5.784 - 14.015) = 1523110 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

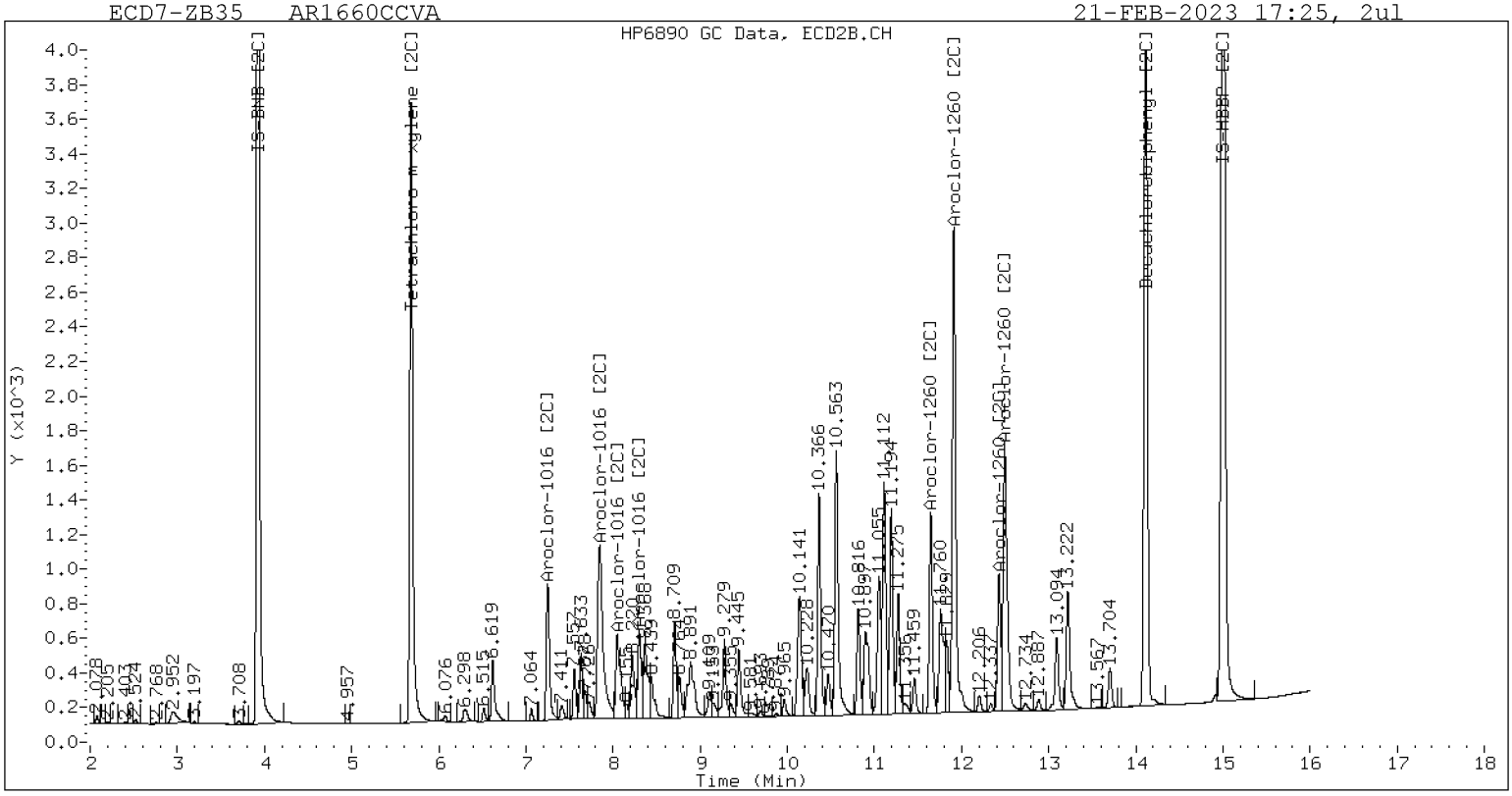
PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCVA 21-FEB-2023 17:25, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCVA 21-FEB-2023 17:25, 2ul



ZB-35 Manual Integration: NO

Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLA0281
Instrument: ECD7
Calibration: GA00061

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Cal Standard	SLA0281-CAL1	01242313ECD7.D	01242313ECD7.D	NA	01/24/23 16:00
Cal Standard	SLA0281-CAL2	01242314ECD7.D	01242314ECD7.D	NA	01/24/23 16:21
Cal Standard	SLA0281-CAL3	01242315ECD7.D	01242315ECD7.D	NA	01/24/23 16:42
Cal Standard	SLA0281-CAL4	01242316ECD7.D	01242316ECD7.D	NA	01/24/23 17:03
Cal Standard	SLA0281-CAL5	01242317ECD7.D	01242317ECD7.D	NA	01/24/23 17:24
Cal Standard	SLA0281-CAL6	01242318ECD7.D	01242318ECD7.D	NA	01/24/23 17:45
Cal Standard	SLA0281-CAL7	01242319ECD7.D	01242319ECD7.D	NA	01/24/23 18:06
Cal Standard	SLA0281-CAL8	01242320ECD7.D	01242320ECD7.D	NA	01/24/23 18:27
Cal Standard	SLA0281-CAL9	01242321ECD7.D	01242321ECD7.D	NA	01/24/23 18:48
Cal Standard	SLA0281-CALA	01242322ECD7.D	01242322ECD7.D	NA	01/24/23 19:09
Cal Standard	SLA0281-CALB	01242323ECD7.D	01242323ECD7.D	NA	01/24/23 19:30
Secondary Cal Check	SLA0281-SCV1	01242324ECD7.D	01242324ECD7.D	NA	01/24/23 19:51
Secondary Cal Check	SLA0281-SCV2	01242325ECD7.D	01242325ECD7.D	NA	01/24/23 20:12
Secondary Cal Check	SLA0281-SCV3	01242326ECD7.D	01242326ECD7.D	NA	01/24/23 20:33
Secondary Cal Check	SLA0281-SCV4	01242327ECD7.D	01242327ECD7.D	NA	01/24/23 20:54
Secondary Cal Check	SLA0281-SCV5	01242328ECD7.D	01242328ECD7.D	NA	01/24/23 21:15
Secondary Cal Check	SLA0281-SCV6	01242329ECD7.D	01242329ECD7.D	NA	01/24/23 21:36

Security Status Report

Date: 26-Jan-2023 15:41

01242330ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242331ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242332ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242333ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242334ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242335ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242336ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242337ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242338ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242339ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242340ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242341ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242342ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242343ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242344ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
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01242346ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242347ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242348ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242349ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242350ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242351ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242352ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242353ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242354ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242355ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242356ECD7.D	Data Locked	richardl, 26-Jan-2023 15:41
01242357ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242358ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242359ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242360ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242361ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242362ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242363ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242364ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242365ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242366ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242367ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242368ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242369ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242370ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242371ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242372ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242373ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19

01242374ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242375ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242376ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242377ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242378ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242379ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242380ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
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01242382ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
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01242384ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242385ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242386ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242387ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
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01242389ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242390ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242391ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19

Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0168	Instrument:	ECD7
		Calibration:	GA00061

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Calibration Check	SLB0168-CCV3	02132324ECD7.D	02132324ECD7.D	NA	02/13/23 17:58
Calibration Check	SLB0168-CCV4	02132325ECD7.D	02132325ECD7.D	NA	02/13/23 18:19
Calibration Check	SLB0168-CCV5	02132342ECD7.D	02132342ECD7.D	NA	02/14/23 00:16
Calibration Check	SLB0168-CCV6	02132343ECD7.D	02132343ECD7.D	NA	02/14/23 00:37
LDW23-SC1012B	23A0313-11	02132344ECD7.D	02132344ECD7.D	Solid	02/14/23 00:58
LDW23-IT1148	23A0313-12	02132345ECD7.D	02132345ECD7.D	Solid	02/14/23 01:20
LDW23-SC1159	23A0313-13	02132346ECD7.D	02132346ECD7.D	Solid	02/14/23 01:41
Calibration Check	SLB0168-CCV7	02132358ECD7.D	02132358ECD7.D	NA	02/14/23 05:53
Calibration Check	SLB0168-CCV8	02132359ECD7.D	02132359ECD7.D	NA	02/14/23 06:14
Calibration Check	SLB0168-CCV9	02132367ECD7.D	02132367ECD7.D	NA	02/14/23 09:02
Calibration Check	SLB0168-CCVA	02132368ECD7.D	02132368ECD7.D	NA	02/14/23 09:23
Calibration Check	SLB0168-CCVB	02132378ECD7.D	02132378ECD7.D	NA	02/14/23 12:53
Calibration Check	SLB0168-CCVC	02132379ECD7.D	02132379ECD7.D	NA	02/14/23 13:14

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLB0168

Instrument: ECD7
Calibration ID: FL00010

Printed: 2/15/2023 2:20:12PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLB0168-ICV1	QC		1		L000862	L000844		
SLB0168-ICV2	QC		2		L000856	L000844		
BLB0174-BLK1	QC		3			L000844		
BLB0174-BS1	QC		4			L000844		
BLB0174-BSD1	QC		5			L000844		
23B0122-01	8082A PCB Water 0.01	B 01	6			L000844	DH Environmental Inc	
23B0125-01	8082A PCB Water 0.01	F 01	7			L000844	The Boeing Company [BDS Stormwaters]	
23B0128-01	8082A PCB Water 0.01	B 01	8			L000844	CatchAll Environmental	
SLB0168-CCV1	QC		9		L000861	L000844		
SLB0168-CCV2	QC		10		L000856	L000844		
SLB0168-CCV3	QC		11		L000860	L000844		
SLB0168-CCV4	QC		12		L000856	L000844		
SLB0168-CCV5	QC		13		L000862	L000844		
SLB0168-CCV6	QC		14		L000856	L000844		
23A0313-11	8082A PCB Solid 4	A 03	15			L000844	Anchor QEA, LLC	
23A0313-12	8082A PCB Solid 4	A 03	16			L000844	Anchor QEA, LLC	
23A0313-13	8082A PCB Solid 4	A 03	17			L000844	Anchor QEA, LLC	
BLA0687-BLK1	QC		18			L000844		
BLA0687-BS1	QC		19			L000844		
BLA0687-BSD1	QC		20			L000844		
BLA0687-SRM1	QC		21			L000844		

Samples Loaded By Date

Data Processed By Date

ANALYSIS SEQUENCE

SLB0168

Instrument: ECD7
Calibration ID: FL00010

Printed: 2/15/2023 2:20:12PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
23A0326-01	8082A PCB Solid 4	A 03	22			L000844	Anchor QEA, LLC	
23A0326-02	8082A PCB Solid 4	A 03	23			L000844	Anchor QEA, LLC	
23A0326-03	8082A PCB Solid 4	A 03	24			L000844	Anchor QEA, LLC	
23A0326-04	8082A PCB Solid 4	A 03	25			L000844	Anchor QEA, LLC	
23A0326-05	8082A PCB Solid 4	A 03	26			L000844	Anchor QEA, LLC	
23A0326-06	8082A PCB Solid 4	A 03	27			L000844	Anchor QEA, LLC	
23A0326-07	8082A PCB Solid 4	A 03	28			L000844	Anchor QEA, LLC	
SLB0168-CCV7	QC		29		L000861	L000844		
SLB0168-CCV8	QC		30		L000856	L000844		
BLA0687-MS1	QC		31			L000844		
BLA0687-MSD1	QC		32			L000844		
23A0326-08	8082A PCB Solid 4	A 03	33			L000844	Anchor QEA, LLC	
23A0326-09	8082A PCB Solid 4	A 03	34			L000844	Anchor QEA, LLC	
23A0326-10	8082A PCB Solid 4	A 03	35			L000844	Anchor QEA, LLC	
23A0326-11	8082A PCB Solid 4	A 03	36			L000844	Anchor QEA, LLC	
23A0326-12	8082A PCB Solid 4	A 03	37			L000844	Anchor QEA, LLC	
SLB0168-CCV9	QC		38		L000860	L000844		
SLB0168-CCVA	QC		39		L000856	L000844		
BLB0129-BLK1	QC		40			L000844		
BLB0129-BS1	QC		41			L000844		
BLB0129-BSD1	QC		42			L000844		

Samples Loaded By Date

Data Processed By Date

ANALYSIS SEQUENCE

SLB0168

Instrument: ECD7
Calibration ID: FL00010

Printed: 2/15/2023 2:20:12PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
23B0089-01	8082A PCB Water 0.01	E 01	43			L000844	The Boeing Company [BDS Stormwaters]	
23B0089-02	8082A PCB Water 0.01	E 01	44			L000844	The Boeing Company [BDS Stormwaters]	
SLB0168-CCVB	QC		45		L000862	L000844		
SLB0168-CCVC	QC		46		L000856	L000844		
SLB0168-CCVD	QC		47		L000861	L000844		
SLB0168-CCVE	QC		48		L000856	L000844		

Samples Loaded By Date

Data Processed By Date

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230213.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	13-FEB-2023 09:53	02132301ECD7.D	1	AR1254TEST	
2	13-FEB-2023 10:14	02132302ECD7.D	1	AR1248TEST	
3	13-FEB-2023 10:35	02132303ECD7.D	1	AR1242TEST	
4	13-FEB-2023 10:56	02132304ECD7.D	1	AR1660TEST	
5	13-FEB-2023 11:17	02132305ECD7.D	1	DDTS	
6	13-FEB-2023 11:39	02132306ECD7.D	1	AR1254ICV1	
7	13-FEB-2023 12:00	02132307ECD7.D	1	AR1660ICV2	
8	13-FEB-2023 12:21	02132308ECD7.D	1	BLB0174-BLK1	
9	13-FEB-2023 12:42	02132309ECD7.D	1	BLB0174-BS1	
10	13-FEB-2023 13:03	02132310ECD7.D	1	BLB0174-BSD1	
11	13-FEB-2023 13:24	02132311ECD7.D	1	23B0122-01	
12	13-FEB-2023 13:45	02132312ECD7.D	1	23B0125-01	
13	13-FEB-2023 14:06	02132313ECD7.D	1	23B0128-01	
14	13-FEB-2023 14:27	02132314ECD7.D	1	AR1248CCV1	
15	13-FEB-2023 14:48	02132315ECD7.D	1	AR1660CCV2	
16	13-FEB-2023 15:09	02132316ECD7.D	1	BLB0129-BLK1	
17	13-FEB-2023 15:30	02132317ECD7.D	1	BLB0129-BS1	
18	13-FEB-2023 15:51	02132318ECD7.D	1	BLB0129-BSD1	
19	13-FEB-2023 16:12	02132319ECD7.D	1	23B0089-01	
20	13-FEB-2023 16:33	02132320ECD7.D	1	PCB20	
21	13-FEB-2023 16:55	02132321ECD7.D	1	PCB2	
22	13-FEB-2023 17:16	02132322ECD7.D	1	PCB0.2	
23	13-FEB-2023 17:37	02132323ECD7.D	1	23B0089-02	
24	13-FEB-2023 17:58	02132324ECD7.D	1	AR1242CCV3	
25	13-FEB-2023 18:19	02132325ECD7.D	1	AR1660CCV4	
26	13-FEB-2023 18:40	02132326ECD7.D	1	BLA0686-BLK1	
27	13-FEB-2023 19:01	02132327ECD7.D	1	BLA0686-BS1	
28	13-FEB-2023 19:22	02132328ECD7.D	1	BLA0686-BSD1	
29	13-FEB-2023 19:43	02132329ECD7.D	1	BLA0686-SRM1	
30	13-FEB-2023 20:04	02132330ECD7.D	1	23A0313-01	
31	13-FEB-2023 20:25	02132331ECD7.D	1	23A0313-02	
32	13-FEB-2023 20:46	02132332ECD7.D	1	23A0313-03	
33	13-FEB-2023 21:07	02132333ECD7.D	1	23A0313-04	
34	13-FEB-2023 21:28	02132334ECD7.D	1	23A0313-05	
35	13-FEB-2023 21:49	02132335ECD7.D	1	23A0313-06	
36	13-FEB-2023 22:10	02132336ECD7.D	1	23A0313-07	
37	13-FEB-2023 22:31	02132337ECD7.D	1	BLA0686-MS1	
38	13-FEB-2023 22:52	02132338ECD7.D	1	BLA0686-MSD1	
39	13-FEB-2023 23:13	02132339ECD7.D	1	23A0313-08	
40	13-FEB-2023 23:34	02132340ECD7.D	1	23A0313-09	
41	13-FEB-2023 23:55	02132341ECD7.D	1	23A0313-10	
42	14-FEB-2023 00:16	02132342ECD7.D	1	AR1254CCV5	
43	14-FEB-2023 00:37	02132343ECD7.D	1	AR1660CCV6	
44	14-FEB-2023 00:58	02132344ECD7.D	1	23A0313-11	
45	14-FEB-2023 01:20	02132345ECD7.D	1	23A0313-12	
46	14-FEB-2023 01:41	02132346ECD7.D	1	23A0313-13	
47	14-FEB-2023 02:02	02132347ECD7.D	1	BLA0687-BLK1	
48	14-FEB-2023 02:23	02132348ECD7.D	1	BLA0687-BS1	
49	14-FEB-2023 02:44	02132349ECD7.D	1	BLA0687-BSD1	
50	14-FEB-2023 03:05	02132350ECD7.D	1	BLA0687-SRM1	

	Inject Date/Time	Filename	DF	LabID	ClientID
51	14-FEB-2023 03:26	02132351ECD7.D	1	23A0326-01	
52	14-FEB-2023 03:47	02132352ECD7.D	1	23A0326-02	
53	14-FEB-2023 04:08	02132353ECD7.D	1	23A0326-03	
54	14-FEB-2023 04:29	02132354ECD7.D	1	23A0326-04	
55	14-FEB-2023 04:50	02132355ECD7.D	1	23A0326-05	
56	14-FEB-2023 05:11	02132356ECD7.D	1	23A0326-06	
57	14-FEB-2023 05:32	02132357ECD7.D	1	23A0326-07	
58	14-FEB-2023 05:53	02132358ECD7.D	1	AR1248CCV7	
59	14-FEB-2023 06:14	02132359ECD7.D	1	AR1660CCV8	
60	14-FEB-2023 06:35	02132360ECD7.D	1	BLA0687-MS1	
61	14-FEB-2023 06:56	02132361ECD7.D	1	BLA0687-MSD1	
62	14-FEB-2023 07:17	02132362ECD7.D	1	23A0326-08	
63	14-FEB-2023 07:38	02132363ECD7.D	1	23A0326-09	
64	14-FEB-2023 07:59	02132364ECD7.D	1	23A0326-10	
65	14-FEB-2023 08:20	02132365ECD7.D	1	23A0326-11	
66	14-FEB-2023 08:41	02132366ECD7.D	1	23A0326-12	
67	14-FEB-2023 09:02	02132367ECD7.D	1	AR1242CCV9	
68	14-FEB-2023 09:23	02132368ECD7.D	1	AR1660CCVA	
69	14-FEB-2023 09:44	02132369ECD7.D	1	BLB0206-BLK1	
70	14-FEB-2023 10:05	02132370ECD7.D	50	L1587	
71	14-FEB-2023 10:26	02132371ECD7.D	5	L1588	
72	14-FEB-2023 10:47	02132372ECD7.D	5	L1589	
73	14-FEB-2023 11:08	02132373ECD7.D	1	BLB0129-BLK1	
74	14-FEB-2023 11:29	02132374ECD7.D	1	BLB0129-BS1	
75	14-FEB-2023 11:50	02132375ECD7.D	1	BLB0129-BSD1	
76	14-FEB-2023 12:11	02132376ECD7.D	1	23B0089-01	
77	14-FEB-2023 12:32	02132377ECD7.D	1	23B0089-02	
78	14-FEB-2023 12:53	02132378ECD7.D	1	AR1254CCVB	
79	14-FEB-2023 13:14	02132379ECD7.D	1	AR1660CCVC	
80	14-FEB-2023 13:36	02132380ECD7.D	1	BLB0206-BS1	
81	14-FEB-2023 13:57	02132381ECD7.D	1	BLB0206-BSD1	
82	14-FEB-2023 14:18	02132382ECD7.D	1	BLB0206-SRM1	
83	14-FEB-2023 14:39	02132383ECD7.D	1	23A0626-01	
84	14-FEB-2023 15:00	02132384ECD7.D	1	BLB0206-MS1	
85	14-FEB-2023 15:21	02132385ECD7.D	1	BLB0206-MSD1	
86	14-FEB-2023 15:42	02132386ECD7.D	1	23A0626-03	
87	14-FEB-2023 16:03	02132387ECD7.D	1	23A0626-05	
88	14-FEB-2023 16:24	02132388ECD7.D	1	23A0626-07	
89	14-FEB-2023 16:45	02132389ECD7.D	1	23A0626-10	
90	14-FEB-2023 17:06	02132390ECD7.D	1	23A0626-29	
91	14-FEB-2023 17:27	02132391ECD7.D	1	AR1248CCVD	
92	14-FEB-2023 17:48	02132392ECD7.D	1	AR1660CCVE	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230213.b

ARI Job No.: AR12 Method: PCB.m Instrument: ecd7.i Date: 13-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0953	02132301ECD7.D	AR1254TEST		1	NO MANUAL INTEGRATION
1014	02132302ECD7.D	AR1248TEST		1	NO MANUAL INTEGRATION
1035	02132303ECD7.D	AR1242TEST		1	NO MANUAL INTEGRATION
1056	02132304ECD7.D	AR1660TEST		1	NO MANUAL INTEGRATION
1117	02132305ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1139	02132306ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1200	02132307ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1221	02132308ECD7.D	BLB0174-BLK1		1	NO MANUAL INTEGRATION
1242	02132309ECD7.D	BLB0174-BS1		1	NO MANUAL INTEGRATION
1303	02132310ECD7.D	BLB0174-BSD1		1	NO MANUAL INTEGRATION
1324	02132311ECD7.D	23B0122-01		1	NO MANUAL INTEGRATION
1345	02132312ECD7.D	23B0125-01		1	NO MANUAL INTEGRATION
1406	02132313ECD7.D	23B0128-01		1	NO MANUAL INTEGRATION
1427	02132314ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1448	02132315ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1509	02132316ECD7.D	BLB0129-BLK1		1	NO MANUAL INTEGRATION
1530	02132317ECD7.D	BLB0129-BS1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230213.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1551	02132318ECD7.D	BLB0129-BSD1		1	NO MANUAL INTEGRATION
1612	02132319ECD7.D	23B0089-01		1	NO MANUAL INTEGRATION
1633	02132320ECD7.D	PCB20		1	NO MANUAL INTEGRATION
1655	02132321ECD7.D	PCB2		1	NO MANUAL INTEGRATION
1716	02132322ECD7.D	PCB0.2		1	NO MANUAL INTEGRATION
1737	02132323ECD7.D	23B0089-02		1	NO MANUAL INTEGRATION
1758	02132324ECD7.D	AR1242CCV3		1	NO MANUAL INTEGRATION
1819	02132325ECD7.D	AR1660CCV4		1	NO MANUAL INTEGRATION
1840	02132326ECD7.D	BLA0686-BLK1		1	NO MANUAL INTEGRATION
1901	02132327ECD7.D	BLA0686-BS1		1	NO MANUAL INTEGRATION
1922	02132328ECD7.D	BLA0686-BSD1		1	NO MANUAL INTEGRATION
1943	02132329ECD7.D	BLA0686-SRM1		1	NO MANUAL INTEGRATION
2004	02132330ECD7.D	23A0313-01		1	NO MANUAL INTEGRATION
2025	02132331ECD7.D	23A0313-02		1	NO MANUAL INTEGRATION
2046	02132332ECD7.D	23A0313-03		1	NO MANUAL INTEGRATION
2107	02132333ECD7.D	23A0313-04		1	NO MANUAL INTEGRATION
2128	02132334ECD7.D	23A0313-05		1	NO MANUAL INTEGRATION
2149	02132335ECD7.D	23A0313-06		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230213.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2210	02132336ECD7.D	23A0313-07		1	NO MANUAL INTEGRATION
2231	02132337ECD7.D	BLA0686-MS1		1	NO MANUAL INTEGRATION
2252	02132338ECD7.D	BLA0686-MSD1		1	NO MANUAL INTEGRATION
2313	02132339ECD7.D	23A0313-08		1	NO MANUAL INTEGRATION
2334	02132340ECD7.D	23A0313-09		1	NO MANUAL INTEGRATION
2355	02132341ECD7.D	23A0313-10		1	NO MANUAL INTEGRATION
0016	02132342ECD7.D	AR1254CCV5		1	NO MANUAL INTEGRATION
0037	02132343ECD7.D	AR1660CCV6		1	NO MANUAL INTEGRATION
0058	02132344ECD7.D	23A0313-11		1	Aroclor-1254,
0120	02132345ECD7.D	23A0313-12		1	Aroclor-1254,
0141	02132346ECD7.D	23A0313-13		1	Aroclor-1254,
0202	02132347ECD7.D	BLA0687-BLK1		1	NO MANUAL INTEGRATION
0223	02132348ECD7.D	BLA0687-BS1		1	NO MANUAL INTEGRATION
0244	02132349ECD7.D	BLA0687-BSD1		1	NO MANUAL INTEGRATION
0305	02132350ECD7.D	BLA0687-SRM1		1	NO MANUAL INTEGRATION
0326	02132351ECD7.D	23A0326-01		1	Aroclor-1254,
0347	02132352ECD7.D	23A0326-02		1	NO MANUAL INTEGRATION
0408	02132353ECD7.D	23A0326-03		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230213.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0429	02132354ECD7.D	23A0326-04		1	NO MANUAL INTEGRATION
0450	02132355ECD7.D	23A0326-05		1	NO MANUAL INTEGRATION
0511	02132356ECD7.D	23A0326-06		1	NO MANUAL INTEGRATION
0532	02132357ECD7.D	23A0326-07		1	Aroclor-1254,
0553	02132358ECD7.D	AR1248CCV7		1	NO MANUAL INTEGRATION
0614	02132359ECD7.D	AR1660CCV8		1	NO MANUAL INTEGRATION
0635	02132360ECD7.D	BLA0687-MS1		1	NO MANUAL INTEGRATION
0656	02132361ECD7.D	BLA0687-MSD1		1	NO MANUAL INTEGRATION
0717	02132362ECD7.D	23A0326-08		1	Aroclor-1254,
0738	02132363ECD7.D	23A0326-09		1	Aroclor-1254,
0759	02132364ECD7.D	23A0326-10		1	NO MANUAL INTEGRATION
0820	02132365ECD7.D	23A0326-11		1	NO MANUAL INTEGRATION
0841	02132366ECD7.D	23A0326-12		1	Aroclor-1254,
0902	02132367ECD7.D	AR1242CCV9		1	NO MANUAL INTEGRATION
0923	02132368ECD7.D	AR1660CCVA		1	NO MANUAL INTEGRATION
0944	02132369ECD7.D	BLB0206-BLK1		1	NO MANUAL INTEGRATION
1005	02132370ECD7.D	L1587		50	NO MANUAL INTEGRATION
1026	02132371ECD7.D	L1588		5	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230213.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1047	02132372ECD7.D	L1589		5	NO MANUAL INTEGRATION
1108	02132373ECD7.D	BLB0129-BLK1		1	NO MANUAL INTEGRATION
1129	02132374ECD7.D	BLB0129-BS1		1	NO MANUAL INTEGRATION
1150	02132375ECD7.D	BLB0129-BSD1		1	NO MANUAL INTEGRATION
1211	02132376ECD7.D	23B0089-01		1	Aroclor-1254,
1232	02132377ECD7.D	23B0089-02		1	NO MANUAL INTEGRATION
1253	02132378ECD7.D	AR1254CCVB		1	NO MANUAL INTEGRATION
1314	02132379ECD7.D	AR1660CCVC		1	NO MANUAL INTEGRATION
1336	02132380ECD7.D	BLB0206-BS1		1	NO MANUAL INTEGRATION
1357	02132381ECD7.D	BLB0206-BSD1		1	NO MANUAL INTEGRATION
1418	02132382ECD7.D	BLB0206-SRM1		1	NO MANUAL INTEGRATION
1439	02132383ECD7.D	23A0626-01		1	NO MANUAL INTEGRATION
1500	02132384ECD7.D	BLB0206-MS1		1	NO MANUAL INTEGRATION
1521	02132385ECD7.D	BLB0206-MSD1		1	NO MANUAL INTEGRATION
1542	02132386ECD7.D	23A0626-03		1	Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl,
1603	02132387ECD7.D	23A0626-05		1	NO MANUAL INTEGRATION
1624	02132388ECD7.D	23A0626-07		1	NO MANUAL INTEGRATION
1645	02132389ECD7.D	23A0626-10		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230213.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1706	02132390ECD7.D	23A0626-29		1	NO MANUAL INTEGRATION
1727	02132391ECD7.D	AR1248CCVD		1	NO MANUAL INTEGRATION
1748	02132392ECD7.D	AR1660CCVE		1	NO MANUAL INTEGRATION
0953	02132301ECD7.D	AR1254TEST		1	NO MANUAL INTEGRATION
1014	02132302ECD7.D	AR1248TEST		1	NO MANUAL INTEGRATION
1035	02132303ECD7.D	AR1242TEST		1	NO MANUAL INTEGRATION
1056	02132304ECD7.D	AR1660TEST		1	NO MANUAL INTEGRATION
1117	02132305ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1139	02132306ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1200	02132307ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1221	02132308ECD7.D	BLB0174-BLK1		1	NO MANUAL INTEGRATION
1242	02132309ECD7.D	BLB0174-BS1		1	NO MANUAL INTEGRATION
1303	02132310ECD7.D	BLB0174-BSD1		1	NO MANUAL INTEGRATION
1324	02132311ECD7.D	23B0122-01		1	NO MANUAL INTEGRATION
1345	02132312ECD7.D	23B0125-01		1	NO MANUAL INTEGRATION
1406	02132313ECD7.D	23B0128-01		1	NO MANUAL INTEGRATION
1427	02132314ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1448	02132315ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230213.b\230213.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1509	02132316ECD7.D	BLB0129-BLK1		1	NO MANUAL INTEGRATION
1530	02132317ECD7.D	BLB0129-BS1		1	NO MANUAL INTEGRATION
1551	02132318ECD7.D	BLB0129-BSD1		1	NO MANUAL INTEGRATION
1612	02132319ECD7.D	23B0089-01		1	NO MANUAL INTEGRATION
1633	02132320ECD7.D	PCB20		1	NO MANUAL INTEGRATION
1655	02132321ECD7.D	PCB2		1	NO MANUAL INTEGRATION
1716	02132322ECD7.D	PCB0.2		1	NO MANUAL INTEGRATION
1737	02132323ECD7.D	23B0089-02		1	NO MANUAL INTEGRATION
1758	02132324ECD7.D	AR1242CCV3		1	NO MANUAL INTEGRATION
1819	02132325ECD7.D	AR1660CCV4		1	NO MANUAL INTEGRATION
1840	02132326ECD7.D	BLA0686-BLK1		1	NO MANUAL INTEGRATION
1901	02132327ECD7.D	BLA0686-BS1		1	NO MANUAL INTEGRATION
1922	02132328ECD7.D	BLA0686-BSD1		1	NO MANUAL INTEGRATION
1943	02132329ECD7.D	BLA0686-SRM1		1	NO MANUAL INTEGRATION
2004	02132330ECD7.D	23A0313-01		1	NO MANUAL INTEGRATION
2025	02132331ECD7.D	23A0313-02		1	NO MANUAL INTEGRATION
2046	02132332ECD7.D	23A0313-03		1	NO MANUAL INTEGRATION
2107	02132333ECD7.D	23A0313-04		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230213.b\230213.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2128	02132334ECD7.D	23A0313-05		1	NO MANUAL INTEGRATION
2149	02132335ECD7.D	23A0313-06		1	NO MANUAL INTEGRATION
2210	02132336ECD7.D	23A0313-07		1	NO MANUAL INTEGRATION
2231	02132337ECD7.D	BLA0686-MS1		1	NO MANUAL INTEGRATION
2252	02132338ECD7.D	BLA0686-MSD1		1	NO MANUAL INTEGRATION
2313	02132339ECD7.D	23A0313-08		1	NO MANUAL INTEGRATION
2334	02132340ECD7.D	23A0313-09		1	NO MANUAL INTEGRATION
2355	02132341ECD7.D	23A0313-10		1	NO MANUAL INTEGRATION
0016	02132342ECD7.D	AR1254CCV5		1	NO MANUAL INTEGRATION
0037	02132343ECD7.D	AR1660CCV6		1	NO MANUAL INTEGRATION
0058	02132344ECD7.D	23A0313-11		1	Aroclor-1248 [2C],
0120	02132345ECD7.D	23A0313-12		1	Aroclor-1248 [2C],
0141	02132346ECD7.D	23A0313-13		1	Aroclor-1248 [2C],
0202	02132347ECD7.D	BLA0687-BLK1		1	NO MANUAL INTEGRATION
0223	02132348ECD7.D	BLA0687-BS1		1	NO MANUAL INTEGRATION
0244	02132349ECD7.D	BLA0687-BSD1		1	NO MANUAL INTEGRATION
0305	02132350ECD7.D	BLA0687-SRM1		1	NO MANUAL INTEGRATION
0326	02132351ECD7.D	23A0326-01		1	Aroclor-1248 [2C],

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230213.b\230213.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0347	02132352ECD7.D	23A0326-02		1	Aroclor-1248 [2C],
0408	02132353ECD7.D	23A0326-03		1	Aroclor-1248 [2C],
0429	02132354ECD7.D	23A0326-04		1	Aroclor-1248 [2C],
0450	02132355ECD7.D	23A0326-05		1	Aroclor-1248 [2C],
0511	02132356ECD7.D	23A0326-06		1	Aroclor-1248 [2C],
0532	02132357ECD7.D	23A0326-07		1	NO MANUAL INTEGRATION
0553	02132358ECD7.D	AR1248CCV7		1	NO MANUAL INTEGRATION
0614	02132359ECD7.D	AR1660CCV8		1	NO MANUAL INTEGRATION
0635	02132360ECD7.D	BLA0687-MS1		1	NO MANUAL INTEGRATION
0656	02132361ECD7.D	BLA0687-MSD1		1	NO MANUAL INTEGRATION
0717	02132362ECD7.D	23A0326-08		1	Aroclor-1248 [2C],
0738	02132363ECD7.D	23A0326-09		1	Aroclor-1248 [2C],
0759	02132364ECD7.D	23A0326-10		1	Aroclor-1248 [2C],
0820	02132365ECD7.D	23A0326-11		1	NO MANUAL INTEGRATION
0841	02132366ECD7.D	23A0326-12		1	Aroclor-1248 [2C],
0902	02132367ECD7.D	AR1242CCV9		1	NO MANUAL INTEGRATION
0923	02132368ECD7.D	AR1660CCVA		1	NO MANUAL INTEGRATION
0944	02132369ECD7.D	BLB0206-BLK1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230213.b\230213.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1005	02132370ECD7.D	L1587		50	NO MANUAL INTEGRATION
1026	02132371ECD7.D	L1588		5	NO MANUAL INTEGRATION
1047	02132372ECD7.D	L1589		5	NO MANUAL INTEGRATION
1108	02132373ECD7.D	BLB0129-BLK1		1	NO MANUAL INTEGRATION
1129	02132374ECD7.D	BLB0129-BS1		1	NO MANUAL INTEGRATION
1150	02132375ECD7.D	BLB0129-BSD1		1	NO MANUAL INTEGRATION
1211	02132376ECD7.D	23B0089-01		1	NO MANUAL INTEGRATION
1232	02132377ECD7.D	23B0089-02		1	NO MANUAL INTEGRATION
1253	02132378ECD7.D	AR1254CCVB		1	NO MANUAL INTEGRATION
1314	02132379ECD7.D	AR1660CCVC		1	NO MANUAL INTEGRATION
1336	02132380ECD7.D	BLB0206-BS1		1	NO MANUAL INTEGRATION
1357	02132381ECD7.D	BLB0206-BSD1		1	NO MANUAL INTEGRATION
1418	02132382ECD7.D	BLB0206-SRM1		1	NO MANUAL INTEGRATION
1439	02132383ECD7.D	23A0626-01		1	NO MANUAL INTEGRATION
1500	02132384ECD7.D	BLB0206-MS1		1	NO MANUAL INTEGRATION
1521	02132385ECD7.D	BLB0206-MSD1		1	NO MANUAL INTEGRATION
1542	02132386ECD7.D	23A0626-03		1	NO MANUAL INTEGRATION
1603	02132387ECD7.D	23A0626-05		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230213.b\230213.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1624	02132388ECD7.D	23A0626-07		1	NO MANUAL INTEGRATION
1645	02132389ECD7.D	23A0626-10		1	NO MANUAL INTEGRATION
1706	02132390ECD7.D	23A0626-29		1	NO MANUAL INTEGRATION
1727	02132391ECD7.D	AR1248CCVD		1	NO MANUAL INTEGRATION
1748	02132392ECD7.D	AR1660CCVE		1	NO MANUAL INTEGRATION

Security Status Report

Date: 15-Feb-2023 14:22

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Analytical Resources, LLC
Analytical Chemists and Consultants

Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLB0222
Instrument: ECD7
Calibration: GB00045

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Cal Standard	SLB0222-CAL1	02162302ECD7.D	02162302ECD7.D	NA	02/16/23 11:23
Cal Standard	SLB0222-CAL2	02162303ECD7.D	02162303ECD7.D	NA	02/16/23 11:44
Cal Standard	SLB0222-CAL3	02162304ECD7.D	02162304ECD7.D	NA	02/16/23 12:05
Cal Standard	SLB0222-CAL4	02162305ECD7.D	02162305ECD7.D	NA	02/16/23 12:27
Cal Standard	SLB0222-CAL5	02162306ECD7.D	02162306ECD7.D	NA	02/16/23 12:48
Cal Standard	SLB0222-CAL6	02162307ECD7.D	02162307ECD7.D	NA	02/16/23 13:09
Cal Standard	SLB0222-CAL7	02162308ECD7.D	02162308ECD7.D	NA	02/16/23 13:30
Cal Standard	SLB0222-CAL8	02162309ECD7.D	02162309ECD7.D	NA	02/16/23 13:51
Cal Standard	SLB0222-CAL9	02162310ECD7.D	02162310ECD7.D	NA	02/16/23 14:12
Cal Standard	SLB0222-CALA	02162311ECD7.D	02162311ECD7.D	NA	02/16/23 14:33
Cal Standard	SLB0222-CALB	02162312ECD7.D	02162312ECD7.D	NA	02/16/23 14:54
Secondary Cal Check	SLB0222-SCV1	02162313ECD7.D	02162313ECD7.D	NA	02/16/23 15:15
Secondary Cal Check	SLB0222-SCV2	02162314ECD7.D	02162314ECD7.D	NA	02/16/23 15:36
Secondary Cal Check	SLB0222-SCV3	02162315ECD7.D	02162315ECD7.D	NA	02/16/23 15:57
Secondary Cal Check	SLB0222-SCV4	02162316ECD7.D	02162316ECD7.D	NA	02/16/23 16:18
Secondary Cal Check	SLB0222-SCV5	02162317ECD7.D	02162317ECD7.D	NA	02/16/23 16:39
Secondary Cal Check	SLB0222-SCV6	02162318ECD7.D	02162318ECD7.D	NA	02/16/23 17:00

Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLB0274
Instrument: ECD7
Calibration: GB00045

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Initial Cal Check	SLB0274-ICV1	02202311ECD7.D	02202311ECD7.D	NA	02/20/23 13:41
Initial Cal Check	SLB0274-ICV2	02202312ECD7.D	02202312ECD7.D	NA	02/20/23 14:02
Blank	BLA0686-BLK1	02202313ECD7.D	02202313ECD7.D	Solid	02/20/23 14:23
LCS	BLA0686-BS1	02202314ECD7.D	02202314ECD7.D	Solid	02/20/23 14:44
LCS Dup	BLA0686-BSD1	02202315ECD7.D	02202315ECD7.D	Solid	02/20/23 15:05
Reference	BLA0686-SRM1	02202316ECD7.D	02202316ECD7.D	Solid	02/20/23 15:26
LDW23-SC1108	23A0313-01	02202317ECD7.D	02202317ECD7.D	Solid	02/20/23 15:47
LDW23-SC1115	23A0313-02	02202318ECD7.D	02202318ECD7.D	Solid	02/20/23 16:08
LDW23-IT1114	23A0313-03	02202319ECD7.D	02202319ECD7.D	Solid	02/20/23 16:29
LDW23-IT1120	23A0313-04	02202320ECD7.D	02202320ECD7.D	Solid	02/20/23 16:50
LDW23-SC1090	23A0313-05	02202321ECD7.D	02202321ECD7.D	Solid	02/20/23 17:12
LDW23-SC1095	23A0313-06	02202322ECD7.D	02202322ECD7.D	Solid	02/20/23 17:33
LDW23-SC1076	23A0313-07	02202323ECD7.D	02202323ECD7.D	Solid	02/20/23 17:54
LDW23-SC1076	BLA0686-MS1	02202324ECD7.D	02202324ECD7.D	Solid	02/20/23 18:15
LDW23-SC1076	BLA0686-MSD1	02202325ECD7.D	02202325ECD7.D	Solid	02/20/23 18:36
LDW23-SC1016A	23A0313-08	02202326ECD7.D	02202326ECD7.D	Solid	02/20/23 18:57
LDW23-SC1011A	23A0313-09	02202327ECD7.D	02202327ECD7.D	Solid	02/20/23 19:18
LDW23-SC1006A	23A0313-10	02202328ECD7.D	02202328ECD7.D	Solid	02/20/23 19:39
Calibration Check	SLB0274-CCV1	02202329ECD7.D	02202329ECD7.D	NA	02/20/23 20:00
Calibration Check	SLB0274-CCV2	02202330ECD7.D	02202330ECD7.D	NA	02/20/23 20:21
Calibration Check	SLB0274-CCV3	02202343ECD7.D	02202343ECD7.D	NA	02/21/23 00:54
Calibration Check	SLB0274-CCV4	02202344ECD7.D	02202344ECD7.D	NA	02/21/23 01:15
Calibration Check	SLB0274-CCV5	02202359ECD7.D	02202359ECD7.D	NA	02/21/23 06:31
Calibration Check	SLB0274-CCV6	02202360ECD7.D	02202360ECD7.D	NA	02/21/23 06:52
Calibration Check	SLB0274-CCV7	02202378ECD7.D	02202378ECD7.D	NA	02/21/23 13:12
Calibration Check	SLB0274-CCV8	02202379ECD7.D	02202379ECD7.D	NA	02/21/23 13:33
Calibration Check	SLB0274-CCV9	02202389ECD7.D	02202389ECD7.D	NA	02/21/23 17:04
Calibration Check	SLB0274-CCVA	02202390ECD7.D	02202390ECD7.D	NA	02/21/23 17:25

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLB0274

Instrument: ECD7
Calibration ID: GB00045

Printed: 2/22/2023 9:49:34AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLB0274-ICV1	QC		1		L000862	L000844		
SLB0274-ICV2	QC		2		L000856	L000844		
BLA0686-BLK1	QC		3			L000844		
BLA0686-BS1	QC		4			L000844		
BLA0686-BSD1	QC		5			L000844		
BLA0686-SRM1	QC		6			L000844		
23A0313-01	8082A PCB Solid 4	A 03	7			L000844	Anchor QEA, LLC	
23A0313-02	8082A PCB Solid 4	A 03	8			L000844	Anchor QEA, LLC	
23A0313-03	8082A PCB Solid 4	A 03	9			L000844	Anchor QEA, LLC	
23A0313-04	8082A PCB Solid 4	A 03	10			L000844	Anchor QEA, LLC	
23A0313-05	8082A PCB Solid 4	A 03	11			L000844	Anchor QEA, LLC	
23A0313-06	8082A PCB Solid 4	A 03	12			L000844	Anchor QEA, LLC	
23A0313-07	8082A PCB Solid 4	A 03	13			L000844	Anchor QEA, LLC	
BLA0686-MS1	QC		14			L000844		
BLA0686-MSD1	QC		15			L000844		
23A0313-08	8082A PCB Solid 4	A 03	16			L000844	Anchor QEA, LLC	
23A0313-09	8082A PCB Solid 4	A 03	17			L000844	Anchor QEA, LLC	
23A0313-10	8082A PCB Solid 4	A 03	18			L000844	Anchor QEA, LLC	
SLB0274-CCV1	QC		19		L000861	L000844		
SLB0274-CCV2	QC		20		L000856	L000844		
BLB0206-BLK1	QC		21			L000844		

Samples Loaded By Date

Data Processed By Date

ANALYSIS SEQUENCE

SLB0274

Instrument: ECD7
Calibration ID: GB00045

Printed: 2/22/2023 9:49:34AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
BLB0206-BS1	QC		22			L000844		
BLB0206-BSD1	QC		23			L000844		
BLB0206-SRM1	QC		24			L000844		
23A0626-01	8082A PCB Solid 4	A 02	25			L000844	GeoEngineers	
BLB0206-MS1	QC		26			L000844		
BLB0206-MSD1	QC		27			L000844		
23A0626-03	8082A PCB Solid 4	A 02	28			L000844	GeoEngineers	
23A0626-05	8082A PCB Solid 4	A 02	29			L000844	GeoEngineers	
23A0626-07	8082A PCB Solid 4	A 02	30			L000844	GeoEngineers	
23A0626-10	8082A PCB Solid 4	A 02	31			L000844	GeoEngineers	
23A0626-29	8082A PCB Solid 4	A 02	32			L000844	GeoEngineers	
SLB0274-CCV3	QC		33		L000860	L000844		
SLB0274-CCV4	QC		34		L000856	L000844		
BLB0021-BLK1	QC		35			L000844		
BLB0021-BS1	QC		36			L000844		
BLB0021-BSD1	QC		37			L000844		
BLB0021-SRM1	QC		38			L000844		
23A0417-01	8082A PCB Solid 4	A 01	39			L000844	Anchor QEA, LLC	
23A0417-02	8082A PCB Solid 4	A 01	40			L000844	Anchor QEA, LLC	
23A0417-03	8082A PCB Solid 4	A 01	41			L000844	Anchor QEA, LLC	
23A0417-04	8082A PCB Solid 4	A 01	42			L000844	Anchor QEA, LLC	

Samples Loaded By Date

Data Processed By Date

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

SLB0274

Instrument: ECD7
Calibration ID: GB00045

Printed: 2/22/2023 9:49:34AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
23A0417-05	8082A PCB Solid 4	A 01	43			L000844	Anchor QEA, LLC	
23A0417-06	8082A PCB Solid 4	A 01	44			L000844	Anchor QEA, LLC	
23A0417-07	8082A PCB Solid 4	A 01	45			L000844	Anchor QEA, LLC	
23A0417-08	8082A PCB Solid 4	A 01	46			L000844	Anchor QEA, LLC	
23A0417-09	8082A PCB Solid 4	A 01	47			L000844	Anchor QEA, LLC	
23A0417-10	8082A PCB Solid 4	A 01	48			L000844	Anchor QEA, LLC	
SLB0274-CCV5	QC		49		L000862	L000844		
SLB0274-CCV6	QC		50		L000856	L000844		
23A0417-11	8082A PCB Solid 4	A 01	51			L000844	Anchor QEA, LLC	
23A0417-12	8082A PCB Solid 4	A 01	52			L000844	Anchor QEA, LLC	
23A0417-13	8082A PCB Solid 4	A 01	53			L000844	Anchor QEA, LLC	
23A0417-14	8082A PCB Solid 4	A 01	54			L000844	Anchor QEA, LLC	
23A0417-15	8082A PCB Solid 4	A 01	55			L000844	Anchor QEA, LLC	
BLB0021-MS1	QC		56			L000844		
BLB0021-MSD1	QC		57			L000844		
BLB0017-BLK1	QC		58			L000844		
BLB0017-BS1	QC		59			L000844		
BLB0017-BSD1	QC		60			L000844		
BLB0017-SRM1	QC		61			L000844		
23A0087-13	8082A PCB Solid 4	A 05	62			L000844	Anchor QEA, LLC	
23A0328-01	8082A PCB Solid 4	A 01	63			L000844	Anchor QEA, LLC	

Samples Loaded By Date

Data Processed By Date

ANALYSIS SEQUENCE

SLB0274

Instrument: ECD7
Calibration ID: GB00045

Printed: 2/22/2023 9:49:34AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
23A0328-02	8082A PCB Solid 4	A 01	64			L000844	Anchor QEA, LLC	
BLB0017-MS1	QC		65			L000844		
BLB0017-MSD1	QC		66			L000844		
23A0328-03	8082A PCB Solid 4	A 01	67			L000844	Anchor QEA, LLC	
SLB0274-CCV7	QC		68		L000861	L000844		
SLB0274-CCV8	QC		69		L000856	L000844		
23A0328-04	8082A PCB Solid 4	A 01	70			L000844	Anchor QEA, LLC	
23A0328-05	8082A PCB Solid 4	A 01	71			L000844	Anchor QEA, LLC	
23A0328-06	8082A PCB Solid 4	A 01	72			L000844	Anchor QEA, LLC	
23A0328-07	8082A PCB Solid 4	A 01	73			L000844	Anchor QEA, LLC	
23A0328-08	8082A PCB Solid 4	A 01	74			L000844	Anchor QEA, LLC	
23A0328-09	8082A PCB Solid 4	A 01	75			L000844	Anchor QEA, LLC	
23A0328-11	8082A PCB Solid 4	A 01	76			L000844	Anchor QEA, LLC	
23A0328-12	8082A PCB Solid 4	A 01	77			L000844	Anchor QEA, LLC	
SLB0274-CCV9	QC		78		L000860	L000844		
SLB0274-CCVA	QC		79		L000856	L000844		

Samples Loaded By Date

Data Processed By Date

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230220.b

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2	20-FEB-2023 09:41	02202302ECD7.D	1	AR1660RINSE	
3	20-FEB-2023 10:02	02202303ECD7.D	1	AR1660RINSE	
4	20-FEB-2023 10:23	02202304ECD7.D	1	AR1660RINSE	
5	20-FEB-2023 10:44	02202305ECD7.D	1	AR1660RINSE	
6	20-FEB-2023 11:56	02202306ECD7.D	1	AR1660 RINSE	
7	20-FEB-2023 12:17	02202307ECD7.D	1	DDTS	
8	20-FEB-2023 12:38	02202308ECD7.D	1	AR1254ICV1	
9	20-FEB-2023 12:59	02202309ECD7.D	1	AR1660ICV2	
10	20-FEB-2023 13:20	02202310ECD7.D	1	DDTS	
11	20-FEB-2023 13:41	02202311ECD7.D	1	AR1254ICV1	
12	20-FEB-2023 14:02	02202312ECD7.D	1	AR1660ICV2	
13	20-FEB-2023 14:23	02202313ECD7.D	1	BLA0686-BLK1	
14	20-FEB-2023 14:44	02202314ECD7.D	1	BLA0686-BS1	
15	20-FEB-2023 15:05	02202315ECD7.D	1	BLA0686-BSD1	
16	20-FEB-2023 15:26	02202316ECD7.D	1	BLA0686-SRM1	
17	20-FEB-2023 15:47	02202317ECD7.D	1	23A0313-01	
18	20-FEB-2023 16:08	02202318ECD7.D	1	23A0313-02	
19	20-FEB-2023 16:29	02202319ECD7.D	50	23A0313-03RE2	
20	20-FEB-2023 16:50	02202320ECD7.D	10	23A0313-04RE2	
21	20-FEB-2023 17:12	02202321ECD7.D	1	23A0313-05	
22	20-FEB-2023 17:33	02202322ECD7.D	1	23A0313-06	
23	20-FEB-2023 17:54	02202323ECD7.D	1	23A0313-07	
24	20-FEB-2023 18:15	02202324ECD7.D	1	BLA0686-MS1	
25	20-FEB-2023 18:36	02202325ECD7.D	1	BLA0686-MSD1	
26	20-FEB-2023 18:57	02202326ECD7.D	1	23A0313-08	
27	20-FEB-2023 19:18	02202327ECD7.D	1	23A0313-09	
28	20-FEB-2023 19:39	02202328ECD7.D	1	23A0313-10	
29	20-FEB-2023 20:00	02202329ECD7.D	1	AR1248CCV1	
30	20-FEB-2023 20:21	02202330ECD7.D	1	AR1660CCV2	
31	20-FEB-2023 20:42	02202331ECD7.D	1	BLB0206-BLK1	
32	20-FEB-2023 21:03	02202332ECD7.D	1	BLB0206-BS1	
33	20-FEB-2023 21:24	02202333ECD7.D	1	BLB0206-BSD1	
34	20-FEB-2023 21:45	02202334ECD7.D	1	BLB0206-SRM1	
35	20-FEB-2023 22:06	02202335ECD7.D	1	23A0626-01	
36	20-FEB-2023 22:27	02202336ECD7.D	1	BLB0206-MS1	
37	20-FEB-2023 22:48	02202337ECD7.D	1	BLB0206-MSD1	
38	20-FEB-2023 23:09	02202338ECD7.D	5	23A0626-03RE1	
39	20-FEB-2023 23:30	02202339ECD7.D	1	23A0626-05	
40	20-FEB-2023 23:51	02202340ECD7.D	1	23A0626-07	
41	21-FEB-2023 00:12	02202341ECD7.D	1	23A0626-10	
42	21-FEB-2023 00:33	02202342ECD7.D	1	23A0626-29	
43	21-FEB-2023 00:54	02202343ECD7.D	1	AR1242CCV3	
44	21-FEB-2023 01:15	02202344ECD7.D	1	AR1660CCV4	
45	21-FEB-2023 01:36	02202345ECD7.D	1	BLB0021-BLK1	
46	21-FEB-2023 01:57	02202346ECD7.D	1	BLB0021-BS1	
47	21-FEB-2023 02:18	02202347ECD7.D	1	BLB0021-BSD1	
48	21-FEB-2023 02:39	02202348ECD7.D	1	BLB0021-SRM1	
49	21-FEB-2023 03:00	02202349ECD7.D	5	23A0417-01RE1	
50	21-FEB-2023 03:22	02202350ECD7.D	1	23A0417-02	

	Inject Date/Time	Filename	DF	LabID	ClientID
51	21-FEB-2023 03:43	02202351ECD7.D	1	23A0417-03	
52	21-FEB-2023 04:04	02202352ECD7.D	1	23A0417-04	
53	21-FEB-2023 04:25	02202353ECD7.D	1	23A0417-05	
54	21-FEB-2023 04:46	02202354ECD7.D	1	23A0417-06	
55	21-FEB-2023 05:07	02202355ECD7.D	1	23A0417-07	
56	21-FEB-2023 05:28	02202356ECD7.D	1	23A0417-08	
57	21-FEB-2023 05:49	02202357ECD7.D	1	23A0417-09	
58	21-FEB-2023 06:10	02202358ECD7.D	5	23A0417-10RE1	
59	21-FEB-2023 06:31	02202359ECD7.D	1	AR1254CCV5	
60	21-FEB-2023 06:52	02202360ECD7.D	1	AR1660CCV6	
61	21-FEB-2023 07:13	02202361ECD7.D	1	23A0417-11	
62	21-FEB-2023 07:34	02202362ECD7.D	1	23A0417-12	
63	21-FEB-2023 07:55	02202363ECD7.D	5	23A0417-13RE1	
64	21-FEB-2023 08:16	02202364ECD7.D	5	23A0417-14RE1	
65	21-FEB-2023 08:38	02202365ECD7.D	1	23A0417-15	
66	21-FEB-2023 08:59	02202366ECD7.D	1	BLB0021-MS1	
67	21-FEB-2023 09:20	02202367ECD7.D	1	BLB0021-MSD1	
68	21-FEB-2023 09:41	02202368ECD7.D	1	BLB0017-BLK1	
69	21-FEB-2023 10:02	02202369ECD7.D	1	BLB0017-BS1	
70	21-FEB-2023 10:23	02202370ECD7.D	1	BLB0017-BSD1	
71	21-FEB-2023 10:44	02202371ECD7.D	1	BLB0017-SRM1	
72	21-FEB-2023 11:05	02202372ECD7.D	1	23A0087-13	
73	21-FEB-2023 11:26	02202373ECD7.D	1	23A0328-01	
74	21-FEB-2023 11:47	02202374ECD7.D	10	23A0328-02RE1	
75	21-FEB-2023 12:08	02202375ECD7.D	10	BLB0017-MS1RE	
76	21-FEB-2023 12:29	02202376ECD7.D	1	BLB0017-MSD1RE	
77	21-FEB-2023 12:50	02202377ECD7.D	1	23A0328-03	
78	21-FEB-2023 13:12	02202378ECD7.D	1	AR1248CCV7	
79	21-FEB-2023 13:33	02202379ECD7.D	1	AR1660CCV8	
80	21-FEB-2023 13:54	02202380ECD7.D	10	23A0328-04RE2	
81	21-FEB-2023 14:15	02202381ECD7.D	5	23A0328-05RE2	
82	21-FEB-2023 14:36	02202382ECD7.D	1	23A0328-06	
83	21-FEB-2023 14:57	02202383ECD7.D	1	23A0328-07	
84	21-FEB-2023 15:18	02202384ECD7.D	1	23A0328-08	
85	21-FEB-2023 15:39	02202385ECD7.D	1	23A0328-09	
86	21-FEB-2023 16:00	02202386ECD7.D	1	23A0328-10	
87	21-FEB-2023 16:21	02202387ECD7.D	1	23A0328-11	
88	21-FEB-2023 16:42	02202388ECD7.D	1	23A0328-12	
89	21-FEB-2023 17:04	02202389ECD7.D	1	AR1242CCV9	
90	21-FEB-2023 17:25	02202390ECD7.D	1	AR1660CCVA	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230220.b

ARI Job No.: AR16 Method: PCB.m Instrument: ecd7.i Date: 20-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0920	02202301ECD7.D	AR1660RINSE		1	NO MANUAL INTEGRATION
0941	02202302ECD7.D	AR1660RINSE		1	NO MANUAL INTEGRATION
1002	02202303ECD7.D	AR1660RINSE		1	NO MANUAL INTEGRATION
1023	02202304ECD7.D	AR1660RINSE		1	NO MANUAL INTEGRATION
1044	02202305ECD7.D	AR1660RINSE		1	NO MANUAL INTEGRATION
1156	02202306ECD7.D	AR1660 RINSE		1	NO MANUAL INTEGRATION
1217	02202307ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1238	02202308ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1259	02202309ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1320	02202310ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1341	02202311ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1402	02202312ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1423	02202313ECD7.D	BLA0686-BLK1		1	NO MANUAL INTEGRATION
1444	02202314ECD7.D	BLA0686-BS1		1	NO MANUAL INTEGRATION
1505	02202315ECD7.D	BLA0686-BSD1		1	NO MANUAL INTEGRATION
1526	02202316ECD7.D	BLA0686-SRM1		1	NO MANUAL INTEGRATION
1547	02202317ECD7.D	23A0313-01		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230220.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1608	02202318ECD7.D	23A0313-02		1	NO MANUAL INTEGRATION
1629	02202319ECD7.D	23A0313-03RE2		50	Aroclor-1254,
1650	02202320ECD7.D	23A0313-04RE2		10	NO MANUAL INTEGRATION
1712	02202321ECD7.D	23A0313-05		1	NO MANUAL INTEGRATION
1733	02202322ECD7.D	23A0313-06		1	NO MANUAL INTEGRATION
1754	02202323ECD7.D	23A0313-07		1	NO MANUAL INTEGRATION
1815	02202324ECD7.D	BLA0686-MS1		1	NO MANUAL INTEGRATION
1836	02202325ECD7.D	BLA0686-MSD1		1	NO MANUAL INTEGRATION
1857	02202326ECD7.D	23A0313-08		1	NO MANUAL INTEGRATION
1918	02202327ECD7.D	23A0313-09		1	NO MANUAL INTEGRATION
1939	02202328ECD7.D	23A0313-10		1	NO MANUAL INTEGRATION
2000	02202329ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
2021	02202330ECD7.D	AR1660CCV2		1	Aroclor-1016,
2042	02202331ECD7.D	BLB0206-BLK1		1	NO MANUAL INTEGRATION
2103	02202332ECD7.D	BLB0206-BS1		1	NO MANUAL INTEGRATION
2124	02202333ECD7.D	BLB0206-BSD1		1	NO MANUAL INTEGRATION
2145	02202334ECD7.D	BLB0206-SRM1		1	NO MANUAL INTEGRATION
2206	02202335ECD7.D	23A0626-01		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230220.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2227	02202336ECD7.D	BLB0206-MS1		1	NO MANUAL INTEGRATION
2248	02202337ECD7.D	BLB0206-MSD1		1	NO MANUAL INTEGRATION
2309	02202338ECD7.D	23A0626-03RE1		5	Aroclor-1254, Aroclor-1260, IS-HBBP, Decachlorobiphenyl,
2330	02202339ECD7.D	23A0626-05		1	NO MANUAL INTEGRATION
2351	02202340ECD7.D	23A0626-07		1	NO MANUAL INTEGRATION
0012	02202341ECD7.D	23A0626-10		1	NO MANUAL INTEGRATION
0033	02202342ECD7.D	23A0626-29		1	NO MANUAL INTEGRATION
0054	02202343ECD7.D	AR1242CCV3		1	NO MANUAL INTEGRATION
0115	02202344ECD7.D	AR1660CCV4		1	NO MANUAL INTEGRATION
0136	02202345ECD7.D	BLB0021-BLK1		1	NO MANUAL INTEGRATION
0157	02202346ECD7.D	BLB0021-BS1		1	NO MANUAL INTEGRATION
0218	02202347ECD7.D	BLB0021-BSD1		1	NO MANUAL INTEGRATION
0239	02202348ECD7.D	BLB0021-SRM1		1	NO MANUAL INTEGRATION
0300	02202349ECD7.D	23A0417-01RE1		5	Aroclor-1254,
0322	02202350ECD7.D	23A0417-02		1	NO MANUAL INTEGRATION
0343	02202351ECD7.D	23A0417-03		1	NO MANUAL INTEGRATION
0404	02202352ECD7.D	23A0417-04		1	Aroclor-1254,
0425	02202353ECD7.D	23A0417-05		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230220.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0446	02202354ECD7.D	23A0417-06		1	Aroclor-1254,
0507	02202355ECD7.D	23A0417-07		1	Aroclor-1254,
0528	02202356ECD7.D	23A0417-08		1	Aroclor-1254,
0549	02202357ECD7.D	23A0417-09		1	NO MANUAL INTEGRATION
0610	02202358ECD7.D	23A0417-10RE1		5	Aroclor-1254,
0631	02202359ECD7.D	AR1254CCV5		1	NO MANUAL INTEGRATION
0652	02202360ECD7.D	AR1660CCV6		1	NO MANUAL INTEGRATION
0713	02202361ECD7.D	23A0417-11		1	NO MANUAL INTEGRATION
0734	02202362ECD7.D	23A0417-12		1	Aroclor-1254, Aroclor-1260,
0755	02202363ECD7.D	23A0417-13RE1		5	Aroclor-1254, Aroclor-1260, IS-HBBP, Decachlorobiphenyl,
0816	02202364ECD7.D	23A0417-14RE1		5	Aroclor-1254,
0838	02202365ECD7.D	23A0417-15		1	NO MANUAL INTEGRATION
0859	02202366ECD7.D	BLB0021-MS1		1	NO MANUAL INTEGRATION
0920	02202367ECD7.D	BLB0021-MSD1		1	NO MANUAL INTEGRATION
0941	02202368ECD7.D	BLB0017-BLK1		1	NO MANUAL INTEGRATION
1002	02202369ECD7.D	BLB0017-BS1		1	NO MANUAL INTEGRATION
1023	02202370ECD7.D	BLB0017-BSD1		1	NO MANUAL INTEGRATION
1044	02202371ECD7.D	BLB0017-SRM1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230220.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1105	02202372ECD7.D	23A0087-13		1	NO MANUAL INTEGRATION
1126	02202373ECD7.D	23A0328-01		1	NO MANUAL INTEGRATION
1147	02202374ECD7.D	23A0328-02RE1		10	NO MANUAL INTEGRATION
1208	02202375ECD7.D	BLB0017-MS1RE		10	NO MANUAL INTEGRATION
1229	02202376ECD7.D	BLB0017-MSD1RE		1	NO MANUAL INTEGRATION
1250	02202377ECD7.D	23A0328-03		1	Aroclor-1254,
1312	02202378ECD7.D	AR1248CCV7		1	NO MANUAL INTEGRATION
1333	02202379ECD7.D	AR1660CCV8		1	NO MANUAL INTEGRATION
1354	02202380ECD7.D	23A0328-04RE2		10	Aroclor-1254,
1415	02202381ECD7.D	23A0328-05RE2		5	Aroclor-1254,
1436	02202382ECD7.D	23A0328-06		1	Aroclor-1254,
1457	02202383ECD7.D	23A0328-07		1	Aroclor-1254,
1518	02202384ECD7.D	23A0328-08		1	Aroclor-1260,
1539	02202385ECD7.D	23A0328-09		1	Aroclor-1254,
1600	02202386ECD7.D	23A0328-10		1	Aroclor-1260,
1621	02202387ECD7.D	23A0328-11		1	Aroclor-1260,
1642	02202388ECD7.D	23A0328-12		1	Aroclor-1254,
1704	02202389ECD7.D	AR1242CCV9		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230220.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1725	02202390ECD7.D	AR1660CCVA		1	NO MANUAL INTEGRATION
0920	02202301ECD7.D	AR1660RINSE		1	NO MANUAL INTEGRATION
0941	02202302ECD7.D	AR1660RINSE		1	NO MANUAL INTEGRATION
1002	02202303ECD7.D	AR1660RINSE		1	NO MANUAL INTEGRATION
1023	02202304ECD7.D	AR1660RINSE		1	NO MANUAL INTEGRATION
1044	02202305ECD7.D	AR1660RINSE		1	NO MANUAL INTEGRATION
1156	02202306ECD7.D	AR1660 RINSE		1	NO MANUAL INTEGRATION
1217	02202307ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1238	02202308ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1259	02202309ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1320	02202310ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1341	02202311ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1402	02202312ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1423	02202313ECD7.D	BLA0686-BLK1		1	NO MANUAL INTEGRATION
1444	02202314ECD7.D	BLA0686-BS1		1	NO MANUAL INTEGRATION
1505	02202315ECD7.D	BLA0686-BSD1		1	NO MANUAL INTEGRATION
1526	02202316ECD7.D	BLA0686-SRM1		1	NO MANUAL INTEGRATION
1547	02202317ECD7.D	23A0313-01		1	Aroclor-1248 [2C],

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230220.b\230220.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1608	02202318ECD7.D	23A0313-02		1	Aroclor-1248 [2C],
1629	02202319ECD7.D	23A0313-03RE2		50	Aroclor-1248 [2C],
1650	02202320ECD7.D	23A0313-04RE2		10	Aroclor-1248 [2C],
1712	02202321ECD7.D	23A0313-05		1	Aroclor-1248 [2C],
1733	02202322ECD7.D	23A0313-06		1	Aroclor-1248 [2C],
1754	02202323ECD7.D	23A0313-07		1	Aroclor-1248 [2C],
1815	02202324ECD7.D	BLA0686-MS1		1	NO MANUAL INTEGRATION
1836	02202325ECD7.D	BLA0686-MSD1		1	NO MANUAL INTEGRATION
1857	02202326ECD7.D	23A0313-08		1	Aroclor-1248 [2C],
1918	02202327ECD7.D	23A0313-09		1	Aroclor-1248 [2C],
1939	02202328ECD7.D	23A0313-10		1	Aroclor-1248 [2C],
2000	02202329ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
2021	02202330ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
2042	02202331ECD7.D	BLB0206-BLK1		1	NO MANUAL INTEGRATION
2103	02202332ECD7.D	BLB0206-BS1		1	NO MANUAL INTEGRATION
2124	02202333ECD7.D	BLB0206-BSD1		1	NO MANUAL INTEGRATION
2145	02202334ECD7.D	BLB0206-SRM1		1	NO MANUAL INTEGRATION
2206	02202335ECD7.D	23A0626-01		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230220.b\230220.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2227	02202336ECD7.D	BLB0206-MS1		1	NO MANUAL INTEGRATION
2248	02202337ECD7.D	BLB0206-MSD1		1	NO MANUAL INTEGRATION
2309	02202338ECD7.D	23A0626-03RE1		5	NO MANUAL INTEGRATION
2330	02202339ECD7.D	23A0626-05		1	NO MANUAL INTEGRATION
2351	02202340ECD7.D	23A0626-07		1	NO MANUAL INTEGRATION
0012	02202341ECD7.D	23A0626-10		1	NO MANUAL INTEGRATION
0033	02202342ECD7.D	23A0626-29		1	NO MANUAL INTEGRATION
0054	02202343ECD7.D	AR1242CCV3		1	NO MANUAL INTEGRATION
0115	02202344ECD7.D	AR1660CCV4		1	NO MANUAL INTEGRATION
0136	02202345ECD7.D	BLB0021-BLK1		1	NO MANUAL INTEGRATION
0157	02202346ECD7.D	BLB0021-BS1		1	NO MANUAL INTEGRATION
0218	02202347ECD7.D	BLB0021-BSD1		1	NO MANUAL INTEGRATION
0239	02202348ECD7.D	BLB0021-SRM1		1	NO MANUAL INTEGRATION
0300	02202349ECD7.D	23A0417-01RE1		5	Aroclor-1248 [2C],
0322	02202350ECD7.D	23A0417-02		1	Aroclor-1248 [2C],
0343	02202351ECD7.D	23A0417-03		1	Aroclor-1248 [2C],
0404	02202352ECD7.D	23A0417-04		1	Aroclor-1248 [2C],
0425	02202353ECD7.D	23A0417-05		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230220.b\230220.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0446	02202354ECD7.D	23A0417-06		1	NO MANUAL INTEGRATION
0507	02202355ECD7.D	23A0417-07		1	Aroclor-1248 [2C],
0528	02202356ECD7.D	23A0417-08		1	Aroclor-1248 [2C],
0549	02202357ECD7.D	23A0417-09		1	Aroclor-1248 [2C],
0610	02202358ECD7.D	23A0417-10RE1		5	Aroclor-1248 [2C],
0631	02202359ECD7.D	AR1254CCV5		1	NO MANUAL INTEGRATION
0652	02202360ECD7.D	AR1660CCV6		1	NO MANUAL INTEGRATION
0713	02202361ECD7.D	23A0417-11		1	Aroclor-1248 [2C],
0734	02202362ECD7.D	23A0417-12		1	Aroclor-1248 [2C],
0755	02202363ECD7.D	23A0417-13RE1		5	Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], IS-HBBP [2C], Decachlorobiphenyl [2C],
0816	02202364ECD7.D	23A0417-14RE1		5	Aroclor-1248 [2C],
0838	02202365ECD7.D	23A0417-15		1	Aroclor-1248 [2C],
0859	02202366ECD7.D	BLB0021-MS1		1	NO MANUAL INTEGRATION
0920	02202367ECD7.D	BLB0021-MSD1		1	NO MANUAL INTEGRATION
0941	02202368ECD7.D	BLB0017-BLK1		1	NO MANUAL INTEGRATION
1002	02202369ECD7.D	BLB0017-BS1		1	NO MANUAL INTEGRATION
1023	02202370ECD7.D	BLB0017-BSD1		1	NO MANUAL INTEGRATION
1044	02202371ECD7.D	BLB0017-SRM1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230220.b\230220.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1105	02202372ECD7.D	23A0087-13		1	Aroclor-1248 [2C],
1126	02202373ECD7.D	23A0328-01		1	Aroclor-1248 [2C],
1147	02202374ECD7.D	23A0328-02RE1		10	Aroclor-1248 [2C],
1208	02202375ECD7.D	BLB0017-MS1RE		10	NO MANUAL INTEGRATION
1229	02202376ECD7.D	BLB0017-MSD1RE		1	NO MANUAL INTEGRATION
1250	02202377ECD7.D	23A0328-03		1	Aroclor-1248 [2C],
1312	02202378ECD7.D	AR1248CCV7		1	NO MANUAL INTEGRATION
1333	02202379ECD7.D	AR1660CCV8		1	NO MANUAL INTEGRATION
1354	02202380ECD7.D	23A0328-04RE2		10	Aroclor-1248 [2C],
1415	02202381ECD7.D	23A0328-05RE2		5	Aroclor-1248 [2C],
1436	02202382ECD7.D	23A0328-06		1	Aroclor-1248 [2C],
1457	02202383ECD7.D	23A0328-07		1	Aroclor-1248 [2C],
1518	02202384ECD7.D	23A0328-08		1	Aroclor-1248 [2C],
1539	02202385ECD7.D	23A0328-09		1	Aroclor-1248 [2C],
1600	02202386ECD7.D	23A0328-10		1	Aroclor-1248 [2C],
1621	02202387ECD7.D	23A0328-11		1	Aroclor-1248 [2C],
1642	02202388ECD7.D	23A0328-12		1	Aroclor-1248 [2C],
1704	02202389ECD7.D	AR1242CCV9		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230220.b\230220.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1725	02202390ECD7.D	AR1660CCVA		1	NO MANUAL INTEGRATION

Security Status Report

Date: 22-Feb-2023 09:48

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SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
SDG/WO: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLA0281
Instrument: ECD7
Calibration: GA00061
Calibration Date: 01/24/2023

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLA0281-SCV1 (Solid)			Lab File ID: 01242324ECD7.D			Analyzed: 01/24/23 19:51		
Decachlorobiphenyl	40.000	94.9	80 - 120	13.891	13.892	-0.0010	N/A	
Tetrachlorometaxylene	40.000	93.8	80 - 120	5.808	5.808667	-0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	101	80 - 120	14.12	14.12017	-0.0002	N/A	
Tetrachlorometaxylene [2C]	40.000	93.2	80 - 120	5.685	5.685333	-0.0003	N/A	
SLA0281-SCV2 (Solid)			Lab File ID: 01242325ECD7.D			Analyzed: 01/24/23 20:12		
Decachlorobiphenyl	40.000	96.4	80 - 120	13.892	13.892	0.0000	N/A	
Tetrachlorometaxylene	40.000	94.4	80 - 120	5.808	5.808667	-0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	101	80 - 120	14.121	14.12017	0.0008	N/A	
Tetrachlorometaxylene [2C]	40.000	93.4	80 - 120	5.685	5.685333	-0.0003	N/A	
SLA0281-SCV3 (Solid)			Lab File ID: 01242326ECD7.D			Analyzed: 01/24/23 20:33		
Decachlorobiphenyl	40.000	95.7	80 - 120	13.892	13.892	0.0000	N/A	
Tetrachlorometaxylene	40.000	91.9	80 - 120	5.809	5.808667	0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	98.9	80 - 120	14.12	14.12017	-0.0002	N/A	
Tetrachlorometaxylene [2C]	40.000	91.4	80 - 120	5.685	5.685333	-0.0003	N/A	
SLA0281-SCV4 (Solid)			Lab File ID: 01242327ECD7.D			Analyzed: 01/24/23 20:54		
Decachlorobiphenyl	40.000	92.7	80 - 120	13.892	13.892	0.0000	N/A	
Tetrachlorometaxylene	40.000	91.7	80 - 120	5.808	5.808667	-0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	98.9	80 - 120	14.121	14.12017	0.0008	N/A	
Tetrachlorometaxylene [2C]	40.000	91.6	80 - 120	5.685	5.685333	-0.0003	N/A	
SLA0281-SCV5 (Solid)			Lab File ID: 01242328ECD7.D			Analyzed: 01/24/23 21:15		
Decachlorobiphenyl	40.000	93.6	80 - 120	13.89	13.892	-0.0020	N/A	
Tetrachlorometaxylene	40.000	93.2	80 - 120	5.808	5.808667	-0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	98.7	80 - 120	14.119	14.12017	-0.0012	N/A	
Tetrachlorometaxylene [2C]	40.000	92.9	80 - 120	5.685	5.685333	-0.0003	N/A	
SLA0281-SCV6 (Solid)			Lab File ID: 01242329ECD7.D			Analyzed: 01/24/23 21:36		
Decachlorobiphenyl	40.000	137	80 - 120	13.892	13.892	0.0000	N/A	
Tetrachlorometaxylene	40.000	90.9	80 - 120	5.809	5.808667	0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	145	80 - 120	14.12	14.12017	-0.0002	N/A	
Tetrachlorometaxylene [2C]	40.000	90.8	80 - 120	5.686	5.685333	0.0007	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
SDG/WO: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLB0168
Instrument: ECD7
Calibration: GA00061
Calibration Date: 01/24/2023

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0168-CCV3 (Water)			Lab File ID: 02132324ECD7.D			Analyzed: 02/13/23 17:58		
Decachlorobiphenyl	40.000	76.5	0 - 200	13.889	13.892	-0.0030	N/A	
Tetrachlorometaxylene	40.000	116	0 - 200	5.806	5.808667	-0.0027	N/A	
Decachlorobiphenyl [2C]	40.000	81.8	0 - 200	14.117	14.12017	-0.0032	N/A	
Tetrachlorometaxylene [2C]	40.000	114	0 - 200	5.683	5.685333	-0.0023	N/A	
SLB0168-CCV4 (Water)			Lab File ID: 02132325ECD7.D			Analyzed: 02/13/23 18:19		
Decachlorobiphenyl	40.000	83.8	0 - 200	13.889	13.892	-0.0030	N/A	
Tetrachlorometaxylene	40.000	100	0 - 200	5.805	5.808667	-0.0037	N/A	
Decachlorobiphenyl [2C]	40.000	88.0	0 - 200	14.115	14.12017	-0.0052	N/A	
Tetrachlorometaxylene [2C]	40.000	97.5	0 - 200	5.682	5.685333	-0.0033	N/A	
SLB0168-CCV5 (Water)			Lab File ID: 02132342ECD7.D			Analyzed: 02/14/23 00:16		
Decachlorobiphenyl	40.000	81.0	0 - 200	13.889	13.892	-0.0030	N/A	
Tetrachlorometaxylene	40.000	94.0	0 - 200	5.805	5.808667	-0.0037	N/A	
Decachlorobiphenyl [2C]	40.000	86.3	0 - 200	14.116	14.12017	-0.0042	N/A	
Tetrachlorometaxylene [2C]	40.000	95.3	0 - 200	5.682	5.685333	-0.0033	N/A	
SLB0168-CCV6 (Water)			Lab File ID: 02132343ECD7.D			Analyzed: 02/14/23 00:37		
Decachlorobiphenyl	40.000	86.8	0 - 200	13.889	13.892	-0.0030	N/A	
Tetrachlorometaxylene	40.000	98.8	0 - 200	5.806	5.808667	-0.0027	N/A	
Decachlorobiphenyl [2C]	40.000	88.8	0 - 200	14.116	14.12017	-0.0042	N/A	
Tetrachlorometaxylene [2C]	40.000	97.3	0 - 200	5.683	5.685333	-0.0023	N/A	
23A0313-11 (Solid)			Lab File ID: 02132344ECD7.D			Analyzed: 02/14/23 00:58		
Decachlorobiphenyl	7.9698	81.1	40 - 126	13.884	13.892	-0.0080	N/A	
Tetrachlorometaxylene	7.9698	65.1	44 - 120	5.801	5.808667	-0.0077	N/A	
Decachlorobiphenyl [2C]	7.9698	78.6	40 - 126	14.111	14.12017	-0.0092	N/A	
Tetrachlorometaxylene [2C]	7.9698	78.5	44 - 120	5.679	5.685333	-0.0063	N/A	
23A0313-12 (Solid)			Lab File ID: 02132345ECD7.D			Analyzed: 02/14/23 01:20		
Decachlorobiphenyl	8.0000	83.6	40 - 126	13.884	13.892	-0.0080	N/A	
Tetrachlorometaxylene	8.0000	84.5	44 - 120	5.803	5.808667	-0.0057	N/A	
Decachlorobiphenyl [2C]	8.0000	80.5	40 - 126	14.111	14.12017	-0.0092	N/A	
Tetrachlorometaxylene [2C]	8.0000	87.2	44 - 120	5.68	5.685333	-0.0053	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
SDG/WO: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLB0168
Instrument: ECD7
Calibration: GA00061
Calibration Date: 01/24/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
23A0313-13 (Solid)			Lab File ID: 02132346ECD7.D			Analyzed: 02/14/23 01:41		
Decachlorobiphenyl	7.9907	87.1	40 - 126	13.884	13.892	-0.0080	N/A	
Tetrachlorometaxylene	7.9907	77.1	44 - 120	5.803	5.808667	-0.0057	N/A	
Decachlorobiphenyl [2C]	7.9907	83.2	40 - 126	14.111	14.12017	-0.0092	N/A	
Tetrachlorometaxylene [2C]	7.9907	90.0	44 - 120	5.68	5.685333	-0.0053	N/A	
SLB0168-CCV7 (Water)			Lab File ID: 02132358ECD7.D			Analyzed: 02/14/23 05:53		
Decachlorobiphenyl	40.000	85.0	0 - 200	13.888	13.892	-0.0040	N/A	
Tetrachlorometaxylene	40.000	93.3	0 - 200	5.804	5.808667	-0.0047	N/A	
Decachlorobiphenyl [2C]	40.000	110	0 - 200	14.116	14.12017	-0.0042	N/A	
Tetrachlorometaxylene [2C]	40.000	94.3	0 - 200	5.682	5.685333	-0.0033	N/A	
SLB0168-CCV8 (Water)			Lab File ID: 02132359ECD7.D			Analyzed: 02/14/23 06:14		
Decachlorobiphenyl	40.000	84.0	0 - 200	13.889	13.892	-0.0030	N/A	
Tetrachlorometaxylene	40.000	98.8	0 - 200	5.804	5.808667	-0.0047	N/A	
Decachlorobiphenyl [2C]	40.000	92.0	0 - 200	14.117	14.12017	-0.0032	N/A	
Tetrachlorometaxylene [2C]	40.000	98.3	0 - 200	5.682	5.685333	-0.0033	N/A	
SLB0168-CCV9 (Water)			Lab File ID: 02132367ECD7.D			Analyzed: 02/14/23 09:02		
Decachlorobiphenyl	40.000	74.8	0 - 200	13.888	13.892	-0.0040	N/A	
Tetrachlorometaxylene	40.000	112	0 - 200	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	40.000	81.5	0 - 200	14.115	14.12017	-0.0052	N/A	
Tetrachlorometaxylene [2C]	40.000	112	0 - 200	5.685	5.685333	-0.0003	N/A	
SLB0168-CCVA (Water)			Lab File ID: 02132368ECD7.D			Analyzed: 02/14/23 09:23		
Decachlorobiphenyl	40.000	86.5	0 - 200	13.889	13.892	-0.0030	N/A	
Tetrachlorometaxylene	40.000	99.0	0 - 200	5.806	5.808667	-0.0027	N/A	
Decachlorobiphenyl [2C]	40.000	89.5	0 - 200	14.116	14.12017	-0.0042	N/A	
Tetrachlorometaxylene [2C]	40.000	98.5	0 - 200	5.684	5.685333	-0.0013	N/A	
SLB0168-CCVB (Water)			Lab File ID: 02132378ECD7.D			Analyzed: 02/14/23 12:53		
Decachlorobiphenyl	40.000	80.3	0 - 200	13.89	13.892	-0.0020	N/A	
Tetrachlorometaxylene	40.000	95.0	0 - 200	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	40.000	86.0	0 - 200	14.116	14.12017	-0.0042	N/A	
Tetrachlorometaxylene [2C]	40.000	94.8	0 - 200	5.684	5.685333	-0.0013	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0168	Instrument:	ECD7
Calibration:	GA00061	Calibration Date:	01/24/2023

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0168-CCVC (Water)			Lab File ID: 02132379ECD7.D				Analyzed: 02/14/23 13:14	
Decachlorobiphenyl	40.000	84.0	0 - 200	13.889	13.892	-0.0030	N/A	
Tetrachlorometaxylene	40.000	99.0	0 - 200	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	40.000	88.0	0 - 200	14.117	14.12017	-0.0032	N/A	
Tetrachlorometaxylene [2C]	40.000	98.0	0 - 200	5.684	5.685333	-0.0013	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
SDG/WO: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLB0222
Instrument: ECD7
Calibration: GB00045
Calibration Date: 02/16/2023

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0222-SCV1 (Water)			Lab File ID: 02162313ECD7.D			Analyzed: 02/16/23 15:15		
Decachlorobiphenyl	40.000	101	80 - 120	13.89	13.89117	-0.0012	N/A	
Tetrachlorometaxylene	40.000	93.3	80 - 120	5.807	5.808333	-0.0013	N/A	
Decachlorobiphenyl [2C]	40.000	104	80 - 120	14.118	14.11733	0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	94.1	80 - 120	5.685	5.685667	-0.0007	N/A	
SLB0222-SCV2 (Water)			Lab File ID: 02162314ECD7.D			Analyzed: 02/16/23 15:36		
Decachlorobiphenyl	40.000	101	80 - 120	13.891	13.89117	-0.0002	N/A	
Tetrachlorometaxylene	40.000	91.9	80 - 120	5.807	5.808333	-0.0013	N/A	
Decachlorobiphenyl [2C]	40.000	103	80 - 120	14.117	14.11733	-0.0003	N/A	
Tetrachlorometaxylene [2C]	40.000	93.0	80 - 120	5.685	5.685667	-0.0007	N/A	
SLB0222-SCV3 (Water)			Lab File ID: 02162315ECD7.D			Analyzed: 02/16/23 15:57		
Decachlorobiphenyl	40.000	103	80 - 120	13.891	13.89117	-0.0002	N/A	
Tetrachlorometaxylene	40.000	91.2	80 - 120	5.808	5.808333	-0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	104	80 - 120	14.118	14.11733	0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	92.2	80 - 120	5.686	5.685667	0.0003	N/A	
SLB0222-SCV4 (Water)			Lab File ID: 02162316ECD7.D			Analyzed: 02/16/23 16:18		
Decachlorobiphenyl	40.000	101	80 - 120	13.889	13.89117	-0.0022	N/A	
Tetrachlorometaxylene	40.000	91.7	80 - 120	5.807	5.808333	-0.0013	N/A	
Decachlorobiphenyl [2C]	40.000	105	80 - 120	14.118	14.11733	0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	93.7	80 - 120	5.685	5.685667	-0.0007	N/A	
SLB0222-SCV5 (Water)			Lab File ID: 02162317ECD7.D			Analyzed: 02/16/23 16:39		
Decachlorobiphenyl	40.000	101	80 - 120	13.89	13.89117	-0.0012	N/A	
Tetrachlorometaxylene	40.000	93.0	80 - 120	5.807	5.808333	-0.0013	N/A	
Decachlorobiphenyl [2C]	40.000	105	80 - 120	14.118	14.11733	0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	94.2	80 - 120	5.685	5.685667	-0.0007	N/A	
SLB0222-SCV6 (Water)			Lab File ID: 02162318ECD7.D			Analyzed: 02/16/23 17:00		
Decachlorobiphenyl	40.000	145	80 - 120	13.891	13.89117	-0.0002	N/A	
Tetrachlorometaxylene	40.000	88.7	80 - 120	5.807	5.808333	-0.0013	N/A	
Decachlorobiphenyl [2C]	40.000	150	80 - 120	14.118	14.11733	0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	90.9	80 - 120	5.686	5.685667	0.0003	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0274	Instrument:	ECD7
Calibration:	GB00045	Calibration Date:	02/16/2023

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0274-ICV1 (Solid)			Lab File ID: 02202311ECD7.D			Analyzed: 02/20/23 13:41		
Decachlorobiphenyl	40.000	94.0	80 - 120	13.892	13.89117	0.0008	N/A	
Tetrachlorometaxylene	40.000	88.0	80 - 120	5.806	5.808333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	103	80 - 120	14.116	14.11733	-0.0013	N/A	
Tetrachlorometaxylene [2C]	40.000	96.3	80 - 120	5.684	5.685667	-0.0017	N/A	
SLB0274-ICV2 (Solid)			Lab File ID: 02202312ECD7.D			Analyzed: 02/20/23 14:02		
Decachlorobiphenyl	40.000	94.5	80 - 120	13.89	13.89117	-0.0012	N/A	
Tetrachlorometaxylene	40.000	85.0	80 - 120	5.806	5.808333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	101	80 - 120	14.117	14.11733	-0.0003	N/A	
Tetrachlorometaxylene [2C]	40.000	91.3	80 - 120	5.683	5.685667	-0.0027	N/A	
BLA0686-BLK1 (Solid)			Lab File ID: 02202313ECD7.D			Analyzed: 02/20/23 14:23		
Decachlorobiphenyl	8.0000	100	40 - 126	13.889	13.89117	-0.0022	N/A	
Tetrachlorometaxylene	8.0000	81.6	44 - 120	5.805	5.808333	-0.0033	N/A	
Decachlorobiphenyl [2C]	8.0000	101	40 - 126	14.116	14.11733	-0.0013	N/A	
Tetrachlorometaxylene [2C]	8.0000	89.0	44 - 120	5.683	5.685667	-0.0027	N/A	
BLA0686-BS1 (Solid)			Lab File ID: 02202314ECD7.D			Analyzed: 02/20/23 14:44		
Decachlorobiphenyl	8.0000	104	40 - 126	13.89	13.89117	-0.0012	N/A	
Tetrachlorometaxylene	8.0000	86.2	44 - 120	5.805	5.808333	-0.0033	N/A	
Decachlorobiphenyl [2C]	8.0000	111	40 - 126	14.115	14.11733	-0.0023	N/A	
Tetrachlorometaxylene [2C]	8.0000	93.7	44 - 120	5.682	5.685667	-0.0037	N/A	
BLA0686-BSD1 (Solid)			Lab File ID: 02202315ECD7.D			Analyzed: 02/20/23 15:05		
Decachlorobiphenyl	8.0000	101	40 - 126	13.889	13.89117	-0.0022	N/A	
Tetrachlorometaxylene	8.0000	83.0	44 - 120	5.804	5.808333	-0.0043	N/A	
Decachlorobiphenyl [2C]	8.0000	108	40 - 126	14.115	14.11733	-0.0023	N/A	
Tetrachlorometaxylene [2C]	8.0000	87.4	44 - 120	5.682	5.685667	-0.0037	N/A	
BLA0686-SRM1 (Solid)			Lab File ID: 02202316ECD7.D			Analyzed: 02/20/23 15:26		
Decachlorobiphenyl	40.000	93.1	40 - 126	13.885	13.89117	-0.0062	N/A	
Tetrachlorometaxylene	40.000	73.5	44 - 120	5.804	5.808333	-0.0043	N/A	
Decachlorobiphenyl [2C]	40.000	93.2	40 - 126	14.112	14.11733	-0.0053	N/A	
Tetrachlorometaxylene [2C]	40.000	86.5	44 - 120	5.68	5.685667	-0.0057	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
SDG/WO: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLB0274
Instrument: ECD7
Calibration: GB00045
Calibration Date: 02/16/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
23A0313-01 (Solid)			Lab File ID: 02202317ECD7.D			Analyzed: 02/20/23 15:47		
Decachlorobiphenyl	7.9900	103	40 - 126	13.883	13.89117	-0.0082	N/A	
Tetrachlorometaxylene	7.9900	76.7	44 - 120	5.803	5.808333	-0.0053	N/A	
Decachlorobiphenyl [2C]	7.9900	100	40 - 126	14.11	14.11733	-0.0073	N/A	
Tetrachlorometaxylene [2C]	7.9900	95.5	44 - 120	5.679	5.685667	-0.0067	N/A	
23A0313-02 (Solid)			Lab File ID: 02202318ECD7.D			Analyzed: 02/20/23 16:08		
Decachlorobiphenyl	7.9938	94.2	40 - 126	13.883	13.89117	-0.0082	N/A	
Tetrachlorometaxylene	7.9938	67.5	44 - 120	5.803	5.808333	-0.0053	N/A	
Decachlorobiphenyl [2C]	7.9938	90.2	40 - 126	14.11	14.11733	-0.0073	N/A	
Tetrachlorometaxylene [2C]	7.9938	86.7	44 - 120	5.68	5.685667	-0.0057	N/A	
23A0313-03 (Solid)			Lab File ID: 02202319ECD7.D			Analyzed: 02/20/23 16:29		
Decachlorobiphenyl	8.0010	123	40 - 126	13.884	13.89117	-0.0072	N/A	
Tetrachlorometaxylene	8.0010	98.0	44 - 120	5.803	5.808333	-0.0053	N/A	
Decachlorobiphenyl [2C]	8.0010	185	40 - 126	14.112	14.11733	-0.0053	N/A	*
Tetrachlorometaxylene [2C]	8.0010	101	44 - 120	5.682	5.685667	-0.0037	N/A	
23A0313-04 (Solid)			Lab File ID: 02202320ECD7.D			Analyzed: 02/20/23 16:50		
Decachlorobiphenyl	8.0000	139	40 - 126	13.883	13.89117	-0.0082	N/A	*
Tetrachlorometaxylene	8.0000	79.1	44 - 120	5.802	5.808333	-0.0063	N/A	
Decachlorobiphenyl [2C]	8.0000	123	40 - 126	14.112	14.11733	-0.0053	N/A	
Tetrachlorometaxylene [2C]	8.0000	96.3	44 - 120	5.68	5.685667	-0.0057	N/A	
23A0313-05 (Solid)			Lab File ID: 02202321ECD7.D			Analyzed: 02/20/23 17:12		
Decachlorobiphenyl	7.9927	95.2	40 - 126	13.884	13.89117	-0.0072	N/A	
Tetrachlorometaxylene	7.9927	73.7	44 - 120	5.803	5.808333	-0.0053	N/A	
Decachlorobiphenyl [2C]	7.9927	94.4	40 - 126	14.111	14.11733	-0.0063	N/A	
Tetrachlorometaxylene [2C]	7.9927	91.4	44 - 120	5.679	5.685667	-0.0067	N/A	
23A0313-06 (Solid)			Lab File ID: 02202322ECD7.D			Analyzed: 02/20/23 17:33		
Decachlorobiphenyl	8.0014	23.1	40 - 126	13.883	13.89117	-0.0082	N/A	*
Tetrachlorometaxylene	8.0014	12.7	44 - 120	5.802	5.808333	-0.0063	N/A	*
Decachlorobiphenyl [2C]	8.0014	24.9	40 - 126	14.11	14.11733	-0.0073	N/A	*
Tetrachlorometaxylene [2C]	8.0014	17.0	44 - 120	5.679	5.685667	-0.0067	N/A	*

SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0274	Instrument:	ECD7
Calibration:	GB00045	Calibration Date:	02/16/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
23A0313-07 (Solid)			Lab File ID: 02202323ECD7.D			Analyzed: 02/20/23 17:54		
Decachlorobiphenyl	7.9982	96.0	40 - 126	13.884	13.89117	-0.0072	N/A	
Tetrachlorometaxylene	7.9982	75.5	44 - 120	5.804	5.808333	-0.0043	N/A	
Decachlorobiphenyl [2C]	7.9982	96.2	40 - 126	14.11	14.11733	-0.0073	N/A	
Tetrachlorometaxylene [2C]	7.9982	91.0	44 - 120	5.68	5.685667	-0.0057	N/A	
BLA0686-MS1 (Solid)			Lab File ID: 02202324ECD7.D			Analyzed: 02/20/23 18:15		
Decachlorobiphenyl	7.9982	106	40 - 126	13.885	13.89117	-0.0062	N/A	
Tetrachlorometaxylene	7.9982	84.9	44 - 120	5.803	5.808333	-0.0053	N/A	
Decachlorobiphenyl [2C]	7.9982	107	40 - 126	14.111	14.11733	-0.0063	N/A	
Tetrachlorometaxylene [2C]	7.9982	103	44 - 120	5.679	5.685667	-0.0067	N/A	
BLA0686-MSD1 (Solid)			Lab File ID: 02202325ECD7.D			Analyzed: 02/20/23 18:36		
Decachlorobiphenyl	7.9982	100	40 - 126	13.884	13.89117	-0.0072	N/A	
Tetrachlorometaxylene	7.9982	78.3	44 - 120	5.806	5.808333	-0.0023	N/A	
Decachlorobiphenyl [2C]	7.9982	101	40 - 126	14.11	14.11733	-0.0073	N/A	
Tetrachlorometaxylene [2C]	7.9982	94.3	44 - 120	5.682	5.685667	-0.0037	N/A	
23A0313-08 (Solid)			Lab File ID: 02202326ECD7.D			Analyzed: 02/20/23 18:57		
Decachlorobiphenyl	7.9719	94.4	40 - 126	13.884	13.89117	-0.0072	N/A	
Tetrachlorometaxylene	7.9719	69.3	44 - 120	5.804	5.808333	-0.0043	N/A	
Decachlorobiphenyl [2C]	7.9719	90.6	40 - 126	14.11	14.11733	-0.0073	N/A	
Tetrachlorometaxylene [2C]	7.9719	88.1	44 - 120	5.68	5.685667	-0.0057	N/A	
23A0313-09 (Solid)			Lab File ID: 02202327ECD7.D			Analyzed: 02/20/23 19:18		
Decachlorobiphenyl	7.9938	95.7	40 - 126	13.883	13.89117	-0.0082	N/A	
Tetrachlorometaxylene	7.9938	71.4	44 - 120	5.804	5.808333	-0.0043	N/A	
Decachlorobiphenyl [2C]	7.9938	92.4	40 - 126	14.11	14.11733	-0.0073	N/A	
Tetrachlorometaxylene [2C]	7.9938	89.3	44 - 120	5.68	5.685667	-0.0057	N/A	
23A0313-10 (Solid)			Lab File ID: 02202328ECD7.D			Analyzed: 02/20/23 19:39		
Decachlorobiphenyl	7.9797	97.6	40 - 126	13.884	13.89117	-0.0072	N/A	
Tetrachlorometaxylene	7.9797	68.4	44 - 120	5.803	5.808333	-0.0053	N/A	
Decachlorobiphenyl [2C]	7.9797	93.9	40 - 126	14.111	14.11733	-0.0063	N/A	
Tetrachlorometaxylene [2C]	7.9797	89.8	44 - 120	5.679	5.685667	-0.0067	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
SDG/WO: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLB0274
Instrument: ECD7
Calibration: GB00045
Calibration Date: 02/16/2023

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0274-CCV1 (Solid)			Lab File ID: 02202329ECD7.D				Analyzed: 02/20/23 20:00	
Decachlorobiphenyl	40.000	95.8	80 - 120	13.89	13.89117	-0.0012	N/A	
Tetrachlorometaxylene	40.000	89.3	80 - 120	5.806	5.808333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	105	80 - 120	14.116	14.11733	-0.0013	N/A	
Tetrachlorometaxylene [2C]	40.000	100	80 - 120	5.683	5.685667	-0.0027	N/A	
SLB0274-CCV2 (Solid)			Lab File ID: 02202330ECD7.D				Analyzed: 02/20/23 20:21	
Decachlorobiphenyl	40.000	98.3	80 - 120	13.89	13.89117	-0.0012	N/A	
Tetrachlorometaxylene	40.000	94.0	80 - 120	5.806	5.808333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	105	80 - 120	14.115	14.11733	-0.0023	N/A	
Tetrachlorometaxylene [2C]	40.000	103	80 - 120	5.684	5.685667	-0.0017	N/A	
SLB0274-CCV3 (Solid)			Lab File ID: 02202343ECD7.D				Analyzed: 02/21/23 00:54	
Decachlorobiphenyl	40.000	78.5	80 - 120	13.892	13.89117	0.0008	N/A	*
Tetrachlorometaxylene	40.000	110	80 - 120	5.808	5.808333	-0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	97.5	80 - 120	14.116	14.11733	-0.0013	N/A	
Tetrachlorometaxylene [2C]	40.000	118	80 - 120	5.683	5.685667	-0.0027	N/A	
SLB0274-CCV4 (Solid)			Lab File ID: 02202344ECD7.D				Analyzed: 02/21/23 01:15	
Decachlorobiphenyl	40.000	83.3	80 - 120	13.891	13.89117	-0.0002	N/A	
Tetrachlorometaxylene	40.000	93.3	80 - 120	5.805	5.808333	-0.0033	N/A	
Decachlorobiphenyl [2C]	40.000	101	80 - 120	14.116	14.11733	-0.0013	N/A	
Tetrachlorometaxylene [2C]	40.000	102	80 - 120	5.683	5.685667	-0.0027	N/A	
SLB0274-CCV5 (Solid)			Lab File ID: 02202359ECD7.D				Analyzed: 02/21/23 06:31	
Decachlorobiphenyl	40.000	94.8	80 - 120	13.89	13.89117	-0.0012	N/A	
Tetrachlorometaxylene	40.000	90.8	80 - 120	5.808	5.808333	-0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	103	80 - 120	14.116	14.11733	-0.0013	N/A	
Tetrachlorometaxylene [2C]	40.000	98.3	80 - 120	5.684	5.685667	-0.0017	N/A	
SLB0274-CCV6 (Solid)			Lab File ID: 02202360ECD7.D				Analyzed: 02/21/23 06:52	
Decachlorobiphenyl	40.000	98.5	80 - 120	13.891	13.89117	-0.0002	N/A	
Tetrachlorometaxylene	40.000	96.5	80 - 120	5.808	5.808333	-0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	104	80 - 120	14.116	14.11733	-0.0013	N/A	
Tetrachlorometaxylene [2C]	40.000	104	80 - 120	5.685	5.685667	-0.0007	N/A	

SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG/WO:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0274	Instrument:	ECD7
Calibration:	GB00045	Calibration Date:	02/16/2023

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0274-CCV7 (Solid)			Lab File ID: 02202378ECD7.D			Analyzed: 02/21/23 13:12		
Decachlorobiphenyl	40.000	91.0	80 - 120	13.89	13.89117	-0.0012	N/A	
Tetrachlorometaxylene	40.000	89.8	80 - 120	5.806	5.808333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	99.3	80 - 120	14.114	14.11733	-0.0033	N/A	
Tetrachlorometaxylene [2C]	40.000	100	80 - 120	5.683	5.685667	-0.0027	N/A	
SLB0274-CCV8 (Solid)			Lab File ID: 02202379ECD7.D			Analyzed: 02/21/23 13:33		
Decachlorobiphenyl	40.000	95.3	80 - 120	13.89	13.89117	-0.0012	N/A	
Tetrachlorometaxylene	40.000	95.5	80 - 120	5.806	5.808333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	104	80 - 120	14.115	14.11733	-0.0023	N/A	
Tetrachlorometaxylene [2C]	40.000	102	80 - 120	5.683	5.685667	-0.0027	N/A	
SLB0274-CCV9 (Solid)			Lab File ID: 02202389ECD7.D			Analyzed: 02/21/23 17:04		
Decachlorobiphenyl	40.000	91.0	80 - 120	13.891	13.89117	-0.0002	N/A	
Tetrachlorometaxylene	40.000	109	80 - 120	5.806	5.808333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	98.5	80 - 120	14.114	14.11733	-0.0033	N/A	
Tetrachlorometaxylene [2C]	40.000	121	80 - 120	5.683	5.685667	-0.0027	N/A	
SLB0274-CCVA (Solid)			Lab File ID: 02202390ECD7.D			Analyzed: 02/21/23 17:25		
Decachlorobiphenyl	40.000	99.5	80 - 120	13.891	13.89117	-0.0002	N/A	
Tetrachlorometaxylene	40.000	97.0	80 - 120	5.806	5.808333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	105	80 - 120	14.115	14.11733	-0.0023	N/A	
Tetrachlorometaxylene [2C]	40.000	105	80 - 120	5.682	5.685667	-0.0037	N/A	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLA0281	Instrument:	ECD7
		Calibration:	GA00061

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLA0281-SCV1)		(Solid)	Lab File ID: 01242324ECD7.D				Analyzed: 01/24/23 19:51		
1-Bromo-2-Nitrobenzene	506576	3.491	503318	3.492	101	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	940129	14.264	647433	14.266	145	50 - 200	-0.002	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	343102	3.928	336911	3.928	102	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	501702	15.008	382032	15.008	131	50 - 200	0.000	+/-0.50	
Secondary Cal Check (SLA0281-SCV2)		(Solid)	Lab File ID: 01242325ECD7.D				Analyzed: 01/24/23 20:12		
1-Bromo-2-Nitrobenzene	503089	3.492	503318	3.492	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	953137	14.265	647433	14.266	147	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	341704	3.929	336911	3.928	101	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	505860	15.007	382032	15.008	132	50 - 200	-0.001	+/-0.50	
Secondary Cal Check (SLA0281-SCV3)		(Solid)	Lab File ID: 01242326ECD7.D				Analyzed: 01/24/23 20:33		
1-Bromo-2-Nitrobenzene	508189	3.491	503318	3.492	101	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	979067	14.265	647433	14.266	151	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	344105	3.928	336911	3.928	102	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	503378	15.007	382032	15.008	132	50 - 200	-0.001	+/-0.50	
Secondary Cal Check (SLA0281-SCV4)		(Solid)	Lab File ID: 01242327ECD7.D				Analyzed: 01/24/23 20:54		
1-Bromo-2-Nitrobenzene	504424	3.491	503318	3.492	100	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	968338	14.265	647433	14.266	150	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	342969	3.928	336911	3.928	102	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	515045	15.01	382032	15.008	135	50 - 200	0.002	+/-0.50	
Secondary Cal Check (SLA0281-SCV5)		(Solid)	Lab File ID: 01242328ECD7.D				Analyzed: 01/24/23 21:15		
1-Bromo-2-Nitrobenzene	503473	3.491	503318	3.492	100	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	991997	14.264	647433	14.266	153	50 - 200	-0.002	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	340361	3.928	336911	3.928	101	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	521975	15.008	382032	15.008	137	50 - 200	0.000	+/-0.50	
Secondary Cal Check (SLA0281-SCV6)		(Solid)	Lab File ID: 01242329ECD7.D				Analyzed: 01/24/23 21:36		
1-Bromo-2-Nitrobenzene	487061	3.494	503318	3.492	97	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	944934	14.266	647433	14.266	146	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	331721	3.93	336911	3.928	98	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	502401	15.007	382032	15.008	132	50 - 200	-0.001	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0168	Instrument:	ECD7
		Calibration:	GA00061

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SC1012B (23A0313-11)		(Solid)		Lab File ID: 02132344ECD7.D				Analyzed: 02/14/23 00:58	
1-Bromo-2-Nitrobenzene	420488	3.487	444695	3.488	95	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	354663	14.247	448322	14.258	79	50 - 200	-0.011	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	321246	3.924	365140	3.925	88	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	316327	14.996	441013	15.003	72	50 - 200	-0.007	+/-0.50	
LDW23-IT1148 (23A0313-12)		(Solid)		Lab File ID: 02132345ECD7.D				Analyzed: 02/14/23 01:20	
1-Bromo-2-Nitrobenzene	423714	3.488	440286	3.487	96	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	420957	14.25	955203	14.261	44	50 - 200	-0.011	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	356274	3.924	376102	3.927	95	50 - 200	-0.003	+/-0.50	
Hexabromobiphenyl [2C]	350816	14.996	610696	15.003	57	50 - 200	-0.007	+/-0.50	
LDW23-SC1159 (23A0313-13)		(Solid)		Lab File ID: 02132346ECD7.D				Analyzed: 02/14/23 01:41	
1-Bromo-2-Nitrobenzene	397807	3.488	444695	3.488	89	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	373457	14.248	955203	14.261	39	50 - 200	-0.013	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	319789	3.924	372657	3.924	86	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	329934	14.996	412190	15.002	80	50 - 200	-0.006	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0222	Instrument:	ECD7
		Calibration:	GB00045

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLB0222-SCV1)		(Water)	Lab File ID: 02162313ECD7.D				Analyzed: 02/16/23 15:15		
1-Bromo-2-Nitrobenzene	458820	3.491	430055	3.492	107	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	1052678	14.262	975457	14.263	108	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	384524	3.928	366754	3.928	105	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	695386	15.005	646884	15.005	107	50 - 200	0.000	+/-0.50	
Secondary Cal Check (SLB0222-SCV2)		(Water)	Lab File ID: 02162314ECD7.D				Analyzed: 02/16/23 15:36		
1-Bromo-2-Nitrobenzene	460847	3.491	430055	3.492	107	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	1048824	14.262	975457	14.263	108	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	386112	3.928	366754	3.928	105	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	690141	15.004	646884	15.005	107	50 - 200	-0.001	+/-0.50	
Secondary Cal Check (SLB0222-SCV3)		(Water)	Lab File ID: 02162315ECD7.D				Analyzed: 02/16/23 15:57		
1-Bromo-2-Nitrobenzene	454293	3.491	430055	3.492	106	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	1020262	14.263	975457	14.263	105	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	380923	3.929	366754	3.928	104	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	669927	15.005	646884	15.005	104	50 - 200	0.000	+/-0.50	
Secondary Cal Check (SLB0222-SCV4)		(Water)	Lab File ID: 02162316ECD7.D				Analyzed: 02/16/23 16:18		
1-Bromo-2-Nitrobenzene	465227	3.491	430055	3.492	108	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	1063495	14.262	975457	14.263	109	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	387434	3.928	366754	3.928	106	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	700154	15.004	646884	15.005	108	50 - 200	-0.001	+/-0.50	
Secondary Cal Check (SLB0222-SCV5)		(Water)	Lab File ID: 02162317ECD7.D				Analyzed: 02/16/23 16:39		
1-Bromo-2-Nitrobenzene	464367	3.491	430055	3.492	108	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	1054321	14.262	975457	14.263	108	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	381247	3.928	366754	3.928	104	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	695925	15.006	646884	15.005	108	50 - 200	0.001	+/-0.50	
Secondary Cal Check (SLB0222-SCV6)		(Water)	Lab File ID: 02162318ECD7.D				Analyzed: 02/16/23 17:00		
1-Bromo-2-Nitrobenzene	462340	3.49	430055	3.492	108	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	1046529	14.263	975457	14.263	107	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	380640	3.928	366754	3.928	104	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	694272	15.005	646884	15.005	107	50 - 200	0.000	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0274	Instrument:	ECD7
		Calibration:	GB00045

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLB0274-ICV1)		(Solid)	Lab File ID: 02202311ECD7.D				Analyzed: 02/20/23 13:41		
1-Bromo-2-Nitrobenzene	752414	3.491	752414	3.491	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	1583248	14.265	1583248	14.265	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	319676	3.926	319676	3.926	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	505388	15.005	505388	15.005	100	50 - 200	0.000	+/-0.50	
Initial Cal Check (SLB0274-ICV2)		(Solid)	Lab File ID: 02202312ECD7.D				Analyzed: 02/20/23 14:02		
1-Bromo-2-Nitrobenzene	593006	3.488	593006	3.488	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	1183260	14.265	1183260	14.265	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	271274	3.924	271274	3.924	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	413127	15.004	413127	15.004	100	50 - 200	0.000	+/-0.50	
Blank (BLA0686-BLK1)		(Solid)	Lab File ID: 02202313ECD7.D				Analyzed: 02/20/23 14:23		
1-Bromo-2-Nitrobenzene	546029	3.488	593006	3.488	92	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	1058807	14.261	1183260	14.265	89	50 - 200	-0.004	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	245254	3.924	271274	3.924	90	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	380605	15.004	413127	15.004	92	50 - 200	0.000	+/-0.50	
LCS (BLA0686-BS1)		(Solid)	Lab File ID: 02202314ECD7.D				Analyzed: 02/20/23 14:44		
1-Bromo-2-Nitrobenzene	555846	3.488	593006	3.488	94	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	1093517	14.263	1183260	14.265	92	50 - 200	-0.002	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	245285	3.924	271274	3.924	90	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	385632	15.003	413127	15.004	93	50 - 200	-0.001	+/-0.50	
LCS Dup (BLA0686-BSD1)		(Solid)	Lab File ID: 02202315ECD7.D				Analyzed: 02/20/23 15:05		
1-Bromo-2-Nitrobenzene	566166	3.488	593006	3.488	95	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	1138633	14.262	1183260	14.265	96	50 - 200	-0.003	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	251178	3.924	271274	3.924	93	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	393592	15.001	413127	15.004	95	50 - 200	-0.003	+/-0.50	
Reference (BLA0686-SRM1)		(Solid)	Lab File ID: 02202316ECD7.D				Analyzed: 02/20/23 15:26		
1-Bromo-2-Nitrobenzene	605444	3.488	593006	3.488	102	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	978975	14.255	1183260	14.265	83	50 - 200	-0.010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	260324	3.924	271274	3.924	96	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	374686	14.997	413127	15.004	91	50 - 200	-0.007	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLB0274	Instrument:	ECD7
		Calibration:	GB00045

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SC1108 (23A0313-01)		(Solid)	Lab File ID: 02202317ECD7.D				Analyzed: 02/20/23 15:47		
1-Bromo-2-Nitrobenzene	606407	3.488	593006	3.488	102	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	654153	14.25	1183260	14.265	55	50 - 200	-0.015	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	257785	3.924	271274	3.924	95	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	304622	14.994	413127	15.004	74	50 - 200	-0.010	+/-0.50	
LDW23-SC1115 (23A0313-02)		(Solid)	Lab File ID: 02202318ECD7.D				Analyzed: 02/20/23 16:08		
1-Bromo-2-Nitrobenzene	621725	3.489	593006	3.488	105	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	611427	14.247	1183260	14.265	52	50 - 200	-0.018	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	257678	3.924	271274	3.924	95	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	295972	14.994	413127	15.004	72	50 - 200	-0.010	+/-0.50	
LDW23-IT1114 (23A0313-03)		(Solid)	Lab File ID: 02202319ECD7.D				Analyzed: 02/20/23 16:29		
1-Bromo-2-Nitrobenzene	636556	3.489	593006	3.488	107	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	880028	14.254	1183260	14.265	74	50 - 200	-0.011	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	274863	3.925	271274	3.924	101	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	359218	14.998	413127	15.004	87	50 - 200	-0.006	+/-0.50	
LDW23-IT1120 (23A0313-04)		(Solid)	Lab File ID: 02202320ECD7.D				Analyzed: 02/20/23 16:50		
1-Bromo-2-Nitrobenzene	645257	3.488	593006	3.488	109	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	822139	14.251	1183260	14.265	69	50 - 200	-0.014	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	272202	3.924	271274	3.924	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	350558	14.996	413127	15.004	85	50 - 200	-0.008	+/-0.50	
LDW23-SC1090 (23A0313-05)		(Solid)	Lab File ID: 02202321ECD7.D				Analyzed: 02/20/23 17:12		
1-Bromo-2-Nitrobenzene	617129	3.489	593006	3.488	104	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	683019	14.251	1183260	14.265	58	50 - 200	-0.014	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	259698	3.924	271274	3.924	96	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	308337	14.995	413127	15.004	75	50 - 200	-0.009	+/-0.50	
LDW23-SC1095 (23A0313-06)		(Solid)	Lab File ID: 02202322ECD7.D				Analyzed: 02/20/23 17:33		
1-Bromo-2-Nitrobenzene	658200	3.488	593006	3.488	111	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	714084	14.25	1183260	14.265	60	50 - 200	-0.015	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	275691	3.924	271274	3.924	102	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	331814	14.995	413127	15.004	80	50 - 200	-0.009	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLB0274
SDG: 23A0313
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration: GB00045

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SC1076 (23A0313-07)		(Solid)	Lab File ID: 02202323ECD7.D				Analyzed: 02/20/23 17:54		
1-Bromo-2-Nitrobenzene	657877	3.489	593006	3.488	111	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	723119	14.25	1183260	14.265	61	50 - 200	-0.015	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	275971	3.924	271274	3.924	102	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	320499	14.995	413127	15.004	78	50 - 200	-0.009	+/-0.50	
Matrix Spike (BLA0686-MS1)		(Solid)	Lab File ID: 02202324ECD7.D				Analyzed: 02/20/23 18:15		
1-Bromo-2-Nitrobenzene	656193	3.488	593006	3.488	111	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	697792	14.25	1183260	14.265	59	50 - 200	-0.015	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	269640	3.923	271274	3.924	99	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	310975	14.995	413127	15.004	75	50 - 200	-0.009	+/-0.50	
Matrix Spike Dup (BLA0686-MSD1)		(Solid)	Lab File ID: 02202325ECD7.D				Analyzed: 02/20/23 18:36		
1-Bromo-2-Nitrobenzene	681012	3.493	593006	3.488	115	50 - 200	0.005	+/-0.50	
Hexabromobiphenyl	718783	14.252	1183260	14.265	61	50 - 200	-0.013	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	276736	3.927	271274	3.924	102	50 - 200	0.003	+/-0.50	
Hexabromobiphenyl [2C]	320542	14.995	413127	15.004	78	50 - 200	-0.009	+/-0.50	
LDW23-SC1016A (23A0313-08)		(Solid)	Lab File ID: 02202326ECD7.D				Analyzed: 02/20/23 18:57		
1-Bromo-2-Nitrobenzene	631643	3.489	593006	3.488	107	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	639057	14.249	1183260	14.265	54	50 - 200	-0.016	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	259158	3.924	271274	3.924	96	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	304457	14.994	413127	15.004	74	50 - 200	-0.010	+/-0.50	
LDW23-SC1011A (23A0313-09)		(Solid)	Lab File ID: 02202327ECD7.D				Analyzed: 02/20/23 19:18		
1-Bromo-2-Nitrobenzene	618750	3.49	593006	3.488	104	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	618073	14.25	1183260	14.265	52	50 - 200	-0.015	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	258939	3.925	271274	3.924	95	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	301469	14.993	413127	15.004	73	50 - 200	-0.011	+/-0.50	
LDW23-SC1006A (23A0313-10)		(Solid)	Lab File ID: 02202328ECD7.D				Analyzed: 02/20/23 19:39		
1-Bromo-2-Nitrobenzene	661146	3.491	593006	3.488	111	50 - 200	0.003	+/-0.50	
Hexabromobiphenyl	620522	14.25	1183260	14.265	52	50 - 200	-0.015	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	267656	3.925	271274	3.924	99	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	311185	14.994	413127	15.004	75	50 - 200	-0.010	+/-0.50	

Analytical Resources, LLC
Analytical Chemists and Consultants

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-11	File ID:	02132344ECD7.D
Sampled:	01/16/23 13:13	Prepared:	02/01/23 15:58	Analyzed:	02/14/23 00:58
Solids:	58.66	Preparation:	EPA 3546 (Microwave)	Instrument:	ECD7
Batch:	BLA0686	Sequence:	SLB0168		
GC Column(1):	ZB5			GC Column(2):	ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	1	8.392	8.405	0.013	59465	39.2	2.6
	* 2	8.295	8.305	0.01	34296.75	38.2	
Aroclor 1254	1	9.283	9.298	0.015	78373.2	43.7	37.5
	* 2	9.433	9.447	0.014	95943.2	63.9	
Aroclor 1260	1	11.03	11.04533	0.0153	59131.2	44.7	8.4
	* 2	11.64	11.65333	0.0133	75944.25	48.6	

* Column used for quantitation

Analytical Resources, LLC
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DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-12	File ID:	02132345ECD7.D
Sampled:	01/16/23 14:44	Prepared:	02/01/23 15:58	Analyzed:	02/14/23 01:20
Solids:	50.04	Preparation:	EPA 3546 (Microwave)	Instrument:	ECD7
Batch:	BLA0686	Sequence:	SLB0168		
GC Column(1):	ZB5			GC Column(2):	ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	1	8.395	8.405	0.01	12756	8.7	32.
	* 2	8.298	8.305	0.007	6158.5	6.3	
Aroclor 1254	1	9.285	9.298	0.013	19175.8	10.4	39.4
	* 2	9.441	9.447	0.006	25090.6	15.5	
Aroclor 1260	1	11.033	11.04533	0.0123	14735.6	9.2	14.1
	* 2	11.643	11.65333	0.0103	17143.25	10.6	

* Column used for quantitation

Analytical Resources, LLC
Analytical Chemists and Consultants

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-13	File ID:	02132346ECD7.D
Sampled:	01/16/23 14:26	Prepared:	02/01/23 15:58	Analyzed:	02/14/23 01:41
Solids:	84.73	Preparation:	EPA 3546 (Microwave)	Instrument:	ECD7
Batch:	BLA0686	Sequence:	SLB0168		
GC Column(1):	ZB5			GC Column(2):	ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	1	8.393	8.405	0.012	38199	27.0	6.1
	* 2	8.296	8.305	0.009	22483	25.4	
Aroclor 1254	1	9.283	9.298	0.015	53037.6	31.3	35.3
	* 2	9.435	9.447	0.012	66764.4	44.7	
Aroclor 1260	1	11.031	11.04533	0.0143	49699.8	36.0	11.5
	* 2	11.641	11.65333	0.0123	63566.5	40.4	

* Column used for quantitation

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-01	File ID:	02202317ECD7.D
Sampled:	01/16/23 08:10	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 15:47
Solids:	52.04	Preparation:	EPA 3546 (Microwave)	Instrument:	ECD7
Batch:	BLA0686	Sequence:	SLB0274		
GC Column(1):	ZB5			GC Column(2):	ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.394	8.405	0.011	83904.25	44.5	9.7
	2	8.297	8.305	0.008	27688.25	40.4	
Aroclor 1254	1	9.284	9.298	0.014	142431.8	50.6	29.9
	* 2	9.435	9.447	0.012	77394.4	68.4	
Aroclor 1260	* 1	11.031	11.0415	0.0105	88734.6	59.7	1.7
	2	11.64	11.6505	0.0105	63355.75	58.7	

* Column used for quantitation

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-02	File ID:	02202318ECD7.D
Sampled:	01/16/23 08:28	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 16:08
Solids:	53.21	Preparation:	EPA 3546 (Microwave)	Instrument:	ECD7
Batch:	BLA0686	Sequence:	SLB0274		
GC Column(1):	ZB5			GC Column(2):	ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.394	8.405	0.011	78801.5	40.8	1.2
	2	8.297	8.305	0.008	26641.5	40.3	
Aroclor 1254	1	9.284	9.298	0.014	132163.2	54.9	16.4
	* 2	9.435	9.447	0.012	73242.4	64.7	
Aroclor 1260	* 1	11.03	11.0415	0.0115	78506.2	55.9	.
	2	11.64	11.6505	0.0105	57799	55.9	

* Column used for quantitation

Analytical Resources, LLC
Analytical Chemists and Consultants

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-03	File ID:	02202319ECD7.D
Sampled:	01/16/23 08:42	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 16:29
Solids:	62.68	Preparation:	EPA 3546 (Microwave)	Instrument:	ECD7
Batch:	BLA0686	Sequence:	SLB0274		
GC Column(1):	ZB5			GC Column(2):	ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.398	8.405	0.007	70650.75	1800	11.1
	2	8.299	8.305	0.006	22430.5	1610	
Aroclor 1254	* 1	9.287	9.298	0.011	92184.4	1720	7.2
	2	9.44	9.447	0.007	39144.8	1600	
Aroclor 1260	* 1	11.034	11.0415	0.0075	44496.6	1120	1.8
	2	11.645	11.6505	0.0055	29070.5	1100	

* Column used for quantitation

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-04	File ID:	02202320ECD7.D
Sampled:	01/16/23 08:57	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 16:50
Solids:	69.56	Preparation:	EPA 3546 (Microwave)	Instrument:	ECD7
Batch:	BLA0686	Sequence:	SLB0274		
GC Column(1):	ZB5			GC Column(2):	ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.395	8.405	0.01	115652.8	574	9.7
	2	8.297	8.305	0.008	39731.75	521	
Aroclor 1254	1	9.285	9.298	0.013	194121.4	797	18.4
	* 2	9.436	9.447	0.011	80725	663	
Aroclor 1260	1	11.032	11.0415	0.0095	57387.6	305	4.5
	* 2	11.642	11.6505	0.0085	40617.75	319	

* Column used for quantitation

Analytical Resources, LLC
Analytical Chemists and Consultants

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-05	File ID:	02202321ECD7.D
Sampled:	01/16/23 09:21	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 17:12
Solids:	49.57	Preparation:	EPA 3546 (Microwave)	Instrument:	ECD7
Batch:	BLA0686	Sequence:	SLB0274		
GC Column(1):	ZB5			GC Column(2):	ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.394	8.405	0.011	58385.75	30.5	6.8
	2	8.296	8.305	0.009	19408.25	28.5	
Aroclor 1254	1	9.284	9.298	0.014	94634.8	33.4	25.6
	* 2	9.435	9.447	0.012	48686	43.2	
Aroclor 1260	* 1	11.031	11.0415	0.0105	72211.6	46.7	.2
	2	11.64	11.6505	0.0105	51065	46.6	

* Column used for quantitation

Analytical Resources, LLC
Analytical Chemists and Consultants

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-06	File ID:	02202322ECD7.D
Sampled:	01/16/23 09:42	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 17:33
Solids:	55.30	Preparation:	EPA 3546 (Microwave)	Instrument:	ECD7
Batch:	BLA0686	Sequence:	SLB0274		
GC Column(1):	ZB5			GC Column(2):	ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.393	8.405	0.012	94727.75	45.8	15.3
	2	8.295	8.305	0.01	28412.25	39.3	
Aroclor 1254	* 1	9.282	9.298	0.016	136137	52.8	21.6
	2	9.434	9.447	0.013	78975.2	65.6	
Aroclor 1260	* 1	11.03	11.0415	0.0115	84934	52.5	.6
	2	11.64	11.6505	0.0105	63311.75	52.2	

* Column used for quantitation

Analytical Resources, LLC
Analytical Chemists and Consultants

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-07	File ID:	02202323ECD7.D
Sampled:	01/16/23 10:03	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 17:54
Solids:	73.03	Preparation:	EPA 3546 (Microwave)	Instrument:	ECD7
Batch:	BLA0686	Sequence:	SLB0274		
GC Column(1):	ZB5			GC Column(2):	ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.395	8.405	0.01	53983.5	26.3	10.
	2	8.296	8.305	0.009	16270	23.8	
Aroclor 1254	1	9.283	9.298	0.015	79880.8	26.0	16.6
	* 2	9.434	9.447	0.013	42672.6	30.7	
Aroclor 1260	* 1	11.031	11.0415	0.0105	46690.4	28.8	.3
	2	11.64	11.6505	0.0105	32984.75	28.9	

* Column used for quantitation

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-08	File ID:	02202326ECD7.D
Sampled:	01/16/23 11:11	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 18:57
Solids:	56.05	Preparation:	EPA 3546 (Microwave)	Instrument:	ECD7
Batch:	BLA0686	Sequence:	SLB0274		
GC Column(1):	ZB5			GC Column(2):	ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.394	8.405	0.011	73511.5	37.4	3.3
	2	8.296	8.305	0.009	27696.5	36.2	
Aroclor 1254	1	9.284	9.298	0.014	126024.6	40.9	22.2
	* 2	9.434	9.447	0.013	70541	51.1	
Aroclor 1260	* 1	11.03	11.0415	0.0115	105088	72.9	2.8
	2	11.64	11.6505	0.0105	77734.75	70.9	

* Column used for quantitation

Analytical Resources, LLC
Analytical Chemists and Consultants

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-09	File ID:	02202327ECD7.D
Sampled:	01/16/23 11:46	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 19:18
Solids:	52.32	Preparation:	EPA 3546 (Microwave)	Instrument:	ECD7
Batch:	BLA0686	Sequence:	SLB0274		
GC Column(1):	ZB5			GC Column(2):	ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.394	8.405	0.011	69600.5	36.2	3.9
	2	8.296	8.305	0.009	26805.25	34.8	
Aroclor 1254	1	9.284	9.298	0.014	114378.2	39.2	14.2
	* 2	9.434	9.447	0.013	59980.4	45.2	
Aroclor 1260	* 1	11.03	11.0415	0.0115	75906.8	55.0	2.6
	2	11.639	11.6505	0.0115	56472.5	53.6	

* Column used for quantitation

Analytical Resources, LLC
Analytical Chemists and Consultants

DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-10	File ID:	02202328ECD7.D
Sampled:	01/16/23 12:29	Prepared:	02/01/23 15:58	Analyzed:	02/20/23 19:39
Solids:	54.11	Preparation:	EPA 3546 (Microwave)	Instrument:	ECD7
Batch:	BLA0686	Sequence:	SLB0274		
GC Column(1):	ZB5			GC Column(2):	ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.394	8.405	0.011	102486.8	49.8	1.8
	2	8.295	8.305	0.01	38689.75	48.9	
Aroclor 1254	1	9.285	9.298	0.013	173438.2	67.2	20.6
	* 2	9.434	9.447	0.013	97418.4	82.6	
Aroclor 1260	* 1	11.031	11.0415	0.0105	106432.4	66.2	1.4
	2	11.639	11.6505	0.0115	72407.5	65.3	

* Column used for quantitation

HOLDING TIME SUMMARY

Analysis: EPA 8082A

Laboratory: Analytical Resources, LLC SDG: 23A0313

Client: Anchor QEA, LLC Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SC1108 23A0313-01	01/16/23 08:10	01/16/23 16:35	02/01/23 15:58	16	365	02/20/23 15:47	19	40	
LDW23-SC1115 23A0313-02	01/16/23 08:28	01/16/23 16:35	02/01/23 15:58	16	365	02/20/23 16:08	19	40	
LDW23-IT1114 23A0313-03	01/16/23 08:42	01/16/23 16:35	02/01/23 15:58	16	365	02/20/23 16:29	19	40	
LDW23-IT1120 23A0313-04	01/16/23 08:57	01/16/23 16:35	02/01/23 15:58	16	365	02/20/23 16:50	19	40	
LDW23-SC1090 23A0313-05	01/16/23 09:21	01/16/23 16:35	02/01/23 15:58	16	365	02/20/23 17:12	19	40	
LDW23-SC1095 23A0313-06	01/16/23 09:42	01/16/23 16:35	02/01/23 15:58	16	365	02/20/23 17:33	19	40	
LDW23-SC1076 23A0313-07	01/16/23 10:03	01/16/23 16:35	02/01/23 15:58	16	365	02/20/23 17:54	19	40	
LDW23-SC1016A 23A0313-08	01/16/23 11:11	01/16/23 16:35	02/01/23 15:58	16	365	02/20/23 18:57	19	40	
LDW23-SC1011A 23A0313-09	01/16/23 11:46	01/16/23 16:35	02/01/23 15:58	16	365	02/20/23 19:18	19	40	
LDW23-SC1006A 23A0313-10	01/16/23 12:29	01/16/23 16:35	02/01/23 15:58	16	365	02/20/23 19:39	19	40	
LDW23-SC1012B 23A0313-11	01/16/23 13:13	01/16/23 16:35	02/01/23 15:58	16	365	02/14/23 00:58	12	40	
LDW23-IT1148 23A0313-12	01/16/23 14:44	01/16/23 16:35	02/01/23 15:58	16	365	02/14/23 01:20	12	40	
LDW23-SC1159 23A0313-13	01/16/23 14:26	01/16/23 16:35	02/01/23 15:58	16	365	02/14/23 01:41	12	40	
Matrix Spike BLA0686-MS1	01/16/23 10:03	01/16/23 16:35	02/01/23 15:58	16	365	02/20/23 18:15	19	40	
Matrix Spike Dup BLA0686-MSD1	01/16/23 10:03	01/16/23 16:35	02/01/23 15:58	16	365	02/20/23 18:36	19	40	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 8082A

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Instrument: ECD7

Analyte	MDL	RL	Units
Aroclor 1016	1.6	4.0	ug/kg
Aroclor 1016 [2C]	1.6	4.0	ug/kg
Aroclor 1221	1.6	4.0	ug/kg
Aroclor 1221 [2C]	1.6	4.0	ug/kg
Aroclor 1232	1.6	4.0	ug/kg
Aroclor 1232 [2C]	1.6	4.0	ug/kg
Aroclor 1242	1.6	4.0	ug/kg
Aroclor 1242 [2C]	1.6	4.0	ug/kg
Aroclor 1248	1.6	4.0	ug/kg
Aroclor 1248 [2C]	1.6	4.0	ug/kg
Aroclor 1254	1.6	4.0	ug/kg
Aroclor 1254 [2C]	1.6	4.0	ug/kg
Aroclor 1260	0.6	4.0	ug/kg
Aroclor 1260 [2C]	0.6	4.0	ug/kg

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

Tel (203)786-5290
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www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: S-279N
Description: Tetrachloro-m-xylene
Lot: 0052481B-1
Solvent: N/A
Hazards: *Refer to SDS for complete safety information*

Signal Word: Warning

Date Certified: Jul 28, 2005
Expiration: Jul 28, 2015
Sample Size: 100 mg
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

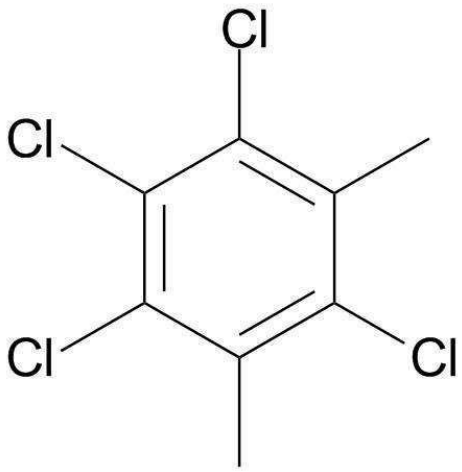
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration	Certified Analyte Concentration[1]
Tetrachloro-meta-xylene	877-09-8	96.0	N/A	N/A

Identification:

Molecular formula: C8H6Cl4
Molecular weight: 243.94



C000147
tetrachlormetaxylene
Expires 1/15/2020
Prepared By Joshua Rains 1/15/2014

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] The Uncertainty calculated for this product is ±2.4%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Metrological traceability is established through in-house validated methods.

Purity, if stated, is equal to 100% minus found impurity components. Impurity components have not been identified.

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

AccuStandard
125 Market Street
New Haven, CT 06513
(203) 786-5290

CERTIFICATE OF PRODUCT DATA

PRODUCT: C-209N
DESCRIPTION: 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl
LOT #: 990521LB-AC
SOLVENT: N/A

EXPIRATION: Jul 28, 2015

This product is guaranteed accurate to ±0.5% of the Certified Analyte concentration through the Expiration Date on the Label.

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[1]	Certified Analyte Concentration[2]
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3	100	N/A	N/A

C000148
decachlorbiphenyl
Expires 1/15/2020
Prepared By Joshua Rains 1/15/2014

* I1768A

Certified by: R. Cooper

1. All weights are traceable through National Institute of Standards & Technology, Test No. 822/254480
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is ±4% which is the Combined Uncertainty uc(y). It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is Uc(y) *K where K is the coverage factor at the 95% confidence level (K=2).
3. A product with a suffix (-1A, -2B, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

Please note: AccuStandard follows the U.S. conventions in reporting numerical values, on both certificates and labels.

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

This product was manufactured in accordance to quality system requirements of ISO 9001:2000 and ISO 17025

* Recertified 2 4-6-09 JS

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Analytical Standard Record

Standard ID: C000148

Printed: 4/23/2015 11:54:44AM

Description:	decachlorbiphenyl	Expires:	15-Jan-2020
Standard Type:	Other	Prepared:	15-Jan-2014
Solvent:	na/a	Prepared By:	Joshua Rains
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	27-Feb-2015 13:03 by JGR
Vendor:	Accustandard	Lot #:	990521lb-ac
Vendor Catalog #:			

Comments

see i1768a
SOM calibrations added 06/12/14 sdrd

Analyte	CAS Number	Concentration	Units
Decachlorobiphenyl [2C]	2051-24-3	1000000	ug/mL
Decachlorobiphenyl	2051-24-3	1000000	ug/mL
DCB 1660 [2C]	2051-24-3	1000000	ug/mL
DCB 1660	2051-24-3	1000000	ug/mL
DCB [2C]	2051-24-3	1000000	ug/mL
DCB (A) [2C]	2051-24-3	1000000	ug/mL
DCB (A)	2051-24-3	1000000	ug/mL
DCB	2051-24-3	1000000	ug/mL

Reviewed By Date

Certificate of Analysis

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Catalog No.: AL0-101461
Description: Aroclor 1254
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Hexane

Lot Number: CL13053
Certification Date: November 29, 2018
Expiration Date: November 30, 2026

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1254	11097-69-1	1000	± 0.246%

I09808
Recd. JP
02/24/20

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101462
Description: Aroclor 1260
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Hexane

Lot Number: CL16516
Certification Date: March 4, 2021
Expiration Date: February 28, 2029

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1260	11096-82-5	1000	± 0.553%

J00645

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101468
Description: Aroclor 1221
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Isooctane

Lot Number: CL14017
Certification Date: August 20, 2019
Expiration Date: August 31, 2027

Andrea L Gill
Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1221	11104-28-2	1000	± 0.553%

J004466
Rec'd
06/18/21

ACCREDITED
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Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101469
Description: Aroclor 1232
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Isooctane

Lot Number: CL14914
Certification Date: January 31, 2020
Expiration Date: January 31, 2028

Andrea L Gill
Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1232	11141-16-5	1000	± 0.738%

J006467 JR
read
06/18/21

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101470
Description: Aroclor 1242
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Isooctane

Lot Number: CL14018
Certification Date: August 20, 2019
Expiration Date: August 31, 2027

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1242	53469-21-9	1000	± 0.553%

J006468
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3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
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Certified Reference Material

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Catalog No.:	AL0-101471	**Lot Number:**	CL15384
Description:	Aroclor 1248	**Certification Date:**	June 19, 2020
Storage:	4 °C	**Expiration Date:**	June 30, 2028
Provided As:	1 mL in 2 mL Ampoule in Isooctane		

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1248	12672-29-6	1000	± 0.520%

JJ06469
Reed, JR
06/18/21

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2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101474
Description: Aroclor 1262
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Isooctane

Lot Number: CL11330
Certification Date: May 15, 2015
Expiration Date: April 30, 2023
Revision Date: April 2, 2018

Andrea L Gill
Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1262	37324-23-5	1000	± 0.516%

J 00647
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06/18/21

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO Guide 34[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.

4. Instruction: Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.

12. Period of Validity: The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
[3] ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.:	AL0-101475	**Lot Number:**	CL11331
Description:	Aroclor 1268	**Certification Date:**	May 15, 2015
Storage:	4 °C	**Expiration Date:**	April 30, 2023
Provided As:	1 mL in 2 mL Ampoule in Isooctane	**Revision Date:**	April 2, 2018

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1268	11100-14-4	1000	± 0.516%

J006472
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Reference Material Producer
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Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ilac-MRA ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

IL11110613_us

Certificate of Analysis

Phenova Certified Reference Materials are sold by Phenomenex.
411 Madrid Ave., Torrance, CA 90501 USA ▪ Tel: 310-212-0555 ▪ Fax: 310-328-7768 ▪ info@phenomenex.com
Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO Guide 34[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.

4. Instruction: Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.

12. Period of Validity: The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
[3] ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

ACCREDITED
Reference Material Producer
Certificate No. 2427.02

Manufactured by Phenova, Inc.
Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101467
Description: Aroclor 1016
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Isooctane

Lot Number: CL16555
Certification Date: June 22, 2021
Expiration Date: February 28, 2029

Andrea Gill, Certified Reference Materials Manager

J012591
AROCLOR 1016
Expires 2/28/2029
Prepared By Joshua Rains 11/26/2021

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1016	12674-11-2	1000	± 0.310%

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

   Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

Certificate of Analysis

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Aroclor 1016 Solution

Product Number: PP-282 **Page:** 1 of 1

Lot Number: CR-0761 **Lot Issue Date:** 28-Feb-2017 **Expiration Date:** 31-Mar-2025

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1016	012674-11-2	NT01016	100.2 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1254 Reed JR 02/05/22

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Monica Bourgeois
Director of QA/RA

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

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Agilent

Certificate of Analysis

Product Name: Aroclor 1260 Standard

Product Number: PP-362-1 **Lot Issue Date:** 20-Jan-2021

Lot Number: 0006582048 **Expiration Date:** 28-Feb-2025

Description:
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1260	011096-82-5	NT01023	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

K 1255

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

MJBourgeois

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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Certificate of Analysis
ISO Guide 34

Aroclor 1242 Solution

Product Number: PP-312 **Page:** 1 of 1

Lot Number: CS-6293 **Lot Issue Date:** 04-Jan-2019 **Expiration Date:** 31-Jan-2023

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1242	053469-21-9	NT01020	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1256

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

M Bourgeois

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO17025 Cert No.
AT-1937

ISO 17034

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Reference Material Certificate

Product Name:	Aroclor 1248 Standard	**Lot Number:**	0006626997
Product Number:	PP-342-1	**Lot Issue Date:**	17-Aug-2021
Storage Conditions:	Store at Room Temperature (15° to 30°C).	**Expiration Date:**	30-Sep-2025

	CERTIFIED VALUES				
Component Name	Concentration		Expanded Uncertainty	CAS#	Analyte Lot
Aroclor 1248	100.3	±	0.5 µg/mL	012672-29-6	NT01582

Matrix: isooctane (2,2,4-trimethylpentane)

K1257

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:
This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:
The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

Certificate of Analysis

Agilent

Aroclor 1254 Solution

Product Number: PP-352 **Page:** 1 of 1

Lot Number: CS-2321 **Lot Issue Date:** 04-May-2018 **Expiration Date:** 31-May-2026

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1254	011097-69-1	RM00922	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1258

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Monica Bourgeois
Director of QA/RA

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

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Certificate of Analysis

Product Name: Aroclor 1221 Standard

Product Number: PP-292-1 **Lot Issue Date:** 28-Apr-2020

Lot Number: 0006535333 **Expiration Date:** 31-May-2024

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1221	011104-28-2	RM04278	100.2 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

K1259

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

MBourgeois

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

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Certificate of Analysis
ISO 17034

Aroclor 1262 Standard

Product Number: PP-372-1 **Page:** 1 of 1

Lot Number: 0006499800 **Lot Issue Date:** 04-Nov-2019 **Expiration Date:** 30-Nov-2023

This ISO 17034 Reference Material (RM) was manufactured and verified in accordance with Agilent Technologies ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1262	037324-23-5	RM14263	100.0 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1260

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Management System

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO 17025 Cert No. AT-1937

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ISO 17034

Aroclor 1232 Standard

Product Number: PP-302-1 **Page:** 1 of 1

Lot Number: CF-2197A **Lot Issue Date:** 05-Jul-2016 **Expiration Date:** 31-Aug-2023

This ISO 17034 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1232	011141-16-5	NT01717	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1261

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

M Bourgeois

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

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Certificate of Analysis

Product Name: Aroclor 1268 Standard

Product Number: PP-382-1 **Lot Issue Date:** 09-Feb-2021

Lot Number: 0006587800 **Expiration Date:** 31-Mar-2029

Description:
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1268	011100-14-4	RM00937	100.0 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

K1262

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

M Bourgeois

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

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ISO 17025 Cert
No. AT-1937

Certificate of Analysis

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Access your MSDS and digital C of A at **www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards**

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101467
Description: Aroclor 1016
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Isooctane

Lot Number: CL12975
Certification Date: November 19, 2018
Expiration Date: October 31, 2026

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1016	12674-11-2	1000	± 0.553%

K5829

ACCREDITED
Reference Material Producer
Certificate No. 2427.02

phenova® Certified Reference Materials

Manufactured by Phenova, Inc.
Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

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Chemical Testing Laboratory
Certificate No. 2427.03

IL11110613_us

Certificate of Analysis

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2. Quality Standards: Phenova is accredited by A2LA to ISO Guide 34[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.

4. Instruction: Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

   $$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

   Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.

12. Period of Validity: The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
[3] ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

ACCREDITED
Reference Material Producer
Certificate No. 2427.02

phenova® Certified Reference Materials

Manufactured by Phenova, Inc.
Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ilac-MRA ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

ILT1116613_US

Certificate of Analysis

phenova Certified Reference Materials | A Phenomenex Company

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101462
Description: Aroclor 1260
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Hexane

Lot Number: CL18021
Certification Date: February 14, 2022
Expiration Date: February 28, 2030

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1260	11096-82-5	1000	± 0.553%

K005830

Certificate of Analysis

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

Recipient Copy

CHAIN-OF-CUSTODY RECORD

COC No. 15570

Order Number: CB014985

Date Shipped: 12/12/2022

AirBill No(s): 519204142631

From: QATS LABORATORY
2700 CHANDLER AVENUE, BLDG. B
LAS VEGAS, NV 89120
PHONE: 1-702-895-8712

To: SUE DUNNIHOO
ANALYTICAL RESOURCES INC.
4611 S. 134TH PLACE SUITE 100
TUKWILA WA 98168
250-695-6207

Sample ID	Sigma ID	Qty	Description/Remarks	→ Catalogue Number
K011177 PSRM0168	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM
K011178 PSRM0169	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM
K011179 PSRM0171	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM

12/12/2022

PUGET SOUND SRM FOR DUWAMISH AOC4 PROJECT.

Please use the enclosed Sample Preparation Instructions. If catalogue number(s) are listed at the top of the Sample Preparation Instructions use the Sample Preparation Instructions with catalogue number(s) matching the catalogue number(s) of each of the samples listed above.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	(1400) 12/12/2022	Phillip PSH	12/12/22 11:15
Custody Seal(s): Present/Absent	Remarks:		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

LDW23-IT1148

Form 1
ORGANIC ANALYSIS DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-12 C	File ID:	23030626
Sampled:	01/16/23 14:44	Prepared:	01/24/23 07:31	Analyzed:	03/07/23 06:50
% Solids:	81.29	Preparation:	EPA 1613	Initial/Final:	12.39 g Wet / 20 uL
Result Basis:	Dry	Sequence:	SLC0081	Calibration:	GC00015
Batch:	BLA0398	Instrument:	AUTOSPEC01	Column:	RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.807	0.655-0.886	0.094	0.993	0.164	ng/kg	J
1746-01-6	2,3,7,8-TCDD	1		0.655-0.886	0.068	0.993	ND	ng/kg	U
57117-41-6	1,2,3,7,8-PeCDF	1	0.597	1.318-1.783	0.144	0.993	0.137	ng/kg	EMPC, J
57117-31-4	2,3,4,7,8-PeCDF	1		1.318-1.783	0.133	0.993	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1	0.844	1.318-1.783	0.153	0.993	0.188	ng/kg	EMPC, J, B
70648-26-9	1,2,3,4,7,8-HxCDF	1	1.571	1.054-1.426	0.066	0.993	0.445	ng/kg	EMPC, J, B
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.091	1.054-1.426	0.073	0.993	0.239	ng/kg	J
60851-34-5	2,3,4,6,7,8-HxCDF	1	1.111	1.054-1.426	0.080	0.993	0.309	ng/kg	J
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.536	1.054-1.426	0.086	0.993	0.170	ng/kg	EMPC, J
39227-28-6	1,2,3,4,7,8-HxCDD	1	0.991	1.054-1.426	0.136	0.993	0.319	ng/kg	EMPC, J
57653-85-7	1,2,3,6,7,8-HxCDD	1	1.242	1.054-1.426	0.136	0.993	0.911	ng/kg	J
19408-74-3	1,2,3,7,8,9-HxCDD	1	1.150	1.054-1.426	0.150	0.993	0.868	ng/kg	J
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.031	0.893-1.208	0.112	0.993	3.99	ng/kg	
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	1.256	0.893-1.208	0.162	0.993	0.413	ng/kg	EMPC, J
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.030	0.893-1.208	0.210	2.48	28.1	ng/kg	B
39001-02-0	OCDF	1	0.847	0.757-1.024	0.238	2.48	13.9	ng/kg	B
3268-87-9	OCDD	1	0.855	0.757-1.024	0.291	9.93	211	ng/kg	B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.993	0.164	ng/kg	
41903-57-5	Total TCDD	1	0.000			0.993	0.719	ng/kg	
30402-15-4	Total PeCDF	1	0.000			0.993	0.140	ng/kg	
36088-22-9	Total PeCDD	1	0.000			0.993	ND	ng/kg	
55684-94-1	Total HxCDF	1	0.000			0.993	5.57	ng/kg	
34465-46-8	Total HxCDD	1	0.000			0.993	8.82	ng/kg	
38998-75-3	Total HpCDF	1	0.000			0.993	13.9	ng/kg	
37871-00-4	Total HpCDD	1	0.000			0.993	73.2	ng/kg	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.927
Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.981

LDW23-IT1148

Form 2

ORGANIC ANALYSIS DATA SHEET

EPA 1613B

Dioxins/Furans by HRGC/HRMS

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	23A0313-12	File ID:	23030626
Sampled:	01/16/23 14:44	Prepared:	01/24/23 07:31	Analyzed:	03/07/23 06:50
Solids Wt%:	81.29	Preparation:	EPA 1613	Initial/Final:	12.39 g / 20 uL
Result Basis:	Dry	Sequence:	SLC0081	Calibration:	GC00015
Batch:	BLA0398	Instrument:	AUTOSPEC01	Column:	RTX-Dioxin2

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.752	0.655-0.886	0.097	101	24 - 169 %	
13C12-2,3,7,8-TCDD		0.795	0.655-0.886	0.125	113	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.499	1.318-1.783	0.227	106	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.492	1.318-1.783	0.252	111	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.596	1.318-1.783	0.138	114	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.503	0.434-0.587	0.144	111	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.513	0.434-0.587	0.121	95.0	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.517	0.434-0.587	0.149	98.7	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.506	0.434-0.587	0.180	111	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.303	1.054-1.426	0.130	105	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.280	1.054-1.426	0.112	92.7	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.440	0.374-0.506	0.370	107	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.435	0.374-0.506	0.431	104	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.078	0.893-1.208	0.202	110	23 - 140 %	
13C12-OCDD		0.902	0.757-1.024	0.230	109	17 - 157 %	
37Cl4-2,3,7,8-TCDD		328.000		0.055	94.2	35 - 197 %	

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230306D2.qld
Last Altered: Tuesday, March 07, 2023 13:16:23 Pacific Standard Time
Printed: Tuesday, March 07, 2023 13:18:41 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: 23A0313-12, Name: 23030626, Date: 07-Mar-2023, Time: 06:50:24, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.760	1.001	2.471e2	3.060e2	0.702	0.807	0.770	841	821	4.20e3	4.23e3	5.0	5.2	NO	bd	dd	0.083
12378-PeCDF	29.934	1.001	1.350e2	2.260e2	0.679	0.597	1.550	830	1112	3.73e3	3.61e3	4.5	3.2	YES	bb	MM	0.069
23478-PeCDF					0.786		1.550	830	1112								
123478-HxCDF	34.880	1.000	9.694e2	6.173e2	1.166	1.571	1.240	607	676	1.60e4	8.56e3	26.3	12.7	YES	dd	bd	0.224
234678-HxCDF	35.883	1.000	4.865e2	4.377e2	1.140	1.111	1.240	607	676	6.07e3	5.30e3	10.0	7.8	NO	bb	bb	0.156
123678-HxCDF	35.025	1.001	4.222e2	3.869e2	1.091	1.091	1.240	607	676	6.97e3	7.55e3	11.5	11.2	NO	db	MM	0.120
123789-HxCDF	36.897	1.000	2.856e2	1.859e2	1.137	1.536	1.240	607	676	3.77e3	2.64e3	6.2	3.9	YES	bb	MM	0.086
1234678-HpCDF	38.757	1.000	4.588e3	4.449e3	1.003	1.031	1.050	835	599	7.67e4	7.26e4	91.9	121.2	NO	bb	bb	2.010
1234789-HpCDF	40.997	1.000	4.121e2	3.281e2	0.953	1.256	1.050	835	599	5.49e3	4.90e3	6.6	8.2	YES	bd	bb	0.208
OCDF	45.219	1.005	9.794e3	1.156e4	0.778	0.847	0.890	665	801	1.15e5	1.46e5	173.2	182.7	NO	bb	bb	7.003
2378-TCDD					1.149		0.770	748	825								
12378-PeCDD	31.482	1.000	2.438e2	2.889e2	1.022	0.844	1.550	950	1308	6.44e3	5.25e3	6.8	4.0	YES	bd	MM	0.094
123478-HxCDD	36.017	1.001	3.882e2	3.917e2	0.996	0.991	1.240	972	916	6.96e3	7.52e3	7.2	8.2	YES	bd	bd	0.161
123678-HxCDD	36.128	1.001	1.275e3	1.026e3	1.001	1.242	1.240	972	916	2.13e4	1.63e4	21.9	17.8	NO	db	db	0.459
123789-HxCDD	36.507	1.011	1.049e3	9.121e2	0.907	1.150	1.240	972	916	1.68e4	1.44e4	17.3	15.7	NO	bb	bb	0.437
1234678-HpCDD	40.262	1.001	3.221e4	3.127e4	1.039	1.030	1.050	1187	1258	4.93e5	4.89e5	415.3	388.8	NO	bb	bb	14.169
OCDD	44.990	1.000	1.764e5	2.064e5	0.920	0.855	0.890	1349	774	2.18e6	2.60e6	1618.0	3354.8	NO	bb	bb	106.132
13C-2378-TCDF	25.746	1.007	4.098e5	5.450e5	1.620	0.752	0.770	1460	1001	6.43e6	8.55e6	4406.7	8545.7	NO	bb	bb	100.775
13C-12378-PeCDF	29.900	1.169	4.624e5	3.085e5	1.240	1.499	1.550	2838	1547	7.09e6	4.78e6	2499.0	3091.3	NO	bb	bb	106.283
13C-23478-PeCDF	31.248	1.222	4.340e5	2.909e5	1.118	1.492	1.550	2838	1547	6.60e6	4.46e6	2326.7	2884.5	NO	bb	bb	110.909
13C-123478-HxCDF	34.869	0.955	2.032e5	4.037e5	1.168	0.503	0.510	936	1250	3.30e6	6.49e6	3529.5	5195.8	NO	bd	bd	111.097
13C-123678-HxCDF	35.003	0.959	2.088e5	4.070e5	1.386	0.513	0.510	936	1250	3.26e6	6.44e6	3478.2	5154.3	NO	db	db	94.969
13C-234678-HxCDF	35.872	0.983	1.776e5	3.438e5	1.129	0.517	0.510	936	1250	2.86e6	5.55e6	3053.9	4444.3	NO	bb	bb	98.732
13C-123789-HxCDF	36.908	1.011	1.626e5	3.215e5	0.932	0.506	0.510	936	1250	2.61e6	5.21e6	2792.5	4166.3	NO	bb	bb	111.093
13C-1234678-HpCDF	38.746	1.062	1.369e5	3.113e5	0.895	0.440	0.440	972	3344	2.31e6	5.25e6	2378.4	1570.1	NO	bb	bb	107.050
13C-1234789-HpCDF	40.986	1.123	1.133e5	2.605e5	0.770	0.435	0.440	972	3344	1.68e6	3.90e6	1726.1	1165.2	NO	bb	bb	103.842
13C-1234-TCDD	25.576	0.000	2.610e5	3.237e5	1.000	0.806	0.770	1354	888	4.14e6	5.14e6	3060.1	5783.9	NO	bb	bb	100.000
13C-2378-TCDD	26.382	1.031	3.368e5	4.235e5	1.152	0.795	0.770	1354	888	5.33e6	6.72e6	3935.1	7564.7	NO	bb	bb	112.824
13C-12378-PeCDD	31.493	1.231	3.392e5	2.125e5	0.829	1.596	1.550	877	906	5.29e6	3.28e6	6028.6	3617.6	NO	bb	bb	113.843
13C-123478-HxCDD	35.994	0.986	2.760e5	2.119e5	0.995	1.303	1.240	1054	636	4.69e6	3.56e6	4447.1	5597.2	NO	bd	bd	104.851
13C-123678-HxCDD	36.106	0.989	2.814e5	2.198e5	1.157	1.280	1.240	1054	636	4.64e6	3.67e6	4398.6	5769.2	NO	db	db	92.664
13C-1234678-HpCDD	40.239	1.103	2.237e5	2.075e5	0.840	1.078	1.050	1422	789	3.46e6	3.19e6	2432.1	4040.6	NO	bb	bb	109.753
13C-OCDD	44.972	1.232	3.719e5	4.122e5	0.767	0.902	0.890	922	1377	4.48e6	5.02e6	4864.5	3643.9	NO	bb	bb	218.474
13C-123789-HxCDD	36.496	0.000	2.615e5	2.061e5	1.000	1.269	1.240	1054	636	4.34e6	3.35e6	4115.5	5274.0	NO	bb	bb	100.000
37CL-2378-TCDD	26.410	1.033	2.836e5		1.288			1094		4.37e6		3994.7			bb		37.665

Dataset: T:\Autospec\Processed Data Batch\230306D2.qld
Last Altered: Tuesday, March 07, 2023 13:16:23 Pacific Standard Time
Printed: Tuesday, March 07, 2023 13:18:41 Pacific Standard Time

ID: 23A0313-12, Name: 23030626, Date: 07-Mar-2023, Time: 06:50:24, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	841	821								
1289-TCDF					0.678		0.770	841	821								
13468-PECDF					1.246		1.550	583	732								
12389-PECDF					0.496		1.550	830	1112								
123468-HXCDF	33.220	0.953	1.209e3	8.842e2	1.169	1.367	1.240	607	676	1.85e4	1.44e4	30.5	21.3	NO	db	bb	0.295
1368-TCDD	23.528	0.892	9.071e2	1.363e3	1.015	0.665	0.770	748	825	1.33e4	2.18e4	17.8	26.4	NO	bb	bb	0.294
1289-TCDD					0.909		0.770	748	825								
12479-PECDD	28.831	0.915	6.920e2	5.637e2	2.301	1.227	1.550	950	1308	8.38e3	6.52e3	8.8	5.0	YES	bb	bb	0.099
12389-PECDD					1.184		1.550	950	1308								
124679-HXCDD	34.000	0.945	4.817e3	3.739e3	1.115	1.288	1.240	972	916	7.15e4	5.97e4	73.6	65.2	NO	bb	bb	1.572
1234679-HPCDD	39.214	0.975	5.674e4	5.455e4	1.137	1.040	1.050	1187	1258	9.49e5	9.10e5	799.8	723.5	NO	bb	bb	22.704
Total-tetrafurans			2.471e2		0.727			841		4.20e3							0.083
Total-penta1			0.000e0					583		0.00e0							
Total-pentafurans			2.104e2		0.654			830		3.62e3							0.070
Total-hexafurans			1.010e4		1.141			607		1.59e5							2.803
Total-heptafurans			1.441e4		0.978			835		2.39e5							6.990
Total-Furans			3.476e4		0.922			841		5.21e5							16.949
Total-tetradioxins			1.145e3		1.024			748		1.69e4							0.362
Total-pentadioxins			0.000e0		1.502			950		0.00e0							
Total-hexadioxins			1.268e4		1.005			972		1.78e5							4.440
Total-heptadioxins			8.895e4		1.088			1187		1.44e6							36.873
Total-Dioxins			2.792e5		1.130			748		3.82e6							147.807
Total-TEQ			3.139e5					748		4.34e6							164.756
FUNCTION1 PFK			0.000e0					307669		0.00e0							
FUNCTION2 PFK			4.211e5					123952		9.32e6							0.000
FUNCTION3 PFK			1.385e6					178999		2.61e6							0.000
FUNCTION4 PFK			1.553e5					182177		2.70e6							
FUNCTION5 PFK			0.000e0					139690		0.00e0							
FUNCTION1 HXCD...			3.743e2					584		6.71e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			2.475e2					729		4.26e3							0.000
FUNCTION3 OCDPE			0.000e0					486		0.00e0							
FUNCTION4 NCDPE			6.359e3					472		1.10e5							0.000
FUNCTION5 DCDPE			7.341e1					492		1.21e3							0.000

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

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TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.76	2.471e2	3.060e2	0.702	0.81	0.77	5.0	YES	NO	bd	dd	0.083

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	29.54	2.104e2	1.341e2	0.654	1.57	1.55	4.4	YES	NO	bd	bd	0.070

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	34.27	4.600e3	3.595e3	1.141	1.28	1.24	124.3	YES	NO	bb	bb	1.290
2	Total-hexafurans	33.43	3.378e3	2.607e3	1.141	1.30	1.24	85.7	YES	NO	bb	bb	0.942
3	123468-HXCDF	33.22	1.209e3	8.842e2	1.169	1.37	1.24	30.5	YES	NO	db	bb	0.295
4	234678-HxCDF	35.88	4.865e2	4.377e2	1.140	1.11	1.24	10.0	YES	NO	bb	bb	0.156
5	123678-HxCDF	35.03	4.222e2	3.869e2	1.091	1.09	1.24	11.5	YES	NO	db	MM	0.120

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	39.41	9.824e3	1.019e4	0.978	0.96	1.05	194.2	YES	NO	bb	bb	4.980
2	1234678-HpCDF	38.76	4.588e3	4.449e3	1.003	1.03	1.05	91.9	YES	NO	bb	bb	2.010

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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.76	2.471e2	3.060e2	0.702	0.81	0.77	5.0	YES	NO	bd	dd	0.083
2	Total-pentafurans	29.54	2.104e2	1.341e2	0.654	1.57	1.55	4.4	YES	NO	bd	bd	0.070
3	Total-hexafurans	34.27	4.600e3	3.595e3	1.141	1.28	1.24	124.3	YES	NO	bb	bb	1.290
4	Total-hexafurans	33.43	3.378e3	2.607e3	1.141	1.30	1.24	85.7	YES	NO	bb	bb	0.942
5	123468-HXCDF	33.22	1.209e3	8.842e2	1.169	1.37	1.24	30.5	YES	NO	db	bb	0.295
6	234678-HxCDF	35.88	4.865e2	4.377e2	1.140	1.11	1.24	10.0	YES	NO	bb	bb	0.156
7	123678-HxCDF	35.03	4.222e2	3.869e2	1.091	1.09	1.24	11.5	YES	NO	db	MM	0.120
8	Total-heptafurans	39.41	9.824e3	1.019e4	0.978	0.96	1.05	194.2	YES	NO	bb	bb	4.980
9	1234678-HpCDF	38.76	4.588e3	4.449e3	1.003	1.03	1.05	91.9	YES	NO	bb	bb	2.010
10	OCDF	45.22	9.794e3	1.156e4	0.778	0.85	0.89	173.2	YES	NO	bb	bb	7.003

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	24.74	2.381e2	2.923e2	1.024	0.81	0.77	4.8	YES	NO	bb	bb	0.068
2	1368-TCDD	23.53	9.071e2	1.363e3	1.015	0.67	0.77	17.8	YES	NO	bb	bb	0.294

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	124679-HXCDD	34.00	4.817e3	3.739e3	1.115	1.29	1.24	73.6	YES	NO	bb	bb	1.572
2	123789-HxCDD	36.51	1.049e3	9.121e2	0.907	1.15	1.24	17.3	YES	NO	bb	bb	0.437
3	Total-hexadioxins	36.27	3.195e2	2.522e2	1.005	1.27	1.24	5.6	YES	NO	bb	bb	0.115
4	123678-HxCDD	36.13	1.275e3	1.026e3	1.001	1.24	1.24	21.9	YES	NO	db	db	0.459
5	Total-hexadioxins	35.24	6.985e2	5.667e2	1.005	1.23	1.24	14.4	YES	NO	db	db	0.255
6	Total-hexadioxins	35.14	4.518e3	3.443e3	1.005	1.31	1.24	50.0	YES	NO	dd	bd	1.602

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.26	3.221e4	3.127e4	1.039	1.03	1.05	415.3	YES	NO	bb	bb	14.169
2	1234679-HPCDD	39.21	5.674e4	5.455e4	1.137	1.04	1.05	799.8	YES	NO	bb	bb	22.704

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	24.74	2.381e2	2.923e2	1.024	0.81	0.77	4.8	YES	NO	bb	bb	0.068
2	1368-TCDD	23.53	9.071e2	1.363e3	1.015	0.67	0.77	17.8	YES	NO	bb	bb	0.294
3	124679-HXCDD	34.00	4.817e3	3.739e3	1.115	1.29	1.24	73.6	YES	NO	bb	bb	1.572
4	123789-HxCDD	36.51	1.049e3	9.121e2	0.907	1.15	1.24	17.3	YES	NO	bb	bb	0.437
5	Total-hexadioxins	36.27	3.195e2	2.522e2	1.005	1.27	1.24	5.6	YES	NO	bb	bb	0.115
6	123678-HxCDD	36.13	1.275e3	1.026e3	1.001	1.24	1.24	21.9	YES	NO	db	db	0.459
7	Total-hexadioxins	35.24	6.985e2	5.667e2	1.005	1.23	1.24	14.4	YES	NO	db	db	0.255
8	Total-hexadioxins	35.14	4.518e3	3.443e3	1.005	1.31	1.24	50.0	YES	NO	dd	bd	1.602
9	1234678-HpCDD	40.26	3.221e4	3.127e4	1.039	1.03	1.05	415.3	YES	NO	bb	bb	14.169
10	1234679-HPCDD	39.21	5.674e4	5.455e4	1.137	1.04	1.05	799.8	YES	NO	bb	bb	22.704
11	OCDD	44.99	1.764e5	2.064e5	0.920	0.85	0.89	1618.0	YES	NO	bb	bb	106.132

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.76	2.471e2	3.060e2	0.702	0.81	0.77	5.0	YES	NO	bd	dd	0.083
2	Total-pentafurans	29.54	2.104e2	1.341e2	0.654	1.57	1.55	4.4	YES	NO	bd	bd	0.070
3	Total-hexafurans	34.27	4.600e3	3.595e3	1.141	1.28	1.24	124.3	YES	NO	bb	bb	1.290
4	Total-hexafurans	33.43	3.378e3	2.607e3	1.141	1.30	1.24	85.7	YES	NO	bb	bb	0.942
5	123468-HXCDF	33.22	1.209e3	8.842e2	1.169	1.37	1.24	30.5	YES	NO	db	bb	0.295
6	234678-HxCDF	35.88	4.865e2	4.377e2	1.140	1.11	1.24	10.0	YES	NO	bb	bb	0.156
7	123678-HxCDF	35.03	4.222e2	3.869e2	1.091	1.09	1.24	11.5	YES	NO	db	MM	0.120
8	Total-heptafurans	39.41	9.824e3	1.019e4	0.978	0.96	1.05	194.2	YES	NO	bb	bb	4.980
9	1234678-HpCDF	38.76	4.588e3	4.449e3	1.003	1.03	1.05	91.9	YES	NO	bb	bb	2.010
10	OCDF	45.22	9.794e3	1.156e4	0.778	0.85	0.89	173.2	YES	NO	bb	bb	7.003
11	Total-tetradioxins	24.74	2.381e2	2.923e2	1.024	0.81	0.77	4.8	YES	NO	bb	bb	0.068
12	1368-TCDD	23.53	9.071e2	1.363e3	1.015	0.67	0.77	17.8	YES	NO	bb	bb	0.294
13	124679-HXCDD	34.00	4.817e3	3.739e3	1.115	1.29	1.24	73.6	YES	NO	bb	bb	1.572
14	123789-HxCDD	36.51	1.049e3	9.121e2	0.907	1.15	1.24	17.3	YES	NO	bb	bb	0.437
15	Total-hexadioxins	36.27	3.195e2	2.522e2	1.005	1.27	1.24	5.6	YES	NO	bb	bb	0.115
16	123678-HxCDD	36.13	1.275e3	1.026e3	1.001	1.24	1.24	21.9	YES	NO	db	db	0.459
17	Total-hexadioxins	35.24	6.985e2	5.667e2	1.005	1.23	1.24	14.4	YES	NO	db	db	0.255
18	Total-hexadioxins	35.14	4.518e3	3.443e3	1.005	1.31	1.24	50.0	YES	NO	dd	bd	1.602
19	1234678-HpCDD	40.26	3.221e4	3.127e4	1.039	1.03	1.05	415.3	YES	NO	bb	bb	14.169
20	1234679-HPCDD	39.21	5.674e4	5.455e4	1.137	1.04	1.05	799.8	YES	NO	bb	bb	22.704
21	OCDD	44.99	1.764e5	2.064e5	0.920	0.85	0.89	1618.0	YES	NO	bb	bb	106.132

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Dataset: T:\Autospec\Processed Data Batch\230306D2.qld
Last Altered: Tuesday, March 07, 2023 13:16:23 Pacific Standard Time
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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.25	4.155e4					4.1	YES		db		0.000
2	FUNCTION2 PFK	29.19	2.213e4					3.4	YES		dd		0.000
3	FUNCTION2 PFK	29.11	1.428e4					3.0	NO		dd		0.000
4	FUNCTION2 PFK	29.06	1.869e4					3.9	YES		dd		0.000
5	FUNCTION2 PFK	29.01	1.461e4					2.6	NO		dd		0.000
6	FUNCTION2 PFK	28.94	1.143e4					2.1	NO		dd		0.000
7	FUNCTION2 PFK	28.90	1.258e4					2.5	NO		dd		0.000
8	FUNCTION2 PFK	28.82	6.793e3					1.5	NO		bd		0.000
9	FUNCTION2 PFK	28.74	4.974e2					0.4	NO		bb		0.000
10	FUNCTION2 PFK	28.55	2.759e3					0.7	NO		bb		0.000
11	FUNCTION2 PFK	28.42	7.425e2					0.5	NO		bb		0.000
12	FUNCTION2 PFK	28.37	5.364e3					1.7	NO		db		0.000
13	FUNCTION2 PFK	28.33	4.234e3					1.1	NO		dd		0.000
14	FUNCTION2 PFK	28.26	1.784e4					2.2	NO		bd		0.000
15	FUNCTION2 PFK	28.18	1.616e3					0.5	NO		db		0.000
16	FUNCTION2 PFK	28.14	4.438e3					1.4	NO		bd		0.000
17	FUNCTION2 PFK	31.09	5.338e3					1.5	NO		dd		0.000
18	FUNCTION2 PFK	31.04	4.093e3					1.0	NO		bd		0.000
19	FUNCTION2 PFK	30.80	6.094e3					1.1	NO		db		0.000
20	FUNCTION2 PFK	30.76	1.447e3					0.6	NO		bd		0.000
21	FUNCTION2 PFK	30.62	3.038e3					1.0	NO		bb		0.000
22	FUNCTION2 PFK	30.58	5.683e3					1.7	NO		db		0.000
23	FUNCTION2 PFK	30.49	1.408e4					1.3	NO		dd		0.000
24	FUNCTION2 PFK	30.36	1.832e4					1.8	NO		bd		0.000
25	FUNCTION2 PFK	30.17	6.559e3					1.8	NO		bb		0.000
26	FUNCTION2 PFK	30.01	9.087e3					1.6	NO		db		0.000
27	FUNCTION2 PFK	29.93	2.880e3					0.9	NO		bd		0.000
28	FUNCTION2 PFK	29.74	1.083e3					0.5	NO		bb		0.000
29	FUNCTION2 PFK	29.62	3.888e2					0.0	NO		bb		0.000
30	FUNCTION2 PFK	29.53	1.800e4					2.7	NO		db		0.000
31	FUNCTION2 PFK	29.47	1.458e4					2.2	NO		bd		0.000
32	FUNCTION2 PFK	29.35	8.290e3					1.9	NO		bb		0.000
33	FUNCTION2 PFK	32.66	1.755e4					2.6	NO		bb		0.000
34	FUNCTION2 PFK	32.55	5.739e2					0.3	NO		bb		0.000
35	FUNCTION2 PFK	32.47	1.516e4					2.4	NO		db		0.000
36	FUNCTION2 PFK	32.41	6.643e3					1.3	NO		dd		0.000
37	FUNCTION2 PFK	32.34	6.023e3					1.5	NO		dd		0.000

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION2 PFK	32.26	1.141e4					1.9	NO		bd		0.000
39	FUNCTION2 PFK	32.13	2.640e3					0.8	NO		bb		0.000
40	FUNCTION2 PFK	31.93	2.584e3					0.6	NO		bb		0.000
41	FUNCTION2 PFK	31.68	1.818e3					0.7	NO		db		0.000
42	FUNCTION2 PFK	31.62	5.482e3					1.1	NO		bd		0.000
43	FUNCTION2 PFK	31.55	6.296e3					1.0	NO		db		0.000
44	FUNCTION2 PFK	31.48	5.298e3					1.0	NO		dd		0.000
45	FUNCTION2 PFK	31.43	5.930e3					1.3	NO		dd		0.000
46	FUNCTION2 PFK	31.33	1.104e4					1.9	NO		dd		0.000
47	FUNCTION2 PFK	31.24	1.067e4					1.4	NO		bd		0.000
48	FUNCTION2 PFK	31.14	1.343e4					1.9	NO		db		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	35.26	1.477e5					3.5	YES		bb		0.000
2	FUNCTION3 PFK	33.24	1.238e6					11.1	YES		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	42.46	4.533e3					0.8	NO		bb		
2	FUNCTION4 PFK	42.14	6.026e3					1.5	NO		bb		
3	FUNCTION4 PFK	41.67	5.097e3					1.1	NO		bb		
4	FUNCTION4 PFK	41.45	2.173e4					1.8	NO		bb		
5	FUNCTION4 PFK	40.95	7.731e3					1.7	NO		bb		
6	FUNCTION4 PFK	40.85	6.174e3					1.5	NO		bb		
7	FUNCTION4 PFK	40.60	6.314e3					1.5	NO		bb		
8	FUNCTION4 PFK	40.14	8.122e3					1.4	NO		bb		
9	FUNCTION4 PFK	37.93	8.959e4					3.6	YES		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	22.31	2.790e2					8.2	YES		bb		0.000
2	FUNCTION1 HXCD...	27.65	9.534e1					3.3	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.72	9.816e1					2.1	NO		db		0.000
2	FUNCTION2 HPCD...	31.63	7.533e1					1.5	NO		bd		0.000
3	FUNCTION2 HPCD...	28.96	7.397e1					2.2	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	38.41	6.359e3					233.8	YES		bb		0.000

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	44.07	7.341e1					2.5	NO		bb		0.000

Dataset: T:\Autospec\Processed Data Batch\230306D2.qld
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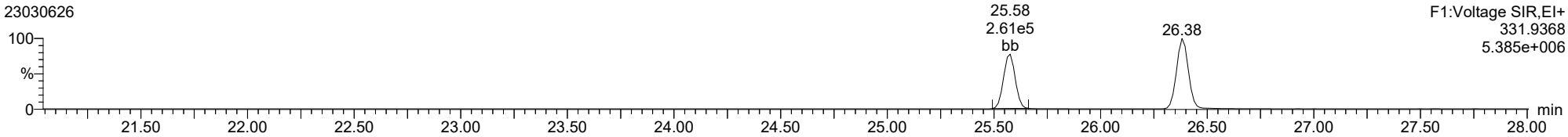
Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: 23A0313-12, Name: 23030626, Date: 07-Mar-2023, Time: 06:50:24, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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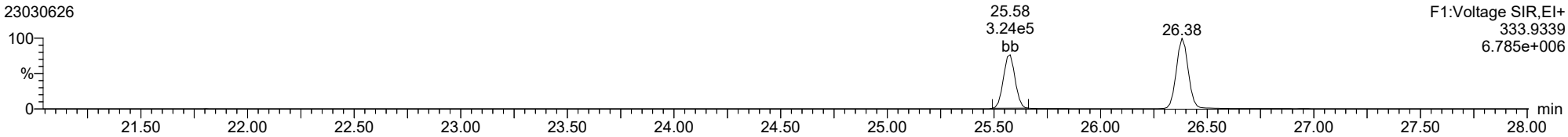
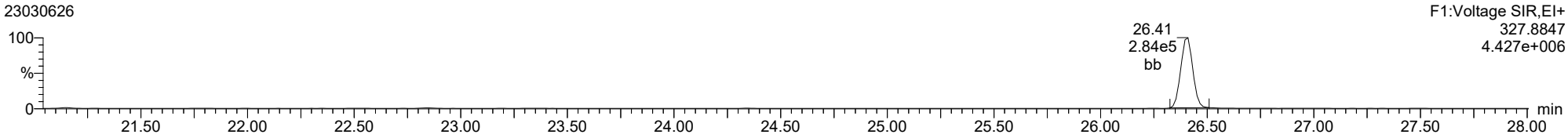


37CL-2378-TCDD



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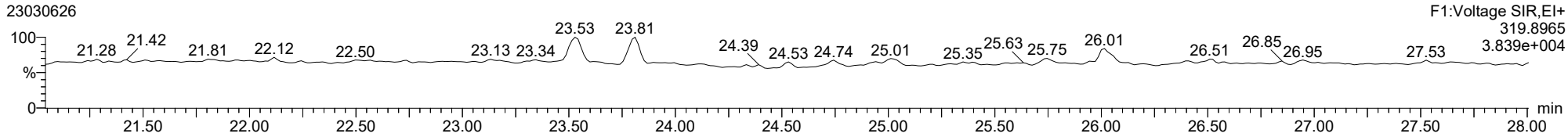

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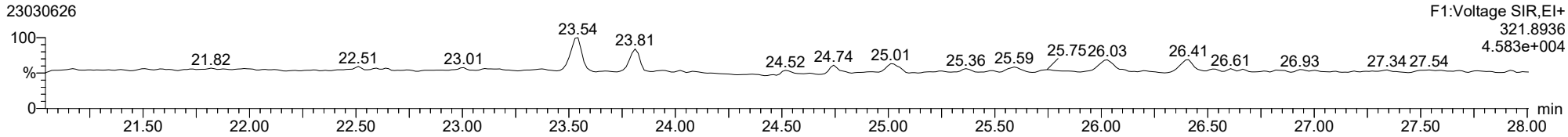

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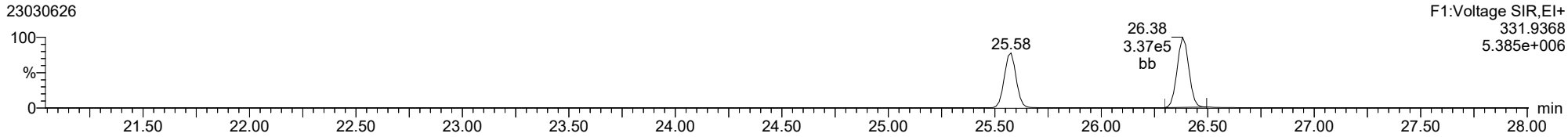

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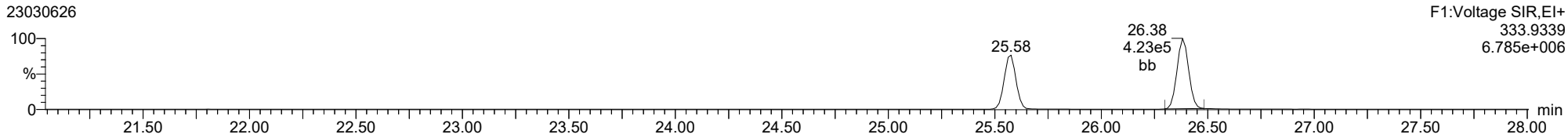

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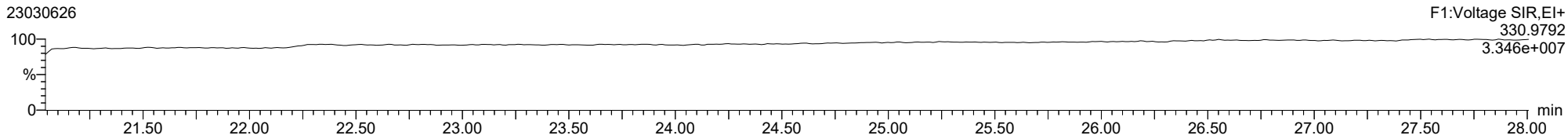

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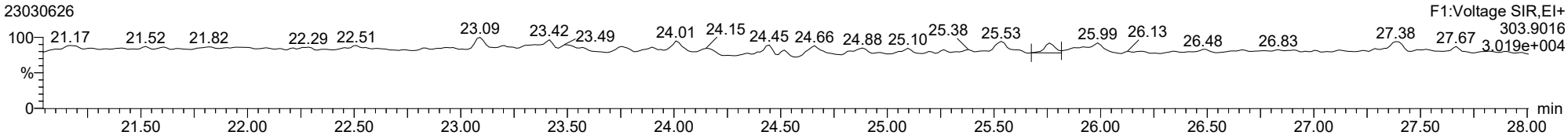

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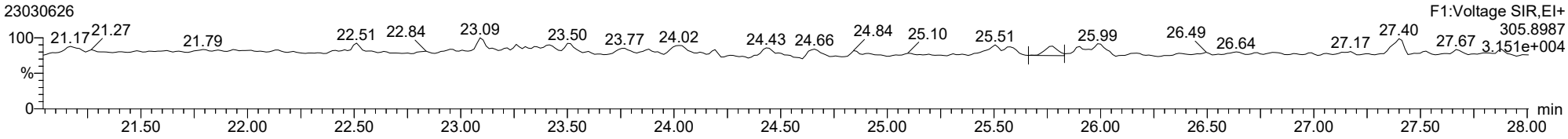

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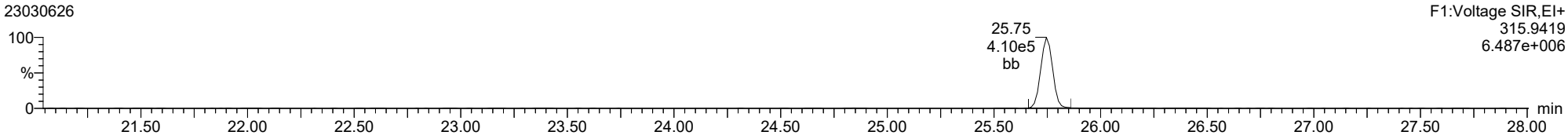

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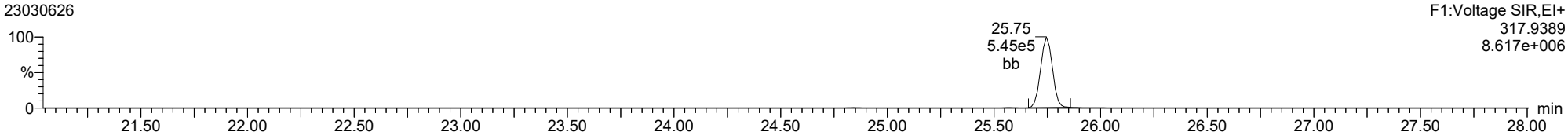

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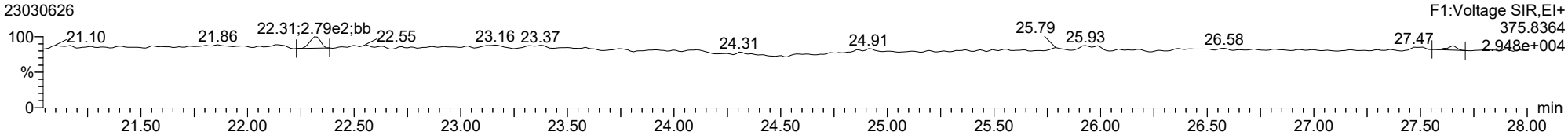

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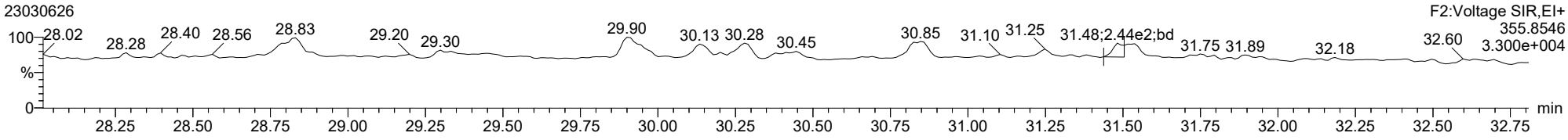
12378-PeCDD



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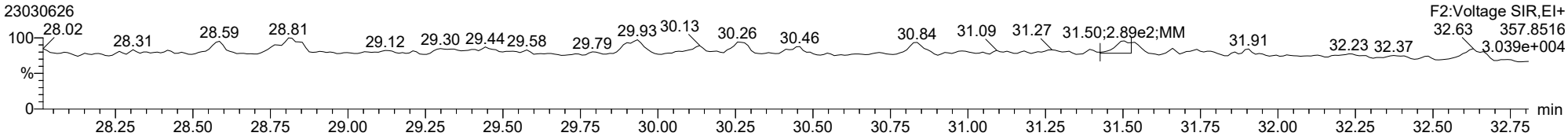

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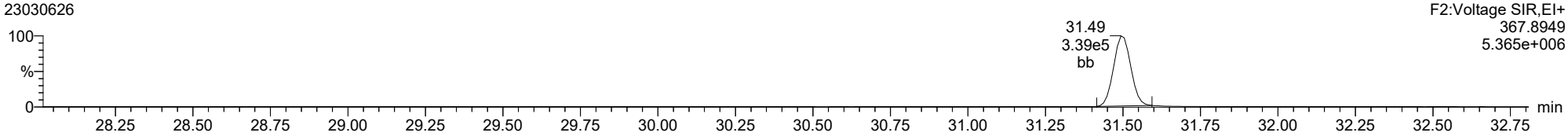

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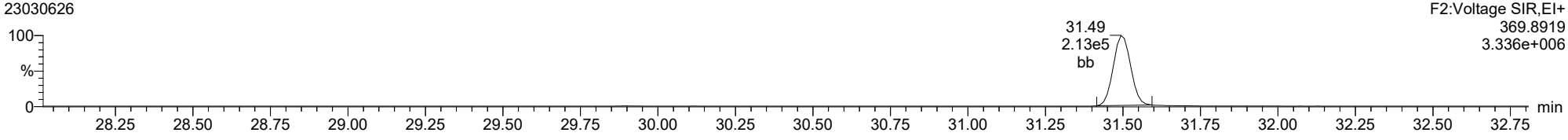

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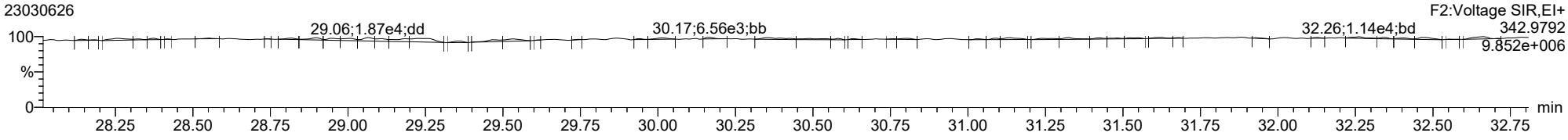

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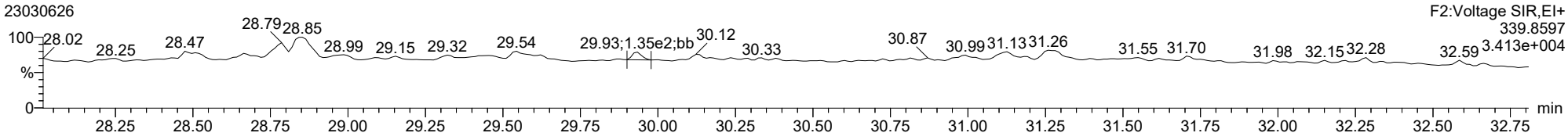

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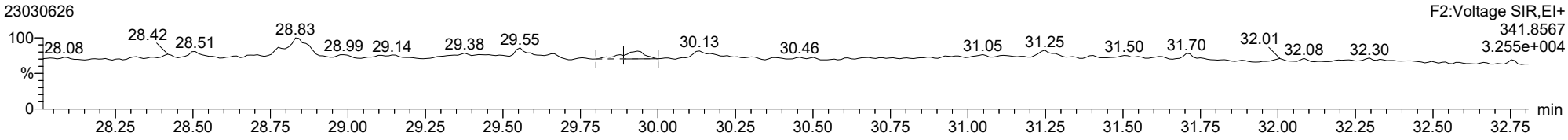

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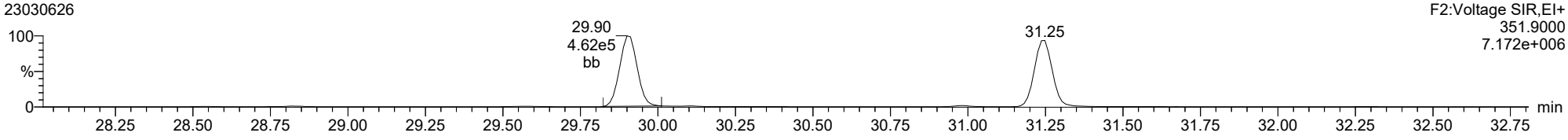

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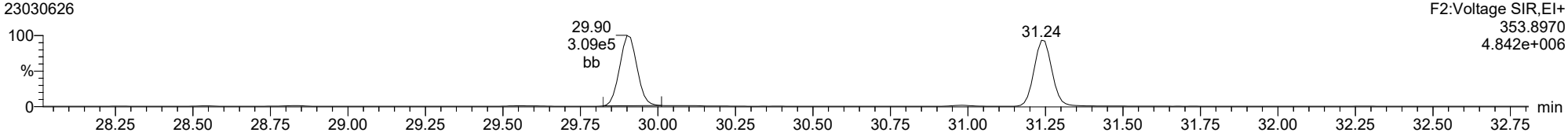

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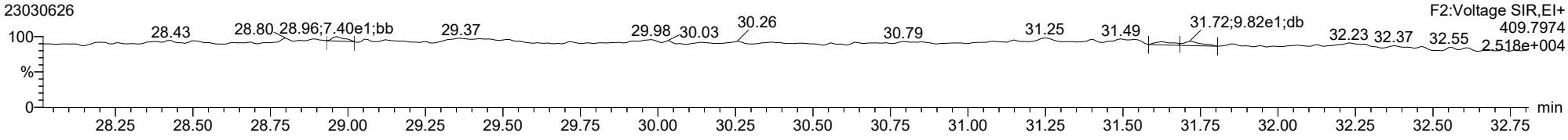

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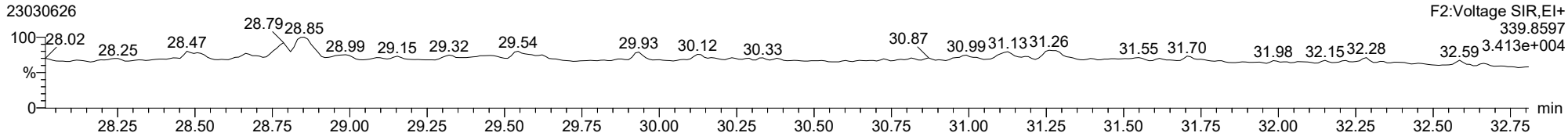
23478-PeCDF



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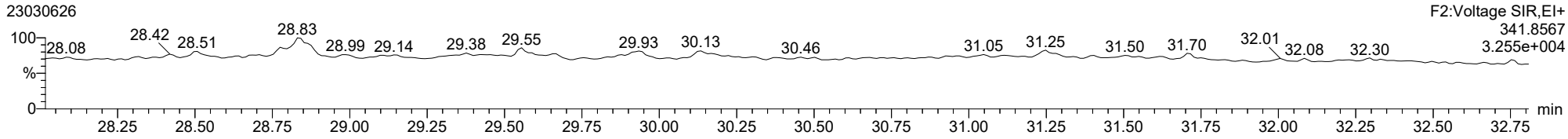

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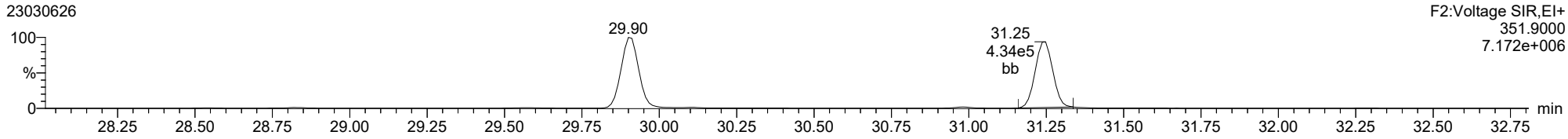

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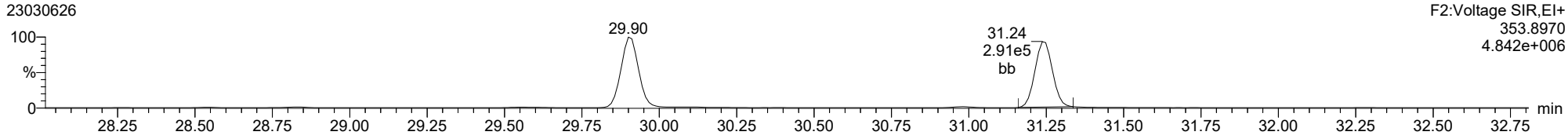

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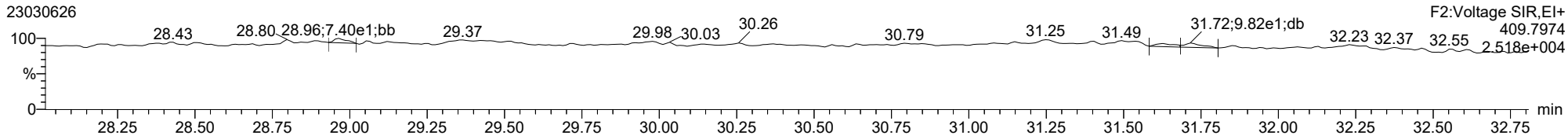

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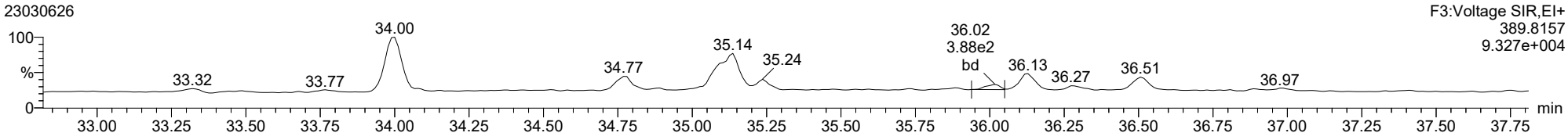

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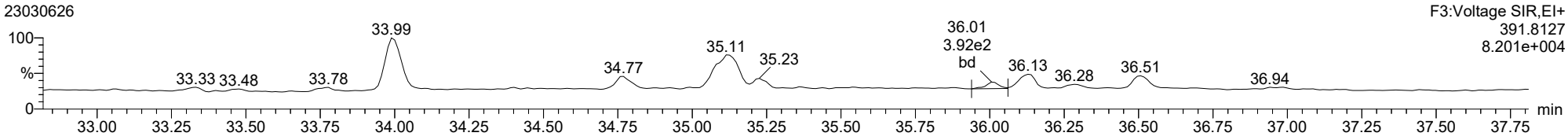

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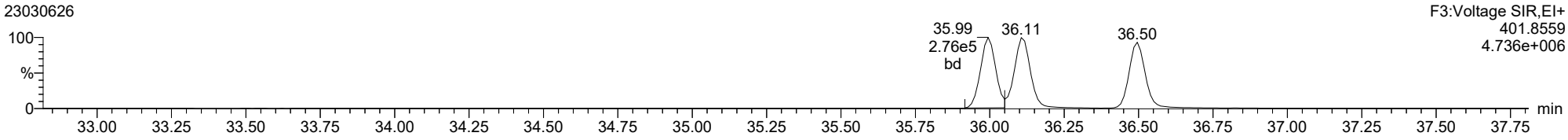

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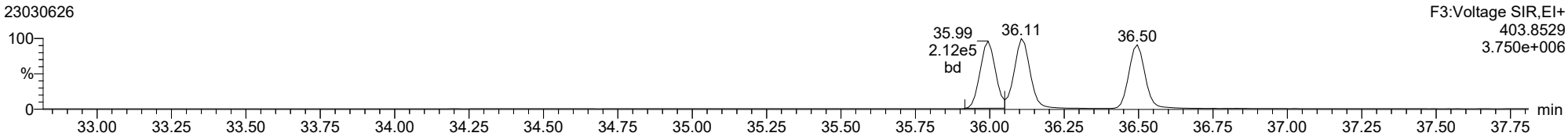

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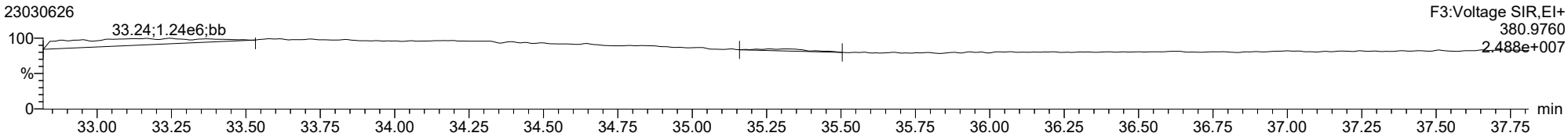

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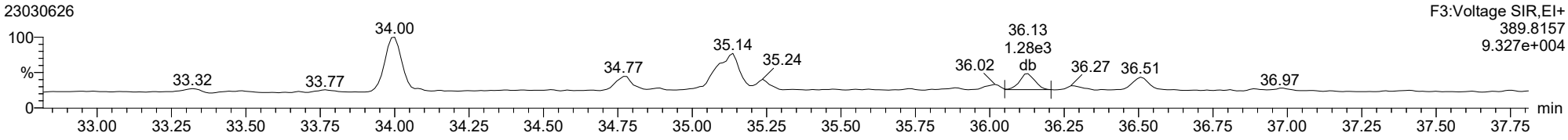

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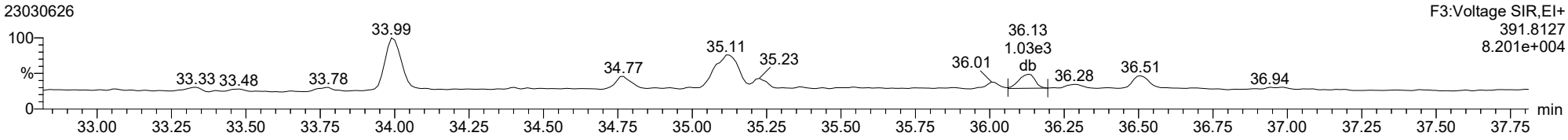

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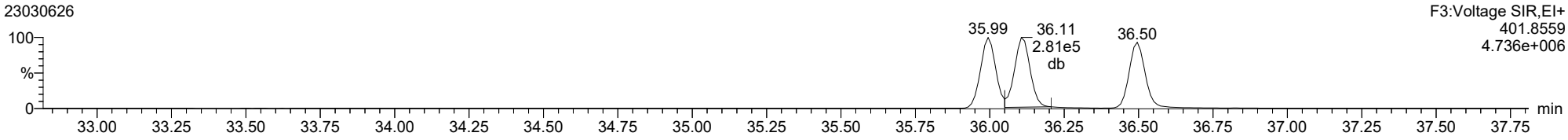

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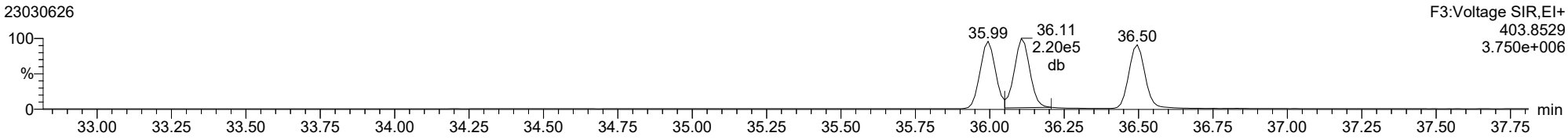

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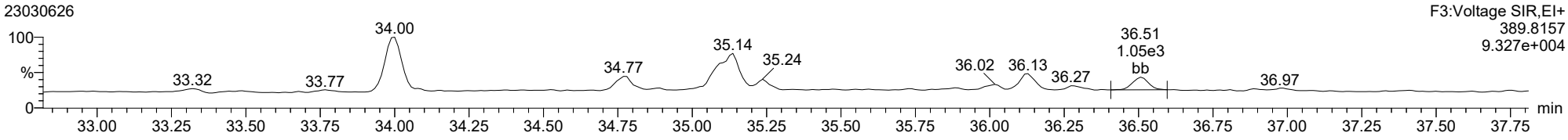

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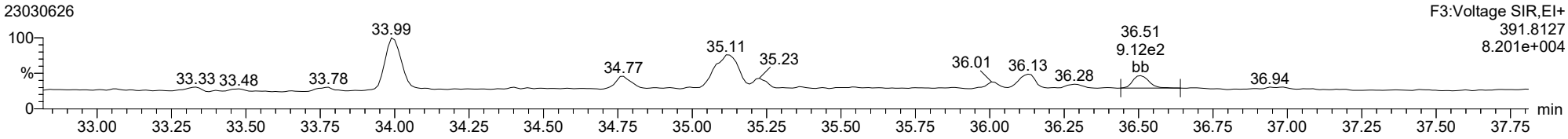

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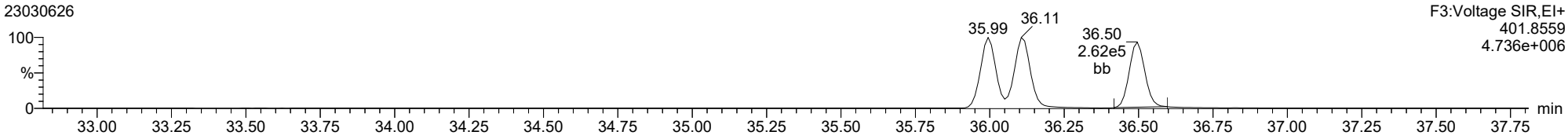

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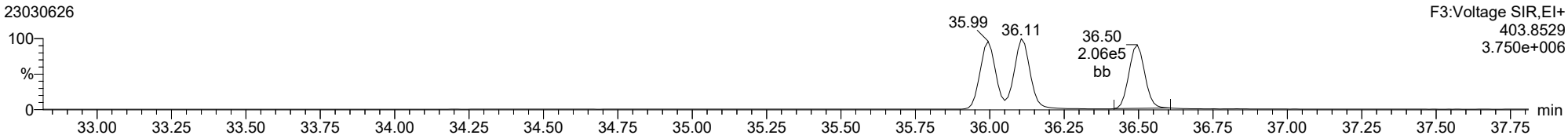

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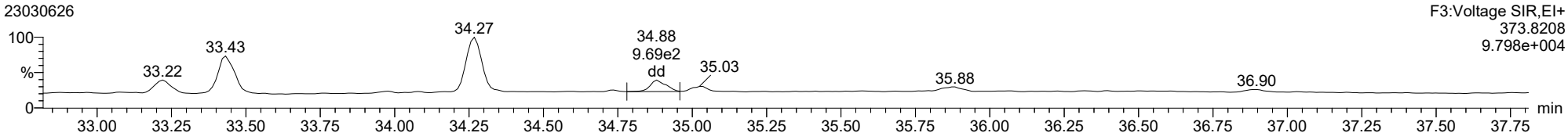

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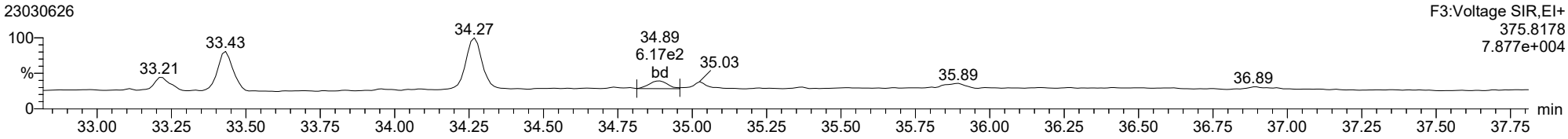

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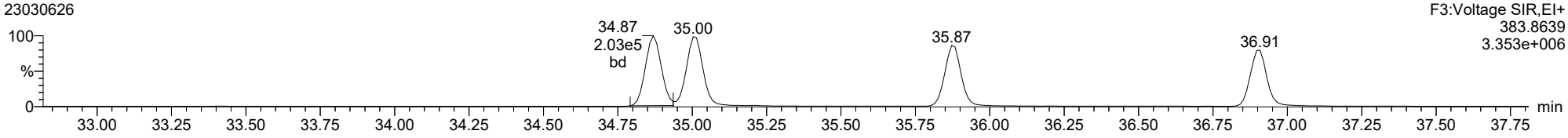

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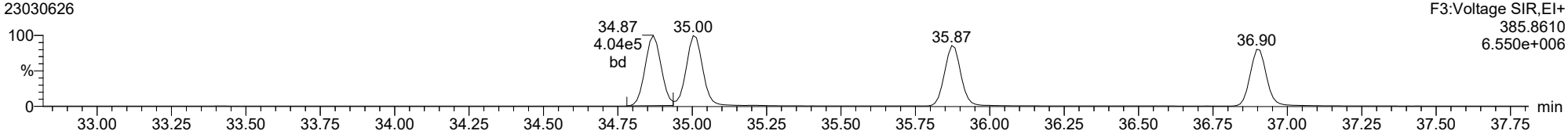

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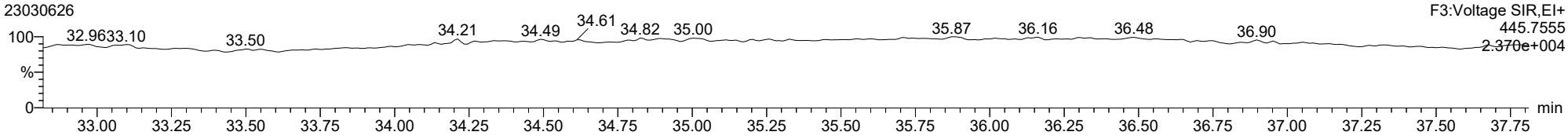

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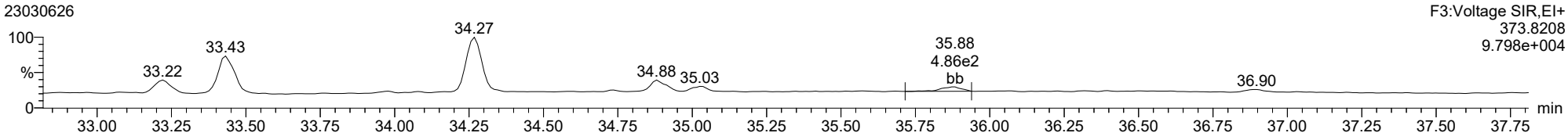

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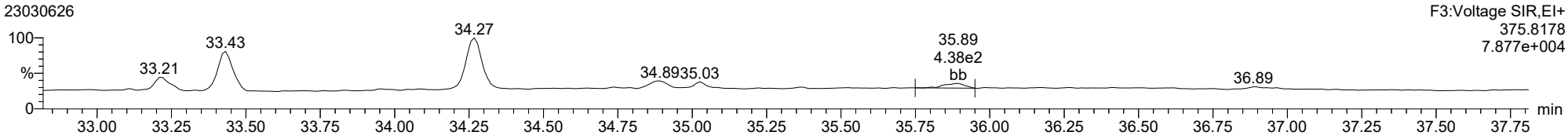

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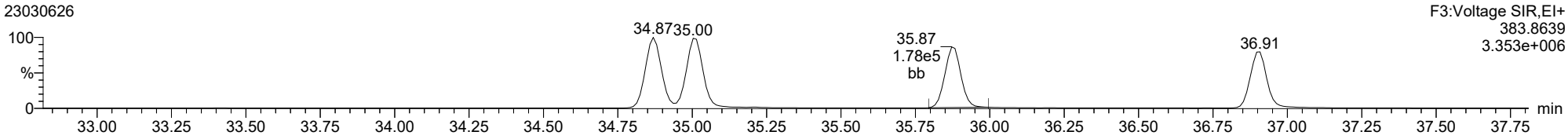

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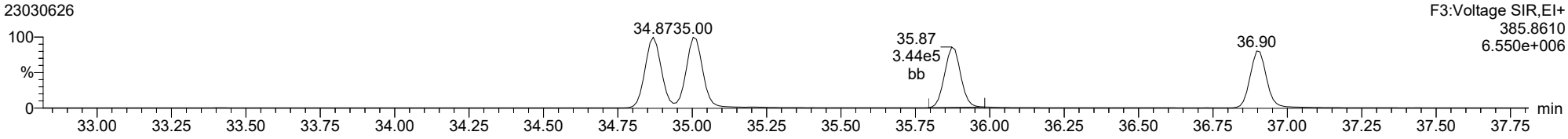

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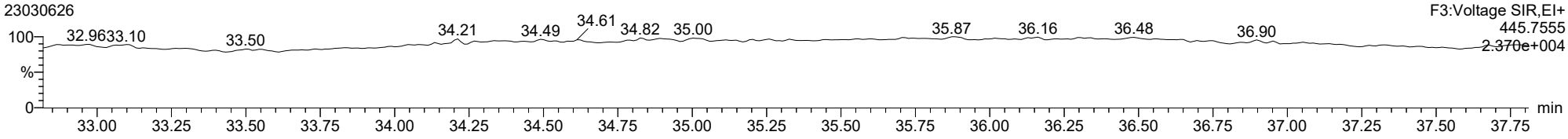

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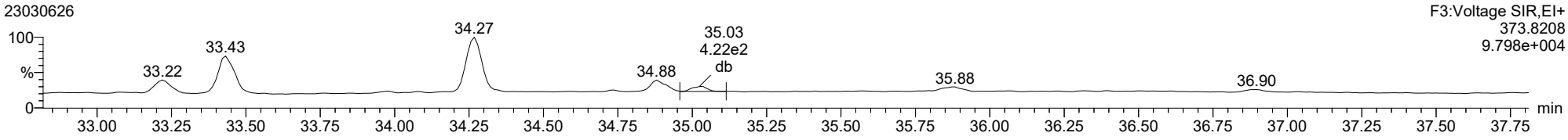

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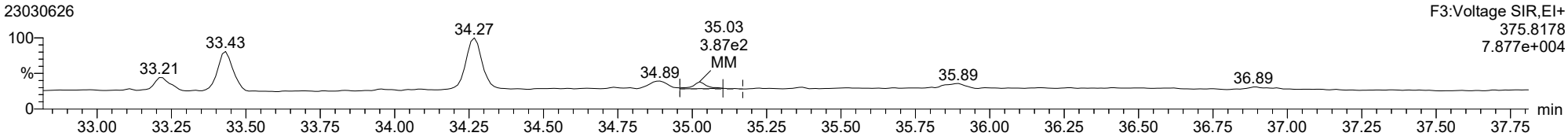

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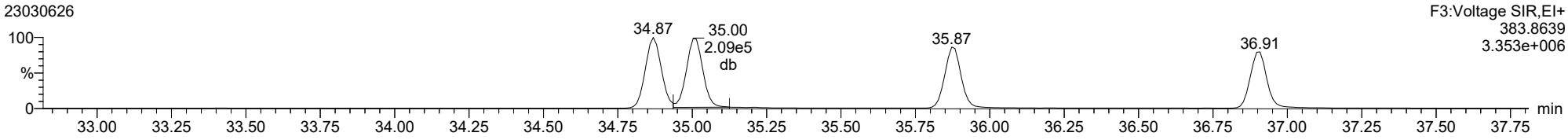

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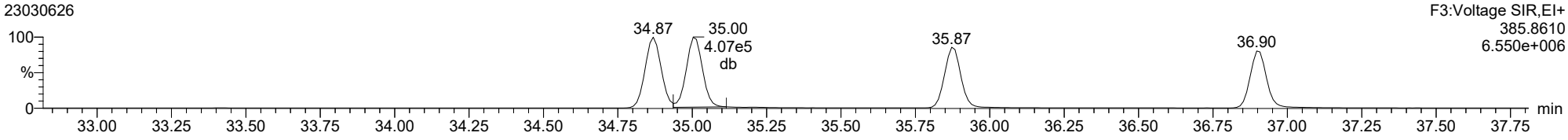

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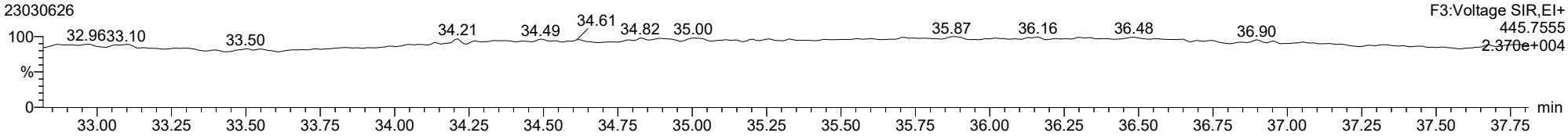

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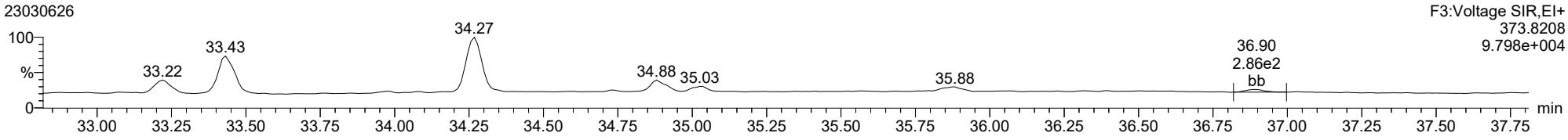

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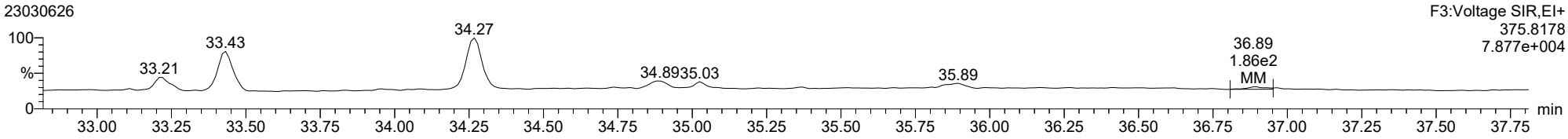

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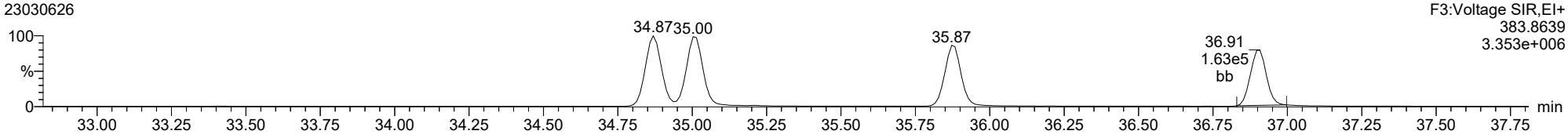

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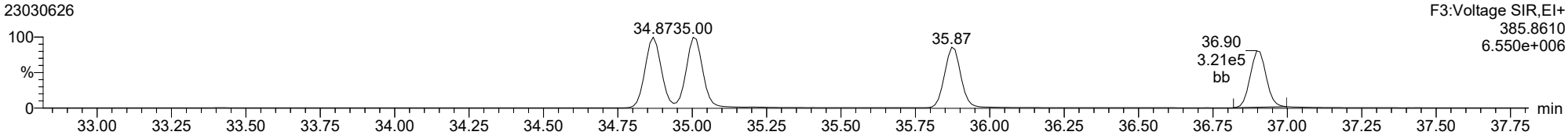

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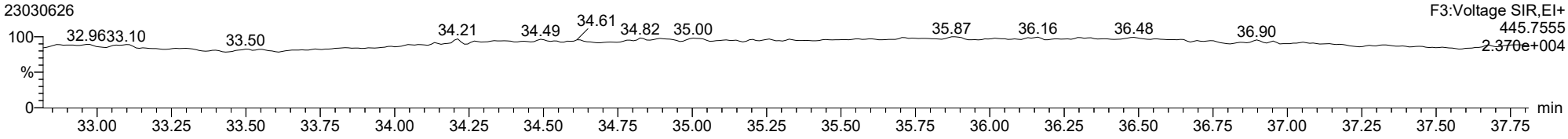

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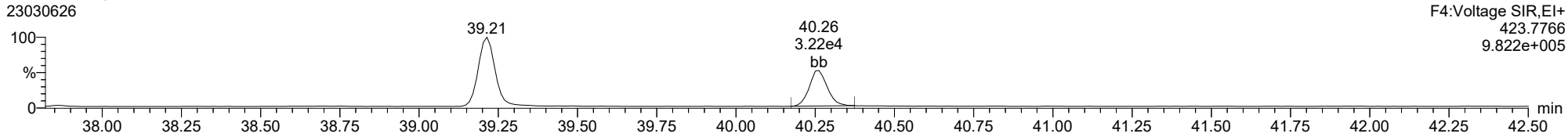

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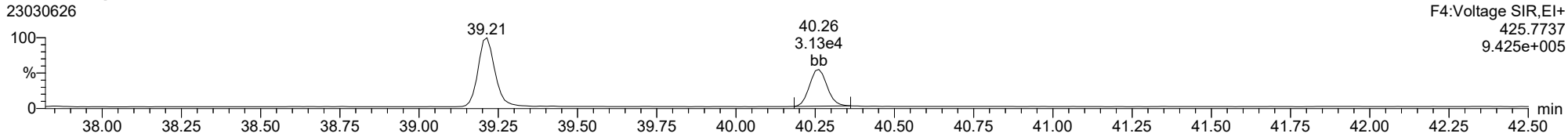

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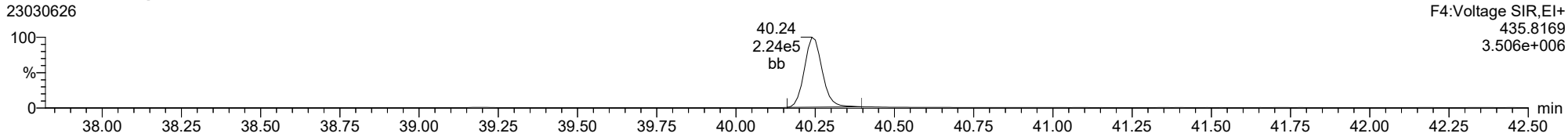

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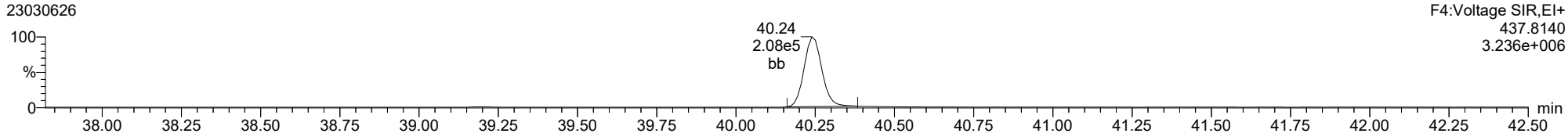

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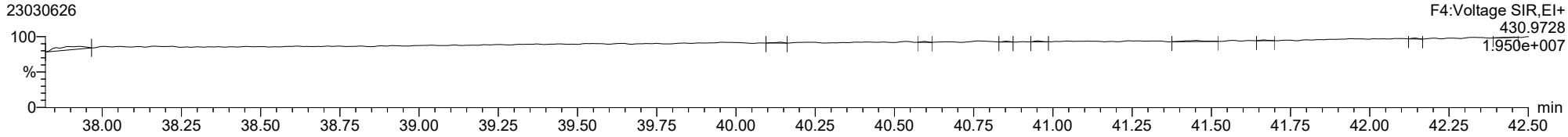

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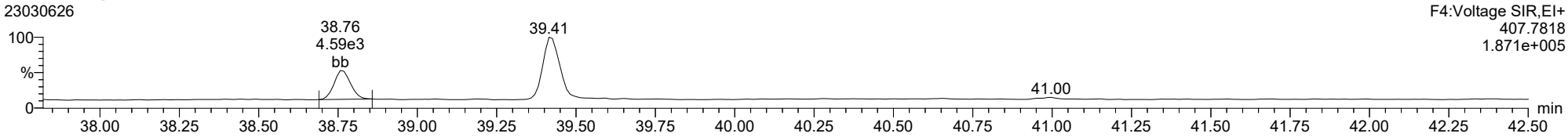

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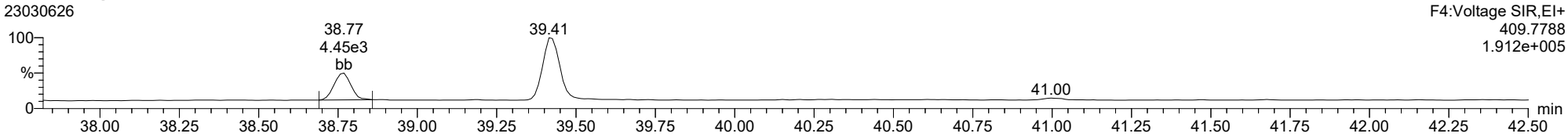

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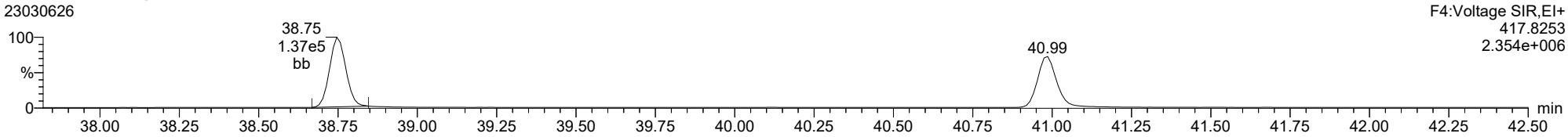

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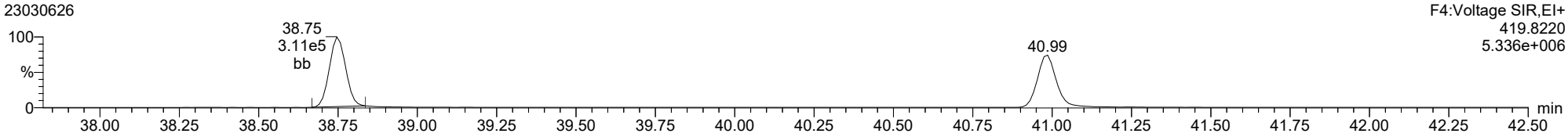

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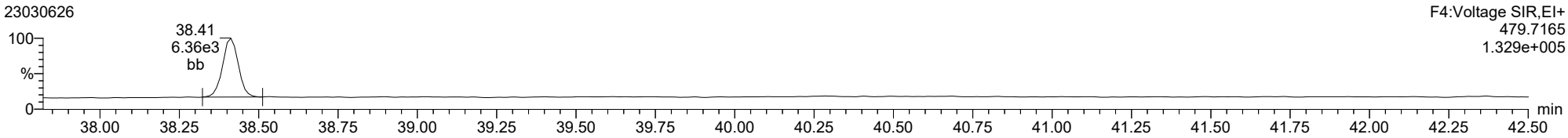

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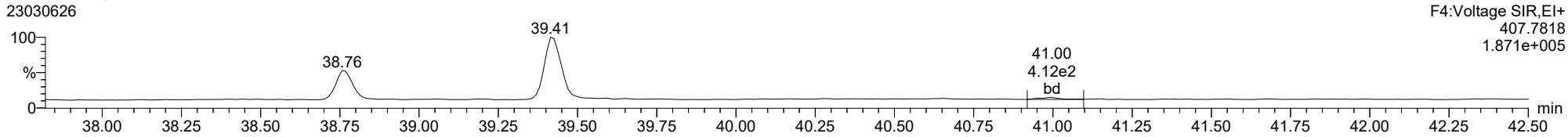

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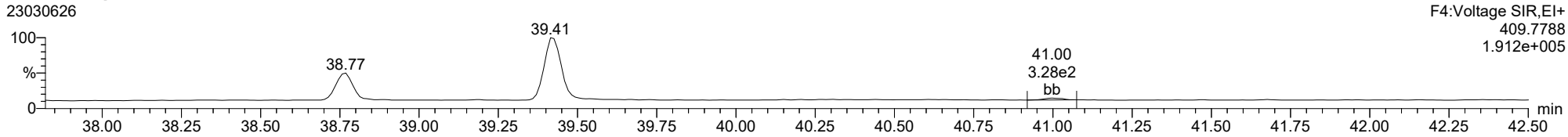

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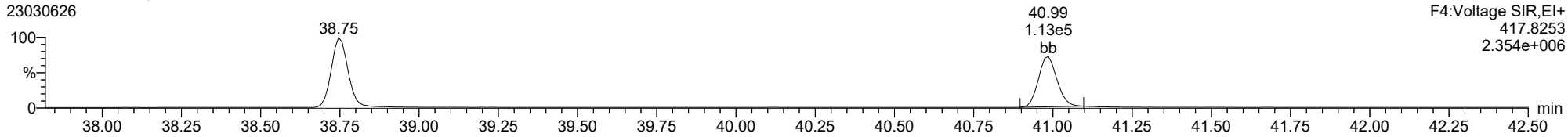

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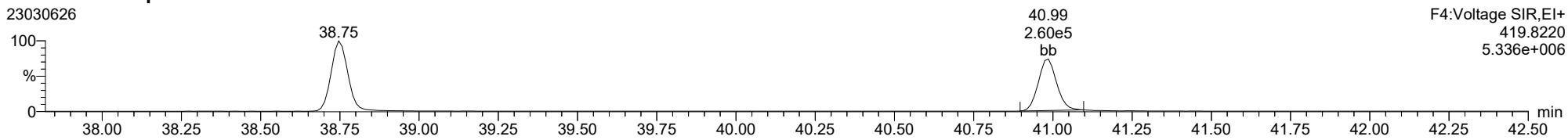

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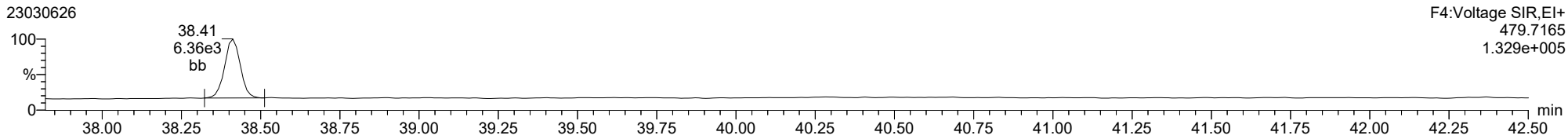

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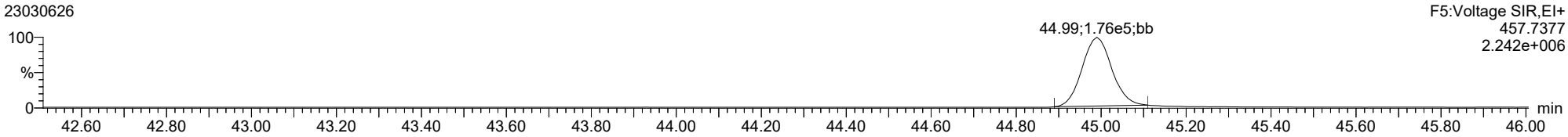

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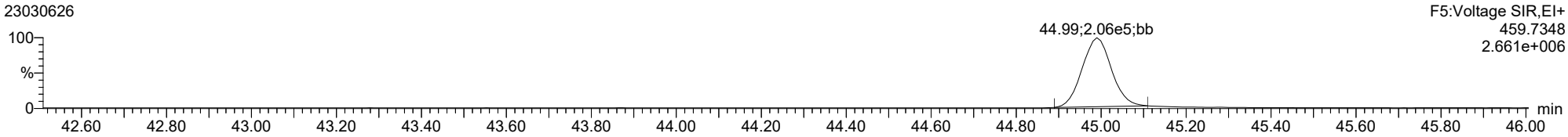

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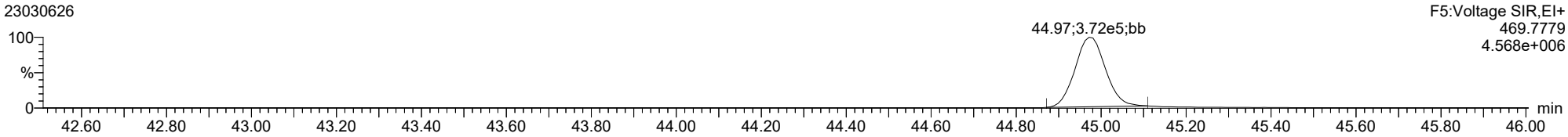

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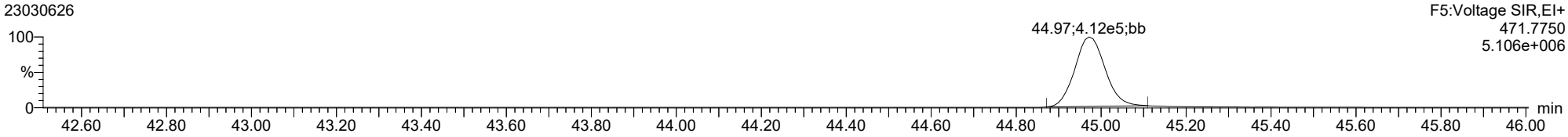

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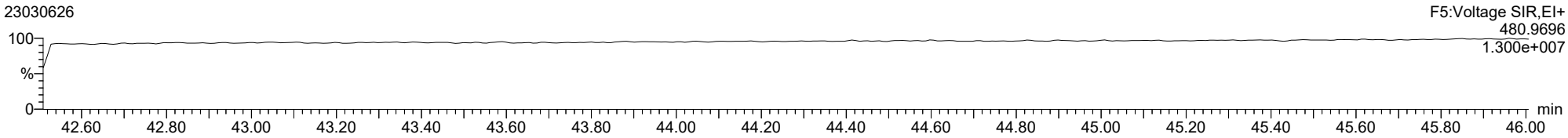

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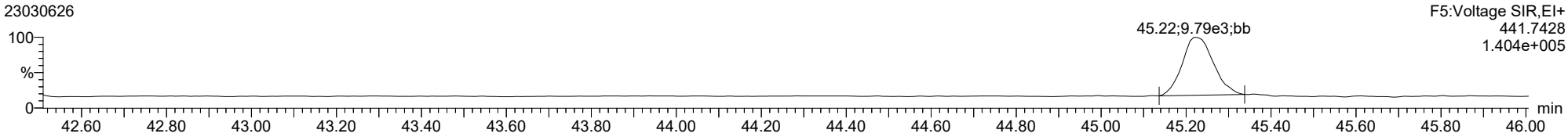

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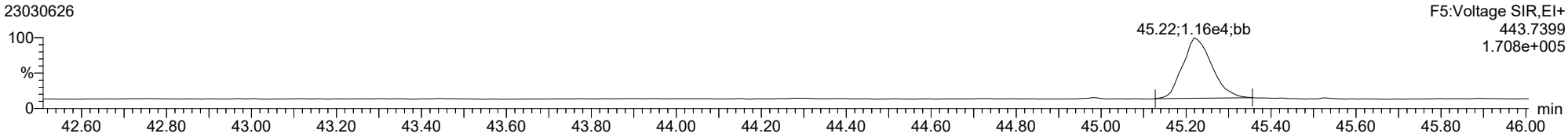

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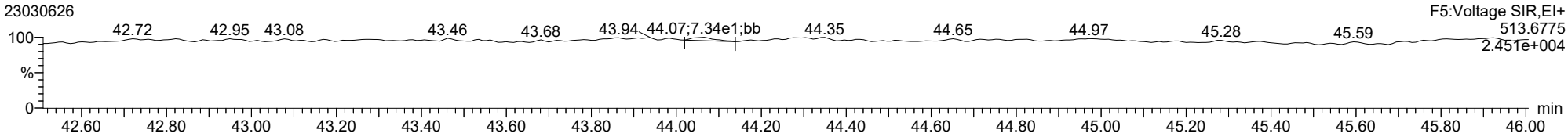

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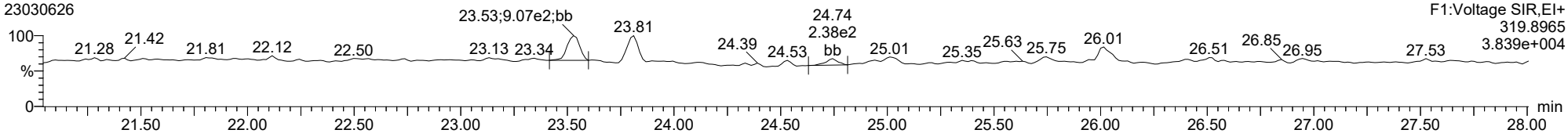

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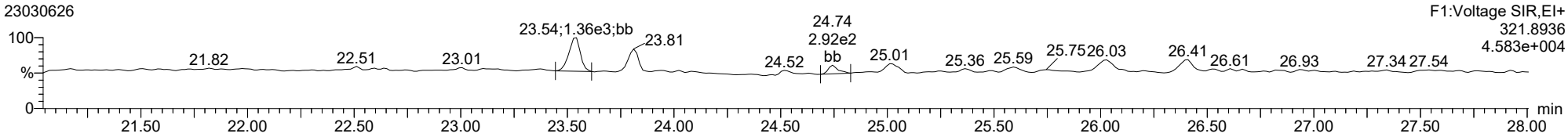

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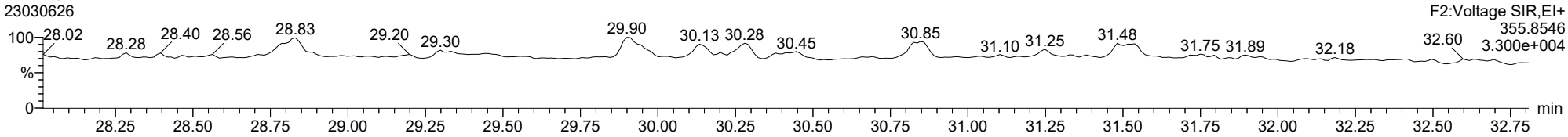

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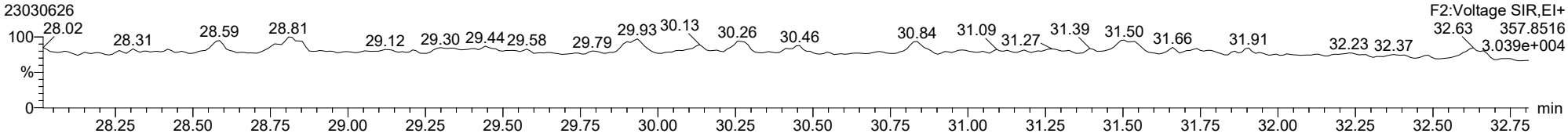

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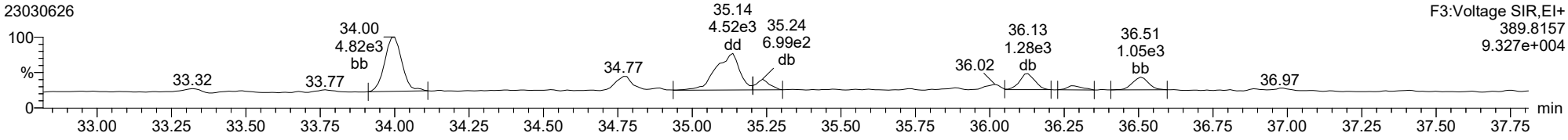

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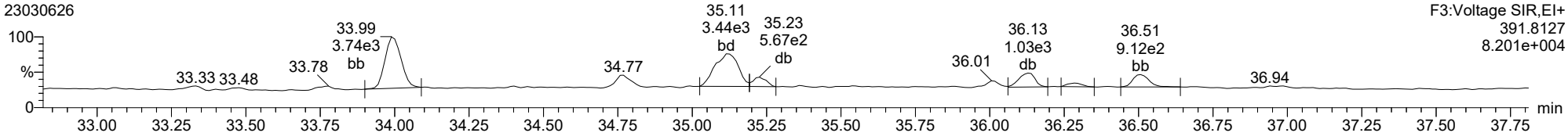

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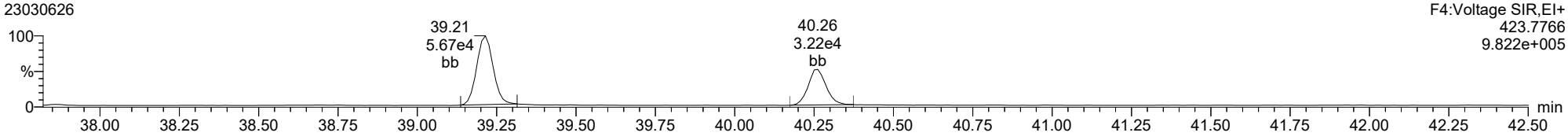

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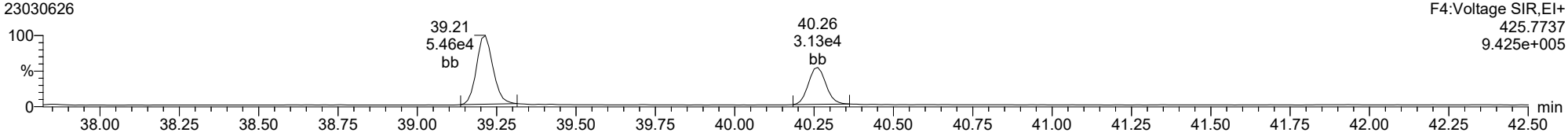

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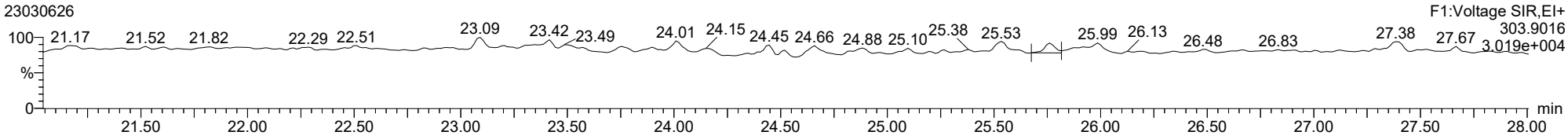
Total-tetrafurans



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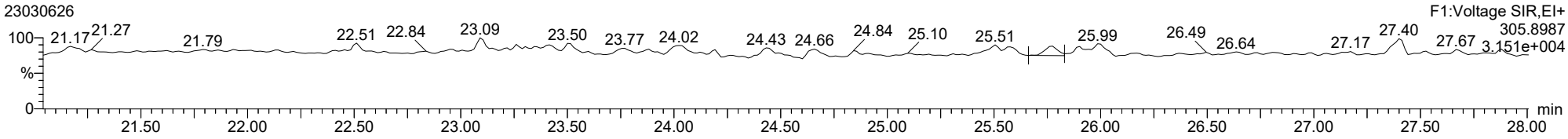

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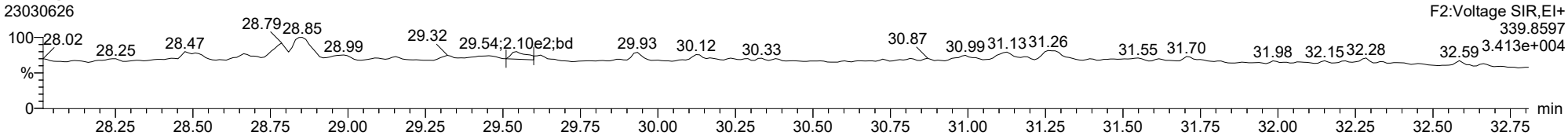

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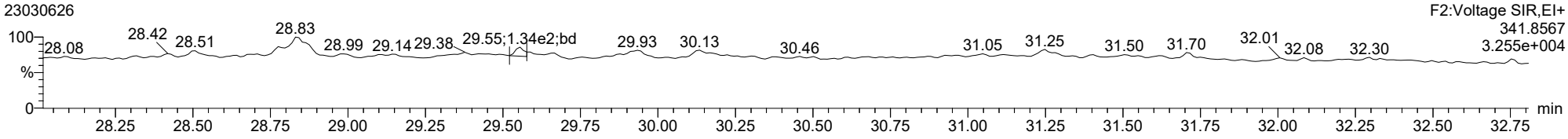

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Printed: Tuesday, March 07, 2023 13:18:41 Pacific Standard Time

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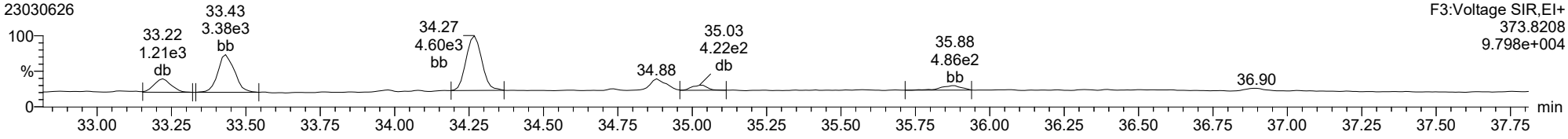
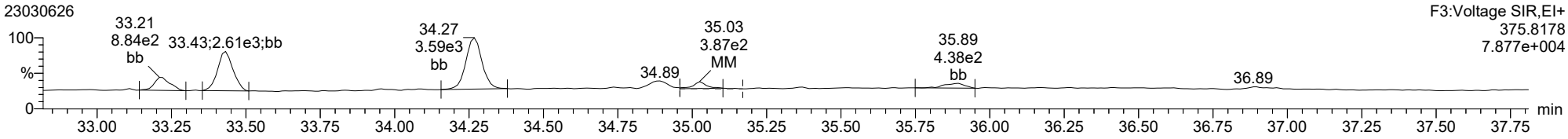
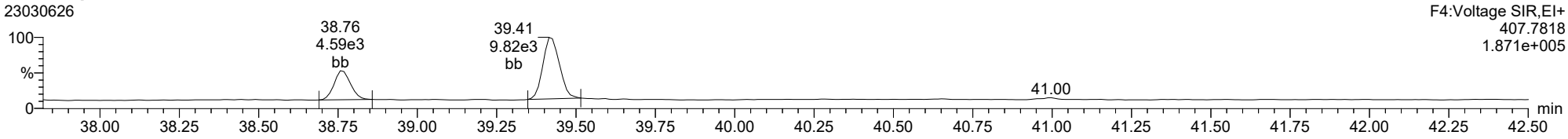
Total-hexafurans



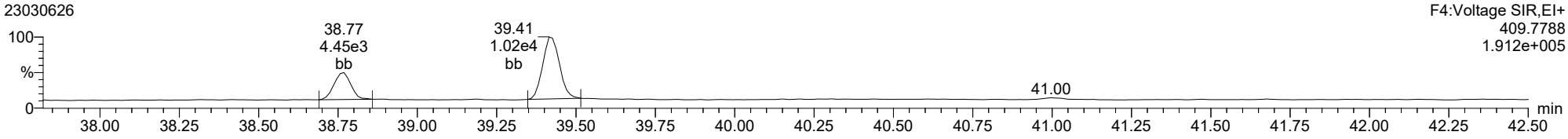
Total-hexafurans



Total-heptafurans



Total-heptafurans



PREPARATION BATCH SUMMARY

EPA 1613B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Batch: BLA0398 Batch Matrix: Solid
Preparation: EPA 1613

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1148	23A0313-12	23030626	01/24/23 07:31	
Blank	BLA0398-BLK1	23030614	01/24/23 07:31	
LCS	BLA0398-BS1	23030615	01/24/23 07:31	
Reference	BLA0398-SRM1	23030616	01/24/23 07:31	

Analytical Resources, LLC
Analytical Chemists and Consultants

HRGCMS Dioxin/Furan Preparation Bench Sheet EPA Methods 8290A or 1613B

Batch: BLA0398

Solid Samples

ARI Work Orders:	23A0099,23A0295,23A0313,23A0326,23A0328		
Matrix (circle one)	(Soil)	Sediment	Oil Tissue
Extraction Method	Start Date/Time:	End Date/Time:	
(Soxhlet) SepF Shake out	2/2/23 16:00	2/3/23 0700	

Reagents/Equipment Used	NA	ID / Lot Number	Initials	Date
Glasswool		3012850	DP	2/8/23
Basic Silica		K L0000710	DP	2/8/23
Acid Silica		K011012	DP	2/8/23
Activated Florisil		K0005956	DP	2/8/23
Balance		24650344	DP	2/2/23
Toluene		K011233	DP	2/2/23
Hexane		K011373	DP	2/6/23
CH2Cl2		L0000808	DP	2/8/23
H2SO4		L001033	DP	2/7/23
Na2SO4		L0000959/L0000980	DP	2/2/23
Other (RM)		K010912	DP	2/2/23
0% Silica		K011054	DP	2/8/23
Nonane		4000638	DP	2/10/23

Lab Number & Container	Sample Name	% Solids	Sample Weight Equal to dry (g) (Target Dry)	Actual	RotoVap 45 °C	Water Trap Vol (mL)	Final Vol. (uL)
23A0099-01 C	LDW23-IT1154	45.09	(22.18)	22.22	1/2	9.2	20
23A0099-04 C	LDW23-SC1186	54.6	(18.32)	18.37	1/2	7.0	20
23A0099-05 C	LDW23-SC1186-FD	53.73	(18.61)	18.69	1/2	7.6	20
23A0099-10 C	LDW23-IT1160	46.91	(21.32)	21.40	1/2	10.8	20
23A0099-11 C	LDW23-IT1160-FD	46.63	(21.45)	21.49	1/2	8.0	20
23A0295-02 B	LDW23-SC1075	52.57	(19.02)	19.10	1/2	7.2	20
23A0313-12 C	LDW23-IT1148	81.29	(12.30)	12.39	1/2	1.9	20
23A0326-01 C	LDW23-SC1028	59.94	(16.68)	16.74	1/2	6.4	20
23A0326-09 C	LDW23-IT1127	61.27	(16.32)	16.40	1/2	6.1	20
23A0326-12 C	LDW23-SC1162B	52.84	(18.93)	18.98	1/2	7.8	20
23A0328-06 C	LDW23-SS1168	45.73	(21.87)	21.87	1/2	11.0	20
23A0328-07 C	LDW23-SS1176	59.31	(16.86)	16.89	1/2	6.8	20
23A0328-12 C	LDW23-SS1162	43.23	(23.13)	23.18	1/2	12.0	20
BLA0398-BLK1	Blank	100	()	10.01	1/2	0.0	20
BLA0398-BS1	LCS	100	()	10.01	1/2	0.0	20
BLA0398-DUP1	Duplicate 23A0099-01C	45.09	(22.18)	22.22	1/2	9.8	20
BLA0398-SRM1	Reference	100	()	10.00	1/2	0.0	20
Prep Analyst / Date:	DP 2/2/23				DP 2/6/23	DP 2/3/23	

Standards Used	Vol	ID / Lot Number	Concentration	Expiration Date	Analyst	Witness	Date
Recovery Standard	1.0 mL	K011158	2/4 ng/mL	12/2/23	DP	M	2/2/23
OPR	1.0 mL	K000603	0.2/1.0/2.0 ng/mL	6/30/23	DP	M	2/2/23
~~QLS Standard~~	~~1.0 mL~~		0.1/0.5/0.1ng/mL ng/r				
Cleanu-up Standard	1.0 mL	K011159	0.8 ng/mL	12/2/23	DP	M	2/8/23

Verify Client ID
Analyst / Date: DP 2/2/23

Acid Clean
(Y) N
Analyst / Date: DP 2/7/23

Silica-Florisil Clean
(Y) N
Analyst / Date: DP 2/8/23

Supervisor Review By: [signature] Date: 3/6/23

Printed: 1/24/2023 8:04:04AM

3083F
Page 1 of 1

TOTAL SOLIDS BENCHSHEET

Method HRSM01.2

(dry at 110 C)

Instrumentation

Batch:	BLA0144
Date:	1/24/2023 5:23
Analyst:	DXP
Drying Oven:	18
Analytical Balance:	24650344

Batch drying time				
Record times as mm/dd/yy hh:mm		Oven Temp, C	TS (%) calculated as:	
Date/time in oven:	1/23/2023 12:55	111	Final dry wt (g) = (Dry Wt - Tare Wt)	
Date/time out:	1/24/2023 5:23	110	TS = (Final Dry Wt X 100)/ (sample & dish -dish tare)	
Elapsed hrs:	16.5			

Oven Temps, °C	
Start Temp:	111
End Temp:	110

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
23A0099-01	0.7900	11.5900	5.6600	4.87	**45.09%**	No
23A0099-04	0.8100	11.3600	6.5700	5.76	**54.60%**	Yes
23A0099-05	0.8000	11.5200	6.5600	5.76	**53.73%**	Yes
23A0099-10	0.8200	11.8400	5.9900	5.17	**46.91%**	No
23A0099-11	0.8000	11.1800	5.6400	4.84	**46.63%**	Yes
23A0295-02	0.8100	11.3300	6.3400	5.53	**52.57%**	Yes
23A0313-12	0.8000	11.1700	9.2300	8.43	**81.29%**	No
23A0326-01	0.8000	11.2600	7.0700	6.27	**59.94%**	No
23A0326-09	0.8000	11.3600	7.2700	6.47	**61.27%**	Yes
23A0326-12	0.8000	11.5300	6.4700	5.67	**52.84%**	No
23A0328-06	0.8000	11.8000	5.8300	5.03	**45.73%**	Yes
23A0328-07	0.8000	11.5400	7.1700	6.37	**59.31%**	Yes
23A0328-12	0.8000	11.6500	5.4900	4.69	**43.23%**	Yes

TOTAL SOLIDS BENCHSHEET						Batch:	BLA0144
Method HRSM01.2						Date:	
(dry at 110 C)						Analyst:	DP
Instrumentation						Drying Oven:	OD18
						Analytical Balance:	24650344

Batch drying time			Oven Temp, C	TS (%) calculated as:	Oven Temps, °C	
Record times as mm/dd/yy hh:mm					Start Temp:	111
Date/time in oven:	01/23/23	12:55	111	Final dry wt (g) = (Dry Wt - Tare Wt)	End Temp:	110
Date/time out:	01/24/23	0523	110	TS = (Final Dry Wt X 100)/ (sample & dish -dish tare)		
Elapsed hrs:	0.0					

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
23A0099-01	0.79	11.59	5.66			No
23A0099-04	0.81	11.36	6.57			~~No~~ yes
23A0099-05	0.80	11.52	6.56			~~No~~ yes
23A0099-10	0.82	11.84	5.99			No
23A0099-11	0.80	11.18	5.64			~~No~~ yes
23A0295-02	0.81	11.33	6.34			~~No~~ yes
23A0313-12	0.80	11.17	9.23			No
23A0326-01	0.80	11.26	7.47			No
23A0326-09	0.80	11.36	7.27			~~No~~ yes
23A0326-12	0.80	11.93	6.47			No
23A0328-06	0.80	11.80	5.83			~~No~~ yes
23A0328-07	0.80	11.54	7.17			~~No~~ yes
23A0328-12	0.80	11.65	5.49			~~No~~ yes

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: Dioxins Extraction Batch: _____

Total Solids Batch: BLA0144 Work Order(s): 23A0099, 295, 313, 326, 328

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
[X] No Anomalies (standard soil/wet sediment/sand/gravel)= 313-12, 326-12	DP 1/23/23
[X] Standing Water Decanted (Not shared)= 0099-4, 5, 11, 295-2, 326-9, 328-6, 7, 12	DP 1/23/23
[ ] Standing Water Homogenized (Shared samples)=	
[ ] Clay/Clumps (Difficult to homogenize)=	
[X] Rocks (%+size)? 20% 1/4" = 0099-1 10% 1/3" = 326-1	DP 1/23/23
[X] Organics (Leaves/sticks/grass)=	
[X] Oily, obvious fuel/sulfur odors= 0099-10, 11	DP 1/23/23
[ ] Received in 32oz jar(s)=Homogenized in Pyrex dish=	
[ ] Previously Frozen =	
[ ] Other (Details)=	
Aqueous:	
[ ] No Anomalies	
[ ] Turbid/Color=	
[ ] Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
[ ] Emulsions (%)=	
[ ] Oily, obvious fuel/sulfur odors=	
[ ] Other (Details)=	
[ ] Received in 1.0L Bottle(s)=No Bottle Rinse=	
[ ] Other Notes/Comments= (Note problems, concerns, corrective actions).	
[ ] Share Samples Y / N	
[ ] Multiple Jars Y / N	
[ ] Sample Pre-Screens indicate analyte activity=	
[ ] Sample weights/volumes reduced based on Pre-Screen=	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

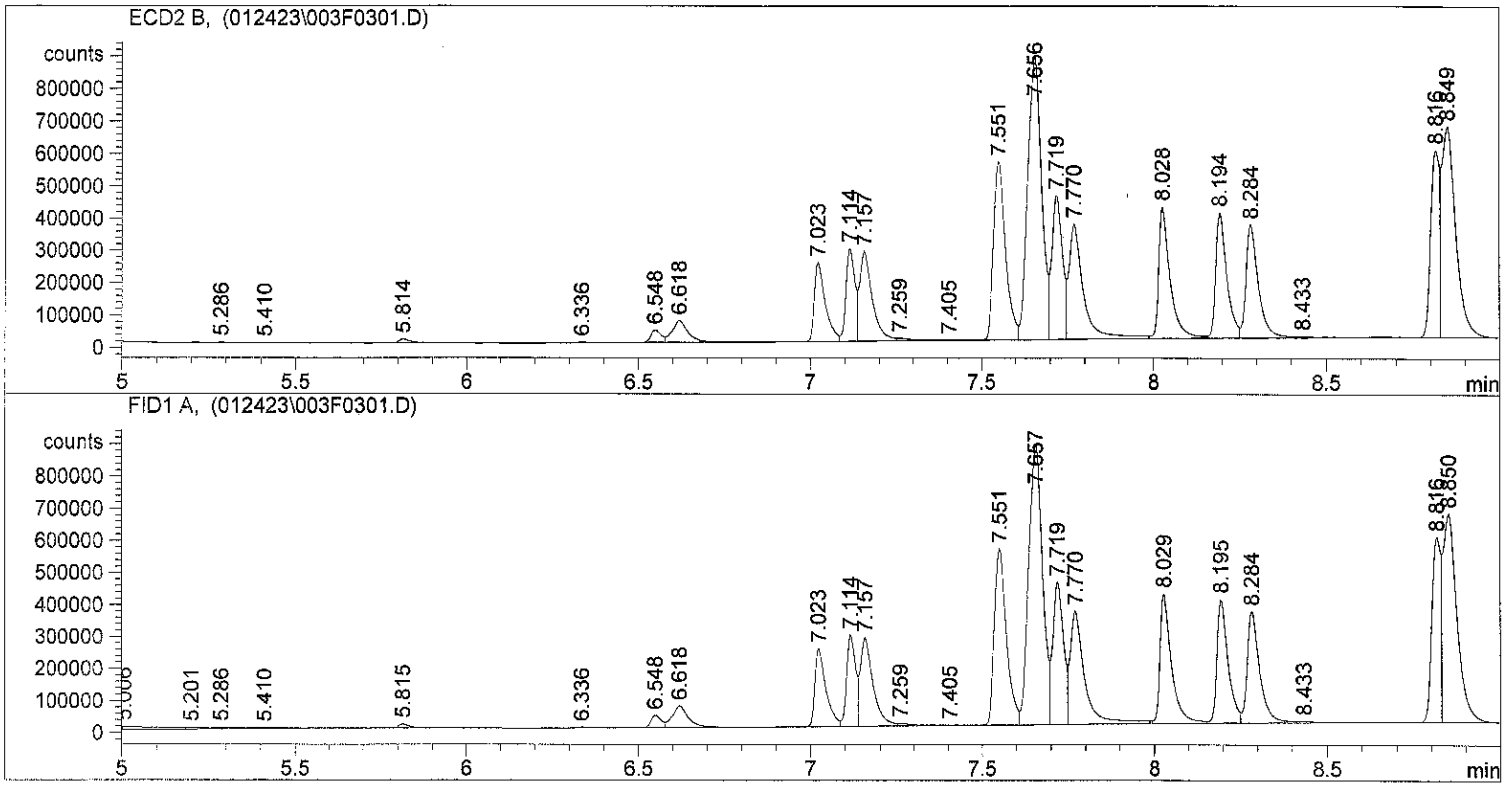
Dioxin Extraction Laboratory – Glassware

Batch ID: BLA0398 Work Order: 23A0099, 295, 313, 326, 328 Extraction Parameter: Dioxin ARI Analyst

ARI Sample ID		300 mL Flat Bottom	Small Soxhlet	Large Soxhlet	250 mL Beaker	Funnel	Column	Florisil Column	Turbo Tube	Sep Funnel	Erlenmeyer Flask	Centrifuge Bottle	Turbo-Vap	Vortex Mixer	Heating Mantle
BLA0398 -	BLK1	31	23		43	70	225	49	20				4	4	
	BS1	30	11		31	93	37	7	85				4	4	
	Dup1	6		71	3	35	19	103	3				4	4	
	SRM1	39	15		1	4	47	71	23				4	4	
23A0099-	01C	38		67	138	34	224	54	25				4	4	
	04C	40		31	12	91	70	70	35				4	4	
	05C	70		25	13	26	48	57	24				4	4	
	10C	79		3	25	56	17	123	52				4	4	
	11C	32		23	49	55	9	139	82				4	4	
23A0295-	02B	49		28	177	64	18	169	31				4	4	
23A0313 -	12C	18	5		12	43	24	79	9				4	4	
23A0326-	01C	43	64		239	96	51	60	56				4	4	
	09C	60	25		41	41	145	16	10				4	4	
	12C	67		35	19	32	13	115	101				4	4	
23A0328-	06C	4		59	~~5~~ 17	52	29	167	1				4	4	
	07C	17	70		48	69	11	36	47				4	4	
	12C	53		1	23	43	36	19	60				4	4	
													4	4	
													4	4	
													4	4	
													4	4	
													4	4	
													4	4	

Injection Date : 1/24/2023 6:04:34 AM Seq. Line : 3
Sample Name : CS4 STANDARD Location : Vial 3
Acq. Operator : NL Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\012423.S
Method : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed : 3/2/2018 11:45:27 AM by RM
dioxin



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.286	VP	0.0319	4059.78784	1898.46875	0.03014
2	5.410	VB	0.0665	4313.74951	891.31641	0.03203
3	5.814	PB	0.0332	2.88391e4	1.23662e4	0.21410
4	6:336	PP	0.0280	5969.90625	3167.71777	0.04432
5	6.548	VV	0.0317	8.15397e4	3.85392e4	0.60536
6	6.618	VB	0.0455	2.17624e5	6.77624e4	1.61567
7	7.023	VV	0.0328	5.39860e5	2.44294e5	4.00798
8	7.114	VV	0.0278	5.09726e5	2.86446e5	3.78426
9	7.157	VV	0.0360	7.11815e5	2.77063e5	5.28459
10	7.259	VV	0.0475	3.00911e4	8459.78223	0.22340
11	7.405	VV	0.0530	7732.26172	2050.95898	0.05741
12	7.551	VV	0.0390	1.37177e6	5.51711e5	10.18414
13	7.656	VV	0.0454	2.42581e6	8.74311e5	18.00951
14	7.719	VV	0.0320	9.54359e5	4.46165e5	7.08527
15	7.770	VV	0.0410	1.03618e6	3.55964e5	7.69274
16	8.028	VV	0.0328	9.32557e5	4.06599e5	6.92341

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	8.194	VV	0.0331	8.69020e5	3.88659e5	6.45170
18	8.284	VV	0.0358	8.63413e5	3.49626e5	6.41007
19	8.433	VV	0.0672	2.46572e4	4775.69287	0.18306
20	8.816	PV	0.0266	1.02207e6	5.78584e5	7.58799
21	8.849	VBA	0.0408	1.82821e6	6.50757e5	13.57286
Totals :				1.34696e7	5.55009e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.006	BV	0.1252	7.71025e4	1.02652e4	0.56650
2	5.201	VV	0.0493	1.92479e4	5071.13721	0.14142
3	5.286	VV	0.0637	2.54531e4	5238.68896	0.18701
4	5.410	VB	0.0933	2.03024e4	2845.01587	0.14917
5	5.815	PB	0.0331	2.86754e4	1.23503e4	0.21069
6	6.336	PP	0.0278	5902.39209	3164.09741	0.04337
7	6.548	VV	0.0327	8.15213e4	3.85395e4	0.59897
8	6.618	VB	0.0444	2.17470e5	6.77549e4	1.59784
9	7.023	PV	0.0329	5.43793e5	2.44577e5	3.99546
10	7.114	VV	0.0268	5.10308e5	2.86696e5	3.74944
11	7.157	VV	0.0360	7.13106e5	2.77278e5	5.23947
12	7.259	VV	0.0483	3.12913e4	8632.20410	0.22991
13	7.405	VV	0.0533	8356.83008	2202.36230	0.06140
14	7.551	VV	0.0390	1.37316e6	5.51820e5	10.08914
15	7.657	VV	0.0454	2.42626e6	8.74402e5	17.82667
16	7.719	VV	0.0320	9.54703e5	4.46320e5	7.01458
17	7.770	VB	0.0410	1.03660e6	3.56093e5	7.61634
18	8.029	BV	0.0327	9.30315e5	4.06699e5	6.83539
19	8.195	VV	0.0331	8.69041e5	3.88705e5	6.38519
20	8.284	VV	0.0358	8.63457e5	3.49684e5	6.34416
21	8.433	VV	0.0677	2.43453e4	4755.13916	0.17887
22	8.816	PV	0.0266	1.02176e6	5.78637e5	7.50729
23	8.850	VBA	0.0398	1.82809e6	6.50719e5	13.43170
Totals :				1.36103e7	5.57245e6	

Results obtained with enhanced integrator!

*** End of Report ***

```
==========================================================================
Injection Date  : 1/24/2023 6:46:22 AM          Seq. Line :   6
Sample Name     : 23A0099 01                     Location : Vial 16
Acq. Operator   : NL                                Inj :   1
                                                Inj Volume : 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\012423.S
Method          : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed    : 3/2/2018 11:45:27 AM by RM
dioxin
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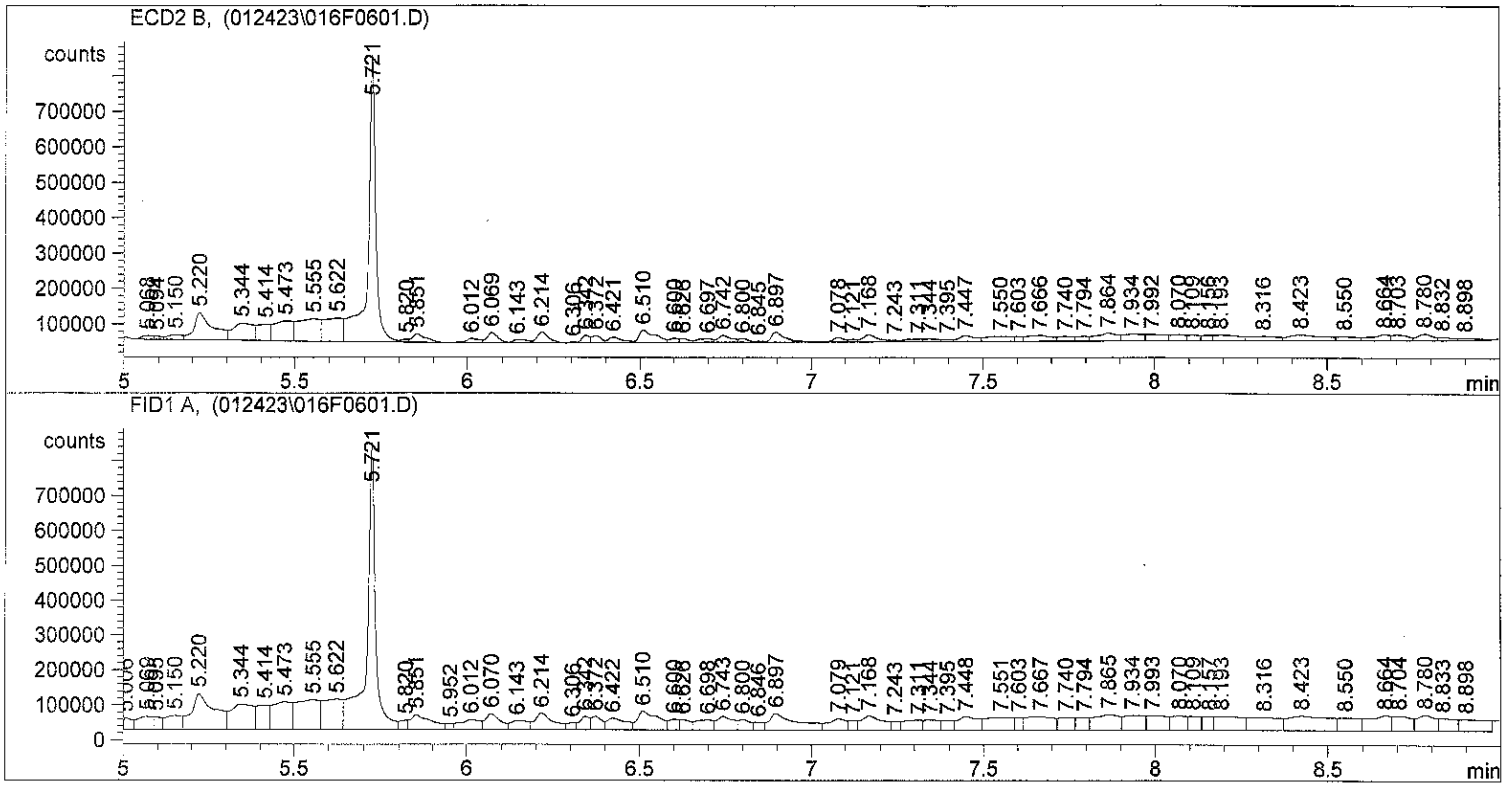


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==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: ECD2 B,
```

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.068	BV	0.0360	2.38958e4	1.07232e4	0.48714
2	5.094	VV	0.0245	1.34137e4	9121.74316	0.27345
3	5.150	VV	0.0450	4.17186e4	1.39101e4	0.85047
4	5.220	VV	0.0504	2.94377e5	7.73733e4	6.00115
5	5.344	VV	0.0630	2.10268e5	4.90607e4	4.28651
6	5.414	VV	0.0359	1.20568e5	4.70046e4	2.45789
7	5.473	VV	0.0510	2.18625e5	5.66220e4	4.45688
8	5.555	VV	0.0588	2.83587e5	6.38881e4	5.78118
9	5.622	VV	0.0483	2.47281e5	6.66070e4	5.04105
10	5.721	VV	0.0224	1.28591e6	8.16140e5	26.21454
11	5.820	VV	0.0217	1.22795e4	8486.57910	0.25033
12	5.851	VP	0.0393	6.97064e4	2.44338e4	1.42103
13	6.012	VV	0.0359	3.27741e4	1.23661e4	0.66813
14	6.069	VV	0.0314	6.08931e4	2.90737e4	1.24136
15	6.143	VV	0.0370	2.39306e4	8463.77832	0.48785
16	6.214	VP	0.0356	7.19031e4	3.04361e4	1.46581

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	6.306	VV	0.0185	3178.70923	2753.87549	0.06480
18	6.342	VV	0.0232	3.40362e4	2.17798e4	0.69386
19	6.372	VV	0.0277	3.86220e4	2.07209e4	0.78735
20	6.421	VV	0.0424	4.55007e4	1.58835e4	0.92758
21	6.510	VV	0.0454	1.18602e5	3.60481e4	2.41781
22	6.600	VV	0.0253	2.23887e4	1.28851e4	0.45641
23	6.626	VV	0.0256	1.97429e4	1.11862e4	0.40248
24	6.697	VV	0.0414	3.39543e4	1.12008e4	0.69219
25	6.742	VV	0.0378	5.48605e4	2.01003e4	1.11838
26	6.800	VV	0.0288	2.20740e4	1.13085e4	0.45000
27	6.845	VV	0.0273	6109.99756	3348.11694	0.12456
28	6.897	VV	0.0410	8.37438e4	2.87242e4	1.70720
29	7.078	VV	0.0324	2.82842e4	1.30142e4	0.57660
30	7.121	VV	0.0237	1.20241e4	7515.79883	0.24512
31	7.168	VV	0.0436	6.26189e4	2.04950e4	1.27655
32	7.243	VV	0.0236	6925.47852	4353.95752	0.14118
33	7.311	VV	0.0421	2.56941e4	8075.87549	0.52380
34	7.344	VV	0.0418	2.28643e4	8120.63428	0.46611
35	7.395	VV	0.0315	1.50054e4	6853.22949	0.30590
36	7.447	VV	0.0461	5.92140e4	1.76509e4	1.20713
37	7.550	VV	0.0672	7.76144e4	1.43256e4	1.58224
38	7.603	VV	0.0219	2.08167e4	1.35966e4	0.42437
39	7.666	VV	0.0659	8.58212e4	1.70022e4	1.74954
40	7.740	VV	0.0400	4.04860e4	1.39038e4	0.82534
41	7.794	VV	0.0352	3.31049e4	1.37178e4	0.67488
42	7.864	VV	0.0590	9.71907e4	2.22394e4	1.98132
43	7.934	VV	0.0547	7.85624e4	1.88158e4	1.60157
44	7.992	VV	0.0515	6.76455e4	1.77487e4	1.37902
45	8.070	VV	0.0408	5.10354e4	1.75958e4	1.04040
46	8.109	VV	0.0342	3.92541e4	1.62441e4	0.80023
47	8.156	VV	0.0296	3.32764e4	1.57696e4	0.67837
48	8.193	VV	0.0664	8.20101e4	1.58366e4	1.67185
49	8.316	VV	0.0766	7.38571e4	1.25537e4	1.50565
50	8.423	VV	0.0981	1.18750e5	1.64782e4	2.42082
51	8.550	VV	0.0530	4.40173e4	1.11712e4	0.89733
52	8.664	VV	0.0508	6.53112e4	1.74099e4	1.33143
53	8.703	VV	0.0495	5.31824e4	1.60978e4	1.08417
54	8.780	VV	0.0446	5.81820e4	1.90536e4	1.18610
55	8.832	VV	0.0409	2.75944e4	9508.62402	0.56254
56	8.898	VV	0.0629	3.10535e4	6256.11523	0.63305
Totals :				4.90534e6	1.91106e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.006	BV	0.0273	5.53195e4	3.37865e4	0.54265
2	5.069	VV	0.0457	1.16627e5	3.80854e4	1.14404
3	5.095	VV	0.0262	5.68230e4	3.61866e4	0.55740
4	5.150	VV	0.0493	1.36024e5	4.03433e4	1.33431
5	5.220	VV	0.0627	4.91936e5	1.03019e5	4.82558
6	5.344	VV	0.0656	3.30264e5	7.32760e4	3.23968
7	5.414	VV	0.0363	1.82662e5	7.04209e4	1.79180
8	5.473	VV	0.0520	3.12570e5	7.93594e4	3.06612
9	5.555	VV	0.0597	3.86727e5	8.56887e4	3.79354
10	5.622	VV	0.0487	3.28489e5	8.76407e4	3.22227
11	5.721	VV	0.0246	1.47350e6	8.35227e5	14.45415
12	5.820	VV	0.0240	4.47047e4	2.72602e4	0.43852
13	5.851	VV	0.0577	1.89985e5	4.28485e4	1.86364
14	5.952	VV	0.0210	2.63670e4	1.81284e4	0.25864
15	6.012	VV	0.0515	1.18676e5	2.98002e4	1.16414

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
16	6.070	VV	0.0418	1.38761e5	4.65078e4	1.36116
17	6.143	VV	0.0456	9.23816e4	2.58938e4	0.90621
18	6.214	VV	0.0514	1.78155e5	4.78632e4	1.74759
19	6.306	VV	0.0251	3.49028e4	2.02530e4	0.34238
20	6.342	VV	0.0280	7.74873e4	3.93461e4	0.76010
21	6.372	VV	0.0314	8.38518e4	3.84736e4	0.82253
22	6.422	VV	0.0553	1.34268e5	3.37999e4	1.31709
23	6.510	VV	0.0561	2.28743e5	5.43367e4	2.24383
24	6.600	VV	0.0274	6.05400e4	3.15146e4	0.59386
25	6.626	VV	0.0294	6.26348e4	2.99137e4	0.61441
26	6.698	VV	0.0459	1.05869e5	3.02002e4	1.03851
27	6.743	VV	0.0456	1.33185e5	3.92757e4	1.30646
28	6.800	VV	0.0351	7.64856e4	3.07012e4	0.75028
29	6.846	VV	0.0284	4.40968e4	2.29161e4	0.43256
30	6.897	VV	0.0753	2.83939e5	4.84937e4	2.78526
31	7.079	VV	0.0499	1.20277e5	3.34751e4	1.17985
32	7.121	VV	0.0252	4.87439e4	2.81386e4	0.47815
33	7.168	VV	0.0610	1.83922e5	4.12848e4	1.80416
34	7.243	VV	0.0246	4.27170e4	2.54443e4	0.41903
35	7.311	VV	0.0475	1.07212e5	2.94311e4	1.05168
36	7.344	VV	0.0440	8.87849e4	2.95992e4	0.87092
37	7.395	VV	0.0326	6.50870e4	2.85296e4	0.63846
38	7.448	VV	0.0558	1.65306e5	3.95276e4	1.62154
39	7.551	VV	0.0697	2.06175e5	3.65950e4	2.02245
40	7.603	VV	0.0219	5.52375e4	3.60681e4	0.54185
41	7.667	VV	0.0714	2.19373e5	3.97165e4	2.15191
42	7.740	VV	0.0417	1.12769e5	3.68997e4	1.10619
43	7.794	VV	0.0348	9.10992e4	3.69231e4	0.89363
44	7.865	VV	0.0660	2.27133e5	4.57127e4	2.22803
45	7.934	VV	0.0562	1.83082e5	4.25552e4	1.79592
46	7.993	VV	0.0528	1.63585e5	4.17140e4	1.60467
47	8.070	VV	0.0421	1.25935e5	4.18570e4	1.23534
48	8.109	VV	0.0338	1.00322e5	4.06546e4	0.98409
49	8.157	VV	0.0300	8.63911e4	4.03643e4	0.84744
50	8.193	VV	0.0701	2.22730e5	4.05686e4	2.18484
51	8.316	VV	0.0819	2.36035e5	3.77580e4	2.31536
52	8.423	VV	0.1139	3.56824e5	4.20924e4	3.50022
53	8.550	VV	0.0555	1.54883e5	3.72751e4	1.51931
54	8.664	VV	0.0609	2.03194e5	4.39496e4	1.99321
55	8.704	VV	0.0545	1.55904e5	4.27874e4	1.52932
56	8.780	VV	0.0528	1.72969e5	4.60359e4	1.69672
57	8.833	VV	0.0458	1.22135e5	3.66929e4	1.19807
58	8.898	VV	0.0710	1.90529e5	3.36935e4	1.86897
Totals :				1.01943e7	3.19590e6	

Results obtained with enhanced integrator!

*** End of Report ***

```
Injection Date  : 1/24/2023 7:00:32 AM          Seq. Line :   7
Sample Name     : 23A0099 04                    Location : Vial 17
Acq. Operator   : NL                               Inj :   1
                                                Inj Volume : 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\012423.S
Method          : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed    : 3/2/2018 11:45:27 AM by RM
dioxin
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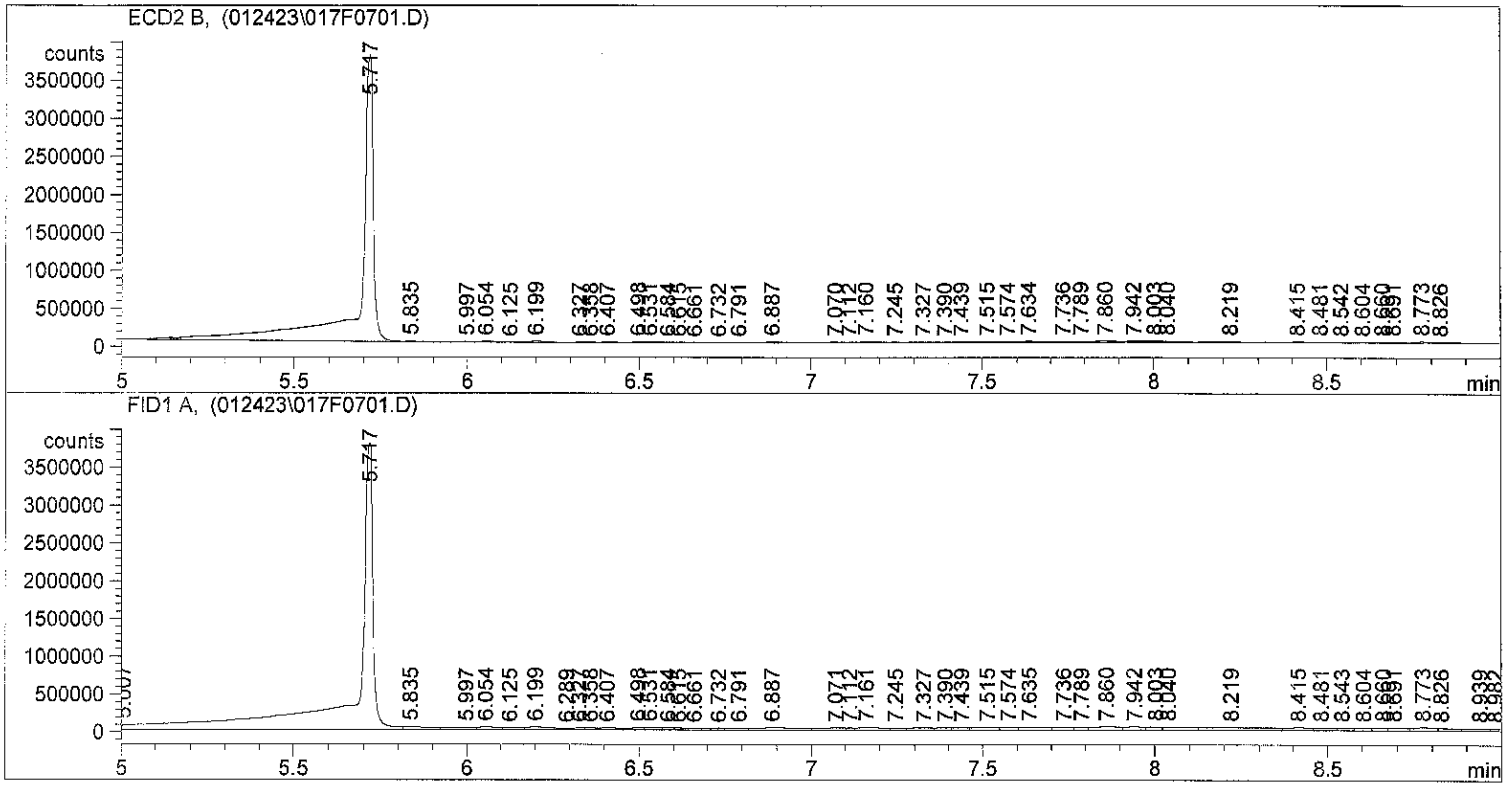

Area Percent Report

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Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.717	BV	0.0382	1.03786e7	3.75718e6	87.64991
2	5.835	VP	0.0355	3.42858e4	1.35805e4	0.28955
3	5.997	VV	0.0429	3.05006e4	9634.42773	0.25758
4	6.054	VV	0.0371	4.79063e4	1.91832e4	0.40458
5	6.125	VV	0.0418	2.29990e4	7299.66504	0.19423
6	6.199	VP	0.0402	5.70054e4	2.13361e4	0.48142
7	6.327	VV	0.0233	1.48342e4	9983.30762	0.12528
8	6.358	VV	0.0262	1.54971e4	8935.62109	0.13088
9	6.407	VV	0.0374	2.87742e4	1.18347e4	0.24301
10	6.498	VV	0.0268	2.97390e4	1.67072e4	0.25115
11	6.531	VV	0.0345	3.74957e4	1.59193e4	0.31666
12	6.584	VV	0.0270	1.43495e4	7617.63818	0.12118
13	6.615	VV	0.0264	1.13359e4	6177.46826	0.09573
14	6.661	VV	0.0383	1.27241e4	4455.15674	0.10746
15	6.732	VV	0.0257	7478.82129	4425.36475	0.06316
16	6.791	VV	0.0388	1.75379e4	6233.41650	0.14811

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	6.887	VV	0.0547	7.10229e4	1.73553e4	0.59981
18	7.070	VV	0.0437	3.41144e4	1.08304e4	0.28810
19	7.112	VV	0.0238	1.12032e4	6933.94043	0.09461
20	7.160	VV	0.0462	5.70988e4	1.74326e4	0.48221
21	7.245	VV	0.0401	1.37596e4	5168.04785	0.11620
22	7.327	VV	0.0559	3.02049e4	7055.25830	0.25509
23	7.390	VV	0.0376	1.85940e4	6854.66406	0.15703
24	7.439	VV	0.0382	2.91010e4	1.08921e4	0.24576
25	7.515	VV	0.0587	5.67158e4	1.25491e4	0.47898
26	7.574	VV	0.0429	3.87180e4	1.25822e4	0.32698
27	7.634	VV	0.0626	7.94192e4	1.69703e4	0.67071
28	7.736	VV	0.0474	4.95245e4	1.43176e4	0.41825
29	7.789	VV	0.0353	3.43663e4	1.36684e4	0.29023
30	7.860	VV	0.0649	9.44679e4	1.97109e4	0.79780
31	7.942	VV	0.0555	6.15367e4	1.61421e4	0.51969
32	8.003	VV	0.0401	4.33422e4	1.48495e4	0.36603
33	8.040	VV	0.0655	7.58743e4	1.44036e4	0.64078
34	8.219	VV	0.1315	1.23545e5	1.15778e4	1.04337
35	8.415	VV	0.0598	4.07118e4	1.01526e4	0.34382
36	8.481	VV	0.0488	2.11548e4	6044.23877	0.17866
37	8.542	VV	0.0390	1.08537e4	3958.57031	0.09166
38	8.604	VV	0.0415	9127.81250	3183.37817	0.07709
39	8.660	VV	0.0320	1.27302e4	5936.81689	0.10751
40	8.691	VV	0.0423	1.68275e4	6076.89600	0.14211
41	8.773	VV	0.0383	3.97774e4	1.58239e4	0.33593
42	8.826	VP	0.0289	6118.21191	3121.23193	0.05167
Totals :				1.18410e7	4.20410e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.007	BV	0.0180	7.35712e4	6.80296e4	0.38093
2	5.717	VV	0.0451	1.27074e7	3.79280e6	65.79473
3	5.835	VV	0.0645	2.22260e5	4.43384e4	1.15079
4	5.997	VV	0.0714	1.97723e5	3.52592e4	1.02375
5	6.054	VV	0.0501	1.57823e5	4.37559e4	0.81716
6	6.125	VV	0.0477	1.11791e5	3.05459e4	0.57882
7	6.199	VV	0.0612	1.93187e5	4.32104e4	1.00026
8	6.289	VV	0.0245	3.57055e4	2.13507e4	0.18487
9	6.327	VV	0.0309	6.55917e4	3.07191e4	0.33961
10	6.358	VV	0.0316	6.53200e4	2.98140e4	0.33821
11	6.407	VV	0.0577	1.37450e5	3.29443e4	0.71167
12	6.498	VV	0.0334	8.96739e4	3.82391e4	0.46430
13	6.531	VV	0.0400	1.06296e5	3.76036e4	0.55036
14	6.584	VV	0.0289	6.06239e4	2.95503e4	0.31389
15	6.615	VV	0.0313	6.37676e4	2.82523e4	0.33017
16	6.661	VV	0.0497	1.02395e5	2.67477e4	0.53017
17	6.732	VV	0.0335	6.37463e4	2.70487e4	0.33006
18	6.791	VV	0.0507	1.11647e5	2.91302e4	0.57807
19	6.887	VV	0.1007	3.26839e5	4.07017e4	1.69227
20	7.071	VV	0.0663	1.78039e5	3.50307e4	0.92183
21	7.112	VV	0.0245	5.24902e4	3.13285e4	0.27178
22	7.161	VV	0.0653	2.06624e5	4.20514e4	1.06983
23	7.245	VV	0.0416	8.42804e4	3.01758e4	0.43638
24	7.327	VV	0.0624	1.54177e5	3.24479e4	0.79828
25	7.390	VV	0.0402	9.53670e4	3.25411e4	0.49378
26	7.439	VV	0.0430	1.13510e5	3.68057e4	0.58772
27	7.515	VV	0.0639	1.92636e5	3.88161e4	0.99740
28	7.574	VV	0.0432	1.24658e5	3.91257e4	0.64544
29	7.635	VV	0.0713	2.37703e5	4.37951e4	1.23075

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
30	7.736	VV	0.0507	1.55937e5	4.16182e4	0.80739
31	7.789	VV	0.0357	1.04831e5	4.12120e4	0.54278
32	7.860	VV	0.0725	2.59119e5	4.75883e4	1.34163
33	7.942	VV	0.0564	1.76404e5	4.44022e4	0.91337
34	8.003	VV	0.0394	1.27796e5	4.33921e4	0.66169
35	8.040	VV	0.0725	2.53169e5	4.31188e4	1.31083
36	8.219	VV	0.1641	5.53714e5	4.11295e4	2.86695
37	8.415	VV	0.0722	2.06021e5	4.06113e4	1.06671
38	8.481	VV	0.0547	1.47432e5	3.68128e4	0.76335
39	8.543	VV	0.0422	1.05660e5	3.50131e4	0.54708
40	8.604	VV	0.0435	1.05088e5	3.45254e4	0.54411
41	8.660	VV	0.0375	9.80724e4	3.75420e4	0.50779
42	8.691	VV	0.0521	1.36465e5	3.78245e4	0.70657
43	8.773	VV	0.0565	1.95368e5	4.79522e4	1.01155
44	8.826	VV	0.0520	1.39854e5	3.54958e4	0.72412
45	8.939	VV	0.0604	1.63091e5	3.37323e4	0.84443
46	8.982	VBA	0.0265	5.33829e4	3.36256e4	0.27640
Totals :				1.93137e7	5.46776e6	

Results obtained with enhanced integrator!

*** End of Report ***

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Injection Date  : 1/24/2023 7:14:22 AM          Seq. Line :   8
Sample Name     : 23A0099 05                    Location : Vial 18
Acq. Operator   : NL                               Inj :   1
                                                Inj Volume : 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\012423.S
Method          : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed    : 3/2/2018 11:45:27 AM by RM
dioxin
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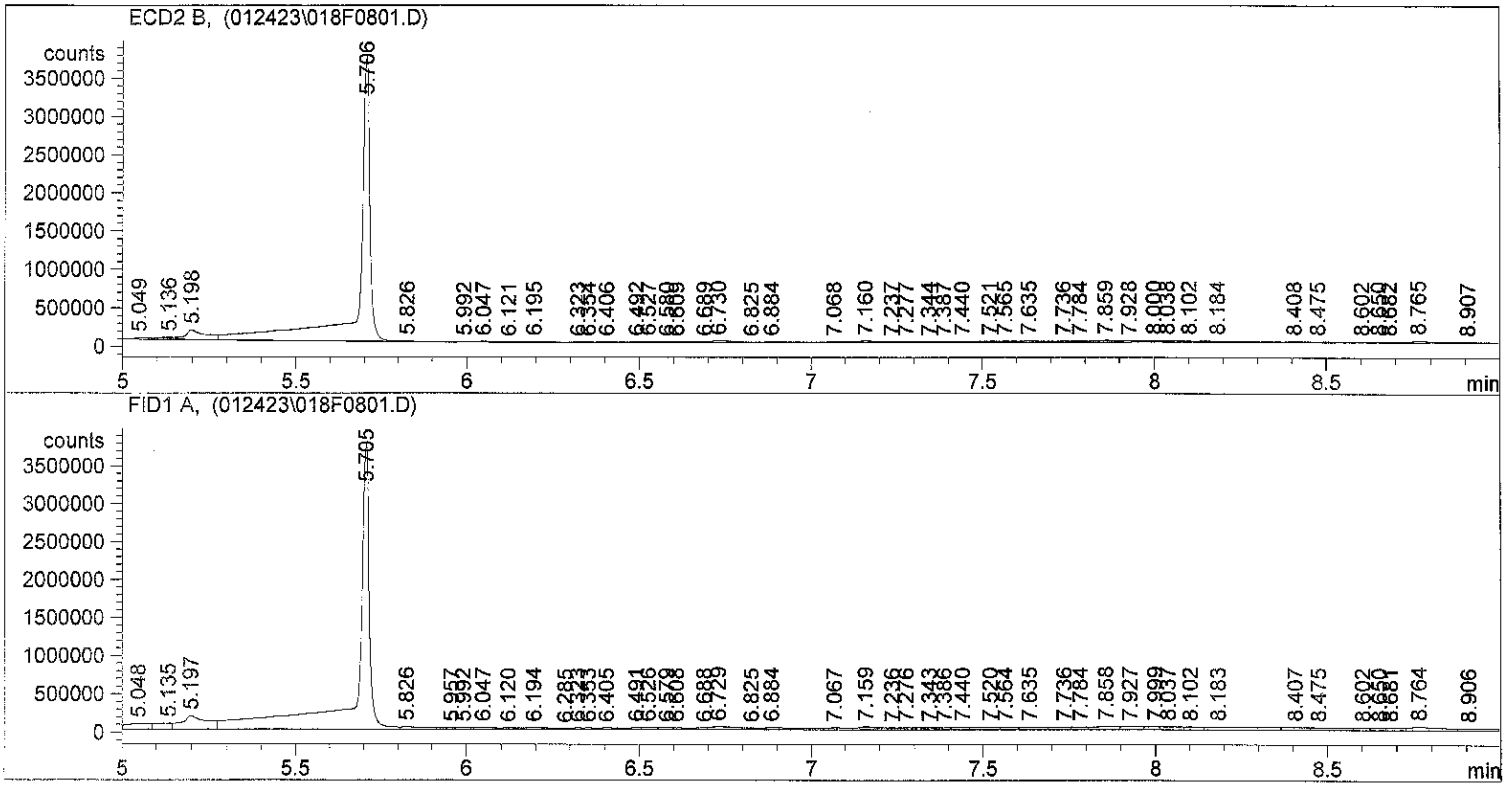

Area Percent Report

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Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.049	BV	0.0548	6.52302e4	1.73793e4	0.57805
2	5.136	VV	0.0440	8.29324e4	2.84453e4	0.73492
3	5.198	VV	0.0548	5.31689e5	1.27035e5	4.71164
4	5.706	VV	0.0321	8.68892e6	3.74547e6	76.99823
5	5.826	VP	0.0352	2.62709e4	1.05064e4	0.23280
6	5.992	VV	0.0323	1.09720e4	4693.00439	0.09723
7	6.047	VV	0.0304	2.49677e4	1.19373e4	0.22125
8	6.121	VV	0.0389	1.03451e4	3555.36938	0.09167
9	6.195	VP	0.0392	3.30105e4	1.27541e4	0.29253
10	6.323	VV	0.0245	1.41375e4	8899.31738	0.12528
11	6.354	VV	0.0287	1.52422e4	8201.52832	0.13507
12	6.406	VV	0.0443	2.46488e4	8135.55664	0.21843
13	6.492	VV	0.0261	2.33503e4	1.35795e4	0.20692
14	6.527	VV	0.0353	3.58857e4	1.53577e4	0.31801
15	6.580	VV	0.0319	2.23954e4	1.00962e4	0.19846
16	6.609	VV	0.0269	1.56390e4	8328.06250	0.13859

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	6.689	VV	0.0309	2.65972e4	1.19621e4	0.23570
18	6.730	VV	0.0579	1.13060e5	2.64306e4	1.00190
19	6.825	VV	0.0262	9994.19629	5504.57813	0.08857
20	6.884	VV	0.0552	6.98325e4	1.69109e4	0.61883
21	7.068	VV	0.0564	4.14526e4	9983.45410	0.36734
22	7.160	VV	0.0453	7.90478e4	2.40675e4	0.70049
23	7.237	VV	0.0238	1.34629e4	7951.68848	0.11930
24	7.277	VV	0.0470	3.74984e4	1.04093e4	0.33230
25	7.344	VV	0.0340	2.40311e4	9346.04297	0.21295
26	7.387	VV	0.0342	2.22573e4	9220.25781	0.19724
27	7.440	VV	0.0391	3.60713e4	1.30917e4	0.31965
28	7.521	VV	0.0629	7.69625e4	1.60695e4	0.68202
29	7.565	VV	0.0398	4.73504e4	1.54197e4	0.41960
30	7.635	VV	0.0578	7.87238e4	1.84298e4	0.69762
31	7.736	VV	0.0519	6.18580e4	1.60573e4	0.54816
32	7.784	VV	0.0427	4.88113e4	1.64312e4	0.43255
33	7.859	VV	0.0597	1.08118e5	2.48645e4	0.95811
34	7.928	VV	0.0518	7.70499e4	1.96389e4	0.68279
35	8.000	VV	0.0379	5.04197e4	1.90636e4	0.44680
36	8.038	VV	0.0526	7.91988e4	1.98290e4	0.70183
37	8.102	VV	0.0449	5.72676e4	1.76107e4	0.50749
38	8.184	VV	0.1392	1.80781e5	1.61963e4	1.60202
39	8.408	VV	0.0655	6.62311e4	1.47151e4	0.58692
40	8.475	VV	0.0820	7.08330e4	1.13169e4	0.62770
41	8.602	VV	0.0442	2.23747e4	7860.63574	0.19828
42	8.650	VV	0.0349	2.34047e4	9460.11621	0.20740
43	8.682	VV	0.0459	2.63687e4	8802.85840	0.23367
44	8.765	VV	0.0498	9.69555e4	2.70829e4	0.85919
45	8.907	VBA	0.0620	1.29199e4	3140.50195	0.11449
Totals :				1.12846e7	4.46124e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.048	BV	0.0685	3.65241e5	7.41479e4	2.12002
2	5.135	VV	0.0485	2.69364e5	8.15620e4	1.56350
3	5.197	VV	0.0668	9.10191e5	1.77491e5	5.28314
4	5.705	VV	0.0352	9.84403e6	3.80681e6	57.13900
5	5.826	VV	0.0759	2.08277e5	3.47392e4	1.20893
6	5.957	VV	0.0207	3.03064e4	1.99714e4	0.17591
7	5.992	VV	0.0417	7.14638e4	2.33722e4	0.41481
8	6.047	VV	0.0480	1.04741e5	2.98279e4	0.60796
9	6.120	VV	0.0494	7.75979e4	2.04091e4	0.45041
10	6.194	VV	0.0621	1.29998e5	2.85828e4	0.75456
11	6.285	VV	0.0229	2.52907e4	1.56320e4	0.14680
12	6.323	VV	0.0304	5.20827e4	2.39075e4	0.30231
13	6.353	VV	0.0323	5.26345e4	2.33546e4	0.30551
14	6.405	VV	0.0596	1.02094e5	2.35179e4	0.59260
15	6.491	VV	0.0316	6.44920e4	2.93753e4	0.37434
16	6.526	VV	0.0380	8.32191e4	3.12758e4	0.48304
17	6.579	VV	0.0340	6.31131e4	2.62528e4	0.36634
18	6.608	VV	0.0319	5.45728e4	2.46031e4	0.31676
19	6.688	VV	0.0396	8.48121e4	2.86228e4	0.49229
20	6.729	VV	0.0708	2.32809e5	4.32500e4	1.35132
21	6.825	VV	0.0262	4.33005e4	2.27499e4	0.25133
22	6.884	VV	0.0873	2.36934e5	3.44168e4	1.37526
23	7.067	VV	0.0785	1.71172e5	2.83063e4	0.99355
24	7.159	VV	0.0607	1.93416e5	4.27917e4	1.12267
25	7.236	VV	0.0251	4.65810e4	2.70300e4	0.27038
26	7.276	VV	0.0508	1.16420e5	2.96628e4	0.67575

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
27	7.343	VV	0.0344	7.54109e4	2.89027e4	0.43772
28	7.386	VV	0.0351	7.23001e4	2.89634e4	0.41966
29	7.440	VV	0.0423	1.00044e5	3.30721e4	0.58070
30	7.520	VV	0.0670	1.87132e5	3.64114e4	1.08620
31	7.564	VV	0.0410	1.13931e5	3.59576e4	0.66130
32	7.635	VV	0.0632	1.82457e5	3.92891e4	1.05906
33	7.736	VV	0.0540	1.50470e5	3.73543e4	0.87339
34	7.784	VV	0.0433	1.14854e5	3.79462e4	0.66666
35	7.858	VV	0.0658	2.27525e5	4.67184e4	1.32065
36	7.927	VV	0.0530	1.68410e5	4.17871e4	0.97752
37	7.999	VV	0.0372	1.11230e5	4.15365e4	0.64563
38	8.037	VV	0.0541	1.75042e5	4.24650e4	1.01602
39	8.102	VV	0.0466	1.37488e5	4.05380e4	0.79804
40	8.183	VV	0.1563	4.98643e5	3.94858e4	2.89434
41	8.407	VV	0.0705	1.92143e5	3.90003e4	1.11528
42	8.475	VV	0.0899	2.52095e5	3.59016e4	1.46327
43	8.602	VV	0.0437	9.54609e4	3.30119e4	0.55410
44	8.650	VV	0.0368	9.20311e4	3.48223e4	0.53419
45	8.681	VV	0.0504	1.15775e5	3.43064e4	0.67201
46	8.764	VV	0.0815	3.29067e5	5.29779e4	1.91005
47	8.906	VBA	0.0927	2.02559e5	2.96436e4	1.17574
Totals :				1.72282e7	5.54175e6	

Results obtained with enhanced integrator!

*** End of Report ***

```
Injection Date  : 1/24/2023 7:28:39 AM          Seq. Line :   9
Sample Name     : 23A0099 10                    Location : Vial 19
Acq. Operator   : NL                               Inj :   1
                                              Inj Volume : 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\012423.S
Method          : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed    : 3/2/2018 11:45:27 AM by RM
dioxin
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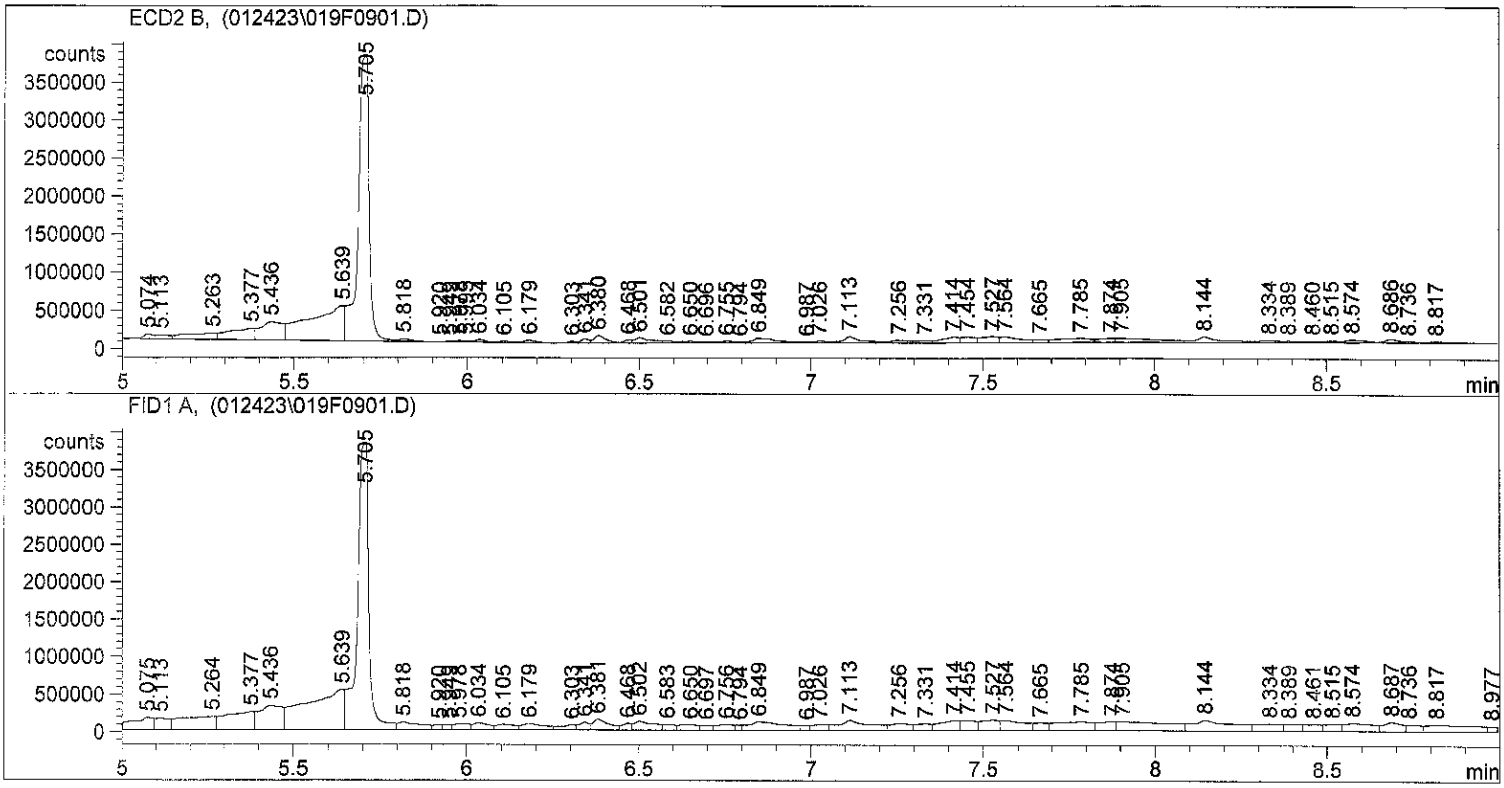

Area Percent Report

```
Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
```

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.074	BV	0.0303	1.37626e5	6.34175e4	0.68609
2	5.113	VV	0.0400	1.53291e5	5.41708e4	0.76418
3	5.263	VV	0.0816	5.42998e5	8.48833e4	2.70695
4	5.377	VV	0.0680	8.14431e5	1.53317e5	4.06010
5	5.436	VV	0.0601	1.07301e6	2.40352e5	5.34918
6	5.639	VV	0.0892	3.24502e6	4.60452e5	16.17707
7	5.705	VV	0.0339	8.33247e6	3.74962e6	41.53899
8	5.818	VP	0.0369	1.03446e5	3.91139e4	0.51570
9	5.920	VV	0.0185	6409.24707	5545.05371	0.03195
10	5.949	VV	0.0191	1.36409e4	1.05624e4	0.06800
11	5.978	VV	0.0248	3.69801e4	2.17820e4	0.18435
12	5.995	VV	0.0175	2.31313e4	1.99321e4	0.11531
13	6.034	VV	0.0319	8.10797e4	3.79420e4	0.40420
14	6.105	VV	0.0348	5.29297e4	2.07430e4	0.26386
15	6.179	VP	0.0362	8.91472e4	3.68912e4	0.44442
16	6.303	VV	0.0232	3.54423e4	2.27160e4	0.17669

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	6.341	VV	0.0253	9.67080e4	5.56622e4	0.48211
18	6.380	VV	0.0360	2.42673e5	9.76313e4	1.20977
19	6.468	VV	0.0241	6.34190e4	4.08937e4	0.31616
20	6.501	VV	0.0449	2.37453e5	7.12639e4	1.18375
21	6.582	VV	0.0296	6.03111e4	2.86153e4	0.30066
22	6.650	VV	0.0423	7.32661e4	2.35632e4	0.36525
23	6.696	VV	0.0289	3.03243e4	1.54271e4	0.15117
24	6.755	VV	0.0378	7.12016e4	2.70114e4	0.35495
25	6.794	VV	0.0160	1.86144e4	1.67244e4	0.09280
26	6.849	VV	0.0657	3.21924e5	6.28669e4	1.60486
27	6.987	VV	0.0238	2.12664e4	1.25468e4	0.10602
28	7.026	VV	0.0385	7.19232e4	2.66748e4	0.35855
29	7.113	VV	0.0550	3.37325e5	8.19876e4	1.68163
30	7.256	VV	0.0491	1.30854e5	3.71592e4	0.65233
31	7.331	VV	0.0426	9.53249e4	3.21433e4	0.47521
32	7.414	VV	0.0472	2.67730e5	7.58866e4	1.33469
33	7.454	VV	0.0420	2.28367e5	7.60939e4	1.13845
34	7.527	VV	0.0453	2.80822e5	8.32879e4	1.39995
35	7.564	VV	0.0559	3.17508e5	7.57723e4	1.58284
36	7.665	VV	0.0397	1.15829e5	4.12717e4	0.57743
37	7.785	VV	0.0851	3.84126e5	5.81406e4	1.91494
38	7.874	VV	0.0429	1.80512e5	5.41030e4	0.89989
39	7.905	VV	0.1084	4.80439e5	5.47434e4	2.39508
40	8.144	VV	0.0717	4.19221e5	7.67923e4	2.08990
41	8.334	VV	0.0651	1.33743e5	2.88577e4	0.66673
42	8.389	VV	0.0422	6.47712e4	2.14754e4	0.32290
43	8.460	VV	0.0453	6.18672e4	1.98926e4	0.30842
44	8.515	VV	0.0457	7.22872e4	2.36358e4	0.36037
45	8.574	VV	0.0567	1.64879e5	3.86989e4	0.82195
46	8.686	VV	0.0410	1.39852e5	5.09945e4	0.69719
47	8.736	VV	0.0343	4.49780e4	1.92526e4	0.22422
48	8.817	VV	0.0798	8.88231e4	1.46346e4	0.44280
Totals :				2.00594e7	6.46514e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.075	BV	0.0554	7.15558e5	1.65711e5	1.98141
2	5.113	VV	0.0416	4.58575e5	1.54530e5	1.26981
3	5.264	VV	0.0919	1.29325e6	1.77704e5	3.58107
4	5.377	VV	0.0745	1.41228e6	2.40429e5	3.91065
5	5.436	VV	0.0624	1.51221e6	3.24544e5	4.18737
6	5.639	VV	0.0953	4.04545e6	5.34443e5	11.20201
7	5.705	VV	0.0354	8.96705e6	3.81820e6	24.83012
8	5.818	VV	0.0613	4.93461e5	1.04138e5	1.36641
9	5.920	VV	0.0252	1.13865e5	6.57752e4	0.31530
10	5.949	VV	0.0222	1.09095e5	6.98123e4	0.30209
11	5.978	VV	0.0422	2.55467e5	8.00545e4	0.70740
12	6.034	VV	0.0444	3.02431e5	9.43016e4	0.83744
13	6.105	VV	0.0503	2.83880e5	7.46912e4	0.78608
14	6.179	VV	0.0593	3.95566e5	8.83179e4	1.09534
15	6.303	VV	0.0432	2.30343e5	7.22603e4	0.63783
16	6.341	VV	0.0294	2.20791e5	1.05590e5	0.61138
17	6.381	VV	0.0472	4.97416e5	1.47984e5	1.37736
18	6.468	VV	0.0284	1.77272e5	9.21434e4	0.49087
19	6.502	VV	0.0548	5.13701e5	1.22855e5	1.42246
20	6.583	VV	0.0343	1.96937e5	8.10470e4	0.54533
21	6.650	VV	0.0496	2.86771e5	7.66966e4	0.79408
22	6.697	VV	0.0311	1.54328e5	6.90404e4	0.42734
23	6.756	VV	0.0467	2.76155e5	8.12357e4	0.76468

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
24	6.794	VV	0.0169	8.07586e4	7.13517e4	0.22362
25	6.849	VV	0.0931	8.81342e5	1.18059e5	2.44047
26	6.987	VV	0.0241	1.19325e5	6.91720e4	0.33042
27	7.026	VV	0.0447	2.70689e5	8.37056e4	0.74955
28	7.113	VV	0.0837	9.20070e5	1.39928e5	2.54771
29	7.256	VV	0.0566	4.02690e5	9.65726e4	1.11507
30	7.331	VV	0.0450	2.92578e5	9.23338e4	0.81016
31	7.414	VV	0.0539	5.62203e5	1.36942e5	1.55676
32	7.455	VV	0.0439	4.23191e5	1.37560e5	1.17183
33	7.527	VV	0.0472	5.14399e5	1.45508e5	1.42439
34	7.564	VV	0.0643	6.79536e5	1.38369e5	1.88166
35	7.665	VV	0.0404	3.00319e5	1.04919e5	0.83160
36	7.785	VV	0.0936	9.02864e5	1.23036e5	2.50006
37	7.874	VV	0.0447	4.18123e5	1.19921e5	1.15780
38	7.905	VV	0.1302	1.28699e6	1.20875e5	3.56371
39	8.144	VV	0.1063	1.22570e6	1.45411e5	3.39401
40	8.334	VV	0.0724	5.23035e5	9.94396e4	1.44830
41	8.389	VV	0.0450	3.01517e5	9.26308e4	0.83491
42	8.461	VV	0.0479	3.05857e5	9.17871e4	0.84693
43	8.515	VV	0.0494	3.24662e5	9.60957e4	0.89900
44	8.574	VV	0.0735	6.36841e5	1.11770e5	1.76344
45	8.687	VV	0.0537	4.79507e5	1.25237e5	1.32777
46	8.736	VV	0.0405	2.69639e5	9.40030e4	0.74664
47	8.817	VV	0.1312	9.44986e5	9.02215e4	2.61670
48	8.977	VBA	0.0287	1.34932e5	7.84675e4	0.37363
Totals :				3.61136e7	9.56482e6	

Results obtained with enhanced integrator!

*** End of Report ***

```
Injection Date  : 1/24/2023 7:42:30 AM          Seq. Line :  10
Sample Name     : 23A0099 11                    Location : Vial 20
Acq. Operator   : NL                               Inj :   1
                                                Inj Volume : 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\012423.S
Method          : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed    : 3/2/2018 11:45:27 AM by RM
dioxin
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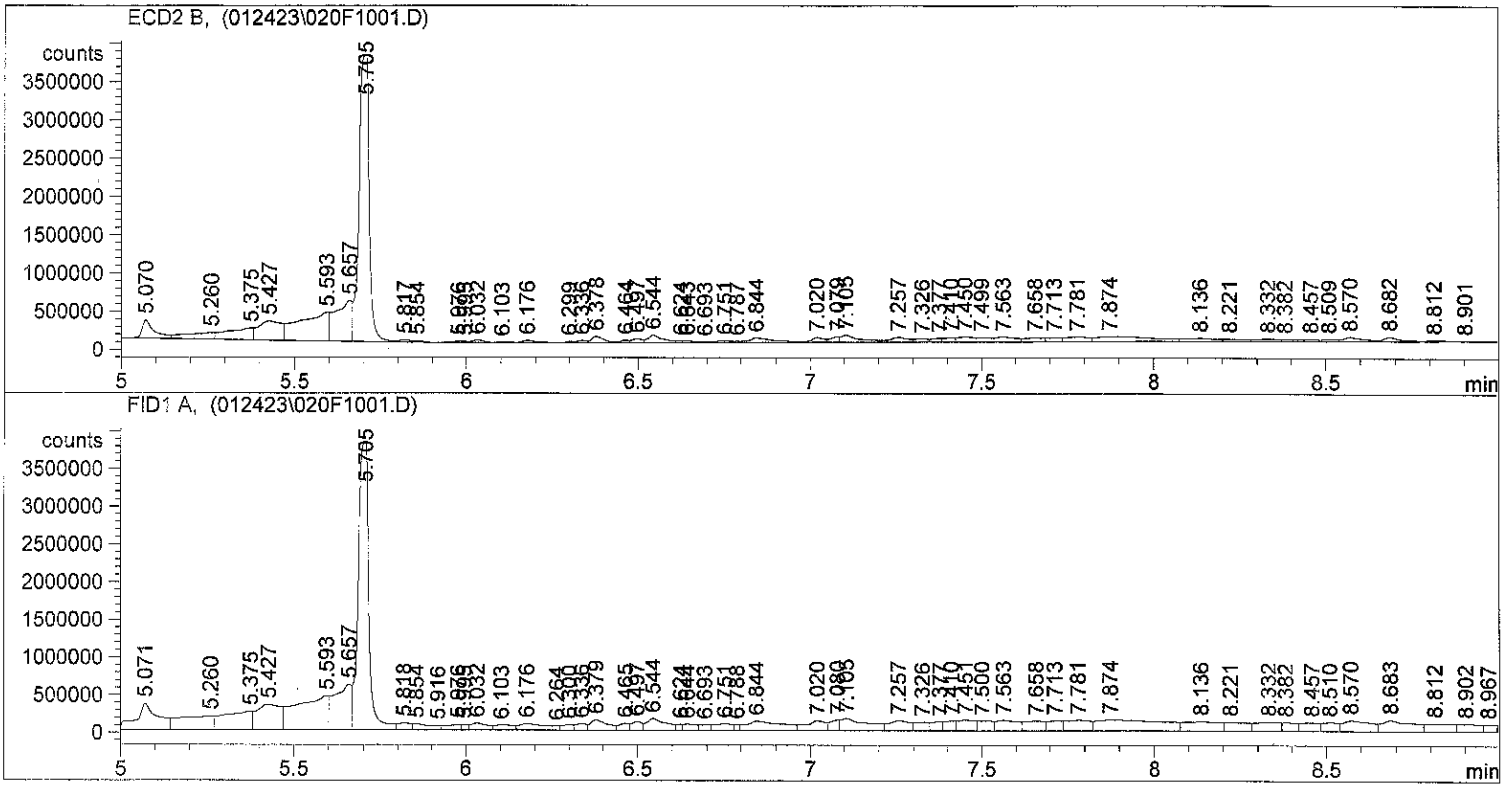

Area Percent Report

```
Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
```

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.070	BV	0.0352	6.31121e5	2.43640e5	2.96754
2	5.260	VV	0.0724	5.06306e5	8.89980e4	2.38066
3	5.375	VV	0.0680	8.24538e5	1.57741e5	3.87698
4	5.427	VV	0.0638	1.16928e6	2.53726e5	5.49794
5	5.593	VV	0.0739	2.21645e6	3.75383e5	10.42176
6	5.657	VV	0.0428	1.73285e6	5.34934e5	8.14789
7	5.705	VV	0.0323	7.78315e6	3.74241e6	36.59642
8	5.817	VV	0.0310	7.05831e4	3.28784e4	0.33188
9	5.854	VP	0.0241	3.52405e4	2.15070e4	0.16570
10	5.976	VV	0.0262	3.15074e4	1.73603e4	0.14815
11	5.995	VV	0.0166	1.90590e4	1.63433e4	0.08962
12	6.032	VV	0.0323	8.09756e4	3.74128e4	0.38075
13	6.103	VV	0.0321	2.91158e4	1.25360e4	0.13690
14	6.176	VP	0.0369	8.28846e4	3.34633e4	0.38972
15	6.299	VV	0.0219	2.86709e4	1.97414e4	0.13481
16	6.336	VV	0.0264	5.95826e4	3.40993e4	0.28016

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	6.378	VV	0.0371	2.08621e5	8.36276e4	0.98094
18	6.464	VV	0.0240	5.54047e4	3.58572e4	0.26051
19	6.497	VV	0.0287	1.10462e5	5.67825e4	0.51939
20	6.544	VV	0.0418	3.07205e5	1.03082e5	1.44448
21	6.624	VV	0.0176	2.79877e4	2.36870e4	0.13160
22	6.643	VV	0.0314	5.46429e4	2.51057e4	0.25693
23	6.693	VV	0.0289	3.07649e4	1.57000e4	0.14466
24	6.751	VV	0.0399	8.71489e4	3.09057e4	0.40977
25	6.787	VV	0.0155	2.01078e4	1.88398e4	0.09455
26	6.844	VV	0.0633	3.13300e5	6.37684e4	1.47314
27	7.020	VV	0.0400	1.88622e5	6.66697e4	0.88690
28	7.079	VV	0.0248	1.25203e5	7.49041e4	0.58871
29	7.105	VV	0.0552	3.97046e5	9.61519e4	1.86691
30	7.257	VV	0.0494	2.31494e5	6.67810e4	1.08849
31	7.326	VV	0.0400	1.21974e5	4.30761e4	0.57352
32	7.377	VV	0.0297	1.00806e5	4.99555e4	0.47399
33	7.410	VV	0.0307	1.30848e5	5.93060e4	0.61525
34	7.450	VV	0.0466	2.36651e5	7.15734e4	1.11273
35	7.499	VV	0.0394	1.79346e5	5.91876e4	0.84329
36	7.563	VV	0.0542	2.67732e5	6.76092e4	1.25888
37	7.658	VV	0.0547	2.16482e5	5.53117e4	1.01790
38	7.713	VV	0.0413	1.55506e5	5.45050e4	0.73119
39	7.781	VV	0.0618	2.95215e5	6.52732e4	1.38810
40	7.874	VV	0.1424	7.68534e5	6.57493e4	3.61365
41	8.136	VV	0.0802	2.67566e5	4.26723e4	1.25810
42	8.221	VV	0.0600	1.27278e5	2.96743e4	0.59846
43	8.332	VV	0.0655	1.53905e5	3.42022e4	0.72366
44	8.382	VV	0.0425	7.20093e4	2.58769e4	0.33859
45	8.457	VV	0.0489	9.02552e4	2.70430e4	0.42438
46	8.509	VV	0.0427	8.69990e4	2.92687e4	0.40907
47	8.570	VV	0.0540	2.28375e5	5.67107e4	1.07382
48	8.682	VV	0.0535	2.23453e5	5.85923e4	1.05068
49	8.812	VV	0.0631	6.24106e4	1.39768e4	0.29345
50	8.901	VV	0.0514	2.28522e4	6763.36084	0.10745
Totals :				2.12675e7	7.30037e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.071	BV	0.0575	1.59998e6	3.55818e5	4.00792
2	5.260	VV	0.0844	1.27183e6	1.89198e5	3.18591
3	5.375	VV	0.0746	1.47344e6	2.50647e5	3.69095
4	5.427	VV	0.0660	1.64732e6	3.43466e5	4.12651
5	5.593	VV	0.0784	2.85931e6	4.54707e5	7.16252
6	5.657	VV	0.0428	2.03150e6	6.10201e5	5.08886
7	5.705	VV	0.0332	8.33824e6	3.86708e6	20.88713
8	5.818	VV	0.0366	2.56951e5	9.80886e4	0.64366
9	5.854	VV	0.0401	2.53890e5	8.44291e4	0.63599
10	5.916	VV	0.0204	8.55009e4	6.09370e4	0.21418
11	5.976	VV	0.0432	2.50804e5	7.66548e4	0.62826
12	5.995	VV	0.0170	9.06471e4	7.54784e4	0.22707
13	6.032	VV	0.0485	3.33668e5	9.62006e4	0.83583
14	6.103	VV	0.0483	2.62845e5	7.08055e4	0.65842
15	6.176	VV	0.0651	4.45882e5	9.11455e4	1.11692
16	6.264	VV	0.0172	7.04788e4	5.79161e4	0.17655
17	6.300	VV	0.0322	1.74079e5	7.75144e4	0.43606
18	6.336	VV	0.0309	1.97545e5	9.24064e4	0.49485
19	6.379	VV	0.0499	5.11610e5	1.42376e5	1.28157
20	6.465	VV	0.0291	1.90493e5	9.60227e4	0.47718
21	6.497	VV	0.0317	2.58523e5	1.17427e5	0.64760

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
22	6.544	VV	0.0520	6.48861e5	1.64405e5	1.62538
23	6.624	VV	0.0179	1.03651e5	8.61693e4	0.25964
24	6.644	VV	0.0359	2.25209e5	8.78649e4	0.56414
25	6.693	VV	0.0313	1.71433e5	7.91814e4	0.42944
26	6.751	VV	0.0494	3.45691e5	9.52283e4	0.86595
27	6.788	VV	0.0154	8.91579e4	8.36900e4	0.22334
28	6.844	VV	0.0941	9.66428e5	1.29445e5	2.42088
29	7.020	VV	0.0547	5.51596e5	1.34904e5	1.38174
30	7.080	VV	0.0272	2.68853e5	1.44004e5	0.67347
31	7.105	VV	0.0739	9.49079e5	1.65605e5	2.37743
32	7.257	VV	0.0573	5.84983e5	1.38449e5	1.46537
33	7.326	VV	0.0409	3.35937e5	1.15747e5	0.84151
34	7.377	VV	0.0310	2.62091e5	1.23369e5	0.65653
35	7.410	VV	0.0317	3.04786e5	1.33190e5	0.76348
36	7.451	VV	0.0490	5.12947e5	1.46046e5	1.28492
37	7.500	VV	0.0400	4.14527e5	1.34373e5	1.03838
38	7.563	VV	0.0594	6.33663e5	1.43717e5	1.58731
39	7.658	VV	0.0571	5.48076e5	1.32799e5	1.37292
40	7.713	VV	0.0419	3.85639e5	1.32789e5	0.96602
41	7.781	VV	0.0657	7.02397e5	1.44540e5	1.75949
42	7.874	VV	0.1660	2.00691e6	1.46367e5	5.02728
43	8.136	VV	0.0905	9.09572e5	1.27101e5	2.27846
44	8.221	VV	0.0645	5.38469e5	1.15325e5	1.34885
45	8.332	VV	0.0724	6.18941e5	1.21466e5	1.55043
46	8.382	VV	0.0445	3.36415e5	1.13868e5	0.84271
47	8.457	VV	0.0520	4.18382e5	1.16120e5	1.04804
48	8.510	VV	0.0456	3.83732e5	1.19111e5	0.96124
49	8.570	VV	0.0722	8.23857e5	1.47438e5	2.06375
50	8.683	VV	0.0831	9.58663e5	1.50951e5	2.40143
51	8.812	VV	0.0767	6.09737e5	1.08212e5	1.52738
52	8.902	VV	0.0658	4.72168e5	1.02302e5	1.18277
53	8.967	VBA	0.0300	2.34069e5	9.75486e4	0.58634
Totals :				3.99205e7	1.12898e7	

Results obtained with enhanced integrator!

*** End of Report ***

```
Injection Date  : 1/24/2023 7:56:36 AM          Seq. Line :  11
Sample Name     : 23A0295 02                    Location : Vial 21
Acq. Operator   : NL                                Inj :  1
                                               Inj Volume : 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\012423.S
Method          : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed    : 3/2/2018 11:45:27 AM by RM
dioxin
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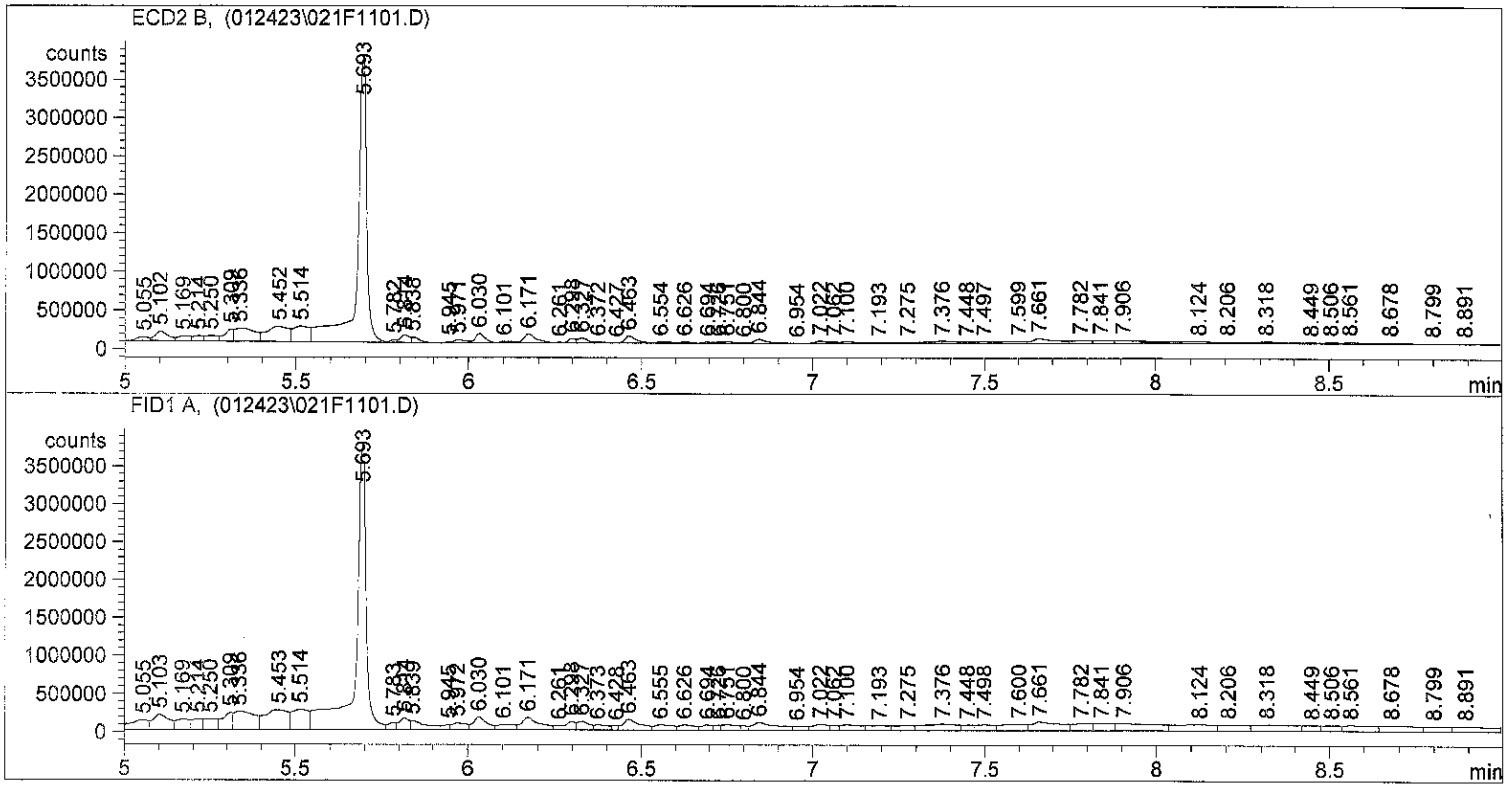

Area Percent Report

```
Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.055	BV	0.0371	1.14550e5	4.92317e4	0.77520
2	5.102	VV	0.0381	3.29656e5	1.23729e5	2.23090
3	5.169	VV	0.0378	1.59093e5	6.23252e4	1.07664
4	5.214	VV	0.0288	1.39177e5	6.82659e4	0.94186
5	5.250	VV	0.0368	1.83681e5	7.19164e4	1.24303
6	5.309	VV	0.0265	2.82767e5	1.53599e5	1.91358
7	5.336	VV	0.0598	7.05576e5	1.72253e5	4.77488
8	5.452	VV	0.0589	8.86688e5	1.95710e5	6.00052
9	5.514	VV	0.0445	6.40311e5	2.04672e5	4.33320
10	5.693	VV	0.0274	7.15350e6	3.72722e6	48.41019
11	5.782	VV	0.0209	5.29002e4	3.87186e4	0.35799
12	5.814	VV	0.0266	1.87551e5	1.01163e5	1.26922
13	5.838	VP	0.0258	1.16108e5	6.82675e4	0.78575
14	5.945	VV	0.0149	1.61295e4	1.70208e4	0.10915
15	5.971	VV	0.0310	9.43361e4	4.23806e4	0.63841
16	6.030	VV	0.0296	2.35348e5	1.21584e5	1.59268

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	6.101	VV	0.0363	5.69349e4	2.12195e4	0.38530
18	6.171	VV	0.0352	2.77905e5	1.15016e5	1.88068
19	6.261	VV	0.0192	1.28998e4	1.05759e4	0.08730
20	6.298	VV	0.0218	8.63231e4	5.98836e4	0.58418
21	6.327	VV	0.0298	1.25182e5	6.41316e4	0.84715
22	6.372	VV	0.0349	3.36708e4	1.51815e4	0.22786
23	6.427	VV	0.0167	6571.13330	6080.36816	0.04447
24	6.463	VV	0.0342	2.13965e5	9.16295e4	1.44798
25	6.554	VV	0.0346	5.58479e4	2.20224e4	0.37794
26	6.626	VP	0.0306	4.11013e4	2.02774e4	0.27815
27	6.694	VV	0.0237	2.85218e4	1.88152e4	0.19302
28	6.726	VV	0.0176	2.14321e4	1.70908e4	0.14504
29	6.751	VV	0.0333	5.48739e4	2.34638e4	0.37135
30	6.800	VV	0.0201	1.17113e4	8471.57812	0.07925
31	6.844	VV	0.0375	1.40732e5	5.37757e4	0.95238
32	6.954	VV	0.0338	6072.89893	2461.56641	0.04110
33	7.022	VV	0.0312	6.21665e4	3.00194e4	0.42070
34	7.062	VV	0.0224	2.73801e4	1.73781e4	0.18529
35	7.100	VV	0.0441	7.12918e4	2.30701e4	0.48246
36	7.193	VV	0.0579	4.51347e4	1.09945e4	0.30544
37	7.275	VV	0.0452	4.87106e4	1.48907e4	0.32964
38	7.376	VV	0.0730	1.80843e5	3.19838e4	1.22383
39	7.448	VV	0.0301	4.50597e4	2.09122e4	0.30493
40	7.497	VV	0.0538	8.50806e4	2.21381e4	0.57577
41	7.599	VV	0.0612	1.32341e5	2.79596e4	0.89560
42	7.661	VV	0.0641	2.94552e5	6.12471e4	1.99333
43	7.782	VV	0.0509	1.38568e5	3.68082e4	0.93774
44	7.841	VV	0.0503	1.35179e5	3.56000e4	0.91480
45	7.906	VV	0.0960	2.65053e5	3.55294e4	1.79371
46	8.124	VV	0.0965	1.86602e5	2.46001e4	1.26280
47	8.206	VV	0.0694	1.14083e5	2.20269e4	0.77204
48	8.318	VV	0.0954	1.65187e5	2.36781e4	1.11788
49	8.449	VV	0.0463	4.66484e4	1.45763e4	0.31569
50	8.506	VV	0.0496	5.08160e4	1.49693e4	0.34389
51	8.561	VV	0.0612	8.65967e4	1.86516e4	0.58603
52	8.678	VV	0.0693	7.31377e4	1.41621e4	0.49495
53	8.799	VV	0.0633	2.68333e4	6225.38672	0.18159
54	8.891	VBA	0.0590	2.44626e4	5947.02002	0.16555
Totals :				1.47768e7	6.28152e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.055	BV	0.0518	4.55052e5	1.27075e5	1.58455
2	5.103	VV	0.0453	6.57354e5	2.00124e5	2.28900
3	5.169	VV	0.0397	3.71011e5	1.36667e5	1.29191
4	5.214	VV	0.0296	2.98076e5	1.41210e5	1.03794
5	5.250	VV	0.0375	3.76090e5	1.43748e5	1.30960
6	5.309	VV	0.0292	4.63195e5	2.23624e5	1.61291
7	5.336	VV	0.0619	1.03242e6	2.41441e5	3.59504
8	5.453	VV	0.0614	1.24062e6	2.61274e5	4.32002
9	5.514	VV	0.0452	8.55019e5	2.68363e5	2.97730
10	5.693	VV	0.0295	7.93247e6	3.78131e6	27.62199
11	5.783	VV	0.0244	1.56723e5	9.41109e4	0.54573
12	5.814	VV	0.0295	3.26500e5	1.55574e5	1.13692
13	5.839	VV	0.0435	3.92083e5	1.21910e5	1.36529
14	5.945	VV	0.0210	1.00066e5	6.81170e4	0.34845
15	5.972	VV	0.0376	2.61608e5	9.35075e4	0.91096
16	6.030	VV	0.0383	4.64103e5	1.72824e5	1.61607
17	6.101	VV	0.0445	2.45604e5	7.25253e4	0.85523

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
18	6.171	VV	0.0480	5.98631e5	1.66407e5	2.08452
19	6.261	VV	0.0249	1.06031e5	6.20849e4	0.36922
20	6.298	VV	0.0261	2.01706e5	1.11446e5	0.70237
21	6.327	VV	0.0350	2.77352e5	1.15722e5	0.96578
22	6.373	VV	0.0429	1.94327e5	6.68387e4	0.67667
23	6.428	VV	0.0181	7.39338e4	5.78066e4	0.25745
24	6.463	VV	0.0490	5.15920e5	1.43427e5	1.79651
25	6.555	VV	0.0493	2.80979e5	7.39171e4	0.97841
26	6.626	VV	0.0468	2.46781e5	7.22685e4	0.85933
27	6.694	VV	0.0315	1.55322e5	7.09804e4	0.54085
28	6.726	VV	0.0185	9.21096e4	6.94073e4	0.32074
29	6.751	VV	0.0423	2.36140e5	7.58948e4	0.82227
30	6.800	VV	0.0208	8.80761e4	6.11344e4	0.30669
31	6.844	VV	0.0667	5.45928e5	1.06656e5	1.90100
32	6.954	VV	0.0378	1.57148e5	5.58553e4	0.54721
33	7.022	VV	0.0437	2.56391e5	8.37380e4	0.89279
34	7.062	VV	0.0244	1.18698e5	7.12845e4	0.41332
35	7.100	VV	0.0560	3.17707e5	7.71556e4	1.10630
36	7.193	VV	0.0618	2.91070e5	6.55233e4	1.01355
37	7.275	VV	0.0523	2.71175e5	6.98062e4	0.94427
38	7.376	VV	0.0909	6.28244e5	8.73809e4	2.18764
39	7.448	VV	0.0304	1.67004e5	7.66464e4	0.58153
40	7.498	VV	0.0566	3.12075e5	7.81078e4	1.08669
41	7.600	VV	0.0670	4.41444e5	8.44152e4	1.53717
42	7.661	VV	0.0785	7.13528e5	1.17996e5	2.48461
43	7.782	VV	0.0530	3.70728e5	9.41118e4	1.29093
44	7.841	VV	0.0511	3.60105e5	9.31994e4	1.25394
45	7.906	VV	0.1096	8.05817e5	9.34383e4	2.80597
46	8.124	VV	0.1021	6.73818e5	8.35409e4	2.34633
47	8.206	VV	0.0731	4.53972e5	8.13560e4	1.58080
48	8.318	VV	0.1124	7.04742e5	8.35352e4	2.45401
49	8.449	VV	0.0474	2.47103e5	7.50575e4	0.86045
50	8.506	VV	0.0509	2.65499e5	7.57183e4	0.92451
51	8.561	VV	0.0778	4.83535e5	7.96642e4	1.68374
52	8.678	VV	0.0919	5.37992e5	7.57283e4	1.87336
53	8.799	VV	0.0721	3.46349e5	6.83670e4	1.20604
54	8.891	VBA	0.1041	5.52572e5	6.85251e4	1.92413
Totals :				2.87180e7	9.39755e6	

Results obtained with enhanced integrator!

*** End of Report ***

```
Injection Date  : 1/24/2023 8:10:21 AM          Seq. Line :  12
Sample Name     : 23A0313 12                    Location : Vial 22
Acq. Operator   : NL                               Inj :   1
                                                Inj Volume : 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\012423.S
Method          : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed    : 3/2/2018 11:45:27 AM by RM
dioxin
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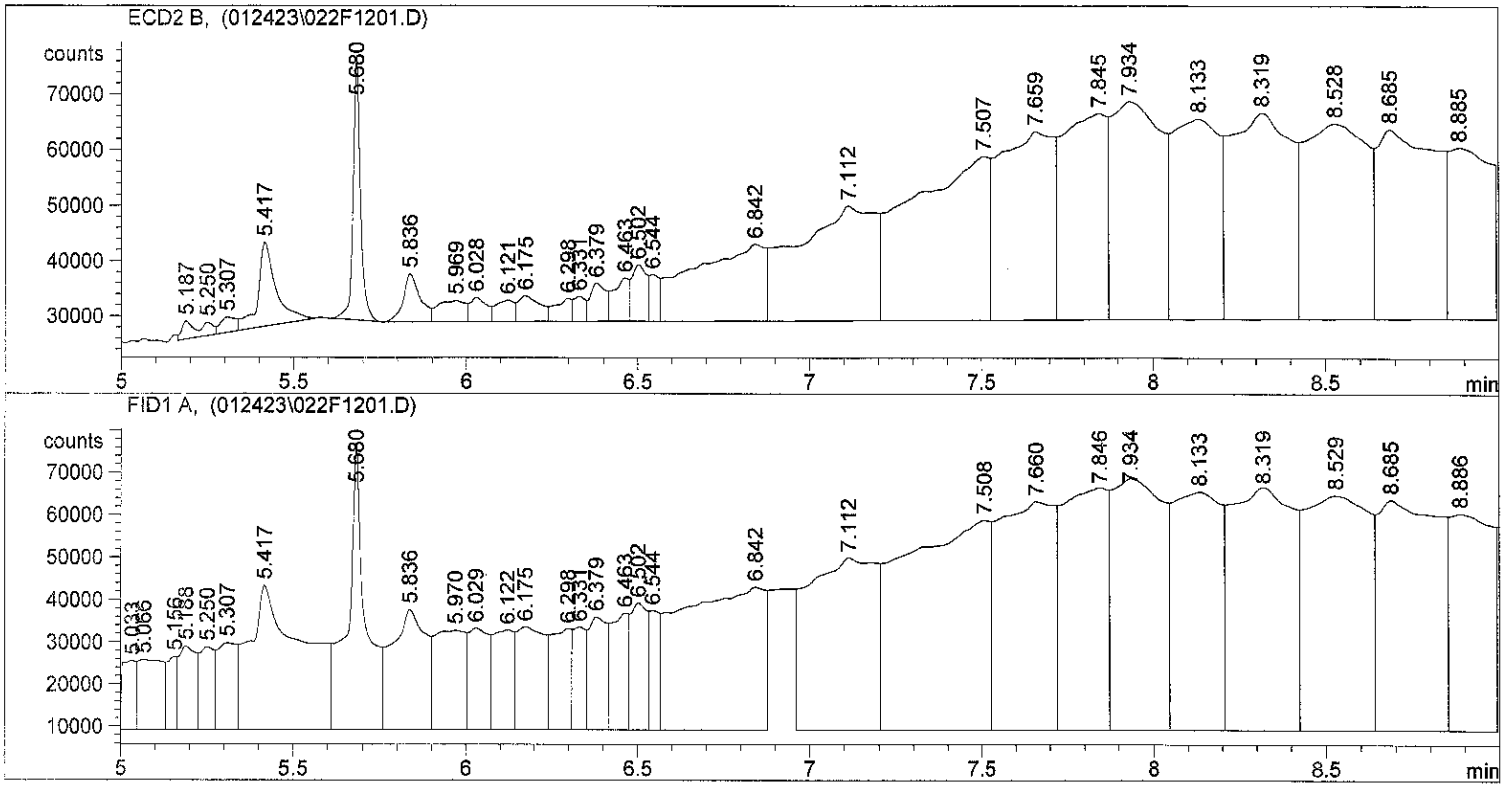

Area Percent Report

```
Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.187	VV	0.0341	7598.50586	3265.85669	0.17628
2	5.250	VV	0.0320	5460.01709	2447.44287	0.12667
3	5.307	VV	0.0443	9009.95410	2819.22388	0.20903
4	5.417	VB	0.0526	5.70142e4	1.52639e4	1.32272
5	5.680	BP	0.0221	6.98814e4	4.76889e4	1.62124
6	5.836	BV	0.0498	2.98123e4	8737.83496	0.69164
7	5.969	VV	0.0698	2.12574e4	3828.41162	0.49317
8	6.028	VV	0.0484	1.48217e4	4392.78369	0.34386
9	6.121	VV	0.0508	1.48818e4	3876.67822	0.34526
10	6.175	VV	0.0634	2.13317e4	4662.06787	0.49489
11	6.298	VV	0.0431	1.36209e4	4167.64844	0.31600
12	6.331	VV	0.0347	1.08006e4	4551.33594	0.25057
13	6.379	VV	0.0448	2.18899e4	6935.61621	0.50784
14	6.463	VV	0.0420	2.42145e4	7852.47656	0.56177
15	6.502	VV	0.0429	3.06600e4	1.02517e4	0.71131
16	6.544	VV	0.0286	1.71638e4	8468.56641	0.39820

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	6.842	VV	0.1751	2.00832e5	1.39389e4	4.65928
18	7.112	VV	0.1906	3.27190e5	2.07947e4	7.59077
19	7.507	VV	0.1919	4.68010e5	2.95296e4	10.85779
20	7.659	VV	0.1347	3.69109e5	3.39812e4	8.56330
21	7.845	VV	0.1110	3.25110e5	3.71705e4	7.54253
22	7.934	VV	0.1212	3.81642e5	3.93262e4	8.85406
23	8.133	VV	0.1251	3.34771e5	3.61371e4	7.76665
24	8.319	VV	0.1558	4.49095e5	3.72043e4	10.41896
25	8.528	VV	0.1527	4.31271e5	3.52536e4	10.00544
26	8.685	VV	0.1488	4.00936e5	3.41830e4	9.30168
27	8.885	VBA	0.1145	2.52978e5	3.09165e4	5.86906
Totals :				4.31036e6	4.87646e5	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.033	BV	0.0369	4.30749e4	1.62479e4	0.48556
2	5.066	VV	0.0623	8.17975e4	1.66456e4	0.92206
3	5.156	VV	0.0273	3.30520e4	1.72915e4	0.37258
4	5.188	VV	0.0475	6.87118e4	1.98033e4	0.77455
5	5.250	VV	0.0398	5.67758e4	1.96090e4	0.64000
6	5.307	VV	0.0518	7.89474e4	2.05502e4	0.88993
7	5.417	VV	0.1361	3.71570e5	3.41039e4	4.18852
8	5.680	VV	0.0477	2.48013e5	6.77201e4	2.79572
9	5.836	VV	0.0903	1.95725e5	2.84232e4	2.20631
10	5.970	VV	0.0769	1.45043e5	2.35461e4	1.63500
11	6.029	VV	0.0539	9.69629e4	2.41208e4	1.09301
12	6.122	VV	0.0555	1.00176e5	2.36287e4	1.12923
13	6.175	VV	0.0749	1.35908e5	2.44293e4	1.53202
14	6.298	VV	0.0519	9.41970e4	2.39624e4	1.06183
15	6.331	VV	0.0363	6.11029e4	2.43547e4	0.68878
16	6.379	VV	0.0501	9.64162e4	2.67504e4	1.08685
17	6.463	VV	0.0469	9.70509e4	2.76882e4	1.09400
18	6.502	VV	0.0460	9.81037e4	3.00977e4	1.10587
19	6.544	VV	0.0292	5.86466e4	2.83231e4	0.66109
20	6.842	VV	0.2040	5.71736e5	3.38642e4	6.44489
21	7.112	BV	0.1658	5.55031e5	4.07877e4	6.25657
22	7.508	VV	0.2094	8.56459e5	4.96177e4	9.65442
23	7.660	VV	0.1368	6.01959e5	5.41059e4	6.78557
24	7.846	VV	0.1128	5.10162e5	5.73389e4	5.75079
25	7.934	VV	0.1238	5.90651e5	5.95168e4	6.65810
26	8.133	VV	0.1280	5.31446e5	5.63762e4	5.99071
27	8.319	VV	0.1595	7.12025e5	5.74865e4	8.02628
28	8.529	VV	0.1558	6.94737e5	5.55871e4	7.83141
29	8.685	VV	0.1531	6.59709e5	5.45536e4	7.43655
30	8.886	VBA	0.1038	4.25973e5	5.13354e4	4.80178
Totals :				8.87116e6	1.06787e6	

Results obtained with enhanced integrator!

*** End of Report ***

```
Injection Date  : 1/24/2023 8:22:44 AM          Seq. Line :  13
Sample Name     : 23A0326 01                    Location : Vial 23
Acq. Operator   : NL                               Inj :  1
                                               Inj Volume : 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\012423.S
Method          : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed    : 3/2/2018 11:45:27 AM by RM
dioxin
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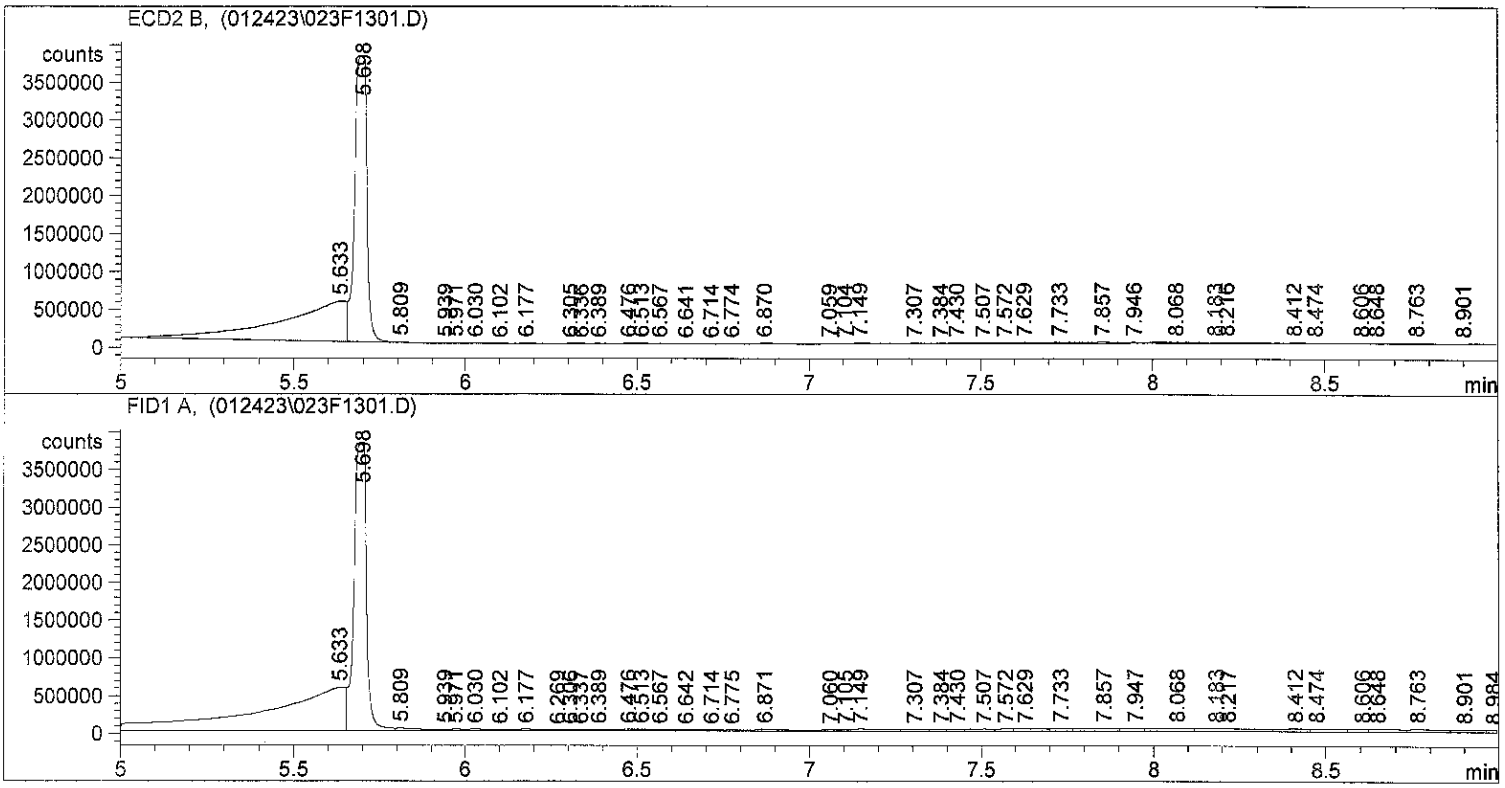

Area Percent Report

```
Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.633	BV	0.1602	7.09607e6	5.33433e5	40.18767
2	5.698	VV	0.0384	9.18685e6	3.77802e6	52.02849
3	5.809	VP	0.0310	2.08036e4	9694.14258	0.11782
4	5.939	VV	0.0270	5238.96826	2658.04175	0.02967
5	5.971	VV	0.0322	1.23645e4	5497.81396	0.07002
6	6.030	VP	0.0309	2.11495e4	1.07641e4	0.11978
7	6.102	VV	0.0370	9048.11816	3293.76147	0.05124
8	6.177	VP	0.0372	3.03974e4	1.21541e4	0.17215
9	6.305	VV	0.0230	1.15515e4	7486.68701	0.06542
10	6.336	VV	0.0278	1.23452e4	6927.02686	0.06992
11	6.389	VV	0.0405	2.32237e4	8871.81348	0.13152
12	6.476	VV	0.0280	2.19771e4	1.21823e4	0.12446
13	6.513	VV	0.0372	3.07487e4	1.22984e4	0.17414
14	6.567	VV	0.0430	2.22942e4	6841.81348	0.12626
15	6.641	VP	0.0349	7445.49365	2905.04980	0.04217
16	6.714	VV	0.0241	4242.60742	2730.50342	0.02403

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	6.774	VV	0.0379	1.17543e4	4438.08057	0.06657
18	6.870	VP	0.0466	5.17450e4	1.52551e4	0.29305
19	7.059	VV	0.0329	1.40305e4	6323.74219	0.07946
20	7.104	VV	0.0257	8968.96680	5165.53516	0.05079
21	7.149	VV	0.0613	6.42700e4	1.49155e4	0.36398
22	7.307	VV	0.0589	2.96999e4	7383.25537	0.16820
23	7.384	VV	0.0383	1.78899e4	6464.30518	0.10132
24	7.430	VV	0.0372	2.48462e4	9294.42773	0.14071
25	7.507	VV	0.0623	4.94988e4	1.04514e4	0.28033
26	7.572	VV	0.0466	3.24019e4	1.03331e4	0.18350
27	7.629	VV	0.0687	7.38452e4	1.41917e4	0.41821
28	7.733	VV	0.0455	5.38628e4	1.63098e4	0.30505
29	7.857	VV	0.0847	1.16847e5	1.77721e4	0.66175
30	7.946	VV	0.0570	5.99016e4	1.48632e4	0.33924
31	8.068	VV	0.1008	1.25943e5	1.56709e4	0.71326
32	8.183	VV	0.0620	6.66596e4	1.38846e4	0.37752
33	8.216	VV	0.0835	9.15383e4	1.37821e4	0.51841
34	8.412	VV	0.0691	7.16389e4	1.43901e4	0.40572
35	8.474	VV	0.0681	5.30853e4	1.06621e4	0.30064
36	8.606	VV	0.0495	2.70559e4	8190.35107	0.15323
37	8.648	VV	0.0640	4.66490e4	9386.23633	0.26419
38	8.763	VV	0.0464	3.97720e4	1.24022e4	0.22524
39	8.901	VV	0.0524	9684.39063	2604.00903	0.05485
Totals :				1.76573e7	4.66989e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.633	BV	0.2016	9.70040e6	5.75543e5	39.30898
2	5.698	VV	0.0390	9.48457e6	3.81311e6	38.43437
3	5.809	VV	0.0607	1.76345e5	3.75847e4	0.71460
4	5.939	VV	0.0410	7.07037e4	2.23076e4	0.28651
5	5.971	VV	0.0409	7.26043e4	2.42796e4	0.29421
6	6.030	VV	0.0473	9.42382e4	2.79572e4	0.38188
7	6.102	VV	0.0500	7.20385e4	1.86937e4	0.29192
8	6.177	VV	0.0590	1.13871e5	2.60254e4	0.46144
9	6.269	VV	0.0247	2.24093e4	1.32564e4	0.09081
10	6.306	VV	0.0298	4.27388e4	2.01385e4	0.17319
11	6.337	VV	0.0332	4.44139e4	1.97515e4	0.17998
12	6.389	VV	0.0588	9.00697e4	2.19924e4	0.36499
13	6.476	VV	0.0329	5.95313e4	2.57952e4	0.24124
14	6.513	VV	0.0420	7.61306e4	2.61171e4	0.30850
15	6.567	VV	0.0533	8.67993e4	2.09652e4	0.35174
16	6.642	VV	0.0490	6.58730e4	1.74471e4	0.26694
17	6.714	VV	0.0354	4.30104e4	1.76930e4	0.17429
18	6.775	VV	0.0522	7.66097e4	1.97634e4	0.31045
19	6.871	VV	0.0960	2.37835e5	3.11660e4	0.96378
20	7.060	VV	0.0592	1.03078e5	2.35070e4	0.41770
21	7.105	VV	0.0264	4.17328e4	2.27142e4	0.16911
22	7.149	VV	0.0917	2.27004e5	3.28257e4	0.91989
23	7.307	VV	0.0678	1.27043e5	2.65767e4	0.51482
24	7.384	VV	0.0406	7.78906e4	2.62808e4	0.31564
25	7.430	VV	0.0407	8.76968e4	2.94905e4	0.35537
26	7.507	VV	0.0666	1.59867e5	3.12715e4	0.64783
27	7.572	VV	0.0478	1.02554e5	3.16789e4	0.41558
28	7.629	VV	0.0768	2.12308e5	3.60005e4	0.86034
29	7.733	VV	0.0503	1.44443e5	3.89632e4	0.58533
30	7.857	VV	0.0945	3.07180e5	4.14324e4	1.24479
31	7.947	VV	0.0590	1.64689e5	3.92498e4	0.66737
32	8.068	VV	0.1046	3.43470e5	4.10521e4	1.39184

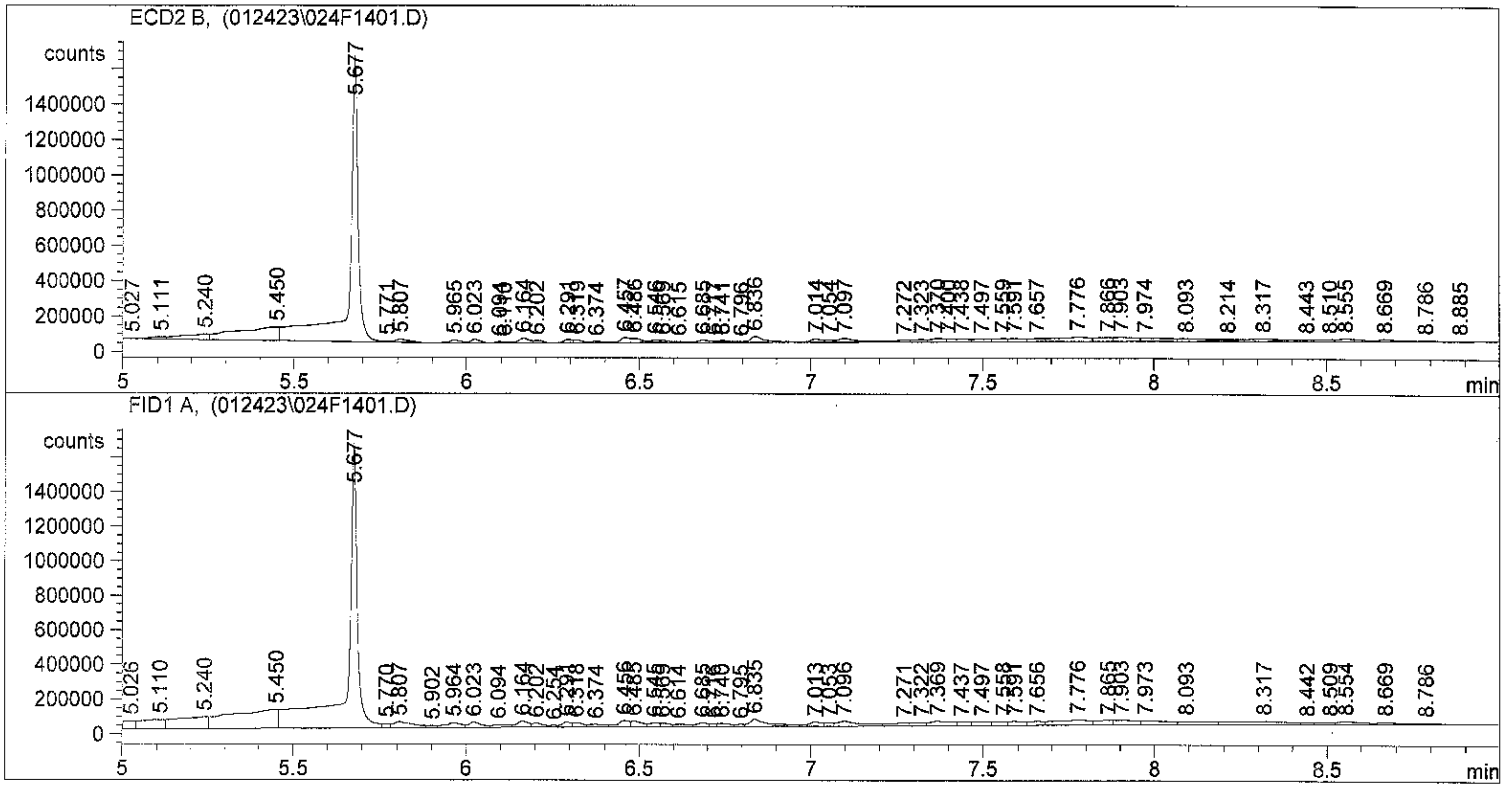
Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
33	8.183	VV	0.0621	1.93214e5	4.01963e4	0.78296
34	8.217	VV	0.1018	3.31346e5	4.03643e4	1.34272
35	8.412	VV	0.0808	2.54677e5	4.25633e4	1.03203
36	8.474	VV	0.0810	2.39498e5	3.93330e4	0.97052
37	8.606	VV	0.0522	1.34009e5	3.79370e4	0.54304
38	8.648	VV	0.0780	2.43482e5	3.94747e4	0.98666
39	8.763	VV	0.0846	2.81478e5	4.34271e4	1.14063
40	8.901	VV	0.0791	2.08786e5	3.47469e4	0.84607
41	8.984	VBA	0.0311	6.16774e4	3.31030e4	0.24994
Totals :				2.46773e7	5.55178e6	

Results obtained with enhanced integrator!

*** End of Report ***

Injection Date : 1/24/2023 8:38:27 AM Seq. Line : 14
Sample Name : 23A0326 09 Location : Vial 24
Acq. Operator : NL Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\012423.S
Method : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed : 3/2/2018 11:45:27 AM by RM
dioxin



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.027	BV	0.0244	4697.54785	2974.23657	0.07441
2	5.111	VV	0.0491	4.28159e4	1.27809e4	0.67826
3	5.240	VV	0.0700	1.75388e5	3.19668e4	2.77836
4	5.450	VV	0.1079	6.81909e5	7.67931e4	10.80228
5	5.677	VV	0.0251	3.07070e6	1.62141e6	48.64360
6	5.771	VV	0.0206	1.02841e4	7248.03662	0.16291
7	5.807	VP	0.0367	5.30332e4	2.01688e4	0.84011
8	5.965	VV	0.0310	3.75971e4	1.75396e4	0.59558
9	6.023	VP	0.0295	4.08420e4	2.11621e4	0.64699
10	6.094	VV	0.0202	1.01529e4	7792.86328	0.16083
11	6.110	VV	0.0261	1.15656e4	7396.68945	0.18321
12	6.164	VV	0.0306	5.39529e4	2.66709e4	0.85468
13	6.202	VV	0.0262	2.48839e4	1.43516e4	0.39419
14	6.291	VV	0.0235	3.26879e4	2.06190e4	0.51782
15	6.319	VV	0.0265	2.86402e4	1.62667e4	0.45370
16	6.374	VV	0.0399	2.04394e4	7980.30029	0.32379

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	6.457	VV	0.0288	5.82062e4	2.97213e4	0.92206
18	6.486	VV	0.0319	5.21877e4	2.44545e4	0.82672
19	6.546	VV	0.0263	2.94597e4	1.61522e4	0.46668
20	6.569	VV	0.0263	2.33984e4	1.34494e4	0.37066
21	6.615	VV	0.0377	2.02745e4	7025.81982	0.32117
22	6.685	VV	0.0285	2.98608e4	1.54599e4	0.47303
23	6.717	VV	0.0169	1.33976e4	1.12763e4	0.21223
24	6.741	VV	0.0339	2.99320e4	1.25129e4	0.47416
25	6.796	VV	0.0245	1.11265e4	6641.55225	0.17626
26	6.836	VV	0.0471	1.21603e5	3.53845e4	1.92634
27	7.014	VV	0.0354	4.85490e4	1.99389e4	0.76908
28	7.054	VV	0.0242	2.30335e4	1.40308e4	0.36488
29	7.097	VV	0.0605	1.05821e5	2.35160e4	1.67633
30	7.272	VV	0.0509	4.80048e4	1.27656e4	0.76046
31	7.323	VV	0.0378	4.07652e4	1.49680e4	0.64577
32	7.370	VV	0.0386	6.07947e4	2.17265e4	0.96306
33	7.400	VV	0.0293	3.15084e4	1.79117e4	0.49913
34	7.438	VV	0.0351	4.18722e4	1.67784e4	0.66331
35	7.497	VV	0.0464	5.58145e4	1.65459e4	0.88417
36	7.559	VV	0.0364	4.93642e4	1.89229e4	0.78199
37	7.591	VV	0.0424	5.86845e4	1.93313e4	0.92963
38	7.657	VV	0.0413	5.55795e4	1.89146e4	0.88045
39	7.776	VV	0.0858	1.84272e5	2.76388e4	2.91910
40	7.866	VV	0.0443	7.86381e4	2.33501e4	1.24572
41	7.903	VV	0.0670	1.08343e5	2.34001e4	1.71629
42	7.974	VV	0.0742	1.13137e5	1.96283e4	1.79222
43	8.093	VV	0.0815	1.04037e5	1.62897e4	1.64807
44	8.214	VV	0.0395	4.01893e4	1.28540e4	0.63665
45	8.317	VV	0.1160	1.45281e5	1.67830e4	2.30143
46	8.443	VV	0.0313	2.07061e4	9175.26270	0.32801
47	8.510	VV	0.0488	3.78999e4	1.14050e4	0.60038
48	8.555	VV	0.0627	7.68302e4	1.60860e4	1.21709
49	8.669	VV	0.0591	5.40062e4	1.23221e4	0.85552
50	8.786	VV	0.0739	3.09044e4	5827.02197	0.48956
51	8.885	VBA	0.0525	9573.31836	2213.41528	0.15165
Totals :				6.31264e6	2.49753e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.026	BV	0.0326	1.10482e5	4.83689e4	1.23952
2	5.110	VV	0.0663	2.65640e5	5.50674e4	2.98027
3	5.240	VV	0.0847	4.73973e5	6.94205e4	5.31761
4	5.450	VV	0.1224	1.08946e6	1.06416e5	12.22290
5	5.677	VV	0.0278	3.49878e6	1.64394e6	39.25352
6	5.770	VV	0.0212	3.67525e4	2.49318e4	0.41233
7	5.807	VV	0.0526	1.45729e5	3.64843e4	1.63497
8	5.902	VV	0.0276	2.64114e4	1.36434e4	0.29632
9	5.964	VV	0.0444	9.69181e4	2.94758e4	1.08735
10	6.023	VV	0.0381	8.54134e4	3.20523e4	0.95827
11	6.094	VV	0.0454	6.16082e4	1.77875e4	0.69120
12	6.164	VV	0.0345	8.57820e4	3.64296e4	0.96241
13	6.202	VV	0.0319	5.32802e4	2.39806e4	0.59776
14	6.254	VV	0.0226	1.71639e4	1.13947e4	0.19257
15	6.291	VV	0.0280	5.64431e4	2.99384e4	0.63325
16	6.318	VV	0.0306	5.15344e4	2.54974e4	0.57818
17	6.374	VV	0.0468	5.36181e4	1.70203e4	0.60155
18	6.456	VV	0.0339	9.21150e4	3.84567e4	1.03346
19	6.485	VV	0.0332	7.73250e4	3.31125e4	0.86753
20	6.545	VV	0.0281	4.86359e4	2.45944e4	0.54566

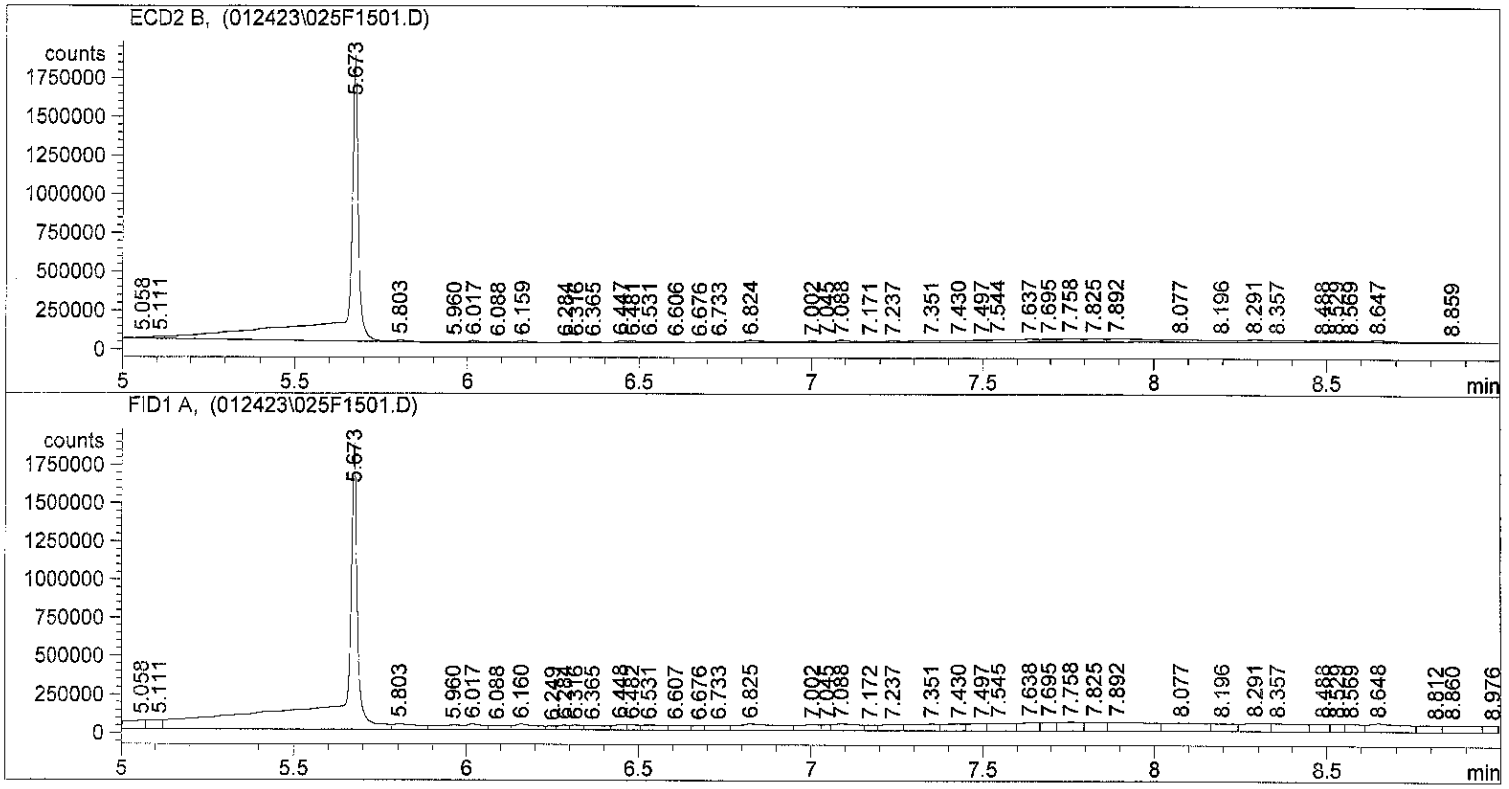
Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
21	6.569	VV	0.0276	4.23159e4	2.18193e4	0.47475
22	6.614	VV	0.0424	4.88505e4	1.52356e4	0.54806
23	6.685	VV	0.0321	5.24612e4	2.34557e4	0.58857
24	6.716	VV	0.0181	2.26809e4	1.91338e4	0.25446
25	6.740	VV	0.0360	5.39494e4	2.02912e4	0.60527
26	6.795	VV	0.0251	2.45490e4	1.42278e4	0.27542
27	6.835	VV	0.0595	1.92642e5	4.28169e4	2.16129
28	7.013	VV	0.0408	7.75778e4	2.67653e4	0.87036
29	7.053	VV	0.0245	3.47258e4	2.07299e4	0.38960
30	7.096	VV	0.0702	1.60201e5	3.00626e4	1.79733
31	7.271	VV	0.0549	7.68169e4	1.87158e4	0.86183
32	7.322	VV	0.0385	5.77922e4	2.07359e4	0.64838
33	7.369	VV	0.0576	1.20868e5	2.73268e4	1.35604
34	7.437	VV	0.0354	5.58439e4	2.21496e4	0.62653
35	7.497	VV	0.0468	7.39951e4	2.17156e4	0.83017
36	7.558	VV	0.0371	6.35897e4	2.38802e4	0.71343
37	7.591	VV	0.0429	7.44836e4	2.41770e4	0.83565
38	7.656	VV	0.0417	7.00781e4	2.35300e4	0.78622
39	7.776	VV	0.0888	2.20396e5	3.18405e4	2.47267
40	7.865	VV	0.0445	9.22267e4	2.72567e4	1.03471
41	7.903	VV	0.0675	1.26801e5	2.71683e4	1.42260
42	7.973	VV	0.0739	1.34685e5	2.31539e4	1.51106
43	8.093	VV	0.0823	1.25282e5	1.94034e4	1.40556
44	8.317	VV	0.1490	2.19640e5	1.91225e4	2.46419
45	8.442	VV	0.0315	2.51973e4	1.10828e4	0.28269
46	8.509	VV	0.0493	4.40808e4	1.30811e4	0.49455
47	8.554	VV	0.0644	8.65733e4	1.76053e4	0.97128
48	8.669	VV	0.0611	6.12206e4	1.34486e4	0.68685
49	8.786	VBA	0.0952	4.66950e4	6549.91602	0.52388
Totals :				8.91328e6	2.94449e6	

Results obtained with enhanced integrator!

*** End of Report ***

Injection Date : 1/24/2023 8:52:40 AM Seq. Line : 15
Sample Name : 23A0326 12 Location : Vial 25
Acq. Operator : NL Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\012423.S
Method : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed : 3/2/2018 11:45:27 AM by RM
dioxin



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.058	BV	0.0301	1.57707e4	7330.74268	0.25696
2	5.111	VV	0.0401	3.37583e4	1.26498e4	0.55005
3	5.673	VV	0.0299	4.23687e6	1.83741e6	69.03422
4	5.803	VP	0.0353	2.84886e4	1.13328e4	0.46418
5	5.960	VV	0.0359	1.40471e4	5480.85596	0.22888
6	6.017	VV	0.0303	2.47377e4	1.23699e4	0.40307
7	6.088	VV	0.0395	1.06905e4	3612.32227	0.17419
8	6.159	VP	0.0358	3.22359e4	1.30412e4	0.52524
9	6.284	VV	0.0234	1.08860e4	7301.98926	0.17737
10	6.316	VV	0.0286	1.50562e4	8139.51855	0.24532
11	6.365	VV	0.0429	1.70453e4	6044.89551	0.27773
12	6.447	VV	0.0282	2.37224e4	1.24835e4	0.38653
13	6.481	VV	0.0309	2.04321e4	9966.85938	0.33291
14	6.531	VV	0.0499	3.12508e4	8489.57812	0.50919
15	6.606	VV	0.0398	1.63050e4	5307.90332	0.26567
16	6.676	VV	0.0276	8112.89746	4379.82617	0.13219

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	6.733	VV	0.0461	2.31811e4	6912.91650	0.37771
18	6.824	VV	0.0716	8.57432e4	1.54733e4	1.39707
19	7.002	VV	0.0471	3.60373e4	1.07533e4	0.58718
20	7.045	VV	0.0234	1.43636e4	9095.08398	0.23404
21	7.088	VV	0.0563	6.51487e4	1.57401e4	1.06151
22	7.171	VV	0.0337	1.92471e4	8116.56055	0.31361
23	7.237	VV	0.0593	4.32614e4	1.06726e4	0.70489
24	7.351	VV	0.0724	7.42445e4	1.34451e4	1.20972
25	7.430	VV	0.0551	6.01496e4	1.45743e4	0.98006
26	7.497	VV	0.0467	5.26543e4	1.47186e4	0.85793
27	7.544	VV	0.0621	8.53542e4	1.80872e4	1.39074
28	7.637	VV	0.0518	8.41739e4	2.24403e4	1.37150
29	7.695	VV	0.0391	5.84278e4	2.05653e4	0.95200
30	7.758	VV	0.0588	1.03186e5	2.41517e4	1.68129
31	7.825	VV	0.0519	8.20727e4	2.18229e4	1.33727
32	7.892	VV	0.1041	1.72278e5	2.09157e4	2.80704
33	8.077	VV	0.0981	1.29606e5	1.69740e4	2.11176
34	8.196	VV	0.0609	5.88198e4	1.32142e4	0.95839
35	8.291	VV	0.0687	8.31797e4	1.71223e4	1.35530
36	8.357	VV	0.0780	7.44576e4	1.27683e4	1.21319
37	8.488	VV	0.0518	3.77946e4	1.07990e4	0.61581
38	8.529	VV	0.0348	2.69349e4	1.09179e4	0.43887
39	8.569	VV	0.0470	3.12966e4	9863.52832	0.50994
40	8.647	VV	0.0625	6.98614e4	1.52311e4	1.13830
41	8.859	VP	0.1037	2.64633e4	3404.69702	0.43118
Totals :				6.13735e6	2.32312e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.058	BV	0.0507	2.22999e5	5.69251e4	1.56781
2	5.111	VV	0.0447	1.85702e5	6.06733e4	1.30559
3	5.673	VV	0.0388	5.73575e6	1.86947e6	40.32549
4	5.803	VV	0.0649	1.95877e5	3.88135e4	1.37712
5	5.960	VV	0.0713	1.68686e5	3.01554e4	1.18595
6	6.017	VV	0.0481	1.29644e5	3.68227e4	0.91147
7	6.088	VV	0.0500	1.07129e5	2.77821e4	0.75318
8	6.160	VV	0.0625	1.75641e5	3.69289e4	1.23485
9	6.249	VV	0.0249	4.19658e4	2.46645e4	0.29504
10	6.284	VV	0.0309	6.68626e4	3.12993e4	0.47008
11	6.316	VV	0.0341	7.79824e4	3.23644e4	0.54826
12	6.365	VV	0.0603	1.32097e5	3.06259e4	0.92872
13	6.448	VV	0.0369	9.64897e4	3.76581e4	0.67838
14	6.482	VV	0.0336	8.07654e4	3.53807e4	0.56783
15	6.531	VV	0.0602	1.56169e5	3.42613e4	1.09795
16	6.607	VV	0.0487	1.21031e5	3.16212e4	0.85091
17	6.676	VV	0.0320	6.95515e4	3.11910e4	0.48899
18	6.733	VV	0.0567	1.45452e5	3.41369e4	1.02261
19	6.825	VV	0.1131	3.94126e5	4.33531e4	2.77092
20	7.002	VV	0.0592	1.75298e5	3.99100e4	1.23244
21	7.045	VV	0.0238	6.19934e4	3.85609e4	0.43585
22	7.088	VV	0.0701	2.42428e5	4.55123e4	1.70440
23	7.172	VV	0.0341	9.27734e4	3.84897e4	0.65225
24	7.237	VV	0.0635	1.83374e5	4.15172e4	1.28922
25	7.351	VV	0.0784	2.72207e5	4.51083e4	1.91376
26	7.430	VV	0.0576	2.03123e5	4.68024e4	1.42807
27	7.497	VV	0.0471	1.71168e5	4.74269e4	1.20341
28	7.545	VV	0.0644	2.56182e5	5.11377e4	1.80110
29	7.638	VV	0.0549	2.30495e5	5.61593e4	1.62051
30	7.695	VV	0.0397	1.57986e5	5.46949e4	1.11073

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
31	7.758	VV	0.0623	2.68279e5	5.87318e4	1.88615
32	7.825	VV	0.0534	2.21338e5	5.68900e4	1.55613
33	7.892	VV	0.1137	5.11574e5	5.64550e4	3.59665
34	8.077	VV	0.1057	4.46461e5	5.38527e4	3.13887
35	8.196	VV	0.0630	2.35902e5	5.09446e4	1.65852
36	8.291	VV	0.0761	3.05277e5	5.55336e4	2.14626
37	8.357	VV	0.0852	3.33034e5	5.16544e4	2.34142
38	8.488	VV	0.0513	1.83500e5	5.06315e4	1.29011
39	8.529	VV	0.0357	1.30069e5	5.10407e4	0.91446
40	8.569	VV	0.0504	1.74240e5	5.02684e4	1.22500
41	8.648	VV	0.0981	4.29260e5	5.62044e4	3.01793
42	8.812	VV	0.0561	1.98137e5	4.52145e4	1.39302
43	8.860	VV	0.0913	3.11857e5	4.58971e4	2.19253
44	8.976	VBA	0.0387	1.23755e5	4.40901e4	0.87007
Totals :				1.42236e7	3.75686e6	

Results obtained with enhanced integrator!

*** End of Report ***

```
Injection Date  : 1/24/2023 9:06:31 AM          Seq. Line :  16
Sample Name     : 23A0328 06                    Location : Vial 26
Acq. Operator   : NL                               Inj :  1
                                              Inj Volume : 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\012423.S
Method          : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed    : 3/2/2018 11:45:27 AM by RM
dioxin
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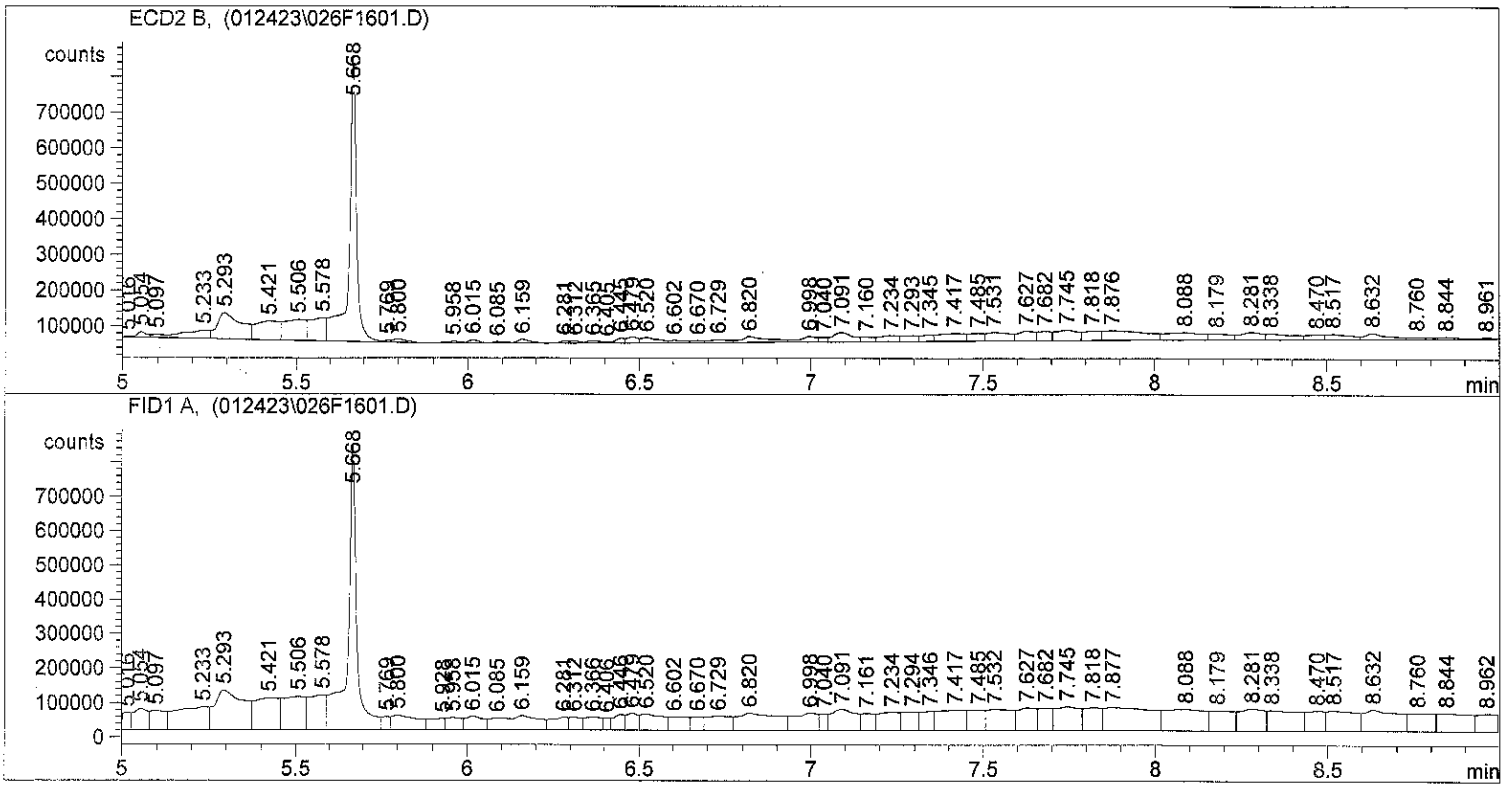

Area Percent Report

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Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.016	BV	0.0197	3007.14526	2381.54639	0.06083
2	5.054	VV	0.0259	2.86589e4	1.59895e4	0.57977
3	5.097	VV	0.0395	2.49004e4	8926.48730	0.50374
4	5.233	VV	0.0663	1.20684e5	2.33637e4	2.44145
5	5.293	VV	0.0676	3.61485e5	7.32164e4	7.31285
6	5.421	VV	0.0617	2.48129e5	5.29139e4	5.01965
7	5.506	VV	0.0566	2.50491e5	5.88710e4	5.06744
8	5.578	VV	0.0463	2.18646e5	6.48753e4	4.42321
9	5.668	VV	0.0219	1.24105e6	8.07358e5	25.10641
10	5.769	VV	0.0211	7722.85400	5269.99951	0.15623
11	5.800	VP	0.0356	2.72293e4	1.07353e4	0.55085
12	5.958	VV	0.0388	1.49618e4	5323.37842	0.30268
13	6.015	VV	0.0306	1.90693e4	9437.19434	0.38577
14	6.085	VV	0.0391	1.30596e4	4608.09326	0.26420
15	6.159	VP	0.0386	2.97801e4	1.13395e4	0.60245
16	6.281	VV	0.0257	1.16136e4	6883.72705	0.23494

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	6.312	VV	0.0282	1.30244e4	6842.77637	0.26348
18	6.365	VV	0.0422	1.84043e4	6660.85596	0.37232
19	6.405	VV	0.0168	4843.75146	4098.62695	0.09799
20	6.445	VV	0.0266	2.45571e4	1.39134e4	0.49679
21	6.479	VV	0.0322	3.82363e4	1.77161e4	0.77352
22	6.520	VV	0.0495	5.36978e4	1.50843e4	1.08631
23	6.602	VV	0.0441	2.40288e4	7176.03174	0.48610
24	6.670	VV	0.0309	1.41566e4	6637.10547	0.28639
25	6.729	VV	0.0531	3.48120e4	8620.78809	0.70425
26	6.820	VV	0.0748	9.58435e4	1.67449e4	1.93892
27	6.998	VV	0.0504	5.67008e4	1.55849e4	1.14706
28	7.040	VV	0.0222	2.05835e4	1.31851e4	0.41640
29	7.091	VV	0.0588	1.05016e5	2.61659e4	2.12449
30	7.160	VV	0.0373	3.47243e4	1.33793e4	0.70247
31	7.234	VV	0.0583	6.53865e4	1.68319e4	1.32277
32	7.293	VV	0.0466	5.21827e4	1.66519e4	1.05566
33	7.345	VV	0.0357	4.59486e4	1.86535e4	0.92954
34	7.417	VV	0.0678	1.19616e5	2.25987e4	2.41984
35	7.485	VV	0.0456	6.96977e4	2.21997e4	1.40999
36	7.531	VV	0.0640	1.18810e5	2.43072e4	2.40353
37	7.627	VV	0.0464	9.45263e4	2.79599e4	1.91227
38	7.682	VV	0.0387	7.10626e4	2.61632e4	1.43760
39	7.745	VV	0.0605	1.33967e5	2.97815e4	2.71015
40	7.818	VV	0.0500	9.06764e4	2.64497e4	1.83439
41	7.876	VV	0.1122	2.33730e5	2.66862e4	4.72836
42	8.088	VV	0.0937	1.53211e5	2.06103e4	3.09945
43	8.179	VV	0.0622	7.61144e4	1.70051e4	1.53980
44	8.281	VV	0.0651	9.71935e4	2.13710e4	1.96623
45	8.338	VV	0.0734	9.32186e4	1.68970e4	1.88581
46	8.470	VV	0.0502	4.76097e4	1.38248e4	0.96315
47	8.517	VV	0.0652	7.30820e4	1.46544e4	1.47845
48	8.632	VV	0.0653	7.92903e4	1.67287e4	1.60405
49	8.760	VV	0.0607	2.83798e4	6160.44971	0.57412
50	8.844	VV	0.0668	2.80923e4	5773.78662	0.56831
51	8.961	VBA	0.0447	1.22376e4	4111.51270	0.24757
Totals :				4.94315e6	1.72872e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.016	BV	0.0273	8.07879e4	4.93674e4	0.57511
2	5.054	VV	0.0365	1.67968e5	6.22553e4	1.19572
3	5.097	VV	0.0415	1.60843e5	5.43911e4	1.14500
4	5.233	VV	0.0839	4.42336e5	6.62623e4	3.14887
5	5.293	VV	0.0772	6.62006e5	1.14990e5	4.71264
6	5.421	VV	0.0633	4.44915e5	9.22688e4	3.16724
7	5.506	VV	0.0597	4.20274e5	9.66254e4	2.99182
8	5.578	VV	0.0472	3.49248e5	1.01270e5	2.48621
9	5.668	VV	0.0259	1.57640e6	8.41409e5	11.22195
10	5.769	VV	0.0229	6.18300e4	3.80716e4	0.44015
11	5.800	VV	0.0658	2.20166e5	4.29522e4	1.56730
12	5.928	VV	0.0409	1.05364e5	3.24548e4	0.75006
13	5.958	VV	0.0419	1.10444e5	3.58853e4	0.78622
14	6.015	VV	0.0484	1.41408e5	3.98729e4	1.00665
15	6.085	VV	0.0539	1.43565e5	3.49359e4	1.02200
16	6.159	VV	0.0678	2.12726e5	4.15328e4	1.51434
17	6.281	VV	0.0473	1.31862e5	3.72686e4	0.93869
18	6.312	VV	0.0337	8.89968e4	3.74200e4	0.63354
19	6.366	VV	0.0498	1.28317e5	3.75706e4	0.91345
20	6.406	VV	0.0172	4.27849e4	3.52587e4	0.30457

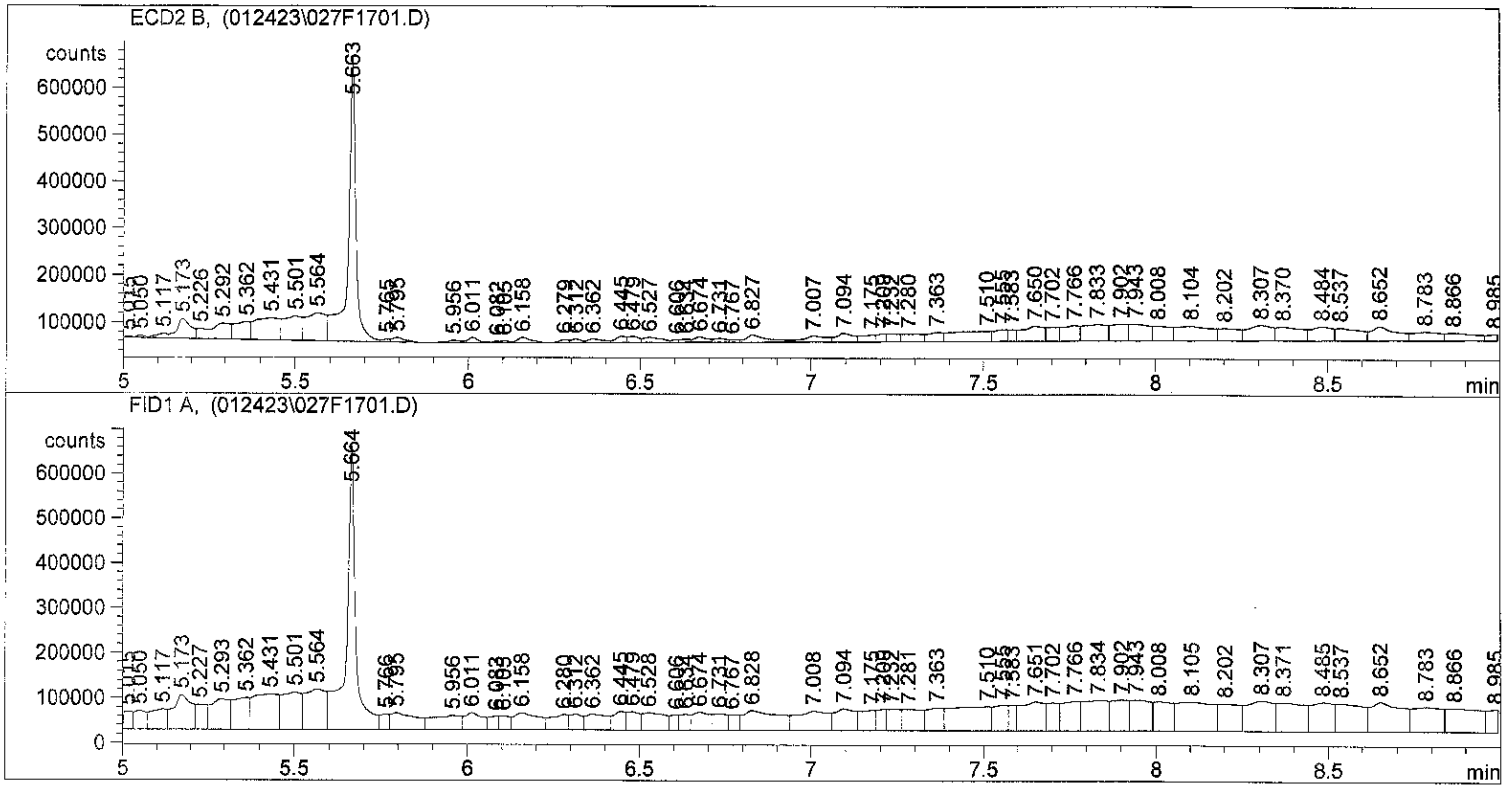
Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
21	6.446	VV	0.0325	1.02810e5	4.53240e4	0.73188
22	6.479	VV	0.0351	1.18966e5	4.93325e4	0.84688
23	6.520	VV	0.0612	2.14015e5	4.69588e4	1.52352
24	6.602	VV	0.0486	1.47797e5	3.95600e4	1.05213
25	6.670	VV	0.0342	9.54586e4	3.94467e4	0.67954
26	6.729	VV	0.0619	2.00341e5	4.17957e4	1.42617
27	6.820	VV	0.1059	4.23871e5	5.04874e4	3.01742
28	6.998	VV	0.0647	2.44970e5	5.04354e4	1.74387
29	7.040	VV	0.0225	7.65688e4	4.82997e4	0.54507
30	7.091	VV	0.0695	3.03797e5	6.15949e4	2.16265
31	7.161	VV	0.0380	1.30785e5	4.92435e4	0.93102
32	7.234	VV	0.0612	2.19609e5	5.31550e4	1.56334
33	7.294	VV	0.0472	1.69983e5	5.33447e4	1.21007
34	7.346	VV	0.0369	1.42637e5	5.56708e4	1.01540
35	7.417	VV	0.0707	3.33314e5	6.00609e4	2.37278
36	7.485	VV	0.0460	1.90351e5	6.00850e4	1.35506
37	7.532	VV	0.0674	3.23309e5	6.24758e4	2.30155
38	7.627	VV	0.0493	2.41919e5	6.67345e4	1.72215
39	7.682	VV	0.0391	1.79670e5	6.52774e4	1.27902
40	7.745	VV	0.0641	3.33281e5	6.92835e4	2.37254
41	7.818	VV	0.0510	2.33321e5	6.64101e4	1.66095
42	7.877	VV	0.1214	6.51474e5	6.70112e4	4.63767
43	8.088	VV	0.0996	4.94276e5	6.22563e4	3.51862
44	8.179	VV	0.0668	2.78233e5	5.92158e4	1.98067
45	8.281	VV	0.0710	3.24934e5	6.42158e4	2.31312
46	8.338	VV	0.0820	3.80945e5	6.00985e4	2.71185
47	8.470	VV	0.0517	2.06940e5	5.78495e4	1.47315
48	8.517	VV	0.0758	3.47560e5	5.89690e4	2.47419
49	8.632	VV	0.0921	4.39979e5	6.17529e4	3.13209
50	8.760	VV	0.0653	2.59831e5	5.19912e4	1.84966
51	8.844	VV	0.0882	3.45075e5	5.21278e4	2.45650
52	8.962	VBA	0.0554	1.99182e5	5.11953e4	1.41792
Totals :				1.40474e7	3.67372e6	

Results obtained with enhanced integrator!

*** End of Report ***

Injection Date : 1/24/2023 9:20:39 AM Seq. Line : 17
Sample Name : 23A0328 07 Location : Vial 27
Acq. Operator : NL Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\012423.S
Method : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed : 3/2/2018 11:45:27 AM by RM
dioxin



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.015	BV	0.0236	4381.12988	3087.93188	0.08276
2	5.050	VV	0.0231	9025.83008	5806.15723	0.17050
3	5.117	VV	0.0331	2.39716e4	9949.20020	0.45282
4	5.173	VV	0.0407	1.22288e5	4.22895e4	2.31001
5	5.226	VV	0.0314	4.75115e4	2.18291e4	0.89749
6	5.292	VV	0.0492	1.17108e5	3.39837e4	2.21216
7	5.362	VV	0.0417	1.16890e5	3.82252e4	2.20805
8	5.431	VV	0.0635	2.29345e5	4.73812e4	4.33232
9	5.501	VV	0.0460	1.84709e5	5.26102e4	3.48915
10	5.564	VV	0.0556	2.38306e5	5.96284e4	4.50159
11	5.663	VV	0.0212	9.50290e5	6.09744e5	17.95092
12	5.765	VV	0.0232	1.00217e4	6430.13281	0.18931
13	5.795	VP	0.0367	2.60424e4	1.02396e4	0.49194
14	5.956	BV	0.0381	1.43678e4	5217.71875	0.27141
15	6.011	VV	0.0292	2.25078e4	1.12985e4	0.42517
16	6.082	VV	0.0198	4358.42041	3223.96484	0.08233

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	6.105	VV	0.0279	6973.09863	3721.13867	0.13172
18	6.158	VP	0.0402	3.08135e4	1.11807e4	0.58207
19	6.279	VV	0.0259	1.27331e4	7118.76758	0.24053
20	6.312	VV	0.0297	1.53151e4	7855.08838	0.28930
21	6.362	VV	0.0498	2.67222e4	7835.64404	0.50478
22	6.445	VV	0.0298	2.86422e4	1.40253e4	0.54105
23	6.479	VV	0.0330	2.99006e4	1.34311e4	0.56482
24	6.527	VV	0.0504	4.17304e4	1.12163e4	0.78828
25	6.606	VV	0.0193	7874.38916	5649.53564	0.14875
26	6.634	VV	0.0273	1.39298e4	7273.06445	0.26313
27	6.674	VV	0.0388	3.26423e4	1.19759e4	0.61661
28	6.731	VV	0.0349	2.11158e4	8518.10938	0.39888
29	6.767	VV	0.0277	1.17352e4	6038.28076	0.22168
30	6.827	VV	0.0611	7.20190e4	1.55418e4	1.36043
31	7.007	VV	0.0658	6.57614e4	1.35002e4	1.24223
32	7.094	VV	0.0491	6.39415e4	1.85812e4	1.20785
33	7.175	VV	0.0377	4.10564e4	1.46605e4	0.77555
34	7.209	VV	0.0267	3.18652e4	1.71358e4	0.60193
35	7.232	VV	0.0340	4.10928e4	1.71135e4	0.77624
36	7.280	VV	0.0513	6.58015e4	1.65817e4	1.24299
37	7.363	VV	0.0437	6.20209e4	1.97004e4	1.17157
38	7.510	VV	0.0967	1.73857e5	2.18866e4	3.28415
39	7.555	VV	0.0373	6.72004e4	2.50423e4	1.26941
40	7.583	VV	0.0231	3.81543e4	2.46588e4	0.72073
41	7.650	VV	0.0607	1.45576e5	3.22343e4	2.74992
42	7.702	VV	0.0334	7.22982e4	2.97324e4	1.36571
43	7.766	VV	0.0459	1.13603e5	3.32232e4	2.14595
44	7.833	VV	0.0630	1.67851e5	3.49949e4	3.17069
45	7.902	VV	0.0450	1.18775e5	3.55096e4	2.24365
46	7.943	VV	0.0498	1.35125e5	3.52154e4	2.55249
47	8.008	VV	0.0499	1.10914e5	3.09115e4	2.09515
48	8.104	VV	0.0903	2.17750e5	3.08608e4	4.11329
49	8.202	VV	0.0589	1.10994e5	2.64962e4	2.09667
50	8.307	VV	0.0727	1.69146e5	3.30814e4	3.19515
51	8.370	VV	0.0702	1.53304e5	2.92017e4	2.89591
52	8.484	VV	0.0623	1.28008e5	2.96770e4	2.41805
53	8.537	VV	0.0661	1.35752e5	2.67924e4	2.56436
54	8.652	VV	0.0695	1.58668e5	3.00805e4	2.99723
55	8.783	VV	0.0737	1.05056e5	1.86684e4	1.98451
56	8.866	VV	0.0804	9.96226e4	1.60582e4	1.88186
57	8.985	VBA	0.0354	2.73591e4	1.28987e4	0.51681
Totals :				5.29382e6	1.76682e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.015	BV	0.0293	7.08241e4	4.02791e4	0.54962
2	5.050	VV	0.0318	9.77696e4	4.25697e4	0.75873
3	5.117	VV	0.0428	1.52742e5	4.58912e4	1.18534
4	5.173	VV	0.0518	2.97804e5	7.75521e4	2.31107
5	5.227	VV	0.0320	1.25750e5	5.64298e4	0.97587
6	5.293	VV	0.0524	2.52354e5	6.77791e4	1.95836
7	5.362	VV	0.0429	2.25354e5	7.11658e4	1.74883
8	5.431	VV	0.0651	3.95669e5	7.94803e4	3.07054
9	5.501	VV	0.0472	3.03189e5	8.38526e4	2.35286
10	5.564	VV	0.0570	3.70445e5	9.00962e4	2.87479
11	5.664	VV	0.0252	1.21639e6	6.39100e5	9.43965
12	5.766	VV	0.0251	5.94476e4	3.44343e4	0.46134
13	5.795	VV	0.0656	1.90205e5	3.78750e4	1.47606
14	5.956	VV	0.0759	1.91645e5	3.19927e4	1.48724

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
15	6.011	VV	0.0477	1.36206e5	3.81321e4	1.05701
16	6.083	VV	0.0266	5.84621e4	3.01375e4	0.45369
17	6.105	VV	0.0315	6.70715e4	3.06583e4	0.52050
18	6.158	VV	0.0672	1.93828e5	3.81783e4	1.50418
19	6.280	VV	0.0471	1.21160e5	3.43834e4	0.94024
20	6.312	VV	0.0342	8.52278e4	3.52399e4	0.66140
21	6.362	VV	0.0613	1.55838e5	3.54075e4	1.20936
22	6.445	VV	0.0358	1.07200e5	4.19059e4	0.83191
23	6.479	VV	0.0357	1.01836e5	4.14374e4	0.79029
24	6.528	VV	0.0609	1.82046e5	3.94032e4	1.41275
25	6.606	VV	0.0204	5.08507e4	3.41330e4	0.39462
26	6.634	VV	0.0294	7.51407e4	3.58564e4	0.58312
27	6.674	VV	0.0466	1.38171e5	4.07084e4	1.07226
28	6.731	VV	0.0388	1.05348e5	3.74637e4	0.81754
29	6.767	VV	0.0285	7.06876e4	3.51182e4	0.54856
30	6.828	VV	0.0922	3.27511e5	4.48460e4	2.54160
31	7.008	VV	0.0863	2.88079e5	4.34752e4	2.23560
32	7.094	VV	0.0564	1.98685e5	4.88795e4	1.54187
33	7.175	VV	0.0397	1.34808e5	4.52613e4	1.04616
34	7.209	VV	0.0276	9.28256e4	4.78625e4	0.72036
35	7.232	VV	0.0343	1.16275e5	4.79251e4	0.90234
36	7.281	VV	0.0532	1.92467e5	4.75736e4	1.49362
37	7.363	VV	0.0457	1.69268e5	5.10009e4	1.31358
38	7.510	VV	0.0992	4.38670e5	5.37312e4	3.40424
39	7.555	VV	0.0383	1.57739e5	5.70565e4	1.22411
40	7.583	VV	0.0231	8.79764e4	5.67775e4	0.68273
41	7.651	VV	0.0643	3.11991e5	6.46043e4	2.42116
42	7.702	VV	0.0345	1.52142e5	6.22923e4	1.18068
43	7.766	VV	0.0471	2.32652e5	6.60238e4	1.80546
44	7.834	VV	0.0641	3.33190e5	6.80467e4	2.58567
45	7.902	VV	0.0465	2.32879e5	6.88175e4	1.80723
46	7.943	VV	0.0507	2.69187e5	6.86742e4	2.08899
47	8.008	VV	0.0507	2.36403e5	6.46168e4	1.83458
48	8.105	VV	0.0958	4.77212e5	6.49221e4	3.70334
49	8.202	VV	0.0590	2.60820e5	6.09164e4	2.02406
50	8.307	VV	0.0765	3.69439e5	6.78951e4	2.86698
51	8.371	VV	0.0751	3.53140e5	6.42529e4	2.74049
52	8.485	VV	0.0636	2.93802e5	6.51505e4	2.28001
53	8.537	VV	0.0705	3.40066e5	6.24609e4	2.63903
54	8.652	VV	0.0821	4.20473e5	6.61799e4	3.26302
55	8.783	VV	0.0776	3.29840e5	5.52552e4	2.55968
56	8.866	VV	0.0874	3.60352e5	5.29543e4	2.79647
57	8.985	VBA	0.0363	1.09433e5	5.02352e4	0.84924
Totals :				1.28860e7	3.56435e6	

Results obtained with enhanced integrator!

*** End of Report ***

```
Injection Date  : 1/24/2023 9:34:31 AM          Seq. Line :  18
Sample Name     : 23A0328 12                    Location : Vial 28
Acq. Operator   : NL                               Inj :  1
                                              Inj Volume : 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\012423.S
Method          : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed    : 3/2/2018 11:45:27 AM by RM
dioxin
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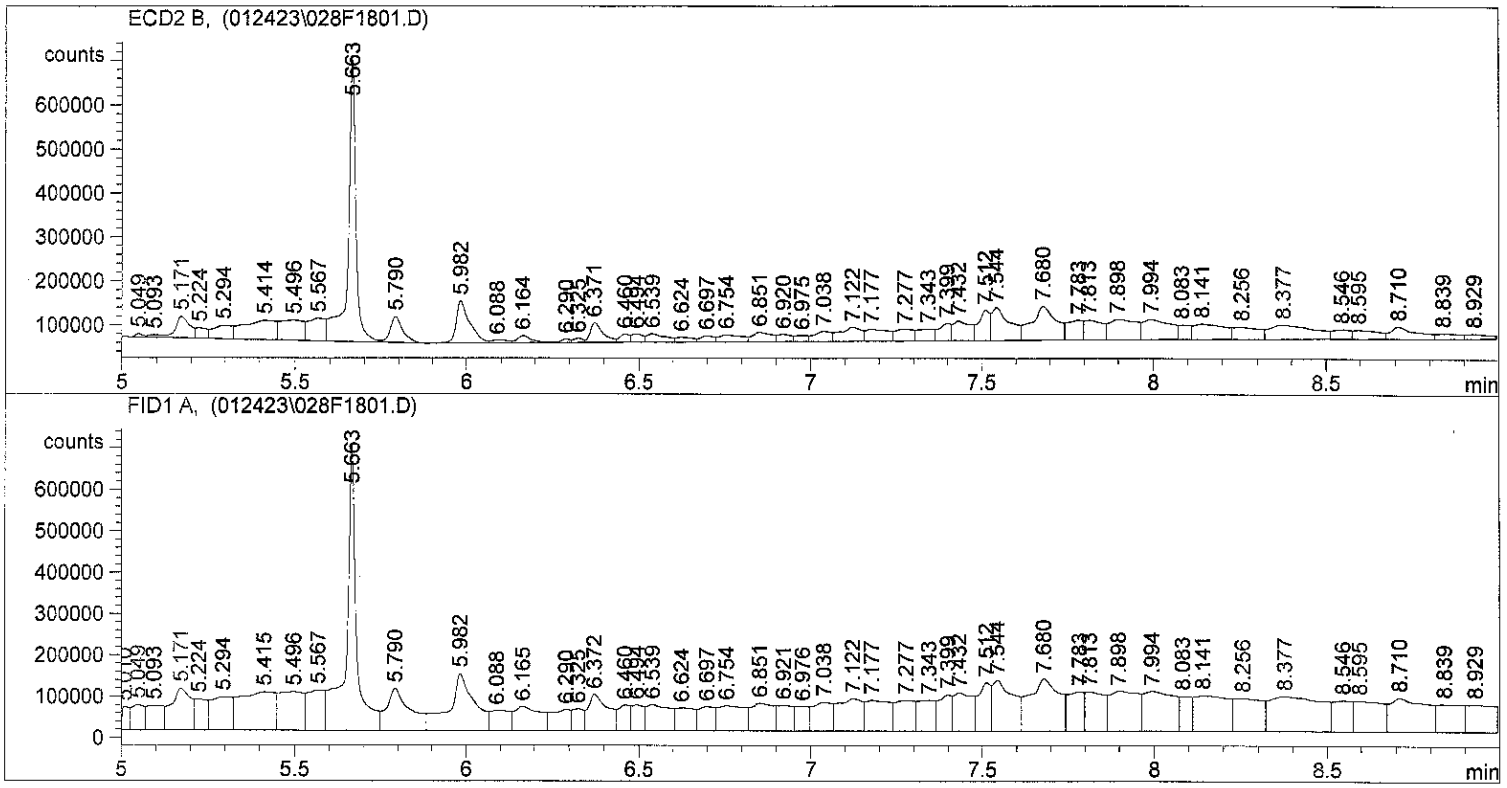

Area Percent Report

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Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000
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Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.049	VV	0.0231	1.20301e4	8194.13574	0.17831
2	5.093	VV	0.0410	1.65991e4	6045.60889	0.24603
3	5.171	VV	0.0396	1.37749e5	4.92232e4	2.04168
4	5.224	VV	0.0321	5.39437e4	2.41055e4	0.79954
5	5.294	VV	0.0529	1.17806e5	3.06413e4	1.74609
6	5.414	VV	0.0823	2.90046e5	4.43324e4	4.29897
7	5.496	VV	0.0605	2.08781e5	4.63864e4	3.09449
8	5.567	VV	0.0464	1.75375e5	5.18851e4	2.59937
9	5.663	VV	0.0212	1.01020e6	6.47627e5	14.97283
10	5.790	VP	0.0383	1.53441e5	5.90159e4	2.27425
11	5.982	VV	0.0377	2.61963e5	9.63144e4	3.88275
12	6.088	VV	0.0431	2.22638e4	6642.44043	0.32999
13	6.164	VV	0.0403	4.46018e4	1.61343e4	0.66108
14	6.290	VV	0.0285	1.62908e4	8465.45410	0.24146
15	6.325	VV	0.0280	1.88729e4	1.00027e4	0.27973
16	6.371	VV	0.0381	1.16339e5	4.50881e4	1.72434

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	6.460	VV	0.0291	3.73363e4	1.88791e4	0.55339
18	6.494	VV	0.0328	4.20166e4	1.89842e4	0.62276
19	6.539	VV	0.0514	7.41119e4	1.94672e4	1.09847
20	6.624	VV	0.0439	3.88227e4	1.13472e4	0.57542
21	6.697	VV	0.0393	3.90408e4	1.45507e4	0.57865
22	6.754	VV	0.0618	7.68854e4	1.63545e4	1.13957
23	6.851	VV	0.0525	8.48522e4	2.17539e4	1.25766
24	6.920	VV	0.0412	4.79075e4	1.68486e4	0.71007
25	6.975	VV	0.0372	3.58252e4	1.38281e4	0.53099
26	7.038	VV	0.0501	8.08679e4	2.35245e4	1.19860
27	7.122	VV	0.0610	1.39795e5	3.19932e4	2.07201
28	7.177	VV	0.0581	1.24045e5	2.78028e4	1.83856
29	7.277	VV	0.0539	9.93948e4	2.70344e4	1.47320
30	7.343	VV	0.0479	9.19149e4	2.68623e4	1.36234
31	7.399	VV	0.0347	9.72318e4	3.94885e4	1.44114
32	7.432	VV	0.0476	1.59400e5	4.46754e4	2.36259
33	7.512	VV	0.0319	1.52157e5	6.86636e4	2.25524
34	7.544	VV	0.0484	2.72664e5	7.50051e4	4.04135
35	7.680	VV	0.0672	3.87374e5	7.76998e4	5.74154
36	7.783	VV	0.0427	1.42090e5	4.51801e4	2.10602
37	7.813	VV	0.0482	1.65899e5	4.48392e4	2.45891
38	7.898	VV	0.0762	2.52103e5	4.58263e4	3.73659
39	7.994	VV	0.0770	2.59390e5	4.58207e4	3.84461
40	8.083	VV	0.0323	7.48649e4	3.32121e4	1.10963
41	8.141	VV	0.0795	2.19597e5	3.53204e4	3.25480
42	8.256	VV	0.0703	1.46245e5	2.78505e4	2.16760
43	8.377	VV	0.1213	2.96639e5	3.22621e4	4.39669
44	8.546	VV	0.0537	7.90720e4	2.16293e4	1.17198
45	8.595	VV	0.0665	1.07122e5	2.06698e4	1.58773
46	8.710	VV	0.0716	1.51207e5	2.82001e4	2.24114
47	8.839	VV	0.0626	6.03271e4	1.26498e4	0.89415
48	8.929	VBA	0.0671	5.43601e4	1.13032e4	0.80571
Totals :				6.74686e6	2.14963e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.010	BV	0.0249	8.47172e4	5.66496e4	0.46419
2	5.049	VV	0.0345	1.53240e5	6.27254e4	0.83964
3	5.093	VV	0.0459	1.89028e5	5.98399e4	1.03573
4	5.171	VV	0.0547	4.16231e5	1.01733e5	2.28064
5	5.224	VV	0.0331	1.75679e5	7.57400e4	0.96259
6	5.294	VV	0.0564	3.36238e5	8.11157e4	1.84234
7	5.415	VV	0.0895	6.64340e5	9.28146e4	3.64010
8	5.496	VV	0.0615	4.28844e5	9.35202e4	2.34976
9	5.567	VV	0.0477	3.41249e5	9.78487e4	1.86980
10	5.663	VV	0.0271	1.42814e6	6.92145e5	7.82517
11	5.790	VV	0.0655	4.99043e5	1.01294e5	2.73439
12	5.982	VV	0.0663	7.11362e5	1.37519e5	3.89775
13	6.088	VV	0.0520	1.94714e5	4.83324e4	1.06689
14	6.165	VV	0.0696	3.07170e5	5.81851e4	1.68307
15	6.290	VV	0.0491	1.88999e5	5.11079e4	1.03558
16	6.325	VV	0.0323	1.18907e5	5.28055e4	0.65152
17	6.372	VV	0.0541	3.47863e5	8.81095e4	1.90604
18	6.460	VV	0.0335	1.46829e5	6.23184e4	0.80452
19	6.494	VV	0.0349	1.49776e5	6.25808e4	0.82066
20	6.539	VV	0.0627	3.01873e5	6.32779e4	1.65405
21	6.624	VV	0.0484	2.11409e5	5.55546e4	1.15837
22	6.697	VV	0.0445	1.84958e5	5.91006e4	1.01344
23	6.754	VV	0.0702	3.31189e5	6.11747e4	1.81468

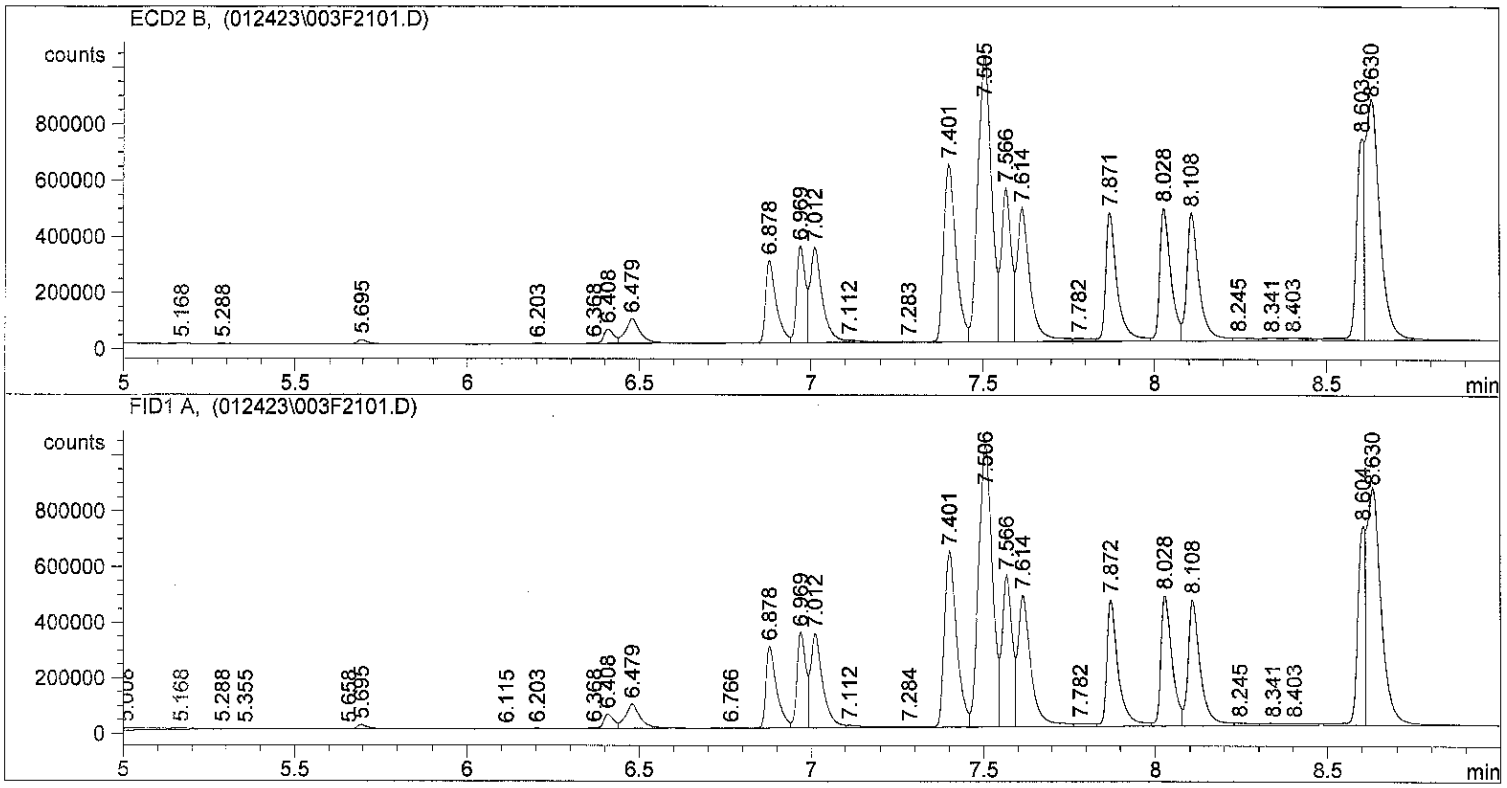
Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
24	6.851	VV	0.0605	3.07282e5	6.70278e4	1.68368
25	6.921	VV	0.0426	1.90516e5	6.24486e4	1.04389
26	6.976	VV	0.0376	1.56770e5	5.96864e4	0.85899
27	7.038	VV	0.0558	2.73553e5	6.96742e4	1.49887
28	7.122	VV	0.0686	3.94393e5	7.85420e4	2.16099
29	7.177	VV	0.0619	3.57229e5	7.46087e4	1.95735
30	7.277	VV	0.0557	2.84845e5	7.43066e4	1.56074
31	7.343	VV	0.0487	2.59753e5	7.44466e4	1.42326
32	7.399	VV	0.0376	2.36326e5	8.73397e4	1.29490
33	7.432	VV	0.0504	3.52997e5	9.26801e4	1.93417
34	7.512	VV	0.0337	2.88336e5	1.17047e5	1.57987
35	7.544	VV	0.0560	5.29048e5	1.23533e5	2.89880
36	7.680	VV	0.0795	7.66454e5	1.26870e5	4.19961
37	7.783	VV	0.0439	3.08034e5	9.48289e4	1.68780
38	7.813	VV	0.0501	3.65884e5	9.46281e4	2.00478
39	7.898	VV	0.0790	5.51526e5	9.60184e4	3.02196
40	7.994	VV	0.0825	5.91035e5	9.64614e4	3.23845
41	8.083	VV	0.0327	1.92610e5	8.42706e4	1.05537
42	8.141	VV	0.0846	5.76005e5	8.66507e4	3.15609
43	8.256	VV	0.0736	4.41680e5	7.97224e4	2.42008
44	8.377	VV	0.1376	8.97279e5	8.47003e4	4.91644
45	8.546	VV	0.0552	2.83925e5	7.48630e4	1.55570
46	8.595	VV	0.0725	4.22282e5	7.41307e4	2.31380
47	8.710	VV	0.0951	6.06523e5	8.22059e4	3.32331
48	8.839	VV	0.0656	3.43433e5	6.72595e4	1.88177
49	8.929	VBA	0.0745	3.61070e5	6.63346e4	1.97840
Totals :				1.82506e7	4.50578e6	

Results obtained with enhanced integrator!

*** End of Report ***

Injection Date : 1/24/2023 10:16:47 AM Seq. Line : 21
Sample Name : CS4 STANDARD Location : Vial 3
Acq. Operator : NL Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\012423.S
Method : C:\HPCHEM\1\METHODS\DIOXIN.M
Last changed : 3/2/2018 11:45:27 AM by RM
dioxin



Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.168	PP	0.0341	4478.49902	1930.49158	0.02762
2	5.288	VV	0.0440	4315.11182	1439.97754	0.02661
3	5.695	VB	0.0291	2.95176e4	1.49070e4	0.18202
4	6.203	VP	0.0257	4715.11768	2792.34961	0.02908
5	6.368	PV	0.0240	6279.03613	3849.51221	0.03872
6	6.408	VV	0.0312	1.08087e5	5.20908e4	0.66654
7	6.479	VB	0.0423	2.66820e5	8.81339e4	1.64539
8	6.878	VV	0.0325	6.42458e5	2.94509e5	3.96183
9	6.969	VV	0.0267	6.11732e5	3.45127e5	3.77235
10	7.012	VV	0.0361	8.47476e5	3.40233e5	5.22610
11	7.112	VV	0.0558	3.91475e4	9357.16309	0.24141
12	7.283	VV	0.0541	1.16621e4	2769.90112	0.07192
13	7.401	VV	0.0389	1.56976e6	6.33634e5	9.68018
14	7.505	VV	0.0441	2.78597e6	1.01358e6	17.18012
15	7.566	VV	0.0312	1.13450e6	5.45916e5	6.99611
16	7.614	VV	0.0378	1.25820e6	4.76198e5	7.75888

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
17	7.782	VV	0.0507	4.22147e4	1.12650e4	0.26032
18	7.871	VV	0.0328	1.05600e6	4.59301e5	6.51202
19	8.028	VV	0.0310	1.01595e6	4.73264e5	6.26505
20	8.108	VV	0.0360	1.13300e6	4.55817e5	6.98683
21	8.245	VV	0.0529	4.24287e4	1.07809e4	0.26164
22	8.341	VV	0.0557	3.88303e4	9503.67383	0.23945
23	8.403	VB	0.0718	5.06846e4	8981.02930	0.31256
24	8.603	BV	0.0229	1.09549e6	7.15910e5	6.75555
25	8.630	VB	0.0400	2.41649e6	8.53214e5	14.90171
Totals :				1.62162e7	6.82450e6	

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	5.008	BV	0.1022	5.63122e4	9180.94531	0.34500
2	5.168	VV	0.0685	3.36264e4	6383.06299	0.20602
3	5.288	VV	0.0565	1.49564e4	3674.02661	0.09163
4	5.355	VB	0.0455	6425.50391	1946.76807	0.03937
5	5.658	PV	0.0227	1413.43945	882.57587	0.00866
6	5.695	VB	0.0290	2.94136e4	1.48901e4	0.18021
7	6.115	PP	0.0375	1459.99292	596.86633	0.00894
8	6.203	VP	0.0267	4730.86670	2794.75879	0.02898
9	6.368	PV	0.0239	6207.80859	3835.17920	0.03803
10	6.408	VV	0.0312	1.08068e5	5.20839e4	0.66209
11	6.479	VB	0.0423	2.66590e5	8.81254e4	1.63330
12	6.766	PV	0.0384	2315.62354	834.64386	0.01419
13	6.878	VV	0.0314	6.42432e5	2.94543e5	3.93595
14	6.969	VV	0.0267	6.11808e5	3.45210e5	3.74833
15	7.012	VV	0.0361	8.47361e5	3.39882e5	5.19147
16	7.112	VV	0.0558	3.91466e4	9353.72852	0.23984
17	7.284	VV	0.0542	1.16688e4	2765.52197	0.07149
18	7.401	VV	0.0389	1.56969e6	6.33618e5	9.61694
19	7.506	VV	0.0441	2.78590e6	1.01360e6	17.06817
20	7.566	VV	0.0312	1.13445e6	5.45991e5	6.95034
21	7.614	VV	0.0378	1.25813e6	4.76197e5	7.70812
22	7.782	VV	0.0508	4.22415e4	1.12553e4	0.25880
23	7.872	VV	0.0328	1.05582e6	4.59304e5	6.46864
24	8.028	VV	0.0311	1.01597e6	4.72007e5	6.22447
25	8.108	VV	0.0370	1.13284e6	4.55836e5	6.94053
26	8.245	VV	0.0519	4.23189e4	1.07678e4	0.25927
27	8.341	VV	0.0558	3.89141e4	9490.42187	0.23841
28	8.403	VB	0.0726	5.04138e4	8967.63574	0.30887
29	8.604	BV	0.0228	1.09489e6	7.16063e5	6.70798
30	8.630	VB	0.0410	2.41665e6	8.53140e5	14.80595
Totals :				1.63222e7	6.84322e6	

Results obtained with enhanced integrator!

*** End of Report ***

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0087	Cleanup Type:	Sulfuric Acid
Cleanup Method:	EPA 3665 Sulfuric Acid Cleanup - uL	Analysis:	EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	BLA0398-BLK1	23030614	02/07/2023	
LCS	BLA0398-BS1	23030615	02/07/2023	
Reference	BLA0398-SRM1	23030616	02/07/2023	
LDW23-IT1148	23A0313-12	23030626	02/07/2023	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0087

Matrix: Solid **Cleanup using: HRGCMS - EPA 3665 Sulfuric Acid Cleanup - uL** **Printed: 2/10/2023 2:53:43PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0099-01	C	LDW23-IT1154	C 01	20	20	1613B Dioxin	2/7/2023	DxP	
23A0099-04	C	LDW23-SC1186	C 01	20	20	1613B Dioxin	2/7/2023	DxP	
23A0099-05	C	LDW23-SC1186-FD	C 01	20	20	1613B Dioxin	2/7/2023	DxP	
23A0099-10	C	LDW23-IT1160	C 01	20	20	1613B Dioxin	2/7/2023	DxP	
23A0099-11	C	LDW23-IT1160-FD	C 01	20	20	1613B Dioxin	2/7/2023	DxP	
23A0295-02	B	LDW23-SC1075	B 01	20	20	1613B Dioxin	2/7/2023	DxP	
23A0313-12	C	LDW23-IT1148	C 01	20	20	1613B Dioxin	2/7/2023	DxP	
23A0326-01	C	LDW23-SC1028	C 01	20	20	1613B Dioxin	2/7/2023	DxP	
23A0326-09	C	LDW23-IT1127	C 01	20	20	1613B Dioxin	2/7/2023	DxP	
23A0326-12	C	LDW23-SC1162B	C 01	20	20	1613B Dioxin	2/7/2023	DxP	
23A0328-06	C	LDW23-SS1168	C 01	20	20	1613B Dioxin	2/7/2023	DxP	
23A0328-07	C	LDW23-SS1176	C 01	20	20	1613B Dioxin	2/7/2023	DxP	
23A0328-12	C	LDW23-SS1162	C 01	20	20	1613B Dioxin	2/7/2023	DxP	
BLA0398-BLK1	-	Blank	-	20	20	-	2/7/2023	DxP	
BLA0398-BS1	-	LCS	-	20	20	-	2/7/2023	DxP	
BLA0398-DUP1	-	Duplicate	-	20	20	-	2/7/2023	DxP	
BLA0398-SRM1	-	Reference	-	20	20	-	2/7/2023	DxP	

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0088	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup - uL	Analysis:	EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Reference	BLA0398-SRM1	23030616	02/08/2023	
Blank	BLA0398-BLK1	23030614	02/08/2023	
LCS	BLA0398-BS1	23030615	02/08/2023	
LDW23-IT1148	23A0313-12	23030626	02/08/2023	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0088

Matrix: Solid **Cleanup using: HRGCMS - EPA 3630C Silica Gel Cleanup - uL** **Printed: 2/10/2023 2:54:21PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0099-01	C	LDW23-IT1154	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0099-04	C	LDW23-SC1186	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0099-05	C	LDW23-SC1186-FD	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0099-10	C	LDW23-IT1160	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0099-11	C	LDW23-IT1160-FD	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0295-02	B	LDW23-SC1075	B 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0313-12	C	LDW23-IT1148	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0326-01	C	LDW23-SC1028	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0326-09	C	LDW23-IT1127	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0326-12	C	LDW23-SC1162B	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0328-06	C	LDW23-SS1168	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0328-07	C	LDW23-SS1176	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0328-12	C	LDW23-SS1162	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
BLA0398-BLK1	-	Blank	-	20	20	-	2/8/2023	DxP	
BLA0398-BS1	-	LCS	-	20	20	-	2/8/2023	DxP	
BLA0398-DUP1	-	Duplicate	-	20	20	-	2/8/2023	DxP	
BLA0398-SRM1	-	Reference	-	20	20	-	2/8/2023	DxP	

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Cleanup Batch:	CLB0089	Cleanup Type:	Florisil
Cleanup Method:	EPA 3620B Florisil Cleanup (uL)	Analysis:	EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	BLA0398-BLK1	23030614	02/08/2023	
Reference	BLA0398-SRM1	23030616	02/08/2023	
LDW23-IT1148	23A0313-12	23030626	02/08/2023	
LCS	BLA0398-BS1	23030615	02/08/2023	

Analytical Resources, LLC
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CLB0089

Matrix: Solid **Cleanup using: HRGCMS - EPA 3620B Florisil Cleanup (uL)** **Check Standard: CKK0015-FLO1** **Printed: 2/10/2023 2:54:38PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0099-01	C	LDW23-IT1154	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0099-04	C	LDW23-SC1186	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0099-05	C	LDW23-SC1186-FD	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0099-10	C	LDW23-IT1160	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0099-11	C	LDW23-IT1160-FD	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0295-02	B	LDW23-SC1075	B 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0313-12	C	LDW23-IT1148	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0326-01	C	LDW23-SC1028	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0326-09	C	LDW23-IT1127	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0326-12	C	LDW23-SC1162B	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0328-06	C	LDW23-SS1168	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0328-07	C	LDW23-SS1176	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
23A0328-12	C	LDW23-SS1162	C 01	20	20	1613B Dioxin	2/8/2023	DxP	
BLA0398-BLK1	-	Blank	-	20	20	-	2/8/2023	DxP	
BLA0398-BS1	-	LCS	-	20	20	-	2/8/2023	DxP	
BLA0398-DUP1	-	Duplicate	-	20	20	-	2/8/2023	DxP	
BLA0398-SRM1	-	Reference	-	20	20	-	2/8/2023	DxP	

Analytical Resources, LLC
Analytical Chemists and Consultants

Blank

Form 1
METHOD BLANK DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	BLA0398-BLK1	File ID:	23030614
Sampled:	N/A	Prepared:	01/24/23 07:31	Analyzed:	03/06/23 20:55
Solids Wt%:		Preparation:	EPA 1613	Initial/Final:	10.01 g / 20 uL
Result Basis:	Dry	Sequence:	SLC0081	Calibration:	GC00015
Batch:	BLA0398	Instrument:	AUTOSPEC01	Column:	RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.000	0.655-0.886	0.128	0.999	ND	ng/kg	U
1746-01-6	2,3,7,8-TCDD	1	0.000	0.655-0.886	0.092	0.999	ND	ng/kg	U
57117-41-6	1,2,3,7,8-PeCDF	1	0.000	1.318-1.783	0.156	0.999	ND	ng/kg	U
57117-31-4	2,3,4,7,8-PeCDF	1	0.000	1.318-1.783	0.148	0.999	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1	1.205	1.318-1.783	0.111	0.999	0.0939	ng/kg	EMPC, J
70648-26-9	1,2,3,4,7,8-HxCDF	1	0.820	1.054-1.426	0.078	0.999	0.111	ng/kg	EMPC, J
57117-44-9	1,2,3,6,7,8-HxCDF	1	0.000	1.054-1.426	0.076	0.999	ND	ng/kg	U
60851-34-5	2,3,4,6,7,8-HxCDF	1	0.000	1.054-1.426	0.086	0.999	ND	ng/kg	U
72918-21-9	1,2,3,7,8,9-HxCDF	1	0.000	1.054-1.426	0.105	0.999	ND	ng/kg	U
39227-28-6	1,2,3,4,7,8-HxCDD	1	0.000	1.054-1.426	0.113	0.999	ND	ng/kg	U
57653-85-7	1,2,3,6,7,8-HxCDD	1	0.000	1.054-1.426	0.111	0.999	ND	ng/kg	U
19408-74-3	1,2,3,7,8,9-HxCDD	1	0.000	1.054-1.426	0.123	0.999	ND	ng/kg	U
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	0.000	0.893-1.208	0.104	0.999	ND	ng/kg	U
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.000	0.893-1.208	0.174	0.999	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.285	0.893-1.208	0.175	2.50	0.460	ng/kg	EMPC, J
39001-02-0	OCDF	1	0.480	0.757-1.024	0.415	2.50	0.415	ng/kg	EMPC, J
3268-87-9	OCDD	1	0.889	0.757-1.024	0.284	9.99	3.71	ng/kg	J

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.999	ND	ng/kg
41903-57-5	Total TCDD	1	0.000			0.999	ND	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.999	ND	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.999	ND	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.999	ND	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.999	ND	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.999	ND	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.999	0.575	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.111
Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.220

Blank

Form 2
METHOD BLANK DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Matrix:	Solid	Laboratory ID:	BLA0398-BLK1	File ID:	23030614
Sampled:	N/A	Prepared:	01/24/23 07:31	Analyzed:	03/06/23 20:55
Solids Wt%:	0.00	Preparation:	EPA 1613	Initial/Final:	10.01 g / 20 uL
Result Basis:	Dry	Sequence:	SLC0081	Calibration:	GC00015
Batch:	BLA0398	Instrument:	AUTOSPEC01	Column:	RTX-Dioxin2

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF	1	0.757	0.655-0.886	0.14	79.8	24 - 169 %	
13C12-2,3,7,8-TCDD	1	0.802	0.655-0.886	0.19	90.5	25 - 164 %	
13C12-1,2,3,7,8-PeCDF	1	1.545	1.318-1.783	0.23	82.7	24 - 185 %	
13C12-2,3,4,7,8-PeCDF	1	1.531	1.318-1.783	0.26	81.5	21 - 178 %	
13C12-1,2,3,7,8-PeCDD	1	1.552	1.318-1.783	0.18	82.6	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF	1	0.525	0.434-0.587	0.44	119	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF	1	0.474	0.434-0.587	0.37	119	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF	1	0.507	0.434-0.587	0.46	116	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF	1	0.515	0.434-0.587	0.55	118	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD	1	1.319	1.054-1.426	0.35	118	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD	1	1.322	1.054-1.426	0.30	113	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF	1	0.413	0.374-0.506	0.58	125	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF	1	0.432	0.374-0.506	0.68	106	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD	1	1.084	0.893-1.208	0.41	117	23 - 140 %	
13C12-OCDD	1	0.896	0.757-1.024	0.54	84.5	17 - 157 %	
37Cl4-2,3,7,8-TCDD	1	328.000		0.11	71.2	35 - 197 %	

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
Last Altered: Tuesday, March 07, 2023 08:54:19 Pacific Standard Time
Printed: Tuesday, March 07, 2023 09:05:26 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: BLA0398-BLK1, Name: 23030614, Date: 06-Mar-2023, Time: 20:55:12, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF					0.702		0.770	617	1017								
12378-PeCDF					0.679		1.550	594	906								
23478-PeCDF					0.786		1.550	594	906								
123478-HxCDF	34.847	1.000	1.371e2	1.673e2	1.166	0.820	1.240	558	523	3.20e3	2.72e3	5.7	5.2	YES	bd	bb	0.056
234678-HxCDF					1.140		1.240	558	523								
123678-HxCDF					1.091		1.240	558	523								
123789-HxCDF					1.137		1.240	558	523								
1234678-HpCDF					1.003		1.050	634	391								
1234789-HpCDF					0.953		1.050	634	391								
OCDF	45.210	1.006	1.147e2	2.389e2	0.778	0.480	0.890	591	687	2.79e3	3.59e3	4.7	5.2	YES	db	bb	0.208
2378-TCDD					1.149		0.770	1024	577								
12378-PeCDD	31.504	1.001	1.044e2	8.665e1	1.022	1.205	1.550	647	450	2.01e3	1.74e3	3.1	3.9	YES	bb	bb	0.047
123478-HxCDD					0.996		1.240	587	599								
123678-HxCDD					1.001		1.240	587	599								
123789-HxCDD					0.907		1.240	587	599								
1234678-HpCDD	40.228	1.000	4.465e2	3.475e2	1.039	1.285	1.050	717	582	7.92e3	5.71e3	11.0	9.8	YES	bb	bb	0.230
OCDD	44.963	1.000	1.759e3	1.979e3	0.920	0.889	0.890	557	476	1.90e4	2.58e4	34.1	54.2	NO	bb	bb	1.855
13C-2378-TCDF	25.732	1.007	3.240e5	4.281e5	1.620	0.757	0.770	1887	1511	4.71e6	6.20e6	2498.0	4103.5	NO	bb	bb	79.808
13C-12378-PeCDF	29.889	1.169	3.624e5	2.346e5	1.240	1.545	1.550	2358	1847	5.15e6	3.34e6	2184.5	1806.2	NO	bd	bd	82.744
13C-23478-PeCDF	31.226	1.222	3.205e5	2.094e5	1.118	1.531	1.550	2358	1847	4.66e6	3.07e6	1976.2	1660.5	NO	bb	bb	81.502
13C-123478-HxCDF	34.847	0.955	1.619e5	3.082e5	1.168	0.525	0.510	1683	2688	2.47e6	4.80e6	1466.4	1784.7	NO	bd	bd	119.106
13C-123678-HxCDF	34.992	0.959	1.794e5	3.785e5	1.386	0.474	0.510	1683	2688	2.53e6	4.99e6	1502.0	1856.0	NO	db	db	119.106
13C-234678-HxCDF	35.849	0.983	1.489e5	2.937e5	1.129	0.507	0.510	1683	2688	2.22e6	4.34e6	1316.0	1612.8	NO	bb	bb	116.019
13C-123789-HxCDF	36.886	1.011	1.257e5	2.443e5	0.932	0.515	0.510	1683	2688	1.84e6	3.59e6	1095.7	1336.6	NO	bb	bb	117.559
13C-1234678-HpCDF	38.724	1.062	1.108e5	2.687e5	0.895	0.413	0.440	1702	2705	1.71e6	3.95e6	1006.1	1461.0	NO	bb	bd	125.493
13C-1234789-HpCDF	40.963	1.123	8.344e4	1.932e5	0.770	0.432	0.440	1702	2705	1.12e6	2.56e6	656.1	947.2	NO	bb	bb	106.378
13C-1234-TCDD	25.562	0.000	2.610e5	3.207e5	1.000	0.814	0.770	1550	1677	3.94e6	4.92e6	2541.2	2934.5	NO	bb	bb	100.000
13C-2378-TCDD	26.368	1.031	2.700e5	3.365e5	1.152	0.802	0.770	1550	1677	4.05e6	5.06e6	2610.0	3020.5	NO	bb	bb	90.477
13C-12378-PeCDD	31.482	1.232	2.420e5	1.560e5	0.829	1.552	1.550	1148	1027	3.53e6	2.20e6	3071.5	2143.5	NO	bb	bd	82.558
13C-123478-HxCDD	35.972	0.986	2.253e5	1.709e5	0.995	1.319	1.240	1475	1441	3.59e6	2.73e6	2430.5	1895.0	NO	bd	bd	117.870
13C-123678-HxCDD	36.083	0.989	2.513e5	1.901e5	1.157	1.322	1.240	1475	1441	3.66e6	2.79e6	2478.9	1934.8	NO	db	db	112.956
13C-1234678-HpCDD	40.217	1.103	1.726e5	1.592e5	0.840	1.084	1.050	1000	1943	2.23e6	2.10e6	2225.1	1080.7	NO	bd	bd	116.906
13C-OCDD	44.944	1.232	2.071e5	2.311e5	0.767	0.896	0.890	1386	2131	2.24e6	2.48e6	1619.4	1163.9	NO	bb	bb	168.984
13C-123789-HxCDD	36.473	0.000	1.898e5	1.480e5	1.000	1.282	1.240	1475	1441	2.85e6	2.24e6	1934.0	1555.8	NO	bb	bb	100.000
37CL-2378-TCDD	26.396	1.033	2.133e5		1.288			2140		3.20e6		1493.7			bb		28.469

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
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Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	617	1017								
1289-TCDF					0.678		0.770	617	1017								
13468-PECDF					1.246		1.550	711	773								
12389-PECDF					0.496		1.550	594	906								
123468-HXCDF					1.169		1.240	558	523								
1368-TCDD					1.015		0.770	1024	577								
1289-TCDD					0.909		0.770	1024	577								
12479-PECDD					2.301		1.550	647	450								
12389-PECDD					1.184		1.550	647	450								
124679-HXCDD					1.115		1.240	587	599								
1234679-HPCDD	39.192	0.975	5.353e2	5.506e2	1.137	0.972	1.050	717	582	9.09e3	1.02e4	12.7	17.5	NO	bd	bb	0.288
Total-tetrafurans			0.000e0		0.727			617		0.00e0							
Total-penta1			0.000e0					711		0.00e0							
Total-pentafurans			0.000e0		0.654			594		0.00e0							
Total-hexafurans			0.000e0		1.141			558		0.00e0							
Total-heptafurans			0.000e0		0.978			634		0.00e0							
Total-Furans			0.000e0		0.922			617		0.00e0							
Total-tetradioxins			0.000e0		1.024			1024		0.00e0							
Total-pentadioxins			0.000e0		1.502			647		0.00e0							
Total-hexadioxins			0.000e0		1.005			587		0.00e0							
Total-heptadioxins			5.353e2		1.088			717		9.09e3							0.288
Total-Dioxins			2.294e3		1.130			1024		2.81e4							2.143
Total-TEQ			2.294e3					1024		2.81e4							2.143
FUNCTION1 PFK			2.986e7					477199		1.09e8							
FUNCTION2 PFK			5.160e6					203463		7.29e6							0.000
FUNCTION3 PFK			3.452e5					350748		9.93e6							0.000
FUNCTION4 PFK			1.501e5					252353		6.18e6							
FUNCTION5 PFK			1.003e7					173857		7.38e6							
FUNCTION1 HXCD...			1.340e3					621		2.22e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			8.882e1					485		1.06e3							0.000
FUNCTION3 OCDPE			9.014e1					403		1.23e3							0.000
FUNCTION4 NCDPE			3.509e2					529		5.24e3							0.000
FUNCTION5 DCDPE			0.000e0					430		0.00e0							

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
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TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.19	5.353e2	5.506e2	1.137	0.97	1.05	12.7	YES	NO	bd	bb	0.288

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	OCDD	44.96	1.759e3	1.979e3	0.920	0.89	0.89	34.1	YES	NO	bb	bb	1.855
2	1234679-HPCDD	39.19	5.353e2	5.506e2	1.137	0.97	1.05	12.7	YES	NO	bd	bb	0.288

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	24.31	9.817e5					14.4	YES		db		
2	FUNCTION1 PFK	24.14	9.304e6					16.4	YES		bd		
3	FUNCTION1 PFK	22.98	4.596e6					29.1	YES		db		
4	FUNCTION1 PFK	22.79	1.930e6					26.7	YES		dd		
5	FUNCTION1 PFK	22.53	1.763e6					23.1	YES		bd		
6	FUNCTION1 PFK	22.24	2.885e6					25.8	YES		db		
7	FUNCTION1 PFK	22.10	1.456e6					22.8	YES		bd		
8	FUNCTION1 PFK	21.88	8.212e5					17.4	YES		db		
9	FUNCTION1 PFK	21.71	2.869e6					16.7	YES		bd		
10	FUNCTION1 PFK	26.18	1.100e6					4.1	YES		bb		
11	FUNCTION1 PFK	25.66	6.541e5					9.1	YES		db		
12	FUNCTION1 PFK	25.55	2.557e5					8.6	YES		bd		
13	FUNCTION1 PFK	25.36	5.557e5					7.6	YES		bb		
14	FUNCTION1 PFK	24.60	6.901e5					6.3	YES		bb		

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.10	5.160e6					35.8	YES		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.40	2.157e4					1.2	NO		bb		0.000
2	FUNCTION3 PFK	34.11	4.746e4					1.9	NO		bb		0.000
3	FUNCTION3 PFK	33.97	5.264e3					0.7	NO		bb		0.000
4	FUNCTION3 PFK	33.82	1.946e3					0.5	NO		bb		0.000
5	FUNCTION3 PFK	33.55	2.780e3					0.7	NO		bb		0.000
6	FUNCTION3 PFK	33.51	7.003e3					0.8	NO		bb		0.000
7	FUNCTION3 PFK	33.42	1.037e4					0.9	NO		bb		0.000
8	FUNCTION3 PFK	33.32	7.154e3					1.1	NO		bb		0.000
9	FUNCTION3 PFK	37.41	6.736e3					1.0	NO		bb		0.000
10	FUNCTION3 PFK	37.32	3.712e3					0.6	NO		bb		0.000
11	FUNCTION3 PFK	37.14	1.600e4					1.3	NO		db		0.000
12	FUNCTION3 PFK	37.10	1.233e4					1.4	NO		bd		0.000
13	FUNCTION3 PFK	36.96	8.421e3					1.2	NO		bb		0.000
14	FUNCTION3 PFK	36.92	2.050e3					0.5	NO		bb		0.000
15	FUNCTION3 PFK	36.61	1.235e4					1.0	NO		bb		0.000
16	FUNCTION3 PFK	36.29	3.197e4					2.2	NO		bb		0.000
17	FUNCTION3 PFK	36.08	1.649e3					0.4	NO		bb		0.000
18	FUNCTION3 PFK	36.04	9.230e3					0.9	NO		bb		0.000
19	FUNCTION3 PFK	35.89	4.441e4					1.9	NO		bb		0.000
20	FUNCTION3 PFK	35.48	4.123e4					2.1	NO		bb		0.000
21	FUNCTION3 PFK	35.33	5.259e3					0.6	NO		bb		0.000
22	FUNCTION3 PFK	35.25	9.534e3					1.2	NO		bb		0.000
23	FUNCTION3 PFK	35.11	7.824e3					1.1	NO		bb		0.000
24	FUNCTION3 PFK	34.69	8.350e3					1.1	NO		bb		0.000
25	FUNCTION3 PFK	37.75	1.526e4					1.2	NO		bb		0.000
26	FUNCTION3 PFK	37.54	5.316e3					0.7	NO		bb		0.000

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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.53	6.276e3					0.9	NO		bb		
2	FUNCTION4 PFK	39.49	1.741e3					0.5	NO		bb		
3	FUNCTION4 PFK	39.34	1.135e3					0.4	NO		bb		
4	FUNCTION4 PFK	38.82	2.478e3					0.6	NO		bb		
5	FUNCTION4 PFK	38.78	4.630e3					0.8	NO		bb		
6	FUNCTION4 PFK	38.68	1.101e3					0.4	NO		bb		
7	FUNCTION4 PFK	38.58	6.363e3					0.8	NO		bb		
8	FUNCTION4 PFK	38.48	4.305e3					0.6	NO		bb		
9	FUNCTION4 PFK	38.36	9.372e3					1.4	NO		bb		
10	FUNCTION4 PFK	38.27	5.849e3					0.9	NO		bb		
11	FUNCTION4 PFK	38.02	1.372e3					0.5	NO		bb		
12	FUNCTION4 PFK	37.98	3.013e3					0.7	NO		bb		
13	FUNCTION4 PFK	37.90	1.461e4					1.4	NO		bb		
14	FUNCTION4 PFK	42.20	4.014e3					0.8	NO		bb		
15	FUNCTION4 PFK	41.78	1.656e3					0.6	NO		bb		
16	FUNCTION4 PFK	41.53	9.079e3					1.4	NO		bb		
17	FUNCTION4 PFK	41.44	1.203e4					1.7	NO		bb		
18	FUNCTION4 PFK	40.93	3.119e3					0.6	NO		bb		
19	FUNCTION4 PFK	40.83	8.161e3					1.3	NO		bb		
20	FUNCTION4 PFK	40.74	3.593e3					0.7	NO		bb		
21	FUNCTION4 PFK	40.64	4.094e3					0.9	NO		bb		
22	FUNCTION4 PFK	40.21	5.070e3					0.7	NO		bb		
23	FUNCTION4 PFK	40.13	5.842e3					1.1	NO		bb		
24	FUNCTION4 PFK	40.06	1.401e4					2.3	NO		db		
25	FUNCTION4 PFK	40.02	5.262e3					0.8	NO		bd		
26	FUNCTION4 PFK	39.90	3.859e3					0.8	NO		db		
27	FUNCTION4 PFK	39.87	8.093e3					1.0	NO		bd		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	42.99	1.003e7					42.5	YES		bb		

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ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.26	1.388e2					2.2	NO		bb		0.000
2	FUNCTION1 HXCD...	26.76	8.549e1					1.8	NO		bb		0.000
3	FUNCTION1 HXCD...	25.90	4.921e2					19.2	YES		bb		0.000
4	FUNCTION1 HXCD...	25.55	9.027e1					2.0	NO		bb		0.000
5	FUNCTION1 HXCD...	25.17	9.028e1					1.8	NO		bb		0.000
6	FUNCTION1 HXCD...	23.34	1.371e2					3.1	YES		bb		0.000
7	FUNCTION1 HXCD...	22.30	1.259e2					2.0	NO		db		0.000
8	FUNCTION1 HXCD...	22.14	8.372e1					1.8	NO		dd		0.000
9	FUNCTION1 HXCD...	22.07	9.643e1					1.8	NO		bd		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	29.22	8.882e1					2.2	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	37.01	9.014e1					3.1	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	39.88	7.586e1					2.3	NO		bb		0.000
2	FUNCTION4 NCDPE	42.30	7.540e1					2.2	NO		db		0.000
3	FUNCTION4 NCDPE	42.22	1.126e2					3.3	YES		bd		0.000
4	FUNCTION4 NCDPE	40.99	8.706e1					2.1	NO		bb		0.000

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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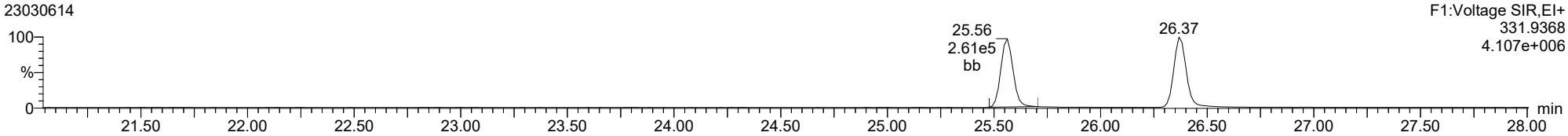
Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: BLA0398-BLK1, Name: 23030614, Date: 06-Mar-2023, Time: 20:55:12, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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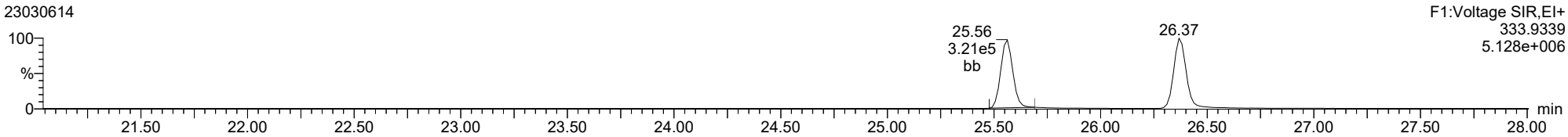
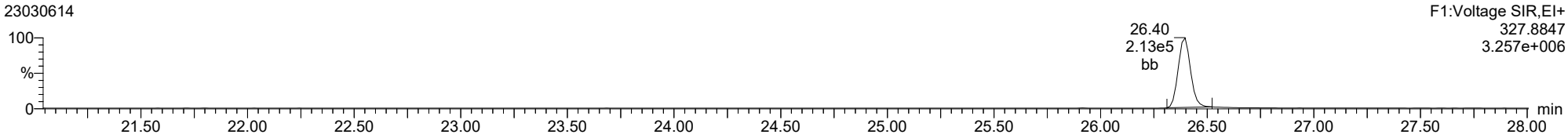


37CL-2378-TCDD



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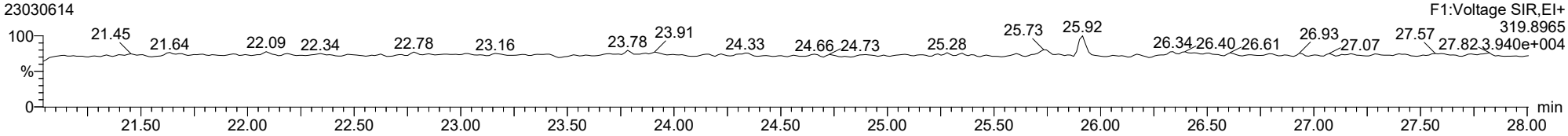
2378-TCDD



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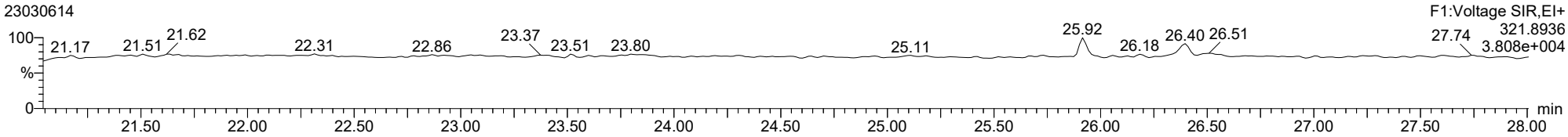

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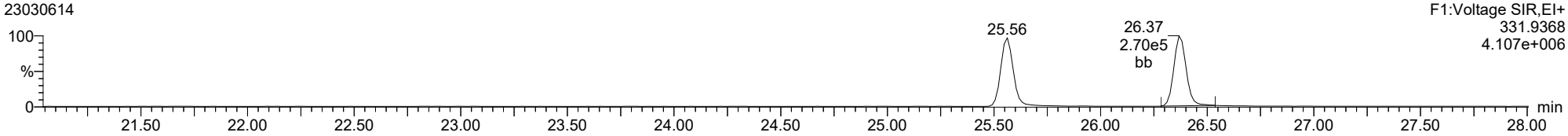

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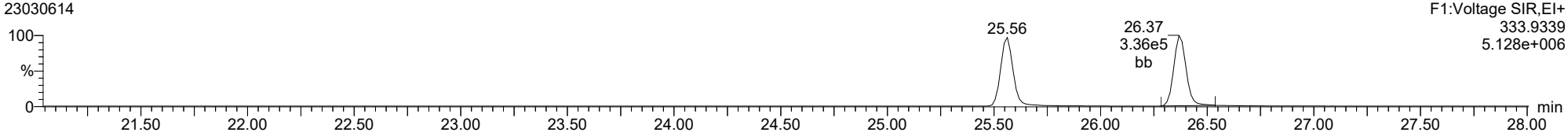
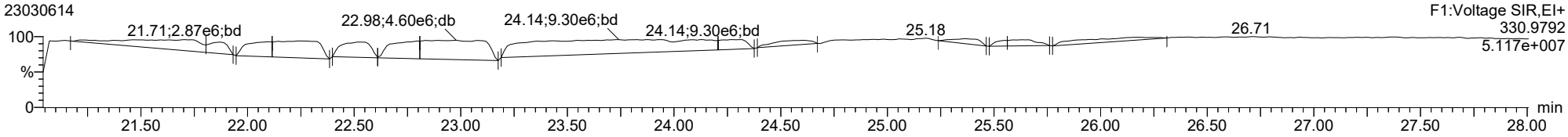


FUNCTION1 PFK



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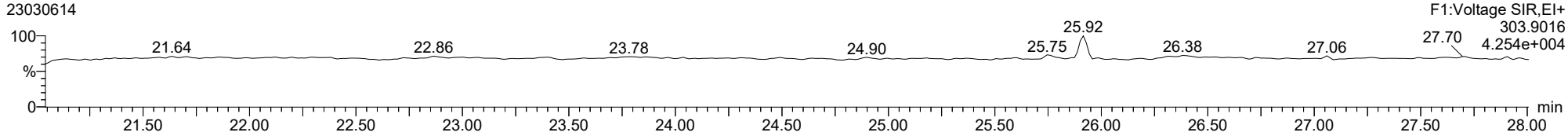
2378-TCDF



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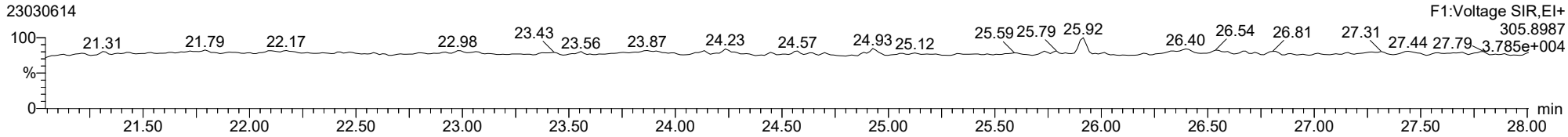

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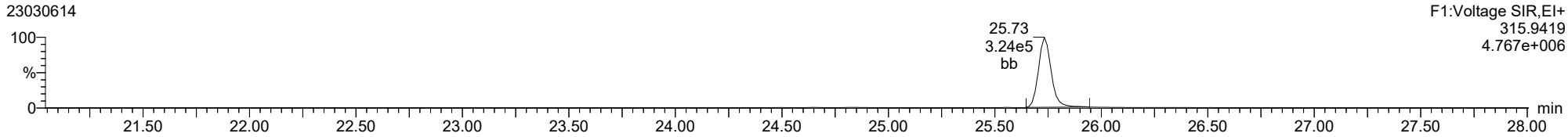

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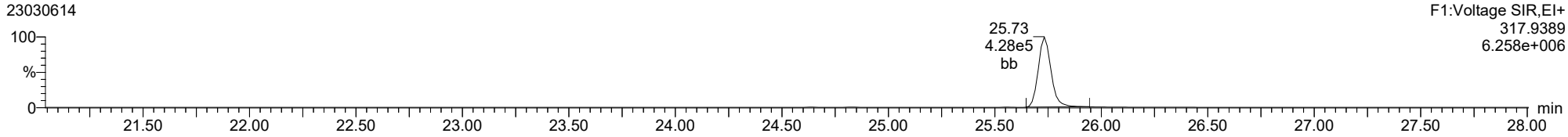
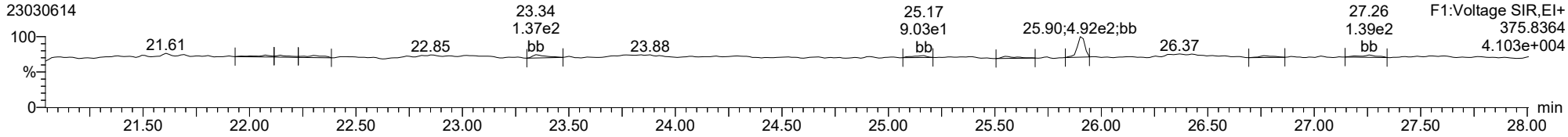


FUNCTION1 HXCDPE



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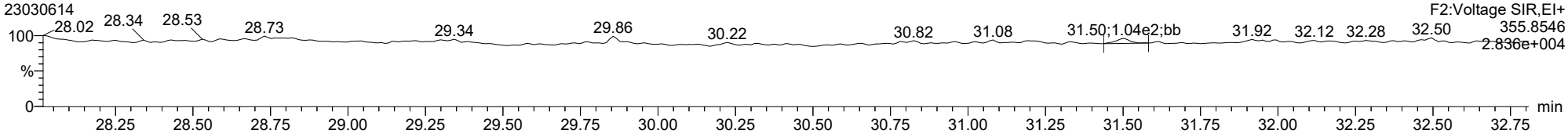
12378-PeCDD



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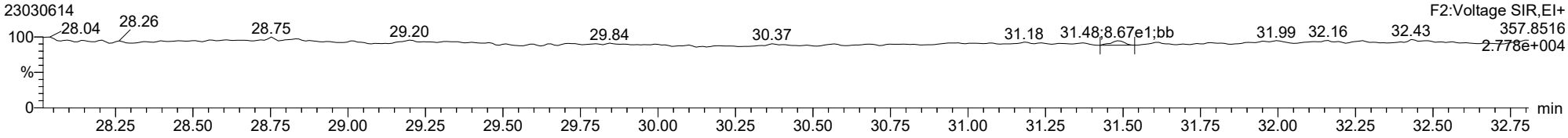

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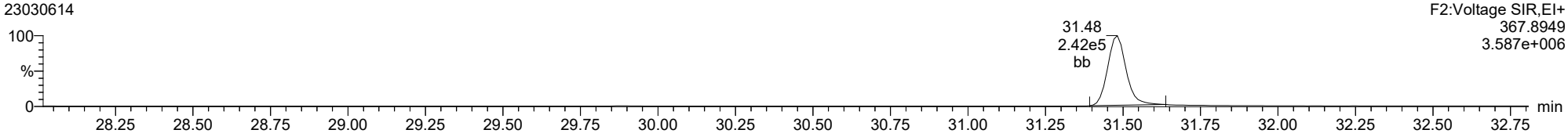

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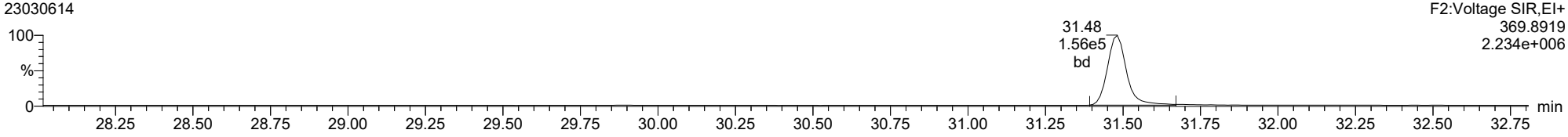

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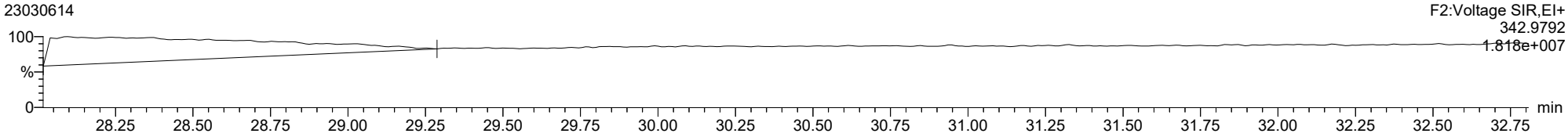

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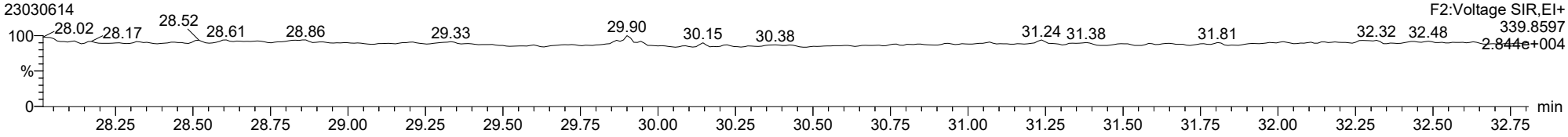

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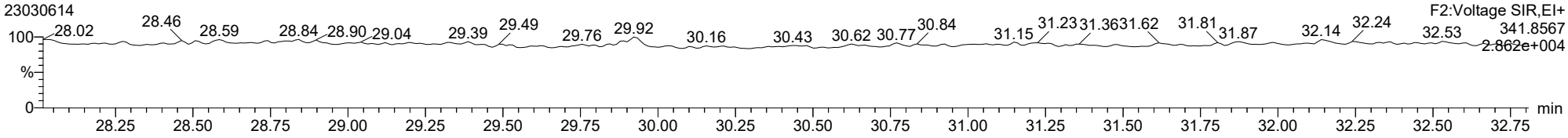

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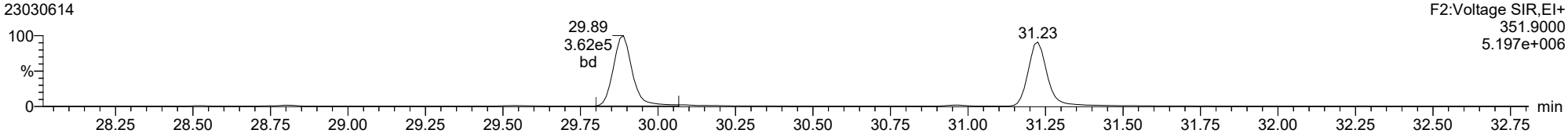

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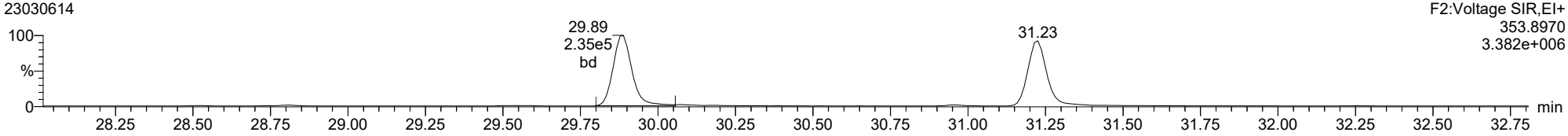

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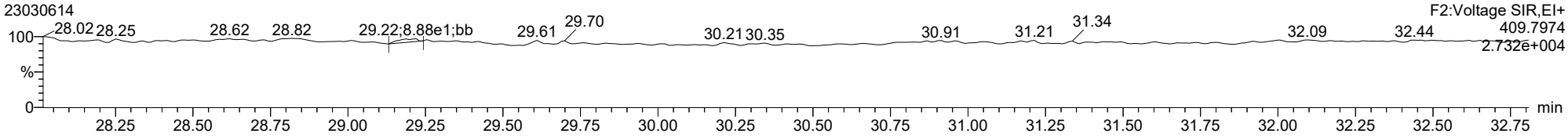

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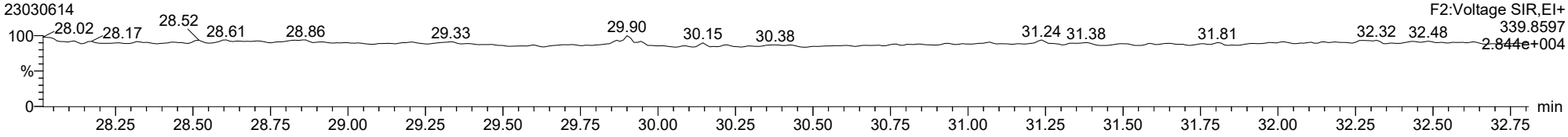

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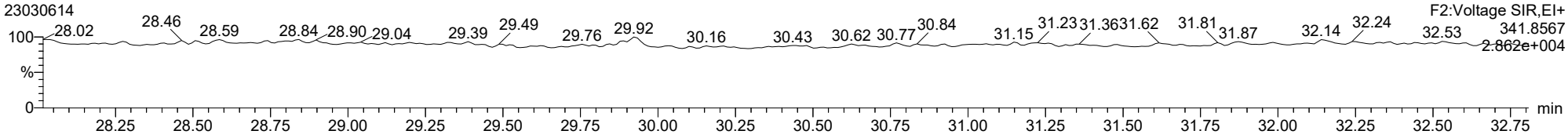

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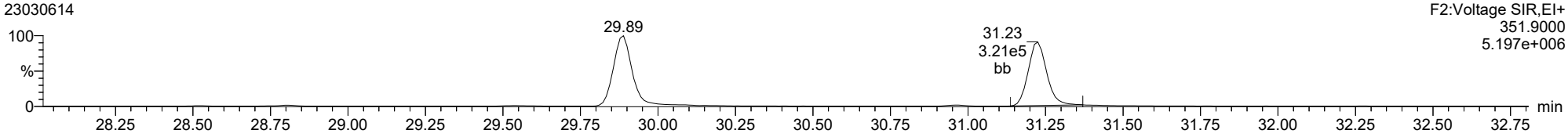

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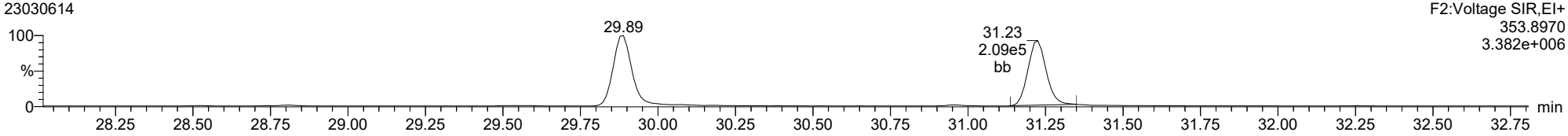

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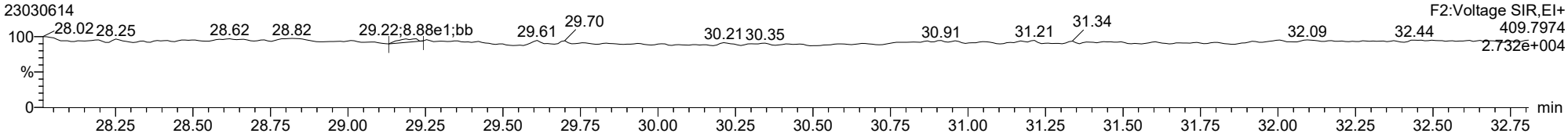

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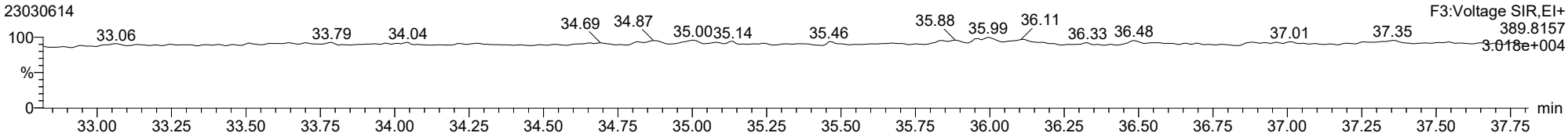

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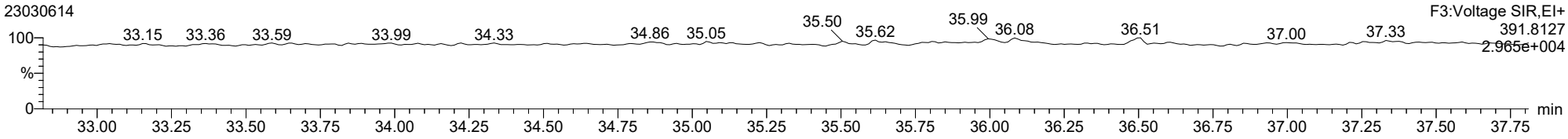

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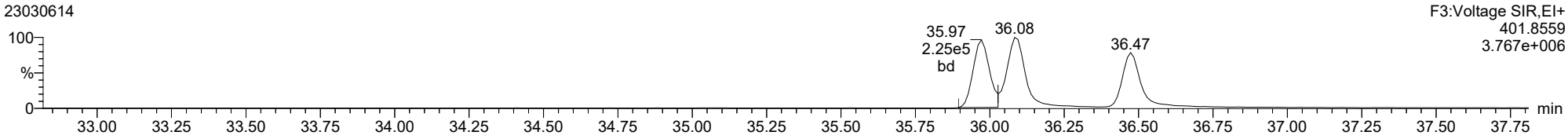

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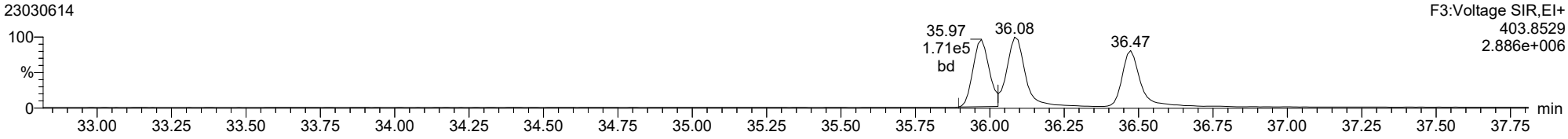

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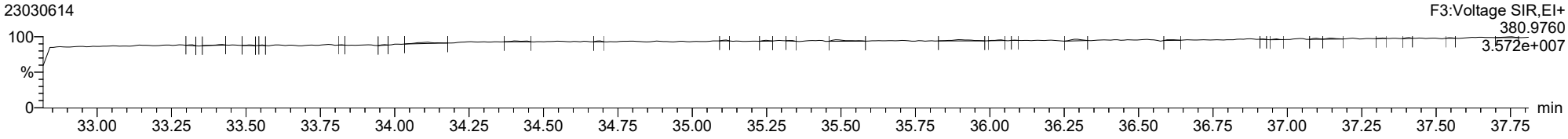

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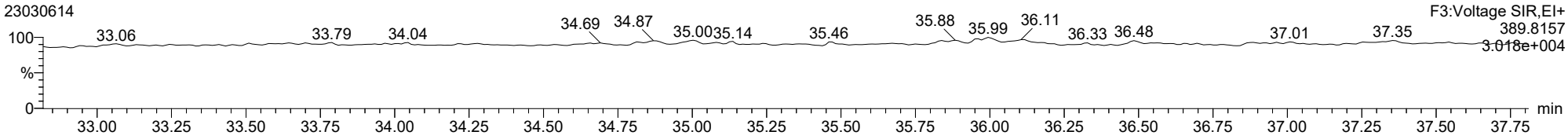

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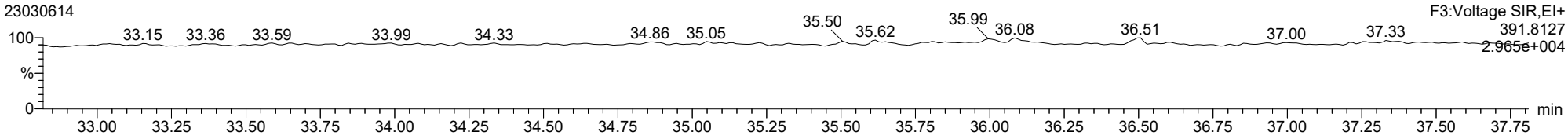

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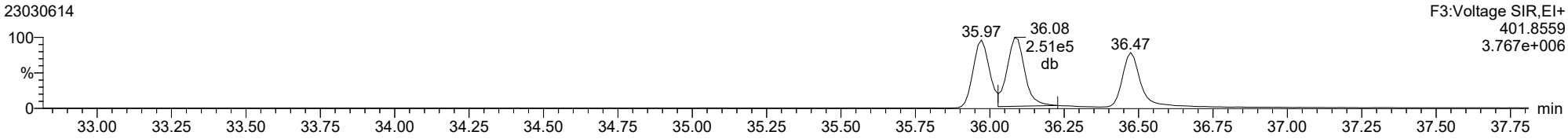

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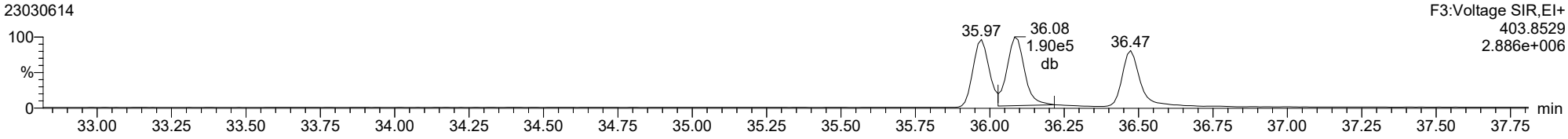

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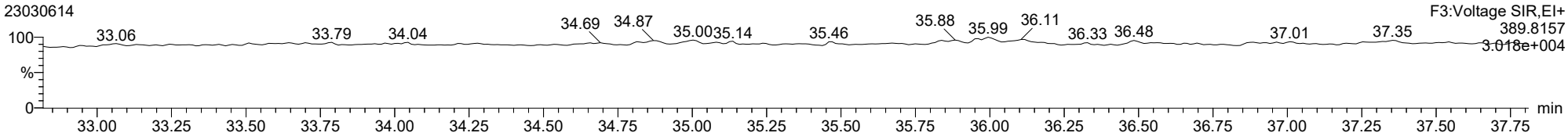

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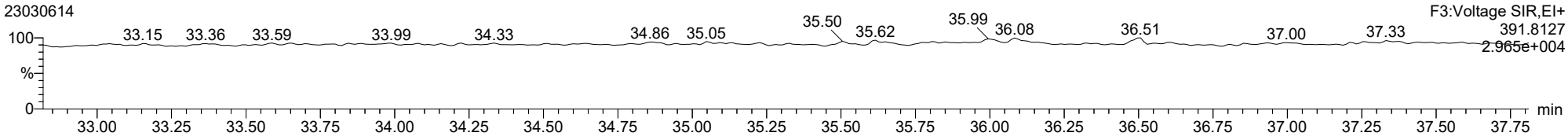

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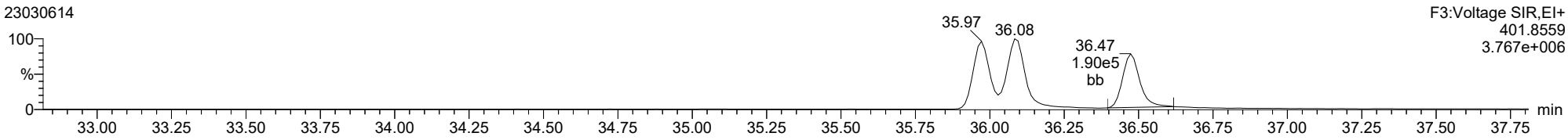

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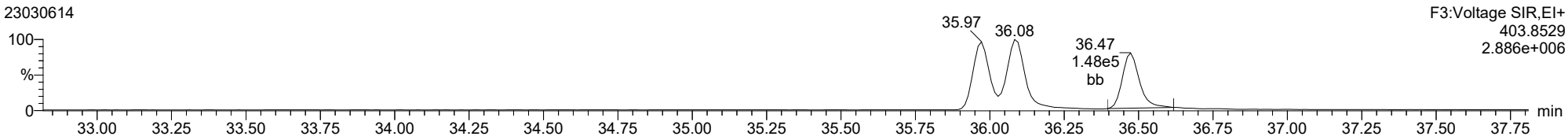

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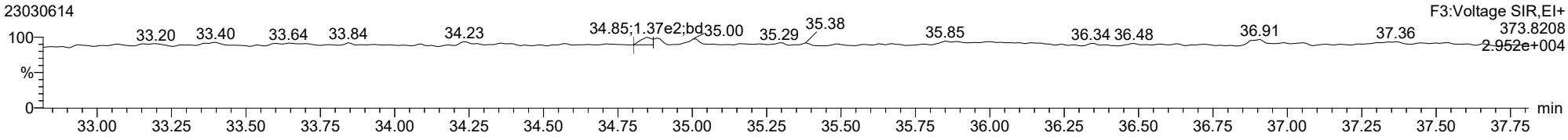

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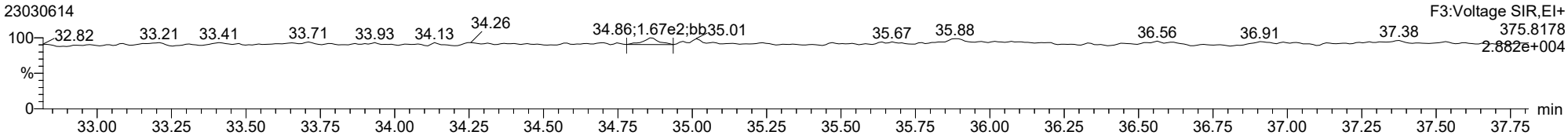

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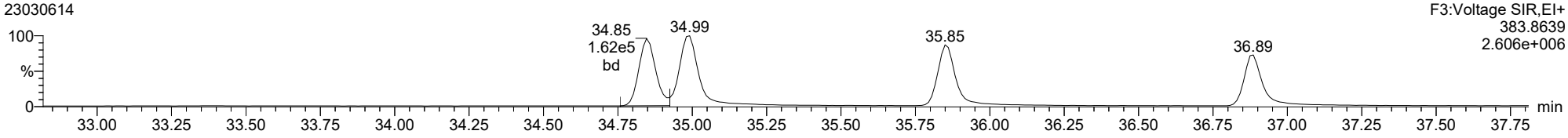

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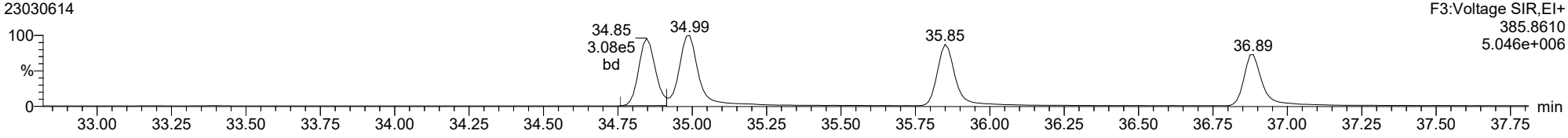

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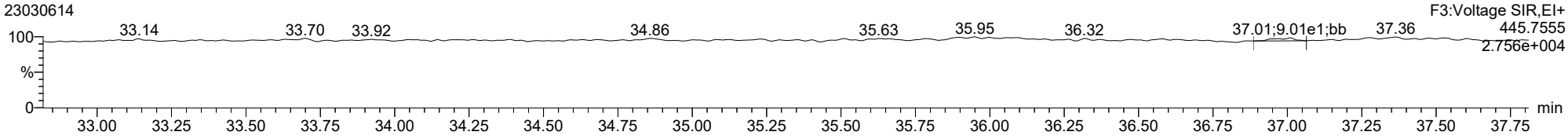

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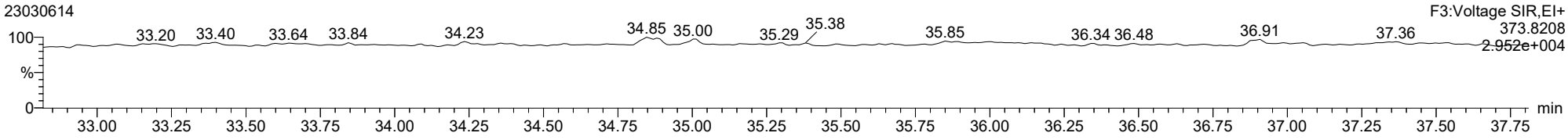
234678-HxCDF



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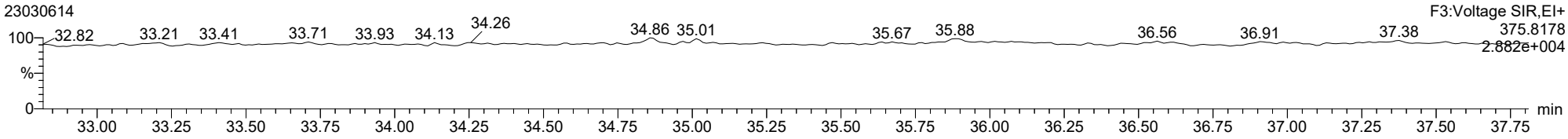

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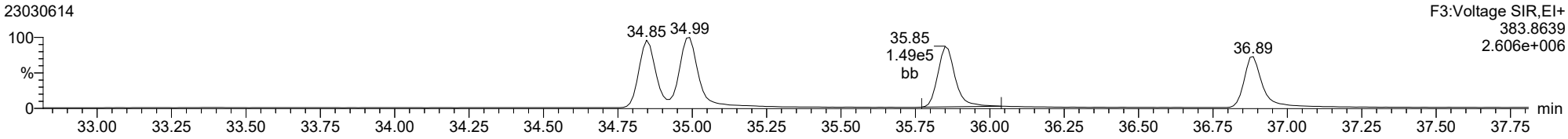

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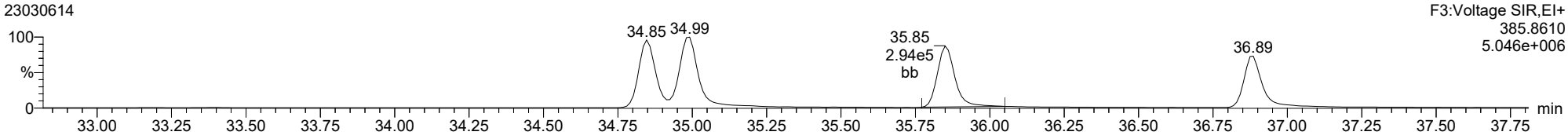

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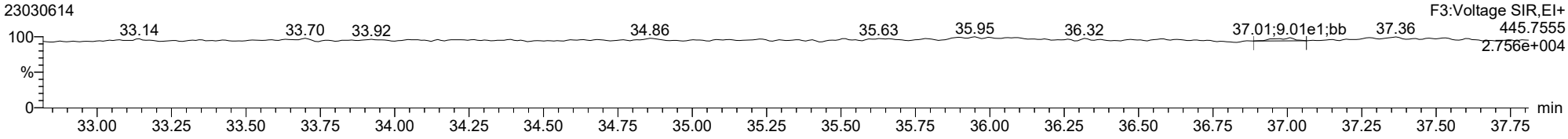

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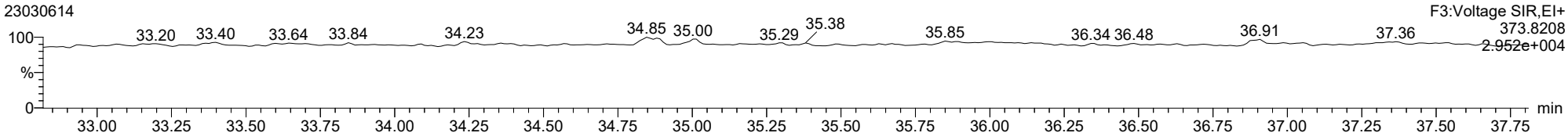

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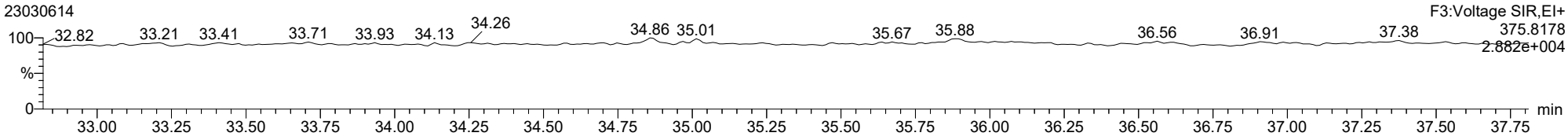

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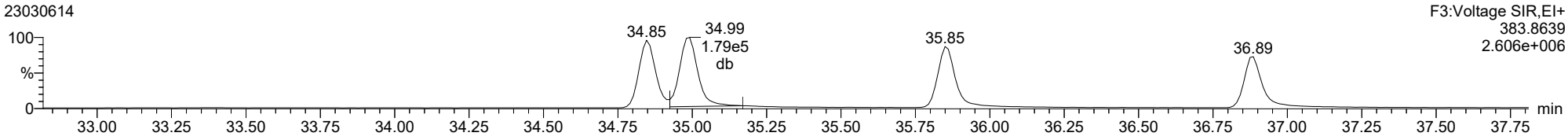

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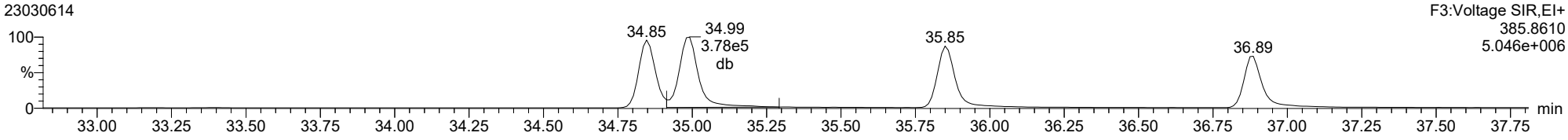
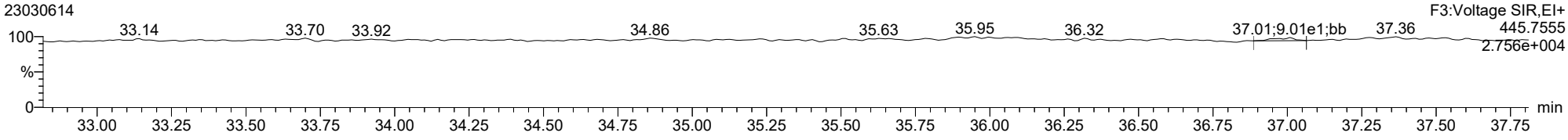


FUNCTION3 OCDPE



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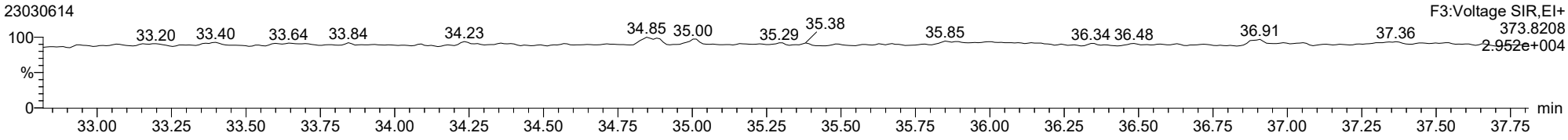

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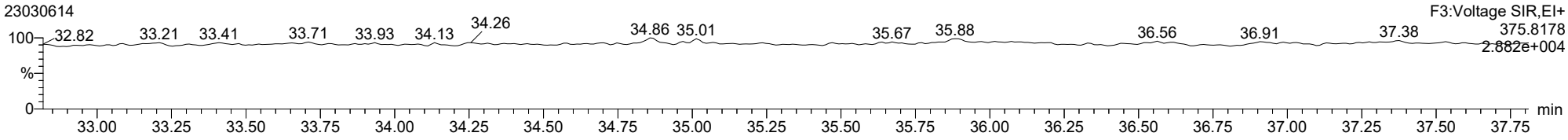

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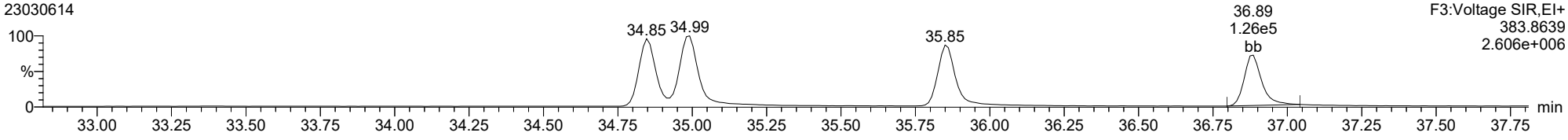

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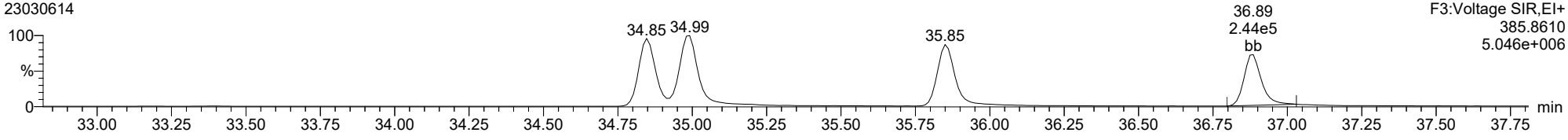

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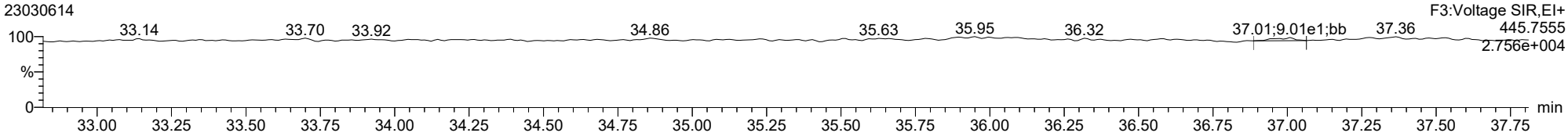

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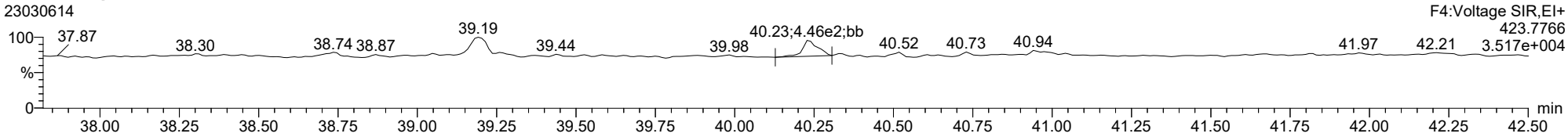
1234678-HpCDD



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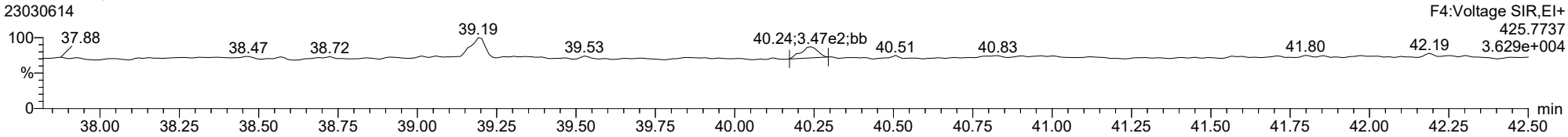

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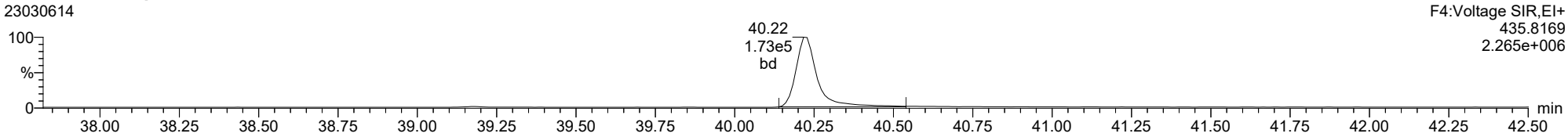

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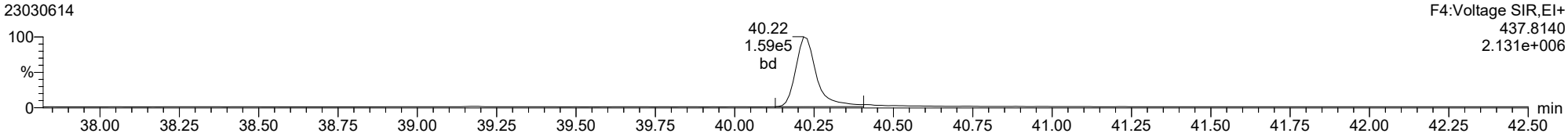
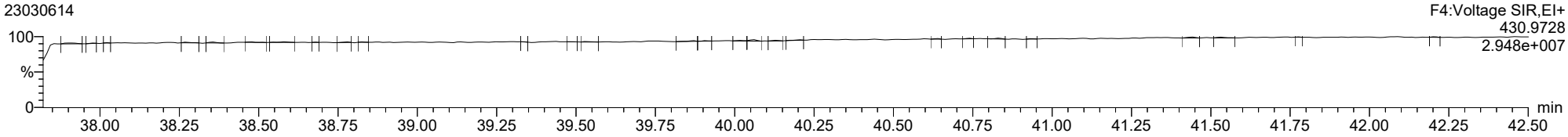
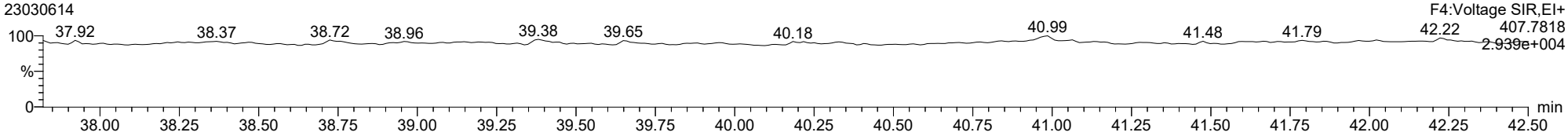


FUNCTION4 PFK



ID: BLA0398-BLK1, Name: 23030614, Date: 06-Mar-2023, Time: 20:55:12, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF



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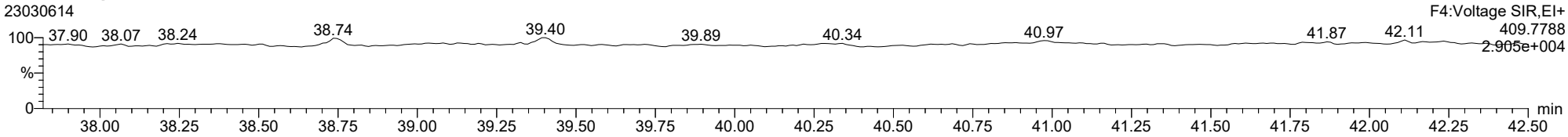

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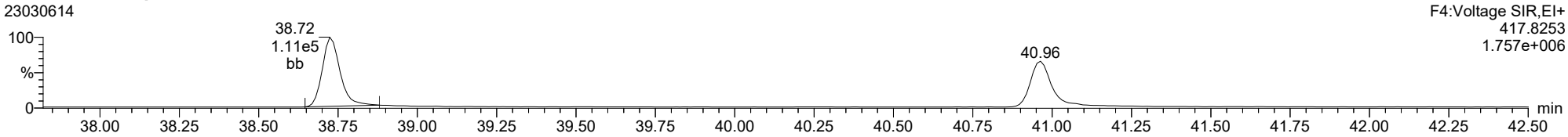

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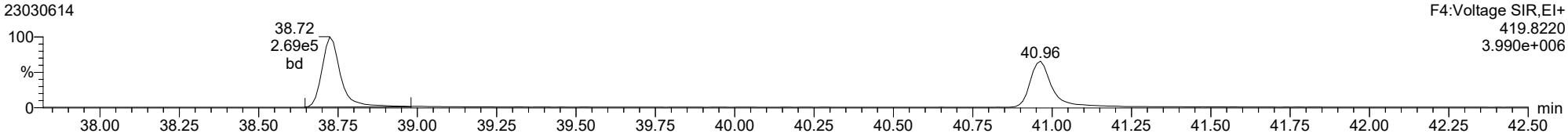

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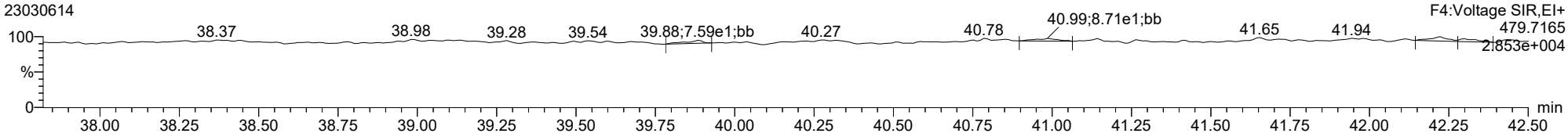

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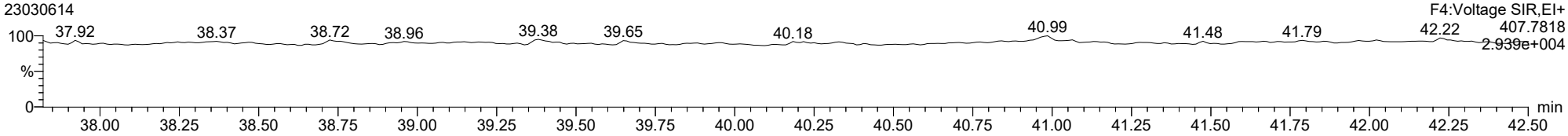
1234789-HpCDF



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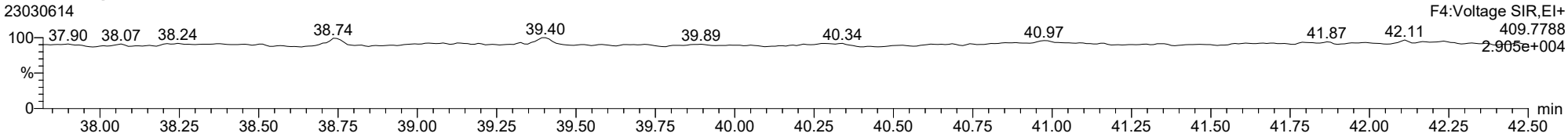

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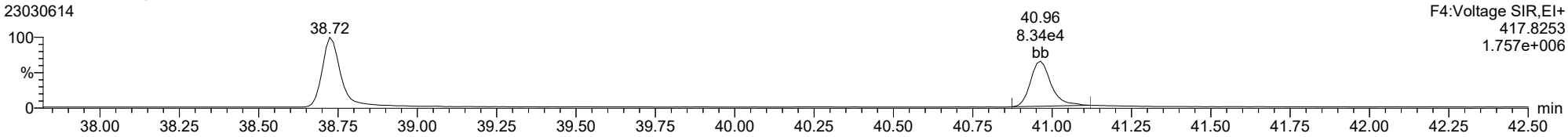

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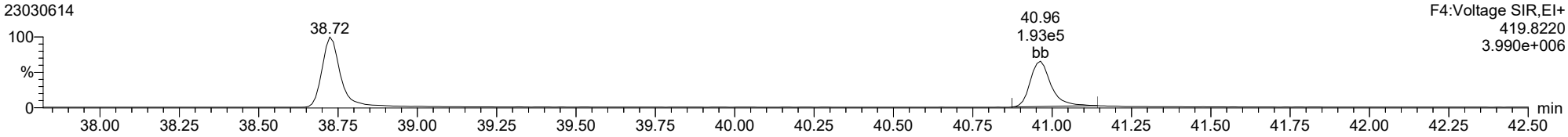
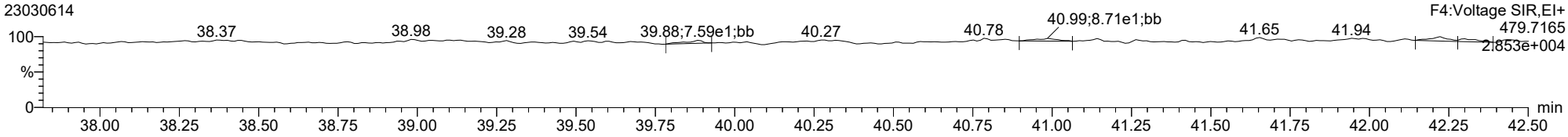


FUNCTION4 NCDPE



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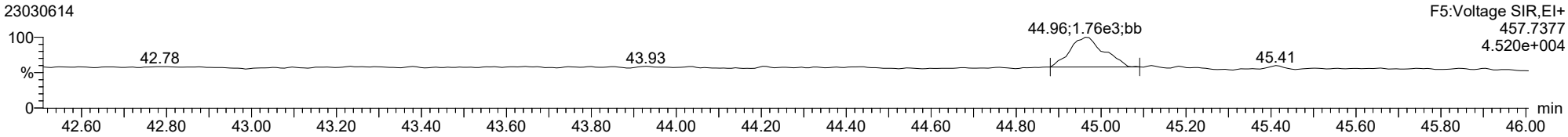
Printed: Tuesday, March 07, 2023 09:05:26 Pacific Standard Time

ID: BLA0398-BLK1, Name: 23030614, Date: 06-Mar-2023, Time: 20:55:12, Conditions: AUTOSPEC01, User: pk

OCDD



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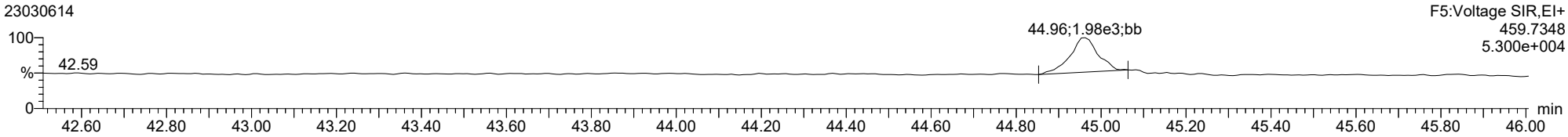

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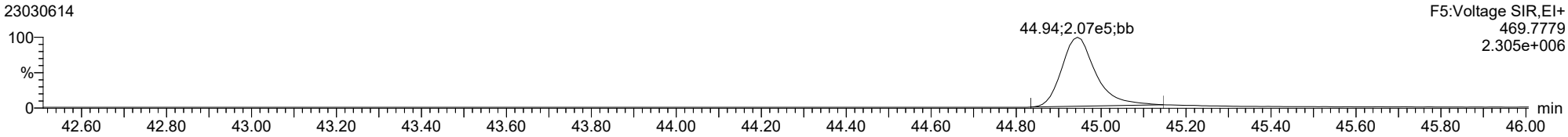
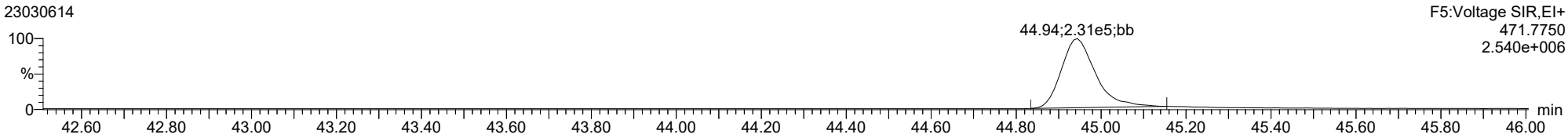
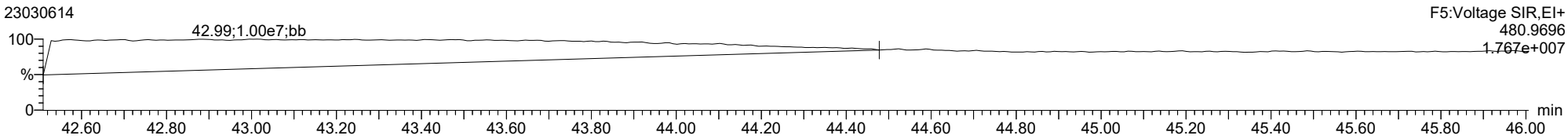


13C-OCDD



FUNCTION5 PFK



ID: BLA0398-BLK1, Name: 23030614, Date: 06-Mar-2023, Time: 20:55:12, Conditions: AUTOSPEC01, User: pk

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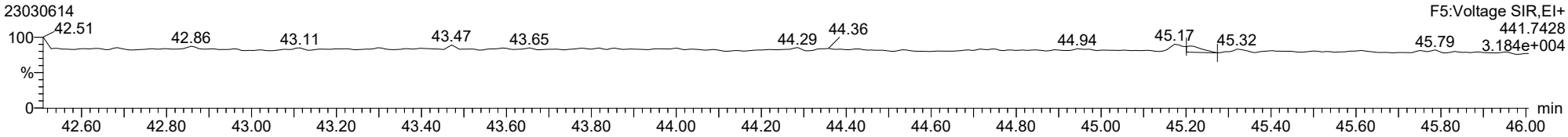

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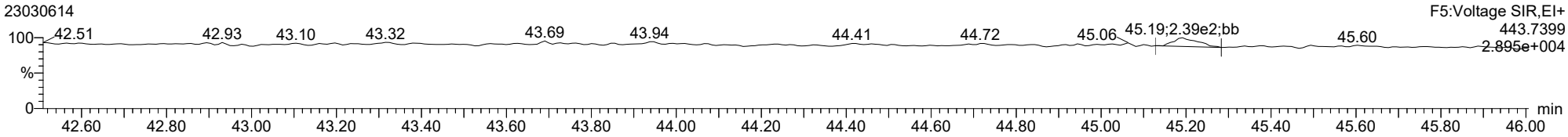
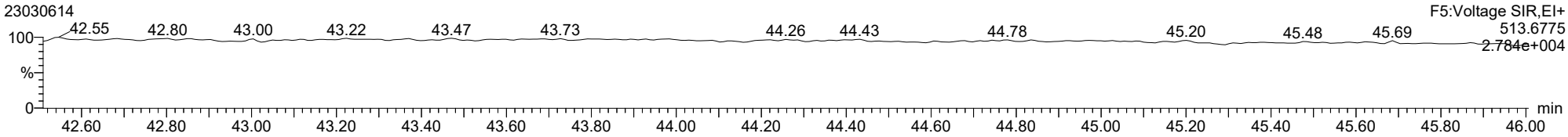
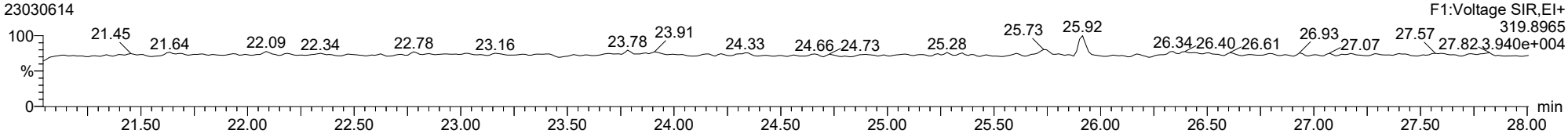


FUNCTION5 DCDPE

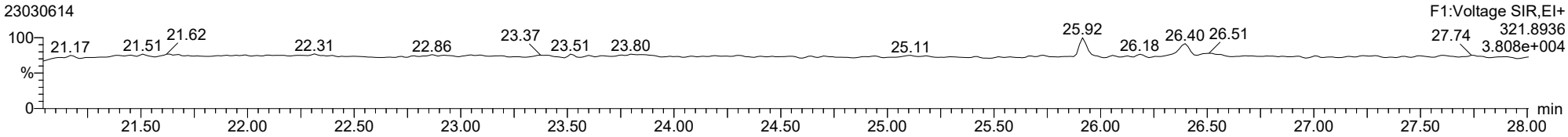


ID: BLA0398-BLK1, Name: 23030614, Date: 06-Mar-2023, Time: 20:55:12, Conditions: AUTOSPEC01, User: pk

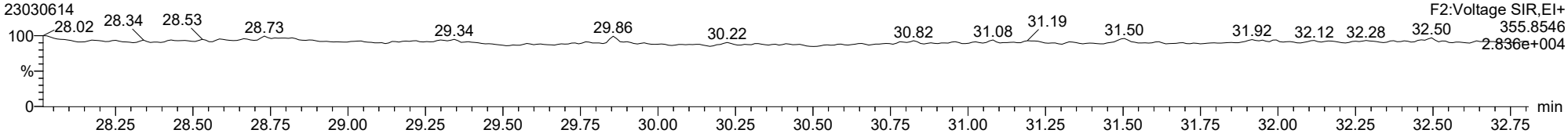
Total-tetradioxins



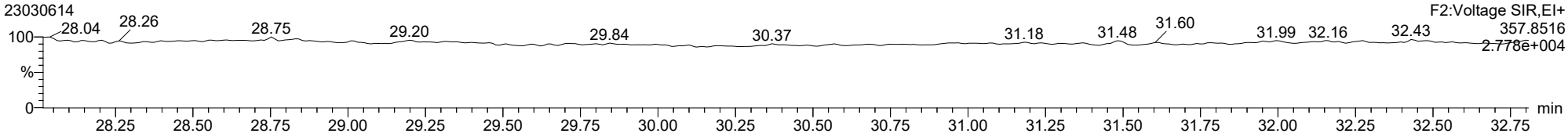
Total-tetradioxins



Total-pentadioxins



Total-pentadioxins



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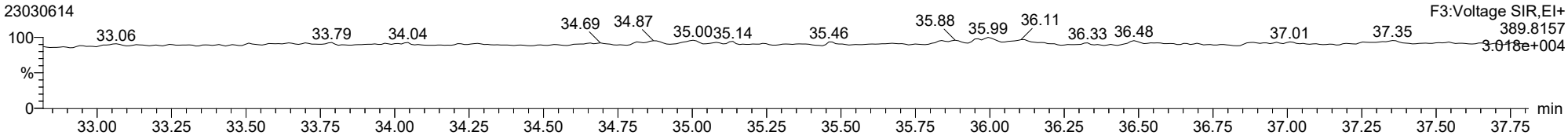
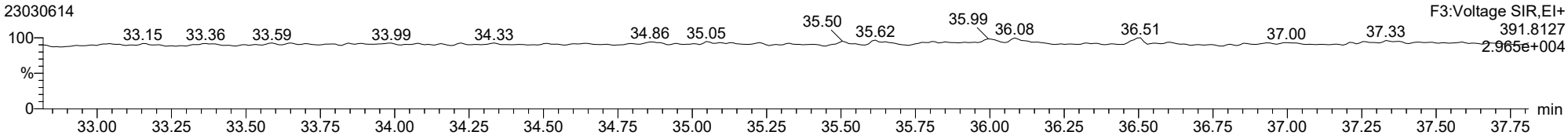
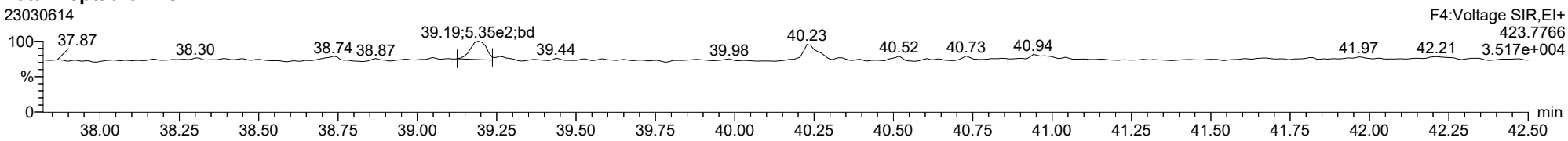
Total-hexadioxins



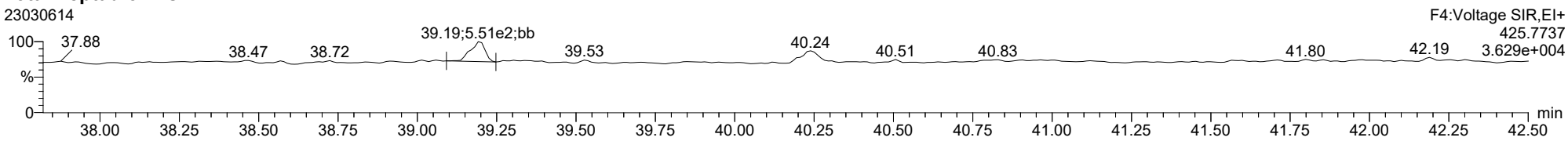
Total-hexadioxins



Total-heptadioxins

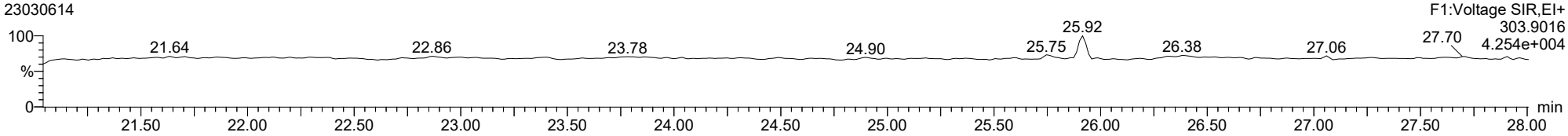


Total-heptadioxins



ID: BLA0398-BLK1, Name: 23030614, Date: 06-Mar-2023, Time: 20:55:12, Conditions: AUTOSPEC01, User: pk

Total-tetrafurans



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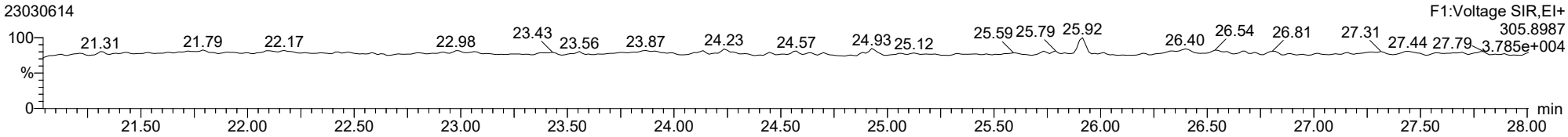

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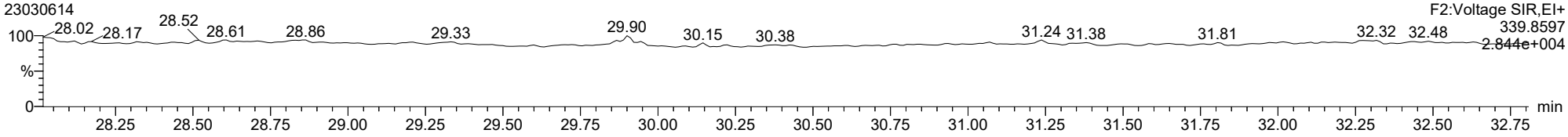

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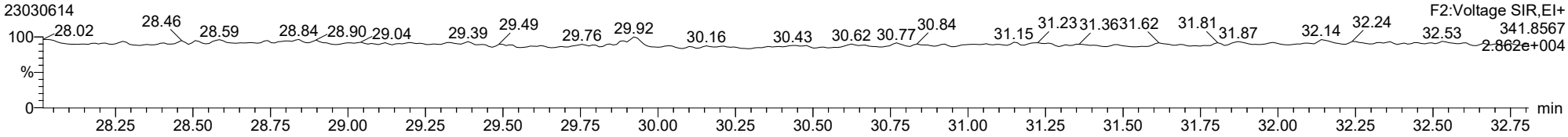

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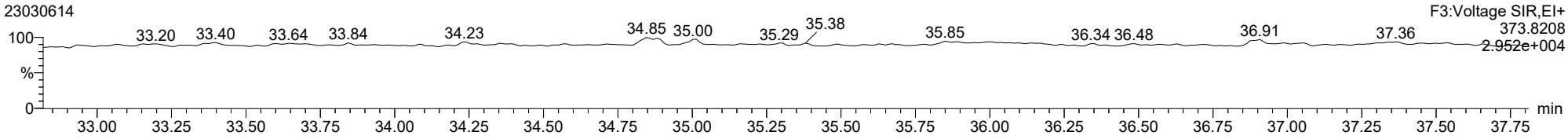

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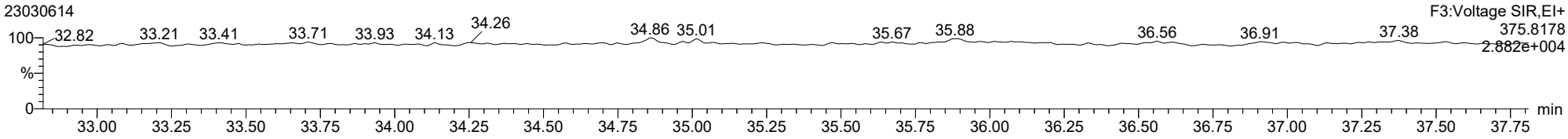
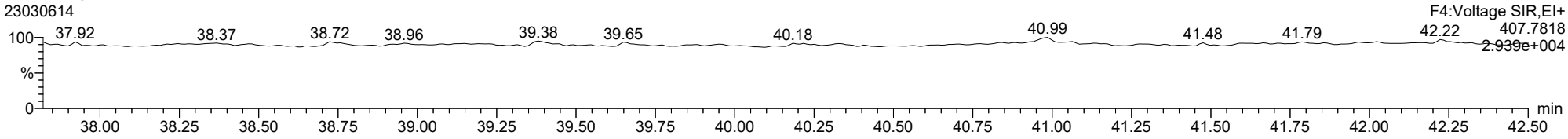
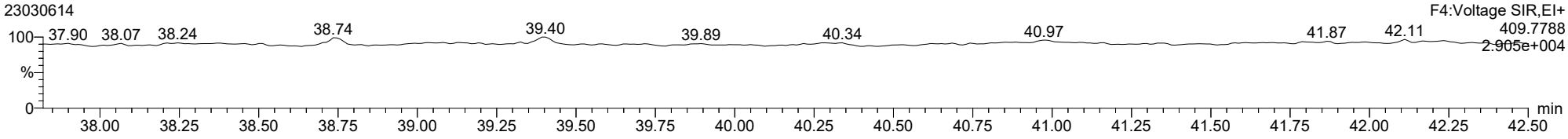


Total-heptafurans



Total-heptafurans



Analytical Resources, LLC
Analytical Chemists and Consultants

LCS RECOVERY
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	03/06/23 21:44
Batch:	BLA0398	Laboratory ID:	BLA0398-BS1
Preparation:	EPA 1613	Sequence Name:	LCS
Initial/Final:	10.01 g / 20 uL		

COMPOUND	SPIKE ADDED (ng/kg wet)	LCS CONCENTRATION (ng/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
2,3,7,8-TCDF	20.0	18.5		92.5	75 - 158
2,3,7,8-TCDD	20.0	18.3		91.5	67 - 158
1,2,3,7,8-PeCDF	99.9	99.2		99.3	80 - 134
2,3,4,7,8-PeCDF	99.9	97.0		97.1	68 - 160
1,2,3,7,8-PeCDD	99.9	98.5	B	98.6	70 - 142
1,2,3,4,7,8-HxCDF	99.9	95.4	B	95.5	72 - 134
1,2,3,6,7,8-HxCDF	99.9	105		106	84 - 130
2,3,4,6,7,8-HxCDF	99.9	101		101	70 - 156
1,2,3,7,8,9-HxCDF	99.9	93.9		94.0	78 - 130
1,2,3,4,7,8-HxCDD	99.9	97.3		97.4	70 - 164
1,2,3,6,7,8-HxCDD	99.9	104		104	76 - 134
1,2,3,7,8,9-HxCDD	99.9	104		104	64 - 162
1,2,3,4,6,7,8-HpCDF	99.9	101		101	82 - 122
1,2,3,4,7,8,9-HpCDF	99.9	103		103	78 - 138
1,2,3,4,6,7,8-HpCDD	99.9	99.5	B	99.6	70 - 140
OCDF	200	175	B	87.6	63 - 170
OCDD	200	185	B	92.8	78 - 144

* Indicates values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
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Printed: Tuesday, March 07, 2023 09:05:38 Pacific Standard Time

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Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: BLA0398-BS1, Name: 23030615, Date: 06-Mar-2023, Time: 21:44:12, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.760	1.001	1.719e4	2.454e4	0.702	0.701	0.770	1033	977	2.57e5	3.64e5	249.0	372.9	NO	bb	bb	9.248
12378-PeCDF	29.911	1.001	1.339e5	8.741e4	0.679	1.532	1.550	2089	1260	2.00e6	1.31e6	955.1	1041.2	NO	bb	bb	49.637
23478-PeCDF	31.248	1.001	1.373e5	9.088e4	0.786	1.511	1.550	2089	1260	2.03e6	1.36e6	972.0	1076.5	NO	bb	bb	48.569
123478-HxCDF	34.869	1.000	1.666e5	1.312e5	1.166	1.270	1.240	1821	1363	2.56e6	2.02e6	1403.4	1481.5	NO	bd	bd	47.757
234678-HxCDF	35.871	1.000	1.614e5	1.273e5	1.140	1.268	1.240	1821	1363	2.43e6	1.92e6	1332.9	1406.5	NO	bd	bd	50.428
123678-HxCDF	35.014	1.001	1.926e5	1.492e5	1.091	1.291	1.240	1821	1363	2.65e6	2.10e6	1454.6	1542.7	NO	dd	db	52.757
123789-HxCDF	36.908	1.001	1.276e5	9.818e4	1.137	1.300	1.240	1821	1363	1.90e6	1.50e6	1043.4	1103.2	NO	bb	bb	47.015
1234678-HpCDF	38.746	1.000	9.948e4	1.015e5	1.003	0.980	1.050	1165	1545	1.62e6	1.57e6	1389.3	1014.6	NO	bb	bd	50.656
1234789-HpCDF	40.985	1.001	6.117e4	5.840e4	0.953	1.048	1.050	1165	1545	8.03e5	8.08e5	688.8	522.8	NO	bd	bb	51.352
OCDF	45.200	1.005	8.240e4	8.697e4	0.778	0.947	0.890	615	846	9.07e5	1.02e6	1476.3	1210.0	NO	bd	bb	87.574
2378-TCDD	26.396	1.001	2.383e4	2.853e4	1.149	0.835	0.770	772	552	3.73e5	4.55e5	483.4	823.0	NO	bb	bb	9.153
12378-PeCDD	31.504	1.001	1.378e5	9.080e4	1.022	1.518	1.550	1354	751	2.09e6	1.33e6	1540.4	1772.5	NO	bb	bb	49.307
123478-HxCDD	35.994	1.001	1.237e5	1.023e5	0.996	1.210	1.240	1118	812	2.02e6	1.64e6	1804.0	2017.8	NO	bd	bd	48.685
123678-HxCDD	36.105	1.000	1.399e5	1.193e5	1.001	1.173	1.240	1118	812	2.07e6	1.69e6	1850.0	2079.1	NO	db	dd	51.838
123789-HxCDD	36.495	1.011	1.231e5	1.056e5	0.907	1.166	1.240	1118	812	1.80e6	1.48e6	1614.0	1822.8	NO	bd	dd	52.209
1234678-HpCDD	40.239	1.000	7.514e4	7.779e4	1.039	0.966	1.050	1083	1191	1.08e6	1.06e6	1000.4	893.3	NO	bb	bb	49.789
OCDD	44.972	1.000	1.025e5	1.098e5	0.920	0.934	0.890	1198	868	1.12e6	1.29e6	930.8	1488.3	NO	bd	bb	92.841
13C-2378-TCDF	25.732	1.007	2.782e5	3.650e5	1.620	0.762	0.770	1887	1388	4.01e6	5.30e6	2122.7	3817.7	NO	bb	bb	73.458
13C-12378-PeCDF	29.889	1.169	3.992e5	2.572e5	1.240	1.552	1.550	2522	1751	5.83e6	3.88e6	2312.5	2214.5	NO	bd	bb	97.925
13C-23478-PeCDF	31.226	1.222	3.561e5	2.415e5	1.118	1.474	1.550	2522	1751	5.39e6	3.63e6	2135.5	2075.8	NO	bb	bb	98.924
13C-123478-HxCDF	34.858	0.956	1.808e5	3.539e5	1.168	0.511	0.510	1855	2054	2.80e6	5.40e6	1508.7	2631.5	NO	bd	bd	106.727
13C-123678-HxCDF	34.991	0.959	2.036e5	3.903e5	1.386	0.522	0.510	1855	2054	3.04e6	5.78e6	1639.9	2816.0	NO	db	db	99.901
13C-234678-HxCDF	35.860	0.983	1.702e5	3.320e5	1.129	0.513	0.510	1855	2054	2.61e6	5.05e6	1408.1	2459.9	NO	bb	bb	103.721
13C-123789-HxCDF	36.885	1.011	1.419e5	2.805e5	0.932	0.506	0.510	1855	2054	2.16e6	4.20e6	1162.7	2046.2	NO	bb	bb	105.711
13C-1234678-HpCDF	38.735	1.062	1.179e5	2.777e5	0.895	0.425	0.440	1585	1878	1.88e6	4.40e6	1188.6	2342.1	NO	bb	bb	103.044
13C-1234789-HpCDF	40.963	1.123	7.749e4	1.668e5	0.770	0.465	0.440	1585	1878	9.96e5	2.26e6	628.6	1202.6	NO	bb	bb	74.013
13C-1234-TCDD	25.563	0.000	2.381e5	3.023e5	1.000	0.788	0.770	1753	1274	3.59e6	4.44e6	2045.4	3486.4	NO	bb	bd	100.000
13C-2378-TCDD	26.382	1.032	2.194e5	2.786e5	1.152	0.788	0.770	1753	1274	3.32e6	4.14e6	1893.1	3247.9	NO	bb	bb	79.957
13C-12378-PeCDD	31.482	1.232	2.805e5	1.733e5	0.829	1.619	1.550	923	1047	4.23e6	2.59e6	4579.8	2474.0	NO	bb	bb	101.296
13C-123478-HxCDD	35.972	0.986	2.642e5	2.021e5	0.995	1.307	1.240	2069	2221	4.08e6	3.13e6	1972.6	1410.9	NO	bd	bd	109.290
13C-123678-HxCDD	36.094	0.990	2.848e5	2.149e5	1.157	1.325	1.240	2069	2221	4.35e6	3.32e6	2102.0	1495.1	NO	db	db	100.734
13C-1234678-HpCDD	40.228	1.103	1.540e5	1.417e5	0.840	1.087	1.050	1244	816	2.14e6	1.95e6	1719.9	2395.9	NO	bb	bb	82.057
13C-OCDD	44.953	1.233	2.382e5	2.591e5	0.767	0.920	0.890	2246	1254	2.68e6	2.93e6	1192.0	2336.8	NO	bb	bb	151.106
13C-123789-HxCDD	36.473	0.000	2.398e5	1.890e5	1.000	1.268	1.240	2069	2221	3.58e6	2.83e6	1731.8	1274.7	NO	bb	bb	100.000
37CL-2378-TCDD	26.396	1.033	1.816e5		1.288			961		2.76e6		2870.9			bb		26.088

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Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	1033	977								
1289-TCDF					0.678		0.770	1033	977								
13468-PECDF					1.246		1.550	464	848								
12389-PECDF	32.284	1.080	1.215e3	7.269e2	0.496	1.672	1.550	2089	1260	1.60e4	7.64e3	7.7	6.1	NO	bb	bb	0.596
123468-HXCDF					1.169		1.240	1821	1363								
1368-TCDD					1.015		0.770	772	552								
1289-TCDD					0.909		0.770	772	552								
12479-PECDD					2.301		1.550	1354	751								
12389-PECDD	31.805	1.010	1.000e2	1.440e2	1.184	0.695	1.550	1354	751	3.69e3	3.25e3	2.7	4.3	YES	db	bb	0.045
124679-HXCDD					1.115		1.240	1118	812								
1234679-HPCDD	39.192	0.974	1.091e3	8.930e2	1.137	1.221	1.050	1083	1191	1.66e4	1.53e4	15.3	12.9	YES	bb	bb	0.590
Total-tetrafurans			1.743e4		0.727			1033		2.62e5							9.360
Total-penta1			0.000e0					464		0.00e0							
Total-pentafurans			2.724e5		0.654			2089		4.04e6							98.801
Total-hexafurans			6.482e5		1.141			1821		9.53e6							197.956
Total-heptafurans			1.606e5		0.978			1165		2.42e6							102.009
Total-Furans			1.181e6		0.922			1033		1.72e7							495.700
Total-tetradioxins			2.383e4		1.024			772		3.73e5							9.153
Total-pentadioxins			1.378e5		1.502			1354		2.09e6							49.307
Total-hexadioxins			3.868e5		1.005			1118		5.89e6							152.732
Total-heptadioxins			7.514e4		1.088			1083		1.08e6							49.789
Total-Dioxins			7.262e5		1.130			772		1.05e7							353.822
Total-TEQ			1.907e6					772		2.77e7							849.522
FUNCTION1 PFK			2.682e7					349405		1.25e8							
FUNCTION2 PFK			2.396e6					152736		2.16e7							0.000
FUNCTION3 PFK			4.584e5					287868		9.96e6							0.000
FUNCTION4 PFK			4.641e6					263515		3.20e6							
FUNCTION5 PFK			8.648e3					170900		3.51e5							
FUNCTION1 HXCD...			5.542e2					492		7.07e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			1.037e2					437		1.62e3							0.000
FUNCTION3 OCDPE			0.000e0					372		0.00e0							
FUNCTION4 NCDPE			1.635e2					591		4.41e3							0.000
FUNCTION5 DCDPE			9.362e1					474		1.12e3							0.000

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

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TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.76	1.719e4	2.454e4	0.702	0.70	0.77	249.0	YES	NO	bb	bb	9.248
2	Total-tetrafurans	24.50	2.392e2	2.821e2	0.727	0.85	0.77	4.2	YES	NO	bd	bb	0.111

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.28	1.215e3	7.269e2	0.496	1.67	1.55	7.7	YES	NO	bb	bb	0.596
2	23478-PeCDF	31.25	1.373e5	9.088e4	0.786	1.51	1.55	972.0	YES	NO	bb	bb	48.569
3	12378-PeCDF	29.91	1.339e5	8.741e4	0.679	1.53	1.55	955.1	YES	NO	bb	bb	49.637

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.01	1.926e5	1.492e5	1.091	1.29	1.24	1454.6	YES	NO	dd	db	52.757
2	123478-HxCDF	34.87	1.666e5	1.312e5	1.166	1.27	1.24	1403.4	YES	NO	bd	bd	47.757
3	123789-HxCDF	36.91	1.276e5	9.818e4	1.137	1.30	1.24	1043.4	YES	NO	bb	bb	47.015
4	234678-HxCDF	35.87	1.614e5	1.273e5	1.140	1.27	1.24	1332.9	YES	NO	bd	bd	50.428

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	40.99	6.117e4	5.840e4	0.953	1.05	1.05	688.8	YES	NO	bd	bb	51.352
2	1234678-HpCDF	38.75	9.948e4	1.015e5	1.003	0.98	1.05	1389.3	YES	NO	bb	bd	50.656

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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.76	1.719e4	2.454e4	0.702	0.70	0.77	249.0	YES	NO	bb	bb	9.248
2	Total-tetrafurans	24.50	2.392e2	2.821e2	0.727	0.85	0.77	4.2	YES	NO	bd	bb	0.111
3	12389-PECDF	32.28	1.215e3	7.269e2	0.496	1.67	1.55	7.7	YES	NO	bb	bb	0.596
4	23478-PeCDF	31.25	1.373e5	9.088e4	0.786	1.51	1.55	972.0	YES	NO	bb	bb	48.569
5	12378-PeCDF	29.91	1.339e5	8.741e4	0.679	1.53	1.55	955.1	YES	NO	bb	bb	49.637
6	123678-HxCDF	35.01	1.926e5	1.492e5	1.091	1.29	1.24	1454.6	YES	NO	dd	db	52.757
7	123478-HxCDF	34.87	1.666e5	1.312e5	1.166	1.27	1.24	1403.4	YES	NO	bd	bd	47.757
8	123789-HxCDF	36.91	1.276e5	9.818e4	1.137	1.30	1.24	1043.4	YES	NO	bb	bb	47.015
9	234678-HxCDF	35.87	1.614e5	1.273e5	1.140	1.27	1.24	1332.9	YES	NO	bd	bd	50.428
10	1234789-HpCDF	40.99	6.117e4	5.840e4	0.953	1.05	1.05	688.8	YES	NO	bd	bb	51.352
11	1234678-HpCDF	38.75	9.948e4	1.015e5	1.003	0.98	1.05	1389.3	YES	NO	bb	bd	50.656
12	OCDF	45.20	8.240e4	8.697e4	0.778	0.95	0.89	1476.3	YES	NO	bd	bb	87.574

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.40	2.383e4	2.853e4	1.149	0.83	0.77	483.4	YES	NO	bb	bb	9.153

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.50	1.378e5	9.080e4	1.022	1.52	1.55	1540.4	YES	NO	bb	bb	49.307

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.50	1.231e5	1.056e5	0.907	1.17	1.24	1614.0	YES	NO	bd	dd	52.209
2	123678-HxCDD	36.11	1.399e5	1.193e5	1.001	1.17	1.24	1850.0	YES	NO	db	dd	51.838
3	123478-HxCDD	35.99	1.237e5	1.023e5	0.996	1.21	1.24	1804.0	YES	NO	bd	bd	48.685

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.24	7.514e4	7.779e4	1.039	0.97	1.05	1000.4	YES	NO	bb	bb	49.789

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.40	2.383e4	2.853e4	1.149	0.83	0.77	483.4	YES	NO	bb	bb	9.153
2	123789-HxCDD	36.50	1.231e5	1.056e5	0.907	1.17	1.24	1614.0	YES	NO	bd	dd	52.209
3	123678-HxCDD	36.11	1.399e5	1.193e5	1.001	1.17	1.24	1850.0	YES	NO	db	dd	51.838
4	123478-HxCDD	35.99	1.237e5	1.023e5	0.996	1.21	1.24	1804.0	YES	NO	bd	bd	48.685
5	12378-PeCDD	31.50	1.378e5	9.080e4	1.022	1.52	1.55	1540.4	YES	NO	bb	bb	49.307
6	1234678-HpCDD	40.24	7.514e4	7.779e4	1.039	0.97	1.05	1000.4	YES	NO	bb	bb	49.789
7	OCDD	44.97	1.025e5	1.098e5	0.920	0.93	0.89	930.8	YES	NO	bd	bb	92.841

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.76	1.719e4	2.454e4	0.702	0.70	0.77	249.0	YES	NO	bb	bb	9.248
2	Total-tetrafurans	24.50	2.392e2	2.821e2	0.727	0.85	0.77	4.2	YES	NO	bd	bb	0.111
3	12389-PECDF	32.28	1.215e3	7.269e2	0.496	1.67	1.55	7.7	YES	NO	bb	bb	0.596
4	23478-PeCDF	31.25	1.373e5	9.088e4	0.786	1.51	1.55	972.0	YES	NO	bb	bb	48.569
5	12378-PeCDF	29.91	1.339e5	8.741e4	0.679	1.53	1.55	955.1	YES	NO	bb	bb	49.637
6	123678-HxCDF	35.01	1.926e5	1.492e5	1.091	1.29	1.24	1454.6	YES	NO	dd	db	52.757
7	123478-HxCDF	34.87	1.666e5	1.312e5	1.166	1.27	1.24	1403.4	YES	NO	bd	bd	47.757
8	123789-HxCDF	36.91	1.276e5	9.818e4	1.137	1.30	1.24	1043.4	YES	NO	bb	bb	47.015
9	234678-HxCDF	35.87	1.614e5	1.273e5	1.140	1.27	1.24	1332.9	YES	NO	bd	bd	50.428
10	1234789-HpCDF	40.99	6.117e4	5.840e4	0.953	1.05	1.05	688.8	YES	NO	bd	bb	51.352
11	1234678-HpCDF	38.75	9.948e4	1.015e5	1.003	0.98	1.05	1389.3	YES	NO	bb	bd	50.656
12	OCDF	45.20	8.240e4	8.697e4	0.778	0.95	0.89	1476.3	YES	NO	bd	bb	87.574
13	2378-TCDD	26.40	2.383e4	2.853e4	1.149	0.83	0.77	483.4	YES	NO	bb	bb	9.153
14	123789-HxCDD	36.50	1.231e5	1.056e5	0.907	1.17	1.24	1614.0	YES	NO	bd	dd	52.209
15	123678-HxCDD	36.11	1.399e5	1.193e5	1.001	1.17	1.24	1850.0	YES	NO	db	dd	51.838
16	123478-HxCDD	35.99	1.237e5	1.023e5	0.996	1.21	1.24	1804.0	YES	NO	bd	bd	48.685
17	12378-PeCDD	31.50	1.378e5	9.080e4	1.022	1.52	1.55	1540.4	YES	NO	bb	bb	49.307
18	1234678-HpCDD	40.24	7.514e4	7.779e4	1.039	0.97	1.05	1000.4	YES	NO	bb	bb	49.789
19	OCDD	44.97	1.025e5	1.098e5	0.920	0.93	0.89	930.8	YES	NO	bd	bb	92.841

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	22.92	4.108e6					35.0	YES		db		
2	FUNCTION1 PFK	22.79	1.639e6					31.4	YES		dd		
3	FUNCTION1 PFK	22.55	1.598e6					28.0	YES		bd		
4	FUNCTION1 PFK	22.31	2.555e6					31.9	YES		db		
5	FUNCTION1 PFK	22.10	1.168e6					26.7	YES		bd		
6	FUNCTION1 PFK	21.88	5.424e5					16.5	YES		db		
7	FUNCTION1 PFK	21.68	9.464e5					11.5	YES		bd		
8	FUNCTION1 PFK	26.20	6.539e4					3.4	YES		db		
9	FUNCTION1 PFK	26.16	5.350e5					2.8	NO		bd		
10	FUNCTION1 PFK	25.59	4.471e5					8.9	YES		db		
11	FUNCTION1 PFK	25.55	1.512e5					7.1	YES		bd		
12	FUNCTION1 PFK	25.31	3.521e5					3.7	YES		bb		
13	FUNCTION1 PFK	24.90	4.418e5					5.7	YES		db		
14	FUNCTION1 PFK	24.62	2.500e5					11.5	YES		dd		
15	FUNCTION1 PFK	24.56	7.152e5					13.8	YES		dd		
16	FUNCTION1 PFK	24.42	1.483e5					9.3	YES		dd		
17	FUNCTION1 PFK	24.28	1.009e6					22.0	YES		dd		
18	FUNCTION1 PFK	24.14	1.674e6					24.6	YES		dd		
19	FUNCTION1 PFK	23.81	3.238e6					32.0	YES		dd		
20	FUNCTION1 PFK	23.63	5.239e6					31.4	YES		bd		

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ID: BLA0398-BS1, Name: 23030615, Date: 06-Mar-2023, Time: 21:44:12, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.24	7.241e5					26.1	YES		dd		0.000
2	FUNCTION2 PFK	28.07	4.331e5					33.6	YES		bd		0.000
3	FUNCTION2 PFK	31.42	3.218e3					1.1	NO		bb		0.000
4	FUNCTION2 PFK	31.16	2.189e3					0.8	NO		bb		0.000
5	FUNCTION2 PFK	30.67	1.203e4					2.2	NO		db		0.000
6	FUNCTION2 PFK	30.58	2.206e4					2.6	NO		dd		0.000
7	FUNCTION2 PFK	30.48	9.025e3					1.2	NO		dd		0.000
8	FUNCTION2 PFK	30.43	1.028e4					2.0	NO		dd		0.000
9	FUNCTION2 PFK	30.39	6.572e3					1.4	NO		bd		0.000
10	FUNCTION2 PFK	30.25	3.018e3					1.0	NO		bb		0.000
11	FUNCTION2 PFK	29.67	1.827e3					0.7	NO		bb		0.000
12	FUNCTION2 PFK	29.42	9.446e3					1.3	NO		bb		0.000
13	FUNCTION2 PFK	29.31	7.975e3					1.8	NO		bb		0.000
14	FUNCTION2 PFK	29.16	6.048e3					1.8	NO		bb		0.000
15	FUNCTION2 PFK	28.94	4.785e3					1.2	NO		bb		0.000
16	FUNCTION2 PFK	28.65	2.499e5					11.0	YES		db		0.000
17	FUNCTION2 PFK	28.54	5.949e5					14.3	YES		dd		0.000
18	FUNCTION2 PFK	28.32	2.266e5					23.8	YES		dd		0.000
19	FUNCTION2 PFK	32.56	2.066e4					1.8	NO		db		0.000
20	FUNCTION2 PFK	32.50	4.424e3					0.9	NO		bd		0.000
21	FUNCTION2 PFK	32.32	4.257e3					1.1	NO		db		0.000
22	FUNCTION2 PFK	32.27	1.122e4					2.2	NO		bd		0.000
23	FUNCTION2 PFK	32.21	8.443e2					0.5	NO		bb		0.000
24	FUNCTION2 PFK	31.93	5.696e3					1.6	NO		bb		0.000
25	FUNCTION2 PFK	31.78	5.399e3					1.5	NO		db		0.000
26	FUNCTION2 PFK	31.74	1.081e4					2.4	NO		bd		0.000
27	FUNCTION2 PFK	31.54	5.878e3					1.6	NO		bb		0.000

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PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	33.94	2.535e4					1.7	NO		bd		0.000
2	FUNCTION3 PFK	33.61	1.633e4					1.4	NO		bb		0.000
3	FUNCTION3 PFK	33.52	3.313e3					0.6	NO		bb		0.000
4	FUNCTION3 PFK	33.33	9.026e3					1.3	NO		bb		0.000
5	FUNCTION3 PFK	33.25	5.390e3					0.9	NO		bb		0.000
6	FUNCTION3 PFK	32.95	2.262e4					1.2	NO		bb		0.000
7	FUNCTION3 PFK	37.31	1.762e4					1.4	NO		bd		0.000
8	FUNCTION3 PFK	37.21	2.034e4					1.5	NO		db		0.000
9	FUNCTION3 PFK	37.12	6.437e4					2.7	NO		dd		0.000
10	FUNCTION3 PFK	36.95	7.176e4					2.5	NO		dd		0.000
11	FUNCTION3 PFK	36.83	1.923e4					1.6	NO		bd		0.000
12	FUNCTION3 PFK	36.68	6.733e3					1.0	NO		bb		0.000
13	FUNCTION3 PFK	36.38	6.698e3					1.1	NO		bb		0.000
14	FUNCTION3 PFK	35.38	1.346e4					1.6	NO		bb		0.000
15	FUNCTION3 PFK	35.23	6.815e3					1.0	NO		db		0.000
16	FUNCTION3 PFK	35.18	1.993e4					1.8	NO		bd		0.000
17	FUNCTION3 PFK	35.10	1.793e4					1.0	NO		db		0.000
18	FUNCTION3 PFK	35.02	1.345e4					1.5	NO		dd		0.000
19	FUNCTION3 PFK	34.97	1.295e4					1.0	NO		bd		0.000
20	FUNCTION3 PFK	34.47	4.650e3					0.6	NO		bb		0.000
21	FUNCTION3 PFK	34.29	1.870e4					1.4	NO		bb		0.000
22	FUNCTION3 PFK	34.04	3.008e3					0.6	NO		db		0.000
23	FUNCTION3 PFK	37.72	2.620e4					1.4	NO		db		0.000
24	FUNCTION3 PFK	37.65	1.493e4					1.5	NO		bd		0.000
25	FUNCTION3 PFK	37.45	1.757e3					0.5	NO		bb		0.000
26	FUNCTION3 PFK	37.41	1.589e4					1.9	NO		db		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.69	4.641e6					12.1	YES		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.53	8.648e3					2.1	NO		bb		

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ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	25.25	1.547e2					2.8	NO		db		0.000
2	FUNCTION1 HXCD...	25.17	1.364e2					3.5	YES		dd		0.000
3	FUNCTION1 HXCD...	25.08	8.306e1					3.6	YES		bd		0.000
4	FUNCTION1 HXCD...	24.28	9.755e1					2.5	NO		db		0.000
5	FUNCTION1 HXCD...	24.15	8.245e1					2.0	NO		bd		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	30.46	1.037e2					3.7	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	39.16	7.500e1					5.0	YES		bb		0.000
2	FUNCTION4 NCDPE	38.71	8.852e1					2.4	NO		bb		0.000

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	44.57	9.362e1					2.4	NO		bb		0.000

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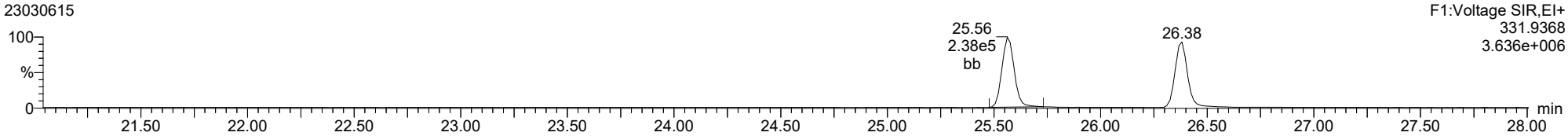

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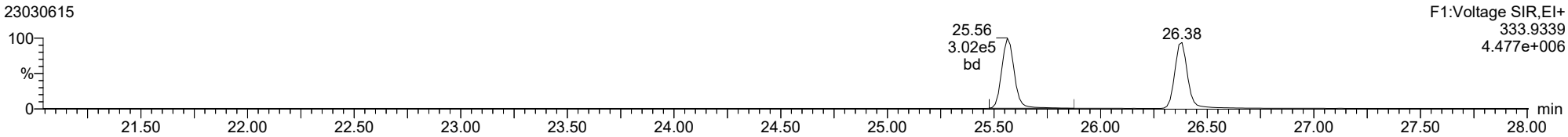

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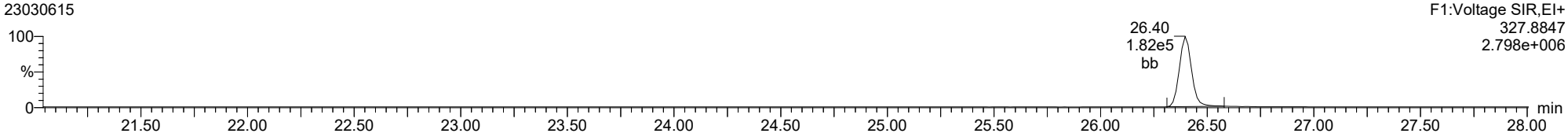

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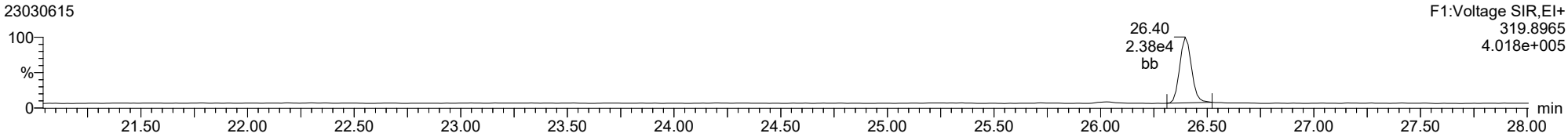

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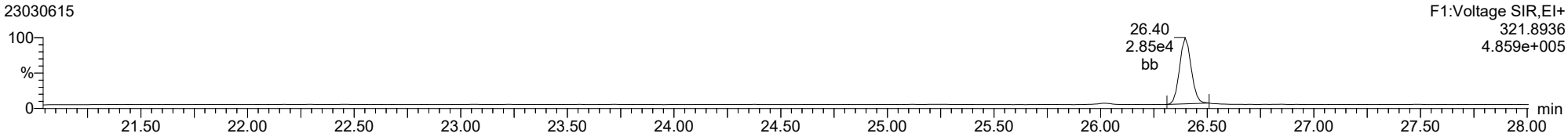

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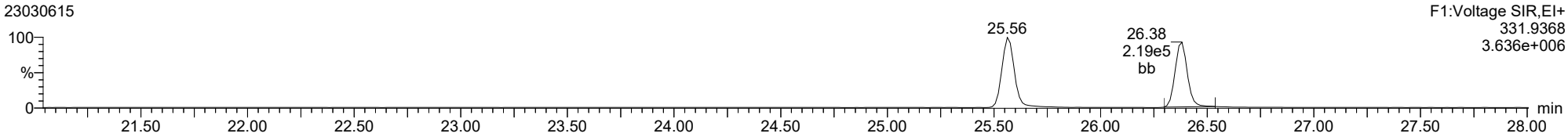

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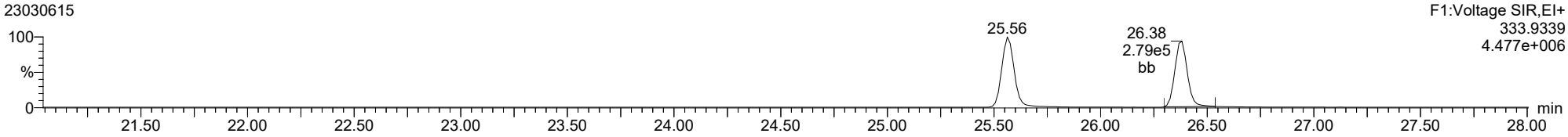

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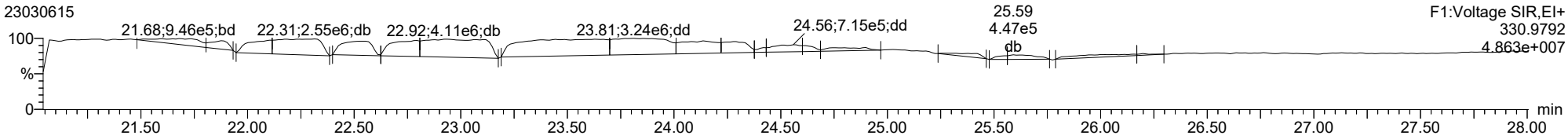

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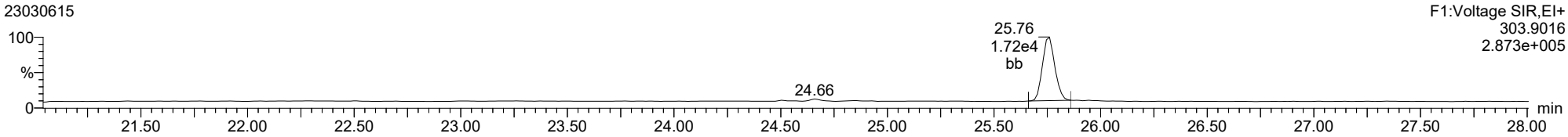

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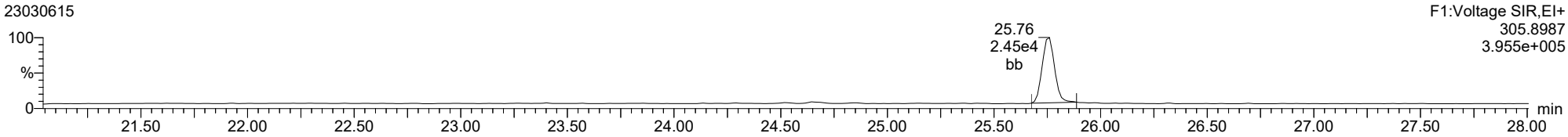

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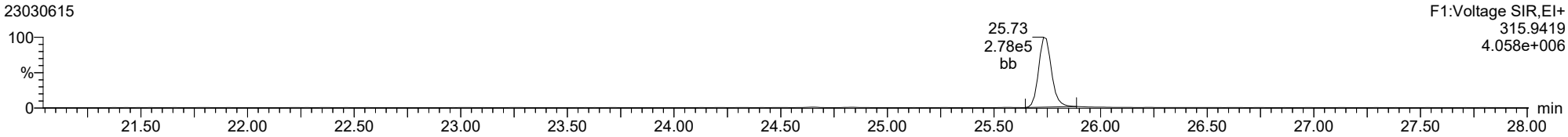

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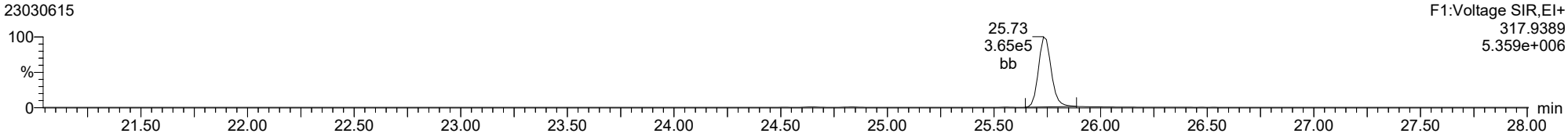

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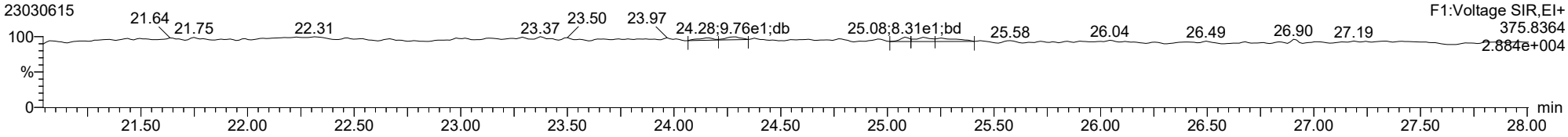

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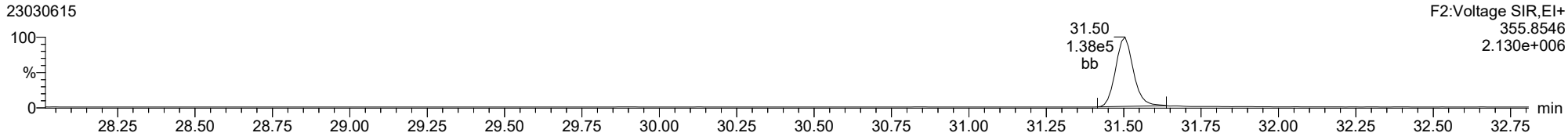
12378-PeCDD



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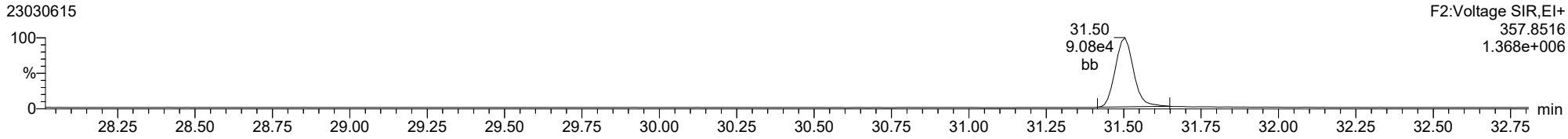

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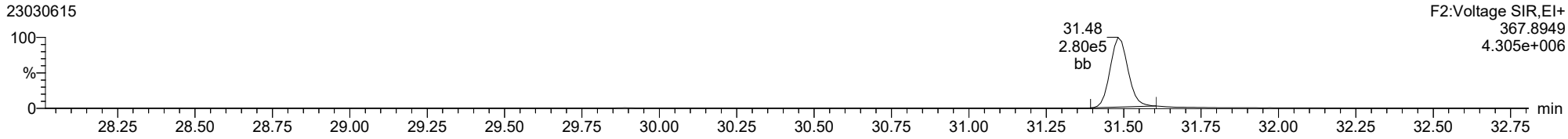

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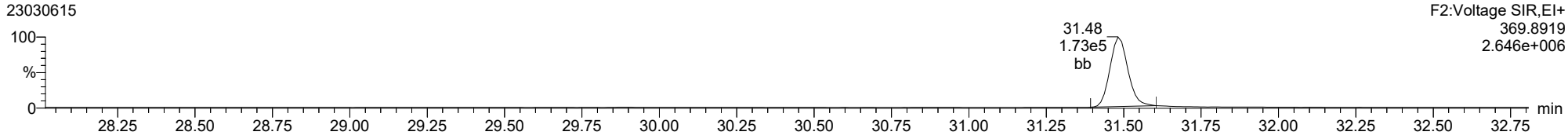
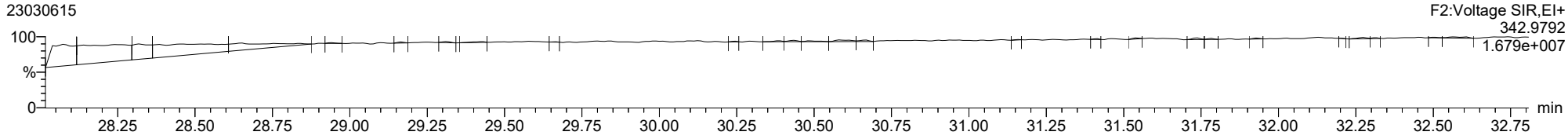


FUNCTION2 PFK



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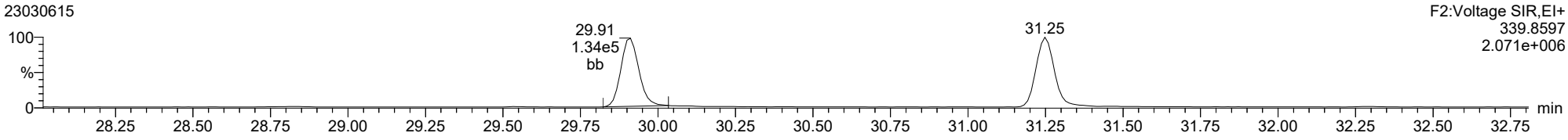
12378-PeCDF



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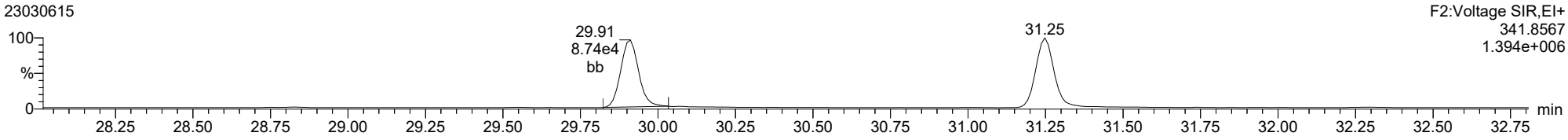

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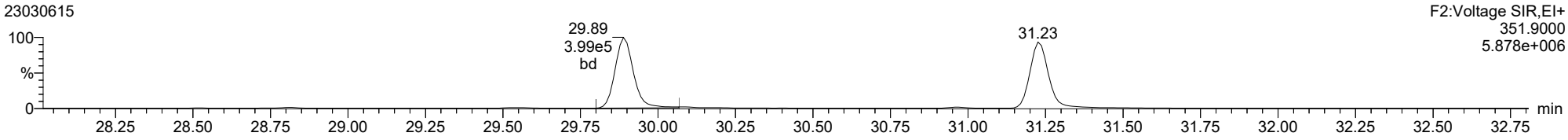

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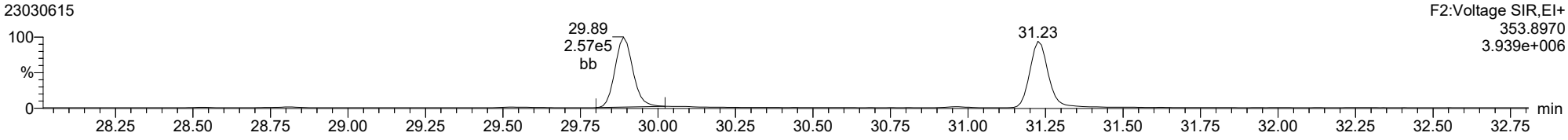

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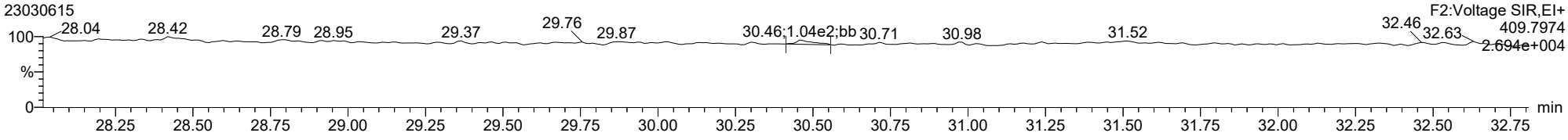

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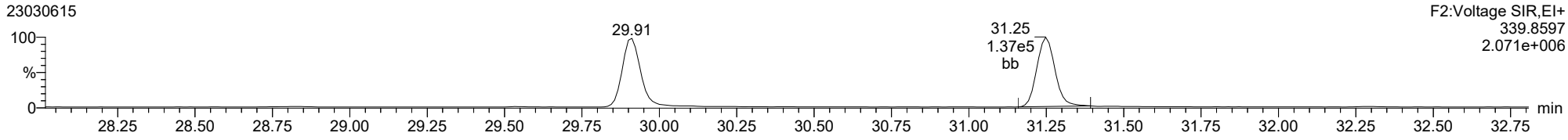
23478-PeCDF



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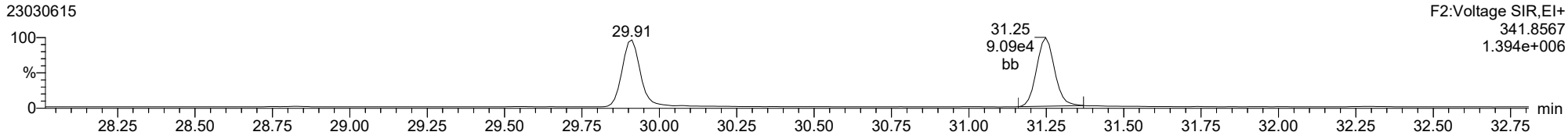

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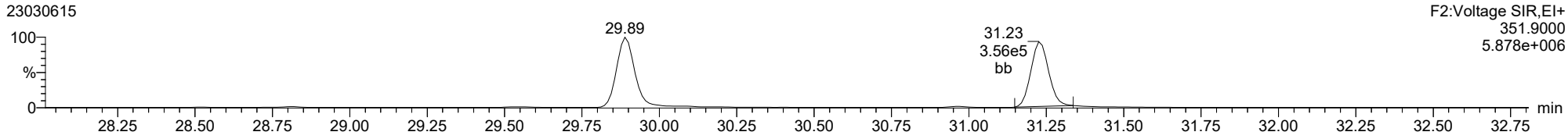

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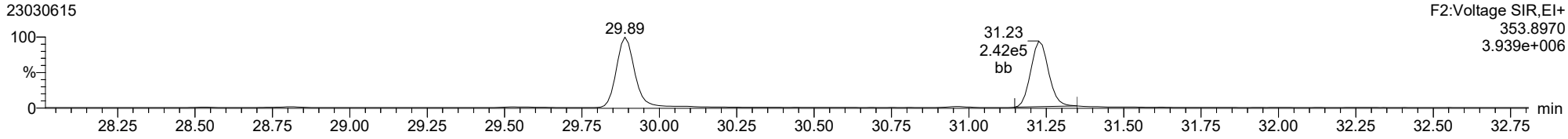

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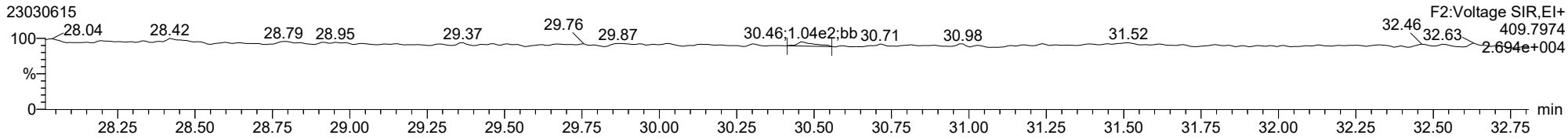

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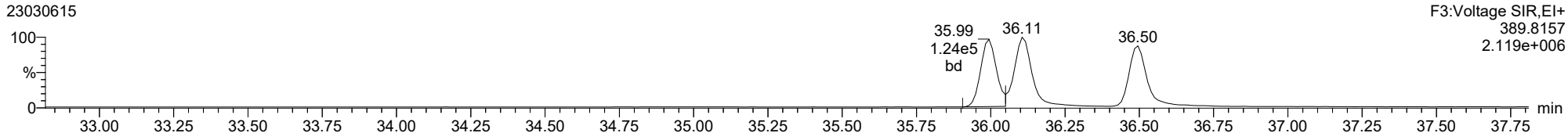
123478-HxCDD



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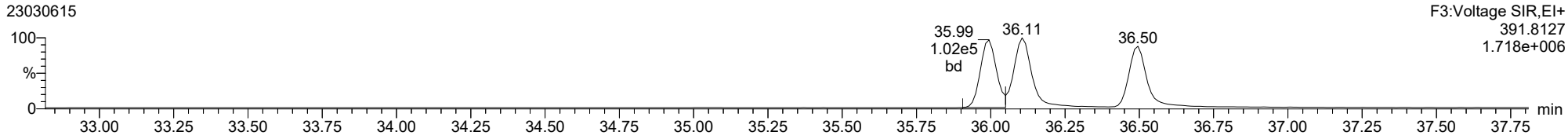

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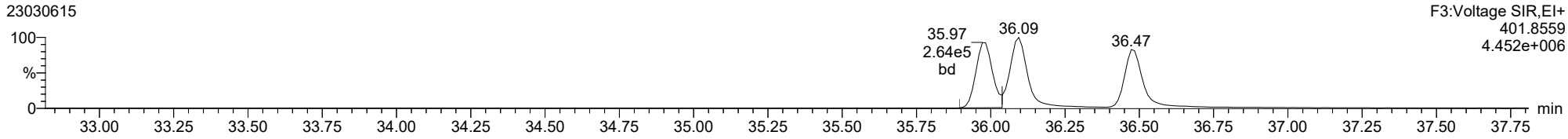

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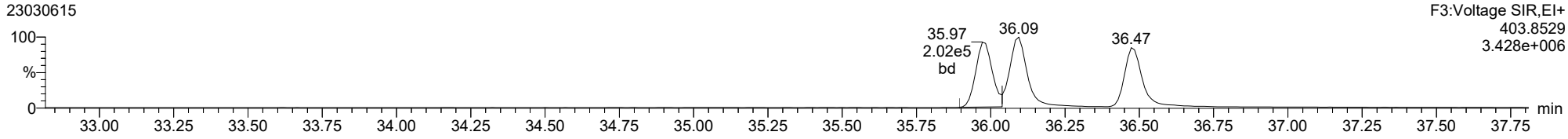

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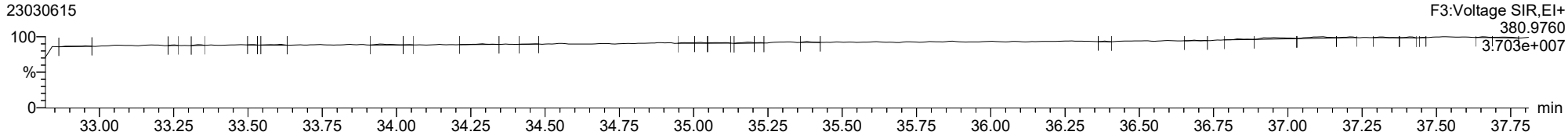

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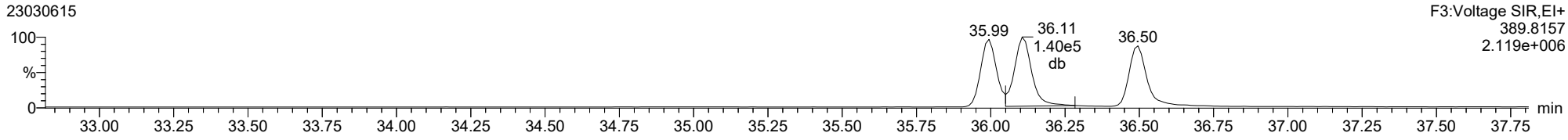

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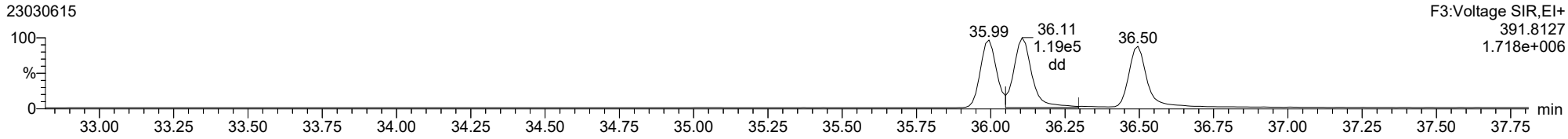

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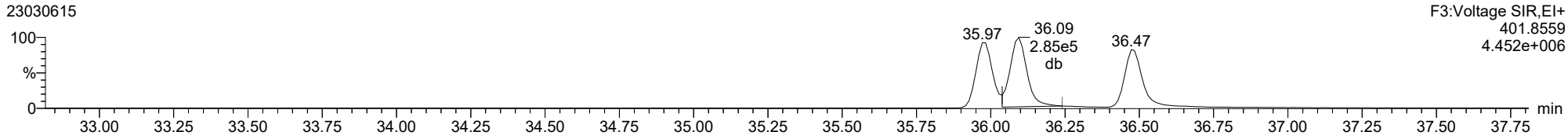

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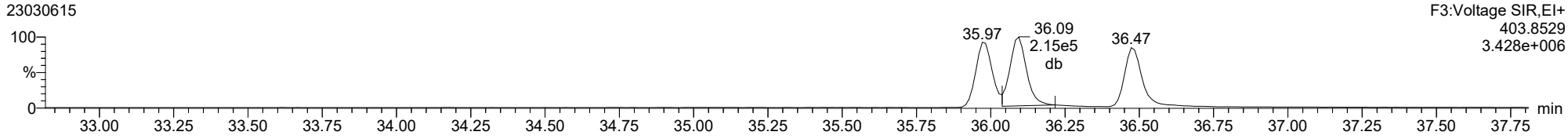

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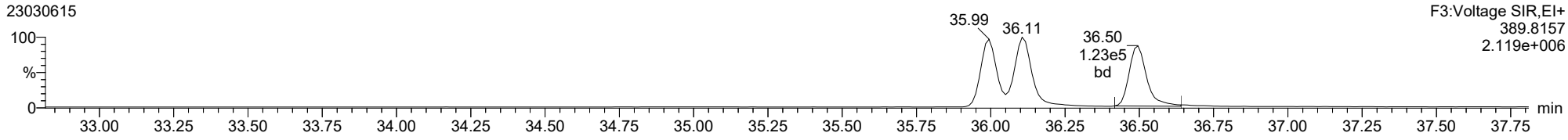

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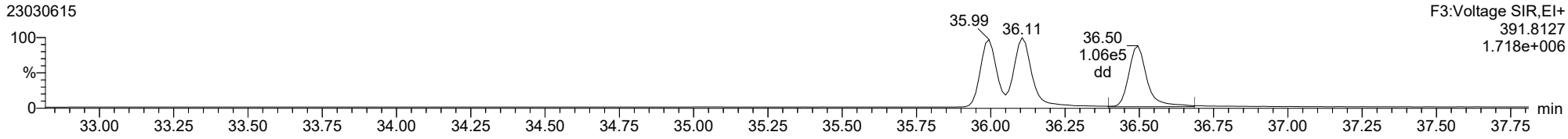

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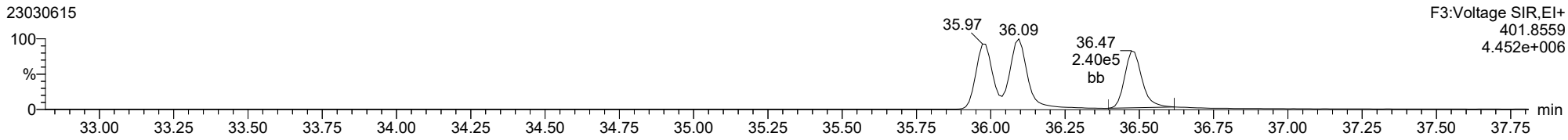

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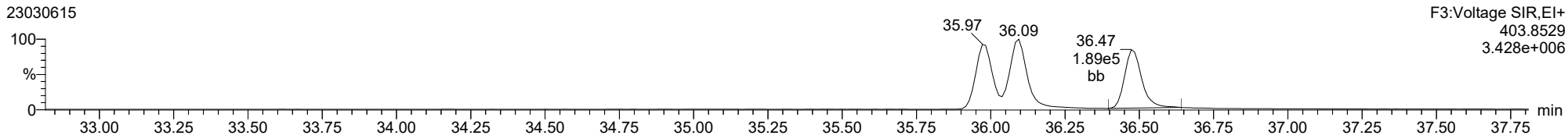

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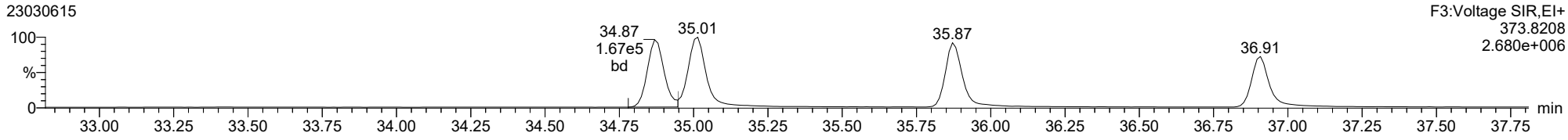

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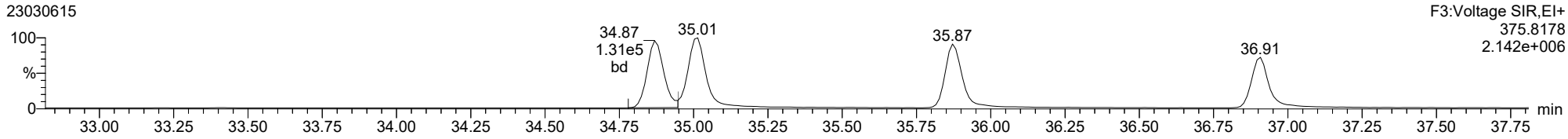

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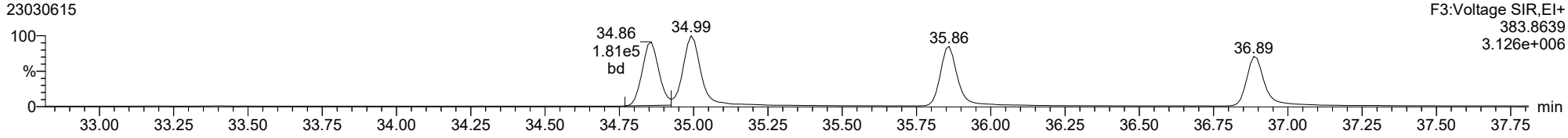

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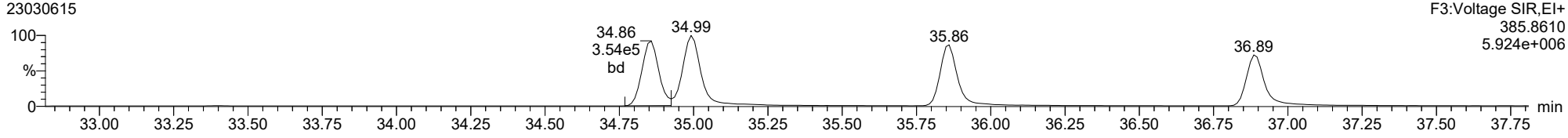

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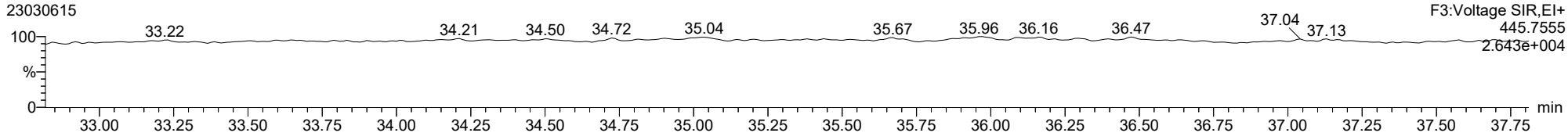

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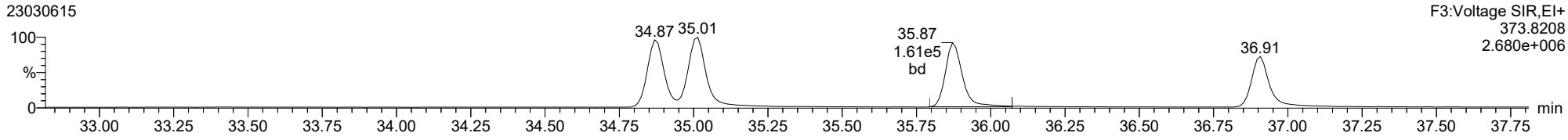

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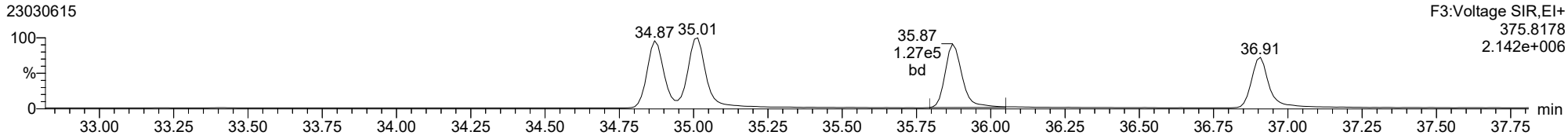

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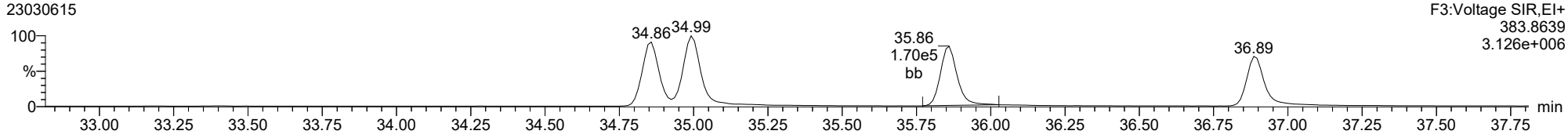

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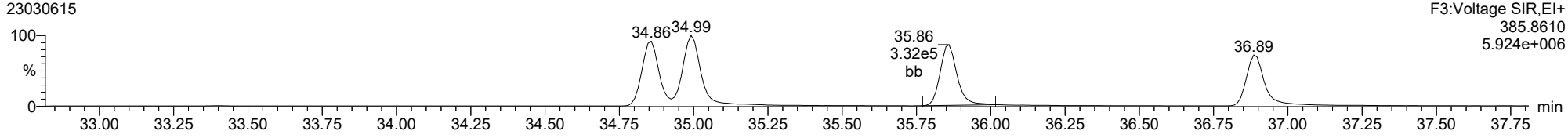

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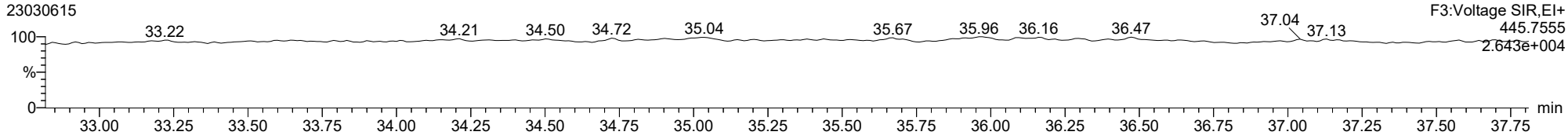

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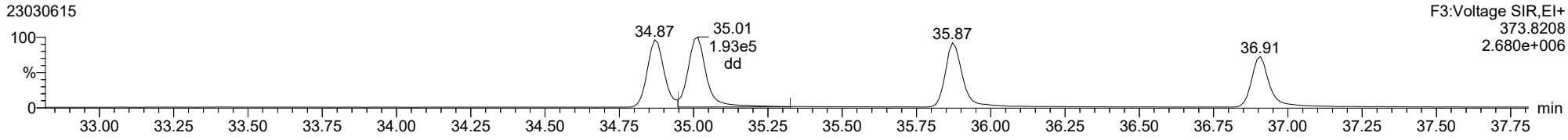

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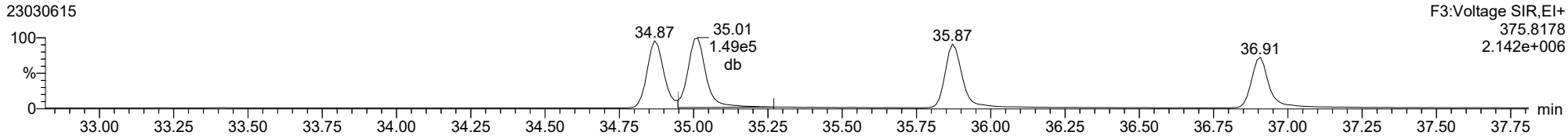

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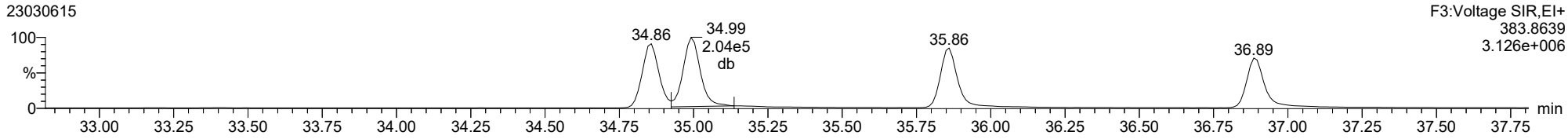

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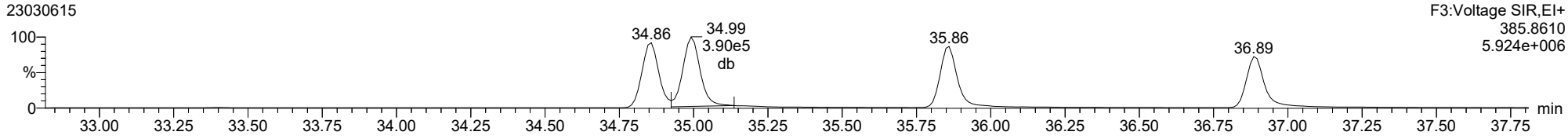

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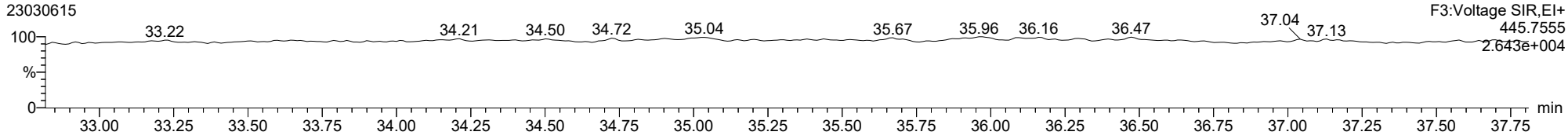

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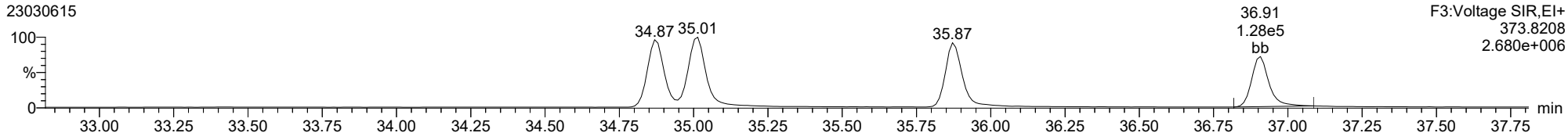

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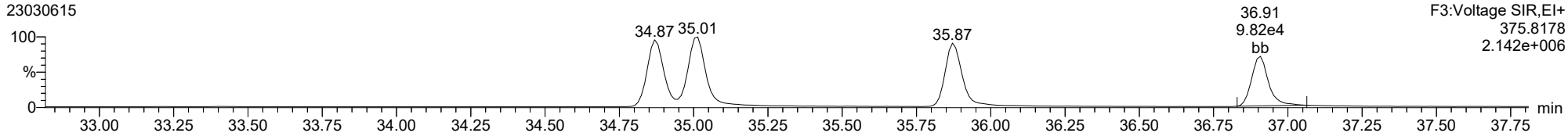

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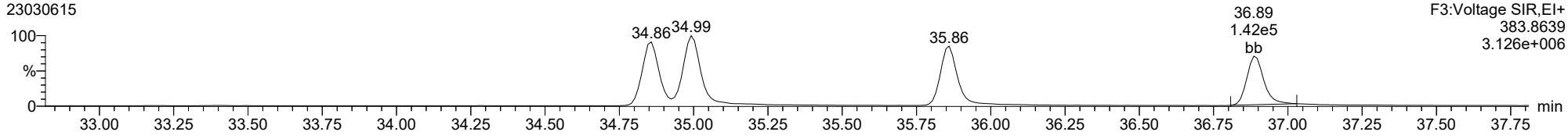

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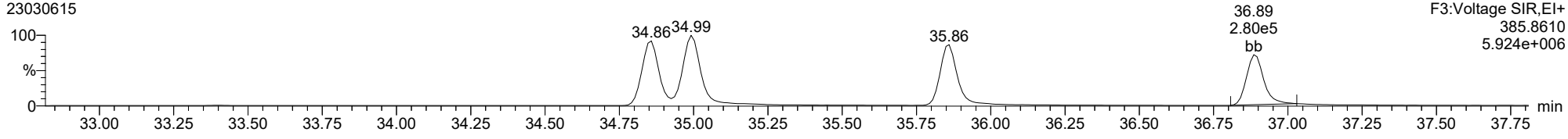

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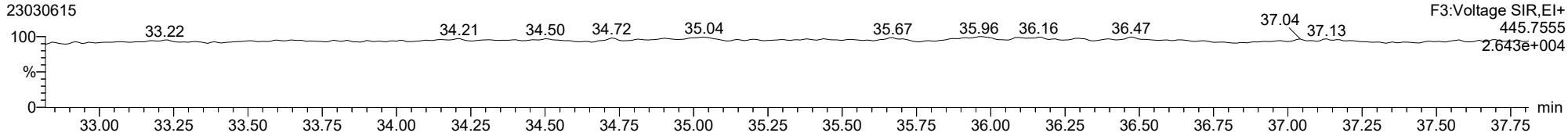

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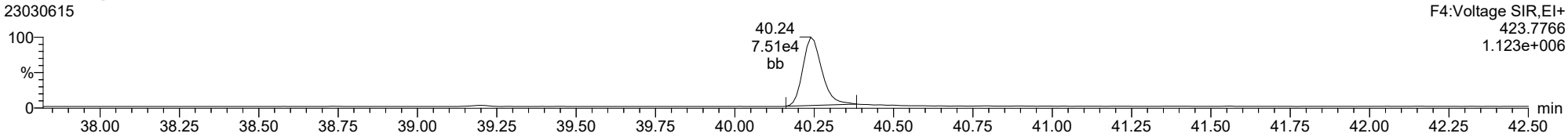

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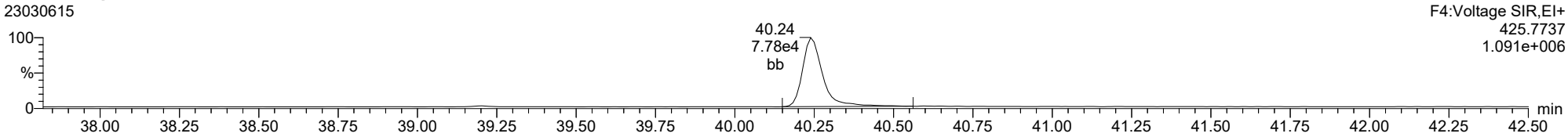

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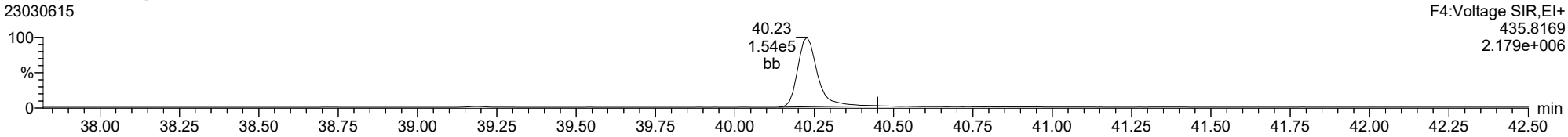

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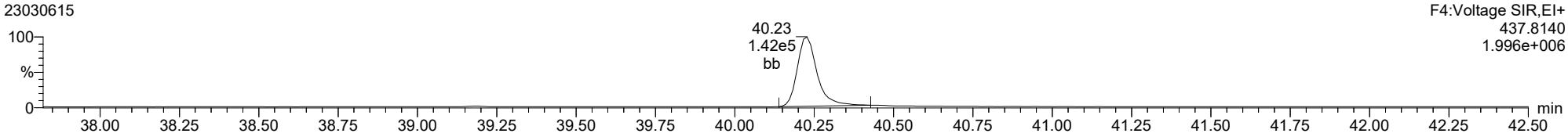

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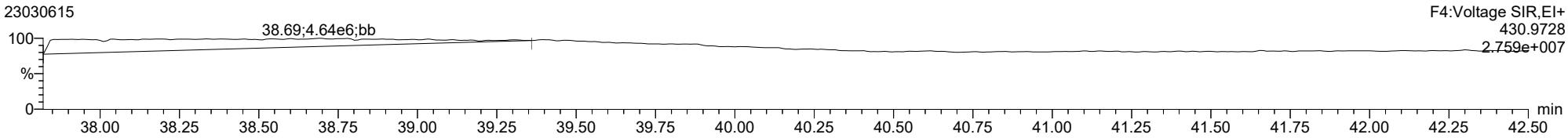

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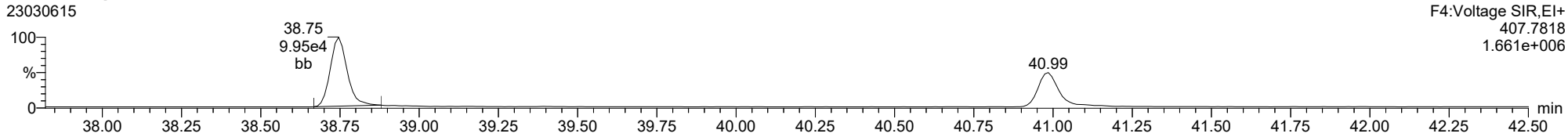

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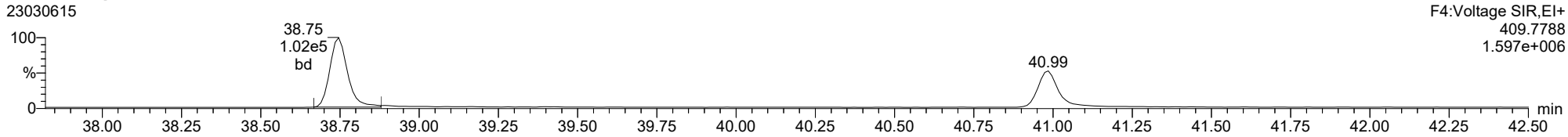

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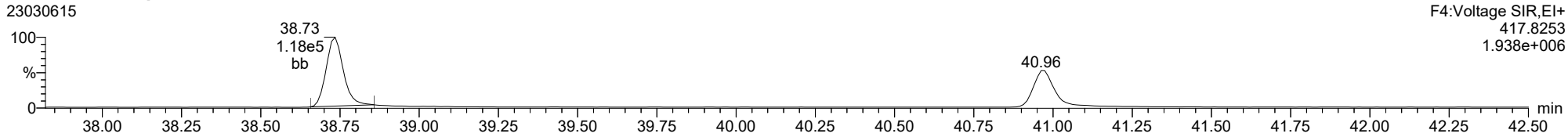

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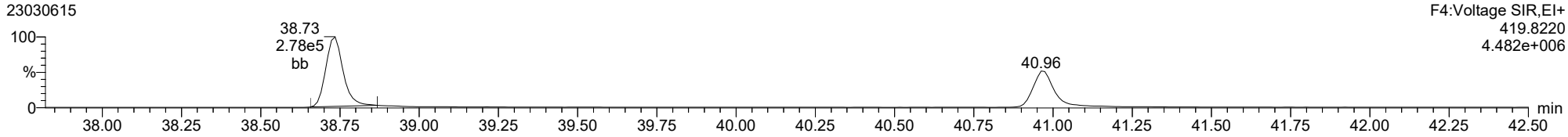

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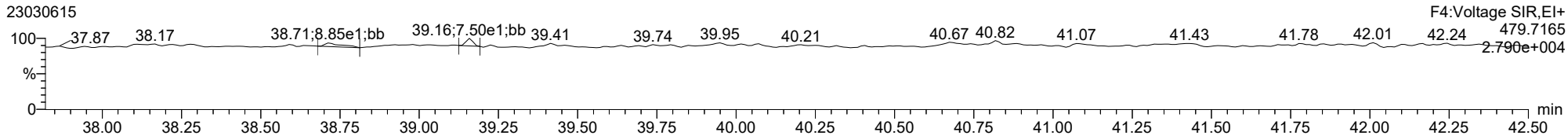

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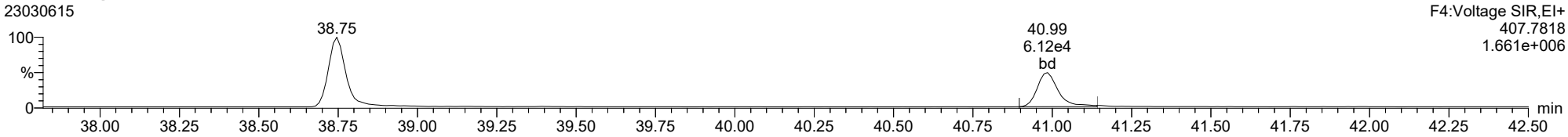

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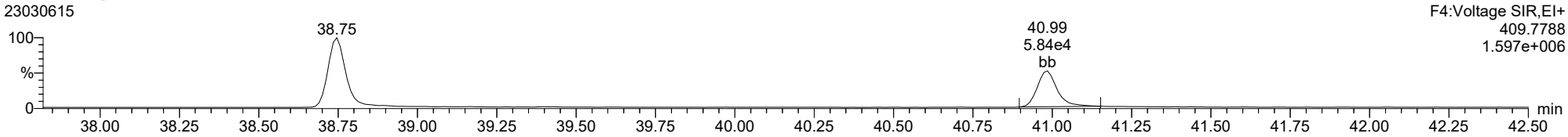

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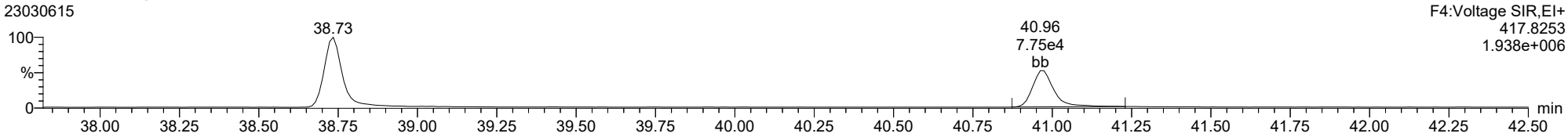

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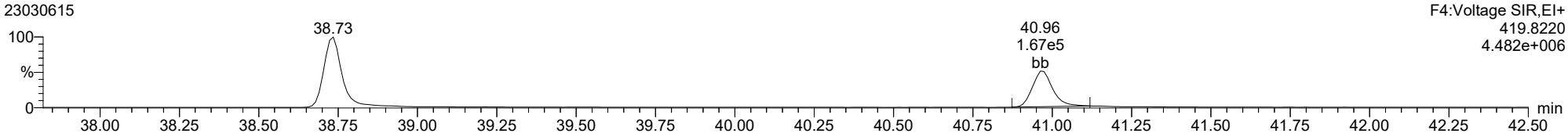

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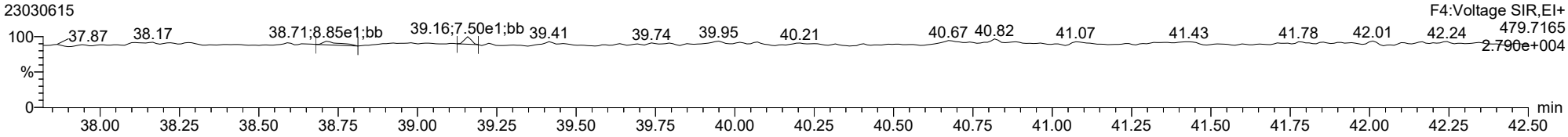

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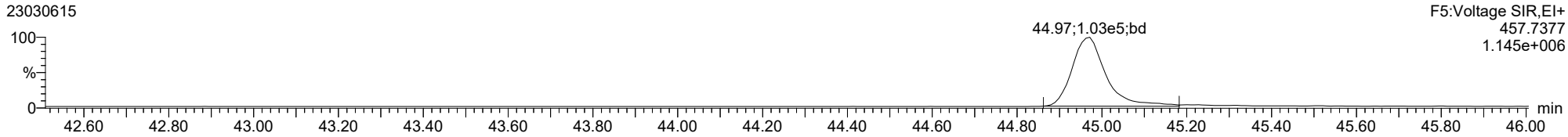

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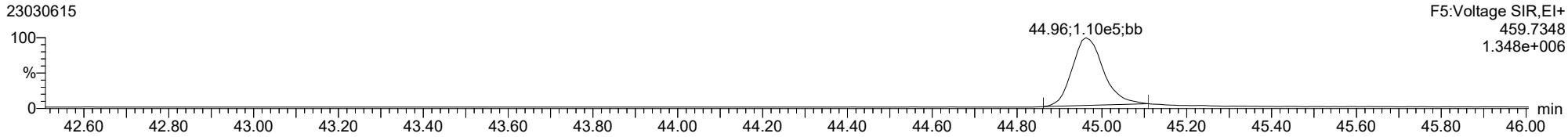

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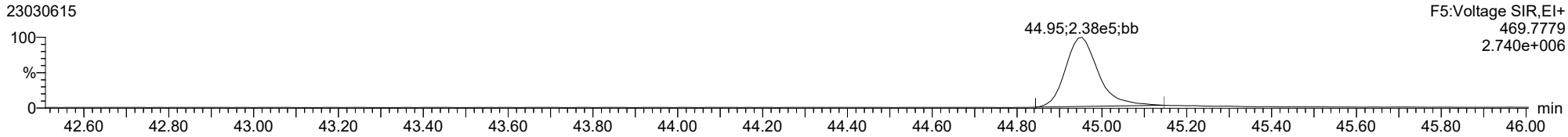
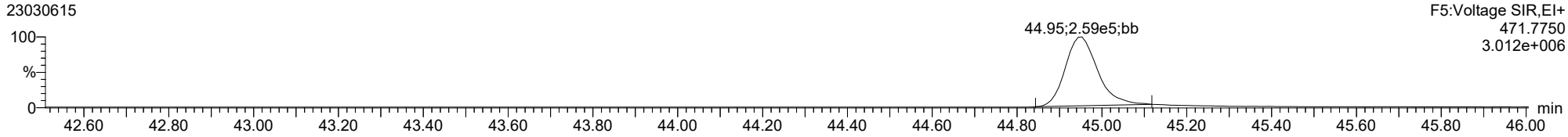
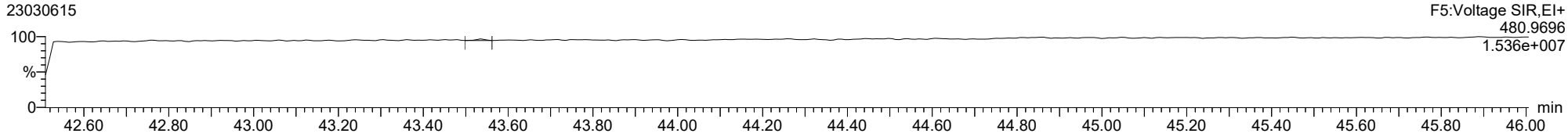


13C-OCDD



FUNCTION5 PFK



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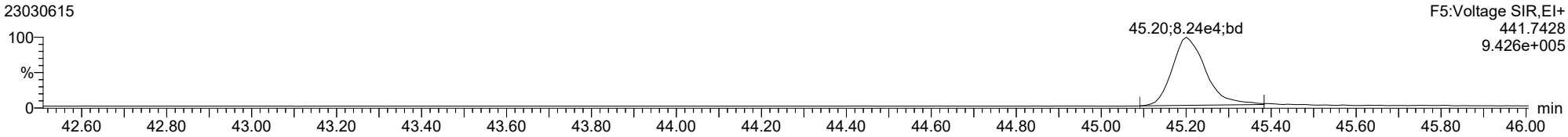
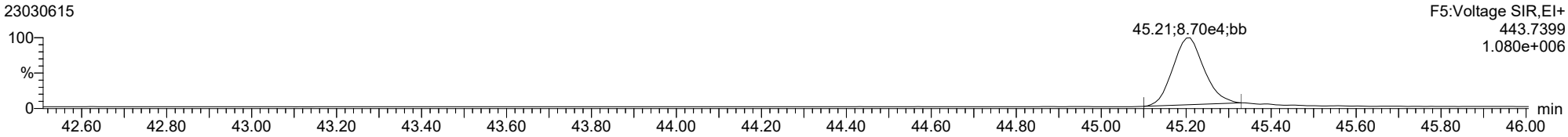
Printed: Tuesday, March 07, 2023 09:05:38 Pacific Standard Time

ID: BLA0398-BS1, Name: 23030615, Date: 06-Mar-2023, Time: 21:44:12, Conditions: AUTOSPEC01, User: pk

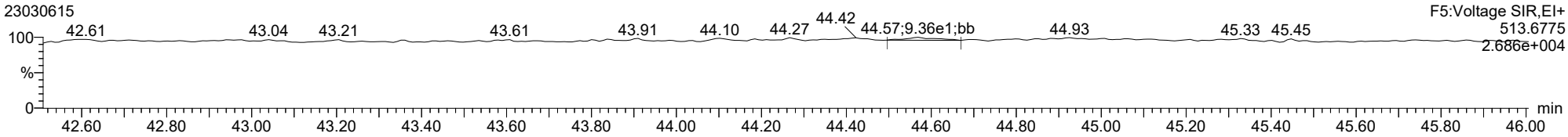
OCDF



OCDF

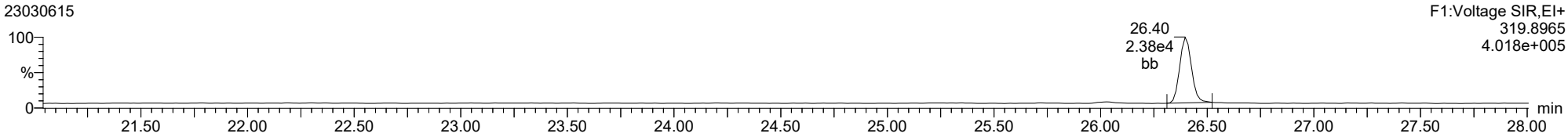


FUNCTION5 DCDPE

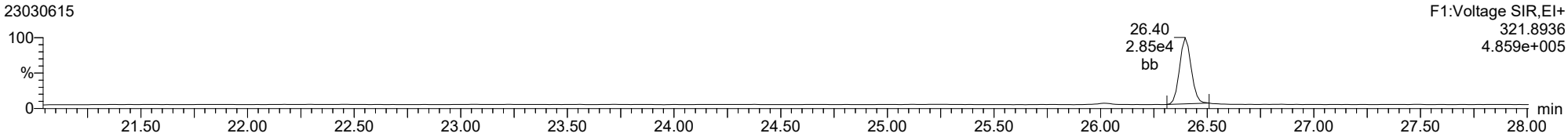


ID: BLA0398-BS1, Name: 23030615, Date: 06-Mar-2023, Time: 21:44:12, Conditions: AUTOSPEC01, User: pk

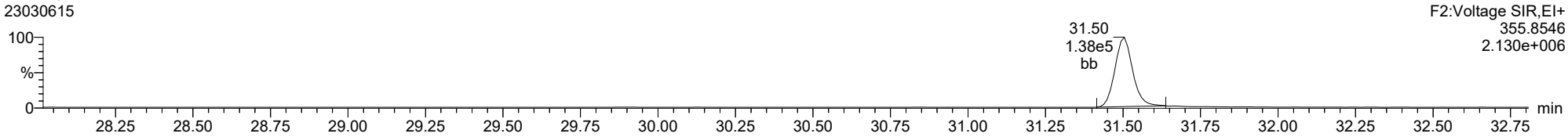
Total-tetradioxins



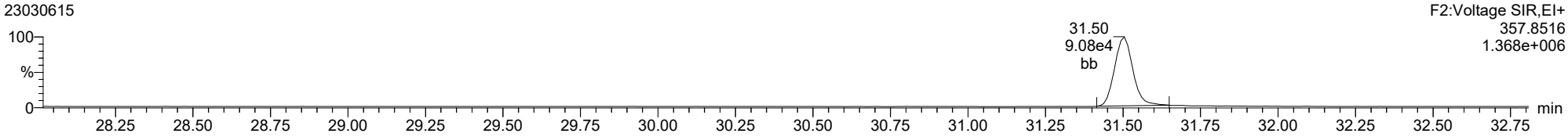
Total-tetradioxins



Total-pentadioxins

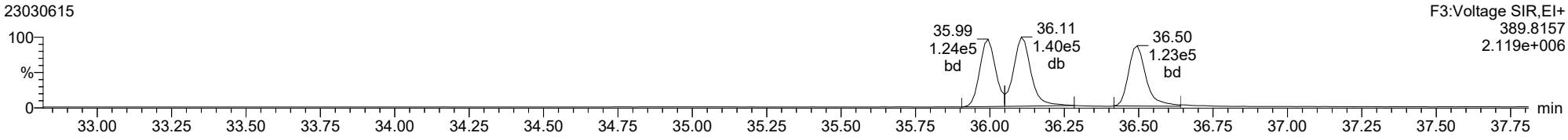


Total-pentadioxins

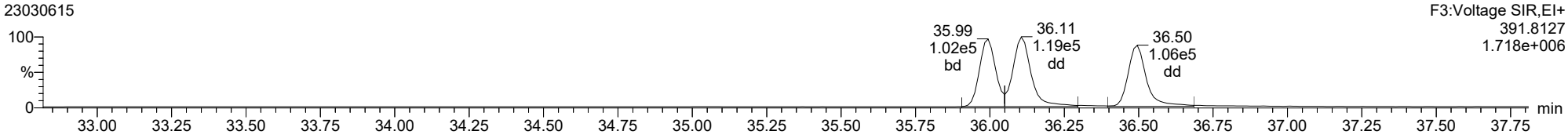


ID: BLA0398-BS1, Name: 23030615, Date: 06-Mar-2023, Time: 21:44:12, Conditions: AUTOSPEC01, User: pk

Total-hexadioxins



Total-hexadioxins



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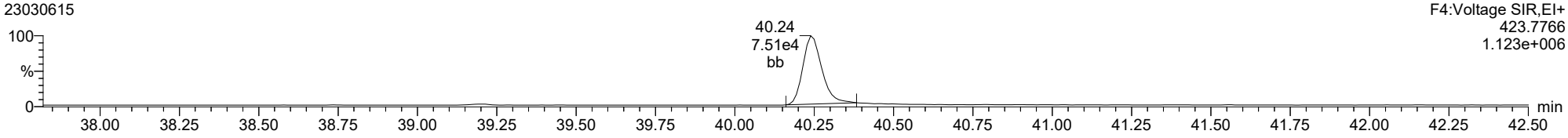

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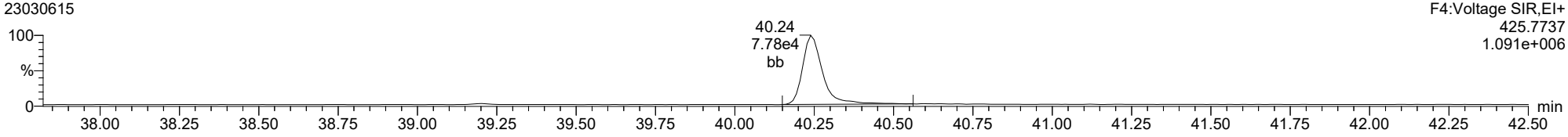
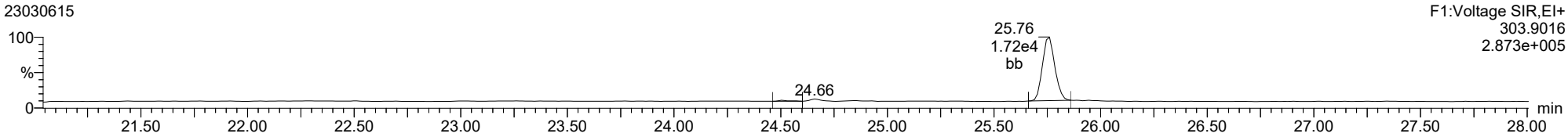


ID: BLA0398-BS1, Name: 23030615, Date: 06-Mar-2023, Time: 21:44:12, Conditions: AUTOSPEC01, User: pk

Total-tetrafurans



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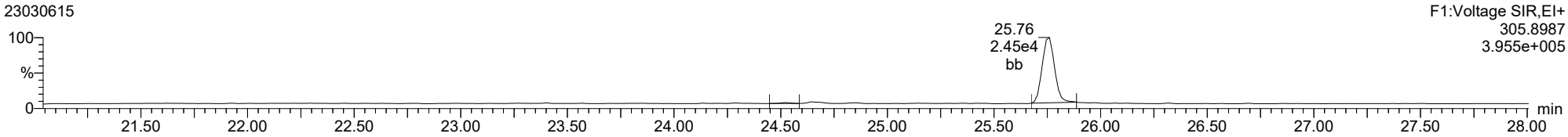

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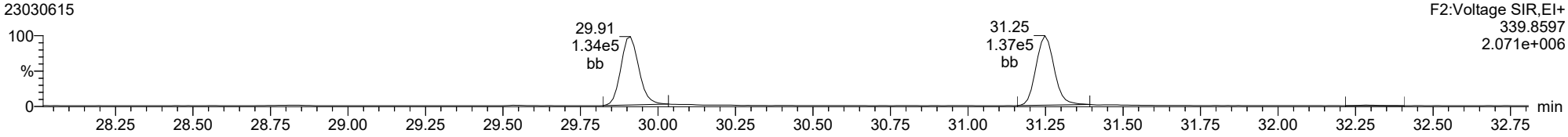

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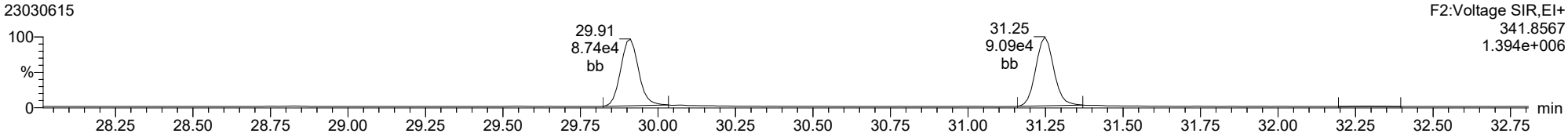

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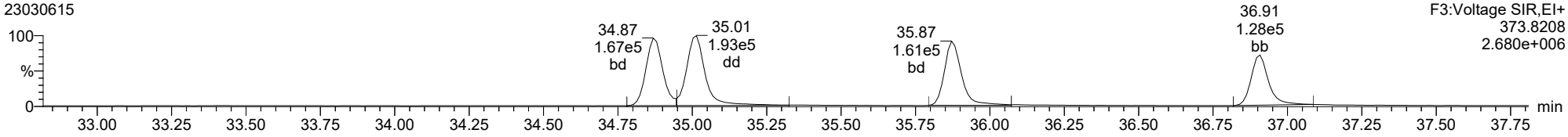
ID: BLA0398-BS1, Name: 23030615, Date: 06-Mar-2023, Time: 21:44:12, Conditions: AUTOSPEC01, User: pk

Total-hexafurans



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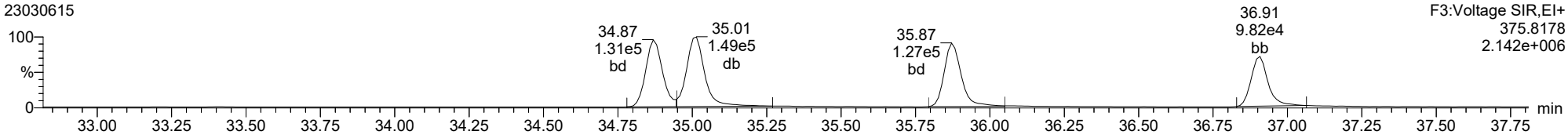

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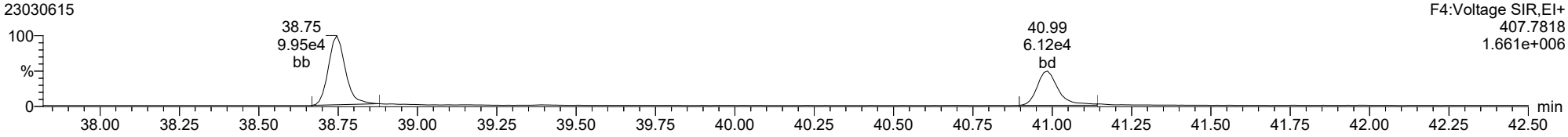
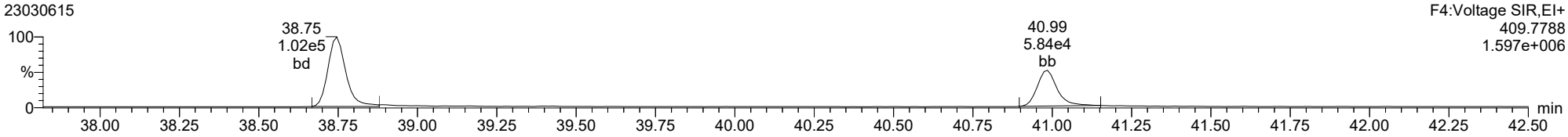


Total-heptafurans



Analytical Resources, LLC
Analytical Chemists and Consultants

STANDARD REFERENCE MATERIAL RECOVERY

EPA 1613B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Laboratory ID: BLA0398-SRM1
Batch: BLA0398
Initial/Final: 10 g / 20 uL
Preparation: EPA 1613
Analyzed: 03/06/2023 22:33
Standard ID: K011479
Expires: 06/11/2023
Standard Lot#: PSRM0171
Description: Puget Sound reference-SRM

ANALYTE	TRUE (ng/kg wet)	FOUND (ng/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
2,3,7,8-TCDF	1.1100	0.856	0.144	1.00	J	77.1	50 - 150
2,3,7,8-TCDD	1.0500	0.796	0.150	1.00	J	75.8	50 - 150
1,2,3,7,8-PeCDF	1.2300	1.26	0.240	1.00		102	50 - 150
2,3,4,7,8-PeCDF	1.0700	0.821	0.220	1.00	J	76.7	50 - 150
1,2,3,7,8-PeCDD	1.0800	1.13	0.170	1.00	B	105	50 - 150
1,2,3,4,7,8-HxCDF	3.0200	2.29	0.280	1.00	B	76.0	50 - 150
1,2,3,6,7,8-HxCDF	1.0900	0.918	0.200	1.00	J	84.2	50 - 150
2,3,4,6,7,8-HxCDF	1.8300	1.61	0.170	1.00		88.2	50 - 150
1,2,3,7,8,9-HxCDF	0.51100	0.721	0.190	1.00	J	141	50 - 150
1,2,3,4,7,8-HxCDD	1.5900	1.48	0.170	1.00		93.1	50 - 150
1,2,3,6,7,8-HxCDD	3.8800	3.43	0.180	1.00		88.4	50 - 150
1,2,3,7,8,9-HxCDD	3.0400	2.55	0.220	1.00		84.0	50 - 150
1,2,3,4,6,7,8-HpCDF	18.700	16.7	0.210	1.00		89.5	50 - 150
1,2,3,4,7,8,9-HpCDF	1.6300	1.44	0.240	1.00		88.1	50 - 150
1,2,3,4,6,7,8-HpCDD	90.600	85.7	0.560	2.50	B	94.6	50 - 150
OCDF	58.400	49.2	1.10	2.50	B	84.3	50 - 150
OCDD	811.00	660	4.60	10.0	B	81.3	50 - 150

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
Last Altered: Tuesday, March 07, 2023 08:54:19 Pacific Standard Time
Printed: Tuesday, March 07, 2023 09:05:52 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: BLA0398-SRM1, Name: 23030616, Date: 06-Mar-2023, Time: 22:33:18, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.760	1.001	1.466e3	1.879e3	0.702	0.780	0.770	1848	951	1.92e4	2.68e4	10.4	28.2	NO	dd	dd	0.428
12378-PeCDF	29.911	1.001	2.540e3	1.698e3	0.679	1.495	1.550	1856	1921	3.14e4	2.43e4	16.9	12.6	NO	bd	bb	0.630
23478-PeCDF	31.259	1.001	1.779e3	1.287e3	0.786	1.382	1.550	1856	1921	2.64e4	1.86e4	14.2	9.7	NO	db	db	0.410
123478-HxCDF	34.880	1.001	5.502e3	4.491e3	1.166	1.225	1.240	1050	843	8.89e4	6.87e4	84.6	81.5	NO	bd	dd	1.147
234678-HxCDF	35.872	1.000	3.662e3	2.634e3	1.140	1.390	1.240	1050	843	4.27e4	3.25e4	40.7	38.5	NO	bb	bb	0.807
123678-HxCDF	35.014	1.000	2.321e3	1.785e3	1.091	1.301	1.240	1050	843	3.30e4	2.61e4	31.4	30.9	NO	db	db	0.459
123789-HxCDF	36.886	1.000	1.443e3	1.199e3	1.137	1.204	1.240	1050	843	1.74e4	1.49e4	16.6	17.6	NO	bb	bb	0.361
1234678-HpCDF	38.746	1.000	2.301e4	2.269e4	1.003	1.014	1.050	1261	1028	3.67e5	3.77e5	291.3	366.6	NO	bb	bb	8.369
1234789-HpCDF	40.986	1.000	1.891e3	1.636e3	0.953	1.156	1.050	1261	1028	3.26e4	2.60e4	25.8	25.3	NO	bb	bb	0.718
OCDF	45.209	1.005	4.428e4	5.214e4	0.778	0.849	0.890	550	1053	5.06e5	5.72e5	921.0	543.2	NO	bd	bd	24.606
2378-TCDD	26.396	1.001	1.763e3	2.373e3	1.149	0.743	0.770	1278	600	2.81e4	3.78e4	22.0	63.0	NO	bd	bd	0.398
12378-PeCDD	31.504	1.000	2.529e3	1.464e3	1.022	1.727	1.550	1030	1438	3.33e4	2.57e4	32.3	17.9	NO	bb	bb	0.566
123478-HxCDD	36.005	1.000	2.441e3	1.874e3	0.996	1.303	1.240	1225	1021	4.21e4	3.14e4	34.4	30.7	NO	bd	bd	0.740
123678-HxCDD	36.128	1.001	5.933e3	4.667e3	1.001	1.271	1.240	1225	1021	9.19e4	6.77e4	75.0	66.3	NO	dd	dd	1.715
123789-HxCDD	36.507	1.011	3.753e3	3.215e3	0.907	1.167	1.240	1225	1021	6.26e4	4.83e4	51.1	47.4	NO	bb	bb	1.277
1234678-HpCDD	40.250	1.001	1.275e5	1.170e5	1.039	1.090	1.050	1763	2356	1.86e6	1.77e6	1054.4	752.6	NO	bd	bb	42.870
OCDD	44.972	1.000	7.021e5	8.265e5	0.920	0.849	0.890	1491	1599	8.79e6	1.04e7	5894.3	6508.8	NO	bb	bb	329.822
13C-2378-TCDF	25.732	1.007	4.788e5	6.352e5	1.620	0.754	0.770	2022	1258	7.12e6	9.47e6	3523.0	7527.8	NO	bb	bb	91.987
13C-12378-PeCDF	29.889	1.169	5.954e5	3.951e5	1.240	1.507	1.550	2444	1753	8.57e6	5.74e6	3506.5	3273.4	NO	bd	bd	106.829
13C-23478-PeCDF	31.237	1.222	5.686e5	3.822e5	1.118	1.487	1.550	2444	1753	8.31e6	5.63e6	3398.6	3210.4	NO	bb	bb	113.798
13C-123478-HxCDF	34.858	0.955	2.494e5	4.978e5	1.168	0.501	0.510	1517	1876	3.92e6	7.75e6	2582.1	4131.3	NO	bd	bd	109.382
13C-123678-HxCDF	35.003	0.959	2.642e5	5.560e5	1.386	0.475	0.510	1517	1876	3.92e6	7.68e6	2586.1	4093.1	NO	db	db	101.177
13C-234678-HxCDF	35.872	0.983	2.300e5	4.546e5	1.129	0.506	0.510	1517	1876	3.50e6	6.82e6	2307.8	3637.1	NO	bb	bb	103.688
13C-123789-HxCDF	36.886	1.011	2.161e5	4.280e5	0.932	0.505	0.510	1517	1876	3.48e6	6.98e6	2291.7	3718.7	NO	bb	bb	118.226
13C-1234678-HpCDF	38.735	1.061	1.679e5	3.766e5	0.895	0.446	0.440	1571	1928	2.76e6	6.28e6	1756.6	3257.7	NO	bb	bb	104.024
13C-1234789-HpCDF	40.974	1.123	1.472e5	3.681e5	0.770	0.400	0.440	1571	1928	2.11e6	4.91e6	1344.5	2548.5	NO	bb	bd	114.498
13C-1234-TCDD	25.562	0.000	3.309e5	4.166e5	1.000	0.794	0.770	1489	1033	5.14e6	6.45e6	3454.3	6239.4	NO	bb	bb	100.000
13C-2378-TCDD	26.382	1.032	4.004e5	5.040e5	1.152	0.794	0.770	1489	1033	5.92e6	7.43e6	3975.7	7188.0	NO	bb	bb	104.996
13C-12378-PeCDD	31.493	1.232	4.260e5	2.641e5	0.829	1.613	1.550	1273	1025	6.27e6	3.89e6	4925.7	3794.3	NO	bb	bb	111.405
13C-123478-HxCDD	35.994	0.986	3.322e5	2.532e5	0.995	1.312	1.240	1431	1057	5.32e6	4.05e6	3718.1	3834.8	NO	bd	bd	100.624
13C-123678-HxCDD	36.106	0.989	3.459e5	2.715e5	1.157	1.274	1.240	1431	1057	5.31e6	4.19e6	3709.8	3960.0	NO	db	db	91.294
13C-1234678-HpCDD	40.228	1.102	2.860e5	2.629e5	0.840	1.088	1.050	1597	1139	4.22e6	3.91e6	2640.4	3432.1	NO	bb	bb	111.746
13C-OCDD	44.963	1.232	4.770e5	5.306e5	0.767	0.899	0.890	1534	1434	5.88e6	6.54e6	3837.0	4561.2	NO	bb	bb	224.535
13C-123789-HxCDD	36.496	0.000	3.299e5	2.548e5	1.000	1.295	1.240	1431	1057	5.34e6	4.14e6	3729.7	3912.2	NO	bb	bb	100.000
37CL-2378-TCDD	26.396	1.033	3.247e5		1.288			1136		4.97e6		4371.0			bb		33.733

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ID: BLA0398-SRM1, Name: 23030616, Date: 06-Mar-2023, Time: 22:33:18, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	1848	951								
1289-TCDF					0.678		0.770	1848	951								
13468-PECDF					1.246		1.550	679	882								
12389-PECDF					0.496		1.550	1856	1921								
123468-HXCDF	33.209	0.953	5.696e3	4.488e3	1.169	1.269	1.240	1050	843	9.13e4	7.10e4	87.0	84.2	NO	bb	bb	1.166
1368-TCDD	23.528	0.892	1.468e3	1.660e3	1.015	0.885	0.770	1278	600	1.96e4	2.51e4	15.4	41.9	NO	bb	bb	0.341
1289-TCDD					0.909		0.770	1278	600								
12479-PECDD	28.830	0.915	3.165e3	2.634e3	2.301	1.202	1.550	1030	1438	3.05e4	2.80e4	29.6	19.4	YES	bb	bb	0.365
12389-PECDD	31.894	1.013	5.451e2	1.743e2	1.184	3.127	1.550	1030	1438	9.41e3	3.80e3	9.1	2.6	YES	bb	bb	0.088
124679-HXCDD	33.989	0.944	1.775e4	1.464e4	1.115	1.212	1.240	1225	1021	2.72e5	2.24e5	222.2	219.7	NO	bb	bb	4.961
1234679-HPCDD	39.203	0.975	1.743e5	1.680e5	1.137	1.038	1.050	1763	2356	2.86e6	2.77e6	1622.4	1176.4	NO	bb	bb	54.859
Total-tetrafurans			1.226e4		0.727			1848		1.78e5							3.638
Total-penta1			1.501e4					679		1.92e5							2.751
Total-pentafurans			6.927e3		0.654			1856		9.20e4							1.749
Total-hexafurans			6.253e4		1.141			1050		9.42e5							13.518
Total-heptafurans			7.390e4		0.978			1261		1.15e6							27.666
Total-Furans			2.160e5		0.922			1848		3.07e6							74.169
Total-tetradioxins			6.107e3		1.024			1278		9.32e4							1.462
Total-pentadioxins			5.554e3		1.502			1030		8.21e4							1.049
Total-hexadioxins			5.338e4		1.005			1225		7.49e5							15.676
Total-heptadioxins			3.019e5		1.088			1763		4.72e6							97.729
Total-Dioxins			1.069e6		1.130			1278		1.44e7							445.739
Total-TEQ			1.285e6					1278		1.75e7							519.907
FUNCTION1 PFK			1.132e6					375345		6.97e6							
FUNCTION2 PFK			2.669e6					176024		4.67e6							0.000
FUNCTION3 PFK			1.484e7					284655		9.38e6							0.000
FUNCTION4 PFK			0.000e0					215931		0.00e0							
FUNCTION5 PFK			5.409e4					156813		2.13e6							
FUNCTION1 HXCD...			1.932e3					558		2.70e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			6.892e2					592		1.32e4							0.000
FUNCTION3 OCDPE			8.510e1					418		1.18e3							0.000
FUNCTION4 NCDPE			8.994e3					408		1.50e5							0.000
FUNCTION5 DCDPE			1.518e2					532		3.53e3							0.000

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TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.87	7.117e2	1.016e3	0.727	0.70	0.77	5.4	YES	NO	dd	dd	0.213
2	Total-tetrafurans	23.75	8.170e2	1.200e3	0.727	0.68	0.77	6.4	YES	NO	bd	dd	0.249
3	Total-tetrafurans	23.09	1.517e3	2.030e3	0.727	0.75	0.77	12.1	YES	NO	bb	bd	0.438
4	Total-tetrafurans	27.38	6.071e2	7.905e2	0.727	0.77	0.77	5.0	YES	NO	bb	bb	0.173
5	Total-tetrafurans	25.99	1.053e3	1.503e3	0.727	0.70	0.77	8.6	YES	NO	dd	dd	0.316
6	2378-TCDF	25.76	1.466e3	1.879e3	0.702	0.78	0.77	10.4	YES	NO	dd	dd	0.428
7	Total-tetrafurans	24.84	1.606e3	2.335e3	0.727	0.69	0.77	12.5	YES	NO	bb	bb	0.487
8	Total-tetrafurans	24.67	1.209e3	1.626e3	0.727	0.74	0.77	7.6	YES	NO	db	db	0.350
9	Total-tetrafurans	24.50	2.349e3	3.447e3	0.727	0.68	0.77	19.7	YES	NO	dd	dd	0.716
10	Total-tetrafurans	24.43	9.277e2	1.248e3	0.727	0.74	0.77	8.4	YES	NO	dd	dd	0.269

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.19	1.501e4	9.979e3		1.50	1.55	282.5	YES	NO	bb	bd	2.751

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDF	29.91	2.540e3	1.698e3	0.679	1.50	1.55	16.9	YES	NO	bd	bb	0.630
2	Total-pentafurans	28.49	1.593e3	1.200e3	0.654	1.33	1.55	11.8	YES	NO	dd	dd	0.440
3	23478-PeCDF	31.26	1.779e3	1.287e3	0.786	1.38	1.55	14.2	YES	NO	db	db	0.410
4	Total-pentafurans	31.10	1.015e3	6.923e2	0.654	1.47	1.55	6.6	YES	NO	dd	dd	0.269

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HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.89	1.443e3	1.199e3	1.137	1.20	1.24	16.6	YES	NO	bb	bb	0.361
2	234678-HxCDF	35.87	3.662e3	2.634e3	1.140	1.39	1.24	40.7	YES	NO	bb	bb	0.807
3	123678-HxCDF	35.01	2.321e3	1.785e3	1.091	1.30	1.24	31.4	YES	NO	db	db	0.459
4	123478-HxCDF	34.88	5.502e3	4.491e3	1.166	1.23	1.24	84.6	YES	NO	bd	dd	1.147
5	Total-hexafurans	34.72	8.857e2	6.423e2	1.141	1.38	1.24	15.2	YES	NO	bb	bd	0.185
6	Total-hexafurans	34.26	2.333e4	1.888e4	1.141	1.24	1.24	345.1	YES	NO	bb	bb	5.112
7	Total-hexafurans	33.94	6.662e2	5.036e2	1.141	1.32	1.24	9.0	YES	NO	bb	bb	0.142
8	Total-hexafurans	33.42	1.902e4	1.517e4	1.141	1.25	1.24	267.2	YES	NO	bb	bb	4.140
9	123468-HXCDF	33.21	5.696e3	4.488e3	1.169	1.27	1.24	87.0	YES	NO	bb	bb	1.166

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.75	2.301e4	2.269e4	1.003	1.01	1.05	291.3	YES	NO	bb	bb	8.369
2	1234789-HpCDF	40.99	1.891e3	1.636e3	0.953	1.16	1.05	25.8	YES	NO	bb	bb	0.718
3	Total-heptafurans	39.41	4.900e4	4.729e4	0.978	1.04	1.05	590.5	YES	NO	bd	bb	18.579

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.87	7.117e2	1.016e3	0.727	0.70	0.77	5.4	YES	NO	dd	dd	0.213
2	Total-tetrafurans	23.75	8.170e2	1.200e3	0.727	0.68	0.77	6.4	YES	NO	bd	dd	0.249
3	Total-tetrafurans	23.09	1.517e3	2.030e3	0.727	0.75	0.77	12.1	YES	NO	bb	bd	0.438
4	Total-Furans	21.35	2.282e2	2.957e2	0.922	0.77	0.77	3.0	NO	NO	bb	db	0.051
5	Total-Furans	21.18	6.526e2	9.218e2	0.922	0.71	0.77	6.0	YES	NO	bb	dd	0.153
6	Total-Furans	27.85	1.674e2	2.046e2	0.922	0.82	0.77	1.9	NO	NO	bb	bb	0.036
7	Total-tetrafurans	27.38	6.071e2	7.905e2	0.727	0.77	0.77	5.0	YES	NO	bb	bb	0.173
8	Total-tetrafurans	25.99	1.053e3	1.503e3	0.727	0.70	0.77	8.6	YES	NO	dd	dd	0.316
9	2378-TCDF	25.76	1.466e3	1.879e3	0.702	0.78	0.77	10.4	YES	NO	dd	dd	0.428
10	Total-tetrafurans	24.84	1.606e3	2.335e3	0.727	0.69	0.77	12.5	YES	NO	bb	bb	0.487
11	Total-tetrafurans	24.67	1.209e3	1.626e3	0.727	0.74	0.77	7.6	YES	NO	db	db	0.350
12	Total-tetrafurans	24.50	2.349e3	3.447e3	0.727	0.68	0.77	19.7	YES	NO	dd	dd	0.716
13	Total-tetrafurans	24.43	9.277e2	1.248e3	0.727	0.74	0.77	8.4	YES	NO	dd	dd	0.269
14	12378-PeCDF	29.91	2.540e3	1.698e3	0.679	1.50	1.55	16.9	YES	NO	bd	bb	0.630
15	Total-pentafurans	28.49	1.593e3	1.200e3	0.654	1.33	1.55	11.8	YES	NO	dd	dd	0.440
16	23478-PeCDF	31.26	1.779e3	1.287e3	0.786	1.38	1.55	14.2	YES	NO	db	db	0.410
17	Total-pentafurans	31.10	1.015e3	6.923e2	0.654	1.47	1.55	6.6	YES	NO	dd	dd	0.269
18	123789-HxCDF	36.89	1.443e3	1.199e3	1.137	1.20	1.24	16.6	YES	NO	bb	bb	0.361
19	234678-HxCDF	35.87	3.662e3	2.634e3	1.140	1.39	1.24	40.7	YES	NO	bb	bb	0.807
20	123678-HxCDF	35.01	2.321e3	1.785e3	1.091	1.30	1.24	31.4	YES	NO	db	db	0.459
21	123478-HxCDF	34.88	5.502e3	4.491e3	1.166	1.23	1.24	84.6	YES	NO	bd	dd	1.147
22	Total-hexafurans	34.72	8.857e2	6.423e2	1.141	1.38	1.24	15.2	YES	NO	bb	bd	0.185
23	Total-hexafurans	34.26	2.333e4	1.888e4	1.141	1.24	1.24	345.1	YES	NO	bb	bb	5.112
24	Total-hexafurans	33.94	6.662e2	5.036e2	1.141	1.32	1.24	9.0	YES	NO	bb	bb	0.142
25	Total-hexafurans	33.42	1.902e4	1.517e4	1.141	1.25	1.24	267.2	YES	NO	bb	bb	4.140
26	123468-HXCDF	33.21	5.696e3	4.488e3	1.169	1.27	1.24	87.0	YES	NO	bb	bb	1.166
27	1234678-HpCDF	38.75	2.301e4	2.269e4	1.003	1.01	1.05	291.3	YES	NO	bb	bb	8.369
28	OCDF	45.21	4.428e4	5.214e4	0.778	0.85	0.89	921.0	YES	NO	bd	bd	24.606
29	1234789-HpCDF	40.99	1.891e3	1.636e3	0.953	1.16	1.05	25.8	YES	NO	bb	bb	0.718
30	Total-heptafurans	39.41	4.900e4	4.729e4	0.978	1.04	1.05	590.5	YES	NO	bd	bb	18.579
31	Total-penta1	27.19	1.501e4	9.979e3		1.50	1.55	282.5	YES	NO	bb	bd	2.751

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TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	23.80	8.457e2	1.189e3	1.024	0.71	0.77	11.3	YES	NO	bb	bb	0.220
2	1368-TCDD	23.53	1.468e3	1.660e3	1.015	0.88	0.77	15.4	YES	NO	bb	bb	0.341
3	Total-tetradioxins	26.51	3.628e2	4.380e2	1.024	0.83	0.77	4.5	YES	NO	db	db	0.086
4	2378-TCDD	26.40	1.763e3	2.373e3	1.149	0.74	0.77	22.0	YES	NO	bd	bd	0.398
5	Total-tetradioxins	25.59	1.246e3	1.720e3	1.024	0.72	0.77	15.6	YES	NO	dd	bd	0.320
6	Total-tetradioxins	24.74	4.210e2	4.797e2	1.024	0.88	0.77	4.2	YES	NO	bb	db	0.097

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.50	2.529e3	1.464e3	1.022	1.73	1.55	32.3	YES	NO	bb	bb	0.566
2	Total-pentadioxins	30.12	1.408e3	9.744e2	1.502	1.44	1.55	24.0	YES	NO	bb	bd	0.230
3	Total-pentadioxins	29.90	1.618e3	1.005e3	1.502	1.61	1.55	23.3	YES	NO	bb	bb	0.253

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.51	3.753e3	3.215e3	0.907	1.17	1.24	51.1	YES	NO	bb	bb	1.277
2	123678-HxCDD	36.13	5.933e3	4.667e3	1.001	1.27	1.24	75.0	YES	NO	dd	dd	1.715
3	123478-HxCDD	36.01	2.441e3	1.874e3	0.996	1.30	1.24	34.4	YES	NO	bd	bd	0.740
4	Total-hexadioxins	35.23	2.157e3	1.728e3	1.005	1.25	1.24	30.5	YES	NO	db	db	0.643
5	Total-hexadioxins	35.13	1.819e4	1.436e4	1.005	1.27	1.24	156.8	YES	NO	bd	bd	5.386
6	Total-hexadioxins	34.76	3.159e3	2.605e3	1.005	1.21	1.24	41.4	YES	NO	bb	bb	0.954
7	124679-HXCDD	33.99	1.775e4	1.464e4	1.115	1.21	1.24	222.2	YES	NO	bb	bb	4.961

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.20	1.743e5	1.680e5	1.137	1.04	1.05	1622.4	YES	NO	bb	bb	54.859
2	1234678-HpCDD	40.25	1.275e5	1.170e5	1.039	1.09	1.05	1054.4	YES	NO	bd	bb	42.870

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	23.80	8.457e2	1.189e3	1.024	0.71	0.77	11.3	YES	NO	bb	bb	0.220
2	1368-TCDD	23.53	1.468e3	1.660e3	1.015	0.88	0.77	15.4	YES	NO	bb	bb	0.341
3	Total-tetradioxins	26.51	3.628e2	4.380e2	1.024	0.83	0.77	4.5	YES	NO	db	db	0.086
4	2378-TCDD	26.40	1.763e3	2.373e3	1.149	0.74	0.77	22.0	YES	NO	bd	bd	0.398
5	Total-tetradioxins	25.59	1.246e3	1.720e3	1.024	0.72	0.77	15.6	YES	NO	dd	bd	0.320
6	Total-tetradioxins	24.74	4.210e2	4.797e2	1.024	0.88	0.77	4.2	YES	NO	bb	db	0.097
7	12378-PeCDD	31.50	2.529e3	1.464e3	1.022	1.73	1.55	32.3	YES	NO	bb	bb	0.566
8	Total-pentadioxins	30.12	1.408e3	9.744e2	1.502	1.44	1.55	24.0	YES	NO	bb	bd	0.230
9	Total-pentadioxins	29.90	1.618e3	1.005e3	1.502	1.61	1.55	23.3	YES	NO	bb	bb	0.253
10	123789-HxCDD	36.51	3.753e3	3.215e3	0.907	1.17	1.24	51.1	YES	NO	bb	bb	1.277
11	123678-HxCDD	36.13	5.933e3	4.667e3	1.001	1.27	1.24	75.0	YES	NO	dd	dd	1.715
12	123478-HxCDD	36.01	2.441e3	1.874e3	0.996	1.30	1.24	34.4	YES	NO	bd	bd	0.740
13	Total-hexadioxins	35.23	2.157e3	1.728e3	1.005	1.25	1.24	30.5	YES	NO	db	db	0.643
14	Total-hexadioxins	35.13	1.819e4	1.436e4	1.005	1.27	1.24	156.8	YES	NO	bd	bd	5.386
15	Total-hexadioxins	34.76	3.159e3	2.605e3	1.005	1.21	1.24	41.4	YES	NO	bb	bb	0.954
16	124679-HXCDD	33.99	1.775e4	1.464e4	1.115	1.21	1.24	222.2	YES	NO	bb	bb	4.961
17	1234679-HPCDD	39.20	1.743e5	1.680e5	1.137	1.04	1.05	1622.4	YES	NO	bb	bb	54.859
18	1234678-HpCDD	40.25	1.275e5	1.170e5	1.039	1.09	1.05	1054.4	YES	NO	bd	bb	42.870
19	OCDD	44.97	7.021e5	8.265e5	0.920	0.85	0.89	5894.3	YES	NO	bb	bb	329.822

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.87	7.117e2	1.016e3	0.727	0.70	0.77	5.4	YES	NO	dd	dd	0.213
2	Total-tetrafurans	23.75	8.170e2	1.200e3	0.727	0.68	0.77	6.4	YES	NO	bd	dd	0.249
3	Total-tetrafurans	23.09	1.517e3	2.030e3	0.727	0.75	0.77	12.1	YES	NO	bb	bd	0.438
4	Total-Furans	21.35	2.282e2	2.957e2	0.922	0.77	0.77	3.0	NO	NO	bb	db	0.051
5	Total-Furans	21.18	6.526e2	9.218e2	0.922	0.71	0.77	6.0	YES	NO	bb	dd	0.153
6	Total-Furans	27.85	1.674e2	2.046e2	0.922	0.82	0.77	1.9	NO	NO	bb	bb	0.036
7	Total-tetrafurans	27.38	6.071e2	7.905e2	0.727	0.77	0.77	5.0	YES	NO	bb	bb	0.173
8	Total-tetrafurans	25.99	1.053e3	1.503e3	0.727	0.70	0.77	8.6	YES	NO	dd	dd	0.316
9	2378-TCDF	25.76	1.466e3	1.879e3	0.702	0.78	0.77	10.4	YES	NO	dd	dd	0.428
10	Total-tetrafurans	24.84	1.606e3	2.335e3	0.727	0.69	0.77	12.5	YES	NO	bb	bb	0.487
11	Total-tetrafurans	24.67	1.209e3	1.626e3	0.727	0.74	0.77	7.6	YES	NO	db	db	0.350
12	Total-tetrafurans	24.50	2.349e3	3.447e3	0.727	0.68	0.77	19.7	YES	NO	dd	dd	0.716
13	Total-tetrafurans	24.43	9.277e2	1.248e3	0.727	0.74	0.77	8.4	YES	NO	dd	dd	0.269
14	12378-PeCDF	29.91	2.540e3	1.698e3	0.679	1.50	1.55	16.9	YES	NO	bd	bb	0.630
15	Total-pentafurans	28.49	1.593e3	1.200e3	0.654	1.33	1.55	11.8	YES	NO	dd	dd	0.440
16	23478-PeCDF	31.26	1.779e3	1.287e3	0.786	1.38	1.55	14.2	YES	NO	db	db	0.410
17	Total-pentafurans	31.10	1.015e3	6.923e2	0.654	1.47	1.55	6.6	YES	NO	dd	dd	0.269
18	123789-HxCDF	36.89	1.443e3	1.199e3	1.137	1.20	1.24	16.6	YES	NO	bb	bb	0.361
19	234678-HxCDF	35.87	3.662e3	2.634e3	1.140	1.39	1.24	40.7	YES	NO	bb	bb	0.807
20	123678-HxCDF	35.01	2.321e3	1.785e3	1.091	1.30	1.24	31.4	YES	NO	db	db	0.459
21	123478-HxCDF	34.88	5.502e3	4.491e3	1.166	1.23	1.24	84.6	YES	NO	bd	dd	1.147
22	Total-hexafurans	34.72	8.857e2	6.423e2	1.141	1.38	1.24	15.2	YES	NO	bb	bd	0.185
23	Total-hexafurans	34.26	2.333e4	1.888e4	1.141	1.24	1.24	345.1	YES	NO	bb	bb	5.112
24	Total-hexafurans	33.94	6.662e2	5.036e2	1.141	1.32	1.24	9.0	YES	NO	bb	bb	0.142
25	Total-hexafurans	33.42	1.902e4	1.517e4	1.141	1.25	1.24	267.2	YES	NO	bb	bb	4.140
26	123468-HXCDF	33.21	5.696e3	4.488e3	1.169	1.27	1.24	87.0	YES	NO	bb	bb	1.166
27	1234678-HpCDF	38.75	2.301e4	2.269e4	1.003	1.01	1.05	291.3	YES	NO	bb	bb	8.369
28	OCDF	45.21	4.428e4	5.214e4	0.778	0.85	0.89	921.0	YES	NO	bd	bd	24.606
29	1234789-HpCDF	40.99	1.891e3	1.636e3	0.953	1.16	1.05	25.8	YES	NO	bb	bb	0.718
30	Total-heptafurans	39.41	4.900e4	4.729e4	0.978	1.04	1.05	590.5	YES	NO	bd	bb	18.579
31	Total-penta1	27.19	1.501e4	9.979e3		1.50	1.55	282.5	YES	NO	bb	bd	2.751
32	Total-tetradioxins	23.80	8.457e2	1.189e3	1.024	0.71	0.77	11.3	YES	NO	bb	bb	0.220
33	1368-TCDD	23.53	1.468e3	1.660e3	1.015	0.88	0.77	15.4	YES	NO	bb	bb	0.341
34	Total-tetradioxins	26.51	3.628e2	4.380e2	1.024	0.83	0.77	4.5	YES	NO	db	db	0.086
35	2378-TCDD	26.40	1.763e3	2.373e3	1.149	0.74	0.77	22.0	YES	NO	bd	bd	0.398
36	Total-tetradioxins	25.59	1.246e3	1.720e3	1.024	0.72	0.77	15.6	YES	NO	dd	bd	0.320
37	Total-tetradioxins	24.74	4.210e2	4.797e2	1.024	0.88	0.77	4.2	YES	NO	bb	db	0.097

ID: BLA0398-SRM1, Name: 23030616, Date: 06-Mar-2023, Time: 22:33:18, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	12378-PeCDD	31.50	2.529e3	1.464e3	1.022	1.73	1.55	32.3	YES	NO	bb	bb	0.566
39	Total-pentadioxins	30.12	1.408e3	9.744e2	1.502	1.44	1.55	24.0	YES	NO	bb	bd	0.230
40	Total-pentadioxins	29.90	1.618e3	1.005e3	1.502	1.61	1.55	23.3	YES	NO	bb	bb	0.253
41	123789-HxCDD	36.51	3.753e3	3.215e3	0.907	1.17	1.24	51.1	YES	NO	bb	bb	1.277
42	123678-HxCDD	36.13	5.933e3	4.667e3	1.001	1.27	1.24	75.0	YES	NO	dd	dd	1.715
43	123478-HxCDD	36.01	2.441e3	1.874e3	0.996	1.30	1.24	34.4	YES	NO	bd	bd	0.740
44	Total-hexadioxins	35.23	2.157e3	1.728e3	1.005	1.25	1.24	30.5	YES	NO	db	db	0.643
45	Total-hexadioxins	35.13	1.819e4	1.436e4	1.005	1.27	1.24	156.8	YES	NO	bd	bd	5.386
46	Total-hexadioxins	34.76	3.159e3	2.605e3	1.005	1.21	1.24	41.4	YES	NO	bb	bb	0.954
47	124679-HXCDD	33.99	1.775e4	1.464e4	1.115	1.21	1.24	222.2	YES	NO	bb	bb	4.961
48	1234679-HPCDD	39.20	1.743e5	1.680e5	1.137	1.04	1.05	1622.4	YES	NO	bb	bb	54.859
49	1234678-HpCDD	40.25	1.275e5	1.170e5	1.039	1.09	1.05	1054.4	YES	NO	bd	bb	42.870
50	OCDD	44.97	7.021e5	8.265e5	0.920	0.85	0.89	5894.3	YES	NO	bb	bb	329.822

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	27.54	2.811e5					4.8	YES		bb		
2	FUNCTION1 PFK	23.46	6.719e5					8.2	YES		bb		
3	FUNCTION1 PFK	22.02	1.787e5					5.5	YES		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	32.44	9.825e4					4.4	YES		bb		0.000
2	FUNCTION2 PFK	29.14	4.660e5					9.1	YES		bb		0.000
3	FUNCTION2 PFK	28.53	2.105e6					13.0	YES		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.10	3.254e5					4.5	YES		bb		0.000
2	FUNCTION3 PFK	33.35	1.452e7					28.4	YES		bb		0.000

ID: BLA0398-SRM1, Name: 23030616, Date: 06-Mar-2023, Time: 22:33:18, Conditions: AUTOSPEC01, User: pk

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.66	5.764e3					1.7	NO		bb		
2	FUNCTION5 PFK	45.49	4.742e3					1.1	NO		bb		
3	FUNCTION5 PFK	45.37	4.286e3					1.4	NO		bb		
4	FUNCTION5 PFK	45.31	6.613e3					1.5	NO		bb		
5	FUNCTION5 PFK	43.99	7.212e3					1.5	NO		bb		
6	FUNCTION5 PFK	43.64	2.505e3					0.9	NO		db		
7	FUNCTION5 PFK	43.59	7.371e3					1.7	NO		bd		
8	FUNCTION5 PFK	43.42	4.569e3					1.2	NO		bb		
9	FUNCTION5 PFK	42.71	7.860e3					1.5	NO		db		
10	FUNCTION5 PFK	42.65	3.165e3					1.1	NO		bd		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.79	1.501e2					5.8	YES		bb		0.000
2	FUNCTION1 HXCD...	26.14	2.769e2					6.3	YES		bb		0.000
3	FUNCTION1 HXCD...	25.92	5.832e2					14.3	YES		db		0.000
4	FUNCTION1 HXCD...	25.75	3.358e2					6.2	YES		bd		0.000
5	FUNCTION1 HXCD...	25.36	8.062e1					2.9	NO		bb		0.000
6	FUNCTION1 HXCD...	24.83	1.025e2					3.4	YES		bb		0.000
7	FUNCTION1 HXCD...	23.78	2.475e2					5.1	YES		bb		0.000
8	FUNCTION1 HXCD...	22.33	1.551e2					4.4	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ID: BLA0398-SRM1, Name: 23030616, Date: 06-Mar-2023, Time: 22:33:18, Conditions: AUTOSPEC01, User: pk

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.32	7.807e1					2.7	NO		bb		0.000
2	FUNCTION2 HPCD...	32.23	8.949e1					3.4	YES		bb		0.000
3	FUNCTION2 HPCD...	30.82	9.862e1					2.7	NO		bb		0.000
4	FUNCTION2 HPCD...	29.89	8.875e1					3.5	YES		bb		0.000
5	FUNCTION2 HPCD...	28.96	3.343e2					10.1	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	34.23	8.510e1					2.8	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	38.40	8.994e3					367.0	YES		bb		0.000

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	44.99	7.738e1					3.2	YES		db		0.000
2	FUNCTION5 DCDPE	44.95	7.439e1					3.4	YES		bd		0.000

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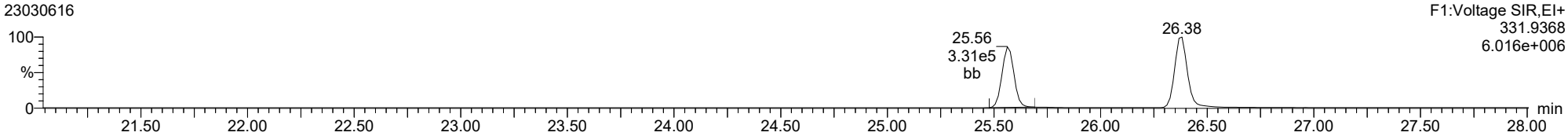

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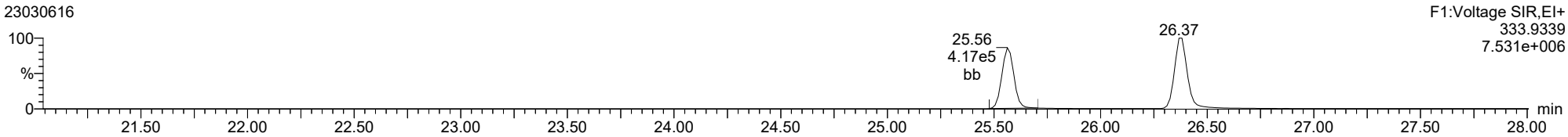

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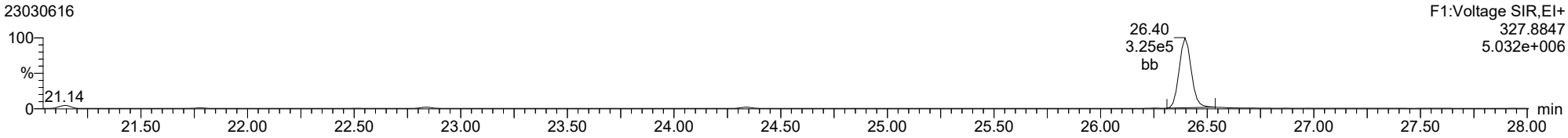

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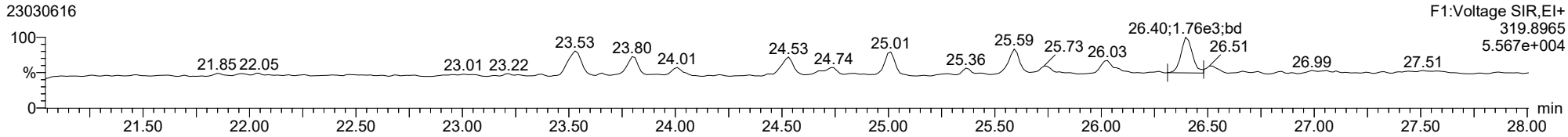

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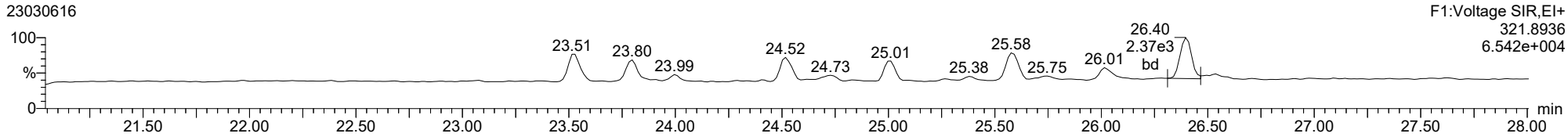

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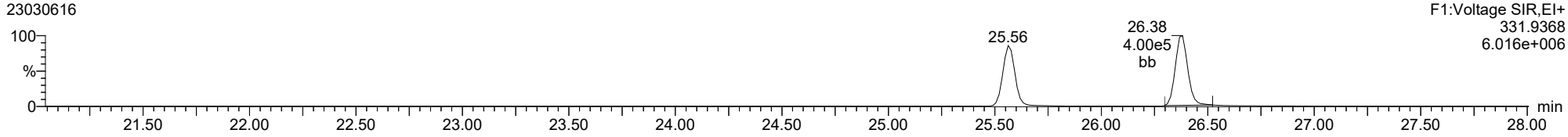

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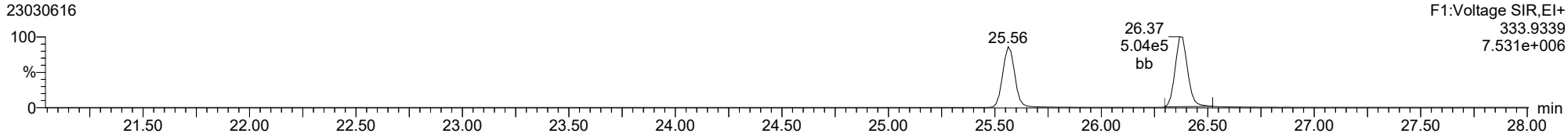

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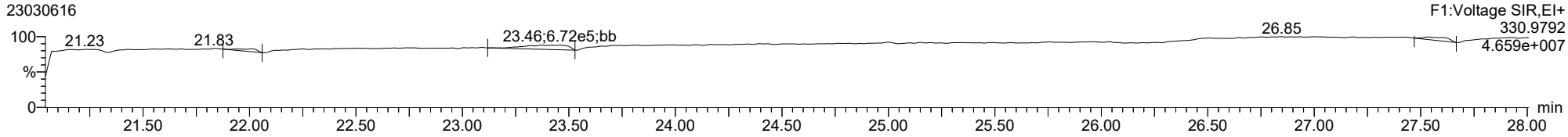

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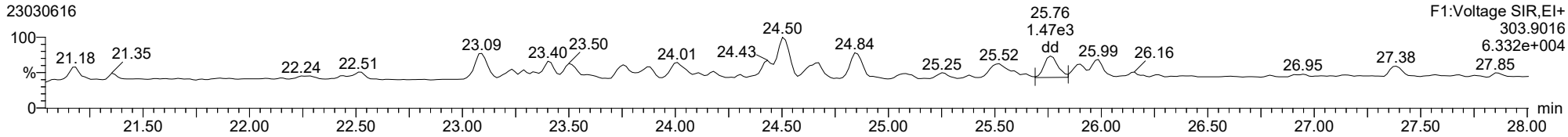

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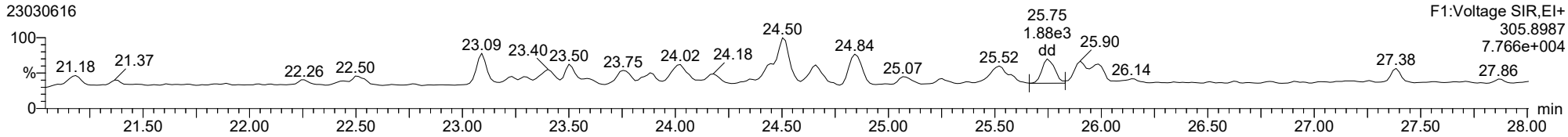

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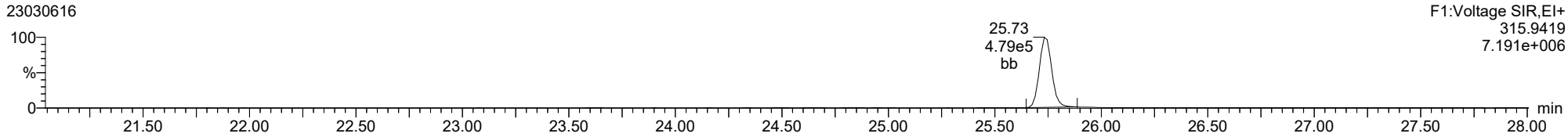

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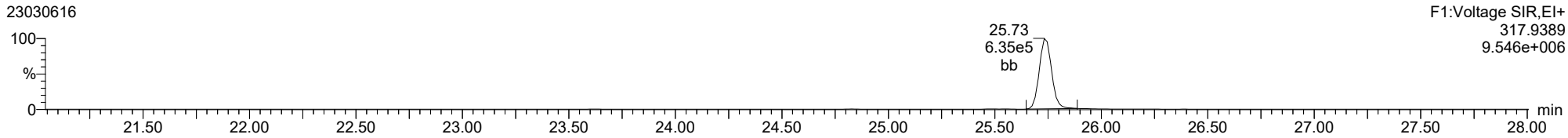

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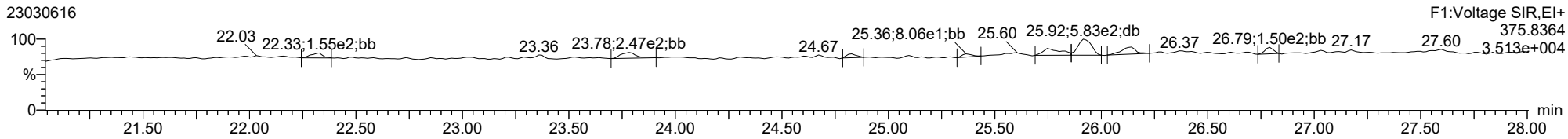

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ID: BLA0398-SRM1, Name: 23030616, Date: 06-Mar-2023, Time: 22:33:18, Conditions: AUTOSPEC01, User: pk

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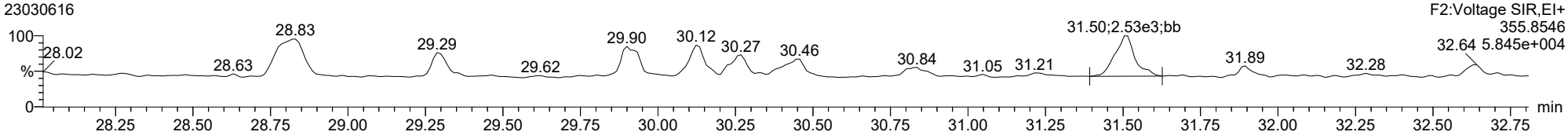

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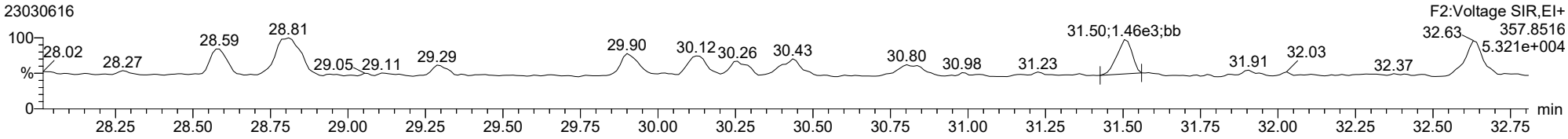

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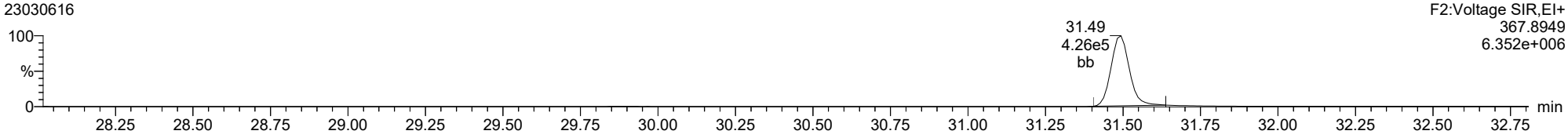

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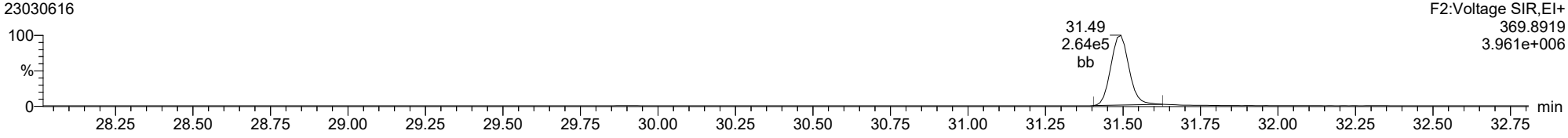

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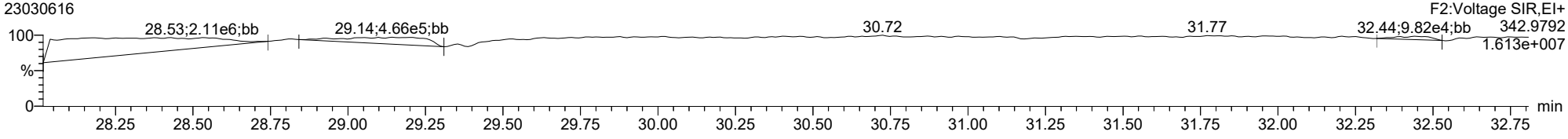

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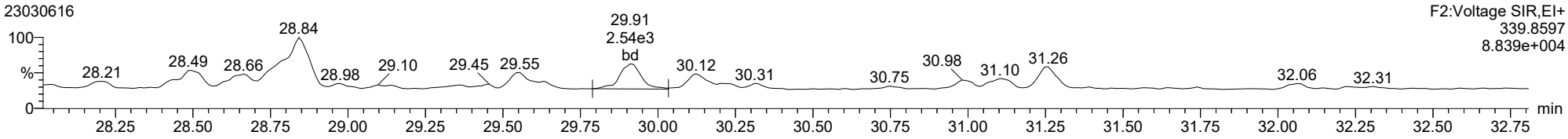

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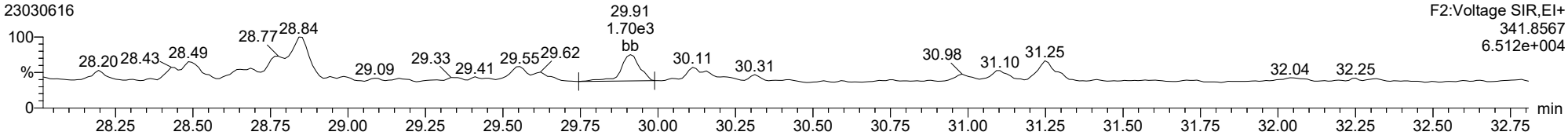

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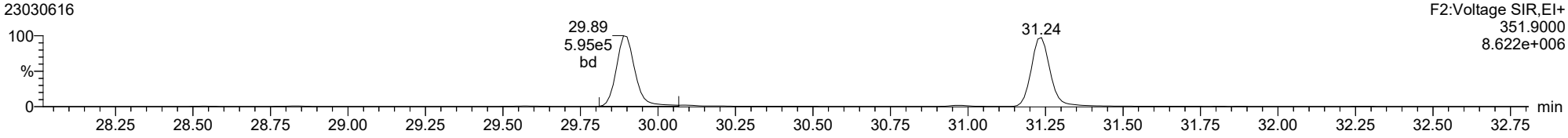

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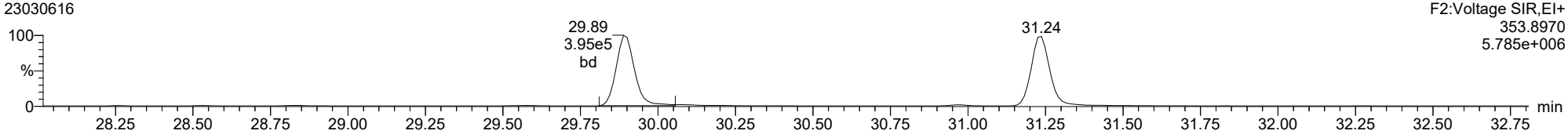

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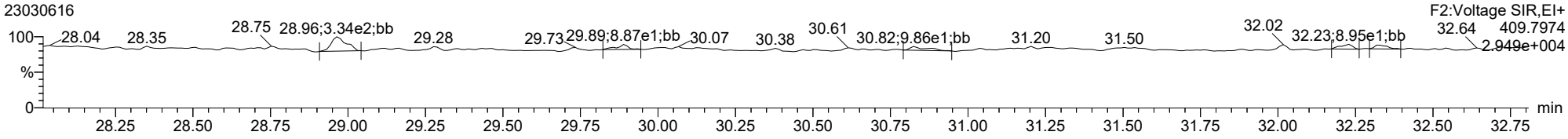

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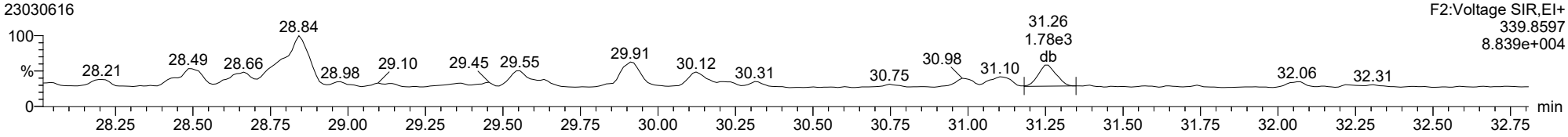
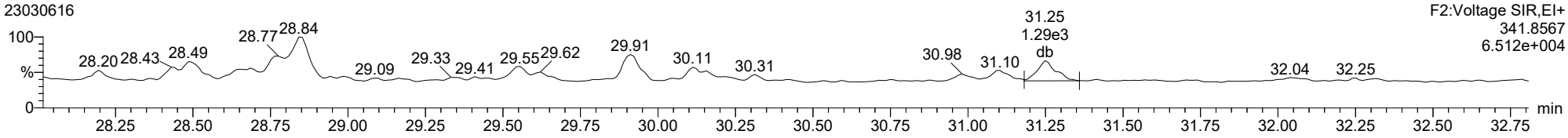
23478-PeCDF



23478-PeCDF



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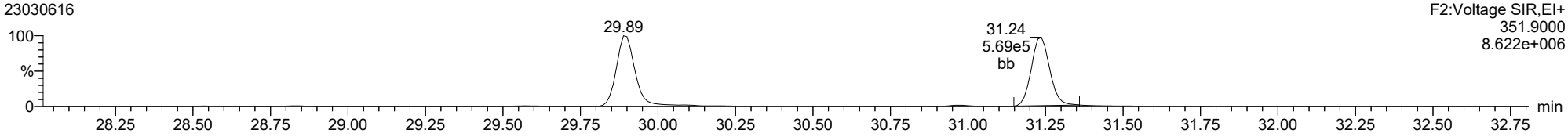

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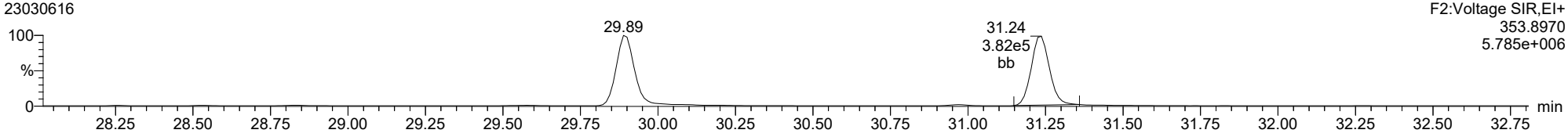

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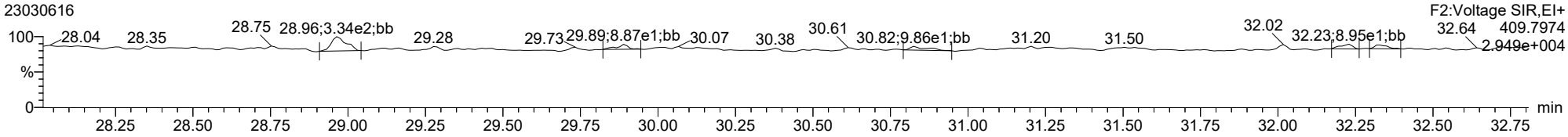

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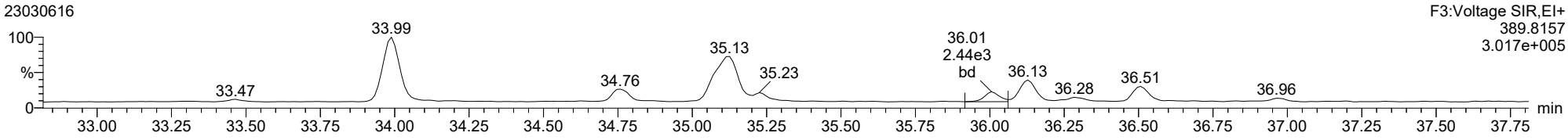
Printed: Tuesday, March 07, 2023 09:05:52 Pacific Standard Time

ID: BLA0398-SRM1, Name: 23030616, Date: 06-Mar-2023, Time: 22:33:18, Conditions: AUTOSPEC01, User: pk

123478-HxCDD



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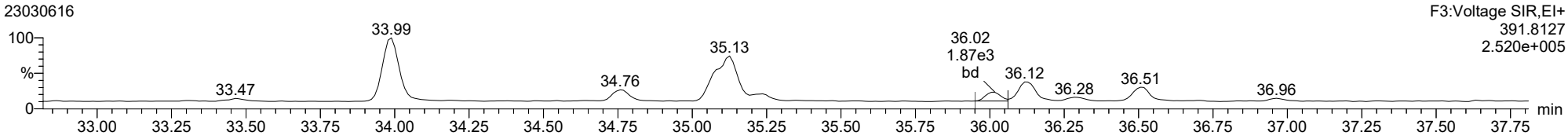

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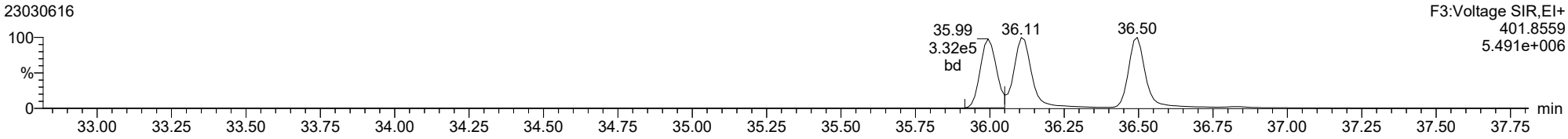

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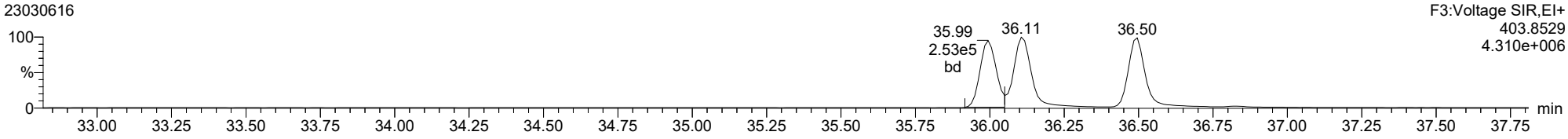

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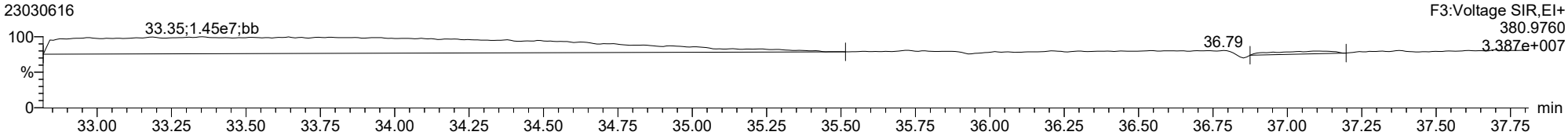

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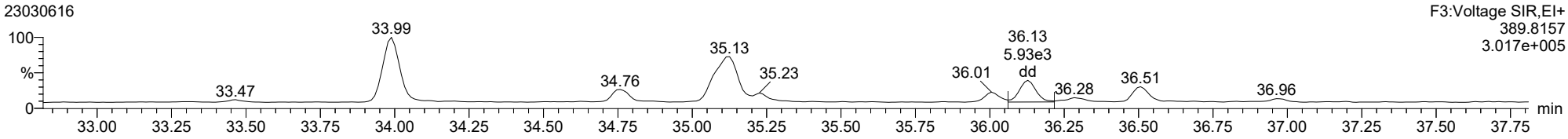
123678-HxCDD



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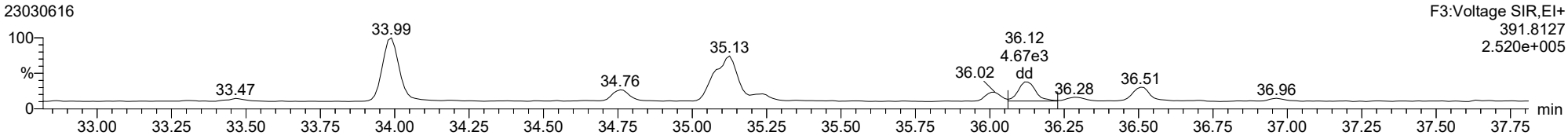

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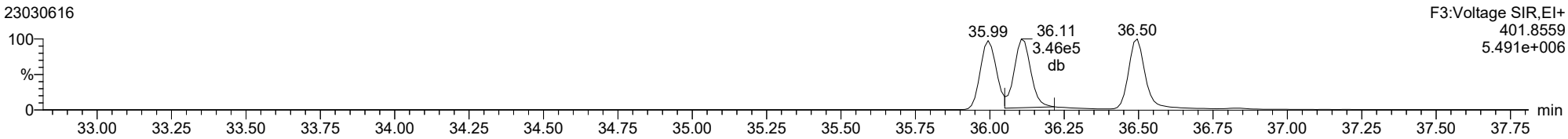

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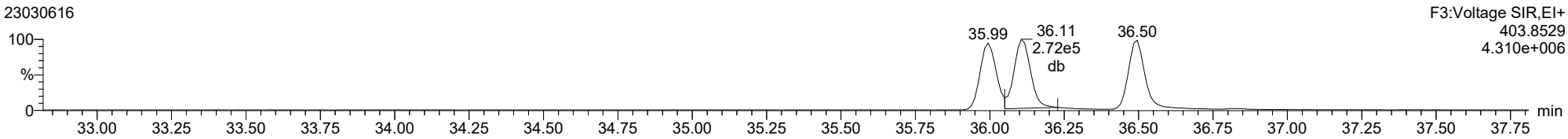

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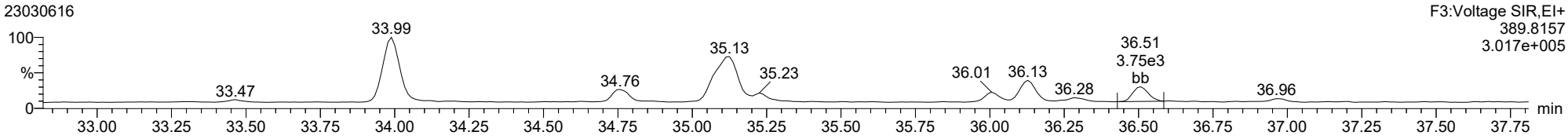
123789-HxCDD



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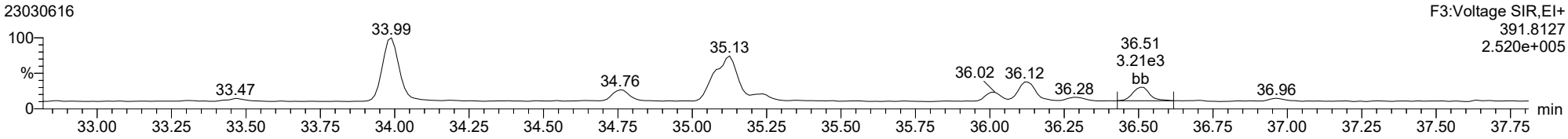

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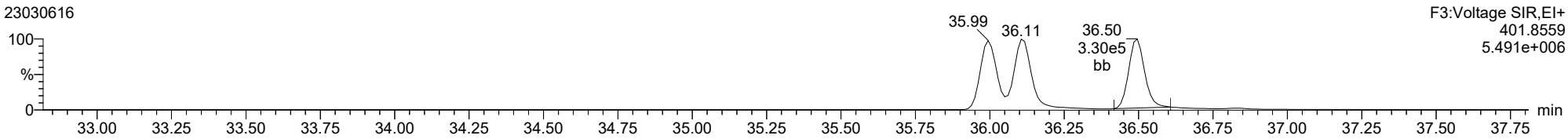

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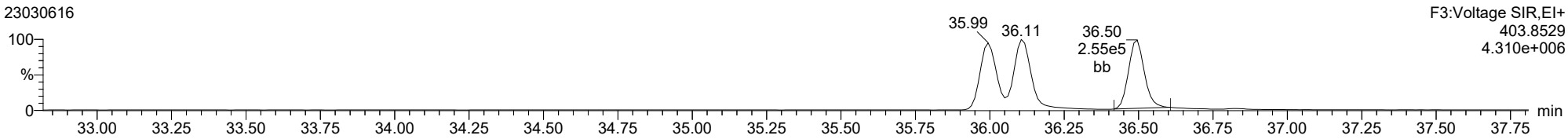

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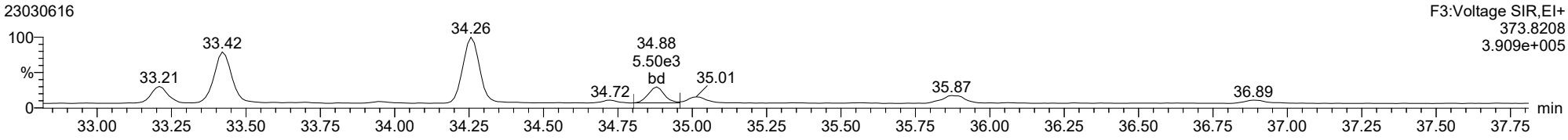

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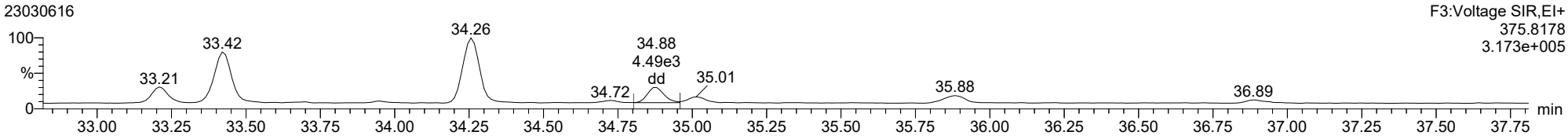

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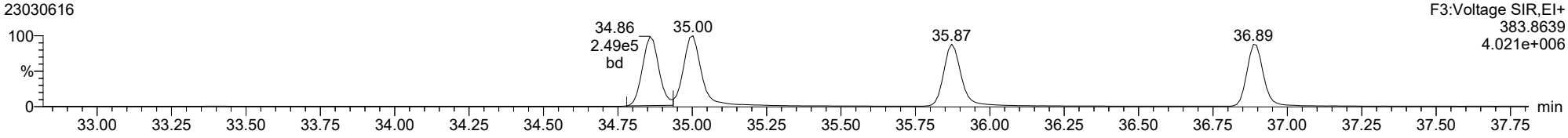

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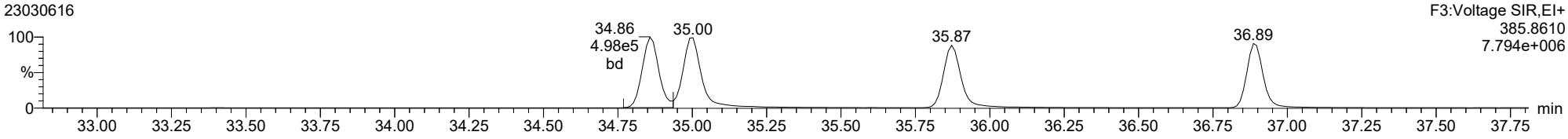

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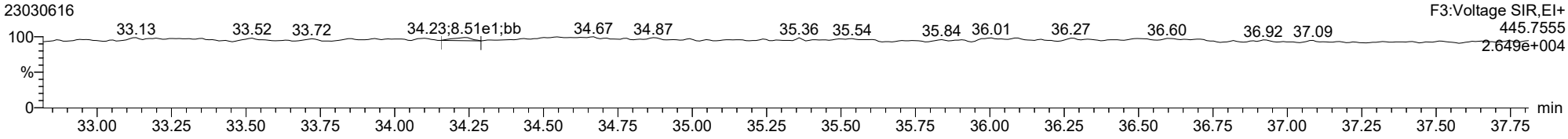

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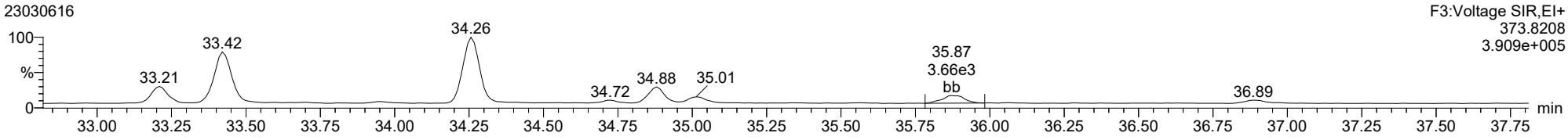
234678-HxCDF



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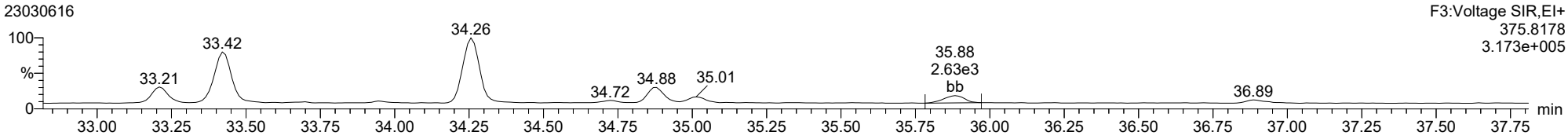

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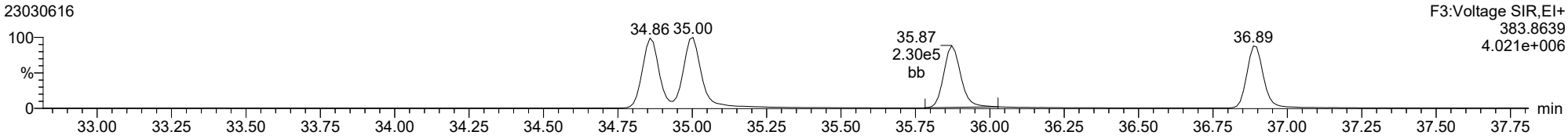

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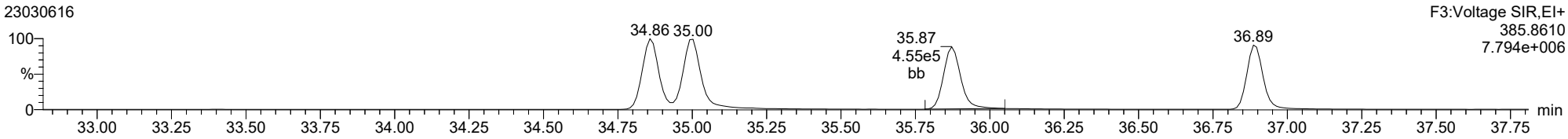

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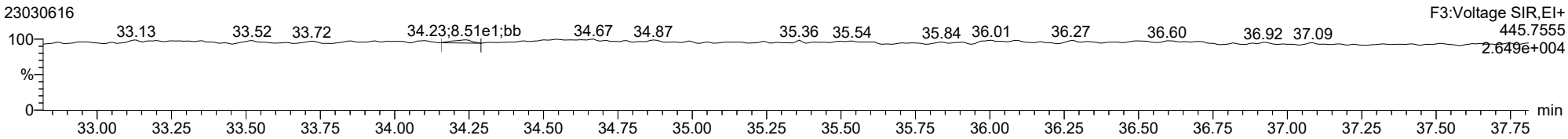

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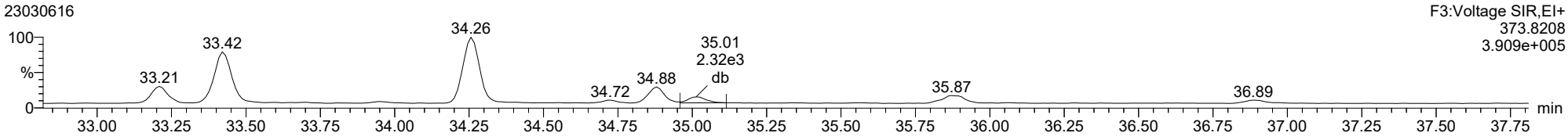

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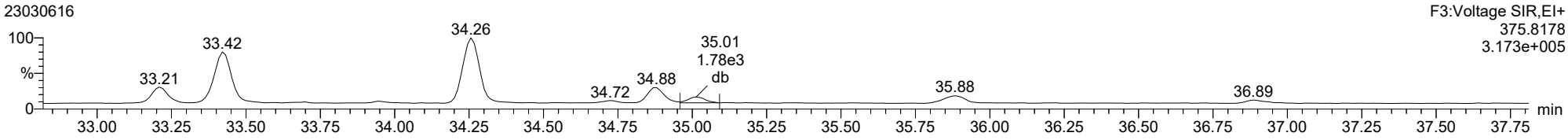

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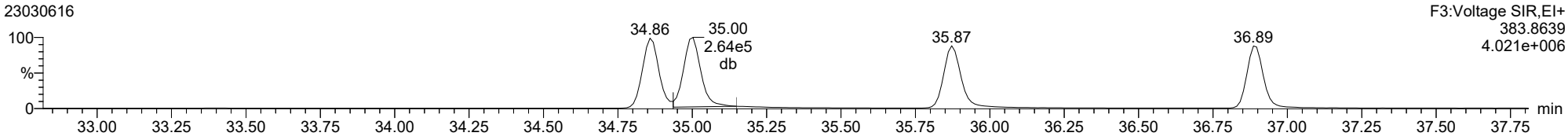

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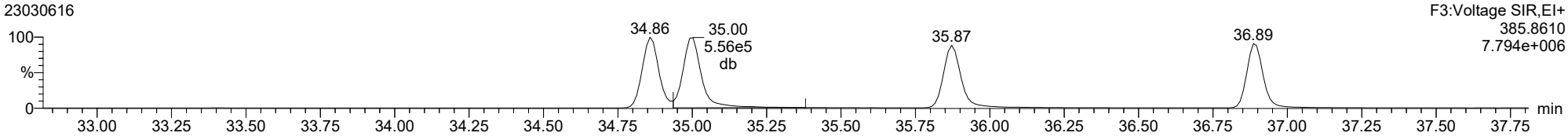

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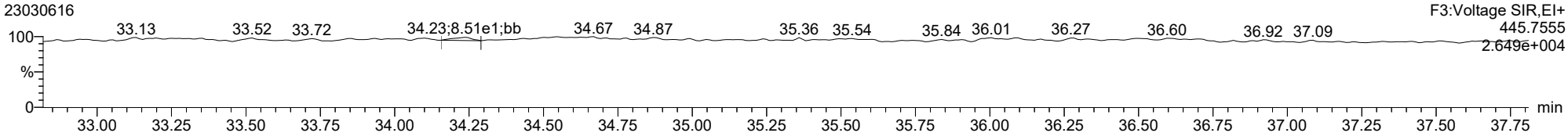

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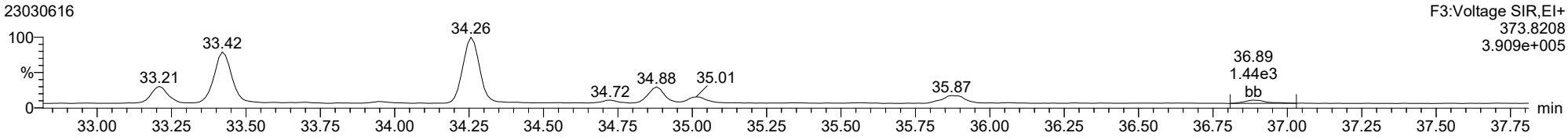
123789-HxCDF



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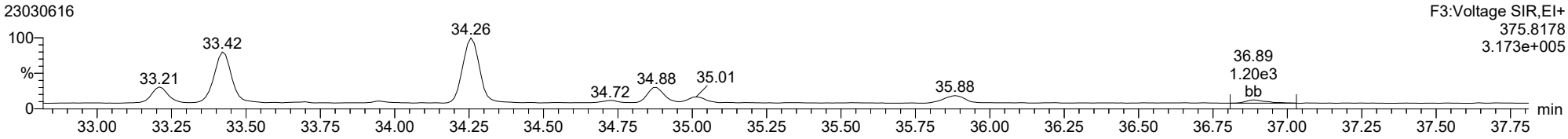

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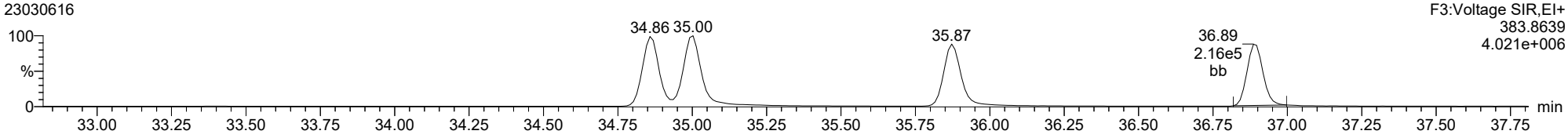

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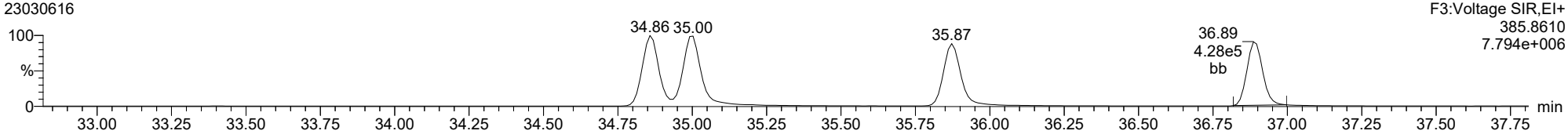
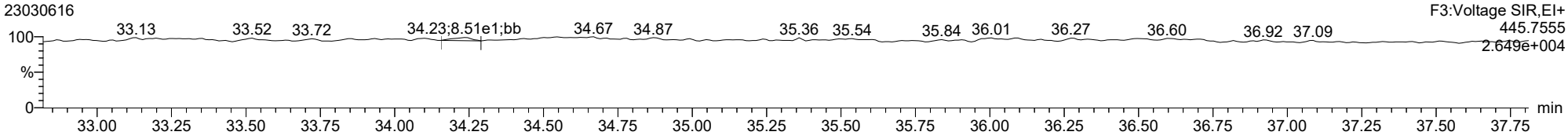


FUNCTION3 OCDPE



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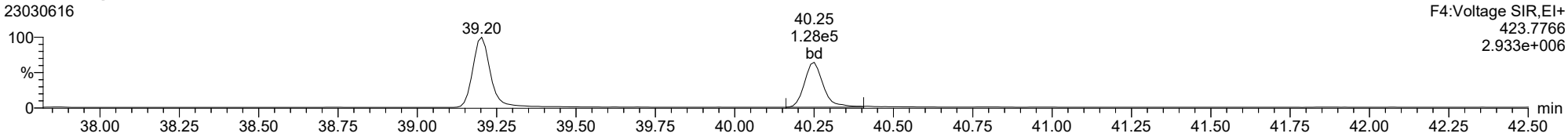
1234678-HpCDD



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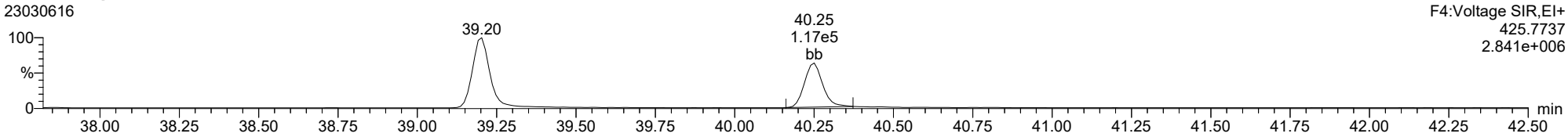

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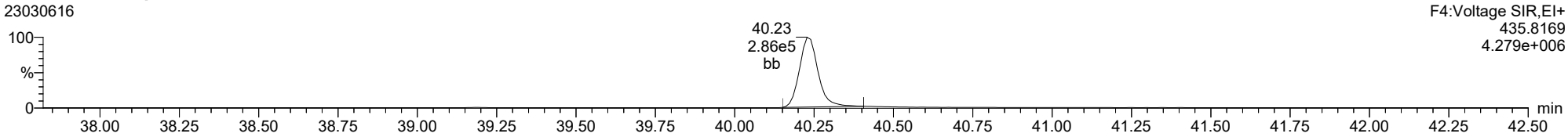

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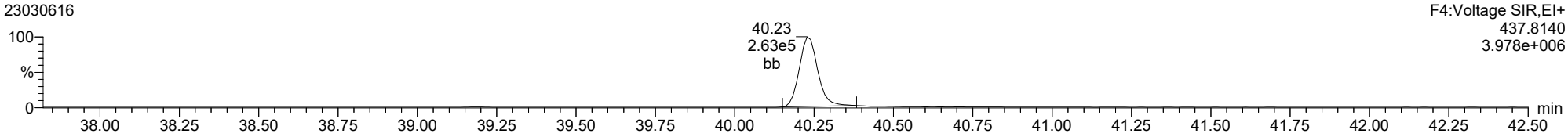
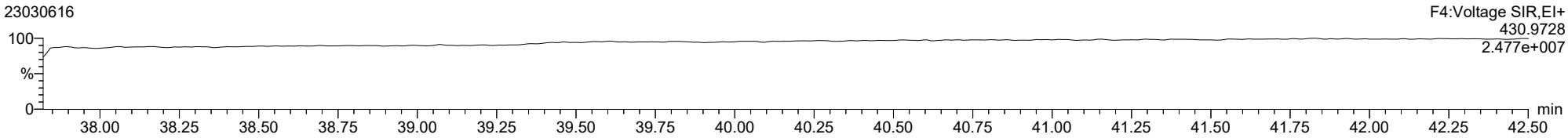


FUNCTION4 PFK



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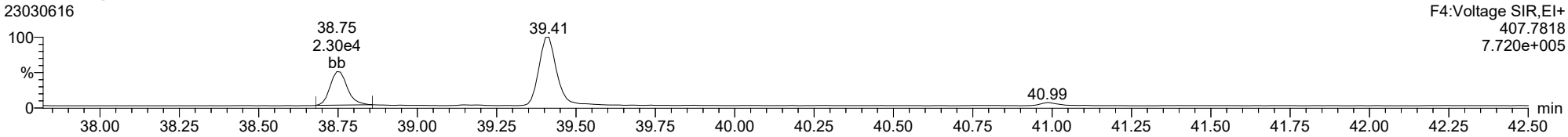

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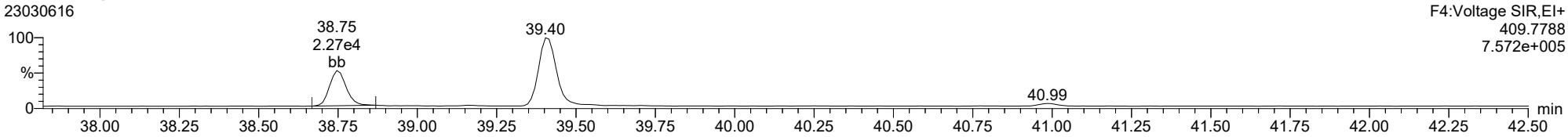

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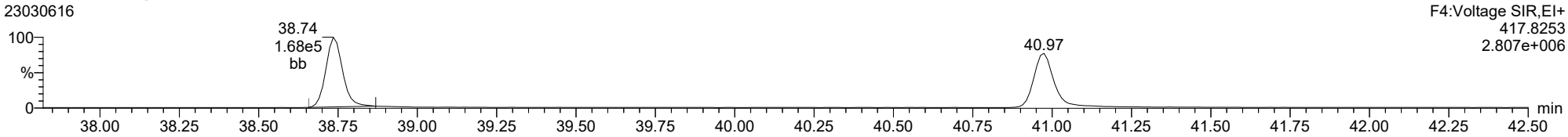

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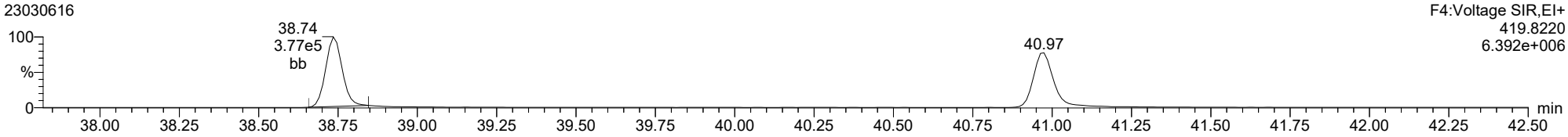
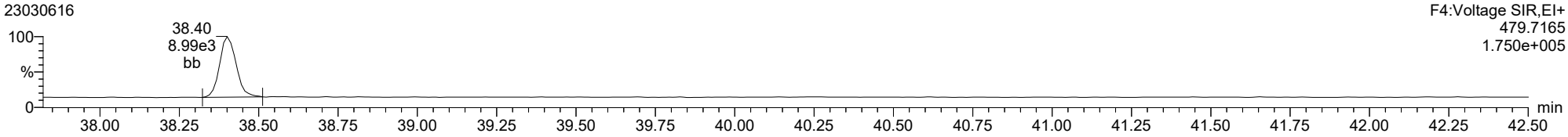


FUNCTION4 NCDPE



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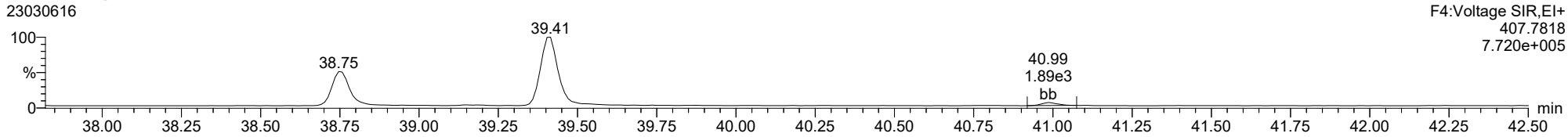
1234789-HpCDF



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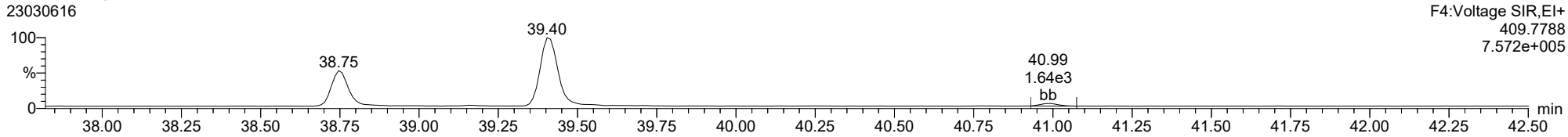

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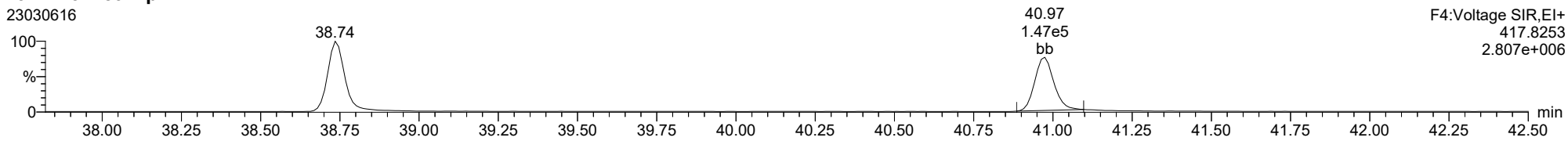

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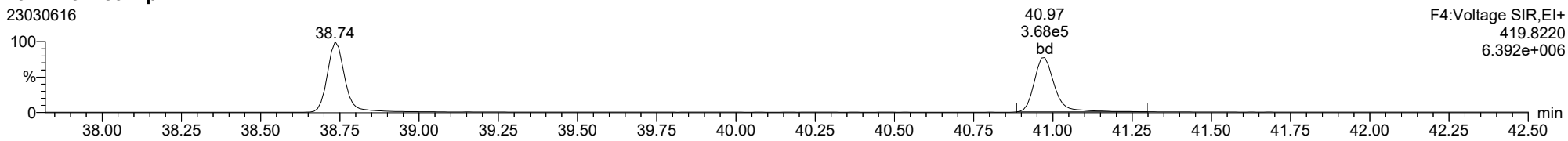
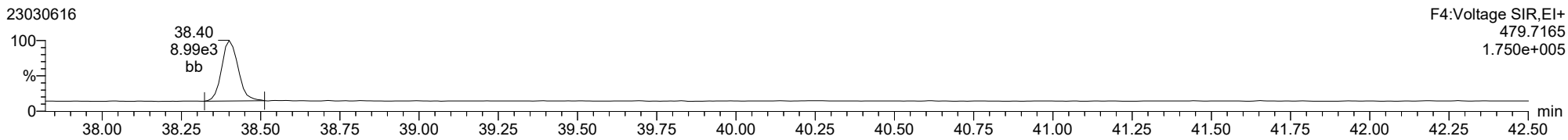


FUNCTION4 NCDPE



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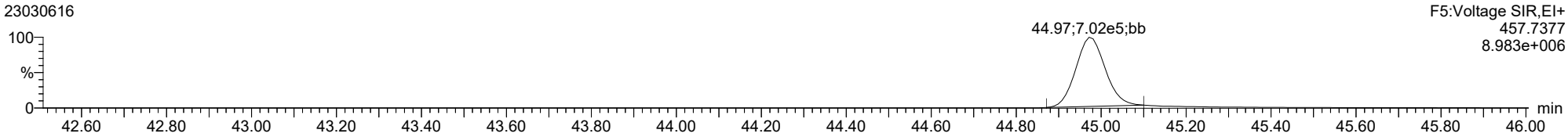
OCDD



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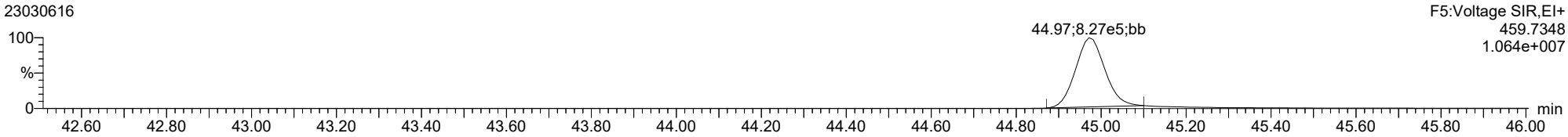

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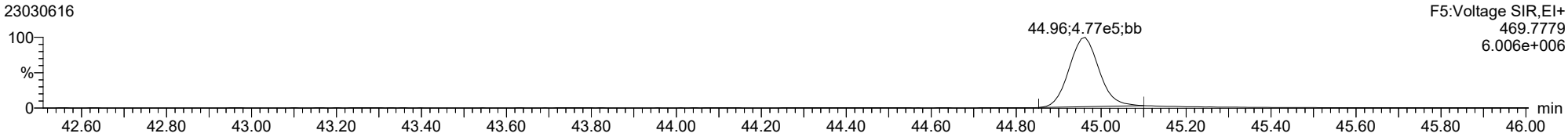

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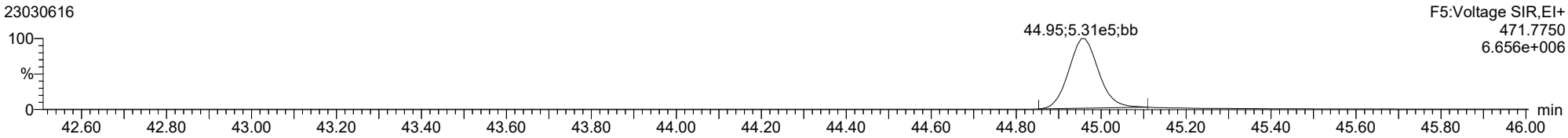
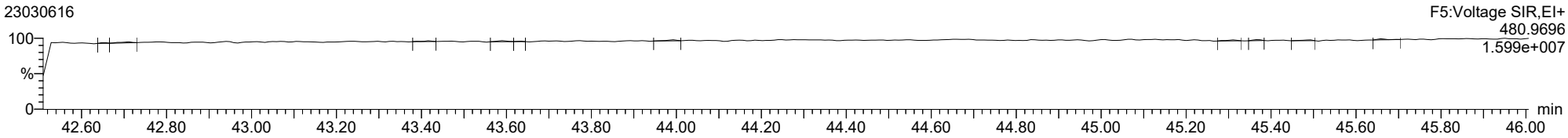
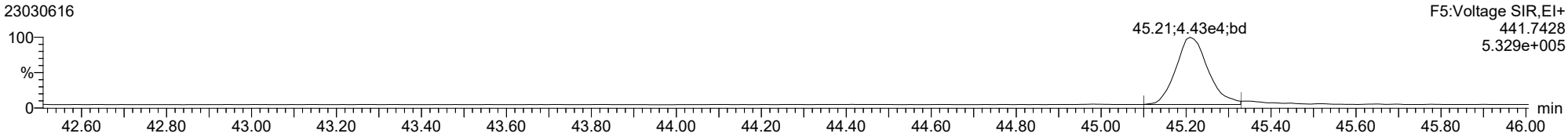


FUNCTION5 PFK

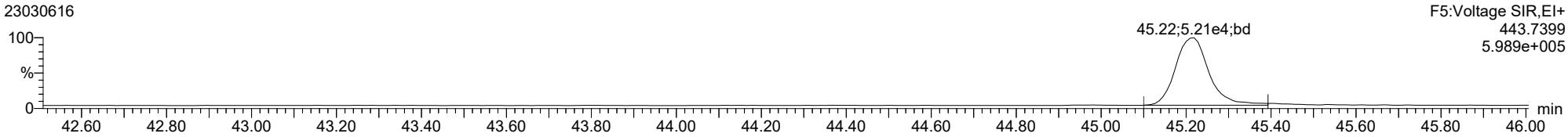


ID: BLA0398-SRM1, Name: 23030616, Date: 06-Mar-2023, Time: 22:33:18, Conditions: AUTOSPEC01, User: pk

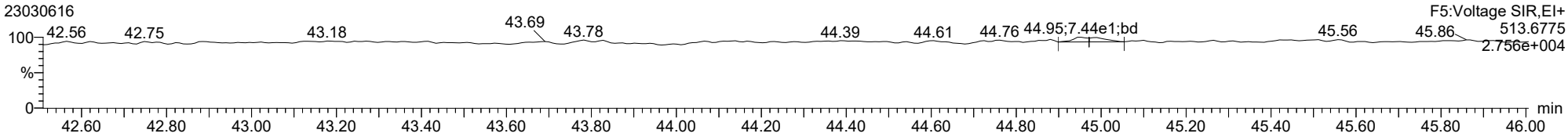
OCDF



OCDF

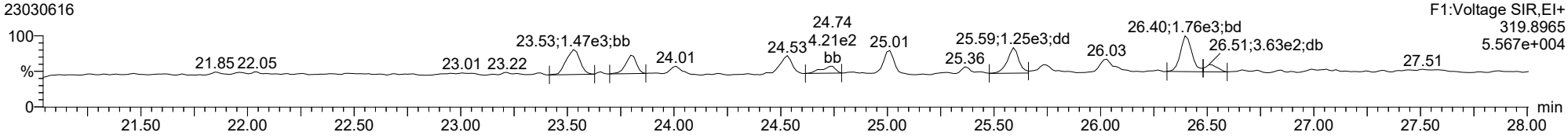


FUNCTION5 DCDPE

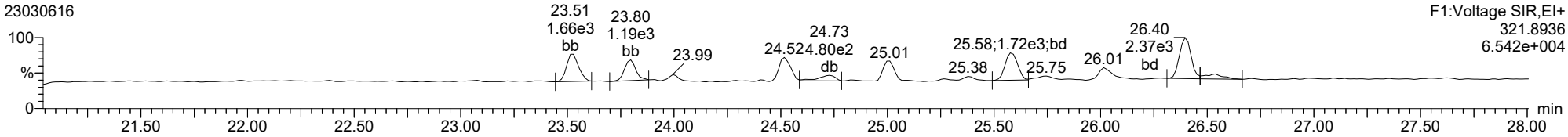


ID: BLA0398-SRM1, Name: 23030616, Date: 06-Mar-2023, Time: 22:33:18, Conditions: AUTOSPEC01, User: pk

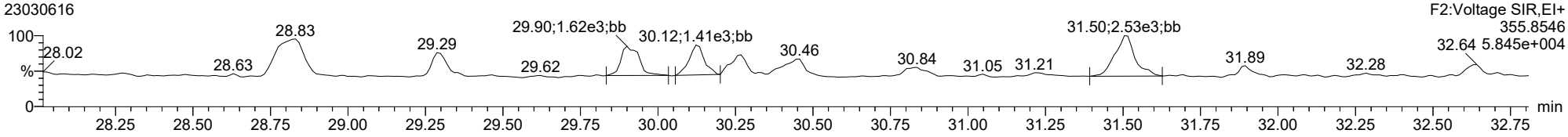
Total-tetradioxins



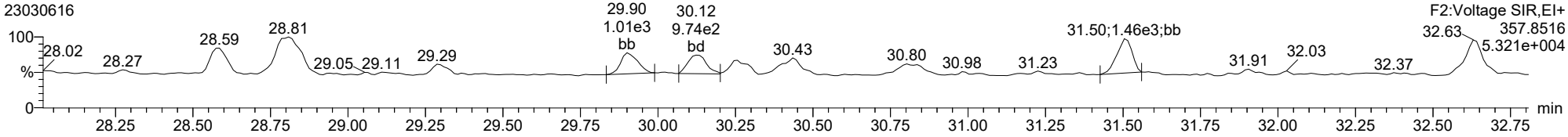
Total-tetradioxins



Total-pentadioxins



Total-pentadioxins



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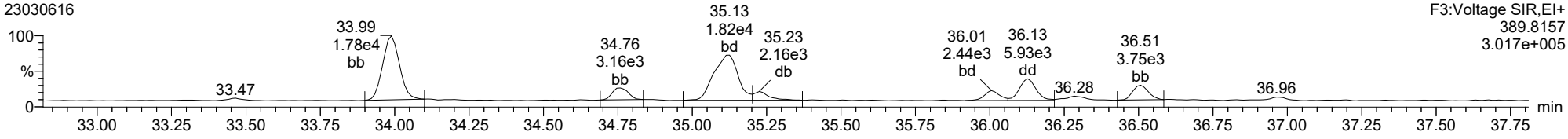
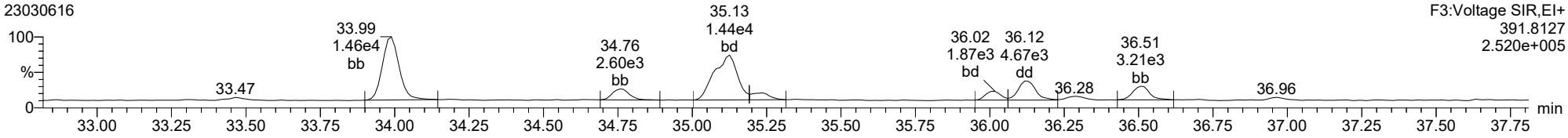
ID: BLA0398-SRM1, Name: 23030616, Date: 06-Mar-2023, Time: 22:33:18, Conditions: AUTOSPEC01, User: pk

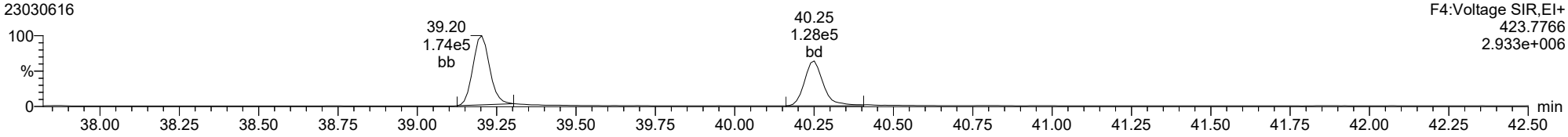
Total-hexadioxins



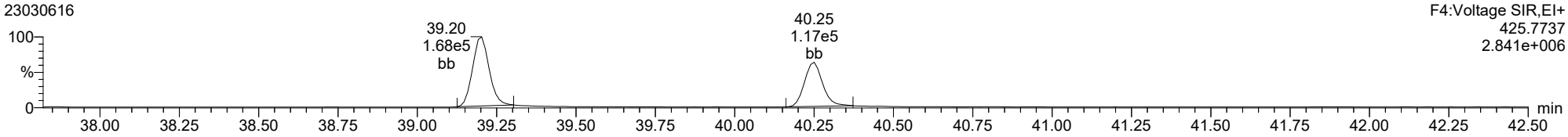
Total-hexadioxins



Total-heptadioxins



Total-heptadioxins



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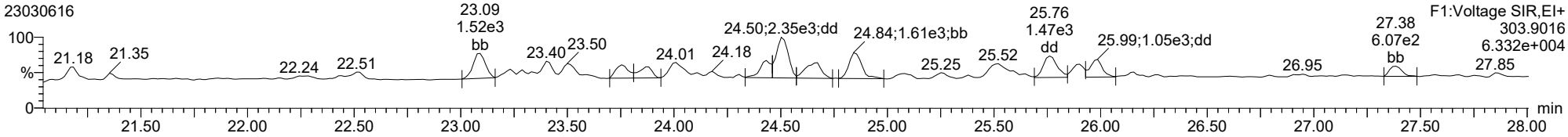
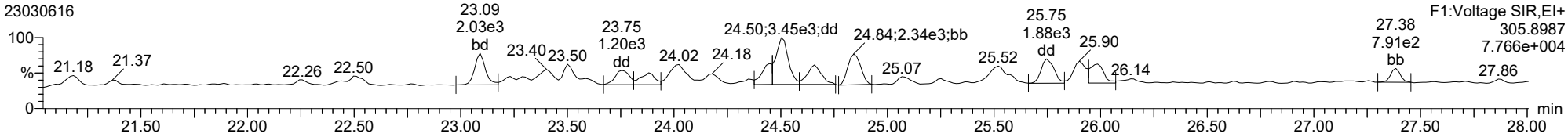
ID: BLA0398-SRM1, Name: 23030616, Date: 06-Mar-2023, Time: 22:33:18, Conditions: AUTOSPEC01, User: pk

Total-tetrafurans



Total-tetrafurans



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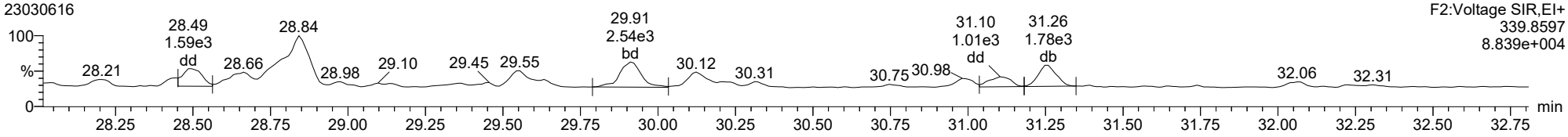

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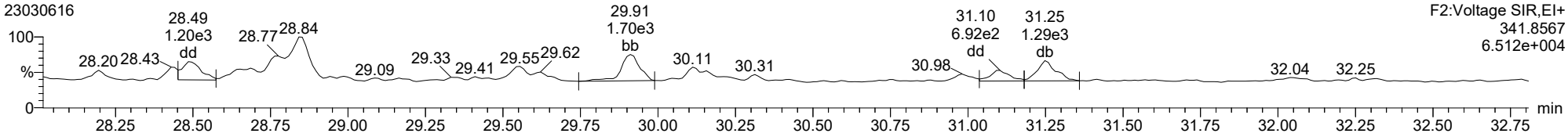
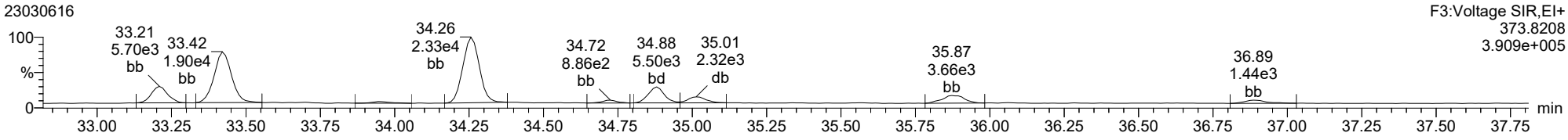


ID: BLA0398-SRM1, Name: 23030616, Date: 06-Mar-2023, Time: 22:33:18, Conditions: AUTOSPEC01, User: pk

Total-hexafurans



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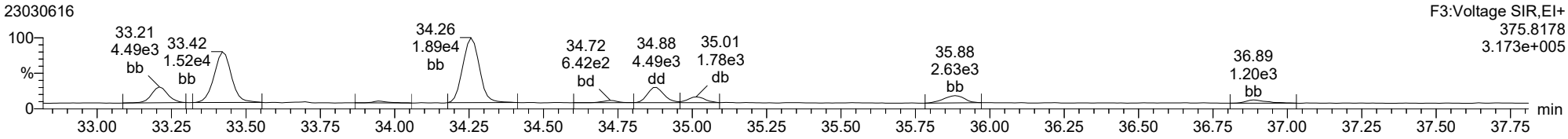

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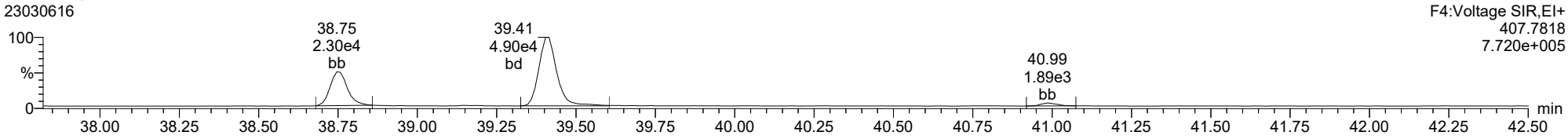

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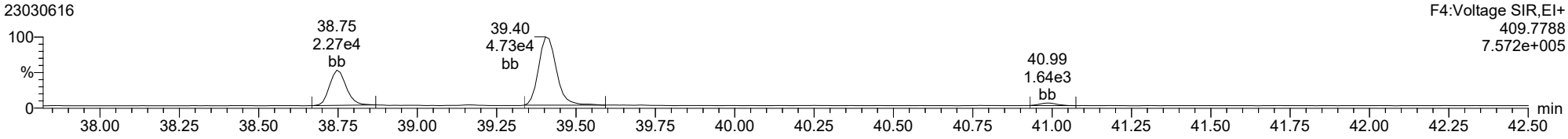

INITIAL CALIBRATION DATA
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00015	Instrument:	AUTOSPEC01
Calibration Date:	03/03/2023	Column (1):	RTX-Dioxin2

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	**RRF**	Conc	RRF	Conc	RRF	Conc	**RRF**	Conc	**RRF**
2,3,7,8-TCDF			0.5	0.6926363	2	0.6813225	10	0.7107923	40	0.719723	200	0.703162
2,3,7,8-TCDD			0.5	1.116738	2	1.187915	10	1.134128	40	1.147736	200	1.156792
1,2,3,7,8-PeCDF	0.5	0.7064839	2.5	0.5889757	10	0.710829	50	0.6668491	200	0.6891968	1000	0.7130453
2,3,4,7,8-PeCDF	0.5	0.7979673	2.5	0.750268	10	0.8092124	50	0.7777683	200	0.7907891	1000	0.7910175
1,2,3,7,8-PeCDD	0.5	1.103364	2.5	0.959607	10	1.01992	50	1.019473	200	1.01999	1000	1.008719
1,2,3,4,7,8-HxCDF	0.5	1.217557	2.5	1.181192	10	1.149885	50	1.142227	200	1.15269	1000	1.152678
1,2,3,6,7,8-HxCDF	0.5	1.080855	2.5	1.053928	10	1.175308	50	1.102076	200	1.035098	1000	1.097184
2,3,4,6,7,8-HxCDF	0.5	1.045907	2.5	1.140857	10	1.199347	50	1.11691	200	1.197861	1000	1.13731
1,2,3,7,8,9-HxCDF	0.5	1.190403	2.5	1.119796	10	1.130872	50	1.147742	200	1.139146	1000	1.094601
1,2,3,4,7,8-HxCDD	0.5	1.079554	2.5	0.961704	10	0.973768	50	0.967789	200	0.9862736	1000	1.004325
1,2,3,6,7,8-HxCDD	0.5	0.9586431	2.5	0.9983677	10	0.9838912	50	1.030566	200	1.022077	1000	1.012084
1,2,3,7,8,9-HxCDD	0.5	0.930997	2.5	0.8854269	10	0.8092562	50	0.9267543	200	0.9251392	1000	0.9651099
1,2,3,4,6,7,8-HpCDF	0.5	0.934103	2.5	1.075239	10	1.011687	50	0.9661089	200	1.026311	1000	1.004508
1,2,3,4,7,8,9-HpCDF	0.5	0.8861422	2.5	0.8930411	10	1.006144	50	0.9387033	200	0.9934576	1000	1.001203
1,2,3,4,6,7,8-HpCDD	0.5	1.103772	2.5	0.971421	10	1.040117	50	1.038088	200	1.030577	1000	1.050103
OCDF	1	0.8118871	5	0.7091624	20	0.7657645	100	0.7266152	400	0.8162858	2000	0.8371317
OCDD			5	1.012935	20	0.8906655	100	0.878436	400	0.9061913	2000	0.9115405
13C12-2,3,7,8-TCDF	100	1.631571	100	1.588495	100	1.670669	100	1.492829	100	1.645068	100	1.692541
13C12-2,3,7,8-TCDD	100	1.103543	100	1.165686	100	1.103763	100	1.147762	100	1.181831	100	1.211872
13C12-1,2,3,7,8-PeCDF	100	1.373516	100	0.8861478	100	1.254697	100	1.157546	100	1.425701	100	1.345107
13C12-2,3,4,7,8-PeCDF	100	1.219579	100	0.8983995	100	1.113808	100	0.8611233	100	1.32733	100	1.286474
13C12-1,2,3,7,8-PeCDD	100	0.9177021	100	0.7002528	100	0.8365419	100	0.5962156	100	0.9821822	100	0.939983
13C12-1,2,3,4,7,8-HxCDF	100	1.152029	100	1.095885	100	1.513935	100	1.121285	100	1.094572	100	1.032122
13C12-1,2,3,6,7,8-HxCDF	100	1.353853	100	1.348693	100	1.689158	100	1.367383	100	1.37092	100	1.188788
13C12-2,3,4,6,7,8-HxCDF	100	1.092029	100	1.127896	100	1.240354	100	1.126074	100	1.087409	100	1.101774
13C12-1,2,3,7,8,9-HxCDF	100	0.8958406	100	0.9493947	100	0.9152119	100	0.9630403	100	0.8996667	100	0.9673701
13C12-1,2,3,4,7,8-HxCDD	100	0.9718531	100	0.9656819	100	1.113686	100	0.9864835	100	0.9766715	100	0.95586
13C12-1,2,3,6,7,8-HxCDD	100	1.184228	100	1.157253	100	1.278683	100	1.163318	100	1.111106	100	1.045546

INITIAL CALIBRATION DATA

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00015	Instrument:	AUTOSPEC01
Calibration Date:	03/03/2023	Column (1):	RTX-Dioxin2

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
13C12-1,2,3,4,6,7,8-HpCDF	100	0.7396157	100	0.9023055	100	1.063192	100	0.9589237	100	0.7622694	100	0.9449039
13C12-1,2,3,4,7,8,9-HpCDF	100	0.6488087	100	0.8119515	100	0.8176949	100	0.8667001	100	0.665459	100	0.8078955
13C12-1,2,3,4,6,7,8-HpCDD	100	0.724191	100	0.8737196	100	0.9555336	100	0.9094052	100	0.7229358	100	0.8549505
13C12-OCDD	200	0.701507	200	0.6312376	200	0.823691	200	0.8980531	200	0.7066522	200	0.8436876
37Cl4-2,3,7,8-TCDD	0.1	1.576039	0.5	1.320077	2	1.177166	10	1.132717	40	1.2366	200	1.284223
13C12-1,2,3,4-TCDD	100	1	100	1	100	1	100	1	100	1	100	1
13C12-1,2,3,7,8,9-HxCDD	100	1	100	1	100	1	100	1	100	1	100	1

INITIAL CALIBRATION DATA

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00015	Instrument:	AUTOSPEC01
Calibration Date:	03/03/2023	Column (1):	RTX-Dioxin2

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
2,3,7,8-TCDF	0.7015272	2.1			RSD ()	
2,3,7,8-TCDD	1.148662	2.3			RSD ()	
1,2,3,7,8-PeCDF	0.67923	7.0			RSD ()	
2,3,4,7,8-PeCDF	0.7861704	2.6			RSD ()	
1,2,3,7,8-PeCDD	1.021845	4.5			RSD ()	
1,2,3,4,7,8-HxCDF	1.166038	2.4			RSD ()	
1,2,3,6,7,8-HxCDF	1.090741	4.5			RSD ()	
2,3,4,6,7,8-HxCDF	1.139699	5.0			RSD ()	
1,2,3,7,8,9-HxCDF	1.137093	2.8			RSD ()	
1,2,3,4,7,8-HxCDD	0.9955689	4.4			RSD ()	
1,2,3,6,7,8-HxCDD	1.000938	2.7			RSD ()	
1,2,3,7,8,9-HxCDD	0.9071139	6.0			RSD ()	
1,2,3,4,6,7,8-HpCDF	1.002993	4.9			RSD ()	
1,2,3,4,7,8,9-HpCDF	0.9531152	5.8			RSD ()	
1,2,3,4,6,7,8-HpCDD	1.039013	4.1			RSD ()	
OCDF	0.7778078	6.7			RSD ()	
OCDD	0.9199537	5.8			RSD ()	
13C12-2,3,7,8-TCDF	1.620196	4.4			RSD ()	
13C12-2,3,7,8-TCDD	1.152409	3.8			RSD ()	
13C12-1,2,3,7,8-PeCDF	1.240452	15.9			RSD ()	
13C12-2,3,4,7,8-PeCDF	1.117786	17.7			RSD ()	
13C12-1,2,3,7,8-PeCDD	0.8288129	18.3			RSD ()	
13C12-1,2,3,4,7,8-HxCDF	1.168305	14.9			RSD ()	
13C12-1,2,3,6,7,8-HxCDF	1.386466	11.8			RSD ()	
13C12-2,3,4,6,7,8-HxCDF	1.129256	5.0			RSD ()	
13C12-1,2,3,7,8,9-HxCDF	0.9317541	3.4			RSD ()	
13C12-1,2,3,4,7,8-HxCDD	0.9950393	5.9			RSD ()	
13C12-1,2,3,6,7,8-HxCDD	1.156689	6.7			RSD ()	
13C12-1,2,3,4,6,7,8-HpCDF	0.8952017	13.8			RSD ()	
13C12-1,2,3,4,7,8,9-HpCDF	0.7697516	11.7			RSD ()	
13C12-1,2,3,4,6,7,8-HpCDD	0.8401226	11.5			RSD ()	

INITIAL CALIBRATION DATA

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GC00015	Instrument:	AUTOSPEC01
Calibration Date:	03/03/2023	Column (1):	RTX-Dioxin2

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
13C12-OCDD	0.7674714	13.4			RSD ()	
37Cl4-2,3,7,8-TCDD	1.287804	12.2			RSD ()	
13C12-1,2,3,4-TCDD	1	0.0			RSD ()	
13C12-1,2,3,7,8,9-HxCDD	1	0.0			RSD ()	

ANALYSIS SEQUENCE

SLC0045

Instrument: AUTOSPEC01 HRGCMS Column ID: K2310
Calibration ID: GC00015 Tune File: FEB0923_1-5
EM Voltage: 350 Resolution check times : 9:51, 18:18

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLC0045-ICV1	CS3W1	QC		1	K009821		03/03/2023 09:51	23030302	PK	
SLC0045-RES1	ISCW1	QC		2	L002084		03/03/2023 10:39	23030303	PK	
SLC0045-CAL1	CSLCW	QC		3	I005460		03/03/2023 11:28	23030304	PK	
SLC0045-CAL2	CS1CW	QC		4	I005456		03/03/2023 12:23	23030305	PK	
SLC0045-CAL3	CS2CW	QC		5	I005457		03/03/2023 13:16	23030306	PK	
SLC0045-CAL4	CS3CW	QC		6	K009821		03/03/2023 14:06	23030307	PK	
SLC0045-CAL5	CS4CW	QC		7	I005458		03/03/2023 14:59	23030308	PK	
SLC0045-CAL6	CS5CW	QC		8	I005459		03/03/2023 15:47	23030309	PK	
SLC0045-SCV1	ICVCW	QC		9	H008219		03/03/2023 16:36	23030310	PK	
SLC0045-CCV1	CS3V4	QC		10	K009821		03/03/2023 17:25	23030311	PK	
SLC0045-RES2	ISCV4	QC		11	L002084		03/03/2023 18:18	23030312	PK	

Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
Printed: Monday, March 06, 2023 10:58:44 Pacific Standard Time

3/6/23 PK

Event	Details	Sample ID
Process Extract		
Process Integrate		
Process Calibrate		
Process Quantify		
Dataset Created		
Peak deleted	Sample:23030304, Compound:TD, RT:26.410	1
Peak deleted	Sample:23030304, Compound:OD, RT:44.990	1
Peak deleted	Sample:23030304, Compound:TF, RT:25.774	1
Pre modification peak	Sample:23030305, Compound:TF, RT:25.774	2
Peak modified	Sample:23030305, Compound:TF, RT:25.774	2
Pre modification peak	Sample:23030304, Compound:HPD, RT:40.261	1
Peak modified	Sample:23030304, Compound:HPD, RT:40.261	1
Peak deleted	Sample:23030308, Compound:PF, RT:32.328	5
Peak deleted	Sample:23030309, Compound:PF, RT:32.307	6
Peak deleted	Sample:23030309, Compound:HF, RT:33.220	6
Peak deleted	Sample:23030309, Compound:TD, RT:27.017	6
Peak deleted	Sample:23030309, Compound:PD, RT:31.995	6
Peak deleted	Sample:23030309, Compound:PD, RT:31.917	6
Peak deleted	Sample:23030308, Compound:HD, RT:34.000	5
Peak deleted	Sample:23030308, Compound:HPD, RT:39.225	5
Peak deleted	Sample:23030309, Compound:HPD, RT:39.214	6
Pre modification peak	Sample:23030305, Compound:OF, RT:45.237	2
Peak modified	Sample:23030305, Compound:OF, RT:45.237	2
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\230303ICIH.qld'	

Dataset: T:\Autospec\Processed Data Batch\230303IHOP.qld
Last Altered: Monday, March 06, 2023 11:36:30 Pacific Standard Time
Printed: Monday, March 06, 2023 11:37:17 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.788	1.001	4.469e4	5.839e4	0.702	0.765	0.770	894	1638	6.87e5	9.09e5	769.3	554.8	NO	bb	bb	9.550
12378-PeCDF	29.956	1.001	2.355e5	1.540e5	0.679	1.529	1.550	2187	1572	3.61e6	2.40e6	1652.4	1526.9	NO	bb	bb	49.641
23478-PeCDF	31.293	1.001	2.214e5	1.482e5	0.786	1.494	1.550	2187	1572	3.41e6	2.30e6	1560.8	1464.8	NO	bb	bb	47.528
123478-HxCDF	34.914	1.001	2.600e5	2.102e5	1.166	1.237	1.240	1592	1910	4.13e6	3.31e6	2594.2	1730.9	NO	bd	bd	47.118
234678-HxCDF	35.917	1.001	2.733e5	2.175e5	1.140	1.257	1.240	1592	1910	4.33e6	3.47e6	2719.2	1818.9	NO	bb	bb	49.341
123678-HxCDF	35.048	1.000	2.727e5	2.151e5	1.091	1.268	1.240	1592	1910	4.23e6	3.33e6	2659.9	1743.3	NO	db	db	49.569
123789-HxCDF	36.941	1.000	2.420e5	1.912e5	1.137	1.266	1.240	1592	1910	3.95e6	3.13e6	2482.2	1637.3	NO	bb	bb	46.959
1234678-HpCDF	38.780	1.000	1.767e5	1.776e5	1.003	0.995	1.050	1849	2300	2.99e6	3.02e6	1618.0	1311.0	NO	bb	bb	47.490
1234789-HpCDF	41.019	1.000	1.595e5	1.575e5	0.953	1.013	1.050	1849	2300	2.36e6	2.33e6	1274.2	1012.6	NO	bb	bb	50.221
OCDF	45.246	1.005	2.326e5	2.612e5	0.778	0.891	0.890	910	1225	2.82e6	3.14e6	3100.2	2559.9	NO	bb	bb	88.591
2378-TCDD	26.438	1.001	5.709e4	7.150e4	1.149	0.798	0.770	1506	757	9.09e5	1.12e6	603.1	1485.0	NO	bb	bb	9.450
12378-PeCDD	31.549	1.001	2.156e5	1.424e5	1.022	1.514	1.550	2044	1419	3.32e6	2.17e6	1626.0	1530.4	NO	bb	bb	49.654
123478-HxCDD	36.028	1.000	2.225e5	1.815e5	0.996	1.226	1.240	1845	1377	3.65e6	2.93e6	1979.4	2130.4	NO	bd	bd	50.053
123678-HxCDD	36.150	1.000	2.361e5	1.995e5	1.001	1.184	1.240	1845	1377	3.83e6	3.15e6	2076.5	2285.7	NO	db	db	49.648
123789-HxCDD	36.529	1.011	2.267e5	1.883e5	0.907	1.204	1.240	1845	1377	3.65e6	3.02e6	1979.8	2191.3	NO	bb	bb	54.229
1234678-HpCDD	40.284	1.001	1.918e5	1.891e5	1.039	1.015	1.050	2026	1655	2.99e6	2.92e6	1477.4	1764.9	NO	bb	bb	47.619
OCDD	45.008	1.000	3.015e5	3.475e5	0.920	0.868	0.890	1418	1100	3.70e6	4.29e6	2606.9	3904.9	NO	bb	bb	98.432
13C-2378-TCDF	25.774	1.007	6.611e5	8.775e5	1.620	0.753	0.770	2458	1918	1.00e7	1.34e7	4080.0	6997.2	NO	bb	bb	94.015
13C-12378-PeCDF	29.934	1.169	6.937e5	4.618e5	1.240	1.502	1.550	2176	1857	1.07e7	7.10e6	4925.2	3826.5	NO	bb	bb	92.213
13C-23478-PeCDF	31.271	1.221	5.928e5	3.963e5	1.118	1.496	1.550	2176	1857	9.20e6	6.25e6	4229.1	3368.5	NO	bb	bb	87.601
13C-123478-HxCDF	34.891	0.955	2.871e5	5.687e5	1.168	0.505	0.510	1657	1593	4.56e6	9.04e6	2750.7	5674.1	NO	bd	bd	84.013
13C-123678-HxCDF	35.036	0.959	3.069e5	5.954e5	1.386	0.515	0.510	1657	1593	4.75e6	9.14e6	2868.0	5738.5	NO	db	db	74.642
13C-234678-HxCDF	35.894	0.983	2.954e5	5.775e5	1.129	0.512	0.510	1657	1593	4.85e6	9.48e6	2926.1	5951.0	NO	bb	bb	88.651
13C-123789-HxCDF	36.930	1.011	2.724e5	5.390e5	0.932	0.505	0.510	1657	1593	4.39e6	8.57e6	2648.2	5379.8	NO	bb	bb	99.871
13C-1234678-HpCDF	38.769	1.062	2.262e5	5.177e5	0.895	0.437	0.440	2036	2545	3.83e6	8.70e6	1881.8	3416.5	NO	bb	bb	95.295
13C-1234789-HpCDF	41.008	1.123	1.995e5	4.627e5	0.770	0.431	0.440	2036	2545	2.95e6	6.70e6	1450.8	2632.3	NO	bb	bb	98.667
13C-1234-TCDD	25.605	0.000	4.500e5	5.601e5	1.000	0.803	0.770	1910	1117	7.08e6	8.81e6	3705.2	7891.1	NO	bb	bb	100.000
13C-2378-TCDD	26.424	1.032	5.241e5	6.605e5	1.152	0.794	0.770	1910	1117	7.92e6	9.96e6	4144.8	8917.7	NO	bb	bb	101.762
13C-12378-PeCDD	31.527	1.231	4.348e5	2.708e5	0.829	1.606	1.550	951	872	6.72e6	4.16e6	7062.4	4771.1	NO	bb	bb	84.283
13C-123478-HxCDD	36.017	0.986	4.575e5	3.533e5	0.995	1.295	1.240	1714	1036	7.67e6	5.90e6	4475.1	5696.2	NO	bd	bd	93.458
13C-123678-HxCDD	36.139	0.990	4.929e5	3.835e5	1.157	1.285	1.240	1714	1036	7.72e6	6.07e6	4504.9	5859.4	NO	db	db	86.905
13C-1234678-HpCDD	40.262	1.103	3.870e5	3.828e5	0.840	1.011	1.050	1736	1260	5.92e6	5.62e6	3411.3	4462.2	NO	bb	bb	105.085
13C-OCDD	44.999	1.232	6.781e5	7.554e5	0.767	0.898	0.890	1440	1232	8.22e6	9.13e6	5710.3	7413.0	NO	bb	bb	214.218
13C-123789-HxCDD	36.518	0.000	4.889e5	3.830e5	1.000	1.277	1.240	1714	1036	7.91e6	6.13e6	4618.2	5918.8	NO	bb	bb	100.000
37CL-2378-TCDD	26.438	1.033	1.177e5		1.288			2053		1.80e6		877.6			bb		9.046

Dataset: T:\Autospec\Processed Data Batch\230303IHOP.qld
Last Altered: Monday, March 06, 2023 11:36:30 Pacific Standard Time
Printed: Monday, March 06, 2023 11:37:17 Pacific Standard Time

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.285	0.865	4.825e4	6.619e4	0.802	0.729	0.770	894	1638	7.69e5	1.08e6	860.8	657.5	NO	bb	bb	9.280
1289-TCDF	27.286	1.059	4.233e4	5.922e4	0.678	0.715	0.770	894	1638	6.48e5	8.96e5	725.0	547.0	NO	db	db	9.735
13468-PECDF	27.145	0.907	4.529e5	2.964e5	1.246	1.528	1.550	639	866	7.07e6	4.64e6	11052.6	5356.5	NO	bb	bb	52.031
12389-PECDF	32.329	1.080	1.727e5	1.137e5	0.496	1.519	1.550	2187	1572	2.66e6	1.70e6	1217.2	1080.5	NO	bb	bb	49.938
123468-HXCDF	33.243	0.953	2.450e5	1.964e5	1.169	1.248	1.240	1592	1910	3.71e6	2.99e6	2333.1	1567.3	NO	bb	bb	44.113
1368-TCDD	23.571	0.892	5.082e4	6.674e4	1.015	0.761	0.770	1506	757	8.30e5	1.09e6	551.2	1438.0	NO	bb	bb	9.774
1289-TCDD	27.031	1.023	4.817e4	6.482e4	0.909	0.743	0.770	1506	757	7.39e5	9.76e5	490.7	1289.2	NO	bb	bb	10.496
12479-PECDD	28.831	0.914	4.117e5	2.743e5	2.301	1.501	1.550	2044	1419	3.99e6	2.64e6	1950.7	1862.6	NO	bb	bb	42.238
12389-PECDD	31.939	1.013	2.280e5	1.502e5	1.184	1.518	1.550	2044	1419	3.50e6	2.32e6	1711.4	1633.6	NO	bb	bb	45.288
124679-HXCDD	34.022	0.945	2.111e5	1.738e5	1.115	1.214	1.240	1845	1377	3.36e6	2.72e6	1819.4	1971.8	NO	bb	bb	42.563
1234679-HPCDD	39.236	0.975	2.063e5	2.043e5	1.137	1.010	1.050	2026	1655	3.38e6	3.38e6	1668.0	2041.4	NO	bb	bb	46.924
Total-tetrafurans			1.368e5		0.727			894		2.13e6							28.888
Total-penta1			4.529e5					639		7.07e6							52.031
Total-pentafurans			6.685e5		0.654			2187		1.03e7							156.333
Total-hexafurans			1.293e6		1.141			1592		2.04e7							237.100
Total-heptafurans			3.381e5		0.978			1849		5.38e6							98.217
Total-Furans			3.122e6		0.922			894		4.80e7							661.160
Total-tetradioxins			2.626e5		1.024			1506		3.74e6							49.711
Total-pentadioxins			8.563e5		1.502			2044		1.08e7							137.339
Total-hexadioxins			8.975e5		1.005			1845		1.45e7							196.701
Total-heptadioxins			3.982e5		1.088			2026		6.38e6							94.566
Total-Dioxins			2.716e6		1.130			1506		3.92e7							576.750
Total-TEQ			5.838e6					1506		8.72e7							1237.909
FUNCTION1 PFK			0.000e0					705807		0.00e0							
FUNCTION2 PFK			1.098e6					272509		2.65e6							0.000
FUNCTION3 PFK			8.030e5					419872		3.44e6							0.000
FUNCTION4 PFK			2.346e5					346452		6.90e6							
FUNCTION5 PFK			5.429e4					176842		2.44e6							
FUNCTION1 HXCD...			8.708e2					511		1.38e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			1.374e3					1181		2.70e4							0.000
FUNCTION3 OCDPE			4.232e2					570		6.10e3							0.000
FUNCTION4 NCDPE			7.938e2					683		4.57e3							0.000
FUNCTION5 DCDPE			0.000e0					526		0.00e0							

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.29	4.233e4	5.922e4	0.678	0.71	0.77	725.0	YES	NO	db	db	9.735
2	Total-tetrafurans	27.16	6.976e2	1.059e3	0.727	0.66	0.77	14.1	YES	NO	bd	bd	0.157
3	2378-TCDF	25.79	4.469e4	5.839e4	0.702	0.77	0.77	769.3	YES	NO	bb	bb	9.550
4	Total-tetrafurans	24.88	4.805e2	5.664e2	0.727	0.85	0.77	7.5	YES	NO	bb	bb	0.094
5	Total-tetrafurans	24.57	3.491e2	4.664e2	0.727	0.75	0.77	6.2	YES	NO	bd	bd	0.073
6	1368-TCDF	22.29	4.825e4	6.619e4	0.802	0.73	0.77	860.8	YES	NO	bb	bb	9.280

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.14	4.529e5	2.964e5	1.246	1.53	1.55	11052.6	YES	NO	bb	bb	52.031

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDF	29.96	2.355e5	1.540e5	0.679	1.53	1.55	1652.4	YES	NO	bb	bb	49.641
2	Total-pentafurans	28.81	3.891e4	2.579e4	0.654	1.51	1.55	273.1	YES	NO	bb	bb	9.226
3	12389-PECDF	32.33	1.727e5	1.137e5	0.496	1.52	1.55	1217.2	YES	NO	bb	bb	49.938
4	23478-PeCDF	31.29	2.214e5	1.482e5	0.786	1.49	1.55	1560.8	YES	NO	bb	bb	47.528

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.94	2.420e5	1.912e5	1.137	1.27	1.24	2482.2	YES	NO	bb	bb	46.959
2	234678-HxCDF	35.92	2.733e5	2.175e5	1.140	1.26	1.24	2719.2	YES	NO	bb	bb	49.341
3	123678-HxCDF	35.05	2.727e5	2.151e5	1.091	1.27	1.24	2659.9	YES	NO	db	db	49.569
4	123478-HxCDF	34.91	2.600e5	2.102e5	1.166	1.24	1.24	2594.2	YES	NO	bd	bd	47.118
5	123468-HXCDF	33.24	2.450e5	1.964e5	1.169	1.25	1.24	2333.1	YES	NO	bb	bb	44.113

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	41.38	1.097e2	1.037e2	0.978	1.06	1.05	1.8	NO	NO	bb	bb	0.031
2	1234789-HpCDF	41.02	1.595e5	1.575e5	0.953	1.01	1.05	1274.2	YES	NO	bb	bb	50.221
3	Total-heptafurans	39.45	1.654e3	1.420e3	0.978	1.17	1.05	14.3	YES	NO	bb	bb	0.447
4	Total-heptafurans	39.28	9.725e1	9.433e1	0.978	1.03	1.05	1.5	NO	NO	bb	bb	0.028
5	1234678-HpCDF	38.78	1.767e5	1.776e5	1.003	1.00	1.05	1618.0	YES	NO	bb	bb	47.490

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.29	4.233e4	5.922e4	0.678	0.71	0.77	725.0	YES	NO	db	db	9.735
2	Total-tetrafurans	27.16	6.976e2	1.059e3	0.727	0.66	0.77	14.1	YES	NO	bd	bd	0.157
3	2378-TCDF	25.79	4.469e4	5.839e4	0.702	0.77	0.77	769.3	YES	NO	bb	bb	9.550
4	Total-tetrafurans	24.88	4.805e2	5.664e2	0.727	0.85	0.77	7.5	YES	NO	bb	bb	0.094
5	Total-tetrafurans	24.57	3.491e2	4.664e2	0.727	0.75	0.77	6.2	YES	NO	bd	bd	0.073
6	1368-TCDF	22.29	4.825e4	6.619e4	0.802	0.73	0.77	860.8	YES	NO	bb	bb	9.280
7	12378-PeCDF	29.96	2.355e5	1.540e5	0.679	1.53	1.55	1652.4	YES	NO	bb	bb	49.641
8	Total-pentafurans	28.81	3.891e4	2.579e4	0.654	1.51	1.55	273.1	YES	NO	bb	bb	9.226
9	12389-PECDF	32.33	1.727e5	1.137e5	0.496	1.52	1.55	1217.2	YES	NO	bb	bb	49.938
10	23478-PeCDF	31.29	2.214e5	1.482e5	0.786	1.49	1.55	1560.8	YES	NO	bb	bb	47.528
11	123789-HxCDF	36.94	2.420e5	1.912e5	1.137	1.27	1.24	2482.2	YES	NO	bb	bb	46.959
12	234678-HxCDF	35.92	2.733e5	2.175e5	1.140	1.26	1.24	2719.2	YES	NO	bb	bb	49.341
13	123678-HxCDF	35.05	2.727e5	2.151e5	1.091	1.27	1.24	2659.9	YES	NO	db	db	49.569
14	123478-HxCDF	34.91	2.600e5	2.102e5	1.166	1.24	1.24	2594.2	YES	NO	bd	bd	47.118
15	123468-HXCDF	33.24	2.450e5	1.964e5	1.169	1.25	1.24	2333.1	YES	NO	bb	bb	44.113
16	Total-heptafurans	41.38	1.097e2	1.037e2	0.978	1.06	1.05	1.8	NO	NO	bb	bb	0.031
17	1234789-HpCDF	41.02	1.595e5	1.575e5	0.953	1.01	1.05	1274.2	YES	NO	bb	bb	50.221
18	Total-heptafurans	39.45	1.654e3	1.420e3	0.978	1.17	1.05	14.3	YES	NO	bb	bb	0.447
19	Total-heptafurans	39.28	9.725e1	9.433e1	0.978	1.03	1.05	1.5	NO	NO	bb	bb	0.028
20	1234678-HpCDF	38.78	1.767e5	1.776e5	1.003	1.00	1.05	1618.0	YES	NO	bb	bb	47.490
21	OCDF	45.25	2.326e5	2.612e5	0.778	0.89	0.89	3100.2	YES	NO	bb	bb	88.591
22	13468-PECDF	27.14	4.529e5	2.964e5	1.246	1.53	1.55	11052.6	YES	NO	bb	bb	52.031

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TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.57	5.082e4	6.674e4	1.015	0.76	0.77	551.2	YES	NO	bb	bb	9.774
2	1289-TCDD	27.03	4.817e4	6.482e4	0.909	0.74	0.77	490.7	YES	NO	bb	bb	10.496
3	2378-TCDD	26.44	5.709e4	7.150e4	1.149	0.80	0.77	603.1	YES	NO	bb	bb	9.450
4	Total-tetradioxins	26.11	8.149e4	1.045e5	1.024	0.78	0.77	583.1	YES	NO	bb	bb	15.330
5	Total-tetradioxins	25.62	2.499e4	3.156e4	1.024	0.79	0.77	257.1	YES	NO	bb	bb	4.660

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	31.94	2.280e5	1.502e5	1.184	1.52	1.55	1711.4	YES	NO	bb	bb	45.288
2	12378-PeCDD	31.55	2.156e5	1.424e5	1.022	1.51	1.55	1626.0	YES	NO	bb	bb	49.654
3	Total-pentadioxins	30.87	1.016e3	6.817e2	1.502	1.49	1.55	7.9	YES	NO	bb	bb	0.160
4	12479-PECDD	28.83	4.117e5	2.743e5	2.301	1.50	1.55	1950.7	YES	NO	bb	bb	42.238

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.53	2.267e5	1.883e5	0.907	1.20	1.24	1979.8	YES	NO	bb	bb	54.229
2	123678-HxCDD	36.15	2.361e5	1.995e5	1.001	1.18	1.24	2076.5	YES	NO	db	db	49.648
3	123478-HxCDD	36.03	2.225e5	1.815e5	0.996	1.23	1.24	1979.4	YES	NO	bd	bd	50.053
4	Total-hexadioxins	35.14	9.946e2	7.755e2	1.005	1.28	1.24	9.3	YES	NO	db	bd	0.209
5	124679-HXCDD	34.02	2.111e5	1.738e5	1.115	1.21	1.24	1819.4	YES	NO	bb	bb	42.563

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.24	2.063e5	2.043e5	1.137	1.01	1.05	1668.0	YES	NO	bb	bb	46.924
2	Total-heptadioxins	40.58	1.040e2	8.729e1	1.088	1.19	1.05	2.1	NO	NO	bb	bb	0.023
3	1234678-HpCDD	40.28	1.918e5	1.891e5	1.039	1.01	1.05	1477.4	YES	NO	bb	bb	47.619

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.57	5.082e4	6.674e4	1.015	0.76	0.77	551.2	YES	NO	bb	bb	9.774
2	1289-TCDD	27.03	4.817e4	6.482e4	0.909	0.74	0.77	490.7	YES	NO	bb	bb	10.496
3	2378-TCDD	26.44	5.709e4	7.150e4	1.149	0.80	0.77	603.1	YES	NO	bb	bb	9.450
4	Total-tetradioxins	26.11	8.149e4	1.045e5	1.024	0.78	0.77	583.1	YES	NO	bb	bb	15.330
5	Total-tetradioxins	25.62	2.499e4	3.156e4	1.024	0.79	0.77	257.1	YES	NO	bb	bb	4.660
6	12389-PECDD	31.94	2.280e5	1.502e5	1.184	1.52	1.55	1711.4	YES	NO	bb	bb	45.288
7	12378-PeCDD	31.55	2.156e5	1.424e5	1.022	1.51	1.55	1626.0	YES	NO	bb	bb	49.654
8	Total-pentadioxins	30.87	1.016e3	6.817e2	1.502	1.49	1.55	7.9	YES	NO	bb	bb	0.160
9	12479-PECDD	28.83	4.117e5	2.743e5	2.301	1.50	1.55	1950.7	YES	NO	bb	bb	42.238
10	123789-HxCDD	36.53	2.267e5	1.883e5	0.907	1.20	1.24	1979.8	YES	NO	bb	bb	54.229
11	123678-HxCDD	36.15	2.361e5	1.995e5	1.001	1.18	1.24	2076.5	YES	NO	db	db	49.648
12	123478-HxCDD	36.03	2.225e5	1.815e5	0.996	1.23	1.24	1979.4	YES	NO	bd	bd	50.053
13	Total-hexadioxins	35.14	9.946e2	7.755e2	1.005	1.28	1.24	9.3	YES	NO	db	bd	0.209
14	124679-HXCDD	34.02	2.111e5	1.738e5	1.115	1.21	1.24	1819.4	YES	NO	bb	bb	42.563
15	1234679-HPCDD	39.24	2.063e5	2.043e5	1.137	1.01	1.05	1668.0	YES	NO	bb	bb	46.924
16	Total-heptadioxins	40.58	1.040e2	8.729e1	1.088	1.19	1.05	2.1	NO	NO	bb	bb	0.023
17	1234678-HpCDD	40.28	1.918e5	1.891e5	1.039	1.01	1.05	1477.4	YES	NO	bb	bb	47.619
18	OCDD	45.01	3.015e5	3.475e5	0.920	0.87	0.89	2606.9	YES	NO	bb	bb	98.432

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.29	4.233e4	5.922e4	0.678	0.71	0.77	725.0	YES	NO	db	db	9.735
2	Total-tetrafurans	27.16	6.976e2	1.059e3	0.727	0.66	0.77	14.1	YES	NO	bd	bd	0.157
3	2378-TCDF	25.79	4.469e4	5.839e4	0.702	0.77	0.77	769.3	YES	NO	bb	bb	9.550
4	Total-tetrafurans	24.88	4.805e2	5.664e2	0.727	0.85	0.77	7.5	YES	NO	bb	bb	0.094
5	Total-tetrafurans	24.57	3.491e2	4.664e2	0.727	0.75	0.77	6.2	YES	NO	bd	bd	0.073
6	1368-TCDF	22.29	4.825e4	6.619e4	0.802	0.73	0.77	860.8	YES	NO	bb	bb	9.280
7	12378-PeCDF	29.96	2.355e5	1.540e5	0.679	1.53	1.55	1652.4	YES	NO	bb	bb	49.641
8	Total-pentafurans	28.81	3.891e4	2.579e4	0.654	1.51	1.55	273.1	YES	NO	bb	bb	9.226
9	12389-PECDF	32.33	1.727e5	1.137e5	0.496	1.52	1.55	1217.2	YES	NO	bb	bb	49.938
10	23478-PeCDF	31.29	2.214e5	1.482e5	0.786	1.49	1.55	1560.8	YES	NO	bb	bb	47.528
11	123789-HxCDF	36.94	2.420e5	1.912e5	1.137	1.27	1.24	2482.2	YES	NO	bb	bb	46.959
12	234678-HxCDF	35.92	2.733e5	2.175e5	1.140	1.26	1.24	2719.2	YES	NO	bb	bb	49.341
13	123678-HxCDF	35.05	2.727e5	2.151e5	1.091	1.27	1.24	2659.9	YES	NO	db	db	49.569
14	123478-HxCDF	34.91	2.600e5	2.102e5	1.166	1.24	1.24	2594.2	YES	NO	bd	bd	47.118
15	123468-HXCDF	33.24	2.450e5	1.964e5	1.169	1.25	1.24	2333.1	YES	NO	bb	bb	44.113
16	Total-heptafurans	41.38	1.097e2	1.037e2	0.978	1.06	1.05	1.8	NO	NO	bb	bb	0.031
17	1234789-HpCDF	41.02	1.595e5	1.575e5	0.953	1.01	1.05	1274.2	YES	NO	bb	bb	50.221
18	Total-heptafurans	39.45	1.654e3	1.420e3	0.978	1.17	1.05	14.3	YES	NO	bb	bb	0.447
19	Total-heptafurans	39.28	9.725e1	9.433e1	0.978	1.03	1.05	1.5	NO	NO	bb	bb	0.028
20	1234678-HpCDF	38.78	1.767e5	1.776e5	1.003	1.00	1.05	1618.0	YES	NO	bb	bb	47.490
21	OCDF	45.25	2.326e5	2.612e5	0.778	0.89	0.89	3100.2	YES	NO	bb	bb	88.591
22	13468-PECDF	27.14	4.529e5	2.964e5	1.246	1.53	1.55	11052.6	YES	NO	bb	bb	52.031
23	1368-TCDD	23.57	5.082e4	6.674e4	1.015	0.76	0.77	551.2	YES	NO	bb	bb	9.774
24	1289-TCDD	27.03	4.817e4	6.482e4	0.909	0.74	0.77	490.7	YES	NO	bb	bb	10.496
25	2378-TCDD	26.44	5.709e4	7.150e4	1.149	0.80	0.77	603.1	YES	NO	bb	bb	9.450
26	Total-tetradioxins	26.11	8.149e4	1.045e5	1.024	0.78	0.77	583.1	YES	NO	bb	bb	15.330
27	Total-tetradioxins	25.62	2.499e4	3.156e4	1.024	0.79	0.77	257.1	YES	NO	bb	bb	4.660
28	12389-PECDD	31.94	2.280e5	1.502e5	1.184	1.52	1.55	1711.4	YES	NO	bb	bb	45.288
29	12378-PeCDD	31.55	2.156e5	1.424e5	1.022	1.51	1.55	1626.0	YES	NO	bb	bb	49.654
30	Total-pentadioxins	30.87	1.016e3	6.817e2	1.502	1.49	1.55	7.9	YES	NO	bb	bb	0.160
31	12479-PECDD	28.83	4.117e5	2.743e5	2.301	1.50	1.55	1950.7	YES	NO	bb	bb	42.238
32	123789-HxCDD	36.53	2.267e5	1.883e5	0.907	1.20	1.24	1979.8	YES	NO	bb	bb	54.229
33	123678-HxCDD	36.15	2.361e5	1.995e5	1.001	1.18	1.24	2076.5	YES	NO	db	db	49.648
34	123478-HxCDD	36.03	2.225e5	1.815e5	0.996	1.23	1.24	1979.4	YES	NO	bd	bd	50.053
35	Total-hexadioxins	35.14	9.946e2	7.755e2	1.005	1.28	1.24	9.3	YES	NO	db	bd	0.209
36	124679-HXCDD	34.02	2.111e5	1.738e5	1.115	1.21	1.24	1819.4	YES	NO	bb	bb	42.563
37	1234679-HPCDD	39.24	2.063e5	2.043e5	1.137	1.01	1.05	1668.0	YES	NO	bb	bb	46.924

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-heptadioxins	40.58	1.040e2	8.729e1	1.088	1.19	1.05	2.1	NO	NO	bb	bb	0.023
39	1234678-HpCDD	40.28	1.918e5	1.891e5	1.039	1.01	1.05	1477.4	YES	NO	bb	bb	47.619
40	OCDD	45.01	3.015e5	3.475e5	0.920	0.87	0.89	2606.9	YES	NO	bb	bb	98.432

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.96	1.058e5					1.1	NO		bb		0.000
2	FUNCTION2 PFK	30.15	5.471e5					3.7	YES		bb		0.000
3	FUNCTION2 PFK	28.28	4.455e5					4.9	YES		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	35.89	2.667e5					4.7	YES		bb		0.000
2	FUNCTION3 PFK	33.03	5.362e5					3.5	YES		bb		0.000

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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.07	4.905e4					2.0	NO		db		
2	FUNCTION4 PFK	37.96	1.071e4					1.3	NO		bd		
3	FUNCTION4 PFK	37.89	4.848e3					0.7	NO		bb		
4	FUNCTION4 PFK	42.18	1.359e4					1.2	NO		bb		
5	FUNCTION4 PFK	41.91	8.056e3					0.9	NO		db		
6	FUNCTION4 PFK	41.83	2.292e4					1.6	NO		bd		
7	FUNCTION4 PFK	41.77	1.673e4					1.5	NO		bb		
8	FUNCTION4 PFK	41.48	1.418e4					1.4	NO		bb		
9	FUNCTION4 PFK	41.32	2.104e3					0.5	NO		bb		
10	FUNCTION4 PFK	41.13	8.695e3					1.0	NO		bb		
11	FUNCTION4 PFK	40.63	8.163e3					0.8	NO		bb		
12	FUNCTION4 PFK	40.08	1.008e4					1.1	NO		db		
13	FUNCTION4 PFK	40.04	1.572e4					1.4	NO		bd		
14	FUNCTION4 PFK	39.51	7.181e3					1.0	NO		bb		
15	FUNCTION4 PFK	39.44	5.021e3					0.7	NO		bb		
16	FUNCTION4 PFK	38.96	9.511e3					1.3	NO		db		
17	FUNCTION4 PFK	38.92	2.806e4					1.5	NO		bd		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	42.57	1.411e3					0.9	NO		bb		
2	FUNCTION5 PFK	45.95	2.307e4					3.9	YES		bb		
3	FUNCTION5 PFK	45.69	1.018e3					0.6	NO		bb		
4	FUNCTION5 PFK	45.54	1.146e3					0.7	NO		bb		
5	FUNCTION5 PFK	45.12	9.805e3					2.3	NO		bb		
6	FUNCTION5 PFK	44.83	5.276e3					1.3	NO		bb		
7	FUNCTION5 PFK	44.58	5.554e3					1.4	NO		bb		
8	FUNCTION5 PFK	44.38	2.760e3					0.9	NO		db		
9	FUNCTION5 PFK	44.35	3.252e3					1.1	NO		bd		
10	FUNCTION5 PFK	42.99	9.959e2					0.6	NO		bb		

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ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	25.01	7.970e1					3.2	YES		bb		0.000
2	FUNCTION1 HXCD...	23.47	8.919e1					3.0	YES		db		0.000
3	FUNCTION1 HXCD...	23.40	8.065e1					2.9	NO		dd		0.000
4	FUNCTION1 HXCD...	23.32	1.305e2					3.4	YES		dd		0.000
5	FUNCTION1 HXCD...	23.22	1.146e2					2.8	NO		bd		0.000
6	FUNCTION1 HXCD...	22.41	7.936e1					4.3	YES		bb		0.000
7	FUNCTION1 HXCD...	27.40	7.698e1					2.2	NO		bb		0.000
8	FUNCTION1 HXCD...	27.14	1.376e2					3.3	YES		bb		0.000
9	FUNCTION1 HXCD...	25.79	8.222e1					1.9	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.53	2.999e2					2.9	NO		bb		0.000
2	FUNCTION2 HPCD...	31.17	3.219e2					4.5	YES		bb		0.000
3	FUNCTION2 HPCD...	29.58	8.369e1					1.2	NO		db		0.000
4	FUNCTION2 HPCD...	29.50	8.185e1					1.4	NO		bd		0.000
5	FUNCTION2 HPCD...	29.43	9.066e1					2.2	NO		bb		0.000
6	FUNCTION2 HPCD...	28.26	1.049e2					2.5	NO		db		0.000
7	FUNCTION2 HPCD...	28.22	1.658e2					2.8	NO		bd		0.000
8	FUNCTION2 HPCD...	28.15	1.360e2					3.3	YES		db		0.000
9	FUNCTION2 HPCD...	28.11	8.921e1					2.1	NO		bd		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.53	2.562e2					6.2	YES		bb		0.000
2	FUNCTION3 OCDPE	36.14	1.671e2					4.5	YES		bb		0.000

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.04	8.282e1					2.4	NO		bb		0.000
2	FUNCTION4 NCDPE	38.07	5.777e2					4.3	YES		bb		0.000
3	FUNCTION4 NCDPE	37.82	1.333e2					0.0	NO		bb		0.000

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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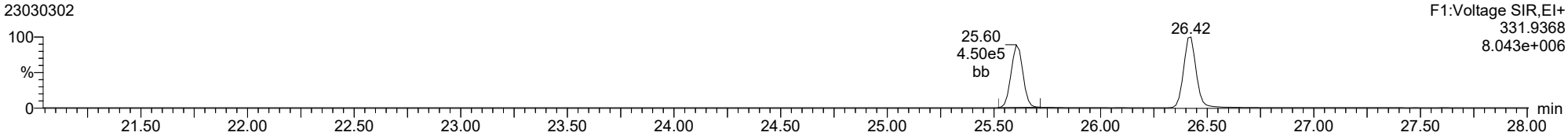
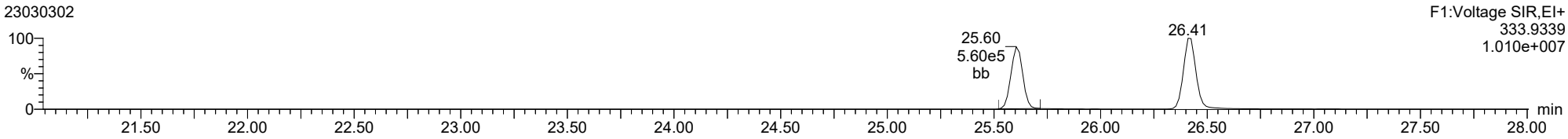
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

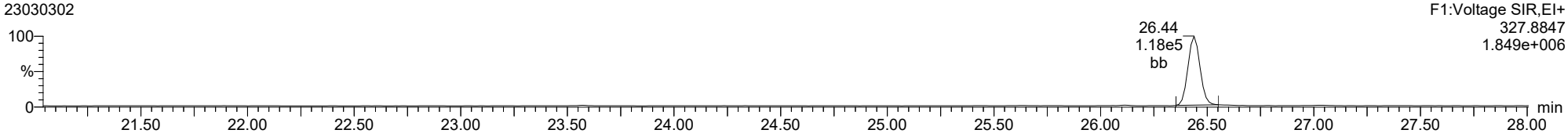
13C-1234-TCDD



13C-1234-TCDD

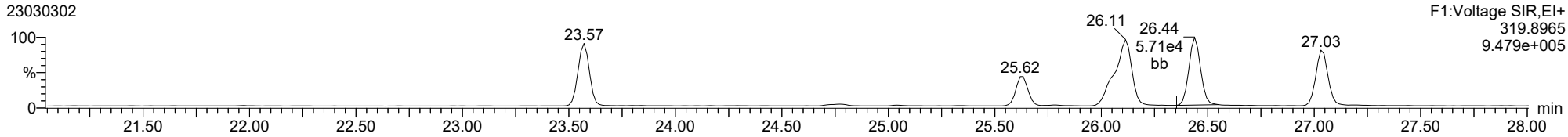


37CL-2378-TCDD



ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

2378-TCDD



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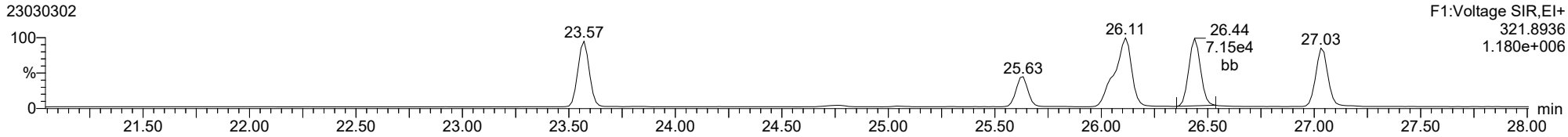

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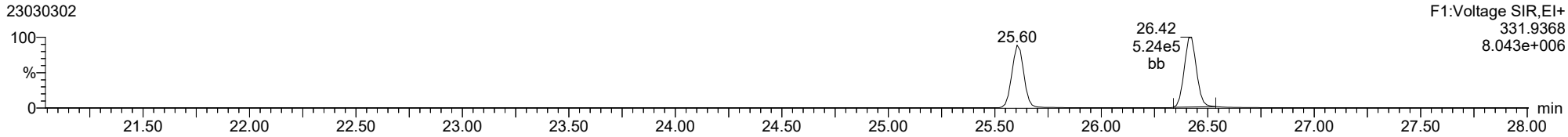

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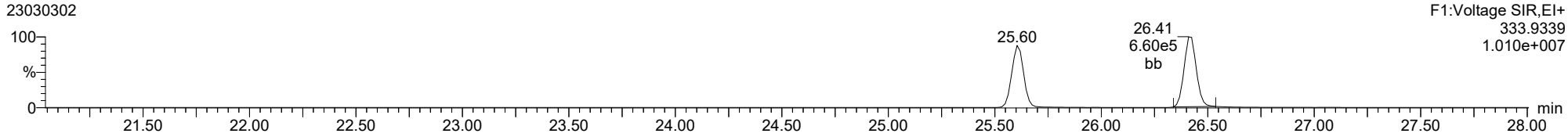

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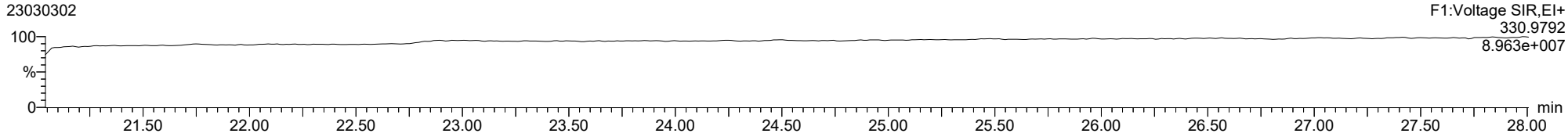
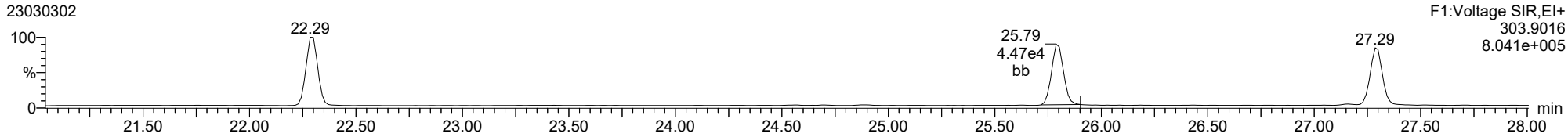


ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

2378-TCDF



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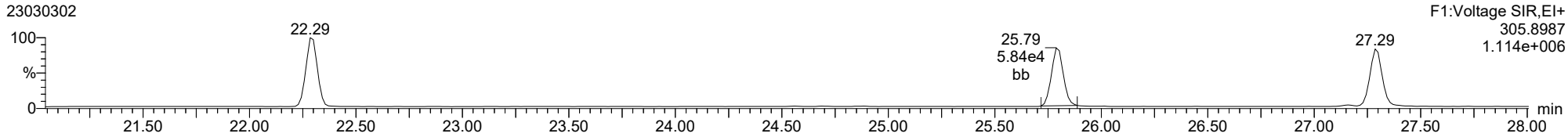

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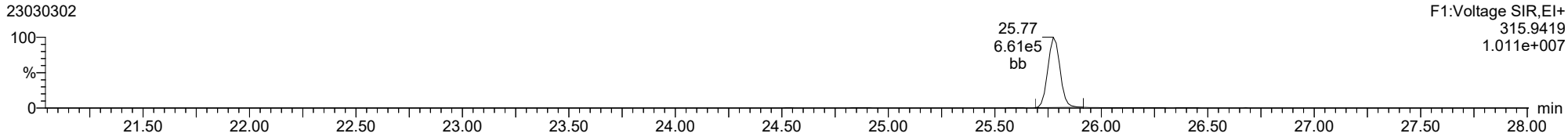

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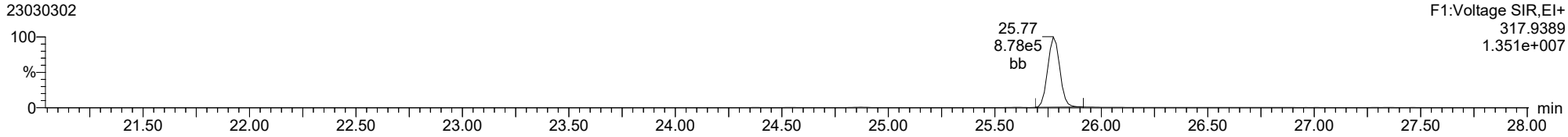
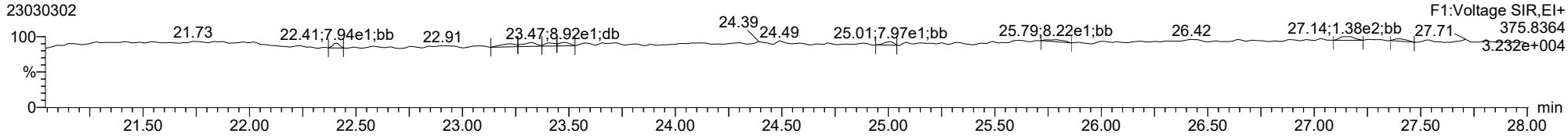


FUNCTION1 HXCDPE



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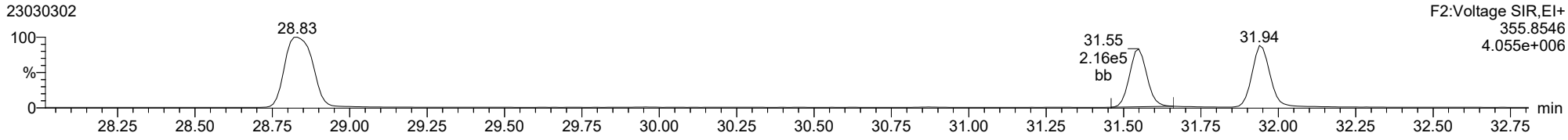
Last Altered: Monday, March 06, 2023 11:36:30 Pacific Standard Time
Printed: Monday, March 06, 2023 11:37:17 Pacific Standard Time

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

12378-PeCDD



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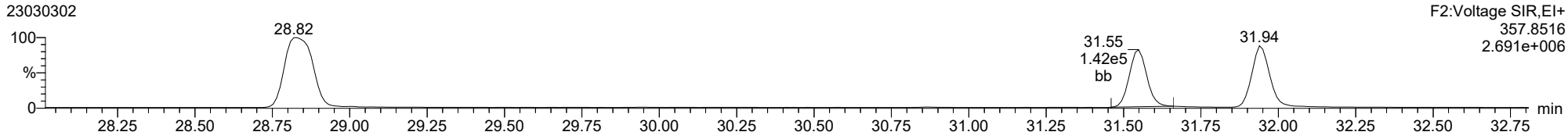

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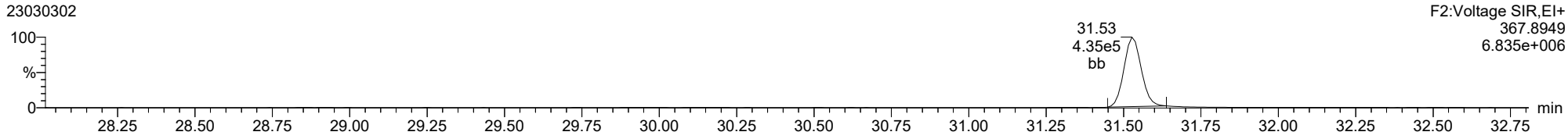

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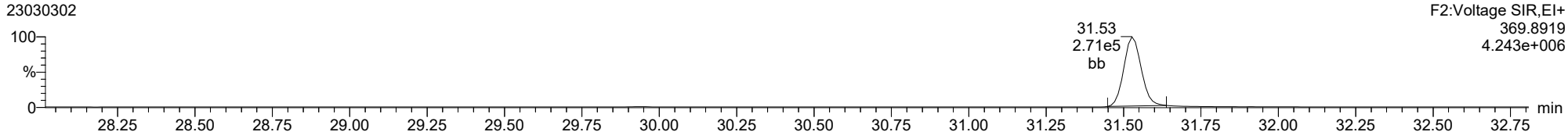

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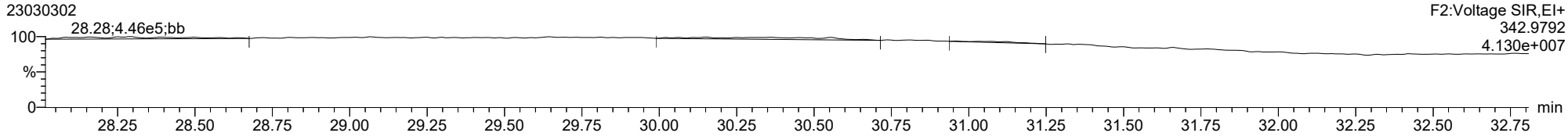

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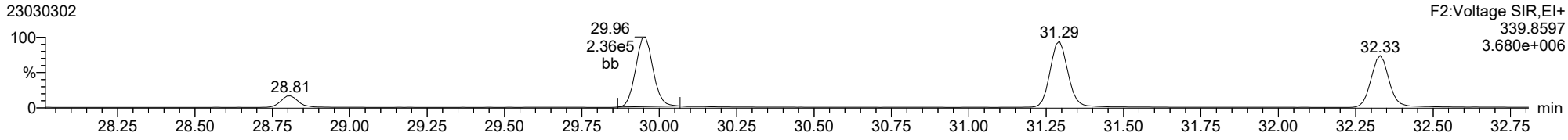
12378-PeCDF



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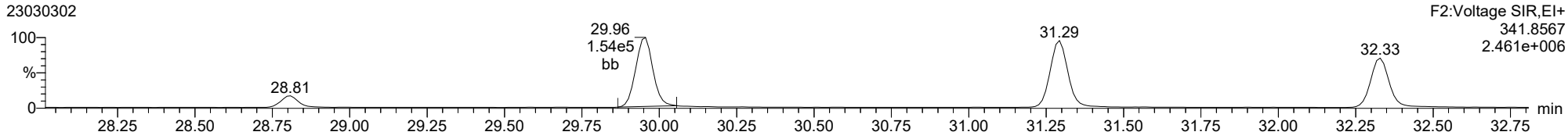

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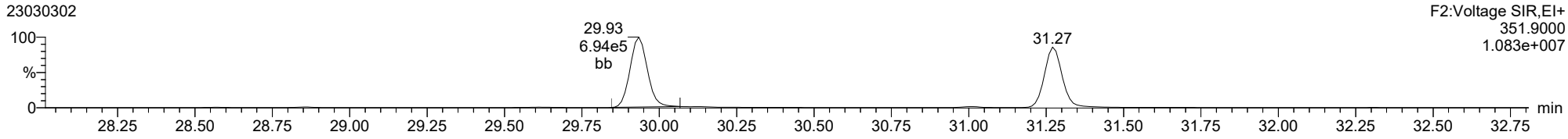

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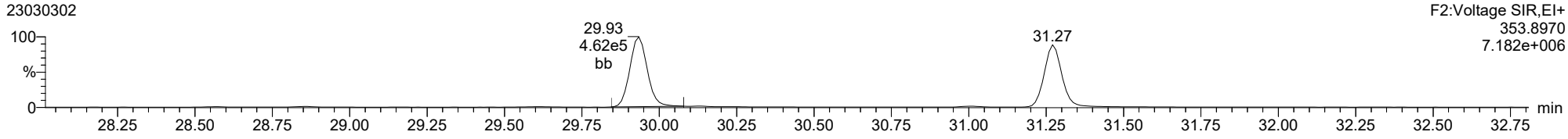
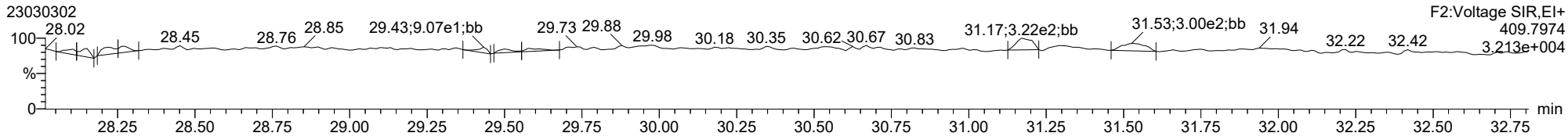


FUNCTION2 HPCDPE



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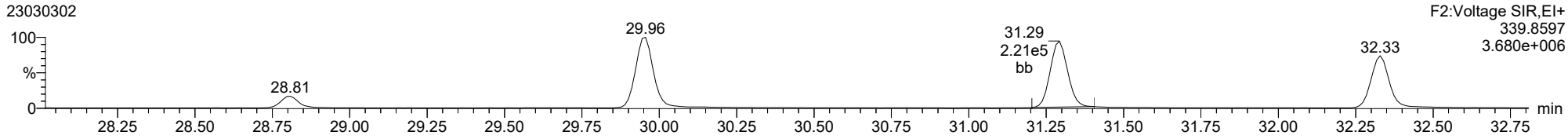
23478-PeCDF



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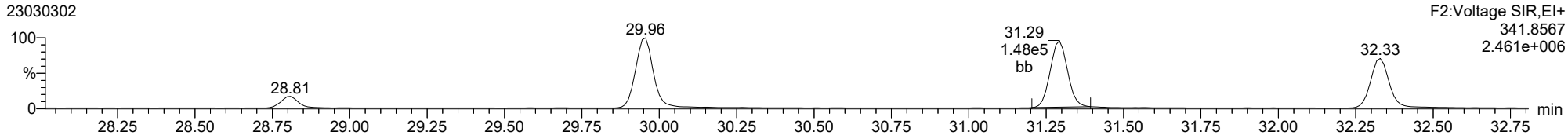

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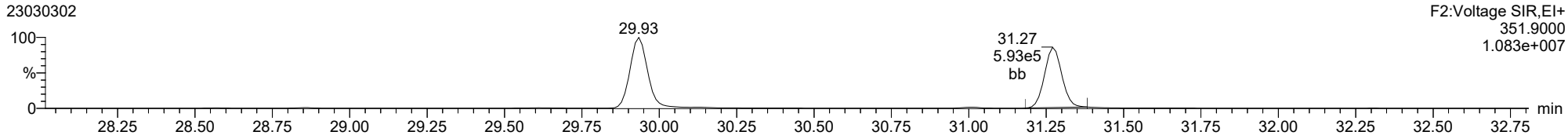

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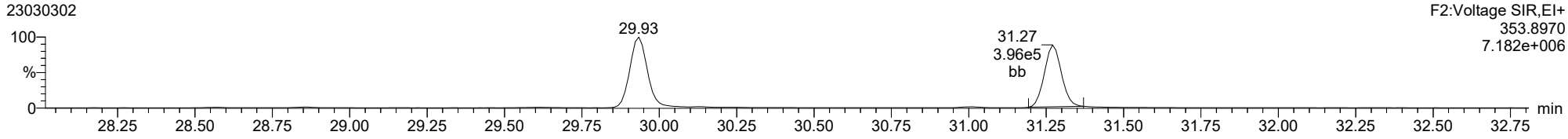

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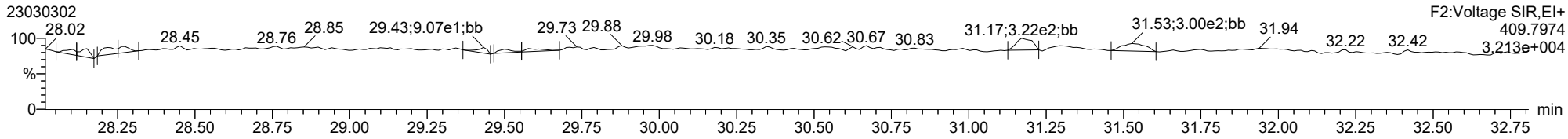

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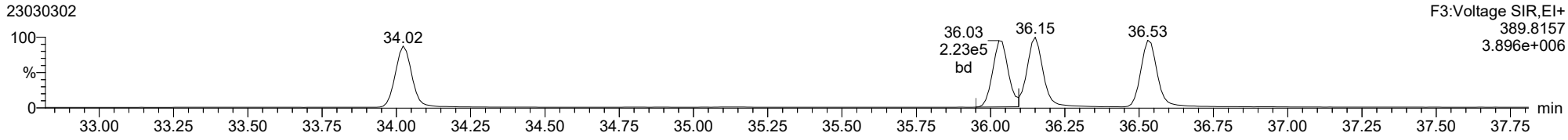

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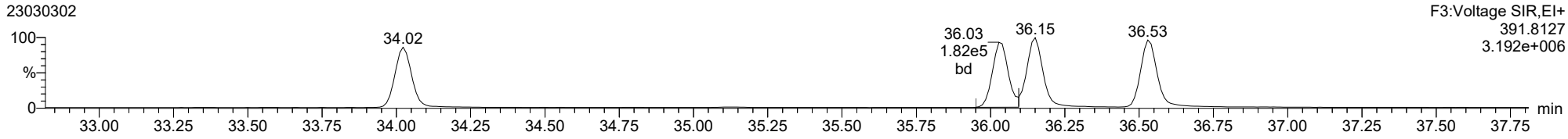

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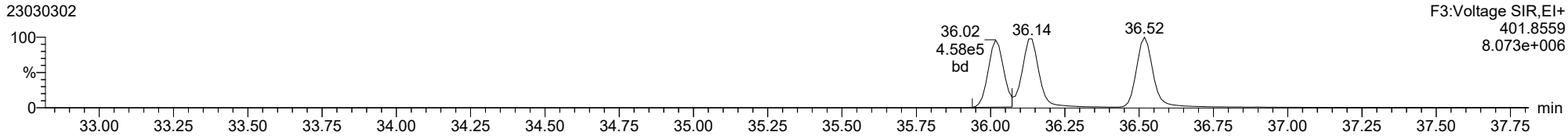

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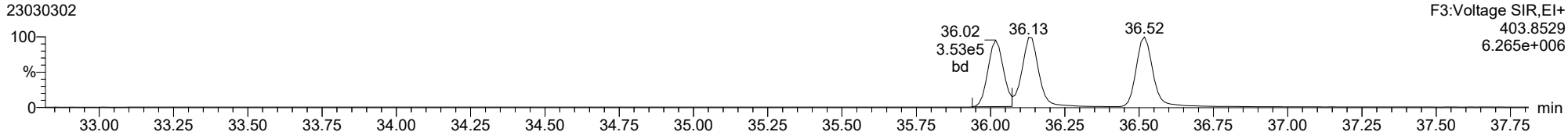

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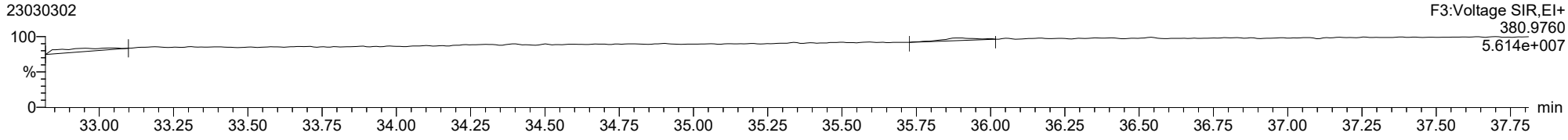

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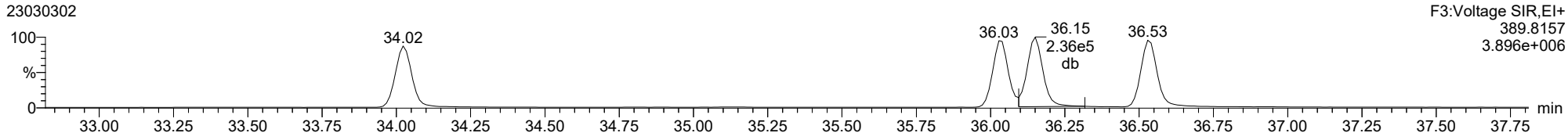

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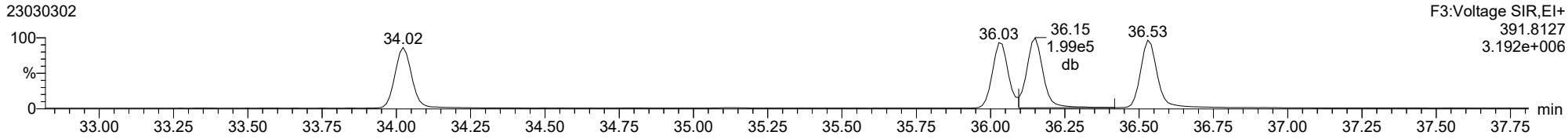

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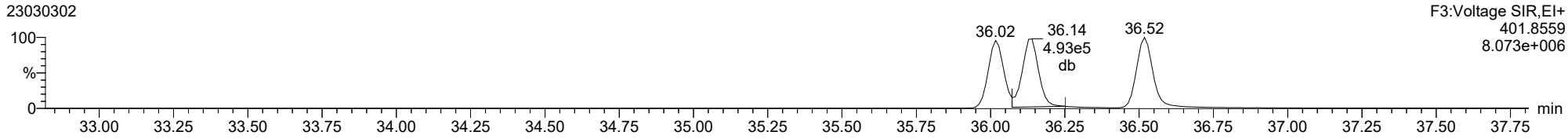

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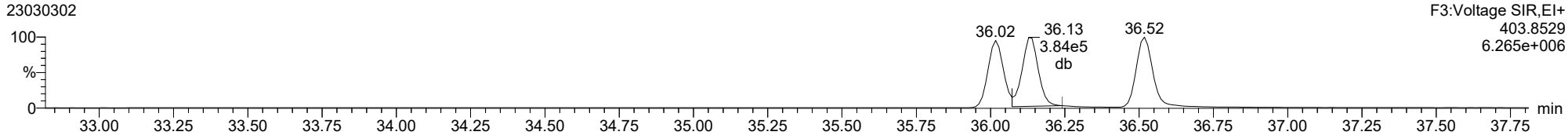

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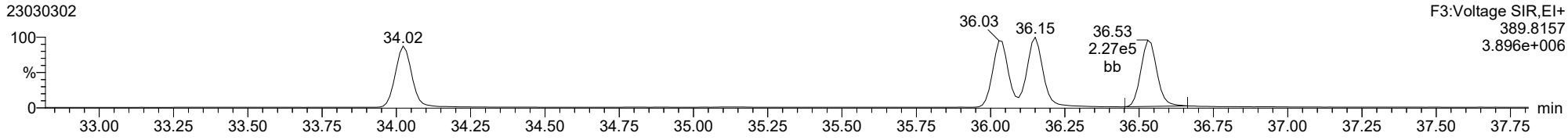

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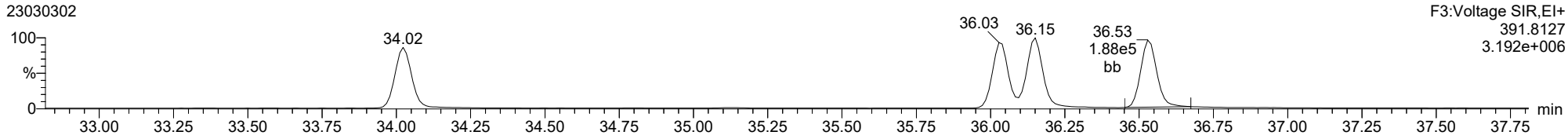

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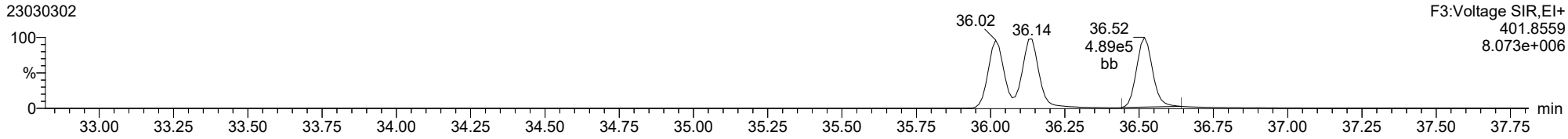

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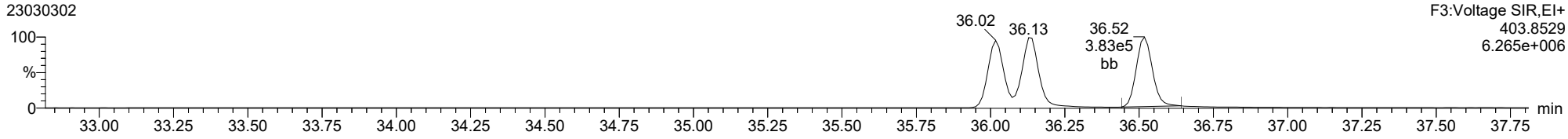

ID: CS3W1, Name: 23030302, Date: 03-Mar-2023, Time: 09:51:40, Conditions: AUTOSPEC01, User: pk

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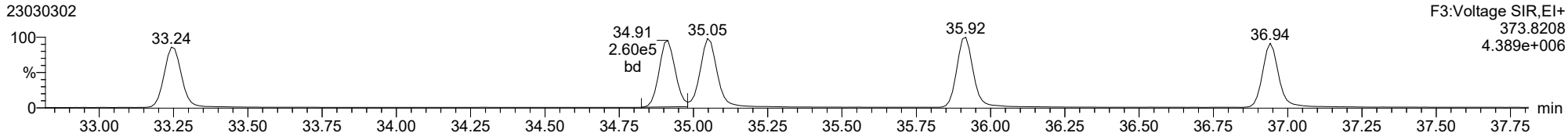

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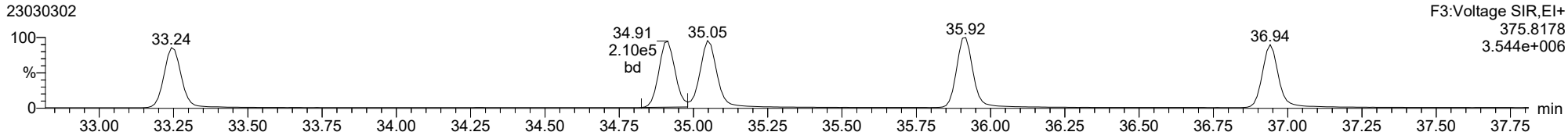

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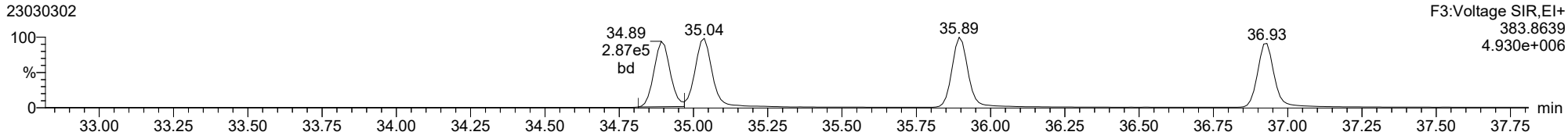

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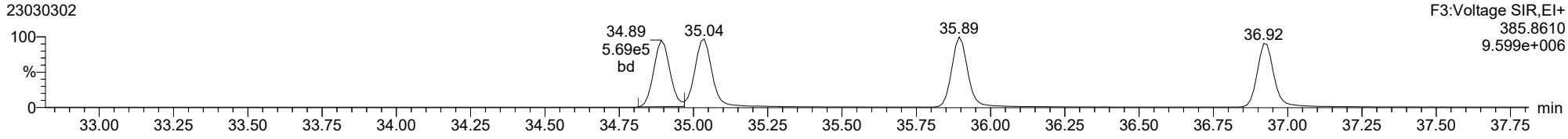
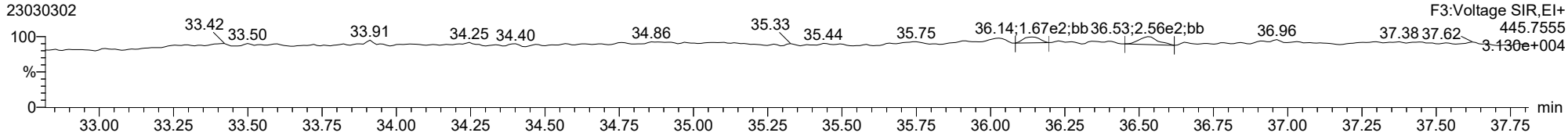


FUNCTION3 OCDPE



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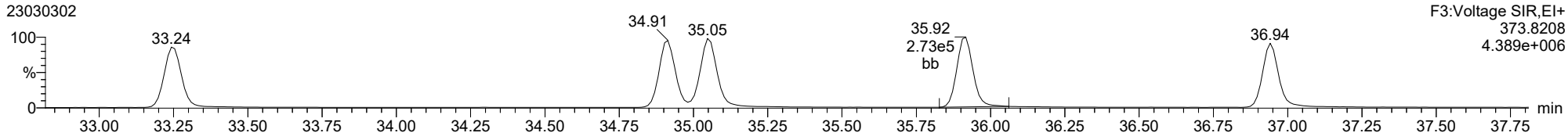

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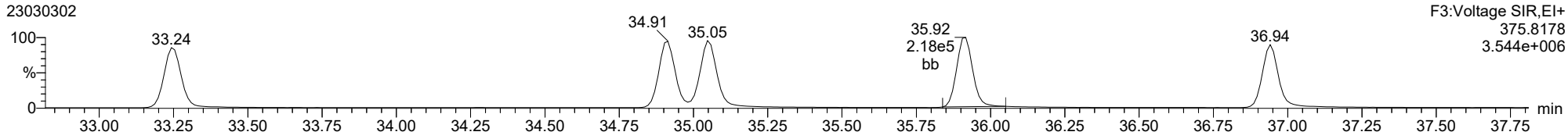

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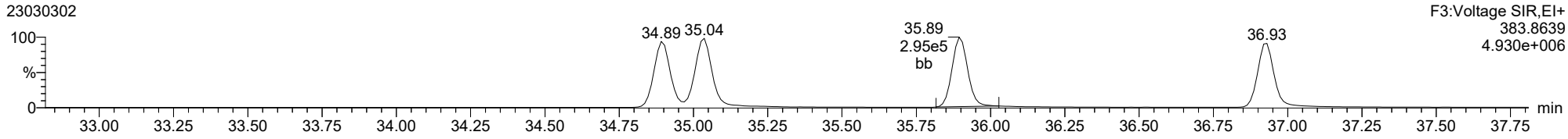

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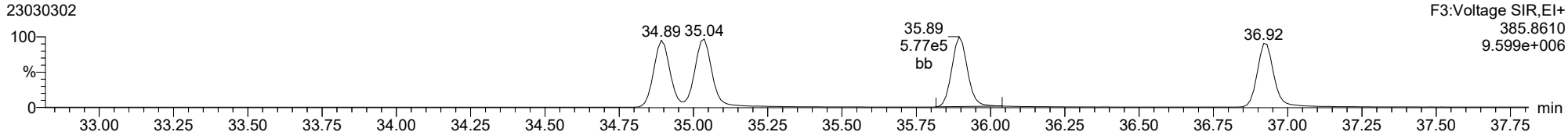

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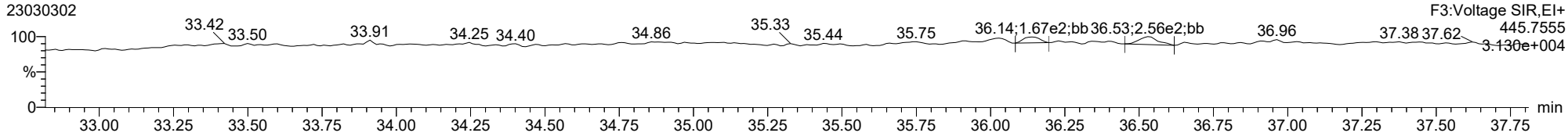

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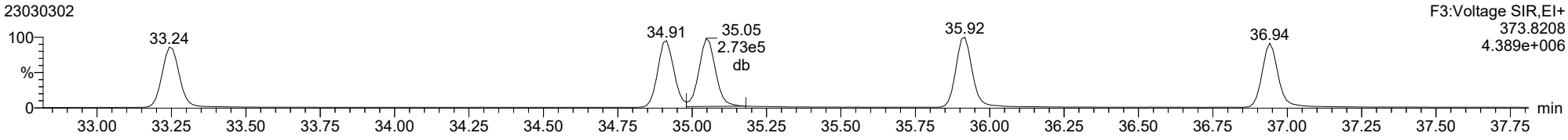

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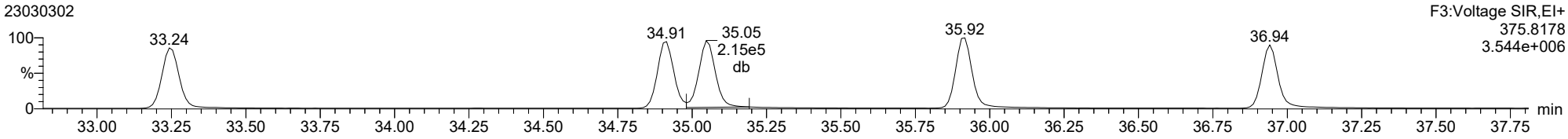

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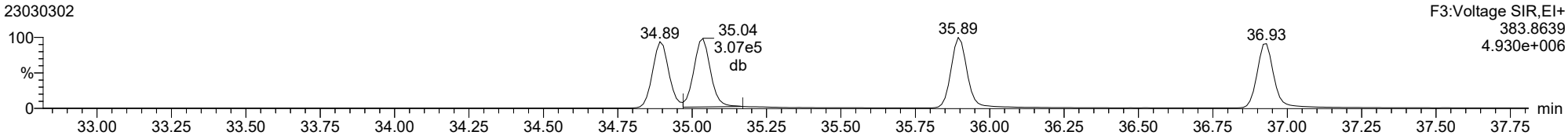

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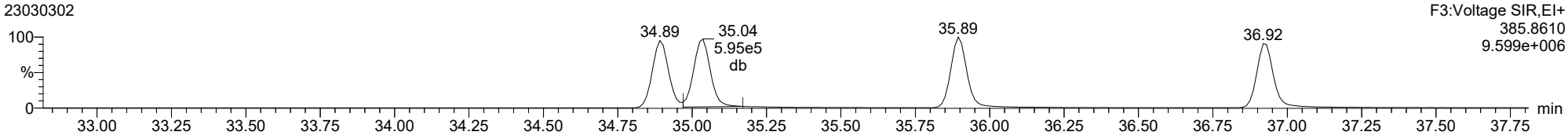

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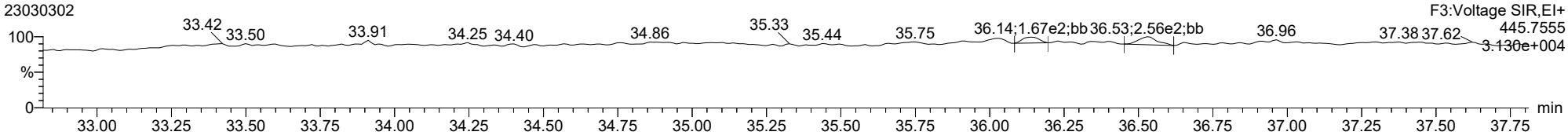

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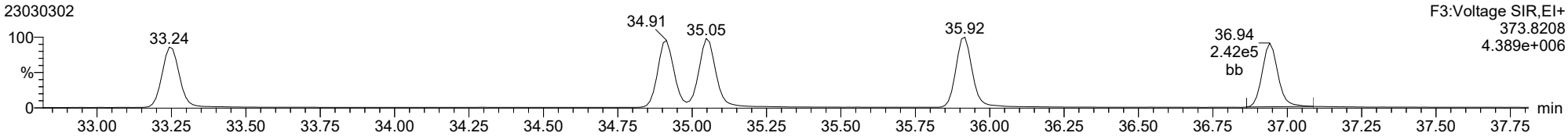

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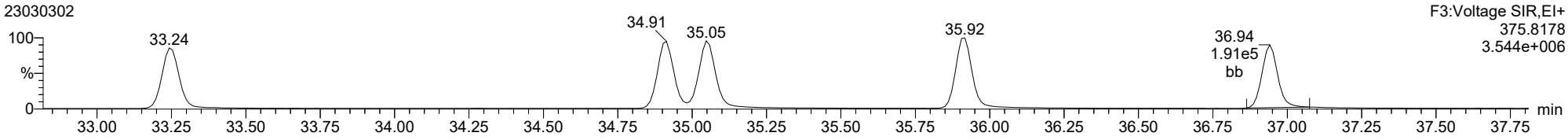

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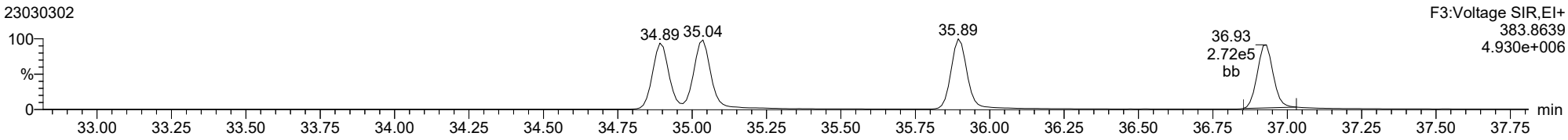

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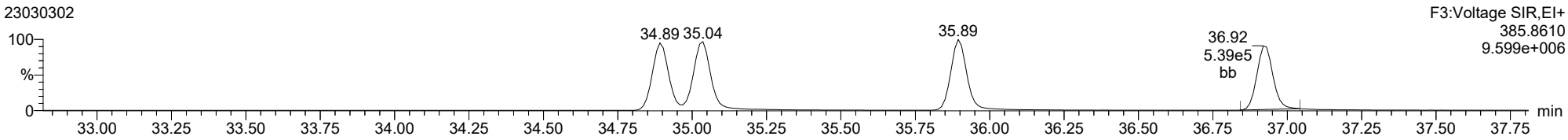

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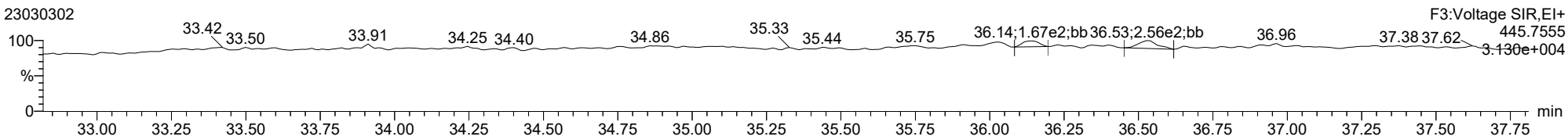

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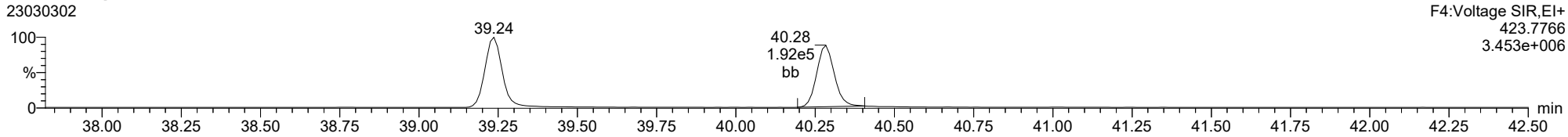

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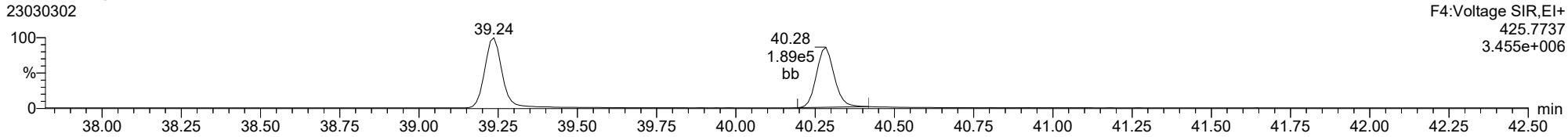

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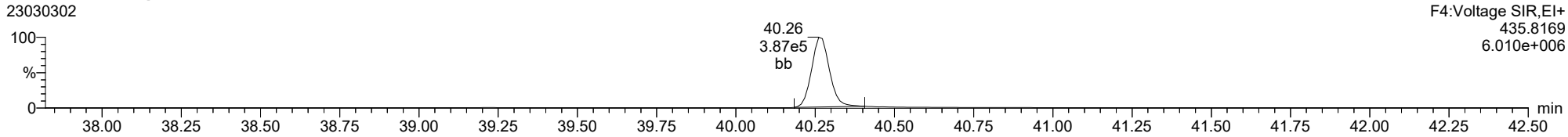

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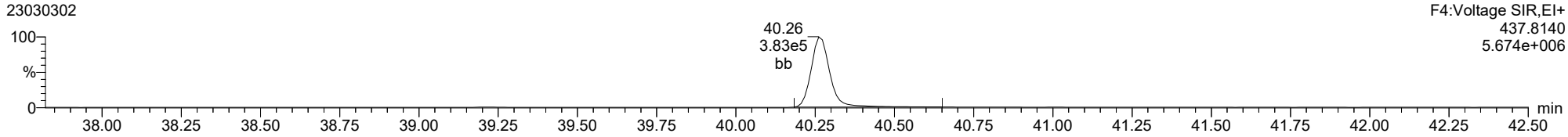
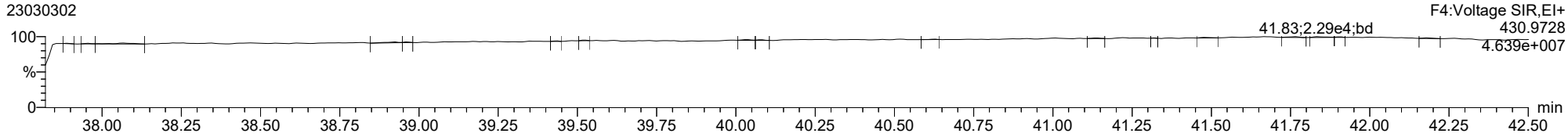


FUNCTION4 PFK



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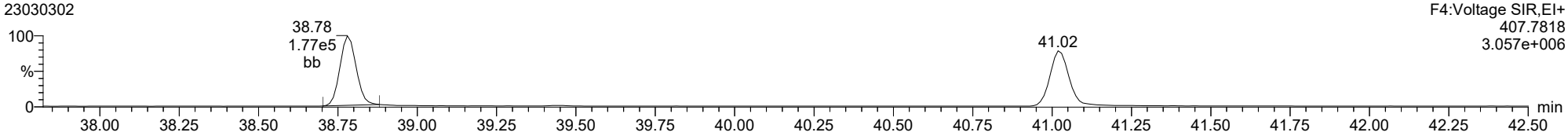

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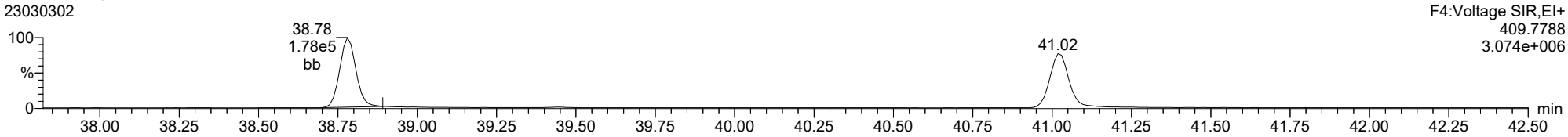

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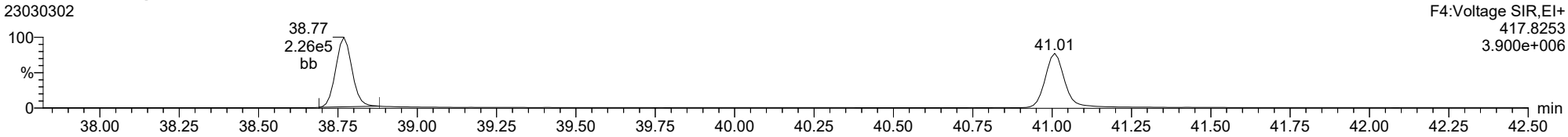

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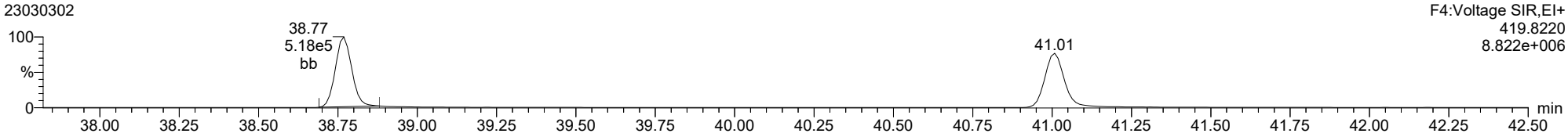

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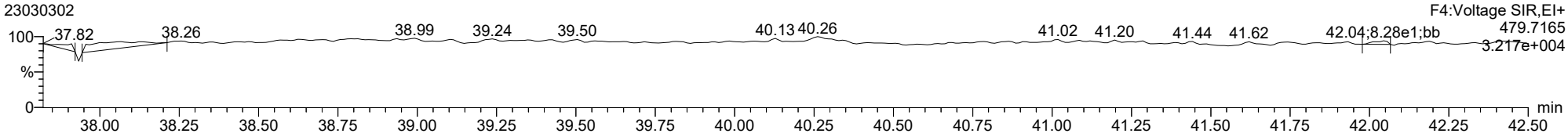

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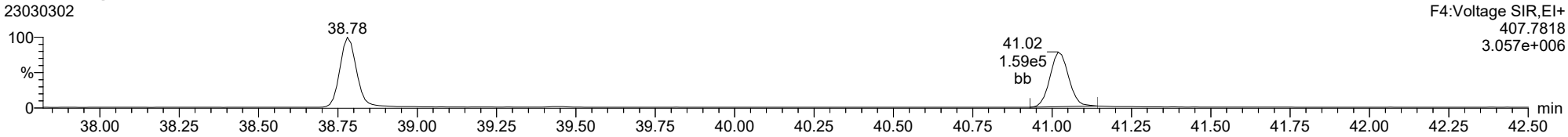

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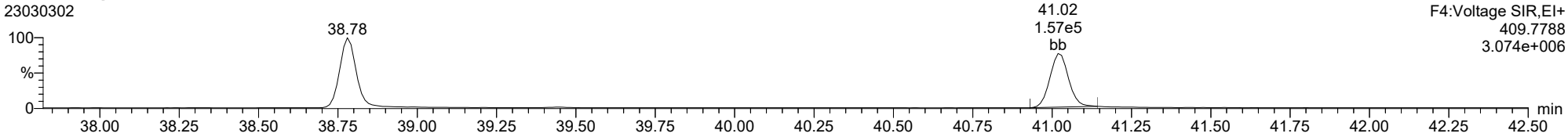

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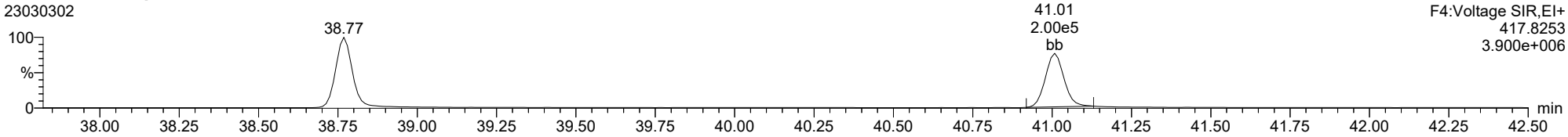

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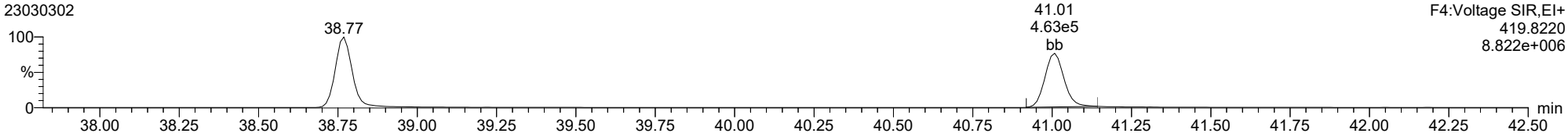

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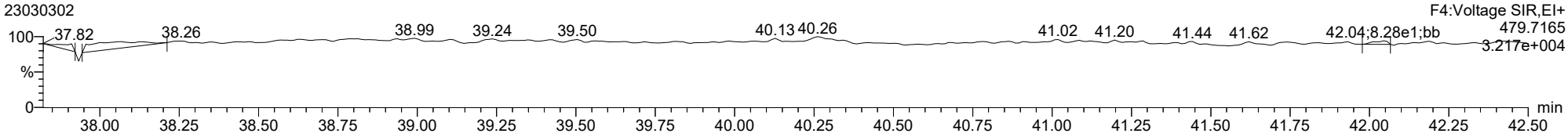

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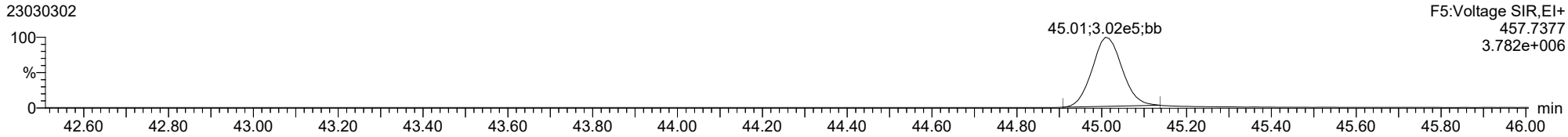

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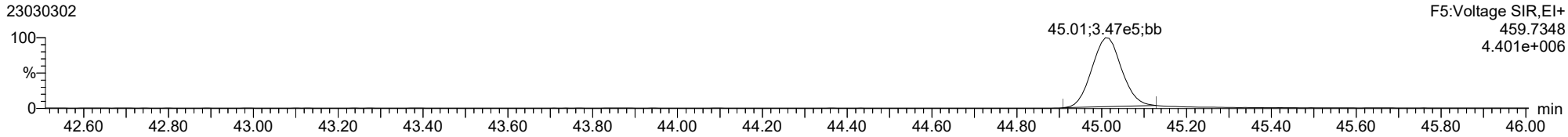

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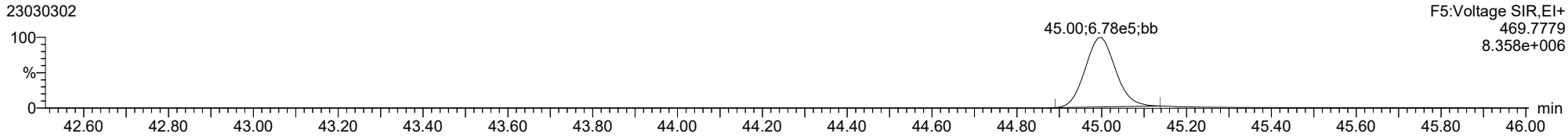

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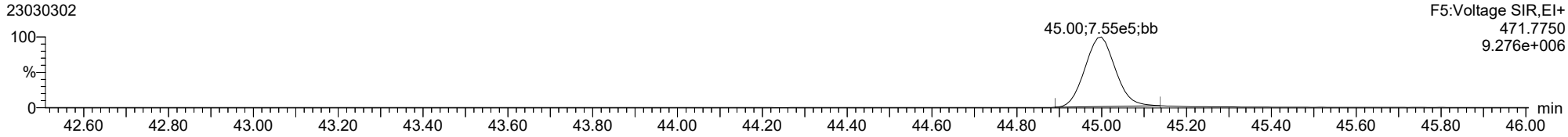
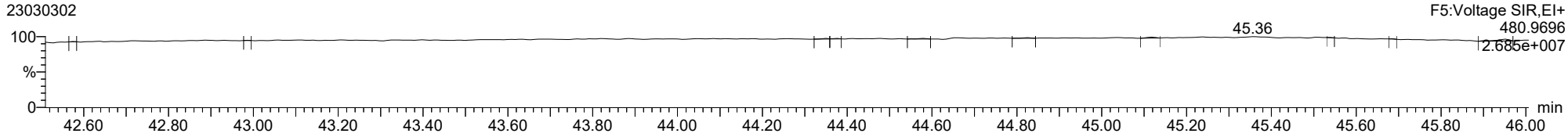


FUNCTION5 PFK



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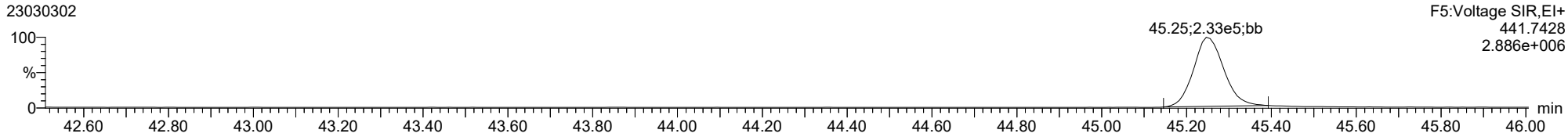

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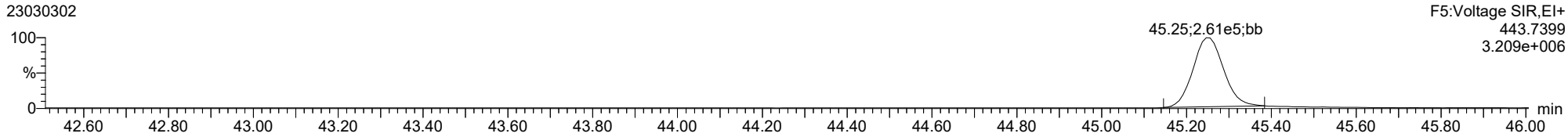
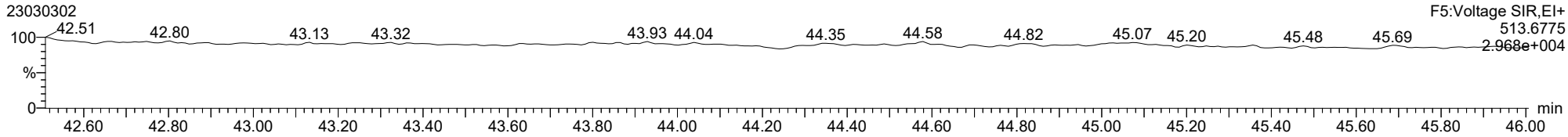


FUNCTION5 DCDPE



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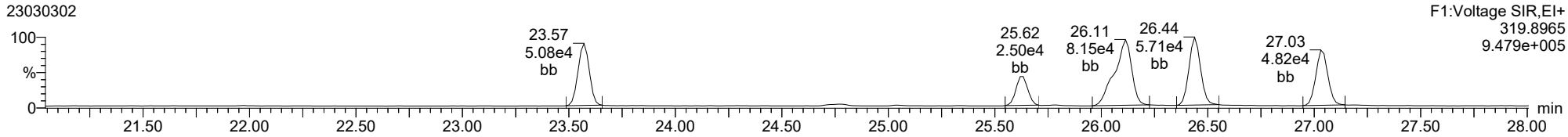
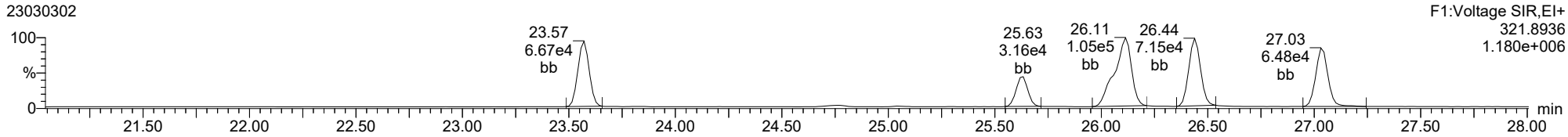
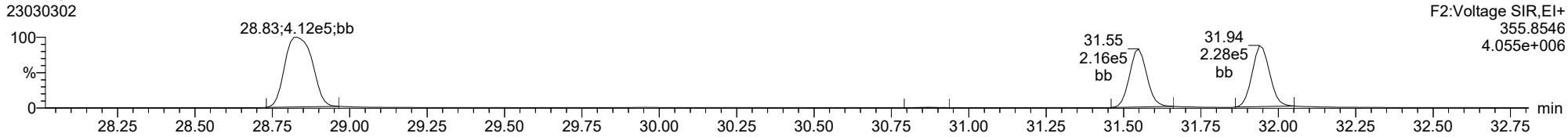
Total-tetradioxins



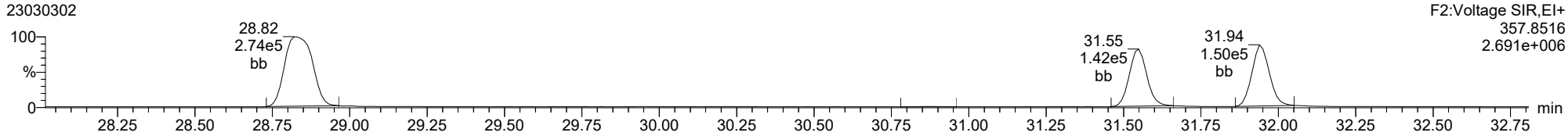
Total-tetradioxins



Total-pentadioxins



Total-pentadioxins



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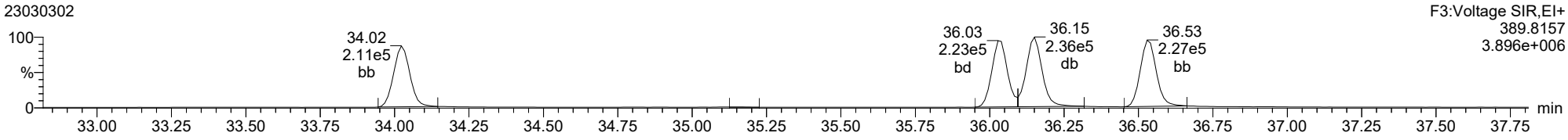
Total-hexadioxins



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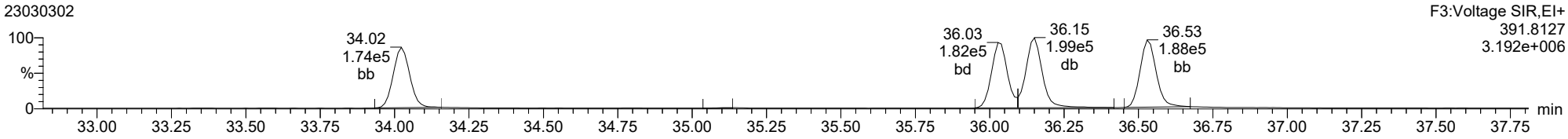
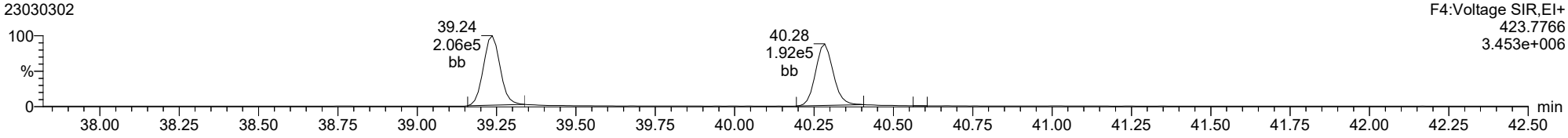
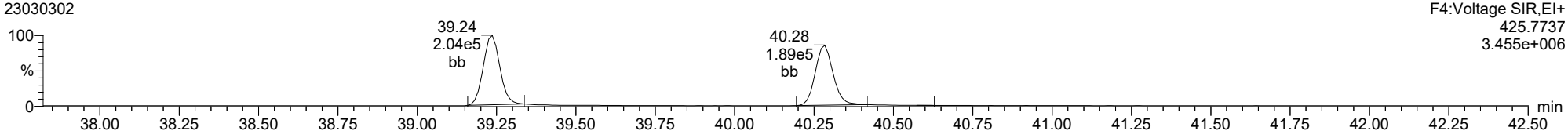


Total-heptadioxins



Total-heptadioxins



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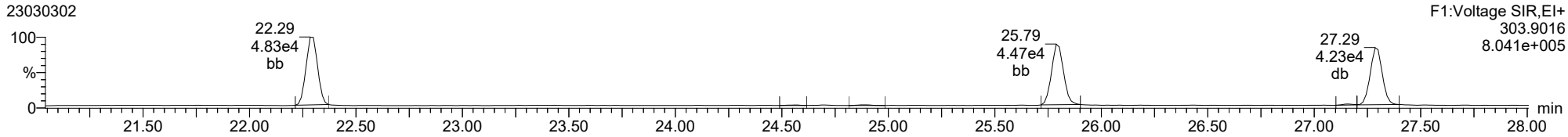
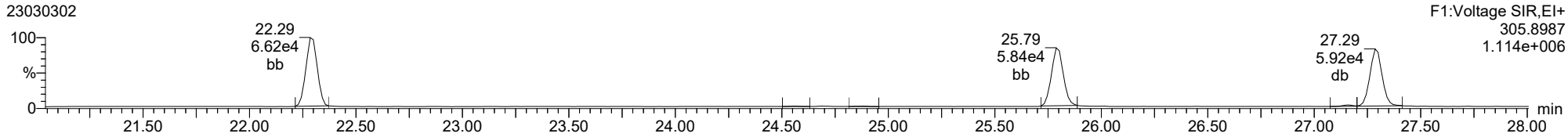
Total-tetrafurans



Total-tetrafurans



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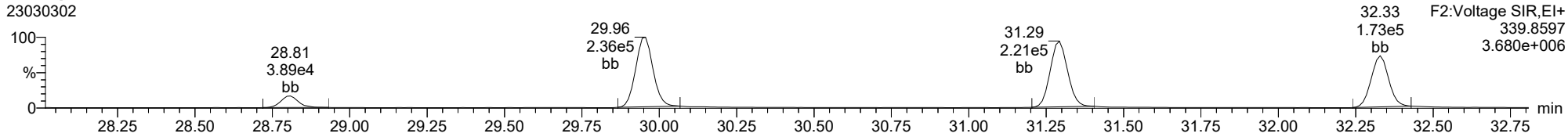

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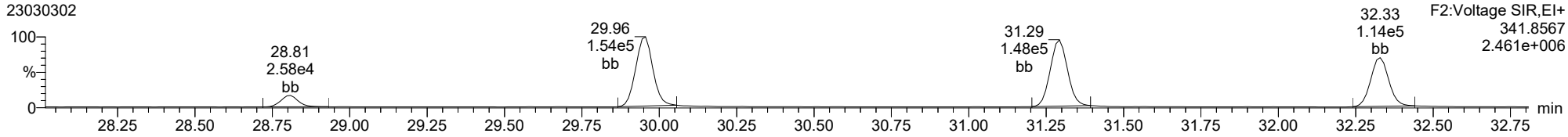

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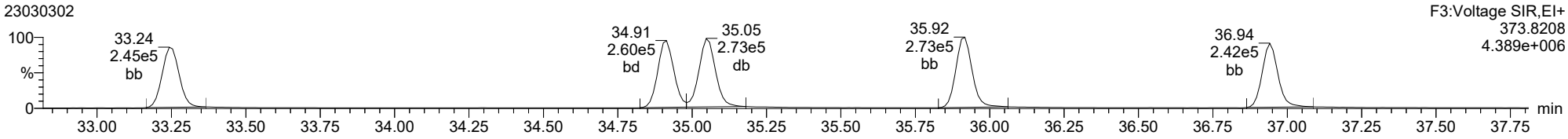
Total-hexafurans



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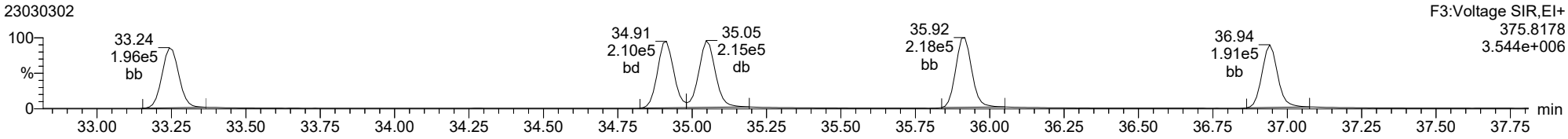

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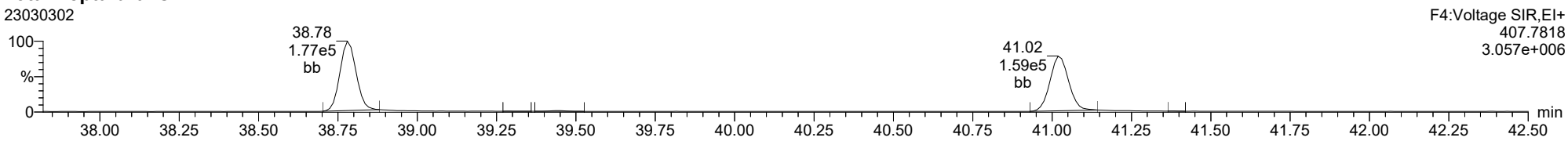

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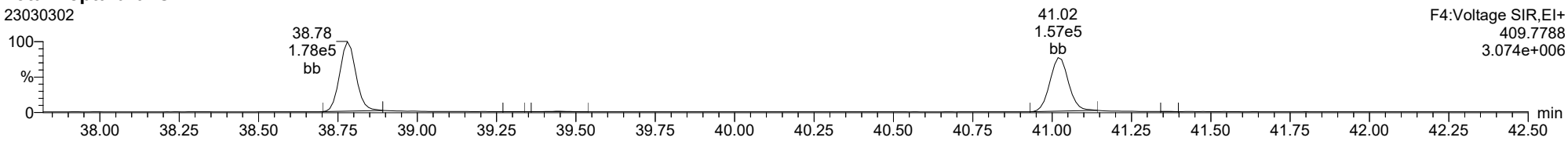

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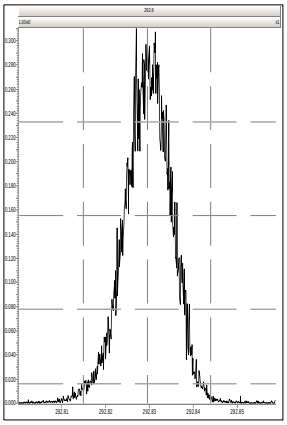
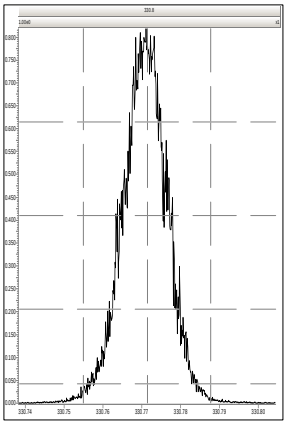
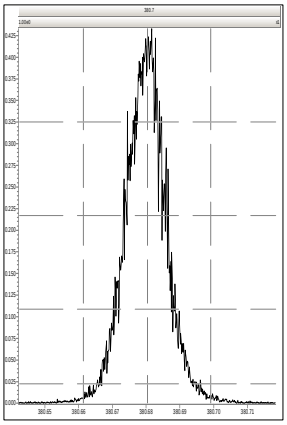
M 292.9824 R 11554



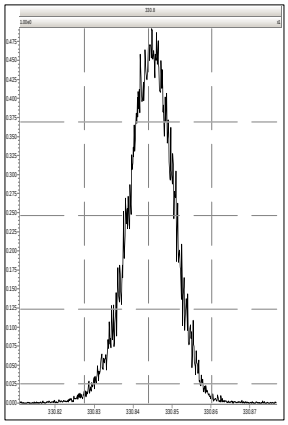
M 330.9792 R 12378



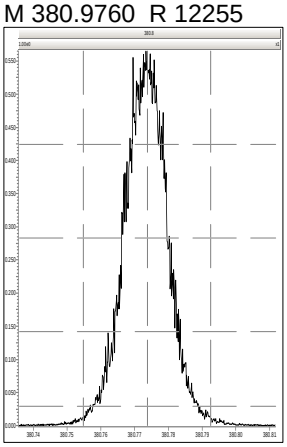
M 380.9760 R 13750



M 330.9792 R 11876



M 380.9760 R 12255



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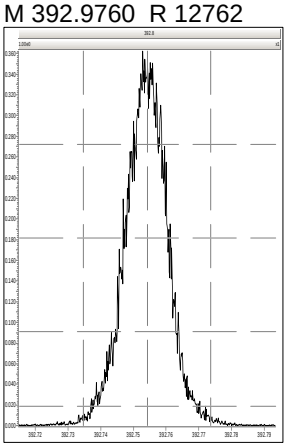
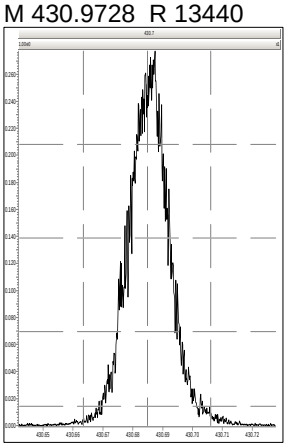
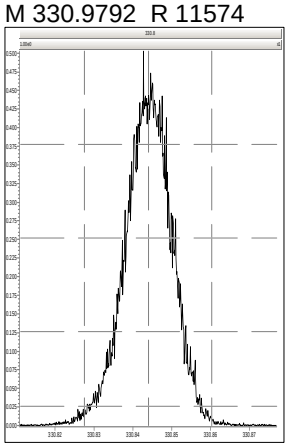


M 430.9728 R 13440



M 330.9792 R 11574



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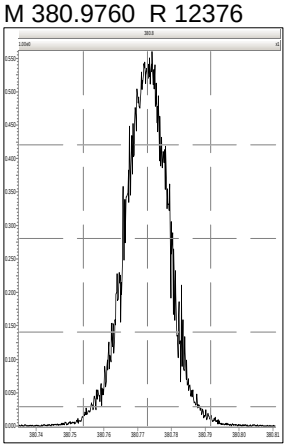

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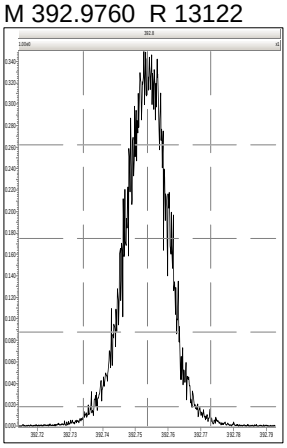
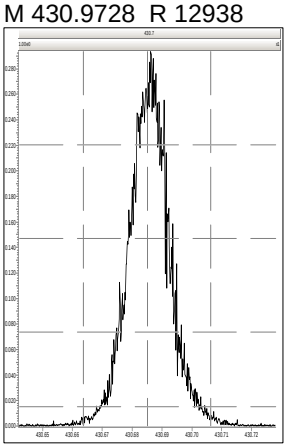


M 430.9728 R 12938



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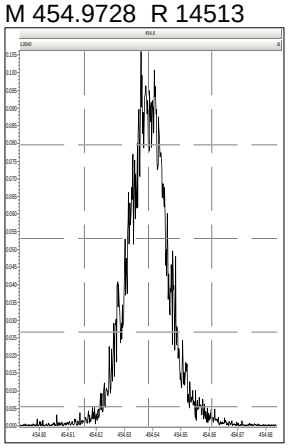

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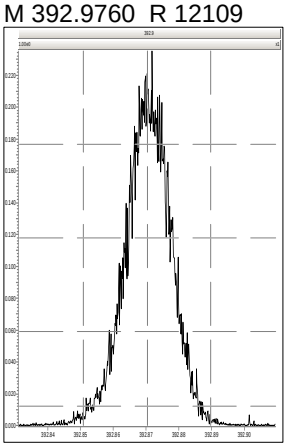

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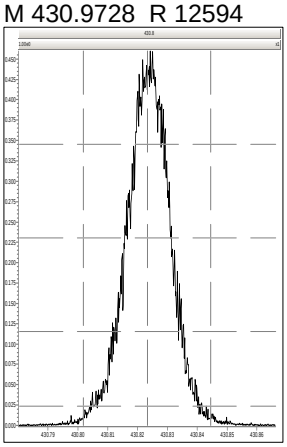
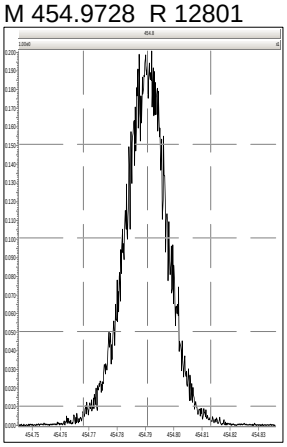
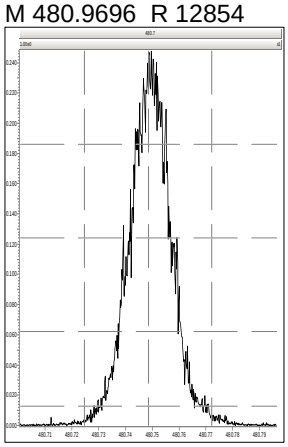


M 454.9728 R 12801



M 480.9696 R 12854



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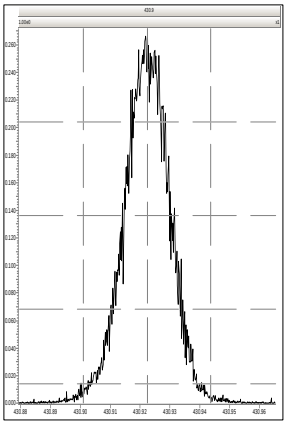
M 430.9728 R 12109



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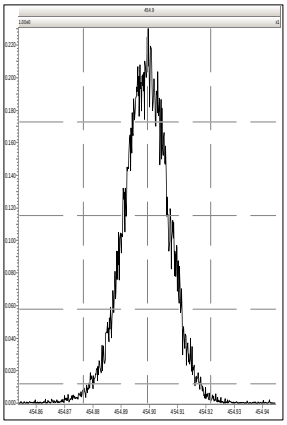
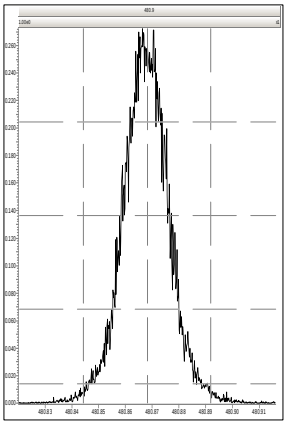
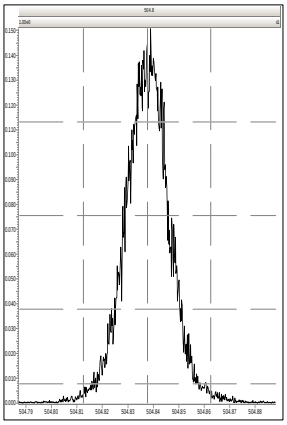


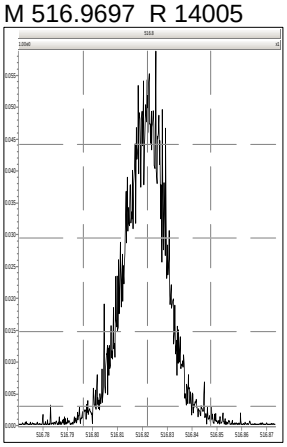
M 480.9696 R 11443

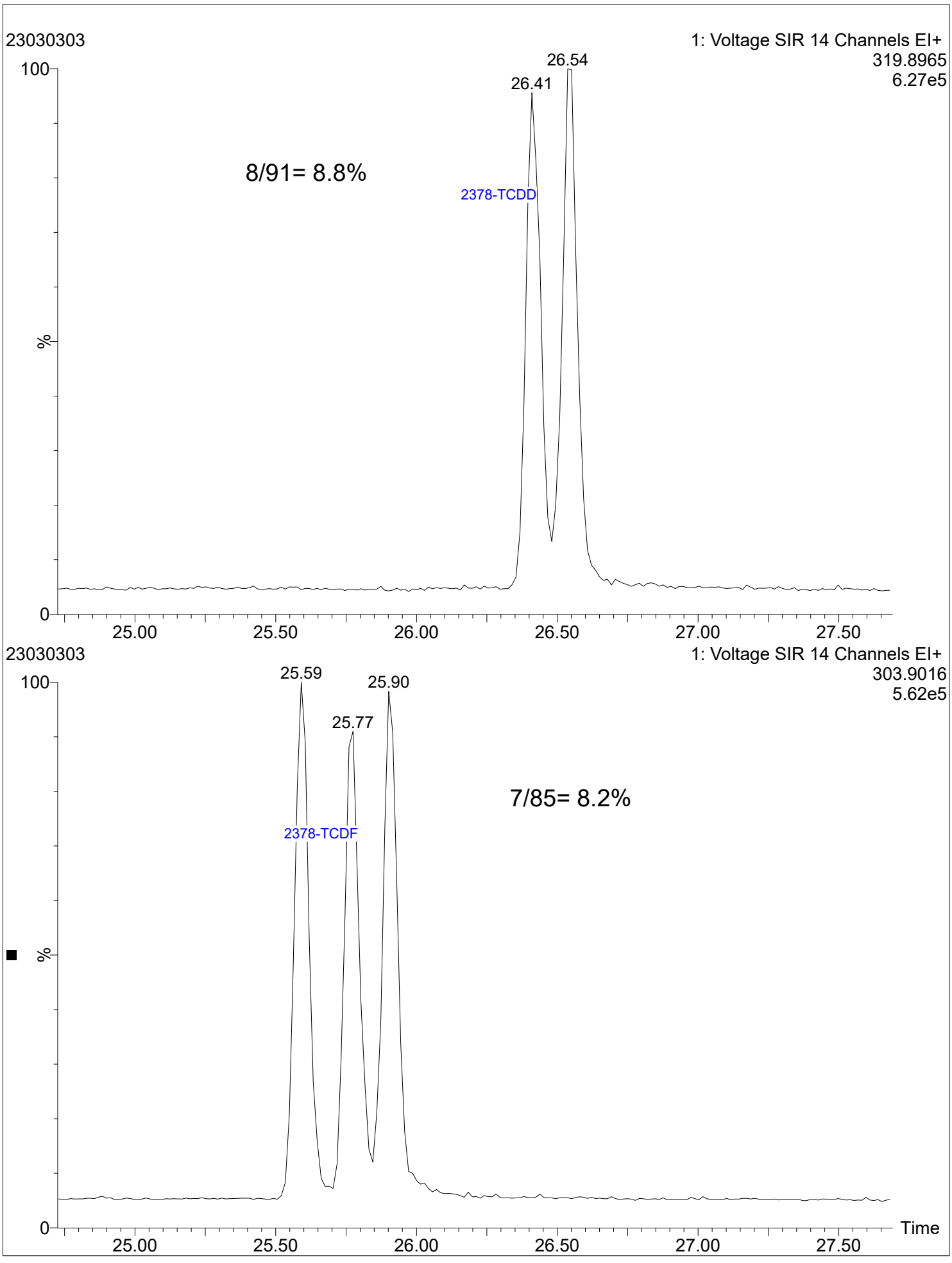


M 504.9696 R 12722



M 516.9697 R 14005




23030303
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319.8965
6.27e5
100
26.54
26.41
8/91= 8.8%
2378-TCDD
%
0
25.00
25.50
26.00
26.50
27.00
27.50
23030303
1: Voltage SIR 14 Channels EI+
303.9016
5.62e5
100
25.59
25.90
25.77
7/85= 8.2%
2378-TCDF
%
0
Time
25.00
25.50
26.00
26.50
27.00
27.50

Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
Printed: Monday, March 06, 2023 11:33:58 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF					0.702		0.770	1141	1568								
12378-PeCDF	29.922	1.000	2.331e3	1.631e3	0.679	1.429	1.550	717	1165	3.89e4	2.49e4	54.3	21.4	NO	bb	bd	0.520
23478-PeCDF	31.270	1.001	2.446e3	1.527e3	0.786	1.602	1.550	717	1165	3.60e4	2.25e4	50.1	19.4	NO	bb	bb	0.508
123478-HxCDF	34.891	1.001	2.740e3	2.578e3	1.166	1.063	1.240	675	706	4.36e4	3.63e4	64.6	51.5	NO	bd	bd	0.522
234678-HxCDF	35.894	1.001	2.363e3	1.967e3	1.140	1.201	1.240	675	706	3.52e4	3.17e4	52.2	44.9	NO	bb	bb	0.459
123678-HxCDF	35.025	1.000	2.955e3	2.593e3	1.091	1.140	1.240	675	706	3.97e4	3.71e4	58.8	52.6	NO	db	dd	0.495
123789-HxCDF	36.919	1.000	2.292e3	1.751e3	1.137	1.309	1.240	675	706	3.51e4	2.45e4	52.0	34.7	NO	bd	bb	0.523
1234678-HpCDF	38.769	1.001	1.264e3	1.356e3	1.003	0.932	1.050	1176	1150	2.17e4	2.11e4	18.4	18.3	NO	bd	bb	0.466
1234789-HpCDF	40.997	1.000	1.144e3	1.036e3	0.953	1.105	1.050	1176	1150	1.78e4	1.51e4	15.1	13.1	NO	bb	bd	0.465
OCDF	45.228	1.006	2.105e3	2.214e3	0.778	0.951	0.890	762	984	2.31e4	2.16e4	30.2	22.0	NO	bb	bb	1.044
2378-TCDD					1.149		0.770	1186	741								
12378-PeCDD	31.527	1.001	2.628e3	1.506e3	1.022	1.745	1.550	935	615	3.66e4	1.58e4	39.1	25.7	NO	bb	bb	0.540
123478-HxCDD	36.016	1.001	2.113e3	1.865e3	0.996	1.133	1.240	725	812	3.30e4	2.93e4	45.6	36.1	NO	dd	bd	0.542
123678-HxCDD	36.128	1.001	2.428e3	1.876e3	1.001	1.294	1.240	725	812	3.70e4	2.39e4	51.1	29.5	NO	db	db	0.479
123789-HxCDD	36.507	1.011	2.154e3	1.651e3	0.907	1.304	1.240	725	812	3.30e4	2.34e4	45.5	28.9	NO	bd	bb	0.513
1234678-HpCDD	40.261	1.000	1.634e3	1.397e3	1.039	1.170	1.050	985	1205	2.31e4	2.24e4	23.5	18.6	NO	MM	bb	0.531
OCDD					0.920		0.890	1090	941								
13C-2378-TCDF	25.746	1.007	5.730e5	7.592e5	1.620	0.755	0.770	2498	2006	8.42e6	1.11e7	3371.3	5556.4	NO	bb	bb	100.702
13C-12378-PeCDF	29.911	1.169	6.805e5	4.409e5	1.240	1.543	1.550	2678	2220	9.20e6	6.10e6	3433.8	2749.3	NO	bb	bd	110.727
13C-23478-PeCDF	31.248	1.222	6.001e5	3.956e5	1.118	1.517	1.550	2678	2220	8.66e6	5.74e6	3235.2	2585.6	NO	bb	bb	109.107
13C-123478-HxCDF	34.869	0.955	2.965e5	5.770e5	1.168	0.514	0.510	1558	3112	4.38e6	8.54e6	2813.2	2745.5	NO	bd	bd	98.607
13C-123678-HxCDF	35.014	0.959	3.446e5	6.820e5	1.386	0.505	0.510	1558	3112	4.56e6	9.02e6	2927.1	2898.6	NO	db	dd	97.648
13C-234678-HxCDF	35.872	0.983	2.821e5	5.460e5	1.129	0.517	0.510	1558	3112	4.13e6	8.00e6	2652.6	2572.0	NO	bb	bb	96.703
13C-123789-HxCDF	36.908	1.011	2.282e5	4.511e5	0.932	0.506	0.510	1558	3112	3.31e6	6.47e6	2122.2	2079.8	NO	bb	bb	96.146
13C-1234678-HpCDF	38.746	1.062	1.794e5	3.814e5	0.895	0.470	0.440	2435	3572	2.60e6	5.93e6	1069.0	1659.1	NO	bd	bb	82.620
13C-1234789-HpCDF	40.986	1.123	1.404e5	3.516e5	0.770	0.399	0.440	2435	3572	1.98e6	4.51e6	813.8	1262.1	NO	bb	bb	84.288
13C-1234-TCDD	25.576	0.000	3.640e5	4.524e5	1.000	0.805	0.770	1931	1352	5.55e6	6.91e6	2875.2	5114.0	NO	bb	bb	100.000
13C-2378-TCDD	26.396	1.032	4.012e5	4.998e5	1.152	0.803	0.770	1931	1352	5.75e6	7.10e6	2979.4	5249.9	NO	bb	bb	95.760
13C-12378-PeCDD	31.504	1.232	4.613e5	2.880e5	0.829	1.602	1.550	1401	1533	6.70e6	4.14e6	4781.1	2700.1	NO	bb	bb	110.725
13C-123478-HxCDD	35.994	0.986	4.133e5	3.236e5	0.995	1.277	1.240	1744	1461	6.55e6	5.10e6	3756.0	3493.2	NO	bd	bd	97.670
13C-123678-HxCDD	36.106	0.989	5.195e5	3.785e5	1.157	1.372	1.240	1744	1461	6.84e6	5.29e6	3920.0	3622.3	NO	db	db	102.381
13C-1234678-HpCDD	40.250	1.103	2.785e5	2.707e5	0.840	1.029	1.050	1497	2275	3.82e6	3.65e6	2553.8	1605.5	NO	bb	bd	86.201
13C-OCDD	44.972	1.232	5.210e5	5.429e5	0.767	0.960	0.890	2989	1436	5.87e6	6.48e6	1964.2	4513.5	NO	bd	bb	182.810
13C-123789-HxCDD	36.496	0.000	4.181e5	3.402e5	1.000	1.229	1.240	1744	1461	6.11e6	4.85e6	3503.9	3317.8	NO	bb	bb	100.000
37CL-2378-TCDD	26.410	1.033	1.287e3		1.288			1959		1.53e4		7.8			db		0.122

Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRF	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	1141	1568								
1289-TCDF					0.678		0.770	1141	1568								
13468-PECDF					1.246		1.550	669	893								
12389-PECDF					0.496		1.550	717	1165								
123468-HXCDF					1.169		1.240	675	706								
1368-TCDD					1.015		0.770	1186	741								
1289-TCDD					0.909		0.770	1186	741								
12479-PECDD					2.301		1.550	935	615								
12389-PECDD					1.184		1.550	935	615								
124679-HXCDD					1.115		1.240	725	812								
1234679-HPCDD					1.137		1.050	985	1205								
Total-tetrafurans			0.000e0		0.727			1141		0.00e0							
Total-penta1			0.000e0					669		0.00e0							
Total-pentafurans			4.777e3		0.654			717		7.49e4							1.028
Total-hexafurans			1.035e4		1.141			675		1.54e5							2.000
Total-heptafurans			2.408e3		0.978			1176		3.94e4							0.931
Total-Furans			1.971e4		0.922			1141		2.93e5							5.016
Total-tetradioxins			0.000e0		1.024			1186		0.00e0							
Total-pentadioxins			2.628e3		1.502			935		3.66e4							0.540
Total-hexadioxins			6.694e3		1.005			725		1.03e5							1.534
Total-heptadioxins			1.634e3		1.088			985		2.31e4							0.531
Total-Dioxins			1.096e4		1.130			1186		1.63e5							2.605
Total-TEQ			3.067e4					1186		4.55e5							7.621
FUNCTION1 PFK			3.116e6					620464		1.62e6							
FUNCTION2 PFK			1.698e6					301200		2.24e6							0.000
FUNCTION3 PFK			5.380e7					450736		2.93e7							0.000
FUNCTION4 PFK			1.391e7					291095		1.60e7							
FUNCTION5 PFK			7.208e4					238350		2.59e6							
FUNCTION1 HXCD...			4.809e2					559		5.84e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			8.084e2					933		1.50e4							0.000
FUNCTION3 OCDPE			0.000e0					494		0.00e0							
FUNCTION4 NCDPE			6.931e2					845		1.26e4							0.000
FUNCTION5 DCDPE			7.511e2					821		1.86e4							0.000

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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.27	2.446e3	1.527e3	0.786	1.60	1.55	50.1	YES	NO	bb	bb	0.508
2	12378-PeCDF	29.92	2.331e3	1.631e3	0.679	1.43	1.55	54.3	YES	NO	bb	bd	0.520

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.92	2.292e3	1.751e3	1.137	1.31	1.24	52.0	YES	NO	bd	bb	0.523
2	234678-HxCDF	35.89	2.363e3	1.967e3	1.140	1.20	1.24	52.2	YES	NO	bb	bb	0.459
3	123678-HxCDF	35.03	2.955e3	2.593e3	1.091	1.14	1.24	58.8	YES	NO	db	dd	0.495
4	123478-HxCDF	34.89	2.740e3	2.578e3	1.166	1.06	1.24	64.6	YES	NO	bd	bd	0.522

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.77	1.264e3	1.356e3	1.003	0.93	1.05	18.4	YES	NO	bd	bb	0.466
2	1234789-HpCDF	41.00	1.144e3	1.036e3	0.953	1.10	1.05	15.1	YES	NO	bb	bd	0.465

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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-Furans	21.68	7.033e1	1.021e2	0.922	0.69	0.77	1.5	NO	NO	bb	bb	0.014
2	123789-HxCDF	36.92	2.292e3	1.751e3	1.137	1.31	1.24	52.0	YES	NO	bd	bb	0.523
3	234678-HxCDF	35.89	2.363e3	1.967e3	1.140	1.20	1.24	52.2	YES	NO	bb	bb	0.459
4	123678-HxCDF	35.03	2.955e3	2.593e3	1.091	1.14	1.24	58.8	YES	NO	db	dd	0.495
5	123478-HxCDF	34.89	2.740e3	2.578e3	1.166	1.06	1.24	64.6	YES	NO	bd	bd	0.522
6	23478-PeCDF	31.27	2.446e3	1.527e3	0.786	1.60	1.55	50.1	YES	NO	bb	bb	0.508
7	12378-PeCDF	29.92	2.331e3	1.631e3	0.679	1.43	1.55	54.3	YES	NO	bb	bd	0.520
8	1234678-HpCDF	38.77	1.264e3	1.356e3	1.003	0.93	1.05	18.4	YES	NO	bd	bb	0.466
9	1234789-HpCDF	41.00	1.144e3	1.036e3	0.953	1.10	1.05	15.1	YES	NO	bb	bd	0.465
10	OCDF	45.23	2.105e3	2.214e3	0.778	0.95	0.89	30.2	YES	NO	bb	bb	1.044

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.53	2.628e3	1.506e3	1.022	1.75	1.55	39.1	YES	NO	bb	bb	0.540

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.51	2.154e3	1.651e3	0.907	1.30	1.24	45.5	YES	NO	bd	bb	0.513
2	123678-HxCDD	36.13	2.428e3	1.876e3	1.001	1.29	1.24	51.1	YES	NO	db	db	0.479
3	123478-HxCDD	36.02	2.113e3	1.865e3	0.996	1.13	1.24	45.6	YES	NO	dd	bd	0.542

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.26	1.634e3	1.397e3	1.039	1.17	1.05	23.5	YES	NO	MM	bb	0.531

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.53	2.628e3	1.506e3	1.022	1.75	1.55	39.1	YES	NO	bb	bb	0.540
2	123789-HxCDD	36.51	2.154e3	1.651e3	0.907	1.30	1.24	45.5	YES	NO	bd	bb	0.513
3	123678-HxCDD	36.13	2.428e3	1.876e3	1.001	1.29	1.24	51.1	YES	NO	db	db	0.479
4	123478-HxCDD	36.02	2.113e3	1.865e3	0.996	1.13	1.24	45.6	YES	NO	dd	bd	0.542
5	1234678-HpCDD	40.26	1.634e3	1.397e3	1.039	1.17	1.05	23.5	YES	NO	MM	bb	0.531

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-Furans	21.68	7.033e1	1.021e2	0.922	0.69	0.77	1.5	NO	NO	bb	bb	0.014
2	123789-HxCDF	36.92	2.292e3	1.751e3	1.137	1.31	1.24	52.0	YES	NO	bd	bb	0.523
3	234678-HxCDF	35.89	2.363e3	1.967e3	1.140	1.20	1.24	52.2	YES	NO	bb	bb	0.459
4	123678-HxCDF	35.03	2.955e3	2.593e3	1.091	1.14	1.24	58.8	YES	NO	db	dd	0.495
5	123478-HxCDF	34.89	2.740e3	2.578e3	1.166	1.06	1.24	64.6	YES	NO	bd	bd	0.522
6	23478-PeCDF	31.27	2.446e3	1.527e3	0.786	1.60	1.55	50.1	YES	NO	bb	bb	0.508
7	12378-PeCDF	29.92	2.331e3	1.631e3	0.679	1.43	1.55	54.3	YES	NO	bb	bd	0.520
8	1234678-HpCDF	38.77	1.264e3	1.356e3	1.003	0.93	1.05	18.4	YES	NO	bd	bb	0.466
9	1234789-HpCDF	41.00	1.144e3	1.036e3	0.953	1.10	1.05	15.1	YES	NO	bb	bd	0.465
10	OCDF	45.23	2.105e3	2.214e3	0.778	0.95	0.89	30.2	YES	NO	bb	bb	1.044
11	12378-PeCDD	31.53	2.628e3	1.506e3	1.022	1.75	1.55	39.1	YES	NO	bb	bb	0.540
12	123789-HxCDD	36.51	2.154e3	1.651e3	0.907	1.30	1.24	45.5	YES	NO	bd	bb	0.513
13	123678-HxCDD	36.13	2.428e3	1.876e3	1.001	1.29	1.24	51.1	YES	NO	db	db	0.479
14	123478-HxCDD	36.02	2.113e3	1.865e3	0.996	1.13	1.24	45.6	YES	NO	dd	bd	0.542
15	1234678-HpCDD	40.26	1.634e3	1.397e3	1.039	1.17	1.05	23.5	YES	NO	MM	bb	0.531

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	24.18	3.116e6					2.6	NO		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.19	1.560e6					3.1	YES		bb		0.000
2	FUNCTION2 PFK	28.13	1.376e5					4.3	YES		bb		0.000

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PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.12	2.560e6					15.7	YES		db		0.000
2	FUNCTION3 PFK	36.37	7.058e6					24.4	YES		dd		0.000
3	FUNCTION3 PFK	36.11	4.418e7					24.8	YES		bd		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	42.43	1.404e5					1.6	NO		bb		
2	FUNCTION4 PFK	37.89	1.377e7					53.2	YES		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.15	7.152e3					1.1	NO		bb		
2	FUNCTION5 PFK	45.07	1.178e3					0.5	NO		bb		
3	FUNCTION5 PFK	44.98	1.177e3					0.5	NO		bb		
4	FUNCTION5 PFK	44.19	7.772e3					0.8	NO		bb		
5	FUNCTION5 PFK	43.72	7.921e3					1.3	NO		bb		
6	FUNCTION5 PFK	43.60	4.474e3					0.7	NO		bb		
7	FUNCTION5 PFK	43.17	6.636e3					1.2	NO		bb		
8	FUNCTION5 PFK	43.01	5.001e3					0.7	NO		bb		
9	FUNCTION5 PFK	42.76	1.253e4					1.4	NO		bb		
10	FUNCTION5 PFK	45.91	8.220e3					0.4	NO		bb		
11	FUNCTION5 PFK	45.75	6.523e3					1.4	NO		bb		
12	FUNCTION5 PFK	45.25	3.501e3					0.7	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.60	9.542e1					2.4	NO		bb		0.000
2	FUNCTION1 HXCD...	26.42	7.837e1					1.9	NO		bb		0.000
3	FUNCTION1 HXCD...	25.58	1.709e2					3.5	YES		bb		0.000
4	FUNCTION1 HXCD...	23.40	1.362e2					2.7	NO		bb		0.000

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ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.36	1.308e2					1.8	NO		bb		0.000
2	FUNCTION2 HPCD...	31.75	8.377e1					1.7	NO		bb		0.000
3	FUNCTION2 HPCD...	31.30	1.170e2					2.2	NO		db		0.000
4	FUNCTION2 HPCD...	31.24	1.138e2					2.6	NO		bd		0.000
5	FUNCTION2 HPCD...	30.92	1.786e2					3.2	YES		bb		0.000
6	FUNCTION2 HPCD...	30.04	8.034e1					1.7	NO		bb		0.000
7	FUNCTION2 HPCD...	29.47	1.041e2					2.9	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.04	9.826e1					2.2	NO		bb		0.000
2	FUNCTION4 NCDPE	41.83	1.085e2					2.1	NO		bb		0.000
3	FUNCTION4 NCDPE	41.67	8.318e1					2.8	NO		db		0.000
4	FUNCTION4 NCDPE	41.58	1.047e2					2.5	NO		bd		0.000
5	FUNCTION4 NCDPE	41.32	1.741e2					2.4	NO		bb		0.000
6	FUNCTION4 NCDPE	41.15	1.244e2					2.8	NO		bb		0.000

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	43.53	7.557e1					1.5	NO		bb		0.000
2	FUNCTION5 DCDPE	43.39	1.767e2					2.9	NO		bb		0.000
3	FUNCTION5 DCDPE	43.31	8.303e1					2.9	NO		db		0.000
4	FUNCTION5 DCDPE	43.27	1.217e2					4.5	YES		bd		0.000
5	FUNCTION5 DCDPE	43.04	1.550e2					3.9	YES		bb		0.000
6	FUNCTION5 DCDPE	42.73	1.390e2					7.0	YES		bb		0.000

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Printed: Monday, March 06, 2023 11:33:58 Pacific Standard Time

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ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

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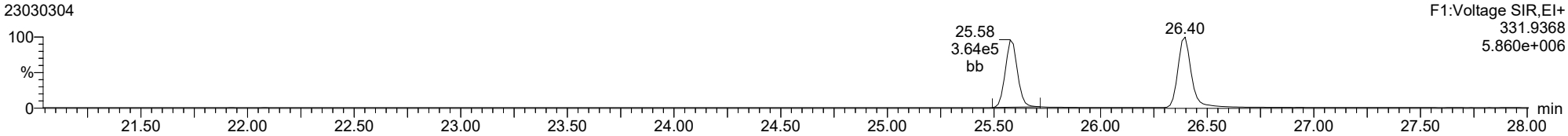

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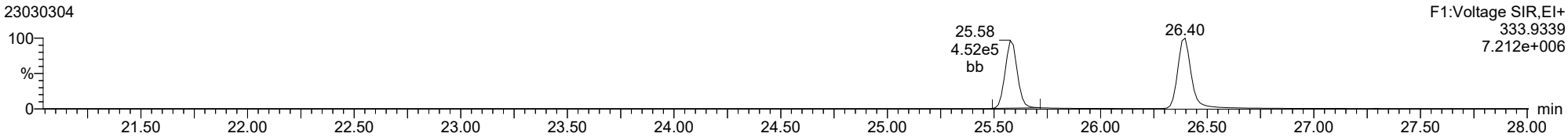

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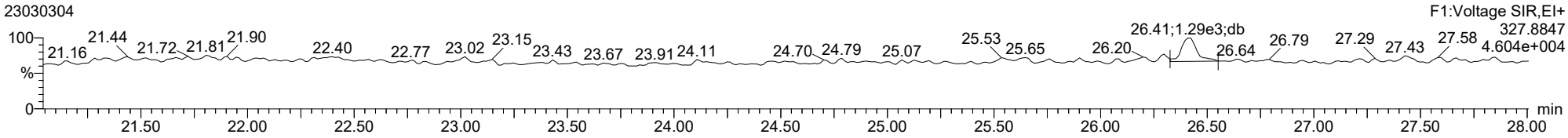

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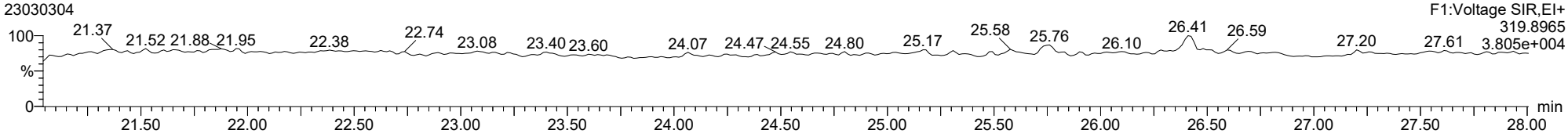

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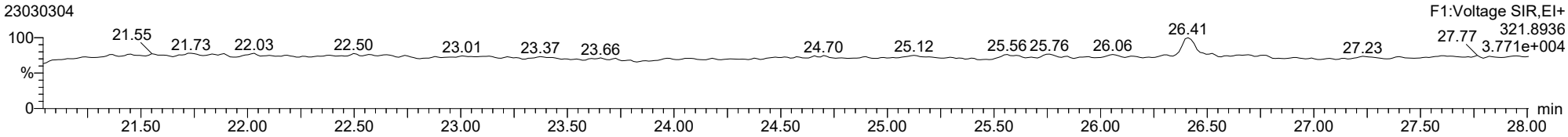

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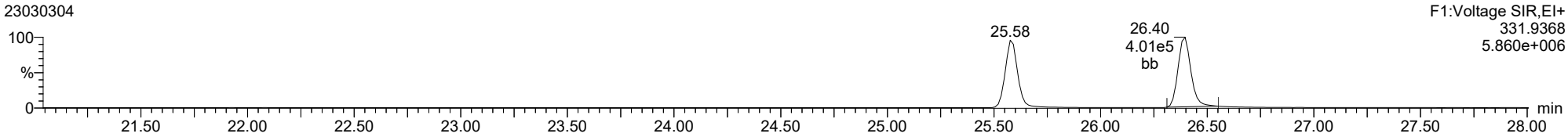

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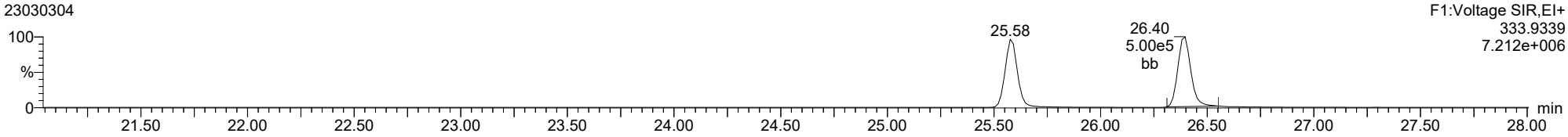
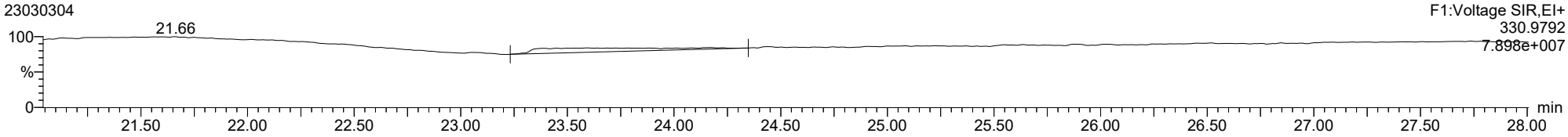


FUNCTION1 PFK



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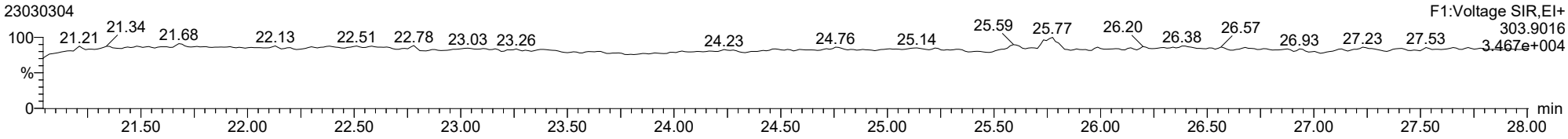

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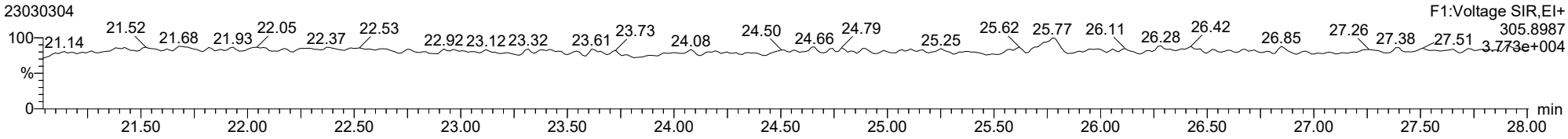

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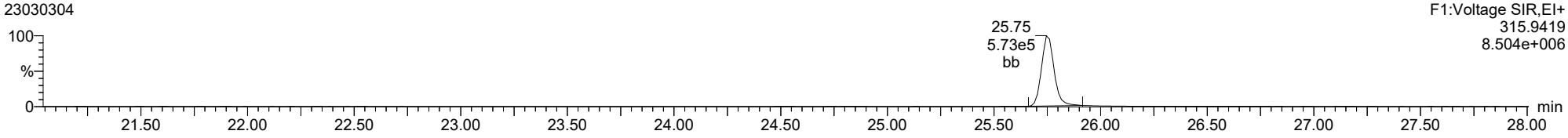

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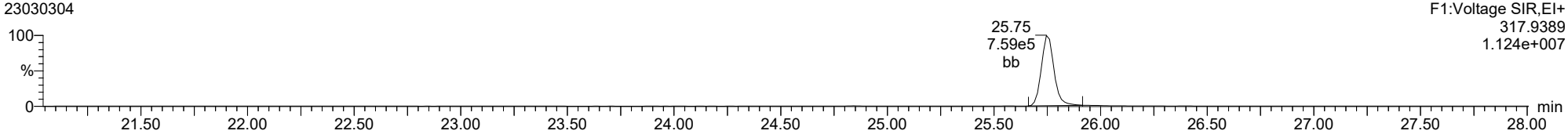
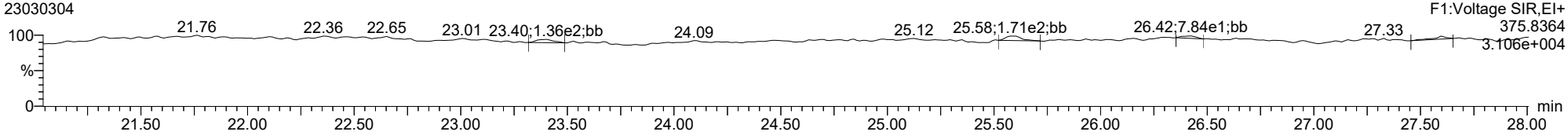


FUNCTION1 HXCDPE



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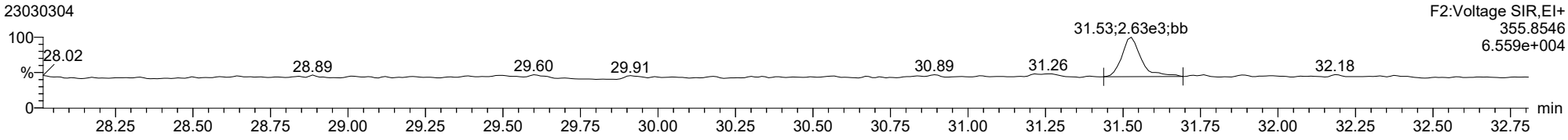

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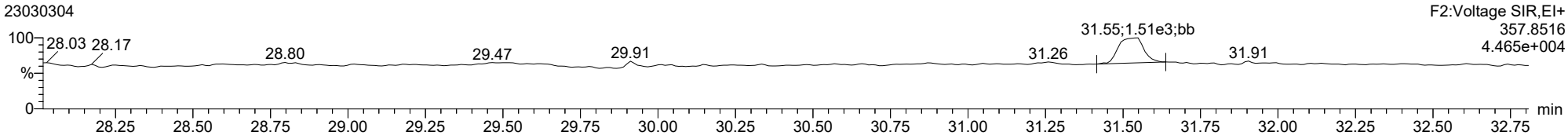

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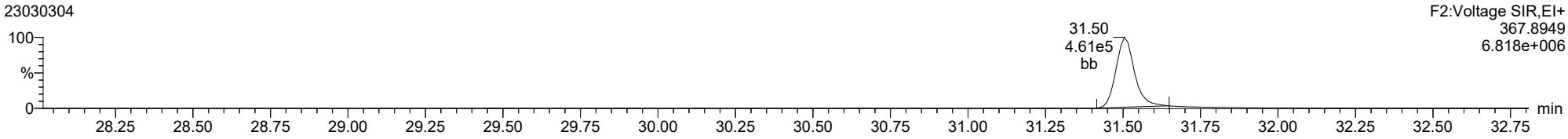

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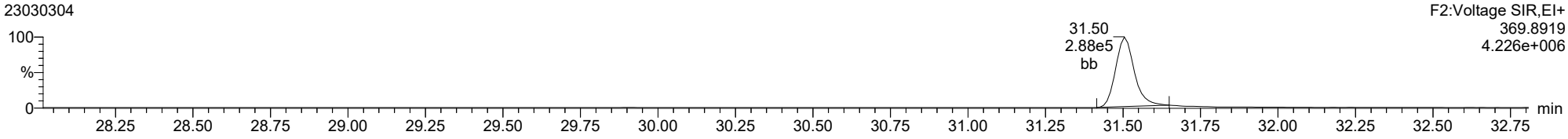

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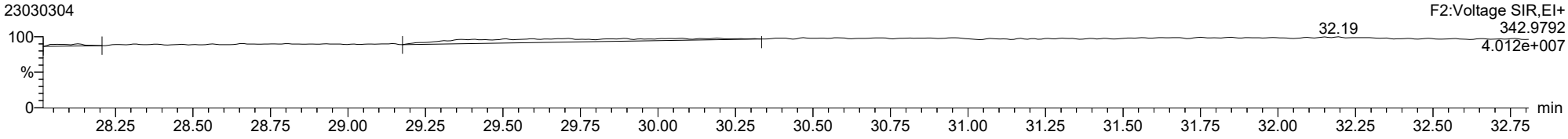

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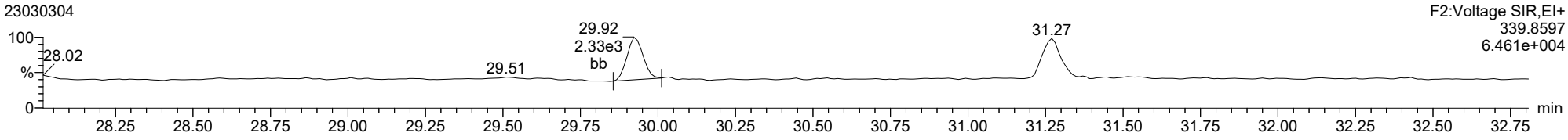

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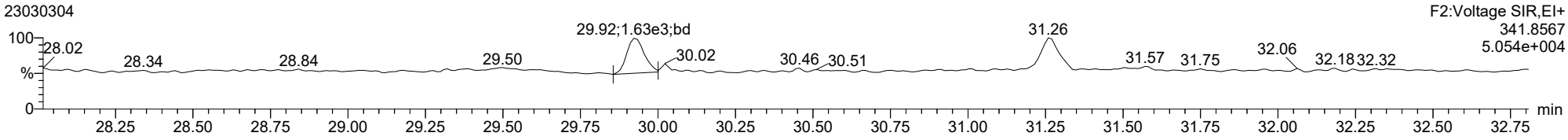

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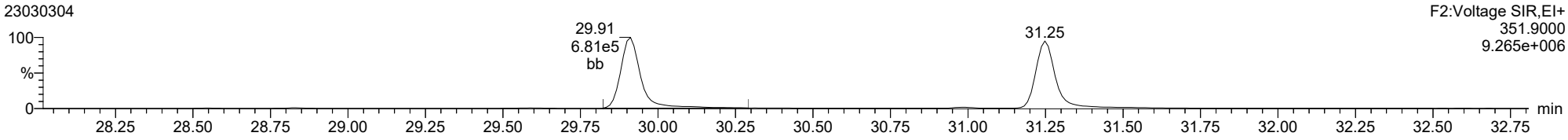

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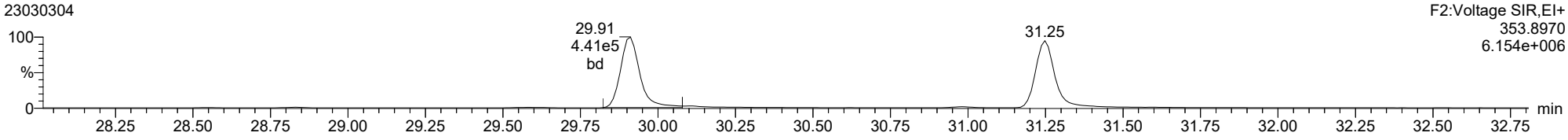

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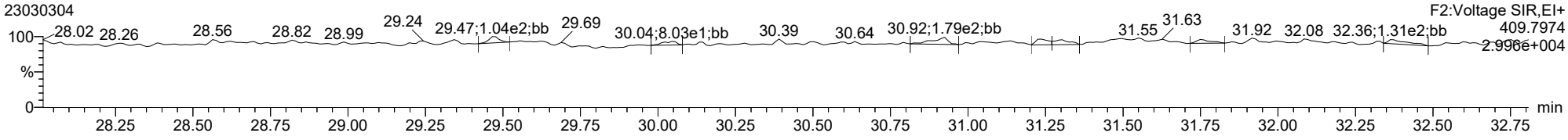

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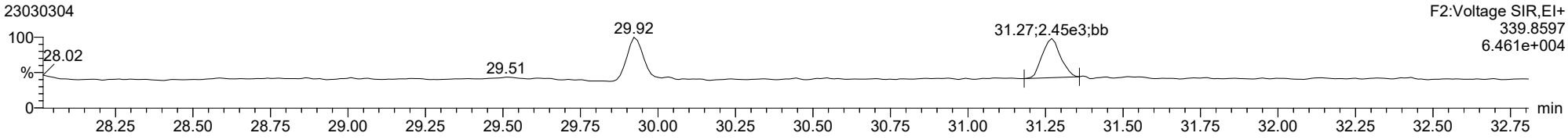

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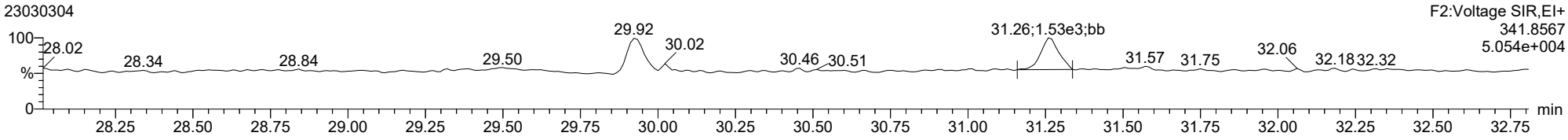

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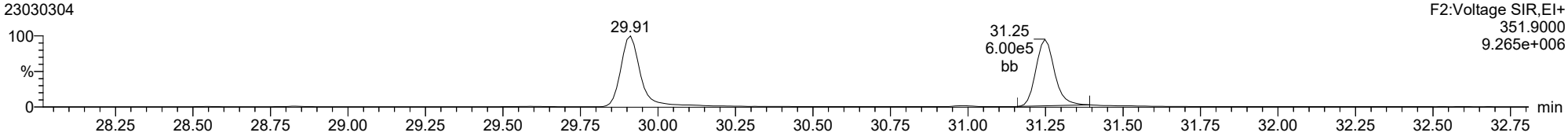

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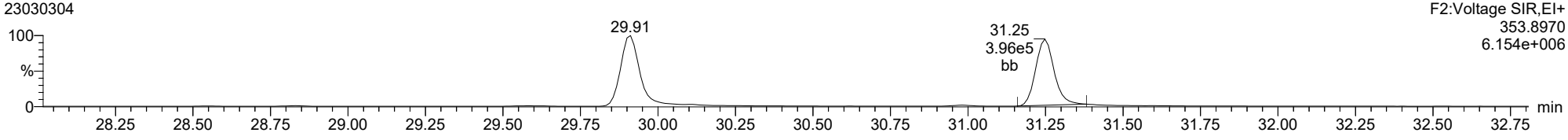

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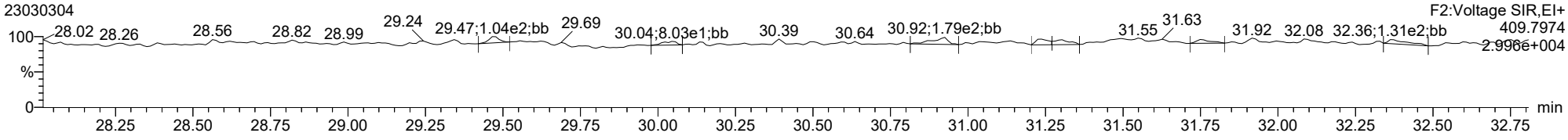

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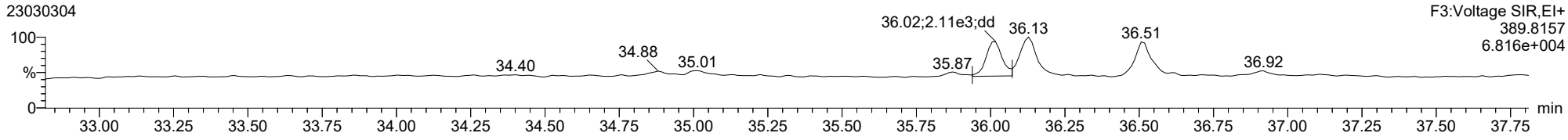

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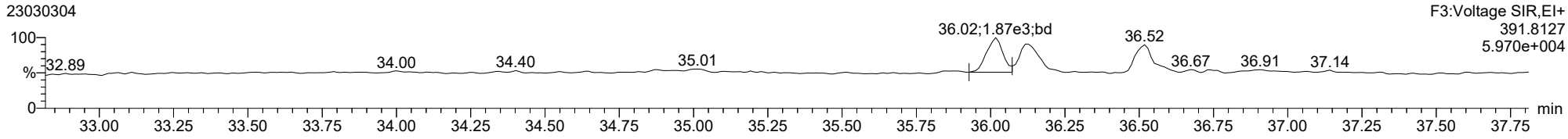

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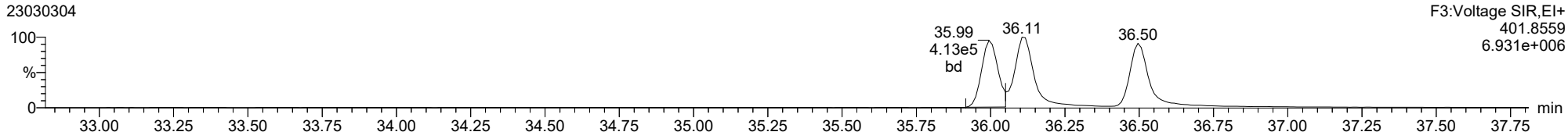

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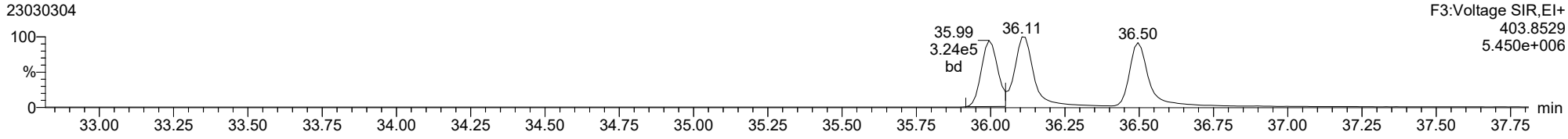
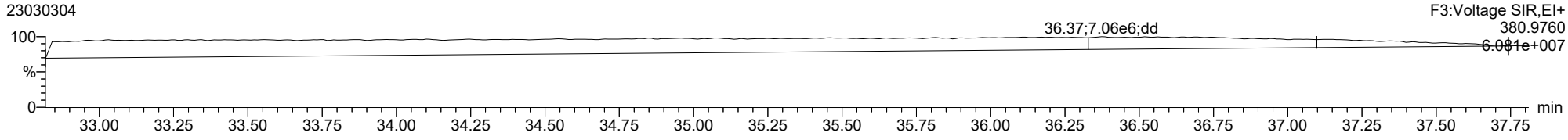


FUNCTION3 PFK



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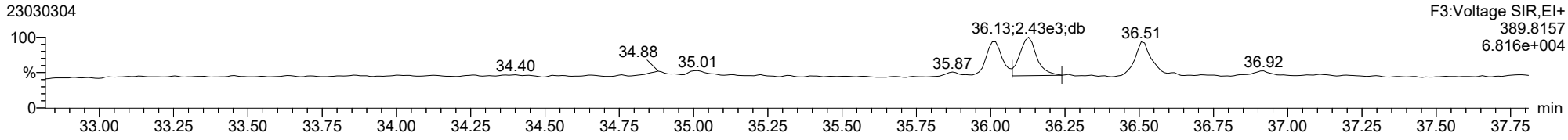

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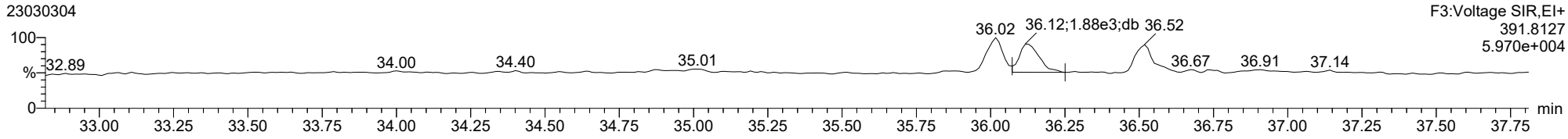

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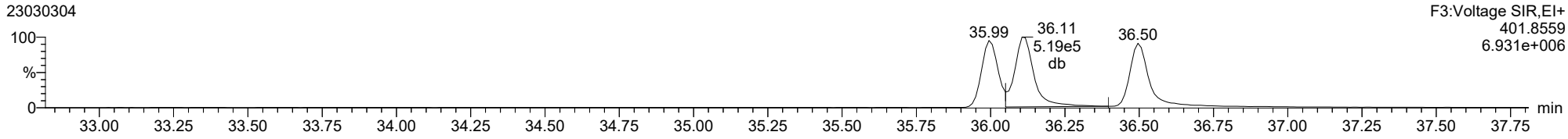

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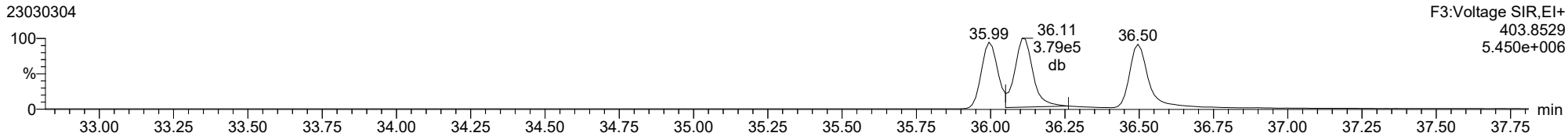

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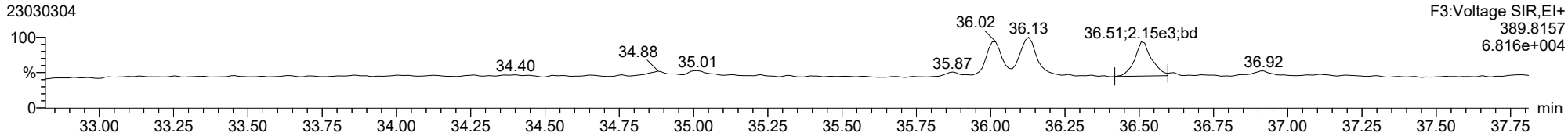

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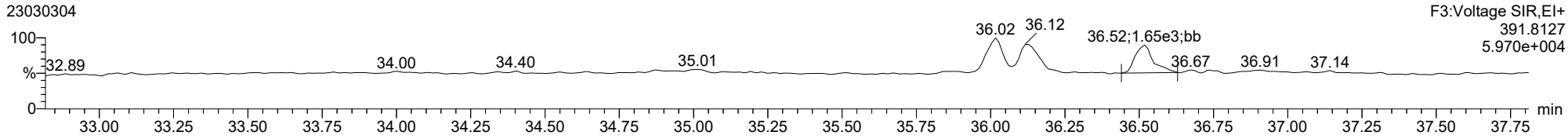

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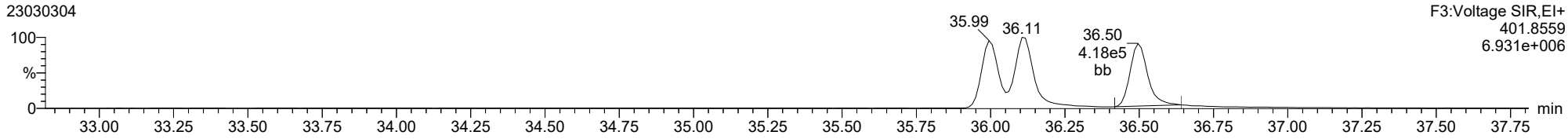

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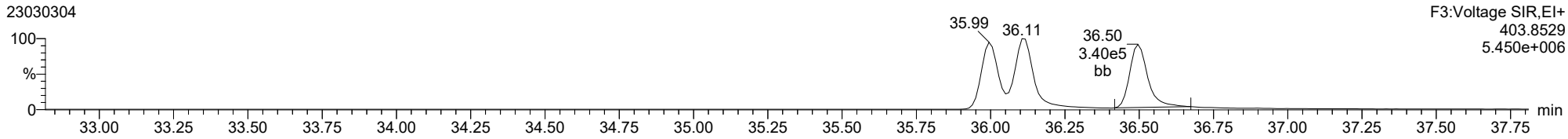

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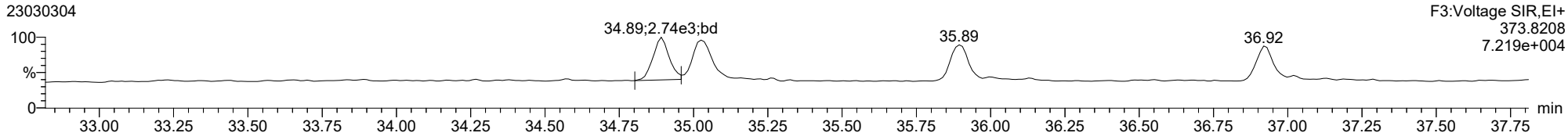

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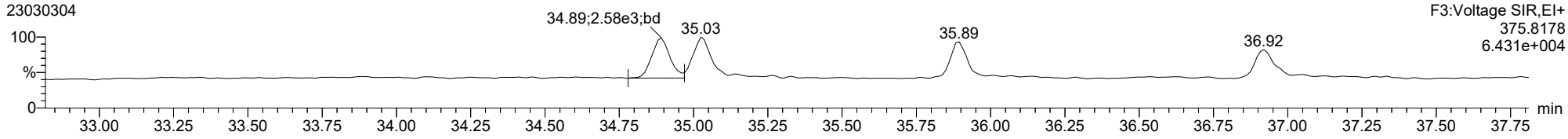

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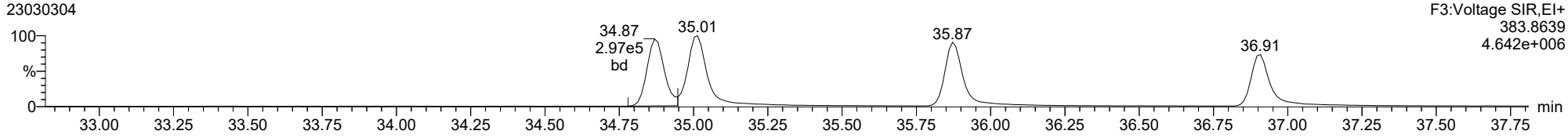

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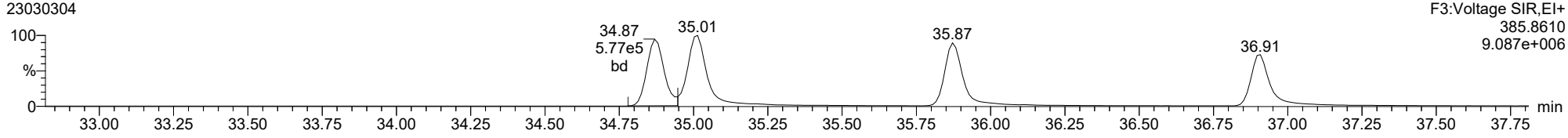

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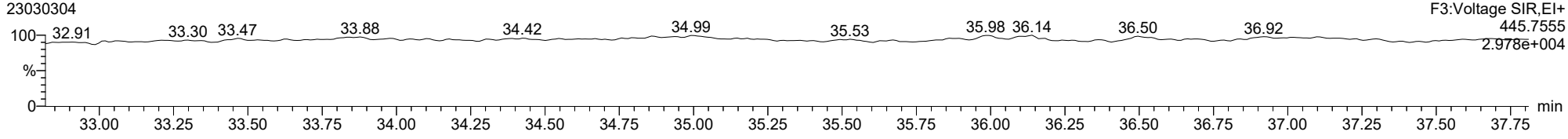

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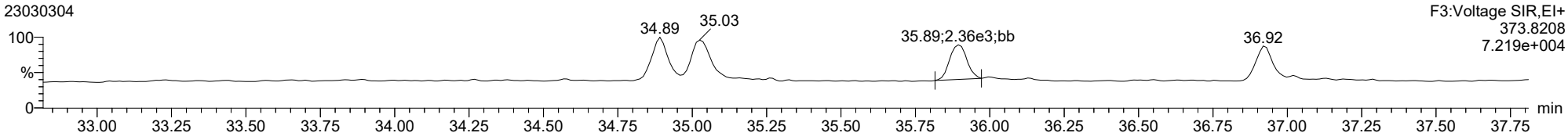
234678-HxCDF



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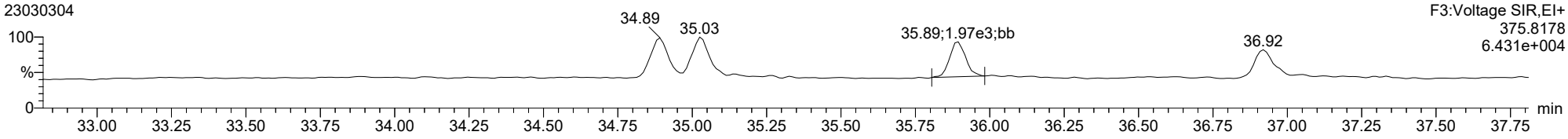

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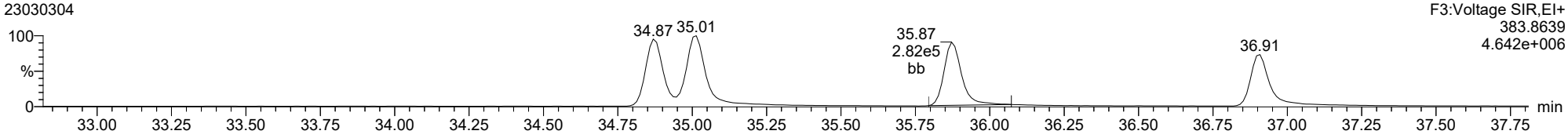

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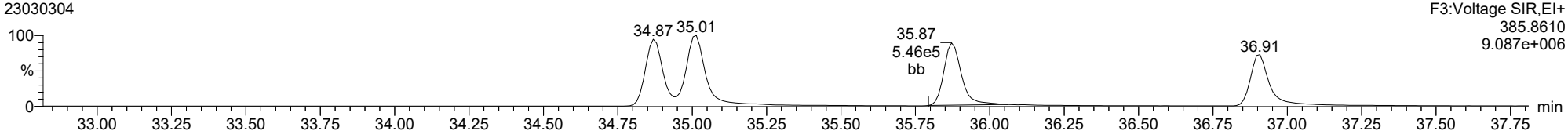
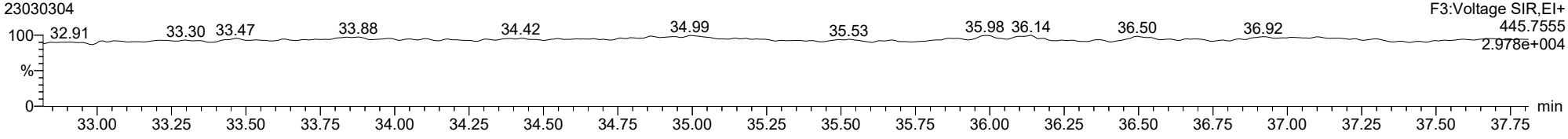


FUNCTION3 OCDPE



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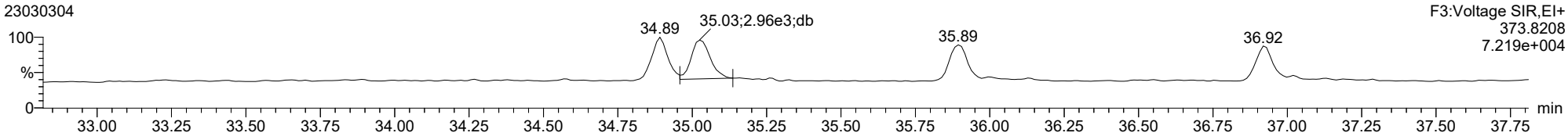

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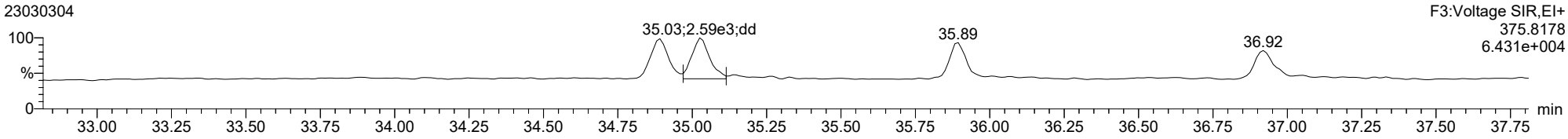

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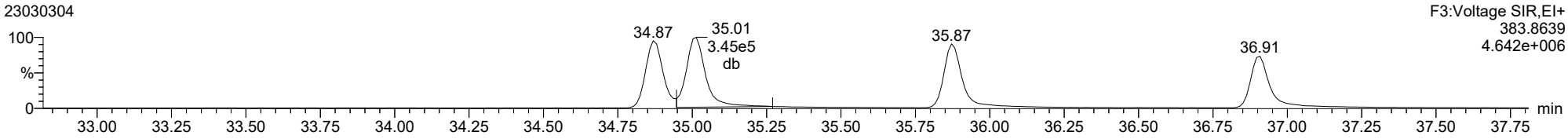

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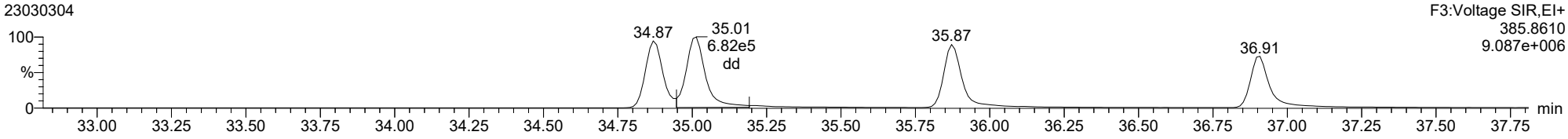

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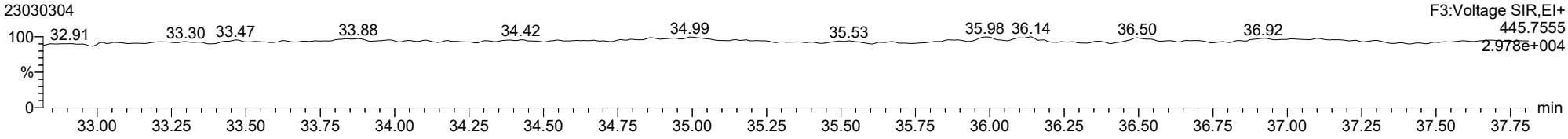

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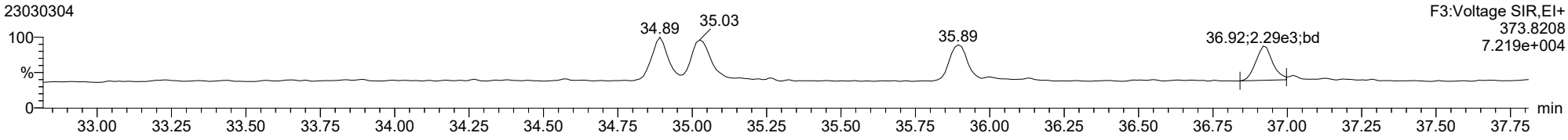

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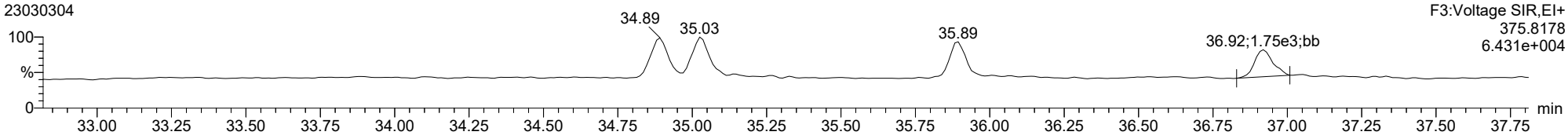

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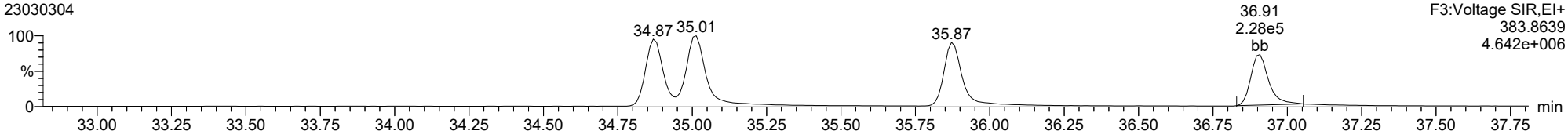

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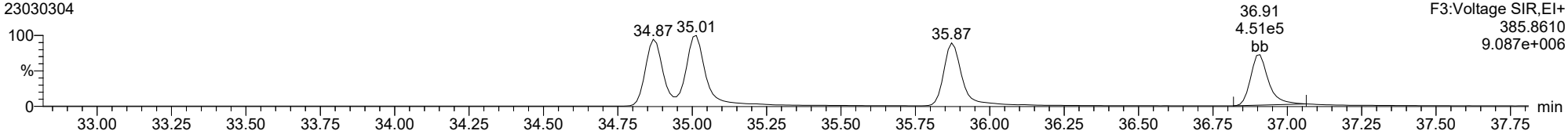
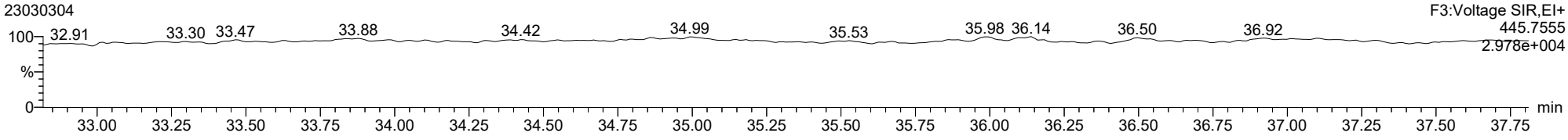


FUNCTION3 OCDPE



ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

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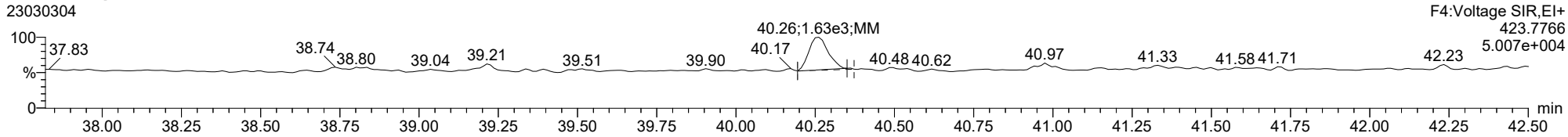

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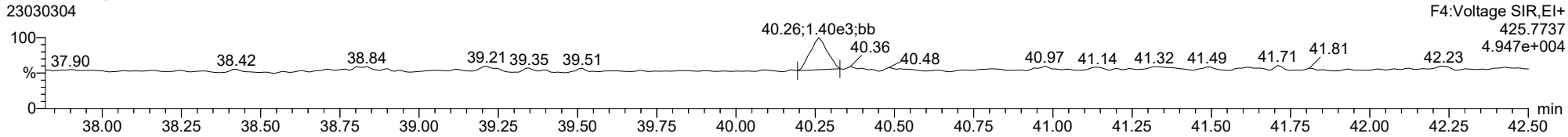

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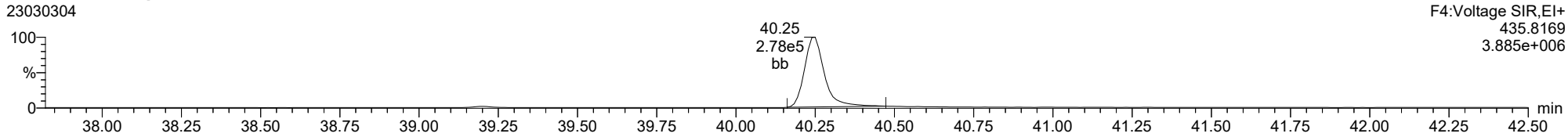

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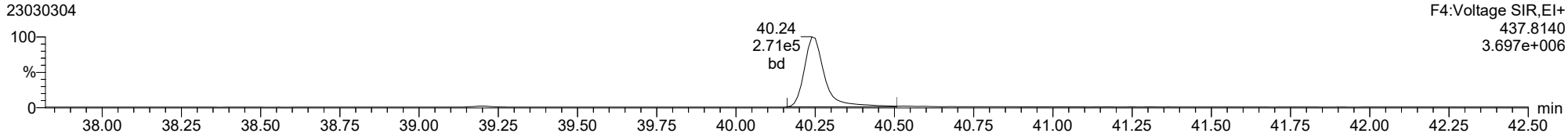
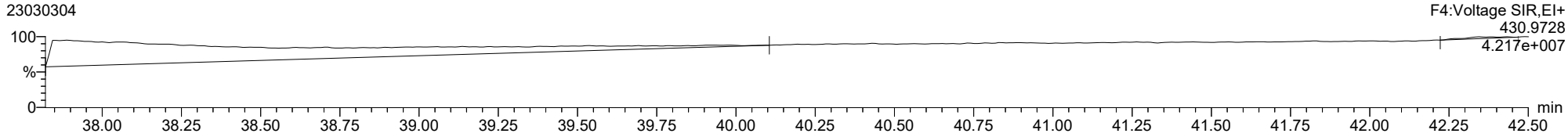


FUNCTION4 PFK



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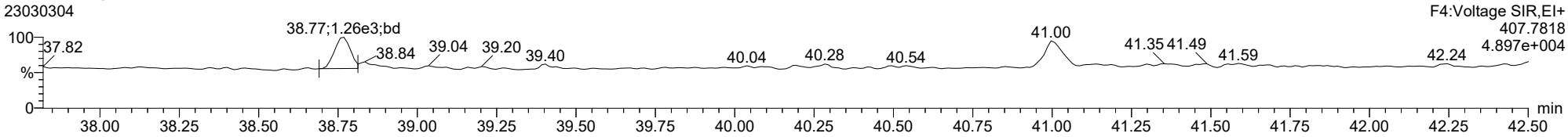

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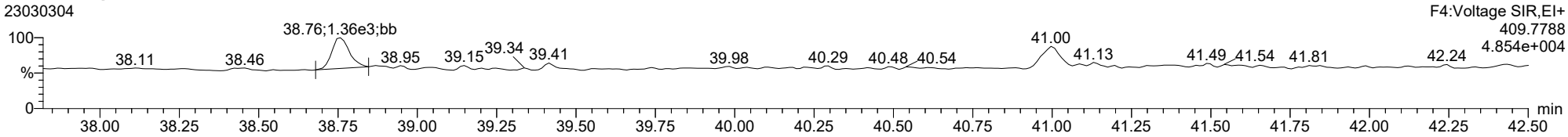

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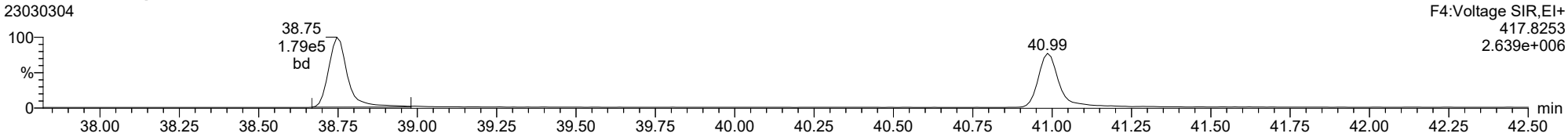

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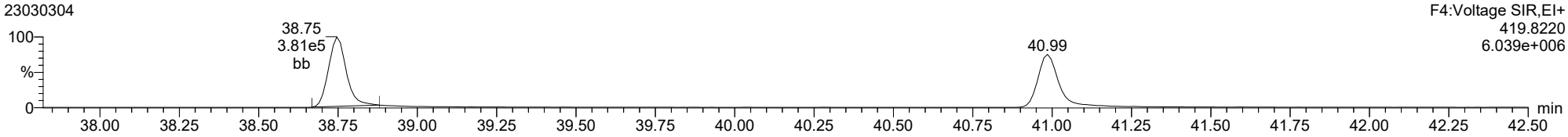

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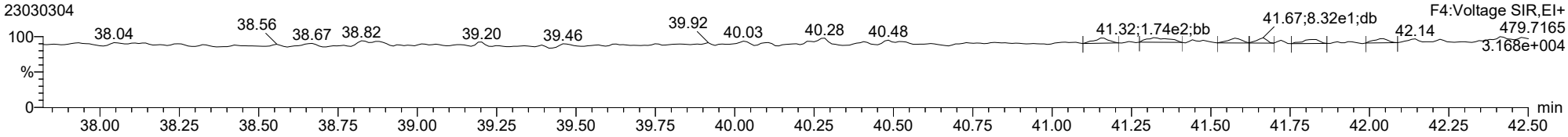

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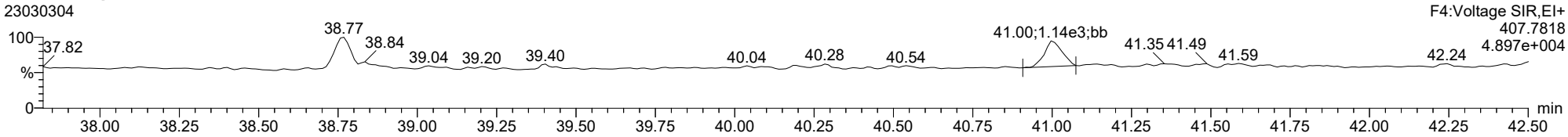

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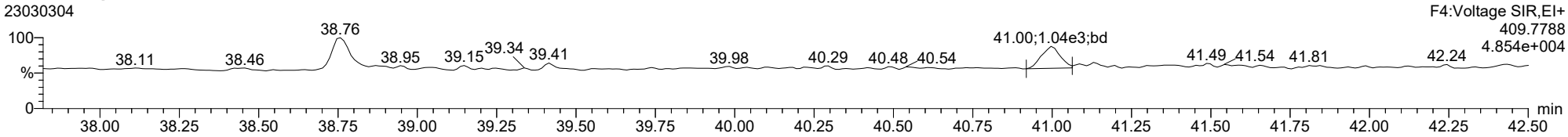

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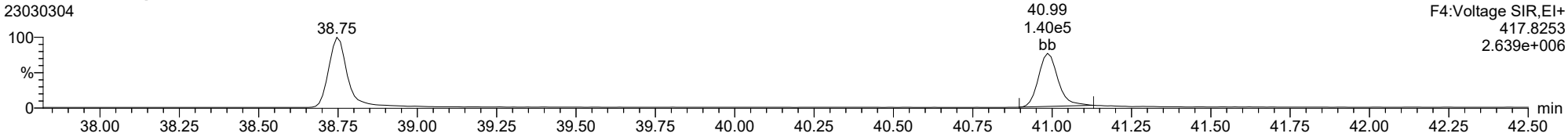

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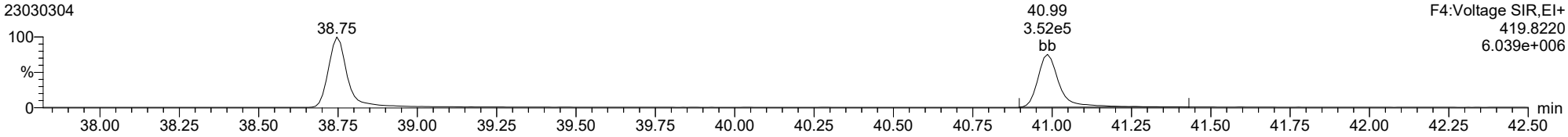
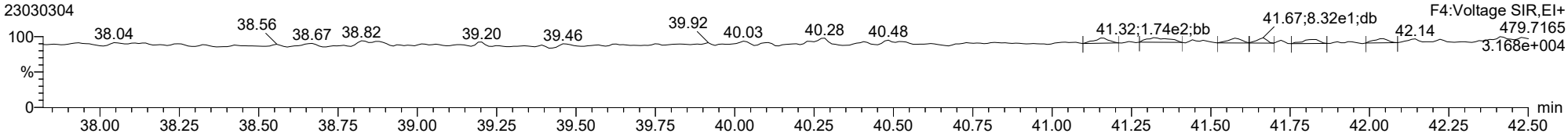


FUNCTION4 NCDPE



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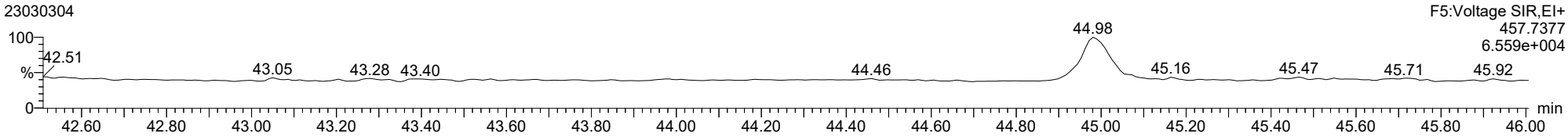

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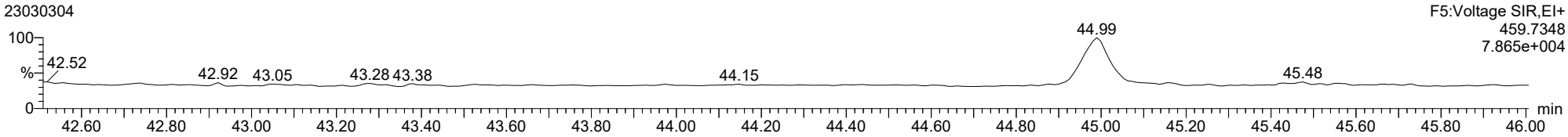

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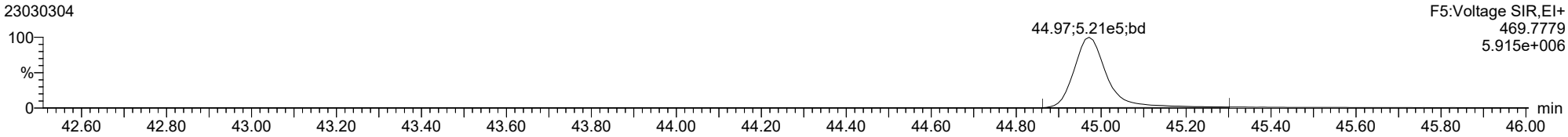

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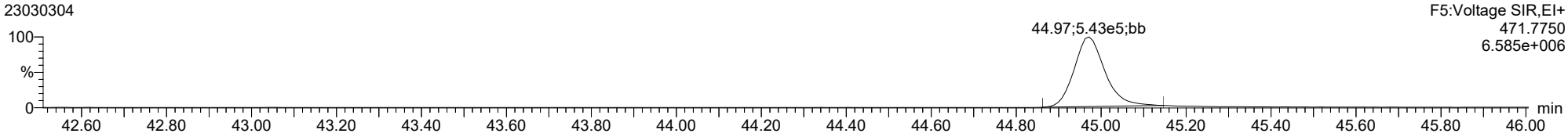
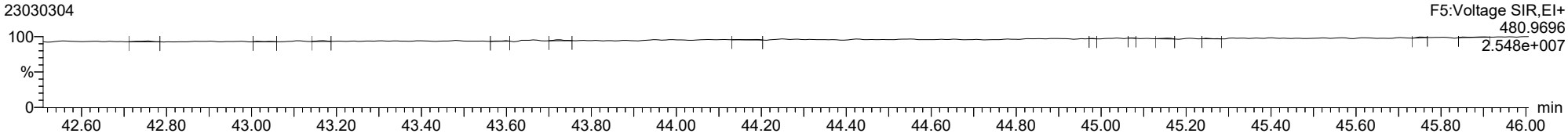


FUNCTION5 PFK



ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

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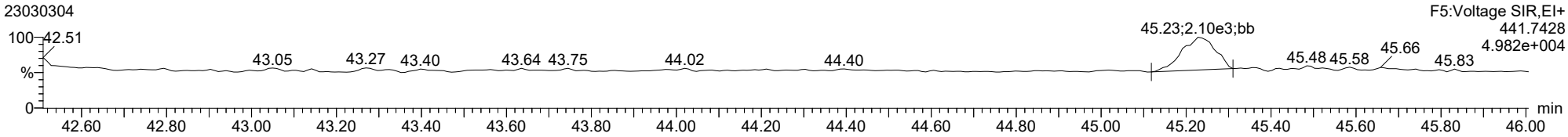
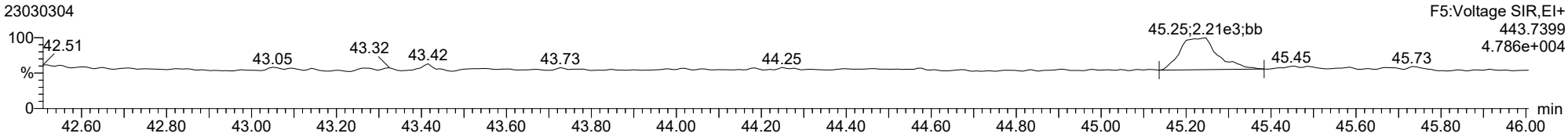
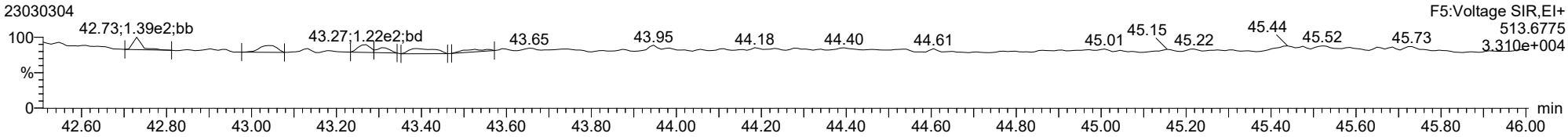


OCDF

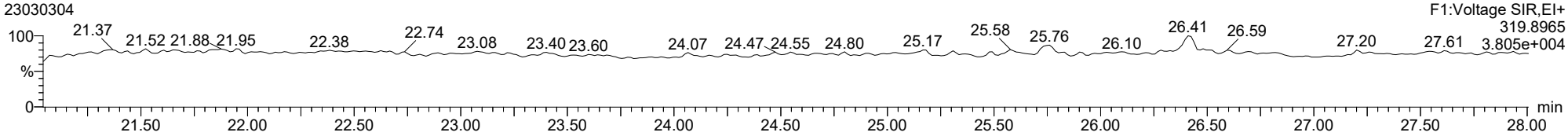


FUNCTION5 DCDPE

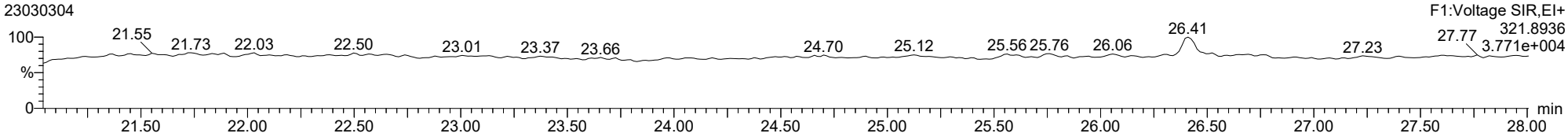


ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

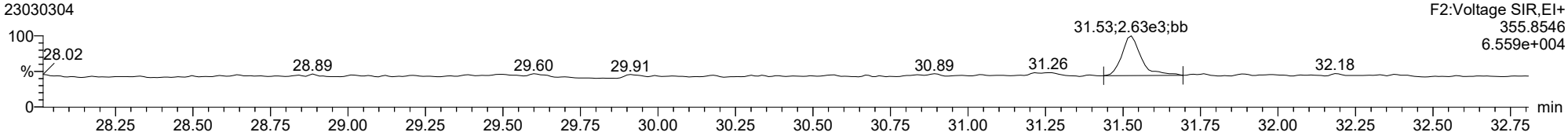
Total-tetradioxins



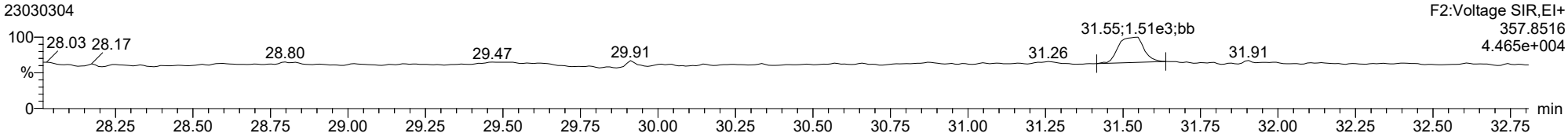
Total-tetradioxins



Total-pentadioxins



Total-pentadioxins



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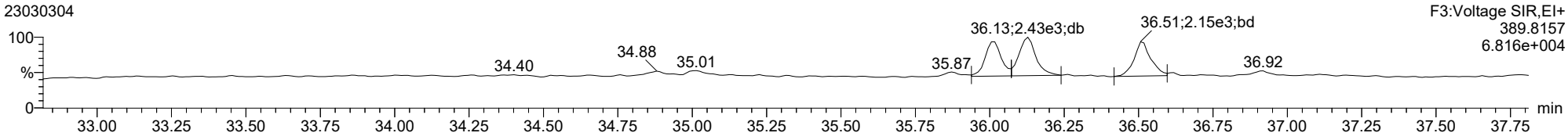
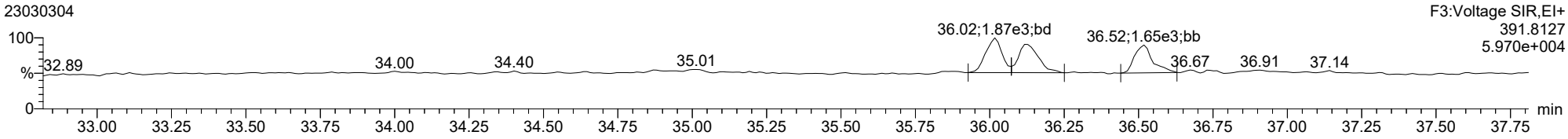
Total-hexadioxins



Total-hexadioxins



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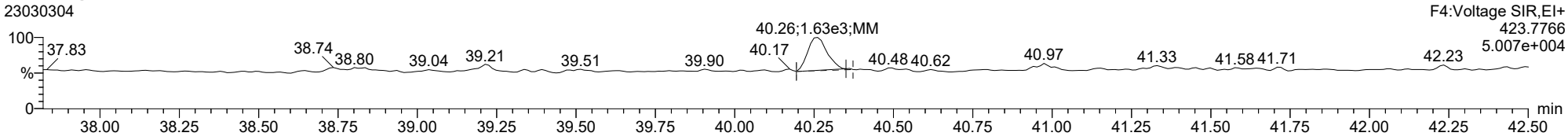
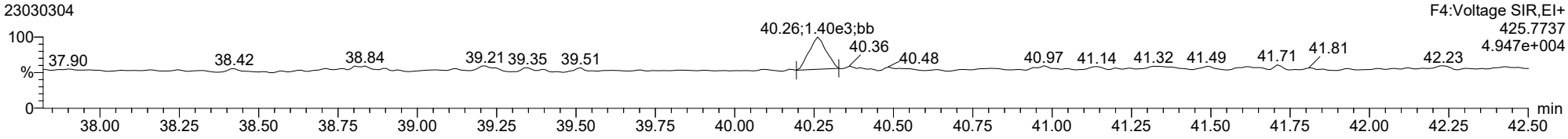
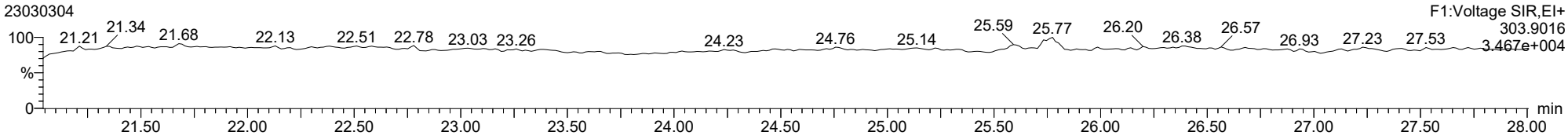


Total-heptadioxins



ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

Total-tetrafurans



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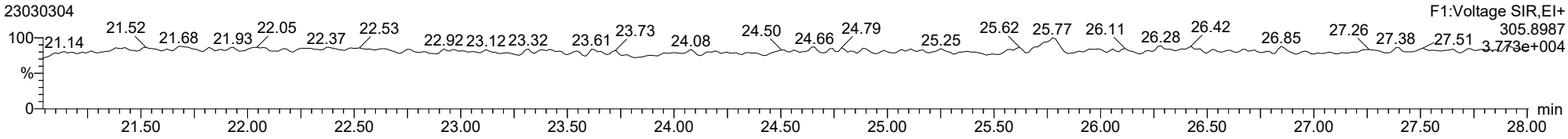

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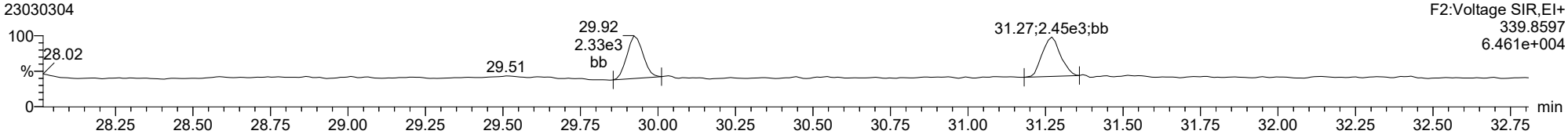

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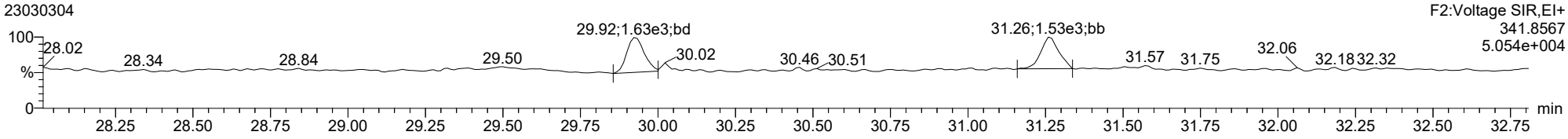

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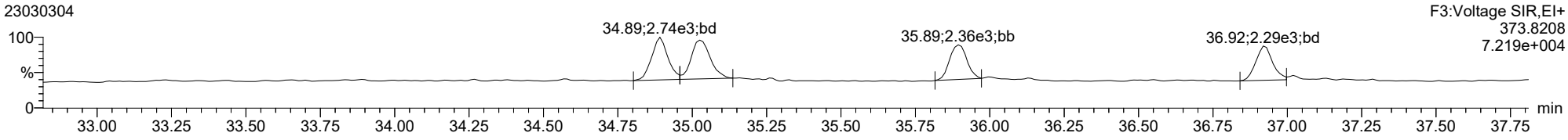
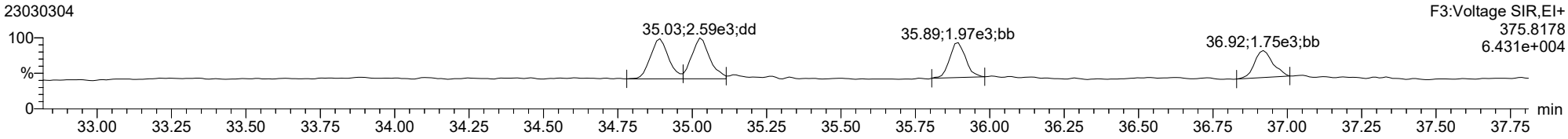
Printed: Monday, March 06, 2023 11:33:58 Pacific Standard Time

ID: CSLCW, Name: 23030304, Date: 03-Mar-2023, Time: 11:28:13, Conditions: AUTOSPEC01, User: pk

Total-hexafurans



Total-hexafurans



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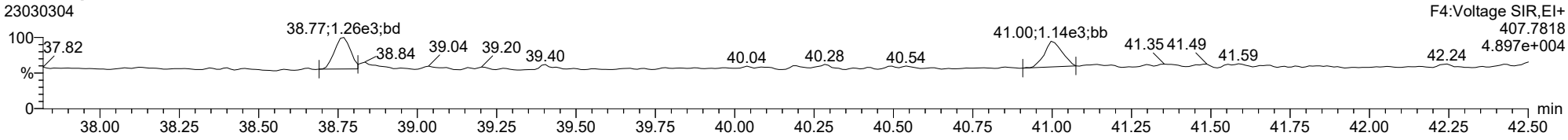
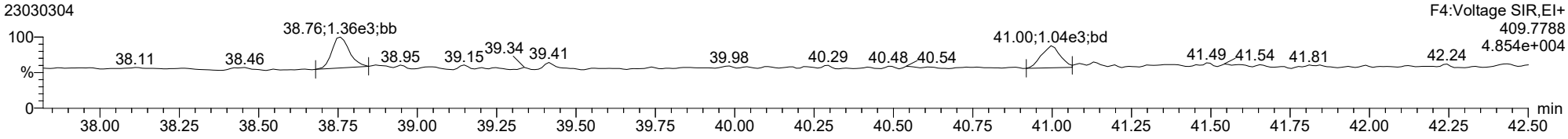


Total-heptafurans



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Printed: Monday, March 06, 2023 11:34:10 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
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ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.788	1.001	1.705e3	2.516e3	0.702	0.678	0.770	886	1799	2.34e4	3.87e4	26.4	21.5	NO	bb	MM	0.494
12378-PeCDF	29.933	1.000	5.914e3	4.099e3	0.679	1.442	1.550	1151	1276	9.10e4	6.48e4	79.1	50.8	NO	bb	bb	2.168
23478-PeCDF	31.270	1.000	7.974e3	4.958e3	0.786	1.608	1.550	1151	1276	1.22e5	6.97e4	106.1	54.6	NO	bb	bb	2.386
123478-HxCDF	34.891	1.000	1.063e4	7.851e3	1.166	1.354	1.240	1046	1170	1.58e5	1.17e5	151.4	100.1	NO	bd	bd	2.532
234678-HxCDF	35.894	1.000	1.057e4	7.802e3	1.140	1.354	1.240	1046	1170	1.51e5	1.18e5	143.9	100.6	NO	bb	bb	2.503
123678-HxCDF	35.036	1.001	1.161e4	8.676e3	1.091	1.339	1.240	1046	1170	1.53e5	1.27e5	146.1	108.8	NO	dd	dd	2.416
123789-HxCDF	36.930	1.001	8.482e3	6.693e3	1.137	1.267	1.240	1046	1170	1.18e5	8.92e4	112.7	76.2	NO	bd	bb	2.462
1234678-HpCDF	38.768	1.000	7.253e3	6.596e3	1.003	1.100	1.050	811	627	1.05e5	9.73e4	128.9	155.1	NO	bb	bb	2.680
1234789-HpCDF	41.008	1.000	5.116e3	5.234e3	0.953	0.978	1.050	811	627	7.22e4	7.17e4	89.0	114.3	NO	bb	bb	2.342
OCDF	45.237	1.006	5.981e3	6.798e3	0.778	0.880	0.890	709	890	6.92e4	8.13e4	97.6	91.3	NO	MM	bd	4.559
2378-TCDD	26.424	1.001	2.272e3	2.723e3	1.149	0.834	0.770	1286	820	3.35e4	3.73e4	26.0	45.5	NO	bb	bb	0.486
12378-PeCDD	31.538	1.001	7.831e3	5.061e3	1.022	1.548	1.550	902	618	1.00e5	7.05e4	111.4	114.0	NO	bb	bd	2.348
123478-HxCDD	36.016	1.000	7.381e3	5.875e3	0.996	1.256	1.240	655	843	1.17e5	9.68e4	178.2	114.9	NO	bd	bd	2.415
123678-HxCDD	36.139	1.001	9.152e3	7.340e3	1.001	1.247	1.240	655	843	1.26e5	9.90e4	192.8	117.4	NO	db	dd	2.494
123789-HxCDD	36.518	1.011	7.480e3	5.936e3	0.907	1.260	1.240	655	843	1.06e5	8.62e4	162.4	102.3	NO	bd	bd	2.440
1234678-HpCDD	40.272	1.001	6.283e3	5.832e3	1.039	1.077	1.050	694	917	8.98e4	8.16e4	129.4	89.0	NO	bb	bd	2.337
OCDD	44.999	1.000	8.578e3	9.676e3	0.920	0.887	0.890	635	634	9.84e4	1.12e5	154.9	175.9	NO	bd	bb	5.505
13C-2378-TCDF	25.760	1.007	5.230e5	6.960e5	1.620	0.752	0.770	2566	1723	7.68e6	1.02e7	2994.2	5911.4	NO	bb	bb	98.043
13C-12378-PeCDF	29.922	1.169	4.082e5	2.718e5	1.240	1.502	1.550	3092	2294	5.44e6	3.64e6	1758.1	1584.9	NO	bd	bb	71.437
13C-23478-PeCDF	31.259	1.222	4.106e5	2.788e5	1.118	1.473	1.550	3092	2294	5.91e6	4.02e6	1912.5	1751.3	NO	bb	bb	80.373
13C-123478-HxCDF	34.880	0.955	2.117e5	4.140e5	1.168	0.511	0.510	1778	2186	3.18e6	6.21e6	1786.5	2841.3	NO	bd	bd	93.801
13C-123678-HxCDF	35.014	0.959	2.754e5	4.947e5	1.386	0.557	0.510	1778	2186	3.40e6	6.43e6	1911.3	2941.0	NO	db	db	97.276
13C-234678-HxCDF	35.882	0.983	2.122e5	4.318e5	1.129	0.491	0.510	1778	2186	3.04e6	5.98e6	1709.4	2734.1	NO	bb	bd	99.880
13C-123789-HxCDF	36.908	1.011	1.853e5	3.568e5	0.932	0.519	0.510	1778	2186	2.62e6	5.01e6	1471.0	2293.6	NO	bb	bb	101.893
13C-1234678-HpCDF	38.757	1.062	1.579e5	3.573e5	0.895	0.442	0.440	2049	3174	2.36e6	5.45e6	1151.3	1718.3	NO	bb	bb	100.794
13C-1234789-HpCDF	40.997	1.123	1.372e5	3.264e5	0.770	0.420	0.440	2049	3174	1.74e6	3.92e6	851.0	1236.7	NO	bd	bd	105.482
13C-1234-TCDD	25.591	0.000	3.429e5	4.245e5	1.000	0.808	0.770	2519	1748	5.22e6	6.49e6	2072.6	3712.2	NO	bb	bb	100.000
13C-2378-TCDD	26.396	1.031	3.982e5	4.964e5	1.152	0.802	0.770	2519	1748	5.51e6	6.93e6	2188.2	3962.8	NO	bb	bb	101.152
13C-12378-PeCDD	31.515	1.232	3.242e5	2.131e5	0.829	1.521	1.550	1586	877	4.46e6	2.78e6	2809.5	3168.1	NO	bb	bd	84.489
13C-123478-HxCDD	36.005	0.986	3.100e5	2.413e5	0.995	1.285	1.240	2517	1649	4.83e6	3.77e6	1920.9	2283.3	NO	bd	bd	97.050
13C-123678-HxCDD	36.117	0.989	3.700e5	2.908e5	1.157	1.273	1.240	2517	1649	5.06e6	4.03e6	2012.2	2442.3	NO	db	db	100.049
13C-1234678-HpCDD	40.250	1.102	2.556e5	2.433e5	0.840	1.051	1.050	2183	1602	3.48e6	3.29e6	1594.9	2052.3	NO	bb	bb	103.999
13C-OCDD	44.980	1.232	3.386e5	3.823e5	0.767	0.886	0.890	3187	1733	3.80e6	4.27e6	1193.7	2462.5	NO	bb	bb	164.498
13C-123789-HxCDD	36.507	0.000	3.194e5	2.515e5	1.000	1.270	1.240	2517	1649	4.46e6	3.59e6	1770.5	2177.4	NO	bb	bb	100.000
37CL-2378-TCDD	26.424	1.033	5.065e3		1.288			2040		7.28e4		35.7			bb		0.513

Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
Printed: Monday, March 06, 2023 11:34:10 Pacific Standard Time

ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	886	1799								
1289-TCDF					0.678		0.770	886	1799								
13468-PECDF					1.246		1.550	811	1221								
12389-PECDF					0.496		1.550	1151	1276								
123468-HXCDF					1.169		1.240	1046	1170								
1368-TCDD					1.015		0.770	1286	820								
1289-TCDD					0.909		0.770	1286	820								
12479-PECDD					2.301		1.550	902	618								
12389-PECDD					1.184		1.550	902	618								
124679-HXCDD					1.115		1.240	655	843								
1234679-HPCDD					1.137		1.050	694	917								
Total-tetrafurans			1.705e3		0.727			886		2.34e4							0.494
Total-penta1			0.000e0					811		0.00e0							
Total-pentafurans			1.389e4		0.654			1151		2.13e5							4.554
Total-hexafurans			4.139e4		1.141			1046		5.82e5							9.938
Total-heptafurans			1.237e4		0.978			811		1.77e5							5.023
Total-Furans			7.533e4		0.922			886		1.06e6							24.566
Total-tetradioxins			2.272e3		1.024			1286		3.35e4							0.486
Total-pentadioxins			7.831e3		1.502			902		1.00e5							2.348
Total-hexadioxins			2.401e4		1.005			655		3.49e5							7.349
Total-heptadioxins			6.283e3		1.088			694		8.98e4							2.337
Total-Dioxins			4.898e4		1.130			1286		6.72e5							18.025
Total-TEQ			1.243e5					1286		1.74e6							42.592
FUNCTION1 PFK			0.000e0					501375		0.00e0							
FUNCTION2 PFK			7.687e6					300953		7.99e6							0.000
FUNCTION3 PFK			1.081e7					473463		1.95e7							0.000
FUNCTION4 PFK			1.035e7					332160		2.87e6							
FUNCTION5 PFK			6.101e5					195111		8.38e5							
FUNCTION1 HXCD...			6.739e2					611		6.36e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			7.361e2					923		1.83e4							0.000
FUNCTION3 OCDPE			2.008e2					596		2.61e3							0.000
FUNCTION4 NCDPE			9.397e1					539		1.40e3							0.000
FUNCTION5 DCDPE			1.677e2					561		3.39e3							0.000

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

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TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.79	1.705e3	2.516e3	0.702	0.68	0.77	26.4	YES	NO	bb	MM	0.494

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.27	7.974e3	4.958e3	0.786	1.61	1.55	106.1	YES	NO	bb	bb	2.386
2	12378-PeCDF	29.93	5.914e3	4.099e3	0.679	1.44	1.55	79.1	YES	NO	bb	bb	2.168

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.93	8.482e3	6.693e3	1.137	1.27	1.24	112.7	YES	NO	bd	bb	2.462
2	234678-HxCDF	35.89	1.057e4	7.802e3	1.140	1.35	1.24	143.9	YES	NO	bb	bb	2.503
3	Total-hexafurans	35.23	1.011e2	8.523e1	1.141	1.19	1.24	2.2	NO	NO	db	db	0.025
4	123678-HxCDF	35.04	1.161e4	8.676e3	1.091	1.34	1.24	146.1	YES	NO	dd	dd	2.416
5	123478-HxCDF	34.89	1.063e4	7.851e3	1.166	1.35	1.24	151.4	YES	NO	bd	bd	2.532

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.77	7.253e3	6.596e3	1.003	1.10	1.05	128.9	YES	NO	bb	bb	2.680
2	1234789-HpCDF	41.01	5.116e3	5.234e3	0.953	0.98	1.05	89.0	YES	NO	bb	bb	2.342

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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.27	7.974e3	4.958e3	0.786	1.61	1.55	106.1	YES	NO	bb	bb	2.386
2	12378-PeCDF	29.93	5.914e3	4.099e3	0.679	1.44	1.55	79.1	YES	NO	bb	bb	2.168
3	2378-TCDF	25.79	1.705e3	2.516e3	0.702	0.68	0.77	26.4	YES	NO	bb	MM	0.494
4	123789-HxCDF	36.93	8.482e3	6.693e3	1.137	1.27	1.24	112.7	YES	NO	bd	bb	2.462
5	234678-HxCDF	35.89	1.057e4	7.802e3	1.140	1.35	1.24	143.9	YES	NO	bb	bb	2.503
6	Total-hexafurans	35.23	1.011e2	8.523e1	1.141	1.19	1.24	2.2	NO	NO	db	db	0.025
7	123678-HxCDF	35.04	1.161e4	8.676e3	1.091	1.34	1.24	146.1	YES	NO	dd	dd	2.416
8	123478-HxCDF	34.89	1.063e4	7.851e3	1.166	1.35	1.24	151.4	YES	NO	bd	bd	2.532
9	1234678-HpCDF	38.77	7.253e3	6.596e3	1.003	1.10	1.05	128.9	YES	NO	bb	bb	2.680
10	OCDF	45.24	5.981e3	6.798e3	0.778	0.88	0.89	97.6	YES	NO	MM	bd	4.559
11	1234789-HpCDF	41.01	5.116e3	5.234e3	0.953	0.98	1.05	89.0	YES	NO	bb	bb	2.342

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.42	2.272e3	2.723e3	1.149	0.83	0.77	26.0	YES	NO	bb	bb	0.486

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.54	7.831e3	5.061e3	1.022	1.55	1.55	111.4	YES	NO	bb	bd	2.348

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.52	7.480e3	5.936e3	0.907	1.26	1.24	162.4	YES	NO	bd	bd	2.440
2	123678-HxCDD	36.14	9.152e3	7.340e3	1.001	1.25	1.24	192.8	YES	NO	db	dd	2.494
3	123478-HxCDD	36.02	7.381e3	5.875e3	0.996	1.26	1.24	178.2	YES	NO	bd	bd	2.415

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.27	6.283e3	5.832e3	1.039	1.08	1.05	129.4	YES	NO	bb	bd	2.337

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.42	2.272e3	2.723e3	1.149	0.83	0.77	26.0	YES	NO	bb	bb	0.486
2	123789-HxCDD	36.52	7.480e3	5.936e3	0.907	1.26	1.24	162.4	YES	NO	bd	bd	2.440
3	123678-HxCDD	36.14	9.152e3	7.340e3	1.001	1.25	1.24	192.8	YES	NO	db	dd	2.494
4	123478-HxCDD	36.02	7.381e3	5.875e3	0.996	1.26	1.24	178.2	YES	NO	bd	bd	2.415
5	12378-PeCDD	31.54	7.831e3	5.061e3	1.022	1.55	1.55	111.4	YES	NO	bb	bd	2.348
6	1234678-HpCDD	40.27	6.283e3	5.832e3	1.039	1.08	1.05	129.4	YES	NO	bb	bd	2.337
7	OCDD	45.00	8.578e3	9.676e3	0.920	0.89	0.89	154.9	YES	NO	bd	bb	5.505

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.27	7.974e3	4.958e3	0.786	1.61	1.55	106.1	YES	NO	bb	bb	2.386
2	12378-PeCDF	29.93	5.914e3	4.099e3	0.679	1.44	1.55	79.1	YES	NO	bb	bb	2.168
3	2378-TCDF	25.79	1.705e3	2.516e3	0.702	0.68	0.77	26.4	YES	NO	bb	MM	0.494
4	123789-HxCDF	36.93	8.482e3	6.693e3	1.137	1.27	1.24	112.7	YES	NO	bd	bb	2.462
5	234678-HxCDF	35.89	1.057e4	7.802e3	1.140	1.35	1.24	143.9	YES	NO	bb	bb	2.503
6	Total-hexafurans	35.23	1.011e2	8.523e1	1.141	1.19	1.24	2.2	NO	NO	db	db	0.025
7	123678-HxCDF	35.04	1.161e4	8.676e3	1.091	1.34	1.24	146.1	YES	NO	dd	dd	2.416
8	123478-HxCDF	34.89	1.063e4	7.851e3	1.166	1.35	1.24	151.4	YES	NO	bd	bd	2.532
9	1234678-HpCDF	38.77	7.253e3	6.596e3	1.003	1.10	1.05	128.9	YES	NO	bb	bb	2.680
10	OCDF	45.24	5.981e3	6.798e3	0.778	0.88	0.89	97.6	YES	NO	MM	bd	4.559
11	1234789-HpCDF	41.01	5.116e3	5.234e3	0.953	0.98	1.05	89.0	YES	NO	bb	bb	2.342
12	2378-TCDD	26.42	2.272e3	2.723e3	1.149	0.83	0.77	26.0	YES	NO	bb	bb	0.486
13	123789-HxCDD	36.52	7.480e3	5.936e3	0.907	1.26	1.24	162.4	YES	NO	bd	bd	2.440
14	123678-HxCDD	36.14	9.152e3	7.340e3	1.001	1.25	1.24	192.8	YES	NO	db	dd	2.494
15	123478-HxCDD	36.02	7.381e3	5.875e3	0.996	1.26	1.24	178.2	YES	NO	bd	bd	2.415
16	12378-PeCDD	31.54	7.831e3	5.061e3	1.022	1.55	1.55	111.4	YES	NO	bb	bd	2.348
17	1234678-HpCDD	40.27	6.283e3	5.832e3	1.039	1.08	1.05	129.4	YES	NO	bb	bd	2.337
18	OCDD	45.00	8.578e3	9.676e3	0.920	0.89	0.89	154.9	YES	NO	bd	bb	5.505

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.41	6.929e5					4.3	YES		bb		0.000
2	FUNCTION2 PFK	28.05	6.994e6					22.3	YES		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.60	1.788e4					1.3	NO		bb		0.000
2	FUNCTION3 PFK	36.61	1.585e4					1.4	NO		bb		0.000
3	FUNCTION3 PFK	36.53	6.942e3					0.8	NO		bb		0.000
4	FUNCTION3 PFK	33.99	9.502e3					0.9	NO		bb		0.000
5	FUNCTION3 PFK	33.78	4.298e6					7.0	YES		db		0.000
6	FUNCTION3 PFK	33.15	6.467e6					29.8	YES		bd		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.85	1.035e7					8.6	YES		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	42.97	6.101e5					4.3	YES		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.27	8.033e1					1.9	NO		bb		0.000
2	FUNCTION1 HXCD...	24.98	2.706e2					3.4	YES		bb		0.000
3	FUNCTION1 HXCD...	22.17	1.286e2					2.0	NO		bb		0.000
4	FUNCTION1 HXCD...	21.47	8.089e1					1.9	NO		bb		0.000
5	FUNCTION1 HXCD...	21.17	1.135e2					1.3	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.66	1.045e2					4.3	YES		db		0.000
2	FUNCTION2 HPCD...	32.58	1.134e2					3.0	NO		bd		0.000
3	FUNCTION2 HPCD...	31.88	7.272e1					1.9	NO		bb		0.000
4	FUNCTION2 HPCD...	30.71	7.070e1					1.8	NO		bb		0.000
5	FUNCTION2 HPCD...	30.13	1.134e2					2.5	NO		bb		0.000
6	FUNCTION2 HPCD...	28.92	7.142e1					2.0	NO		bb		0.000
7	FUNCTION2 HPCD...	28.66	9.983e1					2.2	NO		bb		0.000
8	FUNCTION2 HPCD...	28.24	9.016e1					2.1	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.50	2.008e2					4.4	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.59	9.397e1					2.6	NO		bb		0.000

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	44.72	7.355e1					2.5	NO		bb		0.000
2	FUNCTION5 DCDPE	44.30	9.416e1					3.6	YES		bb		0.000

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
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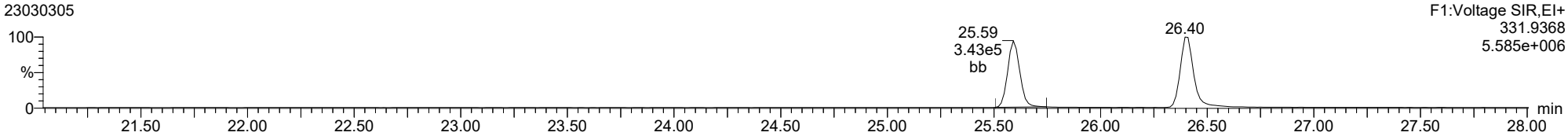
ID: CS1CW, Name: 23030305, Date: 03-Mar-2023, Time: 12:23:58, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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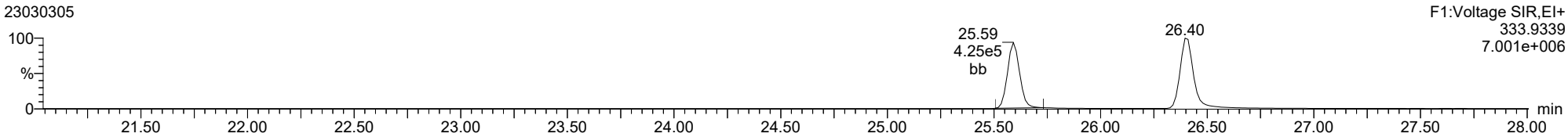
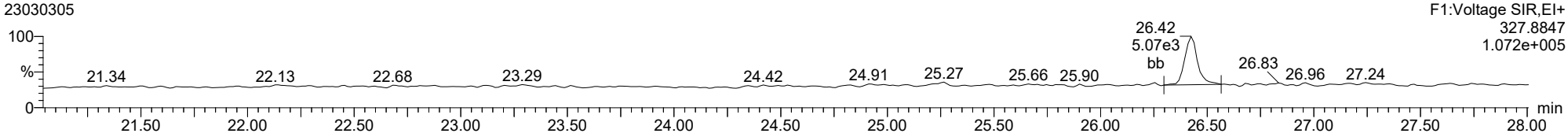


37CL-2378-TCDD



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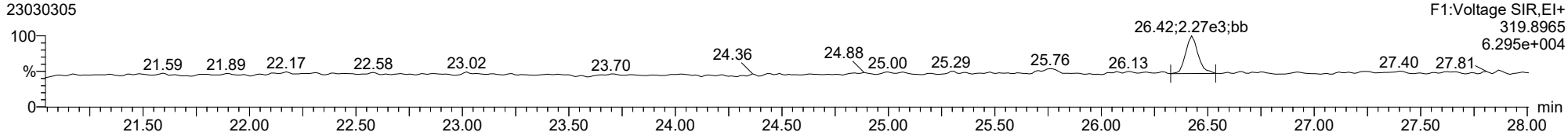

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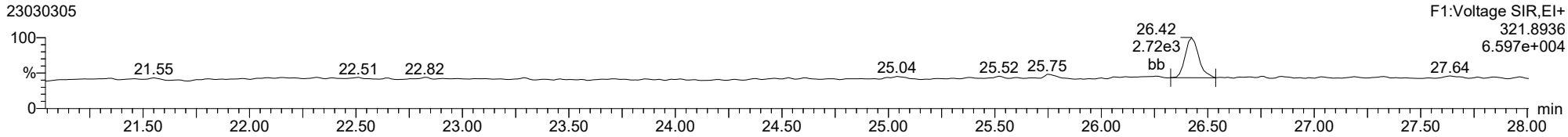

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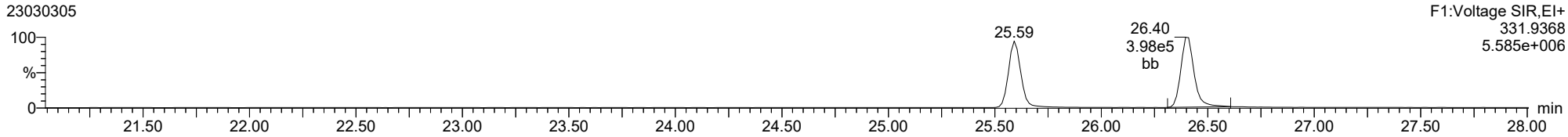

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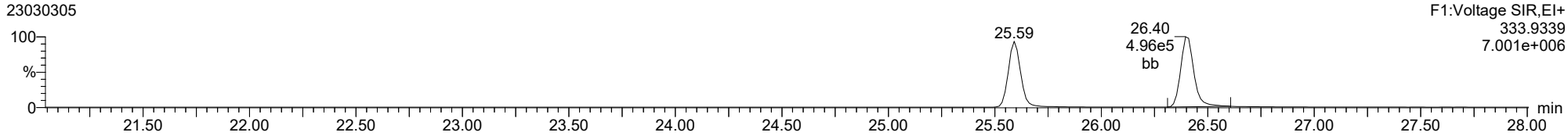

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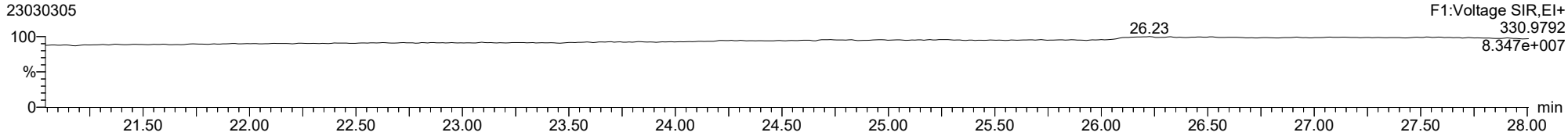

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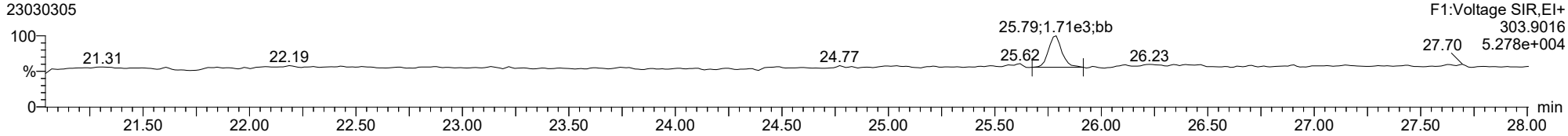

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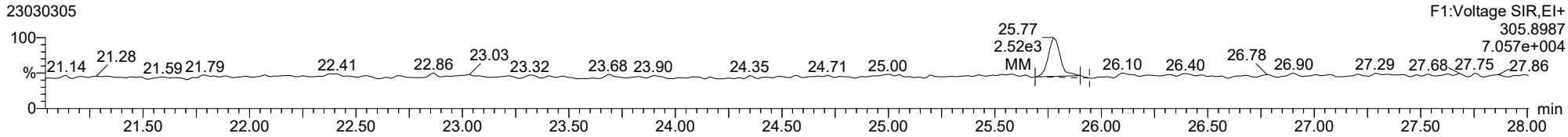

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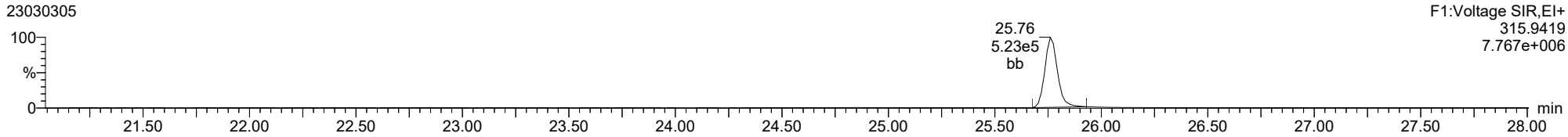

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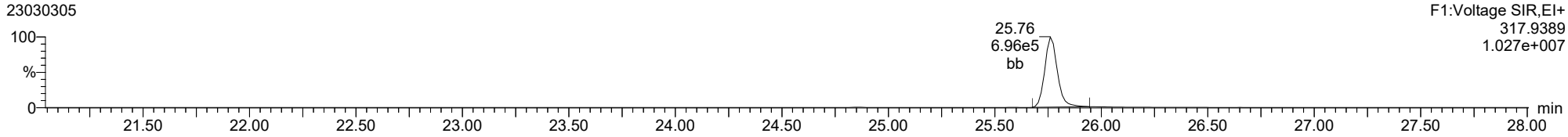

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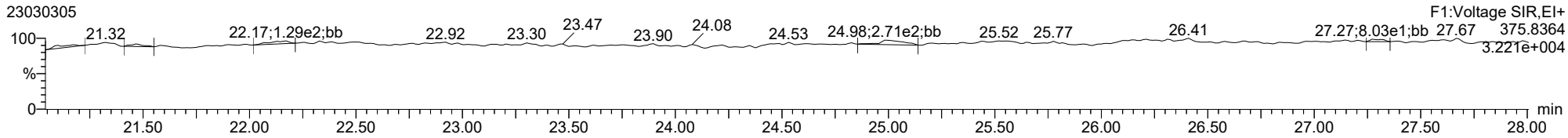

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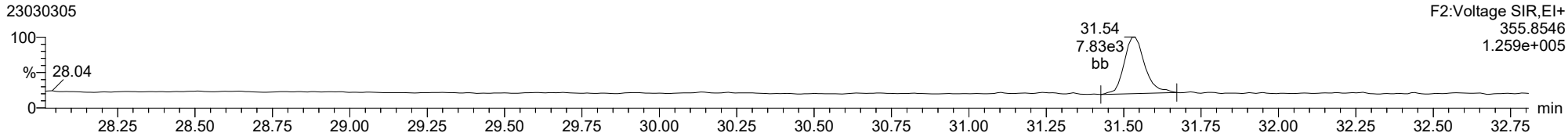

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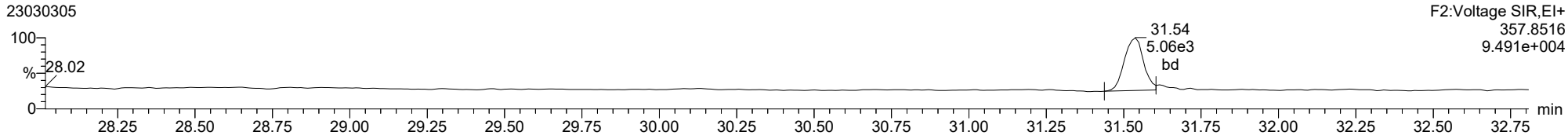

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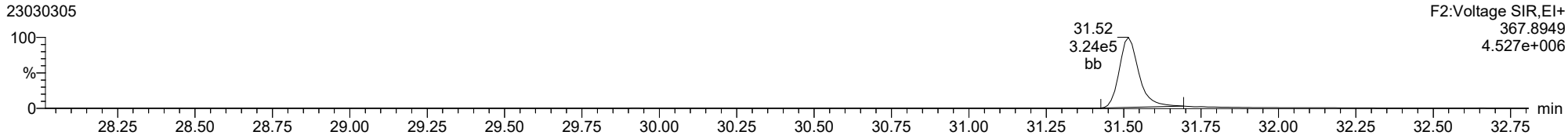

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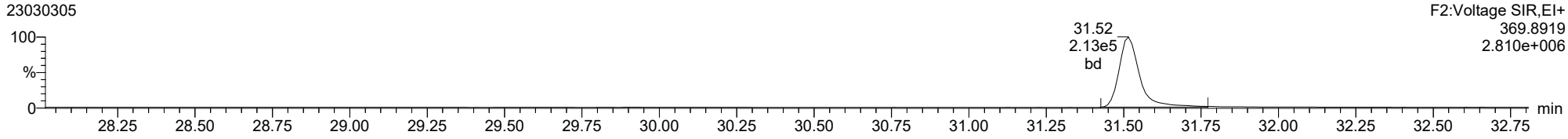

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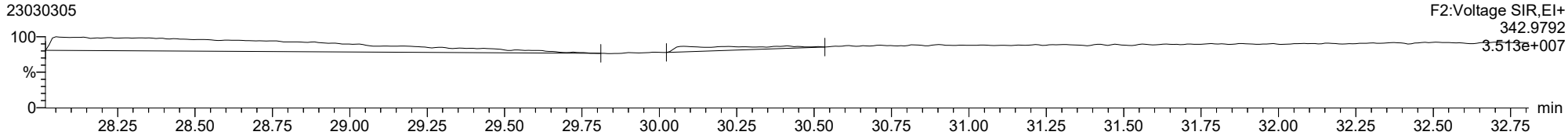

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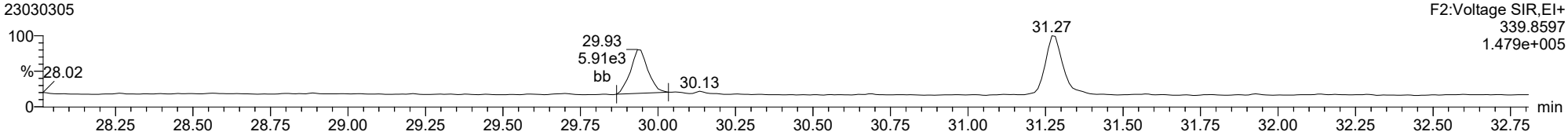

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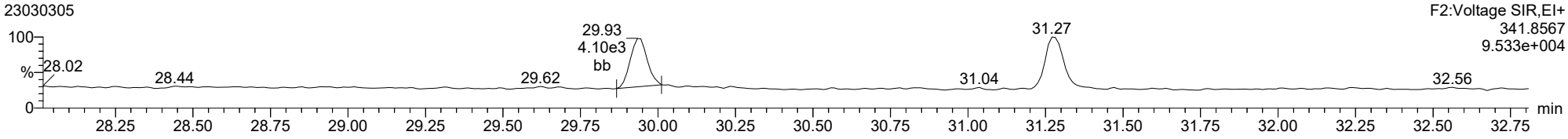

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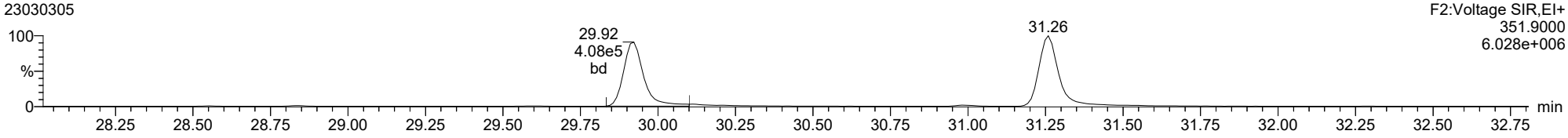

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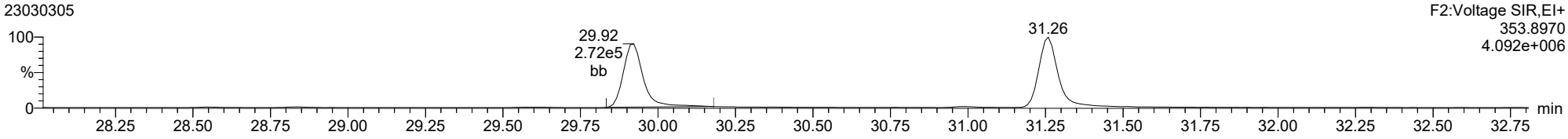

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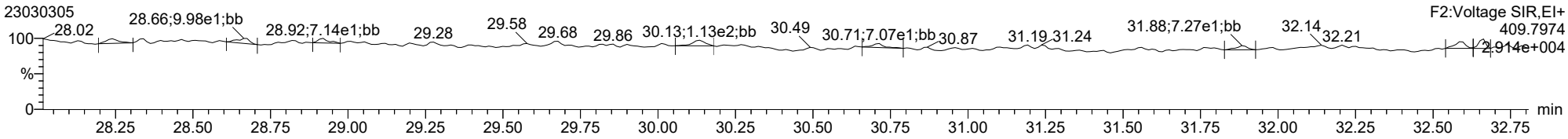

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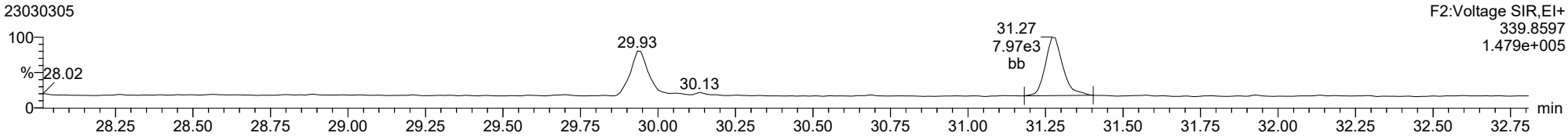

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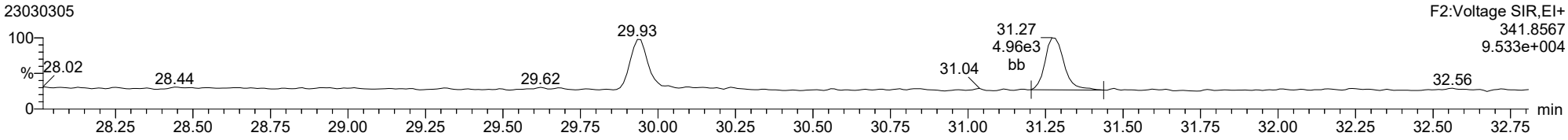

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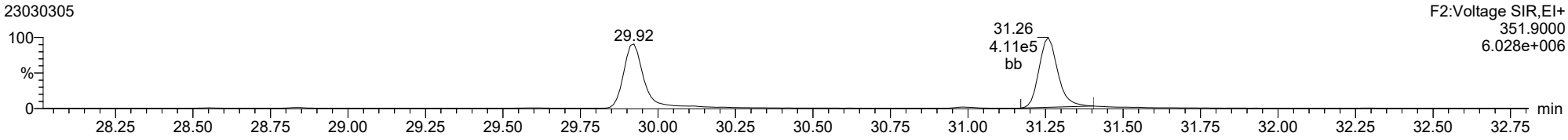

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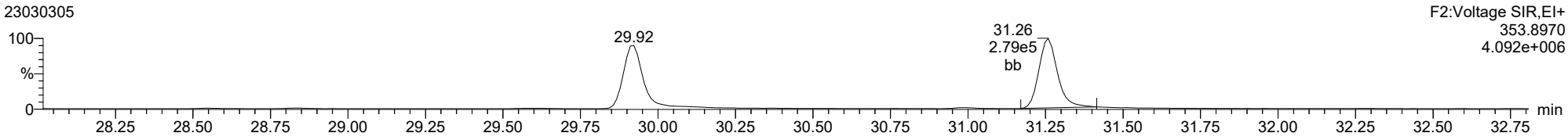

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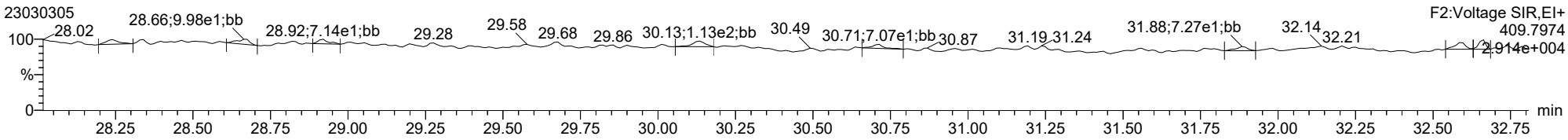

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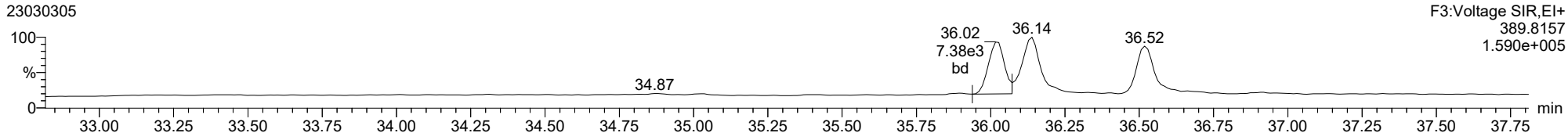

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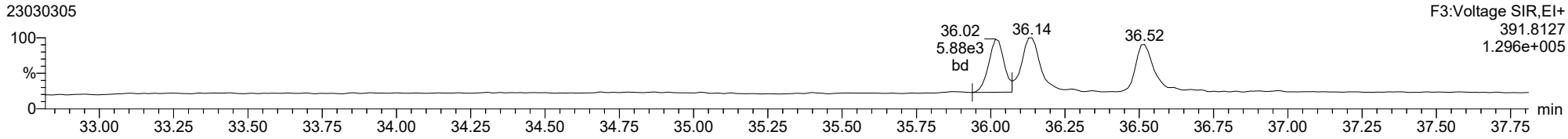

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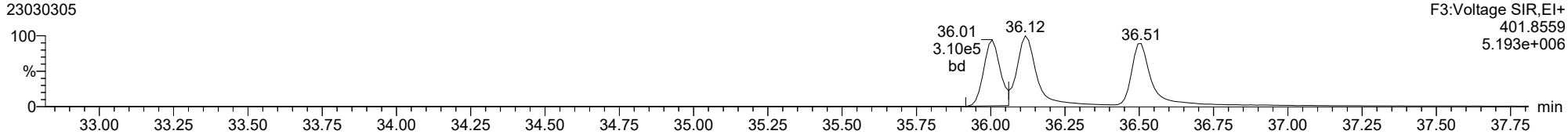

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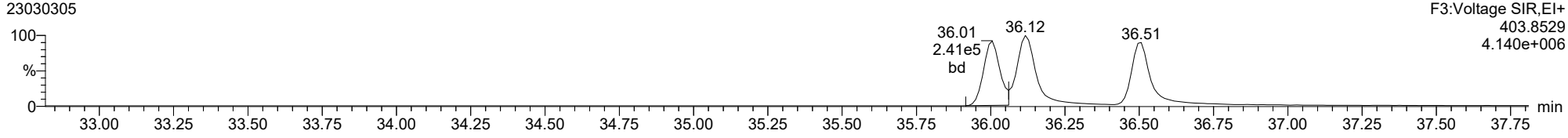

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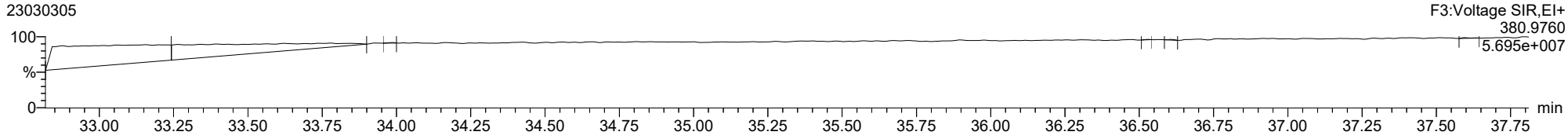

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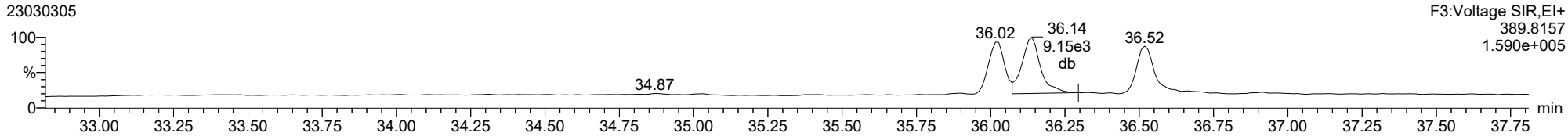

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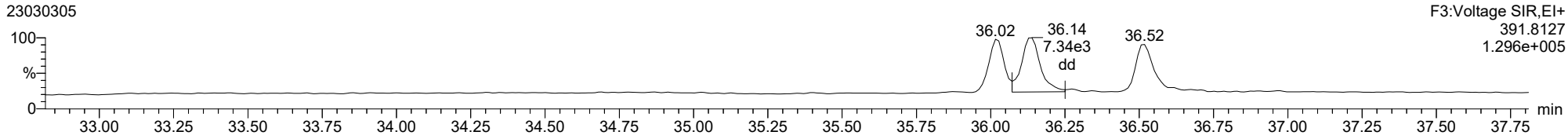

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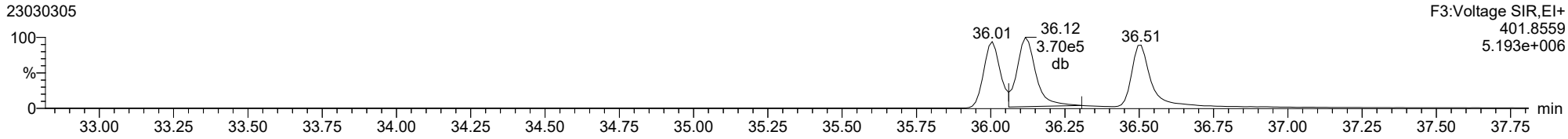

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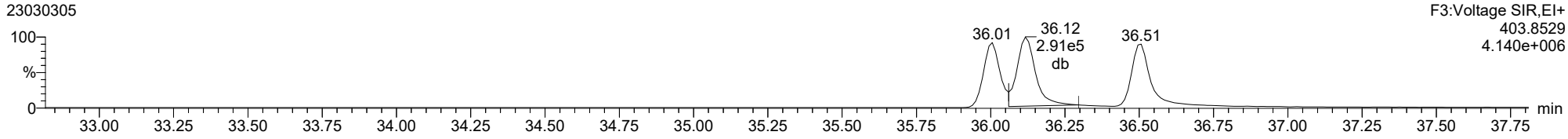

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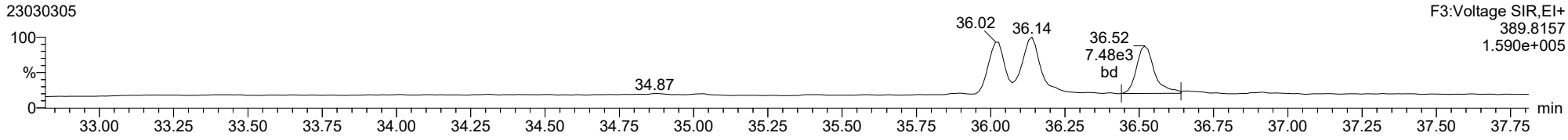

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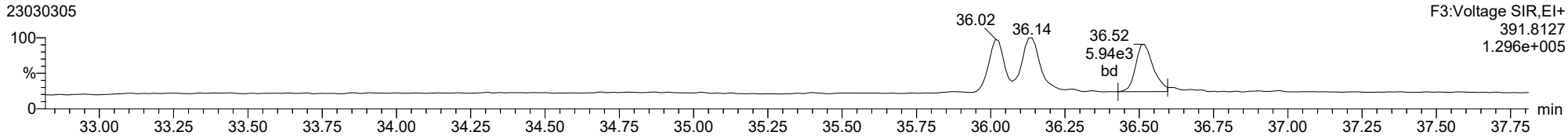

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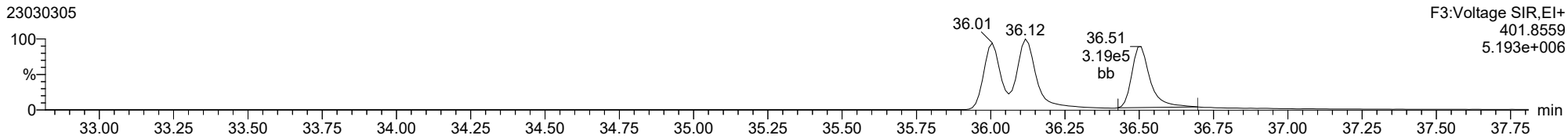

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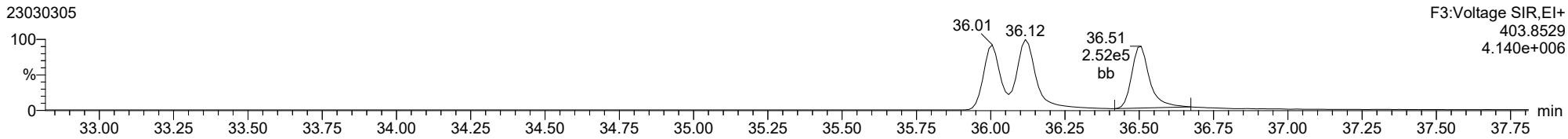

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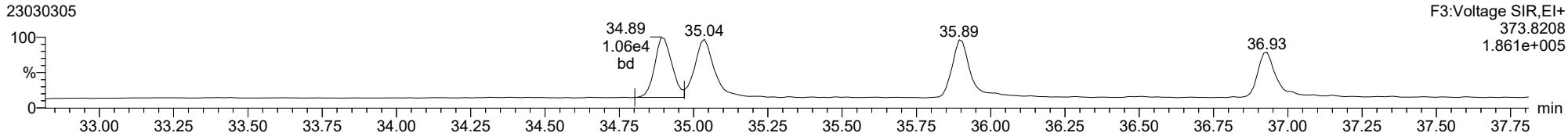

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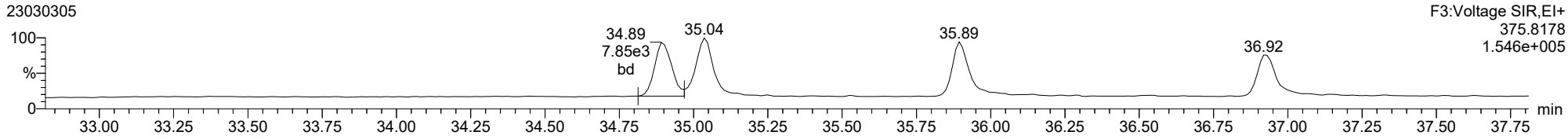

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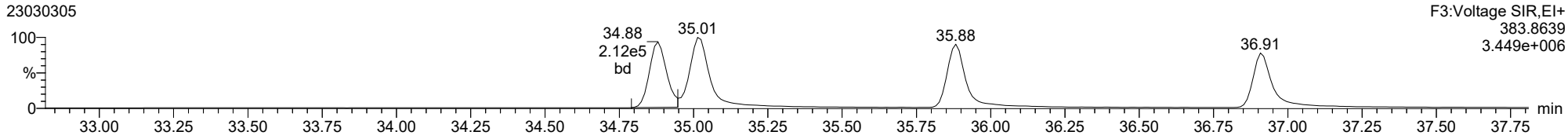

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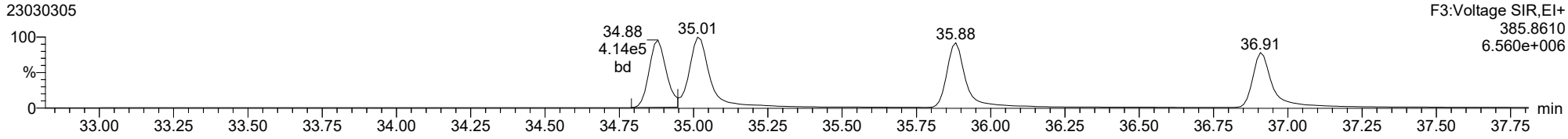

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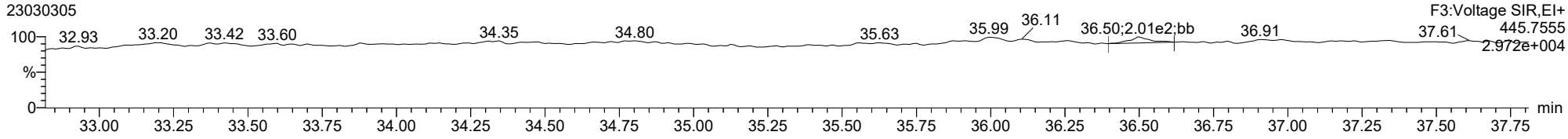

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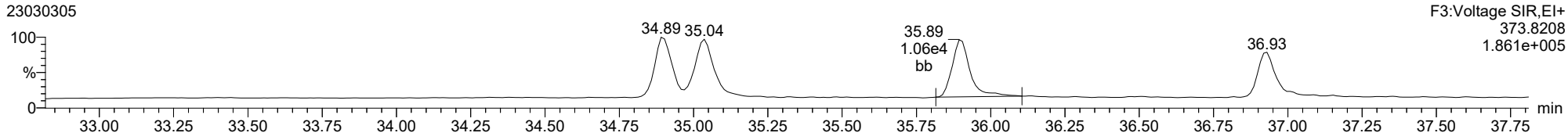

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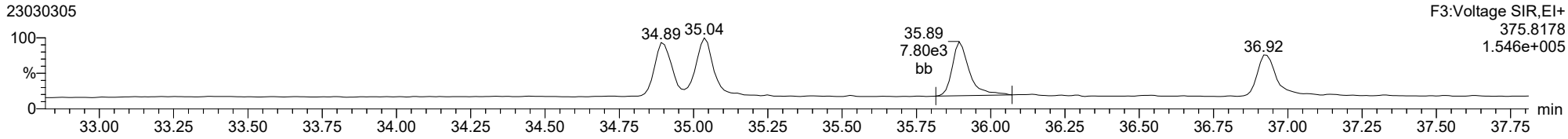

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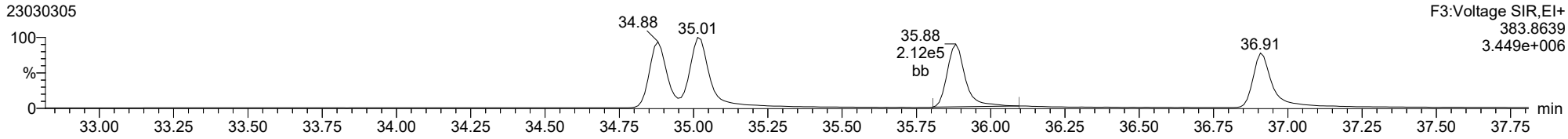

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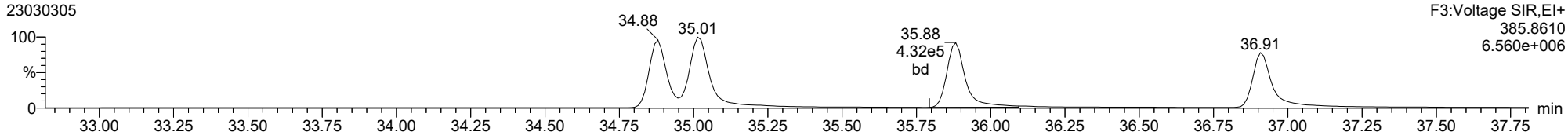

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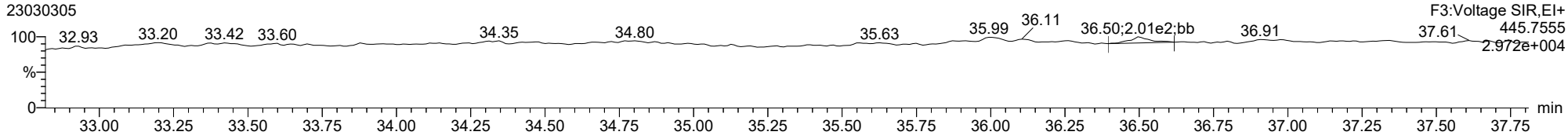

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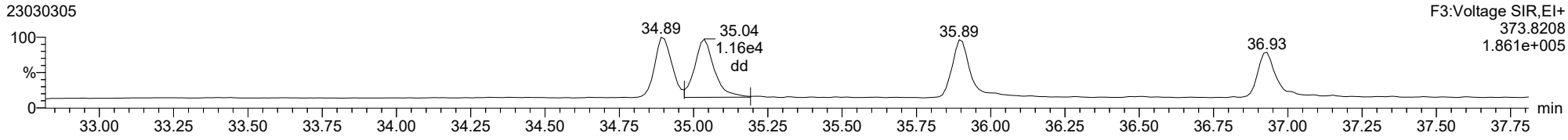

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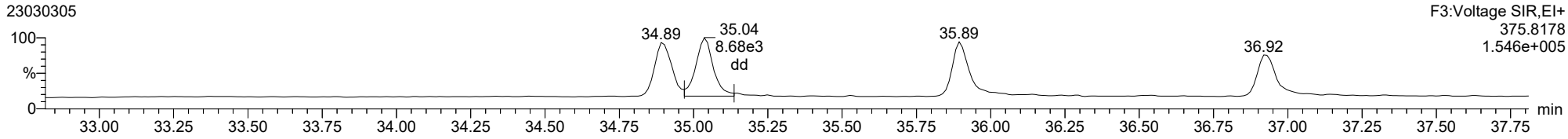

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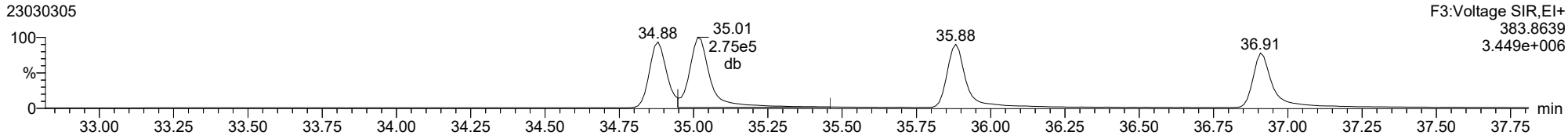

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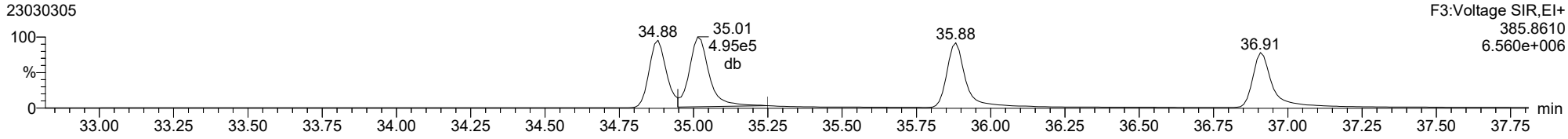

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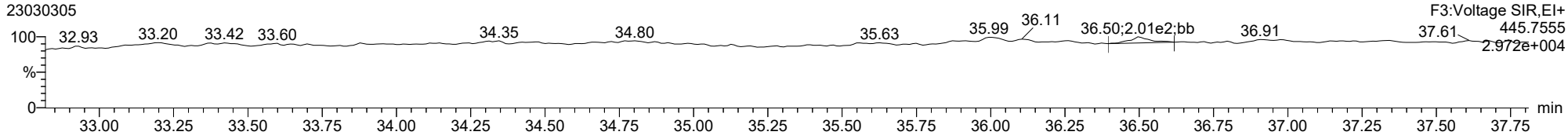

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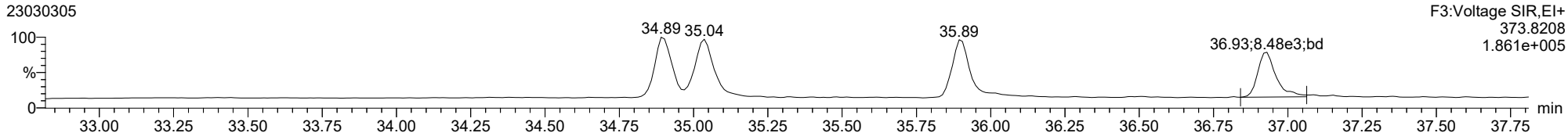

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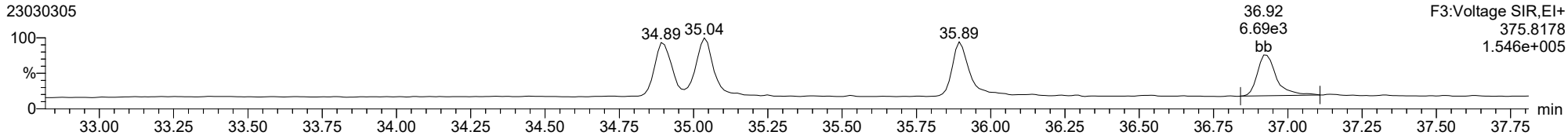

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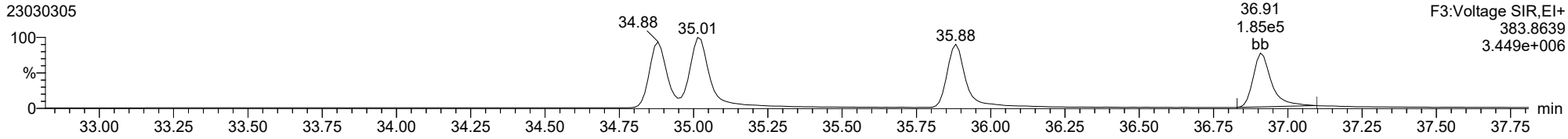

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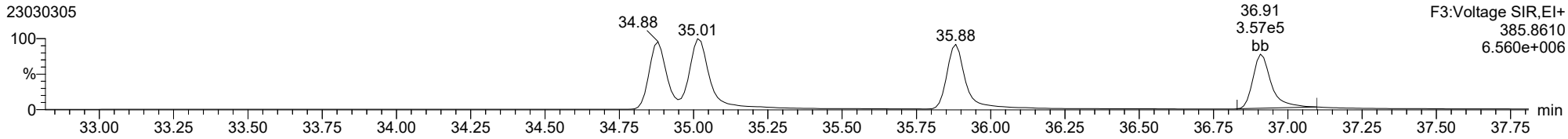

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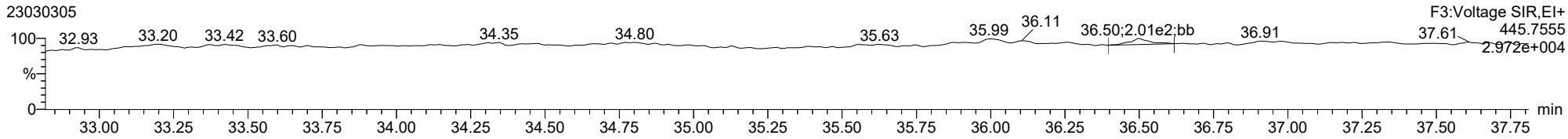

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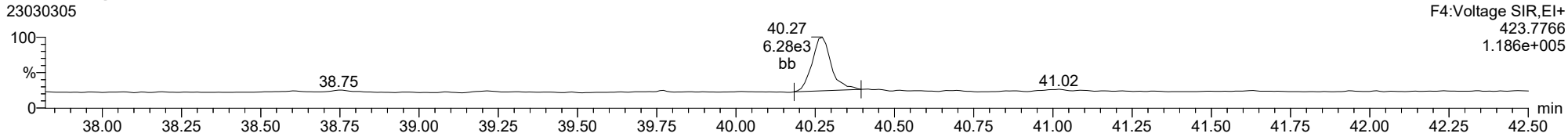

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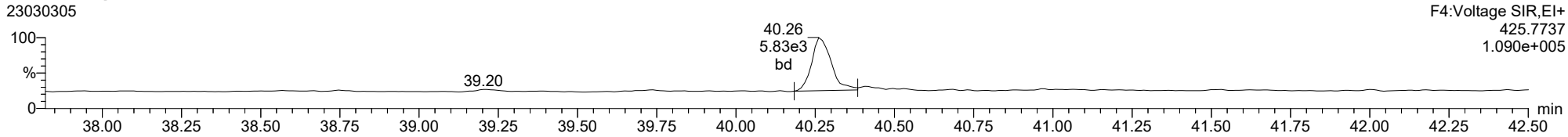

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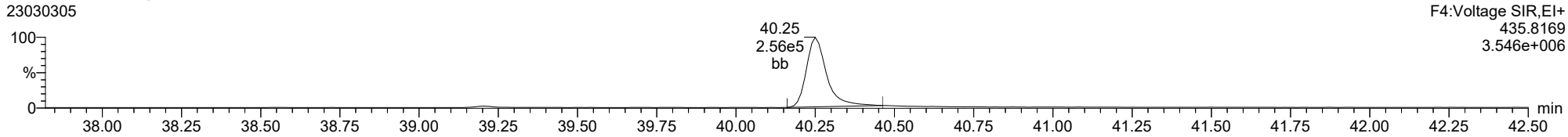

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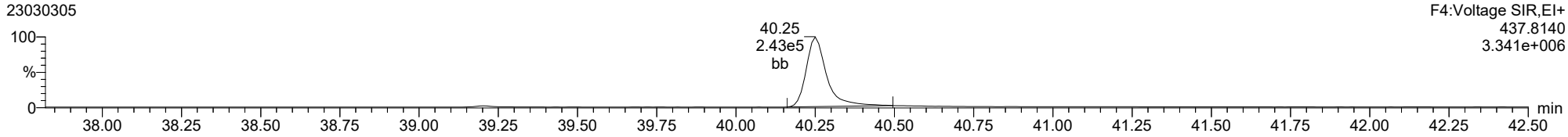

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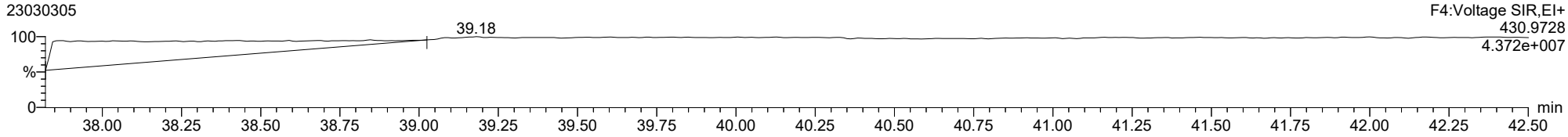

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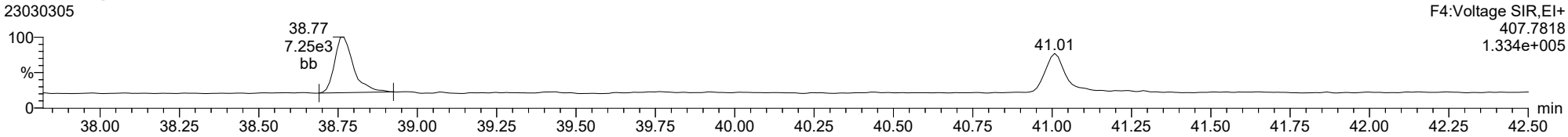

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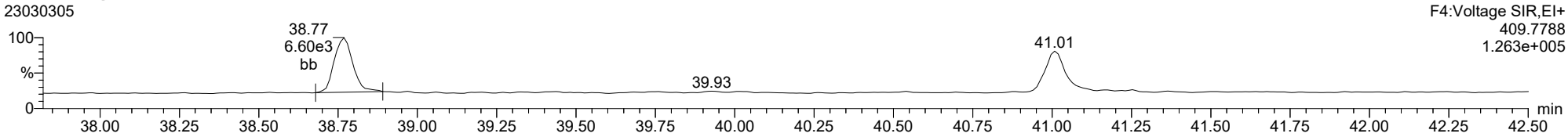

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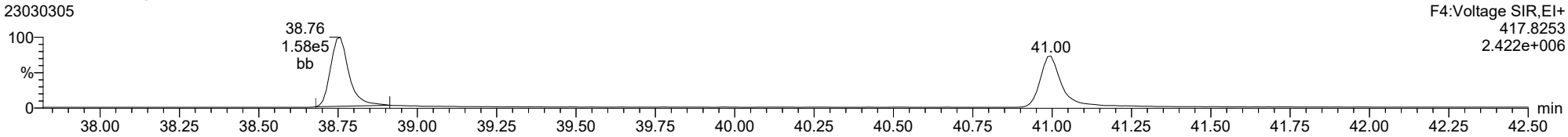

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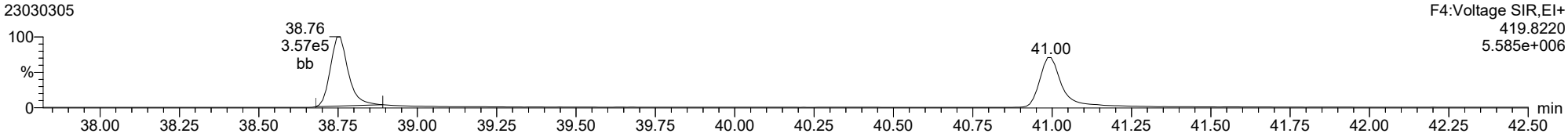

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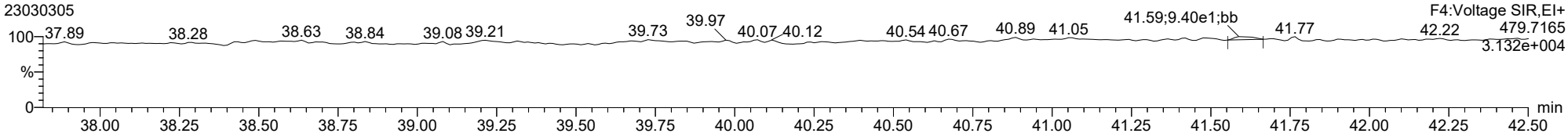

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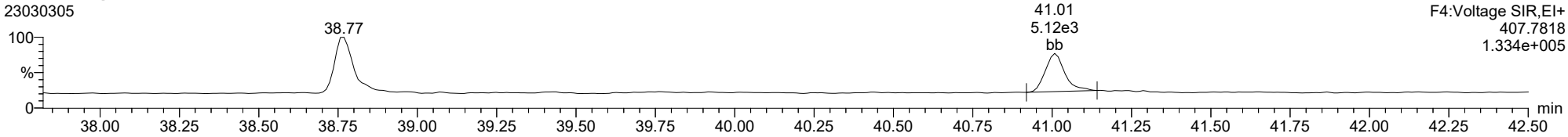

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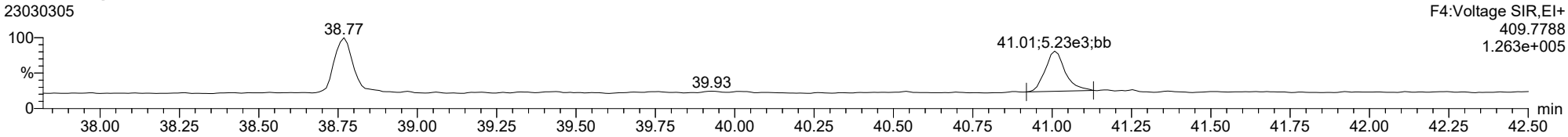

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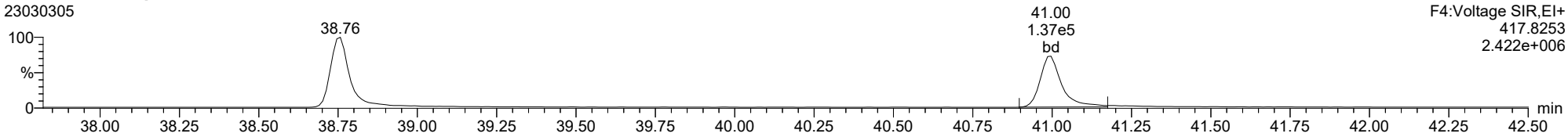

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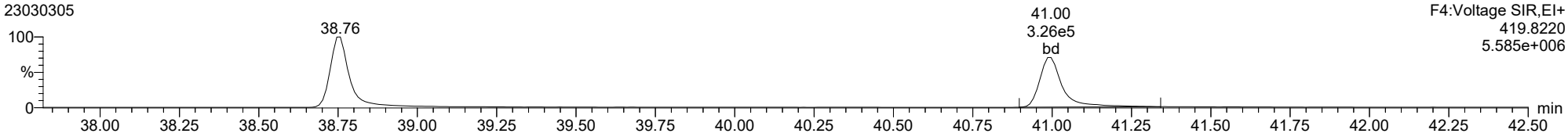

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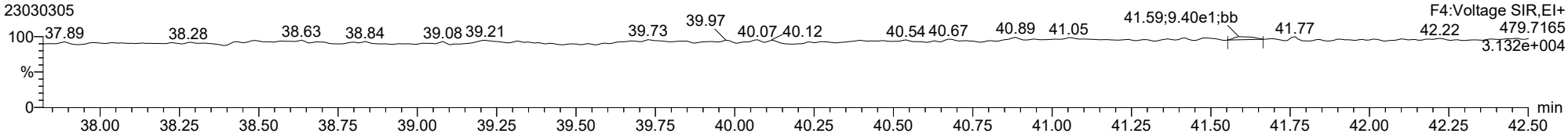

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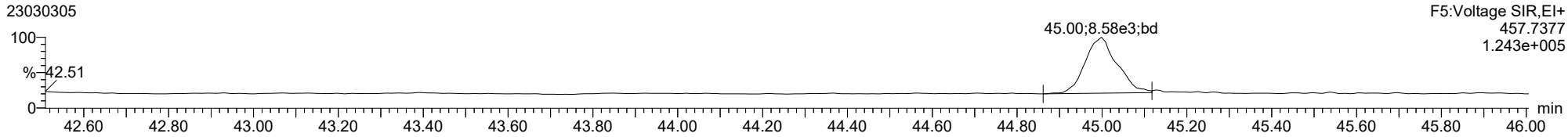

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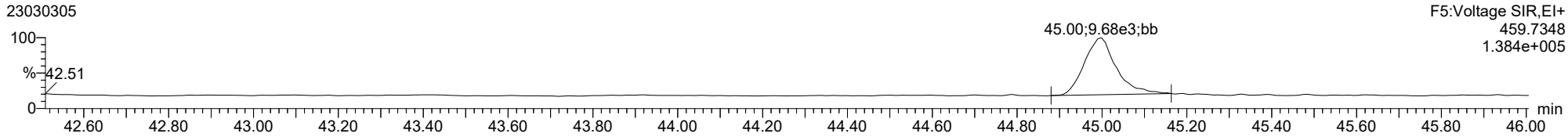

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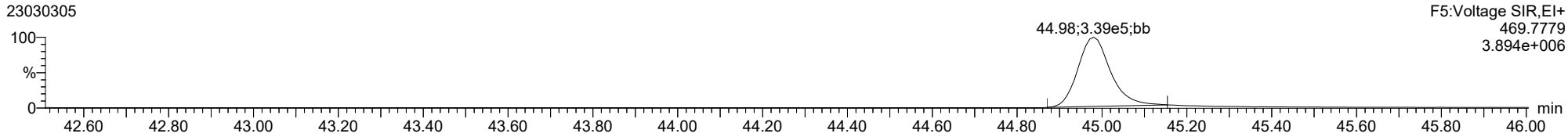

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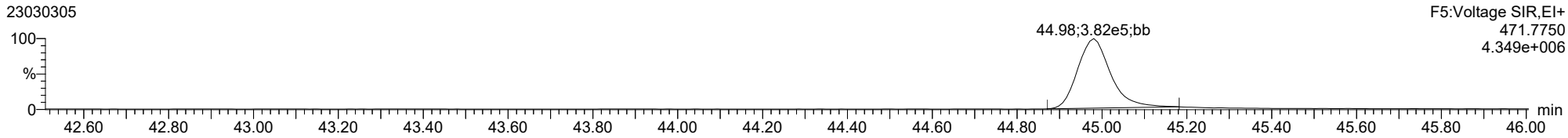

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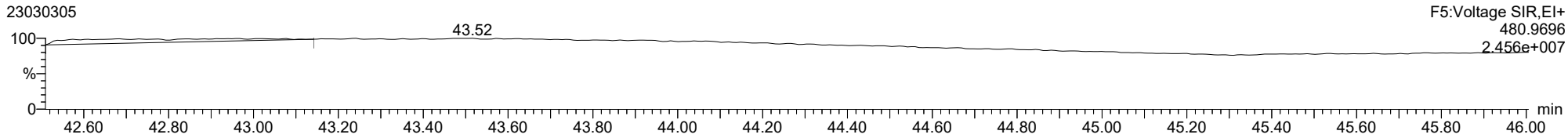

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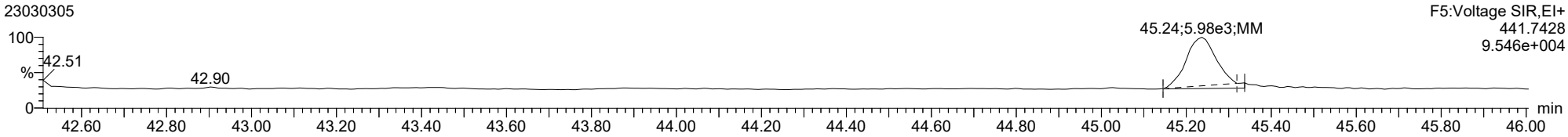

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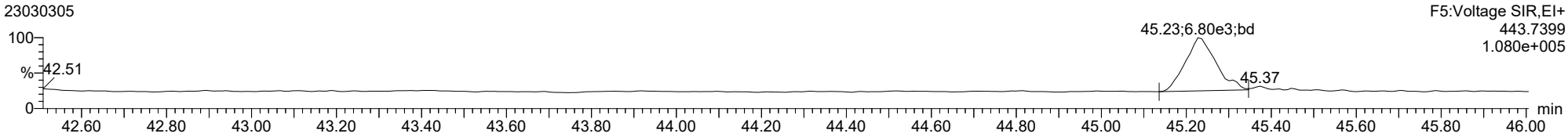

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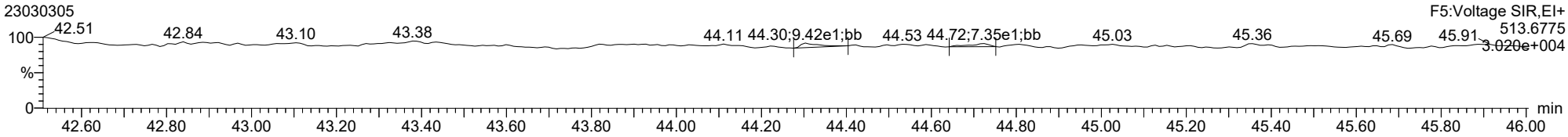

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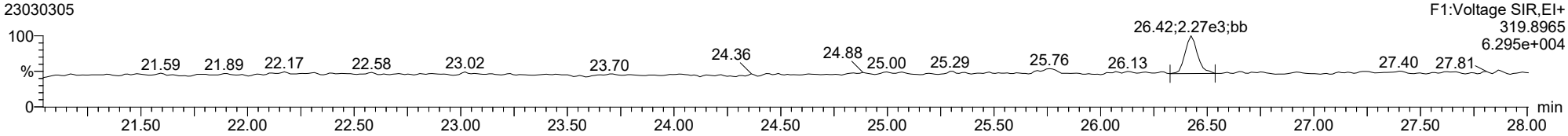
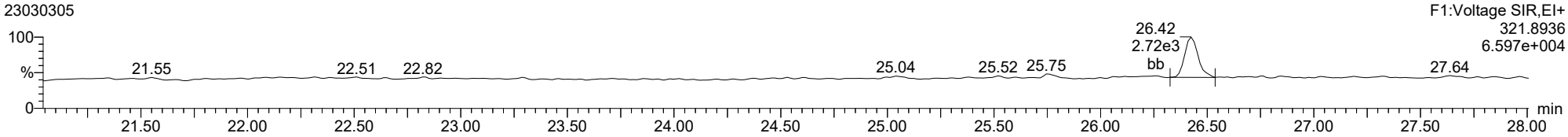


Total-tetradioxins



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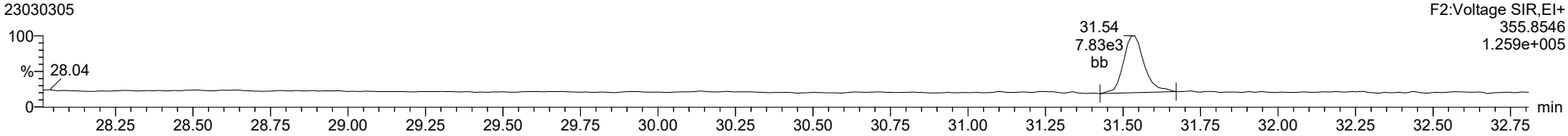

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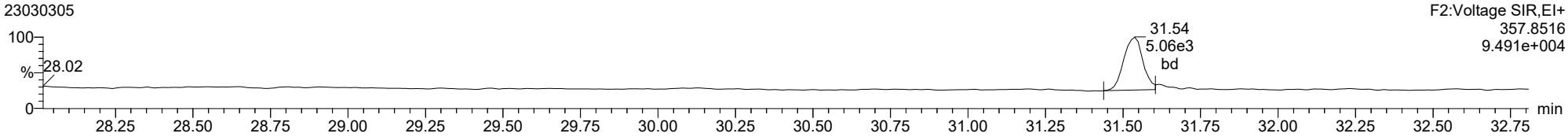

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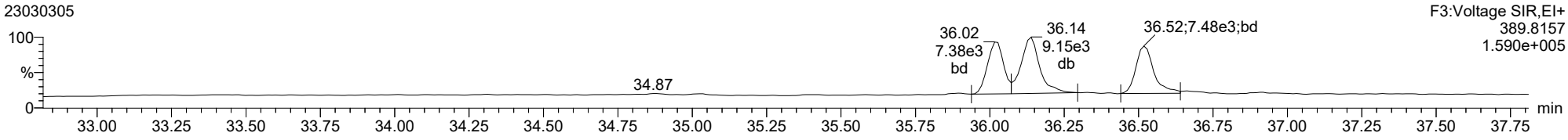

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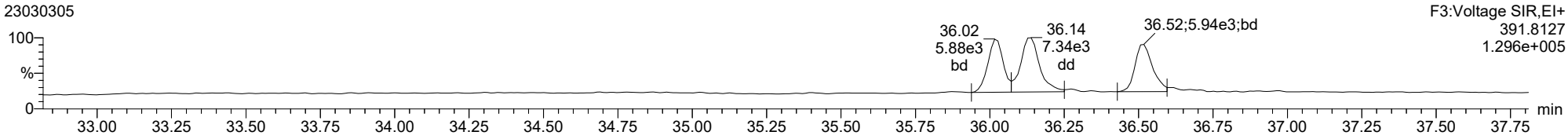
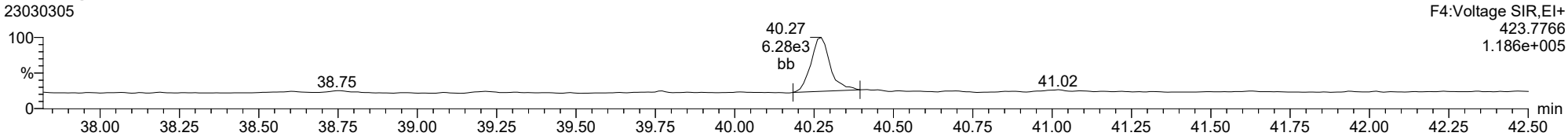
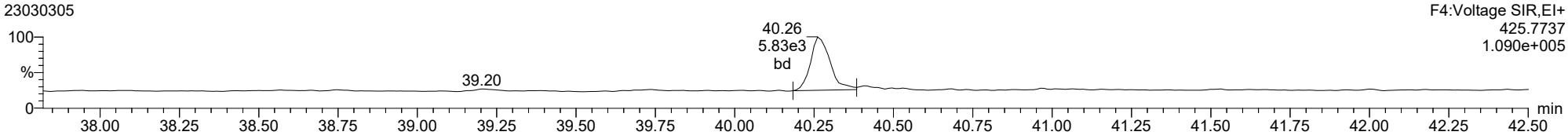


Total-heptadioxins



Total-heptadioxins



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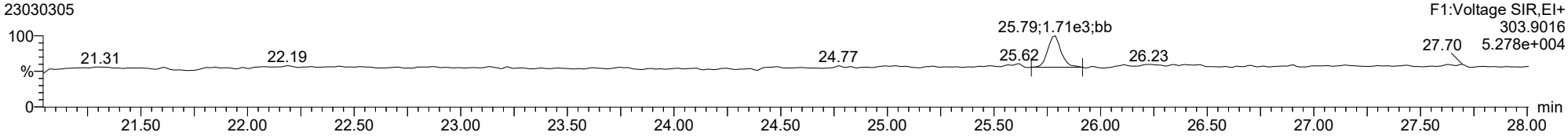
Total-tetrafurans



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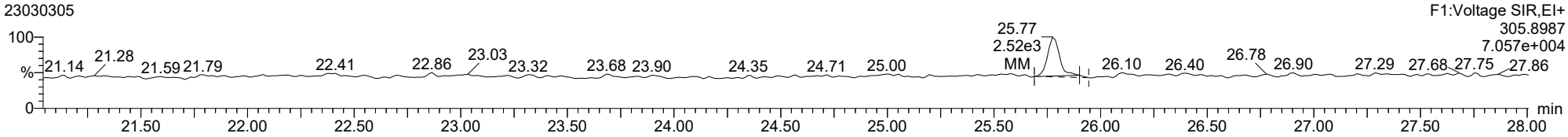

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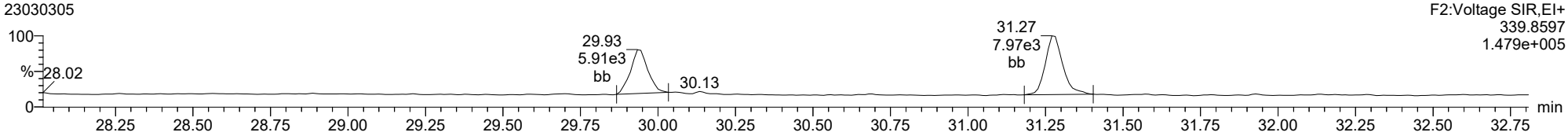

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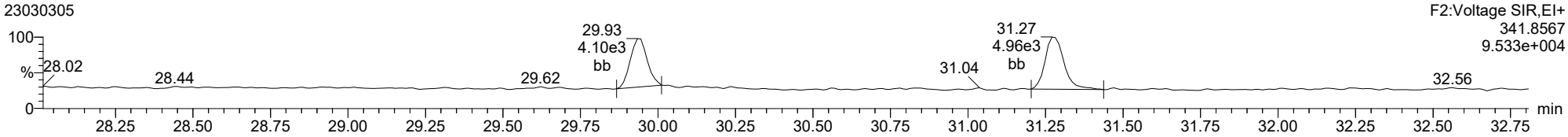

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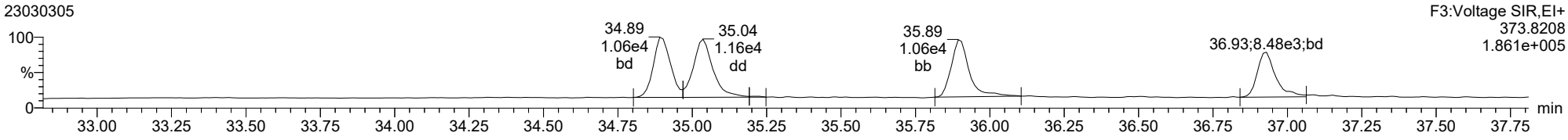
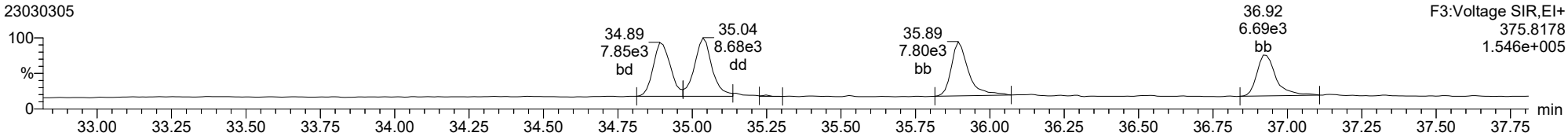
Total-hexafurans



Total-hexafurans



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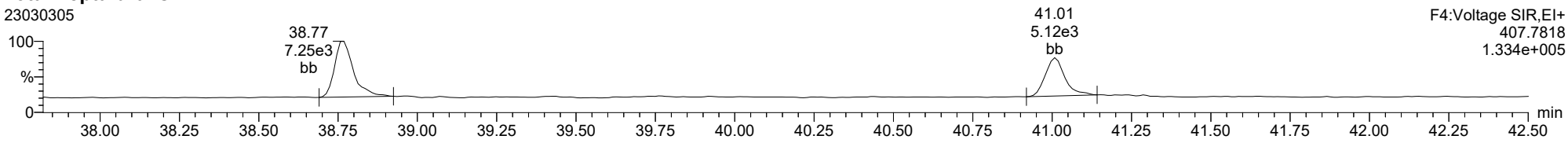
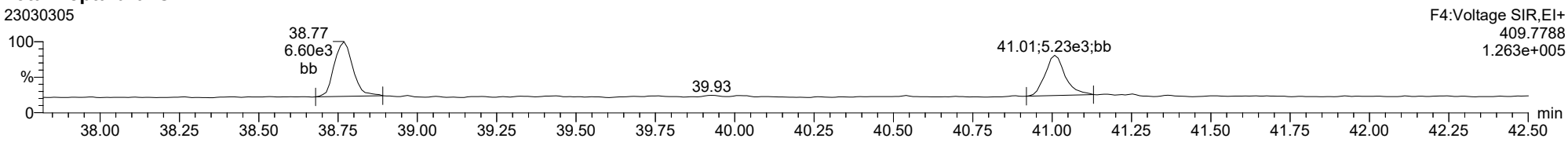


Total-heptafurans



Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
Printed: Monday, March 06, 2023 11:34:24 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.789	1.001	8.311e3	1.080e4	0.702	0.769	0.770	1017	2375	1.17e5	1.59e5	114.9	67.2	NO	bd	bb	1.942
12378-PeCDF	29.945	1.001	4.669e4	2.820e4	0.679	1.656	1.550	1114	1452	6.51e5	4.26e5	583.9	293.2	NO	bd	bb	10.465
23478-PeCDF	31.282	1.000	4.676e4	2.892e4	0.786	1.617	1.550	1114	1452	6.63e5	4.21e5	595.0	289.8	NO	bb	bb	10.293
123478-HxCDF	34.903	1.000	5.097e4	3.855e4	1.166	1.322	1.240	1081	974	7.67e5	5.88e5	709.2	604.2	NO	bd	bd	9.861
234678-HxCDF	35.906	1.000	4.287e4	3.364e4	1.140	1.274	1.240	1081	974	6.16e5	4.95e5	570.0	508.0	NO	bd	bb	10.523
123678-HxCDF	35.048	1.001	5.830e4	4.380e4	1.091	1.331	1.240	1081	974	7.78e5	6.16e5	719.4	632.0	NO	dd	db	10.775
123789-HxCDF	36.942	1.001	3.050e4	2.273e4	1.137	1.342	1.240	1081	974	4.14e5	3.24e5	383.3	332.2	NO	bb	bb	9.945
1234678-HpCDF	38.780	1.001	2.871e4	2.660e4	1.003	1.079	1.050	1234	1299	4.33e5	4.29e5	350.5	330.3	NO	bd	bb	10.087
1234789-HpCDF	41.020	1.000	2.198e4	2.032e4	0.953	1.082	1.050	1234	1299	3.09e5	2.76e5	250.5	212.3	NO	bb	bb	10.556
OCDF	45.247	1.006	3.160e4	3.327e4	0.778	0.950	0.890	832	1108	3.53e5	3.88e5	424.8	350.5	NO	bd	bb	19.690
2378-TCDD	26.438	1.001	9.033e3	1.299e4	1.149	0.696	0.770	1078	937	1.34e5	1.84e5	124.1	196.6	NO	bb	bb	2.068
12378-PeCDD	31.538	1.000	4.287e4	2.877e4	1.022	1.490	1.550	1012	882	6.26e5	3.88e5	618.4	440.6	NO	bb	bb	9.981
123478-HxCDD	36.028	1.001	3.011e4	2.566e4	0.996	1.173	1.240	1087	1355	4.81e5	4.17e5	442.1	307.5	NO	bd	bd	9.781
123678-HxCDD	36.140	1.000	3.660e4	2.810e4	1.001	1.303	1.240	1087	1355	5.13e5	3.98e5	471.9	293.4	NO	dd	db	9.830
123789-HxCDD	36.530	1.011	2.694e4	2.285e4	0.907	1.179	1.240	1087	1355	3.87e5	3.22e5	355.7	237.4	NO	bb	bb	8.921
1234678-HpCDD	40.273	1.000	2.448e4	2.664e4	1.039	0.919	1.050	853	881	3.43e5	3.58e5	402.1	405.9	NO	bb	bd	10.011
OCDD	45.009	1.000	3.531e4	4.015e4	0.920	0.879	0.890	1050	1012	4.08e5	4.99e5	388.3	492.6	NO	bb	bb	19.363
13C-2378-TCDF	25.774	1.007	6.035e5	7.993e5	1.620	0.755	0.770	2457	1835	8.64e6	1.14e7	3516.1	6186.3	NO	bb	bb	103.115
13C-12378-PeCDF	29.923	1.169	6.526e5	4.010e5	1.240	1.628	1.550	3002	2090	8.73e6	5.82e6	2907.1	2783.7	NO	bb	bb	101.148
13C-23478-PeCDF	31.271	1.221	5.554e5	3.799e5	1.118	1.462	1.550	3002	2090	8.01e6	5.41e6	2667.8	2586.4	NO	bb	bb	99.644
13C-123478-HxCDF	34.892	0.956	2.641e5	5.144e5	1.168	0.513	0.510	1857	2488	3.90e6	7.62e6	2100.8	3063.0	NO	bd	bd	129.584
13C-123678-HxCDF	35.026	0.959	2.932e5	5.755e5	1.386	0.510	0.510	1857	2488	4.18e6	8.13e6	2249.4	3269.5	NO	db	db	121.832
13C-234678-HxCDF	35.895	0.983	2.180e5	4.199e5	1.129	0.519	0.510	1857	2488	3.14e6	6.08e6	1689.2	2442.9	NO	bb	bb	109.838
13C-123789-HxCDF	36.920	1.011	1.570e5	3.137e5	0.932	0.501	0.510	1857	2488	2.29e6	4.45e6	1232.1	1790.1	NO	bb	bb	98.225
13C-1234678-HpCDF	38.758	1.062	1.644e5	3.823e5	0.895	0.430	0.440	2012	3375	2.57e6	5.95e6	1277.0	1763.6	NO	bb	bb	118.766
13C-1234789-HpCDF	40.998	1.123	1.271e5	2.934e5	0.770	0.433	0.440	2012	3375	1.71e6	4.02e6	850.7	1191.4	NO	bb	bb	106.228
13C-1234-TCDD	25.605	0.000	3.763e5	4.634e5	1.000	0.812	0.770	2552	2183	5.75e6	7.05e6	2254.8	3231.1	NO	bb	bb	100.000
13C-2378-TCDD	26.410	1.031	4.085e5	5.183e5	1.152	0.788	0.770	2552	2183	5.98e6	7.56e6	2342.4	3461.2	NO	bb	bb	95.779
13C-12378-PeCDD	31.527	1.231	4.337e5	2.688e5	0.829	1.614	1.550	1077	1542	6.15e6	3.74e6	5715.6	2425.2	NO	bb	bb	100.933
13C-123478-HxCDD	36.006	0.986	3.223e5	2.505e5	0.995	1.287	1.240	2237	1883	4.87e6	3.76e6	2175.2	1999.6	NO	bd	bd	111.924
13C-123678-HxCDD	36.129	0.990	3.608e5	2.967e5	1.157	1.216	1.240	2237	1883	5.10e6	4.02e6	2277.5	2137.4	NO	db	db	110.547
13C-1234678-HpCDD	40.262	1.103	2.573e5	2.341e5	0.840	1.099	1.050	2349	1481	3.41e6	3.22e6	1450.8	2172.3	NO	bd	bb	113.737
13C-OCDD	44.991	1.232	4.017e5	4.455e5	0.767	0.902	0.890	2278	1800	4.53e6	5.05e6	1990.6	2807.7	NO	bb	bb	214.651
13C-123789-HxCDD	36.507	0.000	2.902e5	2.240e5	1.000	1.296	1.240	2237	1883	4.20e6	3.27e6	1878.6	1737.5	NO	bb	bb	100.000
37CL-2378-TCDD	26.424	1.032	1.977e4		1.288			2484		2.93e5		117.9			bb		1.828

Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
Printed: Monday, March 06, 2023 11:34:24 Pacific Standard Time

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	1017	2375								
1289-TCDF					0.678		0.770	1017	2375								
13468-PECDF					1.246		1.550	633	1159								
12389-PECDF					0.496		1.550	1114	1452								
123468-HXCDF					1.169		1.240	1081	974								
1368-TCDD					1.015		0.770	1078	937								
1289-TCDD					0.909		0.770	1078	937								
12479-PECDD					2.301		1.550	1012	882								
12389-PECDD					1.184		1.550	1012	882								
124679-HXCDD					1.115		1.240	1087	1355								
1234679-HPCDD					1.137		1.050	853	881								
Total-tetrafurans			8.311e3		0.727			1017		1.17e5							1.942
Total-penta1			0.000e0					633		0.00e0							
Total-pentafurans			9.345e4		0.654			1114		1.31e6							20.758
Total-hexafurans			1.826e5		1.141			1081		2.58e6							41.105
Total-heptafurans			5.070e4		0.978			1234		7.42e5							20.643
Total-Furans			3.667e5		0.922			1017		5.10e6							104.140
Total-tetradioxins			9.033e3		1.024			1078		1.34e5							2.068
Total-pentadioxins			4.287e4		1.502			1012		6.26e5							9.981
Total-hexadioxins			9.364e4		1.005			1087		1.38e6							28.532
Total-heptadioxins			2.448e4		1.088			853		3.43e5							10.011
Total-Dioxins			2.053e5		1.130			1078		2.89e6							69.955
Total-TEQ			5.720e5					1078		7.99e6							174.095
FUNCTION1 PFK			1.995e6					567717		7.69e6							
FUNCTION2 PFK			1.258e5					282093		4.74e6							0.000
FUNCTION3 PFK			4.711e7					382868		3.34e7							0.000
FUNCTION4 PFK			2.092e7					278389		1.32e7							
FUNCTION5 PFK			6.777e4					239180		2.68e6							
FUNCTION1 HXCD...			0.000e0					613		0.00e0							
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			1.408e2					965		2.85e3							0.000
FUNCTION3 OCDPE			0.000e0					571		0.00e0							
FUNCTION4 NCDPE			3.810e2					638		4.39e3							0.000
FUNCTION5 DCDPE			0.000e0					603		0.00e0							

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.79	8.311e3	1.080e4	0.702	0.77	0.77	114.9	YES	NO	bd	bb	1.942

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.28	4.676e4	2.892e4	0.786	1.62	1.55	595.0	YES	NO	bb	bb	10.293
2	12378-PeCDF	29.94	4.669e4	2.820e4	0.679	1.66	1.55	583.9	YES	NO	bd	bb	10.465

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.94	3.050e4	2.273e4	1.137	1.34	1.24	383.3	YES	NO	bb	bb	9.945
2	234678-HxCDF	35.91	4.287e4	3.364e4	1.140	1.27	1.24	570.0	YES	NO	bd	bb	10.523
3	123678-HxCDF	35.05	5.830e4	4.380e4	1.091	1.33	1.24	719.4	YES	NO	dd	db	10.775
4	123478-HxCDF	34.90	5.097e4	3.855e4	1.166	1.32	1.24	709.2	YES	NO	bd	bd	9.861

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.02	2.198e4	2.032e4	0.953	1.08	1.05	250.5	YES	NO	bb	bb	10.556
2	1234678-HpCDF	38.78	2.871e4	2.660e4	1.003	1.08	1.05	350.5	YES	NO	bd	bb	10.087

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.28	4.676e4	2.892e4	0.786	1.62	1.55	595.0	YES	NO	bb	bb	10.293
2	12378-PeCDF	29.94	4.669e4	2.820e4	0.679	1.66	1.55	583.9	YES	NO	bd	bb	10.465
3	2378-TCDF	25.79	8.311e3	1.080e4	0.702	0.77	0.77	114.9	YES	NO	bd	bb	1.942
4	123789-HxCDF	36.94	3.050e4	2.273e4	1.137	1.34	1.24	383.3	YES	NO	bb	bb	9.945
5	234678-HxCDF	35.91	4.287e4	3.364e4	1.140	1.27	1.24	570.0	YES	NO	bd	bb	10.523
6	123678-HxCDF	35.05	5.830e4	4.380e4	1.091	1.33	1.24	719.4	YES	NO	dd	db	10.775
7	123478-HxCDF	34.90	5.097e4	3.855e4	1.166	1.32	1.24	709.2	YES	NO	bd	bd	9.861
8	1234789-HpCDF	41.02	2.198e4	2.032e4	0.953	1.08	1.05	250.5	YES	NO	bb	bb	10.556
9	1234678-HpCDF	38.78	2.871e4	2.660e4	1.003	1.08	1.05	350.5	YES	NO	bd	bb	10.087
10	OCDF	45.25	3.160e4	3.327e4	0.778	0.95	0.89	424.8	YES	NO	bd	bb	19.690

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.44	9.033e3	1.299e4	1.149	0.70	0.77	124.1	YES	NO	bb	bb	2.068

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.54	4.287e4	2.877e4	1.022	1.49	1.55	618.4	YES	NO	bb	bb	9.981

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.53	2.694e4	2.285e4	0.907	1.18	1.24	355.7	YES	NO	bb	bb	8.921
2	123678-HxCDD	36.14	3.660e4	2.810e4	1.001	1.30	1.24	471.9	YES	NO	dd	db	9.830
3	123478-HxCDD	36.03	3.011e4	2.566e4	0.996	1.17	1.24	442.1	YES	NO	bd	bd	9.781

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.27	2.448e4	2.664e4	1.039	0.92	1.05	402.1	YES	NO	bb	bd	10.011

ID: CS2CW, Name: 23030306, Date: 03-Mar-2023, Time: 13:16:24, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.54	4.287e4	2.877e4	1.022	1.49	1.55	618.4	YES	NO	bb	bb	9.981
2	2378-TCDD	26.44	9.033e3	1.299e4	1.149	0.70	0.77	124.1	YES	NO	bb	bb	2.068
3	123789-HxCDD	36.53	2.694e4	2.285e4	0.907	1.18	1.24	355.7	YES	NO	bb	bb	8.921
4	123678-HxCDD	36.14	3.660e4	2.810e4	1.001	1.30	1.24	471.9	YES	NO	dd	db	9.830
5	123478-HxCDD	36.03	3.011e4	2.566e4	0.996	1.17	1.24	442.1	YES	NO	bd	bd	9.781
6	1234678-HpCDD	40.27	2.448e4	2.664e4	1.039	0.92	1.05	402.1	YES	NO	bb	bd	10.011
7	OCDD	45.01	3.531e4	4.015e4	0.920	0.88	0.89	388.3	YES	NO	bb	bb	19.363

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.28	4.676e4	2.892e4	0.786	1.62	1.55	595.0	YES	NO	bb	bb	10.293
2	12378-PeCDF	29.94	4.669e4	2.820e4	0.679	1.66	1.55	583.9	YES	NO	bd	bb	10.465
3	2378-TCDF	25.79	8.311e3	1.080e4	0.702	0.77	0.77	114.9	YES	NO	bd	bb	1.942
4	123789-HxCDF	36.94	3.050e4	2.273e4	1.137	1.34	1.24	383.3	YES	NO	bb	bb	9.945
5	234678-HxCDF	35.91	4.287e4	3.364e4	1.140	1.27	1.24	570.0	YES	NO	bd	bb	10.523
6	123678-HxCDF	35.05	5.830e4	4.380e4	1.091	1.33	1.24	719.4	YES	NO	dd	db	10.775
7	123478-HxCDF	34.90	5.097e4	3.855e4	1.166	1.32	1.24	709.2	YES	NO	bd	bd	9.861
8	1234789-HpCDF	41.02	2.198e4	2.032e4	0.953	1.08	1.05	250.5	YES	NO	bb	bb	10.556
9	1234678-HpCDF	38.78	2.871e4	2.660e4	1.003	1.08	1.05	350.5	YES	NO	bd	bb	10.087
10	OCDF	45.25	3.160e4	3.327e4	0.778	0.95	0.89	424.8	YES	NO	bd	bb	19.690
11	12378-PeCDD	31.54	4.287e4	2.877e4	1.022	1.49	1.55	618.4	YES	NO	bb	bb	9.981
12	2378-TCDD	26.44	9.033e3	1.299e4	1.149	0.70	0.77	124.1	YES	NO	bb	bb	2.068
13	123789-HxCDD	36.53	2.694e4	2.285e4	0.907	1.18	1.24	355.7	YES	NO	bb	bb	8.921
14	123678-HxCDD	36.14	3.660e4	2.810e4	1.001	1.30	1.24	471.9	YES	NO	dd	db	9.830
15	123478-HxCDD	36.03	3.011e4	2.566e4	0.996	1.17	1.24	442.1	YES	NO	bd	bd	9.781
16	1234678-HpCDD	40.27	2.448e4	2.664e4	1.039	0.92	1.05	402.1	YES	NO	bb	bd	10.011
17	OCDD	45.01	3.531e4	4.015e4	0.920	0.88	0.89	388.3	YES	NO	bb	bb	19.363

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	25.73	8.333e5					6.7	YES		bb		
2	FUNCTION1 PFK	21.10	1.162e6					6.9	YES		bb		

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.61	1.110e4					1.3	NO		bb		0.000
2	FUNCTION2 PFK	28.31	1.183e4					1.5	NO		bb		0.000
3	FUNCTION2 PFK	31.85	7.066e3					1.3	NO		bb		0.000
4	FUNCTION2 PFK	31.75	1.168e4					1.4	NO		bb		0.000
5	FUNCTION2 PFK	30.95	1.613e4					2.1	NO		bb		0.000
6	FUNCTION2 PFK	30.06	7.806e3					1.3	NO		bb		0.000
7	FUNCTION2 PFK	29.77	1.198e4					1.4	NO		bb		0.000
8	FUNCTION2 PFK	29.47	1.476e4					2.1	NO		bb		0.000
9	FUNCTION2 PFK	29.28	1.360e4					2.0	NO		db		0.000
10	FUNCTION2 PFK	29.22	1.980e4					2.4	NO		bd		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.30	3.856e7					44.6	YES		db		0.000
2	FUNCTION3 PFK	33.18	8.558e6					42.7	YES		bd		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.24	1.285e7					8.2	YES		db		
2	FUNCTION4 PFK	38.41	8.070e6					39.3	YES		bd		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	42.68	1.647e4					1.8	NO		bb		
2	FUNCTION5 PFK	45.75	3.282e3					1.0	NO		bb		
3	FUNCTION5 PFK	45.28	6.957e3					1.1	NO		bb		
4	FUNCTION5 PFK	44.90	6.364e3					1.0	NO		bb		
5	FUNCTION5 PFK	44.84	1.531e3					0.5	NO		bb		
6	FUNCTION5 PFK	44.40	6.282e3					1.0	NO		bb		
7	FUNCTION5 PFK	44.21	4.626e3					1.1	NO		bb		
8	FUNCTION5 PFK	44.03	7.842e3					1.2	NO		bb		
9	FUNCTION5 PFK	43.96	6.415e3					1.4	NO		bb		
10	FUNCTION5 PFK	43.84	7.992e3					1.2	NO		bb		

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ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.54	1.408e2					3.0	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.65	1.069e2					1.9	NO		bb		0.000
2	FUNCTION4 NCDPE	40.25	1.358e2					2.2	NO		bb		0.000
3	FUNCTION4 NCDPE	41.02	1.383e2					2.8	NO		bb		0.000

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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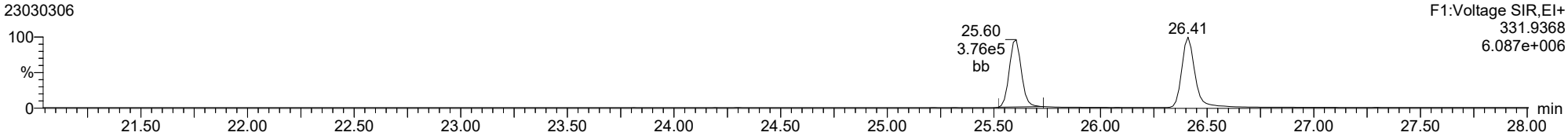
13C-1234-TCDD



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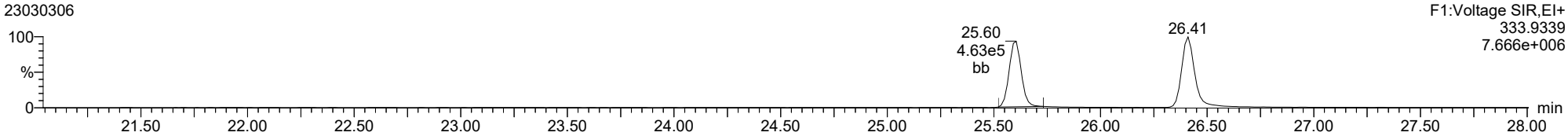
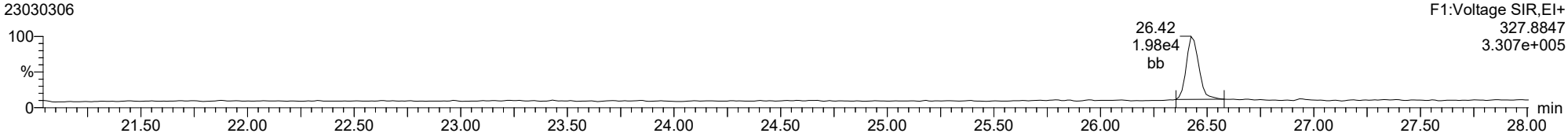


37CL-2378-TCDD



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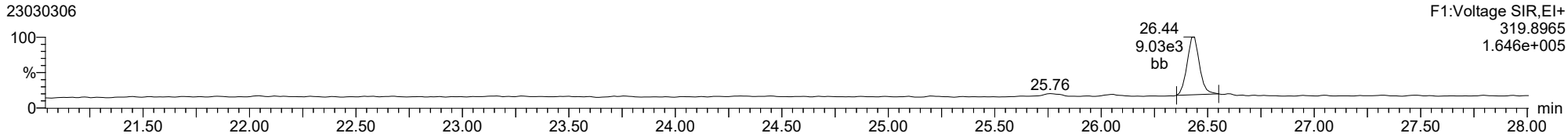

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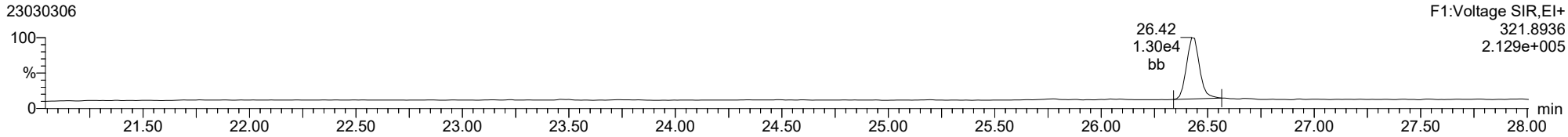

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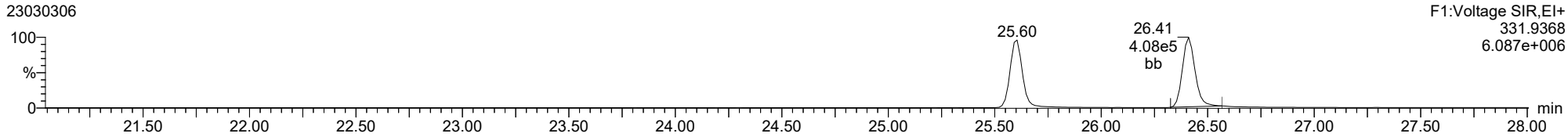

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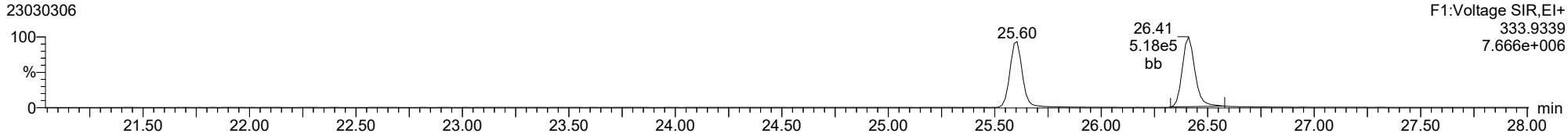

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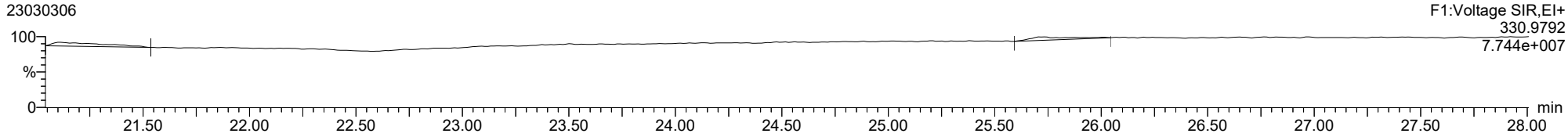

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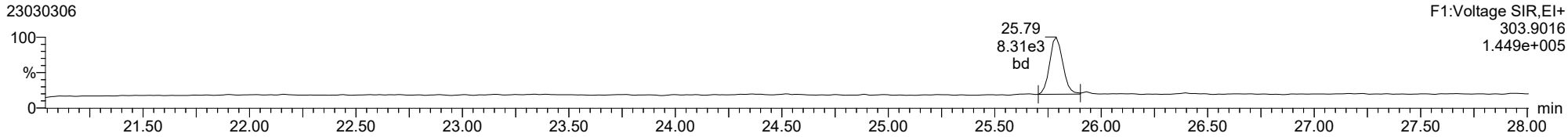

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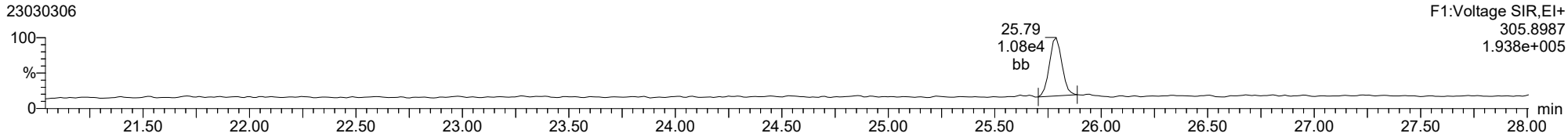

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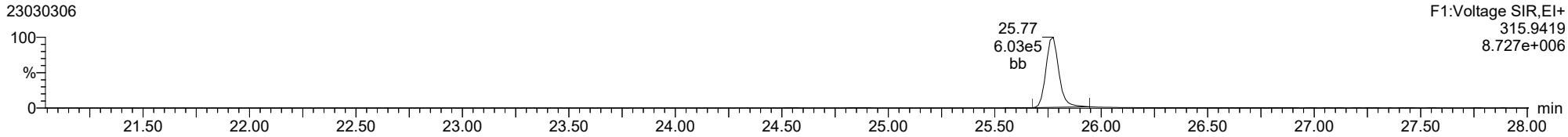

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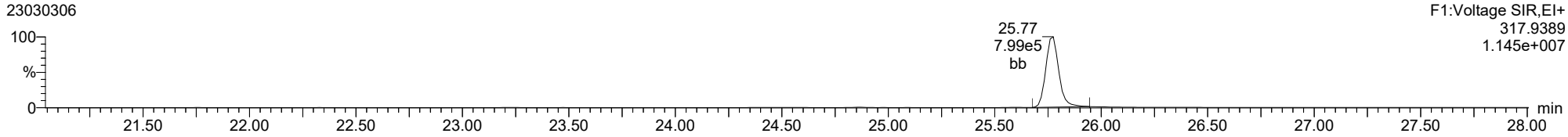
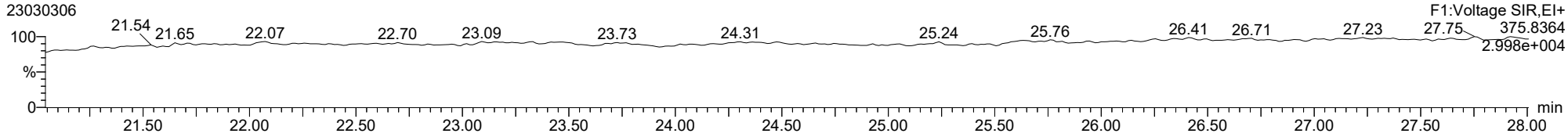


FUNCTION1 HXCDPE



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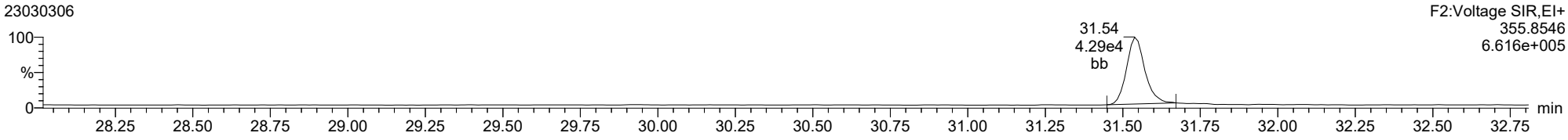
12378-PeCDD



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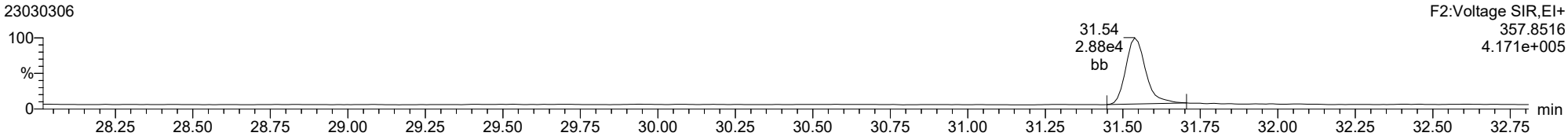

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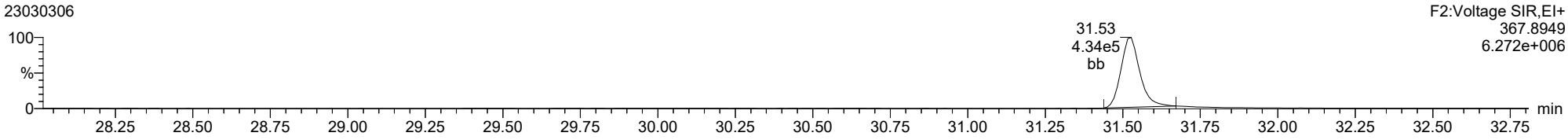

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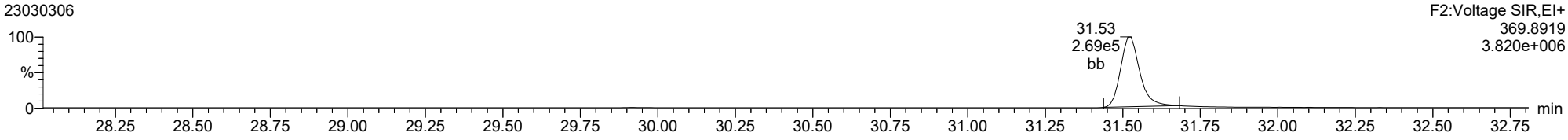
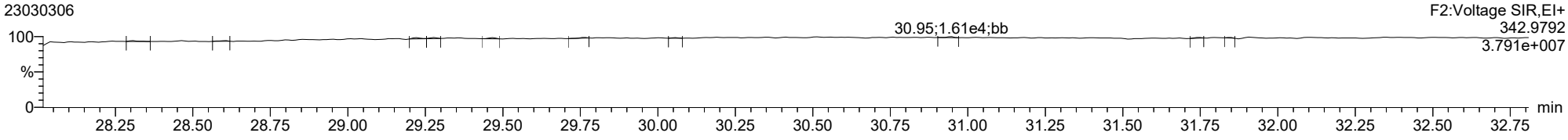


FUNCTION2 PFK



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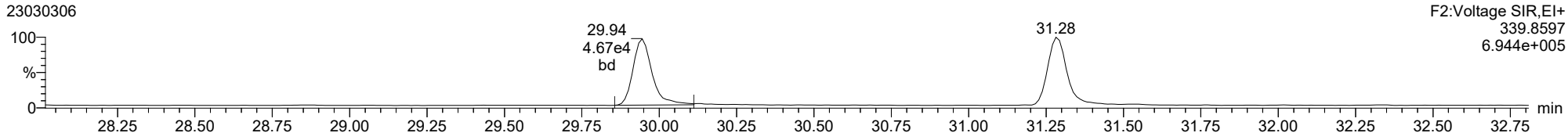

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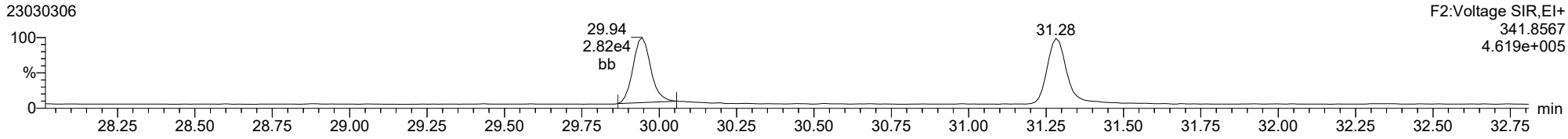

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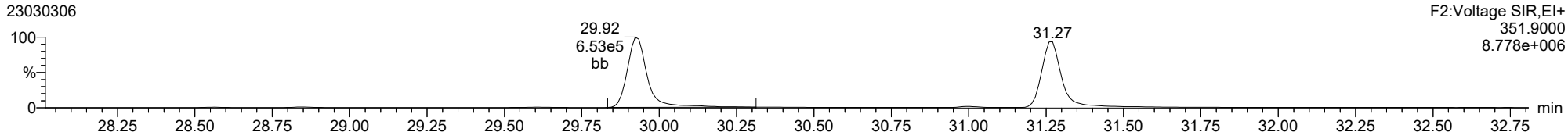

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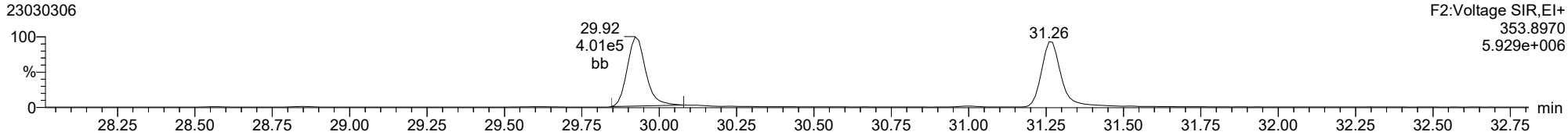
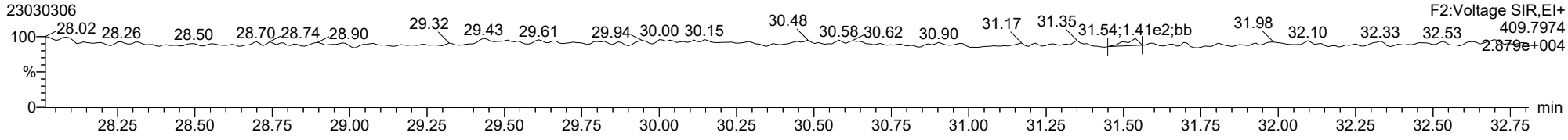


FUNCTION2 HPCDPE



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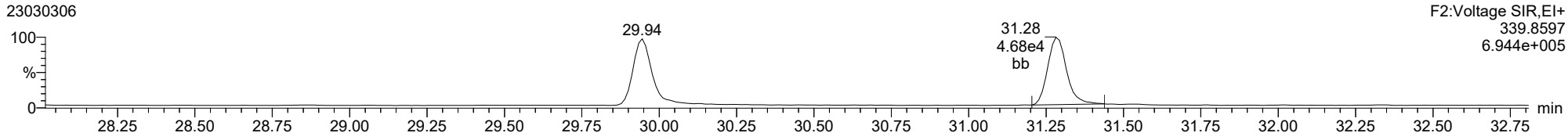
23478-PeCDF



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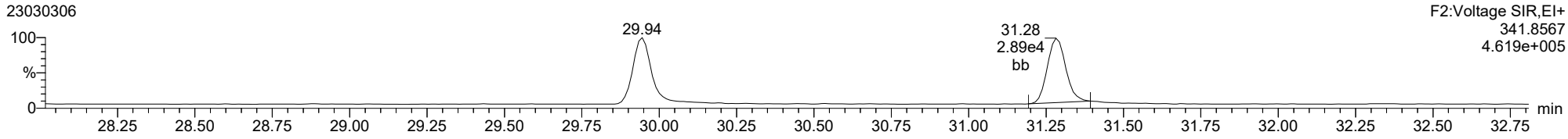

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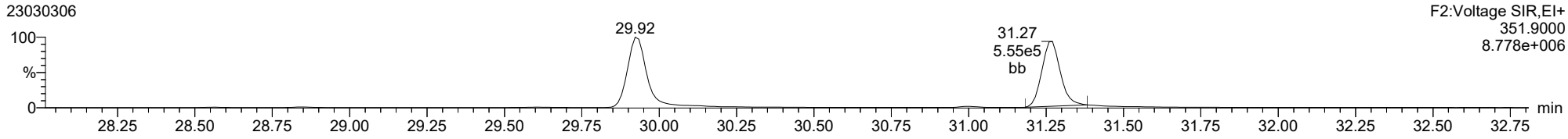

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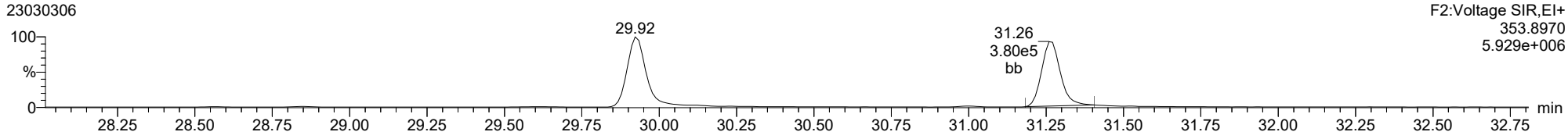

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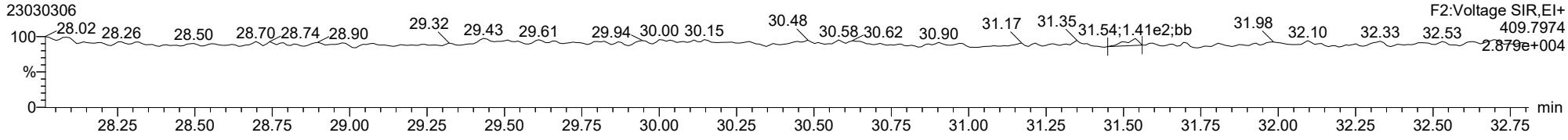

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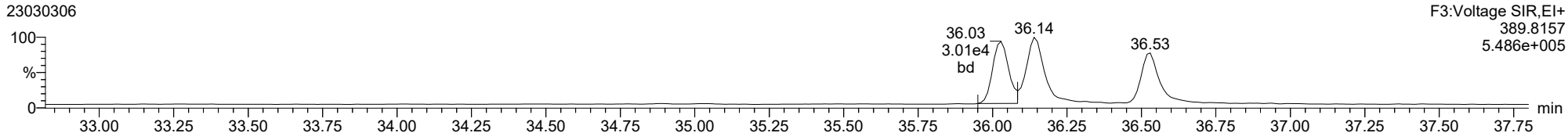
123478-HxCDD



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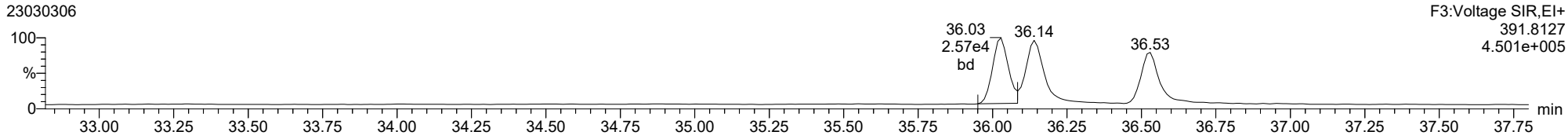

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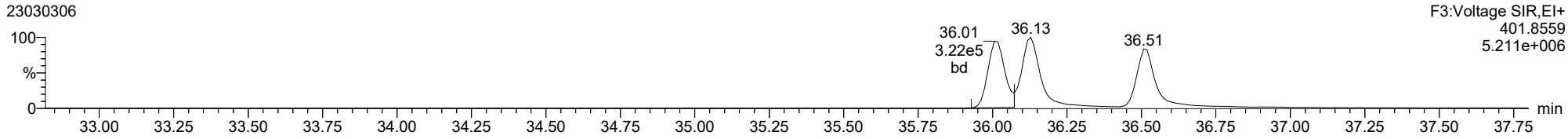

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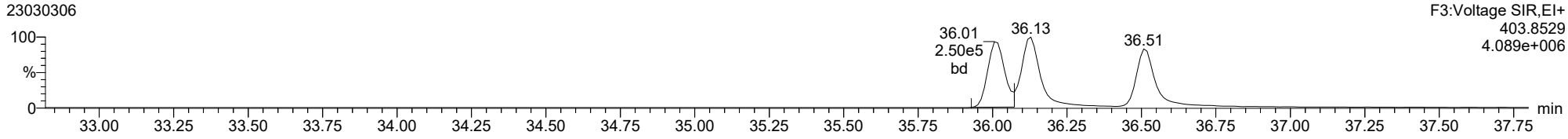

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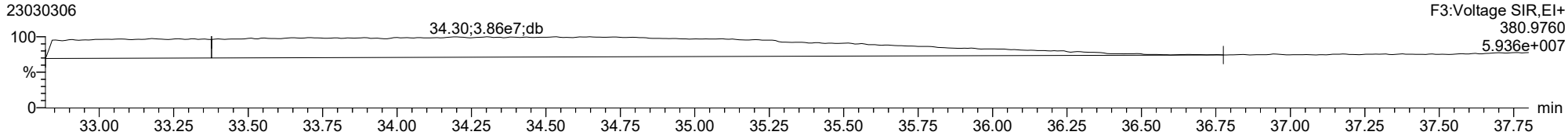

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Printed: Monday, March 06, 2023 11:34:24 Pacific Standard Time

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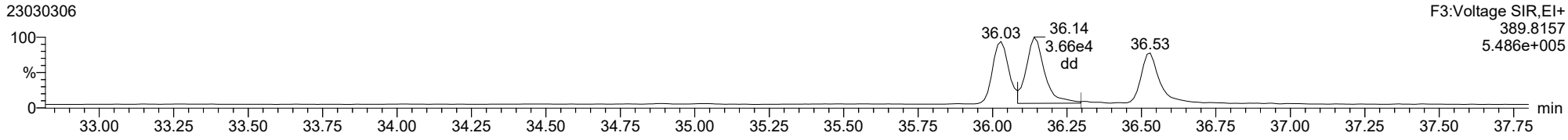

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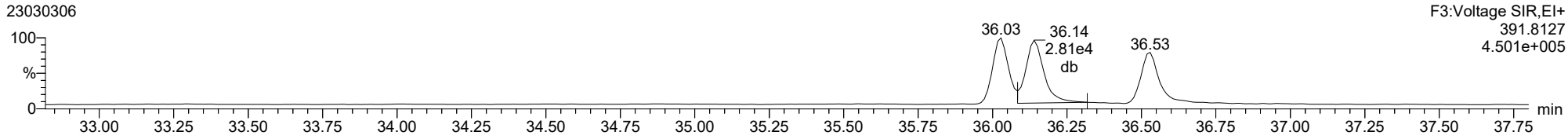

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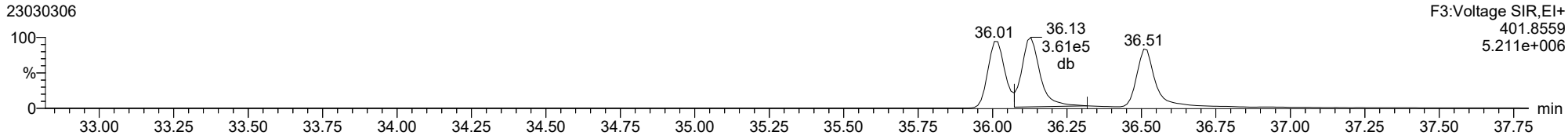

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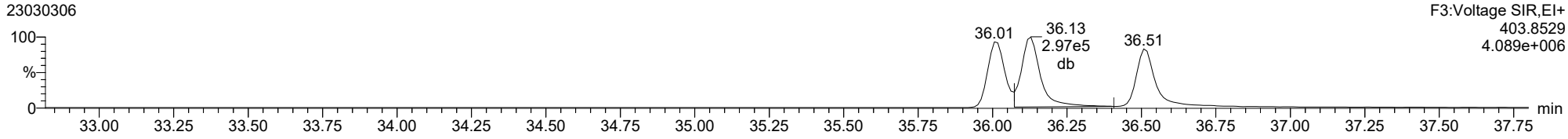

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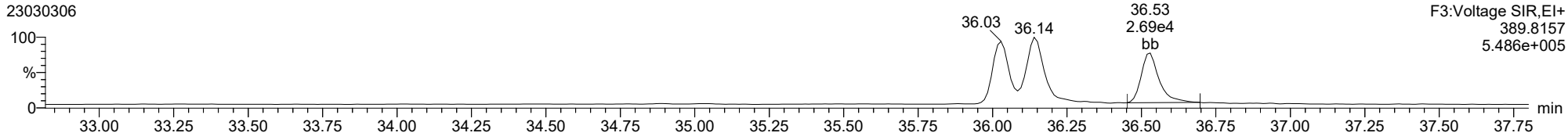

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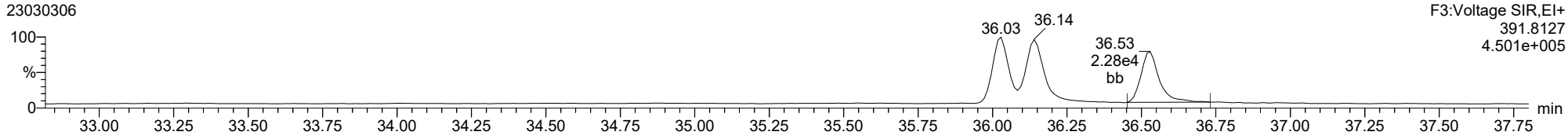

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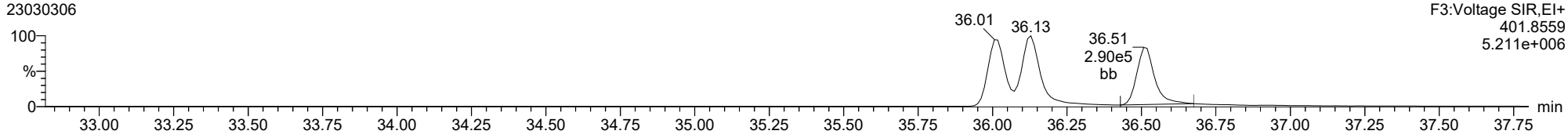

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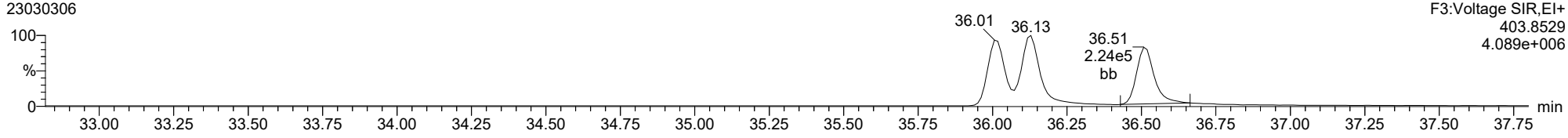

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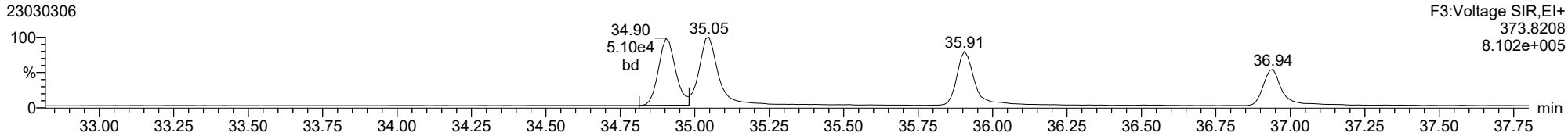

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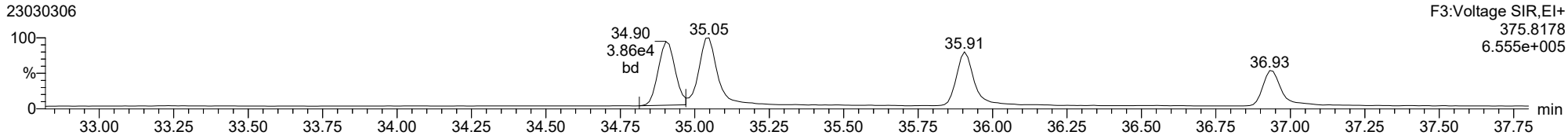

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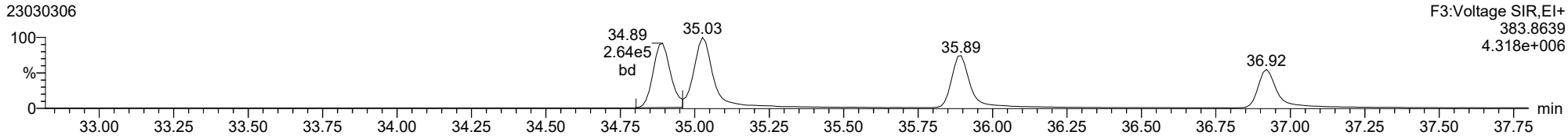

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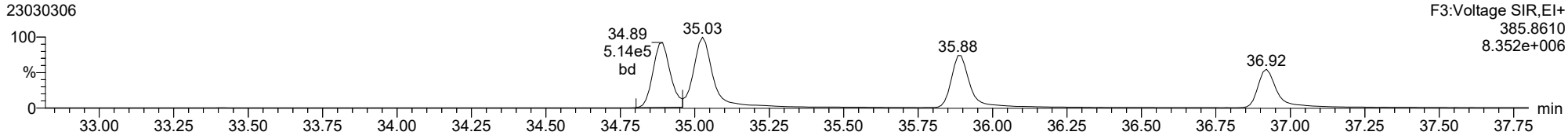

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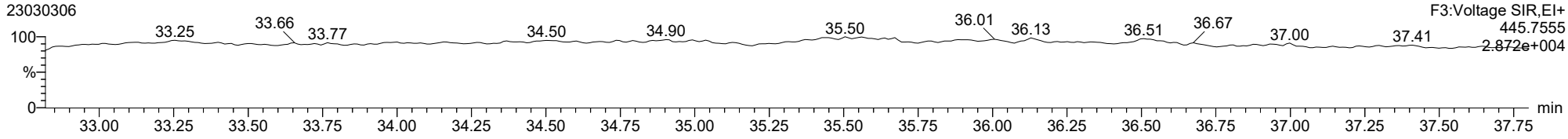

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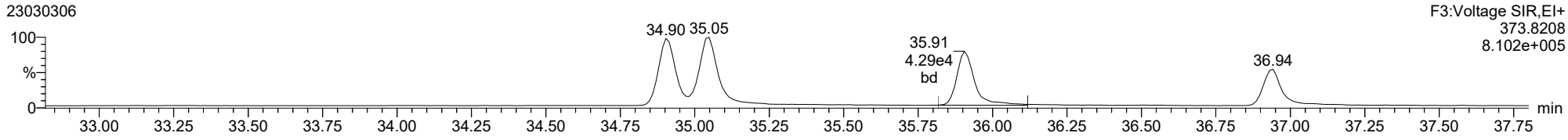

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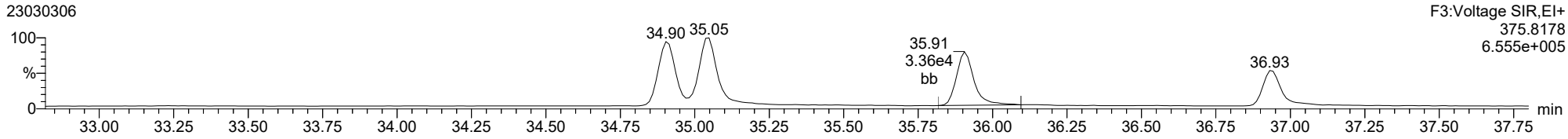

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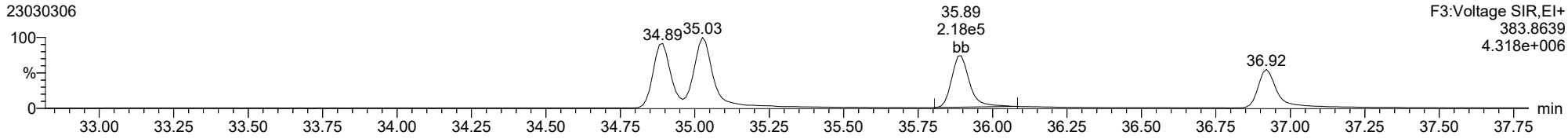

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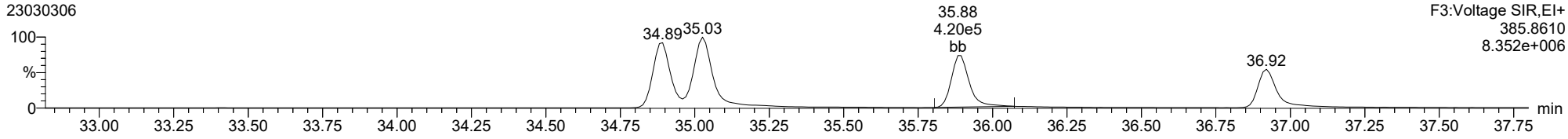

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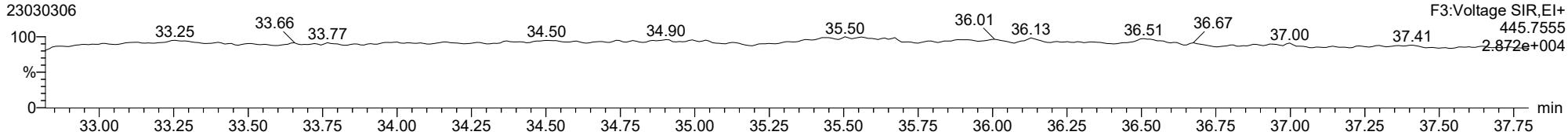

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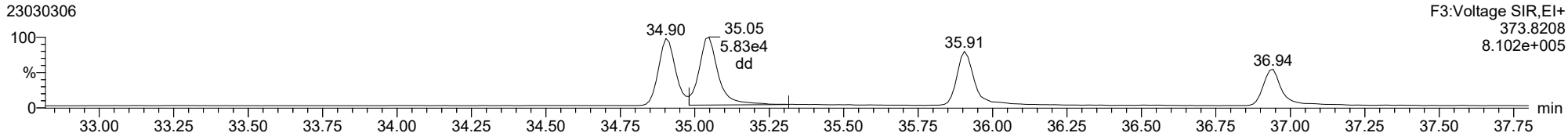

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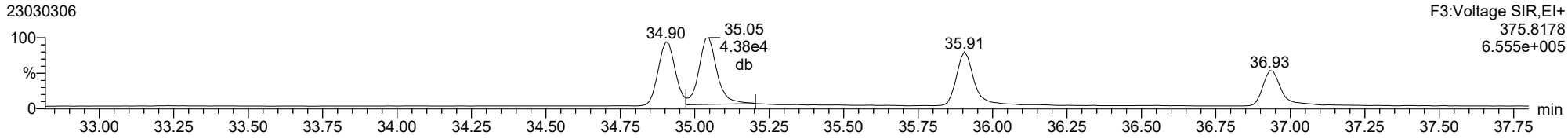

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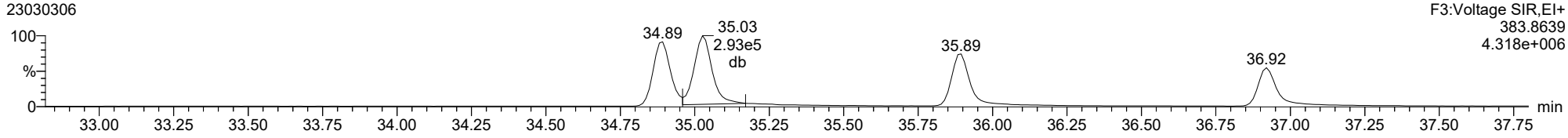

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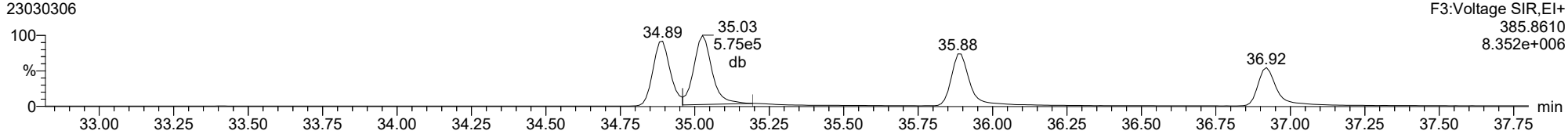

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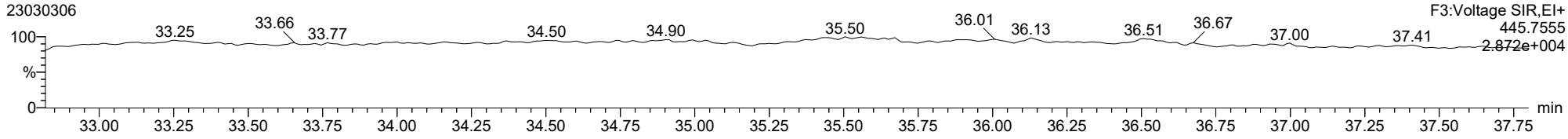

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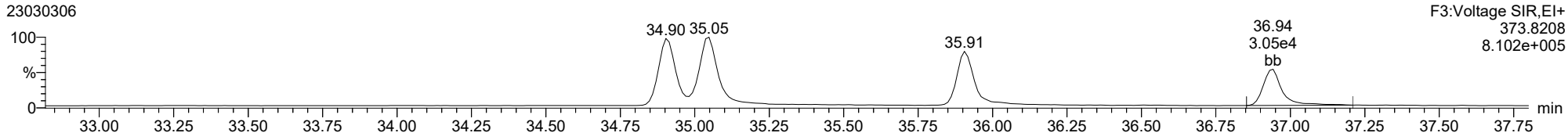

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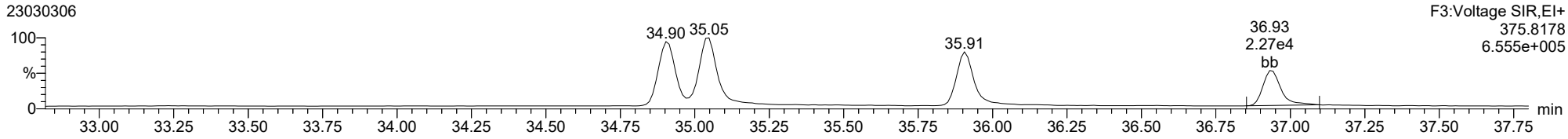

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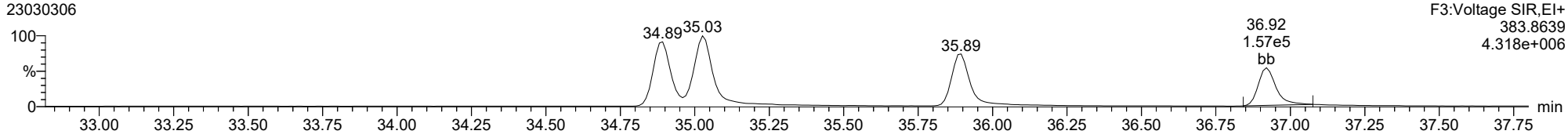

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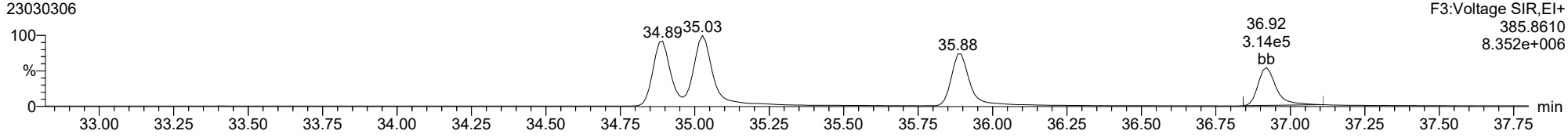

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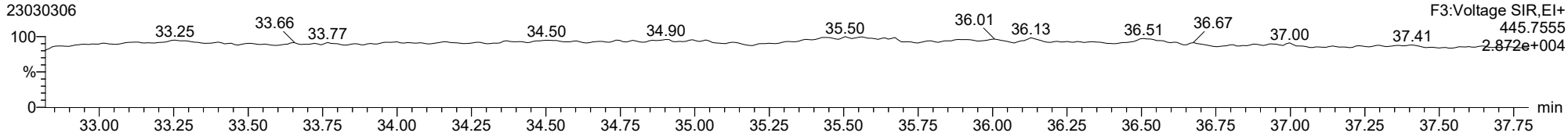

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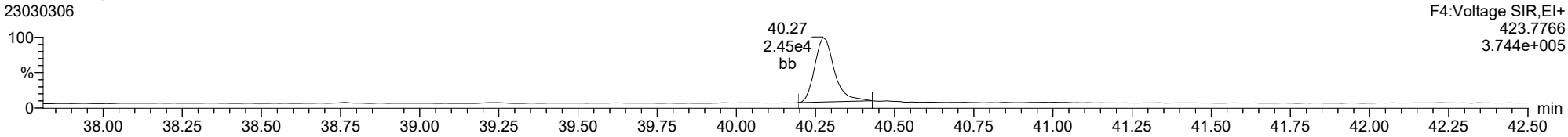

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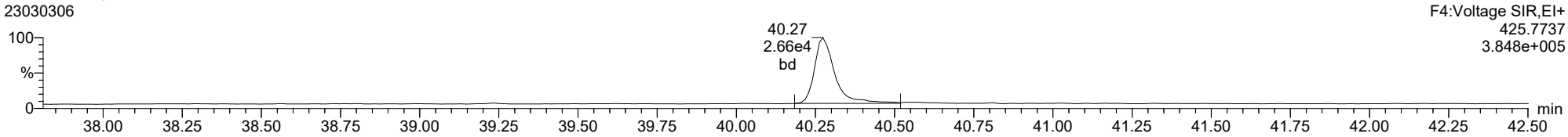

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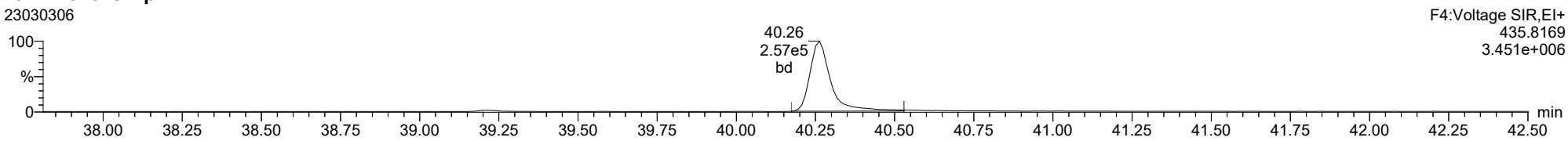

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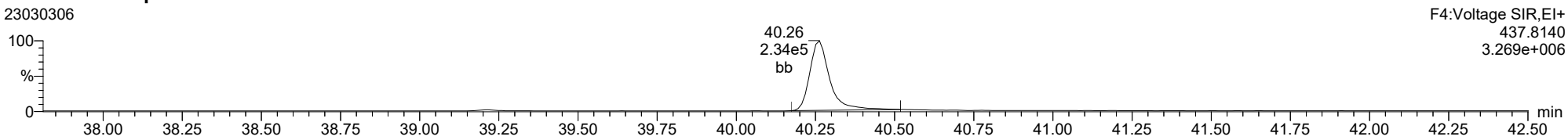

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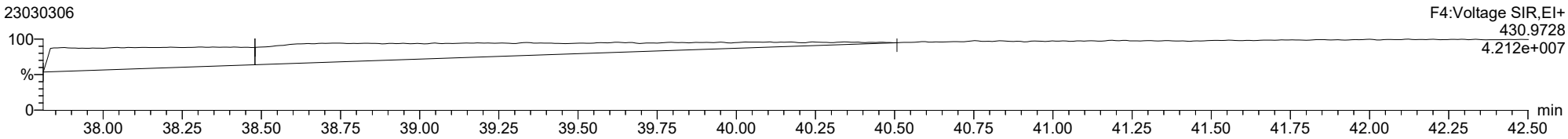

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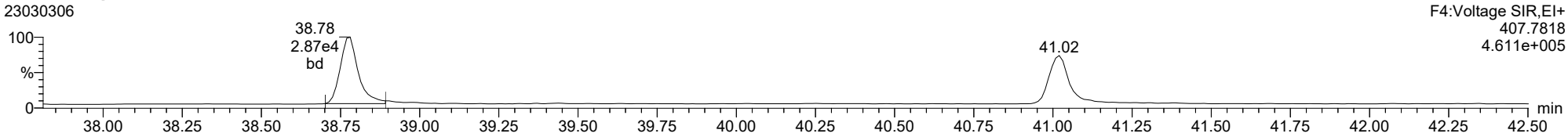

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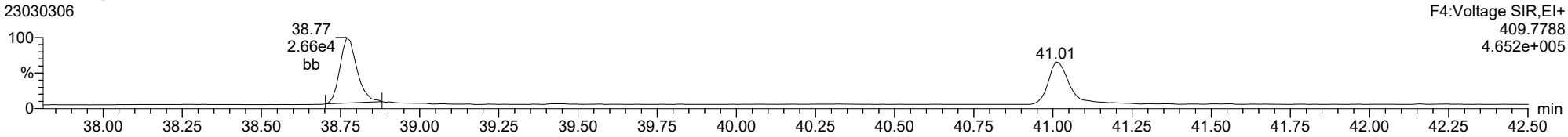

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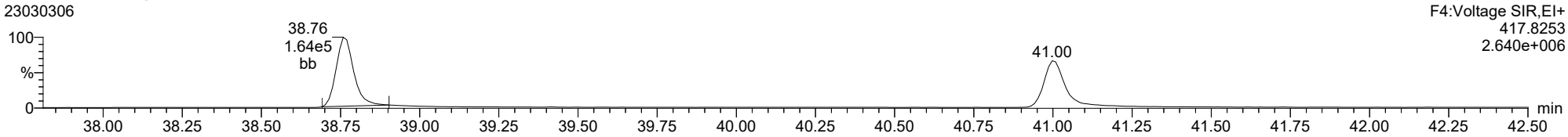

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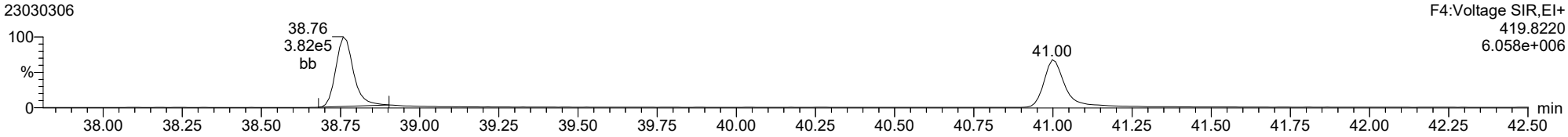

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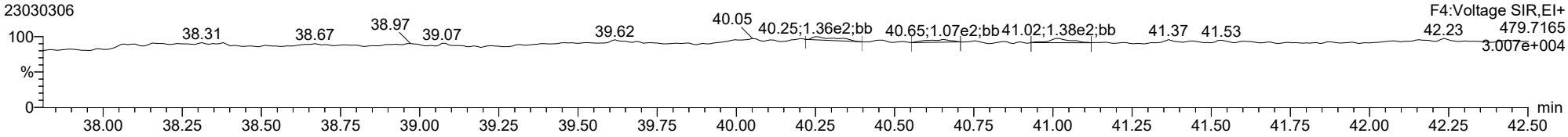

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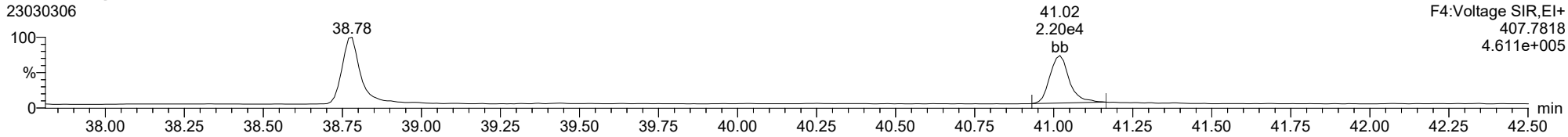

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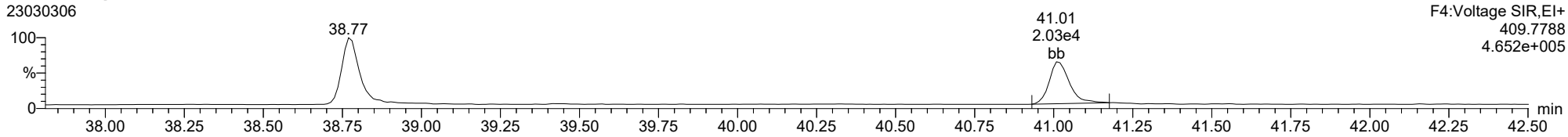

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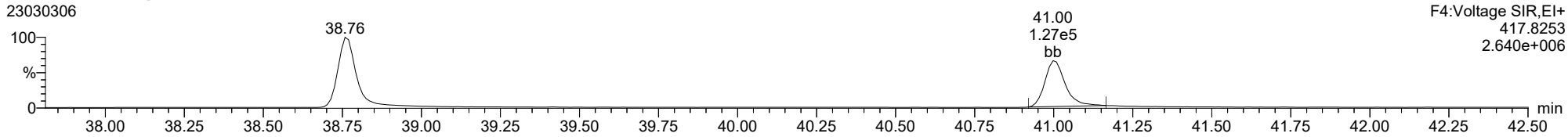

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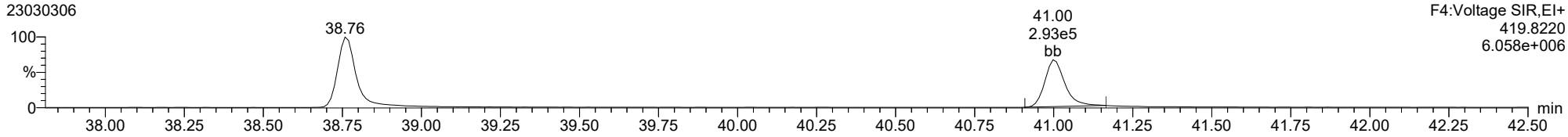

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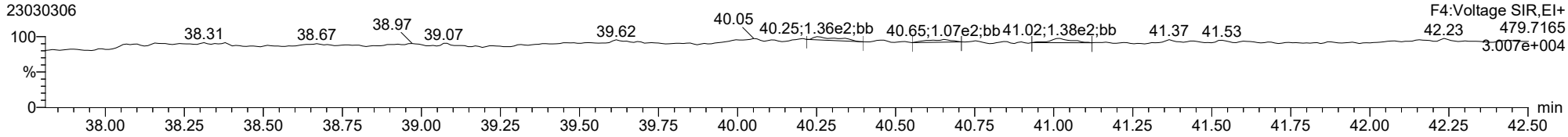

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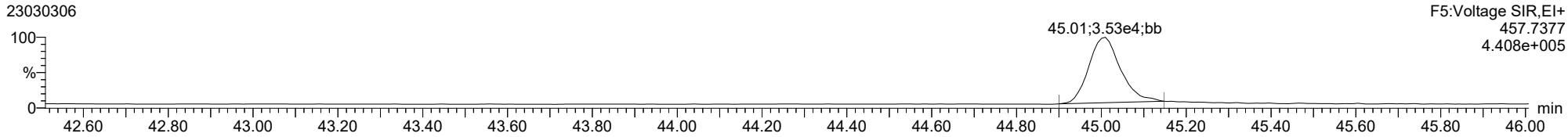

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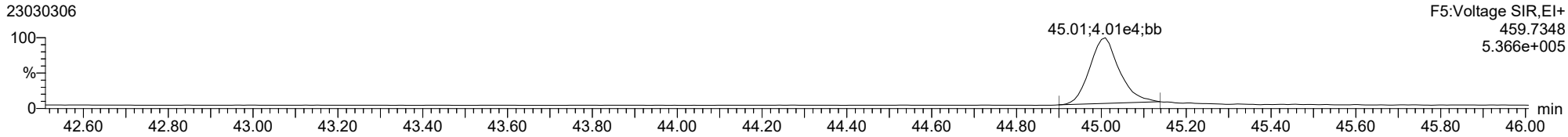

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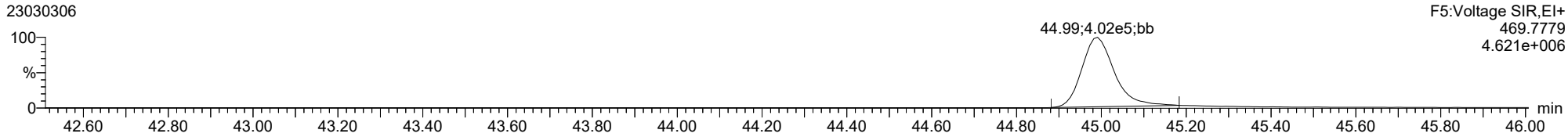

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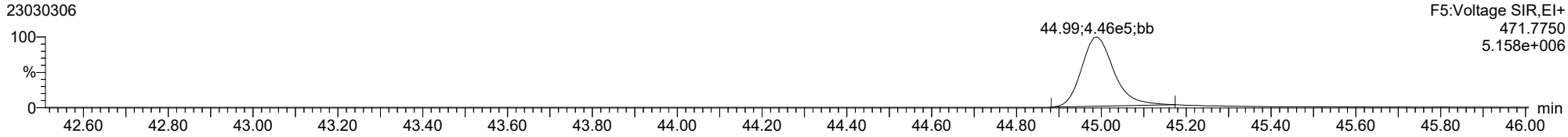
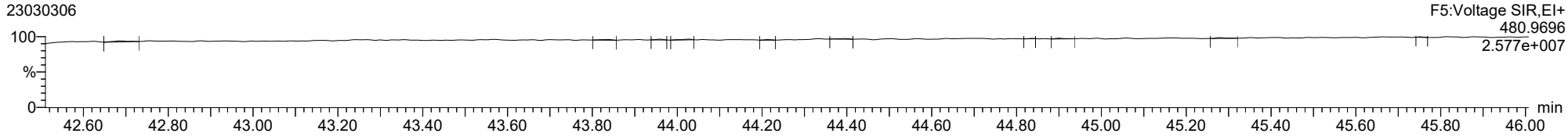


FUNCTION5 PFK



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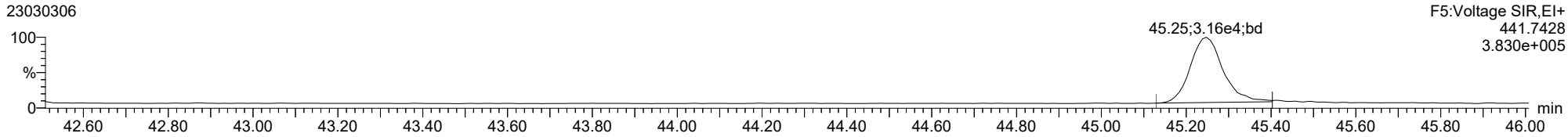

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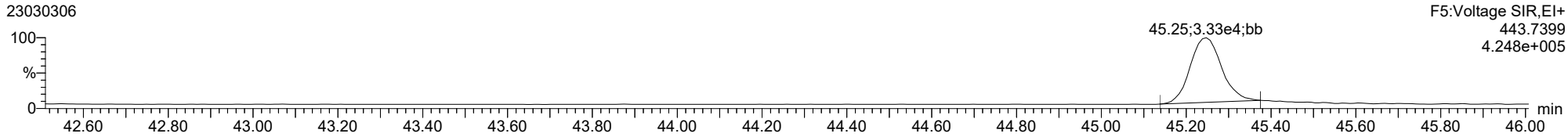
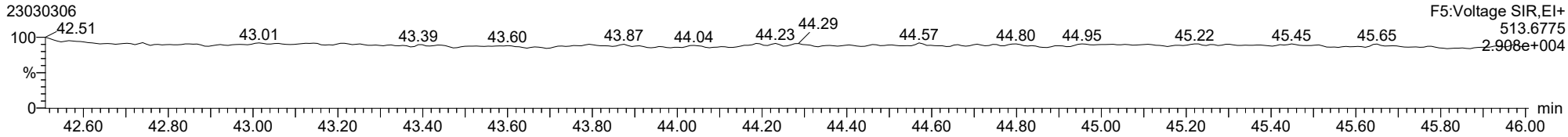


FUNCTION5 DCDPE



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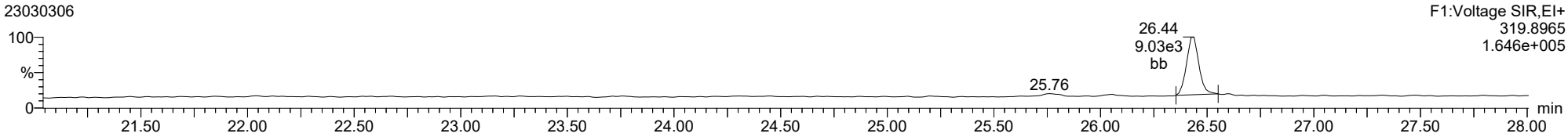
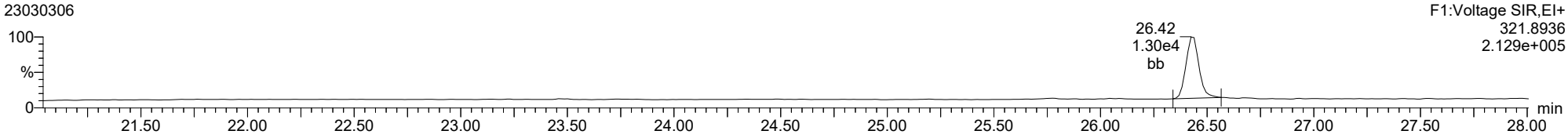
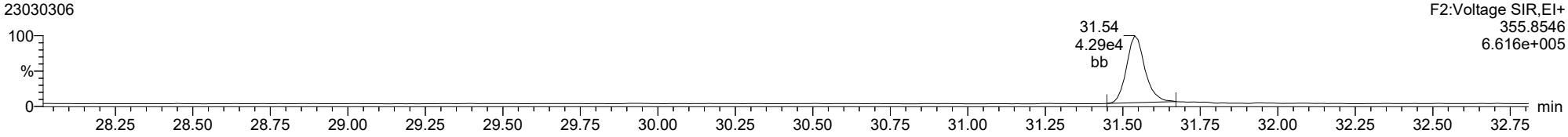
Total-tetradioxins



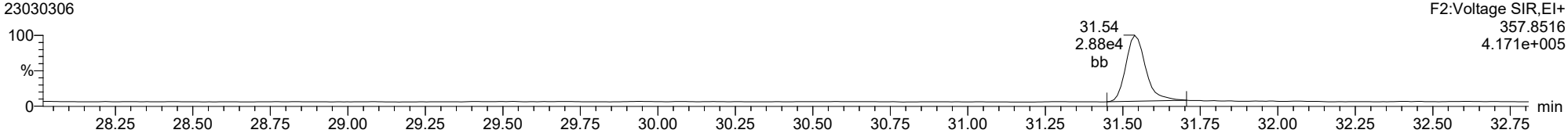
Total-tetradioxins



Total-pentadioxins



Total-pentadioxins



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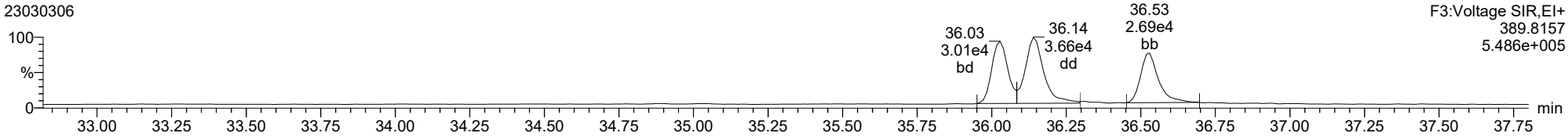
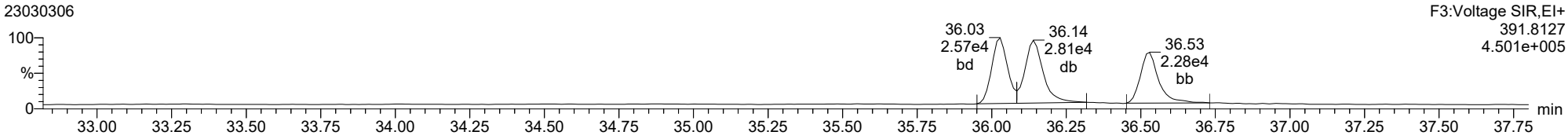
Total-hexadioxins



Total-hexadioxins



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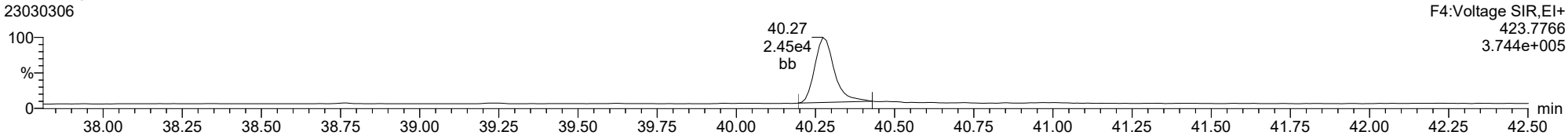

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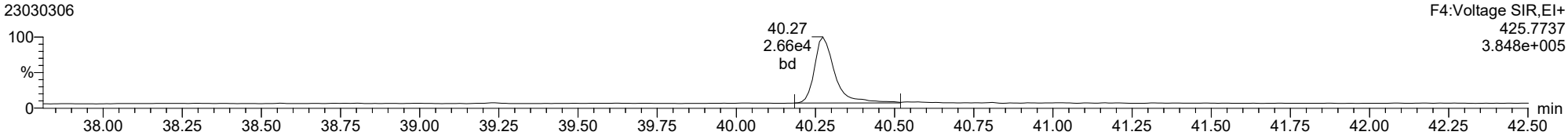

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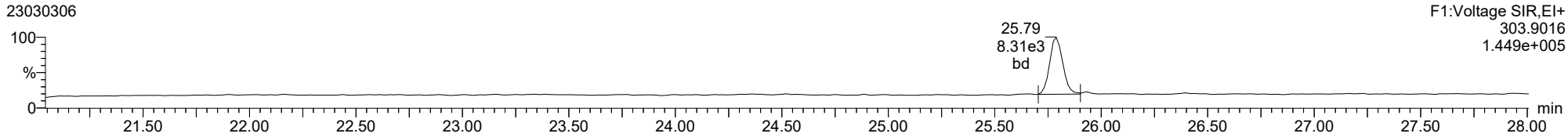
Total-tetrafurans



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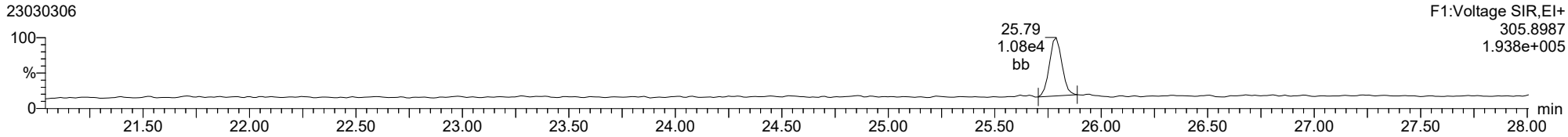

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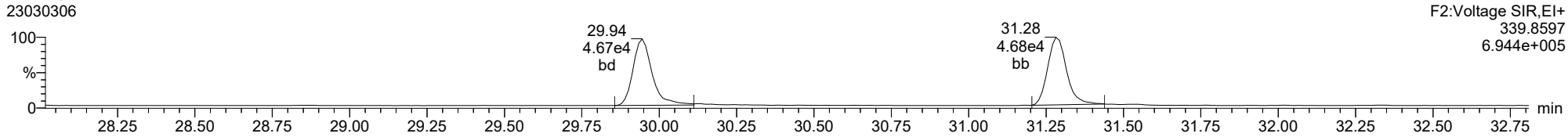

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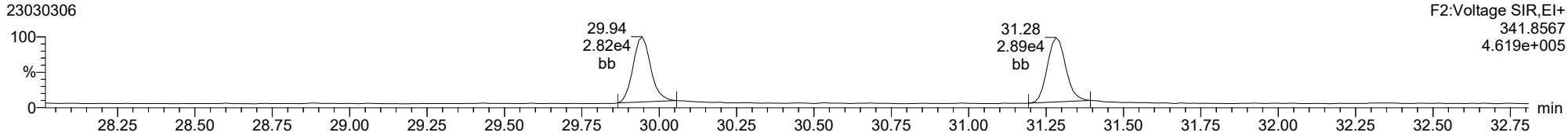

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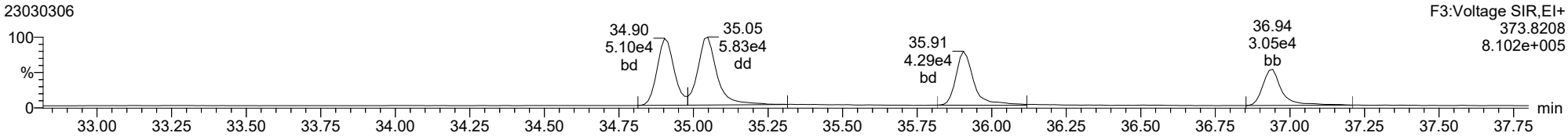
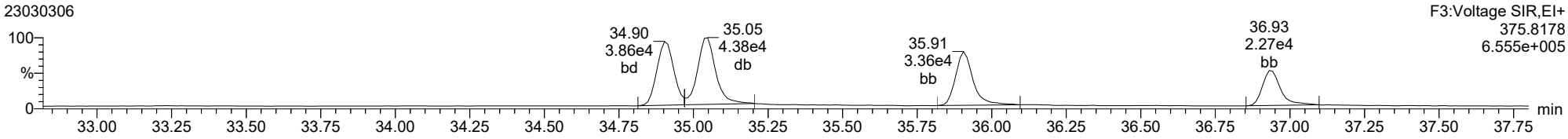
Total-hexafurans



Total-hexafurans



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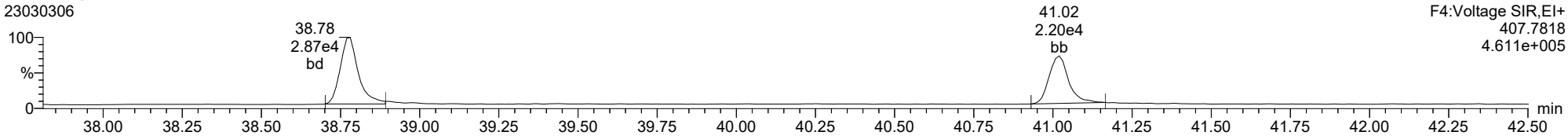
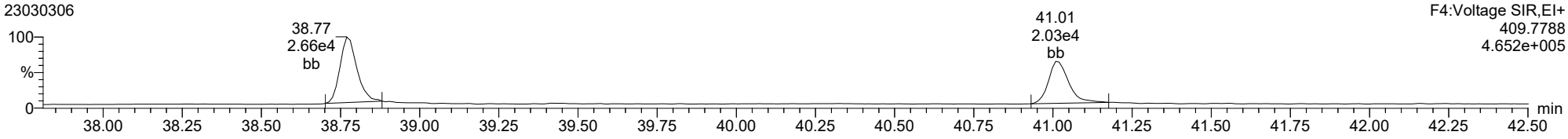


Total-heptafurans



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Printed: Monday, March 06, 2023 11:34:37 Pacific Standard Time

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Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.788	1.001	4.563e4	6.298e4	0.702	0.724	0.770	1455	2151	7.03e5	9.46e5	483.4	440.0	NO	bb	bb	10.132
12378-PeCDF	29.945	1.001	2.374e5	1.577e5	0.679	1.505	1.550	2714	2519	3.51e6	2.28e6	1294.3	903.8	NO	bb	bb	49.089
23478-PeCDF	31.282	1.001	2.063e5	1.364e5	0.786	1.512	1.550	2714	2519	3.03e6	1.99e6	1118.0	788.5	NO	bb	bb	49.466
123478-HxCDF	34.903	1.000	2.473e5	1.941e5	1.166	1.275	1.240	3008	2708	3.76e6	2.98e6	1248.4	1099.9	NO	bd	bd	48.979
234678-HxCDF	35.905	1.000	2.404e5	1.930e5	1.140	1.246	1.240	3008	2708	3.53e6	2.85e6	1172.2	1053.8	NO	bb	bb	49.000
123678-HxCDF	35.048	1.001	2.970e5	2.223e5	1.091	1.336	1.240	3008	2708	3.95e6	3.09e6	1312.5	1142.3	NO	db	db	50.520
123789-HxCDF	36.942	1.001	2.103e5	1.706e5	1.137	1.233	1.240	3008	2708	2.89e6	2.30e6	959.2	849.3	NO	bd	bd	50.468
1234678-HpCDF	38.780	1.000	1.592e5	1.601e5	1.003	0.994	1.050	2672	2189	2.51e6	2.53e6	939.2	1157.5	NO	bb	bb	48.161
1234789-HpCDF	41.019	1.000	1.361e5	1.443e5	0.953	0.943	1.050	2672	2189	1.84e6	1.86e6	689.1	851.7	NO	bb	bd	49.244
OCDF	45.247	1.006	2.019e5	2.478e5	0.778	0.815	0.890	1393	1380	2.32e6	2.62e6	1663.0	1900.3	NO	bb	bd	93.418
2378-TCDD	26.424	1.000	5.877e4	7.446e4	1.149	0.789	0.770	1483	1021	8.00e5	1.03e6	539.5	1013.7	NO	bd	bb	9.873
12378-PeCDD	31.538	1.000	1.890e5	1.221e5	1.022	1.548	1.550	1651	2172	2.74e6	1.77e6	1662.3	815.6	NO	bb	bb	49.884
123478-HxCDD	36.028	1.000	1.812e5	1.479e5	0.996	1.225	1.240	1690	2600	2.90e6	2.38e6	1717.5	913.7	NO	bd	bd	48.605
123678-HxCDD	36.139	1.000	2.270e5	1.862e5	1.001	1.219	1.240	1690	2600	3.05e6	2.54e6	1803.3	977.3	NO	db	db	51.480
123789-HxCDD	36.529	1.011	1.887e5	1.546e5	0.907	1.221	1.240	1690	2600	2.71e6	2.20e6	1606.4	846.3	NO	bb	bb	51.083
1234678-HpCDD	40.273	1.000	1.573e5	1.681e5	1.039	0.936	1.050	2523	2313	2.21e6	2.22e6	874.4	957.9	NO	bb	bd	49.956
OCDD	45.009	1.000	2.508e5	2.930e5	0.920	0.856	0.890	1279	1652	2.91e6	3.41e6	2272.5	2065.6	NO	bb	bb	95.487
13C-2378-TCDF	25.774	1.007	6.575e5	8.705e5	1.620	0.755	0.770	2127	1667	9.70e6	1.27e7	4562.2	7600.8	NO	bb	bb	92.139
13C-12378-PeCDF	29.922	1.169	7.106e5	4.742e5	1.240	1.498	1.550	3150	3257	9.76e6	6.54e6	3098.5	2009.5	NO	bd	bd	93.316
13C-23478-PeCDF	31.259	1.221	5.241e5	3.573e5	1.118	1.467	1.550	3150	3257	7.68e6	5.27e6	2437.6	1617.5	NO	bb	bb	77.038
13C-123478-HxCDF	34.891	0.956	2.605e5	5.124e5	1.168	0.508	0.510	2130	2302	3.94e6	7.71e6	1851.1	3349.5	NO	bd	bd	95.975
13C-123678-HxCDF	35.025	0.959	3.029e5	6.396e5	1.386	0.474	0.510	2130	2302	4.25e6	8.39e6	1994.1	3646.7	NO	db	db	98.624
13C-234678-HxCDF	35.894	0.983	2.705e5	5.057e5	1.129	0.535	0.510	2130	2302	3.77e6	7.17e6	1772.4	3115.7	NO	bd	bb	99.718
13C-123789-HxCDF	36.919	1.011	2.253e5	4.385e5	0.932	0.514	0.510	2130	2302	3.30e6	6.48e6	1548.0	2814.2	NO	bb	bb	103.358
13C-1234678-HpCDF	38.769	1.062	2.032e5	4.578e5	0.895	0.444	0.440	2209	3025	3.15e6	7.13e6	1428.1	2357.0	NO	bb	bb	107.118
13C-1234789-HpCDF	41.008	1.123	1.757e5	4.217e5	0.770	0.417	0.440	2209	3025	2.29e6	5.20e6	1036.4	1717.4	NO	bb	bb	112.595
13C-1234-TCDD	25.605	0.000	4.555e5	5.681e5	1.000	0.802	0.770	2485	1606	6.85e6	8.57e6	2757.9	5335.2	NO	bb	bb	100.000
13C-2378-TCDD	26.410	1.031	5.228e5	6.520e5	1.152	0.802	0.770	2485	1606	7.70e6	9.63e6	3097.5	5999.3	NO	bb	bb	99.597
13C-12378-PeCDD	31.527	1.231	3.747e5	2.356e5	0.829	1.590	1.550	1413	1348	5.28e6	3.29e6	3736.6	2437.5	NO	bb	bb	71.936
13C-123478-HxCDD	36.017	0.986	3.837e5	2.963e5	0.995	1.295	1.240	1796	1719	5.91e6	4.54e6	3293.9	2638.3	NO	bd	bd	99.140
13C-123678-HxCDD	36.128	0.989	4.675e5	3.344e5	1.157	1.398	1.240	1796	1719	6.38e6	4.87e6	3554.2	2831.4	NO	db	db	100.573
13C-1234678-HpCDD	40.262	1.102	3.210e5	3.059e5	0.840	1.049	1.050	2165	1959	4.38e6	4.15e6	2024.2	2117.7	NO	bb	bb	108.247
13C-OCDD	44.990	1.232	6.075e5	6.305e5	0.767	0.963	0.890	2629	1930	6.50e6	7.26e6	2473.3	3761.0	NO	bd	bb	234.029
13C-123789-HxCDD	36.518	0.000	3.849e5	3.043e5	1.000	1.265	1.240	1796	1719	5.52e6	4.36e6	3076.5	2537.0	NO	bb	bb	100.000
37CL-2378-TCDD	26.424	1.032	1.159e5		1.288			2383		1.68e6		703.2			bb		8.796

Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.285	0.865	5.143e4	7.104e4	0.802	0.724	0.770	1455	2151	8.64e5	1.17e6	593.7	544.2	NO	bb	bb	10.000
1289-TCDF	27.286	1.059	4.449e4	5.910e4	0.678	0.753	0.770	1455	2151	6.41e5	8.65e5	440.8	402.3	NO	bb	db	10.000
13468-PECDF	27.144	0.907	4.471e5	2.913e5	1.246	1.535	1.550	765	1431	6.85e6	4.42e6	8952.4	3092.4	NO	bb	bb	50.000
12389-PECDF	32.318	1.080	1.756e5	1.185e5	0.496	1.482	1.550	2714	2519	2.46e6	1.67e6	905.1	663.5	NO	bb	bb	50.000
123468-HXCDF	33.243	0.953	2.474e5	2.044e5	1.169	1.210	1.240	3008	2708	3.57e6	2.89e6	1187.3	1066.9	NO	bb	bd	50.000
1368-TCDD	23.557	0.892	5.333e4	6.596e4	1.015	0.808	0.770	1483	1021	8.25e5	1.09e6	556.5	1064.4	NO	bb	bb	10.000
1289-TCDD	27.031	1.023	4.649e4	6.027e4	0.909	0.771	0.770	1483	1021	6.71e5	8.87e5	452.4	868.9	NO	bb	bb	10.000
12479-PECDD	28.830	0.914	4.152e5	2.870e5	2.301	1.447	1.550	1651	2172	3.89e6	2.64e6	2354.1	1214.5	NO	bb	bd	50.000
12389-PECDD	31.939	1.013	2.202e5	1.409e5	1.184	1.563	1.550	1651	2172	2.97e6	1.93e6	1798.8	887.7	NO	bd	bd	50.000
124679-HXCDD	34.011	0.944	2.133e5	1.659e5	1.115	1.286	1.240	1690	2600	2.98e6	2.42e6	1762.3	930.8	NO	bd	bb	50.000
1234679-HPCDD	39.225	0.974	1.868e5	1.696e5	1.137	1.101	1.050	2523	2313	2.68e6	2.60e6	1062.7	1125.2	NO	bd	bb	50.000
Total-tetrafurans			1.415e5		0.727			1455		2.21e6							30.132
Total-penta1			4.471e5					765		6.85e6							50.000
Total-pentafurans			6.595e5		0.654			2714		9.58e6							158.378
Total-hexafurans			1.243e6		1.141			3008		1.77e7							249.074
Total-heptafurans			2.965e5		0.978			2672		4.37e6							97.824
Total-Furans			2.990e6		0.922			1455		4.30e7							678.826
Total-tetradioxins			2.666e5		1.024			1483		3.52e6							50.252
Total-pentadioxins			8.253e5		1.502			1651		9.61e6							150.025
Total-hexadioxins			8.102e5		1.005			1690		1.16e7							201.167
Total-heptadioxins			3.440e5		1.088			2523		4.89e6							99.956
Total-Dioxins			2.497e6		1.130			1483		3.26e7							596.887
Total-TEQ			5.487e6					1483		7.56e7							1275.713
FUNCTION1 PFK			2.078e5					640846		4.44e6							
FUNCTION2 PFK			1.544e7					302960		1.17e7							0.000
FUNCTION3 PFK			6.335e6					441696		3.43e7							0.000
FUNCTION4 PFK			1.606e7					302692		2.36e6							
FUNCTION5 PFK			3.357e4					240421		1.60e6							
FUNCTION1 HXCD...			1.444e3					587		1.68e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			9.034e2					1003		1.66e4							0.000
FUNCTION3 OCDPE			5.560e2					494		8.57e3							0.000
FUNCTION4 NCDPE			9.205e2					776		1.78e4							0.000
FUNCTION5 DCDPE			9.291e1					548		1.29e3							0.000

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Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.29	4.449e4	5.910e4	0.678	0.75	0.77	440.8	YES	NO	bb	db	10.000
2	2378-TCDF	25.79	4.563e4	6.298e4	0.702	0.72	0.77	483.4	YES	NO	bb	bb	10.132
3	1368-TCDF	22.29	5.143e4	7.104e4	0.802	0.72	0.77	593.7	YES	NO	bb	bb	10.000

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.14	4.471e5	2.913e5	1.246	1.53	1.55	8952.4	YES	NO	bb	bb	50.000

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.32	1.756e5	1.185e5	0.496	1.48	1.55	905.1	YES	NO	bb	bb	50.000
2	23478-PeCDF	31.28	2.063e5	1.364e5	0.786	1.51	1.55	1118.0	YES	NO	bb	bb	49.466
3	Total-pentafurans	30.13	4.319e2	3.264e2	0.654	1.32	1.55	1.8	NO	NO	bb	bb	0.112
4	12378-PeCDF	29.94	2.374e5	1.577e5	0.679	1.51	1.55	1294.3	YES	NO	bb	bb	49.089
5	Total-pentafurans	28.80	3.978e4	2.583e4	0.654	1.54	1.55	212.5	YES	NO	bb	bb	9.712

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	37.33	5.073e2	4.522e2	1.141	1.12	1.24	4.2	YES	NO	db	dd	0.107
2	123789-HxCDF	36.94	2.103e5	1.706e5	1.137	1.23	1.24	959.2	YES	NO	bd	bd	50.468
3	234678-HxCDF	35.91	2.404e5	1.930e5	1.140	1.25	1.24	1172.2	YES	NO	bb	bb	49.000
4	123678-HxCDF	35.05	2.970e5	2.223e5	1.091	1.34	1.24	1312.5	YES	NO	db	db	50.520
5	123478-HxCDF	34.90	2.473e5	1.941e5	1.166	1.27	1.24	1248.4	YES	NO	bd	bd	48.979
6	123468-HXCDF	33.24	2.474e5	2.044e5	1.169	1.21	1.24	1187.3	YES	NO	bb	bd	50.000

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.02	1.361e5	1.443e5	0.953	0.94	1.05	689.1	YES	NO	bb	bd	49.244
2	Total-heptafurans	39.44	1.302e3	1.273e3	0.978	1.02	1.05	8.5	YES	NO	bb	bb	0.418
3	1234678-HpCDF	38.78	1.592e5	1.601e5	1.003	0.99	1.05	939.2	YES	NO	bb	bb	48.161

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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.29	4.449e4	5.910e4	0.678	0.75	0.77	440.8	YES	NO	bb	db	10.000
2	2378-TCDF	25.79	4.563e4	6.298e4	0.702	0.72	0.77	483.4	YES	NO	bb	bb	10.132
3	1368-TCDF	22.29	5.143e4	7.104e4	0.802	0.72	0.77	593.7	YES	NO	bb	bb	10.000
4	12389-PECDF	32.32	1.756e5	1.185e5	0.496	1.48	1.55	905.1	YES	NO	bb	bb	50.000
5	23478-PeCDF	31.28	2.063e5	1.364e5	0.786	1.51	1.55	1118.0	YES	NO	bb	bb	49.466
6	Total-pentafurans	30.13	4.319e2	3.264e2	0.654	1.32	1.55	1.8	NO	NO	bb	bb	0.112
7	12378-PeCDF	29.94	2.374e5	1.577e5	0.679	1.51	1.55	1294.3	YES	NO	bb	bb	49.089
8	Total-pentafurans	28.80	3.978e4	2.583e4	0.654	1.54	1.55	212.5	YES	NO	bb	bb	9.712
9	Total-hexafurans	37.33	5.073e2	4.522e2	1.141	1.12	1.24	4.2	YES	NO	db	dd	0.107
10	123789-HxCDF	36.94	2.103e5	1.706e5	1.137	1.23	1.24	959.2	YES	NO	bd	bd	50.468
11	234678-HxCDF	35.91	2.404e5	1.930e5	1.140	1.25	1.24	1172.2	YES	NO	bb	bb	49.000
12	123678-HxCDF	35.05	2.970e5	2.223e5	1.091	1.34	1.24	1312.5	YES	NO	db	db	50.520
13	123478-HxCDF	34.90	2.473e5	1.941e5	1.166	1.27	1.24	1248.4	YES	NO	bd	bd	48.979
14	123468-HXCDF	33.24	2.474e5	2.044e5	1.169	1.21	1.24	1187.3	YES	NO	bb	bd	50.000
15	1234789-HpCDF	41.02	1.361e5	1.443e5	0.953	0.94	1.05	689.1	YES	NO	bb	bd	49.244
16	Total-heptafurans	39.44	1.302e3	1.273e3	0.978	1.02	1.05	8.5	YES	NO	bb	bb	0.418
17	1234678-HpCDF	38.78	1.592e5	1.601e5	1.003	0.99	1.05	939.2	YES	NO	bb	bb	48.161
18	OCDF	45.25	2.019e5	2.478e5	0.778	0.81	0.89	1663.0	YES	NO	bb	bd	93.418
19	13468-PECDF	27.14	4.471e5	2.913e5	1.246	1.53	1.55	8952.4	YES	NO	bb	bb	50.000

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.56	5.333e4	6.596e4	1.015	0.81	0.77	556.5	YES	NO	bb	bb	10.000
2	1289-TCDD	27.03	4.649e4	6.027e4	0.909	0.77	0.77	452.4	YES	NO	bb	bb	10.000
3	2378-TCDD	26.42	5.877e4	7.446e4	1.149	0.79	0.77	539.5	YES	NO	bd	bb	9.873
4	Total-tetradioxins	26.10	8.105e4	1.035e5	1.024	0.78	0.77	553.1	YES	NO	bb	bb	15.333
5	Total-tetradioxins	25.62	2.642e4	3.299e4	1.024	0.80	0.77	267.0	YES	NO	bd	bb	4.937
6	Total-tetradioxins	25.04	5.856e2	7.161e2	1.024	0.82	0.77	7.0	YES	NO	bb	bb	0.108

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	31.94	2.202e5	1.409e5	1.184	1.56	1.55	1798.8	YES	NO	bd	bd	50.000
2	12378-PeCDD	31.54	1.890e5	1.221e5	1.022	1.55	1.55	1662.3	YES	NO	bb	bb	49.884
3	Total-pentadioxins	30.88	8.263e2	4.657e2	1.502	1.77	1.55	8.6	YES	NO	bb	bb	0.141
4	12479-PECDD	28.83	4.152e5	2.870e5	2.301	1.45	1.55	2354.1	YES	NO	bb	bd	50.000

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HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.53	1.887e5	1.546e5	0.907	1.22	1.24	1606.4	YES	NO	bb	bb	51.083
2	123678-HxCDD	36.14	2.270e5	1.862e5	1.001	1.22	1.24	1803.3	YES	NO	db	db	51.480
3	123478-HxCDD	36.03	1.812e5	1.479e5	0.996	1.23	1.24	1717.5	YES	NO	bd	bd	48.605
4	124679-HXCDD	34.01	2.133e5	1.659e5	1.115	1.29	1.24	1762.3	YES	NO	bd	bb	50.000

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.27	1.573e5	1.681e5	1.039	0.94	1.05	874.4	YES	NO	bb	bd	49.956
2	1234679-HPCDD	39.23	1.868e5	1.696e5	1.137	1.10	1.05	1062.7	YES	NO	bd	bb	50.000

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.56	5.333e4	6.596e4	1.015	0.81	0.77	556.5	YES	NO	bb	bb	10.000
2	1289-TCDD	27.03	4.649e4	6.027e4	0.909	0.77	0.77	452.4	YES	NO	bb	bb	10.000
3	2378-TCDD	26.42	5.877e4	7.446e4	1.149	0.79	0.77	539.5	YES	NO	bd	bb	9.873
4	Total-tetradioxins	26.10	8.105e4	1.035e5	1.024	0.78	0.77	553.1	YES	NO	bb	bb	15.333
5	Total-tetradioxins	25.62	2.642e4	3.299e4	1.024	0.80	0.77	267.0	YES	NO	bd	bb	4.937
6	Total-tetradioxins	25.04	5.856e2	7.161e2	1.024	0.82	0.77	7.0	YES	NO	bb	bb	0.108
7	12389-PECDD	31.94	2.202e5	1.409e5	1.184	1.56	1.55	1798.8	YES	NO	bd	bd	50.000
8	12378-PeCDD	31.54	1.890e5	1.221e5	1.022	1.55	1.55	1662.3	YES	NO	bb	bb	49.884
9	Total-pentadioxins	30.88	8.263e2	4.657e2	1.502	1.77	1.55	8.6	YES	NO	bb	bb	0.141
10	12479-PECDD	28.83	4.152e5	2.870e5	2.301	1.45	1.55	2354.1	YES	NO	bb	bd	50.000
11	123789-HxCDD	36.53	1.887e5	1.546e5	0.907	1.22	1.24	1606.4	YES	NO	bb	bb	51.083
12	123678-HxCDD	36.14	2.270e5	1.862e5	1.001	1.22	1.24	1803.3	YES	NO	db	db	51.480
13	123478-HxCDD	36.03	1.812e5	1.479e5	0.996	1.23	1.24	1717.5	YES	NO	bd	bd	48.605
14	124679-HXCDD	34.01	2.133e5	1.659e5	1.115	1.29	1.24	1762.3	YES	NO	bd	bb	50.000
15	1234678-HpCDD	40.27	1.573e5	1.681e5	1.039	0.94	1.05	874.4	YES	NO	bb	bd	49.956
16	1234679-HPCDD	39.23	1.868e5	1.696e5	1.137	1.10	1.05	1062.7	YES	NO	bd	bb	50.000
17	OCDD	45.01	2.508e5	2.930e5	0.920	0.86	0.89	2272.5	YES	NO	bb	bb	95.487

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.29	4.449e4	5.910e4	0.678	0.75	0.77	440.8	YES	NO	bb	db	10.000
2	2378-TCDF	25.79	4.563e4	6.298e4	0.702	0.72	0.77	483.4	YES	NO	bb	bb	10.132
3	1368-TCDF	22.29	5.143e4	7.104e4	0.802	0.72	0.77	593.7	YES	NO	bb	bb	10.000
4	12389-PECDF	32.32	1.756e5	1.185e5	0.496	1.48	1.55	905.1	YES	NO	bb	bb	50.000
5	23478-PeCDF	31.28	2.063e5	1.364e5	0.786	1.51	1.55	1118.0	YES	NO	bb	bb	49.466
6	Total-pentafurans	30.13	4.319e2	3.264e2	0.654	1.32	1.55	1.8	NO	NO	bb	bb	0.112
7	12378-PeCDF	29.94	2.374e5	1.577e5	0.679	1.51	1.55	1294.3	YES	NO	bb	bb	49.089
8	Total-pentafurans	28.80	3.978e4	2.583e4	0.654	1.54	1.55	212.5	YES	NO	bb	bb	9.712
9	Total-hexafurans	37.33	5.073e2	4.522e2	1.141	1.12	1.24	4.2	YES	NO	db	dd	0.107
10	123789-HxCDF	36.94	2.103e5	1.706e5	1.137	1.23	1.24	959.2	YES	NO	bd	bd	50.468
11	234678-HxCDF	35.91	2.404e5	1.930e5	1.140	1.25	1.24	1172.2	YES	NO	bb	bb	49.000
12	123678-HxCDF	35.05	2.970e5	2.223e5	1.091	1.34	1.24	1312.5	YES	NO	db	db	50.520
13	123478-HxCDF	34.90	2.473e5	1.941e5	1.166	1.27	1.24	1248.4	YES	NO	bd	bd	48.979
14	123468-HXCDF	33.24	2.474e5	2.044e5	1.169	1.21	1.24	1187.3	YES	NO	bb	bd	50.000
15	1234789-HpCDF	41.02	1.361e5	1.443e5	0.953	0.94	1.05	689.1	YES	NO	bb	bd	49.244
16	Total-heptafurans	39.44	1.302e3	1.273e3	0.978	1.02	1.05	8.5	YES	NO	bb	bb	0.418
17	1234678-HpCDF	38.78	1.592e5	1.601e5	1.003	0.99	1.05	939.2	YES	NO	bb	bb	48.161
18	OCDF	45.25	2.019e5	2.478e5	0.778	0.81	0.89	1663.0	YES	NO	bb	bd	93.418
19	13468-PECDF	27.14	4.471e5	2.913e5	1.246	1.53	1.55	8952.4	YES	NO	bb	bb	50.000
20	1368-TCDD	23.56	5.333e4	6.596e4	1.015	0.81	0.77	556.5	YES	NO	bb	bb	10.000
21	1289-TCDD	27.03	4.649e4	6.027e4	0.909	0.77	0.77	452.4	YES	NO	bb	bb	10.000
22	2378-TCDD	26.42	5.877e4	7.446e4	1.149	0.79	0.77	539.5	YES	NO	bd	bb	9.873
23	Total-tetradioxins	26.10	8.105e4	1.035e5	1.024	0.78	0.77	553.1	YES	NO	bb	bb	15.333
24	Total-tetradioxins	25.62	2.642e4	3.299e4	1.024	0.80	0.77	267.0	YES	NO	bd	bb	4.937
25	Total-tetradioxins	25.04	5.856e2	7.161e2	1.024	0.82	0.77	7.0	YES	NO	bb	bb	0.108
26	12389-PECDD	31.94	2.202e5	1.409e5	1.184	1.56	1.55	1798.8	YES	NO	bd	bd	50.000
27	12378-PeCDD	31.54	1.890e5	1.221e5	1.022	1.55	1.55	1662.3	YES	NO	bb	bb	49.884
28	Total-pentadioxins	30.88	8.263e2	4.657e2	1.502	1.77	1.55	8.6	YES	NO	bb	bb	0.141
29	12479-PECDD	28.83	4.152e5	2.870e5	2.301	1.45	1.55	2354.1	YES	NO	bb	bd	50.000
30	123789-HxCDD	36.53	1.887e5	1.546e5	0.907	1.22	1.24	1606.4	YES	NO	bb	bb	51.083
31	123678-HxCDD	36.14	2.270e5	1.862e5	1.001	1.22	1.24	1803.3	YES	NO	db	db	51.480
32	123478-HxCDD	36.03	1.812e5	1.479e5	0.996	1.23	1.24	1717.5	YES	NO	bd	bd	48.605
33	124679-HXCDD	34.01	2.133e5	1.659e5	1.115	1.29	1.24	1762.3	YES	NO	bd	bb	50.000
34	1234678-HpCDD	40.27	1.573e5	1.681e5	1.039	0.94	1.05	874.4	YES	NO	bb	bd	49.956
35	1234679-HPCDD	39.23	1.868e5	1.696e5	1.137	1.10	1.05	1062.7	YES	NO	bd	bb	50.000
36	OCDD	45.01	2.508e5	2.930e5	0.920	0.86	0.89	2272.5	YES	NO	bb	bb	95.487

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	27.24	1.621e5					3.0	YES		bb		
2	FUNCTION1 PFK	26.04	7.004e3					0.8	NO		bb		
3	FUNCTION1 PFK	25.20	1.505e4					1.0	NO		bb		
4	FUNCTION1 PFK	24.33	1.235e4					0.8	NO		bb		
5	FUNCTION1 PFK	23.94	5.589e3					0.6	NO		bb		
6	FUNCTION1 PFK	23.61	5.711e3					0.6	NO		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	32.40	1.216e5					2.2	NO		bb		0.000
2	FUNCTION2 PFK	29.43	1.324e7					19.8	YES		db		0.000
3	FUNCTION2 PFK	28.41	2.080e6					16.6	YES		bd		0.000

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PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	33.64	4.177e4					1.9	NO		bb		0.000
2	FUNCTION3 PFK	33.49	1.199e5					5.0	YES		db		0.000
3	FUNCTION3 PFK	33.44	2.654e6					7.0	YES		dd		0.000
4	FUNCTION3 PFK	33.06	2.958e6					23.7	YES		bd		0.000
5	FUNCTION3 PFK	35.38	2.169e4					1.0	NO		bb		0.000
6	FUNCTION3 PFK	35.25	5.928e3					0.6	NO		bb		0.000
7	FUNCTION3 PFK	35.11	7.037e3					0.7	NO		bb		0.000
8	FUNCTION3 PFK	34.99	1.627e4					1.0	NO		bb		0.000
9	FUNCTION3 PFK	34.92	1.103e4					1.1	NO		db		0.000
10	FUNCTION3 PFK	34.86	1.305e4					1.0	NO		bd		0.000
11	FUNCTION3 PFK	34.80	9.642e3					0.9	NO		bb		0.000
12	FUNCTION3 PFK	34.66	1.233e4					0.9	NO		db		0.000
13	FUNCTION3 PFK	34.64	7.688e3					0.8	NO		bd		0.000
14	FUNCTION3 PFK	34.57	9.132e3					0.8	NO		bb		0.000
15	FUNCTION3 PFK	34.47	7.208e3					0.8	NO		bb		0.000
16	FUNCTION3 PFK	34.31	1.503e4					1.0	NO		bb		0.000
17	FUNCTION3 PFK	34.22	2.675e4					1.4	NO		bb		0.000
18	FUNCTION3 PFK	34.01	3.007e4					2.1	NO		db		0.000
19	FUNCTION3 PFK	33.97	1.328e4					1.1	NO		bd		0.000
20	FUNCTION3 PFK	33.91	6.249e3					0.6	NO		bb		0.000
21	FUNCTION3 PFK	36.99	2.219e4					1.1	NO		bd		0.000
22	FUNCTION3 PFK	36.87	2.133e3					0.4	NO		bb		0.000
23	FUNCTION3 PFK	36.83	5.225e3					0.6	NO		bb		0.000
24	FUNCTION3 PFK	36.70	4.929e4					1.7	NO		bb		0.000
25	FUNCTION3 PFK	36.43	1.980e4					1.2	NO		bb		0.000
26	FUNCTION3 PFK	36.38	7.184e3					0.9	NO		bb		0.000
27	FUNCTION3 PFK	36.27	4.220e3					0.5	NO		bb		0.000
28	FUNCTION3 PFK	36.24	2.102e3					0.4	NO		bb		0.000
29	FUNCTION3 PFK	36.19	3.748e3					0.5	NO		bb		0.000
30	FUNCTION3 PFK	35.87	3.133e4					1.6	NO		db		0.000
31	FUNCTION3 PFK	35.83	1.912e4					1.5	NO		bd		0.000
32	FUNCTION3 PFK	35.78	2.675e3					0.4	NO		db		0.000
33	FUNCTION3 PFK	35.74	3.023e4					1.5	NO		dd		0.000
34	FUNCTION3 PFK	35.67	1.673e4					1.4	NO		bd		0.000
35	FUNCTION3 PFK	35.58	2.145e4					1.4	NO		db		0.000
36	FUNCTION3 PFK	35.53	1.268e4					1.1	NO		bd		0.000
37	FUNCTION3 PFK	37.67	2.243e4					1.6	NO		bb		0.000

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PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION3 PFK	37.45	8.583e3					0.7	NO		db		0.000
39	FUNCTION3 PFK	37.43	4.891e3					0.7	NO		bd		0.000
40	FUNCTION3 PFK	37.30	6.956e3					0.6	NO		bb		0.000
41	FUNCTION3 PFK	37.23	5.682e3					0.7	NO		db		0.000
42	FUNCTION3 PFK	37.20	9.815e3					0.9	NO		dd		0.000
43	FUNCTION3 PFK	37.15	5.475e3					0.6	NO		dd		0.000
44	FUNCTION3 PFK	37.11	7.631e3					0.8	NO		bd		0.000
45	FUNCTION3 PFK	37.06	2.709e4					1.4	NO		db		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.40	1.889e5					2.4	NO		bb		
2	FUNCTION4 PFK	39.68	1.587e7					5.4	YES		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.63	9.422e3					1.5	NO		bb		
2	FUNCTION5 PFK	43.24	1.576e3					0.7	NO		bb		
3	FUNCTION5 PFK	43.00	1.263e4					1.7	NO		bb		
4	FUNCTION5 PFK	45.90	6.371e3					1.4	NO		bb		
5	FUNCTION5 PFK	45.34	1.310e3					0.6	NO		bb		
6	FUNCTION5 PFK	43.79	2.270e3					0.7	NO		bb		

ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.16	2.360e2					3.4	YES		bb		0.000
2	FUNCTION1 HXCD...	26.52	1.410e2					3.2	YES		db		0.000
3	FUNCTION1 HXCD...	26.41	1.480e2					3.3	YES		bd		0.000
4	FUNCTION1 HXCD...	26.16	8.707e1					1.9	NO		db		0.000
5	FUNCTION1 HXCD...	26.10	7.515e1					2.1	NO		bd		0.000
6	FUNCTION1 HXCD...	25.79	8.971e1					2.2	NO		bb		0.000
7	FUNCTION1 HXCD...	25.63	1.156e2					2.5	NO		bb		0.000
8	FUNCTION1 HXCD...	24.52	1.119e2					2.7	NO		db		0.000
9	FUNCTION1 HXCD...	24.43	1.844e2					3.5	YES		bd		0.000
10	FUNCTION1 HXCD...	23.75	1.728e2					2.1	NO		bb		0.000
11	FUNCTION1 HXCD...	21.31	8.251e1					1.7	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.95	1.010e2					1.7	NO		bb		0.000
2	FUNCTION2 HPCD...	31.18	4.333e2					5.6	YES		bb		0.000
3	FUNCTION2 HPCD...	30.70	7.244e1					2.1	NO		bb		0.000
4	FUNCTION2 HPCD...	30.31	7.131e1					1.6	NO		bb		0.000
5	FUNCTION2 HPCD...	29.76	7.422e1					1.6	NO		bb		0.000
6	FUNCTION2 HPCD...	29.04	7.307e1					1.9	NO		bb		0.000
7	FUNCTION2 HPCD...	28.55	7.813e1					2.1	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.51	1.400e2					5.4	YES		bb		0.000
2	FUNCTION3 OCDPE	35.04	1.909e2					5.6	YES		db		0.000
3	FUNCTION3 OCDPE	34.94	2.251e2					6.4	YES		bd		0.000

ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.60	9.374e1					3.5	YES		bb		0.000
2	FUNCTION4 NCDPE	40.25	1.903e2					3.2	YES		bb		0.000
3	FUNCTION4 NCDPE	39.09	7.390e1					1.9	NO		bb		0.000
4	FUNCTION4 NCDPE	38.97	7.768e1					2.4	NO		bb		0.000
5	FUNCTION4 NCDPE	41.21	8.604e1					3.3	YES		bb		0.000
6	FUNCTION4 NCDPE	41.01	1.089e2					3.1	YES		bb		0.000
7	FUNCTION4 NCDPE	40.86	1.930e2					2.9	NO		db		0.000
8	FUNCTION4 NCDPE	40.74	9.692e1					2.6	NO		bd		0.000

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	44.90	9.291e1					2.4	NO		bb		0.000

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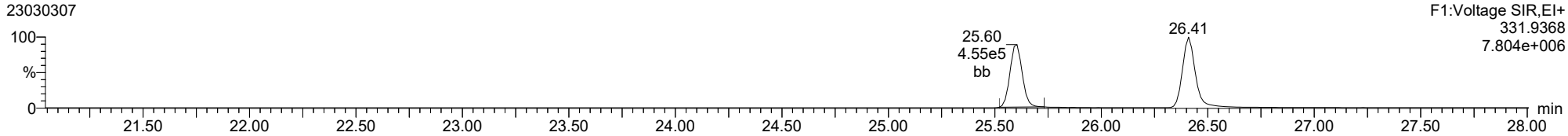

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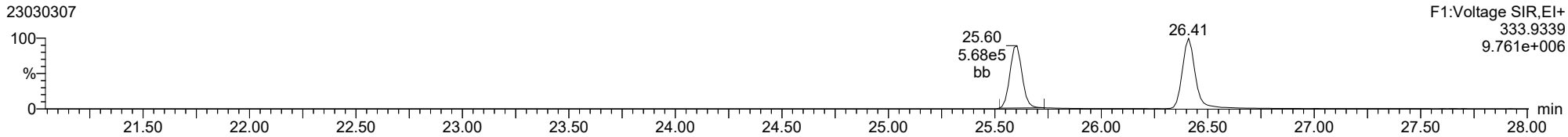

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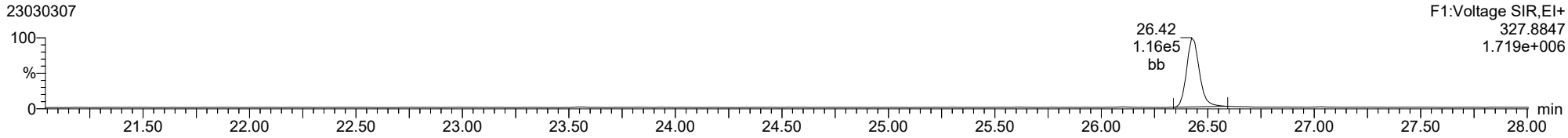

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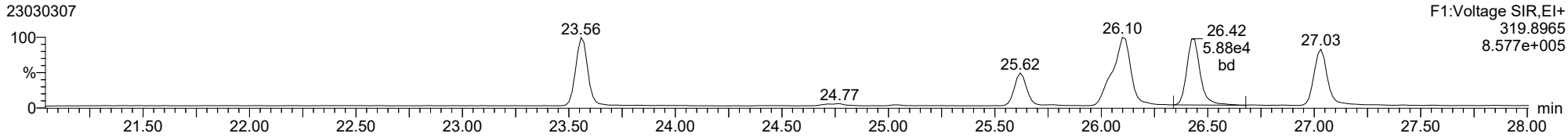

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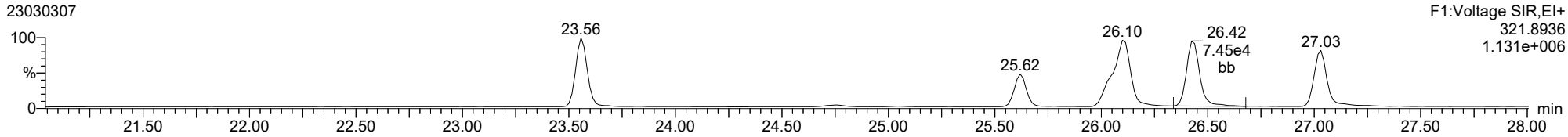

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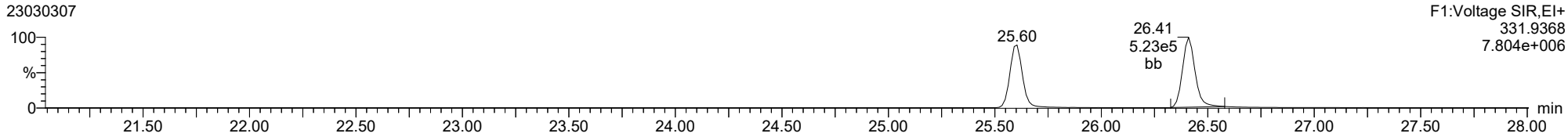

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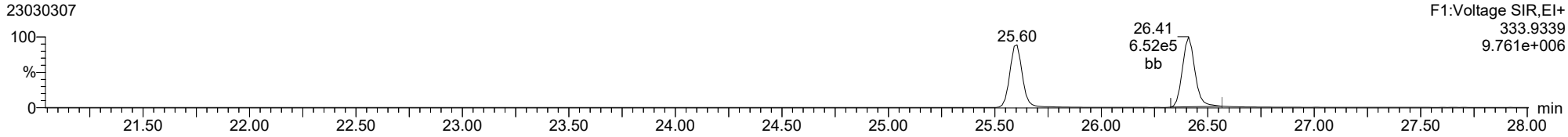

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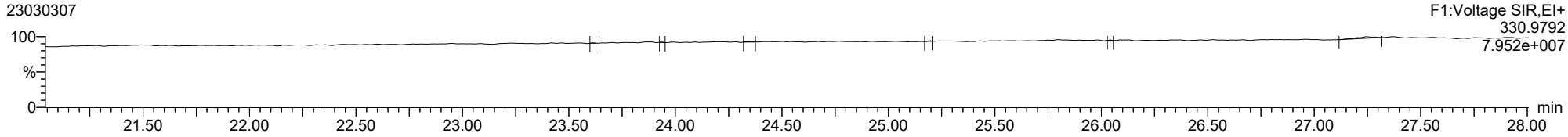

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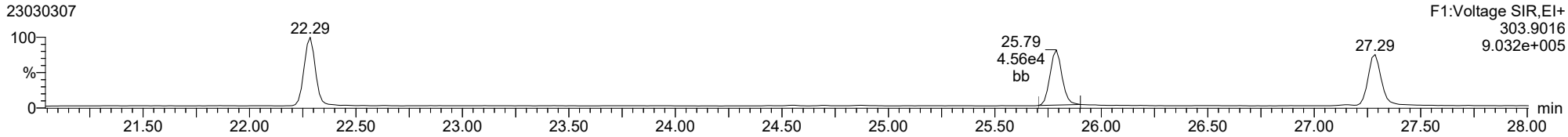

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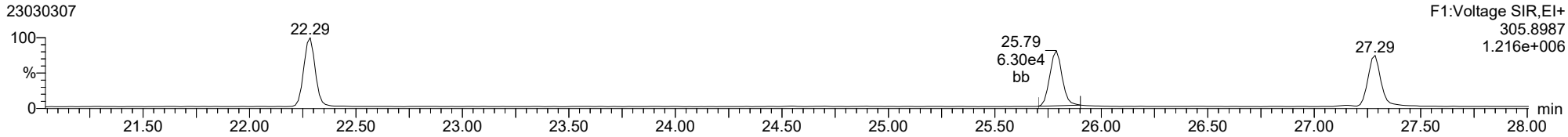

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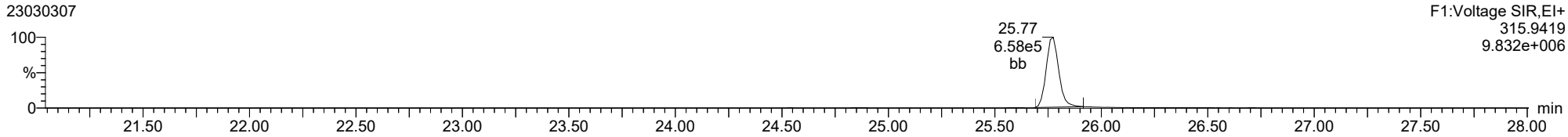

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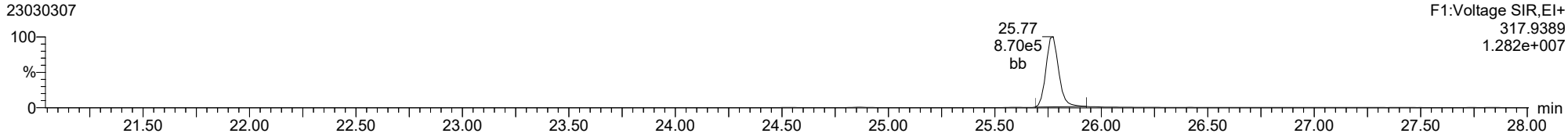

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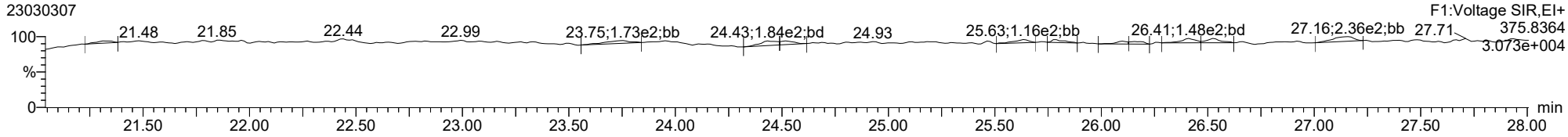

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ID: CS3CW, Name: 23030307, Date: 03-Mar-2023, Time: 14:06:39, Conditions: AUTOSPEC01, User: pk

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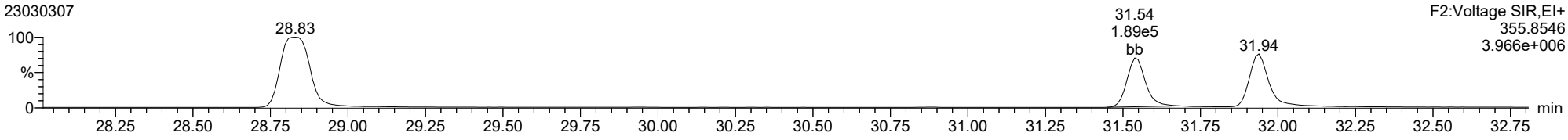

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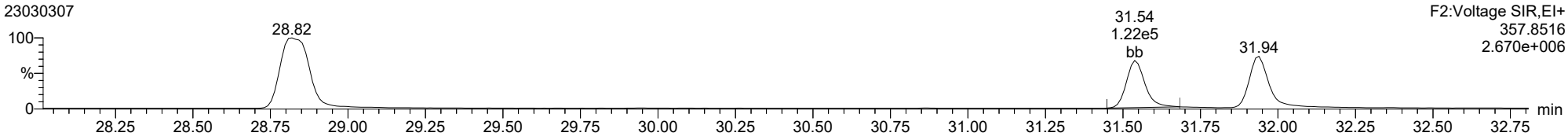

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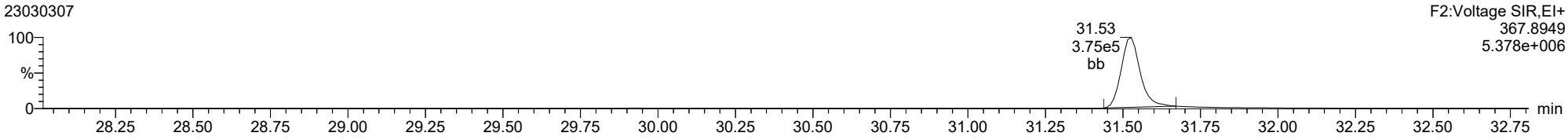

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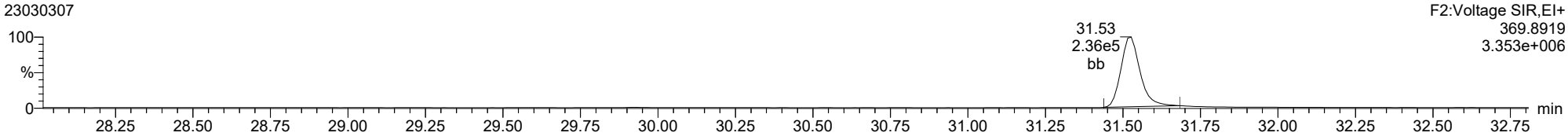

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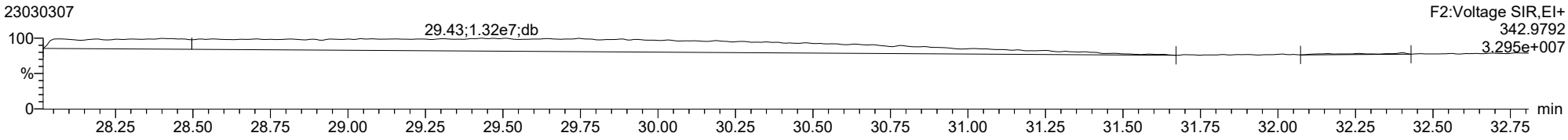

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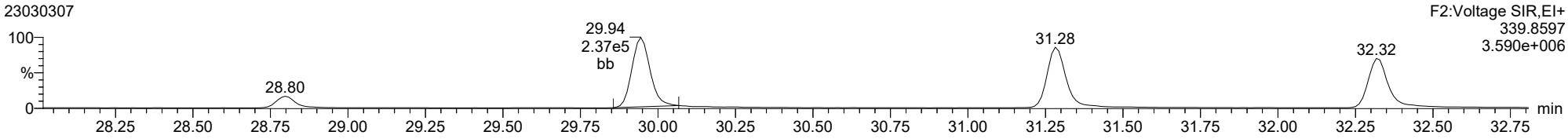

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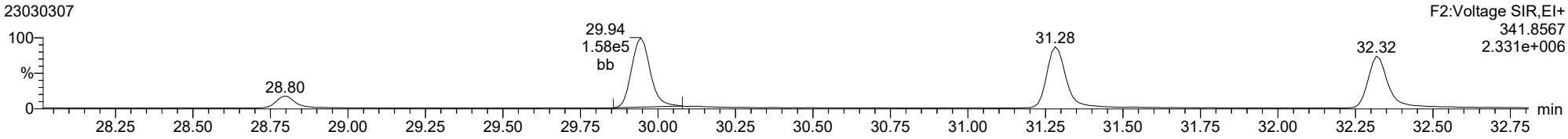

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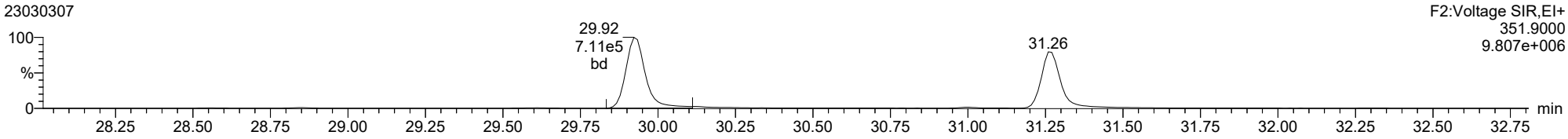

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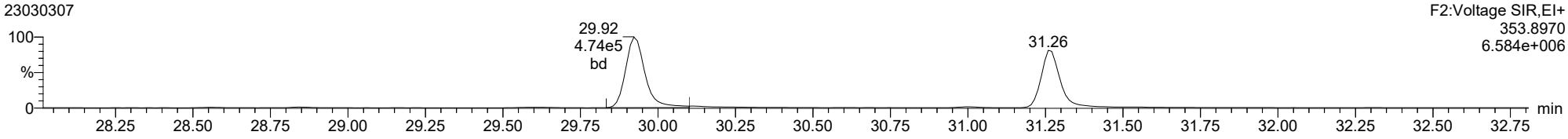
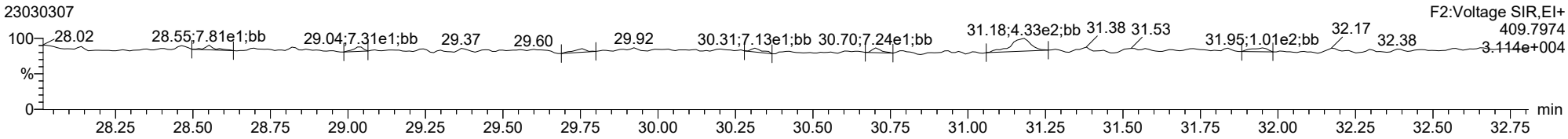


FUNCTION2 HPCDPE



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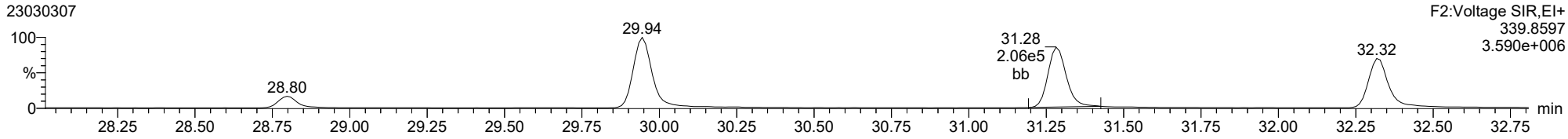

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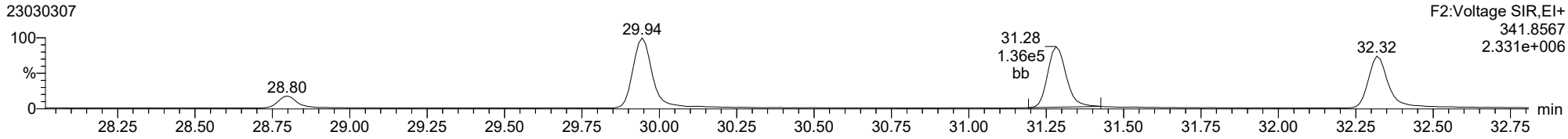

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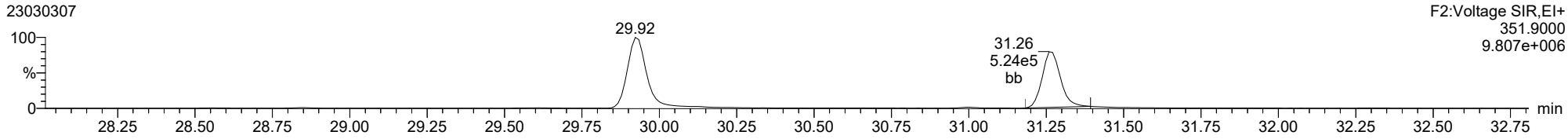

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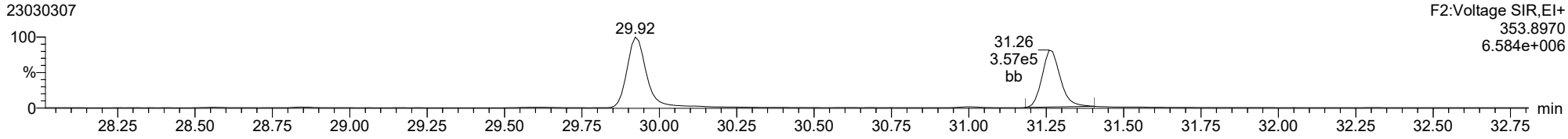

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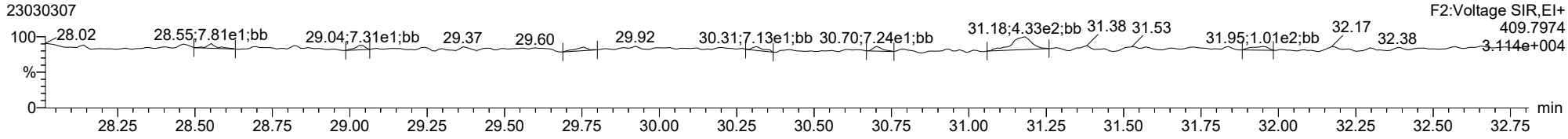

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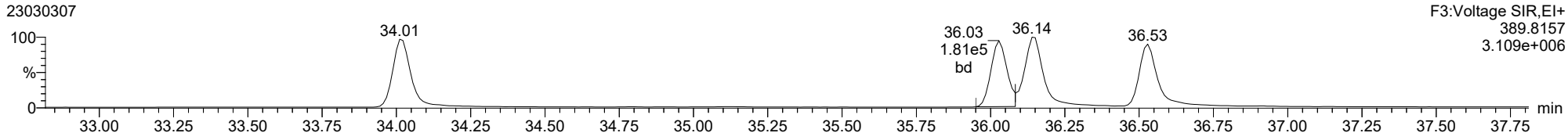

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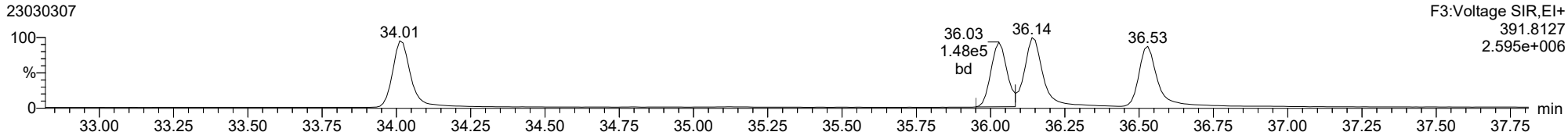

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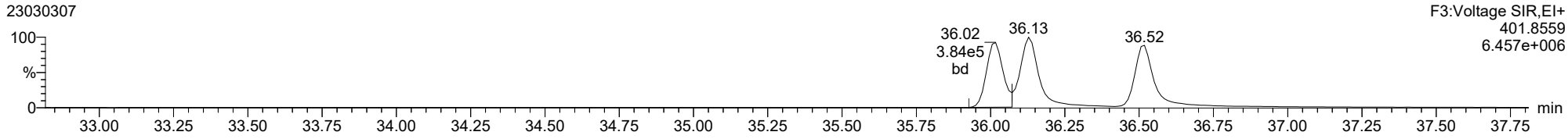

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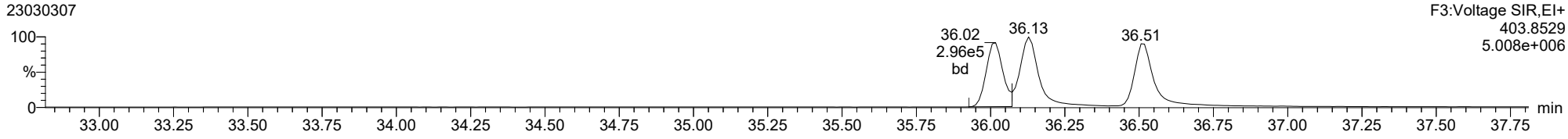

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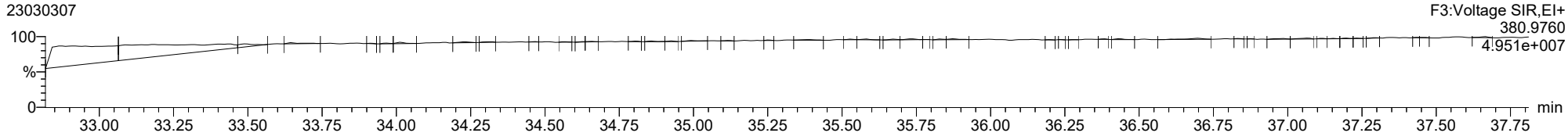

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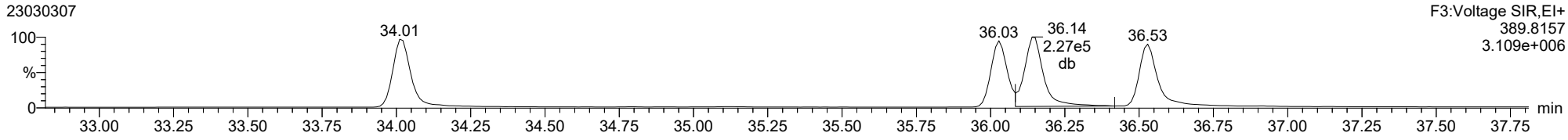

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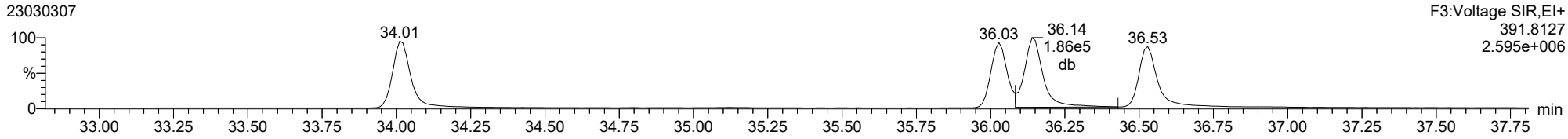

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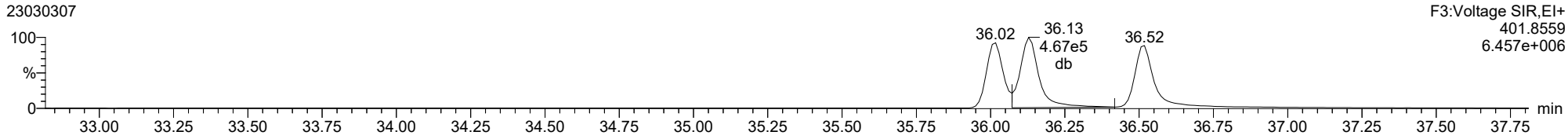

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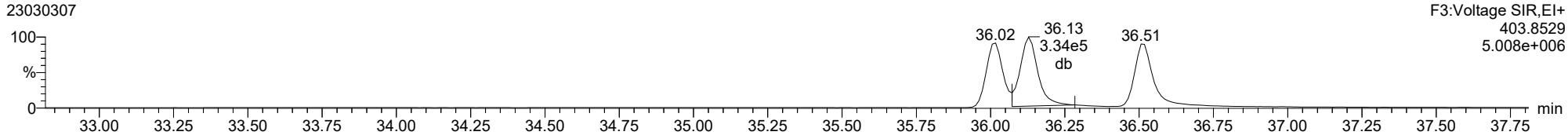

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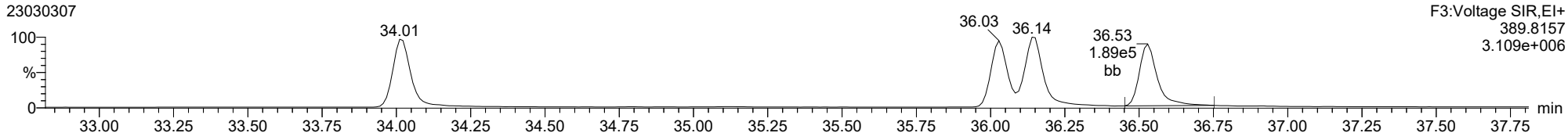

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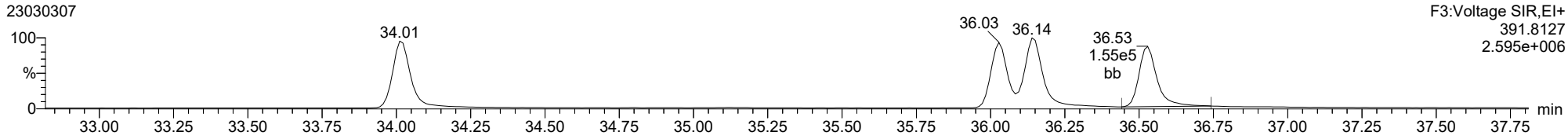

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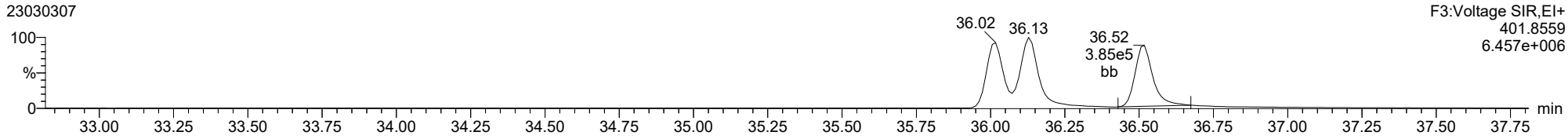

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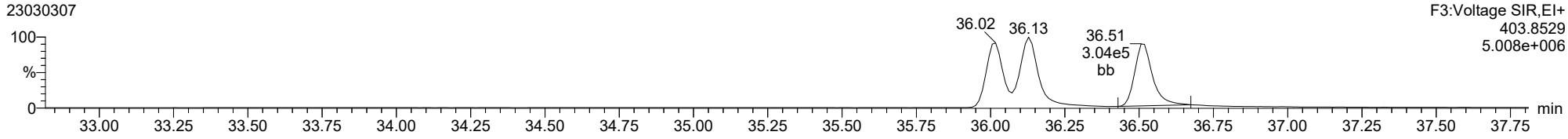

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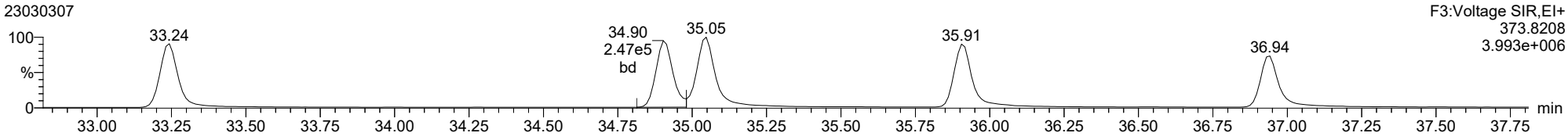

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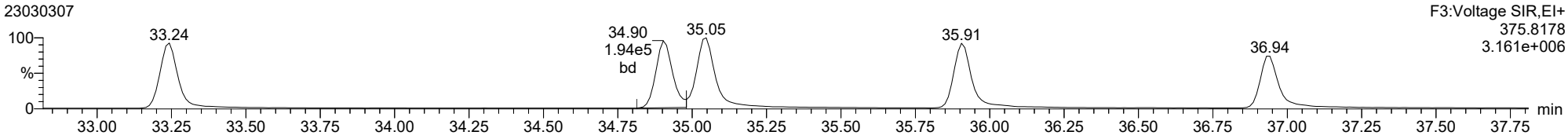

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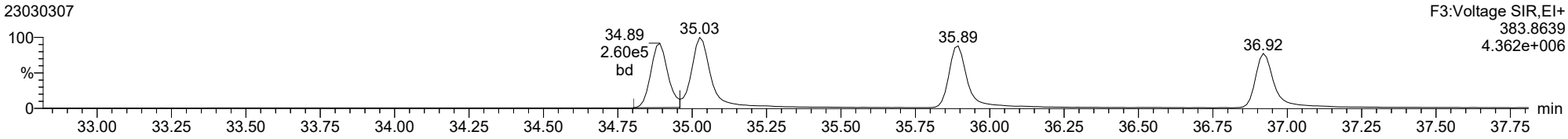

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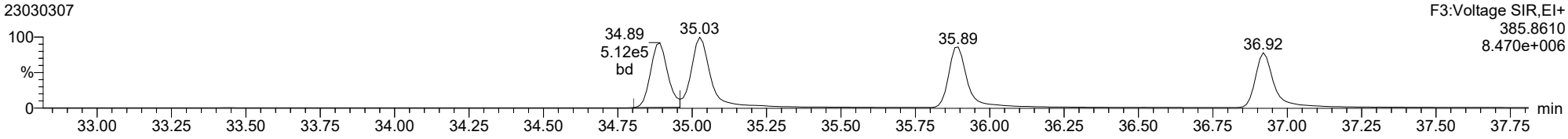

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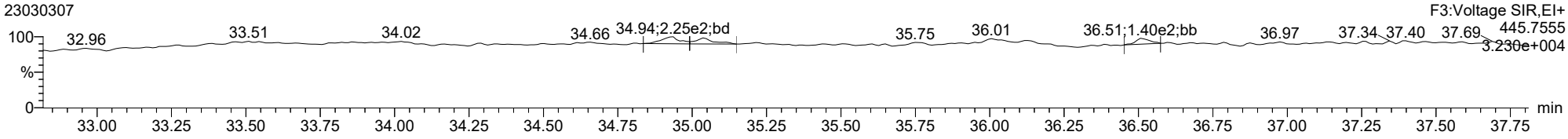

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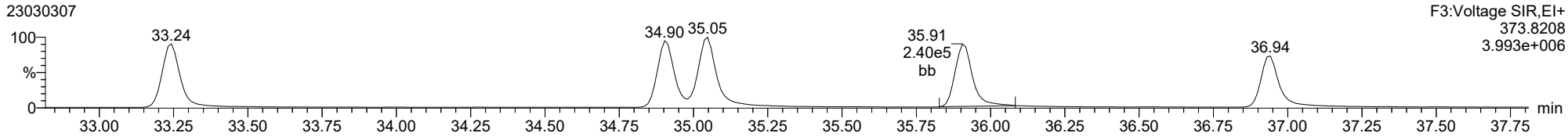

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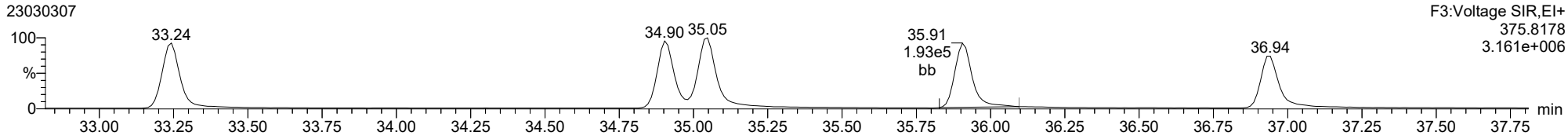

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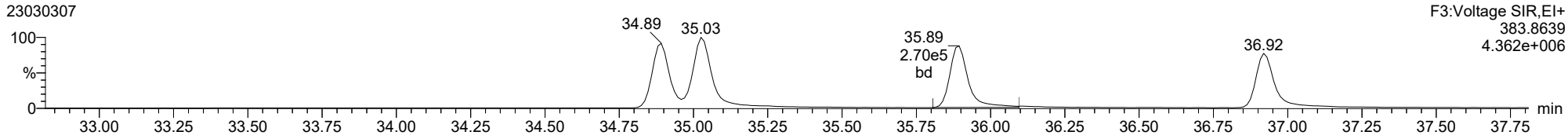

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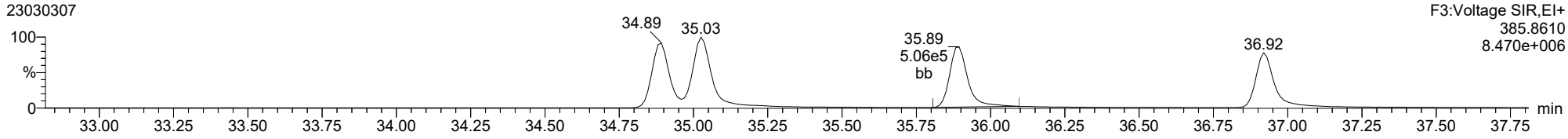

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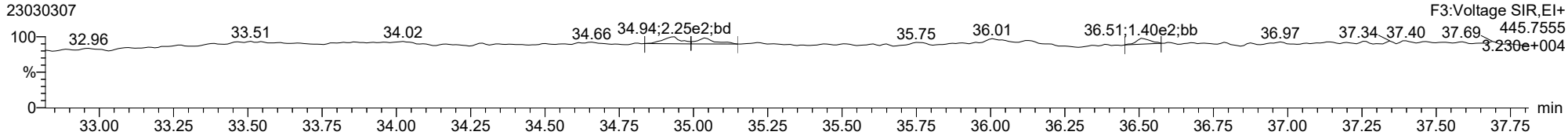

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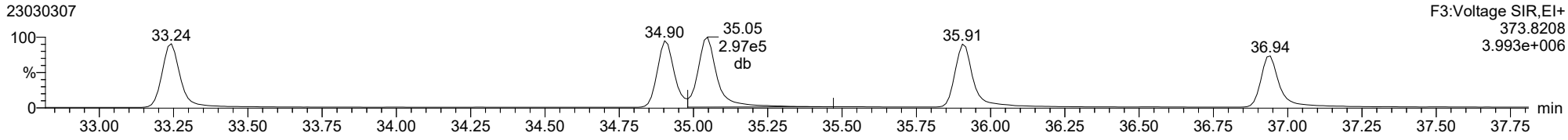

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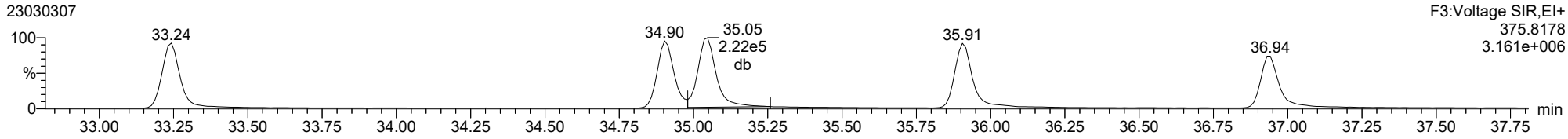

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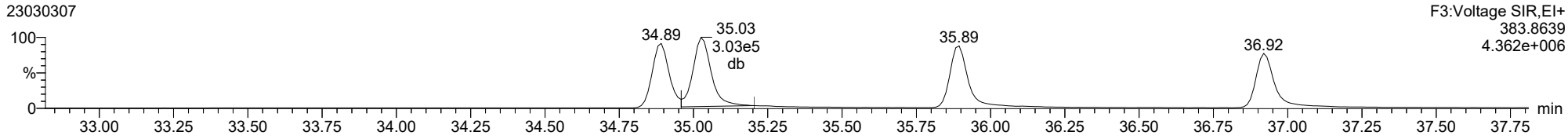

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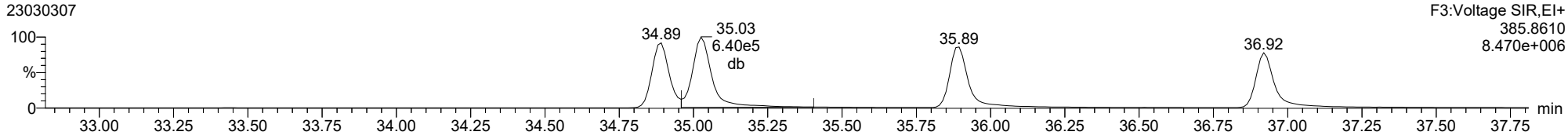

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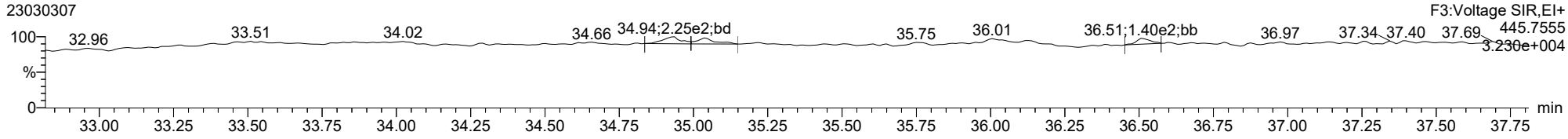

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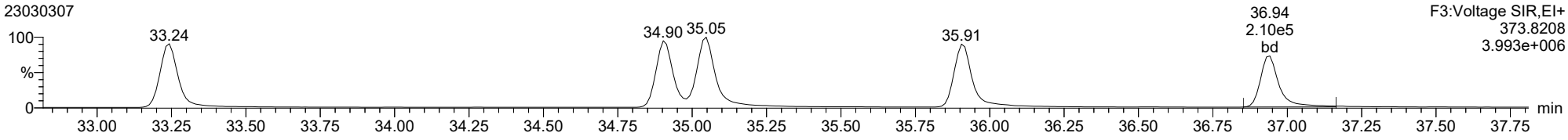

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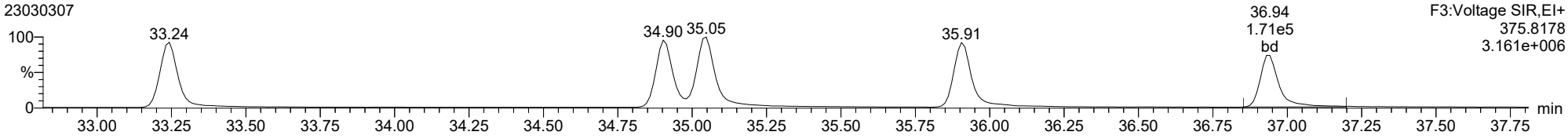

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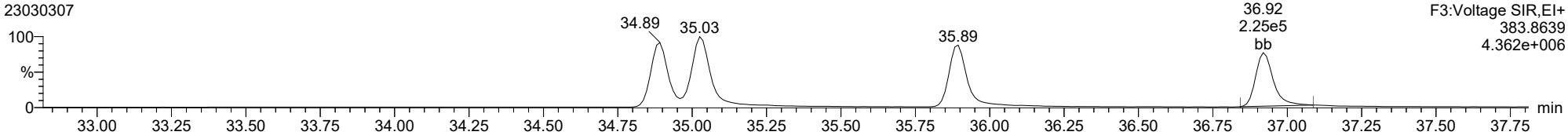

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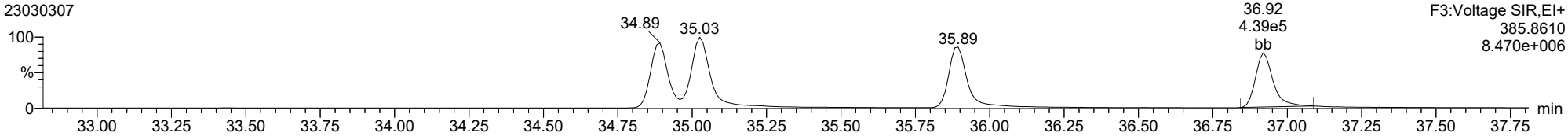

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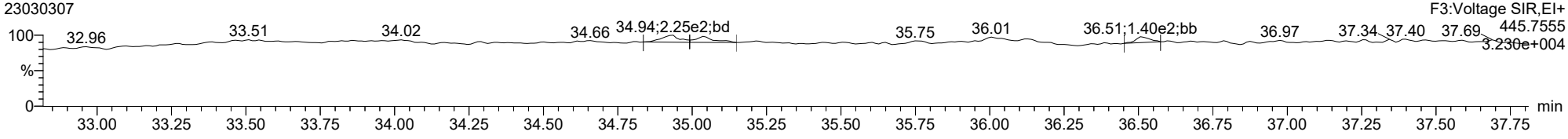

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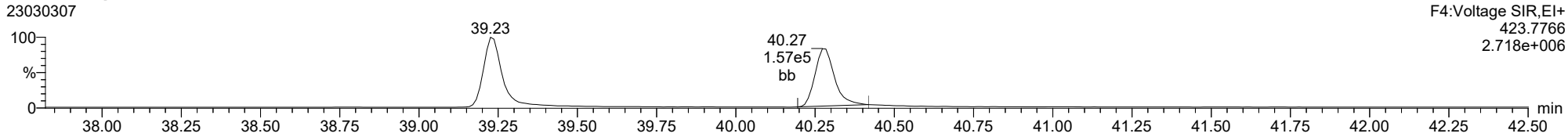

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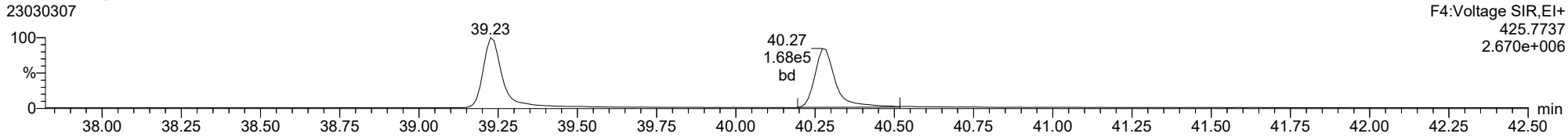

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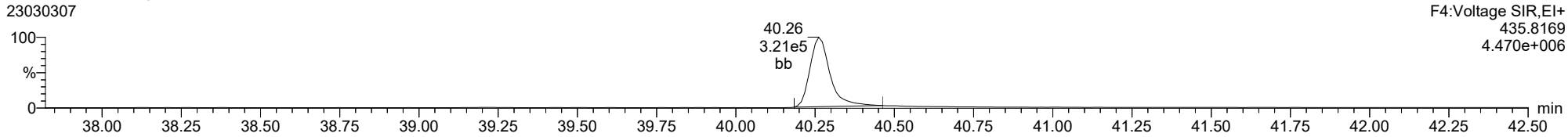

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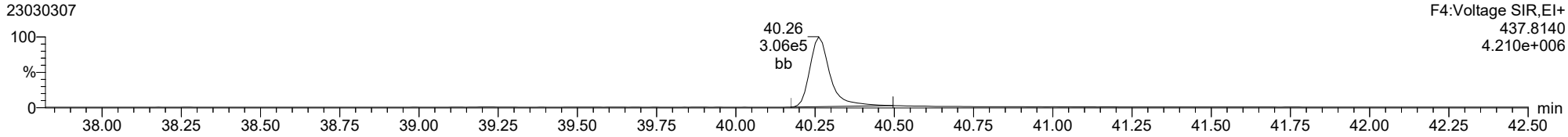

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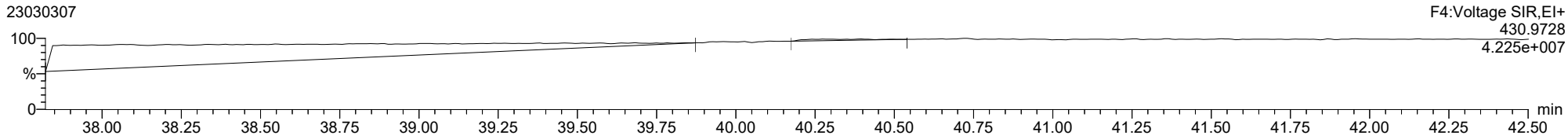

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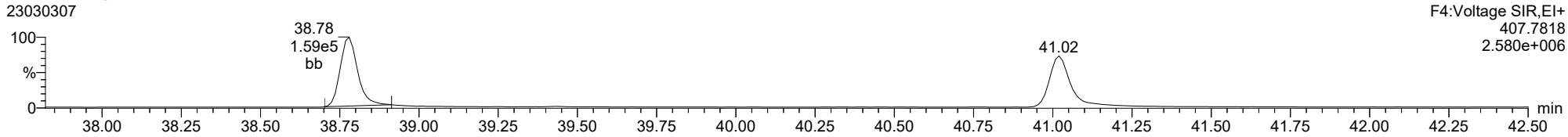

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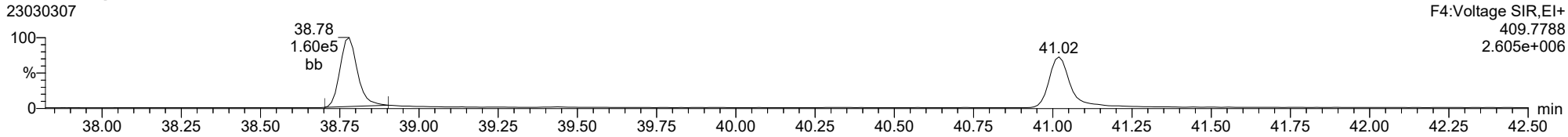

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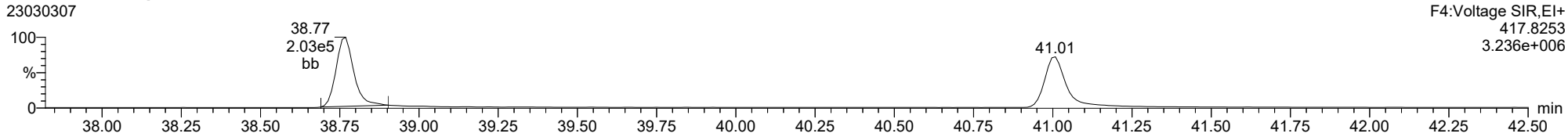

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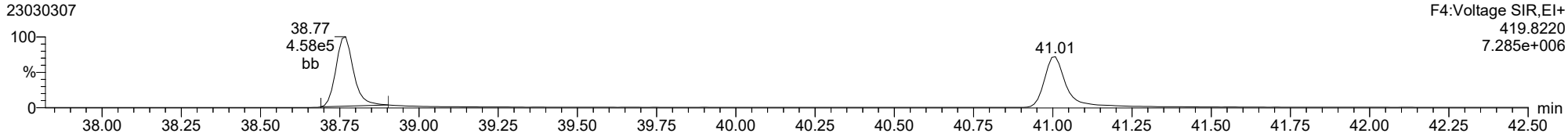

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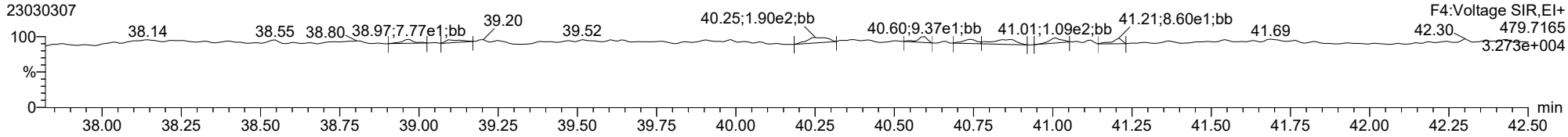

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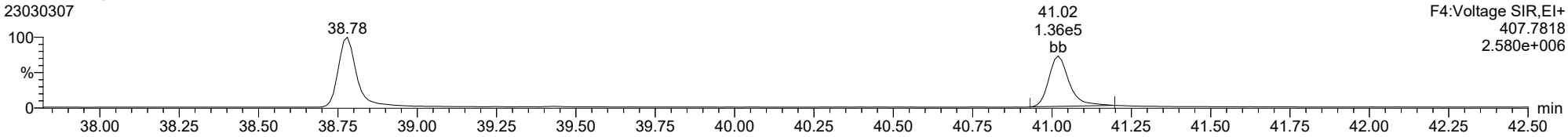

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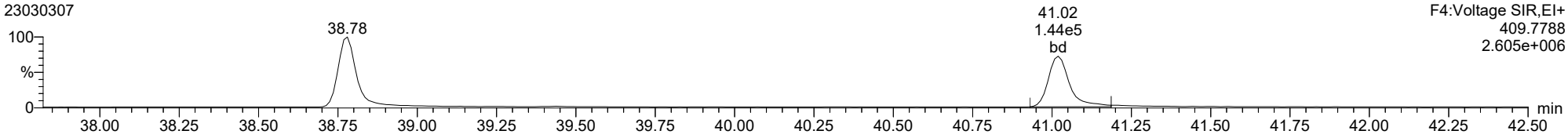

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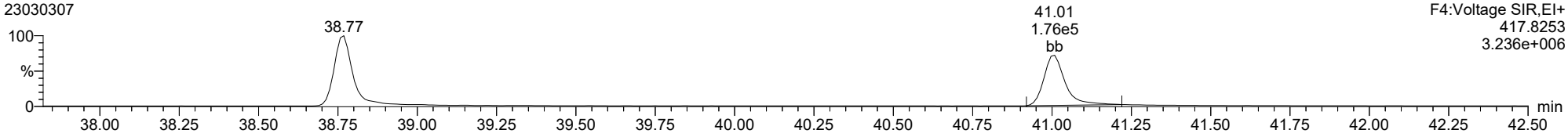

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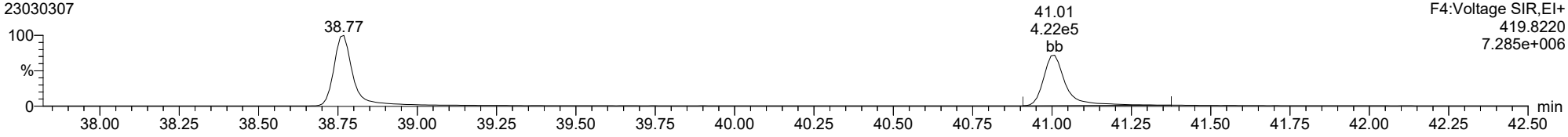

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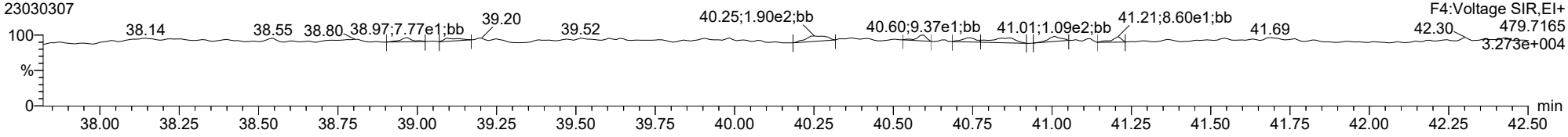

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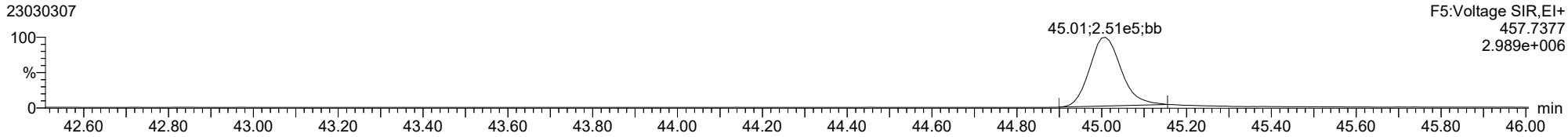

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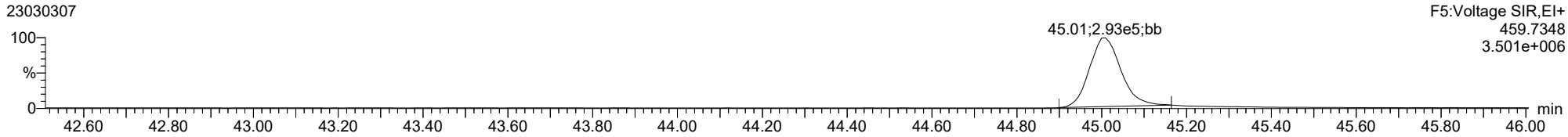

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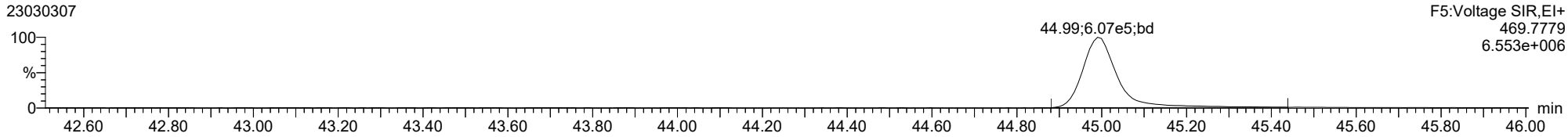

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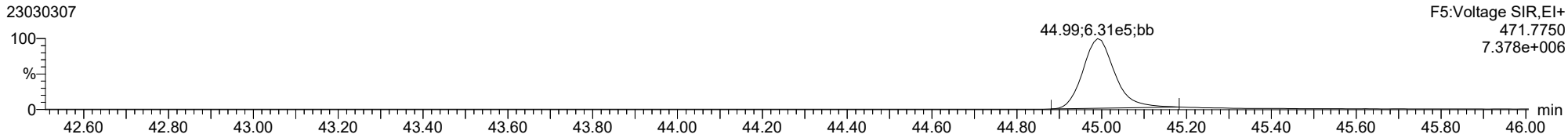
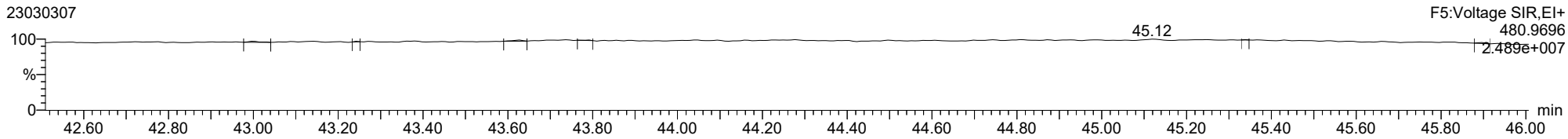


FUNCTION5 PFK



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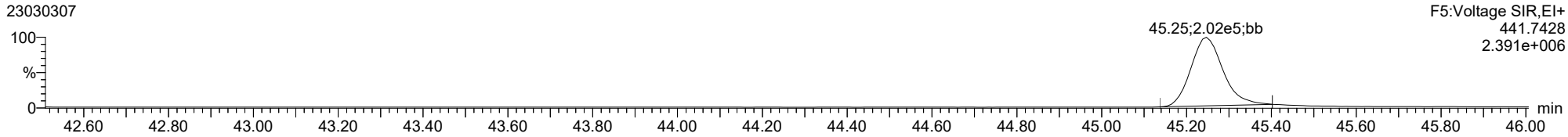

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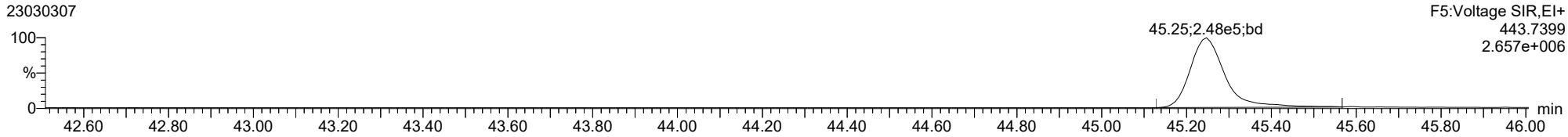
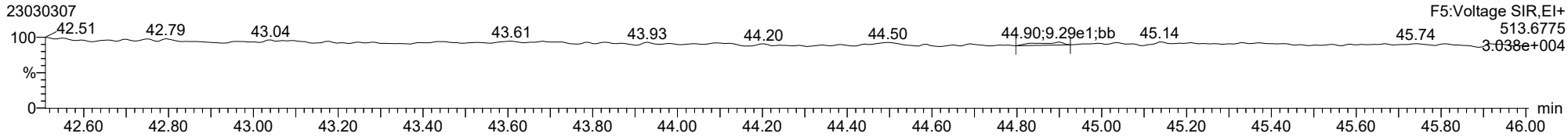


FUNCTION5 DCDPE



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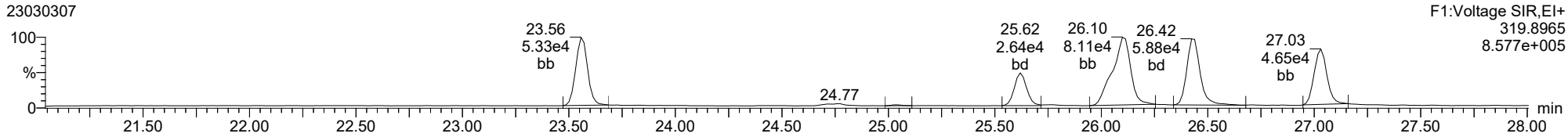
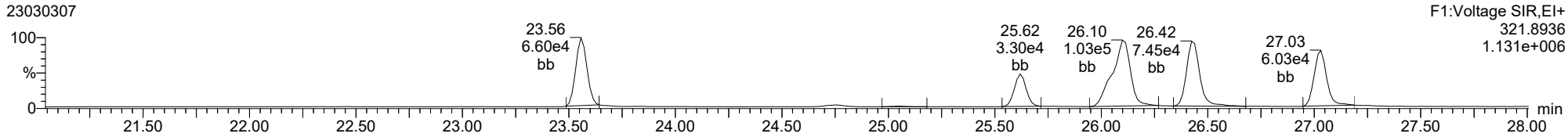
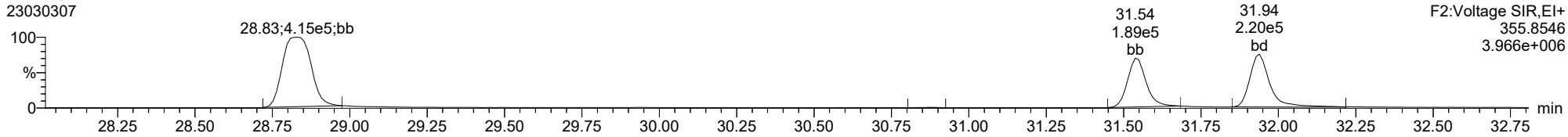
Total-tetradioxins



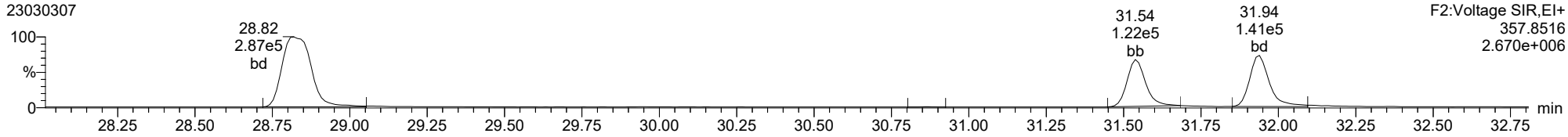
Total-tetradioxins



Total-pentadioxins



Total-pentadioxins



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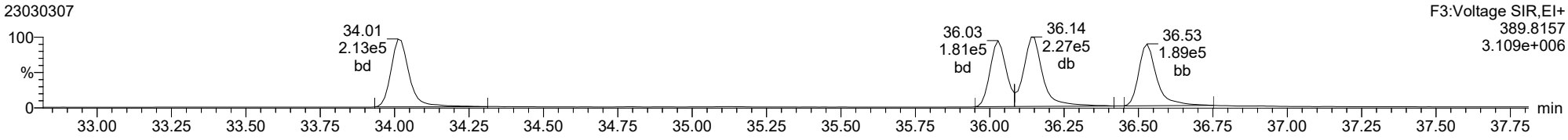

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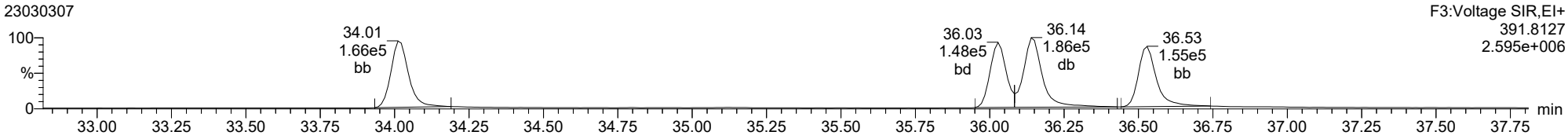

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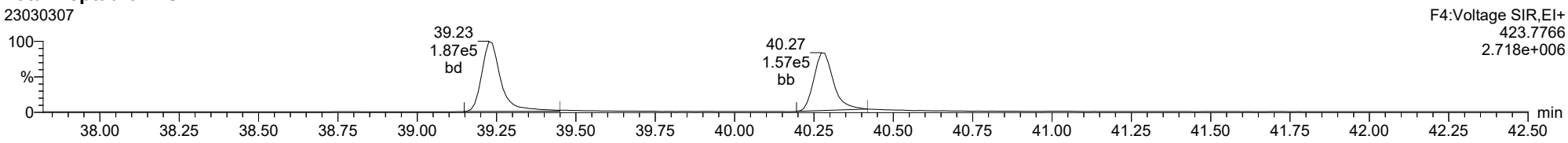

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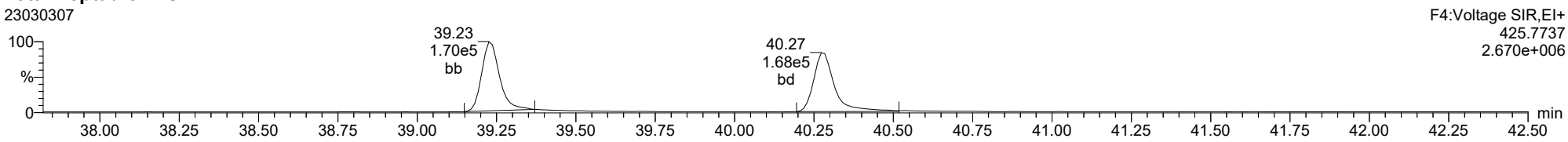

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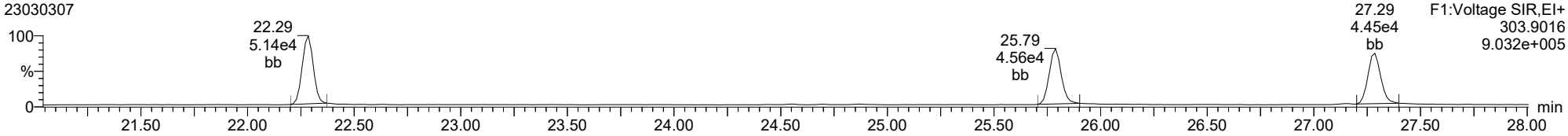
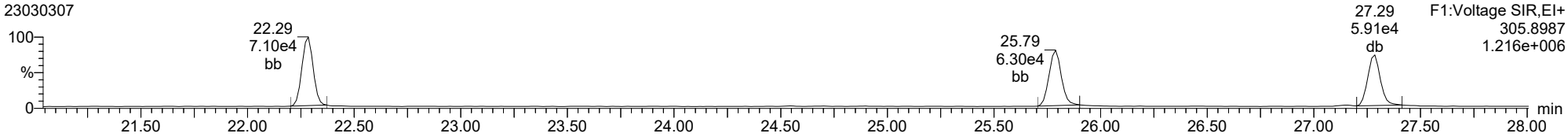
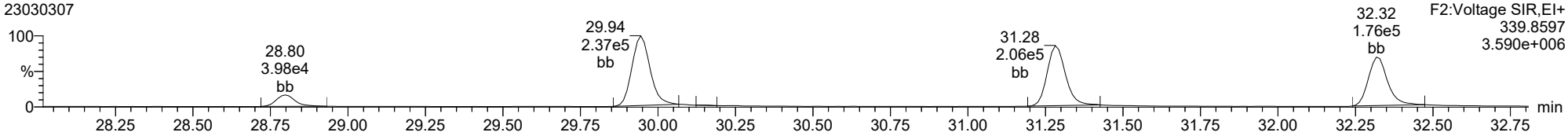
Total-tetrafurans



Total-tetrafurans



Total-pentafurans



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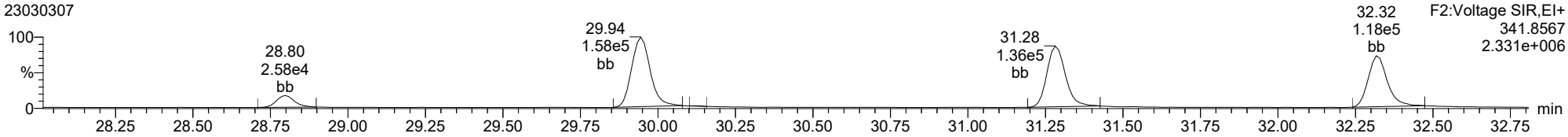

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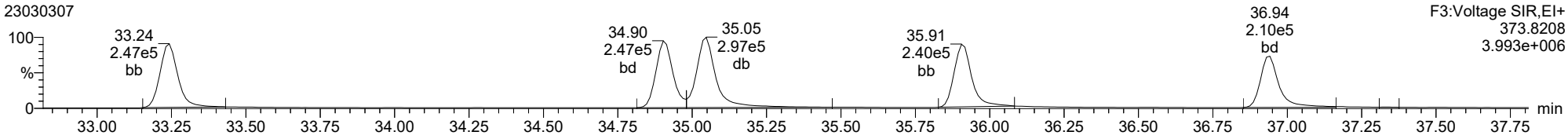
Total-hexafurans



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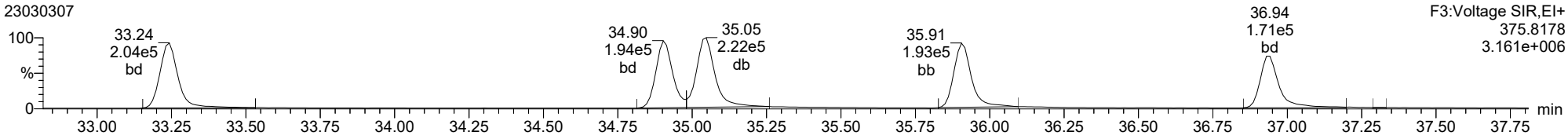

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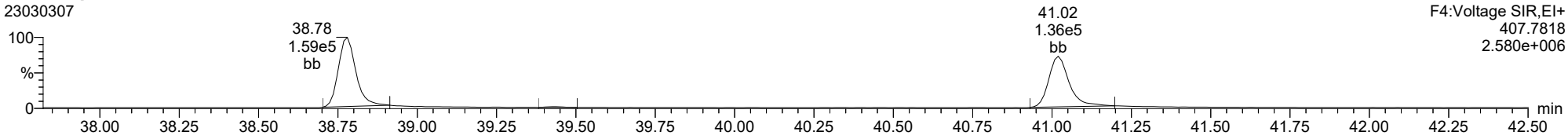
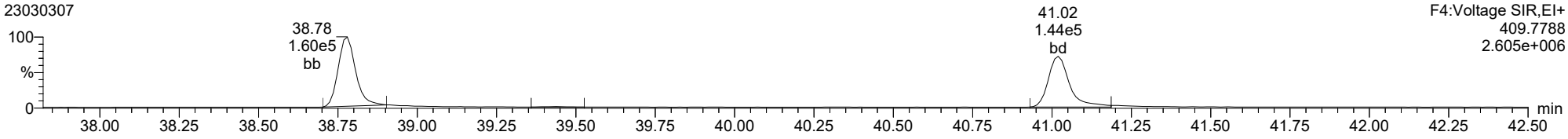


Total-heptafurans



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Printed: Monday, March 06, 2023 11:34:51 Pacific Standard Time

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Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.788	1.001	2.145e5	2.910e5	0.702	0.737	0.770	1085	2356	3.19e6	4.36e6	2939.3	1849.8	NO	bb	bb	41.038
12378-PeCDF	29.944	1.000	1.256e6	8.416e5	0.679	1.492	1.550	4273	3650	1.86e7	1.25e7	4360.5	3425.9	NO	bb	bb	202.935
23478-PeCDF	31.292	1.001	1.346e6	8.943e5	0.786	1.505	1.550	4273	3650	2.02e7	1.34e7	4738.5	3680.0	NO	bb	bb	201.175
123478-HxCDF	34.913	1.001	1.546e6	1.218e6	1.166	1.269	1.240	1919	2508	2.36e7	1.86e7	12323.4	7421.9	NO	bd	bd	197.711
234678-HxCDF	35.916	1.001	1.547e6	1.307e6	1.140	1.184	1.240	1919	2508	2.33e7	1.85e7	12125.4	7387.3	NO	bb	bd	210.207
123678-HxCDF	35.047	1.000	1.740e6	1.369e6	1.091	1.271	1.240	1919	2508	2.57e7	2.04e7	13394.0	8153.6	NO	db	db	189.797
123789-HxCDF	36.941	1.000	1.209e6	1.036e6	1.137	1.167	1.240	1919	2508	1.81e7	1.44e7	9441.6	5749.5	NO	bb	bd	200.361
1234678-HpCDF	38.779	1.000	8.720e5	8.418e5	1.003	1.036	1.050	3326	3780	1.44e7	1.42e7	4339.3	3745.4	NO	bb	bb	204.650
1234789-HpCDF	41.019	1.000	7.221e5	7.262e5	0.953	0.994	1.050	3326	3780	1.01e7	1.02e7	3041.3	2689.4	NO	bb	bb	208.465
OCDF	45.255	1.006	1.195e6	1.333e6	0.778	0.897	0.890	1809	2070	1.43e7	1.59e7	7923.8	7701.9	NO	bb	bb	419.788
2378-TCDD	26.438	1.001	2.573e5	3.218e5	1.149	0.799	0.770	1559	1107	3.81e6	4.84e6	2446.0	4371.1	NO	bb	bb	39.968
12378-PeCDD	31.549	1.001	1.294e6	8.446e5	1.022	1.532	1.550	1566	1736	1.89e7	1.24e7	12077.0	7164.9	NO	bb	bb	199.637
123478-HxCDD	36.027	1.000	1.162e6	9.482e5	0.996	1.225	1.240	1816	1276	1.93e7	1.57e7	10622.2	12327.7	NO	bd	bd	198.133
123678-HxCDD	36.150	1.001	1.363e6	1.125e6	1.001	1.212	1.240	1816	1276	1.97e7	1.61e7	10823.8	12618.8	NO	db	db	204.224
123789-HxCDD	36.528	1.011	1.168e6	9.477e5	0.907	1.232	1.240	1816	1276	1.77e7	1.44e7	9764.9	11291.0	NO	bb	bb	203.974
1234678-HpCDD	40.283	1.001	8.284e5	8.038e5	1.039	1.031	1.050	3177	2938	1.22e7	1.19e7	3841.2	4046.8	NO	bb	bb	198.376
OCDD	45.008	1.000	1.293e6	1.512e6	0.920	0.855	0.890	1475	2373	1.59e7	1.85e7	10744.0	7810.6	NO	bb	bb	394.016
13C-2378-TCDF	25.774	1.007	7.645e5	9.914e5	1.620	0.771	0.770	1843	2282	1.15e7	1.49e7	6238.3	6526.6	NO	bb	bb	101.535
13C-12378-PeCDF	29.933	1.169	9.119e5	6.098e5	1.240	1.495	1.550	3738	4574	1.28e7	8.50e6	3418.3	1857.5	NO	bd	bd	114.934
13C-23478-PeCDF	31.270	1.221	8.522e5	5.645e5	1.118	1.510	1.550	3738	4574	1.28e7	8.47e6	3423.2	1851.3	NO	bb	bb	118.746
13C-123478-HxCDF	34.891	0.956	4.043e5	7.946e5	1.168	0.509	0.510	3379	2646	6.26e6	1.23e7	1851.5	4643.3	NO	bd	bd	93.689
13C-123678-HxCDF	35.036	0.959	5.122e5	9.895e5	1.386	0.518	0.510	3379	2646	6.72e6	1.32e7	1988.7	4975.1	NO	db	dd	98.879
13C-234678-HxCDF	35.894	0.983	4.066e5	7.845e5	1.129	0.518	0.510	3379	2646	6.03e6	1.18e7	1785.1	4452.3	NO	bb	bb	96.294
13C-123789-HxCDF	36.930	1.011	3.312e5	6.542e5	0.932	0.506	0.510	3379	2646	4.85e6	9.52e6	1434.9	3598.2	NO	bb	bb	96.556
13C-1234678-HpCDF	38.768	1.062	2.524e5	5.825e5	0.895	0.433	0.440	1935	3511	4.16e6	9.49e6	2148.5	2703.4	NO	bb	bb	85.151
13C-1234789-HpCDF	41.007	1.123	2.205e5	5.084e5	0.770	0.434	0.440	1935	3511	3.02e6	6.92e6	1559.8	1971.4	NO	bb	bb	86.451
13C-1234-TCDD	25.605	0.000	4.743e5	5.931e5	1.000	0.800	0.770	2271	1813	7.33e6	9.12e6	3228.4	5028.5	NO	bb	bb	100.000
13C-2378-TCDD	26.410	1.031	5.640e5	6.974e5	1.152	0.809	0.770	2271	1813	8.09e6	1.01e7	3563.4	5571.0	NO	bb	bb	102.553
13C-12378-PeCDD	31.526	1.231	6.480e5	4.003e5	0.829	1.619	1.550	1212	1529	9.47e6	5.85e6	7814.9	3827.1	NO	bb	bb	118.505
13C-123478-HxCDD	36.016	0.986	6.052e5	4.646e5	0.995	1.303	1.240	1807	1475	9.78e6	7.54e6	5412.5	5108.2	NO	bd	bd	98.154
13C-123678-HxCDD	36.127	0.989	6.753e5	5.418e5	1.157	1.246	1.240	1807	1475	1.01e7	8.01e6	5594.1	5426.8	NO	db	db	96.059
13C-1234678-HpCDD	40.261	1.102	3.968e5	3.950e5	0.840	1.005	1.050	2357	2248	5.68e6	5.37e6	2408.3	2387.8	NO	bb	bb	86.051
13C-OCDD	44.999	1.232	7.332e5	8.149e5	0.767	0.900	0.890	1459	1173	8.67e6	9.61e6	5943.8	8191.6	NO	bb	bb	184.151
13C-123789-HxCDD	36.518	0.000	6.173e5	4.781e5	1.000	1.291	1.240	1807	1475	9.34e6	7.24e6	5171.1	4908.4	NO	bb	bb	100.000
37CL-2378-TCDD	26.438	1.033	5.280e5		1.288			2576		7.74e6		3003.1			bb		38.410

Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
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Printed: Monday, March 06, 2023 11:34:51 Pacific Standard Time

ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	1085	2356								
1289-TCDF					0.678		0.770	1085	2356								
13468-PECDF					1.246		1.550	728	1112								
12389-PECDF					0.496		1.550	4273	3650								
123468-HXCDF					1.169		1.240	1919	2508								
1368-TCDD					1.015		0.770	1559	1107								
1289-TCDD					0.909		0.770	1559	1107								
12479-PECDD					2.301		1.550	1566	1736								
12389-PECDD					1.184		1.550	1566	1736								
124679-HXCDD					1.115		1.240	1816	1276								
1234679-HPCDD					1.137		1.050	3177	2938								
Total-tetrafurans			2.178e5		0.727			1085		3.24e6							41.692
Total-penta1			0.000e0					728		0.00e0							
Total-pentafurans			2.604e6		0.654			4273		3.89e7							404.382
Total-hexafurans			6.043e6		1.141			1919		9.07e7							798.266
Total-heptafurans			1.594e6		0.978			3326		2.45e7							413.115
Total-Furans			1.165e7		0.922			1085		1.72e8							2077.243
Total-tetradioxins			2.634e5		1.024			1559		3.88e6							41.026
Total-pentadioxins			1.295e6		1.502			1566		1.89e7							199.743
Total-hexadioxins			3.693e6		1.005			1816		5.67e7							606.331
Total-heptadioxins			8.286e5		1.088			3177		1.22e7							198.425
Total-Dioxins			7.373e6		1.130			1559		1.08e8							1439.540
Total-TEQ			1.903e7					1559		2.79e8							3516.783
FUNCTION1 PFK			2.654e6					566854		2.19e6							
FUNCTION2 PFK			2.398e5					242860		6.75e6							0.000
FUNCTION3 PFK			5.441e7					394639		2.11e7							0.000
FUNCTION4 PFK			0.000e0					306708		0.00e0							
FUNCTION5 PFK			3.395e4					230570		1.65e6							
FUNCTION1 HXCD...			4.934e2					625		6.74e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			1.574e3					915		2.35e4							0.000
FUNCTION3 OCDPE			8.696e2					844		1.47e4							0.000
FUNCTION4 NCDPE			3.767e2					925		5.85e3							0.000
FUNCTION5 DCDPE			0.000e0					629		0.00e0							

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ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.79	2.145e5	2.910e5	0.702	0.74	0.77	2939.3	YES	NO	bb	bb	41.038
2	Total-tetrafurans	24.88	1.531e3	2.327e3	0.727	0.66	0.77	20.3	YES	NO	bb	bb	0.302
3	Total-tetrafurans	24.56	1.778e3	2.714e3	0.727	0.66	0.77	29.5	YES	NO	bb	bb	0.352

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	31.01	1.644e3	9.764e2	0.654	1.68	1.55	5.6	YES	NO	db	bd	0.273
2	12378-PeCDF	29.94	1.256e6	8.416e5	0.679	1.49	1.55	4360.5	YES	NO	bb	bb	202.935
3	23478-PeCDF	31.29	1.346e6	8.943e5	0.786	1.51	1.55	4738.5	YES	NO	bb	bb	201.175

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.94	1.209e6	1.036e6	1.137	1.17	1.24	9441.6	YES	NO	bb	bd	200.361
2	234678-HxCDF	35.92	1.547e6	1.307e6	1.140	1.18	1.24	12125.4	YES	NO	bb	bd	210.207
3	Total-hexafurans	35.77	1.562e2	1.389e2	1.141	1.12	1.24	3.4	NO	NO	bb	bb	0.021
4	123678-HxCDF	35.05	1.740e6	1.369e6	1.091	1.27	1.24	13394.0	YES	NO	db	db	189.797
5	123478-HxCDF	34.91	1.546e6	1.218e6	1.166	1.27	1.24	12323.4	YES	NO	bd	bd	197.711
6	Total-hexafurans	34.76	1.255e3	1.100e3	1.141	1.14	1.24	11.9	YES	NO	bb	bb	0.169

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.78	8.720e5	8.418e5	1.003	1.04	1.05	4339.3	YES	NO	bb	bb	204.650
2	1234789-HpCDF	41.02	7.221e5	7.262e5	0.953	0.99	1.05	3041.3	YES	NO	bb	bb	208.465

ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.79	2.145e5	2.910e5	0.702	0.74	0.77	2939.3	YES	NO	bb	bb	41.038
2	Total-tetrafurans	24.88	1.531e3	2.327e3	0.727	0.66	0.77	20.3	YES	NO	bb	bb	0.302
3	Total-tetrafurans	24.56	1.778e3	2.714e3	0.727	0.66	0.77	29.5	YES	NO	bb	bb	0.352
4	Total-pentafurans	31.01	1.644e3	9.764e2	0.654	1.68	1.55	5.6	YES	NO	db	bd	0.273
5	12378-PeCDF	29.94	1.256e6	8.416e5	0.679	1.49	1.55	4360.5	YES	NO	bb	bb	202.935
6	23478-PeCDF	31.29	1.346e6	8.943e5	0.786	1.51	1.55	4738.5	YES	NO	bb	bb	201.175
7	123789-HxCDF	36.94	1.209e6	1.036e6	1.137	1.17	1.24	9441.6	YES	NO	bb	bd	200.361
8	234678-HxCDF	35.92	1.547e6	1.307e6	1.140	1.18	1.24	12125.4	YES	NO	bb	bd	210.207
9	Total-hexafurans	35.77	1.562e2	1.389e2	1.141	1.12	1.24	3.4	NO	NO	bb	bb	0.021
10	123678-HxCDF	35.05	1.740e6	1.369e6	1.091	1.27	1.24	13394.0	YES	NO	db	db	189.797
11	123478-HxCDF	34.91	1.546e6	1.218e6	1.166	1.27	1.24	12323.4	YES	NO	bd	bd	197.711
12	Total-hexafurans	34.76	1.255e3	1.100e3	1.141	1.14	1.24	11.9	YES	NO	bb	bb	0.169
13	1234678-HpCDF	38.78	8.720e5	8.418e5	1.003	1.04	1.05	4339.3	YES	NO	bb	bb	204.650
14	1234789-HpCDF	41.02	7.221e5	7.262e5	0.953	0.99	1.05	3041.3	YES	NO	bb	bb	208.465
15	OCDF	45.26	1.195e6	1.333e6	0.778	0.90	0.89	7923.8	YES	NO	bb	bb	419.788

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.44	2.573e5	3.218e5	1.149	0.80	0.77	2446.0	YES	NO	bb	bb	39.968
2	Total-tetradioxins	26.06	6.115e3	7.563e3	1.024	0.81	0.77	45.2	YES	NO	bb	bb	1.059

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.55	1.294e6	8.446e5	1.022	1.53	1.55	12077.0	YES	NO	bb	bb	199.637
2	Total-pentadioxins	29.94	9.896e2	6.778e2	1.502	1.46	1.55	7.8	YES	NO	bb	bb	0.106

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.53	1.168e6	9.477e5	0.907	1.23	1.24	9764.9	YES	NO	bb	bb	203.974
2	123678-HxCDD	36.15	1.363e6	1.125e6	1.001	1.21	1.24	10823.8	YES	NO	db	db	204.224
3	123478-HxCDD	36.03	1.162e6	9.482e5	0.996	1.23	1.24	10622.2	YES	NO	bd	bd	198.133

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HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptadioxins	40.57	2.148e2	2.026e2	1.088	1.06	1.05	2.3	NO	NO	bb	bb	0.048
2	1234678-HpCDD	40.28	8.284e5	8.038e5	1.039	1.03	1.05	3841.2	YES	NO	bb	bb	198.376

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.44	2.573e5	3.218e5	1.149	0.80	0.77	2446.0	YES	NO	bb	bb	39.968
2	Total-tetradioxins	26.06	6.115e3	7.563e3	1.024	0.81	0.77	45.2	YES	NO	bb	bb	1.059
3	12378-PeCDD	31.55	1.294e6	8.446e5	1.022	1.53	1.55	12077.0	YES	NO	bb	bb	199.637
4	Total-pentadioxins	29.94	9.896e2	6.778e2	1.502	1.46	1.55	7.8	YES	NO	bb	bb	0.106
5	123789-HxCDD	36.53	1.168e6	9.477e5	0.907	1.23	1.24	9764.9	YES	NO	bb	bb	203.974
6	123678-HxCDD	36.15	1.363e6	1.125e6	1.001	1.21	1.24	10823.8	YES	NO	db	db	204.224
7	123478-HxCDD	36.03	1.162e6	9.482e5	0.996	1.23	1.24	10622.2	YES	NO	bd	bd	198.133
8	Total-heptadioxins	40.57	2.148e2	2.026e2	1.088	1.06	1.05	2.3	NO	NO	bb	bb	0.048
9	1234678-HpCDD	40.28	8.284e5	8.038e5	1.039	1.03	1.05	3841.2	YES	NO	bb	bb	198.376
10	OCDD	45.01	1.293e6	1.512e6	0.920	0.86	0.89	10744.0	YES	NO	bb	bb	394.016

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.79	2.145e5	2.910e5	0.702	0.74	0.77	2939.3	YES	NO	bb	bb	41.038
2	Total-tetrafurans	24.88	1.531e3	2.327e3	0.727	0.66	0.77	20.3	YES	NO	bb	bb	0.302
3	Total-tetrafurans	24.56	1.778e3	2.714e3	0.727	0.66	0.77	29.5	YES	NO	bb	bb	0.352
4	Total-pentafurans	31.01	1.644e3	9.764e2	0.654	1.68	1.55	5.6	YES	NO	db	bd	0.273
5	12378-PeCDF	29.94	1.256e6	8.416e5	0.679	1.49	1.55	4360.5	YES	NO	bb	bb	202.935
6	23478-PeCDF	31.29	1.346e6	8.943e5	0.786	1.51	1.55	4738.5	YES	NO	bb	bb	201.175
7	123789-HxCDF	36.94	1.209e6	1.036e6	1.137	1.17	1.24	9441.6	YES	NO	bb	bd	200.361
8	234678-HxCDF	35.92	1.547e6	1.307e6	1.140	1.18	1.24	12125.4	YES	NO	bb	bd	210.207
9	Total-hexafurans	35.77	1.562e2	1.389e2	1.141	1.12	1.24	3.4	NO	NO	bb	bb	0.021
10	123678-HxCDF	35.05	1.740e6	1.369e6	1.091	1.27	1.24	13394.0	YES	NO	db	db	189.797
11	123478-HxCDF	34.91	1.546e6	1.218e6	1.166	1.27	1.24	12323.4	YES	NO	bd	bd	197.711
12	Total-hexafurans	34.76	1.255e3	1.100e3	1.141	1.14	1.24	11.9	YES	NO	bb	bb	0.169
13	1234678-HpCDF	38.78	8.720e5	8.418e5	1.003	1.04	1.05	4339.3	YES	NO	bb	bb	204.650
14	1234789-HpCDF	41.02	7.221e5	7.262e5	0.953	0.99	1.05	3041.3	YES	NO	bb	bb	208.465
15	OCDF	45.26	1.195e6	1.333e6	0.778	0.90	0.89	7923.8	YES	NO	bb	bb	419.788
16	2378-TCDD	26.44	2.573e5	3.218e5	1.149	0.80	0.77	2446.0	YES	NO	bb	bb	39.968
17	Total-tetradioxins	26.06	6.115e3	7.563e3	1.024	0.81	0.77	45.2	YES	NO	bb	bb	1.059
18	12378-PeCDD	31.55	1.294e6	8.446e5	1.022	1.53	1.55	12077.0	YES	NO	bb	bb	199.637
19	Total-pentadioxins	29.94	9.896e2	6.778e2	1.502	1.46	1.55	7.8	YES	NO	bb	bb	0.106
20	123789-HxCDD	36.53	1.168e6	9.477e5	0.907	1.23	1.24	9764.9	YES	NO	bb	bb	203.974
21	123678-HxCDD	36.15	1.363e6	1.125e6	1.001	1.21	1.24	10823.8	YES	NO	db	db	204.224
22	123478-HxCDD	36.03	1.162e6	9.482e5	0.996	1.23	1.24	10622.2	YES	NO	bd	bd	198.133
23	Total-heptadioxins	40.57	2.148e2	2.026e2	1.088	1.06	1.05	2.3	NO	NO	bb	bb	0.048
24	1234678-HpCDD	40.28	8.284e5	8.038e5	1.039	1.03	1.05	3841.2	YES	NO	bb	bb	198.376
25	OCDD	45.01	1.293e6	1.512e6	0.920	0.86	0.89	10744.0	YES	NO	bb	bb	394.016

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	26.75	1.219e6					0.4	NO		bb		
2	FUNCTION1 PFK	21.17	1.435e6					3.4	YES		bb		

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.26	4.048e3					0.9	NO		bb		0.000
2	FUNCTION2 PFK	28.22	4.511e3					0.9	NO		bb		0.000
3	FUNCTION2 PFK	28.09	1.180e4					1.6	NO		bb		0.000
4	FUNCTION2 PFK	32.40	7.400e3					1.4	NO		bd		0.000
5	FUNCTION2 PFK	31.78	3.780e3					0.8	NO		db		0.000
6	FUNCTION2 PFK	31.75	1.880e3					0.6	NO		bd		0.000
7	FUNCTION2 PFK	31.70	9.648e3					1.7	NO		db		0.000
8	FUNCTION2 PFK	31.63	2.054e4					2.2	NO		bd		0.000
9	FUNCTION2 PFK	31.52	5.247e4					2.4	NO		db		0.000
10	FUNCTION2 PFK	31.37	1.454e4					1.4	NO		bd		0.000
11	FUNCTION2 PFK	31.10	7.031e3					1.1	NO		bb		0.000
12	FUNCTION2 PFK	30.32	1.036e4					1.3	NO		bb		0.000
13	FUNCTION2 PFK	30.01	2.058e3					0.8	NO		bb		0.000
14	FUNCTION2 PFK	29.82	6.711e3					1.2	NO		db		0.000
15	FUNCTION2 PFK	29.78	1.288e4					1.7	NO		bd		0.000
16	FUNCTION2 PFK	29.02	5.997e3					0.8	NO		bb		0.000
17	FUNCTION2 PFK	28.82	2.827e4					1.7	NO		bb		0.000
18	FUNCTION2 PFK	28.47	4.519e3					0.9	NO		bb		0.000
19	FUNCTION2 PFK	28.42	5.823e3					1.1	NO		bb		0.000
20	FUNCTION2 PFK	32.71	1.137e4					1.6	NO		bb		0.000
21	FUNCTION2 PFK	32.44	1.418e4					1.8	NO		db		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	36.64	7.406e6					25.3	YES		db		0.000
2	FUNCTION3 PFK	36.25	4.701e7					28.1	YES		bd		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.68	7.516e3					1.5	NO		bb		
2	FUNCTION5 PFK	45.50	5.255e3					1.2	NO		bb		
3	FUNCTION5 PFK	43.66	5.108e3					1.2	NO		bb		
4	FUNCTION5 PFK	43.06	3.867e3					1.1	NO		bb		
5	FUNCTION5 PFK	42.63	1.220e4					2.1	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	21.64	8.072e1					1.8	NO		bb		0.000
2	FUNCTION1 HXCD...	21.44	1.165e2					2.1	NO		db		0.000
3	FUNCTION1 HXCD...	21.34	7.544e1					2.3	NO		bd		0.000
4	FUNCTION1 HXCD...	26.42	1.399e2					2.7	NO		bb		0.000
5	FUNCTION1 HXCD...	21.99	8.086e1					2.0	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.18	1.574e3					25.7	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.15	3.227e2					5.7	YES		db		0.000
2	FUNCTION3 OCDPE	36.03	2.331e2					4.4	YES		bd		0.000
3	FUNCTION3 OCDPE	35.36	1.234e2					4.0	YES		bb		0.000
4	FUNCTION3 OCDPE	35.06	1.904e2					3.3	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	39.00	2.677e2					3.2	YES		bb		0.000
2	FUNCTION4 NCDPE	38.18	1.090e2					3.1	YES		bb		0.000

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ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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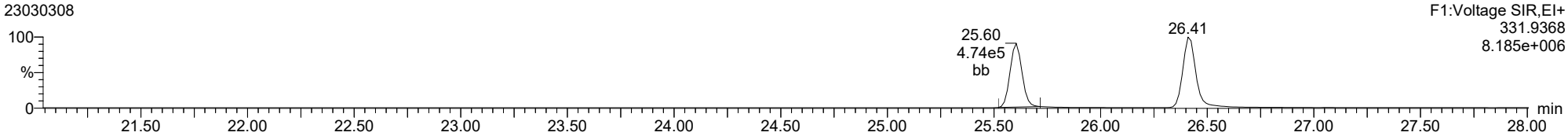
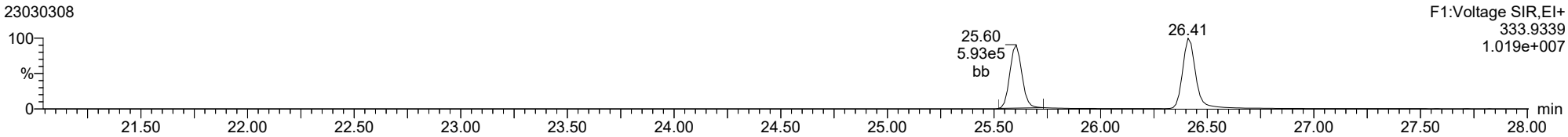
ID: CS4CW, Name: 23030308, Date: 03-Mar-2023, Time: 14:59:53, Conditions: AUTOSPEC01, User: pk

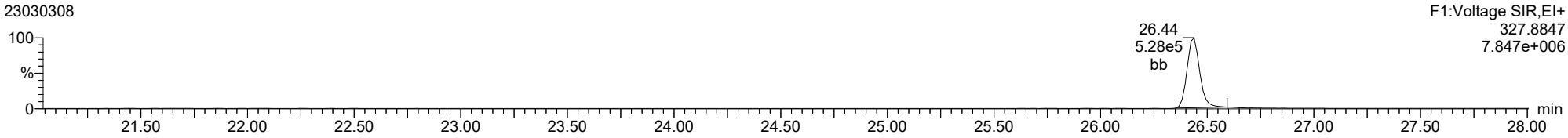
13C-1234-TCDD



13C-1234-TCDD



37CL-2378-TCDD



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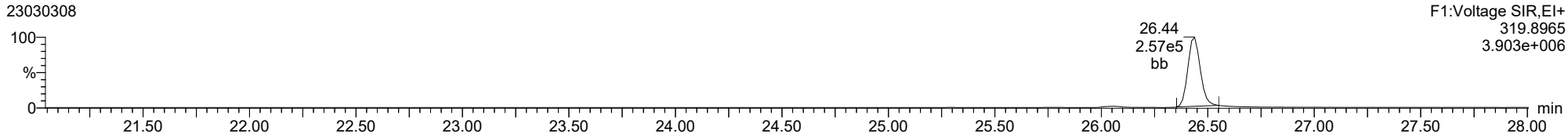

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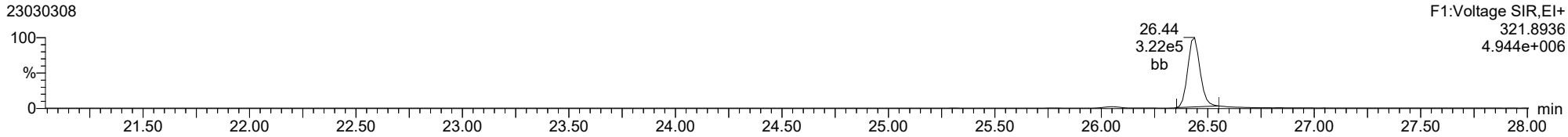

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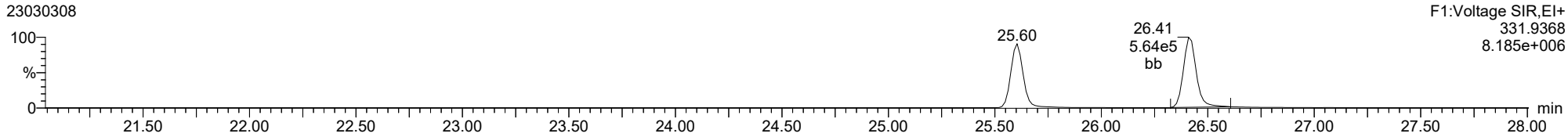

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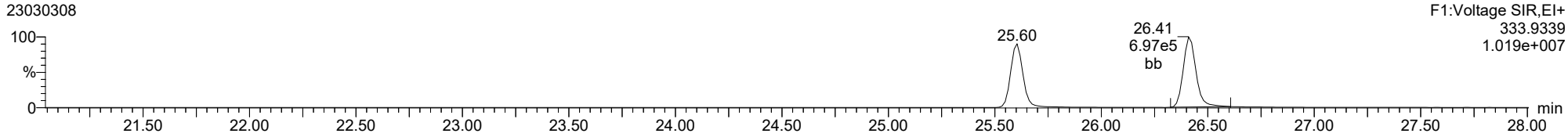

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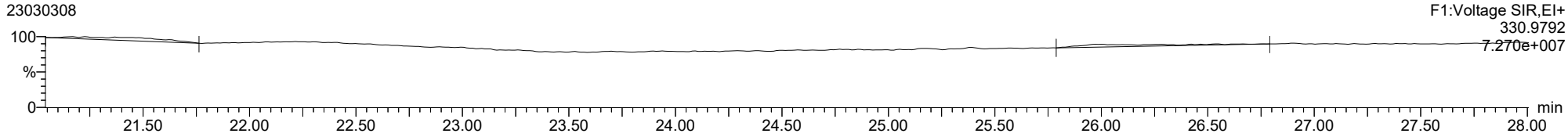

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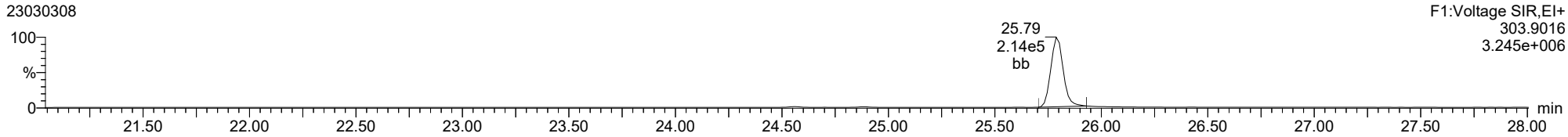

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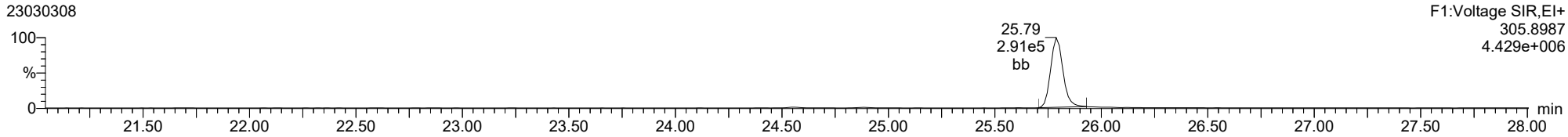

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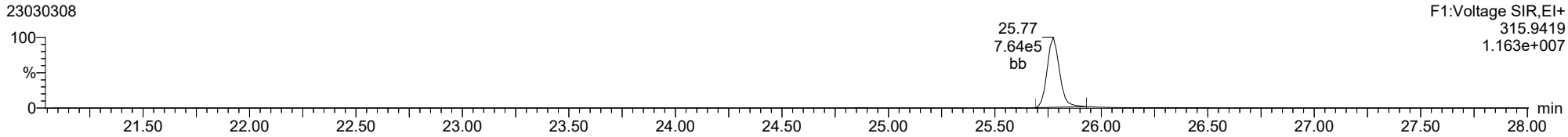

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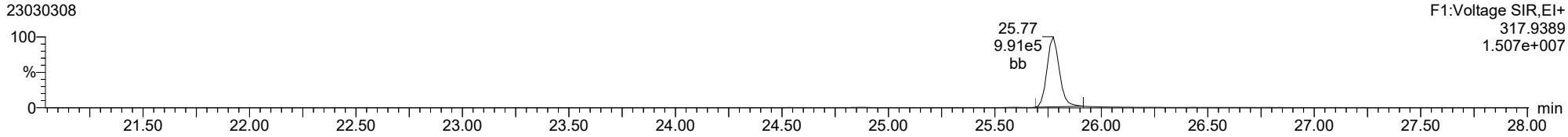

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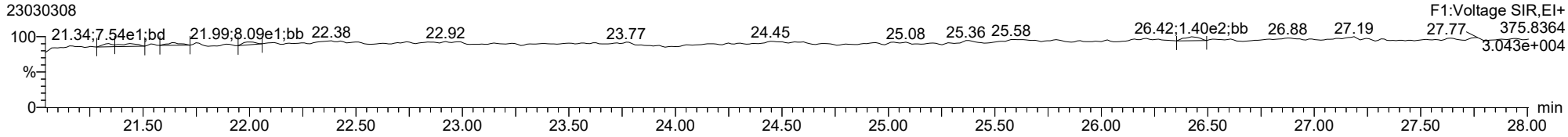

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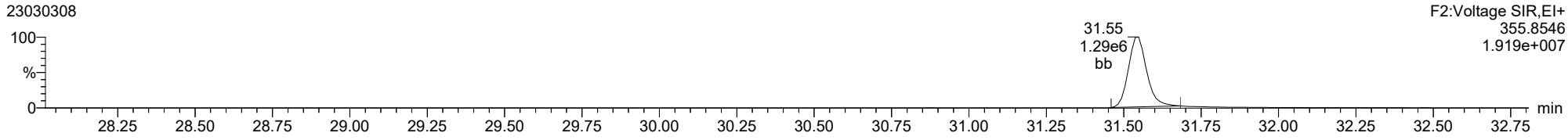
12378-PeCDD



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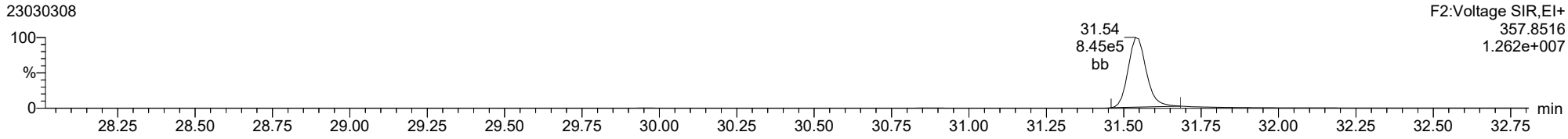

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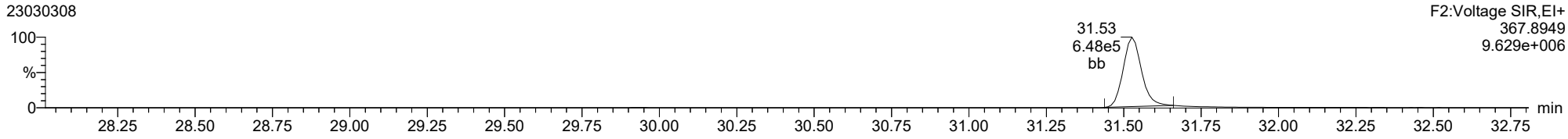

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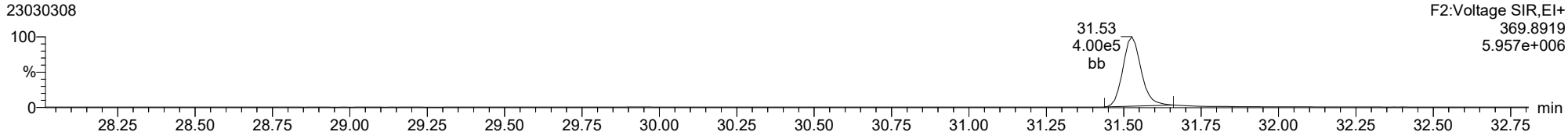

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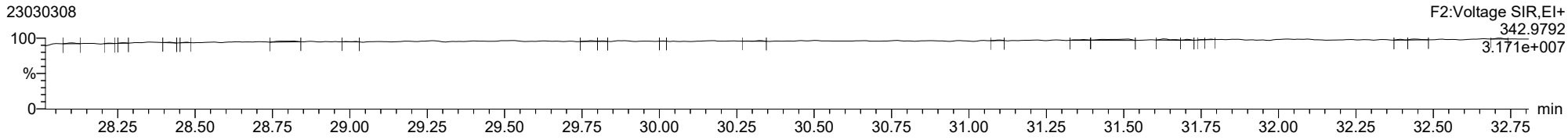

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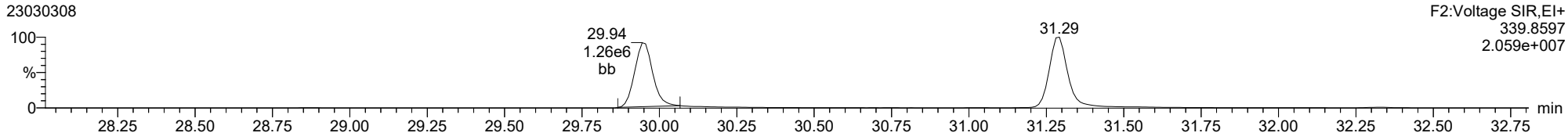

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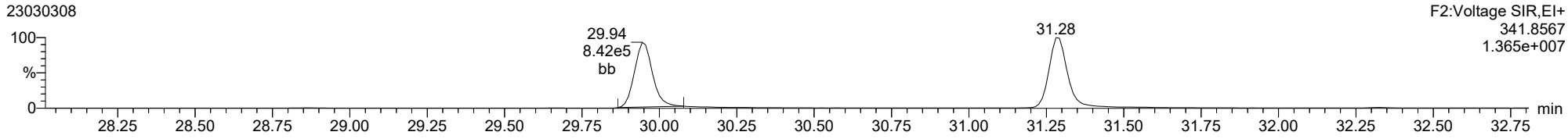

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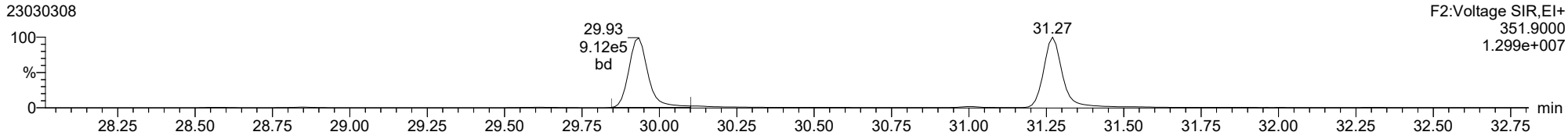

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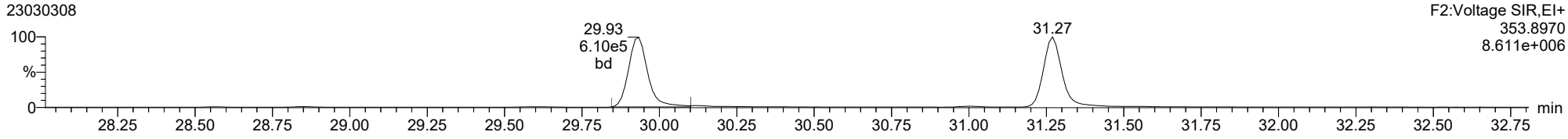

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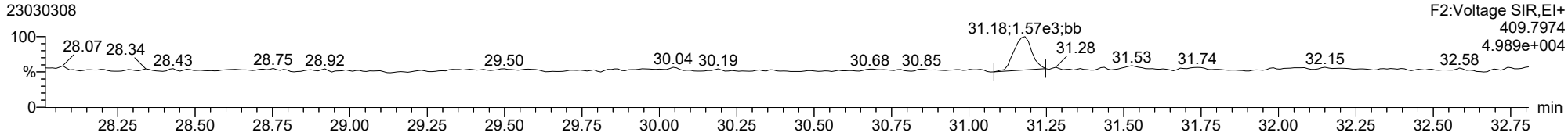

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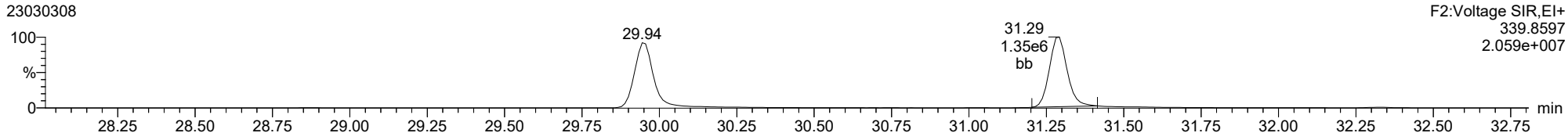

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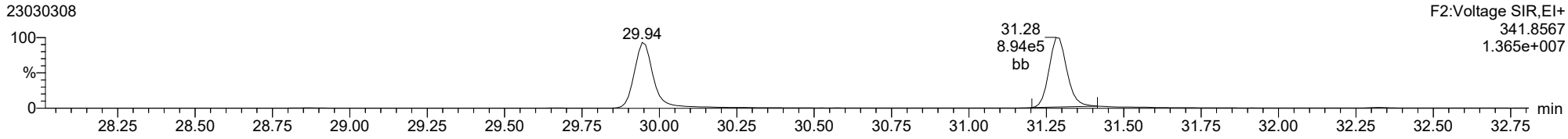

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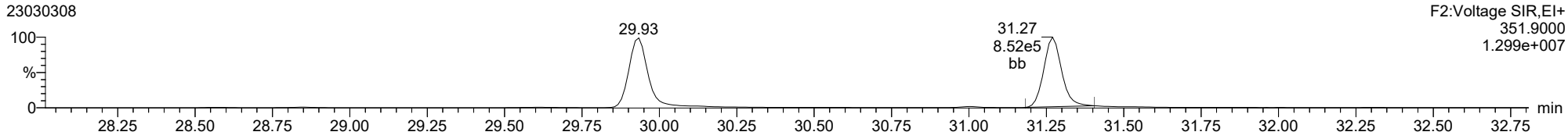

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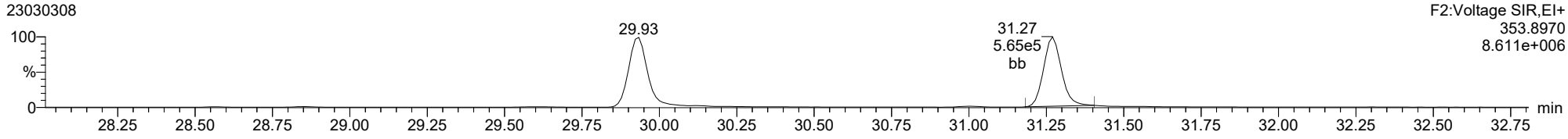

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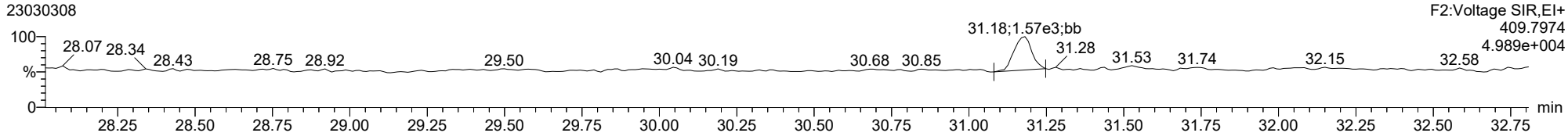

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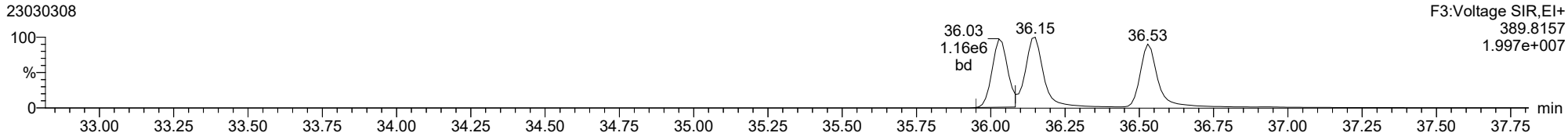

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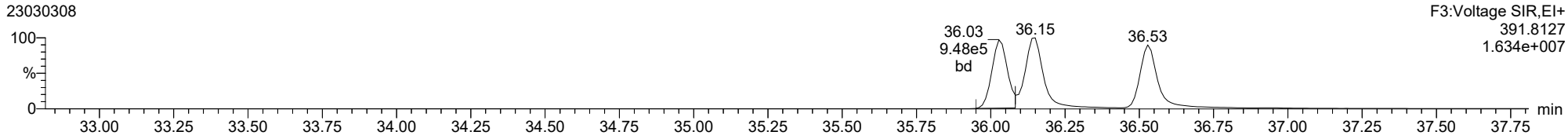

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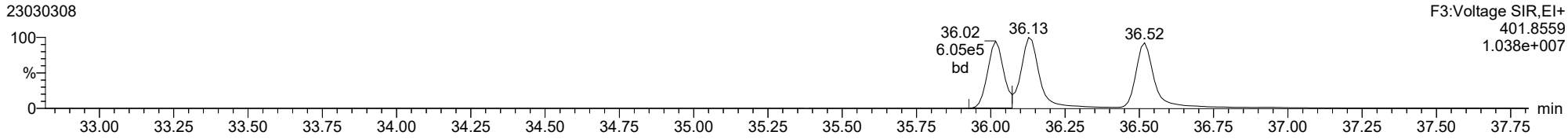

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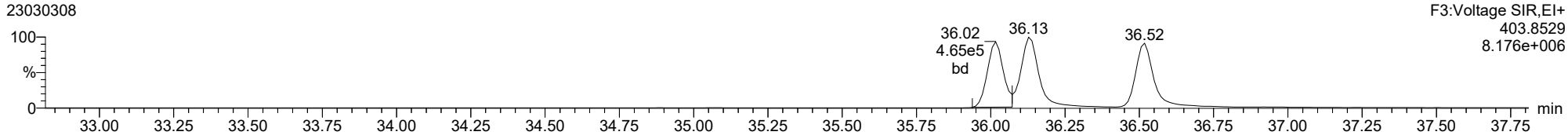

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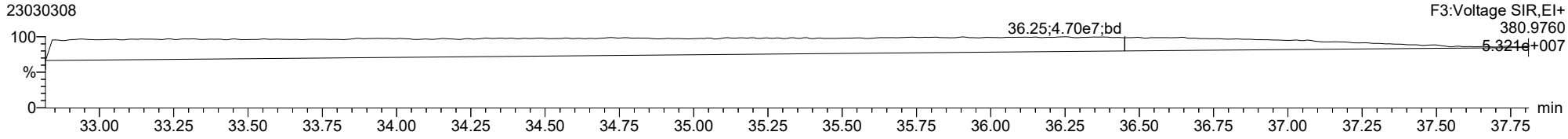

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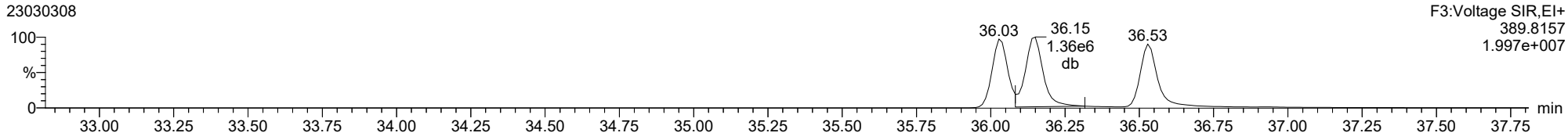

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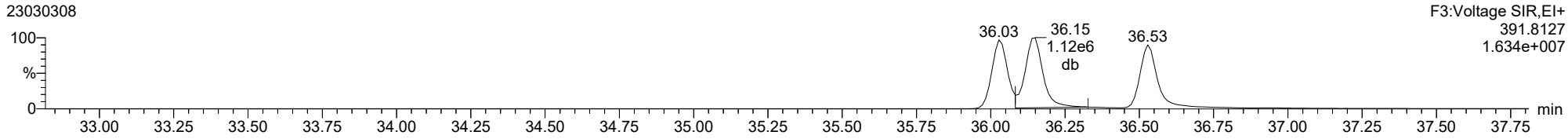

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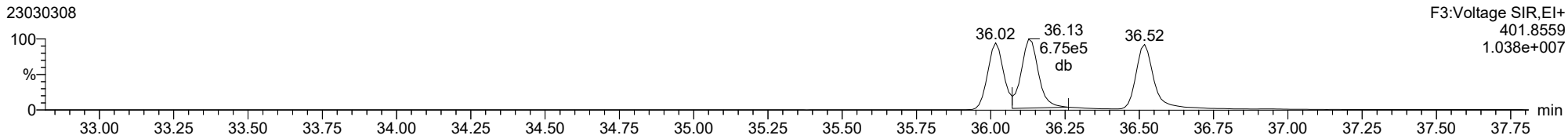

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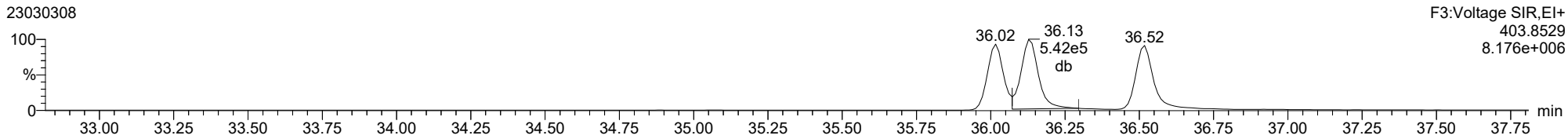

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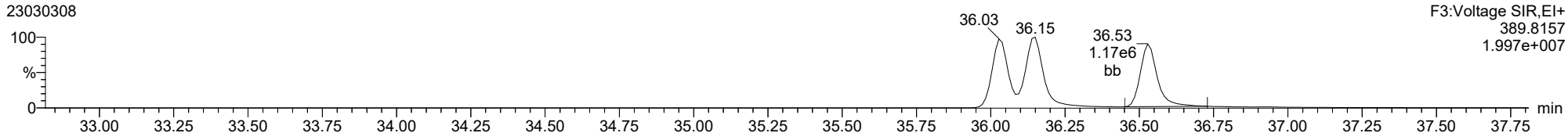

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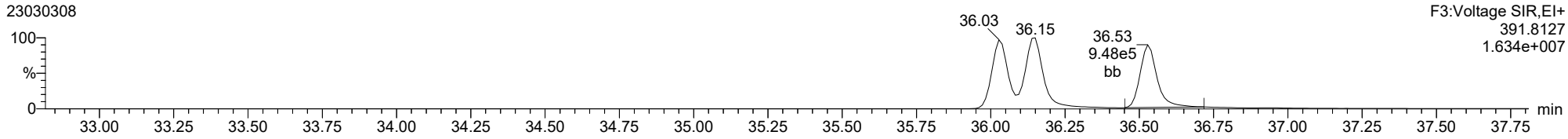

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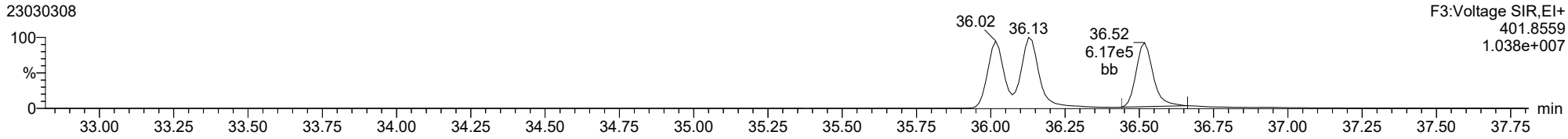

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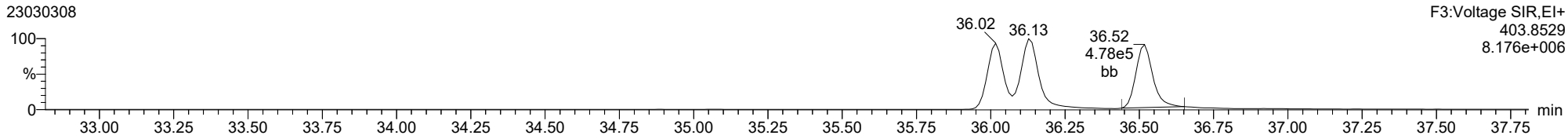

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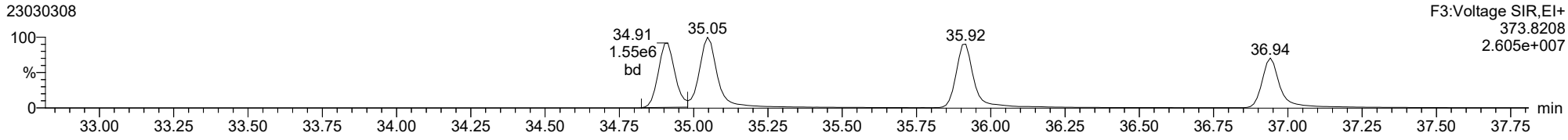

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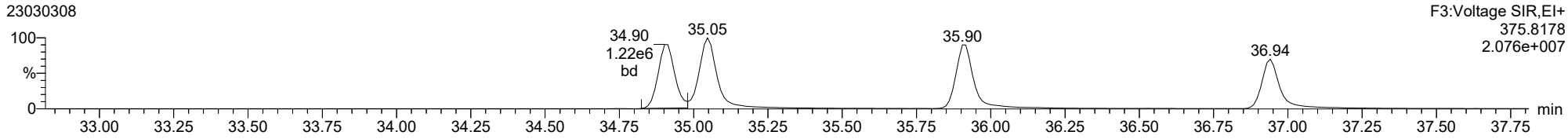

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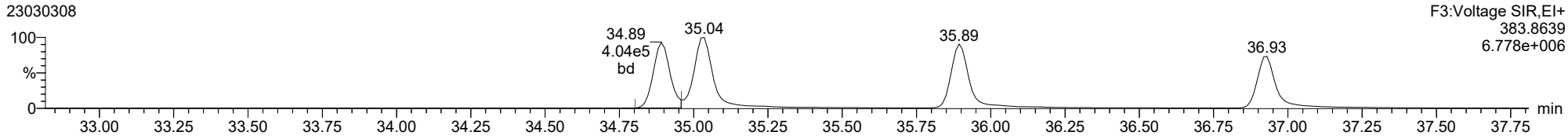

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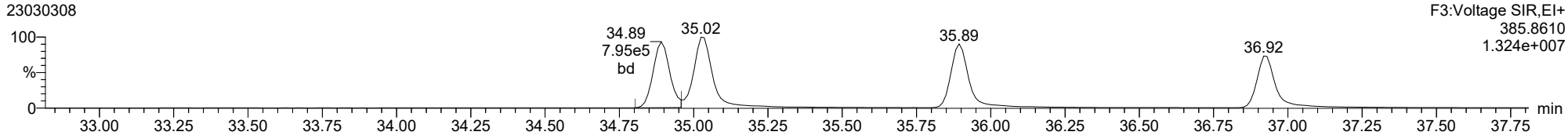

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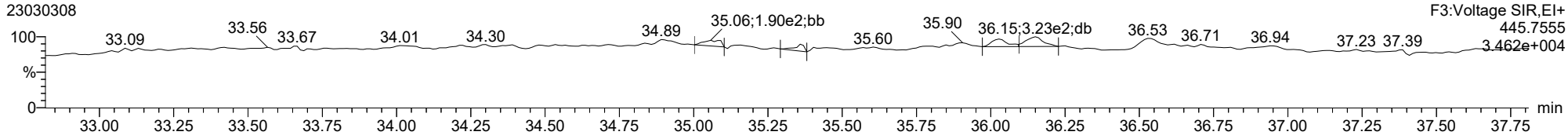

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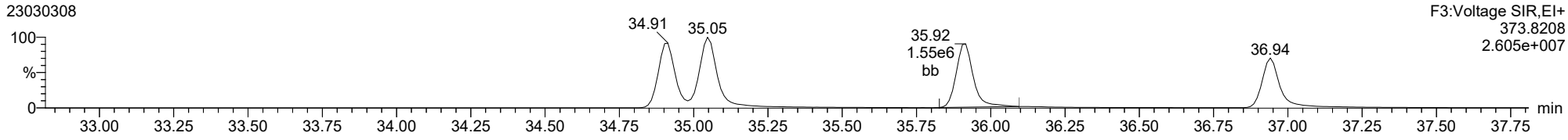

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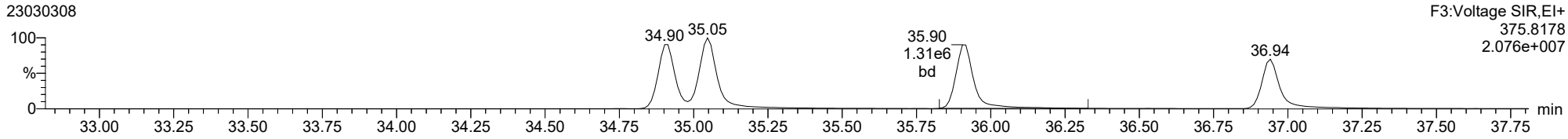

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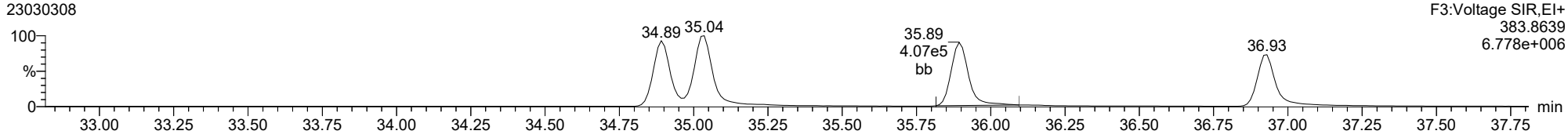

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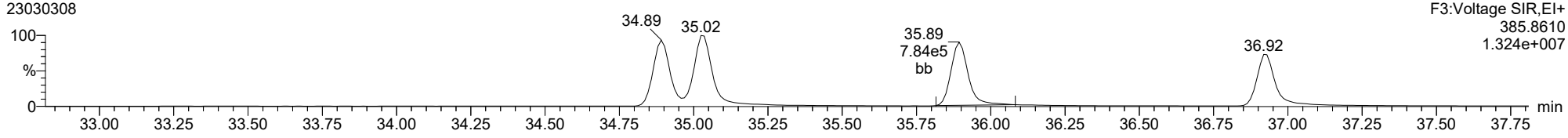

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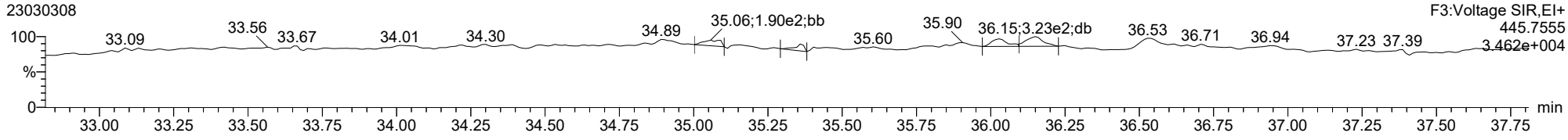

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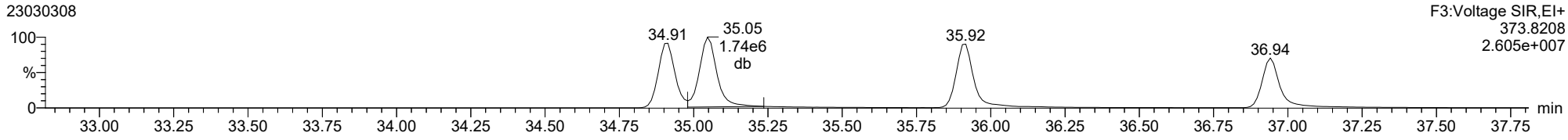

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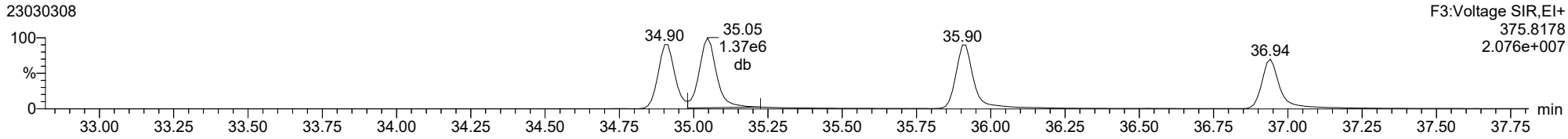

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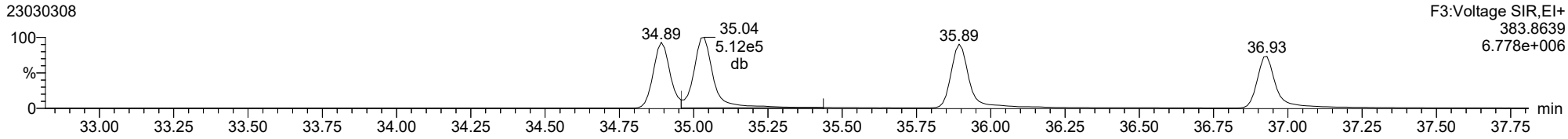

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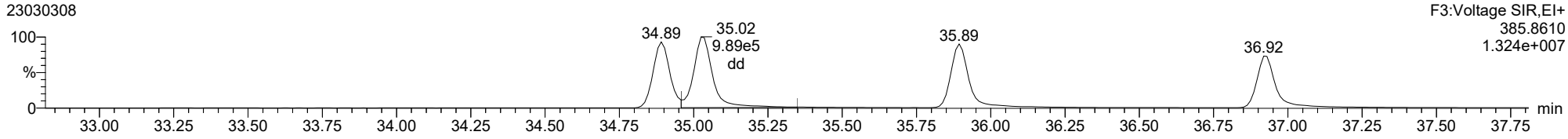

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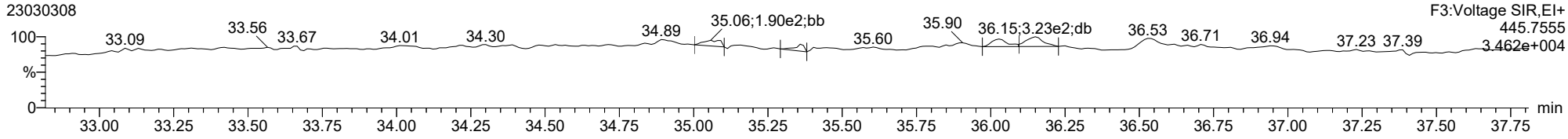

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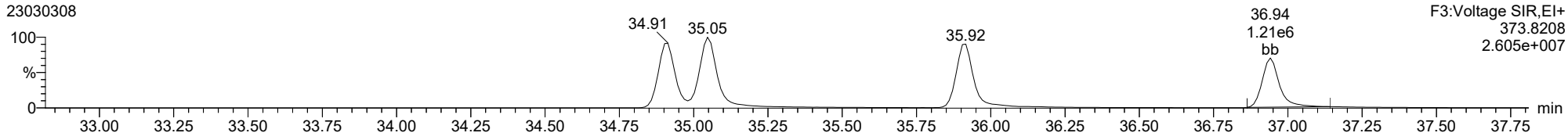

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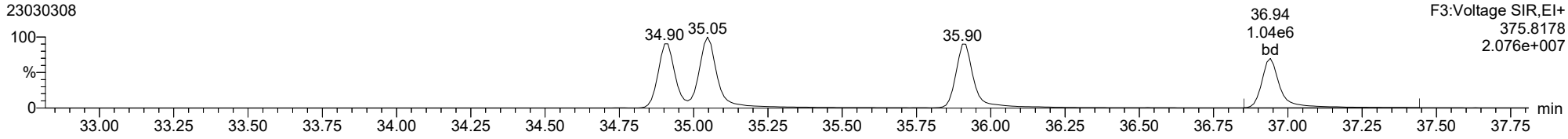

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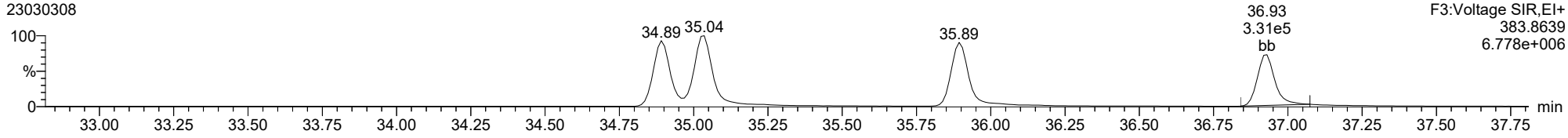

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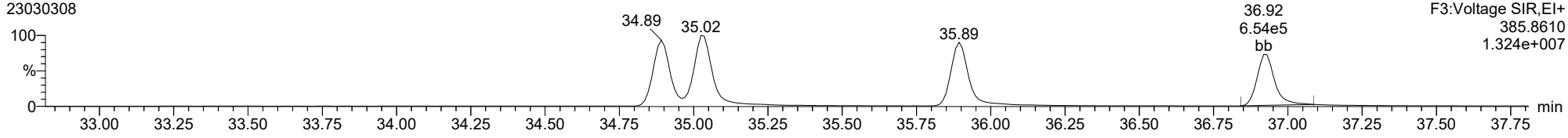

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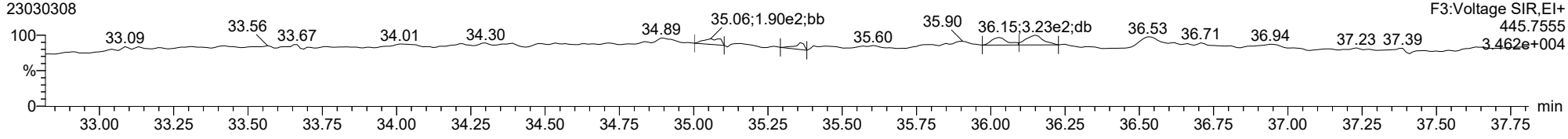

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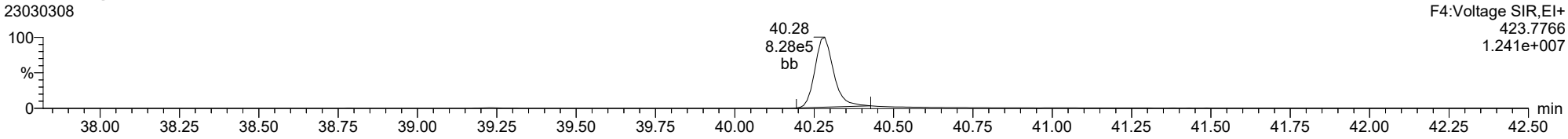

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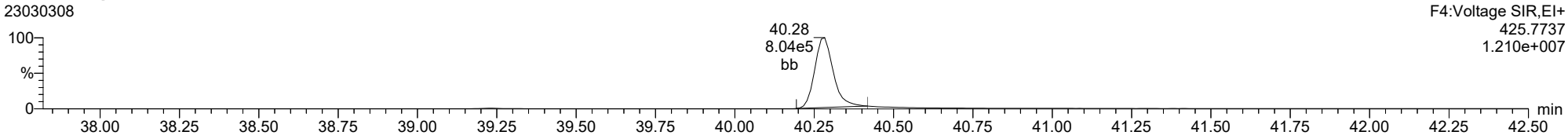

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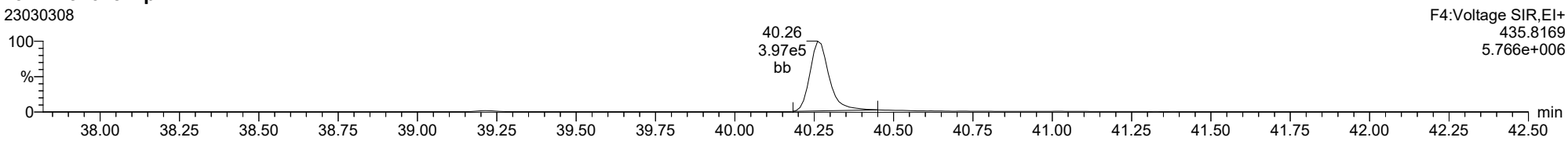

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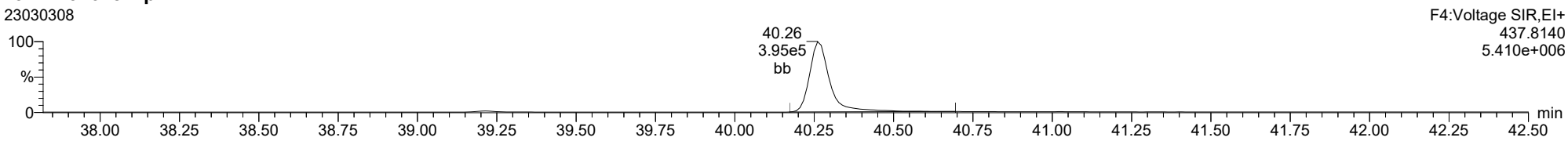
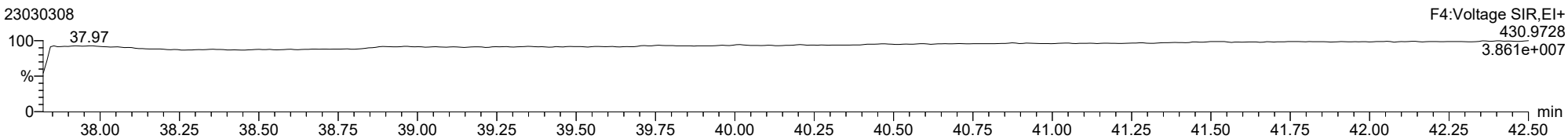


FUNCTION4 PFK



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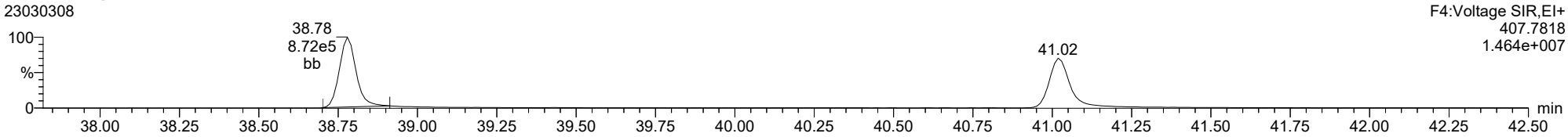

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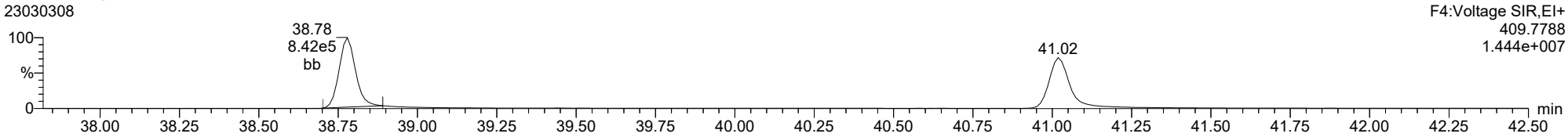

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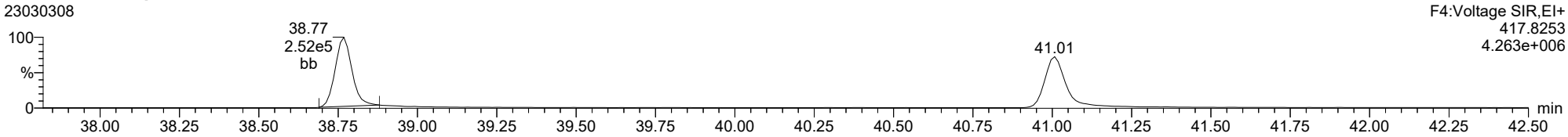

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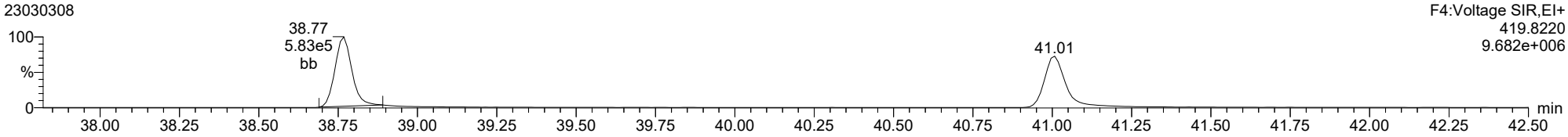
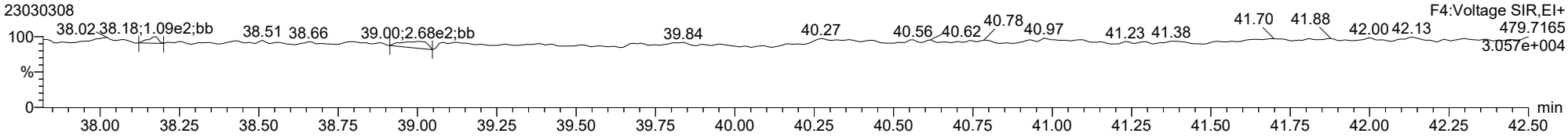


FUNCTION4 NCDPE



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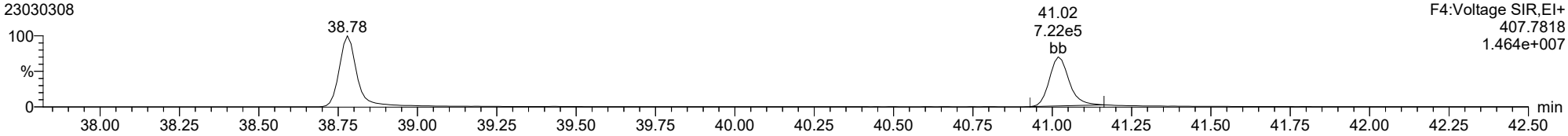

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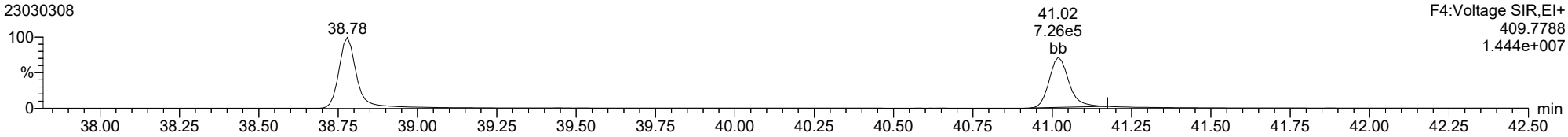

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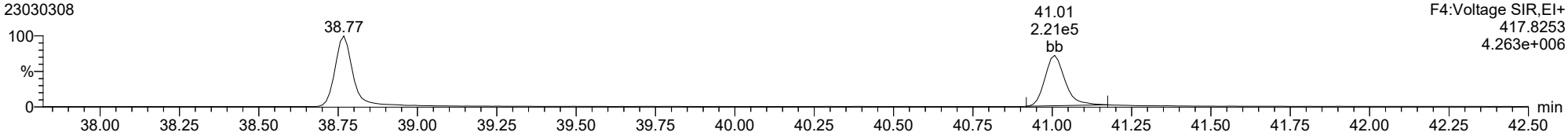

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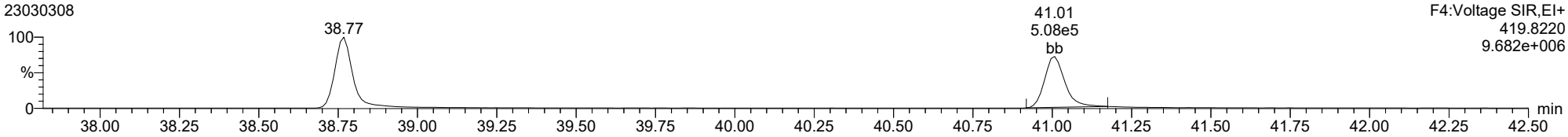
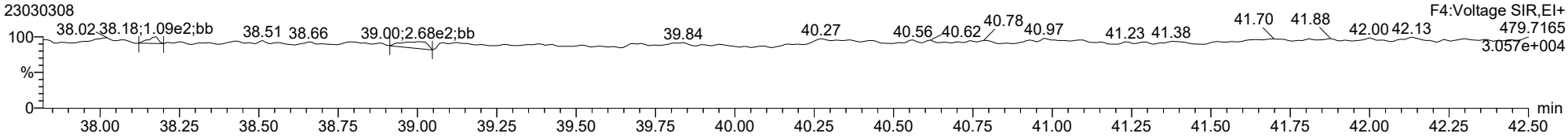


FUNCTION4 NCDPE



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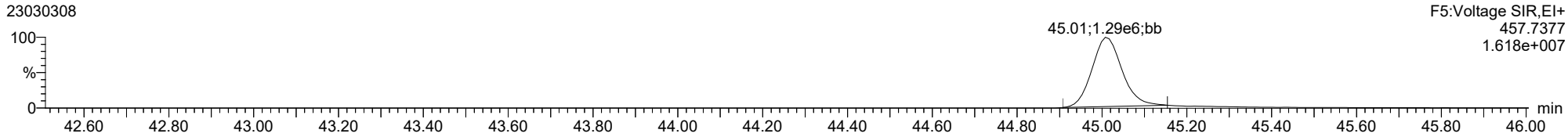
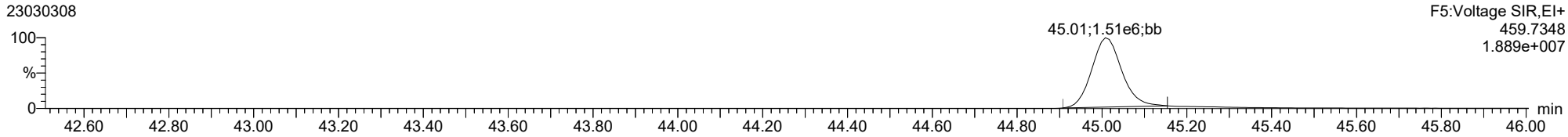


OCDD



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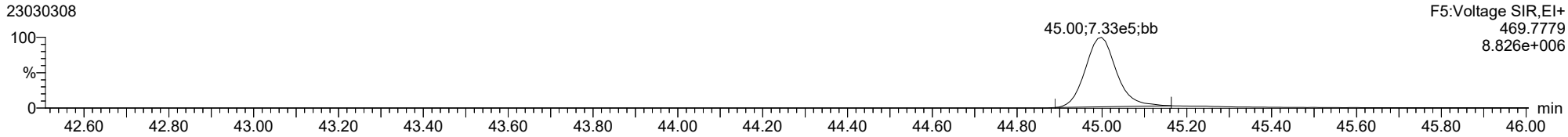

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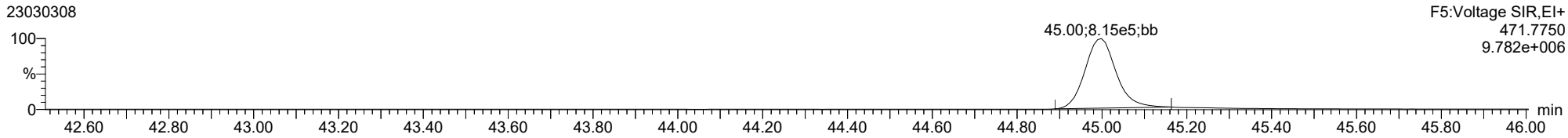
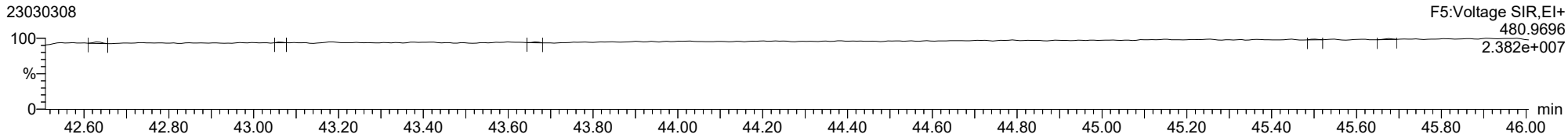


FUNCTION5 PFK



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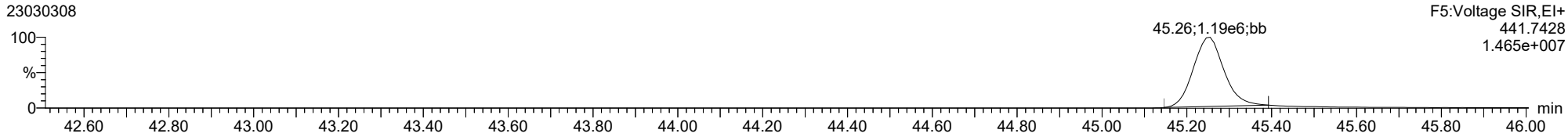

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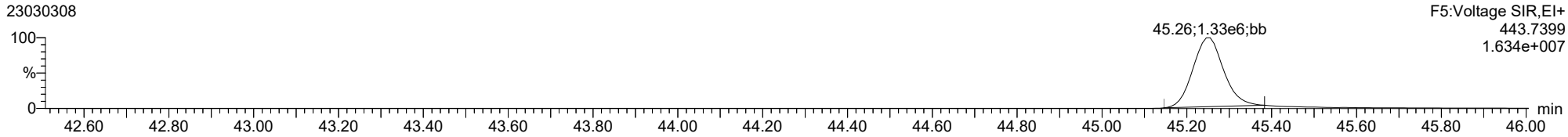
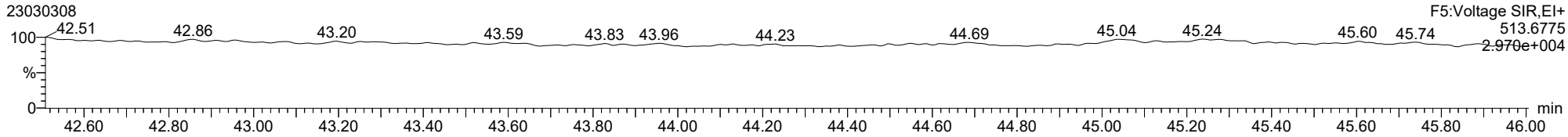


FUNCTION5 DCDPE



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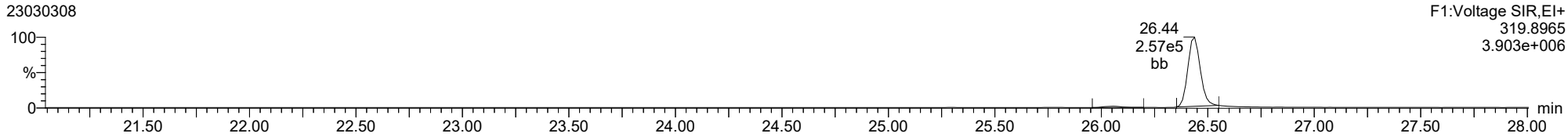
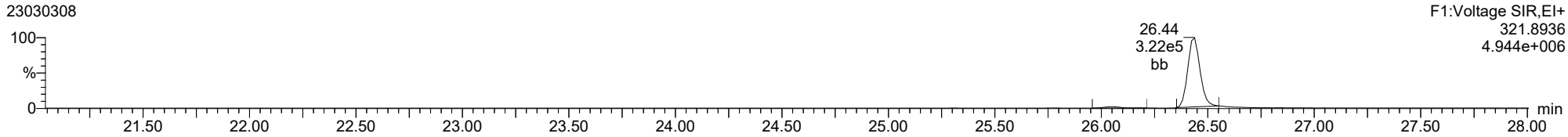


Total-tetradioxins



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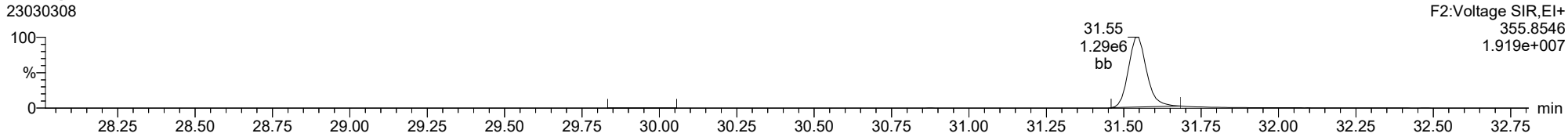

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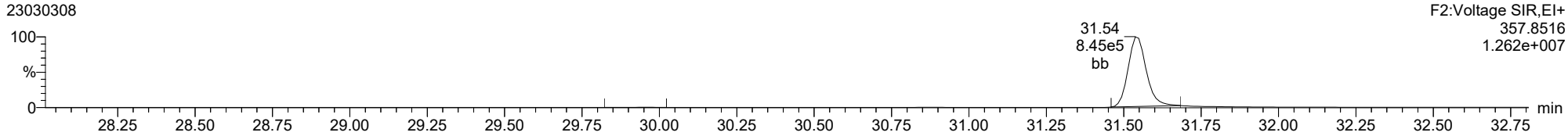

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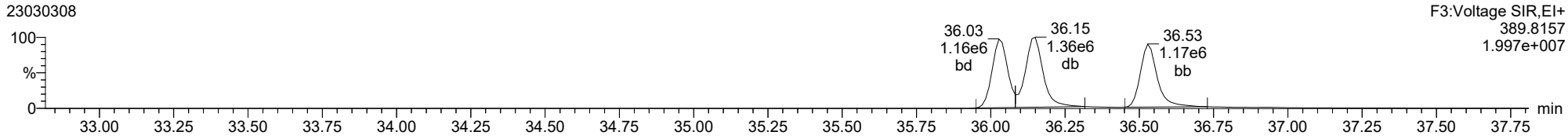

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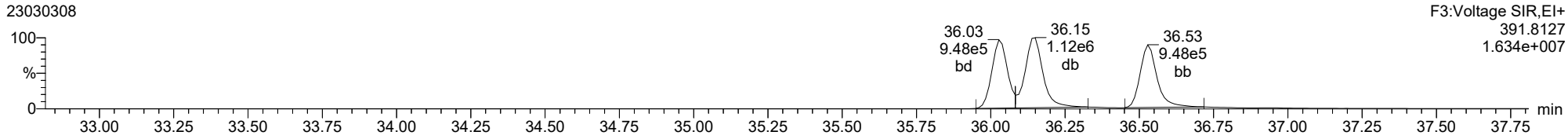

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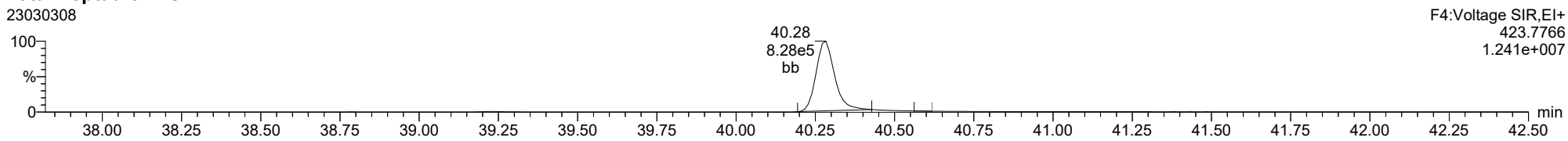

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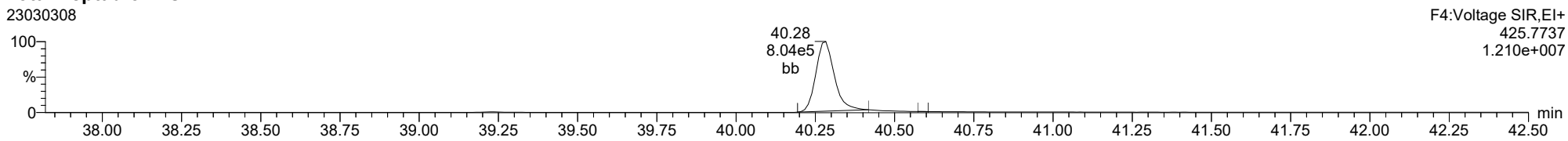

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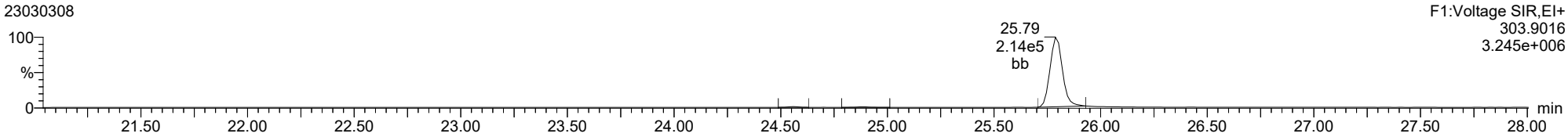
Total-tetrafurans



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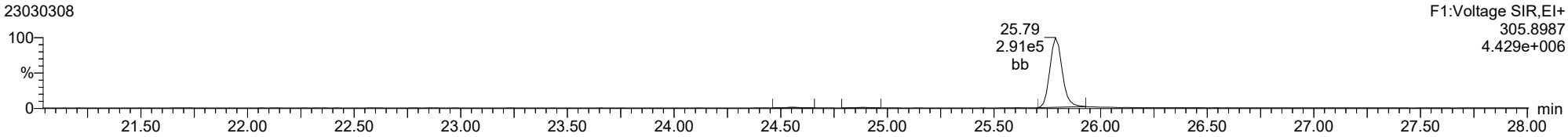

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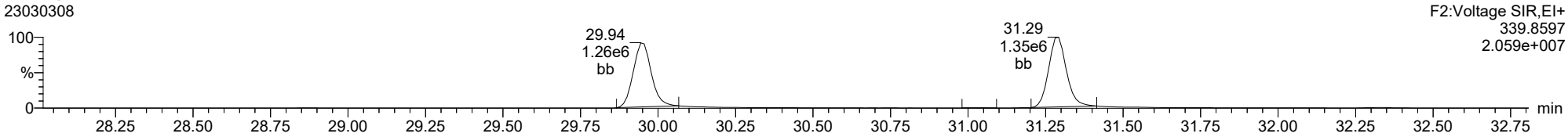

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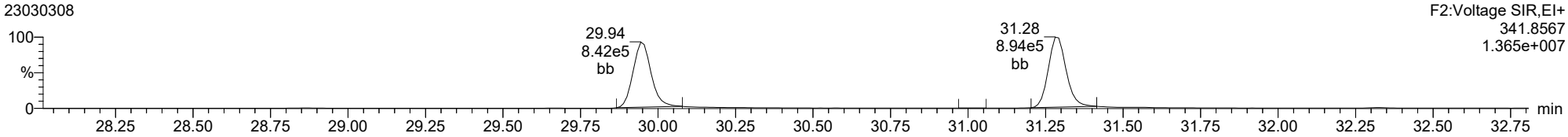

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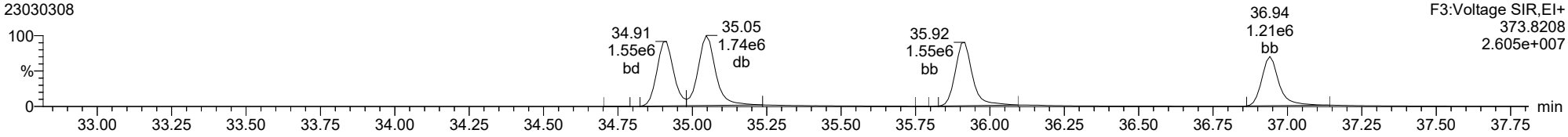

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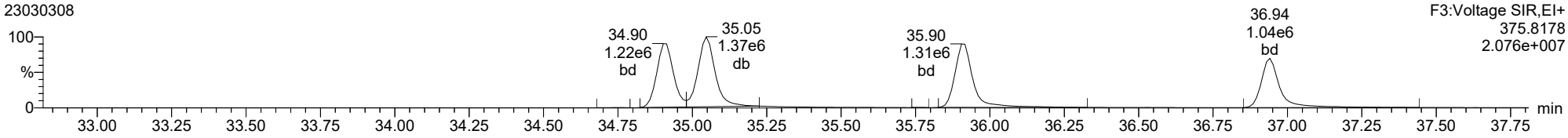

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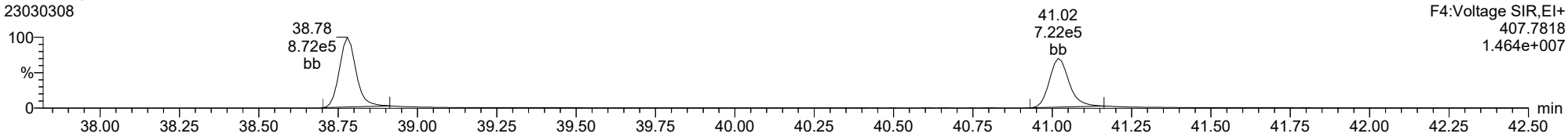

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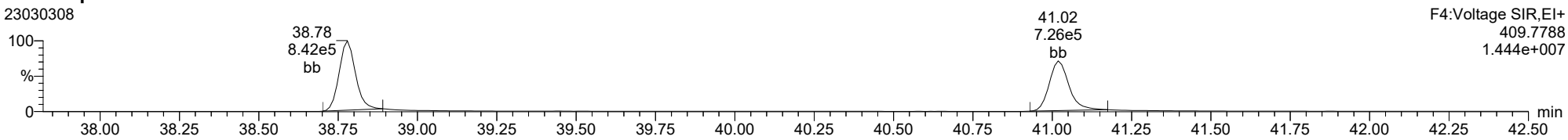

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Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.774	1.000	1.334e6	1.787e6	0.702	0.746	0.770	1816	2705	2.07e7	2.78e7	11389.3	10270.6	NO	bb	bb	200.466
12378-PeCDF	29.934	1.000	7.598e6	4.979e6	0.679	1.526	1.550	4787	5694	1.20e8	7.84e7	24983.0	13764.4	NO	bb	bb	1049.785
23478-PeCDF	31.271	1.000	8.034e6	5.310e6	0.786	1.513	1.550	4787	5694	1.23e8	8.18e7	25734.3	14361.4	NO	bb	bb	1006.165
123478-HxCDF	34.903	1.001	7.954e6	6.371e6	1.166	1.248	1.240	1657	3079	1.28e8	1.02e8	76946.6	33145.2	NO	bd	bd	988.542
234678-HxCDF	35.894	1.000	8.440e6	6.648e6	1.140	1.270	1.240	1657	3079	1.32e8	1.04e8	79492.3	33730.7	NO	bd	bd	997.904
123678-HxCDF	35.036	1.000	8.729e6	6.976e6	1.091	1.251	1.240	1657	3079	1.37e8	1.09e8	82564.4	35544.8	NO	db	db	1005.907
123789-HxCDF	36.930	1.000	7.107e6	5.643e6	1.137	1.259	1.240	1657	3079	1.15e8	9.05e7	69330.3	29396.1	NO	bb	bb	962.631
1234678-HpCDF	38.769	1.000	5.729e6	5.700e6	1.003	1.005	1.050	5984	6276	9.87e7	9.77e7	16498.3	15567.0	NO	bb	bb	1001.511
1234789-HpCDF	41.008	1.000	4.891e6	4.848e6	0.953	1.009	1.050	5984	6276	7.31e7	7.29e7	12213.8	11617.0	NO	bb	bb	1050.453
OCDF	45.246	1.006	8.007e6	9.001e6	0.778	0.890	0.890	617	1698	1.01e8	1.14e8	163878.0	67066.1	NO	bb	bb	2152.541
2378-TCDD	26.424	1.001	1.623e6	2.053e6	1.149	0.791	0.770	1583	1421	2.49e7	3.15e7	15719.4	22173.2	NO	bb	bb	201.416
12378-PeCDD	31.527	1.000	7.500e6	4.933e6	1.022	1.520	1.550	3207	3258	1.15e8	7.59e7	35906.6	23308.0	NO	bb	bb	987.154
123478-HxCDD	36.017	1.000	6.446e6	5.113e6	0.996	1.261	1.240	1269	1319	1.05e8	8.63e7	82869.7	65420.3	NO	bd	bd	1008.795
123678-HxCDD	36.139	1.001	6.944e6	5.798e6	1.001	1.198	1.240	1269	1319	1.11e8	8.98e7	87214.8	68064.1	NO	db	db	1011.135
123789-HxCDD	36.518	1.011	6.387e6	5.242e6	0.907	1.218	1.240	1269	1319	1.04e8	8.52e7	81996.1	64539.0	NO	bb	bb	1063.935
1234678-HpCDD	40.273	1.000	5.468e6	5.342e6	1.039	1.023	1.050	4639	3285	8.81e7	8.56e7	19002.3	26055.7	NO	bb	bb	1010.673
OCDD	45.008	1.000	8.523e6	9.997e6	0.920	0.853	0.890	1224	2738	1.09e8	1.28e8	89206.2	46574.8	NO	bb	bb	1981.710
13C-2378-TCDF	25.760	1.007	9.657e5	1.254e6	1.620	0.770	0.770	2759	1757	1.47e7	1.88e7	5325.4	10693.5	NO	bb	bb	104.465
13C-12378-PeCDF	29.923	1.169	1.058e6	7.059e5	1.240	1.499	1.550	2137	2181	1.59e7	1.06e7	7426.1	4845.6	NO	bb	bb	108.437
13C-23478-PeCDF	31.259	1.222	1.010e6	6.768e5	1.118	1.492	1.550	2137	2181	1.54e7	1.03e7	7192.1	4709.7	NO	bb	bb	115.091
13C-123478-HxCDF	34.880	0.955	4.197e5	8.230e5	1.168	0.510	0.510	2074	3087	6.86e6	1.33e7	3308.7	4323.9	NO	bd	bd	88.344
13C-123678-HxCDF	35.025	0.959	4.843e5	9.471e5	1.386	0.511	0.510	2074	3087	7.37e6	1.42e7	3551.0	4614.4	NO	db	db	85.742
13C-234678-HxCDF	35.883	0.983	4.483e5	8.783e5	1.129	0.510	0.510	2074	3087	6.95e6	1.37e7	3352.7	4438.0	NO	bd	bd	97.566
13C-123789-HxCDF	36.919	1.011	3.958e5	7.690e5	0.932	0.515	0.510	2074	3087	6.35e6	1.23e7	3061.9	3979.7	NO	bb	bb	103.822
13C-1234678-HpCDF	38.757	1.062	3.445e5	7.933e5	0.895	0.434	0.440	2404	3556	5.77e6	1.33e7	2401.1	3732.0	NO	bb	bb	105.552
13C-1234789-HpCDF	40.997	1.123	2.963e5	6.765e5	0.770	0.438	0.440	2404	3556	4.35e6	9.96e6	1811.4	2800.3	NO	bb	bb	104.955
13C-1234-TCDD	25.591	0.000	5.845e5	7.267e5	1.000	0.804	0.770	2994	1335	8.98e6	1.11e7	2999.9	8316.3	NO	bb	bb	100.000
13C-2378-TCDD	26.396	1.031	7.030e5	8.860e5	1.152	0.794	0.770	2994	1335	1.05e7	1.32e7	3492.1	9847.6	NO	bb	bb	105.160
13C-12378-PeCDD	31.515	1.232	7.626e5	4.699e5	0.829	1.623	1.550	1207	1205	1.17e7	7.16e6	9657.3	5939.7	NO	bb	bb	113.413
13C-123478-HxCDD	36.006	0.986	6.492e5	5.017e5	0.995	1.294	1.240	1422	1281	1.08e7	8.26e6	7562.7	6444.6	NO	bd	bd	96.063
13C-123678-HxCDD	36.117	0.989	7.072e5	5.517e5	1.157	1.282	1.240	1422	1281	1.11e7	8.74e6	7828.3	6824.3	NO	db	db	90.391
13C-1234678-HpCDD	40.262	1.103	5.341e5	4.953e5	0.840	1.078	1.050	2026	1583	8.10e6	7.45e6	3998.5	4702.7	NO	bb	bb	101.765
13C-OCDD	44.990	1.232	9.650e5	1.067e6	0.767	0.905	0.890	1467	1005	1.21e7	1.35e7	8264.7	13401.8	NO	bb	bb	219.862
13C-123789-HxCDD	36.507	0.000	6.722e5	5.319e5	1.000	1.264	1.240	1422	1281	1.10e7	8.62e6	7719.2	6727.3	NO	bb	bb	100.000
37CL-2378-TCDD	26.424	1.033	3.368e6		1.288			2667		5.07e7		19022.1			bb		199.444

Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
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Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					0.802		0.770	1816	2705								
1289-TCDF					0.678		0.770	1816	2705								
13468-PECDF					1.246		1.550	665	1133								
12389-PECDF					0.496		1.550	4787	5694								
123468-HXCDF					1.169		1.240	1657	3079								
1368-TCDD					1.015		0.770	1583	1421								
1289-TCDD					0.909		0.770	1583	1421								
12479-PECDD					2.301		1.550	3207	3258								
12389-PECDD					1.184		1.550	3207	3258								
124679-HXCDD					1.115		1.240	1269	1319								
1234679-HPCDD					1.137		1.050	4639	3285								
Total-tetrafurans			1.355e6		0.727			1816		2.10e7							203.619
Total-penta1			0.000e0					665		0.00e0							
Total-pentafurans			1.567e7		0.654			4787		2.43e8							2061.969
Total-hexafurans			3.237e7		1.141			1657		5.13e8							3971.633
Total-heptafurans			1.063e7		0.978			5984		1.72e8							2053.620
Total-Furans			6.803e7		0.922			1816		1.05e9							10443.382
Total-tetradioxins			1.660e6		1.024			1583		2.53e7							206.551
Total-pentadioxins			7.518e6		1.502			3207		1.15e8							988.757
Total-hexadioxins			1.981e7		1.005			1269		3.20e8							3089.249
Total-heptadioxins			5.468e6		1.088			4639		8.81e7							1010.701
Total-Dioxins			4.298e7		1.130			1583		6.58e8							7276.969
Total-TEQ			1.110e8					1583		1.71e9							17720.350
FUNCTION1 PFK			8.364e4					590794		3.29e6							
FUNCTION2 PFK			1.452e7					287139		1.24e7							0.000
FUNCTION3 PFK			2.904e5					447834		7.86e6							0.000
FUNCTION4 PFK			1.983e5					258971		5.49e6							
FUNCTION5 PFK			1.360e5					213310		3.56e6							
FUNCTION1 HXCD...			9.848e2					660		1.37e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			9.974e3					875		1.52e5							0.000
FUNCTION3 OCDPE			5.118e3					487		5.72e4							0.000
FUNCTION4 NCDPE			1.842e3					616		1.81e4							0.000
FUNCTION5 DCDPE			3.423e3					534		2.47e4							0.000

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

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TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.77	1.334e6	1.787e6	0.702	0.75	0.77	11389.3	YES	NO	bb	bb	200.466
2	Total-tetrafurans	24.87	8.544e3	1.186e4	0.727	0.72	0.77	70.8	YES	NO	bb	bb	1.264
3	Total-tetrafurans	24.67	1.054e3	1.493e3	0.727	0.71	0.77	9.1	YES	NO	db	db	0.158
4	Total-tetrafurans	24.55	1.152e4	1.641e4	0.727	0.70	0.77	91.4	YES	NO	bd	bd	1.731

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.27	8.034e6	5.310e6	0.786	1.51	1.55	25734.3	YES	NO	bb	bb	1006.1...
2	Total-pentafurans	31.00	7.155e3	5.348e3	0.654	1.34	1.55	24.5	YES	NO	bb	bb	1.108
3	Total-pentafurans	30.22	6.707e3	3.991e3	0.654	1.68	1.55	18.6	YES	NO	bb	bb	0.948
4	12378-PeCDF	29.93	7.598e6	4.979e6	0.679	1.53	1.55	24983.0	YES	NO	bb	bb	1049.7...
5	Total-pentafurans	29.57	3.743e3	2.429e3	0.654	1.54	1.55	12.5	YES	NO	bd	bd	0.547
6	Total-pentafurans	28.85	2.348e4	1.505e4	0.654	1.56	1.55	59.4	YES	NO	bb	bb	3.415

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.04	8.729e6	6.976e6	1.091	1.25	1.24	82564.4	YES	NO	db	db	1005.9...
2	123478-HxCDF	34.90	7.954e6	6.371e6	1.166	1.25	1.24	76946.6	YES	NO	bd	bd	988.542
3	Total-hexafurans	34.75	7.748e3	5.706e3	1.141	1.36	1.24	87.3	YES	NO	bb	bb	0.913
4	Total-hexafurans	33.44	5.026e3	3.534e3	1.141	1.42	1.24	38.8	YES	NO	db	bb	0.581
5	123789-HxCDF	36.93	7.107e6	5.643e6	1.137	1.26	1.24	69330.3	YES	NO	bb	bb	962.631
6	Total-hexafurans	36.53	1.628e4	1.267e4	1.141	1.29	1.24	124.4	YES	NO	dd	bd	1.966
7	Total-hexafurans	36.13	1.100e5	8.424e4	1.141	1.31	1.24	706.6	YES	NO	dd	dd	13.189
8	234678-HxCDF	35.89	8.440e6	6.648e6	1.140	1.27	1.24	79492.3	YES	NO	bd	bd	997.904

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HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.01	4.891e6	4.848e6	0.953	1.01	1.05	12213.8	YES	NO	bb	bb	1050.4...
2	Total-heptafurans	39.43	9.256e3	7.833e3	0.978	1.18	1.05	24.5	YES	NO	bb	bb	1.656
3	1234678-HpCDF	38.77	5.729e6	5.700e6	1.003	1.01	1.05	16498.3	YES	NO	bb	bb	1001.5...

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.77	1.334e6	1.787e6	0.702	0.75	0.77	11389.3	YES	NO	bb	bb	200.466
2	Total-tetrafurans	24.87	8.544e3	1.186e4	0.727	0.72	0.77	70.8	YES	NO	bb	bb	1.264
3	Total-tetrafurans	24.67	1.054e3	1.493e3	0.727	0.71	0.77	9.1	YES	NO	db	db	0.158
4	Total-tetrafurans	24.55	1.152e4	1.641e4	0.727	0.70	0.77	91.4	YES	NO	bd	bd	1.731
5	23478-PeCDF	31.27	8.034e6	5.310e6	0.786	1.51	1.55	25734.3	YES	NO	bb	bb	1006.1...
6	Total-pentafurans	31.00	7.155e3	5.348e3	0.654	1.34	1.55	24.5	YES	NO	bb	bb	1.108
7	Total-pentafurans	30.22	6.707e3	3.991e3	0.654	1.68	1.55	18.6	YES	NO	bb	bb	0.948
8	12378-PeCDF	29.93	7.598e6	4.979e6	0.679	1.53	1.55	24983.0	YES	NO	bb	bb	1049.7...
9	Total-pentafurans	29.57	3.743e3	2.429e3	0.654	1.54	1.55	12.5	YES	NO	bd	bd	0.547
10	Total-pentafurans	28.85	2.348e4	1.505e4	0.654	1.56	1.55	59.4	YES	NO	bb	bb	3.415
11	123678-HxCDF	35.04	8.729e6	6.976e6	1.091	1.25	1.24	82564.4	YES	NO	db	db	1005.9...
12	123478-HxCDF	34.90	7.954e6	6.371e6	1.166	1.25	1.24	76946.6	YES	NO	bd	bd	988.542
13	Total-hexafurans	34.75	7.748e3	5.706e3	1.141	1.36	1.24	87.3	YES	NO	bb	bb	0.913
14	Total-hexafurans	33.44	5.026e3	3.534e3	1.141	1.42	1.24	38.8	YES	NO	db	bb	0.581
15	123789-HxCDF	36.93	7.107e6	5.643e6	1.137	1.26	1.24	69330.3	YES	NO	bb	bb	962.631
16	Total-hexafurans	36.53	1.628e4	1.267e4	1.141	1.29	1.24	124.4	YES	NO	dd	bd	1.966
17	Total-hexafurans	36.13	1.100e5	8.424e4	1.141	1.31	1.24	706.6	YES	NO	dd	dd	13.189
18	234678-HxCDF	35.89	8.440e6	6.648e6	1.140	1.27	1.24	79492.3	YES	NO	bd	bd	997.904
19	1234789-HpCDF	41.01	4.891e6	4.848e6	0.953	1.01	1.05	12213.8	YES	NO	bb	bb	1050.4...
20	Total-heptafurans	39.43	9.256e3	7.833e3	0.978	1.18	1.05	24.5	YES	NO	bb	bb	1.656
21	1234678-HpCDF	38.77	5.729e6	5.700e6	1.003	1.01	1.05	16498.3	YES	NO	bb	bb	1001.5...
22	OCDF	45.25	8.007e6	9.001e6	0.778	0.89	0.89	16387...	YES	NO	bb	bb	2152.5...

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.42	1.623e6	2.053e6	1.149	0.79	0.77	15719.4	YES	NO	bb	bb	201.416
2	Total-tetradioxins	26.03	3.492e4	4.469e4	1.024	0.78	0.77	261.5	YES	NO	bb	bb	4.891
3	Total-tetradioxins	25.59	3.088e2	4.283e2	1.024	0.72	0.77	3.2	YES	NO	bb	bb	0.045
4	Total-tetradioxins	25.29	1.293e3	1.946e3	1.024	0.66	0.77	15.2	YES	NO	bb	bb	0.199

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PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentadioxins	30.29	1.049e3	6.224e2	1.502	1.68	1.55	4.4	YES	NO	dd	db	0.090
2	Total-pentadioxins	30.15	1.847e3	1.302e3	1.502	1.42	1.55	8.1	YES	NO	dd	dd	0.170
3	Total-pentadioxins	29.93	6.137e3	4.352e3	1.502	1.41	1.55	24.1	YES	NO	bd	bd	0.567
4	12378-PeCDD	31.53	7.500e6	4.933e6	1.022	1.52	1.55	35906.6	YES	NO	bb	bb	987.154
5	Total-pentadioxins	30.86	8.777e3	5.596e3	1.502	1.57	1.55	39.8	YES	NO	bd	bb	0.776

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	36.92	3.612e4	2.906e4	1.005	1.24	1.24	377.1	YES	NO	bb	bb	5.383
2	123789-HxCDD	36.52	6.387e6	5.242e6	0.907	1.22	1.24	81996.1	YES	NO	bb	bb	1063.9...
3	123678-HxCDD	36.14	6.944e6	5.798e6	1.001	1.20	1.24	87214.8	YES	NO	db	db	1011.1...
4	123478-HxCDD	36.02	6.446e6	5.113e6	0.996	1.26	1.24	82869.7	YES	NO	bd	bd	1008.7...

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptadioxins	40.66	1.670e2	1.486e2	1.088	1.12	1.05	0.0	NO	NO	bb	bb	0.028
2	1234678-HpCDD	40.27	5.468e6	5.342e6	1.039	1.02	1.05	19002.3	YES	NO	bb	bb	1010.6...

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.42	1.623e6	2.053e6	1.149	0.79	0.77	15719.4	YES	NO	bb	bb	201.416
2	Total-tetradioxins	26.03	3.492e4	4.469e4	1.024	0.78	0.77	261.5	YES	NO	bb	bb	4.891
3	Total-tetradioxins	25.59	3.088e2	4.283e2	1.024	0.72	0.77	3.2	YES	NO	bb	bb	0.045
4	Total-tetradioxins	25.29	1.293e3	1.946e3	1.024	0.66	0.77	15.2	YES	NO	bb	bb	0.199
5	Total-pentadioxins	30.29	1.049e3	6.224e2	1.502	1.68	1.55	4.4	YES	NO	dd	db	0.090
6	Total-pentadioxins	30.15	1.847e3	1.302e3	1.502	1.42	1.55	8.1	YES	NO	dd	dd	0.170
7	Total-pentadioxins	29.93	6.137e3	4.352e3	1.502	1.41	1.55	24.1	YES	NO	bd	bd	0.567
8	12378-PeCDD	31.53	7.500e6	4.933e6	1.022	1.52	1.55	35906.6	YES	NO	bb	bb	987.154
9	Total-pentadioxins	30.86	8.777e3	5.596e3	1.502	1.57	1.55	39.8	YES	NO	bd	bb	0.776
10	Total-hexadioxins	36.92	3.612e4	2.906e4	1.005	1.24	1.24	377.1	YES	NO	bb	bb	5.383
11	123789-HxCDD	36.52	6.387e6	5.242e6	0.907	1.22	1.24	81996.1	YES	NO	bb	bb	1063.9...
12	123678-HxCDD	36.14	6.944e6	5.798e6	1.001	1.20	1.24	87214.8	YES	NO	db	db	1011.1...
13	123478-HxCDD	36.02	6.446e6	5.113e6	0.996	1.26	1.24	82869.7	YES	NO	bd	bd	1008.7...
14	Total-heptadioxins	40.66	1.670e2	1.486e2	1.088	1.12	1.05	0.0	NO	NO	bb	bb	0.028
15	1234678-HpCDD	40.27	5.468e6	5.342e6	1.039	1.02	1.05	19002.3	YES	NO	bb	bb	1010.6...
16	OCDD	45.01	8.523e6	9.997e6	0.920	0.85	0.89	89206.2	YES	NO	bb	bb	1981.7...

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.77	1.334e6	1.787e6	0.702	0.75	0.77	11389.3	YES	NO	bb	bb	200.466
2	Total-tetrafurans	24.87	8.544e3	1.186e4	0.727	0.72	0.77	70.8	YES	NO	bb	bb	1.264
3	Total-tetrafurans	24.67	1.054e3	1.493e3	0.727	0.71	0.77	9.1	YES	NO	db	db	0.158
4	Total-tetrafurans	24.55	1.152e4	1.641e4	0.727	0.70	0.77	91.4	YES	NO	bd	bd	1.731
5	23478-PeCDF	31.27	8.034e6	5.310e6	0.786	1.51	1.55	25734.3	YES	NO	bb	bb	1006.1...
6	Total-pentafurans	31.00	7.155e3	5.348e3	0.654	1.34	1.55	24.5	YES	NO	bb	bb	1.108
7	Total-pentafurans	30.22	6.707e3	3.991e3	0.654	1.68	1.55	18.6	YES	NO	bb	bb	0.948
8	12378-PeCDF	29.93	7.598e6	4.979e6	0.679	1.53	1.55	24983.0	YES	NO	bb	bb	1049.7...
9	Total-pentafurans	29.57	3.743e3	2.429e3	0.654	1.54	1.55	12.5	YES	NO	bd	bd	0.547
10	Total-pentafurans	28.85	2.348e4	1.505e4	0.654	1.56	1.55	59.4	YES	NO	bb	bb	3.415
11	123678-HxCDF	35.04	8.729e6	6.976e6	1.091	1.25	1.24	82564.4	YES	NO	db	db	1005.9...
12	123478-HxCDF	34.90	7.954e6	6.371e6	1.166	1.25	1.24	76946.6	YES	NO	bd	bd	988.542
13	Total-hexafurans	34.75	7.748e3	5.706e3	1.141	1.36	1.24	87.3	YES	NO	bb	bb	0.913
14	Total-hexafurans	33.44	5.026e3	3.534e3	1.141	1.42	1.24	38.8	YES	NO	db	bb	0.581
15	123789-HxCDF	36.93	7.107e6	5.643e6	1.137	1.26	1.24	69330.3	YES	NO	bb	bb	962.631
16	Total-hexafurans	36.53	1.628e4	1.267e4	1.141	1.29	1.24	124.4	YES	NO	dd	bd	1.966
17	Total-hexafurans	36.13	1.100e5	8.424e4	1.141	1.31	1.24	706.6	YES	NO	dd	dd	13.189
18	234678-HxCDF	35.89	8.440e6	6.648e6	1.140	1.27	1.24	79492.3	YES	NO	bd	bd	997.904
19	1234789-HpCDF	41.01	4.891e6	4.848e6	0.953	1.01	1.05	12213.8	YES	NO	bb	bb	1050.4...
20	Total-heptafurans	39.43	9.256e3	7.833e3	0.978	1.18	1.05	24.5	YES	NO	bb	bb	1.656
21	1234678-HpCDF	38.77	5.729e6	5.700e6	1.003	1.01	1.05	16498.3	YES	NO	bb	bb	1001.5...
22	OCDF	45.25	8.007e6	9.001e6	0.778	0.89	0.89	16387...	YES	NO	bb	bb	2152.5...
23	2378-TCDD	26.42	1.623e6	2.053e6	1.149	0.79	0.77	15719.4	YES	NO	bb	bb	201.416
24	Total-tetradioxins	26.03	3.492e4	4.469e4	1.024	0.78	0.77	261.5	YES	NO	bb	bb	4.891
25	Total-tetradioxins	25.59	3.088e2	4.283e2	1.024	0.72	0.77	3.2	YES	NO	bb	bb	0.045
26	Total-tetradioxins	25.29	1.293e3	1.946e3	1.024	0.66	0.77	15.2	YES	NO	bb	bb	0.199
27	Total-pentadioxins	30.29	1.049e3	6.224e2	1.502	1.68	1.55	4.4	YES	NO	dd	db	0.090
28	Total-pentadioxins	30.15	1.847e3	1.302e3	1.502	1.42	1.55	8.1	YES	NO	dd	dd	0.170
29	Total-pentadioxins	29.93	6.137e3	4.352e3	1.502	1.41	1.55	24.1	YES	NO	bd	bd	0.567
30	12378-PeCDD	31.53	7.500e6	4.933e6	1.022	1.52	1.55	35906.6	YES	NO	bb	bb	987.154
31	Total-pentadioxins	30.86	8.777e3	5.596e3	1.502	1.57	1.55	39.8	YES	NO	bd	bb	0.776
32	Total-hexadioxins	36.92	3.612e4	2.906e4	1.005	1.24	1.24	377.1	YES	NO	bb	bb	5.383
33	123789-HxCDD	36.52	6.387e6	5.242e6	0.907	1.22	1.24	81996.1	YES	NO	bb	bb	1063.9...
34	123678-HxCDD	36.14	6.944e6	5.798e6	1.001	1.20	1.24	87214.8	YES	NO	db	db	1011.1...
35	123478-HxCDD	36.02	6.446e6	5.113e6	0.996	1.26	1.24	82869.7	YES	NO	bd	bd	1008.7...
36	Total-heptadioxins	40.66	1.670e2	1.486e2	1.088	1.12	1.05	0.0	NO	NO	bb	bb	0.028
37	1234678-HpCDD	40.27	5.468e6	5.342e6	1.039	1.02	1.05	19002.3	YES	NO	bb	bb	1010.6...

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	OCDD	45.01	8.523e6	9.997e6	0.920	0.85	0.89	89206.2	YES	NO	bb	bb	1981.7...

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	23.64	6.068e3					0.7	NO		bb		
2	FUNCTION1 PFK	21.78	2.376e4					1.4	NO		bb		
3	FUNCTION1 PFK	26.65	6.322e3					0.8	NO		bb		
4	FUNCTION1 PFK	26.20	6.018e3					0.7	NO		bb		
5	FUNCTION1 PFK	24.62	4.147e4					1.9	NO		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	31.96	1.329e6					11.3	YES		db		0.000
2	FUNCTION2 PFK	29.68	9.729e6					13.1	YES		dd		0.000
3	FUNCTION2 PFK	29.12	3.197e6					12.0	YES		dd		0.000
4	FUNCTION2 PFK	28.11	2.639e5					6.8	YES		bd		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	35.58	5.268e3					0.6	NO		bb		0.000
2	FUNCTION3 PFK	35.20	2.459e4					1.4	NO		bb		0.000
3	FUNCTION3 PFK	34.94	1.904e4					1.3	NO		bb		0.000
4	FUNCTION3 PFK	34.64	1.893e4					1.6	NO		bb		0.000
5	FUNCTION3 PFK	34.45	3.091e4					1.7	NO		bb		0.000
6	FUNCTION3 PFK	34.20	2.876e3					0.6	NO		bb		0.000
7	FUNCTION3 PFK	34.01	8.291e4					2.8	NO		bb		0.000
8	FUNCTION3 PFK	37.45	2.878e4					1.5	NO		bb		0.000
9	FUNCTION3 PFK	37.14	1.025e4					1.2	NO		bb		0.000
10	FUNCTION3 PFK	36.92	2.201e4					1.4	NO		bb		0.000
11	FUNCTION3 PFK	36.82	6.882e3					0.7	NO		bb		0.000
12	FUNCTION3 PFK	36.27	2.697e4					1.6	NO		bb		0.000
13	FUNCTION3 PFK	35.83	1.096e4					1.2	NO		bb		0.000

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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.36	1.487e4					2.2	NO		db		
2	FUNCTION4 PFK	40.28	5.399e4					2.8	NO		bd		
3	FUNCTION4 PFK	39.84	7.632e3					1.3	NO		bb		
4	FUNCTION4 PFK	39.63	5.817e3					1.3	NO		bb		
5	FUNCTION4 PFK	39.58	2.233e4					2.4	NO		bb		
6	FUNCTION4 PFK	39.26	1.840e3					0.6	NO		bb		
7	FUNCTION4 PFK	39.15	1.821e4					2.0	NO		bb		
8	FUNCTION4 PFK	38.75	4.539e3					0.9	NO		bb		
9	FUNCTION4 PFK	38.40	3.735e3					0.9	NO		bb		
10	FUNCTION4 PFK	42.22	2.101e4					1.9	NO		bb		
11	FUNCTION4 PFK	41.91	9.871e3					1.2	NO		bb		
12	FUNCTION4 PFK	41.56	2.609e4					2.3	NO		bb		
13	FUNCTION4 PFK	40.96	8.343e3					1.4	NO		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.55	1.986e4					1.8	NO		bb		
2	FUNCTION5 PFK	44.84	1.038e4					2.0	NO		bb		
3	FUNCTION5 PFK	44.32	5.641e3					1.1	NO		bb		
4	FUNCTION5 PFK	44.16	5.508e3					1.3	NO		bb		
5	FUNCTION5 PFK	43.92	3.533e3					1.2	NO		bb		
6	FUNCTION5 PFK	43.74	1.099e4					1.6	NO		bb		
7	FUNCTION5 PFK	43.65	5.197e4					3.3	YES		db		
8	FUNCTION5 PFK	43.53	1.828e4					2.1	NO		bd		
9	FUNCTION5 PFK	42.94	8.618e3					1.5	NO		bb		
10	FUNCTION5 PFK	42.73	1.271e3					0.6	NO		bb		

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ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.02	8.181e1					1.9	NO		bb		0.000
2	FUNCTION1 HXCD...	26.42	2.971e2					5.1	YES		bb		0.000
3	FUNCTION1 HXCD...	25.83	8.848e1					2.3	NO		db		0.000
4	FUNCTION1 HXCD...	25.77	1.170e2					2.5	NO		dd		0.000
5	FUNCTION1 HXCD...	25.59	1.285e2					2.6	NO		bd		0.000
6	FUNCTION1 HXCD...	24.84	1.183e2					1.2	NO		bb		0.000
7	FUNCTION1 HXCD...	24.11	7.501e1					1.5	NO		bb		0.000
8	FUNCTION1 HXCD...	22.26	7.865e1					3.6	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.55	8.739e2					12.4	YES		bb		0.000
2	FUNCTION2 HPCD...	31.16	9.100e3					161.2	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.02	1.011e3					23.2	YES		dd		0.000
2	FUNCTION3 OCDPE	35.92	4.171e2					12.8	YES		bd		0.000
3	FUNCTION3 OCDPE	35.05	6.001e2					12.0	YES		db		0.000
4	FUNCTION3 OCDPE	34.90	4.386e2					11.4	YES		bd		0.000
5	FUNCTION3 OCDPE	36.94	5.713e2					12.4	YES		bb		0.000
6	FUNCTION3 OCDPE	36.52	9.647e2					21.7	YES		bb		0.000
7	FUNCTION3 OCDPE	36.14	1.116e3					24.0	YES		db		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.03	4.935e2					7.5	YES		bb		0.000
2	FUNCTION4 NCDPE	40.28	7.486e2					12.2	YES		bb		0.000
3	FUNCTION4 NCDPE	38.78	6.004e2					9.6	YES		bb		0.000

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ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.26	1.761e3					22.2	YES		db		0.000
2	FUNCTION5 DCDPE	45.02	1.661e3					24.0	YES		bd		0.000

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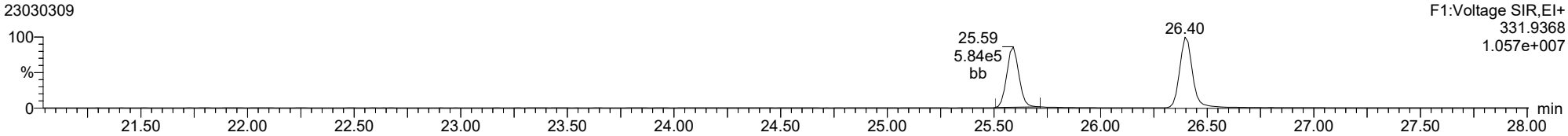

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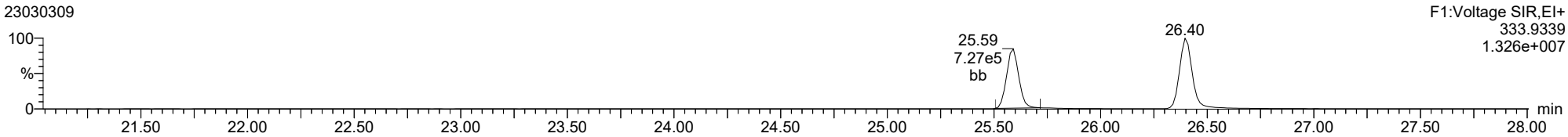

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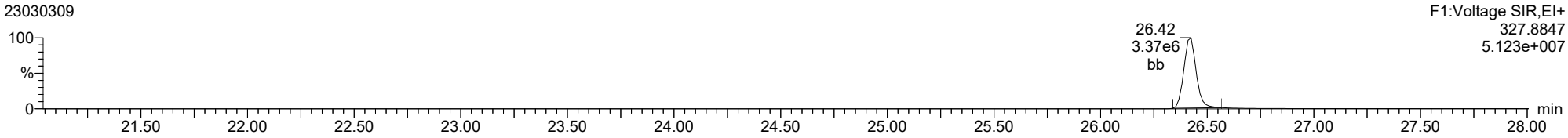

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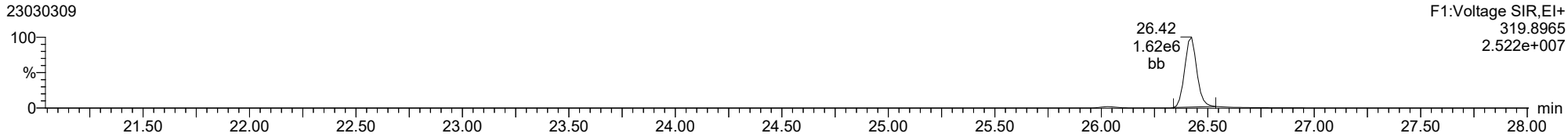

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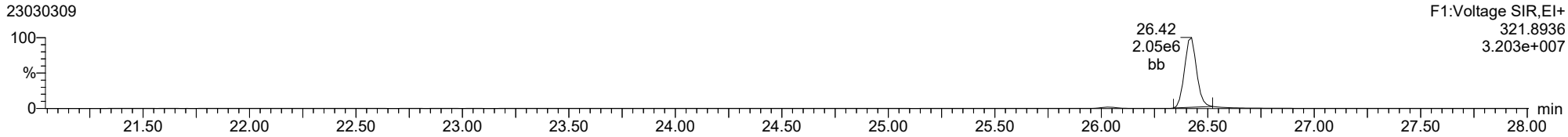

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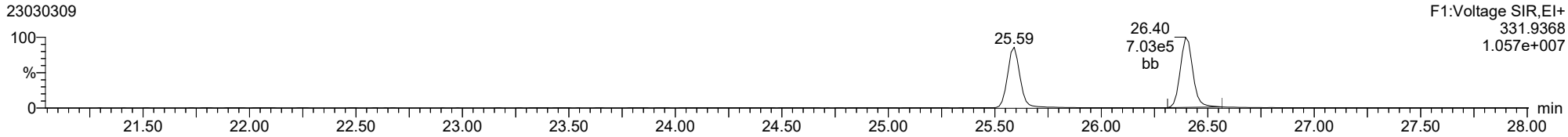

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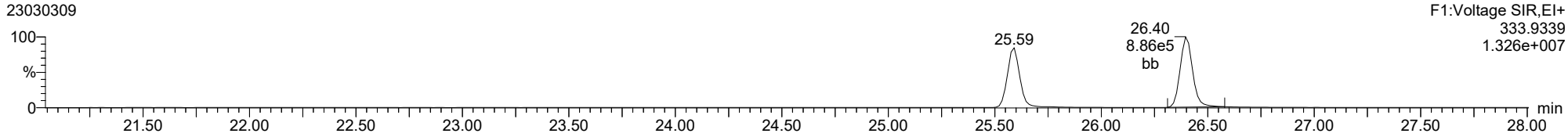

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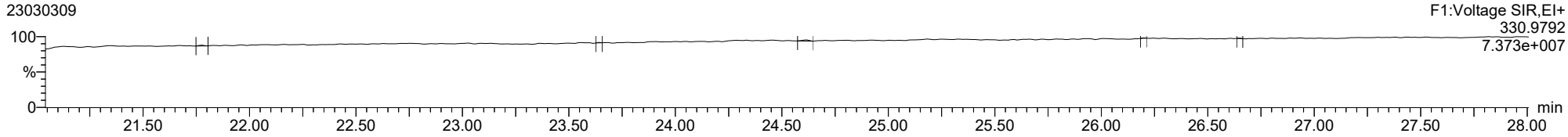

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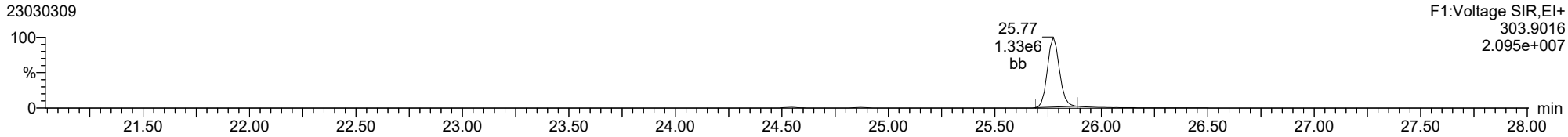

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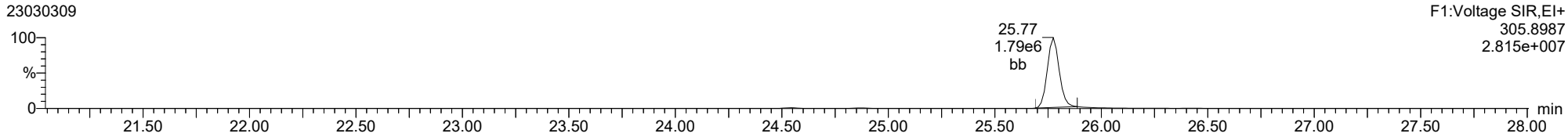

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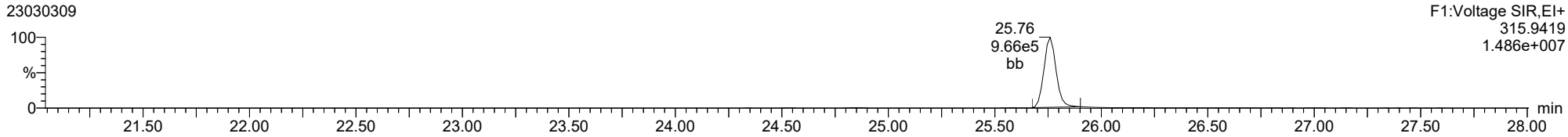

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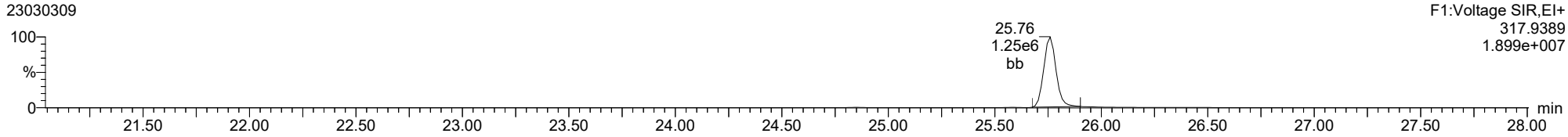

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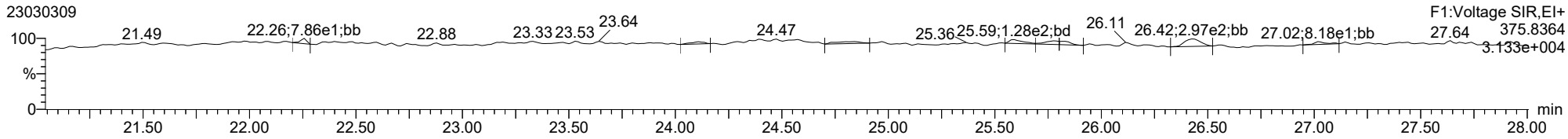

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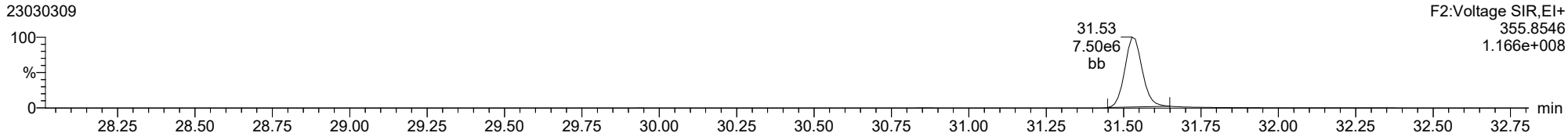
12378-PeCDD



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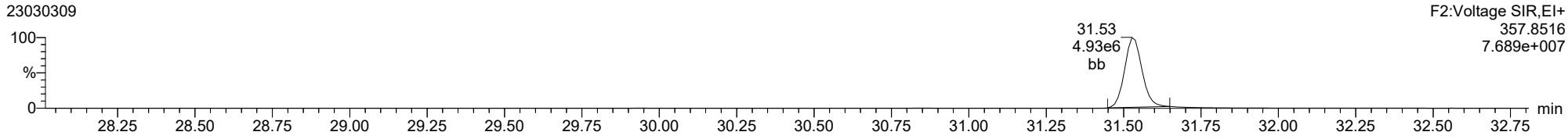

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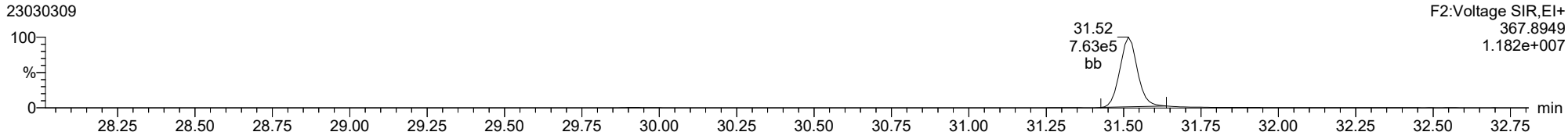

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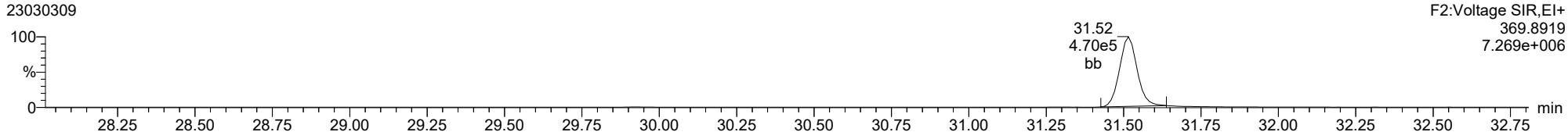

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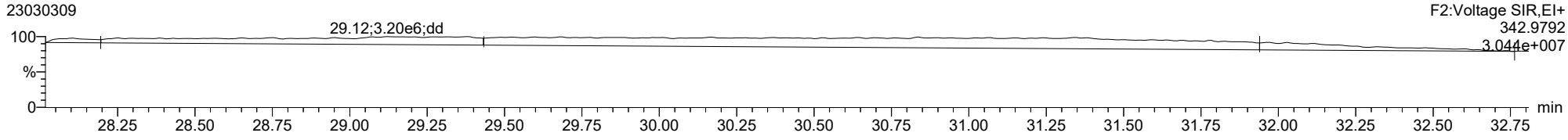

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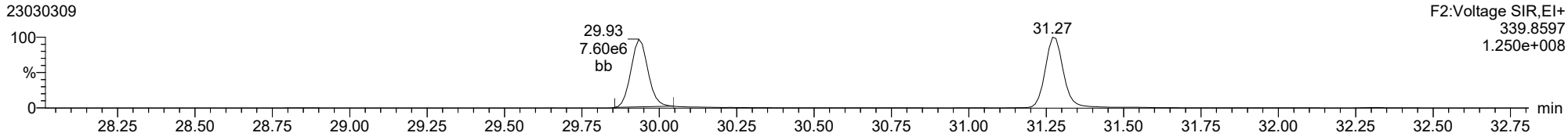

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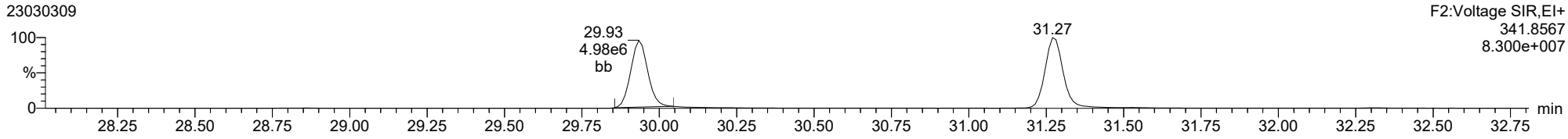

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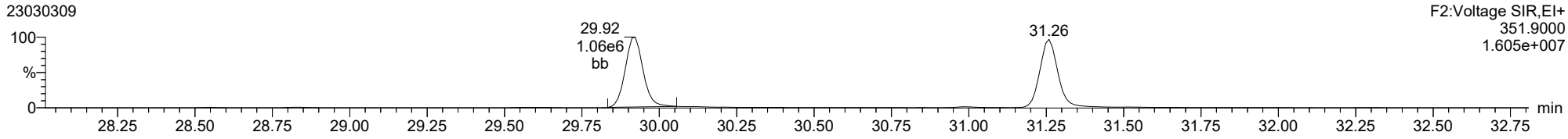

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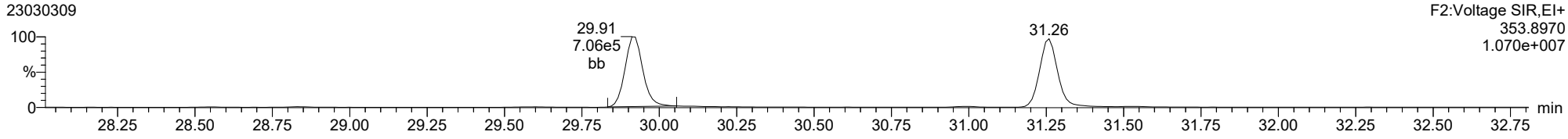
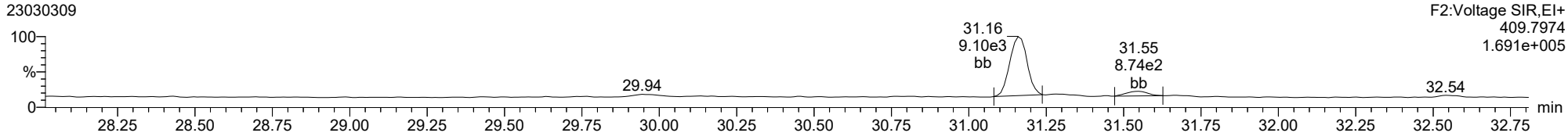


FUNCTION2 HPCDPE



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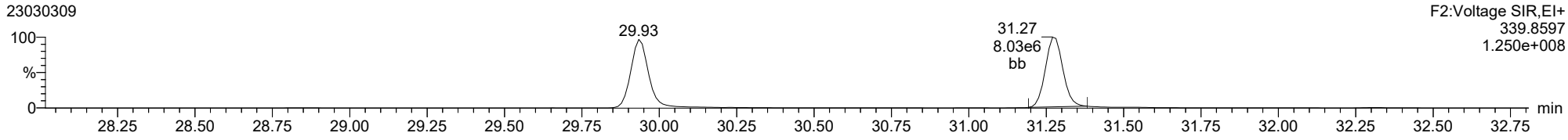
23478-PeCDF



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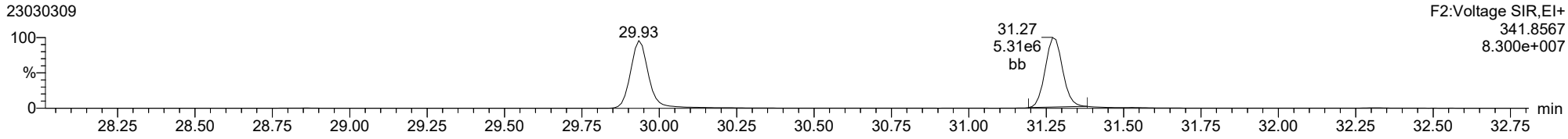

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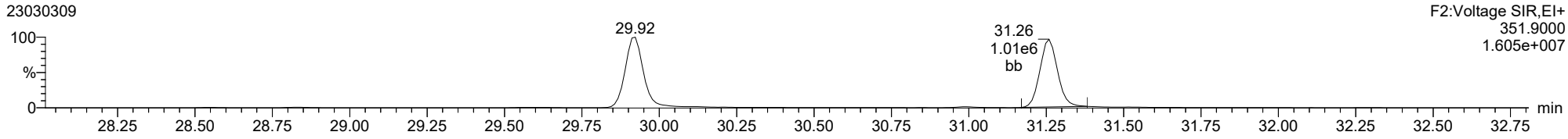

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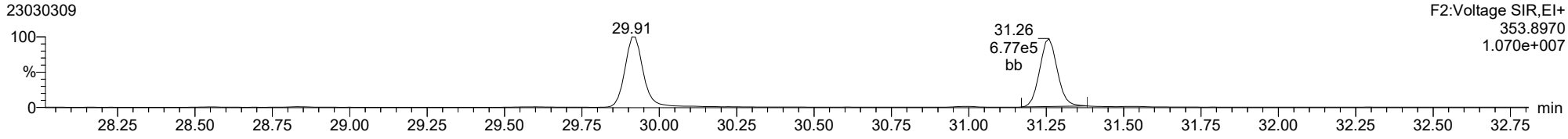

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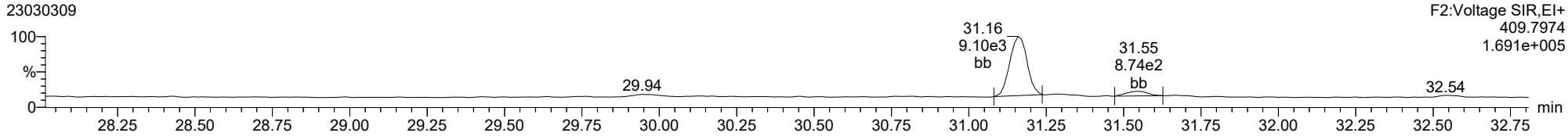

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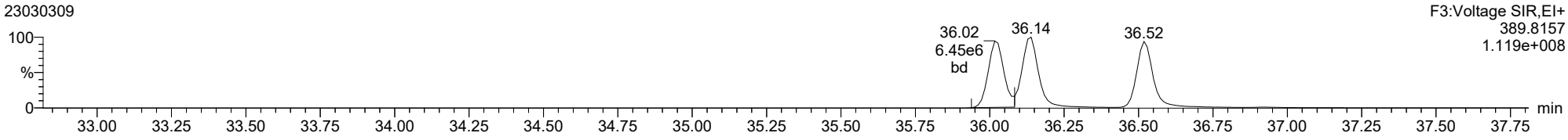

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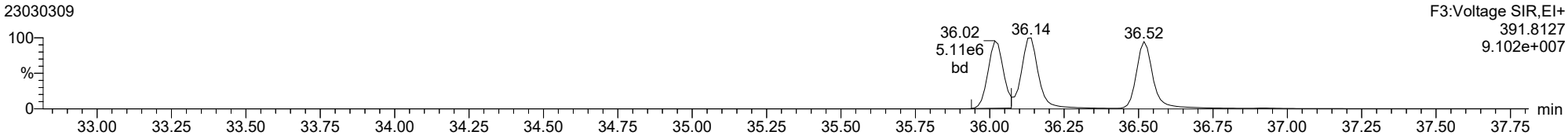

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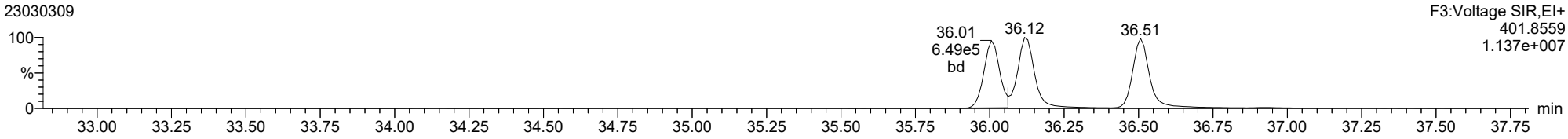

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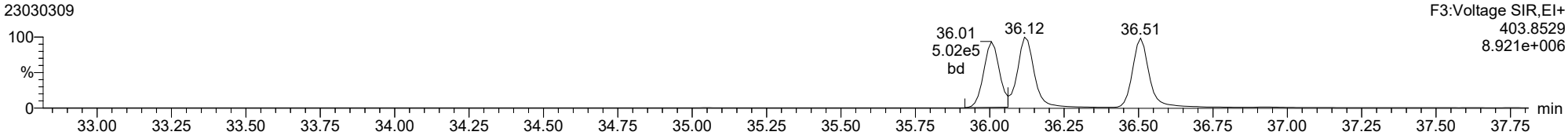

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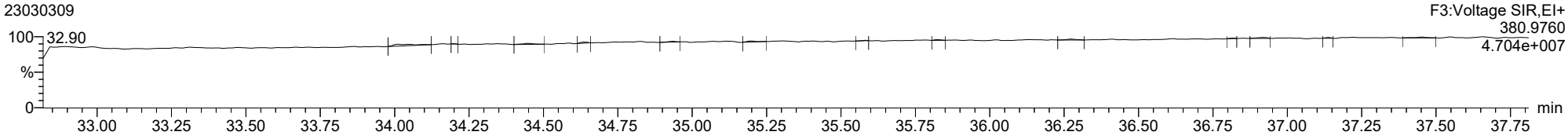

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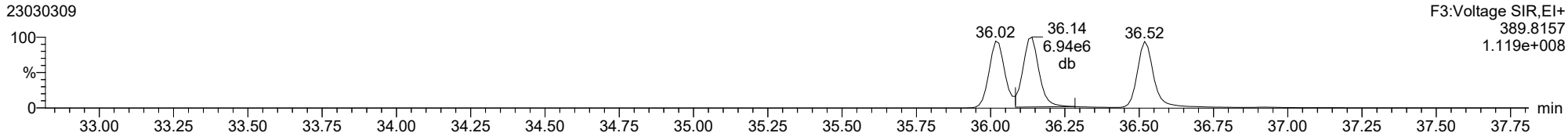

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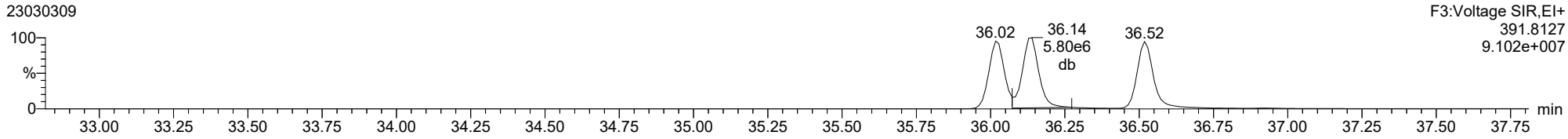

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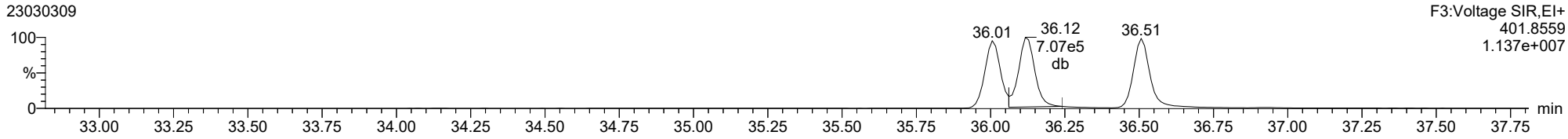

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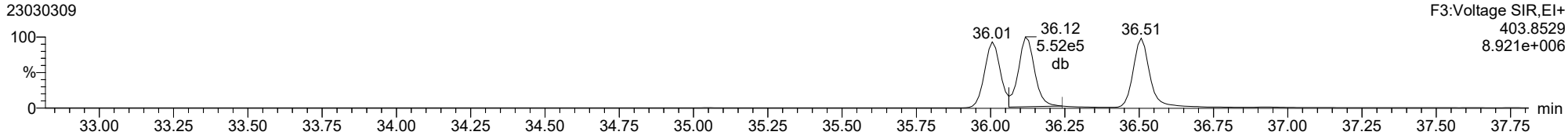

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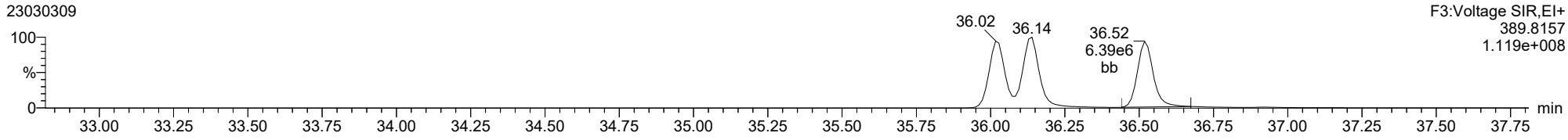

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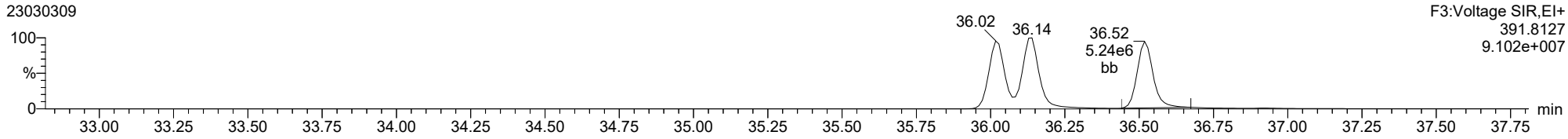

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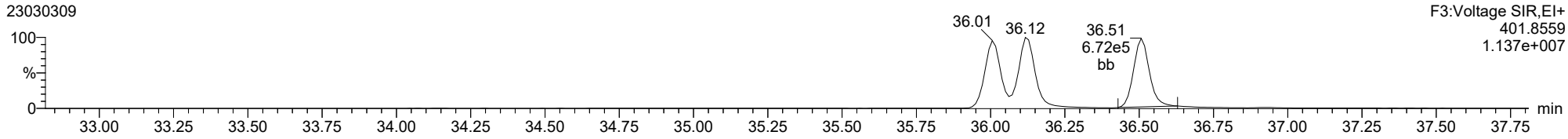

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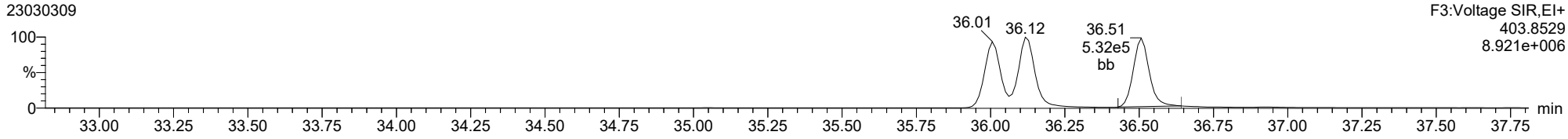

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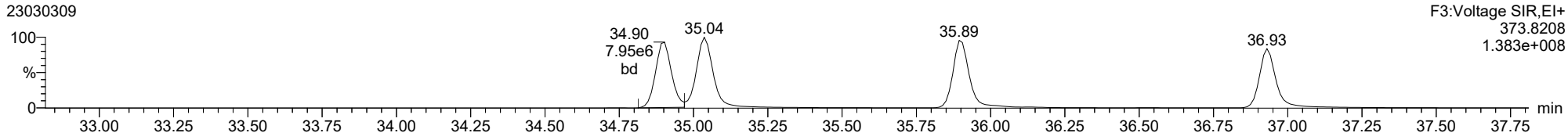

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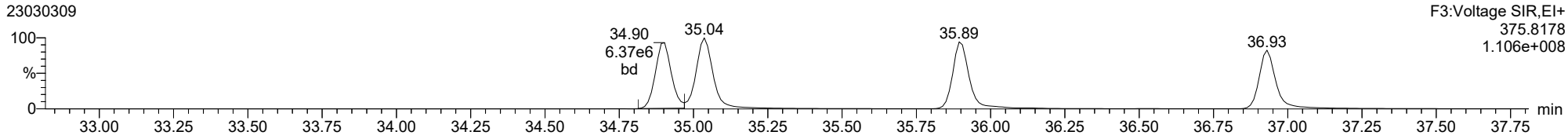

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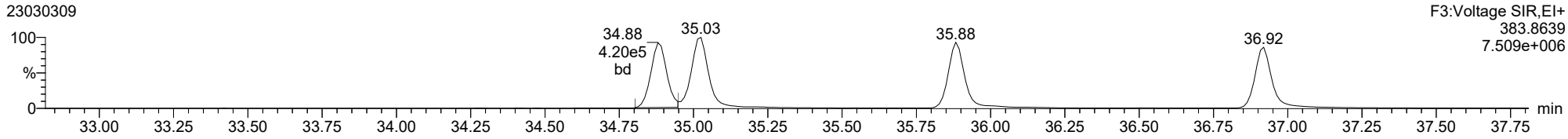

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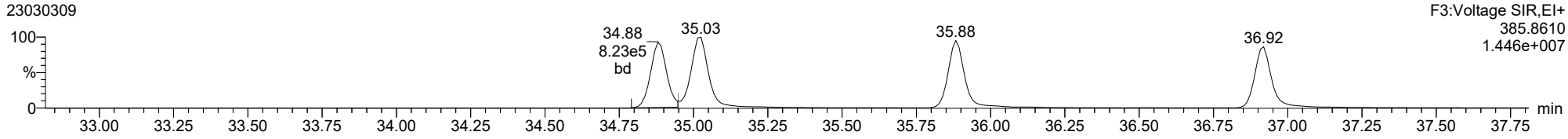

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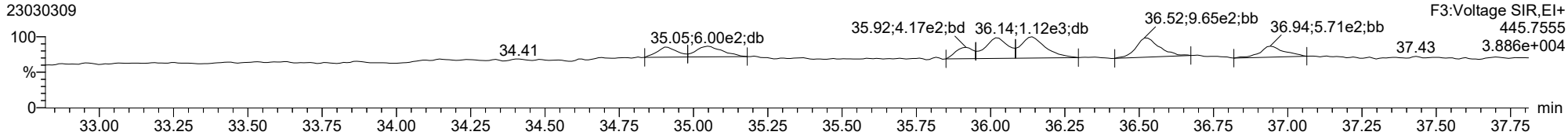

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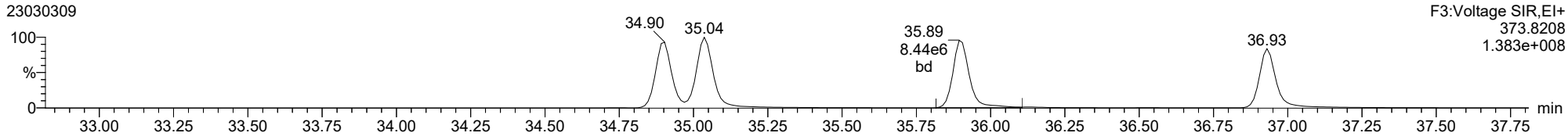
234678-HxCDF



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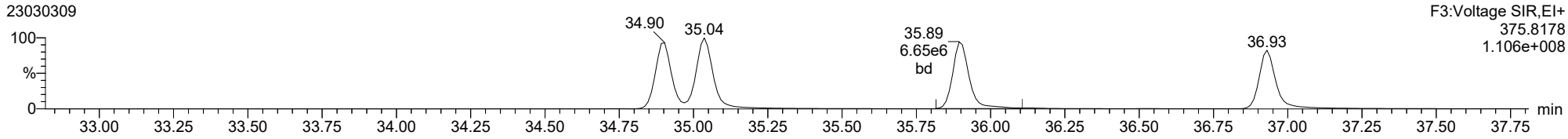

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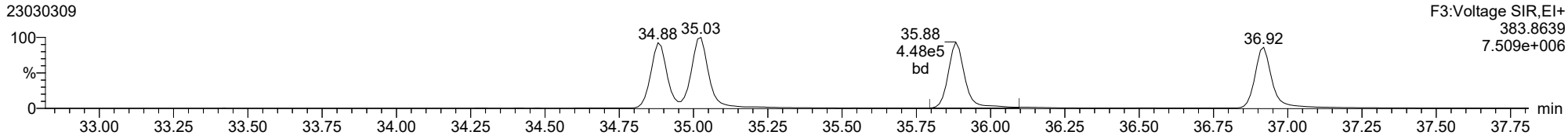

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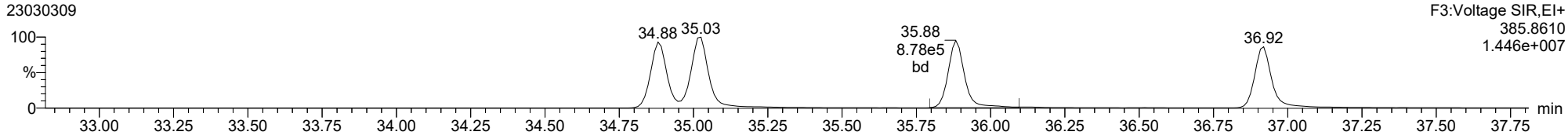
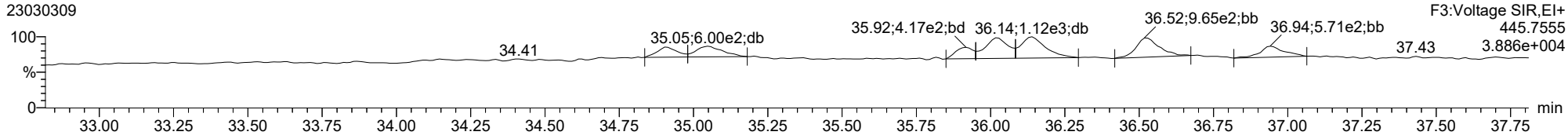


FUNCTION3 OCDPE



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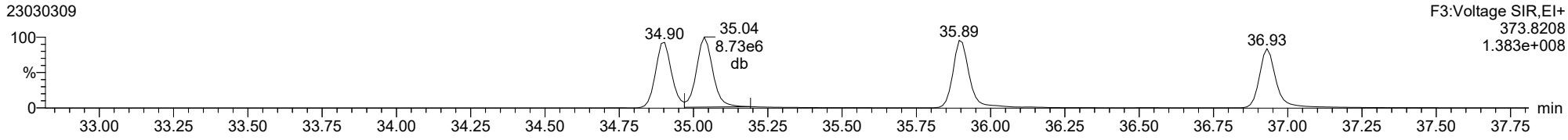

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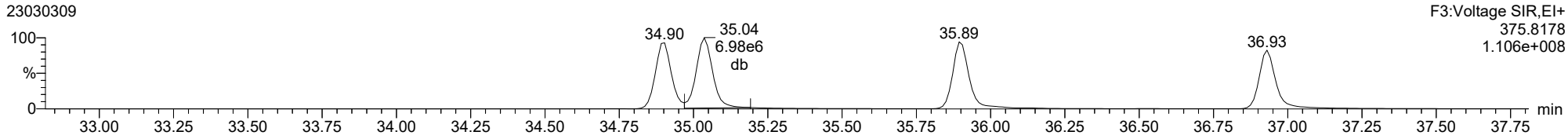

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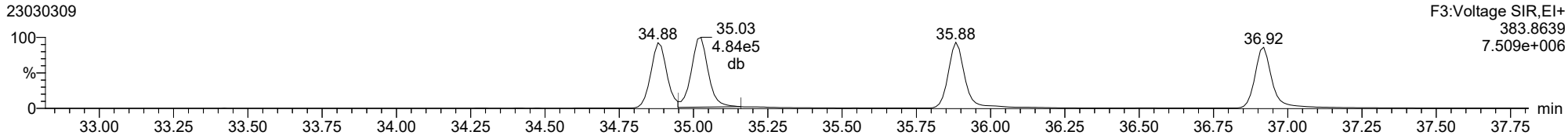

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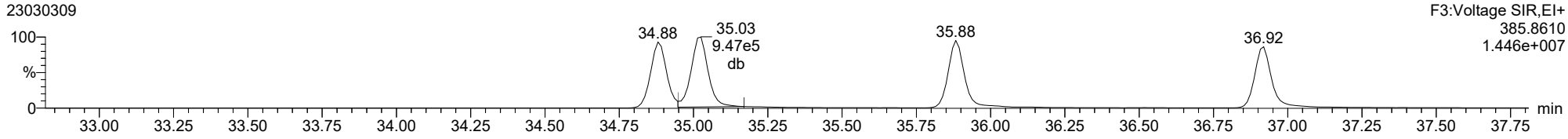

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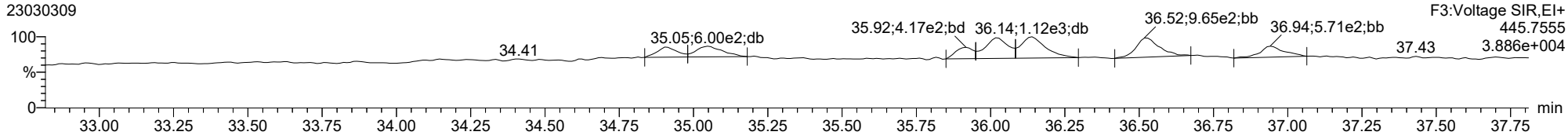

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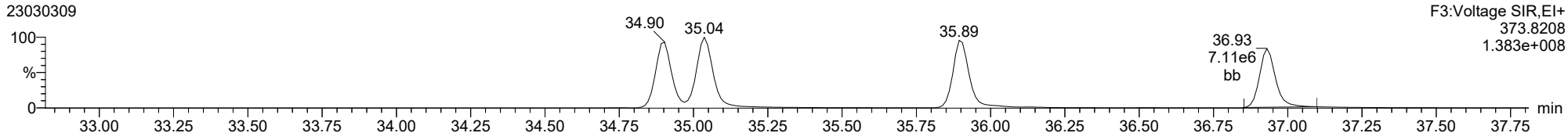

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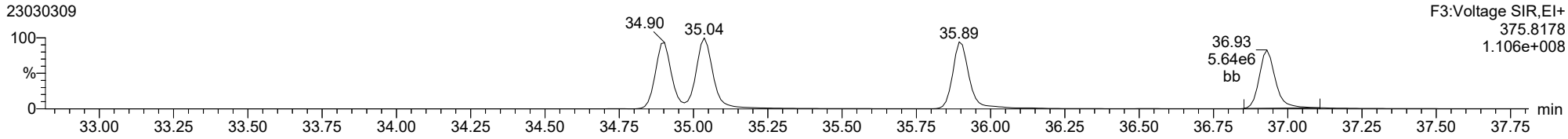

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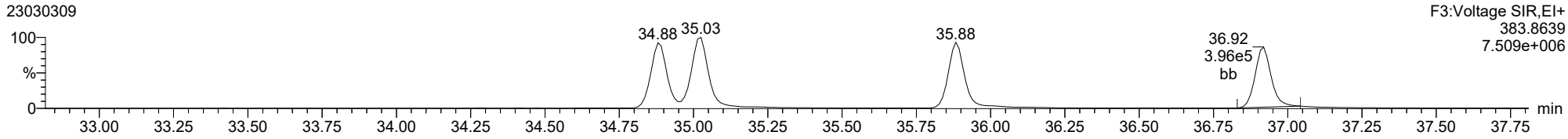

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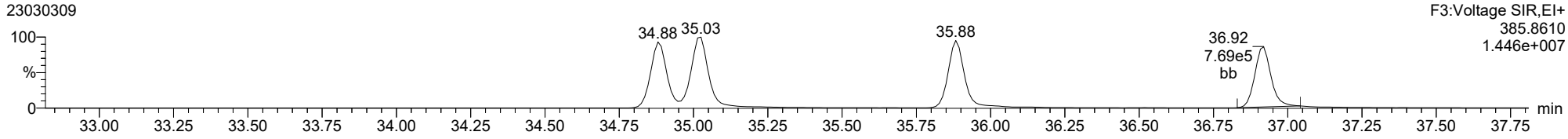
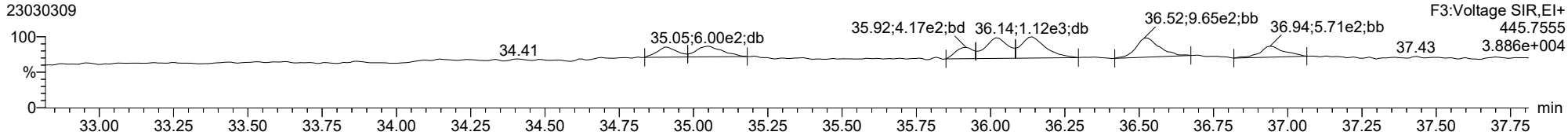


FUNCTION3 OCDPE



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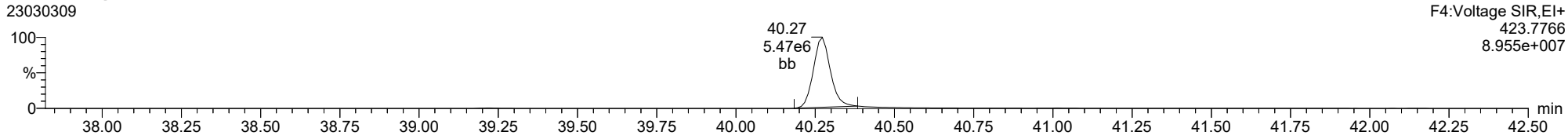
1234678-HpCDD



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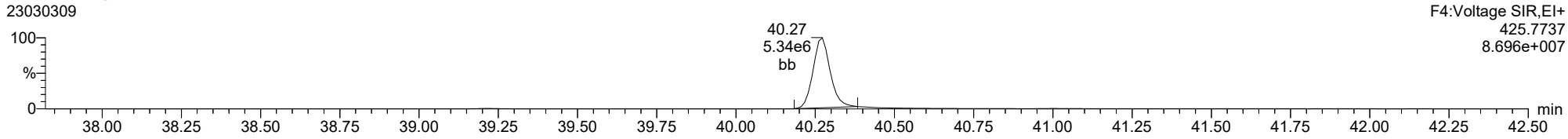

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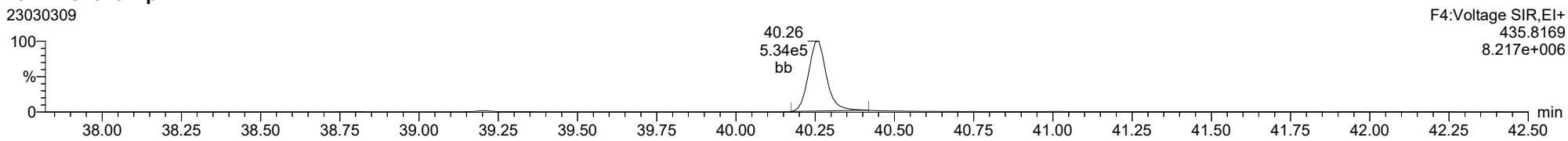

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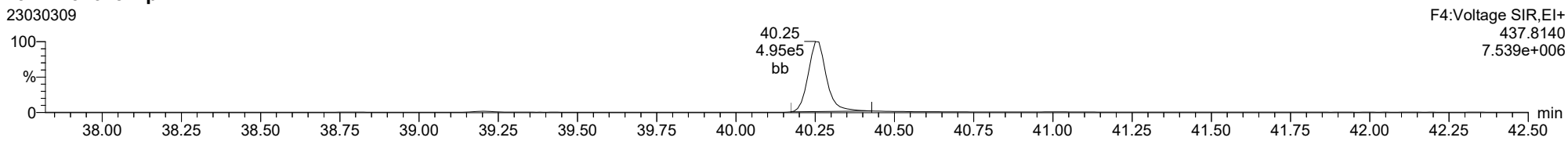
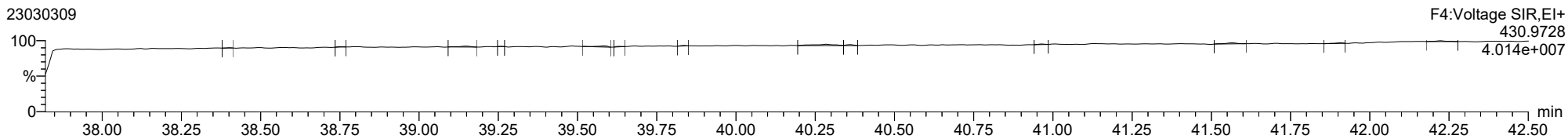


FUNCTION4 PFK



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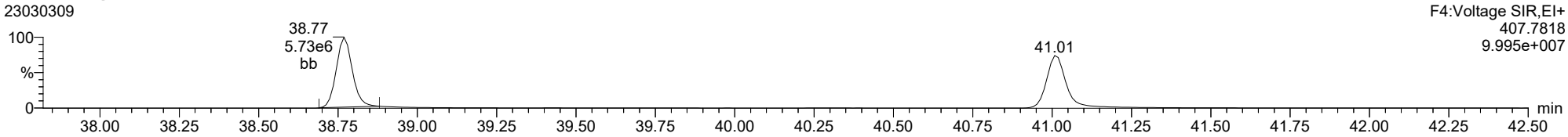

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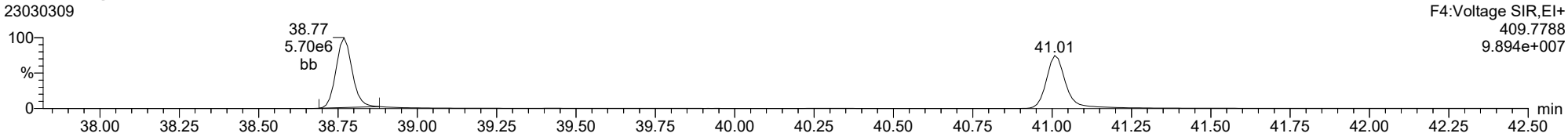

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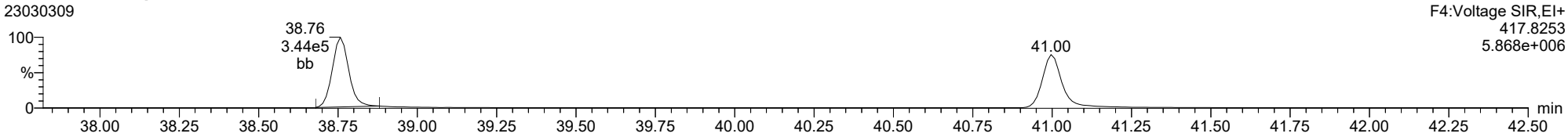

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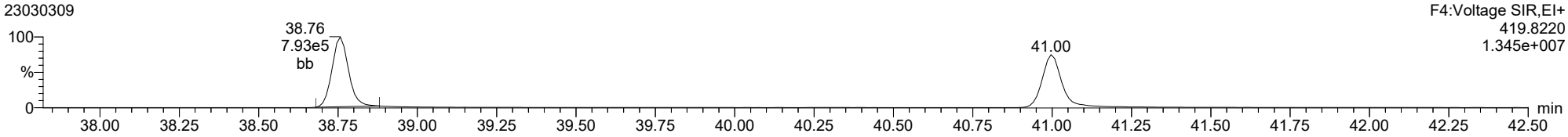
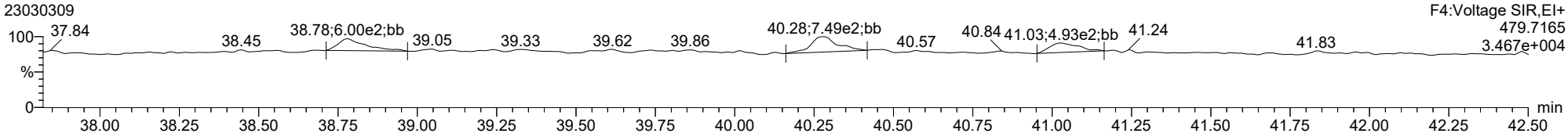


FUNCTION4 NCDPE



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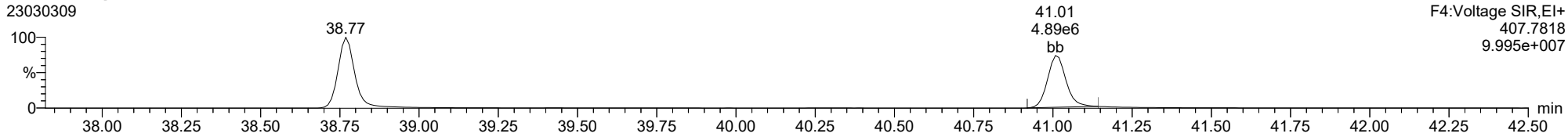
1234789-HpCDF



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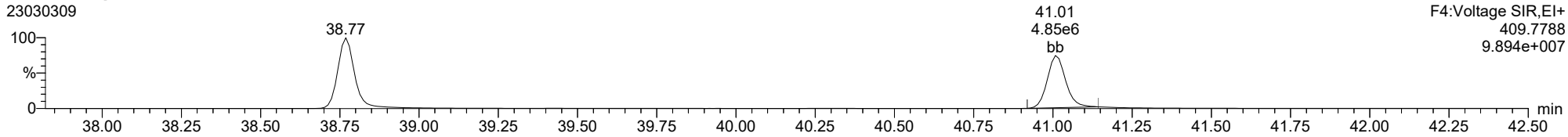

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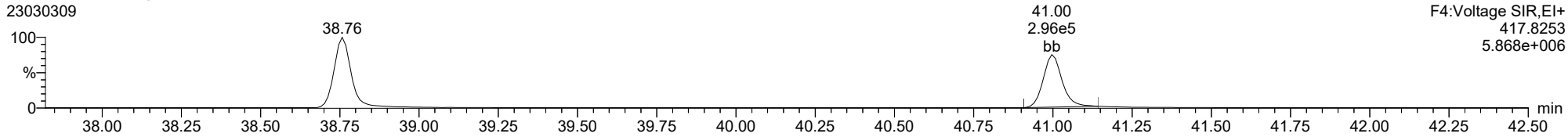

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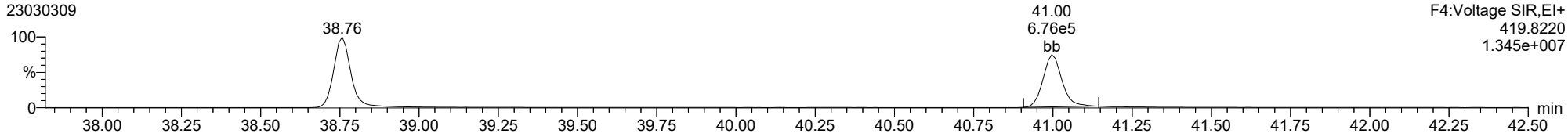
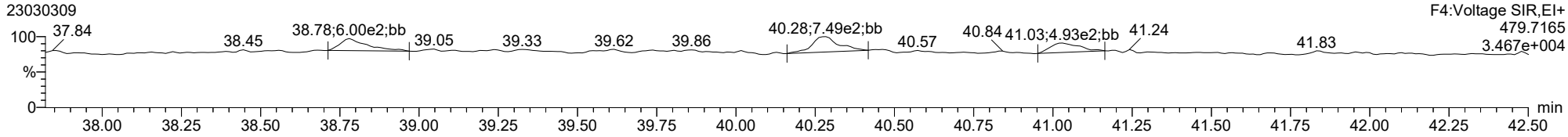


FUNCTION4 NCDPE



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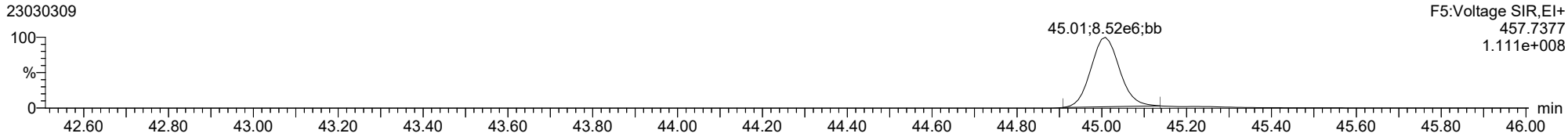

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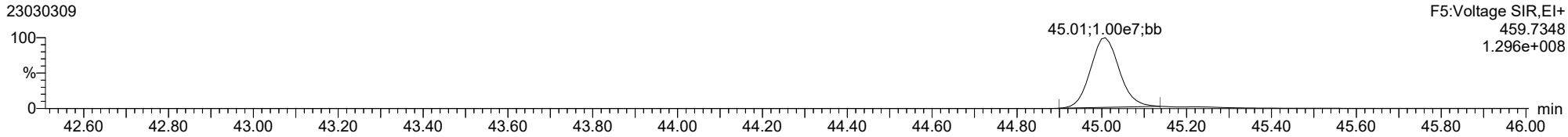

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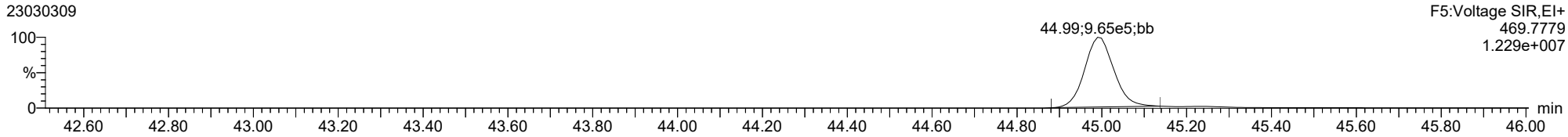

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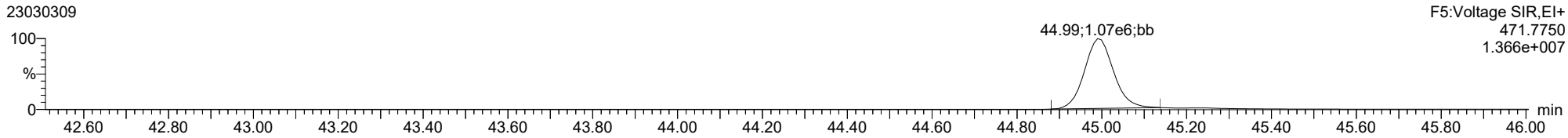
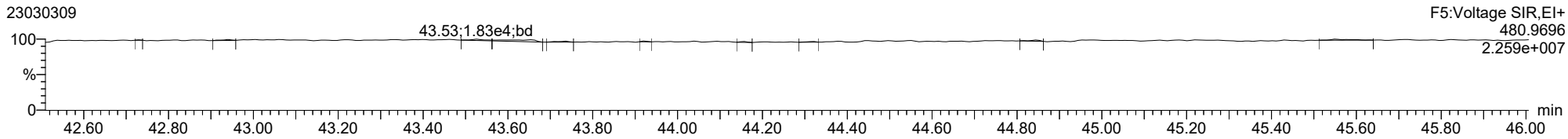


FUNCTION5 PFK



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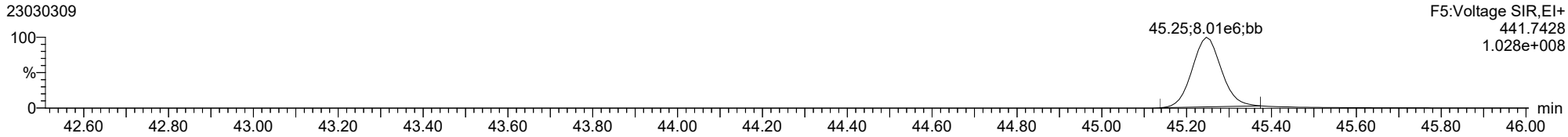

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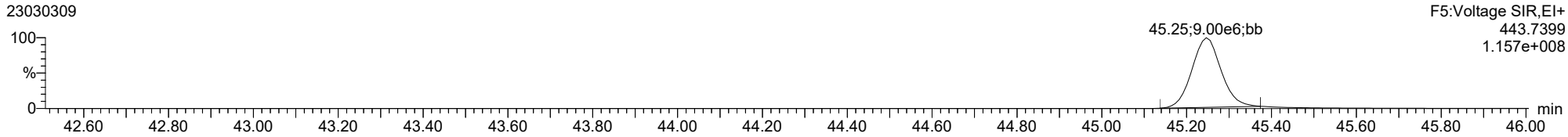
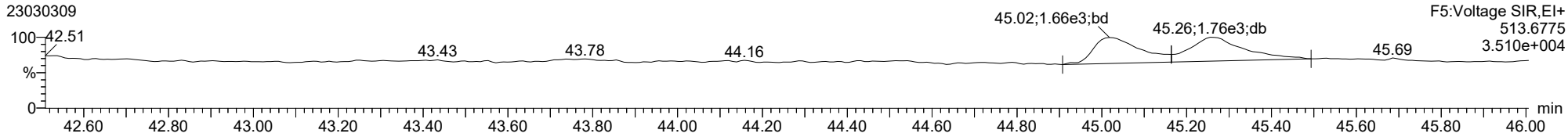


FUNCTION5 DCDPE



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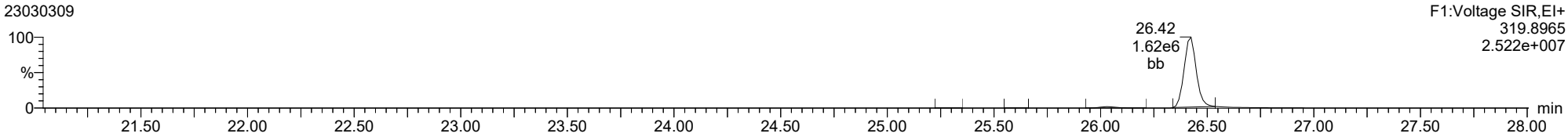

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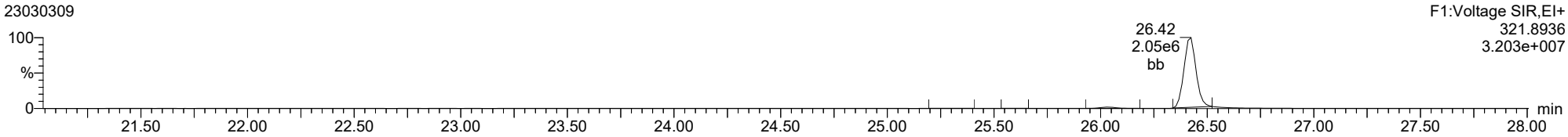

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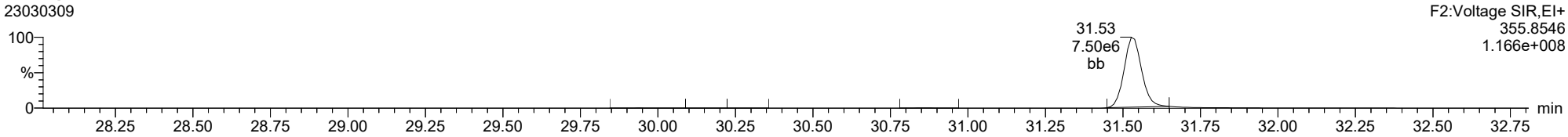

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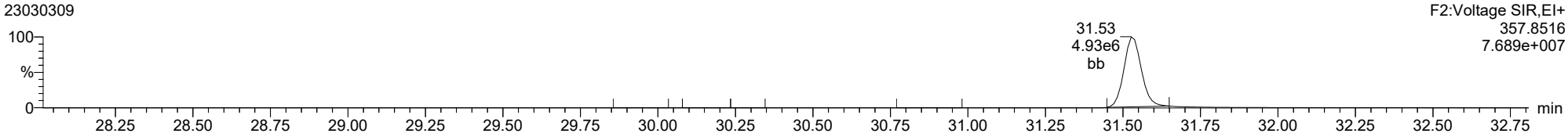

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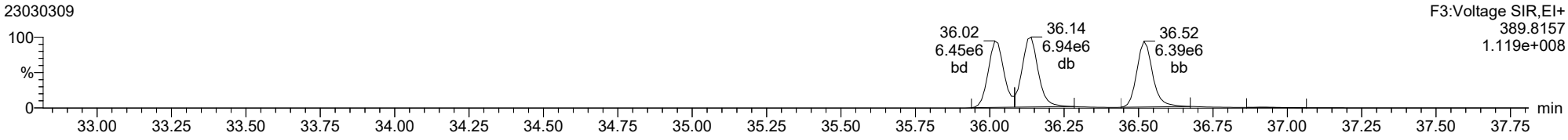

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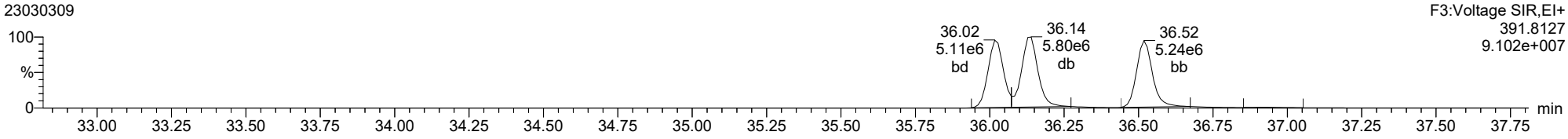

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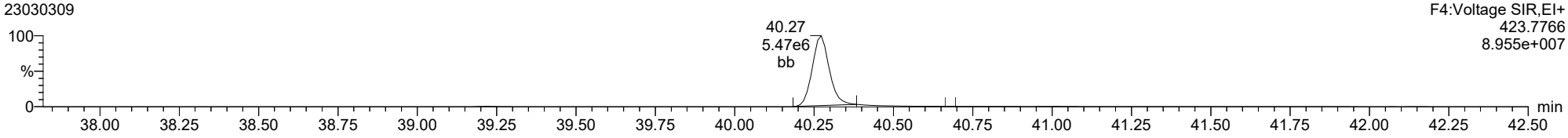

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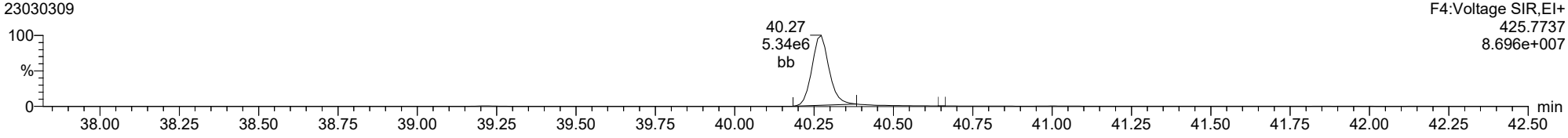

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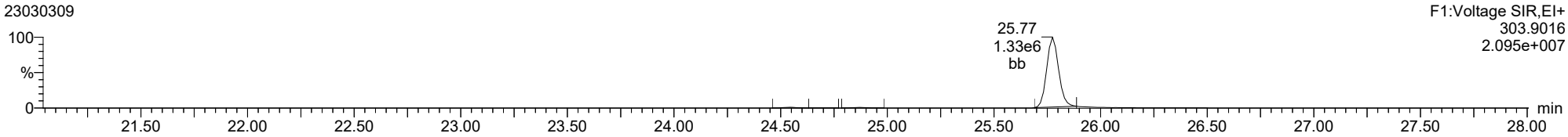

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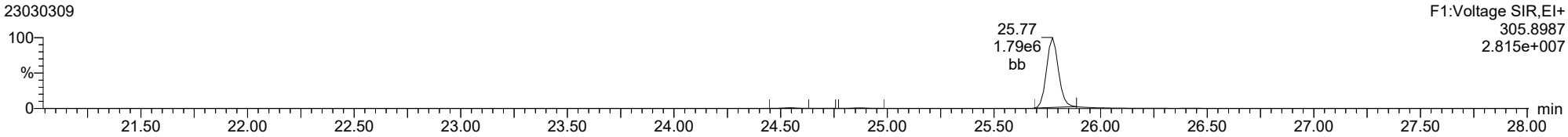

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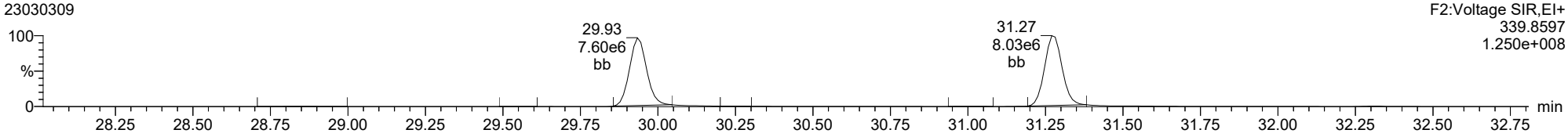

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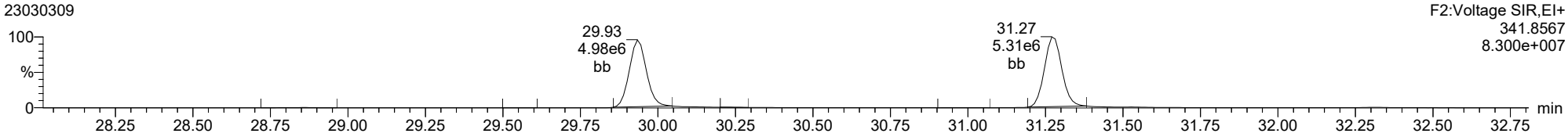

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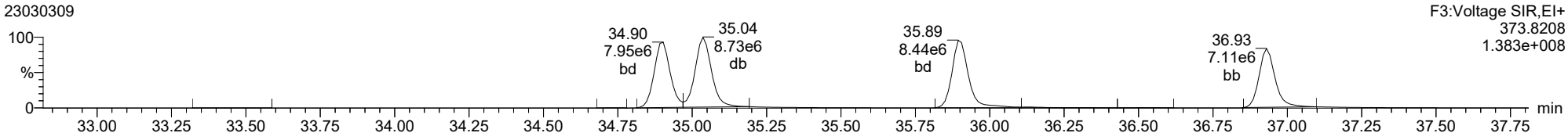

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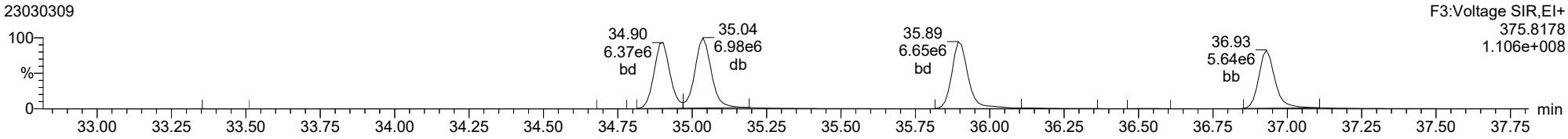

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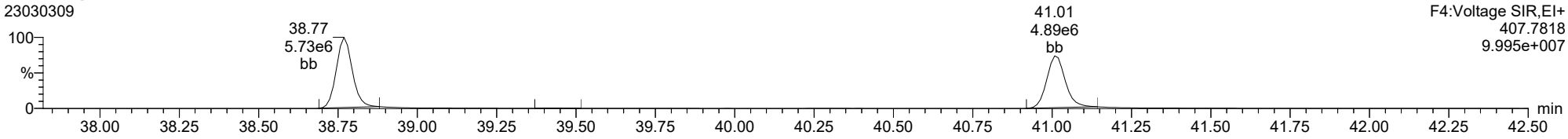

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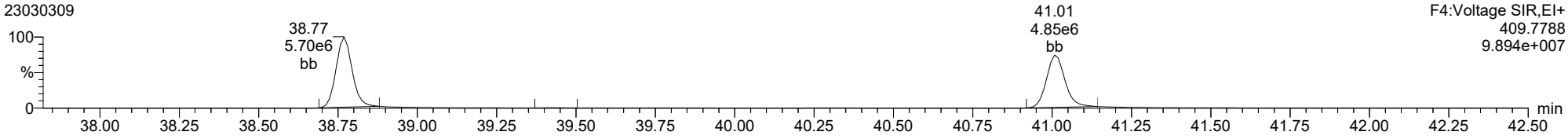

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Printed: Monday, March 06, 2023 14:47:19 Pacific Standard Time

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Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.774	1.000	5.338e4	7.452e4	0.702	0.716	0.770	1163	2029	8.36e5	1.13e6	718.7	556.3	NO	bb	bb	9.838
12378-PeCDF	29.934	1.000	2.214e5	1.526e5	0.679	1.451	1.550	3022	2812	3.24e6	2.15e6	1073.8	764.7	NO	bb	bd	51.391
23478-PeCDF	31.271	1.000	2.350e5	1.508e5	0.786	1.559	1.550	3022	2812	3.42e6	2.23e6	1131.6	792.3	NO	bb	bb	48.980
123478-HxCDF	34.903	1.001	2.903e5	2.325e5	1.166	1.248	1.240	3142	2543	4.30e6	3.42e6	1370.1	1344.7	NO	bd	bd	48.245
234678-HxCDF	35.905	1.001	2.873e5	2.291e5	1.140	1.254	1.240	3142	2543	4.27e6	3.38e6	1358.7	1330.7	NO	bb	bb	50.224
123678-HxCDF	35.036	1.001	3.271e5	2.812e5	1.091	1.163	1.240	3142	2543	4.70e6	3.76e6	1497.0	1479.3	NO	db	db	47.992
123789-HxCDF	36.930	1.001	2.403e5	1.952e5	1.137	1.231	1.240	3142	2543	3.49e6	2.77e6	1110.7	1088.1	NO	bb	bb	49.077
1234678-HpCDF	38.769	1.000	2.051e5	2.017e5	1.003	1.017	1.050	2774	2508	3.29e6	3.29e6	1185.4	1309.8	NO	bb	bb	51.838
1234789-HpCDF	41.008	1.000	1.584e5	1.578e5	0.953	1.004	1.050	2774	2508	2.19e6	2.22e6	790.9	884.0	NO	bb	bb	48.461
OCDF	45.237	1.006	2.094e5	2.177e5	0.778	0.962	0.890	1876	1660	2.24e6	2.46e6	1194.3	1483.7	NO	bd	bb	103.506
2378-TCDD	26.424	1.001	6.583e4	8.225e4	1.149	0.800	0.770	1514	1206	9.92e5	1.24e6	654.9	1028.2	NO	bb	bb	9.815
12378-PeCDD	31.538	1.001	2.257e5	1.459e5	1.022	1.547	1.550	2000	2144	3.28e6	2.13e6	1638.2	994.7	NO	bb	bb	48.547
123478-HxCDD	36.016	1.000	2.316e5	1.815e5	0.996	1.276	1.240	2983	1710	3.62e6	3.01e6	1214.5	1762.3	NO	bd	bd	50.799
123678-HxCDD	36.139	1.001	2.694e5	2.159e5	1.001	1.248	1.240	2983	1710	3.76e6	3.05e6	1260.5	1785.9	NO	db	db	50.174
123789-HxCDD	36.518	1.011	2.330e5	1.844e5	0.907	1.263	1.240	2983	1710	3.29e6	2.69e6	1104.0	1571.7	NO	bd	bb	51.608
1234678-HpCDD	40.272	1.001	1.962e5	1.803e5	1.039	1.088	1.050	2922	2339	2.72e6	2.60e6	932.5	1113.0	NO	bd	bb	49.199
OCDD	44.999	1.000	2.234e5	2.618e5	0.920	0.853	0.890	1774	1393	2.65e6	3.06e6	1496.5	2199.2	NO	bb	bb	99.422
13C-2378-TCDF	25.760	1.007	7.988e5	1.054e6	1.620	0.758	0.770	2799	1492	1.21e7	1.60e7	4320.8	10737.9	NO	bb	bb	96.925
13C-12378-PeCDF	29.923	1.169	6.425e5	4.290e5	1.240	1.498	1.550	3398	4585	8.78e6	5.86e6	2583.4	1278.4	NO	bd	bd	73.193
13C-23478-PeCDF	31.259	1.222	6.035e5	3.982e5	1.118	1.515	1.550	3398	4585	8.73e6	5.79e6	2568.3	1261.6	NO	bb	bb	75.943
13C-123478-HxCDF	34.880	0.955	3.186e5	6.107e5	1.168	0.522	0.510	2913	2215	4.74e6	9.25e6	1627.4	4175.4	NO	bd	bd	92.972
13C-123678-HxCDF	35.014	0.959	3.885e5	7.735e5	1.386	0.502	0.510	2913	2215	5.29e6	1.03e7	1816.0	4636.7	NO	dd	db	97.958
13C-234678-HxCDF	35.883	0.983	3.009e5	6.013e5	1.129	0.500	0.510	2913	2215	4.56e6	8.94e6	1567.0	4037.6	NO	bb	bb	93.371
13C-123789-HxCDF	36.908	1.011	2.634e5	5.171e5	0.932	0.509	0.510	2913	2215	3.83e6	7.41e6	1313.2	3346.2	NO	bb	bb	97.906
13C-1234678-HpCDF	38.757	1.062	2.395e5	5.428e5	0.895	0.441	0.440	2666	4327	3.79e6	8.70e6	1422.6	2009.5	NO	bb	bb	102.148
13C-1234789-HpCDF	40.997	1.123	1.971e5	4.875e5	0.770	0.404	0.440	2666	4327	2.64e6	6.15e6	990.0	1422.1	NO	bb	bb	103.953
13C-1234-TCDD	25.591	0.000	5.239e5	6.562e5	1.000	0.798	0.770	2541	1448	8.13e6	1.01e7	3200.8	6994.1	NO	bb	bb	100.000
13C-2378-TCDD	26.396	1.031	5.859e5	7.277e5	1.152	0.805	0.770	2541	1448	8.48e6	1.06e7	3338.5	7327.1	NO	bb	bb	96.583
13C-12378-PeCDD	31.515	1.232	4.640e5	2.850e5	0.829	1.628	1.550	1690	813	6.82e6	4.16e6	4037.7	5122.1	NO	bb	bb	76.570
13C-123478-HxCDD	36.005	0.986	4.566e5	3.601e5	0.995	1.268	1.240	2230	1571	7.33e6	5.72e6	3288.3	3642.7	NO	bd	bd	95.938
13C-123678-HxCDD	36.117	0.989	5.277e5	4.388e5	1.157	1.203	1.240	2230	1571	7.53e6	5.98e6	3378.3	3806.0	NO	db	db	97.660
13C-1234678-HpCDD	40.250	1.102	3.788e5	3.578e5	0.840	1.059	1.050	1327	2781	5.06e6	4.73e6	3813.0	1700.4	NO	bd	bb	102.476
13C-OCDD	44.981	1.232	5.015e5	5.594e5	0.767	0.896	0.890	2228	1562	5.65e6	6.37e6	2536.4	4080.5	NO	bb	bb	161.563
13C-123789-HxCDD	36.507	0.000	4.814e5	3.742e5	1.000	1.287	1.240	2230	1571	7.02e6	5.48e6	3149.1	3490.5	NO	bb	bb	100.000
37CL-2378-TCDD	26.424	1.033	1.324e5		1.288			2249		1.92e6		853.0			bb		8.714

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Printed: Monday, March 06, 2023 14:47:19 Pacific Standard Time

ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.271	0.865	6.666e4	8.755e4	0.802	0.761	0.770	1163	2029	1.09e6	1.45e6	933.7	713.4	NO	bb	bb	10.382
1289-TCDF	27.272	1.059	5.306e4	7.400e4	0.678	0.717	0.770	1163	2029	8.00e5	1.11e6	688.3	549.0	NO	bb	db	10.112
13468-PECDF	27.130	0.907	5.428e5	3.536e5	1.246	1.535	1.550	921	1306	8.56e6	5.56e6	9287.8	4254.6	NO	bb	bb	67.124
12389-PECDF	32.307	1.080	2.363e5	1.551e5	0.496	1.524	1.550	3022	2812	3.29e6	2.19e6	1088.1	777.6	NO	bb	bb	73.589
123468-HXCDF	33.231	0.953	3.102e5	2.472e5	1.169	1.255	1.240	3142	2543	4.60e6	3.67e6	1465.3	1443.2	NO	bb	bb	51.304
1368-TCDD	23.557	0.892	6.641e4	8.365e4	1.015	0.794	0.770	1514	1206	1.07e6	1.32e6	704.3	1092.4	NO	bb	bb	11.251
1289-TCDD	27.017	1.023	6.055e4	8.062e4	0.909	0.751	0.770	1514	1206	8.59e5	1.12e6	567.6	932.6	NO	bd	bd	11.826
12479-PECDD	28.819	0.914	4.776e5	3.067e5	2.301	1.557	1.550	2000	2144	4.46e6	2.89e6	2227.8	1348.6	NO	bb	bb	45.504
12389-PECDD	31.928	1.013	2.675e5	1.746e5	1.184	1.532	1.550	2000	2144	3.96e6	2.51e6	1980.6	1171.6	NO	bb	bb	49.870
124679-HXCDD	34.011	0.945	2.545e5	2.054e5	1.115	1.239	1.240	2983	1710	3.72e6	3.05e6	1245.7	1780.9	NO	bb	bb	50.484
1234679-HPCDD	39.225	0.975	2.082e5	2.022e5	1.137	1.029	1.050	2922	2339	3.21e6	3.09e6	1099.8	1322.5	NO	bb	bb	49.010
Total-tetrafurans			1.731e5		0.727			1163		2.72e6							30.332
Total-penta1			5.428e5					921		8.56e6							67.124
Total-pentafurans			7.375e5		0.654			3022		1.06e7							184.995
Total-hexafurans			1.455e6		1.141			3142		2.14e7							246.841
Total-heptafurans			3.635e5		0.978			2774		5.48e6							100.299
Total-Furans			3.482e6		0.922			1163		5.10e7							733.097
Total-tetradioxins			3.292e5		1.024			1514		4.53e6							56.345
Total-pentadioxins			9.708e5		1.502			2000		1.17e7							143.922
Total-hexadioxins			9.885e5		1.005			2983		1.44e7							203.065
Total-heptadioxins			4.044e5		1.088			2922		5.94e6							98.208
Total-Dioxins			2.916e6		1.130			1514		3.92e7							600.962
Total-TEQ			6.398e6					1514		9.02e7							1334.059
FUNCTION1 PFK			0.000e0					539943		0.00e0							
FUNCTION2 PFK			2.253e6					228820		1.84e6							0.000
FUNCTION3 PFK			3.977e4					386595		8.75e5							0.000
FUNCTION4 PFK			7.296e4					280107		2.70e6							
FUNCTION5 PFK			1.323e3					209307		1.46e5							
FUNCTION1 HXCD...			6.633e2					708		9.34e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			5.152e2					1165		9.44e3							0.000
FUNCTION3 OCDPE			5.246e2					459		6.83e3							0.000
FUNCTION4 NCDPE			4.889e2					641		6.04e3							0.000
FUNCTION5 DCDPE			0.000e0					644		0.00e0							

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

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TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	5.306e4	7.400e4	0.678	0.72	0.77	688.3	YES	NO	bb	db	10.112
2	2378-TCDF	25.77	5.338e4	7.452e4	0.702	0.72	0.77	718.7	YES	NO	bb	bb	9.838
3	1368-TCDF	22.27	6.666e4	8.755e4	0.802	0.76	0.77	933.7	YES	NO	bb	bb	10.382

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.13	5.428e5	3.536e5	1.246	1.54	1.55	9287.8	YES	NO	bb	bb	67.124

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.31	2.363e5	1.551e5	0.496	1.52	1.55	1088.1	YES	NO	bb	bb	73.589
2	23478-PeCDF	31.27	2.350e5	1.508e5	0.786	1.56	1.55	1131.6	YES	NO	bb	bb	48.980
3	12378-PeCDF	29.93	2.214e5	1.526e5	0.679	1.45	1.55	1073.8	YES	NO	bb	bd	51.391
4	Total-pentafurans	28.79	4.479e4	3.002e4	0.654	1.49	1.55	225.2	YES	NO	bb	bb	11.035

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123478-HxCDF	34.90	2.903e5	2.325e5	1.166	1.25	1.24	1370.1	YES	NO	bd	bd	48.245
2	123468-HXCDF	33.23	3.102e5	2.472e5	1.169	1.26	1.24	1465.3	YES	NO	bb	bb	51.304
3	123789-HxCDF	36.93	2.403e5	1.952e5	1.137	1.23	1.24	1110.7	YES	NO	bb	bb	49.077
4	234678-HxCDF	35.91	2.873e5	2.291e5	1.140	1.25	1.24	1358.7	YES	NO	bb	bb	50.224
5	123678-HxCDF	35.04	3.271e5	2.812e5	1.091	1.16	1.24	1497.0	YES	NO	db	db	47.992

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.77	2.051e5	2.017e5	1.003	1.02	1.05	1185.4	YES	NO	bb	bb	51.838
2	1234789-HpCDF	41.01	1.584e5	1.578e5	0.953	1.00	1.05	790.9	YES	NO	bb	bb	48.461

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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	5.306e4	7.400e4	0.678	0.72	0.77	688.3	YES	NO	bb	db	10.112
2	2378-TCDF	25.77	5.338e4	7.452e4	0.702	0.72	0.77	718.7	YES	NO	bb	bb	9.838
3	1368-TCDF	22.27	6.666e4	8.755e4	0.802	0.76	0.77	933.7	YES	NO	bb	bb	10.382
4	12389-PECDF	32.31	2.363e5	1.551e5	0.496	1.52	1.55	1088.1	YES	NO	bb	bb	73.589
5	23478-PeCDF	31.27	2.350e5	1.508e5	0.786	1.56	1.55	1131.6	YES	NO	bb	bb	48.980
6	12378-PeCDF	29.93	2.214e5	1.526e5	0.679	1.45	1.55	1073.8	YES	NO	bb	bd	51.391
7	Total-pentafurans	28.79	4.479e4	3.002e4	0.654	1.49	1.55	225.2	YES	NO	bb	bb	11.035
8	123478-HxCDF	34.90	2.903e5	2.325e5	1.166	1.25	1.24	1370.1	YES	NO	bd	bd	48.245
9	123468-HXCDF	33.23	3.102e5	2.472e5	1.169	1.26	1.24	1465.3	YES	NO	bb	bb	51.304
10	123789-HxCDF	36.93	2.403e5	1.952e5	1.137	1.23	1.24	1110.7	YES	NO	bb	bb	49.077
11	234678-HxCDF	35.91	2.873e5	2.291e5	1.140	1.25	1.24	1358.7	YES	NO	bb	bb	50.224
12	123678-HxCDF	35.04	3.271e5	2.812e5	1.091	1.16	1.24	1497.0	YES	NO	db	db	47.992
13	1234678-HpCDF	38.77	2.051e5	2.017e5	1.003	1.02	1.05	1185.4	YES	NO	bb	bb	51.838
14	1234789-HpCDF	41.01	1.584e5	1.578e5	0.953	1.00	1.05	790.9	YES	NO	bb	bb	48.461
15	OCDF	45.24	2.094e5	2.177e5	0.778	0.96	0.89	1194.3	YES	NO	bd	bb	103.506
16	13468-PECDF	27.13	5.428e5	3.536e5	1.246	1.54	1.55	9287.8	YES	NO	bb	bb	67.124

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	25.60	3.327e4	3.983e4	1.024	0.84	0.77	333.8	YES	NO	bd	bb	5.433
2	Total-tetradioxins	25.04	8.004e2	1.202e3	1.024	0.67	0.77	7.4	YES	NO	bb	db	0.149
3	Total-tetradioxins	24.74	2.704e3	4.097e3	1.024	0.66	0.77	17.7	YES	NO	bb	bd	0.506
4	1368-TCDD	23.56	6.641e4	8.365e4	1.015	0.79	0.77	704.3	YES	NO	bb	bb	11.251
5	1289-TCDD	27.02	6.055e4	8.062e4	0.909	0.75	0.77	567.6	YES	NO	bd	bd	11.826
6	Total-tetradioxins	26.76	1.054e2	1.391e2	1.024	0.76	0.77	2.1	NO	NO	bb	bb	0.018
7	2378-TCDD	26.42	6.583e4	8.225e4	1.149	0.80	0.77	654.9	YES	NO	bb	bb	9.815
8	Total-tetradioxins	26.10	9.949e4	1.339e5	1.024	0.74	0.77	703.4	YES	NO	bb	bb	17.347

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	31.93	2.675e5	1.746e5	1.184	1.53	1.55	1980.6	YES	NO	bb	bb	49.870
2	12378-PeCDD	31.54	2.257e5	1.459e5	1.022	1.55	1.55	1638.2	YES	NO	bb	bb	48.547
3	12479-PECDD	28.82	4.776e5	3.067e5	2.301	1.56	1.55	2227.8	YES	NO	bb	bb	45.504

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HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	124679-HXCDD	34.01	2.545e5	2.054e5	1.115	1.24	1.24	1245.7	YES	NO	bb	bb	50.484
2	123789-HxCDD	36.52	2.330e5	1.844e5	0.907	1.26	1.24	1104.0	YES	NO	bd	bb	51.608
3	123678-HxCDD	36.14	2.694e5	2.159e5	1.001	1.25	1.24	1260.5	YES	NO	db	db	50.174
4	123478-HxCDD	36.02	2.316e5	1.815e5	0.996	1.28	1.24	1214.5	YES	NO	bd	bd	50.799

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.23	2.082e5	2.022e5	1.137	1.03	1.05	1099.8	YES	NO	bb	bb	49.010
2	1234678-HpCDD	40.27	1.962e5	1.803e5	1.039	1.09	1.05	932.5	YES	NO	bd	bb	49.199

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	25.60	3.327e4	3.983e4	1.024	0.84	0.77	333.8	YES	NO	bd	bb	5.433
2	Total-tetradioxins	25.04	8.004e2	1.202e3	1.024	0.67	0.77	7.4	YES	NO	bb	db	0.149
3	Total-tetradioxins	24.74	2.704e3	4.097e3	1.024	0.66	0.77	17.7	YES	NO	bb	bd	0.506
4	1368-TCDD	23.56	6.641e4	8.365e4	1.015	0.79	0.77	704.3	YES	NO	bb	bb	11.251
5	1289-TCDD	27.02	6.055e4	8.062e4	0.909	0.75	0.77	567.6	YES	NO	bd	bd	11.826
6	Total-tetradioxins	26.76	1.054e2	1.391e2	1.024	0.76	0.77	2.1	NO	NO	bb	bb	0.018
7	2378-TCDD	26.42	6.583e4	8.225e4	1.149	0.80	0.77	654.9	YES	NO	bb	bb	9.815
8	Total-tetradioxins	26.10	9.949e4	1.339e5	1.024	0.74	0.77	703.4	YES	NO	bb	bb	17.347
9	12389-PECDD	31.93	2.675e5	1.746e5	1.184	1.53	1.55	1980.6	YES	NO	bb	bb	49.870
10	12378-PeCDD	31.54	2.257e5	1.459e5	1.022	1.55	1.55	1638.2	YES	NO	bb	bb	48.547
11	12479-PECDD	28.82	4.776e5	3.067e5	2.301	1.56	1.55	2227.8	YES	NO	bb	bb	45.504
12	124679-HXCDD	34.01	2.545e5	2.054e5	1.115	1.24	1.24	1245.7	YES	NO	bb	bb	50.484
13	123789-HxCDD	36.52	2.330e5	1.844e5	0.907	1.26	1.24	1104.0	YES	NO	bd	bb	51.608
14	123678-HxCDD	36.14	2.694e5	2.159e5	1.001	1.25	1.24	1260.5	YES	NO	db	db	50.174
15	123478-HxCDD	36.02	2.316e5	1.815e5	0.996	1.28	1.24	1214.5	YES	NO	bd	bd	50.799
16	1234679-HPCDD	39.23	2.082e5	2.022e5	1.137	1.03	1.05	1099.8	YES	NO	bb	bb	49.010
17	1234678-HpCDD	40.27	1.962e5	1.803e5	1.039	1.09	1.05	932.5	YES	NO	bd	bb	49.199
18	OCDD	45.00	2.234e5	2.618e5	0.920	0.85	0.89	1496.5	YES	NO	bb	bb	99.422

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	5.306e4	7.400e4	0.678	0.72	0.77	688.3	YES	NO	bb	db	10.112
2	2378-TCDF	25.77	5.338e4	7.452e4	0.702	0.72	0.77	718.7	YES	NO	bb	bb	9.838
3	1368-TCDF	22.27	6.666e4	8.755e4	0.802	0.76	0.77	933.7	YES	NO	bb	bb	10.382
4	12389-PECDF	32.31	2.363e5	1.551e5	0.496	1.52	1.55	1088.1	YES	NO	bb	bb	73.589
5	23478-PeCDF	31.27	2.350e5	1.508e5	0.786	1.56	1.55	1131.6	YES	NO	bb	bb	48.980
6	12378-PeCDF	29.93	2.214e5	1.526e5	0.679	1.45	1.55	1073.8	YES	NO	bb	bd	51.391
7	Total-pentafurans	28.79	4.479e4	3.002e4	0.654	1.49	1.55	225.2	YES	NO	bb	bb	11.035
8	123478-HxCDF	34.90	2.903e5	2.325e5	1.166	1.25	1.24	1370.1	YES	NO	bd	bd	48.245
9	123468-HXCDF	33.23	3.102e5	2.472e5	1.169	1.26	1.24	1465.3	YES	NO	bb	bb	51.304
10	123789-HxCDF	36.93	2.403e5	1.952e5	1.137	1.23	1.24	1110.7	YES	NO	bb	bb	49.077
11	234678-HxCDF	35.91	2.873e5	2.291e5	1.140	1.25	1.24	1358.7	YES	NO	bb	bb	50.224
12	123678-HxCDF	35.04	3.271e5	2.812e5	1.091	1.16	1.24	1497.0	YES	NO	db	db	47.992
13	1234678-HpCDF	38.77	2.051e5	2.017e5	1.003	1.02	1.05	1185.4	YES	NO	bb	bb	51.838
14	1234789-HpCDF	41.01	1.584e5	1.578e5	0.953	1.00	1.05	790.9	YES	NO	bb	bb	48.461
15	OCDF	45.24	2.094e5	2.177e5	0.778	0.96	0.89	1194.3	YES	NO	bd	bb	103.506
16	13468-PECDF	27.13	5.428e5	3.536e5	1.246	1.54	1.55	9287.8	YES	NO	bb	bb	67.124
17	Total-tetradioxins	25.60	3.327e4	3.983e4	1.024	0.84	0.77	333.8	YES	NO	bd	bb	5.433
18	Total-tetradioxins	25.04	8.004e2	1.202e3	1.024	0.67	0.77	7.4	YES	NO	bb	db	0.149
19	Total-tetradioxins	24.74	2.704e3	4.097e3	1.024	0.66	0.77	17.7	YES	NO	bb	bd	0.506
20	1368-TCDD	23.56	6.641e4	8.365e4	1.015	0.79	0.77	704.3	YES	NO	bb	bb	11.251
21	1289-TCDD	27.02	6.055e4	8.062e4	0.909	0.75	0.77	567.6	YES	NO	bd	bd	11.826
22	Total-tetradioxins	26.76	1.054e2	1.391e2	1.024	0.76	0.77	2.1	NO	NO	bb	bb	0.018
23	2378-TCDD	26.42	6.583e4	8.225e4	1.149	0.80	0.77	654.9	YES	NO	bb	bb	9.815
24	Total-tetradioxins	26.10	9.949e4	1.339e5	1.024	0.74	0.77	703.4	YES	NO	bb	bb	17.347
25	12389-PECDD	31.93	2.675e5	1.746e5	1.184	1.53	1.55	1980.6	YES	NO	bb	bb	49.870
26	12378-PeCDD	31.54	2.257e5	1.459e5	1.022	1.55	1.55	1638.2	YES	NO	bb	bb	48.547
27	12479-PECDD	28.82	4.776e5	3.067e5	2.301	1.56	1.55	2227.8	YES	NO	bb	bb	45.504
28	124679-HXCDD	34.01	2.545e5	2.054e5	1.115	1.24	1.24	1245.7	YES	NO	bb	bb	50.484
29	123789-HxCDD	36.52	2.330e5	1.844e5	0.907	1.26	1.24	1104.0	YES	NO	bd	bb	51.608
30	123678-HxCDD	36.14	2.694e5	2.159e5	1.001	1.25	1.24	1260.5	YES	NO	db	db	50.174
31	123478-HxCDD	36.02	2.316e5	1.815e5	0.996	1.28	1.24	1214.5	YES	NO	bd	bd	50.799
32	1234679-HPCDD	39.23	2.082e5	2.022e5	1.137	1.03	1.05	1099.8	YES	NO	bb	bb	49.010
33	1234678-HpCDD	40.27	1.962e5	1.803e5	1.039	1.09	1.05	932.5	YES	NO	bd	bb	49.199
34	OCDD	45.00	2.234e5	2.618e5	0.920	0.85	0.89	1496.5	YES	NO	bb	bb	99.422

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.14	2.253e6					8.0	YES		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.08	3.977e4					2.3	NO		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	41.32	4.162e3					0.8	NO		bb		
2	FUNCTION4 PFK	40.68	1.340e4					1.2	NO		bb		
3	FUNCTION4 PFK	40.50	1.024e4					1.3	NO		bb		
4	FUNCTION4 PFK	40.07	1.056e4					1.2	NO		bb		
5	FUNCTION4 PFK	39.50	1.007e4					1.4	NO		bb		
6	FUNCTION4 PFK	42.14	1.085e4					1.0	NO		bb		
7	FUNCTION4 PFK	42.10	6.400e3					1.1	NO		bb		
8	FUNCTION4 PFK	41.87	1.885e3					0.6	NO		bb		
9	FUNCTION4 PFK	41.61	5.389e3					0.9	NO		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.23	1.323e3					0.7	NO		bb		

ID: ICVCW, Name: 23030310, Date: 03-Mar-2023, Time: 16:36:24, Conditions: AUTOSPEC01, User: pk

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.55	1.589e2					2.0	NO		db		0.000
2	FUNCTION1 HXCD...	26.42	1.755e2					3.2	YES		bd		0.000
3	FUNCTION1 HXCD...	25.59	9.854e1					1.9	NO		bb		0.000
4	FUNCTION1 HXCD...	23.87	7.096e1					1.9	NO		bb		0.000
5	FUNCTION1 HXCD...	23.56	8.003e1					2.4	NO		bb		0.000
6	FUNCTION1 HXCD...	22.40	7.940e1					1.8	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	30.33	1.101e2					1.7	NO		bb		0.000
2	FUNCTION2 HPCD...	28.89	7.875e1					1.7	NO		bb		0.000
3	FUNCTION2 HPCD...	31.17	3.263e2					4.7	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.51	1.586e2					5.0	YES		bb		0.000
2	FUNCTION3 OCDPE	36.13	1.909e2					4.9	YES		db		0.000
3	FUNCTION3 OCDPE	35.99	1.751e2					5.1	YES		bd		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.06	1.247e2					2.2	NO		db		0.000
2	FUNCTION4 NCDPE	40.94	7.187e1					1.7	NO		bd		0.000
3	FUNCTION4 NCDPE	40.37	7.003e1					1.7	NO		db		0.000
4	FUNCTION4 NCDPE	40.26	2.223e2					3.8	YES		bd		0.000

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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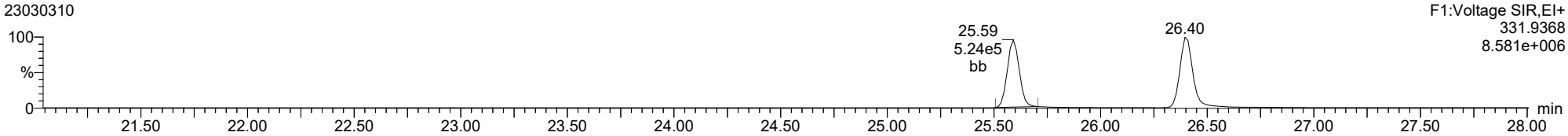

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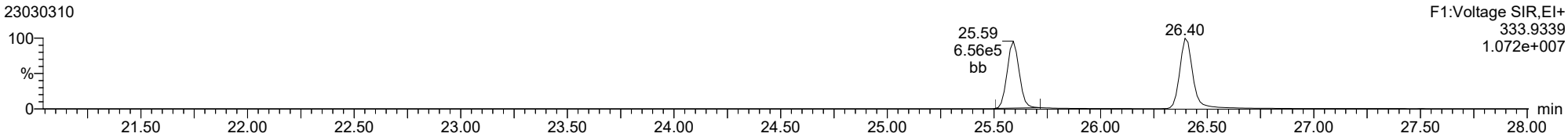

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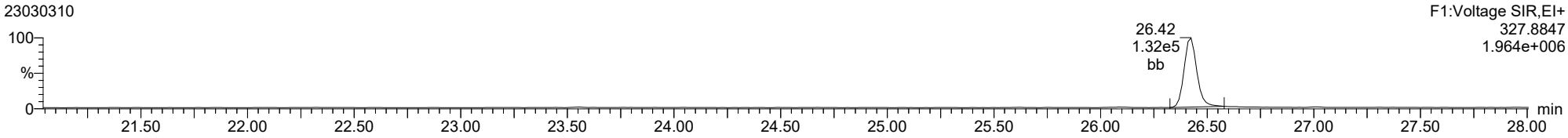

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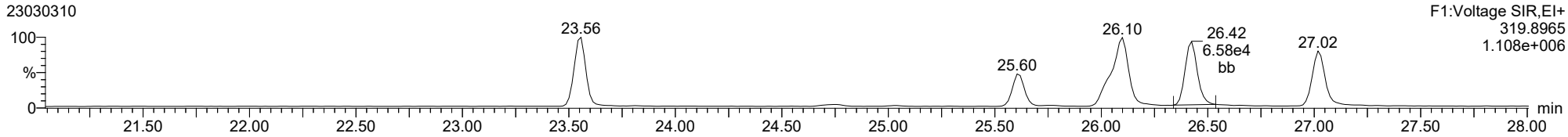

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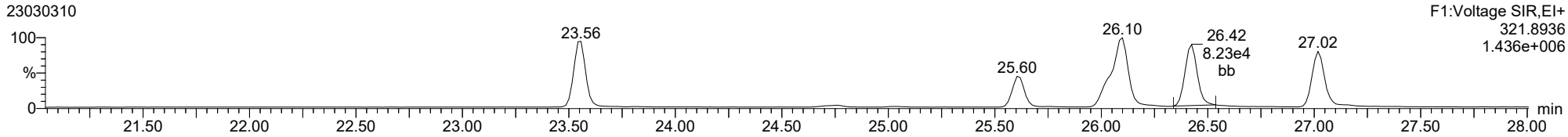

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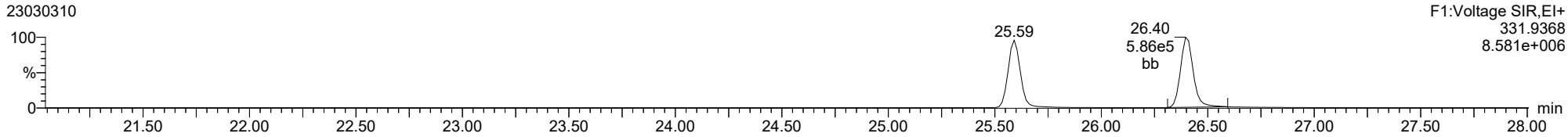

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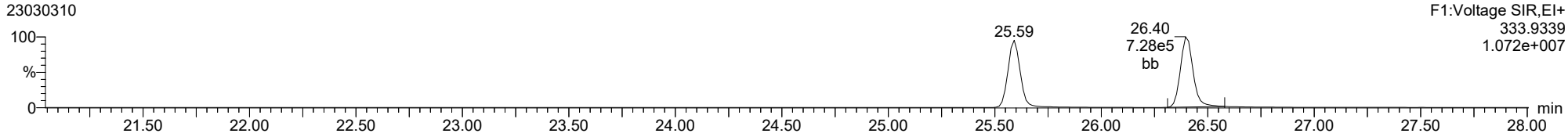

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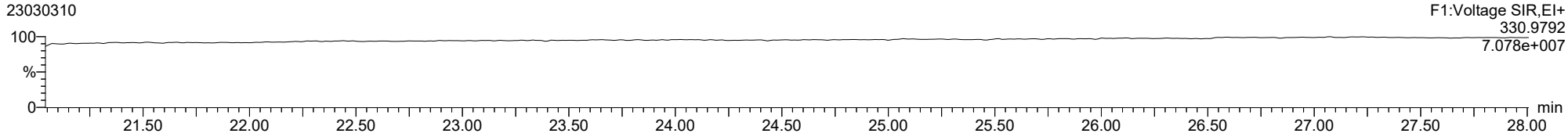

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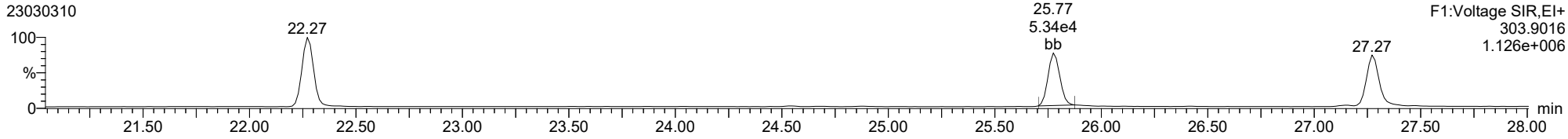

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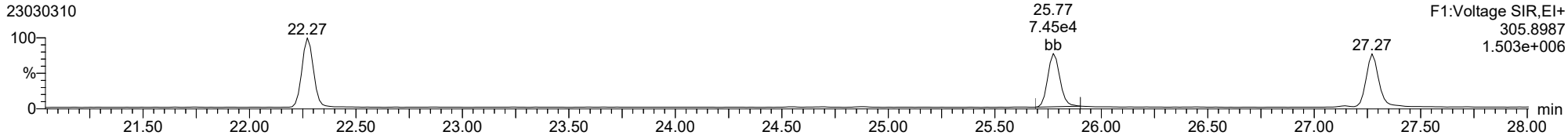

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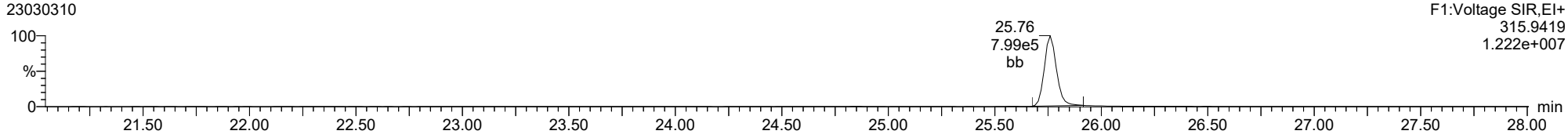

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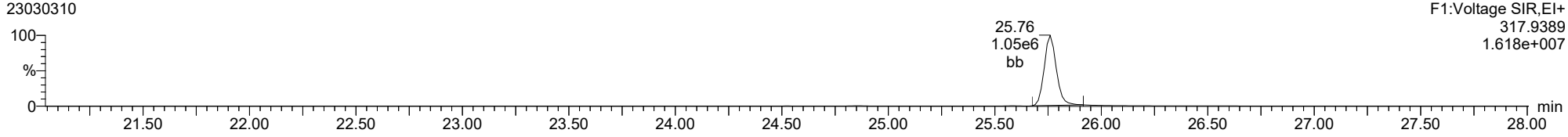

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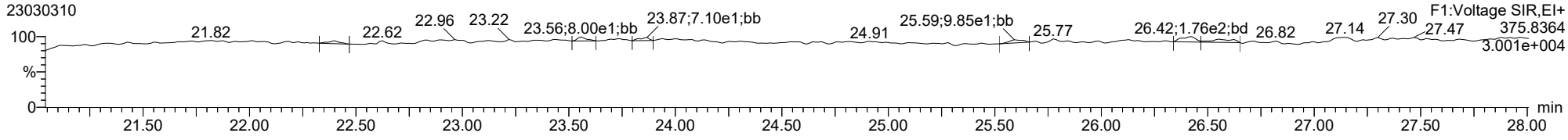

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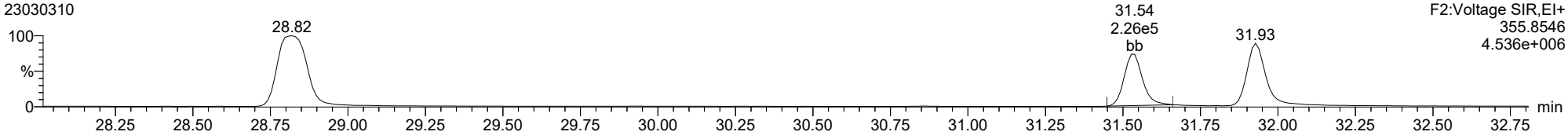

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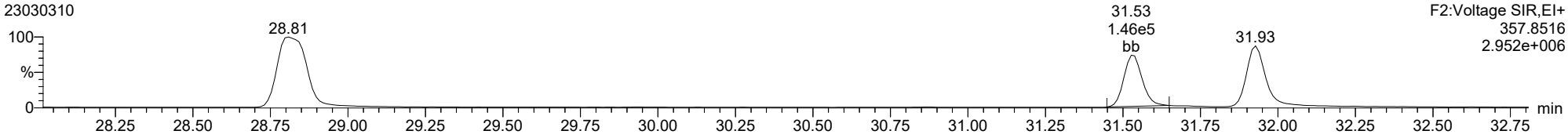

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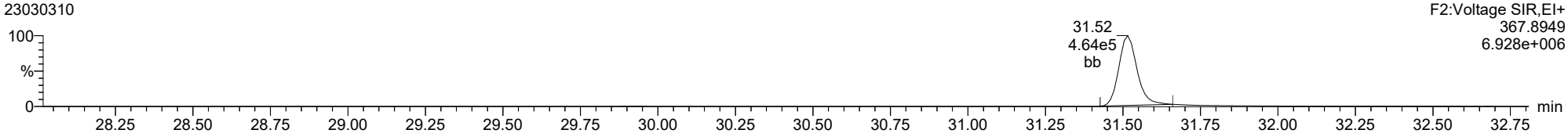

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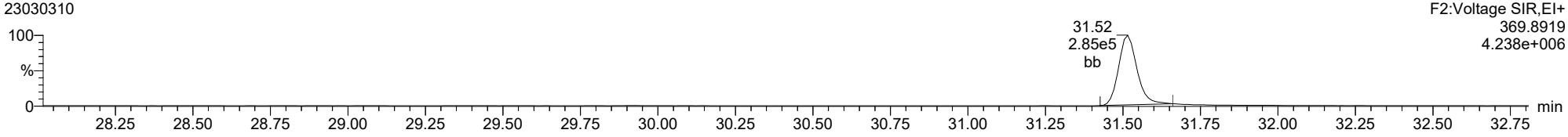

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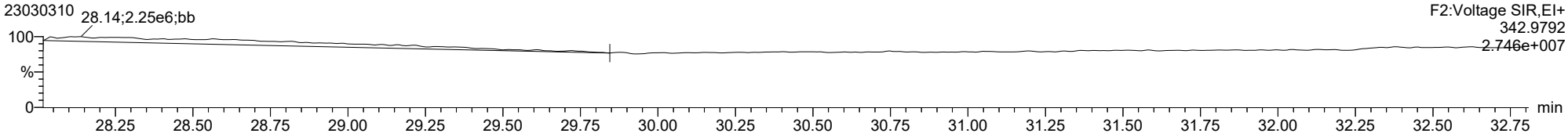

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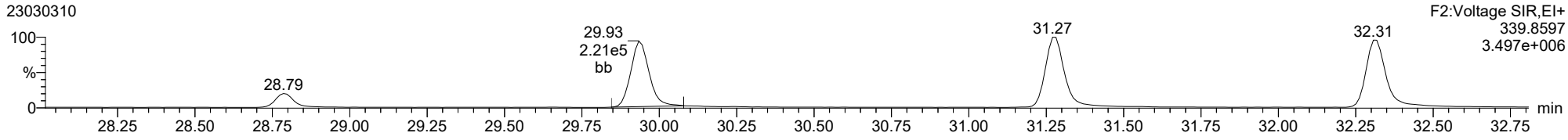

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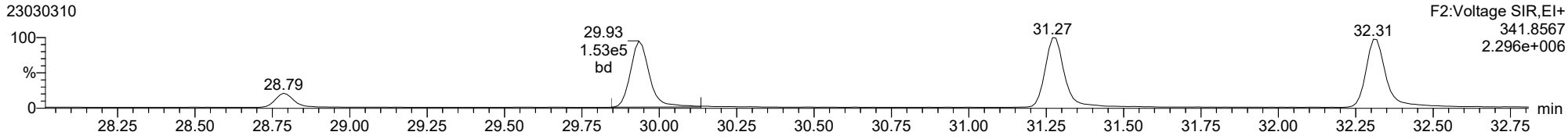

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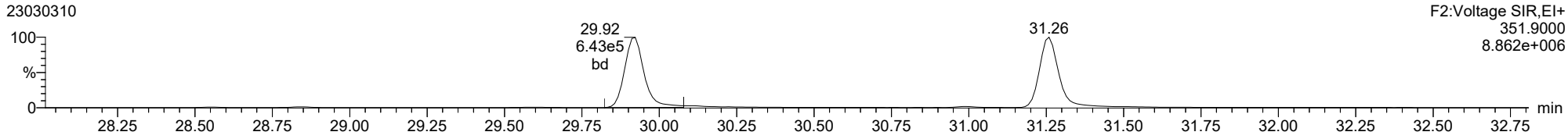

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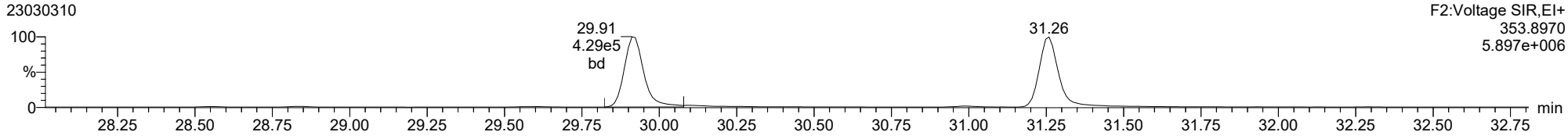

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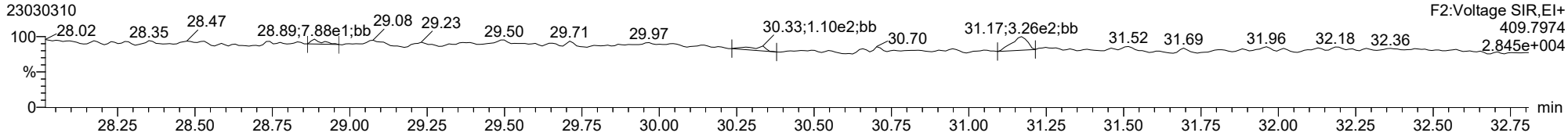

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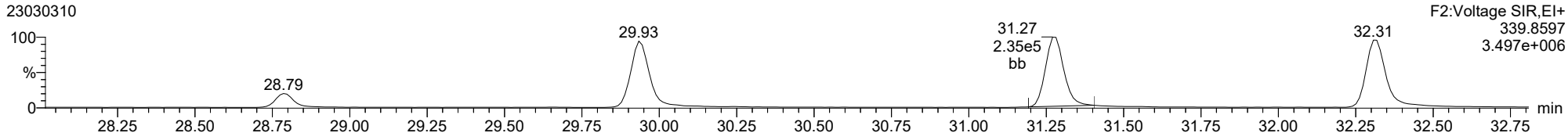

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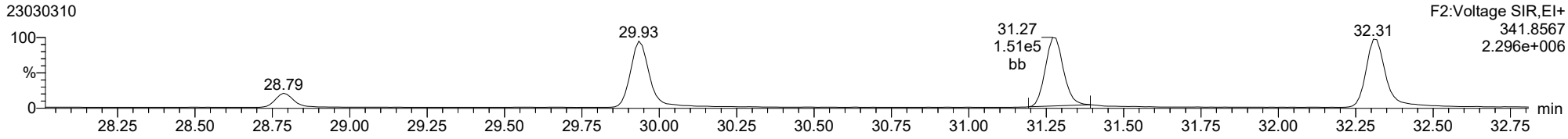

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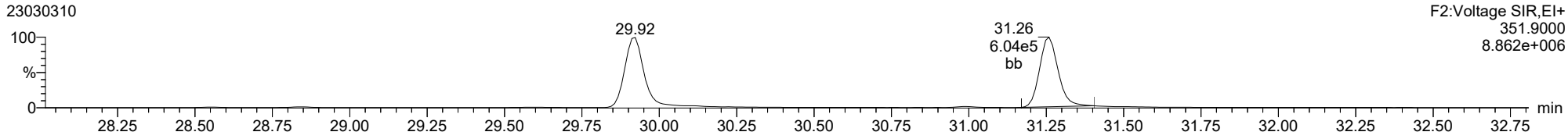

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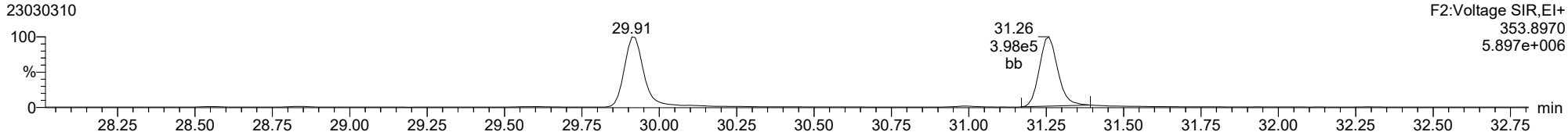

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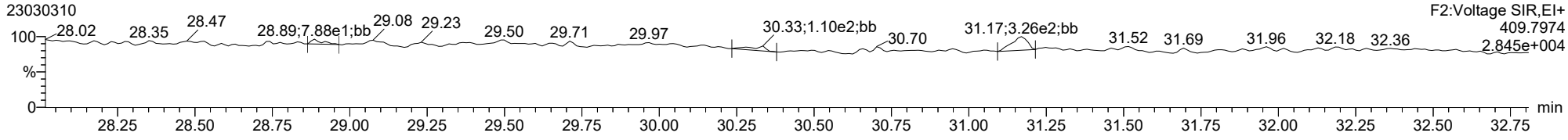

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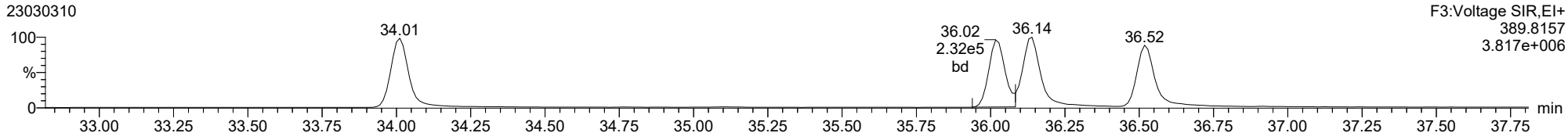

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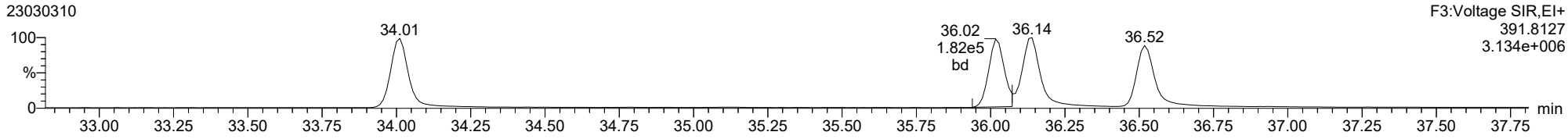

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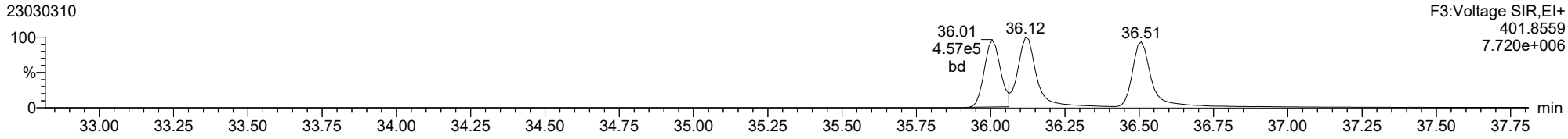

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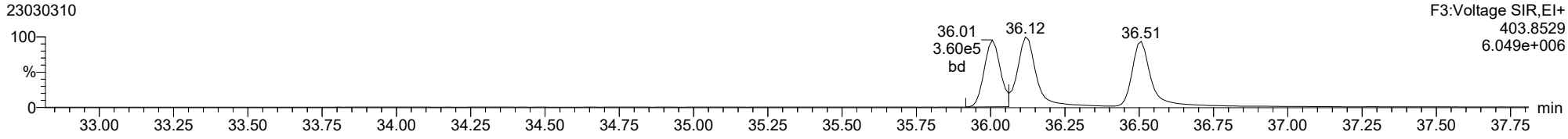

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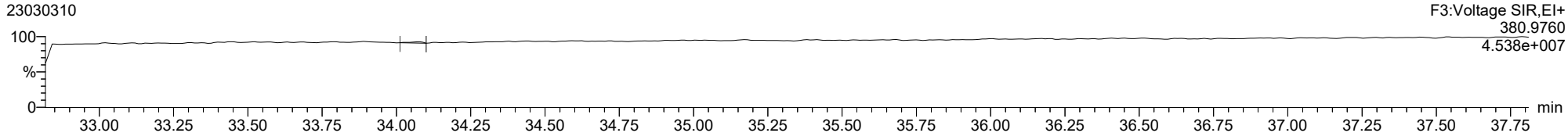

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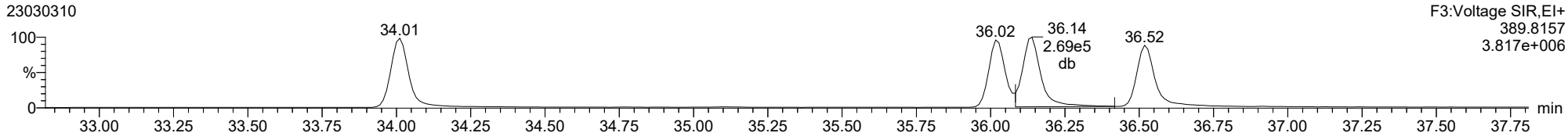

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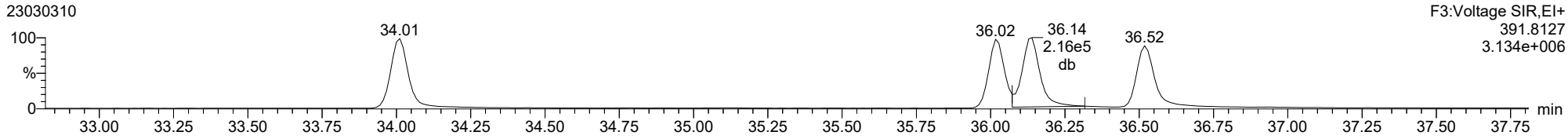

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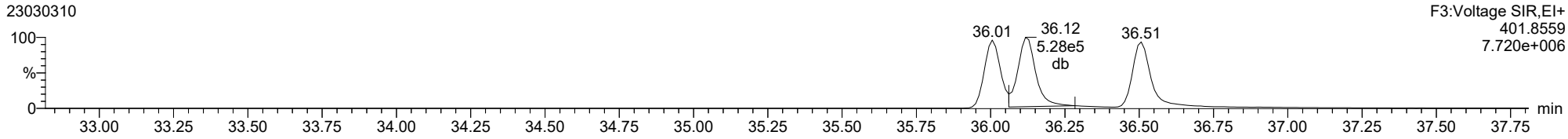

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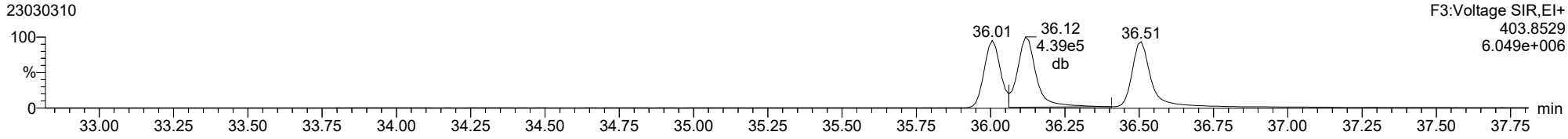

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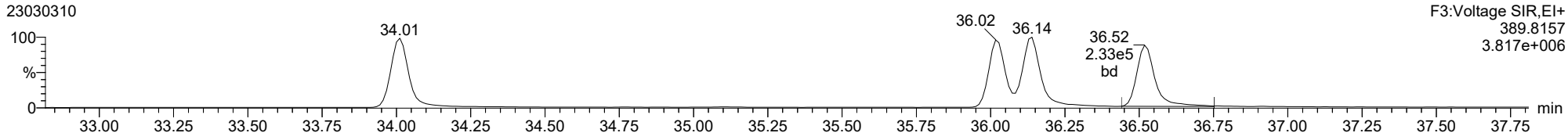

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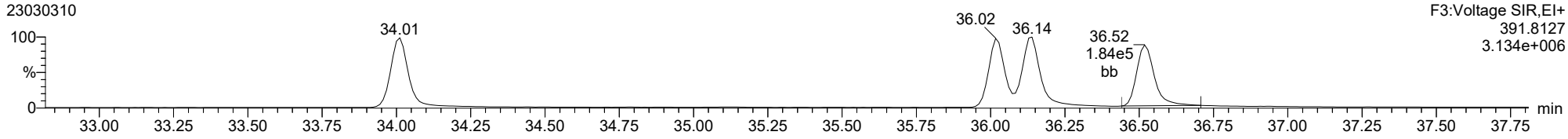

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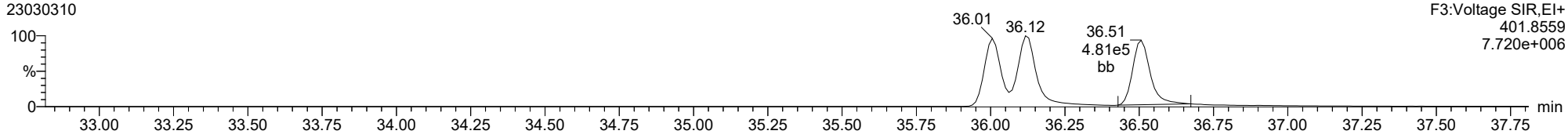

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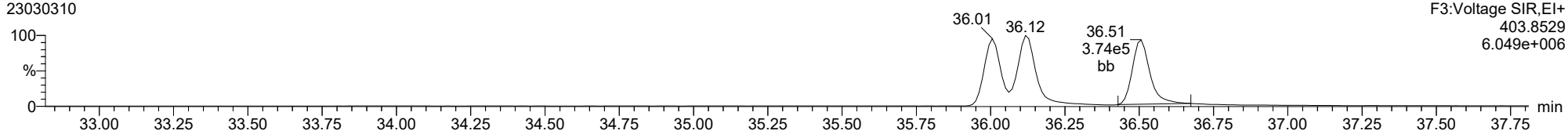

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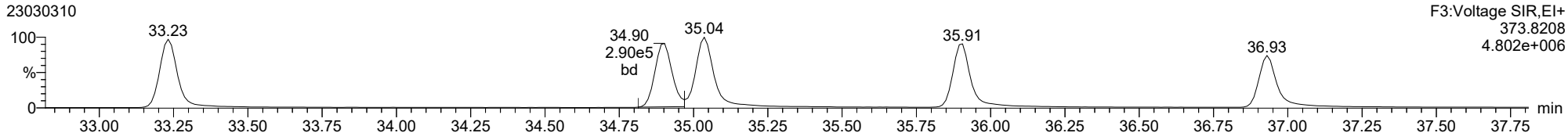

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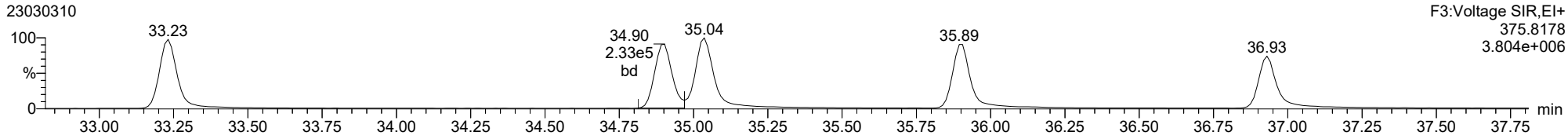

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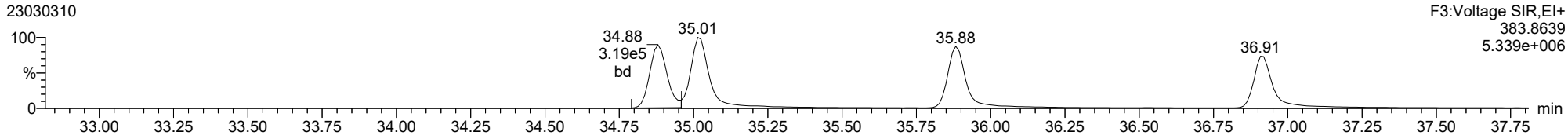

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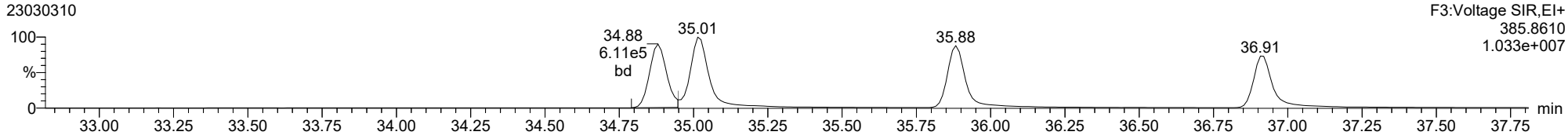

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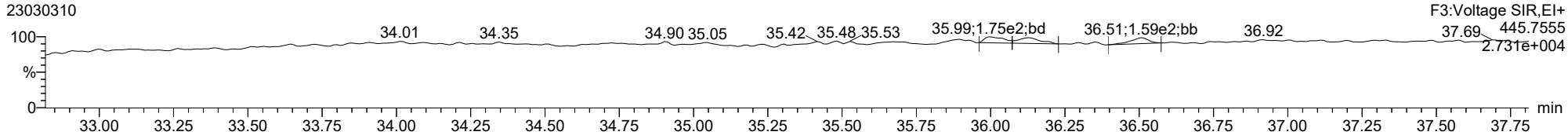

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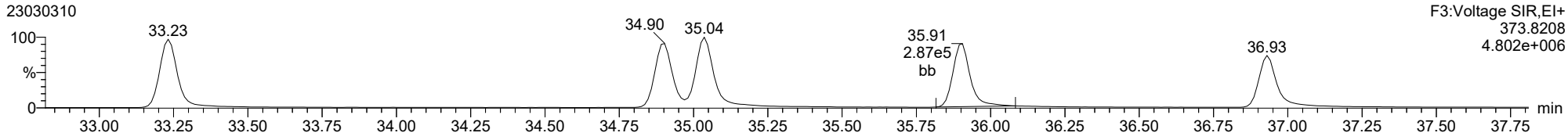

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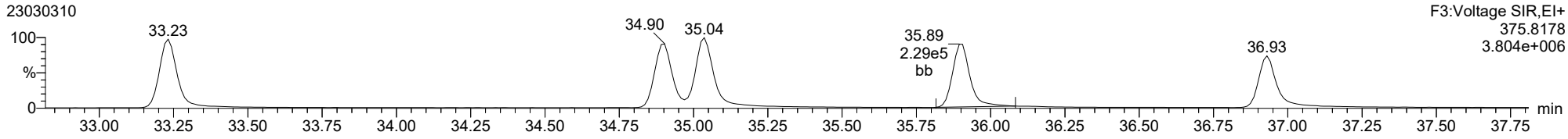

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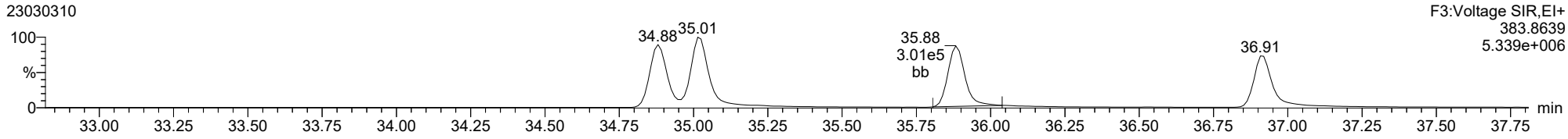

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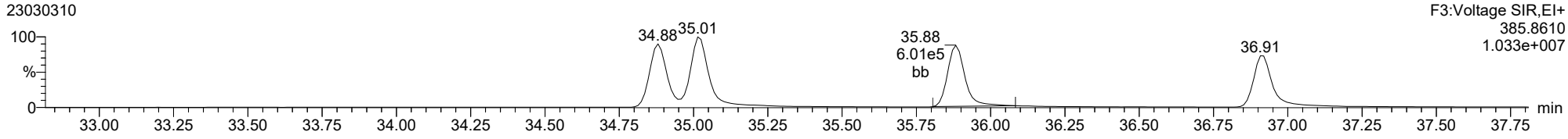

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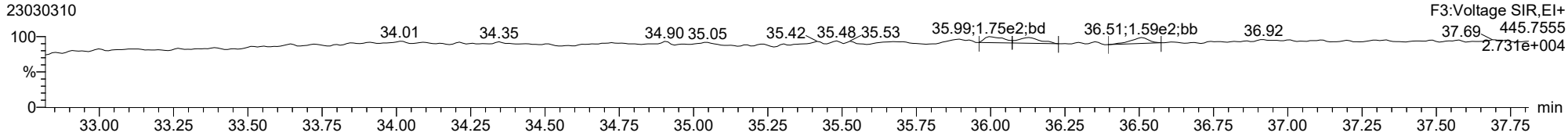

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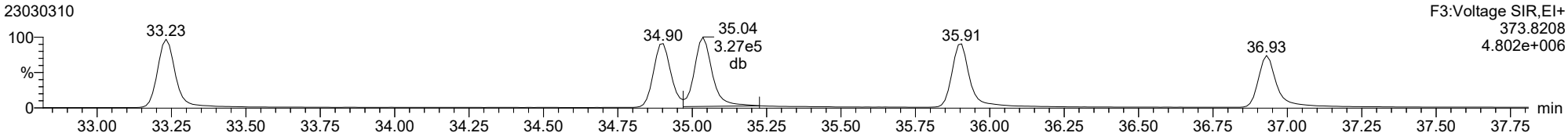

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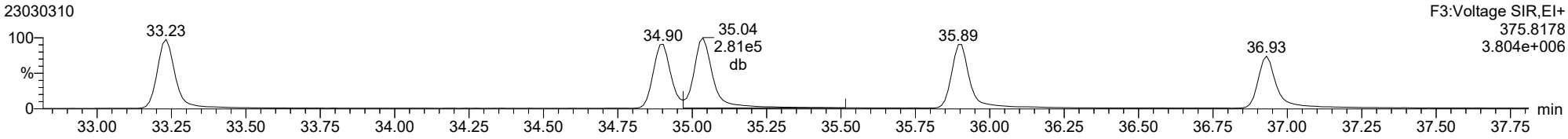

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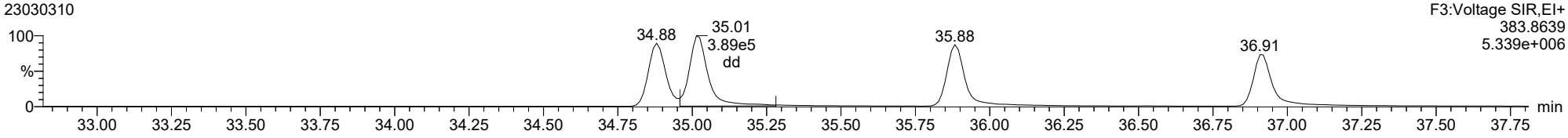

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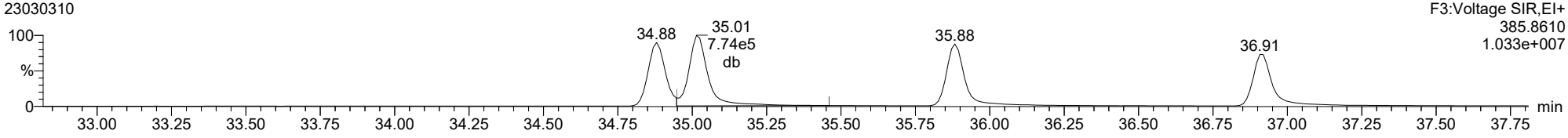

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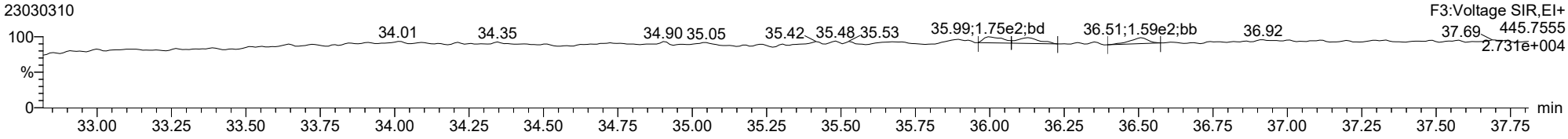

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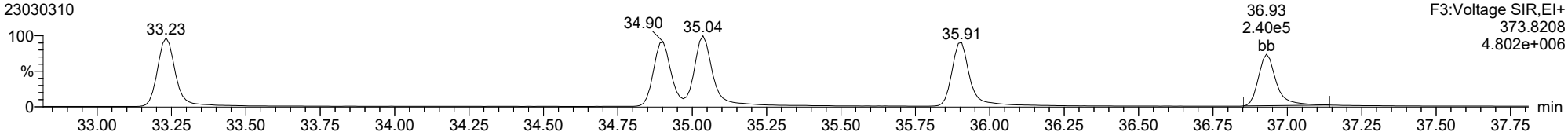

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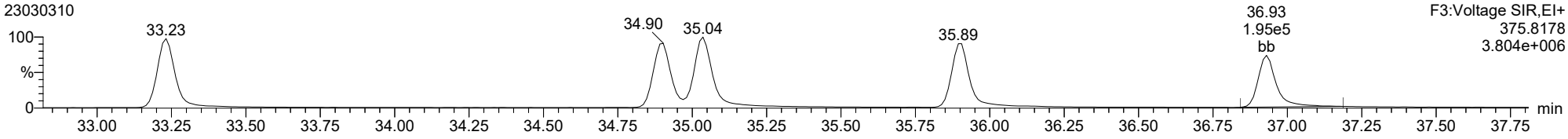

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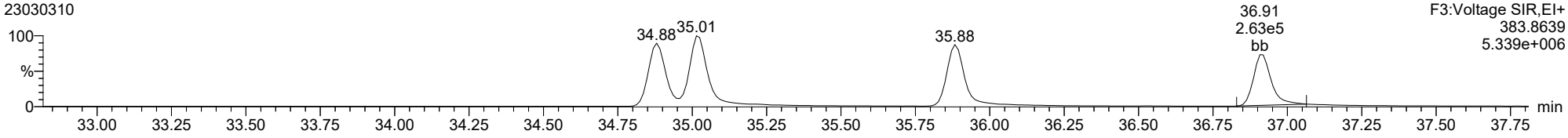

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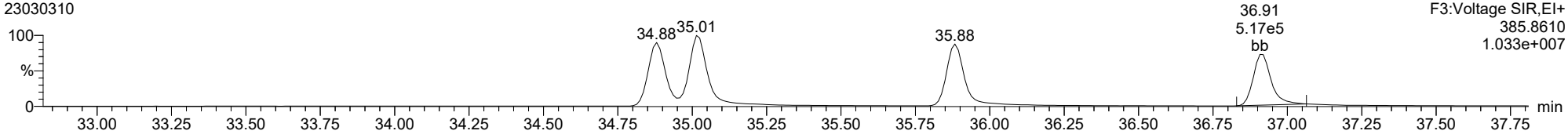

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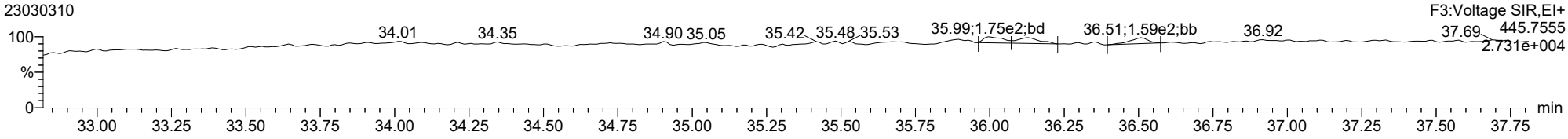

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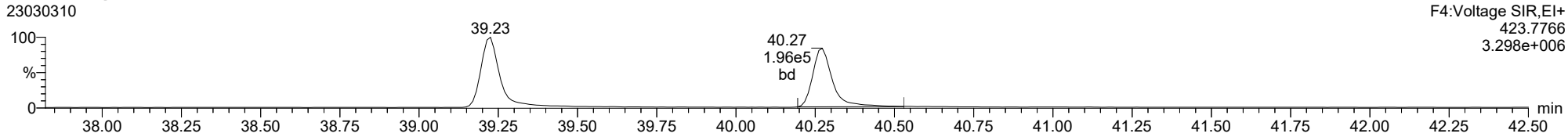

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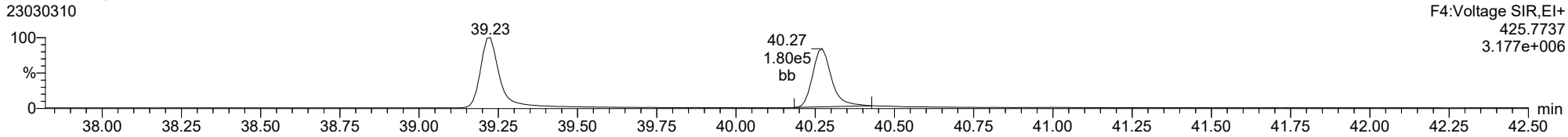

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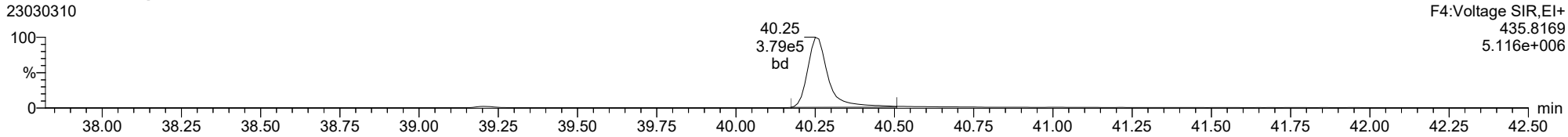

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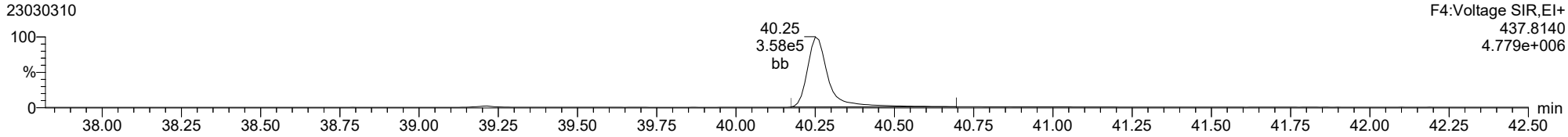

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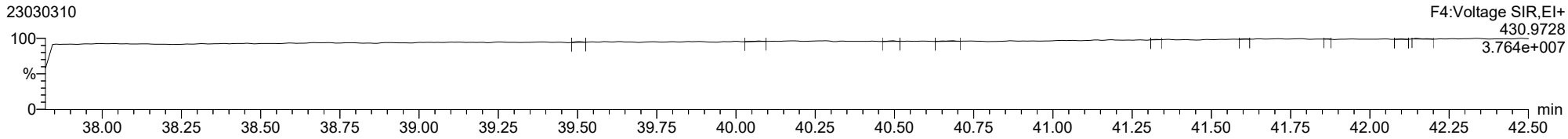

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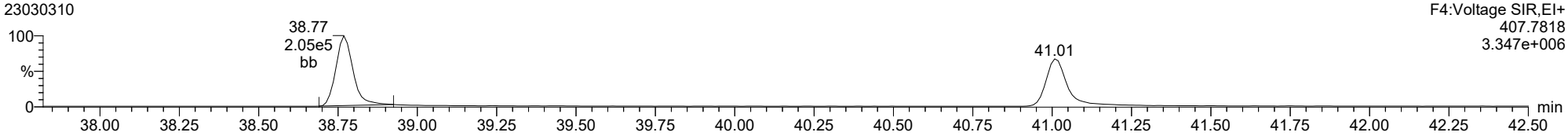

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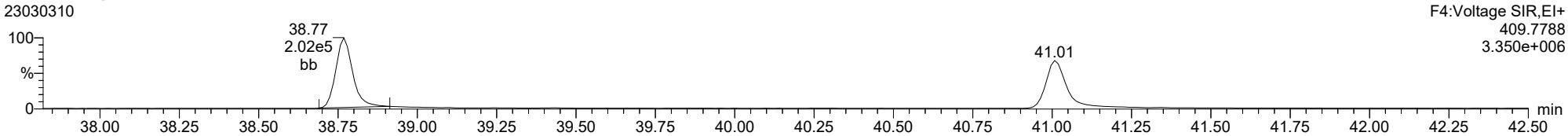

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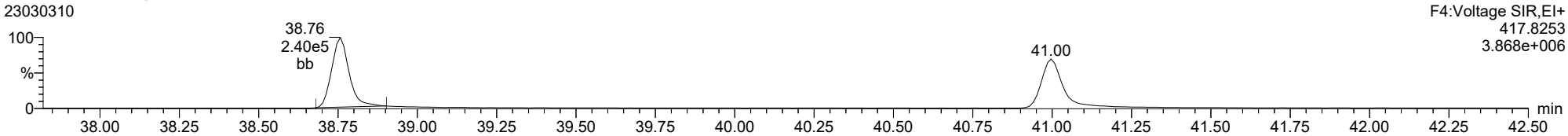

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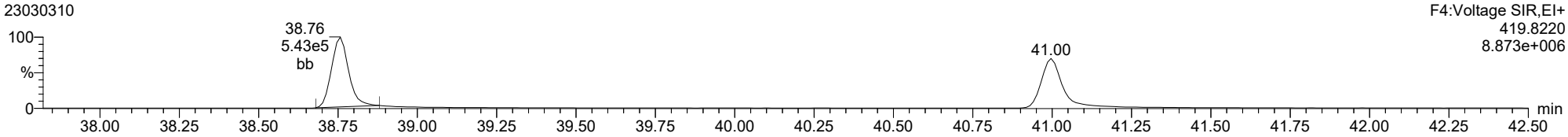

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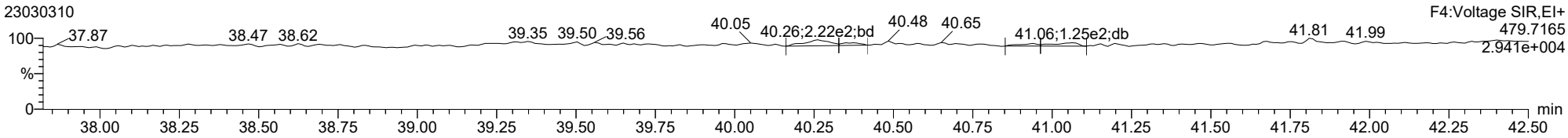

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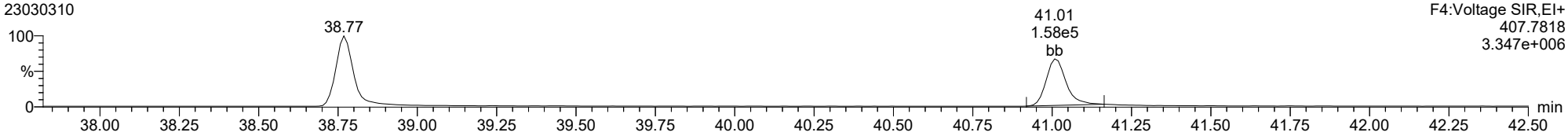

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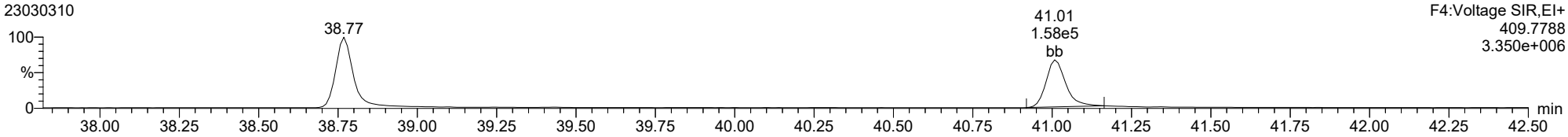

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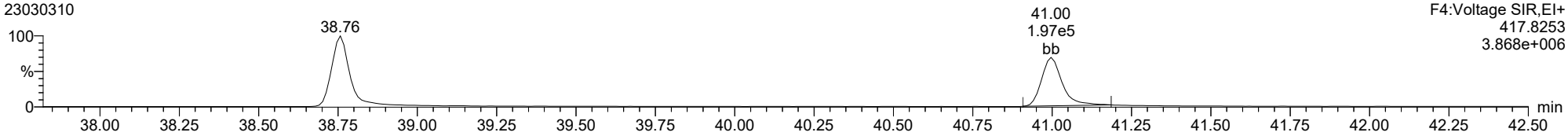

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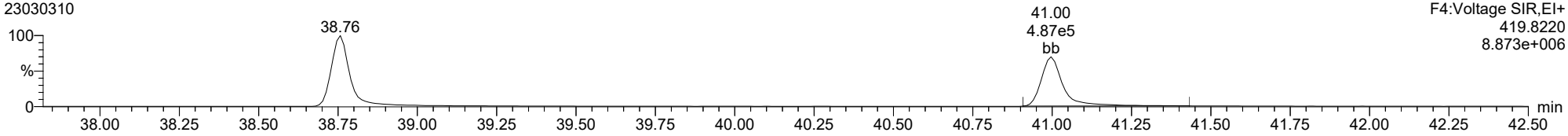

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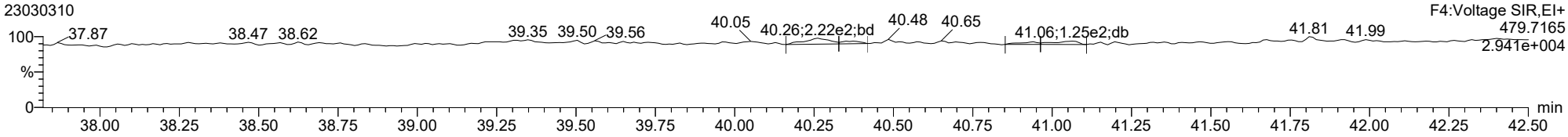

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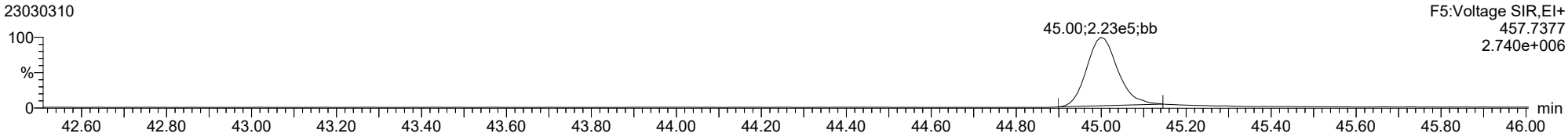

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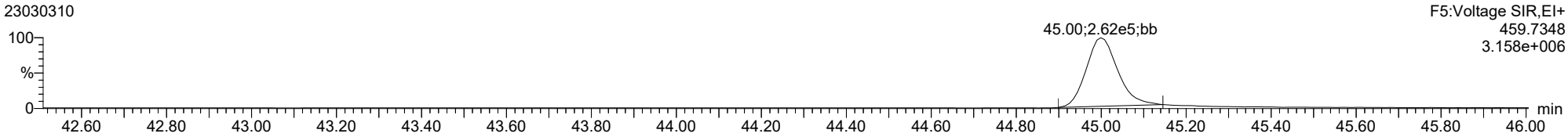

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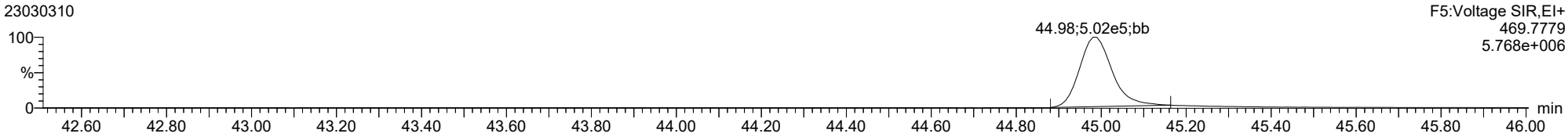

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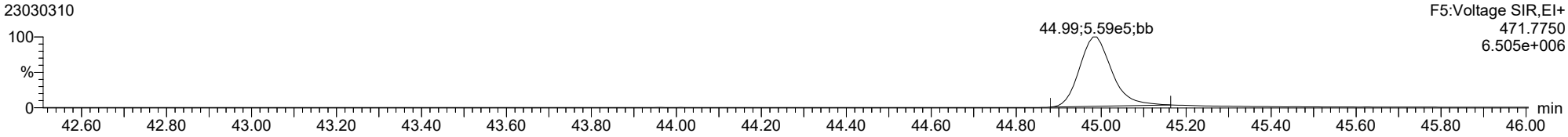
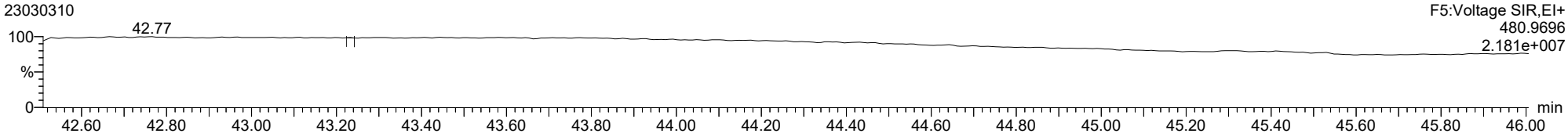


FUNCTION5 PFK



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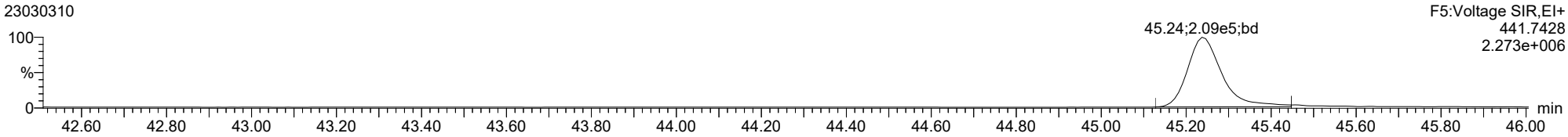

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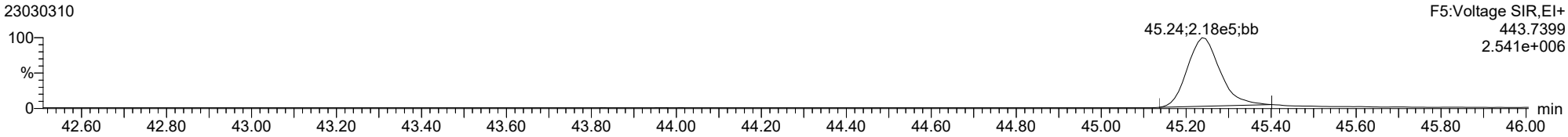
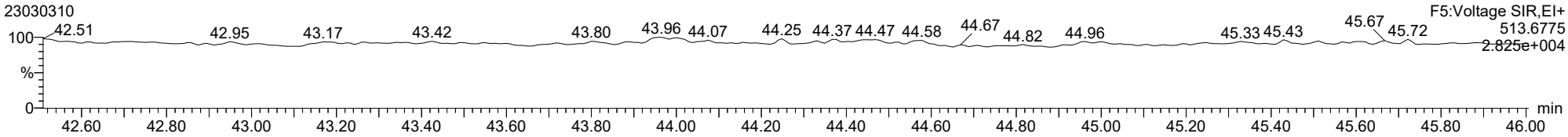


FUNCTION5 DCDPE



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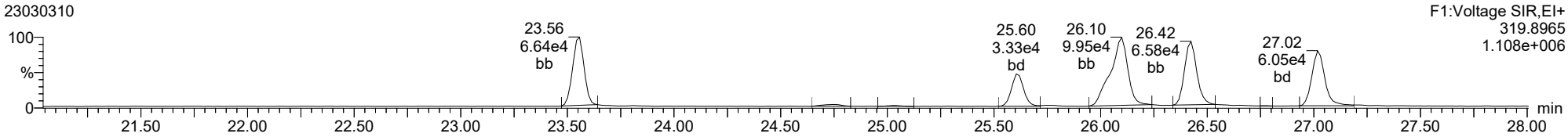
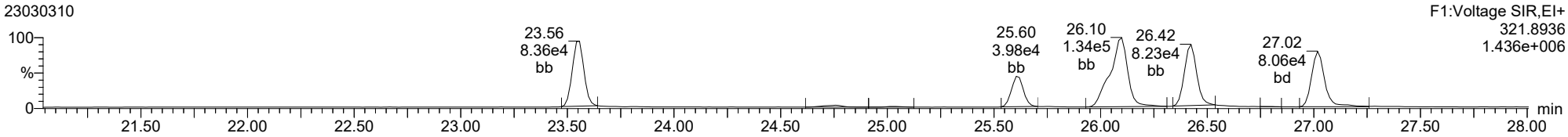
Total-tetradioxins



Total-tetradioxins



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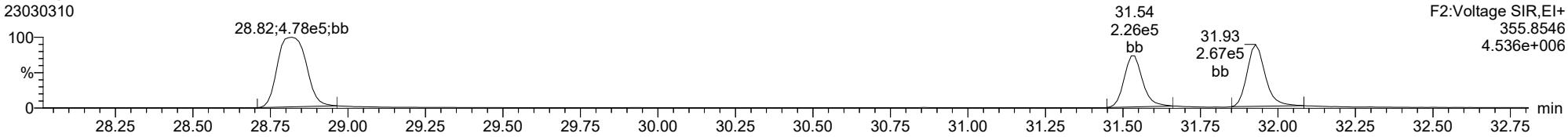
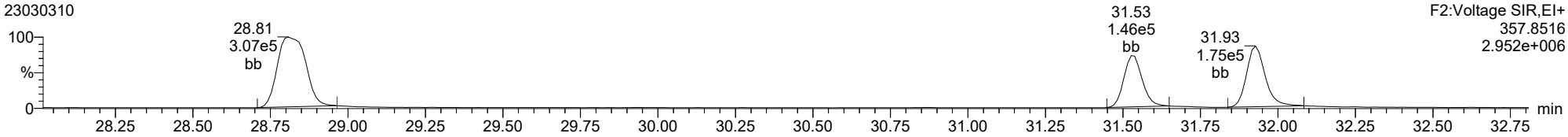


Total-pentadioxins



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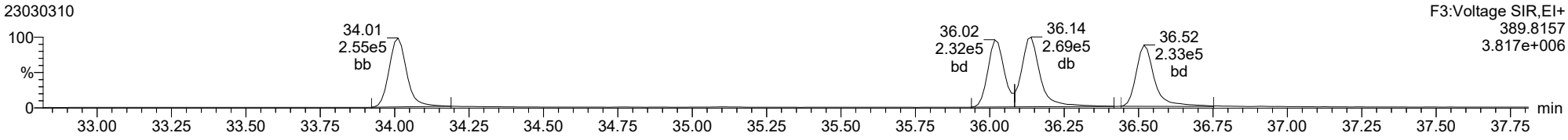
Total-hexadioxins



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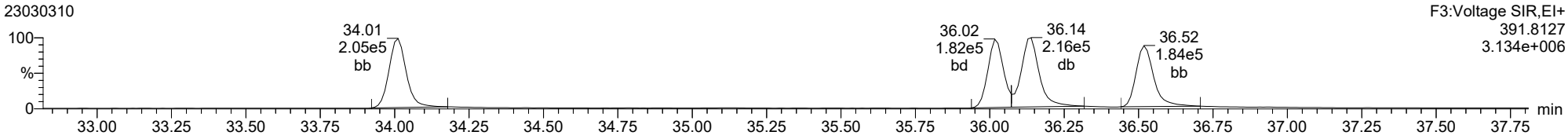

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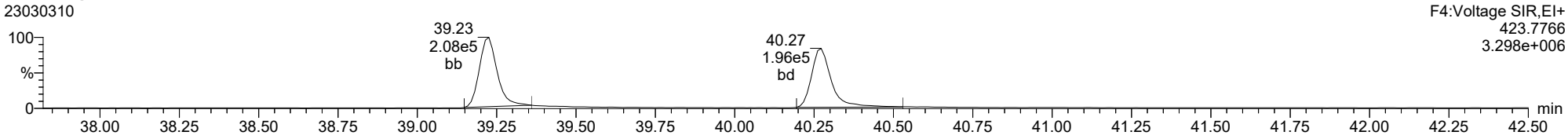

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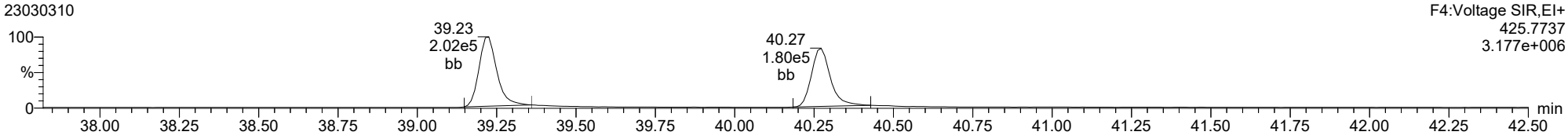

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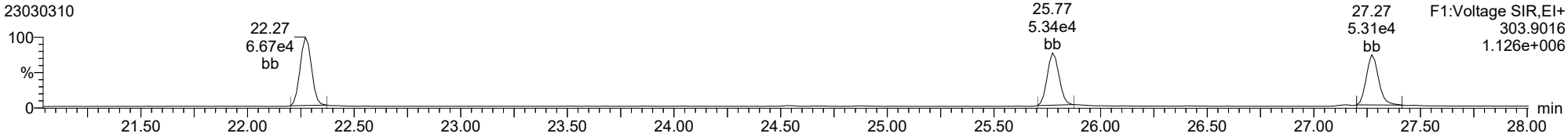
Total-tetrafurans



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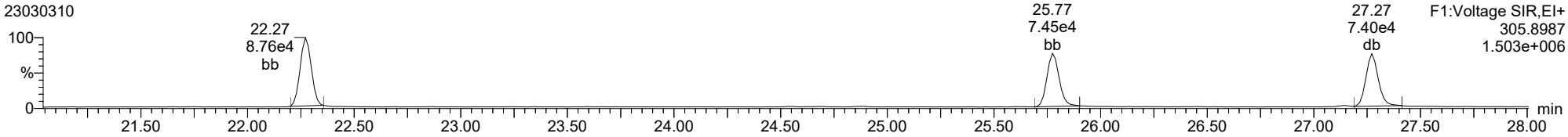

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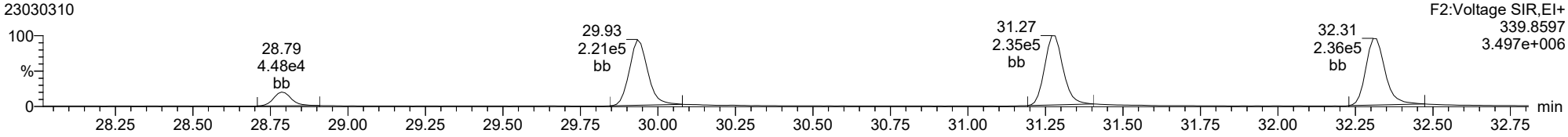

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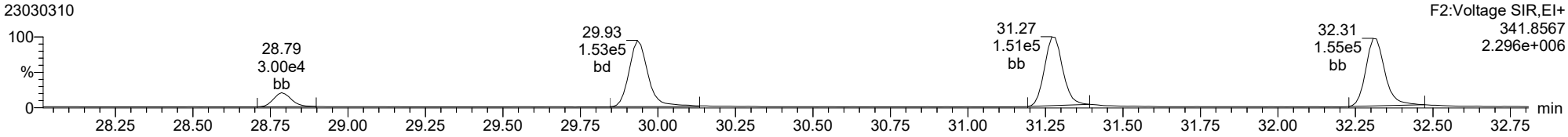

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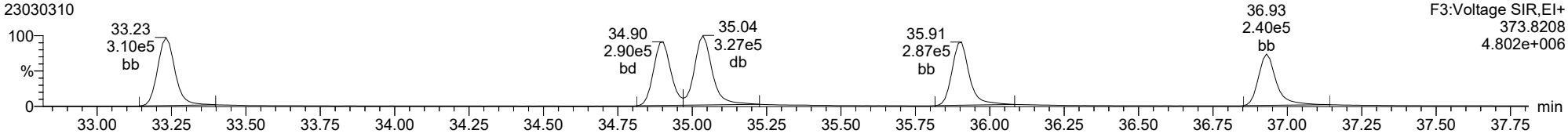
Total-hexafurans



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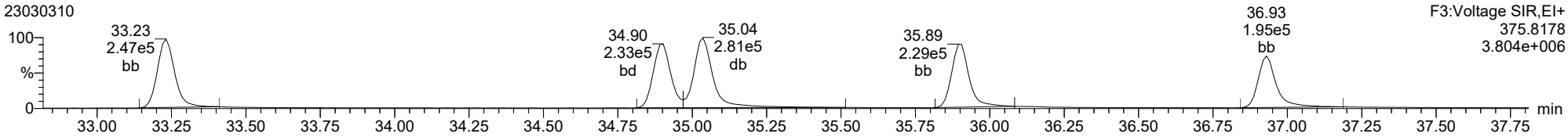
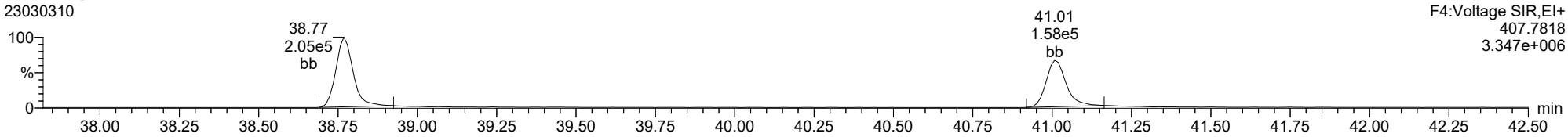
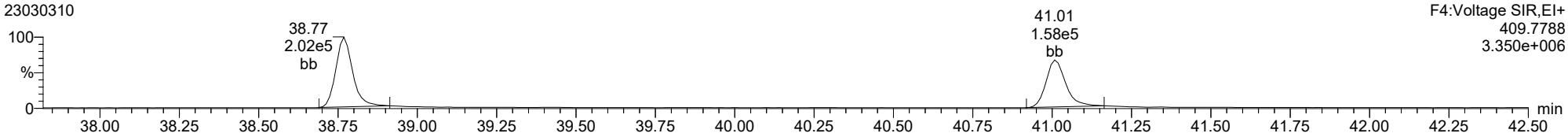


Total-heptafurans



Total-heptafurans



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Printed: Monday, March 06, 2023 14:47:33 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.774	1.000	4.131e4	5.488e4	0.702	0.753	0.770	1493	2220	6.02e5	8.13e5	403.0	366.2	NO	bb	bb	10.126
12378-PeCDF	29.934	1.000	2.094e5	1.387e5	0.679	1.510	1.550	3237	2768	3.10e6	2.08e6	956.2	750.8	NO	bb	bb	47.721
23478-PeCDF	31.282	1.001	2.189e5	1.466e5	0.786	1.493	1.550	3237	2768	3.25e6	2.13e6	1004.6	769.0	NO	bb	bb	48.580
123478-HxCDF	34.903	1.001	2.702e5	2.168e5	1.166	1.247	1.240	2948	2161	4.14e6	3.34e6	1404.3	1544.7	NO	bd	bd	47.304
234678-HxCDF	35.905	1.001	2.808e5	2.345e5	1.140	1.198	1.240	2948	2161	4.05e6	3.23e6	1375.6	1495.3	NO	bb	bd	52.050
123678-HxCDF	35.036	1.000	3.125e5	2.496e5	1.091	1.252	1.240	2948	2161	4.44e6	3.55e6	1506.3	1641.4	NO	db	db	51.387
123789-HxCDF	36.931	1.000	2.304e5	1.857e5	1.137	1.240	1.240	2948	2161	3.37e6	2.68e6	1143.7	1240.6	NO	bb	bb	48.904
1234678-HpCDF	38.769	1.000	1.725e5	1.737e5	1.003	0.993	1.050	2044	2260	2.71e6	2.74e6	1326.3	1210.9	NO	bb	bb	47.690
1234789-HpCDF	41.008	1.000	1.395e5	1.236e5	0.953	1.128	1.050	2044	2260	1.71e6	1.64e6	836.3	725.6	NO	bd	bb	53.601
OCDF	45.237	1.005	1.863e5	1.970e5	0.778	0.946	0.890	1162	1746	2.03e6	2.27e6	1745.6	1302.8	NO	bd	bb	95.021
2378-TCDD	26.424	1.001	4.111e4	5.488e4	1.149	0.749	0.770	1210	797	6.31e5	8.06e5	521.2	1010.5	NO	bb	bb	9.017
12378-PeCDD	31.538	1.001	2.212e5	1.442e5	1.022	1.534	1.550	2794	1649	3.14e6	2.05e6	1124.1	1244.9	NO	bb	bb	50.849
123478-HxCDD	36.017	1.000	2.147e5	1.744e5	0.996	1.231	1.240	3133	1871	3.31e6	2.68e6	1055.8	1434.4	NO	bd	bd	50.696
123678-HxCDD	36.139	1.001	2.532e5	2.091e5	1.001	1.211	1.240	3133	1871	3.49e6	2.85e6	1112.6	1520.4	NO	db	db	51.126
123789-HxCDD	36.518	1.011	2.114e5	1.814e5	0.907	1.166	1.240	3133	1871	3.08e6	2.54e6	982.1	1355.5	NO	bb	bd	51.723
1234678-HpCDD	40.273	1.000	1.700e5	1.663e5	1.039	1.022	1.050	1948	2105	2.22e6	2.15e6	1138.4	1022.1	NO	bd	bd	52.721
OCDD	45.000	1.000	2.152e5	2.483e5	0.920	0.867	0.890	885	1554	2.46e6	2.84e6	2785.0	1828.9	NO	bb	bb	97.150
13C-2378-TCDF	25.760	1.007	5.853e5	7.688e5	1.620	0.761	0.770	1921	2018	8.54e6	1.13e7	4445.5	5599.2	NO	bb	bb	89.420
13C-12378-PeCDF	29.923	1.169	6.466e5	4.272e5	1.240	1.513	1.550	2442	3390	8.85e6	5.90e6	3622.7	1739.1	NO	bb	bd	92.612
13C-23478-PeCDF	31.259	1.222	5.702e5	3.869e5	1.118	1.474	1.550	2442	3390	8.42e6	5.62e6	3447.3	1659.1	NO	bb	bb	91.616
13C-123478-HxCDF	34.881	0.955	2.992e5	5.837e5	1.168	0.513	0.510	2430	2952	4.46e6	8.67e6	1835.4	2935.2	NO	bd	bd	95.179
13C-123678-HxCDF	35.025	0.959	3.347e5	6.682e5	1.386	0.501	0.510	2430	2952	4.76e6	9.19e6	1958.9	3111.9	NO	db	db	91.102
13C-234678-HxCDF	35.883	0.983	2.956e5	5.730e5	1.129	0.516	0.510	2430	2952	4.27e6	8.35e6	1756.5	2829.2	NO	bb	bb	96.885
13C-123789-HxCDF	36.919	1.011	2.519e5	4.965e5	0.932	0.507	0.510	2430	2952	3.69e6	7.15e6	1518.9	2421.6	NO	bb	bb	101.167
13C-1234678-HpCDF	38.758	1.062	2.307e5	4.931e5	0.895	0.468	0.440	2487	3339	3.35e6	7.56e6	1347.2	2263.7	NO	bd	bb	101.839
13C-1234789-HpCDF	40.997	1.123	1.602e5	3.548e5	0.770	0.452	0.440	2487	3339	2.05e6	4.72e6	823.7	1413.6	NO	bb	bb	84.268
13C-1234-TCDD	25.591	0.000	4.152e5	5.195e5	1.000	0.799	0.770	2224	1360	6.53e6	8.14e6	2938.6	5984.1	NO	bb	bb	100.000
13C-2378-TCDD	26.396	1.031	4.083e5	5.184e5	1.152	0.788	0.770	2224	1360	5.76e6	7.36e6	2588.5	5411.0	NO	bb	bb	86.032
13C-12378-PeCDD	31.516	1.232	4.323e5	2.709e5	0.829	1.595	1.550	1217	913	6.32e6	3.99e6	5187.9	4362.9	NO	bb	bb	90.774
13C-123478-HxCDD	36.006	0.986	4.338e5	3.372e5	0.995	1.286	1.240	3851	1371	6.85e6	5.33e6	1778.6	3884.7	NO	bd	bd	97.589
13C-123678-HxCDD	36.117	0.989	5.114e5	3.919e5	1.157	1.305	1.240	3851	1371	7.20e6	5.65e6	1870.4	4120.3	NO	db	db	98.370
13C-1234678-HpCDD	40.262	1.103	3.166e5	2.972e5	0.840	1.065	1.050	1699	1520	4.20e6	3.95e6	2473.2	2598.3	NO	bb	bb	92.030
13C-OCDD	44.990	1.232	5.160e5	5.214e5	0.767	0.990	0.890	2001	1870	5.29e6	5.84e6	2645.0	3123.1	NO	bd	bb	170.247
13C-123789-HxCDD	36.507	0.000	4.452e5	3.487e5	1.000	1.277	1.240	3851	1371	6.49e6	5.07e6	1686.5	3694.9	NO	bb	bb	100.000
37CL-2378-TCDD	26.424	1.033	9.071e4		1.288			1721		1.34e6		776.4			bb		7.536

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Printed: Monday, March 06, 2023 14:47:33 Pacific Standard Time

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.271	0.865	5.764e4	7.805e4	0.802	0.738	0.770	1493	2220	9.22e5	1.25e6	617.6	564.2	NO	bb	bb	12.503
1289-TCDF	27.272	1.059	3.446e4	4.665e4	0.678	0.739	0.770	1493	2220	5.07e5	6.62e5	339.5	298.3	NO	bb	db	8.835
13468-PECDF	27.130	0.907	3.611e5	2.330e5	1.246	1.550	1.550	743	1090	5.44e6	3.55e6	7323.2	3255.0	NO	bb	bb	44.390
12389-PECDF	32.318	1.080	2.101e5	1.516e5	0.496	1.387	1.550	3237	2768	2.95e6	1.97e6	910.6	713.0	NO	bb	bd	67.866
123468-HXCDF	33.231	0.953	2.880e5	2.384e5	1.169	1.208	1.240	2948	2161	4.12e6	3.25e6	1397.4	1503.0	NO	bb	bb	51.002
1368-TCDD	23.557	0.892	5.668e4	7.180e4	1.015	0.789	0.770	1210	797	9.15e5	1.16e6	755.8	1460.4	NO	bb	bb	13.654
1289-TCDD	27.017	1.023	3.648e4	4.783e4	0.909	0.763	0.770	1210	797	5.40e5	6.90e5	445.8	865.4	NO	bb	bb	10.012
12479-PECDD	28.819	0.914	3.593e5	2.367e5	2.301	1.518	1.550	2794	1649	3.42e6	2.21e6	1224.5	1341.7	NO	bb	bb	36.832
12389-PECDD	31.928	1.013	2.423e5	1.700e5	1.184	1.426	1.550	2794	1649	3.48e6	2.31e6	1246.0	1399.4	NO	bb	bd	49.543
124679-HXCDD	34.011	0.945	2.330e5	1.909e5	1.115	1.220	1.240	3133	1871	3.38e6	2.76e6	1078.1	1473.6	NO	bb	bb	49.292
1234679-HPCDD	39.225	0.974	2.020e5	1.832e5	1.137	1.103	1.050	1948	2105	2.83e6	2.72e6	1451.0	1293.3	NO	bd	bb	55.196
Total-tetrafurans			1.346e5		0.727			1493		2.05e6							31.724
Total-penta1			3.611e5					743		5.44e6							44.390
Total-pentafurans			6.730e5		0.654			3237		9.80e6							172.856
Total-hexafurans			1.382e6		1.141			2948		2.01e7							250.647
Total-heptafurans			3.120e5		0.978			2044		4.42e6							101.291
Total-Furans			3.049e6		0.922			1493		4.39e7							695.930
Total-tetradioxins			2.249e5		1.024			1210		3.13e6							54.516
Total-pentadioxins			8.229e5		1.502			2794		1.00e7							137.223
Total-hexadioxins			9.123e5		1.005			3133		1.32e7							202.837
Total-heptadioxins			3.720e5		1.088			1948		5.04e6							107.918
Total-Dioxins			2.547e6		1.130			1210		3.39e7							599.643
Total-TEQ			5.596e6					1210		7.78e7							1295.573
FUNCTION1 PFK			7.521e6					557945		8.00e6							
FUNCTION2 PFK			4.110e5					226700		1.13e7							0.000
FUNCTION3 PFK			8.443e6					414812		2.82e6							0.000
FUNCTION4 PFK			2.598e7					304689		2.22e7							
FUNCTION5 PFK			7.163e4					189891		2.74e6							
FUNCTION1 HXCD...			3.794e2					593		5.61e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			8.042e2					818		1.73e4							0.000
FUNCTION3 OCDPE			9.563e1					429		1.87e3							0.000
FUNCTION4 NCDPE			0.000e0					545		0.00e0							
FUNCTION5 DCDPE			0.000e0					542		0.00e0							

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Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	3.446e4	4.665e4	0.678	0.74	0.77	339.5	YES	NO	bb	db	8.835
2	2378-TCDF	25.77	4.131e4	5.488e4	0.702	0.75	0.77	403.0	YES	NO	bb	bb	10.126
3	Total-tetrafurans	24.86	6.389e2	7.978e2	0.727	0.80	0.77	6.2	YES	NO	bb	bb	0.146
4	Total-tetrafurans	24.55	5.238e2	5.981e2	0.727	0.88	0.77	6.0	YES	NO	bb	bb	0.114
5	1368-TCDF	22.27	5.764e4	7.805e4	0.802	0.74	0.77	617.6	YES	NO	bb	bb	12.503

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.13	3.611e5	2.330e5	1.246	1.55	1.55	7323.2	YES	NO	bb	bb	44.390

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.32	2.101e5	1.516e5	0.496	1.39	1.55	910.6	YES	NO	bb	bd	67.866
2	23478-PeCDF	31.28	2.189e5	1.466e5	0.786	1.49	1.55	1004.6	YES	NO	bb	bb	48.580
3	12378-PeCDF	29.93	2.094e5	1.387e5	0.679	1.51	1.55	956.2	YES	NO	bb	bb	47.721
4	Total-pentafurans	28.80	3.458e4	2.311e4	0.654	1.50	1.55	155.8	YES	NO	bb	bb	8.688

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123478-HxCDF	34.90	2.702e5	2.168e5	1.166	1.25	1.24	1404.3	YES	NO	bd	bd	47.304
2	123468-HXCDF	33.23	2.880e5	2.384e5	1.169	1.21	1.24	1397.4	YES	NO	bb	bb	51.002
3	123789-HxCDF	36.93	2.304e5	1.857e5	1.137	1.24	1.24	1143.7	YES	NO	bb	bb	48.904
4	234678-HxCDF	35.91	2.808e5	2.345e5	1.140	1.20	1.24	1375.6	YES	NO	bb	bd	52.050
5	123678-HxCDF	35.04	3.125e5	2.496e5	1.091	1.25	1.24	1506.3	YES	NO	db	db	51.387

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.01	1.395e5	1.236e5	0.953	1.13	1.05	836.3	YES	NO	bd	bb	53.601
2	1234678-HpCDF	38.77	1.725e5	1.737e5	1.003	0.99	1.05	1326.3	YES	NO	bb	bb	47.690

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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	3.446e4	4.665e4	0.678	0.74	0.77	339.5	YES	NO	bb	db	8.835
2	2378-TCDF	25.77	4.131e4	5.488e4	0.702	0.75	0.77	403.0	YES	NO	bb	bb	10.126
3	Total-tetrafurans	24.86	6.389e2	7.978e2	0.727	0.80	0.77	6.2	YES	NO	bb	bb	0.146
4	Total-tetrafurans	24.55	5.238e2	5.981e2	0.727	0.88	0.77	6.0	YES	NO	bb	bb	0.114
5	1368-TCDF	22.27	5.764e4	7.805e4	0.802	0.74	0.77	617.6	YES	NO	bb	bb	12.503
6	12389-PECDF	32.32	2.101e5	1.516e5	0.496	1.39	1.55	910.6	YES	NO	bb	bd	67.866
7	23478-PeCDF	31.28	2.189e5	1.466e5	0.786	1.49	1.55	1004.6	YES	NO	bb	bb	48.580
8	12378-PeCDF	29.93	2.094e5	1.387e5	0.679	1.51	1.55	956.2	YES	NO	bb	bb	47.721
9	Total-pentafurans	28.80	3.458e4	2.311e4	0.654	1.50	1.55	155.8	YES	NO	bb	bb	8.688
10	123478-HxCDF	34.90	2.702e5	2.168e5	1.166	1.25	1.24	1404.3	YES	NO	bd	bd	47.304
11	123468-HXCDF	33.23	2.880e5	2.384e5	1.169	1.21	1.24	1397.4	YES	NO	bb	bb	51.002
12	123789-HxCDF	36.93	2.304e5	1.857e5	1.137	1.24	1.24	1143.7	YES	NO	bb	bb	48.904
13	234678-HxCDF	35.91	2.808e5	2.345e5	1.140	1.20	1.24	1375.6	YES	NO	bb	bd	52.050
14	123678-HxCDF	35.04	3.125e5	2.496e5	1.091	1.25	1.24	1506.3	YES	NO	db	db	51.387
15	1234789-HpCDF	41.01	1.395e5	1.236e5	0.953	1.13	1.05	836.3	YES	NO	bd	bb	53.601
16	1234678-HpCDF	38.77	1.725e5	1.737e5	1.003	0.99	1.05	1326.3	YES	NO	bb	bb	47.690
17	OCDF	45.24	1.863e5	1.970e5	0.778	0.95	0.89	1745.6	YES	NO	bd	bb	95.021
18	13468-PECDF	27.13	3.611e5	2.330e5	1.246	1.55	1.55	7323.2	YES	NO	bb	bb	44.390

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.56	5.668e4	7.180e4	1.015	0.79	0.77	755.8	YES	NO	bb	bb	13.654
2	1289-TCDD	27.02	3.648e4	4.783e4	0.909	0.76	0.77	445.8	YES	NO	bb	bb	10.012
3	2378-TCDD	26.42	4.111e4	5.488e4	1.149	0.75	0.77	521.2	YES	NO	bb	bb	9.017
4	Total-tetradioxins	26.10	6.719e4	8.697e4	1.024	0.77	0.77	561.8	YES	NO	bb	bb	16.242
5	Total-tetradioxins	25.60	2.343e4	2.963e4	1.024	0.79	0.77	301.6	YES	NO	bb	bb	5.591

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	31.93	2.423e5	1.700e5	1.184	1.43	1.55	1246.0	YES	NO	bb	bd	49.543
2	12378-PeCDD	31.54	2.212e5	1.442e5	1.022	1.53	1.55	1124.1	YES	NO	bb	bb	50.849
3	12479-PECDD	28.82	3.593e5	2.367e5	2.301	1.52	1.55	1224.5	YES	NO	bb	bb	36.832

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HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	124679-HXCDD	34.01	2.330e5	1.909e5	1.115	1.22	1.24	1078.1	YES	NO	bb	bb	49.292
2	123789-HxCDD	36.52	2.114e5	1.814e5	0.907	1.17	1.24	982.1	YES	NO	bb	bd	51.723
3	123678-HxCDD	36.14	2.532e5	2.091e5	1.001	1.21	1.24	1112.6	YES	NO	db	db	51.126
4	123478-HxCDD	36.02	2.147e5	1.744e5	0.996	1.23	1.24	1055.8	YES	NO	bd	bd	50.696

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.27	1.700e5	1.663e5	1.039	1.02	1.05	1138.4	YES	NO	bd	bd	52.721
2	1234679-HPCDD	39.23	2.020e5	1.832e5	1.137	1.10	1.05	1451.0	YES	NO	bd	bb	55.196

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.56	5.668e4	7.180e4	1.015	0.79	0.77	755.8	YES	NO	bb	bb	13.654
2	1289-TCDD	27.02	3.648e4	4.783e4	0.909	0.76	0.77	445.8	YES	NO	bb	bb	10.012
3	2378-TCDD	26.42	4.111e4	5.488e4	1.149	0.75	0.77	521.2	YES	NO	bb	bb	9.017
4	Total-tetradioxins	26.10	6.719e4	8.697e4	1.024	0.77	0.77	561.8	YES	NO	bb	bb	16.242
5	Total-tetradioxins	25.60	2.343e4	2.963e4	1.024	0.79	0.77	301.6	YES	NO	bb	bb	5.591
6	12389-PECDD	31.93	2.423e5	1.700e5	1.184	1.43	1.55	1246.0	YES	NO	bb	bd	49.543
7	12378-PeCDD	31.54	2.212e5	1.442e5	1.022	1.53	1.55	1124.1	YES	NO	bb	bb	50.849
8	12479-PECDD	28.82	3.593e5	2.367e5	2.301	1.52	1.55	1224.5	YES	NO	bb	bb	36.832
9	124679-HXCDD	34.01	2.330e5	1.909e5	1.115	1.22	1.24	1078.1	YES	NO	bb	bb	49.292
10	123789-HxCDD	36.52	2.114e5	1.814e5	0.907	1.17	1.24	982.1	YES	NO	bb	bd	51.723
11	123678-HxCDD	36.14	2.532e5	2.091e5	1.001	1.21	1.24	1112.6	YES	NO	db	db	51.126
12	123478-HxCDD	36.02	2.147e5	1.744e5	0.996	1.23	1.24	1055.8	YES	NO	bd	bd	50.696
13	1234678-HpCDD	40.27	1.700e5	1.663e5	1.039	1.02	1.05	1138.4	YES	NO	bd	bd	52.721
14	1234679-HPCDD	39.23	2.020e5	1.832e5	1.137	1.10	1.05	1451.0	YES	NO	bd	bb	55.196
15	OCDD	45.00	2.152e5	2.483e5	0.920	0.87	0.89	2785.0	YES	NO	bb	bb	97.150

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	3.446e4	4.665e4	0.678	0.74	0.77	339.5	YES	NO	bb	db	8.835
2	2378-TCDF	25.77	4.131e4	5.488e4	0.702	0.75	0.77	403.0	YES	NO	bb	bb	10.126
3	Total-tetrafurans	24.86	6.389e2	7.978e2	0.727	0.80	0.77	6.2	YES	NO	bb	bb	0.146
4	Total-tetrafurans	24.55	5.238e2	5.981e2	0.727	0.88	0.77	6.0	YES	NO	bb	bb	0.114
5	1368-TCDF	22.27	5.764e4	7.805e4	0.802	0.74	0.77	617.6	YES	NO	bb	bb	12.503
6	12389-PECDF	32.32	2.101e5	1.516e5	0.496	1.39	1.55	910.6	YES	NO	bb	bd	67.866
7	23478-PeCDF	31.28	2.189e5	1.466e5	0.786	1.49	1.55	1004.6	YES	NO	bb	bb	48.580
8	12378-PeCDF	29.93	2.094e5	1.387e5	0.679	1.51	1.55	956.2	YES	NO	bb	bb	47.721
9	Total-pentafurans	28.80	3.458e4	2.311e4	0.654	1.50	1.55	155.8	YES	NO	bb	bb	8.688
10	123478-HxCDF	34.90	2.702e5	2.168e5	1.166	1.25	1.24	1404.3	YES	NO	bd	bd	47.304
11	123468-HXCDF	33.23	2.880e5	2.384e5	1.169	1.21	1.24	1397.4	YES	NO	bb	bb	51.002
12	123789-HxCDF	36.93	2.304e5	1.857e5	1.137	1.24	1.24	1143.7	YES	NO	bb	bb	48.904
13	234678-HxCDF	35.91	2.808e5	2.345e5	1.140	1.20	1.24	1375.6	YES	NO	bb	bd	52.050
14	123678-HxCDF	35.04	3.125e5	2.496e5	1.091	1.25	1.24	1506.3	YES	NO	db	db	51.387
15	1234789-HpCDF	41.01	1.395e5	1.236e5	0.953	1.13	1.05	836.3	YES	NO	bd	bb	53.601
16	1234678-HpCDF	38.77	1.725e5	1.737e5	1.003	0.99	1.05	1326.3	YES	NO	bb	bb	47.690
17	OCDF	45.24	1.863e5	1.970e5	0.778	0.95	0.89	1745.6	YES	NO	bd	bb	95.021
18	13468-PECDF	27.13	3.611e5	2.330e5	1.246	1.55	1.55	7323.2	YES	NO	bb	bb	44.390
19	1368-TCDD	23.56	5.668e4	7.180e4	1.015	0.79	0.77	755.8	YES	NO	bb	bb	13.654
20	1289-TCDD	27.02	3.648e4	4.783e4	0.909	0.76	0.77	445.8	YES	NO	bb	bb	10.012
21	2378-TCDD	26.42	4.111e4	5.488e4	1.149	0.75	0.77	521.2	YES	NO	bb	bb	9.017
22	Total-tetradioxins	26.10	6.719e4	8.697e4	1.024	0.77	0.77	561.8	YES	NO	bb	bb	16.242
23	Total-tetradioxins	25.60	2.343e4	2.963e4	1.024	0.79	0.77	301.6	YES	NO	bb	bb	5.591
24	12389-PECDD	31.93	2.423e5	1.700e5	1.184	1.43	1.55	1246.0	YES	NO	bb	bd	49.543
25	12378-PeCDD	31.54	2.212e5	1.442e5	1.022	1.53	1.55	1124.1	YES	NO	bb	bb	50.849
26	12479-PECDD	28.82	3.593e5	2.367e5	2.301	1.52	1.55	1224.5	YES	NO	bb	bb	36.832
27	124679-HXCDD	34.01	2.330e5	1.909e5	1.115	1.22	1.24	1078.1	YES	NO	bb	bb	49.292
28	123789-HxCDD	36.52	2.114e5	1.814e5	0.907	1.17	1.24	982.1	YES	NO	bb	bd	51.723
29	123678-HxCDD	36.14	2.532e5	2.091e5	1.001	1.21	1.24	1112.6	YES	NO	db	db	51.126
30	123478-HxCDD	36.02	2.147e5	1.744e5	0.996	1.23	1.24	1055.8	YES	NO	bd	bd	50.696
31	1234678-HpCDD	40.27	1.700e5	1.663e5	1.039	1.02	1.05	1138.4	YES	NO	bd	bd	52.721
32	1234679-HPCDD	39.23	2.020e5	1.832e5	1.137	1.10	1.05	1451.0	YES	NO	bd	bb	55.196
33	OCDD	45.00	2.152e5	2.483e5	0.920	0.87	0.89	2785.0	YES	NO	bb	bb	97.150

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	22.45	3.397e6					9.1	YES		db		
2	FUNCTION1 PFK	22.00	4.124e6					5.2	YES		bd		

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.25	2.674e4					2.5	NO		db		0.000
2	FUNCTION2 PFK	28.20	5.558e3					1.1	NO		dd		0.000
3	FUNCTION2 PFK	28.15	1.333e4					1.7	NO		bd		0.000
4	FUNCTION2 PFK	28.11	4.408e3					0.8	NO		bb		0.000
5	FUNCTION2 PFK	30.52	5.287e3					0.9	NO		bd		0.000
6	FUNCTION2 PFK	30.38	1.568e4					1.4	NO		bb		0.000
7	FUNCTION2 PFK	30.23	2.380e4					1.5	NO		db		0.000
8	FUNCTION2 PFK	30.10	2.694e4					1.7	NO		bd		0.000
9	FUNCTION2 PFK	29.99	2.076e3					0.5	NO		bb		0.000
10	FUNCTION2 PFK	29.89	7.421e3					1.2	NO		bb		0.000
11	FUNCTION2 PFK	29.80	6.022e3					0.5	NO		bb		0.000
12	FUNCTION2 PFK	29.62	1.101e4					1.2	NO		bb		0.000
13	FUNCTION2 PFK	29.52	2.200e4					2.0	NO		bb		0.000
14	FUNCTION2 PFK	29.42	7.036e3					1.0	NO		bb		0.000
15	FUNCTION2 PFK	29.29	2.309e4					2.2	NO		bb		0.000
16	FUNCTION2 PFK	29.03	1.036e4					1.7	NO		db		0.000
17	FUNCTION2 PFK	29.00	8.382e3					1.3	NO		bd		0.000
18	FUNCTION2 PFK	28.80	5.680e3					0.9	NO		bb		0.000
19	FUNCTION2 PFK	28.70	1.413e4					1.3	NO		bb		0.000
20	FUNCTION2 PFK	28.60	2.690e3					0.7	NO		bb		0.000
21	FUNCTION2 PFK	32.35	9.362e3					1.3	NO		bd		0.000
22	FUNCTION2 PFK	32.28	5.282e3					0.9	NO		bb		0.000
23	FUNCTION2 PFK	31.94	5.478e3					0.6	NO		bb		0.000
24	FUNCTION2 PFK	31.86	9.539e3					1.3	NO		bb		0.000
25	FUNCTION2 PFK	31.70	8.598e3					0.9	NO		bb		0.000
26	FUNCTION2 PFK	31.56	1.164e4					1.5	NO		bb		0.000
27	FUNCTION2 PFK	31.44	9.870e3					1.2	NO		bb		0.000
28	FUNCTION2 PFK	31.37	5.651e3					1.2	NO		bb		0.000
29	FUNCTION2 PFK	31.16	3.906e3					0.7	NO		db		0.000
30	FUNCTION2 PFK	31.10	5.259e3					1.0	NO		bd		0.000
31	FUNCTION2 PFK	31.00	2.220e3					0.5	NO		bb		0.000
32	FUNCTION2 PFK	30.93	4.197e3					0.6	NO		bb		0.000
33	FUNCTION2 PFK	30.84	1.813e4					1.7	NO		bb		0.000
34	FUNCTION2 PFK	30.68	6.046e3					1.3	NO		db		0.000
35	FUNCTION2 PFK	30.64	6.706e3					1.2	NO		dd		0.000
36	FUNCTION2 PFK	30.58	1.475e4					1.4	NO		dd		0.000
37	FUNCTION2 PFK	32.74	9.704e3					1.1	NO		bb		0.000

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION2 PFK	32.61	1.975e3					0.6	NO		bb		0.000
39	FUNCTION2 PFK	32.55	1.171e3					0.5	NO		bb		0.000
40	FUNCTION2 PFK	32.51	7.325e3					1.0	NO		db		0.000
41	FUNCTION2 PFK	32.45	9.340e3					1.3	NO		dd		0.000
42	FUNCTION2 PFK	32.41	1.322e4					1.9	NO		dd		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.70	5.175e4					1.9	NO		bb		0.000
2	FUNCTION3 PFK	35.52	3.681e5					3.3	YES		bb		0.000
3	FUNCTION3 PFK	34.42	8.023e6					1.5	NO		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.67	5.668e6					23.1	YES		db		
2	FUNCTION4 PFK	39.84	1.814e7					26.9	YES		dd		
3	FUNCTION4 PFK	38.09	2.173e6					22.8	YES		bd		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	42.82	4.953e3					1.4	NO		bb		
2	FUNCTION5 PFK	45.79	4.078e3					1.3	NO		db		
3	FUNCTION5 PFK	45.76	2.296e3					0.8	NO		bd		
4	FUNCTION5 PFK	45.37	1.499e4					1.8	NO		bb		
5	FUNCTION5 PFK	45.31	3.040e3					1.0	NO		bb		
6	FUNCTION5 PFK	44.94	1.866e3					0.7	NO		bb		
7	FUNCTION5 PFK	44.62	4.342e3					1.3	NO		bb		
8	FUNCTION5 PFK	43.85	4.909e3					1.2	NO		bb		
9	FUNCTION5 PFK	43.55	9.698e3					1.7	NO		bb		
10	FUNCTION5 PFK	43.31	1.818e4					2.2	NO		bb		
11	FUNCTION5 PFK	43.18	3.274e3					1.0	NO		bb		

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ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.14	7.703e1					2.6	NO		bb		0.000
2	FUNCTION1 HXCD...	25.58	1.369e2					3.0	NO		bb		0.000
3	FUNCTION1 HXCD...	24.29	7.654e1					1.4	NO		bb		0.000
4	FUNCTION1 HXCD...	23.49	8.895e1					2.4	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.41	1.026e2					2.4	NO		db		0.000
2	FUNCTION2 HPCD...	32.32	1.299e2					2.2	NO		bd		0.000
3	FUNCTION2 HPCD...	31.19	1.035e2					3.9	YES		db		0.000
4	FUNCTION2 HPCD...	31.15	2.274e2					6.9	YES		bd		0.000
5	FUNCTION2 HPCD...	29.21	1.504e2					2.9	NO		bb		0.000
6	FUNCTION2 HPCD...	28.77	9.035e1					2.8	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.51	9.563e1					4.4	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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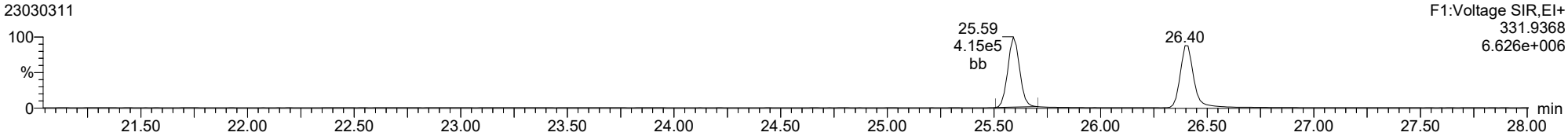
ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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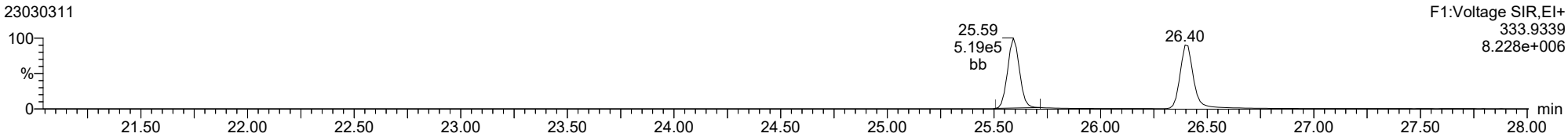
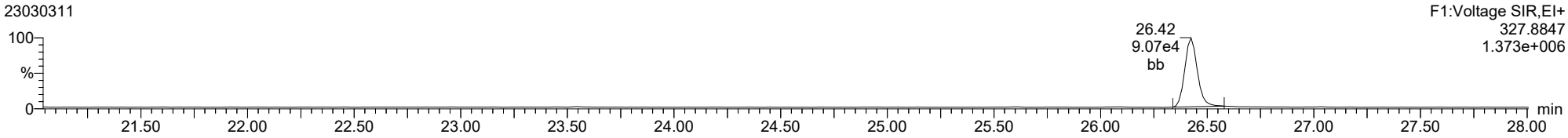


37CL-2378-TCDD



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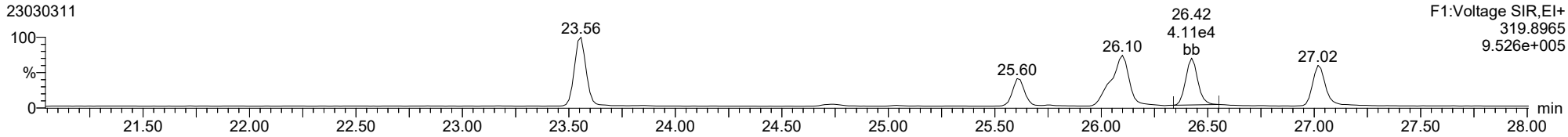

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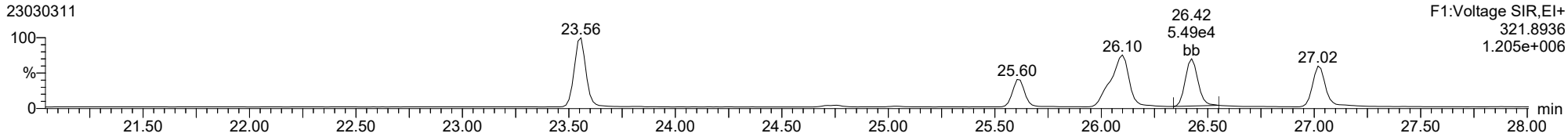

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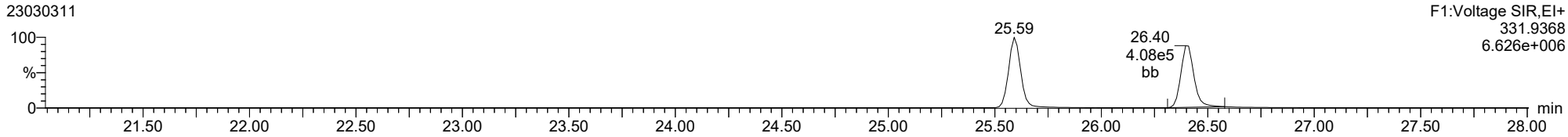

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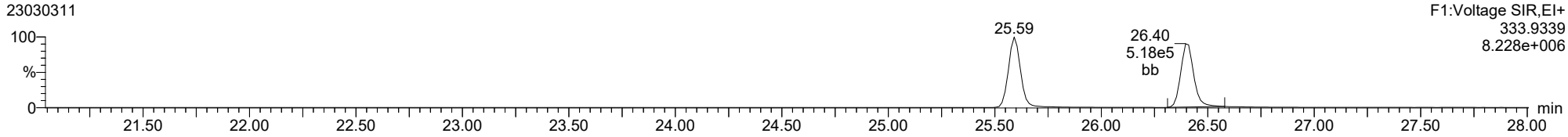

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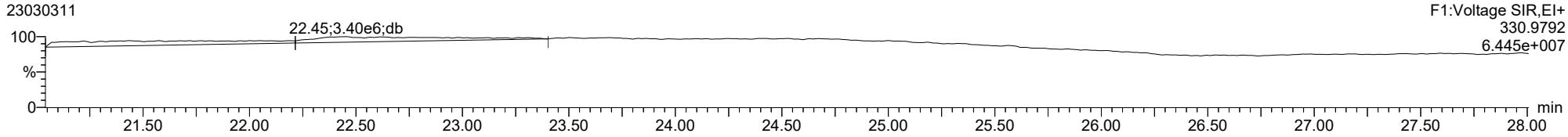

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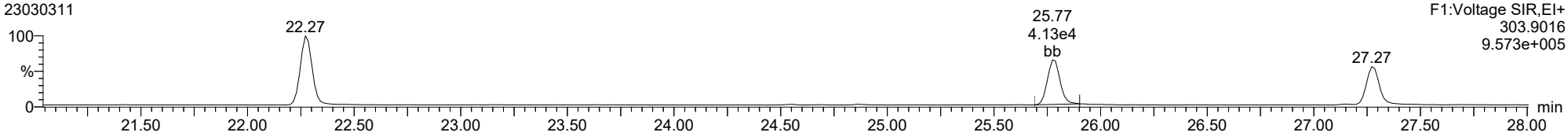

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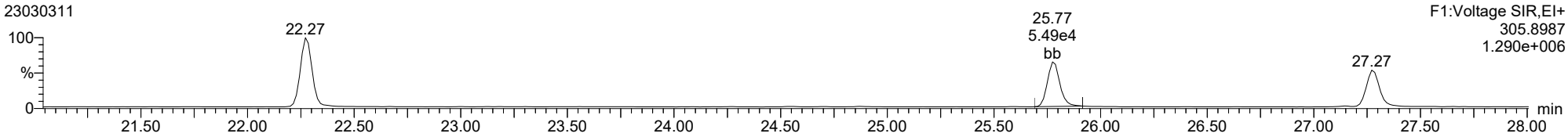

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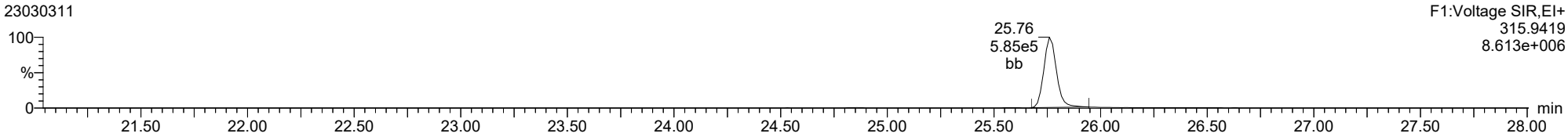

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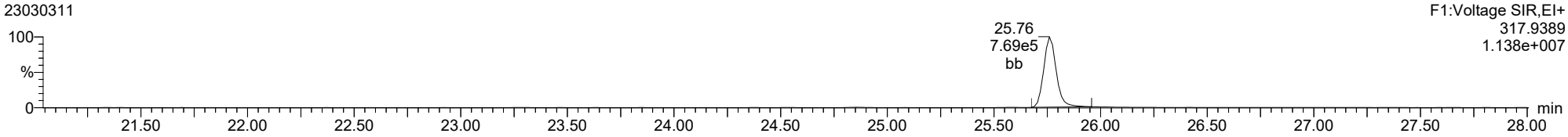

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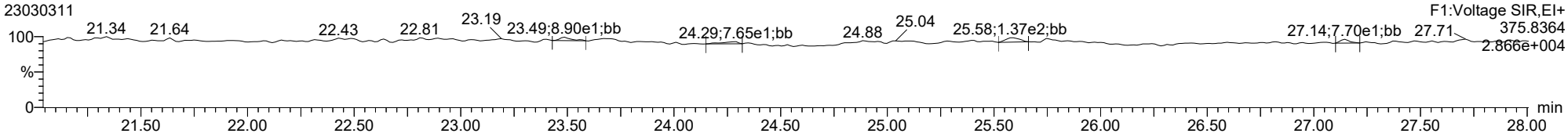

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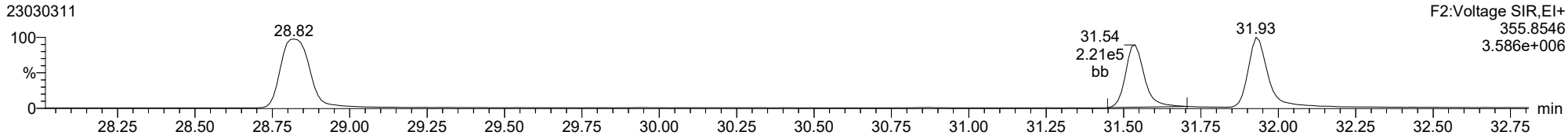
12378-PeCDD



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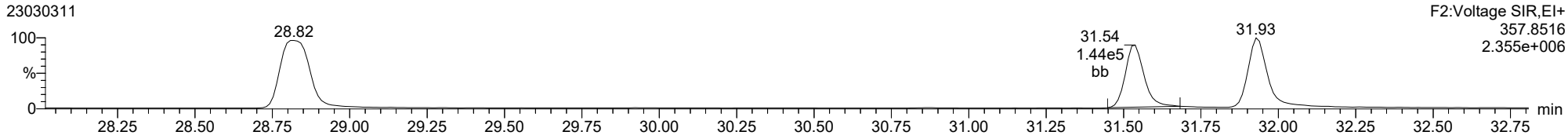

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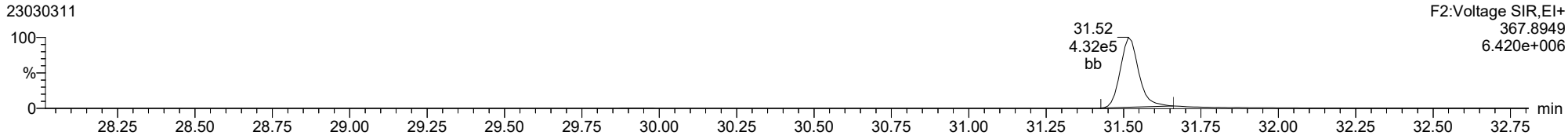

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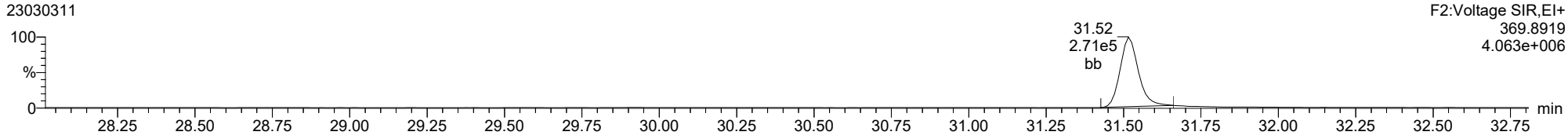

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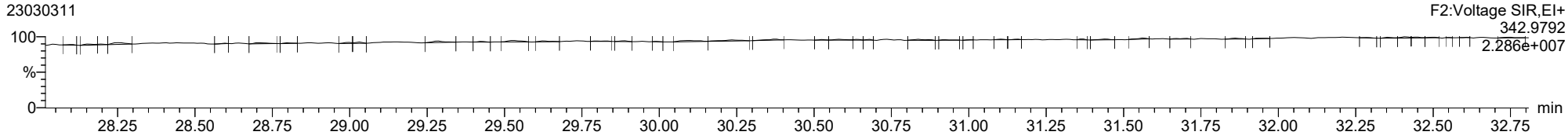

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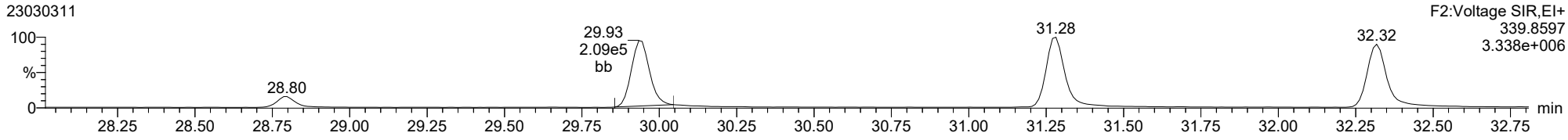

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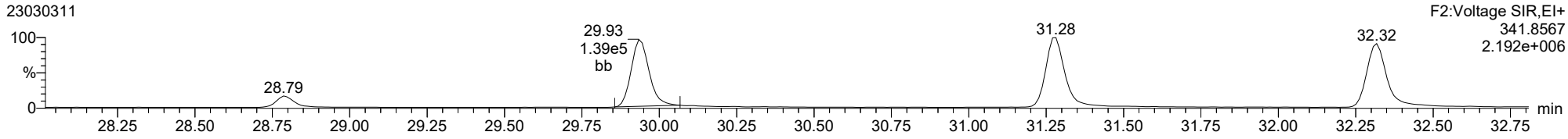

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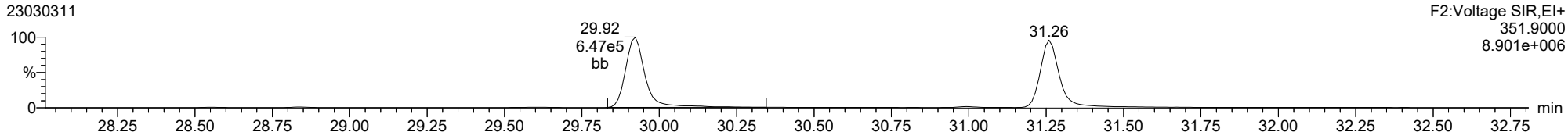

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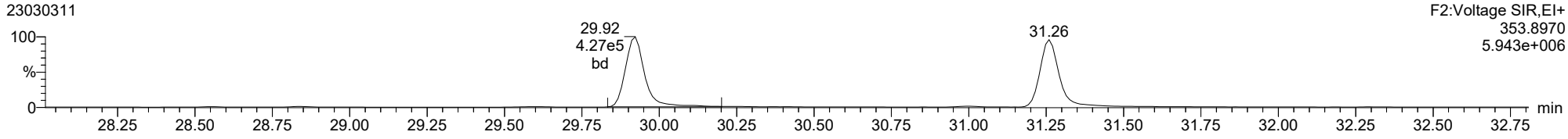

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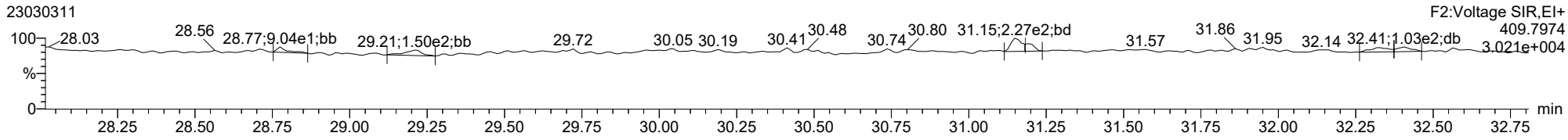

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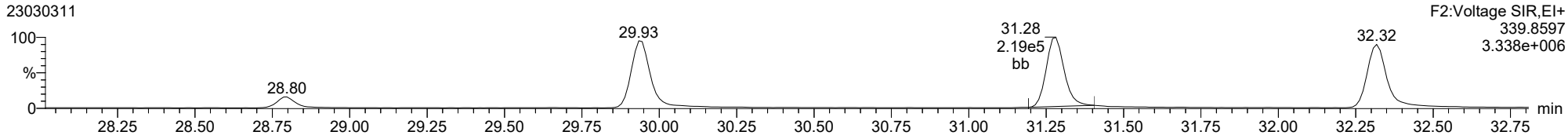

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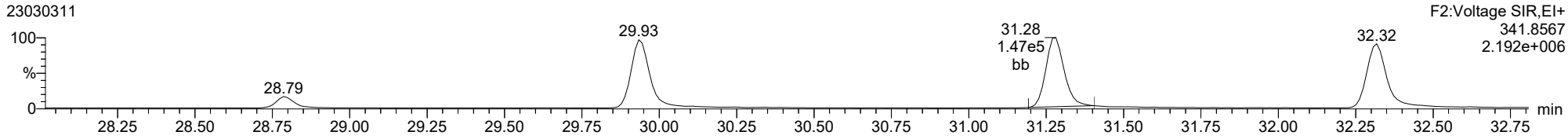

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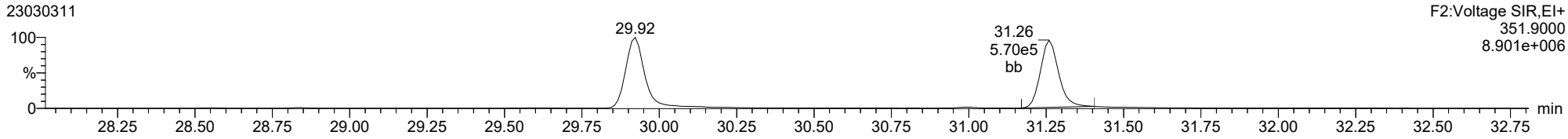

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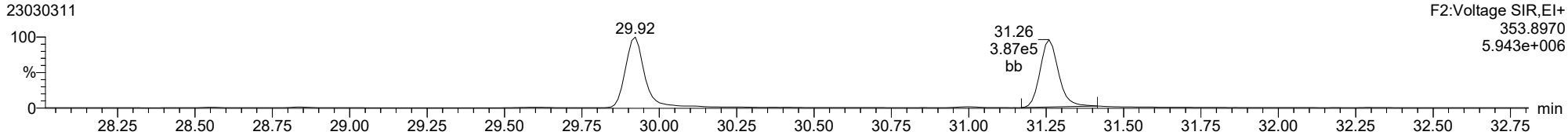

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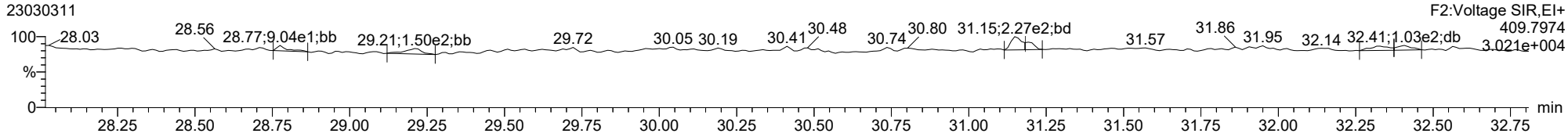

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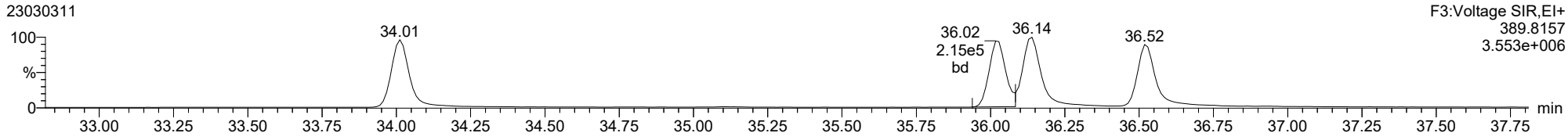

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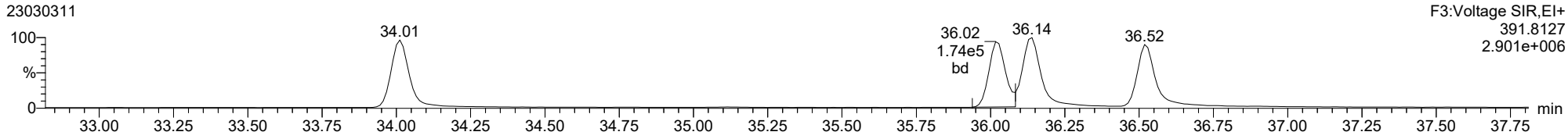

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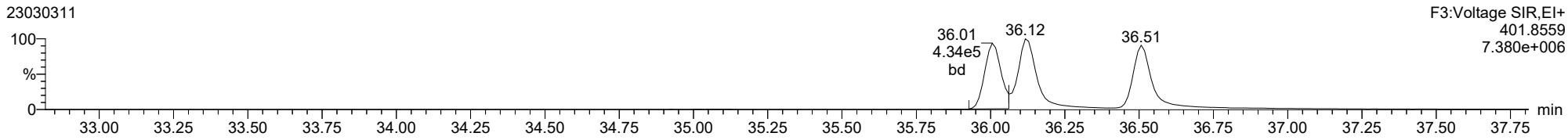

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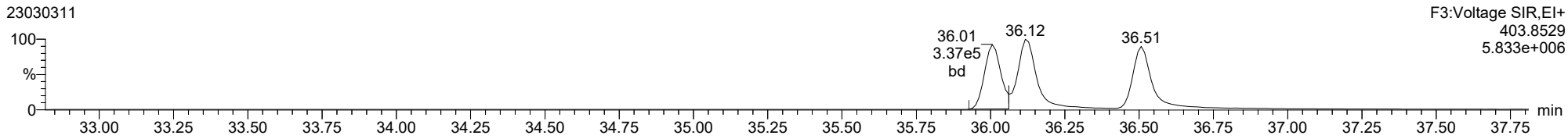

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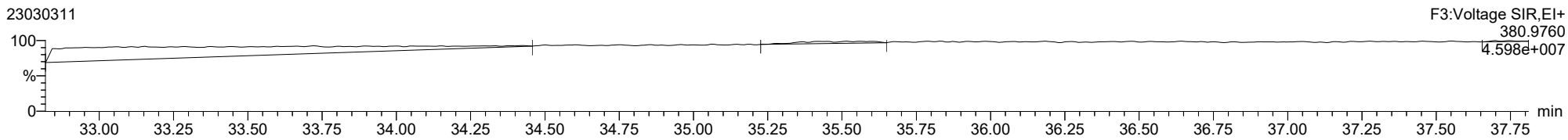

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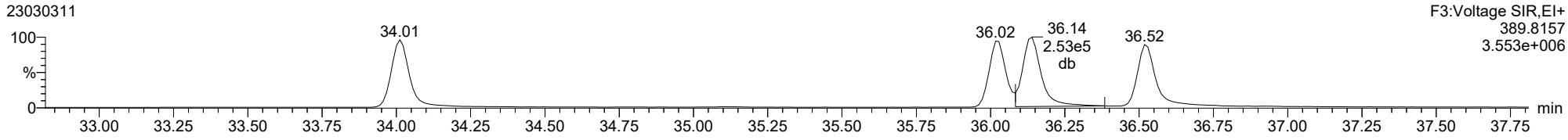

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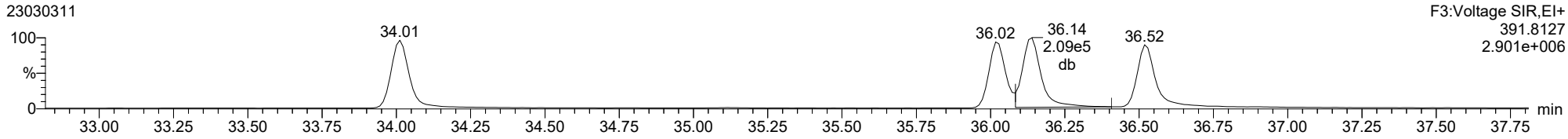

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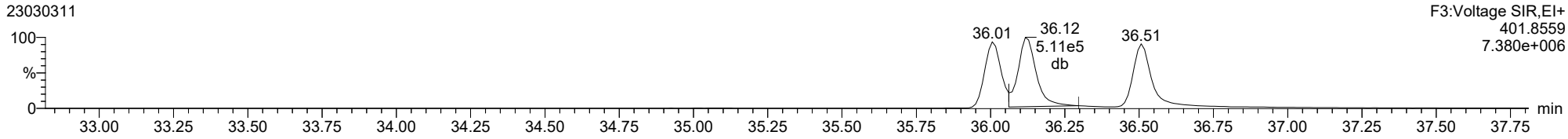

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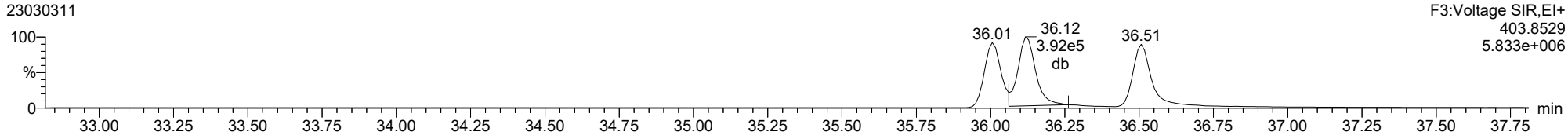

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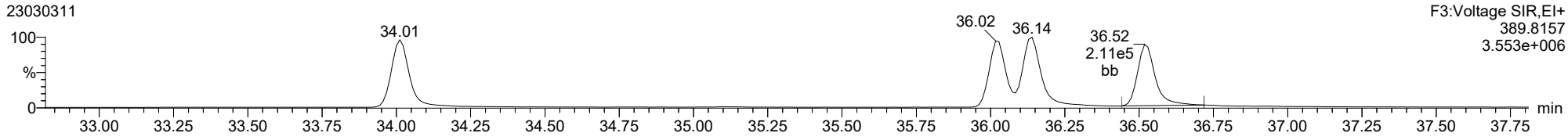

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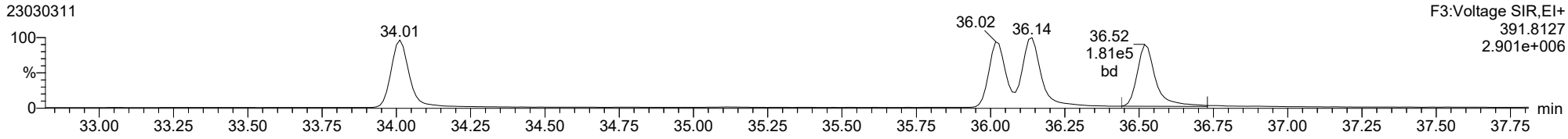

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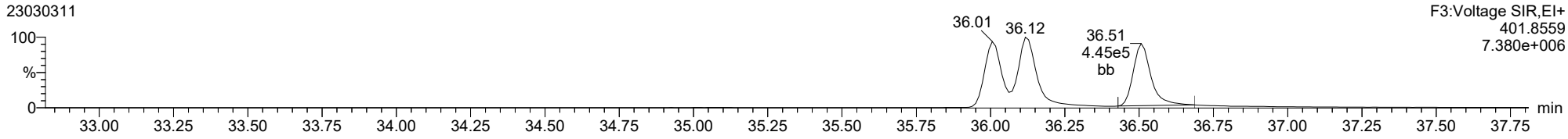

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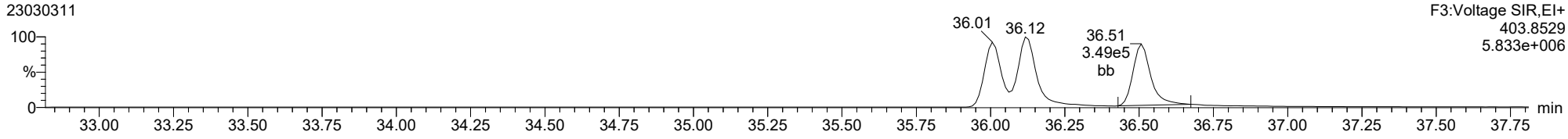

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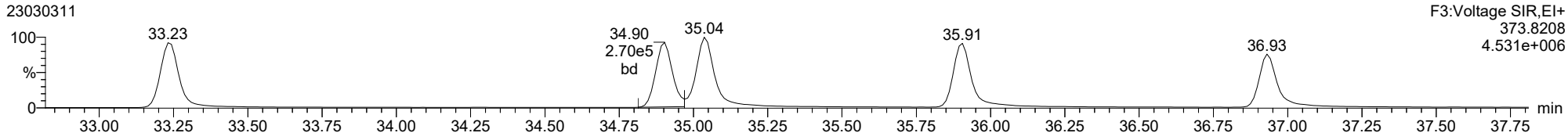

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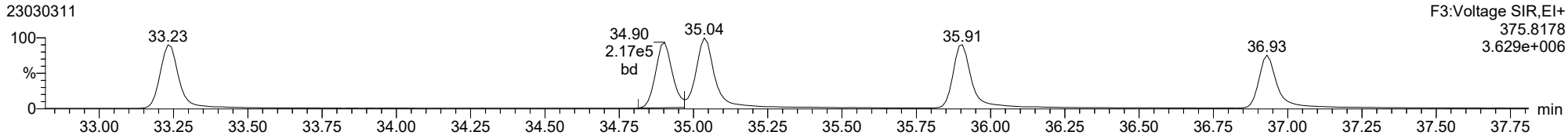

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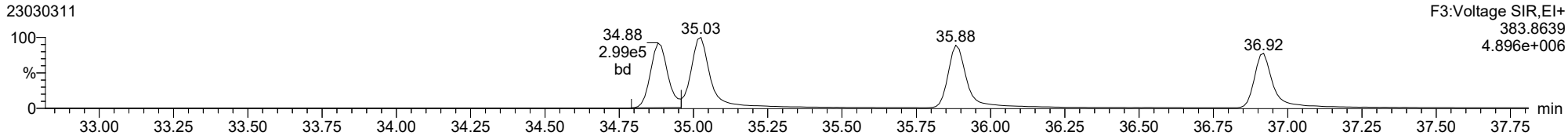

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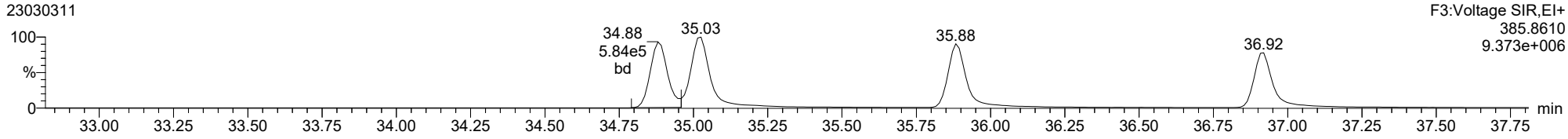
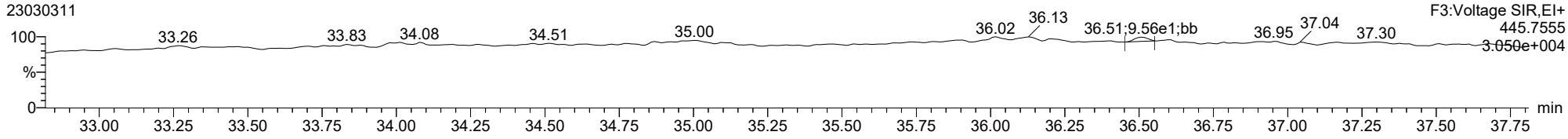


FUNCTION3 OCDPE



ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

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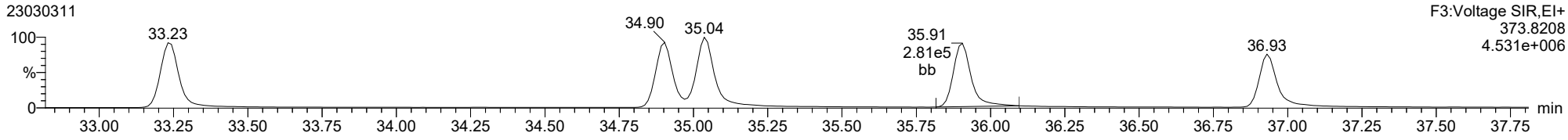

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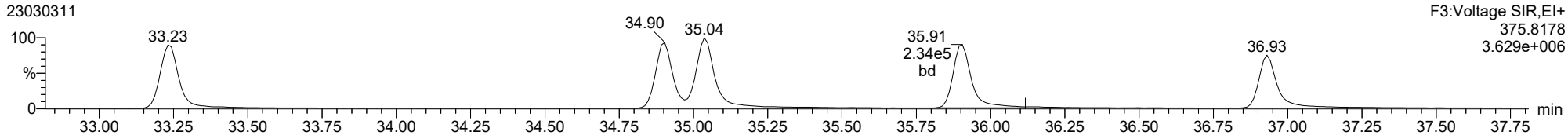

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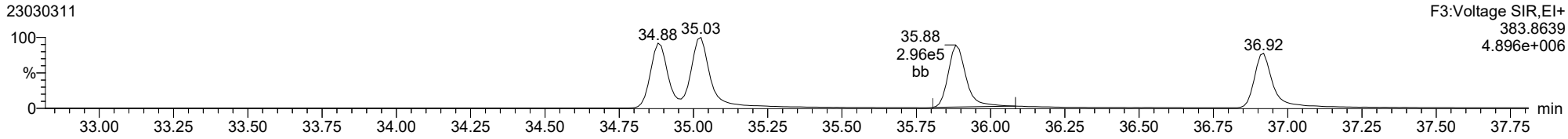

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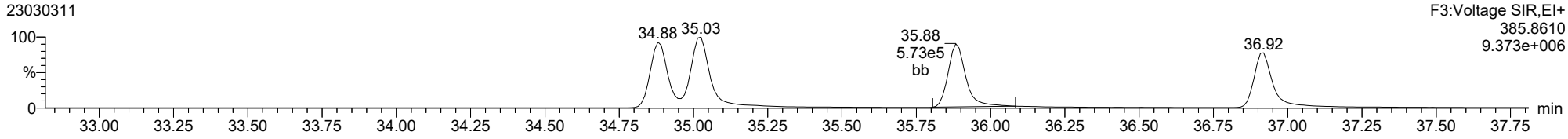

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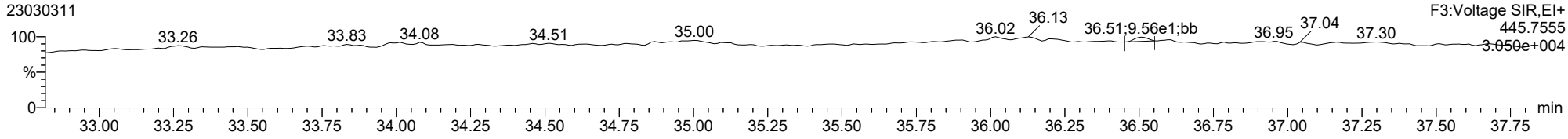

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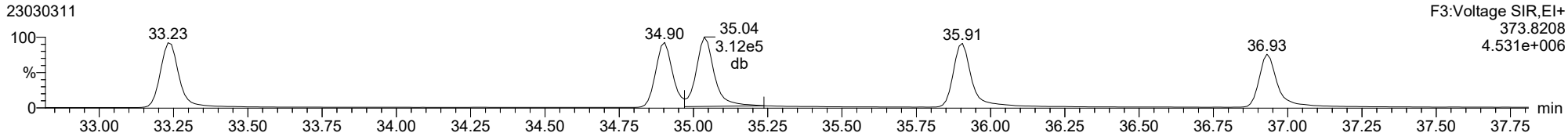

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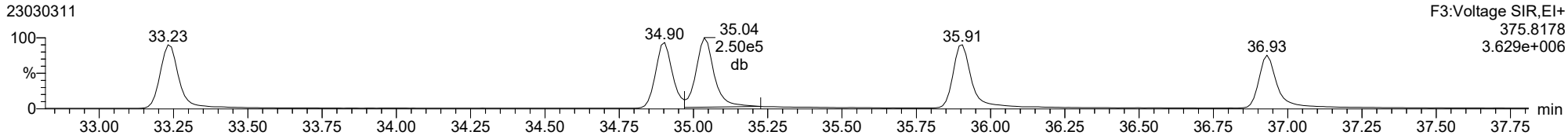

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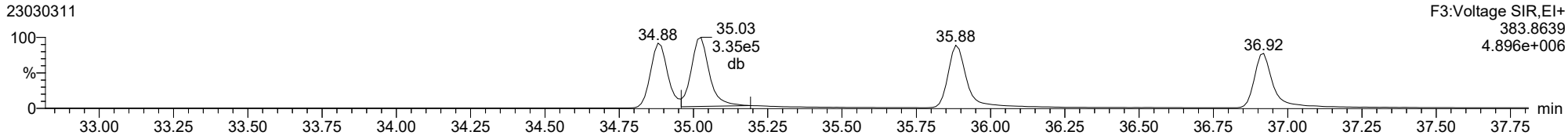

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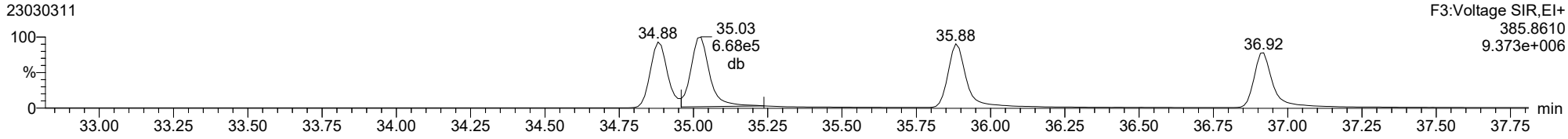

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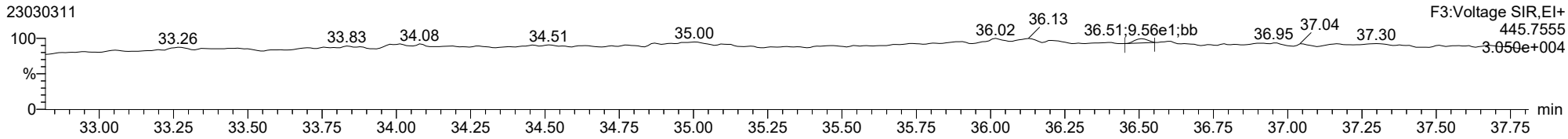

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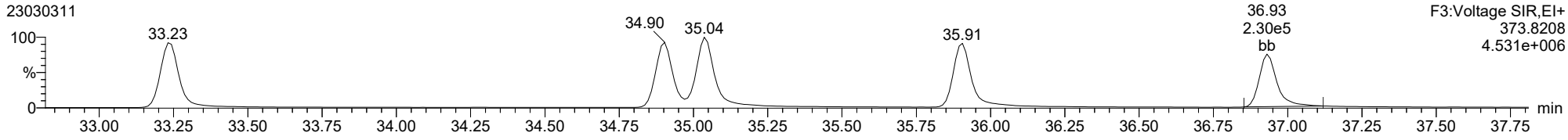

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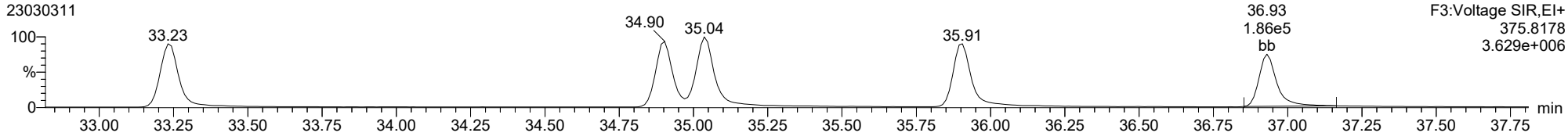

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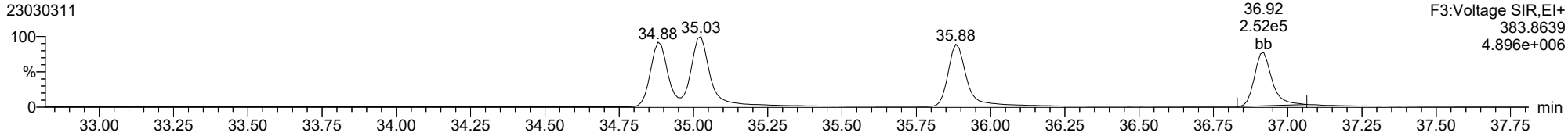

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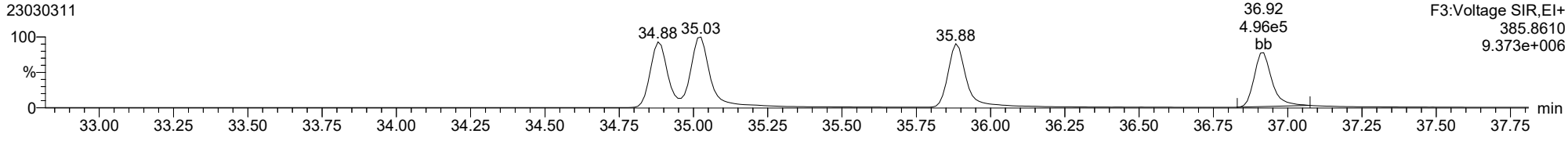

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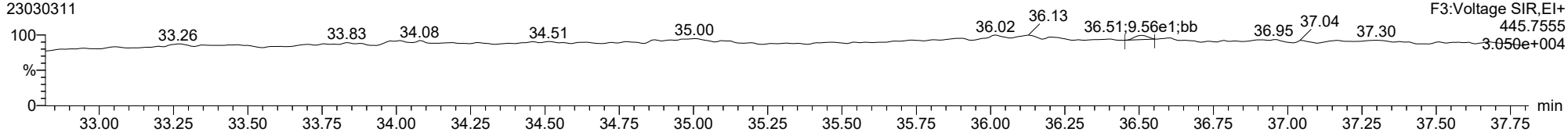

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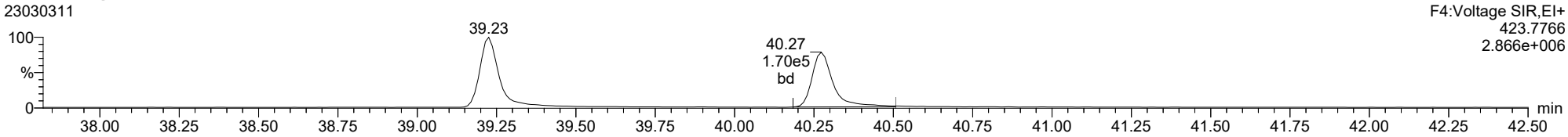

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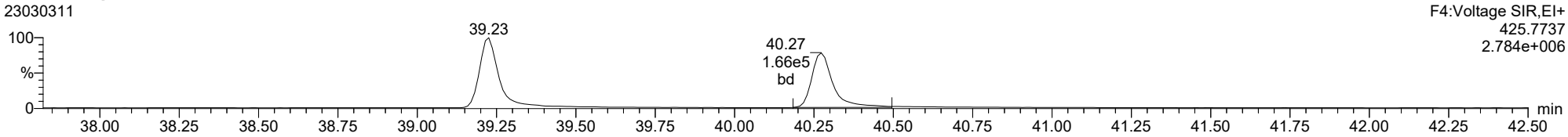

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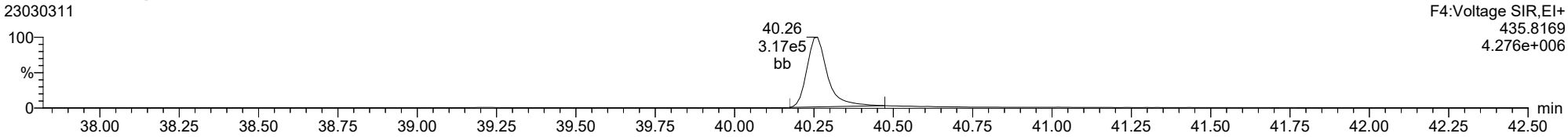

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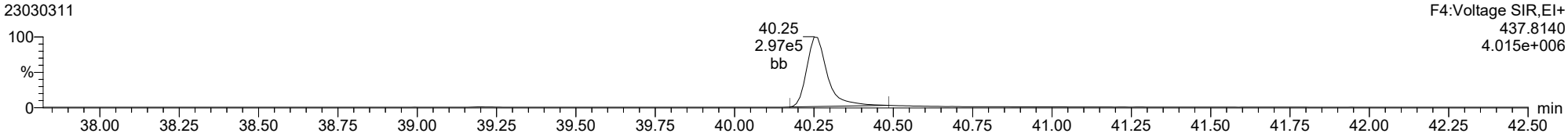

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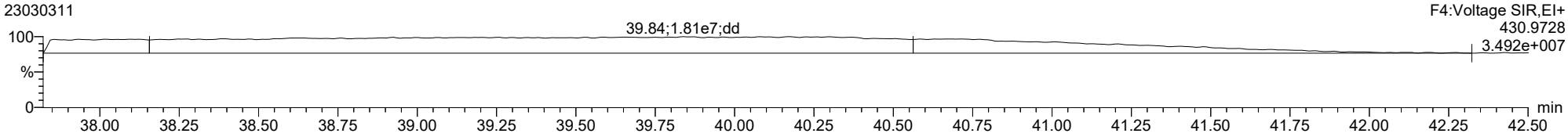

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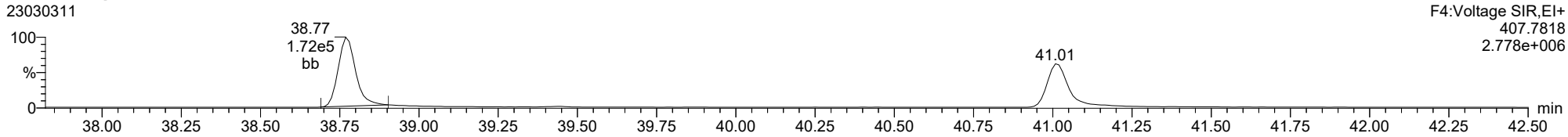

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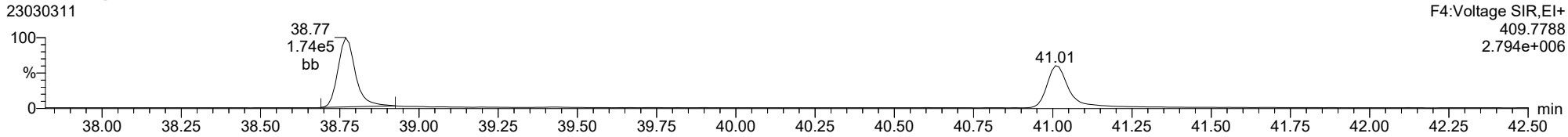

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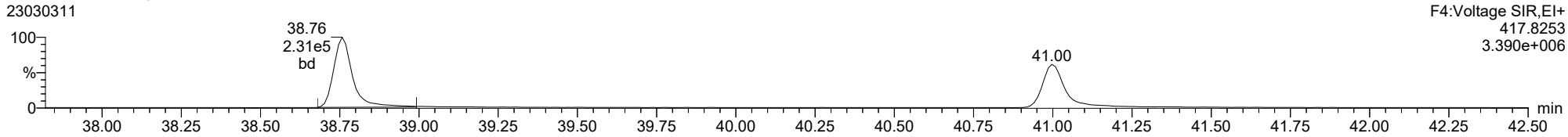

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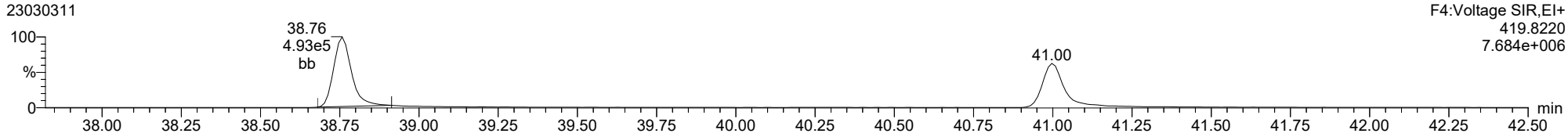
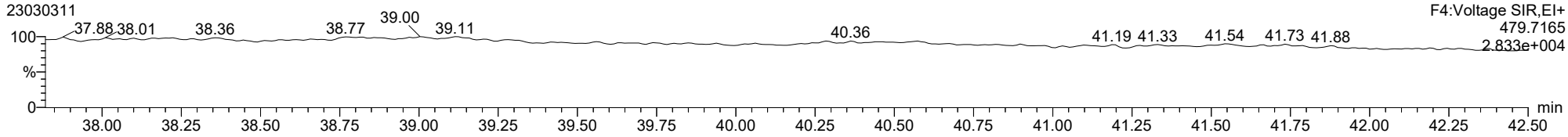


FUNCTION4 NCDPE



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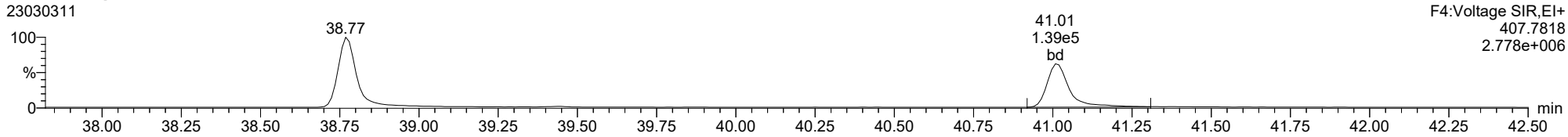

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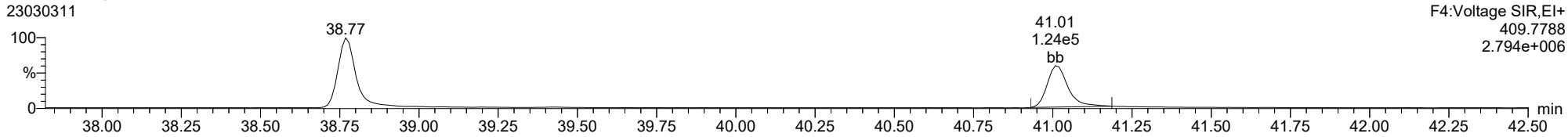

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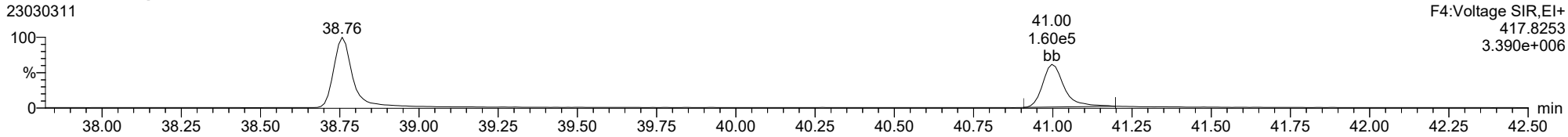

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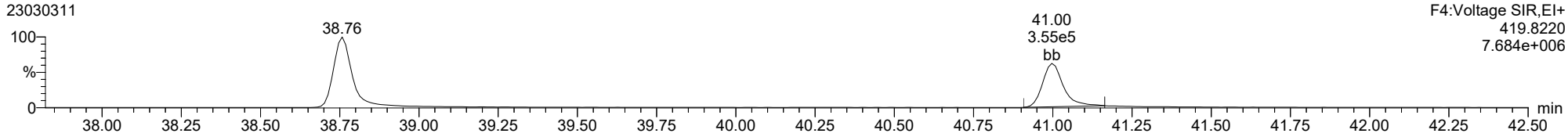

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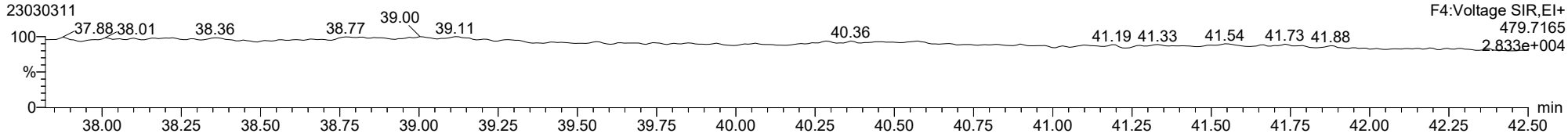

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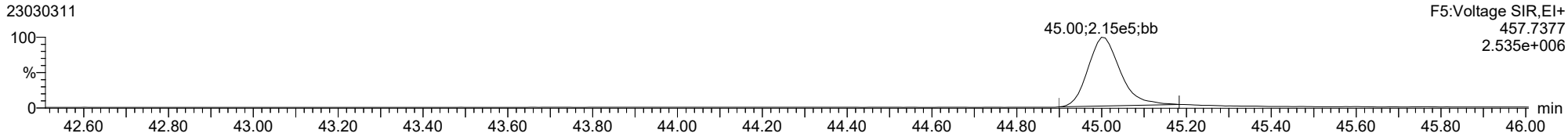

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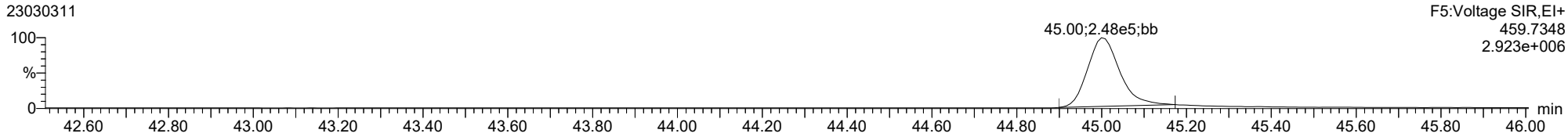

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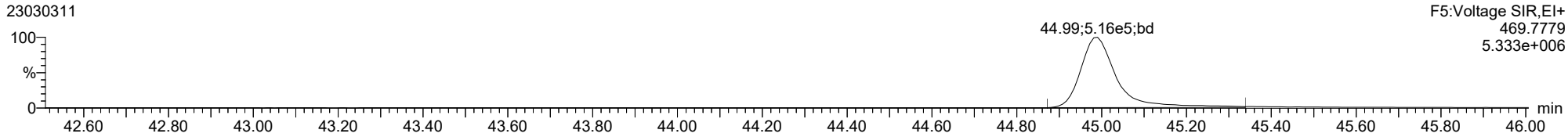

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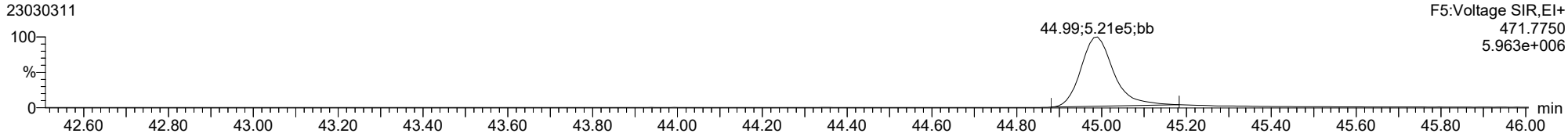
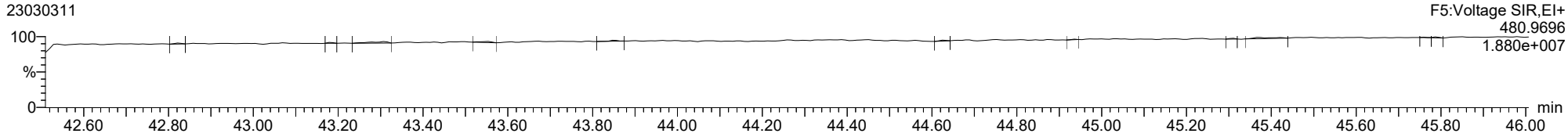


FUNCTION5 PFK



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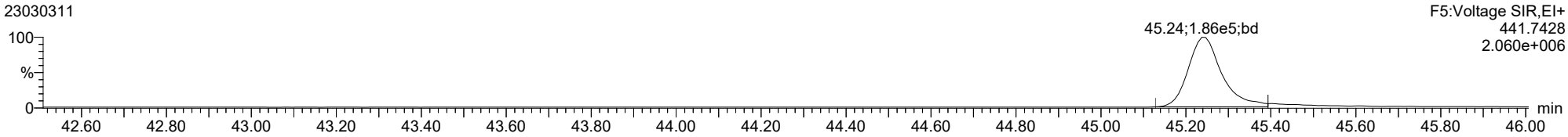

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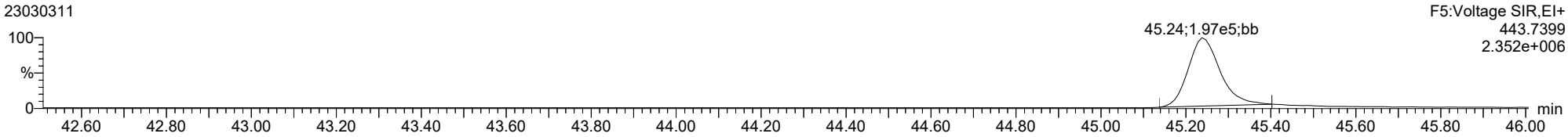

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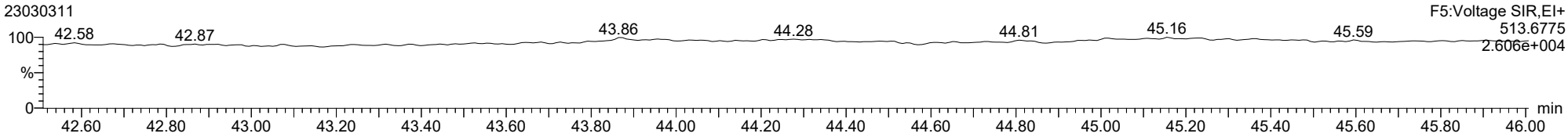

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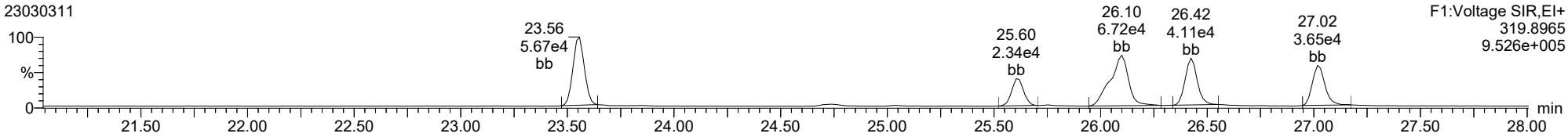
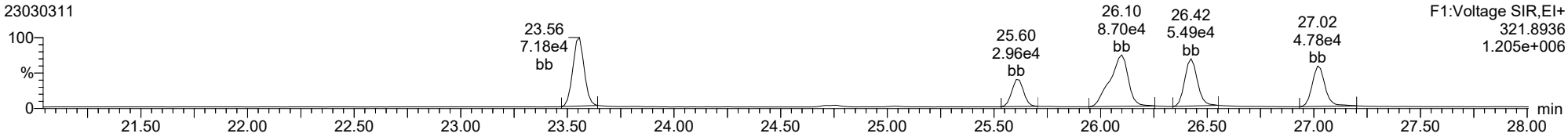
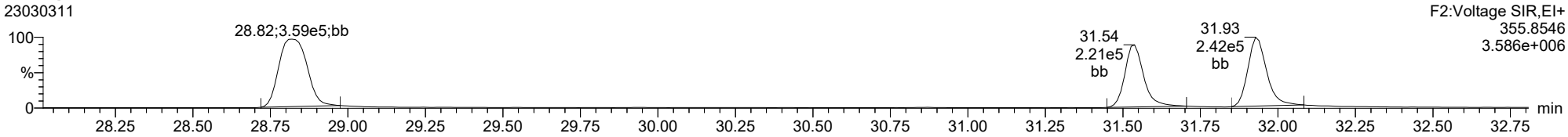
Total-tetradioxins



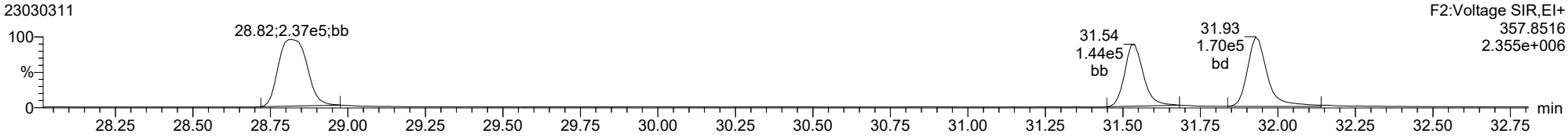
Total-tetradioxins



Total-pentadioxins



Total-pentadioxins



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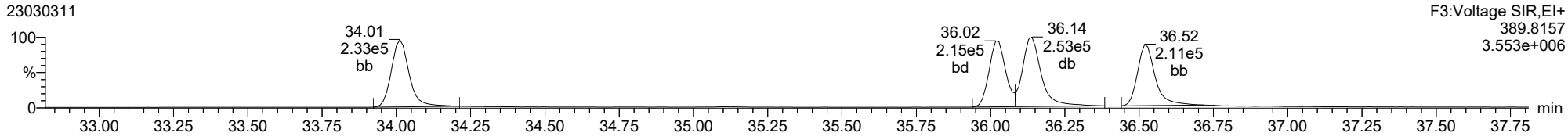
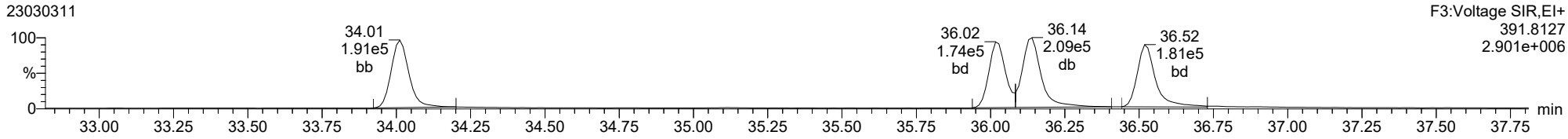
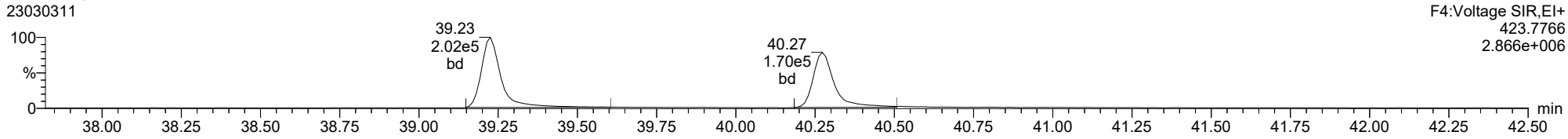
Total-hexadioxins



Total-hexadioxins



Total-heptadioxins



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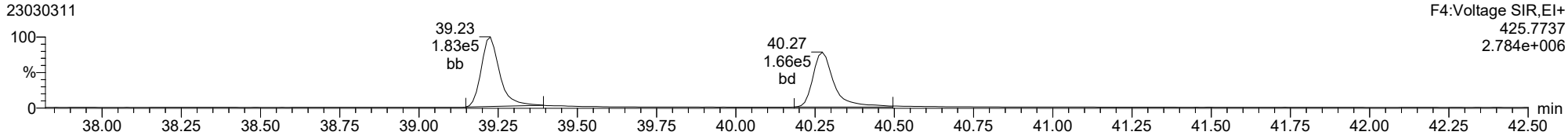

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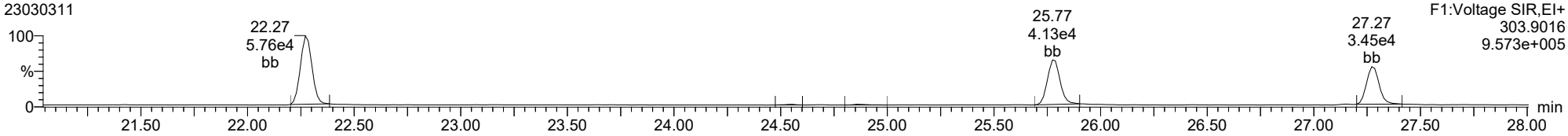
Total-tetrafurans



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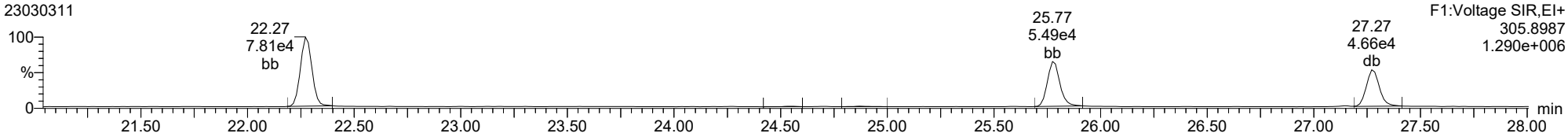

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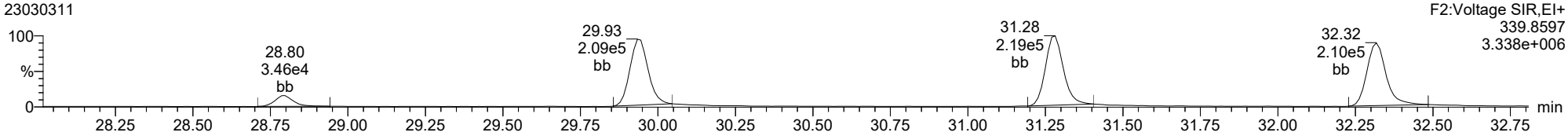

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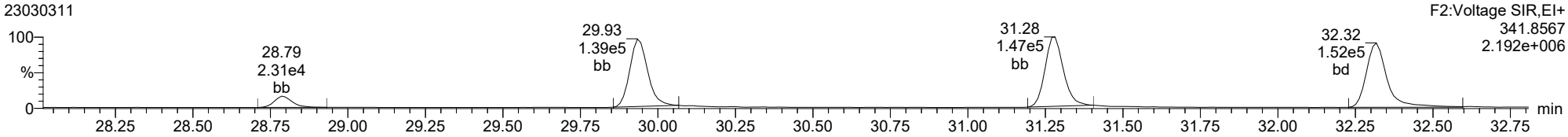
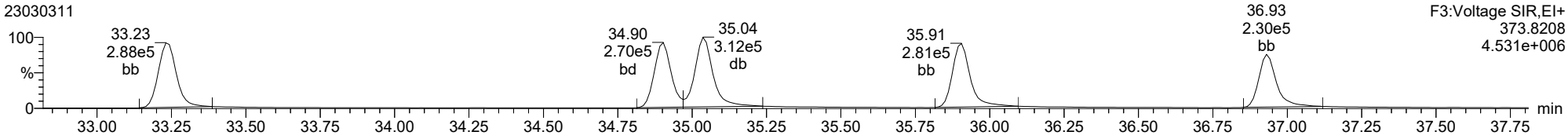
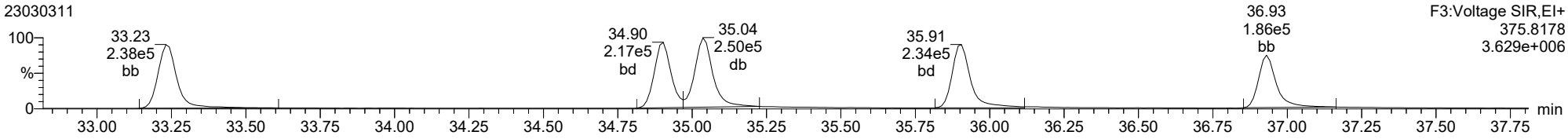


ID: CS3W2, Name: 23030311, Date: 03-Mar-2023, Time: 17:25:01, Conditions: AUTOSPEC01, User: pk

Total-hexafurans



Total-hexafurans



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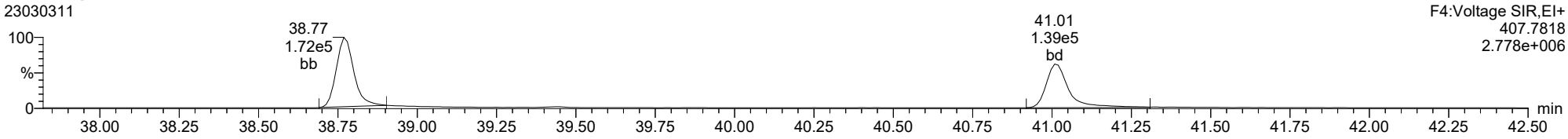
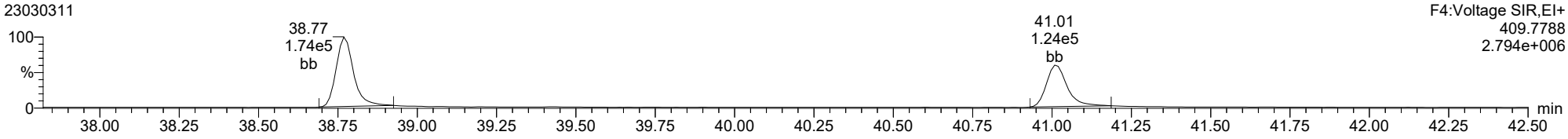
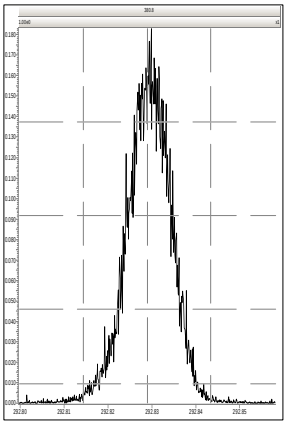


Total-heptafurans

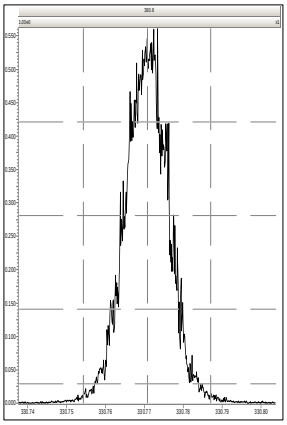


Printed: Friday, March 03, 2023 18:18:18 Pacific Standard Time

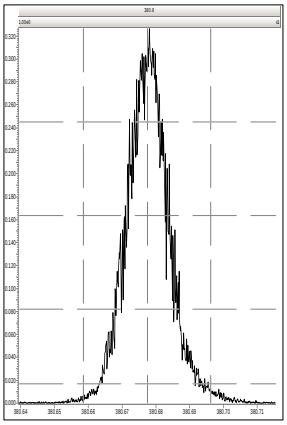
M 292.9824 R 13158



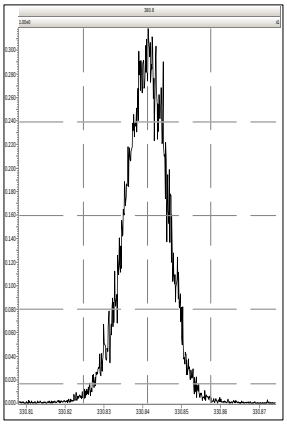
M 330.9792 R 12771



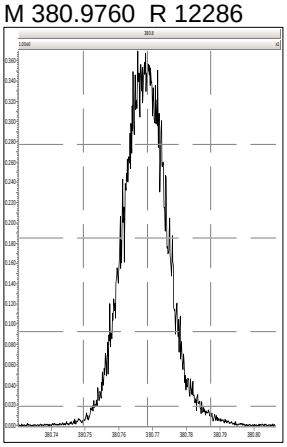
M 380.9760 R 12507



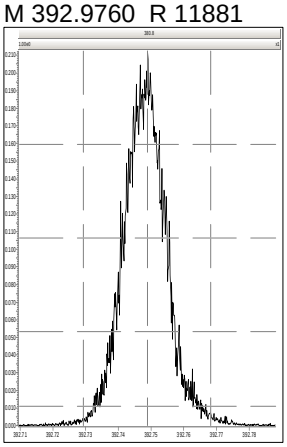
M 330.9792 R 13122



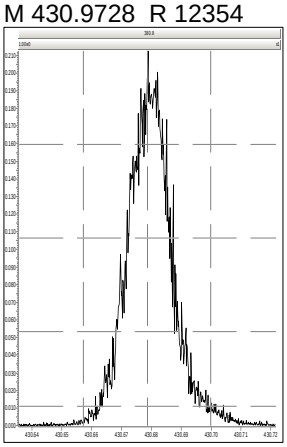
M 380.9760 R 12286



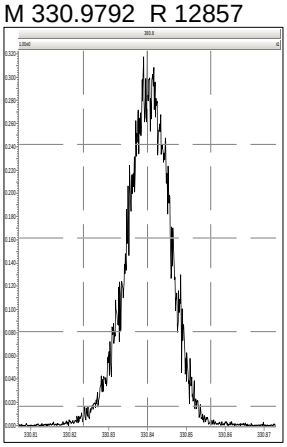
M 392.9760 R 11881



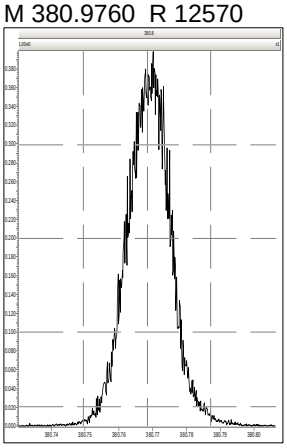
M 430.9728 R 12354



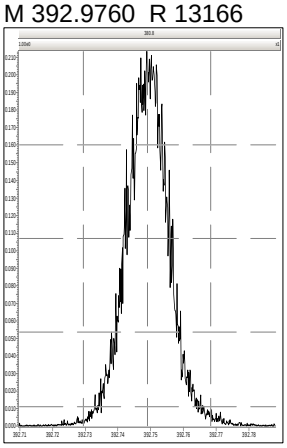
M 330.9792 R 12857



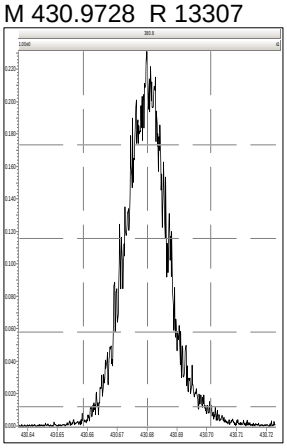
M 380.9760 R 12570



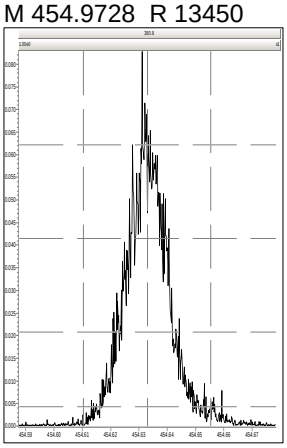
M 392.9760 R 13166



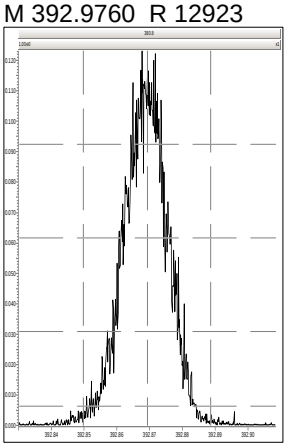
M 430.9728 R 13307



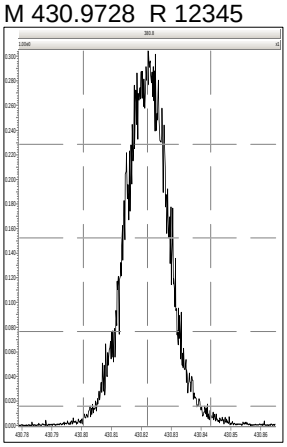
M 454.9728 R 13450



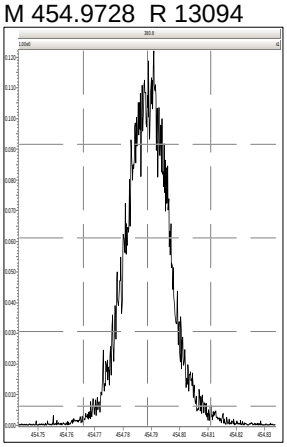
M 392.9760 R 12923



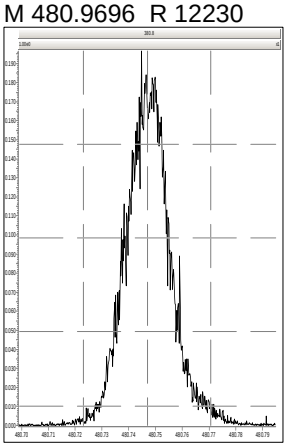
M 430.9728 R 12345



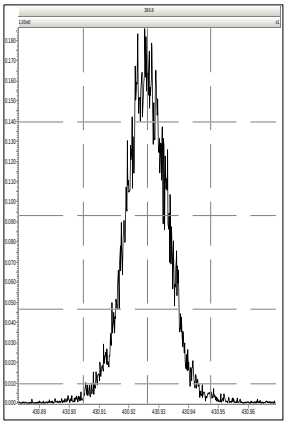
M 454.9728 R 13094



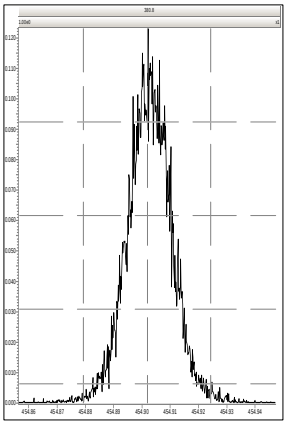
M 480.9696 R 12230



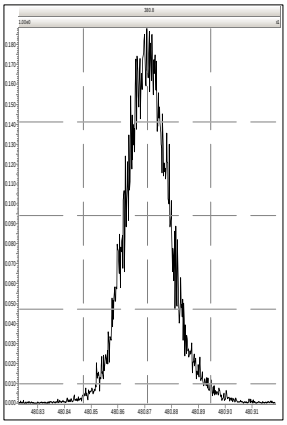
M 430.9728 R 12854



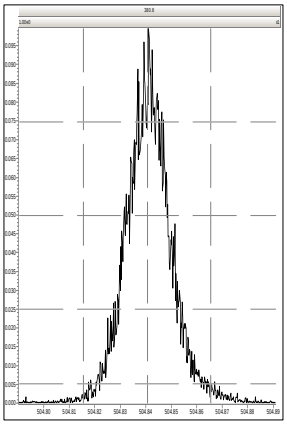
M 454.9728 R 13400



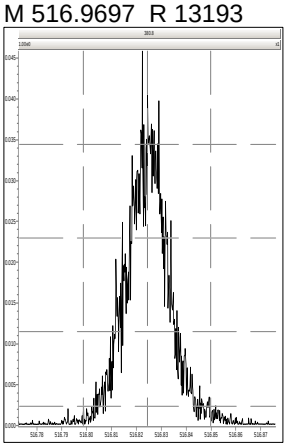
M 480.9696 R 11904

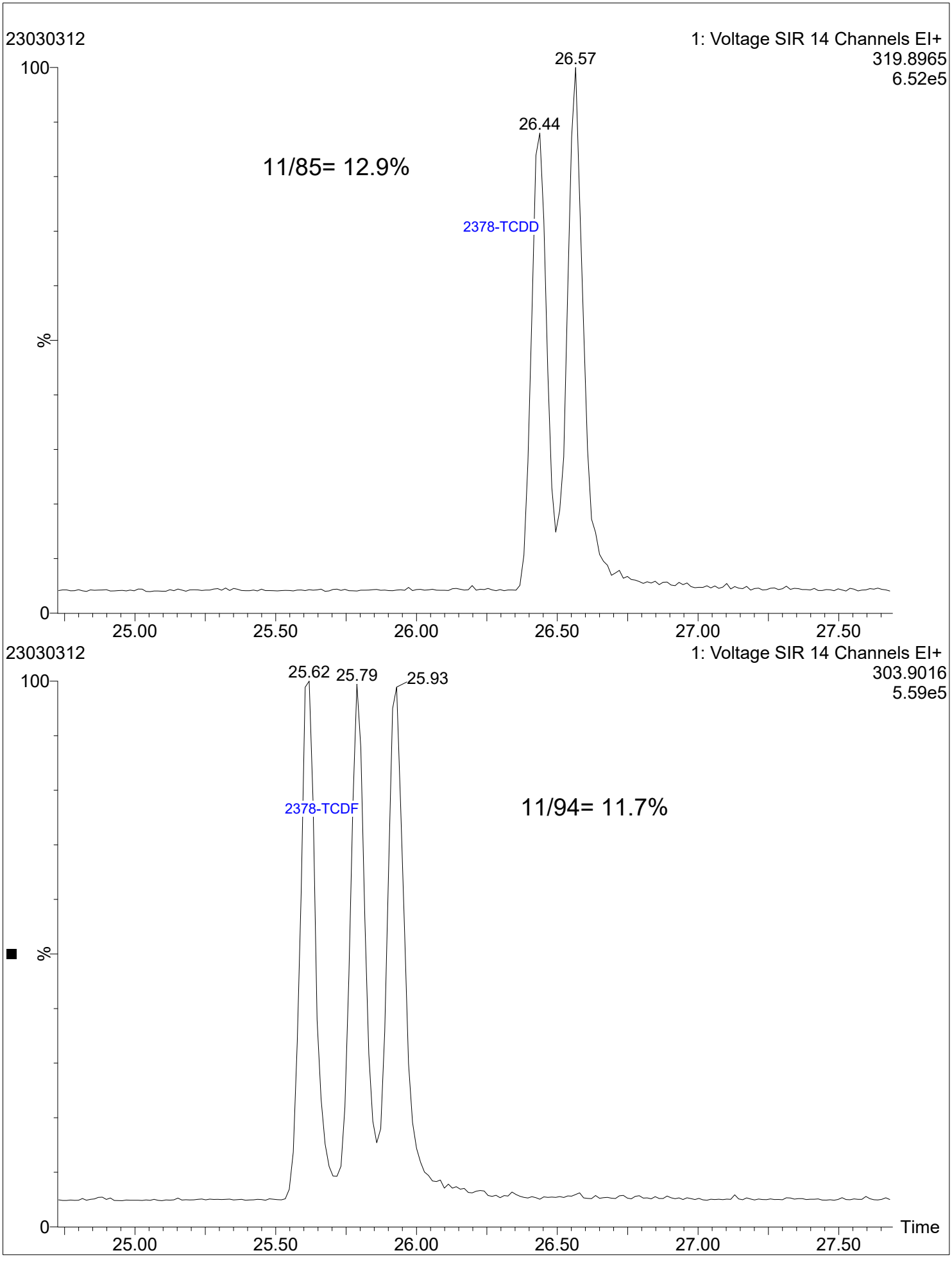


M 504.9696 R 12168



M 516.9697 R 13193




23030312
1: Voltage SIR 14 Channels EI+
319.8965
6.52e5
26.57
26.44
11/85= 12.9%
2378-TCDD
100
%
0
25.00
25.50
26.00
26.50
27.00
27.50
23030312
1: Voltage SIR 14 Channels EI+
303.9016
5.59e5
25.62
25.79
25.93
2378-TCDF
11/94= 11.7%
100
%
0
Time
25.00
25.50
26.00
26.50
27.00
27.50

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 1613B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00015
Laboratory ID: SLC0045-SCV1
Sequence: SLC0045
Sequence Name: ICVCW
Standard ID: H008219

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
2,3,7,8-TCDF	10.000	9.84	-1.6	
2,3,7,8-TCDD	10.000	9.81	-1.9	
1,2,3,7,8-PeCDF	50.000	51.4	2.8	
2,3,4,7,8-PeCDF	50.000	49.0	-2.0	
1,2,3,7,8-PeCDD	50.000	48.5	-2.9	
1,2,3,4,7,8-HxCDF	50.000	48.2	-3.5	
1,2,3,6,7,8-HxCDF	50.000	48.0	-4.0	
2,3,4,6,7,8-HxCDF	50.000	50.2	0.4	
1,2,3,7,8,9-HxCDF	50.000	49.1	-1.8	
1,2,3,4,7,8-HxCDD	50.000	50.8	1.6	
1,2,3,6,7,8-HxCDD	50.000	50.2	0.3	
1,2,3,7,8,9-HxCDD	50.000	51.6	3.2	
1,2,3,4,6,7,8-HpCDF	50.000	51.8	3.7	
1,2,3,4,7,8,9-HpCDF	50.000	48.5	-3.1	
1,2,3,4,6,7,8-HpCDD	50.000	49.2	-1.6	
OCDF	100.00	104	3.5	
OCDD	100.00	99.4	-0.6	
13C12-2,3,7,8-TCDF	100.00	96.9	-3.1	
13C12-2,3,7,8-TCDD	100.00	96.6	-3.4	
13C12-1,2,3,7,8-PeCDF	100.00	73.2	-26.8	
13C12-2,3,4,7,8-PeCDF	100.00	75.9	-24.1	
13C12-1,2,3,7,8-PeCDD	100.00	76.6	-23.4	
13C12-1,2,3,4,7,8-HxCDF	100.00	93.0	-7.0	
13C12-1,2,3,6,7,8-HxCDF	100.00	98.0	-2.0	
13C12-2,3,4,6,7,8-HxCDF	100.00	93.4	-6.6	
13C12-1,2,3,7,8,9-HxCDF	100.00	97.9	-2.1	
13C12-1,2,3,4,7,8-HxCDD	100.00	95.9	-4.1	
13C12-1,2,3,6,7,8-HxCDD	100.00	97.7	-2.3	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	102	2.1	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	104	4.0	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	102	2.5	
13C12-OCDD	200.00	162	-19.2	
37Cl4-2,3,7,8-TCDD	10.000	8.71	-12.9	

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 1613B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Calibration: GC00015
Sequence: SLC0045

SDG: 23A0313
Project: AOC5 MR Phase 1
Laboratory ID: SLC0045-SCV1
Sequence Name: ICVCW
Standard ID: H008219

* Indicates values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 1613B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GC00015
Laboratory ID: SLC0045-SCV1
Sequence: SLC0045
Standard ID: H008219

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
OCDF	100.00	104	3.5	
OCDD	100.00	99.4	-0.6	
13C12-2,3,7,8-TCDF	100.00	96.9	-3.1	
13C12-2,3,7,8-TCDD	100.00	96.6	-3.4	
13C12-1,2,3,7,8-PeCDF	100.00	73.2	-26.8	
13C12-2,3,4,7,8-PeCDF	100.00	75.9	-24.1	
13C12-1,2,3,7,8-PeCDD	100.00	76.6	-23.4	
13C12-1,2,3,4,7,8-HxCDF	100.00	93.0	-7.0	
13C12-1,2,3,6,7,8-HxCDF	100.00	98.0	-2.0	
13C12-2,3,4,6,7,8-HxCDF	100.00	93.4	-6.6	
13C12-1,2,3,7,8,9-HxCDF	100.00	97.9	-2.1	
13C12-1,2,3,4,7,8-HxCDD	100.00	95.9	-4.1	
13C12-1,2,3,6,7,8-HxCDD	100.00	97.7	-2.3	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	102	2.1	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	104	4.0	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	102	2.5	
13C12-OCDD	200.00	162	-19.2	
37Cl4-2,3,7,8-TCDD	10.000	8.71	-12.9	

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	AUTOSPEC01	Calibration:	GC00015
Lab File ID:	23030302	Calibration Date:	03/03/2023
Sequence:	SLC0045	Injection Date:	03/03/23
Lab Sample ID:	SLC0045-ICV1	Injection Time:	09:51
Sequence Name:	CS3W1		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
2,3,7,8-TCDF	A	10.000	9.55	0.7015272	0.6699659		-4.5	+/-16
2,3,7,8-TCDD	A	10.000	9.45	1.1486620	1.0855020		-5.5	+/-22
1,2,3,7,8-PeCDF	A	50.000	49.6	0.6792300	0.6743560		-0.7	+/-18
2,3,4,7,8-PeCDF	A	50.000	47.5	0.7861704	0.7472986		-4.9	+/-18
1,2,3,7,8-PeCDD	A	50.000	49.7	1.0218450	1.0147700		-0.7	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	47.1	1.1660380	1.0988190		-5.8	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	49.6	1.0907410	1.0813380		-0.9	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	49.3	1.1396990	1.1246750		-1.3	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	47.0	1.1370930	1.0679460		-6.1	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	50.1	0.9955689	0.9966266		0.1	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	49.6	1.0009380	0.9938861		-0.7	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	54.2	0.9071139	0.9838286		8.5	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	47.5	1.0029930	0.9526502		-5.0	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	50.2	0.9531152	0.9573187		0.4	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	47.6	1.0390130	0.9895371		-4.8	+/-14
OCDF	A	100.00	88.6	0.7778078	0.6890651		-11.4	+/-37
OCDD	A	100.00	98.4	0.9199537	0.9055309		-1.6	+/-21
13C12-2,3,7,8-TCDF	A	100.00	94.0	1.6201960	1.5232274		-6.0	+/-29
13C12-2,3,7,8-TCDD	A	100.00	102	1.1524090	1.1727116		1.8	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	92.2	1.2404520	1.1438587		-7.8	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	87.6	1.1177860	0.9791895		-12.4	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	84.3	0.8288129	0.6985475		-15.7	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	84.0	1.1683050	0.9815313		-16.0	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	74.6	1.3864660	1.0348865		-25.4	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	88.7	1.1292560	1.0010969		-11.3	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	99.9	0.9317541	0.9305560		-0.1	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	93.5	0.9950393	0.9299453		-6.5	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	86.9	1.1566890	1.0052205		-13.1	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	95.3	0.8952017	0.8530837		-4.7	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	98.7	0.7697516	0.7594900		-1.3	+/-23

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	AUTOSPEC01	Calibration:	GC00015
Lab File ID:	23030302	Calibration Date:	03/03/2023
Sequence:	SLC0045	Injection Date:	03/03/23
Lab Sample ID:	SLC0045-ICV1	Injection Time:	09:51
Sequence Name:	CS3W1		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	105	0.8401226	0.8828452		5.1	+/-28
13C12-OCDD	A	200.00	214	0.7674714	0.8220320		7.1	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	9.05	1.2878040	1.1649542		-9.5	

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	AUTOSPEC01	Calibration:	GC00015
Lab File ID:	23030602	Calibration Date:	03/03/2023
Sequence:	SLC0081	Injection Date:	03/06/23
Lab Sample ID:	SLC0081-ICV1	Injection Time:	10:49
Sequence Name:	CS3X1		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
2,3,7,8-TCDF	A	10.000	9.79	0.7015272	0.6869866		-2.1	+/-16
2,3,7,8-TCDD	A	10.000	10.0	1.1486620	1.1516370		0.3	+/-22
1,2,3,7,8-PeCDF	A	50.000	50.5	0.6792300	0.6862813		1.0	+/-18
2,3,4,7,8-PeCDF	A	50.000	49.9	0.7861704	0.7844346		-0.2	+/-18
1,2,3,7,8-PeCDD	A	50.000	51.9	1.0218450	1.0596610		3.7	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	49.6	1.1660380	1.1555900		-0.9	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	51.9	1.0907410	1.1331900		3.9	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	49.6	1.1396990	1.1313760		-0.7	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	49.4	1.1370930	1.1235120		-1.2	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	55.1	0.9955689	1.0962030		10.1	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	59.7	1.0009380	1.1948610		19.4	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	59.1	0.9071139	1.0721460		18.2	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	46.3	1.0029930	0.9288061		-7.4	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	50.2	0.9531152	0.9577664		0.5	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	48.7	1.0390130	1.0120730		-2.6	+/-14
OCDF	A	100.00	85.8	0.7778078	0.6676798		-14.2	+/-37
OCDD	A	100.00	98.3	0.9199537	0.9041731		-1.7	+/-21
13C12-2,3,7,8-TCDF	A	100.00	96.4	1.6201960	1.5623480		-3.6	+/-29
13C12-2,3,7,8-TCDD	A	100.00	101	1.1524090	1.1614340		0.8	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	107	1.2404520	1.3224884		6.6	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	109	1.1177860	1.2211629		9.2	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	107	0.8288129	0.8827476		6.5	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	108	1.1683050	1.2636496		8.2	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	100	1.3864660	1.3901601		0.3	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	110	1.1292560	1.2444251		10.2	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	112	0.9317541	1.0412311		11.7	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	98.4	0.9950393	0.9788827		-1.6	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	91.0	1.1566890	1.0527620		-9.0	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	108	0.8952017	0.9693210		8.3	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	80.2	0.7697516	0.6171476		-19.8	+/-23

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	AUTOSPEC01	Calibration:	GC00015
Lab File ID:	23030602	Calibration Date:	03/03/2023
Sequence:	SLC0081	Injection Date:	03/06/23
Lab Sample ID:	SLC0081-ICV1	Injection Time:	10:49
Sequence Name:	CS3X1		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	83.4	0.8401226	0.7004831		-16.6	+/-18
13C12-OCDD	A	200.00	198	0.7674714	0.7607429		-0.9	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	9.06	1.2878040	1.1662142		-9.4	+/-21

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
Last Altered: Tuesday, March 07, 2023 08:54:19 Pacific Standard Time
Printed: Tuesday, March 07, 2023 09:03:18 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3X1, Name: 23030602, Date: 06-Mar-2023, Time: 10:49:33, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.774	1.001	3.727e4	5.376e4	0.702	0.693	0.770	1019	1775	5.68e5	8.37e5	558.0	471.6	NO	bb	bb	9.793
12378-PeCDF	29.922	1.000	2.294e5	1.554e5	0.679	1.476	1.550	1365	2184	3.46e6	2.37e6	2533.8	1084.4	NO	bb	bb	50.519
23478-PeCDF	31.270	1.001	2.419e5	1.643e5	0.786	1.473	1.550	1365	2184	3.58e6	2.43e6	2625.6	1112.1	NO	bb	bd	49.890
123478-HxCDF	34.891	1.001	3.141e5	2.489e5	1.166	1.262	1.240	1764	3090	4.84e6	3.81e6	2744.0	1231.4	NO	bd	bd	49.552
234678-HxCDF	35.883	1.000	3.018e5	2.410e5	1.140	1.252	1.240	1764	3090	4.54e6	3.65e6	2572.2	1179.5	NO	bb	bb	49.635
123678-HxCDF	35.025	1.001	3.395e5	2.678e5	1.091	1.268	1.240	1764	3090	5.04e6	3.99e6	2860.5	1292.3	NO	db	db	51.946
123789-HxCDF	36.919	1.001	2.483e5	2.027e5	1.137	1.225	1.240	1764	3090	3.87e6	3.10e6	2191.7	1002.1	NO	bb	bb	49.403
1234678-HpCDF	38.757	1.000	1.732e5	1.739e5	1.003	0.996	1.050	1874	2100	2.79e6	2.89e6	1487.5	1374.7	NO	bb	bb	46.302
1234789-HpCDF	40.986	1.000	1.131e5	1.148e5	0.953	0.985	1.050	1874	2100	1.57e6	1.62e6	837.6	769.7	NO	bb	bb	50.244
OCDF	45.219	1.006	1.875e5	2.041e5	0.778	0.919	0.890	1151	1871	2.18e6	2.46e6	1898.1	1315.3	NO	bd	bb	85.841
2378-TCDD	26.410	1.001	4.940e4	6.404e4	1.149	0.771	0.770	1931	1034	7.38e5	9.37e5	382.1	906.3	NO	bb	bb	10.026
12378-PeCDD	31.527	1.001	2.407e5	1.560e5	1.022	1.543	1.550	2305	1787	3.51e6	2.25e6	1522.9	1258.8	NO	bb	bb	51.850
123478-HxCDD	36.005	1.000	2.282e5	1.855e5	0.996	1.230	1.240	1680	2382	3.72e6	3.01e6	2216.8	1261.5	NO	bd	bd	55.054
123678-HxCDD	36.117	1.000	2.673e5	2.177e5	1.001	1.228	1.240	1680	2382	3.88e6	3.14e6	2311.8	1317.1	NO	db	db	59.687
123789-HxCDD	36.507	1.011	2.295e5	1.904e5	0.907	1.206	1.240	1680	2382	3.66e6	2.97e6	2181.1	1246.4	NO	bb	bb	59.097
1234678-HpCDD	40.250	1.000	1.395e5	1.338e5	1.039	1.042	1.050	1925	2141	2.09e6	2.02e6	1084.8	944.1	NO	bb	bb	48.704
OCDD	44.972	1.000	2.446e5	2.858e5	0.920	0.856	0.890	1485	1456	2.94e6	3.45e6	1982.5	2372.0	NO	bb	bb	98.285
13C-2378-TCDF	25.760	1.007	5.727e5	7.523e5	1.620	0.761	0.770	2774	1572	8.70e6	1.13e7	3134.2	7216.4	NO	bb	bb	96.430
13C-12378-PeCDF	29.911	1.169	6.659e5	4.557e5	1.240	1.461	1.550	2990	2735	1.02e7	6.64e6	3405.4	2427.8	NO	bb	bd	106.613
13C-23478-PeCDF	31.248	1.221	6.263e5	4.093e5	1.118	1.530	1.550	2990	2735	9.43e6	6.26e6	3154.9	2290.9	NO	bb	bb	109.248
13C-123478-HxCDF	34.869	0.955	3.337e5	6.406e5	1.168	0.521	0.510	1441	2896	5.15e6	1.00e7	3570.6	3458.0	NO	bd	bd	108.161
13C-123678-HxCDF	35.003	0.959	3.659e5	7.060e5	1.386	0.518	0.510	1441	2896	5.26e6	1.03e7	3651.2	3557.9	NO	db	db	100.266
13C-234678-HxCDF	35.872	0.983	3.142e5	6.453e5	1.129	0.487	0.510	1441	2896	4.82e6	9.44e6	3346.3	3260.6	NO	bb	bb	110.199
13C-123789-HxCDF	36.897	1.011	2.727e5	5.301e5	0.932	0.514	0.510	1441	2896	4.22e6	8.13e6	2928.2	2809.2	NO	bb	bb	111.750
13C-1234678-HpCDF	38.746	1.062	2.257e5	5.217e5	0.895	0.433	0.440	1764	3282	3.65e6	8.48e6	2069.5	2583.8	NO	bb	bb	108.280
13C-1234789-HpCDF	40.974	1.123	1.430e5	3.328e5	0.770	0.430	0.440	1764	3282	2.08e6	4.82e6	1179.8	1468.5	NO	bb	bb	80.175
13C-1234-TCDD	25.591	0.000	3.803e5	4.678e5	1.000	0.813	0.770	1648	1291	5.82e6	7.16e6	3529.3	5550.4	NO	bb	bb	100.000
13C-2378-TCDD	26.396	1.031	4.437e5	5.413e5	1.152	0.820	0.770	1648	1291	6.54e6	8.07e6	3971.2	6249.5	NO	bb	bb	100.783
13C-12378-PeCDD	31.504	1.231	4.648e5	2.838e5	0.829	1.638	1.550	1586	757	6.88e6	4.20e6	4338.9	5547.3	NO	bb	bb	106.508
13C-123478-HxCDD	35.994	0.986	4.314e5	3.234e5	0.995	1.334	1.240	2263	2855	7.08e6	5.25e6	3130.4	1837.8	NO	bd	bd	98.376
13C-123678-HxCDD	36.106	0.989	4.600e5	3.518e5	1.157	1.308	1.240	2263	2855	7.27e6	5.49e6	3213.5	1922.7	NO	db	db	91.015
13C-1234678-HpCDD	40.239	1.103	2.842e5	2.560e5	0.840	1.110	1.050	1991	1488	4.05e6	3.71e6	2033.1	2496.4	NO	bd	bb	83.379
13C-OCDD	44.963	1.232	5.588e5	6.144e5	0.767	0.910	0.890	1864	1517	6.66e6	7.37e6	3573.4	4859.2	NO	bb	bb	198.247
13C-123789-HxCDD	36.496	0.000	4.366e5	3.345e5	1.000	1.305	1.240	2263	2855	6.90e6	5.29e6	3051.5	1852.4	NO	bb	bb	100.000
37CL-2378-TCDD	26.410	1.032	9.890e4		1.288			1480		1.43e6		964.1			bb		9.056

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
Last Altered: Tuesday, March 07, 2023 08:54:19 Pacific Standard Time
Printed: Tuesday, March 07, 2023 09:03:18 Pacific Standard Time

ID: CS3X1, Name: 23030602, Date: 06-Mar-2023, Time: 10:49:33, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.271	0.865	6.088e4	8.537e4	0.802	0.713	0.770	1019	1775	9.71e5	1.37e6	953.5	769.3	NO	bb	bb	13.772
1289-TCDF	27.271	1.059	3.593e4	5.283e4	0.678	0.680	0.770	1019	1775	5.51e5	7.74e5	541.3	435.9	NO	bb	bb	9.880
13468-PECDF	27.130	0.907	3.732e5	2.344e5	1.246	1.592	1.550	752	1039	5.63e6	3.50e6	7480.9	3368.0	NO	bb	bb	43.462
12389-PECDF	32.306	1.080	2.332e5	1.493e5	0.496	1.562	1.550	1365	2184	3.33e6	2.22e6	2438.9	1019.0	NO	bb	bb	68.719
123468-HXCDF	33.220	0.953	3.224e5	2.536e5	1.169	1.271	1.240	1764	3090	4.90e6	3.82e6	2779.7	1237.5	NO	bb	bb	50.573
1368-TCDD	23.542	0.892	5.031e4	6.374e4	1.015	0.789	0.770	1931	1034	8.31e5	1.06e6	430.4	1020.8	NO	bb	bb	11.403
1289-TCDD	27.017	1.024	4.298e4	5.632e4	0.909	0.763	0.770	1931	1034	6.33e5	8.07e5	327.7	780.6	NO	bb	bb	11.094
12479-PECDD	28.797	0.914	4.122e5	2.665e5	2.301	1.547	1.550	2305	1787	4.02e6	2.59e6	1745.8	1450.6	NO	bb	bb	39.394
12389-PECDD	31.917	1.013	2.756e5	1.756e5	1.184	1.569	1.550	2305	1787	4.09e6	2.61e6	1773.0	1461.0	NO	bb	bb	50.930
124679-HXCDD	34.000	0.945	2.467e5	2.024e5	1.115	1.219	1.240	1680	2382	3.74e6	2.99e6	2223.7	1256.2	NO	bb	bb	53.354
1234679-HPCDD	39.203	0.974	1.820e5	1.809e5	1.137	1.006	1.050	1925	2141	2.85e6	2.84e6	1479.6	1324.1	NO	bb	bb	59.114
Total-tetrafurans			1.351e5		0.727			1019		2.10e6							33.702
Total-penta1			3.732e5					752		5.63e6							43.462
Total-pentafurans			7.451e5		0.654			1365		1.10e7							178.780
Total-hexafurans			1.526e6		1.141			1764		2.32e7							251.108
Total-heptafurans			2.875e5		0.978			1874		4.38e6							96.939
Total-Furans			3.254e6		0.922			1019		4.85e7							689.832
Total-tetradioxins			2.372e5		1.024			1931		3.32e6							53.896
Total-pentadioxins			9.297e5		1.502			2305		1.16e7							142.342
Total-hexadioxins			9.718e5		1.005			1680		1.50e7							227.192
Total-heptadioxins			3.215e5		1.088			1925		4.94e6							107.818
Total-Dioxins			2.705e6		1.130			1931		3.79e7							629.532
Total-TEQ			5.959e6					1931		8.63e7							1319.364
FUNCTION1 PFK			8.046e7					684022		6.54e7							
FUNCTION2 PFK			4.321e7					382527		4.20e7							0.000
FUNCTION3 PFK			1.928e5					498498		7.61e6							0.000
FUNCTION4 PFK			2.942e7					256005		5.59e7							
FUNCTION5 PFK			6.526e6					261785		1.00e6							
FUNCTION1 HXCD...			8.577e1					500		1.80e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			2.966e2					687		5.75e3							0.000
FUNCTION3 OCDPE			5.060e2					602		6.76e3							0.000
FUNCTION4 NCDPE			1.841e2					654		2.72e3							0.000
FUNCTION5 DCDPE			0.000e0					476		0.00e0							

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3X1, Name: 23030602, Date: 06-Mar-2023, Time: 10:49:33, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	3.593e4	5.283e4	0.678	0.68	0.77	541.3	YES	NO	bb	bb	9.880
2	2378-TCDF	25.77	3.727e4	5.376e4	0.702	0.69	0.77	558.0	YES	NO	bb	bb	9.793
3	Total-tetrafurans	24.87	4.725e2	7.187e2	0.727	0.66	0.77	5.8	YES	NO	bb	bb	0.124
4	Total-tetrafurans	24.53	5.201e2	7.653e2	0.727	0.68	0.77	7.7	YES	NO	bd	bd	0.133
5	1368-TCDF	22.27	6.088e4	8.537e4	0.802	0.71	0.77	953.5	YES	NO	bb	bb	13.772

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.13	3.732e5	2.344e5	1.246	1.59	1.55	7480.9	YES	NO	bb	bb	43.462

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.31	2.332e5	1.493e5	0.496	1.56	1.55	2438.9	YES	NO	bb	bb	68.719
2	Total-pentafurans	31.52	3.885e2	2.563e2	0.654	1.52	1.55	8.4	NO	NO	bd	bb	0.091
3	23478-PeCDF	31.27	2.419e5	1.643e5	0.786	1.47	1.55	2625.6	YES	NO	bb	bd	49.890
4	12378-PeCDF	29.92	2.294e5	1.554e5	0.679	1.48	1.55	2533.8	YES	NO	bb	bb	50.519
5	Total-pentafurans	28.79	4.010e4	2.734e4	0.654	1.47	1.55	449.2	YES	NO	bb	bb	9.561

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123478-HxCDF	34.89	3.141e5	2.489e5	1.166	1.26	1.24	2744.0	YES	NO	bd	bd	49.552
2	123468-HXCDF	33.22	3.224e5	2.536e5	1.169	1.27	1.24	2779.7	YES	NO	bb	bb	50.573
3	123789-HxCDF	36.92	2.483e5	2.027e5	1.137	1.23	1.24	2191.7	YES	NO	bb	bb	49.403
4	234678-HxCDF	35.88	3.018e5	2.410e5	1.140	1.25	1.24	2572.2	YES	NO	bb	bb	49.635
5	123678-HxCDF	35.03	3.395e5	2.678e5	1.091	1.27	1.24	2860.5	YES	NO	db	db	51.946

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	40.99	1.131e5	1.148e5	0.953	0.99	1.05	837.6	YES	NO	bb	bb	50.244
2	Total-heptafurans	39.43	1.183e3	1.170e3	0.978	1.01	1.05	10.3	YES	NO	db	bb	0.393
3	1234678-HpCDF	38.76	1.732e5	1.739e5	1.003	1.00	1.05	1487.5	YES	NO	bb	bb	46.302

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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	3.593e4	5.283e4	0.678	0.68	0.77	541.3	YES	NO	bb	bb	9.880
2	2378-TCDF	25.77	3.727e4	5.376e4	0.702	0.69	0.77	558.0	YES	NO	bb	bb	9.793
3	Total-tetrafurans	24.87	4.725e2	7.187e2	0.727	0.66	0.77	5.8	YES	NO	bb	bb	0.124
4	Total-tetrafurans	24.53	5.201e2	7.653e2	0.727	0.68	0.77	7.7	YES	NO	bd	bd	0.133
5	1368-TCDF	22.27	6.088e4	8.537e4	0.802	0.71	0.77	953.5	YES	NO	bb	bb	13.772
6	12389-PECDF	32.31	2.332e5	1.493e5	0.496	1.56	1.55	2438.9	YES	NO	bb	bb	68.719
7	Total-pentafurans	31.52	3.885e2	2.563e2	0.654	1.52	1.55	8.4	NO	NO	bd	bb	0.091
8	23478-PeCDF	31.27	2.419e5	1.643e5	0.786	1.47	1.55	2625.6	YES	NO	bb	bd	49.890
9	12378-PeCDF	29.92	2.294e5	1.554e5	0.679	1.48	1.55	2533.8	YES	NO	bb	bb	50.519
10	Total-pentafurans	28.79	4.010e4	2.734e4	0.654	1.47	1.55	449.2	YES	NO	bb	bb	9.561
11	123478-HxCDF	34.89	3.141e5	2.489e5	1.166	1.26	1.24	2744.0	YES	NO	bd	bd	49.552
12	123468-HXCDF	33.22	3.224e5	2.536e5	1.169	1.27	1.24	2779.7	YES	NO	bb	bb	50.573
13	123789-HxCDF	36.92	2.483e5	2.027e5	1.137	1.23	1.24	2191.7	YES	NO	bb	bb	49.403
14	234678-HxCDF	35.88	3.018e5	2.410e5	1.140	1.25	1.24	2572.2	YES	NO	bb	bb	49.635
15	123678-HxCDF	35.03	3.395e5	2.678e5	1.091	1.27	1.24	2860.5	YES	NO	db	db	51.946
16	1234789-HpCDF	40.99	1.131e5	1.148e5	0.953	0.99	1.05	837.6	YES	NO	bb	bb	50.244
17	Total-heptafurans	39.43	1.183e3	1.170e3	0.978	1.01	1.05	10.3	YES	NO	db	bb	0.393
18	1234678-HpCDF	38.76	1.732e5	1.739e5	1.003	1.00	1.05	1487.5	YES	NO	bb	bb	46.302
19	OCDF	45.22	1.875e5	2.041e5	0.778	0.92	0.89	1898.1	YES	NO	bd	bb	85.841
20	13468-PECDF	27.13	3.732e5	2.344e5	1.246	1.59	1.55	7480.9	YES	NO	bb	bb	43.462

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	25.03	4.782e2	5.648e2	1.024	0.85	0.77	4.5	YES	NO	bb	bb	0.103
2	1368-TCDD	23.54	5.031e4	6.374e4	1.015	0.79	0.77	430.4	YES	NO	bb	bb	11.403
3	1289-TCDD	27.02	4.298e4	5.632e4	0.909	0.76	0.77	327.7	YES	NO	bb	bb	11.094
4	2378-TCDD	26.41	4.940e4	6.404e4	1.149	0.77	0.77	382.1	YES	NO	bb	bb	10.026
5	Total-tetradioxins	26.08	7.132e4	9.148e4	1.024	0.78	0.77	390.6	YES	NO	bb	bb	16.137
6	Total-tetradioxins	25.60	2.272e4	2.907e4	1.024	0.78	0.77	185.4	YES	NO	bb	bb	5.133

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PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	31.92	2.756e5	1.756e5	1.184	1.57	1.55	1773.0	YES	NO	bb	bb	50.930
2	12378-PeCDD	31.53	2.407e5	1.560e5	1.022	1.54	1.55	1522.9	YES	NO	bb	bb	51.850
3	Total-pentadioxins	30.86	1.051e3	6.136e2	1.502	1.71	1.55	6.8	YES	NO	bb	bb	0.148
4	Total-pentadioxins	29.15	1.377e2	8.963e1	1.502	1.54	1.55	1.7	NO	NO	bb	bb	0.020
5	12479-PECDD	28.80	4.122e5	2.665e5	2.301	1.55	1.55	1745.8	YES	NO	bb	bb	39.394

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	124679-HXCDD	34.00	2.467e5	2.024e5	1.115	1.22	1.24	2223.7	YES	NO	bb	bb	53.354
2	123789-HxCDD	36.51	2.295e5	1.904e5	0.907	1.21	1.24	2181.1	YES	NO	bb	bb	59.097
3	123678-HxCDD	36.12	2.673e5	2.177e5	1.001	1.23	1.24	2311.8	YES	NO	db	db	59.687
4	123478-HxCDD	36.01	2.282e5	1.855e5	0.996	1.23	1.24	2216.8	YES	NO	bd	bd	55.054

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.25	1.395e5	1.338e5	1.039	1.04	1.05	1084.8	YES	NO	bb	bb	48.704
2	1234679-HPCDD	39.20	1.820e5	1.809e5	1.137	1.01	1.05	1479.6	YES	NO	bb	bb	59.114

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	25.03	4.782e2	5.648e2	1.024	0.85	0.77	4.5	YES	NO	bb	bb	0.103
2	1368-TCDD	23.54	5.031e4	6.374e4	1.015	0.79	0.77	430.4	YES	NO	bb	bb	11.403
3	1289-TCDD	27.02	4.298e4	5.632e4	0.909	0.76	0.77	327.7	YES	NO	bb	bb	11.094
4	2378-TCDD	26.41	4.940e4	6.404e4	1.149	0.77	0.77	382.1	YES	NO	bb	bb	10.026
5	Total-tetradioxins	26.08	7.132e4	9.148e4	1.024	0.78	0.77	390.6	YES	NO	bb	bb	16.137
6	Total-tetradioxins	25.60	2.272e4	2.907e4	1.024	0.78	0.77	185.4	YES	NO	bb	bb	5.133
7	12389-PECDD	31.92	2.756e5	1.756e5	1.184	1.57	1.55	1773.0	YES	NO	bb	bb	50.930
8	12378-PeCDD	31.53	2.407e5	1.560e5	1.022	1.54	1.55	1522.9	YES	NO	bb	bb	51.850
9	Total-pentadioxins	30.86	1.051e3	6.136e2	1.502	1.71	1.55	6.8	YES	NO	bb	bb	0.148
10	Total-pentadioxins	29.15	1.377e2	8.963e1	1.502	1.54	1.55	1.7	NO	NO	bb	bb	0.020
11	12479-PECDD	28.80	4.122e5	2.665e5	2.301	1.55	1.55	1745.8	YES	NO	bb	bb	39.394
12	124679-HXCDD	34.00	2.467e5	2.024e5	1.115	1.22	1.24	2223.7	YES	NO	bb	bb	53.354
13	123789-HxCDD	36.51	2.295e5	1.904e5	0.907	1.21	1.24	2181.1	YES	NO	bb	bb	59.097
14	123678-HxCDD	36.12	2.673e5	2.177e5	1.001	1.23	1.24	2311.8	YES	NO	db	db	59.687
15	123478-HxCDD	36.01	2.282e5	1.855e5	0.996	1.23	1.24	2216.8	YES	NO	bd	bd	55.054
16	1234678-HpCDD	40.25	1.395e5	1.338e5	1.039	1.04	1.05	1084.8	YES	NO	bb	bb	48.704
17	1234679-HPCDD	39.20	1.820e5	1.809e5	1.137	1.01	1.05	1479.6	YES	NO	bb	bb	59.114
18	OCDD	44.97	2.446e5	2.858e5	0.920	0.86	0.89	1982.5	YES	NO	bb	bb	98.285

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.27	3.593e4	5.283e4	0.678	0.68	0.77	541.3	YES	NO	bb	bb	9.880
2	2378-TCDF	25.77	3.727e4	5.376e4	0.702	0.69	0.77	558.0	YES	NO	bb	bb	9.793
3	Total-tetrafurans	24.87	4.725e2	7.187e2	0.727	0.66	0.77	5.8	YES	NO	bb	bb	0.124
4	Total-tetrafurans	24.53	5.201e2	7.653e2	0.727	0.68	0.77	7.7	YES	NO	bd	bd	0.133
5	1368-TCDF	22.27	6.088e4	8.537e4	0.802	0.71	0.77	953.5	YES	NO	bb	bb	13.772
6	12389-PECDF	32.31	2.332e5	1.493e5	0.496	1.56	1.55	2438.9	YES	NO	bb	bb	68.719
7	Total-pentafurans	31.52	3.885e2	2.563e2	0.654	1.52	1.55	8.4	NO	NO	bd	bb	0.091
8	23478-PeCDF	31.27	2.419e5	1.643e5	0.786	1.47	1.55	2625.6	YES	NO	bb	bd	49.890
9	12378-PeCDF	29.92	2.294e5	1.554e5	0.679	1.48	1.55	2533.8	YES	NO	bb	bb	50.519
10	Total-pentafurans	28.79	4.010e4	2.734e4	0.654	1.47	1.55	449.2	YES	NO	bb	bb	9.561
11	123478-HxCDF	34.89	3.141e5	2.489e5	1.166	1.26	1.24	2744.0	YES	NO	bd	bd	49.552
12	123468-HXCDF	33.22	3.224e5	2.536e5	1.169	1.27	1.24	2779.7	YES	NO	bb	bb	50.573
13	123789-HxCDF	36.92	2.483e5	2.027e5	1.137	1.23	1.24	2191.7	YES	NO	bb	bb	49.403
14	234678-HxCDF	35.88	3.018e5	2.410e5	1.140	1.25	1.24	2572.2	YES	NO	bb	bb	49.635
15	123678-HxCDF	35.03	3.395e5	2.678e5	1.091	1.27	1.24	2860.5	YES	NO	db	db	51.946
16	1234789-HpCDF	40.99	1.131e5	1.148e5	0.953	0.99	1.05	837.6	YES	NO	bb	bb	50.244
17	Total-heptafurans	39.43	1.183e3	1.170e3	0.978	1.01	1.05	10.3	YES	NO	db	bb	0.393
18	1234678-HpCDF	38.76	1.732e5	1.739e5	1.003	1.00	1.05	1487.5	YES	NO	bb	bb	46.302
19	OCDF	45.22	1.875e5	2.041e5	0.778	0.92	0.89	1898.1	YES	NO	bd	bb	85.841
20	13468-PECDF	27.13	3.732e5	2.344e5	1.246	1.59	1.55	7480.9	YES	NO	bb	bb	43.462
21	Total-tetradioxins	25.03	4.782e2	5.648e2	1.024	0.85	0.77	4.5	YES	NO	bb	bb	0.103
22	1368-TCDD	23.54	5.031e4	6.374e4	1.015	0.79	0.77	430.4	YES	NO	bb	bb	11.403
23	1289-TCDD	27.02	4.298e4	5.632e4	0.909	0.76	0.77	327.7	YES	NO	bb	bb	11.094
24	2378-TCDD	26.41	4.940e4	6.404e4	1.149	0.77	0.77	382.1	YES	NO	bb	bb	10.026
25	Total-tetradioxins	26.08	7.132e4	9.148e4	1.024	0.78	0.77	390.6	YES	NO	bb	bb	16.137
26	Total-tetradioxins	25.60	2.272e4	2.907e4	1.024	0.78	0.77	185.4	YES	NO	bb	bb	5.133
27	12389-PECDD	31.92	2.756e5	1.756e5	1.184	1.57	1.55	1773.0	YES	NO	bb	bb	50.930
28	12378-PeCDD	31.53	2.407e5	1.560e5	1.022	1.54	1.55	1522.9	YES	NO	bb	bb	51.850
29	Total-pentadioxins	30.86	1.051e3	6.136e2	1.502	1.71	1.55	6.8	YES	NO	bb	bb	0.148
30	Total-pentadioxins	29.15	1.377e2	8.963e1	1.502	1.54	1.55	1.7	NO	NO	bb	bb	0.020
31	12479-PECDD	28.80	4.122e5	2.665e5	2.301	1.55	1.55	1745.8	YES	NO	bb	bb	39.394
32	124679-HXCDD	34.00	2.467e5	2.024e5	1.115	1.22	1.24	2223.7	YES	NO	bb	bb	53.354
33	123789-HxCDD	36.51	2.295e5	1.904e5	0.907	1.21	1.24	2181.1	YES	NO	bb	bb	59.097
34	123678-HxCDD	36.12	2.673e5	2.177e5	1.001	1.23	1.24	2311.8	YES	NO	db	db	59.687
35	123478-HxCDD	36.01	2.282e5	1.855e5	0.996	1.23	1.24	2216.8	YES	NO	bd	bd	55.054
36	1234678-HpCDD	40.25	1.395e5	1.338e5	1.039	1.04	1.05	1084.8	YES	NO	bb	bb	48.704
37	1234679-HPCDD	39.20	1.820e5	1.809e5	1.137	1.01	1.05	1479.6	YES	NO	bb	bb	59.114

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	OCDD	44.97	2.446e5	2.858e5	0.920	0.86	0.89	1982.5	YES	NO	bb	bb	98.285

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	22.48	3.794e7					47.2	YES		db		
2	FUNCTION1 PFK	22.23	4.253e7					48.4	YES		bd		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	31.91	1.702e6					6.9	YES		db		0.000
2	FUNCTION2 PFK	28.69	2.861e7					51.2	YES		dd		0.000
3	FUNCTION2 PFK	28.62	1.290e7					51.7	YES		bd		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	35.44	3.820e3					0.7	NO		bb		0.000
2	FUNCTION3 PFK	34.99	5.346e3					0.7	NO		bb		0.000
3	FUNCTION3 PFK	34.62	2.355e4					1.5	NO		bb		0.000
4	FUNCTION3 PFK	34.16	1.866e4					1.5	NO		bb		0.000
5	FUNCTION3 PFK	33.52	3.771e3					0.7	NO		bb		0.000
6	FUNCTION3 PFK	33.28	3.144e3					0.6	NO		bb		0.000
7	FUNCTION3 PFK	37.69	3.488e4					1.8	NO		bb		0.000
8	FUNCTION3 PFK	37.48	8.397e3					0.9	NO		bb		0.000
9	FUNCTION3 PFK	37.07	3.334e4					1.6	NO		bb		0.000
10	FUNCTION3 PFK	36.81	3.488e4					2.6	NO		bb		0.000
11	FUNCTION3 PFK	36.67	3.455e3					0.6	NO		bb		0.000
12	FUNCTION3 PFK	36.45	1.365e4					1.2	NO		bb		0.000
13	FUNCTION3 PFK	36.27	2.828e3					0.5	NO		bb		0.000
14	FUNCTION3 PFK	35.57	3.048e3					0.5	NO		bb		0.000

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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.08	6.365e6					49.6	YES		db		
2	FUNCTION4 PFK	38.29	1.352e7					81.3	YES		dd		
3	FUNCTION4 PFK	38.03	9.539e6					87.2	YES		bd		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.62	9.122e4					2.4	NO		bb		
2	FUNCTION5 PFK	43.63	6.435e6					1.4	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	25.59	8.577e1					3.6	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.15	2.966e2					8.4	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.48	3.364e2					5.3	YES		bb		0.000
2	FUNCTION3 OCDPE	35.99	7.069e1					2.9	NO		bb		0.000
3	FUNCTION3 OCDPE	33.87	9.894e1					3.0	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.89	1.113e2					1.9	NO		bb		0.000
2	FUNCTION4 NCDPE	41.41	7.287e1					2.2	NO		bb		0.000

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ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

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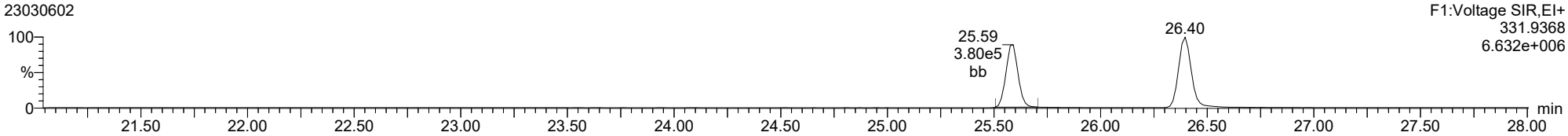
13C-1234-TCDD



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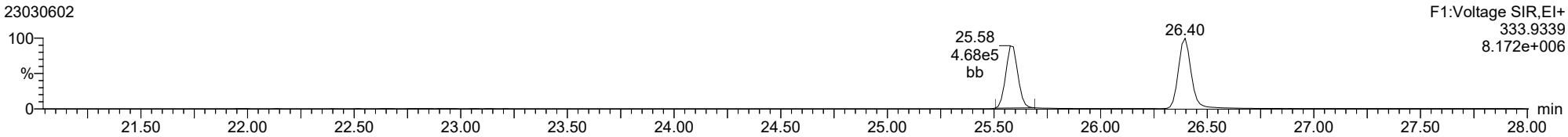
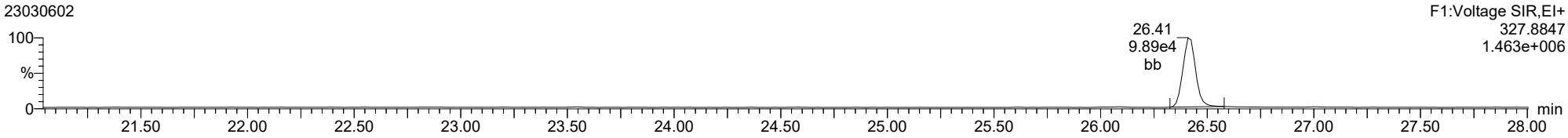


37CL-2378-TCDD



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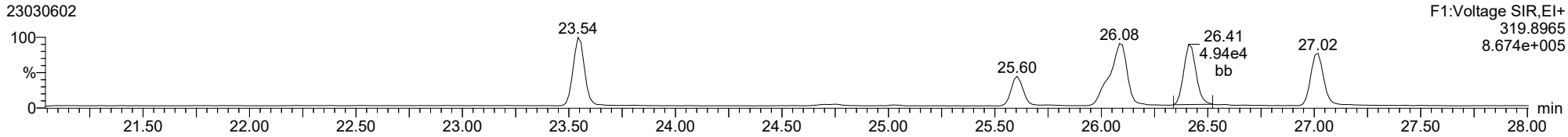

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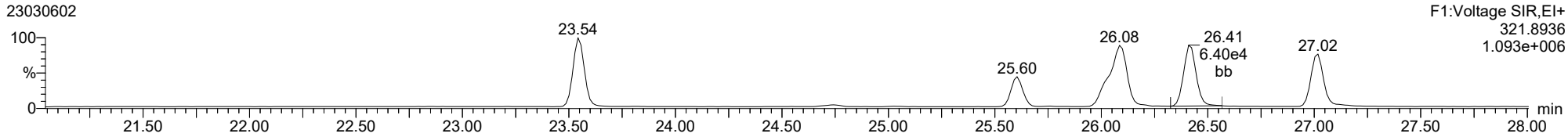

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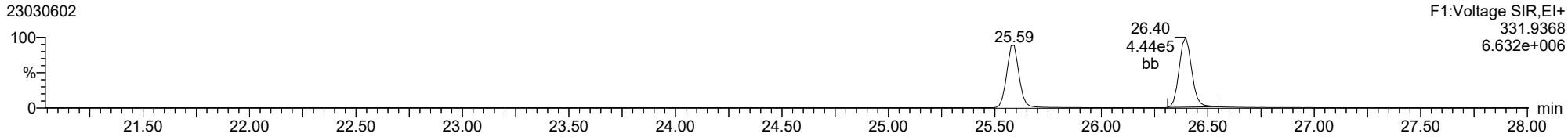

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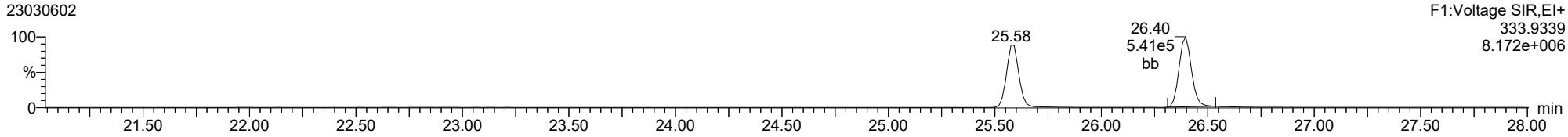

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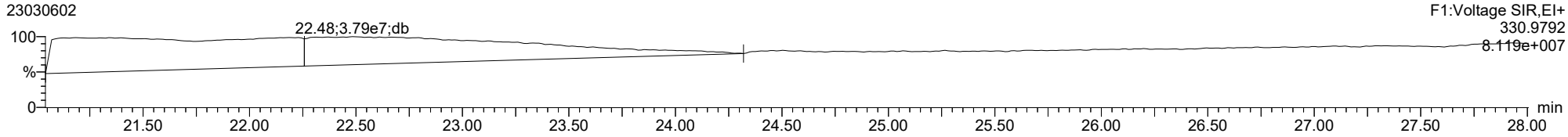

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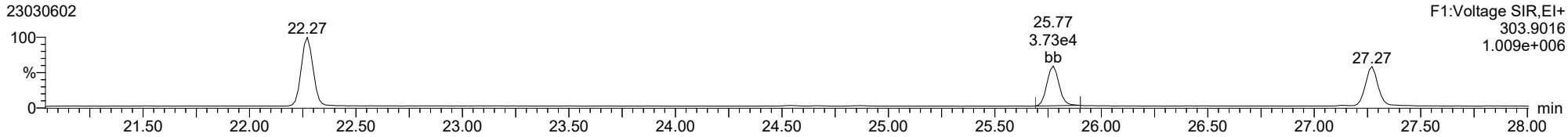

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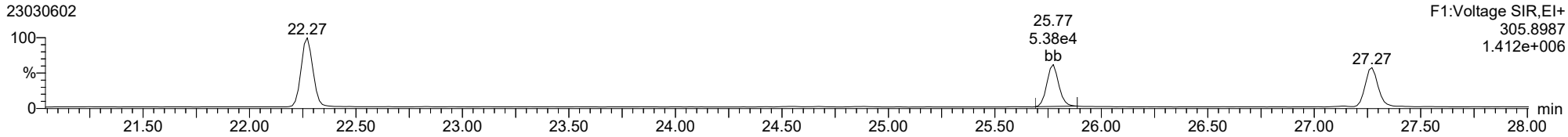

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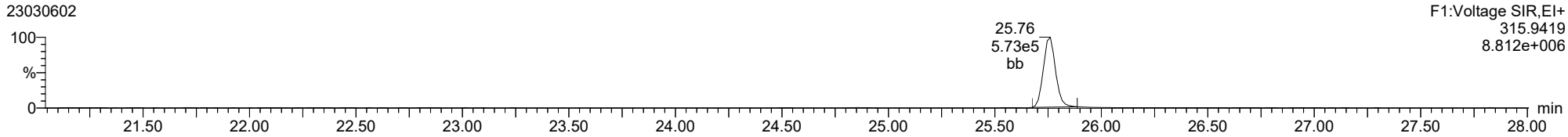

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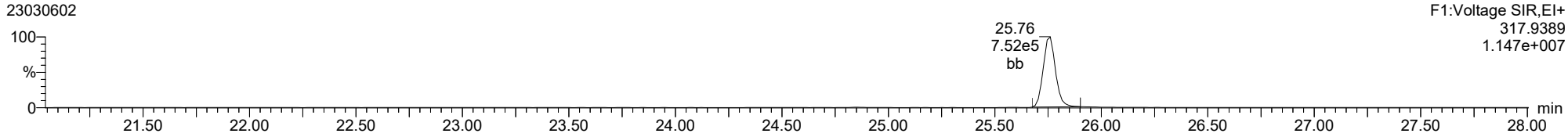

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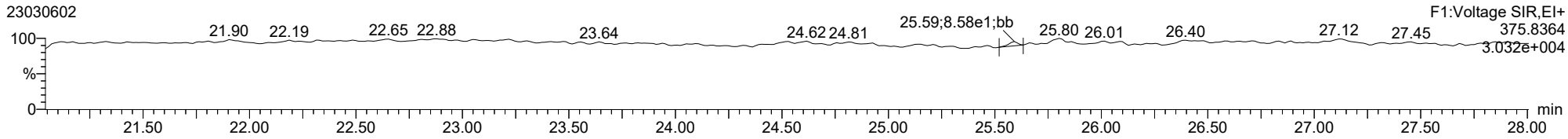

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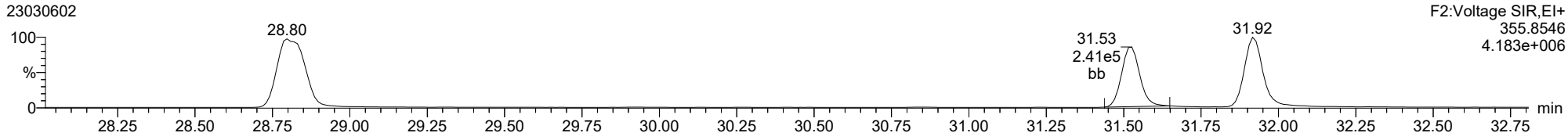

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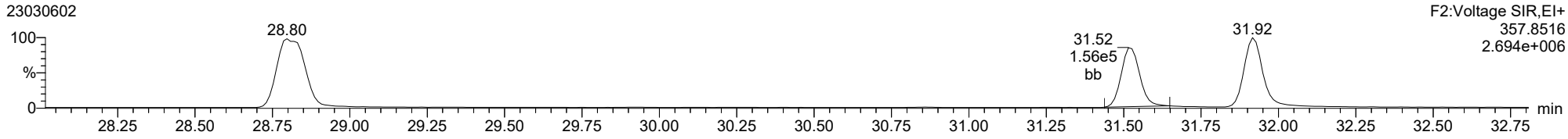

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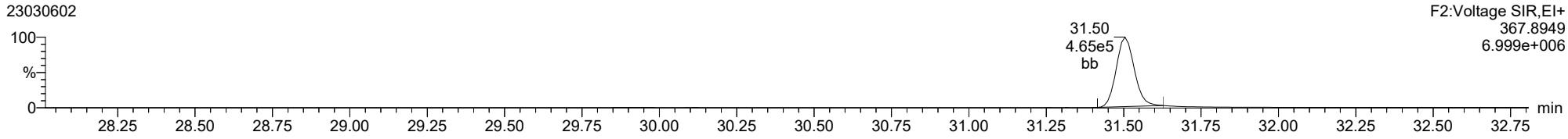

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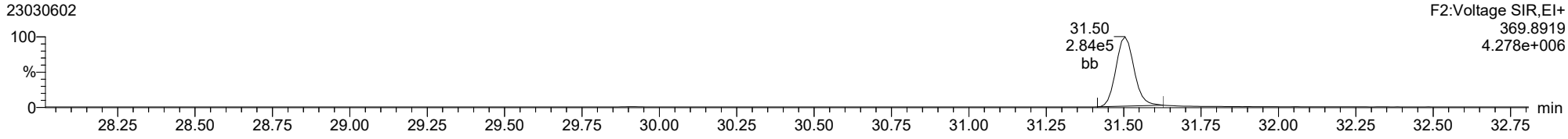

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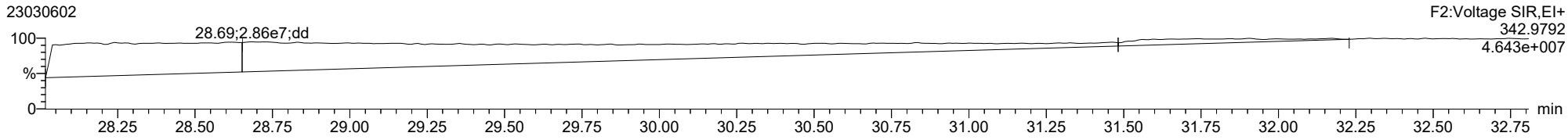

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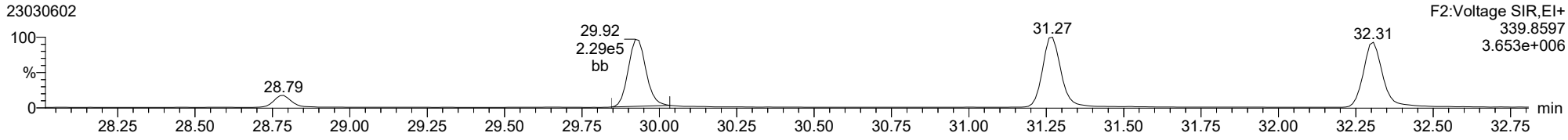

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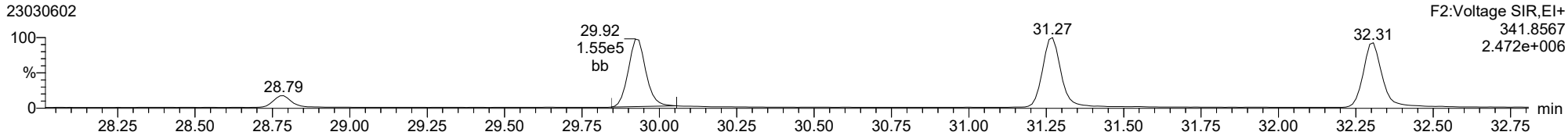

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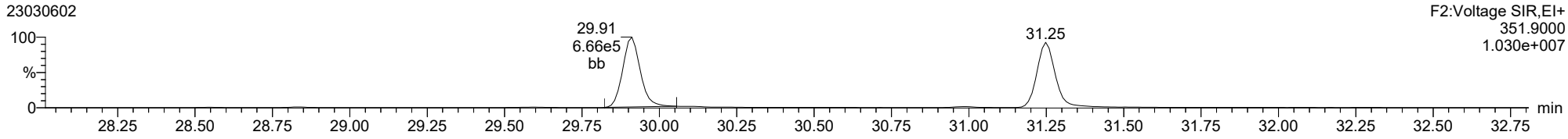

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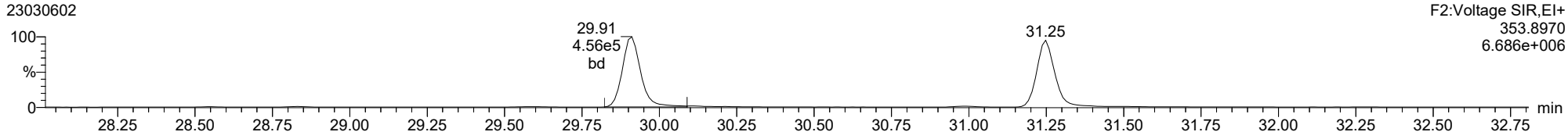

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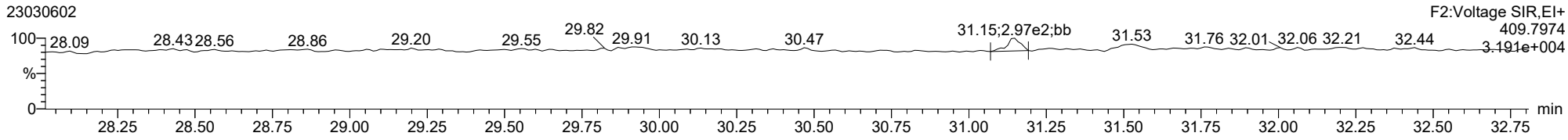

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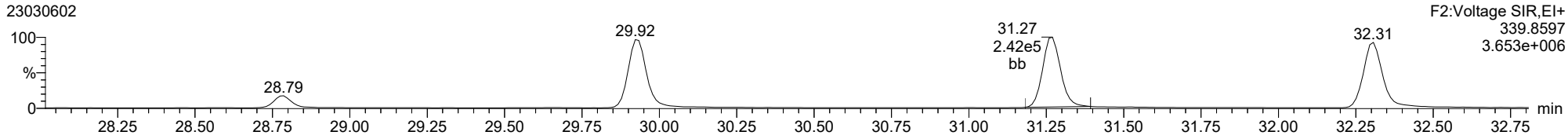

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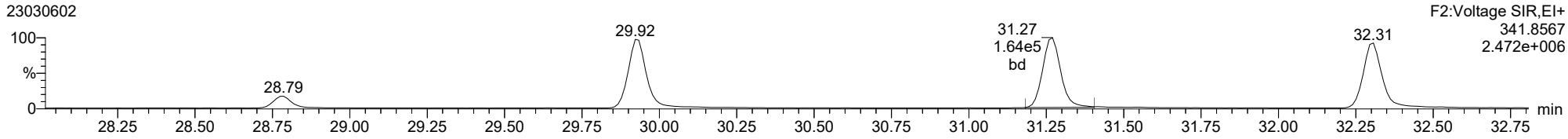

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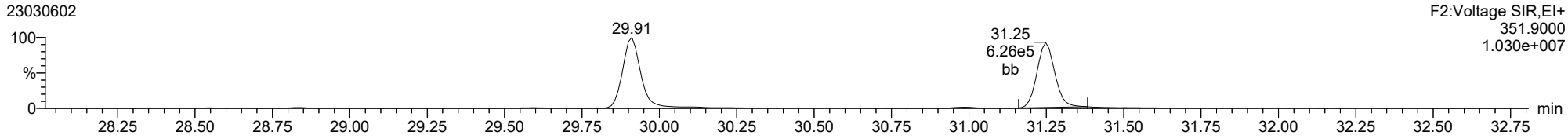

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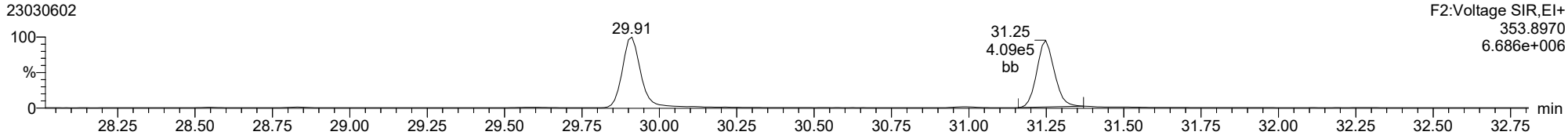

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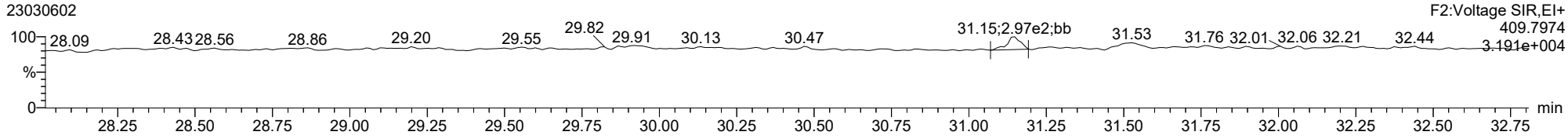

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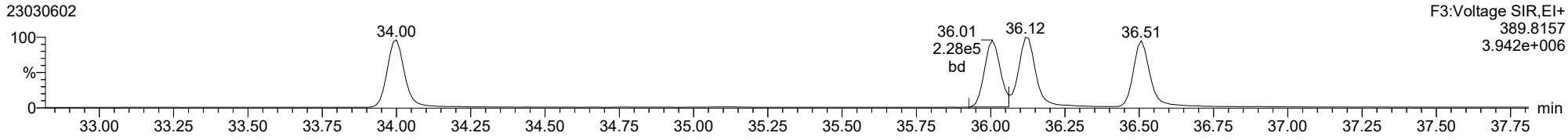

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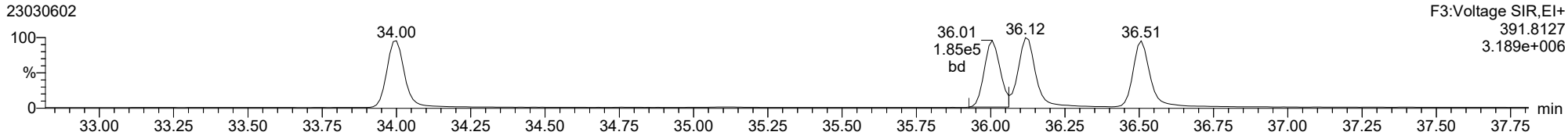

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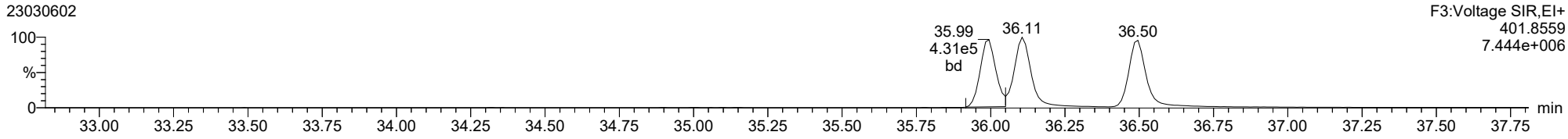

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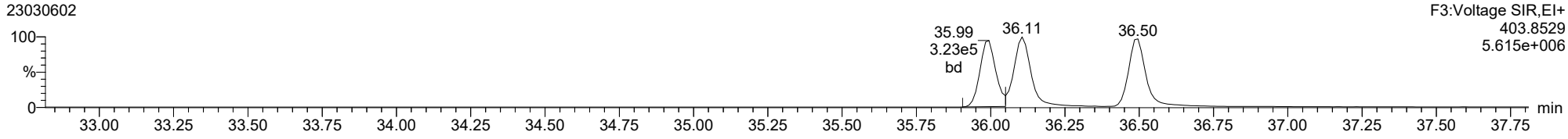

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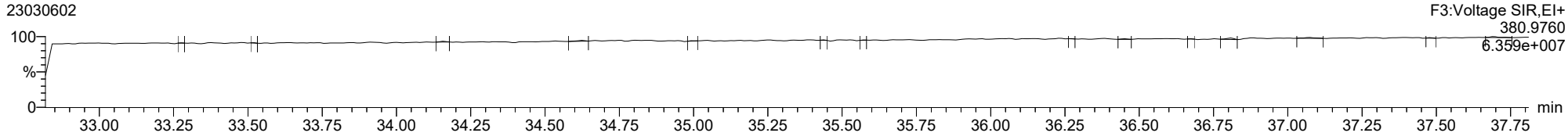

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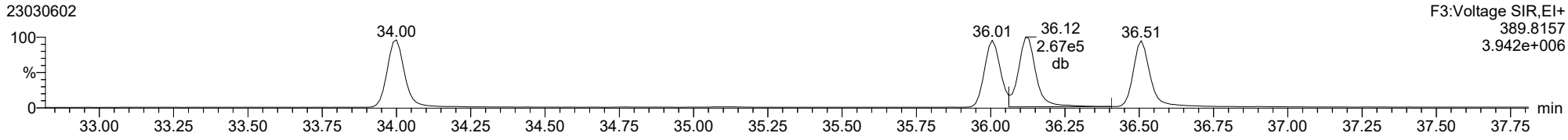

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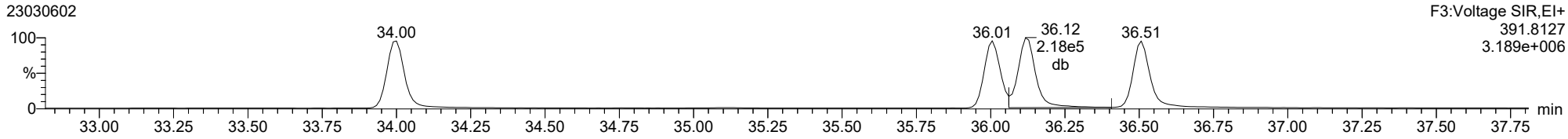

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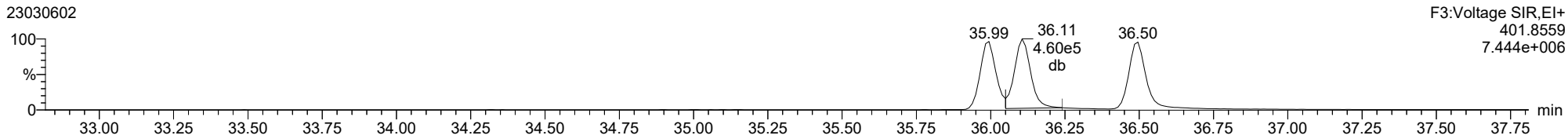

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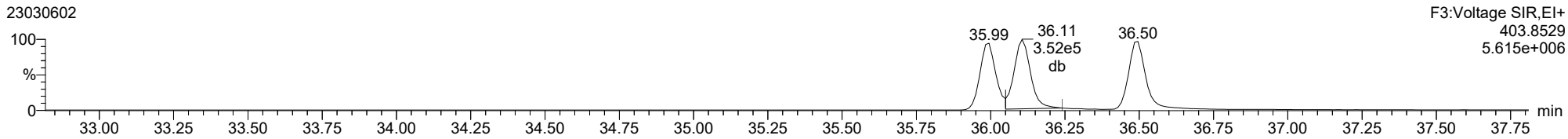

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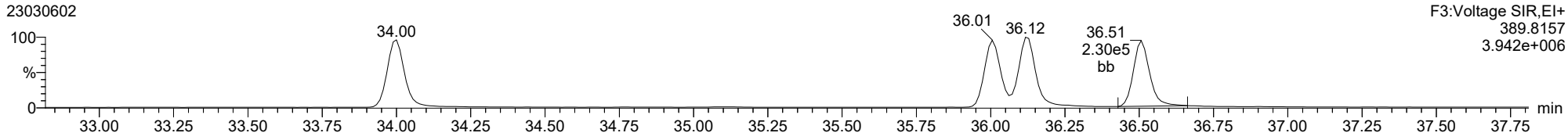

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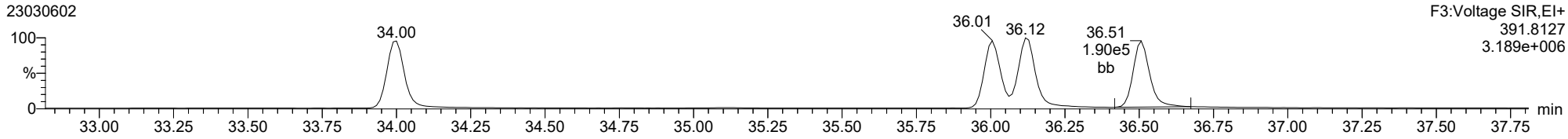

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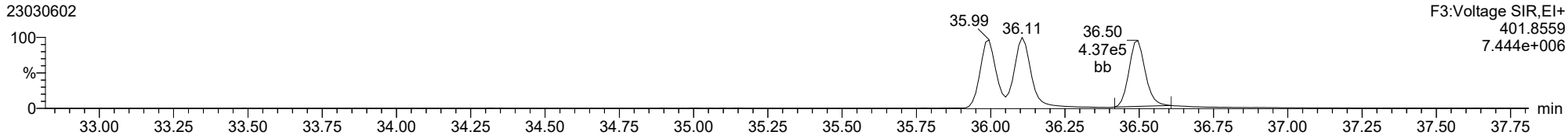

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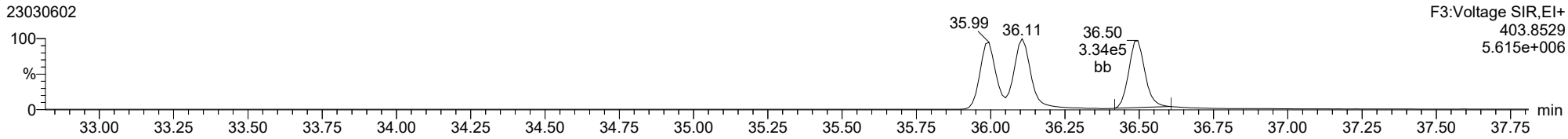

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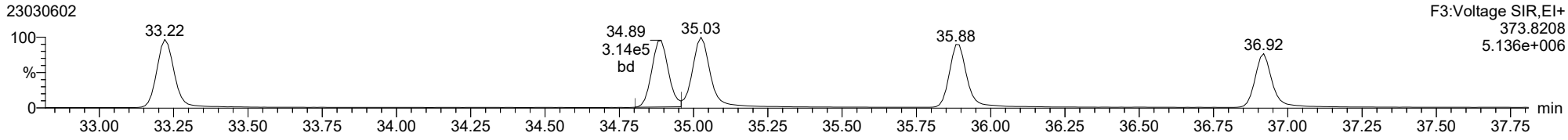

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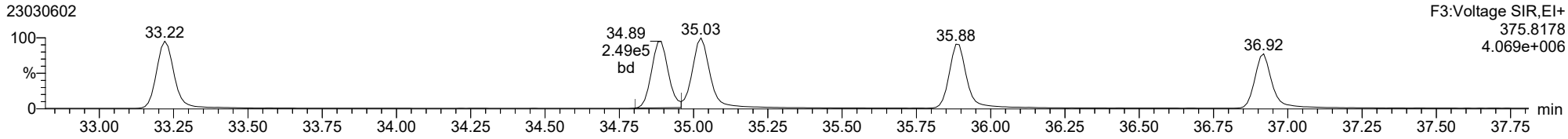

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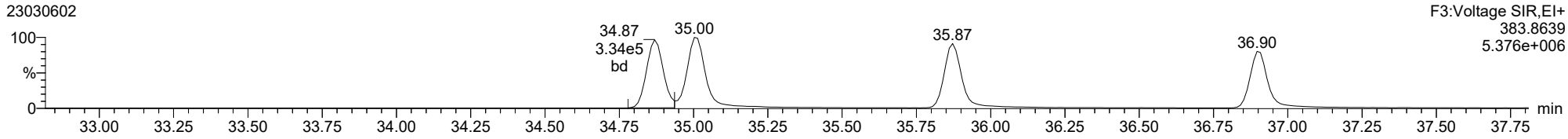

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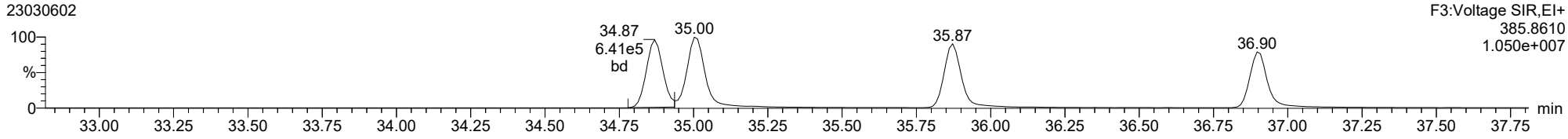

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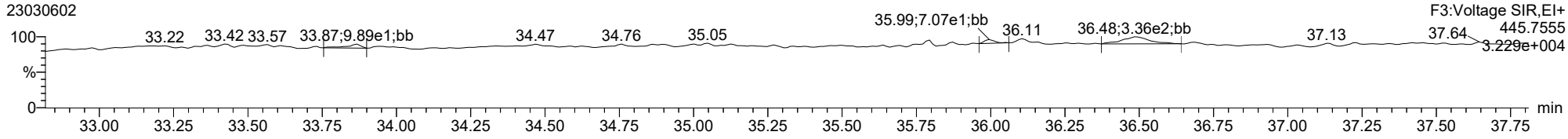

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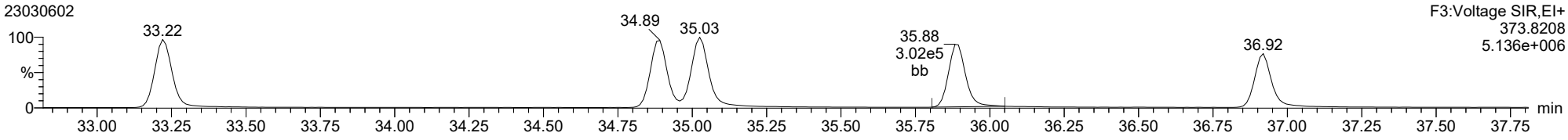
234678-HxCDF



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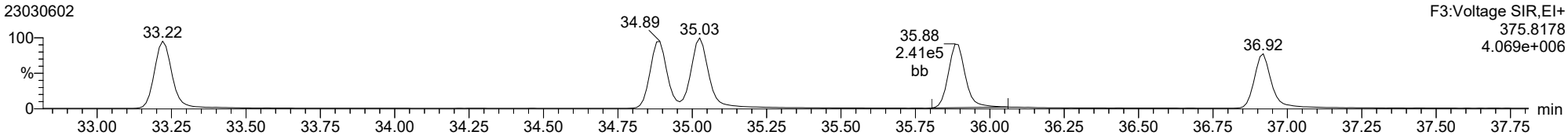

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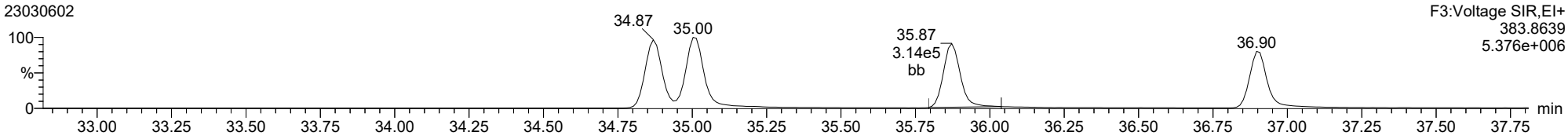

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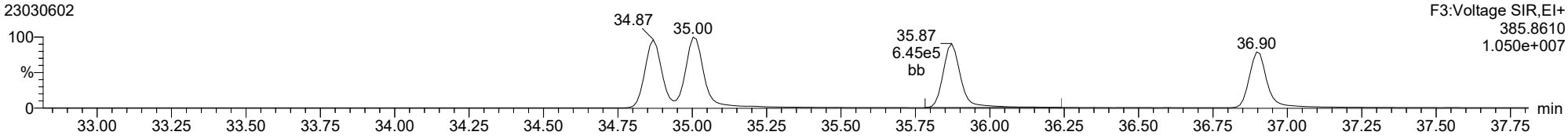

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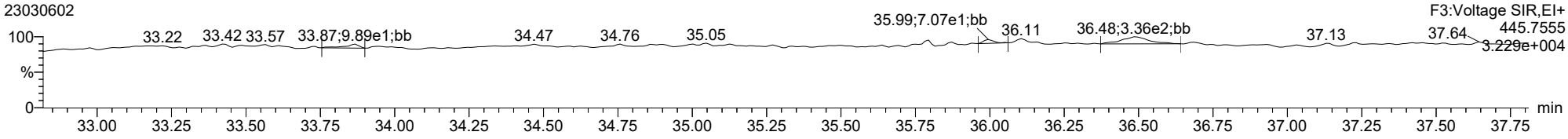

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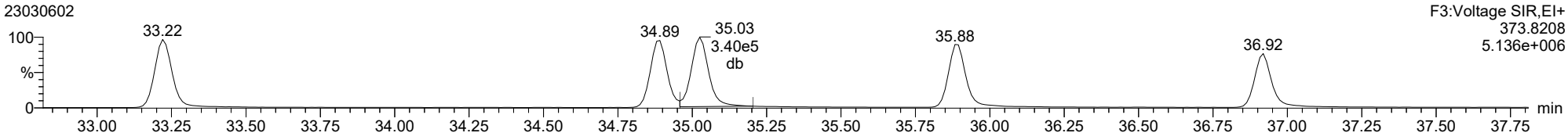

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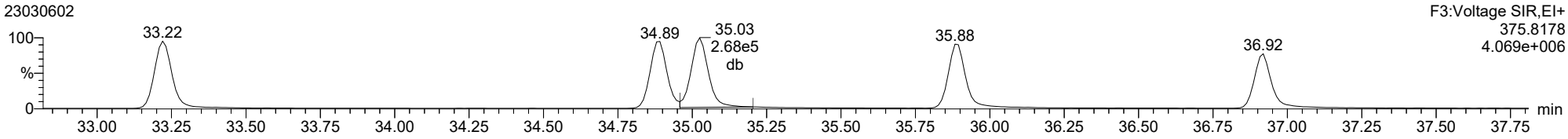

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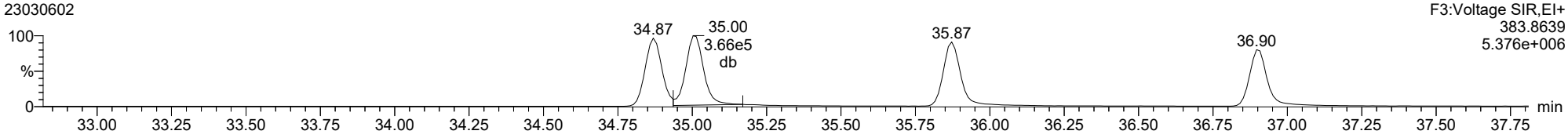

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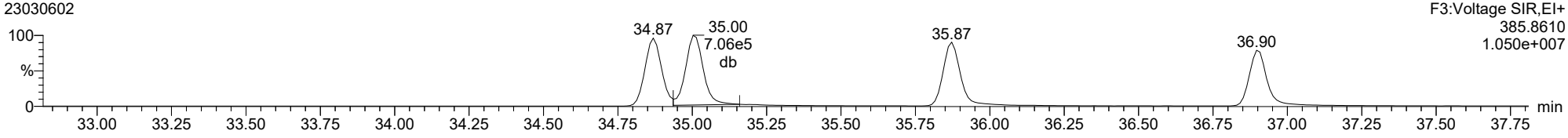

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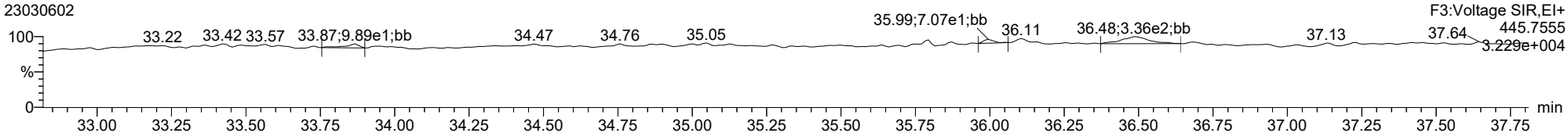

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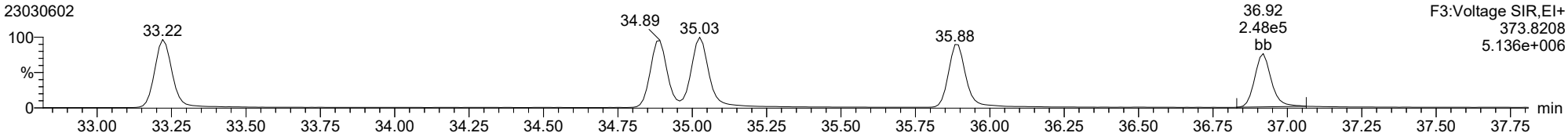

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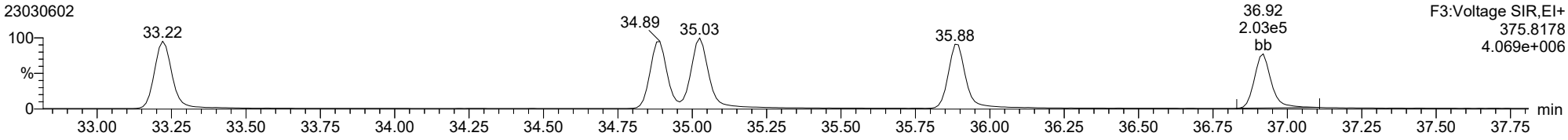

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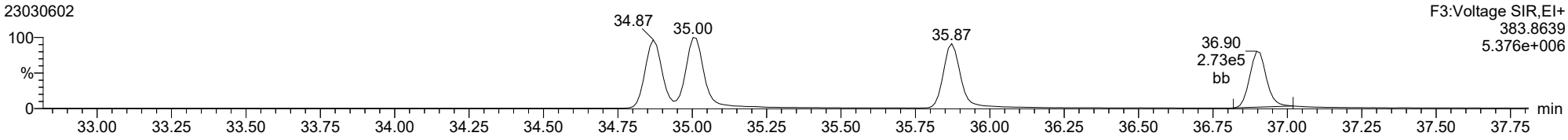

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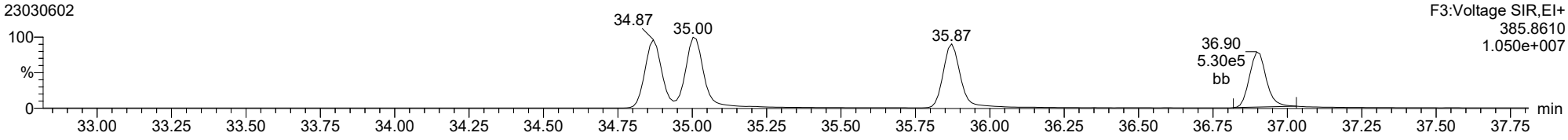

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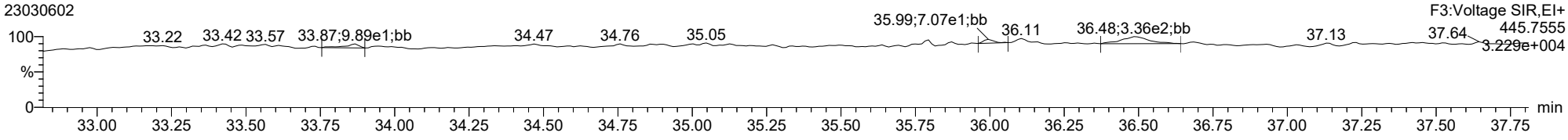

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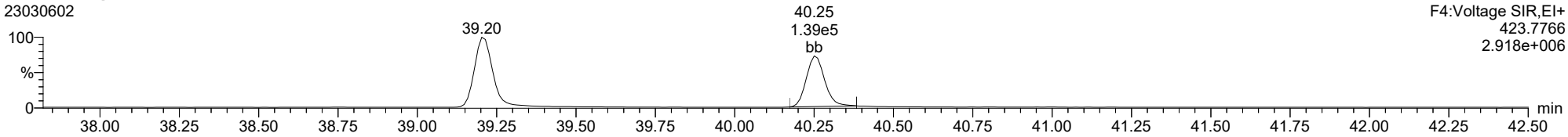

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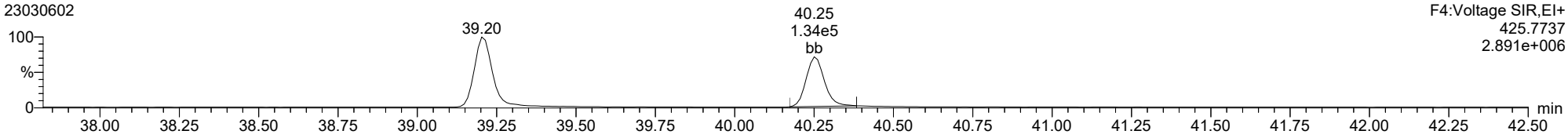

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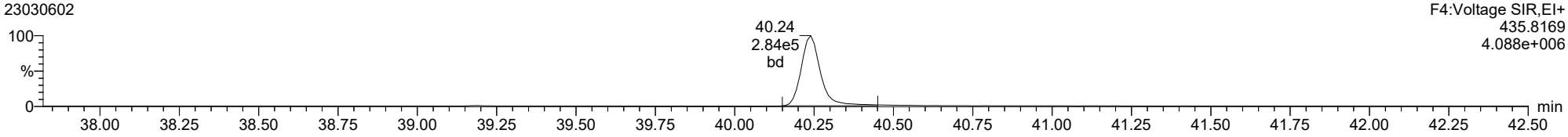

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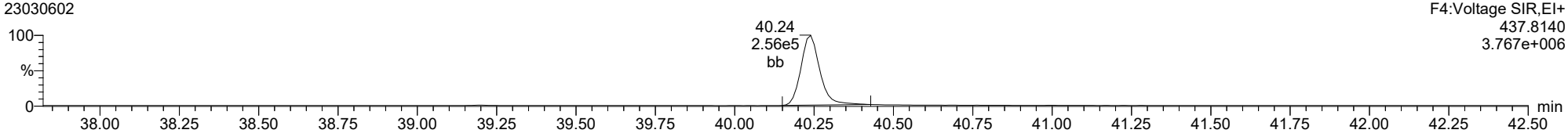

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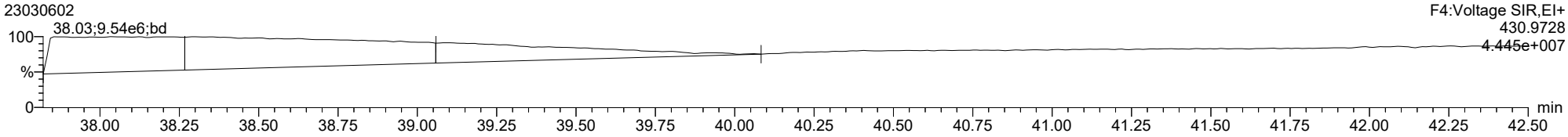

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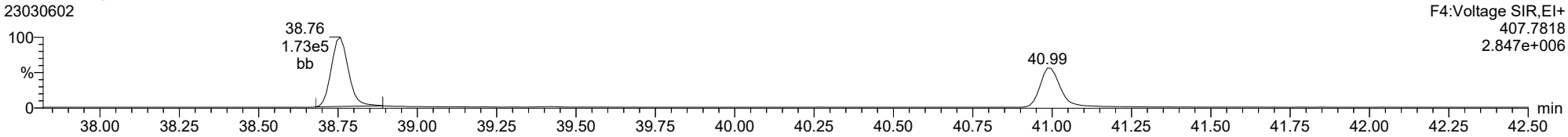

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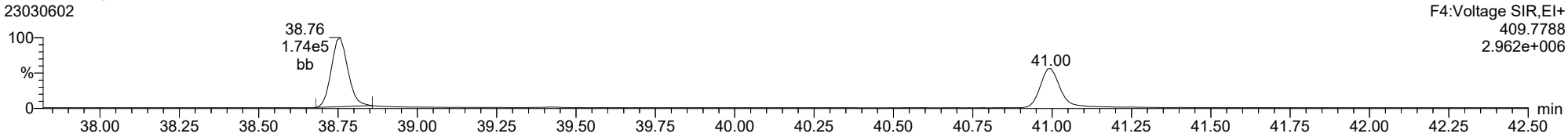

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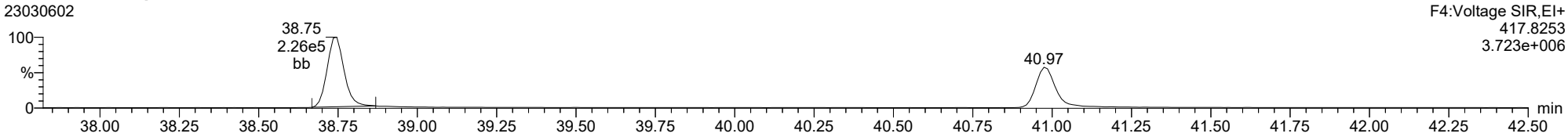

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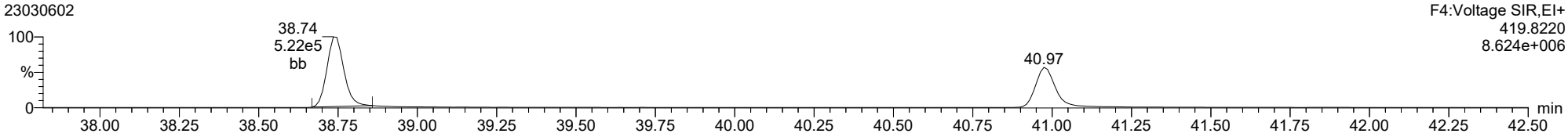

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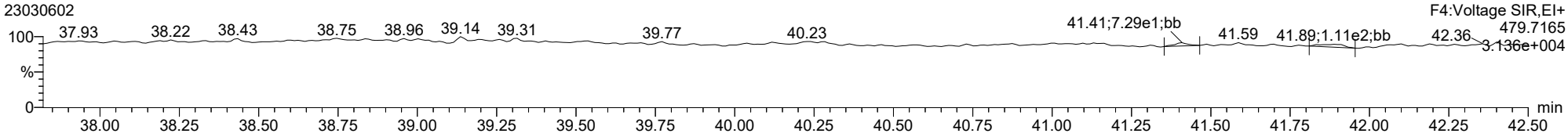

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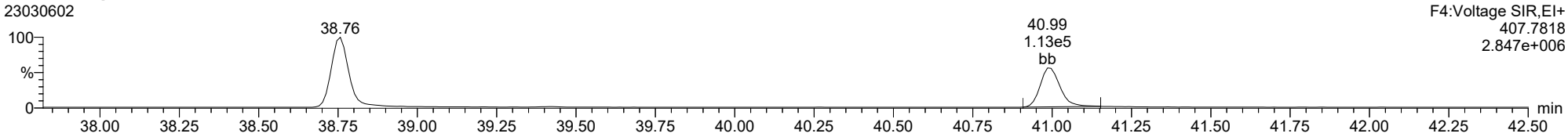

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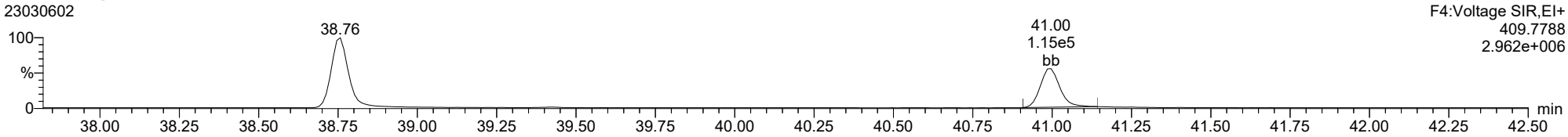

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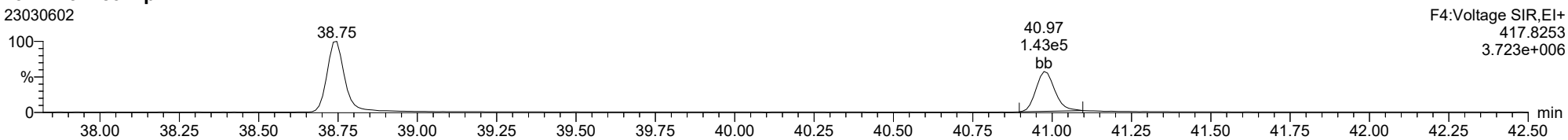

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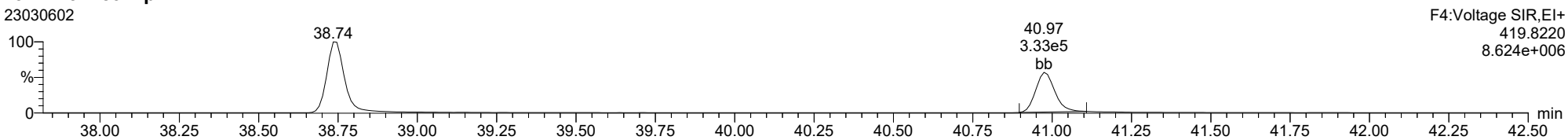

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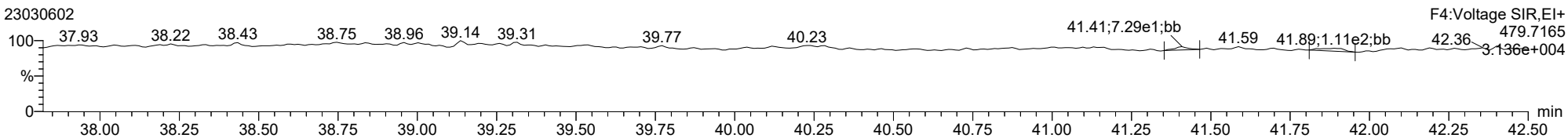

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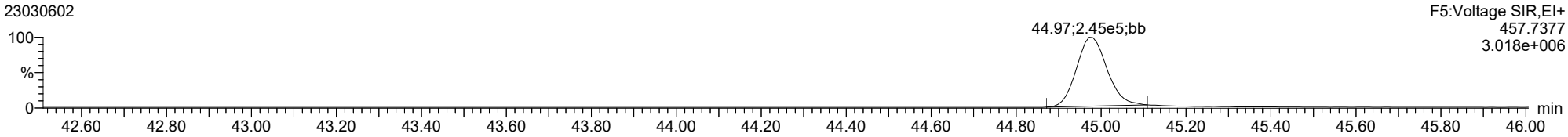

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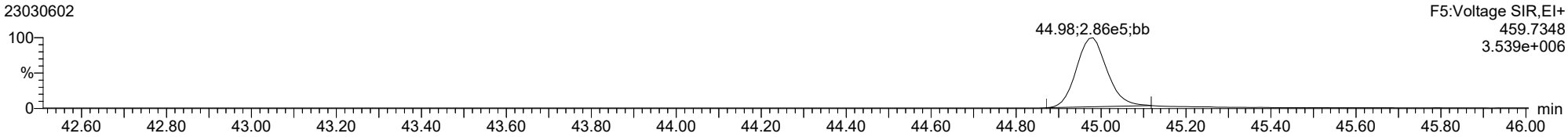

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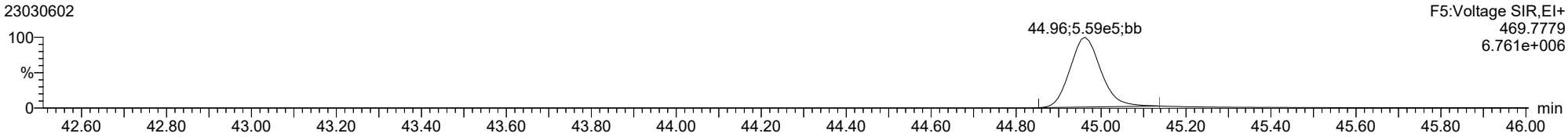

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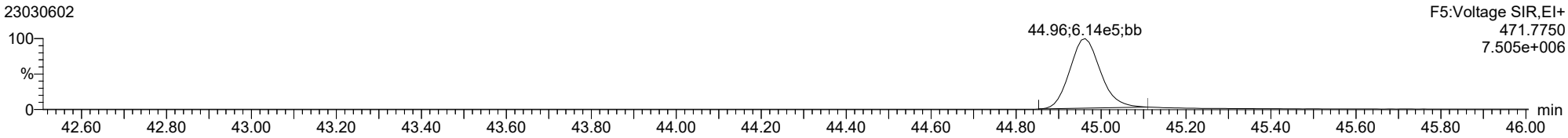

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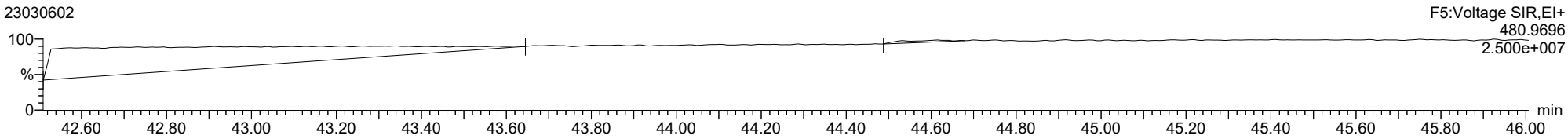

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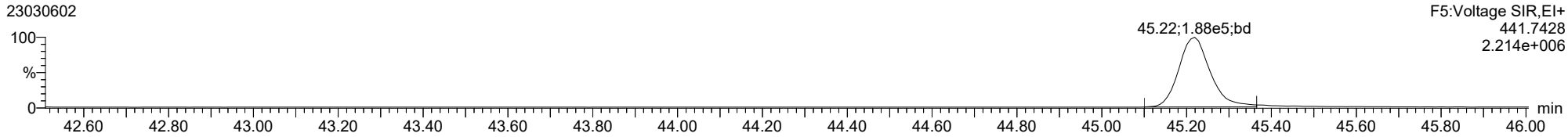

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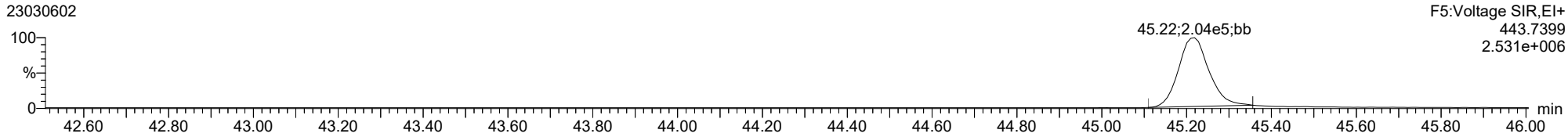

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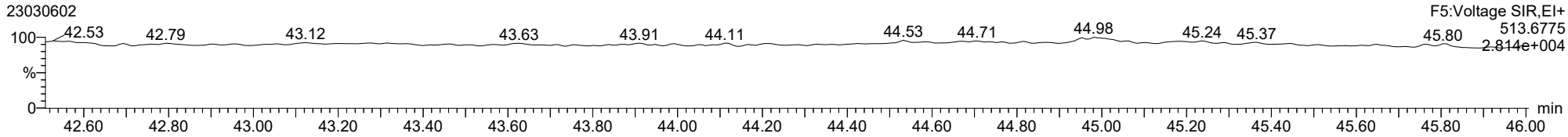

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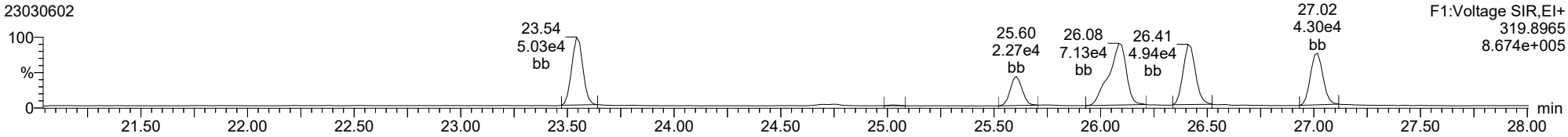

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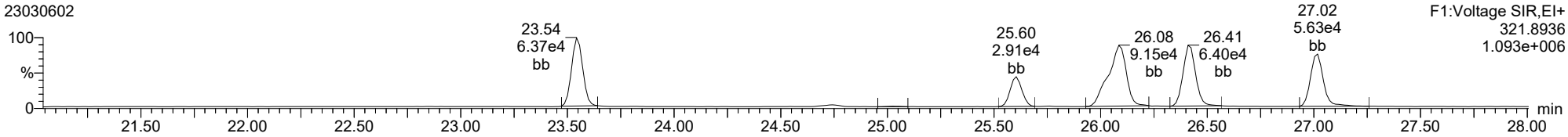

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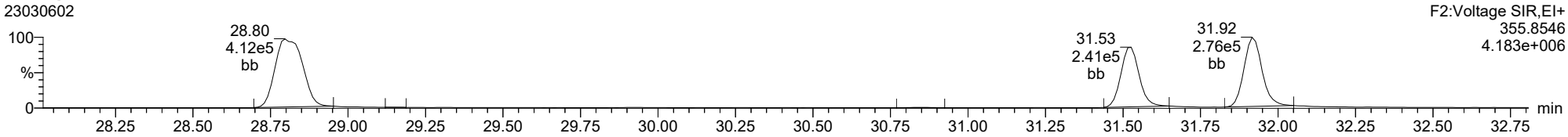

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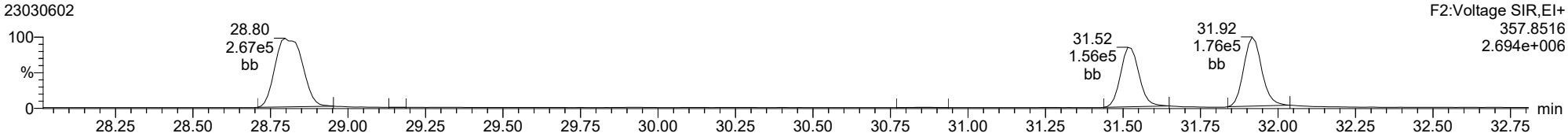

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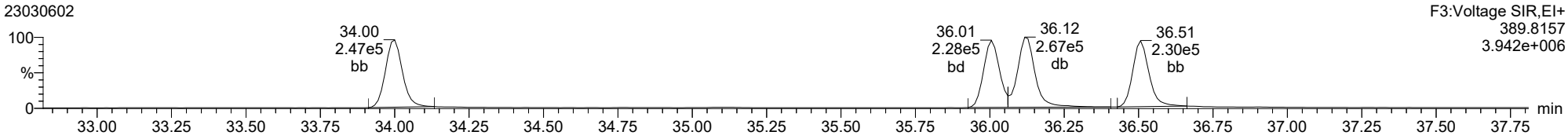

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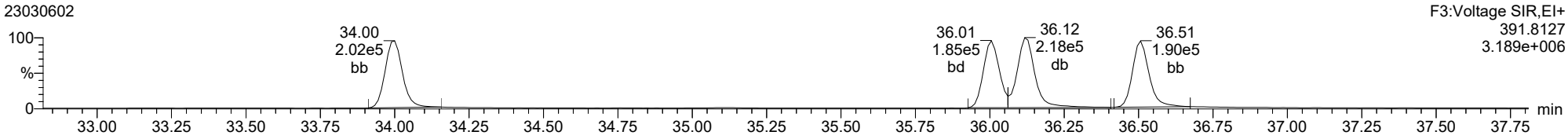

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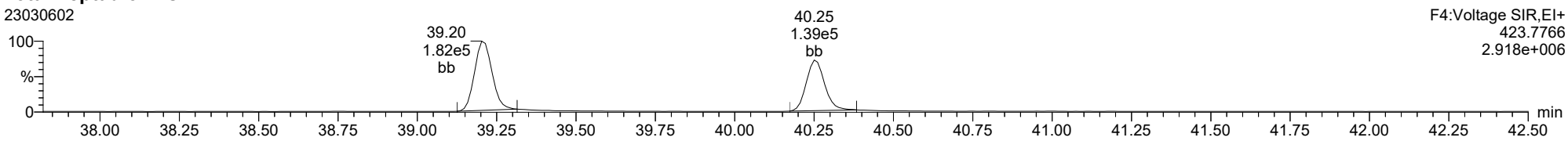

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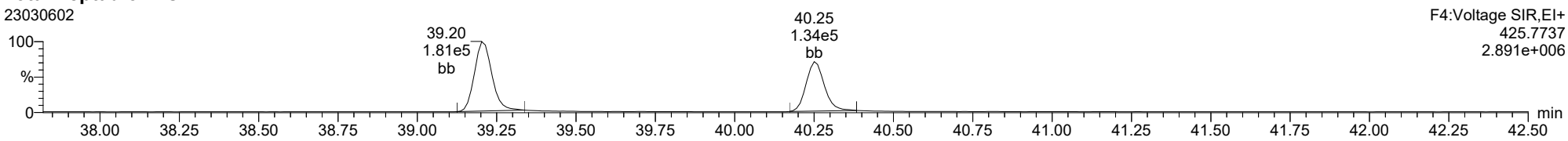

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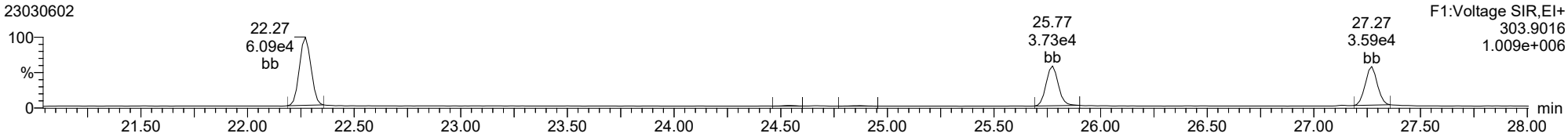
Total-tetrafurans



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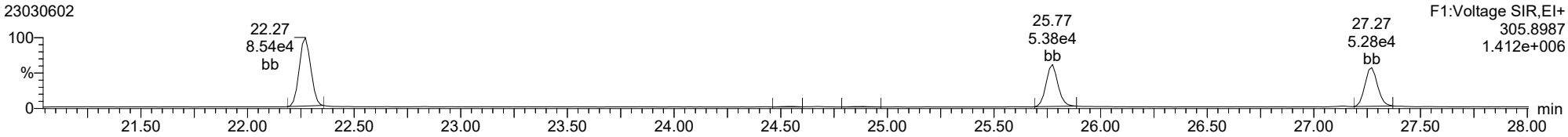

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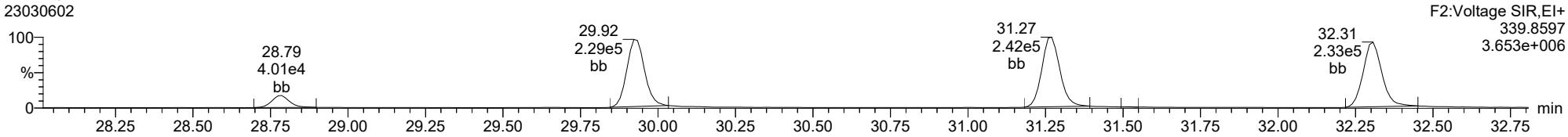

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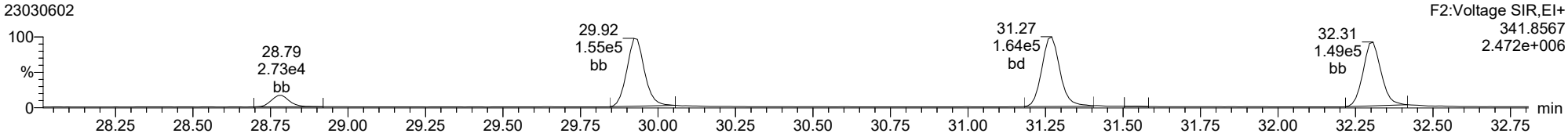

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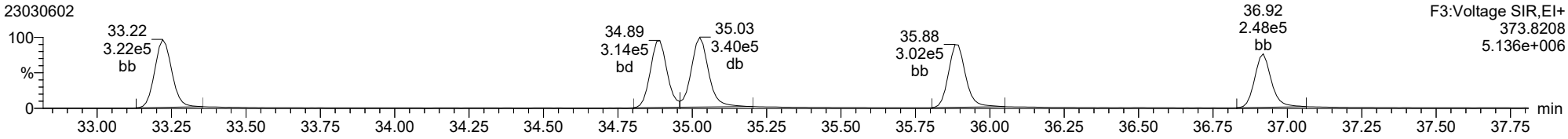
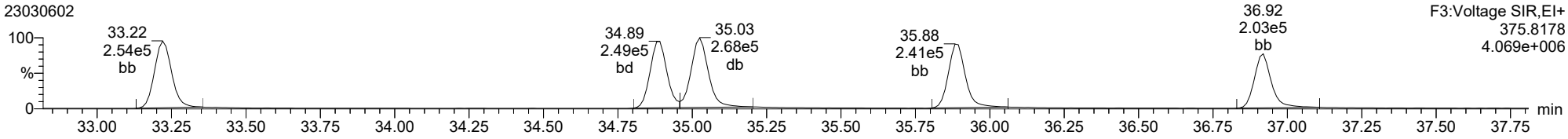
Printed: Tuesday, March 07, 2023 09:03:18 Pacific Standard Time

ID: CS3X1, Name: 23030602, Date: 06-Mar-2023, Time: 10:49:33, Conditions: AUTOSPEC01, User: pk

Total-hexafurans



Total-hexafurans



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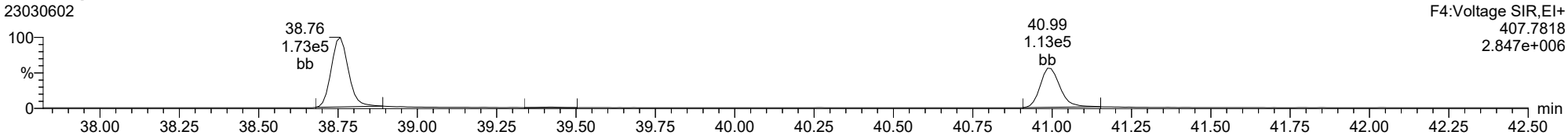

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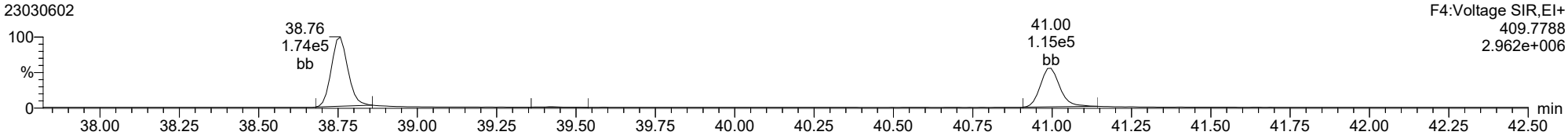
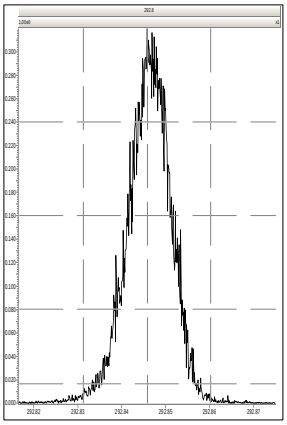
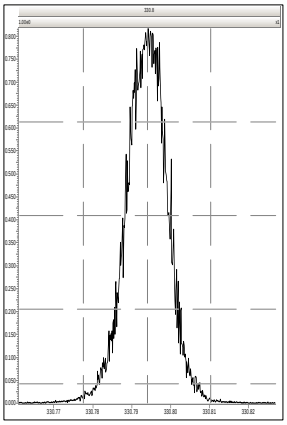


Printed: Monday, March 06, 2023 10:40:35 Pacific Standard Time

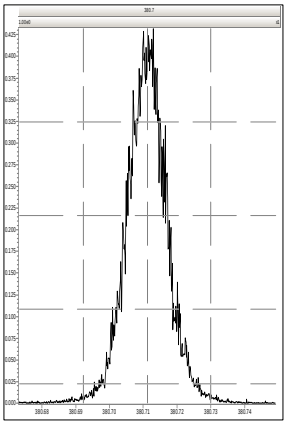
M 292.9824 R 13333



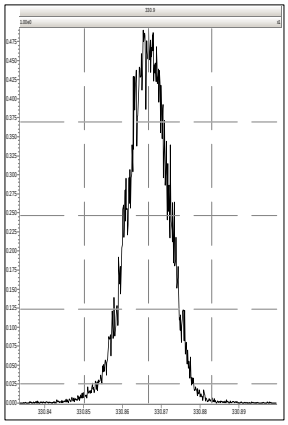
M 330.9792 R 13371



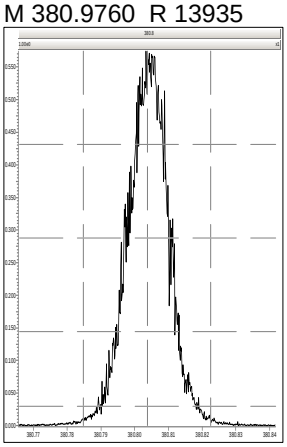
M 380.9760 R 14045



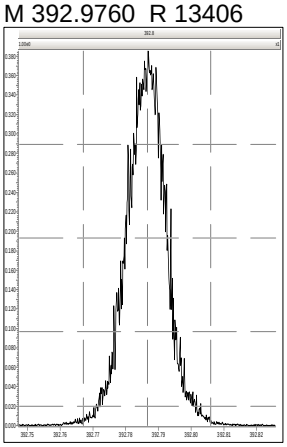
M 330.9792 R 13706



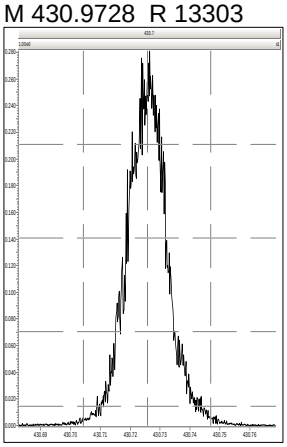
M 380.9760 R 13935



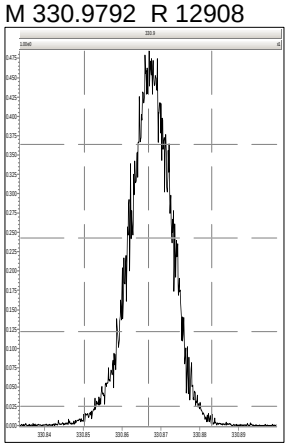
M 392.9760 R 13406



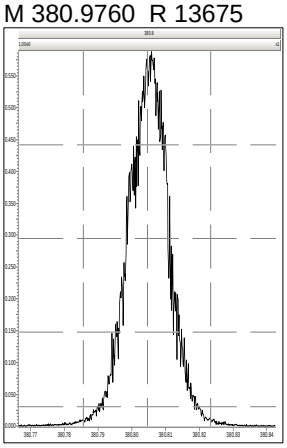
M 430.9728 R 13303



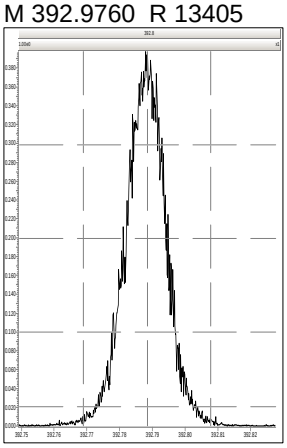
M 330.9792 R 12908



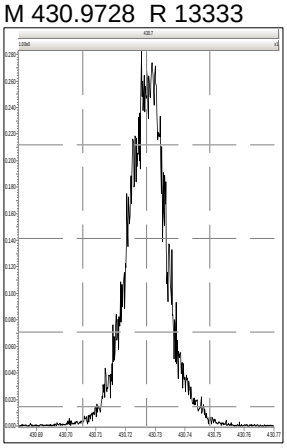
M 380.9760 R 13675



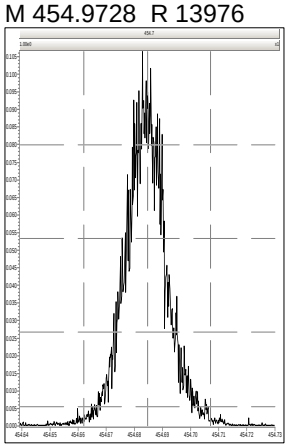
M 392.9760 R 13405



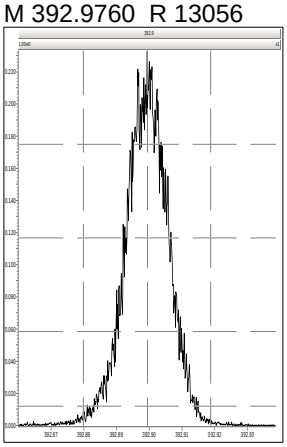
M 430.9728 R 13333



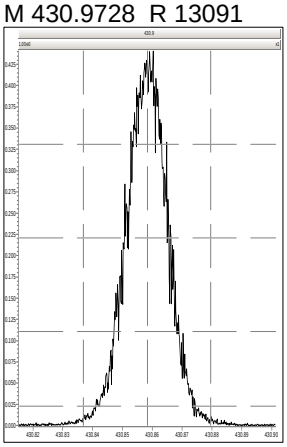
M 454.9728 R 13976



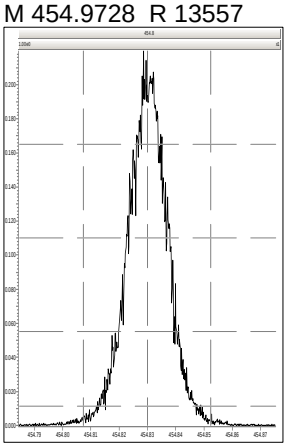
M 392.9760 R 13056



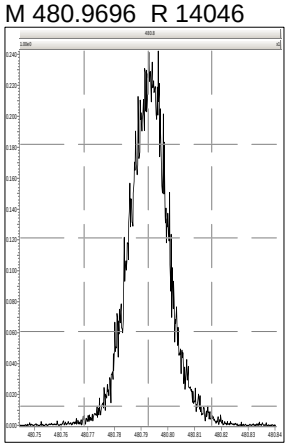
M 430.9728 R 13091



M 454.9728 R 13557

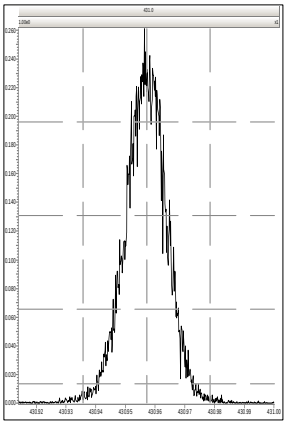


M 480.9696 R 14046

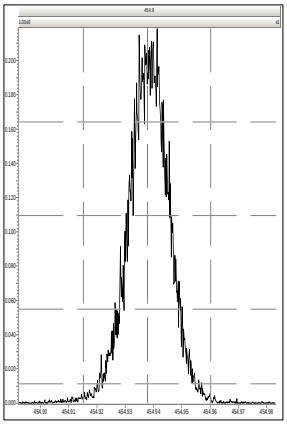


Printed: Monday, March 06, 2023 10:40:35 Pacific Standard Time

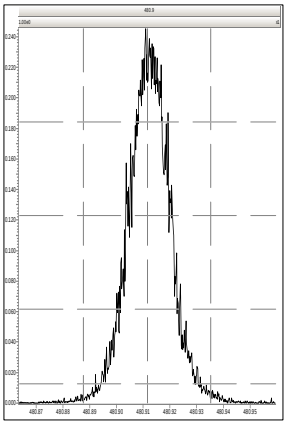
M 430.9728 R 13552



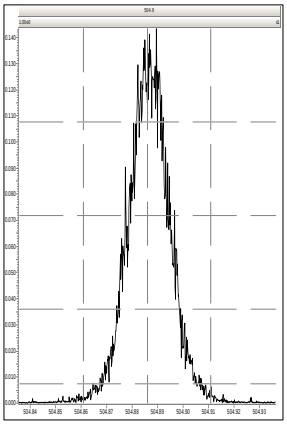
M 454.9728 R 14127



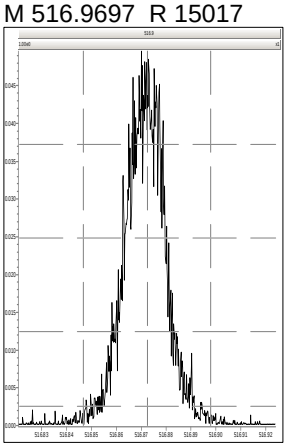
M 480.9696 R 13229

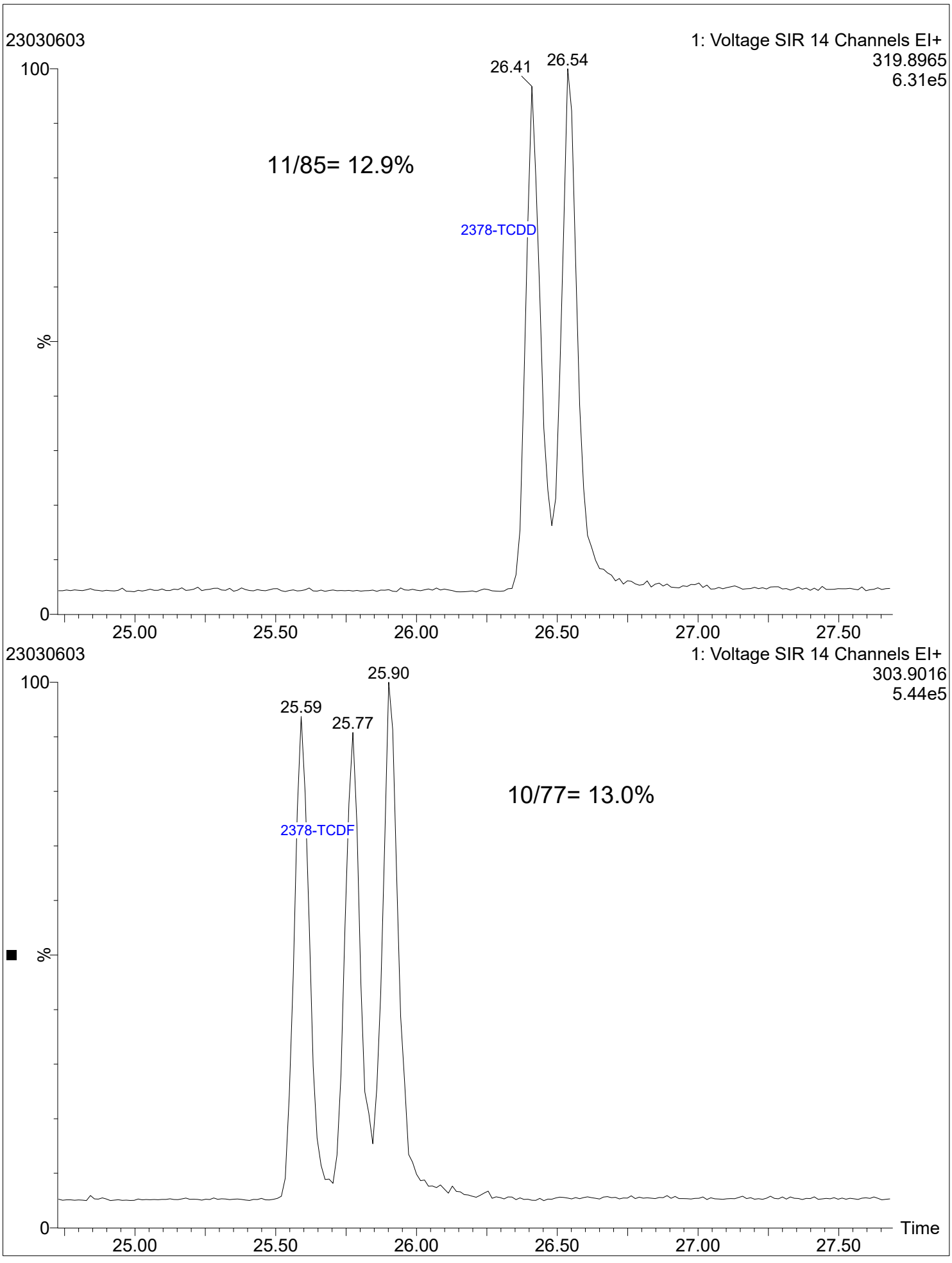


M 504.9696 R 13382



M 516.9697 R 15017




23030603
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319.8965
6.31e5
100
26.41
26.54
11/85= 12.9%
2378-TCDD
%
0
25.00
25.50
26.00
26.50
27.00
27.50
23030603
1: Voltage SIR 14 Channels EI+
303.9016
5.44e5
100
25.90
25.59
25.77
10/77= 13.0%
2378-TCDF
%
0
Time
25.00
25.50
26.00
26.50
27.00
27.50

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	AUTOSPEC01	Calibration:	GC00015
Lab File ID:	23030311	Calibration Date:	03/03/2023
Sequence:	SLC0045	Injection Date:	03/03/23
Lab Sample ID:	SLC0045-CCV1	Injection Time:	17:25
Sequence Name:	CS3V4		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	10.1	0.7015272	0.7103909		1.3	+/-16
2,3,7,8-TCDD	A	10.000	9.02	1.1486620	1.0358000		-9.8	+/-22
1,2,3,7,8-PeCDF	A	50.000	47.7	0.6792300	0.6482723		-4.6	+/-18
2,3,4,7,8-PeCDF	A	50.000	48.6	0.7861704	0.7638484		-2.8	+/-18
1,2,3,7,8-PeCDD	A	50.000	50.8	1.0218450	1.0391930		1.7	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	47.3	1.1660380	1.1031690		-5.4	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	51.4	1.0907410	1.1209930		2.8	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	52.1	1.1396990	1.1864330		4.1	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	48.9	1.1370930	1.1121660		-2.2	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	50.7	0.9955689	1.0094320		1.4	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	51.1	1.0009380	1.0234880		2.3	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	51.7	0.9071139	0.9383686		3.4	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	47.7	1.0029930	0.9566603		-4.6	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	53.6	0.9531152	1.0217610		7.2	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	52.7	1.0390130	1.0955650		5.4	+/-14
OCDF	A	100.00	95.0	0.7778078	0.7390842		-5.0	+/-37
OCDD	A	100.00	97.1	0.9199537	0.8937318		-2.9	+/-21
13C12-2,3,7,8-TCDF	A	100.00	89.4	1.6201960	1.4487738		-10.6	+/-29
13C12-2,3,7,8-TCDD	A	100.00	86.0	1.1524090	0.9914363		-14.0	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	92.6	1.2404520	1.1488109		-7.4	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	91.6	1.1177860	1.0240744		-8.4	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	90.8	0.8288129	0.7523463		-9.2	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	95.2	1.1683050	1.1119828		-4.8	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	91.1	1.3864660	1.2630996		-8.9	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	96.9	1.1292560	1.0940819		-3.1	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	101	0.9317541	0.9426254		1.2	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	97.6	0.9950393	0.9710534		-2.4	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	98.4	1.1566890	1.1378328		-1.6	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	102	0.8952017	0.9116661		1.8	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	84.3	0.7697516	0.6486548		-15.7	+/-23
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	92.0	0.8401226	0.7731635		-8.0	+/-28
13C12-OCDD	A	200.00	170	0.7674714	0.6532994		-14.9	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	7.54	1.2878040	0.9705402		-24.6	

* Values outside of QC limits

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	AUTOSPEC01	Calibration:	GC00015
Lab File ID:	23030310	Calibration Date:	03/03/2023
Sequence:	SLC0045	Injection Date:	03/03/23
Lab Sample ID:	SLC0045-SCV1	Injection Time:	16:36
Sequence Name:	ICVCW		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	9.84	0.7015272	0.6901560		-1.6	
2,3,7,8-TCDD	A	10.000	9.81	1.1486620	1.1273700		-1.9	
1,2,3,7,8-PeCDF	A	50.000	51.4	0.6792300	0.6981249		2.8	
2,3,4,7,8-PeCDF	A	50.000	49.0	0.7861704	0.7701368		-2.0	
1,2,3,7,8-PeCDD	A	50.000	48.5	1.0218450	0.9921504		-2.9	
1,2,3,4,7,8-HxCDF	A	50.000	48.2	1.1660380	1.1251100		-3.5	
1,2,3,6,7,8-HxCDF	A	50.000	48.0	1.0907410	1.0469270		-4.0	
2,3,4,6,7,8-HxCDF	A	50.000	50.2	1.1396990	1.1448090		0.4	
1,2,3,7,8,9-HxCDF	A	50.000	49.1	1.1370930	1.1161010		-1.8	
1,2,3,4,7,8-HxCDD	A	50.000	50.8	0.9955689	1.0114830		1.6	
1,2,3,6,7,8-HxCDD	A	50.000	50.2	1.0009380	1.0044310		0.3	
1,2,3,7,8,9-HxCDD	A	50.000	51.6	0.9071139	8347.938		3.2	
1,2,3,4,6,7,8-HpCDF	A	50.000	51.8	1.0029930	1.0398620		3.7	
1,2,3,4,7,8,9-HpCDF	A	50.000	48.5	0.9531152	0.9237809		-3.1	
1,2,3,4,6,7,8-HpCDD	A	50.000	49.2	1.0390130	1.0223590		-1.6	
OCDF	A	100.00	104	0.7778078	0.8050743		3.5	
OCDD	A	100.00	99.4	0.9199537	0.9146365		-0.6	
13C12-2,3,7,8-TCDF	A	100.00	96.9	1.6201960	1.5703703		-3.1	
13C12-2,3,7,8-TCDD	A	100.00	96.6	1.1524090	1.1130294		-3.4	
13C12-1,2,3,7,8-PeCDF	A	100.00	73.2	1.2404520	0.9079224		-26.8	
13C12-2,3,4,7,8-PeCDF	A	100.00	75.9	1.1177860	0.8488817		-24.1	
13C12-1,2,3,7,8-PeCDD	A	100.00	76.6	0.8288129	0.6346243		-23.4	
13C12-1,2,3,4,7,8-HxCDF	A	100.00	93.0	1.1683050	1.0861993		-7.0	
13C12-1,2,3,6,7,8-HxCDF	A	100.00	98.0	1.3864660	1.3581552		-2.0	
13C12-2,3,4,6,7,8-HxCDF	A	100.00	93.4	1.1292560	1.0544008		-6.6	
13C12-1,2,3,7,8,9-HxCDF	A	100.00	97.9	0.9317541	0.9122440		-2.1	
13C12-1,2,3,4,7,8-HxCDD	A	100.00	95.9	0.9950393	0.9546162		-4.1	
13C12-1,2,3,6,7,8-HxCDD	A	100.00	97.7	1.1566890	1.1296183		-2.3	
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	102	0.8952017	0.9144345		2.1	
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	104	0.7697516	0.8001798		4.0	
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	102	0.8401226	0.8609226		2.5	
13C12-OCDD	A	200.00	162	0.7674714	0.6199758		-19.2	
37Cl4-2,3,7,8-TCDD	A	10.000	8.71	1.2878040	1.1221835		-12.9	

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	AUTOSPEC01	Calibration:	GC00015
Lab File ID:	23030612	Calibration Date:	03/03/2023
Sequence:	SLC0081	Injection Date:	03/06/23
Lab Sample ID:	SLC0081-CCV1	Injection Time:	19:10
Sequence Name:	CS3X2		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	9.79	0.7015272	0.6866883		-2.1	+/-16
2,3,7,8-TCDD	A	10.000	9.65	1.1486620	1.1082710		-3.5	+/-22
1,2,3,7,8-PeCDF	A	50.000	49.7	0.6792300	0.6757999		-0.5	+/-18
2,3,4,7,8-PeCDF	A	50.000	49.5	0.7861704	0.7782984		-1.0	+/-18
1,2,3,7,8-PeCDD	A	50.000	49.8	1.0218450	1.0174520		-0.4	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	48.4	1.1660380	1.1297330		-3.1	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	51.1	1.0907410	1.1156300		2.3	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	51.3	1.1396990	1.1689670		2.6	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	49.0	1.1370930	1.1142680		-2.0	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	52.7	0.9955689	1.0500030		5.5	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	53.1	1.0009380	1.0621110		6.1	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	56.9	0.9071139	1.0331080		13.9	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	47.5	1.0029930	0.9526024		-5.0	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	51.2	0.9531152	0.9756444		2.4	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	48.5	1.0390130	1.0086850		-2.9	+/-14
OCDF	A	100.00	98.4	0.7778078	0.7657090		-1.6	+/-37
OCDD	A	100.00	101	0.9199537	0.9277365		0.8	+/-21
13C12-2,3,7,8-TCDF	A	100.00	92.6	1.6201960	1.5005079		-7.4	+/-29
13C12-2,3,7,8-TCDD	A	100.00	89.1	1.1524090	1.0263376		-10.9	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	79.6	1.2404520	0.9877451		-20.4	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	81.5	1.1177860	0.9113861		-18.5	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	80.5	0.8288129	0.6672966		-19.5	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	94.9	1.1683050	1.1087846		-5.1	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	89.3	1.3864660	1.2386992		-10.7	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	98.2	1.1292560	1.1086321		-1.8	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	105	0.9317541	0.9758546		4.7	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	95.1	0.9950393	0.9460772		-4.9	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	93.2	1.1566890	1.0781440		-6.8	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	105	0.8952017	0.9357474		4.5	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	96.2	0.7697516	0.7407363		-3.8	+/-23
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	104	0.8401226	0.8758762		4.3	+/-18
13C12-OCDD	A	200.00	172	0.7674714	0.6617064		-13.8	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	7.92	1.2878040	1.0201047		-20.8	+/-21

* Values outside of QC limits

* Values outside of QC limits

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
Last Altered: Tuesday, March 07, 2023 08:54:19 Pacific Standard Time
Printed: Tuesday, March 07, 2023 09:04:53 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3X2, Name: 23030612, Date: 06-Mar-2023, Time: 19:10:29, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.760	1.001	5.505e4	7.297e4	0.702	0.754	0.770	980	1591	8.68e5	1.13e6	886.3	713.3	NO	bb	bb	9.788
12378-PeCDF	29.911	1.000	2.493e5	1.653e5	0.679	1.508	1.550	2903	3240	3.73e6	2.45e6	1283.3	756.7	NO	bb	bb	49.747
23478-PeCDF	31.260	1.001	2.659e5	1.748e5	0.786	1.521	1.550	2903	3240	3.95e6	2.58e6	1361.7	796.0	NO	bb	bb	49.499
123478-HxCDF	34.881	1.001	3.310e5	2.645e5	1.166	1.252	1.240	4122	2525	5.16e6	4.10e6	1250.7	1625.6	NO	bd	bd	48.443
234678-HxCDF	35.883	1.001	3.454e5	2.708e5	1.140	1.276	1.240	4122	2525	5.28e6	4.18e6	1280.4	1657.2	NO	bb	bb	51.284
123678-HxCDF	35.014	1.000	3.691e5	2.879e5	1.091	1.282	1.240	4122	2525	5.30e6	4.20e6	1285.1	1663.7	NO	db	db	51.141
123789-HxCDF	36.908	1.000	2.915e5	2.254e5	1.137	1.293	1.240	4122	2525	4.25e6	3.35e6	1031.4	1325.3	NO	bb	bb	48.996
1234678-HpCDF	38.758	1.001	2.134e5	2.104e5	1.003	1.014	1.050	2691	2373	3.38e6	3.38e6	1255.8	1422.9	NO	bb	bb	47.488
1234789-HpCDF	40.986	1.000	1.717e5	1.719e5	0.953	0.999	1.050	2691	2373	2.41e6	2.43e6	894.4	1022.7	NO	bb	bb	51.182
OCDF	45.210	1.006	2.343e5	2.475e5	0.778	0.947	0.890	1407	1341	2.47e6	2.78e6	1754.4	2074.7	NO	bd	bb	98.445
2378-TCDD	26.396	1.001	6.188e4	7.944e4	1.149	0.779	0.770	1258	1311	9.05e5	1.18e6	719.0	903.4	NO	bb	bb	9.648
12378-PeCDD	31.516	1.001	2.550e5	1.668e5	1.022	1.529	1.550	1725	1561	3.70e6	2.45e6	2143.5	1569.8	NO	bb	bb	49.785
123478-HxCDD	35.994	1.000	2.613e5	2.110e5	0.996	1.239	1.240	2462	1782	4.08e6	3.31e6	1657.4	1857.6	NO	bd	bd	52.734
123678-HxCDD	36.117	1.001	3.092e5	2.352e5	1.001	1.315	1.240	2462	1782	4.36e6	3.51e6	1769.7	1969.3	NO	dd	db	53.056
123789-HxCDD	36.496	1.011	2.837e5	2.134e5	0.907	1.330	1.240	2462	1782	3.91e6	3.20e6	1586.5	1797.9	NO	dd	bb	56.945
1234678-HpCDD	40.251	1.000	2.110e5	2.090e5	1.039	1.009	1.050	1909	1715	3.03e6	2.97e6	1585.0	1730.8	NO	bb	bb	48.541
OCDD	44.972	1.000	2.689e5	3.148e5	0.920	0.854	0.890	1164	1075	3.20e6	3.70e6	2751.7	3444.2	NO	bb	bb	100.846
13C-2378-TCDF	25.746	1.007	8.009e5	1.063e6	1.620	0.753	0.770	1972	1269	1.18e7	1.56e7	6006.9	12280.2	NO	bb	bb	92.613
13C-12378-PeCDF	29.900	1.170	7.522e5	4.750e5	1.240	1.584	1.550	2669	1863	1.05e7	6.97e6	3950.5	3738.6	NO	bd	bb	79.628
13C-23478-PeCDF	31.237	1.222	6.788e5	4.535e5	1.118	1.497	1.550	2669	1863	1.02e7	6.80e6	3806.1	3652.0	NO	bb	bb	81.535
13C-123478-HxCDF	34.858	0.955	3.576e5	6.967e5	1.168	0.513	0.510	2421	1700	5.41e6	1.06e7	2233.8	6230.2	NO	bd	bd	94.905
13C-123678-HxCDF	35.003	0.959	4.251e5	7.527e5	1.386	0.565	0.510	2421	1700	5.72e6	1.09e7	2363.6	6396.0	NO	db	db	89.342
13C-234678-HxCDF	35.861	0.983	3.577e5	6.964e5	1.129	0.514	0.510	2421	1700	5.24e6	1.03e7	2164.0	6055.5	NO	bb	bb	98.174
13C-123789-HxCDF	36.897	1.011	3.146e5	6.133e5	0.932	0.513	0.510	2421	1700	4.68e6	9.14e6	1933.4	5377.2	NO	bb	bb	104.733
13C-1234678-HpCDF	38.736	1.062	2.824e5	6.074e5	0.895	0.465	0.440	2084	2929	4.22e6	9.65e6	2024.9	3294.3	NO	bb	bb	104.529
13C-1234789-HpCDF	40.975	1.123	2.106e5	4.937e5	0.770	0.427	0.440	2084	2929	2.96e6	6.89e6	1418.6	2350.4	NO	bb	bb	96.231
13C-1234-TCDD	25.563	0.000	5.550e5	6.874e5	1.000	0.807	0.770	1630	1182	8.42e6	1.05e7	5165.1	8868.6	NO	bb	bb	100.000
13C-2378-TCDD	26.382	1.032	5.655e5	7.097e5	1.152	0.797	0.770	1630	1182	8.52e6	1.06e7	5227.7	8960.4	NO	bb	bb	89.060
13C-12378-PeCDD	31.493	1.232	5.099e5	3.192e5	0.829	1.598	1.550	885	1149	7.48e6	4.68e6	8450.1	4069.2	NO	bb	bb	80.512
13C-123478-HxCDD	35.984	0.986	5.085e5	3.911e5	0.995	1.300	1.240	1545	2578	8.23e6	6.37e6	5328.4	2470.0	NO	bd	bd	95.079
13C-123678-HxCDD	36.095	0.989	5.786e5	4.466e5	1.157	1.296	1.240	1545	2578	8.50e6	6.56e6	5503.6	2546.1	NO	db	db	93.209
13C-1234678-HpCDD	40.239	1.103	4.421e5	3.908e5	0.840	1.131	1.050	1772	1341	5.85e6	5.38e6	3299.7	4010.4	NO	bd	bb	104.256
13C-OCDD	44.954	1.232	5.979e5	6.605e5	0.767	0.905	0.890	2406	1203	7.00e6	7.71e6	2910.0	6412.2	NO	bb	bb	172.438
13C-123789-HxCDD	36.485	0.000	5.173e5	4.336e5	1.000	1.193	1.240	1545	2578	7.91e6	6.22e6	5119.9	2413.1	NO	bb	bd	100.000
37CL-2378-TCDD	26.396	1.033	1.267e5		1.288			1459		1.87e6		1281.7			bb		7.921

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
Last Altered: Tuesday, March 07, 2023 08:54:19 Pacific Standard Time
Printed: Tuesday, March 07, 2023 09:04:53 Pacific Standard Time

ID: CS3X2, Name: 23030612, Date: 06-Mar-2023, Time: 19:10:29, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.257	0.864	6.516e4	8.953e4	0.802	0.728	0.770	980	1591	1.03e6	1.42e6	1047.7	891.1	NO	bb	bb	10.352
1289-TCDF	27.258	1.059	4.244e4	5.608e4	0.678	0.757	0.770	980	1591	6.25e5	8.40e5	638.0	528.4	NO	bb	bb	7.795
13468-PECDF	27.116	0.907	4.158e5	2.664e5	1.246	1.561	1.550	765	1161	6.32e6	3.95e6	8255.5	3402.5	NO	bb	bb	44.599
12389-PECDF	32.296	1.080	2.488e5	1.640e5	0.496	1.517	1.550	2903	3240	3.48e6	2.28e6	1200.4	703.5	NO	bb	bb	67.776
123468-HXCDF	33.209	0.953	3.321e5	2.599e5	1.169	1.278	1.240	4122	2525	4.82e6	3.82e6	1168.9	1513.2	NO	bb	bb	48.030
1368-TCDD	23.528	0.892	6.468e4	8.605e4	1.015	0.752	0.770	1258	1311	1.06e6	1.41e6	839.0	1072.2	NO	bb	bb	11.641
1289-TCDD	27.003	1.024	4.591e4	5.532e4	0.909	0.830	0.770	1258	1311	6.79e5	8.02e5	539.9	611.9	NO	bb	bb	8.737
12479-PECDD	28.786	0.914	4.190e5	2.730e5	2.301	1.535	1.550	1725	1561	3.94e6	2.59e6	2285.7	1657.3	NO	bb	bb	36.268
12389-PECDD	31.906	1.013	2.799e5	1.872e5	1.184	1.495	1.550	1725	1561	4.18e6	2.75e6	2423.3	1764.3	NO	bb	bb	47.608
124679-HXCDD	33.989	0.945	2.744e5	2.222e5	1.115	1.235	1.240	2462	1782	3.98e6	3.25e6	1617.2	1823.7	NO	bd	bd	49.483
1234679-HPCDD	39.203	0.974	2.286e5	2.438e5	1.137	0.938	1.050	1909	1715	3.58e6	3.54e6	1874.1	2061.7	NO	bb	bd	49.896
Total-tetrafurans			1.631e5		0.727			980		2.53e6							28.014
Total-penta1			4.158e5					765		6.32e6							44.599
Total-pentafurans			8.038e5		0.654			2903		1.17e7							175.662
Total-hexafurans			1.669e6		1.141			4122		2.48e7							247.916
Total-heptafurans			3.851e5		0.978			2691		5.79e6							98.670
Total-Furans			3.671e6		0.922			980		5.37e7							693.306
Total-tetradioxins			2.998e5		1.024			1258		4.15e6							52.038
Total-pentadioxins			9.543e5		1.502			1725		1.18e7							133.714
Total-hexadioxins			1.129e6		1.005			2462		1.63e7							212.217
Total-heptadioxins			4.396e5		1.088			1909		6.60e6							98.436
Total-Dioxins			3.091e6		1.130			1258		4.21e7							597.251
Total-TEQ			6.763e6					1258		9.58e7							1290.558
FUNCTION1 PFK			1.189e8					451129		4.76e7							
FUNCTION2 PFK			5.915e4					214227		2.32e6							0.000
FUNCTION3 PFK			4.896e6					379291		3.04e6							0.000
FUNCTION4 PFK			2.715e7					246647		1.95e7							
FUNCTION5 PFK			7.942e4					200358		3.82e6							
FUNCTION1 HXCD...			1.050e3					459		1.68e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			5.320e2					625		9.01e3							0.000
FUNCTION3 OCDPE			2.510e2					504		4.33e3							0.000
FUNCTION4 NCDPE			9.381e1					505		1.31e3							0.000
FUNCTION5 DCDPE			6.637e2					580		1.29e4							0.000

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3X2, Name: 23030612, Date: 06-Mar-2023, Time: 19:10:29, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.26	4.244e4	5.608e4	0.678	0.76	0.77	638.0	YES	NO	bb	bb	7.795
2	Total-tetrafurans	27.13	4.715e2	5.913e2	0.727	0.80	0.77	8.2	YES	NO	bb	bb	0.078
3	2378-TCDF	25.76	5.505e4	7.297e4	0.702	0.75	0.77	886.3	YES	NO	bb	bb	9.788
4	1368-TCDF	22.26	6.516e4	8.953e4	0.802	0.73	0.77	1047.7	YES	NO	bb	bb	10.352

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.12	4.158e5	2.664e5	1.246	1.56	1.55	8255.5	YES	NO	bb	bb	44.599

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDF	29.91	2.493e5	1.653e5	0.679	1.51	1.55	1283.3	YES	NO	bb	bb	49.747
2	Total-pentafurans	28.76	3.975e4	2.690e4	0.654	1.48	1.55	201.4	YES	NO	bb	bb	8.640
3	12389-PECDF	32.30	2.488e5	1.640e5	0.496	1.52	1.55	1200.4	YES	NO	bb	bb	67.776
4	23478-PeCDF	31.26	2.659e5	1.748e5	0.786	1.52	1.55	1361.7	YES	NO	bb	bb	49.499

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	37.37	1.563e2	1.104e2	1.141	1.42	1.24	1.3	NO	NO	bb	bb	0.022
2	123789-HxCDF	36.91	2.915e5	2.254e5	1.137	1.29	1.24	1031.4	YES	NO	bb	bb	48.996
3	234678-HxCDF	35.88	3.454e5	2.708e5	1.140	1.28	1.24	1280.4	YES	NO	bb	bb	51.284
4	123678-HxCDF	35.01	3.691e5	2.879e5	1.091	1.28	1.24	1285.1	YES	NO	db	db	51.141
5	123478-HxCDF	34.88	3.310e5	2.645e5	1.166	1.25	1.24	1250.7	YES	NO	bd	bd	48.443
6	123468-HXCDF	33.21	3.321e5	2.599e5	1.169	1.28	1.24	1168.9	YES	NO	bb	bb	48.030

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	40.99	1.717e5	1.719e5	0.953	1.00	1.05	894.4	YES	NO	bb	bb	51.182
2	1234678-HpCDF	38.76	2.134e5	2.104e5	1.003	1.01	1.05	1255.8	YES	NO	bb	bb	47.488

ID: CS3X2, Name: 23030612, Date: 06-Mar-2023, Time: 19:10:29, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.26	4.244e4	5.608e4	0.678	0.76	0.77	638.0	YES	NO	bb	bb	7.795
2	Total-tetrafurans	27.13	4.715e2	5.913e2	0.727	0.80	0.77	8.2	YES	NO	bb	bb	0.078
3	2378-TCDF	25.76	5.505e4	7.297e4	0.702	0.75	0.77	886.3	YES	NO	bb	bb	9.788
4	1368-TCDF	22.26	6.516e4	8.953e4	0.802	0.73	0.77	1047.7	YES	NO	bb	bb	10.352
5	12378-PeCDF	29.91	2.493e5	1.653e5	0.679	1.51	1.55	1283.3	YES	NO	bb	bb	49.747
6	Total-pentafurans	28.76	3.975e4	2.690e4	0.654	1.48	1.55	201.4	YES	NO	bb	bb	8.640
7	12389-PECDF	32.30	2.488e5	1.640e5	0.496	1.52	1.55	1200.4	YES	NO	bb	bb	67.776
8	23478-PeCDF	31.26	2.659e5	1.748e5	0.786	1.52	1.55	1361.7	YES	NO	bb	bb	49.499
9	Total-hexafurans	37.37	1.563e2	1.104e2	1.141	1.42	1.24	1.3	NO	NO	bb	bb	0.022
10	123789-HxCDF	36.91	2.915e5	2.254e5	1.137	1.29	1.24	1031.4	YES	NO	bb	bb	48.996
11	234678-HxCDF	35.88	3.454e5	2.708e5	1.140	1.28	1.24	1280.4	YES	NO	bb	bb	51.284
12	123678-HxCDF	35.01	3.691e5	2.879e5	1.091	1.28	1.24	1285.1	YES	NO	db	db	51.141
13	123478-HxCDF	34.88	3.310e5	2.645e5	1.166	1.25	1.24	1250.7	YES	NO	bd	bd	48.443
14	123468-HXCDF	33.21	3.321e5	2.599e5	1.169	1.28	1.24	1168.9	YES	NO	bb	bb	48.030
15	1234789-HpCDF	40.99	1.717e5	1.719e5	0.953	1.00	1.05	894.4	YES	NO	bb	bb	51.182
16	1234678-HpCDF	38.76	2.134e5	2.104e5	1.003	1.01	1.05	1255.8	YES	NO	bb	bb	47.488
17	OCDF	45.21	2.343e5	2.475e5	0.778	0.95	0.89	1754.4	YES	NO	bd	bb	98.445
18	13468-PECDF	27.12	4.158e5	2.664e5	1.246	1.56	1.55	8255.5	YES	NO	bb	bb	44.599

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.00	4.591e4	5.532e4	0.909	0.83	0.77	539.9	YES	NO	bb	bb	8.737
2	2378-TCDD	26.40	6.188e4	7.944e4	1.149	0.78	0.77	719.0	YES	NO	bb	bb	9.648
3	Total-tetradioxins	26.07	9.228e4	1.163e5	1.024	0.79	0.77	771.6	YES	NO	bb	bb	15.972
4	Total-tetradioxins	25.59	3.219e4	4.029e4	1.024	0.80	0.77	407.4	YES	NO	bd	bb	5.549
5	Total-tetradioxins	24.73	2.847e3	3.564e3	1.024	0.80	0.77	22.1	YES	NO	bb	bb	0.491
6	1368-TCDD	23.53	6.468e4	8.605e4	1.015	0.75	0.77	839.0	YES	NO	bb	bb	11.641

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	31.91	2.799e5	1.872e5	1.184	1.50	1.55	2423.3	YES	NO	bb	bb	47.608
2	12378-PeCDD	31.52	2.550e5	1.668e5	1.022	1.53	1.55	2143.5	YES	NO	bb	bb	49.785
3	Total-pentadioxins	29.12	1.887e2	1.393e2	1.502	1.35	1.55	3.3	YES	NO	bb	bb	0.026
4	12479-PECDD	28.79	4.190e5	2.730e5	2.301	1.53	1.55	2285.7	YES	NO	bb	bb	36.268
5	Total-pentadioxins	32.16	2.099e2	1.239e2	1.502	1.69	1.55	1.8	NO	NO	bb	bb	0.027

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HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.50	2.837e5	2.134e5	0.907	1.33	1.24	1586.5	YES	NO	dd	bb	56.945
2	123678-HxCDD	36.12	3.092e5	2.352e5	1.001	1.31	1.24	1769.7	YES	NO	dd	db	53.056
3	123478-HxCDD	35.99	2.613e5	2.110e5	0.996	1.24	1.24	1657.4	YES	NO	bd	bd	52.734
4	124679-HXCDD	33.99	2.744e5	2.222e5	1.115	1.23	1.24	1617.2	YES	NO	bd	bd	49.483

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.25	2.110e5	2.090e5	1.039	1.01	1.05	1585.0	YES	NO	bb	bb	48.541
2	1234679-HPCDD	39.20	2.286e5	2.438e5	1.137	0.94	1.05	1874.1	YES	NO	bb	bd	49.896

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.00	4.591e4	5.532e4	0.909	0.83	0.77	539.9	YES	NO	bb	bb	8.737
2	2378-TCDD	26.40	6.188e4	7.944e4	1.149	0.78	0.77	719.0	YES	NO	bb	bb	9.648
3	Total-tetradioxins	26.07	9.228e4	1.163e5	1.024	0.79	0.77	771.6	YES	NO	bb	bb	15.972
4	Total-tetradioxins	25.59	3.219e4	4.029e4	1.024	0.80	0.77	407.4	YES	NO	bd	bb	5.549
5	Total-tetradioxins	24.73	2.847e3	3.564e3	1.024	0.80	0.77	22.1	YES	NO	bb	bb	0.491
6	1368-TCDD	23.53	6.468e4	8.605e4	1.015	0.75	0.77	839.0	YES	NO	bb	bb	11.641
7	12389-PECDD	31.91	2.799e5	1.872e5	1.184	1.50	1.55	2423.3	YES	NO	bb	bb	47.608
8	12378-PeCDD	31.52	2.550e5	1.668e5	1.022	1.53	1.55	2143.5	YES	NO	bb	bb	49.785
9	Total-pentadioxins	29.12	1.887e2	1.393e2	1.502	1.35	1.55	3.3	YES	NO	bb	bb	0.026
10	12479-PECDD	28.79	4.190e5	2.730e5	2.301	1.53	1.55	2285.7	YES	NO	bb	bb	36.268
11	Total-pentadioxins	32.16	2.099e2	1.239e2	1.502	1.69	1.55	1.8	NO	NO	bb	bb	0.027
12	123789-HxCDD	36.50	2.837e5	2.134e5	0.907	1.33	1.24	1586.5	YES	NO	dd	bb	56.945
13	123678-HxCDD	36.12	3.092e5	2.352e5	1.001	1.31	1.24	1769.7	YES	NO	dd	db	53.056
14	123478-HxCDD	35.99	2.613e5	2.110e5	0.996	1.24	1.24	1657.4	YES	NO	bd	bd	52.734
15	124679-HXCDD	33.99	2.744e5	2.222e5	1.115	1.23	1.24	1617.2	YES	NO	bd	bd	49.483
16	1234678-HpCDD	40.25	2.110e5	2.090e5	1.039	1.01	1.05	1585.0	YES	NO	bb	bb	48.541
17	1234679-HPCDD	39.20	2.286e5	2.438e5	1.137	0.94	1.05	1874.1	YES	NO	bb	bd	49.896
18	OCDD	44.97	2.689e5	3.148e5	0.920	0.85	0.89	2751.7	YES	NO	bb	bb	100.846

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.26	4.244e4	5.608e4	0.678	0.76	0.77	638.0	YES	NO	bb	bb	7.795
2	Total-tetrafurans	27.13	4.715e2	5.913e2	0.727	0.80	0.77	8.2	YES	NO	bb	bb	0.078
3	2378-TCDF	25.76	5.505e4	7.297e4	0.702	0.75	0.77	886.3	YES	NO	bb	bb	9.788
4	1368-TCDF	22.26	6.516e4	8.953e4	0.802	0.73	0.77	1047.7	YES	NO	bb	bb	10.352
5	12378-PeCDF	29.91	2.493e5	1.653e5	0.679	1.51	1.55	1283.3	YES	NO	bb	bb	49.747
6	Total-pentafurans	28.76	3.975e4	2.690e4	0.654	1.48	1.55	201.4	YES	NO	bb	bb	8.640
7	12389-PECDF	32.30	2.488e5	1.640e5	0.496	1.52	1.55	1200.4	YES	NO	bb	bb	67.776
8	23478-PeCDF	31.26	2.659e5	1.748e5	0.786	1.52	1.55	1361.7	YES	NO	bb	bb	49.499
9	Total-hexafurans	37.37	1.563e2	1.104e2	1.141	1.42	1.24	1.3	NO	NO	bb	bb	0.022
10	123789-HxCDF	36.91	2.915e5	2.254e5	1.137	1.29	1.24	1031.4	YES	NO	bb	bb	48.996
11	234678-HxCDF	35.88	3.454e5	2.708e5	1.140	1.28	1.24	1280.4	YES	NO	bb	bb	51.284
12	123678-HxCDF	35.01	3.691e5	2.879e5	1.091	1.28	1.24	1285.1	YES	NO	db	db	51.141
13	123478-HxCDF	34.88	3.310e5	2.645e5	1.166	1.25	1.24	1250.7	YES	NO	bd	bd	48.443
14	123468-HXCDF	33.21	3.321e5	2.599e5	1.169	1.28	1.24	1168.9	YES	NO	bb	bb	48.030
15	1234789-HpCDF	40.99	1.717e5	1.719e5	0.953	1.00	1.05	894.4	YES	NO	bb	bb	51.182
16	1234678-HpCDF	38.76	2.134e5	2.104e5	1.003	1.01	1.05	1255.8	YES	NO	bb	bb	47.488
17	OCDF	45.21	2.343e5	2.475e5	0.778	0.95	0.89	1754.4	YES	NO	bd	bb	98.445
18	13468-PECDF	27.12	4.158e5	2.664e5	1.246	1.56	1.55	8255.5	YES	NO	bb	bb	44.599
19	1289-TCDD	27.00	4.591e4	5.532e4	0.909	0.83	0.77	539.9	YES	NO	bb	bb	8.737
20	2378-TCDD	26.40	6.188e4	7.944e4	1.149	0.78	0.77	719.0	YES	NO	bb	bb	9.648
21	Total-tetradioxins	26.07	9.228e4	1.163e5	1.024	0.79	0.77	771.6	YES	NO	bb	bb	15.972
22	Total-tetradioxins	25.59	3.219e4	4.029e4	1.024	0.80	0.77	407.4	YES	NO	bd	bb	5.549
23	Total-tetradioxins	24.73	2.847e3	3.564e3	1.024	0.80	0.77	22.1	YES	NO	bb	bb	0.491
24	1368-TCDD	23.53	6.468e4	8.605e4	1.015	0.75	0.77	839.0	YES	NO	bb	bb	11.641
25	12389-PECDD	31.91	2.799e5	1.872e5	1.184	1.50	1.55	2423.3	YES	NO	bb	bb	47.608
26	12378-PeCDD	31.52	2.550e5	1.668e5	1.022	1.53	1.55	2143.5	YES	NO	bb	bb	49.785
27	Total-pentadioxins	29.12	1.887e2	1.393e2	1.502	1.35	1.55	3.3	YES	NO	bb	bb	0.026
28	12479-PECDD	28.79	4.190e5	2.730e5	2.301	1.53	1.55	2285.7	YES	NO	bb	bb	36.268
29	Total-pentadioxins	32.16	2.099e2	1.239e2	1.502	1.69	1.55	1.8	NO	NO	bb	bb	0.027
30	123789-HxCDD	36.50	2.837e5	2.134e5	0.907	1.33	1.24	1586.5	YES	NO	dd	bb	56.945
31	123678-HxCDD	36.12	3.092e5	2.352e5	1.001	1.31	1.24	1769.7	YES	NO	dd	db	53.056
32	123478-HxCDD	35.99	2.613e5	2.110e5	0.996	1.24	1.24	1657.4	YES	NO	bd	bd	52.734
33	124679-HXCDD	33.99	2.744e5	2.222e5	1.115	1.23	1.24	1617.2	YES	NO	bd	bd	49.483
34	1234678-HpCDD	40.25	2.110e5	2.090e5	1.039	1.01	1.05	1585.0	YES	NO	bb	bb	48.541
35	1234679-HPCDD	39.20	2.286e5	2.438e5	1.137	0.94	1.05	1874.1	YES	NO	bb	bd	49.896
36	OCDD	44.97	2.689e5	3.148e5	0.920	0.85	0.89	2751.7	YES	NO	bb	bb	100.846

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	23.70	9.052e7					51.8	YES		db		
2	FUNCTION1 PFK	21.88	2.841e7					53.6	YES		bd		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.13	1.367e4					2.1	NO		bb		0.000
2	FUNCTION2 PFK	29.50	1.220e3					0.5	NO		bb		0.000
3	FUNCTION2 PFK	32.35	5.315e3					1.2	NO		bb		0.000
4	FUNCTION2 PFK	32.15	4.521e3					1.0	NO		bb		0.000
5	FUNCTION2 PFK	31.43	3.184e3					0.8	NO		bb		0.000
6	FUNCTION2 PFK	31.22	1.228e4					1.4	NO		bb		0.000
7	FUNCTION2 PFK	30.83	7.838e3					1.3	NO		bb		0.000
8	FUNCTION2 PFK	30.67	9.721e3					1.9	NO		bb		0.000
9	FUNCTION2 PFK	30.62	1.397e3					0.6	NO		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	35.74	2.393e5					1.6	NO		bb		0.000
2	FUNCTION3 PFK	33.70	4.657e6					6.5	YES		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	41.40	4.501e6					24.3	YES		db		
2	FUNCTION4 PFK	40.38	1.723e7					27.5	YES		dd		
3	FUNCTION4 PFK	38.56	5.411e6					27.1	YES		bd		

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PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	42.59	1.809e3					0.6	NO		bb		
2	FUNCTION5 PFK	45.49	2.456e3					0.7	NO		bd		
3	FUNCTION5 PFK	45.27	7.523e2					0.4	NO		bb		
4	FUNCTION5 PFK	45.07	3.319e3					1.0	NO		bb		
5	FUNCTION5 PFK	44.95	6.329e3					0.9	NO		db		
6	FUNCTION5 PFK	44.89	8.640e3					1.7	NO		bd		
7	FUNCTION5 PFK	44.60	7.757e2					0.4	NO		bb		
8	FUNCTION5 PFK	44.06	1.195e3					0.7	NO		bb		
9	FUNCTION5 PFK	43.93	2.527e3					0.8	NO		bb		
10	FUNCTION5 PFK	43.80	7.972e2					0.4	NO		bb		
11	FUNCTION5 PFK	43.68	5.300e3					0.9	NO		bb		
12	FUNCTION5 PFK	43.50	5.216e3					1.4	NO		bb		
13	FUNCTION5 PFK	43.32	2.253e3					0.7	NO		bb		
14	FUNCTION5 PFK	43.26	5.652e3					1.1	NO		bb		
15	FUNCTION5 PFK	43.08	3.537e3					0.9	NO		bb		
16	FUNCTION5 PFK	42.89	2.104e3					0.8	NO		bb		
17	FUNCTION5 PFK	42.65	5.454e3					1.3	NO		bb		
18	FUNCTION5 PFK	45.81	5.303e3					1.1	NO		bb		
19	FUNCTION5 PFK	45.72	2.184e3					0.8	NO		bb		
20	FUNCTION5 PFK	45.63	9.246e3					1.4	NO		bb		
21	FUNCTION5 PFK	45.52	4.569e3					1.1	NO		db		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.13	1.638e2					4.2	YES		bb		0.000
2	FUNCTION1 HXCD...	26.38	1.082e2					3.5	YES		bb		0.000
3	FUNCTION1 HXCD...	25.99	7.429e1					2.0	NO		db		0.000
4	FUNCTION1 HXCD...	25.77	1.638e2					3.9	YES		bd		0.000
5	FUNCTION1 HXCD...	25.56	7.594e1					3.4	YES		bb		0.000
6	FUNCTION1 HXCD...	24.76	9.078e1					2.3	NO		bb		0.000
7	FUNCTION1 HXCD...	22.51	7.466e1					3.5	YES		bb		0.000
8	FUNCTION1 HXCD...	21.11	2.987e2					13.9	YES		bb		0.000

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ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.15	4.346e2					10.9	YES		bb		0.000
2	FUNCTION2 HPCD...	28.33	9.739e1					3.5	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.50	1.428e2					4.8	YES		bb		0.000
2	FUNCTION3 OCDPE	35.97	1.082e2					3.8	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	39.20	9.381e1					2.6	NO		bb		0.000

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	42.73	6.637e2					22.2	YES		bb		0.000

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

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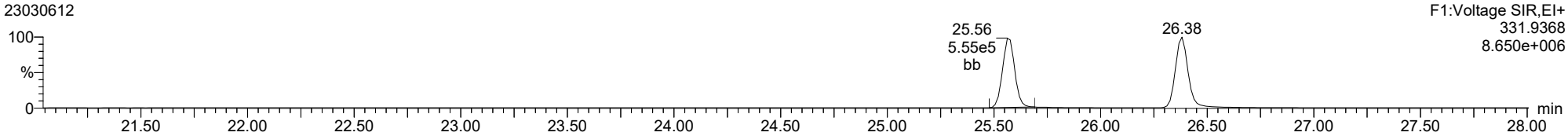
13C-1234-TCDD



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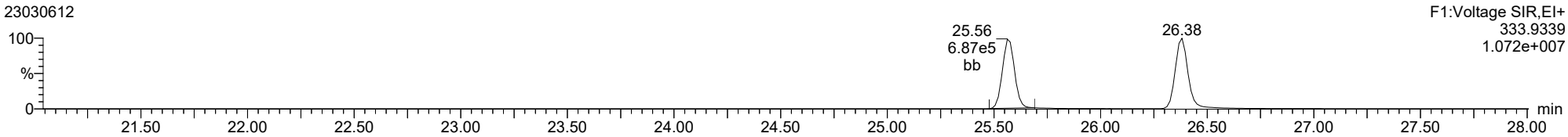

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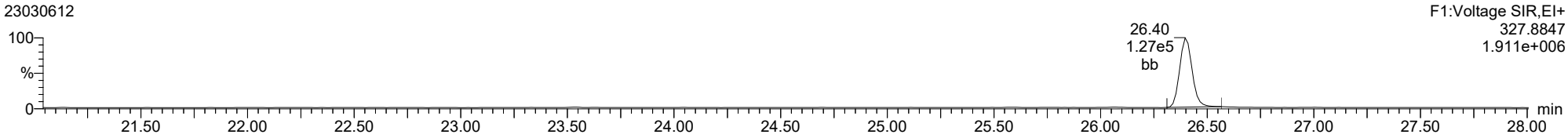

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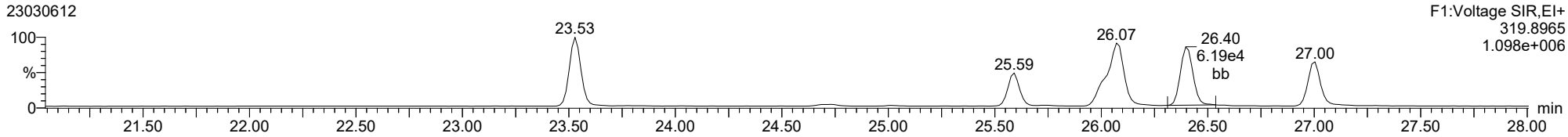
2378-TCDD



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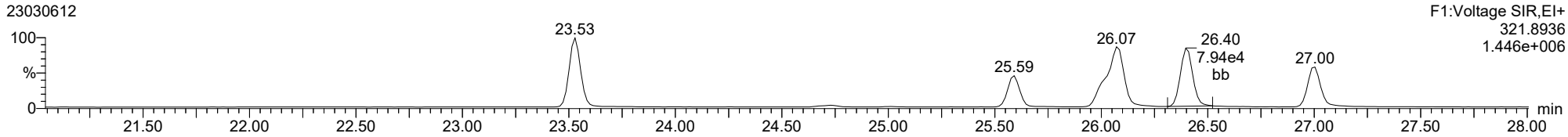

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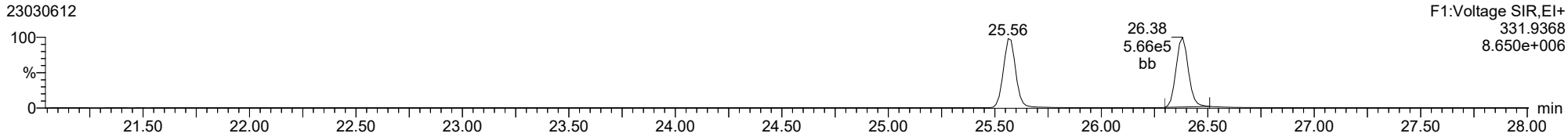

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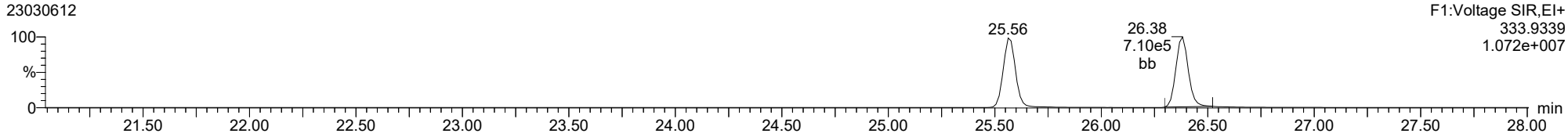

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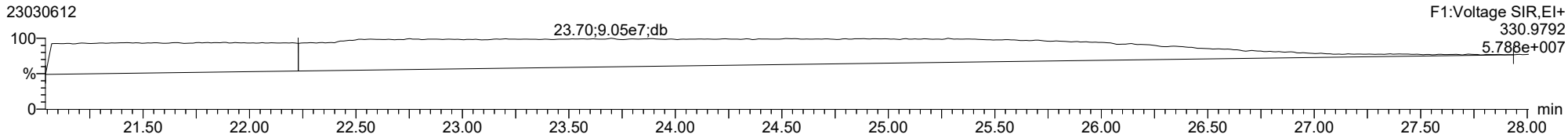

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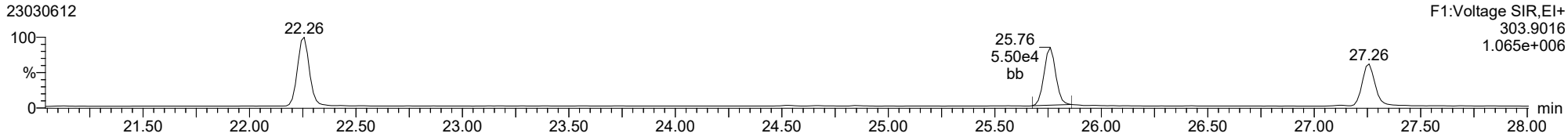
2378-TCDF



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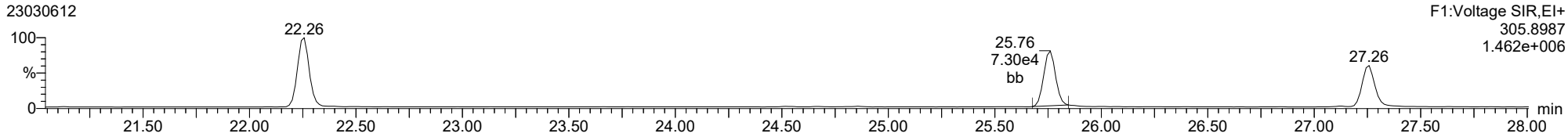

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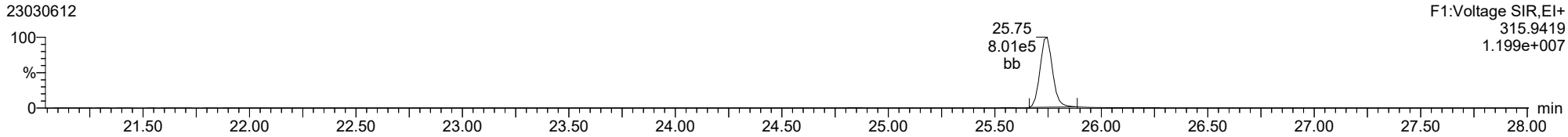

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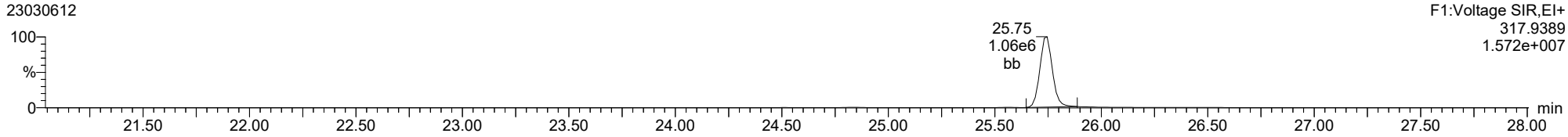

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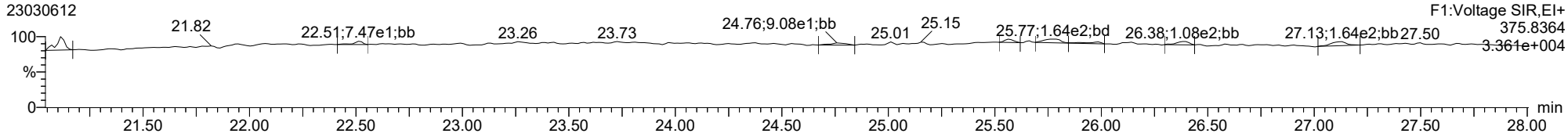

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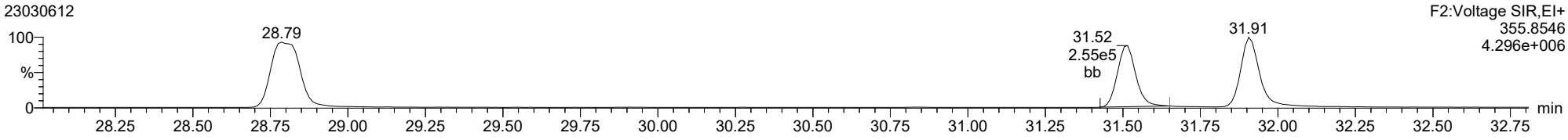
12378-PeCDD



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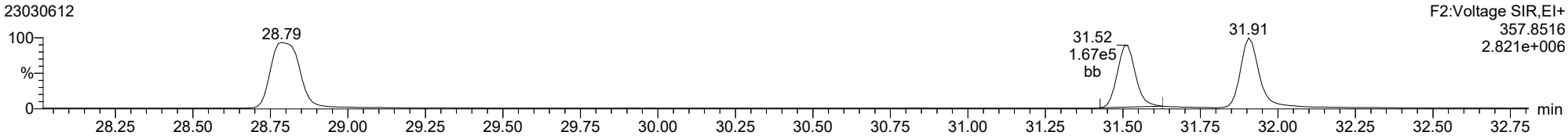

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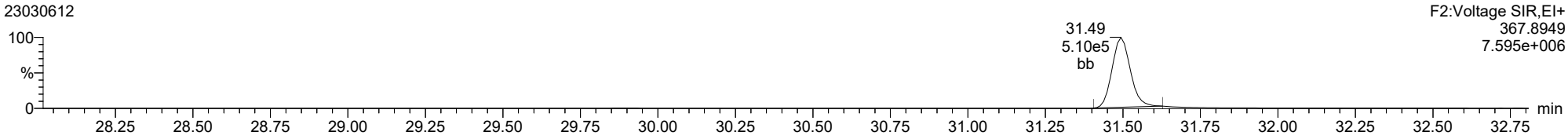

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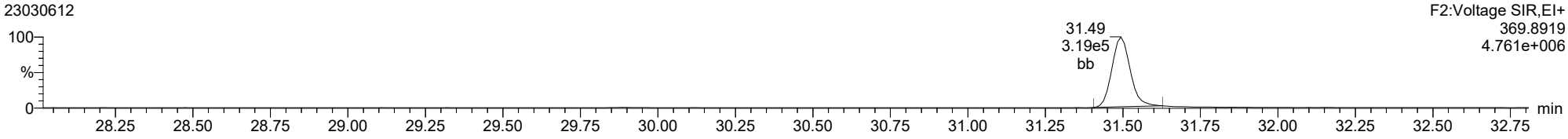

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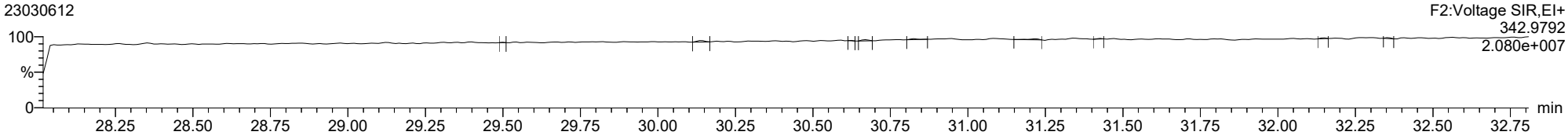

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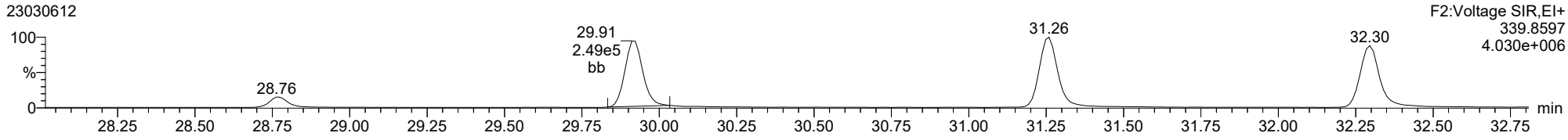

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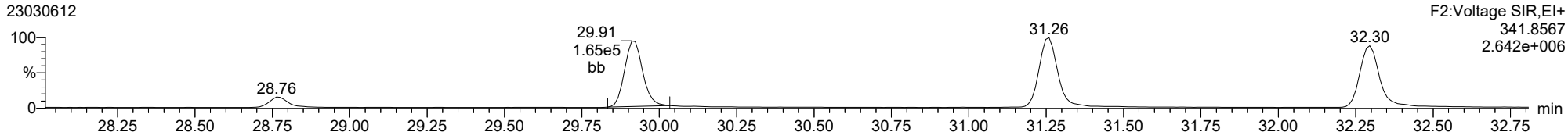

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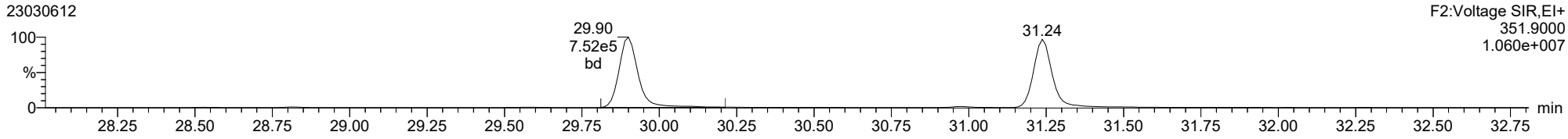

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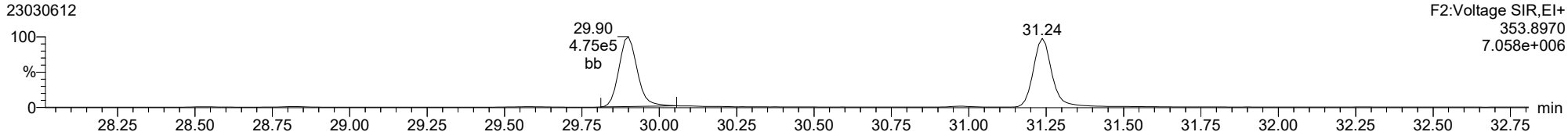

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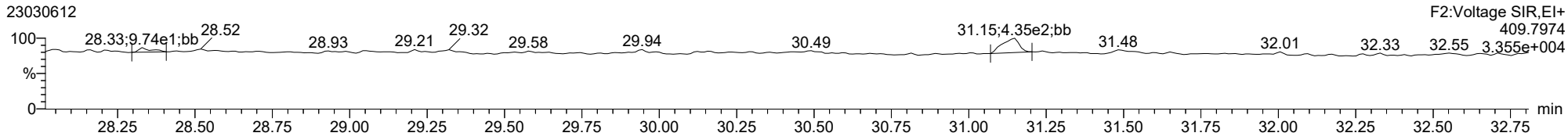

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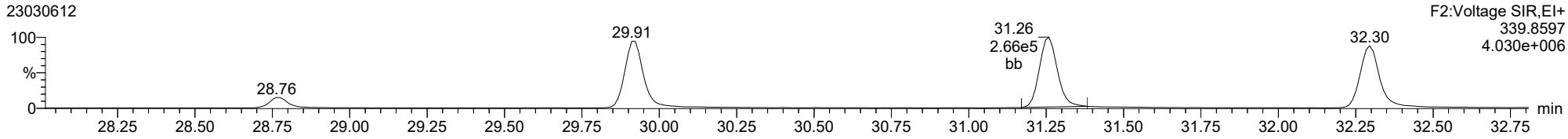
23478-PeCDF



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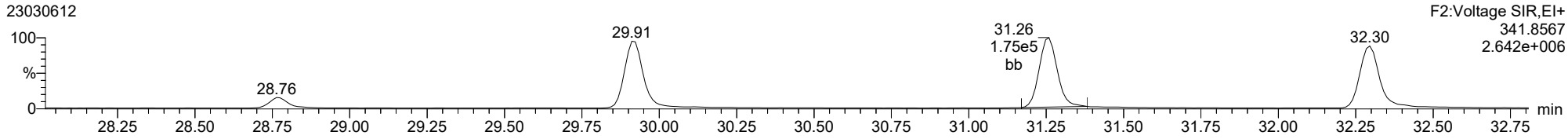

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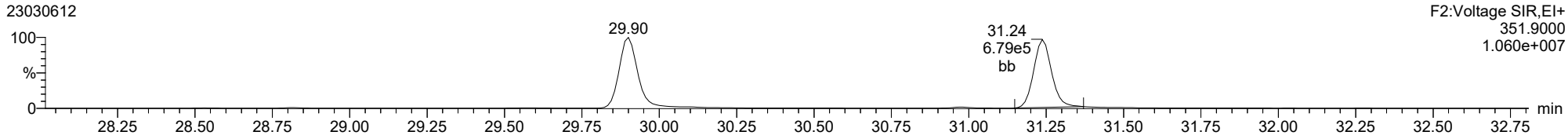

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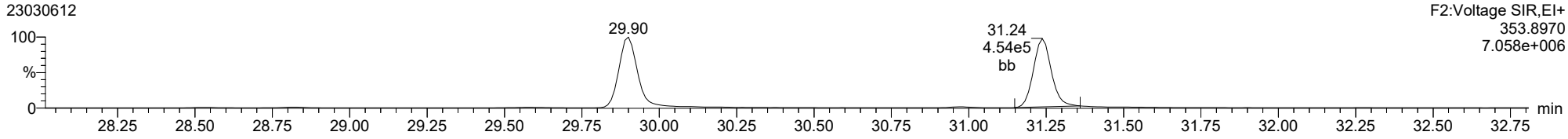

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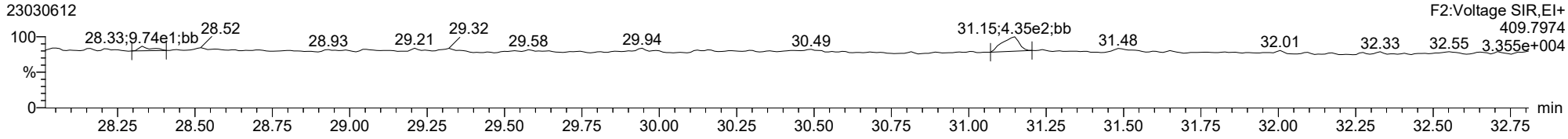

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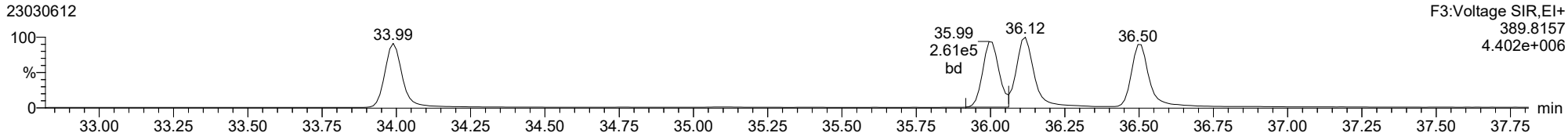
123478-HxCDD



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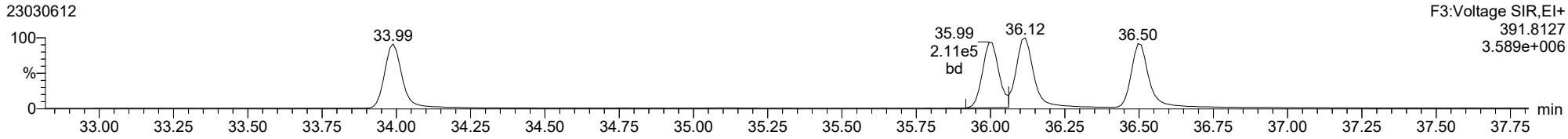

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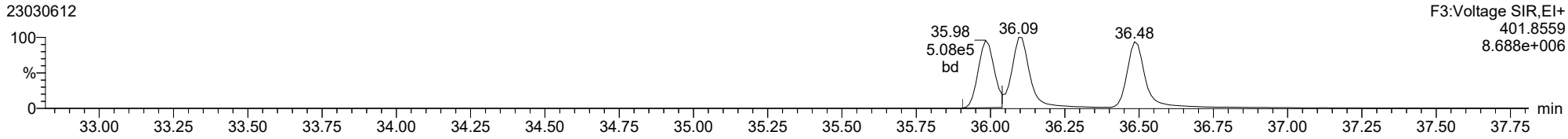

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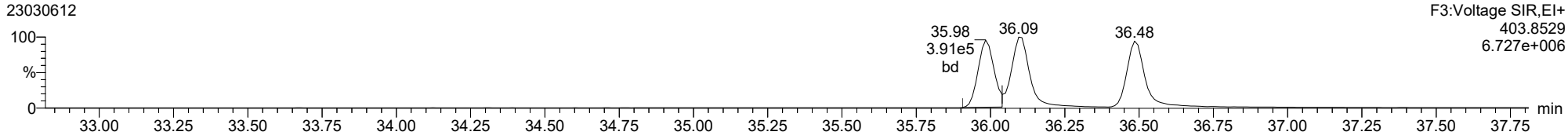

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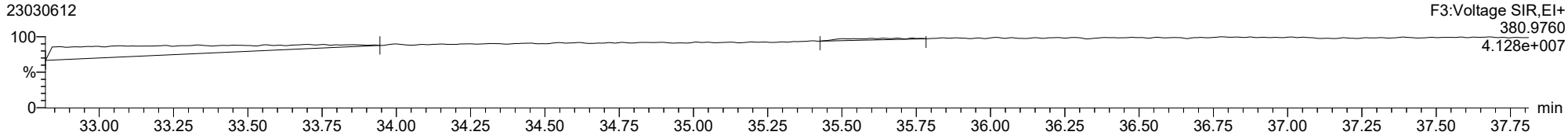

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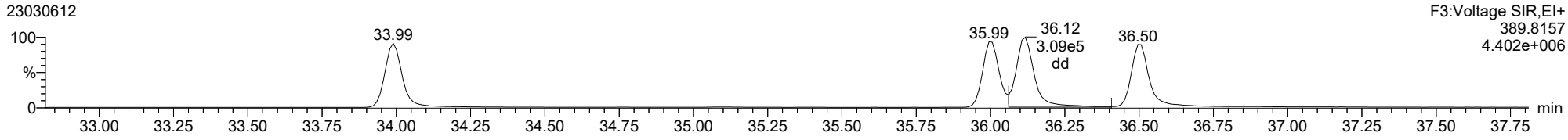
123678-HxCDD



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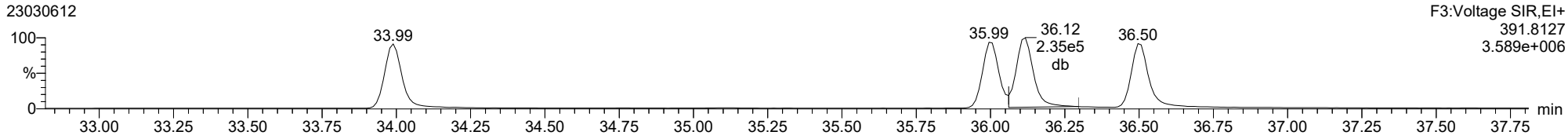

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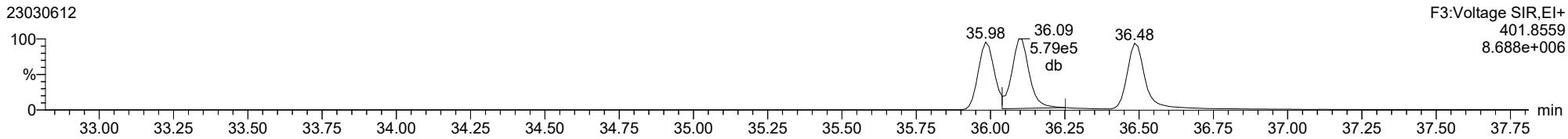

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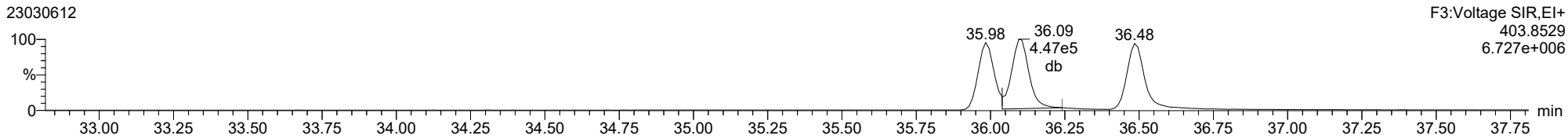

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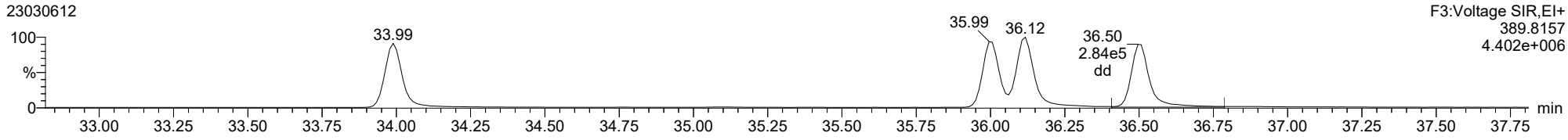

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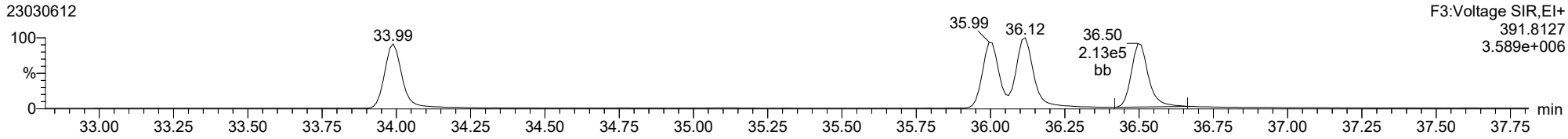

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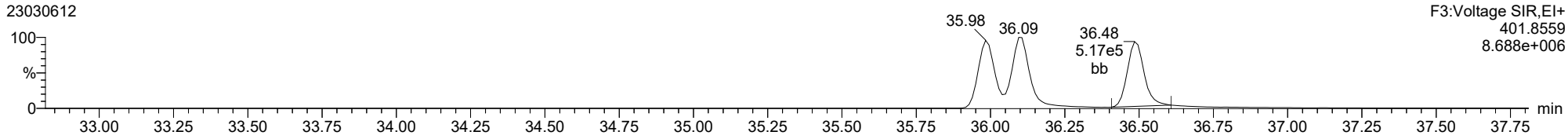

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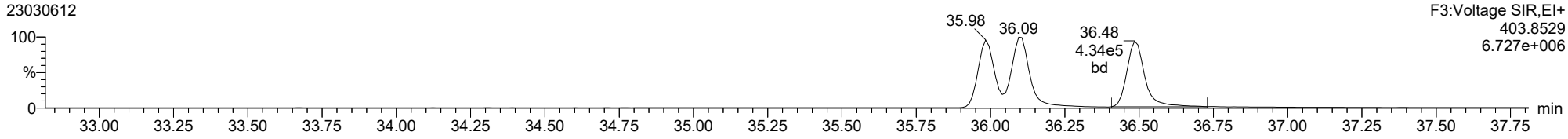

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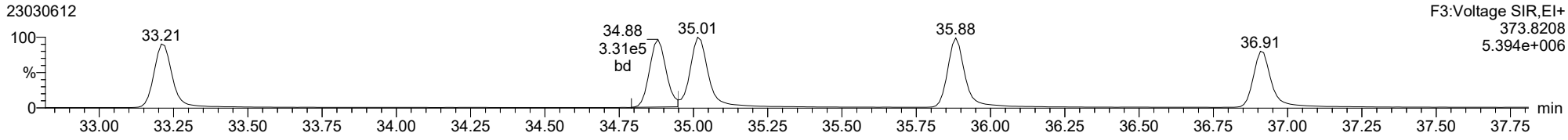

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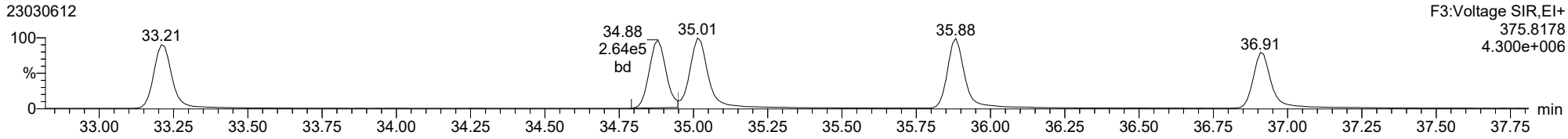

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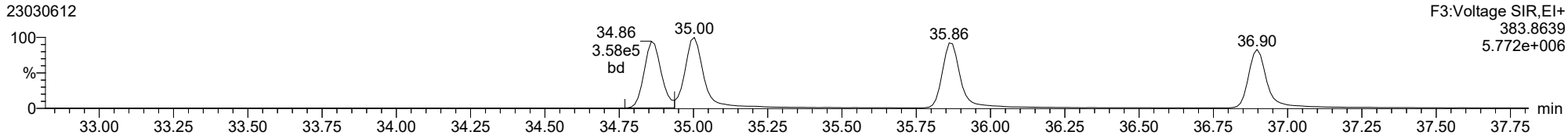

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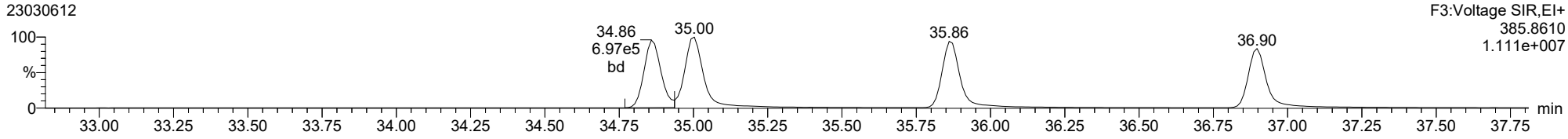

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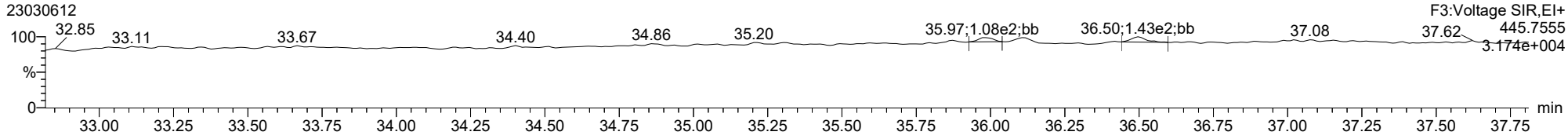

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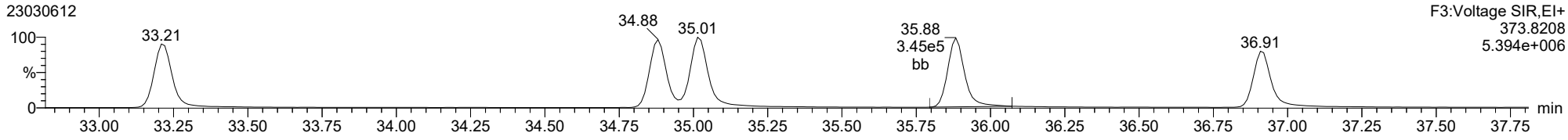
234678-HxCDF



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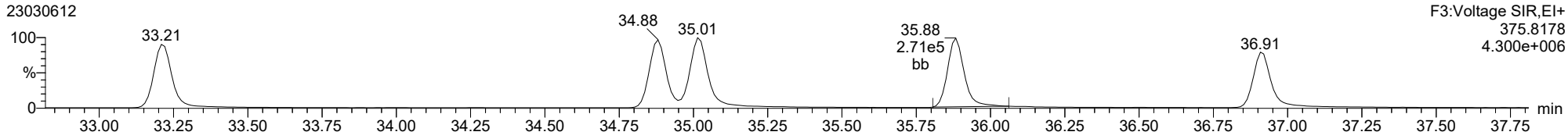

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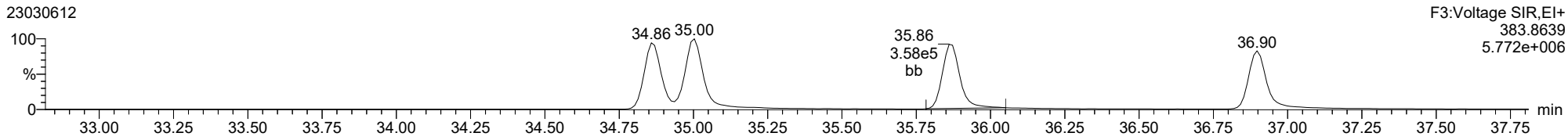

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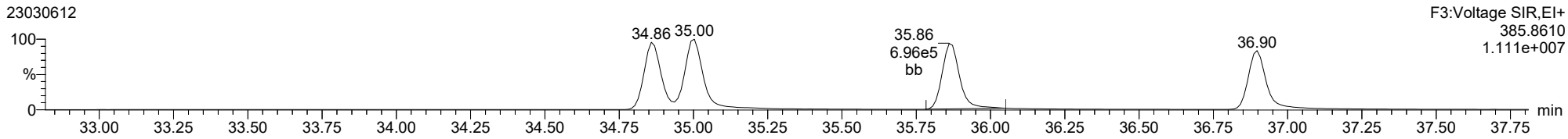
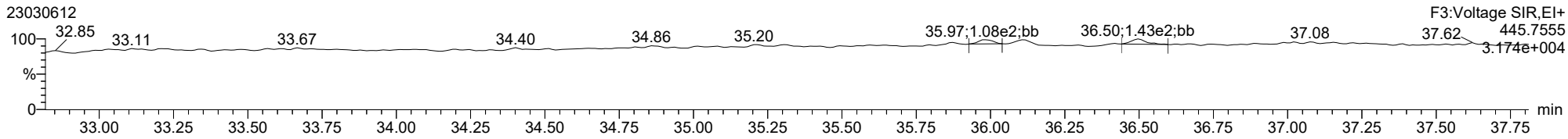


FUNCTION3 OCDPE



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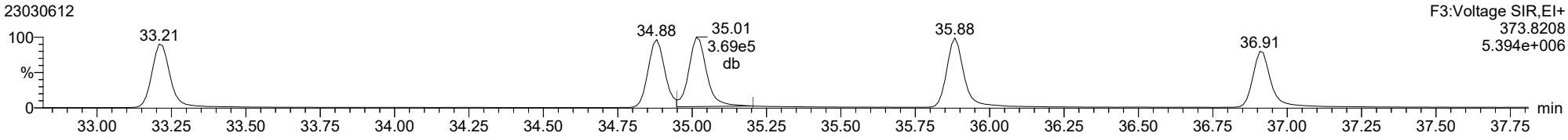

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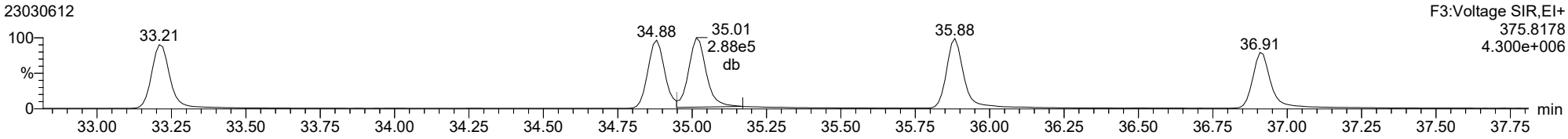

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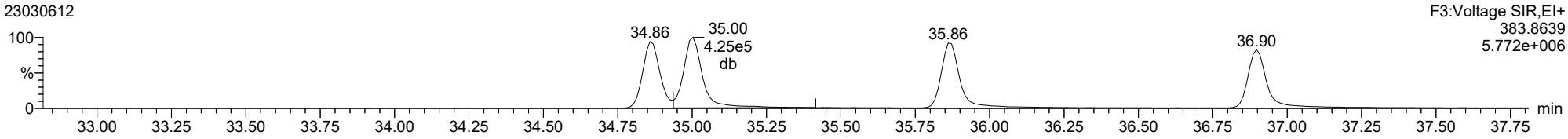

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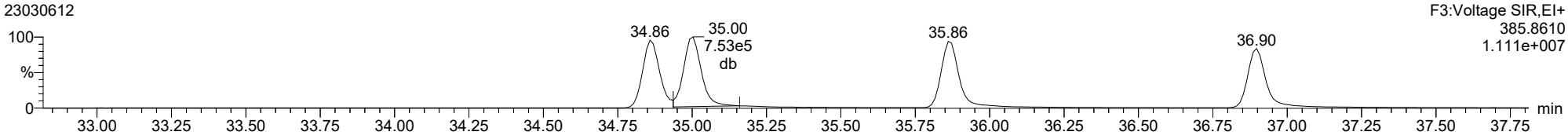

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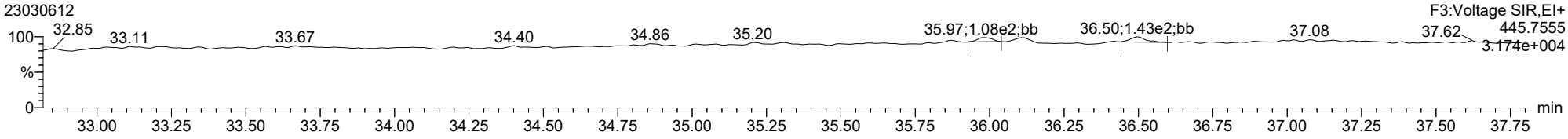

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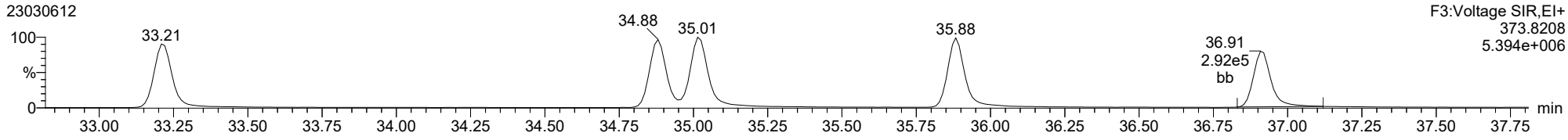

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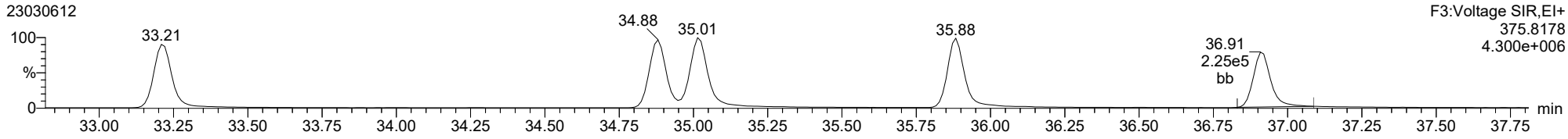

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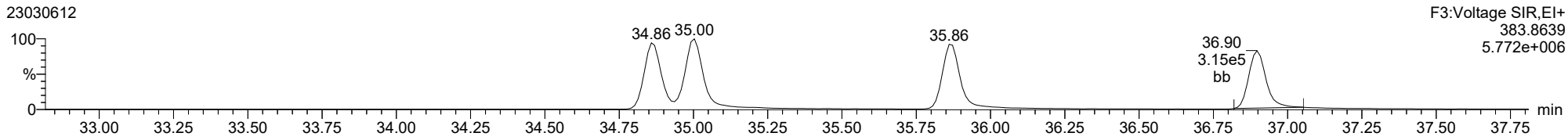

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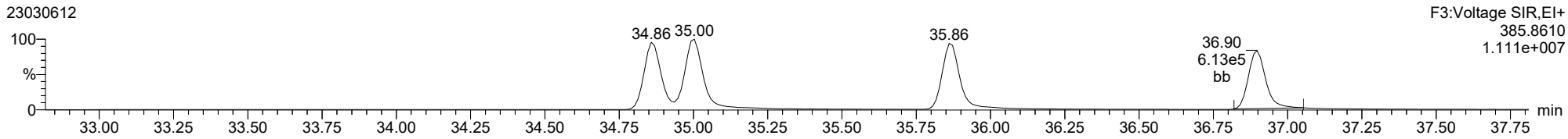

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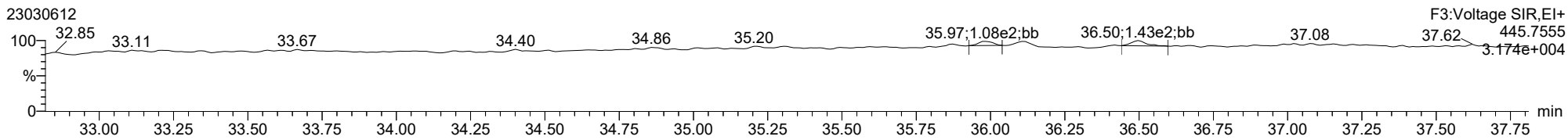

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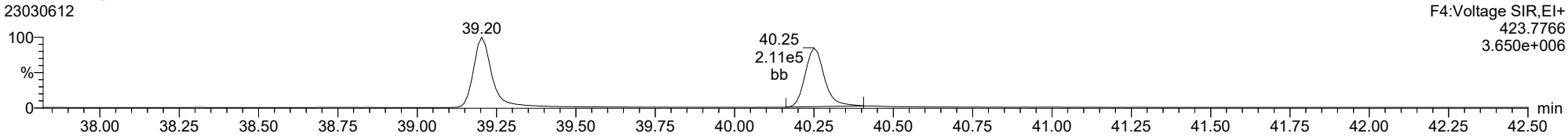

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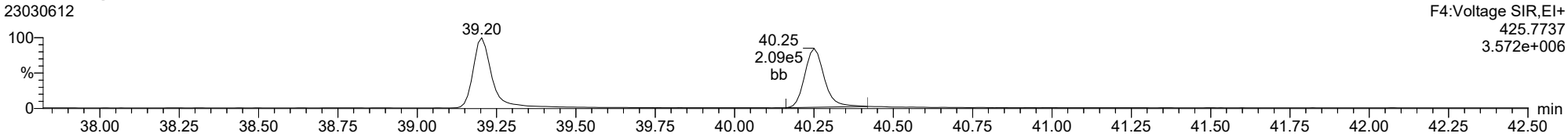

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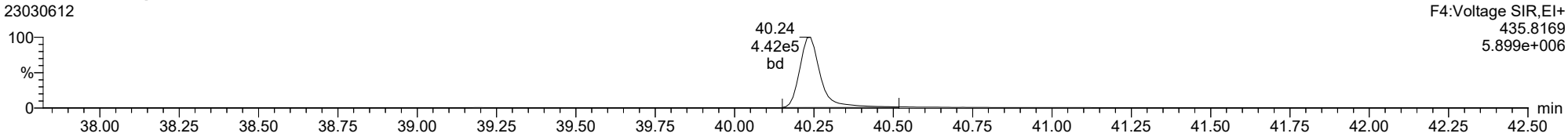

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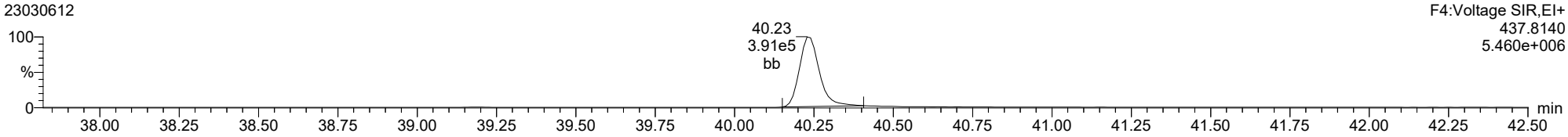

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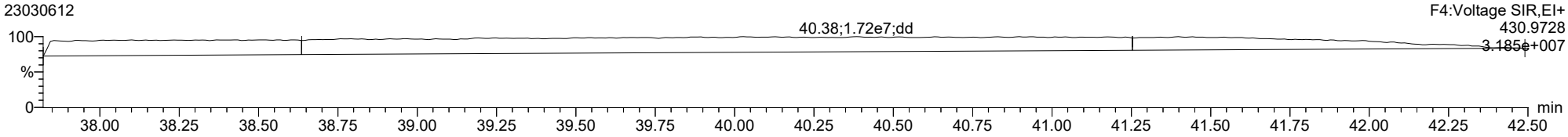

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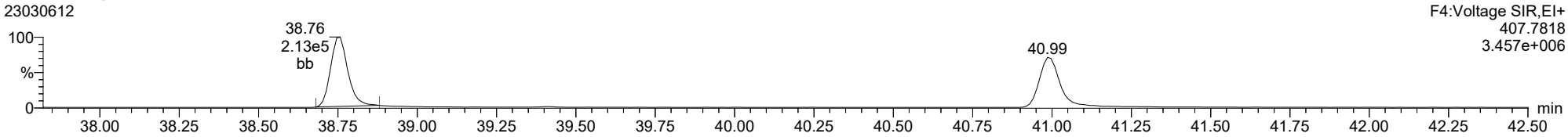

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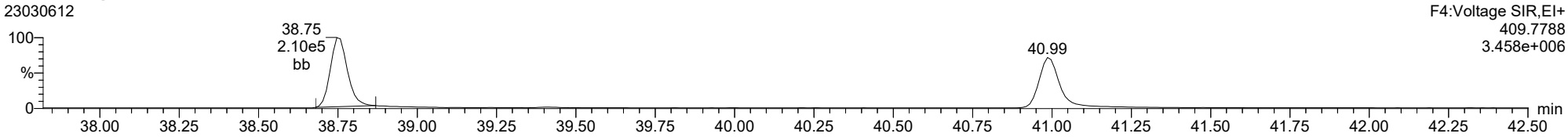

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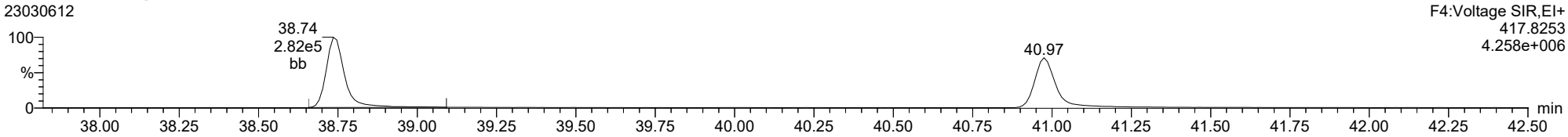

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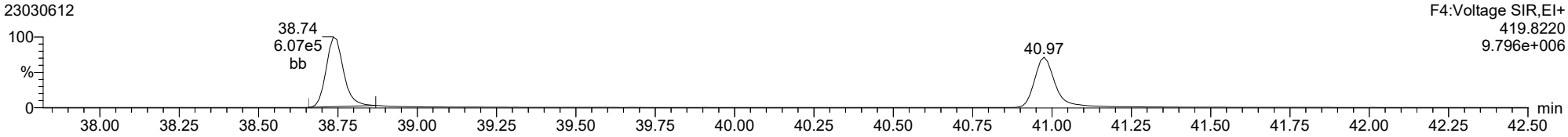

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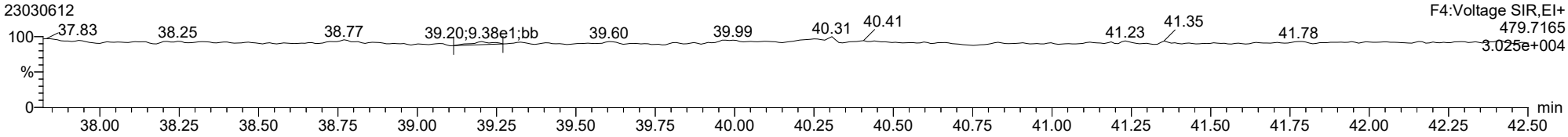

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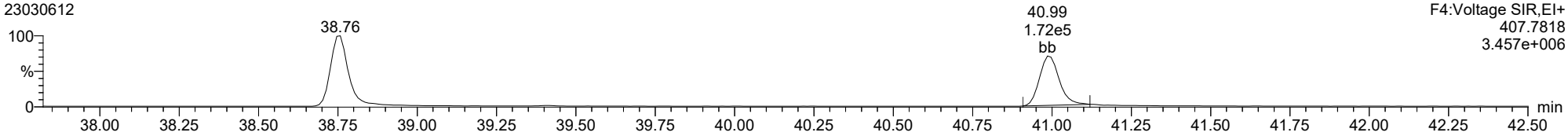

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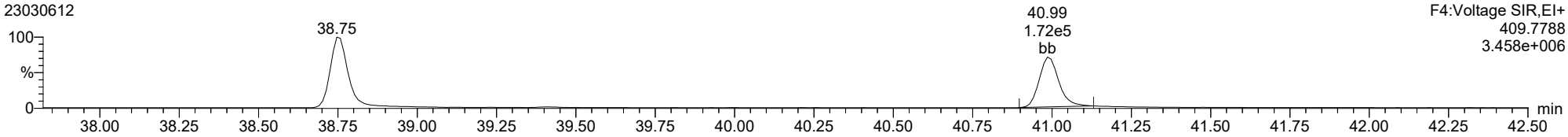

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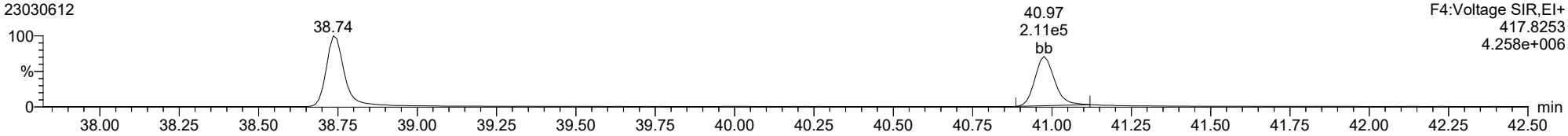

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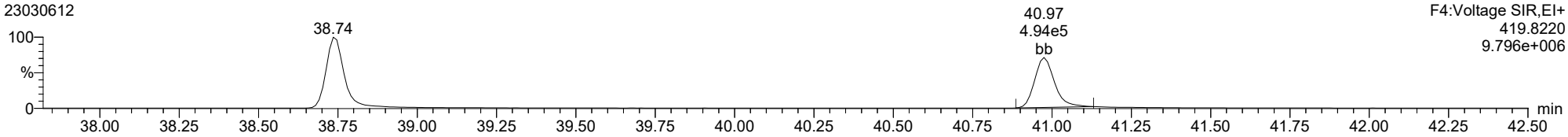

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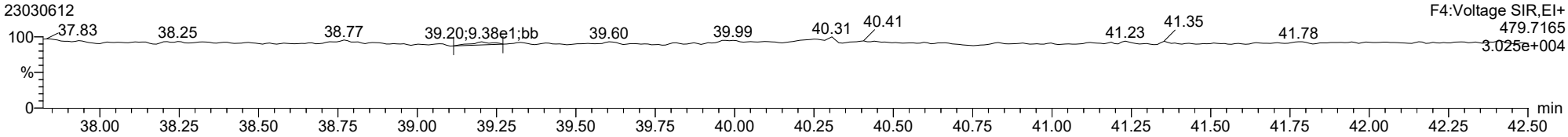

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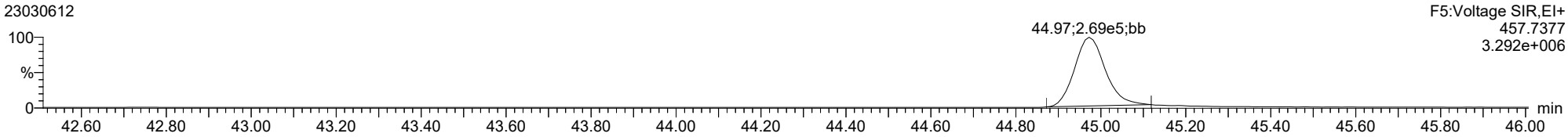

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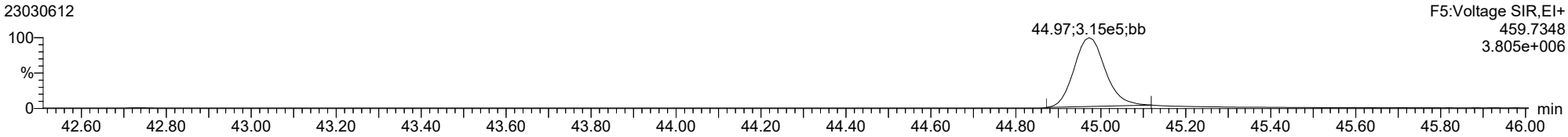

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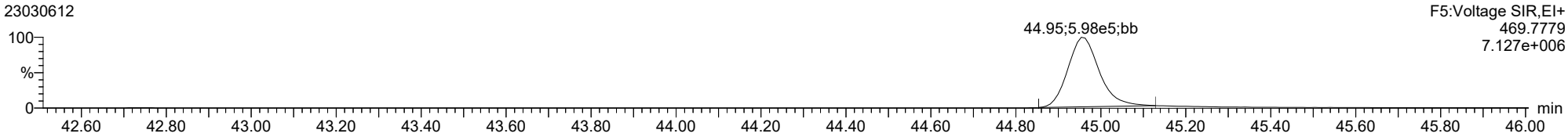

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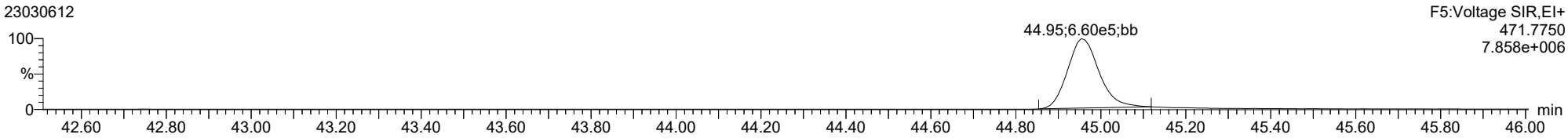

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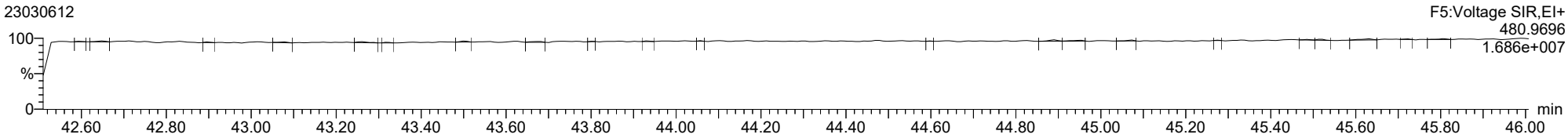

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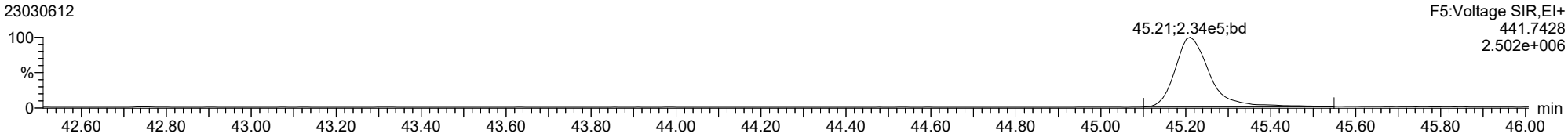

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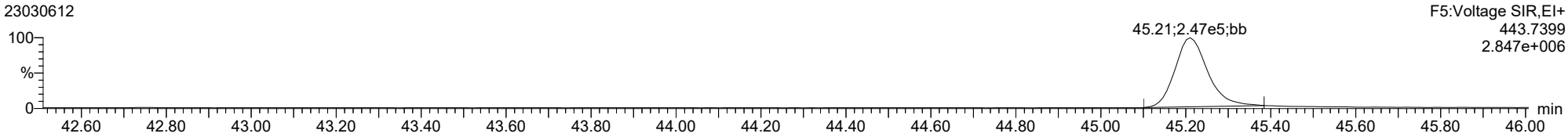

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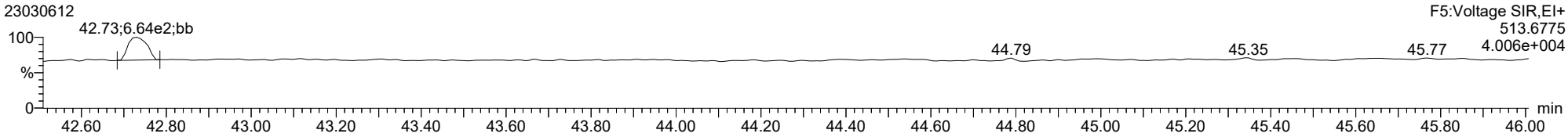

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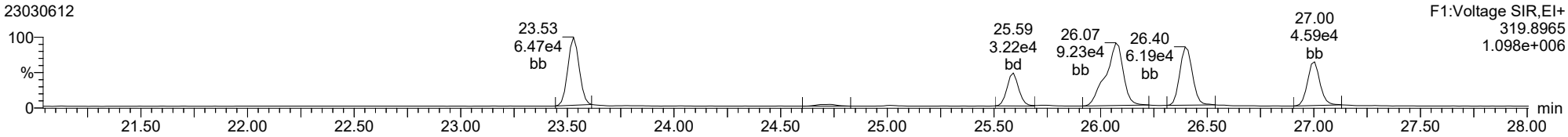

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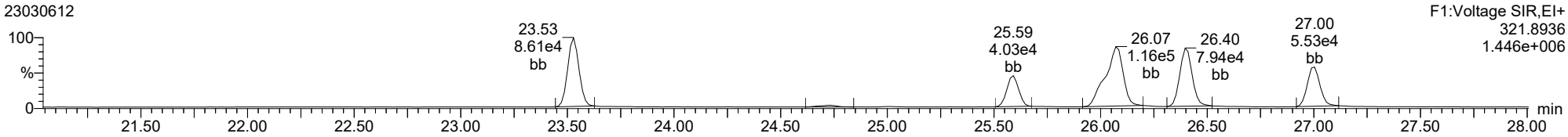

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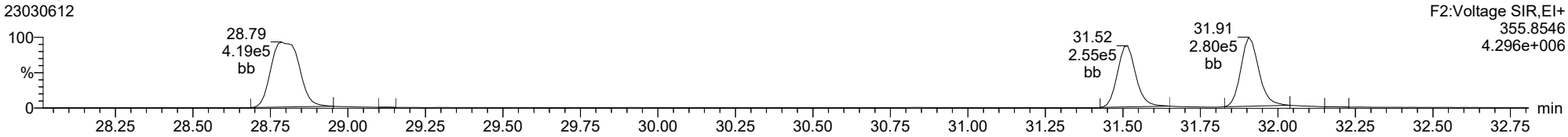

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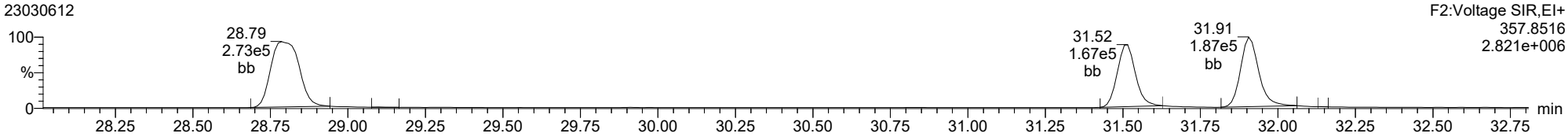

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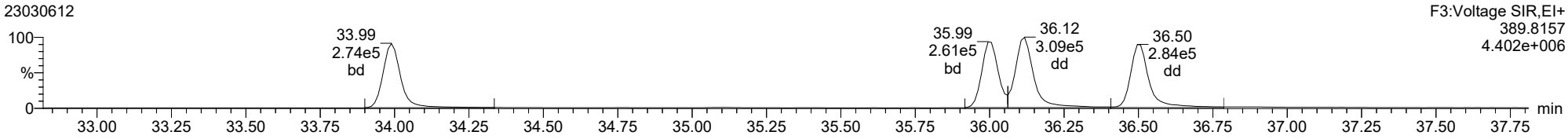

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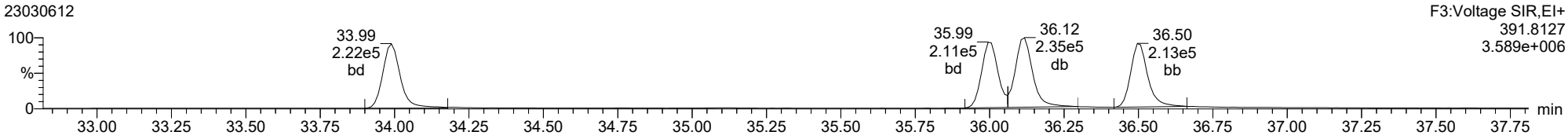

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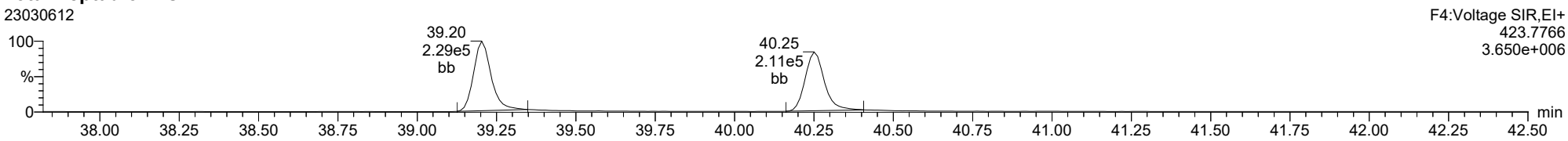

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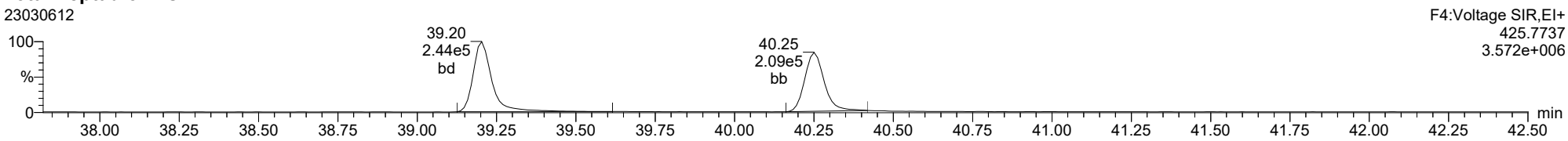

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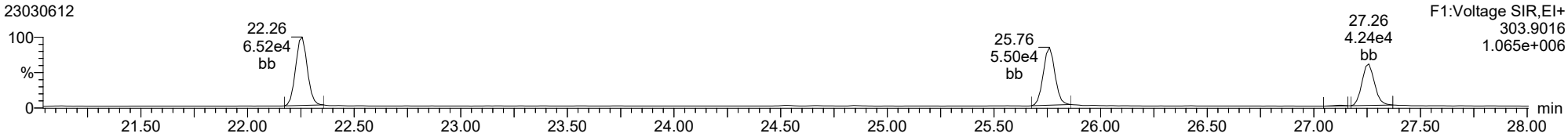
Total-tetrafurans



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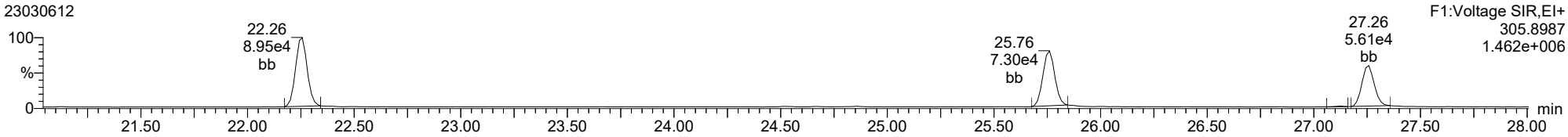

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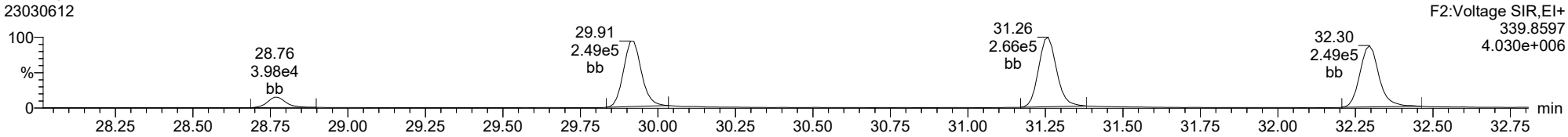

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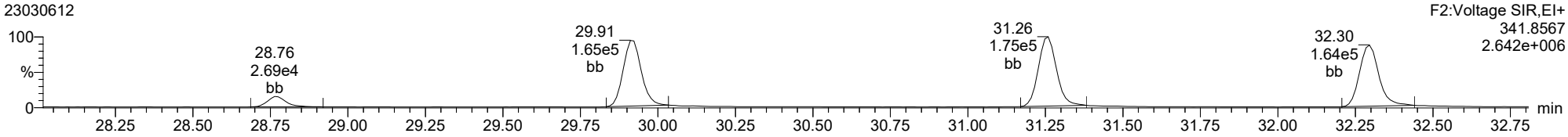

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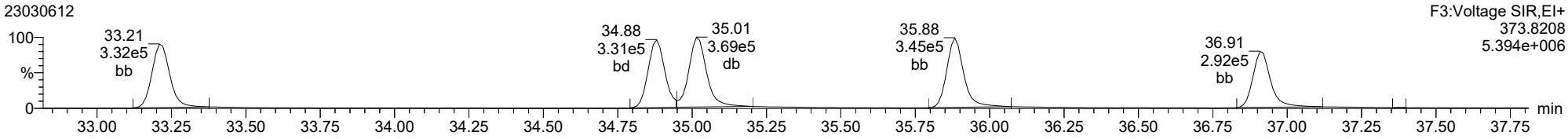

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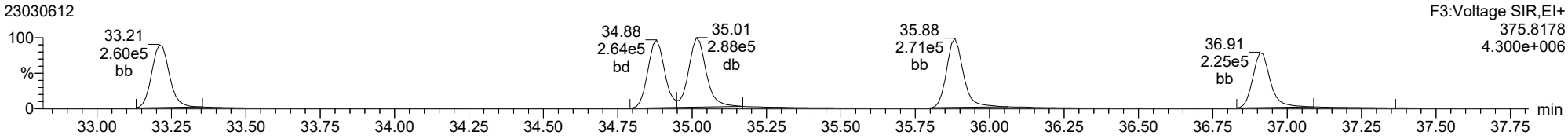

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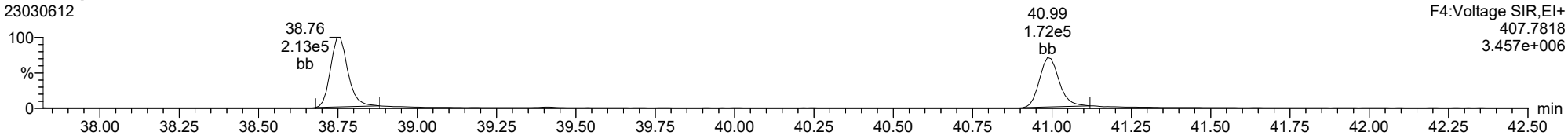

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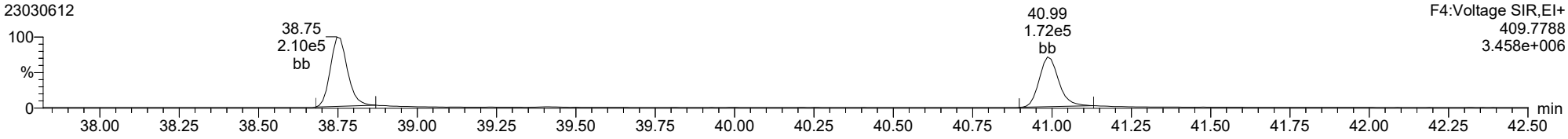

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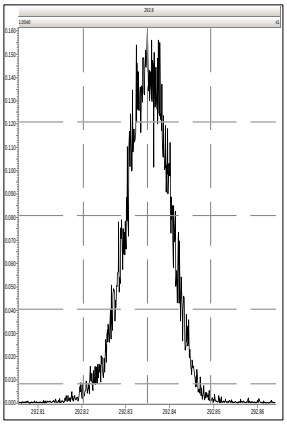
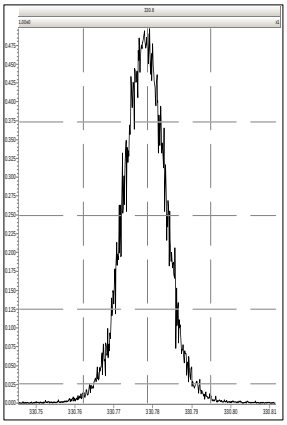
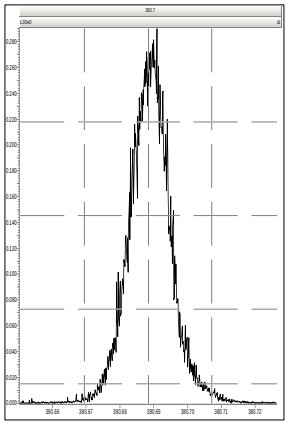
M 292.9824 R 12594



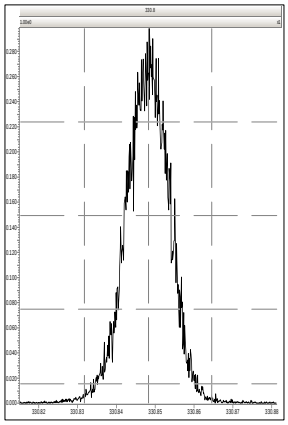
M 330.9792 R 13088



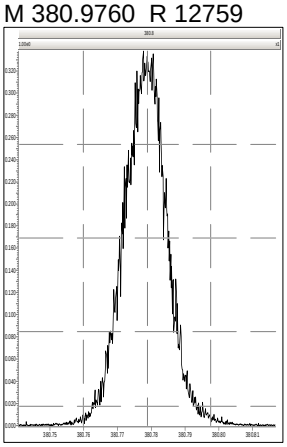
M 380.9760 R 13405



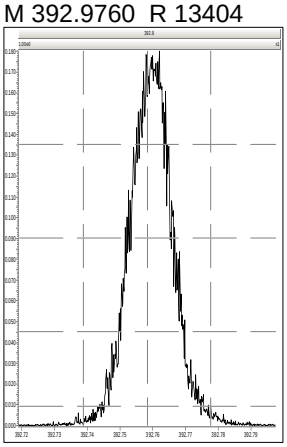
M 330.9792 R 12724



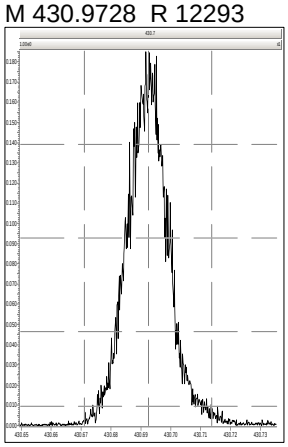
M 380.9760 R 12759



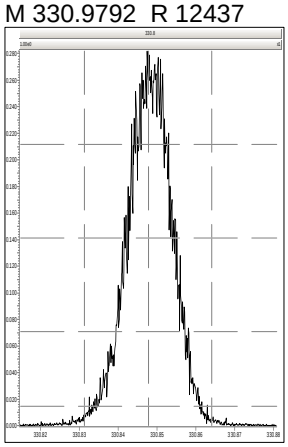
M 392.9760 R 13404



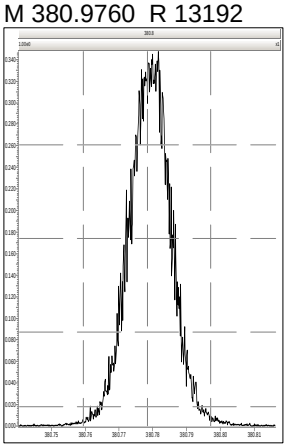
M 430.9728 R 12293



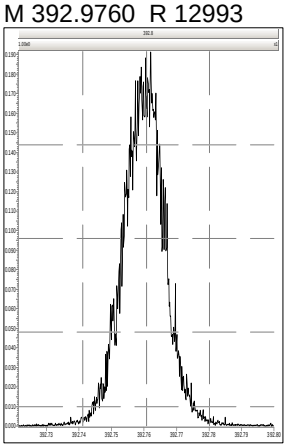
M 330.9792 R 12437



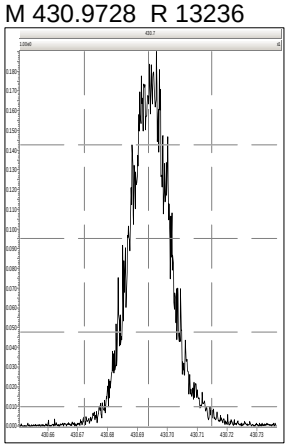
M 380.9760 R 13192



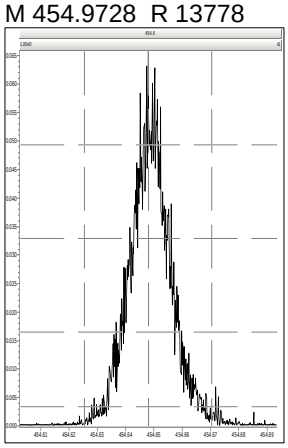
M 392.9760 R 12993



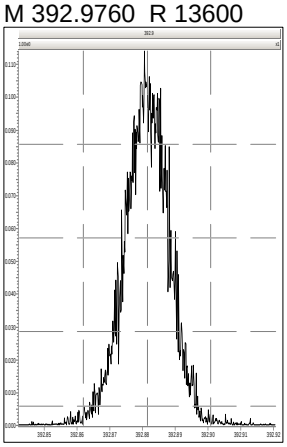
M 430.9728 R 13236



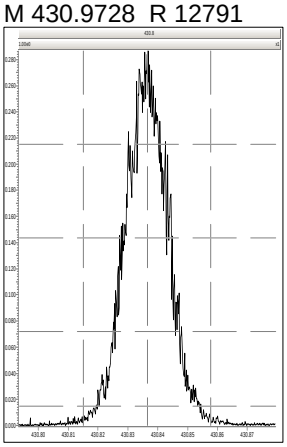
M 454.9728 R 13778



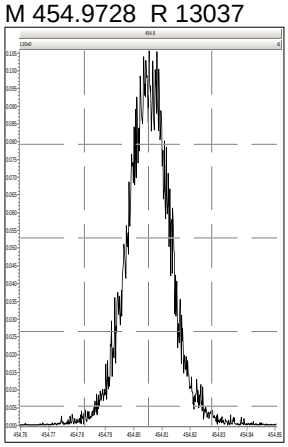
M 392.9760 R 13600



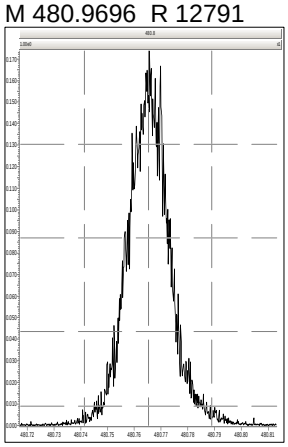
M 430.9728 R 12791



M 454.9728 R 13037

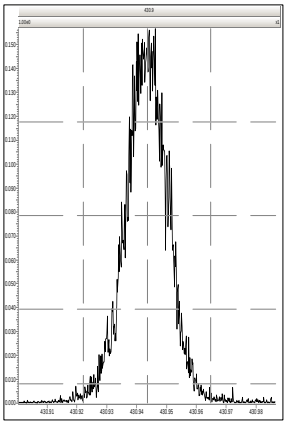


M 480.9696 R 12791

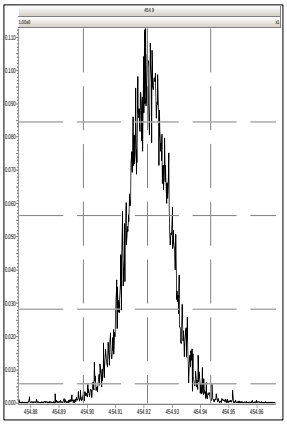


Printed: Monday, March 06, 2023 20:03:27 Pacific Standard Time

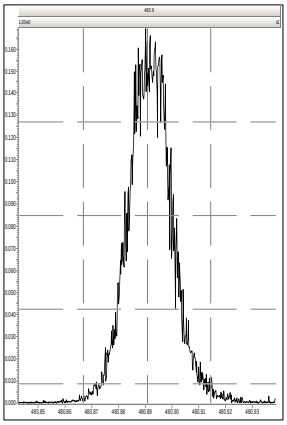
M 430.9728 R 13476



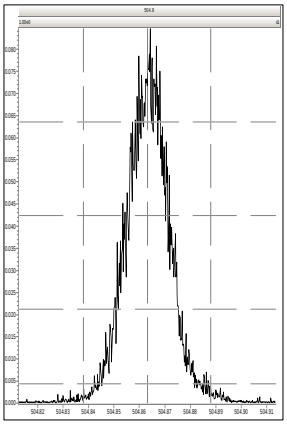
M 454.9728 R 13646



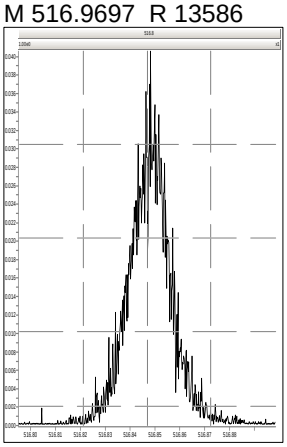
M 480.9696 R 12407

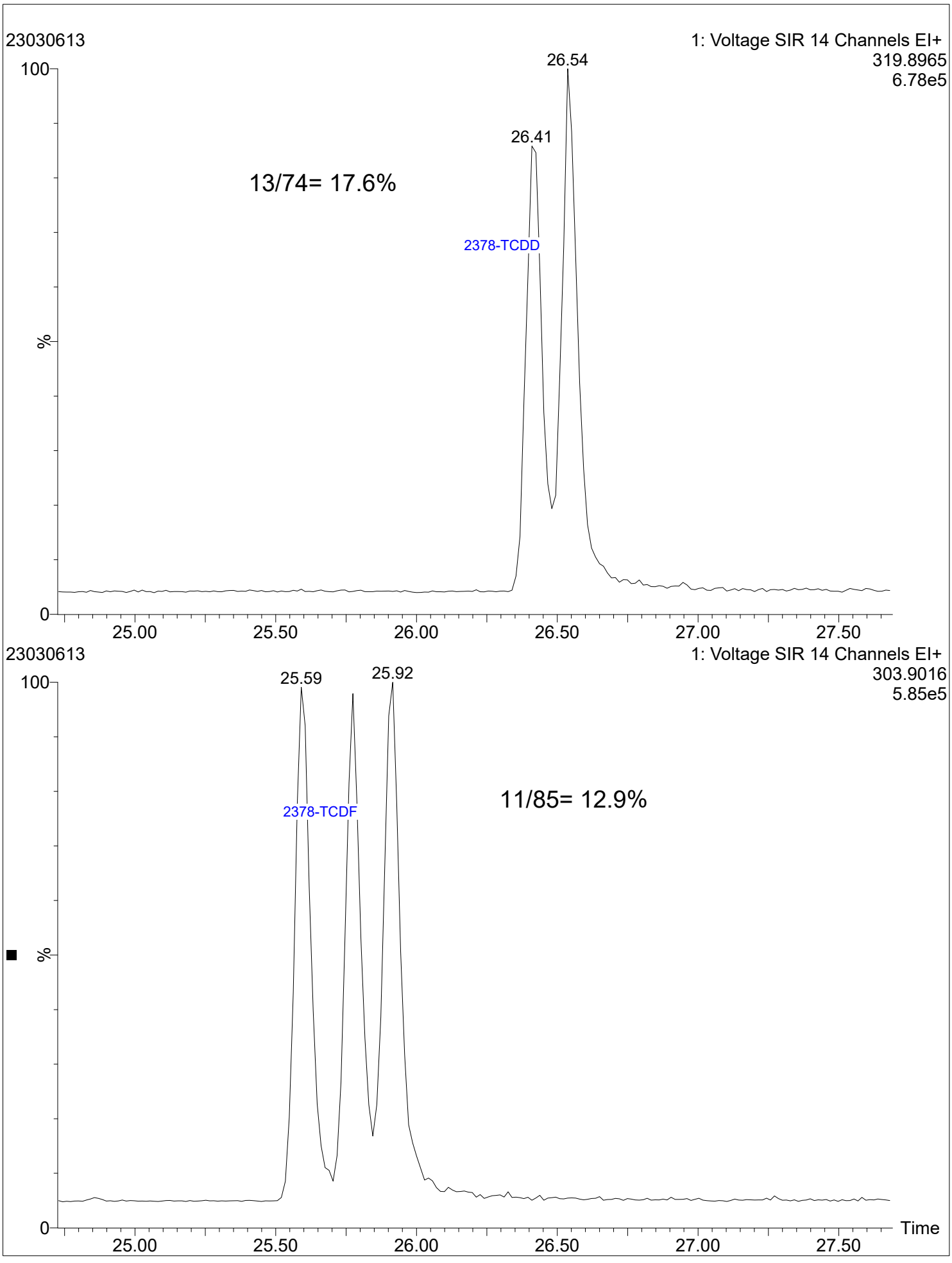


M 504.9696 R 13194



M 516.9697 R 13586




23030613
1: Voltage SIR 14 Channels EI+
319.8965
6.78e5
26.54
26.41
13/74= 17.6%
2378-TCDD
100
%
0
25.00
25.50
26.00
26.50
27.00
27.50
23030613
1: Voltage SIR 14 Channels EI+
303.9016
5.85e5
25.59
25.92
2378-TCDF
11/85= 12.9%
100
%
0
Time
25.00
25.50
26.00
26.50
27.00
27.50

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	AUTOSPEC01	Calibration:	GC00015
Lab File ID:	23030623	Calibration Date:	03/03/2023
Sequence:	SLC0081	Injection Date:	03/07/23
Lab Sample ID:	SLC0081-CCV2	Injection Time:	04:16
Sequence Name:	CS3X3		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
2,3,7,8-TCDF	A	10.000	9.93	0.7015272	0.6962954		-0.7	+/-16	
2,3,7,8-TCDD	A	10.000	9.30	1.1486620	1.0680310		-7.0	+/-22	
1,2,3,7,8-PeCDF	A	50.000	50.3	0.6792300	0.6827034		0.5	+/-18	
2,3,4,7,8-PeCDF	A	50.000	47.7	0.7861704	0.7492785		-4.7	+/-18	
1,2,3,7,8-PeCDD	A	50.000	49.4	1.0218450	1.0105560		-1.1	+/-22	
1,2,3,4,7,8-HxCDF	A	50.000	47.1	1.1660380	1.0993570		-5.7	+/-10	
1,2,3,6,7,8-HxCDF	A	50.000	48.4	1.0907410	1.0553420		-3.2	+/-12	
2,3,4,6,7,8-HxCDF	A	50.000	48.6	1.1396990	1.1089020		-2.7	+/-12	
1,2,3,7,8,9-HxCDF	A	50.000	45.6	1.1370930	1.0374310		-8.8	+/-10	
1,2,3,4,7,8-HxCDD	A	50.000	49.4	0.9955689	0.9832304		-1.2	+/-22	
1,2,3,6,7,8-HxCDD	A	50.000	51.5	1.0009380	1.0302750		2.9	+/-22	
1,2,3,7,8,9-HxCDD	A	50.000	55.5	0.9071139	1.0072050		11.0	+/-18	
1,2,3,4,6,7,8-HpCDF	A	50.000	46.9	1.0029930	0.9413993		-6.1	+/-10	
1,2,3,4,7,8,9-HpCDF	A	50.000	49.3	0.9531152	0.9396412		-1.4	+/-14	
1,2,3,4,6,7,8-HpCDD	A	50.000	48.2	1.0390130	1.0020460		-3.6	+/-14	
OCDF	A	100.00	85.2	0.7778078	0.6625677		-14.8	+/-37	
OCDD	A	100.00	100	0.9199537	0.9223568		0.3	+/-21	
13C12-2,3,7,8-TCDF	A	100.00	89.0	1.6201960	1.4419719		-11.0	+/-29	
13C12-2,3,7,8-TCDD	A	100.00	100	1.1524090	1.1578808		0.5	+/-18	
13C12-1,2,3,7,8-PeCDF	A	100.00	95.9	1.2404520	1.1894129		-4.1	+/-24	
13C12-2,3,4,7,8-PeCDF	A	100.00	102	1.1177860	1.1405438		2.0	+/-23	
13C12-1,2,3,7,8-PeCDD	A	100.00	106	0.8288129	0.8791184		6.1	+/-38	
13C12-1,2,3,4,7,8-HxCDF	A	100.00	106	1.1683050	1.2412956		6.2	+/-24	
13C12-1,2,3,6,7,8-HxCDF	A	100.00	90.6	1.3864660	1.2555523		-9.4	+/-30	
13C12-2,3,4,6,7,8-HxCDF	A	100.00	89.6	1.1292560	1.0123268		-10.4	+/-27	
13C12-1,2,3,7,8,9-HxCDF	A	100.00	94.8	0.9317541	0.8835846		-5.2	+/-26	
13C12-1,2,3,4,7,8-HxCDD	A	100.00	97.0	0.9950393	0.9654653		-3.0	+/-15	
13C12-1,2,3,6,7,8-HxCDD	A	100.00	81.9	1.1566890	0.9478190		-18.1	+/-15	*
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	96.9	0.8952017	0.8671842		-3.1	+/-22	
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	92.8	0.7697516	0.7145819		-7.2	+/-23	
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	101	0.8401226	0.8484129		1.0	+/-18	
13C12-OCDD	A	200.00	194	0.7674714	0.7438974		-3.1	+/-52	
37Cl4-2,3,7,8-TCDD	A	10.000	8.86	1.2878040	1.1415726		-11.4	+/-21	

* Values outside of QC limits

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
Last Altered: Tuesday, March 07, 2023 08:54:19 Pacific Standard Time
Printed: Tuesday, March 07, 2023 09:07:35 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3X3, Name: 23030623, Date: 07-Mar-2023, Time: 04:16:35, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.760	1.001	5.009e4	6.741e4	0.702	0.743	0.770	667	1092	7.98e5	1.07e6	1196.4	983.0	NO	bb	bb	9.925
12378-PeCDF	29.922	1.001	2.847e5	1.905e5	0.679	1.495	1.550	1527	2047	4.47e6	2.95e6	2927.0	1439.3	NO	bb	bb	50.256
23478-PeCDF	31.259	1.001	2.987e5	2.014e5	0.786	1.483	1.550	1527	2047	4.63e6	3.16e6	3033.4	1545.4	NO	bb	bb	47.654
123478-HxCDF	34.880	1.000	3.656e5	2.881e5	1.166	1.269	1.240	1525	1313	5.86e6	4.61e6	3844.5	3508.0	NO	bd	bd	47.141
234678-HxCDF	35.883	1.000	2.997e5	2.380e5	1.140	1.259	1.240	1525	1313	4.94e6	3.95e6	3242.8	3006.6	NO	bb	bb	48.649
123678-HxCDF	35.025	1.001	3.531e5	2.816e5	1.091	1.254	1.240	1525	1313	5.63e6	4.48e6	3692.6	3411.4	NO	db	db	48.377
123789-HxCDF	36.919	1.001	2.435e5	1.956e5	1.137	1.245	1.240	1525	1313	3.97e6	3.13e6	2606.8	2386.9	NO	bb	bb	45.618
1234678-HpCDF	38.757	1.000	1.945e5	1.966e5	1.003	0.989	1.050	1514	1216	3.21e6	3.23e6	2118.1	2660.3	NO	bb	bb	46.930
1234789-HpCDF	40.997	1.000	1.606e5	1.610e5	0.953	0.997	1.050	1514	1216	2.41e6	2.42e6	1591.2	1988.8	NO	bb	bb	49.293
OCDF	45.219	1.005	2.228e5	2.494e5	0.778	0.893	0.890	2056	920	2.67e6	3.02e6	1298.2	3284.7	NO	bb	bb	85.184
2378-TCDD	26.396	1.001	6.374e4	8.098e4	1.149	0.787	0.770	899	1349	9.84e5	1.23e6	1094.0	911.0	NO	bb	bb	9.298
12378-PeCDD	31.515	1.001	3.135e5	2.063e5	1.022	1.519	1.550	1509	1499	4.98e6	3.28e6	3298.8	2189.9	NO	bb	bb	49.448
123478-HxCDD	36.006	1.001	2.501e5	2.046e5	0.996	1.222	1.240	1502	1178	4.16e6	3.38e6	2767.3	2868.9	NO	bd	bd	49.380
123678-HxCDD	36.117	1.000	2.562e5	2.115e5	1.001	1.211	1.240	1502	1178	4.14e6	3.44e6	2758.0	2922.8	NO	db	db	51.465
123789-HxCDD	36.507	1.011	2.513e5	2.103e5	0.907	1.195	1.240	1502	1178	4.17e6	3.40e6	2775.5	2887.8	NO	bb	bb	55.517
1234678-HpCDD	40.262	1.001	2.079e5	1.994e5	1.039	1.043	1.050	1284	1369	3.12e6	3.08e6	2432.8	2248.9	NO	bb	bb	48.221
OCDD	44.981	1.000	3.023e5	3.551e5	0.920	0.851	0.890	1848	1446	3.74e6	4.37e6	2025.1	3023.4	NO	bb	bb	100.261
13C-2378-TCDF	25.746	1.007	7.284e5	9.591e5	1.620	0.759	0.770	1604	1473	1.13e7	1.49e7	7053.5	10135.5	NO	bb	bb	89.000
13C-12378-PeCDF	29.900	1.170	8.360e5	5.559e5	1.240	1.504	1.550	1259	1618	1.31e7	8.78e6	10425.6	5424.3	NO	bb	bb	95.885
13C-23478-PeCDF	31.237	1.222	8.002e5	5.346e5	1.118	1.497	1.550	1259	1618	1.26e7	8.46e6	10009.2	5225.6	NO	bb	bb	102.036
13C-123478-HxCDF	34.869	0.956	4.014e5	7.878e5	1.168	0.510	0.510	1715	2003	6.38e6	1.26e7	3718.6	6278.0	NO	bd	bd	106.248
13C-123678-HxCDF	35.003	0.959	4.062e5	7.966e5	1.386	0.510	0.510	1715	2003	6.60e6	1.29e7	3846.0	6448.6	NO	db	db	90.558
13C-234678-HxCDF	35.872	0.983	3.252e5	6.446e5	1.129	0.504	0.510	1715	2003	5.51e6	1.07e7	3212.7	5346.0	NO	bb	bb	89.645
13C-123789-HxCDF	36.897	1.011	2.885e5	5.580e5	0.932	0.517	0.510	1715	2003	4.81e6	9.38e6	2801.3	4683.3	NO	bb	bb	94.830
13C-1234678-HpCDF	38.746	1.062	2.509e5	5.799e5	0.895	0.433	0.440	1151	1645	4.19e6	9.60e6	3640.7	5839.5	NO	bb	bb	96.870
13C-1234789-HpCDF	40.986	1.123	2.085e5	4.761e5	0.770	0.438	0.440	1151	1645	3.03e6	6.97e6	2633.1	4237.9	NO	bb	bb	92.833
13C-1234-TCDD	25.562	0.000	5.188e5	6.515e5	1.000	0.796	0.770	1236	699	8.07e6	1.02e7	6532.3	14580.9	NO	bb	bb	100.000
13C-2378-TCDD	26.382	1.032	6.001e5	7.550e5	1.152	0.795	0.770	1236	699	9.39e6	1.18e7	7593.3	16870.3	NO	bb	bb	100.475
13C-12378-PeCDD	31.493	1.232	6.381e5	3.907e5	0.829	1.633	1.550	873	1257	9.88e6	6.16e6	11325.7	4901.5	NO	bb	bb	106.070
13C-123478-HxCDD	35.983	0.986	5.206e5	4.043e5	0.995	1.288	1.240	1071	924	8.35e6	6.49e6	7796.0	7022.6	NO	bd	bd	97.028
13C-123678-HxCDD	36.106	0.990	5.118e5	3.962e5	1.157	1.292	1.240	1071	924	8.36e6	6.52e6	7804.9	7054.8	NO	db	db	81.942
13C-1234678-HpCDD	40.239	1.103	4.244e5	3.884e5	0.840	1.093	1.050	1042	851	6.39e6	5.97e6	6129.9	7022.6	NO	bd	bb	100.987
13C-OCDD	44.972	1.233	6.733e5	7.520e5	0.767	0.895	0.890	2338	1248	8.15e6	9.12e6	3483.9	7302.7	NO	bb	bb	193.857
13C-123789-HxCDD	36.485	0.000	5.371e5	4.209e5	1.000	1.276	1.240	1071	924	8.74e6	6.91e6	8159.4	7470.8	NO	bb	bb	100.000
37CL-2378-TCDD	26.396	1.033	1.336e5		1.288			979		2.03e6		2078.5			bb		8.864

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
Last Altered: Tuesday, March 07, 2023 08:54:19 Pacific Standard Time
Printed: Tuesday, March 07, 2023 09:07:35 Pacific Standard Time

ID: CS3X3, Name: 23030623, Date: 07-Mar-2023, Time: 04:16:35, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.257	0.864	5.523e4	7.593e4	0.802	0.727	0.770	667	1092	9.01e5	1.22e6	1351.0	1112.8	NO	bb	bb	9.698
1289-TCDF	27.257	1.059	4.958e4	6.712e4	0.678	0.739	0.770	667	1092	7.93e5	1.04e6	1189.1	954.1	NO	db	db	10.200
13468-PECDF	27.116	0.907	5.047e5	3.257e5	1.246	1.549	1.550	550	700	7.94e6	5.09e6	14435.1	7276.5	NO	bb	bb	47.863
12389-PECDF	32.295	1.080	2.900e5	1.948e5	0.496	1.488	1.550	1527	2047	4.45e6	2.93e6	2917.7	1432.1	NO	bb	bb	70.172
123468-HXCDF	33.220	0.953	3.786e5	3.008e5	1.169	1.259	1.240	1525	1313	5.98e6	4.76e6	3921.9	3626.5	NO	bb	bb	48.869
1368-TCDD	23.528	0.892	5.505e4	7.032e4	1.015	0.783	0.770	899	1349	8.87e5	1.15e6	986.3	850.0	NO	bb	bb	9.111
1289-TCDD	27.003	1.024	5.514e4	7.127e4	0.909	0.774	0.770	899	1349	8.48e5	1.11e6	943.5	822.7	NO	bb	bb	10.266
12479-PECDD	28.786	0.914	4.975e5	3.240e5	2.301	1.535	1.550	1509	1499	4.87e6	3.13e6	3224.5	2088.5	NO	bb	bb	34.697
12389-PECDD	31.906	1.013	3.685e5	2.418e5	1.184	1.524	1.550	1509	1499	5.77e6	3.81e6	3825.2	2541.1	NO	bb	bb	50.120
124679-HXCDD	33.989	0.945	3.200e5	2.635e5	1.115	1.214	1.240	1502	1178	5.10e6	4.16e6	3396.9	3531.5	NO	bb	bb	56.559
1234679-HPCDD	39.214	0.975	2.291e5	2.235e5	1.137	1.025	1.050	1284	1369	3.82e6	3.74e6	2974.2	2727.5	NO	bb	bb	48.984
Total-tetrafurans			1.568e5		0.727			667		2.52e6							30.182
Total-penta1			5.047e5					550		7.94e6							47.863
Total-pentafurans			9.178e5		0.654			1527		1.43e7							176.348
Total-hexafurans			1.641e6		1.141			1525		2.64e7							238.654
Total-heptafurans			3.571e5		0.978			1514		5.64e6							96.724
Total-Furans			3.800e6		0.922			667		5.94e7							674.955
Total-tetradioxins			3.005e5		1.024			899		4.21e6							49.384
Total-pentadioxins			1.179e6		1.502			1509		1.56e7							134.265
Total-hexadioxins			1.078e6		1.005			1502		1.76e7							213.054
Total-heptadioxins			4.370e5		1.088			1284		6.94e6							97.205
Total-Dioxins			3.297e6		1.130			899		4.81e7							594.170
Total-TEQ			7.097e6					899		1.08e8							1269.125
FUNCTION1 PFK			6.513e4					278853		2.20e6							
FUNCTION2 PFK			1.663e5					135122		4.22e6							0.000
FUNCTION3 PFK			2.251e6					262049		1.52e6							0.000
FUNCTION4 PFK			2.159e5					206393		5.72e6							
FUNCTION5 PFK			7.729e4					137286		2.75e6							
FUNCTION1 HXCD...			1.782e2					472		2.96e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			7.958e2					500		1.47e4							0.000
FUNCTION3 OCDPE			1.906e2					486		2.04e3							0.000
FUNCTION4 NCDPE			0.000e0					534		0.00e0							
FUNCTION5 DCDPE			0.000e0					586		0.00e0							

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Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

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TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.26	4.958e4	6.712e4	0.678	0.74	0.77	1189.1	YES	NO	db	db	10.200
2	Total-tetrafurans	27.13	1.324e3	1.848e3	0.727	0.72	0.77	30.2	YES	NO	bd	bd	0.259
3	2378-TCDF	25.76	5.009e4	6.741e4	0.702	0.74	0.77	1196.4	YES	NO	bb	bb	9.925
4	Total-tetrafurans	24.52	5.755e2	6.555e2	0.727	0.88	0.77	15.6	YES	NO	bd	bb	0.100
5	1368-TCDF	22.26	5.523e4	7.593e4	0.802	0.73	0.77	1351.0	YES	NO	bb	bb	9.698

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.12	5.047e5	3.257e5	1.246	1.55	1.55	14435.1	YES	NO	bb	bb	47.863

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.26	2.987e5	2.014e5	0.786	1.48	1.55	3033.4	YES	NO	bb	bb	47.654
2	Total-pentafurans	31.14	3.200e2	2.022e2	0.654	1.58	1.55	4.7	NO	NO	bb	bb	0.059
3	12378-PeCDF	29.92	2.847e5	1.905e5	0.679	1.49	1.55	2927.0	YES	NO	bb	bb	50.256
4	Total-pentafurans	28.77	4.416e4	2.902e4	0.654	1.52	1.55	457.3	YES	NO	bb	bb	8.208
5	12389-PECDF	32.30	2.900e5	1.948e5	0.496	1.49	1.55	2917.7	YES	NO	bb	bb	70.172

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.92	2.435e5	1.956e5	1.137	1.24	1.24	2606.8	YES	NO	bb	bb	45.618
2	234678-HxCDF	35.88	2.997e5	2.380e5	1.140	1.26	1.24	3242.8	YES	NO	bb	bb	48.649
3	123678-HxCDF	35.03	3.531e5	2.816e5	1.091	1.25	1.24	3692.6	YES	NO	db	db	48.377
4	123478-HxCDF	34.88	3.656e5	2.881e5	1.166	1.27	1.24	3844.5	YES	NO	bd	bd	47.141
5	123468-HXCDF	33.22	3.786e5	3.008e5	1.169	1.26	1.24	3921.9	YES	NO	bb	bb	48.869

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.00	1.606e5	1.610e5	0.953	1.00	1.05	1591.2	YES	NO	bb	bb	49.293
2	Total-heptafurans	39.43	1.995e3	1.719e3	0.978	1.16	1.05	17.6	YES	NO	bb	bb	0.501
3	1234678-HpCDF	38.76	1.945e5	1.966e5	1.003	0.99	1.05	2118.1	YES	NO	bb	bb	46.930

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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.26	4.958e4	6.712e4	0.678	0.74	0.77	1189.1	YES	NO	db	db	10.200
2	Total-tetrafurans	27.13	1.324e3	1.848e3	0.727	0.72	0.77	30.2	YES	NO	bd	bd	0.259
3	2378-TCDF	25.76	5.009e4	6.741e4	0.702	0.74	0.77	1196.4	YES	NO	bb	bb	9.925
4	Total-tetrafurans	24.52	5.755e2	6.555e2	0.727	0.88	0.77	15.6	YES	NO	bd	bb	0.100
5	1368-TCDF	22.26	5.523e4	7.593e4	0.802	0.73	0.77	1351.0	YES	NO	bb	bb	9.698
6	23478-PeCDF	31.26	2.987e5	2.014e5	0.786	1.48	1.55	3033.4	YES	NO	bb	bb	47.654
7	Total-pentafurans	31.14	3.200e2	2.022e2	0.654	1.58	1.55	4.7	NO	NO	bb	bb	0.059
8	12378-PeCDF	29.92	2.847e5	1.905e5	0.679	1.49	1.55	2927.0	YES	NO	bb	bb	50.256
9	Total-pentafurans	28.77	4.416e4	2.902e4	0.654	1.52	1.55	457.3	YES	NO	bb	bb	8.208
10	12389-PECDF	32.30	2.900e5	1.948e5	0.496	1.49	1.55	2917.7	YES	NO	bb	bb	70.172
11	123789-HxCDF	36.92	2.435e5	1.956e5	1.137	1.24	1.24	2606.8	YES	NO	bb	bb	45.618
12	234678-HxCDF	35.88	2.997e5	2.380e5	1.140	1.26	1.24	3242.8	YES	NO	bb	bb	48.649
13	123678-HxCDF	35.03	3.531e5	2.816e5	1.091	1.25	1.24	3692.6	YES	NO	db	db	48.377
14	123478-HxCDF	34.88	3.656e5	2.881e5	1.166	1.27	1.24	3844.5	YES	NO	bd	bd	47.141
15	123468-HXCDF	33.22	3.786e5	3.008e5	1.169	1.26	1.24	3921.9	YES	NO	bb	bb	48.869
16	1234789-HpCDF	41.00	1.606e5	1.610e5	0.953	1.00	1.05	1591.2	YES	NO	bb	bb	49.293
17	Total-heptafurans	39.43	1.995e3	1.719e3	0.978	1.16	1.05	17.6	YES	NO	bb	bb	0.501
18	1234678-HpCDF	38.76	1.945e5	1.966e5	1.003	0.99	1.05	2118.1	YES	NO	bb	bb	46.930
19	OCDF	45.22	2.228e5	2.494e5	0.778	0.89	0.89	1298.2	YES	NO	bb	bb	85.184
20	13468-PECDF	27.12	5.047e5	3.257e5	1.246	1.55	1.55	14435.1	YES	NO	bb	bb	47.863

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.40	6.374e4	8.098e4	1.149	0.79	0.77	1094.0	YES	NO	bb	bb	9.298
2	Total-tetradioxins	26.07	9.345e4	1.194e5	1.024	0.78	0.77	1089.8	YES	NO	bb	bb	15.338
3	Total-tetradioxins	25.59	2.951e4	3.713e4	1.024	0.79	0.77	527.6	YES	NO	bb	bb	4.801
4	Total-tetradioxins	25.00	7.064e2	8.707e2	1.024	0.81	0.77	10.2	YES	NO	bb	bb	0.114
5	Total-tetradioxins	24.73	2.615e3	3.110e3	1.024	0.84	0.77	28.3	YES	NO	bb	bb	0.413
6	Total-tetradioxins	23.80	2.579e2	3.337e2	1.024	0.77	0.77	4.3	YES	NO	bb	bb	0.043
7	1368-TCDD	23.53	5.505e4	7.032e4	1.015	0.78	0.77	986.3	YES	NO	bb	bb	9.111
8	1289-TCDD	27.00	5.514e4	7.127e4	0.909	0.77	0.77	943.5	YES	NO	bb	bb	10.266

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PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	31.91	3.685e5	2.418e5	1.184	1.52	1.55	3825.2	YES	NO	bb	bb	50.120
2	12378-PeCDD	31.52	3.135e5	2.063e5	1.022	1.52	1.55	3298.8	YES	NO	bb	bb	49.448
3	12479-PECDD	28.79	4.975e5	3.240e5	2.301	1.54	1.55	3224.5	YES	NO	bb	bb	34.697

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.51	2.513e5	2.103e5	0.907	1.20	1.24	2775.5	YES	NO	bb	bb	55.517
2	123678-HxCDD	36.12	2.562e5	2.115e5	1.001	1.21	1.24	2758.0	YES	NO	db	db	51.465
3	123478-HxCDD	36.01	2.501e5	2.046e5	0.996	1.22	1.24	2767.3	YES	NO	bd	bd	49.380
4	Total-hexadioxins	34.76	6.501e2	5.641e2	1.005	1.15	1.24	7.8	YES	NO	bb	bd	0.132
5	124679-HXCDD	33.99	3.200e5	2.635e5	1.115	1.21	1.24	3396.9	YES	NO	bb	bb	56.559

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.26	2.079e5	1.994e5	1.039	1.04	1.05	2432.8	YES	NO	bb	bb	48.221
2	1234679-HPCDD	39.21	2.291e5	2.235e5	1.137	1.02	1.05	2974.2	YES	NO	bb	bb	48.984

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.40	6.374e4	8.098e4	1.149	0.79	0.77	1094.0	YES	NO	bb	bb	9.298
2	Total-tetradioxins	26.07	9.345e4	1.194e5	1.024	0.78	0.77	1089.8	YES	NO	bb	bb	15.338
3	Total-tetradioxins	25.59	2.951e4	3.713e4	1.024	0.79	0.77	527.6	YES	NO	bb	bb	4.801
4	Total-tetradioxins	25.00	7.064e2	8.707e2	1.024	0.81	0.77	10.2	YES	NO	bb	bb	0.114
5	Total-tetradioxins	24.73	2.615e3	3.110e3	1.024	0.84	0.77	28.3	YES	NO	bb	bb	0.413
6	Total-tetradioxins	23.80	2.579e2	3.337e2	1.024	0.77	0.77	4.3	YES	NO	bb	bb	0.043
7	1368-TCDD	23.53	5.505e4	7.032e4	1.015	0.78	0.77	986.3	YES	NO	bb	bb	9.111
8	1289-TCDD	27.00	5.514e4	7.127e4	0.909	0.77	0.77	943.5	YES	NO	bb	bb	10.266
9	12389-PECDD	31.91	3.685e5	2.418e5	1.184	1.52	1.55	3825.2	YES	NO	bb	bb	50.120
10	12378-PeCDD	31.52	3.135e5	2.063e5	1.022	1.52	1.55	3298.8	YES	NO	bb	bb	49.448
11	12479-PECDD	28.79	4.975e5	3.240e5	2.301	1.54	1.55	3224.5	YES	NO	bb	bb	34.697
12	123789-HxCDD	36.51	2.513e5	2.103e5	0.907	1.20	1.24	2775.5	YES	NO	bb	bb	55.517
13	123678-HxCDD	36.12	2.562e5	2.115e5	1.001	1.21	1.24	2758.0	YES	NO	db	db	51.465
14	123478-HxCDD	36.01	2.501e5	2.046e5	0.996	1.22	1.24	2767.3	YES	NO	bd	bd	49.380
15	Total-hexadioxins	34.76	6.501e2	5.641e2	1.005	1.15	1.24	7.8	YES	NO	bb	bd	0.132
16	124679-HXCDD	33.99	3.200e5	2.635e5	1.115	1.21	1.24	3396.9	YES	NO	bb	bb	56.559
17	1234678-HpCDD	40.26	2.079e5	1.994e5	1.039	1.04	1.05	2432.8	YES	NO	bb	bb	48.221
18	1234679-HPCDD	39.21	2.291e5	2.235e5	1.137	1.02	1.05	2974.2	YES	NO	bb	bb	48.984
19	OCDD	44.98	3.023e5	3.551e5	0.920	0.85	0.89	2025.1	YES	NO	bb	bb	100.261

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.26	4.958e4	6.712e4	0.678	0.74	0.77	1189.1	YES	NO	db	db	10.200
2	Total-tetrafurans	27.13	1.324e3	1.848e3	0.727	0.72	0.77	30.2	YES	NO	bd	bd	0.259
3	2378-TCDF	25.76	5.009e4	6.741e4	0.702	0.74	0.77	1196.4	YES	NO	bb	bb	9.925
4	Total-tetrafurans	24.52	5.755e2	6.555e2	0.727	0.88	0.77	15.6	YES	NO	bd	bb	0.100
5	1368-TCDF	22.26	5.523e4	7.593e4	0.802	0.73	0.77	1351.0	YES	NO	bb	bb	9.698
6	23478-PeCDF	31.26	2.987e5	2.014e5	0.786	1.48	1.55	3033.4	YES	NO	bb	bb	47.654
7	Total-pentafurans	31.14	3.200e2	2.022e2	0.654	1.58	1.55	4.7	NO	NO	bb	bb	0.059
8	12378-PeCDF	29.92	2.847e5	1.905e5	0.679	1.49	1.55	2927.0	YES	NO	bb	bb	50.256
9	Total-pentafurans	28.77	4.416e4	2.902e4	0.654	1.52	1.55	457.3	YES	NO	bb	bb	8.208
10	12389-PECDF	32.30	2.900e5	1.948e5	0.496	1.49	1.55	2917.7	YES	NO	bb	bb	70.172
11	123789-HxCDF	36.92	2.435e5	1.956e5	1.137	1.24	1.24	2606.8	YES	NO	bb	bb	45.618
12	234678-HxCDF	35.88	2.997e5	2.380e5	1.140	1.26	1.24	3242.8	YES	NO	bb	bb	48.649
13	123678-HxCDF	35.03	3.531e5	2.816e5	1.091	1.25	1.24	3692.6	YES	NO	db	db	48.377
14	123478-HxCDF	34.88	3.656e5	2.881e5	1.166	1.27	1.24	3844.5	YES	NO	bd	bd	47.141
15	123468-HXCDF	33.22	3.786e5	3.008e5	1.169	1.26	1.24	3921.9	YES	NO	bb	bb	48.869
16	1234789-HpCDF	41.00	1.606e5	1.610e5	0.953	1.00	1.05	1591.2	YES	NO	bb	bb	49.293
17	Total-heptafurans	39.43	1.995e3	1.719e3	0.978	1.16	1.05	17.6	YES	NO	bb	bb	0.501
18	1234678-HpCDF	38.76	1.945e5	1.966e5	1.003	0.99	1.05	2118.1	YES	NO	bb	bb	46.930
19	OCDF	45.22	2.228e5	2.494e5	0.778	0.89	0.89	1298.2	YES	NO	bb	bb	85.184
20	13468-PECDF	27.12	5.047e5	3.257e5	1.246	1.55	1.55	14435.1	YES	NO	bb	bb	47.863
21	2378-TCDD	26.40	6.374e4	8.098e4	1.149	0.79	0.77	1094.0	YES	NO	bb	bb	9.298
22	Total-tetradioxins	26.07	9.345e4	1.194e5	1.024	0.78	0.77	1089.8	YES	NO	bb	bb	15.338
23	Total-tetradioxins	25.59	2.951e4	3.713e4	1.024	0.79	0.77	527.6	YES	NO	bb	bb	4.801
24	Total-tetradioxins	25.00	7.064e2	8.707e2	1.024	0.81	0.77	10.2	YES	NO	bb	bb	0.114
25	Total-tetradioxins	24.73	2.615e3	3.110e3	1.024	0.84	0.77	28.3	YES	NO	bb	bb	0.413
26	Total-tetradioxins	23.80	2.579e2	3.337e2	1.024	0.77	0.77	4.3	YES	NO	bb	bb	0.043
27	1368-TCDD	23.53	5.505e4	7.032e4	1.015	0.78	0.77	986.3	YES	NO	bb	bb	9.111
28	1289-TCDD	27.00	5.514e4	7.127e4	0.909	0.77	0.77	943.5	YES	NO	bb	bb	10.266
29	12389-PECDD	31.91	3.685e5	2.418e5	1.184	1.52	1.55	3825.2	YES	NO	bb	bb	50.120
30	12378-PeCDD	31.52	3.135e5	2.063e5	1.022	1.52	1.55	3298.8	YES	NO	bb	bb	49.448
31	12479-PECDD	28.79	4.975e5	3.240e5	2.301	1.54	1.55	3224.5	YES	NO	bb	bb	34.697
32	123789-HxCDD	36.51	2.513e5	2.103e5	0.907	1.20	1.24	2775.5	YES	NO	bb	bb	55.517
33	123678-HxCDD	36.12	2.562e5	2.115e5	1.001	1.21	1.24	2758.0	YES	NO	db	db	51.465
34	123478-HxCDD	36.01	2.501e5	2.046e5	0.996	1.22	1.24	2767.3	YES	NO	bd	bd	49.380
35	Total-hexadioxins	34.76	6.501e2	5.641e2	1.005	1.15	1.24	7.8	YES	NO	bb	bd	0.132
36	124679-HXCDD	33.99	3.200e5	2.635e5	1.115	1.21	1.24	3396.9	YES	NO	bb	bb	56.559
37	1234678-HpCDD	40.26	2.079e5	1.994e5	1.039	1.04	1.05	2432.8	YES	NO	bb	bb	48.221

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	1234679-HPCDD	39.21	2.291e5	2.235e5	1.137	1.02	1.05	2974.2	YES	NO	bb	bb	48.984
39	OCDD	44.98	3.023e5	3.551e5	0.920	0.85	0.89	2025.1	YES	NO	bb	bb	100.261

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	27.23	1.344e4					1.5	NO		bb		
2	FUNCTION1 PFK	26.99	3.002e3					0.8	NO		bb		
3	FUNCTION1 PFK	26.71	2.245e4					1.6	NO		bb		
4	FUNCTION1 PFK	26.47	6.709e3					1.0	NO		bb		
5	FUNCTION1 PFK	23.78	2.695e3					0.7	NO		bb		
6	FUNCTION1 PFK	22.07	1.126e4					1.4	NO		bb		
7	FUNCTION1 PFK	21.42	5.573e3					0.9	NO		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.05	2.995e4					3.9	YES		bd		0.000
2	FUNCTION2 PFK	32.23	3.614e3					1.2	NO		bd		0.000
3	FUNCTION2 PFK	32.06	6.310e2					0.4	NO		bb		0.000
4	FUNCTION2 PFK	31.95	3.840e3					1.3	NO		bb		0.000
5	FUNCTION2 PFK	31.66	6.383e3					1.3	NO		bb		0.000
6	FUNCTION2 PFK	31.53	1.068e4					2.0	NO		bb		0.000
7	FUNCTION2 PFK	31.23	6.238e3					1.5	NO		bb		0.000
8	FUNCTION2 PFK	31.15	6.262e2					0.4	NO		bb		0.000
9	FUNCTION2 PFK	30.93	2.340e3					0.8	NO		bb		0.000
10	FUNCTION2 PFK	30.54	9.324e2					0.6	NO		bb		0.000
11	FUNCTION2 PFK	30.32	6.365e3					1.2	NO		bb		0.000
12	FUNCTION2 PFK	29.92	3.513e3					1.0	NO		bb		0.000
13	FUNCTION2 PFK	29.44	3.508e3					1.2	NO		bb		0.000
14	FUNCTION2 PFK	28.35	1.304e4					2.2	NO		db		0.000
15	FUNCTION2 PFK	28.25	2.633e4					3.4	YES		dd		0.000
16	FUNCTION2 PFK	28.21	1.268e4					3.0	YES		dd		0.000
17	FUNCTION2 PFK	28.15	2.535e4					2.9	NO		dd		0.000
18	FUNCTION2 PFK	32.57	4.708e3					1.3	NO		bb		0.000
19	FUNCTION2 PFK	32.47	1.672e3					0.7	NO		bb		0.000
20	FUNCTION2 PFK	32.27	3.857e3					0.9	NO		db		0.000

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PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	33.69	2.251e6					5.8	YES		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.78	1.807e4					2.0	NO		bd		
2	FUNCTION4 PFK	39.68	4.190e3					0.7	NO		bb		
3	FUNCTION4 PFK	39.06	1.582e4					1.7	NO		bb		
4	FUNCTION4 PFK	38.88	4.374e3					0.8	NO		db		
5	FUNCTION4 PFK	38.82	1.181e4					1.6	NO		bd		
6	FUNCTION4 PFK	38.45	1.175e4					1.5	NO		bb		
7	FUNCTION4 PFK	38.38	8.038e3					1.2	NO		bb		
8	FUNCTION4 PFK	38.23	4.155e3					0.6	NO		bb		
9	FUNCTION4 PFK	37.97	7.379e3					1.4	NO		db		
10	FUNCTION4 PFK	37.93	1.983e4					1.9	NO		bd		
11	FUNCTION4 PFK	42.38	1.773e4					1.2	NO		bb		
12	FUNCTION4 PFK	42.29	8.377e2					0.4	NO		bb		
13	FUNCTION4 PFK	42.06	2.744e3					0.7	NO		bb		
14	FUNCTION4 PFK	41.93	1.396e4					1.6	NO		bb		
15	FUNCTION4 PFK	41.71	4.603e3					1.0	NO		bb		
16	FUNCTION4 PFK	41.52	1.252e4					1.6	NO		db		
17	FUNCTION4 PFK	41.42	1.272e4					1.1	NO		bd		
18	FUNCTION4 PFK	41.31	7.412e3					1.1	NO		bb		
19	FUNCTION4 PFK	41.25	6.485e3					1.3	NO		db		
20	FUNCTION4 PFK	41.21	5.319e3					1.0	NO		bd		
21	FUNCTION4 PFK	40.15	1.316e4					1.1	NO		bb		
22	FUNCTION4 PFK	39.88	3.364e3					0.7	NO		bb		
23	FUNCTION4 PFK	39.83	9.660e3					1.6	NO		db		

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PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.19	1.029e3					0.8	NO		bb		
2	FUNCTION5 PFK	42.94	6.034e3					1.5	NO		bb		
3	FUNCTION5 PFK	45.97	3.777e3					1.4	NO		bb		
4	FUNCTION5 PFK	45.71	4.792e3					1.4	NO		bb		
5	FUNCTION5 PFK	45.37	2.253e3					0.7	NO		bb		
6	FUNCTION5 PFK	45.28	5.520e3					1.3	NO		bb		
7	FUNCTION5 PFK	45.08	4.121e3					0.9	NO		bb		
8	FUNCTION5 PFK	44.99	3.839e3					0.9	NO		bb		
9	FUNCTION5 PFK	44.74	2.345e3					1.1	NO		bb		
10	FUNCTION5 PFK	44.52	5.169e3					1.0	NO		db		
11	FUNCTION5 PFK	44.50	2.806e3					0.9	NO		bd		
12	FUNCTION5 PFK	44.29	5.781e3					1.4	NO		bb		
13	FUNCTION5 PFK	43.91	2.723e3					0.9	NO		bb		
14	FUNCTION5 PFK	43.49	1.165e4					2.3	NO		db		
15	FUNCTION5 PFK	43.42	1.105e4					2.0	NO		dd		
16	FUNCTION5 PFK	43.37	4.405e3					1.5	NO		bd		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	25.55	8.582e1					2.5	NO		bb		0.000
2	FUNCTION1 HXCD...	27.67	9.239e1					3.8	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.09	1.038e2					6.8	YES		bb		0.000
2	FUNCTION2 HPCD...	31.53	9.854e1					2.6	NO		bb		0.000
3	FUNCTION2 HPCD...	31.24	1.381e2					6.2	YES		db		0.000
4	FUNCTION2 HPCD...	31.13	4.553e2					13.8	YES		bd		0.000

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ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	33.35	9.686e1					2.1	NO		db		0.000
2	FUNCTION3 OCDPE	33.22	9.375e1					2.1	NO		bd		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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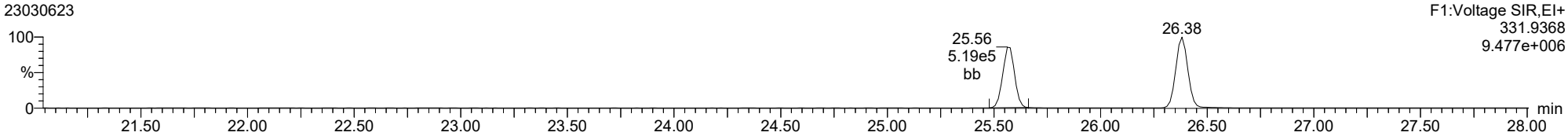

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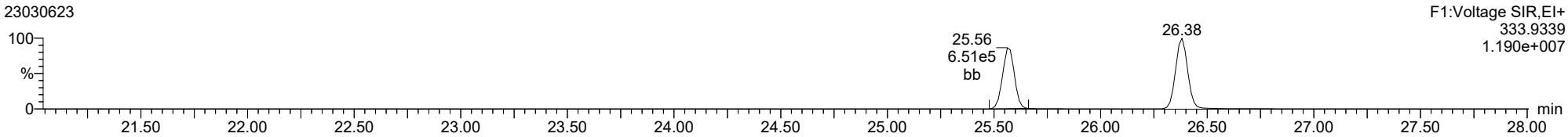

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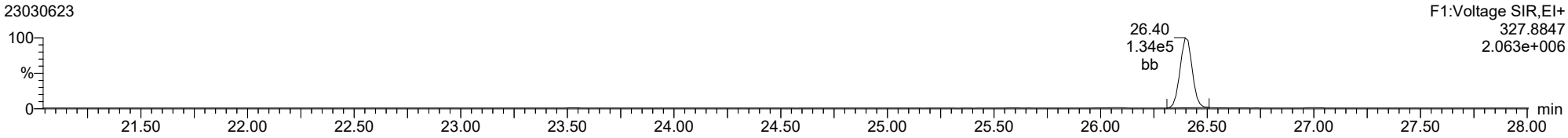

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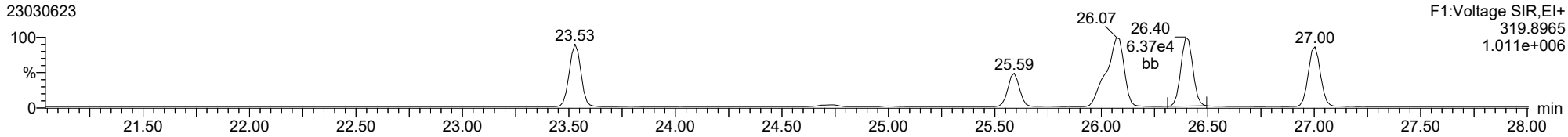

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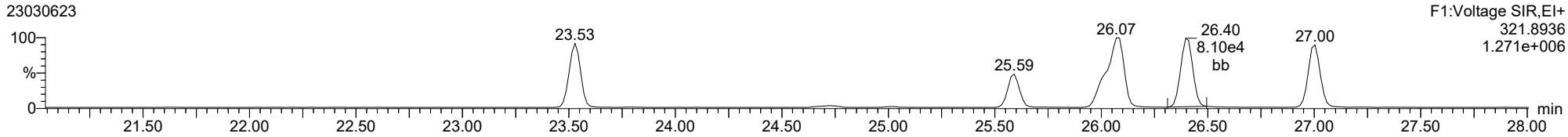

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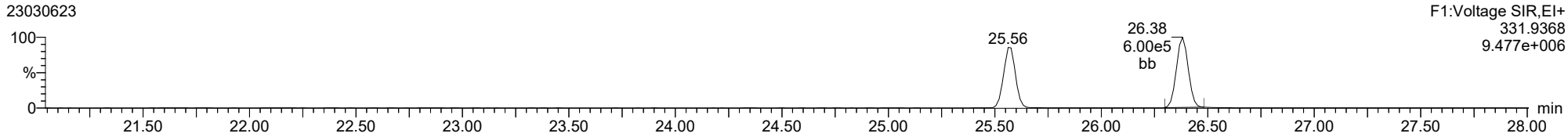

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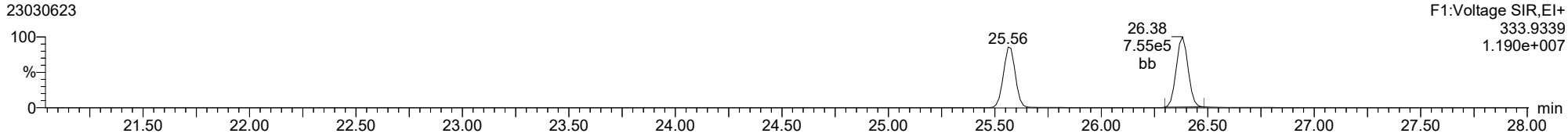

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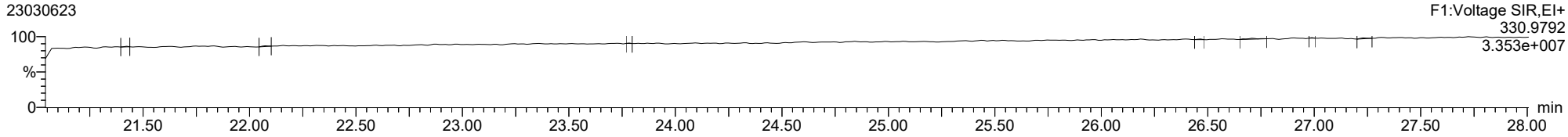

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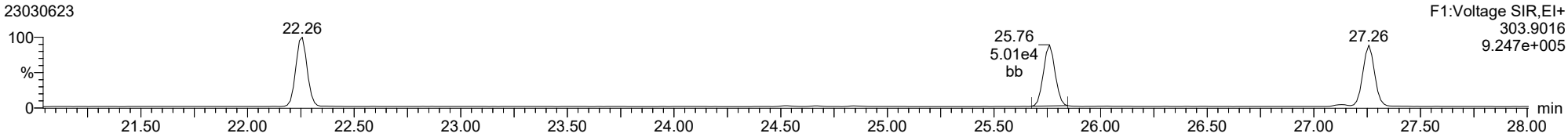

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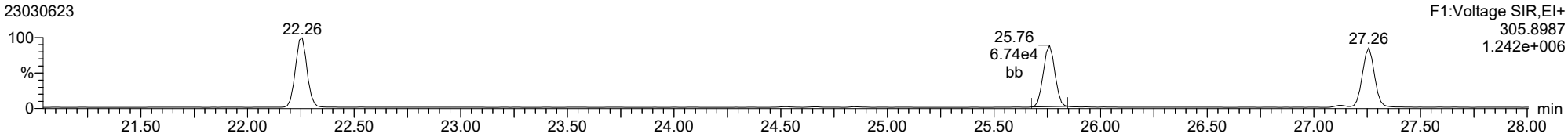

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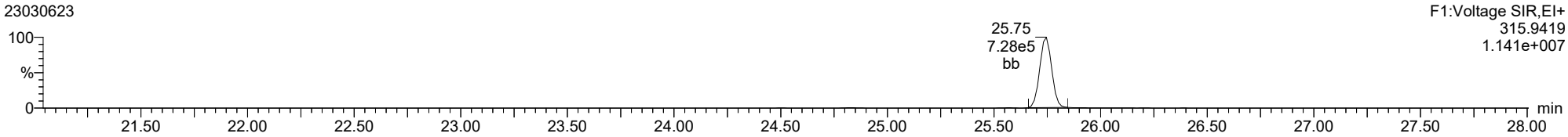

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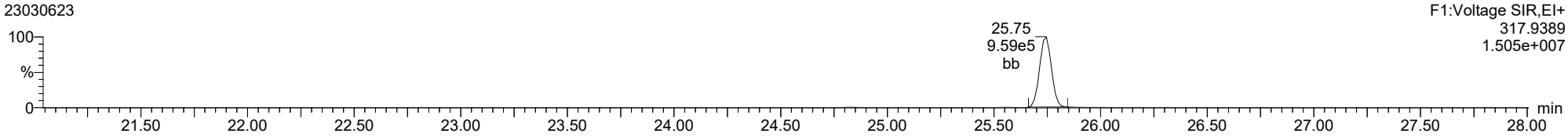

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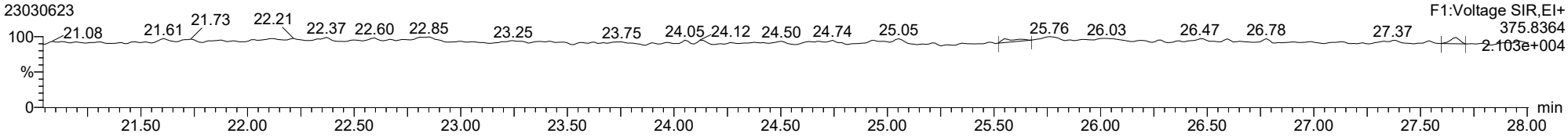

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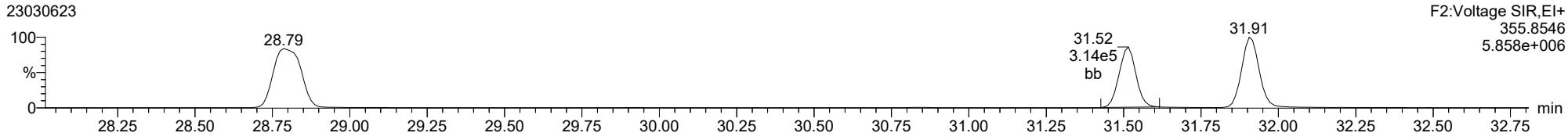

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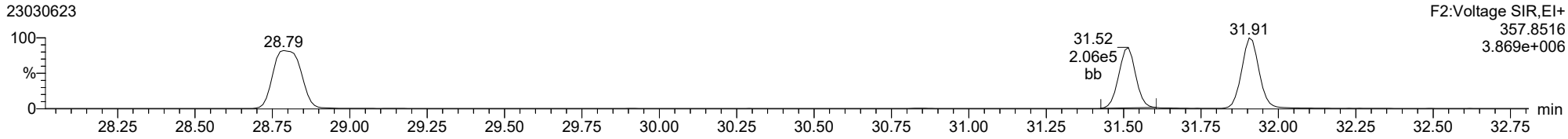

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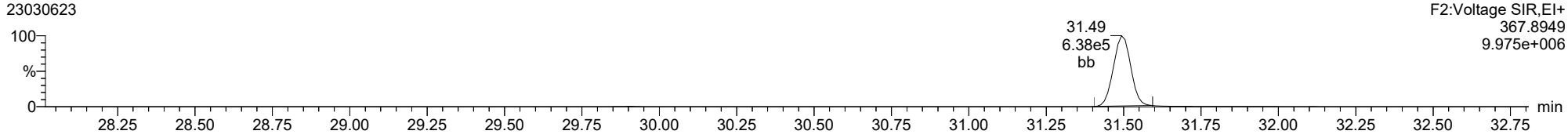

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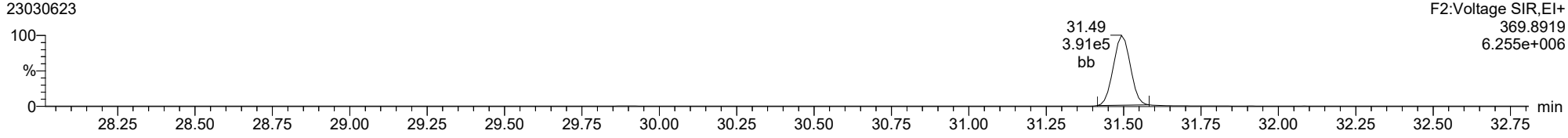

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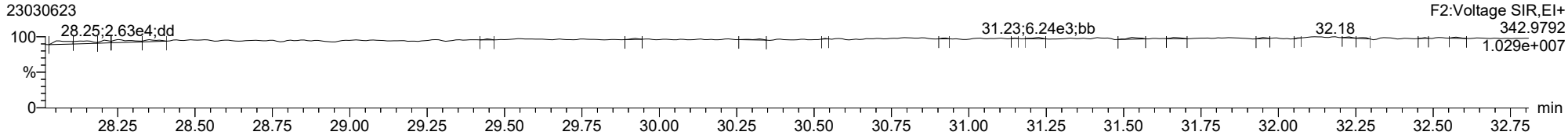

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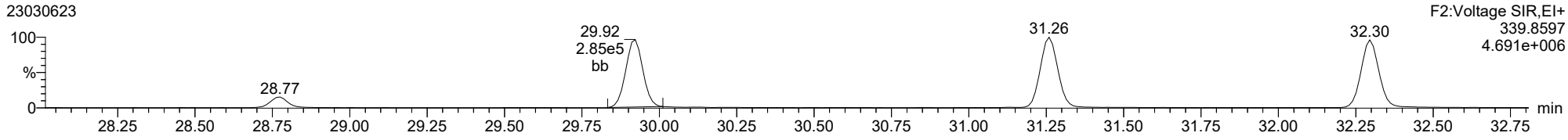

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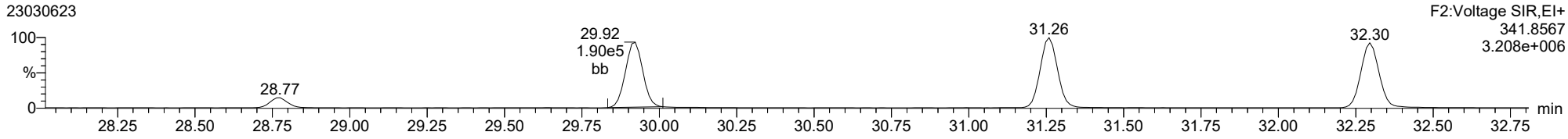

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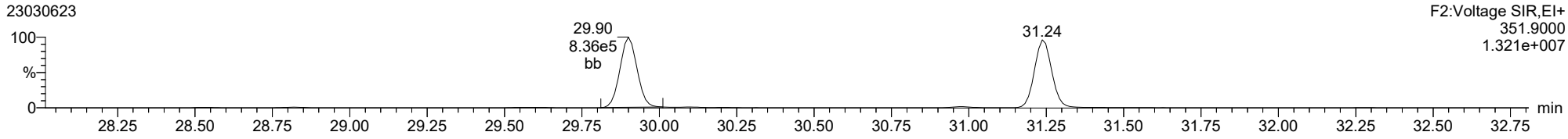

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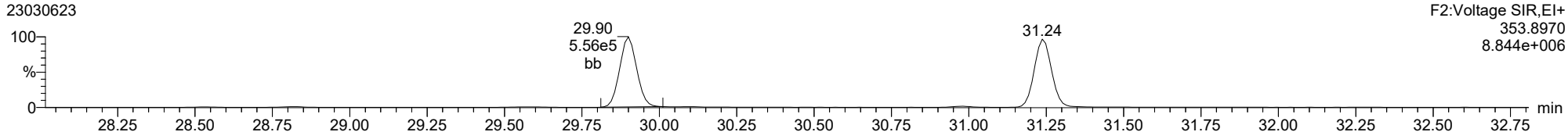

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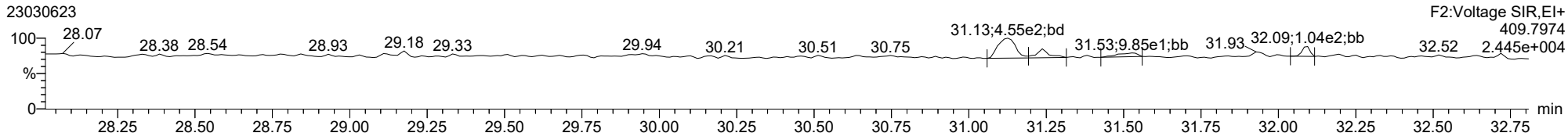

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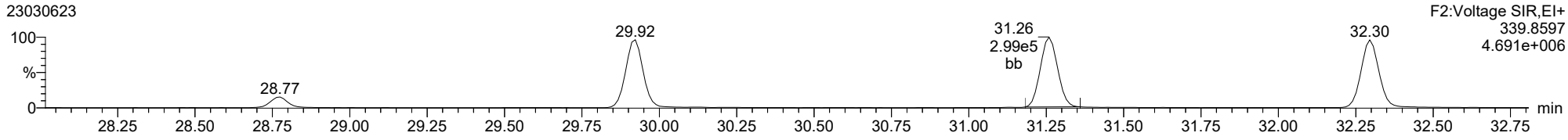

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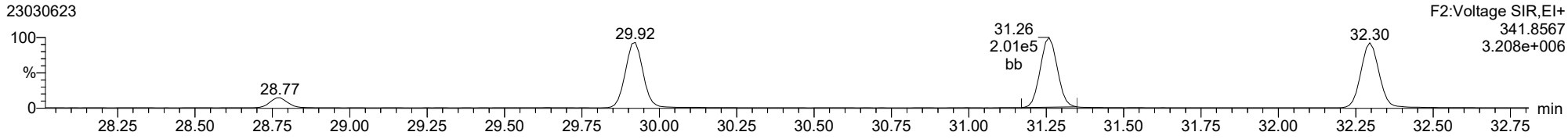

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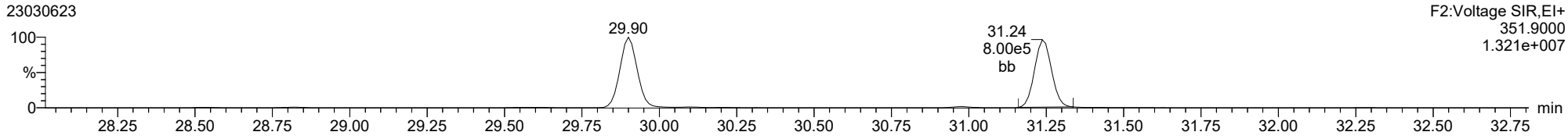

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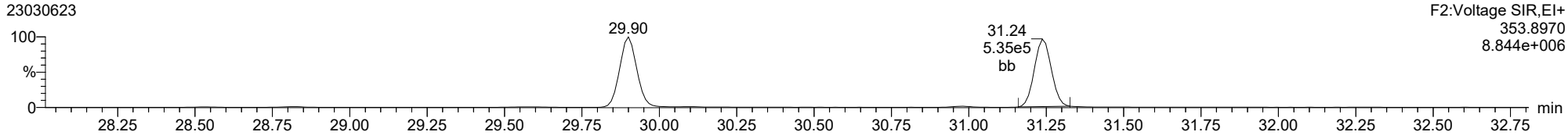

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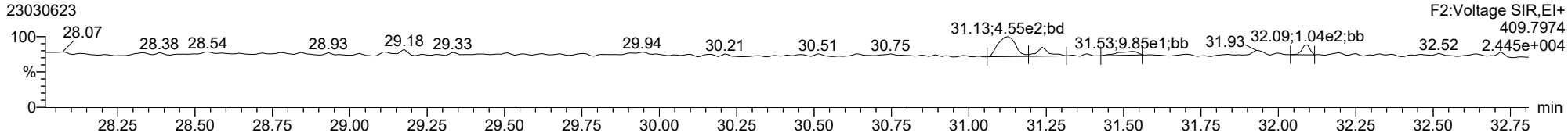

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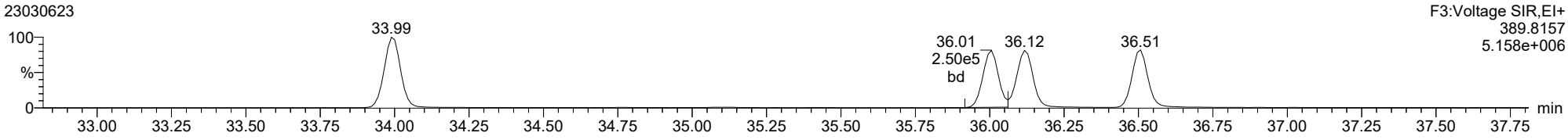

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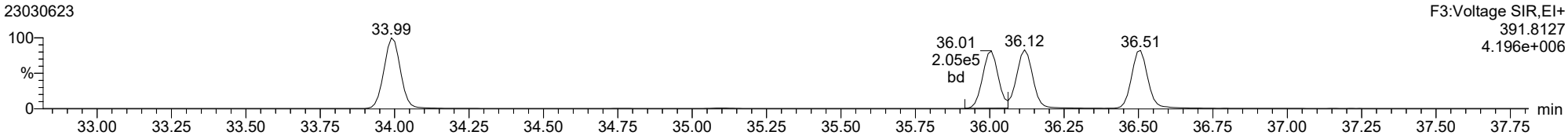

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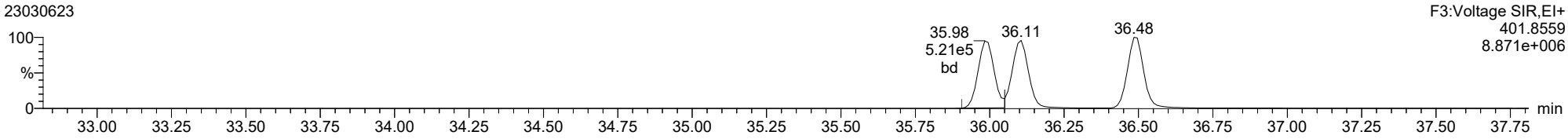

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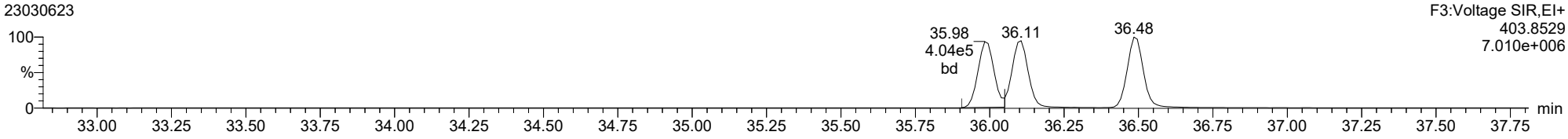

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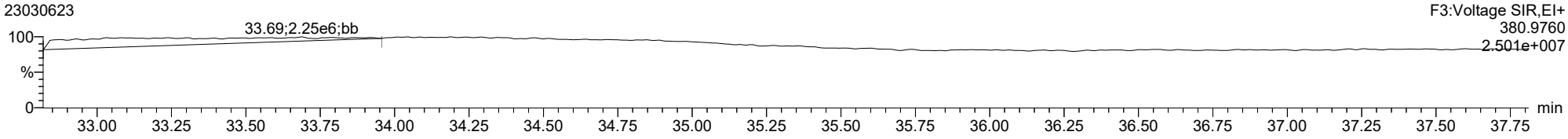

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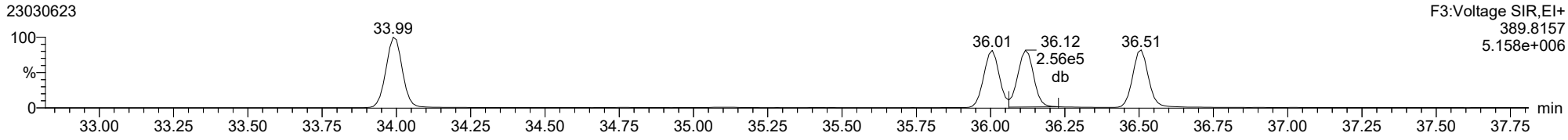

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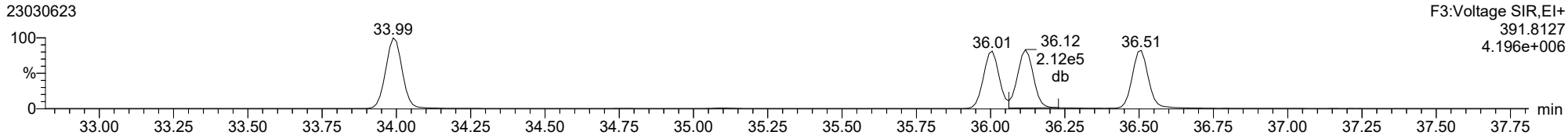

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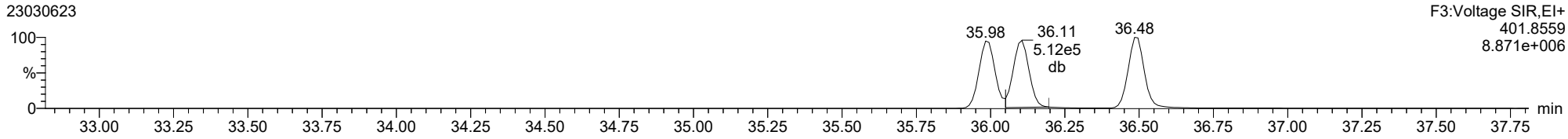

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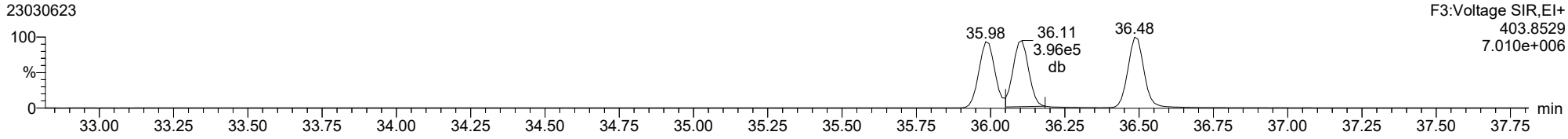

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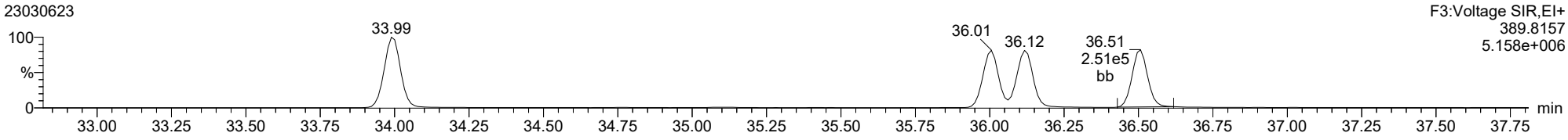

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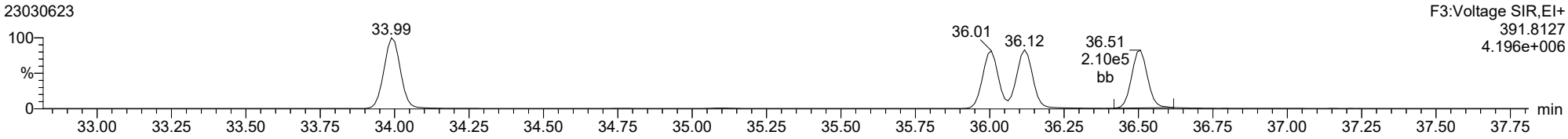

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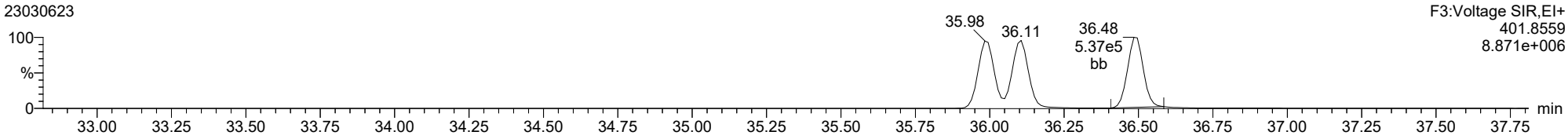

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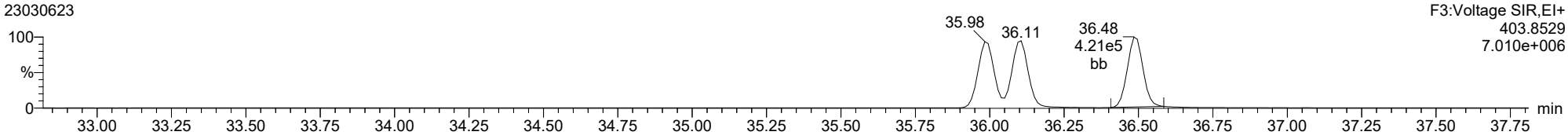

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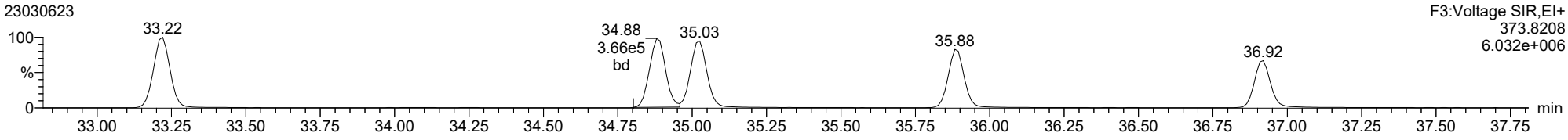

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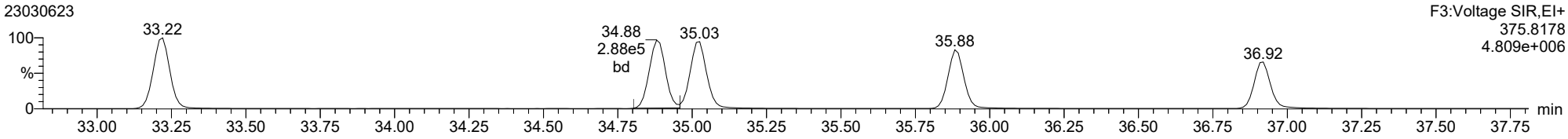

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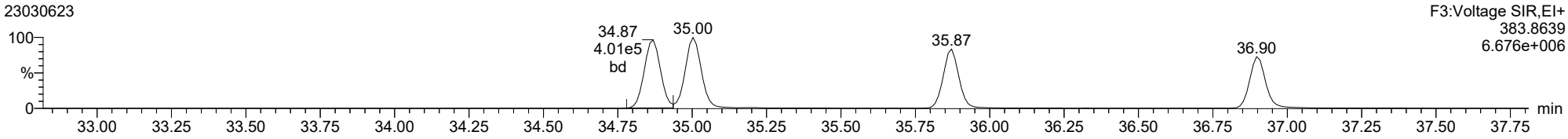

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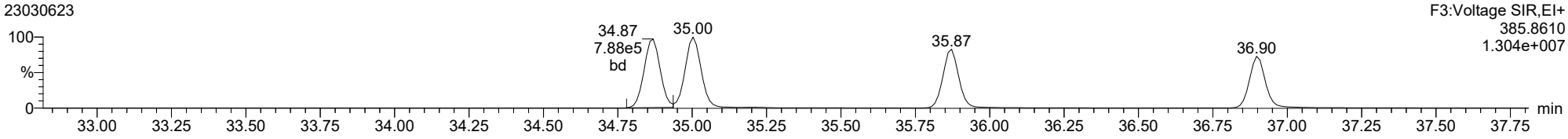

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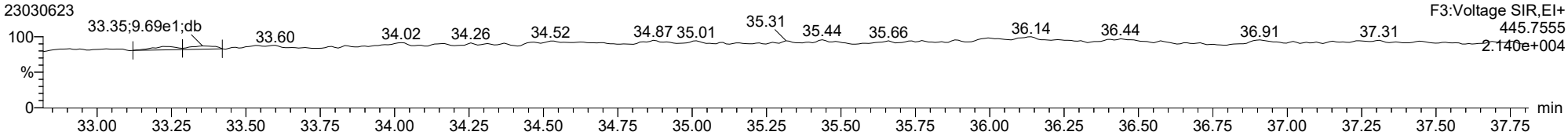

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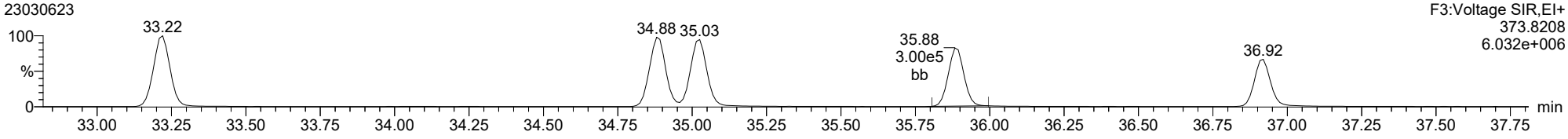

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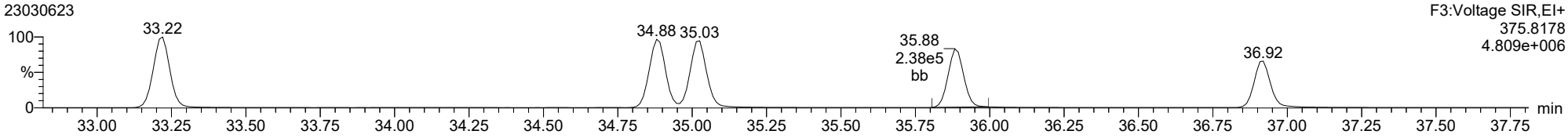

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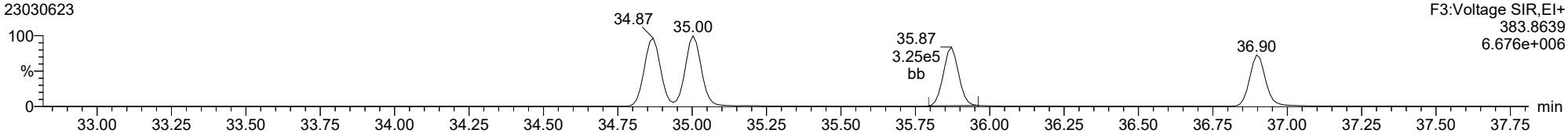

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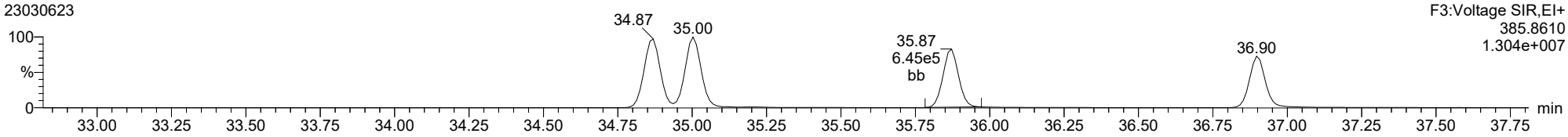

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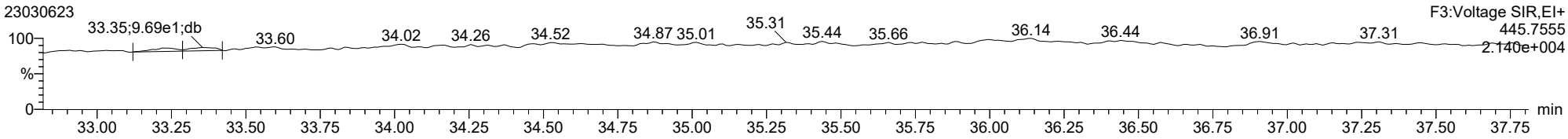

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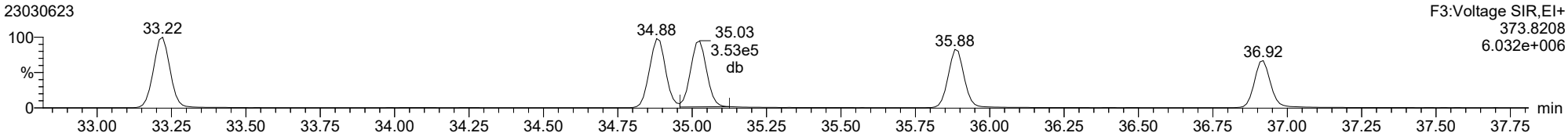

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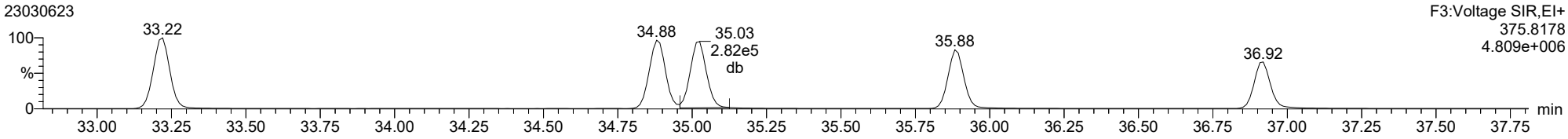

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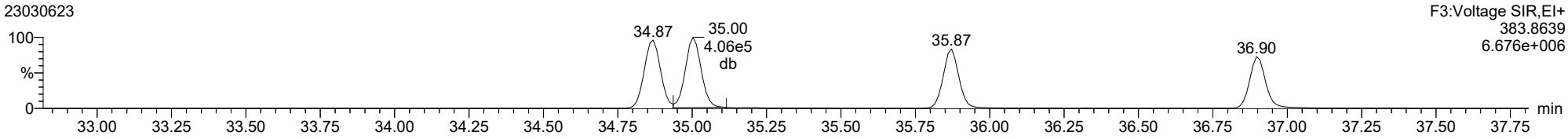

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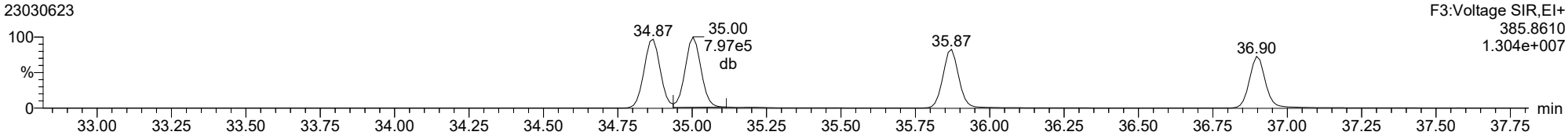

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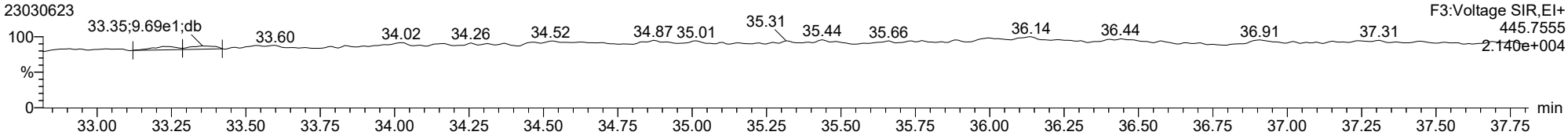

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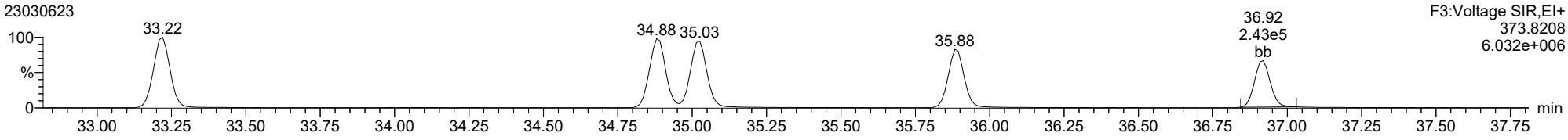

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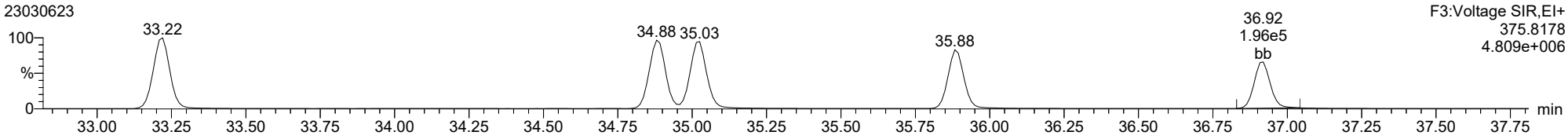

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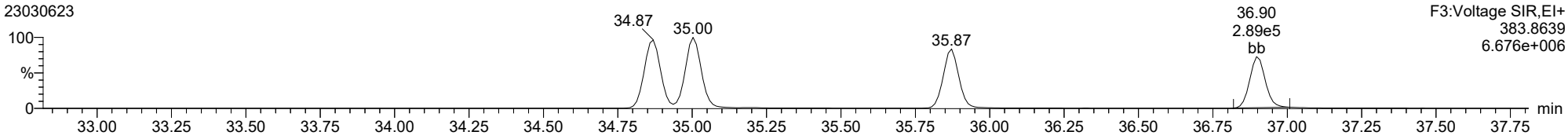

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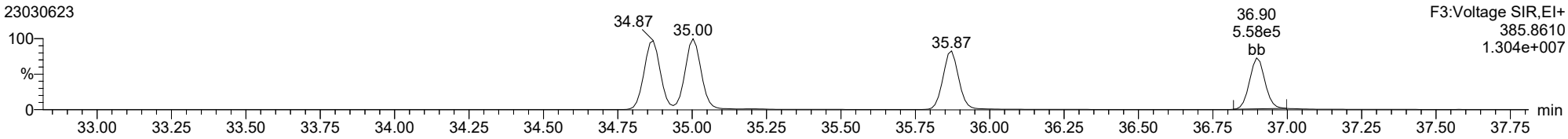

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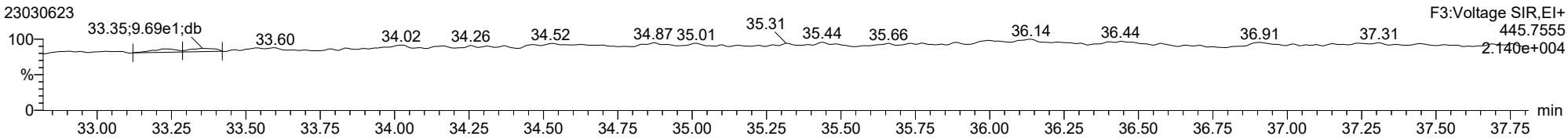

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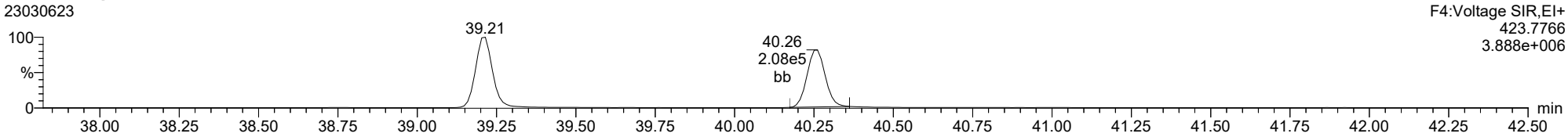

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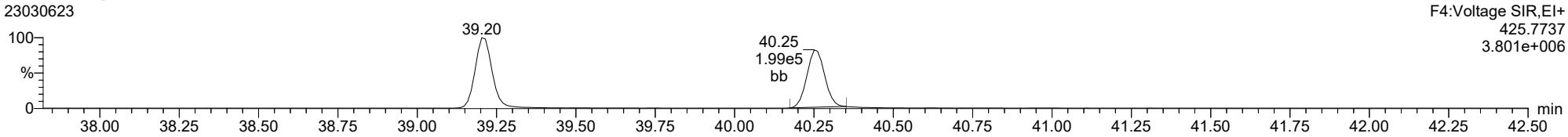

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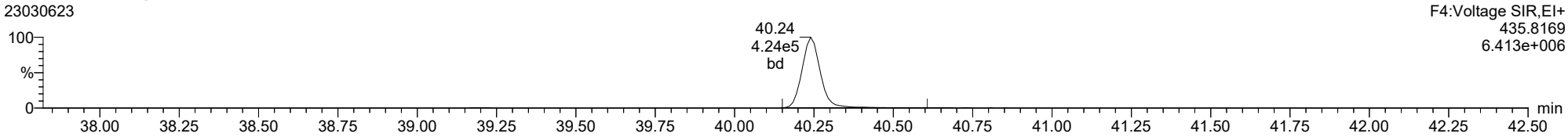

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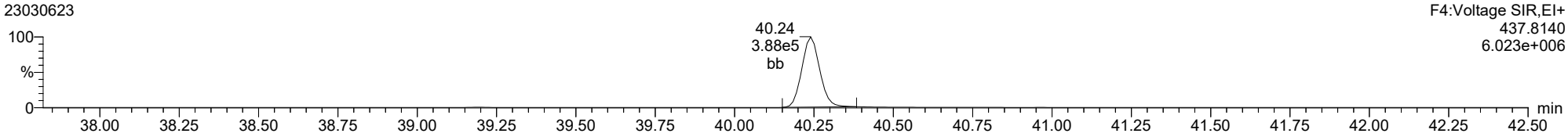

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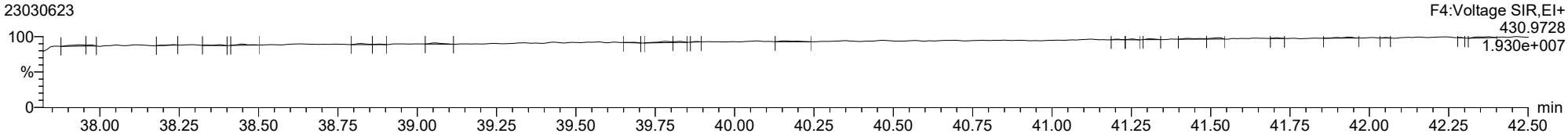

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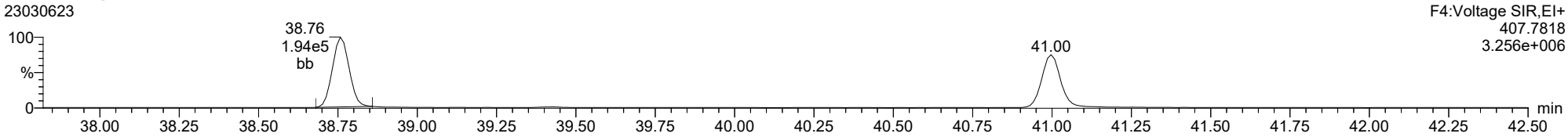

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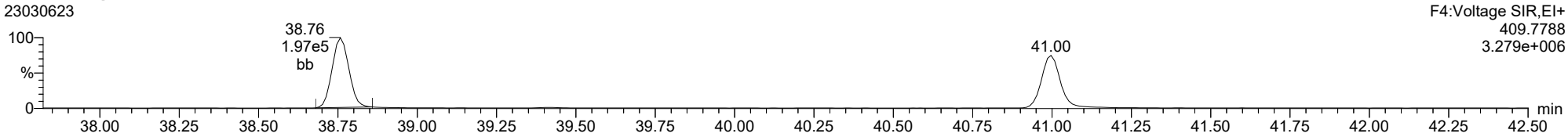

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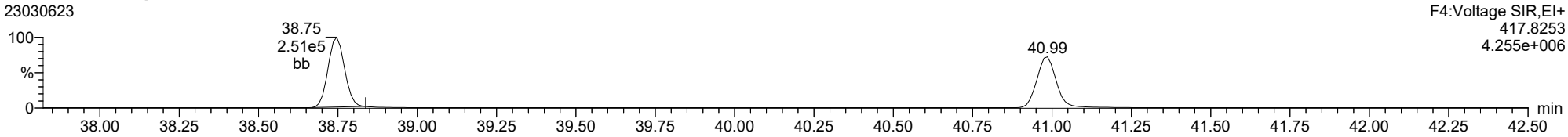

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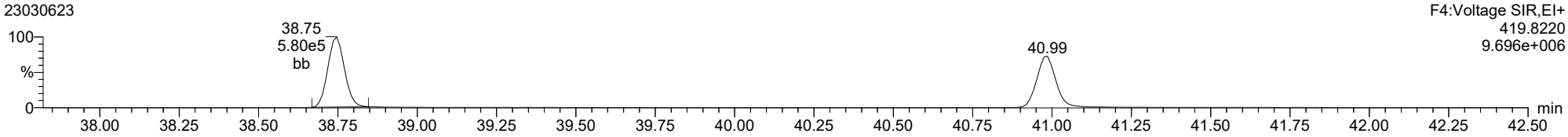

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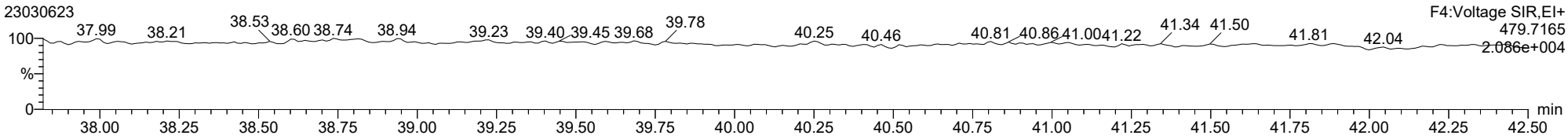

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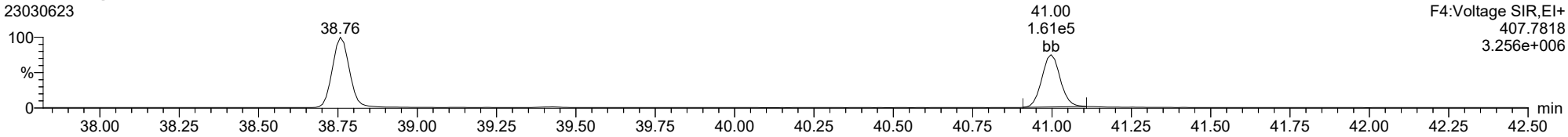

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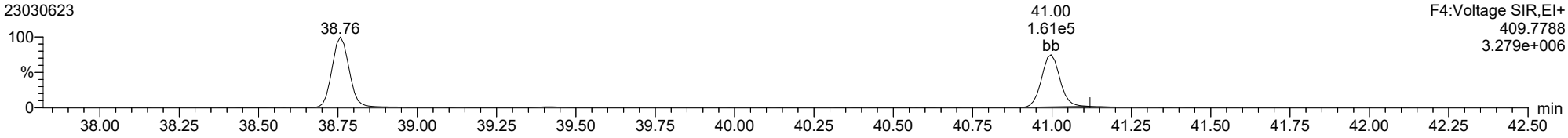

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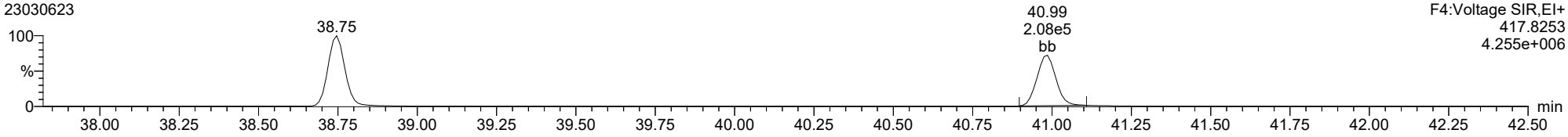

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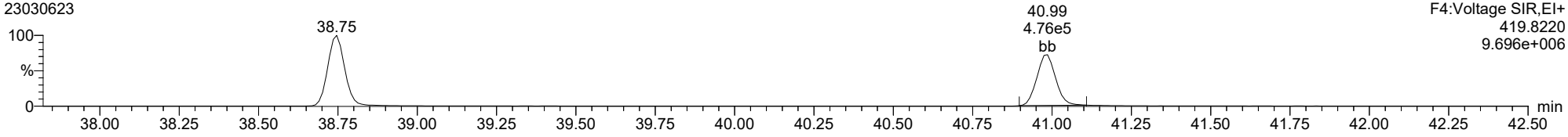

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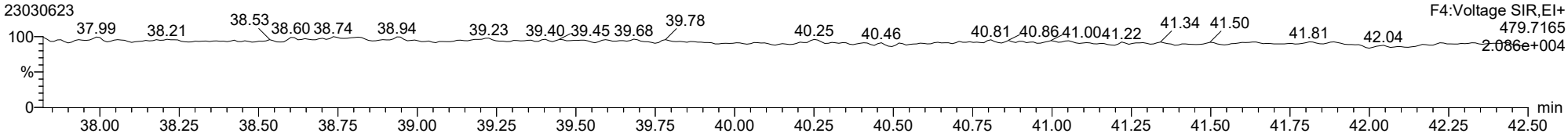

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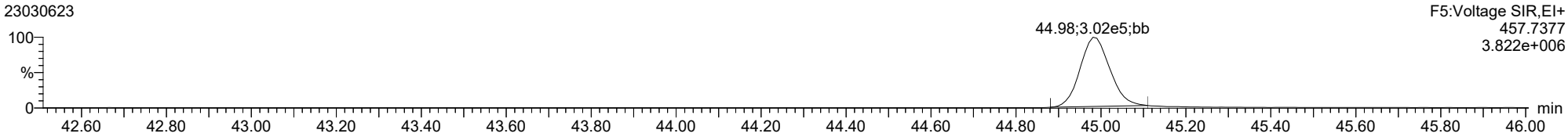

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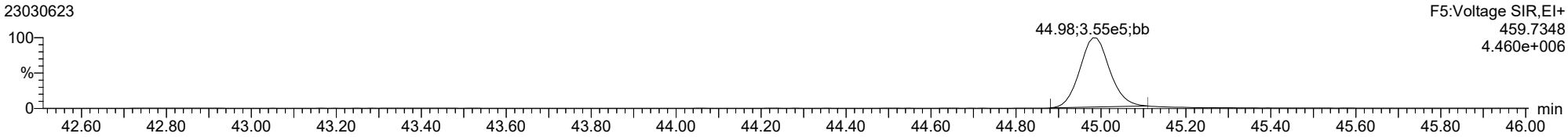

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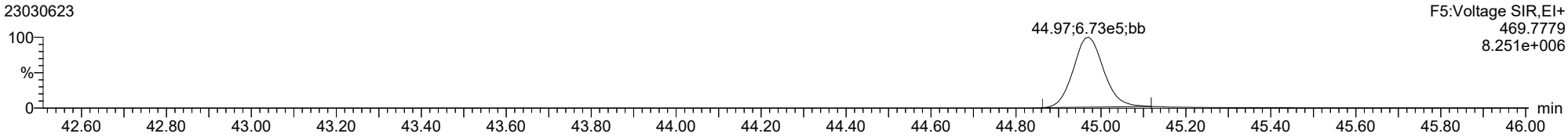

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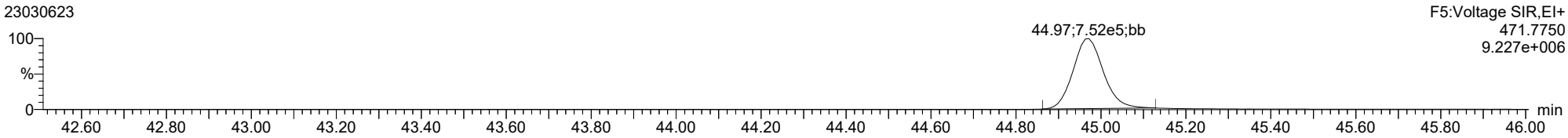

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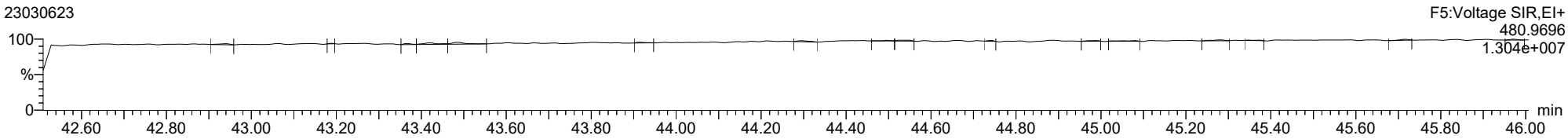

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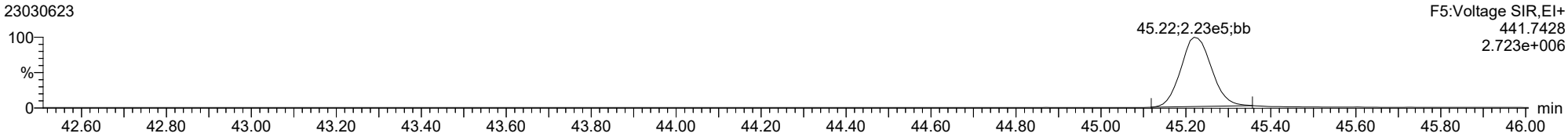

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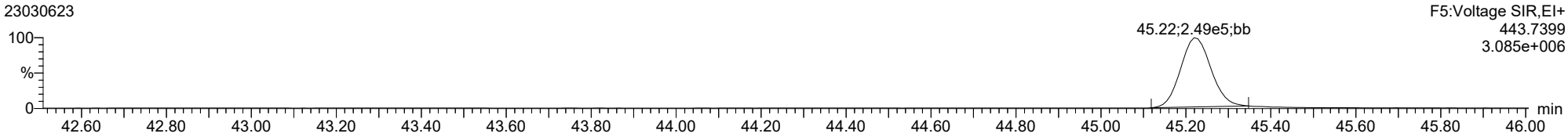
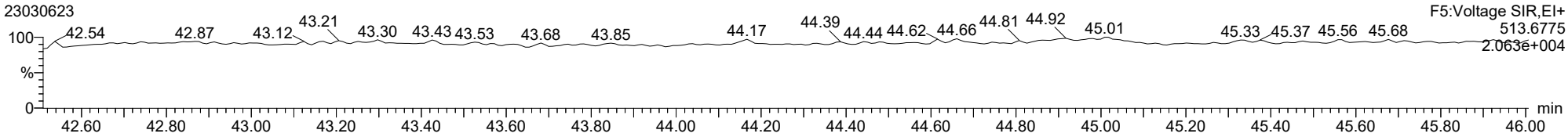


FUNCTION5 DCDPE



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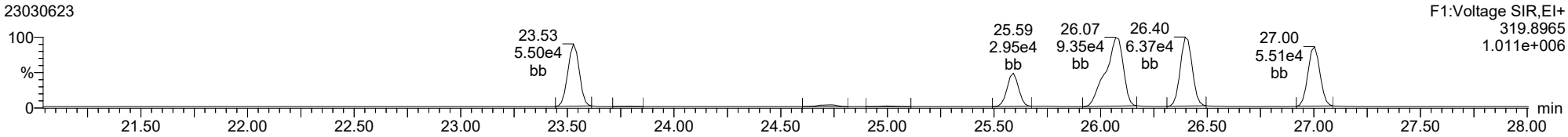

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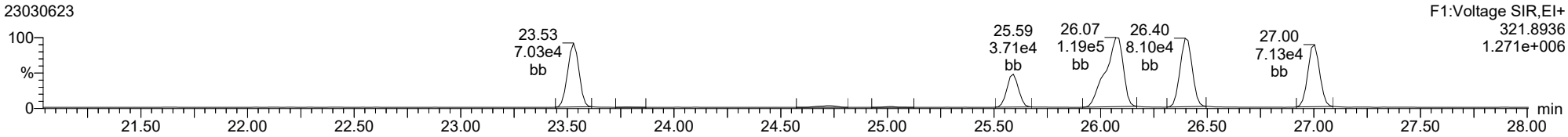

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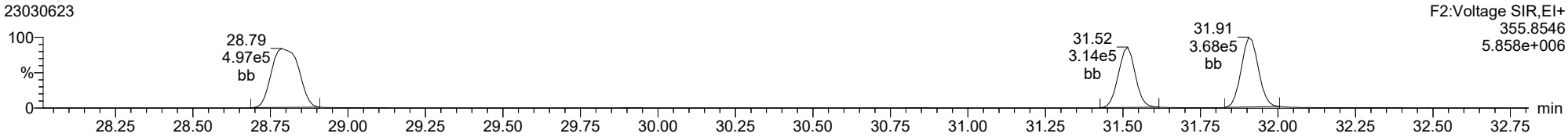

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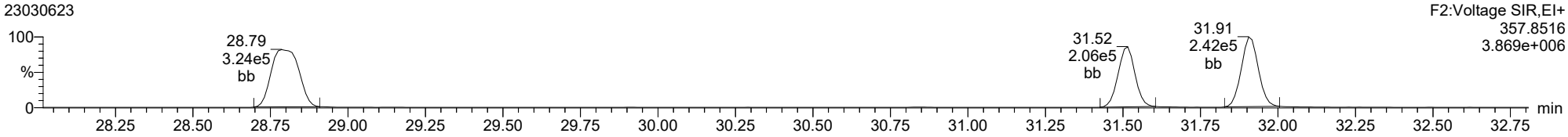

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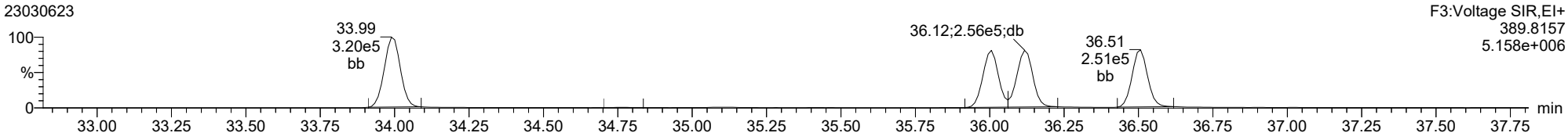

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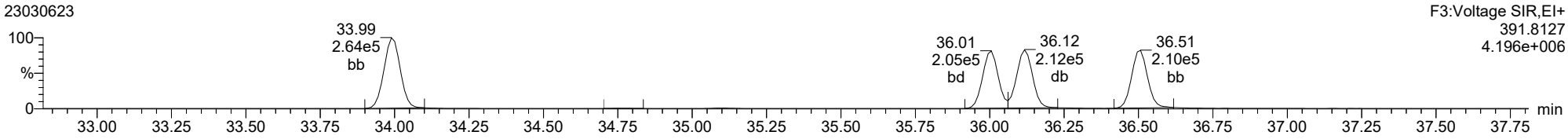

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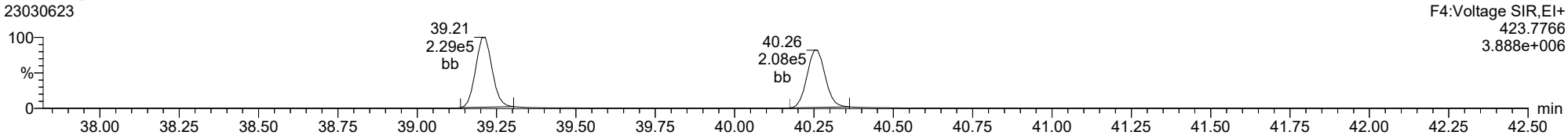

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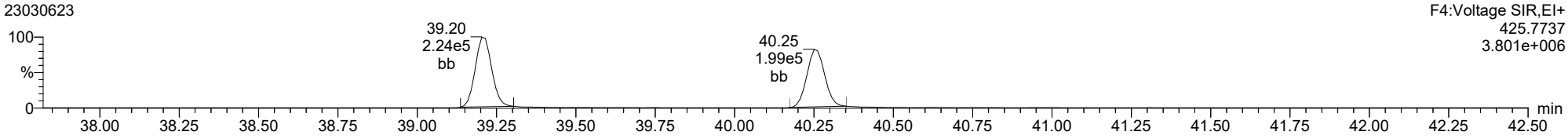

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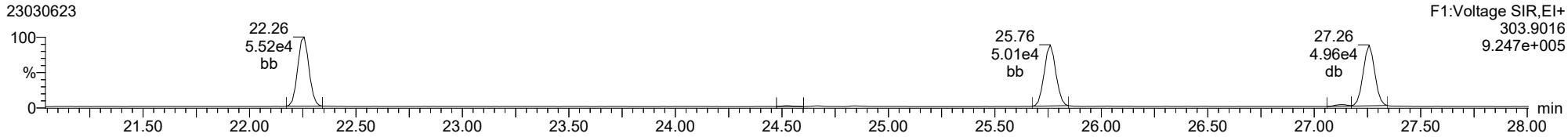

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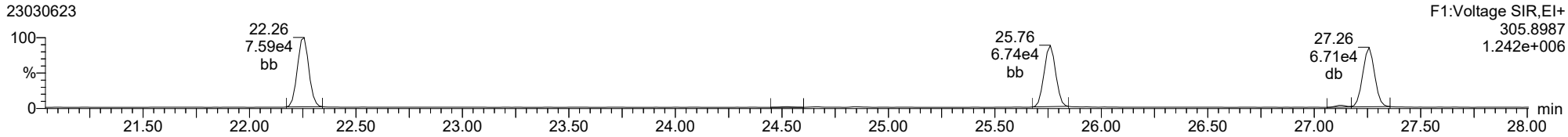

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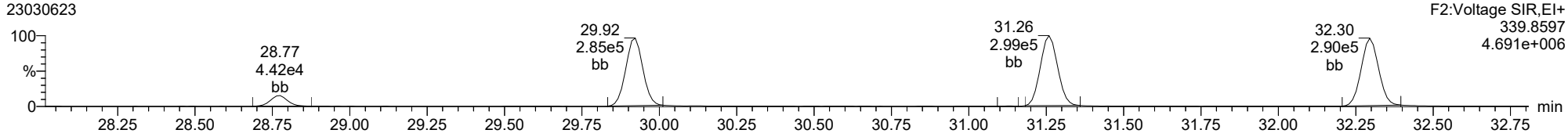

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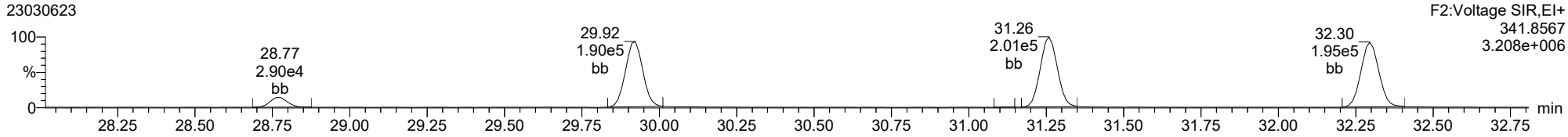

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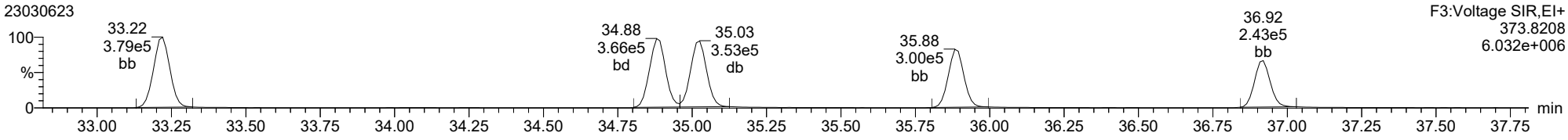

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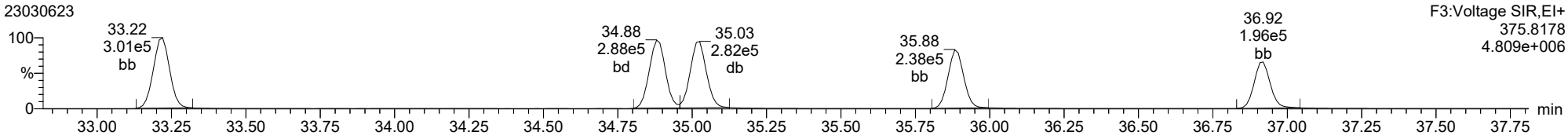

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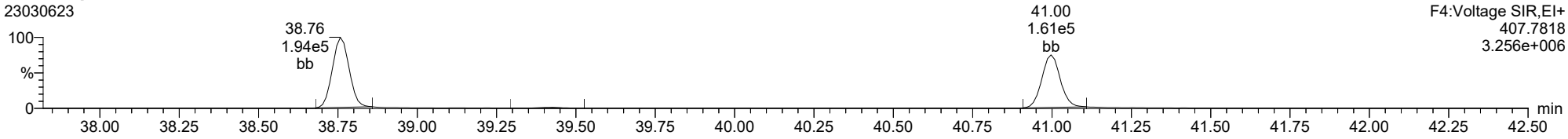

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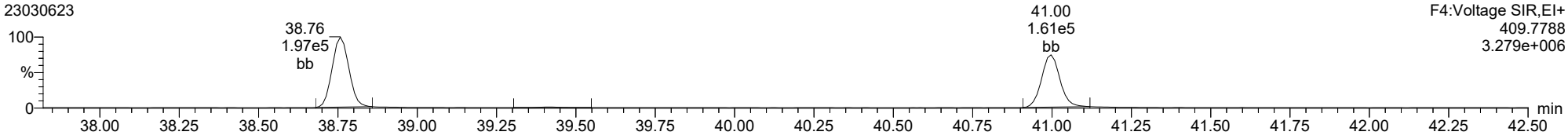

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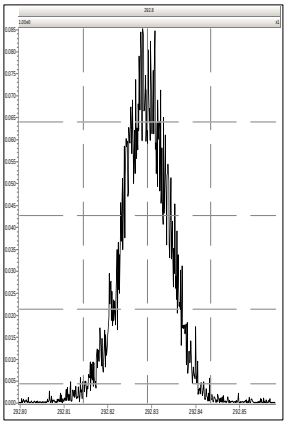

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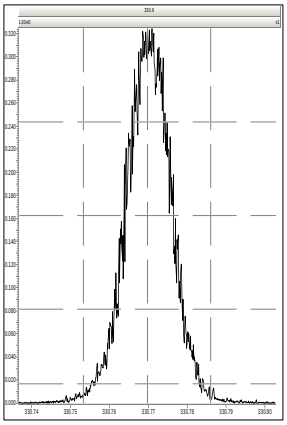

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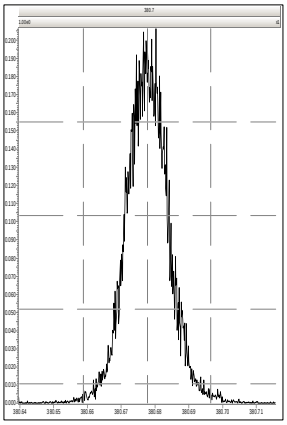

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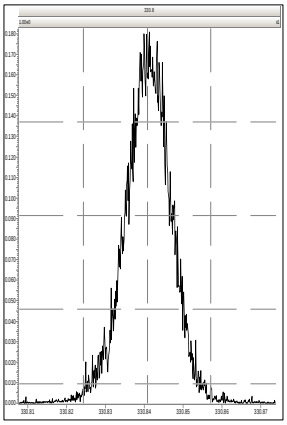

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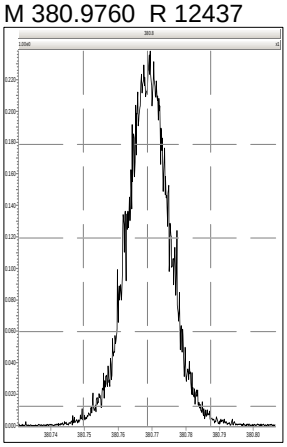

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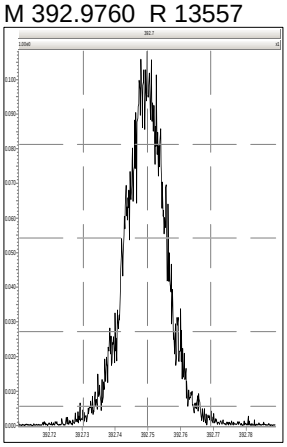

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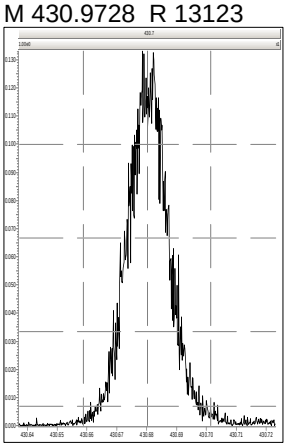

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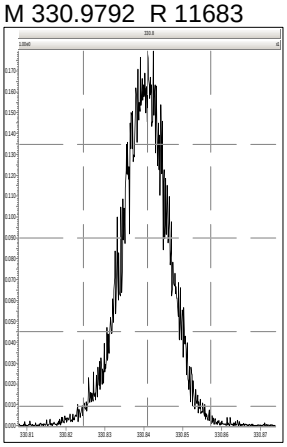

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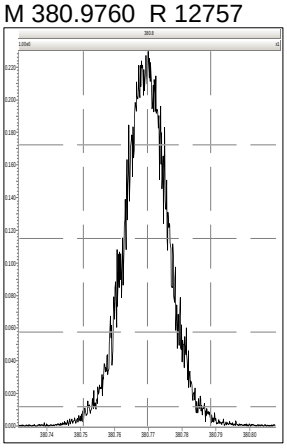

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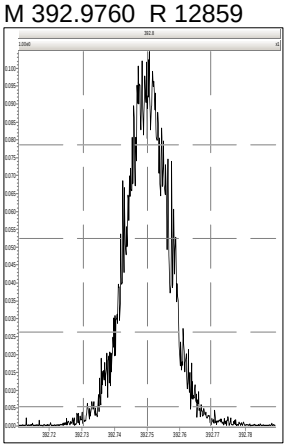

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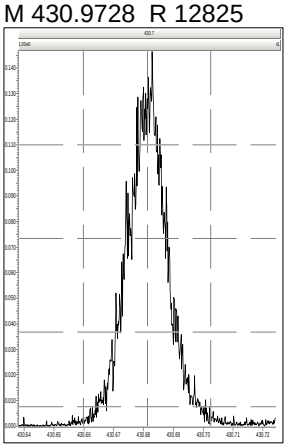

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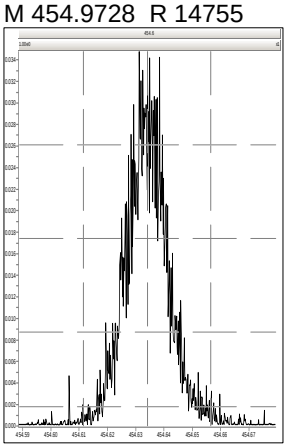

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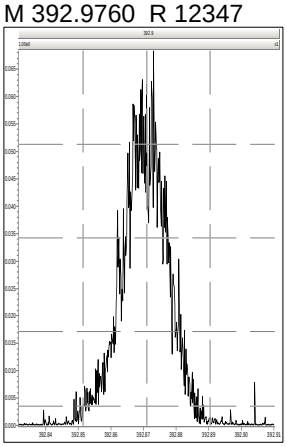

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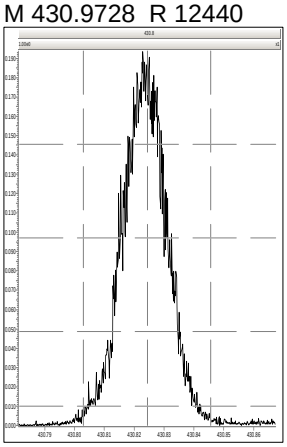

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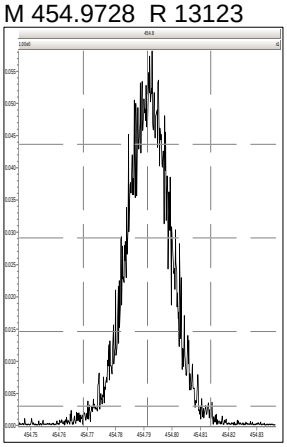

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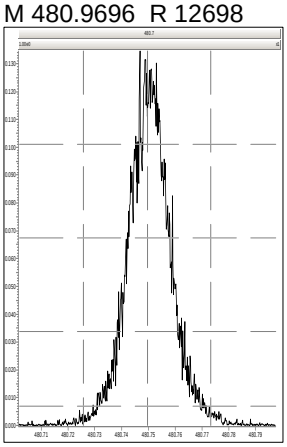

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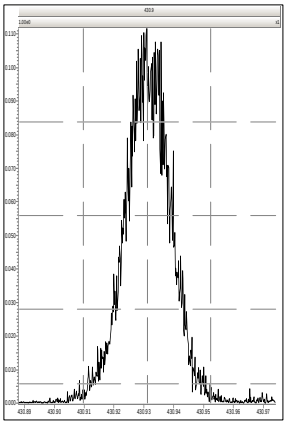
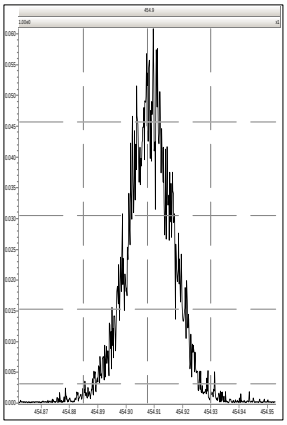
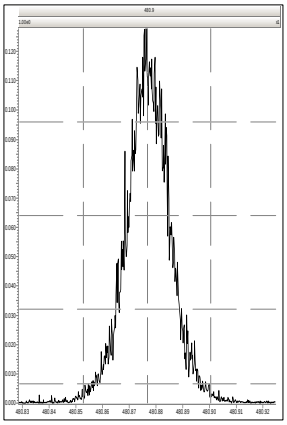


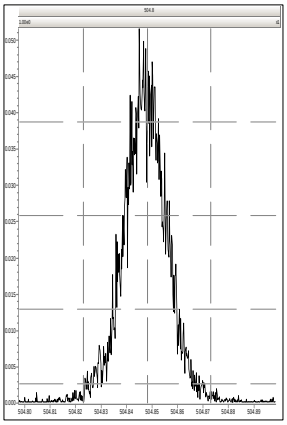
M 454.9728 R 13479



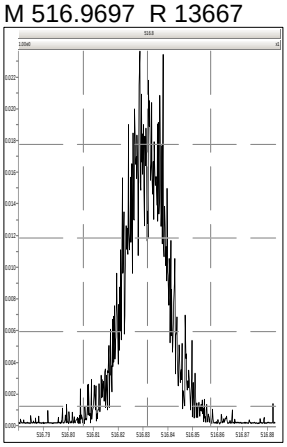
M 480.9696 R 12228

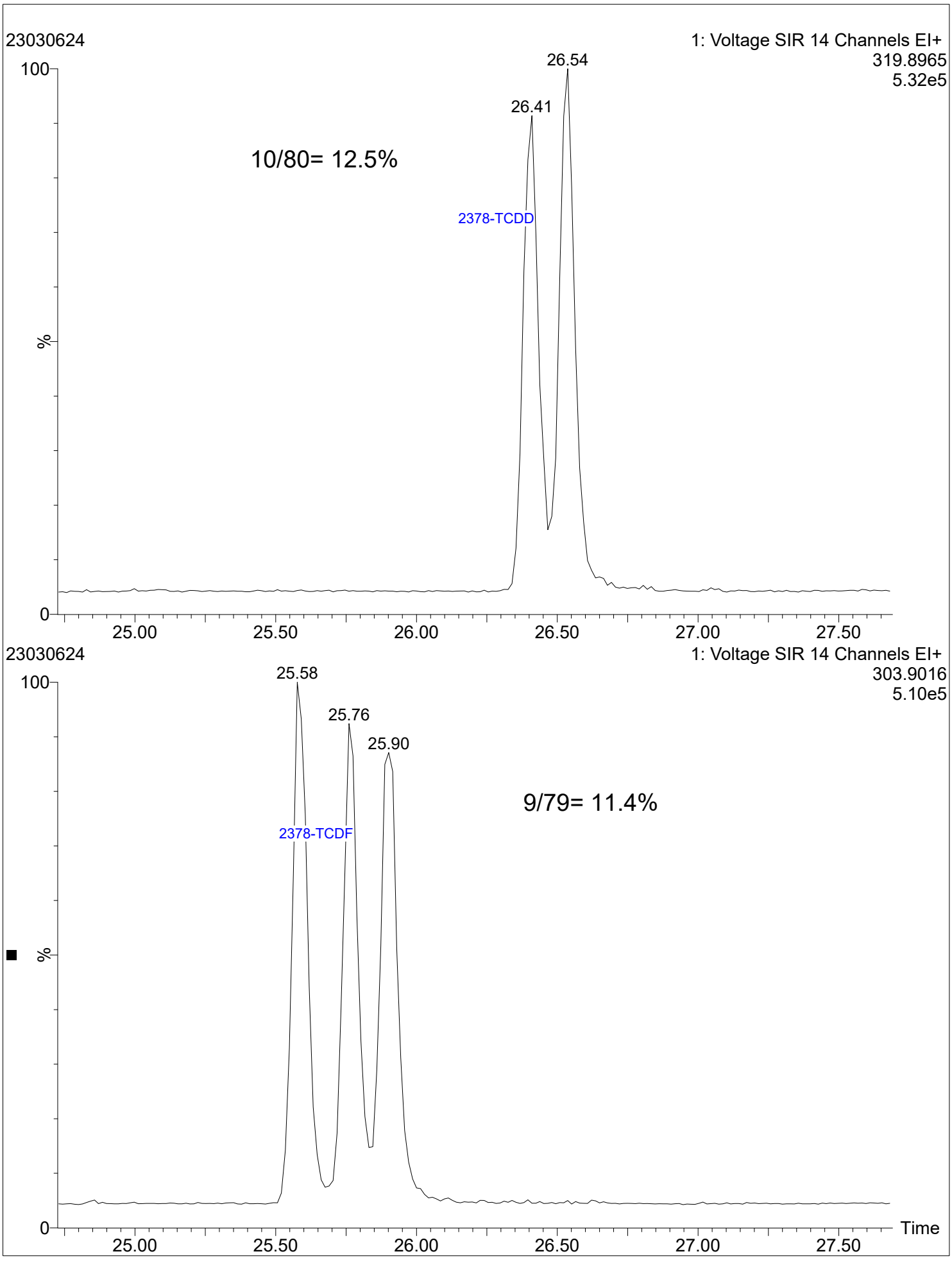


M 504.9696 R 12975



M 516.9697 R 13667




23030624
1: Voltage SIR 14 Channels EI+
319.8965
5.32e5
26.54
26.41
10/80= 12.5%
2378-TCDD
100
%
0
25.00
25.50
26.00
26.50
27.00
27.50
23030624
1: Voltage SIR 14 Channels EI+
303.9016
5.10e5
25.58
25.76
25.90
9/79= 11.4%
2378-TCDF
100
%
0
Time
25.00
25.50
26.00
26.50
27.00
27.50

Analytical Resources, LLC
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Instrument ID:	AUTOSPEC01	Calibration:	GC00015
Lab File ID:	23030633	Calibration Date:	03/03/2023
Sequence:	SLC0081	Injection Date:	03/07/23
Lab Sample ID:	SLC0081-CCV3	Injection Time:	12:33
Sequence Name:	CS3X4		

		CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
2,3,7,8-TCDF	A	10.000	9.78	0.7015272	0.6861944		-2.2	+/-16	
2,3,7,8-TCDD	A	10.000	9.31	1.1486620	1.0693530		-6.9	+/-22	
1,2,3,7,8-PeCDF	A	50.000	50.2	0.6792300	0.6826255		0.5	+/-18	
2,3,4,7,8-PeCDF	A	50.000	48.0	0.7861704	0.7548584		-4.0	+/-18	
1,2,3,7,8-PeCDD	A	50.000	49.6	1.0218450	1.0134130		-0.8	+/-22	
1,2,3,4,7,8-HxCDF	A	50.000	48.2	1.1660380	1.1240870		-3.6	+/-10	
1,2,3,6,7,8-HxCDF	A	50.000	50.6	1.0907410	1.1029070		1.1	+/-12	
2,3,4,6,7,8-HxCDF	A	50.000	49.6	1.1396990	1.1313450		-0.7	+/-12	
1,2,3,7,8,9-HxCDF	A	50.000	47.2	1.1370930	1.0741020		-5.5	+/-10	
1,2,3,4,7,8-HxCDD	A	50.000	48.3	0.9955689	0.9617515		-3.4	+/-22	
1,2,3,6,7,8-HxCDD	A	50.000	49.9	1.0009380	0.9987032		-0.2	+/-22	
1,2,3,7,8,9-HxCDD	A	50.000	56.2	0.9071139	1.0188970		12.3	+/-18	
1,2,3,4,6,7,8-HpCDF	A	50.000	47.2	1.0029930	0.9461687		-5.7	+/-10	
1,2,3,4,7,8,9-HpCDF	A	50.000	50.3	0.9531152	0.9591665		0.6	+/-14	
1,2,3,4,6,7,8-HpCDD	A	50.000	48.7	1.0390130	1.0126690		-2.5	+/-14	
OCDF	A	100.00	87.0	0.7778078	0.6765827		-13.0	+/-37	
OCDD	A	100.00	102	0.9199537	0.9400237		2.2	+/-21	
13C12-2,3,7,8-TCDF	A	100.00	88.9	1.6201960	1.4403634		-11.1	+/-29	
13C12-2,3,7,8-TCDD	A	100.00	87.4	1.1524090	1.0066480		-12.6	+/-18	
13C12-1,2,3,7,8-PeCDF	A	100.00	84.7	1.2404520	1.0509505		-15.3	+/-24	
13C12-2,3,4,7,8-PeCDF	A	100.00	89.7	1.1177860	1.0023584		-10.3	+/-23	
13C12-1,2,3,7,8-PeCDD	A	100.00	91.0	0.8288129	0.7539762		-9.0	+/-38	
13C12-1,2,3,4,7,8-HxCDF	A	100.00	89.2	1.1683050	1.0421841		-10.8	+/-24	
13C12-1,2,3,6,7,8-HxCDF	A	100.00	78.4	1.3864660	1.0872169		-21.6	+/-30	
13C12-2,3,4,6,7,8-HxCDF	A	100.00	88.9	1.1292560	1.0043779		-11.1	+/-27	
13C12-1,2,3,7,8,9-HxCDF	A	100.00	97.5	0.9317541	0.9086748		-2.5	+/-26	
13C12-1,2,3,4,7,8-HxCDD	A	100.00	95.5	0.9950393	0.9498090		-4.5	+/-15	
13C12-1,2,3,6,7,8-HxCDD	A	100.00	84.1	1.1566890	0.9730717		-15.9	+/-15	*
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	92.5	0.8952017	0.8280293		-7.5	+/-22	
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	86.9	0.7697516	0.6688447		-13.1	+/-23	
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	93.8	0.8401226	0.7877608		-6.2	+/-18	
13C12-OCDD	A	200.00	153	0.7674714	0.5877733		-23.4	+/-52	
37Cl4-2,3,7,8-TCDD	A	10.000	7.70	1.2878040	0.9918342		-23.0	+/-21	

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230306D2CL.qld
Last Altered: Tuesday, March 07, 2023 14:26:37 Pacific Standard Time
Printed: Tuesday, March 07, 2023 14:27:33 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3X3, Name: 23030633, Date: 07-Mar-2023, Time: 12:33:50, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.760	1.001	5.362e4	7.089e4	0.702	0.757	0.770	1009	1232	8.49e5	1.10e6	841.3	892.7	NO	bb	bb	9.781
12378-PeCDF	29.922	1.001	2.728e5	1.790e5	0.679	1.524	1.550	1979	1899	4.29e6	2.83e6	2169.0	1489.5	NO	bb	bb	50.250
23478-PeCDF	31.259	1.001	2.839e5	1.927e5	0.786	1.473	1.550	1979	1899	4.47e6	3.06e6	2260.2	1610.2	NO	bb	bb	48.009
123478-HxCDF	34.891	1.001	3.937e5	3.126e5	1.166	1.259	1.240	2110	1713	6.26e6	4.96e6	2966.3	2897.4	NO	bd	bd	48.201
234678-HxCDF	35.894	1.001	3.849e5	3.002e5	1.140	1.282	1.240	2110	1713	6.24e6	4.88e6	2958.8	2849.2	NO	bb	bb	49.634
123678-HxCDF	35.025	1.000	4.043e5	3.187e5	1.091	1.269	1.240	2110	1713	6.42e6	5.04e6	3042.9	2942.6	NO	db	db	50.558
123789-HxCDF	36.919	1.000	3.256e5	2.628e5	1.137	1.239	1.240	2110	1713	5.26e6	4.23e6	2491.5	2467.2	NO	bb	bb	47.230
1234678-HpCDF	38.769	1.001	2.374e5	2.350e5	1.003	1.010	1.050	1965	1636	3.96e6	3.97e6	2017.3	2430.0	NO	bb	bb	47.167
1234789-HpCDF	40.997	1.000	1.915e5	1.953e5	0.953	0.981	1.050	1965	1636	2.94e6	2.97e6	1496.9	1818.6	NO	bb	bb	50.317
OCDF	45.237	1.006	2.232e5	2.563e5	0.778	0.871	0.890	981	1557	2.78e6	3.13e6	2830.6	2011.3	NO	bb	bb	86.986
2378-TCDD	26.396	1.001	5.869e4	7.692e4	1.149	0.763	0.770	985	957	8.92e5	1.19e6	905.7	1239.7	NO	bb	bb	9.310
12378-PeCDD	31.515	1.001	2.875e5	1.938e5	1.022	1.484	1.550	1817	1288	4.44e6	2.99e6	2444.3	2322.0	NO	bb	bb	49.587
123478-HxCDD	36.005	1.000	3.039e5	2.468e5	0.996	1.231	1.240	2350	1394	5.06e6	4.10e6	2152.2	2937.6	NO	bd	bd	48.302
123678-HxCDD	36.117	1.000	3.243e5	2.616e5	1.001	1.240	1.240	2350	1394	5.22e6	4.21e6	2223.1	3020.1	NO	db	db	49.888
123789-HxCDD	36.507	1.011	3.238e5	2.668e5	0.907	1.214	1.240	2350	1394	5.31e6	4.39e6	2259.7	3149.1	NO	bb	bb	56.162
1234678-HpCDD	40.261	1.000	2.452e5	2.357e5	1.039	1.040	1.050	2204	1470	3.86e6	3.72e6	1752.5	2531.0	NO	bb	bb	48.732
OCDD	44.999	1.000	3.080e5	3.583e5	0.920	0.860	0.890	1460	1111	3.87e6	4.47e6	2649.0	4025.2	NO	bb	bb	102.182
13C-2378-TCDF	25.746	1.007	7.838e5	1.031e6	1.620	0.760	0.770	1766	1321	1.23e7	1.62e7	6945.2	12262.9	NO	bb	bb	88.901
13C-12378-PeCDF	29.900	1.170	7.936e5	5.303e5	1.240	1.497	1.550	1346	1885	1.24e7	8.37e6	9246.3	4437.9	NO	bb	bb	84.723
13C-23478-PeCDF	31.237	1.222	7.544e5	5.083e5	1.118	1.484	1.550	1346	1885	1.16e7	7.83e6	8636.6	4150.9	NO	bb	bb	89.674
13C-123478-HxCDF	34.869	0.955	4.241e5	8.326e5	1.168	0.509	0.510	1276	2003	6.96e6	1.36e7	5456.0	6775.7	NO	bd	bd	89.205
13C-123678-HxCDF	35.014	0.959	4.436e5	8.674e5	1.386	0.511	0.510	1276	2003	6.91e6	1.35e7	5411.2	6726.8	NO	db	db	78.416
13C-234678-HxCDF	35.872	0.983	4.104e5	8.008e5	1.129	0.512	0.510	1276	2003	6.69e6	1.31e7	5240.4	6530.8	NO	bb	bb	88.942
13C-123789-HxCDF	36.908	1.011	3.708e5	7.249e5	0.932	0.512	0.510	1276	2003	5.92e6	1.17e7	4638.2	5833.0	NO	bb	bb	97.523
13C-1234678-HpCDF	38.746	1.062	3.028e5	6.957e5	0.895	0.435	0.440	1657	1949	5.14e6	1.18e7	3103.1	6047.1	NO	bb	bb	92.496
13C-1234789-HpCDF	40.986	1.123	2.463e5	5.602e5	0.770	0.440	0.440	1657	1949	3.75e6	8.59e6	2261.0	4406.5	NO	bb	bb	86.891
13C-1234-TCDD	25.562	0.000	5.622e5	6.975e5	1.000	0.806	0.770	1443	972	8.78e6	1.09e7	6087.0	11252.5	NO	bb	bb	100.000
13C-2378-TCDD	26.382	1.032	5.580e5	7.101e5	1.152	0.786	0.770	1443	972	8.62e6	1.10e7	5970.0	11341.2	NO	bb	bb	87.352
13C-12378-PeCDD	31.493	1.232	5.851e5	3.648e5	0.829	1.604	1.550	945	992	9.17e6	5.76e6	9700.2	5808.1	NO	bb	bb	90.971
13C-123478-HxCDD	35.994	0.986	6.434e5	5.019e5	0.995	1.282	1.240	1384	1588	1.04e7	8.06e6	7547.2	5073.0	NO	bd	bd	95.454
13C-123678-HxCDD	36.106	0.989	6.575e5	5.158e5	1.157	1.275	1.240	1384	1588	1.09e7	8.52e6	7890.7	5362.0	NO	db	db	84.126
13C-1234678-HpCDD	40.250	1.103	4.905e5	4.595e5	0.840	1.067	1.050	1567	980	7.51e6	6.97e6	4795.0	7113.4	NO	bb	bb	93.767
13C-OCDD	44.981	1.233	6.703e5	7.472e5	0.767	0.897	0.890	1450	1549	8.25e6	9.21e6	5692.9	5944.5	NO	bb	bb	153.171
13C-123789-HxCDD	36.496	0.000	6.736e5	5.322e5	1.000	1.266	1.240	1384	1588	1.11e7	8.80e6	8045.6	5541.2	NO	bb	bb	100.000
37CL-2378-TCDD	26.396	1.033	1.249e5		1.288			1494		1.89e6		1266.6			bb		7.702

Dataset: T:\Autospec\Processed Data Batch\230306D2CL.qld
Last Altered: Tuesday, March 07, 2023 14:26:37 Pacific Standard Time
Printed: Tuesday, March 07, 2023 14:27:33 Pacific Standard Time

ID: CS3X3, Name: 23030633, Date: 07-Mar-2023, Time: 12:33:50, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.257	0.864	6.416e4	8.348e4	0.802	0.768	0.770	1009	1232	1.04e6	1.35e6	1034.4	1092.8	NO	bb	bb	10.151
1289-TCDF	27.257	1.059	4.116e4	5.901e4	0.678	0.697	0.770	1009	1232	6.46e5	8.89e5	640.3	721.7	NO	db	db	8.143
13468-PECDF	27.116	0.907	4.330e5	2.793e5	1.246	1.550	1.550	786	871	6.81e6	4.34e6	8667.1	4989.2	NO	bb	bb	43.165
12389-PECDF	32.296	1.080	2.729e5	1.835e5	0.496	1.487	1.550	1979	1899	4.11e6	2.74e6	2077.9	1442.3	NO	bb	bb	69.440
123468-HXCDF	33.220	0.953	3.697e5	2.972e5	1.169	1.244	1.240	2110	1713	5.75e6	4.60e6	2722.9	2687.3	NO	bb	bb	45.392
1368-TCDD	23.528	0.892	6.588e4	8.403e4	1.015	0.784	0.770	985	957	1.07e6	1.38e6	1082.4	1437.4	NO	bb	bb	11.642
1289-TCDD	27.003	1.024	4.746e4	5.810e4	0.909	0.817	0.770	985	957	7.40e5	8.85e5	750.9	924.6	NO	bb	bb	9.160
12479-PECDD	28.786	0.914	4.579e5	3.023e5	2.301	1.515	1.550	1817	1288	4.46e6	2.97e6	2457.2	2307.0	NO	bb	bb	34.778
12389-PECDD	31.917	1.013	3.446e5	2.250e5	1.184	1.531	1.550	1817	1288	5.19e6	3.36e6	2859.4	2604.5	NO	bb	bb	50.665
124679-HXCDD	34.000	0.945	3.107e5	2.517e5	1.115	1.235	1.240	2350	1394	4.82e6	3.86e6	2052.1	2767.8	NO	bb	bb	44.027
1234679-HPCDD	39.214	0.974	2.747e5	2.742e5	1.137	1.002	1.050	2204	1470	4.61e6	4.58e6	2090.9	3117.3	NO	bb	bb	50.830
Total-tetrafurans			1.607e5		0.727			1009		2.57e6							28.356
Total-penta1			4.330e5					786		6.81e6							43.165
Total-pentafurans			8.722e5		0.654			1979		1.35e7							176.004
Total-hexafurans			1.878e6		1.141			2110		2.99e7							241.015
Total-heptafurans			4.312e5		0.978			1965		6.94e6							97.984
Total-Furans			3.999e6		0.922			1009		6.25e7							673.509
Total-tetradioxins			3.002e5		1.024			985		4.26e6							52.659
Total-pentadioxins			1.091e6		1.502			1817		1.41e7							135.127
Total-hexadioxins			1.264e6		1.005			2350		2.04e7							198.484
Total-heptadioxins			5.199e5		1.088			2204		8.47e6							99.562
Total-Dioxins			3.482e6		1.130			985		5.11e7							588.013
Total-TEQ			7.481e6					985		1.14e8							1261.522
FUNCTION1 PFK			1.193e7					402067		4.01e6							
FUNCTION2 PFK			6.624e4					223390		1.95e6							0.000
FUNCTION3 PFK			8.010e5					285567		2.00e7							0.000
FUNCTION4 PFK			3.297e7					217344		1.32e7							
FUNCTION5 PFK			0.000e0					142469		0.00e0							
FUNCTION1 HXCD...			4.083e2					623		4.46e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			5.537e2					818		9.11e3							0.000
FUNCTION3 OCDPE			1.512e3					692		2.42e4							0.000
FUNCTION4 NCDPE			3.738e2					649		5.49e3							0.000
FUNCTION5 DCDPE			8.868e1					513		2.09e3							0.000

Method: T:\Autospec\Methods\Dioxin230303.mdb 03 Mar 2023 14:58:50
Calibration: T:\Autospec\Curves\230303ICIH.cdb 06 Mar 2023 10:57:27

ID: CS3X3, Name: 23030633, Date: 07-Mar-2023, Time: 12:33:50, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.26	4.116e4	5.901e4	0.678	0.70	0.77	640.3	YES	NO	db	db	8.143
2	Total-tetrafurans	27.12	1.061e3	1.213e3	0.727	0.87	0.77	17.7	YES	NO	bd	bd	0.172
3	2378-TCDF	25.76	5.362e4	7.089e4	0.702	0.76	0.77	841.3	YES	NO	bb	bb	9.781
4	Total-tetrafurans	24.52	6.667e2	7.578e2	0.727	0.88	0.77	11.2	YES	NO	bd	bd	0.108
5	1368-TCDF	22.26	6.416e4	8.348e4	0.802	0.77	0.77	1034.4	YES	NO	bb	bb	10.151

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.12	4.330e5	2.793e5	1.246	1.55	1.55	8667.1	YES	NO	bb	bb	43.165

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.26	2.839e5	1.927e5	0.786	1.47	1.55	2260.2	YES	NO	bb	bb	48.009
2	12378-PeCDF	29.92	2.728e5	1.790e5	0.679	1.52	1.55	2169.0	YES	NO	bb	bb	50.250
3	Total-pentafurans	28.77	4.246e4	2.748e4	0.654	1.55	1.55	321.0	YES	NO	bb	bb	8.269
4	12389-PECDF	32.30	2.729e5	1.835e5	0.496	1.49	1.55	2077.9	YES	NO	bb	bb	69.440
5	Total-pentafurans	31.50	1.953e2	1.104e2	0.654	1.77	1.55	3.8	NO	NO	bb	bb	0.036

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	36.92	3.256e5	2.628e5	1.137	1.24	1.24	2491.5	YES	NO	bb	bb	47.230
2	234678-HxCDF	35.89	3.849e5	3.002e5	1.140	1.28	1.24	2958.8	YES	NO	bb	bb	49.634
3	123678-HxCDF	35.03	4.043e5	3.187e5	1.091	1.27	1.24	3042.9	YES	NO	db	db	50.558
4	123478-HxCDF	34.89	3.937e5	3.126e5	1.166	1.26	1.24	2966.3	YES	NO	bd	bd	48.201
5	123468-HXCDF	33.22	3.697e5	2.972e5	1.169	1.24	1.24	2722.9	YES	NO	bb	bb	45.392

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.00	1.915e5	1.953e5	0.953	0.98	1.05	1496.9	YES	NO	bb	bb	50.317
2	Total-heptafurans	39.43	2.259e3	2.146e3	0.978	1.05	1.05	17.9	YES	NO	bb	bb	0.499
3	1234678-HpCDF	38.77	2.374e5	2.350e5	1.003	1.01	1.05	2017.3	YES	NO	bb	bb	47.167

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Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.26	4.116e4	5.901e4	0.678	0.70	0.77	640.3	YES	NO	db	db	8.143
2	Total-tetrafurans	27.12	1.061e3	1.213e3	0.727	0.87	0.77	17.7	YES	NO	bd	bd	0.172
3	2378-TCDF	25.76	5.362e4	7.089e4	0.702	0.76	0.77	841.3	YES	NO	bb	bb	9.781
4	Total-tetrafurans	24.52	6.667e2	7.578e2	0.727	0.88	0.77	11.2	YES	NO	bd	bd	0.108
5	1368-TCDF	22.26	6.416e4	8.348e4	0.802	0.77	0.77	1034.4	YES	NO	bb	bb	10.151
6	23478-PeCDF	31.26	2.839e5	1.927e5	0.786	1.47	1.55	2260.2	YES	NO	bb	bb	48.009
7	12378-PeCDF	29.92	2.728e5	1.790e5	0.679	1.52	1.55	2169.0	YES	NO	bb	bb	50.250
8	Total-pentafurans	28.77	4.246e4	2.748e4	0.654	1.55	1.55	321.0	YES	NO	bb	bb	8.269
9	12389-PECDF	32.30	2.729e5	1.835e5	0.496	1.49	1.55	2077.9	YES	NO	bb	bb	69.440
10	Total-pentafurans	31.50	1.953e2	1.104e2	0.654	1.77	1.55	3.8	NO	NO	bb	bb	0.036
11	123789-HxCDF	36.92	3.256e5	2.628e5	1.137	1.24	1.24	2491.5	YES	NO	bb	bb	47.230
12	234678-HxCDF	35.89	3.849e5	3.002e5	1.140	1.28	1.24	2958.8	YES	NO	bb	bb	49.634
13	123678-HxCDF	35.03	4.043e5	3.187e5	1.091	1.27	1.24	3042.9	YES	NO	db	db	50.558
14	123478-HxCDF	34.89	3.937e5	3.126e5	1.166	1.26	1.24	2966.3	YES	NO	bd	bd	48.201
15	123468-HXCDF	33.22	3.697e5	2.972e5	1.169	1.24	1.24	2722.9	YES	NO	bb	bb	45.392
16	1234789-HpCDF	41.00	1.915e5	1.953e5	0.953	0.98	1.05	1496.9	YES	NO	bb	bb	50.317
17	Total-heptafurans	39.43	2.259e3	2.146e3	0.978	1.05	1.05	17.9	YES	NO	bb	bb	0.499
18	1234678-HpCDF	38.77	2.374e5	2.350e5	1.003	1.01	1.05	2017.3	YES	NO	bb	bb	47.167
19	OCDF	45.24	2.232e5	2.563e5	0.778	0.87	0.89	2830.6	YES	NO	bb	bb	86.986
20	13468-PECDF	27.12	4.330e5	2.793e5	1.246	1.55	1.55	8667.1	YES	NO	bb	bb	43.165

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.00	4.746e4	5.810e4	0.909	0.82	0.77	750.9	YES	NO	bb	bb	9.160
2	2378-TCDD	26.40	5.869e4	7.692e4	1.149	0.76	0.77	905.7	YES	NO	bb	bb	9.310
3	Total-tetradioxins	26.07	9.232e4	1.193e5	1.024	0.77	0.77	1024.4	YES	NO	bb	bb	16.291
4	Total-tetradioxins	25.59	3.296e4	4.192e4	1.024	0.79	0.77	528.9	YES	NO	bd	bb	5.765
5	Total-tetradioxins	25.25	1.381e2	1.569e2	1.024	0.88	0.77	3.6	NO	NO	bb	bb	0.023
6	Total-tetradioxins	24.73	2.745e3	3.352e3	1.024	0.82	0.77	29.5	YES	NO	bb	bb	0.469
7	1368-TCDD	23.53	6.588e4	8.403e4	1.015	0.78	0.77	1082.4	YES	NO	bb	bb	11.642

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PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentadioxins	29.91	8.638e2	5.174e2	1.502	1.67	1.55	8.2	YES	NO	bb	bb	0.097
2	12479-PECDD	28.79	4.579e5	3.023e5	2.301	1.51	1.55	2457.2	YES	NO	bb	bb	34.778
3	12389-PECDD	31.92	3.446e5	2.250e5	1.184	1.53	1.55	2859.4	YES	NO	bb	bb	50.665
4	12378-PeCDD	31.52	2.875e5	1.938e5	1.022	1.48	1.55	2444.3	YES	NO	bb	bb	49.587

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	34.77	6.642e2	5.557e2	1.005	1.20	1.24	4.9	YES	NO	bd	bb	0.105
2	124679-HXCDD	34.00	3.107e5	2.517e5	1.115	1.23	1.24	2052.1	YES	NO	bb	bb	44.027
3	123789-HxCDD	36.51	3.238e5	2.668e5	0.907	1.21	1.24	2259.7	YES	NO	bb	bb	56.162
4	123678-HxCDD	36.12	3.243e5	2.616e5	1.001	1.24	1.24	2223.1	YES	NO	db	db	49.888
5	123478-HxCDD	36.01	3.039e5	2.468e5	0.996	1.23	1.24	2152.2	YES	NO	bd	bd	48.302

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.26	2.452e5	2.357e5	1.039	1.04	1.05	1752.5	YES	NO	bb	bb	48.732
2	1234679-HPCDD	39.21	2.747e5	2.742e5	1.137	1.00	1.05	2090.9	YES	NO	bb	bb	50.830

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.00	4.746e4	5.810e4	0.909	0.82	0.77	750.9	YES	NO	bb	bb	9.160
2	2378-TCDD	26.40	5.869e4	7.692e4	1.149	0.76	0.77	905.7	YES	NO	bb	bb	9.310
3	Total-tetradioxins	26.07	9.232e4	1.193e5	1.024	0.77	0.77	1024.4	YES	NO	bb	bb	16.291
4	Total-tetradioxins	25.59	3.296e4	4.192e4	1.024	0.79	0.77	528.9	YES	NO	bd	bb	5.765
5	Total-tetradioxins	25.25	1.381e2	1.569e2	1.024	0.88	0.77	3.6	NO	NO	bb	bb	0.023
6	Total-tetradioxins	24.73	2.745e3	3.352e3	1.024	0.82	0.77	29.5	YES	NO	bb	bb	0.469
7	1368-TCDD	23.53	6.588e4	8.403e4	1.015	0.78	0.77	1082.4	YES	NO	bb	bb	11.642
8	Total-pentadioxins	29.91	8.638e2	5.174e2	1.502	1.67	1.55	8.2	YES	NO	bb	bb	0.097
9	12479-PECDD	28.79	4.579e5	3.023e5	2.301	1.51	1.55	2457.2	YES	NO	bb	bb	34.778
10	Total-hexadioxins	34.77	6.642e2	5.557e2	1.005	1.20	1.24	4.9	YES	NO	bd	bb	0.105
11	124679-HXCDD	34.00	3.107e5	2.517e5	1.115	1.23	1.24	2052.1	YES	NO	bb	bb	44.027
12	12389-PECDD	31.92	3.446e5	2.250e5	1.184	1.53	1.55	2859.4	YES	NO	bb	bb	50.665
13	12378-PeCDD	31.52	2.875e5	1.938e5	1.022	1.48	1.55	2444.3	YES	NO	bb	bb	49.587
14	123789-HxCDD	36.51	3.238e5	2.668e5	0.907	1.21	1.24	2259.7	YES	NO	bb	bb	56.162
15	123678-HxCDD	36.12	3.243e5	2.616e5	1.001	1.24	1.24	2223.1	YES	NO	db	db	49.888
16	123478-HxCDD	36.01	3.039e5	2.468e5	0.996	1.23	1.24	2152.2	YES	NO	bd	bd	48.302
17	1234678-HpCDD	40.26	2.452e5	2.357e5	1.039	1.04	1.05	1752.5	YES	NO	bb	bb	48.732
18	1234679-HPCDD	39.21	2.747e5	2.742e5	1.137	1.00	1.05	2090.9	YES	NO	bb	bb	50.830
19	OCDD	45.00	3.080e5	3.583e5	0.920	0.86	0.89	2649.0	YES	NO	bb	bb	102.182

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.26	4.116e4	5.901e4	0.678	0.70	0.77	640.3	YES	NO	db	db	8.143
2	Total-tetrafurans	27.12	1.061e3	1.213e3	0.727	0.87	0.77	17.7	YES	NO	bd	bd	0.172
3	2378-TCDF	25.76	5.362e4	7.089e4	0.702	0.76	0.77	841.3	YES	NO	bb	bb	9.781
4	Total-tetrafurans	24.52	6.667e2	7.578e2	0.727	0.88	0.77	11.2	YES	NO	bd	bd	0.108
5	1368-TCDF	22.26	6.416e4	8.348e4	0.802	0.77	0.77	1034.4	YES	NO	bb	bb	10.151
6	23478-PeCDF	31.26	2.839e5	1.927e5	0.786	1.47	1.55	2260.2	YES	NO	bb	bb	48.009
7	12378-PeCDF	29.92	2.728e5	1.790e5	0.679	1.52	1.55	2169.0	YES	NO	bb	bb	50.250
8	Total-pentafurans	28.77	4.246e4	2.748e4	0.654	1.55	1.55	321.0	YES	NO	bb	bb	8.269
9	12389-PECDF	32.30	2.729e5	1.835e5	0.496	1.49	1.55	2077.9	YES	NO	bb	bb	69.440
10	Total-pentafurans	31.50	1.953e2	1.104e2	0.654	1.77	1.55	3.8	NO	NO	bb	bb	0.036
11	123789-HxCDF	36.92	3.256e5	2.628e5	1.137	1.24	1.24	2491.5	YES	NO	bb	bb	47.230
12	234678-HxCDF	35.89	3.849e5	3.002e5	1.140	1.28	1.24	2958.8	YES	NO	bb	bb	49.634
13	123678-HxCDF	35.03	4.043e5	3.187e5	1.091	1.27	1.24	3042.9	YES	NO	db	db	50.558
14	123478-HxCDF	34.89	3.937e5	3.126e5	1.166	1.26	1.24	2966.3	YES	NO	bd	bd	48.201
15	123468-HXCDF	33.22	3.697e5	2.972e5	1.169	1.24	1.24	2722.9	YES	NO	bb	bb	45.392
16	1234789-HpCDF	41.00	1.915e5	1.953e5	0.953	0.98	1.05	1496.9	YES	NO	bb	bb	50.317
17	Total-heptafurans	39.43	2.259e3	2.146e3	0.978	1.05	1.05	17.9	YES	NO	bb	bb	0.499
18	1234678-HpCDF	38.77	2.374e5	2.350e5	1.003	1.01	1.05	2017.3	YES	NO	bb	bb	47.167
19	OCDF	45.24	2.232e5	2.563e5	0.778	0.87	0.89	2830.6	YES	NO	bb	bb	86.986
20	13468-PECDF	27.12	4.330e5	2.793e5	1.246	1.55	1.55	8667.1	YES	NO	bb	bb	43.165
21	1289-TCDD	27.00	4.746e4	5.810e4	0.909	0.82	0.77	750.9	YES	NO	bb	bb	9.160
22	2378-TCDD	26.40	5.869e4	7.692e4	1.149	0.76	0.77	905.7	YES	NO	bb	bb	9.310
23	Total-tetradioxins	26.07	9.232e4	1.193e5	1.024	0.77	0.77	1024.4	YES	NO	bb	bb	16.291
24	Total-tetradioxins	25.59	3.296e4	4.192e4	1.024	0.79	0.77	528.9	YES	NO	bd	bb	5.765
25	Total-tetradioxins	25.25	1.381e2	1.569e2	1.024	0.88	0.77	3.6	NO	NO	bb	bb	0.023
26	Total-tetradioxins	24.73	2.745e3	3.352e3	1.024	0.82	0.77	29.5	YES	NO	bb	bb	0.469
27	1368-TCDD	23.53	6.588e4	8.403e4	1.015	0.78	0.77	1082.4	YES	NO	bb	bb	11.642
28	Total-pentadioxins	29.91	8.638e2	5.174e2	1.502	1.67	1.55	8.2	YES	NO	bb	bb	0.097
29	12479-PECDD	28.79	4.579e5	3.023e5	2.301	1.51	1.55	2457.2	YES	NO	bb	bb	34.778
30	Total-hexadioxins	34.77	6.642e2	5.557e2	1.005	1.20	1.24	4.9	YES	NO	bd	bb	0.105
31	124679-HXCDD	34.00	3.107e5	2.517e5	1.115	1.23	1.24	2052.1	YES	NO	bb	bb	44.027
32	12389-PECDD	31.92	3.446e5	2.250e5	1.184	1.53	1.55	2859.4	YES	NO	bb	bb	50.665
33	12378-PeCDD	31.52	2.875e5	1.938e5	1.022	1.48	1.55	2444.3	YES	NO	bb	bb	49.587
34	123789-HxCDD	36.51	3.238e5	2.668e5	0.907	1.21	1.24	2259.7	YES	NO	bb	bb	56.162
35	123678-HxCDD	36.12	3.243e5	2.616e5	1.001	1.24	1.24	2223.1	YES	NO	db	db	49.888
36	123478-HxCDD	36.01	3.039e5	2.468e5	0.996	1.23	1.24	2152.2	YES	NO	bd	bd	48.302
37	1234678-HpCDD	40.26	2.452e5	2.357e5	1.039	1.04	1.05	1752.5	YES	NO	bb	bb	48.732

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	1234679-HPCDD	39.21	2.747e5	2.742e5	1.137	1.00	1.05	2090.9	YES	NO	bb	bb	50.830
39	OCDD	45.00	3.080e5	3.583e5	0.920	0.86	0.89	2649.0	YES	NO	bb	bb	102.182

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	24.45	9.943e6					8.2	YES		bb		
2	FUNCTION1 PFK	22.41	1.987e6					1.8	NO		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	32.56	7.871e3					1.3	NO		bb		0.000
2	FUNCTION2 PFK	31.87	3.713e3					0.9	NO		bb		0.000
3	FUNCTION2 PFK	31.40	4.750e3					0.9	NO		bb		0.000
4	FUNCTION2 PFK	30.62	1.703e4					1.9	NO		bb		0.000
5	FUNCTION2 PFK	29.64	4.111e3					0.9	NO		bb		0.000
6	FUNCTION2 PFK	28.30	2.145e4					1.6	NO		bb		0.000
7	FUNCTION2 PFK	28.20	7.318e3					1.3	NO		bb		0.000

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PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	32.90	3.086e3					0.7	NO		bd		0.000
2	FUNCTION3 PFK	34.56	1.466e4					1.6	NO		bb		0.000
3	FUNCTION3 PFK	34.48	7.245e3					1.1	NO		db		0.000
4	FUNCTION3 PFK	34.45	7.875e3					0.9	NO		bd		0.000
5	FUNCTION3 PFK	34.23	3.215e4					2.3	NO		bb		0.000
6	FUNCTION3 PFK	34.02	3.659e4					1.6	NO		db		0.000
7	FUNCTION3 PFK	33.91	1.406e4					1.5	NO		bd		0.000
8	FUNCTION3 PFK	33.82	2.944e4					2.3	NO		db		0.000
9	FUNCTION3 PFK	33.71	1.894e4					1.3	NO		dd		0.000
10	FUNCTION3 PFK	33.63	2.865e4					2.4	NO		dd		0.000
11	FUNCTION3 PFK	33.58	1.357e4					1.5	NO		bd		0.000
12	FUNCTION3 PFK	33.44	1.612e4					2.0	NO		bb		0.000
13	FUNCTION3 PFK	33.38	2.118e4					2.0	NO		bb		0.000
14	FUNCTION3 PFK	33.16	7.251e3					1.2	NO		db		0.000
15	FUNCTION3 PFK	33.13	1.931e4					1.9	NO		dd		0.000
16	FUNCTION3 PFK	33.04	6.861e4					3.5	YES		bd		0.000
17	FUNCTION3 PFK	32.98	3.016e4					1.4	NO		db		0.000
18	FUNCTION3 PFK	36.28	2.389e4					2.1	NO		bb		0.000
19	FUNCTION3 PFK	36.08	1.303e4					1.0	NO		db		0.000
20	FUNCTION3 PFK	35.98	1.981e4					1.9	NO		bd		0.000
21	FUNCTION3 PFK	35.88	3.122e4					2.0	NO		db		0.000
22	FUNCTION3 PFK	35.83	2.160e4					2.1	NO		dd		0.000
23	FUNCTION3 PFK	35.78	3.035e4					2.5	NO		bd		0.000
24	FUNCTION3 PFK	35.70	2.528e4					1.7	NO		db		0.000
25	FUNCTION3 PFK	35.64	2.297e4					1.8	NO		dd		0.000
26	FUNCTION3 PFK	35.57	1.748e4					1.1	NO		bd		0.000
27	FUNCTION3 PFK	35.46	1.192e4					1.6	NO		bb		0.000
28	FUNCTION3 PFK	35.39	9.776e3					1.3	NO		db		0.000
29	FUNCTION3 PFK	35.36	1.681e4					1.9	NO		bd		0.000
30	FUNCTION3 PFK	35.11	1.070e4					1.3	NO		db		0.000
31	FUNCTION3 PFK	35.05	4.570e3					0.8	NO		bd		0.000
32	FUNCTION3 PFK	35.00	1.299e4					1.6	NO		db		0.000
33	FUNCTION3 PFK	34.91	2.324e4					1.9	NO		bd		0.000
34	FUNCTION3 PFK	37.65	1.673e4					1.1	NO		bb		0.000
35	FUNCTION3 PFK	37.60	1.656e4					0.9	NO		bb		0.000
36	FUNCTION3 PFK	37.19	1.063e4					1.2	NO		bb		0.000
37	FUNCTION3 PFK	36.97	1.295e3					0.4	NO		bb		0.000

ID: CS3X3, Name: 23030633, Date: 07-Mar-2023, Time: 12:33:50, Conditions: AUTOSPEC01, User: pk

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION3 PFK	36.85	1.392e4					1.2	NO		db		0.000
39	FUNCTION3 PFK	36.80	1.128e4					1.2	NO		bd		0.000
40	FUNCTION3 PFK	36.74	1.247e4					1.8	NO		bb		0.000
41	FUNCTION3 PFK	36.69	3.112e3					0.7	NO		bb		0.000
42	FUNCTION3 PFK	36.63	1.814e4					2.1	NO		db		0.000
43	FUNCTION3 PFK	36.57	1.500e4					1.7	NO		bd		0.000
44	FUNCTION3 PFK	36.48	1.733e4					1.8	NO		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	42.27	2.270e5					8.8	YES		db		
2	FUNCTION4 PFK	41.53	2.630e6					25.1	YES		dd		
3	FUNCTION4 PFK	41.39	3.011e7					27.0	YES		bd		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	25.58	1.874e2					4.1	YES		bb		0.000
2	FUNCTION1 HXCD...	21.49	2.209e2					3.1	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.11	3.432e2					6.7	YES		db		0.000
2	FUNCTION2 HPCD...	31.01	1.283e2					2.8	NO		bd		0.000
3	FUNCTION2 HPCD...	30.20	8.223e1					1.7	NO		bb		0.000

ID: CS3X3, Name: 23030633, Date: 07-Mar-2023, Time: 12:33:50, Conditions: AUTOSPEC01, User: pk

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.11	2.636e2					5.2	YES		db		0.000
2	FUNCTION3 OCDPE	35.99	2.069e2					4.6	YES		bd		0.000
3	FUNCTION3 OCDPE	34.20	7.690e1					2.3	NO		bb		0.000
4	FUNCTION3 OCDPE	33.88	1.067e2					2.5	NO		db		0.000
5	FUNCTION3 OCDPE	33.79	1.734e2					3.1	YES		dd		0.000
6	FUNCTION3 OCDPE	33.71	8.017e1					2.7	NO		dd		0.000
7	FUNCTION3 OCDPE	33.62	1.200e2					2.7	NO		bd		0.000
8	FUNCTION3 OCDPE	33.31	7.149e1					1.3	NO		bb		0.000
9	FUNCTION3 OCDPE	36.57	7.336e1					2.3	NO		db		0.000
10	FUNCTION3 OCDPE	36.50	2.679e2					6.2	YES		dd		0.000
11	FUNCTION3 OCDPE	36.38	7.161e1					2.1	NO		bd		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.57	1.331e2					1.9	NO		bb		0.000
2	FUNCTION4 NCDPE	39.67	8.975e1					1.5	NO		bb		0.000
3	FUNCTION4 NCDPE	39.15	8.030e1					2.8	NO		bb		0.000
4	FUNCTION4 NCDPE	38.80	7.063e1					2.2	NO		bb		0.000

ETHERS6

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.48	8.868e1					4.1	YES		bb		0.000

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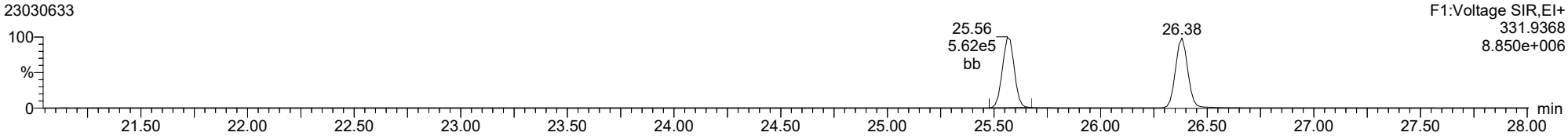

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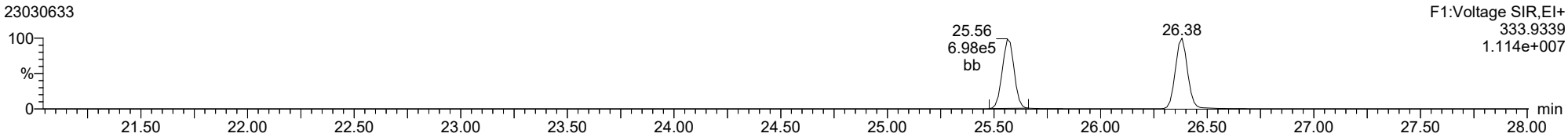

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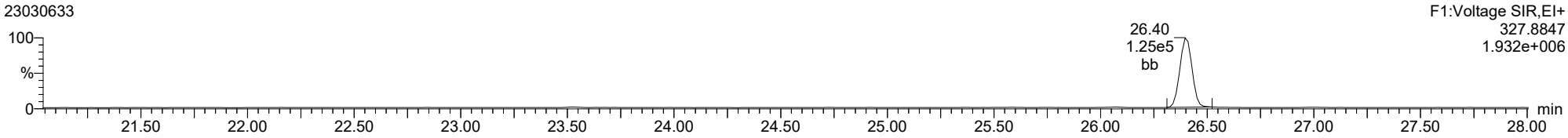

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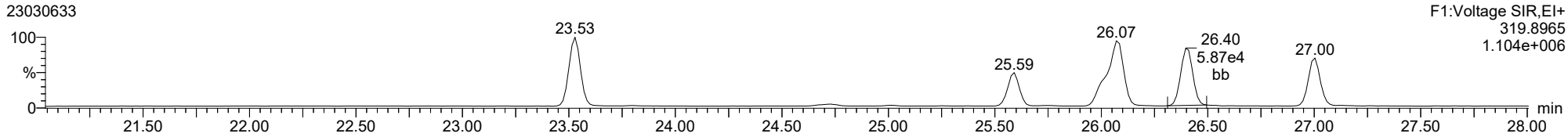

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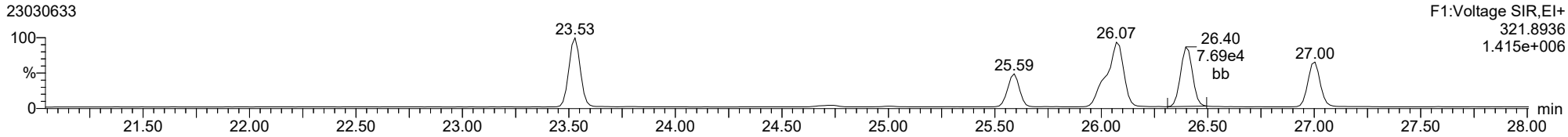

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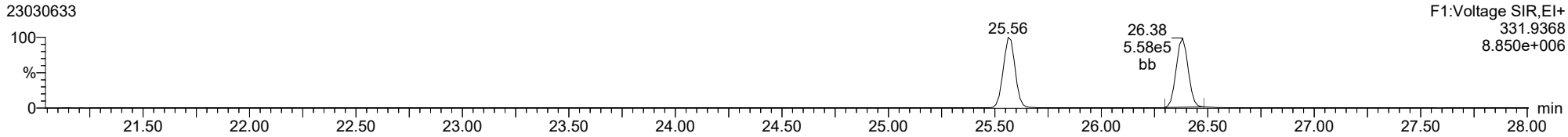

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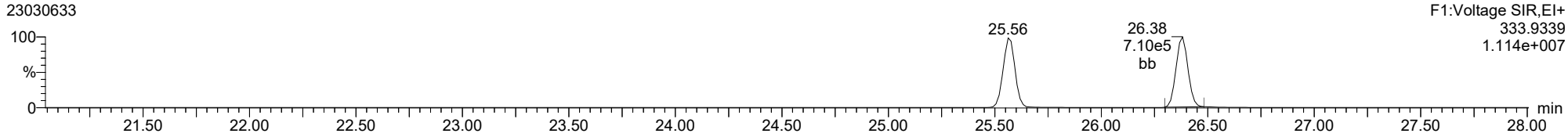

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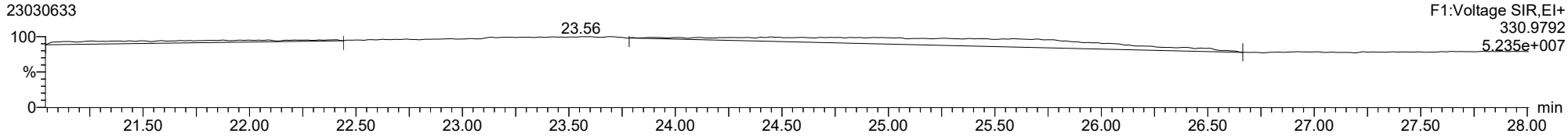

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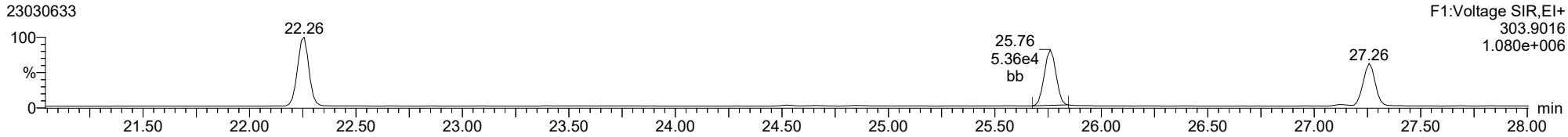

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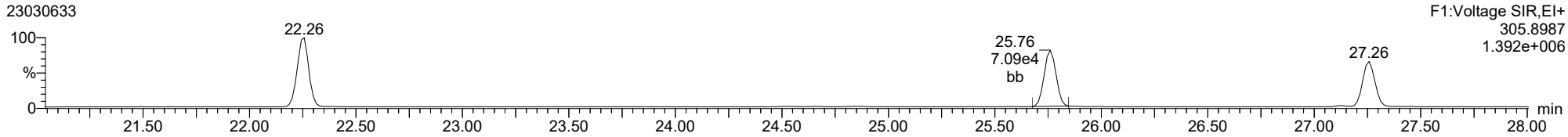

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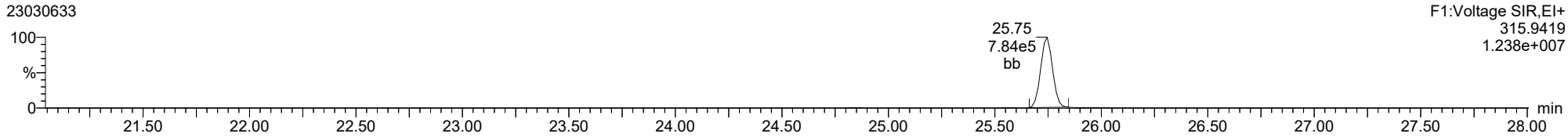

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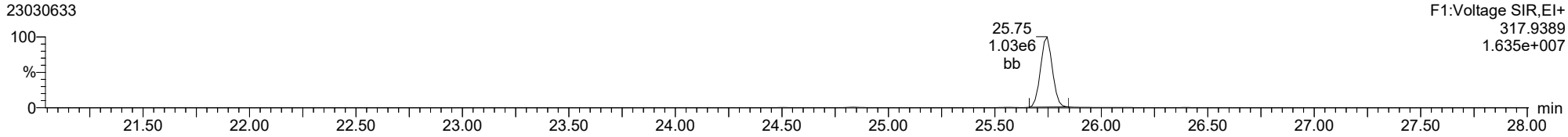

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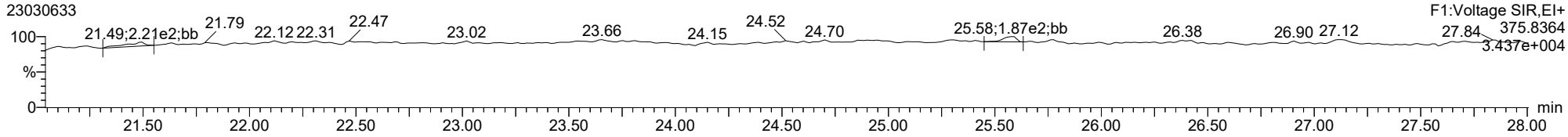

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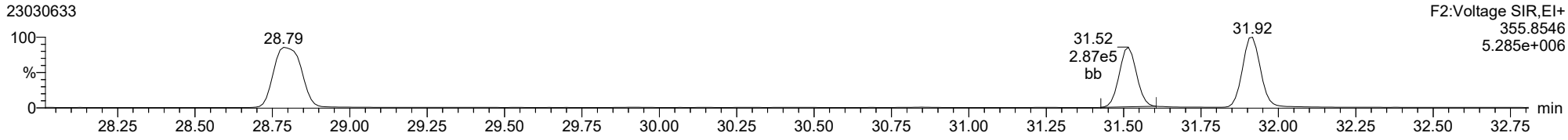

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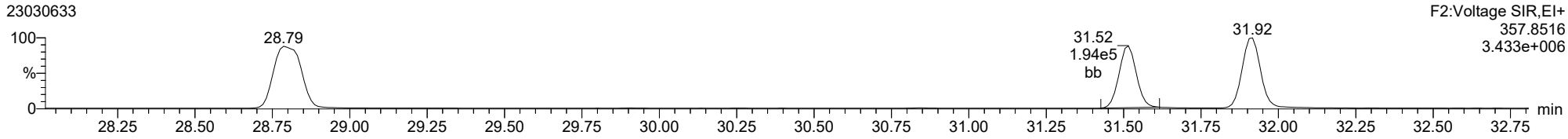

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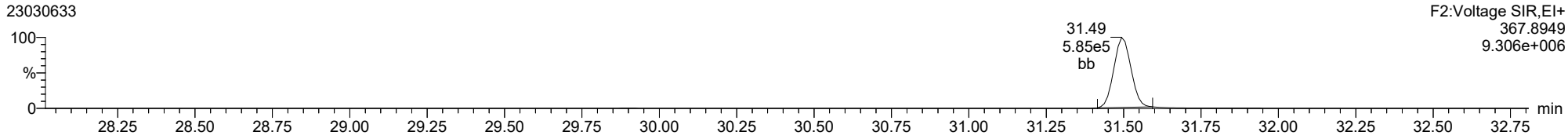

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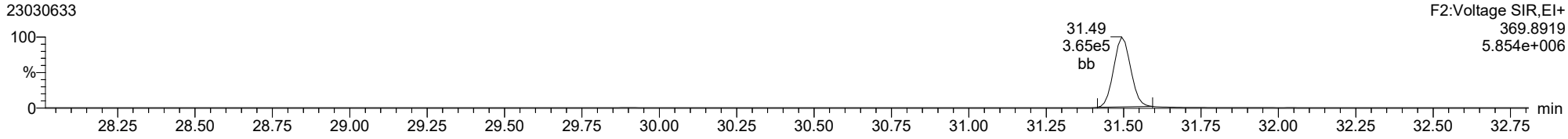

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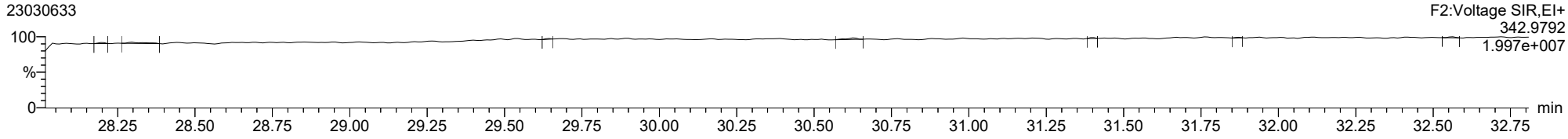

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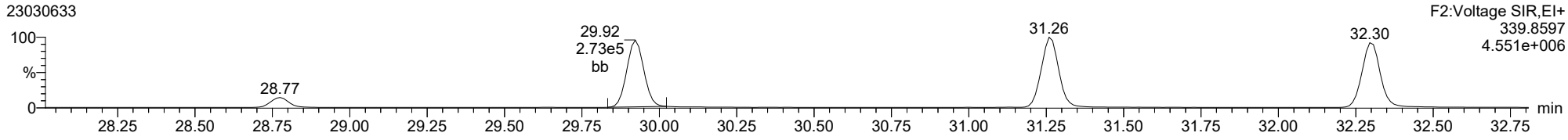

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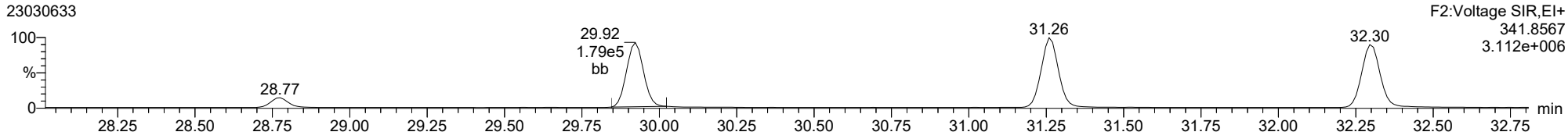

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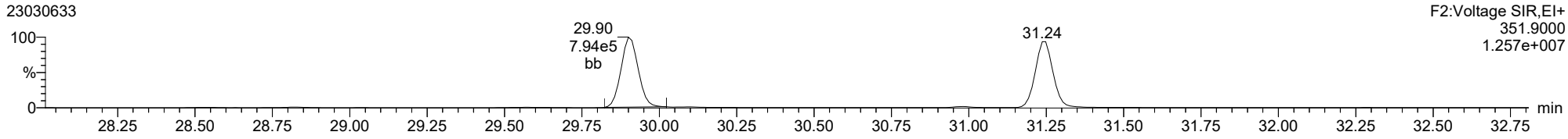

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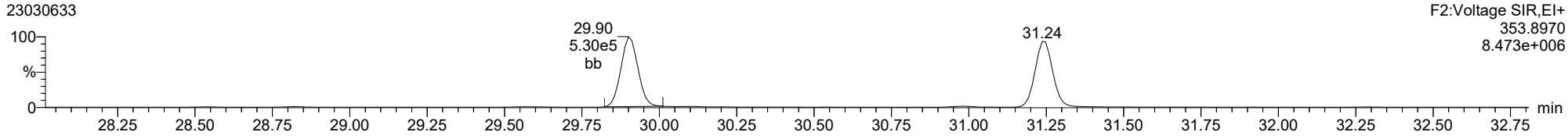
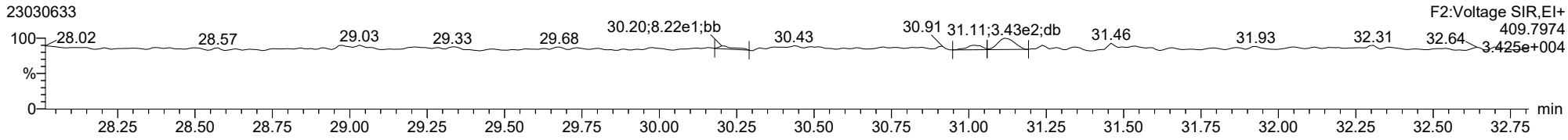


FUNCTION2 HPCDPE



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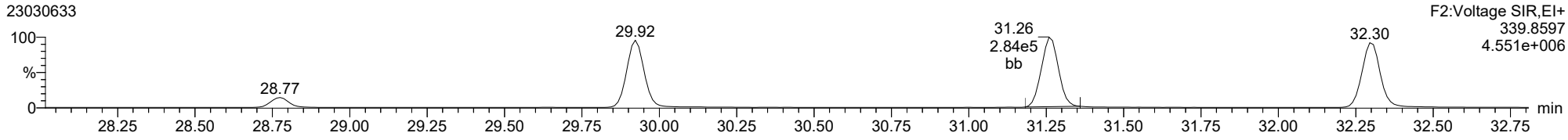

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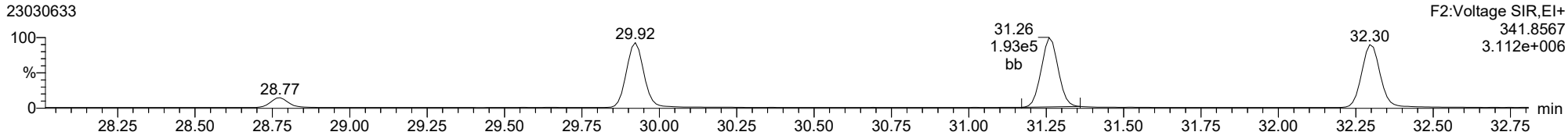

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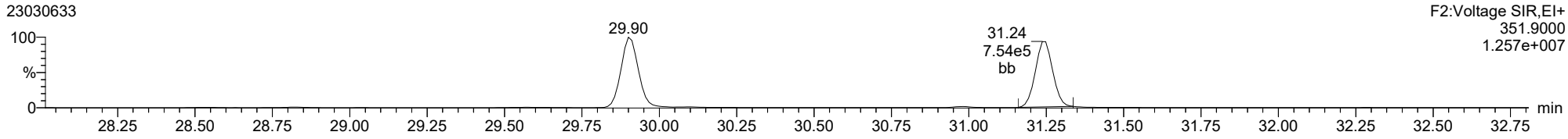

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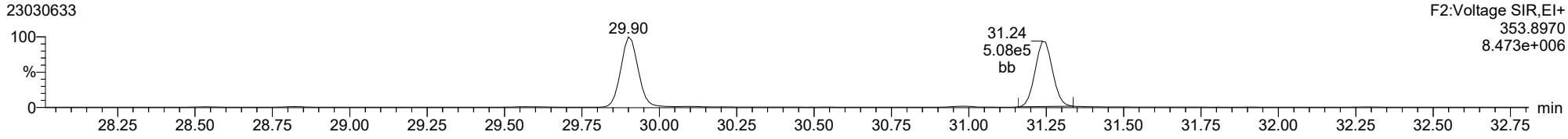

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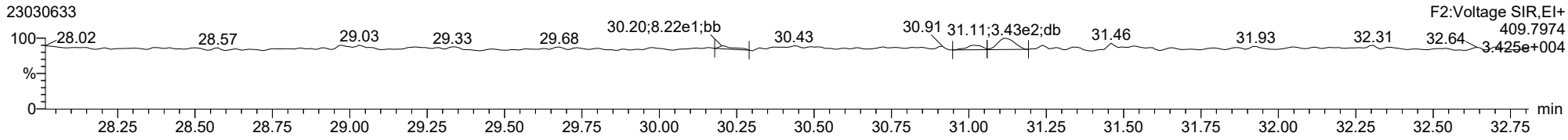

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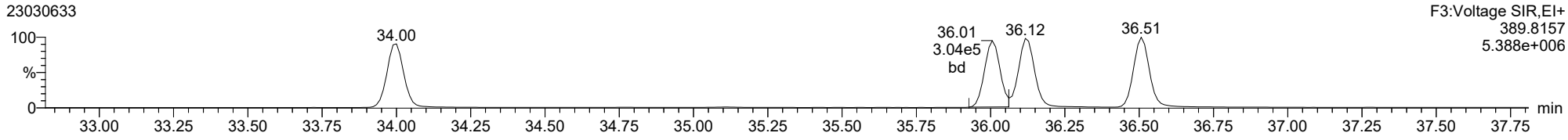
123478-HxCDD



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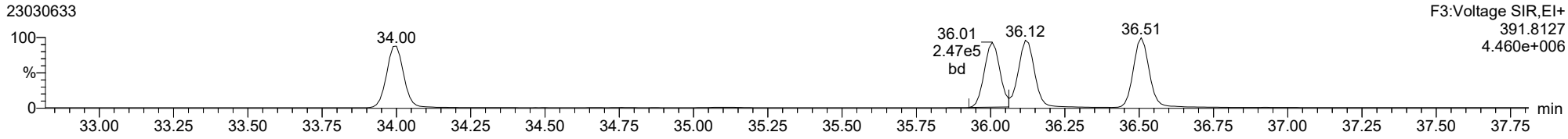

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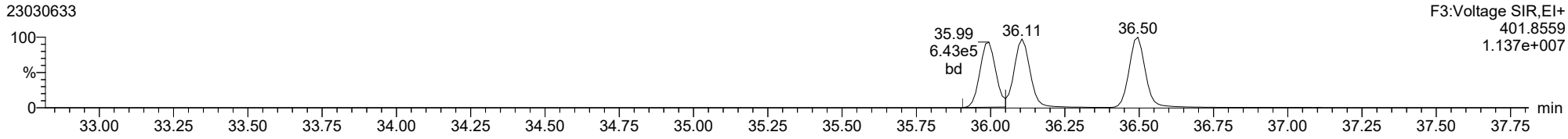

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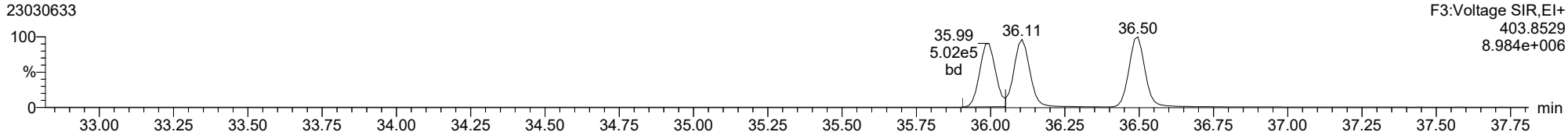

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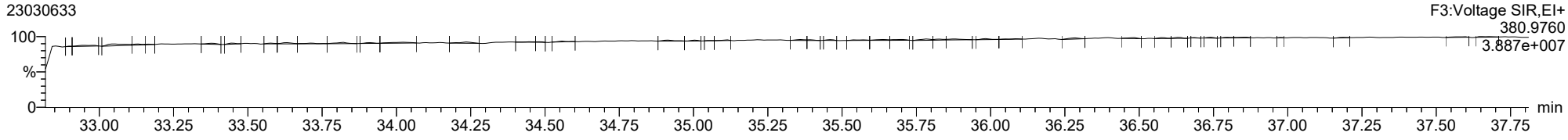

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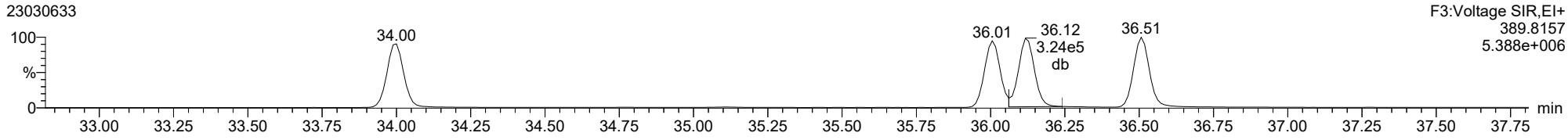

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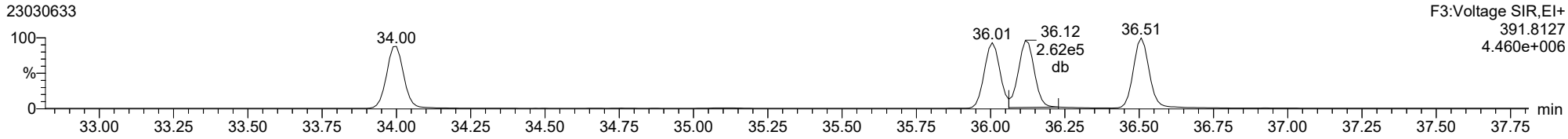

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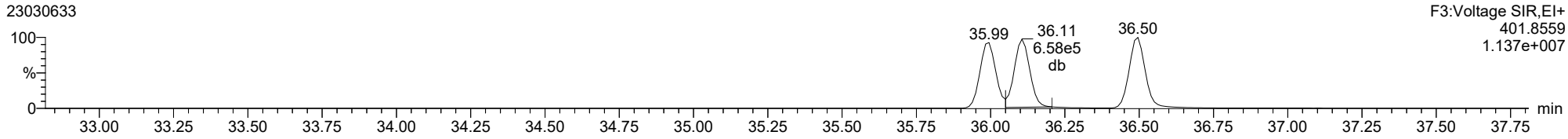

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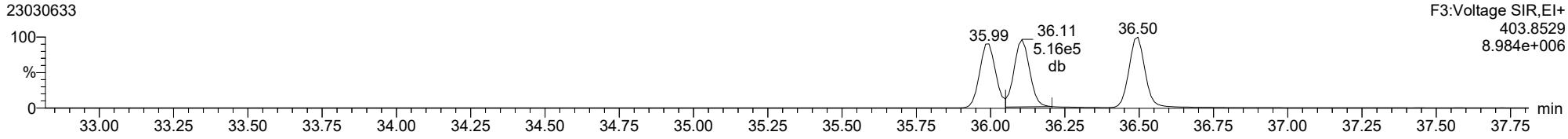

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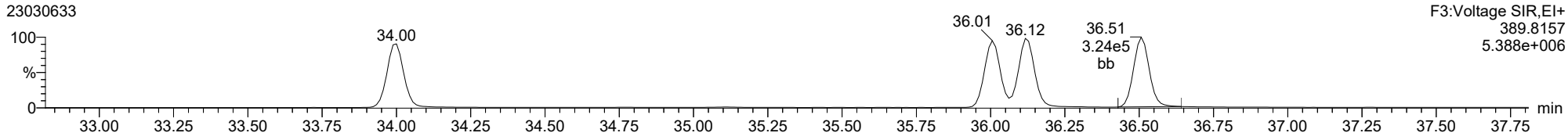

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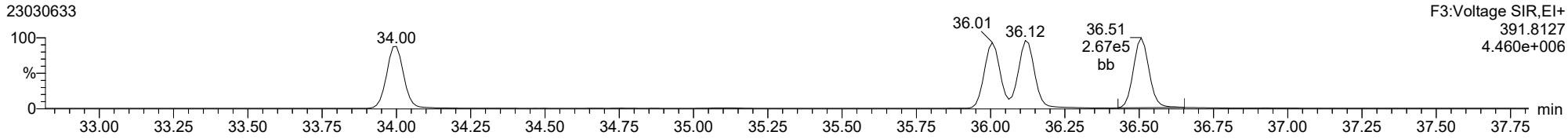

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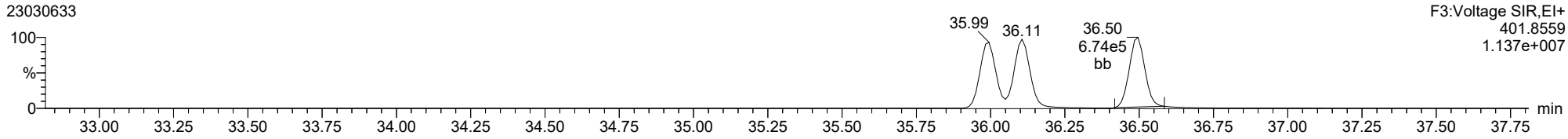

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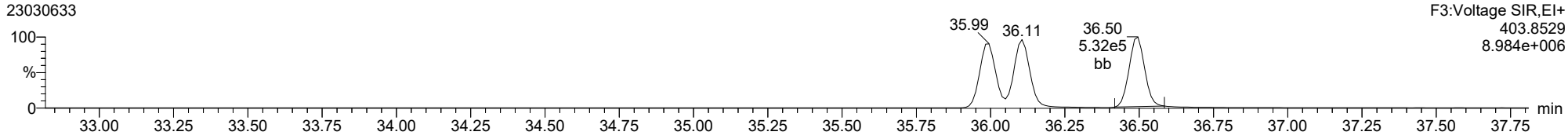

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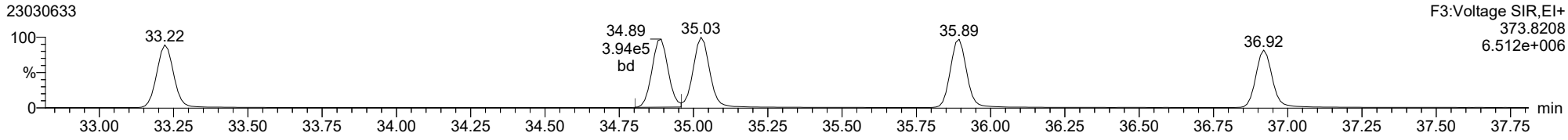

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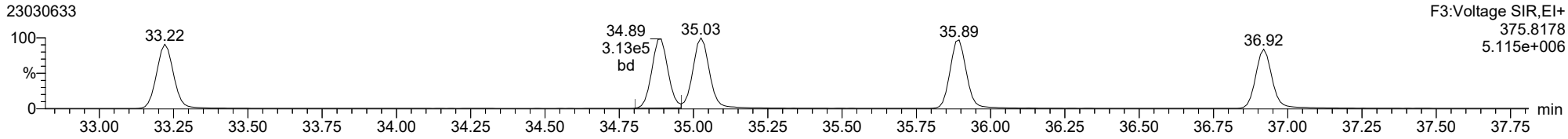

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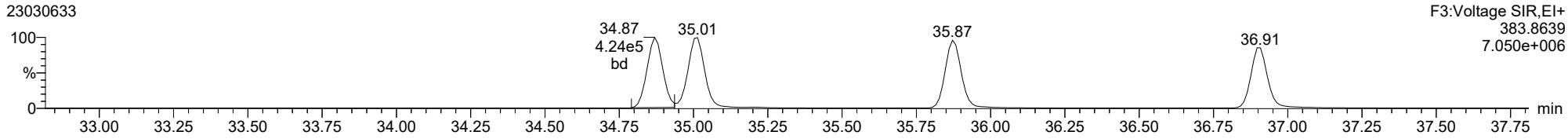

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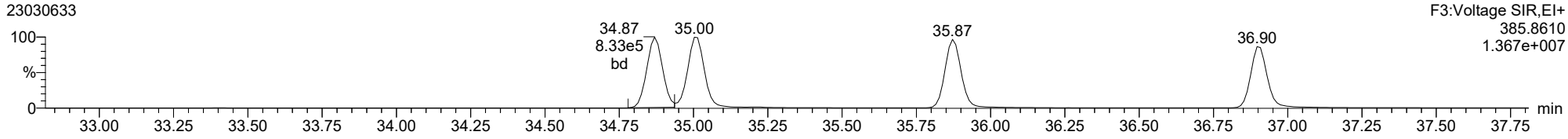

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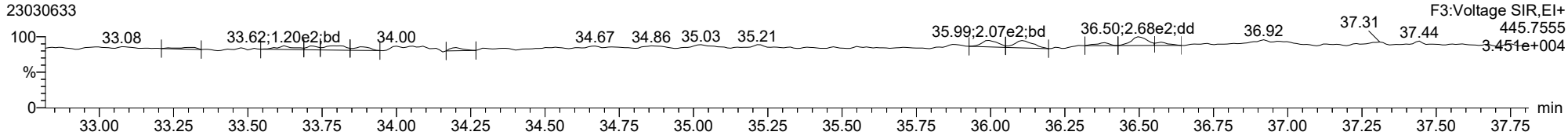

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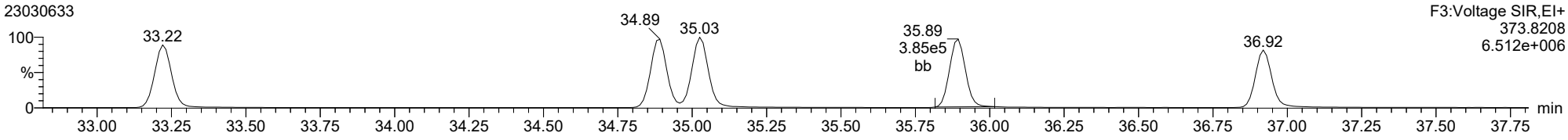

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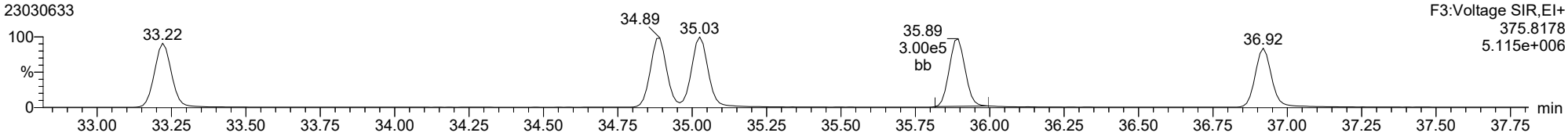

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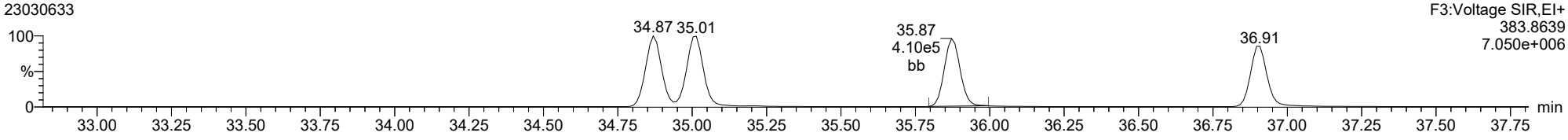

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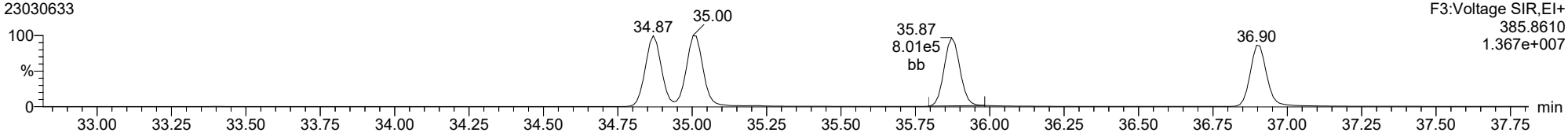

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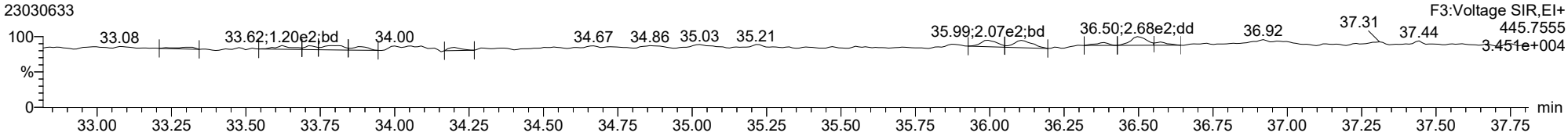

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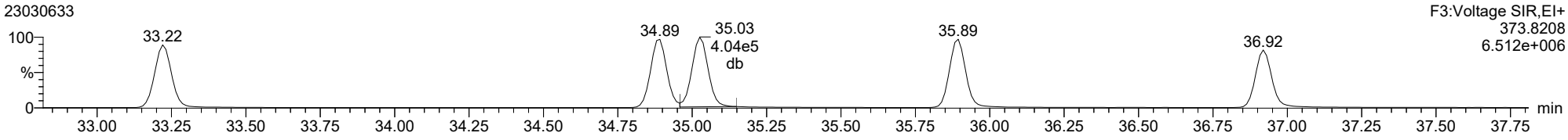

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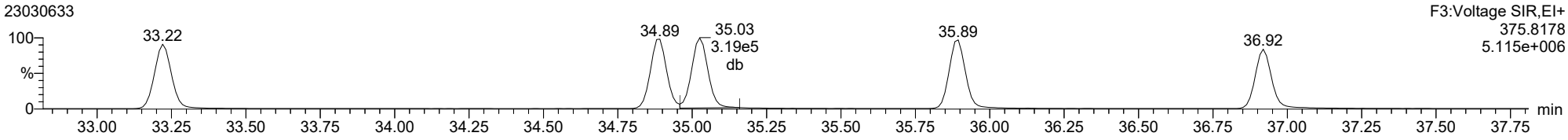

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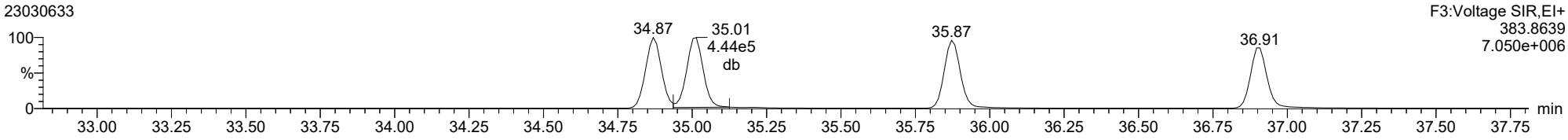

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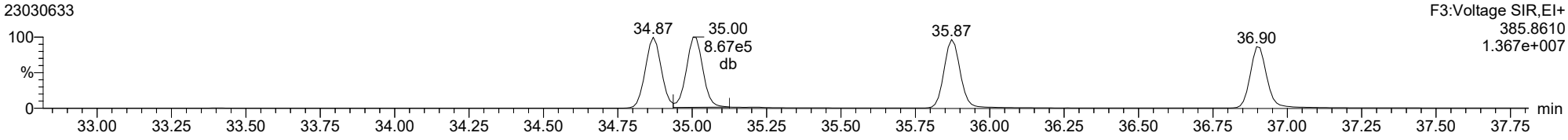

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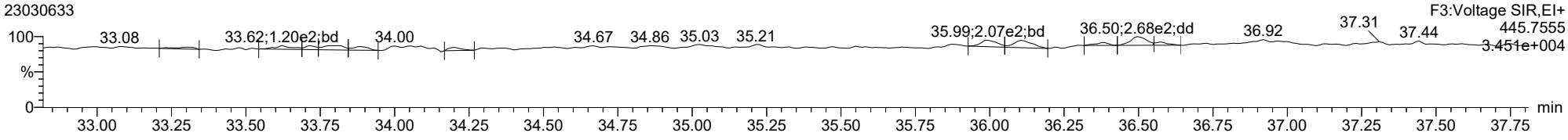

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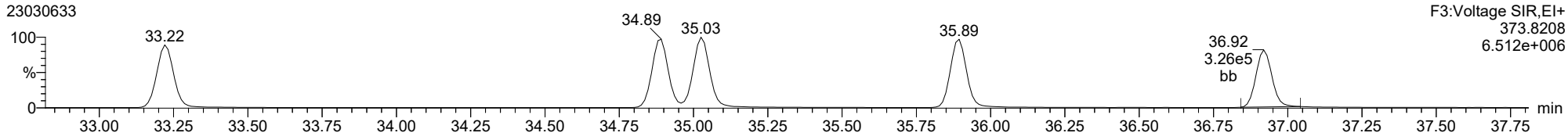

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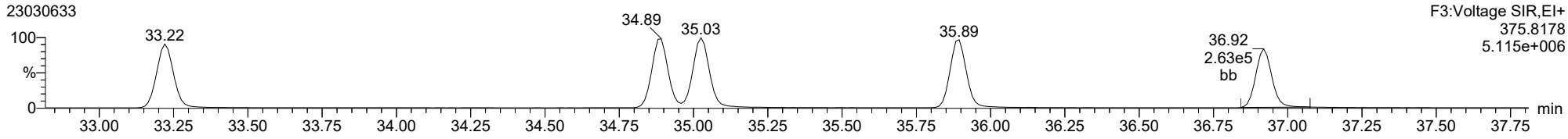

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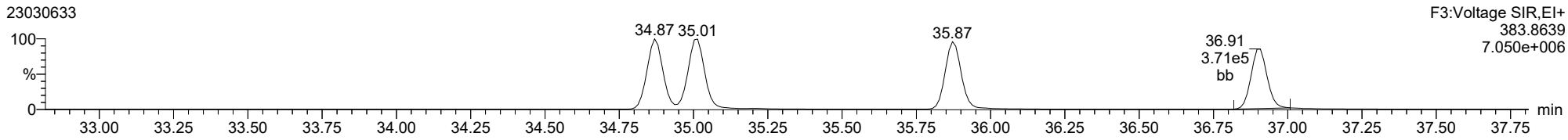

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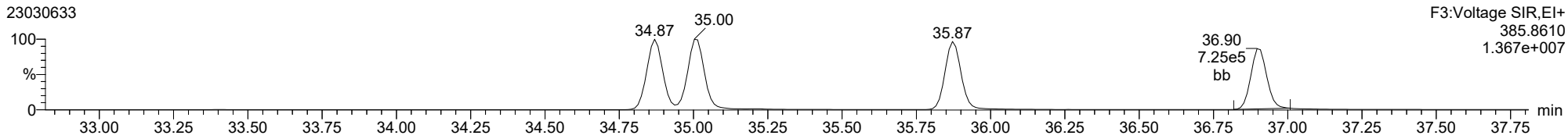

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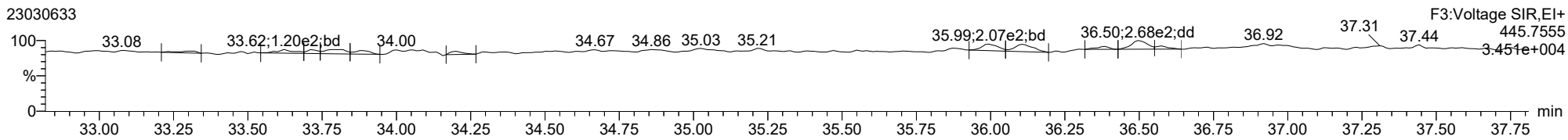

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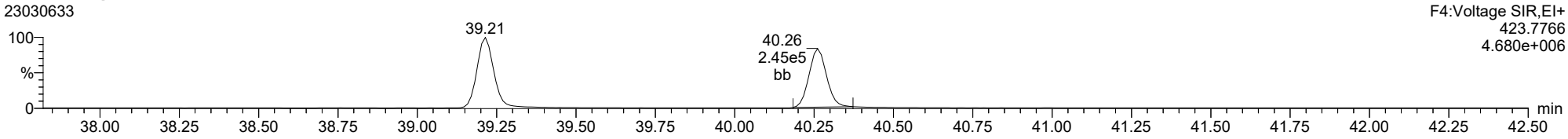

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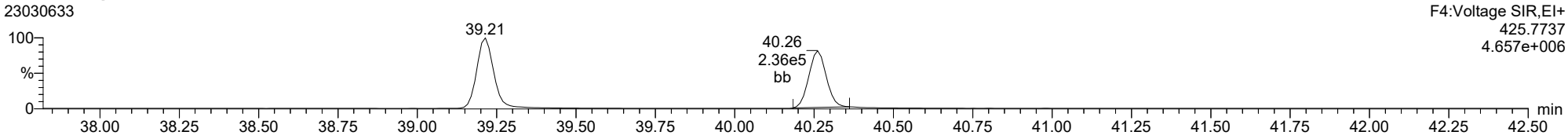

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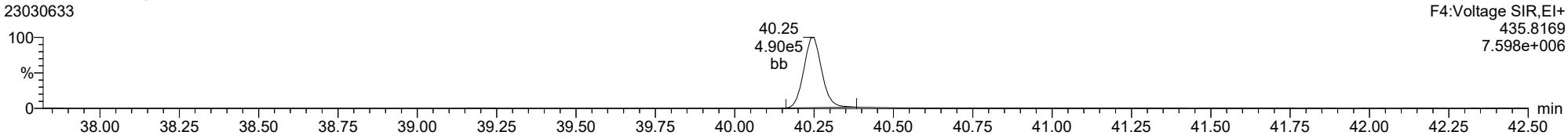

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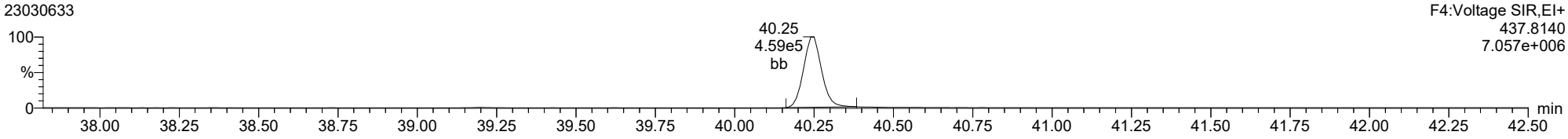

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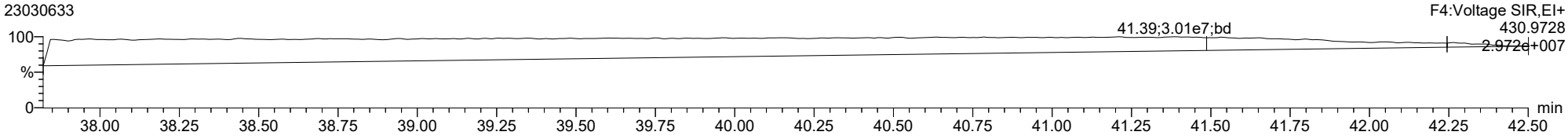

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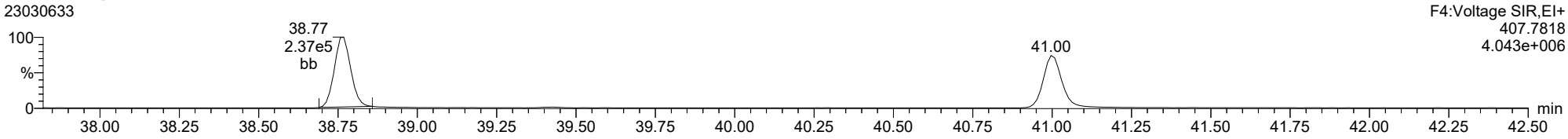

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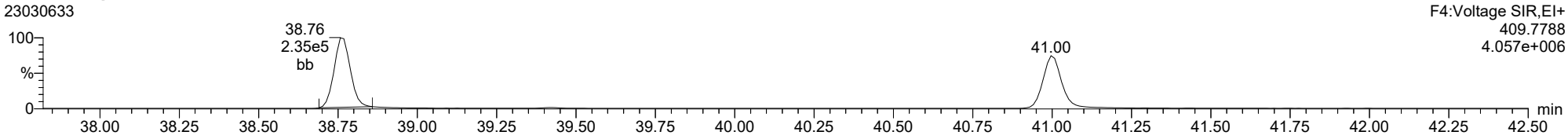

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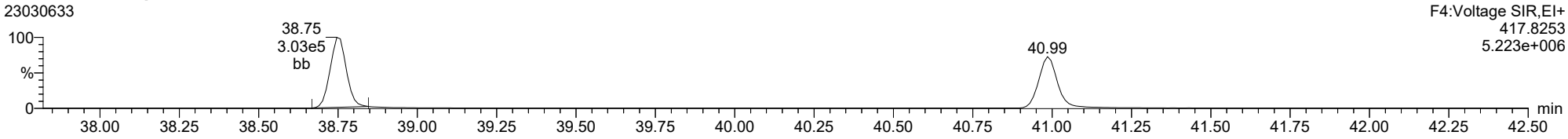

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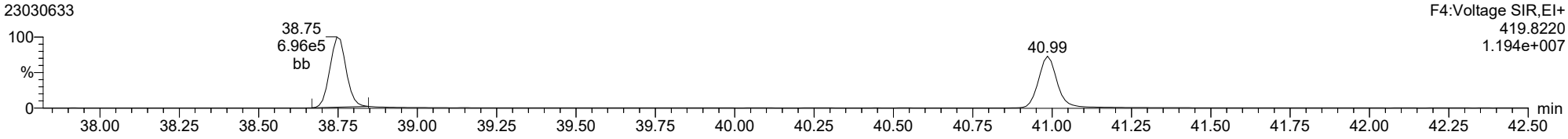

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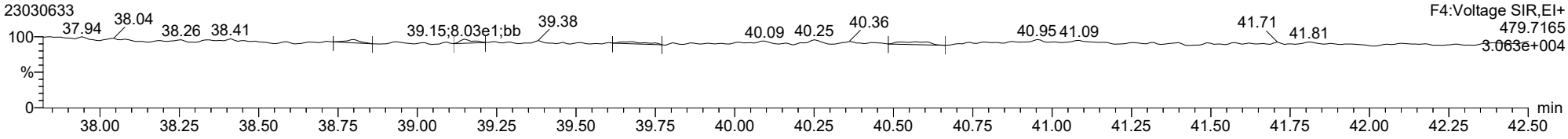

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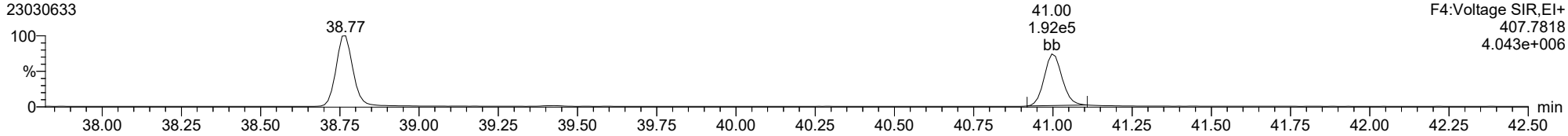

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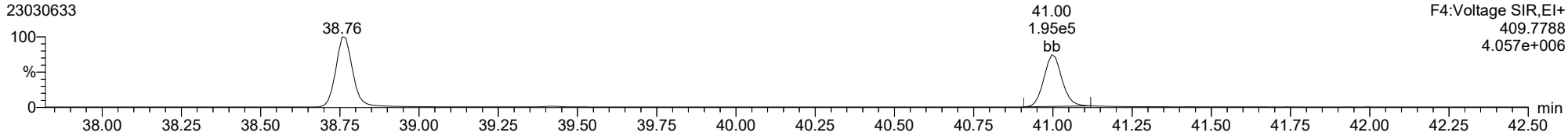

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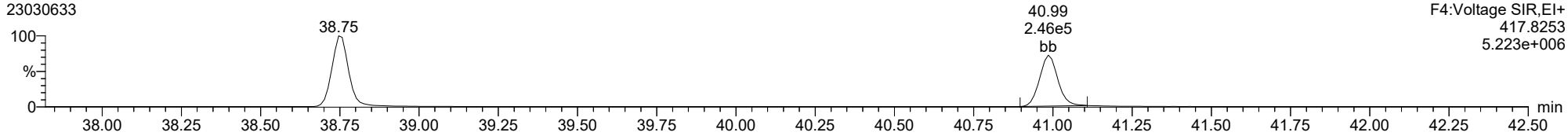

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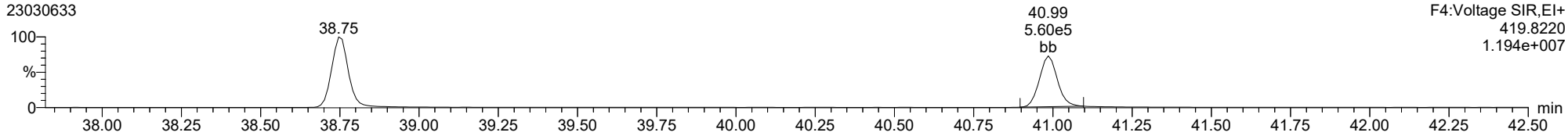

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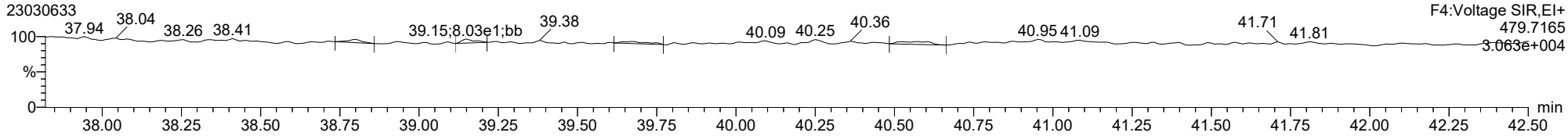

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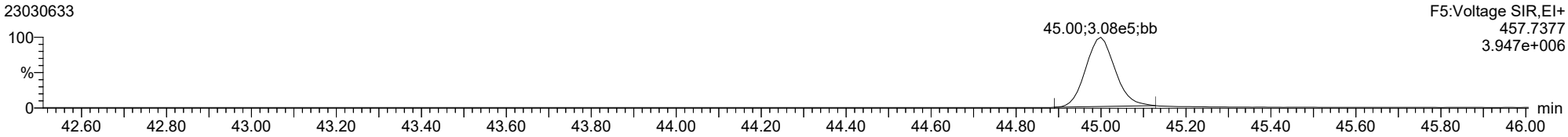

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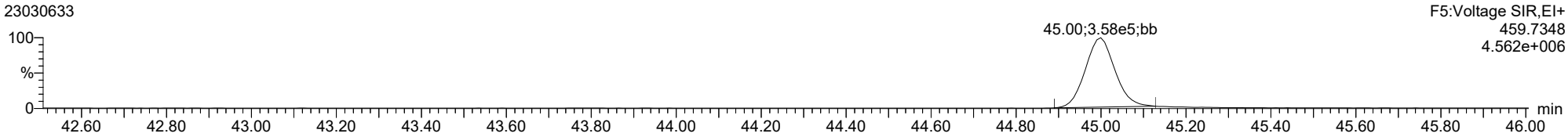

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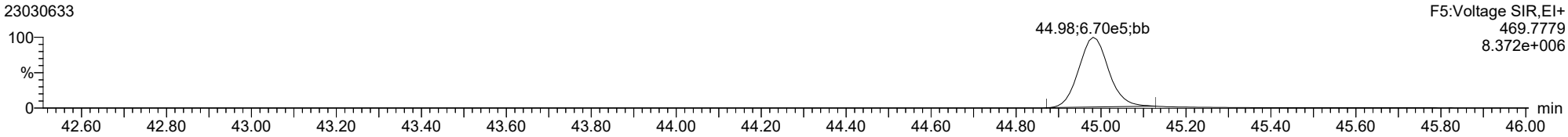

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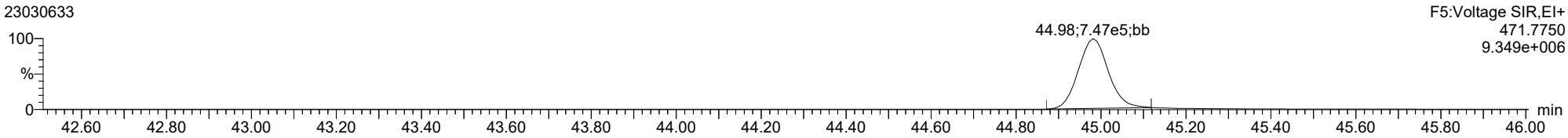

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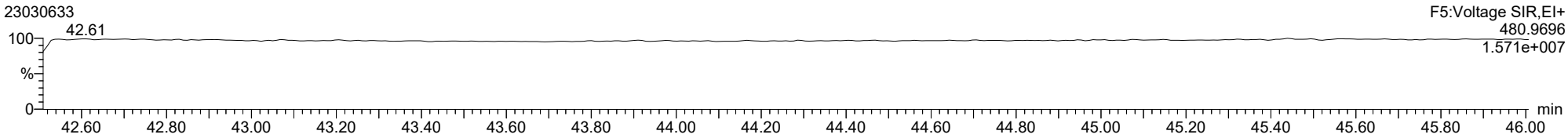

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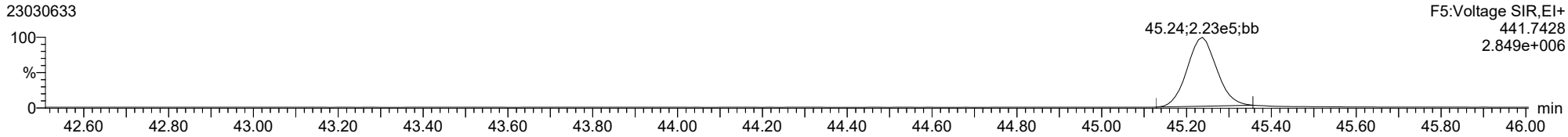
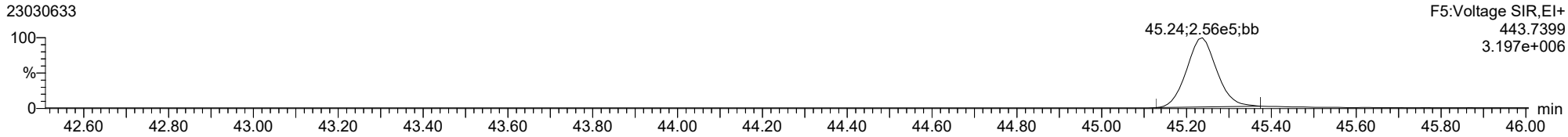
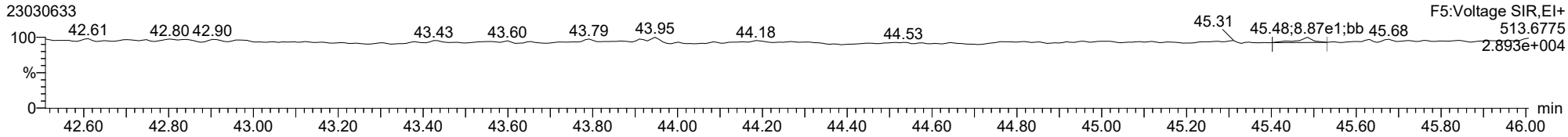
OCDF



OCDF

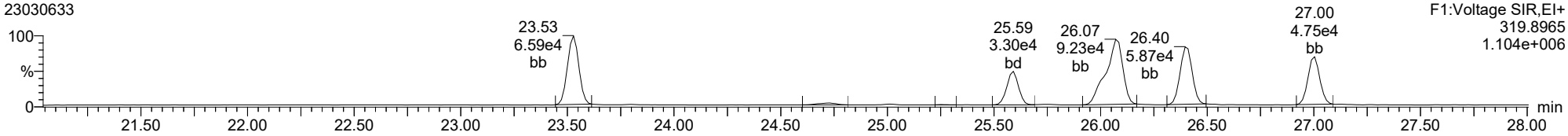


FUNCTION5 DCDPE

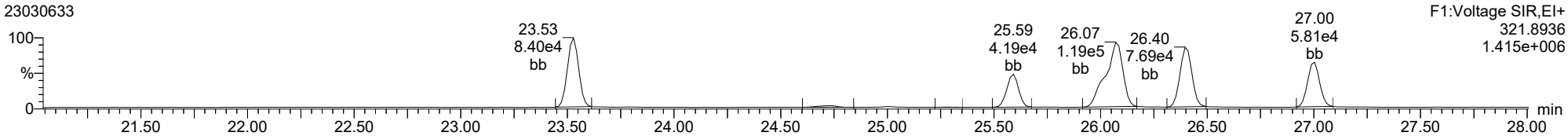


ID: CS3X3, Name: 23030633, Date: 07-Mar-2023, Time: 12:33:50, Conditions: AUTOSPEC01, User: pk

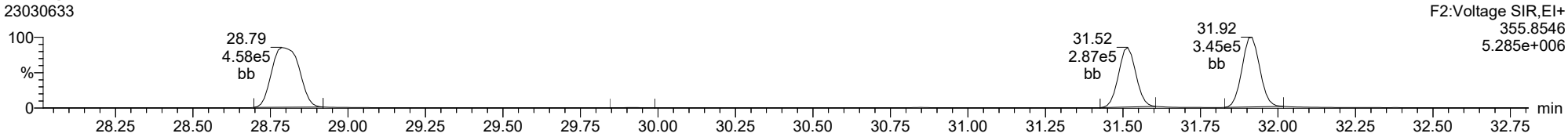
Total-tetradioxins



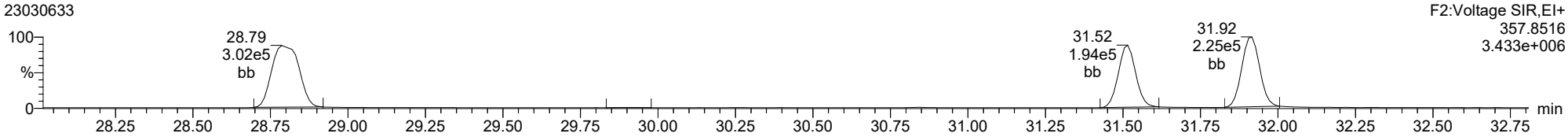
Total-tetradioxins



Total-pentadioxins

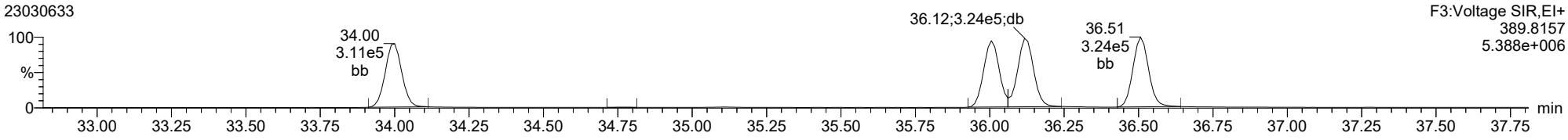


Total-pentadioxins



ID: CS3X3, Name: 23030633, Date: 07-Mar-2023, Time: 12:33:50, Conditions: AUTOSPEC01, User: pk

Total-hexadioxins



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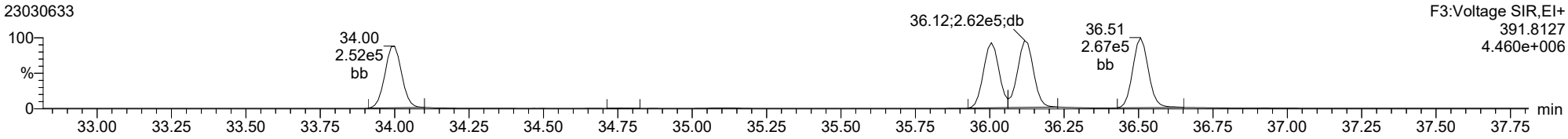
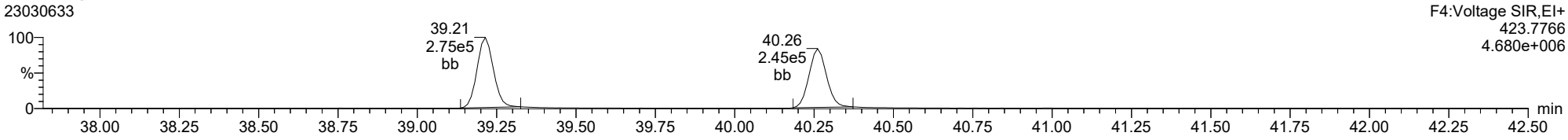
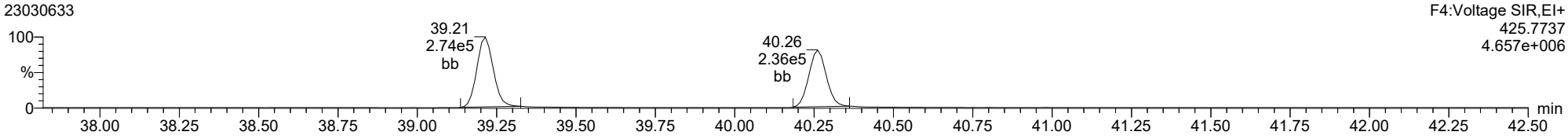


Total-heptadioxins

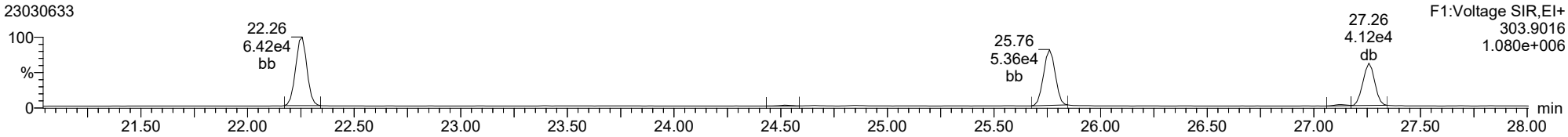


Total-heptadioxins

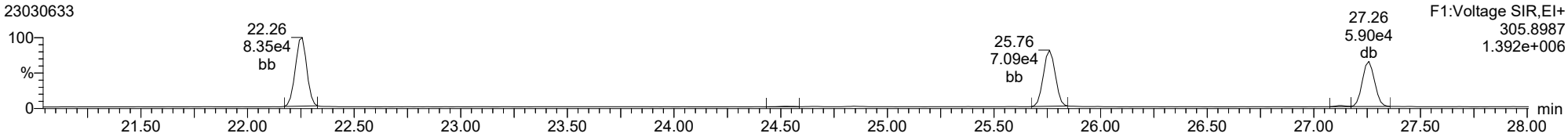


ID: CS3X3, Name: 23030633, Date: 07-Mar-2023, Time: 12:33:50, Conditions: AUTOSPEC01, User: pk

Total-tetrafurans



Total-tetrafurans



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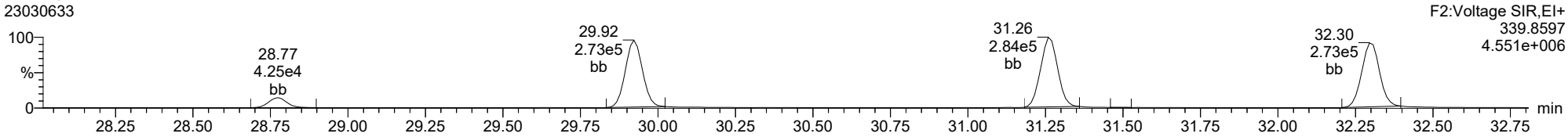
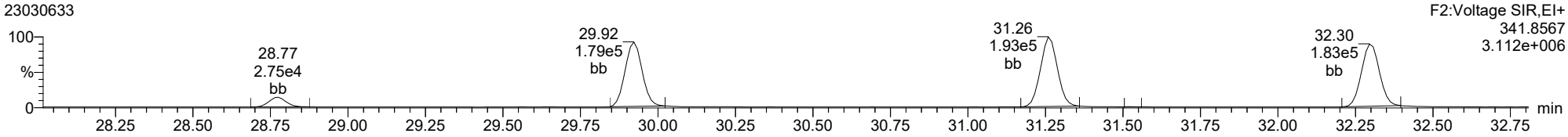
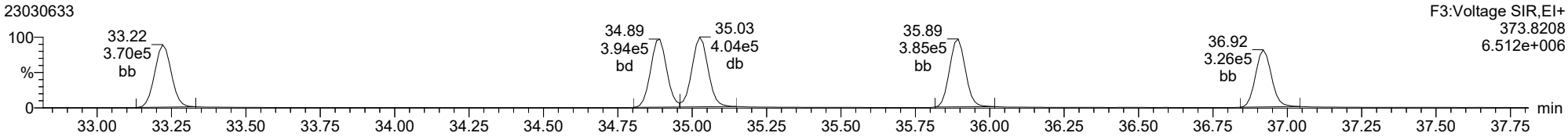


Total-pentafurans



ID: CS3X3, Name: 23030633, Date: 07-Mar-2023, Time: 12:33:50, Conditions: AUTOSPEC01, User: pk

Total-hexafurans



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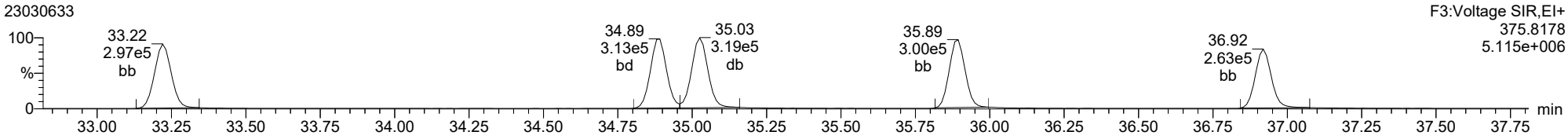
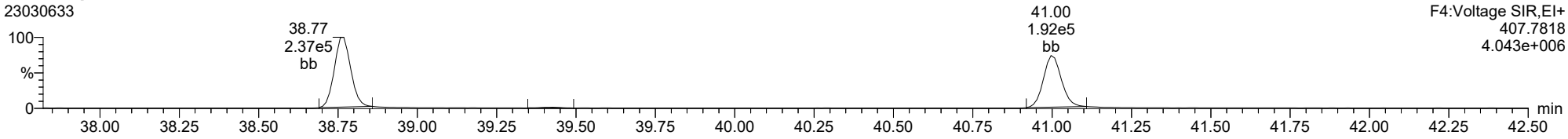
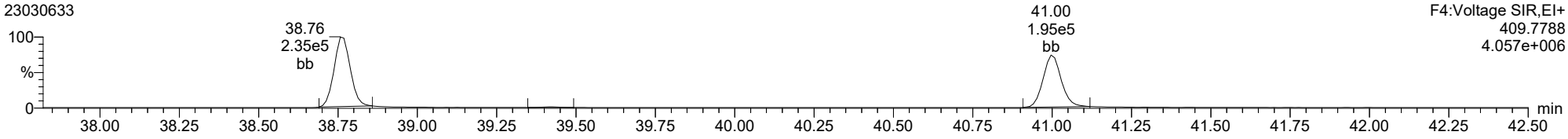


Total-heptafurans



Total-heptafurans



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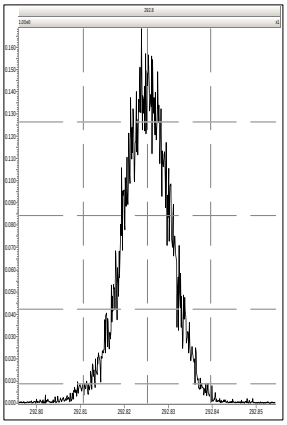
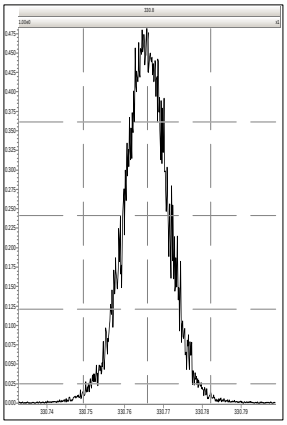
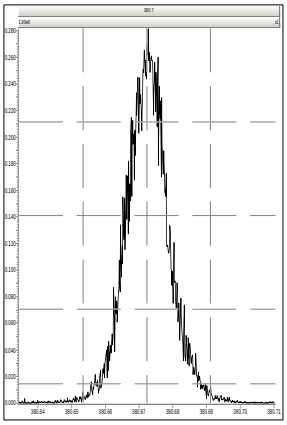
M 292.9824 R 11709



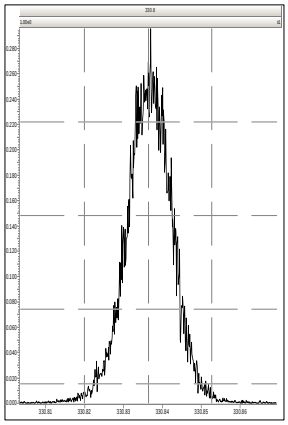
M 330.9792 R 12196



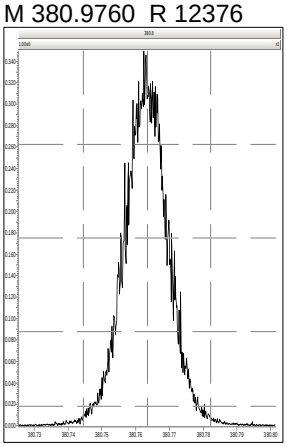
M 380.9760 R 12775



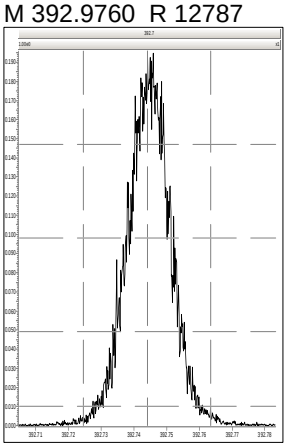
M 330.9792 R 12329



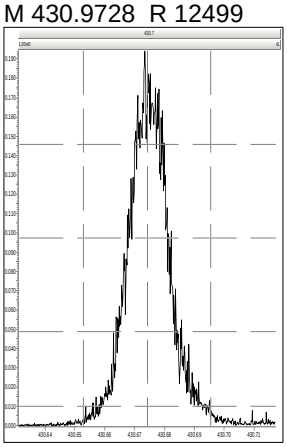
M 380.9760 R 12376



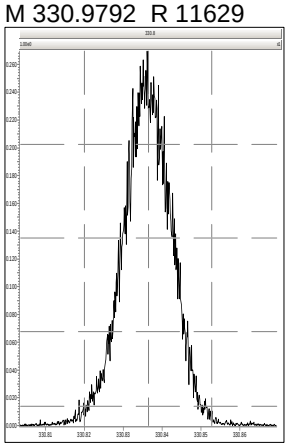
M 392.9760 R 12787



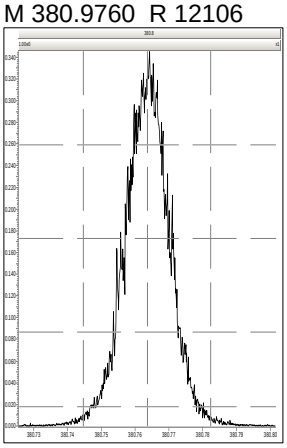
M 430.9728 R 12499



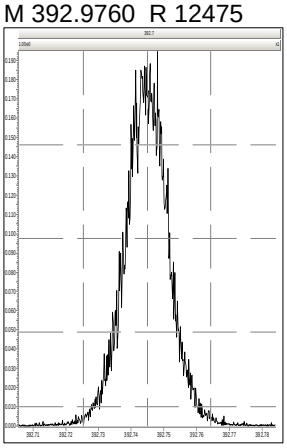
M 330.9792 R 11629



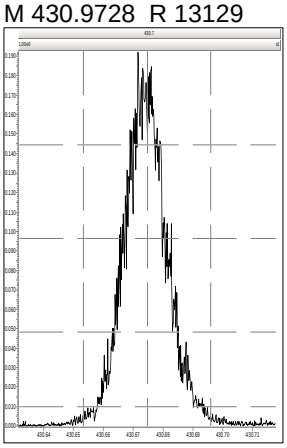
M 380.9760 R 12106



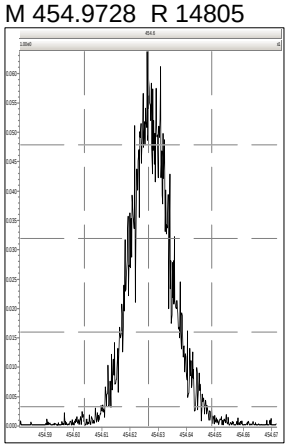
M 392.9760 R 12475



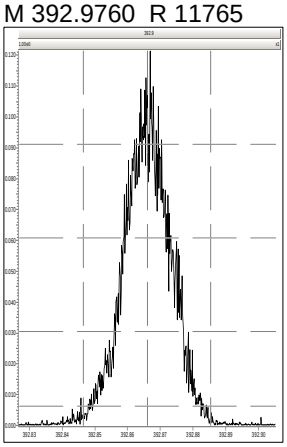
M 430.9728 R 13129



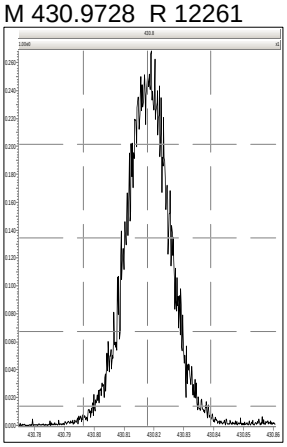
M 454.9728 R 14805



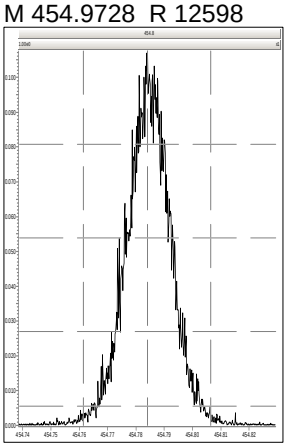
M 392.9760 R 11765



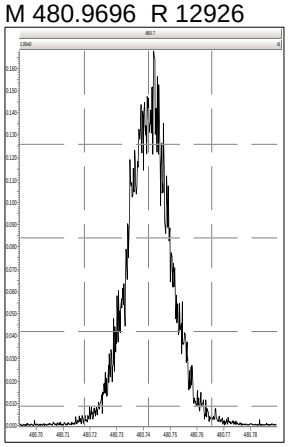
M 430.9728 R 12261



M 454.9728 R 12598



M 480.9696 R 12926



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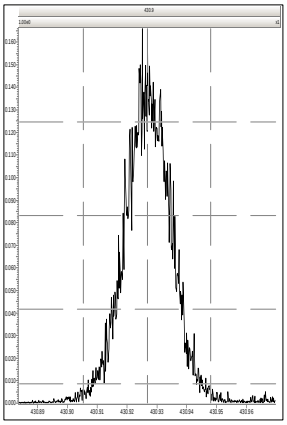
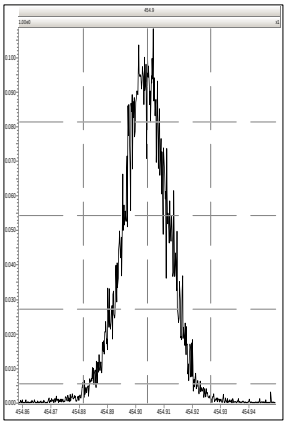
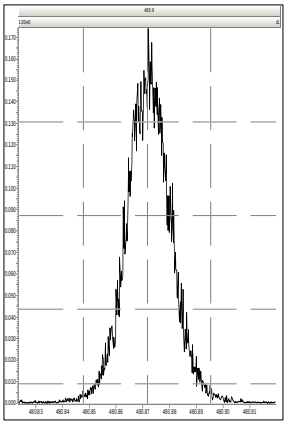
M 430.9728 R 12140



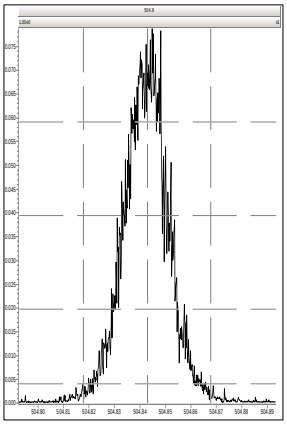
M 454.9728 R 12284



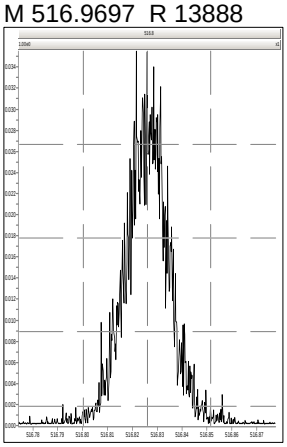
M 480.9696 R 12197

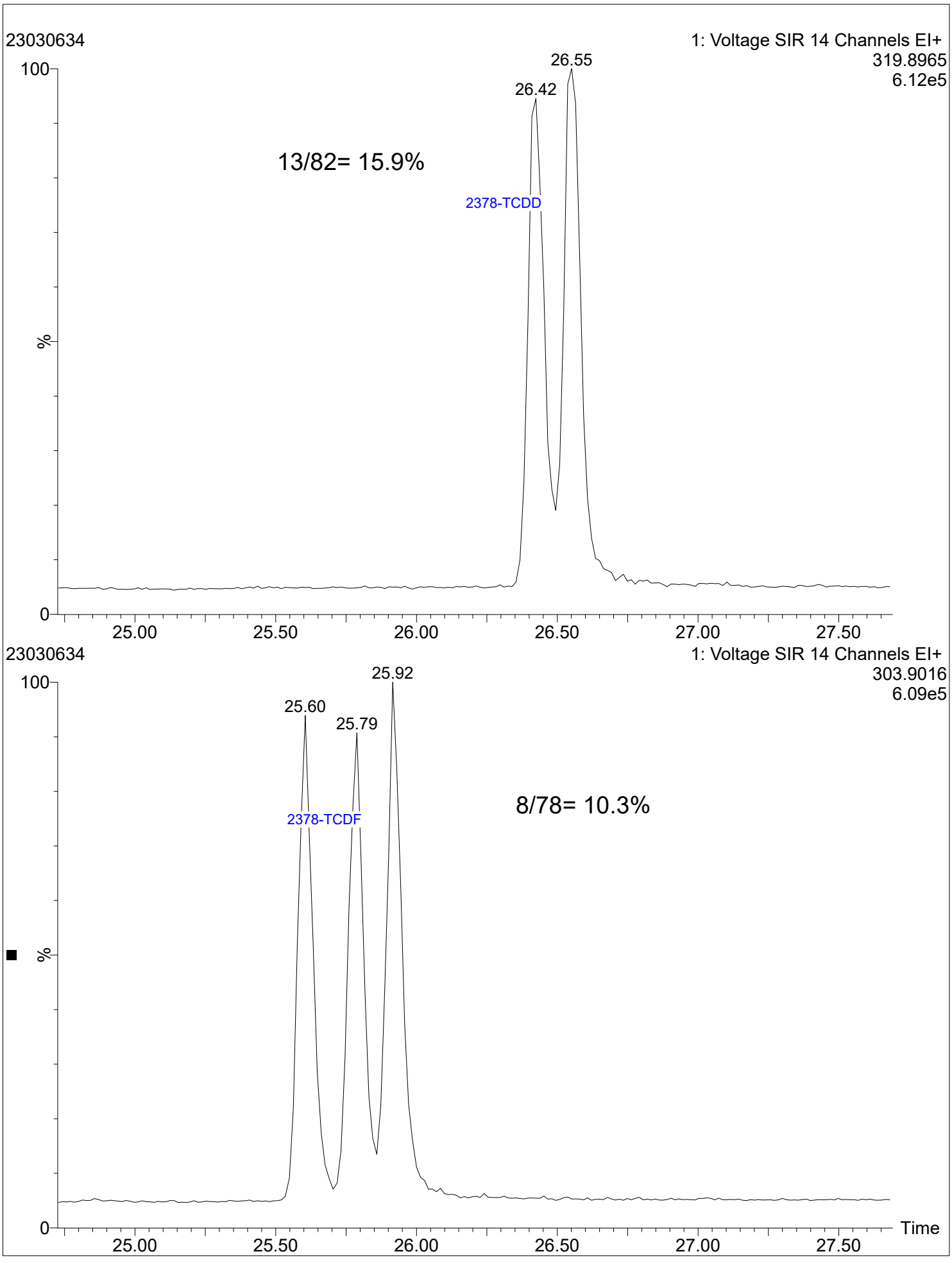


M 504.9696 R 13026



M 516.9697 R 13888




23030634
1: Voltage SIR 14 Channels EI+
319.8965
6.12e5
100
26.55
26.42
13/82= 15.9%
2378-TCDD
%
0
25.00
25.50
26.00
26.50
27.00
27.50
23030634
1: Voltage SIR 14 Channels EI+
303.9016
6.09e5
100
25.92
25.60
25.79
8/78= 10.3%
2378-TCDF
%
0
Time
25.00
25.50
26.00
26.50
27.00
27.50

Analytical Resources, LLC
Analytical Chemists and Consultants

CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY

EPA 1613B

Lab Name: Analytical Resources, LLC SDG: 23A0313

Instrument .ID: AUTOSPEC01 Lab File ID: 23030303

Date Analyzed: 03/03/23 Time Analyzed: 10:39

Lab Sample ID: SLC0045-RES1 Sequence: SLC0045

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 8.8

3467-TCDF/2378-TCDF: 8.2

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SLC0045-ICV1	CS3W1	23030302	03/03/2023	09:51
SLC0045-RES1	ISCW1	23030303	03/03/2023	10:39
SLC0045-CAL1	CSLCW	23030304	03/03/2023	11:28
SLC0045-CAL2	CS1CW	23030305	03/03/2023	12:23
SLC0045-CAL3	CS2CW	23030306	03/03/2023	13:16
SLC0045-CAL4	CS3CW	23030307	03/03/2023	14:06
SLC0045-CAL5	CS4CW	23030308	03/03/2023	14:59
SLC0045-CAL6	CS5CW	23030309	03/03/2023	15:47
SLC0045-SCV1	ICVCW	23030310	03/03/2023	16:36
SLC0045-CCV1	CS3V4	23030311	03/03/2023	17:25
SLC0045-RES2	ISCV4	23030312	03/03/2023	18:18

Analytical Resources, LLC
Analytical Chemists and Consultants

CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY

EPA 1613B

Lab Name: Analytical Resources, LLC
SDG: 23A0313
Instrument .ID: AUTOSPEC01
Lab File ID: 23030312
Date Analyzed: 03/03/23
Time Analyzed: 18:18
Lab Sample ID: SLC0045-RES2
Sequence: SLC0045

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 12.9

3467-TCDF/2378-TCDF: 11.7

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SLC0045-ICV1	CS3W1	23030302	03/03/2023	09:51
SLC0045-RES1	ISCW1	23030303	03/03/2023	10:39
SLC0045-CAL1	CSLCW	23030304	03/03/2023	11:28
SLC0045-CAL2	CS1CW	23030305	03/03/2023	12:23
SLC0045-CAL3	CS2CW	23030306	03/03/2023	13:16
SLC0045-CAL4	CS3CW	23030307	03/03/2023	14:06
SLC0045-CAL5	CS4CW	23030308	03/03/2023	14:59
SLC0045-CAL6	CS5CW	23030309	03/03/2023	15:47
SLC0045-SCV1	ICVCW	23030310	03/03/2023	16:36
SLC0045-CCV1	CS3V4	23030311	03/03/2023	17:25
SLC0045-RES2	ISCV4	23030312	03/03/2023	18:18

Analytical Resources, LLC
Analytical Chemists and Consultants

CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY

EPA 1613B

Lab Name: Analytical Resources, LLC
SDG: 23A0313
Instrument .ID: AUTOSPEC01
Lab File ID: 23030603
Date Analyzed: 03/06/23
Time Analyzed: 11:41
Lab Sample ID: SLC0081-RES1
Sequence: SLC0081

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 12.9

3467-TCDF/2378-TCDF: 13

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SLC0081-ICV1	CS3X1	23030602	03/06/2023	10:49
SLC0081-RES1	ISCX1	23030603	03/06/2023	11:41
SLC0081-CCV1	CS3X2	23030612	03/06/2023	19:10
SLC0081-RES2	ISCX2	23030613	03/06/2023	20:03
BLA0398-BLK1	Blank	23030614	03/06/2023	20:55
BLA0398-BS1	LCS	23030615	03/06/2023	21:44
BLA0398-SRM1	Reference	23030616	03/06/2023	22:33
SLC0081-CCV2	CS3X3	23030623	03/07/2023	04:16
SLC0081-RES3	ISCX3	23030624	03/07/2023	05:09
23A0313-12	LDW23-IT1148	23030626	03/07/2023	06:50
SLC0081-CCV3	CS3X4	23030633	03/07/2023	12:33
SLC0081-RES4	ISCX4	23030634	03/07/2023	13:26

Analytical Resources, LLC
Analytical Chemists and Consultants

CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY

EPA 1613B

Lab Name: Analytical Resources, LLC
SDG: 23A0313
Instrument .ID: AUTOSPEC01
Lab File ID: 23030613
Date Analyzed: 03/06/23
Time Analyzed: 20:03
Lab Sample ID: SLC0081-RES2
Sequence: SLC0081

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 17.6

3467-TCDF/2378-TCDF: 12.9

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SLC0081-ICV1	CS3X1	23030602	03/06/2023	10:49
SLC0081-RES1	ISCX1	23030603	03/06/2023	11:41
SLC0081-CCV1	CS3X2	23030612	03/06/2023	19:10
SLC0081-RES2	ISCX2	23030613	03/06/2023	20:03
BLA0398-BLK1	Blank	23030614	03/06/2023	20:55
BLA0398-BS1	LCS	23030615	03/06/2023	21:44
BLA0398-SRM1	Reference	23030616	03/06/2023	22:33
SLC0081-CCV2	CS3X3	23030623	03/07/2023	04:16
SLC0081-RES3	ISCX3	23030624	03/07/2023	05:09
23A0313-12	LDW23-IT1148	23030626	03/07/2023	06:50
SLC0081-CCV3	CS3X4	23030633	03/07/2023	12:33
SLC0081-RES4	ISCX4	23030634	03/07/2023	13:26

Analytical Resources, LLC
Analytical Chemists and Consultants

CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY

EPA 1613B

Lab Name: Analytical Resources, LLC
SDG: 23A0313
Instrument .ID: AUTOSPEC01
Lab File ID: 23030624
Date Analyzed: 03/07/23
Time Analyzed: 05:09
Lab Sample ID: SLC0081-RES3
Sequence: SLC0081

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 12.5

3467-TCDF/2378-TCDF: 11.4

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SLC0081-ICV1	CS3X1	23030602	03/06/2023	10:49
SLC0081-RES1	ISCX1	23030603	03/06/2023	11:41
SLC0081-CCV1	CS3X2	23030612	03/06/2023	19:10
SLC0081-RES2	ISCX2	23030613	03/06/2023	20:03
BLA0398-BLK1	Blank	23030614	03/06/2023	20:55
BLA0398-BS1	LCS	23030615	03/06/2023	21:44
BLA0398-SRM1	Reference	23030616	03/06/2023	22:33
SLC0081-CCV2	CS3X3	23030623	03/07/2023	04:16
SLC0081-RES3	ISCX3	23030624	03/07/2023	05:09
23A0313-12	LDW23-IT1148	23030626	03/07/2023	06:50
SLC0081-CCV3	CS3X4	23030633	03/07/2023	12:33
SLC0081-RES4	ISCX4	23030634	03/07/2023	13:26

Analytical Resources, LLC
Analytical Chemists and Consultants

CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY

EPA 1613B

Lab Name: Analytical Resources, LLC
SDG: 23A0313
Instrument .ID: AUTOSPEC01
Lab File ID: 23030634
Date Analyzed: 03/07/23
Time Analyzed: 13:26
Lab Sample ID: SLC0081-RES4
Sequence: SLC0081

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 15.9

3467-TCDF/2378-TCDF: 10.3

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SLC0081-ICV1	CS3X1	23030602	03/06/2023	10:49
SLC0081-RES1	ISCX1	23030603	03/06/2023	11:41
SLC0081-CCV1	CS3X2	23030612	03/06/2023	19:10
SLC0081-RES2	ISCX2	23030613	03/06/2023	20:03
BLA0398-BLK1	Blank	23030614	03/06/2023	20:55
BLA0398-BS1	LCS	23030615	03/06/2023	21:44
BLA0398-SRM1	Reference	23030616	03/06/2023	22:33
SLC0081-CCV2	CS3X3	23030623	03/07/2023	04:16
SLC0081-RES3	ISCX3	23030624	03/07/2023	05:09
23A0313-12	LDW23-IT1148	23030626	03/07/2023	06:50
SLC0081-CCV3	CS3X4	23030633	03/07/2023	12:33
SLC0081-RES4	ISCX4	23030634	03/07/2023	13:26

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0045	Instrument:	AUTOSPEC01
		Calibration:	GC00015

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CS3W1	SLC0045-ICV1	23030302	NA	03/03/23 09:51
ISCW1	SLC0045-RES1	23030303	NA	03/03/23 10:39
CSLCW	SLC0045-CAL1	23030304	NA	03/03/23 11:28
CS1CW	SLC0045-CAL2	23030305	NA	03/03/23 12:23
CS2CW	SLC0045-CAL3	23030306	NA	03/03/23 13:16
CS3CW	SLC0045-CAL4	23030307	NA	03/03/23 14:06
CS4CW	SLC0045-CAL5	23030308	NA	03/03/23 14:59
CS5CW	SLC0045-CAL6	23030309	NA	03/03/23 15:47
ICVCW	SLC0045-SCV1	23030310	NA	03/03/23 16:36
CS3V4	SLC0045-CCV1	23030311	NA	03/03/23 17:25
ISCV4	SLC0045-RES2	23030312	NA	03/03/23 18:18

ANALYSIS SEQUENCE

SLC0045

Instrument: AUTOSPEC01 HRGCMS Column ID: K2310
Calibration ID: GC00015 Tune File: FEB0923_1-5
EM Voltage: 350 Resolution check times : 9:51, 18:18

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLC0045-ICV1	CS3W1	QC		1	K009821		03/03/2023 09:51	23030302	PK	
SLC0045-RES1	ISCW1	QC		2	L002084		03/03/2023 10:39	23030303	PK	
SLC0045-CAL1	CSLCW	QC		3	I005460		03/03/2023 11:28	23030304	PK	
SLC0045-CAL2	CS1CW	QC		4	I005456		03/03/2023 12:23	23030305	PK	
SLC0045-CAL3	CS2CW	QC		5	I005457		03/03/2023 13:16	23030306	PK	
SLC0045-CAL4	CS3CW	QC		6	K009821		03/03/2023 14:06	23030307	PK	
SLC0045-CAL5	CS4CW	QC		7	I005458		03/03/2023 14:59	23030308	PK	
SLC0045-CAL6	CS5CW	QC		8	I005459		03/03/2023 15:47	23030309	PK	
SLC0045-SCV1	ICVCW	QC		9	H008219		03/03/2023 16:36	23030310	PK	
SLC0045-CCV1	CS3V4	QC		10	K009821		03/03/2023 17:25	23030311	PK	
SLC0045-RES2	ISCV4	QC		11	L002084		03/03/2023 18:18	23030312	PK	

Dataset: T:\Autospec\Processed Data Batch\230303ICIH.qld
Last Altered: Monday, March 06, 2023 10:57:27 Pacific Standard Time
Printed: Monday, March 06, 2023 10:58:44 Pacific Standard Time

3/6/23 PK

Event	Details	Sample ID
Process Extract		
Process Integrate		
Process Calibrate		
Process Quantify		
Dataset Created		
Peak deleted	Sample:23030304, Compound:TD, RT:26.410	1
Peak deleted	Sample:23030304, Compound:OD, RT:44.990	1
Peak deleted	Sample:23030304, Compound:TF, RT:25.774	1
Pre modification peak	Sample:23030305, Compound:TF, RT:25.774	2
Peak modified	Sample:23030305, Compound:TF, RT:25.774	2
Pre modification peak	Sample:23030304, Compound:HPD, RT:40.261	1
Peak modified	Sample:23030304, Compound:HPD, RT:40.261	1
Peak deleted	Sample:23030308, Compound:PF, RT:32.328	5
Peak deleted	Sample:23030309, Compound:PF, RT:32.307	6
Peak deleted	Sample:23030309, Compound:HF, RT:33.220	6
Peak deleted	Sample:23030309, Compound:TD, RT:27.017	6
Peak deleted	Sample:23030309, Compound:PD, RT:31.995	6
Peak deleted	Sample:23030309, Compound:PD, RT:31.917	6
Peak deleted	Sample:23030308, Compound:HD, RT:34.000	5
Peak deleted	Sample:23030308, Compound:HPD, RT:39.225	5
Peak deleted	Sample:23030309, Compound:HPD, RT:39.214	6
Pre modification peak	Sample:23030305, Compound:OF, RT:45.237	2
Peak modified	Sample:23030305, Compound:OF, RT:45.237	2
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\230303ICIH.qld'	

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0081	Instrument:	AUTOSPEC01
		Calibration:	GC00015

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CS3X1	SLC0081-ICV1	23030602	NA	03/06/23 10:49
ISCX1	SLC0081-RES1	23030603	NA	03/06/23 11:41
CS3X2	SLC0081-CCV1	23030612	NA	03/06/23 19:10
ISCX2	SLC0081-RES2	23030613	NA	03/06/23 20:03
Blank	BLA0398-BLK1	23030614	Solid	03/06/23 20:55
LCS	BLA0398-BS1	23030615	Solid	03/06/23 21:44
Reference	BLA0398-SRM1	23030616	Solid	03/06/23 22:33
CS3X3	SLC0081-CCV2	23030623	NA	03/07/23 04:16
ISCX3	SLC0081-RES3	23030624	NA	03/07/23 05:09
LDW23-IT1148	23A0313-12	23030626	Solid	03/07/23 06:50
CS3X4	SLC0081-CCV3	23030633	NA	03/07/23 12:33
ISCX4	SLC0081-RES4	23030634	NA	03/07/23 13:26

ANALYSIS SEQUENCE

SLC0081

Instrument: AUTOSPEC01 HRGCMS Column ID: K2310
Calibration ID: GC00015 Tune File: FEB0923_1-5
EM Voltage: 350 Resolution check times : 10:40, 20:03, 05:09, 13:26

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLC0081-ICV1	CS3X1	QC		1	K009821		03/06/2023 10:49	23030602	PK	
SLC0081-RES1	ISCX1	QC		2	L002084		03/06/2023 11:41	23030603	PK	
BLA0125-BLK1	DBLK06	QC		3		K011414	03/06/2023 15:54	23030608	PK	
BLA0125-BS1	DLCS06	QC		4		K011414	03/06/2023 16:43	23030609	PK	
BLA0125-BSD1	DLCSD06	QC		5		K011414	03/06/2023 17:32	23030610	PK	
23A0084-03	45-334 January Sample	1613B Dioxin	A 01	6		K011414	03/06/2023 18:21	23030611	PK	
SLC0081-CCV1	CS3X2	QC		7	K009821		03/06/2023 19:10	23030612	PK	
SLC0081-RES2	ISCX2	QC		8	L002084		03/06/2023 20:03	23030613	PK	
BLA0398-BLK1	Blank	QC		9		K011414	03/06/2023 20:55	23030614	PK	
BLA0398-BS1	LCS	QC		10		K011414	03/06/2023 21:44	23030615	PK	
BLA0398-SRM1	Reference	QC		11		K011414	03/06/2023 22:33	23030616	PK	
BLA0398-DUP1	Duplicate	QC		12		K011414	03/06/2023 23:22	23030617	PK	
23A0099-01	LDW23-IT1154	1613B Dioxin	C 01	13		K011414	03/07/2023 00:11	23030618	PK	
23A0099-04	LDW23-SC1186	1613B Dioxin	C 01	14		K011414	03/07/2023 01:00	23030619	PK	
23A0099-05	LDW23-SC1186-FD	1613B Dioxin	C 01	15		K011414	03/07/2023 01:49	23030620	PK	
23A0099-10	LDW23-IT1160	1613B Dioxin	C 01	16		K011414	03/07/2023 02:38	23030621	PK	
23A0099-11	LDW23-IT1160-FD	1613B Dioxin	C 01	17		K011414	03/07/2023 03:27	23030622	PK	
SLC0081-CCV2	CS3X3	QC		18	K009821		03/07/2023 04:16	23030623	PK	
SLC0081-RES3	ISCX3	QC		19	K003933		03/07/2023 05:09	23030624	PK	
23A0295-02	LDW23-SC1075	1613B Dioxin	B 01	20		K011414	03/07/2023 06:01	23030625	PK	
23A0313-12	LDW23-IT1148	1613B Dioxin	C 01	21		K011414	03/07/2023 06:50	23030626	PK	
23A0326-01	LDW23-SC1028	1613B Dioxin	C 01	22		K011414	03/07/2023 07:39	23030627	PK	

Printed: 3/7/2023 2:44:04PM

ANALYSIS SEQUENCE

SLC0081

Instrument: AUTOSPEC01 HRGCMS Column ID: K2310
Calibration ID: GC00015 Tune File: FEB0923_1-5
EM Voltage: 350 Resolution check times : 10:40, 20:03, 05:09, 13:26

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
23A0326-09	LDW23-IT1127	1613B Dioxin	C 01	23		K011414	03/07/2023 08:28	23030628	PK	
23A0326-12	LDW23-SC1162B	1613B Dioxin	C 01	24		K011414	03/07/2023 09:17	23030629	PK	
23A0328-06	LDW23-SS1168	1613B Dioxin	C 01	25		K011414	03/07/2023 10:06	23030630	PK	
23A0328-07	LDW23-SS1176	1613B Dioxin	C 01	26		K011414	03/07/2023 10:55	23030631	PK	
23A0328-12	LDW23-SS1162	1613B Dioxin	C 01	27		K011414	03/07/2023 11:44	23030632	PK	
SLC0081-CCV3	CS3X4	QC		28	K009821		03/07/2023 12:33	23030633	PK	
SLC0081-RES4	ISCX4	QC		29	K003933		03/07/2023 13:26	23030634	PK	

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
Last Altered: Tuesday, March 07, 2023 08:54:19 Pacific Standard Time
Printed: Tuesday, March 07, 2023 09:02:03 Pacific Standard Time 3/7/23 pk

Event	Details	Sample ID
Process Extract		
Process Integrate		
Process Quantify		
Dataset Created		
Peak deleted	Sample:23030603, Compound:13C-123789-HxCDD, RT:36.495	2
Peak deleted	Sample:23030613, Compound:13C-123789-HxCDD, RT:36.518	12
Peak deleted	Sample:23030613, Compound:13C-1234-TCDD, RT:25.732	12
Peak deleted	Sample:23030624, Compound:13C-123789-HxCDD, RT:36.496	23
Pre modification peak	Sample:23030605, Compound:TD, RT:26.410	4
Peak modified	Sample:23030605, Compound:TD, RT:26.410	4
Pre modification peak	Sample:23030607, Compound:TF, RT:25.774	6
Peak modified	Sample:23030607, Compound:TF, RT:25.774	6
Pre modification peak	Sample:23030607, Compound:HF, RT:35.872	6
Peak modified	Sample:23030607, Compound:HF, RT:35.872	6
Pre modification peak	Sample:23030607, Compound:HF, RT:35.025	6
Peak modified	Sample:23030607, Compound:HF, RT:35.025	6
Peak deleted	Sample:23030608, Compound:TD, RT:26.396	7
Peak deleted	Sample:23030608, Compound:HD, RT:36.496	7
Pre modification peak	Sample:23030608, Compound:OD, RT:44.954	7
Peak modified	Sample:23030608, Compound:OD, RT:44.954	7
Peak deleted	Sample:23030611, Compound:HD, RT:36.127	10
Peak deleted	Sample:23030611, Compound:HD, RT:36.094	10
Peak deleted	Sample:23030614, Compound:TD, RT:26.396	13
Pre modification peak	Sample:23030617, Compound:TF, RT:25.760	16
Peak modified	Sample:23030617, Compound:TF, RT:25.760	16
Pre modification peak	Sample:23030617, Compound:HF, RT:36.886	16
Peak modified	Sample:23030617, Compound:HF, RT:36.886	16
Pre modification peak	Sample:23030618, Compound:PF, RT:29.923	17
Peak modified	Sample:23030618, Compound:PF, RT:29.923	17
Pre modification peak	Sample:23030619, Compound:PF, RT:29.933	18
Peak modified	Sample:23030619, Compound:PF, RT:29.933	18
Pre modification peak	Sample:23030619, Compound:HF, RT:35.860	18
Peak modified	Sample:23030619, Compound:HF, RT:35.860	18
Peak added	Sample:23030619, Compound:HF, RT:35.894	18
Peak added	Sample:23030619, Compound:HF, RT:35.894	18
Pre modification peak	Sample:23030620, Compound:HF, RT:35.894	19
Peak modified	Sample:23030620, Compound:HF, RT:35.894	19
Pre modification peak	Sample:23030620, Compound:HF, RT:35.894	19
Peak modified	Sample:23030620, Compound:HF, RT:35.894	19
Pre modification peak	Sample:23030622, Compound:HF, RT:35.950	21
Peak modified	Sample:23030622, Compound:HF, RT:35.950	21
Pre modification peak	Sample:23030622, Compound:HF, RT:35.939	21
Peak modified	Sample:23030622, Compound:HF, RT:35.939	21
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\230306D1.qld'	
Peak deleted	Sample:23030610, Compound:HF, RT:35.638	9
Peak deleted	Sample:23030610, Compound:TD, RT:26.706	9
Peak deleted	Sample:23030611, Compound:TF, RT:26.085	10
Peak deleted	Sample:23030611, Compound:TF, RT:23.853	10
Peak deleted	Sample:23030616, Compound:TF, RT:26.142	15
Peak deleted	Sample:23030616, Compound:PP, RT:27.893	15
Peak deleted	Sample:23030616, Compound:PF, RT:29.087	15
Peak deleted	Sample:23030617, Compound:TF, RT:26.283	16
Peak deleted	Sample:23030617, Compound:HD, RT:36.975	16
Peak deleted	Sample:23030618, Compound:TF, RT:27.173	17
Peak deleted	Sample:23030619, Compound:TD, RT:25.945	18

Dataset: T:\Autospec\Processed Data Batch\230306D1.qld
Last Altered: Tuesday, March 07, 2023 08:54:19 Pacific Standard Time
Printed: Tuesday, March 07, 2023 09:02:03 Pacific Standard Time

Event	Details	Sample ID
Peak added	Sample:23030619, Compound:TD, RT:24.531	18
Peak added	Sample:23030619, Compound:TD, RT:24.531	18
Peak deleted	Sample:23030620, Compound:HD, RT:36.975	19
Peak deleted	Sample:23030621, Compound:HD, RT:36.997	20
Peak deleted	Sample:23030622, Compound:HD, RT:36.997	21
Peak deleted	Sample:23030622, Compound:HD, RT:33.777	21
Peak deleted	Sample:23030622, Compound:HPD, RT:40.629	21
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\230306D1.qld'	

Dataset: T:\Autospec\Processed Data Batch\230306D2.qld
Last Altered: Tuesday, March 07, 2023 13:16:23 Pacific Standard Time
Printed: Tuesday, March 07, 2023 13:17:16 Pacific Standard Time 3/7/23 pk

Event	Details	Sample ID
Process Extract		
Process Integrate		
Process Quantify		
Dataset Created		
Pre modification peak	Sample:23030626, Compound:PF, RT:29.934	2
Peak modified	Sample:23030626, Compound:PF, RT:29.934	2
Pre modification peak	Sample:23030626, Compound:HF, RT:35.025	2
Peak modified	Sample:23030626, Compound:HF, RT:35.025	2
Peak added	Sample:23030626, Compound:HF, RT:36.886	2
Peak added	Sample:23030626, Compound:HF, RT:36.897	2
Peak added	Sample:23030626, Compound:PF, RT:31.248	2
Peak added	Sample:23030626, Compound:PF, RT:31.259	2
Pre modification peak	Sample:23030626, Compound:PF, RT:31.259	2
Peak modified	Sample:23030626, Compound:PF, RT:31.259	2
Peak added	Sample:23030626, Compound:PD, RT:31.504	2
Peak added	Sample:23030626, Compound:PD, RT:31.482	2
Peak added	Sample:23030627, Compound:HF, RT:35.883	3
Peak added	Sample:23030627, Compound:HF, RT:35.894	3
Pre modification peak	Sample:23030627, Compound:HF, RT:35.894	3
Peak modified	Sample:23030627, Compound:HF, RT:35.894	3
Pre modification peak	Sample:23030630, Compound:HF, RT:35.883	6
Peak modified	Sample:23030630, Compound:HF, RT:35.883	6
Pre modification peak	Sample:23030631, Compound:PF, RT:29.934	7
Peak modified	Sample:23030631, Compound:PF, RT:29.934	7
Pre modification peak	Sample:23030631, Compound:HF, RT:35.905	7
Peak modified	Sample:23030631, Compound:HF, RT:35.905	7
Pre modification peak	Sample:23030631, Compound:HF, RT:35.894	7
Peak modified	Sample:23030631, Compound:HF, RT:35.894	7
Pre modification peak	Sample:23030631, Compound:HF, RT:36.908	7
Peak modified	Sample:23030631, Compound:HF, RT:36.908	7
Pre modification peak	Sample:23030632, Compound:HF, RT:35.927	8
Peak modified	Sample:23030632, Compound:HF, RT:35.927	8
Pre modification peak	Sample:23030632, Compound:HF, RT:35.905	8
Peak modified	Sample:23030632, Compound:HF, RT:35.905	8
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\230306D2.qld'	
Peak deleted	Sample:23030625, Compound:TF, RT:27.695	1
Peak added	Sample:23030625, Compound:PF, RT:28.875	1
Peak added	Sample:23030625, Compound:PF, RT:28.875	1
Peak added	Sample:23030625, Compound:PD, RT:28.830	1
Peak added	Sample:23030625, Compound:PD, RT:28.853	1
Peak deleted	Sample:23030626, Compound:TF, RT:27.667	2
Peak deleted	Sample:23030626, Compound:PF, RT:31.248	2
Peak deleted	Sample:23030627, Compound:TF, RT:23.585	3
Peak added	Sample:23030627, Compound:PF, RT:28.853	3
Peak added	Sample:23030627, Compound:PF, RT:28.853	3
Peak added	Sample:23030627, Compound:PD, RT:28.809	3
Peak added	Sample:23030627, Compound:PD, RT:28.820	3
Pre modification peak	Sample:23030628, Compound:PF, RT:28.875	4
Peak modified	Sample:23030628, Compound:PF, RT:28.875	4
Pre modification peak	Sample:23030628, Compound:PF, RT:28.875	4
Peak modified	Sample:23030628, Compound:PF, RT:28.875	4
Peak added	Sample:23030628, Compound:PD, RT:28.864	4
Peak added	Sample:23030628, Compound:PD, RT:28.853	4
Peak deleted	Sample:23030628, Compound:PD, RT:32.295	4
Peak deleted	Sample:23030629, Compound:HF, RT:35.881	5

Dataset: T:\Autospec\Processed Data Batch\230306D2.qld
Last Altered: Tuesday, March 07, 2023 13:16:23 Pacific Standard Time
Printed: Tuesday, March 07, 2023 13:17:16 Pacific Standard Time

Event	Details	Sample ID
Peak added	Sample:23030629, Compound:PD, RT:28.830	5
Peak added	Sample:23030629, Compound:PD, RT:28.864	5
Peak deleted	Sample:23030629, Compound:HPD, RT:40.584	5
Peak deleted	Sample:23030630, Compound:HD, RT:36.986	6
Peak deleted	Sample:23030630, Compound:HPD, RT:40.528	6
Pre modification peak	Sample:23030631, Compound:PD, RT:28.808	7
Peak modified	Sample:23030631, Compound:PD, RT:28.808	7
Pre modification peak	Sample:23030631, Compound:PD, RT:28.808	7
Peak modified	Sample:23030631, Compound:PD, RT:28.808	7
Peak added	Sample:23030631, Compound:PD, RT:28.853	7
Peak added	Sample:23030631, Compound:PD, RT:28.853	7
Peak added	Sample:23030631, Compound:PD, RT:28.853	7
Peak added	Sample:23030631, Compound:PD, RT:28.853	7
Peak added	Sample:23030631, Compound:PD, RT:28.853	7
Peak added	Sample:23030631, Compound:PD, RT:28.853	7
Peak deleted	Sample:23030631, Compound:HD, RT:36.986	7
Peak deleted	Sample:23030632, Compound:PF, RT:28.697	8
Peak deleted	Sample:23030632, Compound:HF, RT:33.142	8
Peak added	Sample:23030632, Compound:PD, RT:28.864	8
Peak added	Sample:23030632, Compound:PD, RT:28.853	8
Peak deleted	Sample:23030632, Compound:HD, RT:36.974	8
Peak deleted	Sample:23030632, Compound:HPD, RT:40.440	8
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\230306D2.qld'	

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0045	Instrument:	AUTOSPEC01
Sample ID:	SLC0045-ICV1	Calibration:	GC00015
File ID:	23030302	Analyzed:	03/03/23 09:51

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	94.0	71 - 129	25.7745	25.76487	0.0096	N/A	
13C12-2,3,7,8-TCDD	100.00	102	82 - 118	26.4242	26.40287	0.0213	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	92.2	76 - 124	29.9337	29.92235	0.0114	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	87.6	77 - 123	31.2707	31.2611	0.0096	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	84.3	62 - 138	31.5268	31.5192	0.0076	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	84.0	76 - 124	34.8915	34.88393	0.0076	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	74.6	70 - 130	35.0363	35.02318	0.0131	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	88.7	73 - 127	35.8942	35.88653	0.0077	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	99.9	74 - 126	36.9303	36.91718	0.0131	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	93.5	85 - 115	36.0167	36.00728	0.0094	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	86.9	85 - 115	36.1393	36.12053	0.0188	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	95.3	78 - 122	38.7685	38.7593	0.0092	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	98.7	77 - 123	41.008	40.99867	0.0093	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	105	72 - 128	40.2615	40.25773	0.0038	N/A	
13C12-OCDD	200.00	107	48 - 152	44.9993	44.98705	0.0122	N/A	
37Cl4-2,3,7,8-TCDD	10.000	90.5	0 - 200	26.4383	26.42402	0.0143	N/A	

* Values outside of QC limits

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0045	Instrument:	AUTOSPEC01
Sample ID:	SLC0045-SCV1	Calibration:	GC00015
File ID:	23030310	Analyzed:	03/03/23 16:36

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	96.9	0 - 200	25.7602	25.76487	-0.0047	N/A	
13C12-2,3,7,8-TCDD	100.00	96.6	0 - 200	26.3958	26.40287	-0.0071	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	73.2	0 - 200	29.9225	29.92235	0.0001	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	75.9	0 - 200	31.2593	31.2611	-0.0018	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	76.6	0 - 200	31.5155	31.5192	-0.0037	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	93.0	0 - 200	34.8802	34.88393	-0.0037	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	98.0	0 - 200	35.014	35.02318	-0.0092	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	93.4	0 - 200	35.8828	35.88653	-0.0037	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	97.9	0 - 200	36.9078	36.91718	-0.0094	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	95.9	0 - 200	36.0053	36.00728	-0.0020	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	97.7	0 - 200	36.1168	36.12053	-0.0037	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	102	0 - 200	38.7573	38.7593	-0.0020	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	104	0 - 200	40.9967	40.99867	-0.0020	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	102	0 - 200	40.2502	40.25773	-0.0075	N/A	
13C12-OCDD	200.00	80.8	0 - 200	44.9807	44.98705	-0.0064	N/A	
37Cl4-2,3,7,8-TCDD	10.000	87.1	0 - 200	26.4242	26.42402	0.0002	N/A	

* Values outside of QC limits

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0045	Instrument:	AUTOSPEC01
Sample ID:	SLC0045-CCV1	Calibration:	GC00015
File ID:	23030311	Analyzed:	03/03/23 17:25

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	89.4	71 - 129	25.7602	25.76487	-0.0047	N/A	
13C12-2,3,7,8-TCDD	100.00	86.0	82 - 118	26.3958	26.40287	-0.0071	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	92.6	76 - 124	29.9225	29.92235	0.0001	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	91.6	77 - 123	31.2593	31.2611	-0.0018	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	90.8	62 - 138	31.5157	31.5192	-0.0035	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	95.2	76 - 124	34.8805	34.88393	-0.0034	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	91.1	70 - 130	35.0253	35.02318	0.0021	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	96.9	73 - 127	35.883	35.88653	-0.0035	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	101	74 - 126	36.9193	36.91718	0.0021	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	97.6	85 - 115	36.0057	36.00728	-0.0016	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	98.4	85 - 115	36.117	36.12053	-0.0035	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	102	78 - 122	38.7577	38.7593	-0.0016	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	84.3	77 - 123	40.997	40.99867	-0.0017	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	92.0	72 - 128	40.2617	40.25773	0.0040	N/A	
13C12-OCDD	200.00	85.1	48 - 152	44.9903	44.98705	0.0032	N/A	
37Cl4-2,3,7,8-TCDD	10.000	75.4	0 - 200	26.424	26.42402	0.0000	N/A	

* Values outside of QC limits

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0081	Instrument:	AUTOSPEC01
Sample ID:	SLC0081-ICV1	Calibration:	GC00015
File ID:	23030602	Analyzed:	03/06/23 10:49

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	96.4	71 - 129	25.7602	25.76487	-0.0047	N/A	
13C12-2,3,7,8-TCDD	100.00	101	82 - 118	26.3957	26.40287	-0.0072	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	107	76 - 124	29.9112	29.92235	-0.0112	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	109	77 - 123	31.248	31.2611	-0.0131	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	107	62 - 138	31.5042	31.5192	-0.0150	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	108	76 - 124	34.869	34.88393	-0.0149	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	100	70 - 130	35.0027	35.02318	-0.0205	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	110	73 - 127	35.8717	35.88653	-0.0148	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	112	74 - 126	36.8967	36.91718	-0.0205	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	98.4	85 - 115	35.9942	36.00728	-0.0131	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	91.0	85 - 115	36.1057	36.12053	-0.0148	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	108	78 - 122	38.7462	38.7593	-0.0131	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	80.2	77 - 123	40.9743	40.99867	-0.0244	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	83.4	82 - 118	40.239	40.25773	-0.0187	N/A	
13C12-OCDD	200.00	99.1	48 - 152	44.9627	44.98705	-0.0244	N/A	
37Cl4-2,3,7,8-TCDD	10.000	90.6	79 - 121	26.4098	26.42402	-0.0142	N/A	

* Values outside of QC limits

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0081	Instrument:	AUTOSPEC01
Sample ID:	SLC0081-CCV1	Calibration:	GC00015
File ID:	23030612	Analyzed:	03/06/23 19:10

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	92.6	71 - 129	25.7462	25.76487	-0.0187	N/A	
13C12-2,3,7,8-TCDD	100.00	89.1	82 - 118	26.3818	26.40287	-0.0211	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	79.6	76 - 124	29.9003	29.92235	-0.0221	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	81.5	77 - 123	31.2372	31.2611	-0.0239	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	80.5	62 - 138	31.4935	31.5192	-0.0257	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	94.9	76 - 124	34.8582	34.88393	-0.0257	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	89.3	70 - 130	35.003	35.02318	-0.0202	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	98.2	73 - 127	35.8608	35.88653	-0.0257	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	105	74 - 126	36.8972	36.91718	-0.0200	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	95.1	85 - 115	35.9835	36.00728	-0.0238	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	93.2	85 - 115	36.0948	36.12053	-0.0257	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	105	78 - 122	38.7355	38.7593	-0.0238	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	96.2	77 - 123	40.975	40.99867	-0.0237	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	104	82 - 118	40.2395	40.25773	-0.0182	N/A	
13C12-OCDD	200.00	86.2	48 - 152	44.9542	44.98705	-0.0329	N/A	
37Cl4-2,3,7,8-TCDD	10.000	79.2	79 - 121	26.396	26.42402	-0.0280	N/A	

* Values outside of QC limits

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0081	Instrument:	AUTOSPEC01
Sample ID:	BLA0398-BLK1	Calibration:	GC00015
File ID:	23030614	Analyzed:	03/06/23 20:55

Surrogate Compound	Spike Level ng/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.80	79.8	24 - 169	25.7318	25.76487	-0.0331	N/A	
13C12-2,3,7,8-TCDD	199.80	90.5	25 - 164	26.3675	26.40287	-0.0354	N/A	
13C12-1,2,3,7,8-PeCDF	199.80	82.7	24 - 185	29.8888	29.92235	-0.0336	N/A	
13C12-2,3,4,7,8-PeCDF	199.80	81.5	21 - 178	31.2257	31.2611	-0.0354	N/A	
13C12-1,2,3,7,8-PeCDD	199.80	82.6	25 - 181	31.482	31.5192	-0.0372	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.80	119	26 - 152	34.8467	34.88393	-0.0372	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.80	119	26 - 123	34.9915	35.02318	-0.0317	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.80	116	28 - 136	35.8493	35.88653	-0.0372	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.80	118	29 - 147	36.8855	36.91718	-0.0317	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.80	118	32 - 141	35.972	36.00728	-0.0353	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.80	113	28 - 130	36.0833	36.12053	-0.0372	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.80	125	28 - 143	38.724	38.7593	-0.0353	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.80	106	26 - 138	40.9633	40.99867	-0.0354	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.80	117	23 - 140	40.2168	40.25773	-0.0409	N/A	
13C12-OCDD	399.60	84.5	17 - 157	44.9443	44.98705	-0.0428	N/A	
37Cl4-2,3,7,8-TCDD	79.920	71.2	35 - 197	26.3958	26.42402	-0.0282	N/A	

* Values outside of QC limits

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0081	Instrument:	AUTOSPEC01
Sample ID:	BLA0398-BS1	Calibration:	GC00015
File ID:	23030615	Analyzed:	03/06/23 21:44

Surrogate Compound	Spike Level ng/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.80	73.5	24 - 169	25.732	25.76487	-0.0329	N/A	
13C12-2,3,7,8-TCDD	199.80	80.0	25 - 164	26.3817	26.40287	-0.0212	N/A	
13C12-1,2,3,7,8-PeCDF	199.80	97.9	24 - 185	29.8888	29.92235	-0.0336	N/A	
13C12-2,3,4,7,8-PeCDF	199.80	98.9	21 - 178	31.2257	31.2611	-0.0354	N/A	
13C12-1,2,3,7,8-PeCDD	199.80	101	25 - 181	31.4818	31.5192	-0.0374	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.80	107	26 - 152	34.8577	34.88393	-0.0262	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.80	99.9	26 - 123	34.9913	35.02318	-0.0319	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.80	104	28 - 136	35.8602	35.88653	-0.0263	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.80	106	29 - 147	36.8852	36.91718	-0.0320	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.80	109	32 - 141	35.9717	36.00728	-0.0356	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.80	101	28 - 130	36.0942	36.12053	-0.0263	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.80	103	28 - 143	38.7347	38.7593	-0.0246	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.80	74.0	26 - 138	40.9628	40.99867	-0.0359	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.80	82.1	23 - 140	40.2275	40.25773	-0.0302	N/A	
13C12-OCDD	399.60	75.6	17 - 157	44.9532	44.98705	-0.0339	N/A	
37Cl4-2,3,7,8-TCDD	79.920	65.2	35 - 197	26.3958	26.42402	-0.0282	N/A	

* Values outside of QC limits

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0081	Instrument:	AUTOSPEC01
Sample ID:	BLA0398-SRM1	Calibration:	GC00015
File ID:	23030616	Analyzed:	03/06/23 22:33

Surrogate Compound	Spike Level ng/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	200.00	92.0	24 - 169	25.7318	25.76487	-0.0331	N/A	
13C12-2,3,7,8-TCDD	200.00	105	25 - 164	26.3817	26.40287	-0.0212	N/A	
13C12-1,2,3,7,8-PeCDF	200.00	107	24 - 185	29.8888	29.92235	-0.0336	N/A	
13C12-2,3,4,7,8-PeCDF	200.00	114	21 - 178	31.2368	31.2611	-0.0243	N/A	
13C12-1,2,3,7,8-PeCDD	200.00	111	25 - 181	31.4932	31.5192	-0.0260	N/A	
13C12-1,2,3,4,7,8-HxCDF	200.00	109	26 - 152	34.8578	34.88393	-0.0261	N/A	
13C12-1,2,3,6,7,8-HxCDF	200.00	101	26 - 123	35.0027	35.02318	-0.0205	N/A	
13C12-2,3,4,6,7,8-HxCDF	200.00	104	28 - 136	35.8717	35.88653	-0.0148	N/A	
13C12-1,2,3,7,8,9-HxCDF	200.00	118	29 - 147	36.8857	36.91718	-0.0315	N/A	
13C12-1,2,3,4,7,8-HxCDD	200.00	101	32 - 141	35.9942	36.00728	-0.0131	N/A	
13C12-1,2,3,6,7,8-HxCDD	200.00	91.3	28 - 130	36.1057	36.12053	-0.0148	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	200.00	104	28 - 143	38.735	38.7593	-0.0243	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	200.00	114	26 - 138	40.9745	40.99867	-0.0242	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	200.00	112	23 - 140	40.2278	40.25773	-0.0299	N/A	
13C12-OCDD	400.00	112	17 - 157	44.9625	44.98705	-0.0246	N/A	
37Cl4-2,3,7,8-TCDD	80.000	84.3	35 - 197	26.3957	26.42402	-0.0283	N/A	

* Values outside of QC limits

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0081	Instrument:	AUTOSPEC01
Sample ID:	SLC0081-CCV2	Calibration:	GC00015
File ID:	23030623	Analyzed:	03/07/23 04:16

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	89.0	71 - 129	25.746	25.76487	-0.0189	N/A	
13C12-2,3,7,8-TCDD	100.00	100	82 - 118	26.3817	26.40287	-0.0212	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	95.9	76 - 124	29.9	29.92235	-0.0224	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	102	77 - 123	31.237	31.2611	-0.0241	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	106	62 - 138	31.4932	31.5192	-0.0260	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	106	76 - 124	34.8692	34.88393	-0.0147	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	90.6	70 - 130	35.0028	35.02318	-0.0204	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	89.6	73 - 127	35.8718	35.88653	-0.0147	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	94.8	74 - 126	36.897	36.91718	-0.0202	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	97.0	85 - 115	35.9833	36.00728	-0.0240	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	81.9	85 - 115	36.1058	36.12053	-0.0147	N/A	*
13C12-1,2,3,4,6,7,8-HpCDF	100.00	96.9	78 - 122	38.7463	38.7593	-0.0130	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	92.8	77 - 123	40.9858	40.99867	-0.0129	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	101	82 - 118	40.2393	40.25773	-0.0184	N/A	
13C12-OCDD	200.00	96.9	48 - 152	44.972	44.98705	-0.0151	N/A	
37Cl4-2,3,7,8-TCDD	10.000	88.6	79 - 121	26.3958	26.42402	-0.0282	N/A	

* Values outside of QC limits

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0081	Instrument:	AUTOSPEC01
Sample ID:	23A0313-12	Calibration:	GC00015
File ID:	23030626	Analyzed:	03/07/23 06:50

Surrogate Compound	Spike Level ng/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	198.57	101	24 - 169	25.746	25.76487	-0.0189	N/A	
13C12-2,3,7,8-TCDD	198.57	113	25 - 164	26.3817	26.40287	-0.0212	N/A	
13C12-1,2,3,7,8-PeCDF	198.57	106	24 - 185	29.9002	29.92235	-0.0221	N/A	
13C12-2,3,4,7,8-PeCDF	198.57	111	21 - 178	31.2482	31.2611	-0.0129	N/A	
13C12-1,2,3,7,8-PeCDD	198.57	114	25 - 181	31.4933	31.5192	-0.0259	N/A	
13C12-1,2,3,4,7,8-HxCDF	198.57	111	26 - 152	34.8692	34.88393	-0.0147	N/A	
13C12-1,2,3,6,7,8-HxCDF	198.57	95.0	26 - 123	35.0028	35.02318	-0.0204	N/A	
13C12-2,3,4,6,7,8-HxCDF	198.57	98.7	28 - 136	35.8718	35.88653	-0.0147	N/A	
13C12-1,2,3,7,8,9-HxCDF	198.57	111	29 - 147	36.908	36.91718	-0.0092	N/A	
13C12-1,2,3,4,7,8-HxCDD	198.57	105	32 - 141	35.9943	36.00728	-0.0130	N/A	
13C12-1,2,3,6,7,8-HxCDD	198.57	92.7	28 - 130	36.1058	36.12053	-0.0147	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	198.57	107	28 - 143	38.7462	38.7593	-0.0131	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	198.57	104	26 - 138	40.9857	40.99867	-0.0130	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	198.57	110	23 - 140	40.2392	40.25773	-0.0185	N/A	
13C12-OCDD	397.15	109	17 - 157	44.9717	44.98705	-0.0154	N/A	
37Cl4-2,3,7,8-TCDD	79.429	94.2	35 - 197	26.41	26.42402	-0.0140	N/A	

* Values outside of QC limits

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLC0081	Instrument:	AUTOSPEC01
Sample ID:	SLC0081-CCV3	Calibration:	GC00015
File ID:	23030633	Analyzed:	03/07/23 12:33

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	88.9	71 - 129	25.746	25.76487	-0.0189	N/A	
13C12-2,3,7,8-TCDD	100.00	87.4	82 - 118	26.3817	26.40287	-0.0212	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	84.7	76 - 124	29.9002	29.92235	-0.0221	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	89.7	77 - 123	31.237	31.2611	-0.0241	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	91.0	62 - 138	31.4933	31.5192	-0.0259	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	89.2	76 - 124	34.8692	34.88393	-0.0147	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	78.4	70 - 130	35.014	35.02318	-0.0092	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	88.9	73 - 127	35.8717	35.88653	-0.0148	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	97.5	74 - 126	36.908	36.91718	-0.0092	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	95.5	85 - 115	35.9943	36.00728	-0.0130	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	84.1	85 - 115	36.1057	36.12053	-0.0148	N/A	*
13C12-1,2,3,4,6,7,8-HpCDF	100.00	92.5	78 - 122	38.7463	38.7593	-0.0130	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	86.9	77 - 123	40.9857	40.99867	-0.0130	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	93.8	82 - 118	40.2503	40.25773	-0.0074	N/A	
13C12-OCDD	200.00	76.6	48 - 152	44.9812	44.98705	-0.0059	N/A	
37Cl4-2,3,7,8-TCDD	10.000	77.0	50 - 150	26.3958	26.42402	-0.0282	N/A	

* Values outside of QC limits

HOLDING TIME SUMMARY

Analysis: EPA 1613B

Laboratory: Analytical Resources, LLC SDG: 23A0313

Client: Anchor QEA, LLC Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1148 23A0313-12	01/16/23 14:44	01/16/23 16:35	01/24/23 07:31	7	365	03/07/23 06:50	42	365	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 1613B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Instrument: AUTOSPEC01

Analyte	MDL	RL	Units
2,3,7,8-TCDF	0.058	1.00	ng/kg
2,3,7,8-TCDD	0.150	1.00	ng/kg
1,2,3,7,8-PeCDF	0.240	1.00	ng/kg
2,3,4,7,8-PeCDF	0.220	1.00	ng/kg
1,2,3,7,8-PeCDD	0.170	1.00	ng/kg
1,2,3,4,7,8-HxCDF	0.280	1.00	ng/kg
1,2,3,6,7,8-HxCDF	0.200	1.00	ng/kg
2,3,4,6,7,8-HxCDF	0.170	1.00	ng/kg
1,2,3,7,8,9-HxCDF	0.190	1.00	ng/kg
1,2,3,4,7,8-HxCDD	0.170	1.00	ng/kg
1,2,3,6,7,8-HxCDD	0.180	1.00	ng/kg
1,2,3,7,8,9-HxCDD	0.220	1.00	ng/kg
1,2,3,4,6,7,8-HpCDF	0.210	1.00	ng/kg
1,2,3,4,7,8,9-HpCDF	0.240	1.00	ng/kg
1,2,3,4,6,7,8-HpCDD	0.560	2.50	ng/kg
OCDF	1.10	2.50	ng/kg
OCDD	4.60	10.0	ng/kg
Total TCDF		1.00	ng/kg
Total TCDD		1.00	ng/kg
Total PeCDF		1.00	ng/kg
Total PeCDD		1.00	ng/kg
Total HxCDF		1.00	ng/kg
Total HxCDD		1.00	ng/kg
Total HpCDF		1.00	ng/kg
Total HpCDD		1.00	ng/kg

CS3WT

Calibration and Verification Solution (EPA-1613CS3) combined with Window Defining and 2,3,7,8-TCDD Resolution Testing Congeners

PRODUCT CODE:	CS3WT
LOT NUMBER:	CS3WT0918
SOLVENT(S):	Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy)	10/24/2018
LAST TESTED: (mm/dd/yyyy)	10/29/2018
EXPIRY DATE: (mm/dd/yyyy)	10/29/2025
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

CS3WT is a solution/mixture of native and $^{13}C_{12}$-labelled chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

CS3WT was designed and prepared to be used as a HRMS calibration standard according to U.S. EPA Method 1613B.

It is to be used for calibration verification in place of EPA-1613CS3 (Lot: 13CS30918). It also contains the PCDD and PCDF window defining congeners for a DB-5 (or equivalent) capillary column as well as the TCDD isomers required to test and confirm the resolution of 2,3,7,8-TCDD.

The individual ^{13}C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-$^{37}Cl_4$-tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (^{37}Cl) purity of ≥95%. The individual native 2,3,7,8-substituted PCDD and PCDF congeners all have chemical purities of >98%; the other congeners (window defining and resolution testing) should only be considered semi-quantitative.

This current lot of CS3WT is to be used with the 1613 calibration solutions having the following lot numbers:

PRODUCT CODE	LOT NUMBER
EPA-1613CS1	13CS10918
EPA-1613CS2	13CS20918
EPA-1613CS3	13CS30918
EPA-1613CS4	13CS40918
EPA-1613CS5	13CS50918
EPA-1613CSL	13CSL0918
EPA-1613CS0.5	13CS0.50918

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.
- Only the 2,3,7,8-substituted PCDDs and PCDFs should be used for quantitation. The other congeners (window defining and 2378-TCDD resolution testing) should be considered semi-quantitative (within ±20% of their design value). Impurities have been identified where possible.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: **CS3WT; Components and Concentrations (ng/ml, in nonane/4.5% toluene)**

QUANTITATIVE ANALYTES (ng/ml, ±5%)	
Native PCDDs & PCDFs:	
2,3,7,8-TCDD	10
2,3,7,8-TCDF	10
1,2,3,7,8-PeCDD	50
1,2,3,7,8-PeCDF	50
2,3,4,7,8-PeCDF	50
1,2,3,4,7,8-HxCDD	50
1,2,3,6,7,8-HxCDD	50
1,2,3,7,8,9-HxCDD	50
1,2,3,4,7,8-HxCDF	50
1,2,3,6,7,8-HxCDF	50
1,2,3,7,8,9-HxCDF	50
2,3,4,6,7,8-HxCDF	50
1,2,3,4,6,7,8-HpCDD *(WD)*	50
1,2,3,4,6,7,8-HpCDF *(WD)*	50
1,2,3,4,7,8,9-HpCDF *(WD)*	50
OCDD	100
OCDF	100
Labelled PCDDs & PCDFs:	
$^{13}C_{12}$-2,3,7,8-TCDD	100
$^{13}C_{12}$-2,3,7,8-TCDF	100
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100
$^{13}C_{12}$-OCDD	200
Cleanup Standard:	
$^{37}Cl_4$-2,3,7,8-TCDD	10
Internal Standards:	
$^{13}C_{12}$-1,2,3,4-TCDD	100
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	100

SEMI-QUANTITATIVE ANALYTES (ng/ml, ±20%)	
Window Definers:*	
1,3,6,8-TCDD	10
1,2,8,9-TCDD	10
1,3,6,8-TCDF	10
1,2,8,9-TCDF	10
1,2,4,6,8/1,2,4,7,9-PeCDD	50
1,2,3,8,9-PeCDD	50
1,3,4,6,8-PeCDF	50
1,2,3,8,9-PeCDF	50
1,2,4,6,7,9-HxCDD	50
1,2,3,4,6,8-HxCDF	50
1,2,3,4,6,7,9-HpCDD	50
2378-TCDD Resolution Testing Isomers:	
1,2,3,4-TCDD	5
1,2,3,7/1,2,3,8-TCDD	5
1,2,3,9-TCDD	10

** 1,2,3,4,6,7-HxCDD (last eluting HxCDD) not included; coelutes with 1,2,3,7,8,9-HxCDD. Use 1,2,3,4,6,7,9-HpCDD to set window.*

** 1,2,3,4,8,9-HxCDF (last eluting HxCDF) not included; can interfere with 1,2,3,7,8,9-HxCDF. Use 1,2,3,4,6,7,8-HpCDF to set window.*

WD – Window Definer

Certified By: _____ **Date:** 10/30/2018
(mm/dd/yyyy)

B.G. Chittim, General Manager

Figure 1: **CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**

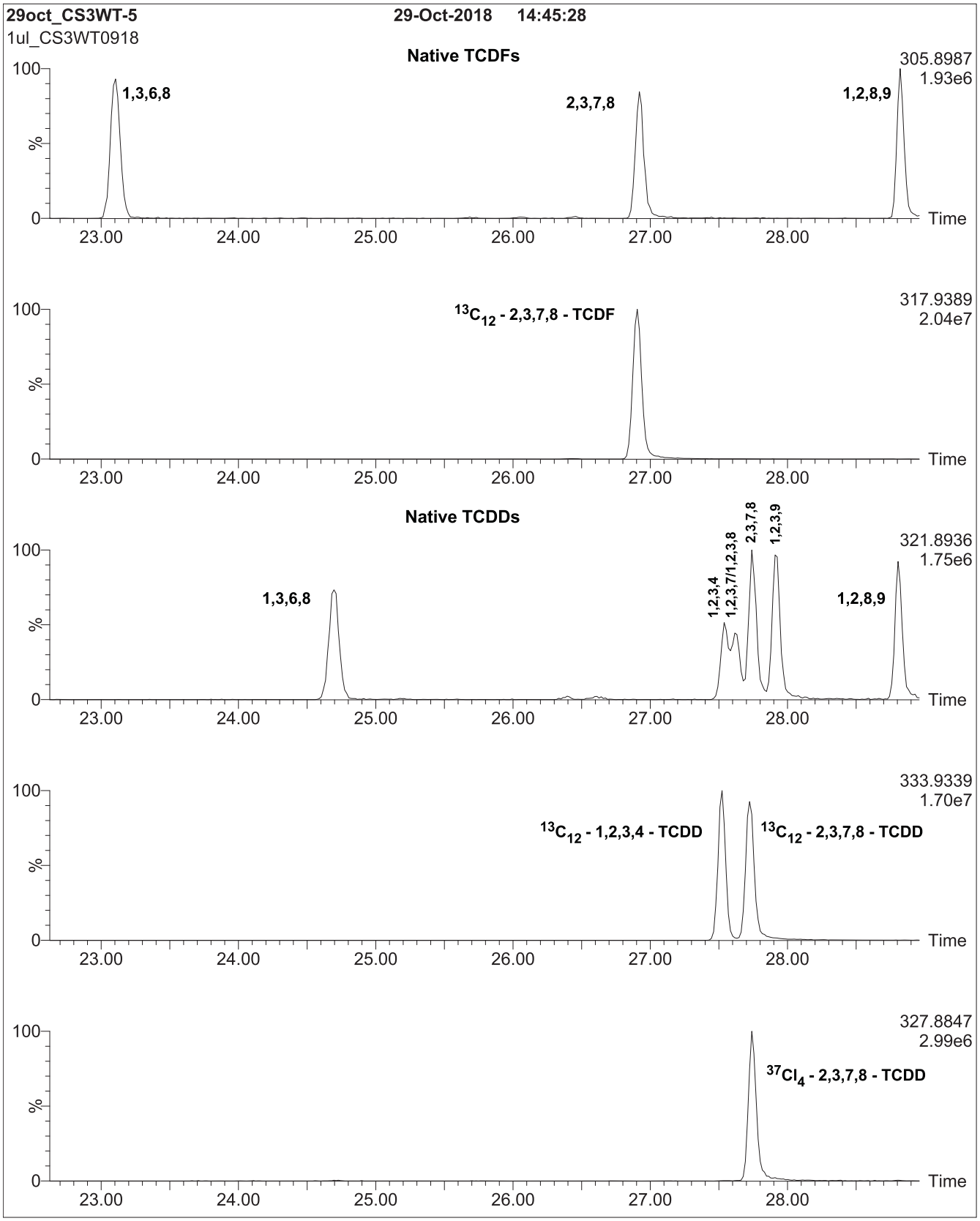


Figure 1: **CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**

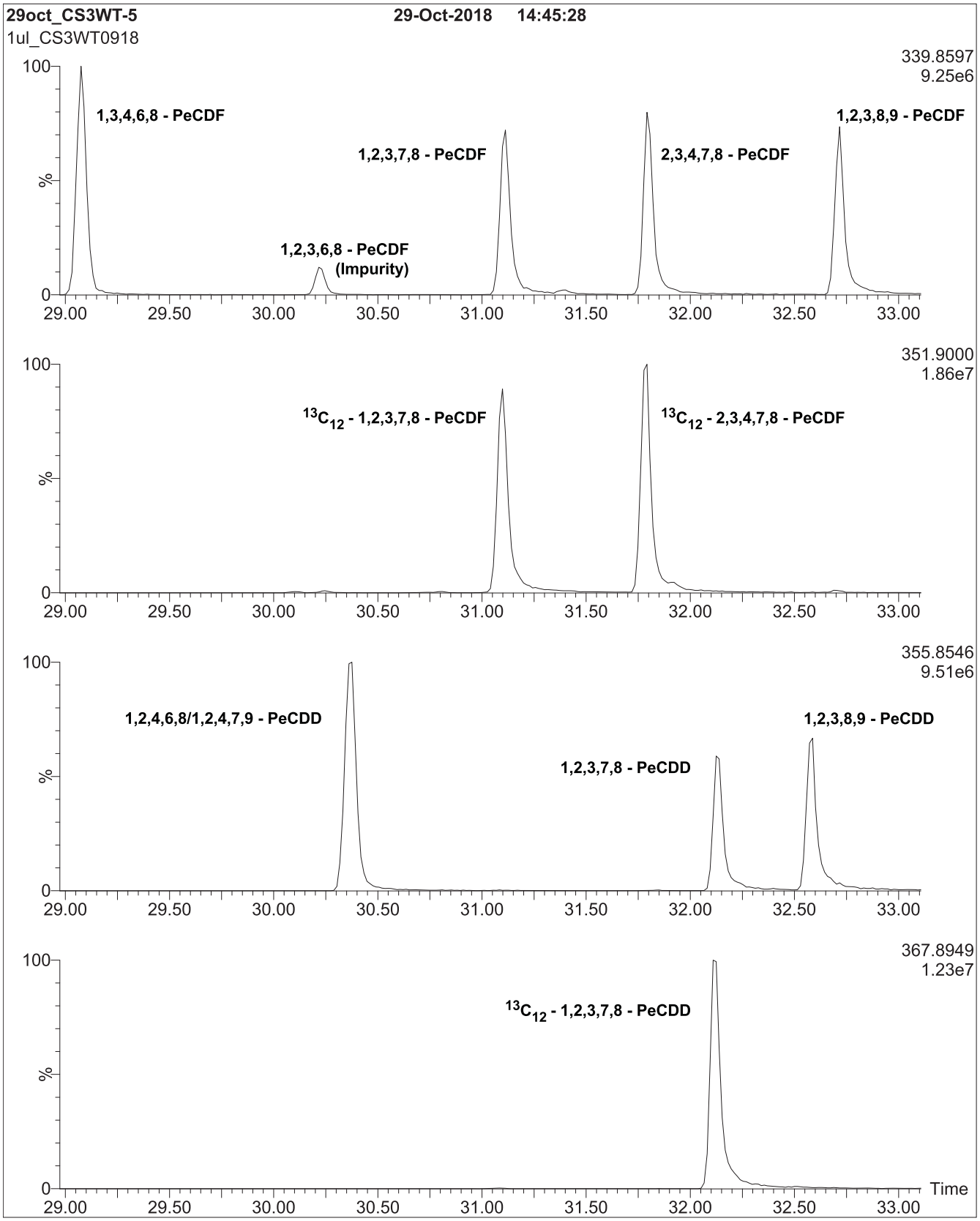


Figure 1: **CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**

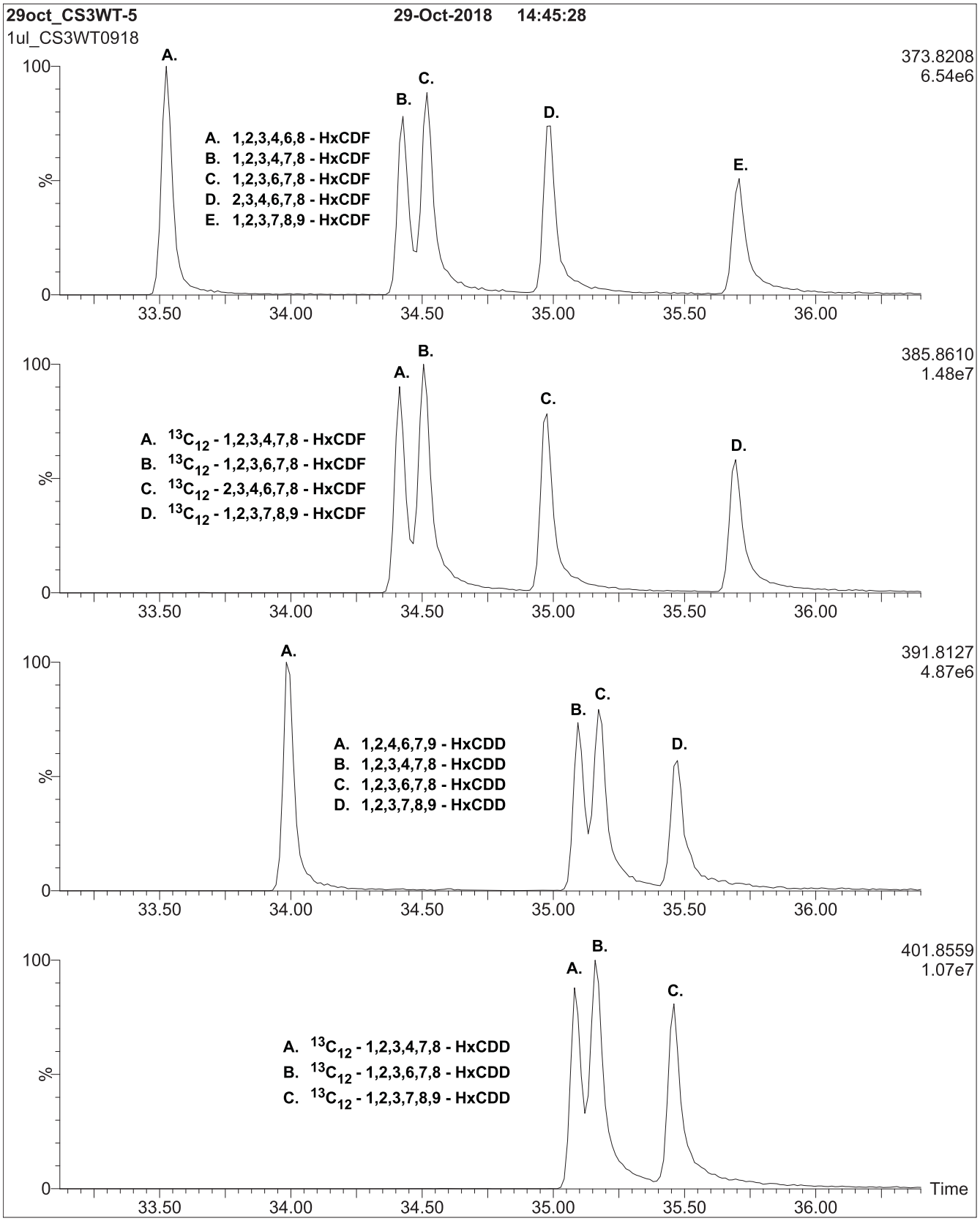


Figure 1: **CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**

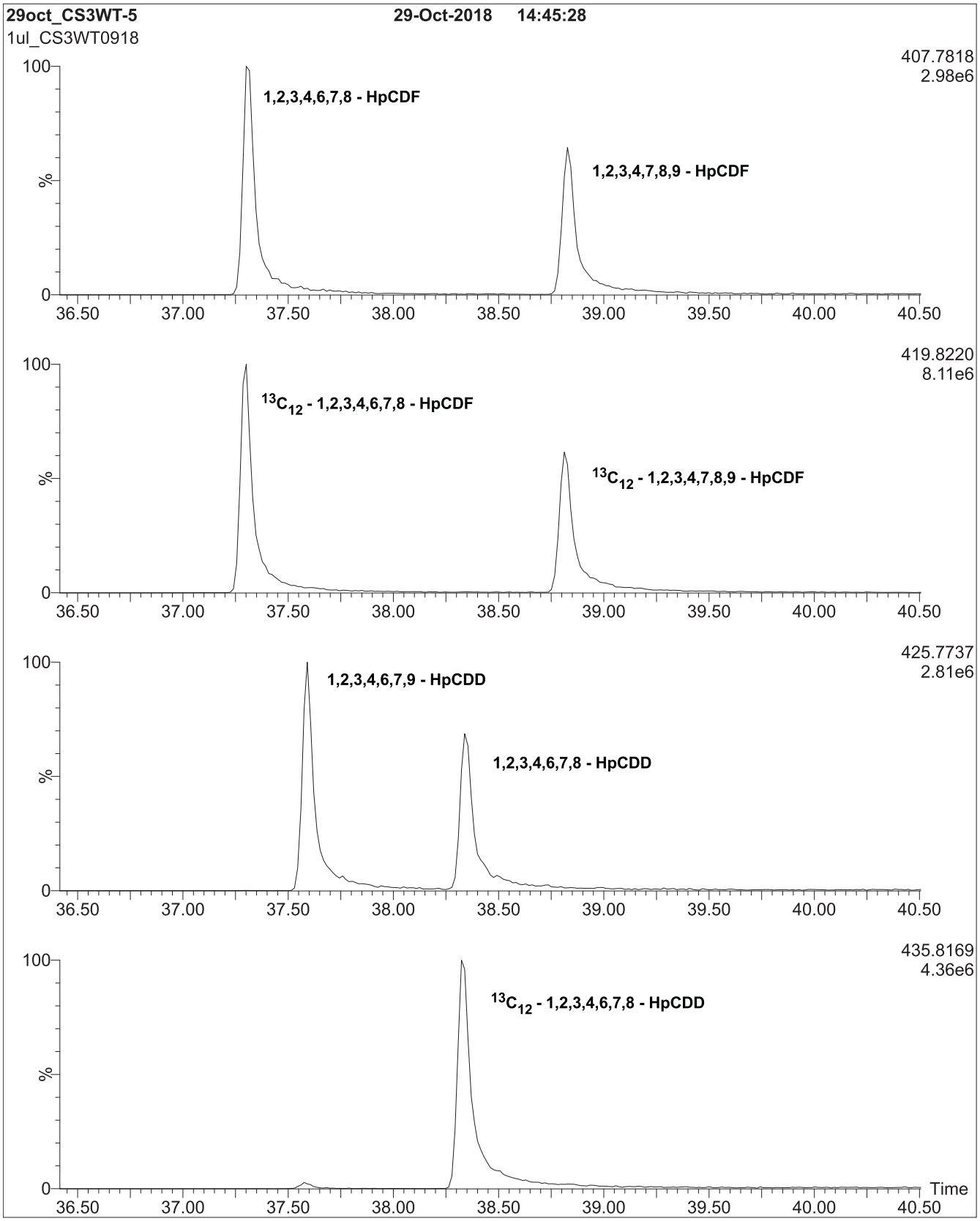
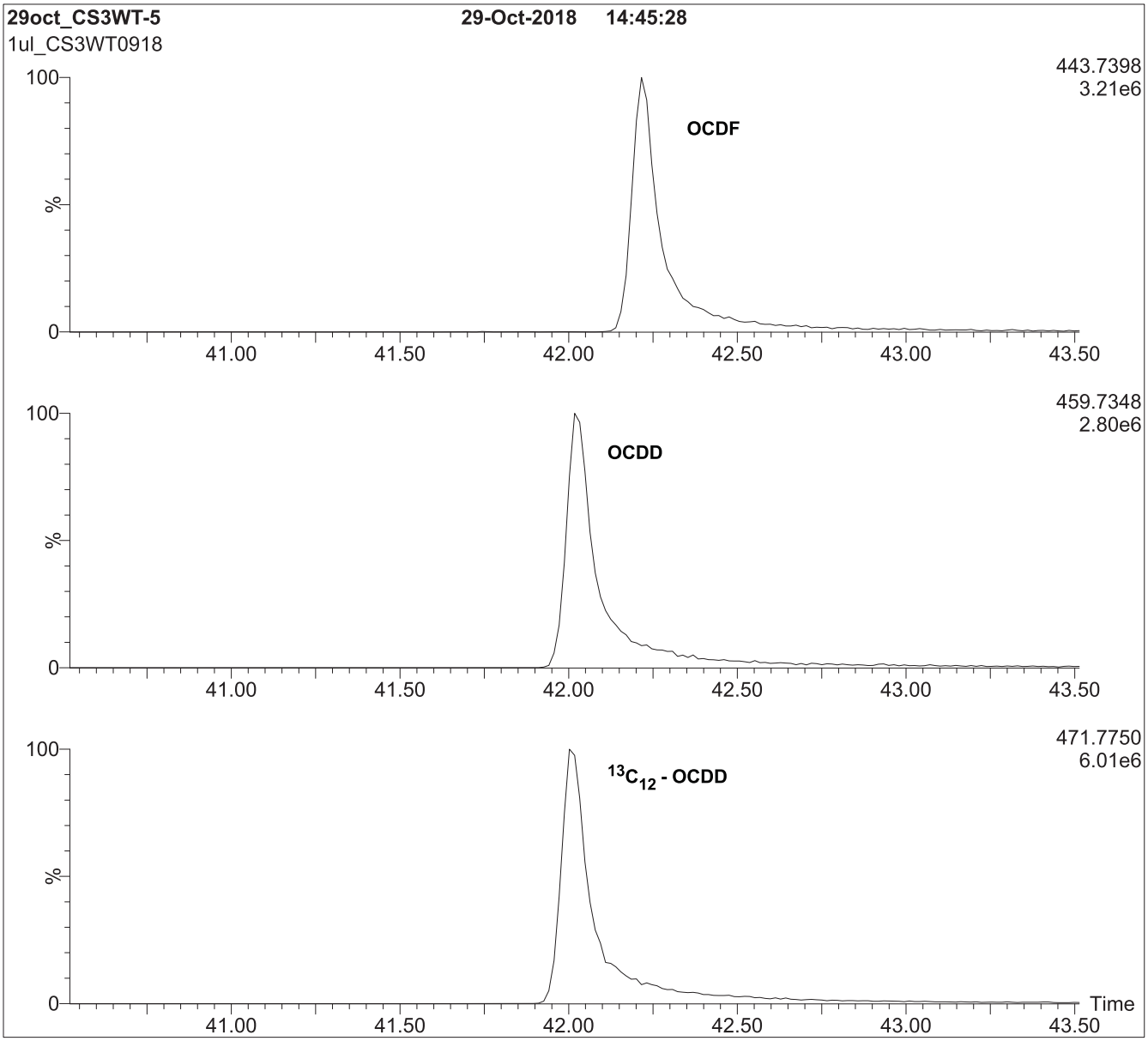


Figure 1: **CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow:	Constant at 1 ml/min	Oven:	150 °C (1 min)
Injector:	280 °C (Splitless Injection)		12 °C/min to 200 °C
Ionization:	EI+		3 °C/min to 235 °C
Detector:	280 °C		235 °C (8 min)
	SIR at 10,000 mass resolving power		8 °C/min to 310 °C
			310 °C (8 min)

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

EPA-1613CVS

U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5

PRODUCT CODES:	EPA-1613CVS	**LOT NUMBERS:**	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

SOLVENT(S):	Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy)	10/22/2019
LAST TESTED: (mm/dd/yyyy)	10/24/2019
EXPIRY DATE: (mm/dd/yyyy)	10/24/2026
RECOMMENDED STORAGE:	Store ampoules in a cool, dark place

I005456
1613 CS1 CAL STD
Expires 10/24/2026
Prepared By Joshua Rains 6/23/2020

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native ($^{12}C_{12}$) and mass-labelled ($^{13}C_{12}$ and $^{37}Cl_4$) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ^{13}C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-$^{37}Cl_4$-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (^{37}Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations
Table B: 5-point HRGC/HRMS Calibration and RRF Summary
Table C: 7-point HRGC/HRMS Calibration and RRF Summary
Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

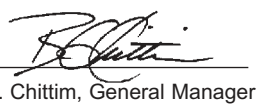
CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: **EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5); Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
Native PCDDs and PCDFs:	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CSL**	**CS0.5**
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
$^{13}C_{12}$-2,3,7,8-TCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,7,8-TCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
$^{37}Cl_4$-2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
$^{13}C_{12}$-1,2,3,4-TCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By:  **Date:** 10/25/2019
(mm/dd/yyyy)

B.G. Chittim, General Manager

Table B: **EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
$^{13}C_{12}$-2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
$^{13}C_{12}$-2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
$^{13}C_{12}$-1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
$^{13}C_{12}$-OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
$^{13}C_{12}$-1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
$^{37}Cl_4$-2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

Table C: **EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5); 7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
$^{13}C_{12}$-2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
$^{13}C_{12}$-2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
$^{13}C_{12}$-1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
$^{13}C_{12}$-OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
$^{13}C_{12}$-1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
$^{37}Cl_4$-2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

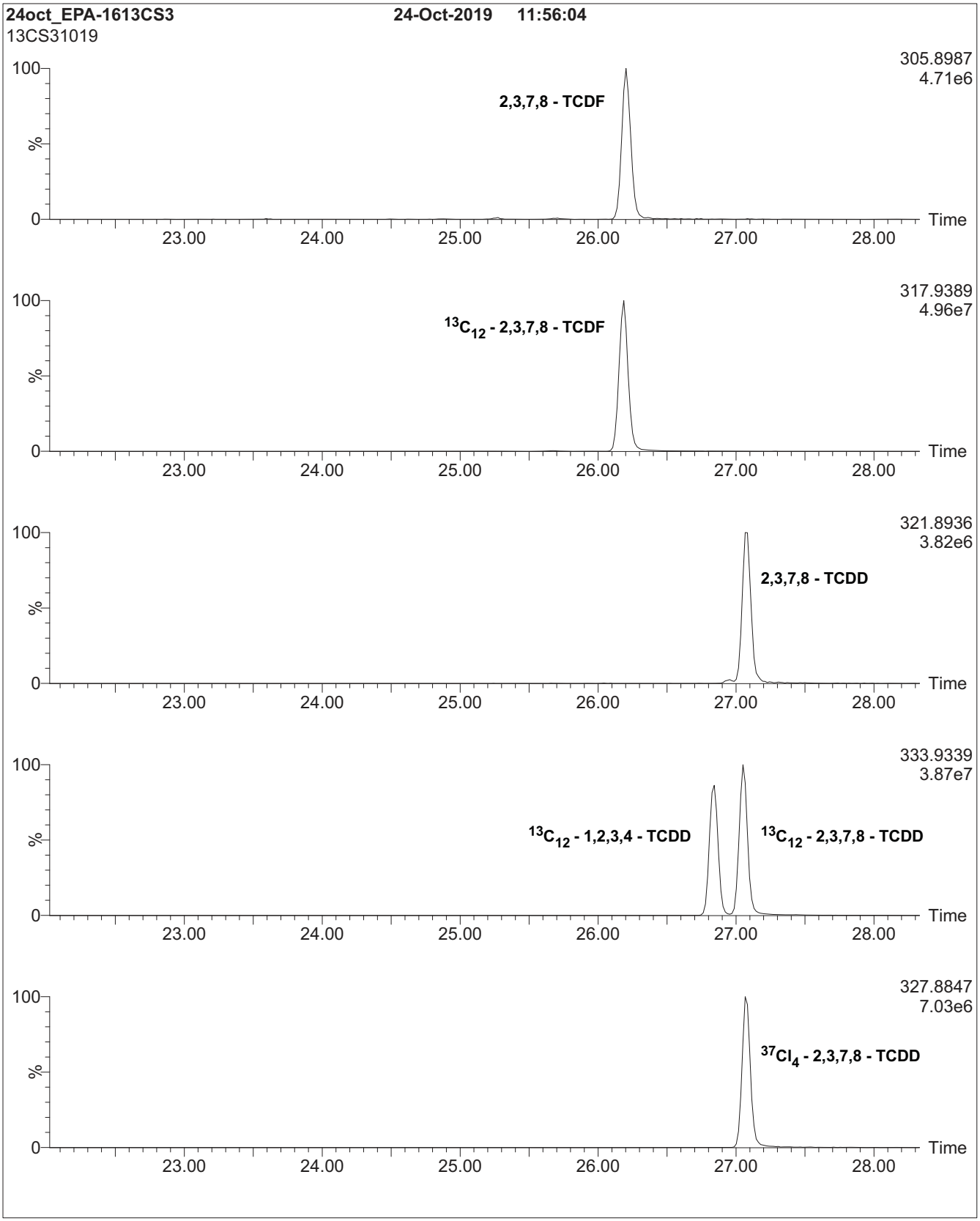


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

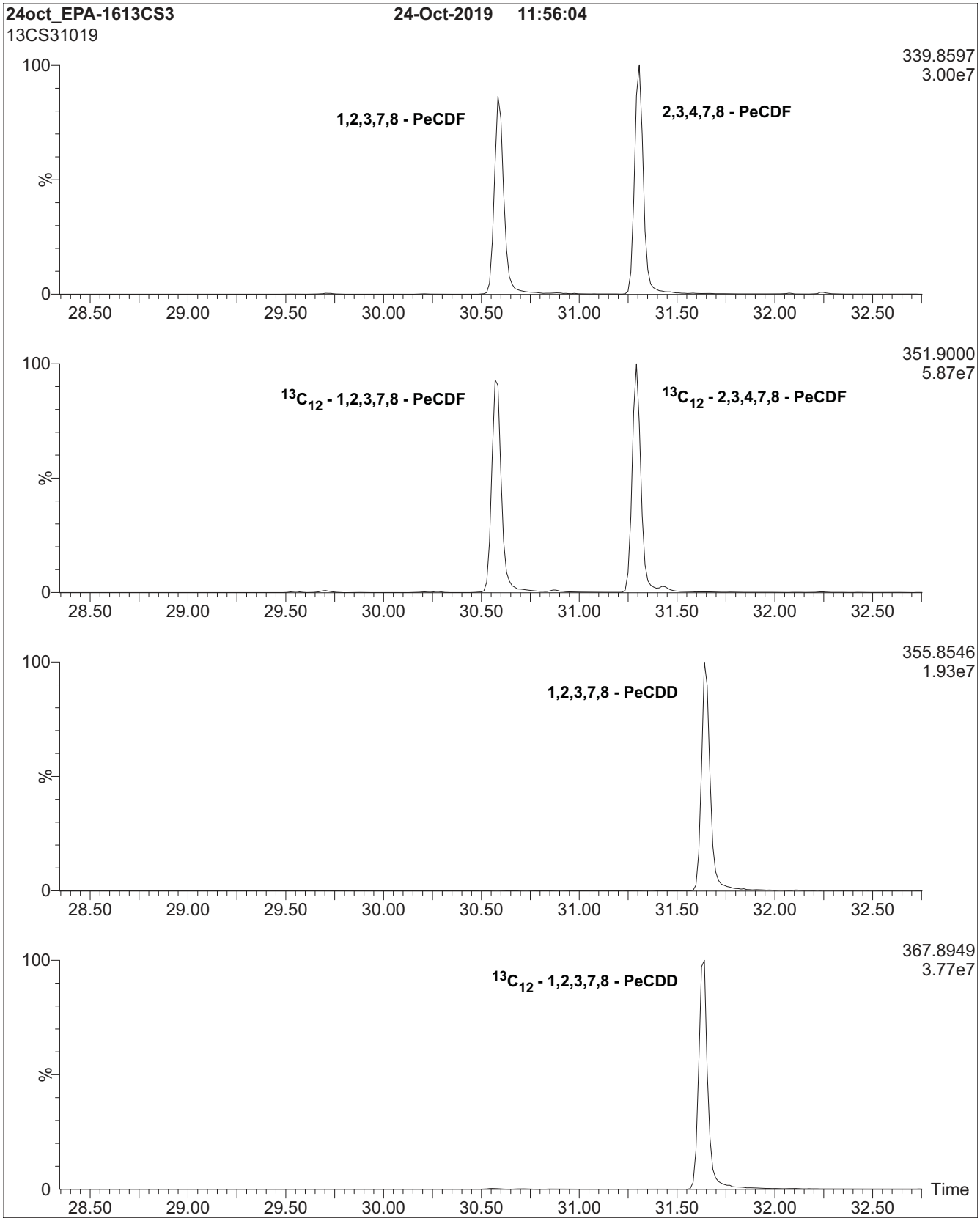


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

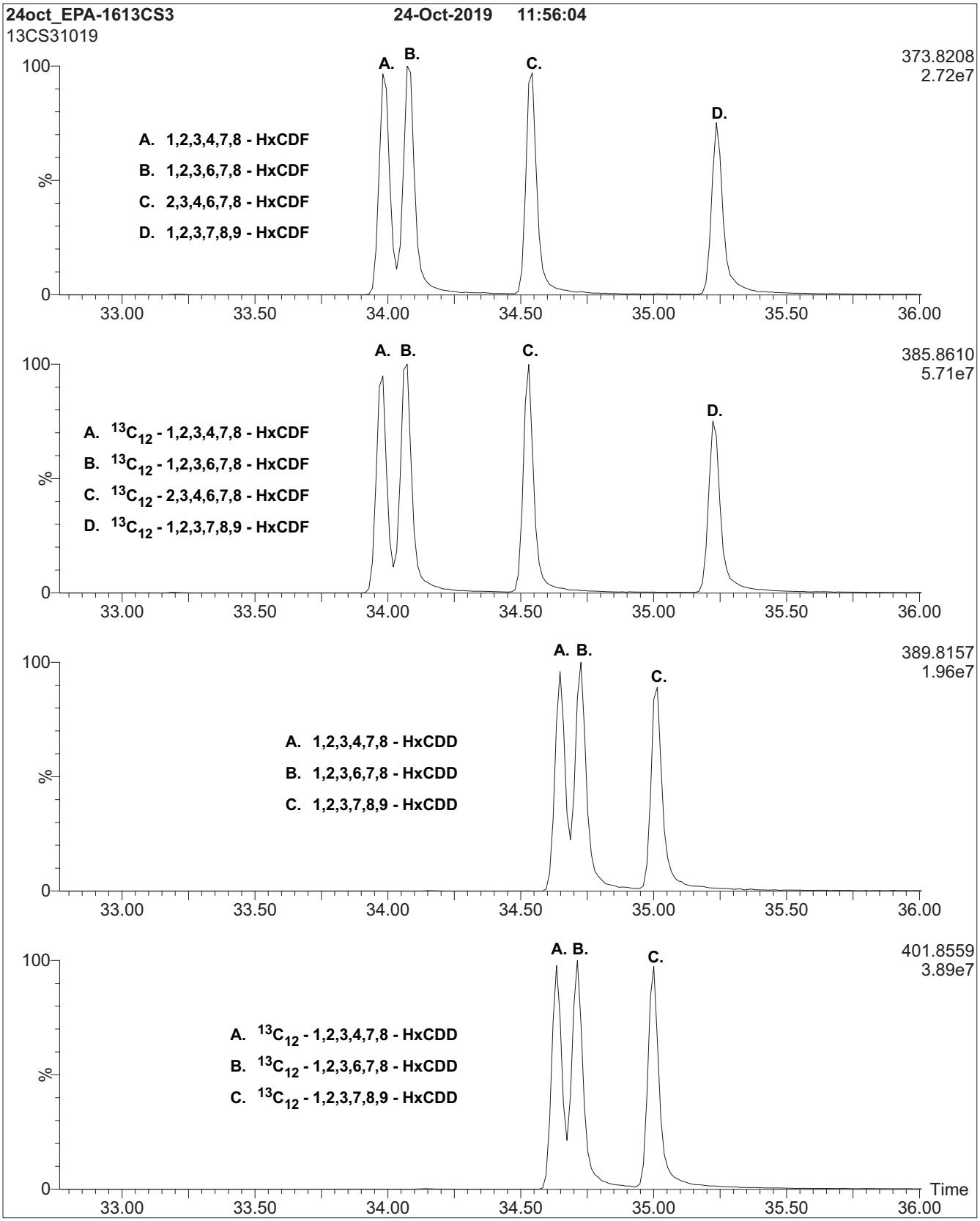


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

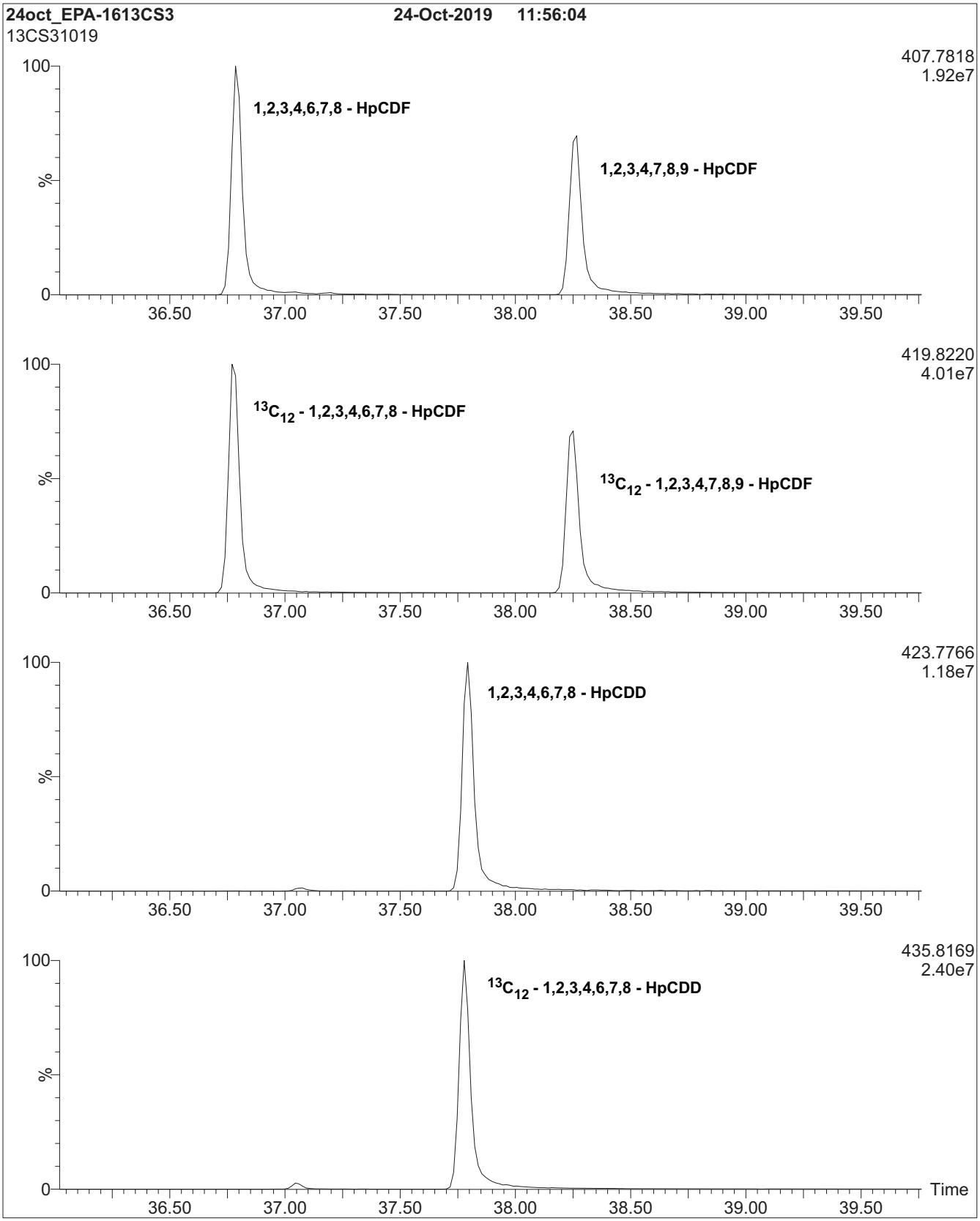
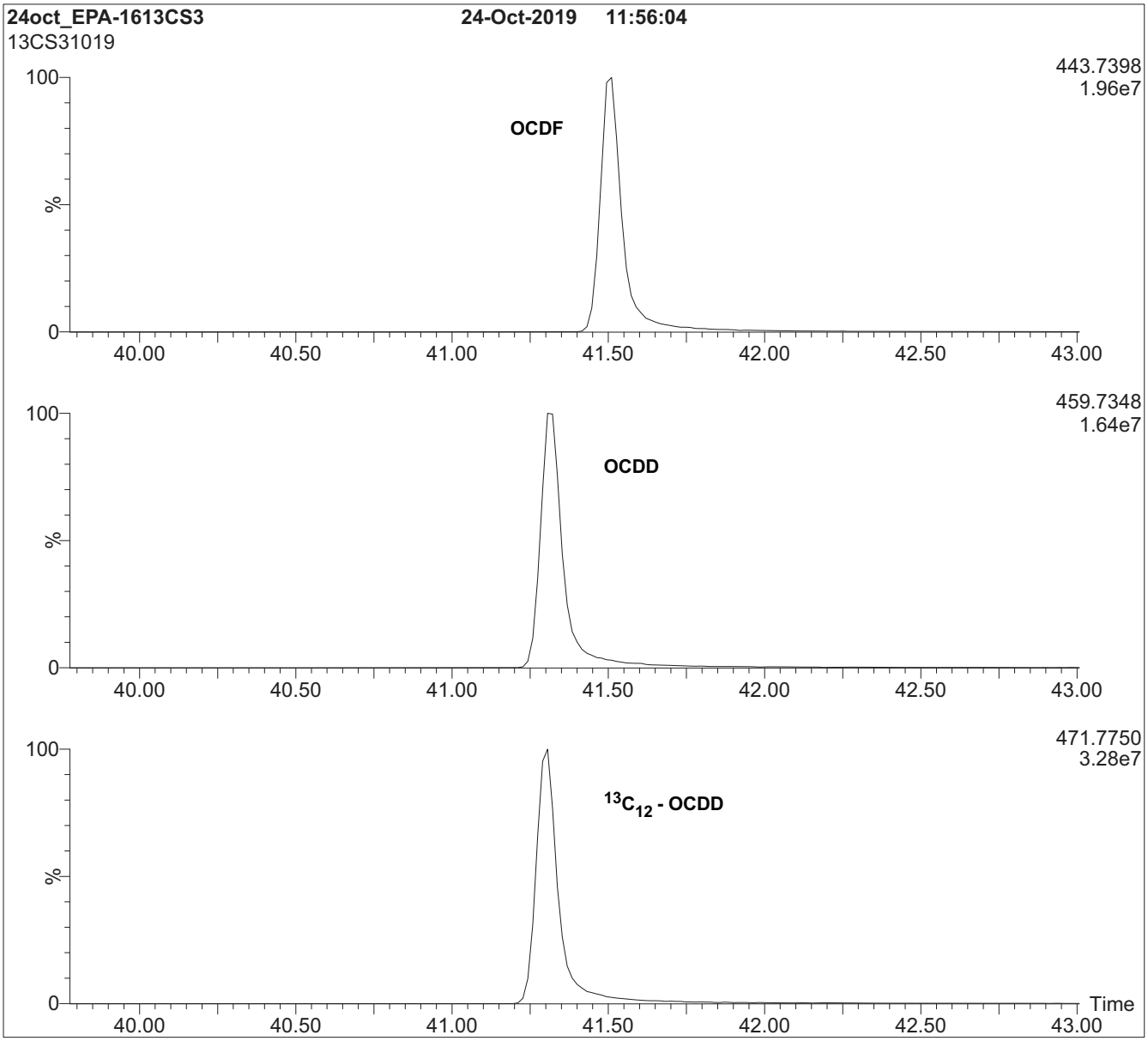


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min
Injector: 280 °C (Splitless Injection)
Ionization: EI+
Detector: 280 °C
SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)
12 °C/min to 200 °C
3 °C/min to 235 °C
235 °C (8 min)
8 °C/min to 310 °C
310 °C (8 min)

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

EPA-1613CVS

U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5

PRODUCT CODES:	EPA-1613CVS	**LOT NUMBERS:**	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

SOLVENT(S):	Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy)	10/22/2019
LAST TESTED: (mm/dd/yyyy)	10/24/2019
EXPIRY DATE: (mm/dd/yyyy)	10/24/2026
RECOMMENDED STORAGE:	Store ampoules in a cool, dark place

I005457
1613 CS2 CAL STD
Expires 10/24/2026
Prepared By Joshua Rains 6/23/2020

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native ($^{12}C_{12}$) and mass-labelled ($^{13}C_{12}$ and $^{37}Cl_4$) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ^{13}C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-$^{37}Cl_4$-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (^{37}Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations
Table B: 5-point HRGC/HRMS Calibration and RRF Summary
Table C: 7-point HRGC/HRMS Calibration and RRF Summary
Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: **EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5); Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
Native PCDDs and PCDFs:	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CSL**	**CS0.5**
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
$^{13}C_{12}$-2,3,7,8-TCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,7,8-TCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
$^{37}Cl_4$-2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
$^{13}C_{12}$-1,2,3,4-TCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By: _____ **Date:** 10/25/2019
(mm/dd/yyyy)
B.G. Chittim, General Manager

Table B: **EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
$^{13}C_{12}$-2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
$^{13}C_{12}$-2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
$^{13}C_{12}$-1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
$^{13}C_{12}$-OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
$^{13}C_{12}$-1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
$^{37}Cl_4$-2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

Table C: **EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5); 7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
$^{13}C_{12}$-2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
$^{13}C_{12}$-2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
$^{13}C_{12}$-1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
$^{13}C_{12}$-OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
$^{13}C_{12}$-1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
$^{37}Cl_4$-2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

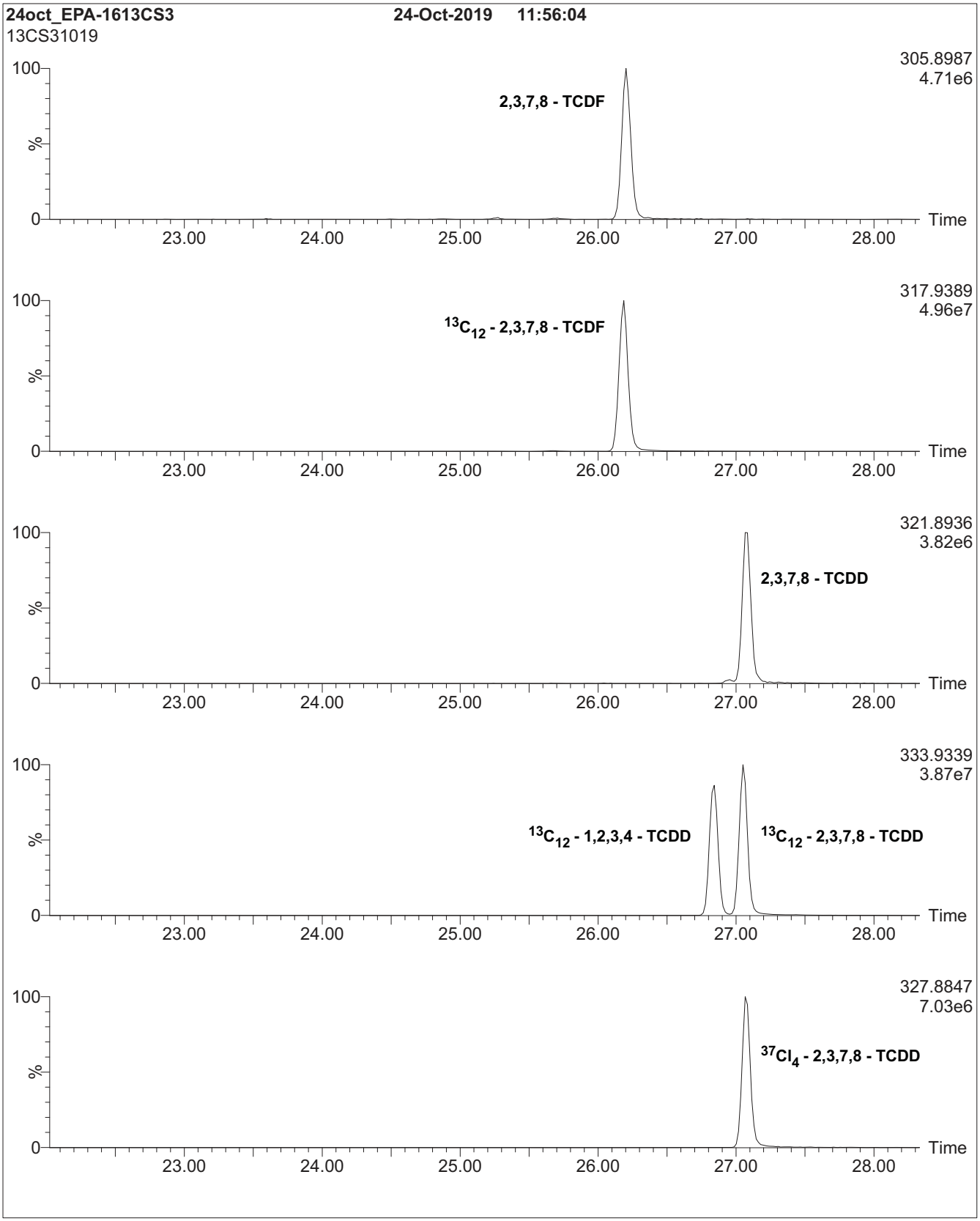


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

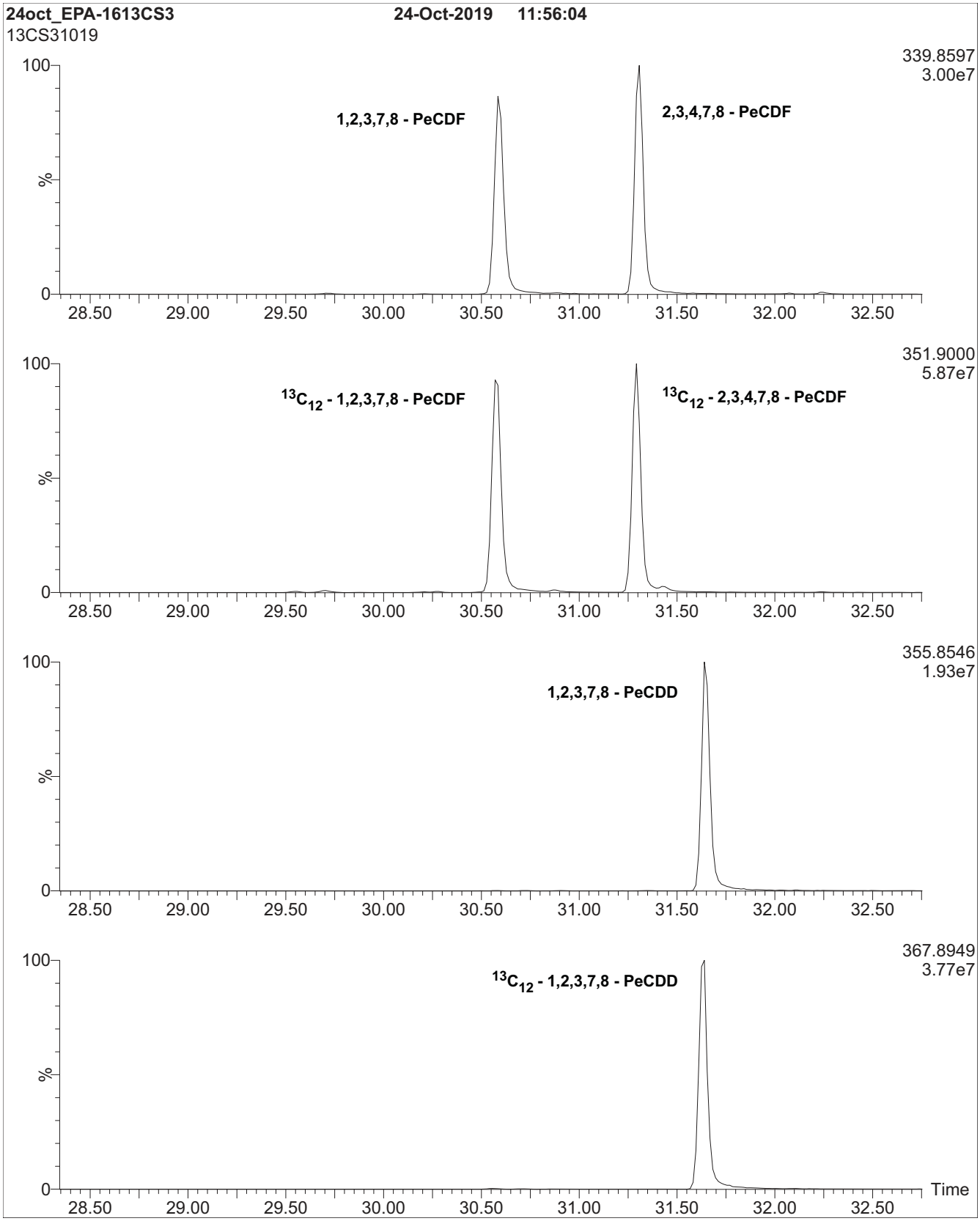


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

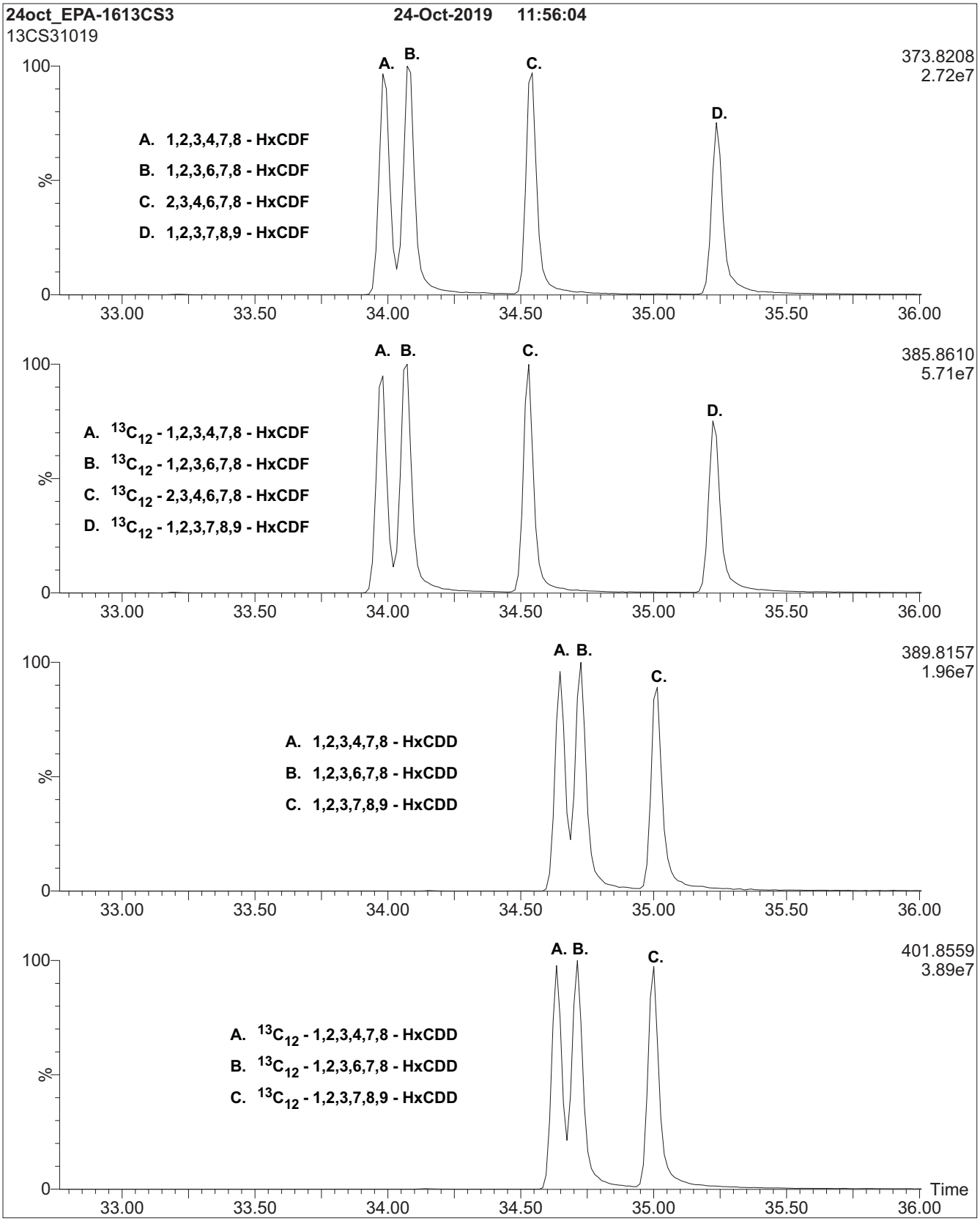


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

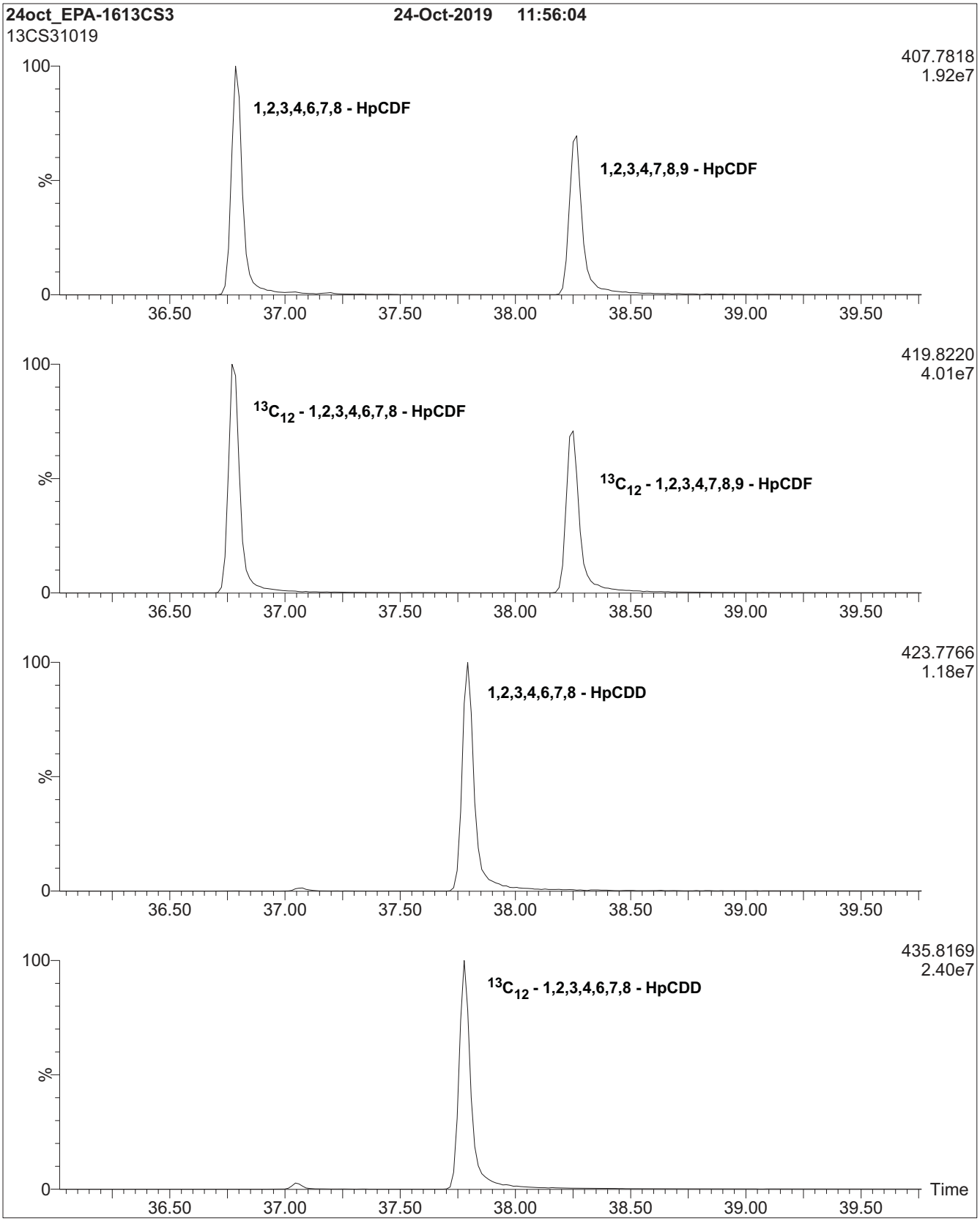
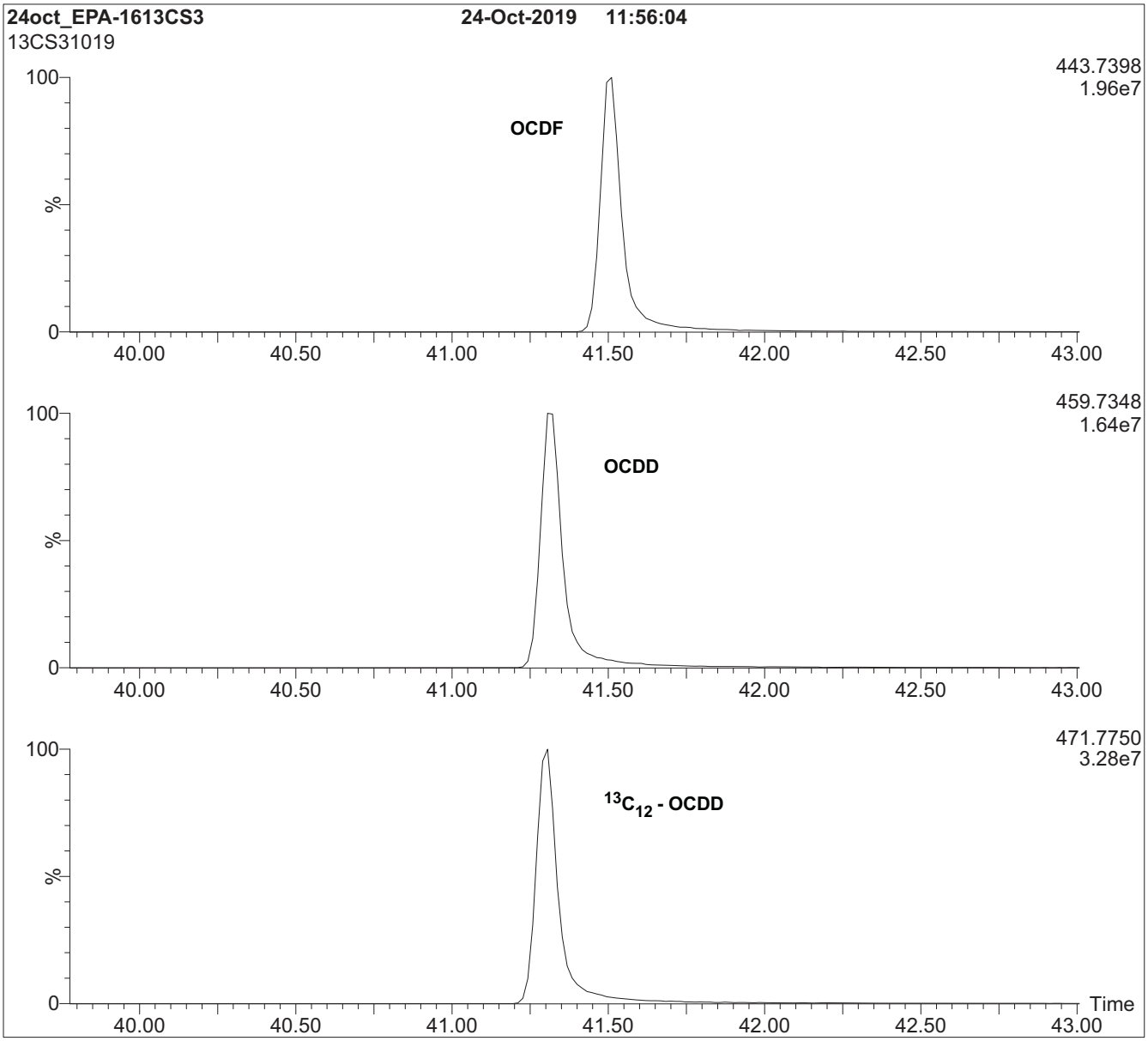


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow:	Constant at 1 ml/min	Oven:	150 °C (1 min)
Injector:	280 °C (Splitless Injection)		12 °C/min to 200 °C
Ionization:	EI+		3 °C/min to 235 °C
Detector:	280 °C		235 °C (8 min)
	SIR at 10,000 mass resolving power		8 °C/min to 310 °C
			310 °C (8 min)

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

EPA-1613CVS

U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5

PRODUCT CODES:	EPA-1613CVS	**LOT NUMBERS:**	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

SOLVENT(S):	Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy)	10/22/2019
LAST TESTED: (mm/dd/yyyy)	10/24/2019
EXPIRY DATE: (mm/dd/yyyy)	10/24/2026
RECOMMENDED STORAGE:	Store ampoules in a cool, dark place

I005458
1613 CS4 CAL STD
Expires 10/24/2026
Prepared By Joshua Rains 6/23/2020

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native ($^{12}C_{12}$) and mass-labelled ($^{13}C_{12}$ and $^{37}Cl_4$) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ^{13}C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-$^{37}Cl_4$-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (^{37}Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations
Table B: 5-point HRGC/HRMS Calibration and RRF Summary
Table C: 7-point HRGC/HRMS Calibration and RRF Summary
Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

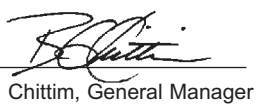
CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: **EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5); Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
Native PCDDs and PCDFs:	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CSL**	**CS0.5**
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
$^{13}C_{12}$-2,3,7,8-TCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,7,8-TCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
$^{37}Cl_4$-2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
$^{13}C_{12}$-1,2,3,4-TCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By:  **Date:** 10/25/2019
(mm/dd/yyyy)

B.G. Chittim, General Manager

Table B: **EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
$^{13}C_{12}$-2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
$^{13}C_{12}$-2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
$^{13}C_{12}$-1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
$^{13}C_{12}$-OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
$^{13}C_{12}$-1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
$^{37}Cl_4$-2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

Table C: **EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5); 7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
$^{13}C_{12}$-2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
$^{13}C_{12}$-2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
$^{13}C_{12}$-1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
$^{13}C_{12}$-OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
$^{13}C_{12}$-1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
$^{37}Cl_4$-2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

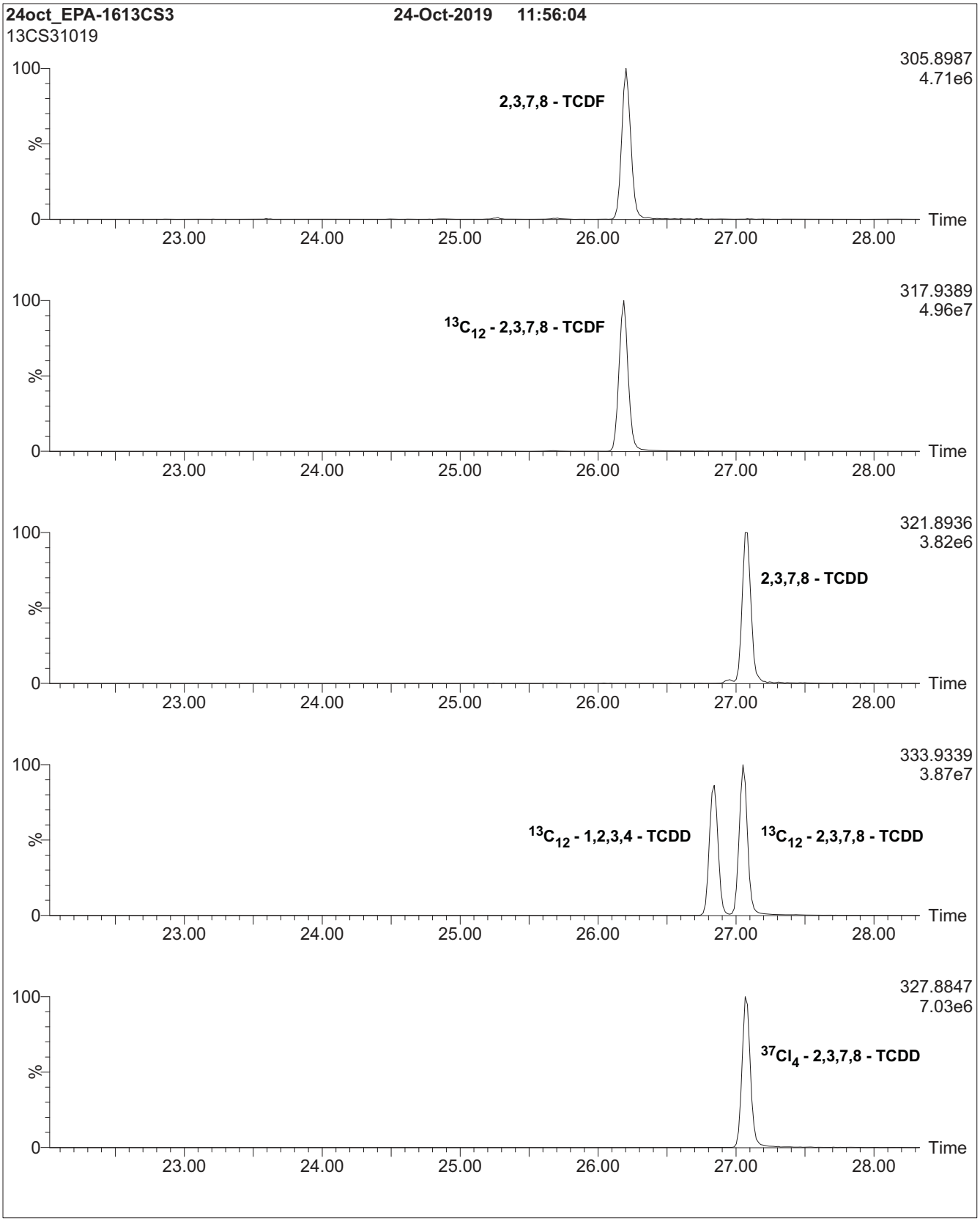


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

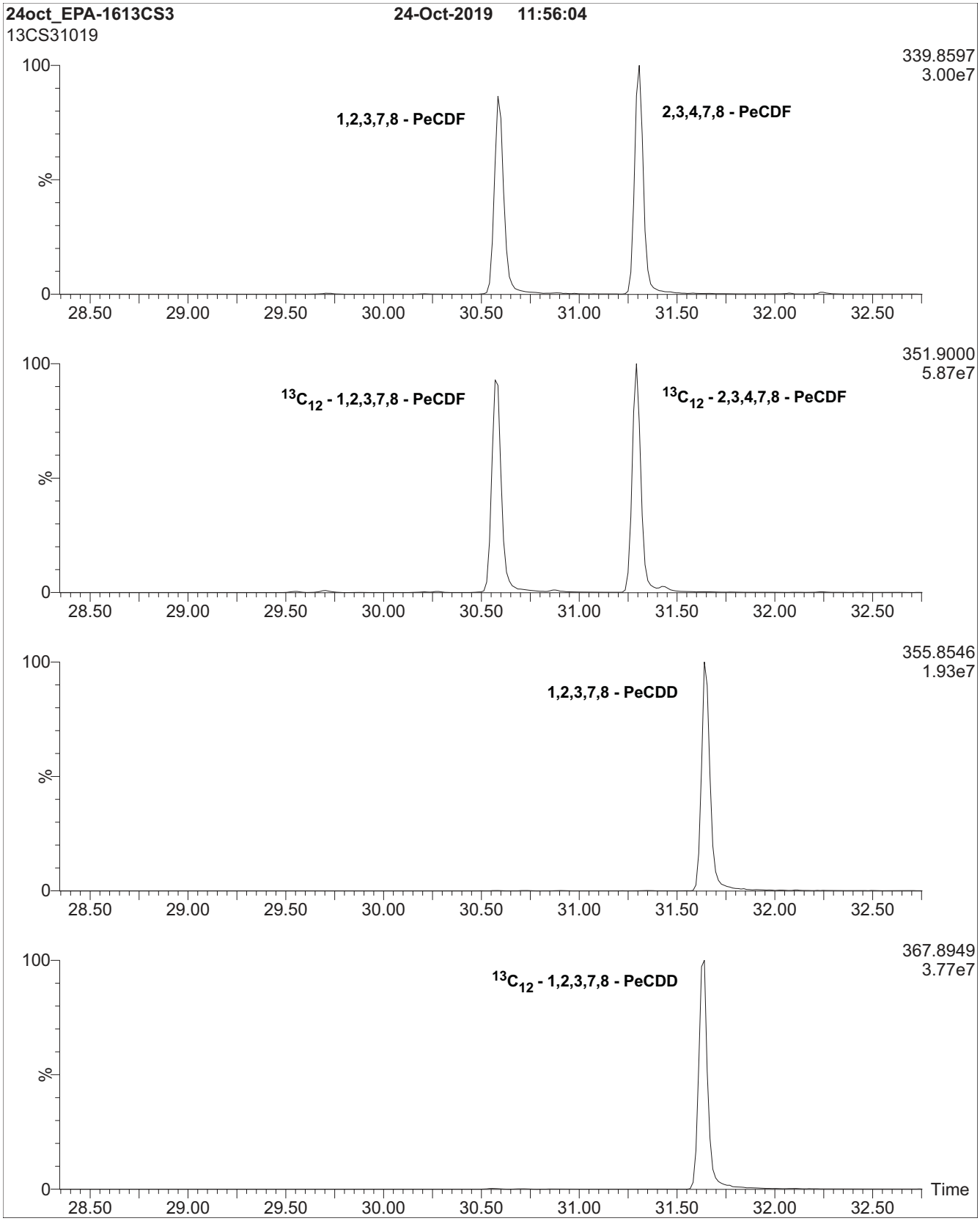


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

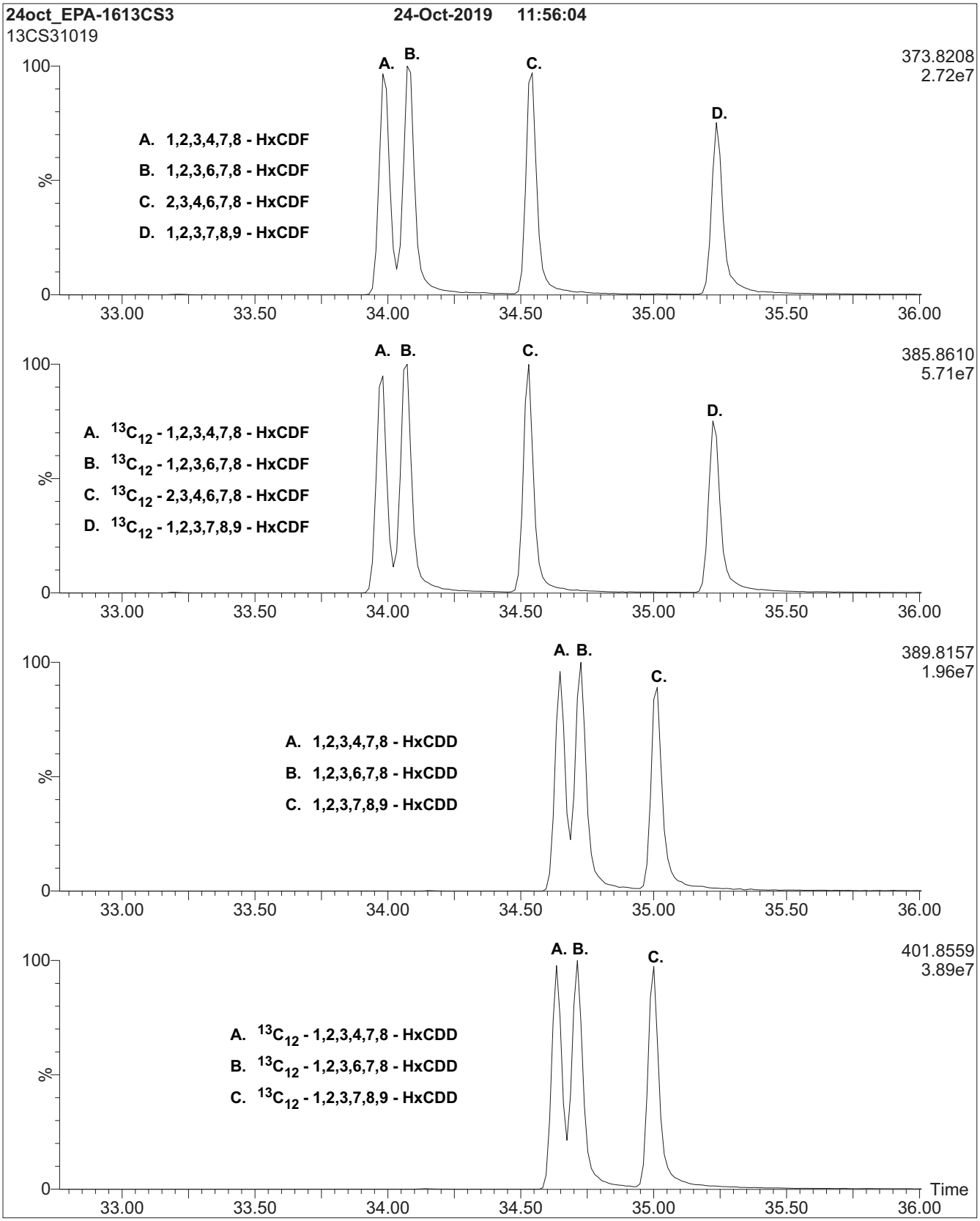


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

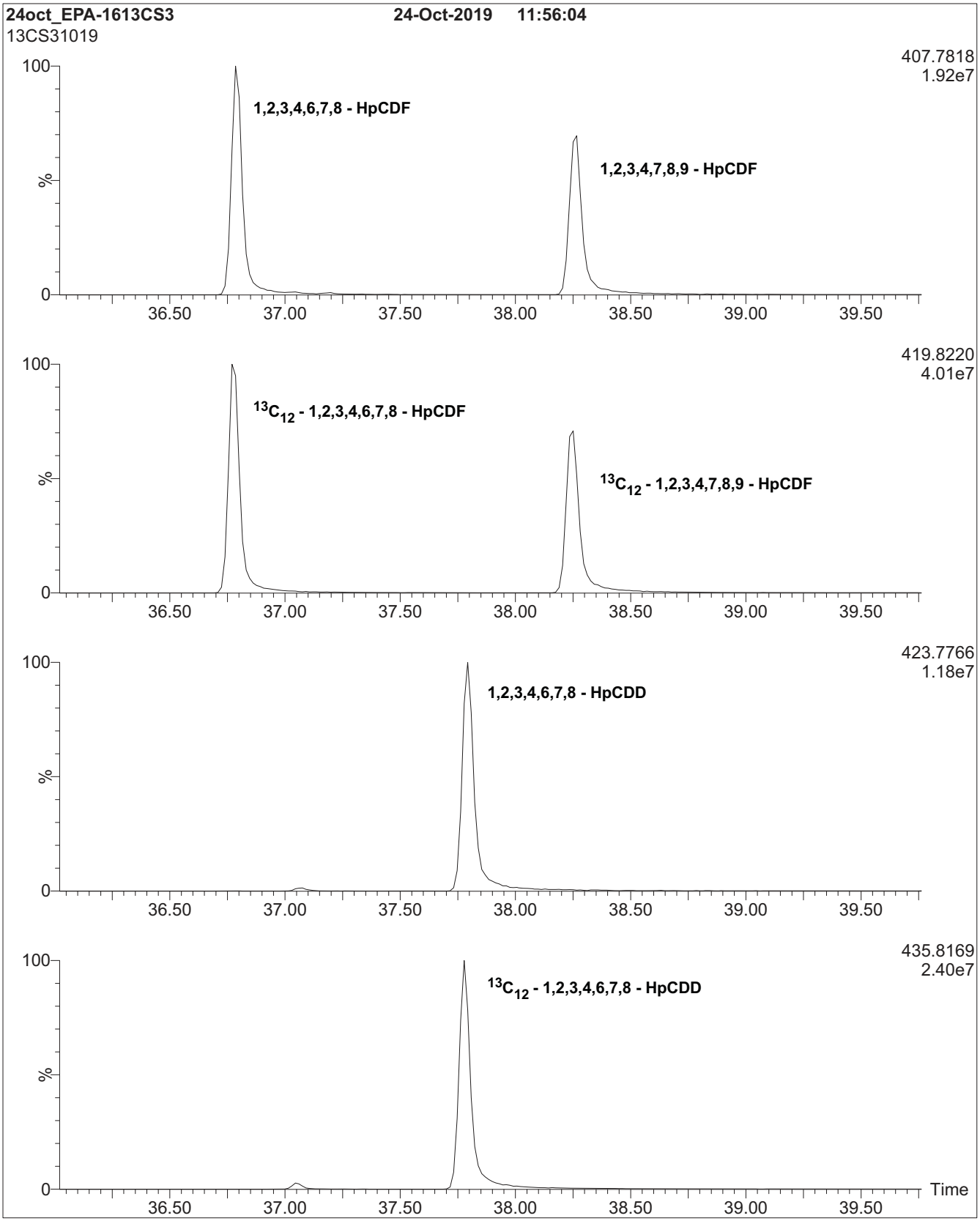
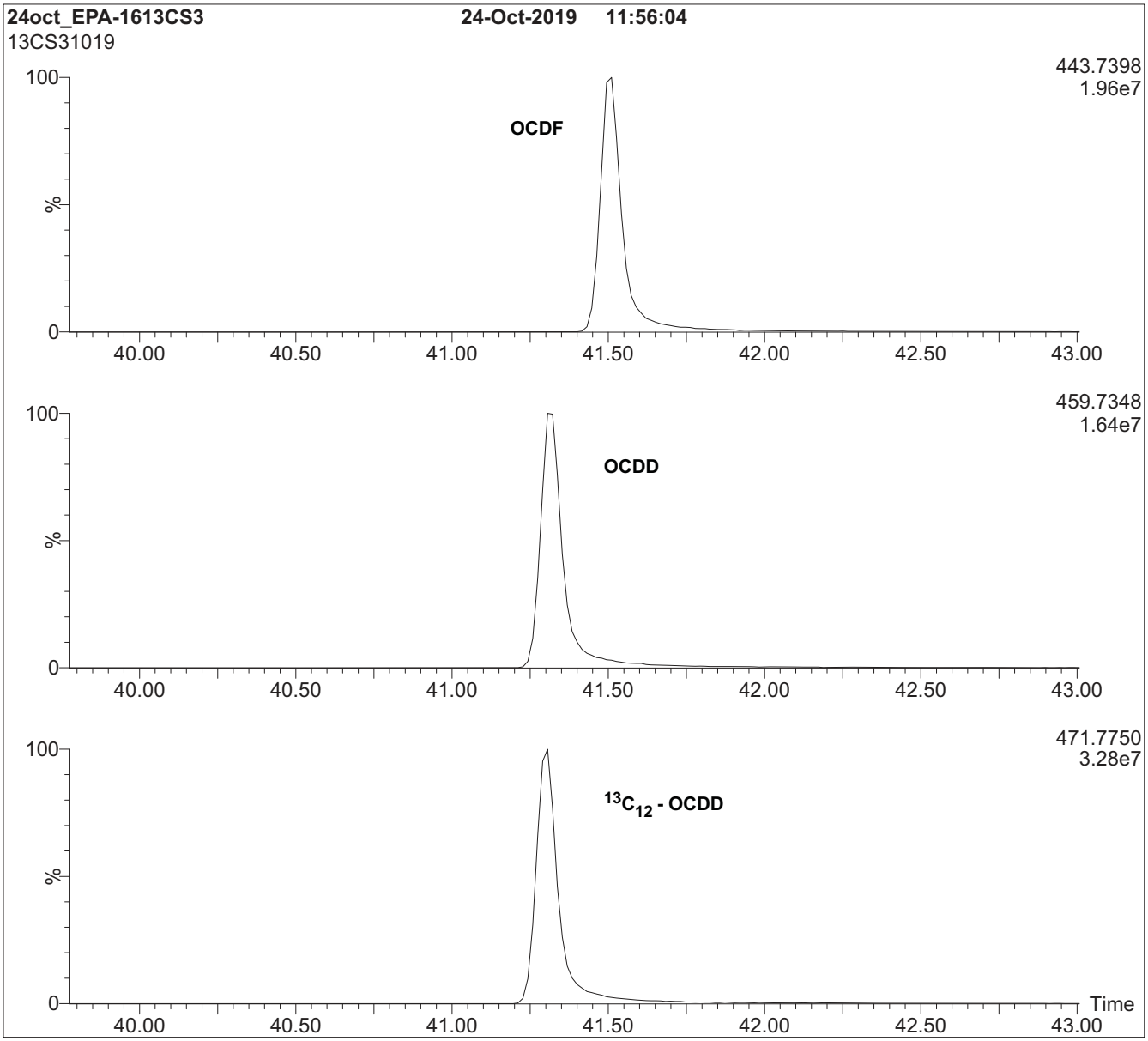


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min
Injector: 280 °C (Splitless Injection)
Ionization: EI+
Detector: 280 °C
SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)
12 °C/min to 200 °C
3 °C/min to 235 °C
235 °C (8 min)
8 °C/min to 310 °C
310 °C (8 min)

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

EPA-1613CVS

U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5

PRODUCT CODES:	EPA-1613CVS	**LOT NUMBERS:**	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

SOLVENT(S):	Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy)	10/22/2019
LAST TESTED: (mm/dd/yyyy)	10/24/2019
EXPIRY DATE: (mm/dd/yyyy)	10/24/2026
RECOMMENDED STORAGE:	Store ampoules in a cool, dark place

I005459
1613 CS5 CAL STD
Expires 10/24/2026
Prepared By Joshua Rains 6/23/2020

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native ($^{12}C_{12}$) and mass-labelled ($^{13}C_{12}$ and $^{37}Cl_4$) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ^{13}C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-$^{37}Cl_4$-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (^{37}Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations
Table B: 5-point HRGC/HRMS Calibration and RRF Summary
Table C: 7-point HRGC/HRMS Calibration and RRF Summary
Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: **EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5); Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
Native PCDDs and PCDFs:	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CSL**	**CS0.5**
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
$^{13}C_{12}$-2,3,7,8-TCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,7,8-TCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
$^{37}Cl_4$-2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
$^{13}C_{12}$-1,2,3,4-TCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By:  **Date:** 10/25/2019
(mm/dd/yyyy)

B.G. Chittim, General Manager

Table B: **EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
$^{13}C_{12}$-2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
$^{13}C_{12}$-2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
$^{13}C_{12}$-1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
$^{13}C_{12}$-OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
$^{13}C_{12}$-1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
$^{37}Cl_4$-2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

Table C: **EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5); 7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
$^{13}C_{12}$-2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
$^{13}C_{12}$-2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
$^{13}C_{12}$-1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
$^{13}C_{12}$-OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
$^{13}C_{12}$-1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
$^{37}Cl_4$-2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

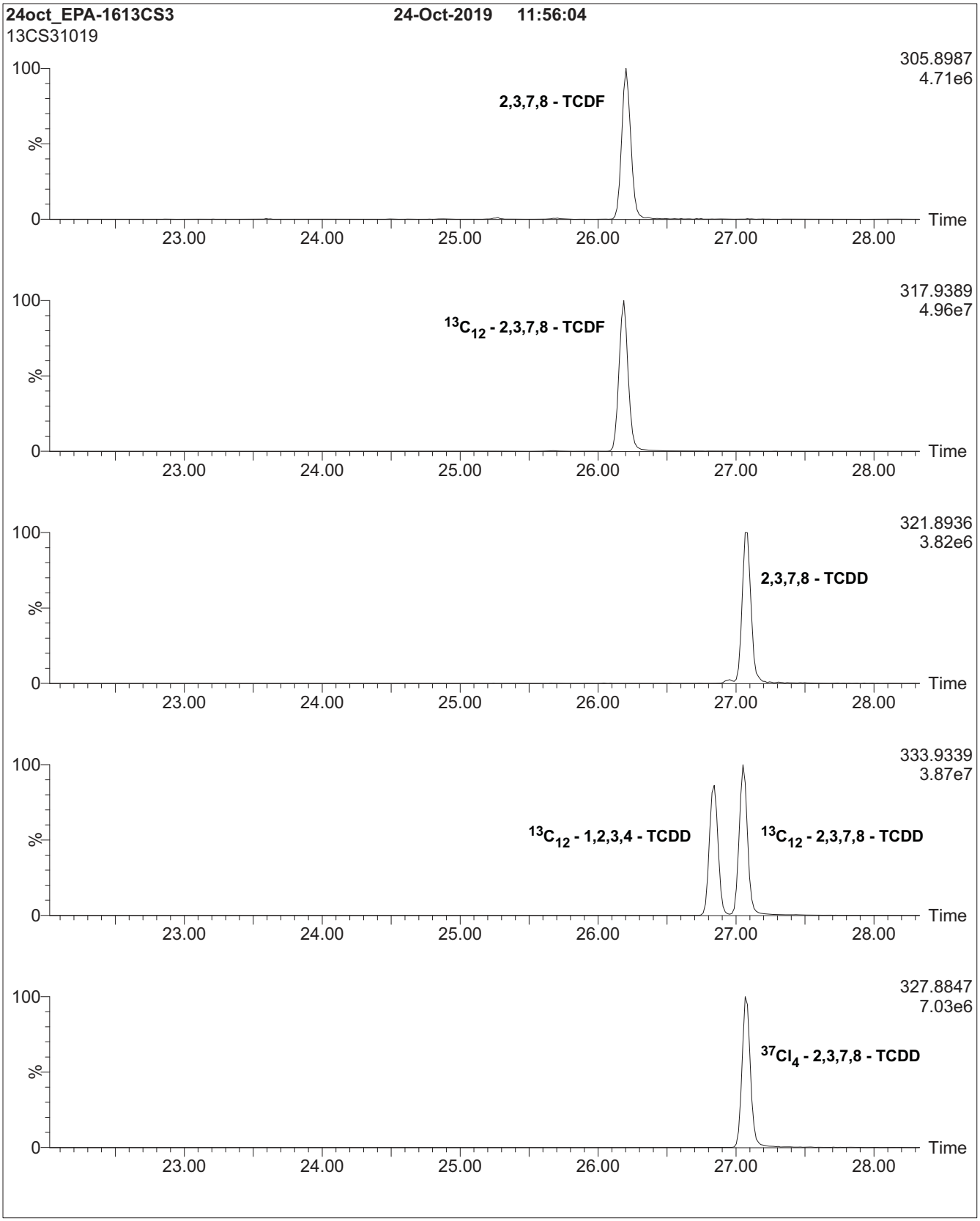


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

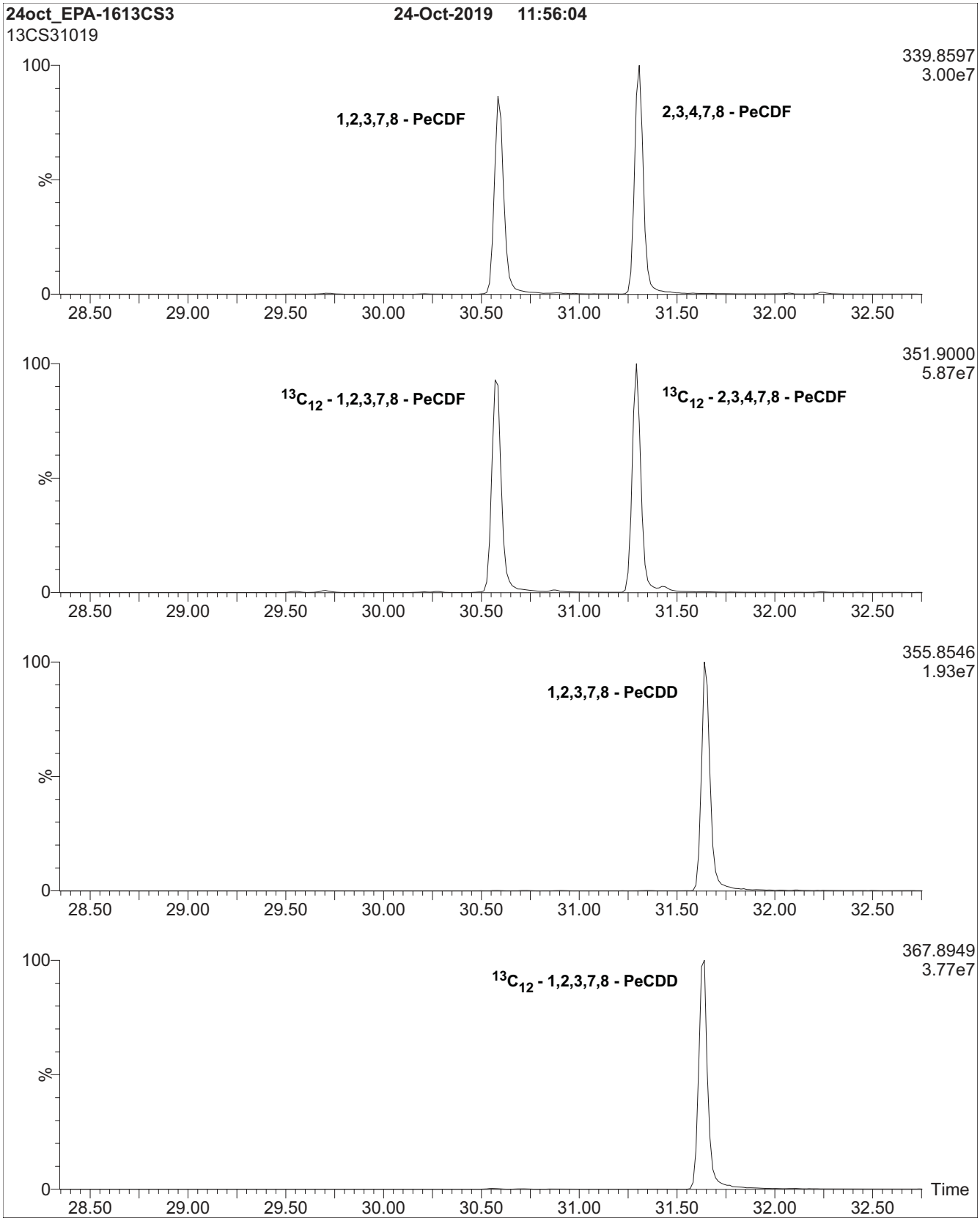


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

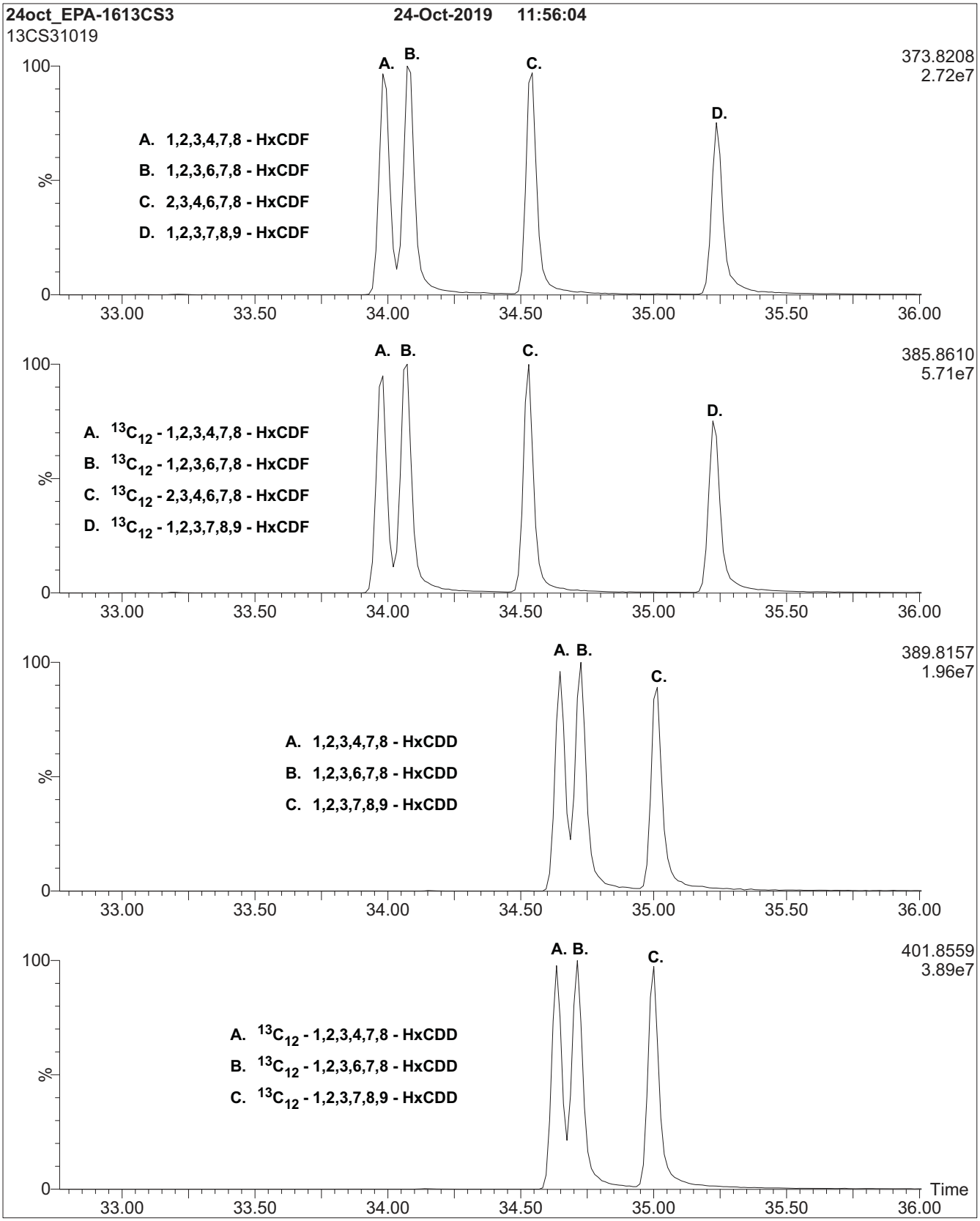


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

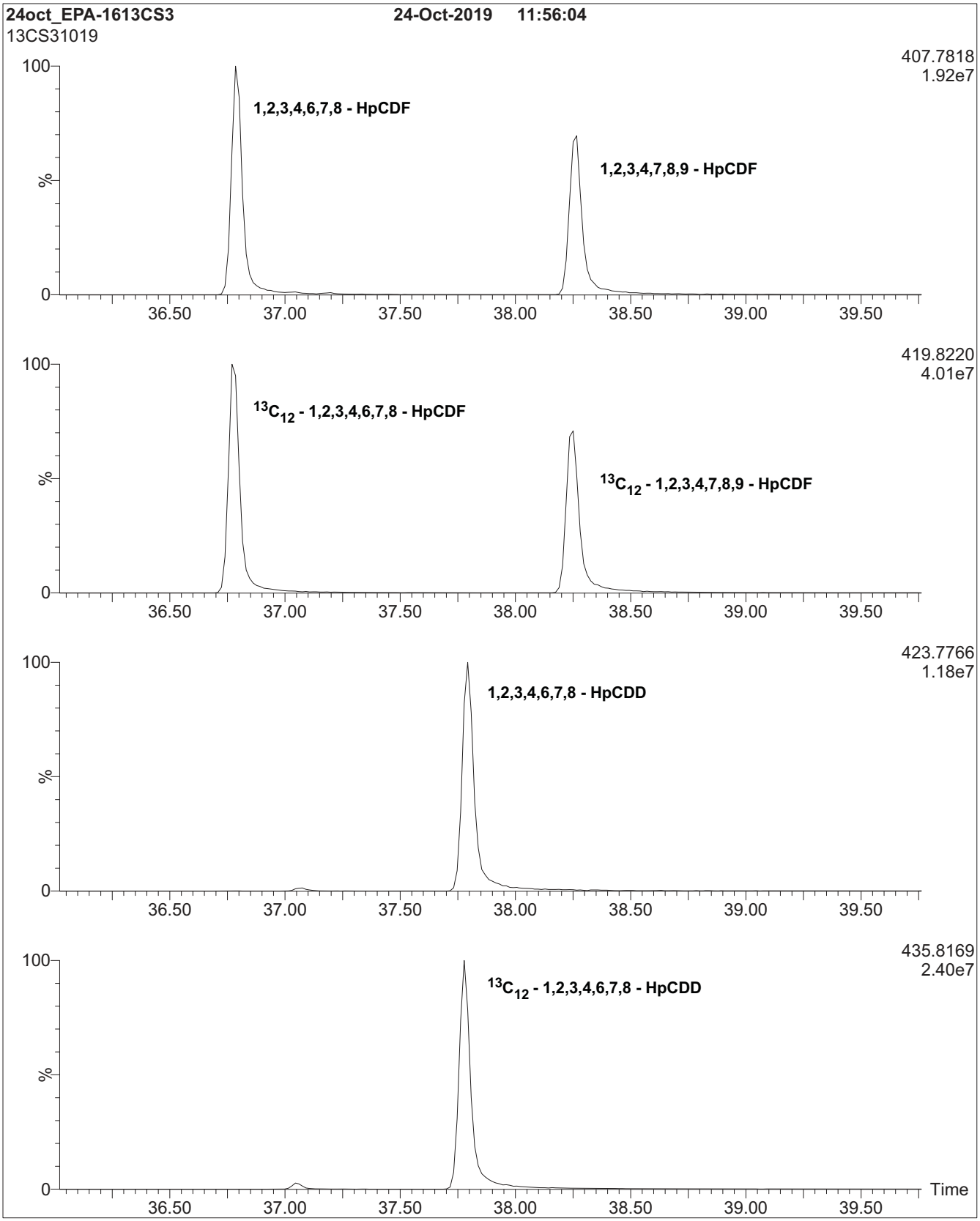
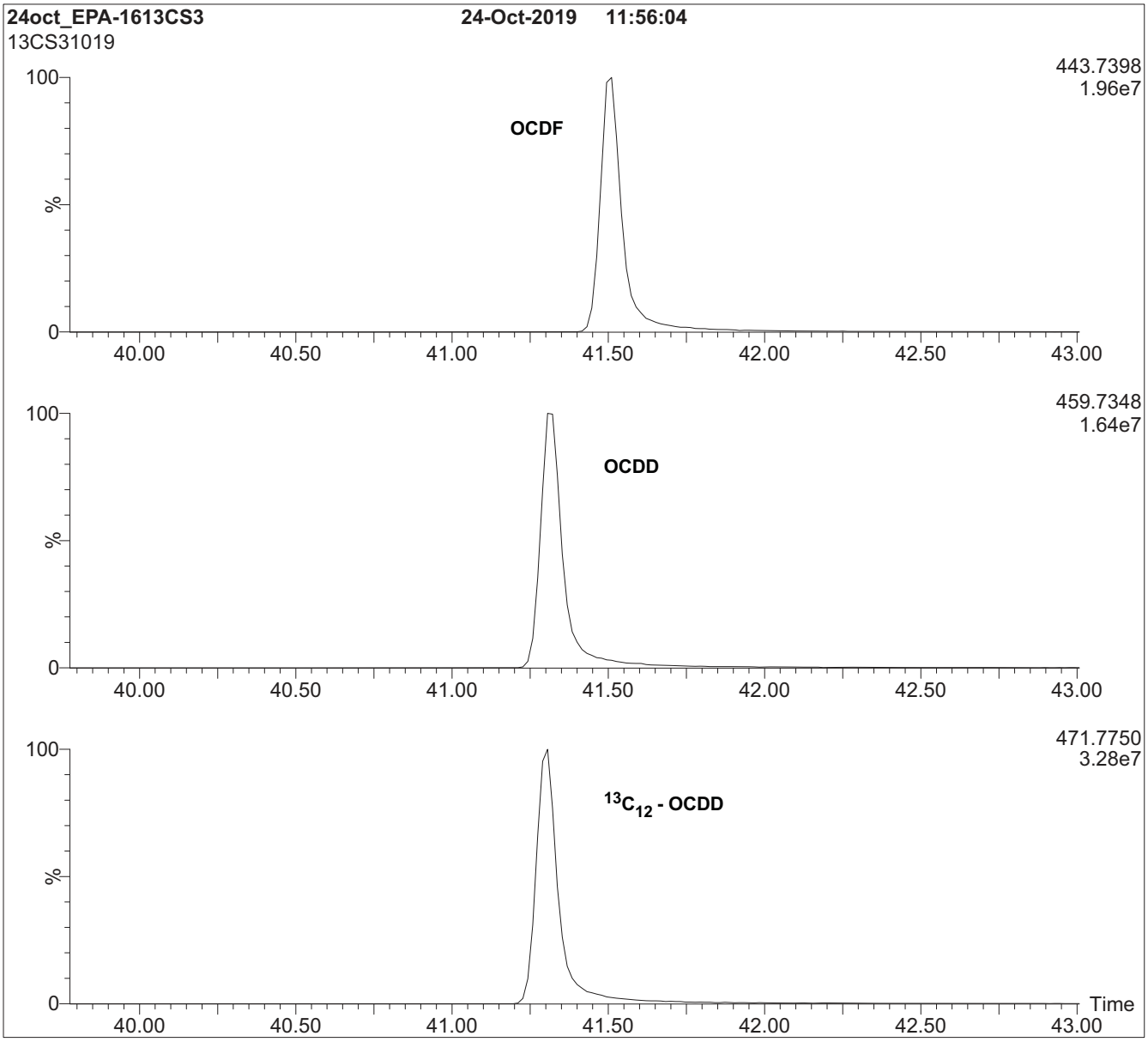


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min
Injector: 280 °C (Splitless Injection)
Ionization: EI+
Detector: 280 °C
SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)
12 °C/min to 200 °C
3 °C/min to 235 °C
235 °C (8 min)
8 °C/min to 310 °C
310 °C (8 min)

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

EPA-1613CVS

U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5

PRODUCT CODES:	EPA-1613CVS	**LOT NUMBERS:**	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

SOLVENT(S):	Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy)	10/22/2019
LAST TESTED: (mm/dd/yyyy)	10/24/2019
EXPIRY DATE: (mm/dd/yyyy)	10/24/2026
RECOMMENDED STORAGE:	Store ampoules in a cool, dark place

I005460
1613 CSL CAL STD
Expires 10/24/2026
Prepared By Joshua Rains 6/23/2020

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native ($^{12}C_{12}$) and mass-labelled ($^{13}C_{12}$ and $^{37}Cl_4$) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ^{13}C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-$^{37}Cl_4$-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (^{37}Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations
Table B: 5-point HRGC/HRMS Calibration and RRF Summary
Table C: 7-point HRGC/HRMS Calibration and RRF Summary
Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

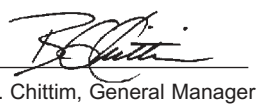
CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: **EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5); Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
Native PCDDs and PCDFs:	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CSL**	**CS0.5**
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
$^{13}C_{12}$-2,3,7,8-TCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,7,8-TCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
$^{13}C_{12}$-OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
$^{37}Cl_4$-2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
$^{13}C_{12}$-1,2,3,4-TCDD	100	100	100	100	100	100	100
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By:  **Date:** 10/25/2019
(mm/dd/yyyy)

B.G. Chittim, General Manager

Table B: **EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
$^{13}C_{12}$-2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
$^{13}C_{12}$-2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
$^{13}C_{12}$-1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
$^{13}C_{12}$-OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
$^{13}C_{12}$-1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
$^{37}Cl_4$-2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

Table C: **EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5); 7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
$^{13}C_{12}$-2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
$^{13}C_{12}$-2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
$^{13}C_{12}$-1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
$^{13}C_{12}$-OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
$^{13}C_{12}$-1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
$^{37}Cl_4$-2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

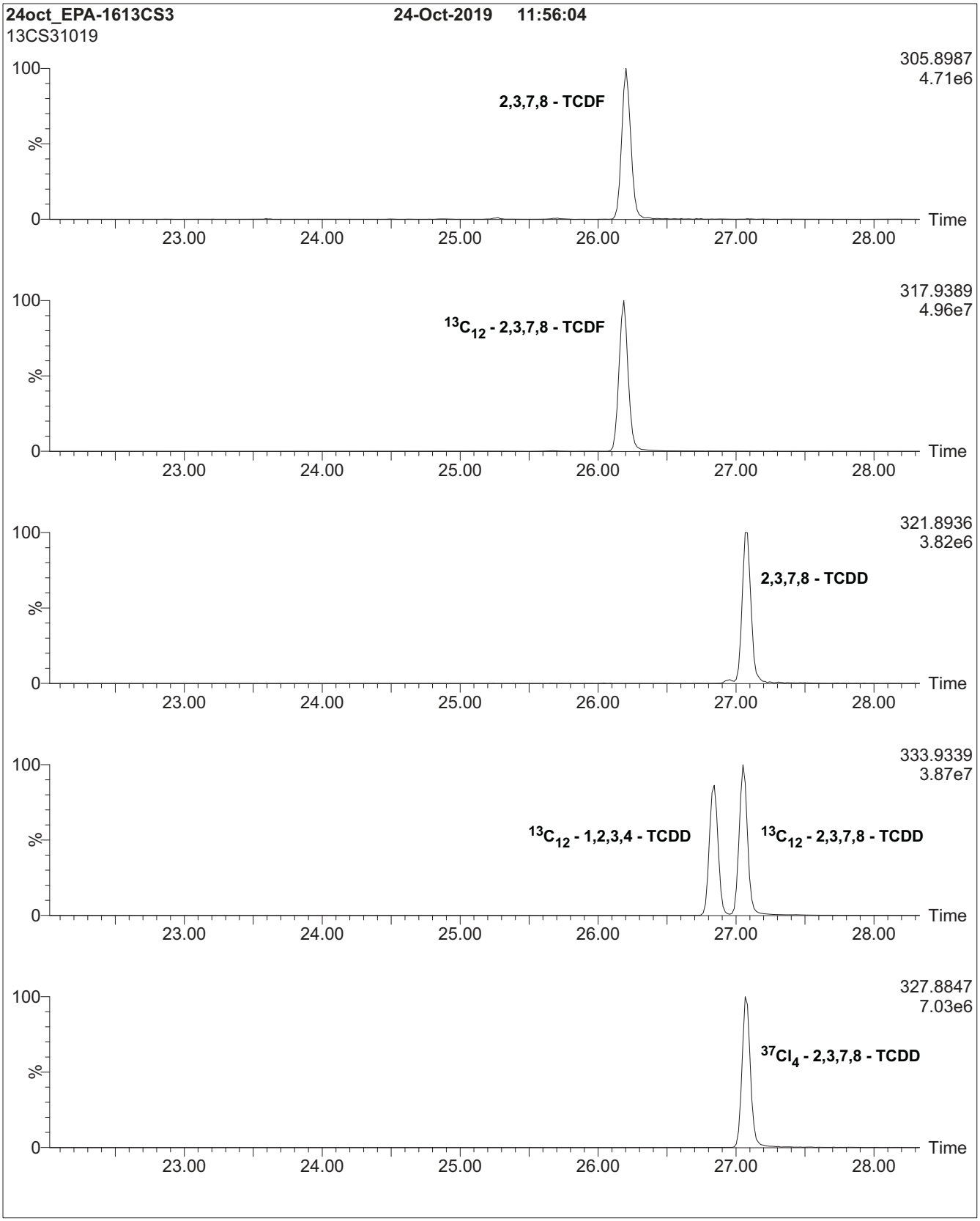


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

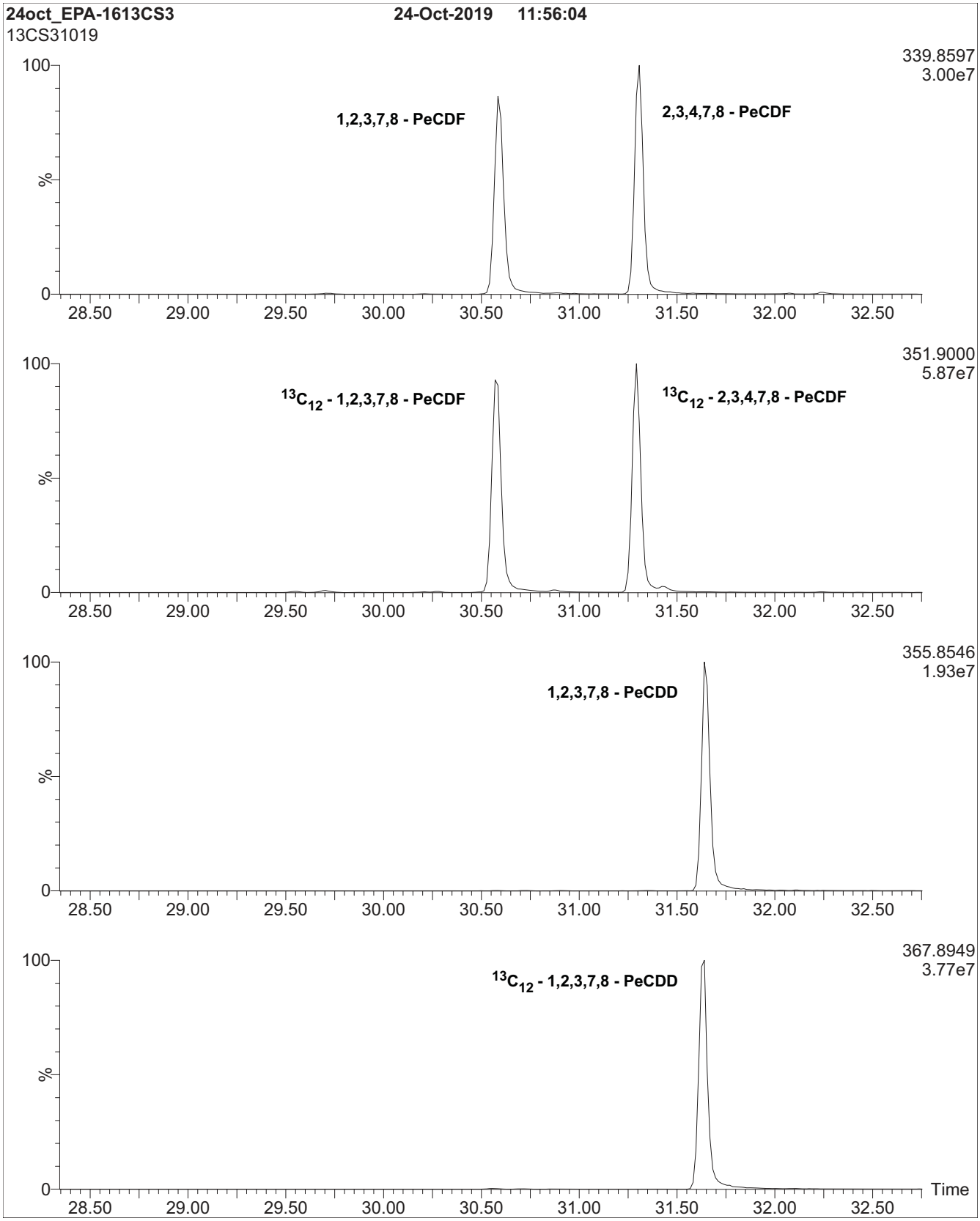


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**

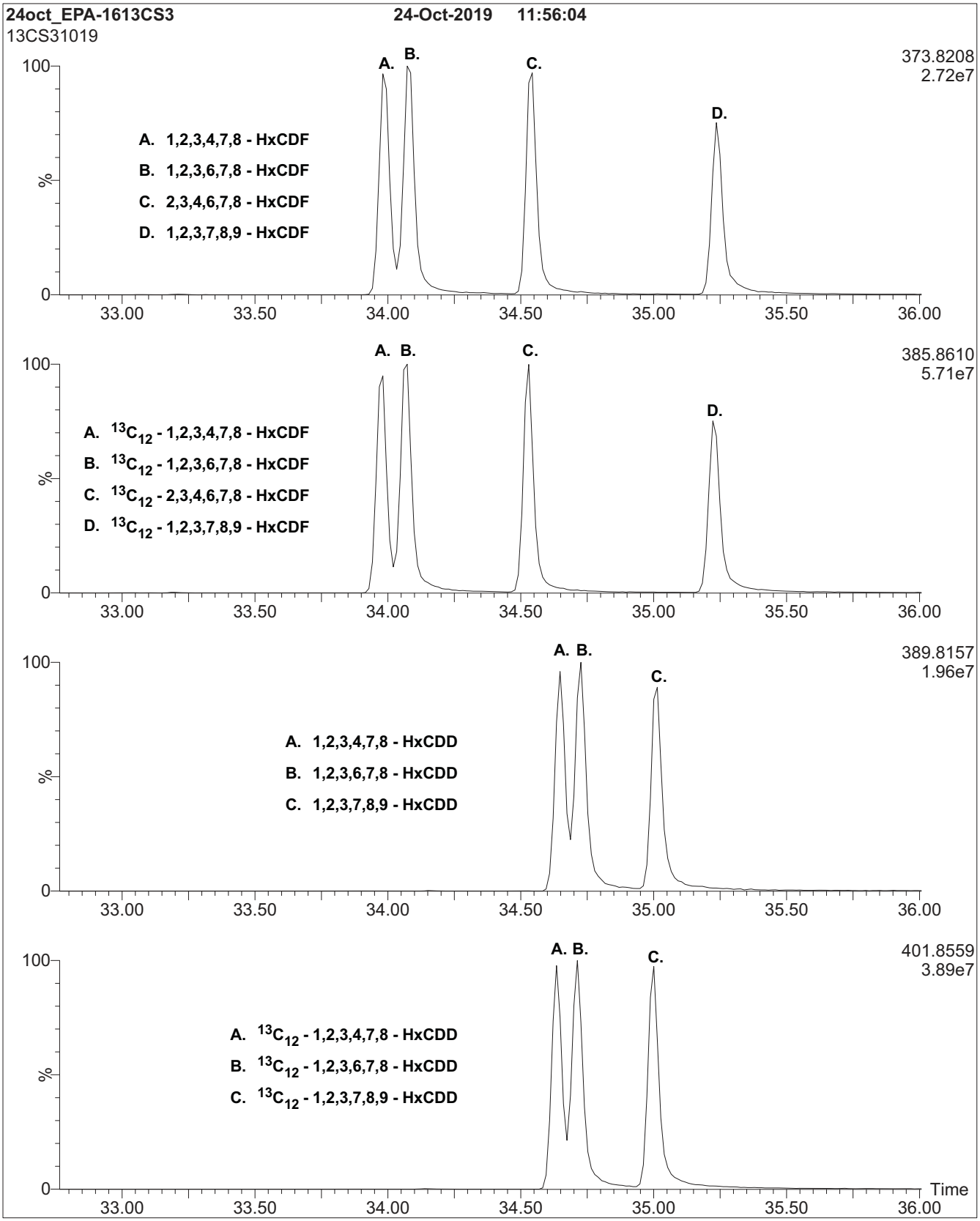
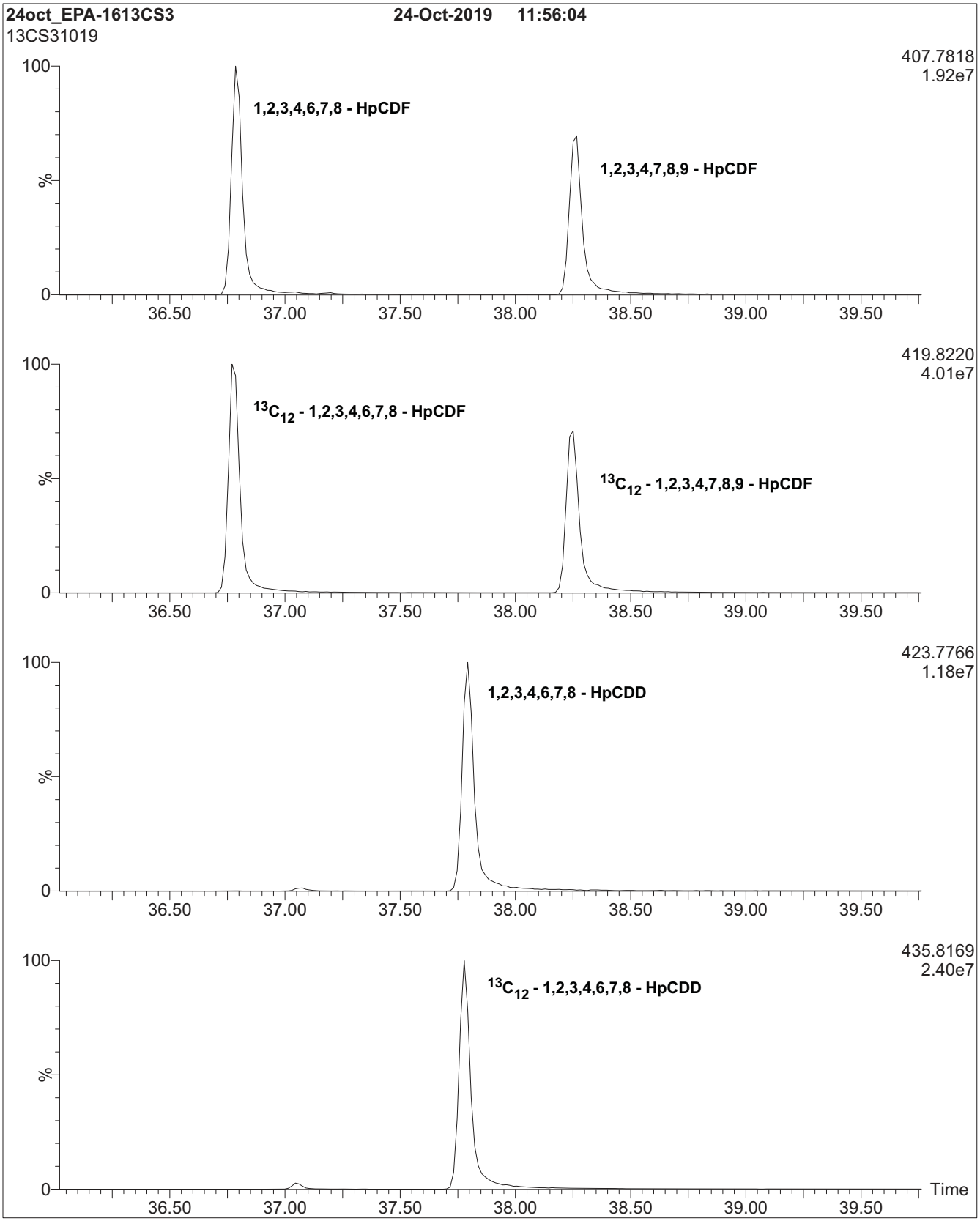


Figure 1: **EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)**



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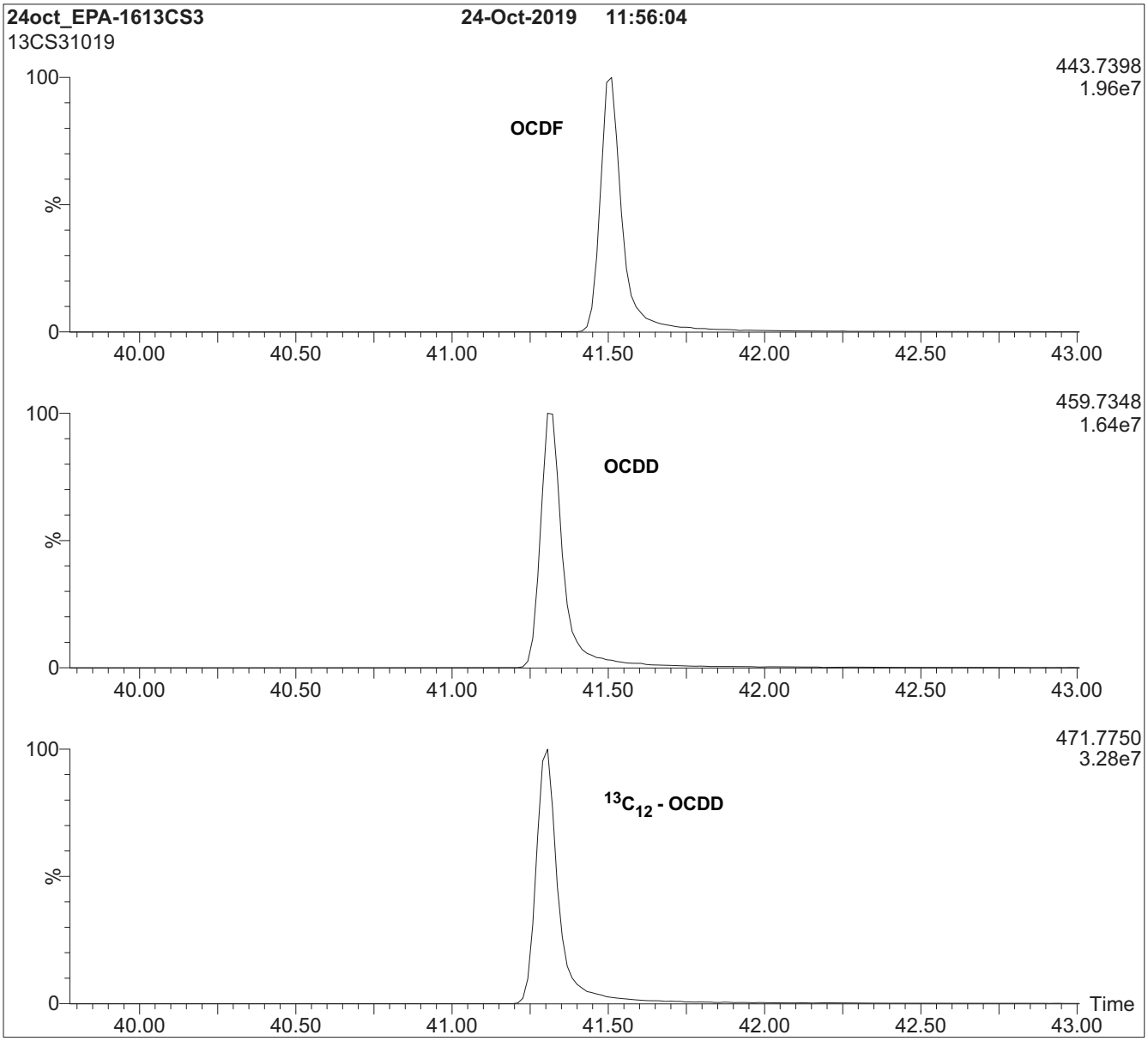

HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow:	Constant at 1 ml/min	Oven:	150 °C (1 min)
Injector:	280 °C (Splitless Injection)		12 °C/min to 200 °C
Ionization:	EI+		3 °C/min to 235 °C
Detector:	280 °C		235 °C (8 min)
	SIR at 10,000 mass resolving power		8 °C/min to 310 °C
			310 °C (8 min)

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

EPA-1613PAR

U.S. EPA Method 1613 Native PCDD/PCDF Precision and Recovery Stock Solution

PRODUCT CODE:	EPA-1613PAR
LOT NUMBER:	13PAR1021
SOLVENT(S):	Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy)	10/25/2021
LAST TESTED: (mm/dd/yyyy)	11/03/2021
EXPIRY DATE: (mm/dd/yyyy)	11/03/2028
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

J013397
Recd. JR
12/20/21

DESCRIPTION:

EPA-1613PAR is a solution/mixture of all the 2,3,7,8-substituted polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613PAR was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual PCDDs and PCDFs all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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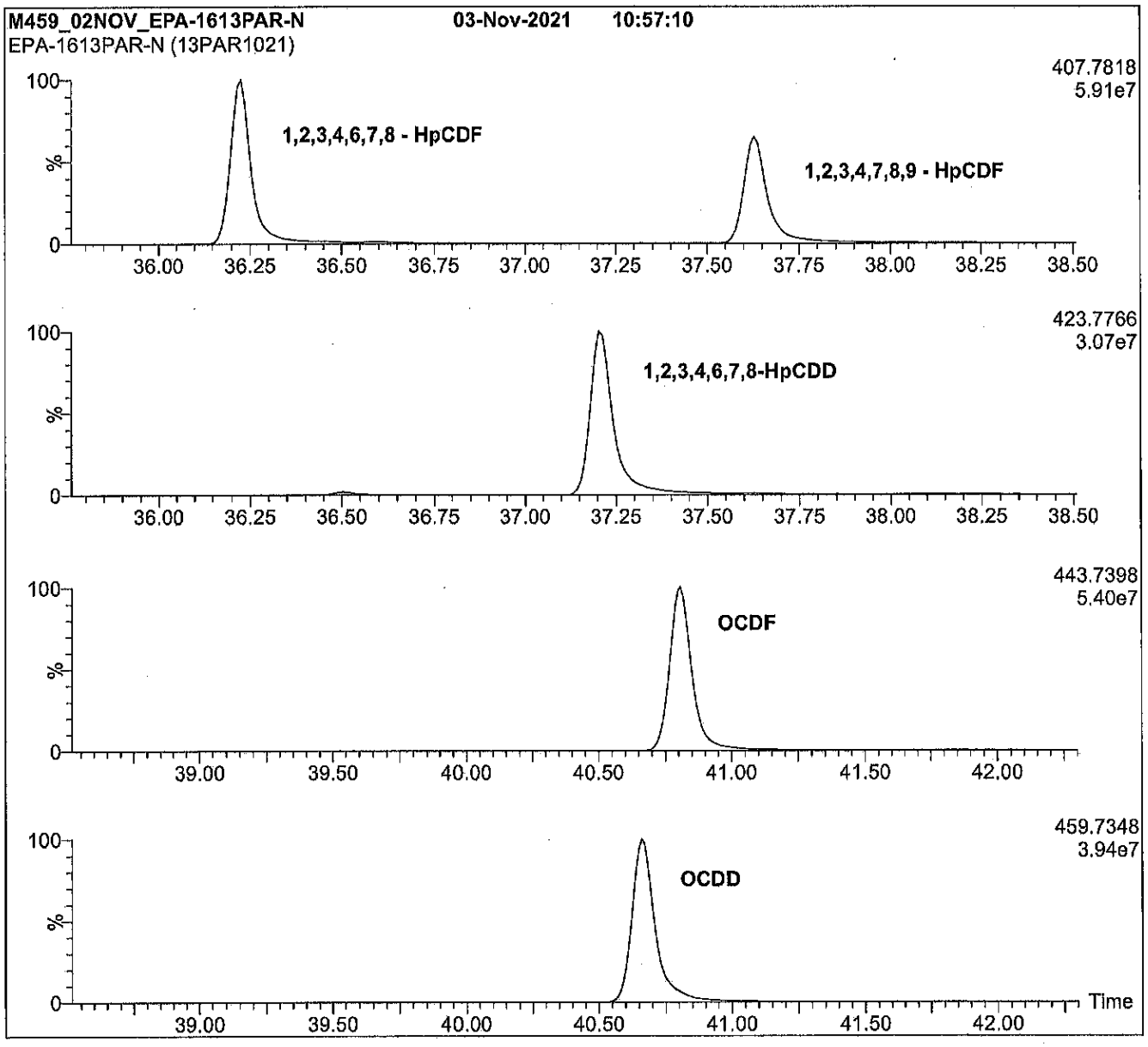
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Table A: **EPA-1613PAR; Components and Concentrations (ng/mL, ± 5% in nonane/2.4% toluene)**

Compound	Acronym	CAS #	Concentration (ng/mL)
PCDDs:			
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	2,3,7,8-TCDD	1746-01-6	40.0
1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin	1,2,3,7,8-PeCDD	40321-76-4	200
1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin	1,2,3,4,7,8-HxCDD	39227-28-6	200
1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin	1,2,3,6,7,8-HxCDD	57653-85-7	200
1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin	1,2,3,7,8,9-HxCDD	19408-74-3	200
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	1,2,3,4,6,7,8-HpCDD	35822-46-9	200
Octachlorodibenzo-*p*-dioxin	OCDD	3268-87-9	400
PCDFs:			
2,3,7,8-Tetrachlorodibenzofuran	2,3,7,8-TCDF	51207-31-9	40.0
1,2,3,7,8-Pentachlorodibenzofuran	1,2,3,7,8-PeCDF	57117-41-6	200
2,3,4,7,8-Pentachlorodibenzofuran	2,3,4,7,8-PeCDF	57117-31-4	200
1,2,3,4,7,8-Hexachlorodibenzofuran	1,2,3,4,7,8-HxCDF	70648-26-9	200
1,2,3,6,7,8-Hexachlorodibenzofuran	1,2,3,6,7,8-HxCDF	57117-44-9	200
1,2,3,7,8,9-Hexachlorodibenzofuran	1,2,3,7,8,9-HxCDF	72918-21-9	200
2,3,4,6,7,8-Hexachlorodibenzofuran	2,3,4,6,7,8-HxCDF	60851-34-5	200
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1,2,3,4,6,7,8-HpCDF	67562-39-4	200
1,2,3,4,7,8,9-Heptachlorodibenzofuran	1,2,3,4,7,8,9-HpCDF	55673-89-7	200
Octachlorodibenzofuran	OCDF	39001-02-0	400

Certified By: _____ **Date:** 11/05/2021
(mm/dd/yyyy)
B.G. Chittim, General Manager

Figure 1: **EPA-1613PAR; HRGC/HRMS Data (60 m DB-5 Column)**



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W		
Flow:	Constant at 1.4 mL/min	Oven:	150°C (1 min)
Injector:	280°C (Splitless Injection)		12°C/min to 200°C
Ionization:	EI+		3°C/min to 235°C
Detector:	280°C		235°C (8 min)
	SIR at 10,000 mass resolving power		8°C/min to 310°C
			310°C (8 min)

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

EPA-1613PAR

U.S. EPA Method 1613 Native PCDD/PCDF
Precision and Recovery Stock Solution

PRODUCT CODE:	EPA-1613PAR
LOT NUMBER:	13PAR1021
SOLVENT(S):	Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy)	10/25/2021
LAST TESTED: (mm/dd/yyyy)	11/03/2021
EXPIRY DATE: (mm/dd/yyyy)	11/03/2028
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

J013397
Read. JR
12/20/21

DESCRIPTION:

EPA-1613PAR is a solution/mixture of all the 2,3,7,8-substituted polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613PAR was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual PCDDs and PCDFs all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ANSI National Accreditation Board ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: **EPA-1613PAR; Components and Concentrations (ng/mL, ± 5% in nonane/2.4% toluene)**

Compound	Acronym	CAS #	Concentration (ng/mL)
PCDDs:			
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	2,3,7,8-TCDD	1746-01-6	40.0
1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin	1,2,3,7,8-PeCDD	40321-76-4	200
1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin	1,2,3,4,7,8-HxCDD	39227-28-6	200
1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin	1,2,3,6,7,8-HxCDD	57653-85-7	200
1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin	1,2,3,7,8,9-HxCDD	19408-74-3	200
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	1,2,3,4,6,7,8-HpCDD	35822-46-9	200
Octachlorodibenzo-*p*-dioxin	OCDD	3268-87-9	400
PCDFs:			
2,3,7,8-Tetrachlorodibenzofuran	2,3,7,8-TCDF	51207-31-9	40.0
1,2,3,7,8-Pentachlorodibenzofuran	1,2,3,7,8-PeCDF	57117-41-6	200
2,3,4,7,8-Pentachlorodibenzofuran	2,3,4,7,8-PeCDF	57117-31-4	200
1,2,3,4,7,8-Hexachlorodibenzofuran	1,2,3,4,7,8-HxCDF	70648-26-9	200
1,2,3,6,7,8-Hexachlorodibenzofuran	1,2,3,6,7,8-HxCDF	57117-44-9	200
1,2,3,7,8,9-Hexachlorodibenzofuran	1,2,3,7,8,9-HxCDF	72918-21-9	200
2,3,4,6,7,8-Hexachlorodibenzofuran	2,3,4,6,7,8-HxCDF	60851-34-5	200
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1,2,3,4,6,7,8-HpCDF	67562-39-4	200
1,2,3,4,7,8,9-Heptachlorodibenzofuran	1,2,3,4,7,8,9-HpCDF	55673-89-7	200
Octachlorodibenzofuran	OCDF	39001-02-0	400

Certified By: _____ **Date:** 11/05/2021
(mm/dd/yyyy)
B.G. Chittim, General Manager

Figure 1: **EPA-1613PAR; HRGC/HRMS Data (60 m DB-5 Column)**

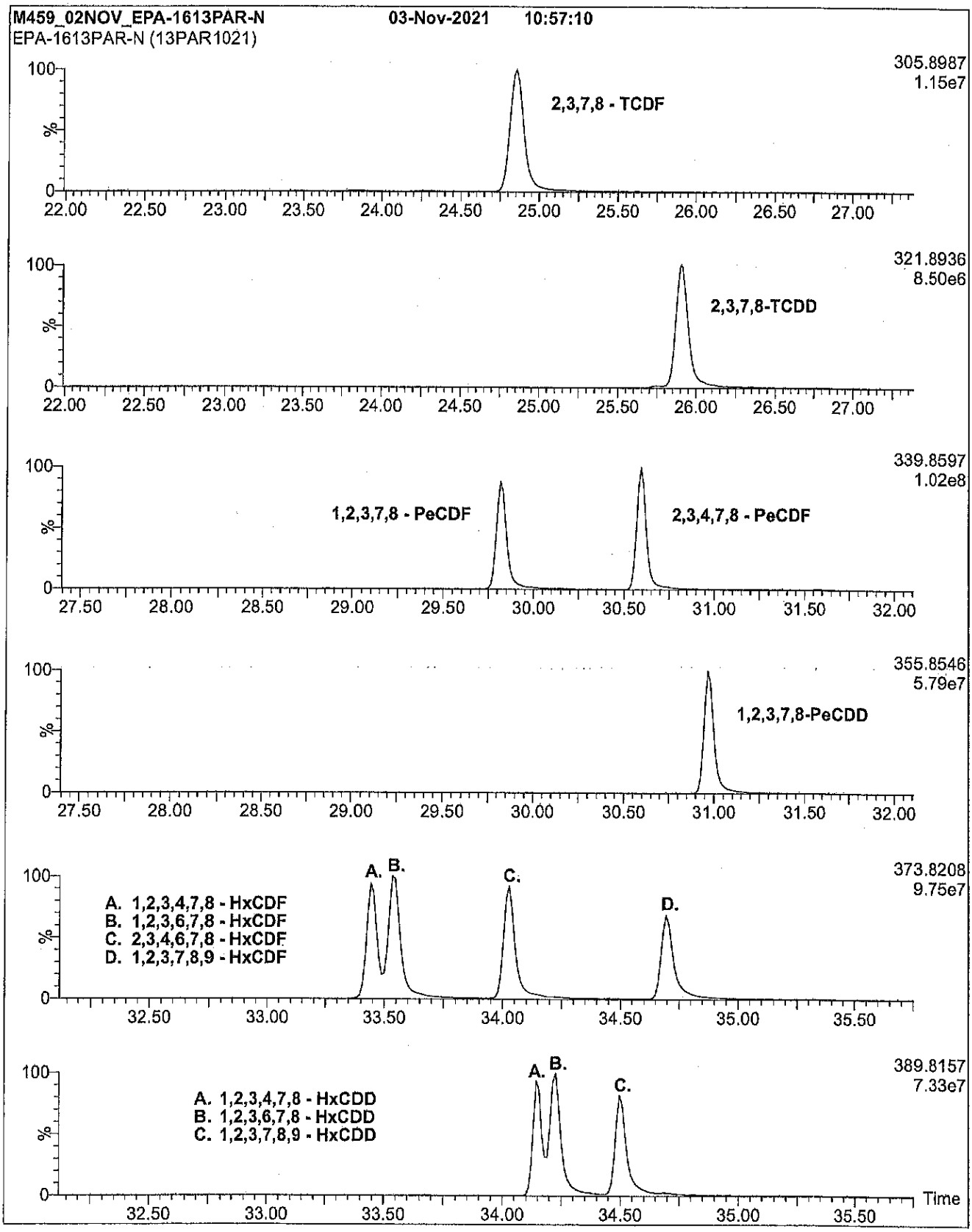
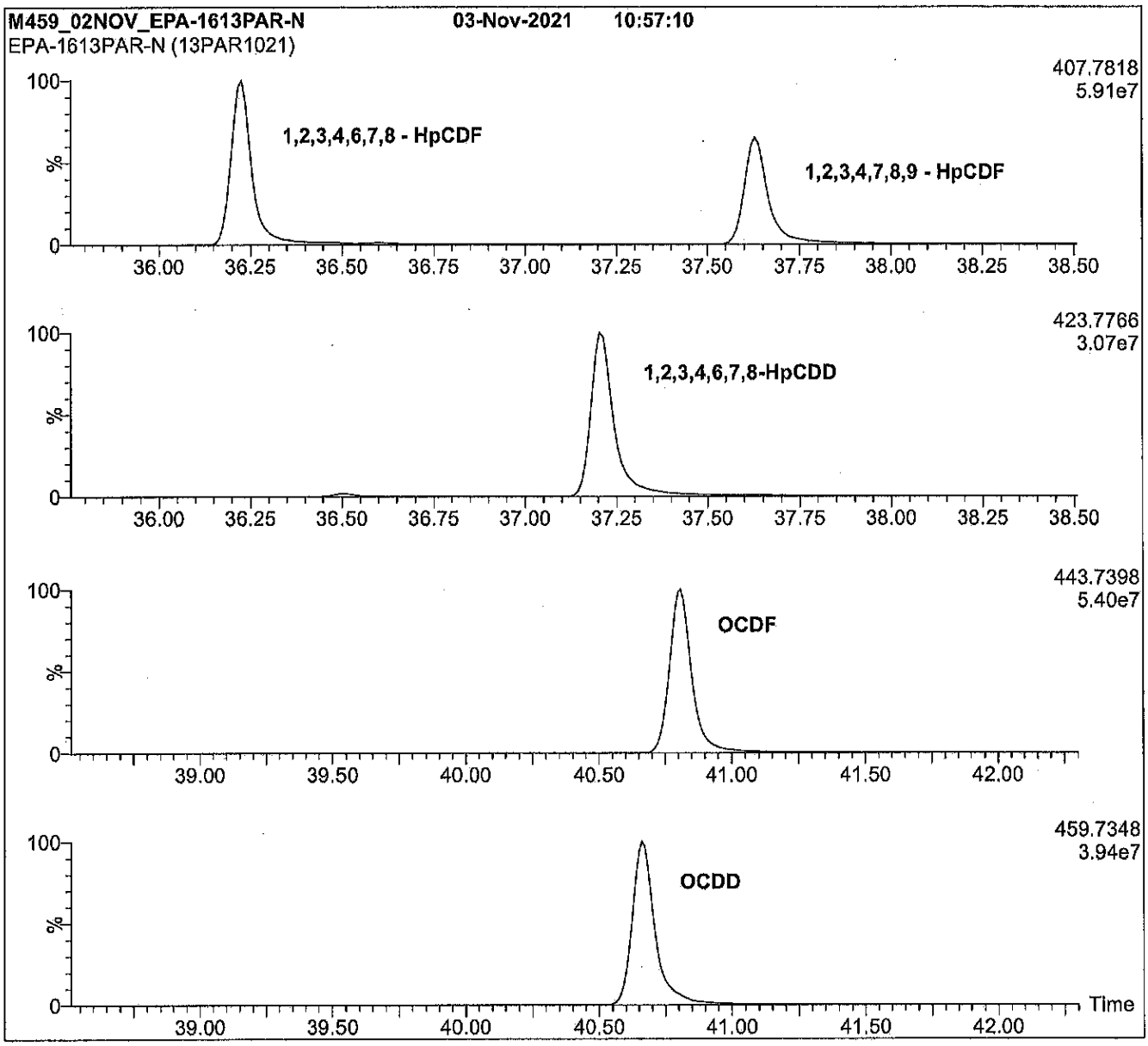


Figure 1: **EPA-1613PAR; HRGC/HRMS Data (60 m DB-5 Column)**



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W		
Flow:	Constant at 1.4 mL/min	Oven:	150°C (1 min)
Injector:	280°C (Splitless Injection)		12°C/min to 200°C
Ionization:	EI+		3°C/min to 235°C
Detector:	280°C		235°C (8 min)
	SIR at 10,000 mass resolving power		8°C/min to 310°C
			310°C (8 min)

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

EPA-1613CSS

U.S. EPA Method 1613 Cleanup Standard Spiking Solution

PRODUCT CODE:	EPA-1613CSS
LOT NUMBER:	13CSS1021
SOLVENT(S):	Nonane
DATE PREPARED: (mm/dd/yyyy)	10/29/2021
LAST TESTED: (mm/dd/yyyy)	10/31/2021
EXPIRY DATE: (mm/dd/yyyy)	10/31/2028
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION: K003104

EPA-1613CSS contains 2,3,7,8-($^{37}Cl_4$)tetrachlorodibenzo-*p*-dioxin at the concentration given in Table A.

EPA-1613CSS was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

2,3,7,8-($^{37}Cl_4$)Tetrachlorodibenzo-*p*-dioxin has a chemical purity of >98% and an isotopic (^{37}Cl) purity of ≥95%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

Table A: **EPA-1613CSS; Components and Concentrations (ng/mL, ± 5% in nonane)**

Compound	Acronym	CAS #	Concentration (ng/mL)
2,3,7,8-($^{37}Cl_4$)Tetrachlorodibenzo-*p*-dioxin	$^{37}Cl_4$-2,3,7,8-TCDD	85508-50-5	40.0

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Certified By: _____ **Date:** 11/05/2021 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

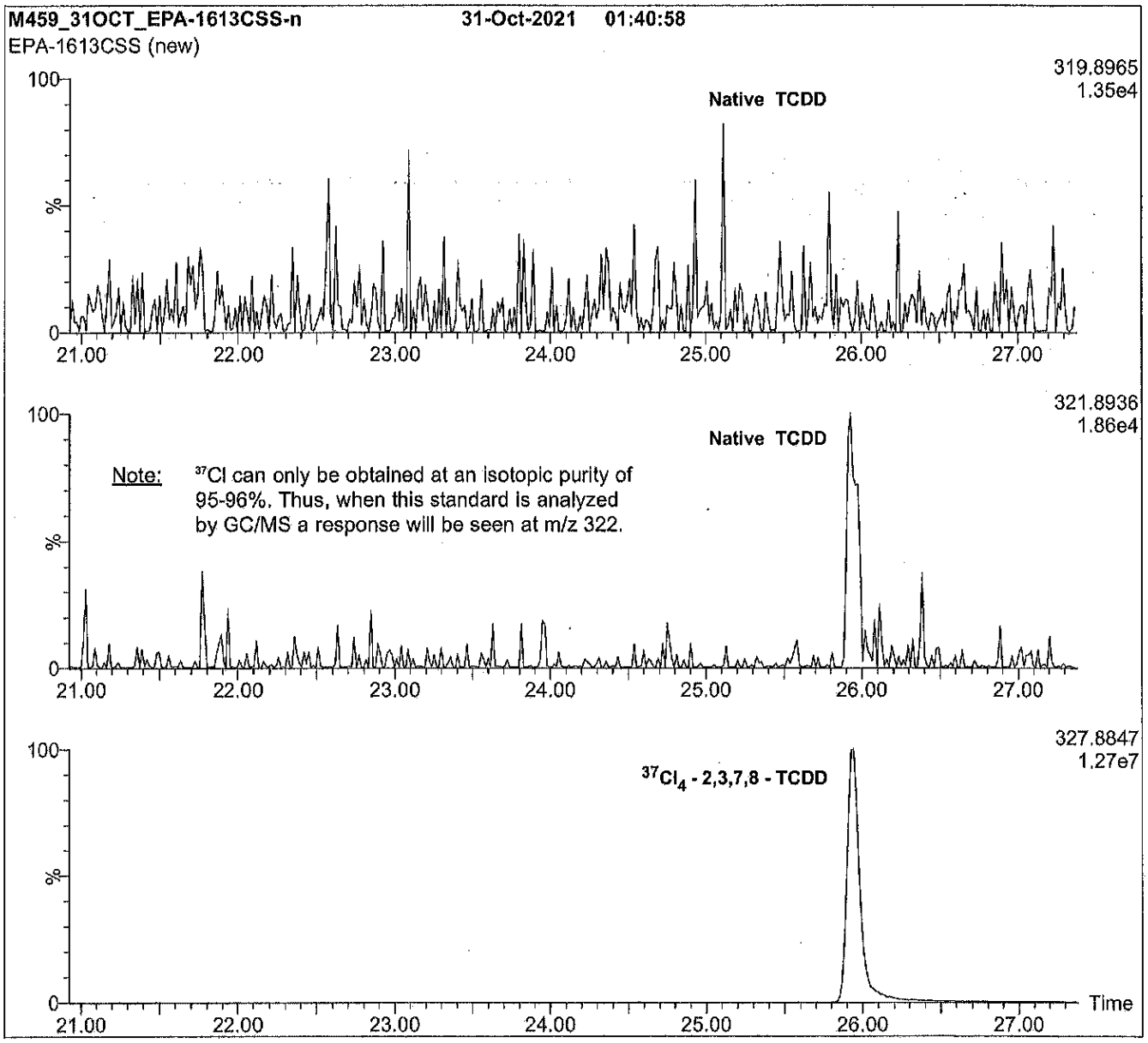
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ANSI National Accreditation Board ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **EPA-1613CSS; HRGC/HRMS Data (60 m DB-5 Column)**



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W		
Flow:	Constant at 1.4 mL/min	Oven:	150°C (1 min)
Injector:	280°C (Splitless Injection)		12°C/min to 200°C
Ionization:	EI+		3°C/min to 235°C
Detector:	280°C		235°C (8 min)
	SIR at 10,000 mass resolving power		8°C/min to 310°C
			310°C (8 min)

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

EPA-1613LCS

U.S. EPA Method 1613
Labelled Compound Stock Solution

PRODUCT CODE:	EPA-1613LCS
LOT NUMBER:	13LCS1021
SOLVENT(S):	Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy)	10/29/2021
LAST TESTED: (mm/dd/yyyy)	10/31/2021
EXPIRY DATE: (mm/dd/yyyy)	10/31/2028
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION: K3105

EPA-1613LCS is a solution/mixture of mass-labelled ($^{13}C_{12}$) polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613LCS was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual ^{13}C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ANSI National Accreditation Board ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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Table A: **EPA-1613LCS; Components and Concentrations (ng/mL, ± 5% in nonane/3.2% toluene)**

Compound	Acronym	CAS #	Concentration (ng/mL)
Mass-Labelled PCDDs:			
2,3,7,8-Tetrachloro($^{13}C_{12}$)dibenzo-*p*-dioxin	$^{13}C_{12}$-2,3,7,8-TCDD	76523-40-5	100
1,2,3,7,8-Pentachloro($^{13}C_{12}$)dibenzo-*p*-dioxin	$^{13}C_{12}$-1,2,3,7,8-PeCDD	109719-79-1	100
1,2,3,4,7,8-Hexachloro($^{13}C_{12}$)dibenzo-*p*-dioxin	$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	109719-80-4	100
1,2,3,6,7,8-Hexachloro($^{13}C_{12}$)dibenzo-*p*-dioxin	$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	109719-81-5	100
1,2,3,4,6,7,8-Heptachloro($^{13}C_{12}$)dibenzo-*p*-dioxin	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	109719-83-7	100
Octachloro($^{13}C_{12}$)dibenzo-*p*-dioxin	$^{13}C_{12}$-OCDD	114423-97-1	200
Mass-Labelled PCDFs:			
2,3,7,8-Tetrachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-2,3,7,8-TCDF	89059-46-1	100
1,2,3,7,8-Pentachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-1,2,3,7,8-PeCDF	109719-77-9	100
2,3,4,7,8-Pentachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-2,3,4,7,8-PeCDF	116843-02-8	100
1,2,3,4,7,8-Hexachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	114423-98-2	100
1,2,3,6,7,8-Hexachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	116843-03-9	100
1,2,3,7,8,9-Hexachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	116843-04-0	100
2,3,4,6,7,8-Hexachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	116843-05-1	100
1,2,3,4,6,7,8-Heptachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	109719-84-8	100
1,2,3,4,7,8,9-Heptachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	109719-94-0	100

Certified By: _____ **Date:** 11/05/2021
(mm/dd/yyyy)
B.G. Chittim, General Manager

Figure 1: **EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**

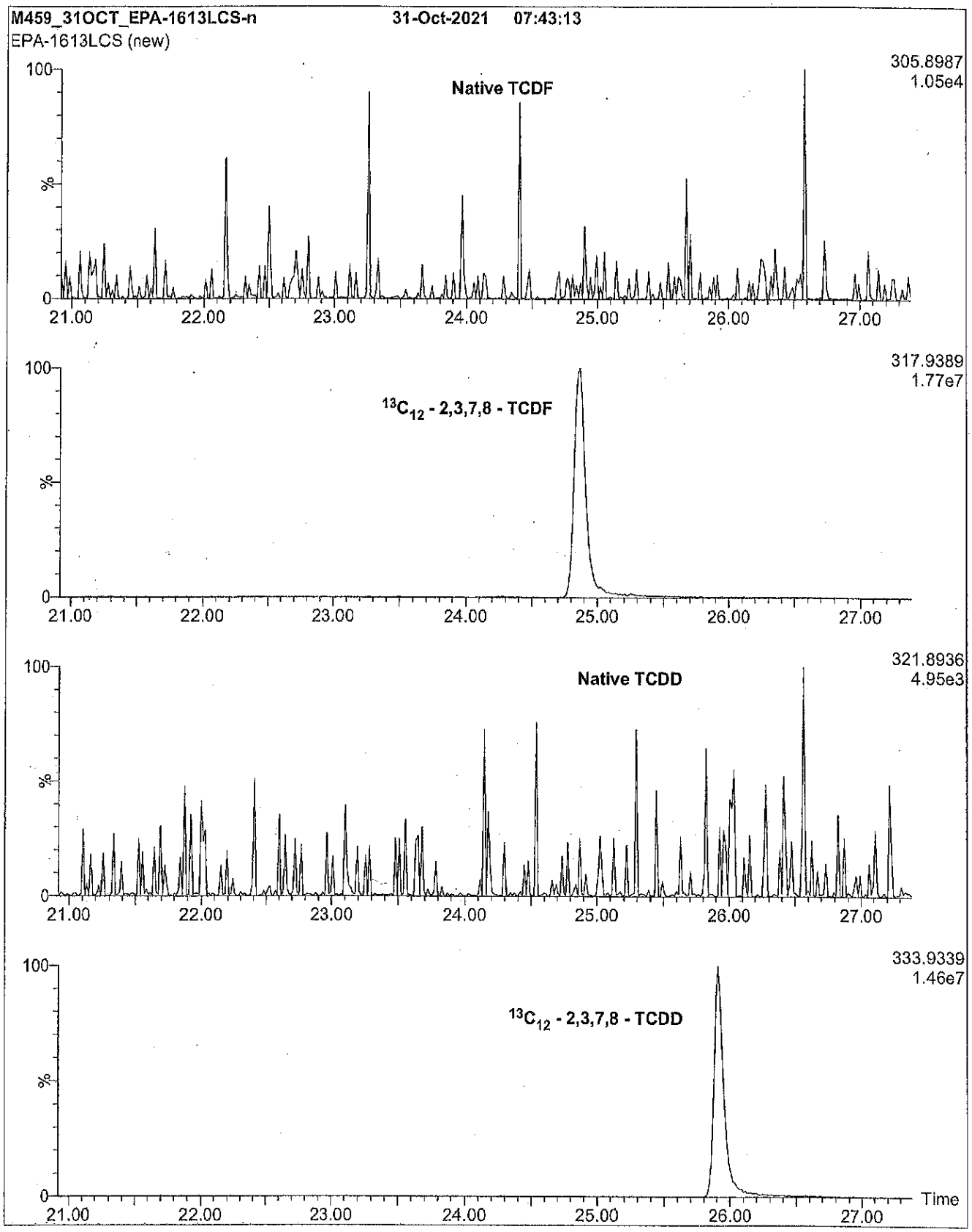


Figure 1: **EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**

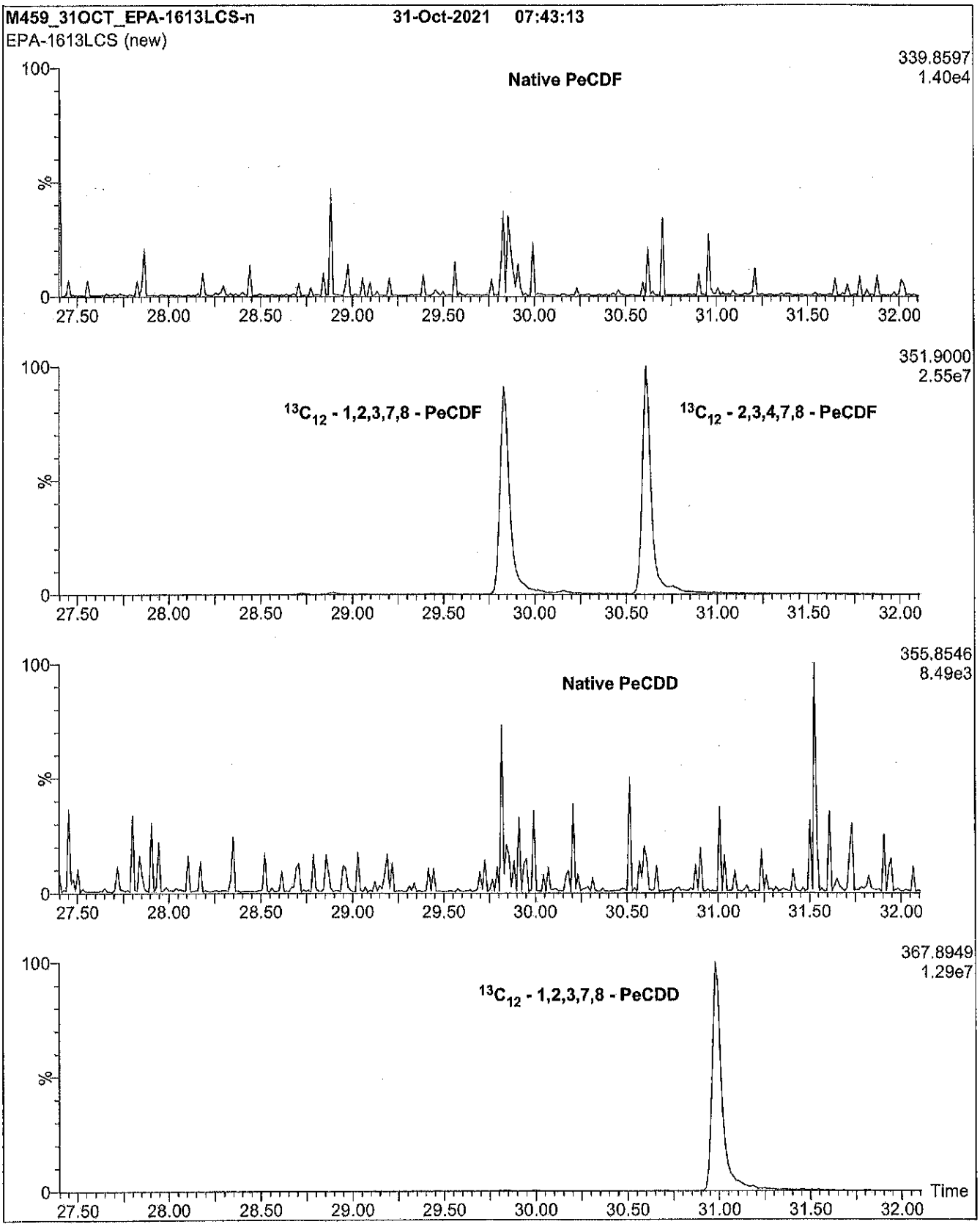


Figure 1: **EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**

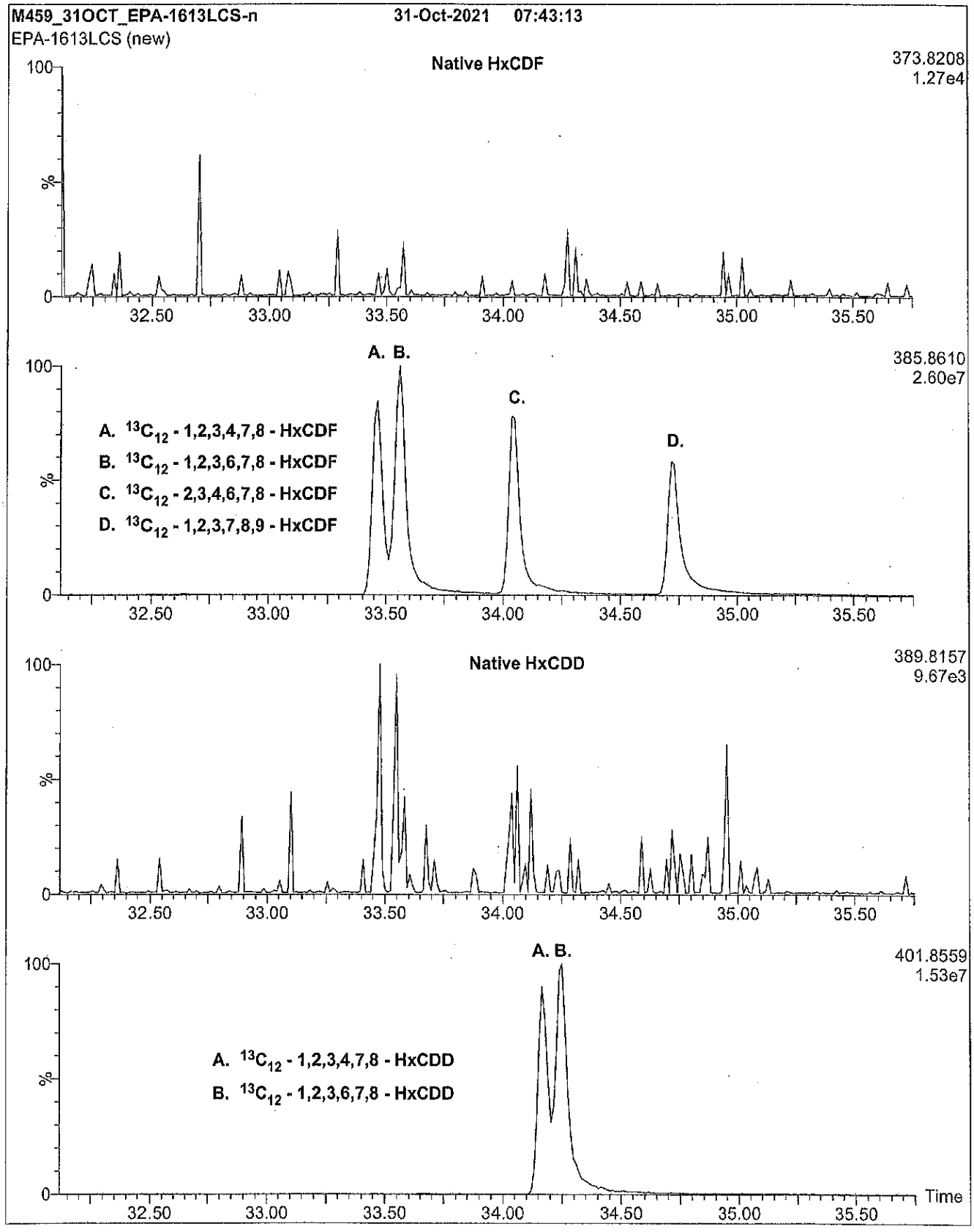


Figure 1: **EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**

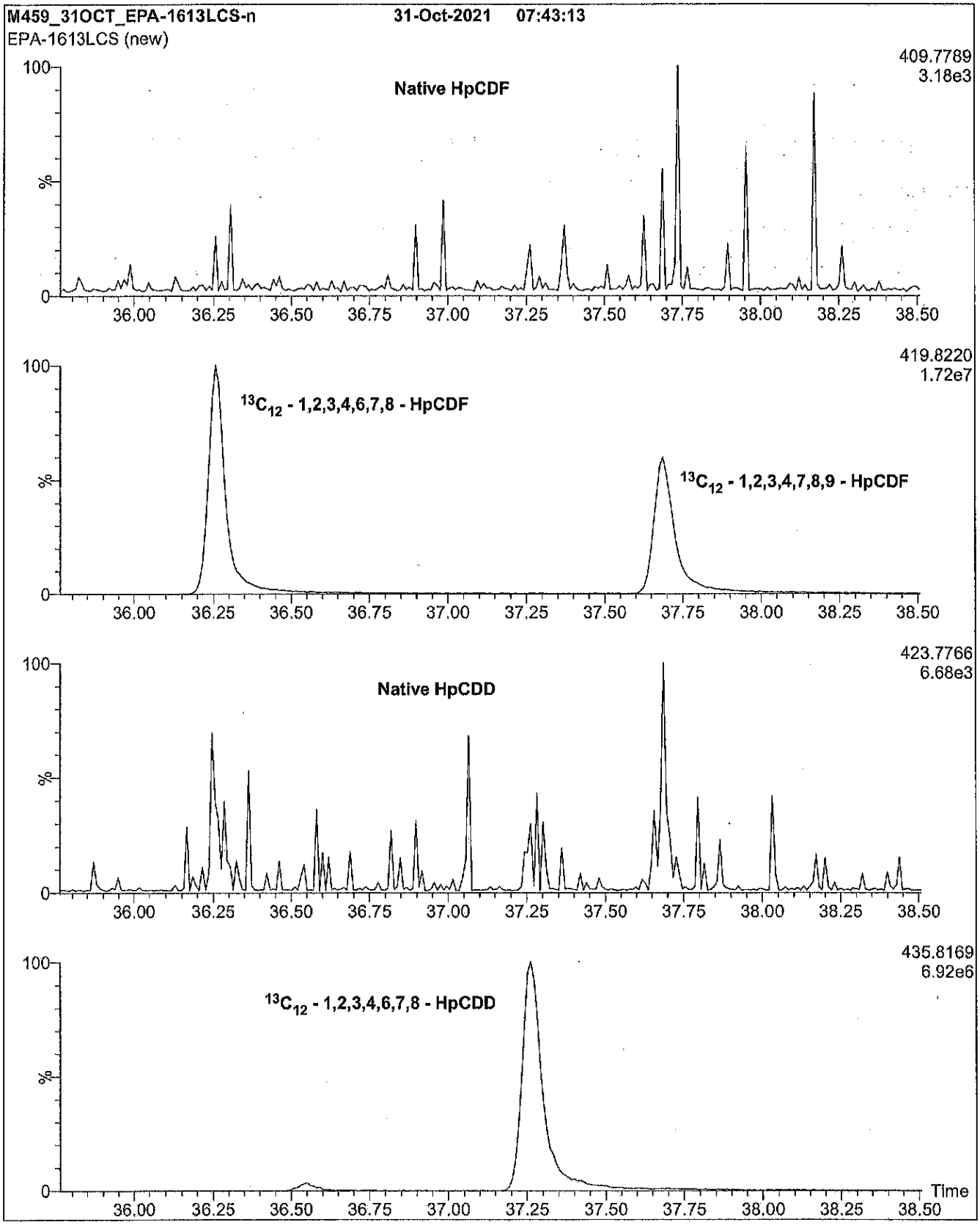
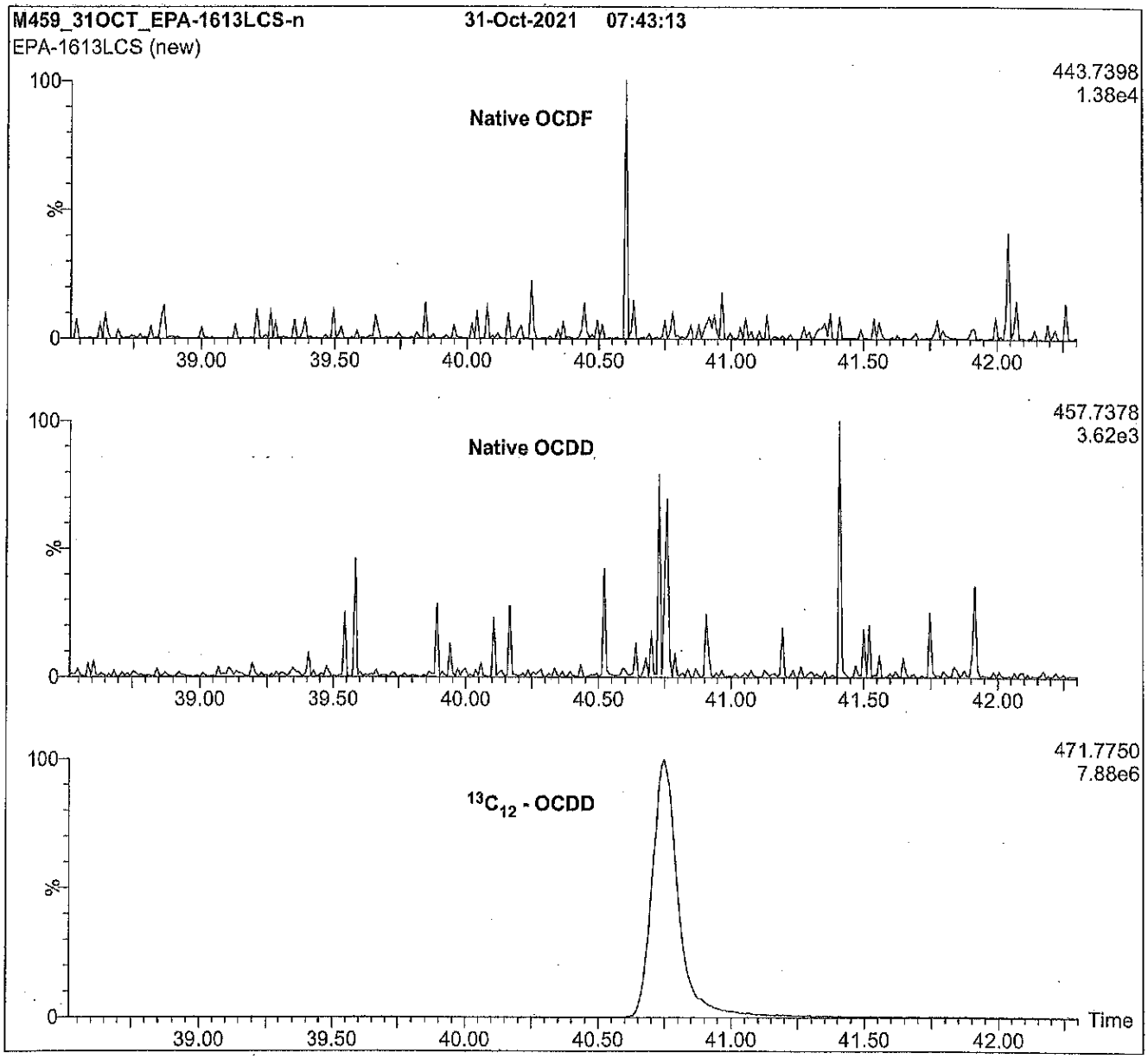


Figure 1: **EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W		
Flow:	Constant at 1.4 mL/min	Oven:	150°C (1 min)
Injector:	280°C (Splitless Injection)		12°C/min to 200°C
Ionization:	EI+		3°C/min to 235°C
Detector:	280°C		235°C (8 min)
	SIR at 10,000 mass resolving power		8°C/min to 310°C
			310°C (8 min)

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

K9821

CS3WT

Calibration and Verification Solution (EPA-1613CS3) combined with Window Defining and 2,3,7,8-TCDD Resolution Testing Congeners

PRODUCT CODE:	CS3WT
LOT NUMBER:	CS3WT1021
SOLVENT(S):	Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy)	11/01/2021
LAST TESTED: (mm/dd/yyyy)	11/02/2021
EXPIRY DATE: (mm/dd/yyyy)	11/02/2028
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

CS3WT is a solution/mixture of native ($^{12}C_{12}$) and mass-labelled ($^{13}C_{12}$) polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Tables A and B.

CS3WT is an HRGC/HRMS calibration solution that was designed and prepared to be used according to U.S. EPA Method 1613, Revision B, in place of EPA-1613CS3 (lot: 13CS31021). Additionally, it contains the PCDD and PCDF isomers required to set retention time windows as well as test and establish isomer specificity for 2,3,7,8-TCDD on a DB-5 (or equivalent) capillary column.

The individual ^{13}C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-($^{37}Cl_4$)tetrachlorodibenzo-*p*-dioxin has a chemical purity of >98% and an isotopic (^{37}Cl) purity of ≥95%. The individual native 2,3,7,8-substituted PCDD and PCDF congeners all have chemical purities of >98%; the other congeners (window defining and resolution testing) should only be considered semi-quantitative.

This current lot of CS3WT is to be used with the 1613 calibration solutions having the following lot numbers:

PRODUCT CODE	LOT NUMBER
EPA-1613CS1	13CS11021
EPA-1613CS2	13CS21021
EPA-1613CS3	13CS31021
EPA-1613CS4	13CS41021
EPA-1613CS5	13CS51021
EPA-1613CSL	13CSL1021
EPA-1613CS0.5	13CS0.51021

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Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form#:13, Issued 2004-11-10
Revision#:9, Revised 2020-12-23

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) has been assigned to the quantitative components in this product. A maximum combined percent relative uncertainty of ±20% has been assigned to the semi-quantitative components in this product.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ANSI National Accreditation Board ACCREDITED ISO17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: **CS3WT; Quantitative Components and Concentrations (ng/mL, ± 5%, in nonane/4.5% toluene)**

Compound		Acronym	CAS #	Concentration (ng/mL)
Native PCDDs:	**Designation[a]**			
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin		2,3,7,8-TCDD	1746-01-6	10.0
1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin		1,2,3,7,8-PeCDD	40321-76-4	50.0
1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin		1,2,3,4,7,8-HxCDD	39227-28-6	50.0
1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin		1,2,3,6,7,8-HxCDD	57653-85-7	50.0
1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin	Last HxCDD[b]	1,2,3,7,8,9-HxCDD	19408-74-3	50.0
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	Last HpCDD	1,2,3,4,6,7,8-HpCDD	35822-46-9	50.0
Octachlorodibenzo-*p*-dioxin		OCDD	3268-87-9	100
Native PCDFs:	**Designation[a]**			
2,3,7,8-Tetrachlorodibenzofuran		2,3,7,8-TCDF	51207-31-9	10.0
1,2,3,7,8-Pentachlorodibenzofuran		1,2,3,7,8-PeCDF	57117-41-6	50.0
2,3,4,7,8-Pentachlorodibenzofuran		2,3,4,7,8-PeCDF	57117-31-4	50.0
1,2,3,4,7,8-Hexachlorodibenzofuran		1,2,3,4,7,8-HxCDF	70648-26-9	50.0
1,2,3,6,7,8-Hexachlorodibenzofuran		1,2,3,6,7,8-HxCDF	57117-44-9	50.0
1,2,3,7,8,9-Hexachlorodibenzofuran		1,2,3,7,8,9-HxCDF	72918-21-9	50.0
2,3,4,6,7,8-Hexachlorodibenzofuran		2,3,4,6,7,8-HxCDF	60851-34-5	50.0
1,2,3,4,6,7,8-Heptachlorodibenzofuran	First HpCDF[c]	1,2,3,4,6,7,8-HpCDF	67562-39-4	50.0
1,2,3,4,7,8,9-Heptachlorodibenzofuran	Last HpCDF	1,2,3,4,7,8,9-HpCDF	55673-89-7	50.0
Octachlorodibenzofuran		OCDF	39001-02-0	100
Mass-Labelled PCDDs:				
2,3,7,8-Tetrachloro($^{13}C_{12}$)dibenzo-*p*-dioxin		$^{13}C_{12}$-2,3,7,8-TCDD	76523-40-5	100
1,2,3,7,8-Pentachloro($^{13}C_{12}$)dibenzo-*p*-dioxin		$^{13}C_{12}$-1,2,3,7,8-PeCDD	109719-79-1	100
1,2,3,4,7,8-Hexachloro($^{13}C_{12}$)dibenzo-*p*-dioxin		$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	109719-80-4	100
1,2,3,6,7,8-Hexachloro($^{13}C_{12}$)dibenzo-*p*-dioxin		$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	109719-81-5	100
1,2,3,4,6,7,8-Heptachloro($^{13}C_{12}$)dibenzo-*p*-dioxin		$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	109719-83-7	100
Octachloro($^{13}C_{12}$)dibenzo-*p*-dioxin		$^{13}C_{12}$-OCDD	114423-97-1	200
Mass-Labelled PCDFs:				
2,3,7,8-Tetrachloro($^{13}C_{12}$)dibenzofuran		$^{13}C_{12}$-2,3,7,8-TCDF	89059-46-1	100
1,2,3,7,8-Pentachloro($^{13}C_{12}$)dibenzofuran		$^{13}C_{12}$-1,2,3,7,8-PeCDF	109719-77-9	100
2,3,4,7,8-Pentachloro($^{13}C_{12}$)dibenzofuran		$^{13}C_{12}$-2,3,4,7,8-PeCDF	116843-02-8	100
1,2,3,4,7,8-Hexachloro($^{13}C_{12}$)dibenzofuran		$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	114423-98-2	100
1,2,3,6,7,8-Hexachloro($^{13}C_{12}$)dibenzofuran		$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	116843-03-9	100
1,2,3,7,8,9-Hexachloro($^{13}C_{12}$)dibenzofuran		$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	116843-04-0	100
2,3,4,6,7,8-Hexachloro($^{13}C_{12}$)dibenzofuran		$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	116843-05-1	100
1,2,3,4,6,7,8-Heptachloro($^{13}C_{12}$)dibenzofuran		$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	109719-84-8	100
1,2,3,4,7,8,9-Heptachloro($^{13}C_{12}$)dibenzofuran		$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	109719-94-0	100
Cleanup Standard:				
2,3,7,8-($^{37}Cl_4$)Tetrachlorodibenzo-*p*-dioxin		$^{37}Cl_4$-2,3,7,8-TCDD	85508-50-5	10.0
Internal Standards:				
1,2,3,4-Tetrachloro($^{13}C_{12}$)dibenzo-*p*-dioxin		$^{13}C_{12}$-1,2,3,4-TCDD	114423-99-3	100
1,2,3,7,8,9-Hexachloro($^{13}C_{12}$)dibenzo-*p*-dioxin		$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	109719-82-6	100

[a] First/Last eluting isomer for the specified homologue group (see Table B for additional Window Definers).
[b, c] – see Table B for footnote.

Table B: **CS3WT; Semi-Quantitative Components and Concentrations (ng/mL, ± 20%, in nonane/4.5% toluene)**

Compound		Acronym	CAS #	Concentration (ng/mL)
PCDD Window Definers:	**Designation[a]**			
1,3,6,8-Tetrachlorodibenzo-*p*-dioxin	First TCDD	1,3,6,8-TCDD	33423-92-6	10.0
1,2,8,9-Tetrachlorodibenzo-*p*-dioxin	Last TCDD	1,2,8,9-TCDD	62470-54-6	10.0
1,2,4,6,8-/1,2,4,7,9-Pentachlorodibenzo-*p*-dioxin	First PeCDD	1,2,4,6,8-PeCDD 1,2,4,7,9-PeCDD	71998-76-0 82291-37-0	50.0[d]
1,2,3,8,9-Pentachlorodibenzo-*p*-dioxin	Last PeCDD	1,2,3,8,9-PeCDD	71925-18-3	50.0
1,2,4,6,7,9-Hexachlorodibenzo-*p*-dioxin	First HxCDD	1,2,4,6,7,9-HxCDD	39227-62-8	50.0
1,2,3,4,6,7,9-Heptachlorodibenzo-*p*-dioxin	First HpCDD	1,2,3,4,6,7,9-HpCDD	58200-70-7	50.0
PCDF Window Definers:	**Designation[a]**			
1,3,6,8-Tetrachlorodibenzofuran	First TCDF	1,3,6,8-TCDF	71998-72-6	10.0
1,2,8,9-Tetrachlorodibenzofuran	Last TCDF	1,2,8,9-TCDF	70648-22-5	10.0
1,3,4,6,8-Pentachlorodibenzofuran	First PeCDF	1,3,4,6,8-PeCDF	83704-55-6	50.0
1,2,3,8,9-Pentachlorodibenzofuran	Last PeCDF	1,2,3,8,9-PeCDF	83704-54-5	50.0
1,2,3,4,6,8-Hexachlorodibenzofuran	First HxCDF	1,2,3,4,6,8-HxCDF	69698-60-8	50.0
2,3,7,8-TCDD Resolution Testing Isomers:				
1,2,3,4-Tetrachlorodibenzo-*p*-dioxin		1,2,3,4-TCDD	30746-58-8	5.00
1,2,3,7-/1,2,3,8-Tetrachlorodibenzo-*p*-dioxin		1,2,3,7-TCDD 1,2,3,8-TCDD	67028-18-6 53555-02-5	5.00[d]
1,2,3,9-Tetrachlorodibenzo-*p*-dioxin		1,2,3,9-TCDD	71669-26-6	10.0

[a] First/Last eluting isomer for the specified homologue group (see Table A for additional Window Definers).

[b] 1,2,3,4,6,7-HxCDD (last eluting HxCDD) not included; coelutes with 1,2,3,7,8,9-HxCDD on a 60 m DB-5 column. Use 1,2,3,7,8,9-HxCDD (see Table A) and 1,2,3,4,6,7,9-HpCDD to approximate the end of the HxCDD window.

[c] 1,2,3,4,8,9-HxCDF (last eluting HxCDF) not included; can interfere with 1,2,3,7,8,9-HxCDF on a 60 m DB-5 column. Use 1,2,3,4,6,7,8-HpCDF (see Table A) to approximate the end of the HxCDF window.

[d] Total concentration of isomers.

Certified By: _____ **Date:** 11/05/2021 (mm/dd/yyyy)

B.G. Chittim, General Manager

Figure 1: **CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**

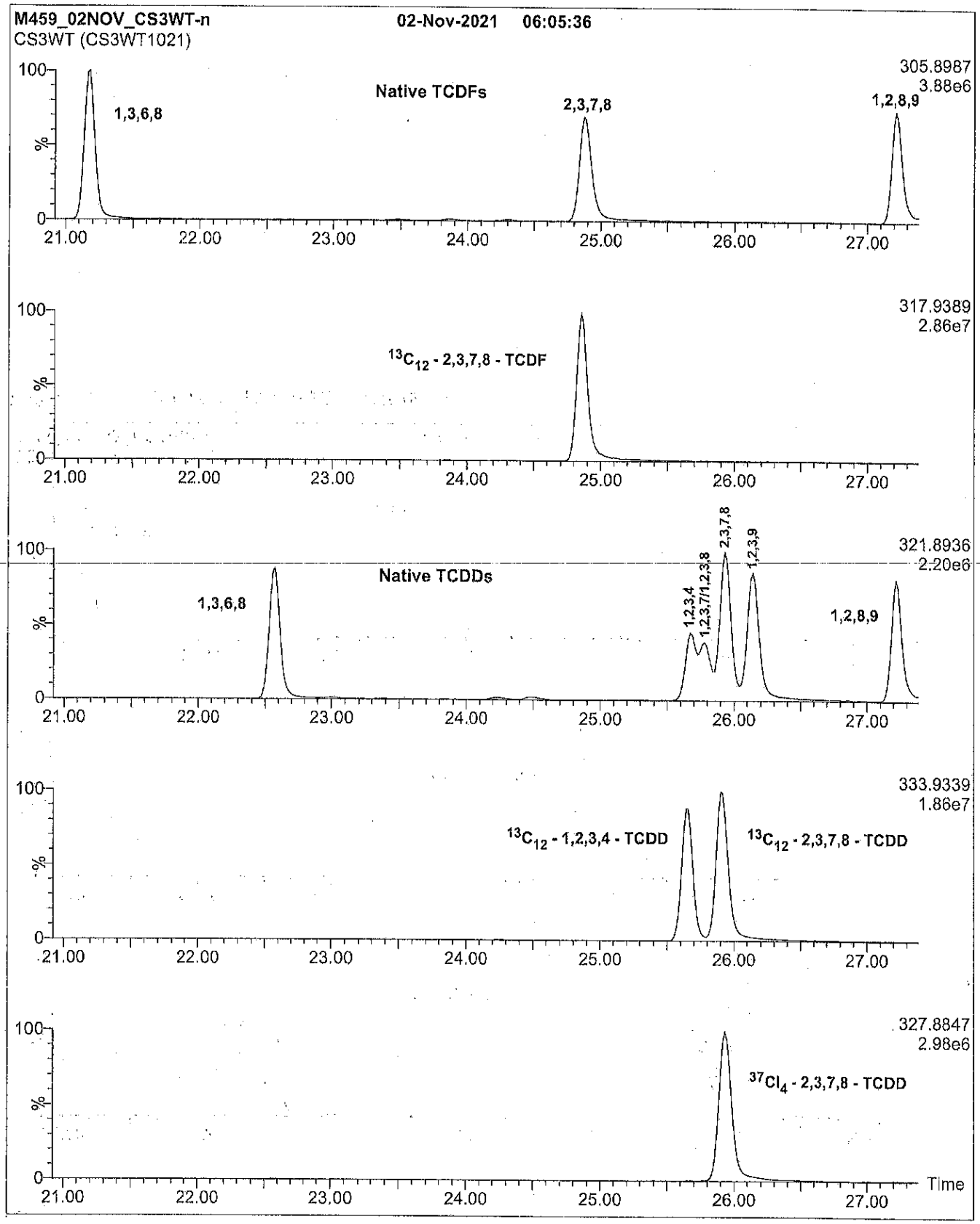


Figure 1: **CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**

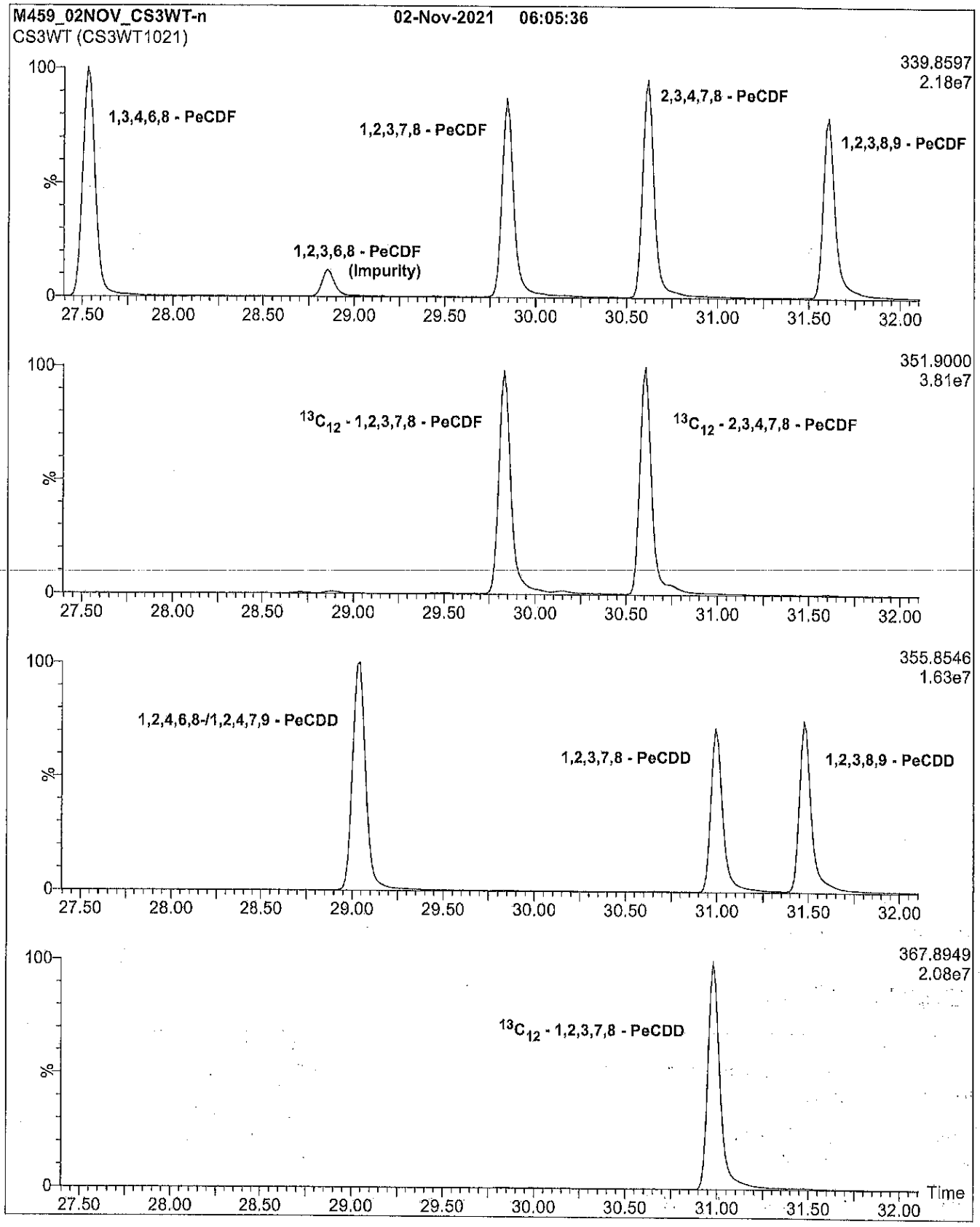


Figure 1: **CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**

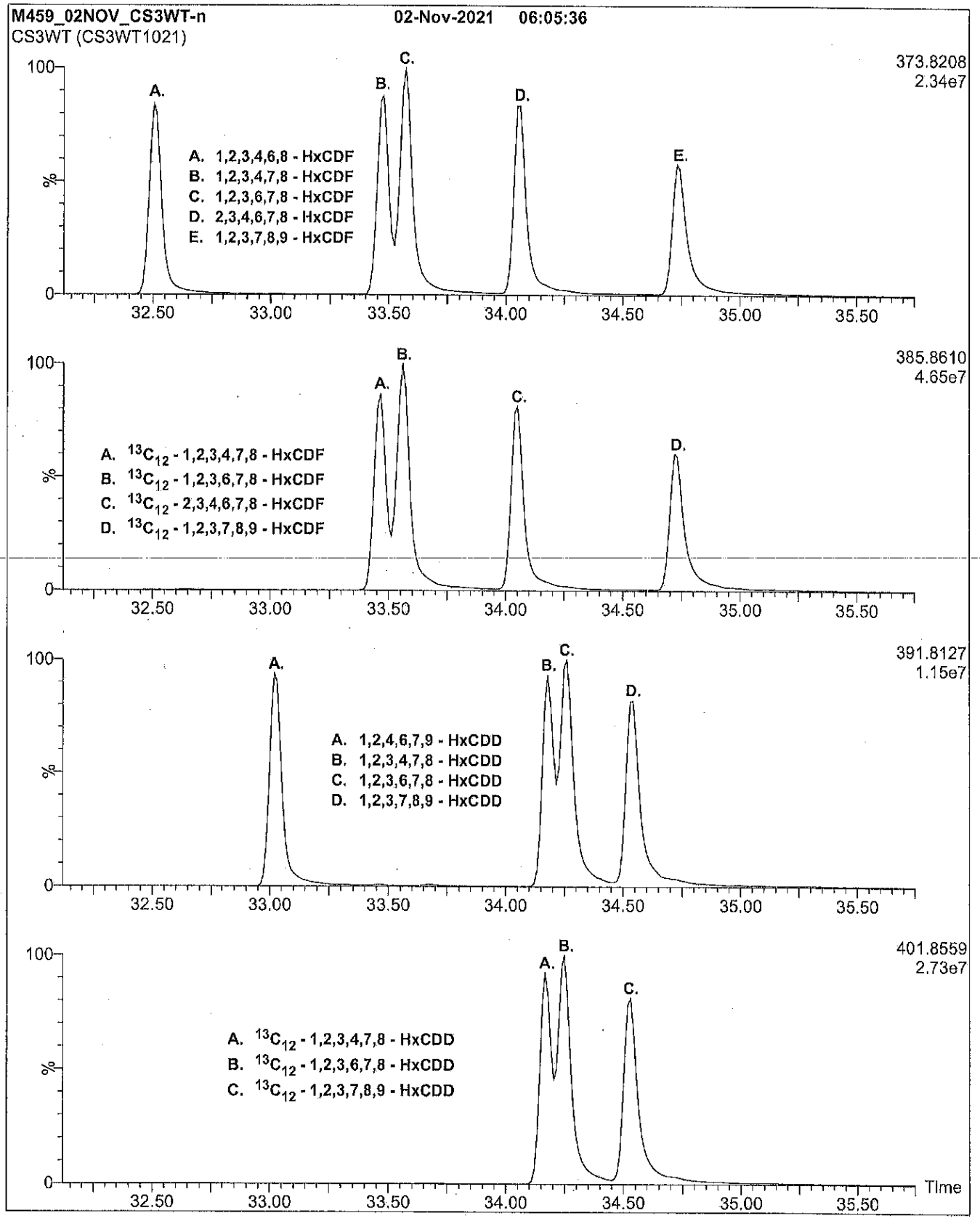


Figure 1: **CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**

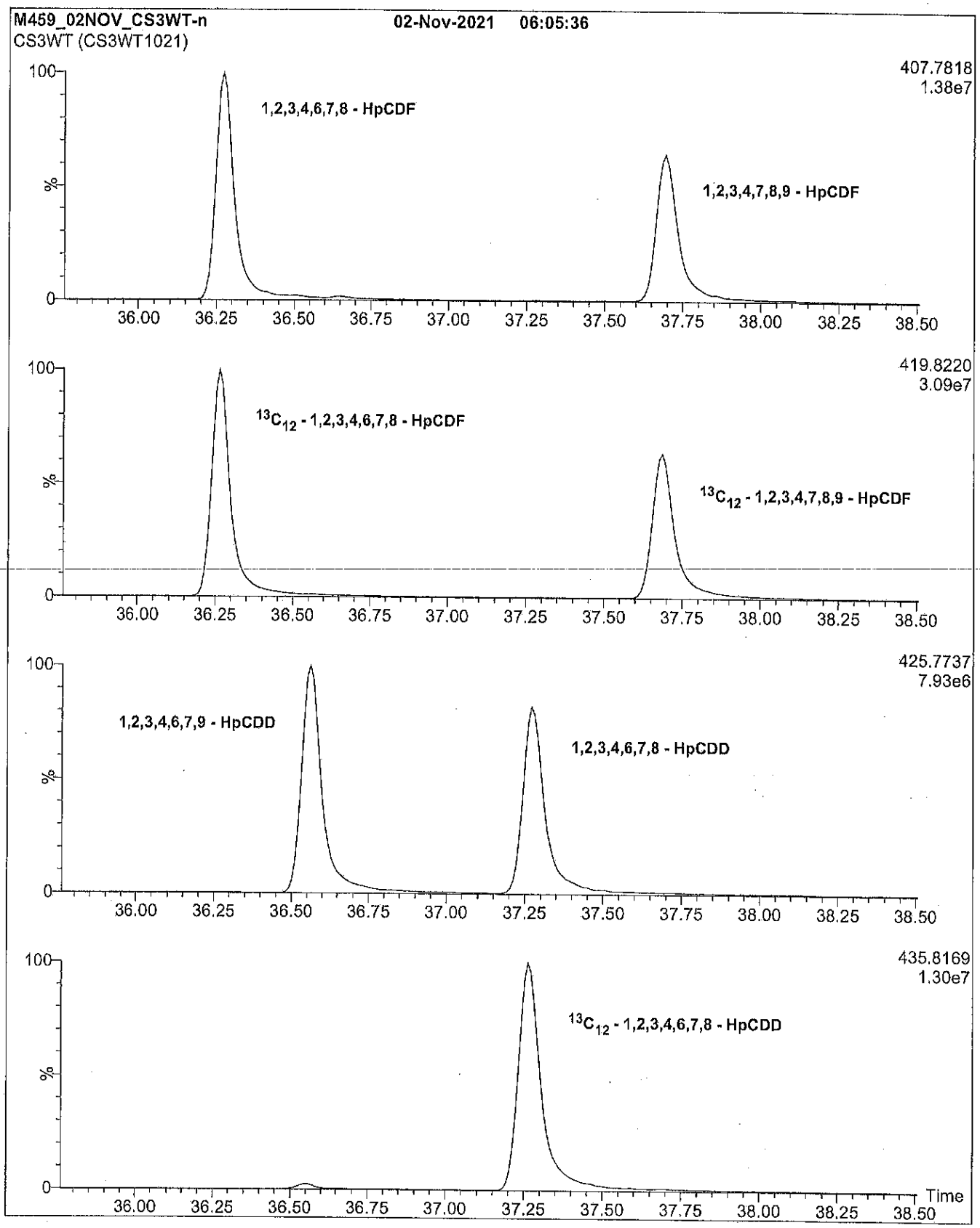
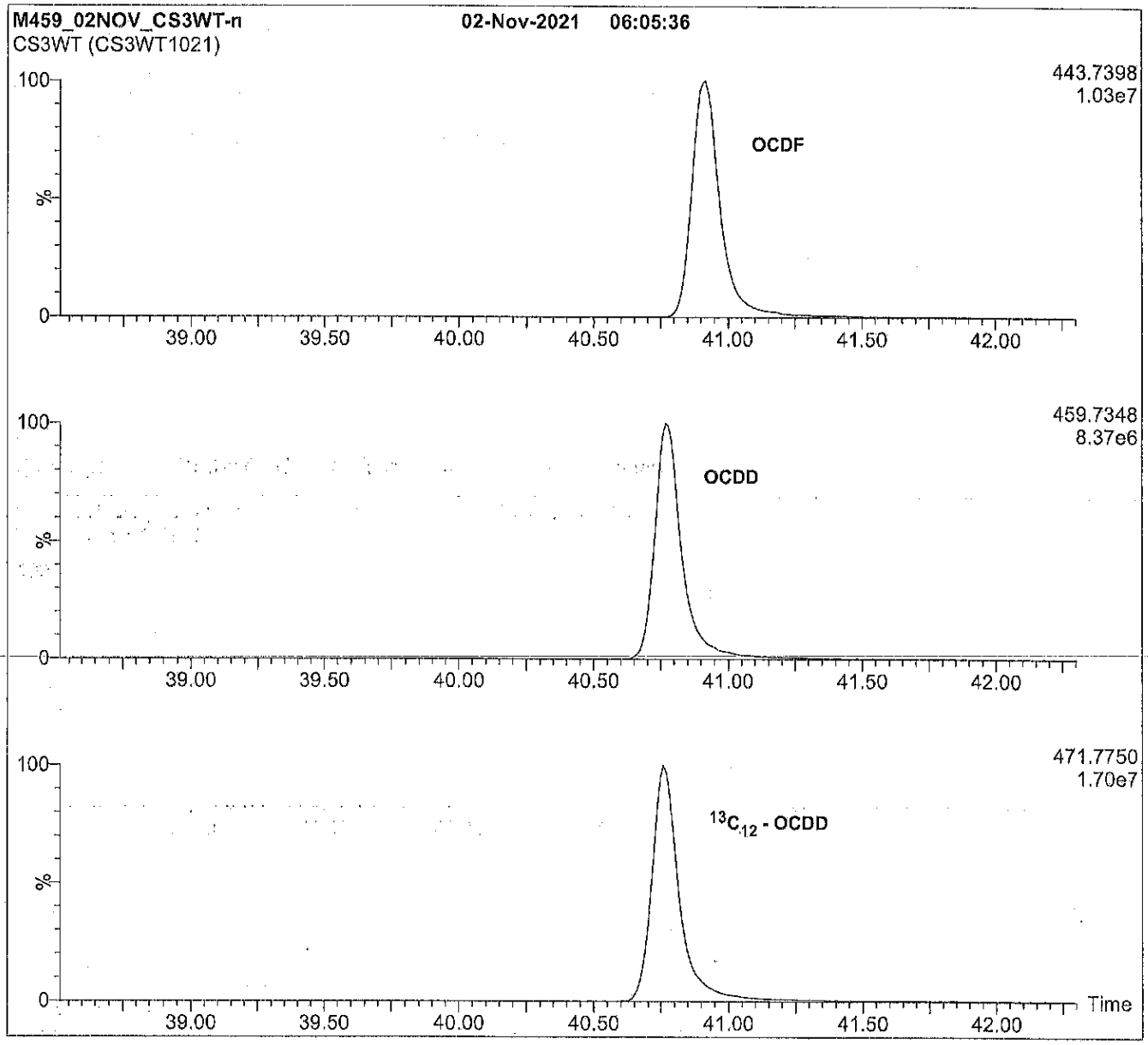


Figure 1: **CS3WT; HRGC/HRMS Data (60 m DB-5 Column)**



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W		
Flow:	Constant at 1.4 mL/min	Oven:	150°C (1 min)
Injector:	280°C (Splitless Injection)		12°C/min to 200°C
Ionization:	EI+		3°C/min to 235°C
Detector:	280°C		235°C (8 min)
	SIR at 10,000 mass resolving power		8°C/min to 310°C
			310°C (8 min)

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

EPA-1613LCS

U.S. EPA Method 1613
Labelled Compound Stock Solution

PRODUCT CODE:	EPA-1613LCS
LOT NUMBER:	13LCS1021
SOLVENT(S):	Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy)	10/29/2021
LAST TESTED: (mm/dd/yyyy)	10/31/2021
EXPIRY DATE: (mm/dd/yyyy)	10/31/2028
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

K 9985 JK Reed 10/27/22

DESCRIPTION:

EPA-1613LCS is a solution/mixture of mass-labelled ($^{13}C_{12}$) polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613LCS was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual ^{13}C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots, x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ANSI National Accreditation Board ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: **EPA-1613LCS; Components and Concentrations (ng/mL, ± 5% in nonane/3.2% toluene)**

Compound	Acronym	CAS #	Concentration (ng/mL)
Mass-Labelled PCDDs:			
2,3,7,8-Tetrachloro($^{13}C_{12}$)dibenzo-*p*-dioxin	$^{13}C_{12}$-2,3,7,8-TCDD	76523-40-5	100
1,2,3,7,8-Pentachloro($^{13}C_{12}$)dibenzo-*p*-dioxin	$^{13}C_{12}$-1,2,3,7,8-PeCDD	109719-79-1	100
1,2,3,4,7,8-Hexachloro($^{13}C_{12}$)dibenzo-*p*-dioxin	$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	109719-80-4	100
1,2,3,6,7,8-Hexachloro($^{13}C_{12}$)dibenzo-*p*-dioxin	$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	109719-81-5	100
1,2,3,4,6,7,8-Heptachloro($^{13}C_{12}$)dibenzo-*p*-dioxin	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	109719-83-7	100
Octachloro($^{13}C_{12}$)dibenzo-*p*-dioxin	$^{13}C_{12}$-OCDD	114423-97-1	200
Mass-Labelled PCDFs:			
2,3,7,8-Tetrachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-2,3,7,8-TCDF	89059-46-1	100
1,2,3,7,8-Pentachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-1,2,3,7,8-PeCDF	109719-77-9	100
2,3,4,7,8-Pentachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-2,3,4,7,8-PeCDF	116843-02-8	100
1,2,3,4,7,8-Hexachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	114423-98-2	100
1,2,3,6,7,8-Hexachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	116843-03-9	100
1,2,3,7,8,9-Hexachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	116843-04-0	100
2,3,4,6,7,8-Hexachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	116843-05-1	100
1,2,3,4,6,7,8-Heptachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	109719-84-8	100
1,2,3,4,7,8,9-Heptachloro($^{13}C_{12}$)dibenzofuran	$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	109719-94-0	100

Certified By: _____ **Date:** 11/05/2021
(mm/dd/yyyy)
B.G. Chittim, General Manager

Figure 1: **EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**

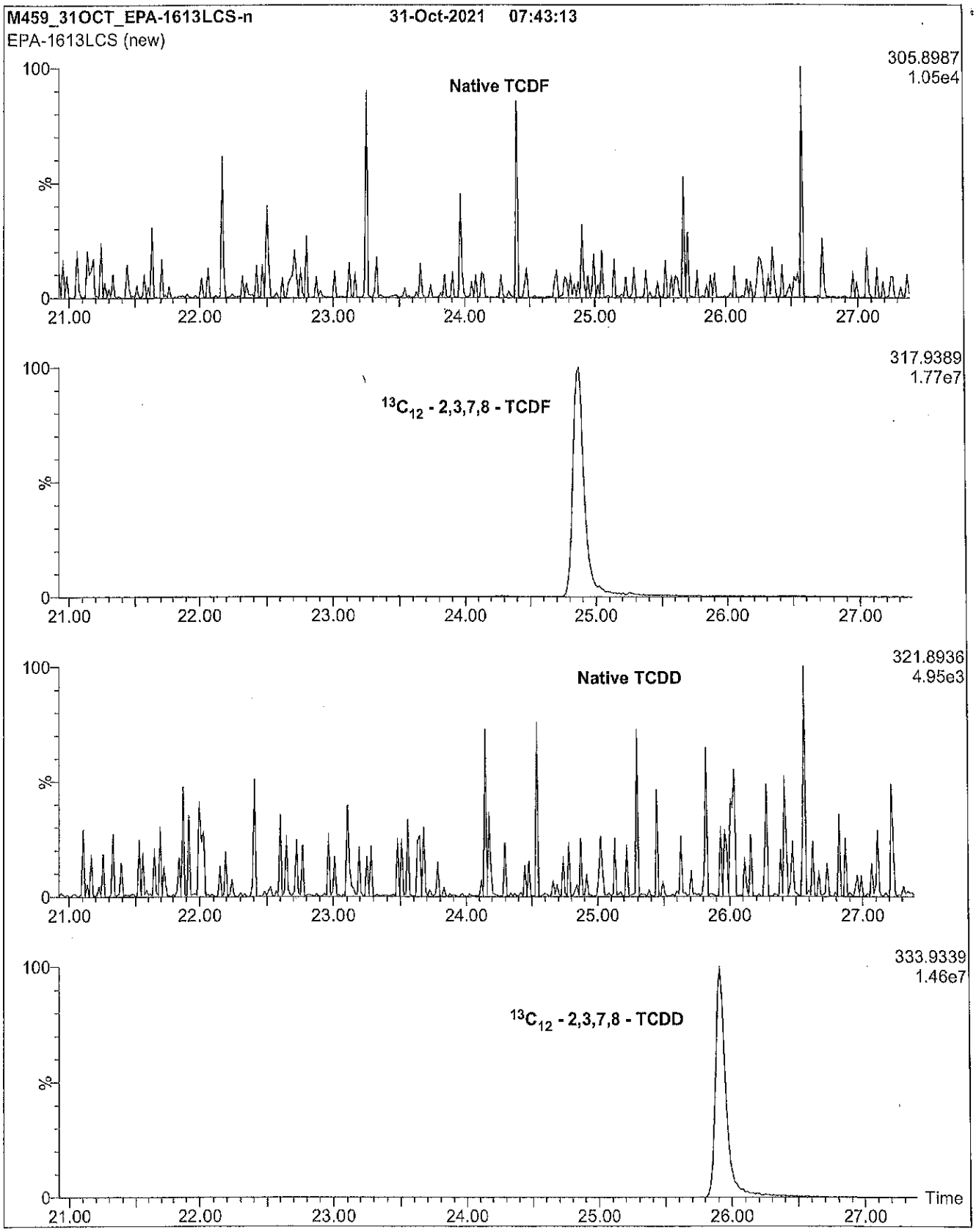


Figure 1: **EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**

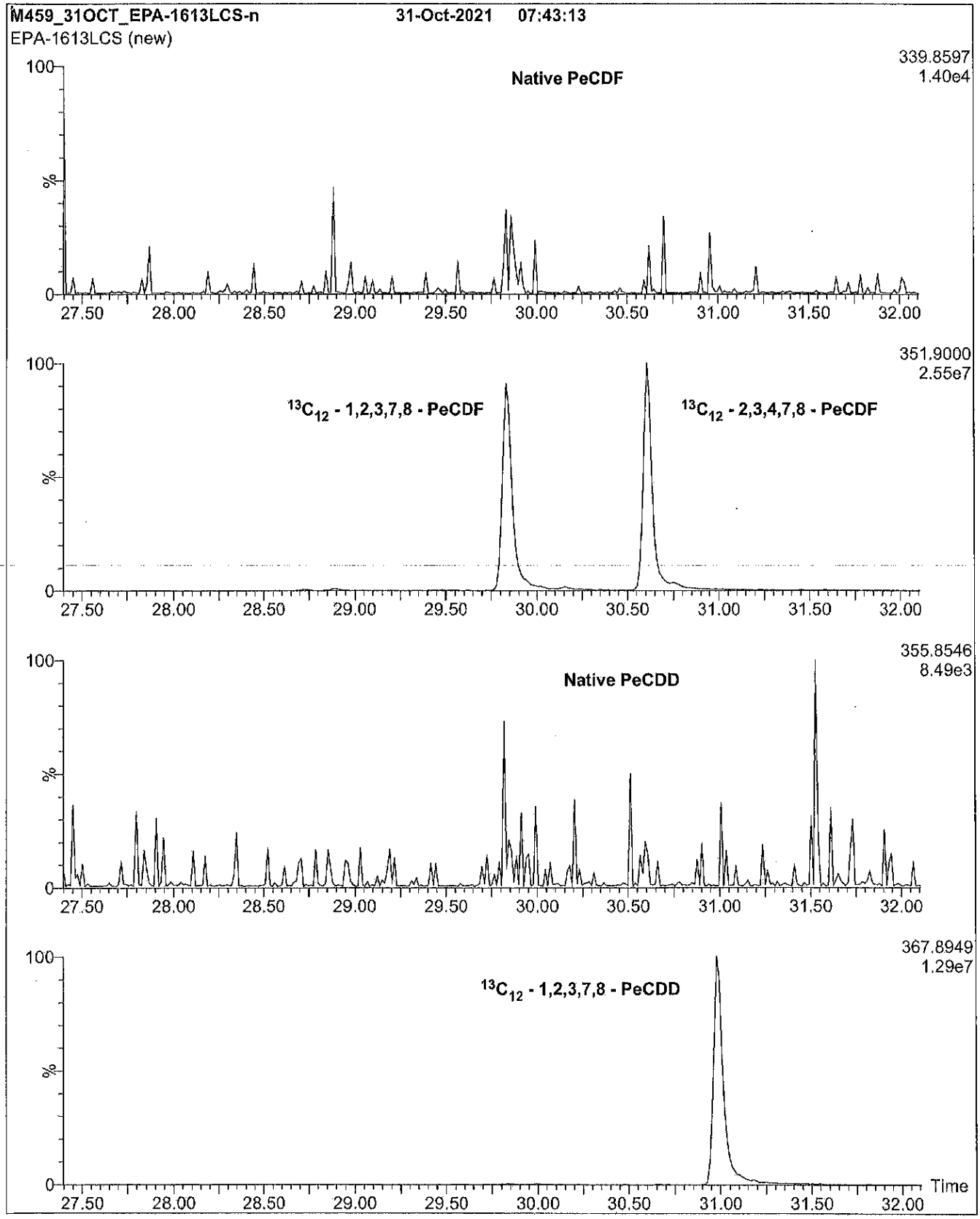


Figure 1: **EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**

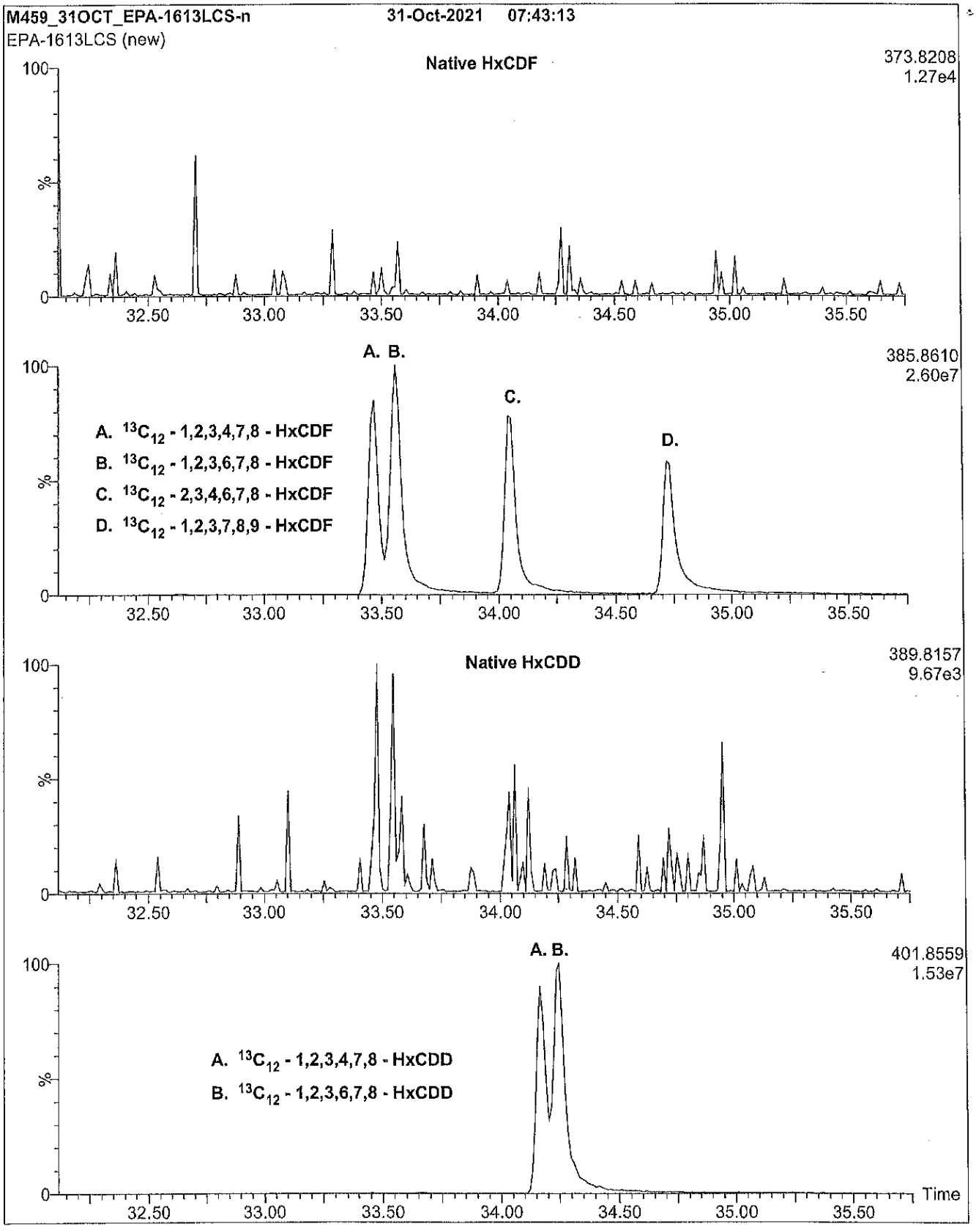


Figure 1: **EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**

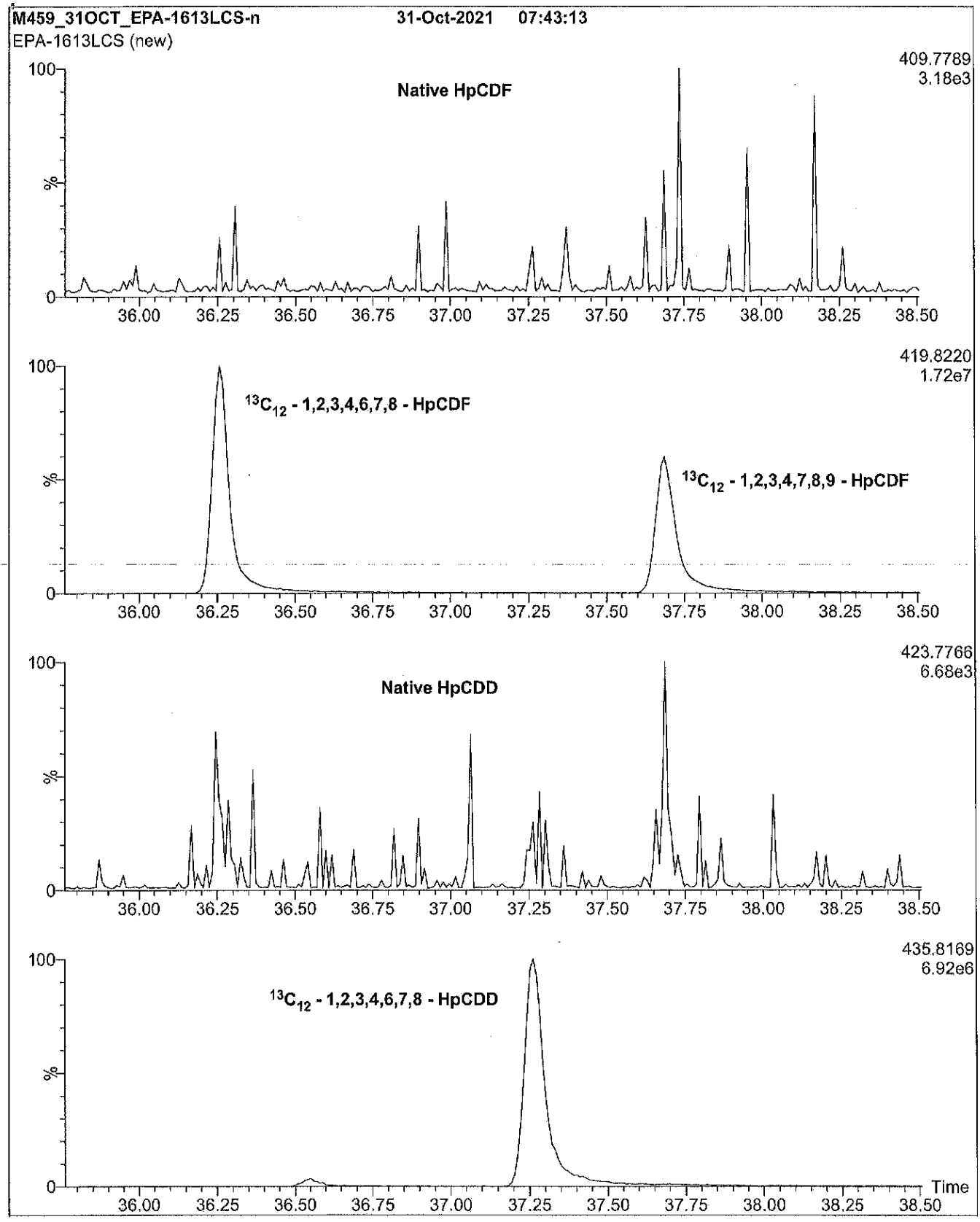
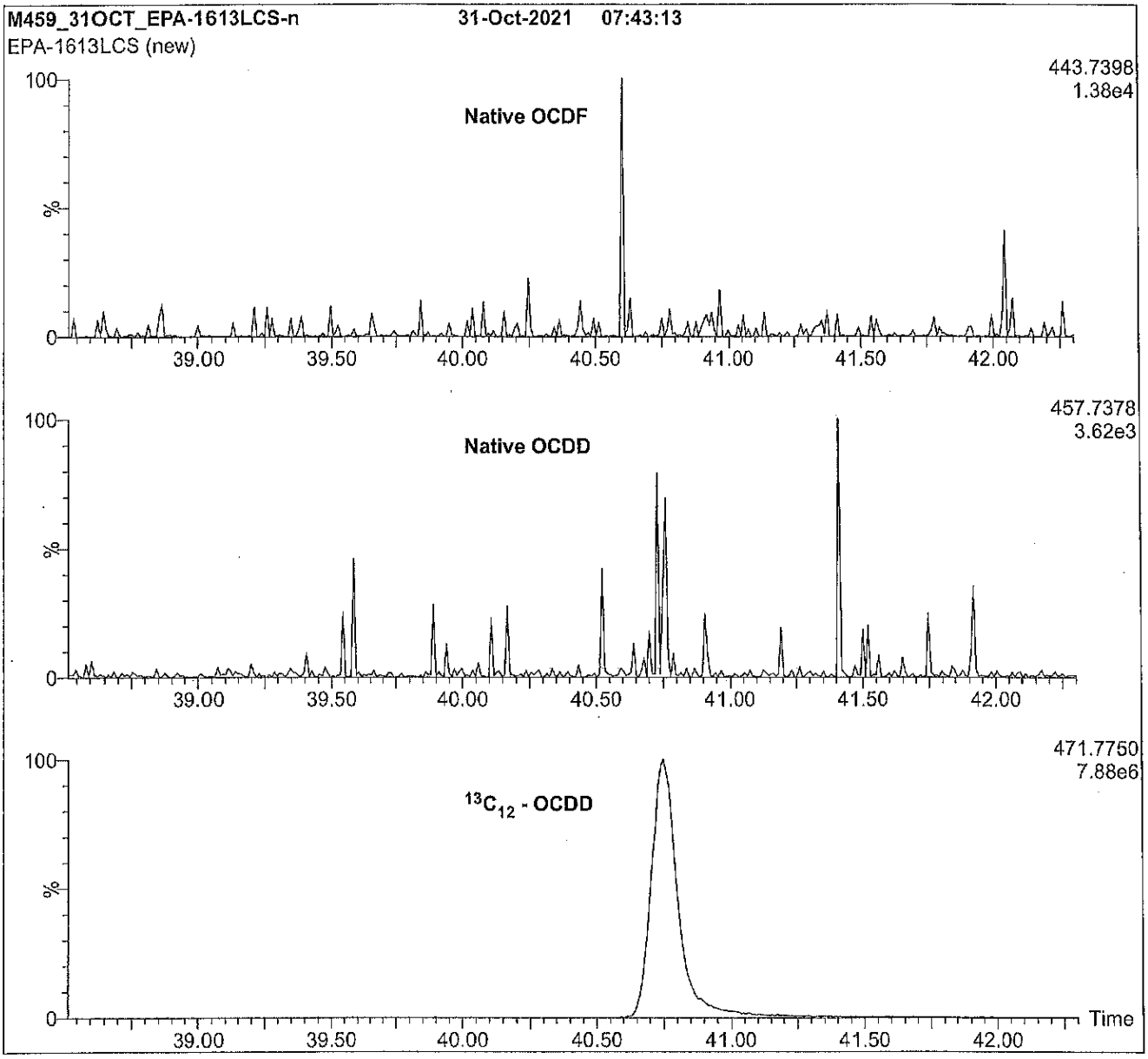


Figure 1: **EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)**



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W		
Flow:	Constant at 1.4 mL/min	Oven:	150°C (1 min)
Injector:	280°C (Splitless Injection)		12°C/min to 200°C
Ionization:	EI+		3°C/min to 235°C
Detector:	280°C		235°C (8 min)
	SIR at 10,000 mass resolving power		8°C/min to 310°C
			310°C (8 min)

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4611 S. 134TH PLACE SUITE 100
TUKWILA WA 98168
250-695-6207

Sample ID	Sigma ID	Qty	Description/Remarks	→ Catalogue Number
KO1147 PSRM0168	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM
KO1147 PSRM0169	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM
KO1147 PSRM0171	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM

12/12/2022

PUGET SOUND SRM FOR DUWAMISH AOC4 PROJECT.

Please use the enclosed Sample Preparation Instructions. If catalogue number(s) are listed at the top of the Sample Preparation Instructions use the Sample Preparation Instructions with catalogue number(s) matching the catalogue number(s) of each of the samples listed above.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	(1400) 12/12/2022	P Hilly PSH	12/12/22 11:15
Custody Seal(s): Present/Absent	Remarks:		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Report No. 00, 9/11/2014

SMP Version 3.3

Analytical Resources, LLC
Analytical Chemists and Consultants

Analytical Standard Record

Standard ID: L002084 **Printed: 3/2/2023 8:59:18AM**

Description:	Dioxin ISC Mix	Expires:	24-Feb-2024
Standard Type:	Other	Prepared:	24-Feb-2023
Solvent:	Nonane	Prepared By:	Peter Kepler
Final Volume (mls):	1	Department:	HRGCMS
Vials:	1	Last Edit:	24-Feb-2023 11:19 by PK
Vendor:	NA	Lot #:	1234
Vendor Catalog #:			

Comments

Stock: H9902: 2378-TCDF, 3467-TCDF, 2348-TCDF, 1278-TCDD, 2378-TCDD. each @ 1000 ng/mL

10 ul to 1 mL FV in Nonane. Final Conc = 10 ng/mL. Analytes and units not available in Element.

Analyte	CAS Number	Concentration	Units
2,3,7,8-TCDF	51207-31-9	10	ug/mL
2,3,7,8-TCDD	1746-01-6	10	ug/mL

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 7471B

Total Metals

LDW23-SC1016A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-08 C	SDG:	23A0313
Sampled:	01/16/23 11:11	Prepared:	04/13/23 17:16	File ID:	SMM 04-14-23-059
% Solids:	55.70	Preparation:	SMM EPA 7471B	Analyzed:	04/14/23 15:14
Batch:	BLD0290	Sequence:	SLD0197	Initial/Final:	0.213 g Wet / 50 mL
Instrument:	HYDRA			Calibration:	GD00038

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	0.200	1	0.00885	0.0421	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 7471B

Total Metals

LDW23-SC1011A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-09 C	SDG:	23A0313
Sampled:	01/16/23 11:46	Prepared:	04/13/23 17:16	File ID:	SMM 04-14-23-060
% Solids:	54.06	Preparation:	SMM EPA 7471B	Analyzed:	04/14/23 15:17
Batch:	BLD0290	Sequence:	SLD0197	Initial/Final:	0.233 g Wet / 50 mL
Instrument:	HYDRA			Calibration:	GD00038

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	0.167	1	0.00834	0.0397	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 7471B

Total Metals

LDW23-SC1006A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-10 C	SDG:	23A0313
Sampled:	01/16/23 12:29	Prepared:	04/13/23 17:16	File ID:	SMM 04-14-23-063
% Solids:	55.20	Preparation:	SMM EPA 7471B	Analyzed:	04/14/23 15:24
Batch:	BLD0290	Sequence:	SLD0197	Initial/Final:	0.258 g Wet / 50 mL
Instrument:	HYDRA			Calibration:	GD00038

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	0.284	1	0.00737	0.0351	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 7471B

Total Metals

LDW23-SC1012B

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-11 C	SDG:	23A0313
Sampled:	01/16/23 13:13	Prepared:	04/13/23 17:16	File ID:	SMM 04-14-23-064
% Solids:	54.29	Preparation:	SMM EPA 7471B	Analyzed:	04/14/23 15:26
Batch:	BLD0290	Sequence:	SLD0197	Initial/Final:	0.248 g Wet / 50 mL
Instrument:	HYDRA			Calibration:	GD00038

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	0.188	1	0.00780	0.0371	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 7471B

Total Metals

LDW23-SC1159

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-13 D	SDG:	23A0313
Sampled:	01/16/23 14:26	Prepared:	04/13/23 17:16	File ID:	SMM 04-14-23-065
% Solids:	56.95	Preparation:	SMM EPA 7471B	Analyzed:	04/14/23 15:28
Batch:	BLD0290	Sequence:	SLD0197	Initial/Final:	0.248 g Wet / 50 mL
Instrument:	HYDRA			Calibration:	GD00038

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	0.148	1	0.00743	0.0354	

PREPARATION BATCH SUMMARY

EPA 7471B

Laboratory: Analytical Resources, LLC SDG: 23A0313

Client: Anchor QEA, LLC Project: AOC5 MR Phase 1

Batch: BLD0290 Batch Matrix: Solid Preparation: SMM EPA 7471B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1016A	23A0313-08	SMM 04-14-23-059	04/13/23 17:16	Store frozen; FROZEN VOLUME USED
LDW23-SC1011A	23A0313-09	SMM 04-14-23-060	04/13/23 17:16	Store frozen; FROZEN VOLUME USED
LDW23-SC1006A	23A0313-10	SMM 04-14-23-063	04/13/23 17:16	Store frozen; FROZEN VOLUME USED
LDW23-SC1012B	23A0313-11	SMM 04-14-23-064	04/13/23 17:16	Store frozen; FROZEN VOLUME USED
LDW23-SC1159	23A0313-13	SMM 04-14-23-065	04/13/23 17:16	Store frozen; FROZEN VOLUME USED
Blank	BLD0290-BLK1	SMM 04-14-23-053	04/13/23 17:16	
LCS	BLD0290-BS1	SMM 04-14-23-054	04/13/23 17:16	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: AR Date: 4/13/23-4/14/23 Time: 1600-1155 Balance ID: BALIO

Matrix: Soil Block ID: 10 Block Temp: 90°C Thermometer: 20-3

ARI Sample ID	Btl #	pH<2	Prep Code: SWN Initial Wt (g) Vol (mL)	Prep Code: SWN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
23A313-03	D		1.016	50			
-04	↓		1.021	↓			
-08	C		1.017				
-09	↓		1.045				
-10			1.041				
-11			1.050				
-12	D		1.017				
-13	↓		1.079				
23A328-02			1.036				
-03			1.070				
-04			1.087				
-05			1.049				
-06			1.028				
-07			1.037				
-08			1.026				
-09			1.052				
-10			1.077				
-11			1.009				
-12	↓		1.007				
BLD290-blk	—		—				23A328-02
-bs	—		—				↓
-dup	—		1.038				
-MS	—		1.037				
-MSD	—		1.040	↓			
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

Chemical/Reagent ID:

HNO_3: LL678 1:1 HNO_3: L3365 HCl: — H_2O_2: K110560

Tube Lot#: 2210117 Boiling Chip Lot#: — (DoD Only)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM | Balance ID: BALIO | Matrix: SOIL
Analyst: KAR | Block ID: 09 | Date: 4/13/23
Bath Temp: 91°C | Start Time: 1611 | End Time: 1716

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
23A323-03	D		0.241	50	1		M 04/14/23
-04	↓		0.265				MS 04/14/23
-08	C		0.213				
-09			0.233				
-10			0.258				
-11	↓		0.248				
-12	D		0.230				M 04/14/23
-13			0.248				
23A328-02			0.255				
-03			0.238				
-04			0.276				
-05			0.240				
-06			0.281				
-07			0.251				
-08			0.269				
-09			0.257				
-10			0.259				
-11			0.214				
-12			0.237				
① BLD289-blk	—		—				23A328-02
-bs	—		—				
-dup	—		0.258				
-MS	—		0.259				
-MSD	—		0.255				
—	—	—	—	—	—	—	—

Chemical/Reagent ID:

HNO_3: L2618 | H_2SO_4: C922 | HCl: —
5% $K_2S_2O_8$: L3350 | 5% $KMnO_4$: K11727 | Digest Tube Lot: 2210117

① BLD290-blk

Form I

METHOD BLANK DATA SHEET

EPA 7471B

Total Metals

Blank

Laboratory: Analytical Resources, LLC | SDG: 23A0313

Client: Anchor QEA, LLC | Project: AOC5 MR Phase 1

Batch: BLD0290 | Laboratory ID: BLD0290-BLK1 | Prepared: 04/13/23 17:16

Matrix: Solid | Preparation: SMM EPA 7471B | Analyzed: 04/14/23 15:00

Sequence: SLD0197 | Calibration: GD00038 | Instrument: HYDRA

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	ND	1	0.00525	0.0250	U

LCS / LCS DUPLICATE RECOVERY

EPA 7471B

Total Metals

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	04/14/23 15:03
Batch:	BLD0290	Laboratory ID:	BLD0290-BS1
Preparation:	SMM EPA 7471B	Sequence Name:	LCS
Initial/Final:	0.2 g / 50 mL		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Mercury	0.500	0.427		85.3	80 - 120

* Indicates values outside of QC limits

INITIAL CALIBRATION DATA

EPA 7471B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00038	Instrument:	HYDRA
Calibration Date:	04/14/2023 16:16		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Mercury	0	0	0.0001	6610000	0.0005	6442000	0.001	5966000	0.002	6389500	0.005	6231000

INITIAL CALIBRATION DATA

EPA 7471B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00038	Instrument:	HYDRA
Calibration Date:	04/14/2023 16:16		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Mercury	5273083	49.2	0.9997		0.99	

SMM 04-14-23

SLD0197 GD00038

Method: ARI 5 ppb (NO 0.05) Operator: Admin Date of Analysis: 14 Apr 2023 11:34:23

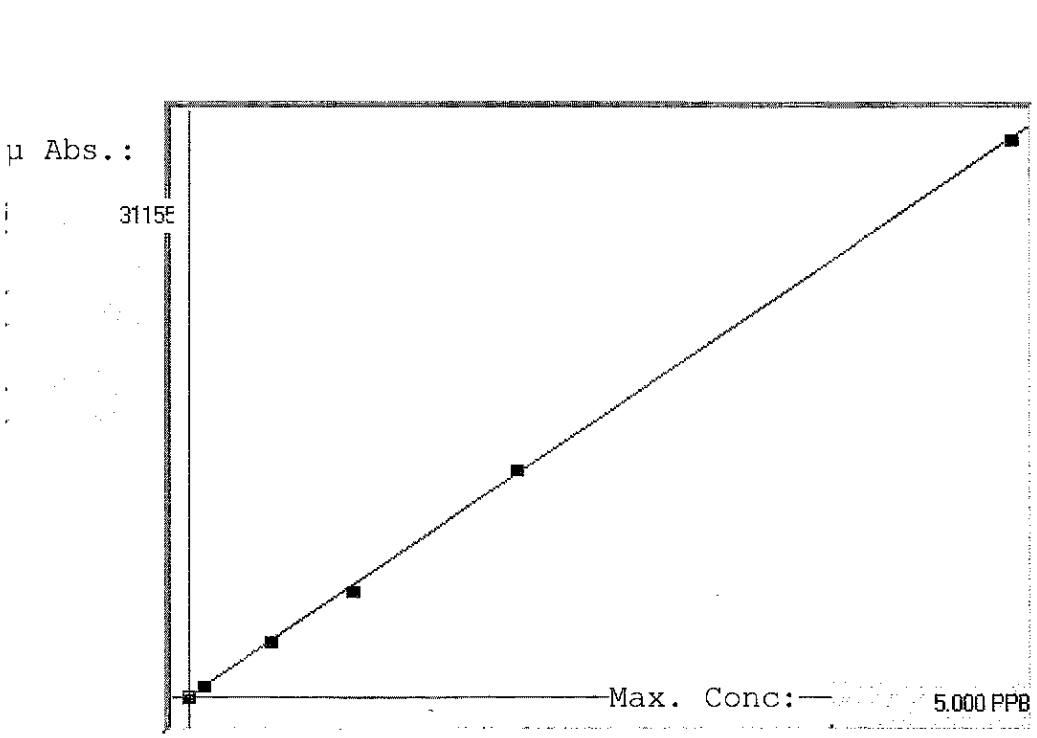
Sample ID	Mean	Units		Date	Method
SEQ-CAL1	27	PPB		14 Apr 2023 11:34:38	ARI 5 ppb (NO 0.05)
SEQ-CAL2	661	PPB		14 Apr 2023 11:36:59	ARI 5 ppb (NO 0.05)
SEQ-CAL3	3221	PPB		14 Apr 2023 11:39:20	ARI 5 ppb (NO 0.05)
SEQ-CAL4	5966	PPB		14 Apr 2023 11:41:40	ARI 5 ppb (NO 0.05)
SEQ-CAL5	12779	PPB		14 Apr 2023 11:44:01	ARI 5 ppb (NO 0.05)
SEQ-CAL6	31155	PPB		14 Apr 2023 11:46:20	ARI 5 ppb (NO 0.05)
SEQ-ICV	95.5% 3.8203	PPB	✓	14 Apr 2023 12:43:41	ARI 5 ppb (NO 0.05)
SEQ-ICB	-0.0048	PPB	✓	14 Apr 2023 12:45:59	ARI 5 ppb (NO 0.05)
SEQ-CRL	99.0% 0.0990	PPB	✓	14 Apr 2023 12:48:21	ARI 5 ppb (NO 0.05)
SEQ-CCV	95.4% 3.8164	PPB	✓	14 Apr 2023 12:50:41	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0051	PPB	✓	14 Apr 2023 12:53:00	ARI 5 ppb (NO 0.05)
~~SEQ-CCV~~	~~(L)-0.1% -0.0042~~	~~PPB~~		14 Apr 2023 12:55:21	ARI 5 ppb (NO 0.05)
SEQ-CCV	93.6% 3.7456	PPB	✓	14 Apr 2023 13:27:34	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0055	PPB	✓	14 Apr 2023 13:29:52	ARI 5 ppb (NO 0.05)
BLD0167-BLK1	-0.0000	PPB		14 Apr 2023 13:32:13	ARI 5 ppb (NO 0.05)
BLD0167-BS1	1.7977	PPB	✓	14 Apr 2023 13:34:32	ARI 5 ppb (NO 0.05)
23C0673-01	0.0643	PPB		14 Apr 2023 13:36:52	ARI 5 ppb (NO 0.05)
BLD0167-DUP1	0.0842	PPB		14 Apr 2023 13:39:11	ARI 5 ppb (NO 0.05)
BLD0167-MS1	1.1219	PPB	✓	14 Apr 2023 13:41:30	ARI 5 ppb (NO 0.05)
23C0673-02	0.1172	PPB		14 Apr 2023 13:43:49	ARI 5 ppb (NO 0.05)
23C0681-01	0.0109	PPB		14 Apr 2023 13:46:08	ARI 5 ppb (NO 0.05)
23C0702-01	0.1123	PPB		14 Apr 2023 13:48:27	ARI 5 ppb (NO 0.05)
23C0723-01	0.1184	PPB		14 Apr 2023 13:50:47	ARI 5 ppb (NO 0.05)
23D0061-01	0.0152	PPB		14 Apr 2023 13:53:08	ARI 5 ppb (NO 0.05)
SEQ-CCV	92.9% 3.7178	PPB	✓	14 Apr 2023 13:55:28	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0075	PPB	✓	14 Apr 2023 13:57:46	ARI 5 ppb (NO 0.05)
23D0061-02	0.0079	PPB		14 Apr 2023 14:00:08	ARI 5 ppb (NO 0.05)
BLD0245-BLK1	-0.0036	PPB		14 Apr 2023 14:02:28	ARI 5 ppb (NO 0.05)
BLD0245-BS1	1.7448	PPB	✓	14 Apr 2023 14:04:50	ARI 5 ppb (NO 0.05)
23A0249-02	0.5422	PPB		14 Apr 2023 14:07:09	ARI 5 ppb (NO 0.05)
BLD0245-DUP1	0.6809	PPB		14 Apr 2023 14:09:27	ARI 5 ppb (NO 0.05)
BLD0245-MS1	1.8024	PPB	✗	14 Apr 2023 14:11:46	ARI 5 ppb (NO 0.05)
BLD0245-MSD1	1.6893	PPB	✓	14 Apr 2023 14:14:05	ARI 5 ppb (NO 0.05)
23A0249-03	0.5484	PPB		14 Apr 2023 14:16:28	ARI 5 ppb (NO 0.05)
23A0249-04	0.4144	PPB		14 Apr 2023 14:18:47	ARI 5 ppb (NO 0.05)
23A0249-05	0.5959	PPB		14 Apr 2023 14:21:07	ARI 5 ppb (NO 0.05)
SEQ-CCV	94.4% 3.7775	PPB	✓	14 Apr 2023 14:23:27	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0048	PPB	✓	14 Apr 2023 14:25:45	ARI 5 ppb (NO 0.05)
23A0249-08	0.4022	PPB		14 Apr 2023 14:28:06	ARI 5 ppb (NO 0.05)
23A0249-11	0.1369	PPB		14 Apr 2023 14:30:26	ARI 5 ppb (NO 0.05)
23A0295-01	1.2941	PPB		14 Apr 2023 14:32:46	ARI 5 ppb (NO 0.05)
23A0295-02	1.0695	PPB		14 Apr 2023 14:35:07	ARI 5 ppb (NO 0.05)
23A0295-03	0.6062	PPB		14 Apr 2023 14:37:27	ARI 5 ppb (NO 0.05)
23A0295-04	0.5355	PPB		14 Apr 2023 14:39:47	ARI 5 ppb (NO 0.05)
23A0295-05	0.8756	PPB		14 Apr 2023 14:42:06	ARI 5 ppb (NO 0.05)
23A0295-06	0.5058	PPB		14 Apr 2023 14:44:25	ARI 5 ppb (NO 0.05)
23A0295-07	0.1121	PPB		14 Apr 2023 14:46:45	ARI 5 ppb (NO 0.05)
23A0295-09	0.6083	PPB		14 Apr 2023 14:49:05	ARI 5 ppb (NO 0.05)
SEQ-CCV	93.9% 3.7576	PPB	✓	14 Apr 2023 14:51:24	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0051	PPB	✓	14 Apr 2023 14:53:43	ARI 5 ppb (NO 0.05)
23A0295-10	0.0330	PPB		14 Apr 2023 14:56:04	ARI 5 ppb (NO 0.05)
BLD0245-PS1	1.6687	PPB	✓	14 Apr 2023 14:58:24	ARI 5 ppb (NO 0.05)
BLD0290-BLK1	-0.0019	PPB		14 Apr 2023 15:00:44	ARI 5 ppb (NO 0.05)
BLD0290-BS1	1.7068	PPB	✓	14 Apr 2023 15:03:04	ARI 5 ppb (NO 0.05)
23A0328-02	0.4496	PPB		14 Apr 2023 15:05:25	ARI 5 ppb (NO 0.05)
BLD0290-DUP1	0.4920	PPB		14 Apr 2023 15:07:46	ARI 5 ppb (NO 0.05)
BLD0290-MS1	1.7686	PPB	✗	14 Apr 2023 15:10:07	ARI 5 ppb (NO 0.05)
BLD0290-MSD1	1.5354	PPB	✓	14 Apr 2023 15:12:26	ARI 5 ppb (NO 0.05)
23A0313-08	0.4753	PPB		14 Apr 2023 15:14:46	ARI 5 ppb (NO 0.05)
23A0313-09	0.4213	PPB		14 Apr 2023 15:17:06	ARI 5 ppb (NO 0.05)
SEQ-CCV	92.0% 3.6819	PPB	✓	14 Apr 2023 15:19:26	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0059	PPB	✓	14 Apr 2023 15:21:44	ARI 5 ppb (NO 0.05)
23A0313-10	0.8094	PPB		14 Apr 2023 15:24:05	ARI 5 ppb (NO 0.05)
23A0313-11	0.5056	PPB		14 Apr 2023 15:26:24	ARI 5 ppb (NO 0.05)
23A0313-13	0.4179	PPB		14 Apr 2023 15:28:44	ARI 5 ppb (NO 0.05)
23A0328-03	0.3879	PPB		14 Apr 2023 15:31:04	ARI 5 ppb (NO 0.05)
23A0328-04	1.8632	PPB		14 Apr 2023 15:33:24	ARI 5 ppb (NO 0.05)

SMM 04-14-23

Method: ARI 5 ppb (NO 0.05) Operator: Admin Date of Analysis: 14 Apr 2023 11:34:23

Sample ID	Mean	Units		Date	Method
23A0328-05	0.4847	PPB		14 Apr 2023 15:35:45	ARI 5 ppb (NO 0.05)
23A0328-06	0.4100	PPB		14 Apr 2023 15:38:05	ARI 5 ppb (NO 0.05)
23A0328-07	0.2932	PPB		14 Apr 2023 15:40:25	ARI 5 ppb (NO 0.05)
23A0328-09	0.4555	PPB		14 Apr 2023 15:42:47	ARI 5 ppb (NO 0.05)
23A0328-10	0.3732	PPB		14 Apr 2023 15:45:06	ARI 5 ppb (NO 0.05)
SEQ-CCV	91.7% 3.6673	PPB	✓	14 Apr 2023 15:47:26	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0054	PPB	✓	14 Apr 2023 15:49:44	ARI 5 ppb (NO 0.05)
23A0328-11	0.3614	PPB		14 Apr 2023 15:52:05	ARI 5 ppb (NO 0.05)
23A0328-12	0.3343	PPB		14 Apr 2023 15:54:25	ARI 5 ppb (NO 0.05)
BLD0290-PS1	0.3559	PPB	X	14 Apr 2023 15:56:44	ARI 5 ppb (NO 0.05)
SEQ-CCV	91.4% 3.6549	PPB	✓	14 Apr 2023 15:59:04	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0054	PPB	✓	14 Apr 2023 16:01:23	ARI 5 ppb (NO 0.05)

ARI 5 ppb (NO 0.05)



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
SEQ-CAL1 - Blank	0.000	0.000	0.000	27	0.943	26	28	28		
SEQ-CAL2 - 0.1 PPB	0.100	0.102	0.002	661	0.7 %	667	656	661		
SEQ-CAL3 - 0.5 PPB	0.500	0.512	0.012	3220	0.4 %	3221	3237	3204		
SEQ-CAL4 - 1.0 PPB	1.000	0.952	-0.048	5965	0.6 %	5936	5944	6017		
SEQ-CAL5 - 2.0 PPB	2.000	2.044	0.044	12778	0.6 %	12679	12816	12841		
SEQ-CAL6 - 5.0 PPB	5.000	4.990	-0.010	31155	0.8 %	30869	31475	31122		

Mercury Analysis Log

Analyst: ML

Instrument: HYDRA

Date: 04/14/23

Page: 1 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
SEQ -cal1	5mm	1x		
-cal2				
-cal3				
-cal4				
-cal5				
-cal6				
-ICV			✓ 3.82	
-ICB			✓ -0.004	
-CRL			✓ 0.099	
-CCV			✓ 3.81	
-CCB			✓ -0.005	
-CCV				no recs; seq break; del
-CCV			✓ 3.74	
-CCB			✓ -0.005	
BLD0167 -BLK1				
-BS1			✓ 1.797	89.8 %R
23C0673 -01				
BLD0167 -DUP1				RPD = 26.80
-MS1			✓ 1.121	105.7 %R
23C0673 -02				
23C0681 -01				
23C0702 -01				
23C0723 -01				
23D0061 -01				
SEQ -CCV			✓ 3.71	
-CCB			✓ -0.007	
23D0061 -02				
BLD0245 -BLK1				
-BS1			✓ 1.744	87.2 %R
23A0249 -02				

Chemical/Reagent ID:

10% $SnCl_2$: L3991

14% NH_2OH/NaCl: 23351

Standard ID:

Standard: L4066-L4071

ICV/CCV: L4063

Mercury Analysis Log

Analyst: — Date: —

Instrument: — Page: 2 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
BLD0245 -DUP1				RPD = 22.68
-MS1			X 1.802	126 %R
↓ -MSD1			✓ 1.689	114 %R
23A0249 -03				
-04				
↓ -05				
SEQ -CCV			✓ 3.77	
↓ -CCB			✓ -0.004	
23A0249 -08				
↓ -11				
23A0295 -01				
-02				
-03				
-04				
-05				
-06				
-07				
↓ -09				
STD -CCV			✓ 3.75	
↓ -CCB			✓ -0.005	
23A0295 -10				
BLD0245 -PS1			✓ 1.668	112.6 %R
BLD0290 -BLK1				
↓ -BS1			✓ 1.706	85.3 %R
23A0328 -02				
BLD0290 -DUP1				RPD = 9.00
-MS1			X 1.768	131.9 %R
↓ -MSD1			✓ 1.535	108.5 %R
23A0313 -08				
↓ -09				

Chemical/Reagent ID:

10% $SnCl_2$: — 14% NH_2OH/NaCl: —

Standard ID:

Standard: — ICV/CCV: —

Mercury Analysis Log

Analyst: —
Instrument: —
Date: —
Page: 3 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
SEQ -CCV			√3.68	
↓ -CCB			√-0.005	
23A0313 -10				
-11				
↓ -13				
23A0328 -03				
-04				
-05				
-06				
-07				
-09				
↓ -10				
SEQ -CCV			√3.66	
↓ -CCB			√-0.005	
23A0328 -11				
↓ -12				
BLD0290 -PS1			x 0.355	
SEQ -CCV			√3.65	
↓ -CCB	↓	↓	√-0.005	

MM 04/14/23

Chemical/Reagent ID:
10% $SnCl_2$: —
14% NH_2OH/NaCl: —
Standard ID:
Standard: —
ICV/CCV: —

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 7471B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: HYDRA
Calibration: GD00038
Control Limt: +/- 20.00%
Sequence: SLD0197

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0197-ICV1	Mercury	0.0040000	0.00382	95.5	mg/L	EPA 7471B
SLD0197-CCV1	Mercury	0.0040000	0.00382	95.4	mg/L	EPA 7471B
SLD0197-CCV2	Mercury	0.0040000	0.00375	93.6	mg/L	EPA 7471B
SLD0197-CCV3	Mercury	0.0040000	0.00372	92.9	mg/L	EPA 7471B
SLD0197-CCV4	Mercury	0.0040000	0.00378	94.4	mg/L	EPA 7471B
SLD0197-CCV5	Mercury	0.0040000	0.00376	93.9	mg/L	EPA 7471B
SLD0197-CCV6	Mercury	0.0040000	0.00368	92.0	mg/L	EPA 7471B
SLD0197-CCV7	Mercury	0.0040000	0.00367	91.7	mg/L	EPA 7471B
SLD0197-CCV8	Mercury	0.0040000	0.00365	91.4	mg/L	EPA 7471B

* Values outside of QC limits

INSTRUMENT BLANKS
EPA 7471B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: HYDRA
Sequence: SLD0197

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00038
Date Analyzed: 04/14/23 12:45

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0197-ICB1	Mercury	-0.000005	0.000021	0.000100	mg/L	
SLD0197-CCB1	Mercury	-0.000005	0.000021	0.000100	mg/L	
SLD0197-CCB2	Mercury	-0.000006	0.000021	0.000100	mg/L	
SLD0197-CCB3	Mercury	-0.000008	0.000021	0.000100	mg/L	
SLD0197-CCB4	Mercury	-0.000005	0.000021	0.000100	mg/L	
SLD0197-CCB5	Mercury	-0.000005	0.000021	0.000100	mg/L	
SLD0197-CCB6	Mercury	-0.000006	0.000021	0.000100	mg/L	
SLD0197-CCB7	Mercury	-0.000005	0.000021	0.000100	mg/L	
SLD0197-CCB8	Mercury	-0.000005	0.000021	0.000100	mg/L	

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 7471B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLD0197	Instrument:	HYDRA
		Calibration:	GD00038

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Cal Standard	SLD0197-CAL1	SMM 04-14-23-001	NA	04/14/23 11:34
Cal Standard	SLD0197-CAL2	SMM 04-14-23-002	NA	04/14/23 11:36
Cal Standard	SLD0197-CAL3	SMM 04-14-23-003	NA	04/14/23 11:39
Cal Standard	SLD0197-CAL4	SMM 04-14-23-004	NA	04/14/23 11:41
Cal Standard	SLD0197-CAL5	SMM 04-14-23-005	NA	04/14/23 11:44
Cal Standard	SLD0197-CAL6	SMM 04-14-23-006	NA	04/14/23 11:46
Initial Cal Check	SLD0197-ICV1	SMM 04-14-23-007	NA	04/14/23 12:43
Initial Cal Blank	SLD0197-ICB1	SMM 04-14-23-008	NA	04/14/23 12:45
Instrument RL Check	SLD0197-CRL1	SMM 04-14-23-009	NA	04/14/23 12:48
Calibration Check	SLD0197-CCV1	SMM 04-14-23-010	NA	04/14/23 12:50
Calibration Blank	SLD0197-CCB1	SMM 04-14-23-011	NA	04/14/23 12:53
Calibration Check	SLD0197-CCV2	SMM 04-14-23-013	NA	04/14/23 13:27
Calibration Blank	SLD0197-CCB2	SMM 04-14-23-014	NA	04/14/23 13:29
Calibration Check	SLD0197-CCV3	SMM 04-14-23-025	NA	04/14/23 13:55
Calibration Blank	SLD0197-CCB3	SMM 04-14-23-026	NA	04/14/23 13:57
Calibration Check	SLD0197-CCV4	SMM 04-14-23-037	NA	04/14/23 14:23
Calibration Blank	SLD0197-CCB4	SMM 04-14-23-038	NA	04/14/23 14:25
Calibration Check	SLD0197-CCV5	SMM 04-14-23-049	NA	04/14/23 14:51
Calibration Blank	SLD0197-CCB5	SMM 04-14-23-050	NA	04/14/23 14:53
Blank	BLD0290-BLK1	SMM 04-14-23-053	Solid	04/14/23 15:00
LCS	BLD0290-BS1	SMM 04-14-23-054	Solid	04/14/23 15:03
LDW23-SC1016A	23A0313-08	SMM 04-14-23-059	Solid	04/14/23 15:14
LDW23-SC1011A	23A0313-09	SMM 04-14-23-060	Solid	04/14/23 15:17
Calibration Check	SLD0197-CCV6	SMM 04-14-23-061	NA	04/14/23 15:19
Calibration Blank	SLD0197-CCB6	SMM 04-14-23-062	NA	04/14/23 15:21
LDW23-SC1006A	23A0313-10	SMM 04-14-23-063	Solid	04/14/23 15:24
LDW23-SC1012B	23A0313-11	SMM 04-14-23-064	Solid	04/14/23 15:26
LDW23-SC1159	23A0313-13	SMM 04-14-23-065	Solid	04/14/23 15:28
Calibration Check	SLD0197-CCV7	SMM 04-14-23-073	NA	04/14/23 15:47

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 7471B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLD0197

SDG: 23A0313
Project: AOC5 MR Phase 1
Instrument: HYDRA
Calibration: GD00038

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SLD0197-CCB7	SMM 04-14-23-074	NA	04/14/23 15:49
Calibration Check	SLD0197-CCV8	SMM 04-14-23-078	NA	04/14/23 15:59
Calibration Blank	SLD0197-CCB8	SMM 04-14-23-079	NA	04/14/23 16:01

DETECTION LEVEL STANDARD
EPA 7471B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: HYDRA
Calibration: GD00038
Sequence: SLD0197
Lab Sample ID: SLD0197-CRL1

Analyte	True	Found	%R	Units	QC Limts
Mercury	0.000100	0.000099	99.0	mg/L	70 - 130

* Values outside of QC limits

HOLDING TIME SUMMARY

Analysis: EPA 7471B

Laboratory: Analytical Resources, LLC SDG: 23A0313

Client: Anchor QEA, LLC Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SC1016A 23A0313-08	01/16/23 11:11	01/16/23 16:35	04/13/23 17:16	87	180	04/14/23 15:14	88	180	
LDW23-SC1011A 23A0313-09	01/16/23 11:46	01/16/23 16:35	04/13/23 17:16	87	180	04/14/23 15:17	88	180	
LDW23-SC1006A 23A0313-10	01/16/23 12:29	01/16/23 16:35	04/13/23 17:16	87	180	04/14/23 15:24	88	180	
LDW23-SC1012B 23A0313-11	01/16/23 13:13	01/16/23 16:35	04/13/23 17:16	87	180	04/14/23 15:26	88	180	
LDW23-SC1159 23A0313-13	01/16/23 14:26	01/16/23 16:35	04/13/23 17:16	87	180	04/14/23 15:28	88	180	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 7471B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Instrument: HYDRA

Analyte	MDL	RL	Units
Mercury	0.00525	0.0250	mg/kg

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGHG1
Lot Number:	S2-HG711246
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Mercury
Starting Material:	Hg Metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1000 ± 3 µg/mL

Density: 1.026 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **1004 ± 6 µg/mL**
ICP Assay NIST SRM 3133 Lot Number: 160921

Assay Method #2 **998 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 3 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000210	M	Eu	<	0.000210	O	Na		0.000626	M	Se	<	0.008100	M	Zn	<	0.000810
M	Al		0.000161	O	Fe	<	0.001600	M	Nb	<	0.000410	O	Si		0.000626	M	Zr	<	0.000410
M	As	<	0.002500	M	Ga	<	0.000210	M	Nd	<	0.000210	M	Sm	<	0.000210				
O	Au	<	0.001700	M	Gd	<	0.000210	O	Ni	<	0.001400	M	Sn	<	0.000410				
M	B	<	0.008500	M	Ge	<	0.000410	M	Os	<	0.003900	O	Sr	<	0.000110				
M	Ba	<	0.000210	M	Hf	<	0.000210	O	P	<	0.029000	M	Ta	<	0.000210				
O	Be	<	0.000110	s	Hg	<		M	Pb	<	0.000210	M	Tb	<	0.000210				
M	Bi	<	0.001100	M	Ho	<	0.000210	M	Pd	<	0.003500	M	Te	<	0.005700				
O	Ca		0.004754	M	In	<	0.000210	M	Pr	<	0.000210	M	Th	<	0.000210				
M	Cd	<	0.000210	M	Ir	<	0.000210	M	Pt	<	0.000210	O	Ti	<	0.000430				
M	Ce	<	0.000210	O	K		0.000731	M	Rb	<	0.000210	O	Tl	<	0.005400				
M	Co	<	0.000210	M	La	<	0.000210	M	Re	<	0.000210	M	Tm	<	0.000210				
O	Cr	<	0.003300	O	Li	<	0.000110	M	Rh	<	0.001100	M	U	<	0.000410				
M	Cs	<	0.000410	M	Lu	<	0.000210	M	Ru	<	0.000810	M	V	<	0.000210				
M	Cu	<	0.000810	O	Mg		0.000104	O	S	<	0.022000	M	W	<	0.001100				
M	Dy	<	0.000210	O	Mn	<	0.000430	M	Sb	<	0.000210	M	Y	<	0.000210				
M	Er	<	0.000210	M	Mo	<	0.000210	M	Sc	<	0.000210	M	Yb	<	0.000210				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+
Chemical Compatibility - Stable in HNO3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.
Stability - 2-100 ppb levels not stable in 1% HNO3 / LDPE container, stable in 10% HNO3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO3 / LDPE container.
Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO3); Oxide (Soluble in HNO3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 18, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 18, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Technical

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
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CERTIFICATE OF ANALYSIS

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	QCP-QCS-4
Lot Number:	R2-MEB695951
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	5 µg/mL ea: Mercury

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Mercury, Hg	**5.011 ± 0.023 µg/mL**		

Density: 1.035 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	061204
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The follow ing equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 20, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 20, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1108

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-01 C	SDG:	23A0313
Sampled:	01/16/23 08:10	Prepared:	01/17/23 11:27	File ID:	
% Solids:	52.36	Preparation:	No Prep Wet Chem	Analyzed:	01/17/23 12:35
Batch:	BLA0417	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	52.36	1	0.04	0.04	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1115

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-02 C	SDG:	23A0313
Sampled:	01/16/23 08:28	Prepared:	01/17/23 11:27	File ID:	
% Solids:	52.95	Preparation:	No Prep Wet Chem	Analyzed:	01/17/23 12:35
Batch:	BLA0417	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	52.95	1	0.04	0.04	

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Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-IT1114

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-03 D	SDG:	23A0313
Sampled:	01/16/23 08:42	Prepared:	01/17/23 11:27	File ID:	
% Solids:	62.51	Preparation:	No Prep Wet Chem	Analyzed:	01/17/23 12:35
Batch:	BLA0417	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	62.51	1	0.04	0.04	

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Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-IT1120

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-04 D	SDG:	23A0313
Sampled:	01/16/23 08:57	Prepared:	01/17/23 11:27	File ID:	
% Solids:	70.56	Preparation:	No Prep Wet Chem	Analyzed:	01/17/23 12:35
Batch:	BLA0417	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	70.56	1	0.04	0.04	

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Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1090

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-05 C	SDG:	23A0313
Sampled:	01/16/23 09:21	Prepared:	01/17/23 11:27	File ID:	
% Solids:	48.15	Preparation:	No Prep Wet Chem	Analyzed:	01/17/23 12:35
Batch:	BLA0417	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	48.15	1	0.04	0.04	

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Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1095

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-06 C	SDG:	23A0313
Sampled:	01/16/23 09:42	Prepared:	01/17/23 11:27	File ID:	
% Solids:	54.20	Preparation:	No Prep Wet Chem	Analyzed:	01/17/23 12:35
Batch:	BLA0417	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	54.20	1	0.04	0.04	

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Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1076

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-07 C	SDG:	23A0313
Sampled:	01/16/23 10:03	Prepared:	01/17/23 11:27	File ID:	
% Solids:	71.83	Preparation:	No Prep Wet Chem	Analyzed:	01/17/23 12:35
Batch:	BLA0417	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	71.83	1	0.04	0.04	

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Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1016A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-08 C	SDG:	23A0313
Sampled:	01/16/23 11:11	Prepared:	01/17/23 11:27	File ID:	
% Solids:	55.70	Preparation:	No Prep Wet Chem	Analyzed:	01/17/23 12:35
Batch:	BLA0417	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	55.70	1	0.04	0.04	

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Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1011A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-09 C	SDG:	23A0313
Sampled:	01/16/23 11:46	Prepared:	01/17/23 11:27	File ID:	
% Solids:	54.06	Preparation:	No Prep Wet Chem	Analyzed:	01/17/23 12:35
Batch:	BLA0417	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	54.06	1	0.04	0.04	

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Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1006A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-10 C	SDG:	23A0313
Sampled:	01/16/23 12:29	Prepared:	01/17/23 11:27	File ID:	
% Solids:	55.20	Preparation:	No Prep Wet Chem	Analyzed:	01/17/23 12:35
Batch:	BLA0417	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	55.20	1	0.04	0.04	

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Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1012B

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-11 C	SDG:	23A0313
Sampled:	01/16/23 13:13	Prepared:	01/17/23 11:27	File ID:	
% Solids:	54.29	Preparation:	No Prep Wet Chem	Analyzed:	01/17/23 12:35
Batch:	BLA0417	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	54.29	1	0.04	0.04	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-IT1148

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-12 D	SDG:	23A0313
Sampled:	01/16/23 14:44	Prepared:	01/17/23 11:27	File ID:	
% Solids:	80.58	Preparation:	No Prep Wet Chem	Analyzed:	01/17/23 12:35
Batch:	BLA0417	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	80.58	1	0.04	0.04	

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Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1159

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-13 D	SDG:	23A0313
Sampled:	01/16/23 14:26	Prepared:	01/17/23 11:27	File ID:	
% Solids:	56.95	Preparation:	No Prep Wet Chem	Analyzed:	01/17/23 12:35
Batch:	BLA0417	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	56.95	1	0.04	0.04	

PREPARATION BATCH SUMMARY

SM 2540 G-97

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Batch: BLA0417 Batch Matrix: Solid
Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1108	23A0313-01		01/17/23 11:27	
LDW23-SC1115	23A0313-02		01/17/23 11:27	
LDW23-IT1114	23A0313-03		01/17/23 11:27	
LDW23-IT1120	23A0313-04		01/17/23 11:27	
LDW23-SC1090	23A0313-05		01/17/23 11:27	
LDW23-SC1095	23A0313-06		01/17/23 11:27	
LDW23-SC1076	23A0313-07		01/17/23 11:27	
LDW23-SC1016A	23A0313-08		01/17/23 11:27	
LDW23-SC1011A	23A0313-09		01/17/23 11:27	
LDW23-SC1006A	23A0313-10		01/17/23 11:27	
LDW23-SC1012B	23A0313-11		01/17/23 11:27	
LDW23-IT1148	23A0313-12		01/17/23 11:27	
LDW23-SC1159	23A0313-13		01/17/23 11:27	
Blank	BLA0417-BLK1		01/17/23 11:27	
LDW23-SC1108	BLA0417-DUP1		01/17/23 11:27	
LDW23-SC1108	BLA0417-DUP2		01/17/23 11:27	

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET for Solid samples

Method: PSEP 1986, SM2540, EPA 160.1

(dry at 104 (12-24 hr) then combust at 550 (30 min))

Batch:	BLA0417
Date:	1/17/2023 12:35
Analyst:	UW

Instrumentation			
Drying Ovens:	12	**Analytical Balance:**	BAL2
Muffle Furnace:	2		

Batch drying time			TS (%) calculated as:	**Oven Temps, °C**		TVS (mg/kg dry wt) calculated as:
record times as mm/dd/yy hh:mm				Start Temp	103	Final ash wt (g) = (min ash wt - tare wt)
date/time in oven:	1/17/2023 13:50		Final dry wt (g) = (Dry Wt - Tare Wt)	Dry Cycle 1	103	TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000
date/time out:	1/18/2023 8:45		TS = (Final Dry Wt)/ (grams Sample-Tare)	Dry Cycle 2		if ash wt > dry wt, "Chk for Err"
elapsed hrs =	18.9	OK		Dry Cycle 3		if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000

Balance Calibration Check

Record weights to 4 places	**Cal Weight ID:**	CV-02	CV-02	CV-02	CV-02	CV-02		CV-02	CV-02	CV-02
	Date & Time:	1/17/23 12:20	1/17/23 13:30	1/18/23 9:08						
Cal Wt (g):	10.0000	10.0000	10.0000	10.0000						
		Cal OK!	Cal OK!	Cal OK!						

Sample ID	Dish #	Tare Wt. (g)	Dish & Sample (g)	Dry Wt 104C (grams) 1	2	3	dry Wt (g)	TS (%)	Notes	ASH WT 550C (grams) 1	2	3	Ash Wt (g)	TVS (mg/kg)	(%)	Notes
BLA0417-BLK1	1	0.8080	0.0000	0.8079			-0.0001	0.01%								
23A0308-02	2	0.8090	5.5201	2.5102			1.7012	36.11%								
23A0308-03	3	0.8425	5.9758	3.2632			2.4207	47.16%								
23A0311-01	4	0.8351	8.6277	7.2504			6.4153	82.33%								
23A0313-01	5	0.8073	9.4524	5.3335			4.5262	52.36%								
BLA0417-DUP1	6	0.8042	9.9309	5.5726			4.7684	52.25%	RPD=0.2							
BLA0417-DUP2	7	0.7983	8.4382	4.7864			3.9881	52.20%	RSD=0.2							
23A0313-02	8	0.8032	8.4363	4.8451			4.0419	52.95%								
23A0313-03	9	0.8080	7.2569	4.8393			4.0313	62.51%								
23A0313-04	10	0.8078	8.1960	6.0211			5.2133	70.56%								
23A0313-05	11	0.8077	7.7982	4.1739			3.3662	48.15%								
23A0313-06	12	0.8165	9.8490	5.7123			4.8958	54.20%								
23A0313-07	13	0.8025	9.0394	6.7194			5.9169	71.83%								
23A0313-08	14	0.8065	6.5167	3.9868			3.1803	55.70%								
23A0313-09	15	0.8153	7.8491	4.6180			3.8027	54.06%								
23A0313-10	16	0.7924	8.3443	4.9611			4.1687	55.20%								
23A0313-11	17	0.7928	8.1067	4.7632			3.9704	54.29%								
23A0313-12	18	0.8062	8.6328	7.1127			6.3065	80.58%								
23A0313-13	19	0.8078	8.3260	5.0895			4.2817	56.95%								
23A0316-02	20	0.8006	7.0965	2.8950			2.0944	33.27%								
23A0316-03	21	0.8064	6.4245	4.0456			3.2392	57.66%								

Form I

METHOD BLANK DATA SHEET

SM 2540 G-97

TotalAnalytes

Blank

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Batch: BLA0417
Laboratory ID: BLA0417-BLK1
Prepared: 01/17/23 11:27
Matrix: Solid
Preparation: No Prep Wet Chem
Analyzed: 01/17/23 12:35
Sequence:
Calibration:
Instrument: BAL2

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	ND	1	0.04	0.04	U

DUPLICATES

SM 2540 G-97

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Laboratory ID: BLA0417-DUP1
Batch: BLA0417
Lab Source ID: 23A0313-01
Preparation: No Prep Wet Chem
Initial/Final: 5 g / 5 g
Source Sample Name: LDW23-SC1108
% Solids: 52.36

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Solids	20	52.36	52.25	0.208	

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

SM 2540 G-97

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Laboratory ID: BLA0417-DUP2
Batch: BLA0417
Lab Source ID: 23A0313-01
Preparation: No Prep Wet Chem
Initial/Final: 5 g / 5 g
Source Sample Name: LDW23-SC1108
% Solids: 52.36

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Solids	20	52.36	52.20	0.296	

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

HOLDING TIME SUMMARY

Analysis: SM 2540 G-97

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SC1108 23A0313-01	01/16/23 08:10	01/16/23 16:35	01/17/23 11:27	1	180	01/17/23 12:35	1	180	
LDW23-SC1115 23A0313-02	01/16/23 08:28	01/16/23 16:35	01/17/23 11:27	1	180	01/17/23 12:35	1	180	
LDW23-IT1114 23A0313-03	01/16/23 08:42	01/16/23 16:35	01/17/23 11:27	1	180	01/17/23 12:35	1	180	
LDW23-IT1120 23A0313-04	01/16/23 08:57	01/16/23 16:35	01/17/23 11:27	1	180	01/17/23 12:35	1	180	
LDW23-SC1090 23A0313-05	01/16/23 09:21	01/16/23 16:35	01/17/23 11:27	1	180	01/17/23 12:35	1	180	
LDW23-SC1095 23A0313-06	01/16/23 09:42	01/16/23 16:35	01/17/23 11:27	1	180	01/17/23 12:35	1	180	
LDW23-SC1076 23A0313-07	01/16/23 10:03	01/16/23 16:35	01/17/23 11:27	1	180	01/17/23 12:35	1	180	
LDW23-SC1016A 23A0313-08	01/16/23 11:11	01/16/23 16:35	01/17/23 11:27	1	180	01/17/23 12:35	1	180	
LDW23-SC1011A 23A0313-09	01/16/23 11:46	01/16/23 16:35	01/17/23 11:27	0	180	01/17/23 12:35	1	180	
LDW23-SC1006A 23A0313-10	01/16/23 12:29	01/16/23 16:35	01/17/23 11:27	0	180	01/17/23 12:35	1	180	
LDW23-SC1012B 23A0313-11	01/16/23 13:13	01/16/23 16:35	01/17/23 11:27	0	180	01/17/23 12:35	1	180	
LDW23-IT1148 23A0313-12	01/16/23 14:44	01/16/23 16:35	01/17/23 11:27	0	180	01/17/23 12:35	1	180	
LDW23-SC1159 23A0313-13	01/16/23 14:26	01/16/23 16:35	01/17/23 11:27	0	180	01/17/23 12:35	1	180	
Duplicate BLA0417-DUP1	01/16/23 08:10	01/16/23 16:35	01/17/23 11:27	1	180	01/17/23 12:35	1	180	
Duplicate BLA0417-DUP2	01/16/23 08:10	01/16/23 16:35	01/17/23 11:27	1	180	01/17/23 12:35	1	180	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

SM 2540 G-97

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Instrument:

Analyte	MDL	RL	Units
Total Solids	0.04	0.04	%

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B

Total Metals

LDW23-SC1016A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-08 C	SDG:	23A0313
Sampled:	01/16/23 11:11	Prepared:	04/14/23 10:01	File ID:	XDT_m2230418-102
% Solids:	55.70	Preparation:	SWN EPA 3050B	Analyzed:	04/18/23 22:04
Batch:	BLD0289	Sequence:	SLD0260	Initial/Final:	1.017 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00046

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-92-1	Lead	22.8	20	0.09	0.18	
7440-22-4	Silver	0.31	20	0.04	0.35	J

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
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EPA 6020B

Total Metals

LDW23-SC1016A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-08 C	SDG:	23A0313
Sampled:	01/16/23 11:11	Prepared:	04/14/23 10:01	File ID:	XDT_m2230420-052
% Solids:	55.70	Preparation:	SWN EPA 3050B	Analyzed:	04/20/23 18:38
Batch:	BLD0289	Sequence:	SLD0292	Initial/Final:	1.017 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00059

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium	29.4	50	1.15	2.21	D

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Form I
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EPA 6020B

Total Metals

LDW23-SC1011A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-09 C	SDG:	23A0313
Sampled:	01/16/23 11:46	Prepared:	04/14/23 10:01	File ID:	XDT_m2230418-103
% Solids:	54.06	Preparation:	SWN EPA 3050B	Analyzed:	04/18/23 22:08
Batch:	BLD0289	Sequence:	SLD0260	Initial/Final:	1.045 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00046

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-92-1	Lead	22.7	20	0.09	0.18	
7440-22-4	Silver	0.22	20	0.04	0.35	J

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B

Total Metals

LDW23-SC1011A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-09 C	SDG:	23A0313
Sampled:	01/16/23 11:46	Prepared:	04/14/23 10:01	File ID:	XDT_m2230420-053
% Solids:	54.06	Preparation:	SWN EPA 3050B	Analyzed:	04/20/23 18:42
Batch:	BLD0289	Sequence:	SLD0292	Initial/Final:	1.045 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00059

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium	28.6	50	1.15	2.21	D

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Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B

Total Metals

LDW23-SC1006A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-10 C	SDG:	23A0313
Sampled:	01/16/23 12:29	Prepared:	04/14/23 10:01	File ID:	XDT_m2230418-104
% Solids:	55.20	Preparation:	SWN EPA 3050B	Analyzed:	04/18/23 22:13
Batch:	BLD0289	Sequence:	SLD0260	Initial/Final:	1.041 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00046

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-92-1	Lead	24.7	20	0.09	0.17	
7440-22-4	Silver	0.26	20	0.04	0.35	J

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INORGANIC ANALYSIS DATA SHEET
EPA 6020B

Total Metals

LDW23-SC1006A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-10 C	SDG:	23A0313
Sampled:	01/16/23 12:29	Prepared:	04/14/23 10:01	File ID:	XDT_m2230420-054
% Solids:	55.20	Preparation:	SWN EPA 3050B	Analyzed:	04/20/23 18:47
Batch:	BLD0289	Sequence:	SLD0292	Initial/Final:	1.041 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00059

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium	29.4	50	1.13	2.18	D

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Analytical Chemists and Consultants

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EPA 6020B

Total Metals

LDW23-SC1012B

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-11 C	SDG:	23A0313
Sampled:	01/16/23 13:13	Prepared:	04/14/23 10:01	File ID:	XDT_m2230418-105
% Solids:	54.29	Preparation:	SWN EPA 3050B	Analyzed:	04/18/23 22:18
Batch:	BLD0289	Sequence:	SLD0260	Initial/Final:	1.05 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00046

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-92-1	Lead	29.3	20	0.09	0.18	
7440-22-4	Silver	0.34	20	0.04	0.35	J

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B

Total Metals

LDW23-SC1012B

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-11 C	SDG:	23A0313
Sampled:	01/16/23 13:13	Prepared:	04/14/23 10:01	File ID:	XDT_m2230420-055
% Solids:	54.29	Preparation:	SWN EPA 3050B	Analyzed:	04/20/23 18:51
Batch:	BLD0289	Sequence:	SLD0292	Initial/Final:	1.05 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00059

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium	31.7	50	1.14	2.19	D

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Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B
Total Metals

LDW23-SC1159

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-13 D	SDG:	23A0313
Sampled:	01/16/23 14:26	Prepared:	04/14/23 10:01	File ID:	XDT_m2230418-107
% Solids:	56.95	Preparation:	SWN EPA 3050B	Analyzed:	04/18/23 22:27
Batch:	BLD0289	Sequence:	SLD0260	Initial/Final:	1.079 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00046

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-92-1	Lead	21.6	20	0.08	0.16	
7440-22-4	Silver	0.21	20	0.04	0.33	J

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Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B

Total Metals

LDW23-SC1159

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-13 D	SDG:	23A0313
Sampled:	01/16/23 14:26	Prepared:	04/14/23 10:01	File ID:	XDT_m2230420-056
% Solids:	56.95	Preparation:	SWN EPA 3050B	Analyzed:	04/20/23 18:56
Batch:	BLD0289	Sequence:	SLD0292	Initial/Final:	1.079 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00059

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium	26.8	50	1.06	2.03	D

PREPARATION BATCH SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Batch: BLD0289 Batch Matrix: Solid
Preparation: SWN EPA 3050B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1016A	23A0313-08	XDT_m2230420-052	04/14/23 10:01	
LDW23-SC1016A	23A0313-08	XDT_m2230418-102	04/14/23 10:01	
LDW23-SC1011A	23A0313-09	XDT_m2230420-053	04/14/23 10:01	
LDW23-SC1011A	23A0313-09	XDT_m2230418-103	04/14/23 10:01	
LDW23-SC1006A	23A0313-10	XDT_m2230420-054	04/14/23 10:01	
LDW23-SC1006A	23A0313-10	XDT_m2230418-104	04/14/23 10:01	
LDW23-SC1012B	23A0313-11	XDT_m2230420-055	04/14/23 10:01	
LDW23-SC1012B	23A0313-11	XDT_m2230418-105	04/14/23 10:01	
LDW23-SC1159	23A0313-13	XDT_m2230420-056	04/14/23 10:01	
LDW23-SC1159	23A0313-13	XDT_m2230418-107	04/14/23 10:01	
Blank	BLD0289-BLK1	XDT_m2230418-089	04/12/23 10:01	
LCS	BLD0289-BS1	XDT_m2230418-090	04/12/23 10:01	

Analytical Resources, Incorporated
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Digestion Log

Analyst: AR Date: 4/13/23-4/14/23 Time: 1600-1155 Balance ID: BALIO

Matrix: SOIL Block ID: 10 Block Temp: 90°C Thermometer: 20-3

ARI Sample ID	Btl #	pH<2	Prep Code: SWN Initial Wt (g) Vol (mL)	Prep Code: SWN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
23A313-03	D		1.016	50			
-04	↓		1.021	↓			
-08	C		1.017				
-09	↓		1.045				
-10			1.041				
-11	↓		1.050				
-12	D		1.017				
-13	↓		1.079				
23A328-02			1.036				
-03			1.070				
-04			1.087				
-05			1.049				
-06			1.028				
-07			1.037				
-08			1.026				
-09			1.052				
-10			1.077				
-11			1.009				
-12	↓		1.007				
BLD280 WK	—		—				23A328-02
-bs	—		—				↓
-dup	—		1.038				
-MS	—		1.037				
-MSD	—		1.040	↓			
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

Chemical/Reagent ID:

HNO_3: LL0678 1:1 HNO_3: L3365 HCl: — H_2O_2: K110560

Tube Lot#: 2210117 Boiling Chip Lot#: — (DoD Only)

5061F
Version 007

11/8/22

Form I

METHOD BLANK DATA SHEET

EPA 6020B

Total Metals

Blank

Laboratory: Analytical Resources, LLC | SDG: 23A0313

Client: Anchor QEA, LLC | Project: AOC5 MR Phase 1

Batch: BLD0289 | Laboratory ID: BLD0289-BLK1 | Prepared: 04/12/23 10:01

Matrix: Solid | Preparation: SWN EPA 3050B | Analyzed: 04/18/23 20:59

Sequence: SLD0260 | Calibration: GD00046 | Instrument: ICPMS2

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium-52	ND	20	0.26	0.50	U
7439-92-1	Lead-208	ND	20	0.05	0.10	U
7440-22-4	Silver-107	ND	20	0.02	0.20	U

LCS / LCS DUPLICATE RECOVERY

EPA 6020B

Total Metals

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	04/18/23 21:04
Batch:	BLD0289	Laboratory ID:	BLD0289-BS1
Preparation:	SWN EPA 3050B	Sequence Name:	LCS
Initial/Final:	1 g / 50 mL		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Chromium-52	25.0	24.2		96.7	80 - 120
Lead-208	25.0	26.1		104	80 - 120
Silver-107	25.0	24.9		99.5	80 - 120

* Indicates values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00046
Control Limt: +/- 10.00%
Sequence: SLD0260

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0260-ICV1	Chromium-52	50.000	51.0	102	ug/L	EPA 6020B
	Chromium-53	50.000	51.8	104	ug/L	EPA 6020B
	Lead-208	50.000	50.9	102	ug/L	EPA 6020B
	Silver-107	50.000	53.9	108	ug/L	EPA 6020B
SLD0260-CCV1	Chromium-52	50.000	47.6	95.2	ug/L	EPA 6020B
	Chromium-53	50.000	49.0	97.9	ug/L	EPA 6020B
	Lead-208	50.000	48.3	96.6	ug/L	EPA 6020B
	Silver-107	50.000	49.8	99.6	ug/L	EPA 6020B
SLD0260-CCV2	Chromium-52	50.000	47.9	95.8	ug/L	EPA 6020B
	Chromium-53	50.000	49.2	98.3	ug/L	EPA 6020B
	Lead-208	50.000	50.4	101	ug/L	EPA 6020B
	Silver-107	50.000	50.5	101	ug/L	EPA 6020B
SLD0260-CCV3	Chromium-52	50.000	48.1	96.2	ug/L	EPA 6020B
	Chromium-53	50.000	49.0	97.9	ug/L	EPA 6020B
	Lead-208	50.000	50.3	101	ug/L	EPA 6020B
	Silver-107	50.000	49.6	99.3	ug/L	EPA 6020B
SLD0260-CCV4	Chromium-52	50.000	47.7	95.4	ug/L	EPA 6020B
	Chromium-53	50.000	48.5	97.1	ug/L	EPA 6020B
	Lead-208	50.000	49.4	98.7	ug/L	EPA 6020B
	Silver-107	50.000	50.9	102	ug/L	EPA 6020B
SLD0260-CCV5	Chromium-52	50.000	47.5	95.0	ug/L	EPA 6020B
	Chromium-53	50.000	47.5	95.0	ug/L	EPA 6020B
	Lead-208	50.000	49.4	98.8	ug/L	EPA 6020B
	Silver-107	50.000	48.9	97.8	ug/L	EPA 6020B
SLD0260-CCV6	Chromium-52	50.000	47.2	94.4	ug/L	EPA 6020B
	Chromium-53	50.000	47.9	95.8	ug/L	EPA 6020B
	Lead-208	50.000	49.3	98.6	ug/L	EPA 6020B
	Silver-107	50.000	48.5	97.1	ug/L	EPA 6020B
SLD0260-CCV7	Chromium-52	50.000	49.1	98.1	ug/L	EPA 6020B
	Chromium-53	50.000	50.4	101	ug/L	EPA 6020B
	Lead-208	50.000	50.5	101	ug/L	EPA 6020B
	Silver-107	50.000	50.4	101	ug/L	EPA 6020B
SLD0260-CCV8	Chromium-52	50.000	46.5	93.1	ug/L	EPA 6020B
	Chromium-53	50.000	48.6	97.3	ug/L	EPA 6020B

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00046
Control Limt: +/- 10.00%
Sequence: SLD0260

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0260-CCV8	Lead-208	50.000	49.4	98.7	ug/L	EPA 6020B
	Silver-107	50.000	49.4	98.8	ug/L	EPA 6020B
SLD0260-CCV9	Chromium-52	50.000	47.5	94.9	ug/L	EPA 6020B
	Chromium-53	50.000	48.2	96.3	ug/L	EPA 6020B
	Lead-208	50.000	49.6	99.3	ug/L	EPA 6020B
	Silver-107	50.000	50.2	100	ug/L	EPA 6020B
SLD0260-CCVA	Chromium-52	50.000	46.7	93.4	ug/L	EPA 6020B
	Chromium-53	50.000	47.8	95.6	ug/L	EPA 6020B
	Lead-208	50.000	50.2	100	ug/L	EPA 6020B
	Silver-107	50.000	48.8	97.6	ug/L	EPA 6020B
SLD0260-CCVB	Chromium-52	50.000	48.9	97.7	ug/L	EPA 6020B
	Chromium-53	50.000	50.1	100	ug/L	EPA 6020B
	Lead-208	50.000	51.1	102	ug/L	EPA 6020B
	Silver-107	50.000	51.6	103	ug/L	EPA 6020B
SLD0260-CCVC	Chromium-52	50.000	47.2	94.3	ug/L	EPA 6020B
	Chromium-53	50.000	47.8	95.6	ug/L	EPA 6020B
	Lead-208	50.000	48.6	97.1	ug/L	EPA 6020B
	Silver-107	50.000	50.2	100	ug/L	EPA 6020B

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00059
Control Limt: +/- 10.00%
Sequence: SLD0292

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0292-ICV1	Chromium-52	50.000	51.2	102	ug/L	EPA 6020B
	Chromium-53	50.000	51.5	103	ug/L	EPA 6020B
	Lead-208	50.000	50.6	101	ug/L	EPA 6020B
SLD0292-CCV1	Chromium-52	50.000	49.1	98.1	ug/L	EPA 6020B
	Chromium-53	50.000	49.4	98.9	ug/L	EPA 6020B
	Lead-208	50.000	49.0	98.1	ug/L	EPA 6020B
SLD0292-CCV2	Chromium-52	50.000	50.8	102	ug/L	EPA 6020B
	Chromium-53	50.000	50.6	101	ug/L	EPA 6020B
	Lead-208	50.000	52.7	105	ug/L	EPA 6020B
SLD0292-CCV3	Chromium-52	50.000	48.1	96.2	ug/L	EPA 6020B
	Chromium-53	50.000	48.5	96.9	ug/L	EPA 6020B
	Lead-208	50.000	51.0	102	ug/L	EPA 6020B
SLD0292-CCV4	Chromium-52	50.000	49.5	99.1	ug/L	EPA 6020B
	Chromium-53	50.000	49.7	99.4	ug/L	EPA 6020B
	Lead-208	50.000	50.2	100	ug/L	EPA 6020B
SLD0292-CCV5	Chromium-52	50.000	49.5	98.9	ug/L	EPA 6020B
	Chromium-53	50.000	49.2	98.4	ug/L	EPA 6020B
	Lead-208	50.000	49.7	99.5	ug/L	EPA 6020B
SLD0292-CCV6	Chromium-52	50.000	49.6	99.3	ug/L	EPA 6020B
	Chromium-53	50.000	52.6	105	ug/L	EPA 6020B
	Lead-208	50.000	49.3	98.6	ug/L	EPA 6020B
SLD0292-CCV7	Chromium-52	50.000	49.5	99.1	ug/L	EPA 6020B
	Chromium-53	50.000	50.4	101	ug/L	EPA 6020B
	Lead-208	50.000	48.7	97.4	ug/L	EPA 6020B
SLD0292-CCV8	Chromium-52	50.000	50.1	100	ug/L	EPA 6020B
	Chromium-53	50.000	50.2	100	ug/L	EPA 6020B
	Lead-208	50.000	52.3	105	ug/L	EPA 6020B
SLD0292-CCV9	Chromium-52	50.000	48.4	96.9	ug/L	EPA 6020B
	Chromium-53	50.000	48.4	96.7	ug/L	EPA 6020B
	Lead-208	50.000	56.2	112	ug/L	EPA 6020B
SLD0292-CCVA	Chromium-52	50.000	49.0	98.1	ug/L	EPA 6020B
	Chromium-53	50.000	49.9	99.8	ug/L	EPA 6020B
	Lead-208	50.000	53.9	108	ug/L	EPA 6020B
SLD0292-CCVB	Chromium-52	50.000	48.0	96.0	ug/L	EPA 6020B

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00059
Control Limt: +/- 10.00%
Sequence: SLD0292

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0292-CCVB	Chromium-53	50.000	48.9	97.9	ug/L	EPA 6020B
	Lead-208	50.000	57.6	115	ug/L	EPA 6020B

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Control Limt: +/- 10.00%
Sequence: SLD0370

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0370-ICV1	Chromium-52	50.000	52.2	104	ug/L	EPA 6020B
	Chromium-53	50.000	53.5	107	ug/L	EPA 6020B
	Lead-208	50.000	51.6	103	ug/L	EPA 6020B
	Silver-107	50.000	52.7	105	ug/L	EPA 6020B
SLD0370-CCV1	Chromium-52	50.000	50.7	101	ug/L	EPA 6020B
	Chromium-53	50.000	51.6	103	ug/L	EPA 6020B
	Lead-208	50.000	49.3	98.5	ug/L	EPA 6020B
	Silver-107	50.000	52.2	104	ug/L	EPA 6020B
SLD0370-CCV2	Chromium-52	50.000	49.6	99.2	ug/L	EPA 6020B
	Chromium-53	50.000	50.9	102	ug/L	EPA 6020B
	Lead-208	50.000	49.8	99.5	ug/L	EPA 6020B
	Silver-107	50.000	50.6	101	ug/L	EPA 6020B
SLD0370-CCV3	Chromium-52	50.000	50.0	99.9	ug/L	EPA 6020B
	Chromium-53	50.000	50.3	101	ug/L	EPA 6020B
	Lead-208	50.000	49.9	99.9	ug/L	EPA 6020B
	Silver-107	50.000	50.8	102	ug/L	EPA 6020B
SLD0370-CCV4	Chromium-52	50.000	49.4	98.7	ug/L	EPA 6020B
	Chromium-53	50.000	49.5	99.1	ug/L	EPA 6020B
	Lead-208	50.000	49.9	99.8	ug/L	EPA 6020B
	Silver-107	50.000	49.5	98.9	ug/L	EPA 6020B
SLD0370-CCV5	Chromium-52	50.000	47.2	94.3	ug/L	EPA 6020B
	Chromium-53	50.000	47.6	95.2	ug/L	EPA 6020B
	Lead-208	50.000	50.2	100	ug/L	EPA 6020B
	Silver-107	50.000	48.4	96.8	ug/L	EPA 6020B
SLD0370-CCV6	Chromium-52	50.000	48.6	97.1	ug/L	EPA 6020B
	Chromium-53	50.000	50.0	100	ug/L	EPA 6020B
	Lead-208	50.000	49.9	99.8	ug/L	EPA 6020B
	Silver-107	50.000	49.6	99.1	ug/L	EPA 6020B
SLD0370-CCV7	Chromium-52	50.000	49.7	99.3	ug/L	EPA 6020B
	Chromium-53	50.000	50.1	100	ug/L	EPA 6020B
	Lead-208	50.000	50.0	100	ug/L	EPA 6020B
	Silver-107	50.000	50.0	99.9	ug/L	EPA 6020B
SLD0370-CCV8	Chromium-52	50.000	49.7	99.3	ug/L	EPA 6020B
	Chromium-53	50.000	50.8	102	ug/L	EPA 6020B

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Control Limt: +/- 10.00%
Sequence: SLD0370

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0370-CCV8	Lead-208	50.000	49.3	98.7	ug/L	EPA 6020B
	Silver-107	50.000	49.7	99.5	ug/L	EPA 6020B
SLD0370-CCV9	Chromium-52	50.000	49.4	98.8	ug/L	EPA 6020B
	Chromium-53	50.000	50.4	101	ug/L	EPA 6020B
	Lead-208	50.000	50.8	102	ug/L	EPA 6020B
	Silver-107	50.000	49.7	99.4	ug/L	EPA 6020B
SLD0370-CCVA	Chromium-52	50.000	49.8	99.6	ug/L	EPA 6020B
	Chromium-53	50.000	50.0	100	ug/L	EPA 6020B
	Lead-208	50.000	49.0	98.1	ug/L	EPA 6020B
	Silver-107	50.000	50.5	101	ug/L	EPA 6020B
SLD0370-CCVB	Chromium-52	50.000	50.6	101	ug/L	EPA 6020B
	Chromium-53	50.000	51.6	103	ug/L	EPA 6020B
	Lead-208	50.000	51.3	103	ug/L	EPA 6020B
	Silver-107	50.000	50.1	100	ug/L	EPA 6020B
SLD0370-CCVC	Chromium-52	50.000	49.0	98.0	ug/L	EPA 6020B
	Chromium-53	50.000	50.3	101	ug/L	EPA 6020B
	Lead-208	50.000	47.9	95.7	ug/L	EPA 6020B
	Silver-107	50.000	51.7	103	ug/L	EPA 6020B
SLD0370-CCVD	Chromium-52	50.000	48.9	97.7	ug/L	EPA 6020B
	Chromium-53	50.000	49.8	99.6	ug/L	EPA 6020B
	Lead-208	50.000	48.6	97.2	ug/L	EPA 6020B
	Silver-107	50.000	51.0	102	ug/L	EPA 6020B
SLD0370-CCVE	Chromium-52	50.000	50.0	100	ug/L	EPA 6020B
	Chromium-53	50.000	50.0	100	ug/L	EPA 6020B
	Lead-208	50.000	48.9	97.8	ug/L	EPA 6020B
	Silver-107	50.000	50.3	101	ug/L	EPA 6020B
SLD0370-CCVF	Chromium-52	50.000	50.5	101	ug/L	EPA 6020B
	Chromium-53	50.000	49.9	99.8	ug/L	EPA 6020B
	Lead-208	50.000	49.2	98.4	ug/L	EPA 6020B
	Silver-107	50.000	51.4	103	ug/L	EPA 6020B
SLD0370-CCVG	Chromium-52	50.000	46.9	93.7	ug/L	EPA 6020B
	Chromium-53	50.000	47.5	94.9	ug/L	EPA 6020B
	Lead-208	50.000	52.3	105	ug/L	EPA 6020B
	Silver-107	50.000	45.9	91.8	ug/L	EPA 6020B

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Control Limt: +/- 10.00%
Sequence: SLD0370

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0370-CCVH	Chromium-52	50.000	47.0	93.9	ug/L	EPA 6020B
	Chromium-53	50.000	47.8	95.5	ug/L	EPA 6020B
	Lead-208	50.000	51.0	102	ug/L	EPA 6020B
	Silver-107	50.000	46.4	92.8	ug/L	EPA 6020B
SLD0370-CCVI	Chromium-52	50.000	47.3	94.5	ug/L	EPA 6020B
	Chromium-53	50.000	48.0	95.9	ug/L	EPA 6020B
	Lead-208	50.000	51.2	102	ug/L	EPA 6020B
	Silver-107	50.000	48.0	96.0	ug/L	EPA 6020B
SLD0370-CCVJ	Chromium-52	50.000	47.3	94.6	ug/L	EPA 6020B
	Chromium-53	50.000	48.8	97.6	ug/L	EPA 6020B
	Lead-208	50.000	51.9	104	ug/L	EPA 6020B
	Silver-107	50.000	48.6	97.2	ug/L	EPA 6020B

* Values outside of QC limits

INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS2
Sequence: SLD0260

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00046
Date Analyzed: 04/18/23 13:47

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0260-IBL1	Chromium-52	0.00800	0.26	0.500	ug/L	
SLD0260-IBL1	Chromium-53	0.00200	0.239	0.500	ug/L	
SLD0260-IBL1	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0260-IBL1	Silver-107	0.00200	0.022	0.200	ug/L	
SLD0260-ICB1	Chromium-52	-0.0100	0.26	0.500	ug/L	
SLD0260-ICB1	Chromium-53	-0.00500	0.239	0.500	ug/L	
SLD0260-ICB1	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0260-ICB1	Silver-107	0.00200	0.022	0.200	ug/L	
SLD0260-CCB1	Chromium-52	0.0460	0.26	0.500	ug/L	
SLD0260-CCB1	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLD0260-CCB1	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0260-CCB1	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0260-IBL2	Chromium-52	0.00700	0.26	0.500	ug/L	
SLD0260-IBL2	Chromium-53	0.0540	0.239	0.500	ug/L	
SLD0260-IBL2	Lead-208	0.00700	0.0513	0.100	ug/L	
SLD0260-IBL2	Silver-107	0.00400	0.022	0.200	ug/L	
SLD0260-CCB2	Chromium-52	-0.00200	0.26	0.500	ug/L	
SLD0260-CCB2	Chromium-53	0.0160	0.239	0.500	ug/L	
SLD0260-CCB2	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0260-CCB2	Silver-107	0.00200	0.022	0.200	ug/L	
SLD0260-IBL3	Chromium-52	0.00	0.26	0.500	ug/L	
SLD0260-IBL3	Chromium-53	0.0190	0.239	0.500	ug/L	
SLD0260-IBL3	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0260-IBL3	Silver-107	-0.00100	0.022	0.200	ug/L	
SLD0260-CCB3	Chromium-52	0.00100	0.26	0.500	ug/L	
SLD0260-CCB3	Chromium-53	0.00200	0.239	0.500	ug/L	
SLD0260-CCB3	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0260-CCB3	Silver-107	0.00400	0.022	0.200	ug/L	
SLD0260-IBL4	Chromium-52	-0.00500	0.26	0.500	ug/L	
SLD0260-IBL4	Chromium-53	0.0260	0.239	0.500	ug/L	
SLD0260-IBL4	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0260-IBL4	Silver-107	0.00200	0.022	0.200	ug/L	
SLD0260-CCB4	Chromium-52	0.0180	0.26	0.500	ug/L	
SLD0260-CCB4	Chromium-53	0.0130	0.239	0.500	ug/L	
SLD0260-CCB4	Lead-208	0.00100	0.0513	0.100	ug/L	

INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS2
Sequence: SLD0260

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00046
Date Analyzed: 04/18/23 17:25

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0260-CCB4	Silver-107	0.00200	0.022	0.200	ug/L	
SLD0260-CCB5	Chromium-52	-0.0120	0.26	0.500	ug/L	
SLD0260-CCB5	Chromium-53	-0.00100	0.239	0.500	ug/L	
SLD0260-CCB5	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0260-CCB5	Silver-107	0.00200	0.022	0.200	ug/L	
SLD0260-CCB6	Chromium-52	-0.0150	0.26	0.500	ug/L	
SLD0260-CCB6	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLD0260-CCB6	Lead-208	0.00300	0.0513	0.100	ug/L	
SLD0260-CCB6	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0260-CCB7	Chromium-52	0.00	0.26	0.500	ug/L	
SLD0260-CCB7	Chromium-53	0.00500	0.239	0.500	ug/L	
SLD0260-CCB7	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0260-CCB7	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0260-CCB8	Chromium-52	0.0380	0.26	0.500	ug/L	
SLD0260-CCB8	Chromium-53	0.0100	0.239	0.500	ug/L	
SLD0260-CCB8	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0260-CCB8	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0260-CCB9	Chromium-52	0.0200	0.26	0.500	ug/L	
SLD0260-CCB9	Chromium-53	-0.00100	0.239	0.500	ug/L	
SLD0260-CCB9	Lead-208	0.00300	0.0513	0.100	ug/L	
SLD0260-CCB9	Silver-107	0.00200	0.022	0.200	ug/L	
SLD0260-CCBA	Chromium-52	0.00100	0.26	0.500	ug/L	
SLD0260-CCBA	Chromium-53	0.00300	0.239	0.500	ug/L	
SLD0260-CCBA	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0260-CCBA	Silver-107	0.00	0.022	0.200	ug/L	
SLD0260-CCBB	Chromium-52	-0.00100	0.26	0.500	ug/L	
SLD0260-CCBB	Chromium-53	-0.00300	0.239	0.500	ug/L	
SLD0260-CCBB	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0260-CCBB	Silver-107	0.00	0.022	0.200	ug/L	
SLD0260-CCBC	Chromium-52	0.0160	0.26	0.500	ug/L	
SLD0260-CCBC	Chromium-53	0.0590	0.239	0.500	ug/L	
SLD0260-CCBC	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0260-CCBC	Silver-107	0.00200	0.022	0.200	ug/L	

INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS2
Sequence: SLD0292

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00059
Date Analyzed: 04/20/23 13:04

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0292-IBL1	Chromium-52	0.0310	0.26	0.500	ug/L	
SLD0292-IBL1	Chromium-53	-0.00600	0.239	0.500	ug/L	
SLD0292-IBL1	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0292-ICB1	Chromium-52	0.0180	0.26	0.500	ug/L	
SLD0292-ICB1	Chromium-53	-0.0140	0.239	0.500	ug/L	
SLD0292-ICB1	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0292-CCB1	Chromium-52	0.0240	0.26	0.500	ug/L	
SLD0292-CCB1	Chromium-53	-0.0150	0.239	0.500	ug/L	
SLD0292-CCB1	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0292-IBL2	Chromium-52	0.00100	0.26	0.500	ug/L	
SLD0292-IBL2	Chromium-53	0.0430	0.239	0.500	ug/L	
SLD0292-IBL2	Lead-208	0.00500	0.0513	0.100	ug/L	
SLD0292-IBL3	Chromium-52	0.0180	0.26	0.500	ug/L	
SLD0292-IBL3	Chromium-53	0.0300	0.239	0.500	ug/L	
SLD0292-IBL3	Lead-208	0.00400	0.0513	0.100	ug/L	
SLD0292-CCB2	Chromium-52	-0.0260	0.26	0.500	ug/L	
SLD0292-CCB2	Chromium-53	0.0160	0.239	0.500	ug/L	
SLD0292-CCB2	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0292-IBL4	Chromium-52	-0.0360	0.26	0.500	ug/L	
SLD0292-IBL4	Chromium-53	0.0100	0.239	0.500	ug/L	
SLD0292-IBL4	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0292-CCB3	Chromium-52	-0.0340	0.26	0.500	ug/L	
SLD0292-CCB3	Chromium-53	-0.00900	0.239	0.500	ug/L	
SLD0292-CCB3	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0292-IBL5	Chromium-52	0.00800	0.26	0.500	ug/L	
SLD0292-IBL5	Chromium-53	-0.0100	0.239	0.500	ug/L	
SLD0292-IBL5	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0292-CCB4	Chromium-52	-0.0160	0.26	0.500	ug/L	
SLD0292-CCB4	Chromium-53	-0.0100	0.239	0.500	ug/L	
SLD0292-CCB4	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0292-CCB5	Chromium-52	0.00600	0.26	0.500	ug/L	
SLD0292-CCB5	Chromium-53	-0.0100	0.239	0.500	ug/L	
SLD0292-CCB5	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0292-IBL6	Chromium-52	0.104	0.26	0.500	ug/L	
SLD0292-IBL6	Chromium-53	3.25	0.239	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS2
Sequence: SLD0292

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00059
Date Analyzed: 04/20/23 20:16

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0292-IBL6	Lead-208	0.00500	0.0513	0.100	ug/L	
SLD0292-CCB6	Chromium-52	0.0390	0.26	0.500	ug/L	
SLD0292-CCB6	Chromium-53	1.84	0.239	0.500	ug/L	
SLD0292-CCB6	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0292-CCB7	Chromium-52	-0.00500	0.26	0.500	ug/L	
SLD0292-CCB7	Chromium-53	0.517	0.239	0.500	ug/L	
SLD0292-CCB7	Lead-208	0.00300	0.0513	0.100	ug/L	
SLD0292-IBL7	Chromium-52	-0.0140	0.26	0.500	ug/L	
SLD0292-IBL7	Chromium-53	0.294	0.239	0.500	ug/L	
SLD0292-IBL7	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0292-CCB8	Chromium-52	-0.0390	0.26	0.500	ug/L	
SLD0292-CCB8	Chromium-53	0.228	0.239	0.500	ug/L	
SLD0292-CCB8	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0292-CCB9	Chromium-52	-0.0530	0.26	0.500	ug/L	
SLD0292-CCB9	Chromium-53	0.154	0.239	0.500	ug/L	
SLD0292-CCB9	Lead-208	0.0320	0.0513	0.100	ug/L	
SLD0292-CCBA	Chromium-52	-0.0250	0.26	0.500	ug/L	
SLD0292-CCBA	Chromium-53	0.281	0.239	0.500	ug/L	
SLD0292-CCBA	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0292-CCBB	Chromium-52	-0.0440	0.26	0.500	ug/L	
SLD0292-CCBB	Chromium-53	0.112	0.239	0.500	ug/L	
SLD0292-CCBB	Lead-208	0.00	0.0513	0.100	ug/L	

INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00066
Date Analyzed: 04/25/23 17:47

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0370-IBL1	Chromium-52	0.0630	0.26	0.500	ug/L	
SLD0370-IBL1	Chromium-53	0.0120	0.239	0.500	ug/L	
SLD0370-IBL1	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLD0370-IBL1	Silver-107	0.00300	0.022	0.200	ug/L	
SLD0370-ICB1	Chromium-52	0.0690	0.26	0.500	ug/L	
SLD0370-ICB1	Chromium-53	0.00200	0.239	0.500	ug/L	
SLD0370-ICB1	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLD0370-ICB1	Silver-107	0.00300	0.022	0.200	ug/L	
SLD0370-CCB1	Chromium-52	0.0650	0.26	0.500	ug/L	
SLD0370-CCB1	Chromium-53	0.00100	0.239	0.500	ug/L	
SLD0370-CCB1	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLD0370-CCB1	Silver-107	0.00200	0.022	0.200	ug/L	
SLD0370-IBL2	Chromium-52	0.0380	0.26	0.500	ug/L	
SLD0370-IBL2	Chromium-53	0.0520	0.239	0.500	ug/L	
SLD0370-IBL2	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLD0370-IBL2	Silver-107	0.00900	0.022	0.200	ug/L	
SLD0370-IBL3	Chromium-52	0.0370	0.26	0.500	ug/L	
SLD0370-IBL3	Chromium-53	0.0360	0.239	0.500	ug/L	
SLD0370-IBL3	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLD0370-IBL3	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-CCB2	Chromium-52	0.0810	0.26	0.500	ug/L	
SLD0370-CCB2	Chromium-53	0.0300	0.239	0.500	ug/L	
SLD0370-CCB2	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLD0370-CCB2	Silver-107	0.00200	0.022	0.200	ug/L	
SLD0370-IBL4	Chromium-52	0.0610	0.26	0.500	ug/L	
SLD0370-IBL4	Chromium-53	0.0900	0.239	0.500	ug/L	
SLD0370-IBL4	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0370-IBL4	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-CCB3	Chromium-52	0.0580	0.26	0.500	ug/L	
SLD0370-CCB3	Chromium-53	0.0260	0.239	0.500	ug/L	
SLD0370-CCB3	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLD0370-CCB3	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-IBL5	Chromium-52	0.102	0.26	0.500	ug/L	
SLD0370-IBL5	Chromium-53	0.00200	0.239	0.500	ug/L	
SLD0370-IBL5	Lead-208	0.00	0.0513	0.100	ug/L	

INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00066
Date Analyzed: 04/25/23 21:08

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0370-IBL5	Silver-107	-0.00100	0.022	0.200	ug/L	
SLD0370-CCB4	Chromium-52	0.0120	0.26	0.500	ug/L	
SLD0370-CCB4	Chromium-53	-0.0150	0.239	0.500	ug/L	
SLD0370-CCB4	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLD0370-CCB4	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-IBL6	Chromium-52	0.0590	0.26	0.500	ug/L	
SLD0370-IBL6	Chromium-53	-0.00600	0.239	0.500	ug/L	
SLD0370-IBL6	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLD0370-IBL6	Silver-107	-0.00100	0.022	0.200	ug/L	
SLD0370-CCB5	Chromium-52	0.0320	0.26	0.500	ug/L	
SLD0370-CCB5	Chromium-53	-0.0150	0.239	0.500	ug/L	
SLD0370-CCB5	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0370-CCB5	Silver-107	0.00	0.022	0.200	ug/L	
SLD0370-CCB6	Chromium-52	0.0170	0.26	0.500	ug/L	
SLD0370-CCB6	Chromium-53	0.00300	0.239	0.500	ug/L	
SLD0370-CCB6	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0370-CCB6	Silver-107	0.00200	0.022	0.200	ug/L	
SLD0370-IBL7	Chromium-52	0.0680	0.26	0.500	ug/L	
SLD0370-IBL7	Chromium-53	0.00900	0.239	0.500	ug/L	
SLD0370-IBL7	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0370-IBL7	Silver-107	0.00	0.022	0.200	ug/L	
SLD0370-CCB7	Chromium-52	0.0900	0.26	0.500	ug/L	
SLD0370-CCB7	Chromium-53	0.0200	0.239	0.500	ug/L	
SLD0370-CCB7	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0370-CCB7	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-IBL8	Chromium-52	0.222	0.26	0.500	ug/L	
SLD0370-IBL8	Chromium-53	0.725	0.239	0.500	ug/L	
SLD0370-IBL8	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0370-IBL8	Silver-107	0.00	0.022	0.200	ug/L	
SLD0370-IBL9	Chromium-52	0.186	0.26	0.500	ug/L	
SLD0370-IBL9	Chromium-53	0.407	0.239	0.500	ug/L	
SLD0370-IBL9	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0370-IBL9	Silver-107	-0.00100	0.022	0.200	ug/L	
SLD0370-CCB8	Chromium-52	0.0250	0.26	0.500	ug/L	
SLD0370-CCB8	Chromium-53	0.167	0.239	0.500	ug/L	
SLD0370-CCB8	Lead-208	0.00	0.0513	0.100	ug/L	

INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00066
Date Analyzed: 04/26/23 01:23

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0370-CCB8	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-IBLA	Chromium-52	-0.0150	0.26	0.500	ug/L	
SLD0370-IBLA	Chromium-53	0.0370	0.239	0.500	ug/L	
SLD0370-IBLA	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0370-IBLA	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-CCB9	Chromium-52	0.0200	0.26	0.500	ug/L	
SLD0370-CCB9	Chromium-53	0.0300	0.239	0.500	ug/L	
SLD0370-CCB9	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0370-CCB9	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-CCBA	Chromium-52	0.0160	0.26	0.500	ug/L	
SLD0370-CCBA	Chromium-53	-0.00400	0.239	0.500	ug/L	
SLD0370-CCBA	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0370-CCBA	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-IBLB	Chromium-52	-0.0180	0.26	0.500	ug/L	
SLD0370-IBLB	Chromium-53	0.0590	0.239	0.500	ug/L	
SLD0370-IBLB	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0370-IBLB	Silver-107	0.00	0.022	0.200	ug/L	
SLD0370-IBLC	Chromium-52	-0.0590	0.26	0.500	ug/L	
SLD0370-IBLC	Chromium-53	-0.0130	0.239	0.500	ug/L	
SLD0370-IBLC	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0370-IBLC	Silver-107	0.00	0.022	0.200	ug/L	
SLD0370-CCBB	Chromium-52	-0.0230	0.26	0.500	ug/L	
SLD0370-CCBB	Chromium-53	-0.0220	0.239	0.500	ug/L	
SLD0370-CCBB	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0370-CCBB	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-IBLD	Chromium-52	0.0690	0.26	0.500	ug/L	
SLD0370-IBLD	Chromium-53	-0.0220	0.239	0.500	ug/L	
SLD0370-IBLD	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0370-IBLD	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-CCBC	Chromium-52	0.0470	0.26	0.500	ug/L	
SLD0370-CCBC	Chromium-53	-0.0270	0.239	0.500	ug/L	
SLD0370-CCBC	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0370-CCBC	Silver-107	0.00200	0.022	0.200	ug/L	
SLD0370-IBLE	Chromium-52	0.0200	0.26	0.500	ug/L	
SLD0370-IBLE	Chromium-53	-0.0170	0.239	0.500	ug/L	
SLD0370-IBLE	Lead-208	-0.00300	0.0513	0.100	ug/L	

INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00066
Date Analyzed: 04/26/23 05:21

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0370-IBLE	Silver-107	0.00	0.022	0.200	ug/L	
SLD0370-IBLF	Chromium-52	0.0150	0.26	0.500	ug/L	
SLD0370-IBLF	Chromium-53	-0.0240	0.239	0.500	ug/L	
SLD0370-IBLF	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLD0370-IBLF	Silver-107	-0.00100	0.022	0.200	ug/L	
SLD0370-CCBD	Chromium-52	0.0690	0.26	0.500	ug/L	
SLD0370-CCBD	Chromium-53	-0.0260	0.239	0.500	ug/L	
SLD0370-CCBD	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0370-CCBD	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-IBLG	Chromium-52	0.00900	0.26	0.500	ug/L	
SLD0370-IBLG	Chromium-53	-0.0170	0.239	0.500	ug/L	
SLD0370-IBLG	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLD0370-IBLG	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-CCBE	Chromium-52	0.00300	0.26	0.500	ug/L	
SLD0370-CCBE	Chromium-53	-0.0240	0.239	0.500	ug/L	
SLD0370-CCBE	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0370-CCBE	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-CCBF	Chromium-52	-0.00400	0.26	0.500	ug/L	
SLD0370-CCBF	Chromium-53	-0.00500	0.239	0.500	ug/L	
SLD0370-CCBF	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLD0370-CCBF	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-IBLH	Chromium-52	0.0130	0.26	0.500	ug/L	
SLD0370-IBLH	Chromium-53	0.167	0.239	0.500	ug/L	
SLD0370-IBLH	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLD0370-IBLH	Silver-107	-0.00100	0.022	0.200	ug/L	
SLD0370-CCBG	Chromium-52	-0.131	0.26	0.500	ug/L	
SLD0370-CCBG	Chromium-53	0.117	0.239	0.500	ug/L	
SLD0370-CCBG	Lead-208	0.00	0.0513	0.100	ug/L	
SLD0370-CCBG	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-IBLI	Chromium-52	-0.124	0.26	0.500	ug/L	
SLD0370-IBLI	Chromium-53	0.0740	0.239	0.500	ug/L	
SLD0370-IBLI	Lead-208	-0.00300	0.0513	0.100	ug/L	
SLD0370-IBLI	Silver-107	-0.00100	0.022	0.200	ug/L	
SLD0370-CCBH	Chromium-52	-0.126	0.26	0.500	ug/L	
SLD0370-CCBH	Chromium-53	0.0440	0.239	0.500	ug/L	
SLD0370-CCBH	Lead-208	0.00	0.0513	0.100	ug/L	

INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00066
Date Analyzed: 04/26/23 09:33

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0370-CCBH	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-IBLJ	Chromium-52	-0.0710	0.26	0.500	ug/L	
SLD0370-IBLJ	Chromium-53	0.00800	0.239	0.500	ug/L	
SLD0370-IBLJ	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLD0370-IBLJ	Silver-107	0.00	0.022	0.200	ug/L	
SLD0370-CCBI	Chromium-52	-0.106	0.26	0.500	ug/L	
SLD0370-CCBI	Chromium-53	0.0130	0.239	0.500	ug/L	
SLD0370-CCBI	Lead-208	0.00100	0.0513	0.100	ug/L	
SLD0370-CCBI	Silver-107	0.00100	0.022	0.200	ug/L	
SLD0370-IBLK	Chromium-52	-0.0560	0.26	0.500	ug/L	
SLD0370-IBLK	Chromium-53	0.0490	0.239	0.500	ug/L	
SLD0370-IBLK	Lead-208	-0.00100	0.0513	0.100	ug/L	
SLD0370-IBLK	Silver-107	-0.00100	0.022	0.200	ug/L	
SLD0370-CCBJ	Chromium-52	-0.0920	0.26	0.500	ug/L	
SLD0370-CCBJ	Chromium-53	0.0270	0.239	0.500	ug/L	
SLD0370-CCBJ	Lead-208	0.00200	0.0513	0.100	ug/L	
SLD0370-CCBJ	Silver-107	0.00	0.022	0.200	ug/L	

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLD0260	Instrument:	ICPMS2
		Calibration:	GD00046

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLD0260-CAL1	XDT_m2230418-006	NA	04/18/23 13:13
CAL 1 - LOW CHECK	SLD0260-CAL2	XDT_m2230418-007	NA	04/18/23 13:18
CAL 2	SLD0260-CAL3	XDT_m2230418-008	NA	04/18/23 13:22
CAL 3	SLD0260-CAL4	XDT_m2230418-009	NA	04/18/23 13:27
CAL 4	SLD0260-CAL5	XDT_m2230418-010	NA	04/18/23 13:33
CAL 5	SLD0260-CAL6	XDT_m2230418-011	NA	04/18/23 13:39
RINSE	SLD0260-IBL1	XDT_m2230418-012	NA	04/18/23 13:47
Initial Cal Check	SLD0260-ICV1	XDT_m2230418-014	NA	04/18/23 13:56
Initial Cal Blank	SLD0260-ICB1	XDT_m2230418-015	NA	04/18/23 14:03
Calibration Check	SLD0260-CCV1	XDT_m2230418-016	NA	04/18/23 14:13
Calibration Blank	SLD0260-CCB1	XDT_m2230418-017	NA	04/18/23 14:20
Instrument RL Check	SLD0260-CRL1	XDT_m2230418-018	NA	04/18/23 14:33
Interference Check A	SLD0260-IFA1	XDT_m2230418-019	NA	04/18/23 14:38
Interference Check B	SLD0260-IFB1	XDT_m2230418-020	NA	04/18/23 14:43
LR200	SLD0260-HCV1	XDT_m2230418-021	NA	04/18/23 14:52
LR300	SLD0260-HCV2	XDT_m2230418-022	NA	04/18/23 14:59
Instrument Blank	SLD0260-IBL2	XDT_m2230418-023	NA	04/18/23 15:07
Calibration Check	SLD0260-CCV2	XDT_m2230418-024	NA	04/18/23 15:13
Calibration Blank	SLD0260-CCB2	XDT_m2230418-025	NA	04/18/23 15:21
Instrument Blank	SLD0260-IBL3	XDT_m2230418-035	NA	04/18/23 16:11
Calibration Check	SLD0260-CCV3	XDT_m2230418-036	NA	04/18/23 16:16
Calibration Blank	SLD0260-CCB3	XDT_m2230418-037	NA	04/18/23 16:23
ZZZZZ	BLD0472-BLK1	XDT_m2230418-038	Water	04/18/23 16:30
ZZZZZ	BLD0472-BS1	XDT_m2230418-039	Water	04/18/23 16:35
Instrument Blank	SLD0260-IBL4	XDT_m2230418-047	NA	04/18/23 17:13
Calibration Check	SLD0260-CCV4	XDT_m2230418-048	NA	04/18/23 17:18
Calibration Blank	SLD0260-CCB4	XDT_m2230418-049	NA	04/18/23 17:25
Calibration Check	SLD0260-CCV5	XDT_m2230418-060	NA	04/18/23 18:20
Calibration Blank	SLD0260-CCB5	XDT_m2230418-061	NA	04/18/23 18:27

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0260
Instrument: ICPMS2
Calibration: GD00046

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	BLD0244-BLK1	XDT_m2230418-064	Solid	04/18/23 18:46
ZZZZZ	BLD0244-BS1	XDT_m2230418-065	Solid	04/18/23 18:50
ZZZZZ	23A0249-05	XDT_m2230418-066	Solid	04/18/23 18:55
ZZZZZ	23A0249-05	XDT_m2230418-066	Solid	04/18/23 18:55
ZZZZZ	23A0249-02	XDT_m2230418-067	Solid	04/18/23 19:00
ZZZZZ	23A0249-02	XDT_m2230418-067	Solid	04/18/23 19:00
ZZZZZ	BLD0244-DUP1	XDT_m2230418-068	Solid	04/18/23 19:05
ZZZZZ	BLD0244-MS1	XDT_m2230418-069	Solid	04/18/23 19:09
ZZZZZ	BLD0244-MSD1	XDT_m2230418-070	Solid	04/18/23 19:14
ZZZZZ	BLD0244-PS1	XDT_m2230418-071	Solid	04/18/23 19:19
Calibration Check	SLD0260-CCV6	XDT_m2230418-072	NA	04/18/23 19:23
Calibration Blank	SLD0260-CCB6	XDT_m2230418-073	NA	04/18/23 19:31
Calibration Check	SLD0260-CCV7	XDT_m2230418-075	NA	04/18/23 19:47
Calibration Blank	SLD0260-CCB7	XDT_m2230418-076	NA	04/18/23 19:55
ZZZZZ	23A0249-08	XDT_m2230418-078	Solid	04/18/23 20:04
ZZZZZ	23A0249-08	XDT_m2230418-078	Solid	04/18/23 20:04
ZZZZZ	23A0249-11	XDT_m2230418-079	Solid	04/18/23 20:09
ZZZZZ	23A0249-11	XDT_m2230418-079	Solid	04/18/23 20:09
ZZZZZ	23A0249-11	XDT_m2230418-079	Solid	04/18/23 20:09
ZZZZZ	23A0295-01	XDT_m2230418-080	Solid	04/18/23 20:14
ZZZZZ	23A0295-01	XDT_m2230418-080	Solid	04/18/23 20:14
ZZZZZ	23A0295-02	XDT_m2230418-081	Solid	04/18/23 20:19
ZZZZZ	23A0295-02	XDT_m2230418-081	Solid	04/18/23 20:19
ZZZZZ	23A0295-03	XDT_m2230418-082	Solid	04/18/23 20:23
ZZZZZ	23A0295-03	XDT_m2230418-082	Solid	04/18/23 20:23
ZZZZZ	23A0295-04	XDT_m2230418-083	Solid	04/18/23 20:28
ZZZZZ	23A0295-04	XDT_m2230418-083	Solid	04/18/23 20:28
ZZZZZ	23A0295-05	XDT_m2230418-084	Solid	04/18/23 20:33
ZZZZZ	23A0295-05	XDT_m2230418-084	Solid	04/18/23 20:33

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0260
Instrument: ICPMS2
Calibration: GD00046

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0295-06	XDT_m2230418-085	Solid	04/18/23 20:38
ZZZZZ	23A0295-06	XDT_m2230418-085	Solid	04/18/23 20:38
ZZZZZ	23A0295-07	XDT_m2230418-086	Solid	04/18/23 20:42
ZZZZZ	23A0295-07	XDT_m2230418-086	Solid	04/18/23 20:42
ZZZZZ	23A0295-07	XDT_m2230418-086	Solid	04/18/23 20:42
Calibration Check	SLD0260-CCV8	XDT_m2230418-087	NA	04/18/23 20:47
Calibration Blank	SLD0260-CCB8	XDT_m2230418-088	NA	04/18/23 20:55
Blank	BLD0289-BLK1	XDT_m2230418-089	Solid	04/18/23 20:59
LCS	BLD0289-BS1	XDT_m2230418-090	Solid	04/18/23 21:04
ZZZZZ	23A0295-09	XDT_m2230418-091	Solid	04/18/23 21:09
ZZZZZ	23A0295-09	XDT_m2230418-091	Solid	04/18/23 21:09
ZZZZZ	23A0295-09	XDT_m2230418-091	Solid	04/18/23 21:09
ZZZZZ	23A0295-10	XDT_m2230418-092	Solid	04/18/23 21:14
ZZZZZ	23A0295-10	XDT_m2230418-092	Solid	04/18/23 21:14
ZZZZZ	23A0295-10	XDT_m2230418-092	Solid	04/18/23 21:14
ZZZZZ	23A0328-02	XDT_m2230418-094	Solid	04/18/23 21:23
ZZZZZ	23A0328-02	XDT_m2230418-094	Solid	04/18/23 21:23
Calibration Check	SLD0260-CCV9	XDT_m2230418-099	NA	04/18/23 21:47
Calibration Blank	SLD0260-CCB9	XDT_m2230418-100	NA	04/18/23 21:54
LDW23-SC1016A	23A0313-08	XDT_m2230418-102	Solid	04/18/23 22:04
LDW23-SC1016A	23A0313-08	XDT_m2230418-102	Solid	04/18/23 22:04
LDW23-SC1011A	23A0313-09	XDT_m2230418-103	Solid	04/18/23 22:08
LDW23-SC1011A	23A0313-09	XDT_m2230418-103	Solid	04/18/23 22:08
LDW23-SC1006A	23A0313-10	XDT_m2230418-104	Solid	04/18/23 22:13
LDW23-SC1006A	23A0313-10	XDT_m2230418-104	Solid	04/18/23 22:13
LDW23-SC1012B	23A0313-11	XDT_m2230418-105	Solid	04/18/23 22:18
LDW23-SC1012B	23A0313-11	XDT_m2230418-105	Solid	04/18/23 22:18
LDW23-SC1159	23A0313-13	XDT_m2230418-107	Solid	04/18/23 22:27
LDW23-SC1159	23A0313-13	XDT_m2230418-107	Solid	04/18/23 22:27

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0260
Instrument: ICPMS2
Calibration: GD00046

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0328-03	XDT_m2230418-108	Solid	04/18/23 22:32
ZZZZZ	23A0328-03	XDT_m2230418-108	Solid	04/18/23 22:32
ZZZZZ	23A0328-03	XDT_m2230418-108	Solid	04/18/23 22:32
ZZZZZ	23A0328-04	XDT_m2230418-109	Solid	04/18/23 22:37
ZZZZZ	23A0328-04	XDT_m2230418-109	Solid	04/18/23 22:37
ZZZZZ	23A0328-04	XDT_m2230418-109	Solid	04/18/23 22:37
ZZZZZ	23A0328-05	XDT_m2230418-110	Solid	04/18/23 22:42
ZZZZZ	23A0328-05	XDT_m2230418-110	Solid	04/18/23 22:42
ZZZZZ	23A0328-05	XDT_m2230418-110	Solid	04/18/23 22:42
Calibration Check	SLD0260-CCVA	XDT_m2230418-111	NA	04/18/23 22:46
Calibration Blank	SLD0260-CCBA	XDT_m2230418-112	NA	04/18/23 22:54
ZZZZZ	23A0328-06	XDT_m2230418-113	Solid	04/18/23 22:59
ZZZZZ	23A0328-06	XDT_m2230418-113	Solid	04/18/23 22:59
ZZZZZ	23A0328-06	XDT_m2230418-113	Solid	04/18/23 22:59
ZZZZZ	23A0328-07	XDT_m2230418-114	Solid	04/18/23 23:03
ZZZZZ	23A0328-07	XDT_m2230418-114	Solid	04/18/23 23:03
ZZZZZ	23A0328-07	XDT_m2230418-114	Solid	04/18/23 23:03
ZZZZZ	23A0328-08	XDT_m2230418-115	Solid	04/18/23 23:08
ZZZZZ	23A0328-08	XDT_m2230418-115	Solid	04/18/23 23:08
ZZZZZ	23A0328-08	XDT_m2230418-115	Solid	04/18/23 23:08
ZZZZZ	23A0328-09	XDT_m2230418-116	Solid	04/18/23 23:13
ZZZZZ	23A0328-09	XDT_m2230418-116	Solid	04/18/23 23:13
ZZZZZ	23A0328-09	XDT_m2230418-116	Solid	04/18/23 23:13
ZZZZZ	23A0328-10	XDT_m2230418-117	Solid	04/18/23 23:18
ZZZZZ	23A0328-10	XDT_m2230418-117	Solid	04/18/23 23:18
ZZZZZ	23A0328-10	XDT_m2230418-117	Solid	04/18/23 23:18
ZZZZZ	23A0328-11	XDT_m2230418-118	Solid	04/18/23 23:22
ZZZZZ	23A0328-11	XDT_m2230418-118	Solid	04/18/23 23:22
ZZZZZ	23A0328-11	XDT_m2230418-118	Solid	04/18/23 23:22

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLD0260	Instrument:	ICPMS2
		Calibration:	GD00046

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0328-12	XDT_m2230418-119	Solid	04/18/23 23:27
ZZZZZ	23A0328-12	XDT_m2230418-119	Solid	04/18/23 23:27
ZZZZZ	23A0328-12	XDT_m2230418-119	Solid	04/18/23 23:27
ZZZZZ	23A0249-03	XDT_m2230418-120	Solid	04/18/23 23:32
ZZZZZ	23A0249-03	XDT_m2230418-120	Solid	04/18/23 23:32
ZZZZZ	23A0249-04	XDT_m2230418-121	Solid	04/18/23 23:37
ZZZZZ	23A0249-04	XDT_m2230418-121	Solid	04/18/23 23:37
ZZZZZ	BLD0346-PS1	XDT_m2230418-122	Water	04/18/23 23:41
Calibration Check	SLD0260-CCVB	XDT_m2230418-123	NA	04/18/23 23:46
Calibration Blank	SLD0260-CCBB	XDT_m2230418-124	NA	04/18/23 23:54
Calibration Check	SLD0260-CCVC	XDT_m2230418-135	NA	04/19/23 00:46
Calibration Blank	SLD0260-CCBC	XDT_m2230418-136	NA	04/19/23 00:53

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLD0292	Instrument:	ICPMS2
		Calibration:	GD00059

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLD0292-CAL1	XDT_m2230420-006	NA	04/20/23 12:31
CAL 1 - LOW CHECK	SLD0292-CAL2	XDT_m2230420-007	NA	04/20/23 12:35
CAL 2	SLD0292-CAL3	XDT_m2230420-008	NA	04/20/23 12:40
CAL 3	SLD0292-CAL4	XDT_m2230420-009	NA	04/20/23 12:45
CAL 4	SLD0292-CAL5	XDT_m2230420-010	NA	04/20/23 12:50
CAL 5	SLD0292-CAL6	XDT_m2230420-011	NA	04/20/23 12:56
RINSE	SLD0292-IBL1	XDT_m2230420-012	NA	04/20/23 13:04
Initial Cal Check	SLD0292-ICV1	XDT_m2230420-014	NA	04/20/23 14:54
Initial Cal Blank	SLD0292-ICB1	XDT_m2230420-015	NA	04/20/23 15:02
Calibration Check	SLD0292-CCV1	XDT_m2230420-016	NA	04/20/23 15:09
Calibration Blank	SLD0292-CCB1	XDT_m2230420-017	NA	04/20/23 15:16
Instrument RL Check	SLD0292-CRL1	XDT_m2230420-018	NA	04/20/23 15:22
Interference Check A	SLD0292-IFA1	XDT_m2230420-019	NA	04/20/23 15:27
Interference Check B	SLD0292-IFB1	XDT_m2230420-020	NA	04/20/23 15:32
LR200	SLD0292-HCV1	XDT_m2230420-021	NA	04/20/23 15:37
LR300	SLD0292-HCV2	XDT_m2230420-022	NA	04/20/23 15:41
Instrument Blank	SLD0292-IBL2	XDT_m2230420-023	NA	04/20/23 15:49
Instrument Blank	SLD0292-IBL3	XDT_m2230420-024	NA	04/20/23 15:56
Calibration Check	SLD0292-CCV2	XDT_m2230420-025	NA	04/20/23 16:03
Calibration Blank	SLD0292-CCB2	XDT_m2230420-026	NA	04/20/23 16:10
ZZZZZ	23A0249-08	XDT_m2230420-034	Solid	04/20/23 17:01
ZZZZZ	23A0249-05	XDT_m2230420-035	Solid	04/20/23 17:07
Instrument Blank	SLD0292-IBL4	XDT_m2230420-036	NA	04/20/23 17:11
Calibration Check	SLD0292-CCV3	XDT_m2230420-037	NA	04/20/23 17:16
Calibration Blank	SLD0292-CCB3	XDT_m2230420-039	NA	04/20/23 17:28
ZZZZZ	23A0295-01	XDT_m2230420-041	Solid	04/20/23 17:40
ZZZZZ	23A0295-02	XDT_m2230420-042	Solid	04/20/23 17:44
ZZZZZ	23A0295-03	XDT_m2230420-043	Solid	04/20/23 17:49
ZZZZZ	23A0295-04	XDT_m2230420-044	Solid	04/20/23 17:53

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0292
Instrument: ICPMS2
Calibration: GD00059

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0295-05	XDT_m2230420-045	Solid	04/20/23 17:58
ZZZZZ	23A0295-06	XDT_m2230420-046	Solid	04/20/23 18:03
ZZZZZ	23A0249-03	XDT_m2230420-047	Solid	04/20/23 18:07
ZZZZZ	23A0249-04	XDT_m2230420-048	Solid	04/20/23 18:12
Instrument Blank	SLD0292-IBL5	XDT_m2230420-049	NA	04/20/23 18:16
Calibration Check	SLD0292-CCV4	XDT_m2230420-050	NA	04/20/23 18:21
Calibration Blank	SLD0292-CCB4	XDT_m2230420-051	NA	04/20/23 18:28
LDW23-SC1016A	23A0313-08	XDT_m2230420-052	Solid	04/20/23 18:38
LDW23-SC1011A	23A0313-09	XDT_m2230420-053	Solid	04/20/23 18:42
LDW23-SC1006A	23A0313-10	XDT_m2230420-054	Solid	04/20/23 18:47
LDW23-SC1012B	23A0313-11	XDT_m2230420-055	Solid	04/20/23 18:51
LDW23-SC1159	23A0313-13	XDT_m2230420-056	Solid	04/20/23 18:56
ZZZZZ	23A0249-02	XDT_m2230420-057	Solid	04/20/23 19:00
ZZZZZ	BLD0244-DUP2	XDT_m2230420-058	Solid	04/20/23 19:05
ZZZZZ	BLD0244-MS2	XDT_m2230420-059	Solid	04/20/23 19:09
ZZZZZ	BLD0244-MSD2	XDT_m2230420-060	Solid	04/20/23 19:14
Calibration Check	SLD0292-CCV5	XDT_m2230420-062	NA	04/20/23 19:23
Calibration Blank	SLD0292-CCB5	XDT_m2230420-063	NA	04/20/23 19:30
ZZZZZ	BLD0472-BLK2	XDT_m2230420-064	Water	04/20/23 19:35
Instrument Blank	SLD0292-IBL6	XDT_m2230420-073	NA	04/20/23 20:16
Calibration Check	SLD0292-CCV6	XDT_m2230420-074	NA	04/20/23 20:20
Calibration Blank	SLD0292-CCB6	XDT_m2230420-075	NA	04/20/23 20:28
Calibration Check	SLD0292-CCV7	XDT_m2230420-086	NA	04/20/23 21:18
Calibration Blank	SLD0292-CCB7	XDT_m2230420-087	NA	04/20/23 21:25
Instrument Blank	SLD0292-IBL7	XDT_m2230420-097	NA	04/20/23 22:11
Calibration Check	SLD0292-CCV8	XDT_m2230420-098	NA	04/20/23 22:15
Calibration Blank	SLD0292-CCB8	XDT_m2230420-099	NA	04/20/23 22:23
Calibration Check	SLD0292-CCV9	XDT_m2230420-110	NA	04/20/23 23:13
Calibration Blank	SLD0292-CCB9	XDT_m2230420-111	NA	04/20/23 23:20

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLD0292	Instrument:	ICPMS2
		Calibration:	GD00059

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLD0292-CCVA	XDT_m2230420-122	NA	04/21/23 00:10
Calibration Blank	SLD0292-CCBA	XDT_m2230420-123	NA	04/21/23 00:18
Calibration Check	SLD0292-CCVB	XDT_m2230420-134	NA	04/21/23 01:08
Calibration Blank	SLD0292-CCBB	XDT_m2230420-135	NA	04/21/23 01:15

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0370
Instrument: ICPMS1
Calibration: GD00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLD0370-CAL1	XDT_m1230425-021	NA	04/25/23 17:12
CAL 1 - LOW CHECK	SLD0370-CAL2	XDT_m1230425-022	NA	04/25/23 17:17
CAL 2	SLD0370-CAL3	XDT_m1230425-023	NA	04/25/23 17:22
CAL 3	SLD0370-CAL4	XDT_m1230425-024	NA	04/25/23 17:27
CAL 4	SLD0370-CAL5	XDT_m1230425-025	NA	04/25/23 17:33
CAL 5	SLD0370-CAL6	XDT_m1230425-026	NA	04/25/23 17:40
RINSE	SLD0370-IBL1	XDT_m1230425-027	NA	04/25/23 17:47
Initial Cal Check	SLD0370-ICV1	XDT_m1230425-030	NA	04/25/23 18:02
Initial Cal Blank	SLD0370-ICB1	XDT_m1230425-031	NA	04/25/23 18:09
Calibration Check	SLD0370-CCV1	XDT_m1230425-032	NA	04/25/23 18:15
Calibration Blank	SLD0370-CCB1	XDT_m1230425-033	NA	04/25/23 18:22
Instrument RL Check	SLD0370-CRL1	XDT_m1230425-034	NA	04/25/23 18:27
Interference Check A	SLD0370-IFA1	XDT_m1230425-035	NA	04/25/23 18:33
Interference Check B	SLD0370-IFB1	XDT_m1230425-036	NA	04/25/23 18:38
LR200	SLD0370-HCV1	XDT_m1230425-037	NA	04/25/23 18:43
LR300	SLD0370-HCV2	XDT_m1230425-038	NA	04/25/23 18:48
Instrument Blank	SLD0370-IBL2	XDT_m1230425-039	NA	04/25/23 18:56
Instrument Blank	SLD0370-IBL3	XDT_m1230425-040	NA	04/25/23 19:03
Calibration Check	SLD0370-CCV2	XDT_m1230425-041	NA	04/25/23 19:09
Calibration Blank	SLD0370-CCB2	XDT_m1230425-042	NA	04/25/23 19:18
Instrument Blank	SLD0370-IBL4	XDT_m1230425-051	NA	04/25/23 20:06
Calibration Check	SLD0370-CCV3	XDT_m1230425-052	NA	04/25/23 20:11
Calibration Blank	SLD0370-CCB3	XDT_m1230425-053	NA	04/25/23 20:19
Instrument Blank	SLD0370-IBL5	XDT_m1230425-061	NA	04/25/23 21:08
Calibration Check	SLD0370-CCV4	XDT_m1230425-063	NA	04/25/23 21:24
Calibration Blank	SLD0370-CCB4	XDT_m1230425-064	NA	04/25/23 21:32
ZZZZZ	23D0165-01	XDT_m1230425-069	Water	04/25/23 22:08
Instrument Blank	SLD0370-IBL6	XDT_m1230425-074	NA	04/25/23 22:38
Calibration Check	SLD0370-CCV5	XDT_m1230425-075	NA	04/25/23 22:43

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0370
Instrument: ICPMS1
Calibration: GD00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SLD0370-CCB5	XDT_m1230425-076	NA	04/25/23 22:51
Calibration Check	SLD0370-CCV6	XDT_m1230425-078	NA	04/25/23 23:01
Calibration Blank	SLD0370-CCB6	XDT_m1230425-079	NA	04/25/23 23:09
Instrument Blank	SLD0370-IBL7	XDT_m1230425-089	NA	04/26/23 00:01
Calibration Check	SLD0370-CCV7	XDT_m1230425-090	NA	04/26/23 00:06
Calibration Blank	SLD0370-CCB7	XDT_m1230425-091	NA	04/26/23 00:14
ZZZZZ	23C0674-02	XDT_m1230425-092	Water	04/26/23 00:19
ZZZZZ	23C0674-01	XDT_m1230425-093	Water	04/26/23 00:24
Instrument Blank	SLD0370-IBL8	XDT_m1230425-100	NA	04/26/23 01:05
Instrument Blank	SLD0370-IBL9	XDT_m1230425-101	NA	04/26/23 01:10
Calibration Check	SLD0370-CCV8	XDT_m1230425-102	NA	04/26/23 01:15
Calibration Blank	SLD0370-CCB8	XDT_m1230425-103	NA	04/26/23 01:23
Instrument Blank	SLD0370-IBLA	XDT_m1230425-113	NA	04/26/23 02:13
Calibration Check	SLD0370-CCV9	XDT_m1230425-114	NA	04/26/23 02:18
Calibration Blank	SLD0370-CCB9	XDT_m1230425-115	NA	04/26/23 02:26
Calibration Check	SLD0370-CCVA	XDT_m1230425-117	NA	04/26/23 02:36
Calibration Blank	SLD0370-CCBA	XDT_m1230425-118	NA	04/26/23 02:44
Instrument Blank	SLD0370-IBLB	XDT_m1230425-122	NA	04/26/23 03:06
ZZZZZ	23A0328-02	XDT_m1230425-123	Solid	04/26/23 03:11
Instrument Blank	SLD0370-IBLC	XDT_m1230425-128	NA	04/26/23 03:37
Calibration Check	SLD0370-CCVB	XDT_m1230425-129	NA	04/26/23 03:42
Calibration Blank	SLD0370-CCBB	XDT_m1230425-130	NA	04/26/23 03:49
Instrument Blank	SLD0370-IBLD	XDT_m1230425-140	NA	04/26/23 04:42
Calibration Check	SLD0370-CCVC	XDT_m1230425-141	NA	04/26/23 04:47
Calibration Blank	SLD0370-CCBC	XDT_m1230425-142	NA	04/26/23 04:55
ZZZZZ	23C0678-02	XDT_m1230425-143	Water	04/26/23 05:00
ZZZZZ	23C0678-02	XDT_m1230425-143	Water	04/26/23 05:00
ZZZZZ	23C0678-02	XDT_m1230425-143	Water	04/26/23 05:00
ZZZZZ	23C0678-02	XDT_m1230425-143	Water	04/26/23 05:00

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0370
Instrument: ICPMS1
Calibration: GD00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23C0678-02	XDT_m1230425-143	Water	04/26/23 05:00
ZZZZZ	23C0678-02	XDT_m1230425-143	Water	04/26/23 05:00
ZZZZZ	23C0678-12	XDT_m1230425-144	Water	04/26/23 05:05
ZZZZZ	23C0678-12	XDT_m1230425-144	Water	04/26/23 05:05
ZZZZZ	23C0678-12	XDT_m1230425-144	Water	04/26/23 05:05
ZZZZZ	23C0678-12	XDT_m1230425-144	Water	04/26/23 05:05
ZZZZZ	23C0678-12	XDT_m1230425-144	Water	04/26/23 05:05
ZZZZZ	23C0678-12	XDT_m1230425-144	Water	04/26/23 05:05
ZZZZZ	23C0678-13	XDT_m1230425-145	Water	04/26/23 05:10
ZZZZZ	23C0678-13	XDT_m1230425-145	Water	04/26/23 05:10
ZZZZZ	23C0678-13	XDT_m1230425-145	Water	04/26/23 05:10
ZZZZZ	23C0678-13	XDT_m1230425-145	Water	04/26/23 05:10
ZZZZZ	23C0678-13	XDT_m1230425-145	Water	04/26/23 05:10
ZZZZZ	23C0678-13	XDT_m1230425-145	Water	04/26/23 05:10
ZZZZZ	23C0678-18	XDT_m1230425-146	Water	04/26/23 05:16
ZZZZZ	23C0678-18	XDT_m1230425-146	Water	04/26/23 05:16
ZZZZZ	23C0678-18	XDT_m1230425-146	Water	04/26/23 05:16
ZZZZZ	23C0678-18	XDT_m1230425-146	Water	04/26/23 05:16
ZZZZZ	23C0678-18	XDT_m1230425-146	Water	04/26/23 05:16
ZZZZZ	23C0678-18	XDT_m1230425-146	Water	04/26/23 05:16
Instrument Blank	SLD0370-IBLE	XDT_m1230425-147	NA	04/26/23 05:21
ZZZZZ	23C0678-01	XDT_m1230425-148	Water	04/26/23 05:27
ZZZZZ	23C0678-01	XDT_m1230425-148	Water	04/26/23 05:27
ZZZZZ	23C0678-01	XDT_m1230425-148	Water	04/26/23 05:27
ZZZZZ	23C0678-01	XDT_m1230425-148	Water	04/26/23 05:27
ZZZZZ	23C0678-01	XDT_m1230425-148	Water	04/26/23 05:27
ZZZZZ	23C0678-01	XDT_m1230425-148	Water	04/26/23 05:27
ZZZZZ	23C0678-11	XDT_m1230425-149	Water	04/26/23 05:31
ZZZZZ	23C0678-11	XDT_m1230425-149	Water	04/26/23 05:31

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0370
Instrument: ICPMS1
Calibration: GD00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23C0678-11	XDT_m1230425-149	Water	04/26/23 05:31
ZZZZZ	23C0678-11	XDT_m1230425-149	Water	04/26/23 05:31
ZZZZZ	23C0678-11	XDT_m1230425-149	Water	04/26/23 05:31
ZZZZZ	23C0678-11	XDT_m1230425-149	Water	04/26/23 05:31
ZZZZZ	23C0678-10	XDT_m1230425-150	Water	04/26/23 05:37
ZZZZZ	23C0678-10	XDT_m1230425-150	Water	04/26/23 05:37
ZZZZZ	23C0678-10	XDT_m1230425-150	Water	04/26/23 05:37
ZZZZZ	23C0678-10	XDT_m1230425-150	Water	04/26/23 05:37
ZZZZZ	23C0678-10	XDT_m1230425-150	Water	04/26/23 05:37
ZZZZZ	23C0678-10	XDT_m1230425-150	Water	04/26/23 05:37
ZZZZZ	23C0678-17	XDT_m1230425-151	Water	04/26/23 05:43
ZZZZZ	23C0678-17	XDT_m1230425-151	Water	04/26/23 05:43
ZZZZZ	23C0678-17	XDT_m1230425-151	Water	04/26/23 05:43
ZZZZZ	23C0678-17	XDT_m1230425-151	Water	04/26/23 05:43
ZZZZZ	23C0678-17	XDT_m1230425-151	Water	04/26/23 05:43
ZZZZZ	23C0678-17	XDT_m1230425-151	Water	04/26/23 05:43
Instrument Blank	SLD0370-IBLF	XDT_m1230425-152	NA	04/26/23 05:48
Calibration Check	SLD0370-CCVD	XDT_m1230425-153	NA	04/26/23 05:53
Calibration Blank	SLD0370-CCBD	XDT_m1230425-154	NA	04/26/23 06:01
ZZZZZ	23D0062-01	XDT_m1230425-157	Water	04/26/23 06:17
ZZZZZ	23D0062-01	XDT_m1230425-157	Water	04/26/23 06:17
ZZZZZ	23D0062-01	XDT_m1230425-157	Water	04/26/23 06:17
ZZZZZ	23D0062-01	XDT_m1230425-157	Water	04/26/23 06:17
ZZZZZ	23D0062-03	XDT_m1230425-158	Water	04/26/23 06:22
ZZZZZ	23D0062-03	XDT_m1230425-158	Water	04/26/23 06:22
ZZZZZ	23D0062-03	XDT_m1230425-158	Water	04/26/23 06:22
ZZZZZ	23D0062-03	XDT_m1230425-158	Water	04/26/23 06:22
ZZZZZ	23D0062-05	XDT_m1230425-159	Water	04/26/23 06:27
ZZZZZ	23D0062-05	XDT_m1230425-159	Water	04/26/23 06:27

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0370
Instrument: ICPMS1
Calibration: GD00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0062-05	XDT_m1230425-159	Water	04/26/23 06:27
ZZZZZ	23D0062-05	XDT_m1230425-159	Water	04/26/23 06:27
ZZZZZ	23D0062-07	XDT_m1230425-160	Water	04/26/23 06:32
ZZZZZ	23D0062-07	XDT_m1230425-160	Water	04/26/23 06:32
ZZZZZ	23D0062-07	XDT_m1230425-160	Water	04/26/23 06:32
ZZZZZ	23D0062-07	XDT_m1230425-160	Water	04/26/23 06:32
ZZZZZ	BLD0472-DUP1	XDT_m1230425-161	Water	04/26/23 06:37
ZZZZZ	BLD0472-MS1	XDT_m1230425-162	Water	04/26/23 06:42
ZZZZZ	BLD0472-MSD1	XDT_m1230425-163	Water	04/26/23 06:49
Instrument Blank	SLD0370-IBLG	XDT_m1230425-164	NA	04/26/23 06:54
Calibration Check	SLD0370-CCVE	XDT_m1230425-165	NA	04/26/23 06:59
Calibration Blank	SLD0370-CCBE	XDT_m1230425-166	NA	04/26/23 07:07
Calibration Check	SLD0370-CCVF	XDT_m1230425-168	NA	04/26/23 07:17
Calibration Blank	SLD0370-CCBF	XDT_m1230425-169	NA	04/26/23 07:25
ZZZZZ	23C0658-02	XDT_m1230425-170	Water	04/26/23 07:30
ZZZZZ	23C0658-02	XDT_m1230425-170	Water	04/26/23 07:30
ZZZZZ	23C0658-02	XDT_m1230425-170	Water	04/26/23 07:30
ZZZZZ	23C0658-02	XDT_m1230425-170	Water	04/26/23 07:30
ZZZZZ	23C0658-02	XDT_m1230425-170	Water	04/26/23 07:30
ZZZZZ	23C0658-04	XDT_m1230425-171	Water	04/26/23 07:35
ZZZZZ	23C0658-04	XDT_m1230425-171	Water	04/26/23 07:35
ZZZZZ	23C0658-04	XDT_m1230425-171	Water	04/26/23 07:35
Instrument Blank	SLD0370-IBLH	XDT_m1230425-179	NA	04/26/23 08:17
Calibration Check	SLD0370-CCVG	XDT_m1230425-180	NA	04/26/23 08:22
Calibration Blank	SLD0370-CCBG	XDT_m1230425-181	NA	04/26/23 08:30
ZZZZZ	BLD0365-BLK1	XDT_m1230425-182	Solid	04/26/23 08:35
ZZZZZ	BLD0365-BS1	XDT_m1230425-183	Solid	04/26/23 08:40
ZZZZZ	23C0658-06	XDT_m1230425-185	Water	04/26/23 08:50
ZZZZZ	23C0658-06	XDT_m1230425-185	Water	04/26/23 08:50

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Instrument: ICPMS1
Calibration: GD00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23C0658-06	XDT_m1230425-185	Water	04/26/23 08:50
ZZZZZ	23C0678-09	XDT_m1230425-186	Water	04/26/23 08:55
ZZZZZ	23C0678-09	XDT_m1230425-186	Water	04/26/23 08:55
ZZZZZ	23C0678-09	XDT_m1230425-186	Water	04/26/23 08:55
ZZZZZ	23C0678-09	XDT_m1230425-186	Water	04/26/23 08:55
ZZZZZ	23C0678-09	XDT_m1230425-186	Water	04/26/23 08:55
ZZZZZ	23C0678-08	XDT_m1230425-187	Water	04/26/23 09:00
ZZZZZ	23C0678-08	XDT_m1230425-187	Water	04/26/23 09:00
ZZZZZ	23C0678-08	XDT_m1230425-187	Water	04/26/23 09:00
ZZZZZ	23C0678-08	XDT_m1230425-187	Water	04/26/23 09:00
ZZZZZ	23C0678-08	XDT_m1230425-187	Water	04/26/23 09:00
ZZZZZ	23C0741-01	XDT_m1230425-189	Water	04/26/23 09:10
ZZZZZ	23C0741-01	XDT_m1230425-189	Water	04/26/23 09:10
ZZZZZ	23C0741-01	XDT_m1230425-189	Water	04/26/23 09:10
ZZZZZ	23C0741-01	XDT_m1230425-189	Water	04/26/23 09:10
ZZZZZ	23C0741-01	XDT_m1230425-189	Water	04/26/23 09:10
Instrument Blank	SLD0370-IBLI	XDT_m1230425-191	NA	04/26/23 09:20
Calibration Check	SLD0370-CCVH	XDT_m1230425-192	NA	04/26/23 09:25
Calibration Blank	SLD0370-CCBH	XDT_m1230425-193	NA	04/26/23 09:33
Instrument Blank	SLD0370-IBLJ	XDT_m1230425-203	NA	04/26/23 10:25
Calibration Check	SLD0370-CCVI	XDT_m1230425-204	NA	04/26/23 10:31
Calibration Blank	SLD0370-CCBI	XDT_m1230425-205	NA	04/26/23 10:38
Instrument Blank	SLD0370-IBLK	XDT_m1230425-214	NA	04/26/23 11:26
Calibration Check	SLD0370-CCVJ	XDT_m1230425-215	NA	04/26/23 11:31
Calibration Blank	SLD0370-CCBJ	XDT_m1230425-216	NA	04/26/23 11:38

ICP INTERFERENCE CHECK SAMPLE

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00046
Sequence: SLD0260
Standard ID: L003578

Lab Sample ID	Analyte	True	Found	%R	Units
SLD0260-IFA1	Chromium-52	0	0.7280		ug/L
	Chromium-53	0	4.3530		ug/L
	Lead-208	0	0.0370		ug/L
	Silver-107	0	0.0110		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

Analytical Resources, LLC
Analytical Chemists and Consultants

ICP INTERFERENCE CHECK SAMPLE

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00046
Sequence: SLD0260
Standard ID: L003578

Lab Sample ID	Analyte	True	Found	%R	Units
SLD0260-IFB1	Chromium-52	20.000	18.904	94.5	ug/L
	Chromium-53	20.000	22.903	115	ug/L
	Lead-208	0	0.0310		ug/L
	Silver-107	20.000	18.750	93.8	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00059
Sequence: SLD0292
Standard ID: L003578

Lab Sample ID	Analyte	True	Found	%R	Units
SLD0292-IFA1	Chromium-52	0	0.7480		ug/L
	Chromium-53	0	3.8020		ug/L
	Lead-208	0	0.0370		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00059
Sequence: SLD0292
Standard ID: L003578

Lab Sample ID	Analyte	True	Found	%R	Units
SLD0292-IFB1	Chromium-52	20.000	19.022	95.1	ug/L
	Chromium-53	20.000	22.364	112	ug/L
	Lead-208	0	0.0340		ug/L

* Indicates %R outside of QC limits
NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Sequence: SLD0370
Standard ID: L003578

Lab Sample ID	Analyte	True	Found	%R	Units
SLD0370-IFA1	Chromium-52	0	0.7750		ug/L
	Chromium-53	0	7.0750		ug/L
	Lead-208	0	0.0300		ug/L
	Silver-107	0	0.0100		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

Analytical Resources, LLC
Analytical Chemists and Consultants

ICP INTERFERENCE CHECK SAMPLE

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Sequence: SLD0370
Standard ID: L003578

Lab Sample ID	Analyte	True	Found	%R	Units
SLD0370-IFB1	Chromium-52	20.000	19.838	99.2	ug/L
	Chromium-53	20.000	26.306	132	ug/L
	Lead-208	0	0.0250		ug/L
	Silver-107	20.000	17.920	89.6	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

DETECTION LEVEL STANDARD
EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00046
Sequence: SLD0260
Lab Sample ID: SLD0260-CRL1

Analyte	True	Found	%R	Units	QC Limts
Chromium-52	0.50000	0.491	98.2	ug/L	50 - 150
Chromium-53	0.50000	0.491	98.2	ug/L	50 - 150
Lead-208	0.10000	0.111	111	ug/L	50 - 150
Silver-107	0.20000	0.201	101	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00059
Sequence: SLD0292
Lab Sample ID: SLD0292-CRL1

Analyte	True	Found	%R	Units	QC Limts
Chromium-52	0.50000	0.508	102	ug/L	50 - 150
Chromium-53	0.50000	0.480	96.0	ug/L	50 - 150
Lead-208	0.10000	0.111	111	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Sequence: SLD0370
Lab Sample ID: SLD0370-CRL1

Analyte	True	Found	%R	Units	QC Limts
Chromium-52	0.50000	0.554	111	ug/L	50 - 150
Chromium-53	0.50000	0.496	99.2	ug/L	50 - 150
Lead-208	0.10000	0.100	100	ug/L	50 - 150
Silver-107	0.20000	0.214	107	ug/L	50 - 150

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GD00046
Laboratory ID: SLD0260-HCV1
Sequence: SLD0260
Standard ID: L003671

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	200.00	206	3.0	10.00
Chromium-53	200.00	190	-5.2	10.00
Lead-208	200.00	211	5.5	10.00
Silver-107	200.00	220	10.0	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GD00046
Laboratory ID: SLD0260-HCV2
Sequence: SLD0260
Standard ID: L003672

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	300.00	312	4.1	10.00
Chromium-53	300.00	284	-5.5	10.00
Lead-208	300.00	336	12.1	10.00
Silver-107	300.00	330	9.8	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GD00059
Laboratory ID: SLD0292-HCV1
Sequence: SLD0292
Standard ID: L003671

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	200.00	208	3.8	10.00
Chromium-53	200.00	191	-4.4	10.00
Lead-208	200.00	219	9.3	10.00

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GD00059
Laboratory ID: SLD0292-HCV2
Sequence: SLD0292
Standard ID: L003672

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	300.00	306	2.0	10.00
Chromium-53	300.00	288	-4.0	10.00
Lead-208	300.00	331	10.2	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GD00066
Laboratory ID: SLD0370-HCV1
Sequence: SLD0370
Standard ID: L003671

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	200.00	199	-0.3	10.00
Chromium-53	200.00	200	-0.2	10.00
Lead-208	200.00	201	0.6	10.00
Silver-107	200.00	200	0.2	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GD00066
Laboratory ID: SLD0370-HCV2
Sequence: SLD0370
Standard ID: L003672

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	300.00	303	1.0	10.00
Chromium-53	300.00	301	0.2	10.00
Lead-208	300.00	300	-0.06	10.00
Silver-107	300.00	297	-0.8	10.00

* Values outside of QC limits

HOLDING TIME SUMMARY

Analysis: EPA 6020B

Laboratory: Analytical Resources, LLC SDG: 23A0313

Client: Anchor QEA, LLC Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SC1016A 23A0313-08	01/16/23 11:11	01/16/23 16:35	04/14/23 10:01	87	180	04/20/23 18:38	94	180	
LDW23-SC1016A 23A0313-08	01/16/23 11:11	01/16/23 16:35	04/14/23 10:01	87	180	04/18/23 22:04	92	180	
LDW23-SC1011A 23A0313-09	01/16/23 11:46	01/16/23 16:35	04/14/23 10:01	87	180	04/20/23 18:42	94	180	
LDW23-SC1011A 23A0313-09	01/16/23 11:46	01/16/23 16:35	04/14/23 10:01	87	180	04/18/23 22:08	92	180	
LDW23-SC1006A 23A0313-10	01/16/23 12:29	01/16/23 16:35	04/14/23 10:01	87	180	04/20/23 18:47	94	180	
LDW23-SC1006A 23A0313-10	01/16/23 12:29	01/16/23 16:35	04/14/23 10:01	87	180	04/18/23 22:13	92	180	
LDW23-SC1012B 23A0313-11	01/16/23 13:13	01/16/23 16:35	04/14/23 10:01	87	180	04/20/23 18:51	94	180	
LDW23-SC1012B 23A0313-11	01/16/23 13:13	01/16/23 16:35	04/14/23 10:01	87	180	04/18/23 22:18	92	180	
LDW23-SC1159 23A0313-13	01/16/23 14:26	01/16/23 16:35	04/14/23 10:01	87	180	04/20/23 18:56	94	180	
LDW23-SC1159 23A0313-13	01/16/23 14:26	01/16/23 16:35	04/14/23 10:01	87	180	04/18/23 22:27	92	180	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Instrument: ICPMS1

Analyte	MDL	RL	Units
Chromium-52	0.26	0.50	mg/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 6020B

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Instrument: ICPMS2

Analyte	MDL	RL	Units
Chromium-52	0.26	0.50	mg/kg
Chromium-53	0.24	0.50	mg/kg
Lead-208	0.05	0.10	mg/kg
Silver-107	0.02	0.20	mg/kg

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGCU10
Lot Number:	P2-CU682108
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Copper
Starting Material:	Cu Metal
Starting Material Lot#:	2095
Starting Material Purity:	99.9996%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10013 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **9977 ± 50 µg/mL**
ICP Assay NIST SRM 3114 Lot Number: 121207

Assay Method #2 **10024 ± 26 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **10007 ± 46 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.007542	M	Eu	<	0.000942	O	Na		0.001434	M	Se	<	0.016971	M	Zn	<	0.005657
O	Al	<	0.000609	O	Fe		0.008700	M	Nb	<	0.000942	O	Si		0.003052	M	Zr	<	0.000942
M	As	<	0.010371	M	Ga	<	0.000942	M	Nd	<	0.000942	M	Sm	<	0.000942				
M	Au	<	0.001885	M	Gd	<	0.000942	M	Ni		0.003781	M	Sn	<	0.005657				
O	B		0.003663	M	Ge	<	0.005657	M	Os	<	0.000942	M	Sr	<	0.000942				
M	Ba		0.004253	M	Hf	<	0.000942	O	P	<	0.031668	M	Ta	<	0.000942				
M	Be	<	0.000942	O	Hg	<	0.007064	M	Pb		0.005789	M	Tb	<	0.000942				
M	Bi	<	0.000942	M	Ho	<	0.000942	M	Pd	<	0.000942	M	Te	<	0.004714				
O	Ca		0.002304	M	In	<	0.000942	M	Pr	<	0.000942	M	Th	<	0.000942				
M	Cd	<	0.000942	M	Ir	<	0.000942	M	Pt	<	0.000942	O	Ti	<	0.002801				
M	Ce	<	0.000942	O	K		0.000763	M	Rb	<	0.000942	M	Tl	<	0.000942				
M	Co		0.001890	M	La	<	0.000942	M	Re	<	0.000942	M	Tm	<	0.000942				
M	Cr	<	0.005657	O	Li	<	0.000243	i	Rh	<		M	U	<	0.000942				
M	Cs	<	0.000942	M	Lu	<	0.000942	M	Ru	<	0.039588	M	V	<	0.003771				
s	Cu	<		O	Mg		0.000320	O	S		0.007174	M	W	<	0.005657				
M	Dy	<	0.000942	O	Mn		0.000793	M	Sb	<	0.001885	M	Y	<	0.000942				
M	Er	<	0.000942	M	Mo	<	0.005657	M	Sc	<	0.000942	M	Yb	<	0.000942				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 63.55 +2 6 $Cu(H_2O)_6^{2+}$

Chemical Compatibility -Stable in HCl, HNO_3, H_2SO_4, HF, H_3PO_4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.

Cu Containing Samples (Preparation and Solution) -Metal (soluble in HNO_3); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO_3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 63 amu	10 ppt	n/a	40Ar23Na 47Ti16O, 14N12C37Cl, 16O12C35Cl, 23Na40Ca
ICP-OES 219.958 nm	0.01/.002 µg/mL	1	Th, Ta, Nb, U, Hf
ICP-OES 224.700 nm	0.01/.001 µg/mL	1	Pb, Ir, Ni, W
ICP-OES 324.754 nm	0.06/.001 µg/mL		Nb, U, Th, Mo, Hf

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 24, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 24, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

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Certificate of Analysis

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Christiansburg, VA 24073 USA
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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGPB10
Lot Number:	S2-PB713228
Matrix:	0.5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Lead
Starting Material:	Lead Nitrate
Starting Material Lot#:	2343
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10042 ± 31 µg/mL

Density: 1.015 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10024 ± 41 µg/mL**
ICP Assay NIST SRM 3128 Lot Number: 101026

Assay Method #2 **10054 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000310	M	Eu	<	0.000310	M	Na		0.001470	M	Se	<	0.009100	O	Zn		0.006155
O	Al		0.017098	O	Fe		0.002496	M	Nb	<	0.000310	O	Si		0.003761	O	Zr	<	0.001700
M	As	<	0.003100	M	Ga	<	0.000310	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	O	Ni		0.001709	M	Sn	<	0.001300				
O	B	<	0.005600	M	Ge	<	0.002200	M	Os	<	0.000310	O	Sr		0.000444				
O	Ba		0.007865	M	Hf	<	0.000310	O	P	<	0.038000	M	Ta	<	0.000310				
O	Be	<	0.000320	M	Hg	<	0.002200	s	Pb	<		M	Tb	<	0.000610				
M	Bi	<	0.028000	M	Ho	<	0.000310	M	Pd	<	0.000610	M	Te	<	0.000310				
O	Ca		0.019834	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.000310				
O	Cd	<	0.000630	M	Ir	<	0.000310	M	Pt	<	0.000910	O	Ti		0.005129				
M	Ce		0.004787	O	K		0.008207	M	Rb	<	0.006700	M	Tl	<	0.016000				
M	Co	<	0.000610	M	La	<	0.001900	M	Re	<	0.000310	M	Tm	<	0.000310				
O	Cr	<	0.001500	O	Li	<	0.000110	O	Rh	<	0.007700	M	U	<	0.000310				
M	Cs	<	0.006100	M	Lu	<	0.000310	M	Ru	<	0.001300	M	V	<	0.001600				
M	Cu	<	0.001600	O	Mg		0.003317	O	S	<	0.052000	M	W	<	0.000910				
M	Dy	<	0.000310	O	Mn	<	0.001600	O	Sb	<	0.015000	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000610	O	Sc	<	0.000630	M	Yb	<	0.000310				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 207.20 +2 6 $Pb(H_2O)_6^{+2}$

Chemical Compatibility - Soluble in HCl, HF and HNO_3. Avoid H_2SO_4. Stable with most metals and inorganic anions forming insoluble carbonate, borate, sulfate, sulfite, sulfide, phosphate, oxalate, chromate, tannate, iodate, and cyanide in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO_3 / LDPE container.

Pb Containing Samples (Preparation and Solution) -Metal (Best dissolved in 1:1 H_2O / HNO_3); Oxides (The many different Pb oxides are soluble in HNO_3 with the exception of PbO_2 which is soluble in HCl or HF); Ores and Alloys (Best attacked using 1:1 H_2O / HNO_3); Organic Matrices (Dry ash and dissolve in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 208 amu	5 ppt	n/a	192Pt16O, 192Os16O
ICP-OES 168.215 nm	0.03 / 0.003 µg/mL	1	Co
ICP-OES 217.000 nm	0.09 / 0.03 µg/mL	1	W, Ir, Hf, Sb, Th
ICP-OES 220.353 nm	0.04 / 0.006 µg/mL	1	Bi, Nb

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

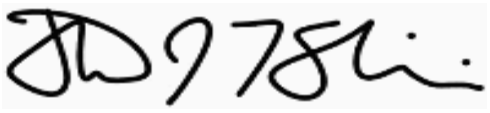
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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Christiansburg, VA 24073 USA
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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGZN10
Lot Number:	S2-ZN711249
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Zinc
Starting Material:	Zinc Metal
Starting Material Lot#:	2349
Starting Material Purity:	99.9988%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL

Density: 1.029 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **9981 ± 56 µg/mL**
ICP Assay NIST SRM 3168a Lot Number: 120629

Assay Method #2 **9987 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **10002 ± 32 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.002000	M	Eu	<	0.000500	O	Na		0.008713	M	Se	<	0.048000	s	Zn	<
O	Al	<	0.011000	O	Fe		0.015467	M	Nb	<	0.000500	O	Si		0.007842	M	Zr	< 0.000500
O	As	<	0.012000	M	Ga	<	0.004900	M	Nd	<	0.000500	M	Sm	<	0.000500			
M	Au	<	0.006500	M	Gd	<	0.000500	O	Ni		0.003049	M	Sn		0.002614			
O	B	<	0.019000	M	Ge	<	0.009100	M	Os	<	0.000500	M	Sr	<	0.000500			
M	Ba	<	0.000500	M	Hf	<	0.000500	O	P	<	0.059000	M	Ta	<	0.000500			
O	Be	<	0.000230	O	Hg	<	0.003800	M	Pb		0.016774	M	Tb	<	0.000500			
M	Bi	<	0.002400	M	Ho	<	0.000500	M	Pd	<	0.001000	M	Te	<	0.017000			
O	Ca		0.052283	M	In	<	0.003500	M	Pr	<	0.000500	M	Th	<	0.000500			
O	Cd		0.000588	M	Ir	<	0.001000	M	Pt	<	0.000500	M	Ti	<	0.002000			
M	Ce	<	0.000500	O	K		0.017209	M	Rb	<	0.002500	M	Tl	<	0.000500			
M	Co		0.000653	M	La	<	0.000500	M	Re	<	0.000500	M	Tm	<	0.000500			
O	Cr		0.001089	O	Li	<	0.000230	M	Rh	<	0.000500	M	U	<	0.000500			
M	Cs	<	0.000500	M	Lu	<	0.000500	M	Ru	<	0.005000	M	V	<	0.000500			
O	Cu		0.001938	O	Mg		0.000871	O	S	<	0.048000	M	W	<	0.001000			
M	Dy	<	0.000500	O	Mn		0.000172	M	Sb	<	0.004300	M	Y	<	0.000500			
M	Er	<	0.000500	M	Mo	<	0.001500	O	Sc	<	0.000900	M	Yb	<	0.000500			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 65.39 +2 4 Zn(OH)(aq)1+
Chemical Compatibility -Stable in HCl, HNO3, H2SO4 ,HF, H3PO4. Avoid basic media forming insoluble carbonate and hydroxide. Stable with most metals and inorganic anions in acidic media.
Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.
Zn Containing Samples (Preparation and Solution) -Metal (soluble in HNO3); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO3); Organic based (dry ash at 4500C and dissolve ash in HCl) (sulfuric/peroxide acid digestion)
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 66 amu	7 ppt	N/A	50Ti16O,50Cr16O, 50V16O, 34S16O2, 32S16O18O, 32S17O2, 33S16O17O, 32S34S, 33S2
ICP-OES 202.548 nm	0.004/0.0002 µg/mL	1	Nb, Cu, Co, Hf
ICP-OES 206.200 nm	0.006/0.0006 µg/mL	1	Sb, Ta, Bi, Os
ICP-OES 213.856 nm	0.002/0.0004 µg/mL	1	Ni, Cu, V

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 22, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

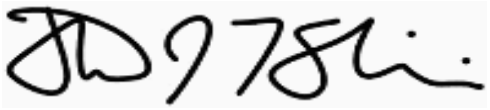
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSE10
Lot Number:	S2-SE711004
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Selenium
Starting Material:	Se Metal
Starting Material Lot#:	1962
Starting Material Purity:	99.9991%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9955 ± 61 µg/mL

Density: 1.035 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **9955 ± 50 µg/mL**
ICP Assay NIST SRM 3149 Lot Number: 100901

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.002242	M	Eu	<	0.000373	O	Na		0.013654	s	Se	<		O	Zn		0.002374
M	Al		0.004450	M	Fe		0.008478	O	Nb	<	0.002975	O	Si		0.006249	M	Zr	<	0.001868
O	As	<	0.022040	M	Ga	<	0.000373	M	Nd	<	0.000373	M	Sm	<	0.000373				
M	Au	<	0.000373	M	Gd	<	0.000373	O	Ni		0.001843	M	Sn		0.000847				
O	B	<	0.007714	M	Ge	<	0.002616	M	Os	<	0.000373	M	Sr	<	0.001121				
M	Ba	<	0.001495	M	Hf	<	0.000373	O	P	<	0.022040	M	Ta	<	0.000373				
M	Be	<	0.001495	M	Hg	<	0.002240	M	Pb		0.006358	M	Tb	<	0.006353				
M	Bi	<	0.000373	M	Ho	<	0.000373	M	Pd	<	0.000373	M	Te	<	0.012707				
O	Ca		0.006530	M	In	<	0.000373	M	Pr	<	0.001495	M	Th	<	0.002990				
M	Cd		0.001165	M	Ir	<	0.000373	M	Pt	<	0.000373	M	Ti	<	0.003363				
M	Ce	<	0.000373	O	K		0.001999	M	Rb	<	0.001868	M	Tl		0.008584				
M	Co	<	0.000373	M	La	<	0.001121	M	Re	<	0.000373	M	Tm	<	0.000373				
M	Cr		0.002861	O	Li		0.000062	M	Rh	<	0.000373	M	U	<	0.000373				
M	Cs	<	0.001121	M	Lu	<	0.000373	M	Ru	<	0.001493	M	V	<	0.000747				
M	Cu	<	0.000747	O	Mg		0.001156	O	S		0.024591	M	W	<	0.002242				
M	Dy	<	0.000373	M	Mn	<	0.000373	M	Sb	<	0.002242	M	Y	<	0.000373				
M	Er	<	0.000373	O	Mo	<	0.003195	M	Sc	<	0.001121	M	Yb	<	0.000373				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 78.96 +4 6 H_2SeO_3

Chemical Compatibility -Soluble in HCl, HNO_3,H_3PO_4, H_2SO_4 and HF aqueous matrices and water. It is stable with most inorganic anions but many cationic metals form the insoluble selenites under pH neutral conditions. When fluorinated and/or under acidic conditions precipitation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.

Se Containing Samples (Preparation and Solution) -Metal (soluble in HNO_3); Oxides (readily soluble in water); Minerals and alloys (acid digestion with HNO_3or HNO_3 / HF); Organic Matrices (acid digestion with hot concentrated H_2SO_4 accompanied by the careful dropwise addition of H_2O_2 until clear).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 82 amu	200 ppt	N/A	12C35Cl2
ICP-OES 196.026 nm	0.08/0.006 µg/mL	1	Fe
ICP-OES 203.985 nm	0.2/0.05 µg/mL	1	Sb, Ir, Cr, Ta
ICP-OES 206.279 nm	0.3/0.16 µg/mL	1	Cr, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 17, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Technical

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMO10
Lot Number:	S2-MO706255
Matrix:	H2O tr. NH4OH
Value / Analyte(s):	10 000 µg/mL ea: Molybdenum
Starting Material:	Ammonium Molybdate
Starting Material Lot#:	2361
Starting Material Purity:	99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10026 ± 47 µg/mL

Density: 1.011 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10032 ± 68 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

Assay Method #2 **10020 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.008739	M	Se	<	0.008000	M	Zn		0.005942
M	Al		0.005592	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.001747				
M	Ba		0.016778	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.062920	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Ti	<	0.032000				
M	Ce	<	0.008300	M	K		1.293372	M	Rb		0.045442	M	Tl		0.012584				
M	Co		0.005942	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.005243	O	Li		0.000594	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.005243	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.022371	M	Mg		0.005592	i	S	<		M	W		0.873900				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.015031	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9 [MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br16O,190Os2+,190Pt2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 04, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 04, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTL10
Lot Number:	T2-TL714687
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Thallium
Starting Material:	TlNO3
Starting Material Lot#:	2118
Starting Material Purity:	99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10030 ± 42 µg/mL

Density: 1.036 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10040 ± 43 µg/mL**
ICP Assay NIST SRM 3158 Lot Number: 151215

Assay Method #2 **10010 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL(

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000200	M	Eu	<	0.000200	O	Na		0.002489	M	Se	<	0.011019	O	Zn		0.002298
O	Al	<	0.004184	O	Fe	<	0.002824	M	Nb	<	0.000200	O	Si		0.003760	M	Zr	<	0.000200
M	As	<	0.002003	M	Ga	<	0.000200	M	Nd	<	0.000200	M	Sm	<	0.000200				
O	Au	<	0.002824	M	Gd	<	0.000200	M	Ni		0.001724	M	Sn	<	0.000601				
O	B	<	0.004184	M	Ge	<	0.000801	M	Os	<	0.000198	O	Sr	<	0.000313				
M	Ba	<	0.000400	M	Hf	<	0.000200	O	P	<	0.010460	M	Ta	<	0.000200				
O	Be	<	0.000104	M	Hg	<	0.000794	M	Pb		0.000811	M	Tb	<	0.000200				
M	Bi	<	0.005209	M	Ho	<	0.000200	M	Pd	<	0.000400	M	Te	<	0.005008				
O	Ca		0.002436	M	In	<	0.000200	M	Pr	<	0.000200	M	Th	<	0.000200				
M	Cd		0.001318	M	Ir	<	0.000198	M	Pt	<	0.000801	O	Ti	<	0.001255				
M	Ce	<	0.000200	O	K		0.006175	M	Rb	<	0.000200	s	Tl	<					
M	Co	<	0.000601	M	La	<	0.000200	M	Re	<	0.000200	M	Tm	<	0.000200				
M	Cr	<	0.000801	O	Li	<	0.000177	M	Rh	<	0.000200	M	U	<	0.000200				
M	Cs	<	0.003606	M	Lu	<	0.000200	M	Ru	<	0.000397	M	V	<	0.002203				
M	Cu	<	0.001001	O	Mg		0.000529	O	S	<	0.015690	M	W	<	0.000601				
M	Dy	<	0.000200	M	Mn	<	0.000801	M	Sb	<	0.000400	M	Y	<	0.000200				
M	Er	<	0.000200	M	Mo	<	0.001202	O	Sc	<	0.000711	M	Yb	<	0.000200				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 204.38 +1 6 Tl(H2O)61+
Chemical Compatibility - Soluble in HCl, HNO3, and H2SO4. Stable with most metals and inorganic anions. The sulfite, thiocyanate and oxalate are moderately soluble; the phosphate and arsenite are slightly soluble and the sulfide is insoluble.
Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.
Tl Containing Samples)Preparation and Solution) -Metal (Best dissolved in HNO3 which forms chiefly the Tl1+ ion.); Oxide (The thallous oxide is readily soluble in water. The thallic oxide requires high levels of acid); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in HCl).
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 205 amu	2 ppt	N/A	189Os16O
ICP-OES 190.864 nm	0.04 / 0.004 µg/mL	1	V, Ti
ICP-OES 276.787 nm	0.1 / 0.01 µg/mL	1	Ta, V, Fe, Cr
ICP-OES 351.924 nm	0.2 / 0.02 µg/mL	1	Th, Ce, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 08, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **February 08, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

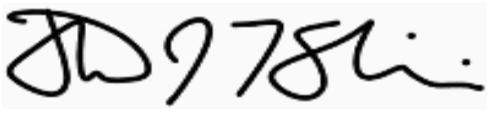
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGCD10
Lot Number:	S2-CD710508
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Cadmium
Starting Material:	Cd Metal
Starting Material Lot#:	1953
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10008 ± 30 µg/mL

Density: 1.029 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10010 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #2 **10011 ± 30 µg/mL**
ICP Assay NIST SRM 3108 Lot Number: 130116

Assay Method #3 **10003 ± 30 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag	<	0.003200	O	Eu	<	0.002500	O	Na		0.005499	M	Se	<	0.005700	O	Zn	<	0.001100
O	Al		0.008903	O	Fe		0.000602	M	Nb	<	0.000400	O	Si		0.016758	O	Zr	<	0.002600
M	As	<	0.003600	M	Ga	<	0.001200	M	Nd	<	0.000800	M	Sm	<	0.000400				
M	Au	<	0.000810	M	Gd	<	0.000400	M	Ni	<	0.003600	M	Sn	<	0.003200				
O	B		0.004189	O	Ge	<	0.012000	M	Os	<	0.000810	O	Sr	<	0.000330				
M	Ba	<	0.002400	M	Hf	<	0.000400	O	P	<	0.022000	M	Ta	<	0.000800				
M	Be	<	0.000400	M	Hg	<	0.001700	M	Pb	<	0.002400	M	Tb	<	0.000400				
M	Bi	<	0.000400	M	Ho	<	0.000400	M	Pd	<	0.001200	M	Te	<	0.008000				
O	Ca		0.011259	O	In	<	0.013000	M	Pr	<	0.000400	M	Th	<	0.000400				
s	Cd	<		M	Ir	<	0.000410	M	Pt	<	0.000400	O	Ti		0.000602				
M	Ce	<	0.000400	O	K		0.005237	M	Rb	<	0.004400	M	Tl		0.000523				
M	Co	<	0.000400	M	La	<	0.000400	M	Re	<	0.000400	M	Tm	<	0.000400				
O	Cr	<	0.005100	O	Li	<	0.000054	M	Rh	<	0.000400	M	U	<	0.000400				
M	Cs	<	0.002400	M	Lu	<	0.000400	M	Ru	<	0.002500	M	V	<	0.002000				
O	Cu	<	0.004800	O	Mg		0.000288	O	S	<	0.022000	M	W	<	0.000400				
M	Dy	<	0.000400	O	Mn	<	0.000860	O	Sb	<	0.018000	M	Y	<	0.000400				
M	Er	<	0.000400	M	Mo	<	0.001600	O	Sc	<	0.000430	M	Yb	<	0.000400				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 112.41 +2 4 Cd2(OH) (aq)3+ and Cd(OH)(aq)

Chemical Compatibility -Stable in HCl, HNO3, H2SO4 , and HF. Avoid basic media forming insoluble carbonate and hydroxide.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO3 / LDPE container.

Cd Containing Samples (Preparation and Solution) -Metal (soluble in HNO3); Oxides (soluble in HCl or HNO3); Ores (dissolve in HCl /HNO3 then take to fumes with H2SO4. The silica and lead sulfate are filtered off after the addition of water); Organic based (dry ash at 450°C and dissolve ash in HCl), (sulfuric / peroxide acid digestion).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 111 amu	11 ppt	n/a	95Mo16O
ICP-OES 214.438 nm	0.003 / 0.0003 µg/mL	1	Pt, Ir
ICP-OES 226.502 nm	0.003 / 0.0003 µg/mL	1	Ir
ICP-OES 228.802 nm	0.003 / 0.0003 µg/mL	1	Co, Ir, As, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 01, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 01, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMN10
Lot Number:	S2-MN704240
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Manganese
Starting Material:	Mn Metal
Starting Material Lot#:	2275
Starting Material Purity:	99.9909%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10011 ± 30 µg/mL

Density: 1.035 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **9989 ± 69 µg/mL**
ICP Assay NIST SRM 3132 Lot Number: 050429

Assay Method #2 **10011 ± 25 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **10024 ± 47 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001500	M	Eu	<	0.000730	O	Na		0.176097	M	Se	<	0.006600	M	Zn		0.009925
O	Al		0.004322	M	Fe	<	0.650000	M	Nb	<	0.000730	O	Si		0.097654	M	Zr	<	0.000730
M	As	<	0.008000	M	Ga		0.004322	M	Nd	<	0.001500	M	Sm	<	0.000730				
M	Au	<	0.000730	M	Gd	<	0.000730	M	Ni		0.024013	M	Sn	<	0.002200				
M	B		0.068838	M	Ge	<	0.004400	M	Os	<	0.000730	O	Sr		0.000928				
M	Ba	<	0.001500	M	Hf	<	0.000730	i	P	<		M	Ta	<	0.000730				
M	Be	<	0.000730	M	Hg	<	0.002200	M	Pb		0.007364	M	Tb	<	0.000730				
M	Bi	<	0.003000	M	Ho	<	0.000730	M	Pd	<	0.000730	M	Te	<	0.019000				
O	Ca		0.062434	M	In	<	0.003000	M	Pr	<	0.000730	M	Th	<	0.000730				
M	Cd	<	0.001500	M	Ir	<	0.000730	M	Pt	<	0.000730	O	Ti	<	0.006500				
M	Ce	<	0.007300	O	K		0.006403	M	Rb	<	0.006600	M	Tl	<	0.000730				
O	Co		0.014728	M	La	<	0.003000	M	Re	<	0.000730	M	Tm	<	0.000730				
O	Cr		0.272151	O	Li		0.000416	M	Rh	<	0.003000	M	U	<	0.001500				
M	Cs	<	0.000730	M	Lu	<	0.000730	M	Ru	<	0.004400	M	V	<	0.000730				
O	Cu		0.007684	O	Mg		0.320177	i	S	<		M	W	<	0.004400				
M	Dy	<	0.001500	s	Mn	<		M	Sb	<	0.021000	O	Y		0.001360				
M	Er	<	0.001500	M	Mo		0.010245	O	Sc	<	0.004100	M	Yb	<	0.000730				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 54.94 +2 6 $Mn(H_2O)_6^{2+}$

Chemical Compatibility -Stable in HCl, HNO_3, H_2SO_4 ,HF, H_3PO_4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO_3/LDPE container.

Mn Containing Samples (Preparation and Solution) -Metal (Soluble in dilute acids); Oxides (Soluble in dilute acids); Ores (Dissolve with HCl. If silica is present add HF and then fume off silica by adding H_2SO_4 and heat to SO_3 fumes - dense white fumes).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 55 amu	10 ppt	n/a	40Ar14N1H,39K16O,37Cl18O,40Ar15N,38Ar17O,36Ar18O1H ,38Ar16O1H,37Cl17O1H,23Na32S
ICP-OES 257.610 nm	0.0014 / 0.00002 µg/mL	1	Ce, W, Re
ICP-OES 259.373 nm	0.0016 / 0.00002 µg/mL	1	U, Ta, Mo, Fe, Nb
ICP-OES 260.569 nm	0.0021 / 0.00002 µg/mL	1	Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 17, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSB10
Lot Number:	R2-SB688559
Matrix:	3% (v/v) HNO3 3% (w/v) tartaric acid
Value / Analyte(s):	10 000 µg/mL ea: Antimony
Starting Material:	Antimony Metal
Starting Material Lot#:	1857
Starting Material Purity:	99.9894%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10003 ± 47 µg/mL

Density: 1.061 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10003 ± 41 µg/mL**
ICP Assay NIST SRM 3102a Lot Number: 140911

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000200	M	Eu	<	0.000300	O	Na		0.140000	M	Se	<	0.007300	O	Zn		0.005000
M	Al		0.003200	O	Fe		0.060000	M	Nb	<	0.000100	O	Si		0.150000	O	Zr	<	0.006300
M	As	<	0.004400	M	Ga	<	0.000400	M	Nd	<	0.000100	M	Sm	<	0.000100				
M	Au	<	0.000210	M	Gd	<	0.000100	O	Ni		0.004800	M	Sn	<	0.001800				
M	B	<	0.011000	M	Ge	<	0.000600	M	Os	<	0.000110	O	Sr		0.000750				
O	Ba	<	0.004900	M	Hf	<	0.000100	O	P		0.540000	M	Ta		0.003300				
M	Be	<	0.000400	M	Hg	<	0.000110	M	Pb	<	0.000400	M	Tb	<	0.000100				
M	Bi	<	0.000200	M	Ho	<	0.000100	M	Pd	<	0.000210	M	Te	<	0.000600				
O	Ca		0.110000	M	In	<	0.000100	M	Pr	<	0.001600	M	Th	<	0.000100				
M	Cd	<	0.000200	M	Ir	<	0.000110	M	Pt	<	0.000600	M	Ti	<	0.002800				
M	Ce		0.006500	O	K		0.020000	M	Rb	<	0.001000	M	Tl	<	0.000100				
M	Co	<	0.000200	O	La	<	0.016000	M	Re	<	0.000100	M	Tm	<	0.000100				
M	Cr		0.006900	O	Li	<	0.000430	M	Rh	<	0.000300	M	U	<	0.000100				
M	Cs	<	0.000200	M	Lu	<	0.000100	M	Ru	<	0.000310	M	V	<	0.000800				
M	Cu	<	0.000600	O	Mg		0.021000	n	S	<		M	W	<	0.000200				
M	Dy	<	0.000100	O	Mn		0.001900	s	Sb	<		M	Y	<	0.000100				
M	Er	<	0.000100	M	Mo	<	0.000500	O	Sc	<	0.002300	M	Yb	<	0.000100				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 121.75 +3 6 Sb(O)C4H4O6-1

Chemical Compatibility -Stable in conc. HCl, dilute or conc. HF. Stable in dilute HNO3 as the fluoride or tartrate complex. Avoid basic media. Stable with most metals and inorganic anions in acidic media as the tartrate provided the acidity is not too high or the acid is oxidizing causing loss of the stabilizing tartrate ion. The fluoride complex of antimony is stable in strong acid but you should only mix with other metals that are fluorinated.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-2% HNO3 / LDPE container.

Sb Containing Samples (Preparation and Solution) -Metal and alloys (Soluble in H2O / HF / HNO3 mixture); Oxides (Soluble in HCl and tartaric acid or H2O / HF / HNO3 mixtures); Ores (fusion with Na2CO3 in Pt0 followed by dissolving the fuseate in a H2O / HF / HNO3 mixture); Organic based (sulfuric acid / hydrogen peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 121 amu	5 ppt	N/A	105Pd16O, 89Y16O2
ICP-OES 206.833 nm	0.03/0.003 µg/mL	1	Ta, Cr, Ge, Hf
ICP-OES 217.581 nm	0.05/0.005 µg/mL	1	Nb, W, Re, Fe
ICP-OES 231.147 nm	0.06/0.006 µg/mL	1	Ni, Co, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 30, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 30, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGAS10
Lot Number:	T2-AS718260
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Arsenic
Starting Material:	As Metal
Starting Material Lot#:	2208
Starting Material Purity:	99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10060 ± 40 µg/mL

Density: 1.037 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10062 ± 46 µg/mL**
ICP Assay NIST SRM 3103a Lot Number: 100818

Assay Method #2 **10055 ± 76 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	< 0.003200	M	Eu	< 0.000530	O	Na	0.032544	M	Se	< 0.006300	O	Zn	0.001952			
M	Al	0.007593	O	Fe	0.001475	O	Nb	< 0.012000	O	Si	0.238658	O	Zr	< 0.004100			
s	As	<	M	Ga	< 0.000530	M	Nd	< 0.000530	M	Sm	< 0.000530						
M	Au	< 0.003100	M	Gd	< 0.000530	M	Ni	< 0.002100	M	Sn	< 0.000530						
M	B	0.026035	M	Ge	< 0.001600	M	Os	< 0.000520	M	Sr	< 0.000530						
M	Ba	< 0.000530	M	Hf	< 0.000530	O	P	< 0.043000	M	Ta	< 0.000530						
O	Be	< 0.000360	M	Hg	< 0.001600	M	Pb	< 0.002100	M	Tb	< 0.000530						
M	Bi	< 0.000530	M	Ho	< 0.000530	M	Pd	< 0.001100	M	Te	< 0.004700						
O	Ca	0.004339	M	In	< 0.023000	M	Pr	< 0.005300	M	Th	< 0.000530						
M	Cd	< 0.001100	M	Ir	< 0.000520	M	Pt	< 0.000530	O	Ti	< 0.002300						
M	Ce	< 0.000530	O	K	0.002061	M	Rb	< 0.000530	M	Tl	< 0.000530						
M	Co	< 0.000530	M	La	< 0.001100	M	Re	< 0.000530	M	Tm	< 0.000530						
O	Cr	< 0.001800	O	Li	< 0.000120	M	Rh	< 0.000530	M	U	< 0.000530						
M	Cs	< 0.005300	M	Lu	< 0.000530	M	Ru	< 0.000520	M	V	< 0.002700						
M	Cu	< 0.001600	O	Mg	0.000154	O	S	0.028205	M	W	< 0.012000						
M	Dy	< 0.000530	O	Mn	0.000154	M	Sb	< 0.000530	M	Y	< 0.000530						
M	Er	< 0.000530	M	Mo	< 0.000530	O	Sc	< 0.001700	M	Yb	< 0.000530						

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 74.92 ; mix of +3 and +5 ; 6 ; H3AsO4 and HAsO2

Chemical Compatibility - Arsenic has no cationic chemistry. It is soluble in HCl, HNO3,H3PO4, H2SO4 and HF aqueous matrices water and NH4OH . It is stable with most inorganic anions (forms arsenate when boiled with chromate) but many cationic metals form the insoluble arsenates under pH neutral conditions. When fluorinated and / or under acidic conditions arsenate formation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO3 / LDPE container.

As Containing Samples (Preparation and Solution) - Metal (soluble in 1:1 H2O / HNO3); Oxides (the oxide exists in crystalline and amorphous forms where the amorphic form is more water soluble. The oxides typically dissolve in dilute acidic solutions when boiled); Minerals (one gram of powered sample is fused in a Ni crucible with 10 grams of a 1:1 mix of K2CO3 and KNO3 and the melt extracted with hot water); Organic Matrices (0.2 to 0.5 grams of sample are fused with 15 grams of a 1:1 Na2CO3 / Na2O2 mix in a Ni crucible. The fuseate is extracted with water and acidified with HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 75 amu	20 ppt	N/A	40Ar35Cl, 59Co16O, 36Ar38Ar1H,8Ar37Cl,Ar39K, 150Nd2+,150Sm2+
ICP-OES 189.042 nm	0.05/0.005 µg/mL	1	Cr
ICP-OES 193.696 nm	0.1/0.01 µg/mL	1	V, Ge
ICP-OES 228.812 nm	0.1/0.01 µg/mL	1	Cd, Pt, Ir, Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Technical

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGBA10
Lot Number:	R2-BA692576
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Barium
Starting Material:	Barium Nitrate
Starting Material Lot#:	1969
Starting Material Purity:	99.9982%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10018 ± 50 µg/mL**
ICP Assay NIST SRM 3104a Lot Number: 140909

Assay Method #2 **10023 ± 31 µg/mL**
Gravimetric NIST SRM Lot Number: See Sec. 4.2

Assay Method #3 **10023 ± 30 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000410	O	Eu	<	0.005200	O	Na		0.004610	M	Se	<	0.003700	O	Zn		0.000658
M	Al	<	0.003100	O	Fe		0.015707	M	Nb	<	0.000210	O	Si		0.005573	M	Zr	<	0.001300
M	As	<	0.001300	M	Ga	<	0.000210	M	Nd	<	0.000210	O	Sm	<	0.021000				
M	Au	<	0.001300	M	Gd	<	0.000210	M	Ni	<	0.000810	M	Sn	<	0.000410				
O	B	<	0.005200	M	Ge	<	0.002500	M	Os	<	0.000410	O	Sr		0.003850				
s	Ba	<		M	Hf	<	0.000810	O	P	<	0.026000	M	Ta	<	0.000410				
O	Be	<	0.000320	M	Hg	<	0.000210	M	Pb	<	0.002300	M	Tb	<	0.000210				
M	Bi	<	0.000210	M	Ho	<	0.000210	M	Pd	<	0.000210	M	Te	<	0.001900				
O	Ca		0.007093	M	In	<	0.000210	M	Pr	<	0.000210	M	Th	<	0.000210				
M	Cd	<	0.000210	M	Ir	<	0.000210	M	Pt	<	0.000210	M	Ti	<	0.002100				
M	Ce	<	0.001300	O	K		0.035467	M	Rb	<	0.002100	M	Tl	<	0.000210				
M	Co	<	0.000410	O	La	<	0.005200	M	Re	<	0.000210	M	Tm	<	0.000410				
M	Cr	<	0.001700	O	Li	<	0.000630	M	Rh	<	0.000210	M	U	<	0.000210				
M	Cs	<	0.003300	M	Lu	<	0.001700	M	Ru	<	0.000210	O	V	<	0.005200				
M	Cu	<	0.001300	O	Mg		0.000861	O	S		0.268539	M	W	<	0.000410				
M	Dy	<	0.000210	M	Mn	<	0.000410	M	Sb	<	0.001300	O	Y	<	0.005200				
M	Er	<	0.001300	M	Mo	<	0.000410	M	Sc	<	0.000410	M	Yb	<	0.001300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 137.33 +2 6 $Ba(H_2O)_6^{+2}$
Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, iodate, molybdate, sulfite and tungstate in neutral aqueous media.
Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1 -10,000 ppm solutions chemically stable for years in 1-3.5% HNO_3 / LDPE container.
Ba Containing Samples (Preparation and Solution) -Metal(is best dissolved in diluted HNO_3); Ores(Carbonate fusion in Pt0 followed by HCl dissolution. If sulfate is present dissolve the fuseate using HCl / tartaric acid to prevent $BaSO_4$ precipitate); Organic Matrices (dry ash and dissolve in dilute HCl.)
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 138 amu	1 ppt	N/A	122Sn16O, 122Te16O
ICP-OES 230.424 nm	0.004/0.0005 µg/mL	1	Mo, Ir, Co
ICP-OES 233.527 nm	0.004/0.0003 µg/mL	1	
ICP-OES 455.403 nm	0.002/0.0001 µg/mL	1	Zr, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 11, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 11, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGBE10
Lot Number:	R2-BE692992
Matrix:	6% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Beryllium
Starting Material:	Beryllium Acetate
Starting Material Lot#:	2281
Starting Material Purity:	99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10032 ± 41 µg/mL

Density: 1.128 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10042 ± 67 µg/mL**
ICP Assay NIST SRM 3105a Lot Number: 090514

Assay Method #2 **10025 ± 51 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001100	M	Eu	<	0.000270	O	Na		0.040962	M	Se	<	0.005000	M	Zn		0.013054
O	Al		0.016205	O	Fe		0.015754	M	Nb	<	0.000270	O	Si		0.024307	O	Zr	<	0.001900
M	As	<	0.002900	M	Ga	<	0.000270	M	Nd	<	0.000270	M	Sm	<	0.000270				
M	Au	<	0.000520	M	Gd	<	0.000270	M	Ni	<	0.003700	M	Sn	<	0.000790				
M	B	<	0.091000	M	Ge	<	0.000270	M	Os	<	0.000260	M	Sr		0.000630				
M	Ba		0.002700	M	Hf	<	0.000270	O	P	<	0.066000	M	Ta	<	0.000270				
s	Be	<		M	Hg	<	0.000520	M	Pb	<	0.000270	M	Tb	<	0.000270				
M	Bi	<	0.000530	M	Ho	<	0.000270	M	Pd	<	0.000520	M	Te	<	0.003700				
O	Ca		0.072022	M	In	<	0.000790	M	Pr	<	0.000270	M	Th	<	0.000270				
M	Cd	<	0.000790	M	Ir	<	0.000260	M	Pt	<	0.000270	O	Ti	<	0.000400				
M	Ce	<	0.000270	O	K		0.045014	M	Rb	<	0.000270	M	Tl	<	0.000790				
O	Co	<	0.003200	M	La	<	0.000270	M	Re	<	0.000270	M	Tm	<	0.000270				
O	Cr	<	0.001800	O	Li	<	0.000660	M	Rh	<	0.001100	M	U	<	0.000270				
M	Cs		0.001440	M	Lu	<	0.000270	M	Ru	<	0.000260	M	V	<	0.000790				
M	Cu	<	0.002100	O	Mg		0.016205	i	S	<		M	W	<	0.000530				
M	Dy	<	0.000270	M	Mn		0.001215	M	Sb	<	0.000270	M	Y	<	0.000270				
M	Er	<	0.000270	M	Mo	<	0.000530	O	Sc	<	0.000930	M	Yb	<	0.000270				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 9.01 +2 4 $Be(H_2O)_4^{+2}$

Chemical Compatibility -Soluble in HCl, HNO_3, H_2SO_4 and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1 % HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 5-10 % HNO_3 / LDPE container.

Be Containing Samples (Preparation and Solution) - Meta l(is best dissolved in diluted H_2SO_4); BeO (boiling nitric, hydrochloric, or sulfuric acids or $KHSO_4$ fusion); Ores (H_2SO_4/HF digestion or carbonate fusion in Pt0); Organic Matrices (sulfuric/peroxide digestion or nitric/sulfuric/perchloric acid decomposition, or dry ash and dissolution according to the BeO procedure above).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 9 amu	4 ppt	N/A	
ICP-OES 234.861 nm	0.0003/0.00016 µg/mL	1	Fe, Ta, Mo
ICP-OES 313.042 nm	0.0003/0.00009 µg/mL	1	V, Ce, U
ICP-OES 313.107 nm	0.0007/0.0005 µg/mL	1	Ce, Th, Tm

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION, PERIOD OF VALIDITY AND REVISION HISTORY

11.1 Certification Issue Date

May 13, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 13, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

11.4 Revision Status

- Revision 1 - Revised on Thursday, Jan 14, 2021 by utruong. Revision was made for the following reason: Modified Section 7 Chemical Form in Solution.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGCO10
Lot Number:	R2-CO695285
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Cobalt
Starting Material:	Co Metal
Starting Material Lot#:	2326
Starting Material Purity:	99.9934%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10012 ± 31 µg/mL

Density: 1.056 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10031 ± 67 µg/mL**
ICP Assay NIST SRM 3113 Lot Number: 190630

Assay Method #2 **10019 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **10000 ± 35 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	0.014660	M	Eu	<	0.000590	O	Na	0.007534	M	Se	<	0.019000	M	Zn	0.003461	
M	Al	< 0.024000	M	Fe	0.050905	M	Nb	<	0.000590	O	Si	0.075340	M	Zr	<	0.001200	
i	As	<	M	Ga	<	0.000590	M	Nd	<	0.000590	M	Sm	<	0.000590			
M	Au	< 0.004100	M	Gd	<	0.000590	O	Ni	0.427608	M	Sn	<	0.001200				
M	B	< 0.031000	M	Ge	<	0.003000	M	Os	<	0.000590	O	Sr	<	0.000260			
M	Ba	< 0.000590	M	Hf	<	0.000590	n	P	<		M	Ta	<	0.001200			
O	Be	< 0.001300	M	Hg	<	0.001800	M	Pb	0.003257	M	Tb	<	0.000590				
M	Bi	< 0.003000	M	Ho	<	0.000590	M	Pd	<	0.000590	M	Te	<	0.005300			
O	Ca	0.010588	M	In	<	0.001200	M	Pr	<	0.000590	M	Th	<	0.000590			
M	Cd	< 0.004700	M	Ir	<	0.001200	M	Pt	<	0.002400	M	Ti	<	0.014000			
M	Ce	< 0.000590	O	K	0.008144	M	Rb	<	0.000590	M	Tl	0.002647					
s	Co	<	M	La	<	0.000590	M	Re	<	0.000590	M	Tm	<	0.000590			
M	Cr	< 0.021000	O	Li	<	0.000130	M	Rh	<	0.000590	M	U	<	0.000590			
M	Cs	< 0.002400	M	Lu	<	0.000590	M	Ru	<	0.007100	O	V	<	0.000880			
M	Cu	0.189369	O	Mg	0.001893	n	S	<		M	W	<	0.000590				
M	Dy	< 0.000590	M	Mn	<	0.001800	M	Sb	<	0.003600	M	Y	<	0.000590			
M	Er	< 0.000590	M	Mo	<	0.002400	O	Sc	<	0.001600	M	Yb	<	0.000590			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.93 +2 6 $Co(H_2O)_6^{2+}$

Chemical Compatibility -Stable in HCl, HNO_3, H_2SO_4 ,HF, H_3PO_4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.

Co Containing Samples (Preparation and Solution) - Metal (soluble in HNO_3); Oxides (Soluble in HCl); Ores (dissolve in HCl / HNO_3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 59 amu	2 ppt	n/a	42Ca16O1H , 40Ar18O1H , 36Ar23Na, 43Ca16O, 24Mg35Cl
ICP-OES 228.616 nm	0.01/0.001 µg/mL	1	
ICP-OES 237.862 nm	0.01/0.002 µg/mL	1	W, Re, Al, Ta
ICP-OES 238.892 nm	0.01/0.002 µg/mL	1	Fe, W, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 04, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 04, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGAG10
Lot Number:	S2-AG712977
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Silver
Starting Material:	Ag Shot
Starting Material Lot#:	2289
Starting Material Purity:	99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10051 ± 30 µg/mL

Density: 1.056 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10051 ± 52 µg/mL**
ICP Assay NIST SRM 3151 Lot Number: 160729

Assay Method #2 **10051 ± 19 µg/mL**
Volhard NIST SRM 999c Lot Number: 999c

Assay Method #3 **10049 ± 31 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

s	Ag	<		M	Eu	<	0.000260	O	Na		0.003811	M	Se	<	0.003900	O	Zn		0.048146
M	Al		0.002688	O	Fe		0.006419	M	Nb	<	0.000260	O	Si		0.005215	M	Zr	<	0.000260
M	As	<	0.001100	M	Ga	<	0.000260	M	Nd	<	0.000260	M	Sm	<	0.000260				
M	Au	<	0.000260	M	Gd	<	0.000260	O	Ni		0.001765	M	Sn		0.020060				
O	B	<	0.004300	M	Ge	<	0.002300	M	Os	<	0.001100	O	Sr	<	0.000110				
M	Ba	<	0.000520	M	Hf	<	0.000260	O	P	<	0.017000	M	Ta	<	0.000260				
O	Be	<	0.001100	M	Hg	<	0.000770	M	Pb	<	0.003600	M	Tb	<	0.000260				
M	Bi		0.004814	M	Ho	<	0.000260	M	Pd		0.044134	M	Te	<	0.009000				
O	Ca		0.005215	M	In		0.003691	M	Pr	<	0.000260	M	Th	<	0.000260				
M	Cd	<	0.000260	M	Ir	<	0.000520	M	Pt	<	0.001100	O	Ti	<	0.000440				
M	Ce	<	0.002100	O	K	<	0.008700	M	Rb	<	0.001100	M	Tl	<	0.004100				
O	Co	<	0.000330	M	La	<	0.000260	M	Re	<	0.000260	M	Tm	<	0.000260				
O	Cr	<	0.002500	O	Li	<	0.000110	M	Rh	<	0.000520	M	U	<	0.000260				
M	Cs	<	0.002600	M	Lu	<	0.000260	M	Ru	<	0.000260	M	V	<	0.000260				
O	Cu		0.357085	O	Mg		0.001203	O	S	<	0.017000	M	W	<	0.000260				
M	Dy	<	0.000260	O	Mn	<	0.000220	M	Sb	<	0.014000	M	Y	<	0.000260				
M	Er	<	0.000260	M	Mo	<	0.000260	O	Sc	<	0.000220	M	Yb	<	0.000260				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 107.87 +1 6 $Ag(H_2O)_6^+$

Chemical Compatibility -Stable in HNO_3, and HF. Avoid basic media. Ag forms more insoluble salts than any other metal. It also is subject to photochemical reduction to the metal in HCl media although 10 µg/mL solutions in 10% HCl [$AgCl_{x1-x}$] are commonly used in the analytical laboratory. The most common solubility problems exist with arsenate, arsenite , bromide, chloride, iodide, carbonate , chromate, cyanide, iodate, oxalate, oxide, sulfate, sulfide, tartrate, and thiocyanate in aqueous media. The addition of nitric acid renders many of these salts soluble.

Stability - 2-100 ppb levels stable for 75+ days when mixed with equivalent levels of all other elements including the precious metals (where chloride is present) when in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.

Ag Containing Samples (Preparation and Solution) -Metal (Soluble in HNO_3); Oxides (Soluble in HNO_3); Ores (Digestion with conc. HNO_3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 107 amu	1 ppt	N/A	91Zr16O
ICP-OES 243.779 nm	0.12/0.01 µg/mL	1	Mn, Th, Ni, Rh
ICP-OES 328.068 nm	0.007/0.0007 µg/mL	1	Ce, Rh, V
ICP-OES 338.289 nm	0.013/0.001 µg/mL	1	Ce, Cr, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Technical

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGCR(3)10
Lot Number:	S2-CR709784
Matrix:	10% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Chromium
Starting Material:	Cr Metal
Starting Material Lot#:	2328
Starting Material Purity:	99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10027 ± 41 µg/mL

Density: 1.072 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10027 ± 40 µg/mL**
ICP Assay NIST SRM 3112a Lot Number: 170630

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001700	M	Eu	<	0.003400	O	Na		0.090372	M	Se	<	0.012000	O	Zn	<	0.006100
M	Al		0.034916	O	Fe		0.246471	M	Nb	<	0.017000	n	Si	<		M	Zr	<	0.007800
M	As	<	0.028000	O	Ga	<	0.013000	M	Nd	<	0.013000	M	Sm	<	0.006900				
M	Au	<	0.001700	M	Gd	<	0.000560	M	Ni		0.016020	M	Sn		0.006983				
O	B	<	0.025000	O	Ge	<	0.014000	M	Os	<	0.000560	M	Sr		0.006367				
M	Ba	<	0.008900	M	Hf	<	0.000560	i	P	<		M	Ta	<	0.000560				
M	Be	<	0.013000	M	Hg	<	0.001700	M	Pb		0.010064	M	Tb	<	0.000560				
M	Bi	<	0.002300	M	Ho	<	0.000560	M	Pd	<	0.021000	M	Te	<	0.010000				
O	Ca		0.075995	M	In	<	0.000560	M	Pr	<	0.001700	M	Th	<	0.000560				
M	Cd	<	0.000560	M	Ir	<	0.000560	M	Pt	<	0.001200	O	Ti		0.013555				
M	Ce	<	0.001200	O	K		0.043132	i	Rb	<		M	Tl	<	0.000560				
M	Co	<	0.002600	M	La	<	0.001200	M	Re	<	0.001200	O	Tm	<	0.013000				
s	Cr	<		O	Li		0.000390	M	Rh	<	0.095000	M	U	<	0.000560				
M	Cs	<	0.007800	M	Lu	<	0.000560	M	Ru	<	0.087000	O	V		0.014993				
O	Cu		0.007599	O	Mg		0.000883	i	S	<		M	W	<	0.049000				
M	Dy	<	0.000560	M	Mn		0.008626	M	Sb	<	0.003400	M	Y	<	0.001700				
M	Er	<	0.019000	M	Mo	<	0.032000	M	Sc		0.003080	M	Yb	<	0.000560				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 52.00 +3 6 $Cr(H_2O)_6^{3+}$

Chemical Compatibility -Stable in HCl, HNO_3, H_2SO_4, HF, H_3PO_4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.

Cr3 Containing Samples (Preparation and Solution) -Metal (soluble in HCl); Oxides/Ores (Chrome ore/oxides are very difficult to dissolve. The following procedures [A-D] are commonly used: A. Fusion with $KHSO_4$ and extraction with hot KCl. The residue fused with Na_2CO_3 and $KClO_3$, 3:1. B. Fusion with $NaKSO_4$ and NaF 2:1, C. Fusion with magnesia or lime and sodium or potassium carbonates, 4:1. D. Fusion with Na_2O_2 or NaOH and KNO_3 or NaOH and Na_2O_2. Nickel, iron, copper, or silver crucibles should be used for D. Platinum may be used for A, <, C); Organic Matrices (ash at 4500C followed by one of the fusion methods above or sulfuric/hydrogen peroxide acid digestions may be applicable to non oxide containing samples).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 52 amu	40 ppt	N/A	36S16O, 36Ar16O - The 50Cr, 53Cr, 54Cr lines suffer from many more potential interferences from sulfur, chlorine and argon compounds of oxygen, nitrogen and carbon.
ICP-OES 205.552 nm	0.006/0.0008 µg/mL	1	Os
ICP-OES 276.654 nm	0.01/0.001 µg/mL	1	Cu, Ta, V
ICP-OES 284.325 nm	0.008/0.0007 µg/mL	1	

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 26, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 26, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
300 Technology Drive
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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGNI10
Lot Number:	P2-NI686384
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Nickel
Starting Material:	Ni Metal
Starting Material Lot#:	2277 and 2282
Starting Material Purity:	99.9992%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9979 ± 30 µg/mL

Density: 1.038 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **9971 ± 54 µg/mL**
ICP Assay NIST SRM 3136 Lot Number: 120619

Assay Method #2 **9970 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **9993 ± 33 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag		0.002606	M	Eu	<	0.001100	O	Na		0.004965	O	Se	<	0.067000	M	Zn		0.006578
M	Al	<	0.013000	O	Fe		0.018618	M	Nb	<	0.001100	O	Si		0.010923	M	Zr	<	0.001100
O	As	<	0.067000	M	Ga	<	0.001100	M	Nd	<	0.001100	M	Sm	<	0.001100				
M	Au	<	0.002100	M	Gd	<	0.001100	s	Ni	<		M	Sn	<	0.016000				
M	B	<	0.017000	M	Ge	<	0.004200	M	Os		0.002110	O	Sr	<	0.000940				
M	Ba	<	0.001100	M	Hf	<	0.001100	i	P	<		M	Ta	<	0.001100				
O	Be	<	0.000410	M	Hg		0.014895	M	Pb		0.006578	M	Tb	<	0.001100				
M	Bi	<	0.004200	M	Ho	<	0.001100	M	Pd	<	0.001100	M	Te	<	0.015000				
O	Ca		0.003351	M	In	<	0.001100	M	Pr	<	0.001100	M	Th	<	0.001100				
M	Cd		0.001365	M	Ir		0.004716	M	Pt	<	0.001100	M	Ti	<	0.004200				
M	Ce	<	0.001100	O	K		0.004716	M	Rb	<	0.001100	M	Tl	<	0.001100				
O	Co		0.017377	M	La	<	0.001100	M	Re		0.001737	M	Tm	<	0.001100				
O	Cr	<	0.006700	O	Li	<	0.000140	M	Rh	<	0.006300	M	U	<	0.001100				
M	Cs	<	0.007300	M	Lu	<	0.001100	M	Ru	<	0.019000	M	V	<	0.002100				
M	Cu		0.004096	O	Mg		0.000372	i	S	<		M	W	<	0.006300				
M	Dy	<	0.001100	O	Mn	<	0.001900	M	Sb		0.005833	O	Y	<	0.000540				
M	Er	<	0.001100	M	Mo	<	0.008400	M	Sc	<	0.002100	M	Yb	<	0.001100				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.69 +2 6 Ni(H2O)62+
Chemical Compatibility -Stable in HCl, HNO3, H2SO4 ,HF, H3PO4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.
Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.
Ni Containing Samples (Preparation and Solution) -Metal (Soluble in HNO3); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO3).
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 60 amu	100 ppt	n/a	43Ca16O1H , 44Ca16O, 23Na37Cl
ICP-OES 221.647 nm	0.01 / 0.0009 µg/mL	1	Si
ICP-OES 231.604 nm	0.02 / 0.002 µg/mL	1	Sb, Ta, Co
ICP-OES 232.003 nm	0.02 / 0.006 µg/mL	1	Cr, Re, Os, Nb, Ag, Pt, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

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Refine your results. Redefine your industry.

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGV10
Lot Number:	S2-V711005
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Vanadium
Starting Material:	Vanadium Pentoxide
Starting Material Lot#:	1782
Starting Material Purity:	99.9877%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10014 ± 30 µg/mL

Density: 1.104 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10017 ± 42 µg/mL**
ICP Assay NIST SRM 3165 Lot Number: 160906

Assay Method #2 **10013 ± 30 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	< 0.000110	M	Eu	< 0.000110	O	Na	0.120000	M	Se	< 0.009400	M	Zn	0.009400			
O	Al	0.120000	O	Fe	0.460000	M	Nb	< 0.001300	O	Si	0.270000	M	Zr	< 0.002900			
M	As	< 0.000210	M	Ga	< 0.009300	M	Nd	< 0.000610	M	Sm	< 0.000110						
M	Au	< 0.004700	M	Gd	< 0.000110	M	Ni	0.012000	M	Sn	0.003900						
M	B	0.051000	M	Ge	< 0.000410	M	Os	< 0.000110	O	Sr	0.007100						
M	Ba	0.003600	M	Hf	< 0.000110	O	P	< 0.034000	M	Ta	< 0.000110						
O	Be	< 0.000560	M	Hg	< 0.000410	M	Pb	0.001400	M	Tb	< 0.000110						
M	Bi	< 0.000210	M	Ho	< 0.000110	M	Pd	< 0.000410	M	Te	< 0.000110						
O	Ca	0.730000	M	In	< 0.000110	M	Pr	< 0.000110	M	Th	< 0.000210						
M	Cd	< 0.000610	M	Ir	< 0.000110	M	Pt	< 0.000110	M	Ti	0.017000						
M	Ce	< 0.000610	M	K	0.052000	M	Rb	< 0.000310	M	Tl	< 0.000110						
M	Co	< 0.001300	M	La	< 0.000410	M	Re	0.001700	M	Tm	< 0.000110						
O	Cr	0.170000	M	Li	< 0.000810	M	Rh	< 0.000110	M	U	< 0.000410						
M	Cs	0.005600	M	Lu	< 0.000110	M	Ru	< 0.000110	s	V	<						
M	Cu	< 0.001300	M	Mg	0.053000	i	S	<	M	W	0.002000						
M	Dy	< 0.000110	M	Mn	0.007900	M	Sb	0.078000	M	Y	< 0.000110						
M	Er	< 0.000110	M	Mo	0.094000	M	Sc	< 0.000410	M	Yb	< 0.000110						

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 50.94 +5 6 H2V10O284-

Chemical Compatibility -Soluble in HCl, HNO3, H2SO4, HF, H3PO4 and strong basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.

V Containing Samples (Preparation and Solution) -Metal (Fusion with NaOH or KOH in Ni0 or Na2CO3 / KNO3); Oxides (V2O3 - use HCl, V2O4 - use HCl or HNO3, V2O5 - use concentrated acids); Ores (Na2CO3 / KNO3 in Pt0 caution - nitrates attack Pto followed by water extraction of fuseate); Organic Matrices (Ash at 450 EC followed by dissolving according to V2O5 above) .

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 51 amu	4 ppt	N/A	34S16O1H, 35Cl16O, 38Ar13C, 36Ar15N, 36Ar14N1H, 37Cl14N,36S15N, 33S18O, 34S17O, 102Ru+2,02Pd+2
ICP-OES 290.882 nm	0.008 / 0.0008 µg/mL	1	Hf, Nb
ICP-OES 292.402 nm	0.006 / 0.001 µg/mL	1	Th
ICP-OES 309.311 nm	0.005 / 0.001 µg/mL	1	Mg, U, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

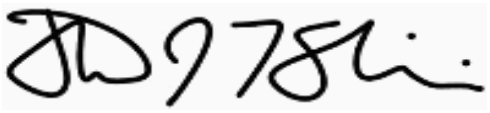
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGAL10
Lot Number:	T2-AL716102
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Aluminum
Starting Material:	Aluminum Nitrate Nonahydrate
Starting Material Lot#:	2460
Starting Material Purity:	99.9938%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10049 ± 31 µg/mL

Density: 1.087 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10059 ± 40 µg/mL**
ICP Assay NIST SRM 3101a Lot Number: 140903

Assay Method #2 **10044 ± 26 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **10049 ± 35 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.002100	M	Eu	<	0.002100	O	Na		0.352819	M	Se	<	0.005200	M	Zn	0.006018
s	Al	<		O	Fe		0.074714	M	Nb	<	0.000520	O	Si		0.017848	O	Zr	0.004358
M	As		0.008716	O	Ga		0.112072	M	Nd	<	0.000520	M	Sm	<	0.000520			
M	Au	<	0.008400	M	Gd	<	0.001100	O	Ni	<	0.006000	M	Sn		0.000747			
O	B	<	0.014000	M	Ge	<	0.005200	M	Os	<	0.000650	O	Sr		0.000518			
O	Ba		0.012867	M	Hf	<	0.004100	n	P	<		M	Ta	<	0.000520			
O	Be	<	0.000270	M	Hg	<	0.002000	M	Pb		0.002282	M	Tb	<	0.000520			
M	Bi		0.001930	M	Ho	<	0.000520	M	Pd	<	0.000520	M	Te	<	0.001100			
O	Ca		0.076790	M	In	<	0.002100	M	Pr	<	0.000520	M	Th	<	0.000520			
M	Cd	<	0.000520	M	Ir	<	0.000650	M	Pt	<	0.000520	O	Ti		0.001930			
M	Ce	<	0.001100	O	K		0.043583	M	Rb	<	0.000520	M	Tl	<	0.000520			
O	Co	<	0.005400	M	La	<	0.002100	M	Re	<	0.000520	M	Tm	<	0.000520			
O	Cr		0.006018	O	Li		0.000112	M	Rh	<	0.000520	M	U	<	0.000520			
M	Cs		0.000643	M	Lu	<	0.000520	M	Ru	<	0.002000	M	V		0.001286			
O	Cu	<	0.008300	O	Mg		0.068488	i	S	<		M	W	<	0.009800			
M	Dy	<	0.002100	O	Mn		0.000913	M	Sb	<	0.003100	M	Y	<	0.001100			
M	Er	<	0.000520	M	Mo		0.005396	O	Sc	<	0.000950	M	Yb	<	0.000520			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 26.98 +3 6 Al(H2O)6+3
Chemical Compatibility -Soluble in HCl, HNO3, v F and v 2SO4. Avoid neutral media. Soluble in strongly basic NaOH forming the Al(OH)4(H2O)21- species. Stable with most metals and inorganic anions. The phosphate is insoluble in water and only slightly soluble in acid.
Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.
Al Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); a- Al2O3 (Na2CO3 fusion in Pt0);
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 27 amu	30 ppt	N/A	12C15N, 13C14N, 1H12C14N, 11B16O, 54Cr2+, 54Fe2+
ICP-OES 167.078 nm	0.1/0.009 µg/mL	1	Fe
ICP-OES 394.401 nm	0.05/0.006 µg/mL	1	U, Ce
ICP-OES 396.152 nm	0.03/0.006 µg/mL	1	Mo, Zr, Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 22, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 22, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

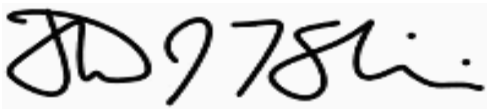
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGK10
Lot Number:	S2-K711973
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Potassium
Starting Material:	KNO3
Starting Material Lot#:	2313
Starting Material Purity:	99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL

Density: 1.024 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **9987 ± 24 µg/mL**
Gravimetric NIST SRM Lot Number: See Sec. 4.2

Assay Method #2 **10004 ± 84 µg/mL**
ICP Assay NIST SRM 3141a Lot Number: 140813

Assay Method #3 **10007 ± 45 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001400	M	Eu	<	0.000660	O	Na		0.246220	M	Se	<	0.007900	O	Zn		0.018056
O	Al		0.001592	O	Fe		0.005909	M	Nb	<	0.000660	O	Si		0.011490	O	Zr	<	0.001600
M	As	<	0.005300	M	Ga	<	0.000660	M	Nd	<	0.000660	M	Sm	<	0.000660				
M	Au	<	0.002000	M	Gd	<	0.000660	O	Ni	<	0.004900	M	Sn	<	0.000660				
O	B	<	0.005600	M	Ge	<	0.002000	M	Os	<	0.003300	O	Sr		0.000055				
O	Ba	<	0.000860	M	Hf	<	0.000660	O	P	<	0.032000	M	Ta	<	0.000660				
O	Be	<	0.000082	M	Hg	<	0.002000	M	Pb	<	0.002300	M	Tb	<	0.000660				
M	Bi	<	0.006600	M	Ho	<	0.000660	M	Pd	<	0.000660	M	Te	<	0.017000				
O	Ca		0.031187	M	In	<	0.000660	M	Pr	<	0.000660	M	Th	<	0.000660				
O	Cd	<	0.000450	M	Ir	<	0.000660	M	Pt	<	0.002700	M	Ti	<	0.000660				
M	Ce	<	0.000660	s	K	<		M	Rb		0.476026	M	Tl	<	0.000660				
O	Co	<	0.000780	M	La	<	0.000660	M	Re	<	0.000660	M	Tm	<	0.000660				
O	Cr		0.000541	O	Li	<	0.000084	M	Rh	<	0.000660	M	U	<	0.000660				
M	Cs	<	0.000660	M	Lu	<	0.000660	M	Ru	<	0.000660	O	V	<	0.001100				
M	Cu	<	0.002700	O	Mg		0.006237	O	S		0.027905	M	W	<	0.000660				
M	Dy	<	0.000660	O	Mn		0.000476	M	Sb	<	0.000660	M	Y	<	0.000660				
M	Er	<	0.000660	M	Mo	<	0.000660	O	Sc	<	0.000340	O	Yb	<	0.000270				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 39.10 +1 (6) K+(aq)
Chemical Compatibility -Soluble in HCl, HNO3, H2SO4 and HF aqueous matrices. Avoid use of HClO4 due to insolubility of the perchlorate. Stable with all metals and inorganic anions except ClO4-.
Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.
K Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Sodium carbonate fusion in Pt0 followed by HCl dissolution-blank levels of K in sodium carbonate critical); Organic Matrices (Sulfuric/peroxide digestion)
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 39 amu	10 ppt	n/a	38ArH, 23Na16O, 78Se
ICP-OES 404.721 nm	1.1 / 0.05 µg/mL	1	U, Ce
ICP-OES 766.490 nm	0.4 / 0.001 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 771.531 nm	1.0 / 0.03 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 10, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 10, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

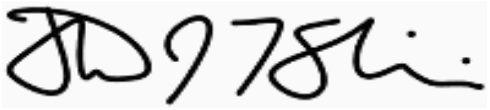
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMG10
Lot Number:	S2-MG704239
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Magnesium
Starting Material:	Magnesium Metal
Starting Material Lot#:	2168
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10053 ± 30 µg/mL

Density: 1.053 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10022 ± 62 µg/mL**
ICP Assay NIST SRM 3131a Lot Number: 140110

Assay Method #2 **10078 ± 26 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **10033 ± 26 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag		0.002106	M	Eu	<	0.000910	O	Na		0.071075	O	Se	<	0.048000	O	Zn		0.003299
M	Al		0.003553	M	Fe		0.002538	M	Nb	<	0.000460	O	Si	<	0.032000	O	Zr	<	0.002700
M	As	<	0.001400	M	Ga	<	0.000460	M	Nd	<	0.000910	M	Sm	<	0.000460				
M	Au	<	0.001400	M	Gd	<	0.000460	O	Ni	<	0.001600	M	Sn	<	0.002300				
O	B		0.006853	M	Ge	<	0.001400	M	Os	<	0.000460	O	Sr		0.000279				
O	Ba		0.000964	M	Hf	<	0.000460	O	P		0.015230	M	Ta	<	0.000460				
O	Be	<	0.000120	M	Hg	<	0.000460	M	Pb	<	0.000460	M	Tb	<	0.000460				
M	Bi	<	0.000460	M	Ho	<	0.000460	M	Pd	<	0.003200	M	Te	<	0.007300				
O	Ca		0.053306	M	In	<	0.000460	M	Pr	<	0.000460	M	Th	<	0.000460				
O	Cd	<	0.000360	M	Ir	<	0.000460	M	Pt	<	0.001900	O	Ti	<	0.001700				
M	Ce	<	0.002300	M	K		0.048229	M	Rb		0.002411	M	Tl		0.003046				
M	Co	<	0.000910	M	La	<	0.002800	M	Re	<	0.000460	M	Tm	<	0.000460				
M	Cr	<	0.002300	O	Li		0.027922	M	Rh	<	0.000460	M	U	<	0.000460				
M	Cs		0.001040	M	Lu	<	0.000460	M	Ru	<	0.000460	M	V	<	0.000460				
O	Cu	<	0.003000	s	Mg	<		O	S	<	0.190000	M	W	<	0.000460				
M	Dy	<	0.000460	O	Mn		0.015230	M	Sb		0.020814	O	Y	<	0.000720				
M	Er	<	0.000460	M	Mo	<	0.000910	O	Sc	<	0.000480	M	Yb	<	0.000460				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 24.31 +2 6 $Mg(H_2O)_6^{+2}$

Chemical Compatibility -Soluble in HCl, HNO_3, and H_2SO_4 avoid HF, H_3PO_4 and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicates, carbonates, hydroxides, oxides, and tungstates in neutral and slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO_3 / LDPE container.

Mg Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Oxide (Readily soluble in above compatible aqueous acidic solutions); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric / peroxide digestion or nitric / sulfuric / perchloric acid decomposition, or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 24 amu	42 ppt	n/a	7Li17O, 48Ti+2 , 48Ca+2
ICP-OES 279.553 nm	0.0002 / 0.00003 µg/mL	1	Th
ICP-OES 280.270 nm	0.0003 / 0.00005 µg/mL	1	U, V
ICP-OES 285.213 nm	0.002 / 0.00003 µg/mL	1	U, Hf, Cr, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 23, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 23, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGCA10
Lot Number:	T2-CA716103
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Calcium
Starting Material:	CaCO3
Starting Material Lot#:	2472
Starting Material Purity:	99.9950%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10005 ± 30 µg/mL

Density: 1.039 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10005 ± 45 µg/mL**
ICP Assay NIST SRM 3109a Lot Number: 130213

Assay Method #2 **10005 ± 25 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **10005 ± 31 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001200	M	Eu	<	0.001200	O	Na		0.006112	M	Se	<	0.024000	M	Zn		0.005362
M	Al		0.065419	O	Fe		0.009115	M	Nb	<	0.001200	O	Si		0.139417	O	Zr	<	0.006700
O	As	<	0.013000	M	Ga	<	0.015000	M	Nd	<	0.020000	M	Sm	<	0.001200				
M	Au	<	0.017000	M	Gd	<	0.004800	O	Ni		0.000793	M	Sn	<	0.003600				
O	B		0.001179	M	Ge	<	0.003600	M	Os	<	0.001200	M	Sr		0.081505				
O	Ba		0.002788	M	Hf	<	0.001200	O	P	<	0.041000	M	Ta	<	0.001200				
O	Be	<	0.000410	M	Hg	<	0.004800	M	Pb		0.001608	M	Tb	<	0.001200				
M	Bi		0.001608	M	Ho	<	0.001200	M	Pd	<	0.001200	M	Te	<	0.003600				
s	Ca	<		M	In	<	0.001200	M	Pr		0.000257	M	Th	<	0.001200				
O	Cd	<	0.001300	M	Ir	<	0.001200	M	Pt	<	0.003600	O	Ti	<	0.001900				
M	Ce		0.001029	O	K		0.009759	M	Rb	<	0.001200	M	Tl	<	0.001200				
O	Co		0.000418	M	La		0.001823	M	Re	<	0.001200	M	Tm	<	0.001200				
O	Cr		0.003324	O	Li	<	0.007300	M	Rh	<	0.001200	M	U		0.002144				
M	Cs		0.007399	M	Lu		0.000128	M	Ru	<	0.001200	M	V		0.001286				
O	Cu	<	0.011000	M	Mg		1.286934	O	S		0.055767	O	W	<	0.024000				
M	Dy	<	0.002400	O	Mn		0.004611	M	Sb	<	0.009600	O	Y		0.000536				
M	Er	<	0.002400	M	Mo		0.003539	O	Sc	<	0.001400	M	Yb	<	0.001200				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 40.08 +2 6 Ca(H2O)6+2
Chemical Compatibility - Soluble in HCl and HNO3. Avoid H2SO4, vF, v3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, and tungstate in neutral aqueous media.
Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO3 / LDPE container.
Ca Containing Samples)Preparation and Solution) -Metal (best dissolved in diluted HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (dry ash and dissolution in dilute HCl. Do not heat when dissolving to avoid precipitation of SiO2). The oxide, hydroxide, carbonate, phosphate, and fluoride of calcium are soluble in % levels of HCl or HNO3. The sulfates (gypsum, anhydrite, etc.), certain silicates, and complex compounds require fusion with Na2CO3 followed by HCl / water dissolution. Note that contamination is a very real problem when analyzing for trace levels.
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 44 amu	1200 ppt	n/a	16O212C, 28Si16O, 88Sr
ICP-OES 393.366 nm	0.0002 / 0.00004 µg/mL	1	U, Ce
ICP-OES 396.847 nm	0.0005 / 0.00006 µg/mL	1	Th
ICP-OES 422.673 nm	0.01 / 0.001 µg/mL	1	Ge

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 14, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 14, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

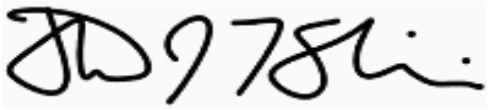
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGNA10
Lot Number:	T2-NA717221
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Sodium
Starting Material:	Na2CO3
Starting Material Lot#:	2358 and 2453
Starting Material Purity:	99.9977%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9977 ± 30 µg/mL

Density: 1.033 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **9974 ± 18 µg/mL**
Gravimetric NIST SRM Lot Number: See Sec. 4.2

Assay Method #2 **9977 ± 34 µg/mL**
ICP Assay NIST SRM 3152a Lot Number: 200413

Assay Method #3 **9987 ± 31 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000930	M	Eu	<	0.000930	s	Na	<		M	Se	<	0.003800	O	Zn		0.000138
M	Al		0.004409	O	Fe		0.002393	M	Nb	<	0.000930	O	Si		0.056696	O	Zr	<	0.003200
O	As	<	0.023000	M	Ga	<	0.000930	M	Nd	<	0.000930	M	Sm	<	0.000930				
O	Au	<	0.004100	M	Gd	<	0.000930	O	Ni	<	0.003000	M	Sn	<	0.002800				
O	B		0.001385	M	Ge	<	0.004700	M	Os	<	0.000930	O	Sr		0.000251				
M	Ba		0.004031	M	Hf	<	0.000930	O	P		0.010205	M	Ta	<	0.000930				
O	Be	<	0.000130	M	Hg	<	0.000930	M	Pb	<	0.000930	M	Tb	<	0.000930				
M	Bi	<	0.000930	M	Ho	<	0.000930	M	Pd	<	0.000930	M	Te	<	0.001900				
O	Ca		0.176388	M	In	<	0.000930	M	Pr	<	0.000930	M	Th		0.000352				
O	Cd	<	0.000860	M	Ir	<	0.000930	M	Pt	<	0.000930	O	Ti		0.000592				
M	Ce	<	0.001900	O	K		0.302380	M	Rb	<	0.000930	M	Tl	<	0.000930				
O	Co	<	0.001800	O	La	<	0.002100	M	Re	<	0.000930	M	Tm	<	0.000930				
M	Cr	<	0.002800	O	Li		0.000031	M	Rh	<	0.000930	M	U	<	0.000930				
M	Cs	<	0.000930	M	Lu	<	0.000930	M	Ru	<	0.001900	O	V	<	0.001600				
O	Cu	<	0.003900	O	Mg		0.026458	O	S		0.040317	O	W	<	0.028000				
M	Dy	<	0.000930	O	Mn	<	0.000740	M	Sb	<	0.000930	O	Y	<	0.000860				
M	Er	<	0.000930	O	Mo	<	0.003600	O	Sc	<	0.000610	O	Yb	<	0.000250				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 22.99 +1 (6) Na+(aq) largely ionic in nature

Chemical Compatibility -Soluble in HCl, HNO3, H2SO4 and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.

Na Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Lithium carbonate fusion in graphite crucible followed by HCl dissolution - blank levels of Na in lithium carbonate critical); Organic Matrices (Sulfuric / peroxide digestion or nitric/sulfuric/perchloric acid decomposition).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 23 amu	310 ppt	n/a	46Ti+2 , 46Ca+2
ICP-OES 330.237 nm	2.0 / 0.09 µg/mL	1	Pd, Zn
ICP-OES 588.995 nm	0.03 / 0.006 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 589.595 nm	0.07 / 0.00009 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 20, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 20, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

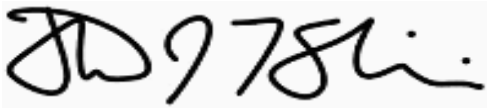
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGU1
Lot Number:	S2-U707914
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Uranium
Starting Material:	Uranyl Nitrate Hexahydrate
Starting Material Lot#:	P2-2322
Starting Material Purity:	99.9997%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 5 µg/mL

Density: 1.010 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **998 ± 5 µg/mL**
ICP Assay NIST SRM 3164 Lot Number: 080521

Assay Method #2 **1001 ± 6 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000270	M	Eu	<	0.000270	M	Na	<	0.011000	M	Se	<	0.009300	M	Zn	0.002358
M	Al	<	0.011000	M	Fe		0.003222	M	Nb	<	0.000270	M	Si	<	0.160000	M	Zr	< 0.001100
M	As	<	0.002400	M	Ga	<	0.000270	M	Nd	<	0.000270	M	Sm	<	0.000270			
M	Au	<	0.000270	M	Gd	<	0.000270	M	Ni	<	0.020000	M	Sn	<	0.011000			
M	B	<	0.000270	M	Ge	<	0.000800	M	Os	<	0.001900	M	Sr	<	0.000270			
M	Ba	<	0.003800	M	Hf	<	0.000270	i	P	<		M	Ta	<	0.000270			
M	Be	<	0.000270	M	Hg	<	0.000540	M	Pb	<	0.002200	M	Tb	<	0.000270			
M	Bi	<	0.000270	M	Ho	<	0.000270	M	Pd	<	0.000540	M	Te	<	0.003800			
M	Ca	<	0.140000	M	In	<	0.000270	M	Pr	<	0.000270	M	Th		0.000129			
M	Cd	<	0.000270	M	Ir	<	0.000270	M	Pt	<	0.000270	M	Ti	<	0.002700			
M	Ce	<	0.000540	O	K	<	0.250000	M	Rb	<	0.000800	M	Tl	<	0.000270			
M	Co	<	0.000800	M	La		0.000117	M	Re	<	0.064000	M	Tm	<	0.000270			
M	Cr		0.000943	M	Li	<	0.003000	M	Rh	<	0.000270	s	U	<				
M	Cs		0.000106	M	Lu	<	0.000270	M	Ru	<	0.000540	M	V	<	0.000540			
M	Cu	<	0.001100	M	Mg	<	0.003000	i	S	<		M	W	<	0.000540			
M	Dy	<	0.000270	M	Mn	<	0.006900	M	Sb	<	0.000270	M	Y	<	0.000270			
M	Er	<	0.000270	M	Mo	<	0.006400	M	Sc	<	0.000540	M	Yb	<	0.000270			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 238.03 +6 8 UO_2^{2+}(uranyl)
Chemical Compatibility - Soluble in HCl and HNO_3. Avoid H_3PO_4. H_2SO_4 and HF matrices should not be a problem depending upon [U]. Although the UO_2^{2+} ion is distinctly basic, any U^{+4} will precipitate in basic media. UO_2^{2+}salts are generally soluble in water and UO_2^{2+} is stable with most metals and inorganic anions. The uranyl phosphate is insoluble in water. UF_4 and UF_6 are water soluble.
Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO_3 / LDPE container.
U Containing Samples (Preparation and Solution) -Metal (Dissolves rapidly in HCl and HNO_3); Oxide (Soluble in HNO_3); Ores (Digest for 1-2 hours with 1 gram of ore to 30 mL 1:1 HNO_3. Silica insolubles are removed by filtration after bringing the sample to fumes with conc. H_2SO_4.)
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 238 amu	2 ppt	N/A	206Pb16O2
ICP-OES 263.553 nm	0.3 / 0.01 µg/mL	1	Ce, Ir, Th, Rh, W, Zr, Ta, Ti, V, Hf, Fe, Re, Ru
ICP-OES 367.007 nm	0.3 / 0.02 µg/mL	1	Th, Ce
ICP-OES 385.958 nm	0.3 / 0.01 µg/mL	1	Th, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	AR-ICVMS-2
Lot Number:	T2-MEB719895
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	2.5 µg/mL ea: Molybdenum, Antimony

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	**2.499 ± 0.015 µg/mL**	**Molybdenum, Mo**	**2.500 ± 0.017 µg/mL**

Density: 1.014 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

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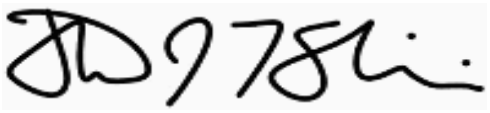
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	AR-ICVMS-3
Lot Number:	T2-MEB719896
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	250 µg/mL ea:

Aluminum, Calcium,
Iron, Potassium,
Magnesium, Sodium,

4 µg/mL ea:
Selenium,

2.5 µg/mL ea:

Thorium,	Thallium,
Uranium,	Vanadium,
Zinc,	Manganese,
Cadmium,	Cobalt,
Chromium,	Copper,
Arsenic,	Barium,
Beryllium,	Nickel,
Lead,	Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	250.0 ± 0.9 µg/mL	Arsenic, As	2.500 ± 0.018 µg/mL
Barium, Ba	2.501 ± 0.013 µg/mL	Beryllium, Be	2.501 ± 0.015 µg/mL
Cadmium, Cd	2.501 ± 0.013 µg/mL	Calcium, Ca	250.0 ± 1.3 µg/mL
Chromium, Cr	2.500 ± 0.015 µg/mL	Cobalt, Co	2.500 ± 0.014 µg/mL
Copper, Cu	2.500 ± 0.014 µg/mL	Iron, Fe	250.0 ± 1.0 µg/mL
Lead, Pb	2.500 ± 0.013 µg/mL	Magnesium, Mg	250.0 ± 1.3 µg/mL
Manganese, Mn	2.500 ± 0.014 µg/mL	Nickel, Ni	2.500 ± 0.014 µg/mL
Potassium, K	250.0 ± 1.2 µg/mL	Selenium, Se	4.002 ± 0.024 µg/mL
Silver, Ag	2.501 ± 0.017 µg/mL	Sodium, Na	250.0 ± 1.2 µg/mL
Thallium, Tl	2.500 ± 0.017 µg/mL	Thorium, Th	2.499 ± 0.013 µg/mL
Uranium, U	2.501 ± 0.015 µg/mL	Vanadium, V	2.500 ± 0.014 µg/mL
Zinc, Zn	2.500 ± 0.014 µg/mL		

Density: 1.042 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Cu	Calculated		See Sec. 4.2
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Mn	Calculated		See Sec. 4.2
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2

V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928
Zn	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

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10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

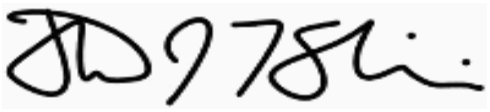
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	AR-6020ICS-0A10
Lot Number:	T2-MEB719898
Matrix:	1.4% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Chloride,
	200 µg/mL ea: Carbon,
	100 µg/mL ea: Calcium, Aluminum, Iron, Potassium, Magnesium, Sodium, Phosphorus, Sulfur,
	2 µg/mL ea: Titanium, Molybdenum

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**100.0 ± 0.4 µg/mL**	**Calcium, Ca**	**100.0 ± 0.5 µg/mL**
Carbon, C	**200.1 ± 0.5 µg/mL**	**Chloride, Cl**	**1 000 ± 5 µg/mL**
Iron, Fe	**100.0 ± 0.5 µg/mL**	**Magnesium, Mg**	**100.0 ± 0.5 µg/mL**
Molybdenum, Mo	**2.001 ± 0.014 µg/mL**	**Phosphorus, P**	**100.0 ± 0.6 µg/mL**
Potassium, K	**100.0 ± 0.5 µg/mL**	**Sodium, Na**	**100.0 ± 0.5 µg/mL**
Sulfur, S	**100.0 ± 0.5 µg/mL**	**Titanium, Ti**	**2.001 ± 0.015 µg/mL**

Density: 1.009 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
C	Acidimetric	84L	84L
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cl	Acidimetric	84L	84L
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mo	ICP Assay	3134	130418
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84L	84L
S	ICP Assay	traceable to 3154	P2-S680745
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

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w_i = the weighting factors for each method calculated using the inverse square of the variance:

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CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

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Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

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- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

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- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

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- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 07, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 07, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

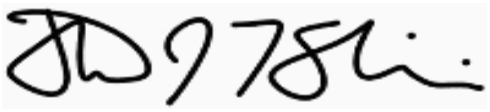
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED

Total Metals

LDW23-IT1114

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-03 D	SDG:	23A0313
Sampled:	01/16/23 08:42	Prepared:	04/14/23 10:01	File ID:	XDT_m2230418-093
% Solids:	62.51	Preparation:	SWN EPA 3050B	Analyzed:	04/18/23 21:18
Batch:	BLD0289	Sequence:	SLD0260	Initial/Final:	1.016 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00046

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	11.9	20	0.06	0.31	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED

Total Metals

LDW23-IT1120

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-04 D	SDG:	23A0313
Sampled:	01/16/23 08:57	Prepared:	04/14/23 10:01	File ID:	XDT_m2230418-101
% Solids:	70.56	Preparation:	SWN EPA 3050B	Analyzed:	04/18/23 21:59
Batch:	BLD0289	Sequence:	SLD0260	Initial/Final:	1.021 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00046

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	9.95	20	0.05	0.28	

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Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED

Total Metals

LDW23-SC1016A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-08 C	SDG:	23A0313
Sampled:	01/16/23 11:11	Prepared:	04/14/23 10:01	File ID:	XDT_m2230418-102
% Solids:	55.70	Preparation:	SWN EPA 3050B	Analyzed:	04/18/23 22:04
Batch:	BLD0289	Sequence:	SLD0260	Initial/Final:	1.017 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00046

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	11.9	20	0.07	0.35	
7440-43-9	Cadmium	0.35	20	0.05	0.18	
7440-50-8	Copper	51.0	20	0.62	0.88	
7440-66-6	Zinc	113	20	5.2	10.6	

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Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED

Total Metals

LDW23-SC1011A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-09 C	SDG:	23A0313
Sampled:	01/16/23 11:46	Prepared:	04/14/23 10:01	File ID:	XDT_m2230418-103
% Solids:	54.06	Preparation:	SWN EPA 3050B	Analyzed:	04/18/23 22:08
Batch:	BLD0289	Sequence:	SLD0260	Initial/Final:	1.045 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00046

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	12.9	20	0.07	0.35	
7440-43-9	Cadmium	0.33	20	0.05	0.18	
7440-50-8	Copper	59.6	20	0.31	0.89	
7440-66-6	Zinc	123	20	5.2	10.6	

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Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED

Total Metals

LDW23-SC1006A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-10 C	SDG:	23A0313
Sampled:	01/16/23 12:29	Prepared:	04/14/23 10:01	File ID:	XDT_m2230418-104
% Solids:	55.20	Preparation:	SWN EPA 3050B	Analyzed:	04/18/23 22:13
Batch:	BLD0289	Sequence:	SLD0260	Initial/Final:	1.041 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00046

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	12.2	20	0.07	0.35	
7440-43-9	Cadmium	0.31	20	0.05	0.17	
7440-50-8	Copper	55.7	20	0.30	0.87	
7440-66-6	Zinc	108	20	5.1	10.4	

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Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED

Total Metals

LDW23-SC1012B

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-11 C	SDG:	23A0313
Sampled:	01/16/23 13:13	Prepared:	04/14/23 10:01	File ID:	XDT_m2230418-105
% Solids:	54.29	Preparation:	SWN EPA 3050B	Analyzed:	04/18/23 22:18
Batch:	BLD0289	Sequence:	SLD0260	Initial/Final:	1.05 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00046

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	11.8	20	0.07	0.35	
7440-43-9	Cadmium	0.39	20	0.05	0.18	
7440-50-8	Copper	61.2	20	0.31	0.88	
7440-66-6	Zinc	113	20	5.1	10.5	

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Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED

Total Metals

LDW23-IT1148

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-12 D	SDG:	23A0313
Sampled:	01/16/23 14:44	Prepared:	04/14/23 10:01	File ID:	XDT_m2230418-106
% Solids:	80.58	Preparation:	SWN EPA 3050B	Analyzed:	04/18/23 22:23
Batch:	BLD0289	Sequence:	SLD0260	Initial/Final:	1.017 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00046

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	4.61	20	0.05	0.24	

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Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED

Total Metals

LDW23-SC1159

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-13 D	SDG:	23A0313
Sampled:	01/16/23 14:26	Prepared:	04/14/23 10:01	File ID:	XDT_m2230418-107
% Solids:	56.95	Preparation:	SWN EPA 3050B	Analyzed:	04/18/23 22:27
Batch:	BLD0289	Sequence:	SLD0260	Initial/Final:	1.079 g Wet / 50 mL
Instrument:	ICPMS2			Calibration:	GD00046

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	10.2	20	0.06	0.33	
7440-43-9	Cadmium	0.33	20	0.05	0.16	
7440-50-8	Copper	59.8	20	0.28	0.81	
7440-66-6	Zinc	109	20	4.8	9.8	

Analytical Resources, LLC
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Batch: BLD0289 Batch Matrix: Solid
Preparation: SWN EPA 3050B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1114	23A0313-03	XDT_m2230418-093	04/14/23 10:01	
LDW23-IT1120	23A0313-04	XDT_m2230418-101	04/14/23 10:01	
LDW23-SC1016A	23A0313-08	XDT_m2230418-102	04/14/23 10:01	
LDW23-SC1011A	23A0313-09	XDT_m2230418-103	04/14/23 10:01	
LDW23-SC1006A	23A0313-10	XDT_m2230418-104	04/14/23 10:01	
LDW23-SC1012B	23A0313-11	XDT_m2230418-105	04/14/23 10:01	
LDW23-IT1148	23A0313-12	XDT_m2230418-106	04/14/23 10:01	
LDW23-SC1159	23A0313-13	XDT_m2230418-107	04/14/23 10:01	
Blank	BLD0289-BLK1	XDT_m2230418-089	04/12/23 10:01	
LCS	BLD0289-BS1	XDT_m2230418-090	04/12/23 10:01	
LCS	BLD0289-BS2	XDT_m2230420-040	04/12/23 10:01	Added 4/24/2023 by SKD

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: AR Date: 4/13/23-4/14/23 Time: 1600-1155 Balance ID: BALIO

Matrix: SOIL Block ID: 10 Block Temp: 90°C Thermometer: 20-3

ARI Sample ID	Btl #	pH<2	Prep Code: SWN Initial Wt (g) Vol (mL)	Prep Code: SWN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
23A313-03	D		1.016	50			
-04	↓		1.021	↓			
-08	C		1.017				
-09	↓		1.045				
-10			1.041				
-11	↓		1.050				
-12	D		1.017				
-13	↓		1.079				
23A328-02	↓		1.036				
-03			1.070				
-04			1.087				
-05			1.019				
-06			1.028				
-07			1.037				
-08			1.026				
-09			1.052				
-10			1.077				
-11			1.009				
-12	↓		1.007				
BLD280 WK	—		—				23A328-02
-bs	—		—				↓
-dup	—		1.038				
-MS	—		1.037				
-MSD	—		1.040	↓			↓
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

Chemical/Reagent ID:

HNO_3: LL678 1:1 HNO_3: L3365 HCl: — H_2O_2: K110560

Tube Lot#: 2210117 Boiling Chip Lot#: — (DoD Only)

Form I

METHOD BLANK DATA SHEET

EPA 6020B UCT-KED

Total Metals

Blank

Laboratory: Analytical Resources, LLC | SDG: 23A0313

Client: Anchor QEA, LLC | Project: AOC5 MR Phase 1

Batch: BLD0289 | Laboratory ID: BLD0289-BLK1 | Prepared: 04/12/23 10:01

Matrix: Solid | Preparation: SWN EPA 3050B | Analyzed: 04/18/23 20:59

Sequence: SLD0260 | Calibration: GD00046 | Instrument: ICPMS2

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic-75a	ND	20	0.04	0.20	U
7440-43-9	Cadmium-111	ND	20	0.03	0.10	U
7440-50-8	Copper-63	ND	20	0.17	0.50	U
7440-50-8	Copper-65	ND	20	0.35	0.50	U
7440-66-6	Zinc-66	ND	20	2.9	6.0	U

LCS / LCS DUPLICATE RECOVERY

EPA 6020B UCT-KED

Total Metals

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	04/18/23 21:04
Batch:	BLD0289	Laboratory ID:	BLD0289-BS1
Preparation:	SWN EPA 3050B	Sequence Name:	LCS
Initial/Final:	1 g / 50 mL		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Arsenic-75a	25.0	23.7		95.0	80 - 120
Copper-63	25.0	25.5		102	80 - 120
Copper-65	25.0	25.4		102	80 - 120
Zinc-66	80.0	78.6		98.3	80 - 120

* Indicates values outside of QC limits

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 6020B UCT-KED

Total Metals

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	04/20/23 17:35
Batch:	BLD0289	Laboratory ID:	BLD0289-BS2
Preparation:	SWN EPA 3050B	Sequence Name:	LCS
Initial/Final:	1 g / 50 mL		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Cadmium-111	25.0	25.1		100	80 - 120

* Indicates values outside of QC limits

INITIAL CALIBRATION DATA

EPA 6020B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00046	Instrument:	ICPMS2
Calibration Date:	04/18/2023 13:13		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Silver-107	0	0	0.2	14190	10	14368.8	20	13863.6	50	13330.32	100	13344.22
Chromium-52	0	0	0.5	61078	10	20799.6	20	19241.25	50	18247.86	100	18317.21
Chromium-53	0	0	0.5	2364	10	2192.7	20	2120.55	50	2014.66	100	2079.33
Lead-208	0	0	0.1	41540	10	39638	20	39002.7	50	37063.36	100	38903.98

INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC
Instrument: ICPMS2
Calibration: GD00046
Calibration Date: 4/18/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107	11516.16	49.1	0.9999		0.998	
Chromium-52	22947.32	88.1	0.9999		0.998	
Chromium-53	1795.207	49.4	0.9997		0.998	
Lead-208	32691.34	49.2	0.9994		0.998	

INITIAL CALIBRATION DATA

EPA 6020B UCT-KED

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00046	Instrument:	ICPMS2
Calibration Date:	04/18/2023 13:13		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Arsenic-75a	0	0	0.2	255	10	253.6	20	249.2	50	237.92	100	238.59
Cadmium-111	0	0	0.1	290	10	320.2	20	316.1	50	308.08	100	305.7
Cadmium-114	0	0	0.1	740	10	791.6	20	766.5	50	738.88	100	731.84
Copper-63	0	0	0.5	3562	10	3457	20	3451.6	50	3243.34	100	3271.94
Copper-65	0	0	0.5	1818	10	1800.1	20	1731.8	50	1621.52	100	1634.77
Zinc-66	0	0	6	497.5	10	491.5	20	499.75	50	468.54	100	449.18
Zinc-67	0	0	6	77.33334	10	82.4	20	82	50	78	100	76.05

INITIAL CALIBRATION DATA

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Instrument: ICPMS2
Calibration: GD00046
Calibration Date: 4/18/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a	205.7183	49.1	0.9999		0.998	
Cadmium-111	256.68	49.2	0.9999		0.998	
Cadmium-114	628.1367	49.1	0.9999		0.998	
Copper-63	2830.98	49.2	0.9998		0.998	
Copper-65	1434.365	49.3	0.9998		0.998	
Zinc-66	401.0783	49.2	0.9993		0.998	
Zinc-67	65.96389	49.1	0.9997		0.998	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4/18/23 **Analyst:** SD **Sequence:** SLD0260 **Cal:** GD00046

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CAL1	L3725		
		-CAL2	L3806		
		-CAL3	L3807		
		-CAL4	L3808		
		-CAL5	L3944		
		-CAL6	L3809		
		-IBL1	—		
		-ICV1	L3575		
		-ICB1	L3725		
		-CCV1	L3944		
		-CCB1	L3725		
		-CRL1	L3806		
		-IFA1	L3578		Cr^{53}↑
		-IFB1	L3579		
		-HCV1	L3671		
		-HCV2	L3672		$Pb^{\uparrow}$ & $Zn^{67\downarrow}$
		-IBL2			
		-CCV2			
		-CCB2			
		BLD0420-BLK1	REN		
		-BS1			
		23D0356-01		S	
		23D0349-01		2	Mn↑-NOT NEEDED
		23D0230-01		↓	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 4/18/23 **Analyst:** SD **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted. SD 4/18/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23D0230-02	REN	2	SC sl. noisy - %R analytes OK In noisy - NOT NEEDED
		↓ -03	↓	↓	
		↓ -04	↓	↓	
		23D0212-12	↓		
		SEQ-IBL3			
		↓ -ICV3			
		↓ -CCB3			
		BLD0472-BLK1	REN		Pb↑ - Re-run to confirm NO Pb
		↓ -BS1	↓		
		23D0210-01	↓		
		↓ -03	↓		
		↓ -05	↓		
		23D0284-01	↓	2	
		23D0212-01	↓		
		BLD0420-DUP1	↓		Pb RPD↑
		↓ -MS1	↓		Int sl. noisy - %R of analytes OK
		SEQ-IBL4			
		↓ -CCV4			
		↓ -CCB4			
		23D0212-13	REN		
		23D0199-01	↓		
		23D0212-02	↓		
		↓ -03	↓		
		↓ -04	↓		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4/18/23 **Analyst:** SD **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted. SD 4/18/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23D0212-05	REN		
		-06			
		-07			
		-08			
		-09			
		SEQ-CCV5			Mn↓
		-CCB5			
		23D0212-10	REN		
		-11	SWN		
		BLD0244-BLK1		20	
		-BS1			
		23A0249-05			SC↑ NOCr
		-02			
		BLD0244-DUP1			
		-MS1			Ag%R↓
		-MSD1			
		-PS1			
		SEQ-CCV6			Mn↓
		-CCB6			
	✓	-CAL1			
		-CCV7			
		-CCB7			
		23A0249-07	SWN	20	PB↑-NOT NEEDED ~~NO PB~~
		-08			SC↑ NOCr

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4/18/23 **Analyst:** SD **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted. SD 4/18/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23A0249-11	SWN	20	
		23A0295-01			SCT NO Cr
		-02			
		-03			
		-04			
		-05			
		-06			
		-07			
		SEQ-CCV8			
		-CCB8			
		‡BLD0289-BLK1	SWN	20	
		-BS1			In-1 NOISY NO Cd
		23A0295-09			
		-10			
		23A0313-03			SCT - NOT NEEDED ~~NO Cr~~
		23A0328-02			NO Cr
		BLD0289-DUP1			SCT Ge sl. noisy
		-MS1			Cu %R↑
		-MSD1			SCT
		-PS1			
		SEQ-CCV9			
		-CCB9			
		23A0313-04	SWN	20	SCT
		-08			NO Cr

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 4/18/23 **Analyst:** SD **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23A0313-09	SWN	20	Sc↑ NoCr
		-10	↓	↓	↓ ↓
		-11			
		-12			
		-13			Sc↑ NoCr
		23A0328-03			
		-04			
		-05			
		SEQ-CCVA			Mn↓
		↓ -CCBA			Ges1. noisy
		23A0328-06	SWN	20	
		-07	↓	↓	
		-08			
		-09			
		-10			
		-11			
		-12			
		23A0249-03			Sc↑ NoCr
		↓ -04	↓	↓	↓ ↓
		BLD0346-PS1	REN	10	Ni/Cr ONLY
		SEQ-CCVB			Sc&In sl. noisy, Tb noisy— %R of analytes OK
		↓ -CCBB			
		23C0773-01	REN	10	Cu/Zn ONLY
		↓ -02	↓	↓	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4/18/23 **Analyst:** SD **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	23C0775-01	REN	20	Re-run@5X
		23C0620-02	↓		
		↓ -04			
		-01		2	
		↓ -03			
		23C0691-01			
		23C0698-01			
		23C0708-01	↓		
		SEQ-CCVC			Mn↓
		↓ -CCBC			
		RINSE/DI			

SD 4/18/23

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, April 18, 2023 12:10:05
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.5696
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	4911.6	4903.959	96.791	2.0	Standard
	In	114.9	53687.7	-451405.356	536.504	0.1	Standard
	U	238.1	34595.7	34595.712	454.226	1.3	Standard
⎡	CeO	155.9	886.3	0.016	0.000	1.8	Standard
| >	Ce	139.9	56653.8	56653.810	993.433	1.8	Standard
⎣	Ce++	70.0	993.1	0.018	0.001	3.8	Standard
	Bkgd	220.0	0.4	0.433	0.224	51.6	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.25	Deflector Voltage
1600.00	ICP RF Power
-1750.00	Analog Stage Voltage
1650.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-8.00	Cell Rod Offset STD [CRO]
12.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.04	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-16.50	KED Mode CRO
-12.00	KED Mode QRO
-4.00	KED Mode Cell Entrance Voltage
-39.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
5.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 4/18/2023 12:09:51 PM
End Time: 4/18/2023 12:16:41 PM

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 4911.58
Obtained Intensity (In 115): 53687.70
Obtained Intensity (U 238): 34595.71
Obtained Intensity (Bkgd 220): 0.43
Obtained Formula (Ce++ 70 / Ce 140): 0.018 (=993.10 / 56653.81)
Obtained Formula (CeO 156 / Ce 140): 0.016 (=886.29 / 56653.81)
Obtained RSD (Be 9): 0.0197
Obtained RSD (In 115): 0.0012
Obtained RSD (U 238): 0.0131

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.45 mm	0.55 mm	61754.19

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 1.04
Obtained Intensity (In 115): 61843.57
Obtained Formula (CeO 156 / Ce 140): 0.0210 (=1216.05 / 58014.56)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.715)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.716)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.711)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.707)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.986; Intercept = -12.09

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 4/18/2023 12:09:51 PM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025
		RSD Criterion: Be 9.0122 < 0.05
		RSD Criterion: In 114.904 < 0.05
		RSD Criterion: U 238.05 < 0.05

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 4911.58
		Obtained Intensity (In 115): 53687.70
		Obtained Intensity (U 238): 34595.71
		Obtained Intensity (Bkgd 220): 0.43
		Obtained Formula (Ce++ 70 / Ce 140): 0.018 (=993.10 / 56653.81)
		Obtained Formula (CeO 156 / Ce 140): 0.016 (=886.29 / 56653.81)
		Obtained RSD (Be 9): 0.0197
		Obtained RSD (In 115): 0.0012
		Obtained RSD (U 238): 0.0131

[Passed] Optimum value(s): N/A

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	0.45 mm	0.55 mm	61754.19

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 1.02/1.06/0.01.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 61843.57
		Obtained Formula (CeO 156 / Ce 140): 0.0210 (=1216.05 / 58014.56)
[Passed] Optimum value(s): 1.04

Mass Calibration and Resolution
Optimization Settings:
Method: Tuning.mth.
MassCal File: Default.tun
Iterations: 6
Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:
Initial Try
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.715)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.716)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.711)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.707)
[Passed] Optimum value(s): N/A

QID STD/DRC
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 0.986; Intercept = -12.09

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-12.5	27763
Mg	24	41	-12.5	32240.3
In	115	41	-9.5	63508.9
Ce	140	41	-7.5	68459.6
Pb	208	41	-7	27566.6
U	238	41	-7	42146.1

End Time: 4/18/2023 12:16:41 PM

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 4/18/2023 12:18:20 PM
End Time: 4/18/2023 12:19:26 PM

QID STD/DRC - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -13.11

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 4/18/2023 12:18:20 PM

QID STD/DRC
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -13.11

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-13	26937.4
Mg	24	41	-12.5	31246.1
In	115	41	-9	68724.9
Ce	140	41	-8	66032.3
Pb	208	41	-7	26208
U	238	41	-7	43409.9

End Time: 4/18/2023 12:19:26 PM

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 4/18/2023 12:19:39 PM
End Time: 4/18/2023 12:20:54 PM

KED Mode QID - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -12.37

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 4/18/2023 12:19:39 PM

KED Mode QID
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -12.37

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-12.5	19677.5
Mg	24	41	-12.5	19240.9
In	115	41	-9	45099.1
Ce	140	41	-8	55592
Pb	208	41	-6	23695.6
U	238	41	-5	34926.6

End Time: 4/18/2023 12:20:54 PM

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, April 18, 2023 12:21:05
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.5704
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	6258.8	6258.838	145.288	2.3	Standard
	In	114.9	64566.7	64566.719	409.414	0.6	Standard
	U	238.1	42620.0	42619.952	360.807	0.8	Standard
⌈	CeO	155.9	1407.3	0.020	0.000	2.1	Standard
| >	Ce	139.9	69560.5	69560.550	518.658	0.7	Standard
⌊	Ce++	70.0	1393.9	0.020	0.000	2.4	Standard
	Bkgd	220.0	0.2	0.167	0.167	100.0	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.25	Deflector Voltage
1600.00	ICP RF Power
-1750.00	Analog Stage Voltage
1650.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-8.00	Cell Rod Offset STD [CRO]
12.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.04	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-16.50	KED Mode CRO
-12.00	KED Mode QRO
-4.00	KED Mode Cell Entrance Voltage
-39.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
5.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 4/18/2023 12:21:04 PM
End Time: 4/18/2023 12:23:10 PM

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 6258.84
Obtained Intensity (In 115): 64566.72
Obtained Intensity (U 238): 42619.95
Obtained Intensity (Bkgd 220): 0.17
Obtained Formula (Ce++ 70 / Ce 140): 0.020 (=1393.87 / 69560.55)
Obtained Formula (CeO 156 / Ce 140): 0.020 (=1407.27 / 69560.55)
Obtained RSD (Be 9): 0.0232
Obtained RSD (In 115): 0.0063
Obtained RSD (U 238): 0.0085

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 4/18/2023 12:21:04 PM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025
		RSD Criterion: Be 9.0122 < 0.05
		RSD Criterion: In 114.904 < 0.05
		RSD Criterion: U 238.05 < 0.05

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 6258.84
		Obtained Intensity (In 115): 64566.72
		Obtained Intensity (U 238): 42619.95
		Obtained Intensity (Bkgd 220): 0.17
		Obtained Formula (Ce++ 70 / Ce 140): 0.020 (=1393.87 / 69560.55)
		Obtained Formula (CeO 156 / Ce 140): 0.020 (=1407.27 / 69560.55)
		Obtained RSD (Be 9): 0.0232
		Obtained RSD (In 115): 0.0063
		Obtained RSD (U 238): 0.0085

[Passed] Optimum value(s): N/A

End Time: 4/18/2023 12:23:10 PM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 13:13:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	**13**		ug/L				27779	2	Standard
Cl	**37**		ug/L				5686581	1	Standard
Sc	**45**		ug/L				495415	2	Standard
Cr	**52**		ug/L				21583	0	Standard
Cr	**53**		ug/L				156	8	Standard
Mn	**55**		ug/L				712	1	Standard
Ge	**72**		ug/L				32261	0	KED
Ni	**60**		ug/L				6	45	KED
Ni	**62**		ug/L				3	69	KED
Cu	**63**		ug/L				47	38	KED
Cu	**65**		ug/L				19	11	KED
Zn	**66**		ug/L				19	36	KED
Zn	**67**		ug/L				4	49	KED
As	**75**		ug/L				6	38	KED
Se	**78**		ug/L				29	10	KED
Y	**89**		ug/L				269508	1	Standard
Kr	**83**		ug/L				48	8	Standard
In-1	**115**		ug/L				10448	1	KED
Cd	**111**		ug/L				1	132	KED
Cd	**114**		ug/L				1	176	KED
In	**115**		ug/L				386612	1	Standard
Ag	**107**		ug/L				30	10	Standard
Ba	**135**		ug/L				23	44	Standard
Ba	**137**		ug/L				36	24	Standard
Tb	**159**		ug/L				622192	1	Standard
Pb	**208**		ug/L				50	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 13:18:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	28184	2	Standard
	Cl	**37**		ug/L			5686581	5427445	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	500095	1	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.023	4	21583	30539	1	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.016	3	156	1182	1	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.014	2	712	13535	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	32565	2	KED
|	**Ni**	**60**	**0.500**	ug/L	0.039	7	6	648	7	KED
|	**Ni**	**62**	**0.500**	ug/L	0.050	10	3	98	10	KED
|	**Cu**	**63**	**0.500**	ug/L	0.012	2	47	1781	0	KED
|	**Cu**	**65**	**0.500**	ug/L	0.021	4	19	909	1	KED
|	**Zn**	**66**	**6.000**	ug/L	0.127	2	19	2985	1	KED
|	**Zn**	**67**	**6.000**	ug/L	0.438	7	4	464	4	KED
|	**As**	**75**	**0.200**	ug/L	0.016	8	6	51	9	KED
⌊	**Se**	**78**	**0.500**	ug/L	0.098	19	29	42	4	KED
	Y	**89**		ug/L			269508	270255	2	Standard
	Kr	**83**		ug/L			48	43	26	Standard
⌈>	**In-1**	**115**		ug/L			10448	10466	3	KED
|	**Cd**	**111**	**0.100**	ug/L	0.021	20	1	29	16	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.017	16	1	74	14	KED
⌈>	**In**	**115**		ug/L			386612	388497	1	Standard
|	**Ag**	**107**	**0.200**	ug/L	0.002	1	30	2838	2	Standard
|	**Ba**	**135**	**0.500**	ug/L	0.017	3	23	2000	1	Standard
⌊	**Ba**	**137**	**0.500**	ug/L	0.016	3	36	3413	2	Standard
⌈>	**Tb**	**159**		ug/L			622192	625791	2	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.002	2	50	4154	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 13:22:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	32778	2	Standard
	Cl	**37**		ug/L			5686581	5602612	3	Standard
⌈>	**Sc**	**45**		ug/L			495415	516873	1	Standard
|	**Cr**	**52**	**10.001**	ug/L	0.144	1	21583	207996	1	Standard
|	**Cr**	**53**	**10.001**	ug/L	0.004	0	156	21927	1	Standard
⌊	**Mn**	**55**	**10.000**	ug/L	0.055	0	712	268923	0	Standard
⌈>	**Ge**	**72**		ug/L			32261	33288	1	KED
|	**Ni**	**60**	**9.998**	ug/L	0.381	3	6	12351	2	KED
|	**Ni**	**62**	**10.000**	ug/L	0.422	4	3	1928	2	KED
|	**Cu**	**63**	**9.999**	ug/L	0.063	0	47	34570	1	KED
|	**Cu**	**65**	**10.000**	ug/L	0.050	0	19	18001	1	KED
|	**Zn**	**66**	**9.915**	ug/L	0.188	1	19	4915	1	KED
|	**Zn**	**67**	**10.117**	ug/L	0.535	5	4	824	3	KED
|	**As**	**75**	**10.000**	ug/L	0.237	2	6	2536	1	KED
⌊	**Se**	**78**	**10.005**	ug/L	0.447	4	29	352	3	KED
	Y	**89**		ug/L			269508	283190	2	Standard
	Kr	**83**		ug/L			48	52	11	Standard
⌈>	**In-1**	**115**		ug/L			10448	10756	2	KED
|	**Cd**	**111**	**10.000**	ug/L	0.260	2	1	3202	0	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.231	2	1	7916	1	KED
⌈>	**In**	**115**		ug/L			386612	400427	1	Standard
|	**Ag**	**107**	**10.000**	ug/L	0.100	0	30	143688	1	Standard
|	**Ba**	**135**	**9.999**	ug/L	0.116	1	23	39117	0	Standard
⌊	**Ba**	**137**	**10.000**	ug/L	0.172	1	36	70177	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	661126	1	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.176	1	50	396380	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 13:27:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	32377	3	Standard
	Cl	**37**		ug/L			5686581	5700609	0	Standard
⌈>	**Sc**	**45**		ug/L			495415	516669	2	Standard
|	**Cr**	**52**	**19.908**	ug/L	0.797	4	21583	384825	2	Standard
|	**Cr**	**53**	**19.883**	ug/L	0.728	3	156	42411	1	Standard
⌊	**Mn**	**55**	**19.902**	ug/L	0.507	2	712	523836	0	Standard
⌈>	**Ge**	**72**		ug/L			32261	33774	0	KED
|	**Ni**	**60**	**19.817**	ug/L	0.433	2	6	23961	1	KED
|	**Ni**	**62**	**20.116**	ug/L	0.559	2	3	4026	2	KED
|	**Cu**	**63**	**19.938**	ug/L	0.259	1	47	69032	1	KED
|	**Cu**	**65**	**19.785**	ug/L	0.319	1	19	34636	1	KED
|	**Zn**	**66**	**19.978**	ug/L	0.372	1	19	9995	1	KED
|	**Zn**	**67**	**19.973**	ug/L	0.542	2	4	1640	3	KED
|	**As**	**75**	**19.876**	ug/L	0.488	2	6	4984	2	KED
⌊	**Se**	**78**	**19.762**	ug/L	1.225	6	29	647	5	KED
	Y	**89**		ug/L			269508	286792	0	Standard
	Kr	**83**		ug/L			48	45	12	Standard
⌈>	**In-1**	**115**		ug/L			10448	10649	0	KED
|	**Cd**	**111**	**19.987**	ug/L	0.340	1	1	6322	1	KED
⌊	**Cd**	**114**	**19.910**	ug/L	0.341	1	1	15330	1	KED
⌈>	**In**	**115**		ug/L			386612	399445	2	Standard
|	**Ag**	**107**	**19.866**	ug/L	0.608	3	30	277272	2	Standard
|	**Ba**	**135**	**19.983**	ug/L	0.224	1	23	77686	1	Standard
⌊	**Ba**	**137**	**19.900**	ug/L	0.265	1	36	136556	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	665981	2	Standard
⌊	**Pb**	**208**	**19.907**	ug/L	0.457	2	50	780054	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 13:33:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	28800	1	Standard
	Cl	**37**		ug/L			5686581	5586237	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	495138	0	Standard
|	**Cr**	**52**	**50.173**	ug/L	0.145	0	21583	912393	0	Standard
|	**Cr**	**53**	**49.894**	ug/L	0.214	0	156	100733	0	Standard
⌊	**Mn**	**55**	**49.992**	ug/L	0.645	1	712	1259261	0	Standard
⌈>	**Ge**	**72**		ug/L			32261	32443	1	KED
|	**Ni**	**60**	**49.887**	ug/L	1.610	3	6	57272	2	KED
|	**Ni**	**62**	**49.834**	ug/L	0.743	1	3	9420	0	KED
|	**Cu**	**63**	**49.793**	ug/L	0.358	0	47	162167	1	KED
|	**Cu**	**65**	**49.697**	ug/L	1.388	2	19	81076	2	KED
|	**Zn**	**66**	**49.784**	ug/L	0.344	0	19	23427	1	KED
|	**Zn**	**67**	**49.918**	ug/L	1.669	3	4	3900	2	KED
|	**As**	**75**	**49.906**	ug/L	1.600	3	6	11896	1	KED
⌊	**Se**	**78**	**49.815**	ug/L	0.252	0	29	1494	1	KED
	Y	**89**		ug/L			269508	281715	0	Standard
	Kr	**83**		ug/L			48	52	14	Standard
⌈>	**In-1**	**115**		ug/L			10448	10535	2	KED
|	**Cd**	**111**	**49.874**	ug/L	1.126	2	1	15404	1	KED
⌊	**Cd**	**114**	**49.745**	ug/L	0.478	0	1	36944	2	KED
⌈>	**In**	**115**		ug/L			386612	394444	0	Standard
|	**Ag**	**107**	**49.718**	ug/L	0.579	1	30	666516	0	Standard
|	**Ba**	**135**	**49.738**	ug/L	0.724	1	23	186075	1	Standard
⌊	**Ba**	**137**	**49.795**	ug/L	0.359	0	36	330639	0	Standard
⌈>	**Tb**	**159**		ug/L			622192	661726	2	Standard
⌊	**Pb**	**208**	**49.584**	ug/L	1.260	2	50	1853168	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 13:39:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	29333	1	Standard
	Cl	**37**		ug/L			5686581	5692938	2	Standard
⌈>	**Sc**	**45**		ug/L			495415	497399	1	Standard
|	**Cr**	**52**	**100.342**	ug/L	2.152	2	21583	1831721	1	Standard
|	**Cr**	**53**	**100.592**	ug/L	1.449	1	156	207933	0	Standard
⌊	**Mn**	**55**	**102.587**	ug/L	0.663	0	712	2840054	0	Standard
⌈>	**Ge**	**72**		ug/L			32261	32138	0	KED
|	**Ni**	**60**	**99.889**	ug/L	2.110	2	6	113196	1	KED
|	**Ni**	**62**	**99.613**	ug/L	4.688	4	3	18411	4	KED
|	**Cu**	**63**	**100.329**	ug/L	2.440	2	47	327194	1	KED
|	**Cu**	**65**	**100.267**	ug/L	1.636	1	19	163477	1	KED
|	**Zn**	**66**	**99.138**	ug/L	1.648	1	19	44918	1	KED
|	**Zn**	**67**	**99.593**	ug/L	2.112	2	4	7605	2	KED
|	**As**	**75**	**100.239**	ug/L	0.955	0	6	23859	0	KED
⌊	**Se**	**78**	**100.048**	ug/L	1.975	1	29	2948	1	KED
	Y	**89**		ug/L			269508	278349	2	Standard
	Kr	**83**		ug/L			48	68	2	Standard
⌈>	**In-1**	**115**		ug/L			10448	10310	1	KED
|	**Cd**	**111**	**100.257**	ug/L	2.060	2	1	30570	1	KED
⌊	**Cd**	**114**	**100.158**	ug/L	1.643	1	1	73184	1	KED
⌈>	**In**	**115**		ug/L			386612	389802	0	Standard
|	**Ag**	**107**	**100.166**	ug/L	2.555	2	30	1334422	2	Standard
|	**Ba**	**135**	**100.866**	ug/L	1.306	1	23	383954	1	Standard
⌊	**Ba**	**137**	**100.662**	ug/L	1.524	1	36	675372	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	653903	1	Standard
⌊	**Pb**	**208**	**101.171**	ug/L	6.348	6	50	3890398	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 13:47:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	25432	1	Standard
	Cl	**37**		ug/L			5686581	5757125	2	Standard
⌈>	**Sc**	**45**		ug/L			495415	484766	1	Standard
|	**Cr**	**52**	**0.008**	ug/L	0.017	211	21583	21259	0	Standard
|	**Cr**	**53**	**0.002**	ug/L	0.003	105	156	158	2	Standard
⌊	**Mn**	**55**	**-0.003**	ug/L	0.001	26	712	621	3	Standard
⌈>	**Ge**	**72**		ug/L			32261	31589	2	KED
|	**Ni**	**60**	**-0.004**	ug/L	0.000	0	6	1		KED
|	**Ni**	**62**	**0.007**	ug/L	0.021	301	3	4	89	KED
|	**Cu**	**63**	**0.003**	ug/L	0.003	121	47	55	18	KED
|	**Cu**	**65**	**0.007**	ug/L	0.002	25	19	29	7	KED
|	**Zn**	**66**	**0.099**	ug/L	0.008	8	19	63	7	KED
|	**Zn**	**67**	**0.079**	ug/L	0.105	132	4	10	75	KED
|	**As**	**75**	**0.002**	ug/L	0.004	208	6	7	13	KED
⌊	**Se**	**78**	**-0.021**	ug/L	0.249	1196	29	28	23	KED
	Y	**89**		ug/L			269508	267687	0	Standard
	Kr	**83**		ug/L			48	46	14	Standard
⌈>	**In-1**	**115**		ug/L			10448	10216	2	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.002	219	1	1	34	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.001	12188	1	1	90	KED
⌈>	**In**	**115**		ug/L			386612	393367	3	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.000	8	30	53	2	Standard
|	**Ba**	**135**	**-0.001**	ug/L	0.002	157	23	18	51	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.002	304	36	42	37	Standard
⌈>	**Tb**	**159**		ug/L			622192	618061	1	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	6	50	65	1	Standard

Sample Information

Sample Date/Time: Tuesday, April 18, 2023 13:39:50
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED
Mass Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**1.0000**	0.036	0.50	10	20	50	100
Cr	53	**0.9999**	0.004	0.50	10	20	50	100
Mn	55	**0.9989**	0.056	0.50	10	20	50	100
Ge	72							
Ni	60	**1.0000**	0.035	0.50	10	20	50	100
Ni	62	**1.0000**	0.006	0.50	10	20	50	100
Cu	63	**1.0000**	0.101	0.50	10	20	50	100
Cu	65	**1.0000**	0.051	0.50	10	20	50	100
Zn	66	**0.9999**	0.014	6.00	10	20	50	100
Zn	67	**1.0000**	0.002	6.00	10	20	50	100
As	75	**1.0000**	0.007	0.20	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**1.0000**	0.030	0.10	10	20	50	100
Cd	114	**1.0000**	0.071	0.10	10	20	50	100
In	115							
Ag	107	**1.0000**	0.034	0.20	10	20	50	100
Ba	135	**0.9999**	0.010	0.50	10	20	50	100
Ba	137	**0.9999**	0.017	0.50	10	20	50	100
Tb	159							
Pb	208	**0.9997**	0.059	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 13:56:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	28188	4	Standard
	Cl	**37**		ug/L			5686581	5643557	2	Standard
⌈>	**Sc**	**45**		ug/L			495415	496345	2	Standard
|	**Cr**	**52**	**51.044**	ug/L	0.690	1	21583	940472	1	Standard
|	**Cr**	**53**	**51.839**	ug/L	0.420	0	156	107024	2	Standard
⌊	**Mn**	**55**	**48.424**	ug/L	0.862	1	712	1337952	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	33211	0	KED
|	**Ni**	**60**	**52.040**	ug/L	1.193	2	6	60939	1	KED
|	**Ni**	**62**	**51.648**	ug/L	1.081	2	3	9867	1	KED
|	**Cu**	**63**	**52.062**	ug/L	0.874	1	47	175509	2	KED
|	**Cu**	**65**	**51.253**	ug/L	0.732	1	19	86368	1	KED
|	**Zn**	**66**	**49.695**	ug/L	0.546	1	19	23277	1	KED
|	**Zn**	**67**	**48.044**	ug/L	0.746	1	4	3794	2	KED
|	**As**	**75**	**47.463**	ug/L	0.253	0	6	11678	0	KED
⌊	**Se**	**78**	**77.197**	ug/L	0.494	0	29	2358	1	KED
	Y	**89**		ug/L			269508	281203	3	Standard
	Kr	**83**		ug/L			48	50	13	Standard
⌈>	**In-1**	**115**		ug/L			10448	10729	1	KED
|	**Cd**	**111**	**49.720**	ug/L	0.820	1	1	15777	0	KED
⌊	**Cd**	**114**	**50.937**	ug/L	1.319	2	1	38728	2	KED
⌈>	**In**	**115**		ug/L			386612	384198	2	Standard
|	**Ag**	**107**	**53.895**	ug/L	0.980	1	30	707465	0	Standard
|	**Ba**	**135**	**52.568**	ug/L	1.465	2	23	197147	0	Standard
⌊	**Ba**	**137**	**52.800**	ug/L	0.939	1	36	349120	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	653356	3	Standard
⌊	**Pb**	**208**	**50.850**	ug/L	1.073	2	50	1952649	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 14:03:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	26804	0	Standard
	Cl	**37**		ug/L			5686581	5713605	1	Standard
⎡>	**Sc**	**45**		ug/L			495415	490955	2	Standard
⎢	**Cr**	**52**	**-0.010**	ug/L	0.031	314	21583	21205	1	Standard
⎢	**Cr**	**53**	**-0.005**	ug/L	0.007	144	156	144	12	Standard
⎣	**Mn**	**55**	**0.001**	ug/L	0.001	51	712	742	1	Standard
⎡>	**Ge**	**72**		ug/L			32261	32306	4	KED
⎢	**Ni**	**60**	**0.001**	ug/L	0.001	207	6	6	15	KED
⎢	**Ni**	**62**	**-0.000**	ug/L	0.016	24329	3	3	91	KED
⎢	**Cu**	**63**	**0.001**	ug/L	0.002	163	47	52	18	KED
⎢	**Cu**	**65**	**0.007**	ug/L	0.003	46	19	30	16	KED
⎢	**Zn**	**66**	**0.016**	ug/L	0.018	114	19	27	35	KED
⎢	**Zn**	**67**	**0.007**	ug/L	0.060	875	4	5	94	KED
⎢	**As**	**75**	**-0.005**	ug/L	0.008	172	6	5	38	KED
⎣	**Se**	**78**	**0.086**	ug/L	0.120	138	29	32	7	KED
	Y	**89**		ug/L			269508	274753	2	Standard
	Kr	**83**		ug/L			48	38	17	Standard
⎡>	**In-1**	**115**		ug/L			10448	10550	0	KED
⎢	**Cd**	**111**	**0.005**	ug/L	0.002	34	1	3	15	KED
⎣	**Cd**	**114**	**0.005**	ug/L	0.003	57	1	4	43	KED
⎡>	**In**	**115**		ug/L			386612	389794	1	Standard
⎢	**Ag**	**107**	**0.002**	ug/L	0.001	61	30	56	29	Standard
⎢	**Ba**	**135**	**-0.002**	ug/L	0.003	170	23	17	54	Standard
⎣	**Ba**	**137**	**0.000**	ug/L	0.002	909	36	38	36	Standard
⎡>	**Tb**	**159**		ug/L			622192	626996	1	Standard
⎣	**Pb**	**208**	**0.002**	ug/L	0.002	81	50	118	45	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 14:13:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	26995	1	Standard
	Cl	**37**		ug/L			5686581	5669616	2	Standard
⌈>	**Sc**	**45**		ug/L			495415	496052	1	Standard
|	**Cr**	**52**	**47.610**	ug/L	1.216	2	21583	878088	1	Standard
|	**Cr**	**53**	**48.972**	ug/L	0.894	1	156	101033	0	Standard
⌊	**Mn**	**55**	**45.158**	ug/L	0.133	0	712	1247251	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	32622	2	KED
|	**Ni**	**60**	**49.663**	ug/L	1.099	2	6	57130	2	KED
|	**Ni**	**62**	**49.219**	ug/L	1.114	2	3	9235	1	KED
|	**Cu**	**63**	**50.036**	ug/L	2.004	4	47	165597	2	KED
|	**Cu**	**65**	**49.015**	ug/L	1.424	2	19	81102	0	KED
|	**Zn**	**66**	**49.432**	ug/L	0.833	1	19	22743	2	KED
|	**Zn**	**67**	**49.833**	ug/L	0.512	1	4	3864	1	KED
|	**As**	**75**	**49.277**	ug/L	0.711	1	6	11908	1	KED
⌊	**Se**	**78**	**50.746**	ug/L	1.299	2	29	1532	0	KED
	Y	**89**		ug/L			269508	276101	2	Standard
	Kr	**83**		ug/L			48	47	34	Standard
⌈>	**In-1**	**115**		ug/L			10448	10313	1	KED
|	**Cd**	**111**	**50.034**	ug/L	0.612	1	1	15264	2	KED
⌊	**Cd**	**114**	**50.071**	ug/L	1.192	2	1	36594	1	KED
⌈>	**In**	**115**		ug/L			386612	388815	1	Standard
|	**Ag**	**107**	**49.785**	ug/L	1.709	3	30	661401	2	Standard
|	**Ba**	**135**	**49.374**	ug/L	0.984	1	23	187453	1	Standard
⌊	**Ba**	**137**	**49.244**	ug/L	1.708	3	36	329484	2	Standard
⌈>	**Tb**	**159**		ug/L			622192	652006	2	Standard
⌊	**Pb**	**208**	**48.315**	ug/L	0.746	1	50	1851990	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 14:20:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	26745	4	Standard
	Cl	**37**		ug/L			5686581	5592031	3	Standard
⌈>	**Sc**	**45**		ug/L			495415	471171	1	Standard
|	**Cr**	**52**	**0.046**	ug/L	0.030	64	21583	21303	0	Standard
|	**Cr**	**53**	**-0.008**	ug/L	0.006	74	156	133	7	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	127	712	665	3	Standard
⌈>	**Ge**	**72**		ug/L			32261	32361	1	KED
|	**Ni**	**60**	**0.000**	ug/L	0.006	1263	6	6	103	KED
|	**Ni**	**62**	**0.014**	ug/L	0.010	73	3	5	33	KED
|	**Cu**	**63**	**-0.003**	ug/L	0.001	34	47	38	10	KED
|	**Cu**	**65**	**-0.000**	ug/L	0.005	1062	19	19	43	KED
|	**Zn**	**66**	**0.001**	ug/L	0.017	1278	19	20	37	KED
|	**Zn**	**67**	**-0.000**	ug/L	0.038	19606	4	4	65	KED
|	**As**	**75**	**-0.005**	ug/L	0.008	150	6	5	35	KED
⌊	**Se**	**78**	**0.116**	ug/L	0.128	110	29	33	11	KED
	Y	**89**		ug/L			269508	265532	3	Standard
	Kr	**83**		ug/L			48	45	25	Standard
⌈>	**In-1**	**115**		ug/L			10448	10170	3	KED
|	**Cd**	**111**	**0.000**	ug/L	0.003	2317	1	1	50	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.004	91	1	4	66	KED
⌈>	**In**	**115**		ug/L			386612	377441	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.000	32	30	43	10	Standard
|	**Ba**	**135**	**-0.003**	ug/L	0.001	51	23	13	37	Standard
⌊	**Ba**	**137**	**-0.002**	ug/L	0.000	26	36	24	12	Standard
⌈>	**Tb**	**159**		ug/L			622192	614461	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	19	50	91	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 14:33:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	24711	3	Standard
	Cl	**37**		ug/L			5686581	5594592	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	482466	2	Standard
|	**Cr**	**52**	**0.491**	ug/L	0.031	6	21583	29599	0	Standard
|	**Cr**	**53**	**0.491**	ug/L	0.006	1	156	1135	3	Standard
⌊	**Mn**	**55**	**0.482**	ug/L	0.009	1	712	13624	0	Standard
⌈>	**Ge**	**72**		ug/L			32261	32041	0	KED
|	**Ni**	**60**	**0.527**	ug/L	0.046	8	6	602	9	KED
|	**Ni**	**62**	**0.524**	ug/L	0.112	21	3	99	21	KED
|	**Cu**	**63**	**0.508**	ug/L	0.037	7	47	1697	6	KED
|	**Cu**	**65**	**0.533**	ug/L	0.048	9	19	885	7	KED
|	**Zn**	**66**	**6.247**	ug/L	0.380	6	19	2839	5	KED
|	**Zn**	**67**	**5.458**	ug/L	0.071	1	4	419	1	KED
|	**As**	**75**	**0.215**	ug/L	0.023	10	6	57	8	KED
⌊	**Se**	**78**	**0.565**	ug/L	0.185	32	29	45	10	KED
	Y	**89**		ug/L			269508	264293	1	Standard
	Kr	**83**		ug/L			48	36	24	Standard
⌈>	**In-1**	**115**		ug/L			10448	10431	3	KED
|	**Cd**	**111**	**0.087**	ug/L	0.011	12	1	28	14	KED
⌊	**Cd**	**114**	**0.109**	ug/L	0.011	9	1	81	12	KED
⌈>	**In**	**115**		ug/L			386612	392910	1	Standard
|	**Ag**	**107**	**0.201**	ug/L	0.012	5	30	2722	4	Standard
|	**Ba**	**135**	**0.468**	ug/L	0.020	4	23	1819	3	Standard
⌊	**Ba**	**137**	**0.471**	ug/L	0.007	1	36	3219	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	619661	2	Standard
⌊	**Pb**	**208**	**0.111**	ug/L	0.010	8	50	4078	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 14:38:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	111346	0	Standard
	Cl	**37**		ug/L			5686581	11377696	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	539688	1	Standard
|	**Cr**	**52**	**0.728**	ug/L	0.044	6	21583	37752	2	Standard
|	**Cr**	**53**	**4.353**	ug/L	0.075	1	156	9928	2	Standard
⌊	**Mn**	**55**	**0.072**	ug/L	0.002	2	712	2946	2	Standard
⌈>	**Ge**	**72**		ug/L			32261	30706	2	KED
|	**Ni**	**60**	**0.105**	ug/L	0.009	8	6	120	9	KED
|	**Ni**	**62**	**0.173**	ug/L	0.021	12	3	33	13	KED
|	**Cu**	**63**	**0.053**	ug/L	0.009	16	47	210	11	KED
|	**Cu**	**65**	**0.049**	ug/L	0.009	19	19	95	17	KED
|	**Zn**	**66**	**0.240**	ug/L	0.024	10	19	122	8	KED
|	**Zn**	**67**	**0.291**	ug/L	0.102	35	4	25	28	KED
|	**As**	**75**	**0.028**	ug/L	0.016	55	6	12	25	KED
⌊	**Se**	**78**	**-0.038**	ug/L	0.094	249	29	27	8	KED
	Y	**89**		ug/L			269508	279146	2	Standard
	Kr	**83**		ug/L			48	79	21	Standard
⌈>	**In-1**	**115**		ug/L			10448	9971	1	KED
|	**Cd**	**111**	**0.077**	ug/L	0.008	10	1	24	11	KED
⌊	**Cd**	**114**	**0.053**	ug/L	0.014	26	1	38	24	KED
⌈>	**In**	**115**		ug/L			386612	396255	1	Standard
|	**Ag**	**107**	**0.011**	ug/L	0.001	12	30	186	10	Standard
|	**Ba**	**135**	**0.127**	ug/L	0.008	6	23	516	4	Standard
⌊	**Ba**	**137**	**0.105**	ug/L	0.002	2	36	752	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	680264	1	Standard
⌊	**Pb**	**208**	**0.037**	ug/L	0.000	0	50	1525	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 14:43:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	116018	3	Standard
	Cl	**37**		ug/L			5686581	11137336	3	Standard
⌈>	**Sc**	**45**		ug/L			495415	540113	1	Standard
|	**Cr**	**52**	**18.904**	ug/L	0.280	1	21583	393839	0	Standard
|	**Cr**	**53**	**22.903**	ug/L	0.338	1	156	51545	1	Standard
⌊	**Mn**	**55**	**17.367**	ug/L	0.282	1	712	522775	2	Standard
⌈>	**Ge**	**72**		ug/L			32261	30367	1	KED
|	**Ni**	**60**	**20.558**	ug/L	0.349	1	6	22018	1	KED
|	**Ni**	**62**	**20.568**	ug/L	0.468	2	3	3594	1	KED
|	**Cu**	**63**	**19.938**	ug/L	0.273	1	47	61477	1	KED
|	**Cu**	**65**	**19.504**	ug/L	0.293	1	19	30067	2	KED
|	**Zn**	**66**	**18.775**	ug/L	0.088	0	19	8052	0	KED
|	**Zn**	**67**	**16.009**	ug/L	0.344	2	4	1158	2	KED
|	**As**	**75**	**18.639**	ug/L	0.163	0	6	4197	1	KED
⌊	**Se**	**78**	**0.003**	ug/L	0.106	3292	29	28	11	KED
	Y	**89**		ug/L			269508	279932	0	Standard
	Kr	**83**		ug/L			48	85	11	Standard
⌈>	**In-1**	**115**		ug/L			10448	9565	0	KED
|	**Cd**	**111**	**18.715**	ug/L	0.401	2	1	5295	1	KED
⌊	**Cd**	**114**	**18.985**	ug/L	0.544	2	1	12868	1	KED
⌈>	**In**	**115**		ug/L			386612	396614	1	Standard
|	**Ag**	**107**	**18.750**	ug/L	0.420	2	30	254137	1	Standard
|	**Ba**	**135**	**0.118**	ug/L	0.007	5	23	482	5	Standard
⌊	**Ba**	**137**	**0.106**	ug/L	0.006	5	36	761	3	Standard
⌈>	**Tb**	**159**		ug/L			622192	677611	1	Standard
⌊	**Pb**	**208**	**0.031**	ug/L	0.002	5	50	1278	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 14:52:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	30368	0	Standard
	Cl	**37**		ug/L			5686581	5487877	0	Standard
⌈>	**Sc**	**45**		ug/L			495415	499248	1	Standard
|	**Cr**	**52**	**205.947**	ug/L	2.658	1	21583	3750862	0	Standard
|	**Cr**	**53**	**189.585**	ug/L	5.029	2	156	393212	2	Standard
⌊	**Mn**	**55**	**192.656**	ug/L	2.653	1	712	5352653	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	29313	2	KED
|	**Ni**	**60**	**201.663**	ug/L	6.460	3	6	208368	1	KED
|	**Ni**	**62**	**199.590**	ug/L	4.496	2	3	33643	1	KED
|	**Cu**	**63**	**196.019**	ug/L	3.331	1	47	582965	0	KED
|	**Cu**	**65**	**197.843**	ug/L	2.914	1	19	294160	0	KED
|	**Zn**	**66**	**193.504**	ug/L	3.599	1	19	79929	0	KED
|	**Zn**	**67**	**186.331**	ug/L	6.279	3	4	12969	1	KED
|	**As**	**75**	**195.570**	ug/L	4.380	2	6	42441	0	KED
⌊	**Se**	**78**	**190.438**	ug/L	6.232	3	29	5093	1	KED
	Y	**89**		ug/L			269508	270760	3	Standard
	Kr	**83**		ug/L			48	91	21	Standard
⌈>	**In-1**	**115**		ug/L			10448	9634	1	KED
|	**Cd**	**111**	**191.080**	ug/L	4.203	2	1	54437	1	KED
⌊	**Cd**	**114**	**192.114**	ug/L	2.893	1	1	131164	1	KED
⌈>	**In**	**115**		ug/L			386612	377946	1	Standard
|	**Ag**	**107**	**219.983**	ug/L	2.348	1	30	2841453	1	Standard
|	**Ba**	**135**	**195.884**	ug/L	2.975	1	23	722904	1	Standard
⌊	**Ba**	**137**	**194.317**	ug/L	1.360	0	36	1264050	0	Standard
⌈>	**Tb**	**159**		ug/L			622192	651018	1	Standard
⌊	**Pb**	**208**	**211.048**	ug/L	3.962	1	50	8077489	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 14:59:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	30249	4	Standard
	Cl	**37**		ug/L			5686581	5393689	0	Standard
>	**Sc**	**45**		ug/L			495415	481689	2	Standard
	Cr	**52**	**312.262**	ug/L	4.820	1	21583	5475816	1	Standard
	Cr	**53**	**283.507**	ug/L	2.010	0	156	567276	1	Standard
	Mn	**55**	**285.329**	ug/L	2.997	1	712	7647841	1	Standard
>	**Ge**	**72**		ug/L			32261	28666	0	KED
	Ni	**60**	**302.959**	ug/L	7.798	2	6	306259	3	KED
	Ni	**62**	**292.791**	ug/L	1.036	0	3	48275	1	KED
	Cu	**63**	**286.344**	ug/L	1.852	0	47	832920	0	KED
	Cu	**65**	**286.569**	ug/L	1.551	0	19	416739	0	KED
	Zn	**66**	**271.854**	ug/L	2.563	0	19	109839	1	KED
	Zn	**67**	**265.675**	ug/L	6.170	2	4	18092	3	KED
	As	**75**	**288.904**	ug/L	3.578	1	6	61323	0	KED
	Se	**78**	**275.982**	ug/L	2.491	0	29	7209	1	KED
	Y	**89**		ug/L			269508	262742	3	Standard
	Kr	**83**		ug/L			48	130	8	Standard
>	**In-1**	**115**		ug/L			10448	9363	0	KED
	Cd	**111**	**280.956**	ug/L	1.664	0	1	77804	0	KED
	Cd	**114**	**286.220**	ug/L	4.765	1	1	189917	1	KED
>	**In**	**115**		ug/L			386612	362854	2	Standard
	Ag	**107**	**329.528**	ug/L	6.736	2	30	4085012	1	Standard
	Ba	**135**	**294.178**	ug/L	6.086	2	23	1041959	0	Standard
	Ba	**137**	**294.073**	ug/L	6.370	2	36	1836059	1	Standard
>	**Tb**	**159**		ug/L			622192	626383	1	Standard
	Pb	**208**	**336.159**	ug/L	5.583	1	50	12379026	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 15:07:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	31307	0	Standard
	Cl	**37**		ug/L			5686581	5621509	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	486725	2	Standard
|	**Cr**	**52**	**0.007**	ug/L	0.018	236	21583	21336	2	Standard
|	**Cr**	**53**	**0.054**	ug/L	0.005	8	156	263	1	Standard
⌊	**Mn**	**55**	**0.009**	ug/L	0.001	13	712	942	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	31371	1	KED
|	**Ni**	**60**	**0.009**	ug/L	0.008	87	6	15	54	KED
|	**Ni**	**62**	**0.032**	ug/L	0.030	94	3	8	61	KED
|	**Cu**	**63**	**0.018**	ug/L	0.005	27	47	103	16	KED
|	**Cu**	**65**	**0.018**	ug/L	0.004	23	19	46	12	KED
|	**Zn**	**66**	**0.108**	ug/L	0.017	15	19	66	10	KED
|	**Zn**	**67**	**0.155**	ug/L	0.038	24	4	15	18	KED
|	**As**	**75**	**0.001**	ug/L	0.004	503	6	6	14	KED
⌊	**Se**	**78**	**-0.132**	ug/L	0.056	42	29	25	5	KED
	Y	**89**		ug/L			269508	265646	2	Standard
	Kr	**83**		ug/L			48	48	27	Standard
⌈>	**In-1**	**115**		ug/L			10448	9929	0	KED
|	**Cd**	**111**	**0.007**	ug/L	0.009	127	1	3	66	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.000	9	1	1	2	KED
⌈>	**In**	**115**		ug/L			386612	389212	2	Standard
|	**Ag**	**107**	**0.004**	ug/L	0.000	2	30	90	3	Standard
|	**Ba**	**135**	**0.012**	ug/L	0.005	39	23	67	23	Standard
⌊	**Ba**	**137**	**0.012**	ug/L	0.001	7	36	118	6	Standard
⌈>	**Tb**	**159**		ug/L			622192	624436	1	Standard
⌊	**Pb**	**208**	**0.007**	ug/L	0.001	10	50	303	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 15:13:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	28916	2	Standard
	Cl	**37**		ug/L			5686581	5676710	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	501538	2	Standard
|	**Cr**	**52**	**47.923**	ug/L	0.574	1	21583	893518	1	Standard
|	**Cr**	**53**	**49.159**	ug/L	0.854	1	156	102526	0	Standard
⌊	**Mn**	**55**	**45.895**	ug/L	0.624	1	712	1281332	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	31764	3	KED
|	**Ni**	**60**	**50.155**	ug/L	2.579	5	6	56124	2	KED
|	**Ni**	**62**	**50.012**	ug/L	1.227	2	3	9136	2	KED
|	**Cu**	**63**	**50.175**	ug/L	0.739	1	47	161716	1	KED
|	**Cu**	**65**	**49.654**	ug/L	1.212	2	19	79989	0	KED
|	**Zn**	**66**	**49.819**	ug/L	1.742	3	19	22304	1	KED
|	**Zn**	**67**	**49.044**	ug/L	1.555	3	4	3702	3	KED
|	**As**	**75**	**48.732**	ug/L	1.119	2	6	11463	0	KED
⌊	**Se**	**78**	**48.882**	ug/L	0.849	1	29	1438	1	KED
	Y	**89**		ug/L			269508	273454	4	Standard
	Kr	**83**		ug/L			48	46	35	Standard
⌈>	**In-1**	**115**		ug/L			10448	9992	4	KED
|	**Cd**	**111**	**49.831**	ug/L	1.691	3	1	14713	1	KED
⌊	**Cd**	**114**	**50.385**	ug/L	1.642	3	1	35650	2	KED
⌈>	**In**	**115**		ug/L			386612	391440	2	Standard
|	**Ag**	**107**	**50.535**	ug/L	1.624	3	30	675769	2	Standard
|	**Ba**	**135**	**49.321**	ug/L	1.237	2	23	188456	0	Standard
⌊	**Ba**	**137**	**49.160**	ug/L	1.737	3	36	331035	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	651206	2	Standard
⌊	**Pb**	**208**	**50.353**	ug/L	1.120	2	50	1927410	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 15:21:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	26961	3	Standard
	Cl	**37**		ug/L			5686581	5655721	1	Standard
⎡>	**Sc**	**45**		ug/L			495415	473897	4	Standard
⎢	**Cr**	**52**	**-0.002**	ug/L	0.033	1338	21583	20587	2	Standard
⎢	**Cr**	**53**	**0.016**	ug/L	0.008	49	156	180	4	Standard
⎣	**Mn**	**55**	**0.012**	ug/L	0.004	28	712	1006	4	Standard
⎡>	**Ge**	**72**		ug/L			32261	30700	0	KED
⎢	**Ni**	**60**	**0.001**	ug/L	0.004	510	6	6	68	KED
⎢	**Ni**	**62**	**0.008**	ug/L	0.006	77	3	4	24	KED
⎢	**Cu**	**63**	**0.001**	ug/L	0.004	352	47	48	25	KED
⎢	**Cu**	**65**	**0.004**	ug/L	0.006	135	19	25	35	KED
⎢	**Zn**	**66**	**-0.001**	ug/L	0.016	2167	19	18	36	KED
⎢	**Zn**	**67**	**-0.006**	ug/L	0.026	458	4	3	50	KED
⎢	**As**	**75**	**0.004**	ug/L	0.009	247	6	7	27	KED
⎣	**Se**	**78**	**0.076**	ug/L	0.257	339	29	30	23	KED
	Y	**89**		ug/L			269508	261478	6	Standard
	Kr	**83**		ug/L			48	39	48	Standard
⎡>	**In-1**	**115**		ug/L			10448	10400	1	KED
⎢	**Cd**	**111**	**0.002**	ug/L	0.002	80	1	2	21	KED
⎣	**Cd**	**114**	**0.003**	ug/L	0.003	122	1	3	72	KED
⎡>	**In**	**115**		ug/L			386612	380244	3	Standard
⎢	**Ag**	**107**	**0.002**	ug/L	0.001	30	30	57	10	Standard
⎢	**Ba**	**135**	**-0.000**	ug/L	0.002	3712	23	22	33	Standard
⎣	**Ba**	**137**	**0.002**	ug/L	0.000	28	36	46	6	Standard
⎡>	**Tb**	**159**		ug/L			622192	604565	3	Standard
⎣	**Pb**	**208**	**0.002**	ug/L	0.001	38	50	114	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0420-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 15:28:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	33871	2	Standard
	Cl	37		ug/L			5686581	5402701	2	Standard
⌈>	Sc	45		ug/L			495415	489893	0	Standard
|	Cr	52	0.073	ug/L	0.016	21	21583	22640	1	Standard
|	Cr	53	0.086	ug/L	0.003	3	156	329	1	Standard
⌊	Mn	55	0.043	ug/L	0.002	4	712	1866	2	Standard
⌈>	Ge	72		ug/L			32261	31739	1	KED
|	Ni	60	0.005	ug/L	0.003	66	6	12	32	KED
|	Ni	62	0.004	ug/L	0.018	488	3	3	86	KED
|	Cu	63	0.031	ug/L	0.010	32	47	146	21	KED
|	Cu	65	0.034	ug/L	0.008	22	19	73	15	KED
|	Zn	66	0.293	ug/L	0.025	8	19	150	8	KED
|	Zn	67	0.313	ug/L	0.055	17	4	27	14	KED
|	As	75	0.012	ug/L	0.005	42	6	9	13	KED
⌊	Se	78	0.011	ug/L	0.129	1159	29	29	12	KED
	Y	89		ug/L			269508	265629	2	Standard
	Kr	83		ug/L			48	42	15	Standard
⌈>	In-1	115		ug/L			10448	10430	1	KED
|	Cd	111	0.005	ug/L	0.009	174	1	3	78	KED
⌊	Cd	114	0.002	ug/L	0.005	289	1	2	153	KED
⌈>	In	115		ug/L			386612	389021	1	Standard
|	Ag	107	0.001	ug/L	0.001	114	30	40	28	Standard
|	Ba	135	0.033	ug/L	0.001	4	23	148	5	Standard
⌊	Ba	137	0.027	ug/L	0.004	15	36	219	11	Standard
⌈>	Tb	159		ug/L			622192	623589	2	Standard
⌊	Pb	208	0.008	ug/L	0.001	8	50	340	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0420-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 15:33:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	33994	2	Standard
	Cl	37		ug/L			5686581	5507981	2	Standard
>	Sc	45		ug/L			495415	487694	0	Standard
	Cr	52	24.960	ug/L	0.294	1	21583	462807	1	Standard
	Cr	53	25.460	ug/L	0.286	1	156	51725	1	Standard
	Mn	55	23.983	ug/L	0.734	3	712	651525	2	Standard
>	Ge	72		ug/L			32261	32440	0	KED
	Ni	60	25.250	ug/L	0.790	3	6	28888	3	KED
	Ni	62	25.047	ug/L	1.503	5	3	4675	5	KED
	Cu	63	25.065	ug/L	0.610	2	47	82556	2	KED
	Cu	65	25.957	ug/L	0.912	3	19	42731	3	KED
	Zn	66	80.823	ug/L	0.595	0	19	36966	0	KED
	Zn	67	76.162	ug/L	1.841	2	4	5871	2	KED
	As	75	24.610	ug/L	0.127	0	6	5918	0	KED
	Se	78	78.390	ug/L	2.799	3	29	2338	3	KED
	Y	89		ug/L			269508	265071	2	Standard
	Kr	83		ug/L			48	48	12	Standard
>	In-1	115		ug/L			10448	10129	1	KED
	Cd	111	25.980	ug/L	0.081	0	1	7784	1	KED
	Cd	114	25.921	ug/L	0.347	1	1	18606	0	KED
>	In	115		ug/L			386612	389507	0	Standard
	Ag	107	26.204	ug/L	0.237	0	30	348852	1	Standard
	Ba	135	25.171	ug/L	0.124	0	23	95758	0	Standard
	Ba	137	24.708	ug/L	0.446	1	36	165679	1	Standard
>	Tb	159		ug/L			622192	622001	0	Standard
	Pb	208	26.744	ug/L	0.471	1	50	978043	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0356-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, April 18, 2023 15:38:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	113028	1	Standard
	Cl	37		ug/L			5686581	5622877	2	Standard
>	Sc	45		ug/L			495415	523543	0	Standard
	Cr	52	23.434	ug/L	0.391	1	21583	467844	1	Standard
	Cr	53	23.693	ug/L	0.014	0	156	51682	0	Standard
	Mn	55	25.256	ug/L	0.410	1	712	736564	1	Standard
>	Ge	72		ug/L			32261	31234	0	KED
	Ni	60	3.764	ug/L	0.112	2	6	4150	2	KED
	Ni	62	3.804	ug/L	0.040	1	3	686	0	KED
	Cu	63	0.756	ug/L	0.042	5	47	2442	6	KED
	Cu	65	0.777	ug/L	0.025	3	19	1250	3	KED
	Zn	66	19.872	ug/L	0.275	1	19	8766	2	KED
	Zn	67	18.069	ug/L	0.646	3	4	1344	4	KED
	As	75	0.099	ug/L	0.005	4	6	29	4	KED
	Se	78	0.105	ug/L	0.125	119	29	31	10	KED
	Y	89		ug/L			269508	276257	3	Standard
	Kr	83		ug/L			48	39	35	Standard
>	In-1	115		ug/L			10448	9926	3	KED
	Cd	111	0.299	ug/L	0.002	0	1	89	3	KED
	Cd	114	0.319	ug/L	0.046	14	1	225	14	KED
>	In	115		ug/L			386612	385247	1	Standard
	Ag	107	0.025	ug/L	0.003	10	30	363	10	Standard
	Ba	135	4.057	ug/L	0.088	2	23	15282	1	Standard
	Ba	137	3.994	ug/L	0.089	2	36	26514	1	Standard
>	Tb	159		ug/L			622192	655203	3	Standard
	Pb	208	1.692	ug/L	0.074	4	50	65151	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0349-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, April 18, 2023 15:43:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	52364	1	Standard
	Cl	37		ug/L			5686581	6688442	3	Standard
>	Sc	45		ug/L			495415	525477	1	Standard
|	Cr	52	0.351	ug/L	0.043	12	21583	29586	3	Standard
|	Cr	53	1.257	ug/L	0.004	0	156	2908	0	Standard
|	Mn	55	432.054	ug/L	11.914	2	712	12632151	1	Standard
>	Ge	72		ug/L			32261	29354	1	KED
|	Ni	60	4.206	ug/L	0.135	3	6	4357	1	KED
|	Ni	62	3.985	ug/L	0.112	2	3	675	3	KED
|	Cu	63	4.038	ug/L	0.068	1	47	12074	3	KED
|	Cu	65	4.095	ug/L	0.201	4	19	6111	3	KED
|	Zn	66	71.866	ug/L	0.930	1	19	29740	0	KED
|	Zn	67	66.941	ug/L	0.534	0	4	4670	2	KED
|	As	75	0.564	ug/L	0.029	5	6	128	3	KED
|	Se	78	0.083	ug/L	0.088	105	29	29	6	KED
	Y	89		ug/L			269508	273929	1	Standard
	Kr	83		ug/L			48	53	0	Standard
>	In-1	115		ug/L			10448	9366	1	KED
|	Cd	111	0.168	ug/L	0.034	20	1	48	19	KED
|	Cd	114	0.158	ug/L	0.015	9	1	106	10	KED
>	In	115		ug/L			386612	375946	1	Standard
|	Ag	107	0.006	ug/L	0.001	11	30	104	7	Standard
|	Ba	135	30.384	ug/L	0.339	1	23	111559	1	Standard
|	Ba	137	30.179	ug/L	0.624	2	36	195287	1	Standard
>	Tb	159		ug/L			622192	649723	1	Standard
|	Pb	208	0.217	ug/L	0.010	4	50	8353	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0230-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, April 18, 2023 15:47:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	41447	3	Standard
	Cl	37		ug/L			5686581	5473500	1	Standard
⌈>	Sc	45		ug/L			495415	509019	2	Standard
|	Cr	52	3.455	ug/L	0.163	4	21583	85954	3	Standard
|	Cr	53	3.722	ug/L	0.021	0	156	8029	1	Standard
⌊	Mn	55	4.441	ug/L	0.011	0	712	126510	1	Standard
⌈>	Ge	72		ug/L			32261	27947	1	KED
|	Ni	60	0.570	ug/L	0.062	10	6	566	9	KED
|	Ni	62	0.595	ug/L	0.020	3	3	98	2	KED
|	Cu	63	2.567	ug/L	0.040	1	47	7319	1	KED
|	Cu	65	2.498	ug/L	0.029	1	19	3558	1	KED
|	Zn	66	5.355	ug/L	0.006	0	19	2125	1	KED
|	Zn	67	4.791	ug/L	0.349	7	4	321	7	KED
|	As	75	0.071	ug/L	0.011	15	6	20	10	KED
⌊	Se	78	0.213	ug/L	0.103	48	29	31	8	KED
	Y	89		ug/L			269508	268601	0	Standard
	Kr	83		ug/L			48	58	11	Standard
⌈>	In-1	115		ug/L			10448	8637	2	KED
|	Cd	111	0.005	ug/L	0.004	78	1	2	33	KED
⌊	Cd	114	0.004	ug/L	0.006	149	1	3	104	KED
⌈>	In	115		ug/L			386612	368960	1	Standard
|	Ag	107	0.001	ug/L	0.001	62	30	43	21	Standard
|	Ba	135	0.718	ug/L	0.012	1	23	2610	1	Standard
⌊	Ba	137	0.736	ug/L	0.019	2	36	4709	0	Standard
⌈>	Tb	159		ug/L			622192	637733	1	Standard
⌊	Pb	208	0.019	ug/L	0.001	4	50	758	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0230-02
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, April 18, 2023 15:52:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	39067	2	Standard
	Cl	37		ug/L			5686581	5397028	1	Standard
>	Sc	45		ug/L			495415	477790	7	Standard
	Cr	52	6.400	ug/L	0.556	8	21583	131265	0	Standard
	Cr	53	6.606	ug/L	0.365	5	156	13226	2	Standard
	Mn	55	5.060	ug/L	0.383	7	712	134733	0	Standard
>	Ge	72		ug/L			32261	27431	1	KED
	Ni	60	0.575	ug/L	0.056	9	6	561	10	KED
	Ni	62	0.513	ug/L	0.121	23	3	83	23	KED
	Cu	63	2.335	ug/L	0.051	2	47	6541	3	KED
	Cu	65	2.324	ug/L	0.053	2	19	3249	2	KED
	Zn	66	3.903	ug/L	0.105	2	19	1525	3	KED
	Zn	67	3.924	ug/L	0.509	12	4	259	13	KED
	As	75	0.033	ug/L	0.009	28	6	12	15	KED
	Se	78	-0.037	ug/L	0.064	173	29	24	5	KED
	Y	89		ug/L			269508	256334	8	Standard
	Kr	83		ug/L			48	46	15	Standard
>	In-1	115		ug/L			10448	8744	1	KED
	Cd	111	-0.002	ug/L	0.004	149	1	0	100	KED
	Cd	114	0.012	ug/L	0.006	50	1	8	46	KED
>	In	115		ug/L			386612	350967	9	Standard
	Ag	107	0.002	ug/L	0.001	34	30	47	12	Standard
	Ba	135	0.796	ug/L	0.090	11	23	2732	2	Standard
	Ba	137	0.801	ug/L	0.071	8	36	4849	1	Standard
>	Tb	159		ug/L			622192	608257	5	Standard
	Pb	208	0.038	ug/L	0.002	5	50	1402	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0230-03
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, April 18, 2023 15:57:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	36397	1	Standard
	Cl	37		ug/L			5686581	5394306	0	Standard
⌈>	Sc	45		ug/L			495415	506118	1	Standard
|	Cr	52	4.459	ug/L	0.036	0	21583	103905	1	Standard
|	Cr	53	4.596	ug/L	0.028	0	156	9819	1	Standard
⌊	Mn	55	4.438	ug/L	0.057	1	712	125706	0	Standard
⌈>	Ge	72		ug/L			32261	27721	0	KED
|	Ni	60	0.433	ug/L	0.040	9	6	428	9	KED
|	Ni	62	0.421	ug/L	0.072	16	3	69	15	KED
|	Cu	63	2.094	ug/L	0.070	3	47	5929	3	KED
|	Cu	65	2.137	ug/L	0.055	2	19	3021	1	KED
|	Zn	66	5.227	ug/L	0.129	2	19	2058	2	KED
|	Zn	67	4.948	ug/L	0.100	2	4	329	2	KED
|	As	75	0.046	ug/L	0.015	32	6	15	20	KED
⌊	Se	78	0.092	ug/L	0.296	320	29	27	26	KED
	Y	89		ug/L			269508	271324	2	Standard
	Kr	83		ug/L			48	41	16	Standard
⌈>	In-1	115		ug/L			10448	9034	1	KED
|	Cd	111	0.006	ug/L	0.007	129	1	3	62	KED
⌊	Cd	114	0.006	ug/L	0.006	104	1	4	80	KED
⌈>	In	115		ug/L			386612	367471	0	Standard
|	Ag	107	0.001	ug/L	0.001	39	30	45	14	Standard
|	Ba	135	0.734	ug/L	0.010	1	23	2657	1	Standard
⌊	Ba	137	0.719	ug/L	0.013	1	36	4580	1	Standard
⌈>	Tb	159		ug/L			622192	639288	0	Standard
⌊	Pb	208	0.011	ug/L	0.001	9	50	454	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0230-04
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, April 18, 2023 16:02:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	36218	1	Standard
	Cl	37		ug/L			5686581	5325907	1	Standard
>	Sc	45		ug/L			495415	511929	1	Standard
|	Cr	52	3.754	ug/L	0.021	0	21583	92000	1	Standard
|	Cr	53	4.037	ug/L	0.080	1	156	8743	1	Standard
|	Mn	55	4.345	ug/L	0.157	3	712	124453	1	Standard
>	Ge	72		ug/L			32261	27900	1	KED
|	Ni	60	0.357	ug/L	0.008	2	6	356	1	KED
|	Ni	62	0.383	ug/L	0.073	18	3	64	17	KED
|	Cu	63	1.858	ug/L	0.080	4	47	5300	3	KED
|	Cu	65	1.871	ug/L	0.050	2	19	2665	3	KED
|	Zn	66	3.697	ug/L	0.060	1	19	1470	1	KED
|	Zn	67	3.297	ug/L	0.407	12	4	222	11	KED
|	As	75	0.041	ug/L	0.006	14	6	14	8	KED
|	Se	78	0.005	ug/L	0.214	4742	29	25	20	KED
	Y	89		ug/L			269508	270125	1	Standard
	Kr	83		ug/L			48	37	7	Standard
>	In-1	115		ug/L			10448	8960	1	KED
|	Cd	111	0.006	ug/L	0.007	127	1	3	62	KED
|	Cd	114	0.002	ug/L	0.002	94	1	2	49	KED
>	In	115		ug/L			386612	372249	0	Standard
|	Ag	107	0.000	ug/L	0.000	439	30	30	16	Standard
|	Ba	135	0.688	ug/L	0.019	2	23	2523	2	Standard
|	Ba	137	0.691	ug/L	0.002	0	36	4462	1	Standard
>	Tb	159		ug/L			622192	645595	0	Standard
|	Pb	208	0.009	ug/L	0.001	10	50	386	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0212-12
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 16:06:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	47875	4	Standard
	Cl	**37**		ug/L			5686581	5897784	2	Standard
⌈>	**Sc**	**45**		ug/L			495415	523287	2	Standard
|	**Cr**	**52**	**0.599**	ug/L	0.033	5	21583	34161	2	Standard
|	**Cr**	**53**	**1.043**	ug/L	0.009	0	156	2432	2	Standard
⌊	**Mn**	**55**	**23.441**	ug/L	0.738	3	712	683015	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	30748	1	KED
|	**Ni**	**60**	**9.784**	ug/L	0.108	1	6	10613	0	KED
|	**Ni**	**62**	**9.767**	ug/L	0.239	2	3	1730	2	KED
|	**Cu**	**63**	**11.386**	ug/L	0.162	1	47	35568	0	KED
|	**Cu**	**65**	**11.202**	ug/L	0.131	1	19	17493	2	KED
|	**Zn**	**66**	**50.710**	ug/L	0.283	0	19	21992	1	KED
|	**Zn**	**67**	**46.593**	ug/L	0.697	1	4	3406	0	KED
|	**As**	**75**	**0.338**	ug/L	0.002	0	6	83	0	KED
⌊	**Se**	**78**	**0.126**	ug/L	0.066	52	29	31	6	KED
	Y	**89**		ug/L			269508	280435	1	Standard
	Kr	**83**		ug/L			48	42	24	Standard
⌈>	**In-1**	**115**		ug/L			10448	9819	2	KED
|	**Cd**	**111**	**0.032**	ug/L	0.011	34	1	11	27	KED
⌊	**Cd**	**114**	**0.035**	ug/L	0.005	13	1	25	14	KED
⌈>	**In**	**115**		ug/L			386612	397126	0	Standard
|	**Ag**	**107**	**0.003**	ug/L	0.000	8	30	71	5	Standard
|	**Ba**	**135**	**16.039**	ug/L	0.301	1	23	62214	1	Standard
⌊	**Ba**	**137**	**15.951**	ug/L	0.380	2	36	109076	3	Standard
⌈>	**Tb**	**159**		ug/L			622192	662757	1	Standard
⌊	**Pb**	**208**	**0.684**	ug/L	0.013	1	50	26715	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 16:11:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	27381	1	Standard
	Cl	**37**		ug/L			5686581	5473473	2	Standard
⌈>	**Sc**	**45**		ug/L			495415	473950	6	Standard
|	**Cr**	**52**	**-0.000**	ug/L	0.058	19140	21583	20605	2	Standard
|	**Cr**	**53**	**0.019**	ug/L	0.004	23	156	187	10	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.002	118	712	632	2	Standard
⌈>	**Ge**	**72**		ug/L			32261	30179	1	KED
|	**Ni**	**60**	**-0.000**	ug/L	0.005	2921	6	5	88	KED
|	**Ni**	**62**	**-0.003**	ug/L	0.017	635	3	2	114	KED
|	**Cu**	**63**	**0.003**	ug/L	0.002	69	47	54	14	KED
|	**Cu**	**65**	**0.002**	ug/L	0.007	414	19	20	50	KED
|	**Zn**	**66**	**0.103**	ug/L	0.018	17	19	62	12	KED
|	**Zn**	**67**	**0.092**	ug/L	0.013	14	4	10	10	KED
|	**As**	**75**	**0.006**	ug/L	0.011	171	6	7	30	KED
⌊	**Se**	**78**	**-0.180**	ug/L	0.087	48	29	22	11	KED
	Y	**89**		ug/L			269508	255352	5	Standard
	Kr	**83**		ug/L			48	53	29	Standard
⌈>	**In-1**	**115**		ug/L			10448	9850	0	KED
|	**Cd**	**111**	**0.001**	ug/L	0.008	555	1	2	107	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.005	451	1	1	173	KED
⌈>	**In**	**115**		ug/L			386612	372432	4	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.001	60	30	17	48	Standard
|	**Ba**	**135**	**-0.001**	ug/L	0.002	159	23	18	33	Standard
⌊	**Ba**	**137**	**-0.000**	ug/L	0.002	850	36	33	42	Standard
⌈>	**Tb**	**159**		ug/L			622192	601942	6	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	40	50	63	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 16:16:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	27892	1	Standard
	Cl	**37**		ug/L			5686581	5419586	0	Standard
⌈>	**Sc**	**45**		ug/L			495415	496529	1	Standard
|	**Cr**	**52**	**48.112**	ug/L	0.080	0	21583	888135	1	Standard
|	**Cr**	**53**	**48.957**	ug/L	0.658	1	156	101101	0	Standard
⌊	**Mn**	**55**	**45.920**	ug/L	0.988	2	712	1269529	2	Standard
⌈>	**Ge**	**72**		ug/L			32261	30975	0	KED
|	**Ni**	**60**	**49.701**	ug/L	1.539	3	6	54283	2	KED
|	**Ni**	**62**	**48.541**	ug/L	1.357	2	3	8649	2	KED
|	**Cu**	**63**	**49.547**	ug/L	1.261	2	47	155759	1	KED
|	**Cu**	**65**	**50.580**	ug/L	1.840	3	19	79486	3	KED
|	**Zn**	**66**	**49.649**	ug/L	1.083	2	19	21688	1	KED
|	**Zn**	**67**	**50.262**	ug/L	0.756	1	4	3701	1	KED
|	**As**	**75**	**48.639**	ug/L	0.596	1	6	11161	0	KED
⌊	**Se**	**78**	**47.547**	ug/L	1.697	3	29	1365	2	KED
	Y	**89**		ug/L			269508	271936	2	Standard
	Kr	**83**		ug/L			48	45	10	Standard
⌈>	**In-1**	**115**		ug/L			10448	9988	2	KED
|	**Cd**	**111**	**49.846**	ug/L	1.606	3	1	14718	0	KED
⌊	**Cd**	**114**	**49.997**	ug/L	1.926	3	1	35370	1	KED
⌈>	**In**	**115**		ug/L			386612	394705	2	Standard
|	**Ag**	**107**	**49.637**	ug/L	0.852	1	30	669422	1	Standard
|	**Ba**	**135**	**48.466**	ug/L	1.085	2	23	186753	0	Standard
⌊	**Ba**	**137**	**48.308**	ug/L	0.374	0	36	328180	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	657823	2	Standard
⌊	**Pb**	**208**	**50.264**	ug/L	1.267	2	50	1943551	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 16:23:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	27489	1	Standard
	Cl	**37**		ug/L			5686581	5496219	0	Standard
⌈>	**Sc**	**45**		ug/L			495415	477556	2	Standard
|	**Cr**	**52**	**0.001**	ug/L	0.014	1079	21583	20823	1	Standard
|	**Cr**	**53**	**0.002**	ug/L	0.008	419	156	154	10	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.006	399	712	649	27	Standard
⌈>	**Ge**	**72**		ug/L			32261	30674	0	KED
|	**Ni**	**60**	**0.007**	ug/L	0.015	225	6	13	123	KED
|	**Ni**	**62**	**0.019**	ug/L	0.012	65	3	6	34	KED
|	**Cu**	**63**	**0.006**	ug/L	0.012	197	47	64	57	KED
|	**Cu**	**65**	**0.009**	ug/L	0.003	27	19	33	12	KED
|	**Zn**	**66**	**-0.007**	ug/L	0.009	138	19	15	24	KED
|	**Zn**	**67**	**0.012**	ug/L	0.030	255	4	5	43	KED
|	**As**	**75**	**0.004**	ug/L	0.009	206	6	7	26	KED
⌊	**Se**	**78**	**-0.056**	ug/L	0.123	218	29	26	12	KED
	Y	**89**		ug/L			269508	261314	0	Standard
	Kr	**83**		ug/L			48	33	8	Standard
⌈>	**In-1**	**115**		ug/L			10448	10028	2	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.006	185	1	0	173	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.003	78	1	3	54	KED
⌈>	**In**	**115**		ug/L			386612	387307	2	Standard
|	**Ag**	**107**	**0.004**	ug/L	0.004	115	30	78	72	Standard
|	**Ba**	**135**	**0.002**	ug/L	0.004	251	23	30	57	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.005	371	36	46	78	Standard
⌈>	**Tb**	**159**		ug/L			622192	617227	3	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.002	99	50	138	66	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0472-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 16:30:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	32742	3	Standard
	Cl	37		ug/L			5686581	5503300	0	Standard
>	Sc	45		ug/L			495415	483573	2	Standard
	Cr	52	0.065	ug/L	0.024	36	21583	22210	1	Standard
	Cr	53	0.061	ug/L	0.016	26	156	274	10	Standard
	Mn	55	0.173	ug/L	0.001	0	712	5352	1	Standard
>	Ge	72		ug/L			32261	30873	1	KED
	Ni	60	0.245	ug/L	0.020	8	6	273	9	KED
	Ni	62	0.226	ug/L	0.085	37	3	43	35	KED
	Cu	63	0.057	ug/L	0.006	9	47	222	9	KED
	Cu	65	0.047	ug/L	0.007	15	19	92	13	KED
	Zn	66	1.091	ug/L	0.083	7	19	493	8	KED
	Zn	67	1.007	ug/L	0.102	10	4	78	10	KED
	As	75	0.010	ug/L	0.015	160	6	8	41	KED
	Se	78	0.005	ug/L	0.063	1294	29	28	7	KED
	Y	89		ug/L			269508	258958	2	Standard
	Kr	83		ug/L			48	37	21	Standard
>	In-1	115		ug/L			10448	10133	1	KED
	Cd	111	0.000	ug/L	0.006	3717	1	1	100	KED
	Cd	114	0.008	ug/L	0.005	64	1	6	51	KED
>	In	115		ug/L			386612	390316	0	Standard
	Ag	107	0.000	ug/L	0.000	69	30	34	8	Standard
	Ba	135	0.086	ug/L	0.010	11	23	350	11	Standard
	Ba	137	0.079	ug/L	0.004	4	36	570	4	Standard
>	Tb	159		ug/L			622192	627228	0	Standard
	Pb	208	0.138	ug/L	0.003	2	50	5145	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0472-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 16:35:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27779	33865	1	Standard
Cl	37		ug/L			5686581	5619832	0	Standard
Sc	45		ug/L			495415	503172	1	Standard
Cr	52	24.626	ug/L	0.329	1	21583	471422	2	Standard
Cr	53	25.045	ug/L	0.238	0	156	52497	1	Standard
Mn	55	23.366	ug/L	0.180	0	712	654970	1	Standard
Ge	72		ug/L			32261	31792	2	KED
Ni	60	25.513	ug/L	0.628	2	6	28596	0	KED
Ni	62	25.109	ug/L	0.233	0	3	4593	1	KED
Cu	63	25.382	ug/L	0.525	2	47	81903	0	KED
Cu	65	25.203	ug/L	0.823	3	19	40651	2	KED
Zn	66	82.124	ug/L	1.860	2	19	36800	1	KED
Zn	67	75.894	ug/L	3.238	4	4	5731	2	KED
As	75	24.481	ug/L	0.329	1	6	5768	1	KED
Se	78	78.466	ug/L	2.232	2	29	2293	2	KED
Y	89		ug/L			269508	280266	0	Standard
Kr	83		ug/L			48	46	8	Standard
In-1	115		ug/L			10448	9766	5	KED
Cd	111	26.343	ug/L	0.879	3	1	7602	2	KED
Cd	114	26.516	ug/L	1.203	4	1	18325	1	KED
In	115		ug/L			386612	397727	2	Standard
Ag	107	25.624	ug/L	0.485	1	30	348241	0	Standard
Ba	135	24.781	ug/L	0.932	3	23	96215	1	Standard
Ba	137	24.598	ug/L	0.551	2	36	168377	0	Standard
Tb	159		ug/L			622192	658996	0	Standard
Pb	208	25.494	ug/L	0.171	0	50	987856	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0210-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 16:40:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	41103	2	Standard
	Cl	**37**		ug/L			5686581	8793956	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	509667	0	Standard
|	**Cr**	**52**	**0.700**	ug/L	0.013	1	21583	35140	0	Standard
|	**Cr**	**53**	**4.027**	ug/L	0.095	2	156	8685	2	Standard
⌊	**Mn**	**55**	**23.208**	ug/L	0.381	1	712	658949	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	30161	0	KED
|	**Ni**	**60**	**0.409**	ug/L	0.028	6	6	441	6	KED
|	**Ni**	**62**	**0.448**	ug/L	0.031	7	3	80	6	KED
|	**Cu**	**63**	**3.274**	ug/L	0.025	0	47	10064	0	KED
|	**Cu**	**65**	**3.347**	ug/L	0.108	3	19	5139	3	KED
|	**Zn**	**66**	**31.360**	ug/L	0.978	3	19	13347	3	KED
|	**Zn**	**67**	**30.039**	ug/L	0.523	1	4	2155	1	KED
|	**As**	**75**	**0.502**	ug/L	0.021	4	6	118	3	KED
⌊	**Se**	**78**	**0.029**	ug/L	0.203	705	29	28	19	KED
	Y	**89**		ug/L			269508	273446	3	Standard
	Kr	**83**		ug/L			48	52	11	Standard
⌈>	**In-1**	**115**		ug/L			10448	9899	0	KED
|	**Cd**	**111**	**0.052**	ug/L	0.012	22	1	17	20	KED
⌊	**Cd**	**114**	**0.052**	ug/L	0.005	9	1	37	9	KED
⌈>	**In**	**115**		ug/L			386612	383579	0	Standard
|	**Ag**	**107**	**0.007**	ug/L	0.001	15	30	123	11	Standard
|	**Ba**	**135**	**8.397**	ug/L	0.141	1	23	31473	1	Standard
⌊	**Ba**	**137**	**8.367**	ug/L	0.143	1	36	55277	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	641274	2	Standard
⌊	**Pb**	**208**	**0.369**	ug/L	0.011	2	50	13960	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0210-03
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 16:45:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	37175	3	Standard
	Cl	**37**		ug/L			5686581	10892913	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	514543	1	Standard
|	**Cr**	**52**	**0.458**	ug/L	0.015	3	21583	30963	0	Standard
|	**Cr**	**53**	**5.730**	ug/L	0.022	0	156	12407	1	Standard
⌊	**Mn**	**55**	**2.820**	ug/L	0.037	1	712	81479	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	29373	0	KED
|	**Ni**	**60**	**0.445**	ug/L	0.040	9	6	466	8	KED
|	**Ni**	**62**	**0.493**	ug/L	0.120	24	3	86	24	KED
|	**Cu**	**63**	**0.818**	ug/L	0.023	2	47	2481	2	KED
|	**Cu**	**65**	**0.825**	ug/L	0.046	5	19	1247	5	KED
|	**Zn**	**66**	**0.848**	ug/L	0.077	9	19	368	8	KED
|	**Zn**	**67**	**1.634**	ug/L	0.169	10	4	118	10	KED
|	**As**	**75**	**1.198**	ug/L	0.075	6	6	266	5	KED
⌊	**Se**	**78**	**0.073**	ug/L	0.037	50	29	28	4	KED
	Y	**89**		ug/L			269508	270482	0	Standard
	Kr	**83**		ug/L			48	67	3	Standard
⌈>	**In-1**	**115**		ug/L			10448	9426	2	KED
|	**Cd**	**111**	**0.007**	ug/L	0.009	119	1	3	66	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.006	84	1	5	68	KED
⌈>	**In**	**115**		ug/L			386612	370609	1	Standard
|	**Ag**	**107**	**0.005**	ug/L	0.001	14	30	87	7	Standard
|	**Ba**	**135**	**10.479**	ug/L	0.223	2	23	37937	1	Standard
⌊	**Ba**	**137**	**10.284**	ug/L	0.260	2	36	65628	2	Standard
⌈>	**Tb**	**159**		ug/L			622192	634252	3	Standard
⌊	**Pb**	**208**	**0.070**	ug/L	0.003	4	50	2675	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0210-05
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 16:49:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	35057	2	Standard
	Cl	**37**		ug/L			5686581	5467961	2	Standard
⌈>	**Sc**	**45**		ug/L			495415	531463	2	Standard
|	**Cr**	**52**	**0.640**	ug/L	0.019	2	21583	35490	1	Standard
|	**Cr**	**53**	**0.902**	ug/L	0.027	2	156	2160	5	Standard
⌊	**Mn**	**55**	**0.787**	ug/L	0.019	2	712	24019	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	31580	1	KED
|	**Ni**	**60**	**0.059**	ug/L	0.007	12	6	72	9	KED
|	**Ni**	**62**	**0.088**	ug/L	0.012	13	3	19	10	KED
|	**Cu**	**63**	**2.338**	ug/L	0.005	0	47	7537	1	KED
|	**Cu**	**65**	**2.375**	ug/L	0.051	2	19	3825	3	KED
|	**Zn**	**66**	**0.457**	ug/L	0.060	13	19	222	13	KED
|	**Zn**	**67**	**0.712**	ug/L	0.122	17	4	57	16	KED
|	**As**	**75**	**0.115**	ug/L	0.013	11	6	33	9	KED
⌊	**Se**	**78**	**0.101**	ug/L	0.073	72	29	31	6	KED
	Y	**89**		ug/L			269508	277059	3	Standard
	Kr	**83**		ug/L			48	31	24	Standard
⌈>	**In-1**	**115**		ug/L			10448	10331	2	KED
|	**Cd**	**111**	**0.001**	ug/L	0.005	437	1	2	65	KED
⌊	**Cd**	**114**	**-0.014**	ug/L	0.017	118	1	-9	134	KED
⌈>	**In**	**115**		ug/L			386612	400244	1	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.001	45	30	65	24	Standard
|	**Ba**	**135**	**2.754**	ug/L	0.042	1	23	10786	2	Standard
⌊	**Ba**	**137**	**2.762**	ug/L	0.039	1	36	19062	0	Standard
⌈>	**Tb**	**159**		ug/L			622192	650261	3	Standard
⌊	**Pb**	**208**	**0.247**	ug/L	0.005	1	50	9481	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0284-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, April 18, 2023 16:54:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	32247	1	Standard
	Cl	37		ug/L			5686581	5539015	1	Standard
⌈>	Sc	45		ug/L			495415	540841	0	Standard
|	Cr	52	0.510	ug/L	0.017	3	21583	33576	0	Standard
|	Cr	53	0.862	ug/L	0.011	1	156	2106	1	Standard
⌊	Mn	55	0.866	ug/L	0.012	1	712	26832	0	Standard
⌈>	Ge	72		ug/L			32261	31905	2	KED
|	Ni	60	0.997	ug/L	0.022	2	6	1128	2	KED
|	Ni	62	0.939	ug/L	0.065	6	3	175	4	KED
|	Cu	63	3.246	ug/L	0.093	2	47	10549	1	KED
|	Cu	65	3.166	ug/L	0.102	3	19	5140	0	KED
|	Zn	66	2.129	ug/L	0.150	7	19	975	6	KED
|	Zn	67	1.949	ug/L	0.373	19	4	152	20	KED
|	As	75	0.276	ug/L	0.017	6	6	71	4	KED
⌊	Se	78	-0.018	ug/L	0.208	1132	29	28	18	KED
	Y	89		ug/L			269508	278667	3	Standard
	Kr	83		ug/L			48	40	26	Standard
⌈>	In-1	115		ug/L			10448	10157	2	KED
|	Cd	111	0.002	ug/L	0.008	336	1	2	94	KED
⌊	Cd	114	0.001	ug/L	0.004	346	1	2	146	KED
⌈>	In	115		ug/L			386612	397732	0	Standard
|	Ag	107	0.002	ug/L	0.001	42	30	52	17	Standard
|	Ba	135	1.264	ug/L	0.023	1	23	4931	1	Standard
⌊	Ba	137	1.262	ug/L	0.027	2	36	8675	1	Standard
⌈>	Tb	159		ug/L			622192	653455	2	Standard
⌊	Pb	208	0.032	ug/L	0.001	3	50	1271	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0212-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 16:59:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	43596	2	Standard
	Cl	37		ug/L			5686581	5594418	1	Standard
>	Sc	45		ug/L			495415	535460	0	Standard
	Cr	52	0.359	ug/L	0.036	9	21583	30298	1	Standard
	Cr	53	0.507	ug/L	0.006	1	156	1296	0	Standard
	Mn	55	3.707	ug/L	0.021	0	712	111229	0	Standard
>	Ge	72		ug/L			32261	32467	1	KED
	Ni	60	10.707	ug/L	0.258	2	6	12261	1	KED
	Ni	62	10.458	ug/L	0.191	1	3	1955	0	KED
	Cu	63	4.804	ug/L	0.027	0	47	15872	1	KED
	Cu	65	4.774	ug/L	0.050	1	19	7882	2	KED
	Zn	66	9.490	ug/L	0.260	2	19	4360	1	KED
	Zn	67	8.711	ug/L	0.502	5	4	676	6	KED
	As	75	0.706	ug/L	0.036	5	6	176	4	KED
	Se	78	0.024	ug/L	0.184	763	29	30	18	KED
	Y	89		ug/L			269508	282578	0	Standard
	Kr	83		ug/L			48	37	16	Standard
>	In-1	115		ug/L			10448	10478	0	KED
	Cd	111	0.027	ug/L	0.013	47	1	10	39	KED
	Cd	114	0.021	ug/L	0.000	0	1	16	1	KED
>	In	115		ug/L			386612	404073	2	Standard
	Ag	107	0.006	ug/L	0.001	13	30	114	9	Standard
	Ba	135	4.286	ug/L	0.187	4	23	16924	2	Standard
	Ba	137	4.249	ug/L	0.171	4	36	29573	1	Standard
>	Tb	159		ug/L			622192	670494	1	Standard
	Pb	208	0.321	ug/L	0.009	2	50	12691	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0420-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 17:04:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	43711	1	Standard
	Cl	37		ug/L			5686581	5583769	3	Standard
>	Sc	45		ug/L			495415	529743	3	Standard
	Cr	52	0.384	ug/L	0.061	15	21583	30440	1	Standard
	Cr	53	0.514	ug/L	0.006	1	156	1297	3	Standard
	Mn	55	3.461	ug/L	0.158	4	712	102690	1	Standard
>	Ge	72		ug/L			32261	32314	1	KED
	Ni	60	10.803	ug/L	0.364	3	6	12313	2	KED
	Ni	62	10.807	ug/L	0.361	3	3	2012	4	KED
	Cu	63	4.716	ug/L	0.097	2	47	15511	1	KED
	Cu	65	4.761	ug/L	0.099	2	19	7823	1	KED
	Zn	66	9.721	ug/L	0.313	3	19	4446	3	KED
	Zn	67	8.768	ug/L	0.296	3	4	677	4	KED
	As	75	0.783	ug/L	0.008	1	6	194	1	KED
	Se	78	-0.039	ug/L	0.100	258	29	28	10	KED
	Y	89		ug/L			269508	288187	1	Standard
	Kr	83		ug/L			48	32	25	Standard
>	In-1	115		ug/L			10448	10466	0	KED
	Cd	111	0.026	ug/L	0.007	25	1	9	20	KED
	Cd	114	0.018	ug/L	0.005	29	1	14	27	KED
>	In	115		ug/L			386612	403069	0	Standard
	Ag	107	0.005	ug/L	0.000	4	30	106	3	Standard
	Ba	135	4.335	ug/L	0.057	1	23	17086	0	Standard
	Ba	137	4.322	ug/L	0.056	1	36	30020	0	Standard
>	Tb	159		ug/L			622192	651190	2	Standard
	Pb	208	0.153	ug/L	0.003	1	50	5896	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0420-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 17:08:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	43158	0	Standard
	Cl	37		ug/L			5686581	5546861	1	Standard
>	Sc	45		ug/L			495415	523820	3	Standard
|	Cr	52	24.302	ug/L	0.427	1	21583	484373	2	Standard
|	Cr	53	24.993	ug/L	0.694	2	156	54500	1	Standard
_	Mn	55	26.401	ug/L	0.705	2	712	769815	1	Standard
>	Ge	72		ug/L			32261	32091	1	KED
|	Ni	60	37.265	ug/L	0.225	0	6	42171	1	KED
|	Ni	62	36.466	ug/L	0.413	1	3	6733	2	KED
|	Cu	63	31.093	ug/L	1.304	4	47	101242	2	KED
|	Cu	65	30.941	ug/L	1.722	5	19	50355	3	KED
|	Zn	66	89.769	ug/L	1.275	1	19	40608	1	KED
|	Zn	67	84.264	ug/L	2.184	2	4	6424	2	KED
|	As	75	25.585	ug/L	0.458	1	6	6084	0	KED
_	Se	78	76.526	ug/L	3.353	4	29	2258	2	KED
	Y	89		ug/L			269508	282219	1	Standard
	Kr	83		ug/L			48	38	10	Standard
>	In-1	115		ug/L			10448	10365	6	KED
|	Cd	111	25.661	ug/L	1.987	7	1	7841	1	KED
_	Cd	114	25.596	ug/L	1.943	7	1	18740	0	KED
>	In	115		ug/L			386612	399896	0	Standard
|	Ag	107	26.649	ug/L	0.270	1	30	364248	1	Standard
|	Ba	135	30.050	ug/L	0.635	2	23	117361	1	Standard
_	Ba	137	29.431	ug/L	0.785	2	36	202582	2	Standard
>	Tb	159		ug/L			622192	658838	3	Standard
_	Pb	208	26.600	ug/L	0.502	1	50	1030148	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 17:13:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	27283	1	Standard
	Cl	**37**		ug/L			5686581	5452873	2	Standard
⌈>	**Sc**	**45**		ug/L			495415	472451	0	Standard
|	**Cr**	**52**	**-0.005**	ug/L	0.021	396	21583	20493	1	Standard
|	**Cr**	**53**	**0.026**	ug/L	0.005	19	156	199	5	Standard
⌊	**Mn**	**55**	**-0.004**	ug/L	0.000	3	712	582	0	Standard
⌈>	**Ge**	**72**		ug/L			32261	31508	1	KED
|	**Ni**	**60**	**0.012**	ug/L	0.023	194	6	19	130	KED
|	**Ni**	**62**	**0.022**	ug/L	0.016	75	3	6	41	KED
|	**Cu**	**63**	**0.012**	ug/L	0.022	176	47	85	80	KED
|	**Cu**	**65**	**0.013**	ug/L	0.019	150	19	39	76	KED
|	**Zn**	**66**	**0.138**	ug/L	0.081	58	19	80	44	KED
|	**Zn**	**67**	**0.231**	ug/L	0.174	75	4	21	60	KED
|	**As**	**75**	**0.003**	ug/L	0.021	751	6	7	65	KED
⌊	**Se**	**78**	**0.136**	ug/L	0.154	112	29	32	12	KED
	Y	**89**		ug/L			269508	256927	1	Standard
	Kr	**83**		ug/L			48	51	14	Standard
⌈>	**In-1**	**115**		ug/L			10448	10090	1	KED
|	**Cd**	**111**	**0.002**	ug/L	0.002	77	1	2	21	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.005	479	1	1	175	KED
⌈>	**In**	**115**		ug/L			386612	377566	1	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.001	34	30	57	15	Standard
|	**Ba**	**135**	**0.002**	ug/L	0.001	88	23	28	17	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.001	89	36	43	15	Standard
⌈>	**Tb**	**159**		ug/L			622192	618525	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	74	50	97	35	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 17:18:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	26562	1	Standard
	Cl	**37**		ug/L			5686581	5600359	3	Standard
⌈>	**Sc**	**45**		ug/L			495415	491962	1	Standard
|	**Cr**	**52**	**47.715**	ug/L	0.420	0	21583	872853	0	Standard
|	**Cr**	**53**	**48.547**	ug/L	0.637	1	156	99338	0	Standard
⌊	**Mn**	**55**	**45.105**	ug/L	0.945	2	712	1235299	0	Standard
⌈>	**Ge**	**72**		ug/L			32261	31525	2	KED
|	**Ni**	**60**	**50.621**	ug/L	1.913	3	6	56238	1	KED
|	**Ni**	**62**	**49.260**	ug/L	0.643	1	3	8932	1	KED
|	**Cu**	**63**	**49.952**	ug/L	0.495	0	47	159820	2	KED
|	**Cu**	**65**	**48.859**	ug/L	0.764	1	19	78135	1	KED
|	**Zn**	**66**	**50.390**	ug/L	1.567	3	19	22392	1	KED
|	**Zn**	**67**	**48.414**	ug/L	1.694	3	4	3626	0	KED
|	**As**	**75**	**48.492**	ug/L	1.020	2	6	11322	1	KED
⌊	**Se**	**78**	**49.575**	ug/L	0.767	1	29	1447	1	KED
	Y	**89**		ug/L			269508	272097	2	Standard
	Kr	**83**		ug/L			48	46	22	Standard
⌈>	**In-1**	**115**		ug/L			10448	10111	1	KED
|	**Cd**	**111**	**49.631**	ug/L	0.795	1	1	14842	1	KED
⌊	**Cd**	**114**	**50.748**	ug/L	1.152	2	1	36360	1	KED
⌈>	**In**	**115**		ug/L			386612	386592	2	Standard
|	**Ag**	**107**	**50.890**	ug/L	1.917	3	30	672010	1	Standard
|	**Ba**	**135**	**48.985**	ug/L	0.803	1	23	184896	0	Standard
⌊	**Ba**	**137**	**48.328**	ug/L	1.291	2	36	321474	0	Standard
⌈>	**Tb**	**159**		ug/L			622192	643257	2	Standard
⌊	**Pb**	**208**	**49.366**	ug/L	1.335	2	50	1866540	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 17:25:46
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	25565	2	Standard
	Cl	**37**		ug/L			5686581	5588128	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	456015	2	Standard
|	**Cr**	**52**	**0.018**	ug/L	0.029	161	21583	20162	1	Standard
|	**Cr**	**53**	**0.013**	ug/L	0.003	24	156	169	5	Standard
⌊	**Mn**	**55**	**-0.004**	ug/L	0.000	7	712	544	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	30864	1	KED
|	**Ni**	**60**	**-0.002**	ug/L	0.004	235	6	4	89	KED
|	**Ni**	**62**	**-0.006**	ug/L	0.011	164	3	1	100	KED
|	**Cu**	**63**	**0.001**	ug/L	0.003	289	47	48	19	KED
|	**Cu**	**65**	**0.001**	ug/L	0.009	1760	19	19	73	KED
|	**Zn**	**66**	**-0.007**	ug/L	0.017	253	19	15	48	KED
|	**Zn**	**67**	**-0.006**	ug/L	0.045	786	4	3	86	KED
|	**As**	**75**	**-0.006**	ug/L	0.005	94	6	5	24	KED
⌊	**Se**	**78**	**0.127**	ug/L	0.206	162	29	31	16	KED
	Y	**89**		ug/L			269508	260290	3	Standard
	Kr	**83**		ug/L			48	38	21	Standard
⌈>	**In-1**	**115**		ug/L			10448	10124	1	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.004	406	1	1	69	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.006	216	1	3	131	KED
⌈>	**In**	**115**		ug/L			386612	381953	0	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.001	42	30	61	21	Standard
|	**Ba**	**135**	**-0.001**	ug/L	0.003	319	23	20	46	Standard
⌊	**Ba**	**137**	**-0.000**	ug/L	0.001	5338	36	36	24	Standard
⌈>	**Tb**	**159**		ug/L			622192	604170	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	49	50	94	23	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0212-13
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 17:33:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	46932	0	Standard
	Cl	**37**		ug/L			5686581	5565342	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	521367	3	Standard
|	**Cr**	**52**	**0.609**	ug/L	0.023	3	21583	34219	2	Standard
|	**Cr**	**53**	**0.661**	ug/L	0.021	3	156	1595	0	Standard
⌊	**Mn**	**55**	**33.451**	ug/L	1.370	4	712	970411	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	31595	2	KED
|	**Ni**	**60**	**10.209**	ug/L	0.174	1	6	11377	2	KED
|	**Ni**	**62**	**9.942**	ug/L	0.357	3	3	1810	6	KED
|	**Cu**	**63**	**4.645**	ug/L	0.060	1	47	14935	1	KED
|	**Cu**	**65**	**4.688**	ug/L	0.118	2	19	7530	2	KED
|	**Zn**	**66**	**2.083**	ug/L	0.084	4	19	946	1	KED
|	**Zn**	**67**	**2.066**	ug/L	0.064	3	4	159	3	KED
|	**As**	**75**	**0.595**	ug/L	0.008	1	6	145	3	KED
⌊	**Se**	**78**	**0.088**	ug/L	0.023	26	29	31	2	KED
	Y	**89**		ug/L			269508	272055	3	Standard
	Kr	**83**		ug/L			48	52	25	Standard
⌈>	**In-1**	**115**		ug/L			10448	10258	1	KED
|	**Cd**	**111**	**0.005**	ug/L	0.003	65	1	3	31	KED
⌊	**Cd**	**114**	**0.008**	ug/L	0.001	17	1	6	16	KED
⌈>	**In**	**115**		ug/L			386612	387570	1	Standard
|	**Ag**	**107**	**0.005**	ug/L	0.004	81	30	99	56	Standard
|	**Ba**	**135**	**5.989**	ug/L	0.064	1	23	22691	1	Standard
⌊	**Ba**	**137**	**5.883**	ug/L	0.027	0	36	39279	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	641887	3	Standard
⌊	**Pb**	**208**	**0.027**	ug/L	0.004	14	50	1060	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0199-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 17:37:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	38322	2	Standard
	Cl	**37**		ug/L			5686581	5684677	0	Standard
⌈>	**Sc**	**45**		ug/L			495415	486247	2	Standard
|	**Cr**	**52**	**0.416**	ug/L	0.070	16	21583	28501	1	Standard
|	**Cr**	**53**	**0.408**	ug/L	0.018	4	156	977	2	Standard
⌊	**Mn**	**55**	**1.283**	ug/L	0.054	4	712	35383	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	31637	2	KED
|	**Ni**	**60**	**0.117**	ug/L	0.019	15	6	137	14	KED
|	**Ni**	**62**	**0.102**	ug/L	0.041	40	3	21	33	KED
|	**Cu**	**63**	**2.476**	ug/L	0.080	3	47	7990	1	KED
|	**Cu**	**65**	**2.396**	ug/L	0.119	4	19	3862	3	KED
|	**Zn**	**66**	**35.499**	ug/L	1.184	3	19	15835	0	KED
|	**Zn**	**67**	**33.087**	ug/L	0.811	2	4	2489	0	KED
|	**As**	**75**	**0.036**	ug/L	0.014	37	6	15	17	KED
⌊	**Se**	**78**	**0.055**	ug/L	0.070	127	29	30	4	KED
	Y	**89**		ug/L			269508	266721	2	Standard
	Kr	**83**		ug/L			48	33	17	Standard
⌈>	**In-1**	**115**		ug/L			10448	10466	1	KED
|	**Cd**	**111**	**0.020**	ug/L	0.004	21	1	8	17	KED
⌊	**Cd**	**114**	**0.022**	ug/L	0.011	49	1	17	44	KED
⌈>	**In**	**115**		ug/L			386612	389412	3	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	60	30	48	21	Standard
|	**Ba**	**135**	**9.618**	ug/L	0.477	4	23	36548	1	Standard
⌊	**Ba**	**137**	**9.548**	ug/L	0.455	4	36	63953	0	Standard
⌈>	**Tb**	**159**		ug/L			622192	627246	1	Standard
⌊	**Pb**	**208**	**0.460**	ug/L	0.009	2	50	17023	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0212-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 17:42:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	45106	1	Standard
	Cl	**37**		ug/L			5686581	5603712	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	493682	2	Standard
|	**Cr**	**52**	**1.220**	ug/L	0.007	0	21583	43348	2	Standard
|	**Cr**	**53**	**1.372**	ug/L	0.083	6	156	2966	3	Standard
⌊	**Mn**	**55**	**26.839**	ug/L	0.849	3	712	737635	0	Standard
⌈>	**Ge**	**72**		ug/L			32261	32245	0	KED
|	**Ni**	**60**	**6.410**	ug/L	0.066	1	6	7294	0	KED
|	**Ni**	**62**	**6.234**	ug/L	0.331	5	3	1159	5	KED
|	**Cu**	**63**	**10.944**	ug/L	0.177	1	47	35853	1	KED
|	**Cu**	**65**	**11.109**	ug/L	0.179	1	19	18192	2	KED
|	**Zn**	**66**	**81.175**	ug/L	2.625	3	19	36902	2	KED
|	**Zn**	**67**	**70.590**	ug/L	1.907	2	4	5409	2	KED
|	**As**	**75**	**0.860**	ug/L	0.034	3	6	212	3	KED
⌊	**Se**	**78**	**-0.071**	ug/L	0.013	18	29	27	1	KED
	Y	**89**		ug/L			269508	279462	1	Standard
	Kr	**83**		ug/L			48	42	18	Standard
⌈>	**In-1**	**115**		ug/L			10448	10305	3	KED
|	**Cd**	**111**	**0.047**	ug/L	0.006	12	1	16	10	KED
⌊	**Cd**	**114**	**0.049**	ug/L	0.011	22	1	36	18	KED
⌈>	**In**	**115**		ug/L			386612	387046	0	Standard
|	**Ag**	**107**	**0.005**	ug/L	0.001	21	30	93	14	Standard
|	**Ba**	**135**	**11.640**	ug/L	0.179	1	23	44012	0	Standard
⌊	**Ba**	**137**	**11.458**	ug/L	0.101	0	36	76369	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	640772	2	Standard
⌊	**Pb**	**208**	**0.603**	ug/L	0.010	1	50	22783	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0212-03
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 17:47:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	41227	3	Standard
	Cl	**37**		ug/L			5686581	5917606	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	512399	1	Standard
|	**Cr**	**52**	**0.596**	ug/L	0.006	1	21583	33396	1	Standard
|	**Cr**	**53**	**1.114**	ug/L	0.020	1	156	2531	0	Standard
⌊	**Mn**	**55**	**22.926**	ug/L	0.425	1	712	654548	3	Standard
⌈>	**Ge**	**72**		ug/L			32261	31212	2	KED
|	**Ni**	**60**	**13.005**	ug/L	0.093	0	6	14320	2	KED
|	**Ni**	**62**	**12.877**	ug/L	0.849	6	3	2314	6	KED
|	**Cu**	**63**	**10.931**	ug/L	0.247	2	47	34676	4	KED
|	**Cu**	**65**	**10.932**	ug/L	0.138	1	19	17324	0	KED
|	**Zn**	**66**	**51.062**	ug/L	0.766	1	19	22473	0	KED
|	**Zn**	**67**	**46.244**	ug/L	0.729	1	4	3432	2	KED
|	**As**	**75**	**0.309**	ug/L	0.037	11	6	78	10	KED
⌊	**Se**	**78**	**0.133**	ug/L	0.078	58	29	32	8	KED
	Y	**89**		ug/L			269508	277149	2	Standard
	Kr	**83**		ug/L			48	45	12	Standard
⌈>	**In-1**	**115**		ug/L			10448	10369	5	KED
|	**Cd**	**111**	**0.047**	ug/L	0.010	20	1	16	17	KED
⌊	**Cd**	**114**	**0.031**	ug/L	0.017	56	1	23	48	KED
⌈>	**In**	**115**		ug/L			386612	387685	2	Standard
|	**Ag**	**107**	**0.004**	ug/L	0.001	17	30	78	9	Standard
|	**Ba**	**135**	**16.019**	ug/L	0.450	2	23	60637	0	Standard
⌊	**Ba**	**137**	**15.931**	ug/L	0.474	2	36	106291	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	652285	1	Standard
⌊	**Pb**	**208**	**0.638**	ug/L	0.012	1	50	24502	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0212-04
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 17:51:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	43860	1	Standard
	Cl	**37**		ug/L			5686581	5621133	3	Standard
⌈>	**Sc**	**45**		ug/L			495415	495886	0	Standard
|	**Cr**	**52**	**0.580**	ug/L	0.017	2	21583	32040	0	Standard
|	**Cr**	**53**	**0.621**	ug/L	0.020	3	156	1434	2	Standard
⌊	**Mn**	**55**	**9.969**	ug/L	0.074	0	712	275803	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	31455	0	KED
|	**Ni**	**60**	**9.521**	ug/L	0.179	1	6	10565	1	KED
|	**Ni**	**62**	**9.867**	ug/L	0.525	5	3	1788	6	KED
|	**Cu**	**63**	**7.049**	ug/L	0.140	1	47	22544	1	KED
|	**Cu**	**65**	**7.092**	ug/L	0.271	3	19	11338	4	KED
|	**Zn**	**66**	**5.150**	ug/L	0.098	1	19	2301	1	KED
|	**Zn**	**67**	**5.791**	ug/L	0.221	3	4	436	2	KED
|	**As**	**75**	**0.556**	ug/L	0.029	5	6	136	4	KED
⌊	**Se**	**78**	**0.155**	ug/L	0.140	90	29	33	11	KED
	Y	**89**		ug/L			269508	273645	3	Standard
	Kr	**83**		ug/L			48	50	33	Standard
⌈>	**In-1**	**115**		ug/L			10448	10222	2	KED
|	**Cd**	**111**	**0.009**	ug/L	0.008	92	1	4	53	KED
⌊	**Cd**	**114**	**0.008**	ug/L	0.002	29	1	7	26	KED
⌈>	**In**	**115**		ug/L			386612	386871	1	Standard
|	**Ag**	**107**	**0.003**	ug/L	0.001	28	30	72	16	Standard
|	**Ba**	**135**	**13.960**	ug/L	0.221	1	23	52755	1	Standard
⌊	**Ba**	**137**	**13.958**	ug/L	0.302	2	36	92963	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	639382	2	Standard
⌊	**Pb**	**208**	**0.051**	ug/L	0.002	4	50	1954	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0212-05
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 17:56:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	39129	1	Standard
	Cl	**37**		ug/L			5686581	5607293	1	Standard
>	**Sc**	**45**		ug/L			495415	528818	2	Standard
	Cr	**52**	**0.115**	ug/L	0.007	6	21583	25241	1	Standard
	Cr	**53**	**0.260**	ug/L	0.009	3	156	737	1	Standard
	Mn	**55**	**16.996**	ug/L	0.259	1	712	500791	0	Standard
>	**Ge**	**72**		ug/L			32261	31419	2	KED
	Ni	**60**	**14.432**	ug/L	0.208	1	6	15992	1	KED
	Ni	**62**	**13.592**	ug/L	0.313	2	3	2458	1	KED
	Cu	**63**	**1.315**	ug/L	0.029	2	47	4239	4	KED
	Cu	**65**	**1.257**	ug/L	0.029	2	19	2021	0	KED
	Zn	**66**	**12.298**	ug/L	0.775	6	19	5459	4	KED
	Zn	**67**	**11.921**	ug/L	0.312	2	4	893	4	KED
	As	**75**	**0.355**	ug/L	0.014	3	6	89	5	KED
	Se	**78**	**0.090**	ug/L	0.136	152	29	31	11	KED
	Y	**89**		ug/L			269508	268697	0	Standard
	Kr	**83**		ug/L			48	33	6	Standard
>	**In-1**	**115**		ug/L			10448	10280	2	KED
	Cd	**111**	**0.019**	ug/L	0.013	71	1	7	54	KED
	Cd	**114**	**0.011**	ug/L	0.009	85	1	9	72	KED
>	**In**	**115**		ug/L			386612	385354	1	Standard
	Ag	**107**	**0.002**	ug/L	0.001	37	30	53	15	Standard
	Ba	**135**	**9.703**	ug/L	0.171	1	23	36531	1	Standard
	Ba	**137**	**9.717**	ug/L	0.067	0	36	64481	0	Standard
>	**Tb**	**159**		ug/L			622192	648671	3	Standard
	Pb	**208**	**0.024**	ug/L	0.001	2	50	971	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0212-06
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 18:01:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	44040	4	Standard
	Cl	**37**		ug/L			5686581	5597140	0	Standard
⌈>	**Sc**	**45**		ug/L			495415	519751	3	Standard
|	**Cr**	**52**	**0.424**	ug/L	0.043	10	21583	30622	1	Standard
|	**Cr**	**53**	**0.562**	ug/L	0.036	6	156	1377	3	Standard
⌊	**Mn**	**55**	**64.560**	ug/L	2.155	3	712	1866638	0	Standard
⌈>	**Ge**	**72**		ug/L			32261	31133	5	KED
|	**Ni**	**60**	**27.229**	ug/L	1.684	6	6	29834	1	KED
|	**Ni**	**62**	**27.371**	ug/L	1.581	5	3	4894	0	KED
|	**Cu**	**63**	**9.682**	ug/L	0.504	5	47	30576	0	KED
|	**Cu**	**65**	**9.886**	ug/L	0.151	1	19	15625	4	KED
|	**Zn**	**66**	**6.288**	ug/L	0.176	2	19	2775	3	KED
|	**Zn**	**67**	**6.765**	ug/L	0.374	5	4	503	0	KED
|	**As**	**75**	**1.598**	ug/L	0.078	4	6	374	3	KED
⌊	**Se**	**78**	**-0.041**	ug/L	0.153	376	29	27	15	KED
	Y	**89**		ug/L			269508	279591	2	Standard
	Kr	**83**		ug/L			48	46	16	Standard
⌈>	**In-1**	**115**		ug/L			10448	10103	1	KED
|	**Cd**	**111**	**0.027**	ug/L	0.005	17	1	9	14	KED
⌊	**Cd**	**114**	**0.039**	ug/L	0.017	43	1	29	42	KED
⌈>	**In**	**115**		ug/L			386612	395208	2	Standard
|	**Ag**	**107**	**0.004**	ug/L	0.000	10	30	86	8	Standard
|	**Ba**	**135**	**12.248**	ug/L	0.354	2	23	47271	0	Standard
⌊	**Ba**	**137**	**12.201**	ug/L	0.091	0	36	83033	2	Standard
⌈>	**Tb**	**159**		ug/L			622192	652497	2	Standard
⌊	**Pb**	**208**	**0.361**	ug/L	0.012	3	50	13896	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0212-07
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 18:06:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	46391	2	Standard
	Cl	**37**		ug/L			5686581	5611437	0	Standard
⌈>	**Sc**	**45**		ug/L			495415	512280	3	Standard
|	**Cr**	**52**	**0.744**	ug/L	0.068	9	21583	36135	3	Standard
|	**Cr**	**53**	**0.799**	ug/L	0.023	2	156	1861	2	Standard
⌊	**Mn**	**55**	**9.589**	ug/L	0.226	2	712	273928	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	30719	2	KED
|	**Ni**	**60**	**16.842**	ug/L	0.511	3	6	18245	2	KED
|	**Ni**	**62**	**16.881**	ug/L	0.816	4	3	2983	3	KED
|	**Cu**	**63**	**7.376**	ug/L	0.159	2	47	23031	0	KED
|	**Cu**	**65**	**7.542**	ug/L	0.144	1	19	11770	2	KED
|	**Zn**	**66**	**4.107**	ug/L	0.181	4	19	1795	2	KED
|	**Zn**	**67**	**4.511**	ug/L	0.566	12	4	332	10	KED
|	**As**	**75**	**0.457**	ug/L	0.057	12	6	110	13	KED
⌊	**Se**	**78**	**0.067**	ug/L	0.358	535	29	30	31	KED
	Y	**89**		ug/L			269508	278526	1	Standard
	Kr	**83**		ug/L			48	34	9	Standard
⌈>	**In-1**	**115**		ug/L			10448	10279	2	KED
|	**Cd**	**111**	**0.009**	ug/L	0.005	55	1	4	34	KED
⌊	**Cd**	**114**	**0.012**	ug/L	0.004	32	1	10	27	KED
⌈>	**In**	**115**		ug/L			386612	393772	0	Standard
|	**Ag**	**107**	**0.005**	ug/L	0.001	16	30	97	11	Standard
|	**Ba**	**135**	**10.464**	ug/L	0.205	1	23	40261	2	Standard
⌊	**Ba**	**137**	**10.361**	ug/L	0.071	0	36	70261	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	648453	2	Standard
⌊	**Pb**	**208**	**0.065**	ug/L	0.001	1	50	2515	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0212-08
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 18:10:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			27779	46090	2	Standard
	Cl	37		ug/L			5686581	5597999	0	Standard
>	Sc	45		ug/L			495415	513871	0	Standard
	Cr	52	0.563	ug/L	0.026	4	21583	32884	1	Standard
	Cr	53	0.641	ug/L	0.026	4	156	1529	3	Standard
	Mn	55	35.401	ug/L	0.191	0	712	1013041	0	Standard
>	Ge	72		ug/L			32261	31100	1	KED
	Ni	60	18.195	ug/L	0.294	1	6	19958	1	KED
	Ni	62	17.893	ug/L	0.632	3	3	3204	4	KED
	Cu	63	3.630	ug/L	0.082	2	47	11500	2	KED
	Cu	65	3.695	ug/L	0.139	3	19	5847	2	KED
	Zn	66	3.756	ug/L	0.125	3	19	1664	2	KED
	Zn	67	4.207	ug/L	0.282	6	4	314	6	KED
	As	75	0.542	ug/L	0.012	2	6	131	1	KED
	Se	78	0.062	ug/L	0.112	182	29	30	11	KED
	Y	89		ug/L			269508	279497	1	Standard
	Kr	83		ug/L			48	51	18	Standard
>	In-1	115		ug/L			10448	10296	1	KED
	Cd	111	0.011	ug/L	0.011	94	1	5	61	KED
	Cd	114	0.011	ug/L	0.002	21	1	8	19	KED
>	In	115		ug/L			386612	395311	2	Standard
	Ag	107	0.003	ug/L	0.000	7	30	74	6	Standard
	Ba	135	10.766	ug/L	0.344	3	23	41563	1	Standard
	Ba	137	10.359	ug/L	0.431	4	36	70483	2	Standard
>	Tb	159		ug/L			622192	656083	1	Standard
	Pb	208	0.041	ug/L	0.002	3	50	1641	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0212-09
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 18:15:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	47153	2	Standard
	Cl	**37**		ug/L			5686581	5491928	3	Standard
⌈>	**Sc**	**45**		ug/L			495415	515670	2	Standard
|	**Cr**	**52**	**0.599**	ug/L	0.032	5	21583	33665	0	Standard
|	**Cr**	**53**	**0.673**	ug/L	0.019	2	156	1605	3	Standard
⌊	**Mn**	**55**	**41.383**	ug/L	0.432	1	712	1188171	2	Standard
⌈>	**Ge**	**72**		ug/L			32261	30898	1	KED
|	**Ni**	**60**	**36.679**	ug/L	1.150	3	6	39960	2	KED
|	**Ni**	**62**	**36.850**	ug/L	0.565	1	3	6551	1	KED
|	**Cu**	**63**	**5.901**	ug/L	0.072	1	47	18544	0	KED
|	**Cu**	**65**	**5.681**	ug/L	0.112	1	19	8921	0	KED
|	**Zn**	**66**	**4.041**	ug/L	0.200	4	19	1779	6	KED
|	**Zn**	**67**	**4.545**	ug/L	0.098	2	4	337	2	KED
|	**As**	**75**	**0.467**	ug/L	0.059	12	6	113	10	KED
⌊	**Se**	**78**	**0.051**	ug/L	0.092	182	29	29	7	KED
	Y	**89**		ug/L			269508	277497	1	Standard
	Kr	**83**		ug/L			48	48	9	Standard
⌈>	**In-1**	**115**		ug/L			10448	10324	1	KED
|	**Cd**	**111**	**0.015**	ug/L	0.004	25	1	6	17	KED
⌊	**Cd**	**114**	**0.011**	ug/L	0.000	2	1	9	0	KED
⌈>	**In**	**115**		ug/L			386612	389350	1	Standard
|	**Ag**	**107**	**0.005**	ug/L	0.000	6	30	97	3	Standard
|	**Ba**	**135**	**8.115**	ug/L	0.124	1	23	30872	0	Standard
⌊	**Ba**	**137**	**8.034**	ug/L	0.092	1	36	53870	0	Standard
⌈>	**Tb**	**159**		ug/L			622192	650447	2	Standard
⌊	**Pb**	**208**	**0.035**	ug/L	0.002	4	50	1384	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 18:20:23
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	26076	3	Standard
	Cl	**37**		ug/L			5686581	5643289	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	498046	2	Standard
|	**Cr**	**52**	**47.500**	ug/L	0.366	0	21583	879716	1	Standard
|	**Cr**	**53**	**47.505**	ug/L	0.772	1	156	98399	1	Standard
⌊	**Mn**	**55**	**44.686**	ug/L	0.832	1	712	1238941	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	30846	1	KED
|	**Ni**	**60**	**50.412**	ug/L	0.804	1	6	54831	0	KED
|	**Ni**	**62**	**49.921**	ug/L	0.737	1	3	8859	2	KED
|	**Cu**	**63**	**50.182**	ug/L	0.734	1	47	157097	0	KED
|	**Cu**	**65**	**50.033**	ug/L	1.475	2	19	78308	3	KED
|	**Zn**	**66**	**50.270**	ug/L	2.048	4	19	21866	3	KED
|	**Zn**	**67**	**48.865**	ug/L	1.115	2	4	3583	2	KED
|	**As**	**75**	**49.038**	ug/L	0.359	0	6	11206	0	KED
⌊	**Se**	**78**	**49.775**	ug/L	0.696	1	29	1422	1	KED
	Y	**89**		ug/L			269508	274244	1	Standard
	Kr	**83**		ug/L			48	52	11	Standard
⌈>	**In-1**	**115**		ug/L			10448	10260	2	KED
|	**Cd**	**111**	**48.711**	ug/L	1.696	3	1	14775	1	KED
⌊	**Cd**	**114**	**49.397**	ug/L	1.046	2	1	35912	1	KED
⌈>	**In**	**115**		ug/L			386612	396983	2	Standard
|	**Ag**	**107**	**48.915**	ug/L	1.208	2	30	663455	1	Standard
|	**Ba**	**135**	**47.597**	ug/L	1.065	2	23	184465	0	Standard
⌊	**Ba**	**137**	**48.090**	ug/L	0.502	1	36	328576	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	650355	1	Standard
⌊	**Pb**	**208**	**49.386**	ug/L	0.360	0	50	1888523	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 18:27:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	25710	0	Standard
	Cl	**37**		ug/L			5686581	5603149	2	Standard
⌈>	**Sc**	**45**		ug/L			495415	460101	2	Standard
|	**Cr**	**52**	**-0.012**	ug/L	0.014	113	21583	19837	1	Standard
|	**Cr**	**53**	**-0.001**	ug/L	0.005	985	156	144	9	Standard
⌊	**Mn**	**55**	**-0.004**	ug/L	0.002	38	712	546	6	Standard
⌈>	**Ge**	**72**		ug/L			32261	30628	1	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.004	400	6	5	78	KED
|	**Ni**	**62**	**0.005**	ug/L	0.011	241	3	3	50	KED
|	**Cu**	**63**	**0.002**	ug/L	0.001	54	47	51	6	KED
|	**Cu**	**65**	**0.001**	ug/L	0.001	89	19	20	9	KED
|	**Zn**	**66**	**0.005**	ug/L	0.008	162	19	20	18	KED
|	**Zn**	**67**	**0.003**	ug/L	0.031	932	4	4	49	KED
|	**As**	**75**	**-0.008**	ug/L	0.013	158	6	4	66	KED
⌊	**Se**	**78**	**0.059**	ug/L	0.163	279	29	29	15	KED
	Y	**89**		ug/L			269508	259779	2	Standard
	Kr	**83**		ug/L			48	41	11	Standard
⌈>	**In-1**	**115**		ug/L			10448	10003	2	KED
|	**Cd**	**111**	**0.002**	ug/L	0.005	205	1	2	57	KED
⌊	**Cd**	**114**	**0.005**	ug/L	0.003	57	1	5	42	KED
⌈>	**In**	**115**		ug/L			386612	381220	1	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.000	20	30	52	7	Standard
|	**Ba**	**135**	**-0.002**	ug/L	0.002	123	23	15	55	Standard
⌊	**Ba**	**137**	**-0.000**	ug/L	0.001	534	36	34	20	Standard
⌈>	**Tb**	**159**		ug/L			622192	613423	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	17	50	100	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0212-10
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 18:36:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	45351	2	Standard
	Cl	**37**		ug/L			5686581	5510248	2	Standard
⌈>	**Sc**	**45**		ug/L			495415	506481	9	Standard
|	**Cr**	**52**	**0.647**	ug/L	0.130	20	21583	33801	2	Standard
|	**Cr**	**53**	**0.687**	ug/L	0.048	6	156	1600	4	Standard
⌊	**Mn**	**55**	**32.671**	ug/L	2.677	8	712	916926	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	31014	1	KED
|	**Ni**	**60**	**11.830**	ug/L	0.103	0	6	12944	2	KED
|	**Ni**	**62**	**11.798**	ug/L	0.312	2	3	2106	0	KED
|	**Cu**	**63**	**4.780**	ug/L	0.263	5	47	15082	4	KED
|	**Cu**	**65**	**4.736**	ug/L	0.036	0	19	7470	2	KED
|	**Zn**	**66**	**2.337**	ug/L	0.022	0	19	1040	1	KED
|	**Zn**	**67**	**2.806**	ug/L	0.184	6	4	210	4	KED
|	**As**	**75**	**0.612**	ug/L	0.036	5	6	146	3	KED
⌊	**Se**	**78**	**0.167**	ug/L	0.186	111	29	33	14	KED
	Y	**89**		ug/L			269508	265380	6	Standard
	Kr	**83**		ug/L			48	42	22	Standard
⌈>	**In-1**	**115**		ug/L			10448	10227	1	KED
|	**Cd**	**111**	**0.007**	ug/L	0.002	21	1	4	13	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.005	122	1	4	90	KED
⌈>	**In**	**115**		ug/L			386612	383073	8	Standard
|	**Ag**	**107**	**0.004**	ug/L	0.001	16	30	83	18	Standard
|	**Ba**	**135**	**5.962**	ug/L	0.549	9	23	22210	1	Standard
⌊	**Ba**	**137**	**5.854**	ug/L	0.422	7	36	38482	3	Standard
⌈>	**Tb**	**159**		ug/L			622192	623957	9	Standard
⌊	**Pb**	**208**	**0.032**	ug/L	0.004	12	50	1210	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0212-11
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 18:41:23
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	33515	2	Standard
	Cl	**37**		ug/L			5686581	5575293	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	480528	0	Standard
|	**Cr**	**52**	**0.165**	ug/L	0.011	6	21583	23804	1	Standard
|	**Cr**	**53**	**0.143**	ug/L	0.011	7	156	437	5	Standard
⌊	**Mn**	**55**	**0.029**	ug/L	0.000	1	712	1477	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	31406	1	KED
|	**Ni**	**60**	**0.116**	ug/L	0.029	25	6	134	25	KED
|	**Ni**	**62**	**0.113**	ug/L	0.021	18	3	23	16	KED
|	**Cu**	**63**	**0.187**	ug/L	0.011	5	47	643	6	KED
|	**Cu**	**65**	**0.200**	ug/L	0.018	8	19	337	8	KED
|	**Zn**	**66**	**0.280**	ug/L	0.057	20	19	142	17	KED
|	**Zn**	**67**	**0.266**	ug/L	0.100	37	4	24	29	KED
|	**As**	**75**	**-0.006**	ug/L	0.009	149	6	5	41	KED
⌊	**Se**	**78**	**0.115**	ug/L	0.086	74	29	32	6	KED
	Y	**89**		ug/L			269508	266582	0	Standard
	Kr	**83**		ug/L			48	41	27	Standard
⌈>	**In-1**	**115**		ug/L			10448	10306	3	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.006	577	1	1	124	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.000	16	1	1	1	KED
⌈>	**In**	**115**		ug/L			386612	395615	2	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	365	30	35	44	Standard
|	**Ba**	**135**	**0.003**	ug/L	0.002	78	23	36	24	Standard
⌊	**Ba**	**137**	**0.004**	ug/L	0.002	37	36	65	17	Standard
⌈>	**Tb**	**159**		ug/L			622192	628999	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	23	50	124	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0244-BLK1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 18:46:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27779	32692	2	Standard
Cl	37		ug/L			5686581	5825255	1	Standard
Sc	45		ug/L			495415	490086	2	Standard
Cr	52	-0.019	ug/L	0.024	129	21583	21020	3	Standard
Cr	53	0.000	ug/L	0.005	1122	156	155	4	Standard
Mn	55	0.005	ug/L	0.001	13	712	847	0	Standard
Ge	72		ug/L			32261	31541	1	KED
Ni	60	-0.002	ug/L	0.003	162	6	3	100	KED
Ni	62	0.004	ug/L	0.011	271	3	3	50	KED
Cu	63	0.003	ug/L	0.005	141	47	57	26	KED
Cu	65	0.012	ug/L	0.005	39	19	38	20	KED
Zn	66	0.077	ug/L	0.013	16	19	53	10	KED
Zn	67	0.044	ug/L	0.076	173	4	7	75	KED
As	75	-0.002	ug/L	0.003	160	6	6	13	KED
Se	78	0.097	ug/L	0.235	241	29	31	20	KED
Y	89		ug/L			269508	263389	1	Standard
Kr	83		ug/L			48	39	26	Standard
In-1	115		ug/L			10448	10256	0	KED
Cd	111	0.003	ug/L	0.005	167	1	2	57	KED
Cd	114	0.002	ug/L	0.004	164	1	2	97	KED
In	115		ug/L			386612	391186	0	Standard
Ag	107	-0.000	ug/L	0.001	763	30	29	43	Standard
Ba	135	0.009	ug/L	0.003	36	23	59	21	Standard
Ba	137	0.010	ug/L	0.003	26	36	102	16	Standard
Tb	159		ug/L			622192	622281	1	Standard
Pb	208	0.004	ug/L	0.000	3	50	193	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0244-BS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 18:50:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27779	29315	2	Standard
Cl	37		ug/L			5686581	5723127	2	Standard
> Sc	45		ug/L			495415	480720	0	Standard
Cr	52	23.903	ug/L	0.218	0	21583	437749	1	Standard
Cr	53	24.726	ug/L	0.352	1	156	49520	2	Standard
Mn	55	23.200	ug/L	0.205	0	712	621332	1	Standard
> Ge	72		ug/L			32261	31485	0	KED
Ni	60	25.487	ug/L	0.414	1	6	28302	1	KED
Ni	62	25.116	ug/L	0.529	2	3	4550	1	KED
Cu	63	25.348	ug/L	0.790	3	47	81030	3	KED
Cu	65	25.801	ug/L	0.246	0	19	41227	0	KED
Zn	66	76.745	ug/L	2.017	2	19	34065	2	KED
Zn	67	72.554	ug/L	1.446	1	4	5429	2	KED
As	75	23.870	ug/L	0.281	1	6	5571	0	KED
Se	78	74.914	ug/L	1.530	2	29	2170	1	KED
Y	89		ug/L			269508	269933	1	Standard
Kr	83		ug/L			48	45	2	Standard
> In-1	115		ug/L			10448	9952	3	KED
Cd	111	25.359	ug/L	1.200	4	1	7458	1	KED
Cd	114	25.723	ug/L	0.644	2	1	18133	0	KED
> In	115		ug/L			386612	387233	1	Standard
Ag	107	25.905	ug/L	0.334	1	30	342819	0	Standard
Ba	135	24.305	ug/L	0.268	1	23	91928	1	Standard
Ba	137	24.486	ug/L	0.299	1	36	163238	2	Standard
> Tb	159		ug/L			622192	631568	1	Standard
Pb	208	25.646	ug/L	0.619	2	50	952243	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0249-05
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 18:55:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27779	39137	3	Standard
Cl	37		ug/L			5686581	5554961	1	Standard
> Sc	45		ug/L			495415	639167	0	Standard
Cr	52	13.651	ug/L	0.028	0	21583	344329	0	Standard
Cr	53	14.247	ug/L	0.095	0	156	38020	0	Standard
Mn	55	169.647	ug/L	3.357	1	712	6034696	1	Standard
> Ge	72		ug/L			32261	31599	1	KED
Ni	60	14.950	ug/L	0.184	1	6	16663	1	KED
Ni	62	15.139	ug/L	0.432	2	3	2753	1	KED
Cu	63	32.015	ug/L	0.756	2	47	102684	1	KED
Cu	65	32.095	ug/L	0.703	2	19	51463	1	KED
Zn	66	59.703	ug/L	1.412	2	19	26608	3	KED
Zn	67	58.364	ug/L	1.374	2	4	4383	1	KED
As	75	6.371	ug/L	0.120	1	6	1497	0	KED
Se	78	0.795	ug/L	0.224	28	29	51	13	KED
Y	89		ug/L			269508	565577	3	Standard
Kr	83		ug/L			48	113	19	Standard
> In-1	115		ug/L			10448	9885	3	KED
Cd	111	0.205	ug/L	0.018	8	1	61	12	KED
Cd	114	0.195	ug/L	0.021	10	1	138	12	KED
> In	115		ug/L			386612	396820	0	Standard
Ag	107	0.168	ug/L	0.006	3	30	2306	2	Standard
Ba	135	50.995	ug/L	0.307	0	23	197619	0	Standard
Ba	137	51.220	ug/L	0.425	0	36	349884	1	Standard
> Tb	159		ug/L			622192	682013	2	Standard
Pb	208	14.919	ug/L	0.274	1	50	598197	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0249-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 19:00:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27779	40968	3	Standard
Cl	37		ug/L			5686581	5526100	1	Standard
> Sc	45		ug/L			495415	639828	2	Standard
Cr	52	13.263	ug/L	0.263	1	21583	335623	1	Standard
Cr	53	13.574	ug/L	0.130	0	156	36271	1	Standard
Mn	55	186.391	ug/L	4.039	2	712	6636699	2	Standard
> Ge	72		ug/L			32261	31464	1	KED
Ni	60	14.052	ug/L	0.655	4	6	15590	3	KED
Ni	62	14.181	ug/L	0.472	3	3	2569	4	KED
Cu	63	25.162	ug/L	0.446	1	47	80384	2	KED
Cu	65	25.084	ug/L	1.108	4	19	40041	3	KED
Zn	66	50.095	ug/L	1.456	2	19	22224	1	KED
Zn	67	49.204	ug/L	1.536	3	4	3679	1	KED
As	75	6.218	ug/L	0.039	0	6	1455	0	KED
Se	78	1.156	ug/L	0.140	12	29	61	5	KED
Y	89		ug/L			269508	564363	1	Standard
Kr	83		ug/L			48	102	9	Standard
> In-1	115		ug/L			10448	10243	4	KED
Cd	111	0.294	ug/L	0.053	18	1	90	13	KED
Cd	114	0.280	ug/L	0.029	10	1	204	7	KED
> In	115		ug/L			386612	395498	1	Standard
Ag	107	0.224	ug/L	0.003	1	30	3059	2	Standard
Ba	135	52.796	ug/L	0.906	1	23	203896	0	Standard
Ba	137	52.604	ug/L	1.106	2	36	358088	1	Standard
> Tb	159		ug/L			622192	689572	0	Standard
Pb	208	10.932	ug/L	0.069	0	50	443306	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0244-DUP1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 19:05:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27779	40662	0	Standard
Cl	37		ug/L			5686581	5574368	1	Standard
> Sc	45		ug/L			495415	646227	2	Standard
Cr	52	12.916	ug/L	0.074	0	21583	330911	2	Standard
Cr	53	13.395	ug/L	0.355	2	156	36142	0	Standard
Mn	55	187.080	ug/L	3.199	1	712	6726790	0	Standard
> Ge	72		ug/L			32261	31537	2	KED
Ni	60	13.859	ug/L	0.418	3	6	15415	2	KED
Ni	62	14.181	ug/L	0.263	1	3	2574	1	KED
Cu	63	24.532	ug/L	0.173	0	47	78547	2	KED
Cu	65	24.656	ug/L	0.273	1	19	39467	2	KED
Zn	66	48.732	ug/L	0.333	0	19	21675	1	KED
Zn	67	49.586	ug/L	1.765	3	4	3717	4	KED
As	75	6.017	ug/L	0.027	0	6	1411	1	KED
Se	78	0.862	ug/L	0.120	13	29	53	7	KED
Y	89		ug/L			269508	569021	1	Standard
Kr	83		ug/L			48	109	5	Standard
> In-1	115		ug/L			10448	10092	0	KED
Cd	111	0.329	ug/L	0.020	5	1	100	6	KED
Cd	114	0.300	ug/L	0.053	17	1	215	18	KED
> In	115		ug/L			386612	387448	0	Standard
Ag	107	0.214	ug/L	0.011	4	30	2862	4	Standard
Ba	135	54.327	ug/L	0.701	1	23	205570	1	Standard
Ba	137	54.504	ug/L	0.672	1	36	363501	1	Standard
> Tb	159		ug/L			622192	677489	2	Standard
Pb	208	11.799	ug/L	0.340	2	50	469842	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0244-MS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 19:09:46
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27779	40191	0	Standard
Cl	37		ug/L			5686581	5578659	2	Standard
> Sc	45		ug/L			495415	641909	2	Standard
Cr	52	31.790	ug/L	0.484	1	21583	767995	0	Standard
Cr	53	32.837	ug/L	0.563	1	156	87723	0	Standard
Mn	55	213.634	ug/L	6.140	2	712	7629642	1	Standard
> Ge	72		ug/L			32261	31133	1	KED
Ni	60	38.701	ug/L	0.433	1	6	42485	0	KED
Ni	62	38.694	ug/L	0.713	1	3	6930	1	KED
Cu	63	49.188	ug/L	0.205	0	47	155427	1	KED
Cu	65	49.885	ug/L	1.072	2	19	78789	1	KED
Zn	66	123.959	ug/L	2.166	1	19	54392	0	KED
Zn	67	117.016	ug/L	1.102	0	4	8656	2	KED
As	75	28.828	ug/L	0.486	1	6	6650	0	KED
Se	78	71.246	ug/L	0.921	1	29	2042	1	KED
Y	89		ug/L			269508	572584	1	Standard
Kr	83		ug/L			48	116	26	Standard
> In-1	115		ug/L			10448	9896	0	KED
Cd	111	24.739	ug/L	0.146	0	1	7242	0	KED
Cd	114	25.110	ug/L	0.781	3	1	17611	2	KED
> In	115		ug/L			386612	387218	1	Standard
Ag	107	14.188	ug/L	0.341	2	30	187749	1	Standard
Ba	135	80.405	ug/L	0.538	0	23	304051	1	Standard
Ba	137	79.248	ug/L	0.864	1	36	528212	2	Standard
> Tb	159		ug/L			622192	673818	0	Standard
Pb	208	37.422	ug/L	0.077	0	50	1482726	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0244-MSD1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 19:14:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27779	39175	1	Standard
Cl	37		ug/L			5686581	5610994	2	Standard
> Sc	45		ug/L			495415	644119	2	Standard
Cr	52	31.229	ug/L	0.643	2	21583	757550	1	Standard
Cr	53	32.205	ug/L	0.806	2	156	86326	1	Standard
Mn	55	207.261	ug/L	4.241	2	712	7427539	0	Standard
> Ge	72		ug/L			32261	31215	2	KED
Ni	60	38.710	ug/L	1.628	4	6	42581	1	KED
Ni	62	38.238	ug/L	0.606	1	3	6865	1	KED
Cu	63	50.177	ug/L	2.024	4	47	158864	1	KED
Cu	65	49.979	ug/L	0.774	1	19	79139	1	KED
Zn	66	130.587	ug/L	3.719	2	19	57431	0	KED
Zn	67	123.467	ug/L	2.068	1	4	9154	1	KED
As	75	28.509	ug/L	0.567	1	6	6593	0	KED
Se	78	72.108	ug/L	1.704	2	29	2071	2	KED
Y	89		ug/L			269508	574621	1	Standard
Kr	83		ug/L			48	114	6	Standard
> In-1	115		ug/L			10448	10135	0	KED
Cd	111	24.394	ug/L	0.285	1	1	7313	0	KED
Cd	114	24.459	ug/L	0.347	1	1	17569	1	KED
> In	115		ug/L			386612	395356	1	Standard
Ag	107	12.048	ug/L	0.085	0	30	162811	0	Standard
Ba	135	79.102	ug/L	1.211	1	23	305361	0	Standard
Ba	137	78.290	ug/L	0.602	0	36	532790	1	Standard
> Tb	159		ug/L			622192	670342	0	Standard
Pb	208	36.045	ug/L	0.691	1	50	1420681	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0244-PS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 19:19:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			27779	43274	0	Standard
Cl	37		ug/L			5686581	5635980	1	Standard
Sc	45		ug/L			495415	665474	0	Standard
Cr	52	30.353	ug/L	0.067	0	21583	761661	0	Standard
Cr	53	31.142	ug/L	0.605	1	156	86282	2	Standard
Mn	55	201.484	ug/L	1.265	0	712	7462411	1	Standard
Ge	72		ug/L			32261	31528	1	KED
Ni	60	39.731	ug/L	0.330	0	6	44179	2	KED
Ni	62	39.005	ug/L	0.516	1	3	7076	2	KED
Cu	63	50.004	ug/L	0.991	1	47	159998	1	KED
Cu	65	50.420	ug/L	1.227	2	19	80647	1	KED
Zn	66	124.549	ug/L	1.728	1	19	55360	2	KED
Zn	67	120.943	ug/L	1.846	1	4	9060	2	KED
As	75	30.046	ug/L	0.505	1	6	7020	0	KED
Se	78	74.465	ug/L	0.489	0	29	2160	0	KED
Y	89		ug/L			269508	578509	1	Standard
Kr	83		ug/L			48	129	25	Standard
In-1	115		ug/L			10448	10316	1	KED
Cd	111	24.531	ug/L	0.808	3	1	7484	1	KED
Cd	114	25.071	ug/L	0.657	2	1	18328	2	KED
In	115		ug/L			386612	403717	0	Standard
Ag	107	24.201	ug/L	0.356	1	30	333945	1	Standard
Ba	135	74.497	ug/L	1.845	2	23	293672	1	Standard
Ba	137	74.782	ug/L	0.814	1	36	519670	1	Standard
Tb	159		ug/L			622192	689119	1	Standard
Pb	208	34.466	ug/L	0.522	1	50	1396437	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 19:23:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	26996	3	Standard
	Cl	**37**		ug/L			5686581	5611035	2	Standard
⌈>	**Sc**	**45**		ug/L			495415	496010	2	Standard
|	**Cr**	**52**	**47.204**	ug/L	1.170	2	21583	870589	1	Standard
|	**Cr**	**53**	**47.889**	ug/L	0.781	1	156	98788	1	Standard
⌊	**Mn**	**55**	**44.545**	ug/L	1.346	3	712	1229606	0	Standard
⌈>	**Ge**	**72**		ug/L			32261	31692	1	KED
|	**Ni**	**60**	**49.575**	ug/L	1.102	2	6	55396	1	KED
|	**Ni**	**62**	**49.421**	ug/L	1.840	3	3	9008	2	KED
|	**Cu**	**63**	**49.206**	ug/L	1.052	2	47	158317	3	KED
|	**Cu**	**65**	**49.361**	ug/L	1.265	2	19	79388	3	KED
|	**Zn**	**66**	**49.846**	ug/L	1.552	3	19	22276	2	KED
|	**Zn**	**67**	**48.852**	ug/L	1.434	2	4	3680	2	KED
|	**As**	**75**	**48.370**	ug/L	0.304	0	6	11357	1	KED
⌊	**Se**	**78**	**48.693**	ug/L	0.716	1	29	1430	2	KED
	Y	**89**		ug/L			269508	275366	1	Standard
	Kr	**83**		ug/L			48	34	11	Standard
⌈>	**In-1**	**115**		ug/L			10448	9864	5	KED
|	**Cd**	**111**	**51.550**	ug/L	3.600	6	1	15004	1	KED
⌊	**Cd**	**114**	**51.663**	ug/L	3.147	6	1	36040	0	KED
⌈>	**In**	**115**		ug/L			386612	399211	1	Standard
|	**Ag**	**107**	**48.528**	ug/L	1.886	3	30	661848	2	Standard
|	**Ba**	**135**	**47.310**	ug/L	1.179	2	23	184404	1	Standard
⌊	**Ba**	**137**	**46.950**	ug/L	1.340	2	36	322553	1	Standard
⌈>	**Tb**	**159**		ug/L			622192	651443	0	Standard
⌊	**Pb**	**208**	**49.302**	ug/L	0.484	0	50	1888443	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 19:31:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			27779	25934	1	Standard
	Cl	**37**		ug/L			5686581	5690309	1	Standard
⌈>	**Sc**	**45**		ug/L			495415	472564	3	Standard
|	**Cr**	**52**	**-0.015**	ug/L	0.038	246	21583	20312	1	Standard
|	**Cr**	**53**	**-0.012**	ug/L	0.006	47	156	125	6	Standard
⌊	**Mn**	**55**	**-0.003**	ug/L	0.001	32	712	600	1	Standard
⌈>	**Ge**	**72**		ug/L			32261	30748	2	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.003	331	6	5	57	KED
|	**Ni**	**62**	**0.001**	ug/L	0.007	687	3	3	34	KED
|	**Cu**	**63**	**0.001**	ug/L	0.003	325	47	48	17	KED
|	**Cu**	**65**	**0.004**	ug/L	0.008	176	19	25	45	KED
|	**Zn**	**66**	**0.305**	ug/L	0.054	17	19	150	13	KED
|	**Zn**	**67**	**0.290**	ug/L	0.023	8	4	25	8	KED
|	**As**	**75**	**0.000**	ug/L	0.009	8355	6	6	29	KED
⌊	**Se**	**78**	**0.109**	ug/L	0.196	180	29	31	18	KED
	Y	**89**		ug/L			269508	261190	0	Standard
	Kr	**83**		ug/L			48	33	16	Standard
⌈>	**In-1**	**115**		ug/L			10448	9898	4	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.007	813	1	1	124	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.002	187	1	0	196	KED
⌈>	**In**	**115**		ug/L			386612	384712	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.000	61	30	38	15	Standard
|	**Ba**	**135**	**-0.000**	ug/L	0.001	1070	23	22	22	Standard
⌊	**Ba**	**137**	**0.000**	ug/L	0.003	916	36	38	53	Standard
⌈>	**Tb**	**159**		ug/L			622192	612390	1	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.001	21	50	163	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Tuesday, April 18, 2023 19:42:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				21153	4	Standard
	Cl	**37**		ug/L				5547089	2	Standard
⌈>	**Sc**	**45**		ug/L				468010	1	Standard
|	**Cr**	**52**		ug/L				19735	1	Standard
|	**Cr**	**53**		ug/L				125	0	Standard
⌊	**Mn**	**55**		ug/L				543	9	Standard
⌈>	**Ge**	**72**		ug/L				30322	2	KED
|	**Ni**	**60**		ug/L				1	173	KED
|	**Ni**	**62**		ug/L				3	50	KED
|	**Cu**	**63**		ug/L				37	23	KED
|	**Cu**	**65**		ug/L				22	30	KED
|	**Zn**	**66**		ug/L				57	26	KED
|	**Zn**	**67**		ug/L				12	18	KED
|	**As**	**75**		ug/L				6	39	KED
⌊	**Se**	**78**		ug/L				28	5	KED
	Y	**89**		ug/L				255916	3	Standard
	Kr	**83**		ug/L				40	20	Standard
⌈>	**In-1**	**115**		ug/L				10112	1	KED
|	**Cd**	**111**		ug/L				1	100	KED
⌊	**Cd**	**114**		ug/L				1	184	KED
⌈>	**In**	**115**		ug/L				377966	1	Standard
|	**Ag**	**107**		ug/L				31	24	Standard
|	**Ba**	**135**		ug/L				9	20	Standard
⌊	**Ba**	**137**		ug/L				24	27	Standard
⌈>	**Tb**	**159**		ug/L				603683	0	Standard
⌊	**Pb**	**208**		ug/L				66	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 19:47:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	26123	2	Standard
	Cl	**37**		ug/L			5547089	5551689	2	Standard
⌈>	**Sc**	**45**		ug/L			468010	466789	5	Standard
|	**Cr**	**52**	**49.064**	ug/L	2.262	4	19735	849120	1	Standard
|	**Cr**	**53**	**50.433**	ug/L	1.680	3	125	97804	3	Standard
⌊	**Mn**	**55**	**46.494**	ug/L	2.219	4	543	1206215	0	Standard
⌈>	**Ge**	**72**		ug/L			30322	31153	1	KED
|	**Ni**	**60**	**49.456**	ug/L	1.797	3	1	54311	2	KED
|	**Ni**	**62**	**48.325**	ug/L	1.444	2	3	8659	1	KED
|	**Cu**	**63**	**49.448**	ug/L	1.119	2	37	156308	0	KED
|	**Cu**	**65**	**49.120**	ug/L	1.323	2	22	77651	3	KED
|	**Zn**	**66**	**48.263**	ug/L	1.439	2	57	21245	3	KED
|	**Zn**	**67**	**47.697**	ug/L	0.447	0	12	3541	2	KED
|	**As**	**75**	**48.405**	ug/L	0.754	1	6	11173	2	KED
⌊	**Se**	**78**	**49.169**	ug/L	0.635	1	28	1419	2	KED
	Y	**89**		ug/L			255916	263327	6	Standard
	Kr	**83**		ug/L			40	46	37	Standard
⌈>	**In-1**	**115**		ug/L			10112	10165	0	KED
|	**Cd**	**111**	**49.257**	ug/L	0.221	0	1	14810	0	KED
⌊	**Cd**	**114**	**49.976**	ug/L	0.638	1	1	36002	0	KED
⌈>	**In**	**115**		ug/L			377966	374858	5	Standard
|	**Ag**	**107**	**50.448**	ug/L	2.152	4	31	645363	1	Standard
|	**Ba**	**135**	**49.689**	ug/L	1.645	3	9	181677	2	Standard
⌊	**Ba**	**137**	**49.717**	ug/L	2.589	5	24	320197	0	Standard
⌈>	**Tb**	**159**		ug/L			603683	623262	5	Standard
⌊	**Pb**	**208**	**50.469**	ug/L	2.949	5	66	1845386	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 19:55:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	21315	2	Standard
	Cl	**37**		ug/L			5547089	5524061	2	Standard
⌈>	**Sc**	**45**		ug/L			468010	461956	1	Standard
|	**Cr**	**52**	**0.000**	ug/L	0.012	7807	19735	19481	0	Standard
|	**Cr**	**53**	**0.005**	ug/L	0.006	107	125	133	8	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	118	543	503	6	Standard
⌈>	**Ge**	**72**		ug/L			30322	30363	1	KED
|	**Ni**	**60**	**0.001**	ug/L	0.001	88	1	3	34	KED
|	**Ni**	**62**	**-0.007**	ug/L	0.006	85	3	2	43	KED
|	**Cu**	**63**	**0.003**	ug/L	0.003	114	37	45	21	KED
|	**Cu**	**65**	**-0.000**	ug/L	0.003	674	22	21	22	KED
|	**Zn**	**66**	**-0.011**	ug/L	0.019	178	57	53	16	KED
|	**Zn**	**67**	**-0.000**	ug/L	0.084	17208	12	12	50	KED
|	**As**	**75**	**-0.001**	ug/L	0.006	438	6	5	24	KED
⌊	**Se**	**78**	**-0.082**	ug/L	0.102	124	28	25	10	KED
	Y	**89**		ug/L			255916	259818	1	Standard
	Kr	**83**		ug/L			40	42	16	Standard
⌈>	**In-1**	**115**		ug/L			10112	9711	1	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.008	407	1	1	173	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.004	206	1	2	113	KED
⌈>	**In**	**115**		ug/L			377966	379995	3	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.000	36	31	46	10	Standard
|	**Ba**	**135**	**0.001**	ug/L	0.001	187	9	12	36	Standard
⌊	**Ba**	**137**	**0.000**	ug/L	0.000	158	24	24	0	Standard
⌈>	**Tb**	**159**		ug/L			603683	610796	3	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	1780364	66	67	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0249-07
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 20:00:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	37316	1	Standard
	Cl	37		ug/L			5547089	5575695	2	Standard
>	Sc	45		ug/L			468010	572994	2	Standard
	Cr	52	11.816	ug/L	0.281	2	19735	269670	0	Standard
	Cr	53	12.354	ug/L	0.313	2	125	29541	0	Standard
	Mn	55	99.244	ug/L	1.946	1	543	3164337	0	Standard
>	Ge	72		ug/L			30322	31841	1	KED
	Ni	60	12.860	ug/L	0.658	5	1	14438	4	KED
	Ni	62	13.460	ug/L	0.658	4	3	2468	4	KED
	Cu	63	116.856	ug/L	2.877	2	37	377517	1	KED
	Cu	65	117.726	ug/L	2.115	1	22	190162	1	KED
	Zn	66	200.299	ug/L	4.055	2	57	89920	1	KED
	Zn	67	179.644	ug/L	3.105	1	12	13594	0	KED
	As	75	8.881	ug/L	0.169	1	6	2099	1	KED
	Se	78	0.640	ug/L	0.186	29	28	48	12	KED
	Y	89		ug/L			255916	463161	0	Standard
	Kr	83		ug/L			40	73	13	Standard
>	In-1	115		ug/L			10112	10347	2	KED
	Cd	111	0.295	ug/L	0.033	11	1	92	9	KED
	Cd	114	0.161	ug/L	0.007	4	1	119	6	KED
>	In	115		ug/L			377966	402421	0	Standard
	Ag	107	0.268	ug/L	0.007	2	31	3717	2	Standard
	Ba	135	28.514	ug/L	0.040	0	9	112058	0	Standard
	Ba	137	28.424	ug/L	0.308	1	24	196905	1	Standard
>	Tb	159		ug/L			603683	664996	2	Standard
	Pb	208	474.037	ug/L	18.082	3	66	18522220	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0249-08
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 20:04:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	40893	1	Standard
Cl	37		ug/L			5547089	5595410	3	Standard
> Sc	45		ug/L			468010	611207	2	Standard
Cr	52	13.098	ug/L	0.289	2	19735	316031	0	Standard
Cr	53	13.480	ug/L	0.255	1	125	34369	0	Standard
Mn	55	150.048	ug/L	2.458	1	543	5103504	2	Standard
> Ge	72		ug/L			30322	31232	1	KED
Ni	60	13.380	ug/L	0.366	2	1	14733	2	KED
Ni	62	13.115	ug/L	0.856	6	3	2358	5	KED
Cu	63	33.018	ug/L	0.542	1	37	104659	0	KED
Cu	65	33.025	ug/L	0.958	2	22	52334	2	KED
Zn	66	61.355	ug/L	1.005	1	57	27061	1	KED
Zn	67	58.685	ug/L	0.367	0	12	4365	1	KED
As	75	6.193	ug/L	0.164	2	6	1438	1	KED
Se	78	0.812	ug/L	0.260	32	28	52	14	KED
Y	89		ug/L			255916	506692	5	Standard
Kr	83		ug/L			40	99	2	Standard
> In-1	115		ug/L			10112	9909	0	KED
Cd	111	0.184	ug/L	0.031	16	1	55	16	KED
Cd	114	0.202	ug/L	0.033	16	1	143	16	KED
> In	115		ug/L			377966	388146	1	Standard
Ag	107	0.157	ug/L	0.009	5	31	2110	6	Standard
Ba	135	42.870	ug/L	0.578	1	9	162504	2	Standard
Ba	137	42.810	ug/L	0.689	1	24	286050	2	Standard
> Tb	159		ug/L			603683	665544	3	Standard
Pb	208	15.246	ug/L	0.539	3	66	596271	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0249-11
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 20:09:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	39357	5	Standard
	Cl	37		ug/L			5547089	5527280	1	Standard
>	Sc	45		ug/L			468010	573362	3	Standard
	Cr	52	9.641	ug/L	0.255	2	19735	224597	2	Standard
	Cr	53	9.910	ug/L	0.173	1	125	23742	1	Standard
	Mn	55	91.991	ug/L	2.828	3	543	2933835	0	Standard
>	Ge	72		ug/L			30322	31836	1	KED
	Ni	60	9.139	ug/L	0.109	1	1	10259	0	KED
	Ni	62	9.192	ug/L	0.510	5	3	1686	4	KED
	Cu	63	17.014	ug/L	0.771	4	37	54995	4	KED
	Cu	65	16.904	ug/L	0.366	2	22	27319	1	KED
	Zn	66	21.176	ug/L	0.364	1	57	9559	0	KED
	Zn	67	21.205	ug/L	0.807	3	12	1615	2	KED
	As	75	2.864	ug/L	0.083	2	6	681	2	KED
	Se	78	0.574	ug/L	0.088	15	28	46	5	KED
	Y	89		ug/L			255916	481529	2	Standard
	Kr	83		ug/L			40	86	25	Standard
>	In-1	115		ug/L			10112	10078	0	KED
	Cd	111	0.048	ug/L	0.014	29	1	16	25	KED
	Cd	114	0.052	ug/L	0.014	26	1	38	25	KED
>	In	115		ug/L			377966	392147	1	Standard
	Ag	107	0.055	ug/L	0.001	1	31	772	0	Standard
	Ba	135	22.201	ug/L	0.229	1	9	85024	2	Standard
	Ba	137	22.209	ug/L	0.649	2	24	149891	1	Standard
>	Tb	159		ug/L			603683	670777	1	Standard
	Pb	208	2.464	ug/L	0.024	0	66	97231	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 20:14:23
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	39109	2	Standard
Cl	37		ug/L			5547089	5520413	2	Standard
> Sc	45		ug/L			468010	653734	2	Standard
Cr	52	17.057	ug/L	0.175	1	19735	431982	1	Standard
Cr	53	17.432	ug/L	0.451	2	125	47504	3	Standard
Mn	55	171.015	ug/L	4.452	2	543	6219490	0	Standard
> Ge	72		ug/L			30322	31251	0	KED
Ni	60	16.175	ug/L	0.306	1	1	17826	2	KED
Ni	62	16.351	ug/L	0.506	3	3	2942	2	KED
Cu	63	33.498	ug/L	0.287	0	37	106262	1	KED
Cu	65	33.820	ug/L	0.924	2	22	53631	2	KED
Zn	66	63.077	ug/L	1.355	2	57	27834	1	KED
Zn	67	60.187	ug/L	1.326	2	12	4478	1	KED
As	75	7.602	ug/L	0.209	2	6	1765	2	KED
Se	78	1.182	ug/L	0.140	11	28	62	6	KED
Y	89		ug/L			255916	580835	1	Standard
Kr	83		ug/L			40	134	6	Standard
> In-1	115		ug/L			10112	10179	2	KED
Cd	111	0.545	ug/L	0.105	19	1	165	17	KED
Cd	114	0.575	ug/L	0.042	7	1	415	5	KED
> In	115		ug/L			377966	384261	0	Standard
Ag	107	0.567	ug/L	0.027	4	31	7481	4	Standard
Ba	135	55.520	ug/L	0.480	0	9	208338	1	Standard
Ba	137	55.415	ug/L	0.704	1	24	366513	0	Standard
> Tb	159		ug/L			603683	681052	2	Standard
Pb	208	19.699	ug/L	0.515	2	66	788570	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 20:19:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	39951	4	Standard
Cl	37		ug/L			5547089	5396599	1	Standard
> Sc	45		ug/L			468010	632651	3	Standard
Cr	52	16.402	ug/L	0.446	2	19735	402824	1	Standard
Cr	53	16.910	ug/L	0.904	5	125	44557	3	Standard
Mn	55	150.896	ug/L	5.225	3	543	5308586	0	Standard
> Ge	72		ug/L			30322	31329	1	KED
Ni	60	13.782	ug/L	0.252	1	1	15227	2	KED
Ni	62	13.790	ug/L	0.282	2	3	2488	1	KED
Cu	63	31.409	ug/L	0.455	1	37	99898	2	KED
Cu	65	31.326	ug/L	0.780	2	22	49811	2	KED
Zn	66	64.612	ug/L	1.316	2	57	28580	1	KED
Zn	67	60.913	ug/L	1.023	1	12	4544	1	KED
As	75	7.484	ug/L	0.060	0	6	1742	0	KED
Se	78	0.978	ug/L	0.077	7	28	56	2	KED
Y	89		ug/L			255916	564874	0	Standard
Kr	83		ug/L			40	106	8	Standard
> In-1	115		ug/L			10112	10094	0	KED
Cd	111	0.519	ug/L	0.072	13	1	156	13	KED
Cd	114	0.507	ug/L	0.010	2	1	363	1	KED
> In	115		ug/L			377966	384263	0	Standard
Ag	107	0.448	ug/L	0.013	2	31	5917	3	Standard
Ba	135	47.267	ug/L	0.953	2	9	177348	1	Standard
Ba	137	46.660	ug/L	0.994	2	24	308605	1	Standard
> Tb	159		ug/L			603683	673414	0	Standard
Pb	208	18.676	ug/L	0.112	0	66	739550	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-03
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 20:23:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	40925	1	Standard
Cl	37		ug/L			5547089	5489460	0	Standard
> Sc	45		ug/L			468010	641078	0	Standard
Cr	52	15.180	ug/L	0.367	2	19735	380018	2	Standard
Cr	53	15.677	ug/L	0.092	0	125	41912	0	Standard
Mn	55	218.455	ug/L	3.069	1	543	7793472	0	Standard
> Ge	72		ug/L			30322	30896	0	KED
Ni	60	18.031	ug/L	0.484	2	1	19647	3	KED
Ni	62	18.015	ug/L	0.411	2	3	3205	3	KED
Cu	63	35.824	ug/L	0.641	1	37	112343	1	KED
Cu	65	36.278	ug/L	0.509	1	22	56880	0	KED
Zn	66	69.117	ug/L	1.236	1	57	30148	0	KED
Zn	67	67.632	ug/L	2.556	3	12	4973	2	KED
As	75	7.520	ug/L	0.146	1	6	1726	1	KED
Se	78	1.018	ug/L	0.138	13	28	57	7	KED
Y	89		ug/L			255916	563543	0	Standard
Kr	83		ug/L			40	127	13	Standard
> In-1	115		ug/L			10112	10138	2	KED
Cd	111	0.278	ug/L	0.026	9	1	85	7	KED
Cd	114	0.269	ug/L	0.034	12	1	194	12	KED
> In	115		ug/L			377966	392028	1	Standard
Ag	107	0.250	ug/L	0.002	0	31	3388	2	Standard
Ba	135	62.188	ug/L	1.835	2	9	238009	1	Standard
Ba	137	61.724	ug/L	0.626	1	24	416472	0	Standard
> Tb	159		ug/L			603683	668065	1	Standard
Pb	208	22.663	ug/L	0.219	0	66	890225	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-04
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 20:28:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	39355	1	Standard
Cl	37		ug/L			5547089	5598173	1	Standard
> Sc	45		ug/L			468010	639644	1	Standard
Cr	52	13.437	ug/L	0.064	0	19735	338718	1	Standard
Cr	53	14.279	ug/L	0.147	1	125	38100	0	Standard
Mn	55	166.656	ug/L	0.169	0	543	5932772	1	Standard
> Ge	72		ug/L			30322	31071	1	KED
Ni	60	14.836	ug/L	0.155	1	1	16254	0	KED
Ni	62	15.022	ug/L	0.953	6	3	2687	5	KED
Cu	63	31.935	ug/L	0.623	1	37	100726	2	KED
Cu	65	31.408	ug/L	0.255	0	22	49530	1	KED
Zn	66	59.157	ug/L	1.852	3	57	25955	2	KED
Zn	67	56.256	ug/L	2.850	5	12	4161	4	KED
As	75	6.098	ug/L	0.164	2	6	1409	2	KED
Se	78	0.966	ug/L	0.073	7	28	56	2	KED
Y	89		ug/L			255916	540472	0	Standard
Kr	83		ug/L			40	111	11	Standard
> In-1	115		ug/L			10112	9793	4	KED
Cd	111	0.201	ug/L	0.047	23	1	60	24	KED
Cd	114	0.222	ug/L	0.019	8	1	155	5	KED
> In	115		ug/L			377966	385352	2	Standard
Ag	107	0.164	ug/L	0.007	4	31	2192	6	Standard
Ba	135	51.856	ug/L	0.567	1	9	195110	1	Standard
Ba	137	50.976	ug/L	1.035	2	24	338047	1	Standard
> Tb	159		ug/L			603683	667597	3	Standard
Pb	208	15.698	ug/L	0.694	4	66	615614	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-05
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 20:33:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	43150	2	Standard
Cl	37		ug/L			5547089	5548028	1	Standard
> Sc	45		ug/L			468010	625577	1	Standard
Cr	52	14.658	ug/L	0.119	0	19735	358959	1	Standard
Cr	53	15.290	ug/L	0.367	2	125	39882	1	Standard
Mn	55	198.569	ug/L	4.175	2	543	6911618	0	Standard
> Ge	72		ug/L			30322	30711	0	KED
Ni	60	16.491	ug/L	0.403	2	1	17858	1	KED
Ni	62	16.514	ug/L	0.508	3	3	2920	2	KED
Cu	63	43.677	ug/L	0.340	0	37	136144	0	KED
Cu	65	43.993	ug/L	1.153	2	22	68562	2	KED
Zn	66	76.198	ug/L	1.991	2	57	33029	1	KED
Zn	67	73.361	ug/L	1.228	1	12	5362	2	KED
As	75	7.750	ug/L	0.130	1	6	1768	0	KED
Se	78	1.082	ug/L	0.097	9	28	58	4	KED
Y	89		ug/L			255916	548294	4	Standard
Kr	83		ug/L			40	106	10	Standard
> In-1	115		ug/L			10112	10096	1	KED
Cd	111	0.293	ug/L	0.005	1	1	89	1	KED
Cd	114	0.326	ug/L	0.033	10	1	234	8	KED
> In	115		ug/L			377966	383967	1	Standard
Ag	107	0.260	ug/L	0.004	1	31	3448	2	Standard
Ba	135	62.653	ug/L	1.412	2	9	234871	0	Standard
Ba	137	62.898	ug/L	0.825	1	24	415656	0	Standard
> Tb	159		ug/L			603683	661777	1	Standard
Pb	208	27.938	ug/L	0.569	2	66	1086941	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-06
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 20:38:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	44368	2	Standard
Cl	37		ug/L			5547089	5615581	1	Standard
> Sc	45		ug/L			468010	624147	0	Standard
Cr	52	13.340	ug/L	0.058	0	19735	328331	0	Standard
Cr	53	13.651	ug/L	0.057	0	125	35554	0	Standard
Mn	55	158.441	ug/L	2.860	1	543	5503574	1	Standard
> Ge	72		ug/L			30322	31343	1	KED
Ni	60	13.914	ug/L	0.450	3	1	15374	1	KED
Ni	62	14.371	ug/L	0.345	2	3	2595	4	KED
Cu	63	34.101	ug/L	1.216	3	37	108457	2	KED
Cu	65	33.596	ug/L	1.056	3	22	53422	1	KED
Zn	66	64.161	ug/L	2.346	3	57	28386	1	KED
Zn	67	61.422	ug/L	0.700	1	12	4584	1	KED
As	75	6.157	ug/L	0.018	0	6	1435	1	KED
Se	78	0.857	ug/L	0.175	20	28	53	10	KED
Y	89		ug/L			255916	519754	0	Standard
Kr	83		ug/L			40	88	27	Standard
> In-1	115		ug/L			10112	9856	2	KED
Cd	111	0.230	ug/L	0.005	2	1	68	3	KED
Cd	114	0.189	ug/L	0.016	8	1	132	6	KED
> In	115		ug/L			377966	393297	1	Standard
Ag	107	0.187	ug/L	0.010	5	31	2544	3	Standard
Ba	135	49.244	ug/L	0.634	1	9	189101	1	Standard
Ba	137	48.116	ug/L	0.795	1	24	325684	1	Standard
> Tb	159		ug/L			603683	662751	2	Standard
Pb	208	18.236	ug/L	0.551	3	66	710367	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-07
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 20:42:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	35055	4	Standard
	Cl	37		ug/L			5547089	5517852	1	Standard
>	Sc	45		ug/L			468010	537281	2	Standard
	Cr	52	8.971	ug/L	0.171	1	19735	197453	2	Standard
	Cr	53	9.298	ug/L	0.177	1	125	20887	2	Standard
	Mn	55	81.169	ug/L	1.550	1	543	2426560	1	Standard
>	Ge	72		ug/L			30322	31269	0	KED
	Ni	60	7.572	ug/L	0.081	1	1	8350	1	KED
	Ni	62	7.328	ug/L	0.366	4	3	1321	5	KED
	Cu	63	15.573	ug/L	0.238	1	37	49448	1	KED
	Cu	65	15.690	ug/L	0.202	1	22	24912	1	KED
	Zn	66	32.899	ug/L	0.882	2	57	14555	2	KED
	Zn	67	33.122	ug/L	1.844	5	12	2471	5	KED
	As	75	3.014	ug/L	0.036	1	6	704	0	KED
	Se	78	0.528	ug/L	0.172	32	28	44	11	KED
	Y	89		ug/L			255916	409777	3	Standard
	Kr	83		ug/L			40	61	21	Standard
>	In-1	115		ug/L			10112	10049	1	KED
	Cd	111	0.107	ug/L	0.026	24	1	33	23	KED
	Cd	114	0.081	ug/L	0.009	10	1	59	11	KED
>	In	115		ug/L			377966	388872	3	Standard
	Ag	107	0.095	ug/L	0.005	4	31	1297	3	Standard
	Ba	135	35.723	ug/L	1.146	3	9	135559	0	Standard
	Ba	137	35.913	ug/L	1.026	2	24	240263	1	Standard
>	Tb	159		ug/L			603683	651518	1	Standard
	Pb	208	9.393	ug/L	0.187	1	66	359872	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 20:47:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	26880	2	Standard
	Cl	**37**		ug/L			5547089	5614682	1	Standard
⌈>	**Sc**	**45**		ug/L			468010	484921	2	Standard
|	**Cr**	**52**	**46.533**	ug/L	1.159	2	19735	838607	0	Standard
|	**Cr**	**53**	**48.639**	ug/L	1.234	2	125	98058	1	Standard
⌊	**Mn**	**55**	**45.085**	ug/L	0.909	2	543	1216822	1	Standard
⌈>	**Ge**	**72**		ug/L			30322	30516	1	KED
|	**Ni**	**60**	**49.704**	ug/L	1.061	2	1	53474	0	KED
|	**Ni**	**62**	**49.146**	ug/L	1.004	2	3	8630	3	KED
|	**Cu**	**63**	**48.275**	ug/L	0.341	0	37	149511	0	KED
|	**Cu**	**65**	**48.883**	ug/L	1.740	3	22	75687	3	KED
|	**Zn**	**66**	**49.987**	ug/L	1.186	2	57	21557	3	KED
|	**Zn**	**67**	**48.250**	ug/L	1.103	2	12	3508	1	KED
|	**As**	**75**	**48.566**	ug/L	0.935	1	6	10978	0	KED
⌊	**Se**	**78**	**47.893**	ug/L	0.687	1	28	1355	1	KED
	Y	**89**		ug/L			255916	265856	3	Standard
	Kr	**83**		ug/L			40	46	22	Standard
⌈>	**In-1**	**115**		ug/L			10112	10037	1	KED
|	**Cd**	**111**	**48.790**	ug/L	0.818	1	1	14485	1	KED
⌊	**Cd**	**114**	**50.294**	ug/L	0.205	0	1	35778	1	KED
⌈>	**In**	**115**		ug/L			377966	387715	1	Standard
|	**Ag**	**107**	**49.412**	ug/L	1.379	2	31	654618	1	Standard
|	**Ba**	**135**	**48.422**	ug/L	0.777	1	9	183338	2	Standard
⌊	**Ba**	**137**	**46.923**	ug/L	0.390	0	24	313129	0	Standard
⌈>	**Tb**	**159**		ug/L			603683	639611	2	Standard
⌊	**Pb**	**208**	**49.360**	ug/L	0.975	1	66	1855926	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 20:55:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	22509	1	Standard
	Cl	**37**		ug/L			5547089	5437517	1	Standard
⌈>	**Sc**	**45**		ug/L			468010	447252	1	Standard
|	**Cr**	**52**	**0.038**	ug/L	0.016	40	19735	19478	0	Standard
|	**Cr**	**53**	**0.010**	ug/L	0.008	76	125	139	12	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	69	543	566	7	Standard
⌈>	**Ge**	**72**		ug/L			30322	30025	1	KED
|	**Ni**	**60**	**0.005**	ug/L	0.003	58	1	6	41	KED
|	**Ni**	**62**	**0.004**	ug/L	0.016	433	3	4	65	KED
|	**Cu**	**63**	**-0.001**	ug/L	0.003	281	37	33	26	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.002	75	22	17	22	KED
|	**Zn**	**66**	**-0.006**	ug/L	0.020	333	57	54	14	KED
|	**Zn**	**67**	**-0.035**	ug/L	0.051	148	12	9	40	KED
|	**As**	**75**	**-0.006**	ug/L	0.008	153	6	4	39	KED
⌊	**Se**	**78**	**0.025**	ug/L	0.132	534	28	28	14	KED
	Y	**89**		ug/L			255916	251098	2	Standard
	Kr	**83**		ug/L			40	42	22	Standard
⌈>	**In-1**	**115**		ug/L			10112	9589	1	KED
|	**Cd**	**111**	**0.003**	ug/L	0.004	147	1	2	43	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.003	295	1	1	110	KED
⌈>	**In**	**115**		ug/L			377966	367356	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	85	31	45	28	Standard
|	**Ba**	**135**	**0.002**	ug/L	0.001	49	9	17	22	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.001	172	24	26	21	Standard
⌈>	**Tb**	**159**		ug/L			603683	595865	1	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	109	66	78	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0289-BLK1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 20:59:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	33700	3	Standard
	Cl	37		ug/L			5547089	5556021	1	Standard
⌈>	Sc	45		ug/L			468010	468813	1	Standard
|	Cr	52	0.071	ug/L	0.031	43	19735	20967	2	Standard
|	Cr	53	0.014	ug/L	0.005	37	125	153	6	Standard
⌊	Mn	55	0.004	ug/L	0.001	26	543	655	4	Standard
⌈>	Ge	72		ug/L			30322	30670	2	KED
|	Ni	60	0.002	ug/L	0.004	159	1	4	89	KED
|	Ni	62	-0.011	ug/L	0.011	98	3	1	100	KED
|	Cu	63	0.003	ug/L	0.000	11	37	47	0	KED
|	Cu	65	0.005	ug/L	0.004	69	22	30	16	KED
|	Zn	66	-0.015	ug/L	0.027	188	57	52	21	KED
|	Zn	67	-0.063	ug/L	0.002	3	12	7	0	KED
|	As	75	-0.002	ug/L	0.003	108	6	5	8	KED
⌊	Se	78	-0.029	ug/L	0.115	401	28	27	9	KED
	Y	89		ug/L			255916	257315	1	Standard
	Kr	83		ug/L			40	36	0	Standard
⌈>	In-1	115		ug/L			10112	10170	1	KED
|	Cd	111	0.001	ug/L	0.004	363	1	2	49	KED
⌊	Cd	114	0.001	ug/L	0.003	310	1	1	108	KED
⌈>	In	115		ug/L			377966	382104	0	Standard
|	Ag	107	-0.001	ug/L	0.001	116	31	25	30	Standard
|	Ba	135	0.006	ug/L	0.002	32	9	30	21	Standard
⌊	Ba	137	0.003	ug/L	0.001	21	24	46	10	Standard
⌈>	Tb	159		ug/L			603683	616297	4	Standard
⌊	Pb	208	0.001	ug/L	0.000	34	66	102	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0289-BS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 21:04:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	29738	3	Standard
	Cl	37		ug/L			5547089	5564416	1	Standard
>	Sc	45		ug/L			468010	478007	2	Standard
	Cr	52	24.179	ug/L	0.440	1	19735	439268	0	Standard
	Cr	53	24.148	ug/L	0.524	2	125	48057	1	Standard
	Mn	55	23.124	ug/L	0.390	1	543	615528	1	Standard
>	Ge	72		ug/L			30322	31032	2	KED
	Ni	60	25.383	ug/L	0.797	3	1	27764	1	KED
	Ni	62	25.720	ug/L	0.215	0	3	4593	1	KED
	Cu	63	25.471	ug/L	0.697	2	37	80213	1	KED
	Cu	65	25.400	ug/L	0.079	0	22	40010	2	KED
	Zn	66	78.630	ug/L	2.821	3	57	34424	1	KED
	Zn	67	73.410	ug/L	2.530	3	12	5419	1	KED
	As	75	23.748	ug/L	0.553	2	6	5461	0	KED
	Se	78	74.608	ug/L	2.850	3	28	2131	4	KED
	Y	89		ug/L			255916	259458	3	Standard
	Kr	83		ug/L			40	42	18	Standard
>	In-1	115		ug/L			10112	9389	14	KED
	Cd	111	26.616	ug/L	3.455	12	1	7300	2	KED
	Cd	114	27.259	ug/L	3.889	14	1	17891	2	KED
>	In	115		ug/L			377966	395086	2	Standard
	Ag	107	24.877	ug/L	0.536	2	31	335854	1	Standard
	Ba	135	24.179	ug/L	0.213	0	9	93284	1	Standard
	Ba	137	23.490	ug/L	0.287	1	24	159742	1	Standard
>	Tb	159		ug/L			603683	623867	1	Standard
	Pb	208	26.109	ug/L	0.594	2	66	957607	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-09
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 21:09:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	42259	2	Standard
	Cl	37		ug/L			5547089	5498727	2	Standard
>	Sc	45		ug/L			468010	579288	1	Standard
	Cr	52	14.119	ug/L	0.038	0	19735	321104	1	Standard
	Cr	53	14.622	ug/L	0.235	1	125	35326	0	Standard
	Mn	55	137.407	ug/L	2.467	1	543	4429498	1	Standard
>	Ge	72		ug/L			30322	30165	1	KED
	Ni	60	16.077	ug/L	0.320	1	1	17098	0	KED
	Ni	62	15.837	ug/L	0.368	2	3	2750	0	KED
	Cu	63	43.457	ug/L	0.932	2	37	133022	0	KED
	Cu	65	43.083	ug/L	1.335	3	22	65931	1	KED
	Zn	66	140.856	ug/L	3.266	2	57	59918	0	KED
	Zn	67	133.435	ug/L	4.268	3	12	9568	2	KED
	As	75	7.533	ug/L	0.253	3	6	1688	2	KED
	Se	78	1.204	ug/L	0.110	9	28	60	3	KED
	Y	89		ug/L			255916	489891	0	Standard
	Kr	83		ug/L			40	103	8	Standard
>	In-1	115		ug/L			10112	9608	1	KED
	Cd	111	0.279	ug/L	0.011	4	1	80	3	KED
	Cd	114	0.291	ug/L	0.020	6	1	199	8	KED
>	In	115		ug/L			377966	382862	0	Standard
	Ag	107	0.143	ug/L	0.002	1	31	1908	1	Standard
	Ba	135	49.178	ug/L	0.523	1	9	183856	0	Standard
	Ba	137	48.358	ug/L	0.606	1	24	318699	1	Standard
>	Tb	159		ug/L			603683	656944	1	Standard
	Pb	208	22.272	ug/L	0.282	1	66	860271	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-10
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 21:14:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	33590	3	Standard
	Cl	37		ug/L			5547089	5472132	3	Standard
>	Sc	45		ug/L			468010	527365	2	Standard
	Cr	52	6.557	ug/L	0.196	2	19735	147630	1	Standard
	Cr	53	6.865	ug/L	0.220	3	125	15171	1	Standard
	Mn	55	82.404	ug/L	1.422	1	543	2418330	0	Standard
>	Ge	72		ug/L			30322	31299	0	KED
	Ni	60	6.203	ug/L	0.066	1	1	6847	1	KED
	Ni	62	6.330	ug/L	0.541	8	3	1142	7	KED
	Cu	63	6.866	ug/L	0.100	1	37	21846	1	KED
	Cu	65	6.923	ug/L	0.142	2	22	11015	2	KED
	Zn	66	16.482	ug/L	0.609	3	57	7327	2	KED
	Zn	67	17.335	ug/L	0.515	2	12	1301	3	KED
	As	75	2.673	ug/L	0.030	1	6	625	0	KED
	Se	78	0.381	ug/L	0.235	61	28	39	16	KED
	Y	89		ug/L			255916	385502	2	Standard
	Kr	83		ug/L			40	61	24	Standard
>	In-1	115		ug/L			10112	10296	0	KED
	Cd	111	0.008	ug/L	0.004	43	1	4	24	KED
	Cd	114	0.018	ug/L	0.006	34	1	14	32	KED
>	In	115		ug/L			377966	391640	0	Standard
	Ag	107	0.021	ug/L	0.003	12	31	318	10	Standard
	Ba	135	34.440	ug/L	0.578	1	9	131711	1	Standard
	Ba	137	34.625	ug/L	0.714	2	24	233410	1	Standard
>	Tb	159		ug/L			603683	656823	1	Standard
	Pb	208	2.715	ug/L	0.025	0	66	104921	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0313-03
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 21:18:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	48020	4	Standard
Cl	37		ug/L			5547089	5467948	0	Standard
> Sc	45		ug/L			468010	661546	1	Standard
Cr	52	16.749	ug/L	0.451	2	19735	429712	1	Standard
Cr	53	17.507	ug/L	0.249	1	125	48273	1	Standard
Mn	55	163.568	ug/L	3.852	2	543	6020506	0	Standard
> Ge	72		ug/L			30322	30135	3	KED
Ni	60	15.154	ug/L	0.406	2	1	16094	1	KED
Ni	62	14.949	ug/L	0.238	1	3	2594	3	KED
Cu	63	34.540	ug/L	0.742	2	37	105601	1	KED
Cu	65	33.897	ug/L	1.493	4	22	51788	1	KED
Zn	66	72.316	ug/L	3.654	5	57	30728	1	KED
Zn	67	71.677	ug/L	1.393	1	12	5139	2	KED
As	75	7.529	ug/L	0.261	3	6	1684	0	KED
Se	78	1.298	ug/L	0.123	9	28	63	3	KED
Y	89		ug/L			255916	608016	0	Standard
Kr	83		ug/L			40	119	7	Standard
> In-1	115		ug/L			10112	9995	2	KED
Cd	111	0.423	ug/L	0.070	16	1	126	16	KED
Cd	114	0.435	ug/L	0.025	5	1	309	6	KED
> In	115		ug/L			377966	385578	0	Standard
Ag	107	0.425	ug/L	0.002	0	31	5634	0	Standard
Ba	135	67.774	ug/L	1.667	2	9	255163	1	Standard
Ba	137	66.506	ug/L	0.115	0	24	441392	0	Standard
> Tb	159		ug/L			603683	673132	1	Standard
Pb	208	45.123	ug/L	0.887	1	66	1785752	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0328-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 21:23:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	44478	1	Standard
	Cl	37		ug/L			5547089	5420673	0	Standard
>	Sc	45		ug/L			468010	576922	0	Standard
	Cr	52	14.701	ug/L	0.145	0	19735	331967	0	Standard
	Cr	53	15.172	ug/L	0.101	0	125	36506	0	Standard
	Mn	55	134.033	ug/L	1.859	1	543	4303653	1	Standard
>	Ge	72		ug/L			30322	30712	2	KED
	Ni	60	11.388	ug/L	0.284	2	1	12332	2	KED
	Ni	62	11.306	ug/L	0.116	1	3	2000	1	KED
	Cu	63	30.612	ug/L	0.808	2	37	95403	0	KED
	Cu	65	30.152	ug/L	0.771	2	22	46983	0	KED
	Zn	66	68.235	ug/L	1.045	1	57	29591	2	KED
	Zn	67	65.862	ug/L	1.165	1	12	4814	0	KED
	As	75	7.524	ug/L	0.112	1	6	1716	1	KED
	Se	78	0.557	ug/L	0.029	5	28	44	2	KED
	Y	89		ug/L			255916	465819	1	Standard
	Kr	83		ug/L			40	77	5	Standard
>	In-1	115		ug/L			10112	10071	2	KED
	Cd	111	0.287	ug/L	0.028	9	1	87	11	KED
	Cd	114	0.272	ug/L	0.023	8	1	194	8	KED
>	In	115		ug/L			377966	393262	0	Standard
	Ag	107	0.392	ug/L	0.002	0	31	5302	1	Standard
	Ba	135	34.378	ug/L	1.068	3	9	132006	2	Standard
	Ba	137	33.791	ug/L	0.558	1	24	228760	2	Standard
>	Tb	159		ug/L			603683	660303	1	Standard
	Pb	208	34.118	ug/L	0.829	2	66	1324520	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0289-DUP1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 21:28:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	52971	3	Standard
Cl	37		ug/L			5547089	5470255	2	Standard
> Sc	45		ug/L			468010	599517	2	Standard
Cr	52	14.211	ug/L	0.370	2	19735	334219	2	Standard
Cr	53	14.558	ug/L	0.099	0	125	36405	2	Standard
Mn	55	131.697	ug/L	4.014	3	543	4393049	2	Standard
> Ge	72		ug/L			30322	29509	6	KED
Ni	60	11.765	ug/L	0.648	5	1	12212	1	KED
Ni	62	11.687	ug/L	0.846	7	3	1980	0	KED
Cu	63	30.039	ug/L	1.931	6	37	89714	0	KED
Cu	65	30.011	ug/L	2.752	9	22	44758	2	KED
Zn	66	76.253	ug/L	5.091	6	57	31669	1	KED
Zn	67	71.251	ug/L	4.748	6	12	4989	0	KED
As	75	8.148	ug/L	0.508	6	6	1781	2	KED
Se	78	0.588	ug/L	0.203	34	28	43	15	KED
Y	89		ug/L			255916	472964	1	Standard
Kr	83		ug/L			40	80	18	Standard
> In-1	115		ug/L			10112	10155	1	KED
Cd	111	0.299	ug/L	0.027	9	1	91	8	KED
Cd	114	0.313	ug/L	0.023	7	1	226	6	KED
> In	115		ug/L			377966	393017	0	Standard
Ag	107	0.417	ug/L	0.010	2	31	5634	1	Standard
Ba	135	35.165	ug/L	0.261	0	9	134964	1	Standard
Ba	137	34.487	ug/L	0.450	1	24	233307	1	Standard
> Tb	159		ug/L			603683	667940	1	Standard
Pb	208	35.806	ug/L	0.297	0	66	1406193	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0289-MS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 21:33:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	42813	0	Standard
	Cl	37		ug/L			5547089	5480903	1	Standard
>	Sc	45		ug/L			468010	581531	2	Standard
	Cr	52	35.067	ug/L	0.287	0	19735	764254	2	Standard
	Cr	53	35.763	ug/L	0.412	1	125	86517	0	Standard
	Mn	55	157.676	ug/L	2.501	1	543	5102061	0	Standard
>	Ge	72		ug/L			30322	30103	1	KED
	Ni	60	37.938	ug/L	1.347	3	1	40270	3	KED
	Ni	62	37.178	ug/L	0.955	2	3	6438	1	KED
	Cu	63	62.756	ug/L	0.567	0	37	191716	0	KED
	Cu	65	61.446	ug/L	1.325	2	22	93839	0	KED
	Zn	66	154.235	ug/L	5.066	3	57	65474	2	KED
	Zn	67	144.436	ug/L	2.301	1	12	10335	0	KED
	As	75	31.938	ug/L	0.373	1	6	7124	1	KED
	Se	78	74.566	ug/L	2.124	2	28	2065	1	KED
	Y	89		ug/L			255916	464268	0	Standard
	Kr	83		ug/L			40	87	9	Standard
>	In-1	115		ug/L			10112	9996	1	KED
	Cd	111	24.782	ug/L	0.471	1	1	7327	1	KED
	Cd	114	24.825	ug/L	0.645	2	1	17583	1	KED
>	In	115		ug/L			377966	385356	1	Standard
	Ag	107	25.196	ug/L	0.456	1	31	331799	0	Standard
	Ba	135	58.210	ug/L	1.007	1	9	219012	0	Standard
	Ba	137	57.403	ug/L	1.495	2	24	380659	1	Standard
>	Tb	159		ug/L			603683	663290	2	Standard
	Pb	208	61.168	ug/L	1.648	2	66	2384584	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0289-MSD1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 21:37:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	44846	1	Standard
Cl	37		ug/L			5547089	5599259	0	Standard
> Sc	45		ug/L			468010	591781	2	Standard
Cr	52	35.143	ug/L	0.325	0	19735	779217	1	Standard
Cr	53	36.091	ug/L	0.666	1	125	88861	2	Standard
Mn	55	160.083	ug/L	4.199	2	543	5271120	2	Standard
> Ge	72		ug/L			30322	30452	0	KED
Ni	60	38.506	ug/L	0.995	2	1	41349	2	KED
Ni	62	37.933	ug/L	1.381	3	3	6647	3	KED
Cu	63	58.304	ug/L	0.853	1	37	180192	1	KED
Cu	65	56.956	ug/L	0.396	0	22	88008	0	KED
Zn	66	152.083	ug/L	2.113	1	57	65319	1	KED
Zn	67	142.126	ug/L	2.600	1	12	10290	1	KED
As	75	31.191	ug/L	0.126	0	6	7039	0	KED
Se	78	73.718	ug/L	1.179	1	28	2066	1	KED
Y	89		ug/L			255916	459057	3	Standard
Kr	83		ug/L			40	86	26	Standard
> In-1	115		ug/L			10112	9862	1	KED
Cd	111	25.191	ug/L	0.774	3	1	7348	2	KED
Cd	114	25.739	ug/L	0.677	2	1	17988	1	KED
> In	115		ug/L			377966	391600	0	Standard
Ag	107	25.047	ug/L	0.532	2	31	335270	2	Standard
Ba	135	58.326	ug/L	0.504	0	9	223049	1	Standard
Ba	137	57.976	ug/L	0.855	1	24	390766	0	Standard
> Tb	159		ug/L			603683	662600	2	Standard
Pb	208	60.786	ug/L	1.988	3	66	2367085	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0289-PS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 21:42:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	47391	1	Standard
Cl	37		ug/L			5547089	5528125	0	Standard
> Sc	45		ug/L			468010	586198	4	Standard
Cr	52	34.243	ug/L	1.014	2	19735	752235	1	Standard
Cr	53	35.496	ug/L	0.705	1	125	86525	2	Standard
Mn	55	156.831	ug/L	5.610	3	543	5111429	1	Standard
> Ge	72		ug/L			30322	30754	3	KED
Ni	60	36.491	ug/L	1.064	2	1	39549	1	KED
Ni	62	36.821	ug/L	1.411	3	3	6511	1	KED
Cu	63	55.416	ug/L	1.019	1	37	172910	1	KED
Cu	65	55.284	ug/L	1.253	2	22	86236	1	KED
Zn	66	144.779	ug/L	3.332	2	57	62773	1	KED
Zn	67	134.315	ug/L	4.063	3	12	9815	0	KED
As	75	30.740	ug/L	0.725	2	6	7002	1	KED
Se	78	71.765	ug/L	3.709	5	28	2030	1	KED
Y	89		ug/L			255916	478164	1	Standard
Kr	83		ug/L			40	89	16	Standard
> In-1	115		ug/L			10112	9977	2	KED
Cd	111	24.096	ug/L	0.169	0	1	7112	2	KED
Cd	114	24.612	ug/L	0.551	2	1	17399	0	KED
> In	115		ug/L			377966	392804	0	Standard
Ag	107	24.939	ug/L	0.437	1	31	334809	1	Standard
Ba	135	58.101	ug/L	1.458	2	9	222840	1	Standard
Ba	137	57.617	ug/L	1.351	2	24	389525	1	Standard
> Tb	159		ug/L			603683	665739	2	Standard
Pb	208	59.428	ug/L	1.332	2	66	2325654	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 21:47:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	27903	0	Standard
	Cl	**37**		ug/L			5547089	5532926	1	Standard
⌈>	**Sc**	**45**		ug/L			468010	478395	3	Standard
|	**Cr**	**52**	**47.455**	ug/L	1.727	3	19735	843034	1	Standard
|	**Cr**	**53**	**48.170**	ug/L	1.360	2	125	95778	0	Standard
⌊	**Mn**	**55**	**45.079**	ug/L	1.439	3	543	1199814	0	Standard
⌈>	**Ge**	**72**		ug/L			30322	28815	4	KED
|	**Ni**	**60**	**51.582**	ug/L	2.629	5	1	52339	0	KED
|	**Ni**	**62**	**52.274**	ug/L	1.510	2	3	8661	2	KED
|	**Cu**	**63**	**51.756**	ug/L	1.583	3	37	151240	1	KED
|	**Cu**	**65**	**51.230**	ug/L	3.224	6	22	74800	3	KED
|	**Zn**	**66**	**51.735**	ug/L	1.518	2	57	21045	1	KED
|	**Zn**	**67**	**50.576**	ug/L	1.505	2	12	3470	2	KED
|	**As**	**75**	**50.410**	ug/L	1.606	3	6	10752	1	KED
⌊	**Se**	**78**	**49.202**	ug/L	0.450	0	28	1314	4	KED
	Y	**89**		ug/L			255916	270748	1	Standard
	Kr	**83**		ug/L			40	45	11	Standard
⌈>	**In-1**	**115**		ug/L			10112	9779	2	KED
|	**Cd**	**111**	**49.051**	ug/L	1.595	3	1	14182	1	KED
⌊	**Cd**	**114**	**49.813**	ug/L	1.783	3	1	34510	2	KED
⌈>	**In**	**115**		ug/L			377966	383627	0	Standard
|	**Ag**	**107**	**50.201**	ug/L	1.665	3	31	658097	2	Standard
|	**Ba**	**135**	**48.502**	ug/L	0.395	0	9	181707	1	Standard
⌊	**Ba**	**137**	**47.711**	ug/L	0.959	2	24	315023	1	Standard
⌈>	**Tb**	**159**		ug/L			603683	635879	1	Standard
⌊	**Pb**	**208**	**49.640**	ug/L	0.874	1	66	1855652	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 21:54:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	23522	2	Standard
	Cl	**37**		ug/L			5547089	5463925	2	Standard
⌈>	**Sc**	**45**		ug/L			468010	451940	0	Standard
|	**Cr**	**52**	**0.020**	ug/L	0.012	57	19735	19389	0	Standard
|	**Cr**	**53**	**-0.001**	ug/L	0.003	365	125	119	6	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.002	50	543	632	8	Standard
⌈>	**Ge**	**72**		ug/L			30322	29302	0	KED
|	**Ni**	**60**	**0.003**	ug/L	0.004	121	1	5	78	KED
|	**Ni**	**62**	**0.001**	ug/L	0.011	1555	3	3	50	KED
|	**Cu**	**63**	**-0.001**	ug/L	0.002	247	37	33	19	KED
|	**Cu**	**65**	**0.000**	ug/L	0.006	5983	22	21	39	KED
|	**Zn**	**66**	**-0.001**	ug/L	0.012	842	57	55	9	KED
|	**Zn**	**67**	**0.024**	ug/L	0.095	393	12	13	49	KED
|	**As**	**75**	**-0.004**	ug/L	0.003	77	6	5	14	KED
⌊	**Se**	**78**	**0.090**	ug/L	0.227	253	28	29	19	KED
	Y	**89**		ug/L			255916	254253	1	Standard
	Kr	**83**		ug/L			40	41	2	Standard
⌈>	**In-1**	**115**		ug/L			10112	9516	3	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.005	595	1	1	91	KED
⌊	**Cd**	**114**	**0.005**	ug/L	0.005	91	1	4	66	KED
⌈>	**In**	**115**		ug/L			377966	368122	0	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.003	111	31	59	54	Standard
|	**Ba**	**135**	**0.004**	ug/L	0.007	170	9	24	105	Standard
⌊	**Ba**	**137**	**0.002**	ug/L	0.003	149	24	37	56	Standard
⌈>	**Tb**	**159**		ug/L			603683	589393	1	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.005	144	66	178	90	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0313-04
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 21:59:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	44793	3	Standard
Cl	37		ug/L			5547089	5467130	1	Standard
> Sc	45		ug/L			468010	610017	1	Standard
Cr	52	17.381	ug/L	0.163	0	19735	410346	2	Standard
Cr	53	17.897	ug/L	0.137	0	125	45503	0	Standard
Mn	55	153.902	ug/L	2.310	1	543	5224300	0	Standard
> Ge	72		ug/L			30322	30120	0	KED
Ni	60	13.345	ug/L	0.113	0	1	14175	0	KED
Ni	62	13.540	ug/L	0.107	0	3	2349	0	KED
Cu	63	28.424	ug/L	0.364	1	37	86909	1	KED
Cu	65	28.510	ug/L	0.309	1	22	43584	0	KED
Zn	66	71.452	ug/L	1.551	2	57	30384	2	KED
Zn	67	67.943	ug/L	2.758	4	12	4871	3	KED
As	75	7.171	ug/L	0.070	0	6	1605	0	KED
Se	78	0.950	ug/L	0.097	10	28	53	4	KED
Y	89		ug/L			255916	543356	2	Standard
Kr	83		ug/L			40	95	11	Standard
> In-1	115		ug/L			10112	9900	2	KED
Cd	111	0.378	ug/L	0.019	5	1	112	3	KED
Cd	114	0.376	ug/L	0.012	3	1	264	1	KED
> In	115		ug/L			377966	382755	3	Standard
Ag	107	0.388	ug/L	0.023	5	31	5102	3	Standard
Ba	135	47.196	ug/L	1.304	2	9	176293	0	Standard
Ba	137	46.198	ug/L	1.215	2	24	304188	0	Standard
> Tb	159		ug/L			603683	657311	1	Standard
Pb	208	52.628	ug/L	0.725	1	66	2033951	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0313-08
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 22:04:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	45824	4	Standard
Cl	37		ug/L			5547089	5569513	1	Standard
Sc	45		ug/L			468010	617851	3	Standard
Cr	52	13.726	ug/L	0.282	2	19735	333525	2	Standard
Cr	53	14.210	ug/L	0.361	2	125	36607	1	Standard
Mn	55	189.820	ug/L	8.166	4	543	6520547	1	Standard
Ge	72		ug/L			30322	30454	1	KED
Ni	60	14.615	ug/L	0.314	2	1	15692	0	KED
Ni	62	14.876	ug/L	0.723	4	3	2609	4	KED
Cu	63	29.516	ug/L	0.286	0	37	91254	2	KED
Cu	65	28.861	ug/L	0.212	0	22	44607	1	KED
Zn	66	63.947	ug/L	1.464	2	57	27495	1	KED
Zn	67	61.250	ug/L	1.079	1	12	4441	1	KED
As	75	6.744	ug/L	0.151	2	6	1526	1	KED
Se	78	0.924	ug/L	0.145	15	28	53	6	KED
Y	89		ug/L			255916	523360	2	Standard
Kr	83		ug/L			40	91	20	Standard
In-1	115		ug/L			10112	9845	0	KED
Cd	111	0.201	ug/L	0.024	11	1	60	11	KED
Cd	114	0.245	ug/L	0.018	7	1	171	7	KED
In	115		ug/L			377966	385922	1	Standard
Ag	107	0.177	ug/L	0.008	4	31	2364	3	Standard
Ba	135	47.581	ug/L	0.633	1	9	179315	1	Standard
Ba	137	47.052	ug/L	0.854	1	24	312531	1	Standard
Tb	159		ug/L			603683	653342	3	Standard
Pb	208	12.933	ug/L	0.176	1	66	496758	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0313-09
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 22:08:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	42095	2	Standard
Cl	37		ug/L			5547089	5416569	0	Standard
> Sc	45		ug/L			468010	617825	1	Standard
Cr	52	13.525	ug/L	0.313	2	19735	329093	1	Standard
Cr	53	13.831	ug/L	0.334	2	125	35648	1	Standard
Mn	55	188.638	ug/L	4.823	2	543	6484812	1	Standard
> Ge	72		ug/L			30322	30072	0	KED
Ni	60	14.643	ug/L	0.204	1	1	15529	1	KED
Ni	62	14.470	ug/L	0.426	2	3	2506	2	KED
Cu	63	33.688	ug/L	0.724	2	37	102839	2	KED
Cu	65	34.156	ug/L	0.428	1	22	52127	1	KED
Zn	66	69.712	ug/L	0.841	1	57	29600	1	KED
Zn	67	66.916	ug/L	1.585	2	12	4790	2	KED
As	75	7.282	ug/L	0.170	2	6	1627	2	KED
Se	78	0.872	ug/L	0.306	35	28	51	16	KED
Y	89		ug/L			255916	526701	2	Standard
Kr	83		ug/L			40	108	16	Standard
> In-1	115		ug/L			10112	9538	3	KED
Cd	111	0.184	ug/L	0.020	10	1	53	8	KED
Cd	114	0.162	ug/L	0.030	18	1	110	16	KED
> In	115		ug/L			377966	380189	3	Standard
Ag	107	0.127	ug/L	0.002	1	31	1678	3	Standard
Ba	135	49.199	ug/L	1.509	3	9	182541	0	Standard
Ba	137	48.636	ug/L	2.185	4	24	317982	1	Standard
> Tb	159		ug/L			603683	650390	0	Standard
Pb	208	12.838	ug/L	0.069	0	66	491013	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0313-10
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 22:13:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	47227	1	Standard
Cl	37		ug/L			5547089	5518187	0	Standard
> Sc	45		ug/L			468010	609336	3	Standard
Cr	52	14.057	ug/L	0.320	2	19735	336235	1	Standard
Cr	53	14.231	ug/L	0.118	0	125	36182	4	Standard
Mn	55	181.499	ug/L	6.280	3	543	6150028	0	Standard
> Ge	72		ug/L			30322	29847	2	KED
Ni	60	14.715	ug/L	0.496	3	1	15483	2	KED
Ni	62	14.635	ug/L	0.242	1	3	2516	3	KED
Cu	63	31.980	ug/L	0.323	1	37	96878	1	KED
Cu	65	32.240	ug/L	0.604	1	22	48825	0	KED
Zn	66	62.238	ug/L	1.762	2	57	26224	0	KED
Zn	67	61.210	ug/L	0.386	0	12	4350	2	KED
As	75	7.012	ug/L	0.034	0	6	1555	2	KED
Se	78	0.824	ug/L	0.117	14	28	49	4	KED
Y	89		ug/L			255916	530153	2	Standard
Kr	83		ug/L			40	107	6	Standard
> In-1	115		ug/L			10112	9714	0	KED
Cd	111	0.178	ug/L	0.028	15	1	53	14	KED
Cd	114	0.182	ug/L	0.018	10	1	126	10	KED
> In	115		ug/L			377966	381565	3	Standard
Ag	107	0.150	ug/L	0.011	7	31	1983	3	Standard
Ba	135	49.862	ug/L	1.742	3	9	185673	1	Standard
Ba	137	50.551	ug/L	1.303	2	24	331843	0	Standard
> Tb	159		ug/L			603683	658987	2	Standard
Pb	208	14.171	ug/L	0.429	3	66	548907	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0313-11
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 22:18:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	45317	2	Standard
Cl	37		ug/L			5547089	5569835	0	Standard
> Sc	45		ug/L			468010	633159	2	Standard
Cr	52	14.716	ug/L	0.498	3	19735	364475	0	Standard
Cr	53	15.346	ug/L	0.277	1	125	40519	2	Standard
Mn	55	163.854	ug/L	3.769	2	543	5772781	2	Standard
> Ge	72		ug/L			30322	30277	2	KED
Ni	60	16.785	ug/L	0.590	3	1	17912	1	KED
Ni	62	16.775	ug/L	0.622	3	3	2923	2	KED
Cu	63	34.873	ug/L	0.739	2	37	107138	0	KED
Cu	65	34.601	ug/L	0.858	2	22	53152	1	KED
Zn	66	64.576	ug/L	2.658	4	57	27592	1	KED
Zn	67	61.704	ug/L	1.374	2	12	4447	0	KED
As	75	6.725	ug/L	0.030	0	6	1513	2	KED
Se	78	1.008	ug/L	0.147	14	28	55	8	KED
Y	89		ug/L			255916	535574	3	Standard
Kr	83		ug/L			40	97	10	Standard
> In-1	115		ug/L			10112	9740	1	KED
Cd	111	0.223	ug/L	0.028	12	1	66	13	KED
Cd	114	0.216	ug/L	0.021	9	1	150	10	KED
> In	115		ug/L			377966	388895	0	Standard
Ag	107	0.192	ug/L	0.006	3	31	2586	4	Standard
Ba	135	50.598	ug/L	0.623	1	9	192159	1	Standard
Ba	137	50.687	ug/L	1.359	2	24	339259	2	Standard
> Tb	159		ug/L			603683	660423	2	Standard
Pb	208	16.718	ug/L	0.434	2	66	648996	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0313-12
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 22:23:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	41735	0	Standard
	Cl	**37**		ug/L			5547089	5613663	0	Standard
⌈>	**Sc**	**45**		ug/L			468010	544185	2	Standard
|	**Cr**	**52**	**7.600**	ug/L	0.197	2	19735	172908	0	Standard
|	**Cr**	**53**	**7.865**	ug/L	0.141	1	125	17916	0	Standard
⌊	**Mn**	**55**	**122.901**	ug/L	3.011	2	543	3721131	1	Standard
⌈>	**Ge**	**72**		ug/L			30322	30061	0	KED
|	**Ni**	**60**	**7.687**	ug/L	0.137	1	1	8150	2	KED
|	**Ni**	**62**	**7.525**	ug/L	0.865	11	3	1304	11	KED
|	**Cu**	**63**	**12.993**	ug/L	0.163	1	37	39670	1	KED
|	**Cu**	**65**	**12.946**	ug/L	0.057	0	22	19764	0	KED
|	**Zn**	**66**	**30.801**	ug/L	0.253	0	57	13105	1	KED
|	**Zn**	**67**	**29.435**	ug/L	0.508	1	12	2113	1	KED
|	**As**	**75**	**3.774**	ug/L	0.118	3	6	846	3	KED
⌊	**Se**	**78**	**0.615**	ug/L	0.186	30	28	44	10	KED
	Y	**89**		ug/L			255916	435727	3	Standard
	Kr	**83**		ug/L			40	61	20	Standard
⌈>	**In-1**	**115**		ug/L			10112	9995	1	KED
|	**Cd**	**111**	**0.030**	ug/L	0.008	26	1	10	22	KED
⌊	**Cd**	**114**	**0.017**	ug/L	0.005	29	1	13	29	KED
⌈>	**In**	**115**		ug/L			377966	390275	2	Standard
|	**Ag**	**107**	**0.031**	ug/L	0.002	7	31	441	5	Standard
|	**Ba**	**135**	**17.764**	ug/L	0.399	2	9	67681	0	Standard
⌊	**Ba**	**137**	**17.697**	ug/L	0.829	4	24	118810	2	Standard
⌈>	**Tb**	**159**		ug/L			603683	663109	2	Standard
⌊	**Pb**	**208**	**6.307**	ug/L	0.190	3	66	245852	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0313-13
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 22:27:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	44784	1	Standard
Cl	37		ug/L			5547089	5487207	1	Standard
> Sc	45		ug/L			468010	595506	1	Standard
Cr	52	13.642	ug/L	0.094	0	19735	319794	1	Standard
Cr	53	14.166	ug/L	0.141	0	125	35194	0	Standard
Mn	55	140.499	ug/L	0.464	0	543	4656460	1	Standard
> Ge	72		ug/L			30322	30184	1	KED
Ni	60	14.034	ug/L	0.099	0	1	14939	1	KED
Ni	62	13.954	ug/L	0.770	5	3	2425	4	KED
Cu	63	36.748	ug/L	0.292	0	37	112581	0	KED
Cu	65	37.397	ug/L	0.454	1	22	57280	0	KED
Zn	66	66.736	ug/L	0.862	1	57	28446	2	KED
Zn	67	63.635	ug/L	2.328	3	12	4572	3	KED
As	75	6.287	ug/L	0.131	2	6	1411	2	KED
Se	78	0.747	ug/L	0.051	6	28	48	1	KED
Y	89		ug/L			255916	503733	2	Standard
Kr	83		ug/L			40	81	5	Standard
> In-1	115		ug/L			10112	9589	2	KED
Cd	111	0.202	ug/L	0.020	10	1	59	7	KED
Cd	114	0.185	ug/L	0.044	23	1	127	26	KED
> In	115		ug/L			377966	381786	0	Standard
Ag	107	0.131	ug/L	0.003	2	31	1746	1	Standard
Ba	135	38.856	ug/L	0.373	0	9	144859	0	Standard
Ba	137	38.745	ug/L	0.664	1	24	254613	1	Standard
> Tb	159		ug/L			603683	661002	1	Standard
Pb	208	13.272	ug/L	0.313	2	66	515770	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0328-03
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 22:32:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	46419	0	Standard
	Cl	37		ug/L			5547089	5608030	0	Standard
>	Sc	45		ug/L			468010	579573	1	Standard
	Cr	52	13.039	ug/L	0.372	2	19735	298648	4	Standard
	Cr	53	13.442	ug/L	0.287	2	125	32518	3	Standard
	Mn	55	138.498	ug/L	1.110	0	543	4467821	2	Standard
>	Ge	72		ug/L			30322	30420	1	KED
	Ni	60	12.572	ug/L	0.475	3	1	13485	3	KED
	Ni	62	12.709	ug/L	0.539	4	3	2226	2	KED
	Cu	63	30.504	ug/L	0.791	2	37	94167	0	KED
	Cu	65	30.576	ug/L	0.965	3	22	47190	1	KED
	Zn	66	59.277	ug/L	0.982	1	57	25467	2	KED
	Zn	67	57.197	ug/L	4.522	7	12	4140	6	KED
	As	75	6.762	ug/L	0.046	0	6	1529	1	KED
	Se	78	0.806	ug/L	0.182	22	28	50	9	KED
	Y	89		ug/L			255916	469359	0	Standard
	Kr	83		ug/L			40	69	11	Standard
>	In-1	115		ug/L			10112	9808	1	KED
	Cd	111	0.185	ug/L	0.005	2	1	55	3	KED
	Cd	114	0.176	ug/L	0.029	16	1	123	16	KED
>	In	115		ug/L			377966	380017	2	Standard
	Ag	107	0.130	ug/L	0.008	6	31	1714	3	Standard
	Ba	135	34.482	ug/L	1.566	4	9	127876	2	Standard
	Ba	137	34.213	ug/L	0.904	2	24	223708	1	Standard
>	Tb	159		ug/L			603683	650104	1	Standard
	Pb	208	13.183	ug/L	0.293	2	66	503890	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0328-04
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 22:37:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	41799	4	Standard
	Cl	37		ug/L			5547089	5518053	1	Standard
>	Sc	45		ug/L			468010	578975	0	Standard
	Cr	52	18.106	ug/L	0.130	0	19735	404648	0	Standard
	Cr	53	18.513	ug/L	0.237	1	125	44668	0	Standard
	Mn	55	170.442	ug/L	0.797	0	543	5491903	0	Standard
>	Ge	72		ug/L			30322	30569	1	KED
	Ni	60	13.948	ug/L	0.329	2	1	15034	1	KED
	Ni	62	14.254	ug/L	0.247	1	3	2510	2	KED
	Cu	63	29.629	ug/L	0.774	2	37	91933	2	KED
	Cu	65	29.453	ug/L	0.599	2	22	45691	1	KED
	Zn	66	105.824	ug/L	2.621	2	57	45637	1	KED
	Zn	67	100.635	ug/L	0.964	0	12	7317	0	KED
	As	75	7.119	ug/L	0.062	0	6	1617	0	KED
	Se	78	0.804	ug/L	0.019	2	28	50	2	KED
	Y	89		ug/L			255916	468711	0	Standard
	Kr	83		ug/L			40	85	7	Standard
>	In-1	115		ug/L			10112	9671	3	KED
	Cd	111	0.221	ug/L	0.013	5	1	65	3	KED
	Cd	114	0.199	ug/L	0.009	4	1	137	1	KED
>	In	115		ug/L			377966	387097	2	Standard
	Ag	107	0.167	ug/L	0.006	3	31	2243	1	Standard
	Ba	135	35.028	ug/L	1.093	3	9	132333	0	Standard
	Ba	137	34.652	ug/L	1.009	2	24	230801	2	Standard
>	Tb	159		ug/L			603683	656040	1	Standard
	Pb	208	53.405	ug/L	0.903	1	66	2059894	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0328-05
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 22:42:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	43060	0	Standard
	Cl	37		ug/L			5547089	5576433	0	Standard
>	Sc	45		ug/L			468010	584160	1	Standard
	Cr	52	11.551	ug/L	0.130	1	19735	269358	0	Standard
	Cr	53	11.923	ug/L	0.325	2	125	29081	2	Standard
	Mn	55	146.068	ug/L	1.593	1	543	4748739	1	Standard
>	Ge	72		ug/L			30322	30695	3	KED
	Ni	60	11.326	ug/L	0.272	2	1	12254	2	KED
	Ni	62	11.166	ug/L	0.322	2	3	1974	2	KED
	Cu	63	24.306	ug/L	0.636	2	37	75694	0	KED
	Cu	65	24.297	ug/L	0.662	2	22	37831	0	KED
	Zn	66	49.792	ug/L	1.537	3	57	21583	2	KED
	Zn	67	46.783	ug/L	1.397	2	12	3420	2	KED
	As	75	6.774	ug/L	0.116	1	6	1545	2	KED
	Se	78	0.523	ug/L	0.173	33	28	42	8	KED
	Y	89		ug/L			255916	457971	0	Standard
	Kr	83		ug/L			40	90	14	Standard
>	In-1	115		ug/L			10112	9386	2	KED
	Cd	111	0.169	ug/L	0.020	11	1	48	11	KED
	Cd	114	0.176	ug/L	0.018	9	1	117	9	KED
>	In	115		ug/L			377966	383065	0	Standard
	Ag	107	0.104	ug/L	0.007	6	31	1395	6	Standard
	Ba	135	34.276	ug/L	0.426	1	9	128226	1	Standard
	Ba	137	34.445	ug/L	0.080	0	24	227123	0	Standard
>	Tb	159		ug/L			603683	665874	1	Standard
	Pb	208	9.680	ug/L	0.215	2	66	378995	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 22:46:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	26491	1	Standard
	Cl	**37**		ug/L			5547089	5565892	1	Standard
⌈>	**Sc**	**45**		ug/L			468010	476255	1	Standard
|	**Cr**	**52**	**46.705**	ug/L	0.565	1	19735	826834	0	Standard
|	**Cr**	**53**	**47.776**	ug/L	0.393	0	125	94625	1	Standard
⌊	**Mn**	**55**	**44.828**	ug/L	0.379	0	543	1188605	1	Standard
⌈>	**Ge**	**72**		ug/L			30322	29762	1	KED
|	**Ni**	**60**	**49.680**	ug/L	0.461	0	1	52133	0	KED
|	**Ni**	**62**	**50.147**	ug/L	0.341	0	3	8587	1	KED
|	**Cu**	**63**	**49.553**	ug/L	1.000	2	37	149680	2	KED
|	**Cu**	**65**	**49.384**	ug/L	0.833	1	22	74569	0	KED
|	**Zn**	**66**	**50.279**	ug/L	0.958	1	57	21139	0	KED
|	**Zn**	**67**	**49.654**	ug/L	1.767	3	12	3522	4	KED
|	**As**	**75**	**48.897**	ug/L	0.574	1	6	10781	1	KED
⌊	**Se**	**78**	**47.993**	ug/L	1.046	2	28	1324	2	KED
	Y	**89**		ug/L			255916	259930	2	Standard
	Kr	**83**		ug/L			40	41	16	Standard
⌈>	**In-1**	**115**		ug/L			10112	9680	3	KED
|	**Cd**	**111**	**48.720**	ug/L	1.759	3	1	13938	0	KED
⌊	**Cd**	**114**	**49.508**	ug/L	1.677	3	1	33939	0	KED
⌈>	**In**	**115**		ug/L			377966	385306	2	Standard
|	**Ag**	**107**	**48.791**	ug/L	1.151	2	31	642330	1	Standard
|	**Ba**	**135**	**47.979**	ug/L	0.278	0	9	180538	2	Standard
⌊	**Ba**	**137**	**46.623**	ug/L	0.669	1	24	309167	1	Standard
⌈>	**Tb**	**159**		ug/L			603683	620279	2	Standard
⌊	**Pb**	**208**	**50.188**	ug/L	1.486	2	66	1829771	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 22:54:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	23734	4	Standard
	Cl	**37**		ug/L			5547089	5614253	0	Standard
⌈>	**Sc**	**45**		ug/L			468010	450504	3	Standard
|	**Cr**	**52**	**0.001**	ug/L	0.057	4719	19735	18994	1	Standard
|	**Cr**	**53**	**0.003**	ug/L	0.004	110	125	126	6	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.002	56	543	601	5	Standard
⌈>	**Ge**	**72**		ug/L			30322	28665	6	KED
|	**Ni**	**60**	**0.004**	ug/L	0.004	93	1	5	66	KED
|	**Ni**	**62**	**-0.007**	ug/L	0.006	89	3	2	43	KED
|	**Cu**	**63**	**0.001**	ug/L	0.002	149	37	39	20	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.007	451	22	19	55	KED
|	**Zn**	**66**	**-0.020**	ug/L	0.008	38	57	46	9	KED
|	**Zn**	**67**	**-0.031**	ug/L	0.093	299	12	9	72	KED
|	**As**	**75**	**-0.001**	ug/L	0.005	720	6	5	22	KED
⌊	**Se**	**78**	**0.029**	ug/L	0.152	529	28	27	7	KED
	Y	**89**		ug/L			255916	246768	4	Standard
	Kr	**83**		ug/L			40	43	44	Standard
⌈>	**In-1**	**115**		ug/L			10112	9539	0	KED
|	**Cd**	**111**	**0.000**	ug/L	0.006	1532	1	1	86	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.002	203	1	0	180	KED
⌈>	**In**	**115**		ug/L			377966	364440	2	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.000	158	31	32	10	Standard
|	**Ba**	**135**	**0.002**	ug/L	0.001	43	9	15	18	Standard
⌊	**Ba**	**137**	**-0.000**	ug/L	0.001	1155	24	22	25	Standard
⌈>	**Tb**	**159**		ug/L			603683	592361	3	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	78	66	55	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0328-06
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 22:59:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	46351	3	Standard
	Cl	37		ug/L			5547089	5512581	0	Standard
>	Sc	45		ug/L			468010	564492	1	Standard
	Cr	52	11.332	ug/L	0.149	1	19735	255808	0	Standard
	Cr	53	11.988	ug/L	0.218	1	125	28253	1	Standard
	Mn	55	128.740	ug/L	1.238	0	543	4044440	0	Standard
>	Ge	72		ug/L			30322	30293	2	KED
	Ni	60	10.908	ug/L	0.197	1	1	11651	1	KED
	Ni	62	10.837	ug/L	0.543	5	3	1890	2	KED
	Cu	63	27.439	ug/L	0.247	0	37	84369	1	KED
	Cu	65	27.216	ug/L	0.957	3	22	41819	0	KED
	Zn	66	52.504	ug/L	1.684	3	57	22458	1	KED
	Zn	67	49.501	ug/L	2.597	5	12	3569	2	KED
	As	75	7.110	ug/L	0.247	3	6	1600	0	KED
	Se	78	0.608	ug/L	0.162	26	28	44	12	KED
	Y	89		ug/L			255916	442805	1	Standard
	Kr	83		ug/L			40	68	18	Standard
>	In-1	115		ug/L			10112	9850	1	KED
	Cd	111	0.166	ug/L	0.008	4	1	50	6	KED
	Cd	114	0.168	ug/L	0.030	17	1	118	17	KED
>	In	115		ug/L			377966	379906	5	Standard
	Ag	107	0.109	ug/L	0.003	3	31	1446	5	Standard
	Ba	135	31.804	ug/L	1.530	4	9	117805	1	Standard
	Ba	137	31.554	ug/L	1.451	4	24	206037	0	Standard
>	Tb	159		ug/L			603683	646109	0	Standard
	Pb	208	11.344	ug/L	0.104	0	66	431016	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0328-07
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 23:03:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	41281	1	Standard
	Cl	37		ug/L			5547089	5516457	2	Standard
⌈>	Sc	45		ug/L			468010	569692	0	Standard
|	Cr	52	12.564	ug/L	0.448	3	19735	283610	2	Standard
|	Cr	53	13.107	ug/L	0.232	1	125	31161	0	Standard
⌊	Mn	55	121.286	ug/L	2.648	2	543	3845319	1	Standard
⌈>	Ge	72		ug/L			30322	30057	0	KED
|	Ni	60	11.655	ug/L	0.141	1	1	12353	0	KED
|	Ni	62	11.189	ug/L	0.183	1	3	1937	0	KED
|	Cu	63	26.322	ug/L	0.695	2	37	80316	2	KED
|	Cu	65	26.548	ug/L	0.678	2	22	40496	1	KED
|	Zn	66	50.965	ug/L	0.671	1	57	21643	0	KED
|	Zn	67	47.917	ug/L	1.377	2	12	3432	3	KED
|	As	75	4.921	ug/L	0.130	2	6	1101	1	KED
⌊	Se	78	0.659	ug/L	0.131	19	28	45	6	KED
	Y	89		ug/L			255916	446838	1	Standard
	Kr	83		ug/L			40	70	4	Standard
⌈>	In-1	115		ug/L			10112	9664	2	KED
|	Cd	111	0.112	ug/L	0.022	19	1	33	16	KED
⌊	Cd	114	0.118	ug/L	0.009	7	1	81	4	KED
⌈>	In	115		ug/L			377966	380120	1	Standard
|	Ag	107	0.098	ug/L	0.006	5	31	1300	3	Standard
|	Ba	135	26.990	ug/L	0.963	3	9	100146	1	Standard
⌊	Ba	137	27.234	ug/L	0.468	1	24	178182	1	Standard
⌈>	Tb	159		ug/L			603683	648626	0	Standard
⌊	Pb	208	10.115	ug/L	0.097	0	66	385840	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0328-08
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 23:08:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	43206	1	Standard
	Cl	37		ug/L			5547089	5528380	1	Standard
>	Sc	45		ug/L			468010	567117	3	Standard
	Cr	52	11.504	ug/L	0.328	2	19735	260398	1	Standard
	Cr	53	12.238	ug/L	0.363	2	125	28955	0	Standard
	Mn	55	111.278	ug/L	0.861	0	543	3512124	3	Standard
>	Ge	72		ug/L			30322	29903	0	KED
	Ni	60	10.650	ug/L	0.297	2	1	11229	2	KED
	Ni	62	10.755	ug/L	0.804	7	3	1852	6	KED
	Cu	63	27.924	ug/L	0.445	1	37	84769	2	KED
	Cu	65	28.205	ug/L	0.591	2	22	42804	1	KED
	Zn	66	58.050	ug/L	1.455	2	57	24520	3	KED
	Zn	67	54.908	ug/L	2.804	5	12	3911	5	KED
	As	75	6.676	ug/L	0.117	1	6	1484	1	KED
	Se	78	0.677	ug/L	0.154	22	28	46	8	KED
	Y	89		ug/L			255916	454245	3	Standard
	Kr	83		ug/L			40	72	15	Standard
>	In-1	115		ug/L			10112	10030	1	KED
	Cd	111	0.093	ug/L	0.015	16	1	29	17	KED
	Cd	114	0.094	ug/L	0.011	11	1	68	10	KED
>	In	115		ug/L			377966	378794	1	Standard
	Ag	107	0.096	ug/L	0.004	4	31	1271	3	Standard
	Ba	135	29.662	ug/L	0.478	1	9	109711	0	Standard
	Ba	137	29.532	ug/L	0.860	2	24	192531	2	Standard
>	Tb	159		ug/L			603683	653073	1	Standard
	Pb	208	14.850	ug/L	0.342	2	66	570184	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0328-09
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 23:13:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	45055	1	Standard
	Cl	37		ug/L			5547089	5475432	1	Standard
⌈>	Sc	45		ug/L			468010	570223	2	Standard
|	Cr	52	12.038	ug/L	0.030	0	19735	273041	2	Standard
|	Cr	53	12.390	ug/L	0.209	1	125	29488	0	Standard
⌊	Mn	55	128.679	ug/L	2.324	1	543	4082599	0	Standard
⌈>	Ge	72		ug/L			30322	29822	0	KED
|	Ni	60	11.661	ug/L	0.305	2	1	12263	2	KED
|	Ni	62	11.669	ug/L	0.092	0	3	2005	1	KED
|	Cu	63	27.971	ug/L	0.189	0	37	84678	0	KED
|	Cu	65	28.499	ug/L	0.440	1	22	43133	0	KED
|	Zn	66	58.651	ug/L	0.262	0	57	24705	1	KED
|	Zn	67	53.224	ug/L	1.375	2	12	3780	1	KED
|	As	75	7.266	ug/L	0.093	1	6	1610	1	KED
⌊	Se	78	0.627	ug/L	0.243	38	28	44	13	KED
	Y	89		ug/L			255916	461102	0	Standard
	Kr	83		ug/L			40	72	23	Standard
⌈>	In-1	115		ug/L			10112	9808	1	KED
|	Cd	111	0.168	ug/L	0.007	4	1	50	3	KED
⌊	Cd	114	0.169	ug/L	0.021	12	1	118	11	KED
⌈>	In	115		ug/L			377966	380968	0	Standard
|	Ag	107	0.118	ug/L	0.001	1	31	1563	0	Standard
|	Ba	135	34.157	ug/L	0.602	1	9	127071	1	Standard
⌊	Ba	137	33.173	ug/L	0.363	1	24	217548	1	Standard
⌈>	Tb	159		ug/L			603683	643113	2	Standard
⌊	Pb	208	12.753	ug/L	0.291	2	66	482136	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0328-10
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 23:18:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	43981	1	Standard
	Cl	37		ug/L			5547089	5561868	3	Standard
>	Sc	45		ug/L			468010	576392	0	Standard
	Cr	52	10.868	ug/L	0.042	0	19735	251533	1	Standard
	Cr	53	11.234	ug/L	0.012	0	125	27046	0	Standard
	Mn	55	144.996	ug/L	4.314	2	543	4650514	2	Standard
>	Ge	72		ug/L			30322	30224	0	KED
	Ni	60	11.089	ug/L	0.298	2	1	11818	2	KED
	Ni	62	10.727	ug/L	0.497	4	3	1868	4	KED
	Cu	63	27.875	ug/L	0.382	1	37	85523	1	KED
	Cu	65	27.444	ug/L	0.326	1	22	42101	1	KED
	Zn	66	51.923	ug/L	1.456	2	57	22174	3	KED
	Zn	67	49.503	ug/L	1.225	2	12	3565	3	KED
	As	75	6.012	ug/L	0.050	0	6	1351	0	KED
	Se	78	0.756	ug/L	0.029	3	28	48	0	KED
	Y	89		ug/L			255916	451907	2	Standard
	Kr	83		ug/L			40	86	3	Standard
>	In-1	115		ug/L			10112	9781	0	KED
	Cd	111	0.140	ug/L	0.018	12	1	42	11	KED
	Cd	114	0.149	ug/L	0.015	9	1	104	10	KED
>	In	115		ug/L			377966	378987	1	Standard
	Ag	107	0.108	ug/L	0.002	1	31	1424	0	Standard
	Ba	135	32.840	ug/L	0.089	0	9	121542	1	Standard
	Ba	137	32.885	ug/L	0.768	2	24	214502	1	Standard
>	Tb	159		ug/L			603683	656164	2	Standard
	Pb	208	10.627	ug/L	0.312	2	66	409868	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0328-11
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 23:22:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	42824	0	Standard
	Cl	37		ug/L			5547089	5540075	0	Standard
>	Sc	45		ug/L			468010	573569	3	Standard
	Cr	52	11.268	ug/L	0.144	1	19735	258640	3	Standard
	Cr	53	11.749	ug/L	0.454	3	125	28119	0	Standard
	Mn	55	134.374	ug/L	4.358	3	543	4287051	1	Standard
>	Ge	72		ug/L			30322	30501	0	KED
	Ni	60	10.699	ug/L	0.249	2	1	11508	2	KED
	Ni	62	10.956	ug/L	0.160	1	3	1925	1	KED
	Cu	63	26.691	ug/L	0.265	0	37	82646	0	KED
	Cu	65	26.498	ug/L	1.002	3	22	41020	3	KED
	Zn	66	51.742	ug/L	1.051	2	57	22297	1	KED
	Zn	67	49.950	ug/L	1.732	3	12	3630	3	KED
	As	75	5.391	ug/L	0.035	0	6	1223	0	KED
	Se	78	0.638	ug/L	0.138	21	28	45	8	KED
	Y	89		ug/L			255916	452057	2	Standard
	Kr	83		ug/L			40	84	7	Standard
>	In-1	115		ug/L			10112	9773	1	KED
	Cd	111	0.159	ug/L	0.018	11	1	47	11	KED
	Cd	114	0.185	ug/L	0.020	11	1	129	11	KED
>	In	115		ug/L			377966	384469	1	Standard
	Ag	107	0.111	ug/L	0.003	2	31	1485	0	Standard
	Ba	135	32.039	ug/L	0.398	1	9	120277	1	Standard
	Ba	137	32.269	ug/L	0.199	0	24	213575	2	Standard
>	Tb	159		ug/L			603683	636933	2	Standard
	Pb	208	11.084	ug/L	0.299	2	66	415003	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0328-12
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 23:27:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	43532	2	Standard
	Cl	37		ug/L			5547089	5534831	0	Standard
>	Sc	45		ug/L			468010	561942	1	Standard
	Cr	52	11.383	ug/L	0.226	1	19735	255677	1	Standard
	Cr	53	11.784	ug/L	0.177	1	125	27650	1	Standard
	Mn	55	133.683	ug/L	3.186	2	543	4180187	1	Standard
>	Ge	72		ug/L			30322	30324	1	KED
	Ni	60	10.300	ug/L	0.165	1	1	11013	1	KED
	Ni	62	10.695	ug/L	0.187	1	3	1868	1	KED
	Cu	63	27.031	ug/L	0.849	3	37	83186	1	KED
	Cu	65	26.709	ug/L	0.675	2	22	41101	1	KED
	Zn	66	65.141	ug/L	0.377	0	57	27891	1	KED
	Zn	67	60.875	ug/L	1.272	2	12	4396	3	KED
	As	75	6.563	ug/L	0.145	2	6	1479	2	KED
	Se	78	0.725	ug/L	0.213	29	28	48	13	KED
	Y	89		ug/L			255916	434386	0	Standard
	Kr	83		ug/L			40	82	5	Standard
>	In-1	115		ug/L			10112	9773	1	KED
	Cd	111	0.166	ug/L	0.015	8	1	49	6	KED
	Cd	114	0.177	ug/L	0.022	12	1	123	11	KED
>	In	115		ug/L			377966	383056	1	Standard
	Ag	107	0.144	ug/L	0.005	3	31	1920	4	Standard
	Ba	135	30.576	ug/L	0.331	1	9	114370	0	Standard
	Ba	137	30.157	ug/L	0.331	1	24	198833	0	Standard
>	Tb	159		ug/L			603683	636636	2	Standard
	Pb	208	12.089	ug/L	0.345	2	66	452359	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0249-03
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 23:32:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	40890	2	Standard
Cl	37		ug/L			5547089	5435854	1	Standard
> Sc	45		ug/L			468010	593940	2	Standard
Cr	52	12.893	ug/L	0.170	1	19735	302847	3	Standard
Cr	53	13.394	ug/L	0.300	2	125	33192	2	Standard
Mn	55	170.368	ug/L	1.462	0	543	5631129	2	Standard
> Ge	72		ug/L			30322	29466	3	KED
Ni	60	12.664	ug/L	0.497	3	1	13152	2	KED
Ni	62	12.764	ug/L	0.483	3	3	2165	1	KED
Cu	63	31.259	ug/L	0.647	2	37	93462	1	KED
Cu	65	31.393	ug/L	1.387	4	22	46904	1	KED
Zn	66	59.017	ug/L	2.153	3	57	24544	1	KED
Zn	67	56.785	ug/L	2.856	5	12	3981	2	KED
As	75	6.754	ug/L	0.332	4	6	1478	1	KED
Se	78	1.058	ug/L	0.128	12	28	55	7	KED
Y	89		ug/L			255916	518409	3	Standard
Kr	83		ug/L			40	97	5	Standard
> In-1	115		ug/L			10112	9625	2	KED
Cd	111	0.197	ug/L	0.024	12	1	57	10	KED
Cd	114	0.208	ug/L	0.002	1	1	142	3	KED
> In	115		ug/L			377966	374703	0	Standard
Ag	107	0.169	ug/L	0.008	4	31	2201	4	Standard
Ba	135	51.143	ug/L	1.370	2	9	187138	2	Standard
Ba	137	50.367	ug/L	0.670	1	24	324841	0	Standard
> Tb	159		ug/L			603683	644066	2	Standard
Pb	208	15.353	ug/L	0.355	2	66	581238	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0249-04
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, April 18, 2023 23:37:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			21153	38849	2	Standard
Cl	37		ug/L			5547089	5483599	2	Standard
> Sc	45		ug/L			468010	599377	0	Standard
Cr	52	13.028	ug/L	0.129	0	19735	308512	1	Standard
Cr	53	13.567	ug/L	0.197	1	125	33933	1	Standard
Mn	55	139.061	ug/L	1.494	1	543	4638760	0	Standard
> Ge	72		ug/L			30322	28689	5	KED
Ni	60	13.866	ug/L	0.825	5	1	13997	0	KED
Ni	62	13.609	ug/L	1.015	7	3	2242	1	KED
Cu	63	28.228	ug/L	1.732	6	37	82030	2	KED
Cu	65	28.317	ug/L	1.472	5	22	41153	1	KED
Zn	66	55.190	ug/L	3.038	5	57	22320	0	KED
Zn	67	51.589	ug/L	3.739	7	12	3516	1	KED
As	75	5.608	ug/L	0.301	5	6	1194	1	KED
Se	78	1.132	ug/L	0.109	9	28	56	2	KED
Y	89		ug/L			255916	501685	1	Standard
Kr	83		ug/L			40	95	12	Standard
> In-1	115		ug/L			10112	9482	2	KED
Cd	111	0.209	ug/L	0.006	2	1	60	4	KED
Cd	114	0.252	ug/L	0.011	4	1	170	6	KED
> In	115		ug/L			377966	380760	1	Standard
Ag	107	0.154	ug/L	0.004	2	31	2038	2	Standard
Ba	135	40.598	ug/L	0.095	0	9	150950	1	Standard
Ba	137	39.663	ug/L	1.297	3	24	259869	1	Standard
> Tb	159		ug/L			603683	644106	0	Standard
Pb	208	12.220	ug/L	0.043	0	66	462856	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0346-PS1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Tuesday, April 18, 2023 23:41:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	32616	1	Standard
	Cl	**37**		ug/L			5547089	5500135	2	Standard
>	**Sc**	**45**		ug/L			468010	472440	2	Standard
	Cr	**52**	**29.139**	ug/L	0.853	2	19735	519088	1	Standard
	Cr	**53**	**29.624**	ug/L	0.676	2	125	58234	1	Standard
	Mn	**55**	**98.892**	ug/L	2.698	2	543	2599382	1	Standard
>	**Ge**	**72**		ug/L			30322	29654	2	KED
	Ni	**60**	**33.484**	ug/L	0.390	1	1	35012	2	KED
	Ni	**62**	**32.916**	ug/L	0.439	1	3	5616	1	KED
	Cu	**63**	**73.566**	ug/L	3.117	4	37	221226	1	KED
	Cu	**65**	**72.786**	ug/L	0.928	1	22	109493	1	KED
	Zn	**66**	**545.249**	ug/L	12.545	2	57	227822	1	KED
	Zn	**67**	**480.144**	ug/L	12.773	2	12	33808	0	KED
	As	**75**	**25.282**	ug/L	0.411	1	6	5555	1	KED
	Se	**78**	**74.885**	ug/L	3.701	4	28	2042	3	KED
	Y	**89**		ug/L			255916	277265	2	Standard
	Kr	**83**		ug/L			40	43	23	Standard
>	**In-1**	**115**		ug/L			10112	9590	0	KED
	Cd	**111**	**25.581**	ug/L	0.282	1	1	7257	0	KED
	Cd	**114**	**26.250**	ug/L	0.300	1	1	17842	0	KED
>	**In**	**115**		ug/L			377966	387758	1	Standard
	Ag	**107**	**24.597**	ug/L	0.344	1	31	325996	1	Standard
	Ba	**135**	**51.184**	ug/L	0.721	1	9	193815	1	Standard
	Ba	**137**	**50.031**	ug/L	1.365	2	24	333863	1	Standard
>	**Tb**	**159**		ug/L			603683	629133	2	Standard
	Pb	**208**	**115.565**	ug/L	2.999	2	66	4273187	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 23:46:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	26257	3	Standard
	Cl	**37**		ug/L			5547089	5560768	0	Standard
>	**Sc**	**45**		ug/L			468010	449160	6	Standard
	Cr	**52**	**48.854**	ug/L	2.644	5	19735	812958	2	Standard
	Cr	**53**	**50.076**	ug/L	2.396	4	125	93335	2	Standard
	Mn	**55**	**45.637**	ug/L	1.439	3	543	1139716	4	Standard
>	**Ge**	**72**		ug/L			30322	28965	4	KED
	Ni	**60**	**49.868**	ug/L	2.367	4	1	50861	0	KED
	Ni	**62**	**49.244**	ug/L	2.474	5	3	8197	3	KED
	Cu	**63**	**50.142**	ug/L	1.846	3	37	147247	0	KED
	Cu	**65**	**49.376**	ug/L	0.885	1	22	72538	2	KED
	Zn	**66**	**49.292**	ug/L	0.960	1	57	20164	3	KED
	Zn	**67**	**50.479**	ug/L	2.255	4	12	3480	3	KED
	As	**75**	**49.274**	ug/L	1.933	3	6	10561	0	KED
	Se	**78**	**49.071**	ug/L	1.897	3	28	1316	1	KED
	Y	**89**		ug/L			255916	248130	7	Standard
	Kr	**83**		ug/L			40	56	25	Standard
>	**In-1**	**115**		ug/L			10112	9666	0	KED
	Cd	**111**	**49.090**	ug/L	0.969	1	1	14035	1	KED
	Cd	**114**	**49.893**	ug/L	1.321	2	1	34182	2	KED
>	**In**	**115**		ug/L			377966	355286	6	Standard
	Ag	**107**	**51.573**	ug/L	2.635	5	31	624999	2	Standard
	Ba	**135**	**50.505**	ug/L	2.894	5	9	174837	2	Standard
	Ba	**137**	**50.746**	ug/L	2.367	4	24	309745	1	Standard
>	**Tb**	**159**		ug/L			603683	596037	8	Standard
	Pb	**208**	**51.125**	ug/L	3.781	7	66	1784750	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 18, 2023 23:54:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	24147	3	Standard
	Cl	**37**		ug/L			5547089	5547692	2	Standard
⌈>	**Sc**	**45**		ug/L			468010	447844	1	Standard
|	**Cr**	**52**	**-0.001**	ug/L	0.027	2120	19735	18862	2	Standard
|	**Cr**	**53**	**-0.003**	ug/L	0.003	89	125	114	5	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.001	33	543	619	4	Standard
⌈>	**Ge**	**72**		ug/L			30322	28901	2	KED
|	**Ni**	**60**	**0.001**	ug/L	0.002	312	1	2	86	KED
|	**Ni**	**62**	**0.009**	ug/L	0.029	323	3	5	94	KED
|	**Cu**	**63**	**0.002**	ug/L	0.003	164	37	41	25	KED
|	**Cu**	**65**	**0.001**	ug/L	0.005	740	22	22	34	KED
|	**Zn**	**66**	**-0.004**	ug/L	0.034	801	57	53	25	KED
|	**Zn**	**67**	**-0.047**	ug/L	0.016	32	12	8	13	KED
|	**As**	**75**	**-0.002**	ug/L	0.003	127	6	5	10	KED
⌊	**Se**	**78**	**0.005**	ug/L	0.128	2706	28	26	14	KED
	Y	**89**		ug/L			255916	247044	2	Standard
	Kr	**83**		ug/L			40	28	6	Standard
⌈>	**In-1**	**115**		ug/L			10112	9434	1	KED
|	**Cd**	**111**	**0.006**	ug/L	0.005	83	1	3	41	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.003	72	1	3	50	KED
⌈>	**In**	**115**		ug/L			377966	367592	0	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	377	31	33	31	Standard
|	**Ba**	**135**	**0.001**	ug/L	0.002	129	9	13	43	Standard
⌊	**Ba**	**137**	**-0.000**	ug/L	0.000	158	24	21	13	Standard
⌈>	**Tb**	**159**		ug/L			603683	585416	1	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	105	66	80	21	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0773-01
Sample Dil Factor: 10
Comments:
Sample Date/Time: Tuesday, April 18, 2023 23:58:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	28102	2	Standard
	Cl	**37**		ug/L			5547089	5323681	2	Standard
⌈>	**Sc**	**45**		ug/L			468010	467460	2	Standard
|	**Cr**	**52**	**1.408**	ug/L	0.059	4	19735	43559	0	Standard
|	**Cr**	**53**	**1.480**	ug/L	0.029	1	125	2997	1	Standard
⌊	**Mn**	**55**	**12.506**	ug/L	0.341	2	543	325728	1	Standard
⌈>	**Ge**	**72**		ug/L			30322	29631	1	KED
|	**Ni**	**60**	**47.315**	ug/L	0.970	2	1	49432	1	KED
|	**Ni**	**62**	**46.330**	ug/L	0.739	1	3	7898	0	KED
|	**Cu**	**63**	**65.384**	ug/L	1.266	1	37	196651	3	KED
|	**Cu**	**65**	**65.638**	ug/L	1.530	2	22	98666	0	KED
|	**Zn**	**66**	**30.279**	ug/L	0.584	1	57	12697	1	KED
|	**Zn**	**67**	**26.801**	ug/L	0.341	1	12	1897	2	KED
|	**As**	**75**	**0.342**	ug/L	0.031	9	6	81	7	KED
⌊	**Se**	**78**	**0.206**	ug/L	0.116	56	28	33	9	KED
	Y	**89**		ug/L			255916	258257	1	Standard
	Kr	**83**		ug/L			40	30	10	Standard
⌈>	**In-1**	**115**		ug/L			10112	9875	1	KED
|	**Cd**	**111**	**0.218**	ug/L	0.033	15	1	65	15	KED
⌊	**Cd**	**114**	**0.216**	ug/L	0.014	6	1	152	6	KED
⌈>	**In**	**115**		ug/L			377966	375141	1	Standard
|	**Ag**	**107**	**0.007**	ug/L	0.003	38	31	121	28	Standard
|	**Ba**	**135**	**4.202**	ug/L	0.075	1	9	15399	0	Standard
⌊	**Ba**	**137**	**4.187**	ug/L	0.144	3	24	27054	2	Standard
⌈>	**Tb**	**159**		ug/L			603683	610198	1	Standard
⌊	**Pb**	**208**	**9.554**	ug/L	0.199	2	66	342772	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0773-02
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, April 19, 2023 00:03:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	28598	3	Standard
	Cl	**37**		ug/L			5547089	5383188	1	Standard
>	**Sc**	**45**		ug/L			468010	471671	1	Standard
	Cr	**52**	**3.038**	ug/L	0.059	1	19735	71866	1	Standard
	Cr	**53**	**3.155**	ug/L	0.036	1	125	6307	1	Standard
	Mn	**55**	**18.324**	ug/L	0.277	1	543	481507	1	Standard
>	**Ge**	**72**		ug/L			30322	29866	2	KED
	Ni	**60**	**85.324**	ug/L	1.821	2	1	89823	0	KED
	Ni	**62**	**83.220**	ug/L	2.922	3	3	14290	2	KED
	Cu	**63**	**106.871**	ug/L	2.392	2	37	323810	1	KED
	Cu	**65**	**106.289**	ug/L	4.137	3	22	160971	2	KED
	Zn	**66**	**45.979**	ug/L	1.310	2	57	19399	1	KED
	Zn	**67**	**42.563**	ug/L	1.176	2	12	3029	1	KED
	As	**75**	**0.384**	ug/L	0.006	1	6	91	2	KED
	Se	**78**	**0.038**	ug/L	0.261	694	28	28	24	KED
	Y	**89**		ug/L			255916	254806	2	Standard
	Kr	**83**		ug/L			40	44	12	Standard
>	**In-1**	**115**		ug/L			10112	9747	2	KED
	Cd	**111**	**0.372**	ug/L	0.067	18	1	108	16	KED
	Cd	**114**	**0.349**	ug/L	0.029	8	1	242	10	KED
>	**In**	**115**		ug/L			377966	380532	0	Standard
	Ag	**107**	**0.024**	ug/L	0.003	13	31	346	11	Standard
	Ba	**135**	**6.908**	ug/L	0.098	1	9	25675	0	Standard
	Ba	**137**	**6.833**	ug/L	0.212	3	24	44772	2	Standard
>	**Tb**	**159**		ug/L			603683	616202	1	Standard
	Pb	**208**	**13.548**	ug/L	0.040	0	66	490944	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0775-01
Sample Dil Factor: 20
Comments:

DEL

Sample Date/Time: Wednesday, April 19, 2023 00:08:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	34207	2	Standard
	Cl	**37**		ug/L			5547089	8079355	1	Standard
⌈>	**Sc**	**45**		ug/L			468010	467810	1	Standard
|	**Cr**	**52**	**0.192**	ug/L	0.031	16	19735	22972	0	Standard
|	**Cr**	**53**	**2.862**	ug/L	0.093	3	125	5683	1	Standard
⌊	**Mn**	**55**	**189.871**	ug/L	4.551	2	543	4941918	0	Standard
⌈>	**Ge**	**72**		ug/L			30322	29009	1	KED
|	**Ni**	**60**	**3.222**	ug/L	0.078	2	1	3296	1	KED
|	**Ni**	**62**	**3.239**	ug/L	0.071	2	3	544	3	KED
|	**Cu**	**63**	**0.639**	ug/L	0.035	5	37	1915	5	KED
|	**Cu**	**65**	**0.637**	ug/L	0.024	3	22	959	4	KED
|	**Zn**	**66**	**6.243**	ug/L	0.091	1	57	2607	1	KED
|	**Zn**	**67**	**6.174**	ug/L	0.270	4	12	436	3	KED
|	**As**	**75**	**0.041**	ug/L	0.024	58	6	14	34	KED
⌊	**Se**	**78**	**0.083**	ug/L	0.168	203	28	29	14	KED
	Y	**89**		ug/L			255916	260655	1	Standard
	Kr	**83**		ug/L			40	47	27	Standard
⌈>	**In-1**	**115**		ug/L			10112	9409	1	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.002	113	1	1	43	KED
⌊	**Cd**	**114**	**0.010**	ug/L	0.003	32	1	8	28	KED
⌈>	**In**	**115**		ug/L			377966	374999	2	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.001	85	31	50	30	Standard
|	**Ba**	**135**	**6.006**	ug/L	0.223	3	9	21999	3	Standard
⌊	**Ba**	**137**	**6.112**	ug/L	0.099	1	24	39463	0	Standard
⌈>	**Tb**	**159**		ug/L			603683	613710	1	Standard
⌊	**Pb**	**208**	**0.034**	ug/L	0.001	1	66	1294	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0620-02
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 00:13:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	43654	5	Standard
	Cl	**37**		ug/L			5547089	7725857	5	Standard
>	**Sc**	**45**		ug/L			468010	480985	1	Standard
	Cr	**52**	**13.731**	ug/L	0.319	2	19735	259807	0	Standard
	Cr	**53**	**16.176**	ug/L	0.203	1	125	32439	0	Standard
	Mn	**55**	**22.976**	ug/L	0.468	2	543	615450	1	Standard
>	**Ge**	**72**		ug/L			30322	28917	0	KED
	Ni	**60**	**2.241**	ug/L	0.093	4	1	2285	3	KED
	Ni	**62**	**2.201**	ug/L	0.091	4	3	369	3	KED
	Cu	**63**	**11.456**	ug/L	0.130	1	37	33649	0	KED
	Cu	**65**	**11.494**	ug/L	0.102	0	22	16882	1	KED
	Zn	**66**	**35.517**	ug/L	0.286	0	57	14528	1	KED
	Zn	**67**	**35.541**	ug/L	1.286	3	12	2451	2	KED
	As	**75**	**0.944**	ug/L	0.022	2	6	208	2	KED
	Se	**78**	**0.048**	ug/L	0.200	413	28	28	19	KED
	Y	**89**		ug/L			255916	256123	1	Standard
	Kr	**83**		ug/L			40	44	17	Standard
>	**In-1**	**115**		ug/L			10112	9461	0	KED
	Cd	**111**	**0.024**	ug/L	0.007	28	1	8	22	KED
	Cd	**114**	**0.044**	ug/L	0.005	11	1	30	11	KED
>	**In**	**115**		ug/L			377966	364801	1	Standard
	Ag	**107**	**0.006**	ug/L	0.002	25	31	109	18	Standard
	Ba	**135**	**29.545**	ug/L	0.546	1	9	105243	1	Standard
	Ba	**137**	**29.157**	ug/L	0.193	0	24	183095	1	Standard
>	**Tb**	**159**		ug/L			603683	613825	1	Standard
	Pb	**208**	**0.684**	ug/L	0.017	2	66	24753	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0620-04
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 00:17:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	43122	1	Standard
	Cl	**37**		ug/L			5547089	8016281	2	Standard
⌈>	**Sc**	**45**		ug/L			468010	479885	3	Standard
|	**Cr**	**52**	**4.045**	ug/L	0.162	4	19735	90587	0	Standard
|	**Cr**	**53**	**6.270**	ug/L	0.129	2	125	12620	1	Standard
⌊	**Mn**	**55**	**49.208**	ug/L	1.327	2	543	1313905	0	Standard
⌈>	**Ge**	**72**		ug/L			30322	29033	1	KED
|	**Ni**	**60**	**3.935**	ug/L	0.040	1	1	4030	2	KED
|	**Ni**	**62**	**3.835**	ug/L	0.145	3	3	643	2	KED
|	**Cu**	**63**	**5.869**	ug/L	0.106	1	37	17325	2	KED
|	**Cu**	**65**	**5.922**	ug/L	0.075	1	22	8742	0	KED
|	**Zn**	**66**	**12.650**	ug/L	0.281	2	57	5230	1	KED
|	**Zn**	**67**	**13.489**	ug/L	0.663	4	12	941	5	KED
|	**As**	**75**	**0.263**	ug/L	0.002	0	6	62	0	KED
⌊	**Se**	**78**	**-0.131**	ug/L	0.113	85	28	23	13	KED
	Y	**89**		ug/L			255916	258023	1	Standard
	Kr	**83**		ug/L			40	42	18	Standard
⌈>	**In-1**	**115**		ug/L			10112	9559	0	KED
|	**Cd**	**111**	**0.011**	ug/L	0.012	116	1	4	72	KED
⌊	**Cd**	**114**	**0.018**	ug/L	0.002	9	1	13	8	KED
⌈>	**In**	**115**		ug/L			377966	366857	0	Standard
|	**Ag**	**107**	**0.004**	ug/L	0.000	3	31	85	2	Standard
|	**Ba**	**135**	**27.121**	ug/L	0.193	0	9	97162	0	Standard
⌊	**Ba**	**137**	**26.789**	ug/L	0.400	1	24	169164	0	Standard
⌈>	**Tb**	**159**		ug/L			603683	608689	2	Standard
⌊	**Pb**	**208**	**0.536**	ug/L	0.009	1	66	19231	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0620-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, April 19, 2023 00:22:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	38064	2	Standard
	Cl	**37**		ug/L			5547089	6831622	1	Standard
>	**Sc**	**45**		ug/L			468010	483830	1	Standard
	Cr	**52**	**10.469**	ug/L	0.095	0	19735	204153	2	Standard
	Cr	**53**	**12.149**	ug/L	0.236	1	125	24538	1	Standard
	Mn	**55**	**58.902**	ug/L	1.897	3	543	1585898	1	Standard
>	**Ge**	**72**		ug/L			30322	29238	0	KED
	Ni	**60**	**2.776**	ug/L	0.159	5	1	2863	5	KED
	Ni	**62**	**2.991**	ug/L	0.128	4	3	506	5	KED
	Cu	**63**	**17.793**	ug/L	0.167	0	37	52821	1	KED
	Cu	**65**	**17.830**	ug/L	0.627	3	22	26463	2	KED
	Zn	**66**	**71.551**	ug/L	1.458	2	57	29532	1	KED
	Zn	**67**	**69.313**	ug/L	0.820	1	12	4824	1	KED
	As	**75**	**1.154**	ug/L	0.015	1	6	255	1	KED
	Se	**78**	**0.063**	ug/L	0.233	369	28	28	20	KED
	Y	**89**		ug/L			255916	267973	0	Standard
	Kr	**83**		ug/L			40	50	18	Standard
>	**In-1**	**115**		ug/L			10112	9734	4	KED
	Cd	**111**	**0.074**	ug/L	0.007	9	1	23	10	KED
	Cd	**114**	**0.079**	ug/L	0.022	27	1	55	22	KED
>	**In**	**115**		ug/L			377966	376323	1	Standard
	Ag	**107**	**0.030**	ug/L	0.001	2	31	416	4	Standard
	Ba	**135**	**33.777**	ug/L	0.579	1	9	124116	1	Standard
	Ba	**137**	**34.440**	ug/L	0.575	1	24	223052	0	Standard
>	**Tb**	**159**		ug/L			603683	617550	2	Standard
	Pb	**208**	**6.187**	ug/L	0.165	2	66	224599	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0620-03
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 00:27:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	45523	1	Standard
	Cl	37		ug/L			5547089	8372985	1	Standard
>	Sc	45		ug/L			468010	502672	1	Standard
|	Cr	52	5.501	ug/L	0.113	2	19735	121471	1	Standard
|	Cr	53	7.855	ug/L	0.088	1	125	16531	0	Standard
|	Mn	55	59.018	ug/L	0.387	0	543	1651321	1	Standard
>	Ge	72		ug/L			30322	29247	0	KED
|	Ni	60	4.847	ug/L	0.129	2	1	5001	3	KED
|	Ni	62	4.697	ug/L	0.310	6	3	793	6	KED
|	Cu	63	8.781	ug/L	0.155	1	37	26093	0	KED
|	Cu	65	8.821	ug/L	0.198	2	22	13110	3	KED
|	Zn	66	19.641	ug/L	0.413	2	57	8149	1	KED
|	Zn	67	20.328	ug/L	0.421	2	12	1423	2	KED
|	As	75	0.397	ug/L	0.023	5	6	91	4	KED
|	Se	78	0.000	ug/L	0.070	19638	28	27	7	KED
	Y	89		ug/L			255916	275995	1	Standard
	Kr	83		ug/L			40	52	11	Standard
>	In-1	115		ug/L			10112	9388	0	KED
|	Cd	111	0.020	ug/L	0.014	71	1	7	54	KED
|	Cd	114	0.014	ug/L	0.006	41	1	10	37	KED
>	In	115		ug/L			377966	377250	0	Standard
|	Ag	107	0.010	ug/L	0.001	10	31	159	8	Standard
|	Ba	135	32.929	ug/L	0.129	0	9	121312	0	Standard
|	Ba	137	32.899	ug/L	0.668	2	24	213626	1	Standard
>	Tb	159		ug/L			603683	635064	2	Standard
|	Pb	208	1.611	ug/L	0.051	3	66	60185	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0691-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 00:32:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	43015	2	Standard
	Cl	**37**		ug/L			5547089	5850563	1	Standard
⌈>	**Sc**	**45**		ug/L			468010	473281	1	Standard
|	**Cr**	**52**	**0.891**	ug/L	0.026	2	19735	35250	2	Standard
|	**Cr**	**53**	**1.396**	ug/L	0.010	0	125	2872	2	Standard
⌊	**Mn**	**55**	**36.357**	ug/L	0.188	0	543	958024	1	Standard
⌈>	**Ge**	**72**		ug/L			30322	29738	0	KED
|	**Ni**	**60**	**3.173**	ug/L	0.110	3	1	3329	3	KED
|	**Ni**	**62**	**3.267**	ug/L	0.151	4	3	562	4	KED
|	**Cu**	**63**	**12.323**	ug/L	0.105	0	37	37221	0	KED
|	**Cu**	**65**	**12.323**	ug/L	0.168	1	22	18612	1	KED
|	**Zn**	**66**	**97.495**	ug/L	1.553	1	57	40914	1	KED
|	**Zn**	**67**	**87.327**	ug/L	0.666	0	12	6179	0	KED
|	**As**	**75**	**0.936**	ug/L	0.003	0	6	212	0	KED
⌊	**Se**	**78**	**0.080**	ug/L	0.178	222	28	29	16	KED
	Y	**89**		ug/L			255916	263290	1	Standard
	Kr	**83**		ug/L			40	33	18	Standard
⌈>	**In-1**	**115**		ug/L			10112	9640	1	KED
|	**Cd**	**111**	**0.187**	ug/L	0.029	15	1	54	13	KED
⌊	**Cd**	**114**	**0.214**	ug/L	0.019	9	1	147	10	KED
⌈>	**In**	**115**		ug/L			377966	376221	1	Standard
|	**Ag**	**107**	**0.004**	ug/L	0.001	16	31	86	8	Standard
|	**Ba**	**135**	**20.064**	ug/L	0.376	1	9	73706	1	Standard
⌊	**Ba**	**137**	**20.043**	ug/L	0.586	2	24	129776	1	Standard
⌈>	**Tb**	**159**		ug/L			603683	615826	2	Standard
⌊	**Pb**	**208**	**0.558**	ug/L	0.020	3	66	20263	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0698-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 00:36:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	40264	1	Standard
	Cl	**37**		ug/L			5547089	5709783	2	Standard
>	**Sc**	**45**		ug/L			468010	477673	1	Standard
	Cr	**52**	**0.109**	ug/L	0.034	31	19735	22025	1	Standard
	Cr	**53**	**0.310**	ug/L	0.023	7	125	741	5	Standard
	Mn	**55**	**109.958**	ug/L	0.346	0	543	2923421	1	Standard
>	**Ge**	**72**		ug/L			30322	29483	0	KED
	Ni	**60**	**1.111**	ug/L	0.051	4	1	1156	3	KED
	Ni	**62**	**1.057**	ug/L	0.028	2	3	182	2	KED
	Cu	**63**	**1.033**	ug/L	0.011	1	37	3127	0	KED
	Cu	**65**	**1.047**	ug/L	0.045	4	22	1588	3	KED
	Zn	**66**	**8.202**	ug/L	0.218	2	57	3463	2	KED
	Zn	**67**	**9.879**	ug/L	0.215	2	12	703	2	KED
	As	**75**	**0.084**	ug/L	0.006	7	6	24	5	KED
	Se	**78**	**0.071**	ug/L	0.151	214	28	29	13	KED
	Y	**89**		ug/L			255916	256000	1	Standard
	Kr	**83**		ug/L			40	45	7	Standard
>	**In-1**	**115**		ug/L			10112	9617	1	KED
	Cd	**111**	**0.003**	ug/L	0.007	271	1	2	78	KED
	Cd	**114**	**0.006**	ug/L	0.002	43	1	4	34	KED
>	**In**	**115**		ug/L			377966	371330	1	Standard
	Ag	**107**	**-0.000**	ug/L	0.001	332	31	27	49	Standard
	Ba	**135**	**24.563**	ug/L	0.328	1	9	89074	1	Standard
	Ba	**137**	**24.834**	ug/L	0.312	1	24	158742	1	Standard
>	**Tb**	**159**		ug/L			603683	625840	2	Standard
	Pb	**208**	**0.575**	ug/L	0.023	4	66	21210	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0708-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 00:41:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			21153	40043	3	Standard
	Cl	37		ug/L			5547089	5900105	2	Standard
>	Sc	45		ug/L			468010	509148	0	Standard
	Cr	52	0.391	ug/L	0.026	6	19735	28692	1	Standard
	Cr	53	0.815	ug/L	0.003	0	125	1859	0	Standard
	Mn	55	269.178	ug/L	8.476	3	543	7626312	2	Standard
>	Ge	72		ug/L			30322	29607	1	KED
	Ni	60	0.860	ug/L	0.074	8	1	899	8	KED
	Ni	62	0.873	ug/L	0.155	17	3	152	17	KED
	Cu	63	5.094	ug/L	0.123	2	37	15340	3	KED
	Cu	65	4.987	ug/L	0.119	2	22	7509	0	KED
	Zn	66	10.681	ug/L	0.342	3	57	4511	1	KED
	Zn	67	10.397	ug/L	0.280	2	12	742	3	KED
	As	75	0.290	ug/L	0.024	8	6	69	5	KED
	Se	78	0.146	ug/L	0.172	117	28	31	14	KED
	Y	89		ug/L			255916	262171	0	Standard
	Kr	83		ug/L			40	48	21	Standard
>	In-1	115		ug/L			10112	9597	0	KED
	Cd	111	0.001	ug/L	0.004	265	1	2	49	KED
	Cd	114	0.013	ug/L	0.010	74	1	10	66	KED
>	In	115		ug/L			377966	374159	2	Standard
	Ag	107	0.019	ug/L	0.002	10	31	269	7	Standard
	Ba	135	8.664	ug/L	0.255	2	9	31646	0	Standard
	Ba	137	8.770	ug/L	0.169	1	24	56489	2	Standard
>	Tb	159		ug/L			603683	631799	2	Standard
	Pb	208	0.250	ug/L	0.007	2	66	9356	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 00:46:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	26227	2	Standard
	Cl	**37**		ug/L			5547089	5634612	1	Standard
⌈>	**Sc**	**45**		ug/L			468010	464144	1	Standard
|	**Cr**	**52**	**47.154**	ug/L	0.356	0	19735	813392	0	Standard
|	**Cr**	**53**	**47.811**	ug/L	0.120	0	125	92286	1	Standard
⌊	**Mn**	**55**	**44.839**	ug/L	0.639	1	543	1158592	1	Standard
⌈>	**Ge**	**72**		ug/L			30322	29495	0	KED
|	**Ni**	**60**	**48.375**	ug/L	1.163	2	1	50310	2	KED
|	**Ni**	**62**	**49.822**	ug/L	0.565	1	3	8455	1	KED
|	**Cu**	**63**	**49.523**	ug/L	0.600	1	37	148250	1	KED
|	**Cu**	**65**	**49.670**	ug/L	0.956	1	22	74338	1	KED
|	**Zn**	**66**	**48.914**	ug/L	0.283	0	57	20386	0	KED
|	**Zn**	**67**	**49.922**	ug/L	2.122	4	12	3508	4	KED
|	**As**	**75**	**48.913**	ug/L	0.615	1	6	10688	0	KED
⌊	**Se**	**78**	**48.499**	ug/L	0.496	1	28	1326	1	KED
	Y	**89**		ug/L			255916	260133	2	Standard
	Kr	**83**		ug/L			40	47	16	Standard
⌈>	**In-1**	**115**		ug/L			10112	9833	2	KED
|	**Cd**	**111**	**49.039**	ug/L	1.251	2	1	14259	1	KED
⌊	**Cd**	**114**	**49.908**	ug/L	0.950	1	1	34773	0	KED
⌈>	**In**	**115**		ug/L			377966	373490	1	Standard
|	**Ag**	**107**	**50.219**	ug/L	1.317	2	31	640927	1	Standard
|	**Ba**	**135**	**48.624**	ug/L	0.454	0	9	177342	1	Standard
⌊	**Ba**	**137**	**47.831**	ug/L	0.919	1	24	307469	1	Standard
⌈>	**Tb**	**159**		ug/L			603683	627863	0	Standard
⌊	**Pb**	**208**	**48.559**	ug/L	0.446	0	66	1792668	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 00:53:46
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	23894	1	Standard
	Cl	**37**		ug/L			5547089	5492987	1	Standard
⎡>	**Sc**	**45**		ug/L			468010	435391	4	Standard
⎢	**Cr**	**52**	**0.016**	ug/L	0.010	59	19735	18617	4	Standard
⎢	**Cr**	**53**	**0.059**	ug/L	0.009	15	125	224	11	Standard
⎣	**Mn**	**55**	**0.003**	ug/L	0.001	25	543	574	7	Standard
⎡>	**Ge**	**72**		ug/L			30322	28469	1	KED
⎢	**Ni**	**60**	**0.000**	ug/L	0.002	1675	1	1	100	KED
⎢	**Ni**	**62**	**0.001**	ug/L	0.023	1835	3	3	100	KED
⎢	**Cu**	**63**	**-0.001**	ug/L	0.004	538	37	33	33	KED
⎢	**Cu**	**65**	**-0.001**	ug/L	0.002	177	22	19	17	KED
⎢	**Zn**	**66**	**0.015**	ug/L	0.011	71	57	60	6	KED
⎢	**Zn**	**67**	**-0.036**	ug/L	0.015	42	12	8	12	KED
⎢	**As**	**75**	**-0.003**	ug/L	0.001	35	6	5	5	KED
⎣	**Se**	**78**	**0.017**	ug/L	0.175	1034	28	26	15	KED
	Y	**89**		ug/L			255916	247035	1	Standard
	Kr	**83**		ug/L			40	31	28	Standard
⎡>	**In-1**	**115**		ug/L			10112	9356	1	KED
⎢	**Cd**	**111**	**-0.004**	ug/L	0.004	98	1	0	173	KED
⎣	**Cd**	**114**	**0.000**	ug/L	0.002	914	1	1	90	KED
⎡>	**In**	**115**		ug/L			377966	357950	1	Standard
⎢	**Ag**	**107**	**0.002**	ug/L	0.000	16	31	51	6	Standard
⎢	**Ba**	**135**	**0.001**	ug/L	0.002	196	9	12	56	Standard
⎣	**Ba**	**137**	**0.000**	ug/L	0.002	13780	24	22	62	Standard
⎡>	**Tb**	**159**		ug/L			603683	587275	3	Standard
⎣	**Pb**	**208**	**0.001**	ug/L	0.001	103	66	86	28	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 00:58:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	36995	1	Standard
	Cl	**37**		ug/L			5547089	5947782	0	Standard
⌈>	**Sc**	**45**		ug/L			468010	533893	1	Standard
|	**Cr**	**52**	**0.084**	ug/L	0.010	11	19735	24145	1	Standard
|	**Cr**	**53**	**0.053**	ug/L	0.013	24	125	260	9	Standard
⌊	**Mn**	**55**	**0.032**	ug/L	0.003	8	543	1581	6	Standard
⌈>	**Ge**	**72**		ug/L			30322	31619	1	KED
|	**Ni**	**60**	**0.007**	ug/L	0.005	67	1	9	52	KED
|	**Ni**	**62**	**-0.015**	ug/L	0.012	79	3	1	173	KED
|	**Cu**	**63**	**0.005**	ug/L	0.003	64	37	55	20	KED
|	**Cu**	**65**	**0.007**	ug/L	0.002	28	22	33	8	KED
|	**Zn**	**66**	**-0.091**	ug/L	0.014	15	57	19	29	KED
|	**Zn**	**67**	**-0.117**	ug/L	0.050	42	12	3	100	KED
|	**As**	**75**	**-0.002**	ug/L	0.007	399	6	6	25	KED
⌊	**Se**	**78**	**-0.043**	ug/L	0.089	206	28	28	8	KED
	Y	**89**		ug/L			255916	297842	1	Standard
	Kr	**83**		ug/L			40	29	13	Standard
⌈>	**In-1**	**115**		ug/L			10112	11020	1	KED
|	**Cd**	**111**	**0.001**	ug/L	0.002	113	1	2	21	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.000	3	1	1	2	KED
⌈>	**In**	**115**		ug/L			377966	423301	0	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	150	31	43	26	Standard
|	**Ba**	**135**	**0.003**	ug/L	0.001	31	9	22	16	Standard
⌊	**Ba**	**137**	**0.002**	ug/L	0.001	65	24	40	22	Standard
⌈>	**Tb**	**159**		ug/L			603683	668256	2	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.001	332	66	83	36	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 01:03:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	36457	2	Standard
	Cl	**37**		ug/L			5547089	5888235	3	Standard
⎡>	**Sc**	**45**		ug/L			468010	528455	0	Standard
⎢	**Cr**	**52**	**0.095**	ug/L	0.015	16	19735	24099	1	Standard
⎢	**Cr**	**53**	**0.054**	ug/L	0.009	16	125	260	6	Standard
⎣	**Mn**	**55**	**0.031**	ug/L	0.001	2	543	1514	1	Standard
⎡>	**Ge**	**72**		ug/L			30322	31843	2	KED
⎢	**Ni**	**60**	**0.001**	ug/L	0.002	184	1	3	69	KED
⎢	**Ni**	**62**	**-0.001**	ug/L	0.001	48	3	3	0	KED
⎢	**Cu**	**63**	**0.008**	ug/L	0.005	63	37	65	23	KED
⎢	**Cu**	**65**	**0.002**	ug/L	0.005	286	22	26	29	KED
⎢	**Zn**	**66**	**-0.083**	ug/L	0.008	9	57	23	12	KED
⎢	**Zn**	**67**	**-0.100**	ug/L	0.029	28	12	5	43	KED
⎢	**As**	**75**	**-0.009**	ug/L	0.008	87	6	4	43	KED
⎣	**Se**	**78**	**-0.072**	ug/L	0.088	123	28	27	10	KED
	Y	**89**		ug/L			255916	283404	1	Standard
	Kr	**83**		ug/L			40	46	36	Standard
⎡>	**In-1**	**115**		ug/L			10112	10781	1	KED
⎢	**Cd**	**111**	**0.001**	ug/L	0.002	296	1	2	24	KED
⎣	**Cd**	**114**	**0.002**	ug/L	0.001	54	1	3	33	KED
⎡>	**In**	**115**		ug/L			377966	411979	1	Standard
⎢	**Ag**	**107**	**-0.001**	ug/L	0.001	83	31	24	33	Standard
⎢	**Ba**	**135**	**0.002**	ug/L	0.001	28	9	19	14	Standard
⎣	**Ba**	**137**	**0.001**	ug/L	0.000	41	24	31	7	Standard
⎡>	**Tb**	**159**		ug/L			603683	672416	0	Standard
⎣	**Pb**	**208**	**-0.000**	ug/L	0.000	31	66	63	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 01:08:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	35895	4	Standard
	Cl	**37**		ug/L			5547089	5705397	3	Standard
⌈>	**Sc**	**45**		ug/L			468010	519945	2	Standard
|	**Cr**	**52**	**0.075**	ug/L	0.031	41	19735	23322	0	Standard
|	**Cr**	**53**	**0.049**	ug/L	0.011	22	125	244	7	Standard
⌊	**Mn**	**55**	**0.031**	ug/L	0.003	9	543	1486	5	Standard
⌈>	**Ge**	**72**		ug/L			30322	31370	1	KED
|	**Ni**	**60**	**0.002**	ug/L	0.002	89	1	4	49	KED
|	**Ni**	**62**	**-0.004**	ug/L	0.006	148	3	3	34	KED
|	**Cu**	**63**	**0.004**	ug/L	0.002	41	37	52	11	KED
|	**Cu**	**65**	**0.001**	ug/L	0.003	173	22	25	17	KED
|	**Zn**	**66**	**-0.094**	ug/L	0.003	3	57	18	5	KED
|	**Zn**	**67**	**-0.134**	ug/L	0.014	10	12	2	43	KED
|	**As**	**75**	**-0.004**	ug/L	0.005	131	6	5	17	KED
⌊	**Se**	**78**	**-0.009**	ug/L	0.110	1170	28	28	12	KED
	Y	**89**		ug/L			255916	285302	1	Standard
	Kr	**83**		ug/L			40	44	21	Standard
⌈>	**In-1**	**115**		ug/L			10112	10776	1	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.008	1693	1	1	132	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.003	78	1	3	51	KED
⌈>	**In**	**115**		ug/L			377966	404240	1	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.000	76	31	28	13	Standard
|	**Ba**	**135**	**0.002**	ug/L	0.001	60	9	18	26	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.001	158	24	32	32	Standard
⌈>	**Tb**	**159**		ug/L			603683	662515	1	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	70	66	61	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 01:12:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	24513	5	Standard
	Cl	**37**		ug/L			5547089	5142949	0	Standard
⌈>	**Sc**	**45**		ug/L			468010	383686	4	Standard
|	**Cr**	**52**	**0.075**	ug/L	0.065	87	19735	17191	0	Standard
|	**Cr**	**53**	**0.046**	ug/L	0.007	14	125	175	6	Standard
⌊	**Mn**	**55**	**0.027**	ug/L	0.003	10	543	1014	5	Standard
⌈>	**Ge**	**72**		ug/L			30322	27378	1	KED
|	**Ni**	**60**	**0.001**	ug/L	0.003	346	1	2	114	KED
|	**Ni**	**62**	**-0.006**	ug/L	0.007	114	3	2	43	KED
|	**Cu**	**63**	**-0.004**	ug/L	0.002	59	37	23	28	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.003	78	22	15	25	KED
|	**Zn**	**66**	**-0.094**	ug/L	0.010	10	57	15	24	KED
|	**Zn**	**67**	**-0.090**	ug/L	0.016	17	12	5	21	KED
|	**As**	**75**	**-0.011**	ug/L	0.015	144	6	3	90	KED
⌊	**Se**	**78**	**-0.012**	ug/L	0.074	607	28	25	8	KED
	Y	**89**		ug/L			255916	214035	3	Standard
	Kr	**83**		ug/L			40	44	19	Standard
⌈>	**In-1**	**115**		ug/L			10112	8796	0	KED
|	**Cd**	**111**	**0.001**	ug/L	0.007	791	1	1	100	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.000	5	1	1	1	KED
⌈>	**In**	**115**		ug/L			377966	326819	5	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.000	188	31	25	18	Standard
|	**Ba**	**135**	**0.002**	ug/L	0.001	77	9	13	28	Standard
⌊	**Ba**	**137**	**-0.001**	ug/L	0.001	91	24	15	34	Standard
⌈>	**Tb**	**159**		ug/L			603683	516028	6	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	17	66	30	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 01:17:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	24486	1	Standard
	Cl	**37**		ug/L			5547089	5126801	0	Standard
⌈>	**Sc**	**45**		ug/L			468010	395526	1	Standard
|	**Cr**	**52**	**0.059**	ug/L	0.007	11	19735	17528	1	Standard
|	**Cr**	**53**	**0.056**	ug/L	0.008	14	125	198	8	Standard
⌊	**Mn**	**55**	**0.022**	ug/L	0.002	7	543	946	5	Standard
⌈>	**Ge**	**72**		ug/L			30322	27278	3	KED
|	**Ni**	**60**	**0.002**	ug/L	0.004	154	1	3	86	KED
|	**Ni**	**62**	**-0.002**	ug/L	0.013	683	3	3	69	KED
|	**Cu**	**63**	**-0.003**	ug/L	0.001	36	37	26	12	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.002	33	22	13	14	KED
|	**Zn**	**66**	**-0.098**	ug/L	0.013	13	57	14	37	KED
|	**Zn**	**67**	**-0.118**	ug/L	0.034	28	12	3	69	KED
|	**As**	**75**	**0.004**	ug/L	0.006	170	6	6	24	KED
⌊	**Se**	**78**	**0.073**	ug/L	0.050	68	28	27	5	KED
	Y	**89**		ug/L			255916	222106	0	Standard
	Kr	**83**		ug/L			40	40	21	Standard
⌈>	**In-1**	**115**		ug/L			10112	9089	2	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.004	730	1	1	69	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.000	14	1	1	3	KED
⌈>	**In**	**115**		ug/L			377966	328689	0	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.000	75	31	22	17	Standard
|	**Ba**	**135**	**0.002**	ug/L	0.001	65	9	13	24	Standard
⌊	**Ba**	**137**	**-0.000**	ug/L	0.002	1407	24	20	47	Standard
⌈>	**Tb**	**159**		ug/L			603683	532831	2	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	13	66	29	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 19, 2023 01:22:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\041823A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			21153	24459	3	Standard
	Cl	**37**		ug/L			5547089	5202884	2	Standard
⌈>	**Sc**	**45**		ug/L			468010	397596	2	Standard
|	**Cr**	**52**	**0.061**	ug/L	0.005	7	19735	17638	2	Standard
|	**Cr**	**53**	**0.035**	ug/L	0.004	12	125	165	4	Standard
⌊	**Mn**	**55**	**0.018**	ug/L	0.002	11	543	866	4	Standard
⌈>	**Ge**	**72**		ug/L			30322	28161	1	KED
|	**Ni**	**60**	**0.000**	ug/L	0.002	1295	1	1	100	KED
|	**Ni**	**62**	**-0.006**	ug/L	0.007	107	3	2	43	KED
|	**Cu**	**63**	**-0.002**	ug/L	0.002	133	37	29	22	KED
|	**Cu**	**65**	**0.000**	ug/L	0.003	1195	22	20	18	KED
|	**Zn**	**66**	**-0.098**	ug/L	0.010	10	57	14	27	KED
|	**Zn**	**67**	**-0.129**	ug/L	0.017	13	12	2	43	KED
|	**As**	**75**	**-0.000**	ug/L	0.015	5586	6	5	54	KED
⌊	**Se**	**78**	**-0.035**	ug/L	0.104	294	28	25	11	KED
	Y	**89**		ug/L			255916	224808	1	Standard
	Kr	**83**		ug/L			40	40	29	Standard
⌈>	**In-1**	**115**		ug/L			10112	9087	2	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.006	232	1	0	173	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.002	623	1	1	86	KED
⌈>	**In**	**115**		ug/L			377966	337339	0	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.000	180	31	30	12	Standard
|	**Ba**	**135**	**0.002**	ug/L	0.003	191	9	13	75	Standard
⌊	**Ba**	**137**	**-0.001**	ug/L	0.001	131	24	18	21	Standard
⌈>	**Tb**	**159**		ug/L			603683	537424	1	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	47	66	29	49	Standard

INITIAL CALIBRATION DATA

EPA 6020B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00059	Instrument:	ICPMS2
Calibration Date:	04/20/2023 12:31		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Chromium-52	0	0	0.5	56110	10	19711.9	20	18008.6	50	17053.96	100	16953.69
Chromium-53	0	0	0.5	2250	10	2068.5	20	2016.6	50	1949.74	100	1944.14
Lead-208	0	0	0.1	41010	10	39919.7	20	39507.15	50	38815.06	100	38563.32

INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC
Instrument: ICPMS2
Calibration: GD00059
Calibration Date: 4/20/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Chromium-52	21306.36	86.9	0.9999		0.998	
Chromium-53	1704.83	49.4	0.9999		0.998	
Lead-208	32969.21	49.1	1.0000		0.998	

INITIAL CALIBRATION DATA

EPA 6020B UCT-KED

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00059	Instrument:	ICPMS2
Calibration Date:	04/20/2023 12:31		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Cadmium-111	0	0	0.1	330	10	291.1	20	282.3	50	278.48	100	272.42
Cadmium-114	0	0	0.1	750	10	721.7	20	692.7	50	680.42	100	660.04

INITIAL CALIBRATION DATA

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

Instrument: ICPMS2

Calibration: GD00059

Calibration Date: 4/20/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Cadmium-111	242.3833	49.7	0.9998		0.998	
Cadmium-114	584.1433	49.3	0.9997		0.998	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4/20/23 **Analyst:** SD **Sequence:** SLD0292 **Cal:** GD000059

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CAL1	L3725		
		-CAL2	L3806		
		-CAL3	L3807		
		-CAL4	L3808		
		-CAL5	L3944		
		-CAL6	L3809		
		-IBL1	—		
		-ICV1	L3575		
		-ICB1	L3725		
		-CCV1	L3944		
		-CCB1	L3725		
		-CRL1	L3806		
		-IFA1	L3578		Cr^{53}↑
		-IFB1	L3579		
		-HCV1	L3671		Ag↑
		-HCV2	L3672		Pb↑
		-IBL2			
		-IBL3			
		-CCV2			
		-CCB2			
		BLD0506-BLK1	REN		
		↓ -BS1	↓		Int's sl. noisy
		BLD0559-BLK1	↓		
		↓ -BS1	↓		

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ICP/MS 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4/20/23 **Analyst:** SD **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23D0426-01	REN		
		23D0484-01	↓	2	
		23D0485-01	↓	5	
		23A0249-08	SWN	50	Cr ONLY
		↓ -05	↓	↓	↓
		SEQ-IBL4			
		-CCV3			
	✓	-CCB3			In-INOISY
		↓ -CCB3			
		BLD0289-BS2	SWN	20	Cd ONLY
		23A0295-01	↓	50	Cr ONLY
		-02	↓	↓	↓
		-03	↓	↓	↓
		-04	↓	↓	↓
		-05	↓	↓	↓
		↓ -06	↓	↓	↓
		23A0249-03	↓	↓	↓
		↓ -04	↓	↓	↓
		SEQ-IBL5			
		-CCV4			
		↓ -CCB4			
		23A0313-08	SWN	50	Cr ONLY
		↓ -09	↓	↓	↓
		↓ -10	↓	↓	↓

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ICP/MS 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4/20/23 **Analyst:** SD **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23A0313-11	SWN	50	Cr ONLY
		↓ -13	↓	↓	↓
		23A0249-02			
		BLD0244-DUP2			
		-MS2			
		-MSD2			
		-PS2	↓	↓	
		SEQ-CCV5			
		↓ -CCB5			
	✓	BLD0472-BLK2	REN		PBT
		23D0013-01	↓		
		23D0017-01			
	✓	23D0018-01			ALL INT. STDs ↓
		23C0713-01			
	✓	23C0714-01			ALL INT. STDs ↓
		23C0716-01			SCT-NOT NEEDED
		23D0081-04			Cu/Zn ONLY NO Pb
		23C0775-01	↓	5	
		SEQ-ICBL6			
		-CCVL6			
		↓ -CCBL6			Cr^{53} & Ni^{62} ↑
		23D0003-03	REN		
		-05	↓		
		↓ -07			

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ICP/MS 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4/20/23 **Analyst:** SD **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23D0005-01	REN	2	
		↓ -03	↓	↓	
		23D0006-01			
		↓ -02			
		23D0003-01			No Cr/Ni
		BLD0401-DUP1			↓
		↓ -MS1			
		SEQ-CCV7			
		↓ -CCB7			Cr53↑ Ge noisy - %R + analytes OK
		23D0117-01	REN		
		23D0019-01			
		23D0020-01			
		23D0022-01			Zn↑ Cu ONLY
		23D0023-01			
		23D0048-01			
		23D0050-01			
		↓ -02			
		23D0044-01	↓	5	No Cr
		SEQ-IBL7			
		↓ -CCV8			Ge sl. noisy
		↓ -CCB8			
		23D0177-04	REN		No Pb
		↓ -06	↓		↓
		↓ -08			

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ICP/MS 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 4/20/23 **Analyst:** SD **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted. SD 4/20/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23D0213-02	REN		
		↓ -04			
		23C0706-01			No Pb
		23D0111-01			
		23D0177-02			
		BLD0403-DUP1			
		↓ -MS1	↓		↓
		SEQ-CCV9			Pb↑
		↓ -CCB9			
		23D0117-02	REN		
		23D0123-01			Zn↑ No Zn
		23D0124-01			↓ No Pb/Zn
		↓ -03			No Pb
		23D0125-01			
	✓	23D1K26-01			Ge, In[-1], In, ~~Tb~~↓
		↓ -02			
		23D0116-01			No Pb/Zn
		BLD0506-DUP1			↓
		↓ -MS1	↓		Zn↑ ↓
		SEQ-CCV10			
		↓ -CCB10			
	✓	23D0126-03	REN		
	↓	23D0127-01	↓		
		23D0135-01	↓		~~No Pb Ed ONG~~

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4/20/23 **Analyst:** SD **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted. SD 4/20/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23D0135-03	PEN		~~No PB Col ONLY~~
		-05			
		-07			
		-09			
		-11			
		-13			
		-15			
		SEQ-CCVB			PbT
		-CCBB			Ge noisy - %R of analytes OK
		RINSE/DI			

SD 4/20/23

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Thursday, April 20, 2023 11:21:55
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.5705
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	4093.1	4093.120	77.504	1.9	Standard
	In	114.9	47652.7	-330314.290	379.907	0.1	Standard
	U	238.1	32037.6	32037.554	352.894	1.1	Standard
⎡	CeO	155.9	747.7	0.014	0.000	3.2	Standard
| >	Ce	139.9	54306.1	54306.096	435.208	0.8	Standard
⎣	Ce++	70.0	747.1	0.014	0.000	1.9	Standard
	Bkgd	220.0	0.3	0.300	0.183	60.9	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.25	Deflector Voltage
1600.00	ICP RF Power
-1750.00	Analog Stage Voltage
1650.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-8.00	Cell Rod Offset STD [CRO]
12.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.04	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-16.50	KED Mode CRO
-12.00	KED Mode QRO
-4.00	KED Mode Cell Entrance Voltage
-39.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
5.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Thursday, April 20, 2023 11:29:49
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.5711
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5976.3	5976.251	171.134	2.9	Standard
	In	114.9	59015.4	59015.388	502.041	0.9	Standard
	U	238.1	42701.3	42701.268	634.442	1.5	Standard
⌈	CeO	155.9	1275.5	0.019	0.000	2.3	Standard
| >	Ce	139.9	68405.6	68405.591	454.659	0.7	Standard
⌊	Ce++	70.0	1249.3	0.018	0.000	1.3	Standard
	Bkgd	220.0	0.2	0.167	0.167	100.0	Standard

Current Conditions File Data

Current Value	Description
1.05	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.25	Deflector Voltage
1600.00	ICP RF Power
-1750.00	Analog Stage Voltage
1650.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-8.00	Cell Rod Offset STD [CRO]
12.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.05	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-16.50	KED Mode CRO
-12.00	KED Mode QRO
-4.00	KED Mode Cell Entrance Voltage
-39.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
5.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 4/20/2023 11:21:53 AM
End Time: 4/20/2023 11:31:54 AM

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 4093.12
Obtained Intensity (In 115): 47652.68
Obtained Intensity (U 238): 32037.55
Obtained Intensity (Bkgd 220): 0.30
Obtained Formula (Ce++ 70 / Ce 140): 0.014 (=747.09 / 54306.10)
Obtained Formula (CeO 156 / Ce 140): 0.014 (=747.69 / 54306.10)
Obtained RSD (Be 9): 0.0189
Obtained RSD (In 115): 0.0012
Obtained RSD (U 238): 0.0110

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.62 mm	0.54 mm	52656.87

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 1.05
Obtained Intensity (In 115): 61750.17
Obtained Formula (CeO 156 / Ce 140): 0.0181 (=1084.04 / 59840.07)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.704)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.717)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.717)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.714)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -12.22

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -12.97

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 5976.25
Obtained Intensity (In 115): 59015.39
Obtained Intensity (U 238): 42701.27
Obtained Intensity (Bkgd 220): 0.17
Obtained Formula (Ce++ 70 / Ce 140): 0.018 (=1249.25 / 68405.59)
Obtained Formula (CeO 156 / Ce 140): 0.019 (=1275.46 / 68405.59)
Obtained RSD (Be 9): 0.0286
Obtained RSD (In 115): 0.0085
Obtained RSD (U 238): 0.0149

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 4/20/2023 11:21:53 AM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025
		RSD Criterion: Be 9.0122 < 0.05
		RSD Criterion: In 114.904 < 0.05
		RSD Criterion: U 238.05 < 0.05

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 4093.12
		Obtained Intensity (In 115): 47652.68
		Obtained Intensity (U 238): 32037.55
		Obtained Intensity (Bkgd 220): 0.30
		Obtained Formula (Ce++ 70 / Ce 140): 0.014 (=747.09 / 54306.10)
		Obtained Formula (CeO 156 / Ce 140): 0.014 (=747.69 / 54306.10)
		Obtained RSD (Be 9): 0.0189
		Obtained RSD (In 115): 0.0012
		Obtained RSD (U 238): 0.0110

[Passed] Optimum value(s): N/A

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	0.62 mm	0.54 mm	52656.87

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 1.02/1.06/0.01.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 61750.17
		Obtained Formula (CeO 156 / Ce 140): 0.0181 (=1084.04 / 59840.07)
[Passed] Optimum value(s): 1.05

Mass Calibration and Resolution
	Optimization Settings:
		Method: Tuning.mth.
		MassCal File: Default.tun
		Iterations: 6
		Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
		Peak height (%) for Res. Opt.: 10

	Optimization Results:
	Initial Try
		Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.704)
		Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.717)
		Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.717)
		Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.714)
[Passed] Optimum value(s): N/A

QID STD/DRC
	Optimization Settings:
		Method: QID Calibration.mth.
			Initial Try - Start/End/Step: -20/0/0.5.

	Optimization Results:
	Initial Try

  Optimum value(s): Correlation Coefficient = 0.999; Intercept = -12.22

	Analyte	Mass	Points	DAC	MaxIntensity

		Li	7	41	-12.5	27458.4
		Mg	24	41	-12.5	29875.2
		In	115	41	-8.5	62379.9
		Ce	140	41	-7.5	66868.1
		Pb	208	41	-7.5	25859.4
		U	238	41	-7	42278.5

KED Mode QID
	Optimization Settings:
		Method: QID Calibration.mth.
			Initial Try - Start/End/Step: -20/0/0.5.

	Optimization Results:
	Initial Try

  Optimum value(s): Correlation Coefficient = 0.999; Intercept = -12.97

	Analyte	Mass	Points	DAC	MaxIntensity

		Li	7	41	-13	18828.4
		Mg	24	41	-13	18047.4
		In	115	41	-9	41656.6
		Ce	140	41	-8	54206.6
		Pb	208	41	-5.5	24440.9
		U	238	41	-5.5	34196.9

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000

```
            Intensity Criterion: U 238 > 30000
            Intensity Criterion: Bkgd 220 <= 1
            Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
            Formula Criterion: CeO 156 / Ce 140 <= 0.025
            RSD Criterion: Be 9.0122 < 0.05
            RSD Criterion: In 114.904 < 0.05
            RSD Criterion: U 238.05 < 0.05

       Optimization Results:
       Initial Try
            Obtained Intensity (Be 9): 5976.25
            Obtained Intensity (In 115): 59015.39
            Obtained Intensity (U 238): 42701.27
            Obtained Intensity (Bkgd 220): 0.17
            Obtained Formula (Ce++ 70 / Ce 140): 0.018 (=1249.25 / 68405.59)
            Obtained Formula (CeO 156 / Ce 140): 0.019 (=1275.46 / 68405.59)
            Obtained RSD (Be 9): 0.0286
            Obtained RSD (In 115): 0.0085
            Obtained RSD (U 238): 0.0149

[Passed]  Optimum value(s): N/A

End Time: 4/20/2023 11:31:54 AM
```

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 12:31:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	**13**		ug/L				25789	2	Standard
Cl	**37**		ug/L				5434030	2	Standard
Sc	**45**		ug/L				479414	1	Standard
Cr	**52**		ug/L				20356	1	Standard
Cr	**53**		ug/L				160	1	Standard
Fe	**54**		ug/L				67040	0	Standard
Fe	**57**		ug/L				19150	2	Standard
Mn	**55**		ug/L				667	5	Standard
Ge	**72**		ug/L				31347	2	KED
Ni	**60**		ug/L				4	89	KED
Ni	**62**		ug/L				3	100	KED
Cu	**63**		ug/L				53	16	KED
Cu	**65**		ug/L				21	25	KED
Zn	**66**		ug/L				18	15	KED
Zn	**67**		ug/L				5	21	KED
As	**75**		ug/L				5	32	KED
Y	**89**		ug/L				275831	2	Standard
Kr	**83**		ug/L				40	12	Standard
In-1	**115**		ug/L				9714	0	KED
Cd	**111**		ug/L				2	114	KED
Cd	**114**		ug/L				3	94	KED
In	**115**		ug/L				369046	0	Standard
Ag	**107**		ug/L				22	8	Standard
Tb	**159**		ug/L				669567	0	Standard
Pb	**208**		ug/L				60	36	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 12:35:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	25956	1	Standard
	Cl	**37**		ug/L			5434030	5407342	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	485631	1	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.032	6	20356	28055	1	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.012	2	160	1125	0	Standard
|	**Fe**	**54**	**36.000**	ug/L	1.004	2	67040	113642	2	Standard
|	**Fe**	**57**	**36.000**	ug/L	2.283	6	19150	37273	2	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.008	1	667	14954	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	31540	1	KED
|	**Ni**	**60**	**0.500**	ug/L	0.033	6	4	605	6	KED
|	**Ni**	**62**	**0.500**	ug/L	0.096	19	3	86	17	KED
|	**Cu**	**63**	**0.500**	ug/L	0.016	3	53	1641	4	KED
|	**Cu**	**65**	**0.500**	ug/L	0.014	2	21	886	3	KED
|	**Zn**	**66**	**6.000**	ug/L	0.428	7	18	2686	6	KED
|	**Zn**	**67**	**6.000**	ug/L	0.228	3	5	426	4	KED
⌊	**As**	**75**	**0.200**	ug/L	0.033	16	5	49	14	KED
	Y	**89**		ug/L			275831	268490	3	Standard
	Kr	**83**		ug/L			40	46	6	Standard
⌈>	**In-1**	**115**		ug/L			9714	9626	0	KED
|	**Cd**	**111**	**0.100**	ug/L	0.028	27	2	33	25	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.017	16	3	75	15	KED
⌈>	**In**	**115**		ug/L			369046	364929	1	Standard
⌊	**Ag**	**107**	**0.200**	ug/L	0.007	3	22	2562	4	Standard
⌈>	**Tb**	**159**		ug/L			669567	668115	0	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.001	1	60	4101	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 12:40:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	34568	3	Standard
	Cl	**37**		ug/L			5434030	5418634	3	Standard
⌈>	**Sc**	**45**		ug/L			479414	491573	0	Standard
|	**Cr**	**52**	**10.004**	ug/L	0.243	2	20356	197119	1	Standard
|	**Cr**	**53**	**10.001**	ug/L	0.209	2	160	20685	1	Standard
|	**Fe**	**54**	**1000.018**	ug/L	26.894	2	67040	1372587	1	Standard
|	**Fe**	**57**	**1000.060**	ug/L	24.630	2	19150	546661	1	Standard
⌊	**Mn**	**55**	**9.997**	ug/L	0.114	1	667	257338	2	Standard
⌈>	**Ge**	**72**		ug/L			31347	31857	1	KED
|	**Ni**	**60**	**9.998**	ug/L	0.231	2	4	11402	0	KED
|	**Ni**	**62**	**10.002**	ug/L	0.323	3	3	1862	4	KED
|	**Cu**	**63**	**10.001**	ug/L	0.189	1	53	33024	0	KED
|	**Cu**	**65**	**9.999**	ug/L	0.221	2	21	16998	2	KED
|	**Zn**	**66**	**9.997**	ug/L	0.177	1	18	4506	2	KED
|	**Zn**	**67**	**10.263**	ug/L	0.552	5	5	791	6	KED
⌊	**As**	**75**	**10.000**	ug/L	0.139	1	5	2333	0	KED
	Y	**89**		ug/L			275831	281676	0	Standard
	Kr	**83**		ug/L			40	49	35	Standard
⌈>	**In-1**	**115**		ug/L			9714	10051	3	KED
|	**Cd**	**111**	**10.000**	ug/L	0.389	3	2	2911	1	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.068	0	3	7217	2	KED
⌈>	**In**	**115**		ug/L			369046	378058	1	Standard
⌊	**Ag**	**107**	**10.000**	ug/L	0.250	2	22	132737	2	Standard
⌈>	**Tb**	**159**		ug/L			669567	693629	0	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.131	1	60	399197	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 12:45:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	33447	2	Standard
	Cl	**37**		ug/L			5434030	5516484	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	502119	2	Standard
|	**Cr**	**52**	**19.755**	ug/L	0.520	2	20356	360172	0	Standard
|	**Cr**	**53**	**19.828**	ug/L	0.472	2	160	40332	0	Standard
|	**Fe**	**54**	**2011.493**	ug/L	80.015	3	67040	2810458	1	Standard
|	**Fe**	**57**	**1993.768**	ug/L	43.090	2	19150	1080032	2	Standard
⌊	**Mn**	**55**	**19.907**	ug/L	0.660	3	667	512846	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	31839	2	KED
|	**Ni**	**60**	**19.998**	ug/L	0.419	2	4	22780	1	KED
|	**Ni**	**62**	**19.990**	ug/L	0.691	3	3	3708	5	KED
|	**Cu**	**63**	**19.891**	ug/L	0.659	3	53	64182	1	KED
|	**Cu**	**65**	**19.791**	ug/L	0.390	1	21	32254	0	KED
|	**Zn**	**66**	**19.912**	ug/L	0.705	3	18	8834	1	KED
|	**Zn**	**67**	**19.857**	ug/L	0.836	4	5	1492	2	KED
⌊	**As**	**75**	**19.917**	ug/L	0.391	1	5	4562	1	KED
	Y	**89**		ug/L			275831	282310	2	Standard
	Kr	**83**		ug/L			40	45	9	Standard
⌈>	**In-1**	**115**		ug/L			9714	9735	0	KED
|	**Cd**	**111**	**20.004**	ug/L	0.225	1	2	5646	0	KED
⌊	**Cd**	**114**	**19.964**	ug/L	0.413	2	3	13854	1	KED
⌈>	**In**	**115**		ug/L			369046	381657	2	Standard
⌊	**Ag**	**107**	**19.845**	ug/L	0.633	3	22	257770	0	Standard
⌈>	**Tb**	**159**		ug/L			669567	700892	2	Standard
⌊	**Pb**	**208**	**19.918**	ug/L	0.334	1	60	790143	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 12:50:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	24091	0	Standard
	Cl	**37**		ug/L			5434030	5480447	3	Standard
⌈>	**Sc**	**45**		ug/L			479414	488069	1	Standard
|	**Cr**	**52**	**49.979**	ug/L	0.050	0	20356	852698	1	Standard
|	**Cr**	**53**	**49.902**	ug/L	1.343	2	160	97487	1	Standard
|	**Fe**	**54**	**4998.552**	ug/L	69.570	1	67040	6681875	0	Standard
|	**Fe**	**57**	**5053.349**	ug/L	13.374	0	19150	2778620	1	Standard
⌊	**Mn**	**55**	**49.886**	ug/L	0.706	1	667	1234981	2	Standard
⌈>	**Ge**	**72**		ug/L			31347	31778	1	KED
|	**Ni**	**60**	**49.679**	ug/L	0.882	1	4	54718	0	KED
|	**Ni**	**62**	**49.478**	ug/L	1.415	2	3	8696	1	KED
|	**Cu**	**63**	**49.776**	ug/L	0.988	1	53	156757	0	KED
|	**Cu**	**65**	**49.822**	ug/L	1.393	2	21	79582	0	KED
|	**Zn**	**66**	**49.701**	ug/L	1.181	2	18	21389	0	KED
|	**Zn**	**67**	**49.333**	ug/L	1.500	3	5	3477	3	KED
⌊	**As**	**75**	**49.821**	ug/L	0.907	1	5	11183	1	KED
	Y	**89**		ug/L			275831	281252	1	Standard
	Kr	**83**		ug/L			40	41	25	Standard
⌈>	**In-1**	**115**		ug/L			9714	9736	1	KED
|	**Cd**	**111**	**49.889**	ug/L	0.335	0	2	13924	1	KED
⌊	**Cd**	**114**	**49.835**	ug/L	1.410	2	3	34021	2	KED
⌈>	**In**	**115**		ug/L			369046	374500	1	Standard
⌊	**Ag**	**107**	**49.741**	ug/L	0.053	0	22	618299	1	Standard
⌈>	**Tb**	**159**		ug/L			669567	682102	2	Standard
⌊	**Pb**	**208**	**50.046**	ug/L	1.149	2	60	1940753	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 12:56:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	29792	1	Standard
	Cl	**37**		ug/L			5434030	5410171	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	477018	1	Standard
|	**Cr**	**52**	**100.670**	ug/L	1.066	1	20356	1695369	0	Standard
|	**Cr**	**53**	**100.432**	ug/L	1.367	1	160	194414	0	Standard
|	**Fe**	**54**	**10039.717**	ug/L	95.701	0	67040	13224638	1	Standard
|	**Fe**	**57**	**10049.020**	ug/L	202.815	2	19150	5470075	1	Standard
⌊	**Mn**	**55**	**102.211**	ug/L	2.207	2	667	2668544	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	30520	1	KED
|	**Ni**	**60**	**99.769**	ug/L	2.465	2	4	104742	2	KED
|	**Ni**	**62**	**100.707**	ug/L	3.337	3	3	17411	3	KED
|	**Cu**	**63**	**100.345**	ug/L	1.207	1	53	307024	0	KED
|	**Cu**	**65**	**99.792**	ug/L	0.469	0	21	152059	0	KED
|	**Zn**	**66**	**99.600**	ug/L	0.363	0	18	40626	1	KED
|	**Zn**	**67**	**100.526**	ug/L	0.679	0	5	6921	1	KED
⌊	**As**	**75**	**100.381**	ug/L	1.544	1	5	21915	0	KED
	Y	**89**		ug/L			275831	280351	1	Standard
	Kr	**83**		ug/L			40	58	13	Standard
⌈>	**In-1**	**115**		ug/L			9714	9481	0	KED
|	**Cd**	**111**	**100.054**	ug/L	0.611	0	2	27242	0	KED
⌊	**Cd**	**114**	**99.832**	ug/L	0.620	0	3	66004	0	KED
⌈>	**In**	**115**		ug/L			369046	370005	1	Standard
⌊	**Ag**	**107**	**100.197**	ug/L	0.845	0	22	1238571	0	Standard
⌈>	**Tb**	**159**		ug/L			669567	682772	2	Standard
⌊	**Pb**	**208**	**99.852**	ug/L	6.986	6	60	3856332	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 13:04:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	26750	1	Standard
	Cl	**37**		ug/L			5434030	5341961	3	Standard
⎡>	**Sc**	**45**		ug/L			479414	457898	7	Standard
⎢	**Cr**	**52**	**0.031**	ug/L	0.089	282	20356	19872	0	Standard
⎢	**Cr**	**53**	**-0.006**	ug/L	0.002	26	160	142	9	Standard
⎢	**Fe**	**54**	**2.893**	ug/L	5.190	179	67040	67334	1	Standard
⎢	**Fe**	**57**	**0.827**	ug/L	3.266	394	19150	18633	1	Standard
⎣	**Mn**	**55**	**0.001**	ug/L	0.003	247	667	660	3	Standard
⎡>	**Ge**	**72**		ug/L			31347	30859	0	KED
⎢	**Ni**	**60**	**0.001**	ug/L	0.002	311	4	5	43	KED
⎢	**Ni**	**62**	**0.004**	ug/L	0.006	156	3	4	24	KED
⎢	**Cu**	**63**	**0.003**	ug/L	0.005	170	53	61	24	KED
⎢	**Cu**	**65**	**0.010**	ug/L	0.011	112	21	36	45	KED
⎢	**Zn**	**66**	**0.059**	ug/L	0.038	63	18	42	36	KED
⎢	**Zn**	**67**	**0.038**	ug/L	0.072	192	5	7	66	KED
⎣	**As**	**75**	**0.001**	ug/L	0.013	1231	5	5	53	KED
	Y	**89**		ug/L			275831	264873	4	Standard
	Kr	**83**		ug/L			40	34	36	Standard
⎡>	**In-1**	**115**		ug/L			9714	9576	1	KED
⎢	**Cd**	**111**	**0.006**	ug/L	0.014	244	2	4	96	KED
⎣	**Cd**	**114**	**0.004**	ug/L	0.000	6	3	5	0	KED
⎡>	**In**	**115**		ug/L			369046	362319	6	Standard
⎣	**Ag**	**107**	**0.002**	ug/L	0.001	53	22	45	19	Standard
⎡>	**Tb**	**159**		ug/L			669567	650196	7	Standard
⎣	**Pb**	**208**	**0.002**	ug/L	0.000	20	60	129	4	Standard

Sample Information

Sample Date/Time: Thursday, April 20, 2023 12:56:51
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED
Mass Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**0.9999**	0.035	0.50	10	20	50	100
Cr	53	**1.0000**	0.004	0.50	10	20	50	100
Fe	54	**1.0000**	0.003	36.00	1000	2000	5000	10000
Fe	57	**0.9999**	0.001	36.00	1000	2000	5000	10000
Mn	55	**0.9992**	0.055	0.50	10	20	50	100
Ge	72							
Ni	60	**1.0000**	0.034	0.50	10	20	50	100
Ni	62	**0.9999**	0.006	0.50	10	20	50	100
Cu	63	**1.0000**	0.100	0.50	10	20	50	100
Cu	65	**1.0000**	0.050	0.50	10	20	50	100
Zn	66	**1.0000**	0.013	6.00	10	20	50	100
Zn	67	**0.9998**	0.002	6.00	10	20	50	100
As	75	**1.0000**	0.007	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**1.0000**	0.029	0.10	10	20	50	100
Cd	114	**1.0000**	0.070	0.10	10	20	50	100
In	115							
Ag	107	**1.0000**	0.033	0.20	10	20	50	100
Tb	159							
Pb	208	**1.0000**	0.057	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 14:54:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	26165	2	Standard
	Cl	**37**		ug/L			5434030	5389411	1	Standard
⎡>	**Sc**	**45**		ug/L			479414	492292	0	Standard
⎢	**Cr**	**52**	**51.200**	ug/L	0.387	0	20356	900238	1	Standard
⎢	**Cr**	**53**	**51.487**	ug/L	0.871	1	160	102950	1	Standard
⎢	**Fe**	**54**	**5050.899**	ug/L	103.253	2	67040	6899969	1	Standard
⎢	**Fe**	**57**	**5222.642**	ug/L	64.353	1	19150	2943647	1	Standard
⎣	**Mn**	**55**	**48.207**	ug/L	0.445	0	667	1299397	1	Standard
⎡>	**Ge**	**72**		ug/L			31347	32420	3	KED
⎢	**Ni**	**60**	**51.059**	ug/L	0.930	1	4	56927	1	KED
⎢	**Ni**	**62**	**51.015**	ug/L	1.479	2	3	9364	0	KED
⎢	**Cu**	**63**	**52.337**	ug/L	2.597	4	53	169984	2	KED
⎢	**Cu**	**65**	**50.875**	ug/L	1.096	2	21	82324	1	KED
⎢	**Zn**	**66**	**49.522**	ug/L	0.777	1	18	21459	1	KED
⎢	**Zn**	**67**	**50.488**	ug/L	3.337	6	5	3690	3	KED
⎣	**As**	**75**	**47.170**	ug/L	0.976	2	5	10938	1	KED
	Y	**89**		ug/L			275831	288889	1	Standard
	Kr	**83**		ug/L			40	38	8	Standard
⎡>	**In-1**	**115**		ug/L			9714	10112	1	KED
⎢	**Cd**	**111**	**49.677**	ug/L	1.196	2	2	14423	0	KED
⎣	**Cd**	**114**	**50.184**	ug/L	0.746	1	3	35384	0	KED
⎡>	**In**	**115**		ug/L			369046	388283	0	Standard
⎣	**Ag**	**107**	**52.918**	ug/L	0.452	0	22	686513	0	Standard
⎡>	**Tb**	**159**		ug/L			669567	702184	2	Standard
⎣	**Pb**	**208**	**50.642**	ug/L	0.227	0	60	2012424	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 15:02:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	24325	4	Standard
	Cl	**37**		ug/L			5434030	5379821	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	474599	0	Standard
|	**Cr**	**52**	**0.018**	ug/L	0.008	47	20356	20444	0	Standard
|	**Cr**	**53**	**-0.014**	ug/L	0.002	14	160	133	2	Standard
|	**Fe**	**54**	**0.667**	ug/L	0.199	29	67040	67237	0	Standard
|	**Fe**	**57**	**2.178**	ug/L	1.485	68	19150	20133	3	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	726	667	655	5	Standard
⌈>	**Ge**	**72**		ug/L			31347	31496	1	KED
|	**Ni**	**60**	**0.001**	ug/L	0.003	481	4	5	57	KED
|	**Ni**	**62**	**-0.014**	ug/L	0.012	87	3	1	173	KED
|	**Cu**	**63**	**-0.001**	ug/L	0.004	449	53	50	25	KED
|	**Cu**	**65**	**-0.000**	ug/L	0.001	204	21	20	9	KED
|	**Zn**	**66**	**-0.001**	ug/L	0.021	1426	18	17	48	KED
|	**Zn**	**67**	**-0.018**	ug/L	0.028	154	5	3	50	KED
⌊	**As**	**75**	**-0.002**	ug/L	0.008	346	5	4	34	KED
	Y	**89**		ug/L			275831	278075	1	Standard
	Kr	**83**		ug/L			40	47	31	Standard
⌈>	**In-1**	**115**		ug/L			9714	9568	0	KED
|	**Cd**	**111**	**0.001**	ug/L	0.006	465	2	2	57	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.006	17261	3	3	133	KED
⌈>	**In**	**115**		ug/L			369046	381372	1	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	41	22	43	18	Standard
⌈>	**Tb**	**159**		ug/L			669567	674110	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	10	60	86	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 15:09:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	23481	1	Standard
	Cl	**37**		ug/L			5434030	5541161	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	486921	1	Standard
|	**Cr**	**52**	**49.062**	ug/L	0.424	0	20356	854066	1	Standard
|	**Cr**	**53**	**49.426**	ug/L	0.756	1	160	97741	0	Standard
|	**Fe**	**54**	**4936.993**	ug/L	71.556	1	67040	6672260	1	Standard
|	**Fe**	**57**	**5035.826**	ug/L	83.538	1	19150	2807605	0	Standard
⌊	**Mn**	**55**	**46.675**	ug/L	0.957	2	667	1244124	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	31651	2	KED
|	**Ni**	**60**	**49.887**	ug/L	2.601	5	4	54271	2	KED
|	**Ni**	**62**	**48.999**	ug/L	1.296	2	3	8783	0	KED
|	**Cu**	**63**	**49.048**	ug/L	0.396	0	53	155684	3	KED
|	**Cu**	**65**	**49.801**	ug/L	0.906	1	21	78685	0	KED
|	**Zn**	**66**	**51.518**	ug/L	1.370	2	18	21791	0	KED
|	**Zn**	**67**	**49.922**	ug/L	0.289	0	5	3567	2	KED
⌊	**As**	**75**	**49.701**	ug/L	1.179	2	5	11252	1	KED
	Y	**89**		ug/L			275831	277420	0	Standard
	Kr	**83**		ug/L			40	41	19	Standard
⌈>	**In-1**	**115**		ug/L			9714	9780	1	KED
|	**Cd**	**111**	**50.000**	ug/L	0.886	1	2	14041	0	KED
⌊	**Cd**	**114**	**51.183**	ug/L	1.011	1	3	34906	2	KED
⌈>	**In**	**115**		ug/L			369046	384684	1	Standard
⌊	**Ag**	**107**	**50.460**	ug/L	0.961	1	22	648445	0	Standard
⌈>	**Tb**	**159**		ug/L			669567	697923	1	Standard
⌊	**Pb**	**208**	**49.033**	ug/L	0.361	0	60	1936631	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 15:16:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	24333	1	Standard
	Cl	**37**		ug/L			5434030	5301230	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	468138	6	Standard
|	**Cr**	**52**	**0.024**	ug/L	0.027	111	20356	20258	4	Standard
|	**Cr**	**53**	**-0.015**	ug/L	0.004	27	160	127	5	Standard
|	**Fe**	**54**	**2.263**	ug/L	3.809	168	67040	68165	0	Standard
|	**Fe**	**57**	**1.524**	ug/L	1.159	76	19150	19487	4	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.002	375	667	632	3	Standard
⌈>	**Ge**	**72**		ug/L			31347	30610	2	KED
|	**Ni**	**60**	**-0.000**	ug/L	0.003	672	4	3	86	KED
|	**Ni**	**62**	**-0.010**	ug/L	0.011	110	3	1	100	KED
|	**Cu**	**63**	**0.001**	ug/L	0.003	324	53	55	18	KED
|	**Cu**	**65**	**0.002**	ug/L	0.003	204	21	23	18	KED
|	**Zn**	**66**	**0.020**	ug/L	0.009	46	18	26	15	KED
|	**Zn**	**67**	**-0.017**	ug/L	0.027	162	5	3	50	KED
⌊	**As**	**75**	**-0.000**	ug/L	0.004	1833	5	5	21	KED
	Y	**89**		ug/L			275831	268659	3	Standard
	Kr	**83**		ug/L			40	39	26	Standard
⌈>	**In-1**	**115**		ug/L			9714	9657	3	KED
|	**Cd**	**111**	**0.001**	ug/L	0.007	582	2	2	66	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.002	57	3	1	90	KED
⌈>	**In**	**115**		ug/L			369046	372927	3	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.000	23	22	46	8	Standard
⌈>	**Tb**	**159**		ug/L			669567	648504	6	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	25	60	90	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 15:22:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	26446	1	Standard
	Cl	**37**		ug/L			5434030	5399791	2	Standard
⎡>	**Sc**	**45**		ug/L			479414	475700	2	Standard
⎢	**Cr**	**52**	**0.508**	ug/L	0.055	10	20356	28607	1	Standard
⎢	**Cr**	**53**	**0.480**	ug/L	0.049	10	160	1084	7	Standard
⎢	**Fe**	**54**	**35.469**	ug/L	2.577	7	67040	112825	1	Standard
⎢	**Fe**	**57**	**35.499**	ug/L	2.559	7	19150	38187	2	Standard
⎣	**Mn**	**55**	**0.475**	ug/L	0.011	2	667	13031	0	Standard
⎡>	**Ge**	**72**		ug/L			31347	31998	0	KED
⎢	**Ni**	**60**	**0.499**	ug/L	0.022	4	4	554	4	KED
⎢	**Ni**	**62**	**0.476**	ug/L	0.059	12	3	90	11	KED
⎢	**Cu**	**63**	**0.480**	ug/L	0.021	4	53	1595	4	KED
⎢	**Cu**	**65**	**0.540**	ug/L	0.033	6	21	884	6	KED
⎢	**Zn**	**66**	**6.335**	ug/L	0.109	1	18	2726	1	KED
⎢	**Zn**	**67**	**5.973**	ug/L	0.736	12	5	436	12	KED
⎣	**As**	**75**	**0.192**	ug/L	0.023	12	5	49	10	KED
	Y	**89**		ug/L			275831	278146	2	Standard
	Kr	**83**		ug/L			40	38	5	Standard
⎡>	**In-1**	**115**		ug/L			9714	9913	2	KED
⎢	**Cd**	**111**	**0.089**	ug/L	0.013	14	2	27	13	KED
⎣	**Cd**	**114**	**0.098**	ug/L	0.023	23	3	70	24	KED
⎡>	**In**	**115**		ug/L			369046	384987	1	Standard
⎣	**Ag**	**107**	**0.204**	ug/L	0.002	0	22	2644	1	Standard
⎡>	**Tb**	**159**		ug/L			669567	672893	0	Standard
⎣	**Pb**	**208**	**0.111**	ug/L	0.003	2	60	4287	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 15:27:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	103540	1	Standard
	Cl	**37**		ug/L			5434030	11216303	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	532421	1	Standard
|	**Cr**	**52**	**0.748**	ug/L	0.041	5	20356	36506	1	Standard
|	**Cr**	**53**	**3.802**	ug/L	0.075	1	160	8389	3	Standard
|	**Fe**	**54**	**18296.835**	ug/L	253.391	1	67040	26843249	2	Standard
|	**Fe**	**57**	**18620.315**	ug/L	346.164	1	19150	11294134	0	Standard
⌊	**Mn**	**55**	**0.070**	ug/L	0.004	5	667	2779	5	Standard
⌈>	**Ge**	**72**		ug/L			31347	30810	1	KED
|	**Ni**	**60**	**0.116**	ug/L	0.015	13	4	127	11	KED
|	**Ni**	**62**	**0.187**	ug/L	0.114	61	3	36	53	KED
|	**Cu**	**63**	**0.046**	ug/L	0.003	5	53	194	3	KED
|	**Cu**	**65**	**0.056**	ug/L	0.009	15	21	107	13	KED
|	**Zn**	**66**	**0.215**	ug/L	0.065	30	18	106	25	KED
|	**Zn**	**67**	**0.102**	ug/L	0.131	128	5	12	74	KED
⌊	**As**	**75**	**0.044**	ug/L	0.013	29	5	14	21	KED
	Y	**89**		ug/L			275831	282715	0	Standard
	Kr	**83**		ug/L			40	102	8	Standard
⌈>	**In-1**	**115**		ug/L			9714	9340	1	KED
|	**Cd**	**111**	**0.058**	ug/L	0.007	12	2	18	10	KED
⌊	**Cd**	**114**	**0.048**	ug/L	0.009	19	3	34	19	KED
⌈>	**In**	**115**		ug/L			369046	359193	0	Standard
⌊	**Ag**	**107**	**0.011**	ug/L	0.001	10	22	149	9	Standard
⌈>	**Tb**	**159**		ug/L			669567	705380	1	Standard
⌊	**Pb**	**208**	**0.037**	ug/L	0.001	2	60	1556	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 15:32:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	103094	0	Standard
	Cl	**37**		ug/L			5434030	10946357	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	535162	0	Standard
|	**Cr**	**52**	**19.022**	ug/L	0.328	1	20356	377828	1	Standard
|	**Cr**	**53**	**22.364**	ug/L	0.324	1	160	48710	0	Standard
|	**Fe**	**54**	**18421.712**	ug/L	253.342	1	67040	27161657	1	Standard
|	**Fe**	**57**	**18471.628**	ug/L	185.782	1	19150	11263630	1	Standard
⌊	**Mn**	**55**	**17.270**	ug/L	0.135	0	667	506502	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	29612	1	KED
|	**Ni**	**60**	**21.056**	ug/L	0.508	2	4	21447	1	KED
|	**Ni**	**62**	**20.811**	ug/L	1.059	5	3	3491	3	KED
|	**Cu**	**63**	**19.903**	ug/L	0.095	0	53	59132	1	KED
|	**Cu**	**65**	**20.542**	ug/L	0.522	2	21	30380	1	KED
|	**Zn**	**66**	**19.276**	ug/L	0.485	2	18	7642	2	KED
|	**Zn**	**67**	**17.153**	ug/L	0.295	1	5	1149	2	KED
⌊	**As**	**75**	**19.139**	ug/L	0.205	1	5	4058	1	KED
	Y	**89**		ug/L			275831	276138	1	Standard
	Kr	**83**		ug/L			40	93	24	Standard
⌈>	**In-1**	**115**		ug/L			9714	9059	1	KED
|	**Cd**	**111**	**18.974**	ug/L	0.171	0	2	4937	1	KED
⌊	**Cd**	**114**	**19.102**	ug/L	0.302	1	3	12070	2	KED
⌈>	**In**	**115**		ug/L			369046	352085	1	Standard
⌊	**Ag**	**107**	**18.803**	ug/L	0.354	1	22	221198	2	Standard
⌈>	**Tb**	**159**		ug/L			669567	696273	1	Standard
⌊	**Pb**	**208**	**0.034**	ug/L	0.002	5	60	1391	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 15:37:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	29237	1	Standard
	Cl	**37**		ug/L			5434030	5510207	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	509481	1	Standard
|	**Cr**	**52**	**207.633**	ug/L	4.702	2	20356	3711526	1	Standard
|	**Cr**	**53**	**191.286**	ug/L	4.917	2	160	395389	3	Standard
|	**Fe**	**54**	**18999.291**	ug/L	477.309	2	67040	26662440	2	Standard
|	**Fe**	**57**	**19310.599**	ug/L	312.592	1	19150	11207500	0	Standard
⌊	**Mn**	**55**	**193.147**	ug/L	5.036	2	667	5384692	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	29380	2	KED
|	**Ni**	**60**	**209.178**	ug/L	8.424	4	4	211303	2	KED
|	**Ni**	**62**	**205.376**	ug/L	6.767	3	3	34156	0	KED
|	**Cu**	**63**	**199.148**	ug/L	6.962	3	53	586213	1	KED
|	**Cu**	**65**	**198.337**	ug/L	5.930	2	21	290784	1	KED
|	**Zn**	**66**	**201.578**	ug/L	6.425	3	18	79088	0	KED
|	**Zn**	**67**	**194.420**	ug/L	2.292	1	5	12881	2	KED
⌊	**As**	**75**	**195.276**	ug/L	6.102	3	5	41017	0	KED
	Y	**89**		ug/L			275831	281561	1	Standard
	Kr	**83**		ug/L			40	90	6	Standard
⌈>	**In-1**	**115**		ug/L			9714	8941	2	KED
|	**Cd**	**111**	**196.173**	ug/L	4.399	2	2	50347	0	KED
⌊	**Cd**	**114**	**198.884**	ug/L	2.793	1	3	123968	1	KED
⌈>	**In**	**115**		ug/L			369046	360597	1	Standard
⌊	**Ag**	**107**	**220.094**	ug/L	4.920	2	22	2651581	2	Standard
⌈>	**Tb**	**159**		ug/L			669567	697590	2	Standard
⌊	**Pb**	**208**	**218.686**	ug/L	7.016	3	60	8630817	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 15:41:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	29094	2	Standard
	Cl	**37**		ug/L			5434030	5369401	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	490458	1	Standard
|	**Cr**	**52**	**305.860**	ug/L	5.017	1	20356	5253140	0	Standard
|	**Cr**	**53**	**288.098**	ug/L	6.588	2	160	573017	0	Standard
|	**Fe**	**54**	**28263.914**	ug/L	145.750	0	67040	38153719	1	Standard
|	**Fe**	**57**	**28801.203**	ug/L	91.862	0	19150	16084120	1	Standard
⌊	**Mn**	**55**	**297.119**	ug/L	4.807	1	667	7973940	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	28638	2	KED
|	**Ni**	**60**	**303.014**	ug/L	10.209	3	4	298389	1	KED
|	**Ni**	**62**	**297.553**	ug/L	10.398	3	3	48240	1	KED
|	**Cu**	**63**	**292.839**	ug/L	13.583	4	53	840182	2	KED
|	**Cu**	**65**	**293.480**	ug/L	5.838	1	21	419482	0	KED
|	**Zn**	**66**	**281.020**	ug/L	8.492	3	18	107480	0	KED
|	**Zn**	**67**	**273.298**	ug/L	6.969	2	5	17643	1	KED
⌊	**As**	**75**	**286.828**	ug/L	6.130	2	5	58739	0	KED
	Y	**89**		ug/L			275831	269865	1	Standard
	Kr	**83**		ug/L			40	135	12	Standard
⌈>	**In-1**	**115**		ug/L			9714	8716	0	KED
|	**Cd**	**111**	**287.712**	ug/L	3.858	1	2	72007	0	KED
⌊	**Cd**	**114**	**288.978**	ug/L	4.472	1	3	175629	0	KED
⌈>	**In**	**115**		ug/L			369046	350783	1	Standard
⌊	**Ag**	**107**	**326.836**	ug/L	5.291	1	22	3830142	1	Standard
⌈>	**Tb**	**159**		ug/L			669567	673024	2	Standard
⌊	**Pb**	**208**	**330.557**	ug/L	8.866	2	60	12586045	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 15:49:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	30510	1	Standard
	Cl	**37**		ug/L			5434030	5553969	4	Standard
⎡>	**Sc**	**45**		ug/L			479414	491550	1	Standard
⎢	**Cr**	**52**	**0.001**	ug/L	0.013	966	20356	20892	0	Standard
⎢	**Cr**	**53**	**0.043**	ug/L	0.013	30	160	250	12	Standard
⎢	**Fe**	**54**	**1.746**	ug/L	1.712	98	67040	71072	1	Standard
⎢	**Fe**	**57**	**1.108**	ug/L	1.462	131	19150	20257	4	Standard
⎣	**Mn**	**55**	**0.010**	ug/L	0.002	19	667	956	4	Standard
⎡>	**Ge**	**72**		ug/L			31347	31605	2	KED
⎢	**Ni**	**60**	**0.009**	ug/L	0.007	75	4	13	51	KED
⎢	**Ni**	**62**	**0.035**	ug/L	0.031	87	3	10	54	KED
⎢	**Cu**	**63**	**0.009**	ug/L	0.005	52	53	82	20	KED
⎢	**Cu**	**65**	**0.018**	ug/L	0.005	25	21	50	17	KED
⎢	**Zn**	**66**	**0.089**	ug/L	0.014	16	18	55	8	KED
⎢	**Zn**	**67**	**0.099**	ug/L	0.126	126	5	12	71	KED
⎣	**As**	**75**	**0.015**	ug/L	0.009	59	5	8	20	KED
	Y	**89**		ug/L			275831	272942	2	Standard
	Kr	**83**		ug/L			40	38	7	Standard
⎡>	**In-1**	**115**		ug/L			9714	9807	1	KED
⎢	**Cd**	**111**	**0.002**	ug/L	0.007	323	2	3	62	KED
⎣	**Cd**	**114**	**0.006**	ug/L	0.003	63	3	6	33	KED
⎡>	**In**	**115**		ug/L			369046	377496	0	Standard
⎣	**Ag**	**107**	**0.005**	ug/L	0.001	23	22	87	17	Standard
⎡>	**Tb**	**159**		ug/L			669567	669444	2	Standard
⎣	**Pb**	**208**	**0.005**	ug/L	0.000	0	60	253	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 15:56:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	30717	0	Standard
	Cl	**37**		ug/L			5434030	5553942	0	Standard
⎡>	**Sc**	**45**		ug/L			479414	497659	1	Standard
⎢	**Cr**	**52**	**0.018**	ug/L	0.022	120	20356	21444	2	Standard
⎢	**Cr**	**53**	**0.030**	ug/L	0.005	17	160	226	3	Standard
⎢	**Fe**	**54**	**0.613**	ug/L	0.937	152	67040	70423	1	Standard
⎢	**Fe**	**57**	**0.758**	ug/L	1.607	212	19150	20307	4	Standard
⎣	**Mn**	**55**	**0.006**	ug/L	0.001	18	667	867	4	Standard
⎡>	**Ge**	**72**		ug/L			31347	30828	2	KED
⎢	**Ni**	**60**	**0.014**	ug/L	0.009	66	4	19	50	KED
⎢	**Ni**	**62**	**-0.003**	ug/L	0.006	182	3	3	34	KED
⎢	**Cu**	**63**	**0.008**	ug/L	0.003	33	53	77	9	KED
⎢	**Cu**	**65**	**0.013**	ug/L	0.005	35	21	41	15	KED
⎢	**Zn**	**66**	**0.109**	ug/L	0.015	14	18	62	8	KED
⎢	**Zn**	**67**	**0.092**	ug/L	0.079	86	5	11	50	KED
⎣	**As**	**75**	**0.013**	ug/L	0.013	98	5	7	33	KED
	Y	**89**		ug/L			275831	271654	1	Standard
	Kr	**83**		ug/L			40	30	22	Standard
⎡>	**In-1**	**115**		ug/L			9714	9383	1	KED
⎢	**Cd**	**111**	**0.000**	ug/L	0.005	1716	2	2	57	KED
⎣	**Cd**	**114**	**-0.001**	ug/L	0.003	362	3	2	94	KED
⎡>	**In**	**115**		ug/L			369046	375158	1	Standard
⎣	**Ag**	**107**	**0.002**	ug/L	0.000	8	22	44	4	Standard
⎡>	**Tb**	**159**		ug/L			669567	673059	1	Standard
⎣	**Pb**	**208**	**0.004**	ug/L	0.001	12	60	217	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 16:03:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	24360	0	Standard
	Cl	**37**		ug/L			5434030	5568963	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	502410	3	Standard
|	**Cr**	**52**	**50.788**	ug/L	1.679	3	20356	910808	1	Standard
|	**Cr**	**53**	**50.621**	ug/L	1.304	2	160	103235	1	Standard
|	**Fe**	**54**	**5025.290**	ug/L	135.065	2	67040	7002515	1	Standard
|	**Fe**	**57**	**5063.129**	ug/L	227.011	4	19150	2910145	2	Standard
⌊	**Mn**	**55**	**47.269**	ug/L	1.520	3	667	1299292	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	31606	2	KED
|	**Ni**	**60**	**52.010**	ug/L	1.892	3	4	56518	1	KED
|	**Ni**	**62**	**49.091**	ug/L	0.178	0	3	8790	2	KED
|	**Cu**	**63**	**50.421**	ug/L	0.902	1	53	159757	1	KED
|	**Cu**	**65**	**52.333**	ug/L	0.286	0	21	82593	2	KED
|	**Zn**	**66**	**51.996**	ug/L	2.000	3	18	21962	2	KED
|	**Zn**	**67**	**50.222**	ug/L	1.922	3	5	3581	1	KED
⌊	**As**	**75**	**49.733**	ug/L	1.154	2	5	11244	1	KED
	Y	**89**		ug/L			275831	277338	3	Standard
	Kr	**83**		ug/L			40	53	15	Standard
⌈>	**In-1**	**115**		ug/L			9714	9758	0	KED
|	**Cd**	**111**	**50.195**	ug/L	0.337	0	2	14066	0	KED
⌊	**Cd**	**114**	**50.328**	ug/L	1.269	2	3	34243	1	KED
⌈>	**In**	**115**		ug/L			369046	378604	5	Standard
⌊	**Ag**	**107**	**52.616**	ug/L	2.571	4	22	664525	1	Standard
⌈>	**Tb**	**159**		ug/L			669567	692985	4	Standard
⌊	**Pb**	**208**	**52.681**	ug/L	1.604	3	60	2064371	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 16:10:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	25646	2	Standard
	Cl	**37**		ug/L			5434030	5605750	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	493717	1	Standard
|	**Cr**	**52**	**-0.026**	ug/L	0.019	72	20356	20515	1	Standard
|	**Cr**	**53**	**0.016**	ug/L	0.007	43	160	198	7	Standard
|	**Fe**	**54**	**0.927**	ug/L	0.781	84	67040	70296	1	Standard
|	**Fe**	**57**	**1.109**	ug/L	1.791	161	19150	20352	6	Standard
⌊	**Mn**	**55**	**0.012**	ug/L	0.002	14	667	1015	5	Standard
⌈>	**Ge**	**72**		ug/L			31347	30907	1	KED
|	**Ni**	**60**	**0.002**	ug/L	0.001	38	4	6	15	KED
|	**Ni**	**62**	**-0.003**	ug/L	0.006	192	3	3	34	KED
|	**Cu**	**63**	**-0.002**	ug/L	0.001	29	53	46	2	KED
|	**Cu**	**65**	**0.006**	ug/L	0.005	82	21	29	22	KED
|	**Zn**	**66**	**0.022**	ug/L	0.014	63	18	27	21	KED
|	**Zn**	**67**	**0.000**	ug/L	0.068	15031	5	5	94	KED
⌊	**As**	**75**	**0.007**	ug/L	0.008	116	5	6	25	KED
	Y	**89**		ug/L			275831	280626	2	Standard
	Kr	**83**		ug/L			40	45	8	Standard
⌈>	**In-1**	**115**		ug/L			9714	9489	2	KED
|	**Cd**	**111**	**0.003**	ug/L	0.010	381	2	3	86	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.003	338	3	2	92	KED
⌈>	**In**	**115**		ug/L			369046	385454	1	Standard
⌊	**Ag**	**107**	**0.004**	ug/L	0.002	39	22	77	28	Standard
⌈>	**Tb**	**159**		ug/L			669567	681676	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	49	60	129	24	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0506-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 16:23:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	32180	1	Standard
	Cl	37		ug/L			5434030	5493926	1	Standard
>	Sc	45		ug/L			479414	507296	1	Standard
	Cr	52	0.056	ug/L	0.024	43	20356	22528	1	Standard
	Cr	53	0.045	ug/L	0.005	11	160	262	5	Standard
	Fe	54	0.809	ug/L	0.708	87	67040	72060	0	Standard
	Fe	57	2.763	ug/L	1.448	52	19150	21855	3	Standard
	Mn	55	0.279	ug/L	0.005	1	667	8457	1	Standard
>	Ge	72		ug/L			31347	31846	0	KED
	Ni	60	0.022	ug/L	0.008	37	4	28	30	KED
	Ni	62	0.028	ug/L	0.022	79	3	8	44	KED
	Cu	63	0.022	ug/L	0.005	25	53	123	13	KED
	Cu	65	0.029	ug/L	0.007	24	21	67	15	KED
	Zn	66	0.399	ug/L	0.021	5	18	188	5	KED
	Zn	67	0.379	ug/L	0.139	36	5	32	31	KED
	As	75	0.008	ug/L	0.008	101	5	7	26	KED
	Y	89		ug/L			275831	284297	2	Standard
	Kr	83		ug/L			40	38	5	Standard
>	In-1	115		ug/L			9714	9813	0	KED
	Cd	111	-0.003	ug/L	0.002	55	2	1	34	KED
	Cd	114	0.001	ug/L	0.002	267	3	3	43	KED
>	In	115		ug/L			369046	385658	1	Standard
	Ag	107	0.002	ug/L	0.000	22	22	46	10	Standard
>	Tb	159		ug/L			669567	691632	1	Standard
	Pb	208	0.005	ug/L	0.001	10	60	266	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0506-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 16:28:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	32893	4	Standard
	Cl	37		ug/L			5434030	5485597	2	Standard
>	Sc	45		ug/L			479414	508662	0	Standard
	Cr	52	26.190	ug/L	0.216	0	20356	486327	0	Standard
	Cr	53	26.138	ug/L	0.449	1	160	54082	1	Standard
	Fe	54	1.048	ug/L	1.011	96	67040	72591	1	Standard
	Fe	57	3.180	ug/L	0.758	23	19150	22157	1	Standard
	Mn	55	25.164	ug/L	0.342	1	667	701176	1	Standard
>	Ge	72		ug/L			31347	32245	2	KED
	Ni	60	27.797	ug/L	0.753	2	4	30826	1	KED
	Ni	62	27.527	ug/L	1.208	4	3	5029	3	KED
	Cu	63	28.439	ug/L	0.696	2	53	91955	1	KED
	Cu	65	28.799	ug/L	0.882	3	21	46384	3	KED
	Zn	66	90.521	ug/L	3.578	3	18	38990	1	KED
	Zn	67	83.259	ug/L	3.509	4	5	6053	2	KED
	As	75	25.888	ug/L	0.408	1	5	5974	1	KED
	Y	89		ug/L			275831	276879	1	Standard
	Kr	83		ug/L			40	45	8	Standard
>	In-1	115		ug/L			9714	9666	6	KED
	Cd	111	27.562	ug/L	1.303	4	2	7637	1	KED
	Cd	114	27.635	ug/L	1.727	6	3	18583	1	KED
>	In	115		ug/L			369046	394215	1	Standard
	Ag	107	26.826	ug/L	0.449	1	22	353276	0	Standard
>	Tb	159		ug/L			669567	696961	1	Standard
	Pb	208	27.772	ug/L	0.658	2	60	1095195	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0559-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 16:32:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	31184	1	Standard
	Cl	37		ug/L			5434030	5432958	1	Standard
>	Sc	45		ug/L			479414	503408	1	Standard
	Cr	52	0.015	ug/L	0.007	47	20356	21643	1	Standard
	Cr	53	0.013	ug/L	0.012	95	160	194	14	Standard
	Fe	54	-1.722	ug/L	0.860	49	67040	68003	1	Standard
	Fe	57	1.759	ug/L	2.060	117	19150	21109	5	Standard
	Mn	55	0.139	ug/L	0.003	2	667	4528	0	Standard
>	Ge	72		ug/L			31347	31483	1	KED
	Ni	60	0.013	ug/L	0.006	45	4	18	33	KED
	Ni	62	0.022	ug/L	0.048	219	3	7	108	KED
	Cu	63	0.061	ug/L	0.011	18	53	245	13	KED
	Cu	65	0.064	ug/L	0.011	17	21	122	14	KED
	Zn	66	0.211	ug/L	0.018	8	18	107	5	KED
	Zn	67	0.233	ug/L	0.091	39	5	21	28	KED
	As	75	0.005	ug/L	0.009	188	5	6	31	KED
	Y	89		ug/L			275831	276804	1	Standard
	Kr	83		ug/L			40	41	9	Standard
>	In-1	115		ug/L			9714	9945	1	KED
	Cd	111	-0.005	ug/L	0.002	40	2	1	43	KED
	Cd	114	-0.001	ug/L	0.004	294	3	2	137	KED
>	In	115		ug/L			369046	391157	1	Standard
	Ag	107	0.002	ug/L	0.001	36	22	51	19	Standard
>	Tb	159		ug/L			669567	677488	1	Standard
	Pb	208	0.005	ug/L	0.000	5	60	266	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0559-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 16:37:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	33071	0	Standard
	Cl	37		ug/L			5434030	5602411	3	Standard
>	Sc	45		ug/L			479414	509514	1	Standard
	Cr	52	26.191	ug/L	0.092	0	20356	487163	1	Standard
	Cr	53	26.520	ug/L	0.426	1	160	54972	2	Standard
	Fe	54	4959.577	ug/L	48.402	0	67040	7013783	0	Standard
	Fe	57	5111.321	ug/L	81.871	1	19150	2981730	0	Standard
	Mn	55	24.789	ug/L	0.090	0	667	691912	1	Standard
>	Ge	72		ug/L			31347	31606	2	KED
	Ni	60	27.351	ug/L	0.602	2	4	29734	1	KED
	Ni	62	27.548	ug/L	0.167	0	3	4934	2	KED
	Cu	63	26.632	ug/L	0.789	2	53	84415	2	KED
	Cu	65	27.059	ug/L	0.474	1	21	42706	0	KED
	Zn	66	88.609	ug/L	2.286	2	18	37417	0	KED
	Zn	67	81.105	ug/L	3.717	4	5	5780	2	KED
	As	75	26.336	ug/L	0.520	1	5	5957	0	KED
	Y	89		ug/L			275831	286926	1	Standard
	Kr	83		ug/L			40	58	8	Standard
>	In-1	115		ug/L			9714	9644	4	KED
	Cd	111	27.259	ug/L	0.964	3	2	7543	1	KED
	Cd	114	27.305	ug/L	1.312	4	3	18341	1	KED
>	In	115		ug/L			369046	385534	1	Standard
	Ag	107	26.964	ug/L	0.495	1	22	347351	2	Standard
>	Tb	159		ug/L			669567	707015	1	Standard
	Pb	208	26.552	ug/L	0.325	1	60	1062372	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0426-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 16:41:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	47368	3	Standard
	Cl	37		ug/L			5434030	5884816	0	Standard
⌈>	Sc	45		ug/L			479414	539882	1	Standard
|	Cr	52	0.686	ug/L	0.042	6	20356	35832	1	Standard
|	Cr	53	0.863	ug/L	0.023	2	160	2069	1	Standard
|	Fe	54	536.315	ug/L	10.457	1	67040	870965	1	Standard
|	Fe	57	592.392	ug/L	10.178	1	19150	385277	1	Standard
⌊	Mn	55	25.484	ug/L	0.074	0	667	753660	1	Standard
⌈>	Ge	72		ug/L			31347	31767	1	KED
|	Ni	60	13.645	ug/L	0.590	4	4	14912	3	KED
|	Ni	62	12.911	ug/L	0.358	2	3	2327	3	KED
|	Cu	63	6.496	ug/L	0.128	1	53	20736	1	KED
|	Cu	65	6.684	ug/L	0.214	3	21	10619	1	KED
|	Zn	66	212.210	ug/L	1.798	0	18	90069	0	KED
|	Zn	67	189.491	ug/L	1.587	0	5	13577	2	KED
⌊	As	75	0.384	ug/L	0.023	6	5	92	4	KED
	Y	89		ug/L			275831	288684	1	Standard
	Kr	83		ug/L			40	45	26	Standard
⌈>	In-1	115		ug/L			9714	9890	2	KED
|	Cd	111	0.299	ug/L	0.050	16	2	87	16	KED
⌊	Cd	114	0.317	ug/L	0.022	6	3	221	8	KED
⌈>	In	115		ug/L			369046	382064	2	Standard
⌊	Ag	107	0.005	ug/L	0.000	6	22	89	5	Standard
⌈>	Tb	159		ug/L			669567	690943	3	Standard
⌊	Pb	208	0.332	ug/L	0.010	3	60	13049	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0484-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 20, 2023 16:50:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	40228	3	Standard
	Cl	37		ug/L			5434030	7380391	3	Standard
>	Sc	45		ug/L			479414	528457	1	Standard
	Cr	52	0.734	ug/L	0.028	3	20356	35969	1	Standard
	Cr	53	1.313	ug/L	0.010	0	160	2989	0	Standard
	Fe	54	1518.616	ug/L	46.817	3	67040	2279007	3	Standard
	Fe	57	1441.624	ug/L	8.947	0	19150	887524	1	Standard
	Mn	55	190.844	ug/L	2.765	1	667	5519639	1	Standard
>	Ge	72		ug/L			31347	31080	2	KED
	Ni	60	1.581	ug/L	0.060	3	4	1693	1	KED
	Ni	62	1.622	ug/L	0.110	6	3	288	4	KED
	Cu	63	0.748	ug/L	0.022	2	53	2382	0	KED
	Cu	65	0.736	ug/L	0.070	9	21	1161	7	KED
	Zn	66	10.176	ug/L	0.560	5	18	4240	4	KED
	Zn	67	12.293	ug/L	0.257	2	5	866	0	KED
	As	75	0.988	ug/L	0.023	2	5	224	3	KED
	Y	89		ug/L			275831	286185	1	Standard
	Kr	83		ug/L			40	49	23	Standard
>	In-1	115		ug/L			9714	9680	1	KED
	Cd	111	0.039	ug/L	0.021	53	2	13	44	KED
	Cd	114	0.037	ug/L	0.011	30	3	28	25	KED
>	In	115		ug/L			369046	385738	1	Standard
	Ag	107	0.003	ug/L	0.000	2	22	64	1	Standard
>	Tb	159		ug/L			669567	702077	1	Standard
	Pb	208	0.776	ug/L	0.013	1	60	30885	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0485-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, April 20, 2023 16:55:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	158232	2	Standard
	Cl	37		ug/L			5434030	5652704	1	Standard
>	Sc	45		ug/L			479414	539095	1	Standard
	Cr	52	1.723	ug/L	0.009	0	20356	55305	2	Standard
	Cr	53	1.290	ug/L	0.042	3	160	2999	1	Standard
	Fe	54	136.335	ug/L	6.102	4	67040	277210	1	Standard
	Fe	57	290.877	ug/L	1.872	0	19150	199861	1	Standard
	Mn	55	16.054	ug/L	0.199	1	667	474302	0	Standard
>	Ge	72		ug/L			31347	31573	1	KED
	Ni	60	1.447	ug/L	0.075	5	4	1575	3	KED
	Ni	62	1.303	ug/L	0.047	3	3	236	4	KED
	Cu	63	0.109	ug/L	0.004	3	53	399	3	KED
	Cu	65	0.095	ug/L	0.002	2	21	172	1	KED
	Zn	66	0.957	ug/L	0.043	4	18	422	4	KED
	Zn	67	1.070	ug/L	0.089	8	5	81	7	KED
	As	75	0.061	ug/L	0.021	34	5	19	24	KED
	Y	89		ug/L			275831	283902	1	Standard
	Kr	83		ug/L			40	55	17	Standard
>	In-1	115		ug/L			9714	9435	0	KED
	Cd	111	0.010	ug/L	0.011	112	2	5	57	KED
	Cd	114	0.002	ug/L	0.008	439	3	4	131	KED
>	In	115		ug/L			369046	373940	1	Standard
	Ag	107	0.001	ug/L	0.000	36	22	33	12	Standard
>	Tb	159		ug/L			669567	703328	1	Standard
	Pb	208	0.023	ug/L	0.001	3	60	974	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0249-08
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 17:01:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	35948	0	Standard
	Cl	37		ug/L			5434030	5558797	1	Standard
>	Sc	45		ug/L			479414	582170	2	Standard
	Cr	52	6.101	ug/L	0.131	2	20356	148597	1	Standard
	Cr	53	6.337	ug/L	0.161	2	160	15151	0	Standard
	Fe	54	6774.090	ug/L	175.705	2	67040	10913091	0	Standard
	Fe	57	6768.229	ug/L	220.168	3	19150	4502547	1	Standard
	Mn	55	72.204	ug/L	2.704	3	667	2300041	1	Standard
>	Ge	72		ug/L			31347	31837	1	KED
	Ni	60	5.345	ug/L	0.080	1	4	5857	0	KED
	Ni	62	5.254	ug/L	0.111	2	3	951	1	KED
	Cu	63	13.251	ug/L	0.148	1	53	42342	0	KED
	Cu	65	13.103	ug/L	0.091	0	21	20849	1	KED
	Zn	66	25.645	ug/L	0.447	1	18	10926	2	KED
	Zn	67	24.085	ug/L	1.164	4	5	1733	4	KED
	As	75	2.482	ug/L	0.054	2	5	570	2	KED
	Y	89		ug/L			275831	390604	0	Standard
	Kr	83		ug/L			40	52	18	Standard
>	In-1	115		ug/L			9714	9936	2	KED
	Cd	111	0.082	ug/L	0.015	17	2	26	14	KED
	Cd	114	0.088	ug/L	0.009	10	3	64	11	KED
>	In	115		ug/L			369046	394552	1	Standard
	Ag	107	0.067	ug/L	0.001	1	22	907	3	Standard
>	Tb	159		ug/L			669567	720195	1	Standard
	Pb	208	6.771	ug/L	0.033	0	60	276044	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0249-05
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 17:07:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	51692	6	Standard
	Cl	**37**		ug/L			5434030	5619524	3	Standard
⌈>	**Sc**	**45**		ug/L			479414	597988	1	Standard
|	**Cr**	**52**	**6.542**	ug/L	0.154	2	20356	161851	2	Standard
|	**Cr**	**53**	**6.653**	ug/L	0.294	4	160	16324	2	Standard
|	**Fe**	**54**	**7028.434**	ug/L	82.269	1	67040	11629675	0	Standard
|	**Fe**	**57**	**7248.467**	ug/L	150.418	2	19150	4952073	0	Standard
⌊	**Mn**	**55**	**81.697**	ug/L	1.395	1	667	2673732	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	32478	2	KED
|	**Ni**	**60**	**6.517**	ug/L	0.096	1	4	7284	0	KED
|	**Ni**	**62**	**6.512**	ug/L	0.491	7	3	1201	6	KED
|	**Cu**	**63**	**13.593**	ug/L	0.370	2	53	44292	0	KED
|	**Cu**	**65**	**13.734**	ug/L	0.469	3	21	22282	2	KED
|	**Zn**	**66**	**27.251**	ug/L	0.932	3	18	11837	1	KED
|	**Zn**	**67**	**26.668**	ug/L	1.522	5	5	1956	3	KED
⌊	**As**	**75**	**2.666**	ug/L	0.063	2	5	624	0	KED
	Y	**89**		ug/L			275831	405731	1	Standard
	Kr	**83**		ug/L			40	61	29	Standard
⌈>	**In-1**	**115**		ug/L			9714	10201	1	KED
|	**Cd**	**111**	**0.082**	ug/L	0.017	21	2	26	17	KED
⌊	**Cd**	**114**	**0.077**	ug/L	0.013	16	3	58	14	KED
⌈>	**In**	**115**		ug/L			369046	392794	1	Standard
⌊	**Ag**	**107**	**0.074**	ug/L	0.004	5	22	990	3	Standard
⌈>	**Tb**	**159**		ug/L			669567	741446	0	Standard
⌊	**Pb**	**208**	**6.592**	ug/L	0.114	1	60	276682	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 17:11:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	27718	2	Standard
	Cl	**37**		ug/L			5434030	5494355	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	504685	0	Standard
|	**Cr**	**52**	**-0.036**	ug/L	0.023	63	20356	20790	1	Standard
|	**Cr**	**53**	**0.010**	ug/L	0.021	217	160	188	22	Standard
|	**Fe**	**54**	**1.125**	ug/L	0.932	82	67040	72134	1	Standard
|	**Fe**	**57**	**2.559**	ug/L	0.621	24	19150	21626	0	Standard
⌊	**Mn**	**55**	**0.006**	ug/L	0.007	114	667	875	23	Standard
⌈>	**Ge**	**72**		ug/L			31347	31054	0	KED
|	**Ni**	**60**	**0.000**	ug/L	0.004	12452	4	4	107	KED
|	**Ni**	**62**	**0.007**	ug/L	0.006	84	3	5	21	KED
|	**Cu**	**63**	**0.006**	ug/L	0.003	46	53	73	12	KED
|	**Cu**	**65**	**0.006**	ug/L	0.001	21	21	30	6	KED
|	**Zn**	**66**	**0.059**	ug/L	0.012	19	18	42	11	KED
|	**Zn**	**67**	**0.028**	ug/L	0.063	225	5	6	62	KED
⌊	**As**	**75**	**0.006**	ug/L	0.007	110	5	6	22	KED
	Y	**89**		ug/L			275831	286958	0	Standard
	Kr	**83**		ug/L			40	38	39	Standard
⌈>	**In-1**	**115**		ug/L			9714	9890	2	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.003	146	2	1	50	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.003	120	3	1	112	KED
⌈>	**In**	**115**		ug/L			369046	383209	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	73	22	31	17	Standard
⌈>	**Tb**	**159**		ug/L			669567	688445	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	71	60	139	38	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 17:16:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	25473	2	Standard
	Cl	**37**		ug/L			5434030	5685562	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	516025	1	Standard
|	**Cr**	**52**	**48.088**	ug/L	1.045	2	20356	887423	1	Standard
|	**Cr**	**53**	**48.462**	ug/L	0.790	1	160	101568	0	Standard
|	**Fe**	**54**	**4862.019**	ug/L	98.416	2	67040	6964168	0	Standard
|	**Fe**	**57**	**4993.184**	ug/L	94.046	1	19150	2950375	0	Standard
⌊	**Mn**	**55**	**46.564**	ug/L	1.008	2	667	1315384	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	31205	1	KED
|	**Ni**	**60**	**52.446**	ug/L	0.896	1	4	56299	2	KED
|	**Ni**	**62**	**51.809**	ug/L	2.151	4	3	9155	2	KED
|	**Cu**	**63**	**52.304**	ug/L	1.003	1	53	163624	0	KED
|	**Cu**	**65**	**53.088**	ug/L	1.613	3	21	82701	2	KED
|	**Zn**	**66**	**53.241**	ug/L	1.297	2	18	22205	0	KED
|	**Zn**	**67**	**52.484**	ug/L	1.037	1	5	3697	3	KED
⌊	**As**	**75**	**50.657**	ug/L	0.470	0	5	11310	1	KED
	Y	**89**		ug/L			275831	292836	2	Standard
	Kr	**83**		ug/L			40	46	20	Standard
⌈>	**In-1**	**115**		ug/L			9714	10072	1	KED
|	**Cd**	**111**	**49.073**	ug/L	0.927	1	2	14192	1	KED
⌊	**Cd**	**114**	**49.205**	ug/L	0.811	1	3	34555	1	KED
⌈>	**In**	**115**		ug/L			369046	390409	0	Standard
⌊	**Ag**	**107**	**49.783**	ug/L	0.505	1	22	649349	0	Standard
⌈>	**Tb**	**159**		ug/L			669567	709452	0	Standard
⌊	**Pb**	**208**	**50.951**	ug/L	0.150	0	60	2045795	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Thursday, April 20, 2023 17:23:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	26461	6	Standard
	Cl	**37**		ug/L			5434030	5503099	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	491707	0	Standard
|	**Cr**	**52**	**-0.037**	ug/L	0.026	71	20356	20249	1	Standard
|	**Cr**	**53**	**-0.006**	ug/L	0.003	58	160	153	4	Standard
|	**Fe**	**54**	**-0.268**	ug/L	0.328	122	67040	68396	0	Standard
|	**Fe**	**57**	**2.507**	ug/L	1.415	56	19150	21041	3	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	394	667	676	3	Standard
⌈>	**Ge**	**72**		ug/L			31347	30744	2	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.001	85	4	3	34	KED
|	**Ni**	**62**	**0.004**	ug/L	0.027	682	3	4	107	KED
|	**Cu**	**63**	**0.002**	ug/L	0.007	298	53	59	34	KED
|	**Cu**	**65**	**0.001**	ug/L	0.005	666	21	22	32	KED
|	**Zn**	**66**	**0.021**	ug/L	0.014	66	18	26	18	KED
|	**Zn**	**67**	**-0.007**	ug/L	0.058	846	5	4	89	KED
⌊	**As**	**75**	**0.003**	ug/L	0.007	279	5	5	28	KED
	Y	**89**		ug/L			275831	276279	0	Standard
	Kr	**83**		ug/L			40	37	14	Standard
⌈>	**In-1**	**115**		ug/L			9714	8690	18	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.002	8441	2	2	24	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.001	222	3	2	46	KED
⌈>	**In**	**115**		ug/L			369046	382743	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	34	22	41	14	Standard
⌈>	**Tb**	**159**		ug/L			669567	678835	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	36	60	117	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 17:28:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	26033	3	Standard
	Cl	**37**		ug/L			5434030	5647312	1	Standard
⎡>	**Sc**	**45**		ug/L			479414	496825	2	Standard
⎢	**Cr**	**52**	**-0.034**	ug/L	0.023	65	20356	20503	3	Standard
⎢	**Cr**	**53**	**-0.009**	ug/L	0.001	13	160	147	0	Standard
⎢	**Fe**	**54**	**-0.082**	ug/L	1.154	1406	67040	69342	1	Standard
⎢	**Fe**	**57**	**0.615**	ug/L	1.141	185	19150	20186	2	Standard
⎣	**Mn**	**55**	**0.002**	ug/L	0.000	22	667	736	3	Standard
⎡>	**Ge**	**72**		ug/L			31347	31134	2	KED
⎢	**Ni**	**60**	**0.002**	ug/L	0.004	250	4	6	75	KED
⎢	**Ni**	**62**	**-0.014**	ug/L	0.012	84	3	1	173	KED
⎢	**Cu**	**63**	**-0.001**	ug/L	0.003	295	53	50	14	KED
⎢	**Cu**	**65**	**0.009**	ug/L	0.004	47	21	35	17	KED
⎢	**Zn**	**66**	**0.020**	ug/L	0.008	39	18	26	14	KED
⎢	**Zn**	**67**	**0.010**	ug/L	0.049	484	5	5	57	KED
⎣	**As**	**75**	**0.001**	ug/L	0.009	951	5	5	36	KED
	Y	**89**		ug/L			275831	276445	1	Standard
	Kr	**83**		ug/L			40	38	14	Standard
⎡>	**In-1**	**115**		ug/L			9714	9709	0	KED
⎢	**Cd**	**111**	**0.001**	ug/L	0.003	299	2	2	33	KED
⎣	**Cd**	**114**	**-0.000**	ug/L	0.003	22465	3	3	72	KED
⎡>	**In**	**115**		ug/L			369046	382513	2	Standard
⎣	**Ag**	**107**	**0.000**	ug/L	0.001	339	22	27	51	Standard
⎡>	**Tb**	**159**		ug/L			669567	678559	0	Standard
⎣	**Pb**	**208**	**0.001**	ug/L	0.001	51	60	100	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0289-BS2
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 20, 2023 17:35:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	33178	1	Standard
	Cl	**37**		ug/L			5434030	5532846	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	505432	1	Standard
|	**Cr**	**52**	**25.302**	ug/L	0.658	2	20356	467562	2	Standard
|	**Cr**	**53**	**25.243**	ug/L	0.473	1	160	51912	2	Standard
|	**Fe**	**54**	**11.975**	ug/L	1.141	9	67040	87296	1	Standard
|	**Fe**	**57**	**1.292**	ug/L	0.964	74	19150	20931	2	Standard
⌊	**Mn**	**55**	**24.138**	ug/L	0.365	1	667	668270	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	32183	0	KED
|	**Ni**	**60**	**25.916**	ug/L	0.706	2	4	28692	2	KED
|	**Ni**	**62**	**26.304**	ug/L	0.750	2	3	4797	2	KED
|	**Cu**	**63**	**26.122**	ug/L	0.335	1	53	84322	0	KED
|	**Cu**	**65**	**25.981**	ug/L	0.971	3	21	41757	3	KED
|	**Zn**	**66**	**79.260**	ug/L	2.131	2	18	34095	2	KED
|	**Zn**	**67**	**74.447**	ug/L	2.150	2	5	5407	3	KED
⌊	**As**	**75**	**23.513**	ug/L	0.415	1	5	5417	1	KED
	Y	**89**		ug/L			275831	283938	2	Standard
	Kr	**83**		ug/L			40	44	17	Standard
⌈>	**In-1**	**115**		ug/L			9714	10002	2	KED
|	**Cd**	**111**	**25.054**	ug/L	0.733	2	2	7194	0	KED
⌊	**Cd**	**114**	**25.273**	ug/L	0.320	1	3	17626	1	KED
⌈>	**In**	**115**		ug/L			369046	400571	0	Standard
⌊	**Ag**	**107**	**25.743**	ug/L	0.282	1	22	344544	0	Standard
⌈>	**Tb**	**159**		ug/L			669567	702257	2	Standard
⌊	**Pb**	**208**	**26.270**	ug/L	0.265	1	60	1043999	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-01
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 17:40:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	34466	4	Standard
	Cl	37		ug/L			5434030	5583045	0	Standard
>	Sc	45		ug/L			479414	587277	0	Standard
	Cr	52	8.463	ug/L	0.123	1	20356	198327	2	Standard
	Cr	53	8.589	ug/L	0.169	1	160	20649	1	Standard
	Fe	54	7416.984	ug/L	193.881	2	67040	12048568	2	Standard
	Fe	57	7602.120	ug/L	136.580	1	19150	5100328	0	Standard
	Mn	55	84.634	ug/L	2.641	3	667	2720315	2	Standard
>	Ge	72		ug/L			31347	32830	1	KED
	Ni	60	6.464	ug/L	0.140	2	4	7303	1	KED
	Ni	62	6.319	ug/L	0.139	2	3	1179	3	KED
	Cu	63	13.807	ug/L	0.213	1	53	45497	2	KED
	Cu	65	13.726	ug/L	0.202	1	21	22518	1	KED
	Zn	66	27.587	ug/L	1.149	4	18	12114	3	KED
	Zn	67	26.644	ug/L	0.228	0	5	1977	0	KED
	As	75	2.999	ug/L	0.149	4	5	709	3	KED
	Y	89		ug/L			275831	426994	1	Standard
	Kr	83		ug/L			40	78	4	Standard
>	In-1	115		ug/L			9714	10121	1	KED
	Cd	111	0.228	ug/L	0.007	3	2	68	3	KED
	Cd	114	0.226	ug/L	0.017	7	3	162	7	KED
>	In	115		ug/L			369046	400141	1	Standard
	Ag	107	0.232	ug/L	0.005	2	22	3122	3	Standard
>	Tb	159		ug/L			669567	726363	2	Standard
	Pb	208	8.586	ug/L	0.190	2	60	352894	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-02
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 17:44:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	34298	0	Standard
	Cl	**37**		ug/L			5434030	5661488	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	577819	0	Standard
|	**Cr**	**52**	**7.767**	ug/L	0.218	2	20356	181074	1	Standard
|	**Cr**	**53**	**7.897**	ug/L	0.073	0	160	18697	0	Standard
|	**Fe**	**54**	**6649.225**	ug/L	116.453	1	67040	10636183	1	Standard
|	**Fe**	**57**	**6844.788**	ug/L	90.289	1	19150	4520839	0	Standard
⌊	**Mn**	**55**	**71.929**	ug/L	2.101	2	667	2274950	2	Standard
⌈>	**Ge**	**72**		ug/L			31347	31993	1	KED
|	**Ni**	**60**	**5.898**	ug/L	0.111	1	4	6496	2	KED
|	**Ni**	**62**	**5.896**	ug/L	0.422	7	3	1071	6	KED
|	**Cu**	**63**	**13.290**	ug/L	0.247	1	53	42672	1	KED
|	**Cu**	**65**	**13.280**	ug/L	0.187	1	21	21230	0	KED
|	**Zn**	**66**	**28.734**	ug/L	0.567	1	18	12299	2	KED
|	**Zn**	**67**	**27.355**	ug/L	1.667	6	5	1977	4	KED
⌊	**As**	**75**	**3.208**	ug/L	0.059	1	5	739	3	KED
	Y	**89**		ug/L			275831	408245	2	Standard
	Kr	**83**		ug/L			40	71	8	Standard
⌈>	**In-1**	**115**		ug/L			9714	9662	1	KED
|	**Cd**	**111**	**0.221**	ug/L	0.026	11	2	63	11	KED
⌊	**Cd**	**114**	**0.219**	ug/L	0.026	11	3	150	12	KED
⌈>	**In**	**115**		ug/L			369046	393985	1	Standard
⌊	**Ag**	**107**	**0.185**	ug/L	0.004	2	22	2464	1	Standard
⌈>	**Tb**	**159**		ug/L			669567	727446	1	Standard
⌊	**Pb**	**208**	**7.946**	ug/L	0.210	2	60	327071	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-03
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 17:49:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	34175	1	Standard
	Cl	**37**		ug/L			5434030	5637375	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	594335	1	Standard
|	**Cr**	**52**	**7.153**	ug/L	0.304	4	20356	173481	1	Standard
|	**Cr**	**53**	**7.399**	ug/L	0.060	0	160	18030	1	Standard
|	**Fe**	**54**	**7188.145**	ug/L	218.764	3	67040	11817796	1	Standard
|	**Fe**	**57**	**7325.590**	ug/L	32.526	0	19150	4975063	1	Standard
⌊	**Mn**	**55**	**102.974**	ug/L	1.925	1	667	3349333	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	32452	2	KED
|	**Ni**	**60**	**7.436**	ug/L	0.426	5	4	8298	3	KED
|	**Ni**	**62**	**7.220**	ug/L	0.232	3	3	1330	1	KED
|	**Cu**	**63**	**14.865**	ug/L	0.389	2	53	48392	0	KED
|	**Cu**	**65**	**14.939**	ug/L	0.512	3	21	24213	1	KED
|	**Zn**	**66**	**29.560**	ug/L	0.303	1	18	12833	2	KED
|	**Zn**	**67**	**29.716**	ug/L	1.676	5	5	2177	3	KED
⌊	**As**	**75**	**3.037**	ug/L	0.044	1	5	710	2	KED
	Y	**89**		ug/L			275831	416066	0	Standard
	Kr	**83**		ug/L			40	67	9	Standard
⌈>	**In-1**	**115**		ug/L			9714	10031	1	KED
|	**Cd**	**111**	**0.107**	ug/L	0.015	14	2	33	12	KED
⌊	**Cd**	**114**	**0.107**	ug/L	0.021	20	3	77	19	KED
⌈>	**In**	**115**		ug/L			369046	407182	1	Standard
⌊	**Ag**	**107**	**0.101**	ug/L	0.005	5	22	1403	5	Standard
⌈>	**Tb**	**159**		ug/L			669567	732111	0	Standard
⌊	**Pb**	**208**	**9.571**	ug/L	0.077	0	60	396624	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-04
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 17:53:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	34320	2	Standard
	Cl	**37**		ug/L			5434030	5602585	3	Standard
⌈>	**Sc**	**45**		ug/L			479414	587487	0	Standard
|	**Cr**	**52**	**6.498**	ug/L	0.115	1	20356	158112	1	Standard
|	**Cr**	**53**	**6.558**	ug/L	0.069	1	160	15821	1	Standard
|	**Fe**	**54**	**6879.397**	ug/L	237.394	3	67040	11184609	2	Standard
|	**Fe**	**57**	**7150.528**	ug/L	94.077	1	19150	4800794	1	Standard
⌊	**Mn**	**55**	**79.465**	ug/L	2.196	2	667	2555269	2	Standard
⌈>	**Ge**	**72**		ug/L			31347	32771	2	KED
|	**Ni**	**60**	**6.219**	ug/L	0.258	4	4	7011	2	KED
|	**Ni**	**62**	**6.126**	ug/L	0.417	6	3	1139	4	KED
|	**Cu**	**63**	**13.009**	ug/L	0.301	2	53	42777	0	KED
|	**Cu**	**65**	**12.966**	ug/L	0.137	1	21	21231	1	KED
|	**Zn**	**66**	**25.281**	ug/L	0.808	3	18	11081	1	KED
|	**Zn**	**67**	**25.209**	ug/L	0.394	1	5	1867	1	KED
⌊	**As**	**75**	**2.574**	ug/L	0.065	2	5	608	0	KED
	Y	**89**		ug/L			275831	415935	0	Standard
	Kr	**83**		ug/L			40	69	17	Standard
⌈>	**In-1**	**115**		ug/L			9714	10092	1	KED
|	**Cd**	**111**	**0.082**	ug/L	0.024	28	2	26	24	KED
⌊	**Cd**	**114**	**0.091**	ug/L	0.017	18	3	67	16	KED
⌈>	**In**	**115**		ug/L			369046	403075	1	Standard
⌊	**Ag**	**107**	**0.063**	ug/L	0.005	7	22	867	7	Standard
⌈>	**Tb**	**159**		ug/L			669567	732372	0	Standard
⌊	**Pb**	**208**	**6.544**	ug/L	0.035	0	60	271317	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-05
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 17:58:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	35751	2	Standard
	Cl	37		ug/L			5434030	5546257	1	Standard
>	Sc	45		ug/L			479414	582302	1	Standard
	Cr	52	7.152	ug/L	0.303	4	20356	169968	2	Standard
	Cr	53	7.207	ug/L	0.057	0	160	17213	1	Standard
	Fe	54	7135.587	ug/L	156.935	2	67040	11495385	0	Standard
	Fe	57	7213.598	ug/L	26.144	0	19150	4800242	1	Standard
	Mn	55	93.625	ug/L	0.904	0	667	2984064	0	Standard
>	Ge	72		ug/L			31347	32680	2	KED
	Ni	60	6.744	ug/L	0.157	2	4	7583	1	KED
	Ni	62	6.724	ug/L	0.226	3	3	1247	1	KED
	Cu	63	17.545	ug/L	0.865	4	53	57488	3	KED
	Cu	65	17.715	ug/L	0.332	1	21	28915	1	KED
	Zn	66	32.924	ug/L	0.918	2	18	14385	0	KED
	Zn	67	32.319	ug/L	0.672	2	5	2386	3	KED
	As	75	3.149	ug/L	0.130	4	5	741	3	KED
	Y	89		ug/L			275831	412371	0	Standard
	Kr	83		ug/L			40	67	10	Standard
>	In-1	115		ug/L			9714	9926	1	KED
	Cd	111	0.140	ug/L	0.002	1	2	42	2	KED
	Cd	114	0.129	ug/L	0.012	9	3	92	10	KED
>	In	115		ug/L			369046	396698	3	Standard
	Ag	107	0.104	ug/L	0.005	4	22	1400	3	Standard
>	Tb	159		ug/L			669567	724072	0	Standard
	Pb	208	11.862	ug/L	0.022	0	60	486129	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0295-06
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 18:03:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	35655	2	Standard
	Cl	37		ug/L			5434030	5525912	2	Standard
>	Sc	45		ug/L			479414	575944	1	Standard
	Cr	52	6.442	ug/L	0.125	1	20356	153888	1	Standard
	Cr	53	6.477	ug/L	0.049	0	160	15320	0	Standard
	Fe	54	6611.168	ug/L	81.458	1	67040	10541254	0	Standard
	Fe	57	6671.305	ug/L	39.185	0	19150	4392566	0	Standard
	Mn	55	76.051	ug/L	0.503	0	667	2397655	0	Standard
>	Ge	72		ug/L			31347	32317	0	KED
	Ni	60	6.120	ug/L	0.159	2	4	6807	1	KED
	Ni	62	5.750	ug/L	0.158	2	3	1056	3	KED
	Cu	63	14.462	ug/L	0.320	2	53	46913	3	KED
	Cu	65	14.745	ug/L	0.303	2	21	23810	1	KED
	Zn	66	27.654	ug/L	0.703	2	18	11956	1	KED
	Zn	67	27.686	ug/L	0.698	2	5	2022	2	KED
	As	75	2.642	ug/L	0.016	0	5	616	0	KED
	Y	89		ug/L			275831	396339	0	Standard
	Kr	83		ug/L			40	57	29	Standard
>	In-1	115		ug/L			9714	10011	2	KED
	Cd	111	0.088	ug/L	0.015	17	2	27	17	KED
	Cd	114	0.086	ug/L	0.011	12	3	63	9	KED
>	In	115		ug/L			369046	396020	1	Standard
	Ag	107	0.075	ug/L	0.002	2	22	1013	1	Standard
>	Tb	159		ug/L			669567	720096	0	Standard
	Pb	208	7.751	ug/L	0.105	1	60	315963	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0249-03
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 18:07:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	49820	2	Standard
	Cl	37		ug/L			5434030	5626324	0	Standard
>	Sc	45		ug/L			479414	569608	2	Standard
	Cr	52	6.300	ug/L	0.152	2	20356	149338	2	Standard
	Cr	53	6.405	ug/L	0.187	2	160	14978	0	Standard
	Fe	54	6341.476	ug/L	177.053	2	67040	9999080	0	Standard
	Fe	57	6400.531	ug/L	74.147	1	19150	4168236	1	Standard
	Mn	55	82.813	ug/L	2.647	3	667	2580897	1	Standard
>	Ge	72		ug/L			31347	32162	1	KED
	Ni	60	5.275	ug/L	0.161	3	4	5838	1	KED
	Ni	62	5.102	ug/L	0.201	3	3	932	2	KED
	Cu	63	13.078	ug/L	0.168	1	53	42222	2	KED
	Cu	65	13.113	ug/L	0.223	1	21	21072	1	KED
	Zn	66	26.308	ug/L	0.756	2	18	11320	2	KED
	Zn	67	24.781	ug/L	0.962	3	5	1802	4	KED
	As	75	2.764	ug/L	0.046	1	5	641	0	KED
	Y	89		ug/L			275831	409351	3	Standard
	Kr	83		ug/L			40	62	12	Standard
>	In-1	115		ug/L			9714	9949	1	KED
	Cd	111	0.092	ug/L	0.004	4	2	28	5	KED
	Cd	114	0.083	ug/L	0.036	43	3	60	40	KED
>	In	115		ug/L			369046	395421	1	Standard
	Ag	107	0.072	ug/L	0.005	6	22	970	5	Standard
>	Tb	159		ug/L			669567	727128	2	Standard
	Pb	208	6.549	ug/L	0.030	0	60	269560	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0249-04
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 18:12:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	51210	1	Standard
	Cl	**37**		ug/L			5434030	5593305	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	568861	1	Standard
|	**Cr**	**52**	**6.371**	ug/L	0.127	1	20356	150565	0	Standard
|	**Cr**	**53**	**6.427**	ug/L	0.084	1	160	15014	1	Standard
|	**Fe**	**54**	**6555.608**	ug/L	176.480	2	67040	10323593	2	Standard
|	**Fe**	**57**	**6518.344**	ug/L	58.757	0	19150	4240193	2	Standard
⌊	**Mn**	**55**	**62.034**	ug/L	0.655	1	667	1931713	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	32497	1	KED
|	**Ni**	**60**	**5.444**	ug/L	0.115	2	4	6089	1	KED
|	**Ni**	**62**	**5.377**	ug/L	0.255	4	3	993	3	KED
|	**Cu**	**63**	**11.434**	ug/L	0.159	1	53	37305	2	KED
|	**Cu**	**65**	**11.535**	ug/L	0.465	4	21	18726	2	KED
|	**Zn**	**66**	**24.056**	ug/L	0.419	1	18	10460	1	KED
|	**Zn**	**67**	**23.211**	ug/L	0.466	2	5	1705	1	KED
⌊	**As**	**75**	**2.210**	ug/L	0.047	2	5	519	3	KED
	Y	**89**		ug/L			275831	398290	1	Standard
	Kr	**83**		ug/L			40	59	7	Standard
⌈>	**In-1**	**115**		ug/L			9714	10099	0	KED
|	**Cd**	**111**	**0.095**	ug/L	0.013	14	2	30	12	KED
⌊	**Cd**	**114**	**0.093**	ug/L	0.011	11	3	68	12	KED
⌈>	**In**	**115**		ug/L			369046	407956	1	Standard
⌊	**Ag**	**107**	**0.065**	ug/L	0.002	2	22	917	1	Standard
⌈>	**Tb**	**159**		ug/L			669567	719334	0	Standard
⌊	**Pb**	**208**	**5.213**	ug/L	0.042	0	60	212299	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 18:16:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	26817	0	Standard
	Cl	**37**		ug/L			5434030	5390819	0	Standard
⎡>	**Sc**	**45**		ug/L			479414	493481	1	Standard
⎢	**Cr**	**52**	**0.008**	ug/L	0.016	195	20356	21097	2	Standard
⎢	**Cr**	**53**	**-0.010**	ug/L	0.011	111	160	145	14	Standard
⎢	**Fe**	**54**	**1.556**	ug/L	0.748	48	67040	71109	0	Standard
⎢	**Fe**	**57**	**5.460**	ug/L	1.965	35	19150	22780	5	Standard
⎣	**Mn**	**55**	**0.004**	ug/L	0.000	3	667	790	1	Standard
⎡>	**Ge**	**72**		ug/L			31347	31546	0	KED
⎢	**Ni**	**60**	**0.001**	ug/L	0.006	552	4	5	120	KED
⎢	**Ni**	**62**	**-0.011**	ug/L	0.011	97	3	1	100	KED
⎢	**Cu**	**63**	**0.001**	ug/L	0.004	378	53	57	23	KED
⎢	**Cu**	**65**	**0.008**	ug/L	0.003	42	21	34	14	KED
⎢	**Zn**	**66**	**0.043**	ug/L	0.006	12	18	36	5	KED
⎢	**Zn**	**67**	**0.035**	ug/L	0.047	132	5	7	43	KED
⎣	**As**	**75**	**0.003**	ug/L	0.003	97	5	6	12	KED
	Y	**89**		ug/L			275831	273268	1	Standard
	Kr	**83**		ug/L			40	35	26	Standard
⎡>	**In-1**	**115**		ug/L			9714	9775	0	KED
⎢	**Cd**	**111**	**0.004**	ug/L	0.003	76	2	3	25	KED
⎣	**Cd**	**114**	**-0.003**	ug/L	0.002	55	3	1	94	KED
⎡>	**In**	**115**		ug/L			369046	381873	0	Standard
⎣	**Ag**	**107**	**0.000**	ug/L	0.001	360	22	26	32	Standard
⎡>	**Tb**	**159**		ug/L			669567	684511	2	Standard
⎣	**Pb**	**208**	**0.002**	ug/L	0.000	10	60	128	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 18:21:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	26445	1	Standard
	Cl	**37**		ug/L			5434030	5664345	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	509712	1	Standard
|	**Cr**	**52**	**49.528**	ug/L	0.236	0	20356	902358	1	Standard
|	**Cr**	**53**	**49.724**	ug/L	0.305	0	160	102944	0	Standard
|	**Fe**	**54**	**4973.579**	ug/L	93.325	1	67040	7035411	0	Standard
|	**Fe**	**57**	**5222.048**	ug/L	173.089	3	19150	3046523	1	Standard
⌊	**Mn**	**55**	**46.966**	ug/L	1.113	2	667	1310511	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	31829	1	KED
|	**Ni**	**60**	**51.261**	ug/L	1.345	2	4	56124	2	KED
|	**Ni**	**62**	**50.611**	ug/L	0.458	0	3	9127	1	KED
|	**Cu**	**63**	**50.723**	ug/L	0.106	0	53	161891	1	KED
|	**Cu**	**65**	**50.642**	ug/L	1.713	3	21	80469	2	KED
|	**Zn**	**66**	**51.584**	ug/L	1.992	3	18	21945	2	KED
|	**Zn**	**67**	**50.583**	ug/L	1.433	2	5	3634	2	KED
⌊	**As**	**75**	**49.625**	ug/L	0.811	1	5	11301	0	KED
	Y	**89**		ug/L			275831	287002	0	Standard
	Kr	**83**		ug/L			40	45	18	Standard
⌈>	**In-1**	**115**		ug/L			9714	10167	0	KED
|	**Cd**	**111**	**48.734**	ug/L	0.153	0	2	14230	0	KED
⌊	**Cd**	**114**	**49.291**	ug/L	0.768	1	3	34948	1	KED
⌈>	**In**	**115**		ug/L			369046	392976	0	Standard
⌊	**Ag**	**107**	**51.033**	ug/L	1.512	2	22	670100	3	Standard
⌈>	**Tb**	**159**		ug/L			669567	713494	1	Standard
⌊	**Pb**	**208**	**50.157**	ug/L	0.695	1	60	2025223	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 18:28:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	24897	1	Standard
	Cl	**37**		ug/L			5434030	5568963	1	Standard
⎡>	**Sc**	**45**		ug/L			479414	490604	2	Standard
⎢	**Cr**	**52**	**-0.016**	ug/L	0.035	218	20356	20553	2	Standard
⎢	**Cr**	**53**	**-0.010**	ug/L	0.008	79	160	145	12	Standard
⎢	**Fe**	**54**	**0.840**	ug/L	0.699	83	67040	69727	1	Standard
⎢	**Fe**	**57**	**3.244**	ug/L	1.509	46	19150	21395	1	Standard
⎣	**Mn**	**55**	**0.003**	ug/L	0.002	68	667	752	7	Standard
⎡>	**Ge**	**72**		ug/L			31347	30583	2	KED
⎢	**Ni**	**60**	**0.002**	ug/L	0.001	47	4	6	17	KED
⎢	**Ni**	**62**	**0.000**	ug/L	0.011	2284	3	3	50	KED
⎢	**Cu**	**63**	**-0.001**	ug/L	0.002	213	53	49	10	KED
⎢	**Cu**	**65**	**0.005**	ug/L	0.003	60	21	28	17	KED
⎢	**Zn**	**66**	**0.012**	ug/L	0.012	101	18	22	22	KED
⎢	**Zn**	**67**	**-0.026**	ug/L	0.043	168	5	3	91	KED
⎣	**As**	**75**	**0.003**	ug/L	0.008	249	5	5	33	KED
	Y	**89**		ug/L			275831	275551	2	Standard
	Kr	**83**		ug/L			40	40	17	Standard
⎡>	**In-1**	**115**		ug/L			9714	9621	0	KED
⎢	**Cd**	**111**	**0.000**	ug/L	0.005	4553	2	2	57	KED
⎣	**Cd**	**114**	**0.002**	ug/L	0.006	333	3	4	95	KED
⎡>	**In**	**115**		ug/L			369046	391091	0	Standard
⎣	**Ag**	**107**	**0.002**	ug/L	0.002	111	22	45	51	Standard
⎡>	**Tb**	**159**		ug/L			669567	664459	1	Standard
⎣	**Pb**	**208**	**0.002**	ug/L	0.003	104	60	150	62	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0313-08
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 18:38:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	51279	1	Standard
	Cl	**37**		ug/L			5434030	5616708	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	579682	1	Standard
|	**Cr**	**52**	**6.665**	ug/L	0.138	2	20356	159389	1	Standard
|	**Cr**	**53**	**6.709**	ug/L	0.078	1	160	15964	0	Standard
|	**Fe**	**54**	**7018.365**	ug/L	121.646	1	67040	11257154	0	Standard
|	**Fe**	**57**	**6987.292**	ug/L	87.444	1	19150	4628960	0	Standard
⌊	**Mn**	**55**	**91.759**	ug/L	1.088	1	667	2911592	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	31680	0	KED
|	**Ni**	**60**	**5.896**	ug/L	0.054	0	4	6430	1	KED
|	**Ni**	**62**	**5.762**	ug/L	0.210	3	3	1037	2	KED
|	**Cu**	**63**	**12.031**	ug/L	0.215	1	53	38264	2	KED
|	**Cu**	**65**	**12.459**	ug/L	0.182	1	21	19725	1	KED
|	**Zn**	**66**	**28.231**	ug/L	0.376	1	18	11965	0	KED
|	**Zn**	**67**	**26.925**	ug/L	0.583	2	5	1928	2	KED
⌊	**As**	**75**	**2.878**	ug/L	0.101	3	5	657	3	KED
	Y	**89**		ug/L			275831	404222	1	Standard
	Kr	**83**		ug/L			40	59	9	Standard
⌈>	**In-1**	**115**		ug/L			9714	9857	1	KED
|	**Cd**	**111**	**0.112**	ug/L	0.037	32	2	34	29	KED
⌊	**Cd**	**114**	**0.080**	ug/L	0.012	14	3	58	15	KED
⌈>	**In**	**115**		ug/L			369046	396248	0	Standard
⌊	**Ag**	**107**	**0.080**	ug/L	0.004	5	22	1083	5	Standard
⌈>	**Tb**	**159**		ug/L			669567	724606	0	Standard
⌊	**Pb**	**208**	**5.401**	ug/L	0.082	1	60	221541	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0313-09
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 18:42:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	50035	1	Standard
	Cl	37		ug/L			5434030	5618840	0	Standard
>	Sc	45		ug/L			479414	575490	0	Standard
	Cr	52	6.472	ug/L	0.127	1	20356	154358	1	Standard
	Cr	53	6.761	ug/L	0.112	1	160	15970	1	Standard
	Fe	54	6985.863	ug/L	65.660	0	67040	11126729	1	Standard
	Fe	57	7225.760	ug/L	143.443	1	19150	4751977	1	Standard
	Mn	55	92.311	ug/L	0.861	0	667	2907896	0	Standard
>	Ge	72		ug/L			31347	32450	1	KED
	Ni	60	6.356	ug/L	0.194	3	4	7098	3	KED
	Ni	62	6.127	ug/L	0.426	6	3	1129	6	KED
	Cu	63	14.013	ug/L	0.157	1	53	45641	2	KED
	Cu	65	14.459	ug/L	0.371	2	21	23449	3	KED
	Zn	66	30.748	ug/L	1.152	3	18	13345	3	KED
	Zn	67	29.405	ug/L	0.407	1	5	2156	1	KED
	As	75	3.012	ug/L	0.040	1	5	704	2	KED
	Y	89		ug/L			275831	402617	0	Standard
	Kr	83		ug/L			40	55	36	Standard
>	In-1	115		ug/L			9714	9945	1	KED
	Cd	111	0.074	ug/L	0.016	22	2	23	20	KED
	Cd	114	0.080	ug/L	0.013	16	3	58	16	KED
>	In	115		ug/L			369046	397731	1	Standard
	Ag	107	0.054	ug/L	0.003	5	22	743	5	Standard
>	Tb	159		ug/L			669567	726715	1	Standard
	Pb	208	5.422	ug/L	0.055	1	60	223043	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0313-10
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 18:47:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	53224	3	Standard
	Cl	**37**		ug/L			5434030	5592782	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	568229	1	Standard
|	**Cr**	**52**	**6.752**	ug/L	0.135	1	20356	157949	1	Standard
|	**Cr**	**53**	**6.887**	ug/L	0.070	1	160	16058	0	Standard
|	**Fe**	**54**	**7347.410**	ug/L	228.811	3	67040	11547108	1	Standard
|	**Fe**	**57**	**7552.331**	ug/L	162.453	2	19150	4902857	2	Standard
⌊	**Mn**	**55**	**87.789**	ug/L	1.403	1	667	2730270	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	31988	1	KED
|	**Ni**	**60**	**6.303**	ug/L	0.158	2	4	6940	2	KED
|	**Ni**	**62**	**6.355**	ug/L	0.277	4	3	1154	3	KED
|	**Cu**	**63**	**13.619**	ug/L	0.108	0	53	43722	0	KED
|	**Cu**	**65**	**13.486**	ug/L	0.407	3	21	21562	4	KED
|	**Zn**	**66**	**27.610**	ug/L	0.652	2	18	11815	0	KED
|	**Zn**	**67**	**26.608**	ug/L	0.168	0	5	1923	0	KED
⌊	**As**	**75**	**2.960**	ug/L	0.065	2	5	682	3	KED
	Y	**89**		ug/L			275831	406138	0	Standard
	Kr	**83**		ug/L			40	58	23	Standard
⌈>	**In-1**	**115**		ug/L			9714	10041	0	KED
|	**Cd**	**111**	**0.073**	ug/L	0.012	16	2	23	14	KED
⌊	**Cd**	**114**	**0.078**	ug/L	0.014	18	3	57	16	KED
⌈>	**In**	**115**		ug/L			369046	398678	1	Standard
⌊	**Ag**	**107**	**0.061**	ug/L	0.004	7	22	841	6	Standard
⌈>	**Tb**	**159**		ug/L			669567	723667	0	Standard
⌊	**Pb**	**208**	**6.017**	ug/L	0.056	0	60	246514	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0313-11
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 18:51:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	52902	3	Standard
	Cl	37		ug/L			5434030	5686957	0	Standard
>	Sc	45		ug/L			479414	590084	1	Standard
	Cr	52	7.217	ug/L	0.113	1	20356	173604	0	Standard
	Cr	53	7.334	ug/L	0.097	1	160	17746	0	Standard
	Fe	54	7099.703	ug/L	134.821	1	67040	11591172	0	Standard
	Fe	57	7124.306	ug/L	52.576	0	19150	4804918	2	Standard
	Mn	55	79.459	ug/L	0.481	0	667	2566598	1	Standard
>	Ge	72		ug/L			31347	31335	1	KED
	Ni	60	7.145	ug/L	0.028	0	4	7706	1	KED
	Ni	62	6.998	ug/L	0.224	3	3	1245	3	KED
	Cu	63	14.678	ug/L	0.279	1	53	46155	1	KED
	Cu	65	15.004	ug/L	0.412	2	21	23486	1	KED
	Zn	66	29.393	ug/L	1.081	3	18	12318	2	KED
	Zn	67	28.542	ug/L	0.680	2	5	2021	1	KED
	As	75	2.940	ug/L	0.137	4	5	663	3	KED
	Y	89		ug/L			275831	413559	1	Standard
	Kr	83		ug/L			40	59	5	Standard
>	In-1	115		ug/L			9714	9827	0	KED
	Cd	111	0.100	ug/L	0.028	27	2	30	25	KED
	Cd	114	0.091	ug/L	0.028	30	3	65	28	KED
>	In	115		ug/L			369046	394520	1	Standard
	Ag	107	0.083	ug/L	0.001	1	22	1124	2	Standard
>	Tb	159		ug/L			669567	721875	1	Standard
	Pb	208	7.188	ug/L	0.150	2	60	293633	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0313-13
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 18:56:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	54158	2	Standard
	Cl	**37**		ug/L			5434030	5603859	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	569807	1	Standard
|	**Cr**	**52**	**6.582**	ug/L	0.098	1	20356	155009	0	Standard
|	**Cr**	**53**	**6.638**	ug/L	0.201	3	160	15525	2	Standard
|	**Fe**	**54**	**6895.991**	ug/L	116.627	1	67040	10873470	0	Standard
|	**Fe**	**57**	**6926.981**	ug/L	185.959	2	19150	4510146	1	Standard
⌊	**Mn**	**55**	**59.268**	ug/L	0.673	1	667	1848647	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	32416	1	KED
|	**Ni**	**60**	**5.432**	ug/L	0.047	0	4	6062	0	KED
|	**Ni**	**62**	**5.527**	ug/L	0.121	2	3	1018	1	KED
|	**Cu**	**63**	**15.015**	ug/L	0.443	2	53	48837	2	KED
|	**Cu**	**65**	**14.988**	ug/L	0.206	1	21	24276	1	KED
|	**Zn**	**66**	**29.229**	ug/L	0.582	1	18	12676	2	KED
|	**Zn**	**67**	**26.545**	ug/L	0.990	3	5	1945	4	KED
⌊	**As**	**75**	**2.654**	ug/L	0.105	3	5	620	2	KED
	Y	**89**		ug/L			275831	390370	1	Standard
	Kr	**83**		ug/L			40	52	9	Standard
⌈>	**In-1**	**115**		ug/L			9714	10175	3	KED
|	**Cd**	**111**	**0.076**	ug/L	0.016	21	2	24	19	KED
⌊	**Cd**	**114**	**0.071**	ug/L	0.014	18	3	53	14	KED
⌈>	**In**	**115**		ug/L			369046	406676	0	Standard
⌊	**Ag**	**107**	**0.053**	ug/L	0.005	8	22	748	9	Standard
⌈>	**Tb**	**159**		ug/L			669567	722072	0	Standard
⌊	**Pb**	**208**	**5.705**	ug/L	0.073	1	60	233189	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0249-02
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 19:00:46
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	50747	2	Standard
	Cl	**37**		ug/L			5434030	5600185	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	575386	2	Standard
|	**Cr**	**52**	**6.528**	ug/L	0.161	2	20356	155424	0	Standard
|	**Cr**	**53**	**6.523**	ug/L	0.090	1	160	15410	1	Standard
|	**Fe**	**54**	**6691.329**	ug/L	194.682	2	67040	10654368	1	Standard
|	**Fe**	**57**	**6867.973**	ug/L	427.552	6	19150	4513043	3	Standard
⌊	**Mn**	**55**	**91.260**	ug/L	2.914	3	667	2872977	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	31771	1	KED
|	**Ni**	**60**	**5.849**	ug/L	0.085	1	4	6396	2	KED
|	**Ni**	**62**	**5.801**	ug/L	0.094	1	3	1047	2	KED
|	**Cu**	**63**	**10.550**	ug/L	0.477	4	53	33633	2	KED
|	**Cu**	**65**	**10.662**	ug/L	0.111	1	21	16935	2	KED
|	**Zn**	**66**	**22.671**	ug/L	0.080	0	18	9640	1	KED
|	**Zn**	**67**	**21.980**	ug/L	1.217	5	5	1579	5	KED
⌊	**As**	**75**	**2.552**	ug/L	0.083	3	5	584	1	KED
	Y	**89**		ug/L			275831	415772	2	Standard
	Kr	**83**		ug/L			40	65	16	Standard
⌈>	**In-1**	**115**		ug/L			9714	10030	1	KED
|	**Cd**	**111**	**0.122**	ug/L	0.010	8	2	37	8	KED
⌊	**Cd**	**114**	**0.137**	ug/L	0.033	24	3	98	22	KED
⌈>	**In**	**115**		ug/L			369046	394623	0	Standard
⌊	**Ag**	**107**	**0.094**	ug/L	0.006	6	22	1264	5	Standard
⌈>	**Tb**	**159**		ug/L			669567	726951	0	Standard
⌊	**Pb**	**208**	**4.794**	ug/L	0.067	1	60	197291	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0244-DUP2
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 19:05:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	50433	1	Standard
	Cl	**37**		ug/L			5434030	5595678	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	570183	2	Standard
|	**Cr**	**52**	**6.370**	ug/L	0.216	3	20356	150846	0	Standard
|	**Cr**	**53**	**6.522**	ug/L	0.259	3	160	15262	1	Standard
|	**Fe**	**54**	**6645.833**	ug/L	242.639	3	67040	10485148	1	Standard
|	**Fe**	**57**	**6852.008**	ug/L	186.165	2	19150	4464539	1	Standard
⌊	**Mn**	**55**	**92.411**	ug/L	1.444	1	667	2883823	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	32105	1	KED
|	**Ni**	**60**	**5.931**	ug/L	0.142	2	4	6553	1	KED
|	**Ni**	**62**	**5.663**	ug/L	0.531	9	3	1033	8	KED
|	**Cu**	**63**	**10.354**	ug/L	0.202	1	53	33372	1	KED
|	**Cu**	**65**	**10.608**	ug/L	0.259	2	21	17026	3	KED
|	**Zn**	**66**	**22.438**	ug/L	0.112	0	18	9641	0	KED
|	**Zn**	**67**	**21.963**	ug/L	1.061	4	5	1594	3	KED
⌊	**As**	**75**	**2.506**	ug/L	0.064	2	5	580	1	KED
	Y	**89**		ug/L			275831	426254	1	Standard
	Kr	**83**		ug/L			40	55	23	Standard
⌈>	**In-1**	**115**		ug/L			9714	9837	0	KED
|	**Cd**	**111**	**0.132**	ug/L	0.049	37	2	39	34	KED
⌊	**Cd**	**114**	**0.130**	ug/L	0.016	12	3	92	12	KED
⌈>	**In**	**115**		ug/L			369046	397429	0	Standard
⌊	**Ag**	**107**	**0.087**	ug/L	0.001	0	22	1175	0	Standard
⌈>	**Tb**	**159**		ug/L			669567	723237	1	Standard
⌊	**Pb**	**208**	**5.039**	ug/L	0.042	0	60	206300	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0244-MS2
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 19:09:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	49726	1	Standard
	Cl	**37**		ug/L			5434030	5472722	1	Standard
>	**Sc**	**45**		ug/L			479414	573051	1	Standard
	Cr	**52**	**15.771**	ug/L	0.189	1	20356	339595	1	Standard
	Cr	**53**	**15.781**	ug/L	0.267	1	160	36860	0	Standard
	Fe	**54**	**6896.172**	ug/L	140.548	2	67040	10936843	1	Standard
	Fe	**57**	**6956.347**	ug/L	88.641	1	19150	4556116	0	Standard
	Mn	**55**	**105.117**	ug/L	2.128	2	667	3296786	1	Standard
>	**Ge**	**72**		ug/L			31347	32098	2	KED
	Ni	**60**	**15.866**	ug/L	0.554	3	4	17512	1	KED
	Ni	**62**	**15.688**	ug/L	0.159	1	3	2856	3	KED
	Cu	**63**	**20.684**	ug/L	0.249	1	53	66605	3	KED
	Cu	**65**	**20.851**	ug/L	1.040	4	21	33403	2	KED
	Zn	**66**	**55.511**	ug/L	0.953	1	18	23816	2	KED
	Zn	**67**	**51.880**	ug/L	1.757	3	5	3757	2	KED
	As	**75**	**12.256**	ug/L	0.041	0	5	2819	2	KED
	Y	**89**		ug/L			275831	416905	1	Standard
	Kr	**83**		ug/L			40	81	8	Standard
>	**In-1**	**115**		ug/L			9714	9905	1	KED
	Cd	**111**	**10.589**	ug/L	0.539	5	2	3012	3	KED
	Cd	**114**	**10.511**	ug/L	0.092	0	3	7263	2	KED
>	**In**	**115**		ug/L			369046	394600	1	Standard
	Ag	**107**	**5.843**	ug/L	0.108	1	22	77042	0	Standard
>	**Tb**	**159**		ug/L			669567	714477	1	Standard
	Pb	**208**	**16.183**	ug/L	0.339	2	60	654305	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0244-MSD2
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 19:14:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	51816	1	Standard
	Cl	**37**		ug/L			5434030	5707999	1	Standard
>	**Sc**	**45**		ug/L			479414	581742	1	Standard
	Cr	**52**	**15.351**	ug/L	0.069	0	20356	336267	2	Standard
	Cr	**53**	**15.452**	ug/L	0.094	0	160	36649	2	Standard
	Fe	**54**	**6752.304**	ug/L	173.579	2	67040	10871615	1	Standard
	Fe	**57**	**6766.765**	ug/L	124.483	1	19150	4499071	0	Standard
	Mn	**55**	**99.663**	ug/L	2.325	2	667	3172669	0	Standard
>	**Ge**	**72**		ug/L			31347	32380	1	KED
	Ni	**60**	**15.695**	ug/L	0.179	1	4	17486	0	KED
	Ni	**62**	**15.432**	ug/L	0.046	0	3	2833	1	KED
	Cu	**63**	**20.242**	ug/L	0.241	1	53	65761	2	KED
	Cu	**65**	**20.519**	ug/L	0.185	0	21	33188	0	KED
	Zn	**66**	**58.718**	ug/L	1.235	2	18	25417	2	KED
	Zn	**67**	**56.870**	ug/L	1.790	3	5	4157	4	KED
	As	**75**	**11.586**	ug/L	0.134	1	5	2688	1	KED
	Y	**89**		ug/L			275831	406965	1	Standard
	Kr	**83**		ug/L			40	59	25	Standard
>	**In-1**	**115**		ug/L			9714	9810	3	KED
	Cd	**111**	**10.151**	ug/L	0.651	6	2	2858	3	KED
	Cd	**114**	**10.274**	ug/L	0.106	1	3	7030	2	KED
>	**In**	**115**		ug/L			369046	388676	0	Standard
	Ag	**107**	**5.003**	ug/L	0.077	1	22	64988	0	Standard
>	**Tb**	**159**		ug/L			669567	704718	1	Standard
	Pb	**208**	**15.655**	ug/L	0.296	1	60	624340	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0244-PS2
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, April 20, 2023 19:18:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	49958	1	Standard
	Cl	**37**		ug/L			5434030	5653079	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	586537	2	Standard
|	**Cr**	**52**	**28.392**	ug/L	0.433	1	20356	605722	1	Standard
|	**Cr**	**53**	**28.676**	ug/L	0.695	2	160	68376	1	Standard
|	**Fe**	**54**	**6420.242**	ug/L	222.742	3	67040	10422232	0	Standard
|	**Fe**	**57**	**6607.806**	ug/L	123.884	1	19150	4430245	2	Standard
⌊	**Mn**	**55**	**110.828**	ug/L	3.350	3	667	3556774	2	Standard
⌈>	**Ge**	**72**		ug/L			31347	32264	0	KED
|	**Ni**	**60**	**32.370**	ug/L	0.520	1	4	35933	2	KED
|	**Ni**	**62**	**31.848**	ug/L	0.888	2	3	5823	2	KED
|	**Cu**	**63**	**36.610**	ug/L	0.510	1	53	118462	1	KED
|	**Cu**	**65**	**37.692**	ug/L	0.256	0	21	60732	1	KED
|	**Zn**	**66**	**105.167**	ug/L	0.316	0	18	45347	0	KED
|	**Zn**	**67**	**98.669**	ug/L	2.048	2	5	7181	1	KED
⌊	**As**	**75**	**27.505**	ug/L	0.214	0	5	6352	0	KED
	Y	**89**		ug/L			275831	415917	0	Standard
	Kr	**83**		ug/L			40	74	12	Standard
⌈>	**In-1**	**115**		ug/L			9714	10024	1	KED
|	**Cd**	**111**	**25.585**	ug/L	0.148	0	2	7366	1	KED
⌊	**Cd**	**114**	**25.757**	ug/L	0.520	2	3	18003	0	KED
⌈>	**In**	**115**		ug/L			369046	397296	1	Standard
⌊	**Ag**	**107**	**26.096**	ug/L	0.651	2	22	346331	1	Standard
⌈>	**Tb**	**159**		ug/L			669567	727240	2	Standard
⌊	**Pb**	**208**	**30.496**	ug/L	0.531	1	60	1255083	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 19:23:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	26006	4	Standard
	Cl	**37**		ug/L			5434030	5743352	1	Standard
⎡>	**Sc**	**45**		ug/L			479414	506456	1	Standard
⎢	**Cr**	**52**	**49.473**	ug/L	1.378	2	20356	895295	0	Standard
⎢	**Cr**	**53**	**49.204**	ug/L	1.284	2	160	101192	0	Standard
⎢	**Fe**	**54**	**4984.079**	ug/L	86.514	1	67040	7004703	0	Standard
⎢	**Fe**	**57**	**5004.803**	ug/L	50.573	1	19150	2902562	1	Standard
⎣	**Mn**	**55**	**46.232**	ug/L	0.923	1	667	1281786	1	Standard
⎡>	**Ge**	**72**		ug/L			31347	31564	0	KED
⎢	**Ni**	**60**	**50.979**	ug/L	1.406	2	4	55357	2	KED
⎢	**Ni**	**62**	**49.679**	ug/L	0.831	1	3	8885	2	KED
⎢	**Cu**	**63**	**51.049**	ug/L	0.444	0	53	161581	1	KED
⎢	**Cu**	**65**	**51.672**	ug/L	1.127	2	21	81437	1	KED
⎢	**Zn**	**66**	**52.060**	ug/L	1.360	2	18	21969	2	KED
⎢	**Zn**	**67**	**50.292**	ug/L	0.759	1	5	3583	1	KED
⎣	**As**	**75**	**49.865**	ug/L	0.619	1	5	11263	1	KED
	Y	**89**		ug/L			275831	280198	0	Standard
	Kr	**83**		ug/L			40	48	8	Standard
⎡>	**In-1**	**115**		ug/L			9714	9800	3	KED
⎢	**Cd**	**111**	**50.483**	ug/L	1.761	3	2	14197	0	KED
⎣	**Cd**	**114**	**51.109**	ug/L	1.830	3	3	34902	0	KED
⎡>	**In**	**115**		ug/L			369046	386274	2	Standard
⎣	**Ag**	**107**	**50.775**	ug/L	0.826	1	22	655157	0	Standard
⎡>	**Tb**	**159**		ug/L			669567	698990	0	Standard
⎣	**Pb**	**208**	**49.728**	ug/L	0.517	1	60	1967300	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 19:30:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	22614	2	Standard
	Cl	**37**		ug/L			5434030	5560366	2	Standard
⎡>	**Sc**	**45**		ug/L			479414	479190	2	Standard
⎢	**Cr**	**52**	**0.006**	ug/L	0.041	657	20356	20438	0	Standard
⎢	**Cr**	**53**	**-0.010**	ug/L	0.008	78	160	141	7	Standard
⎢	**Fe**	**54**	**0.553**	ug/L	1.558	281	67040	67709	1	Standard
⎢	**Fe**	**57**	**4.315**	ug/L	0.495	11	19150	21488	1	Standard
⎣	**Mn**	**55**	**0.003**	ug/L	0.001	20	667	741	2	Standard
⎡>	**Ge**	**72**		ug/L			31347	30420	2	KED
⎢	**Ni**	**60**	**0.001**	ug/L	0.004	511	4	5	78	KED
⎢	**Ni**	**62**	**0.000**	ug/L	0.010	2138	3	3	50	KED
⎢	**Cu**	**63**	**-0.002**	ug/L	0.003	168	53	46	22	KED
⎢	**Cu**	**65**	**0.000**	ug/L	0.005	6308	21	20	32	KED
⎢	**Zn**	**66**	**-0.022**	ug/L	0.008	34	18	8	32	KED
⎢	**Zn**	**67**	**-0.007**	ug/L	0.033	509	5	4	49	KED
⎣	**As**	**75**	**0.001**	ug/L	0.006	772	5	5	24	KED
	Y	**89**		ug/L			275831	274092	2	Standard
	Kr	**83**		ug/L			40	46	14	Standard
⎡>	**In-1**	**115**		ug/L			9714	9564	0	KED
⎢	**Cd**	**111**	**0.002**	ug/L	0.005	218	2	3	45	KED
⎣	**Cd**	**114**	**-0.002**	ug/L	0.003	168	3	1	102	KED
⎡>	**In**	**115**		ug/L			369046	378407	0	Standard
⎣	**Ag**	**107**	**0.001**	ug/L	0.000	10	22	34	3	Standard
⎡>	**Tb**	**159**		ug/L			669567	663528	0	Standard
⎣	**Pb**	**208**	**0.000**	ug/L	0.000	97	60	70	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0472-BLK2
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Thursday, April 20, 2023 19:35:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	34521	1	Standard
	Cl	**37**		ug/L			5434030	5549248	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	484800	1	Standard
|	**Cr**	**52**	**0.092**	ug/L	0.021	22	20356	22143	3	Standard
|	**Cr**	**53**	**0.036**	ug/L	0.005	14	160	233	4	Standard
|	**Fe**	**54**	**6.537**	ug/L	0.644	9	67040	76496	1	Standard
|	**Fe**	**57**	**6.753**	ug/L	1.612	23	19150	23078	2	Standard
⌊	**Mn**	**55**	**0.107**	ug/L	0.001	1	667	3524	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	31002	1	KED
|	**Ni**	**60**	**0.035**	ug/L	0.016	44	4	41	39	KED
|	**Ni**	**62**	**0.037**	ug/L	0.034	91	3	10	57	KED
|	**Cu**	**63**	**0.033**	ug/L	0.011	32	53	154	20	KED
|	**Cu**	**65**	**0.037**	ug/L	0.010	26	21	78	19	KED
|	**Zn**	**66**	**0.587**	ug/L	0.110	18	18	260	16	KED
|	**Zn**	**67**	**0.428**	ug/L	0.066	15	5	34	12	KED
⌊	**As**	**75**	**0.012**	ug/L	0.007	53	5	7	19	KED
	Y	**89**		ug/L			275831	274022	1	Standard
	Kr	**83**		ug/L			40	38	10	Standard
⌈>	**In-1**	**115**		ug/L			9714	9700	3	KED
|	**Cd**	**111**	**0.001**	ug/L	0.003	287	2	2	33	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.001	214	3	2	35	KED
⌈>	**In**	**115**		ug/L			369046	389783	0	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.000	30	22	43	13	Standard
⌈>	**Tb**	**159**		ug/L			669567	681792	0	Standard
⌊	**Pb**	**208**	**0.111**	ug/L	0.003	2	60	4348	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0013-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 19:39:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	39368	1	Standard
	Cl	**37**		ug/L			5434030	6624872	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	512420	1	Standard
|	**Cr**	**52**	**0.239**	ug/L	0.011	4	20356	26032	0	Standard
|	**Cr**	**53**	**1.192**	ug/L	0.015	1	160	2649	2	Standard
|	**Fe**	**54**	**43.227**	ug/L	1.631	3	67040	132520	2	Standard
|	**Fe**	**57**	**67.202**	ug/L	1.489	2	19150	59624	0	Standard
⌊	**Mn**	**55**	**0.805**	ug/L	0.007	0	667	23298	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	31475	2	KED
|	**Ni**	**60**	**0.384**	ug/L	0.043	11	4	420	12	KED
|	**Ni**	**62**	**0.410**	ug/L	0.024	5	3	76	5	KED
|	**Cu**	**63**	**0.885**	ug/L	0.034	3	53	2844	1	KED
|	**Cu**	**65**	**0.843**	ug/L	0.015	1	21	1345	2	KED
|	**Zn**	**66**	**24.472**	ug/L	0.642	2	18	10303	0	KED
|	**Zn**	**67**	**26.301**	ug/L	1.227	4	5	1869	2	KED
⌊	**As**	**75**	**0.061**	ug/L	0.003	5	5	19	6	KED
	Y	**89**		ug/L			275831	283602	2	Standard
	Kr	**83**		ug/L			40	45	4	Standard
⌈>	**In-1**	**115**		ug/L			9714	9815	2	KED
|	**Cd**	**111**	**0.020**	ug/L	0.009	45	2	8	29	KED
⌊	**Cd**	**114**	**0.012**	ug/L	0.006	52	3	11	35	KED
⌈>	**In**	**115**		ug/L			369046	384465	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	78	22	38	30	Standard
⌈>	**Tb**	**159**		ug/L			669567	678898	1	Standard
⌊	**Pb**	**208**	**0.128**	ug/L	0.002	1	60	4970	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0017-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 19:44:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	48464	5	Standard
	Cl	**37**		ug/L			5434030	6472826	1	Standard
>	**Sc**	**45**		ug/L			479414	527074	2	Standard
	Cr	**52**	**1.190**	ug/L	0.054	4	20356	44245	1	Standard
	Cr	**53**	**1.907**	ug/L	0.028	1	160	4251	1	Standard
	Fe	**54**	**2497.876**	ug/L	58.308	2	67040	3689547	1	Standard
	Fe	**57**	**2329.041**	ug/L	70.077	3	19150	1416347	0	Standard
	Mn	**55**	**46.231**	ug/L	1.156	2	667	1333587	0	Standard
>	**Ge**	**72**		ug/L			31347	31636	2	KED
	Ni	**60**	**3.672**	ug/L	0.059	1	4	4001	2	KED
	Ni	**62**	**3.635**	ug/L	0.202	5	3	654	3	KED
	Cu	**63**	**11.409**	ug/L	0.398	3	53	36232	3	KED
	Cu	**65**	**11.475**	ug/L	0.365	3	21	18135	1	KED
	Zn	**66**	**148.795**	ug/L	4.886	3	18	62873	1	KED
	Zn	**67**	**135.578**	ug/L	2.270	1	5	9675	3	KED
	As	**75**	**0.766**	ug/L	0.028	3	5	178	1	KED
	Y	**89**		ug/L			275831	299660	0	Standard
	Kr	**83**		ug/L			40	41	12	Standard
>	**In-1**	**115**		ug/L			9714	9711	1	KED
	Cd	**111**	**0.056**	ug/L	0.011	20	2	18	18	KED
	Cd	**114**	**0.034**	ug/L	0.003	9	3	26	10	KED
>	**In**	**115**		ug/L			369046	387783	1	Standard
	Ag	**107**	**0.016**	ug/L	0.001	3	22	225	4	Standard
>	**Tb**	**159**		ug/L			669567	710505	0	Standard
	Pb	**208**	**1.729**	ug/L	0.015	0	60	69607	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0018-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 19:49:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			25789	21589	0	Standard
Cl	37		ug/L			5434030	162476718	1	Standard
> Sc	45		ug/L			479414	227872	1	Standard
Cr	52	**1.409**	ug/L	0.036	2	20356	20875	2	Standard
Cr	53	**87.832**	ug/L	1.133	1	160	81247	2	Standard
Fe	54	**47.500**	ug/L	0.814	1	67040	61598	1	Standard
Fe	57	**737.900**	ug/L	8.237	1	19150	200323	1	Standard
Mn	55	**15.810**	ug/L	0.178	1	667	197452	1	Standard
> Ge	72		ug/L			31347	8321	3	KED
Ni	60	**1.112**	ug/L	0.087	7	4	318	4	KED
Ni	62	**3.245**	ug/L	0.260	8	3	153	4	KED
Cu	63	**4.805**	ug/L	0.202	4	53	4018	1	KED
Cu	65	**3.993**	ug/L	0.094	2	21	1663	1	KED
Zn	66	**29.575**	ug/L	1.203	4	18	3289	1	KED
Zn	67	**27.839**	ug/L	1.194	4	5	523	3	KED
As	75	**2.021**	ug/L	0.086	4	5	121	2	KED
Y	89		ug/L			275831	132422	1	Standard
Kr	83		ug/L			40	63709	3	Standard
> In-1	115		ug/L			9714	3320	3	KED
Cd	111	**0.070**	ug/L	0.025	35	2	7	33	KED
Cd	114	**0.076**	ug/L	0.027	35	3	18	36	KED
> In	115		ug/L			369046	136206	1	Standard
Ag	107	**0.017**	ug/L	0.001	3	22	84	3	Standard
> Tb	159		ug/L			669567	275645	1	Standard
Pb	208	**0.118**	ug/L	0.002	2	60	1868	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0713-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 19:53:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	49356	2	Standard
	Cl	**37**		ug/L			5434030	12425477	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	552922	3	Standard
|	**Cr**	**52**	**0.945**	ug/L	0.100	10	20356	41708	5	Standard
|	**Cr**	**53**	**27.439**	ug/L	1.129	4	160	61715	5	Standard
|	**Fe**	**54**	**259.521**	ug/L	0.092	0	67040	471583	3	Standard
|	**Fe**	**57**	**267.323**	ug/L	3.938	1	19150	190192	3	Standard
⌊	**Mn**	**55**	**5.723**	ug/L	0.190	3	667	173827	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	36983	2	KED
|	**Ni**	**60**	**0.571**	ug/L	0.040	6	4	731	6	KED
|	**Ni**	**62**	**0.808**	ug/L	0.176	21	3	173	19	KED
|	**Cu**	**63**	**2.943**	ug/L	0.075	2	53	10971	1	KED
|	**Cu**	**65**	**2.937**	ug/L	0.103	3	21	5445	2	KED
|	**Zn**	**66**	**38.481**	ug/L	0.957	2	18	19027	0	KED
|	**Zn**	**67**	**36.345**	ug/L	0.350	0	5	3036	2	KED
⌊	**As**	**75**	**0.360**	ug/L	0.015	4	5	101	2	KED
	Y	**89**		ug/L			275831	309158	4	Standard
	Kr	**83**		ug/L			40	92	21	Standard
⌈>	**In-1**	**115**		ug/L			9714	11170	1	KED
|	**Cd**	**111**	**0.022**	ug/L	0.012	57	2	9	39	KED
⌊	**Cd**	**114**	**0.011**	ug/L	0.008	70	3	12	51	KED
⌈>	**In**	**115**		ug/L			369046	394403	1	Standard
⌊	**Ag**	**107**	**0.004**	ug/L	0.000	10	22	81	7	Standard
⌈>	**Tb**	**159**		ug/L			669567	731930	0	Standard
⌊	**Pb**	**208**	**0.741**	ug/L	0.005	0	60	30771	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0714-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 19:58:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			25789	29710	0	Standard
Cl	37		ug/L			5434030	150795830	3	Standard
> Sc	45		ug/L			479414	303739	1	Standard
Cr	52	**2.414**	ug/L	0.080	3	20356	38483	3	Standard
Cr	53	**105.404**	ug/L	2.310	2	160	129957	3	Standard
Fe	54	**1261.274**	ug/L	9.101	0	67040	1095030	1	Standard
Fe	57	**1713.739**	ug/L	26.911	1	19150	604036	0	Standard
Mn	55	**110.182**	ug/L	0.205	0	667	1831853	1	Standard
> Ge	72		ug/L			31347	11371	0	KED
Ni	60	**1.543**	ug/L	0.083	5	4	605	5	KED
Ni	62	**4.091**	ug/L	0.365	8	3	264	8	KED
Cu	63	**1.719**	ug/L	0.036	2	53	1978	2	KED
Cu	65	**1.085**	ug/L	0.046	4	21	623	4	KED
Zn	66	**20.361**	ug/L	0.560	2	18	3099	2	KED
Zn	67	**19.645**	ug/L	1.816	9	5	505	9	KED
As	75	**0.847**	ug/L	0.102	11	5	70	11	KED
Y	89		ug/L			275831	158282	0	Standard
Kr	83		ug/L			40	14329	0	Standard
> In-1	115		ug/L			9714	4310	1	KED
Cd	111	**0.042**	ug/L	0.016	37	2	6	31	KED
Cd	114	**0.032**	ug/L	0.006	17	3	11	16	KED
> In	115		ug/L			369046	165114	0	Standard
Ag	107	**0.011**	ug/L	0.002	21	22	72	18	Standard
> Tb	159		ug/L			669567	341413	1	Standard
Pb	208	**0.344**	ug/L	0.002	0	60	6677	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0716-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 20:02:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			25789	54687	1	Standard
Cl	37		ug/L			5434030	12439452	3	Standard
> Sc	45		ug/L			479414	623236	0	Standard
Cr	52	1.577	ug/L	0.012	0	20356	60743	0	Standard
Cr	53	11.465	ug/L	0.315	2	160	29185	2	Standard
Fe	54	5539.271	ug/L	48.025	0	67040	9572532	1	Standard
Fe	57	5690.233	ug/L	181.814	3	19150	4057952	3	Standard
Mn	55	333.074	ug/L	0.714	0	667	11360747	0	Standard
> Ge	72		ug/L			31347	35760	3	KED
Ni	60	9.391	ug/L	0.327	3	4	11550	1	KED
Ni	62	11.410	ug/L	0.393	3	3	2315	4	KED
Cu	63	7.436	ug/L	0.284	3	53	26711	4	KED
Cu	65	7.399	ug/L	0.199	2	21	13225	0	KED
Zn	66	8.138	ug/L	0.435	5	18	3904	2	KED
Zn	67	7.836	ug/L	0.206	2	5	637	3	KED
As	75	0.350	ug/L	0.005	1	5	95	2	KED
Y	89		ug/L			275831	302099	1	Standard
Kr	83		ug/L			40	2553	1	Standard
> In-1	115		ug/L			9714	10599	1	KED
Cd	111	0.078	ug/L	0.008	9	2	26	9	KED
Cd	114	0.048	ug/L	0.017	34	3	38	33	KED
> In	115		ug/L			369046	366829	0	Standard
Ag	107	0.005	ug/L	0.001	30	22	78	21	Standard
> Tb	159		ug/L			669567	725305	1	Standard
Pb	208	3.202	ug/L	0.027	0	60	131514	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0081-04
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 20:07:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	42494	2	Standard
	Cl	**37**		ug/L			5434030	6788625	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	540842	1	Standard
|	**Cr**	**52**	**0.447**	ug/L	0.005	1	20356	31390	2	Standard
|	**Cr**	**53**	**7.441**	ug/L	0.144	1	160	16503	3	Standard
|	**Fe**	**54**	**181.548**	ug/L	2.766	1	67040	345357	0	Standard
|	**Fe**	**57**	**166.238**	ug/L	2.945	1	19150	123834	1	Standard
⌊	**Mn**	**55**	**6.046**	ug/L	0.116	1	667	179655	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	34339	0	KED
|	**Ni**	**60**	**0.404**	ug/L	0.026	6	4	481	6	KED
|	**Ni**	**62**	**1.669**	ug/L	0.104	6	3	328	6	KED
|	**Cu**	**63**	**2.854**	ug/L	0.033	1	53	9883	0	KED
|	**Cu**	**65**	**2.782**	ug/L	0.077	2	21	4792	2	KED
|	**Zn**	**66**	**26.941**	ug/L	0.607	2	18	12379	2	KED
|	**Zn**	**67**	**24.538**	ug/L	0.859	3	5	1904	2	KED
⌊	**As**	**75**	**3.248**	ug/L	0.033	1	5	803	0	KED
	Y	**89**		ug/L			275831	298227	2	Standard
	Kr	**83**		ug/L			40	1802	0	Standard
⌈>	**In-1**	**115**		ug/L			9714	10271	1	KED
|	**Cd**	**111**	**0.054**	ug/L	0.011	19	2	18	17	KED
⌊	**Cd**	**114**	**0.051**	ug/L	0.008	14	3	39	14	KED
⌈>	**In**	**115**		ug/L			369046	371986	0	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.001	15	22	90	10	Standard
⌈>	**Tb**	**159**		ug/L			669567	694988	1	Standard
⌊	**Pb**	**208**	**0.254**	ug/L	0.005	2	60	10054	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0775-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, April 20, 2023 20:11:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	68210	4	Standard
	Cl	37		ug/L			5434030	17318062	1	Standard
⌈>	Sc	45		ug/L			479414	544964	2	Standard
|	Cr	52	0.761	ug/L	0.056	7	20356	37590	1	Standard
|	Cr	53	13.669	ug/L	0.389	2	160	30376	0	Standard
|	Fe	54	1459.807	ug/L	70.484	4	67040	2260171	2	Standard
|	Fe	57	1389.776	ug/L	78.983	5	19150	882289	3	Standard
⌊	Mn	55	690.393	ug/L	23.490	3	667	20578288	0	Standard
⌈>	Ge	72		ug/L			31347	29977	1	KED
|	Ni	60	13.651	ug/L	0.189	1	4	14080	1	KED
|	Ni	62	14.916	ug/L	0.584	3	3	2534	2	KED
|	Cu	63	2.526	ug/L	0.091	3	53	7638	2	KED
|	Cu	65	2.434	ug/L	0.003	0	21	3663	1	KED
|	Zn	66	24.246	ug/L	0.383	1	18	9726	2	KED
|	Zn	67	22.910	ug/L	0.777	3	5	1552	1	KED
⌊	As	75	0.259	ug/L	0.035	13	5	60	10	KED
	Y	89		ug/L			275831	277802	2	Standard
	Kr	83		ug/L			40	1064	7	Standard
⌈>	In-1	115		ug/L			9714	9136	1	KED
|	Cd	111	0.021	ug/L	0.002	7	2	7	6	KED
⌊	Cd	114	0.022	ug/L	0.016	74	3	16	60	KED
⌈>	In	115		ug/L			369046	343300	2	Standard
⌊	Ag	107	0.006	ug/L	0.002	32	22	86	21	Standard
⌈>	Tb	159		ug/L			669567	676832	0	Standard
⌊	Pb	208	0.104	ug/L	0.000	0	60	4028	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 20:16:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	27863	3	Standard
	Cl	**37**		ug/L			5434030	5948037	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	483168	1	Standard
|	**Cr**	**52**	**0.104**	ug/L	0.018	17	20356	22267	2	Standard
|	**Cr**	**53**	**3.250**	ug/L	0.037	1	160	6529	1	Standard
|	**Fe**	**54**	**2.848**	ug/L	1.669	58	67040	71321	1	Standard
|	**Fe**	**57**	**6.165**	ug/L	1.416	22	19150	22693	4	Standard
⌊	**Mn**	**55**	**0.024**	ug/L	0.003	11	667	1304	6	Standard
⌈>	**Ge**	**72**		ug/L			31347	32318	1	KED
|	**Ni**	**60**	**0.004**	ug/L	0.006	141	4	9	72	KED
|	**Ni**	**62**	**0.908**	ug/L	0.046	5	3	170	6	KED
|	**Cu**	**63**	**0.036**	ug/L	0.008	22	53	171	14	KED
|	**Cu**	**65**	**0.020**	ug/L	0.007	36	21	53	20	KED
|	**Zn**	**66**	**0.006**	ug/L	0.014	226	18	21	26	KED
|	**Zn**	**67**	**0.033**	ug/L	0.071	213	5	7	66	KED
⌊	**As**	**75**	**0.007**	ug/L	0.008	120	5	6	27	KED
	Y	**89**		ug/L			275831	282940	1	Standard
	Kr	**83**		ug/L			40	545	7	Standard
⌈>	**In-1**	**115**		ug/L			9714	10147	2	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.002	112	2	2	24	KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.002	42	3	0	188	KED
⌈>	**In**	**115**		ug/L			369046	372929	2	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	22	22	29	7	Standard
⌈>	**Tb**	**159**		ug/L			669567	657254	1	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.001	16	60	261	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 20:20:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	25292	3	Standard
	Cl	**37**		ug/L			5434030	5751653	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	486028	2	Standard
|	**Cr**	**52**	**49.632**	ug/L	0.956	1	20356	861928	0	Standard
|	**Cr**	**53**	**52.558**	ug/L	1.128	2	160	103736	2	Standard
|	**Fe**	**54**	**5000.133**	ug/L	65.367	1	67040	6745319	2	Standard
|	**Fe**	**57**	**5120.805**	ug/L	95.595	1	19150	2849152	0	Standard
⌊	**Mn**	**55**	**46.645**	ug/L	0.776	1	667	1241030	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	32389	1	KED
|	**Ni**	**60**	**50.443**	ug/L	0.874	1	4	56213	2	KED
|	**Ni**	**62**	**51.135**	ug/L	0.607	1	3	9383	0	KED
|	**Cu**	**63**	**49.893**	ug/L	0.688	1	53	162042	1	KED
|	**Cu**	**65**	**49.385**	ug/L	0.360	0	21	79877	1	KED
|	**Zn**	**66**	**51.086**	ug/L	1.099	2	18	22119	1	KED
|	**Zn**	**67**	**50.872**	ug/L	1.443	2	5	3719	1	KED
⌊	**As**	**75**	**49.950**	ug/L	0.310	0	5	11576	0	KED
	Y	**89**		ug/L			275831	287838	2	Standard
	Kr	**83**		ug/L			40	366	6	Standard
⌈>	**In-1**	**115**		ug/L			9714	10424	1	KED
|	**Cd**	**111**	**47.749**	ug/L	1.847	3	2	14289	2	KED
⌊	**Cd**	**114**	**48.763**	ug/L	1.200	2	3	35439	1	KED
⌈>	**In**	**115**		ug/L			369046	372981	1	Standard
⌊	**Ag**	**107**	**51.463**	ug/L	1.296	2	22	641214	1	Standard
⌈>	**Tb**	**159**		ug/L			669567	672970	0	Standard
⌊	**Pb**	**208**	**49.303**	ug/L	0.450	0	60	1877807	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 20:28:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	23091	5	Standard
	Cl	**37**		ug/L			5434030	5668087	3	Standard
⌈>	**Sc**	**45**		ug/L			479414	458759	1	Standard
|	**Cr**	**52**	**0.039**	ug/L	0.019	49	20356	20112	2	Standard
|	**Cr**	**53**	**1.837**	ug/L	0.083	4	160	3569	3	Standard
|	**Fe**	**54**	**2.373**	ug/L	1.072	45	67040	67132	0	Standard
|	**Fe**	**57**	**3.629**	ug/L	0.553	15	19150	20221	2	Standard
⌊	**Mn**	**55**	**0.010**	ug/L	0.001	9	667	887	2	Standard
⌈>	**Ge**	**72**		ug/L			31347	31027	2	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.003	253	4	3	91	KED
|	**Ni**	**62**	**0.562**	ug/L	0.105	18	3	102	15	KED
|	**Cu**	**63**	**0.015**	ug/L	0.006	42	53	99	20	KED
|	**Cu**	**65**	**0.006**	ug/L	0.004	65	21	30	21	KED
|	**Zn**	**66**	**-0.013**	ug/L	0.006	46	18	12	22	KED
|	**Zn**	**67**	**-0.025**	ug/L	0.059	230	5	3	124	KED
⌊	**As**	**75**	**0.004**	ug/L	0.011	241	5	6	39	KED
	Y	**89**		ug/L			275831	272438	1	Standard
	Kr	**83**		ug/L			40	133	12	Standard
⌈>	**In-1**	**115**		ug/L			9714	9596	1	KED
|	**Cd**	**111**	**-0.005**	ug/L	0.005	114	2	1	114	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.010	256	3	5	117	KED
⌈>	**In**	**115**		ug/L			369046	364558	3	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	50	22	38	18	Standard
⌈>	**Tb**	**159**		ug/L			669567	642932	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	18	60	139	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0003-03
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 20:32:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	41686	1	Standard
	Cl	37		ug/L			5434030	5668690	0	Standard
>	Sc	45		ug/L			479414	514789	1	Standard
	Cr	52	3.719	ug/L	0.118	3	20356	88659	3	Standard
	Cr	53	5.201	ug/L	0.107	2	160	11029	1	Standard
	Fe	54	1521.803	ug/L	6.627	0	67040	2224379	0	Standard
	Fe	57	1379.364	ug/L	20.457	1	19150	828092	1	Standard
	Mn	55	38.291	ug/L	0.481	1	667	1079353	0	Standard
>	Ge	72		ug/L			31347	32893	2	KED
	Ni	60	3.195	ug/L	0.147	4	4	3617	3	KED
	Ni	62	3.976	ug/L	0.136	3	3	744	4	KED
	Cu	63	109.994	ug/L	1.611	1	53	362659	1	KED
	Cu	65	110.925	ug/L	2.508	2	21	182103	0	KED
	Zn	66	115.032	ug/L	6.862	5	18	50526	4	KED
	Zn	67	103.232	ug/L	4.821	4	5	7654	2	KED
	As	75	1.303	ug/L	0.059	4	5	312	5	KED
	Y	89		ug/L			275831	299110	2	Standard
	Kr	83		ug/L			40	135	17	Standard
>	In-1	115		ug/L			9714	10233	3	KED
	Cd	111	0.027	ug/L	0.010	35	2	10	24	KED
	Cd	114	0.025	ug/L	0.011	42	3	20	34	KED
>	In	115		ug/L			369046	387586	0	Standard
	Ag	107	0.009	ug/L	0.001	6	22	146	6	Standard
>	Tb	159		ug/L			669567	694773	2	Standard
	Pb	208	0.903	ug/L	0.009	1	60	35567	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0003-05
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 20:37:23
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	39312	2	Standard
	Cl	37		ug/L			5434030	5529292	3	Standard
>	Sc	45		ug/L			479414	500399	2	Standard
	Cr	52	3.725	ug/L	0.087	2	20356	86248	0	Standard
	Cr	53	4.988	ug/L	0.240	4	160	10282	2	Standard
	Fe	54	1544.267	ug/L	63.038	4	67040	2191941	1	Standard
	Fe	57	1422.179	ug/L	27.836	1	19150	829114	0	Standard
	Mn	55	37.185	ug/L	0.647	1	667	1018703	0	Standard
>	Ge	72		ug/L			31347	32094	0	KED
	Ni	60	3.181	ug/L	0.099	3	4	3516	3	KED
	Ni	62	3.634	ug/L	0.487	13	3	664	14	KED
	Cu	63	105.402	ug/L	1.267	1	53	339158	1	KED
	Cu	65	109.555	ug/L	1.054	0	21	175560	1	KED
	Zn	66	109.496	ug/L	1.196	1	18	46966	1	KED
	Zn	67	101.247	ug/L	2.718	2	5	7332	3	KED
	As	75	1.273	ug/L	0.040	3	5	297	3	KED
	Y	89		ug/L			275831	289781	1	Standard
	Kr	83		ug/L			40	99	5	Standard
>	In-1	115		ug/L			9714	10466	1	KED
	Cd	111	0.037	ug/L	0.015	39	2	13	32	KED
	Cd	114	0.027	ug/L	0.009	34	3	22	29	KED
>	In	115		ug/L			369046	384307	1	Standard
	Ag	107	0.010	ug/L	0.002	18	22	151	14	Standard
>	Tb	159		ug/L			669567	683648	2	Standard
	Pb	208	0.867	ug/L	0.021	2	60	33576	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0003-07
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 20:41:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	37523	1	Standard
	Cl	37		ug/L			5434030	5484283	3	Standard
⌈>	Sc	45		ug/L			479414	488133	1	Standard
|	Cr	52	6.691	ug/L	0.018	0	20356	134659	1	Standard
|	Cr	53	7.741	ug/L	0.229	2	160	15490	4	Standard
|	Fe	54	2979.500	ug/L	30.300	1	67040	4064206	1	Standard
|	Fe	57	2749.932	ug/L	81.315	2	19150	1546032	3	Standard
⌊	Mn	55	48.173	ug/L	0.560	1	667	1287426	0	Standard
⌈>	Ge	72		ug/L			31347	31858	1	KED
|	Ni	60	5.237	ug/L	0.224	4	4	5740	2	KED
|	Ni	62	6.038	ug/L	0.038	0	3	1093	2	KED
|	Cu	63	180.498	ug/L	3.872	2	53	576385	1	KED
|	Cu	65	183.062	ug/L	2.029	1	21	291142	1	KED
|	Zn	66	132.183	ug/L	3.056	2	18	56259	0	KED
|	Zn	67	121.726	ug/L	1.942	1	5	8749	3	KED
⌊	As	75	0.937	ug/L	0.040	4	5	218	2	KED
	Y	89		ug/L			275831	294978	0	Standard
	Kr	83		ug/L			40	86	12	Standard
⌈>	In-1	115		ug/L			9714	10152	2	KED
|	Cd	111	0.502	ug/L	0.033	6	2	148	5	KED
⌊	Cd	114	0.521	ug/L	0.014	2	3	372	2	KED
⌈>	In	115		ug/L			369046	374210	0	Standard
⌊	Ag	107	0.036	ug/L	0.003	8	22	469	8	Standard
⌈>	Tb	159		ug/L			669567	654784	1	Standard
⌊	Pb	208	1.674	ug/L	0.020	1	60	62069	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0005-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 20, 2023 20:46:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	42439	1	Standard
	Cl	37		ug/L			5434030	6465517	1	Standard
>	Sc	45		ug/L			479414	479505	2	Standard
	Cr	52	7.145	ug/L	0.038	0	20356	139880	1	Standard
	Cr	53	8.872	ug/L	0.075	0	160	17410	1	Standard
	Fe	54	1024.967	ug/L	2.293	0	67040	1417374	1	Standard
	Fe	57	1016.687	ug/L	28.057	2	19150	573558	3	Standard
	Mn	55	56.740	ug/L	1.411	2	667	1489088	0	Standard
>	Ge	72		ug/L			31347	30998	0	KED
	Ni	60	2.864	ug/L	0.095	3	4	3058	3	KED
	Ni	62	3.009	ug/L	0.034	1	3	532	1	KED
	Cu	63	16.950	ug/L	0.510	3	53	52717	2	KED
	Cu	65	16.740	ug/L	0.338	2	21	25927	2	KED
	Zn	66	70.800	ug/L	0.654	0	18	29337	1	KED
	Zn	67	67.249	ug/L	2.063	3	5	4704	2	KED
	As	75	1.295	ug/L	0.036	2	5	292	3	KED
	Y	89		ug/L			275831	286836	0	Standard
	Kr	83		ug/L			40	83	17	Standard
>	In-1	115		ug/L			9714	9708	1	KED
	Cd	111	0.056	ug/L	0.006	11	2	18	9	KED
	Cd	114	0.057	ug/L	0.011	19	3	41	17	KED
>	In	115		ug/L			369046	362422	0	Standard
	Ag	107	0.020	ug/L	0.002	9	22	263	8	Standard
>	Tb	159		ug/L			669567	650224	0	Standard
	Pb	208	4.556	ug/L	0.075	1	60	167715	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0005-03
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 20, 2023 20:51:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	39393	2	Standard
	Cl	37		ug/L			5434030	6442114	0	Standard
>	Sc	45		ug/L			479414	473174	1	Standard
	Cr	52	2.806	ug/L	0.091	3	20356	66390	1	Standard
	Cr	53	4.858	ug/L	0.064	1	160	9479	0	Standard
	Fe	54	306.425	ug/L	9.216	3	67040	464423	1	Standard
	Fe	57	339.947	ug/L	4.482	1	19150	201824	1	Standard
	Mn	55	26.738	ug/L	0.929	3	667	692773	2	Standard
>	Ge	72		ug/L			31347	30301	1	KED
	Ni	60	7.588	ug/L	0.049	0	4	7912	1	KED
	Ni	62	7.922	ug/L	0.271	3	3	1363	3	KED
	Cu	63	6.763	ug/L	0.087	1	53	20590	0	KED
	Cu	65	6.855	ug/L	0.071	1	21	10391	2	KED
	Zn	66	16.730	ug/L	0.154	0	18	6789	1	KED
	Zn	67	17.514	ug/L	0.089	0	5	1201	1	KED
	As	75	0.344	ug/L	0.006	1	5	79	3	KED
	Y	89		ug/L			275831	272978	1	Standard
	Kr	83		ug/L			40	74	5	Standard
>	In-1	115		ug/L			9714	9560	2	KED
	Cd	111	0.021	ug/L	0.013	64	2	8	43	KED
	Cd	114	0.010	ug/L	0.005	50	3	9	33	KED
>	In	115		ug/L			369046	363212	0	Standard
	Ag	107	0.008	ug/L	0.001	14	22	114	12	Standard
>	Tb	159		ug/L			669567	662265	1	Standard
	Pb	208	0.964	ug/L	0.012	1	60	36185	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0006-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 20, 2023 20:55:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	41799	1	Standard
	Cl	**37**		ug/L			5434030	6223950	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	479856	2	Standard
|	**Cr**	**52**	**8.611**	ug/L	0.257	2	20356	164479	1	Standard
|	**Cr**	**53**	**10.118**	ug/L	0.066	0	160	19847	1	Standard
|	**Fe**	**54**	**1058.541**	ug/L	31.716	2	67040	1462154	0	Standard
|	**Fe**	**57**	**1054.707**	ug/L	2.340	0	19150	594739	1	Standard
⌊	**Mn**	**55**	**51.991**	ug/L	2.016	3	667	1365315	2	Standard
⌈>	**Ge**	**72**		ug/L			31347	30375	1	KED
|	**Ni**	**60**	**4.683**	ug/L	0.200	4	4	4896	3	KED
|	**Ni**	**62**	**5.191**	ug/L	0.285	5	3	897	7	KED
|	**Cu**	**63**	**20.075**	ug/L	0.467	2	53	61159	0	KED
|	**Cu**	**65**	**20.639**	ug/L	0.449	2	21	31311	1	KED
|	**Zn**	**66**	**89.696**	ug/L	3.132	3	18	36399	1	KED
|	**Zn**	**67**	**83.295**	ug/L	0.708	0	5	5708	1	KED
⌊	**As**	**75**	**1.331**	ug/L	0.039	2	5	294	1	KED
	Y	**89**		ug/L			275831	281774	2	Standard
	Kr	**83**		ug/L			40	59	5	Standard
⌈>	**In-1**	**115**		ug/L			9714	9578	0	KED
|	**Cd**	**111**	**0.086**	ug/L	0.014	16	2	26	14	KED
⌊	**Cd**	**114**	**0.086**	ug/L	0.041	47	3	60	44	KED
⌈>	**In**	**115**		ug/L			369046	363665	1	Standard
⌊	**Ag**	**107**	**0.020**	ug/L	0.002	10	22	259	9	Standard
⌈>	**Tb**	**159**		ug/L			669567	655193	1	Standard
⌊	**Pb**	**208**	**5.209**	ug/L	0.045	0	60	193199	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0006-02
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 21:00:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	40371	2	Standard
	Cl	**37**		ug/L			5434030	6937707	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	477086	2	Standard
|	**Cr**	**52**	**13.371**	ug/L	0.320	2	20356	242727	1	Standard
|	**Cr**	**53**	**15.423**	ug/L	0.263	1	160	29990	1	Standard
|	**Fe**	**54**	**682.436**	ug/L	13.021	1	67040	961022	1	Standard
|	**Fe**	**57**	**714.970**	ug/L	12.599	1	19150	406879	0	Standard
⌊	**Mn**	**55**	**30.685**	ug/L	0.893	2	667	801545	2	Standard
⌈>	**Ge**	**72**		ug/L			31347	29682	0	KED
|	**Ni**	**60**	**7.285**	ug/L	0.125	1	4	7442	1	KED
|	**Ni**	**62**	**7.860**	ug/L	0.251	3	3	1325	4	KED
|	**Cu**	**63**	**19.850**	ug/L	0.462	2	53	59117	2	KED
|	**Cu**	**65**	**19.978**	ug/L	0.399	1	21	29624	2	KED
|	**Zn**	**66**	**79.404**	ug/L	0.310	0	18	31502	0	KED
|	**Zn**	**67**	**73.914**	ug/L	2.330	3	5	4950	2	KED
⌊	**As**	**75**	**1.834**	ug/L	0.053	2	5	394	2	KED
	Y	**89**		ug/L			275831	277691	5	Standard
	Kr	**83**		ug/L			40	81	15	Standard
⌈>	**In-1**	**115**		ug/L			9714	9109	1	KED
|	**Cd**	**111**	**0.061**	ug/L	0.012	19	2	18	16	KED
⌊	**Cd**	**114**	**0.055**	ug/L	0.017	31	3	37	30	KED
⌈>	**In**	**115**		ug/L			369046	352439	1	Standard
⌊	**Ag**	**107**	**0.020**	ug/L	0.000	2	22	253	0	Standard
⌈>	**Tb**	**159**		ug/L			669567	642608	1	Standard
⌊	**Pb**	**208**	**2.677**	ug/L	0.024	0	60	97389	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0003-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 21:04:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	36810	2	Standard
	Cl	37		ug/L			5434030	5465816	1	Standard
⌈>	Sc	45		ug/L			479414	486192	2	Standard
|	Cr	52	3.038	ug/L	0.151	4	20356	72139	1	Standard
|	Cr	53	3.761	ug/L	0.108	2	160	7575	1	Standard
|	Fe	54	1087.177	ug/L	18.126	1	67040	1519994	1	Standard
|	Fe	57	1106.830	ug/L	14.545	1	19150	631318	1	Standard
⌊	Mn	55	32.951	ug/L	0.576	1	667	877215	1	Standard
⌈>	Ge	72		ug/L			31347	31215	2	KED
|	Ni	60	2.941	ug/L	0.126	4	4	3160	3	KED
|	Ni	62	3.496	ug/L	0.115	3	3	621	2	KED
|	Cu	63	89.947	ug/L	2.263	2	53	281399	1	KED
|	Cu	65	91.304	ug/L	2.911	3	21	142231	1	KED
|	Zn	66	77.658	ug/L	1.267	1	18	32396	1	KED
|	Zn	67	71.327	ug/L	1.881	2	5	5022	0	KED
⌊	As	75	0.543	ug/L	0.027	4	5	126	5	KED
	Y	89		ug/L			275831	278718	2	Standard
	Kr	83		ug/L			40	60	15	Standard
⌈>	In-1	115		ug/L			9714	9860	1	KED
|	Cd	111	0.017	ug/L	0.016	97	2	7	61	KED
⌊	Cd	114	0.017	ug/L	0.007	39	3	15	31	KED
⌈>	In	115		ug/L			369046	375861	1	Standard
⌊	Ag	107	0.007	ug/L	0.001	17	22	117	15	Standard
⌈>	Tb	159		ug/L			669567	668600	0	Standard
⌊	Pb	208	1.011	ug/L	0.012	1	60	38317	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0401-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 21:09:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	36051	3	Standard
	Cl	37		ug/L			5434030	5491995	1	Standard
>	Sc	45		ug/L			479414	488508	1	Standard
	Cr	52	2.872	ug/L	0.058	2	20356	69679	0	Standard
	Cr	53	3.587	ug/L	0.064	1	160	7268	1	Standard
	Fe	54	1058.075	ug/L	45.484	4	67040	1487750	2	Standard
	Fe	57	1053.864	ug/L	25.013	2	19150	604871	1	Standard
	Mn	55	31.796	ug/L	0.634	1	667	850556	1	Standard
>	Ge	72		ug/L			31347	31279	1	KED
	Ni	60	2.715	ug/L	0.102	3	4	2924	2	KED
	Ni	62	3.121	ug/L	0.269	8	3	556	9	KED
	Cu	63	86.543	ug/L	0.902	1	53	271413	1	KED
	Cu	65	87.554	ug/L	1.756	2	21	136717	1	KED
	Zn	66	73.399	ug/L	2.727	3	18	30678	2	KED
	Zn	67	66.472	ug/L	2.785	4	5	4694	5	KED
	As	75	0.520	ug/L	0.034	6	5	121	5	KED
	Y	89		ug/L			275831	283017	1	Standard
	Kr	83		ug/L			40	53	3	Standard
>	In-1	115		ug/L			9714	10193	3	KED
	Cd	111	0.012	ug/L	0.008	61	2	6	37	KED
	Cd	114	0.014	ug/L	0.005	33	3	13	26	KED
>	In	115		ug/L			369046	378043	1	Standard
	Ag	107	0.007	ug/L	0.000	6	22	107	5	Standard
>	Tb	159		ug/L			669567	660808	1	Standard
	Pb	208	0.986	ug/L	0.014	1	60	36936	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0401-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 21:13:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	37213	1	Standard
	Cl	37		ug/L			5434030	5480810	2	Standard
>	Sc	45		ug/L			479414	477763	2	Standard
	Cr	52	27.585	ug/L	0.708	2	20356	479925	1	Standard
	Cr	53	28.561	ug/L	0.891	3	160	55471	1	Standard
	Fe	54	6026.878	ug/L	166.550	2	67040	7974799	0	Standard
	Fe	57	6245.781	ug/L	226.979	3	19150	3410945	1	Standard
	Mn	55	54.919	ug/L	1.187	2	667	1436197	1	Standard
>	Ge	72		ug/L			31347	30554	1	KED
	Ni	60	28.394	ug/L	1.151	4	4	29849	4	KED
	Ni	62	27.379	ug/L	1.123	4	3	4742	4	KED
	Cu	63	110.164	ug/L	1.407	1	53	337429	0	KED
	Cu	65	111.223	ug/L	2.131	1	21	169646	0	KED
	Zn	66	153.427	ug/L	3.100	2	18	62640	2	KED
	Zn	67	143.982	ug/L	3.530	2	5	9920	1	KED
	As	75	25.545	ug/L	0.673	2	5	5586	1	KED
	Y	89		ug/L			275831	284166	0	Standard
	Kr	83		ug/L			40	72	6	Standard
>	In-1	115		ug/L			9714	9877	3	KED
	Cd	111	24.187	ug/L	1.002	4	2	6856	1	KED
	Cd	114	24.082	ug/L	0.796	3	3	16577	0	KED
>	In	115		ug/L			369046	364032	2	Standard
	Ag	107	25.998	ug/L	0.759	2	22	316076	1	Standard
>	Tb	159		ug/L			669567	658626	2	Standard
	Pb	208	25.748	ug/L	0.203	0	60	959697	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 21:18:23
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	24374	3	Standard
	Cl	**37**		ug/L			5434030	5500819	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	473898	1	Standard
|	**Cr**	**52**	**49.539**	ug/L	0.201	0	20356	839145	1	Standard
|	**Cr**	**53**	**50.371**	ug/L	0.722	1	160	96946	0	Standard
|	**Fe**	**54**	**4919.858**	ug/L	101.285	2	67040	6470900	0	Standard
|	**Fe**	**57**	**5090.983**	ug/L	113.001	2	19150	2762114	0	Standard
⌊	**Mn**	**55**	**46.457**	ug/L	0.626	1	667	1205300	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	31213	0	KED
|	**Ni**	**60**	**50.092**	ug/L	1.830	3	4	53788	3	KED
|	**Ni**	**62**	**50.063**	ug/L	1.784	3	3	8855	4	KED
|	**Cu**	**63**	**49.966**	ug/L	0.495	0	53	156387	1	KED
|	**Cu**	**65**	**50.264**	ug/L	0.743	1	21	78345	1	KED
|	**Zn**	**66**	**52.437**	ug/L	1.364	2	18	21885	3	KED
|	**Zn**	**67**	**51.565**	ug/L	1.325	2	5	3634	3	KED
⌊	**As**	**75**	**50.414**	ug/L	0.159	0	5	11260	0	KED
	Y	**89**		ug/L			275831	279666	1	Standard
	Kr	**83**		ug/L			40	50	9	Standard
⌈>	**In-1**	**115**		ug/L			9714	10017	0	KED
|	**Cd**	**111**	**48.816**	ug/L	0.569	1	2	14044	1	KED
⌊	**Cd**	**114**	**49.597**	ug/L	0.308	0	3	34647	0	KED
⌈>	**In**	**115**		ug/L			369046	370956	0	Standard
⌊	**Ag**	**107**	**51.996**	ug/L	0.886	1	22	644474	1	Standard
⌈>	**Tb**	**159**		ug/L			669567	672043	0	Standard
⌊	**Pb**	**208**	**48.703**	ug/L	0.211	0	60	1852393	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 21:25:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	24110	0	Standard
	Cl	**37**		ug/L			5434030	5527441	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	462589	1	Standard
|	**Cr**	**52**	**-0.005**	ug/L	0.018	334	20356	19551	0	Standard
|	**Cr**	**53**	**0.517**	ug/L	0.030	5	160	1124	4	Standard
|	**Fe**	**54**	**1.832**	ug/L	0.971	52	67040	67006	1	Standard
|	**Fe**	**57**	**2.351**	ug/L	1.981	84	19150	19706	4	Standard
⌊	**Mn**	**55**	**0.014**	ug/L	0.007	45	667	1002	15	Standard
⌈>	**Ge**	**72**		ug/L			31347	29081	8	KED
|	**Ni**	**60**	**0.000**	ug/L	0.003	835	4	4	65	KED
|	**Ni**	**62**	**0.211**	ug/L	0.022	10	3	38	5	KED
|	**Cu**	**63**	**-0.000**	ug/L	0.003	826	53	48	25	KED
|	**Cu**	**65**	**0.003**	ug/L	0.005	152	21	24	30	KED
|	**Zn**	**66**	**-0.009**	ug/L	0.015	166	18	13	37	KED
|	**Zn**	**67**	**-0.024**	ug/L	0.032	131	5	3	69	KED
⌊	**As**	**75**	**0.011**	ug/L	0.012	101	5	7	29	KED
	Y	**89**		ug/L			275831	269446	2	Standard
	Kr	**83**		ug/L			40	50	5	Standard
⌈>	**In-1**	**115**		ug/L			9714	9663	3	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.007	207	2	1	124	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.006	10469	3	3	128	KED
⌈>	**In**	**115**		ug/L			369046	367708	0	Standard
⌊	**Ag**	**107**	**0.004**	ug/L	0.005	131	22	69	88	Standard
⌈>	**Tb**	**159**		ug/L			669567	642463	1	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.004	131	60	172	86	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0117-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 21:30:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	42798	2	Standard
	Cl	**37**		ug/L			5434030	5608473	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	488043	0	Standard
|	**Cr**	**52**	**0.774**	ug/L	0.028	3	20356	33897	1	Standard
|	**Cr**	**53**	**1.277**	ug/L	0.036	2	160	2691	2	Standard
|	**Fe**	**54**	**184.880**	ug/L	2.733	1	67040	316160	1	Standard
|	**Fe**	**57**	**232.328**	ug/L	5.774	2	19150	148444	2	Standard
⌊	**Mn**	**55**	**6.643**	ug/L	0.139	2	667	178116	2	Standard
⌈>	**Ge**	**72**		ug/L			31347	31460	1	KED
|	**Ni**	**60**	**1.078**	ug/L	0.057	5	4	1171	6	KED
|	**Ni**	**62**	**1.236**	ug/L	0.080	6	3	224	7	KED
|	**Cu**	**63**	**6.717**	ug/L	0.166	2	53	21236	3	KED
|	**Cu**	**65**	**6.626**	ug/L	0.232	3	21	10425	2	KED
|	**Zn**	**66**	**34.280**	ug/L	0.078	0	18	14425	1	KED
|	**Zn**	**67**	**33.938**	ug/L	0.585	1	5	2412	2	KED
⌊	**As**	**75**	**1.748**	ug/L	0.065	3	5	398	3	KED
	Y	**89**		ug/L			275831	279227	0	Standard
	Kr	**83**		ug/L			40	48	16	Standard
⌈>	**In-1**	**115**		ug/L			9714	9736	1	KED
|	**Cd**	**111**	**0.006**	ug/L	0.005	95	2	4	35	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.005	79	3	7	49	KED
⌈>	**In**	**115**		ug/L			369046	374643	1	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	19	22	63	13	Standard
⌈>	**Tb**	**159**		ug/L			669567	669474	1	Standard
⌊	**Pb**	**208**	**0.353**	ug/L	0.009	2	60	13415	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0019-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 21:34:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	38653	3	Standard
	Cl	**37**		ug/L			5434030	5733575	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	532091	1	Standard
|	**Cr**	**52**	**0.355**	ug/L	0.018	4	20356	29180	1	Standard
|	**Cr**	**53**	**1.046**	ug/L	0.018	1	160	2435	2	Standard
|	**Fe**	**54**	**3950.355**	ug/L	116.063	2	67040	5848033	2	Standard
|	**Fe**	**57**	**4075.753**	ug/L	87.209	2	19150	2486941	0	Standard
⌊	**Mn**	**55**	**883.120**	ug/L	25.451	2	667	25705993	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	30293	0	KED
|	**Ni**	**60**	**1.018**	ug/L	0.049	4	4	1064	4	KED
|	**Ni**	**62**	**1.130**	ug/L	0.134	11	3	197	11	KED
|	**Cu**	**63**	**3.205**	ug/L	0.081	2	53	9782	2	KED
|	**Cu**	**65**	**3.259**	ug/L	0.143	4	21	4948	3	KED
|	**Zn**	**66**	**12.593**	ug/L	0.187	1	18	5113	1	KED
|	**Zn**	**67**	**12.705**	ug/L	1.127	8	5	872	8	KED
⌊	**As**	**75**	**3.884**	ug/L	0.218	5	5	846	5	KED
	Y	**89**		ug/L			275831	293812	1	Standard
	Kr	**83**		ug/L			40	65	17	Standard
⌈>	**In-1**	**115**		ug/L			9714	9804	1	KED
|	**Cd**	**111**	**0.001**	ug/L	0.006	571	2	2	57	KED
⌊	**Cd**	**114**	**0.011**	ug/L	0.003	26	3	10	18	KED
⌈>	**In**	**115**		ug/L			369046	371250	2	Standard
⌊	**Ag**	**107**	**0.007**	ug/L	0.001	9	22	114	6	Standard
⌈>	**Tb**	**159**		ug/L			669567	671435	2	Standard
⌊	**Pb**	**208**	**0.132**	ug/L	0.004	3	60	5072	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0020-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 21:39:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	40734	2	Standard
	Cl	37		ug/L			5434030	5828635	0	Standard
>	Sc	45		ug/L			479414	532018	0	Standard
	Cr	52	0.262	ug/L	0.042	16	20356	27455	2	Standard
	Cr	53	0.861	ug/L	0.033	3	160	2036	3	Standard
	Fe	54	3213.345	ug/L	56.774	1	67040	4771000	0	Standard
	Fe	57	2997.755	ug/L	121.615	4	19150	1834605	3	Standard
	Mn	55	975.743	ug/L	15.997	1	667	28406291	0	Standard
>	Ge	72		ug/L			31347	30812	1	KED
	Ni	60	1.036	ug/L	0.110	10	4	1103	11	KED
	Ni	62	1.238	ug/L	0.093	7	3	219	6	KED
	Cu	63	2.654	ug/L	0.022	0	53	8249	1	KED
	Cu	65	2.689	ug/L	0.025	0	21	4158	1	KED
	Zn	66	9.914	ug/L	0.064	0	18	4099	1	KED
	Zn	67	9.583	ug/L	0.755	7	5	670	7	KED
	As	75	3.601	ug/L	0.184	5	5	798	4	KED
	Y	89		ug/L			275831	294450	1	Standard
	Kr	83		ug/L			40	53	23	Standard
>	In-1	115		ug/L			9714	10043	1	KED
	Cd	111	0.033	ug/L	0.010	31	2	12	22	KED
	Cd	114	0.021	ug/L	0.002	7	3	17	6	KED
>	In	115		ug/L			369046	371389	0	Standard
	Ag	107	0.008	ug/L	0.001	13	22	119	10	Standard
>	Tb	159		ug/L			669567	678466	1	Standard
	Pb	208	0.075	ug/L	0.003	4	60	2922	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0022-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 21:43:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	40632	1	Standard
	Cl	37		ug/L			5434030	5438604	0	Standard
>	Sc	45		ug/L			479414	498663	3	Standard
	Cr	52	0.829	ug/L	0.057	6	20356	35578	0	Standard
	Cr	53	1.202	ug/L	0.095	7	160	2593	4	Standard
	Fe	54	137.485	ug/L	7.713	5	67040	257873	1	Standard
	Fe	57	206.520	ug/L	13.114	6	19150	136873	2	Standard
	Mn	55	2.987	ug/L	0.101	3	667	82145	0	Standard
>	Ge	72		ug/L			31347	31010	1	KED
	Ni	60	0.975	ug/L	0.098	10	4	1043	8	KED
	Ni	62	1.179	ug/L	0.075	6	3	210	4	KED
	Cu	63	6.087	ug/L	0.102	1	53	18972	1	KED
	Cu	65	5.962	ug/L	0.059	0	21	9251	1	KED
	Zn	66	1103.079	ug/L	27.724	2	18	456849	0	KED
	Zn	67	991.364	ug/L	19.318	1	5	69326	3	KED
	As	75	0.271	ug/L	0.017	6	5	65	6	KED
	Y	89		ug/L			275831	275000	1	Standard
	Kr	83		ug/L			40	51	3	Standard
>	In-1	115		ug/L			9714	9956	1	KED
	Cd	111	0.134	ug/L	0.014	10	2	40	10	KED
	Cd	114	0.139	ug/L	0.028	19	3	99	17	KED
>	In	115		ug/L			369046	365854	0	Standard
	Ag	107	0.493	ug/L	0.011	2	22	6047	1	Standard
>	Tb	159		ug/L			669567	663628	1	Standard
	Pb	208	1.880	ug/L	0.014	0	60	70647	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0023-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 21:48:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	37418	2	Standard
	Cl	37		ug/L			5434030	5684033	1	Standard
>	Sc	45		ug/L			479414	487209	1	Standard
	Cr	52	0.144	ug/L	0.019	13	20356	23140	2	Standard
	Cr	53	0.498	ug/L	0.023	4	160	1147	3	Standard
	Fe	54	8569.684	ug/L	53.467	0	67040	11539253	0	Standard
	Fe	57	8589.626	ug/L	315.531	3	19150	4777608	2	Standard
	Mn	55	644.931	ug/L	2.114	0	667	17196232	1	Standard
>	Ge	72		ug/L			31347	31280	2	KED
	Ni	60	0.723	ug/L	0.012	1	4	782	3	KED
	Ni	62	0.839	ug/L	0.071	8	3	152	8	KED
	Cu	63	0.334	ug/L	0.013	3	53	1100	3	KED
	Cu	65	0.343	ug/L	0.045	13	21	558	13	KED
	Zn	66	20.689	ug/L	0.146	0	18	8662	1	KED
	Zn	67	19.317	ug/L	0.439	2	5	1367	4	KED
	As	75	0.320	ug/L	0.017	5	5	76	5	KED
	Y	89		ug/L			275831	278831	1	Standard
	Kr	83		ug/L			40	44	17	Standard
>	In-1	115		ug/L			9714	9824	0	KED
	Cd	111	0.004	ug/L	0.006	133	2	3	43	KED
	Cd	114	0.002	ug/L	0.004	181	3	4	60	KED
>	In	115		ug/L			369046	379249	1	Standard
	Ag	107	0.001	ug/L	0.001	98	22	35	32	Standard
>	Tb	159		ug/L			669567	675214	1	Standard
	Pb	208	0.102	ug/L	0.001	0	60	3966	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0048-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 21:53:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	48797	1	Standard
	Cl	**37**		ug/L			5434030	5399684	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	502214	1	Standard
|	**Cr**	**52**	**0.787**	ug/L	0.013	1	20356	35116	1	Standard
|	**Cr**	**53**	**1.067**	ug/L	0.009	0	160	2341	1	Standard
|	**Fe**	**54**	**257.857**	ug/L	5.309	2	67040	425974	0	Standard
|	**Fe**	**57**	**257.379**	ug/L	6.484	2	19150	167030	0	Standard
⌊	**Mn**	**55**	**10.691**	ug/L	0.046	0	667	294526	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	31659	0	KED
|	**Ni**	**60**	**1.053**	ug/L	0.049	4	4	1151	4	KED
|	**Ni**	**62**	**1.239**	ug/L	0.065	5	3	226	5	KED
|	**Cu**	**63**	**17.620**	ug/L	0.358	2	53	55973	2	KED
|	**Cu**	**65**	**17.722**	ug/L	0.321	1	21	28031	1	KED
|	**Zn**	**66**	**68.624**	ug/L	0.468	0	18	29042	0	KED
|	**Zn**	**67**	**62.768**	ug/L	0.152	0	5	4485	0	KED
⌊	**As**	**75**	**0.604**	ug/L	0.021	3	5	142	3	KED
	Y	**89**		ug/L			275831	285816	1	Standard
	Kr	**83**		ug/L			40	40	4	Standard
⌈>	**In-1**	**115**		ug/L			9714	9805	1	KED
|	**Cd**	**111**	**0.312**	ug/L	0.009	2	2	90	2	KED
⌊	**Cd**	**114**	**0.287**	ug/L	0.034	11	3	199	10	KED
⌈>	**In**	**115**		ug/L			369046	378327	0	Standard
⌊	**Ag**	**107**	**0.024**	ug/L	0.001	3	22	321	3	Standard
⌈>	**Tb**	**159**		ug/L			669567	687196	1	Standard
⌊	**Pb**	**208**	**1.568**	ug/L	0.027	1	60	61020	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0050-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 21:57:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	47540	2	Standard
	Cl	**37**		ug/L			5434030	7390598	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	520490	1	Standard
|	**Cr**	**52**	**0.430**	ug/L	0.037	8	20356	29909	0	Standard
|	**Cr**	**53**	**2.049**	ug/L	0.013	0	160	4498	1	Standard
|	**Fe**	**54**	**1037.884**	ug/L	22.153	2	67040	1556691	0	Standard
|	**Fe**	**57**	**1030.191**	ug/L	8.974	0	19150	630574	1	Standard
⌊	**Mn**	**55**	**116.945**	ug/L	1.096	0	667	3331388	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	28965	2	KED
|	**Ni**	**60**	**3.377**	ug/L	0.099	2	4	3368	3	KED
|	**Ni**	**62**	**3.708**	ug/L	0.168	4	3	611	3	KED
|	**Cu**	**63**	**3.663**	ug/L	0.066	1	53	10682	0	KED
|	**Cu**	**65**	**3.632**	ug/L	0.086	2	21	5270	1	KED
|	**Zn**	**66**	**81.306**	ug/L	1.079	1	18	31473	1	KED
|	**Zn**	**67**	**75.869**	ug/L	1.545	2	5	4957	1	KED
⌊	**As**	**75**	**0.694**	ug/L	0.038	5	5	148	6	KED
	Y	**89**		ug/L			275831	273297	2	Standard
	Kr	**83**		ug/L			40	64	38	Standard
⌈>	**In-1**	**115**		ug/L			9714	9209	0	KED
|	**Cd**	**111**	**0.090**	ug/L	0.008	9	2	26	9	KED
⌊	**Cd**	**114**	**0.077**	ug/L	0.008	10	3	52	9	KED
⌈>	**In**	**115**		ug/L			369046	360313	0	Standard
⌊	**Ag**	**107**	**0.037**	ug/L	0.003	9	22	463	7	Standard
⌈>	**Tb**	**159**		ug/L			669567	671506	1	Standard
⌊	**Pb**	**208**	**0.454**	ug/L	0.003	0	60	17332	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0050-02
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 22:02:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	42911	0	Standard
	Cl	37		ug/L			5434030	7171347	1	Standard
>	Sc	45		ug/L			479414	528374	1	Standard
	Cr	52	0.252	ug/L	0.026	10	20356	27074	1	Standard
	Cr	53	2.407	ug/L	0.046	1	160	5334	2	Standard
	Fe	54	805.541	ug/L	4.482	0	67040	1243272	0	Standard
	Fe	57	774.014	ug/L	8.071	1	19150	486251	2	Standard
	Mn	55	185.829	ug/L	3.182	1	667	5373332	0	Standard
>	Ge	72		ug/L			31347	29273	0	KED
	Ni	60	1.640	ug/L	0.026	1	4	1655	1	KED
	Ni	62	1.921	ug/L	0.207	10	3	321	10	KED
	Cu	63	1.711	ug/L	0.068	3	53	5072	4	KED
	Cu	65	1.807	ug/L	0.119	6	21	2661	6	KED
	Zn	66	75.912	ug/L	1.250	1	18	29702	1	KED
	Zn	67	68.416	ug/L	2.267	3	5	4519	2	KED
	As	75	1.351	ug/L	0.044	3	5	287	3	KED
	Y	89		ug/L			275831	274338	0	Standard
	Kr	83		ug/L			40	50	11	Standard
>	In-1	115		ug/L			9714	9421	2	KED
	Cd	111	0.018	ug/L	0.008	43	2	7	27	KED
	Cd	114	0.015	ug/L	0.003	22	3	12	14	KED
>	In	115		ug/L			369046	352826	1	Standard
	Ag	107	0.014	ug/L	0.003	23	22	180	20	Standard
>	Tb	159		ug/L			669567	665547	1	Standard
	Pb	208	0.120	ug/L	0.002	1	60	4597	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0044-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, April 20, 2023 22:06:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	120837	2	Standard
	Cl	37		ug/L			5434030	5616506	1	Standard
>	Sc	45		ug/L			479414	528003	2	Standard
	Cr	52	180.788	ug/L	5.220	2	20356	3351123	0	Standard
	Cr	53	164.147	ug/L	2.835	1	160	351562	0	Standard
	Fe	54	5551.272	ug/L	110.563	1	67040	8125367	1	Standard
	Fe	57	5613.891	ug/L	263.538	4	19150	3389937	2	Standard
	Mn	55	128.548	ug/L	2.940	2	667	3714661	2	Standard
>	Ge	72		ug/L			31347	30796	1	KED
	Ni	60	5.254	ug/L	0.069	1	4	5570	2	KED
	Ni	62	5.181	ug/L	0.248	4	3	907	4	KED
	Cu	63	6.077	ug/L	0.122	2	53	18812	2	KED
	Cu	65	6.064	ug/L	0.048	0	21	9344	1	KED
	Zn	66	235.461	ug/L	4.628	1	18	96869	0	KED
	Zn	67	208.867	ug/L	7.096	3	5	14501	2	KED
	As	75	0.392	ug/L	0.017	4	5	91	5	KED
	Y	89		ug/L			275831	281135	4	Standard
	Kr	83		ug/L			40	51	29	Standard
>	In-1	115		ug/L			9714	9523	2	KED
	Cd	111	2.225	ug/L	0.117	5	2	610	5	KED
	Cd	114	2.259	ug/L	0.136	6	3	1502	4	KED
>	In	115		ug/L			369046	368740	1	Standard
	Ag	107	0.084	ug/L	0.002	2	22	1052	3	Standard
>	Tb	159		ug/L			669567	687461	0	Standard
	Pb	208	0.378	ug/L	0.003	0	60	14759	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL7
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 22:11:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	28595	1	Standard
	Cl	**37**		ug/L			5434030	5530472	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	477962	1	Standard
|	**Cr**	**52**	**-0.014**	ug/L	0.014	104	20356	20068	0	Standard
|	**Cr**	**53**	**0.294**	ug/L	0.008	2	160	729	1	Standard
|	**Fe**	**54**	**0.611**	ug/L	0.528	86	67040	67636	0	Standard
|	**Fe**	**57**	**0.356**	ug/L	1.561	438	19150	19280	3	Standard
⌊	**Mn**	**55**	**0.006**	ug/L	0.001	25	667	813	3	Standard
⌈>	**Ge**	**72**		ug/L			31347	29360	1	KED
|	**Ni**	**60**	**0.002**	ug/L	0.006	280	4	6	96	KED
|	**Ni**	**62**	**0.120**	ug/L	0.042	34	3	23	28	KED
|	**Cu**	**63**	**0.007**	ug/L	0.005	62	53	71	17	KED
|	**Cu**	**65**	**0.004**	ug/L	0.006	159	21	26	36	KED
|	**Zn**	**66**	**0.006**	ug/L	0.019	313	18	19	39	KED
|	**Zn**	**67**	**0.043**	ug/L	0.002	3	5	7	0	KED
⌊	**As**	**75**	**-0.002**	ug/L	0.007	337	5	4	32	KED
	Y	**89**		ug/L			275831	260958	1	Standard
	Kr	**83**		ug/L			40	34	17	Standard
⌈>	**In-1**	**115**		ug/L			9714	9392	1	KED
|	**Cd**	**111**	**-0.004**	ug/L	0.005	124	2	1	114	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.005	281	3	1	188	KED
⌈>	**In**	**115**		ug/L			369046	354526	1	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.000	77	22	15	33	Standard
⌈>	**Tb**	**159**		ug/L			669567	643705	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	43	60	80	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 22:15:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	26675	0	Standard
	Cl	**37**		ug/L			5434030	5528219	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	493810	1	Standard
|	**Cr**	**52**	**50.117**	ug/L	0.665	1	20356	884215	0	Standard
|	**Cr**	**53**	**50.202**	ug/L	0.930	1	160	100675	0	Standard
|	**Fe**	**54**	**5016.594**	ug/L	124.038	2	67040	6874010	1	Standard
|	**Fe**	**57**	**5150.113**	ug/L	101.540	1	19150	2911447	0	Standard
⌊	**Mn**	**55**	**46.739**	ug/L	0.951	2	667	1263485	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	29457	6	KED
|	**Ni**	**60**	**52.304**	ug/L	2.514	4	4	52903	1	KED
|	**Ni**	**62**	**51.779**	ug/L	2.442	4	3	8625	1	KED
|	**Cu**	**63**	**52.568**	ug/L	1.919	3	53	155046	2	KED
|	**Cu**	**65**	**52.715**	ug/L	3.062	5	21	77356	0	KED
|	**Zn**	**66**	**53.200**	ug/L	1.005	1	18	20939	4	KED
|	**Zn**	**67**	**51.794**	ug/L	3.595	6	5	3434	0	KED
⌊	**As**	**75**	**50.633**	ug/L	2.310	4	5	10653	1	KED
	Y	**89**		ug/L			275831	279521	1	Standard
	Kr	**83**		ug/L			40	60	41	Standard
⌈>	**In-1**	**115**		ug/L			9714	9515	0	KED
|	**Cd**	**111**	**50.014**	ug/L	0.140	0	2	13667	0	KED
⌊	**Cd**	**114**	**50.278**	ug/L	0.859	1	3	33362	1	KED
⌈>	**In**	**115**		ug/L			369046	363137	1	Standard
⌊	**Ag**	**107**	**51.848**	ug/L	0.291	0	22	629054	0	Standard
⌈>	**Tb**	**159**		ug/L			669567	680417	0	Standard
⌊	**Pb**	**208**	**52.309**	ug/L	0.087	0	60	2014368	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 22:23:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	25335	0	Standard
	Cl	**37**		ug/L			5434030	5596590	1	Standard
⎡>	**Sc**	**45**		ug/L			479414	482062	2	Standard
⎢	**Cr**	**52**	**-0.039**	ug/L	0.034	86	20356	19795	0	Standard
⎢	**Cr**	**53**	**0.228**	ug/L	0.030	13	160	606	7	Standard
⎢	**Fe**	**54**	**0.610**	ug/L	0.262	42	67040	68216	2	Standard
⎢	**Fe**	**57**	**-0.012**	ug/L	1.084	9093	19150	19244	2	Standard
⎣	**Mn**	**55**	**0.006**	ug/L	0.001	24	667	822	5	Standard
⎡>	**Ge**	**72**		ug/L			31347	29364	5	KED
⎢	**Ni**	**60**	**-0.002**	ug/L	0.001	63	4	2	43	KED
⎢	**Ni**	**62**	**0.077**	ug/L	0.055	70	3	16	58	KED
⎢	**Cu**	**63**	**0.002**	ug/L	0.004	281	53	53	17	KED
⎢	**Cu**	**65**	**0.004**	ug/L	0.003	87	21	25	15	KED
⎢	**Zn**	**66**	**-0.015**	ug/L	0.008	54	18	11	33	KED
⎢	**Zn**	**67**	**-0.034**	ug/L	0.043	127	5	2	114	KED
⎣	**As**	**75**	**0.012**	ug/L	0.009	74	5	7	19	KED
	Y	**89**		ug/L			275831	264150	1	Standard
	Kr	**83**		ug/L			40	39	26	Standard
⎡>	**In-1**	**115**		ug/L			9714	9122	1	KED
⎢	**Cd**	**111**	**-0.003**	ug/L	0.005	178	2	1	91	KED
⎣	**Cd**	**114**	**0.002**	ug/L	0.002	72	3	4	23	KED
⎡>	**In**	**115**		ug/L			369046	356328	1	Standard
⎣	**Ag**	**107**	**0.000**	ug/L	0.001	259	22	27	49	Standard
⎡>	**Tb**	**159**		ug/L			669567	650328	0	Standard
⎣	**Pb**	**208**	**0.000**	ug/L	0.000	87	60	64	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0177-04
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 22:27:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	41055	2	Standard
	Cl	37		ug/L			5434030	5461752	0	Standard
>	Sc	45		ug/L			479414	528838	2	Standard
	Cr	52	0.573	ug/L	0.054	9	20356	33015	2	Standard
	Cr	53	0.830	ug/L	0.018	2	160	1957	3	Standard
	Fe	54	87.424	ug/L	0.961	1	67040	200967	1	Standard
	Fe	57	109.349	ug/L	1.170	1	19150	86880	1	Standard
	Mn	55	5.941	ug/L	0.090	1	667	172635	1	Standard
>	Ge	72		ug/L			31347	30364	1	KED
	Ni	60	1.406	ug/L	0.079	5	4	1473	5	KED
	Ni	62	1.470	ug/L	0.234	15	3	256	15	KED
	Cu	63	34.830	ug/L	0.775	2	53	106037	0	KED
	Cu	65	35.247	ug/L	0.963	2	21	53433	1	KED
	Zn	66	29.607	ug/L	0.572	1	18	12024	0	KED
	Zn	67	27.905	ug/L	0.646	2	5	1915	2	KED
	As	75	0.398	ug/L	0.026	6	5	91	7	KED
	Y	89		ug/L			275831	275068	0	Standard
	Kr	83		ug/L			40	46	6	Standard
>	In-1	115		ug/L			9714	9269	2	KED
	Cd	111	-0.001	ug/L	0.004	570	2	2	49	KED
	Cd	114	-0.001	ug/L	0.003	273	3	2	103	KED
>	In	115		ug/L			369046	364257	0	Standard
	Ag	107	0.004	ug/L	0.001	35	22	69	24	Standard
>	Tb	159		ug/L			669567	671232	2	Standard
	Pb	208	0.042	ug/L	0.002	4	60	1641	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0177-06
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 22:32:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	41780	2	Standard
	Cl	37		ug/L			5434030	5639748	0	Standard
>	Sc	45		ug/L			479414	520243	1	Standard
	Cr	52	0.656	ug/L	0.030	4	20356	33991	1	Standard
	Cr	53	0.909	ug/L	0.030	3	160	2092	2	Standard
	Fe	54	92.382	ug/L	1.365	1	67040	204789	1	Standard
	Fe	57	113.923	ug/L	5.635	4	19150	88158	2	Standard
	Mn	55	6.424	ug/L	0.066	1	667	183587	0	Standard
>	Ge	72		ug/L			31347	31098	1	KED
	Ni	60	1.374	ug/L	0.034	2	4	1474	1	KED
	Ni	62	1.650	ug/L	0.077	4	3	294	6	KED
	Cu	63	34.313	ug/L	0.128	0	53	107017	1	KED
	Cu	65	34.908	ug/L	0.153	0	21	54216	1	KED
	Zn	66	30.632	ug/L	0.479	1	18	12744	2	KED
	Zn	67	28.759	ug/L	0.572	1	5	2021	3	KED
	As	75	0.422	ug/L	0.024	5	5	99	5	KED
	Y	89		ug/L			275831	271492	1	Standard
	Kr	83		ug/L			40	38	13	Standard
>	In-1	115		ug/L			9714	9542	0	KED
	Cd	111	0.000	ug/L	0.007	4906	2	2	78	KED
	Cd	114	0.005	ug/L	0.005	117	3	6	59	KED
>	In	115		ug/L			369046	365208	1	Standard
	Ag	107	0.004	ug/L	0.001	17	22	66	13	Standard
>	Tb	159		ug/L			669567	668389	0	Standard
	Pb	208	0.044	ug/L	0.001	1	60	1709	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0177-08
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 22:36:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	41845	1	Standard
	Cl	**37**		ug/L			5434030	5619779	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	520770	0	Standard
|	**Cr**	**52**	**0.416**	ug/L	0.016	3	20356	29668	1	Standard
|	**Cr**	**53**	**0.663**	ug/L	0.007	1	160	1573	1	Standard
|	**Fe**	**54**	**20.505**	ug/L	0.565	2	67040	102167	1	Standard
|	**Fe**	**57**	**52.724**	ug/L	1.701	3	19150	52024	1	Standard
⌊	**Mn**	**55**	**5.774**	ug/L	0.095	1	667	165257	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	30295	1	KED
|	**Ni**	**60**	**1.241**	ug/L	0.055	4	4	1296	2	KED
|	**Ni**	**62**	**1.377**	ug/L	0.066	4	3	240	4	KED
|	**Cu**	**63**	**23.834**	ug/L	0.906	3	53	72421	3	KED
|	**Cu**	**65**	**23.772**	ug/L	0.128	0	21	35976	2	KED
|	**Zn**	**66**	**18.025**	ug/L	0.405	2	18	7311	2	KED
|	**Zn**	**67**	**16.800**	ug/L	0.704	4	5	1151	2	KED
⌊	**As**	**75**	**0.425**	ug/L	0.007	1	5	97	3	KED
	Y	**89**		ug/L			275831	275781	1	Standard
	Kr	**83**		ug/L			40	30	10	Standard
⌈>	**In-1**	**115**		ug/L			9714	9425	2	KED
|	**Cd**	**111**	**0.083**	ug/L	0.025	29	2	24	25	KED
⌊	**Cd**	**114**	**0.060**	ug/L	0.004	5	3	42	6	KED
⌈>	**In**	**115**		ug/L			369046	361306	1	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	28	22	53	16	Standard
⌈>	**Tb**	**159**		ug/L			669567	675218	1	Standard
⌊	**Pb**	**208**	**0.013**	ug/L	0.002	17	60	570	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0213-02
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 22:41:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	45270	0	Standard
	Cl	**37**		ug/L			5434030	6423057	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	535282	1	Standard
|	**Cr**	**52**	**0.185**	ug/L	0.009	5	20356	26182	2	Standard
|	**Cr**	**53**	**1.055**	ug/L	0.017	1	160	2469	1	Standard
|	**Fe**	**54**	**910.585**	ug/L	4.967	0	67040	1414010	1	Standard
|	**Fe**	**57**	**901.959**	ug/L	27.005	2	19150	570275	1	Standard
⌊	**Mn**	**55**	**143.121**	ug/L	1.223	0	667	4192770	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	29742	1	KED
|	**Ni**	**60**	**0.923**	ug/L	0.046	5	4	947	3	KED
|	**Ni**	**62**	**0.978**	ug/L	0.077	7	3	168	7	KED
|	**Cu**	**63**	**1.965**	ug/L	0.094	4	53	5907	3	KED
|	**Cu**	**65**	**1.933**	ug/L	0.090	4	21	2888	2	KED
|	**Zn**	**66**	**3.457**	ug/L	0.213	6	18	1390	5	KED
|	**Zn**	**67**	**3.455**	ug/L	0.427	12	5	236	10	KED
⌊	**As**	**75**	**0.779**	ug/L	0.093	11	5	170	9	KED
	Y	**89**		ug/L			275831	273983	1	Standard
	Kr	**83**		ug/L			40	28	37	Standard
⌈>	**In-1**	**115**		ug/L			9714	9042	2	KED
|	**Cd**	**111**	**0.007**	ug/L	0.008	113	2	4	48	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.003	38	3	8	24	KED
⌈>	**In**	**115**		ug/L			369046	352016	0	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.001	23	22	81	16	Standard
⌈>	**Tb**	**159**		ug/L			669567	676307	1	Standard
⌊	**Pb**	**208**	**0.110**	ug/L	0.005	4	60	4277	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0213-04
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 22:45:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	46795	1	Standard
	Cl	**37**		ug/L			5434030	7554244	3	Standard
⌈>	**Sc**	**45**		ug/L			479414	532062	0	Standard
|	**Cr**	**52**	**0.141**	ug/L	0.004	2	20356	25208	0	Standard
|	**Cr**	**53**	**1.699**	ug/L	0.064	3	160	3844	4	Standard
|	**Fe**	**54**	**923.045**	ug/L	1.198	0	67040	1423766	0	Standard
|	**Fe**	**57**	**929.955**	ug/L	34.471	3	19150	583927	3	Standard
⌊	**Mn**	**55**	**264.435**	ug/L	0.956	0	667	7700131	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	28385	2	KED
|	**Ni**	**60**	**0.786**	ug/L	0.016	2	4	770	0	KED
|	**Ni**	**62**	**1.030**	ug/L	0.068	6	3	168	4	KED
|	**Cu**	**63**	**0.845**	ug/L	0.053	6	53	2450	4	KED
|	**Cu**	**65**	**0.884**	ug/L	0.037	4	21	1272	3	KED
|	**Zn**	**66**	**3.754**	ug/L	0.173	4	18	1439	2	KED
|	**Zn**	**67**	**3.790**	ug/L	0.174	4	5	246	3	KED
⌊	**As**	**75**	**0.625**	ug/L	0.007	1	5	131	1	KED
	Y	**89**		ug/L			275831	263611	1	Standard
	Kr	**83**		ug/L			40	41	9	Standard
⌈>	**In-1**	**115**		ug/L			9714	8829	1	KED
|	**Cd**	**111**	**0.003**	ug/L	0.002	57	2	3	17	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.005	52	3	8	35	KED
⌈>	**In**	**115**		ug/L			369046	340935	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	141	22	31	45	Standard
⌈>	**Tb**	**159**		ug/L			669567	664859	0	Standard
⌊	**Pb**	**208**	**0.053**	ug/L	0.002	3	60	2067	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0706-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 22:50:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	42720	0	Standard
	Cl	37		ug/L			5434030	6365226	2	Standard
>	Sc	45		ug/L			479414	555488	1	Standard
	Cr	52	-0.002	ug/L	0.011	636	20356	23553	1	Standard
	Cr	53	0.937	ug/L	0.017	1	160	2295	0	Standard
	Fe	54	161.945	ug/L	1.685	1	67040	324846	1	Standard
	Fe	57	246.840	ug/L	2.404	0	19150	178131	1	Standard
	Mn	55	204.686	ug/L	2.491	1	667	6222382	0	Standard
>	Ge	72		ug/L			31347	28443	0	KED
	Ni	60	2.759	ug/L	0.087	3	4	2703	2	KED
	Ni	62	2.749	ug/L	0.060	2	3	446	2	KED
	Cu	63	0.539	ug/L	0.005	0	53	1584	0	KED
	Cu	65	0.532	ug/L	0.019	3	21	775	3	KED
	Zn	66	2.501	ug/L	0.042	1	18	967	1	KED
	Zn	67	3.492	ug/L	0.227	6	5	228	6	KED
	As	75	0.525	ug/L	0.030	5	5	111	4	KED
	Y	89		ug/L			275831	266637	1	Standard
	Kr	83		ug/L			40	50	9	Standard
>	In-1	115		ug/L			9714	8809	3	KED
	Cd	111	0.020	ug/L	0.013	64	2	7	45	KED
	Cd	114	0.021	ug/L	0.012	57	3	15	44	KED
>	In	115		ug/L			369046	340380	1	Standard
	Ag	107	0.002	ug/L	0.001	49	22	46	26	Standard
>	Tb	159		ug/L			669567	657318	0	Standard
	Pb	208	0.014	ug/L	0.000	1	60	597	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0111-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 22:55:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	59884	3	Standard
	Cl	**37**		ug/L			5434030	5669777	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	516358	2	Standard
|	**Cr**	**52**	**1.245**	ug/L	0.055	4	20356	44344	1	Standard
|	**Cr**	**53**	**1.467**	ug/L	0.029	1	160	3244	1	Standard
|	**Fe**	**54**	**355.807**	ug/L	11.652	3	67040	576717	0	Standard
|	**Fe**	**57**	**352.045**	ug/L	2.845	0	19150	227341	2	Standard
⌊	**Mn**	**55**	**9.616**	ug/L	0.187	1	667	272349	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	29980	1	KED
|	**Ni**	**60**	**1.149**	ug/L	0.046	3	4	1189	4	KED
|	**Ni**	**62**	**1.097**	ug/L	0.029	2	3	189	2	KED
|	**Cu**	**63**	**8.960**	ug/L	0.041	0	53	26978	0	KED
|	**Cu**	**65**	**8.895**	ug/L	0.164	1	21	13335	2	KED
|	**Zn**	**66**	**47.324**	ug/L	0.333	0	18	18971	1	KED
|	**Zn**	**67**	**42.941**	ug/L	0.551	1	5	2906	0	KED
⌊	**As**	**75**	**0.218**	ug/L	0.012	5	5	51	5	KED
	Y	**89**		ug/L			275831	268504	1	Standard
	Kr	**83**		ug/L			40	36	24	Standard
⌈>	**In-1**	**115**		ug/L			9714	9333	2	KED
|	**Cd**	**111**	**0.015**	ug/L	0.011	75	2	6	43	KED
⌊	**Cd**	**114**	**0.016**	ug/L	0.010	60	3	13	49	KED
⌈>	**In**	**115**		ug/L			369046	352520	1	Standard
⌊	**Ag**	**107**	**0.006**	ug/L	0.001	9	22	96	7	Standard
⌈>	**Tb**	**159**		ug/L			669567	665207	1	Standard
⌊	**Pb**	**208**	**0.506**	ug/L	0.002	0	60	19093	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0177-02
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 22:59:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	41404	0	Standard
	Cl	37		ug/L			5434030	5651618	2	Standard
>	Sc	45		ug/L			479414	521973	1	Standard
	Cr	52	0.910	ug/L	0.018	1	20356	38728	0	Standard
	Cr	53	1.121	ug/L	0.017	1	160	2547	0	Standard
	Fe	54	30.643	ug/L	3.096	10	67040	116913	2	Standard
	Fe	57	52.108	ug/L	1.203	2	19150	51782	1	Standard
	Mn	55	7.451	ug/L	0.114	1	667	213537	0	Standard
>	Ge	72		ug/L			31347	29920	1	KED
	Ni	60	1.007	ug/L	0.053	5	4	1040	6	KED
	Ni	62	1.271	ug/L	0.150	11	3	219	11	KED
	Cu	63	29.578	ug/L	0.326	1	53	88768	1	KED
	Cu	65	30.487	ug/L	0.357	1	21	45555	0	KED
	Zn	66	27.008	ug/L	0.343	1	18	10812	0	KED
	Zn	67	24.660	ug/L	0.587	2	5	1668	1	KED
	As	75	0.268	ug/L	0.035	12	5	62	11	KED
	Y	89		ug/L			275831	272326	1	Standard
	Kr	83		ug/L			40	38	22	Standard
>	In-1	115		ug/L			9714	9295	1	KED
	Cd	111	0.006	ug/L	0.011	178	2	4	74	KED
	Cd	114	-0.002	ug/L	0.002	89	3	1	54	KED
>	In	115		ug/L			369046	355571	0	Standard
	Ag	107	0.003	ug/L	0.001	29	22	57	17	Standard
>	Tb	159		ug/L			669567	675424	1	Standard
	Pb	208	0.030	ug/L	0.001	3	60	1193	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0403-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 23:04:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	41060	2	Standard
	Cl	37		ug/L			5434030	5654756	0	Standard
>	Sc	45		ug/L			479414	513491	3	Standard
	Cr	52	0.925	ug/L	0.085	9	20356	38349	1	Standard
	Cr	53	1.120	ug/L	0.065	5	160	2502	4	Standard
	Fe	54	34.276	ug/L	1.702	4	67040	120119	1	Standard
	Fe	57	56.278	ug/L	2.495	4	19150	53355	2	Standard
	Mn	55	7.773	ug/L	0.268	3	667	218992	0	Standard
>	Ge	72		ug/L			31347	30175	0	KED
	Ni	60	1.035	ug/L	0.032	3	4	1078	2	KED
	Ni	62	1.015	ug/L	0.179	17	3	177	17	KED
	Cu	63	30.120	ug/L	0.361	1	53	91154	0	KED
	Cu	65	30.267	ug/L	0.375	1	21	45614	1	KED
	Zn	66	27.111	ug/L	0.513	1	18	10947	2	KED
	Zn	67	24.794	ug/L	0.662	2	5	1691	2	KED
	As	75	0.247	ug/L	0.037	14	5	58	13	KED
	Y	89		ug/L			275831	268667	1	Standard
	Kr	83		ug/L			40	34	43	Standard
>	In-1	115		ug/L			9714	9320	2	KED
	Cd	111	0.002	ug/L	0.004	222	2	2	33	KED
	Cd	114	0.004	ug/L	0.004	83	3	5	39	KED
>	In	115		ug/L			369046	353492	1	Standard
	Ag	107	0.003	ug/L	0.001	27	22	53	15	Standard
>	Tb	159		ug/L			669567	668525	1	Standard
	Pb	208	0.027	ug/L	0.001	3	60	1090	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0403-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 23:08:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	40721	2	Standard
	Cl	**37**		ug/L			5434030	5748086	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	527702	1	Standard
|	**Cr**	**52**	**24.493**	ug/L	0.259	1	20356	473346	2	Standard
|	**Cr**	**53**	**24.966**	ug/L	0.560	2	160	53588	0	Standard
|	**Fe**	**54**	**32.686**	ug/L	1.187	3	67040	121166	0	Standard
|	**Fe**	**57**	**54.834**	ug/L	1.959	3	19150	53974	1	Standard
⌊	**Mn**	**55**	**30.282**	ug/L	0.567	1	667	875044	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	29484	2	KED
|	**Ni**	**60**	**29.475**	ug/L	0.649	2	4	29892	1	KED
|	**Ni**	**62**	**28.601**	ug/L	0.642	2	3	4777	1	KED
|	**Cu**	**63**	**58.306**	ug/L	1.021	1	53	172330	0	KED
|	**Cu**	**65**	**59.482**	ug/L	2.531	4	21	87516	2	KED
|	**Zn**	**66**	**113.716**	ug/L	3.322	2	18	44787	0	KED
|	**Zn**	**67**	**106.061**	ug/L	0.360	0	5	7055	2	KED
⌊	**As**	**75**	**25.495**	ug/L	0.221	0	5	5381	1	KED
	Y	**89**		ug/L			275831	266524	1	Standard
	Kr	**83**		ug/L			40	39	21	Standard
⌈>	**In-1**	**115**		ug/L			9714	9097	0	KED
|	**Cd**	**111**	**25.338**	ug/L	1.120	4	2	6619	3	KED
⌊	**Cd**	**114**	**25.986**	ug/L	0.827	3	3	16484	2	KED
⌈>	**In**	**115**		ug/L			369046	353457	1	Standard
⌊	**Ag**	**107**	**26.331**	ug/L	0.720	2	22	310919	1	Standard
⌈>	**Tb**	**159**		ug/L			669567	669949	0	Standard
⌊	**Pb**	**208**	**28.680**	ug/L	0.348	1	60	1087529	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 23:13:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	26755	0	Standard
	Cl	**37**		ug/L			5434030	5625358	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	508098	1	Standard
|	**Cr**	**52**	**48.436**	ug/L	1.067	2	20356	880006	1	Standard
|	**Cr**	**53**	**48.369**	ug/L	0.128	0	160	99833	1	Standard
|	**Fe**	**54**	**4928.241**	ug/L	107.931	2	67040	6950522	1	Standard
|	**Fe**	**57**	**5049.062**	ug/L	52.717	1	19150	2937658	0	Standard
⌊	**Mn**	**55**	**46.541**	ug/L	0.558	1	667	1294734	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	29638	1	KED
|	**Ni**	**60**	**53.118**	ug/L	1.249	2	4	54152	1	KED
|	**Ni**	**62**	**52.615**	ug/L	1.678	3	3	8832	1	KED
|	**Cu**	**63**	**51.192**	ug/L	1.652	3	53	152096	1	KED
|	**Cu**	**65**	**52.326**	ug/L	0.497	0	21	77441	1	KED
|	**Zn**	**66**	**53.267**	ug/L	1.689	3	18	21103	2	KED
|	**Zn**	**67**	**51.023**	ug/L	1.482	2	5	3413	1	KED
⌊	**As**	**75**	**49.186**	ug/L	1.492	3	5	10428	1	KED
	Y	**89**		ug/L			275831	269186	2	Standard
	Kr	**83**		ug/L			40	36	34	Standard
⌈>	**In-1**	**115**		ug/L			9714	9188	1	KED
|	**Cd**	**111**	**50.869**	ug/L	0.739	1	2	13422	1	KED
⌊	**Cd**	**114**	**51.182**	ug/L	1.387	2	3	32787	1	KED
⌈>	**In**	**115**		ug/L			369046	345696	1	Standard
⌊	**Ag**	**107**	**52.314**	ug/L	0.568	1	22	604185	0	Standard
⌈>	**Tb**	**159**		ug/L			669567	667953	1	Standard
⌊	**Pb**	**208**	**56.231**	ug/L	0.919	1	60	2125422	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 23:20:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	25737	4	Standard
	Cl	**37**		ug/L			5434030	5713940	0	Standard
⎡>	**Sc**	**45**		ug/L			479414	492012	1	Standard
⎢	**Cr**	**52**	**-0.053**	ug/L	0.031	59	20356	19988	2	Standard
⎢	**Cr**	**53**	**0.154**	ug/L	0.035	22	160	471	15	Standard
⎢	**Fe**	**54**	**0.613**	ug/L	2.197	358	67040	69638	4	Standard
⎢	**Fe**	**57**	**1.321**	ug/L	1.246	94	19150	20395	4	Standard
⎣	**Mn**	**55**	**0.029**	ug/L	0.035	120	667	1463	64	Standard
⎡>	**Ge**	**72**		ug/L			31347	28736	2	KED
⎢	**Ni**	**60**	**0.002**	ug/L	0.000	10	4	5	0	KED
⎢	**Ni**	**62**	**0.033**	ug/L	0.031	91	3	8	53	KED
⎢	**Cu**	**63**	**-0.001**	ug/L	0.004	448	53	46	26	KED
⎢	**Cu**	**65**	**0.000**	ug/L	0.001	291	21	20	5	KED
⎢	**Zn**	**66**	**-0.014**	ug/L	0.005	32	18	11	16	KED
⎢	**Zn**	**67**	**0.047**	ug/L	0.053	114	5	7	43	KED
⎣	**As**	**75**	**-0.003**	ug/L	0.010	391	5	4	50	KED
	Y	**89**		ug/L			275831	255189	1	Standard
	Kr	**83**		ug/L			40	42	6	Standard
⎡>	**In-1**	**115**		ug/L			9714	8836	2	KED
⎢	**Cd**	**111**	**0.006**	ug/L	0.013	228	2	3	90	KED
⎣	**Cd**	**114**	**-0.002**	ug/L	0.000	12	3	1	4	KED
⎡>	**In**	**115**		ug/L			369046	346381	0	Standard
⎣	**Ag**	**107**	**0.031**	ug/L	0.028	90	22	375	85	Standard
⎡>	**Tb**	**159**		ug/L			669567	637419	1	Standard
⎣	**Pb**	**208**	**0.032**	ug/L	0.028	86	60	1236	82	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0117-02
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 23:25:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	48752	2	Standard
	Cl	37		ug/L			5434030	11772609	3	Standard
>	Sc	45		ug/L			479414	521596	1	Standard
	Cr	52	1.310	ug/L	0.038	2	20356	45978	2	Standard
	Cr	53	7.517	ug/L	0.127	1	160	16071	0	Standard
	Fe	54	528.156	ug/L	15.138	2	67040	829626	1	Standard
	Fe	57	522.616	ug/L	13.703	2	19150	330764	1	Standard
	Mn	55	15.726	ug/L	0.467	2	667	449470	1	Standard
>	Ge	72		ug/L			31347	28279	1	KED
	Ni	60	1.426	ug/L	0.008	0	4	1391	1	KED
	Ni	62	1.533	ug/L	0.131	8	3	248	7	KED
	Cu	63	10.418	ug/L	0.178	1	53	29581	2	KED
	Cu	65	10.465	ug/L	0.082	0	21	14792	0	KED
	Zn	66	62.942	ug/L	0.559	0	18	23793	0	KED
	Zn	67	56.083	ug/L	0.367	0	5	3580	1	KED
	As	75	1.060	ug/L	0.052	4	5	219	4	KED
	Y	89		ug/L			275831	270670	0	Standard
	Kr	83		ug/L			40	66	7	Standard
>	In-1	115		ug/L			9714	8705	2	KED
	Cd	111	0.036	ug/L	0.017	45	2	11	38	KED
	Cd	114	0.035	ug/L	0.013	36	3	24	33	KED
>	In	115		ug/L			369046	331910	1	Standard
	Ag	107	0.010	ug/L	0.002	24	22	132	21	Standard
>	Tb	159		ug/L			669567	667344	0	Standard
	Pb	208	1.781	ug/L	0.018	1	60	67330	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0123-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 23:29:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	43612	1	Standard
	Cl	37		ug/L			5434030	6004124	0	Standard
>	Sc	45		ug/L			479414	523533	0	Standard
	Cr	52	1.296	ug/L	0.029	2	20356	45908	1	Standard
	Cr	53	1.860	ug/L	0.024	1	160	4124	0	Standard
	Fe	54	146.110	ug/L	1.238	0	67040	283370	0	Standard
	Fe	57	146.153	ug/L	3.909	2	19150	107929	2	Standard
	Mn	55	59.417	ug/L	1.395	2	667	1702854	1	Standard
>	Ge	72		ug/L			31347	30443	0	KED
	Ni	60	1.106	ug/L	0.082	7	4	1161	7	KED
	Ni	62	1.161	ug/L	0.141	12	3	203	11	KED
	Cu	63	24.794	ug/L	0.346	1	53	75710	0	KED
	Cu	65	25.490	ug/L	0.156	0	21	38759	0	KED
	Zn	66	270.624	ug/L	2.132	0	18	110074	0	KED
	Zn	67	237.882	ug/L	0.751	0	5	16331	1	KED
	As	75	3.339	ug/L	0.043	1	5	732	1	KED
	Y	89		ug/L			275831	270341	1	Standard
	Kr	83		ug/L			40	31	13	Standard
>	In-1	115		ug/L			9714	9270	1	KED
	Cd	111	0.307	ug/L	0.021	6	2	84	6	KED
	Cd	114	0.318	ug/L	0.031	9	3	208	8	KED
>	In	115		ug/L			369046	355567	1	Standard
	Ag	107	0.010	ug/L	0.001	9	22	141	9	Standard
>	Tb	159		ug/L			669567	678690	0	Standard
	Pb	208	3.749	ug/L	0.045	1	60	144043	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0124-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 23:34:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	52921	0	Standard
	Cl	37		ug/L			5434030	5722872	1	Standard
>	Sc	45		ug/L			479414	517584	0	Standard
	Cr	52	6.017	ug/L	0.086	1	20356	130633	2	Standard
	Cr	53	6.307	ug/L	0.047	0	160	13409	0	Standard
	Fe	54	139.948	ug/L	0.825	0	67040	271390	0	Standard
	Fe	57	204.732	ug/L	3.798	1	19150	141174	0	Standard
	Mn	55	3.998	ug/L	0.039	0	667	113963	1	Standard
>	Ge	72		ug/L			31347	29378	2	KED
	Ni	60	1.528	ug/L	0.064	4	4	1548	2	KED
	Ni	62	1.613	ug/L	0.111	6	3	271	5	KED
	Cu	63	28.719	ug/L	0.570	1	53	84605	0	KED
	Cu	65	29.633	ug/L	1.195	4	21	43456	1	KED
	Zn	66	331.569	ug/L	10.146	3	18	130097	1	KED
	Zn	67	302.409	ug/L	14.935	4	5	20025	4	KED
	As	75	1.042	ug/L	0.043	4	5	223	5	KED
	Y	89		ug/L			275831	267002	1	Standard
	Kr	83		ug/L			40	53	19	Standard
>	In-1	115		ug/L			9714	8900	1	KED
	Cd	111	0.007	ug/L	0.006	83	2	4	35	KED
	Cd	114	0.013	ug/L	0.006	44	3	10	31	KED
>	In	115		ug/L			369046	342215	1	Standard
	Ag	107	0.030	ug/L	0.003	10	22	359	8	Standard
>	Tb	159		ug/L			669567	664090	0	Standard
	Pb	208	0.290	ug/L	0.000	0	60	10944	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0124-03
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 23:38:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	46449	0	Standard
	Cl	37		ug/L			5434030	5624312	2	Standard
>	Sc	45		ug/L			479414	522242	2	Standard
	Cr	52	2.938	ug/L	0.125	4	20356	75661	0	Standard
	Cr	53	3.100	ug/L	0.080	2	160	6737	0	Standard
	Fe	54	68.330	ug/L	3.983	5	67040	170966	0	Standard
	Fe	57	114.740	ug/L	5.270	4	19150	88949	0	Standard
	Mn	55	2.360	ug/L	0.096	4	667	68130	1	Standard
>	Ge	72		ug/L			31347	29107	0	KED
	Ni	60	0.990	ug/L	0.059	5	4	994	5	KED
	Ni	62	1.176	ug/L	0.094	8	3	197	8	KED
	Cu	63	27.086	ug/L	0.289	1	53	79081	1	KED
	Cu	65	27.629	ug/L	0.801	2	21	40172	3	KED
	Zn	66	26.052	ug/L	0.586	2	18	10146	1	KED
	Zn	67	25.290	ug/L	0.308	1	5	1664	0	KED
	As	75	0.853	ug/L	0.074	8	5	182	8	KED
	Y	89		ug/L			275831	268458	1	Standard
	Kr	83		ug/L			40	34	14	Standard
>	In-1	115		ug/L			9714	8889	3	KED
	Cd	111	0.002	ug/L	0.010	438	2	2	88	KED
	Cd	114	0.002	ug/L	0.007	457	3	3	117	KED
>	In	115		ug/L			369046	350807	0	Standard
	Ag	107	0.020	ug/L	0.003	14	22	260	12	Standard
>	Tb	159		ug/L			669567	671441	1	Standard
	Pb	208	0.156	ug/L	0.004	2	60	5982	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0125-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 23:43:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	44306	0	Standard
	Cl	37		ug/L			5434030	5596121	1	Standard
>	Sc	45		ug/L			479414	498257	1	Standard
	Cr	52	8.936	ug/L	0.164	1	20356	176438	0	Standard
	Cr	53	9.278	ug/L	0.292	3	160	18907	1	Standard
	Fe	54	280.422	ug/L	9.232	3	67040	453464	2	Standard
	Fe	57	276.177	ug/L	17.331	6	19150	176277	3	Standard
	Mn	55	21.233	ug/L	0.463	2	667	579528	1	Standard
>	Ge	72		ug/L			31347	29922	2	KED
	Ni	60	0.266	ug/L	0.011	4	4	277	3	KED
	Ni	62	0.350	ug/L	0.063	18	3	62	16	KED
	Cu	63	22.970	ug/L	0.398	1	53	68932	1	KED
	Cu	65	23.466	ug/L	0.087	0	21	35071	2	KED
	Zn	66	291.784	ug/L	10.373	3	18	116586	1	KED
	Zn	67	252.431	ug/L	5.288	2	5	17030	2	KED
	As	75	3.402	ug/L	0.108	3	5	732	0	KED
	Y	89		ug/L			275831	261585	0	Standard
	Kr	83		ug/L			40	44	17	Standard
>	In-1	115		ug/L			9714	9224	0	KED
	Cd	111	0.008	ug/L	0.008	98	2	4	44	KED
	Cd	114	0.015	ug/L	0.003	19	3	12	15	KED
>	In	115		ug/L			369046	344304	1	Standard
	Ag	107	0.003	ug/L	0.000	16	22	52	10	Standard
>	Tb	159		ug/L			669567	655164	1	Standard
	Pb	208	0.155	ug/L	0.004	2	60	5811	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0126-01
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Thursday, April 20, 2023 23:47:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			25789	37902	0	Standard
Cl	37		ug/L			5434030	86882668	1	Standard
> Sc	45		ug/L			479414	385531	0	Standard
Cr	52	1.398	ug/L	0.039	2	20356	35169	0	Standard
Cr	53	53.576	ug/L	1.136	2	160	83882	1	Standard
Fe	54	309.005	ug/L	5.136	1	67040	381211	0	Standard
Fe	57	526.076	ug/L	8.626	1	19150	246048	1	Standard
Mn	55	13.093	ug/L	0.365	2	667	276738	2	Standard
> Ge	72		ug/L			31347	15678	1	KED
Ni	60	1.025	ug/L	0.053	5	4	554	5	KED
Ni	62	3.045	ug/L	0.153	5	3	272	6	KED
Cu	63	3.805	ug/L	0.148	3	53	6003	2	KED
Cu	65	3.420	ug/L	0.145	4	21	2686	2	KED
Zn	66	7.315	ug/L	0.141	1	18	1541	1	KED
Zn	67	7.544	ug/L	0.164	2	5	269	3	KED
As	75	1.040	ug/L	0.115	11	5	119	10	KED
Y	89		ug/L			275831	195487	1	Standard
Kr	83		ug/L			40	3338	2	Standard
> In-1	115		ug/L			9714	5514	0	KED
Cd	111	0.025	ug/L	0.017	69	2	5	50	KED
Cd	114	0.023	ug/L	0.021	91	3	10	75	KED
> In	115		ug/L			369046	212648	0	Standard
Ag	107	0.011	ug/L	0.000	3	22	88	3	Standard
> Tb	159		ug/L			669567	457815	0	Standard
Pb	208	0.819	ug/L	0.013	1	60	21248	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0126-02
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 23:52:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	49745	3	Standard
	Cl	**37**		ug/L			5434030	6240715	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	494668	0	Standard
|	**Cr**	**52**	**0.405**	ug/L	0.020	4	20356	27995	1	Standard
|	**Cr**	**53**	**2.195**	ug/L	0.091	4	160	4568	4	Standard
|	**Fe**	**54**	**25.784**	ug/L	0.690	2	67040	104216	0	Standard
|	**Fe**	**57**	**32.582**	ug/L	0.677	2	19150	38088	0	Standard
⌊	**Mn**	**55**	**3.680**	ug/L	0.047	1	667	100298	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	30595	5	KED
|	**Ni**	**60**	**0.173**	ug/L	0.021	12	4	187	15	KED
|	**Ni**	**62**	**1.456**	ug/L	0.227	15	3	257	19	KED
|	**Cu**	**63**	**1.990**	ug/L	0.044	2	53	6149	3	KED
|	**Cu**	**65**	**1.989**	ug/L	0.087	4	21	3053	1	KED
|	**Zn**	**66**	**52.958**	ug/L	0.548	1	18	21659	4	KED
|	**Zn**	**67**	**48.788**	ug/L	3.646	7	5	3362	4	KED
⌊	**As**	**75**	**0.208**	ug/L	0.015	7	5	50	4	KED
	Y	**89**		ug/L			275831	272031	0	Standard
	Kr	**83**		ug/L			40	99	8	Standard
⌈>	**In-1**	**115**		ug/L			9714	9526	2	KED
|	**Cd**	**111**	**0.051**	ug/L	0.014	28	2	16	21	KED
⌊	**Cd**	**114**	**0.045**	ug/L	0.003	7	3	33	7	KED
⌈>	**In**	**115**		ug/L			369046	360378	0	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	28	22	61	17	Standard
⌈>	**Tb**	**159**		ug/L			669567	661396	1	Standard
⌊	**Pb**	**208**	**0.194**	ug/L	0.001	0	60	7309	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0116-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 20, 2023 23:57:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	43996	0	Standard
	Cl	37		ug/L			5434030	5790600	0	Standard
>	Sc	45		ug/L			479414	486303	3	Standard
	Cr	52	2.053	ug/L	0.101	4	20356	55441	0	Standard
	Cr	53	3.053	ug/L	0.105	3	160	6178	1	Standard
	Fe	54	1133.457	ug/L	25.717	2	67040	1581637	1	Standard
	Fe	57	1129.538	ug/L	21.190	1	19150	643893	2	Standard
	Mn	55	39.297	ug/L	0.769	1	667	1046065	2	Standard
>	Ge	72		ug/L			31347	30882	2	KED
	Ni	60	2.919	ug/L	0.094	3	4	3105	4	KED
	Ni	62	3.517	ug/L	0.086	2	3	619	4	KED
	Cu	63	14.885	ug/L	0.230	1	53	46139	3	KED
	Cu	65	15.078	ug/L	0.283	1	21	23262	1	KED
	Zn	66	213.106	ug/L	2.913	1	18	87923	1	KED
	Zn	67	191.469	ug/L	4.192	2	5	13331	0	KED
	As	75	1.851	ug/L	0.118	6	5	413	4	KED
	Y	89		ug/L			275831	271640	3	Standard
	Kr	83		ug/L			40	72	26	Standard
>	In-1	115		ug/L			9714	9494	2	KED
	Cd	111	0.040	ug/L	0.007	16	2	13	12	KED
	Cd	114	0.038	ug/L	0.011	27	3	28	23	KED
>	In	115		ug/L			369046	346765	4	Standard
	Ag	107	0.012	ug/L	0.002	18	22	163	14	Standard
>	Tb	159		ug/L			669567	661704	3	Standard
	Pb	208	2.747	ug/L	0.154	5	60	102795	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0506-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 00:01:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	40613	2	Standard
	Cl	37		ug/L			5434030	5834053	1	Standard
>	Sc	45		ug/L			479414	497231	1	Standard
	Cr	52	1.689	ug/L	0.014	0	20356	50416	2	Standard
	Cr	53	2.478	ug/L	0.026	1	160	5163	1	Standard
	Fe	54	996.432	ug/L	18.318	1	67040	1430625	1	Standard
	Fe	57	959.881	ug/L	23.014	2	19150	562512	0	Standard
	Mn	55	35.497	ug/L	0.384	1	667	966461	1	Standard
>	Ge	72		ug/L			31347	30426	1	KED
	Ni	60	2.752	ug/L	0.088	3	4	2885	4	KED
	Ni	62	3.272	ug/L	0.128	3	3	567	4	KED
	Cu	63	14.233	ug/L	0.644	4	53	43440	2	KED
	Cu	65	14.508	ug/L	0.310	2	21	22054	1	KED
	Zn	66	206.231	ug/L	1.465	0	18	83848	2	KED
	Zn	67	184.128	ug/L	5.539	3	5	12631	1	KED
	As	75	1.671	ug/L	0.109	6	5	368	4	KED
	Y	89		ug/L			275831	273901	1	Standard
	Kr	83		ug/L			40	55	16	Standard
>	In-1	115		ug/L			9714	9470	1	KED
	Cd	111	0.034	ug/L	0.006	17	2	11	12	KED
	Cd	114	0.041	ug/L	0.009	21	3	29	18	KED
>	In	115		ug/L			369046	353334	0	Standard
	Ag	107	0.010	ug/L	0.001	9	22	134	6	Standard
>	Tb	159		ug/L			669567	661668	2	Standard
	Pb	208	2.503	ug/L	0.024	0	60	93797	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0506-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 00:06:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	39651	1	Standard
	Cl	37		ug/L			5434030	5671668	1	Standard
>	Sc	45		ug/L			479414	496215	1	Standard
	Cr	52	27.347	ug/L	0.651	2	20356	494364	0	Standard
	Cr	53	27.963	ug/L	0.603	2	160	56427	1	Standard
	Fe	54	974.278	ug/L	27.780	2	67040	1397922	3	Standard
	Fe	57	944.510	ug/L	7.570	0	19150	552874	2	Standard
	Mn	55	61.020	ug/L	0.962	1	667	1657631	1	Standard
>	Ge	72		ug/L			31347	30119	1	KED
	Ni	60	30.313	ug/L	0.680	2	4	31405	1	KED
	Ni	62	29.996	ug/L	0.429	1	3	5119	0	KED
	Cu	63	41.293	ug/L	0.643	1	53	124710	1	KED
	Cu	65	41.115	ug/L	0.459	1	21	61846	2	KED
	Zn	66	295.016	ug/L	2.718	0	18	118717	1	KED
	Zn	67	267.812	ug/L	7.281	2	5	18185	1	KED
	As	75	27.138	ug/L	0.512	1	5	5850	1	KED
	Y	89		ug/L			275831	270950	2	Standard
	Kr	83		ug/L			40	71	20	Standard
>	In-1	115		ug/L			9714	9370	1	KED
	Cd	111	26.208	ug/L	0.747	2	2	7052	1	KED
	Cd	114	26.295	ug/L	0.219	0	3	17182	1	KED
>	In	115		ug/L			369046	352401	0	Standard
	Ag	107	27.151	ug/L	0.337	1	22	319706	1	Standard
>	Tb	159		ug/L			669567	663236	1	Standard
	Pb	208	31.507	ug/L	0.346	1	60	1182602	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 00:10:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	27268	0	Standard
	Cl	**37**		ug/L			5434030	5477805	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	484217	1	Standard
|	**Cr**	**52**	**49.029**	ug/L	0.896	1	20356	848628	0	Standard
|	**Cr**	**53**	**49.909**	ug/L	1.325	2	160	98141	1	Standard
|	**Fe**	**54**	**5040.686**	ug/L	80.618	1	67040	6773187	1	Standard
|	**Fe**	**57**	**5048.213**	ug/L	85.878	1	19150	2799187	1	Standard
⌊	**Mn**	**55**	**46.736**	ug/L	0.290	0	667	1239127	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	29357	1	KED
|	**Ni**	**60**	**52.695**	ug/L	0.755	1	4	53211	0	KED
|	**Ni**	**62**	**50.978**	ug/L	1.110	2	3	8477	0	KED
|	**Cu**	**63**	**52.290**	ug/L	0.475	0	53	153924	1	KED
|	**Cu**	**65**	**52.784**	ug/L	0.445	0	21	77385	2	KED
|	**Zn**	**66**	**53.957**	ug/L	1.404	2	18	21171	0	KED
|	**Zn**	**67**	**51.987**	ug/L	1.881	3	5	3446	4	KED
⌊	**As**	**75**	**50.006**	ug/L	0.493	0	5	10504	0	KED
	Y	**89**		ug/L			275831	263623	1	Standard
	Kr	**83**		ug/L			40	53	20	Standard
⌈>	**In-1**	**115**		ug/L			9714	9232	1	KED
|	**Cd**	**111**	**51.213**	ug/L	0.636	1	2	13577	0	KED
⌊	**Cd**	**114**	**50.858**	ug/L	0.830	1	3	32740	0	KED
⌈>	**In**	**115**		ug/L			369046	349917	0	Standard
⌊	**Ag**	**107**	**50.555**	ug/L	0.986	1	22	591086	2	Standard
⌈>	**Tb**	**159**		ug/L			669567	661974	0	Standard
⌊	**Pb**	**208**	**53.879**	ug/L	0.648	1	60	2018451	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 00:18:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	26376	1	Standard
	Cl	**37**		ug/L			5434030	5586411	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	467883	0	Standard
|	**Cr**	**52**	**-0.025**	ug/L	0.020	81	20356	19464	1	Standard
|	**Cr**	**53**	**0.281**	ug/L	0.018	6	160	690	5	Standard
|	**Fe**	**54**	**1.085**	ug/L	1.115	102	67040	66827	2	Standard
|	**Fe**	**57**	**0.193**	ug/L	0.772	399	19150	18793	2	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.001	25	667	720	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	28682	1	KED
|	**Ni**	**60**	**0.000**	ug/L	0.002	561	4	4	49	KED
|	**Ni**	**62**	**0.171**	ug/L	0.072	42	3	31	36	KED
|	**Cu**	**63**	**0.005**	ug/L	0.004	68	53	63	15	KED
|	**Cu**	**65**	**0.002**	ug/L	0.003	157	21	22	17	KED
|	**Zn**	**66**	**-0.014**	ug/L	0.013	88	18	11	44	KED
|	**Zn**	**67**	**-0.042**	ug/L	0.029	69	5	1	100	KED
⌊	**As**	**75**	**-0.000**	ug/L	0.005	3892	5	4	20	KED
	Y	**89**		ug/L			275831	252127	1	Standard
	Kr	**83**		ug/L			40	40	25	Standard
⌈>	**In-1**	**115**		ug/L			9714	8842	0	KED
|	**Cd**	**111**	**0.001**	ug/L	0.006	638	2	2	57	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.002	360	3	2	46	KED
⌈>	**In**	**115**		ug/L			369046	335251	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	37	22	27	10	Standard
⌈>	**Tb**	**159**		ug/L			669567	627614	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	59	60	86	20	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0126-03
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 00:22:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	51091	3	Standard
	Cl	37		ug/L			5434030	5916788	2	Standard
>	Sc	45		ug/L			479414	510655	3	Standard
	Cr	52	**0.610**	ug/L	0.063	10	20356	32523	0	Standard
	Cr	53	**1.032**	ug/L	0.043	4	160	2305	0	Standard
	Fe	54	**2354.343**	ug/L	67.568	2	67040	3372355	0	Standard
	Fe	57	**2178.998**	ug/L	62.616	2	19150	1284967	0	Standard
	Mn	55	**39.330**	ug/L	0.240	0	667	1099673	3	Standard
>	Ge	72		ug/L			31347	29689	3	KED
	Ni	60	**0.970**	ug/L	0.065	6	4	994	5	KED
	Ni	62	**1.216**	ug/L	0.094	7	3	207	3	KED
	Cu	63	**5.796**	ug/L	0.280	4	53	17278	1	KED
	Cu	65	**5.719**	ug/L	0.171	2	21	8490	1	KED
	Zn	66	**33.499**	ug/L	0.698	2	18	13296	1	KED
	Zn	67	**29.870**	ug/L	0.815	2	5	2002	1	KED
	As	75	**0.650**	ug/L	0.010	1	5	143	4	KED
	Y	89		ug/L			275831	264176	1	Standard
	Kr	83		ug/L			40	43	27	Standard
>	In-1	115		ug/L			9714	9085	1	KED
	Cd	111	**0.021**	ug/L	0.005	24	2	7	18	KED
	Cd	114	**0.032**	ug/L	0.009	27	3	23	22	KED
>	In	115		ug/L			369046	345241	1	Standard
	Ag	107	**0.008**	ug/L	0.003	33	22	114	25	Standard
>	Tb	159		ug/L			669567	662634	1	Standard
	Pb	208	**0.370**	ug/L	0.009	2	60	13920	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0127-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 00:27:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	58204	2	Standard
	Cl	**37**		ug/L			5434030	5601754	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	498174	0	Standard
|	**Cr**	**52**	**0.667**	ug/L	0.034	5	20356	32739	1	Standard
|	**Cr**	**53**	**0.829**	ug/L	0.028	3	160	1840	3	Standard
|	**Fe**	**54**	**123.962**	ug/L	2.285	1	67040	239323	0	Standard
|	**Fe**	**57**	**129.030**	ug/L	2.132	1	19150	92999	0	Standard
⌊	**Mn**	**55**	**8.829**	ug/L	0.040	0	667	241388	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	29558	1	KED
|	**Ni**	**60**	**1.036**	ug/L	0.045	4	4	1057	2	KED
|	**Ni**	**62**	**1.107**	ug/L	0.204	18	3	189	19	KED
|	**Cu**	**63**	**3.987**	ug/L	0.144	3	53	11862	3	KED
|	**Cu**	**65**	**3.916**	ug/L	0.127	3	21	5798	3	KED
|	**Zn**	**66**	**240.310**	ug/L	3.701	1	18	94907	2	KED
|	**Zn**	**67**	**217.707**	ug/L	3.289	1	5	14510	0	KED
⌊	**As**	**75**	**0.374**	ug/L	0.017	4	5	84	5	KED
	Y	**89**		ug/L			275831	258971	2	Standard
	Kr	**83**		ug/L			40	57	35	Standard
⌈>	**In-1**	**115**		ug/L			9714	9154	1	KED
|	**Cd**	**111**	**0.054**	ug/L	0.011	20	2	16	18	KED
⌊	**Cd**	**114**	**0.054**	ug/L	0.004	7	3	37	6	KED
⌈>	**In**	**115**		ug/L			369046	344894	1	Standard
⌊	**Ag**	**107**	**0.004**	ug/L	0.001	20	22	73	15	Standard
⌈>	**Tb**	**159**		ug/L			669567	650624	0	Standard
⌊	**Pb**	**208**	**0.577**	ug/L	0.001	0	60	21323	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0135-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 00:31:40
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	40114	1	Standard
	Cl	37		ug/L			5434030	5815720	0	Standard
>	Sc	45		ug/L			479414	581732	0	Standard
	Cr	52	0.353	ug/L	0.009	2	20356	31860	0	Standard
	Cr	53	1.091	ug/L	0.027	2	160	2769	2	Standard
	Fe	54	426.675	ug/L	11.330	2	67040	763306	2	Standard
	Fe	57	452.487	ug/L	4.400	0	19150	322601	1	Standard
	Mn	55	30.902	ug/L	0.246	0	667	984581	1	Standard
>	Ge	72		ug/L			31347	29180	2	KED
	Ni	60	0.379	ug/L	0.036	9	4	384	7	KED
	Ni	62	0.498	ug/L	0.116	23	3	85	21	KED
	Cu	63	0.614	ug/L	0.017	2	53	1846	2	KED
	Cu	65	0.628	ug/L	0.032	5	21	934	3	KED
	Zn	66	1.457	ug/L	0.104	7	18	584	6	KED
	Zn	67	1.584	ug/L	0.331	20	5	109	22	KED
	As	75	0.907	ug/L	0.084	9	5	194	8	KED
	Y	89		ug/L			275831	267182	0	Standard
	Kr	83		ug/L			40	45	25	Standard
>	In-1	115		ug/L			9714	9023	0	KED
	Cd	111	-0.002	ug/L	0.006	366	2	1	86	KED
	Cd	114	0.005	ug/L	0.004	92	3	5	46	KED
>	In	115		ug/L			369046	342234	0	Standard
	Ag	107	0.002	ug/L	0.001	20	22	48	11	Standard
>	Tb	159		ug/L			669567	670303	0	Standard
	Pb	208	0.217	ug/L	0.005	2	60	8286	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0135-03
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 00:36:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	42864	2	Standard
	Cl	37		ug/L			5434030	5784578	0	Standard
>	Sc	45		ug/L			479414	578821	1	Standard
	Cr	52	0.226	ug/L	0.003	1	20356	29132	2	Standard
	Cr	53	0.913	ug/L	0.030	3	160	2337	4	Standard
	Fe	54	1473.417	ug/L	5.132	0	67040	2424092	1	Standard
	Fe	57	1367.353	ug/L	15.048	1	19150	923331	2	Standard
	Mn	55	55.864	ug/L	0.484	0	667	1770309	1	Standard
>	Ge	72		ug/L			31347	28819	2	KED
	Ni	60	0.691	ug/L	0.042	6	4	689	6	KED
	Ni	62	0.629	ug/L	0.072	11	3	106	9	KED
	Cu	63	0.789	ug/L	0.032	4	53	2326	3	KED
	Cu	65	0.872	ug/L	0.050	5	21	1274	7	KED
	Zn	66	1.109	ug/L	0.105	9	18	443	8	KED
	Zn	67	1.470	ug/L	0.361	24	5	100	24	KED
	As	75	0.902	ug/L	0.058	6	5	190	7	KED
	Y	89		ug/L			275831	266688	1	Standard
	Kr	83		ug/L			40	45	8	Standard
>	In-1	115		ug/L			9714	9255	3	KED
	Cd	111	-0.002	ug/L	0.003	173	2	1	50	KED
	Cd	114	0.003	ug/L	0.006	177	3	5	75	KED
>	In	115		ug/L			369046	340047	0	Standard
	Ag	107	0.002	ug/L	0.001	29	22	46	16	Standard
>	Tb	159		ug/L			669567	677659	0	Standard
	Pb	208	0.093	ug/L	0.003	3	60	3620	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0135-05
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 00:40:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	42208	3	Standard
	Cl	37		ug/L			5434030	5739825	1	Standard
⌈>	Sc	45		ug/L			479414	564759	0	Standard
|	Cr	52	0.495	ug/L	0.031	6	20356	33725	1	Standard
|	Cr	53	1.123	ug/L	0.025	2	160	2760	2	Standard
|	Fe	54	167.819	ug/L	5.347	3	67040	339373	2	Standard
|	Fe	57	205.905	ug/L	6.710	3	19150	154811	2	Standard
⌊	Mn	55	11.753	ug/L	0.108	0	667	364009	0	Standard
⌈>	Ge	72		ug/L			31347	29177	1	KED
|	Ni	60	0.411	ug/L	0.048	11	4	415	10	KED
|	Ni	62	0.378	ug/L	0.038	10	3	66	8	KED
|	Cu	63	0.475	ug/L	0.021	4	53	1438	5	KED
|	Cu	65	0.493	ug/L	0.021	4	21	738	5	KED
|	Zn	66	0.958	ug/L	0.191	19	18	389	17	KED
|	Zn	67	1.424	ug/L	0.058	4	5	98	4	KED
⌊	As	75	0.607	ug/L	0.021	3	5	131	1	KED
	Y	89		ug/L			275831	263590	2	Standard
	Kr	83		ug/L			40	44	34	Standard
⌈>	In-1	115		ug/L			9714	9142	2	KED
|	Cd	111	-0.004	ug/L	0.005	122	2	1	114	KED
⌊	Cd	114	-0.001	ug/L	0.005	434	3	2	137	KED
⌈>	In	115		ug/L			369046	336269	1	Standard
⌊	Ag	107	0.002	ug/L	0.002	104	22	40	50	Standard
⌈>	Tb	159		ug/L			669567	662417	0	Standard
⌊	Pb	208	0.098	ug/L	0.004	3	60	3718	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0135-07
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 00:45:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	41074	2	Standard
	Cl	**37**		ug/L			5434030	5703010	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	580856	0	Standard
|	**Cr**	**52**	**0.185**	ug/L	0.011	6	20356	28404	0	Standard
|	**Cr**	**53**	**0.850**	ug/L	0.007	0	160	2196	0	Standard
|	**Fe**	**54**	**393.804**	ug/L	4.937	1	67040	709724	1	Standard
|	**Fe**	**57**	**430.080**	ug/L	6.151	1	19150	307302	1	Standard
⌊	**Mn**	**55**	**31.549**	ug/L	0.183	0	667	1003647	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	28989	0	KED
|	**Ni**	**60**	**0.489**	ug/L	0.048	9	4	492	10	KED
|	**Ni**	**62**	**0.470**	ug/L	0.063	13	3	80	13	KED
|	**Cu**	**63**	**0.592**	ug/L	0.019	3	53	1770	3	KED
|	**Cu**	**65**	**0.596**	ug/L	0.045	7	21	882	6	KED
|	**Zn**	**66**	**1.184**	ug/L	0.081	6	18	475	6	KED
|	**Zn**	**67**	**1.346**	ug/L	0.127	9	5	92	9	KED
⌊	**As**	**75**	**0.936**	ug/L	0.048	5	5	198	4	KED
	Y	**89**		ug/L			275831	262586	2	Standard
	Kr	**83**		ug/L			40	46	31	Standard
⌈>	**In-1**	**115**		ug/L			9714	8834	2	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.006	2112	2	2	65	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.003	87	3	5	39	KED
⌈>	**In**	**115**		ug/L			369046	334195	0	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	67	22	40	33	Standard
⌈>	**Tb**	**159**		ug/L			669567	666936	0	Standard
⌊	**Pb**	**208**	**0.094**	ug/L	0.002	2	60	3606	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0135-09
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 00:49:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	41799	1	Standard
	Cl	**37**		ug/L			5434030	5704418	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	583878	2	Standard
|	**Cr**	**52**	**1.013**	ug/L	0.065	6	20356	45412	1	Standard
|	**Cr**	**53**	**1.639**	ug/L	0.036	2	160	4076	4	Standard
|	**Fe**	**54**	**2822.425**	ug/L	64.736	2	67040	4607650	1	Standard
|	**Fe**	**57**	**2615.425**	ug/L	59.327	2	19150	1759387	1	Standard
⌊	**Mn**	**55**	**103.698**	ug/L	3.077	2	667	3312379	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	27979	2	KED
|	**Ni**	**60**	**1.216**	ug/L	0.053	4	4	1175	7	KED
|	**Ni**	**62**	**1.124**	ug/L	0.106	9	3	181	10	KED
|	**Cu**	**63**	**1.975**	ug/L	0.077	3	53	5583	1	KED
|	**Cu**	**65**	**1.994**	ug/L	0.106	5	21	2802	4	KED
|	**Zn**	**66**	**6.437**	ug/L	0.259	4	18	2420	1	KED
|	**Zn**	**67**	**6.885**	ug/L	0.072	1	5	438	1	KED
⌊	**As**	**75**	**1.598**	ug/L	0.072	4	5	324	2	KED
	Y	**89**		ug/L			275831	274803	1	Standard
	Kr	**83**		ug/L			40	42	22	Standard
⌈>	**In-1**	**115**		ug/L			9714	8669	4	KED
|	**Cd**	**111**	**0.014**	ug/L	0.009	68	2	5	44	KED
⌊	**Cd**	**114**	**0.013**	ug/L	0.007	55	3	10	44	KED
⌈>	**In**	**115**		ug/L			369046	336216	1	Standard
⌊	**Ag**	**107**	**0.007**	ug/L	0.002	27	22	99	22	Standard
⌈>	**Tb**	**159**		ug/L			669567	670063	1	Standard
⌊	**Pb**	**208**	**1.081**	ug/L	0.015	1	60	41059	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0135-11
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 00:54:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	40864	2	Standard
	Cl	37		ug/L			5434030	5648667	0	Standard
>	Sc	45		ug/L			479414	590688	0	Standard
	Cr	52	0.246	ug/L	0.013	5	20356	30157	0	Standard
	Cr	53	0.936	ug/L	0.026	2	160	2438	1	Standard
	Fe	54	2495.632	ug/L	64.165	2	67040	4132334	1	Standard
	Fe	57	2315.805	ug/L	34.035	1	19150	1579216	1	Standard
	Mn	55	169.483	ug/L	2.534	1	667	5478923	0	Standard
>	Ge	72		ug/L			31347	29028	1	KED
	Ni	60	0.644	ug/L	0.027	4	4	647	4	KED
	Ni	62	0.689	ug/L	0.112	16	3	116	15	KED
	Cu	63	0.811	ug/L	0.023	2	53	2410	3	KED
	Cu	65	0.832	ug/L	0.062	7	21	1224	6	KED
	Zn	66	2.694	ug/L	0.143	5	18	1061	4	KED
	Zn	67	3.083	ug/L	0.249	8	5	206	6	KED
	As	75	0.887	ug/L	0.068	7	5	188	6	KED
	Y	89		ug/L			275831	262527	0	Standard
	Kr	83		ug/L			40	50	22	Standard
>	In-1	115		ug/L			9714	8931	3	KED
	Cd	111	0.006	ug/L	0.008	134	2	3	50	KED
	Cd	114	0.011	ug/L	0.003	31	3	9	22	KED
>	In	115		ug/L			369046	335481	0	Standard
	Ag	107	0.001	ug/L	0.001	51	22	37	22	Standard
>	Tb	159		ug/L			669567	671670	1	Standard
	Pb	208	0.322	ug/L	0.010	3	60	12290	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0135-13
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 00:59:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	42848	0	Standard
	Cl	**37**		ug/L			5434030	5845413	0	Standard
⌈>	**Sc**	**45**		ug/L			479414	558052	1	Standard
|	**Cr**	**52**	**0.959**	ug/L	0.031	3	20356	42353	1	Standard
|	**Cr**	**53**	**1.627**	ug/L	0.026	1	160	3868	1	Standard
|	**Fe**	**54**	**967.232**	ug/L	29.041	3	67040	1560494	0	Standard
|	**Fe**	**57**	**1015.933**	ug/L	32.415	3	19150	666908	2	Standard
⌊	**Mn**	**55**	**62.737**	ug/L	1.303	2	667	1916180	0	Standard
⌈>	**Ge**	**72**		ug/L			31347	28000	0	KED
|	**Ni**	**60**	**2.200**	ug/L	0.031	1	4	2123	1	KED
|	**Ni**	**62**	**2.040**	ug/L	0.150	7	3	326	7	KED
|	**Cu**	**63**	**4.162**	ug/L	0.060	1	53	11727	1	KED
|	**Cu**	**65**	**4.213**	ug/L	0.132	3	21	5908	3	KED
|	**Zn**	**66**	**11.370**	ug/L	0.176	1	18	4269	1	KED
|	**Zn**	**67**	**11.013**	ug/L	0.355	3	5	699	3	KED
⌊	**As**	**75**	**0.853**	ug/L	0.032	3	5	175	3	KED
	Y	**89**		ug/L			275831	269083	3	Standard
	Kr	**83**		ug/L			40	51	12	Standard
⌈>	**In-1**	**115**		ug/L			9714	8682	1	KED
|	**Cd**	**111**	**0.035**	ug/L	0.003	8	2	11	4	KED
⌊	**Cd**	**114**	**0.029**	ug/L	0.000	1	3	20	1	KED
⌈>	**In**	**115**		ug/L			369046	332068	3	Standard
⌊	**Ag**	**107**	**0.007**	ug/L	0.001	17	22	102	17	Standard
⌈>	**Tb**	**159**		ug/L			669567	661082	0	Standard
⌊	**Pb**	**208**	**1.832**	ug/L	0.017	0	60	68604	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0135-15
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 01:03:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25789	42786	2	Standard
	Cl	37		ug/L			5434030	5706940	0	Standard
>	Sc	45		ug/L			479414	573174	3	Standard
	Cr	52	0.344	ug/L	0.054	15	20356	31194	0	Standard
	Cr	53	0.992	ug/L	0.017	1	160	2497	2	Standard
	Fe	54	1414.421	ug/L	41.625	2	67040	2306177	0	Standard
	Fe	57	1353.189	ug/L	30.113	2	19150	904555	1	Standard
	Mn	55	110.935	ug/L	1.922	1	667	3479122	1	Standard
>	Ge	72		ug/L			31347	28423	1	KED
	Ni	60	0.586	ug/L	0.003	0	4	577	1	KED
	Ni	62	0.527	ug/L	0.023	4	3	88	3	KED
	Cu	63	0.861	ug/L	0.032	3	53	2501	3	KED
	Cu	65	0.908	ug/L	0.033	3	21	1307	2	KED
	Zn	66	2.513	ug/L	0.037	1	18	970	2	KED
	Zn	67	3.039	ug/L	0.296	9	5	199	9	KED
	As	75	1.046	ug/L	0.026	2	5	217	2	KED
	Y	89		ug/L			275831	264268	2	Standard
	Kr	83		ug/L			40	41	15	Standard
>	In-1	115		ug/L			9714	8791	1	KED
	Cd	111	0.011	ug/L	0.017	155	2	5	84	KED
	Cd	114	0.004	ug/L	0.002	46	3	5	24	KED
>	In	115		ug/L			369046	331586	1	Standard
	Ag	107	0.002	ug/L	0.001	27	22	43	14	Standard
>	Tb	159		ug/L			669567	662964	0	Standard
	Pb	208	0.332	ug/L	0.008	2	60	12501	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 01:08:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	27389	0	Standard
	Cl	**37**		ug/L			5434030	5467586	2	Standard
⌈>	**Sc**	**45**		ug/L			479414	498022	1	Standard
|	**Cr**	**52**	**48.011**	ug/L	0.160	0	20356	855292	1	Standard
|	**Cr**	**53**	**48.945**	ug/L	1.180	2	160	98999	1	Standard
|	**Fe**	**54**	**4950.302**	ug/L	62.556	1	67040	6842689	0	Standard
|	**Fe**	**57**	**5111.592**	ug/L	71.223	1	19150	2914732	0	Standard
⌊	**Mn**	**55**	**46.174**	ug/L	0.614	1	667	1259081	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	28375	2	KED
|	**Ni**	**60**	**54.999**	ug/L	1.830	3	4	53668	1	KED
|	**Ni**	**62**	**54.062**	ug/L	1.118	2	3	8688	0	KED
|	**Cu**	**63**	**53.711**	ug/L	1.315	2	53	152801	2	KED
|	**Cu**	**65**	**54.094**	ug/L	2.256	4	21	76603	2	KED
|	**Zn**	**66**	**54.563**	ug/L	1.167	2	18	20694	1	KED
|	**Zn**	**67**	**51.937**	ug/L	2.180	4	5	3326	3	KED
⌊	**As**	**75**	**50.497**	ug/L	1.184	2	5	10250	0	KED
	Y	**89**		ug/L			275831	256036	1	Standard
	Kr	**83**		ug/L			40	46	13	Standard
⌈>	**In-1**	**115**		ug/L			9714	8784	2	KED
|	**Cd**	**111**	**51.595**	ug/L	1.072	2	2	13011	0	KED
⌊	**Cd**	**114**	**51.451**	ug/L	1.991	3	3	31497	1	KED
⌈>	**In**	**115**		ug/L			369046	334149	1	Standard
⌊	**Ag**	**107**	**51.133**	ug/L	0.266	0	22	570899	1	Standard
⌈>	**Tb**	**159**		ug/L			669567	661769	0	Standard
⌊	**Pb**	**208**	**57.640**	ug/L	1.003	1	60	2158672	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 01:15:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	27237	0	Standard
	Cl	**37**		ug/L			5434030	5536923	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	472270	2	Standard
|	**Cr**	**52**	**-0.044**	ug/L	0.034	77	20356	19325	0	Standard
|	**Cr**	**53**	**0.112**	ug/L	0.001	1	160	373	2	Standard
|	**Fe**	**54**	**-1.042**	ug/L	1.147	110	67040	64683	3	Standard
|	**Fe**	**57**	**1.495**	ug/L	0.255	17	19150	19666	2	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	80	667	635	1	Standard
⌈>	**Ge**	**72**		ug/L			31347	26198	10	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.002	338	4	3	69	KED
|	**Ni**	**62**	**0.035**	ug/L	0.014	40	3	8	13	KED
|	**Cu**	**63**	**-0.001**	ug/L	0.006	691	53	41	40	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.005	125	21	12	52	KED
|	**Zn**	**66**	**0.001**	ug/L	0.015	2915	18	15	42	KED
|	**Zn**	**67**	**-0.027**	ug/L	0.039	143	5	2	86	KED
⌊	**As**	**75**	**0.005**	ug/L	0.004	80	5	5	9	KED
	Y	**89**		ug/L			275831	248402	0	Standard
	Kr	**83**		ug/L			40	38	31	Standard
⌈>	**In-1**	**115**		ug/L			9714	8577	1	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.006	227	2	1	91	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.004	133	3	4	49	KED
⌈>	**In**	**115**		ug/L			369046	323373	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	24	22	34	9	Standard
⌈>	**Tb**	**159**		ug/L			669567	624109	1	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	151	60	66	20	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 01:19:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	39112	2	Standard
	Cl	**37**		ug/L			5434030	5823002	2	Standard
⎡>	**Sc**	**45**		ug/L			479414	568485	0	Standard
⎢	**Cr**	**52**	**0.014**	ug/L	0.035	253	20356	24415	2	Standard
⎢	**Cr**	**53**	**0.120**	ug/L	0.018	14	160	466	8	Standard
⎢	**Fe**	**54**	**114.466**	ug/L	0.450	0	67040	258288	0	Standard
⎢	**Fe**	**57**	**2.290**	ug/L	0.570	24	19150	24189	1	Standard
⎣	**Mn**	**55**	**0.030**	ug/L	0.000	1	667	1715	1	Standard
⎡>	**Ge**	**72**		ug/L			31347	31013	1	KED
⎢	**Ni**	**60**	**0.021**	ug/L	0.039	184	4	27	155	KED
⎢	**Ni**	**62**	**0.043**	ug/L	0.049	112	3	11	76	KED
⎢	**Cu**	**63**	**0.028**	ug/L	0.046	165	53	140	104	KED
⎢	**Cu**	**65**	**0.026**	ug/L	0.038	146	21	62	96	KED
⎢	**Zn**	**66**	**0.006**	ug/L	0.020	317	18	20	41	KED
⎢	**Zn**	**67**	**-0.027**	ug/L	0.015	57	5	3	34	KED
⎣	**As**	**75**	**0.011**	ug/L	0.027	233	5	7	78	KED
	Y	**89**		ug/L			275831	283658	0	Standard
	Kr	**83**		ug/L			40	41	12	Standard
⎡>	**In-1**	**115**		ug/L			9714	9519	0	KED
⎢	**Cd**	**111**	**-0.002**	ug/L	0.006	278	2	1	86	KED
⎣	**Cd**	**114**	**0.000**	ug/L	0.004	4355	3	3	92	KED
⎡>	**In**	**115**		ug/L			369046	365465	1	Standard
⎣	**Ag**	**107**	**0.001**	ug/L	0.001	122	22	31	33	Standard
⎡>	**Tb**	**159**		ug/L			669567	715751	0	Standard
⎣	**Pb**	**208**	**0.001**	ug/L	0.000	36	60	85	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 01:24:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	39038	0	Standard
	Cl	**37**		ug/L			5434030	5791821	2	Standard
⎡>	**Sc**	**45**		ug/L			479414	573095	0	Standard
⎢	**Cr**	**52**	**-0.013**	ug/L	0.027	212	20356	24081	1	Standard
⎢	**Cr**	**53**	**0.105**	ug/L	0.010	9	160	435	4	Standard
⎢	**Fe**	**54**	**113.197**	ug/L	3.185	2	67040	258395	2	Standard
⎢	**Fe**	**57**	**2.454**	ug/L	1.012	41	19150	24490	2	Standard
⎣	**Mn**	**55**	**0.027**	ug/L	0.001	1	667	1653	0	Standard
⎡>	**Ge**	**72**		ug/L			31347	31223	0	KED
⎢	**Ni**	**60**	**0.004**	ug/L	0.004	89	4	8	44	KED
⎢	**Ni**	**62**	**0.011**	ug/L	0.011	99	3	5	33	KED
⎢	**Cu**	**63**	**0.001**	ug/L	0.002	245	53	55	9	KED
⎢	**Cu**	**65**	**0.008**	ug/L	0.003	40	21	33	14	KED
⎢	**Zn**	**66**	**0.006**	ug/L	0.004	70	18	20	9	KED
⎢	**Zn**	**67**	**0.018**	ug/L	0.041	225	5	6	45	KED
⎣	**As**	**75**	**0.004**	ug/L	0.013	297	5	6	46	KED
	Y	**89**		ug/L			275831	286548	1	Standard
	Kr	**83**		ug/L			40	33	21	Standard
⎡>	**In-1**	**115**		ug/L			9714	9781	1	KED
⎢	**Cd**	**111**	**-0.006**	ug/L	0.003	58	2	0	100	KED
⎣	**Cd**	**114**	**-0.001**	ug/L	0.003	360	3	2	88	KED
⎡>	**In**	**115**		ug/L			369046	367116	3	Standard
⎣	**Ag**	**107**	**0.000**	ug/L	0.000	479	22	23	16	Standard
⎡>	**Tb**	**159**		ug/L			669567	718715	1	Standard
⎣	**Pb**	**208**	**0.000**	ug/L	0.000	109	60	70	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 01:29:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	39564	1	Standard
	Cl	**37**		ug/L			5434030	5720177	2	Standard
⎡>	**Sc**	**45**		ug/L			479414	567841	1	Standard
⎢	**Cr**	**52**	**-0.011**	ug/L	0.026	231	20356	23880	0	Standard
⎢	**Cr**	**53**	**0.095**	ug/L	0.012	12	160	409	8	Standard
⎢	**Fe**	**54**	**113.762**	ug/L	3.744	3	67040	256828	0	Standard
⎢	**Fe**	**57**	**0.067**	ug/L	0.609	905	19150	22721	0	Standard
⎣	**Mn**	**55**	**0.030**	ug/L	0.001	3	667	1712	1	Standard
⎡>	**Ge**	**72**		ug/L			31347	31188	1	KED
⎢	**Ni**	**60**	**0.002**	ug/L	0.001	63	4	6	17	KED
⎢	**Ni**	**62**	**0.007**	ug/L	0.006	79	3	5	21	KED
⎢	**Cu**	**63**	**0.002**	ug/L	0.002	93	53	58	8	KED
⎢	**Cu**	**65**	**0.007**	ug/L	0.006	87	21	31	29	KED
⎢	**Zn**	**66**	**0.005**	ug/L	0.027	593	18	20	56	KED
⎢	**Zn**	**67**	**-0.027**	ug/L	0.031	113	5	3	69	KED
⎣	**As**	**75**	**0.002**	ug/L	0.007	337	5	5	30	KED
	Y	**89**		ug/L			275831	283500	2	Standard
	Kr	**83**		ug/L			40	42	29	Standard
⎡>	**In-1**	**115**		ug/L			9714	9779	2	KED
⎢	**Cd**	**111**	**-0.005**	ug/L	0.005	118	2	1	114	KED
⎣	**Cd**	**114**	**-0.002**	ug/L	0.003	149	3	1	100	KED
⎡>	**In**	**115**		ug/L			369046	365799	1	Standard
⎣	**Ag**	**107**	**0.000**	ug/L	0.000	259	22	24	16	Standard
⎡>	**Tb**	**159**		ug/L			669567	719655	0	Standard
⎣	**Pb**	**208**	**0.000**	ug/L	0.000	34	60	76	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 01:33:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	27279	0	Standard
	Cl	**37**		ug/L			5434030	5159244	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	438355	1	Standard
|	**Cr**	**52**	**-0.070**	ug/L	0.042	59	20356	17535	3	Standard
|	**Cr**	**53**	**0.096**	ug/L	0.017	18	160	317	8	Standard
|	**Fe**	**54**	**-31.170**	ug/L	0.435	1	67040	23755	1	Standard
|	**Fe**	**57**	**-1.342**	ug/L	1.038	77	19150	16837	2	Standard
⌊	**Mn**	**55**	**0.025**	ug/L	0.003	10	667	1212	4	Standard
⌈>	**Ge**	**72**		ug/L			31347	27108	0	KED
|	**Ni**	**60**	**-0.002**	ug/L	0.000	0	4	1		KED
|	**Ni**	**62**	**0.036**	ug/L	0.014	39	3	8	24	KED
|	**Cu**	**63**	**-0.006**	ug/L	0.002	32	53	31	15	KED
|	**Cu**	**65**	**0.004**	ug/L	0.002	51	21	24	12	KED
|	**Zn**	**66**	**0.026**	ug/L	0.017	63	18	25	22	KED
|	**Zn**	**67**	**0.053**	ug/L	0.001	1	5	7	0	KED
⌊	**As**	**75**	**-0.008**	ug/L	0.009	112	5	3	55	KED
	Y	**89**		ug/L			275831	231269	1	Standard
	Kr	**83**		ug/L			40	36	18	Standard
⌈>	**In-1**	**115**		ug/L			9714	8101	1	KED
|	**Cd**	**111**	**-0.006**	ug/L	0.005	73	2	0	173	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.005	547	3	3	93	KED
⌈>	**In**	**115**		ug/L			369046	309318	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	588	22	17	52	Standard
⌈>	**Tb**	**159**		ug/L			669567	584475	1	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	41	60	38	18	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 01:38:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	26489	1	Standard
	Cl	**37**		ug/L			5434030	5174787	3	Standard
⎡>	**Sc**	**45**		ug/L			479414	432773	1	Standard
⎢	**Cr**	**52**	**-0.067**	ug/L	0.009	12	20356	17361	1	Standard
⎢	**Cr**	**53**	**0.090**	ug/L	0.002	2	160	302	2	Standard
⎢	**Fe**	**54**	**-31.296**	ug/L	0.613	1	67040	23298	1	Standard
⎢	**Fe**	**57**	**0.022**	ug/L	1.632	7374	19150	17303	5	Standard
⎣	**Mn**	**55**	**0.021**	ug/L	0.003	12	667	1101	4	Standard
⎡>	**Ge**	**72**		ug/L			31347	26182	1	KED
⎢	**Ni**	**60**	**-0.001**	ug/L	0.001	96	4	2	43	KED
⎢	**Ni**	**62**	**0.051**	ug/L	0.045	87	3	10	61	KED
⎢	**Cu**	**63**	**-0.006**	ug/L	0.002	29	53	29	15	KED
⎢	**Cu**	**65**	**-0.003**	ug/L	0.004	172	21	14	39	KED
⎢	**Zn**	**66**	**0.005**	ug/L	0.006	116	18	17	11	KED
⎢	**Zn**	**67**	**0.046**	ug/L	0.074	160	5	6	62	KED
⎣	**As**	**75**	**0.000**	ug/L	0.010	3299	5	4	44	KED
	Y	**89**		ug/L			275831	226751	1	Standard
	Kr	**83**		ug/L			40	29	29	Standard
⎡>	**In-1**	**115**		ug/L			9714	7995	2	KED
⎢	**Cd**	**111**	**-0.004**	ug/L	0.003	70	2	1	43	KED
⎣	**Cd**	**114**	**-0.002**	ug/L	0.002	83	3	1	94	KED
⎡>	**In**	**115**		ug/L			369046	302033	1	Standard
⎣	**Ag**	**107**	**0.000**	ug/L	0.000	90	22	19	5	Standard
⎡>	**Tb**	**159**		ug/L			669567	578427	0	Standard
⎣	**Pb**	**208**	**-0.001**	ug/L	0.000	0	60	32	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 21, 2023 01:42:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\042023.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25789	27291	2	Standard
	Cl	**37**		ug/L			5434030	5054152	1	Standard
⌈>	**Sc**	**45**		ug/L			479414	421411	1	Standard
|	**Cr**	**52**	**-0.024**	ug/L	0.026	107	20356	17531	0	Standard
|	**Cr**	**53**	**0.098**	ug/L	0.009	9	160	308	4	Standard
|	**Fe**	**54**	**-30.698**	ug/L	0.768	2	67040	23377	2	Standard
|	**Fe**	**57**	**1.011**	ug/L	0.723	71	19150	17315	1	Standard
⌊	**Mn**	**55**	**0.018**	ug/L	0.002	10	667	993	2	Standard
⌈>	**Ge**	**72**		ug/L			31347	25839	0	KED
|	**Ni**	**60**	**0.001**	ug/L	0.005	608	4	4	107	KED
|	**Ni**	**62**	**0.013**	ug/L	0.033	246	3	5	94	KED
|	**Cu**	**63**	**-0.004**	ug/L	0.001	20	53	33	6	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.004	89	21	11	50	KED
|	**Zn**	**66**	**0.022**	ug/L	0.035	155	18	22	52	KED
|	**Zn**	**67**	**0.048**	ug/L	0.094	196	5	6	78	KED
⌊	**As**	**75**	**0.002**	ug/L	0.003	110	5	4	10	KED
	Y	**89**		ug/L			275831	227189	0	Standard
	Kr	**83**		ug/L			40	34	14	Standard
⌈>	**In-1**	**115**		ug/L			9714	7889	1	KED
|	**Cd**	**111**	**0.003**	ug/L	0.008	238	2	2	66	KED
⌊	**Cd**	**114**	**-0.005**	ug/L	0.000	1	3	0	43	KED
⌈>	**In**	**115**		ug/L			369046	301898	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	108	22	23	23	Standard
⌈>	**Tb**	**159**		ug/L			669567	575110	1	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	8	60	33	3	Standard

INITIAL CALIBRATION DATA

EPA 6020B

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00066	Instrument:	ICPMS1
Calibration Date:	04/25/2023 17:12		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Silver-107	0	0	0.2	17655	10	19702.4	20	19006.1	50	17491.44	100	16923.58
Chromium-52	0	0	0.5	59484	10	24946.5	20	24307.75	50	21613.48	100	21235.22
Chromium-53	0	0	0.5	2936	10	2697.5	20	2702.7	50	2489.26	100	2398.36
Lead-208	0	0	0.1	49050	10	49166.5	20	49469.15	50	45013.4	100	43940.65

INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC
Instrument: ICPMS1
Calibration: GD00066
Calibration Date: 4/25/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107	15129.75	49.5	0.9992		0.998	
Chromium-52	25264.49	75.9	0.9995		0.998	
Chromium-53	2203.97	49.7	0.9992		0.998	
Lead-208	39439.95	49.4	0.9993		0.998	

INITIAL CALIBRATION DATA

EPA 6020B UCT-KED

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GD00066	Instrument:	ICPMS1
Calibration Date:	04/25/2023 17:12		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Arsenic-75a	0	0	0.2	380	10	359.1	20	357.15	50	333.62	100	340.65
Cadmium-111	0	0	0.1	390	10	347.1	20	337.55	50	333.52	100	336.31
Cadmium-114	0	0	0.1	1130	10	897.2	20	864.75	50	848.26	100	863.55
Copper-63	0	0	0.5	5256	10	5235.9	20	5161	50	4708.78	100	4877.15
Copper-65	0	0	0.5	2688	10	2642.5	20	2575.3	50	2350.34	100	2378.82
Zinc-66	0	0	6	672.6667	10	681.4	20	691.5	50	625.9	100	638.99
Zinc-67	0	0	6	104.3333	10	116.8	20	119.4	50	101.22	100	103.41

INITIAL CALIBRATION DATA

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Instrument: ICPMS1
Calibration: GD00066
Calibration Date: 4/25/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a	295.0867	49.3	0.9997		0.998	
Cadmium-111	290.7467	49.5	1.0000		0.998	
Cadmium-114	767.2933	50.9	0.9999		0.998	
Copper-63	4206.472	49.3	0.9994		0.998	
Copper-65	2105.827	49.4	0.9996		0.998	
Zinc-66	551.7428	49.2	0.9996		0.998	
Zinc-67	90.86056	49.7	0.9987		0.998	

Analytical Resources, Incorporated
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ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 4/25/23 **Analyst:** MB **Sequence:** SLD037Φ **Cal:** GDΦΦΦ66

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	SEQ-CAL1			
		-CAL2			
		-CAL3			Se noisy
		-CAL4			
		-CAL5			Sc, Ni[62], Cd[111], Ag, Ba[135] sl. noisy
		-CAL6			Be noisy / Li, Sc group, Sb, Ba, Tb sl. noisy / VSI↑
		-IBL1			DD Cal.B
		SEQ-CAL1	L3725		
		-CAL2	L4627		Li, In sl. noisy - %R ↑Analytes OK
		-CAL3	L4628		Mo, Cd sl. noisy - int, R-Values + QC OK
		-CAL4	L4629		
		-CAL5	L4624		
		-CAL6	L4630		Li, Be, Sc group, In, Ba[137] sl. noisy - int, R-Values + QC OK
		-IBL1	—		
	✓	-ICV1	—		In[-1], Cd, Mo noisy / sl. noisy
		-ICV1	L3575		
		-ICB1	L3725		In[-1] sl. noisy - %R ↑Analytes OK
		-CCV1	L4624		
		-CCB1	L3725		
		-CRL1	L4627		
		-IFA1	L3578		V[-1], Cr[53]↑
		-IFB1	L3579		↓ / Li sl. noisy - %R ↑Analytes OK
		-HCV1	L3671		
		-HCV2	L3672		Li, Sc sl. noisy - %R ↑ Analytes OK

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ICP/MS - 01 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 85DN5032601

Analysis Date: 4/25/23 **Analyst:** MB **Sequence:** _____ **Cal:** _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-IBL2+3			
		↓ -CCV2			Mo, Cd114 sl. noisy - Values OK
		↓ -CCB2			Sc sl. noisy - %R + Analytes OK
		BLDΦ249-BLK3	REN		Tl only
		↓ -BS3	↓		↓
		BLDΦ644-BLK2			As, Be, Mo, Sb only
		↓ -BS2			↓
		230ΦSΦ9-Φ1			+ Ag
		BLDΦ644-DUP2			↓
		↓ -MS2			↓
		↓ -MSD2	↓		↓
		SEQ-IBL4			
		↓ -CCV3			Cu63, Zn66 sl. noisy - Values OK
		↓ -CCB3			Sc noisy / Li, In sl. noisy - %R + Analytes OK
		BLDΦ592-BLK2	REN		Li sl. noisy - %R + Analytes OK As, Be, Sb only
	✓	↓ -BS2			Li, Sc groups noisy / In, Tb groups sl. noisy
		BLDΦ660-BLK1			In sl. noisy - %R + Analytes OK / Mn↑ (1.358) - sample >10x
		↓ -BS1			
		BLDΦ592-BS2			As, Be, Sb only
		230ΦS38-Φ1		5	Mn sl. noisy Mn NR
	✓	↓ -Φ1	↓	2	Li↑ / Mn noisy / Sc, Br, In, Tb sl. noisy
		SEQ-IBL5			
	✓	BLDΦ660-BLK1	REN		Mn↑
		SEQ-CCV4			Be sl. noisy - Value OK

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ICP/MS - 01 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 85DN5032601

Analysis Date: 4/25/23 **Analyst:** MB/SD **Sequence:** _____ **Cal:** _____

All corrections made by analyst unless otherwise noted. MB 4/25/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCB4			
		BLD0181-BLK2	REN		Ag, Co, Pb, Sb, Tl, V only
		↓ -BS2	↓		↓
		BLD0559-BLK2			Sb, Se, Tl only
		↓ -BS2			↓
		23D0165-01			Tl only
		BLD0249-DUP4			↓
		↓ -MS4			
		23D0538-01RE1		10	Sc sl. noisy - %R Analytes OK / Mn >10X cont. / Mn only
		23D0397-01	↓	2	Li, In-1 sl. noisy - %R Analytes OK; Ag, As, Be, Cr, Mn Mo, Pb, Sb, Tl only
		SEQ-IBL6			
		-CCV5			Ba^{137}↑ Int Ba^{137} sl. noisy
		-CCB5			
	✓	-CAL1			In^{-1} noisy - int OK
		-CCV6			Ba^{137}↑ Li & Ni^{62} sl. noisy
		-CCB6			
		BLD0347-BLK1	REN		No Ba
		↓ -BS1	↓		Sc sl. noisy - %R + Analytes OK; ↓
		BLD0232-BLK1			~~Ni~~ Ni_2 > ½ RL / Li, Sc sl. noisy - %R Analytes OK / ↑
		↓ -BS1			Cd, In noisy; No Ag, Cd, Ni, Sb
	✓	22C0648-02			Sc↑ not needed / Ge noisy
		↓ -01			↓ As only
C→D		23D0137-01			/ Ge sl. noisy - %R + Analytes OK; Ag, As, Be, Pb Sb, Tl only
		BLD0592-DUP2	↓		↓ ↓

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ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 4/25/23 **Analyst:** SD/MS **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted. MS 4/25/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLD0592-MS2	REN		Ag, As, Be, Pb Sb, Tl only
		SEQ-IBL7			
		-CCV7			Li, Sc, In, Tb groups sl. noisy - %R & values OK
		-CCB7			Li + Sc noisy; Ge sl. noisy - %R & analytes OK
		23C0674-02	REN		As, Tl only
		-01		2	Ge group noisy Tl only
C→D		23D0358-01			Li↑ - Not Needed As, Cr, Pb only
		-02			↓
		-03			Sc group noisy As, Pb only
		23C0647-01		20	Cr only
C→D		23D0346-01			
		23C0714-01		10	
		SEQ-IBL8			(V-1, Cr-52↑)
		-IBL9			
		-CCV8			Be noisy - int. std. & value OK V-1 sl. noisy
		-CCB8			
		BLD01608-BK1	SWN	20	
		-BS1			In-1 noisy/ Cd sl. noisy No Cd
		23D0124-03	REN		Pb only
		23C0673-01	SWN	20	Sc↑ No Cr
		-02			
		23D0027-02			
		-01			
		BLD01608-DUP1			

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ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 4/25/23 **Analyst:** SD **Sequence:** ~~_____~~ **Cal:** ~~_____~~

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLD0168-MS1	SWN	20	
		SEQ-IBLA			
		-CCV9			Ba 137↑ - Not Needed
		-CCB9			
	✓	-CAL1			
		-CCVA			In noisy - %R & analytes OK Sl.
		-CCBA			Li, Sc, & Tb Sl. noisy - %R & analytes OK
		23D0235-01	REN		Mn↑ No Mn
		BLD0660-DUP1	↓		↓ ↓
		↓ -MS1	↓		↓ ↓
		SEQ-IBLB			
		23A0328-02	SWN	50	Cr only
		BLD0289-DUP2	↓	↓	↓
		-MS2	↓	↓	
		-MSD2	↓	↓	
		↓ -PS2	↓	↓	Wet K7409 ↓
		SEQ-IBLC			
		-CCVB			Li & Sc Sl. noisy - %R & analytes OK Ba 137↑ - Not Needed
		↓ -CCBB			
		23C0512-01	REN		As, Pb, Se, Tl only
		-02	↓		↓
		-03	↓		
		-04	↓		
		↓ -05	↓		↓

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ICP/MS - 01 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 85DN5032601

Analysis Date: 4/25/23 **Analyst:** SD/MS **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23C0512-06	REN		Tl only
		BLD0067-DUP4	↓		↓
		↓ -MS4	↓		↓
		↓ -MSD4	↓		↓
		SEQ-IBLD			
		↓ -CCVC			Be, Mn, *Cd[111] sl. noisy - %R, int. std. %value OK
		↓ -CCBC			In sl. noisy - %R + analytes OK
		23C0678-02	REN	5	In sl. noisy - %R + Analytes OK
		↓ -12	↓	↓	Li, Sc, Tb sl. noisy - %R + Analytes OK
		↓ -13	↓	↓	In sl. noisy - %R + Analytes OK
		↓ -18	↓	10	
		SEQ-IBLE			
		23C0678-01	REN	10	
		↓ -11	↓	↓	
		↓ -10	↓	20	
		↓ -17	↓	↓	
		SEQ-IBLF			
		↓ -CCVD			Ni[60] sl. noisy - Value OK
		↓ -CCBD			In sl. noisy - %R + analytes OK
		23D0085-01	REN		Pb >10x BLK cont.
		23D0086-01	↓	20	↓
		23D0062-01	↓		Re-prep for Pb — Pb NR
		↓ -03	↓	↓	↓
		↓ -05	↓	↓	↓

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ICP/MS - 01 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 4/25/23 **Analyst:** SD/MS **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted. MS 4/25/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23D0062-07	REN		~~Pb NR~~ Re-prep for Pb — Pb NR
		BLD0472-DUP1	↓		↓
		-MS1			
		↓ -MSD1			
		SEQ-IBLG			
		-CCVE			Li+Sc groups sl. noisy - %R's values OK
		-CCBE			
	✓	-CAL1			
		-CCVF			
		↓ -CCBF			
		23C0658-02	REN		No Ba
		↓ -04	↓		↓
		23D0089-01			Pb Re-prep — Pb NR
		23D0441-01		2	
		↓ -02		↓	
		23D0433-01			Li↑ - Not Needed
		-02			↓
		-03			
		↓ -04	↓	↓	
		SEQ-IBLH			
		-CCVG			Mo+Ba↑ +J1
		↓ -CCBG			
		BLD0365-BLK1	SWN	20	
		↓ -BS1	↓	↓	In↑ noisy — No Cd

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 01 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 85DN5032601

Analysis Date: 4/25/23 **Analyst:** SD/MS **Sequence:** — **Cal:** —

All corrections made by analyst unless otherwise noted. MSU 4/25/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23C0735-01	REN	10	No Ba, Tl
		23C0658-06	↓	↓	No Ba ↓
		23C0678-09	↓	↓	No Tl ↓
		↓ -08	↓	↓	↓
		23C0732-01	↓	↓	Li, Sc sl. noisy - %R of Analytes OK
		23C0741-01	↓	↓	↓
		23C0699-02	↓	↓	No Mo
		SEQ-IBL1			
		↓ -CCV1			Li & Ba137 sl. noisy, Tl noisy Mo & Ba ↑
		↓ -CCB1			
		23C0736-01	REN		No Ba, Tl
		↓ -03	↓	↓	↓
		-05	↓	↓	
		-07	↓	↓	
		-11	↓	↓	
		↓ -09	↓	↓	
		BLD0347-DUP1	↓	↓	Li, Sc, Tb sl. noisy - %R of Analytes OK
		↓ -MS1	↓	↓	
		↓ -MSD1	↓	↓	↓
		SEQ-IBL3			
		↓ -CCV1			Ba, Mo ↑ / Tl noisy
		↓ -CCB1			
		BLD0381-BLK1	REN		Sc sl. noisy - %R of Analytes OK
		↓ -BS1	↓		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 01 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 85DN5032601

Analysis Date: 4/25/23 **Analyst:** MS **Sequence:** ——— **Cal:** ———

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLD0382-BLK1	REN		
		↓ -BS1	↓		
		23C0751-02		2	
		↓ -01		↓	
		BLD0382-DUP1			
		↓ -MS1	↓	↓	
		SEQ-IBLK			
		↓ -CCVJ			Ba, Mo↑
		↓ -CCBJ			
		Rinse/DI			
			MS 4/25/23		

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, April 25, 2023 14:34:49
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.020
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	261.7	261.669	13.810	5.3	Standard
	In	114.9	2491.7	2491.684	56.647	2.3	Standard
	U	238.1	5074.6	5074.568	88.593	1.7	Standard
⌈	CeO	155.9	87.5	0.035	0.003	7.6	Standard
| >	Ce	139.9	2515.2	2515.155	77.333	3.1	Standard
⌊	Ce++	70.0	32.7	0.013	0.001	10.9	Standard
	Bkgd	220.0	6.7	6.733	0.742	11.0	Standard

Current Conditions File Data

Current Value	Description
0.89	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.90	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 4/25/2023 2:34:48 PM
End Time: 4/25/2023 2:44:33 PM

STD Performance Check - [Failed]
- Obtained Intensity (Be 9): 261.67 - <Target not achieved>
- Obtained Intensity (In 115): 2491.68 - <Target not achieved>
- Obtained Intensity (U 238): 5074.57 - <Target not achieved>
- Obtained Intensity (Bkgd 220): 6.73 - <Target not achieved>
- Obtained Formula (Ce++ 70 / Ce 140): 0.013 (=32.67 / 2515.15)
- Obtained Formula (CeO 156 / Ce 140): 0.035 (=87.53 / 2515.15) - <Target not achieved>
- Obtained RSD (Be 9): 0.0528 - <Target not achieved>
- Obtained RSD (In 115): 0.0227
- Obtained RSD (U 238): 0.0175

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
1.31 mm	1.12 mm	67468.95

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.91
- Obtained Intensity (In 115): 88499.28
- Obtained Formula (CeO 156 / Ce 140): 0.0244 (=2824.28 / 115935.54)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
- Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.725)
- Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.722)
- Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.717)
- Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.728)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -14.59

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.989; Intercept = -13.27

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 4/25/2023 2:34:48 PM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 5
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025
		RSD Criterion: Be 9.0122 < 0.05
		RSD Criterion: In 114.904 < 0.05
		RSD Criterion: U 238.05 < 0.05

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 261.67 - <Target not achieved>
		Obtained Intensity (In 115): 2491.68 - <Target not achieved>
		Obtained Intensity (U 238): 5074.57 - <Target not achieved>
		Obtained Intensity (Bkgd 220): 6.73 - <Target not achieved>
		Obtained Formula (Ce++ 70 / Ce 140): 0.013 (=32.67 / 2515.15)
		Obtained Formula (CeO 156 / Ce 140): 0.035 (=87.53 / 2515.15) - <Target not achieved>
		Obtained RSD (Be 9): 0.0528 - <Target not achieved>
		Obtained RSD (In 115): 0.0227
		Obtained RSD (U 238): 0.0175

		[Failed]
[Failed]

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	1.31 mm	1.12 mm	67468.95

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.89/0.96/0.01.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 88499.28
		Obtained Formula (CeO 156 / Ce 140): 0.0244 (=2824.28 / 115935.54)
[Passed] Optimum value(s): 0.91

Mass Calibration and Resolution
	Optimization Settings:
		Method: Tuning.mth.
		MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
		Iterations: 6
		Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
		Peak height (%) for Res. Opt.: 10

	Optimization Results:
	Initial Try
		Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.725)
		Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.722)
		Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.717)
		Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.728)
[Passed] Optimum value(s): N/A

QID STD/DRC
	Optimization Settings:
		Method: QID Calibration.mth.
			Initial Try - Start/End/Step: -20/0/0.5.

	Optimization Results:
	Initial Try

  Optimum value(s): Correlation Coefficient = 1.000; Intercept = -14.59

	Analyte	Mass	Points	DAC	MaxIntensity

		Li	7	41	-15	32613.2
		Mg	24	41	-15	49622
		In	115	41	-10.5	89427
		Ce	140	41	-11	119127
		Pb	208	41	-11.5	40369
		U	238	41	-5	91077.4

KED Mode QID
	Optimization Settings:
		Method: QID Calibration.mth.
			Initial Try - Start/End/Step: -20/0/0.5.

	Optimization Results:
	Initial Try

  Optimum value(s): Correlation Coefficient = 0.989; Intercept = -13.27

	Analyte	Mass	Points	DAC	MaxIntensity

		Li	7	41	-13.5	19573.4
		Mg	24	41	-13.5	51841.9
		In	115	41	-11.5	132140
		Ce	140	41	-10.5	122124
		Pb	208	41	-10.5	40401
		U	238	41	-10.5	75583.4

End Time: 4/25/2023 2:44:33 PM

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 4/25/2023 2:44:35 PM
End Time: 4/25/2023 2:45:49 PM

KED Mode QID - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -14.39

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 4/25/2023 2:44:35 PM

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -14.39

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-14	20474.7
Mg	24	41	-13.5	51520.7
In	115	41	-11.5	117719
Ce	140	41	-10.5	114404
Pb	208	41	-5.5	40569.5
U	238	41	-4	76717.4

End Time: 4/25/2023 2:45:49 PM

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, April 25, 2023 14:49:27
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.028
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5173.2	5173.204	126.498	2.4	Standard
	In	114.9	80756.1	80756.084	1623.847	2.0	Standard
	U	238.1	77457.5	77457.478	1438.304	1.9	Standard
⎡	CeO	155.9	2717.7	0.025	0.001	2.3	Standard
| >	Ce	139.9	109780.0	109780.032	2935.111	2.7	Standard
⎣	Ce++	70.0	777.4	0.007	0.000	1.6	Standard
	Bkgd	220.0	1.3	1.300	0.740	56.9	Standard

Current Conditions File Data

Current Value	Description
0.91	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.91	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 4/25/2023 2:49:27 PM
End Time: 4/25/2023 2:51:31 PM

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 5173.20
Obtained Intensity (In 115): 80756.08
Obtained Intensity (U 238): 77457.48
Obtained Intensity (Bkgd 220): 1.30
Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=777.42 / 109780.03)
Obtained Formula (CeO 156 / Ce 140): 0.025 (=2717.66 / 109780.03)
Obtained RSD (Be 9): 0.0245
Obtained RSD (In 115): 0.0201
Obtained RSD (U 238): 0.0186

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 4/25/2023 2:49:27 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 5
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 5173.20
Obtained Intensity (In 115): 80756.08
Obtained Intensity (U 238): 77457.48
Obtained Intensity (Bkgd 220): 1.30
Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=777.42 / 109780.03)
Obtained Formula (CeO 156 / Ce 140): 0.025 (=2717.66 / 109780.03)
Obtained RSD (Be 9): 0.0245
Obtained RSD (In 115): 0.0201
Obtained RSD (U 238): 0.0186

[Passed] Optimum value(s): N/A

End Time: 4/25/2023 2:51:31 PM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Tuesday, April 25, 2023 15:21:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L				467516	1	Standard
	Be	**9**		ug/L				1	100	Standard
	C	**13**		ug/L				31937	0	Standard
	Cl	**37**		ug/L				1707014	2	Standard
>	**Sc**	**45**		ug/L				611745	2	Standard
	V	**51**		ug/L				7760	2	Standard
	V-1	**51**		ug/L				794	5	Standard
	Cr	**52**		ug/L				22860	0	Standard
	Cr	**53**		ug/L				355	10	Standard
	Mn	**55**		ug/L				685	3	Standard
>	**Ge**	**72**		ug/L				53644	1	KED
	Co	**59**		ug/L				1	173	KED
	Ni	**60**		ug/L				25	30	KED
	Ni	**62**		ug/L				6	45	KED
	Cu	**63**		ug/L				78	1	KED
	Cu	**65**		ug/L				46	18	KED
	Zn	**66**		ug/L				129	3	KED
	Zn	**67**		ug/L				26	32	KED
	As	**75**		ug/L				4	15	KED
	Se	**78**		ug/L				18	5	KED
	Y	**89**		ug/L				344606	0	Standard
	Kr	**83**		ug/L				45	20	Standard
>	**In-1**	**115**		ug/L				12269	0	KED
	Mo	**98**		ug/L				3	37	KED
	Cd	**111**		ug/L				4	12	KED
	Cd	**114**		ug/L				4	66	KED
>	**In**	**115**		ug/L				446507	1	Standard
	Ag	**107**		ug/L				29	30	Standard
	Sb	**121**		ug/L				48	6	Standard
	Sb	**123**		ug/L				35	23	Standard
	Ba	**135**		ug/L				38	13	Standard
	Ba	**137**		ug/L				73	14	Standard
>	**Tb**	**159**		ug/L				805616	0	Standard
	Tl	**205**		ug/L				20	24	Standard
	Pb	**208**		ug/L				221	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Tuesday, April 25, 2023 15:27:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			467516	510756	2	Standard
⌊	**Be**	**9**	**0.200**	ug/L	0.015	7	1	866	9	Standard
	C	**13**		ug/L			31937	34815	0	Standard
	Cl	**37**		ug/L			1707014	1714957	1	Standard
⌈>	**Sc**	**45**		ug/L			611745	688166	2	Standard
⌈	**V**	**51**	**0.200**	ug/L	0.004	1	7760	14167	2	Standard
⌊	**V-1**	**51**	**0.200**	ug/L	0.002	1	794	6493	2	Standard
⌈	**Cr**	**52**	**0.500**	ug/L	0.036	7	22860	37054	4	Standard
⌊	**Cr**	**53**	**0.500**	ug/L	0.023	4	355	1733	5	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.004	0	685	18262	2	Standard
⌈>	**Ge**	**72**		ug/L			53644	53060	2	KED
⌈	**Co**	**59**	**0.200**	ug/L	0.012	6	1	1447	6	KED
⌊	**Ni**	**60**	**0.500**	ug/L	0.004	0	25	1047	1	KED
⌈	**Ni**	**62**	**0.500**	ug/L	0.062	12	6	155	10	KED
⌈	**Cu**	**63**	**0.500**	ug/L	0.008	1	78	2852	2	KED
⌊	**Cu**	**65**	**0.500**	ug/L	0.008	1	46	1505	0	KED
⌈	**Zn**	**66**	**6.000**	ug/L	0.172	2	129	4437	0	KED
⌊	**Zn**	**67**	**6.000**	ug/L	0.498	8	26	714	5	KED
⌈	**As**	**75**	**0.200**	ug/L	0.006	2	4	76	4	KED
⌊	**Se**	**78**	**0.500**	ug/L	0.087	17	18	38	8	KED
	Y	**89**		ug/L			344606	376026	1	Standard
	Kr	**83**		ug/L			45	49	24	Standard
⌈>	**In-1**	**115**		ug/L			12269	11889	4	KED
⌈	**Mo**	**98**	**0.200**	ug/L	0.016	8	3	332	9	KED
⌈	**Cd**	**111**	**0.100**	ug/L	0.003	3	4	40	5	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.036	35	4	91	35	KED
⌈>	**In**	**115**		ug/L			446507	497499	2	Standard
⌈	**Ag**	**107**	**0.200**	ug/L	0.007	3	29	4158	3	Standard
⌈	**Sb**	**121**	**0.200**	ug/L	0.006	3	48	3138	4	Standard
⌊	**Sb**	**123**	**0.200**	ug/L	0.004	2	35	2393	4	Standard
⌈	**Ba**	**135**	**0.500**	ug/L	0.020	4	38	2743	5	Standard
⌊	**Ba**	**137**	**0.500**	ug/L	0.013	2	73	4884	5	Standard
⌈>	**Tb**	**159**		ug/L			805616	871152	2	Standard
⌈	**Tl**	**205**	**0.200**	ug/L	0.003	1	20	7677	1	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.001	1	221	5536	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Tuesday, April 25, 2023 15:32:03
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			467516	519472	1	Standard
	Be	**9**	**10.000**	ug/L	0.393	3	1	43737	3	Standard
	C	**13**		ug/L			31937	53065	1	Standard
	Cl	**37**		ug/L			1707014	1721928	2	Standard
>	**Sc**	**45**		ug/L			611745	693448	1	Standard
	V	**51**	**10.000**	ug/L	0.181	1	7760	310236	1	Standard
	V-1	**51**	**10.000**	ug/L	0.095	0	794	304910	1	Standard
	Cr	**52**	**10.003**	ug/L	0.151	1	22860	279669	0	Standard
	Cr	**53**	**10.002**	ug/L	0.235	2	355	29899	3	Standard
	Mn	**55**	**10.001**	ug/L	0.182	1	685	375838	2	Standard
>	**Ge**	**72**		ug/L			53644	54037	1	KED
	Co	**59**	**10.000**	ug/L	0.084	0	1	70244	1	KED
	Ni	**60**	**10.000**	ug/L	0.078	0	25	20639	1	KED
	Ni	**62**	**10.002**	ug/L	0.323	3	6	3367	2	KED
	Cu	**63**	**10.000**	ug/L	0.208	2	78	57650	3	KED
	Cu	**65**	**9.999**	ug/L	0.309	3	46	29059	4	KED
	Zn	**66**	**10.072**	ug/L	0.261	2	129	7652	4	KED
	Zn	**67**	**10.135**	ug/L	0.764	7	26	1259	9	KED
	As	**75**	**10.000**	ug/L	0.317	3	4	3880	4	KED
	Se	**78**	**9.996**	ug/L	0.881	8	18	381	8	KED
	Y	**89**		ug/L			344606	391246	2	Standard
	Kr	**83**		ug/L			45	60	12	Standard
>	**In-1**	**115**		ug/L			12269	11678	2	KED
	Mo	**98**	**10.000**	ug/L	0.071	0	3	17837	1	KED
	Cd	**111**	**10.000**	ug/L	0.103	1	4	3742	2	KED
	Cd	**114**	**10.000**	ug/L	0.135	1	4	9761	2	KED
>	**In**	**115**		ug/L			446507	520201	2	Standard
	Ag	**107**	**10.000**	ug/L	0.455	4	29	211491	4	Standard
	Sb	**121**	**10.000**	ug/L	0.399	3	48	168847	3	Standard
	Sb	**123**	**10.000**	ug/L	0.291	2	35	128637	2	Standard
	Ba	**135**	**10.000**	ug/L	0.529	5	38	56629	5	Standard
	Ba	**137**	**10.000**	ug/L	0.544	5	73	101908	3	Standard
>	**Tb**	**159**		ug/L			805616	897229	1	Standard
	Tl	**205**	**10.000**	ug/L	0.040	0	20	396011	1	Standard
	Pb	**208**	**10.000**	ug/L	0.050	0	221	543365	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 15:37:21

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			467516	481661	3	Standard
	Be	**9**	**19.946**	ug/L	0.424	2	1	80026	3	Standard
	C	**13**		ug/L			31937	48950	3	Standard
	Cl	**37**		ug/L			1707014	1706865	2	Standard
>	**Sc**	**45**		ug/L			611745	656100	3	Standard
	V	**51**	**19.857**	ug/L	0.202	1	7760	558834	3	Standard
	V-1	**51**	**19.871**	ug/L	0.329	1	794	557959	3	Standard
	Cr	**52**	**19.865**	ug/L	0.448	2	22860	488682	2	Standard
	Cr	**53**	**19.911**	ug/L	0.395	1	355	54941	2	Standard
	Mn	**55**	**19.769**	ug/L	0.283	1	685	671007	3	Standard
>	**Ge**	**72**		ug/L			53644	53308	0	KED
	Co	**59**	**19.820**	ug/L	0.267	1	1	132586	1	KED
	Ni	**60**	**19.916**	ug/L	0.161	0	25	39856	1	KED
	Ni	**62**	**19.827**	ug/L	0.342	1	6	6360	1	KED
	Cu	**63**	**19.872**	ug/L	0.107	0	78	110095	0	KED
	Cu	**65**	**19.948**	ug/L	0.137	0	46	56549	1	KED
	Zn	**66**	**19.925**	ug/L	0.488	2	129	14644	2	KED
	Zn	**67**	**19.936**	ug/L	0.675	3	26	2393	3	KED
	As	**75**	**19.900**	ug/L	0.299	1	4	7461	1	KED
	Se	**78**	**20.034**	ug/L	0.628	3	18	740	2	KED
	Y	**89**		ug/L			344606	376084	3	Standard
	Kr	**83**		ug/L			45	54	19	Standard
>	**In-1**	**115**		ug/L			12269	12118	0	KED
	Mo	**98**	**19.849**	ug/L	0.414	2	3	35667	2	KED
	Cd	**111**	**19.929**	ug/L	0.096	0	4	7626	0	KED
	Cd	**114**	**19.870**	ug/L	0.181	0	4	19613	1	KED
>	**In**	**115**		ug/L			446507	475328	0	Standard
	Ag	**107**	**20.050**	ug/L	0.269	1	29	391539	1	Standard
	Sb	**121**	**20.060**	ug/L	0.409	2	48	313345	2	Standard
	Sb	**123**	**19.989**	ug/L	0.507	2	35	234496	2	Standard
	Ba	**135**	**19.993**	ug/L	0.671	3	38	103296	3	Standard
	Ba	**137**	**20.152**	ug/L	0.276	1	73	193547	1	Standard
>	**Tb**	**159**		ug/L			805616	861444	2	Standard
	Tl	**205**	**19.960**	ug/L	0.309	1	20	752930	3	Standard
	Pb	**208**	**19.814**	ug/L	0.244	1	221	996404	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Tuesday, April 25, 2023 15:42:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			467516	479948	4	Standard
	Be	**9**	**49.503**	ug/L	1.210	2	1	188440	2	Standard
	C	**13**		ug/L			31937	29802	4	Standard
	Cl	**37**		ug/L			1707014	1683110	1	Standard
>	**Sc**	**45**		ug/L			611745	645548	6	Standard
	V	**51**	**50.167**	ug/L	1.472	2	7760	1398209	4	Standard
	V-1	**51**	**50.113**	ug/L	1.500	2	794	1397339	4	Standard
	Cr	**52**	**49.962**	ug/L	0.734	1	22860	1168172	5	Standard
	Cr	**53**	**49.785**	ug/L	0.870	1	355	131725	5	Standard
	Mn	**55**	**49.953**	ug/L	1.563	3	685	1657400	4	Standard
>	**Ge**	**72**		ug/L			53644	49969	3	KED
	Co	**59**	**50.282**	ug/L	0.534	1	1	324405	3	KED
	Ni	**60**	**49.936**	ug/L	0.586	1	25	93062	4	KED
	Ni	**62**	**50.009**	ug/L	1.360	2	6	15051	6	KED
	Cu	**63**	**50.063**	ug/L	0.755	1	78	261607	4	KED
	Cu	**65**	**49.867**	ug/L	0.455	0	46	130696	3	KED
	Zn	**66**	**50.102**	ug/L	0.399	0	129	34672	4	KED
	Zn	**67**	**50.177**	ug/L	1.695	3	26	5706	5	KED
	As	**75**	**50.161**	ug/L	0.261	0	4	17909	3	KED
	Se	**78**	**49.993**	ug/L	0.617	1	18	1705	4	KED
	Y	**89**		ug/L			344606	363168	5	Standard
	Kr	**83**		ug/L			45	63	24	Standard
>	**In-1**	**115**		ug/L			12269	11286	5	KED
	Mo	**98**	**49.987**	ug/L	0.293	0	3	83532	4	KED
	Cd	**111**	**49.835**	ug/L	0.872	1	4	17471	6	KED
	Cd	**114**	**49.784**	ug/L	0.286	0	4	44787	4	KED
>	**In**	**115**		ug/L			446507	475826	4	Standard
	Ag	**107**	**49.670**	ug/L	1.283	2	29	940211	6	Standard
	Sb	**121**	**49.875**	ug/L	1.446	2	48	769497	1	Standard
	Sb	**123**	**49.966**	ug/L	1.285	2	35	584265	2	Standard
	Ba	**135**	**49.616**	ug/L	0.879	1	38	247209	6	Standard
	Ba	**137**	**49.368**	ug/L	0.440	0	73	446231	3	Standard
>	**Tb**	**159**		ug/L			805616	853434	2	Standard
	Tl	**205**	**49.663**	ug/L	1.257	2	20	1795360	3	Standard
	Pb	**208**	**49.771**	ug/L	1.126	2	221	2423866	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 15:49:55

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			467516	483678	6	Standard
	Be	9	99.927	ug/L	5.842	5	1	383547	12	Standard
	C	13		ug/L			31937	42560	3	Standard
	Cl	37		ug/L			1707014	1640428	1	Standard
>	Sc	45		ug/L			611745	649947	8	Standard
	V	51	102.135	ug/L	1.231	1	7760	3078036	7	Standard
	V-1	51	101.796	ug/L	0.999	0	794	3041382	7	Standard
	Cr	52	101.292	ug/L	2.193	2	22860	2463869	6	Standard
	Cr	53	100.056	ug/L	1.763	1	355	266695	7	Standard
	Mn	55	101.446	ug/L	1.871	1	685	3564436	8	Standard
>	Ge	72		ug/L			53644	50818	2	KED
	Co	59	99.592	ug/L	1.923	1	1	644687	2	KED
	Ni	60	99.465	ug/L	2.461	2	25	185140	3	KED
	Ni	62	99.829	ug/L	1.736	1	6	30361	3	KED
	Cu	63	99.458	ug/L	2.029	2	78	518854	2	KED
	Cu	65	99.149	ug/L	1.468	1	46	256954	2	KED
	Zn	66	99.415	ug/L	1.826	1	129	68507	2	KED
	Zn	67	99.095	ug/L	2.423	2	26	11108	4	KED
	As	75	99.895	ug/L	0.039	0	4	36144	2	KED
	Se	78	99.699	ug/L	2.710	2	18	3406	3	KED
	Y	89		ug/L			344606	371505	6	Standard
	Kr	83		ug/L			45	59	14	Standard
>	In-1	115		ug/L			12269	11873	2	KED
	Mo	98	100.260	ug/L	0.992	0	3	177830	3	KED
	Cd	111	99.989	ug/L	0.299	0	4	36850	2	KED
	Cd	114	100.003	ug/L	1.000	1	4	94679	3	KED
>	In	115		ug/L			446507	448974	5	Standard
	Ag	107	100.596	ug/L	1.688	1	29	1832200	5	Standard
	Sb	121	100.517	ug/L	0.458	0	48	1489977	5	Standard
	Sb	123	100.460	ug/L	0.678	0	35	1126688	6	Standard
	Ba	135	100.677	ug/L	2.189	2	38	484163	7	Standard
	Ba	137	99.469	ug/L	2.475	2	73	833517	5	Standard
>	Tb	159		ug/L			805616	858324	4	Standard
	Tl	205	101.411	ug/L	1.979	1	20	3869645	5	Standard
	Pb	208	100.232	ug/L	3.434	3	221	4950764	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Tuesday, April 25, 2023 15:57:41
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			467516	462126	4	Standard
	Be	**9**	**0.002**	ug/L	0.001	52	1	10	44	Standard
	C	**13**		ug/L			31937	31445	3	Standard
	Cl	**37**		ug/L			1707014	1756191	1	Standard
>	**Sc**	**45**		ug/L			611745	611943	2	Standard
	V	**51**	**-0.001**	ug/L	0.006	775	7760	7741	2	Standard
	V-1	**51**	**-0.005**	ug/L	0.001	18	794	667	5	Standard
	Cr	**52**	**0.000**	ug/L	0.020	12530	22860	22866	1	Standard
	Cr	**53**	**-0.013**	ug/L	0.009	66	355	321	5	Standard
	Mn	**55**	**-0.002**	ug/L	0.000	10	685	630	1	Standard
>	**Ge**	**72**		ug/L			53644	48036	1	KED
	Co	**59**	**0.001**	ug/L	0.000	34	1	4	24	KED
	Ni	**60**	**-0.002**	ug/L	0.003	128	25	19	26	KED
	Ni	**62**	**0.002**	ug/L	0.028	1195	6	6	124	KED
	Cu	**63**	**-0.000**	ug/L	0.005	21760	78	70	32	KED
	Cu	**65**	**0.000**	ug/L	0.002	1252	46	41	12	KED
	Zn	**66**	**-0.058**	ug/L	0.017	28	129	78	14	KED
	Zn	**67**	**-0.112**	ug/L	0.067	59	26	11	60	KED
	As	**75**	**0.006**	ug/L	0.006	100	4	6	33	KED
	Se	**78**	**0.125**	ug/L	0.013	10	18	20	0	KED
	Y	**89**		ug/L			344606	347526	2	Standard
	Kr	**83**		ug/L			45	52	13	Standard
>	**In-1**	**115**		ug/L			12269	11922	3	KED
	Mo	**98**	**0.016**	ug/L	0.006	38	3	31	31	KED
	Cd	**111**	**0.010**	ug/L	0.003	32	4	7	18	KED
	Cd	**114**	**0.003**	ug/L	0.004	106	4	7	45	KED
>	**In**	**115**		ug/L			446507	460641	2	Standard
	Ag	**107**	**0.003**	ug/L	0.000	18	29	79	9	Standard
	Sb	**121**	**0.023**	ug/L	0.001	3	48	406	5	Standard
	Sb	**123**	**0.024**	ug/L	0.001	4	35	310	4	Standard
	Ba	**135**	**0.002**	ug/L	0.001	59	38	50	15	Standard
	Ba	**137**	**0.002**	ug/L	0.002	86	73	92	17	Standard
>	**Tb**	**159**		ug/L			805616	807858	2	Standard
	Tl	**205**	**0.005**	ug/L	0.001	13	20	209	13	Standard
	Pb	**208**	**-0.001**	ug/L	0.000	37	221	173	7	Standard

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDual.swz

Start Time: 4/25/2023 4:09:17 PM
End Time: 4/25/2023 4:10:57 PM

Detector Voltages - [Passed]
Pulse Stage Voltage - [Passed] Optimum value(s): 950
Analog Stage Voltage - [Passed] Optimum value(s): -1600
Pulse Stage Voltage (Fine-tune) - [Passed] Optimum value(s): 950

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDual.swz

Optimization Status

Start Time: 4/25/2023 4:09:17 PM

Detector Voltages
	Pulse Stage Voltage Optimization Settings:
		Method: Pulse Stage Optimization.mth.
			Initial Try - Start/End/Step: 800/1300/50.
			Retry 1 - Start/End/Step: 800/1800/50.
		Optimization Criterion (Pulse 76): 0.1

	Analog Stage Voltage Optimization Settings:
		Method: Analog Stage Optimization.mth.
		Initial Try - Start/End: -1300/-1900.
		Retry 1 - Start/End: -1300/-2400.
		Optimization Criterion (Analog 80): Target Gain 10000

	Pulse Stage Voltage Results:
	Initial Try

		Intensity Obtained For Criterion (Pulse 76): 79620.26
[Passed] Optimum value(s): 950
	Analog Stage Voltage Results:
	Initial Try
		Interim Gain Values: 9882.1 (-1600V)
		Analyte: Analog 80
		ACEM(volts): -1600
		Achieved Gain: 9882.1
		Achieved NMax: 1.2669e+009
		Conversion Factor: 0.101034
		Passes: 1
		Points Collected: 31
		Points Used: 3
		Coefficient: 1
[Passed] Optimum value(s): -1600
	Pulse Stage Voltage (Fine-tune) Results:
	Initial Try

		Intensity Obtained For Criterion (Pulse 76): 77194.00
[Passed] Optimum value(s): 950

End Time: 4/25/2023 4:10:57 PM

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDual.swz

Start Time: 4/25/2023 4:15:25 PM
End Time: 4/25/2023 4:22:54 PM

Dual Detector Calibration
Points Collected: 401
Calibration unsuccessful for some masses due to insufficient pulse/analog crossover points

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDual.swz

Optimization Status

Start Time: 4/25/2023 4:15:25 PM

Dual Detector Calibration
Optimization Settings:
Method: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\DualDetectorNew.mth.
Initial Try - Start/End/Step: -20/0/0.05.

Optimization Results:
Initial Try
Points Collected: 401
Calibration unsuccessful for some masses due to insufficient pulse/analog crossover points

End Time: 4/25/2023 4:22:54 PM

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDual.swz

Start Time: 4/25/2023 4:23:25 PM
End Time: 4/25/2023 4:30:54 PM

Dual Detector Calibration
Points Collected: 401
Calibration unsuccessful for some masses due to insufficient pulse/analog crossover points

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDual.swz

Optimization Status

Start Time: 4/25/2023 4:23:25 PM

Dual Detector Calibration
Optimization Settings:
Method: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\DualDetectorNew.mth.
Initial Try - Start/End/Step: -20/0/0.05.

Optimization Results:
Initial Try
Points Collected: 401
Calibration unsuccessful for some masses due to insufficient pulse/analog crossover points

End Time: 4/25/2023 4:30:54 PM

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, April 25, 2023 16:41:04
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.036
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5439.5	5439.503	146.979	2.7	Standard
	In	114.9	84057.2	84057.177	1617.284	1.9	Standard
	U	238.1	78800.8	78800.752	743.008	0.9	Standard
⌈	CeO	155.9	2947.8	0.026	0.001	2.1	Standard
| >	Ce	139.9	114046.9	114046.936	2005.949	1.8	Standard
⌊	Ce++	70.0	875.4	0.008	0.000	2.9	Standard
	Bkgd	220.0	0.8	0.833	0.354	42.4	Standard

Current Conditions File Data

Current Value	Description
0.91	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.91	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDual.swz

Start Time: 4/25/2023 4:41:03 PM
End Time: 4/25/2023 4:43:08 PM

STD Performance Check - [Failed]
Obtained Intensity (Be 9): 5439.50
Obtained Intensity (In 115): 84057.18
Obtained Intensity (U 238): 78800.75
Obtained Intensity (Bkgd 220): 0.83
Obtained Formula (Ce++ 70 / Ce 140): 0.008 (=875.36 / 114046.94)
Obtained Formula (CeO 156 / Ce 140): 0.026 (=2947.77 / 114046.94) - <Target not achieved>

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDual.swz

Optimization Status

Start Time: 4/25/2023 4:41:03 PM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 10
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 5439.50
		Obtained Intensity (In 115): 84057.18
		Obtained Intensity (U 238): 78800.75
		Obtained Intensity (Bkgd 220): 0.83
		Obtained Formula (Ce++ 70 / Ce 140): 0.008 (=875.36 / 114046.94)
		Obtained Formula (CeO 156 / Ce 140): 0.026 (=2947.77 / 114046.94) - <Target not achieved>

		[Failed]
[Failed]

End Time: 4/25/2023 4:43:08 PM

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, April 25, 2023 16:43:57
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.037
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	4627.7	4627.750	123.732	2.7	Standard
	In	114.9	75078.3	75078.327	1812.778	2.4	Standard
	U	238.1	74133.1	74133.103	1356.293	1.8	Standard
⌈	CeO	155.9	2543.8	0.025	0.001	2.4	Standard
| >	Ce	139.9	102478.8	102478.796	2748.561	2.7	Standard
⌊	Ce++	70.0	715.4	0.007	0.000	1.7	Standard
	Bkgd	220.0	1.2	1.200	0.758	63.2	Standard

Current Conditions File Data

Current Value	Description
0.90	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
17.50	Plasma Gas Flow
-10.75	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-10.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-5.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.91	DRC Mode NEB
-7.50	DRC Mode QRO
-2.00	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-11.00	KED Mode CRO
-12.00	KED Mode QRO
-11.00	KED Mode Cell Entrance Voltage
-33.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
3.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
125.00	KED Mode Axial Field Voltage

NEB FLOW MANUALLY LOWERED.
-MB 4/25/23

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDual.swz

Start Time: 4/25/2023 4:43:57 PM
End Time: 4/25/2023 4:46:01 PM

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 4627.75
Obtained Intensity (In 115): 75078.33
Obtained Intensity (U 238): 74133.10
Obtained Intensity (Bkgd 220): 1.20
Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=715.42 / 102478.80)
Obtained Formula (CeO 156 / Ce 140): 0.025 (=2543.83 / 102478.80)
Obtained RSD (Be 9): 0.0267
Obtained RSD (In 115): 0.0241
Obtained RSD (U 238): 0.0183

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDual.swz

Optimization Status

Start Time: 4/25/2023 4:43:57 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 10
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 4627.75
Obtained Intensity (In 115): 75078.33
Obtained Intensity (U 238): 74133.10
Obtained Intensity (Bkgd 220): 1.20
Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=715.42 / 102478.80)
Obtained Formula (CeO 156 / Ce 140): 0.025 (=2543.83 / 102478.80)
Obtained RSD (Be 9): 0.0267
Obtained RSD (In 115): 0.0241
Obtained RSD (U 238): 0.0183

[Passed] Optimum value(s): N/A

End Time: 4/25/2023 4:46:01 PM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 17:12:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L				449997	3	Standard
⌊	**Be**	**9**		ug/L				11	16	Standard
	C	**13**		ug/L				29409	1	Standard
	Cl	**37**		ug/L				1805078	2	Standard
⌈>	**Sc**	**45**		ug/L				595718	0	Standard
⌈	**V**	**51**		ug/L				6858	1	Standard
⌈	**V-1**	**51**		ug/L				607	4	Standard
⌈	**Cr**	**52**		ug/L				20299	0	Standard
⌈	**Cr**	**53**		ug/L				294	1	Standard
⌊	**Mn**	**55**		ug/L				569	3	Standard
⌈>	**Ge**	**72**		ug/L				49648	1	KED
⌈	**Co**	**59**		ug/L				6	15	KED
⌈	**Ni**	**60**		ug/L				69	12	KED
⌈	**Ni**	**62**		ug/L				7	25	KED
⌈	**Cu**	**63**		ug/L				80	13	KED
⌈	**Cu**	**65**		ug/L				43	45	KED
⌈	**Zn**	**66**		ug/L				140	15	KED
⌈	**Zn**	**67**		ug/L				20	24	KED
⌈	**As**	**75**		ug/L				5	16	KED
⌊	**Se**	**78**		ug/L				25	12	KED
	Y	**89**		ug/L				347335	2	Standard
	Kr	**83**		ug/L				53	8	Standard
⌈>	**In-1**	**115**		ug/L				11040	1	KED
⌈	**Mo**	**98**		ug/L				7	86	KED
⌈	**Cd**	**111**		ug/L				7	19	KED
⌊	**Cd**	**114**		ug/L				9	59	KED
⌈>	**In**	**115**		ug/L				434426	1	Standard
⌈	**Ag**	**107**		ug/L				42	29	Standard
⌈	**Sb**	**121**		ug/L				205	3	Standard
⌈	**Sb**	**123**		ug/L				131	11	Standard
⌈	**Ba**	**135**		ug/L				60	7	Standard
⌊	**Ba**	**137**		ug/L				114	5	Standard
⌈>	**Tb**	**159**		ug/L				798416	1	Standard
⌈	**Tl**	**205**		ug/L				218	11	Standard
⌊	**Pb**	**208**		ug/L				288	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 17:17:17
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	428332	6	Standard
	Be	**9**	**0.200**	ug/L	0.003	1	11	683	6	Standard
	C	**13**		ug/L			29409	28838	5	Standard
	Cl	**37**		ug/L			1805078	1786771	2	Standard
>	**Sc**	**45**		ug/L			595718	556666	5	Standard
	V	**51**	**0.200**	ug/L	0.001	0	6858	11309	5	Standard
	V-1	**51**	**0.200**	ug/L	0.004	1	607	5392	6	Standard
	Cr	**52**	**0.500**	ug/L	0.014	2	20299	29742	4	Standard
	Cr	**53**	**0.500**	ug/L	0.010	2	294	1468	4	Standard
	Mn	**55**	**0.500**	ug/L	0.010	2	569	15338	4	Standard
>	**Ge**	**72**		ug/L			49648	49035	1	KED
	Co	**59**	**0.200**	ug/L	0.004	2	6	1223	2	KED
	Ni	**60**	**0.500**	ug/L	0.026	5	69	934	4	KED
	Ni	**62**	**0.500**	ug/L	0.108	21	7	145	21	KED
	Cu	**63**	**0.500**	ug/L	0.026	5	80	2628	4	KED
	Cu	**65**	**0.500**	ug/L	0.022	4	43	1344	3	KED
	Zn	**66**	**6.000**	ug/L	0.051	0	140	4036	0	KED
	Zn	**67**	**6.000**	ug/L	0.507	8	20	626	8	KED
	As	**75**	**0.200**	ug/L	0.013	6	5	76	7	KED
	Se	**78**	**0.500**	ug/L	0.377	75	25	33	17	KED
	Y	**89**		ug/L			347335	326469	5	Standard
	Kr	**83**		ug/L			53	46	13	Standard
>	**In-1**	**115**		ug/L			11040	10905	2	KED
	Mo	**98**	**0.200**	ug/L	0.009	4	7	330	6	KED
	Cd	**111**	**0.100**	ug/L	0.007	6	7	39	7	KED
	Cd	**114**	**0.100**	ug/L	0.008	8	9	113	9	KED
>	**In**	**115**		ug/L			434426	411847	6	Standard
	Ag	**107**	**0.200**	ug/L	0.005	2	42	3531	3	Standard
	Sb	**121**	**0.200**	ug/L	0.009	4	205	2827	3	Standard
	Sb	**123**	**0.200**	ug/L	0.014	6	131	2201	0	Standard
	Ba	**135**	**0.500**	ug/L	0.032	6	60	2253	0	Standard
	Ba	**137**	**0.500**	ug/L	0.006	1	114	4099	5	Standard
>	**Tb**	**159**		ug/L			798416	765718	1	Standard
	Tl	**205**	**0.200**	ug/L	0.007	3	218	6812	4	Standard
	Pb	**208**	**0.100**	ug/L	0.005	4	288	4905	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 17:22:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	473541	2	Standard
⌊	**Be**	**9**	**10.000**	ug/L	0.332	3	11	39671	2	Standard
	C	**13**		ug/L			29409	51911	0	Standard
	Cl	**37**		ug/L			1805078	1786107	1	Standard
⌈>	**Sc**	**45**		ug/L			595718	613797	2	Standard
⌈	**V**	**51**	**10.000**	ug/L	0.226	2	6858	280422	0	Standard
⌊	**V-1**	**51**	**10.000**	ug/L	0.301	3	607	276627	1	Standard
⌈	**Cr**	**52**	**9.999**	ug/L	0.299	2	20299	249465	2	Standard
⌊	**Cr**	**53**	**10.000**	ug/L	0.394	3	294	26975	1	Standard
⌊	**Mn**	**55**	**10.000**	ug/L	0.289	2	569	331263	1	Standard
⌈>	**Ge**	**72**		ug/L			49648	50027	1	KED
⌈	**Co**	**59**	**10.000**	ug/L	0.253	2	6	63847	2	KED
⌈	**Ni**	**60**	**10.002**	ug/L	0.248	2	69	18910	3	KED
⌊	**Ni**	**62**	**10.002**	ug/L	0.493	4	7	3075	4	KED
⌈	**Cu**	**63**	**10.000**	ug/L	0.270	2	80	52359	3	KED
⌊	**Cu**	**65**	**10.000**	ug/L	0.265	2	43	26425	1	KED
⌈	**Zn**	**66**	**10.018**	ug/L	0.245	2	140	6814	2	KED
⌊	**Zn**	**67**	**10.281**	ug/L	0.133	1	20	1168	2	KED
⌈	**As**	**75**	**10.000**	ug/L	0.223	2	5	3591	2	KED
⌊	**Se**	**78**	**10.011**	ug/L	1.108	11	25	349	10	KED
	Y	**89**		ug/L			347335	364027	1	Standard
	Kr	**83**		ug/L			53	48	12	Standard
⌈>	**In-1**	**115**		ug/L			11040	10886	5	KED
⌈	**Mo**	**98**	**10.000**	ug/L	0.277	2	7	16091	8	KED
⌈	**Cd**	**111**	**10.000**	ug/L	0.184	1	7	3471	6	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.125	1	9	8972	6	KED
⌈>	**In**	**115**		ug/L			434426	458892	0	Standard
⌈	**Ag**	**107**	**10.000**	ug/L	0.328	3	42	197024	2	Standard
⌈	**Sb**	**121**	**10.000**	ug/L	0.161	1	205	156133	1	Standard
⌊	**Sb**	**123**	**10.000**	ug/L	0.123	1	131	118907	0	Standard
⌈	**Ba**	**135**	**10.001**	ug/L	0.253	2	60	51149	3	Standard
⌊	**Ba**	**137**	**10.001**	ug/L	0.256	2	114	91454	2	Standard
⌈>	**Tb**	**159**		ug/L			798416	843914	1	Standard
⌈	**Tl**	**205**	**10.000**	ug/L	0.338	3	218	369322	2	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.214	2	288	491665	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 17:27:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	475593	4	Standard
⌊	**Be**	**9**	**20.027**	ug/L	0.469	2	11	80182	2	Standard
	C	**13**		ug/L			29409	46303	1	Standard
	Cl	**37**		ug/L			1805078	1783713	1	Standard
⌈>	**Sc**	**45**		ug/L			595718	637527	4	Standard
⌈	**V**	**51**	**19.895**	ug/L	0.714	3	6858	560299	3	Standard
⌊	**V-1**	**51**	**19.884**	ug/L	0.568	2	607	557545	2	Standard
⌈	**Cr**	**52**	**19.914**	ug/L	0.752	3	20299	486155	2	Standard
⌊	**Cr**	**53**	**19.877**	ug/L	0.425	2	294	54054	2	Standard
⌊	**Mn**	**55**	**19.936**	ug/L	0.636	3	569	676420	2	Standard
⌈>	**Ge**	**72**		ug/L			49648	50874	1	KED
⌈	**Co**	**59**	**19.908**	ug/L	0.519	2	6	126944	2	KED
⌊	**Ni**	**60**	**19.803**	ug/L	0.290	1	69	36577	3	KED
⌈	**Ni**	**62**	**19.924**	ug/L	0.769	3	7	6131	4	KED
⌈	**Cu**	**63**	**19.878**	ug/L	0.552	2	80	103220	2	KED
⌊	**Cu**	**65**	**19.831**	ug/L	0.698	3	43	51506	2	KED
⌈	**Zn**	**66**	**20.052**	ug/L	0.731	3	140	13830	3	KED
⌊	**Zn**	**67**	**20.210**	ug/L	0.478	2	20	2388	0	KED
⌈	**As**	**75**	**19.914**	ug/L	0.497	2	5	7143	1	KED
⌊	**Se**	**78**	**20.113**	ug/L	0.548	2	25	703	3	KED
	Y	**89**		ug/L			347335	366839	1	Standard
	Kr	**83**		ug/L			53	52	14	Standard
⌈>	**In-1**	**115**		ug/L			11040	10762	2	KED
⌈	**Mo**	**98**	**19.963**	ug/L	0.589	2	7	31478	1	KED
⌈	**Cd**	**111**	**19.940**	ug/L	0.415	2	7	6751	0	KED
⌊	**Cd**	**114**	**19.903**	ug/L	0.473	2	9	17295	0	KED
⌈>	**In**	**115**		ug/L			434426	466487	2	Standard
⌈	**Ag**	**107**	**19.789**	ug/L	0.691	3	42	380122	1	Standard
⌈	**Sb**	**121**	**19.884**	ug/L	0.243	1	205	308201	2	Standard
⌊	**Sb**	**123**	**19.903**	ug/L	0.289	1	131	235829	1	Standard
⌈	**Ba**	**135**	**19.942**	ug/L	0.486	2	60	102393	1	Standard
⌊	**Ba**	**137**	**19.957**	ug/L	0.428	2	114	183822	3	Standard
⌈>	**Tb**	**159**		ug/L			798416	847884	4	Standard
⌈	**Tl**	**205**	**19.955**	ug/L	0.143	0	218	733634	3	Standard
⌊	**Pb**	**208**	**20.008**	ug/L	0.442	2	288	989383	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 17:33:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	445453	0	Standard
	Be	**9**	**49.737**	ug/L	1.128	2	11	181868	2	Standard
	C	**13**		ug/L			29409	27944	4	Standard
	Cl	**37**		ug/L			1805078	1740390	1	Standard
>	**Sc**	**45**		ug/L			595718	600285	1	Standard
	V	**51**	**49.652**	ug/L	0.911	1	6858	1263464	0	Standard
	V-1	**51**	**49.681**	ug/L	1.495	3	607	1270806	1	Standard
	Cr	**52**	**49.696**	ug/L	0.548	1	20299	1080674	1	Standard
	Cr	**53**	**49.789**	ug/L	1.872	3	294	124463	2	Standard
	Mn	**55**	**49.440**	ug/L	0.744	1	569	1496064	1	Standard
>	**Ge**	**72**		ug/L			49648	46945	3	KED
	Co	**59**	**49.898**	ug/L	1.184	2	6	290714	5	KED
	Ni	**60**	**49.727**	ug/L	1.089	2	69	82437	5	KED
	Ni	**62**	**49.836**	ug/L	0.956	1	7	13915	5	KED
	Cu	**63**	**49.857**	ug/L	0.300	0	80	235439	3	KED
	Cu	**65**	**49.836**	ug/L	0.470	0	43	117517	4	KED
	Zn	**66**	**49.909**	ug/L	0.847	1	140	31295	2	KED
	Zn	**67**	**49.378**	ug/L	0.939	1	20	5061	1	KED
	As	**75**	**50.068**	ug/L	0.193	0	5	16681	3	KED
	Se	**78**	**49.843**	ug/L	0.714	1	25	1549	5	KED
	Y	**89**		ug/L			347335	341956	1	Standard
	Kr	**83**		ug/L			53	52	18	Standard
>	**In-1**	**115**		ug/L			11040	10699	4	KED
	Mo	**98**	**50.024**	ug/L	1.607	3	7	78540	1	KED
	Cd	**111**	**49.925**	ug/L	0.293	0	7	16676	5	KED
	Cd	**114**	**49.851**	ug/L	1.129	2	9	42413	3	KED
>	**In**	**115**		ug/L			434426	427068	0	Standard
	Ag	**107**	**49.952**	ug/L	0.627	1	42	874572	0	Standard
	Sb	**121**	**49.926**	ug/L	1.215	2	205	703015	1	Standard
	Sb	**123**	**50.078**	ug/L	0.764	1	131	547439	2	Standard
	Ba	**135**	**49.831**	ug/L	0.384	0	60	230345	0	Standard
	Ba	**137**	**49.841**	ug/L	0.579	1	114	413545	1	Standard
>	**Tb**	**159**		ug/L			798416	796663	2	Standard
	Tl	**205**	**49.822**	ug/L	1.074	2	218	1690377	0	Standard
	Pb	**208**	**49.731**	ug/L	0.543	1	288	2250670	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 17:40:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	421201	7	Standard
⌊	**Be**	**9**	**99.955**	ug/L	1.241	1	11	345150	7	Standard
	C	**13**		ug/L			29409	37273	2	Standard
	Cl	**37**		ug/L			1805078	1687050	1	Standard
⌈>	**Sc**	**45**		ug/L			595718	584320	5	Standard
⌈	**V**	**51**	**100.986**	ug/L	1.874	1	6858	2580269	6	Standard
⌊	**V-1**	**51**	**100.807**	ug/L	2.570	2	607	2579890	6	Standard
⌈	**Cr**	**52**	**100.281**	ug/L	1.905	1	20299	2123522	7	Standard
⌊	**Cr**	**53**	**99.682**	ug/L	3.422	3	294	239836	6	Standard
⌊	**Mn**	**55**	**101.021**	ug/L	1.989	1	569	3081855	7	Standard
⌈>	**Ge**	**72**		ug/L			49648	48563	2	KED
⌈	**Co**	**59**	**100.164**	ug/L	0.982	0	6	606733	1	KED
⌊	**Ni**	**60**	**100.245**	ug/L	1.214	1	69	173141	1	KED
⌈	**Ni**	**62**	**99.398**	ug/L	2.200	2	7	28128	2	KED
⌈	**Cu**	**63**	**99.965**	ug/L	0.852	0	80	487715	2	KED
⌊	**Cu**	**65**	**99.433**	ug/L	2.197	2	43	237882	0	KED
⌈	**Zn**	**66**	**99.691**	ug/L	0.428	0	140	63899	2	KED
⌊	**Zn**	**67**	**99.440**	ug/L	3.428	3	20	10341	5	KED
⌈	**As**	**75**	**99.738**	ug/L	0.966	0	5	34065	1	KED
⌊	**Se**	**78**	**100.071**	ug/L	0.889	0	25	3200	1	KED
	Y	**89**		ug/L			347335	344310	4	Standard
	Kr	**83**		ug/L			53	51	16	Standard
⌈>	**In-1**	**115**		ug/L			11040	10995	5	KED
⌈	**Mo**	**98**	**100.263**	ug/L	3.920	3	7	163162	1	KED
⌈	**Cd**	**111**	**99.551**	ug/L	2.495	2	7	33631	2	KED
⌊	**Cd**	**114**	**99.716**	ug/L	1.599	1	9	86355	3	KED
⌈>	**In**	**115**		ug/L			434426	415507	6	Standard
⌈	**Ag**	**107**	**99.876**	ug/L	2.891	2	42	1692358	3	Standard
⌈	**Sb**	**121**	**100.509**	ug/L	1.714	1	205	1399851	5	Standard
⌊	**Sb**	**123**	**100.034**	ug/L	2.144	2	131	1064011	4	Standard
⌈	**Ba**	**135**	**99.511**	ug/L	1.707	1	60	440128	5	Standard
⌊	**Ba**	**137**	**98.726**	ug/L	1.407	1	114	764342	6	Standard
⌈>	**Tb**	**159**		ug/L			798416	777622	2	Standard
⌈	**Tl**	**205**	**99.969**	ug/L	0.374	0	218	3308264	3	Standard
⌊	**Pb**	**208**	**99.880**	ug/L	1.291	1	288	4394065	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 17:47:59
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	413436	4	Standard
⌊	**Be**	**9**	**-0.001**	ug/L	0.002	329	11	8	93	Standard
	C	**13**		ug/L			29409	27730	3	Standard
	Cl	**37**		ug/L			1805078	1796748	1	Standard
⌈>	**Sc**	**45**		ug/L			595718	561319	2	Standard
⌈	**V**	**51**	**0.015**	ug/L	0.007	47	6858	6835	0	Standard
⌊	**V-1**	**51**	**0.001**	ug/L	0.001	206	607	586	2	Standard
⌈	**Cr**	**52**	**0.063**	ug/L	0.015	24	20299	20398	0	Standard
⌊	**Cr**	**53**	**0.012**	ug/L	0.009	75	294	306	8	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	86	569	570	3	Standard
⌈>	**Ge**	**72**		ug/L			49648	48619	0	KED
⌈	**Co**	**59**	**-0.000**	ug/L	0.000	162	6	5	57	KED
⌊	**Ni**	**60**	**-0.003**	ug/L	0.011	330	69	62	28	KED
⌈	**Ni**	**62**	**0.043**	ug/L	0.014	32	7	19	20	KED
⌈	**Cu**	**63**	**-0.001**	ug/L	0.001	100	80	74	5	KED
⌊	**Cu**	**65**	**-0.001**	ug/L	0.004	565	43	40	24	KED
⌈	**Zn**	**66**	**-0.001**	ug/L	0.015	1083	140	137	7	KED
⌊	**Zn**	**67**	**0.035**	ug/L	0.046	131	20	24	19	KED
⌈	**As**	**75**	**0.005**	ug/L	0.004	67	5	7	16	KED
⌊	**Se**	**78**	**-0.020**	ug/L	0.168	851	25	23	21	KED
	Y	**89**		ug/L			347335	325367	0	Standard
	Kr	**83**		ug/L			53	47	28	Standard
⌈>	**In-1**	**115**		ug/L			11040	10626	4	KED
⌈	**Mo**	**98**	**0.020**	ug/L	0.009	43	7	39	33	KED
⌊	**Cd**	**111**	**-0.005**	ug/L	0.002	47	7	5	10	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.002	73	9	7	27	KED
⌈>	**In**	**115**		ug/L			434426	410914	3	Standard
⌈	**Ag**	**107**	**0.003**	ug/L	0.001	30	42	92	14	Standard
⌈	**Sb**	**121**	**0.022**	ug/L	0.001	2	205	491	4	Standard
⌊	**Sb**	**123**	**0.022**	ug/L	0.003	12	131	351	5	Standard
⌈	**Ba**	**135**	**-0.000**	ug/L	0.003	928	60	55	20	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.001	247	114	113	6	Standard
⌈>	**Tb**	**159**		ug/L			798416	746488	1	Standard
⌈	**Tl**	**205**	**0.003**	ug/L	0.001	19	218	302	4	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	24	288	210	8	Standard

Sample Information

Sample Date/Time: Tuesday, April 25, 2023 17:40:12
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.m
Mass Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**1.0000**	0.008	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9998**	0.044	0.20	10	20	50	100
V-1	51	**0.9999**	0.044	0.20	10	20	50	100
Cr	52	**1.0000**	0.036	0.50	10	20	50	100
Cr	53	**1.0000**	0.004	0.50	10	20	50	100
Mn	55	**0.9998**	0.052	0.50	10	20	50	100
Ge	72							
Co	59	**1.0000**	0.125	0.20	10	20	50	100
Ni	60	**1.0000**	0.036	0.50	10	20	50	100
Ni	62	**0.9999**	0.006	0.50	10	20	50	100
Cu	63	**1.0000**	0.100	0.50	10	20	50	100
Cu	65	**0.9999**	0.049	0.50	10	20	50	100
Zn	66	**1.0000**	0.013	6.00	10	20	50	100
Zn	67	**0.9998**	0.002	6.00	10	20	50	100
As	75	**1.0000**	0.007	0.20	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Mo	98	**1.0000**	0.148	0.20	10	20	50	100
Cd	111	**1.0000**	0.031	0.10	10	20	50	100
Cd	114	**1.0000**	0.079	0.10	10	20	50	100
In	115							
Ag	107	**1.0000**	0.041	0.20	10	20	50	100
Sb	121	**1.0000**	0.034	0.20	10	20	50	100
Sb	123	**1.0000**	0.026	0.20	10	20	50	100
Ba	135	**1.0000**	0.011	0.50	10	20	50	100
Ba	137	**0.9997**	0.019	0.50	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.043	0.20	10	20	50	100
Pb	208	**1.0000**	0.057	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Tuesday, April 25, 2023 17:54:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	443504	1	Standard
	Be	**9**	**52.197**	ug/L	1.960	3	11	189766	4	Standard
	C	**13**		ug/L			29409	32419	2	Standard
	Cl	**37**		ug/L			1805078	1755795	1	Standard
>	**Sc**	**45**		ug/L			595718	619304	3	Standard
	V	**51**	**51.035**	ug/L	0.952	1	6858	1385338	4	Standard
	V-1	**51**	**51.503**	ug/L	1.121	2	607	1396999	3	Standard
	Cr	**52**	**50.624**	ug/L	0.116	0	20299	1145904	3	Standard
	Cr	**53**	**52.224**	ug/L	1.905	3	294	133216	1	Standard
	Mn	**55**	**51.770**	ug/L	1.127	2	569	1672512	1	Standard
>	**Ge**	**72**		ug/L			49648	45181	1	KED
	Co	**59**	**50.294**	ug/L	0.890	1	6	283415	0	KED
	Ni	**60**	**51.514**	ug/L	1.839	3	69	82785	1	KED
	Ni	**62**	**50.914**	ug/L	2.033	3	7	13402	2	KED
	Cu	**63**	**51.212**	ug/L	1.413	2	80	232427	1	KED
	Cu	**65**	**52.133**	ug/L	1.606	3	43	116051	1	KED
	Zn	**66**	**50.207**	ug/L	1.058	2	140	29995	0	KED
	Zn	**67**	**49.560**	ug/L	0.954	1	20	4802	1	KED
	As	**75**	**48.703**	ug/L	1.320	2	5	15477	1	KED
	Se	**78**	**79.393**	ug/L	3.533	4	25	2365	2	KED
	Y	**89**		ug/L			347335	362171	4	Standard
	Kr	**83**		ug/L			53	40	7	Standard
>	**In-1**	**115**		ug/L			11040	11182	8	KED
	Mo	**98**	**48.812**	ug/L	0.498	1	7	80895	8	KED
	Cd	**111**	**50.745**	ug/L	1.115	2	7	17436	7	KED
	Cd	**114**	**50.579**	ug/L	0.265	0	9	44565	8	KED
>	**In**	**115**		ug/L			434426	441204	3	Standard
	Ag	**107**	**53.023**	ug/L	0.998	1	42	954741	1	Standard
	Sb	**121**	**51.201**	ug/L	0.747	1	205	757521	2	Standard
	Sb	**123**	**49.989**	ug/L	1.131	2	131	564846	1	Standard
	Ba	**135**	**51.697**	ug/L	0.924	1	60	242921	4	Standard
	Ba	**137**	**51.862**	ug/L	0.479	0	114	426556	4	Standard
>	**Tb**	**159**		ug/L			798416	818429	2	Standard
	Tl	**205**	**50.780**	ug/L	1.362	2	218	1768288	2	Standard
	Pb	**208**	**51.622**	ug/L	0.734	1	288	2390397	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 18:02:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	429267	2	Standard
⌊	**Be**	**9**	**51.344**	ug/L	2.020	3	11	180608	4	Standard
	C	**13**		ug/L			29409	30583	5	Standard
	Cl	**37**		ug/L			1805078	1765610	1	Standard
⌈>	**Sc**	**45**		ug/L			595718	582941	0	Standard
⌈	**V**	**51**	**51.792**	ug/L	1.148	2	6858	1323038	2	Standard
⌊	**V-1**	**51**	**52.188**	ug/L	1.183	2	607	1332536	2	Standard
⌈	**Cr**	**52**	**52.182**	ug/L	0.730	1	20299	1111197	1	Standard
⌊	**Cr**	**53**	**53.524**	ug/L	1.184	2	294	128602	2	Standard
⌊	**Mn**	**55**	**51.830**	ug/L	0.795	1	569	1576874	1	Standard
⌈>	**Ge**	**72**		ug/L			49648	50310	0	KED
⌈	**Co**	**59**	**52.667**	ug/L	1.539	2	6	330530	2	KED
⌈	**Ni**	**60**	**53.090**	ug/L	1.340	2	69	95030	1	KED
⌊	**Ni**	**62**	**52.596**	ug/L	2.341	4	7	15421	3	KED
⌈	**Cu**	**63**	**52.608**	ug/L	1.835	3	80	265936	3	KED
⌊	**Cu**	**65**	**53.133**	ug/L	1.165	2	43	131741	1	KED
⌈	**Zn**	**66**	**51.485**	ug/L	0.895	1	140	34253	1	KED
⌊	**Zn**	**67**	**51.572**	ug/L	1.358	2	20	5564	1	KED
⌈	**As**	**75**	**49.305**	ug/L	1.307	2	5	17450	2	KED
⌊	**Se**	**78**	**81.361**	ug/L	2.843	3	25	2700	3	KED
	Y	**89**		ug/L			347335	348011	1	Standard
	Kr	**83**		ug/L			53	53	15	Standard
⌈>	**In-1**	**115**		ug/L			11040	10783	1	KED
⌈	**Mo**	**98**	**49.473**	ug/L	0.347	0	7	79061	2	KED
⌈	**Cd**	**111**	**51.766**	ug/L	1.831	3	7	17172	4	KED
⌊	**Cd**	**114**	**52.109**	ug/L	1.115	2	9	44293	3	KED
⌈>	**In**	**115**		ug/L			434426	427601	1	Standard
⌈	**Ag**	**107**	**52.742**	ug/L	0.555	1	42	920785	0	Standard
⌈	**Sb**	**121**	**50.003**	ug/L	0.382	0	205	717210	0	Standard
⌊	**Sb**	**123**	**49.925**	ug/L	0.331	0	131	547031	0	Standard
⌈	**Ba**	**135**	**51.427**	ug/L	1.821	3	60	234223	3	Standard
⌊	**Ba**	**137**	**52.644**	ug/L	0.858	1	114	419569	2	Standard
⌈>	**Tb**	**159**		ug/L			798416	780030	2	Standard
⌈	**Tl**	**205**	**51.200**	ug/L	1.060	2	218	1699173	0	Standard
⌊	**Pb**	**208**	**51.561**	ug/L	0.378	0	288	2275847	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 18:09:59
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	420562	3	Standard
⌊	**Be**	**9**	**-0.001**	ug/L	0.001	166	11	7	66	Standard
	C	**13**		ug/L			29409	27709	3	Standard
	Cl	**37**		ug/L			1805078	1796631	1	Standard
⌈>	**Sc**	**45**		ug/L			595718	571721	3	Standard
⌈	**V**	**51**	**0.019**	ug/L	0.012	63	6858	7054	3	Standard
⌈	**V-1**	**51**	**-0.000**	ug/L	0.000	60	607	572	3	Standard
⌈	**Cr**	**52**	**0.069**	ug/L	0.033	48	20299	20878	2	Standard
⌈	**Cr**	**53**	**0.002**	ug/L	0.012	762	294	286	9	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.002	98	569	594	9	Standard
⌈>	**Ge**	**72**		ug/L			49648	49672	1	KED
⌈	**Co**	**59**	**-0.000**	ug/L	0.000	145	6	5	33	KED
⌈	**Ni**	**60**	**-0.010**	ug/L	0.008	74	69	51	25	KED
⌈	**Ni**	**62**	**-0.000**	ug/L	0.006	22483	7	7	25	KED
⌈	**Cu**	**63**	**0.001**	ug/L	0.002	284	80	83	12	KED
⌈	**Cu**	**65**	**-0.003**	ug/L	0.004	131	43	36	24	KED
⌈	**Zn**	**66**	**-0.016**	ug/L	0.020	125	140	130	8	KED
⌈	**Zn**	**67**	**0.024**	ug/L	0.039	161	20	23	16	KED
⌈	**As**	**75**	**-0.004**	ug/L	0.006	140	5	4	43	KED
⌊	**Se**	**78**	**-0.122**	ug/L	0.089	73	25	21	12	KED
	Y	**89**		ug/L			347335	336296	4	Standard
	Kr	**83**		ug/L			53	53	24	Standard
⌈>	**In-1**	**115**		ug/L			11040	10770	7	KED
⌈	**Mo**	**98**	**0.008**	ug/L	0.003	30	7	20	24	KED
⌈	**Cd**	**111**	**0.001**	ug/L	0.004	312	7	7	25	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.006	199	9	7	78	KED
⌈>	**In**	**115**		ug/L			434426	426101	3	Standard
⌈	**Ag**	**107**	**0.003**	ug/L	0.001	38	42	88	20	Standard
⌈	**Sb**	**121**	**0.023**	ug/L	0.004	17	205	522	11	Standard
⌈	**Sb**	**123**	**0.026**	ug/L	0.002	9	131	408	4	Standard
⌈	**Ba**	**135**	**-0.001**	ug/L	0.005	594	60	55	33	Standard
⌊	**Ba**	**137**	**-0.002**	ug/L	0.002	112	114	100	12	Standard
⌈>	**Tb**	**159**		ug/L			798416	748881	4	Standard
⌈	**Tl**	**205**	**0.001**	ug/L	0.000	42	218	231	1	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	38	288	219	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 18:15:02
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	461337	2	Standard
⌊	**Be**	**9**	**49.654**	ug/L	1.044	2	11	187745	3	Standard
	C	**13**		ug/L			29409	27364	5	Standard
	Cl	**37**		ug/L			1805078	1782580	1	Standard
⌈>	**Sc**	**45**		ug/L			595718	619110	1	Standard
⌈	**V**	**51**	**49.610**	ug/L	1.139	2	6858	1345866	1	Standard
⌊	**V-1**	**51**	**49.886**	ug/L	0.898	1	607	1352604	1	Standard
⌈	**Cr**	**52**	**50.725**	ug/L	0.396	0	20299	1147634	1	Standard
⌊	**Cr**	**53**	**51.649**	ug/L	1.231	2	294	131837	4	Standard
⌊	**Mn**	**55**	**50.540**	ug/L	0.726	1	569	1633246	3	Standard
⌈>	**Ge**	**72**		ug/L			49648	47899	2	KED
⌈	**Co**	**59**	**51.063**	ug/L	0.391	0	6	305161	2	KED
⌊	**Ni**	**60**	**51.323**	ug/L	0.087	0	69	87480	2	KED
⌈	**Ni**	**62**	**50.065**	ug/L	0.318	0	7	13980	2	KED
⌈	**Cu**	**63**	**50.605**	ug/L	0.899	1	80	243582	2	KED
⌊	**Cu**	**65**	**51.476**	ug/L	0.400	0	43	121543	2	KED
⌈	**Zn**	**66**	**51.097**	ug/L	0.600	1	140	32373	3	KED
⌊	**Zn**	**67**	**51.569**	ug/L	2.280	4	20	5294	2	KED
⌈	**As**	**75**	**50.243**	ug/L	0.816	1	5	16933	3	KED
⌊	**Se**	**78**	**50.890**	ug/L	0.946	1	25	1616	1	KED
	Y	**89**		ug/L			347335	365335	2	Standard
	Kr	**83**		ug/L			53	57	18	Standard
⌈>	**In-1**	**115**		ug/L			11040	10566	4	KED
⌈	**Mo**	**98**	**49.467**	ug/L	1.270	2	7	77397	1	KED
⌈	**Cd**	**111**	**50.181**	ug/L	0.622	1	7	16301	3	KED
⌊	**Cd**	**114**	**51.105**	ug/L	1.072	2	9	42533	2	KED
⌈>	**In**	**115**		ug/L			434426	441730	0	Standard
⌈	**Ag**	**107**	**52.240**	ug/L	1.895	3	42	942312	4	Standard
⌈	**Sb**	**121**	**49.861**	ug/L	1.469	2	205	738852	3	Standard
⌊	**Sb**	**123**	**50.237**	ug/L	1.739	3	131	568718	4	Standard
⌈	**Ba**	**135**	**51.278**	ug/L	1.417	2	60	241247	2	Standard
⌊	**Ba**	**137**	**51.654**	ug/L	0.888	1	114	425221	1	Standard
⌈>	**Tb**	**159**		ug/L			798416	833630	2	Standard
⌈	**Tl**	**205**	**49.034**	ug/L	0.416	0	218	1739735	2	Standard
⌊	**Pb**	**208**	**49.271**	ug/L	1.130	2	288	2323505	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 18:22:50
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	441029	2	Standard
⌊	**Be**	**9**	**-0.002**	ug/L	0.001	27	11	3	50	Standard
	C	**13**		ug/L			29409	28073	1	Standard
	Cl	**37**		ug/L			1805078	1817567	1	Standard
⌈>	**Sc**	**45**		ug/L			595718	591242	2	Standard
⌈	**V**	**51**	**0.017**	ug/L	0.012	72	6858	7242	3	Standard
⌈	**V-1**	**51**	**-0.002**	ug/L	0.000	26	607	559	0	Standard
⌈	**Cr**	**52**	**0.065**	ug/L	0.038	58	20299	21516	2	Standard
⌈	**Cr**	**53**	**0.001**	ug/L	0.009	1100	294	294	7	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.000	39	569	593	4	Standard
⌈>	**Ge**	**72**		ug/L			49648	49174	3	KED
⌈	**Co**	**59**	**0.000**	ug/L	0.000	1895	6	6	15	KED
⌈	**Ni**	**60**	**0.003**	ug/L	0.007	232	69	73	15	KED
⌈	**Ni**	**62**	**0.015**	ug/L	0.032	206	7	12	77	KED
⌈	**Cu**	**63**	**-0.002**	ug/L	0.000	22	80	71	1	KED
⌈	**Cu**	**65**	**-0.002**	ug/L	0.003	157	43	38	22	KED
⌈	**Zn**	**66**	**-0.009**	ug/L	0.014	151	140	133	9	KED
⌈	**Zn**	**67**	**0.013**	ug/L	0.039	298	20	22	21	KED
⌈	**As**	**75**	**-0.003**	ug/L	0.002	76	5	4	11	KED
⌊	**Se**	**78**	**-0.187**	ug/L	0.141	75	25	18	20	KED
	Y	**89**		ug/L			347335	341038	3	Standard
	Kr	**83**		ug/L			53	54	24	Standard
⌈>	**In-1**	**115**		ug/L			11040	11496	1	KED
⌈	**Mo**	**98**	**0.011**	ug/L	0.004	33	7	27	22	KED
⌈	**Cd**	**111**	**-0.009**	ug/L	0.007	76	7	4	53	KED
⌊	**Cd**	**114**	**-0.006**	ug/L	0.003	52	9	4	61	KED
⌈>	**In**	**115**		ug/L			434426	430983	2	Standard
⌈	**Ag**	**107**	**0.002**	ug/L	0.000	19	42	71	7	Standard
⌈	**Sb**	**121**	**0.049**	ug/L	0.001	2	205	913	1	Standard
⌈	**Sb**	**123**	**0.051**	ug/L	0.006	11	131	695	9	Standard
⌈	**Ba**	**135**	**-0.002**	ug/L	0.002	111	60	52	12	Standard
⌊	**Ba**	**137**	**-0.002**	ug/L	0.001	31	114	94	4	Standard
⌈>	**Tb**	**159**		ug/L			798416	781385	2	Standard
⌈	**Tl**	**205**	**0.001**	ug/L	0.001	37	218	259	6	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	24	288	216	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 18:27:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	430291	3	Standard
⌊	**Be**	**9**	**0.200**	ug/L	0.005	2	11	715	3	Standard
	C	**13**		ug/L			29409	28935	2	Standard
	Cl	**37**		ug/L			1805078	1801250	1	Standard
⌈>	**Sc**	**45**		ug/L			595718	584394	2	Standard
⌈	**V**	**51**	**0.212**	ug/L	0.012	5	6858	12123	2	Standard
⌊	**V-1**	**51**	**0.196**	ug/L	0.005	2	607	5620	0	Standard
⌈	**Cr**	**52**	**0.554**	ug/L	0.035	6	20299	31513	1	Standard
⌊	**Cr**	**53**	**0.496**	ug/L	0.021	4	294	1481	1	Standard
⌊	**Mn**	**55**	**0.502**	ug/L	0.003	0	569	15857	1	Standard
⌈>	**Ge**	**72**		ug/L			49648	46541	1	KED
⌈	**Co**	**59**	**0.211**	ug/L	0.008	3	6	1231	1	KED
⌊	**Ni**	**60**	**0.496**	ug/L	0.019	3	69	886	5	KED
⌈	**Ni**	**62**	**0.447**	ug/L	0.044	9	7	128	8	KED
⌈	**Cu**	**63**	**0.536**	ug/L	0.004	0	80	2579	2	KED
⌊	**Cu**	**65**	**0.544**	ug/L	0.024	4	43	1287	2	KED
⌈	**Zn**	**66**	**6.153**	ug/L	0.246	4	140	3905	5	KED
⌊	**Zn**	**67**	**6.009**	ug/L	0.047	0	20	617	1	KED
⌈	**As**	**75**	**0.189**	ug/L	0.015	7	5	67	8	KED
⌊	**Se**	**78**	**0.303**	ug/L	0.080	26	25	32	6	KED
	Y	**89**		ug/L			347335	341354	1	Standard
	Kr	**83**		ug/L			53	55	14	Standard
⌈>	**In-1**	**115**		ug/L			11040	10341	3	KED
⌈	**Mo**	**98**	**0.182**	ug/L	0.025	13	7	286	16	KED
⌈	**Cd**	**111**	**0.092**	ug/L	0.009	9	7	36	9	KED
⌊	**Cd**	**114**	**0.096**	ug/L	0.020	21	9	87	18	KED
⌈>	**In**	**115**		ug/L			434426	417991	2	Standard
⌈	**Ag**	**107**	**0.214**	ug/L	0.002	1	42	3698	2	Standard
⌈	**Sb**	**121**	**0.203**	ug/L	0.007	3	205	3047	5	Standard
⌊	**Sb**	**123**	**0.206**	ug/L	0.005	2	131	2328	3	Standard
⌈	**Ba**	**135**	**0.488**	ug/L	0.025	5	60	2230	6	Standard
⌊	**Ba**	**137**	**0.516**	ug/L	0.007	1	114	4132	4	Standard
⌈>	**Tb**	**159**		ug/L			798416	778026	1	Standard
⌈	**Tl**	**205**	**0.193**	ug/L	0.004	2	218	6597	2	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.001	1	288	4684	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 18:33:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	469789	0	Standard
	Be	**9**	**0.009**	ug/L	0.002	21	11	45	14	Standard
	C	**13**		ug/L			29409	127482	1	Standard
	Cl	**37**		ug/L			1805078	2351127	1	Standard
>	**Sc**	**45**		ug/L			595718	580244	1	Standard
	V	**51**	**0.099**	ug/L	0.051	51	6858	9183	14	Standard
	V-1	**51**	**1.952**	ug/L	0.059	3	607	50168	1	Standard
	Cr	**52**	**0.775**	ug/L	0.047	6	20299	35905	1	Standard
	Cr	**53**	**7.075**	ug/L	0.242	3	294	17164	2	Standard
	Mn	**55**	**0.094**	ug/L	0.001	1	569	3403	0	Standard
>	**Ge**	**72**		ug/L			49648	44061	1	KED
	Co	**59**	**0.037**	ug/L	0.004	10	6	210	9	KED
	Ni	**60**	**0.073**	ug/L	0.020	27	69	175	17	KED
	Ni	**62**	**0.112**	ug/L	0.025	21	7	35	18	KED
	Cu	**63**	**0.040**	ug/L	0.003	6	80	250	3	KED
	Cu	**65**	**0.044**	ug/L	0.007	15	43	133	12	KED
	Zn	**66**	**0.269**	ug/L	0.063	23	140	281	13	KED
	Zn	**67**	**0.322**	ug/L	0.065	20	20	48	11	KED
	As	**75**	**0.030**	ug/L	0.010	33	5	14	22	KED
	Se	**78**	**-0.052**	ug/L	0.133	257	25	20	19	KED
	Y	**89**		ug/L			347335	334513	2	Standard
	Kr	**83**		ug/L			53	61	9	Standard
>	**In-1**	**115**		ug/L			11040	10093	2	KED
	Mo	**98**	**403.587**	ug/L	7.402	1	7	603402	1	KED
	Cd	**111**	**0.102**	ug/L	0.004	3	7	38	5	KED
	Cd	**114**	**0.085**	ug/L	0.021	24	9	76	23	KED
>	**In**	**115**		ug/L			434426	425450	1	Standard
	Ag	**107**	**0.010**	ug/L	0.001	7	42	222	6	Standard
	Sb	**121**	**0.039**	ug/L	0.004	9	205	763	6	Standard
	Sb	**123**	**0.043**	ug/L	0.003	7	131	598	4	Standard
	Ba	**135**	**0.117**	ug/L	0.002	2	60	587	3	Standard
	Ba	**137**	**0.115**	ug/L	0.006	5	114	1020	3	Standard
>	**Tb**	**159**		ug/L			798416	856122	1	Standard
	Tl	**205**	**0.013**	ug/L	0.001	7	218	694	6	Standard
	Pb	**208**	**0.030**	ug/L	0.002	7	288	1764	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 18:38:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			449997	488991	6	Standard
[	**Be**	**9**	**0.006**	ug/L	0.003	52	11	37	37	Standard
	C	**13**		ug/L			29409	133618	1	Standard
	Cl	**37**		ug/L			1805078	2259116	1	Standard
[>	**Sc**	**45**		ug/L			595718	575052	4	Standard
[	**V**	**51**	**-0.065**	ug/L	0.038	58	6858	4993	20	Standard
[	**V-1**	**51**	**1.918**	ug/L	0.004	0	607	48870	4	Standard
[	**Cr**	**52**	**19.838**	ug/L	0.431	2	20299	428692	2	Standard
[	**Cr**	**53**	**26.306**	ug/L	0.348	1	294	62473	2	Standard
[	**Mn**	**55**	**19.216**	ug/L	0.126	0	569	577048	4	Standard
[>	**Ge**	**72**		ug/L			49648	46367	4	KED
[	**Co**	**59**	**20.411**	ug/L	0.429	2	6	118033	3	KED
[	**Ni**	**60**	**20.568**	ug/L	0.090	0	69	33979	4	KED
[	**Ni**	**62**	**20.412**	ug/L	0.121	0	7	5521	4	KED
[	**Cu**	**63**	**20.366**	ug/L	0.225	1	80	94925	3	KED
[	**Cu**	**65**	**20.923**	ug/L	0.324	1	43	47827	3	KED
[	**Zn**	**66**	**19.373**	ug/L	0.338	1	140	11966	5	KED
[	**Zn**	**67**	**18.486**	ug/L	0.174	0	20	1851	5	KED
[	**As**	**75**	**20.267**	ug/L	0.109	0	5	6614	4	KED
[	**Se**	**78**	**-0.117**	ug/L	0.100	85	25	19	11	KED
	Y	**89**		ug/L			347335	330187	6	Standard
	Kr	**83**		ug/L			53	57	15	Standard
[>	**In-1**	**115**		ug/L			11040	10462	4	KED
[	**Mo**	**98**	**418.373**	ug/L	9.268	2	7	648263	2	KED
[	**Cd**	**111**	**20.808**	ug/L	0.274	1	7	6700	4	KED
[	**Cd**	**114**	**20.635**	ug/L	0.230	1	9	17022	4	KED
[>	**In**	**115**		ug/L			434426	430695	5	Standard
[	**Ag**	**107**	**17.920**	ug/L	0.226	1	42	315120	5	Standard
[	**Sb**	**121**	**0.031**	ug/L	0.002	7	205	649	3	Standard
[	**Sb**	**123**	**0.032**	ug/L	0.003	9	131	478	0	Standard
[	**Ba**	**135**	**0.150**	ug/L	0.006	3	60	746	3	Standard
[	**Ba**	**137**	**0.143**	ug/L	0.008	5	114	1256	3	Standard
[>	**Tb**	**159**		ug/L			798416	875218	3	Standard
[	**Tl**	**205**	**0.005**	ug/L	0.001	12	218	426	5	Standard
[	**Pb**	**208**	**0.025**	ug/L	0.001	3	288	1530	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 18:43:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	425040	2	Standard
⌊	**Be**	**9**	**195.159**	ug/L	8.453	4	11	679429	3	Standard
	C	**13**		ug/L			29409	33994	1	Standard
	Cl	**37**		ug/L			1805078	1454996	2	Standard
⌈>	**Sc**	**45**		ug/L			595718	553057	2	Standard
⌈	**V**	**51**	**199.201**	ug/L	4.217	2	6858	4809216	2	Standard
⌊	**V-1**	**51**	**199.272**	ug/L	2.823	1	607	4825391	2	Standard
⌈	**Cr**	**52**	**199.326**	ug/L	3.013	1	20299	3973766	3	Standard
⌊	**Cr**	**53**	**199.566**	ug/L	2.167	1	294	454208	3	Standard
	Mn	**55**	**199.487**	ug/L	7.156	3	569	5756462	4	Standard
⌈>	**Ge**	**72**		ug/L			49648	44380	2	KED
⌈	**Co**	**59**	**200.747**	ug/L	1.975	0	6	1111299	1	KED
⌈	**Ni**	**60**	**203.177**	ug/L	1.376	0	69	320665	1	KED
⌊	**Ni**	**62**	**200.270**	ug/L	3.776	1	7	51777	0	KED
⌈	**Cu**	**63**	**203.192**	ug/L	2.551	1	80	905779	0	KED
⌊	**Cu**	**65**	**207.052**	ug/L	2.005	0	43	452812	2	KED
⌈	**Zn**	**66**	**199.218**	ug/L	2.043	1	140	116564	2	KED
⌊	**Zn**	**67**	**199.369**	ug/L	6.644	3	20	18915	1	KED
⌈	**As**	**75**	**203.655**	ug/L	3.340	1	5	63561	1	KED
⌊	**Se**	**78**	**197.364**	ug/L	3.207	1	25	5745	0	KED
	Y	**89**		ug/L			347335	323348	1	Standard
	Kr	**83**		ug/L			53	76	10	Standard
⌈>	**In-1**	**115**		ug/L			11040	10215	5	KED
⌈	**Mo**	**98**	**211.949**	ug/L	4.167	1	7	320698	4	KED
⌈	**Cd**	**111**	**203.685**	ug/L	3.744	1	7	63936	4	KED
⌊	**Cd**	**114**	**203.403**	ug/L	10.330	5	9	163432	1	KED
⌈>	**In**	**115**		ug/L			434426	404343	4	Standard
⌈	**Ag**	**107**	**200.481**	ug/L	4.229	2	42	3307983	2	Standard
⌈	**Sb**	**121**	**207.629**	ug/L	8.489	4	205	2813036	2	Standard
⌊	**Sb**	**123**	**212.085**	ug/L	9.225	4	131	2194776	1	Standard
⌈	**Ba**	**135**	**197.773**	ug/L	6.069	3	60	851432	4	Standard
⌊	**Ba**	**137**	**203.911**	ug/L	6.473	3	114	1535108	1	Standard
⌈>	**Tb**	**159**		ug/L			798416	793020	2	Standard
⌈	**Tl**	**205**	**203.006**	ug/L	3.547	1	218	6849655	1	Standard
⌊	**Pb**	**208**	**201.127**	ug/L	4.519	2	288	9025290	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 18:48:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	401145	6	Standard
	Be	**9**	**294.334**	ug/L	5.767	1	11	966924	4	Standard
	C	**13**		ug/L			29409	34643	4	Standard
	Cl	**37**		ug/L			1805078	1380889	3	Standard
>	**Sc**	**45**		ug/L			595718	527221	6	Standard
	V	**51**	**308.420**	ug/L	10.575	3	6858	7084800	3	Standard
	V-1	**51**	**307.711**	ug/L	9.893	3	607	7093222	3	Standard
	Cr	**52**	**303.043**	ug/L	7.731	2	20299	5744412	4	Standard
	Cr	**53**	**300.708**	ug/L	6.535	2	294	651811	5	Standard
	Mn	**55**	**298.991**	ug/L	12.457	4	569	8209235	2	Standard
>	**Ge**	**72**		ug/L			49648	44342	5	KED
	Co	**59**	**305.908**	ug/L	4.672	1	6	1691745	4	KED
	Ni	**60**	**298.698**	ug/L	1.673	0	69	470934	4	KED
	Ni	**62**	**299.276**	ug/L	5.746	1	7	77278	3	KED
	Cu	**63**	**295.223**	ug/L	2.463	0	80	1314936	4	KED
	Cu	**65**	**301.477**	ug/L	3.095	1	43	658526	4	KED
	Zn	**66**	**285.467**	ug/L	5.938	2	140	166718	3	KED
	Zn	**67**	**291.072**	ug/L	6.110	2	20	27584	4	KED
	As	**75**	**300.883**	ug/L	3.153	1	5	93806	4	KED
	Se	**78**	**289.017**	ug/L	1.992	0	25	8396	4	KED
	Y	**89**		ug/L			347335	313366	5	Standard
	Kr	**83**		ug/L			53	104	0	Standard
>	**In-1**	**115**		ug/L			11040	9639	1	KED
	Mo	**98**	**317.271**	ug/L	3.332	1	7	453096	1	KED
	Cd	**111**	**302.386**	ug/L	3.232	1	7	89599	0	KED
	Cd	**114**	**300.173**	ug/L	2.157	0	9	227978	1	KED
>	**In**	**115**		ug/L			434426	377591	4	Standard
	Ag	**107**	**297.498**	ug/L	6.678	2	42	4585408	4	Standard
	Sb	**121**	**313.843**	ug/L	4.269	1	205	3972649	3	Standard
	Sb	**123**	**313.493**	ug/L	6.913	2	131	3032653	4	Standard
	Ba	**135**	**293.753**	ug/L	4.130	1	60	1181193	4	Standard
	Ba	**137**	**309.312**	ug/L	8.331	2	114	2175488	4	Standard
>	**Tb**	**159**		ug/L			798416	744900	3	Standard
	Tl	**205**	**300.256**	ug/L	3.788	1	218	9516496	3	Standard
	Pb	**208**	**299.835**	ug/L	0.992	0	288	12637397	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 18:56:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	436415	3	Standard
	Be	**9**	**0.000**	ug/L	0.001	445	11	12	36	Standard
	C	**13**		ug/L			29409	30515	3	Standard
	Cl	**37**		ug/L			1805078	1752809	1	Standard
>	**Sc**	**45**		ug/L			595718	576917	4	Standard
	V	**51**	**0.014**	ug/L	0.006	43	6858	6981	2	Standard
	V-1	**51**	**0.018**	ug/L	0.002	12	607	1039	4	Standard
	Cr	**52**	**0.038**	ug/L	0.016	41	20299	20437	3	Standard
	Cr	**53**	**0.052**	ug/L	0.003	6	294	409	5	Standard
	Mn	**55**	**0.008**	ug/L	0.001	14	569	781	5	Standard
>	**Ge**	**72**		ug/L			49648	50165	0	KED
	Co	**59**	**-0.000**	ug/L	0.000	307	6	6	34	KED
	Ni	**60**	**-0.013**	ug/L	0.009	71	69	46	34	KED
	Ni	**62**	**0.015**	ug/L	0.010	67	7	12	24	KED
	Cu	**63**	**0.006**	ug/L	0.001	10	80	108	3	KED
	Cu	**65**	**0.000**	ug/L	0.004	1104	43	44	20	KED
	Zn	**66**	**-0.118**	ug/L	0.015	12	140	64	15	KED
	Zn	**67**	**-0.091**	ug/L	0.082	90	20	11	76	KED
	As	**75**	**0.005**	ug/L	0.005	113	5	7	25	KED
	Se	**78**	**0.063**	ug/L	0.024	38	25	27	3	KED
	Y	**89**		ug/L			347335	329564	4	Standard
	Kr	**83**		ug/L			53	43	13	Standard
>	**In-1**	**115**		ug/L			11040	10749	2	KED
	Mo	**98**	**0.029**	ug/L	0.014	48	7	54	41	KED
	Cd	**111**	**0.005**	ug/L	0.011	234	7	8	38	KED
	Cd	**114**	**0.006**	ug/L	0.007	118	9	14	42	KED
>	**In**	**115**		ug/L			434426	426699	7	Standard
	Ag	**107**	**0.009**	ug/L	0.002	19	42	200	9	Standard
	Sb	**121**	**0.196**	ug/L	0.010	4	205	3003	4	Standard
	Sb	**123**	**0.197**	ug/L	0.008	3	131	2282	5	Standard
	Ba	**135**	**-0.002**	ug/L	0.002	80	60	48	19	Standard
	Ba	**137**	**-0.005**	ug/L	0.001	11	114	76	10	Standard
>	**Tb**	**159**		ug/L			798416	780184	4	Standard
	Tl	**205**	**0.012**	ug/L	0.000	2	218	601	6	Standard
	Pb	**208**	**-0.001**	ug/L	0.000	38	288	243	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 19:03:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	465712	3	Standard
⌊	**Be**	**9**	**-0.001**	ug/L	0.001	109	11	8	32	Standard
	C	**13**		ug/L			29409	31404	1	Standard
	Cl	**37**		ug/L			1805078	1763583	1	Standard
⌈>	**Sc**	**45**		ug/L			595718	613054	0	Standard
⌈	**V**	**51**	**0.011**	ug/L	0.002	18	6858	7353	0	Standard
⌊	**V-1**	**51**	**0.011**	ug/L	0.001	12	607	913	4	Standard
⌈	**Cr**	**52**	**0.037**	ug/L	0.006	16	20299	21706	0	Standard
⌊	**Cr**	**53**	**0.036**	ug/L	0.007	19	294	393	4	Standard
⌊	**Mn**	**55**	**0.008**	ug/L	0.001	17	569	832	4	Standard
⌈>	**Ge**	**72**		ug/L			49648	47335	2	KED
⌈	**Co**	**59**	**-0.001**	ug/L	0.001	86	6	3	91	KED
⌊	**Ni**	**60**	**-0.014**	ug/L	0.002	10	69	41	9	KED
⌈	**Ni**	**62**	**0.013**	ug/L	0.013	104	7	10	36	KED
⌈	**Cu**	**63**	**0.005**	ug/L	0.001	26	80	97	5	KED
⌊	**Cu**	**65**	**0.006**	ug/L	0.006	90	43	56	27	KED
⌈	**Zn**	**66**	**-0.095**	ug/L	0.026	27	140	74	20	KED
⌊	**Zn**	**67**	**-0.085**	ug/L	0.047	55	20	11	44	KED
⌈	**As**	**75**	**0.004**	ug/L	0.003	71	5	6	15	KED
⌊	**Se**	**78**	**0.022**	ug/L	0.069	318	25	24	11	KED
	Y	**89**		ug/L			347335	353910	0	Standard
	Kr	**83**		ug/L			53	48	11	Standard
⌈>	**In-1**	**115**		ug/L			11040	10737	5	KED
⌈	**Mo**	**98**	**0.019**	ug/L	0.008	38	7	37	27	KED
⌈	**Cd**	**111**	**0.002**	ug/L	0.003	201	7	7	12	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.003	113	9	7	26	KED
⌈>	**In**	**115**		ug/L			434426	460645	1	Standard
⌈	**Ag**	**107**	**0.001**	ug/L	0.001	65	42	71	24	Standard
⌈	**Sb**	**121**	**0.057**	ug/L	0.005	8	205	1102	4	Standard
⌊	**Sb**	**123**	**0.061**	ug/L	0.004	6	131	863	3	Standard
⌈	**Ba**	**135**	**-0.003**	ug/L	0.001	22	60	51	3	Standard
⌊	**Ba**	**137**	**-0.005**	ug/L	0.001	20	114	77	10	Standard
⌈>	**Tb**	**159**		ug/L			798416	815634	1	Standard
⌈	**Tl**	**205**	**0.004**	ug/L	0.001	33	218	346	10	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	24	288	262	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 19:09:51
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	461984	1	Standard
	Be	**9**	**50.545**	ug/L	0.743	1	11	191347	0	Standard
	C	**13**		ug/L			29409	29641	3	Standard
	Cl	**37**		ug/L			1805078	1725594	1	Standard
>	**Sc**	**45**		ug/L			595718	612295	3	Standard
	V	**51**	**48.872**	ug/L	1.176	2	6858	1310966	1	Standard
	V-1	**51**	**49.251**	ug/L	0.880	1	607	1320365	1	Standard
	Cr	**52**	**49.616**	ug/L	1.986	4	20299	1109762	0	Standard
	Cr	**53**	**50.897**	ug/L	1.697	3	294	128408	3	Standard
	Mn	**55**	**49.100**	ug/L	1.019	2	569	1568373	2	Standard
>	**Ge**	**72**		ug/L			49648	47278	3	KED
	Co	**59**	**50.481**	ug/L	1.603	3	6	297615	3	KED
	Ni	**60**	**51.458**	ug/L	0.819	1	69	86538	1	KED
	Ni	**62**	**51.048**	ug/L	0.644	1	7	14064	2	KED
	Cu	**63**	**51.763**	ug/L	1.655	3	80	245846	3	KED
	Cu	**65**	**52.750**	ug/L	1.043	1	43	122868	1	KED
	Zn	**66**	**51.668**	ug/L	1.000	1	140	32299	3	KED
	Zn	**67**	**51.694**	ug/L	0.975	1	20	5239	1	KED
	As	**75**	**50.849**	ug/L	0.492	0	5	16910	2	KED
	Se	**78**	**50.782**	ug/L	0.943	1	25	1593	4	KED
	Y	**89**		ug/L			347335	355915	4	Standard
	Kr	**83**		ug/L			53	57	28	Standard
>	**In-1**	**115**		ug/L			11040	10794	4	KED
	Mo	**98**	**49.896**	ug/L	1.017	2	7	79869	6	KED
	Cd	**111**	**50.603**	ug/L	0.226	0	7	16798	4	KED
	Cd	**114**	**50.203**	ug/L	1.027	2	9	42735	6	KED
>	**In**	**115**		ug/L			434426	443421	3	Standard
	Ag	**107**	**50.603**	ug/L	0.761	1	42	915871	2	Standard
	Sb	**121**	**49.983**	ug/L	0.711	1	205	743267	3	Standard
	Sb	**123**	**51.656**	ug/L	2.306	4	131	586261	0	Standard
	Ba	**135**	**51.776**	ug/L	0.744	1	60	244582	4	Standard
	Ba	**137**	**53.097**	ug/L	1.504	2	114	438480	1	Standard
>	**Tb**	**159**		ug/L			798416	845294	0	Standard
	Tl	**205**	**49.751**	ug/L	0.354	0	218	1789729	0	Standard
	Pb	**208**	**49.752**	ug/L	0.995	1	288	2380032	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 19:18:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	434813	5	Standard
	Be	**9**	**0.000**	ug/L	0.002	588	11	12	70	Standard
	C	**13**		ug/L			29409	29269	1	Standard
	Cl	**37**		ug/L			1805078	1774069	2	Standard
>	**Sc**	**45**		ug/L			595718	567503	7	Standard
	V	**51**	**0.021**	ug/L	0.003	13	6858	7053	6	Standard
	V-1	**51**	**0.006**	ug/L	0.003	40	607	732	3	Standard
	Cr	**52**	**0.081**	ug/L	0.007	8	20299	20989	6	Standard
	Cr	**53**	**0.030**	ug/L	0.009	28	294	350	2	Standard
	Mn	**55**	**0.002**	ug/L	0.000	21	569	595	6	Standard
>	**Ge**	**72**		ug/L			49648	48365	1	KED
	Co	**59**	**-0.001**	ug/L	0.000	80	6	3	91	KED
	Ni	**60**	**0.002**	ug/L	0.007	290	69	71	18	KED
	Ni	**62**	**0.010**	ug/L	0.004	43	7	10	10	KED
	Cu	**63**	**0.001**	ug/L	0.002	135	80	83	9	KED
	Cu	**65**	**-0.000**	ug/L	0.006	2332	43	41	35	KED
	Zn	**66**	**0.003**	ug/L	0.016	565	140	139	6	KED
	Zn	**67**	**0.030**	ug/L	0.066	219	20	23	28	KED
	As	**75**	**0.001**	ug/L	0.010	1146	5	6	55	KED
	Se	**78**	**-0.081**	ug/L	0.121	148	25	21	16	KED
	Y	**89**		ug/L			347335	334888	6	Standard
	Kr	**83**		ug/L			53	50	28	Standard
>	**In-1**	**115**		ug/L			11040	11170	3	KED
	Mo	**98**	**0.009**	ug/L	0.003	30	7	22	22	KED
	Cd	**111**	**0.002**	ug/L	0.013	837	7	7	56	KED
	Cd	**114**	**-0.002**	ug/L	0.006	334	9	8	62	KED
>	**In**	**115**		ug/L			434426	423354	5	Standard
	Ag	**107**	**0.002**	ug/L	0.001	34	42	78	13	Standard
	Sb	**121**	**0.067**	ug/L	0.003	4	205	1156	6	Standard
	Sb	**123**	**0.068**	ug/L	0.002	2	131	867	7	Standard
	Ba	**135**	**-0.001**	ug/L	0.001	103	60	52	7	Standard
	Ba	**137**	**0.000**	ug/L	0.001	2502	114	112	10	Standard
>	**Tb**	**159**		ug/L			798416	782066	5	Standard
	Tl	**205**	**0.003**	ug/L	0.000	13	218	306	6	Standard
	Pb	**208**	**-0.001**	ug/L	0.000	18	288	216	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0249-BLK3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 19:26:16
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			449997	462015	3	Standard
[	**Be**	**9**	**0.001**	ug/L	0.001	77	11	15	18	Standard
	C	**13**		ug/L			29409	46724	5	Standard
	Cl	**37**		ug/L			1805078	1785130	1	Standard
[>	**Sc**	**45**		ug/L			595718	606137	6	Standard
[	**V**	**51**	**0.028**	ug/L	0.014	51	6858	7706	3	Standard
[	**V-1**	**51**	**0.008**	ug/L	0.002	24	607	828	2	Standard
[	**Cr**	**52**	**0.119**	ug/L	0.045	38	20299	23192	3	Standard
[	**Cr**	**53**	**0.049**	ug/L	0.008	17	294	421	4	Standard
[	**Mn**	**55**	**0.050**	ug/L	0.003	6	569	2173	6	Standard
[>	**Ge**	**72**		ug/L			49648	50607	2	KED
[	**Co**	**59**	**-0.000**	ug/L	0.000	147	6	5	57	KED
[	**Ni**	**60**	**-0.008**	ug/L	0.008	97	69	55	25	KED
[	**Ni**	**62**	**0.030**	ug/L	0.004	13	7	16	6	KED
[	**Cu**	**63**	**0.021**	ug/L	0.004	19	80	187	11	KED
[	**Cu**	**65**	**0.027**	ug/L	0.009	34	43	109	18	KED
[	**Zn**	**66**	**0.204**	ug/L	0.070	34	140	280	18	KED
[	**Zn**	**67**	**0.297**	ug/L	0.109	36	20	53	19	KED
[	**As**	**75**	**-0.003**	ug/L	0.001	20	5	5	5	KED
[	**Se**	**78**	**-0.165**	ug/L	0.043	26	25	20	9	KED
	Y	**89**		ug/L			347335	351558	2	Standard
	Kr	**83**		ug/L			53	46	31	Standard
[>	**In-1**	**115**		ug/L			11040	11374	3	KED
[	**Mo**	**98**	**0.019**	ug/L	0.003	15	7	39	13	KED
[	**Cd**	**111**	**-0.004**	ug/L	0.004	99	7	6	24	KED
[	**Cd**	**114**	**-0.003**	ug/L	0.005	172	9	7	52	KED
[>	**In**	**115**		ug/L			434426	440634	3	Standard
[	**Ag**	**107**	**0.001**	ug/L	0.000	14	42	69	7	Standard
[	**Sb**	**121**	**0.030**	ug/L	0.004	11	205	658	10	Standard
[	**Sb**	**123**	**0.037**	ug/L	0.002	4	131	556	5	Standard
[	**Ba**	**135**	**0.021**	ug/L	0.005	23	60	159	15	Standard
[	**Ba**	**137**	**0.025**	ug/L	0.003	11	114	318	6	Standard
[>	**Tb**	**159**		ug/L			798416	815291	4	Standard
[	**Tl**	**205**	**-0.001**	ug/L	0.001	120	218	205	14	Standard
[	**Pb**	**208**	**0.003**	ug/L	0.001	17	288	436	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0249-BS3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 19:31:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	489246	1	Standard
	Be	**9**	**26.212**	ug/L	0.961	3	11	105091	3	Standard
	C	**13**		ug/L			29409	49412	1	Standard
	Cl	**37**		ug/L			1805078	1735888	2	Standard
>	**Sc**	**45**		ug/L			595718	649037	2	Standard
	V	**51**	**25.677**	ug/L	0.421	1	6858	733870	1	Standard
	V-1	**51**	**25.743**	ug/L	0.438	1	607	731968	1	Standard
	Cr	**52**	**26.233**	ug/L	0.617	2	20299	632724	0	Standard
	Cr	**53**	**26.451**	ug/L	0.691	2	294	70889	0	Standard
	Mn	**55**	**25.823**	ug/L	0.513	1	569	874835	2	Standard
>	**Ge**	**72**		ug/L			49648	47566	1	KED
	Co	**59**	**25.946**	ug/L	0.504	1	6	153934	0	KED
	Ni	**60**	**26.528**	ug/L	0.882	3	69	44918	1	KED
	Ni	**62**	**25.990**	ug/L	0.312	1	7	7210	2	KED
	Cu	**63**	**26.131**	ug/L	0.600	2	80	124903	0	KED
	Cu	**65**	**26.696**	ug/L	0.862	3	43	62587	1	KED
	Zn	**66**	**85.056**	ug/L	1.463	1	140	53408	0	KED
	Zn	**67**	**81.956**	ug/L	2.629	3	20	8346	1	KED
	As	**75**	**26.340**	ug/L	0.480	1	5	8815	0	KED
	Se	**78**	**84.909**	ug/L	1.766	2	25	2663	0	KED
	Y	**89**		ug/L			347335	383974	1	Standard
	Kr	**83**		ug/L			53	52	22	Standard
>	**In-1**	**115**		ug/L			11040	10689	5	KED
	Mo	**98**	**26.849**	ug/L	0.458	1	7	42508	4	KED
	Cd	**111**	**26.522**	ug/L	1.027	3	7	8710	2	KED
	Cd	**114**	**26.560**	ug/L	0.845	3	9	22355	3	KED
>	**In**	**115**		ug/L			434426	468655	1	Standard
	Ag	**107**	**26.100**	ug/L	0.660	2	42	499337	1	Standard
	Sb	**121**	**26.280**	ug/L	0.170	0	205	413232	1	Standard
	Sb	**123**	**26.575**	ug/L	0.664	2	131	319127	0	Standard
	Ba	**135**	**26.538**	ug/L	0.732	2	60	132463	1	Standard
	Ba	**137**	**27.212**	ug/L	0.325	1	114	237710	0	Standard
>	**Tb**	**159**		ug/L			798416	871776	1	Standard
	Tl	**205**	**25.898**	ug/L	0.721	2	218	961224	4	Standard
	Pb	**208**	**25.773**	ug/L	0.170	0	288	1271670	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0644-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 19:36:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			449997	447606	4	Standard
	Be	9	-0.001	ug/L	0.001	122	11	8	48	Standard
	C	13		ug/L			29409	44637	4	Standard
	Cl	37		ug/L			1805078	1786226	1	Standard
>	Sc	45		ug/L			595718	593794	5	Standard
	V	51	0.018	ug/L	0.006	35	6858	7294	4	Standard
	V-1	51	0.004	ug/L	0.003	69	607	702	5	Standard
	Cr	52	0.083	ug/L	0.018	21	20299	22009	5	Standard
	Cr	53	0.035	ug/L	0.002	6	294	379	6	Standard
	Mn	55	0.036	ug/L	0.001	2	569	1672	4	Standard
>	Ge	72		ug/L			49648	47970	2	KED
	Co	59	-0.000	ug/L	0.001	379	6	5	66	KED
	Ni	60	-0.026	ug/L	0.001	5	69	22	8	KED
	Ni	62	-0.008	ug/L	0.008	101	7	5	43	KED
	Cu	63	0.013	ug/L	0.005	38	80	138	15	KED
	Cu	65	0.013	ug/L	0.006	47	43	72	18	KED
	Zn	66	0.026	ug/L	0.039	150	140	152	15	KED
	Zn	67	0.075	ug/L	0.067	88	20	27	23	KED
	As	75	0.004	ug/L	0.003	67	5	7	13	KED
	Se	78	-0.165	ug/L	0.057	34	25	19	7	KED
	Y	89		ug/L			347335	337874	4	Standard
	Kr	83		ug/L			53	57	19	Standard
>	In-1	115		ug/L			11040	11173	1	KED
	Mo	98	0.015	ug/L	0.005	30	7	32	23	KED
	Cd	111	-0.005	ug/L	0.003	54	7	5	16	KED
	Cd	114	-0.002	ug/L	0.007	370	9	8	69	KED
>	In	115		ug/L			434426	432229	5	Standard
	Ag	107	0.001	ug/L	0.001	55	42	64	13	Standard
	Sb	121	0.009	ug/L	0.001	15	205	335	11	Standard
	Sb	123	0.011	ug/L	0.001	11	131	253	2	Standard
	Ba	135	0.394	ug/L	0.014	3	60	1872	5	Standard
	Ba	137	0.398	ug/L	0.004	0	114	3321	6	Standard
>	Tb	159		ug/L			798416	798500	4	Standard
	Tl	205	-0.001	ug/L	0.000	44	218	184	10	Standard
	Pb	208	-0.000	ug/L	0.001	154	288	267	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0644-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 19:41:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			449997	459326	1	Standard
	Be	9	25.930	ug/L	0.140	0	11	97613	0	Standard
	C	13		ug/L			29409	48751	2	Standard
	Cl	37		ug/L			1805078	1741034	1	Standard
>	Sc	45		ug/L			595718	619098	3	Standard
	V	51	25.184	ug/L	0.556	2	6858	686590	1	Standard
	V-1	51	25.264	ug/L	0.521	2	607	685108	1	Standard
	Cr	52	25.435	ug/L	0.435	1	20299	585846	1	Standard
	Cr	53	25.702	ug/L	0.321	1	294	65726	2	Standard
	Mn	55	25.543	ug/L	0.196	0	569	825502	2	Standard
>	Ge	72		ug/L			49648	49040	2	KED
	Co	59	26.361	ug/L	1.322	5	6	161167	3	KED
	Ni	60	26.903	ug/L	1.247	4	69	46952	3	KED
	Ni	62	26.655	ug/L	0.717	2	7	7621	2	KED
	Cu	63	26.716	ug/L	0.620	2	80	131653	1	KED
	Cu	65	27.368	ug/L	0.867	3	43	66143	1	KED
	Zn	66	84.697	ug/L	2.925	3	140	54811	1	KED
	Zn	67	81.917	ug/L	2.783	3	20	8601	2	KED
	As	75	26.054	ug/L	0.651	2	5	8988	1	KED
	Se	78	84.991	ug/L	1.891	2	25	2747	1	KED
	Y	89		ug/L			347335	357469	3	Standard
	Kr	83		ug/L			53	48	6	Standard
>	In-1	115		ug/L			11040	10612	1	KED
	Mo	98	26.668	ug/L	0.485	1	7	41932	0	KED
	Cd	111	26.523	ug/L	0.661	2	7	8658	2	KED
	Cd	114	26.978	ug/L	0.490	1	9	22569	3	KED
>	In	115		ug/L			434426	450357	4	Standard
	Ag	107	25.943	ug/L	0.447	1	42	476919	3	Standard
	Sb	121	25.680	ug/L	0.511	1	205	387850	2	Standard
	Sb	123	25.524	ug/L	0.484	1	131	294465	2	Standard
	Ba	135	26.916	ug/L	0.639	2	60	129054	2	Standard
	Ba	137	26.950	ug/L	0.608	2	114	226123	2	Standard
>	Tb	159		ug/L			798416	844703	1	Standard
	Tl	205	25.025	ug/L	0.342	1	218	899790	2	Standard
	Pb	208	25.597	ug/L	0.254	0	288	1223703	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0509-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 19:46:29
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			449997	442874	2	Standard
	Be	9	-0.000	ug/L	0.001	462	11	10	47	Standard
	C	13		ug/L			29409	47526	2	Standard
	Cl	37		ug/L			1805078	1822499	2	Standard
>	Sc	45		ug/L			595718	591638	2	Standard
	V	51	0.083	ug/L	0.015	17	6858	8954	5	Standard
	V-1	51	0.600	ug/L	0.015	2	607	16150	4	Standard
	Cr	52	0.836	ug/L	0.045	5	20299	37908	2	Standard
	Cr	53	2.587	ug/L	0.052	2	294	6585	2	Standard
	Mn	55	1.982	ug/L	0.039	1	569	61736	0	Standard
>	Ge	72		ug/L			49648	49343	1	KED
	Co	59	0.007	ug/L	0.002	28	6	49	23	KED
	Ni	60	0.886	ug/L	0.012	1	69	1623	0	KED
	Ni	62	0.921	ug/L	0.051	5	7	272	7	KED
	Cu	63	0.574	ug/L	0.011	1	80	2922	2	KED
	Cu	65	0.598	ug/L	0.013	2	43	1497	1	KED
	Zn	66	18.924	ug/L	0.597	3	140	12440	4	KED
	Zn	67	18.771	ug/L	0.289	1	20	2000	3	KED
	As	75	0.697	ug/L	0.046	6	5	247	8	KED
	Se	78	0.008	ug/L	0.118	1457	25	25	14	KED
	Y	89		ug/L			347335	335767	1	Standard
	Kr	83		ug/L			53	42	24	Standard
>	In-1	115		ug/L			11040	10683	3	KED
	Mo	98	4.952	ug/L	0.247	4	7	7839	3	KED
	Cd	111	-0.000	ug/L	0.010	61818	7	6	41	KED
	Cd	114	0.003	ug/L	0.003	108	9	12	23	KED
>	In	115		ug/L			434426	425563	0	Standard
	Ag	107	0.002	ug/L	0.001	44	42	76	19	Standard
	Sb	121	0.166	ug/L	0.007	4	205	2564	3	Standard
	Sb	123	0.168	ug/L	0.004	2	131	1964	1	Standard
	Ba	135	10.369	ug/L	0.369	3	60	47037	3	Standard
	Ba	137	10.762	ug/L	0.453	4	114	85441	3	Standard
>	Tb	159		ug/L			798416	796394	3	Standard
	Tl	205	-0.001	ug/L	0.001	87	218	198	7	Standard
	Pb	208	0.149	ug/L	0.008	5	288	6987	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0644-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 19:51:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			449997	476021	3	Standard
[	**Be**	**9**	**-0.000**	ug/L	0.001	379	11	10	44	Standard
	C	**13**		ug/L			29409	50519	2	Standard
	Cl	**37**		ug/L			1805078	1821517	1	Standard
[>	**Sc**	**45**		ug/L			595718	641850	2	Standard
[	**V**	**51**	**0.077**	ug/L	0.017	22	6858	9531	3	Standard
[	**V-1**	**51**	**0.627**	ug/L	0.022	3	607	18271	1	Standard
[	**Cr**	**52**	**0.814**	ug/L	0.047	5	20299	40591	1	Standard
[	**Cr**	**53**	**2.678**	ug/L	0.079	2	294	7381	1	Standard
[	**Mn**	**55**	**1.970**	ug/L	0.025	1	569	66553	1	Standard
[>	**Ge**	**72**		ug/L			49648	51534	0	KED
[	**Co**	**59**	**0.006**	ug/L	0.002	39	6	45	33	KED
[	**Ni**	**60**	**0.879**	ug/L	0.027	3	69	1682	2	KED
[	**Ni**	**62**	**0.827**	ug/L	0.146	17	7	255	16	KED
[	**Cu**	**63**	**0.579**	ug/L	0.007	1	80	3077	0	KED
[	**Cu**	**65**	**0.608**	ug/L	0.050	8	43	1586	7	KED
[	**Zn**	**66**	**18.776**	ug/L	0.577	3	140	12887	2	KED
[	**Zn**	**67**	**18.748**	ug/L	0.591	3	20	2085	2	KED
[	**As**	**75**	**0.695**	ug/L	0.046	6	5	258	5	KED
[	**Se**	**78**	**0.071**	ug/L	0.060	85	25	28	6	KED
	Y	**89**		ug/L			347335	362092	1	Standard
	Kr	**83**		ug/L			53	48	11	Standard
[>	**In-1**	**115**		ug/L			11040	10905	3	KED
[	**Mo**	**98**	**4.777**	ug/L	0.065	1	7	7725	2	KED
[	**Cd**	**111**	**-0.004**	ug/L	0.003	77	7	5	16	KED
[	**Cd**	**114**	**-0.003**	ug/L	0.005	148	9	7	51	KED
[>	**In**	**115**		ug/L			434426	453213	2	Standard
[	**Ag**	**107**	**0.002**	ug/L	0.000	19	42	72	4	Standard
[	**Sb**	**121**	**0.162**	ug/L	0.004	2	205	2678	0	Standard
[	**Sb**	**123**	**0.157**	ug/L	0.006	3	131	1959	5	Standard
[	**Ba**	**135**	**10.658**	ug/L	0.392	3	60	51465	2	Standard
[	**Ba**	**137**	**10.990**	ug/L	0.237	2	114	92887	0	Standard
[>	**Tb**	**159**		ug/L			798416	857878	0	Standard
[	**Tl**	**205**	**-0.002**	ug/L	0.001	28	218	170	11	Standard
[	**Pb**	**208**	**0.145**	ug/L	0.004	2	288	7349	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0644-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 19:56:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			449997	444393	3	Standard
[	Be	9	25.316	ug/L	0.990	3	11	92144	2	Standard
	C	13		ug/L			29409	50347	1	Standard
	Cl	37		ug/L			1805078	1756167	2	Standard
[>	Sc	45		ug/L			595718	600709	3	Standard
[	V	51	25.666	ug/L	0.908	3	6858	678645	1	Standard
[	V-1	51	26.006	ug/L	1.124	4	607	683991	1	Standard
[	Cr	52	26.531	ug/L	0.415	1	20299	592054	1	Standard
[	Cr	53	27.679	ug/L	1.182	4	294	68611	1	Standard
[	Mn	55	26.980	ug/L	1.071	3	569	845580	2	Standard
[>	Ge	72		ug/L			49648	45591	5	KED
[	Co	59	25.833	ug/L	0.382	1	6	146977	6	KED
[	Ni	60	27.259	ug/L	0.270	0	69	44270	6	KED
[	Ni	62	26.879	ug/L	0.854	3	7	7155	9	KED
[	Cu	63	26.221	ug/L	0.418	1	80	120171	6	KED
[	Cu	65	27.234	ug/L	0.236	0	43	61237	6	KED
[	Zn	66	99.670	ug/L	2.426	2	140	60023	8	KED
[	Zn	67	97.552	ug/L	1.090	1	20	9526	7	KED
[	As	75	26.770	ug/L	0.123	0	5	8587	5	KED
[	Se	78	80.927	ug/L	1.290	1	25	2433	4	KED
	Y	89		ug/L			347335	347407	0	Standard
	Kr	83		ug/L			53	53	14	Standard
[>	In-1	115		ug/L			11040	10670	1	KED
[	Mo	98	31.377	ug/L	0.813	2	7	49602	1	KED
[	Cd	111	25.988	ug/L	0.591	2	7	8529	0	KED
[	Cd	114	25.855	ug/L	0.462	1	9	21745	1	KED
[>	In	115		ug/L			434426	429316	2	Standard
[	Ag	107	25.859	ug/L	0.810	3	42	453257	3	Standard
[	Sb	121	26.630	ug/L	0.574	2	205	383496	1	Standard
[	Sb	123	26.728	ug/L	0.233	0	131	294061	1	Standard
[	Ba	135	37.456	ug/L	1.065	2	60	171208	0	Standard
[	Ba	137	38.683	ug/L	1.639	4	114	309356	2	Standard
[>	Tb	159		ug/L			798416	822805	1	Standard
[	Tl	205	25.960	ug/L	0.385	1	218	909083	1	Standard
[	Pb	208	25.934	ug/L	0.288	1	288	1207620	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0644-MSD2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 20:01:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			449997	464766	2	Standard
	Be	9	26.006	ug/L	0.339	1	11	99065	3	Standard
	C	13		ug/L			29409	51524	2	Standard
	Cl	37		ug/L			1805078	1747720	2	Standard
>	Sc	45		ug/L			595718	628231	3	Standard
	V	51	25.962	ug/L	1.287	4	6858	717611	2	Standard
	V-1	51	26.409	ug/L	1.246	4	607	726301	2	Standard
	Cr	52	26.599	ug/L	0.947	3	20299	620395	0	Standard
	Cr	53	28.113	ug/L	0.868	3	294	72883	0	Standard
	Mn	55	27.908	ug/L	1.277	4	569	914392	2	Standard
>	Ge	72		ug/L			49648	49502	1	KED
	Co	59	26.985	ug/L	0.668	2	6	166666	3	KED
	Ni	60	28.009	ug/L	0.967	3	69	49371	3	KED
	Ni	62	27.817	ug/L	1.294	4	7	8028	4	KED
	Cu	63	26.944	ug/L	0.377	1	80	134075	2	KED
	Cu	65	27.241	ug/L	0.177	0	43	66488	1	KED
	Zn	66	100.792	ug/L	1.433	1	140	65851	2	KED
	Zn	67	97.227	ug/L	0.837	0	20	10304	0	KED
	As	75	26.967	ug/L	0.197	0	5	9394	1	KED
	Se	78	80.080	ug/L	1.619	2	25	2616	3	KED
	Y	89		ug/L			347335	360533	1	Standard
	Kr	83		ug/L			53	53	9	Standard
>	In-1	115		ug/L			11040	10915	2	KED
	Mo	98	32.513	ug/L	1.506	4	7	52547	1	KED
	Cd	111	26.462	ug/L	0.864	3	7	8881	0	KED
	Cd	114	26.866	ug/L	1.327	4	9	23094	2	KED
>	In	115		ug/L			434426	450530	2	Standard
	Ag	107	25.759	ug/L	0.565	2	42	473670	1	Standard
	Sb	121	26.354	ug/L	1.130	4	205	398132	2	Standard
	Sb	123	26.683	ug/L	0.752	2	131	307944	0	Standard
	Ba	135	38.163	ug/L	1.190	3	60	183035	1	Standard
	Ba	137	38.709	ug/L	0.616	1	114	324969	1	Standard
>	Tb	159		ug/L			798416	858521	3	Standard
	Tl	205	25.844	ug/L	0.936	3	218	943610	0	Standard
	Pb	208	26.021	ug/L	0.598	2	288	1263734	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 20:06:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	428237	5	Standard
	Be	**9**	**-0.002**	ug/L	0.001	32	11	5	43	Standard
	C	**13**		ug/L			29409	29264	2	Standard
	Cl	**37**		ug/L			1805078	1774867	1	Standard
>	**Sc**	**45**		ug/L			595718	560405	3	Standard
	V	**51**	**0.015**	ug/L	0.002	15	6858	6806	3	Standard
	V-1	**51**	**0.023**	ug/L	0.001	5	607	1141	1	Standard
	Cr	**52**	**0.061**	ug/L	0.014	23	20299	20325	3	Standard
	Cr	**53**	**0.090**	ug/L	0.009	10	294	485	5	Standard
	Mn	**55**	**0.005**	ug/L	0.001	12	569	667	6	Standard
>	**Ge**	**72**		ug/L			49648	48689	7	KED
	Co	**59**	**0.000**	ug/L	0.000	755	6	6	15	KED
	Ni	**60**	**-0.027**	ug/L	0.003	10	69	20	23	KED
	Ni	**62**	**-0.011**	ug/L	0.010	91	7	4	65	KED
	Cu	**63**	**0.028**	ug/L	0.006	20	80	215	16	KED
	Cu	**65**	**0.033**	ug/L	0.001	1	43	122	7	KED
	Zn	**66**	**0.070**	ug/L	0.013	18	140	183	12	KED
	Zn	**67**	**0.071**	ug/L	0.009	12	20	27	10	KED
	As	**75**	**-0.002**	ug/L	0.002	121	5	5	18	KED
	Se	**78**	**-0.151**	ug/L	0.085	56	25	19	6	KED
	Y	**89**		ug/L			347335	337451	1	Standard
	Kr	**83**		ug/L			53	52	24	Standard
>	**In-1**	**115**		ug/L			11040	10724	5	KED
	Mo	**98**	**0.008**	ug/L	0.005	66	7	20	44	KED
	Cd	**111**	**-0.006**	ug/L	0.004	59	7	5	28	KED
	Cd	**114**	**-0.005**	ug/L	0.004	71	9	5	62	KED
>	**In**	**115**		ug/L			434426	430164	4	Standard
	Ag	**107**	**0.001**	ug/L	0.000	29	42	54	10	Standard
	Sb	**121**	**-0.004**	ug/L	0.002	53	205	147	21	Standard
	Sb	**123**	**-0.003**	ug/L	0.000	18	131	101	1	Standard
	Ba	**135**	**0.000**	ug/L	0.004	1166	60	61	30	Standard
	Ba	**137**	**0.002**	ug/L	0.002	125	114	129	19	Standard
>	**Tb**	**159**		ug/L			798416	776394	4	Standard
	Tl	**205**	**-0.002**	ug/L	0.000	8	218	150	7	Standard
	Pb	**208**	**0.001**	ug/L	0.001	100	288	305	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 20:11:56
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	449081	0	Standard
⌊	**Be**	**9**	**50.796**	ug/L	1.059	2	11	186967	2	Standard
	C	**13**		ug/L			29409	29635	2	Standard
	Cl	**37**		ug/L			1805078	1750849	2	Standard
⌈>	**Sc**	**45**		ug/L			595718	606708	2	Standard
⌈	**V**	**51**	**49.705**	ug/L	1.230	2	6858	1321342	1	Standard
⌊	**V-1**	**51**	**49.796**	ug/L	1.347	2	607	1322830	1	Standard
⌈	**Cr**	**52**	**49.963**	ug/L	0.556	1	20299	1108138	2	Standard
⌊	**Cr**	**53**	**50.270**	ug/L	0.877	1	294	125695	1	Standard
⌊	**Mn**	**55**	**50.110**	ug/L	0.633	1	569	1586525	2	Standard
⌈>	**Ge**	**72**		ug/L			49648	48773	5	KED
⌈	**Co**	**59**	**50.918**	ug/L	0.349	0	6	309746	4	KED
⌊	**Ni**	**60**	**50.904**	ug/L	1.215	2	69	88331	5	KED
⌈	**Ni**	**62**	**50.631**	ug/L	0.211	0	7	14397	5	KED
⌈	**Cu**	**63**	**50.110**	ug/L	0.960	1	80	245743	7	KED
⌊	**Cu**	**65**	**51.256**	ug/L	0.430	0	43	123230	5	KED
⌈	**Zn**	**66**	**51.339**	ug/L	1.598	3	140	33137	7	KED
⌊	**Zn**	**67**	**52.098**	ug/L	0.997	1	20	5446	3	KED
⌈	**As**	**75**	**50.137**	ug/L	0.519	1	5	17199	4	KED
⌊	**Se**	**78**	**50.583**	ug/L	0.785	1	25	1636	4	KED
	Y	**89**		ug/L			347335	361265	1	Standard
	Kr	**83**		ug/L			53	42	6	Standard
⌈>	**In-1**	**115**		ug/L			11040	9246	3	KED
⌈	**Mo**	**98**	**50.123**	ug/L	1.130	2	7	68651	2	KED
⌈	**Cd**	**111**	**51.407**	ug/L	1.030	2	7	14620	4	KED
⌊	**Cd**	**114**	**50.719**	ug/L	0.492	0	9	36952	2	KED
⌈>	**In**	**115**		ug/L			434426	448175	1	Standard
⌈	**Ag**	**107**	**50.763**	ug/L	1.163	2	42	928949	2	Standard
⌈	**Sb**	**121**	**49.404**	ug/L	1.140	2	205	742569	1	Standard
⌊	**Sb**	**123**	**49.654**	ug/L	0.624	1	131	570210	1	Standard
⌈	**Ba**	**135**	**50.674**	ug/L	2.257	4	60	241791	3	Standard
⌊	**Ba**	**137**	**51.121**	ug/L	0.653	1	114	426966	1	Standard
⌈>	**Tb**	**159**		ug/L			798416	830326	1	Standard
⌈	**Tl**	**205**	**49.365**	ug/L	0.977	1	218	1744252	1	Standard
⌊	**Pb**	**208**	**49.936**	ug/L	0.694	1	288	2346327	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 20:19:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	433562	6	Standard
	Be	**9**	**-0.001**	ug/L	0.001	68	11	6	41	Standard
	C	**13**		ug/L			29409	28426	5	Standard
	Cl	**37**		ug/L			1805078	1803619	1	Standard
>	**Sc**	**45**		ug/L			595718	571344	9	Standard
	V	**51**	**0.017**	ug/L	0.008	44	6858	6989	6	Standard
	V-1	**51**	**0.008**	ug/L	0.004	47	607	767	3	Standard
	Cr	**52**	**0.058**	ug/L	0.017	29	20299	20645	7	Standard
	Cr	**53**	**0.026**	ug/L	0.005	17	294	343	7	Standard
	Mn	**55**	**0.001**	ug/L	0.000	32	569	587	10	Standard
>	**Ge**	**72**		ug/L			49648	49056	0	KED
	Co	**59**	**-0.001**	ug/L	0.000	62	6	3	50	KED
	Ni	**60**	**-0.003**	ug/L	0.007	221	69	62	18	KED
	Ni	**62**	**0.025**	ug/L	0.004	16	7	14	7	KED
	Cu	**63**	**-0.002**	ug/L	0.003	131	80	69	19	KED
	Cu	**65**	**0.002**	ug/L	0.001	30	43	46	2	KED
	Zn	**66**	**0.005**	ug/L	0.023	492	140	142	10	KED
	Zn	**67**	**0.002**	ug/L	0.036	1520	20	20	18	KED
	As	**75**	**-0.003**	ug/L	0.006	223	5	4	39	KED
	Se	**78**	**-0.087**	ug/L	0.155	178	25	21	21	KED
	Y	**89**		ug/L			347335	342863	5	Standard
	Kr	**83**		ug/L			53	52	5	Standard
>	**In-1**	**115**		ug/L			11040	10654	2	KED
	Mo	**98**	**0.006**	ug/L	0.003	42	7	17	22	KED
	Cd	**111**	**-0.000**	ug/L	0.011	56401	7	6	47	KED
	Cd	**114**	**-0.005**	ug/L	0.006	119	9	5	89	KED
>	**In**	**115**		ug/L			434426	427827	6	Standard
	Ag	**107**	**0.001**	ug/L	0.000	26	42	65	4	Standard
	Sb	**121**	**0.047**	ug/L	0.003	7	205	877	11	Standard
	Sb	**123**	**0.046**	ug/L	0.003	6	131	631	9	Standard
	Ba	**135**	**0.001**	ug/L	0.002	136	60	64	16	Standard
	Ba	**137**	**-0.001**	ug/L	0.003	194	114	100	16	Standard
>	**Tb**	**159**		ug/L			798416	781521	3	Standard
	Tl	**205**	**-0.001**	ug/L	0.001	46	218	175	13	Standard
	Pb	**208**	**-0.001**	ug/L	0.000	27	288	224	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0592-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 20:26:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	451202	6	Standard
	Be	**9**	**-0.002**	ug/L	0.001	45	11	5	57	Standard
	C	**13**		ug/L			29409	42916	5	Standard
	Cl	**37**		ug/L			1805078	1796223	1	Standard
>	**Sc**	**45**		ug/L			595718	600992	6	Standard
	V	**51**	**0.026**	ug/L	0.007	26	6858	7594	4	Standard
	V-1	**51**	**0.007**	ug/L	0.003	46	607	793	4	Standard
	Cr	**52**	**0.120**	ug/L	0.023	18	20299	23054	4	Standard
	Cr	**53**	**0.054**	ug/L	0.009	17	294	430	1	Standard
	Mn	**55**	**0.038**	ug/L	0.003	8	569	1760	4	Standard
>	**Ge**	**72**		ug/L			49648	50100	6	KED
	Co	**59**	**-0.000**	ug/L	0.000	109	6	5	33	KED
	Ni	**60**	**-0.019**	ug/L	0.003	16	69	35	12	KED
	Ni	**62**	**-0.005**	ug/L	0.006	132	7	6	34	KED
	Cu	**63**	**0.095**	ug/L	0.006	5	80	559	9	KED
	Cu	**65**	**0.086**	ug/L	0.009	10	43	255	9	KED
	Zn	**66**	**0.081**	ug/L	0.038	46	140	196	16	KED
	Zn	**67**	**0.064**	ug/L	0.009	14	20	27	3	KED
	As	**75**	**-0.003**	ug/L	0.005	163	5	4	30	KED
	Se	**78**	**-0.182**	ug/L	0.006	3	25	19	7	KED
	Y	**89**		ug/L			347335	353631	5	Standard
	Kr	**83**		ug/L			53	56	28	Standard
>	**In-1**	**115**		ug/L			11040	11314	2	KED
	Mo	**98**	**0.015**	ug/L	0.003	21	7	33	15	KED
	Cd	**111**	**-0.004**	ug/L	0.008	196	7	6	50	KED
	Cd	**114**	**-0.003**	ug/L	0.000	11	9	7	2	KED
>	**In**	**115**		ug/L			434426	441965	4	Standard
	Ag	**107**	**-0.000**	ug/L	0.001	225	42	38	23	Standard
	Sb	**121**	**0.012**	ug/L	0.002	18	205	386	8	Standard
	Sb	**123**	**0.014**	ug/L	0.001	10	131	293	9	Standard
	Ba	**135**	**0.375**	ug/L	0.007	1	60	1829	6	Standard
	Ba	**137**	**0.391**	ug/L	0.008	2	114	3340	5	Standard
>	**Tb**	**159**		ug/L			798416	801669	5	Standard
	Tl	**205**	**-0.003**	ug/L	0.000	15	218	125	15	Standard
	Pb	**208**	**0.003**	ug/L	0.000	15	288	425	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0592-BS2
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Tuesday, April 25, 2023 20:31:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	446849	9	Standard
	Be	**9**	**25.013**	ug/L	0.233	0	11	91646	10	Standard
	C	**13**		ug/L			29409	43736	5	Standard
	Cl	**37**		ug/L			1805078	1797593	2	Standard
>	**Sc**	**45**		ug/L			595718	587576	8	Standard
	V	**51**	**25.886**	ug/L	0.451	1	6858	670499	10	Standard
	V-1	**51**	**26.007**	ug/L	0.342	1	607	669827	9	Standard
	Cr	**52**	**26.242**	ug/L	0.691	2	20299	573929	10	Standard
	Cr	**53**	**26.648**	ug/L	0.289	1	294	64639	7	Standard
	Mn	**55**	**27.921**	ug/L	0.471	1	569	856481	9	Standard
>	**Ge**	**72**		ug/L			49648	49225	1	KED
	Co	**59**	**26.306**	ug/L	0.127	0	6	161554	2	KED
	Ni	**60**	**26.394**	ug/L	0.511	1	69	46256	0	KED
	Ni	**62**	**26.920**	ug/L	0.346	1	7	7727	0	KED
	Cu	**63**	**27.336**	ug/L	0.444	1	80	135260	2	KED
	Cu	**65**	**28.408**	ug/L	0.364	1	43	68944	2	KED
	Zn	**66**	**85.611**	ug/L	0.605	0	140	55637	1	KED
	Zn	**67**	**82.639**	ug/L	1.925	2	20	8714	3	KED
	As	**75**	**25.697**	ug/L	0.052	0	5	8902	1	KED
	Se	**78**	**82.783**	ug/L	1.553	1	25	2688	3	KED
	Y	**89**		ug/L			347335	354665	6	Standard
	Kr	**83**		ug/L			53	48	12	Standard
>	**In-1**	**115**		ug/L			11040	11659	3	KED
	Mo	**98**	**25.653**	ug/L	0.594	2	7	44304	1	KED
	Cd	**111**	**26.776**	ug/L	0.876	3	7	9598	0	KED
	Cd	**114**	**26.543**	ug/L	1.363	5	9	24366	1	KED
>	**In**	**115**		ug/L			434426	436424	5	Standard
	Ag	**107**	**26.964**	ug/L	0.304	1	42	480614	6	Standard
	Sb	**121**	**25.652**	ug/L	0.100	0	205	375574	5	Standard
	Sb	**123**	**25.896**	ug/L	0.434	1	131	289836	7	Standard
	Ba	**135**	**27.073**	ug/L	0.129	0	60	125874	6	Standard
	Ba	**137**	**27.706**	ug/L	0.372	1	114	225532	7	Standard
>	**Tb**	**159**		ug/L			798416	802542	6	Standard
	Tl	**205**	**26.366**	ug/L	0.505	1	218	900629	6	Standard
	Pb	**208**	**26.520**	ug/L	0.663	2	288	1205222	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0660-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 20:37:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			449997	462052	1	Standard
	Be	9	-0.002	ug/L	0.000	1	11	5	0	Standard
	C	13		ug/L			29409	40118	4	Standard
	Cl	37		ug/L			1805078	1812394	1	Standard
>	Sc	45		ug/L			595718	610797	0	Standard
	V	51	0.022	ug/L	0.011	47	6858	7630	3	Standard
	V-1	51	0.005	ug/L	0.001	11	607	748	2	Standard
	Cr	52	0.099	ug/L	0.032	32	20299	22981	2	Standard
	Cr	53	0.037	ug/L	0.007	17	294	396	3	Standard
	Mn	55	1.358	ug/L	0.017	1	569	43857	1	Standard
>	Ge	72		ug/L			49648	46842	1	KED
	Co	59	0.000	ug/L	0.000	168	6	8	35	KED
	Ni	60	-0.027	ug/L	0.002	8	69	20	18	KED
	Ni	62	-0.012	ug/L	0.007	54	7	3	50	KED
	Cu	63	0.007	ug/L	0.005	80	80	107	22	KED
	Cu	65	0.005	ug/L	0.002	44	43	52	8	KED
	Zn	66	-0.004	ug/L	0.016	371	140	130	6	KED
	Zn	67	0.037	ug/L	0.086	234	20	23	37	KED
	As	75	-0.001	ug/L	0.004	284	5	5	28	KED
	Se	78	-0.106	ug/L	0.096	90	25	20	14	KED
	Y	89		ug/L			347335	353456	0	Standard
	Kr	83		ug/L			53	47	18	Standard
>	In-1	115		ug/L			11040	10721	6	KED
	Mo	98	0.002	ug/L	0.001	53	7	10	20	KED
	Cd	111	-0.003	ug/L	0.008	278	7	6	36	KED
	Cd	114	0.000	ug/L	0.009	11566	9	9	74	KED
>	In	115		ug/L			434426	453533	2	Standard
	Ag	107	0.001	ug/L	0.001	70	42	70	24	Standard
	Sb	121	-0.000	ug/L	0.001	187	205	208	7	Standard
	Sb	123	0.002	ug/L	0.001	33	131	158	4	Standard
	Ba	135	0.005	ug/L	0.001	22	60	89	7	Standard
	Ba	137	0.005	ug/L	0.002	39	114	161	11	Standard
>	Tb	159		ug/L			798416	816476	1	Standard
	Tl	205	-0.002	ug/L	0.000	10	218	139	6	Standard
	Pb	208	-0.001	ug/L	0.000	18	288	227	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0660-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 20:42:03
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			449997	437802	5	Standard
	Be	9	25.653	ug/L	0.395	1	11	92064	6	Standard
	C	13		ug/L			29409	44677	4	Standard
	Cl	37		ug/L			1805078	1745715	1	Standard
>	Sc	45		ug/L			595718	589910	5	Standard
	V	51	25.554	ug/L	0.485	1	6858	663624	3	Standard
	V-1	51	25.638	ug/L	0.381	1	607	662391	3	Standard
	Cr	52	26.196	ug/L	0.271	1	20299	574632	5	Standard
	Cr	53	26.471	ug/L	0.516	1	294	64539	6	Standard
	Mn	55	26.019	ug/L	0.154	0	569	801231	5	Standard
>	Ge	72		ug/L			49648	50745	1	KED
	Co	59	26.539	ug/L	0.079	0	6	168013	1	KED
	Ni	60	27.073	ug/L	0.183	0	69	48923	1	KED
	Ni	62	26.978	ug/L	0.397	1	7	7984	2	KED
	Cu	63	26.607	ug/L	0.086	0	80	135711	0	KED
	Cu	65	27.114	ug/L	0.290	1	43	67842	1	KED
	Zn	66	84.525	ug/L	0.791	0	140	56636	1	KED
	Zn	67	81.632	ug/L	1.725	2	20	8873	2	KED
	As	75	26.040	ug/L	0.111	0	5	9299	0	KED
	Se	78	80.756	ug/L	0.814	1	25	2703	1	KED
	Y	89		ug/L			347335	345348	4	Standard
	Kr	83		ug/L			53	50	17	Standard
>	In-1	115		ug/L			11040	11407	3	KED
	Mo	98	0.088	ug/L	0.005	5	7	156	6	KED
	Cd	111	26.447	ug/L	1.161	4	7	9272	1	KED
	Cd	114	26.397	ug/L	0.716	2	9	23720	0	KED
>	In	115		ug/L			434426	430807	4	Standard
	Ag	107	26.232	ug/L	0.329	1	42	461586	5	Standard
	Sb	121	0.069	ug/L	0.003	4	205	1203	3	Standard
	Sb	123	0.074	ug/L	0.001	0	131	951	5	Standard
	Ba	135	26.496	ug/L	0.561	2	60	121593	4	Standard
	Ba	137	27.410	ug/L	0.597	2	114	219996	2	Standard
>	Tb	159		ug/L			798416	797988	4	Standard
	Tl	205	25.657	ug/L	0.263	1	218	871594	5	Standard
	Pb	208	25.881	ug/L	0.347	1	288	1168369	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0592-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 20:49:14
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	472437	2	Standard
	Be	**9**	**24.423**	ug/L	0.356	1	11	94582	3	Standard
	C	**13**		ug/L			29409	40173	1	Standard
	Cl	**37**		ug/L			1805078	1832659	1	Standard
>	**Sc**	**45**		ug/L			595718	607722	3	Standard
	V	**51**	**25.750**	ug/L	0.259	1	6858	689404	4	Standard
	V-1	**51**	**25.899**	ug/L	0.338	1	607	689896	4	Standard
	Cr	**52**	**26.532**	ug/L	0.098	0	20299	599178	3	Standard
	Cr	**53**	**27.026**	ug/L	0.776	2	294	67864	5	Standard
	Mn	**55**	**28.116**	ug/L	0.492	1	569	892331	5	Standard
>	**Ge**	**72**		ug/L			49648	51991	1	KED
	Co	**59**	**26.517**	ug/L	0.334	1	6	171985	1	KED
	Ni	**60**	**27.391**	ug/L	0.479	1	69	50707	1	KED
	Ni	**62**	**26.667**	ug/L	0.263	0	7	8086	2	KED
	Cu	**63**	**27.748**	ug/L	0.128	0	80	144997	0	KED
	Cu	**65**	**28.304**	ug/L	0.153	0	43	72550	0	KED
	Zn	**66**	**85.445**	ug/L	0.518	0	140	58652	0	KED
	Zn	**67**	**83.190**	ug/L	2.641	3	20	9263	3	KED
	As	**75**	**25.886**	ug/L	0.102	0	5	9471	1	KED
	Se	**78**	**83.976**	ug/L	1.031	1	25	2879	0	KED
	Y	**89**		ug/L			347335	361560	3	Standard
	Kr	**83**		ug/L			53	62	22	Standard
>	**In-1**	**115**		ug/L			11040	11901	1	KED
	Mo	**98**	**25.370**	ug/L	0.340	1	7	44746	1	KED
	Cd	**111**	**26.202**	ug/L	0.265	1	7	9594	0	KED
	Cd	**114**	**26.199**	ug/L	0.218	0	9	24578	1	KED
>	**In**	**115**		ug/L			434426	454224	3	Standard
	Ag	**107**	**27.270**	ug/L	0.381	1	42	505738	3	Standard
	Sb	**121**	**25.297**	ug/L	0.258	1	205	385513	3	Standard
	Sb	**123**	**25.625**	ug/L	0.537	2	131	298292	3	Standard
	Ba	**135**	**26.637**	ug/L	0.261	0	60	128871	2	Standard
	Ba	**137**	**27.422**	ug/L	0.212	0	114	232239	4	Standard
>	**Tb**	**159**		ug/L			798416	825775	1	Standard
	Tl	**205**	**26.260**	ug/L	1.163	4	218	922423	2	Standard
	Pb	**208**	**26.259**	ug/L	0.452	1	288	1227410	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0538-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, April 25, 2023 20:54:51
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	558823	2	Standard
	Be	**9**	**-0.001**	ug/L	0.001	84	11	8	58	Standard
	C	**13**		ug/L			29409	167237	3	Standard
	Cl	**37**		ug/L			1805078	1661485	1	Standard
>	**Sc**	**45**		ug/L			595718	630622	5	Standard
	V	**51**	**0.126**	ug/L	0.005	4	6858	10730	6	Standard
	V-1	**51**	**0.042**	ug/L	0.003	6	607	1804	5	Standard
	Cr	**52**	**1.495**	ug/L	0.052	3	20299	55260	3	Standard
	Cr	**53**	**1.190**	ug/L	0.072	6	294	3390	0	Standard
	Mn	**55**	**11.983**	ug/L	0.249	2	569	394943	6	Standard
>	**Ge**	**72**		ug/L			49648	49216	2	KED
	Co	**59**	**0.231**	ug/L	0.005	2	6	1425	1	KED
	Ni	**60**	**2.005**	ug/L	0.027	1	69	3577	4	KED
	Ni	**62**	**1.890**	ug/L	0.070	3	7	549	1	KED
	Cu	**63**	**0.152**	ug/L	0.012	7	80	831	6	KED
	Cu	**65**	**0.158**	ug/L	0.005	3	43	426	4	KED
	Zn	**66**	**1.997**	ug/L	0.008	0	140	1434	3	KED
	Zn	**67**	**2.243**	ug/L	0.224	9	20	257	12	KED
	As	**75**	**0.067**	ug/L	0.002	3	5	29	5	KED
	Se	**78**	**-0.148**	ug/L	0.057	38	25	20	8	KED
	Y	**89**		ug/L			347335	359435	3	Standard
	Kr	**83**		ug/L			53	50	9	Standard
>	**In-1**	**115**		ug/L			11040	10639	4	KED
	Mo	**98**	**1.182**	ug/L	0.039	3	7	1868	3	KED
	Cd	**111**	**0.017**	ug/L	0.020	118	7	12	46	KED
	Cd	**114**	**0.014**	ug/L	0.011	81	9	21	48	KED
>	**In**	**115**		ug/L			434426	469611	1	Standard
	Ag	**107**	**0.003**	ug/L	0.000	15	42	93	8	Standard
	Sb	**121**	**0.041**	ug/L	0.002	6	205	861	6	Standard
	Sb	**123**	**0.044**	ug/L	0.000	0	131	669	2	Standard
	Ba	**135**	**2.459**	ug/L	0.053	2	60	12363	3	Standard
	Ba	**137**	**2.506**	ug/L	0.101	4	114	22058	5	Standard
>	**Tb**	**159**		ug/L			798416	886357	3	Standard
	Tl	**205**	**-0.003**	ug/L	0.001	26	218	133	24	Standard
	Pb	**208**	**0.039**	ug/L	0.001	1	288	2289	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0538-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, April 25, 2023 21:02:41

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
Li	6		ug/L			449997	610172	8	Standard
Be	9	-0.001	ug/L	0.001	90	11	12	32	Standard
C	13		ug/L			29409	321384	7	Standard
Cl	37		ug/L			1805078	1496459	3	Standard
Sc	45		ug/L			595718	575520	7	Standard
V	51	0.278	ug/L	0.029	10	6858	13601	9	Standard
V-1	51	0.104	ug/L	0.006	6	607	3213	7	Standard
Cr	52	3.525	ug/L	0.078	2	20299	92412	8	Standard
Cr	53	2.888	ug/L	0.011	0	294	7120	7	Standard
Mn	55	29.172	ug/L	0.688	2	569	877415	9	Standard
Ge	72		ug/L			49648	46344	4	KED
Co	59	0.595	ug/L	0.009	1	6	3445	4	KED
Ni	60	4.748	ug/L	0.148	3	69	7884	2	KED
Ni	62	4.855	ug/L	0.072	1	7	1317	2	KED
Cu	63	0.306	ug/L	0.006	1	80	1499	5	KED
Cu	65	0.314	ug/L	0.010	3	43	758	7	KED
Zn	66	4.881	ug/L	0.216	4	140	3107	1	KED
Zn	67	4.547	ug/L	0.026	0	20	469	3	KED
As	75	0.179	ug/L	0.028	15	5	63	13	KED
Se	78	-0.074	ug/L	0.106	143	25	21	12	KED
Y	89		ug/L			347335	318118	8	Standard
Kr	83		ug/L			53	55	30	Standard
In-1	115		ug/L			11040	9844	5	KED
Mo	98	2.943	ug/L	0.188	6	7	4301	9	KED
Cd	111	0.047	ug/L	0.015	31	7	20	22	KED
Cd	114	0.034	ug/L	0.013	39	9	35	33	KED
In	115		ug/L			434426	421823	7	Standard
Ag	107	0.001	ug/L	0.000	26	42	66	7	Standard
Sb	121	0.114	ug/L	0.006	5	205	1816	10	Standard
Sb	123	0.117	ug/L	0.001	1	131	1386	6	Standard
Ba	135	6.580	ug/L	0.147	2	60	29596	6	Standard
Ba	137	6.790	ug/L	0.177	2	114	53440	6	Standard
Tb	159		ug/L			798416	885449	7	Standard
Tl	205	-0.004	ug/L	0.000	8	218	98	5	Standard
Pb	208	0.044	ug/L	0.002	4	288	2508	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 21:08:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	453897	5	Standard
⌊	**Be**	**9**	**-0.002**	ug/L	0.001	40	11	5	43	Standard
	C	**13**		ug/L			29409	34855	3	Standard
	Cl	**37**		ug/L			1805078	1685504	2	Standard
⌈>	**Sc**	**45**		ug/L			595718	527459	6	Standard
⌈	**V**	**51**	**0.029**	ug/L	0.014	47	6858	6727	2	Standard
⌈	**V-1**	**51**	**0.000**	ug/L	0.003	1599	607	538	4	Standard
⌈	**Cr**	**52**	**0.102**	ug/L	0.047	45	20299	19855	2	Standard
⌈	**Cr**	**53**	**0.002**	ug/L	0.009	416	294	264	0	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.000	11	569	605	8	Standard
⌈>	**Ge**	**72**		ug/L			49648	48136	2	KED
⌈	**Co**	**59**	**-0.000**	ug/L	0.000	119	6	4	65	KED
⌈	**Ni**	**60**	**-0.029**	ug/L	0.005	15	69	17	48	KED
⌈	**Ni**	**62**	**-0.013**	ug/L	0.012	96	7	3	86	KED
⌈	**Cu**	**63**	**0.028**	ug/L	0.003	12	80	212	9	KED
⌈	**Cu**	**65**	**0.033**	ug/L	0.004	11	43	120	5	KED
⌈	**Zn**	**66**	**0.094**	ug/L	0.002	2	140	196	2	KED
⌈	**Zn**	**67**	**0.087**	ug/L	0.049	55	20	29	15	KED
⌈	**As**	**75**	**-0.000**	ug/L	0.005	1138	5	5	34	KED
⌊	**Se**	**78**	**-0.153**	ug/L	0.095	61	25	19	17	KED
	Y	**89**		ug/L			347335	304565	2	Standard
	Kr	**83**		ug/L			53	44	20	Standard
⌈>	**In-1**	**115**		ug/L			11040	10232	2	KED
⌈	**Mo**	**98**	**-0.002**	ug/L	0.002	99	7	4	73	KED
⌈	**Cd**	**111**	**-0.007**	ug/L	0.007	91	7	4	49	KED
⌊	**Cd**	**114**	**-0.005**	ug/L	0.002	49	9	5	34	KED
⌈>	**In**	**115**		ug/L			434426	405199	5	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.001	76	42	28	23	Standard
⌈	**Sb**	**121**	**-0.007**	ug/L	0.001	8	205	94	5	Standard
⌈	**Sb**	**123**	**-0.006**	ug/L	0.000	6	131	60	8	Standard
⌈	**Ba**	**135**	**0.003**	ug/L	0.003	100	60	69	17	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.002	183	114	113	6	Standard
⌈>	**Tb**	**159**		ug/L			798416	791118	3	Standard
⌈	**Tl**	**205**	**-0.004**	ug/L	0.000	10	218	80	18	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	82	288	265	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0660-BLK1
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Tuesday, April 25, 2023 21:19:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	504319	3	Standard
	Be	**9**	**-0.002**	ug/L	0.001	66	11	6	69	Standard
	C	**13**		ug/L			29409	39373	2	Standard
	Cl	**37**		ug/L			1805078	1721491	1	Standard
>	**Sc**	**45**		ug/L			595718	593765	1	Standard
	V	**51**	**0.018**	ug/L	0.004	21	6858	7314	2	Standard
	V-1	**51**	**-0.001**	ug/L	0.001	154	607	581	5	Standard
	Cr	**52**	**0.089**	ug/L	0.009	10	20299	22124	1	Standard
	Cr	**53**	**0.022**	ug/L	0.007	30	294	346	3	Standard
	Mn	**55**	**1.292**	ug/L	0.030	2	569	40580	2	Standard
>	**Ge**	**72**		ug/L			49648	47296	3	KED
	Co	**59**	**-0.000**	ug/L	0.000	76	6	5	21	KED
	Ni	**60**	**-0.030**	ug/L	0.002	6	69	15	25	KED
	Ni	**62**	**-0.005**	ug/L	0.012	224	7	5	57	KED
	Cu	**63**	**0.001**	ug/L	0.004	436	80	80	24	KED
	Cu	**65**	**0.003**	ug/L	0.002	89	43	46	10	KED
	Zn	**66**	**-0.038**	ug/L	0.017	43	140	110	8	KED
	Zn	**67**	**-0.059**	ug/L	0.089	151	20	13	64	KED
	As	**75**	**-0.001**	ug/L	0.006	519	5	5	39	KED
	Se	**78**	**-0.094**	ug/L	0.088	93	25	20	9	KED
	Y	**89**		ug/L			347335	340391	0	Standard
	Kr	**83**		ug/L			53	40	30	Standard
>	**In-1**	**115**		ug/L			11040	11662	2	KED
	Mo	**98**	**0.001**	ug/L	0.002	152	7	10	34	KED
	Cd	**111**	**-0.008**	ug/L	0.007	80	7	4	52	KED
	Cd	**114**	**0.004**	ug/L	0.003	78	9	14	21	KED
>	**In**	**115**		ug/L			434426	442264	3	Standard
	Ag	**107**	**-0.001**	ug/L	0.000	49	42	31	18	Standard
	Sb	**121**	**-0.007**	ug/L	0.001	12	205	110	13	Standard
	Sb	**123**	**-0.005**	ug/L	0.001	11	131	82	9	Standard
	Ba	**135**	**0.006**	ug/L	0.005	75	60	89	23	Standard
	Ba	**137**	**0.005**	ug/L	0.001	29	114	157	6	Standard
>	**Tb**	**159**		ug/L			798416	855212	0	Standard
	Tl	**205**	**-0.004**	ug/L	0.000	5	218	81	10	Standard
	Pb	**208**	**-0.002**	ug/L	0.001	30	288	198	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 21:24:25
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	435004	3	Standard
	Be	**9**	**49.667**	ug/L	1.563	3	11	177168	6	Standard
	C	**13**		ug/L			29409	29788	3	Standard
	Cl	**37**		ug/L			1805078	1637386	1	Standard
>	**Sc**	**45**		ug/L			595718	550000	4	Standard
	V	**51**	**49.075**	ug/L	1.203	2	6858	1182432	2	Standard
	V-1	**51**	**49.131**	ug/L	1.091	2	607	1183026	2	Standard
	Cr	**52**	**49.359**	ug/L	1.930	3	20299	991831	2	Standard
	Cr	**53**	**49.546**	ug/L	1.584	3	294	112266	3	Standard
	Mn	**55**	**49.204**	ug/L	1.270	2	569	1412038	4	Standard
>	**Ge**	**72**		ug/L			49648	48629	3	KED
	Co	**59**	**50.469**	ug/L	0.515	1	6	306168	3	KED
	Ni	**60**	**51.683**	ug/L	0.164	0	69	89429	2	KED
	Ni	**62**	**51.609**	ug/L	0.721	1	7	14627	2	KED
	Cu	**63**	**51.651**	ug/L	0.752	1	80	252326	2	KED
	Cu	**65**	**52.630**	ug/L	0.485	0	43	126130	2	KED
	Zn	**66**	**51.306**	ug/L	0.559	1	140	33003	4	KED
	Zn	**67**	**51.337**	ug/L	1.558	3	20	5357	5	KED
	As	**75**	**50.382**	ug/L	1.075	2	5	17232	2	KED
	Se	**78**	**50.162**	ug/L	0.603	1	25	1618	3	KED
	Y	**89**		ug/L			347335	331228	1	Standard
	Kr	**83**		ug/L			53	59	3	Standard
>	**In-1**	**115**		ug/L			11040	10343	1	KED
	Mo	**98**	**52.892**	ug/L	2.207	4	7	81062	4	KED
	Cd	**111**	**52.597**	ug/L	1.351	2	7	16727	1	KED
	Cd	**114**	**52.719**	ug/L	1.127	2	9	42966	1	KED
>	**In**	**115**		ug/L			434426	417424	3	Standard
	Ag	**107**	**49.472**	ug/L	1.338	2	42	842630	1	Standard
	Sb	**121**	**50.183**	ug/L	0.745	1	205	702503	2	Standard
	Sb	**123**	**50.473**	ug/L	1.103	2	131	539607	1	Standard
	Ba	**135**	**53.504**	ug/L	0.770	1	60	237888	4	Standard
	Ba	**137**	**53.213**	ug/L	1.100	2	114	413807	2	Standard
>	**Tb**	**159**		ug/L			798416	823145	1	Standard
	Tl	**205**	**49.721**	ug/L	0.590	1	218	1741987	2	Standard
	Pb	**208**	**49.924**	ug/L	0.944	1	288	2325783	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 21:32:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	480026	6	Standard
⌊	**Be**	**9**	**-0.002**	ug/L	0.000	19	11	5	21	Standard
	C	**13**		ug/L			29409	29109	3	Standard
	Cl	**37**		ug/L			1805078	1734408	2	Standard
⌈>	**Sc**	**45**		ug/L			595718	594388	1	Standard
⌈	**V**	**51**	**0.002**	ug/L	0.002	136	6858	6890	1	Standard
⌈	**V-1**	**51**	**-0.006**	ug/L	0.000	2	607	449	1	Standard
⌈	**Cr**	**52**	**0.012**	ug/L	0.009	78	20299	20500	1	Standard
⌈	**Cr**	**53**	**-0.015**	ug/L	0.001	8	294	256	0	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	68	569	609	5	Standard
⌈>	**Ge**	**72**		ug/L			49648	49095	1	KED
⌈	**Co**	**59**	**-0.001**	ug/L	0.000	37	6	1	100	KED
⌈	**Ni**	**60**	**0.001**	ug/L	0.007	1414	69	69	16	KED
⌈	**Ni**	**62**	**0.020**	ug/L	0.024	117	7	13	51	KED
⌈	**Cu**	**63**	**0.001**	ug/L	0.003	193	80	86	16	KED
⌈	**Cu**	**65**	**-0.000**	ug/L	0.003	1011	43	41	16	KED
⌈	**Zn**	**66**	**-0.011**	ug/L	0.010	93	140	132	4	KED
⌈	**Zn**	**67**	**0.040**	ug/L	0.095	240	20	24	38	KED
⌈	**As**	**75**	**-0.006**	ug/L	0.004	64	5	3	39	KED
⌊	**Se**	**78**	**-0.067**	ug/L	0.169	251	25	22	22	KED
	Y	**89**		ug/L			347335	352935	1	Standard
	Kr	**83**		ug/L			53	43	11	Standard
⌈>	**In-1**	**115**		ug/L			11040	11030	1	KED
⌈	**Mo**	**98**	**0.005**	ug/L	0.000	8	7	16	5	KED
⌈	**Cd**	**111**	**-0.008**	ug/L	0.011	132	7	4	81	KED
⌊	**Cd**	**114**	**-0.010**	ug/L	0.001	11	9	1	95	KED
⌈>	**In**	**115**		ug/L			434426	458473	2	Standard
⌈	**Ag**	**107**	**0.001**	ug/L	0.001	138	42	63	40	Standard
⌈	**Sb**	**121**	**0.039**	ug/L	0.002	5	205	819	3	Standard
⌈	**Sb**	**123**	**0.046**	ug/L	0.001	2	131	681	0	Standard
⌈	**Ba**	**135**	**0.001**	ug/L	0.001	207	60	67	13	Standard
⌊	**Ba**	**137**	**0.003**	ug/L	0.000	13	114	143	2	Standard
⌈>	**Tb**	**159**		ug/L			798416	844543	1	Standard
⌈	**Tl**	**205**	**-0.002**	ug/L	0.001	37	218	174	13	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	10	288	236	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0181-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 21:46:51
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			449997	454920	5	Standard
	Be	9	-0.001	ug/L	0.001	52	11	6	45	Standard
	C	13		ug/L			29409	46526	4	Standard
	Cl	37		ug/L			1805078	1763471	1	Standard
>	Sc	45		ug/L			595718	600349	2	Standard
	V	51	0.021	ug/L	0.007	34	6858	7452	0	Standard
	V-1	51	-0.002	ug/L	0.000	16	607	557	3	Standard
	Cr	52	0.074	ug/L	0.023	31	20299	22050	1	Standard
	Cr	53	-0.004	ug/L	0.009	208	294	286	9	Standard
	Mn	55	0.061	ug/L	0.001	1	569	2476	2	Standard
>	Ge	72		ug/L			49648	50998	3	KED
	Co	59	0.000	ug/L	0.001	552	6	8	66	KED
	Ni	60	0.012	ug/L	0.005	44	69	93	7	KED
	Ni	62	0.025	ug/L	0.018	73	7	15	37	KED
	Cu	63	0.016	ug/L	0.004	25	80	165	14	KED
	Cu	65	0.020	ug/L	0.001	7	43	94	1	KED
	Zn	66	0.315	ug/L	0.037	11	140	356	7	KED
	Zn	67	0.264	ug/L	0.091	34	20	50	19	KED
	As	75	-0.007	ug/L	0.005	83	5	3	52	KED
	Se	78	-0.159	ug/L	0.022	13	25	20	6	KED
	Y	89		ug/L			347335	348425	4	Standard
	Kr	83		ug/L			53	46	27	Standard
>	In-1	115		ug/L			11040	11286	2	KED
	Mo	98	0.008	ug/L	0.003	32	7	21	17	KED
	Cd	111	-0.011	ug/L	0.003	24	7	3	25	KED
	Cd	114	-0.005	ug/L	0.002	42	9	5	36	KED
>	In	115		ug/L			434426	460925	3	Standard
	Ag	107	-0.000	ug/L	0.000	217	42	43	11	Standard
	Sb	121	0.009	ug/L	0.001	17	205	348	4	Standard
	Sb	123	0.012	ug/L	0.002	15	131	275	9	Standard
	Ba	135	0.054	ug/L	0.008	14	60	328	11	Standard
	Ba	137	0.057	ug/L	0.000	0	114	610	3	Standard
>	Tb	159		ug/L			798416	845518	4	Standard
	Tl	205	-0.003	ug/L	0.000	6	218	110	6	Standard
	Pb	208	0.000	ug/L	0.000	8060	288	305	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0181-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 21:51:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			449997	462661	2	Standard
[	Be	9	26.724	ug/L	0.691	2	11	101340	3	Standard
	C	13		ug/L			29409	49495	4	Standard
	Cl	37		ug/L			1805078	1703842	2	Standard
[>	Sc	45		ug/L			595718	595470	3	Standard
[	V	51	26.050	ug/L	0.438	1	6858	682939	1	Standard
[	V-1	51	26.052	ug/L	0.298	1	607	679697	2	Standard
[	Cr	52	26.720	ug/L	0.902	3	20299	590760	1	Standard
[	Cr	53	26.718	ug/L	0.734	2	294	65719	4	Standard
[	Mn	55	26.130	ug/L	0.391	1	569	812282	3	Standard
[>	Ge	72		ug/L			49648	47355	3	KED
[	Co	59	26.216	ug/L	0.678	2	6	154926	5	KED
[	Ni	60	26.954	ug/L	0.627	2	69	45468	5	KED
[	Ni	62	26.999	ug/L	0.639	2	7	7460	6	KED
[	Cu	63	26.155	ug/L	0.413	1	80	124511	4	KED
[	Cu	65	27.053	ug/L	1.408	5	43	63195	7	KED
[	Zn	66	86.186	ug/L	1.612	1	140	53863	2	KED
[	Zn	67	85.031	ug/L	2.658	3	20	8625	5	KED
[	As	75	26.617	ug/L	0.255	0	5	8869	3	KED
[	Se	78	84.667	ug/L	1.862	2	25	2645	5	KED
	Y	89		ug/L			347335	353056	3	Standard
	Kr	83		ug/L			53	55	27	Standard
[>	In-1	115		ug/L			11040	10683	2	KED
[	Mo	98	27.873	ug/L	0.524	1	7	44136	4	KED
[	Cd	111	28.064	ug/L	0.545	1	7	9221	1	KED
[	Cd	114	27.735	ug/L	0.786	2	9	23354	3	KED
[>	In	115		ug/L			434426	434993	2	Standard
[	Ag	107	26.711	ug/L	0.370	1	42	474324	1	Standard
[	Sb	121	27.023	ug/L	0.111	0	205	394425	3	Standard
[	Sb	123	27.339	ug/L	0.433	1	131	304777	3	Standard
[	Ba	135	27.531	ug/L	0.615	2	60	127627	5	Standard
[	Ba	137	28.771	ug/L	0.852	2	114	233391	5	Standard
[>	Tb	159		ug/L			798416	849338	0	Standard
[	Tl	205	25.830	ug/L	0.852	3	218	933829	3	Standard
[	Pb	208	25.936	ug/L	0.600	2	288	1246847	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0559-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 21:56:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	455186	5	Standard
	Be	**9**	**-0.001**	ug/L	0.001	76	11	8	35	Standard
	C	**13**		ug/L			29409	43792	4	Standard
	Cl	**37**		ug/L			1805078	1746115	2	Standard
>	**Sc**	**45**		ug/L			595718	588431	4	Standard
	V	**51**	**0.020**	ug/L	0.012	59	6858	7280	3	Standard
	V-1	**51**	**-0.005**	ug/L	0.000	7	607	463	6	Standard
	Cr	**52**	**0.087**	ug/L	0.040	46	20299	21876	3	Standard
	Cr	**53**	**0.000**	ug/L	0.004	1131	294	292	7	Standard
	Mn	**55**	**0.119**	ug/L	0.004	3	569	4200	3	Standard
>	**Ge**	**72**		ug/L			49648	49888	3	KED
	Co	**59**	**-0.000**	ug/L	0.000	1530	6	6	15	KED
	Ni	**60**	**-0.022**	ug/L	0.004	16	69	31	21	KED
	Ni	**62**	**0.002**	ug/L	0.014	778	7	8	53	KED
	Cu	**63**	**0.057**	ug/L	0.005	8	80	366	10	KED
	Cu	**65**	**0.057**	ug/L	0.006	10	43	182	8	KED
	Zn	**66**	**0.033**	ug/L	0.024	70	140	163	5	KED
	Zn	**67**	**0.004**	ug/L	0.069	1607	20	21	36	KED
	As	**75**	**-0.008**	ug/L	0.002	29	5	3	24	KED
	Se	**78**	**-0.159**	ug/L	0.064	39	25	19	11	KED
	Y	**89**		ug/L			347335	351931	2	Standard
	Kr	**83**		ug/L			53	52	23	Standard
>	**In-1**	**115**		ug/L			11040	10314	2	KED
	Mo	**98**	**0.013**	ug/L	0.005	40	7	26	29	KED
	Cd	**111**	**-0.002**	ug/L	0.001	83	7	6	8	KED
	Cd	**114**	**0.001**	ug/L	0.003	304	9	10	27	KED
>	**In**	**115**		ug/L			434426	450554	4	Standard
	Ag	**107**	**0.001**	ug/L	0.001	194	42	57	41	Standard
	Sb	**121**	**-0.001**	ug/L	0.002	199	205	195	20	Standard
	Sb	**123**	**-0.001**	ug/L	0.001	150	131	124	13	Standard
	Ba	**135**	**0.009**	ug/L	0.003	38	60	104	17	Standard
	Ba	**137**	**0.009**	ug/L	0.000	2	114	198	5	Standard
>	**Tb**	**159**		ug/L			798416	828860	4	Standard
	Tl	**205**	**-0.004**	ug/L	0.000	10	218	102	11	Standard
	Pb	**208**	**0.000**	ug/L	0.000	214	288	307	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0559-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 22:02:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	481995	1	Standard
	Be	**9**	**26.923**	ug/L	0.597	2	11	106330	0	Standard
	C	**13**		ug/L			29409	46069	4	Standard
	Cl	**37**		ug/L			1805078	1703547	1	Standard
>	**Sc**	**45**		ug/L			595718	628746	0	Standard
	V	**51**	**26.337**	ug/L	0.056	0	6858	729201	0	Standard
	V-1	**51**	**26.340**	ug/L	0.075	0	607	725706	0	Standard
	Cr	**52**	**26.875**	ug/L	0.376	1	20299	627673	2	Standard
	Cr	**53**	**26.879**	ug/L	0.144	0	294	69809	1	Standard
	Mn	**55**	**27.004**	ug/L	0.862	3	569	886374	3	Standard
>	**Ge**	**72**		ug/L			49648	48183	1	KED
	Co	**59**	**27.186**	ug/L	0.145	0	6	163415	1	KED
	Ni	**60**	**27.771**	ug/L	0.212	0	69	47645	1	KED
	Ni	**62**	**27.521**	ug/L	0.521	1	7	7734	2	KED
	Cu	**63**	**27.609**	ug/L	0.564	2	80	133704	1	KED
	Cu	**65**	**28.603**	ug/L	0.606	2	43	67950	2	KED
	Zn	**66**	**89.336**	ug/L	3.094	3	140	56828	3	KED
	Zn	**67**	**84.916**	ug/L	1.088	1	20	8763	2	KED
	As	**75**	**26.958**	ug/L	0.454	1	5	9141	2	KED
	Se	**78**	**88.052**	ug/L	2.507	2	25	2797	3	KED
	Y	**89**		ug/L			347335	368337	0	Standard
	Kr	**83**		ug/L			53	58	17	Standard
>	**In-1**	**115**		ug/L			11040	10762	2	KED
	Mo	**98**	**28.150**	ug/L	0.661	2	7	44894	2	KED
	Cd	**111**	**28.056**	ug/L	0.718	2	7	9290	3	KED
	Cd	**114**	**27.907**	ug/L	0.415	1	9	23673	2	KED
>	**In**	**115**		ug/L			434426	470232	1	Standard
	Ag	**107**	**26.284**	ug/L	0.739	2	42	504533	1	Standard
	Sb	**121**	**26.238**	ug/L	0.675	2	205	413881	1	Standard
	Sb	**123**	**26.604**	ug/L	0.399	1	131	320590	0	Standard
	Ba	**135**	**27.440**	ug/L	0.325	1	60	137473	2	Standard
	Ba	**137**	**28.222**	ug/L	0.496	1	114	247421	3	Standard
>	**Tb**	**159**		ug/L			798416	878700	1	Standard
	Tl	**205**	**26.571**	ug/L	0.260	0	218	993648	0	Standard
	Pb	**208**	**26.515**	ug/L	0.763	2	288	1318302	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0165-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 22:08:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	469931	4	Standard
	Be	**9**	**0.000**	ug/L	0.001	16845	11	12	48	Standard
	C	**13**		ug/L			29409	85906	1	Standard
	Cl	**37**		ug/L			1805078	1722116	1	Standard
>	**Sc**	**45**		ug/L			595718	654955	2	Standard
	V	**51**	**0.815**	ug/L	0.013	1	6858	30814	2	Standard
	V-1	**51**	**0.938**	ug/L	0.012	1	607	27558	0	Standard
	Cr	**52**	**1.229**	ug/L	0.049	4	20299	51220	4	Standard
	Cr	**53**	**1.642**	ug/L	0.028	1	294	4746	1	Standard
	Mn	**55**	**1265.524**	ug/L	17.610	1	569	43243624	2	Standard
>	**Ge**	**72**		ug/L			49648	49584	1	KED
	Co	**59**	**1.525**	ug/L	0.023	1	6	9441	2	KED
	Ni	**60**	**2.685**	ug/L	0.043	1	69	4802	0	KED
	Ni	**62**	**2.707**	ug/L	0.133	4	7	789	5	KED
	Cu	**63**	**2.459**	ug/L	0.076	3	80	12328	2	KED
	Cu	**65**	**2.575**	ug/L	0.046	1	43	6335	2	KED
	Zn	**66**	**70.399**	ug/L	0.029	0	140	46113	1	KED
	Zn	**67**	**68.513**	ug/L	0.726	1	20	7279	1	KED
	As	**75**	**4.592**	ug/L	0.165	3	5	1606	2	KED
	Se	**78**	**0.075**	ug/L	0.091	121	25	27	9	KED
	Y	**89**		ug/L			347335	354647	1	Standard
	Kr	**83**		ug/L			53	76	11	Standard
>	**In-1**	**115**		ug/L			11040	11156	3	KED
	Mo	**98**	**4.068**	ug/L	0.291	7	7	6723	4	KED
	Cd	**111**	**0.106**	ug/L	0.021	20	7	43	17	KED
	Cd	**114**	**0.106**	ug/L	0.011	10	9	103	7	KED
>	**In**	**115**		ug/L			434426	430182	1	Standard
	Ag	**107**	**0.003**	ug/L	0.000	18	42	86	7	Standard
	Sb	**121**	**1.276**	ug/L	0.018	1	205	18605	1	Standard
	Sb	**123**	**1.274**	ug/L	0.028	2	131	14168	2	Standard
	Ba	**135**	**44.893**	ug/L	0.711	1	60	205727	3	Standard
	Ba	**137**	**45.448**	ug/L	0.983	2	114	364329	1	Standard
>	**Tb**	**159**		ug/L			798416	832212	1	Standard
	Tl	**205**	**-0.003**	ug/L	0.000	11	218	137	9	Standard
	Pb	**208**	**0.264**	ug/L	0.005	1	288	12719	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0249-DUP4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 22:16:11
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	455874	4	Standard
	Be	**9**	**0.000**	ug/L	0.002	1576	11	12	55	Standard
	C	**13**		ug/L			29409	87141	3	Standard
	Cl	**37**		ug/L			1805078	1715340	1	Standard
>	**Sc**	**45**		ug/L			595718	661028	4	Standard
	V	**51**	**0.809**	ug/L	0.048	5	6858	30909	5	Standard
	V-1	**51**	**0.923**	ug/L	0.036	3	607	27380	4	Standard
	Cr	**52**	**1.260**	ug/L	0.075	5	20299	52415	5	Standard
	Cr	**53**	**1.645**	ug/L	0.041	2	294	4794	2	Standard
	Mn	**55**	**1255.695**	ug/L	34.695	2	569	43333903	6	Standard
>	**Ge**	**72**		ug/L			49648	48212	2	KED
	Co	**59**	**1.463**	ug/L	0.030	2	6	8810	4	KED
	Ni	**60**	**2.624**	ug/L	0.036	1	69	4565	2	KED
	Ni	**62**	**2.577**	ug/L	0.295	11	7	732	13	KED
	Cu	**63**	**2.551**	ug/L	0.005	0	80	12433	2	KED
	Cu	**65**	**2.606**	ug/L	0.058	2	43	6235	4	KED
	Zn	**66**	**69.848**	ug/L	0.367	0	140	44489	2	KED
	Zn	**67**	**67.963**	ug/L	0.848	1	20	7022	3	KED
	As	**75**	**4.484**	ug/L	0.061	1	5	1526	3	KED
	Se	**78**	**-0.082**	ug/L	0.147	179	25	21	18	KED
	Y	**89**		ug/L			347335	349982	5	Standard
	Kr	**83**		ug/L			53	71	22	Standard
>	**In-1**	**115**		ug/L			11040	10954	0	KED
	Mo	**98**	**4.130**	ug/L	0.075	1	7	6711	1	KED
	Cd	**111**	**0.113**	ug/L	0.020	17	7	45	15	KED
	Cd	**114**	**0.100**	ug/L	0.013	12	9	96	11	KED
>	**In**	**115**		ug/L			434426	431239	6	Standard
	Ag	**107**	**0.003**	ug/L	0.001	23	42	90	10	Standard
	Sb	**121**	**1.255**	ug/L	0.058	4	205	18315	2	Standard
	Sb	**123**	**1.251**	ug/L	0.056	4	131	13928	3	Standard
	Ba	**135**	**44.205**	ug/L	1.090	2	60	202908	5	Standard
	Ba	**137**	**44.937**	ug/L	1.838	4	114	360692	4	Standard
>	**Tb**	**159**		ug/L			798416	826685	2	Standard
	Tl	**205**	**-0.002**	ug/L	0.000	12	218	142	5	Standard
	Pb	**208**	**0.271**	ug/L	0.005	1	288	12983	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0249-MS4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 22:21:38
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	471883	2	Standard
	Be	**9**	**25.725**	ug/L	0.311	1	11	99499	3	Standard
	C	**13**		ug/L			29409	94808	2	Standard
	Cl	**37**		ug/L			1805078	1625208	2	Standard
>	**Sc**	**45**		ug/L			595718	680783	1	Standard
	V	**51**	**24.007**	ug/L	0.334	1	6858	720372	1	Standard
	V-1	**51**	**24.249**	ug/L	0.347	1	607	723416	1	Standard
	Cr	**52**	**24.847**	ug/L	0.331	1	20299	630026	1	Standard
	Cr	**53**	**25.658**	ug/L	0.186	0	294	72166	1	Standard
	Mn	**55**	**1271.074**	ug/L	30.674	2	569	45136852	1	Standard
>	**Ge**	**72**		ug/L			49648	48482	1	KED
	Co	**59**	**27.857**	ug/L	0.262	0	6	168491	1	KED
	Ni	**60**	**29.163**	ug/L	0.381	1	69	50344	2	KED
	Ni	**62**	**28.711**	ug/L	0.304	1	7	8117	2	KED
	Cu	**63**	**29.307**	ug/L	0.777	2	80	142803	2	KED
	Cu	**65**	**29.727**	ug/L	0.379	1	43	71064	2	KED
	Zn	**66**	**147.686**	ug/L	1.269	0	140	94431	0	KED
	Zn	**67**	**142.880**	ug/L	1.151	0	20	14821	0	KED
	As	**75**	**30.770**	ug/L	0.276	0	5	10497	0	KED
	Se	**78**	**79.929**	ug/L	2.436	3	25	2557	3	KED
	Y	**89**		ug/L			347335	363074	1	Standard
	Kr	**83**		ug/L			53	91	15	Standard
>	**In-1**	**115**		ug/L			11040	10131	3	KED
	Mo	**98**	**32.915**	ug/L	0.874	2	7	49390	2	KED
	Cd	**111**	**26.710**	ug/L	0.655	2	7	8320	1	KED
	Cd	**114**	**26.460**	ug/L	0.892	3	9	21116	2	KED
>	**In**	**115**		ug/L			434426	442762	1	Standard
	Ag	**107**	**25.058**	ug/L	0.468	1	42	452924	0	Standard
	Sb	**121**	**27.828**	ug/L	1.313	4	205	413248	3	Standard
	Sb	**123**	**27.778**	ug/L	1.074	3	131	315113	2	Standard
	Ba	**135**	**69.520**	ug/L	0.086	0	60	327808	1	Standard
	Ba	**137**	**72.316**	ug/L	1.938	2	114	596505	1	Standard
>	**Tb**	**159**		ug/L			798416	862138	2	Standard
	Tl	**205**	**25.389**	ug/L	0.308	1	218	931646	3	Standard
	Pb	**208**	**25.720**	ug/L	0.588	2	288	1254520	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0538-01RE1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Tuesday, April 25, 2023 22:28:05
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			449997	497458	6	Standard
[	**Be**	**9**	**-0.002**	ug/L	0.000	22	11	5	33	Standard
	C	**13**		ug/L			29409	87368	2	Standard
	Cl	**37**		ug/L			1805078	1688677	1	Standard
[>	**Sc**	**45**		ug/L			595718	578565	7	Standard
[	**V**	**51**	**0.079**	ug/L	0.015	18	6858	8646	6	Standard
[	**V-1**	**51**	**0.025**	ug/L	0.002	7	607	1225	3	Standard
[	**Cr**	**52**	**0.822**	ug/L	0.042	5	20299	36755	5	Standard
[	**Cr**	**53**	**0.629**	ug/L	0.020	3	294	1780	5	Standard
[	**Mn**	**55**	**6.159**	ug/L	0.254	4	569	186092	3	Standard
[>	**Ge**	**72**		ug/L			49648	46967	5	KED
[	**Co**	**59**	**0.119**	ug/L	0.013	10	6	700	5	KED
[	**Ni**	**60**	**1.006**	ug/L	0.015	1	69	1744	4	KED
[	**Ni**	**62**	**1.002**	ug/L	0.205	20	7	279	14	KED
[	**Cu**	**63**	**0.086**	ug/L	0.009	10	80	481	10	KED
[	**Cu**	**65**	**0.081**	ug/L	0.010	13	43	226	6	KED
[	**Zn**	**66**	**1.117**	ug/L	0.065	5	140	822	1	KED
[	**Zn**	**67**	**1.175**	ug/L	0.177	15	20	137	7	KED
[	**As**	**75**	**0.027**	ug/L	0.012	43	5	14	31	KED
[	**Se**	**78**	**-0.038**	ug/L	0.066	174	25	22	5	KED
	Y	**89**		ug/L			347335	339157	5	Standard
	Kr	**83**		ug/L			53	43	19	Standard
[>	**In-1**	**115**		ug/L			11040	9843	1	KED
[	**Mo**	**98**	**0.600**	ug/L	0.015	2	7	882	3	KED
[	**Cd**	**111**	**0.018**	ug/L	0.003	18	7	12	9	KED
[	**Cd**	**114**	**0.002**	ug/L	0.007	340	9	10	49	KED
[>	**In**	**115**		ug/L			434426	429080	7	Standard
[	**Ag**	**107**	**0.000**	ug/L	0.001	155	42	47	18	Standard
[	**Sb**	**121**	**0.016**	ug/L	0.001	5	205	425	5	Standard
[	**Sb**	**123**	**0.019**	ug/L	0.001	5	131	343	4	Standard
[	**Ba**	**135**	**1.274**	ug/L	0.070	5	60	5864	2	Standard
[	**Ba**	**137**	**1.308**	ug/L	0.061	4	114	10555	5	Standard
[>	**Tb**	**159**		ug/L			798416	837898	3	Standard
[	**Tl**	**205**	**-0.004**	ug/L	0.001	17	218	86	29	Standard
[	**Pb**	**208**	**0.019**	ug/L	0.002	10	288	1198	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0397-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, April 25, 2023 22:33:02
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			449997	470626	7	Standard
	Be	9	-0.002	ug/L	0.001	40	11	3	124	Standard
	C	13		ug/L			29409	483928	4	Standard
	Cl	37		ug/L			1805078	1354496	2	Standard
>	Sc	45		ug/L			595718	536934	5	Standard
	V	51	0.373	ug/L	0.057	15	6858	14938	11	Standard
	V-1	51	0.154	ug/L	0.006	3	607	4162	5	Standard
	Cr	52	12.282	ug/L	0.079	0	20299	254836	4	Standard
	Cr	53	11.366	ug/L	0.244	2	294	25350	3	Standard
	Mn	55	17.158	ug/L	0.126	0	569	481246	5	Standard
>	Ge	72		ug/L			49648	41025	2	KED
	Co	59	0.492	ug/L	0.020	4	6	2526	6	KED
	Ni	60	10.216	ug/L	0.196	1	69	14963	4	KED
	Ni	62	10.226	ug/L	0.123	1	7	2451	3	KED
	Cu	63	2.300	ug/L	0.088	3	80	9553	6	KED
	Cu	65	2.356	ug/L	0.072	3	43	4801	5	KED
	Zn	66	2.714	ug/L	0.199	7	140	1584	9	KED
	Zn	67	3.318	ug/L	0.392	11	20	307	10	KED
	As	75	0.132	ug/L	0.006	4	5	42	6	KED
	Se	78	0.013	ug/L	0.127	945	25	21	17	KED
	Y	89		ug/L			347335	289049	3	Standard
	Kr	83		ug/L			53	76	2	Standard
>	In-1	115		ug/L			11040	8794	7	KED
	Mo	98	1.938	ug/L	0.098	5	7	2525	2	KED
	Cd	111	0.024	ug/L	0.015	64	7	12	27	KED
	Cd	114	0.010	ug/L	0.001	6	9	14	6	KED
>	In	115		ug/L			434426	395126	5	Standard
	Ag	107	-0.001	ug/L	0.000	12	42	21	5	Standard
	Sb	121	0.143	ug/L	0.004	2	205	2076	3	Standard
	Sb	123	0.148	ug/L	0.007	4	131	1619	5	Standard
	Ba	135	12.864	ug/L	0.130	1	60	54155	4	Standard
	Ba	137	13.345	ug/L	0.053	0	114	98339	4	Standard
>	Tb	159		ug/L			798416	858438	3	Standard
	Tl	205	-0.004	ug/L	0.000	9	218	80	19	Standard
	Pb	208	0.062	ug/L	0.002	2	288	3309	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 22:38:30
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	524546	0	Standard
	Be	**9**	**-0.002**	ug/L	0.001	44	11	4	89	Standard
	C	**13**		ug/L			29409	36279	3	Standard
	Cl	**37**		ug/L			1805078	1612411	1	Standard
>	**Sc**	**45**		ug/L			595718	592129	1	Standard
	V	**51**	**0.014**	ug/L	0.006	44	6858	7180	0	Standard
	V-1	**51**	**-0.005**	ug/L	0.001	19	607	480	4	Standard
	Cr	**52**	**0.059**	ug/L	0.012	21	20299	21420	1	Standard
	Cr	**53**	**-0.006**	ug/L	0.010	158	294	278	10	Standard
	Mn	**55**	**0.004**	ug/L	0.001	12	569	690	1	Standard
>	**Ge**	**72**		ug/L			49648	46809	2	KED
	Co	**59**	**-0.000**	ug/L	0.001	191	6	4	89	KED
	Ni	**60**	**-0.027**	ug/L	0.001	2	69	20	5	KED
	Ni	**62**	**-0.008**	ug/L	0.017	220	7	5	94	KED
	Cu	**63**	**0.009**	ug/L	0.004	46	80	116	14	KED
	Cu	**65**	**0.010**	ug/L	0.006	59	43	64	19	KED
	Zn	**66**	**-0.044**	ug/L	0.011	24	140	105	3	KED
	Zn	**67**	**-0.044**	ug/L	0.085	193	20	15	54	KED
	As	**75**	**-0.002**	ug/L	0.003	177	5	4	22	KED
	Se	**78**	**-0.184**	ug/L	0.118	64	25	17	17	KED
	Y	**89**		ug/L			347335	336635	2	Standard
	Kr	**83**		ug/L			53	48	13	Standard
>	**In-1**	**115**		ug/L			11040	8494	5	KED
	Mo	**98**	**-0.000**	ug/L	0.002	468	7	5	36	KED
	Cd	**111**	**0.000**	ug/L	0.009	4842	7	5	44	KED
	Cd	**114**	**-0.001**	ug/L	0.005	326	9	6	44	KED
>	**In**	**115**		ug/L			434426	457124	1	Standard
	Ag	**107**	**-0.001**	ug/L	0.000	19	42	18	29	Standard
	Sb	**121**	**-0.010**	ug/L	0.000	4	205	67	9	Standard
	Sb	**123**	**-0.006**	ug/L	0.000	0	131	63	1	Standard
	Ba	**135**	**-0.005**	ug/L	0.003	71	60	41	37	Standard
	Ba	**137**	**-0.005**	ug/L	0.002	39	114	74	24	Standard
>	**Tb**	**159**		ug/L			798416	905233	2	Standard
	Tl	**205**	**-0.005**	ug/L	0.000	8	218	66	25	Standard
	Pb	**208**	**-0.001**	ug/L	0.000	5	288	267	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 22:43:34
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			449997	464365	5	Standard
	Be	**9**	**50.109**	ug/L	0.621	1	11	190680	5	Standard
	C	**13**		ug/L			29409	29831	0	Standard
	Cl	**37**		ug/L			1805078	1539223	1	Standard
>	**Sc**	**45**		ug/L			595718	572697	4	Standard
	V	**51**	**47.310**	ug/L	1.061	2	6858	1187464	4	Standard
	V-1	**51**	**47.434**	ug/L	1.032	2	607	1189623	4	Standard
	Cr	**52**	**47.162**	ug/L	0.646	1	20299	988543	4	Standard
	Cr	**53**	**47.588**	ug/L	0.922	1	294	112395	5	Standard
	Mn	**55**	**48.263**	ug/L	0.735	1	569	1443034	5	Standard
>	**Ge**	**72**		ug/L			49648	47879	3	KED
	Co	**59**	**51.187**	ug/L	0.865	1	6	305624	2	KED
	Ni	**60**	**51.175**	ug/L	0.649	1	69	87197	4	KED
	Ni	**62**	**50.417**	ug/L	0.630	1	7	14068	2	KED
	Cu	**63**	**51.234**	ug/L	0.809	1	80	246405	2	KED
	Cu	**65**	**53.246**	ug/L	1.124	2	43	125605	2	KED
	Zn	**66**	**50.518**	ug/L	0.926	1	140	31985	3	KED
	Zn	**67**	**50.214**	ug/L	0.984	1	20	5155	2	KED
	As	**75**	**50.380**	ug/L	1.209	2	5	16964	2	KED
	Se	**78**	**49.359**	ug/L	1.825	3	25	1567	2	KED
	Y	**89**		ug/L			347335	326965	5	Standard
	Kr	**83**		ug/L			53	46	10	Standard
>	**In-1**	**115**		ug/L			11040	9756	2	KED
	Mo	**98**	**51.062**	ug/L	0.559	1	7	73826	3	KED
	Cd	**111**	**51.185**	ug/L	0.456	0	7	15355	1	KED
	Cd	**114**	**51.461**	ug/L	1.187	2	9	39552	1	KED
>	**In**	**115**		ug/L			434426	431409	6	Standard
	Ag	**107**	**48.394**	ug/L	0.644	1	42	851988	5	Standard
	Sb	**121**	**50.843**	ug/L	1.926	3	205	734986	4	Standard
	Sb	**123**	**51.001**	ug/L	1.672	3	131	563145	3	Standard
	Ba	**135**	**54.998**	ug/L	1.543	2	60	252476	4	Standard
	Ba	**137**	**55.453**	ug/L	2.225	4	114	445673	6	Standard
>	**Tb**	**159**		ug/L			798416	865448	3	Standard
	Tl	**205**	**49.914**	ug/L	0.541	1	218	1838658	3	Standard
	Pb	**208**	**50.203**	ug/L	0.569	1	288	2458952	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 22:51:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			449997	456647	3	Standard
⌊	**Be**	**9**	**-0.001**	ug/L	0.001	51	11	7	25	Standard
	C	**13**		ug/L			29409	30332	0	Standard
	Cl	**37**		ug/L			1805078	1639499	1	Standard
⌈>	**Sc**	**45**		ug/L			595718	559160	2	Standard
⌈	**V**	**51**	**0.010**	ug/L	0.008	76	6858	6681	2	Standard
⌊	**V-1**	**51**	**-0.004**	ug/L	0.001	29	607	476	5	Standard
⌈	**Cr**	**52**	**0.032**	ug/L	0.028	87	20299	19694	1	Standard
⌊	**Cr**	**53**	**-0.015**	ug/L	0.009	59	294	240	6	Standard
⌊	**Mn**	**55**	**0.009**	ug/L	0.002	22	569	784	5	Standard
⌈>	**Ge**	**72**		ug/L			49648	49122	0	KED
⌈	**Co**	**59**	**-0.000**	ug/L	0.001	215	6	5	78	KED
⌊	**Ni**	**60**	**0.267**	ug/L	0.016	5	69	534	5	KED
⌈	**Ni**	**62**	**0.275**	ug/L	0.055	19	7	86	17	KED
⌈	**Cu**	**63**	**0.006**	ug/L	0.003	56	80	107	14	KED
⌊	**Cu**	**65**	**0.004**	ug/L	0.004	103	43	52	19	KED
⌈	**Zn**	**66**	**-0.006**	ug/L	0.037	574	140	135	17	KED
⌊	**Zn**	**67**	**-0.022**	ug/L	0.099	449	20	18	56	KED
⌈	**As**	**75**	**-0.001**	ug/L	0.008	672	5	5	50	KED
⌊	**Se**	**78**	**-0.091**	ug/L	0.022	23	25	21	3	KED
	Y	**89**		ug/L			347335	334340	3	Standard
	Kr	**83**		ug/L			53	40	37	Standard
⌈>	**In-1**	**115**		ug/L			11040	10493	2	KED
⌈	**Mo**	**98**	**0.007**	ug/L	0.003	36	7	18	20	KED
⌈	**Cd**	**111**	**-0.011**	ug/L	0.003	30	7	3	31	KED
⌊	**Cd**	**114**	**-0.006**	ug/L	0.006	95	9	4	113	KED
⌈>	**In**	**115**		ug/L			434426	430490	3	Standard
⌈	**Ag**	**107**	**0.000**	ug/L	0.000	50	42	50	9	Standard
⌈	**Sb**	**121**	**0.040**	ug/L	0.001	3	205	780	5	Standard
⌊	**Sb**	**123**	**0.041**	ug/L	0.003	6	131	585	5	Standard
⌈	**Ba**	**135**	**-0.001**	ug/L	0.001	92	60	56	8	Standard
⌊	**Ba**	**137**	**-0.002**	ug/L	0.001	42	114	100	8	Standard
⌈>	**Tb**	**159**		ug/L			798416	831843	2	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.000	7	218	191	4	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	21	288	321	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 22:56:25
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L				451288	2	Standard
	Be	**9**		ug/L				8	58	Standard
	C	**13**		ug/L				30171	0	Standard
	Cl	**37**		ug/L				1636983	1	Standard
>	**Sc**	**45**		ug/L				558757	3	Standard
	V	**51**		ug/L				6588	4	Standard
	V-1	**51**		ug/L				458	6	Standard
	Cr	**52**		ug/L				19428	3	Standard
	Cr	**53**		ug/L				234	5	Standard
	Mn	**55**		ug/L				747	2	Standard
>	**Ge**	**72**		ug/L				47927	2	KED
	Co	**59**		ug/L				7	108	KED
	Ni	**60**		ug/L				554	0	KED
	Ni	**62**		ug/L				85	11	KED
	Cu	**63**		ug/L				97	22	KED
	Cu	**65**		ug/L				53	2	KED
	Zn	**66**		ug/L				102	17	KED
	Zn	**67**		ug/L				22	44	KED
	As	**75**		ug/L				5	26	KED
	Se	**78**		ug/L				19	27	KED
	Y	**89**		ug/L				333043	1	Standard
	Kr	**83**		ug/L				44	21	Standard
>	**In-1**	**115**		ug/L				10197	8	KED
	Mo	**98**		ug/L				9	74	KED
	Cd	**111**		ug/L				3	25	KED
	Cd	**114**		ug/L				4	27	KED
>	**In**	**115**		ug/L				441442	2	Standard
	Ag	**107**		ug/L				35	24	Standard
	Sb	**121**		ug/L				277	8	Standard
	Sb	**123**		ug/L				218	5	Standard
	Ba	**135**		ug/L				56	10	Standard
	Ba	**137**		ug/L				90	1	Standard
>	**Tb**	**159**		ug/L				829126	1	Standard
	Tl	**205**		ug/L				103	9	Standard
	Pb	**208**		ug/L				332	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 23:01:29
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			451288	454961	6	Standard
	Be	**9**	**50.022**	ug/L	2.276	4	8	186205	3	Standard
	C	**13**		ug/L			30171	27766	1	Standard
	Cl	**37**		ug/L			1636983	1604729	1	Standard
>	**Sc**	**45**		ug/L			558757	576901	4	Standard
	V	**51**	**47.432**	ug/L	0.898	1	6588	1199549	4	Standard
	V-1	**51**	**47.856**	ug/L	0.876	1	458	1208697	3	Standard
	Cr	**52**	**48.563**	ug/L	0.530	1	19428	1024995	4	Standard
	Cr	**53**	**49.991**	ug/L	1.193	2	234	118749	2	Standard
	Mn	**55**	**49.436**	ug/L	0.572	1	747	1488502	4	Standard
>	**Ge**	**72**		ug/L			47927	47508	3	KED
	Co	**59**	**50.743**	ug/L	0.862	1	7	300638	2	KED
	Ni	**60**	**51.250**	ug/L	0.868	1	554	87112	3	KED
	Ni	**62**	**51.110**	ug/L	2.491	4	85	14231	6	KED
	Cu	**63**	**51.676**	ug/L	1.155	2	97	246592	1	KED
	Cu	**65**	**51.899**	ug/L	2.372	4	53	121453	3	KED
	Zn	**66**	**51.467**	ug/L	1.152	2	102	32293	2	KED
	Zn	**67**	**52.043**	ug/L	1.884	3	22	5307	5	KED
	As	**75**	**50.968**	ug/L	0.900	1	5	17033	3	KED
	Se	**78**	**50.509**	ug/L	2.090	4	19	1586	1	KED
	Y	**89**		ug/L			333043	347549	4	Standard
	Kr	**83**		ug/L			44	51	0	Standard
>	**In-1**	**115**		ug/L			10197	10993	1	KED
	Mo	**98**	**50.918**	ug/L	0.963	1	9	82931	0	KED
	Cd	**111**	**50.750**	ug/L	0.545	1	3	17153	0	KED
	Cd	**114**	**51.243**	ug/L	1.595	3	4	44378	2	KED
>	**In**	**115**		ug/L			441442	436044	5	Standard
	Ag	**107**	**49.554**	ug/L	0.900	1	35	881903	5	Standard
	Sb	**121**	**50.466**	ug/L	0.875	1	277	737740	4	Standard
	Sb	**123**	**50.817**	ug/L	1.922	3	218	567166	3	Standard
	Ba	**135**	**52.415**	ug/L	0.669	1	56	243294	4	Standard
	Ba	**137**	**55.553**	ug/L	1.405	2	90	450977	3	Standard
>	**Tb**	**159**		ug/L			829126	845494	2	Standard
	Tl	**205**	**50.078**	ug/L	1.059	2	103	1802397	4	Standard
	Pb	**208**	**49.904**	ug/L	1.084	2	332	2388640	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 23:09:17
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			451288	434043	3	Standard
⌊	**Be**	**9**	**-0.001**	ug/L	0.002	234	8	5	100	Standard
	C	**13**		ug/L			30171	29312	4	Standard
	Cl	**37**		ug/L			1636983	1681010	1	Standard
⌈>	**Sc**	**45**		ug/L			558757	552287	2	Standard
⌈	**V**	**51**	**0.003**	ug/L	0.001	34	6588	6577	3	Standard
⌊	**V-1**	**51**	**-0.002**	ug/L	0.000	25	458	415	2	Standard
⌈	**Cr**	**52**	**0.017**	ug/L	0.011	61	19428	19540	2	Standard
⌊	**Cr**	**53**	**0.003**	ug/L	0.014	559	234	237	11	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.000	52	747	761	4	Standard
⌈>	**Ge**	**72**		ug/L			47927	50167	1	KED
⌈	**Co**	**59**	**-0.001**	ug/L	0.000	20	7	2	43	KED
⌊	**Ni**	**60**	**0.007**	ug/L	0.008	112	554	592	1	KED
⌈	**Ni**	**62**	**-0.001**	ug/L	0.027	5081	85	88	8	KED
⌈	**Cu**	**63**	**0.000**	ug/L	0.004	1461	97	102	17	KED
⌊	**Cu**	**65**	**0.002**	ug/L	0.004	238	53	60	16	KED
⌈	**Zn**	**66**	**0.008**	ug/L	0.027	323	102	112	14	KED
⌊	**Zn**	**67**	**-0.034**	ug/L	0.033	98	22	20	19	KED
⌈	**As**	**75**	**-0.004**	ug/L	0.002	56	5	4	16	KED
⌊	**Se**	**78**	**0.008**	ug/L	0.059	745	19	21	8	KED
	Y	**89**		ug/L			333043	320136	2	Standard
	Kr	**83**		ug/L			44	48	4	Standard
⌈>	**In-1**	**115**		ug/L			10197	10695	1	KED
⌈	**Mo**	**98**	**0.008**	ug/L	0.005	66	9	21	36	KED
⌊	**Cd**	**111**	**0.006**	ug/L	0.012	190	3	6	63	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.005	132	4	7	52	KED
⌈>	**In**	**115**		ug/L			441442	426276	1	Standard
⌈	**Ag**	**107**	**0.002**	ug/L	0.001	44	35	60	17	Standard
⌈	**Sb**	**121**	**0.039**	ug/L	0.005	13	277	828	7	Standard
⌊	**Sb**	**123**	**0.043**	ug/L	0.004	8	218	686	6	Standard
⌈	**Ba**	**135**	**0.000**	ug/L	0.001	19629	56	54	7	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.001	171	90	92	10	Standard
⌈>	**Tb**	**159**		ug/L			829126	782513	2	Standard
⌈	**Tl**	**205**	**0.002**	ug/L	0.000	3	103	180	3	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	118	332	348	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0347-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 23:14:21
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			451288	472377	2	Standard
	Be	9	-0.001	ug/L	0.001	169	8	6	62	Standard
	C	13		ug/L			30171	42128	3	Standard
	Cl	37		ug/L			1636983	1674132	1	Standard
>	Sc	45		ug/L			558757	597373	0	Standard
	V	51	0.014	ug/L	0.005	36	6588	7420	1	Standard
	V-1	51	0.000	ug/L	0.001	201	458	501	4	Standard
	Cr	52	0.097	ug/L	0.017	17	19428	22842	2	Standard
	Cr	53	0.048	ug/L	0.010	19	234	368	6	Standard
	Mn	55	0.015	ug/L	0.001	6	747	1276	2	Standard
>	Ge	72		ug/L			47927	47104	0	KED
	Co	59	-0.000	ug/L	0.000	122	7	5	57	KED
	Ni	60	-0.315	ug/L	0.002	0	554	16	17	KED
	Ni	62	-0.293	ug/L	0.008	2	85	3	69	KED
	Cu	63	0.029	ug/L	0.003	9	97	234	6	KED
	Cu	65	0.028	ug/L	0.002	5	53	117	2	KED
	Zn	66	0.039	ug/L	0.021	54	102	124	9	KED
	Zn	67	-0.021	ug/L	0.111	523	22	20	54	KED
	As	75	-0.001	ug/L	0.009	1444	5	5	59	KED
	Se	78	-0.100	ug/L	0.186	185	19	16	34	KED
	Y	89		ug/L			333043	350842	2	Standard
	Kr	83		ug/L			44	46	16	Standard
>	In-1	115		ug/L			10197	10570	1	KED
	Mo	98	0.005	ug/L	0.003	59	9	17	26	KED
	Cd	111	0.003	ug/L	0.008	243	3	5	54	KED
	Cd	114	0.008	ug/L	0.006	76	4	11	46	KED
>	In	115		ug/L			441442	459796	1	Standard
	Ag	107	0.000	ug/L	0.000	62	35	45	10	Standard
	Sb	121	0.008	ug/L	0.002	30	277	413	10	Standard
	Sb	123	0.006	ug/L	0.001	21	218	303	6	Standard
	Ba	135	0.020	ug/L	0.002	10	56	154	6	Standard
	Ba	137	0.025	ug/L	0.003	10	90	306	5	Standard
>	Tb	159		ug/L			829126	848075	2	Standard
	Tl	205	0.001	ug/L	0.001	103	103	125	15	Standard
	Pb	208	-0.003	ug/L	0.000	8	332	201	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0347-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 23:19:24
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			451288	424589	2	Standard
[	Be	9	25.872	ug/L	0.783	3	8	90045	4	Standard
	C	13		ug/L			30171	42638	2	Standard
	Cl	37		ug/L			1636983	1621889	1	Standard
[>	Sc	45		ug/L			558757	535876	6	Standard
[	V	51	25.656	ug/L	0.207	0	6588	605622	5	Standard
[	V-1	51	25.781	ug/L	0.438	1	458	605167	5	Standard
[	Cr	52	26.344	ug/L	0.485	1	19428	524704	4	Standard
[	Cr	53	26.760	ug/L	0.935	3	234	59146	5	Standard
[	Mn	55	26.261	ug/L	0.514	1	747	734698	5	Standard
[>	Ge	72		ug/L			47927	46980	3	KED
[	Co	59	27.330	ug/L	0.341	1	7	160138	2	KED
[	Ni	60	27.440	ug/L	0.907	3	554	46352	2	KED
[	Ni	62	26.790	ug/L	0.831	3	85	7413	3	KED
[	Cu	63	26.858	ug/L	0.638	2	97	126837	4	KED
[	Cu	65	28.136	ug/L	0.610	2	53	65157	2	KED
[	Zn	66	89.163	ug/L	2.302	2	102	55233	1	KED
[	Zn	67	83.774	ug/L	0.958	1	22	8430	3	KED
[	As	75	27.146	ug/L	0.194	0	5	8974	3	KED
[	Se	78	86.924	ug/L	0.489	0	19	2688	3	KED
	Y	89		ug/L			333043	326686	3	Standard
	Kr	83		ug/L			44	50	9	Standard
[>	In-1	115		ug/L			10197	10914	1	KED
[	Mo	98	26.945	ug/L	0.335	1	9	43580	0	KED
[	Cd	111	26.591	ug/L	0.494	1	3	8924	0	KED
[	Cd	114	26.888	ug/L	0.702	2	4	23125	2	KED
[>	In	115		ug/L			441442	408883	5	Standard
[	Ag	107	25.673	ug/L	0.384	1	35	428527	4	Standard
[	Sb	121	26.666	ug/L	0.642	2	277	365827	5	Standard
[	Sb	123	26.853	ug/L	0.703	2	218	281589	6	Standard
[	Ba	135	26.771	ug/L	0.866	3	56	116618	6	Standard
[	Ba	137	27.874	ug/L	0.892	3	90	212395	5	Standard
[>	Tb	159		ug/L			829126	791892	3	Standard
[	Tl	205	25.634	ug/L	0.315	1	103	863615	2	Standard
[	Pb	208	25.848	ug/L	0.198	0	332	1158669	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0232-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 23:24:27
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			451288	465297	6	Standard
	Be	9	-0.000	ug/L	0.000	44	8	6	15	Standard
	C	13		ug/L			30171	47639	2	Standard
	Cl	37		ug/L			1636983	1679709	2	Standard
>	Sc	45		ug/L			558757	598804	6	Standard
	V	51	0.021	ug/L	0.012	57	6588	7595	3	Standard
	V-1	51	0.003	ug/L	0.001	37	458	567	2	Standard
	Cr	52	0.179	ug/L	0.041	23	19428	24618	3	Standard
	Cr	53	0.115	ug/L	0.008	7	234	534	5	Standard
	Mn	55	0.049	ug/L	0.003	5	747	2316	3	Standard
>	Ge	72		ug/L			47927	49670	0	KED
	Co	59	0.001	ug/L	0.000	14	7	16	6	KED
	Ni	60	-0.304	ug/L	0.003	0	554	36	13	KED
	Ni	62	-0.265	ug/L	0.012	4	85	11	28	KED
	Cu	63	0.018	ug/L	0.005	27	97	188	13	KED
	Cu	65	0.019	ug/L	0.003	17	53	102	8	KED
	Zn	66	0.965	ug/L	0.094	9	102	737	8	KED
	Zn	67	0.776	ug/L	0.117	15	22	106	10	KED
	As	75	0.003	ug/L	0.003	105	5	6	16	KED
	Se	78	0.008	ug/L	0.092	1096	19	20	13	KED
	Y	89		ug/L			333043	354302	3	Standard
	Kr	83		ug/L			44	38	18	Standard
>	In-1	115		ug/L			10197	11010	3	KED
	Mo	98	0.012	ug/L	0.002	19	9	29	12	KED
	Cd	~~111~~	-0.003	ug/L	0.001	45	3	3	17	KED
	Cd	114	0.000	ug/L	0.001	425	4	4	21	KED
>	In	115		ug/L			441442	455855	3	Standard
	Ag	~~107~~	0.001	ug/L	0.001	69	35	53	25	Standard
	Sb	~~121~~	-0.003	ug/L	0.000	2	277	243	3	Standard
	Sb	123	-0.004	ug/L	0.002	46	218	183	7	Standard
	Ba	135	0.040	ug/L	0.005	11	56	250	7	Standard
	Ba	137	0.036	ug/L	0.001	2	90	401	5	Standard
>	Tb	159		ug/L			829126	849798	2	Standard
	Tl	205	0.000	ug/L	0.000	13	103	114	3	Standard
	Pb	208	0.011	ug/L	0.000	2	332	869	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0232-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 23:29:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			451288	451179	5	Standard
	Be	9	25.277	ug/L	0.181	0	8	93485	6	Standard
	C	13		ug/L			30171	46414	1	Standard
	Cl	37		ug/L			1636983	1676682	2	Standard
>	Sc	45		ug/L			558757	585698	7	Standard
	V	51	25.469	ug/L	0.743	2	6588	656626	5	Standard
	V-1	51	25.655	ug/L	0.772	3	458	657612	5	Standard
	Cr	52	25.741	ug/L	0.386	1	19428	560991	6	Standard
	Cr	53	26.371	ug/L	0.516	1	234	63707	5	Standard
	Mn	55	25.906	ug/L	0.667	2	747	792512	7	Standard
>	Ge	72		ug/L			47927	45849	1	KED
	Co	59	26.076	ug/L	0.786	3	7	149165	3	KED
	Ni	60	26.793	ug/L	0.182	0	554	44210	1	KED
	Ni	62	25.683	ug/L	0.293	1	85	6941	0	KED
	Cu	63	27.224	ug/L	0.427	1	97	125478	1	KED
	Cu	65	27.477	ug/L	0.227	0	53	62127	1	KED
	Zn	66	84.901	ug/L	1.953	2	102	51372	3	KED
	Zn	67	79.446	ug/L	1.273	1	22	7804	1	KED
	As	75	25.356	ug/L	0.495	1	5	8182	2	KED
	Se	78	79.213	ug/L	2.377	3	19	2393	3	KED
	Y	89		ug/L			333043	346313	5	Standard
	Kr	83		ug/L			44	42	20	Standard
>	In-1	115		ug/L			10197	8859	3	KED
	Mo	98	27.296	ug/L	1.309	4	9	35848	6	KED
	Cd	111	26.727	ug/L	2.343	8	3	7285	10	KED
	Cd	114	27.407	ug/L	1.907	6	4	19141	8	KED
>	In	115		ug/L			441442	443436	9	Standard
	Ag	107	26.663	ug/L	1.206	4	35	481351	5	Standard
	Sb	121	26.285	ug/L	0.997	3	277	390206	5	Standard
	Sb	123	26.455	ug/L	0.878	3	218	300131	6	Standard
	Ba	135	27.790	ug/L	0.370	1	56	131324	10	Standard
	Ba	137	28.153	ug/L	1.022	3	90	232159	5	Standard
>	Tb	159		ug/L			829126	835545	5	Standard
	Tl	205	26.179	ug/L	0.247	0	103	930876	5	Standard
	Pb	208	26.538	ug/L	0.525	1	332	1255816	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0648-02
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Tuesday, April 25, 2023 23:34:34
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			451288	476161	0	Standard
	Be	9	0.010	ug/L	0.002	23	8	48	18	Standard
	C	13		ug/L			30171	60889	2	Standard
	Cl	37		ug/L			1636983	1427354	2	Standard
>	Sc	45		ug/L			558757	821084	0	Standard
	V	51	24.395	ug/L	0.131	0	6588	882959	0	Standard
	V-1	51	24.631	ug/L	0.119	0	458	886081	0	Standard
	Cr	52	0.505	ug/L	0.040	8	19428	43423	1	Standard
	Cr	53	1.647	ug/L	0.058	3	234	5905	3	Standard
	Mn	55	326.892	ug/L	3.219	0	747	14004572	1	Standard
>	Ge	72		ug/L			47927	43226	11	KED
	Co	59	2.174	ug/L	0.250	11	7	11637	3	KED
	Ni	60	5.876	ug/L	0.550	9	554	9473	4	KED
	Ni	62	5.922	ug/L	0.411	6	85	1560	5	KED
	Cu	63	8.742	ug/L	0.992	11	97	37754	3	KED
	Cu	65	8.804	ug/L	0.896	10	53	18664	2	KED
	Zn	66	3.361	ug/L	0.421	12	102	1988	1	KED
	Zn	67	3.725	ug/L	0.730	19	22	361	13	KED
	As	75	1.426	ug/L	0.197	13	5	434	5	KED
	Se	78	0.452	ug/L	0.143	31	19	30	4	KED
	Y	89		ug/L			333043	379019	0	Standard
	Kr	83		ug/L			44	62	9	Standard
>	In-1	115		ug/L			10197	10400	2	KED
	Mo	98	20.745	ug/L	0.130	0	9	31976	1	KED
	Cd	111	0.033	ug/L	0.008	24	3	14	19	KED
	Cd	114	0.029	ug/L	0.004	14	4	27	14	KED
>	In	115		ug/L			441442	437524	1	Standard
	Ag	107	0.002	ug/L	0.000	1	35	71	1	Standard
	Sb	121	0.092	ug/L	0.002	2	277	1625	1	Standard
	Sb	123	0.089	ug/L	0.005	5	218	1209	3	Standard
	Ba	135	4.914	ug/L	0.025	0	56	22946	0	Standard
	Ba	137	5.086	ug/L	0.121	2	90	41541	1	Standard
>	Tb	159		ug/L			829126	875085	1	Standard
	Tl	205	0.022	ug/L	0.000	0	103	918	2	Standard
	Pb	208	0.102	ug/L	0.006	5	332	5410	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0648-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 23:39:32
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			451288	459784	2	Standard
	Be	**9**	**0.019**	ug/L	0.003	15	8	81	16	Standard
	C	**13**		ug/L			30171	59365	1	Standard
	Cl	**37**		ug/L			1636983	1433371	1	Standard
>	**Sc**	**45**		ug/L			558757	798963	4	Standard
	V	**51**	**25.966**	ug/L	1.051	4	6588	912782	1	Standard
	V-1	**51**	**26.206**	ug/L	1.056	4	458	916161	1	Standard
	Cr	**52**	**1.373**	ug/L	0.024	1	19428	67109	3	Standard
	Cr	**53**	**2.537**	ug/L	0.086	3	234	8663	3	Standard
	Mn	**55**	**328.967**	ug/L	6.903	2	747	13704182	2	Standard
>	**Ge**	**72**		ug/L			47927	43805	4	KED
	Co	**59**	**2.071**	ug/L	0.079	3	7	11321	5	KED
	Ni	**60**	**5.574**	ug/L	0.092	1	554	9190	5	KED
	Ni	**62**	**5.590**	ug/L	0.333	5	85	1506	9	KED
	Cu	**63**	**8.946**	ug/L	0.068	0	97	39450	4	KED
	Cu	**65**	**9.123**	ug/L	0.162	1	53	19750	6	KED
	Zn	**66**	**4.520**	ug/L	0.128	2	102	2699	2	KED
	Zn	**67**	**4.947**	ug/L	0.361	7	22	483	4	KED
	As	**75**	**1.423**	ug/L	0.034	2	5	443	2	KED
	Se	**78**	**0.421**	ug/L	0.072	17	19	30	2	KED
	Y	**89**		ug/L			333043	388842	0	Standard
	Kr	**83**		ug/L			44	73	9	Standard
>	**In-1**	**115**		ug/L			10197	9829	1	KED
	Mo	**98**	**20.854**	ug/L	0.764	3	9	30378	3	KED
	Cd	**111**	**0.039**	ug/L	0.024	60	3	15	46	KED
	Cd	**114**	**0.041**	ug/L	0.018	45	4	35	40	KED
>	**In**	**115**		ug/L			441442	443556	1	Standard
	Ag	**107**	**0.007**	ug/L	0.001	10	35	158	6	Standard
	Sb	**121**	**0.098**	ug/L	0.002	2	277	1741	2	Standard
	Sb	**123**	**0.099**	ug/L	0.012	12	218	1346	9	Standard
	Ba	**135**	**7.041**	ug/L	0.222	3	56	33307	2	Standard
	Ba	**137**	**7.317**	ug/L	0.214	2	90	60544	1	Standard
>	**Tb**	**159**		ug/L			829126	866328	0	Standard
	Tl	**205**	**0.023**	ug/L	0.000	0	103	939	1	Standard
	Pb	**208**	**0.374**	ug/L	0.010	2	332	18690	2	Standard

23D0137

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~23C0137~~-01

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, April 25, 2023 23:44:59

MB 4/25/23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			451288	477220	1	Standard
	Be	9	0.001	ug/L	0.002	180	8	12	50	Standard
	C	13		ug/L			30171	49590	2	Standard
	Cl	37		ug/L			1636983	1560636	1	Standard
>	Sc	45		ug/L			558757	707555	2	Standard
	V	51	0.296	ug/L	0.012	4	6588	17476	1	Standard
	V-1	51	0.418	ug/L	0.013	3	458	13539	1	Standard
	Cr	52	0.052	ug/L	0.005	9	19428	25932	2	Standard
	Cr	53	0.472	ug/L	0.004	0	234	1671	1	Standard
	Mn	55	40.044	ug/L	1.291	3	747	1478827	3	Standard
>	Ge	72		ug/L			47927	45991	7	KED
	Co	59	0.807	ug/L	0.008	1	7	4636	7	KED
	Ni	60	-0.024	ug/L	0.012	49	554	492	9	KED
	Ni	62	-0.003	ug/L	0.056	2011	85	80	16	KED
	Cu	63	0.810	ug/L	0.018	2	97	3838	8	KED
	Cu	65	0.835	ug/L	0.008	0	53	1944	7	KED
	Zn	66	4.734	ug/L	0.052	1	102	2966	8	KED
	Zn	67	5.141	ug/L	0.299	5	22	526	6	KED
	As	75	0.112	ug/L	0.011	10	5	41	13	KED
	Se	78	0.040	ug/L	0.098	244	19	20	10	KED
	Y	89		ug/L			333043	357292	0	Standard
	Kr	83		ug/L			44	59	21	Standard
>	In-1	115		ug/L			10197	10017	6	KED
	Mo	98	0.061	ug/L	0.001	1	9	99	5	KED
	Cd	111	0.004	ug/L	0.007	196	3	4	40	KED
	Cd	114	0.011	ug/L	0.003	22	4	13	15	KED
>	In	115		ug/L			441442	454114	1	Standard
	Ag	107	0.000	ug/L	0.001	287	35	40	25	Standard
	Sb	121	-0.001	ug/L	0.002	200	277	271	9	Standard
	Sb	123	-0.001	ug/L	0.003	573	218	219	15	Standard
	Ba	135	4.244	ug/L	0.164	3	56	20570	2	Standard
	Ba	137	4.425	ug/L	0.191	4	90	37510	2	Standard
>	Tb	159		ug/L			829126	873859	0	Standard
	Tl	205	0.000	ug/L	0.000	1051	103	110	13	Standard
	Pb	208	-0.000	ug/L	0.000	163	332	342	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0592-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 23:50:27
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			451288	487448	2	Standard
	Be	9	0.006	ug/L	0.002	36	8	31	24	Standard
	C	13		ug/L			30171	49331	2	Standard
	Cl	37		ug/L			1636983	1564162	2	Standard
>	Sc	45		ug/L			558757	719979	2	Standard
	V	51	0.311	ug/L	0.004	1	6588	18257	3	Standard
	V-1	51	0.421	ug/L	0.004	1	458	13858	3	Standard
	Cr	52	0.048	ug/L	0.011	23	19428	26266	3	Standard
	Cr	53	0.425	ug/L	0.013	3	234	1561	5	Standard
	Mn	55	40.680	ug/L	0.438	1	747	1529104	3	Standard
>	Ge	72		ug/L			47927	48385	3	KED
	Co	59	0.822	ug/L	0.023	2	7	4971	6	KED
	Ni	60	-0.005	ug/L	0.005	90	554	550	3	KED
	Ni	62	-0.023	ug/L	0.062	268	85	79	21	KED
	Cu	63	1.199	ug/L	0.047	3	97	5924	5	KED
	Cu	65	1.271	ug/L	0.041	3	53	3085	6	KED
	Zn	66	5.323	ug/L	0.061	1	102	3494	2	KED
	Zn	67	5.363	ug/L	0.285	5	22	577	7	KED
	As	75	0.119	ug/L	0.023	19	5	46	20	KED
	Se	78	-0.030	ug/L	0.053	172	19	19	7	KED
	Y	89		ug/L			333043	352420	3	Standard
	Kr	83		ug/L			44	41	25	Standard
>	In-1	115		ug/L			10197	10375	0	KED
	Mo	98	0.068	ug/L	0.005	7	9	113	7	KED
	Cd	111	0.016	ug/L	0.017	107	3	8	60	KED
	Cd	114	0.009	ug/L	0.001	13	4	11	7	KED
>	In	115		ug/L			441442	452253	2	Standard
	Ag	107	-0.000	ug/L	0.001	242	35	32	32	Standard
	Sb	121	0.001	ug/L	0.001	53	277	300	1	Standard
	Sb	123	-0.001	ug/L	0.002	261	218	214	12	Standard
	Ba	135	4.439	ug/L	0.140	3	56	21431	3	Standard
	Ba	137	4.516	ug/L	0.277	6	90	38135	5	Standard
>	Tb	159		ug/L			829126	894715	2	Standard
	Tl	205	0.000	ug/L	0.000	223	103	119	15	Standard
	Pb	208	0.019	ug/L	0.002	10	332	1335	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0592-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, April 25, 2023 23:56:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			451288	455053	2	Standard
[	Be	9	25.293	ug/L	0.343	1	8	94341	3	Standard
	C	13		ug/L			30171	44262	2	Standard
	Cl	37		ug/L			1636983	1576020	2	Standard
[>	Sc	45		ug/L			558757	680686	1	Standard
[	V	51	21.937	ug/L	0.269	1	6588	658954	0	Standard
[	V-1	51	22.074	ug/L	0.194	0	458	658312	0	Standard
[	Cr	52	21.853	ug/L	0.163	0	19428	557340	2	Standard
[	Cr	53	22.320	ug/L	0.574	2	234	62774	3	Standard
[	Mn	55	63.483	ug/L	0.094	0	747	2255316	1	Standard
[>	Ge	72		ug/L			47927	46937	5	KED
[	Co	59	26.509	ug/L	0.180	0	7	155245	5	KED
[	Ni	60	26.457	ug/L	0.549	2	554	44691	5	KED
[	Ni	62	26.639	ug/L	0.516	1	85	7365	4	KED
[	Cu	63	27.037	ug/L	0.632	2	97	127539	4	KED
[	Cu	65	28.062	ug/L	0.259	0	53	64962	5	KED
[	Zn	66	87.237	ug/L	1.054	1	102	54004	4	KED
[	Zn	67	82.842	ug/L	2.370	2	22	8322	2	KED
[	As	75	25.765	ug/L	0.338	1	5	8514	6	KED
[	Se	78	79.451	ug/L	0.504	0	19	2456	4	KED
	Y	89		ug/L			333043	346595	1	Standard
	Kr	83		ug/L			44	53	10	Standard
[>	In-1	115		ug/L			10197	10785	0	KED
[	Mo	98	26.258	ug/L	0.555	2	9	41969	1	KED
[	Cd	111	26.264	ug/L	0.804	3	3	8710	2	KED
[	Cd	114	25.973	ug/L	1.020	3	4	22072	3	KED
[>	In	115		ug/L			441442	432269	3	Standard
[	Ag	107	25.163	ug/L	0.367	1	35	444064	2	Standard
[	Sb	121	26.350	ug/L	0.469	1	277	382131	1	Standard
[	Sb	123	25.917	ug/L	0.224	0	218	287188	2	Standard
[	Ba	135	31.114	ug/L	1.027	3	56	143267	4	Standard
[	Ba	137	33.273	ug/L	0.779	2	90	268122	4	Standard
[>	Tb	159		ug/L			829126	857887	2	Standard
[	Tl	205	25.488	ug/L	0.587	2	103	930226	1	Standard
[	Pb	208	25.579	ug/L	0.576	2	332	1241524	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 00:01:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			451288	488423	2	Standard
⌊	**Be**	**9**	**-0.001**	ug/L	0.001	47	8	4	49	Standard
	C	**13**		ug/L			30171	30228	2	Standard
	Cl	**37**		ug/L			1636983	1671517	1	Standard
⌈>	**Sc**	**45**		ug/L			558757	615164	1	Standard
⌈	**V**	**51**	**0.020**	ug/L	0.003	13	6588	7793	0	Standard
⌊	**V-1**	**51**	**0.003**	ug/L	0.000	11	458	582	2	Standard
⌈	**Cr**	**52**	**0.068**	ug/L	0.013	18	19428	22900	1	Standard
⌊	**Cr**	**53**	**0.009**	ug/L	0.008	83	234	281	7	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	189	747	798	4	Standard
⌈>	**Ge**	**72**		ug/L			47927	46901	4	KED
⌈	**Co**	**59**	**0.001**	ug/L	0.001	100	7	12	36	KED
⌊	**Ni**	**60**	**-0.315**	ug/L	0.002	0	554	17	11	KED
⌈	**Ni**	**62**	**-0.286**	ug/L	0.010	3	85	5	57	KED
⌈	**Cu**	**63**	**0.015**	ug/L	0.004	28	97	166	9	KED
⌊	**Cu**	**65**	**0.014**	ug/L	0.003	25	53	83	6	KED
⌈	**Zn**	**66**	**0.044**	ug/L	0.019	42	102	127	13	KED
⌊	**Zn**	**67**	**-0.058**	ug/L	0.035	60	22	16	17	KED
⌈	**As**	**75**	**-0.004**	ug/L	0.006	152	5	4	43	KED
⌊	**Se**	**78**	**-0.071**	ug/L	0.219	307	19	17	36	KED
	Y	**89**		ug/L			333043	359467	2	Standard
	Kr	**83**		ug/L			44	39	19	Standard
⌈>	**In-1**	**115**		ug/L			10197	10824	2	KED
⌈	**Mo**	**98**	**0.005**	ug/L	0.005	115	9	17	51	KED
⌈	**Cd**	**111**	**0.005**	ug/L	0.008	154	3	5	44	KED
⌊	**Cd**	**114**	**0.005**	ug/L	0.005	99	4	8	46	KED
⌈>	**In**	**115**		ug/L			441442	458460	2	Standard
⌈	**Ag**	**107**	**-0.000**	ug/L	0.000	2970	35	36	10	Standard
⌈	**Sb**	**121**	**-0.012**	ug/L	0.001	9	277	106	14	Standard
⌊	**Sb**	**123**	**-0.012**	ug/L	0.001	8	218	80	15	Standard
⌈	**Ba**	**135**	**0.020**	ug/L	0.004	20	56	156	13	Standard
⌊	**Ba**	**137**	**0.022**	ug/L	0.003	12	90	277	7	Standard
⌈>	**Tb**	**159**		ug/L			829126	851858	3	Standard
⌈	**Tl**	**205**	**-0.000**	ug/L	0.000	40	103	96	6	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	63	332	394	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 00:06:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			451288	453455	6	Standard
⌊	**Be**	**9**	**50.131**	ug/L	0.989	1	8	186402	7	Standard
	C	**13**		ug/L			30171	28907	2	Standard
	Cl	**37**		ug/L			1636983	1649237	1	Standard
⌈>	**Sc**	**45**		ug/L			558757	588639	6	Standard
⌈	**V**	**51**	**48.814**	ug/L	0.387	0	6588	1259288	6	Standard
⌊	**V-1**	**51**	**48.952**	ug/L	0.646	1	458	1261296	5	Standard
⌈	**Cr**	**52**	**49.668**	ug/L	1.840	3	19428	1069421	7	Standard
⌊	**Cr**	**53**	**50.125**	ug/L	1.915	3	234	121486	6	Standard
⌊	**Mn**	**55**	**49.546**	ug/L	0.671	1	747	1521439	5	Standard
⌈>	**Ge**	**72**		ug/L			47927	48096	1	KED
⌈	**Co**	**59**	**51.003**	ug/L	0.339	0	7	306040	2	KED
⌊	**Ni**	**60**	**51.096**	ug/L	0.727	1	554	87949	2	KED
⌈	**Ni**	**62**	**50.094**	ug/L	1.011	2	85	14125	3	KED
⌈	**Cu**	**63**	**50.969**	ug/L	0.465	0	97	246344	1	KED
⌊	**Cu**	**65**	**51.541**	ug/L	1.383	2	53	122225	4	KED
⌈	**Zn**	**66**	**50.503**	ug/L	0.938	1	102	32095	2	KED
⌊	**Zn**	**67**	**51.884**	ug/L	1.051	2	22	5355	3	KED
⌈	**As**	**75**	**50.344**	ug/L	0.464	0	5	17036	2	KED
⌊	**Se**	**78**	**49.727**	ug/L	0.693	1	19	1583	1	KED
	Y	**89**		ug/L			333043	351079	3	Standard
	Kr	**83**		ug/L			44	60	14	Standard
⌈>	**In-1**	**115**		ug/L			10197	10582	4	KED
⌈	**Mo**	**98**	**51.592**	ug/L	1.482	2	9	80840	1	KED
⌈	**Cd**	**111**	**51.170**	ug/L	1.741	3	3	16634	0	KED
⌊	**Cd**	**114**	**51.749**	ug/L	2.337	4	4	43098	0	KED
⌈>	**In**	**115**		ug/L			441442	427620	6	Standard
⌈	**Ag**	**107**	**49.967**	ug/L	1.057	2	35	871635	4	Standard
⌈	**Sb**	**121**	**49.267**	ug/L	1.085	2	277	706247	5	Standard
⌊	**Sb**	**123**	**50.310**	ug/L	1.554	3	218	550923	5	Standard
⌈	**Ba**	**135**	**51.820**	ug/L	0.640	1	56	235897	5	Standard
⌊	**Ba**	**137**	**53.668**	ug/L	0.539	1	90	427511	5	Standard
⌈>	**Tb**	**159**		ug/L			829126	826747	5	Standard
⌈	**Tl**	**205**	**49.366**	ug/L	1.029	2	103	1737721	6	Standard
⌊	**Pb**	**208**	**49.989**	ug/L	1.112	2	332	2340140	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 00:14:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			451288	437252	8	Standard
⌊	**Be**	**9**	**-0.001**	ug/L	0.000	39	8	4	24	Standard
	C	**13**		ug/L			30171	28686	6	Standard
	Cl	**37**		ug/L			1636983	1726422	2	Standard
⌈>	**Sc**	**45**		ug/L			558757	564393	7	Standard
⌈	**V**	**51**	**0.023**	ug/L	0.006	26	6588	7215	8	Standard
⌊	**V-1**	**51**	**0.003**	ug/L	0.001	56	458	523	1	Standard
⌈	**Cr**	**52**	**0.090**	ug/L	0.025	28	19428	21443	7	Standard
⌊	**Cr**	**53**	**0.020**	ug/L	0.008	40	234	282	3	Standard
⌈	**Mn**	**55**	**0.001**	ug/L	0.001	126	747	779	7	Standard
⌈>	**Ge**	**72**		ug/L			47927	47404	6	KED
⌈	**Co**	**59**	**-0.000**	ug/L	0.001	143	7	5	78	KED
⌊	**Ni**	**60**	**0.009**	ug/L	0.008	90	554	563	7	KED
⌈	**Ni**	**62**	**0.051**	ug/L	0.031	61	85	97	2	KED
⌈	**Cu**	**63**	**-0.001**	ug/L	0.001	66	97	89	4	KED
⌊	**Cu**	**65**	**-0.002**	ug/L	0.004	241	53	49	16	KED
⌈	**Zn**	**66**	**0.017**	ug/L	0.015	84	102	111	8	KED
⌊	**Zn**	**67**	**-0.053**	ug/L	0.059	112	22	17	33	KED
⌈	**As**	**75**	**-0.003**	ug/L	0.004	148	5	4	36	KED
⌊	**Se**	**78**	**-0.003**	ug/L	0.143	4357	19	19	26	KED
	Y	**89**		ug/L			333043	328429	6	Standard
	Kr	**83**		ug/L			44	41	30	Standard
⌈>	**In-1**	**115**		ug/L			10197	11313	1	KED
⌈	**Mo**	**98**	**0.001**	ug/L	0.004	249	9	12	47	KED
⌈	**Cd**	**111**	**0.001**	ug/L	0.006	851	3	4	44	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.005	357	4	5	79	KED
⌈>	**In**	**115**		ug/L			441442	424812	4	Standard
⌈	**Ag**	**107**	**0.001**	ug/L	0.001	59	35	50	23	Standard
⌈	**Sb**	**121**	**0.035**	ug/L	0.006	18	277	772	16	Standard
⌊	**Sb**	**123**	**0.033**	ug/L	0.004	12	218	572	11	Standard
⌈	**Ba**	**135**	**-0.002**	ug/L	0.003	169	56	46	23	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.000	56	90	92	3	Standard
⌈>	**Tb**	**159**		ug/L			829126	795456	5	Standard
⌈	**Tl**	**205**	**0.002**	ug/L	0.001	37	103	180	11	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	64	332	333	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0674-02
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 00:19:50
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			451288	485384	1	Standard
[	**Be**	**9**	**0.003**	ug/L	0.002	70	8	20	41	Standard
	C	**13**		ug/L			30171	62777	1	Standard
	Cl	**37**		ug/L			1636983	1671863	1	Standard
[>	**Sc**	**45**		ug/L			558757	664634	0	Standard
[	**V**	**51**	**0.859**	ug/L	0.048	5	6588	32720	3	Standard
[	**V-1**	**51**	**1.152**	ug/L	0.011	0	458	34064	1	Standard
[	**Cr**	**52**	**5.538**	ug/L	0.126	2	19428	155167	1	Standard
[	**Cr**	**53**	**6.470**	ug/L	0.135	2	234	17963	2	Standard
[	**Mn**	**55**	**138.428**	ug/L	3.522	2	747	4800960	2	Standard
[>	**Ge**	**72**		ug/L			47927	48647	2	KED
[	**Co**	**59**	**1.053**	ug/L	0.025	2	7	6398	4	KED
[	**Ni**	**60**	**6.988**	ug/L	0.100	1	554	12651	3	KED
[	**Ni**	**62**	**7.034**	ug/L	0.218	3	85	2080	4	KED
[	**Cu**	**63**	**13.789**	ug/L	0.050	0	97	67482	2	KED
[	**Cu**	**65**	**13.989**	ug/L	0.177	1	53	33592	3	KED
[	**Zn**	**66**	**139.669**	ug/L	0.584	0	102	89581	1	KED
[	**Zn**	**67**	**132.215**	ug/L	2.348	1	22	13767	3	KED
[	**As**	**75**	**0.536**	ug/L	0.033	6	5	189	5	KED
[	**Se**	**78**	**0.180**	ug/L	0.013	7	19	25	1	KED
	Y	**89**		ug/L			333043	378245	2	Standard
	Kr	**83**		ug/L			44	53	25	Standard
[>	**In-1**	**115**		ug/L			10197	10894	3	KED
[	**Mo**	**98**	**1.569**	ug/L	0.062	3	9	2540	2	KED
[	**Cd**	**111**	**0.183**	ug/L	0.008	4	3	65	6	KED
[	**Cd**	**114**	**0.176**	ug/L	0.023	13	4	155	10	KED
[>	**In**	**115**		ug/L			441442	462933	0	Standard
[	**Ag**	**107**	**0.007**	ug/L	0.001	19	35	164	14	Standard
[	**Sb**	**121**	**0.778**	ug/L	0.029	3	277	12365	3	Standard
[	**Sb**	**123**	**0.782**	ug/L	0.024	3	218	9499	3	Standard
[	**Ba**	**135**	**16.837**	ug/L	0.428	2	56	83046	2	Standard
[	**Ba**	**137**	**17.339**	ug/L	0.688	3	90	149635	3	Standard
[>	**Tb**	**159**		ug/L			829126	891013	1	Standard
[	**Tl**	**205**	**0.005**	ug/L	0.001	17	103	311	11	Standard
[	**Pb**	**208**	**0.899**	ug/L	0.011	1	332	45687	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0674-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, April 26, 2023 00:24:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			451288	464171	5	Standard
	Be	**9**	**0.063**	ug/L	0.004	6	8	249	3	Standard
	C	**13**		ug/L			30171	50477	0	Standard
	Cl	**37**		ug/L			1636983	1656508	2	Standard
>	**Sc**	**45**		ug/L			558757	668732	3	Standard
	V	**51**	**9.023**	ug/L	0.246	2	6588	271030	5	Standard
	V-1	**51**	**9.439**	ug/L	0.224	2	458	277012	5	Standard
	Cr	**52**	**22.686**	ug/L	0.270	1	19428	567439	2	Standard
	Cr	**53**	**23.909**	ug/L	0.098	0	234	66033	3	Standard
	Mn	**55**	**117.929**	ug/L	2.634	2	747	4116526	5	Standard
>	**Ge**	**72**		ug/L			47927	43539	11	KED
	Co	**59**	**1.930**	ug/L	0.205	10	7	10438	9	KED
	Ni	**60**	**10.112**	ug/L	1.242	12	554	16052	8	KED
	Ni	**62**	**10.415**	ug/L	1.824	17	85	2694	11	KED
	Cu	**63**	**76.953**	ug/L	8.233	10	97	334565	7	KED
	Cu	**65**	**78.788**	ug/L	8.830	11	53	168002	7	KED
	Zn	**66**	**145.674**	ug/L	17.309	11	102	83071	8	KED
	Zn	**67**	**139.025**	ug/L	14.317	10	22	12888	9	KED
	As	**75**	**2.337**	ug/L	0.321	13	5	713	5	KED
	Se	**78**	**0.413**	ug/L	0.093	22	19	29	7	KED
	Y	**89**		ug/L			333043	452920	1	Standard
	Kr	**83**		ug/L			44	47	10	Standard
>	**In-1**	**115**		ug/L			10197	10782	1	KED
	Mo	**98**	**1.193**	ug/L	0.014	1	9	1915	2	KED
	Cd	**111**	**0.430**	ug/L	0.049	11	3	146	10	KED
	Cd	**114**	**0.411**	ug/L	0.014	3	4	353	1	KED
>	**In**	**115**		ug/L			441442	451344	4	Standard
	Ag	**107**	**0.075**	ug/L	0.002	2	35	1419	2	Standard
	Sb	**121**	**0.991**	ug/L	0.018	1	277	15291	5	Standard
	Sb	**123**	**0.982**	ug/L	0.043	4	218	11569	1	Standard
	Ba	**135**	**26.341**	ug/L	0.788	2	56	126587	3	Standard
	Ba	**137**	**27.134**	ug/L	0.343	1	90	228304	4	Standard
>	**Tb**	**159**		ug/L			829126	865026	2	Standard
	Tl	**205**	**0.018**	ug/L	0.001	7	103	772	8	Standard
	Pb	**208**	**28.734**	ug/L	0.528	1	332	1406492	2	Standard

23D0358

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~23C0358~~-01

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, April 26, 2023 00:30:21

MB 4/25/23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
Li	6		ug/L			451288	583508	3	Standard
Be	9	-0.000	ug/L	0.001	382	8	8	65	Standard
C	13		ug/L			30171	50769	4	Standard
Cl	37		ug/L			1636983	1081938	0	Standard
Sc	45		ug/L			558757	592259	3	Standard
V	51	0.704	ug/L	0.019	2	6588	25182	5	Standard
V-1	51	0.775	ug/L	0.018	2	458	20580	3	Standard
Cr	52	5.736	ug/L	0.108	1	19428	142411	2	Standard
Cr	53	5.905	ug/L	0.174	2	234	14620	1	Standard
Mn	55	4.772	ug/L	0.077	1	747	148171	2	Standard
Ge	72		ug/L			47927	45641	2	KED
Co	59	0.485	ug/L	0.011	2	7	2767	1	KED
Ni	60	0.075	ug/L	0.013	16	554	648	2	KED
Ni	62	0.126	ug/L	0.093	73	85	114	20	KED
Cu	63	2.660	ug/L	0.065	2	97	12285	2	KED
Cu	65	2.798	ug/L	0.055	1	53	6343	2	KED
Zn	66	3.805	ug/L	0.197	5	102	2385	6	KED
Zn	67	3.332	ug/L	0.113	3	22	346	2	KED
As	75	0.062	ug/L	0.012	18	5	25	13	KED
Se	78	0.255	ug/L	0.111	43	19	26	14	KED
Y	89		ug/L			333043	346245	4	Standard
Kr	83		ug/L			44	50	11	Standard
In-1	115		ug/L			10197	9970	3	KED
Mo	98	3.127	ug/L	0.013	0	9	4628	3	KED
Cd	111	0.009	ug/L	0.005	56	3	6	22	KED
Cd	114	0.003	ug/L	0.005	154	4	6	58	KED
In	115		ug/L			441442	436846	3	Standard
Ag	107	0.001	ug/L	0.000	50	35	52	14	Standard
Sb	121	0.285	ug/L	0.007	2	277	4440	1	Standard
Sb	123	0.292	ug/L	0.011	3	218	3482	0	Standard
Ba	135	1.026	ug/L	0.017	1	56	4825	2	Standard
Ba	137	1.052	ug/L	0.003	0	90	8655	3	Standard
Tb	159		ug/L			829126	902742	2	Standard
Tl	205	0.002	ug/L	0.000	18	103	188	5	Standard
Pb	208	0.021	ug/L	0.001	3	332	1431	2	Standard

23D0358

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~23C0358~~-02

Sample Dil Factor: 2

Comments:

Sample Date/Time: Wednesday, April 26, 2023 00:35:19

MB 4/25/23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			451288	592875	2	Standard
	Be	9	-0.001	ug/L	0.000	57	8	6	31	Standard
	C	13		ug/L			30171	51629	4	Standard
	Cl	37		ug/L			1636983	1068624	3	Standard
>	Sc	45		ug/L			558757	570405	3	Standard
	V	51	0.752	ug/L	0.035	4	6588	25441	5	Standard
	V-1	51	0.755	ug/L	0.007	0	458	19331	3	Standard
	Cr	52	6.705	ug/L	0.050	0	19428	157029	3	Standard
	Cr	53	6.631	ug/L	0.079	1	234	15790	2	Standard
	Mn	55	4.705	ug/L	0.030	0	747	140752	2	Standard
>	Ge	72		ug/L			47927	43887	1	KED
	Co	59	1.009	ug/L	0.029	2	7	5530	4	KED
	Ni	60	0.120	ug/L	0.025	20	554	693	5	KED
	Ni	62	0.140	ug/L	0.059	42	85	113	11	KED
	Cu	63	3.370	ug/L	0.066	1	97	14946	2	KED
	Cu	65	3.494	ug/L	0.114	3	53	7608	4	KED
	Zn	66	2.203	ug/L	0.074	3	102	1367	4	KED
	Zn	67	1.961	ug/L	0.306	15	22	205	15	KED
	As	75	0.052	ug/L	0.009	18	5	21	15	KED
	Se	78	0.130	ug/L	0.076	58	19	21	11	KED
	Y	89		ug/L			333043	316415	1	Standard
	Kr	83		ug/L			44	40	9	Standard
>	In-1	115		ug/L			10197	9343	1	KED
	Mo	98	3.294	ug/L	0.163	4	9	4568	5	KED
	Cd	111	0.002	ug/L	0.004	169	3	4	26	KED
	Cd	114	0.010	ug/L	0.015	144	4	11	95	KED
>	In	115		ug/L			441442	425344	3	Standard
	Ag	107	0.001	ug/L	0.001	99	35	53	36	Standard
	Sb	121	0.208	ug/L	0.006	2	277	3231	5	Standard
	Sb	123	0.216	ug/L	0.001	0	218	2565	4	Standard
	Ba	135	1.034	ug/L	0.024	2	56	4734	2	Standard
	Ba	137	1.088	ug/L	0.012	1	90	8708	3	Standard
>	Tb	159		ug/L			829126	862835	2	Standard
	Tl	205	0.002	ug/L	0.001	52	103	166	21	Standard
	Pb	208	0.019	ug/L	0.002	8	332	1267	7	Standard

23D0358

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~23C0358~~-03
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, April 26, 2023 00:40:46

MB 4/25/23

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
Li	6		ug/L			451288	622506	8	Standard
Be	9	-0.001	ug/L	0.000	29	8	5	33	Standard
C	13		ug/L			30171	47642	2	Standard
Cl	37		ug/L			1636983	1051283	4	Standard
Sc	45		ug/L			558757	564248	8	Standard
V	51	0.737	ug/L	0.009	1	6588	24778	8	Standard
V-1	51	0.767	ug/L	0.013	1	458	19410	7	Standard
Cr	52	5.606	ug/L	0.110	1	19428	132979	6	Standard
Cr	53	5.641	ug/L	0.138	2	234	13310	6	Standard
Mn	55	4.076	ug/L	0.107	2	747	120600	6	Standard
Ge	72		ug/L			47927	44185	1	KED
Co	59	0.690	ug/L	0.021	2	7	3812	3	KED
Ni	60	0.099	ug/L	0.018	18	554	666	4	KED
Ni	62	0.100	ug/L	0.045	45	85	104	10	KED
Cu	63	2.585	ug/L	0.043	1	97	11562	2	KED
Cu	65	2.691	ug/L	0.043	1	53	5907	0	KED
Zn	66	1.088	ug/L	0.035	3	102	727	2	KED
Zn	67	1.089	ug/L	0.084	7	22	123	5	KED
As	75	0.055	ug/L	0.005	8	5	22	6	KED
Se	78	0.039	ug/L	0.135	346	19	19	20	KED
Y	89		ug/L			333043	310938	2	Standard
Kr	83		ug/L			44	50	7	Standard
In-1	115		ug/L			10197	9856	0	KED
Mo	98	3.205	ug/L	0.039	1	9	4689	1	KED
Cd	111	0.002	ug/L	0.006	258	3	4	44	KED
Cd	114	0.006	ug/L	0.006	109	4	8	58	KED
In	115		ug/L			441442	422921	5	Standard
Ag	107	0.000	ug/L	0.001	768	35	34	20	Standard
Sb	121	0.161	ug/L	0.005	3	277	2544	4	Standard
Sb	123	0.160	ug/L	0.006	3	218	1938	5	Standard
Ba	135	1.026	ug/L	0.009	0	56	4676	5	Standard
Ba	137	1.064	ug/L	0.005	0	90	8472	5	Standard
Tb	159		ug/L			829126	867460	4	Standard
Tl	205	0.002	ug/L	0.000	13	103	179	1	Standard
Pb	208	0.019	ug/L	0.001	6	332	1300	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0647-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 00:47:14
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			451288	508702	6	Standard
⌊	**Be**	**9**	**-0.001**	ug/L	0.001	154	8	6	62	Standard
	C	**13**		ug/L			30171	138960	3	Standard
	Cl	**37**		ug/L			1636983	1558810	2	Standard
⌈>	**Sc**	**45**		ug/L			558757	558108	4	Standard
⌈	**V**	**51**	**0.134**	ug/L	0.055	41	6588	9866	17	Standard
⌊	**V-1**	**51**	**0.068**	ug/L	0.003	3	458	2109	1	Standard
⌈	**Cr**	**52**	**4.780**	ug/L	0.125	2	19428	115169	6	Standard
⌊	**Cr**	**53**	**4.490**	ug/L	0.162	3	234	10533	4	Standard
⌊	**Mn**	**55**	**16.691**	ug/L	0.409	2	747	487062	6	Standard
⌈>	**Ge**	**72**		ug/L			47927	46076	3	KED
⌈	**Co**	**59**	**0.069**	ug/L	0.009	13	7	404	12	KED
⌊	**Ni**	**60**	**0.478**	ug/L	0.047	9	554	1316	6	KED
⌈	**Ni**	**62**	**0.523**	ug/L	0.042	8	85	222	6	KED
⌈	**Cu**	**63**	**1.691**	ug/L	0.097	5	97	7917	5	KED
⌊	**Cu**	**65**	**1.775**	ug/L	0.040	2	53	4080	2	KED
⌈	**Zn**	**66**	**324.226**	ug/L	5.386	1	102	196845	3	KED
⌊	**Zn**	**67**	**302.333**	ug/L	9.325	3	22	29777	2	KED
⌈	**As**	**75**	**0.023**	ug/L	0.002	10	5	12	5	KED
⌊	**Se**	**78**	**0.130**	ug/L	0.014	10	19	23	3	KED
	Y	**89**		ug/L			333043	319853	4	Standard
	Kr	**83**		ug/L			44	45	19	Standard
⌈>	**In-1**	**115**		ug/L			10197	10695	2	KED
⌈	**Mo**	**98**	**0.131**	ug/L	0.017	12	9	217	12	KED
⌈	**Cd**	**111**	**0.827**	ug/L	0.070	8	3	275	9	KED
⌊	**Cd**	**114**	**0.909**	ug/L	0.049	5	4	770	5	KED
⌈>	**In**	**115**		ug/L			441442	416852	3	Standard
⌈	**Ag**	**107**	**0.002**	ug/L	0.000	9	35	59	0	Standard
⌈	**Sb**	**121**	**0.054**	ug/L	0.006	11	277	1011	5	Standard
⌊	**Sb**	**123**	**0.054**	ug/L	0.003	6	218	783	2	Standard
⌈	**Ba**	**135**	**4.015**	ug/L	0.097	2	56	17880	5	Standard
⌊	**Ba**	**137**	**4.231**	ug/L	0.037	0	90	32951	4	Standard
⌈>	**Tb**	**159**		ug/L			829126	854435	3	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.000	23	103	77	12	Standard
⌊	**Pb**	**208**	**0.084**	ug/L	0.003	3	332	4405	3	Standard

23D0346

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~23C0346~~-01

Sample Dil Factor: 20

Comments:

Sample Date/Time: Wednesday, April 26, 2023 00:52:17

MB 4/25/23

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			451288	467237	3	Standard
	Be	**9**	**-0.001**	ug/L	0.001	73	8	4	65	Standard
	C	**13**		ug/L			30171	45301	1	Standard
	Cl	**37**		ug/L			1636983	1349962	0	Standard
>	**Sc**	**45**		ug/L			558757	570745	3	Standard
	V	**51**	**0.128**	ug/L	0.141	109	6588	9839	32	Standard
	V-1	**51**	**9.486**	ug/L	0.157	1	458	237434	2	Standard
	Cr	**52**	**0.717**	ug/L	0.032	4	19428	34513	1	Standard
	Cr	**53**	**32.570**	ug/L	0.189	0	234	76683	3	Standard
	Mn	**55**	**0.480**	ug/L	0.004	0	747	15063	2	Standard
>	**Ge**	**72**		ug/L			47927	42169	3	KED
	Co	**59**	**0.003**	ug/L	0.001	35	7	23	23	KED
	Ni	**60**	**-0.274**	ug/L	0.013	4	554	76	21	KED
	Ni	**62**	**-0.198**	ug/L	0.013	6	85	26	8	KED
	Cu	**63**	**0.125**	ug/L	0.004	3	97	615	5	KED
	Cu	**65**	**0.119**	ug/L	0.013	10	53	293	9	KED
	Zn	**66**	**0.233**	ug/L	0.018	7	102	219	3	KED
	Zn	**67**	**0.340**	ug/L	0.090	26	22	50	17	KED
	As	**75**	**0.129**	ug/L	0.016	12	5	43	7	KED
	Se	**78**	**0.325**	ug/L	0.078	23	19	26	6	KED
	Y	**89**		ug/L			333043	304768	4	Standard
	Kr	**83**		ug/L			44	266	9	Standard
>	**In-1**	**115**		ug/L			10197	8512	0	KED
	Mo	**98**	**0.774**	ug/L	0.048	6	9	983	5	KED
	Cd	**111**	**0.016**	ug/L	0.002	14	3	7	7	KED
	Cd	**114**	**0.005**	ug/L	0.007	136	4	6	66	KED
>	**In**	**115**		ug/L			441442	362289	6	Standard
	Ag	**107**	**0.000**	ug/L	0.000	84	35	34	11	Standard
	Sb	**121**	**-0.003**	ug/L	0.002	55	277	192	10	Standard
	Sb	**123**	**-0.004**	ug/L	0.001	33	218	139	4	Standard
	Ba	**135**	**0.742**	ug/L	0.056	7	56	2900	1	Standard
	Ba	**137**	**0.775**	ug/L	0.044	5	90	5294	1	Standard
>	**Tb**	**159**		ug/L			829126	745137	3	Standard
	Tl	**205**	**0.003**	ug/L	0.001	23	103	194	9	Standard
	Pb	**208**	**0.031**	ug/L	0.002	7	332	1601	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0714-01
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, April 26, 2023 00:58:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			451288	462616	5	Standard
	Be	**9**	**-0.001**	ug/L	0.001	73	8	3	86	Standard
	C	**13**		ug/L			30171	44419	3	Standard
	Cl	**37**		ug/L			1636983	1303589	4	Standard
>	**Sc**	**45**		ug/L			558757	597702	1	Standard
	V	**51**	**-0.066**	ug/L	0.170	257	6588	5294	82	Standard
	V-1	**51**	**9.820**	ug/L	0.136	1	458	257478	2	Standard
	Cr	**52**	**0.631**	ug/L	0.020	3	19428	34303	0	Standard
	Cr	**53**	**34.279**	ug/L	0.946	2	234	84523	3	Standard
	Mn	**55**	**14.528**	ug/L	0.131	0	747	453843	1	Standard
>	**Ge**	**72**		ug/L			47927	40881	0	KED
	Co	**59**	**0.025**	ug/L	0.003	12	7	136	12	KED
	Ni	**60**	**-0.107**	ug/L	0.009	8	554	317	4	KED
	Ni	**62**	**0.002**	ug/L	0.077	5027	85	73	25	KED
	Cu	**63**	**0.139**	ug/L	0.010	7	97	652	6	KED
	Cu	**65**	**0.145**	ug/L	0.018	12	53	337	10	KED
	Zn	**66**	**3.140**	ug/L	0.203	6	102	1777	6	KED
	Zn	**67**	**2.967**	ug/L	0.194	6	22	278	6	KED
	As	**75**	**0.081**	ug/L	0.024	29	5	27	23	KED
	Se	**78**	**0.297**	ug/L	0.115	38	19	24	11	KED
	Y	**89**		ug/L			333043	316710	2	Standard
	Kr	**83**		ug/L			44	220	5	Standard
>	**In-1**	**115**		ug/L			10197	9019	0	KED
	Mo	**98**	**0.129**	ug/L	0.002	1	9	180	1	KED
	Cd	**111**	**0.015**	ug/L	0.012	80	3	7	45	KED
	Cd	**114**	**0.006**	ug/L	0.008	139	4	7	74	KED
>	**In**	**115**		ug/L			441442	373809	1	Standard
	Ag	**107**	**0.001**	ug/L	0.000	9	35	45	2	Standard
	Sb	**121**	**0.035**	ug/L	0.004	12	277	674	7	Standard
	Sb	**123**	**0.031**	ug/L	0.004	11	218	486	8	Standard
	Ba	**135**	**7.085**	ug/L	0.099	1	56	28243	1	Standard
	Ba	**137**	**7.263**	ug/L	0.339	4	90	50674	5	Standard
>	**Tb**	**159**		ug/L			829126	758678	3	Standard
	Tl	**205**	**0.003**	ug/L	0.000	17	103	179	4	Standard
	Pb	**208**	**0.069**	ug/L	0.002	2	332	3247	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL8
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 01:05:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			451288	465538	5	Standard
	Be	**9**	**-0.001**	ug/L	0.001	78	8	4	65	Standard
	C	**13**		ug/L			30171	28989	6	Standard
	Cl	**37**		ug/L			1636983	1766951	2	Standard
>	**Sc**	**45**		ug/L			558757	594747	6	Standard
	V	**51**	**0.063**	ug/L	0.008	12	6588	8634	4	Standard
	V-1	**51**	**0.211**	ug/L	0.009	4	458	5976	2	Standard
	Cr	**52**	**0.222**	ug/L	0.034	15	19428	25386	3	Standard
	Cr	**53**	**0.725**	ug/L	0.041	5	234	2018	1	Standard
	Mn	**55**	**0.004**	ug/L	0.002	38	747	931	2	Standard
>	**Ge**	**72**		ug/L			47927	49720	4	KED
	Co	**59**	**-0.000**	ug/L	0.000	10	7	5	0	KED
	Ni	**60**	**-0.316**	ug/L	0.005	1	554	15	48	KED
	Ni	**62**	**-0.272**	ug/L	0.011	3	85	9	34	KED
	Cu	**63**	**0.020**	ug/L	0.005	26	97	199	12	KED
	Cu	**65**	**0.018**	ug/L	0.006	35	53	100	19	KED
	Zn	**66**	**0.018**	ug/L	0.040	220	102	117	20	KED
	Zn	**67**	**0.020**	ug/L	0.067	332	22	26	30	KED
	As	**75**	**-0.004**	ug/L	0.005	110	5	4	33	KED
	Se	**78**	**-0.009**	ug/L	0.103	1119	19	20	14	KED
	Y	**89**		ug/L			333043	340628	1	Standard
	Kr	**83**		ug/L			44	45	27	Standard
>	**In-1**	**115**		ug/L			10197	10784	2	KED
	Mo	**98**	**-0.001**	ug/L	0.004	447	9	8	88	KED
	Cd	**111**	**0.002**	ug/L	0.006	258	3	4	40	KED
	Cd	**114**	**0.002**	ug/L	0.006	311	4	5	81	KED
>	**In**	**115**		ug/L			441442	436316	4	Standard
	Ag	**107**	**-0.000**	ug/L	0.000	78	35	28	20	Standard
	Sb	**121**	**-0.013**	ug/L	0.001	6	277	81	14	Standard
	Sb	**123**	**-0.014**	ug/L	0.001	7	218	54	24	Standard
	Ba	**135**	**0.021**	ug/L	0.004	17	56	154	12	Standard
	Ba	**137**	**0.024**	ug/L	0.003	12	90	283	11	Standard
>	**Tb**	**159**		ug/L			829126	809318	5	Standard
	Tl	**205**	**-0.000**	ug/L	0.000	156	103	90	16	Standard
	Pb	**208**	**0.002**	ug/L	0.000	14	332	409	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL9
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 01:10:41
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			451288	484446	1	Standard
⌊	**Be**	**9**	**-0.001**	ug/L	0.000	37	8	3	50	Standard
	C	**13**		ug/L			30171	30099	3	Standard
	Cl	**37**		ug/L			1636983	1751203	1	Standard
⌈>	**Sc**	**45**		ug/L			558757	597912	1	Standard
⌈	**V**	**51**	**0.054**	ug/L	0.007	13	6588	8446	2	Standard
⌊	**V-1**	**51**	**0.119**	ug/L	0.003	2	458	3604	2	Standard
⌈	**Cr**	**52**	**0.186**	ug/L	0.022	12	19428	24781	2	Standard
⌊	**Cr**	**53**	**0.407**	ug/L	0.007	1	234	1251	1	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	48	747	856	2	Standard
⌈>	**Ge**	**72**		ug/L			47927	49101	3	KED
⌈	**Co**	**59**	**-0.001**	ug/L	0.000	20	7	2	43	KED
⌊	**Ni**	**60**	**-0.313**	ug/L	0.004	1	554	20	36	KED
⌈	**Ni**	**62**	**-0.262**	ug/L	0.021	8	85	12	50	KED
⌈	**Cu**	**63**	**0.014**	ug/L	0.004	31	97	169	13	KED
⌊	**Cu**	**65**	**0.020**	ug/L	0.002	11	53	103	6	KED
⌈	**Zn**	**66**	**0.011**	ug/L	0.025	238	102	111	16	KED
⌊	**Zn**	**67**	**-0.011**	ug/L	0.043	387	22	22	19	KED
⌈	**As**	**75**	**-0.003**	ug/L	0.004	137	5	4	36	KED
⌊	**Se**	**78**	**0.028**	ug/L	0.080	289	19	21	9	KED
	Y	**89**		ug/L			333043	344541	2	Standard
	Kr	**83**		ug/L			44	53	7	Standard
⌈>	**In-1**	**115**		ug/L			10197	10781	1	KED
⌈	**Mo**	**98**	**-0.003**	ug/L	0.002	97	9	5	69	KED
⌊	**Cd**	**111**	**0.009**	ug/L	0.007	83	3	6	34	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.005	251	4	2	141	KED
⌈>	**In**	**115**		ug/L			441442	438006	0	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.000	20	35	20	14	Standard
⌈	**Sb**	**121**	**-0.014**	ug/L	0.001	4	277	74	11	Standard
⌊	**Sb**	**123**	**-0.014**	ug/L	0.001	4	218	57	12	Standard
⌈	**Ba**	**135**	**0.022**	ug/L	0.004	17	56	157	11	Standard
⌊	**Ba**	**137**	**0.025**	ug/L	0.004	15	90	297	10	Standard
⌈>	**Tb**	**159**		ug/L			829126	829203	1	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.000	5	103	82	2	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	15	332	410	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 01:15:39
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			451288	475793	2	Standard
	Be	**9**	**49.935**	ug/L	2.769	5	8	194853	7	Standard
	C	**13**		ug/L			30171	29179	3	Standard
	Cl	**37**		ug/L			1636983	1658028	1	Standard
>	**Sc**	**45**		ug/L			558757	607424	2	Standard
	V	**51**	**49.218**	ug/L	1.355	2	6588	1311238	5	Standard
	V-1	**51**	**49.549**	ug/L	1.683	3	458	1318966	6	Standard
	Cr	**52**	**49.671**	ug/L	0.819	1	19428	1103750	3	Standard
	Cr	**53**	**50.792**	ug/L	1.649	3	234	127195	5	Standard
	Mn	**55**	**49.221**	ug/L	0.410	0	747	1560629	2	Standard
>	**Ge**	**72**		ug/L			47927	48446	3	KED
	Co	**59**	**49.684**	ug/L	0.627	1	7	300334	4	KED
	Ni	**60**	**50.933**	ug/L	0.915	1	554	88287	3	KED
	Ni	**62**	**50.216**	ug/L	0.344	0	85	14259	3	KED
	Cu	**63**	**49.723**	ug/L	1.038	2	97	242021	2	KED
	Cu	**65**	**52.293**	ug/L	1.626	3	53	124863	3	KED
	Zn	**66**	**50.518**	ug/L	0.759	1	102	32337	3	KED
	Zn	**67**	**50.329**	ug/L	1.234	2	22	5230	2	KED
	As	**75**	**49.548**	ug/L	0.433	0	5	16885	2	KED
	Se	**78**	**49.760**	ug/L	1.304	2	19	1594	0	KED
	Y	**89**		ug/L			333043	354193	1	Standard
	Kr	**83**		ug/L			44	55	13	Standard
>	**In-1**	**115**		ug/L			10197	9873	2	KED
	Mo	**98**	**51.374**	ug/L	1.064	2	9	75144	1	KED
	Cd	**111**	**51.305**	ug/L	0.625	1	3	15574	2	KED
	Cd	**114**	**50.936**	ug/L	0.885	1	4	39621	2	KED
>	**In**	**115**		ug/L			441442	449988	4	Standard
	Ag	**107**	**49.745**	ug/L	1.145	2	35	914067	5	Standard
	Sb	**121**	**49.529**	ug/L	1.065	2	277	747360	3	Standard
	Sb	**123**	**50.560**	ug/L	1.527	3	218	582787	3	Standard
	Ba	**135**	**52.220**	ug/L	2.687	5	56	249918	2	Standard
	Ba	**137**	**52.770**	ug/L	2.145	4	90	442096	2	Standard
>	**Tb**	**159**		ug/L			829126	868640	3	Standard
	Tl	**205**	**49.364**	ug/L	0.654	1	103	1824555	3	Standard
	Pb	**208**	**49.342**	ug/L	0.436	0	332	2425578	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 01:23:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			451288	476902	0	Standard
⌊	**Be**	**9**	**-0.000**	ug/L	0.000	168	8	7	25	Standard
	C	**13**		ug/L			30171	29142	1	Standard
	Cl	**37**		ug/L			1636983	1722435	2	Standard
⌈>	**Sc**	**45**		ug/L			558757	595467	2	Standard
⌈	**V**	**51**	**0.008**	ug/L	0.009	115	6588	7224	1	Standard
⌈	**V-1**	**51**	**0.050**	ug/L	0.002	3	458	1788	0	Standard
⌈	**Cr**	**52**	**0.025**	ug/L	0.031	128	19428	21218	1	Standard
⌈	**Cr**	**53**	**0.167**	ug/L	0.005	3	234	659	2	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.002	70	747	875	4	Standard
⌈>	**Ge**	**72**		ug/L			47927	48086	0	KED
⌈	**Co**	**59**	**0.005**	ug/L	0.009	185	7	35	145	KED
⌈	**Ni**	**60**	**0.022**	ug/L	0.047	215	554	593	12	KED
⌈	**Ni**	**62**	**0.008**	ug/L	0.032	393	85	87	9	KED
⌈	**Cu**	**63**	**0.010**	ug/L	0.013	123	97	147	42	KED
⌈	**Cu**	**65**	**0.004**	ug/L	0.004	86	53	64	14	KED
⌈	**Zn**	**66**	**0.024**	ug/L	0.006	26	102	118	4	KED
⌈	**Zn**	**67**	**0.012**	ug/L	0.130	1110	22	24	55	KED
⌈	**As**	**75**	**0.006**	ug/L	0.008	151	5	7	38	KED
⌊	**Se**	**78**	**0.088**	ug/L	0.068	77	19	22	10	KED
	Y	**89**		ug/L			333043	342694	2	Standard
	Kr	**83**		ug/L			44	37	10	Standard
⌈>	**In-1**	**115**		ug/L			10197	10862	2	KED
⌈	**Mo**	**98**	**0.007**	ug/L	0.005	78	9	20	41	KED
⌈	**Cd**	**111**	**0.007**	ug/L	0.004	52	3	6	17	KED
⌊	**Cd**	**114**	**0.005**	ug/L	0.005	94	4	8	47	KED
⌈>	**In**	**115**		ug/L			441442	457938	2	Standard
⌈	**Ag**	**107**	**0.001**	ug/L	0.001	86	35	64	34	Standard
⌈	**Sb**	**121**	**0.032**	ug/L	0.003	8	277	781	6	Standard
⌈	**Sb**	**123**	**0.038**	ug/L	0.003	6	218	678	6	Standard
⌈	**Ba**	**135**	**0.000**	ug/L	0.002	356	56	60	13	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.001	230	90	98	11	Standard
⌈>	**Tb**	**159**		ug/L			829126	848607	2	Standard
⌈	**Tl**	**205**	**0.003**	ug/L	0.000	15	103	210	8	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	268	332	346	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0168-BLK1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 01:28:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			451288	489026	5	Standard
[	**Be**	**9**	**-0.001**	ug/L	0.001	209	8	6	91	Standard
	C	**13**		ug/L			30171	45561	1	Standard
	Cl	**37**		ug/L			1636983	1714145	2	Standard
[>	**Sc**	**45**		ug/L			558757	618316	2	Standard
[	**V**	**51**	**0.027**	ug/L	0.003	11	6588	8018	1	Standard
[	**V-1**	**51**	**0.039**	ug/L	0.002	4	458	1573	2	Standard
[	**Cr**	**52**	**0.093**	ug/L	0.013	14	19428	23566	1	Standard
[	**Cr**	**53**	**0.135**	ug/L	0.011	8	234	601	3	Standard
[	**Mn**	**55**	**0.003**	ug/L	0.000	18	747	913	4	Standard
[>	**Ge**	**72**		ug/L			47927	49438	2	KED
[	**Co**	**59**	**-0.000**	ug/L	0.001	581	7	6	68	KED
[	**Ni**	**60**	**-0.286**	ug/L	0.009	3	554	69	22	KED
[	**Ni**	**62**	**-0.245**	ug/L	0.020	7	85	17	33	KED
[	**Cu**	**63**	**0.034**	ug/L	0.004	12	97	268	5	KED
[	**Cu**	**65**	**0.041**	ug/L	0.009	22	53	154	14	KED
[	**Zn**	**66**	**0.079**	ug/L	0.010	13	102	156	4	KED
[	**Zn**	**67**	**0.012**	ug/L	0.025	211	22	24	7	KED
[	**As**	**75**	**-0.005**	ug/L	0.002	40	5	3	18	KED
[	**Se**	**78**	**0.007**	ug/L	0.119	1666	19	20	18	KED
	Y	**89**		ug/L			333043	362546	2	Standard
	Kr	**83**		ug/L			44	48	44	Standard
[>	**In-1**	**115**		ug/L			10197	10920	1	KED
[	**Mo**	**98**	**0.003**	ug/L	0.004	128	9	15	45	KED
[	**Cd**	**111**	**0.003**	ug/L	0.010	338	3	5	65	KED
[	**Cd**	**114**	**0.003**	ug/L	0.006	162	4	7	66	KED
[>	**In**	**115**		ug/L			441442	458157	3	Standard
[	**Ag**	**107**	**-0.000**	ug/L	0.000	65	35	30	10	Standard
[	**Sb**	**121**	**0.002**	ug/L	0.003	141	277	314	9	Standard
[	**Sb**	**123**	**0.002**	ug/L	0.001	63	218	253	7	Standard
[	**Ba**	**135**	**0.029**	ug/L	0.002	5	56	200	6	Standard
[	**Ba**	**137**	**0.028**	ug/L	0.003	12	90	328	8	Standard
[>	**Tb**	**159**		ug/L			829126	868636	0	Standard
[	**Tl**	**205**	**0.000**	ug/L	0.000	132	103	117	10	Standard
[	**Pb**	**208**	**0.028**	ug/L	0.002	8	332	1718	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0168-BS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 01:33:34
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			451288	467567	6	Standard
	Be	9	24.406	ug/L	0.976	3	8	93414	4	Standard
	C	13		ug/L			30171	43384	1	Standard
	Cl	37		ug/L			1636983	1696639	1	Standard
>	Sc	45		ug/L			558757	592276	2	Standard
	V	51	25.189	ug/L	0.240	0	6588	657320	1	Standard
	V-1	51	25.370	ug/L	0.154	0	458	658314	2	Standard
	Cr	52	25.730	ug/L	0.407	1	19428	567159	1	Standard
	Cr	53	26.338	ug/L	0.304	1	234	64406	3	Standard
	Mn	55	25.869	ug/L	0.470	1	747	800043	2	Standard
>	Ge	72		ug/L			47927	49478	2	KED
	Co	59	26.053	ug/L	0.339	1	7	160792	1	KED
	Ni	60	26.920	ug/L	0.700	2	554	47919	2	KED
	Ni	62	26.701	ug/L	0.859	3	85	7784	3	KED
	Cu	63	27.505	ug/L	0.064	0	97	136808	2	KED
	Cu	65	28.239	ug/L	0.451	1	53	68900	2	KED
	Zn	66	82.244	ug/L	0.470	0	102	53699	2	KED
	Zn	67	79.083	ug/L	2.931	3	22	8383	4	KED
	As	75	25.120	ug/L	0.418	1	5	8744	0	KED
	Se	78	76.815	ug/L	0.325	0	19	2504	2	KED
	Y	89		ug/L			333043	350044	1	Standard
	Kr	83		ug/L			44	52	23	Standard
>	In-1	115		ug/L			10197	8762	11	KED
	Mo	98	0.092	ug/L	0.026	28	9	124	14	KED
	Cd	111	29.615	ug/L	3.198	10	3	7919	5	KED
	Cd	114	29.634	ug/L	3.950	13	4	20276	7	KED
>	In	115		ug/L			441442	452902	4	Standard
	Ag	107	25.626	ug/L	0.478	1	35	473920	4	Standard
	Sb	121	0.065	ug/L	0.004	6	277	1265	1	Standard
	Sb	123	0.062	ug/L	0.005	8	218	940	4	Standard
	Ba	135	26.994	ug/L	0.476	1	56	130186	3	Standard
	Ba	137	27.900	ug/L	1.358	4	90	235230	2	Standard
>	Tb	159		ug/L			829126	845241	3	Standard
	Tl	205	26.048	ug/L	0.543	2	103	936548	2	Standard
	Pb	208	26.318	ug/L	0.559	2	332	1258509	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0124-03
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 01:38:38
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			451288	506085	0	Standard
	Be	**9**	**0.002**	ug/L	0.000	13	8	16	6	Standard
	C	**13**		ug/L			30171	59635	2	Standard
	Cl	**37**		ug/L			1636983	1663274	1	Standard
>	**Sc**	**45**		ug/L			558757	649389	0	Standard
	V	**51**	**0.723**	ug/L	0.025	3	6588	28117	2	Standard
	V-1	**51**	**0.751**	ug/L	0.006	0	458	21893	0	Standard
	Cr	**52**	**3.137**	ug/L	0.076	2	19428	95671	1	Standard
	Cr	**53**	**3.201**	ug/L	0.035	1	234	8820	1	Standard
	Mn	**55**	**2.581**	ug/L	0.038	1	747	88291	1	Standard
>	**Ge**	**72**		ug/L			47927	46157	1	KED
	Co	**59**	**0.094**	ug/L	0.007	7	7	548	8	KED
	Ni	**60**	**0.641**	ug/L	0.066	10	554	1587	8	KED
	Ni	**62**	**0.725**	ug/L	0.065	9	85	276	6	KED
	Cu	**63**	**27.126**	ug/L	0.302	1	97	125880	2	KED
	Cu	**65**	**27.464**	ug/L	0.285	1	53	62518	2	KED
	Zn	**66**	**26.308**	ug/L	0.640	2	102	16093	3	KED
	Zn	**67**	**26.822**	ug/L	0.786	2	22	2667	3	KED
	As	**75**	**0.901**	ug/L	0.035	3	5	297	3	KED
	Se	**78**	**0.300**	ug/L	0.169	56	19	28	17	KED
	Y	**89**		ug/L			333043	360555	0	Standard
	Kr	**83**		ug/L			44	44	38	Standard
>	**In-1**	**115**		ug/L			10197	10123	0	KED
	Mo	**98**	**0.490**	ug/L	0.024	4	9	744	5	KED
	Cd	**111**	**0.023**	ug/L	0.021	90	3	10	58	KED
	Cd	**114**	**0.012**	ug/L	0.005	42	4	13	30	KED
>	**In**	**115**		ug/L			441442	454796	1	Standard
	Ag	**107**	**0.022**	ug/L	0.002	8	35	443	8	Standard
	Sb	**121**	**0.831**	ug/L	0.034	4	277	12954	2	Standard
	Sb	**123**	**0.819**	ug/L	0.013	1	218	9768	1	Standard
	Ba	**135**	**22.920**	ug/L	0.827	3	56	111018	2	Standard
	Ba	**137**	**23.560**	ug/L	0.685	2	90	199732	3	Standard
>	**Tb**	**159**		ug/L			829126	864777	1	Standard
	Tl	**205**	**0.003**	ug/L	0.001	19	103	215	8	Standard
	Pb	**208**	**0.142**	ug/L	0.003	1	332	7283	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0673-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 01:43:35
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			451288	502588	2	Standard
	Be	9	0.150	ug/L	0.006	4	8	627	3	Standard
	C	13		ug/L			30171	66191	2	Standard
	Cl	37		ug/L			1636983	1619083	2	Standard
>	Sc	45		ug/L			558757	703465	2	Standard
	V	51	27.410	ug/L	0.475	1	6588	848722	1	Standard
	V-1	51	27.517	ug/L	0.439	1	458	847833	1	Standard
	Cr	52	22.187	ug/L	0.558	2	19428	584181	1	Standard
	Cr	53	22.623	ug/L	0.596	2	234	65728	2	Standard
	Mn	55	279.334	ug/L	7.023	2	747	10249166	1	Standard
>	Ge	72		ug/L			47927	46934	2	KED
	Co	59	7.160	ug/L	0.119	1	7	41917	1	KED
	Ni	60	20.904	ug/L	0.397	1	554	35429	3	KED
	Ni	62	20.861	ug/L	0.542	2	85	5785	2	KED
	Cu	63	41.038	ug/L	1.478	3	97	193557	4	KED
	Cu	65	43.204	ug/L	0.443	1	53	99980	3	KED
	Zn	66	166.981	ug/L	3.822	2	102	103340	4	KED
	Zn	67	163.634	ug/L	0.355	0	22	16431	2	KED
	As	75	2.978	ug/L	0.062	2	5	988	3	KED
	Se	78	0.743	ug/L	0.180	24	19	42	10	KED
	Y	89		ug/L			333043	581486	4	Standard
	Kr	83		ug/L			44	86	3	Standard
>	In-1	115		ug/L			10197	10331	4	KED
	Mo	98	1.220	ug/L	0.070	5	9	1875	3	KED
	Cd	111	0.196	ug/L	0.008	4	3	66	4	KED
	Cd	114	0.196	ug/L	0.023	11	4	164	15	KED
>	In	115		ug/L			441442	451180	1	Standard
	Ag	107	0.073	ug/L	0.006	8	35	1381	9	Standard
	Sb	121	0.151	ug/L	0.007	4	277	2571	3	Standard
	Sb	123	0.157	ug/L	0.010	6	218	2032	4	Standard
	Ba	135	85.325	ug/L	2.002	2	56	410069	3	Standard
	Ba	137	87.728	ug/L	1.611	1	90	737595	2	Standard
>	Tb	159		ug/L			829126	902833	1	Standard
	Tl	205	0.030	ug/L	0.001	2	103	1246	3	Standard
	Pb	208	15.394	ug/L	0.113	0	332	786777	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0673-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 01:48:39
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			451288	467162	4	Standard
	Be	**9**	**0.191**	ug/L	0.006	3	8	738	5	Standard
	C	**13**		ug/L			30171	57904	2	Standard
	Cl	**37**		ug/L			1636983	1594825	2	Standard
>	**Sc**	**45**		ug/L			558757	685242	4	Standard
	V	**51**	**28.718**	ug/L	0.585	2	6588	865839	4	Standard
	V-1	**51**	**28.756**	ug/L	0.512	1	458	863117	4	Standard
	Cr	**52**	**20.623**	ug/L	0.585	2	19428	530418	2	Standard
	Cr	**53**	**20.864**	ug/L	0.207	0	234	59067	3	Standard
	Mn	**55**	**291.543**	ug/L	3.697	1	747	10422533	4	Standard
>	**Ge**	**72**		ug/L			47927	49060	2	KED
	Co	**59**	**5.607**	ug/L	0.055	0	7	34325	3	KED
	Ni	**60**	**20.947**	ug/L	0.271	1	554	37107	3	KED
	Ni	**62**	**20.681**	ug/L	0.721	3	85	6000	5	KED
	Cu	**63**	**26.172**	ug/L	0.476	1	97	129057	2	KED
	Cu	**65**	**26.704**	ug/L	0.203	0	53	64608	3	KED
	Zn	**66**	**96.757**	ug/L	3.213	3	102	62627	4	KED
	Zn	**67**	**96.773**	ug/L	1.321	1	22	10168	3	KED
	As	**75**	**2.760**	ug/L	0.023	0	5	957	2	KED
	Se	**78**	**0.451**	ug/L	0.142	31	19	34	12	KED
	Y	**89**		ug/L			333043	517298	2	Standard
	Kr	**83**		ug/L			44	81	14	Standard
>	**In-1**	**115**		ug/L			10197	9680	0	KED
	Mo	**98**	**0.679**	ug/L	0.020	2	9	982	3	KED
	Cd	**111**	**0.134**	ug/L	0.027	19	3	43	18	KED
	Cd	**114**	**0.117**	ug/L	0.013	10	4	93	9	KED
>	**In**	**115**		ug/L			441442	429022	5	Standard
	Ag	**107**	**0.069**	ug/L	0.004	5	35	1242	1	Standard
	Sb	**121**	**0.075**	ug/L	0.004	4	277	1348	2	Standard
	Sb	**123**	**0.074**	ug/L	0.002	3	218	1029	4	Standard
	Ba	**135**	**88.559**	ug/L	6.412	7	56	403473	1	Standard
	Ba	**137**	**90.321**	ug/L	3.048	3	90	721277	3	Standard
>	**Tb**	**159**		ug/L			829126	864494	5	Standard
	Tl	**205**	**0.039**	ug/L	0.001	2	103	1560	6	Standard
	Pb	**208**	**15.342**	ug/L	0.357	2	332	750228	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0027-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 01:53:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			451288	470666	2	Standard
[	**Be**	**9**	**0.122**	ug/L	0.017	13	8	476	11	Standard
	C	**13**		ug/L			30171	49174	2	Standard
	Cl	**37**		ug/L			1636983	1624109	1	Standard
[>	**Sc**	**45**		ug/L			558757	656374	2	Standard
[	**V**	**51**	**27.921**	ug/L	0.677	2	6588	806498	0	Standard
[	**V-1**	**51**	**27.842**	ug/L	0.659	2	458	800351	0	Standard
[	**Cr**	**52**	**10.357**	ug/L	0.284	2	19428	266620	1	Standard
[	**Cr**	**53**	**10.335**	ug/L	0.241	2	234	28162	0	Standard
[	**Mn**	**55**	**117.860**	ug/L	2.261	1	747	4035930	1	Standard
[>	**Ge**	**72**		ug/L			47927	49717	2	KED
[	**Co**	**59**	**3.463**	ug/L	0.100	2	7	21481	2	KED
[	**Ni**	**60**	**7.131**	ug/L	0.161	2	554	13178	0	KED
[	**Ni**	**62**	**6.874**	ug/L	0.244	3	85	2079	4	KED
[	**Cu**	**63**	**9.970**	ug/L	0.128	1	97	49888	1	KED
[	**Cu**	**65**	**10.427**	ug/L	0.148	1	53	25600	3	KED
[	**Zn**	**66**	**27.189**	ug/L	0.672	2	102	17902	0	KED
[	**Zn**	**67**	**27.682**	ug/L	1.556	5	22	2962	4	KED
[	**As**	**75**	**2.407**	ug/L	0.066	2	5	847	3	KED
[	**Se**	**78**	**0.503**	ug/L	0.100	19	19	37	8	KED
	Y	**89**		ug/L			333043	543858	1	Standard
	Kr	**83**		ug/L			44	56	16	Standard
[>	**In-1**	**115**		ug/L			10197	10647	0	KED
[	**Mo**	**98**	**0.246**	ug/L	0.011	4	9	397	4	KED
[	**Cd**	**111**	**0.045**	ug/L	0.013	29	3	18	24	KED
[	**Cd**	**114**	**0.023**	ug/L	0.011	47	4	23	39	KED
[>	**In**	**115**		ug/L			441442	440256	1	Standard
[	**Ag**	**107**	**0.038**	ug/L	0.002	6	35	725	4	Standard
[	**Sb**	**121**	**0.013**	ug/L	0.001	10	277	467	2	Standard
[	**Sb**	**123**	**0.013**	ug/L	0.001	8	218	369	2	Standard
[	**Ba**	**135**	**16.264**	ug/L	0.360	2	56	76279	1	Standard
[	**Ba**	**137**	**16.725**	ug/L	0.580	3	90	137231	1	Standard
[>	**Tb**	**159**		ug/L			829126	864451	0	Standard
[	**Tl**	**205**	**0.024**	ug/L	0.001	2	103	977	1	Standard
[	**Pb**	**208**	**4.662**	ug/L	0.112	2	332	228341	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0027-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 01:58:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			451288	504410	2	Standard
[	**Be**	**9**	**0.118**	ug/L	0.002	2	8	495	3	Standard
	C	**13**		ug/L			30171	46360	1	Standard
	Cl	**37**		ug/L			1636983	1629813	2	Standard
[>	**Sc**	**45**		ug/L			558757	691613	1	Standard
[	**V**	**51**	**25.207**	ug/L	0.501	1	6588	768235	2	Standard
[	**V-1**	**51**	**25.204**	ug/L	0.553	2	458	763745	2	Standard
[	**Cr**	**52**	**8.202**	ug/L	0.119	1	19428	227550	1	Standard
[	**Cr**	**53**	**8.436**	ug/L	0.228	2	234	24277	1	Standard
[	**Mn**	**55**	**113.852**	ug/L	1.377	1	747	4108565	1	Standard
[>	**Ge**	**72**		ug/L			47927	48974	4	KED
[	**Co**	**59**	**3.730**	ug/L	0.081	2	7	22787	3	KED
[	**Ni**	**60**	**7.566**	ug/L	0.226	2	554	13736	3	KED
[	**Ni**	**62**	**7.420**	ug/L	0.280	3	85	2202	2	KED
[	**Cu**	**63**	**11.239**	ug/L	0.010	0	97	55393	4	KED
[	**Cu**	**65**	**11.367**	ug/L	0.342	3	53	27475	4	KED
[	**Zn**	**66**	**25.598**	ug/L	1.007	3	102	16598	2	KED
[	**Zn**	**67**	**24.419**	ug/L	1.146	4	22	2579	6	KED
[	**As**	**75**	**2.077**	ug/L	0.015	0	5	721	4	KED
[	**Se**	**78**	**0.644**	ug/L	0.096	14	19	40	3	KED
	Y	**89**		ug/L			333043	540634	1	Standard
	Kr	**83**		ug/L			44	50	35	Standard
[>	**In-1**	**115**		ug/L			10197	9790	3	KED
[	**Mo**	**98**	**0.219**	ug/L	0.021	9	9	326	6	KED
[	**Cd**	**111**	**0.058**	ug/L	0.003	5	3	21	6	KED
[	**Cd**	**114**	**0.045**	ug/L	0.013	29	4	38	26	KED
[>	**In**	**115**		ug/L			441442	465250	0	Standard
[	**Ag**	**107**	**0.031**	ug/L	0.001	2	35	619	2	Standard
[	**Sb**	**121**	**0.035**	ug/L	0.004	10	277	843	7	Standard
[	**Sb**	**123**	**0.034**	ug/L	0.002	5	218	635	3	Standard
[	**Ba**	**135**	**24.832**	ug/L	0.359	1	56	123077	1	Standard
[	**Ba**	**137**	**25.526**	ug/L	0.292	1	90	221364	0	Standard
[>	**Tb**	**159**		ug/L			829126	893939	1	Standard
[	**Tl**	**205**	**0.025**	ug/L	0.001	4	103	1064	5	Standard
[	**Pb**	**208**	**3.601**	ug/L	0.075	2	332	182441	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0168-DUP1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 02:03:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			451288	473034	4	Standard
[	**Be**	**9**	**0.124**	ug/L	0.003	2	8	490	6	Standard
	C	**13**		ug/L			30171	49307	3	Standard
	Cl	**37**		ug/L			1636983	1629855	1	Standard
[>	**Sc**	**45**		ug/L			558757	665541	4	Standard
[	**V**	**51**	**26.287**	ug/L	0.311	1	6588	770411	4	Standard
[	**V-1**	**51**	**26.256**	ug/L	0.275	1	458	765383	4	Standard
[	**Cr**	**52**	**8.669**	ug/L	0.100	1	19428	230063	3	Standard
[	**Cr**	**53**	**8.812**	ug/L	0.218	2	234	24389	4	Standard
[	**Mn**	**55**	**122.679**	ug/L	1.281	1	747	4259777	4	Standard
[>	**Ge**	**72**		ug/L			47927	47269	1	KED
[	**Co**	**59**	**3.735**	ug/L	0.025	0	7	22034	2	KED
[	**Ni**	**60**	**7.614**	ug/L	0.054	0	554	13344	1	KED
[	**Ni**	**62**	**7.370**	ug/L	0.220	2	85	2113	3	KED
[	**Cu**	**63**	**11.155**	ug/L	0.403	3	97	53053	3	KED
[	**Cu**	**65**	**11.543**	ug/L	0.160	1	53	26940	3	KED
[	**Zn**	**66**	**24.297**	ug/L	0.206	0	102	15225	1	KED
[	**Zn**	**67**	**25.564**	ug/L	0.944	3	22	2603	2	KED
[	**As**	**75**	**2.065**	ug/L	0.055	2	5	691	1	KED
[	**Se**	**78**	**0.534**	ug/L	0.167	31	19	36	13	KED
	Y	**89**		ug/L			333043	522114	1	Standard
	Kr	**83**		ug/L			44	57	19	Standard
[>	**In-1**	**115**		ug/L			10197	9987	2	KED
[	**Mo**	**98**	**0.221**	ug/L	0.008	3	9	335	2	KED
[	**Cd**	**111**	**0.061**	ug/L	0.003	5	3	22	6	KED
[	**Cd**	**114**	**0.042**	ug/L	0.007	16	4	37	12	KED
[>	**In**	**115**		ug/L			441442	438099	2	Standard
[	**Ag**	**107**	**0.030**	ug/L	0.002	5	35	573	6	Standard
[	**Sb**	**121**	**0.034**	ug/L	0.003	7	277	772	5	Standard
[	**Sb**	**123**	**0.040**	ug/L	0.002	3	218	665	1	Standard
[	**Ba**	**135**	**38.331**	ug/L	1.423	3	56	178922	5	Standard
[	**Ba**	**137**	**38.713**	ug/L	0.794	2	90	316150	4	Standard
[>	**Tb**	**159**		ug/L			829126	882928	4	Standard
[	**Tl**	**205**	**0.025**	ug/L	0.001	5	103	1063	8	Standard
[	**Pb**	**208**	**3.833**	ug/L	0.083	2	332	191753	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0168-MS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 02:08:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			451288	477910	2	Standard
	Be	9	24.894	ug/L	0.876	3	8	97507	4	Standard
	C	13		ug/L			30171	45706	3	Standard
	Cl	37		ug/L			1636983	1642066	1	Standard
>	Sc	45		ug/L			558757	666539	2	Standard
	V	51	50.355	ug/L	1.029	2	6588	1470615	1	Standard
	V-1	51	50.374	ug/L	0.820	1	458	1470150	1	Standard
	Cr	52	32.723	ug/L	0.783	2	19428	805332	1	Standard
	Cr	53	33.038	ug/L	0.770	2	234	90853	4	Standard
	Mn	55	145.540	ug/L	2.653	1	747	5062253	3	Standard
>	Ge	72		ug/L			47927	49093	2	KED
	Co	59	30.608	ug/L	0.424	1	7	187428	1	KED
	Ni	60	34.882	ug/L	0.918	2	554	61430	0	KED
	Ni	62	34.170	ug/L	0.753	2	85	9858	2	KED
	Cu	63	38.287	ug/L	0.451	1	97	188883	1	KED
	Cu	65	39.719	ug/L	0.411	1	53	96119	1	KED
	Zn	66	107.584	ug/L	1.147	1	102	69658	2	KED
	Zn	67	104.029	ug/L	1.167	1	22	10933	1	KED
	As	75	27.096	ug/L	0.144	0	5	9360	2	KED
	Se	78	79.076	ug/L	1.535	1	19	2556	1	KED
	Y	89		ug/L			333043	532853	2	Standard
	Kr	83		ug/L			44	63	6	Standard
>	In-1	115		ug/L			10197	9893	2	KED
	Mo	98	0.318	ug/L	0.021	6	9	475	8	KED
	Cd	111	27.048	ug/L	0.697	2	3	8228	2	KED
	Cd	114	26.487	ug/L	0.831	3	4	20662	5	KED
>	In	115		ug/L			441442	442543	1	Standard
	Ag	107	25.008	ug/L	0.842	3	35	451801	2	Standard
	Sb	121	0.055	ug/L	0.007	12	277	1092	8	Standard
	Sb	123	0.053	ug/L	0.004	8	218	821	6	Standard
	Ba	135	51.297	ug/L	0.723	1	56	241744	0	Standard
	Ba	137	51.631	ug/L	1.147	2	90	425731	0	Standard
>	Tb	159		ug/L			829126	862834	0	Standard
	Tl	205	25.495	ug/L	0.447	1	103	936186	1	Standard
	Pb	208	30.199	ug/L	0.392	1	332	1474770	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 02:13:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			451288	440916	4	Standard
[	**Be**	**9**	**-0.001**	ug/L	0.001	70	8	5	43	Standard
	C	**13**		ug/L			30171	28703	2	Standard
	Cl	**37**		ug/L			1636983	1674706	2	Standard
[>	**Sc**	**45**		ug/L			558757	583921	2	Standard
[	**V**	**51**	**-0.007**	ug/L	0.009	130	6588	6699	1	Standard
[	**V-1**	**51**	**0.008**	ug/L	0.001	7	458	683	0	Standard
[	**Cr**	**52**	**-0.015**	ug/L	0.028	191	19428	19983	1	Standard
[	**Cr**	**53**	**0.037**	ug/L	0.002	5	234	334	3	Standard
[	**Mn**	**55**	**-0.001**	ug/L	0.001	98	747	737	2	Standard
[>	**Ge**	**72**		ug/L			47927	47365	4	KED
[	**Co**	**59**	**-0.000**	ug/L	0.000	121	7	5	33	KED
[	**Ni**	**60**	**-0.312**	ug/L	0.007	2	554	22	47	KED
[	**Ni**	**62**	**-0.291**	ug/L	0.007	2	85	3	50	KED
[	**Cu**	**63**	**0.011**	ug/L	0.005	49	97	146	12	KED
[	**Cu**	**65**	**0.010**	ug/L	0.006	57	53	76	13	KED
[	**Zn**	**66**	**-0.002**	ug/L	0.017	1009	102	99	6	KED
[	**Zn**	**67**	**-0.044**	ug/L	0.088	200	22	18	51	KED
[	**As**	**75**	**-0.003**	ug/L	0.006	197	5	4	43	KED
[	**Se**	**78**	**0.135**	ug/L	0.188	138	19	24	27	KED
	Y	**89**		ug/L			333043	336446	2	Standard
	Kr	**83**		ug/L			44	45	17	Standard
[>	**In-1**	**115**		ug/L			10197	10281	2	KED
[	**Mo**	**98**	**-0.001**	ug/L	0.002	300	9	8	36	KED
[	**Cd**	**111**	**0.002**	ug/L	0.001	76	3	4	12	KED
[	**Cd**	**114**	**0.005**	ug/L	0.004	79	4	7	38	KED
[>	**In**	**115**		ug/L			441442	424520	2	Standard
[	**Ag**	**107**	**0.001**	ug/L	0.000	69	35	43	15	Standard
[	**Sb**	**121**	**-0.015**	ug/L	0.001	7	277	58	28	Standard
[	**Sb**	**123**	**-0.015**	ug/L	0.002	14	218	51	46	Standard
[	**Ba**	**135**	**0.022**	ug/L	0.003	13	56	154	11	Standard
[	**Ba**	**137**	**0.021**	ug/L	0.002	10	90	250	9	Standard
[>	**Tb**	**159**		ug/L			829126	802612	1	Standard
[	**Tl**	**205**	**-0.001**	ug/L	0.000	13	103	66	7	Standard
[	**Pb**	**208**	**0.001**	ug/L	0.000	20	332	384	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 02:18:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			451288	450618	2	Standard
	Be	**9**	**49.880**	ug/L	0.588	1	8	184205	3	Standard
	C	**13**		ug/L			30171	28644	2	Standard
	Cl	**37**		ug/L			1636983	1659209	2	Standard
>	**Sc**	**45**		ug/L			558757	588442	2	Standard
	V	**51**	**48.784**	ug/L	1.519	3	6588	1259165	5	Standard
	V-1	**51**	**49.077**	ug/L	1.381	2	458	1265431	5	Standard
	Cr	**52**	**49.407**	ug/L	0.747	1	19428	1063784	4	Standard
	Cr	**53**	**50.395**	ug/L	0.343	0	234	122211	3	Standard
	Mn	**55**	**49.897**	ug/L	0.588	1	747	1532487	2	Standard
>	**Ge**	**72**		ug/L			47927	49147	1	KED
	Co	**59**	**50.333**	ug/L	0.394	0	7	308605	1	KED
	Ni	**60**	**50.699**	ug/L	0.769	1	554	89154	1	KED
	Ni	**62**	**49.953**	ug/L	0.595	1	85	14388	0	KED
	Cu	**63**	**50.370**	ug/L	0.911	1	97	248776	2	KED
	Cu	**65**	**51.741**	ug/L	0.878	1	53	125345	2	KED
	Zn	**66**	**50.938**	ug/L	0.441	0	102	33071	0	KED
	Zn	**67**	**51.431**	ug/L	0.464	0	22	5423	1	KED
	As	**75**	**49.767**	ug/L	0.500	1	5	17205	0	KED
	Se	**78**	**49.611**	ug/L	0.361	0	19	1614	1	KED
	Y	**89**		ug/L			333043	344972	1	Standard
	Kr	**83**		ug/L			44	55	28	Standard
>	**In-1**	**115**		ug/L			10197	10486	2	KED
	Mo	**98**	**51.490**	ug/L	1.172	2	9	80017	3	KED
	Cd	**111**	**51.458**	ug/L	0.712	1	3	16590	2	KED
	Cd	**114**	**51.501**	ug/L	1.069	2	4	42555	2	KED
>	**In**	**115**		ug/L			441442	423365	4	Standard
	Ag	**107**	**49.699**	ug/L	1.737	3	35	858120	1	Standard
	Sb	**121**	**50.555**	ug/L	0.945	1	277	717692	3	Standard
	Sb	**123**	**51.611**	ug/L	2.009	3	218	559540	3	Standard
	Ba	**135**	**52.151**	ug/L	0.919	1	56	235061	4	Standard
	Ba	**137**	**55.556**	ug/L	1.888	3	90	437864	2	Standard
>	**Tb**	**159**		ug/L			829126	811164	3	Standard
	Tl	**205**	**50.684**	ug/L	0.447	0	103	1749793	4	Standard
	Pb	**208**	**50.829**	ug/L	0.413	0	332	2332868	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 02:26:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			451288	453808	5	Standard
⌊	**Be**	**9**	**-0.001**	ug/L	0.001	209	8	5	100	Standard
	C	**13**		ug/L			30171	28714	0	Standard
	Cl	**37**		ug/L			1636983	1722791	1	Standard
⌈>	**Sc**	**45**		ug/L			558757	593372	5	Standard
⌈	**V**	**51**	**0.002**	ug/L	0.008	314	6588	7052	3	Standard
⌈	**V-1**	**51**	**0.005**	ug/L	0.002	37	458	625	2	Standard
⌈	**Cr**	**52**	**0.020**	ug/L	0.021	103	19428	21050	3	Standard
⌈	**Cr**	**53**	**0.030**	ug/L	0.003	9	234	323	5	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	176	747	783	5	Standard
⌈>	**Ge**	**72**		ug/L			47927	50451	2	KED
⌈	**Co**	**59**	**-0.001**	ug/L	0.000	81	7	4	65	KED
⌈	**Ni**	**60**	**0.006**	ug/L	0.019	332	554	593	5	KED
⌈	**Ni**	**62**	**0.057**	ug/L	0.061	106	85	106	19	KED
⌈	**Cu**	**63**	**0.001**	ug/L	0.002	177	97	106	8	KED
⌈	**Cu**	**65**	**0.003**	ug/L	0.008	234	53	64	28	KED
⌈	**Zn**	**66**	**0.048**	ug/L	0.015	30	102	139	9	KED
⌈	**Zn**	**67**	**-0.005**	ug/L	0.027	522	22	23	12	KED
⌈	**As**	**75**	**0.001**	ug/L	0.003	186	5	6	15	KED
⌊	**Se**	**78**	**0.082**	ug/L	0.119	145	19	23	13	KED
	Y	**89**		ug/L			333043	348111	6	Standard
	Kr	**83**		ug/L			44	43	39	Standard
⌈>	**In-1**	**115**		ug/L			10197	11197	1	KED
⌈	**Mo**	**98**	**0.008**	ug/L	0.001	10	9	23	4	KED
⌈	**Cd**	**111**	**0.009**	ug/L	0.007	72	3	7	30	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.009	218	4	8	95	KED
⌈>	**In**	**115**		ug/L			441442	441631	5	Standard
⌈	**Ag**	**107**	**0.001**	ug/L	0.001	85	35	53	23	Standard
⌈	**Sb**	**121**	**0.034**	ug/L	0.001	2	277	778	6	Standard
⌈	**Sb**	**123**	**0.034**	ug/L	0.003	8	218	607	10	Standard
⌈	**Ba**	**135**	**-0.001**	ug/L	0.002	214	56	52	11	Standard
⌊	**Ba**	**137**	**0.002**	ug/L	0.000	17	90	106	7	Standard
⌈>	**Tb**	**159**		ug/L			829126	800468	3	Standard
⌈	**Tl**	**205**	**0.001**	ug/L	0.001	54	103	137	16	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.001	1082	332	316	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 02:31:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L				466192	5	Standard
⌊	**Be**	**9**		ug/L				3	100	Standard
	C	**13**		ug/L				30091	2	Standard
	Cl	**37**		ug/L				1714867	2	Standard
⌈>	**Sc**	**45**		ug/L				612814	5	Standard
⎢	**V**	**51**		ug/L				7424	1	Standard
⎢	**V-1**	**51**		ug/L				593	1	Standard
⎢	**Cr**	**52**		ug/L				22079	2	Standard
⎢	**Cr**	**53**		ug/L				310	5	Standard
⌊	**Mn**	**55**		ug/L				827	2	Standard
⌈>	**Ge**	**72**		ug/L				49780	1	KED
⎢	**Co**	**59**		ug/L				5	43	KED
⎢	**Ni**	**60**		ug/L				567	5	KED
⎢	**Ni**	**62**		ug/L				92	11	KED
⎢	**Cu**	**63**		ug/L				100	8	KED
⎢	**Cu**	**65**		ug/L				55	21	KED
⎢	**Zn**	**66**		ug/L				106	22	KED
⎢	**Zn**	**67**		ug/L				21	18	KED
⎢	**As**	**75**		ug/L				3	34	KED
⌊	**Se**	**78**		ug/L				22	18	KED
	Y	**89**		ug/L				354399	2	Standard
	Kr	**83**		ug/L				49	20	Standard
⌈>	**In-1**	**115**		ug/L				10030	0	KED
⎢	**Mo**	**98**		ug/L				10	53	KED
⎢	**Cd**	**111**		ug/L				3	0	KED
⌊	**Cd**	**114**		ug/L				3	143	KED
⌈>	**In**	**115**		ug/L				458222	4	Standard
⎢	**Ag**	**107**		ug/L				35	11	Standard
⎢	**Sb**	**121**		ug/L				294	5	Standard
⎢	**Sb**	**123**		ug/L				255	4	Standard
⎢	**Ba**	**135**		ug/L				50	4	Standard
⌊	**Ba**	**137**		ug/L				86	23	Standard
⌈>	**Tb**	**159**		ug/L				831384	4	Standard
⎢	**Tl**	**205**		ug/L				89	11	Standard
⌊	**Pb**	**208**		ug/L				317	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 02:36:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	459567	2	Standard
⌊	**Be**	**9**	**49.647**	ug/L	1.317	2	3	187003	4	Standard
	C	**13**		ug/L			30091	28343	2	Standard
	Cl	**37**		ug/L			1714867	1688566	1	Standard
⌈>	**Sc**	**45**		ug/L			612814	611437	3	Standard
⌈	**V**	**51**	**48.585**	ug/L	0.997	2	7424	1303135	5	Standard
⌊	**V-1**	**51**	**48.656**	ug/L	0.861	1	593	1303566	4	Standard
⌈	**Cr**	**52**	**49.804**	ug/L	1.420	2	22079	1114834	5	Standard
⌊	**Cr**	**53**	**50.031**	ug/L	0.503	1	310	126114	3	Standard
⌊	**Mn**	**55**	**50.050**	ug/L	1.227	2	827	1598100	5	Standard
⌈>	**Ge**	**72**		ug/L			49780	48361	1	KED
⌈	**Co**	**59**	**49.661**	ug/L	1.836	3	5	299496	2	KED
⌊	**Ni**	**60**	**51.370**	ug/L	2.331	4	567	88848	3	KED
⌈	**Ni**	**62**	**50.892**	ug/L	2.188	4	92	14422	2	KED
⌈	**Cu**	**63**	**50.847**	ug/L	1.486	2	100	247037	1	KED
⌊	**Cu**	**65**	**53.069**	ug/L	2.156	4	55	126458	2	KED
⌈	**Zn**	**66**	**51.428**	ug/L	1.473	2	106	32847	1	KED
⌊	**Zn**	**67**	**52.054**	ug/L	1.427	2	21	5398	1	KED
⌈	**As**	**75**	**50.412**	ug/L	1.026	2	3	17146	0	KED
⌊	**Se**	**78**	**49.003**	ug/L	1.251	2	22	1570	1	KED
	Y	**89**		ug/L			354399	357360	3	Standard
	Kr	**83**		ug/L			49	60	25	Standard
⌈>	**In-1**	**115**		ug/L			10030	10636	0	KED
⌈	**Mo**	**98**	**51.253**	ug/L	1.513	2	10	80777	2	KED
⌈	**Cd**	**111**	**51.156**	ug/L	0.492	0	3	16730	0	KED
⌊	**Cd**	**114**	**51.526**	ug/L	0.900	1	3	43182	1	KED
⌈>	**In**	**115**		ug/L			458222	441689	7	Standard
⌈	**Ag**	**107**	**50.548**	ug/L	1.651	3	35	910218	4	Standard
⌈	**Sb**	**121**	**50.535**	ug/L	3.527	6	294	746240	1	Standard
⌊	**Sb**	**123**	**49.958**	ug/L	3.057	6	255	563815	1	Standard
⌈	**Ba**	**135**	**50.506**	ug/L	2.276	4	50	237045	3	Standard
⌊	**Ba**	**137**	**53.698**	ug/L	3.726	6	86	440508	2	Standard
⌈>	**Tb**	**159**		ug/L			831384	849302	1	Standard
⌈	**Tl**	**205**	**48.875**	ug/L	0.529	1	89	1766382	1	Standard
⌊	**Pb**	**208**	**49.034**	ug/L	1.039	2	317	2357287	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 02:44:42
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	437276	6	Standard
⌊	**Be**	**9**	**-0.000**	ug/L	0.001	950	3	3	91	Standard
	C	**13**		ug/L			30091	28205	3	Standard
	Cl	**37**		ug/L			1714867	1732308	3	Standard
⌈>	**Sc**	**45**		ug/L			612814	587148	6	Standard
⌈	**V**	**51**	**0.006**	ug/L	0.006	89	7424	7271	5	Standard
⌈	**V-1**	**51**	**0.001**	ug/L	0.001	197	593	585	2	Standard
⌈	**Cr**	**52**	**0.016**	ug/L	0.013	80	22079	21478	6	Standard
⌈	**Cr**	**53**	**-0.004**	ug/L	0.006	160	310	288	11	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.001	85	827	743	9	Standard
⌈>	**Ge**	**72**		ug/L			49780	47253	2	KED
⌈	**Co**	**59**	**-0.000**	ug/L	0.000	172	5	3	50	KED
⌈	**Ni**	**60**	**0.002**	ug/L	0.009	396	567	542	4	KED
⌈	**Ni**	**62**	**-0.042**	ug/L	0.061	145	92	76	19	KED
⌈	**Cu**	**63**	**0.001**	ug/L	0.004	623	100	99	20	KED
⌈	**Cu**	**65**	**0.001**	ug/L	0.005	406	55	55	20	KED
⌈	**Zn**	**66**	**0.029**	ug/L	0.023	79	106	119	14	KED
⌈	**Zn**	**67**	**0.011**	ug/L	0.069	611	21	21	30	KED
⌈	**As**	**75**	**0.005**	ug/L	0.005	110	3	4	36	KED
⌊	**Se**	**78**	**0.085**	ug/L	0.109	127	22	23	13	KED
	Y	**89**		ug/L			354399	337010	5	Standard
	Kr	**83**		ug/L			49	48	26	Standard
⌈>	**In-1**	**115**		ug/L			10030	9249	3	KED
⌈	**Mo**	**98**	**0.004**	ug/L	0.001	38	10	14	16	KED
⌈	**Cd**	**111**	**0.009**	ug/L	0.009	105	3	6	45	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.014	198	3	8	117	KED
⌈>	**In**	**115**		ug/L			458222	427786	4	Standard
⌈	**Ag**	**107**	**0.001**	ug/L	0.001	78	35	49	25	Standard
⌈	**Sb**	**121**	**0.037**	ug/L	0.003	7	294	810	8	Standard
⌈	**Sb**	**123**	**0.037**	ug/L	0.001	3	255	639	2	Standard
⌈	**Ba**	**135**	**0.002**	ug/L	0.001	34	50	57	3	Standard
⌊	**Ba**	**137**	**0.002**	ug/L	0.001	55	86	94	11	Standard
⌈>	**Tb**	**159**		ug/L			831384	786523	6	Standard
⌈	**Tl**	**205**	**0.002**	ug/L	0.001	33	89	147	8	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	60	317	348	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0235-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 02:49:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	543387	3	Standard
	Be	9	0.001	ug/L	0.000	54	3	8	26	Standard
	C	13		ug/L			30091	91771	2	Standard
	Cl	37		ug/L			1714867	1676624	1	Standard
>	Sc	45		ug/L			612814	631925	5	Standard
	V	51	0.183	ug/L	0.024	13	7424	12666	3	Standard
	V-1	51	0.638	ug/L	0.035	5	593	18217	1	Standard
	Cr	52	0.705	ug/L	0.064	9	22079	38715	4	Standard
	Cr	53	2.246	ug/L	0.090	4	310	6149	2	Standard
	Mn	55	318.306	ug/L	7.180	2	827	10486127	3	Standard
>	Ge	72		ug/L			49780	46195	2	KED
	Co	59	0.364	ug/L	0.004	1	5	2101	1	KED
	Ni	60	6.290	ug/L	0.097	1	567	10860	3	KED
	Ni	62	6.141	ug/L	0.307	5	92	1738	4	KED
	Cu	63	1.265	ug/L	0.014	1	100	5963	2	KED
	Cu	65	1.277	ug/L	0.053	4	55	2959	5	KED
	Zn	66	14.679	ug/L	0.224	1	106	9030	3	KED
	Zn	67	17.239	ug/L	0.588	3	21	1721	3	KED
	As	75	0.531	ug/L	0.067	12	3	176	14	KED
	Se	78	0.090	ug/L	0.132	146	22	23	19	KED
	Y	89		ug/L			354399	345372	4	Standard
	Kr	83		ug/L			49	74	9	Standard
>	In-1	115		ug/L			10030	10426	1	KED
	Mo	98	64.092	ug/L	1.188	1	10	99008	1	KED
	Cd	111	0.057	ug/L	0.008	14	3	22	12	KED
	Cd	114	0.039	ug/L	0.017	42	3	36	38	KED
>	In	115		ug/L			458222	440732	3	Standard
	Ag	107	0.001	ug/L	0.001	63	35	53	20	Standard
	Sb	121	6.094	ug/L	0.142	2	294	90326	2	Standard
	Sb	123	6.071	ug/L	0.174	2	255	68800	4	Standard
	Ba	135	57.911	ug/L	1.673	2	50	271890	5	Standard
	Ba	137	60.734	ug/L	0.744	1	86	498800	3	Standard
>	Tb	159		ug/L			831384	853305	2	Standard
	Tl	205	0.000	ug/L	0.000	383	89	94	9	Standard
	Pb	208	0.785	ug/L	0.012	1	317	38216	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0660-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 02:55:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	582105	2	Standard
	Be	9	0.001	ug/L	0.001	75	3	10	39	Standard
	C	13		ug/L			30091	95770	0	Standard
	Cl	37		ug/L			1714867	1642580	2	Standard
>	Sc	45		ug/L			612814	637909	2	Standard
	V	51	0.170	ug/L	0.014	8	7424	12449	4	Standard
	V-1	51	0.713	ug/L	0.009	1	593	20525	1	Standard
	Cr	52	0.759	ug/L	0.033	4	22079	40350	0	Standard
	Cr	53	2.601	ug/L	0.102	3	310	7142	2	Standard
	Mn	55	319.398	ug/L	9.280	2	827	10625760	0	Standard
>	Ge	72		ug/L			49780	45523	2	KED
	Co	59	0.362	ug/L	0.019	5	5	2062	7	KED
	Ni	60	6.552	ug/L	0.163	2	567	11128	4	KED
	Ni	62	6.294	ug/L	0.111	1	92	1754	3	KED
	Cu	63	1.133	ug/L	0.010	0	100	5275	3	KED
	Cu	65	1.173	ug/L	0.037	3	55	2681	3	KED
	Zn	66	14.738	ug/L	0.131	0	106	8934	3	KED
	Zn	67	17.373	ug/L	0.200	1	21	1709	3	KED
	As	75	0.570	ug/L	0.026	4	3	185	4	KED
	Se	78	0.114	ug/L	0.044	38	22	23	3	KED
	Y	89		ug/L			354399	344646	3	Standard
	Kr	83		ug/L			49	67	4	Standard
>	In-1	115		ug/L			10030	10214	1	KED
	Mo	98	65.276	ug/L	1.749	2	10	98785	1	KED
	Cd	111	0.059	ug/L	0.011	18	3	22	14	KED
	Cd	114	0.042	ug/L	0.010	23	3	37	20	KED
>	In	115		ug/L			458222	444439	0	Standard
	Ag	107	0.000	ug/L	0.001	220	35	38	24	Standard
	Sb	121	6.165	ug/L	0.077	1	294	92166	1	Standard
	Sb	123	6.277	ug/L	0.125	1	255	71721	2	Standard
	Ba	135	60.440	ug/L	1.387	2	50	286072	2	Standard
	Ba	137	60.715	ug/L	0.784	1	86	502862	1	Standard
>	Tb	159		ug/L			831384	861840	0	Standard
	Tl	205	0.000	ug/L	0.000	294	89	96	11	Standard
	Pb	208	0.818	ug/L	0.014	1	317	40227	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0660-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 03:01:41
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	561350	2	Standard
	Be	9	21.744	ug/L	0.267	1	3	100040	3	Standard
	C	13		ug/L			30091	78015	1	Standard
	Cl	37		ug/L			1714867	1540399	2	Standard
>	Sc	45		ug/L			612814	640033	3	Standard
	V	51	24.470	ug/L	0.812	3	7424	690187	2	Standard
	V-1	51	24.842	ug/L	0.884	3	593	696212	1	Standard
	Cr	52	24.617	ug/L	0.703	2	22079	588346	4	Standard
	Cr	53	25.881	ug/L	0.577	2	310	68410	1	Standard
	Mn	55	337.875	ug/L	5.650	1	827	11279003	1	Standard
>	Ge	72		ug/L			49780	46736	2	KED
	Co	59	27.133	ug/L	0.604	2	5	158153	1	KED
	Ni	60	33.240	ug/L	0.329	0	567	55765	1	KED
	Ni	62	32.827	ug/L	1.261	3	92	9021	2	KED
	Cu	63	26.916	ug/L	0.447	1	100	126457	2	KED
	Cu	65	27.615	ug/L	0.763	2	55	63618	0	KED
	Zn	66	92.267	ug/L	1.893	2	106	56874	0	KED
	Zn	67	93.479	ug/L	2.836	3	21	9350	0	KED
	As	75	26.870	ug/L	0.863	3	3	8831	1	KED
	Se	78	81.118	ug/L	0.898	1	22	2498	1	KED
	Y	89		ug/L			354399	351777	1	Standard
	Kr	83		ug/L			49	83	19	Standard
>	In-1	115		ug/L			10030	10255	2	KED
	Mo	98	63.495	ug/L	1.483	2	10	96481	2	KED
	Cd	111	25.350	ug/L	0.894	3	3	7994	3	KED
	Cd	114	25.510	ug/L	0.431	1	3	20613	0	KED
>	In	115		ug/L			458222	451060	2	Standard
	Ag	107	22.368	ug/L	0.157	0	35	411922	1	Standard
	Sb	121	6.181	ug/L	0.091	1	294	93765	1	Standard
	Sb	123	6.200	ug/L	0.064	1	255	71882	1	Standard
	Ba	135	85.901	ug/L	2.574	2	50	412792	5	Standard
	Ba	137	88.489	ug/L	1.340	1	86	743732	2	Standard
>	Tb	159		ug/L			831384	901409	1	Standard
	Tl	205	24.897	ug/L	0.152	0	89	955058	1	Standard
	Pb	208	25.725	ug/L	0.060	0	317	1312493	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 03:06:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	478607	8	Standard
⌊	**Be**	**9**	**0.001**	ug/L	0.001	116	3	6	45	Standard
	C	**13**		ug/L			30091	31162	4	Standard
	Cl	**37**		ug/L			1714867	1680428	1	Standard
⌈>	**Sc**	**45**		ug/L			612814	600006	3	Standard
⌈	**V**	**51**	**-0.007**	ug/L	0.009	137	7424	7090	2	Standard
⌊	**V-1**	**51**	**0.016**	ug/L	0.002	10	593	1001	1	Standard
⌈	**Cr**	**52**	**-0.018**	ug/L	0.020	108	22079	21217	2	Standard
⌊	**Cr**	**53**	**0.059**	ug/L	0.007	12	310	450	6	Standard
⌊	**Mn**	**55**	**0.000**	ug/L	0.000	155	827	817	5	Standard
⌈>	**Ge**	**72**		ug/L			49780	46404	2	KED
⌈	**Co**	**59**	**0.000**	ug/L	0.000	42	5	6	15	KED
⌊	**Ni**	**60**	**-0.311**	ug/L	0.002	0	567	15	24	KED
⌈	**Ni**	**62**	**-0.308**	ug/L	0.004	1	92	3	34	KED
⌈	**Cu**	**63**	**0.015**	ug/L	0.003	23	100	162	11	KED
⌊	**Cu**	**65**	**0.019**	ug/L	0.007	37	55	93	16	KED
⌈	**Zn**	**66**	**0.002**	ug/L	0.005	213	106	100	4	KED
⌊	**Zn**	**67**	**-0.017**	ug/L	0.046	268	21	18	23	KED
⌈	**As**	**75**	**0.002**	ug/L	0.004	236	3	3	33	KED
⌊	**Se**	**78**	**-0.007**	ug/L	0.055	779	22	20	10	KED
	Y	**89**		ug/L			354399	350631	2	Standard
	Kr	**83**		ug/L			49	46	8	Standard
⌈>	**In-1**	**115**		ug/L			10030	10616	1	KED
⌈	**Mo**	**98**	**0.001**	ug/L	0.002	143	10	13	21	KED
⌈	**Cd**	**111**	**0.011**	ug/L	0.010	94	3	7	45	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.005	270	3	5	74	KED
⌈>	**In**	**115**		ug/L			458222	442393	3	Standard
⌈	**Ag**	**107**	**0.000**	ug/L	0.000	101	35	39	10	Standard
⌈	**Sb**	**121**	**-0.011**	ug/L	0.000	3	294	128	5	Standard
⌊	**Sb**	**123**	**-0.014**	ug/L	0.001	4	255	88	10	Standard
⌈	**Ba**	**135**	**0.024**	ug/L	0.001	5	50	161	7	Standard
⌊	**Ba**	**137**	**0.026**	ug/L	0.002	7	86	296	7	Standard
⌈>	**Tb**	**159**		ug/L			831384	859628	5	Standard
⌈	**Tl**	**205**	**-0.000**	ug/L	0.000	849	89	91	16	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	40	317	391	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23A0328-02
Sample Dil Factor: 50
Comments:
Sample Date/Time: Wednesday, April 26, 2023 03:11:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			466192	501936	3	Standard
[	**Be**	**9**	**0.089**	ug/L	0.006	6	3	368	2	Standard
	C	**13**		ug/L			30091	44588	0	Standard
	Cl	**37**		ug/L			1714867	1621263	1	Standard
[>	**Sc**	**45**		ug/L			612814	684600	3	Standard
[	**V**	**51**	**12.919**	ug/L	0.368	2	7424	393660	0	Standard
[	**V-1**	**51**	**12.967**	ug/L	0.358	2	593	389080	0	Standard
[	**Cr**	**52**	**6.673**	ug/L	0.107	1	22079	188508	2	Standard
[	**Cr**	**53**	**6.924**	ug/L	0.192	2	310	19836	3	Standard
[	**Mn**	**55**	**63.278**	ug/L	0.985	1	827	2260196	1	Standard
[>	**Ge**	**72**		ug/L			49780	47882	4	KED
[	**Co**	**59**	**2.016**	ug/L	0.052	2	5	12039	3	KED
[	**Ni**	**60**	**4.705**	ug/L	0.037	0	567	8555	4	KED
[	**Ni**	**62**	**4.536**	ug/L	0.225	4	92	1353	4	KED
[	**Cu**	**63**	**13.256**	ug/L	0.149	1	100	63842	3	KED
[	**Cu**	**65**	**13.789**	ug/L	0.192	1	55	32598	5	KED
[	**Zn**	**66**	**32.267**	ug/L	0.210	0	106	20450	4	KED
[	**Zn**	**67**	**30.662**	ug/L	0.952	3	21	3158	5	KED
[	**As**	**75**	**3.221**	ug/L	0.084	2	3	1088	6	KED
[	**Se**	**78**	**0.278**	ug/L	0.153	54	22	30	12	KED
	Y	**89**		ug/L			354399	478118	2	Standard
	Kr	**83**		ug/L			49	52	4	Standard
[>	**In-1**	**115**		ug/L			10030	9988	1	KED
[	**Mo**	**98**	**0.544**	ug/L	0.045	8	10	814	6	KED
[	**Cd**	**111**	**0.135**	ug/L	0.017	12	3	45	10	KED
[	**Cd**	**114**	**0.124**	ug/L	0.030	23	3	101	24	KED
[>	**In**	**115**		ug/L			458222	472065	1	Standard
[	**Ag**	**107**	**0.163**	ug/L	0.006	3	35	3185	5	Standard
[	**Sb**	**121**	**0.018**	ug/L	0.002	12	294	595	7	Standard
[	**Sb**	**123**	**0.017**	ug/L	0.001	3	255	473	2	Standard
[	**Ba**	**135**	**15.742**	ug/L	0.397	2	50	79169	2	Standard
[	**Ba**	**137**	**16.274**	ug/L	0.283	1	86	143209	1	Standard
[>	**Tb**	**159**		ug/L			831384	909104	0	Standard
[	**Tl**	**205**	**0.022**	ug/L	0.001	3	89	940	3	Standard
[	**Pb**	**208**	**14.388**	ug/L	0.314	2	317	740436	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0289-DUP2
Sample Dil Factor: 50
Comments:
Sample Date/Time: Wednesday, April 26, 2023 03:16:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	500905	0	Standard
⌊	**Be**	**9**	**0.083**	ug/L	0.005	5	3	344	5	Standard
	C	**13**		ug/L			30091	45403	0	Standard
	Cl	**37**		ug/L			1714867	1607591	1	Standard
⌈>	**Sc**	**45**		ug/L			612814	671252	1	Standard
⌈	**V**	**51**	**13.164**	ug/L	0.143	1	7424	393349	0	Standard
⌊	**V-1**	**51**	**13.164**	ug/L	0.183	1	593	387486	0	Standard
⌈	**Cr**	**52**	**6.747**	ug/L	0.069	1	22079	186648	0	Standard
⌊	**Cr**	**53**	**6.840**	ug/L	0.218	3	310	19216	2	Standard
⌊	**Mn**	**55**	**66.372**	ug/L	1.230	1	827	2325074	1	Standard
⌈>	**Ge**	**72**		ug/L			49780	46431	2	KED
⌈	**Co**	**59**	**2.016**	ug/L	0.084	4	5	11673	2	KED
⌊	**Ni**	**60**	**4.493**	ug/L	0.275	6	567	7939	3	KED
⌈	**Ni**	**62**	**4.351**	ug/L	0.450	10	92	1262	8	KED
⌈	**Cu**	**63**	**12.443**	ug/L	0.677	5	100	58091	4	KED
⌊	**Cu**	**65**	**12.941**	ug/L	0.544	4	55	29642	3	KED
⌈	**Zn**	**66**	**32.586**	ug/L	1.440	4	106	20014	3	KED
⌊	**Zn**	**67**	**31.030**	ug/L	0.504	1	21	3099	4	KED
⌈	**As**	**75**	**3.399**	ug/L	0.125	3	3	1112	2	KED
⌊	**Se**	**78**	**0.271**	ug/L	0.133	48	22	29	15	KED
	Y	**89**		ug/L			354399	467960	2	Standard
	Kr	**83**		ug/L			49	54	29	Standard
⌈>	**In-1**	**115**		ug/L			10030	10282	6	KED
⌈	**Mo**	**98**	**0.515**	ug/L	0.036	7	10	792	4	KED
⌈	**Cd**	**111**	**0.150**	ug/L	0.022	14	3	51	16	KED
⌊	**Cd**	**114**	**0.137**	ug/L	0.006	4	3	114	10	KED
⌈>	**In**	**115**		ug/L			458222	459029	1	Standard
⌈	**Ag**	**107**	**0.168**	ug/L	0.005	3	35	3187	2	Standard
⌈	**Sb**	**121**	**0.018**	ug/L	0.001	5	294	572	0	Standard
⌊	**Sb**	**123**	**0.016**	ug/L	0.002	11	255	444	3	Standard
⌈	**Ba**	**135**	**16.049**	ug/L	0.512	3	50	78461	1	Standard
⌊	**Ba**	**137**	**16.659**	ug/L	0.179	1	86	142549	1	Standard
⌈>	**Tb**	**159**		ug/L			831384	909484	1	Standard
⌈	**Tl**	**205**	**0.021**	ug/L	0.000	2	89	914	3	Standard
⌊	**Pb**	**208**	**15.068**	ug/L	0.367	2	317	775607	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0289-MS2
Sample Dil Factor: 50
Comments:
Sample Date/Time: Wednesday, April 26, 2023 03:21:51
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			466192	467609	2	Standard
[	**Be**	**9**	**10.010**	ug/L	0.192	1	3	38363	3	Standard
	C	**13**		ug/L			30091	42029	1	Standard
	Cl	**37**		ug/L			1714867	1608034	1	Standard
[>	**Sc**	**45**		ug/L			612814	615145	2	Standard
[	**V**	**51**	**22.473**	ug/L	0.387	1	7424	610069	1	Standard
[	**V-1**	**51**	**22.576**	ug/L	0.389	1	593	608514	1	Standard
[	**Cr**	**52**	**16.235**	ug/L	0.262	1	22079	380367	0	Standard
[	**Cr**	**53**	**16.673**	ug/L	0.196	1	310	42484	1	Standard
[	**Mn**	**55**	**76.017**	ug/L	1.407	1	827	2439931	1	Standard
[>	**Ge**	**72**		ug/L			49780	45610	1	KED
[	**Co**	**59**	**12.796**	ug/L	0.124	0	5	72818	2	KED
[	**Ni**	**60**	**15.335**	ug/L	0.177	1	567	25388	1	KED
[	**Ni**	**62**	**15.140**	ug/L	0.483	3	92	4107	2	KED
[	**Cu**	**63**	**26.051**	ug/L	0.288	1	100	119440	1	KED
[	**Cu**	**65**	**27.447**	ug/L	0.697	2	55	61713	0	KED
[	**Zn**	**66**	**68.212**	ug/L	1.059	1	106	41064	0	KED
[	**Zn**	**67**	**67.261**	ug/L	0.392	0	21	6574	1	KED
[	**As**	**75**	**13.582**	ug/L	0.353	2	3	4358	0	KED
[	**Se**	**78**	**31.626**	ug/L	1.047	3	22	962	1	KED
	Y	**89**		ug/L			354399	437883	1	Standard
	Kr	**83**		ug/L			49	43	17	Standard
[>	**In-1**	**115**		ug/L			10030	9824	4	KED
[	**Mo**	**98**	**0.504**	ug/L	0.015	2	10	744	1	KED
[	**Cd**	**111**	**11.214**	ug/L	0.310	2	3	3388	1	KED
[	**Cd**	**114**	**10.958**	ug/L	0.213	1	3	8481	2	KED
[>	**In**	**115**		ug/L			458222	430893	1	Standard
[	**Ag**	**107**	**10.007**	ug/L	0.084	0	35	176069	0	Standard
[	**Sb**	**121**	**0.025**	ug/L	0.004	16	294	642	9	Standard
[	**Sb**	**123**	**0.023**	ug/L	0.002	10	255	490	6	Standard
[	**Ba**	**135**	**26.183**	ug/L	0.255	0	50	120166	0	Standard
[	**Ba**	**137**	**27.220**	ug/L	0.122	0	86	218623	1	Standard
[>	**Tb**	**159**		ug/L			831384	849270	2	Standard
[	**Tl**	**205**	**10.126**	ug/L	0.139	1	89	365990	2	Standard
[	**Pb**	**208**	**25.759**	ug/L	0.211	0	317	1238007	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0289-MSD2
Sample Dil Factor: 50
Comments:
Sample Date/Time: Wednesday, April 26, 2023 03:26:55
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	456402	2	Standard
⌊	**Be**	**9**	**10.543**	ug/L	0.255	2	3	39449	4	Standard
	C	**13**		ug/L			30091	43353	3	Standard
	Cl	**37**		ug/L			1714867	1607874	1	Standard
⌈>	**Sc**	**45**		ug/L			612814	622853	4	Standard
⌈	**V**	**51**	**22.829**	ug/L	0.352	1	7424	627216	2	Standard
⌊	**V-1**	**51**	**22.854**	ug/L	0.413	1	593	623505	2	Standard
⌈	**Cr**	**52**	**16.412**	ug/L	0.231	1	22079	389070	3	Standard
⌊	**Cr**	**53**	**16.588**	ug/L	0.374	2	310	42778	1	Standard
⌊	**Mn**	**55**	**77.370**	ug/L	2.005	2	827	2513175	1	Standard
⌈>	**Ge**	**72**		ug/L			49780	47143	1	KED
⌈	**Co**	**59**	**12.630**	ug/L	0.293	2	5	74304	4	KED
⌊	**Ni**	**60**	**15.865**	ug/L	0.101	0	567	27133	2	KED
⌈	**Ni**	**62**	**15.598**	ug/L	0.536	3	92	4372	4	KED
⌈	**Cu**	**63**	**24.357**	ug/L	0.275	1	100	115446	2	KED
⌊	**Cu**	**65**	**24.728**	ug/L	0.186	0	55	57486	1	KED
⌈	**Zn**	**66**	**66.211**	ug/L	0.778	1	106	41202	0	KED
⌊	**Zn**	**67**	**64.485**	ug/L	2.006	3	21	6513	1	KED
⌈	**As**	**75**	**13.527**	ug/L	0.215	1	3	4488	2	KED
⌊	**Se**	**78**	**32.404**	ug/L	0.516	1	22	1019	3	KED
	Y	**89**		ug/L			354399	437842	2	Standard
	Kr	**83**		ug/L			49	50	9	Standard
⌈>	**In-1**	**115**		ug/L			10030	10633	0	KED
⌈	**Mo**	**98**	**0.499**	ug/L	0.023	4	10	796	3	KED
⌈	**Cd**	**111**	**11.104**	ug/L	0.297	2	3	3634	2	KED
⌊	**Cd**	**114**	**11.097**	ug/L	0.418	3	3	9300	3	KED
⌈>	**In**	**115**		ug/L			458222	439281	1	Standard
⌈	**Ag**	**107**	**9.917**	ug/L	0.210	2	35	177853	0	Standard
⌈	**Sb**	**121**	**0.021**	ug/L	0.002	10	294	598	5	Standard
⌊	**Sb**	**123**	**0.016**	ug/L	0.000	2	255	426	2	Standard
⌈	**Ba**	**135**	**26.292**	ug/L	1.646	6	50	122946	4	Standard
⌊	**Ba**	**137**	**27.456**	ug/L	1.415	5	86	224676	3	Standard
⌈>	**Tb**	**159**		ug/L			831384	870353	3	Standard
⌈	**Tl**	**205**	**10.077**	ug/L	0.244	2	89	373083	1	Standard
⌊	**Pb**	**208**	**24.705**	ug/L	0.365	1	317	1216568	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0289-PS2
Sample Dil Factor: 50
Comments:
Sample Date/Time: Wednesday, April 26, 2023 03:31:59
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	470940	2	Standard
⌊	**Be**	**9**	**24.718**	ug/L	0.495	2	3	95391	2	Standard
	C	**13**		ug/L			30091	46528	2	Standard
	Cl	**37**		ug/L			1714867	1616367	3	Standard
⌈>	**Sc**	**45**		ug/L			612814	632663	2	Standard
⌈	**V**	**51**	**35.528**	ug/L	0.498	1	7424	987620	2	Standard
⌊	**V-1**	**51**	**35.772**	ug/L	0.667	1	593	991362	2	Standard
⌈	**Cr**	**52**	**29.478**	ug/L	0.465	1	22079	691988	3	Standard
⌊	**Cr**	**53**	**30.393**	ug/L	0.788	2	310	79391	3	Standard
⌊	**Mn**	**55**	**90.008**	ug/L	2.065	2	827	2972353	4	Standard
⌈>	**Ge**	**72**		ug/L			49780	47724	0	KED
⌈	**Co**	**59**	**28.285**	ug/L	0.573	2	5	168422	2	KED
⌈	**Ni**	**60**	**31.315**	ug/L	0.595	1	567	53682	1	KED
⌊	**Ni**	**62**	**30.900**	ug/L	0.523	1	92	8680	2	KED
⌈	**Cu**	**63**	**39.889**	ug/L	0.186	0	100	191324	1	KED
⌊	**Cu**	**65**	**41.346**	ug/L	0.493	1	55	97283	2	KED
⌈	**Zn**	**66**	**115.119**	ug/L	0.546	0	106	72458	1	KED
⌊	**Zn**	**67**	**112.649**	ug/L	2.612	2	21	11506	1	KED
⌈	**As**	**75**	**28.658**	ug/L	0.506	1	3	9621	1	KED
⌊	**Se**	**78**	**78.431**	ug/L	1.062	1	22	2467	2	KED
	Y	**89**		ug/L			354399	451796	4	Standard
	Kr	**83**		ug/L			49	57	14	Standard
⌈>	**In-1**	**115**		ug/L			10030	10087	2	KED
⌈	**Mo**	**98**	**0.545**	ug/L	0.010	1	10	825	1	KED
⌈	**Cd**	**111**	**26.747**	ug/L	0.368	1	3	8296	1	KED
⌊	**Cd**	**114**	**26.859**	ug/L	0.388	1	3	21350	2	KED
⌈>	**In**	**115**		ug/L			458222	439516	4	Standard
⌈	**Ag**	**107**	**24.797**	ug/L	1.031	4	35	444471	2	Standard
⌈	**Sb**	**121**	**0.019**	ug/L	0.000	0	294	556	4	Standard
⌊	**Sb**	**123**	**0.018**	ug/L	0.003	19	255	444	6	Standard
⌈	**Ba**	**135**	**44.031**	ug/L	0.657	1	50	206009	3	Standard
⌊	**Ba**	**137**	**44.757**	ug/L	0.667	1	86	366766	6	Standard
⌈>	**Tb**	**159**		ug/L			831384	872166	1	Standard
⌈	**Tl**	**205**	**25.016**	ug/L	0.305	1	89	928622	2	Standard
⌊	**Pb**	**208**	**39.698**	ug/L	0.547	1	317	1959288	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLC
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 03:37:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	473251	7	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.001	340	3	5	78	Standard
	C	**13**		ug/L			30091	29395	4	Standard
	Cl	**37**		ug/L			1714867	1647633	1	Standard
⌈>	**Sc**	**45**		ug/L			612814	585594	7	Standard
⌈	**V**	**51**	**-0.017**	ug/L	0.008	46	7424	6652	4	Standard
⌈	**V-1**	**51**	**-0.004**	ug/L	0.002	49	593	470	2	Standard
⌈	**Cr**	**52**	**-0.059**	ug/L	0.021	35	22079	19841	5	Standard
⌈	**Cr**	**53**	**-0.013**	ug/L	0.002	15	310	265	7	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.002	91	827	736	5	Standard
⌈>	**Ge**	**72**		ug/L			49780	44051	0	KED
⌈	**Co**	**59**	**-0.001**	ug/L	0.000	28	5	0	173	KED
⌈	**Ni**	**60**	**-0.311**	ug/L	0.001	0	567	15	12	KED
⌈	**Ni**	**62**	**-0.297**	ug/L	0.008	2	92	5	33	KED
⌈	**Cu**	**63**	**0.013**	ug/L	0.007	51	100	147	20	KED
⌈	**Cu**	**65**	**0.014**	ug/L	0.004	25	55	79	9	KED
⌈	**Zn**	**66**	**0.027**	ug/L	0.016	60	106	109	8	KED
⌈	**Zn**	**67**	**0.020**	ug/L	0.070	356	21	20	31	KED
⌈	**As**	**75**	**0.002**	ug/L	0.003	178	3	3	27	KED
⌊	**Se**	**78**	**-0.001**	ug/L	0.113	10928	22	19	16	KED
	Y	**89**		ug/L			354399	347319	3	Standard
	Kr	**83**		ug/L			49	48	14	Standard
⌈>	**In-1**	**115**		ug/L			10030	10221	3	KED
⌈	**Mo**	**98**	**-0.002**	ug/L	0.000	15	10	7	4	KED
⌈	**Cd**	**111**	**0.003**	ug/L	0.001	18	3	4	0	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.004	64	3	9	41	KED
⌈>	**In**	**115**		ug/L			458222	443422	8	Standard
⌈	**Ag**	**107**	**0.000**	ug/L	0.000	25	35	43	9	Standard
⌈	**Sb**	**121**	**-0.014**	ug/L	0.000	3	294	69	7	Standard
⌈	**Sb**	**123**	**-0.017**	ug/L	0.001	6	255	54	25	Standard
⌈	**Ba**	**135**	**0.023**	ug/L	0.004	17	50	157	9	Standard
⌊	**Ba**	**137**	**0.026**	ug/L	0.002	7	86	295	9	Standard
⌈>	**Tb**	**159**		ug/L			831384	839364	5	Standard
⌈	**Tl**	**205**	**-0.000**	ug/L	0.000	327	89	86	21	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	22	317	397	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 03:42:08
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			466192	461626	6	Standard
	Be	**9**	**50.585**	ug/L	3.526	6	3	190761	0	Standard
	C	**13**		ug/L			30091	30154	2	Standard
	Cl	**37**		ug/L			1714867	1629547	1	Standard
>	**Sc**	**45**		ug/L			612814	592183	6	Standard
	V	**51**	**49.364**	ug/L	3.817	7	7424	1277646	2	Standard
	V-1	**51**	**49.642**	ug/L	3.500	7	593	1283783	1	Standard
	Cr	**52**	**50.645**	ug/L	4.649	9	22079	1093550	4	Standard
	Cr	**53**	**51.571**	ug/L	3.450	6	310	125533	1	Standard
	Mn	**55**	**50.608**	ug/L	4.328	8	827	1559143	3	Standard
>	**Ge**	**72**		ug/L			49780	47453	2	KED
	Co	**59**	**50.831**	ug/L	0.585	1	5	300856	1	KED
	Ni	**60**	**51.018**	ug/L	0.604	1	567	86641	3	KED
	Ni	**62**	**51.387**	ug/L	0.179	0	92	14296	2	KED
	Cu	**63**	**51.713**	ug/L	0.367	0	100	246636	3	KED
	Cu	**65**	**53.219**	ug/L	0.407	0	55	124472	1	KED
	Zn	**66**	**51.504**	ug/L	0.790	1	106	32285	2	KED
	Zn	**67**	**51.491**	ug/L	1.299	2	21	5243	4	KED
	As	**75**	**50.084**	ug/L	0.950	1	3	16717	2	KED
	Se	**78**	**49.090**	ug/L	0.375	0	22	1543	2	KED
	Y	**89**		ug/L			354399	347753	8	Standard
	Kr	**83**		ug/L			49	52	43	Standard
>	**In-1**	**115**		ug/L			10030	10057	2	KED
	Mo	**98**	**52.418**	ug/L	1.677	3	10	78097	2	KED
	Cd	**111**	**52.383**	ug/L	2.184	4	3	16192	3	KED
	Cd	**114**	**52.619**	ug/L	1.003	1	3	41690	1	KED
>	**In**	**115**		ug/L			458222	436318	4	Standard
	Ag	**107**	**50.105**	ug/L	1.987	3	35	891551	2	Standard
	Sb	**121**	**50.701**	ug/L	2.614	5	294	741190	3	Standard
	Sb	**123**	**51.308**	ug/L	1.981	3	255	573046	1	Standard
	Ba	**135**	**54.587**	ug/L	2.626	4	50	253253	0	Standard
	Ba	**137**	**56.852**	ug/L	2.418	4	86	461656	1	Standard
>	**Tb**	**159**		ug/L			831384	859347	4	Standard
	Tl	**205**	**51.005**	ug/L	1.567	3	89	1863547	2	Standard
	Pb	**208**	**51.323**	ug/L	2.126	4	317	2492918	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 03:49:56
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	460317	2	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.001	3722	3	3	86	Standard
	C	**13**		ug/L			30091	29202	5	Standard
	Cl	**37**		ug/L			1714867	1701909	1	Standard
⌈>	**Sc**	**45**		ug/L			612814	599715	4	Standard
⌈	**V**	**51**	**-0.005**	ug/L	0.011	215	7424	7125	1	Standard
⌊	**V-1**	**51**	**-0.005**	ug/L	0.002	32	593	453	4	Standard
⌈	**Cr**	**52**	**-0.023**	ug/L	0.038	165	22079	21086	2	Standard
⌊	**Cr**	**53**	**-0.022**	ug/L	0.008	37	310	248	7	Standard
⌊	**Mn**	**55**	**-0.003**	ug/L	0.002	59	827	727	2	Standard
⌈>	**Ge**	**72**		ug/L			49780	47996	1	KED
⌈	**Co**	**59**	**0.000**	ug/L	0.000	226	5	5	33	KED
⌊	**Ni**	**60**	**-0.305**	ug/L	0.001	0	567	27	10	KED
⌈	**Ni**	**62**	**-0.292**	ug/L	0.012	4	92	7	43	KED
⌊	**Cu**	**63**	**0.004**	ug/L	0.005	118	100	116	18	KED
⌈	**Cu**	**65**	**0.005**	ug/L	0.002	43	55	64	7	KED
⌊	**Zn**	**66**	**0.091**	ug/L	0.011	12	106	160	6	KED
⌈	**Zn**	**67**	**0.039**	ug/L	0.023	59	21	24	7	KED
⌊	**As**	**75**	**0.003**	ug/L	0.006	180	3	4	44	KED
⌊	**Se**	**78**	**0.022**	ug/L	0.073	330	22	22	10	KED
	Y	**89**		ug/L			354399	341601	3	Standard
	Kr	**83**		ug/L			49	50	12	Standard
⌈>	**In-1**	**115**		ug/L			10030	10267	4	KED
⌈	**Mo**	**98**	**-0.000**	ug/L	0.003	1708	10	10	38	KED
⌊	**Cd**	**111**	**0.004**	ug/L	0.009	241	3	5	57	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.001	190	3	4	24	KED
⌈>	**In**	**115**		ug/L			458222	446608	3	Standard
⌈	**Ag**	**107**	**0.001**	ug/L	0.001	47	35	58	17	Standard
⌊	**Sb**	**121**	**0.033**	ug/L	0.001	3	294	781	5	Standard
⌈	**Sb**	**123**	**0.031**	ug/L	0.003	9	255	604	8	Standard
⌊	**Ba**	**135**	**0.013**	ug/L	0.002	16	50	113	7	Standard
⌊	**Ba**	**137**	**0.012**	ug/L	0.003	23	86	185	13	Standard
⌈>	**Tb**	**159**		ug/L			831384	834820	3	Standard
⌈	**Tl**	**205**	**0.002**	ug/L	0.001	39	89	145	12	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.001	242	317	295	18	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0512-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 03:55:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			466192	453562	2	Standard
[	**Be**	**9**	**0.002**	ug/L	0.001	42	3	12	31	Standard
	C	**13**		ug/L			30091	74078	1	Standard
	Cl	**37**		ug/L			1714867	1342305	2	Standard
[>	**Sc**	**45**		ug/L			612814	657145	2	Standard
[	**V**	**51**	**0.107**	ug/L	0.008	7	7424	11018	1	Standard
[	**V-1**	**51**	**0.119**	ug/L	0.001	1	593	4065	3	Standard
[	**Cr**	**52**	**0.171**	ug/L	0.030	17	22079	27703	0	Standard
[	**Cr**	**53**	**0.212**	ug/L	0.013	6	310	906	3	Standard
[	**Mn**	**55**	**206.833**	ug/L	6.348	3	827	7087750	0	Standard
[>	**Ge**	**72**		ug/L			49780	41828	2	KED
[	**Co**	**59**	**0.012**	ug/L	0.003	27	5	67	26	KED
[	**Ni**	**60**	**-0.020**	ug/L	0.017	88	567	448	8	KED
[	**Ni**	**62**	**-0.054**	ug/L	0.036	66	92	64	12	KED
[	**Cu**	**63**	**0.005**	ug/L	0.003	64	100	106	10	KED
[	**Cu**	**65**	**0.048**	ug/L	0.011	23	55	144	17	KED
[	**Zn**	**66**	**0.240**	ug/L	0.073	30	106	221	17	KED
[	**Zn**	**67**	**24.739**	ug/L	0.818	3	21	2230	5	KED
[	**As**	**75**	**0.028**	ug/L	0.008	28	3	11	21	KED
[	**Se**	**78**	**0.191**	ug/L	0.124	64	22	23	13	KED
	Y	**89**		ug/L			354399	327997	2	Standard
	Kr	**83**		ug/L			49	72	18	Standard
[>	**In-1**	**115**		ug/L			10030	9629	3	KED
[	**Mo**	**98**	**0.016**	ug/L	0.007	39	10	33	24	KED
[	**Cd**	**111**	**0.005**	ug/L	0.010	215	3	5	60	KED
[	**Cd**	**114**	**0.006**	ug/L	0.009	150	3	7	83	KED
[>	**In**	**115**		ug/L			458222	387568	3	Standard
[	**Ag**	**107**	**0.001**	ug/L	0.001	102	35	39	21	Standard
[	**Sb**	**121**	**0.009**	ug/L	0.002	26	294	359	6	Standard
[	**Sb**	**123**	**0.006**	ug/L	0.001	14	255	273	4	Standard
[	**Ba**	**135**	**419.600**	ug/L	11.011	2	50	1730812	1	Standard
[	**Ba**	**137**	**467.039**	ug/L	3.001	0	86	3373143	3	Standard
[>	**Tb**	**159**		ug/L			831384	773792	1	Standard
[	**Tl**	**205**	**-0.000**	ug/L	0.000	46	89	70	8	Standard
[	**Pb**	**208**	**-0.001**	ug/L	0.000	8	317	240	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0512-02
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 04:00:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	433275	5	Standard
	Be	9	0.000	ug/L	0.001	371	3	5	108	Standard
	C	13		ug/L			30091	67790	2	Standard
	Cl	37		ug/L			1714867	1344069	2	Standard
>	Sc	45		ug/L			612814	626396	2	Standard
	V	51	0.122	ug/L	0.004	2	7424	10933	1	Standard
	V-1	51	0.124	ug/L	0.002	1	593	4019	3	Standard
	Cr	52	0.247	ug/L	0.018	7	22079	28112	1	Standard
	Cr	53	0.252	ug/L	0.009	3	310	965	4	Standard
	Mn	55	207.381	ug/L	3.985	1	827	6777352	2	Standard
>	Ge	72		ug/L			49780	42337	2	KED
	Co	59	0.018	ug/L	0.002	9	5	97	11	KED
	Ni	60	-0.008	ug/L	0.039	485	567	471	14	KED
	Ni	62	-0.047	ug/L	0.044	93	92	67	17	KED
	Cu	63	0.045	ug/L	0.002	3	100	277	3	KED
	Cu	65	0.079	ug/L	0.013	16	55	212	14	KED
	Zn	66	0.177	ug/L	0.048	27	106	189	11	KED
	Zn	67	24.118	ug/L	0.387	1	21	2199	1	KED
	As	75	0.022	ug/L	0.006	29	3	9	22	KED
	Se	78	0.182	ug/L	0.106	58	22	24	11	KED
	Y	89		ug/L			354399	317263	2	Standard
	Kr	83		ug/L			49	83	4	Standard
>	In-1	115		ug/L			10030	9518	0	KED
	Mo	98	0.022	ug/L	0.011	48	10	41	35	KED
	Cd	111	0.010	ug/L	0.006	55	3	6	24	KED
	Cd	114	0.005	ug/L	0.008	147	3	7	79	KED
>	In	115		ug/L			458222	371106	2	Standard
	Ag	107	0.001	ug/L	0.001	46	35	48	16	Standard
	Sb	121	-0.003	ug/L	0.001	37	294	204	8	Standard
	Sb	123	-0.004	ug/L	0.002	63	255	170	15	Standard
	Ba	135	408.380	ug/L	4.771	1	50	1613886	3	Standard
	Ba	137	468.014	ug/L	11.820	2	86	3234647	0	Standard
>	Tb	159		ug/L			831384	752392	3	Standard
	Tl	205	-0.001	ug/L	0.000	28	89	43	21	Standard
	Pb	208	-0.001	ug/L	0.000	15	317	254	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0512-03
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 04:05:08
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	461038	3	Standard
	Be	9	0.009	ug/L	0.001	15	3	38	15	Standard
	C	13		ug/L			30091	66183	0	Standard
	Cl	37		ug/L			1714867	1509925	1	Standard
>	Sc	45		ug/L			612814	656637	1	Standard
	V	51	0.527	ug/L	0.013	2	7424	23056	3	Standard
	V-1	51	0.530	ug/L	0.017	3	593	15879	4	Standard
	Cr	52	0.264	ug/L	0.014	5	22079	29869	0	Standard
	Cr	53	0.277	ug/L	0.020	7	310	1080	4	Standard
	Mn	55	608.420	ug/L	10.389	1	827	20841307	1	Standard
>	Ge	72		ug/L			49780	46111	1	KED
	Co	59	0.083	ug/L	0.007	8	5	483	8	KED
	Ni	60	-0.118	ug/L	0.017	14	567	333	10	KED
	Ni	62	-0.149	ug/L	0.008	5	92	45	4	KED
	Cu	63	0.439	ug/L	0.018	4	100	2128	5	KED
	Cu	65	0.482	ug/L	0.024	4	55	1146	2	KED
	Zn	66	0.553	ug/L	0.040	7	106	434	4	KED
	Zn	67	9.340	ug/L	0.108	1	21	940	3	KED
	As	75	0.310	ug/L	0.015	4	3	103	2	KED
	Se	78	0.120	ug/L	0.291	243	22	24	34	KED
	Y	89		ug/L			354399	350834	3	Standard
	Kr	83		ug/L			49	73	25	Standard
>	In-1	115		ug/L			10030	9479	2	KED
	Mo	98	0.029	ug/L	0.004	15	10	50	10	KED
	Cd	111	0.003	ug/L	0.010	347	3	4	65	KED
	Cd	114	0.001	ug/L	0.006	734	3	3	109	KED
>	In	115		ug/L			458222	422695	1	Standard
	Ag	107	0.002	ug/L	0.001	44	35	63	21	Standard
	Sb	121	0.027	ug/L	0.001	4	294	653	3	Standard
	Sb	123	0.026	ug/L	0.003	10	255	512	4	Standard
	Ba	135	149.190	ug/L	3.301	2	50	671363	0	Standard
	Ba	137	150.022	ug/L	2.806	1	86	1181499	1	Standard
>	Tb	159		ug/L			831384	829632	3	Standard
	Tl	205	-0.001	ug/L	0.000	5	89	38	8	Standard
	Pb	208	0.061	ug/L	0.001	1	317	3156	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0512-04
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 04:10:11
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	463644	2	Standard
	Be	9	0.005	ug/L	0.001	22	3	21	20	Standard
	C	13		ug/L			30091	64051	2	Standard
	Cl	37		ug/L			1714867	1228891	2	Standard
>	Sc	45		ug/L			612814	716479	4	Standard
	V	51	0.004	ug/L	0.010	226	7424	8805	1	Standard
	V-1	51	0.083	ug/L	0.002	2	593	3284	3	Standard
	Cr	52	0.004	ug/L	0.034	816	22079	25895	0	Standard
	Cr	53	0.271	ug/L	0.005	1	310	1160	3	Standard
	Mn	55	21.246	ug/L	0.663	3	827	794378	1	Standard
>	Ge	72		ug/L			49780	43349	1	KED
	Co	59	0.010	ug/L	0.001	9	5	55	7	KED
	Ni	60	0.175	ug/L	0.019	10	567	763	3	KED
	Ni	62	0.156	ug/L	0.053	33	92	120	11	KED
	Cu	63	0.045	ug/L	0.002	4	100	285	1	KED
	Cu	65	0.070	ug/L	0.003	4	55	198	4	KED
	Zn	66	0.168	ug/L	0.020	11	106	188	6	KED
	Zn	67	20.324	ug/L	0.294	1	21	1901	1	KED
	As	75	0.453	ug/L	0.018	4	3	140	2	KED
	Se	78	0.040	ug/L	0.125	312	22	20	18	KED
	Y	89		ug/L			354399	333957	1	Standard
	Kr	83		ug/L			49	45	9	Standard
>	In-1	115		ug/L			10030	8841	3	KED
	Mo	98	0.343	ug/L	0.023	6	10	458	6	KED
	Cd	111	0.012	ug/L	0.003	27	3	6	14	KED
	Cd	114	-0.003	ug/L	0.012	390	3	0	1080	KED
>	In	115		ug/L			458222	404085	2	Standard
	Ag	107	0.000	ug/L	0.000	933	35	31	12	Standard
	Sb	121	-0.008	ug/L	0.001	9	294	149	8	Standard
	Sb	123	-0.011	ug/L	0.002	14	255	111	13	Standard
	Ba	135	345.916	ug/L	3.958	1	50	1488664	3	Standard
	Ba	137	388.966	ug/L	6.631	1	86	2929083	3	Standard
>	Tb	159		ug/L			831384	815881	1	Standard
	Tl	205	-0.002	ug/L	0.000	12	89	34	20	Standard
	Pb	208	-0.001	ug/L	0.000	52	317	284	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0512-05
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 04:15:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			466192	457939	4	Standard
	Be	**9**	**0.000**	ug/L	0.001	220	3	5	57	Standard
	C	**13**		ug/L			30091	59673	1	Standard
	Cl	**37**		ug/L			1714867	1325993	2	Standard
>	**Sc**	**45**		ug/L			612814	645342	6	Standard
	V	**51**	**0.011**	ug/L	0.005	42	7424	8115	4	Standard
	V-1	**51**	**0.059**	ug/L	0.005	8	593	2288	4	Standard
	Cr	**52**	**0.125**	ug/L	0.022	17	22079	26134	5	Standard
	Cr	**53**	**0.288**	ug/L	0.017	5	310	1089	2	Standard
	Mn	**55**	**5.903**	ug/L	0.256	4	827	199247	2	Standard
>	**Ge**	**72**		ug/L			49780	45325	1	KED
	Co	**59**	**0.003**	ug/L	0.001	42	5	23	33	KED
	Ni	**60**	**-0.260**	ug/L	0.008	3	567	97	11	KED
	Ni	**62**	**-0.228**	ug/L	0.061	26	92	24	65	KED
	Cu	**63**	**0.244**	ug/L	0.019	7	100	1201	6	KED
	Cu	**65**	**0.240**	ug/L	0.011	4	55	586	2	KED
	Zn	**66**	**0.332**	ug/L	0.042	12	106	295	8	KED
	Zn	**67**	**2.452**	ug/L	0.158	6	21	257	6	KED
	As	**75**	**0.151**	ug/L	0.009	5	3	51	4	KED
	Se	**78**	**0.081**	ug/L	0.168	208	22	22	23	KED
	Y	**89**		ug/L			354399	340565	5	Standard
	Kr	**83**		ug/L			49	41	25	Standard
>	**In-1**	**115**		ug/L			10030	9823	3	KED
	Mo	**98**	**1.115**	ug/L	0.060	5	10	1631	2	KED
	Cd	**111**	**0.004**	ug/L	0.011	244	3	5	65	KED
	Cd	**114**	**0.006**	ug/L	0.004	72	3	7	37	KED
>	**In**	**115**		ug/L			458222	416838	5	Standard
	Ag	**107**	**-0.000**	ug/L	0.000	97	35	24	27	Standard
	Sb	**121**	**-0.008**	ug/L	0.002	19	294	157	7	Standard
	Sb	**123**	**-0.010**	ug/L	0.002	16	255	129	18	Standard
	Ba	**135**	**34.325**	ug/L	0.915	2	50	152405	6	Standard
	Ba	**137**	**35.987**	ug/L	0.912	2	86	279584	6	Standard
>	**Tb**	**159**		ug/L			831384	807539	3	Standard
	Tl	**205**	**-0.001**	ug/L	0.000	7	89	36	9	Standard
	Pb	**208**	**0.009**	ug/L	0.001	8	317	702	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0512-06
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 04:20:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			466192	473854	1	Standard
	Be	**9**	**0.015**	ug/L	0.001	7	3	62	8	Standard
	C	**13**		ug/L			30091	66337	1	Standard
	Cl	**37**		ug/L			1714867	1336727	2	Standard
>	**Sc**	**45**		ug/L			612814	681566	0	Standard
	V	**51**	**0.303**	ug/L	0.011	3	7424	17270	1	Standard
	V-1	**51**	**0.320**	ug/L	0.010	3	593	10208	3	Standard
	Cr	**52**	**0.163**	ug/L	0.019	11	22079	28530	1	Standard
	Cr	**53**	**0.221**	ug/L	0.016	7	310	965	5	Standard
	Mn	**55**	**175.258**	ug/L	4.550	2	827	6232878	2	Standard
>	**Ge**	**72**		ug/L			49780	42147	2	KED
	Co	**59**	**0.344**	ug/L	0.010	2	5	1813	1	KED
	Ni	**60**	**0.071**	ug/L	0.022	30	567	587	8	KED
	Ni	**62**	**0.021**	ug/L	0.095	451	92	83	24	KED
	Cu	**63**	**0.035**	ug/L	0.006	17	100	233	13	KED
	Cu	**65**	**0.069**	ug/L	0.005	6	55	190	4	KED
	Zn	**66**	**0.242**	ug/L	0.058	23	106	224	15	KED
	Zn	**67**	**22.912**	ug/L	0.111	0	21	2081	2	KED
	As	**75**	**0.036**	ug/L	0.014	39	3	13	32	KED
	Se	**78**	**0.035**	ug/L	0.114	326	22	19	18	KED
	Y	**89**		ug/L			354399	341213	2	Standard
	Kr	**83**		ug/L			49	75	8	Standard
>	**In-1**	**115**		ug/L			10030	9077	3	KED
	Mo	**98**	**0.023**	ug/L	0.005	21	10	41	20	KED
	Cd	**111**	**0.009**	ug/L	0.007	71	3	6	32	KED
	Cd	**114**	**0.002**	ug/L	0.003	135	3	4	43	KED
>	**In**	**115**		ug/L			458222	396918	1	Standard
	Ag	**107**	**0.001**	ug/L	0.000	38	35	48	14	Standard
	Sb	**121**	**-0.010**	ug/L	0.000	0	294	119	2	Standard
	Sb	**123**	**-0.013**	ug/L	0.002	17	255	86	26	Standard
	Ba	**135**	**404.122**	ug/L	3.629	0	50	1708161	2	Standard
	Ba	**137**	**445.388**	ug/L	12.525	2	86	3294354	3	Standard
>	**Tb**	**159**		ug/L			831384	801754	1	Standard
	Tl	**205**	**-0.002**	ug/L	0.000	13	89	26	30	Standard
	Pb	**208**	**-0.002**	ug/L	0.001	42	317	233	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0067-DUP4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 04:25:16
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			466192	475373	4	Standard
	Be	**9**	**0.016**	ug/L	0.002	15	3	65	18	Standard
	C	**13**		ug/L			30091	69787	1	Standard
	Cl	**37**		ug/L			1714867	1357579	2	Standard
>	**Sc**	**45**		ug/L			612814	701215	2	Standard
	V	**51**	**0.292**	ug/L	0.001	0	7424	17428	2	Standard
	V-1	**51**	**0.304**	ug/L	0.006	1	593	10011	2	Standard
	Cr	**52**	**0.212**	ug/L	0.019	8	22079	30578	1	Standard
	Cr	**53**	**0.253**	ug/L	0.020	7	310	1083	3	Standard
	Mn	**55**	**174.474**	ug/L	2.020	1	827	6382402	1	Standard
>	**Ge**	**72**		ug/L			49780	40923	2	KED
	Co	**59**	**0.356**	ug/L	0.007	2	5	1823	2	KED
	Ni	**60**	**-0.011**	ug/L	0.027	238	567	450	8	KED
	Ni	**62**	**-0.021**	ug/L	0.040	189	92	71	13	KED
	Cu	**63**	**0.071**	ug/L	0.006	7	100	376	8	KED
	Cu	**65**	**0.122**	ug/L	0.018	14	55	292	13	KED
	Zn	**66**	**0.359**	ug/L	0.013	3	106	281	0	KED
	Zn	**67**	**24.846**	ug/L	1.240	4	21	2189	4	KED
	As	**75**	**0.035**	ug/L	0.005	14	3	13	12	KED
	Se	**78**	**0.181**	ug/L	0.091	50	22	23	11	KED
	Y	**89**		ug/L			354399	343665	1	Standard
	Kr	**83**		ug/L			49	75	6	Standard
>	**In-1**	**115**		ug/L			10030	8989	2	KED
	Mo	**98**	**0.026**	ug/L	0.006	25	10	43	18	KED
	Cd	**111**	**0.013**	ug/L	0.004	29	3	6	15	KED
	Cd	**114**	**0.008**	ug/L	0.006	84	3	8	52	KED
>	**In**	**115**		ug/L			458222	395701	2	Standard
	Ag	**107**	**0.001**	ug/L	0.001	42	35	53	20	Standard
	Sb	**121**	**-0.010**	ug/L	0.001	8	294	118	9	Standard
	Sb	**123**	**-0.012**	ug/L	0.001	6	255	94	11	Standard
	Ba	**135**	**399.858**	ug/L	8.015	2	50	1684337	1	Standard
	Ba	**137**	**444.311**	ug/L	8.911	2	86	3274911	0	Standard
>	**Tb**	**159**		ug/L			831384	796043	2	Standard
	Tl	**205**	**-0.002**	ug/L	0.000	6	89	22	16	Standard
	Pb	**208**	**0.003**	ug/L	0.001	26	317	429	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0067-MS4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 04:30:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			466192	447006	4	Standard
[	**Be**	**9**	**24.525**	ug/L	0.371	1	3	89808	3	Standard
	C	**13**		ug/L			30091	68755	1	Standard
	Cl	**37**		ug/L			1714867	1305458	1	Standard
[>	**Sc**	**45**		ug/L			612814	679058	3	Standard
[	**V**	**51**	**22.511**	ug/L	0.323	1	7424	674546	3	Standard
[	**V-1**	**51**	**22.765**	ug/L	0.397	1	593	677273	3	Standard
[	**Cr**	**52**	**22.119**	ug/L	0.291	1	22079	563358	4	Standard
[	**Cr**	**53**	**22.990**	ug/L	0.222	0	310	64531	3	Standard
[	**Mn**	**55**	**198.462**	ug/L	3.816	1	827	7029543	2	Standard
[>	**Ge**	**72**		ug/L			49780	42587	2	KED
[	**Co**	**59**	**28.292**	ug/L	0.180	0	5	150299	2	KED
[	**Ni**	**60**	**27.161**	ug/L	0.292	1	567	41608	1	KED
[	**Ni**	**62**	**26.808**	ug/L	0.377	1	92	6731	3	KED
[	**Cu**	**63**	**25.958**	ug/L	0.071	0	100	111137	2	KED
[	**Cu**	**65**	**26.414**	ug/L	0.364	1	55	55460	1	KED
[	**Zn**	**66**	**78.074**	ug/L	1.573	2	106	43872	2	KED
[	**Zn**	**67**	**97.376**	ug/L	2.486	2	21	8881	4	KED
[	**As**	**75**	**26.194**	ug/L	0.216	0	3	7849	3	KED
[	**Se**	**78**	**81.466**	ug/L	1.154	1	22	2287	4	KED
	Y	**89**		ug/L			354399	342283	4	Standard
	Kr	**83**		ug/L			49	93	22	Standard
[>	**In-1**	**115**		ug/L			10030	9386	0	KED
[	**Mo**	**98**	**28.557**	ug/L	0.294	1	10	39730	1	KED
[	**Cd**	**111**	**25.613**	ug/L	0.071	0	3	7394	0	KED
[	**Cd**	**114**	**25.238**	ug/L	0.305	1	3	18670	1	KED
[>	**In**	**115**		ug/L			458222	385081	4	Standard
[	**Ag**	**107**	**25.347**	ug/L	0.108	0	35	398486	3	Standard
[	**Sb**	**121**	**25.938**	ug/L	0.570	2	294	335020	2	Standard
[	**Sb**	**123**	**25.991**	ug/L	0.809	3	255	256453	2	Standard
[	**Ba**	**135**	**410.339**	ug/L	7.644	1	50	1681680	2	Standard
[	**Ba**	**137**	**460.308**	ug/L	7.181	1	86	3301618	3	Standard
[>	**Tb**	**159**		ug/L			831384	767812	2	Standard
[	**Tl**	**205**	**24.505**	ug/L	0.337	1	89	800673	3	Standard
[	**Pb**	**208**	**23.589**	ug/L	0.332	1	317	1024901	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0067-MSD4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 04:37:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	422401	2	Standard
⌊	**Be**	**9**	**24.386**	ug/L	0.354	1	3	84418	2	Standard
	C	**13**		ug/L			30091	67790	3	Standard
	Cl	**37**		ug/L			1714867	1330310	1	Standard
⌈>	**Sc**	**45**		ug/L			612814	655794	2	Standard
⌈	**V**	**51**	**22.116**	ug/L	0.580	2	7424	640101	1	Standard
⌊	**V-1**	**51**	**22.290**	ug/L	0.558	2	593	640439	1	Standard
⌈	**Cr**	**52**	**21.807**	ug/L	0.369	1	22079	536570	0	Standard
⌊	**Cr**	**53**	**22.404**	ug/L	0.313	1	310	60740	0	Standard
⌊	**Mn**	**55**	**201.934**	ug/L	5.043	2	827	6907365	0	Standard
⌈>	**Ge**	**72**		ug/L			49780	41069	1	KED
⌈	**Co**	**59**	**27.633**	ug/L	0.097	0	5	141571	1	KED
⌊	**Ni**	**60**	**26.728**	ug/L	0.149	0	567	39500	2	KED
⌈	**Ni**	**62**	**25.988**	ug/L	0.260	0	92	6294	1	KED
⌊	**Cu**	**63**	**25.580**	ug/L	0.372	1	100	105630	3	KED
⌈	**Cu**	**65**	**26.312**	ug/L	0.169	0	55	53286	1	KED
⌊	**Zn**	**66**	**76.831**	ug/L	0.396	0	106	41645	2	KED
⌈	**Zn**	**67**	**100.986**	ug/L	1.475	1	21	8878	1	KED
⌊	**As**	**75**	**26.173**	ug/L	0.092	0	3	7562	1	KED
⌊	**Se**	**78**	**79.144**	ug/L	0.936	1	22	2142	1	KED
	Y	**89**		ug/L			354399	330930	0	Standard
	Kr	**83**		ug/L			49	85	16	Standard
⌈>	**In-1**	**115**		ug/L			10030	9111	0	KED
⌈	**Mo**	**98**	**27.800**	ug/L	0.782	2	10	37539	2	KED
⌊	**Cd**	**111**	**25.299**	ug/L	0.550	2	3	7089	1	KED
⌊	**Cd**	**114**	**24.949**	ug/L	0.147	0	3	17914	0	KED
⌈>	**In**	**115**		ug/L			458222	367558	1	Standard
⌈	**Ag**	**107**	**25.498**	ug/L	0.623	2	35	382611	1	Standard
⌈	**Sb**	**121**	**25.721**	ug/L	0.153	0	294	317295	1	Standard
⌊	**Sb**	**123**	**25.802**	ug/L	0.635	2	255	243117	1	Standard
⌈	**Ba**	**135**	**413.800**	ug/L	7.062	1	50	1619334	1	Standard
⌊	**Ba**	**137**	**461.371**	ug/L	7.563	1	86	3159294	0	Standard
⌈>	**Tb**	**159**		ug/L			831384	745752	2	Standard
⌈	**Tl**	**205**	**23.544**	ug/L	0.286	1	89	747075	1	Standard
⌊	**Pb**	**208**	**22.959**	ug/L	0.788	3	317	968570	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLD
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 04:42:10
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	438189	3	Standard
⌊	**Be**	**9**	**0.001**	ug/L	0.001	144	3	6	62	Standard
	C	**13**		ug/L			30091	28719	0	Standard
	Cl	**37**		ug/L			1714867	1744874	1	Standard
⌈>	**Sc**	**45**		ug/L			612814	605499	4	Standard
⌈	**V**	**51**	**0.021**	ug/L	0.009	42	7424	7883	3	Standard
⌊	**V-1**	**51**	**-0.006**	ug/L	0.001	23	593	439	5	Standard
⌈	**Cr**	**52**	**0.069**	ug/L	0.024	35	22079	23290	2	Standard
⌊	**Cr**	**53**	**-0.022**	ug/L	0.011	50	310	251	11	Standard
	Mn	**55**	**0.003**	ug/L	0.002	67	827	925	3	Standard
⌈>	**Ge**	**72**		ug/L			49780	46735	0	KED
⌈	**Co**	**59**	**0.000**	ug/L	0.000	68	5	7	25	KED
⌊	**Ni**	**60**	**-0.313**	ug/L	0.002	0	567	13	24	KED
⌈	**Ni**	**62**	**-0.303**	ug/L	0.004	1	92	4	24	KED
⌊	**Cu**	**63**	**0.017**	ug/L	0.002	14	100	172	7	KED
⌈	**Cu**	**65**	**0.019**	ug/L	0.010	49	55	95	22	KED
⌊	**Zn**	**66**	**0.022**	ug/L	0.074	341	106	113	40	KED
⌈	**Zn**	**67**	**-0.018**	ug/L	0.030	163	21	18	15	KED
⌊	**As**	**75**	**0.005**	ug/L	0.002	46	3	4	14	KED
	Se	**78**	**-0.016**	ug/L	0.130	836	22	20	18	KED
	Y	**89**		ug/L			354399	338870	3	Standard
	Kr	**83**		ug/L			49	46	25	Standard
⌈>	**In-1**	**115**		ug/L			10030	10333	1	KED
⌈	**Mo**	**98**	**0.006**	ug/L	0.005	80	10	20	37	KED
⌊	**Cd**	**111**	**0.013**	ug/L	0.010	82	3	7	42	KED
	Cd	**114**	**0.011**	ug/L	0.009	80	3	12	57	KED
⌈>	**In**	**115**		ug/L			458222	415139	3	Standard
⌈	**Ag**	**107**	**0.001**	ug/L	0.000	60	35	41	16	Standard
⌊	**Sb**	**121**	**-0.012**	ug/L	0.002	12	294	100	22	Standard
⌈	**Sb**	**123**	**-0.014**	ug/L	0.001	8	255	77	14	Standard
⌊	**Ba**	**135**	**0.028**	ug/L	0.002	8	50	169	8	Standard
	Ba	**137**	**0.026**	ug/L	0.002	7	86	280	6	Standard
⌈>	**Tb**	**159**		ug/L			831384	779653	2	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.000	36	89	59	17	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	48	317	373	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 04:47:14
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	407254	3	Standard
⌊	**Be**	**9**	**52.209**	ug/L	2.287	4	3	174289	6	Standard
	C	**13**		ug/L			30091	28173	4	Standard
	Cl	**37**		ug/L			1714867	1691306	1	Standard
⌈>	**Sc**	**45**		ug/L			612814	574846	4	Standard
⌈	**V**	**51**	**48.125**	ug/L	1.028	2	7424	1212356	2	Standard
⌊	**V-1**	**51**	**48.513**	ug/L	1.107	2	593	1220739	2	Standard
⌈	**Cr**	**52**	**48.984**	ug/L	0.667	1	22079	1030484	3	Standard
⌊	**Cr**	**53**	**50.295**	ug/L	0.852	1	310	119125	3	Standard
⌊	**Mn**	**55**	**49.294**	ug/L	0.944	1	827	1479764	6	Standard
⌈>	**Ge**	**72**		ug/L			49780	48487	2	KED
⌈	**Co**	**59**	**50.294**	ug/L	1.158	2	5	304101	0	KED
⌊	**Ni**	**60**	**50.815**	ug/L	1.049	2	567	88144	2	KED
⌈	**Ni**	**62**	**50.127**	ug/L	0.631	1	92	14252	3	KED
⌈	**Cu**	**63**	**49.849**	ug/L	0.800	1	100	242832	1	KED
⌊	**Cu**	**65**	**51.280**	ug/L	0.454	0	55	122579	3	KED
⌈	**Zn**	**66**	**50.397**	ug/L	0.939	1	106	32277	1	KED
⌊	**Zn**	**67**	**49.991**	ug/L	0.720	1	21	5200	3	KED
⌈	**As**	**75**	**49.315**	ug/L	0.647	1	3	16817	1	KED
⌊	**Se**	**78**	**49.429**	ug/L	1.378	2	22	1587	0	KED
	Y	**89**		ug/L			354399	336750	3	Standard
	Kr	**83**		ug/L			49	39	22	Standard
⌈>	**In-1**	**115**		ug/L			10030	9663	5	KED
⌈	**Mo**	**98**	**52.413**	ug/L	0.493	0	10	75029	4	KED
⌈	**Cd**	**111**	**51.207**	ug/L	0.759	1	3	15223	6	KED
⌊	**Cd**	**114**	**51.319**	ug/L	0.626	1	3	39060	4	KED
⌈>	**In**	**115**		ug/L			458222	396929	4	Standard
⌈	**Ag**	**107**	**51.653**	ug/L	0.883	1	35	836820	3	Standard
⌈	**Sb**	**121**	**48.918**	ug/L	1.374	2	294	650816	2	Standard
⌊	**Sb**	**123**	**49.867**	ug/L	0.675	1	255	507095	3	Standard
⌈	**Ba**	**135**	**49.302**	ug/L	0.764	1	50	208366	4	Standard
⌊	**Ba**	**137**	**50.648**	ug/L	0.970	1	86	374522	4	Standard
⌈>	**Tb**	**159**		ug/L			831384	782066	3	Standard
⌈	**Tl**	**205**	**47.470**	ug/L	1.244	2	89	1579553	4	Standard
⌊	**Pb**	**208**	**47.856**	ug/L	0.430	0	317	2118087	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 04:55:02
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			466192	433930	4	Standard
	Be	**9**	**0.001**	ug/L	0.002	195	3	6	86	Standard
	C	**13**		ug/L			30091	28027	0	Standard
	Cl	**37**		ug/L			1714867	1760633	2	Standard
>	**Sc**	**45**		ug/L			612814	600874	3	Standard
	V	**51**	**0.014**	ug/L	0.006	39	7424	7650	1	Standard
	V-1	**51**	**-0.007**	ug/L	0.000	1	593	389	3	Standard
	Cr	**52**	**0.047**	ug/L	0.007	15	22079	22648	2	Standard
	Cr	**53**	**-0.027**	ug/L	0.012	43	310	237	15	Standard
	Mn	**55**	**0.000**	ug/L	0.001	486	827	820	6	Standard
>	**Ge**	**72**		ug/L			49780	47601	2	KED
	Co	**59**	**-0.000**	ug/L	0.001	816	5	4	89	KED
	Ni	**60**	**-0.307**	ug/L	0.003	1	567	22	22	KED
	Ni	**62**	**-0.301**	ug/L	0.010	3	92	5	57	KED
	Cu	**63**	**0.006**	ug/L	0.002	38	100	125	5	KED
	Cu	**65**	**0.003**	ug/L	0.005	138	55	60	19	KED
	Zn	**66**	**0.067**	ug/L	0.031	45	106	144	13	KED
	Zn	**67**	**0.078**	ug/L	0.031	39	21	28	11	KED
	As	**75**	**0.010**	ug/L	0.004	42	3	6	18	KED
	Se	**78**	**-0.048**	ug/L	0.076	157	22	19	8	KED
	Y	**89**		ug/L			354399	342381	5	Standard
	Kr	**83**		ug/L			49	43	9	Standard
>	**In-1**	**115**		ug/L			10030	9547	3	KED
	Mo	**98**	**0.009**	ug/L	0.002	24	10	22	14	KED
	Cd	**111**	**0.006**	ug/L	0.010	174	3	5	56	KED
	Cd	**114**	**0.009**	ug/L	0.011	123	3	9	79	KED
>	**In**	**115**		ug/L			458222	412559	6	Standard
	Ag	**107**	**0.002**	ug/L	0.001	37	35	57	18	Standard
	Sb	**121**	**0.037**	ug/L	0.004	10	294	775	5	Standard
	Sb	**123**	**0.033**	ug/L	0.001	4	255	582	3	Standard
	Ba	**135**	**0.012**	ug/L	0.004	38	50	95	13	Standard
	Ba	**137**	**0.010**	ug/L	0.002	24	86	156	18	Standard
>	**Tb**	**159**		ug/L			831384	778048	3	Standard
	Tl	**205**	**0.000**	ug/L	0.000	288	89	88	13	Standard
	Pb	**208**	**-0.000**	ug/L	0.000	48	317	278	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0678-02
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, April 26, 2023 05:00:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	404821	4	Standard
	Be	9	0.022	ug/L	0.004	16	3	75	20	Standard
	C	13		ug/L			30091	78130	1	Standard
	Cl	37		ug/L			1714867	1423591	2	Standard
>	Sc	45		ug/L			612814	610236	3	Standard
	V	51	17.783	ug/L	0.777	4	7424	480802	6	Standard
	V-1	51	17.781	ug/L	0.761	4	593	475901	6	Standard
	Cr	52	2.506	ug/L	0.089	3	22079	76866	5	Standard
	Cr	53	2.713	ug/L	0.045	1	310	7118	4	Standard
	Mn	55	6.271	ug/L	0.284	4	827	200596	7	Standard
>	Ge	72		ug/L			49780	45062	2	KED
	Co	59	0.408	ug/L	0.019	4	5	2299	4	KED
	Ni	60	3.730	ug/L	0.169	4	567	6485	2	KED
	Ni	62	3.582	ug/L	0.121	3	92	1024	5	KED
	Cu	63	2.755	ug/L	0.090	3	100	12554	0	KED
	Cu	65	2.824	ug/L	0.187	6	55	6313	4	KED
	Zn	66	5.240	ug/L	0.009	0	106	3206	2	KED
	Zn	67	5.682	ug/L	0.458	8	21	566	9	KED
	As	75	4.426	ug/L	0.136	3	3	1405	2	KED
	Se	78	0.239	ug/L	0.064	26	22	27	5	KED
	Y	89		ug/L			354399	353800	3	Standard
	Kr	83		ug/L			49	51	20	Standard
>	In-1	115		ug/L			10030	8770	13	KED
	Mo	98	1.543	ug/L	0.155	10	10	1996	5	KED
	Cd	111	0.042	ug/L	0.007	15	3	14	3	KED
	Cd	114	0.017	ug/L	0.011	64	3	15	54	KED
>	In	115		ug/L			458222	392730	3	Standard
	Ag	107	0.020	ug/L	0.001	6	35	356	6	Standard
	Sb	121	0.819	ug/L	0.026	3	294	11048	5	Standard
	Sb	123	0.837	ug/L	0.012	1	255	8639	2	Standard
	Ba	135	2.826	ug/L	0.031	1	50	11859	2	Standard
	Ba	137	2.924	ug/L	0.104	3	86	21489	7	Standard
>	Tb	159		ug/L			831384	761211	4	Standard
	Tl	205	0.000	ug/L	0.000	197	89	85	11	Standard
	Pb	208	7.047	ug/L	0.063	0	317	303873	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0678-12
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, April 26, 2023 05:05:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	420595	8	Standard
	Be	9	0.016	ug/L	0.003	16	3	56	10	Standard
	C	13		ug/L			30091	43112	4	Standard
	Cl	37		ug/L			1714867	1443547	0	Standard
>	Sc	45		ug/L			612814	649777	7	Standard
	V	51	1.322	ug/L	0.015	1	7424	45331	7	Standard
	V-1	51	1.380	ug/L	0.013	0	593	39910	8	Standard
	Cr	52	1.238	ug/L	0.079	6	22079	52216	6	Standard
	Cr	53	1.436	ug/L	0.019	1	310	4166	8	Standard
	Mn	55	141.961	ug/L	0.910	0	827	4812727	7	Standard
>	Ge	72		ug/L			49780	44537	2	KED
	Co	59	0.092	ug/L	0.007	7	5	513	4	KED
	Ni	60	0.131	ug/L	0.018	13	567	715	2	KED
	Ni	62	0.127	ug/L	0.046	36	92	116	13	KED
	Cu	63	0.059	ug/L	0.005	9	100	356	9	KED
	Cu	65	0.065	ug/L	0.000	0	55	192	2	KED
	Zn	66	0.510	ug/L	0.046	9	106	394	4	KED
	Zn	67	0.776	ug/L	0.113	14	21	93	14	KED
	As	75	0.161	ug/L	0.031	18	3	53	16	KED
	Se	78	0.160	ug/L	0.104	64	22	24	10	KED
	Y	89		ug/L			354399	350448	4	Standard
	Kr	83		ug/L			49	50	33	Standard
>	In-1	115		ug/L			10030	9721	2	KED
	Mo	98	0.145	ug/L	0.016	10	10	218	8	KED
	Cd	111	0.006	ug/L	0.002	38	3	5	10	KED
	Cd	114	-0.003	ug/L	0.004	143	3	1	183	KED
>	In	115		ug/L			458222	401774	5	Standard
	Ag	107	0.003	ug/L	0.001	25	35	76	19	Standard
	Sb	121	0.048	ug/L	0.004	8	294	902	9	Standard
	Sb	123	0.042	ug/L	0.005	10	255	661	11	Standard
	Ba	135	5.512	ug/L	0.059	1	50	23634	6	Standard
	Ba	137	5.674	ug/L	0.024	0	86	42554	5	Standard
>	Tb	159		ug/L			831384	765571	6	Standard
	Tl	205	-0.001	ug/L	0.000	8	89	39	14	Standard
	Pb	208	0.067	ug/L	0.002	2	317	3183	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0678-13
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, April 26, 2023 05:10:32
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	415566	1	Standard
	Be	9	0.011	ug/L	0.006	51	3	42	48	Standard
	C	13		ug/L			30091	41533	2	Standard
	Cl	37		ug/L			1714867	1465810	1	Standard
>	Sc	45		ug/L			612814	645111	5	Standard
	V	51	1.208	ug/L	0.032	2	7424	41763	3	Standard
	V-1	51	1.258	ug/L	0.041	3	593	36123	3	Standard
	Cr	52	1.022	ug/L	0.039	3	22079	46862	3	Standard
	Cr	53	1.195	ug/L	0.064	5	310	3491	3	Standard
	Mn	55	141.462	ug/L	3.422	2	827	4759526	4	Standard
>	Ge	72		ug/L			49780	43484	2	KED
	Co	59	0.110	ug/L	0.007	6	5	602	4	KED
	Ni	60	0.102	ug/L	0.036	35	567	653	9	KED
	Ni	62	0.122	ug/L	0.087	71	92	111	19	KED
	Cu	63	0.067	ug/L	0.010	14	100	378	9	KED
	Cu	65	0.072	ug/L	0.008	11	55	201	6	KED
	Zn	66	0.176	ug/L	0.033	18	106	194	11	KED
	Zn	67	0.577	ug/L	0.111	19	21	72	13	KED
	As	75	0.171	ug/L	0.015	8	3	55	8	KED
	Se	78	0.103	ug/L	0.093	90	22	22	12	KED
	Y	89		ug/L			354399	355772	3	Standard
	Kr	83		ug/L			49	56	30	Standard
>	In-1	115		ug/L			10030	9578	1	KED
	Mo	98	0.118	ug/L	0.006	5	10	177	5	KED
	Cd	111	0.002	ug/L	0.005	299	3	4	35	KED
	Cd	114	-0.001	ug/L	0.002	130	3	2	60	KED
>	In	115		ug/L			458222	402190	6	Standard
	Ag	107	0.001	ug/L	0.000	25	35	53	14	Standard
	Sb	121	0.068	ug/L	0.001	1	294	1172	5	Standard
	Sb	123	0.066	ug/L	0.010	15	255	900	7	Standard
	Ba	135	5.548	ug/L	0.084	1	50	23792	4	Standard
	Ba	137	5.726	ug/L	0.102	1	86	42959	4	Standard
>	Tb	159		ug/L			831384	774549	3	Standard
	Tl	205	-0.001	ug/L	0.000	12	89	34	16	Standard
	Pb	208	0.053	ug/L	0.001	1	317	2608	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0678-18
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, April 26, 2023 05:16:59
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	388654	1	Standard
	Be	9	0.016	ug/L	0.002	12	3	54	10	Standard
	C	13		ug/L			30091	60159	4	Standard
	Cl	37		ug/L			1714867	1577266	2	Standard
>	Sc	45		ug/L			612814	579487	2	Standard
	V	51	9.758	ug/L	0.243	2	7424	253454	0	Standard
	V-1	51	9.743	ug/L	0.236	2	593	247658	0	Standard
	Cr	52	2.468	ug/L	0.039	1	22079	72181	1	Standard
	Cr	53	2.522	ug/L	0.028	1	310	6302	2	Standard
	Mn	55	5.116	ug/L	0.069	1	827	155441	1	Standard
>	Ge	72		ug/L			49780	46005	1	KED
	Co	59	0.305	ug/L	0.002	0	5	1756	1	KED
	Ni	60	2.182	ug/L	0.125	5	567	4093	5	KED
	Ni	62	2.303	ug/L	0.165	7	92	702	6	KED
	Cu	63	3.313	ug/L	0.038	1	100	15406	2	KED
	Cu	65	3.416	ug/L	0.062	1	55	7793	1	KED
	Zn	66	4.489	ug/L	0.059	1	106	2818	1	KED
	Zn	67	4.401	ug/L	0.249	5	21	452	6	KED
	As	75	2.540	ug/L	0.039	1	3	825	0	KED
	Se	78	0.255	ug/L	0.071	27	22	28	7	KED
	Y	89		ug/L			354399	337138	1	Standard
	Kr	83		ug/L			49	57	12	Standard
>	In-1	115		ug/L			10030	10057	0	KED
	Mo	98	1.356	ug/L	0.049	3	10	2031	4	KED
	Cd	111	0.027	ug/L	0.013	48	3	12	32	KED
	Cd	114	0.018	ug/L	0.005	25	3	17	19	KED
>	In	115		ug/L			458222	381598	1	Standard
	Ag	107	0.017	ug/L	0.001	6	35	292	6	Standard
	Sb	121	0.609	ug/L	0.012	1	294	8033	0	Standard
	Sb	123	0.573	ug/L	0.014	2	255	5815	0	Standard
	Ba	135	2.000	ug/L	0.036	1	50	8171	3	Standard
	Ba	137	2.081	ug/L	0.034	1	86	14870	3	Standard
>	Tb	159		ug/L			831384	736467	0	Standard
	Tl	205	-0.000	ug/L	0.000	120	89	67	20	Standard
	Pb	208	6.270	ug/L	0.057	0	317	261574	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 05:21:58
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	399407	1	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.001	347	3	3	50	Standard
	C	**13**		ug/L			30091	27058	1	Standard
	Cl	**37**		ug/L			1714867	1750750	2	Standard
⌈>	**Sc**	**45**		ug/L			612814	573449	2	Standard
⌈	**V**	**51**	**0.006**	ug/L	0.004	55	7424	7108	2	Standard
⌊	**V-1**	**51**	**-0.004**	ug/L	0.001	22	593	451	7	Standard
⌈	**Cr**	**52**	**0.020**	ug/L	0.022	110	22079	21066	2	Standard
⌊	**Cr**	**53**	**-0.017**	ug/L	0.010	61	310	251	9	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.000	4	827	708	2	Standard
⌈>	**Ge**	**72**		ug/L			49780	45806	0	KED
⌈	**Co**	**59**	**-0.001**	ug/L	0.000	26	5	0	173	KED
⌊	**Ni**	**60**	**-0.312**	ug/L	0.003	1	567	13	37	KED
⌈	**Ni**	**62**	**-0.308**	ug/L	0.004	1	92	3	34	KED
⌈	**Cu**	**63**	**-0.005**	ug/L	0.001	14	100	69	5	KED
⌊	**Cu**	**65**	**-0.002**	ug/L	0.001	46	55	46	4	KED
⌈	**Zn**	**66**	**-0.098**	ug/L	0.011	11	106	38	17	KED
⌊	**Zn**	**67**	**-0.164**	ug/L	0.034	20	21	3	86	KED
⌈	**As**	**75**	**0.003**	ug/L	0.005	153	3	4	38	KED
⌊	**Se**	**78**	**0.044**	ug/L	0.112	251	22	21	15	KED
	Y	**89**		ug/L			354399	325460	1	Standard
	Kr	**83**		ug/L			49	42	15	Standard
⌈>	**In-1**	**115**		ug/L			10030	9587	1	KED
⌈	**Mo**	**98**	**-0.002**	ug/L	0.003	111	10	6	50	KED
⌈	**Cd**	**111**	**0.006**	ug/L	0.008	138	3	5	44	KED
⌊	**Cd**	**114**	**0.006**	ug/L	0.004	62	3	7	35	KED
⌈>	**In**	**115**		ug/L			458222	400374	1	Standard
⌈	**Ag**	**107**	**-0.000**	ug/L	0.000	24	35	25	4	Standard
⌈	**Sb**	**121**	**-0.014**	ug/L	0.001	5	294	74	11	Standard
⌊	**Sb**	**123**	**-0.017**	ug/L	0.000	1	255	51	5	Standard
⌈	**Ba**	**135**	**-0.001**	ug/L	0.003	249	50	38	34	Standard
⌊	**Ba**	**137**	**-0.002**	ug/L	0.002	86	86	62	17	Standard
⌈>	**Tb**	**159**		ug/L			831384	748808	0	Standard
⌈	**Tl**	**205**	**-0.002**	ug/L	0.000	5	89	25	11	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	13	317	146	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0678-01
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, April 26, 2023 05:27:02
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	387844	3	Standard
	Be	9	0.014	ug/L	0.003	21	3	46	20	Standard
	C	13		ug/L			30091	55674	0	Standard
	Cl	37		ug/L			1714867	1598966	2	Standard
>	Sc	45		ug/L			612814	573457	4	Standard
	V	51	9.071	ug/L	0.346	3	7424	233503	0	Standard
	V-1	51	9.035	ug/L	0.353	3	593	227155	0	Standard
	Cr	52	1.805	ug/L	0.068	3	22079	57763	1	Standard
	Cr	53	1.786	ug/L	0.096	5	310	4497	0	Standard
	Mn	55	3.884	ug/L	0.094	2	827	116911	2	Standard
>	Ge	72		ug/L			49780	45287	3	KED
	Co	59	0.211	ug/L	0.005	2	5	1196	2	KED
	Ni	60	2.061	ug/L	0.029	1	567	3834	2	KED
	Ni	62	2.001	ug/L	0.101	5	92	612	6	KED
	Cu	63	1.920	ug/L	0.090	4	100	8823	3	KED
	Cu	65	2.000	ug/L	0.075	3	55	4511	2	KED
	Zn	66	3.431	ug/L	0.197	5	106	2141	3	KED
	Zn	67	3.540	ug/L	0.170	4	21	361	2	KED
	As	75	2.294	ug/L	0.047	2	3	733	1	KED
	Se	78	0.113	ug/L	0.094	83	22	23	8	KED
	Y	89		ug/L			354399	331951	2	Standard
	Kr	83		ug/L			49	45	25	Standard
>	In-1	115		ug/L			10030	9071	3	KED
	Mo	98	0.901	ug/L	0.027	2	10	1219	1	KED
	Cd	111	0.036	ug/L	0.015	42	3	13	28	KED
	Cd	114	0.014	ug/L	0.006	45	3	13	37	KED
>	In	115		ug/L			458222	372918	3	Standard
	Ag	107	0.012	ug/L	0.002	12	35	219	12	Standard
	Sb	121	0.403	ug/L	0.008	2	294	5286	4	Standard
	Sb	123	0.404	ug/L	0.012	2	255	4064	1	Standard
	Ba	135	1.703	ug/L	0.035	2	50	6802	3	Standard
	Ba	137	1.756	ug/L	0.084	4	86	12261	1	Standard
>	Tb	159		ug/L			831384	731353	2	Standard
	Tl	205	-0.000	ug/L	0.000	65	89	63	13	Standard
	Pb	208	3.890	ug/L	0.111	2	317	161218	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0678-11
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, April 26, 2023 05:31:59
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			466192	414418	2	Standard
[	Be	9	0.012	ug/L	0.002	18	3	43	15	Standard
	C	13		ug/L			30091	50119	3	Standard
	Cl	37		ug/L			1714867	1490727	2	Standard
[>	Sc	45		ug/L			612814	609410	3	Standard
[	V	51	3.365	ug/L	0.093	2	7424	96726	1	Standard
[	V-1	51	3.369	ug/L	0.074	2	593	90442	1	Standard
[	Cr	52	3.761	ug/L	0.060	1	22079	104151	2	Standard
[	Cr	53	3.771	ug/L	0.014	0	310	9759	3	Standard
[	Mn	55	142.051	ug/L	2.658	1	827	4514971	1	Standard
[>	Ge	72		ug/L			49780	44729	2	KED
[	Co	59	0.069	ug/L	0.004	5	5	388	4	KED
[	Ni	60	0.646	ug/L	0.015	2	567	1536	1	KED
[	Ni	62	0.682	ug/L	0.022	3	92	260	2	KED
[	Cu	63	0.143	ug/L	0.008	5	100	732	6	KED
[	Cu	65	0.153	ug/L	0.020	12	55	387	13	KED
[	Zn	66	0.635	ug/L	0.052	8	106	469	7	KED
[	Zn	67	0.787	ug/L	0.083	10	21	94	8	KED
[	As	75	0.266	ug/L	0.003	1	3	86	1	KED
[	Se	78	0.310	ug/L	0.117	37	22	29	10	KED
	Y	89		ug/L			354399	357476	3	Standard
	Kr	83		ug/L			49	55	39	Standard
[>	In-1	115		ug/L			10030	9370	1	KED
[	Mo	98	0.313	ug/L	0.024	7	10	443	5	KED
[	Cd	111	-0.000	ug/L	0.007	5126	3	3	56	KED
[	Cd	114	-0.030	ug/L	0.018	60	3	-18	71	KED
[>	In	115		ug/L			458222	388199	1	Standard
[	Ag	107	0.004	ug/L	0.001	22	35	86	15	Standard
[	Sb	121	0.043	ug/L	0.004	9	294	810	6	Standard
[	Sb	123	0.042	ug/L	0.006	13	255	633	7	Standard
[	Ba	135	3.318	ug/L	0.101	3	50	13758	3	Standard
[	Ba	137	3.507	ug/L	0.116	3	86	25443	3	Standard
[>	Tb	159		ug/L			831384	770054	0	Standard
[	Tl	205	-0.001	ug/L	0.001	51	89	41	51	Standard
[	Pb	208	0.053	ug/L	0.002	3	317	2613	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0678-10
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 05:37:27
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	427773	1	Standard
	Be	9	0.008	ug/L	0.002	24	3	29	20	Standard
	C	13		ug/L			30091	43711	1	Standard
	Cl	37		ug/L			1714867	1651898	2	Standard
>	Sc	45		ug/L			612814	625249	2	Standard
	V	51	1.738	ug/L	0.011	0	7424	54950	2	Standard
	V-1	51	1.762	ug/L	0.016	0	593	48838	3	Standard
	Cr	52	1.930	ug/L	0.056	2	22079	65802	1	Standard
	Cr	53	2.009	ug/L	0.042	2	310	5481	2	Standard
	Mn	55	75.311	ug/L	1.844	2	827	2456335	0	Standard
>	Ge	72		ug/L			49780	45967	1	KED
	Co	59	0.040	ug/L	0.006	15	5	236	15	KED
	Ni	60	0.168	ug/L	0.020	11	567	798	5	KED
	Ni	62	0.210	ug/L	0.043	20	92	141	6	KED
	Cu	63	0.103	ug/L	0.007	6	100	567	3	KED
	Cu	65	0.100	ug/L	0.020	19	55	276	15	KED
	Zn	66	0.354	ug/L	0.033	9	106	313	7	KED
	Zn	67	0.302	ug/L	0.142	46	21	49	26	KED
	As	75	0.138	ug/L	0.010	7	3	47	6	KED
	Se	78	0.045	ug/L	0.093	208	22	21	13	KED
	Y	89		ug/L			354399	363872	2	Standard
	Kr	83		ug/L			49	54	22	Standard
>	In-1	115		ug/L			10030	9405	1	KED
	Mo	98	0.144	ug/L	0.010	7	10	210	8	KED
	Cd	111	0.004	ug/L	0.006	156	3	4	40	KED
	Cd	114	-0.019	ug/L	0.013	66	3	-10	87	KED
>	In	115		ug/L			458222	407974	3	Standard
	Ag	107	0.002	ug/L	0.000	8	35	59	4	Standard
	Sb	121	0.018	ug/L	0.005	26	294	504	9	Standard
	Sb	123	0.015	ug/L	0.004	24	255	386	7	Standard
	Ba	135	1.790	ug/L	0.040	2	50	7817	1	Standard
	Ba	137	1.858	ug/L	0.080	4	86	14192	4	Standard
>	Tb	159		ug/L			831384	789714	2	Standard
	Tl	205	-0.002	ug/L	0.000	13	89	30	22	Standard
	Pb	208	0.041	ug/L	0.001	2	317	2149	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0678-17
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 05:43:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	435080	1	Standard
	Be	9	0.005	ug/L	0.001	18	3	20	14	Standard
	C	13		ug/L			30091	50057	4	Standard
	Cl	37		ug/L			1714867	1691446	2	Standard
>	Sc	45		ug/L			612814	623753	0	Standard
	V	51	4.740	ug/L	0.113	2	7424	136485	3	Standard
	V-1	51	4.725	ug/L	0.132	2	593	129654	3	Standard
	Cr	52	1.137	ug/L	0.018	1	22079	47908	0	Standard
	Cr	53	1.135	ug/L	0.065	5	310	3228	5	Standard
	Mn	55	1.679	ug/L	0.021	1	827	55483	1	Standard
>	Ge	72		ug/L			49780	45913	2	KED
	Co	59	0.118	ug/L	0.005	4	5	680	6	KED
	Ni	60	0.728	ug/L	0.008	1	567	1712	2	KED
	Ni	62	0.779	ug/L	0.014	1	92	293	1	KED
	Cu	63	1.155	ug/L	0.031	2	100	5420	2	KED
	Cu	65	1.162	ug/L	0.037	3	55	2678	1	KED
	Zn	66	1.390	ug/L	0.012	0	106	939	2	KED
	Zn	67	1.332	ug/L	0.100	7	21	150	5	KED
	As	75	1.167	ug/L	0.015	1	3	380	1	KED
	Se	78	0.101	ug/L	0.080	79	22	23	10	KED
	Y	89		ug/L			354399	352554	1	Standard
	Kr	83		ug/L			49	48	26	Standard
>	In-1	115		ug/L			10030	10113	1	KED
	Mo	98	0.596	ug/L	0.008	1	10	903	0	KED
	Cd	111	0.021	ug/L	0.017	80	3	10	50	KED
	Cd	114	0.014	ug/L	0.006	45	3	14	35	KED
>	In	115		ug/L			458222	426824	2	Standard
	Ag	107	0.007	ug/L	0.000	3	35	146	2	Standard
	Sb	121	0.236	ug/L	0.005	2	294	3646	4	Standard
	Sb	123	0.230	ug/L	0.009	3	255	2754	5	Standard
	Ba	135	0.730	ug/L	0.036	4	50	3364	2	Standard
	Ba	137	0.771	ug/L	0.023	3	86	6207	2	Standard
>	Tb	159		ug/L			831384	793649	3	Standard
	Tl	205	-0.001	ug/L	0.001	41	89	38	52	Standard
	Pb	208	2.268	ug/L	0.056	2	317	102084	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLF
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 05:48:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	417428	2	Standard
⌊	**Be**	**9**	**-0.000**	ug/L	0.001	1427	3	3	91	Standard
	C	**13**		ug/L			30091	26907	1	Standard
	Cl	**37**		ug/L			1714867	1778984	1	Standard
⌈>	**Sc**	**45**		ug/L			612814	585102	2	Standard
⌈	**V**	**51**	**0.006**	ug/L	0.005	77	7424	7250	3	Standard
⌊	**V-1**	**51**	**-0.005**	ug/L	0.001	13	593	433	4	Standard
⌈	**Cr**	**52**	**0.015**	ug/L	0.008	52	22079	21398	3	Standard
⌊	**Cr**	**53**	**-0.024**	ug/L	0.011	45	310	237	10	Standard
⌊	**Mn**	**55**	**-0.003**	ug/L	0.001	26	827	688	1	Standard
⌈>	**Ge**	**72**		ug/L			49780	45374	2	KED
⌈	**Co**	**59**	**-0.000**	ug/L	0.001	135	5	2	114	KED
⌊	**Ni**	**60**	**-0.314**	ug/L	0.001	0	567	11	16	KED
⌈	**Ni**	**62**	**-0.303**	ug/L	0.009	2	92	4	49	KED
⌊	**Cu**	**63**	**-0.002**	ug/L	0.003	155	100	83	14	KED
⌈	**Cu**	**65**	**-0.008**	ug/L	0.006	68	55	32	38	KED
⌊	**Zn**	**66**	**-0.076**	ug/L	0.015	19	106	52	18	KED
⌈	**Zn**	**67**	**-0.111**	ug/L	0.043	38	21	8	44	KED
⌊	**As**	**75**	**-0.003**	ug/L	0.002	55	3	2	24	KED
⌊	**Se**	**78**	**-0.002**	ug/L	0.128	5889	22	20	18	KED
	Y	**89**		ug/L			354399	336572	0	Standard
	Kr	**83**		ug/L			49	52	14	Standard
⌈>	**In-1**	**115**		ug/L			10030	9611	2	KED
⌈	**Mo**	**98**	**-0.003**	ug/L	0.001	28	10	5	20	KED
⌊	**Cd**	**111**	**0.014**	ug/L	0.014	105	3	7	54	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.002	92	3	4	23	KED
⌈>	**In**	**115**		ug/L			458222	422369	1	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.000	29	35	22	14	Standard
⌊	**Sb**	**121**	**-0.015**	ug/L	0.000	3	294	59	11	Standard
⌈	**Sb**	**123**	**-0.018**	ug/L	0.001	7	255	42	31	Standard
⌊	**Ba**	**135**	**-0.002**	ug/L	0.004	207	50	38	45	Standard
⌊	**Ba**	**137**	**-0.003**	ug/L	0.003	90	86	53	40	Standard
⌈>	**Tb**	**159**		ug/L			831384	782393	1	Standard
⌈	**Tl**	**205**	**-0.002**	ug/L	0.000	8	89	23	20	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	2	317	148	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 05:53:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			466192	425223	4	Standard
⌊	**Be**	**9**	**50.895**	ug/L	1.127	2	3	177237	2	Standard
	C	**13**		ug/L			30091	27844	6	Standard
	Cl	**37**		ug/L			1714867	1715617	1	Standard
⌈>	**Sc**	**45**		ug/L			612814	594886	1	Standard
⌈	**V**	**51**	**48.574**	ug/L	1.495	3	7424	1267304	4	Standard
⌊	**V-1**	**51**	**48.847**	ug/L	1.743	3	593	1273111	4	Standard
⌈	**Cr**	**52**	**48.872**	ug/L	0.959	1	22079	1064626	3	Standard
⌊	**Cr**	**53**	**49.797**	ug/L	1.891	3	310	122159	5	Standard
⌊	**Mn**	**55**	**49.139**	ug/L	1.625	3	827	1526236	4	Standard
⌈>	**Ge**	**72**		ug/L			49780	46020	5	KED
⌈	**Co**	**59**	**50.532**	ug/L	0.689	1	5	290006	4	KED
⌊	**Ni**	**60**	**51.694**	ug/L	1.170	2	567	85121	6	KED
⌈	**Ni**	**62**	**49.775**	ug/L	0.372	0	92	13432	5	KED
⌈	**Cu**	**63**	**50.596**	ug/L	1.172	2	100	233849	4	KED
⌊	**Cu**	**65**	**52.396**	ug/L	0.049	0	55	118859	5	KED
⌈	**Zn**	**66**	**50.886**	ug/L	1.105	2	106	30915	3	KED
⌊	**Zn**	**67**	**51.965**	ug/L	0.625	1	21	5129	5	KED
⌈	**As**	**75**	**50.806**	ug/L	0.842	1	3	16438	3	KED
⌊	**Se**	**78**	**50.495**	ug/L	1.796	3	22	1537	3	KED
	Y	**89**		ug/L			354399	337605	3	Standard
	Kr	**83**		ug/L			49	38	18	Standard
⌈>	**In-1**	**115**		ug/L			10030	10368	1	KED
⌈	**Mo**	**98**	**51.858**	ug/L	1.016	1	10	79664	0	KED
⌈	**Cd**	**111**	**51.024**	ug/L	0.498	0	3	16267	1	KED
⌊	**Cd**	**114**	**51.056**	ug/L	0.605	1	3	41712	1	KED
⌈>	**In**	**115**		ug/L			458222	410910	3	Standard
⌈	**Ag**	**107**	**51.004**	ug/L	0.881	1	35	855721	3	Standard
⌈	**Sb**	**121**	**48.497**	ug/L	0.368	0	294	668512	3	Standard
⌊	**Sb**	**123**	**49.156**	ug/L	0.661	1	255	517818	4	Standard
⌈	**Ba**	**135**	**51.647**	ug/L	0.893	1	50	226084	4	Standard
⌊	**Ba**	**137**	**51.325**	ug/L	2.004	3	86	393033	5	Standard
⌈>	**Tb**	**159**		ug/L			831384	791196	3	Standard
⌈	**Tl**	**205**	**49.046**	ug/L	0.570	1	89	1651050	3	Standard
⌊	**Pb**	**208**	**48.616**	ug/L	0.312	0	317	2176764	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 06:01:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			466192	406814	3	Standard
	Be	**9**	**0.000**	ug/L	0.001	380	3	3	50	Standard
	C	**13**		ug/L			30091	27509	2	Standard
	Cl	**37**		ug/L			1714867	1784250	2	Standard
>	**Sc**	**45**		ug/L			612814	571813	2	Standard
	V	**51**	**0.021**	ug/L	0.007	34	7424	7446	2	Standard
	V-1	**51**	**-0.007**	ug/L	0.001	8	593	385	6	Standard
	Cr	**52**	**0.069**	ug/L	0.020	29	22079	22007	1	Standard
	Cr	**53**	**-0.026**	ug/L	0.007	28	310	228	8	Standard
	Mn	**55**	**0.001**	ug/L	0.001	152	827	788	2	Standard
>	**Ge**	**72**		ug/L			49780	46496	3	KED
	Co	**59**	**-0.000**	ug/L	0.001	437	5	3	100	KED
	Ni	**60**	**-0.304**	ug/L	0.005	1	567	27	33	KED
	Ni	**62**	**-0.293**	ug/L	0.016	5	92	6	56	KED
	Cu	**63**	**0.003**	ug/L	0.005	139	100	110	23	KED
	Cu	**65**	**-0.001**	ug/L	0.007	504	55	48	28	KED
	Zn	**66**	**0.064**	ug/L	0.023	35	106	139	13	KED
	Zn	**67**	**-0.025**	ug/L	0.022	91	21	17	16	KED
	As	**75**	**0.007**	ug/L	0.002	23	3	5	13	KED
	Se	**78**	**0.044**	ug/L	0.204	463	22	22	24	KED
	Y	**89**		ug/L			354399	327930	3	Standard
	Kr	**83**		ug/L			49	45	12	Standard
>	**In-1**	**115**		ug/L			10030	10014	2	KED
	Mo	**98**	**0.010**	ug/L	0.010	96	10	25	57	KED
	Cd	**111**	**0.008**	ug/L	0.011	132	3	6	52	KED
	Cd	**114**	**0.004**	ug/L	0.009	229	3	6	108	KED
>	**In**	**115**		ug/L			458222	405546	6	Standard
	Ag	**107**	**0.001**	ug/L	0.000	81	35	41	16	Standard
	Sb	**121**	**0.035**	ug/L	0.005	13	294	731	9	Standard
	Sb	**123**	**0.038**	ug/L	0.002	6	255	625	8	Standard
	Ba	**135**	**0.008**	ug/L	0.004	44	50	81	24	Standard
	Ba	**137**	**0.013**	ug/L	0.001	10	86	176	8	Standard
>	**Tb**	**159**		ug/L			831384	768209	2	Standard
	Tl	**205**	**0.001**	ug/L	0.000	33	89	118	8	Standard
	Pb	**208**	**-0.000**	ug/L	0.000	55	317	273	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0085-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 06:06:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	398147	0	Standard
	Be	9	0.011	ug/L	0.002	16	3	40	14	Standard
	C	13		ug/L			30091	62342	5	Standard
	Cl	37		ug/L			1714867	1958664	2	Standard
>	Sc	45		ug/L			612814	626140	0	Standard
	V	51	0.917	ug/L	0.016	1	7424	32612	0	Standard
	V-1	51	1.792	ug/L	0.027	1	593	49735	2	Standard
	Cr	52	1.114	ug/L	0.053	4	22079	47590	3	Standard
	Cr	53	4.091	ug/L	0.166	4	310	10853	4	Standard
	Mn	55	535.852	ug/L	15.312	2	827	17506843	3	Standard
>	Ge	72		ug/L			49780	43245	0	KED
	Co	59	1.654	ug/L	0.050	3	5	8927	3	KED
	Ni	60	2.462	ug/L	0.104	4	567	4280	4	KED
	Ni	62	2.373	ug/L	0.194	8	92	678	6	KED
	Cu	63	9.289	ug/L	0.178	1	100	40442	2	KED
	Cu	65	9.553	ug/L	0.174	1	55	20405	2	KED
	Zn	66	56.826	ug/L	1.431	2	106	32459	3	KED
	Zn	67	59.003	ug/L	1.718	2	21	5470	3	KED
	As	75	2.835	ug/L	0.090	3	3	865	3	KED
	Se	78	0.114	ug/L	0.099	86	22	22	13	KED
	Y	89		ug/L			354399	335199	2	Standard
	Kr	83		ug/L			49	92	5	Standard
>	In-1	115		ug/L			10030	9534	1	KED
	Mo	98	6.016	ug/L	0.088	1	10	8509	2	KED
	Cd	111	0.071	ug/L	0.027	37	3	24	33	KED
	Cd	114	0.077	ug/L	0.019	24	3	61	22	KED
>	In	115		ug/L			458222	380504	1	Standard
	Ag	107	0.038	ug/L	0.002	4	35	620	2	Standard
	Sb	121	1.319	ug/L	0.020	1	294	17083	2	Standard
	Sb	123	1.340	ug/L	0.006	0	255	13277	0	Standard
	Ba	135	88.088	ug/L	2.241	2	50	357009	3	Standard
	Ba	137	89.410	ug/L	1.380	1	86	634044	2	Standard
>	Tb	159		ug/L			831384	737839	1	Standard
	Tl	205	0.001	ug/L	0.001	39	89	121	15	Standard
	Pb	208	2.165	ug/L	0.048	2	317	90686	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0086-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 06:11:47
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			466192	425544	3	Standard
[	**Be**	**9**	**0.009**	ug/L	0.000	3	3	34	6	Standard
	C	**13**		ug/L			30091	552549	3	Standard
	Cl	**37**		ug/L			1714867	1696523	1	Standard
[>	**Sc**	**45**		ug/L			612814	620247	2	Standard
[	**V**	**51**	**0.592**	ug/L	0.016	2	7424	23522	3	Standard
[	**V-1**	**51**	**0.121**	ug/L	0.004	3	593	3881	5	Standard
[	**Cr**	**52**	**3.335**	ug/L	0.070	2	22079	96545	2	Standard
[	**Cr**	**53**	**1.692**	ug/L	0.032	1	310	4628	1	Standard
[	**Mn**	**55**	**380.600**	ug/L	10.748	2	827	12315304	3	Standard
[>	**Ge**	**72**		ug/L			49780	48594	0	KED
[	**Co**	**59**	**601.526**	ug/L	13.572	2	5	3646337	1	KED
[	**Ni**	**60**	**3.735**	ug/L	0.083	2	567	7007	1	KED
[	**Ni**	**62**	**3.691**	ug/L	0.081	2	92	1135	1	KED
[	**Cu**	**63**	**3.179**	ug/L	0.032	1	100	15614	1	KED
[	**Cu**	**65**	**3.230**	ug/L	0.037	1	55	7786	0	KED
[	**Zn**	**66**	**184.040**	ug/L	3.143	1	106	117876	1	KED
[	**Zn**	**67**	**172.529**	ug/L	2.922	1	21	17935	1	KED
[	**As**	**75**	**0.056**	ug/L	0.021	36	3	22	31	KED
[	**Se**	**78**	**0.023**	ug/L	0.132	587	22	22	19	KED
	Y	**89**		ug/L			354399	350353	0	Standard
	Kr	**83**		ug/L			49	73	22	Standard
[>	**In-1**	**115**		ug/L			10030	10128	1	KED
[	**Mo**	**98**	**2.220**	ug/L	0.039	1	10	3342	1	KED
[	**Cd**	**111**	**0.005**	ug/L	0.005	97	3	5	26	KED
[	**Cd**	**114**	**0.004**	ug/L	0.008	201	3	6	96	KED
[>	**In**	**115**		ug/L			458222	431322	4	Standard
[	**Ag**	**107**	**0.185**	ug/L	0.012	6	35	3293	2	Standard
[	**Sb**	**121**	**0.061**	ug/L	0.002	2	294	1154	4	Standard
[	**Sb**	**123**	**0.054**	ug/L	0.004	6	255	837	3	Standard
[	**Ba**	**135**	**15.156**	ug/L	0.827	5	50	69549	2	Standard
[	**Ba**	**137**	**15.237**	ug/L	0.449	2	86	122444	3	Standard
[>	**Tb**	**159**		ug/L			831384	798271	1	Standard
[	**Tl**	**205**	**0.002**	ug/L	0.000	17	89	153	8	Standard
[	**Pb**	**208**	**0.358**	ug/L	0.001	0	317	16485	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0062-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 06:17:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	452560	1	Standard
	Be	9	0.002	ug/L	0.001	34	3	9	20	Standard
	C	13		ug/L			30091	56349	4	Standard
	Cl	37		ug/L			1714867	1719312	1	Standard
>	Sc	45		ug/L			612814	682135	1	Standard
	V	51	0.342	ug/L	0.011	3	7424	18433	1	Standard
	V-1	51	0.412	ug/L	0.007	1	593	12953	0	Standard
	Cr	52	0.213	ug/L	0.012	5	22079	29799	1	Standard
	Cr	53	0.452	ug/L	0.008	1	310	1614	1	Standard
	Mn	55	3.329	ug/L	0.018	0	827	119395	1	Standard
>	Ge	72		ug/L			49780	48089	2	KED
	Co	59	0.025	ug/L	0.001	4	5	157	4	KED
	Ni	60	-0.230	ug/L	0.016	6	567	155	19	KED
	Ni	62	-0.216	ug/L	0.044	20	92	29	44	KED
	Cu	63	0.094	ug/L	0.008	8	100	553	9	KED
	Cu	65	0.081	ug/L	0.013	15	55	245	11	KED
	Zn	66	0.670	ug/L	0.017	2	106	526	2	KED
	Zn	67	0.715	ug/L	0.187	26	21	94	22	KED
	As	75	0.212	ug/L	0.009	4	3	74	2	KED
	Se	78	0.035	ug/L	0.064	179	22	22	6	KED
	Y	89		ug/L			354399	358547	0	Standard
	Kr	83		ug/L			49	46	4	Standard
>	In-1	115		ug/L			10030	10258	0	KED
	Mo	98	0.068	ug/L	0.001	2	10	113	1	KED
	Cd	111	0.015	ug/L	0.011	73	3	8	40	KED
	Cd	114	0.001	ug/L	0.003	513	3	4	54	KED
>	In	115		ug/L			458222	446647	2	Standard
	Ag	107	-0.000	ug/L	0.000	260	35	32	20	Standard
	Sb	121	0.011	ug/L	0.003	27	294	452	7	Standard
	Sb	123	0.007	ug/L	0.003	45	255	331	9	Standard
	Ba	135	1.121	ug/L	0.031	2	50	5381	3	Standard
	Ba	137	1.142	ug/L	0.034	2	86	9584	0	Standard
>	Tb	159		ug/L			831384	826772	2	Standard
	Tl	205	-0.001	ug/L	0.000	7	89	56	3	Standard
	Pb	208	0.012	ug/L	0.001	8	317	886	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0062-03
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 06:22:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	450860	2	Standard
	Be	9	0.003	ug/L	0.002	71	3	13	49	Standard
	C	13		ug/L			30091	56800	2	Standard
	Cl	37		ug/L			1714867	1669610	1	Standard
>	Sc	45		ug/L			612814	688561	3	Standard
	V	51	0.666	ug/L	0.002	0	7424	28326	3	Standard
	V-1	51	0.731	ug/L	0.011	1	593	22723	5	Standard
	Cr	52	0.191	ug/L	0.020	10	22079	29520	2	Standard
	Cr	53	0.422	ug/L	0.011	2	310	1543	5	Standard
	Mn	55	1.811	ug/L	0.052	2	827	65994	5	Standard
>	Ge	72		ug/L			49780	47355	1	KED
	Co	59	0.030	ug/L	0.003	10	5	182	9	KED
	Ni	60	-0.165	ug/L	0.014	8	567	261	9	KED
	Ni	62	-0.163	ug/L	0.029	17	92	43	18	KED
	Cu	63	0.230	ug/L	0.017	7	100	1189	6	KED
	Cu	65	0.248	ug/L	0.004	1	55	631	1	KED
	Zn	66	0.979	ug/L	0.023	2	106	711	0	KED
	Zn	67	1.252	ug/L	0.132	10	21	147	10	KED
	As	75	0.492	ug/L	0.040	8	3	167	7	KED
	Se	78	-0.021	ug/L	0.103	489	22	20	16	KED
	Y	89		ug/L			354399	356161	2	Standard
	Kr	83		ug/L			49	43	18	Standard
>	In-1	115		ug/L			10030	10225	2	KED
	Mo	98	0.095	ug/L	0.015	16	10	155	16	KED
	Cd	111	0.010	ug/L	0.008	81	3	6	34	KED
	Cd	114	0.003	ug/L	0.004	153	3	5	56	KED
>	In	115		ug/L			458222	438322	3	Standard
	Ag	107	0.001	ug/L	0.000	57	35	47	17	Standard
	Sb	121	0.021	ug/L	0.003	13	294	591	7	Standard
	Sb	123	0.018	ug/L	0.004	20	255	449	9	Standard
	Ba	135	2.529	ug/L	0.054	2	50	11853	3	Standard
	Ba	137	2.713	ug/L	0.038	1	86	22240	4	Standard
>	Tb	159		ug/L			831384	833865	2	Standard
	Tl	205	-0.001	ug/L	0.000	80	89	69	20	Standard
	Pb	208	0.047	ug/L	0.003	7	317	2556	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0062-05
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 06:27:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			466192	463292	2	Standard
	Be	9	0.003	ug/L	0.001	36	3	15	25	Standard
	C	13		ug/L			30091	55262	0	Standard
	Cl	37		ug/L			1714867	1666455	2	Standard
>	Sc	45		ug/L			612814	674453	1	Standard
	V	51	0.688	ug/L	0.028	4	7424	28394	1	Standard
	V-1	51	0.759	ug/L	0.018	2	593	23068	1	Standard
	Cr	52	0.316	ug/L	0.030	9	22079	31942	1	Standard
	Cr	53	0.564	ug/L	0.018	3	310	1906	3	Standard
	Mn	55	1.797	ug/L	0.068	3	827	64144	3	Standard
>	Ge	72		ug/L			49780	47665	3	KED
	Co	59	0.022	ug/L	0.004	20	5	135	19	KED
	Ni	60	-0.174	ug/L	0.008	4	567	247	3	KED
	Ni	62	-0.150	ug/L	0.041	27	92	46	22	KED
	Cu	63	0.236	ug/L	0.011	4	100	1227	5	KED
	Cu	65	0.240	ug/L	0.024	9	55	615	8	KED
	Zn	66	0.361	ug/L	0.063	17	106	328	13	KED
	Zn	67	0.445	ug/L	0.133	29	21	66	20	KED
	As	75	0.491	ug/L	0.037	7	3	167	6	KED
	Se	78	0.103	ug/L	0.163	158	22	24	23	KED
	Y	89		ug/L			354399	354388	0	Standard
	Kr	83		ug/L			49	57	28	Standard
>	In-1	115		ug/L			10030	9634	1	KED
	Mo	98	0.109	ug/L	0.016	14	10	165	11	KED
	Cd	111	0.005	ug/L	0.005	98	3	5	28	KED
	Cd	114	0.003	ug/L	0.009	310	3	5	123	KED
>	In	115		ug/L			458222	443121	1	Standard
	Ag	107	0.001	ug/L	0.000	39	35	52	12	Standard
	Sb	121	0.018	ug/L	0.001	5	294	546	2	Standard
	Sb	123	0.018	ug/L	0.003	18	255	453	7	Standard
	Ba	135	2.633	ug/L	0.072	2	50	12468	1	Standard
	Ba	137	2.712	ug/L	0.073	2	86	22472	3	Standard
>	Tb	159		ug/L			831384	839528	1	Standard
	Tl	205	-0.001	ug/L	0.000	34	89	70	8	Standard
	Pb	208	0.045	ug/L	0.004	8	317	2471	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0062-07
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 06:32:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			466192	478460	3	Standard
[	Be	9	0.001	ug/L	0.001	160	3	6	62	Standard
	C	13		ug/L			30091	49007	2	Standard
	Cl	37		ug/L			1714867	1721677	1	Standard
[>	Sc	45		ug/L			612814	640419	2	Standard
[	V	51	0.033	ug/L	0.004	11	7424	8692	1	Standard
[	V-1	51	0.012	ug/L	0.002	15	593	963	5	Standard
[	Cr	52	0.154	ug/L	0.007	4	22079	26608	1	Standard
[	Cr	53	0.080	ug/L	0.003	4	310	535	3	Standard
[	Mn	55	0.111	ug/L	0.004	3	827	4558	1	Standard
[>	Ge	72		ug/L			49780	48761	1	KED
[	Co	59	0.026	ug/L	0.004	15	5	161	15	KED
[	Ni	60	-0.146	ug/L	0.006	4	567	302	5	KED
[	Ni	62	-0.120	ug/L	0.029	24	92	56	12	KED
[	Cu	63	0.303	ug/L	0.011	3	100	1584	1	KED
[	Cu	65	0.305	ug/L	0.021	6	55	786	5	KED
[	Zn	66	0.232	ug/L	0.020	8	106	253	4	KED
[	Zn	67	0.273	ug/L	0.089	32	21	49	16	KED
[	As	75	0.022	ug/L	0.004	19	3	10	15	KED
[	Se	78	-0.111	ug/L	0.041	37	22	18	9	KED
	Y	89		ug/L			354399	359715	1	Standard
	Kr	83		ug/L			49	45	21	Standard
[>	In-1	115		ug/L			10030	10479	1	KED
[	Mo	98	0.006	ug/L	0.005	83	10	20	38	KED
[	Cd	111	0.000	ug/L	0.007	1440	3	4	53	KED
[	Cd	114	-0.001	ug/L	0.003	244	3	2	78	KED
[>	In	115		ug/L			458222	458265	1	Standard
[	Ag	107	-0.001	ug/L	0.000	39	35	17	40	Standard
[	Sb	121	-0.009	ug/L	0.001	12	294	159	11	Standard
[	Sb	123	-0.010	ug/L	0.001	6	255	137	4	Standard
[	Ba	135	0.467	ug/L	0.021	4	50	2329	5	Standard
[	Ba	137	0.493	ug/L	0.027	5	86	4295	6	Standard
[>	Tb	159		ug/L			831384	851080	1	Standard
[	Tl	205	-0.002	ug/L	0.000	19	89	35	31	Standard
[	Pb	208	0.003	ug/L	0.000	2	317	459	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0472-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 06:37:23
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			466192	469730	5	Standard
[	Be	9	0.002	ug/L	0.001	70	3	11	44	Standard
	C	13		ug/L			30091	46617	2	Standard
	Cl	37		ug/L			1714867	1726742	3	Standard
[>	Sc	45		ug/L			612814	624882	2	Standard
[	V	51	0.037	ug/L	0.005	12	7424	8575	3	Standard
[	V-1	51	0.018	ug/L	0.001	7	593	1096	6	Standard
[	Cr	52	0.140	ug/L	0.009	6	22079	25654	2	Standard
[	Cr	53	0.074	ug/L	0.006	8	310	507	1	Standard
[	Mn	55	0.134	ug/L	0.002	1	827	5226	4	Standard
[>	Ge	72		ug/L			49780	48096	2	KED
[	Co	59	0.027	ug/L	0.001	4	5	164	4	KED
[	Ni	60	-0.133	ug/L	0.018	13	567	321	7	KED
[	Ni	62	-0.123	ug/L	0.062	50	92	55	33	KED
[	Cu	63	0.294	ug/L	0.003	1	100	1518	2	KED
[	Cu	65	0.278	ug/L	0.014	4	55	711	2	KED
[	Zn	66	0.154	ug/L	0.028	18	106	200	9	KED
[	Zn	67	0.130	ug/L	0.061	46	21	34	20	KED
[	As	75	0.021	ug/L	0.009	41	3	10	29	KED
[	Se	78	-0.008	ug/L	0.138	1673	22	21	18	KED
	Y	89		ug/L			354399	352065	3	Standard
	Kr	83		ug/L			49	45	20	Standard
[>	In-1	115		ug/L			10030	10186	4	KED
[	Mo	98	0.006	ug/L	0.009	146	10	19	67	KED
[	Cd	111	0.005	ug/L	0.005	93	3	5	26	KED
[	Cd	114	0.008	ug/L	0.004	47	3	9	29	KED
[>	In	115		ug/L			458222	443466	3	Standard
[	Ag	107	-0.001	ug/L	0.000	78	35	24	33	Standard
[	Sb	121	-0.011	ug/L	0.001	8	294	116	12	Standard
[	Sb	123	-0.014	ug/L	0.001	8	255	93	11	Standard
[	Ba	135	0.477	ug/L	0.020	4	50	2303	6	Standard
[	Ba	137	0.475	ug/L	0.010	2	86	4003	2	Standard
[>	Tb	159		ug/L			831384	827905	3	Standard
[	Tl	205	-0.001	ug/L	0.000	5	89	36	10	Standard
[	Pb	208	0.003	ug/L	0.000	13	317	453	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0472-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 06:42:51
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			466192	465071	0	Standard
[	Be	9	25.992	ug/L	0.693	2	3	99064	2	Standard
	C	13		ug/L			30091	47308	2	Standard
	Cl	37		ug/L			1714867	1692013	1	Standard
[>	Sc	45		ug/L			612814	643320	2	Standard
[	V	51	25.662	ug/L	0.577	2	7424	727357	2	Standard
[	V-1	51	25.616	ug/L	0.546	2	593	721948	2	Standard
[	Cr	52	26.091	ug/L	0.586	2	22079	625194	2	Standard
[	Cr	53	25.929	ug/L	0.535	2	310	68917	3	Standard
[	Mn	55	25.348	ug/L	0.594	2	827	851502	3	Standard
[>	Ge	72		ug/L			49780	47941	2	KED
[	Co	59	26.473	ug/L	0.440	1	5	158287	1	KED
[	Ni	60	27.051	ug/L	0.136	0	567	46655	2	KED
[	Ni	62	26.859	ug/L	0.128	0	92	7591	2	KED
[	Cu	63	26.439	ug/L	0.126	0	100	127427	3	KED
[	Cu	65	27.157	ug/L	0.244	0	55	64192	2	KED
[	Zn	66	80.705	ug/L	0.632	0	106	51056	2	KED
[	Zn	67	78.615	ug/L	0.919	1	21	8072	1	KED
[	As	75	25.377	ug/L	0.330	1	3	8557	1	KED
[	Se	78	80.058	ug/L	0.831	1	22	2530	3	KED
	Y	89		ug/L			354399	364064	2	Standard
	Kr	83		ug/L			49	61	11	Standard
[>	In-1	115		ug/L			10030	10249	1	KED
[	Mo	98	26.917	ug/L	0.380	1	10	40886	1	KED
[	Cd	111	25.721	ug/L	0.646	2	3	8106	2	KED
[	Cd	114	25.482	ug/L	0.332	1	3	20578	0	KED
[>	In	115		ug/L			458222	444949	1	Standard
[	Ag	107	26.015	ug/L	0.527	2	35	472670	2	Standard
[	Sb	121	26.150	ug/L	0.128	0	294	390463	1	Standard
[	Sb	123	25.850	ug/L	0.388	1	255	294940	2	Standard
[	Ba	135	26.575	ug/L	0.060	0	50	125954	1	Standard
[	Ba	137	27.823	ug/L	0.567	2	86	230743	2	Standard
[>	Tb	159		ug/L			831384	864999	1	Standard
[	Tl	205	24.518	ug/L	0.663	2	89	902376	2	Standard
[	Pb	208	24.777	ug/L	0.822	3	317	1212767	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0472-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 06:49:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			466192	468152	2	Standard
⌊	Be	9	26.171	ug/L	0.501	1	3	100411	3	Standard
	C	13		ug/L			30091	45555	1	Standard
	Cl	37		ug/L			1714867	1702511	1	Standard
⌈>	Sc	45		ug/L			612814	646351	3	Standard
⌈	V	51	25.519	ug/L	0.886	3	7424	726409	0	Standard
⌊	V-1	51	25.500	ug/L	0.885	3	593	721682	1	Standard
⌈	Cr	52	25.959	ug/L	0.715	2	22079	624893	1	Standard
⌊	Cr	53	25.887	ug/L	0.537	2	310	69101	1	Standard
⌊	Mn	55	25.712	ug/L	0.183	0	827	867778	2	Standard
⌈>	Ge	72		ug/L			49780	48337	1	KED
⌈	Co	59	26.115	ug/L	0.445	1	5	157489	2	KED
⌊	Ni	60	26.681	ug/L	0.619	2	567	46416	3	KED
⌈	Ni	62	26.248	ug/L	0.741	2	92	7482	3	KED
⌊	Cu	63	26.632	ug/L	0.383	1	100	129396	0	KED
⌈	Cu	65	27.451	ug/L	0.805	2	55	65421	2	KED
⌊	Zn	66	82.593	ug/L	1.369	1	106	52686	2	KED
⌈	Zn	67	79.632	ug/L	1.387	1	21	8244	0	KED
⌈	As	75	25.085	ug/L	0.364	1	3	8530	1	KED
⌊	Se	78	79.390	ug/L	1.767	2	22	2529	1	KED
	Y	89		ug/L			354399	365574	3	Standard
	Kr	83		ug/L			49	41	4	Standard
⌈>	In-1	115		ug/L			10030	10433	1	KED
⌈	Mo	98	26.288	ug/L	0.555	2	10	40659	3	KED
⌊	Cd	111	24.968	ug/L	0.326	1	3	8013	2	KED
⌊	Cd	114	25.325	ug/L	0.898	3	3	20826	4	KED
⌈>	In	115		ug/L			458222	447159	2	Standard
⌈	Ag	107	25.451	ug/L	0.666	2	35	464522	1	Standard
⌈	Sb	121	25.661	ug/L	0.498	1	294	384990	2	Standard
⌊	Sb	123	25.740	ug/L	0.847	3	255	294968	1	Standard
⌈	Ba	135	27.167	ug/L	0.429	1	50	129362	1	Standard
⌊	Ba	137	27.309	ug/L	0.751	2	86	227517	1	Standard
⌈>	Tb	159		ug/L			831384	851382	0	Standard
⌈	Tl	205	25.209	ug/L	0.175	0	89	913381	0	Standard
⌊	Pb	208	25.447	ug/L	0.278	1	317	1226233	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLG
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 06:54:17
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			466192	450623	2	Standard
[	**Be**	**9**	**0.000**	ug/L	0.001	285	3	5	78	Standard
	C	**13**		ug/L			30091	28259	5	Standard
	Cl	**37**		ug/L			1714867	1746820	2	Standard
[>	**Sc**	**45**		ug/L			612814	586422	4	Standard
[	**V**	**51**	**0.002**	ug/L	0.002	111	7424	7151	5	Standard
[	**V-1**	**51**	**-0.006**	ug/L	0.001	9	593	421	3	Standard
[	**Cr**	**52**	**0.009**	ug/L	0.003	32	22079	21306	4	Standard
[	**Cr**	**53**	**-0.017**	ug/L	0.009	52	310	255	4	Standard
[	**Mn**	**55**	**-0.004**	ug/L	0.001	16	827	660	1	Standard
[>	**Ge**	**72**		ug/L			49780	48418	2	KED
[	**Co**	**59**	**-0.000**	ug/L	0.000	172	5	3	91	KED
[	**Ni**	**60**	**-0.313**	ug/L	0.005	1	567	12	67	KED
[	**Ni**	**62**	**-0.302**	ug/L	0.010	3	92	5	57	KED
[	**Cu**	**63**	**0.000**	ug/L	0.005	1329	100	100	25	KED
[	**Cu**	**65**	**-0.007**	ug/L	0.004	55	55	38	25	KED
[	**Zn**	**66**	**-0.084**	ug/L	0.019	22	106	50	26	KED
[	**Zn**	**67**	**-0.129**	ug/L	0.056	43	21	7	75	KED
[	**As**	**75**	**0.010**	ug/L	0.006	62	3	6	28	KED
[	**Se**	**78**	**-0.066**	ug/L	0.052	79	22	19	11	KED
	Y	**89**		ug/L			354399	339656	2	Standard
	Kr	**83**		ug/L			49	45	11	Standard
[>	**In-1**	**115**		ug/L			10030	9933	4	KED
[	**Mo**	**98**	**0.001**	ug/L	0.003	264	10	12	36	KED
[	**Cd**	**111**	**0.007**	ug/L	0.013	192	3	5	66	KED
[	**Cd**	**114**	**0.003**	ug/L	0.002	90	3	5	35	KED
[>	**In**	**115**		ug/L			458222	427798	5	Standard
[	**Ag**	**107**	**0.001**	ug/L	0.001	144	35	43	30	Standard
[	**Sb**	**121**	**-0.013**	ug/L	0.000	3	294	95	10	Standard
[	**Sb**	**123**	**-0.017**	ug/L	0.001	6	255	56	18	Standard
[	**Ba**	**135**	**-0.003**	ug/L	0.002	71	50	35	26	Standard
[	**Ba**	**137**	**-0.003**	ug/L	0.000	5	86	53	3	Standard
[>	**Tb**	**159**		ug/L			831384	791994	3	Standard
[	**Tl**	**205**	**-0.001**	ug/L	0.000	56	89	67	12	Standard
[	**Pb**	**208**	**-0.003**	ug/L	0.000	10	317	158	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 06:59:21
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			466192	448330	6	Standard
[	**Be**	**9**	**51.279**	ug/L	2.317	4	3	188444	8	Standard
	C	**13**		ug/L			30091	29220	5	Standard
	Cl	**37**		ug/L			1714867	1698871	1	Standard
[>	**Sc**	**45**		ug/L			612814	620470	7	Standard
[	**V**	**51**	**49.096**	ug/L	0.489	0	7424	1335022	6	Standard
[	**V-1**	**51**	**49.087**	ug/L	0.567	1	593	1333384	6	Standard
[	**Cr**	**52**	**50.022**	ug/L	0.951	1	22079	1134822	5	Standard
[	**Cr**	**53**	**49.981**	ug/L	1.112	2	310	127710	5	Standard
[	**Mn**	**55**	**48.711**	ug/L	0.750	1	827	1577168	6	Standard
[>	**Ge**	**72**		ug/L			49780	48001	2	KED
[	**Co**	**59**	**51.026**	ug/L	1.849	3	5	305418	2	KED
[	**Ni**	**60**	**51.173**	ug/L	1.546	3	567	87863	2	KED
[	**Ni**	**62**	**50.145**	ug/L	1.436	2	92	14110	2	KED
[	**Cu**	**63**	**50.964**	ug/L	1.873	3	100	245728	2	KED
[	**Cu**	**65**	**52.523**	ug/L	1.263	2	55	124295	3	KED
[	**Zn**	**66**	**50.845**	ug/L	0.601	1	106	32240	1	KED
[	**Zn**	**67**	**51.218**	ug/L	0.482	0	21	5274	3	KED
[	**As**	**75**	**50.344**	ug/L	0.736	1	3	16995	1	KED
[	**Se**	**78**	**49.894**	ug/L	2.255	4	22	1585	2	KED
	Y	**89**		ug/L			354399	350911	4	Standard
	Kr	**83**		ug/L			49	48	11	Standard
[>	**In-1**	**115**		ug/L			10030	9841	5	KED
[	**Mo**	**98**	**53.263**	ug/L	1.167	2	10	77627	4	KED
[	**Cd**	**111**	**52.406**	ug/L	1.347	2	3	15851	5	KED
[	**Cd**	**114**	**52.145**	ug/L	1.264	2	3	40398	3	KED
[>	**In**	**115**		ug/L			458222	426164	5	Standard
[	**Ag**	**107**	**50.315**	ug/L	1.587	3	35	874657	3	Standard
[	**Sb**	**121**	**49.881**	ug/L	1.267	2	294	712508	2	Standard
[	**Sb**	**123**	**49.685**	ug/L	0.397	0	255	542562	4	Standard
[	**Ba**	**135**	**51.425**	ug/L	1.170	2	50	233257	3	Standard
[	**Ba**	**137**	**52.664**	ug/L	2.127	4	86	417802	3	Standard
[>	**Tb**	**159**		ug/L			831384	825476	5	Standard
[	**Tl**	**205**	**47.903**	ug/L	0.509	1	89	1682404	4	Standard
[	**Pb**	**208**	**48.883**	ug/L	0.314	0	317	2283068	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 07:07:09
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			466192	455387	0	Standard
	Be	**9**	**0.000**	ug/L	0.001	404	3	4	65	Standard
	C	**13**		ug/L			30091	28746	4	Standard
	Cl	**37**		ug/L			1714867	1771014	1	Standard
>	**Sc**	**45**		ug/L			612814	640721	3	Standard
	V	**51**	**-0.000**	ug/L	0.006	5453	7424	7756	1	Standard
	V-1	**51**	**-0.008**	ug/L	0.001	6	593	397	0	Standard
	Cr	**52**	**0.003**	ug/L	0.025	775	22079	23147	1	Standard
	Cr	**53**	**-0.024**	ug/L	0.005	22	310	262	2	Standard
	Mn	**55**	**-0.002**	ug/L	0.002	110	827	812	4	Standard
>	**Ge**	**72**		ug/L			49780	48902	1	KED
	Co	**59**	**-0.000**	ug/L	0.001	291	5	3	86	KED
	Ni	**60**	**-0.309**	ug/L	0.002	0	567	20	15	KED
	Ni	**62**	**-0.297**	ug/L	0.010	3	92	6	45	KED
	Cu	**63**	**0.002**	ug/L	0.002	133	100	107	9	KED
	Cu	**65**	**0.006**	ug/L	0.005	83	55	69	19	KED
	Zn	**66**	**0.117**	ug/L	0.021	17	106	180	7	KED
	Zn	**67**	**0.028**	ug/L	0.043	156	21	24	19	KED
	As	**75**	**0.006**	ug/L	0.004	66	3	5	26	KED
	Se	**78**	**0.063**	ug/L	0.134	212	22	23	19	KED
	Y	**89**		ug/L			354399	357843	2	Standard
	Kr	**83**		ug/L			49	43	30	Standard
>	**In-1**	**115**		ug/L			10030	10491	3	KED
	Mo	**98**	**-0.001**	ug/L	0.005	470	10	9	84	KED
	Cd	**111**	**0.002**	ug/L	0.005	234	3	4	40	KED
	Cd	**114**	**0.006**	ug/L	0.008	119	3	9	74	KED
>	**In**	**115**		ug/L			458222	449677	3	Standard
	Ag	**107**	**0.001**	ug/L	0.001	74	35	48	25	Standard
	Sb	**121**	**0.034**	ug/L	0.003	8	294	806	2	Standard
	Sb	**123**	**0.032**	ug/L	0.001	4	255	618	6	Standard
	Ba	**135**	**0.012**	ug/L	0.002	13	50	106	9	Standard
	Ba	**137**	**0.010**	ug/L	0.001	12	86	165	5	Standard
>	**Tb**	**159**		ug/L			831384	813185	4	Standard
	Tl	**205**	**0.002**	ug/L	0.001	37	89	157	12	Standard
	Pb	**208**	**-0.000**	ug/L	0.000	64	317	288	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 07:12:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L				445315	4	Standard
⌊	**Be**	**9**		ug/L				4	65	Standard
	C	**13**		ug/L				28756	7	Standard
	Cl	**37**		ug/L				1763477	1	Standard
⌈>	**Sc**	**45**		ug/L				604634	3	Standard
|	**V**	**51**		ug/L				7658	4	Standard
|	**V-1**	**51**		ug/L				354	4	Standard
|	**Cr**	**52**		ug/L				22715	5	Standard
|	**Cr**	**53**		ug/L				231	9	Standard
⌊	**Mn**	**55**		ug/L				858	3	Standard
⌈>	**Ge**	**72**		ug/L				47144	1	KED
|	**Co**	**59**		ug/L				3	91	KED
|	**Ni**	**60**		ug/L				583	4	KED
|	**Ni**	**62**		ug/L				99	22	KED
|	**Cu**	**63**		ug/L				88	8	KED
|	**Cu**	**65**		ug/L				51	16	KED
|	**Zn**	**66**		ug/L				128	21	KED
|	**Zn**	**67**		ug/L				17	22	KED
|	**As**	**75**		ug/L				4	66	KED
⌊	**Se**	**78**		ug/L				20	12	KED
	Y	**89**		ug/L				352824	2	Standard
	Kr	**83**		ug/L				41	30	Standard
⌈>	**In-1**	**115**		ug/L				9999	3	KED
|	**Mo**	**98**		ug/L				5	75	KED
|	**Cd**	**111**		ug/L				5	16	KED
⌊	**Cd**	**114**		ug/L				9	41	KED
⌈>	**In**	**115**		ug/L				440562	2	Standard
|	**Ag**	**107**		ug/L				34	16	Standard
|	**Sb**	**121**		ug/L				252	5	Standard
|	**Sb**	**123**		ug/L				192	14	Standard
|	**Ba**	**135**		ug/L				54	5	Standard
⌊	**Ba**	**137**		ug/L				99	7	Standard
⌈>	**Tb**	**159**		ug/L				801432	2	Standard
|	**Tl**	**205**		ug/L				79	15	Standard
⌊	**Pb**	**208**		ug/L				302	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVF
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 07:17:17
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			445315	455961	0	Standard
⌊	**Be**	**9**	**51.420**	ug/L	1.164	2	4	192135	2	Standard
	C	**13**		ug/L			28756	28895	2	Standard
	Cl	**37**		ug/L			1763477	1723255	1	Standard
⌈>	**Sc**	**45**		ug/L			604634	641974	1	Standard
⌈	**V**	**51**	**49.523**	ug/L	0.726	1	7658	1394120	1	Standard
⌊	**V-1**	**51**	**49.372**	ug/L	1.100	2	354	1387925	2	Standard
⌈	**Cr**	**52**	**50.451**	ug/L	0.648	1	22715	1185947	1	Standard
⌊	**Cr**	**53**	**49.922**	ug/L	0.999	2	231	132031	2	Standard
⌊	**Mn**	**55**	**49.581**	ug/L	1.205	2	858	1661015	1	Standard
⌈>	**Ge**	**72**		ug/L			47144	44686	1	KED
⌈	**Co**	**59**	**51.485**	ug/L	1.179	2	3	287074	3	KED
⌊	**Ni**	**60**	**51.851**	ug/L	1.519	2	583	82932	3	KED
⌈	**Ni**	**62**	**50.409**	ug/L	0.742	1	99	13215	0	KED
⌈	**Cu**	**63**	**51.562**	ug/L	1.253	2	88	231599	4	KED
⌊	**Cu**	**65**	**53.262**	ug/L	0.948	1	51	117316	2	KED
⌈	**Zn**	**66**	**50.578**	ug/L	0.317	0	128	29885	1	KED
⌊	**Zn**	**67**	**52.007**	ug/L	1.062	2	17	4983	3	KED
⌈	**As**	**75**	**50.972**	ug/L	1.013	1	4	16026	3	KED
⌊	**Se**	**78**	**51.077**	ug/L	0.940	1	20	1511	2	KED
	Y	**89**		ug/L			352824	365759	2	Standard
	Kr	**83**		ug/L			41	49	26	Standard
⌈>	**In-1**	**115**		ug/L			9999	10033	1	KED
⌈	**Mo**	**98**	**51.941**	ug/L	0.704	1	5	77219	2	KED
⌈	**Cd**	**111**	**51.553**	ug/L	0.608	1	5	15904	0	KED
⌊	**Cd**	**114**	**52.378**	ug/L	1.178	2	9	41408	1	KED
⌈>	**In**	**115**		ug/L			440562	438028	1	Standard
⌈	**Ag**	**107**	**51.433**	ug/L	1.675	3	34	919776	3	Standard
⌈	**Sb**	**121**	**50.625**	ug/L	1.265	2	252	743734	1	Standard
⌊	**Sb**	**123**	**49.870**	ug/L	1.203	2	192	559680	0	Standard
⌈	**Ba**	**135**	**51.833**	ug/L	1.591	3	54	241739	1	Standard
⌊	**Ba**	**137**	**52.259**	ug/L	1.326	2	99	426565	2	Standard
⌈>	**Tb**	**159**		ug/L			801432	849705	1	Standard
⌈	**Tl**	**205**	**48.816**	ug/L	0.813	1	79	1765316	2	Standard
⌊	**Pb**	**208**	**49.219**	ug/L	0.800	1	302	2366881	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBF
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 07:25:05
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			445315	434060	0	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.001	295	4	5	43	Standard
	C	**13**		ug/L			28756	28568	1	Standard
	Cl	**37**		ug/L			1763477	1761089	1	Standard
⌈>	**Sc**	**45**		ug/L			604634	605571	3	Standard
⌈	**V**	**51**	**0.000**	ug/L	0.007	1982	7658	7675	1	Standard
⌊	**V-1**	**51**	**0.000**	ug/L	0.001	3631	354	355	4	Standard
⌈	**Cr**	**52**	**-0.004**	ug/L	0.021	550	22715	22659	2	Standard
⌊	**Cr**	**53**	**-0.005**	ug/L	0.003	60	231	219	5	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.001	47	858	789	1	Standard
⌈>	**Ge**	**72**		ug/L			47144	46813	2	KED
⌈	**Co**	**59**	**0.000**	ug/L	0.000	293	3	3	50	KED
⌊	**Ni**	**60**	**-0.329**	ug/L	0.004	1	583	31	23	KED
⌈	**Ni**	**62**	**-0.337**	ug/L	0.010	3	99	6	45	KED
⌊	**Cu**	**63**	**0.003**	ug/L	0.002	50	88	102	9	KED
⌈	**Cu**	**65**	**0.002**	ug/L	0.004	156	51	56	16	KED
⌊	**Zn**	**66**	**0.033**	ug/L	0.030	90	128	147	10	KED
⌈	**Zn**	**67**	**0.065**	ug/L	0.098	150	17	23	41	KED
⌊	**As**	**75**	**0.005**	ug/L	0.004	77	4	6	20	KED
⌊	**Se**	**78**	**0.065**	ug/L	0.077	118	20	22	12	KED
	Y	**89**		ug/L			352824	340940	0	Standard
	Kr	**83**		ug/L			41	48	9	Standard
⌈>	**In-1**	**115**		ug/L			9999	10043	5	KED
⌈	**Mo**	**98**	**0.009**	ug/L	0.004	46	5	18	35	KED
⌊	**Cd**	**111**	**0.009**	ug/L	0.014	161	5	8	55	KED
⌊	**Cd**	**114**	**-0.007**	ug/L	0.005	76	9	4	107	KED
⌈>	**In**	**115**		ug/L			440562	429268	3	Standard
⌈	**Ag**	**107**	**0.001**	ug/L	0.000	56	34	44	16	Standard
⌊	**Sb**	**121**	**0.042**	ug/L	0.001	3	252	852	1	Standard
⌈	**Sb**	**123**	**0.043**	ug/L	0.006	13	192	659	8	Standard
⌊	**Ba**	**135**	**0.011**	ug/L	0.002	17	54	104	5	Standard
⌊	**Ba**	**137**	**0.006**	ug/L	0.001	17	99	146	7	Standard
⌈>	**Tb**	**159**		ug/L			801432	787940	2	Standard
⌈	**Tl**	**205**	**0.002**	ug/L	0.001	38	79	132	14	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.001	89	302	253	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0658-02
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 07:30:10
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	446363	2	Standard
	Be	9	0.001	ug/L	0.001	118	4	7	50	Standard
	C	13		ug/L			28756	53002	1	Standard
	Cl	37		ug/L			1763477	423972	7	Standard
>	Sc	45		ug/L			604634	636578	2	Standard
	V	51	37.314	ug/L	0.946	2	7658	1043993	4	Standard
	V-1	51	40.195	ug/L	0.955	2	354	1120905	4	Standard
	Cr	52	1.622	ug/L	0.027	1	22715	60970	3	Standard
	Cr	53	11.938	ug/L	0.263	2	231	31485	2	Standard
	Mn	55	0.090	ug/L	0.005	5	858	3905	1	Standard
>	Ge	72		ug/L			47144	36136	1	KED
	Co	59	0.035	ug/L	0.005	13	3	161	12	KED
	Ni	60	-0.195	ug/L	0.026	13	583	196	17	KED
	Ni	62	-0.098	ug/L	0.087	88	99	55	33	KED
	Cu	63	0.503	ug/L	0.004	0	88	1895	2	KED
	Cu	65	0.511	ug/L	0.046	8	51	949	7	KED
	Zn	66	0.389	ug/L	0.081	20	128	283	11	KED
	Zn	67	1.743	ug/L	0.255	14	17	147	14	KED
	As	75	140.564	ug/L	1.307	0	4	35731	2	KED
	Se	78	18.964	ug/L	0.720	3	20	463	5	KED
	Y	89		ug/L			352824	283879	3	Standard
	Kr	83		ug/L			41	100	12	Standard
>	In-1	115		ug/L			9999	7549	1	KED
	Mo	98	137.392	ug/L	3.089	2	5	153652	0	KED
	Cd	111	0.027	ug/L	0.029	107	5	10	62	KED
	Cd	114	0.012	ug/L	0.018	146	9	14	76	KED
>	In	115		ug/L			440562	363066	4	Standard
	Ag	107	0.003	ug/L	0.001	34	34	78	26	Standard
	Sb	121	0.947	ug/L	0.045	4	252	11726	3	Standard
	Sb	123	0.955	ug/L	0.030	3	192	9032	1	Standard
	Ba	135	25.641	ug/L	0.814	3	54	99105	2	Standard
	Ba	137	26.220	ug/L	0.378	1	99	177447	4	Standard
>	Tb	159		ug/L			801432	791362	1	Standard
	Tl	205	0.005	ug/L	0.001	14	79	243	10	Standard
	Pb	208	0.007	ug/L	0.000	3	302	615	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0658-04
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 07:35:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	477409	3	Standard
	Be	9	0.001	ug/L	0.001	76	4	8	35	Standard
	C	13		ug/L			28756	49681	1	Standard
	Cl	37		ug/L			1763477	699356	3	Standard
>	Sc	45		ug/L			604634	643581	4	Standard
	V	51	56.851	ug/L	2.617	4	7658	1601566	3	Standard
	V-1	51	57.206	ug/L	2.619	4	354	1610455	3	Standard
	Cr	52	0.897	ug/L	0.047	5	22715	44860	2	Standard
	Cr	53	2.898	ug/L	0.063	2	231	7911	2	Standard
	Mn	55	0.250	ug/L	0.012	4	858	9286	1	Standard
>	Ge	72		ug/L			47144	41028	1	KED
	Co	59	0.017	ug/L	0.001	8	3	87	7	KED
	Ni	60	0.062	ug/L	0.010	16	583	597	1	KED
	Ni	62	0.109	ug/L	0.090	82	99	112	19	KED
	Cu	63	0.895	ug/L	0.004	0	88	3766	0	KED
	Cu	65	0.951	ug/L	0.063	6	51	1967	6	KED
	Zn	66	0.580	ug/L	0.040	6	128	425	6	KED
	Zn	67	1.961	ug/L	0.364	18	17	186	16	KED
	As	75	197.099	ug/L	1.775	0	4	56881	1	KED
	Se	78	2.727	ug/L	0.217	7	20	90	6	KED
	Y	89		ug/L			352824	293026	2	Standard
	Kr	83		ug/L			41	55	10	Standard
>	In-1	115		ug/L			9999	7816	1	KED
	Mo	98	137.639	ug/L	4.143	3	5	159375	1	KED
	Cd	111	0.028	ug/L	0.020	71	5	11	42	KED
	Cd	114	0.014	ug/L	0.013	94	9	15	50	KED
>	In	115		ug/L			440562	398255	5	Standard
	Ag	107	0.000	ug/L	0.001	1958	34	31	28	Standard
	Sb	121	1.419	ug/L	0.064	4	252	19155	2	Standard
	Sb	123	1.469	ug/L	0.090	6	192	15123	0	Standard
	Ba	135	26.821	ug/L	0.921	3	54	113652	2	Standard
	Ba	137	26.872	ug/L	1.135	4	99	199204	2	Standard
>	Tb	159		ug/L			801432	843317	5	Standard
	Tl	205	0.004	ug/L	0.001	20	79	238	9	Standard
	Pb	208	0.012	ug/L	0.001	5	302	869	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0089-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 07:40:11
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			445315	499327	4	Standard
[	Be	9	0.009	ug/L	0.001	9	4	41	9	Standard
	C	13		ug/L			28756	73050	5	Standard
	Cl	37		ug/L			1763477	1535400	3	Standard
[>	Sc	45		ug/L			604634	624887	2	Standard
[	V	51	1.467	ug/L	0.045	3	7658	47916	5	Standard
[	V-1	51	3.565	ug/L	0.035	0	354	97908	3	Standard
[	Cr	52	0.576	ug/L	0.030	5	22715	36389	3	Standard
[	Cr	53	7.729	ug/L	0.073	0	231	20099	2	Standard
[	Mn	55	4.857	ug/L	0.077	1	858	159193	2	Standard
[>	Ge	72		ug/L			47144	42012	1	KED
[	Co	59	0.211	ug/L	0.007	3	3	1106	2	KED
[	Ni	60	1.737	ug/L	0.102	5	583	3115	5	KED
[	Ni	62	1.841	ug/L	0.233	12	99	539	11	KED
[	Cu	63	14.579	ug/L	0.293	2	88	61602	1	KED
[	Cu	65	14.959	ug/L	0.210	1	51	31007	0	KED
[	Zn	66	83.995	ug/L	2.035	2	128	46576	0	KED
[	Zn	67	80.040	ug/L	0.430	0	17	7199	1	KED
[	As	75	1.298	ug/L	0.061	4	4	387	5	KED
[	Se	78	0.105	ug/L	0.035	33	20	21	5	KED
	Y	89		ug/L			352824	338916	0	Standard
	Kr	83		ug/L			41	42	6	Standard
[>	In-1	115		ug/L			9999	9046	1	KED
[	Mo	98	1.456	ug/L	0.028	1	5	1956	2	KED
[	Cd	111	0.048	ug/L	0.013	28	5	18	19	KED
[	Cd	114	0.057	ug/L	0.004	6	9	48	6	KED
[>	In	115		ug/L			440562	413025	1	Standard
[	Ag	107	0.040	ug/L	0.002	5	34	704	5	Standard
[	Sb	121	0.643	ug/L	0.009	1	252	9145	1	Standard
[	Sb	123	0.650	ug/L	0.034	5	192	7055	4	Standard
[	Ba	135	20.716	ug/L	0.299	1	54	91150	2	Standard
[	Ba	137	21.771	ug/L	0.714	3	99	167604	3	Standard
[>	Tb	159		ug/L			801432	888478	2	Standard
[	Tl	205	0.007	ug/L	0.000	3	79	343	4	Standard
[	Pb	208	0.652	ug/L	0.014	2	302	33075	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0441-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, April 26, 2023 07:45:09
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			445315	479451	3	Standard
	Be	**9**	**0.000**	ug/L	0.000	21	4	5	0	Standard
	C	**13**		ug/L			28756	53915	2	Standard
	Cl	**37**		ug/L			1763477	1007499	6	Standard
>	**Sc**	**45**		ug/L			604634	569605	1	Standard
	V	**51**	**0.475**	ug/L	0.325	68	7658	19043	43	Standard
	V-1	**51**	**11.544**	ug/L	0.040	0	354	288208	1	Standard
	Cr	**52**	**0.815**	ug/L	0.034	4	22715	38059	1	Standard
	Cr	**53**	**38.497**	ug/L	1.188	3	231	90378	2	Standard
	Mn	**55**	**9.077**	ug/L	0.174	1	858	270533	1	Standard
>	**Ge**	**72**		ug/L			47144	39265	1	KED
	Co	**59**	**0.063**	ug/L	0.004	6	3	310	5	KED
	Ni	**60**	**0.064**	ug/L	0.025	38	583	575	6	KED
	Ni	**62**	**0.253**	ug/L	0.085	33	99	140	13	KED
	Cu	**63**	**1.032**	ug/L	0.013	1	88	4142	2	KED
	Cu	**65**	**1.063**	ug/L	0.004	0	51	2099	1	KED
	Zn	**66**	**16.966**	ug/L	0.263	1	128	8878	0	KED
	Zn	**67**	**17.318**	ug/L	0.461	2	17	1466	1	KED
	As	**75**	**0.201**	ug/L	0.003	1	4	59	2	KED
	Se	**78**	**0.307**	ug/L	0.041	13	20	24	5	KED
	Y	**89**		ug/L			352824	290906	2	Standard
	Kr	**83**		ug/L			41	151	13	Standard
>	**In-1**	**115**		ug/L			9999	8070	2	KED
	Mo	**98**	**1.009**	ug/L	0.050	4	5	1211	4	KED
	Cd	**111**	**0.016**	ug/L	0.008	52	5	8	22	KED
	Cd	**114**	**0.012**	ug/L	0.009	76	9	15	38	KED
>	**In**	**115**		ug/L			440562	346611	4	Standard
	Ag	**107**	**0.001**	ug/L	0.000	13	34	45	4	Standard
	Sb	**121**	**0.108**	ug/L	0.005	4	252	1448	1	Standard
	Sb	**123**	**0.109**	ug/L	0.002	2	192	1120	4	Standard
	Ba	**135**	**15.410**	ug/L	0.423	2	54	56876	2	Standard
	Ba	**137**	**16.412**	ug/L	0.805	4	99	105988	4	Standard
>	**Tb**	**159**		ug/L			801432	752140	3	Standard
	Tl	**205**	**0.003**	ug/L	0.001	26	79	165	12	Standard
	Pb	**208**	**0.091**	ug/L	0.002	2	302	4160	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0441-02
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, April 26, 2023 07:50:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			445315	482531	5	Standard
	Be	**9**	**0.001**	ug/L	0.001	104	4	10	57	Standard
	C	**13**		ug/L			28756	54309	1	Standard
	Cl	**37**		ug/L			1763477	713405	4	Standard
>	**Sc**	**45**		ug/L			604634	576475	1	Standard
	V	**51**	**0.461**	ug/L	0.153	33	7658	18877	20	Standard
	V-1	**51**	**16.301**	ug/L	0.576	3	354	411597	1	Standard
	Cr	**52**	**1.144**	ug/L	0.072	6	22715	45294	1	Standard
	Cr	**53**	**55.067**	ug/L	1.914	3	231	130708	1	Standard
	Mn	**55**	**5.017**	ug/L	0.191	3	858	151639	2	Standard
>	**Ge**	**72**		ug/L			47144	39430	0	KED
	Co	**59**	**0.082**	ug/L	0.006	7	3	404	7	KED
	Ni	**60**	**0.099**	ug/L	0.027	27	583	627	6	KED
	Ni	**62**	**0.449**	ug/L	0.083	18	99	186	10	KED
	Cu	**63**	**1.988**	ug/L	0.019	0	88	7947	0	KED
	Cu	**65**	**2.055**	ug/L	0.071	3	51	4035	3	KED
	Zn	**66**	**24.854**	ug/L	0.528	2	128	13013	1	KED
	Zn	**67**	**24.837**	ug/L	0.658	2	17	2106	2	KED
	As	**75**	**0.322**	ug/L	0.020	6	4	93	5	KED
	Se	**78**	**0.361**	ug/L	0.219	60	20	26	21	KED
	Y	**89**		ug/L			352824	291169	1	Standard
	Kr	**83**		ug/L			41	337	2	Standard
>	**In-1**	**115**		ug/L			9999	7824	2	KED
	Mo	**98**	**1.227**	ug/L	0.047	3	5	1426	4	KED
	Cd	**111**	**0.012**	ug/L	0.014	121	5	7	49	KED
	Cd	**114**	**0.011**	ug/L	0.008	70	9	13	32	KED
>	**In**	**115**		ug/L			440562	318486	2	Standard
	Ag	**107**	**0.025**	ug/L	0.001	3	34	349	1	Standard
	Sb	**121**	**0.123**	ug/L	0.005	4	252	1495	3	Standard
	Sb	**123**	**0.128**	ug/L	0.005	3	192	1187	3	Standard
	Ba	**135**	**22.245**	ug/L	0.218	0	54	75477	2	Standard
	Ba	**137**	**22.884**	ug/L	0.370	1	99	135894	3	Standard
>	**Tb**	**159**		ug/L			801432	712294	0	Standard
	Tl	**205**	**0.004**	ug/L	0.000	4	79	205	3	Standard
	Pb	**208**	**0.520**	ug/L	0.015	2	302	21204	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0433-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, April 26, 2023 07:55:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
Li	6		ug/L			445315	636557	1	Standard
Be	9	-0.000	ug/L	0.001	7914	4	6	75	Standard
C	13		ug/L			28756	49982	3	Standard
Cl	37		ug/L			1763477	1077945	3	Standard
Sc	45		ug/L			604634	627620	1	Standard
V	51	0.757	ug/L	0.051	6	7658	28649	4	Standard
V-1	51	1.097	ug/L	0.009	0	354	30512	1	Standard
Cr	52	4.575	ug/L	0.019	0	22715	126580	1	Standard
Cr	53	5.680	ug/L	0.135	2	231	14899	2	Standard
Mn	55	4.319	ug/L	0.025	0	858	142306	1	Standard
Ge	72		ug/L			47144	43538	4	KED
Co	59	0.288	ug/L	0.003	1	3	1569	5	KED
Ni	60	0.031	ug/L	0.048	154	583	584	8	KED
Ni	62	0.165	ug/L	0.014	8	99	133	7	KED
Cu	63	2.250	ug/L	0.043	1	88	9915	2	KED
Cu	65	2.293	ug/L	0.047	2	51	4962	2	KED
Zn	66	1.080	ug/L	0.115	10	128	736	7	KED
Zn	67	0.870	ug/L	0.268	30	17	96	24	KED
As	75	0.064	ug/L	0.003	4	4	23	2	KED
Se	78	0.069	ug/L	0.291	423	20	20	36	KED
Y	89		ug/L			352824	334650	2	Standard
Kr	83		ug/L			41	45	46	Standard
In-1	115		ug/L			9999	9522	4	KED
Mo	98	3.378	ug/L	0.070	2	5	4768	2	KED
Cd	111	0.008	ug/L	0.009	120	5	7	33	KED
Cd	114	-0.001	ug/L	0.008	749	9	7	74	KED
In	115		ug/L			440562	443403	3	Standard
Ag	107	-0.000	ug/L	0.000	223	34	32	20	Standard
Sb	121	0.106	ug/L	0.004	4	252	1835	2	Standard
Sb	123	0.110	ug/L	0.004	3	192	1442	1	Standard
Ba	135	0.761	ug/L	0.024	3	54	3645	0	Standard
Ba	137	0.781	ug/L	0.017	2	99	6548	1	Standard
Tb	159		ug/L			801432	874654	3	Standard
Tl	205	0.003	ug/L	0.001	29	79	187	17	Standard
Pb	208	0.025	ug/L	0.001	2	302	1589	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0433-02
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, April 26, 2023 08:00:38
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
Li	6		ug/L			445315	659303	3	Standard
Be	9	-0.001	ug/L	0.000	27	4	2	43	Standard
C	13		ug/L			28756	48590	1	Standard
Cl	37		ug/L			1763477	1022379	1	Standard
Sc	45		ug/L			604634	595404	3	Standard
V	51	0.709	ug/L	0.051	7	7658	25930	2	Standard
V-1	51	0.903	ug/L	0.016	1	354	23873	1	Standard
Cr	52	4.095	ug/L	0.110	2	22715	109806	1	Standard
Cr	53	4.706	ug/L	0.094	2	231	11750	4	Standard
Mn	55	4.386	ug/L	0.116	2	858	137050	3	Standard
Ge	72		ug/L			47144	42326	2	KED
Co	59	0.147	ug/L	0.005	3	3	779	3	KED
Ni	60	-0.010	ug/L	0.002	20	583	509	2	KED
Ni	62	0.077	ug/L	0.043	55	99	107	10	KED
Cu	63	1.964	ug/L	0.035	1	88	8432	3	KED
Cu	65	2.042	ug/L	0.058	2	51	4305	4	KED
Zn	66	1.192	ug/L	0.087	7	128	779	4	KED
Zn	67	1.353	ug/L	0.033	2	17	137	3	KED
As	75	0.058	ug/L	0.012	21	4	21	17	KED
Se	78	0.186	ug/L	0.032	17	20	23	4	KED
Y	89		ug/L			352824	316988	3	Standard
Kr	83		ug/L			41	45	19	Standard
In-1	115		ug/L			9999	9327	0	KED
Mo	98	3.535	ug/L	0.129	3	5	4891	3	KED
Cd	111	0.002	ug/L	0.005	207	5	6	24	KED
Cd	114	-0.003	ug/L	0.004	115	9	6	48	KED
In	115		ug/L			440562	420806	3	Standard
Ag	107	-0.000	ug/L	0.000	74	34	25	26	Standard
Sb	121	0.093	ug/L	0.003	3	252	1552	3	Standard
Sb	123	0.095	ug/L	0.010	10	192	1201	6	Standard
Ba	135	0.811	ug/L	0.008	0	54	3684	3	Standard
Ba	137	0.848	ug/L	0.014	1	99	6741	1	Standard
Tb	159		ug/L			801432	899996	1	Standard
Tl	205	0.002	ug/L	0.000	12	79	179	4	Standard
Pb	208	0.017	ug/L	0.001	3	302	1185	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0433-03
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, April 26, 2023 08:06:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
Li	6		ug/L			445315	662631	1	Standard
Be	9	-0.000	ug/L	0.001	193	4	5	57	Standard
C	13		ug/L			28756	49224	0	Standard
Cl	37		ug/L			1763477	953068	3	Standard
Sc	45		ug/L			604634	598212	2	Standard
V	51	0.622	ug/L	0.015	2	7658	23789	1	Standard
V-1	51	0.788	ug/L	0.015	1	354	20995	2	Standard
Cr	52	3.596	ug/L	0.188	5	22715	99579	1	Standard
Cr	53	4.121	ug/L	0.165	4	231	10358	1	Standard
Mn	55	3.976	ug/L	0.015	0	858	124921	2	Standard
Ge	72		ug/L			47144	42145	2	KED
Co	59	0.079	ug/L	0.006	7	3	417	9	KED
Ni	60	-0.070	ug/L	0.014	19	583	417	7	KED
Ni	62	0.007	ug/L	0.049	663	99	90	10	KED
Cu	63	1.948	ug/L	0.036	1	88	8323	2	KED
Cu	65	1.957	ug/L	0.060	3	51	4108	0	KED
Zn	66	0.991	ug/L	0.029	2	128	664	2	KED
Zn	67	0.773	ug/L	0.130	16	17	85	16	KED
As	75	0.051	ug/L	0.009	18	4	19	16	KED
Se	78	0.019	ug/L	0.120	641	20	18	19	KED
Y	89		ug/L			352824	319125	0	Standard
Kr	83		ug/L			41	38	2	Standard
In-1	115		ug/L			9999	9339	2	KED
Mo	98	3.008	ug/L	0.178	5	5	4164	4	KED
Cd	111	-0.002	ug/L	0.009	466	5	4	52	KED
Cd	114	-0.002	ug/L	0.003	133	9	7	27	KED
In	115		ug/L			440562	440175	1	Standard
Ag	107	-0.001	ug/L	0.001	81	34	23	40	Standard
Sb	121	0.081	ug/L	0.004	4	252	1443	4	Standard
Sb	123	0.083	ug/L	0.005	6	192	1126	4	Standard
Ba	135	0.744	ug/L	0.014	1	54	3543	3	Standard
Ba	137	0.763	ug/L	0.013	1	99	6354	2	Standard
Tb	159		ug/L			801432	934380	2	Standard
Tl	205	0.002	ug/L	0.000	8	79	184	5	Standard
Pb	208	0.018	ug/L	0.001	4	302	1285	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23D0433-04
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, April 26, 2023 08:12:33
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	592705	4	Standard
	Be	9	0.000	ug/L	0.001	733	4	6	45	Standard
	C	13		ug/L			28756	47902	3	Standard
	Cl	37		ug/L			1763477	973910	1	Standard
>	Sc	45		ug/L			604634	565364	4	Standard
	V	51	0.595	ug/L	0.045	7	7658	21792	1	Standard
	V-1	51	0.704	ug/L	0.018	2	354	17754	2	Standard
	Cr	52	5.585	ug/L	0.163	2	22715	134426	2	Standard
	Cr	53	5.887	ug/L	0.085	1	231	13898	3	Standard
	Mn	55	4.279	ug/L	0.104	2	858	126925	2	Standard
>	Ge	72		ug/L			47144	43005	1	KED
	Co	59	0.055	ug/L	0.002	3	3	299	2	KED
	Ni	60	-0.039	ug/L	0.015	39	583	473	5	KED
	Ni	62	-0.001	ug/L	0.019	2688	99	90	4	KED
	Cu	63	2.314	ug/L	0.048	2	88	10075	2	KED
	Cu	65	2.401	ug/L	0.039	1	51	5134	1	KED
	Zn	66	1.131	ug/L	0.005	0	128	757	0	KED
	Zn	67	1.279	ug/L	0.235	18	17	133	17	KED
	As	75	0.045	ug/L	0.007	15	4	17	10	KED
	Se	78	-0.014	ug/L	0.112	782	20	18	17	KED
	Y	89		ug/L			352824	305003	1	Standard
	Kr	83		ug/L			41	46	9	Standard
>	In-1	115		ug/L			9999	8944	3	KED
	Mo	98	2.681	ug/L	0.096	3	5	3556	1	KED
	Cd	111	0.003	ug/L	0.014	441	5	6	65	KED
	Cd	114	-0.001	ug/L	0.003	211	9	7	24	KED
>	In	115		ug/L			440562	420326	4	Standard
	Ag	107	-0.000	ug/L	0.001	411	34	29	48	Standard
	Sb	121	0.109	ug/L	0.003	2	252	1774	5	Standard
	Sb	123	0.110	ug/L	0.001	0	192	1362	4	Standard
	Ba	135	0.819	ug/L	0.009	1	54	3718	3	Standard
	Ba	137	0.802	ug/L	0.042	5	99	6363	1	Standard
>	Tb	159		ug/L			801432	918352	1	Standard
	Tl	205	0.002	ug/L	0.000	13	79	168	6	Standard
	Pb	208	0.022	ug/L	0.001	5	302	1504	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLH
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 08:17:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			445315	553100	2	Standard
⌊	**Be**	**9**	**-0.001**	ug/L	0.000	25	4	1	86	Standard
	C	**13**		ug/L			28756	33248	1	Standard
	Cl	**37**		ug/L			1763477	1487888	2	Standard
⌈>	**Sc**	**45**		ug/L			604634	594381	2	Standard
⌈	**V**	**51**	**0.001**	ug/L	0.005	345	7658	7566	4	Standard
⌊	**V-1**	**51**	**0.047**	ug/L	0.002	4	354	1563	0	Standard
⌈	**Cr**	**52**	**0.013**	ug/L	0.018	139	22715	22607	4	Standard
⌊	**Cr**	**53**	**0.167**	ug/L	0.014	8	231	634	6	Standard
⌊	**Mn**	**55**	**-0.005**	ug/L	0.001	20	858	704	4	Standard
⌈>	**Ge**	**72**		ug/L			47144	46109	2	KED
⌈	**Co**	**59**	**-0.000**	ug/L	0.000	181	3	2	43	KED
⌊	**Ni**	**60**	**-0.340**	ug/L	0.004	1	583	12	45	KED
⌈	**Ni**	**62**	**-0.313**	ug/L	0.010	3	99	12	22	KED
⌈	**Cu**	**63**	**-0.000**	ug/L	0.001	776	88	85	2	KED
⌊	**Cu**	**65**	**-0.005**	ug/L	0.003	65	51	38	18	KED
⌈	**Zn**	**66**	**-0.134**	ug/L	0.012	8	128	43	15	KED
⌊	**Zn**	**67**	**-0.105**	ug/L	0.056	53	17	6	86	KED
⌈	**As**	**75**	**-0.001**	ug/L	0.001	165	4	4	11	KED
⌊	**Se**	**78**	**-0.138**	ug/L	0.011	8	20	15	4	KED
	Y	**89**		ug/L			352824	323434	3	Standard
	Kr	**83**		ug/L			41	42	6	Standard
⌈>	**In-1**	**115**		ug/L			9999	9789	2	KED
⌈	**Mo**	**98**	**-0.000**	ug/L	0.000	90	5	5	2	KED
⌈	**Cd**	**111**	**0.007**	ug/L	0.012	183	5	7	50	KED
⌊	**Cd**	**114**	**-0.005**	ug/L	0.001	26	9	4	24	KED
⌈>	**In**	**115**		ug/L			440562	454400	5	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.000	27	34	13	51	Standard
⌈	**Sb**	**121**	**-0.013**	ug/L	0.000	3	252	64	10	Standard
⌊	**Sb**	**123**	**-0.013**	ug/L	0.001	9	192	41	37	Standard
⌈	**Ba**	**135**	**-0.000**	ug/L	0.002	524	54	54	19	Standard
⌊	**Ba**	**137**	**-0.003**	ug/L	0.002	67	99	80	17	Standard
⌈>	**Tb**	**159**		ug/L			801432	950607	4	Standard
⌈	**Tl**	**205**	**-0.000**	ug/L	0.000	380	79	90	10	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	17	302	219	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVG
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 08:22:36
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			445315	527176	4	Standard
	Be	**9**	**49.692**	ug/L	1.577	3	4	214505	0	Standard
	C	**13**		ug/L			28756	31623	1	Standard
	Cl	**37**		ug/L			1763477	1422200	1	Standard
>	**Sc**	**45**		ug/L			604634	594032	2	Standard
	V	**51**	**46.584**	ug/L	0.939	2	7658	1213688	1	Standard
	V-1	**51**	**46.757**	ug/L	0.989	2	354	1216011	0	Standard
	Cr	**52**	**46.868**	ug/L	0.725	1	22715	1020939	1	Standard
	Cr	**53**	**47.454**	ug/L	1.065	2	231	116108	0	Standard
	Mn	**55**	**47.643**	ug/L	1.149	2	858	1476818	0	Standard
>	**Ge**	**72**		ug/L			47144	44126	2	KED
	Co	**59**	**50.746**	ug/L	1.282	2	3	279356	3	KED
	Ni	**60**	**51.800**	ug/L	1.543	2	583	81835	4	KED
	Ni	**62**	**51.436**	ug/L	0.908	1	99	13317	3	KED
	Cu	**63**	**51.855**	ug/L	0.656	1	88	229979	3	KED
	Cu	**65**	**53.543**	ug/L	0.842	1	51	116451	2	KED
	Zn	**66**	**51.663**	ug/L	1.756	3	128	30148	4	KED
	Zn	**67**	**51.022**	ug/L	1.139	2	17	4828	4	KED
	As	**75**	**50.913**	ug/L	0.783	1	4	15806	3	KED
	Se	**78**	**49.240**	ug/L	1.344	2	20	1439	4	KED
	Y	**89**		ug/L			352824	337131	1	Standard
	Kr	**83**		ug/L			41	38	39	Standard
>	**In-1**	**115**		ug/L			9999	9220	2	KED
	Mo	**98**	**56.033**	ug/L	1.027	1	5	76544	1	KED
	Cd	**111**	**54.003**	ug/L	0.267	0	5	15312	2	KED
	Cd	**114**	**55.030**	ug/L	0.339	0	9	39984	1	KED
>	**In**	**115**		ug/L			440562	456584	0	Standard
	Ag	**107**	**45.908**	ug/L	0.216	0	34	855825	0	Standard
	Sb	**121**	**51.726**	ug/L	0.629	1	252	792265	1	Standard
	Sb	**123**	**52.215**	ug/L	0.603	1	192	610923	0	Standard
	Ba	**135**	**59.915**	ug/L	0.153	0	54	291342	0	Standard
	Ba	**137**	**61.600**	ug/L	0.540	0	99	524177	1	Standard
>	**Tb**	**159**		ug/L			801432	978357	1	Standard
	Tl	**205**	**57.519**	ug/L	1.012	1	79	2395062	3	Standard
	Pb	**208**	**52.320**	ug/L	0.363	0	302	2896534	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBG
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 08:30:24
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			445315	540285	2	Standard
	Be	**9**	**0.001**	ug/L	0.000	45	4	8	13	Standard
	C	**13**		ug/L			28756	32206	0	Standard
	Cl	**37**		ug/L			1763477	1505190	2	Standard
>	**Sc**	**45**		ug/L			604634	588661	1	Standard
	V	**51**	**-0.037**	ug/L	0.001	3	7658	6496	0	Standard
	V-1	**51**	**0.035**	ug/L	0.002	6	354	1250	3	Standard
	Cr	**52**	**-0.131**	ug/L	0.013	9	22715	19336	0	Standard
	Cr	**53**	**0.117**	ug/L	0.017	14	231	507	7	Standard
	Mn	**55**	**-0.001**	ug/L	0.001	49	858	795	2	Standard
>	**Ge**	**72**		ug/L			47144	45143	3	KED
	Co	**59**	**-0.000**	ug/L	0.000	130	3	1	173	KED
	Ni	**60**	**-0.331**	ug/L	0.006	1	583	27	34	KED
	Ni	**62**	**-0.312**	ug/L	0.017	5	99	12	31	KED
	Cu	**63**	**0.007**	ug/L	0.002	26	88	115	10	KED
	Cu	**65**	**0.004**	ug/L	0.005	124	51	57	15	KED
	Zn	**66**	**0.040**	ug/L	0.044	109	128	146	14	KED
	Zn	**67**	**0.153**	ug/L	0.063	41	17	31	18	KED
	As	**75**	**0.003**	ug/L	0.005	173	4	5	27	KED
	Se	**78**	**-0.004**	ug/L	0.121	2947	20	19	19	KED
	Y	**89**		ug/L			352824	333052	1	Standard
	Kr	**83**		ug/L			41	38	17	Standard
>	**In-1**	**115**		ug/L			9999	10140	1	KED
	Mo	**98**	**0.006**	ug/L	0.007	108	5	14	65	KED
	Cd	**111**	**-0.002**	ug/L	0.007	309	5	5	47	KED
	Cd	**114**	**0.002**	ug/L	0.004	234	9	10	28	KED
>	**In**	**115**		ug/L			440562	467272	1	Standard
	Ag	**107**	**0.001**	ug/L	0.000	13	34	55	3	Standard
	Sb	**121**	**0.037**	ug/L	0.004	9	252	843	6	Standard
	Sb	**123**	**0.042**	ug/L	0.006	14	192	708	9	Standard
	Ba	**135**	**0.012**	ug/L	0.004	32	54	118	17	Standard
	Ba	**137**	**0.012**	ug/L	0.002	16	99	212	9	Standard
>	**Tb**	**159**		ug/L			801432	958437	0	Standard
	Tl	**205**	**0.002**	ug/L	0.001	32	79	180	14	Standard
	Pb	**208**	**0.000**	ug/L	0.000	55	302	384	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0365-BLK1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 08:35:28
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			445315	515884	2	Standard
[	Be	9	-0.000	ug/L	0.001	230	4	3	86	Standard
	C	13		ug/L			28756	40571	2	Standard
	Cl	37		ug/L			1763477	1495225	2	Standard
[>	Sc	45		ug/L			604634	582384	2	Standard
[	V	51	-0.030	ug/L	0.007	24	7658	6616	0	Standard
[	V-1	51	0.033	ug/L	0.001	3	354	1176	3	Standard
[	Cr	52	-0.102	ug/L	0.027	26	22715	19741	1	Standard
[	Cr	53	0.112	ug/L	0.006	5	231	491	4	Standard
[	Mn	55	0.003	ug/L	0.002	53	858	928	5	Standard
[>	Ge	72		ug/L			47144	45548	2	KED
[	Co	59	0.000	ug/L	0.000	969	3	3	34	KED
[	Ni	60	-0.321	ug/L	0.006	1	583	43	24	KED
[	Ni	62	-0.327	ug/L	0.008	2	99	8	24	KED
[	Cu	63	0.020	ug/L	0.005	25	88	177	15	KED
[	Cu	65	0.017	ug/L	0.003	18	51	88	8	KED
[	Zn	66	-0.044	ug/L	0.017	37	128	97	11	KED
[	Zn	67	-0.020	ug/L	0.027	138	17	14	15	KED
[	As	75	0.001	ug/L	0.001	90	4	4	11	KED
[	Se	78	-0.040	ug/L	0.060	149	20	18	12	KED
	Y	89		ug/L			352824	323620	2	Standard
	Kr	83		ug/L			41	41	21	Standard
[>	In-1	115		ug/L			9999	9404	1	KED
[	Mo	98	0.004	ug/L	0.001	28	5	11	12	KED
[	Cd	111	0.005	ug/L	0.006	136	5	6	24	KED
[	Cd	114	-0.007	ug/L	0.003	38	9	3	52	KED
[>	In	115		ug/L			440562	455706	2	Standard
[	Ag	107	-0.000	ug/L	0.001	169	34	30	28	Standard
[	Sb	121	0.005	ug/L	0.002	32	252	340	7	Standard
[	Sb	123	0.007	ug/L	0.002	30	192	276	6	Standard
[	Ba	135	0.014	ug/L	0.001	9	54	123	3	Standard
[	Ba	137	0.011	ug/L	0.001	13	99	194	3	Standard
[>	Tb	159		ug/L			801432	935371	3	Standard
[	Tl	205	0.000	ug/L	0.000	8	79	111	1	Standard
[	Pb	208	0.009	ug/L	0.001	8	302	822	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0365-BS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, April 26, 2023 08:40:32
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	554366	3	Standard
	Be	9	23.568	ug/L	0.970	4	4	106985	1	Standard
	C	13		ug/L			28756	39642	2	Standard
	Cl	37		ug/L			1763477	1511629	1	Standard
>	Sc	45		ug/L			604634	603297	3	Standard
	V	51	23.480	ug/L	0.654	2	7658	624773	1	Standard
	V-1	51	23.785	ug/L	0.701	2	354	628124	1	Standard
	Cr	52	23.645	ug/L	0.840	3	22715	533969	0	Standard
	Cr	53	24.684	ug/L	0.943	3	231	61410	0	Standard
	Mn	55	24.389	ug/L	0.608	2	858	768026	1	Standard
>	Ge	72		ug/L			47144	46139	1	KED
	Co	59	25.766	ug/L	0.196	0	3	148295	0	KED
	Ni	60	26.320	ug/L	0.403	1	583	43746	1	KED
	Ni	62	26.126	ug/L	0.206	0	99	7120	2	KED
	Cu	63	27.431	ug/L	0.298	1	88	127208	0	KED
	Cu	65	28.331	ug/L	0.065	0	51	64459	1	KED
	Zn	66	82.939	ug/L	1.351	1	128	50515	0	KED
	Zn	67	79.055	ug/L	1.067	1	17	7811	2	KED
	As	75	24.796	ug/L	0.132	0	4	8050	1	KED
	Se	78	75.393	ug/L	1.218	1	20	2293	1	KED
	Y	89		ug/L			352824	336409	1	Standard
	Kr	83		ug/L			41	49	23	Standard
>	In-1	115		ug/L			9999	9033	10	KED
	Mo	98	0.002	ug/L	0.003	172	5	7	61	KED
	Cd	111	27.960	ug/L	2.886	10	5	7715	3	KED
	Cd	114	28.081	ug/L	2.674	9	9	19861	2	KED
>	In	115		ug/L			440562	470063	1	Standard
	Ag	107	24.155	ug/L	0.470	1	34	463538	1	Standard
	Sb	121	-0.004	ug/L	0.002	43	252	201	15	Standard
	Sb	123	-0.003	ug/L	0.001	38	192	171	5	Standard
	Ba	135	30.204	ug/L	1.111	3	54	151176	2	Standard
	Ba	137	31.024	ug/L	1.066	3	99	271753	2	Standard
>	Tb	159		ug/L			801432	955989	1	Standard
	Tl	205	26.513	ug/L	0.380	1	79	1078488	0	Standard
	Pb	208	27.026	ug/L	0.286	1	302	1462175	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0735-01
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, April 26, 2023 08:45:35
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	489597	3	Standard
	Be	9	0.006	ug/L	0.001	24	4	27	23	Standard
	C	13		ug/L			28756	176278	3	Standard
	Cl	37		ug/L			1763477	1281668	3	Standard
>	Sc	45		ug/L			604634	576699	2	Standard
	V	51	8.556	ug/L	0.151	1	7658	222454	3	Standard
	V-1	51	11.048	ug/L	0.060	0	354	279281	2	Standard
	Cr	52	17.091	ug/L	0.472	2	22715	375298	3	Standard
	Cr	53	25.455	ug/L	0.220	0	231	60581	2	Standard
	Mn	55	87.658	ug/L	1.533	1	858	2638806	4	Standard
>	Ge	72		ug/L			47144	40757	4	KED
	Co	59	3.773	ug/L	0.018	0	3	19186	4	KED
	Ni	60	18.999	ug/L	0.315	1	583	28024	3	KED
	Ni	62	18.702	ug/L	0.365	1	99	4527	5	KED
	Cu	63	2.322	ug/L	0.029	1	88	9582	5	KED
	Cu	65	2.386	ug/L	0.051	2	51	4833	2	KED
	Zn	66	9.719	ug/L	0.415	4	128	5323	4	KED
	Zn	67	13.652	ug/L	0.347	2	17	1203	4	KED
	As	75	7.795	ug/L	0.071	0	4	2237	3	KED
	Se	78	0.283	ug/L	0.056	19	20	25	5	KED
	Y	89		ug/L			352824	311203	2	Standard
	Kr	83		ug/L			41	55	40	Standard
>	In-1	115		ug/L			9999	8824	1	KED
	Mo	98	1.510	ug/L	0.041	2	5	1979	3	KED
	Cd	111	0.021	ug/L	0.010	46	5	10	25	KED
	Cd	114	0.022	ug/L	0.019	84	9	23	54	KED
>	In	115		ug/L			440562	405026	4	Standard
	Ag	107	0.029	ug/L	0.003	10	34	514	8	Standard
	Sb	121	0.663	ug/L	0.022	3	252	9231	1	Standard
	Sb	123	0.661	ug/L	0.021	3	192	7029	1	Standard
	Ba	135	96.211	ug/L	2.171	2	54	414714	3	Standard
	Ba	137	97.788	ug/L	2.170	2	99	737537	2	Standard
>	Tb	159		ug/L			801432	858221	4	Standard
	Tl	205	0.002	ug/L	0.001	21	79	173	12	Standard
	Pb	208	0.389	ug/L	0.006	1	302	19210	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0658-06
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 08:50:33
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			445315	490674	5	Standard
[	Be	9	-0.000	ug/L	0.000	70	4	3	34	Standard
	C	13		ug/L			28756	47794	2	Standard
	Cl	37		ug/L			1763477	1522985	1	Standard
[>	Sc	45		ug/L			604634	567438	3	Standard
[	V	51	0.008	ug/L	0.005	57	7658	7394	3	Standard
[	V-1	51	0.079	ug/L	0.004	5	354	2294	5	Standard
[	Cr	52	0.181	ug/L	0.003	1	22715	24996	3	Standard
[	Cr	53	0.419	ug/L	0.006	1	231	1193	3	Standard
[	Mn	55	0.088	ug/L	0.004	4	858	3408	4	Standard
[>	Ge	72		ug/L			47144	46679	1	KED
[	Co	59	0.003	ug/L	0.001	21	3	17	16	KED
[	Ni	60	-0.303	ug/L	0.002	0	583	74	3	KED
[	Ni	62	-0.272	ug/L	0.024	8	99	24	27	KED
[	Cu	63	0.070	ug/L	0.008	11	88	413	7	KED
[	Cu	65	0.073	ug/L	0.012	16	51	217	12	KED
[	Zn	66	0.511	ug/L	0.044	8	128	441	7	KED
[	Zn	67	0.499	ug/L	0.067	13	17	66	8	KED
[	As	75	0.006	ug/L	0.001	8	4	6	4	KED
[	Se	78	-0.114	ug/L	0.133	116	20	16	22	KED
	Y	89		ug/L			352824	319777	3	Standard
	Kr	83		ug/L			41	42	6	Standard
[>	In-1	115		ug/L			9999	9177	1	KED
[	Mo	98	0.010	ug/L	0.003	27	5	19	21	KED
[	Cd	111	0.001	ug/L	0.002	322	5	5	10	KED
[	Cd	114	0.002	ug/L	0.004	211	9	9	30	KED
[>	In	115		ug/L			440562	440088	4	Standard
[	Ag	107	0.000	ug/L	0.001	208	34	41	30	Standard
[	Sb	121	-0.007	ug/L	0.002	28	252	147	22	Standard
[	Sb	123	-0.006	ug/L	0.001	20	192	126	13	Standard
[	Ba	135	0.085	ug/L	0.004	4	54	453	6	Standard
[	Ba	137	0.089	ug/L	0.011	12	99	824	8	Standard
[>	Tb	159		ug/L			801432	887837	1	Standard
[	Tl	205	0.000	ug/L	0.000	65	79	100	9	Standard
[	Pb	208	0.011	ug/L	0.000	3	302	870	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0678-09
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 08:55:30
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	461665	2	Standard
	Be	9	0.003	ug/L	0.000	15	4	15	12	Standard
	C	13		ug/L			28756	53214	2	Standard
	Cl	37		ug/L			1763477	1358094	2	Standard
>	Sc	45		ug/L			604634	649509	3	Standard
	V	51	0.436	ug/L	0.017	3	7658	20579	4	Standard
	V-1	51	0.834	ug/L	0.015	1	354	24100	4	Standard
	Cr	52	0.279	ug/L	0.012	4	22715	30903	2	Standard
	Cr	53	1.636	ug/L	0.011	0	231	4618	4	Standard
	Mn	55	530.594	ug/L	6.549	1	858	17980287	3	Standard
>	Ge	72		ug/L			47144	41819	5	KED
	Co	59	0.268	ug/L	0.017	6	3	1398	4	KED
	Ni	60	0.662	ug/L	0.061	9	583	1499	3	KED
	Ni	62	0.691	ug/L	0.108	15	99	255	4	KED
	Cu	63	0.438	ug/L	0.029	6	88	1915	3	KED
	Cu	65	0.469	ug/L	0.002	0	51	1012	5	KED
	Zn	66	1.719	ug/L	0.075	4	128	1059	2	KED
	Zn	67	5.158	ug/L	0.162	3	17	475	2	KED
	As	75	0.526	ug/L	0.003	0	4	158	5	KED
	Se	78	0.158	ug/L	0.126	79	20	22	10	KED
	Y	89		ug/L			352824	307874	5	Standard
	Kr	83		ug/L			41	86	14	Standard
>	In-1	115		ug/L			9999	9116	2	KED
	Mo	98	0.154	ug/L	0.008	5	5	212	4	KED
	Cd	111	-0.000	ug/L	0.007	1436	5	5	39	KED
	Cd	114	0.005	ug/L	0.005	97	9	11	26	KED
>	In	115		ug/L			440562	403743	1	Standard
	Ag	107	0.000	ug/L	0.000	121	34	38	22	Standard
	Sb	121	0.170	ug/L	0.002	1	252	2527	2	Standard
	Sb	123	0.185	ug/L	0.006	3	192	2086	3	Standard
	Ba	135	68.987	ug/L	1.836	2	54	296703	4	Standard
	Ba	137	69.940	ug/L	1.148	1	99	526314	3	Standard
>	Tb	159		ug/L			801432	863395	3	Standard
	Tl	205	-0.000	ug/L	0.000	194	79	77	15	Standard
	Pb	208	0.034	ug/L	0.001	3	302	2006	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0678-08
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 09:00:34
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	487401	4	Standard
	Be	9	0.003	ug/L	0.002	61	4	15	38	Standard
	C	13		ug/L			28756	51744	0	Standard
	Cl	37		ug/L			1763477	1363637	0	Standard
>	Sc	45		ug/L			604634	672477	2	Standard
	V	51	0.599	ug/L	0.015	2	7658	26062	1	Standard
	V-1	51	0.957	ug/L	0.021	2	354	28562	0	Standard
	Cr	52	0.356	ug/L	0.029	8	22715	33835	0	Standard
	Cr	53	1.579	ug/L	0.055	3	231	4622	2	Standard
	Mn	55	510.046	ug/L	24.059	4	858	17881344	2	Standard
>	Ge	72		ug/L			47144	40960	1	KED
	Co	59	0.185	ug/L	0.005	2	3	946	2	KED
	Ni	60	0.599	ug/L	0.017	2	583	1379	3	KED
	Ni	62	0.647	ug/L	0.064	9	99	240	7	KED
	Cu	63	0.537	ug/L	0.024	4	88	2285	2	KED
	Cu	65	0.571	ug/L	0.027	4	51	1196	5	KED
	Zn	66	4.431	ug/L	0.232	5	128	2502	5	KED
	Zn	67	7.338	ug/L	0.243	3	17	657	3	KED
	As	75	0.757	ug/L	0.021	2	4	222	2	KED
	Se	78	0.170	ug/L	0.089	52	20	22	9	KED
	Y	89		ug/L			352824	311126	1	Standard
	Kr	83		ug/L			41	86	12	Standard
>	In-1	115		ug/L			9999	8728	2	KED
	Mo	98	0.300	ug/L	0.022	7	5	392	5	KED
	Cd	111	0.018	ug/L	0.012	66	5	9	31	KED
	Cd	114	0.014	ug/L	0.008	57	9	17	29	KED
>	In	115		ug/L			440562	417663	0	Standard
	Ag	107	0.001	ug/L	0.001	70	34	46	20	Standard
	Sb	121	0.142	ug/L	0.007	4	252	2228	4	Standard
	Sb	123	0.146	ug/L	0.003	2	192	1748	2	Standard
	Ba	135	65.839	ug/L	2.074	3	54	292874	3	Standard
	Ba	137	68.473	ug/L	0.793	1	99	532940	0	Standard
>	Tb	159		ug/L			801432	887862	0	Standard
	Tl	205	0.000	ug/L	0.000	74	79	102	10	Standard
	Pb	208	0.330	ug/L	0.004	1	302	16910	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0732-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 09:05:32
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	483645	6	Standard
	Be	9	0.009	ug/L	0.002	17	4	38	12	Standard
	C	13		ug/L			28756	48503	5	Standard
	Cl	37		ug/L			1763477	1282309	2	Standard
>	Sc	45		ug/L			604634	539001	6	Standard
	V	51	2.672	ug/L	0.022	0	7658	69606	6	Standard
	V-1	51	2.872	ug/L	0.015	0	354	68083	6	Standard
	Cr	52	0.367	ug/L	0.027	7	22715	27329	4	Standard
	Cr	53	1.080	ug/L	0.020	1	231	2601	8	Standard
	Mn	55	10.431	ug/L	0.198	1	858	293862	5	Standard
>	Ge	72		ug/L			47144	38107	2	KED
	Co	59	0.094	ug/L	0.005	4	3	448	2	KED
	Ni	60	0.444	ug/L	0.011	2	583	1072	1	KED
	Ni	62	0.369	ug/L	0.020	5	99	161	3	KED
	Cu	63	1.284	ug/L	0.026	2	88	4986	3	KED
	Cu	65	1.285	ug/L	0.020	1	51	2455	4	KED
	Zn	66	2.033	ug/L	0.079	3	128	1124	5	KED
	Zn	67	2.216	ug/L	0.090	4	17	194	4	KED
	As	75	1.488	ug/L	0.111	7	4	402	7	KED
	Se	78	0.759	ug/L	0.059	7	20	35	6	KED
	Y	89		ug/L			352824	275091	6	Standard
	Kr	83		ug/L			41	74	11	Standard
>	In-1	115		ug/L			9999	8267	2	KED
	Mo	98	12.254	ug/L	0.295	2	5	15010	1	KED
	Cd	111	0.022	ug/L	0.013	56	5	10	32	KED
	Cd	114	0.023	ug/L	0.004	16	9	22	12	KED
>	In	115		ug/L			440562	372379	4	Standard
	Ag	107	0.003	ug/L	0.001	20	34	71	15	Standard
	Sb	121	0.780	ug/L	0.022	2	252	9951	6	Standard
	Sb	123	0.817	ug/L	0.009	1	192	7955	3	Standard
	Ba	135	9.453	ug/L	0.121	1	54	37517	3	Standard
	Ba	137	9.861	ug/L	0.061	0	99	68500	4	Standard
>	Tb	159		ug/L			801432	887287	4	Standard
	Tl	205	0.057	ug/L	0.003	5	79	2239	0	Standard
	Pb	208	0.162	ug/L	0.003	1	302	8463	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0741-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 09:10:29
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	488308	1	Standard
	Be	9	0.010	ug/L	0.001	6	4	45	6	Standard
	C	13		ug/L			28756	58973	1	Standard
	Cl	37		ug/L			1763477	1038960	5	Standard
>	Sc	45		ug/L			604634	711721	2	Standard
	V	51	1.241	ug/L	0.057	4	7658	47509	1	Standard
	V-1	51	1.743	ug/L	0.019	1	354	54728	0	Standard
	Cr	52	0.551	ug/L	0.062	11	22715	40786	1	Standard
	Cr	53	2.270	ug/L	0.072	3	231	6917	5	Standard
	Mn	55	2440.445	ug/L	72.343	2	858	90585968	1	Standard
>	Ge	72		ug/L			47144	37526	2	KED
	Co	59	0.419	ug/L	0.021	4	3	1962	4	KED
	Ni	60	0.773	ug/L	0.011	1	583	1496	3	KED
	Ni	62	0.775	ug/L	0.110	14	99	248	10	KED
	Cu	63	0.501	ug/L	0.032	6	88	1956	3	KED
	Cu	65	0.504	ug/L	0.049	9	51	970	6	KED
	Zn	66	1.368	ug/L	0.129	9	128	777	5	KED
	Zn	67	6.410	ug/L	0.766	11	17	528	13	KED
	As	75	1.187	ug/L	0.018	1	4	316	4	KED
	Se	78	0.221	ug/L	0.079	35	20	21	9	KED
	Y	89		ug/L			352824	295862	2	Standard
	Kr	83		ug/L			41	104	4	Standard
>	In-1	115		ug/L			9999	7882	0	KED
	Mo	98	0.122	ug/L	0.018	14	5	146	13	KED
	Cd	111	0.015	ug/L	0.008	51	5	8	24	KED
	Cd	114	-0.005	ug/L	0.007	133	9	3	110	KED
>	In	115		ug/L			440562	382369	1	Standard
	Ag	107	0.001	ug/L	0.001	57	34	44	19	Standard
	Sb	121	0.091	ug/L	0.003	3	252	1389	3	Standard
	Sb	123	0.090	ug/L	0.003	3	192	1050	3	Standard
	Ba	135	111.846	ug/L	2.760	2	54	455369	2	Standard
	Ba	137	115.267	ug/L	2.882	2	99	821381	3	Standard
>	Tb	159		ug/L			801432	881732	2	Standard
	Tl	205	-0.001	ug/L	0.000	42	79	66	15	Standard
	Pb	208	0.383	ug/L	0.010	2	302	19420	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0699-02
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 09:15:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	492889	0	Standard
	Be	9	-0.000	ug/L	0.001	125	4	3	69	Standard
	C	13		ug/L			28756	83862	2	Standard
	Cl	37		ug/L			1763477	905665	2	Standard
>	Sc	45		ug/L			604634	563703	1	Standard
	V	51	0.972	ug/L	0.027	2	7658	31021	1	Standard
	V-1	51	1.116	ug/L	0.016	1	354	27867	0	Standard
	Cr	52	1.020	ug/L	0.037	3	22715	41805	0	Standard
	Cr	53	1.510	ug/L	0.014	0	231	3715	1	Standard
	Mn	55	1.128	ug/L	0.018	1	858	33956	0	Standard
>	Ge	72		ug/L			47144	41097	2	KED
	Co	59	0.028	ug/L	0.002	8	3	144	9	KED
	Ni	60	-0.073	ug/L	0.018	23	583	401	8	KED
	Ni	62	0.062	ug/L	0.077	123	99	100	16	KED
	Cu	63	15.051	ug/L	0.227	1	88	62201	0	KED
	Cu	65	15.290	ug/L	0.287	1	51	31003	2	KED
	Zn	66	4.437	ug/L	0.093	2	128	2513	3	KED
	Zn	67	4.316	ug/L	0.466	10	17	394	11	KED
	As	75	0.064	ug/L	0.004	6	4	22	4	KED
	Se	78	0.010	ug/L	0.125	1292	20	18	16	KED
	Y	89		ug/L			352824	303431	1	Standard
	Kr	83		ug/L			41	44	17	Standard
>	In-1	115		ug/L			9999	8040	1	KED
	Mo	98	0.708	ug/L	0.023	3	5	847	2	KED
	Cd	111	0.002	ug/L	0.005	228	5	5	21	KED
	Cd	114	-0.003	ug/L	0.009	257	9	5	106	KED
>	In	115		ug/L			440562	414697	0	Standard
	Ag	107	0.003	ug/L	0.000	14	34	75	7	Standard
	Sb	121	0.046	ug/L	0.004	8	252	881	6	Standard
	Sb	123	0.045	ug/L	0.006	12	192	663	8	Standard
	Ba	135	0.284	ug/L	0.014	4	54	1306	4	Standard
	Ba	137	0.308	ug/L	0.024	7	99	2470	7	Standard
>	Tb	159		ug/L			801432	938361	0	Standard
	Tl	205	0.001	ug/L	0.000	23	79	134	8	Standard
	Pb	208	0.013	ug/L	0.001	8	302	1038	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 09:20:56
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			445315	518243	1	Standard
	Be	**9**	**-0.001**	ug/L	0.001	98	4	1	173	Standard
	C	**13**		ug/L			28756	31808	2	Standard
	Cl	**37**		ug/L			1763477	1454194	2	Standard
>	**Sc**	**45**		ug/L			604634	564748	3	Standard
	V	**51**	**-0.034**	ug/L	0.008	24	7658	6323	0	Standard
	V-1	**51**	**0.024**	ug/L	0.001	5	354	934	0	Standard
	Cr	**52**	**-0.124**	ug/L	0.032	25	22715	18685	0	Standard
	Cr	**53**	**0.074**	ug/L	0.010	13	231	387	3	Standard
	Mn	**55**	**0.002**	ug/L	0.001	86	858	852	2	Standard
>	**Ge**	**72**		ug/L			47144	43507	1	KED
	Co	**59**	**-0.000**	ug/L	0.000	136	3	1	173	KED
	Ni	**60**	**-0.339**	ug/L	0.004	1	583	13	51	KED
	Ni	**62**	**-0.298**	ug/L	0.004	1	99	15	6	KED
	Cu	**63**	**0.002**	ug/L	0.002	90	88	92	9	KED
	Cu	**65**	**-0.002**	ug/L	0.003	115	51	42	14	KED
	Zn	**66**	**-0.123**	ug/L	0.015	12	128	47	17	KED
	Zn	**67**	**-0.095**	ug/L	0.042	43	17	6	56	KED
	As	**75**	**-0.004**	ug/L	0.001	21	4	3	9	KED
	Se	**78**	**-0.096**	ug/L	0.088	90	20	16	16	KED
	Y	**89**		ug/L			352824	310357	4	Standard
	Kr	**83**		ug/L			41	38	20	Standard
>	**In-1**	**115**		ug/L			9999	9512	0	KED
	Mo	**98**	**0.003**	ug/L	0.002	68	5	9	30	KED
	Cd	**111**	**-0.007**	ug/L	0.004	58	5	3	31	KED
	Cd	**114**	**-0.003**	ug/L	0.004	153	9	6	46	KED
>	**In**	**115**		ug/L			440562	433416	1	Standard
	Ag	**107**	**-0.001**	ug/L	0.000	15	34	14	19	Standard
	Sb	**121**	**-0.013**	ug/L	0.001	7	252	58	22	Standard
	Sb	**123**	**-0.014**	ug/L	0.002	11	192	37	46	Standard
	Ba	**135**	**-0.001**	ug/L	0.002	145	54	46	19	Standard
	Ba	**137**	**-0.003**	ug/L	0.001	27	99	73	10	Standard
>	**Tb**	**159**		ug/L			801432	925377	2	Standard
	Tl	**205**	**-0.001**	ug/L	0.000	13	79	64	7	Standard
	Pb	**208**	**-0.003**	ug/L	0.000	12	302	207	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVH
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 09:25:59
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			445315	475554	6	Standard
	Be	**9**	**49.633**	ug/L	2.525	5	4	193122	4	Standard
	C	**13**		ug/L			28756	32042	4	Standard
	Cl	**37**		ug/L			1763477	1412057	2	Standard
>	**Sc**	**45**		ug/L			604634	540382	4	Standard
	V	**51**	**47.185**	ug/L	1.582	3	7658	1117787	2	Standard
	V-1	**51**	**47.420**	ug/L	1.370	2	354	1121484	2	Standard
	Cr	**52**	**46.970**	ug/L	1.000	2	22715	930660	3	Standard
	Cr	**53**	**47.773**	ug/L	0.346	0	231	106346	3	Standard
	Mn	**55**	**47.532**	ug/L	1.697	3	858	1340387	4	Standard
>	**Ge**	**72**		ug/L			47144	43905	2	KED
	Co	**59**	**51.369**	ug/L	0.896	1	3	281322	2	KED
	Ni	**60**	**52.857**	ug/L	0.260	0	583	83055	2	KED
	Ni	**62**	**51.850**	ug/L	1.872	3	99	13357	5	KED
	Cu	**63**	**53.252**	ug/L	0.910	1	88	234928	2	KED
	Cu	**65**	**54.154**	ug/L	0.415	0	51	117192	2	KED
	Zn	**66**	**52.300**	ug/L	0.348	0	128	30363	3	KED
	Zn	**67**	**53.210**	ug/L	1.801	3	17	5007	4	KED
	As	**75**	**51.420**	ug/L	0.607	1	4	15880	2	KED
	Se	**78**	**49.671**	ug/L	0.294	0	20	1444	2	KED
	Y	**89**		ug/L			352824	301321	3	Standard
	Kr	**83**		ug/L			41	46	13	Standard
>	**In-1**	**115**		ug/L			9999	9569	1	KED
	Mo	**98**	**55.369**	ug/L	0.686	1	5	78506	0	KED
	Cd	**111**	**54.683**	ug/L	0.846	1	5	16090	1	KED
	Cd	**114**	**54.554**	ug/L	1.390	2	9	41136	1	KED
>	**In**	**115**		ug/L			440562	416141	2	Standard
	Ag	**107**	**46.375**	ug/L	0.907	1	34	787849	2	Standard
	Sb	**121**	**50.671**	ug/L	0.887	1	252	707341	3	Standard
	Sb	**123**	**53.126**	ug/L	0.859	1	192	566504	2	Standard
	Ba	**135**	**60.302**	ug/L	1.365	2	54	267229	3	Standard
	Ba	**137**	**60.624**	ug/L	2.449	4	99	470498	6	Standard
>	**Tb**	**159**		ug/L			801432	900171	4	Standard
	Tl	**205**	**53.216**	ug/L	3.864	7	79	2039986	9	Standard
	Pb	**208**	**51.023**	ug/L	0.995	1	302	2597704	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBH
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 09:33:47
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			445315	520842	1	Standard
	Be	**9**	**-0.000**	ug/L	0.001	503	4	4	89	Standard
	C	**13**		ug/L			28756	31426	2	Standard
	Cl	**37**		ug/L			1763477	1506823	1	Standard
>	**Sc**	**45**		ug/L			604634	579784	1	Standard
	V	**51**	**-0.033**	ug/L	0.006	18	7658	6502	3	Standard
	V-1	**51**	**0.016**	ug/L	0.001	4	354	750	1	Standard
	Cr	**52**	**-0.126**	ug/L	0.013	10	22715	19164	2	Standard
	Cr	**53**	**0.044**	ug/L	0.008	17	231	326	4	Standard
	Mn	**55**	**0.002**	ug/L	0.001	33	858	869	3	Standard
>	**Ge**	**72**		ug/L			47144	42740	1	KED
	Co	**59**	**0.001**	ug/L	0.001	80	3	7	50	KED
	Ni	**60**	**-0.335**	ug/L	0.006	1	583	19	45	KED
	Ni	**62**	**-0.335**	ug/L	0.019	5	99	6	75	KED
	Cu	**63**	**0.005**	ug/L	0.001	20	88	101	6	KED
	Cu	**65**	**0.007**	ug/L	0.003	43	51	60	9	KED
	Zn	**66**	**0.079**	ug/L	0.011	14	128	160	5	KED
	Zn	**67**	**0.087**	ug/L	0.055	63	17	23	20	KED
	As	**75**	**-0.003**	ug/L	0.003	77	4	3	22	KED
	Se	**78**	**0.056**	ug/L	0.077	138	20	20	11	KED
	Y	**89**		ug/L			352824	326844	1	Standard
	Kr	**83**		ug/L			41	38	20	Standard
>	**In-1**	**115**		ug/L			9999	9587	2	KED
	Mo	**98**	**0.011**	ug/L	0.001	9	5	20	4	KED
	Cd	**111**	**0.002**	ug/L	0.004	205	5	6	18	KED
	Cd	**114**	**-0.003**	ug/L	0.005	187	9	6	58	KED
>	**In**	**115**		ug/L			440562	455627	1	Standard
	Ag	**107**	**0.001**	ug/L	0.001	64	34	51	19	Standard
	Sb	**121**	**0.037**	ug/L	0.001	3	252	822	3	Standard
	Sb	**123**	**0.037**	ug/L	0.004	11	192	632	8	Standard
	Ba	**135**	**0.012**	ug/L	0.001	7	54	113	3	Standard
	Ba	**137**	**0.013**	ug/L	0.001	6	99	211	2	Standard
>	**Tb**	**159**		ug/L			801432	947112	1	Standard
	Tl	**205**	**0.002**	ug/L	0.000	16	79	178	7	Standard
	Pb	**208**	**0.000**	ug/L	0.000	38	302	365	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0736-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 09:38:52
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	485374	3	Standard
	Be	9	0.005	ug/L	0.000	7	4	22	8	Standard
	C	13		ug/L			28756	49726	2	Standard
	Cl	37		ug/L			1763477	1166270	1	Standard
>	Sc	45		ug/L			604634	607317	4	Standard
	V	51	0.937	ug/L	0.041	4	7658	32495	4	Standard
	V-1	51	1.062	ug/L	0.033	3	354	28570	4	Standard
	Cr	52	0.488	ug/L	0.027	5	22715	33446	3	Standard
	Cr	53	0.918	ug/L	0.003	0	231	2524	4	Standard
	Mn	55	0.292	ug/L	0.009	3	858	10118	1	Standard
>	Ge	72		ug/L			47144	40027	0	KED
	Co	59	0.043	ug/L	0.003	7	3	216	7	KED
	Ni	60	0.954	ug/L	0.100	10	583	1853	7	KED
	Ni	62	0.794	ug/L	0.091	11	99	269	8	KED
	Cu	63	6.242	ug/L	0.192	3	88	25176	3	KED
	Cu	65	6.601	ug/L	0.150	2	51	13063	2	KED
	Zn	66	15.085	ug/L	0.447	2	128	8061	3	KED
	Zn	67	18.475	ug/L	1.239	6	17	1594	6	KED
	As	75	1.118	ug/L	0.039	3	4	318	3	KED
	Se	78	3.498	ug/L	0.305	8	20	108	6	KED
	Y	89		ug/L			352824	282026	2	Standard
	Kr	83		ug/L			41	54	20	Standard
>	In-1	115		ug/L			9999	8763	1	KED
	Mo	98	2.821	ug/L	0.073	2	5	3667	3	KED
	Cd	111	0.082	ug/L	0.009	11	5	26	8	KED
	Cd	114	0.078	ug/L	0.017	22	9	61	19	KED
>	In	115		ug/L			440562	392309	1	Standard
	Ag	107	0.003	ug/L	0.001	23	34	78	14	Standard
	Sb	121	0.097	ug/L	0.004	3	252	1494	4	Standard
	Sb	123	0.106	ug/L	0.009	8	192	1234	7	Standard
	Ba	135	86.634	ug/L	2.720	3	54	361958	3	Standard
	Ba	137	87.478	ug/L	1.633	1	99	639574	2	Standard
>	Tb	159		ug/L			801432	894728	2	Standard
	Tl	205	0.002	ug/L	0.000	12	79	177	3	Standard
	Pb	208	1.491	ug/L	0.020	1	302	75840	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0736-03
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 09:43:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	520263	2	Standard
	Be	9	0.000	ug/L	0.001	518	4	6	96	Standard
	C	13		ug/L			28756	49918	2	Standard
	Cl	37		ug/L			1763477	1140423	1	Standard
>	Sc	45		ug/L			604634	598099	0	Standard
	V	51	1.229	ug/L	0.015	1	7658	39625	1	Standard
	V-1	51	1.330	ug/L	0.016	1	354	35176	1	Standard
	Cr	52	0.617	ug/L	0.021	3	22715	35708	0	Standard
	Cr	53	0.969	ug/L	0.012	1	231	2612	0	Standard
	Mn	55	56.817	ug/L	1.326	2	858	1773747	2	Standard
>	Ge	72		ug/L			47144	38318	3	KED
	Co	59	0.472	ug/L	0.024	5	3	2259	4	KED
	Ni	60	2.590	ug/L	0.055	2	583	4004	4	KED
	Ni	62	2.555	ug/L	0.382	14	99	648	9	KED
	Cu	63	1.214	ug/L	0.006	0	88	4743	3	KED
	Cu	65	1.267	ug/L	0.042	3	51	2432	1	KED
	Zn	66	2.076	ug/L	0.283	13	128	1149	9	KED
	Zn	67	4.733	ug/L	0.250	5	17	401	8	KED
	As	75	1.615	ug/L	0.067	4	4	438	2	KED
	Se	78	38.198	ug/L	1.422	3	20	972	1	KED
	Y	89		ug/L			352824	288984	0	Standard
	Kr	83		ug/L			41	59	5	Standard
>	In-1	115		ug/L			9999	8725	0	KED
	Mo	98	7.712	ug/L	0.177	2	5	9975	2	KED
	Cd	111	0.080	ug/L	0.009	11	5	26	9	KED
	Cd	114	0.106	ug/L	0.003	3	9	80	2	KED
>	In	115		ug/L			440562	408780	1	Standard
	Ag	107	0.002	ug/L	0.001	29	34	66	14	Standard
	Sb	121	0.482	ug/L	0.012	2	252	6847	1	Standard
	Sb	123	0.503	ug/L	0.023	4	192	5446	3	Standard
	Ba	135	74.483	ug/L	1.122	1	54	324283	2	Standard
	Ba	137	76.893	ug/L	1.595	2	99	585724	2	Standard
>	Tb	159		ug/L			801432	951621	1	Standard
	Tl	205	0.007	ug/L	0.001	18	79	376	13	Standard
	Pb	208	0.054	ug/L	0.001	1	302	3280	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0736-05
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 09:48:58
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	522675	5	Standard
	Be	9	0.001	ug/L	0.000	60	4	8	26	Standard
	C	13		ug/L			28756	49649	2	Standard
	Cl	37		ug/L			1763477	1146670	3	Standard
>	Sc	45		ug/L			604634	603854	4	Standard
	V	51	0.648	ug/L	0.022	3	7658	24696	2	Standard
	V-1	51	0.749	ug/L	0.013	1	354	20147	2	Standard
	Cr	52	0.067	ug/L	0.031	45	22715	24124	2	Standard
	Cr	53	0.419	ug/L	0.004	1	231	1271	4	Standard
	Mn	55	0.102	ug/L	0.004	4	858	4063	2	Standard
>	Ge	72		ug/L			47144	39879	1	KED
	Co	59	0.010	ug/L	0.003	26	3	50	24	KED
	Ni	60	0.371	ug/L	0.030	8	583	1019	3	KED
	Ni	62	0.331	ug/L	0.082	24	99	160	11	KED
	Cu	63	8.415	ug/L	0.101	1	88	33780	0	KED
	Cu	65	8.676	ug/L	0.166	1	51	17089	1	KED
	Zn	66	14.627	ug/L	0.287	1	128	7790	1	KED
	Zn	67	15.927	ug/L	1.002	6	17	1370	4	KED
	As	75	1.088	ug/L	0.023	2	4	309	0	KED
	Se	78	6.818	ug/L	0.426	6	20	194	4	KED
	Y	89		ug/L			352824	284057	1	Standard
	Kr	83		ug/L			41	62	22	Standard
>	In-1	115		ug/L			9999	8717	2	KED
	Mo	98	13.239	ug/L	0.474	3	5	17098	1	KED
	Cd	111	0.024	ug/L	0.017	69	5	11	38	KED
	Cd	114	0.000	ug/L	0.011	2630	9	8	89	KED
>	In	115		ug/L			440562	403568	1	Standard
	Ag	107	0.003	ug/L	0.000	7	34	79	3	Standard
	Sb	121	0.081	ug/L	0.001	1	252	1324	0	Standard
	Sb	123	0.086	ug/L	0.006	6	192	1067	5	Standard
	Ba	135	47.343	ug/L	1.114	2	54	203525	3	Standard
	Ba	137	49.636	ug/L	0.974	1	99	373388	3	Standard
>	Tb	159		ug/L			801432	968037	5	Standard
	Tl	205	0.003	ug/L	0.001	23	79	212	14	Standard
	Pb	208	0.463	ug/L	0.011	2	302	25703	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0736-07
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 09:54:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	489274	3	Standard
	Be	9	0.001	ug/L	0.001	61	4	10	36	Standard
	C	13		ug/L			28756	50527	1	Standard
	Cl	37		ug/L			1763477	1023197	1	Standard
>	Sc	45		ug/L			604634	554425	3	Standard
	V	51	-0.002	ug/L	0.003	109	7658	6965	3	Standard
	V-1	51	0.064	ug/L	0.001	1	354	1872	4	Standard
	Cr	52	-0.025	ug/L	0.022	90	22715	20330	2	Standard
	Cr	53	0.201	ug/L	0.010	5	231	668	1	Standard
	Mn	55	147.625	ug/L	3.543	2	858	4268146	1	Standard
>	Ge	72		ug/L			47144	37830	1	KED
	Co	59	0.151	ug/L	0.014	9	3	713	10	KED
	Ni	60	2.008	ug/L	0.067	3	583	3169	4	KED
	Ni	62	1.984	ug/L	0.047	2	99	516	3	KED
	Cu	63	0.328	ug/L	0.010	3	88	1315	2	KED
	Cu	65	0.334	ug/L	0.042	12	51	663	10	KED
	Zn	66	1.735	ug/L	0.089	5	128	967	3	KED
	Zn	67	3.139	ug/L	0.539	17	17	267	17	KED
	As	75	0.290	ug/L	0.023	7	4	80	8	KED
	Se	78	0.140	ug/L	0.155	110	20	19	19	KED
	Y	89		ug/L			352824	265014	2	Standard
	Kr	83		ug/L			41	60	11	Standard
>	In-1	115		ug/L			9999	8452	1	KED
	Mo	98	21.277	ug/L	0.359	1	5	26652	2	KED
	Cd	111	0.037	ug/L	0.022	58	5	14	39	KED
	Cd	114	0.034	ug/L	0.018	53	9	30	41	KED
>	In	115		ug/L			440562	383126	1	Standard
	Ag	107	0.001	ug/L	0.001	79	34	50	31	Standard
	Sb	121	0.053	ug/L	0.002	2	252	902	0	Standard
	Sb	123	0.056	ug/L	0.002	3	192	715	0	Standard
	Ba	135	39.543	ug/L	1.357	3	54	161299	2	Standard
	Ba	137	41.119	ug/L	0.421	1	99	293618	2	Standard
>	Tb	159		ug/L			801432	929892	2	Standard
	Tl	205	0.012	ug/L	0.000	2	79	565	4	Standard
	Pb	208	0.035	ug/L	0.002	4	302	2205	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0736-11
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 09:59:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	502938	4	Standard
	Be	9	0.003	ug/L	0.000	14	4	16	13	Standard
	C	13		ug/L			28756	48122	4	Standard
	Cl	37		ug/L			1763477	1085599	1	Standard
>	Sc	45		ug/L			604634	564265	3	Standard
	V	51	-0.032	ug/L	0.011	35	7658	6361	5	Standard
	V-1	51	0.040	ug/L	0.002	3	354	1308	5	Standard
	Cr	52	-0.055	ug/L	0.016	28	22715	20090	4	Standard
	Cr	53	0.189	ug/L	0.020	10	231	654	9	Standard
	Mn	55	86.128	ug/L	1.697	1	858	2537397	5	Standard
>	Ge	72		ug/L			47144	38293	2	KED
	Co	59	0.483	ug/L	0.011	2	3	2310	3	KED
	Ni	60	2.205	ug/L	0.108	4	583	3476	4	KED
	Ni	62	2.073	ug/L	0.047	2	99	542	2	KED
	Cu	63	0.605	ug/L	0.002	0	88	2397	2	KED
	Cu	65	0.647	ug/L	0.028	4	51	1261	2	KED
	Zn	66	8.173	ug/L	0.166	2	128	4226	3	KED
	Zn	67	8.748	ug/L	0.396	4	17	729	4	KED
	As	75	0.615	ug/L	0.019	3	4	169	4	KED
	Se	78	-0.024	ug/L	0.115	476	20	15	18	KED
	Y	89		ug/L			352824	271914	4	Standard
	Kr	83		ug/L			41	52	14	Standard
>	In-1	115		ug/L			9999	8611	1	KED
	Mo	98	39.021	ug/L	0.660	1	5	49789	0	KED
	Cd	111	0.010	ug/L	0.006	59	5	7	21	KED
	Cd	114	0.002	ug/L	0.000	3	9	9	1	KED
>	In	115		ug/L			440562	391260	4	Standard
	Ag	107	-0.000	ug/L	0.000	225	34	27	30	Standard
	Sb	121	0.134	ug/L	0.004	3	252	1983	5	Standard
	Sb	123	0.132	ug/L	0.002	1	192	1493	3	Standard
	Ba	135	31.462	ug/L	0.689	2	54	131035	2	Standard
	Ba	137	32.221	ug/L	0.365	1	99	235000	4	Standard
>	Tb	159		ug/L			801432	938522	2	Standard
	Tl	205	0.001	ug/L	0.000	14	79	142	7	Standard
	Pb	208	0.049	ug/L	0.001	2	302	2948	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0736-09
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 10:04:08
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	477301	1	Standard
	Be	9	0.003	ug/L	0.000	16	4	15	12	Standard
	C	13		ug/L			28756	51022	2	Standard
	Cl	37		ug/L			1763477	1110077	1	Standard
>	Sc	45		ug/L			604634	537772	1	Standard
	V	51	-0.018	ug/L	0.011	58	7658	6386	3	Standard
	V-1	51	0.050	ug/L	0.001	2	354	1483	3	Standard
	Cr	52	-0.016	ug/L	0.029	184	22715	19893	2	Standard
	Cr	53	0.215	ug/L	0.007	3	231	680	2	Standard
	Mn	55	87.837	ug/L	1.840	2	858	2464716	1	Standard
>	Ge	72		ug/L			47144	38627	3	KED
	Co	59	0.498	ug/L	0.026	5	3	2401	2	KED
	Ni	60	2.216	ug/L	0.061	2	583	3523	5	KED
	Ni	62	2.270	ug/L	0.111	4	99	592	7	KED
	Cu	63	0.705	ug/L	0.013	1	88	2807	1	KED
	Cu	65	0.744	ug/L	0.048	6	51	1456	5	KED
	Zn	66	10.166	ug/L	0.264	2	128	5273	0	KED
	Zn	67	10.970	ug/L	0.399	3	17	918	0	KED
	As	75	0.699	ug/L	0.035	4	4	193	3	KED
	Se	78	0.103	ug/L	0.109	105	20	19	12	KED
	Y	89		ug/L			352824	263248	2	Standard
	Kr	83		ug/L			41	57	23	Standard
>	In-1	115		ug/L			9999	8220	0	KED
	Mo	98	39.181	ug/L	0.282	0	5	47725	0	KED
	Cd	111	0.009	ug/L	0.006	61	5	6	20	KED
	Cd	114	0.007	ug/L	0.009	137	9	11	49	KED
>	In	115		ug/L			440562	364338	0	Standard
	Ag	107	0.000	ug/L	0.000	298	34	29	9	Standard
	Sb	121	0.178	ug/L	0.001	0	252	2387	0	Standard
	Sb	123	0.190	ug/L	0.010	5	192	1933	4	Standard
	Ba	135	33.117	ug/L	1.168	3	54	128518	3	Standard
	Ba	137	33.988	ug/L	0.523	1	99	230815	1	Standard
>	Tb	159		ug/L			801432	907437	2	Standard
	Tl	205	0.001	ug/L	0.001	48	79	142	16	Standard
	Pb	208	0.061	ug/L	0.001	1	302	3487	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0347-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 10:09:05
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			445315	507143	6	Standard
[	Be	9	0.003	ug/L	0.001	29	4	15	18	Standard
	C	13		ug/L			28756	51959	3	Standard
	Cl	37		ug/L			1763477	1098027	4	Standard
[>	Sc	45		ug/L			604634	575608	6	Standard
[	V	51	-0.021	ug/L	0.012	57	7658	6744	3	Standard
[	V-1	51	0.045	ug/L	0.003	5	354	1475	6	Standard
[	Cr	52	-0.024	ug/L	0.052	220	22715	21088	1	Standard
[	Cr	53	0.203	ug/L	0.023	11	231	698	4	Standard
[	Mn	55	86.598	ug/L	1.683	1	858	2599396	4	Standard
[>	Ge	72		ug/L			47144	37947	3	KED
[	Co	59	0.506	ug/L	0.010	2	3	2398	1	KED
[	Ni	60	2.201	ug/L	0.099	4	583	3439	5	KED
[	Ni	62	2.241	ug/L	0.217	9	99	575	8	KED
[	Cu	63	0.755	ug/L	0.017	2	88	2948	2	KED
[	Cu	65	0.784	ug/L	0.070	8	51	1504	6	KED
[	Zn	66	10.008	ug/L	0.449	4	128	5103	4	KED
[	Zn	67	10.541	ug/L	0.431	4	17	867	2	KED
[	As	75	0.684	ug/L	0.036	5	4	186	7	KED
[	Se	78	0.102	ug/L	0.087	85	20	18	11	KED
	Y	89		ug/L			352824	281143	5	Standard
	Kr	83		ug/L			41	48	4	Standard
[>	In-1	115		ug/L			9999	8376	1	KED
[	Mo	98	38.105	ug/L	0.677	1	5	47291	0	KED
[	Cd	111	0.009	ug/L	0.009	108	5	6	34	KED
[	Cd	114	0.001	ug/L	0.006	550	9	8	47	KED
[>	In	115		ug/L			440562	396124	4	Standard
[	Ag	107	0.000	ug/L	0.000	278	34	33	21	Standard
[	Sb	121	0.178	ug/L	0.009	5	252	2586	3	Standard
[	Sb	123	0.185	ug/L	0.005	2	192	2050	2	Standard
[	Ba	135	31.226	ug/L	0.727	2	54	131659	2	Standard
[	Ba	137	32.102	ug/L	0.356	1	99	236979	4	Standard
[>	Tb	159		ug/L			801432	929366	6	Standard
[	Tl	205	0.001	ug/L	0.000	29	79	147	5	Standard
[	Pb	208	0.061	ug/L	0.004	6	302	3572	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0347-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 10:14:33
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			445315	495344	0	Standard
⌊	Be	9	23.509	ug/L	0.650	2	4	95451	3	Standard
	C	13		ug/L			28756	49053	0	Standard
	Cl	37		ug/L			1763477	1035569	1	Standard
⌈>	Sc	45		ug/L			604634	574206	0	Standard
⌈	V	51	22.565	ug/L	0.243	1	7658	572175	1	Standard
⌊	V-1	51	22.759	ug/L	0.238	1	354	572480	1	Standard
⌈	Cr	52	21.992	ug/L	0.333	1	22715	474621	1	Standard
⌊	Cr	53	22.661	ug/L	0.326	1	231	53729	1	Standard
⌊	Mn	55	109.727	ug/L	1.565	1	858	3287800	1	Standard
⌈>	Ge	72		ug/L			47144	38880	1	KED
⌈	Co	59	26.580	ug/L	0.213	0	3	128922	1	KED
⌊	Ni	60	27.911	ug/L	0.026	0	583	39067	1	KED
	Ni	62	28.253	ug/L	0.217	0	99	6482	2	KED
⌈	Cu	63	25.730	ug/L	0.078	0	88	100565	1	KED
⌊	Cu	65	26.651	ug/L	0.254	0	51	51102	2	KED
⌈	Zn	66	84.349	ug/L	1.390	1	128	43299	2	KED
⌊	Zn	67	81.000	ug/L	1.597	1	17	6743	2	KED
⌈	As	75	27.257	ug/L	0.191	0	4	7457	2	KED
⌊	Se	78	79.647	ug/L	0.976	1	20	2040	0	KED
	Y	89		ug/L			352824	289307	1	Standard
	Kr	83		ug/L			41	53	4	Standard
⌈>	In-1	115		ug/L			9999	8318	3	KED
⌈	Mo	98	71.627	ug/L	0.570	0	5	88282	3	KED
⌊	Cd	111	27.711	ug/L	0.529	1	5	7089	2	KED
⌊	Cd	114	27.168	ug/L	0.753	2	9	17804	1	KED
⌈>	In	115		ug/L			440562	392819	1	Standard
⌈	Ag	107	21.542	ug/L	0.350	1	34	345564	2	Standard
⌊	Sb	121	28.391	ug/L	0.409	1	252	374226	1	Standard
⌈	Sb	123	29.130	ug/L	0.209	0	192	293342	1	Standard
⌈	Ba	135	62.540	ug/L	0.252	0	54	261627	1	Standard
⌊	Ba	137	65.114	ug/L	1.187	1	99	476611	1	Standard
⌈>	Tb	159		ug/L			801432	942991	2	Standard
⌈	Tl	205	25.575	ug/L	0.410	1	79	1026128	1	Standard
⌊	Pb	208	24.974	ug/L	0.163	0	302	1332775	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0347-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 10:21:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			445315	493690	0	Standard
⌊	Be	9	23.342	ug/L	0.633	2	4	94449	3	Standard
	C	13		ug/L			28756	48875	0	Standard
	Cl	37		ug/L			1763477	1073161	2	Standard
⌈>	Sc	45		ug/L			604634	558676	2	Standard
⌈	V	51	22.644	ug/L	0.805	3	7658	558296	1	Standard
⌊	V-1	51	22.752	ug/L	0.857	3	354	556494	1	Standard
⌈	Cr	52	22.420	ug/L	0.388	1	22715	470228	0	Standard
⌊	Cr	53	22.794	ug/L	0.567	2	231	52559	0	Standard
⌊	Mn	55	109.591	ug/L	3.257	2	858	3193606	1	Standard
⌈>	Ge	72		ug/L			47144	40050	3	KED
⌈	Co	59	26.803	ug/L	0.511	1	3	133865	2	KED
⌊	Ni	60	28.785	ug/L	0.388	1	583	41478	2	KED
	Ni	62	28.633	ug/L	0.881	3	99	6760	1	KED
⌈	Cu	63	26.412	ug/L	0.244	0	88	106317	2	KED
⌊	Cu	65	27.341	ug/L	0.651	2	51	53969	1	KED
⌈	Zn	66	86.746	ug/L	0.620	0	128	45858	3	KED
⌊	Zn	67	83.471	ug/L	1.594	1	17	7157	3	KED
⌈	As	75	27.890	ug/L	0.198	0	4	7858	2	KED
⌊	Se	78	82.963	ug/L	2.441	2	20	2187	1	KED
	Y	89		ug/L			352824	285417	1	Standard
	Kr	83		ug/L			41	49	13	Standard
⌈>	In-1	115		ug/L			9999	8638	2	KED
⌈	Mo	98	70.289	ug/L	1.335	1	5	89946	1	KED
⌈	Cd	111	27.440	ug/L	0.601	2	5	7288	0	KED
⌊	Cd	114	27.171	ug/L	0.327	1	9	18500	2	KED
⌈>	In	115		ug/L			440562	393278	0	Standard
⌈	Ag	107	21.732	ug/L	0.197	0	34	349000	1	Standard
⌈	Sb	121	27.519	ug/L	0.500	1	252	363141	1	Standard
⌊	Sb	123	28.286	ug/L	0.385	1	192	285138	0	Standard
⌈	Ba	135	60.292	ug/L	0.879	1	54	252545	2	Standard
⌊	Ba	137	62.823	ug/L	1.053	1	99	460395	0	Standard
⌈>	Tb	159		ug/L			801432	914182	2	Standard
⌈	Tl	205	25.085	ug/L	0.239	0	79	975981	2	Standard
⌊	Pb	208	24.991	ug/L	0.323	1	302	1292794	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLJ
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 10:25:59
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			445315	548650	2	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.001	2121	4	5	66	Standard
	C	**13**		ug/L			28756	33265	4	Standard
	Cl	**37**		ug/L			1763477	1488551	2	Standard
⌈>	**Sc**	**45**		ug/L			604634	579641	4	Standard
⌈	**V**	**51**	**-0.017**	ug/L	0.013	78	7658	6896	0	Standard
⌊	**V-1**	**51**	**0.006**	ug/L	0.001	23	354	486	4	Standard
⌈	**Cr**	**52**	**-0.071**	ug/L	0.046	65	22715	20275	0	Standard
⌊	**Cr**	**53**	**0.008**	ug/L	0.004	52	231	241	2	Standard
⌊	**Mn**	**55**	**-0.004**	ug/L	0.001	26	858	691	1	Standard
⌈>	**Ge**	**72**		ug/L			47144	43424	3	KED
⌈	**Co**	**59**	**0.001**	ug/L	0.000	24	3	9	20	KED
⌊	**Ni**	**60**	**-0.339**	ug/L	0.003	0	583	13	31	KED
⌈	**Ni**	**62**	**-0.343**	ug/L	0.004	1	99	4	24	KED
⌈	**Cu**	**63**	**0.002**	ug/L	0.002	83	88	90	4	KED
⌊	**Cu**	**65**	**-0.004**	ug/L	0.002	48	51	38	7	KED
⌈	**Zn**	**66**	**-0.114**	ug/L	0.021	18	128	52	22	KED
⌊	**Zn**	**67**	**-0.060**	ug/L	0.056	93	17	10	47	KED
⌈	**As**	**75**	**0.003**	ug/L	0.005	155	4	5	27	KED
⌊	**Se**	**78**	**-0.026**	ug/L	0.085	328	20	18	13	KED
	Y	**89**		ug/L			352824	316061	0	Standard
	Kr	**83**		ug/L			41	33	28	Standard
⌈>	**In-1**	**115**		ug/L			9999	9201	4	KED
⌈	**Mo**	**98**	**0.016**	ug/L	0.007	41	5	27	30	KED
⌊	**Cd**	**111**	**0.005**	ug/L	0.007	134	5	6	28	KED
⌊	**Cd**	**114**	**-0.005**	ug/L	0.002	34	9	4	23	KED
⌈>	**In**	**115**		ug/L			440562	444956	3	Standard
⌈	**Ag**	**107**	**-0.000**	ug/L	0.000	109	34	28	29	Standard
⌈	**Sb**	**121**	**-0.009**	ug/L	0.001	13	252	123	17	Standard
⌊	**Sb**	**123**	**-0.010**	ug/L	0.002	18	192	82	27	Standard
⌈	**Ba**	**135**	**-0.003**	ug/L	0.001	40	54	38	19	Standard
⌊	**Ba**	**137**	**-0.005**	ug/L	0.002	38	99	62	21	Standard
⌈>	**Tb**	**159**		ug/L			801432	957156	1	Standard
⌈	**Tl**	**205**	**-0.000**	ug/L	0.000	267	79	88	17	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	4	302	297	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 10:31:03
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			445315	489477	2	Standard
[	**Be**	**9**	**51.974**	ug/L	0.200	0	4	208501	2	Standard
	C	**13**		ug/L			28756	31281	4	Standard
	Cl	**37**		ug/L			1763477	1426071	2	Standard
[>	**Sc**	**45**		ug/L			604634	555166	2	Standard
[	**V**	**51**	**46.846**	ug/L	1.329	2	7658	1140440	1	Standard
[	**V-1**	**51**	**47.057**	ug/L	1.181	2	354	1143584	1	Standard
[	**Cr**	**52**	**47.252**	ug/L	1.518	3	22715	961805	3	Standard
[	**Cr**	**53**	**47.964**	ug/L	0.619	1	231	109689	1	Standard
[	**Mn**	**55**	**48.337**	ug/L	0.316	0	858	1400806	3	Standard
[>	**Ge**	**72**		ug/L			47144	44992	1	KED
[	**Co**	**59**	**51.149**	ug/L	0.806	1	3	287111	2	KED
[	**Ni**	**60**	**51.664**	ug/L	0.783	1	583	83223	3	KED
[	**Ni**	**62**	**50.261**	ug/L	0.864	1	99	13270	2	KED
[	**Cu**	**63**	**51.867**	ug/L	0.524	1	88	234496	1	KED
[	**Cu**	**65**	**53.430**	ug/L	1.156	2	51	118514	3	KED
[	**Zn**	**66**	**50.516**	ug/L	0.775	1	128	30051	1	KED
[	**Zn**	**67**	**51.724**	ug/L	2.294	4	17	4986	3	KED
[	**As**	**75**	**50.573**	ug/L	0.379	0	4	16006	1	KED
[	**Se**	**78**	**49.120**	ug/L	0.369	0	20	1464	2	KED
	Y	**89**		ug/L			352824	313498	3	Standard
	Kr	**83**		ug/L			41	40	26	Standard
[>	**In-1**	**115**		ug/L			9999	8875	0	KED
[	**Mo**	**98**	**55.903**	ug/L	1.808	3	5	73519	3	KED
[	**Cd**	**111**	**54.541**	ug/L	1.403	2	5	14886	2	KED
[	**Cd**	**114**	**54.875**	ug/L	1.630	2	9	38385	3	KED
[>	**In**	**115**		ug/L			440562	421795	3	Standard
[	**Ag**	**107**	**47.988**	ug/L	0.675	1	34	826207	1	Standard
[	**Sb**	**121**	**51.508**	ug/L	0.277	0	252	728890	3	Standard
[	**Sb**	**123**	**53.322**	ug/L	1.229	2	192	576111	1	Standard
[	**Ba**	**135**	**60.496**	ug/L	1.970	3	54	271646	2	Standard
[	**Ba**	**137**	**61.212**	ug/L	0.737	1	99	481056	2	Standard
[>	**Tb**	**159**		ug/L			801432	911483	2	Standard
[	**Tl**	**205**	**53.408**	ug/L	3.819	7	79	2074313	10	Standard
[	**Pb**	**208**	**51.157**	ug/L	0.983	1	302	2637913	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 10:38:50
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			445315	500051	5	Standard
	Be	**9**	**-0.000**	ug/L	0.001	144	4	3	91	Standard
	C	**13**		ug/L			28756	31372	1	Standard
	Cl	**37**		ug/L			1763477	1528790	2	Standard
>	**Sc**	**45**		ug/L			604634	574522	4	Standard
	V	**51**	**-0.029**	ug/L	0.005	17	7658	6555	4	Standard
	V-1	**51**	**0.006**	ug/L	0.001	14	354	485	3	Standard
	Cr	**52**	**-0.106**	ug/L	0.025	23	22715	19401	4	Standard
	Cr	**53**	**0.013**	ug/L	0.007	53	231	251	4	Standard
	Mn	**55**	**-0.000**	ug/L	0.001	264	858	805	1	Standard
>	**Ge**	**72**		ug/L			47144	46122	0	KED
	Co	**59**	**0.000**	ug/L	0.000	1558	3	3	34	KED
	Ni	**60**	**-0.336**	ug/L	0.002	0	583	20	14	KED
	Ni	**62**	**-0.318**	ug/L	0.012	3	99	11	28	KED
	Cu	**63**	**0.007**	ug/L	0.003	39	88	116	9	KED
	Cu	**65**	**0.005**	ug/L	0.005	108	51	60	19	KED
	Zn	**66**	**0.098**	ug/L	0.039	39	128	185	13	KED
	Zn	**67**	**0.088**	ug/L	0.032	36	17	25	11	KED
	As	**75**	**0.001**	ug/L	0.004	327	4	4	27	KED
	Se	**78**	**0.004**	ug/L	0.212	4861	20	20	32	KED
	Y	**89**		ug/L			352824	319781	5	Standard
	Kr	**83**		ug/L			41	47	30	Standard
>	**In-1**	**115**		ug/L			9999	10085	0	KED
	Mo	**98**	**0.011**	ug/L	0.002	13	5	22	10	KED
	Cd	**111**	**0.004**	ug/L	0.006	162	5	6	28	KED
	Cd	**114**	**-0.003**	ug/L	0.003	81	9	6	32	KED
>	**In**	**115**		ug/L			440562	432537	2	Standard
	Ag	**107**	**0.001**	ug/L	0.001	121	34	45	28	Standard
	Sb	**121**	**0.039**	ug/L	0.002	5	252	813	5	Standard
	Sb	**123**	**0.039**	ug/L	0.002	5	192	615	2	Standard
	Ba	**135**	**0.012**	ug/L	0.004	30	54	109	15	Standard
	Ba	**137**	**0.012**	ug/L	0.002	19	99	194	7	Standard
>	**Tb**	**159**		ug/L			801432	899860	4	Standard
	Tl	**205**	**0.002**	ug/L	0.001	42	79	165	17	Standard
	Pb	**208**	**0.001**	ug/L	0.000	28	302	385	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0381-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 10:43:55
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			445315	505103	6	Standard
	Be	**9**	**-0.000**	ug/L	0.001	234	4	3	86	Standard
	C	**13**		ug/L			28756	44182	4	Standard
	Cl	**37**		ug/L			1763477	1545076	1	Standard
>	**Sc**	**45**		ug/L			604634	585511	6	Standard
	V	**51**	**-0.020**	ug/L	0.004	22	7658	6913	6	Standard
	V-1	**51**	**0.010**	ug/L	0.001	7	354	589	3	Standard
	Cr	**52**	**-0.041**	ug/L	0.008	18	22715	21126	6	Standard
	Cr	**53**	**0.059**	ug/L	0.014	23	231	364	8	Standard
	Mn	**55**	**0.021**	ug/L	0.002	7	858	1460	7	Standard
>	**Ge**	**72**		ug/L			47144	45252	3	KED
	Co	**59**	**0.001**	ug/L	0.001	62	3	10	47	KED
	Ni	**60**	**-0.339**	ug/L	0.001	0	583	15	12	KED
	Ni	**62**	**-0.341**	ug/L	0.016	4	99	5	78	KED
	Cu	**63**	**0.002**	ug/L	0.004	181	88	95	17	KED
	Cu	**65**	**0.002**	ug/L	0.006	370	51	53	28	KED
	Zn	**66**	**-0.007**	ug/L	0.004	50	128	118	4	KED
	Zn	**67**	**0.042**	ug/L	0.070	167	17	20	30	KED
	As	**75**	**0.003**	ug/L	0.006	216	4	5	32	KED
	Se	**78**	**-0.038**	ug/L	0.129	343	20	18	23	KED
	Y	**89**		ug/L			352824	325014	6	Standard
	Kr	**83**		ug/L			41	30	47	Standard
>	**In-1**	**115**		ug/L			9999	9561	2	KED
	Mo	**98**	**0.011**	ug/L	0.003	25	5	21	17	KED
	Cd	**111**	**-0.006**	ug/L	0.006	104	5	3	43	KED
	Cd	**114**	**-0.005**	ug/L	0.001	28	9	4	23	KED
>	**In**	**115**		ug/L			440562	436685	7	Standard
	Ag	**107**	**-0.001**	ug/L	0.000	44	34	19	39	Standard
	Sb	**121**	**0.004**	ug/L	0.002	34	252	316	14	Standard
	Sb	**123**	**0.005**	ug/L	0.003	57	192	247	12	Standard
	Ba	**135**	**0.019**	ug/L	0.006	29	54	140	19	Standard
	Ba	**137**	**0.023**	ug/L	0.003	10	99	286	6	Standard
>	**Tb**	**159**		ug/L			801432	888686	8	Standard
	Tl	**205**	**-0.000**	ug/L	0.000	441	79	86	11	Standard
	Pb	**208**	**-0.002**	ug/L	0.001	24	302	227	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0381-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 10:48:58
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			445315	515585	2	Standard
	Be	**9**	**25.816**	ug/L	0.504	1	4	109061	1	Standard
	C	**13**		ug/L			28756	47018	1	Standard
	Cl	**37**		ug/L			1763477	1565787	2	Standard
>	**Sc**	**45**		ug/L			604634	604290	1	Standard
	V	**51**	**24.646**	ug/L	0.233	0	7658	657033	2	Standard
	V-1	**51**	**24.684**	ug/L	0.112	0	354	653412	1	Standard
	Cr	**52**	**24.691**	ug/L	0.378	1	22715	557963	1	Standard
	Cr	**53**	**24.816**	ug/L	0.373	1	231	61891	0	Standard
	Mn	**55**	**24.877**	ug/L	0.434	1	858	785005	0	Standard
>	**Ge**	**72**		ug/L			47144	45628	2	KED
	Co	**59**	**26.428**	ug/L	0.686	2	3	150386	1	KED
	Ni	**60**	**27.208**	ug/L	0.989	3	583	44688	2	KED
	Ni	**62**	**26.577**	ug/L	1.344	5	99	7156	2	KED
	Cu	**63**	**27.199**	ug/L	0.856	3	88	124740	3	KED
	Cu	**65**	**28.804**	ug/L	1.047	3	51	64787	2	KED
	Zn	**66**	**86.187**	ug/L	2.989	3	128	51891	1	KED
	Zn	**67**	**82.084**	ug/L	2.435	2	17	8018	3	KED
	As	**75**	**26.291**	ug/L	0.739	2	4	8440	2	KED
	Se	**78**	**80.212**	ug/L	3.517	4	20	2410	3	KED
	Y	**89**		ug/L			352824	329446	0	Standard
	Kr	**83**		ug/L			41	45	24	Standard
>	**In-1**	**115**		ug/L			9999	10081	0	KED
	Mo	**98**	**0.072**	ug/L	0.014	19	5	113	18	KED
	Cd	**111**	**27.630**	ug/L	0.387	1	5	8569	1	KED
	Cd	**114**	**27.535**	ug/L	0.201	0	9	21880	0	KED
>	**In**	**115**		ug/L			440562	450676	2	Standard
	Ag	**107**	**24.911**	ug/L	0.466	1	34	458274	0	Standard
	Sb	**121**	**0.066**	ug/L	0.002	3	252	1251	0	Standard
	Sb	**123**	**0.068**	ug/L	0.003	3	192	976	3	Standard
	Ba	**135**	**30.382**	ug/L	0.371	1	54	145853	2	Standard
	Ba	**137**	**30.863**	ug/L	0.800	2	99	259166	0	Standard
>	**Tb**	**159**		ug/L			801432	920441	1	Standard
	Tl	**205**	**26.685**	ug/L	0.453	1	79	1045280	2	Standard
	Pb	**208**	**26.789**	ug/L	0.540	2	302	1395326	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0382-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 10:54:02
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			445315	466547	2	Standard
⌊	**Be**	**9**	**0.001**	ug/L	0.000	51	4	6	15	Standard
	C	**13**		ug/L			28756	45692	2	Standard
	Cl	**37**		ug/L			1763477	1540759	1	Standard
⌈>	**Sc**	**45**		ug/L			604634	552265	2	Standard
⌈	**V**	**51**	**-0.002**	ug/L	0.002	108	7658	6943	1	Standard
⌊	**V-1**	**51**	**0.016**	ug/L	0.001	5	354	715	2	Standard
⌈	**Cr**	**52**	**0.067**	ug/L	0.012	18	22715	22067	1	Standard
⌊	**Cr**	**53**	**0.128**	ug/L	0.006	4	231	501	0	Standard
⌈>	**Mn**	**55**	**0.017**	ug/L	0.001	4	858	1272	1	Standard
⌈	**Ge**	**72**		ug/L			47144	46776	1	KED
⌊	**Co**	**59**	**0.001**	ug/L	0.001	49	3	9	34	KED
⌈	**Ni**	**60**	**-0.333**	ug/L	0.003	0	583	24	20	KED
⌊	**Ni**	**62**	**-0.342**	ug/L	0.016	4	99	5	86	KED
⌈	**Cu**	**63**	**0.007**	ug/L	0.001	20	88	120	5	KED
⌊	**Cu**	**65**	**0.009**	ug/L	0.011	116	51	72	32	KED
⌈	**Zn**	**66**	**0.161**	ug/L	0.027	16	128	226	8	KED
⌊	**Zn**	**67**	**0.160**	ug/L	0.038	24	17	33	13	KED
⌈	**As**	**75**	**0.004**	ug/L	0.005	114	4	5	24	KED
⌊	**Se**	**78**	**0.034**	ug/L	0.092	274	20	21	12	KED
	Y	**89**		ug/L			352824	313623	1	Standard
	Kr	**83**		ug/L			41	45	25	Standard
⌈>	**In-1**	**115**		ug/L			9999	9523	1	KED
⌈	**Mo**	**98**	**0.014**	ug/L	0.001	6	5	25	3	KED
⌊	**Cd**	**111**	**0.005**	ug/L	0.005	88	5	6	20	KED
⌊	**Cd**	**114**	**-0.009**	ug/L	0.004	42	9	2	123	KED
⌈>	**In**	**115**		ug/L			440562	418336	1	Standard
⌈	**Ag**	**107**	**0.001**	ug/L	0.000	37	34	47	10	Standard
⌈	**Sb**	**121**	**-0.007**	ug/L	0.001	17	252	135	14	Standard
⌊	**Sb**	**123**	**-0.007**	ug/L	0.001	13	192	112	9	Standard
⌈	**Ba**	**135**	**0.007**	ug/L	0.002	32	54	85	13	Standard
⌊	**Ba**	**137**	**0.007**	ug/L	0.001	14	99	150	5	Standard
⌈>	**Tb**	**159**		ug/L			801432	849566	0	Standard
⌈	**Tl**	**205**	**0.000**	ug/L	0.000	26	79	86	1	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.001	33	302	245	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0382-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 10:59:05
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			445315	524605	3	Standard
	Be	9	25.606	ug/L	0.636	2	4	110021	1	Standard
	C	13		ug/L			28756	50200	1	Standard
	Cl	37		ug/L			1763477	1594582	1	Standard
>	Sc	45		ug/L			604634	619985	2	Standard
	V	51	24.400	ug/L	0.431	1	7658	667259	1	Standard
	V-1	51	24.409	ug/L	0.406	1	354	662793	1	Standard
	Cr	52	24.592	ug/L	0.280	1	22715	570222	1	Standard
	Cr	53	24.622	ug/L	0.196	0	231	63006	1	Standard
	Mn	55	24.846	ug/L	0.445	1	858	804379	1	Standard
>	Ge	72		ug/L			47144	44949	1	KED
	Co	59	27.221	ug/L	0.707	2	3	152674	3	KED
	Ni	60	27.394	ug/L	0.350	1	583	44343	2	KED
	Ni	62	27.300	ug/L	1.132	4	99	7246	5	KED
	Cu	63	28.378	ug/L	0.852	3	88	128248	4	KED
	Cu	65	29.111	ug/L	0.616	2	51	64534	3	KED
	Zn	66	85.847	ug/L	1.386	1	128	50946	2	KED
	Zn	67	82.786	ug/L	1.113	1	17	7967	2	KED
	As	75	26.273	ug/L	0.701	2	4	8311	3	KED
	Se	78	79.641	ug/L	1.669	2	20	2359	3	KED
	Y	89		ug/L			352824	341767	1	Standard
	Kr	83		ug/L			41	44	13	Standard
>	In-1	115		ug/L			9999	9532	5	KED
	Mo	98	0.078	ug/L	0.010	12	5	114	7	KED
	Cd	111	26.791	ug/L	1.211	4	5	7844	1	KED
	Cd	114	27.064	ug/L	0.941	3	9	20312	1	KED
>	In	115		ug/L			440562	463505	1	Standard
	Ag	107	24.617	ug/L	0.577	2	34	465804	1	Standard
	Sb	121	0.062	ug/L	0.005	7	252	1223	4	Standard
	Sb	123	0.062	ug/L	0.001	2	192	942	3	Standard
	Ba	135	28.856	ug/L	0.801	2	54	142500	4	Standard
	Ba	137	30.505	ug/L	0.525	1	99	263509	0	Standard
>	Tb	159		ug/L			801432	924020	1	Standard
	Tl	205	26.603	ug/L	0.110	0	79	1046074	1	Standard
	Pb	208	26.826	ug/L	0.107	0	302	1402953	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0751-02
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, April 26, 2023 11:04:09
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			445315	483305	1	Standard
[	**Be**	**9**	**0.001**	ug/L	0.001	104	4	9	52	Standard
	C	**13**		ug/L			28756	44878	2	Standard
	Cl	**37**		ug/L			1763477	1565654	2	Standard
[>	**Sc**	**45**		ug/L			604634	621270	1	Standard
[	**V**	**51**	**0.728**	ug/L	0.185	25	7658	27621	19	Standard
[	**V-1**	**51**	**1.133**	ug/L	0.005	0	354	31171	1	Standard
[	**Cr**	**52**	**18.589**	ug/L	0.429	2	22715	437744	3	Standard
[	**Cr**	**53**	**19.714**	ug/L	0.200	1	231	50600	1	Standard
[	**Mn**	**55**	**0.104**	ug/L	0.004	3	858	4261	4	Standard
[>	**Ge**	**72**		ug/L			47144	44136	0	KED
[	**Co**	**59**	**0.073**	ug/L	0.012	15	3	404	15	KED
[	**Ni**	**60**	**19.449**	ug/L	0.382	1	583	31071	2	KED
[	**Ni**	**62**	**19.013**	ug/L	0.815	4	99	4982	4	KED
[	**Cu**	**63**	**0.810**	ug/L	0.031	3	88	3671	3	KED
[	**Cu**	**65**	**0.820**	ug/L	0.039	4	51	1832	5	KED
[	**Zn**	**66**	**6.018**	ug/L	0.227	3	128	3618	3	KED
[	**Zn**	**67**	**5.975**	ug/L	0.438	7	17	579	7	KED
[	**As**	**75**	**0.683**	ug/L	0.052	7	4	216	7	KED
[	**Se**	**78**	**0.622**	ug/L	0.115	18	20	37	8	KED
	Y	**89**		ug/L			352824	316822	0	Standard
	Kr	**83**		ug/L			41	38	39	Standard
[>	**In-1**	**115**		ug/L			9999	9709	2	KED
[	**Mo**	**98**	**0.201**	ug/L	0.016	7	5	294	6	KED
[	**Cd**	**111**	**9.052**	ug/L	0.363	4	5	2705	1	KED
[	**Cd**	**114**	**8.947**	ug/L	0.275	3	9	6853	4	KED
[>	**In**	**115**		ug/L			440562	422493	4	Standard
[	**Ag**	**107**	**0.002**	ug/L	0.001	26	34	67	14	Standard
[	**Sb**	**121**	**0.056**	ug/L	0.001	2	252	1035	5	Standard
[	**Sb**	**123**	**0.062**	ug/L	0.006	9	192	853	3	Standard
[	**Ba**	**135**	**8.323**	ug/L	0.333	3	54	37460	2	Standard
[	**Ba**	**137**	**8.672**	ug/L	0.239	2	99	68310	1	Standard
[>	**Tb**	**159**		ug/L			801432	881938	0	Standard
[	**Tl**	**205**	**0.003**	ug/L	0.001	19	79	193	10	Standard
[	**Pb**	**208**	**0.016**	ug/L	0.003	17	302	1141	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0751-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, April 26, 2023 11:09:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			445315	500834	5	Standard
[	**Be**	**9**	**0.001**	ug/L	0.001	116	4	9	52	Standard
	C	**13**		ug/L			28756	45535	2	Standard
	Cl	**37**		ug/L			1763477	1584286	1	Standard
[>	**Sc**	**45**		ug/L			604634	654182	3	Standard
[	**V**	**51**	**0.742**	ug/L	0.144	19	7658	29351	10	Standard
[	**V-1**	**51**	**1.145**	ug/L	0.005	0	354	33181	4	Standard
[	**Cr**	**52**	**16.375**	ug/L	0.326	1	22715	408747	2	Standard
[	**Cr**	**53**	**17.526**	ug/L	0.291	1	231	47413	5	Standard
[	**Mn**	**55**	**0.102**	ug/L	0.002	1	858	4400	4	Standard
[>	**Ge**	**72**		ug/L			47144	44413	1	KED
[	**Co**	**59**	**0.063**	ug/L	0.007	11	3	354	12	KED
[	**Ni**	**60**	**11.943**	ug/L	0.398	3	583	19415	4	KED
[	**Ni**	**62**	**11.485**	ug/L	0.493	4	99	3065	4	KED
[	**Cu**	**63**	**0.766**	ug/L	0.005	0	88	3498	1	KED
[	**Cu**	**65**	**0.765**	ug/L	0.024	3	51	1723	4	KED
[	**Zn**	**66**	**5.071**	ug/L	0.226	4	128	3087	4	KED
[	**Zn**	**67**	**5.484**	ug/L	0.425	7	17	536	7	KED
[	**As**	**75**	**0.665**	ug/L	0.021	3	4	212	1	KED
[	**Se**	**78**	**0.420**	ug/L	0.158	37	20	31	12	KED
	Y	**89**		ug/L			352824	327462	4	Standard
	Kr	**83**		ug/L			41	48	9	Standard
[>	**In-1**	**115**		ug/L			9999	9533	0	KED
[	**Mo**	**98**	**0.191**	ug/L	0.012	6	5	274	6	KED
[	**Cd**	**111**	**5.813**	ug/L	0.148	2	5	1709	2	KED
[	**Cd**	**114**	**5.772**	ug/L	0.123	2	9	4344	2	KED
[>	**In**	**115**		ug/L			440562	437499	5	Standard
[	**Ag**	**107**	**-0.000**	ug/L	0.000	31	34	30	6	Standard
[	**Sb**	**121**	**0.052**	ug/L	0.006	11	252	1010	3	Standard
[	**Sb**	**123**	**0.052**	ug/L	0.001	2	192	774	3	Standard
[	**Ba**	**135**	**8.164**	ug/L	0.168	2	54	38111	7	Standard
[	**Ba**	**137**	**8.486**	ug/L	0.074	0	99	69272	5	Standard
[>	**Tb**	**159**		ug/L			801432	897948	3	Standard
[	**Tl**	**205**	**0.001**	ug/L	0.000	33	79	139	15	Standard
[	**Pb**	**208**	**0.017**	ug/L	0.001	3	302	1195	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0382-DUP1
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, April 26, 2023 11:14:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			445315	480129	4	Standard
[	**Be**	**9**	**0.003**	ug/L	0.000	15	4	15	12	Standard
	C	**13**		ug/L			28756	43531	0	Standard
	Cl	**37**		ug/L			1763477	1584300	1	Standard
[>	**Sc**	**45**		ug/L			604634	635500	4	Standard
[	**V**	**51**	**0.791**	ug/L	0.029	3	7658	29986	6	Standard
[	**V-1**	**51**	**1.175**	ug/L	0.009	0	354	33062	4	Standard
[	**Cr**	**52**	**16.358**	ug/L	0.351	2	22715	396885	5	Standard
[	**Cr**	**53**	**17.444**	ug/L	0.327	1	231	45831	4	Standard
[	**Mn**	**55**	**0.117**	ug/L	0.001	0	858	4792	3	Standard
[>	**Ge**	**72**		ug/L			47144	44992	3	KED
[	**Co**	**59**	**0.061**	ug/L	0.003	4	3	347	1	KED
[	**Ni**	**60**	**12.141**	ug/L	0.093	0	583	19977	2	KED
[	**Ni**	**62**	**12.069**	ug/L	0.295	2	99	3256	1	KED
[	**Cu**	**63**	**0.771**	ug/L	0.007	0	88	3568	3	KED
[	**Cu**	**65**	**0.777**	ug/L	0.047	6	51	1770	3	KED
[	**Zn**	**66**	**5.007**	ug/L	0.071	1	128	3088	1	KED
[	**Zn**	**67**	**5.297**	ug/L	0.119	2	17	525	4	KED
[	**As**	**75**	**0.718**	ug/L	0.036	5	4	231	8	KED
[	**Se**	**78**	**0.470**	ug/L	0.111	23	20	33	6	KED
	Y	**89**		ug/L			352824	321483	4	Standard
	Kr	**83**		ug/L			41	35	34	Standard
[>	**In-1**	**115**		ug/L			9999	9505	3	KED
[	**Mo**	**98**	**0.193**	ug/L	0.007	3	5	276	1	KED
[	**Cd**	**111**	**5.931**	ug/L	0.124	2	5	1738	2	KED
[	**Cd**	**114**	**5.834**	ug/L	0.229	3	9	4374	1	KED
[>	**In**	**115**		ug/L			440562	427513	5	Standard
[	**Ag**	**107**	**-0.000**	ug/L	0.000	557	34	33	20	Standard
[	**Sb**	**121**	**0.054**	ug/L	0.006	10	252	1019	8	Standard
[	**Sb**	**123**	**0.056**	ug/L	0.004	8	192	792	1	Standard
[	**Ba**	**135**	**8.378**	ug/L	0.293	3	54	38148	3	Standard
[	**Ba**	**137**	**8.583**	ug/L	0.183	2	99	68426	4	Standard
[>	**Tb**	**159**		ug/L			801432	880169	5	Standard
[	**Tl**	**205**	**0.002**	ug/L	0.000	14	79	160	4	Standard
[	**Pb**	**208**	**0.025**	ug/L	0.001	3	302	1560	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLD0382-MS1
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, April 26, 2023 11:21:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			445315	485494	4	Standard
[	**Be**	**9**	**13.246**	ug/L	0.110	0	4	52704	4	Standard
	C	**13**		ug/L			28756	42435	1	Standard
	Cl	**37**		ug/L			1763477	1610255	2	Standard
[>	**Sc**	**45**		ug/L			604634	641782	5	Standard
[	**V**	**51**	**11.747**	ug/L	0.500	4	7658	336425	3	Standard
[	**V-1**	**51**	**12.396**	ug/L	0.491	3	354	348285	3	Standard
[	**Cr**	**52**	**27.198**	ug/L	0.862	3	22715	649699	3	Standard
[	**Cr**	**53**	**29.189**	ug/L	0.839	2	231	77208	3	Standard
[	**Mn**	**55**	**11.225**	ug/L	0.344	3	858	376330	2	Standard
[>	**Ge**	**72**		ug/L			47144	46825	0	KED
[	**Co**	**59**	**13.011**	ug/L	0.182	1	3	76002	1	KED
[	**Ni**	**60**	**25.088**	ug/L	0.275	1	583	42351	1	KED
[	**Ni**	**62**	**24.696**	ug/L	0.416	1	99	6835	1	KED
[	**Cu**	**63**	**14.027**	ug/L	0.174	1	88	66067	1	KED
[	**Cu**	**65**	**14.372**	ug/L	0.505	3	51	33206	3	KED
[	**Zn**	**66**	**46.274**	ug/L	0.396	0	128	28663	1	KED
[	**Zn**	**67**	**44.162**	ug/L	0.603	1	17	4435	1	KED
[	**As**	**75**	**13.609**	ug/L	0.144	1	4	4486	0	KED
[	**Se**	**78**	**39.794**	ug/L	0.190	0	20	1238	0	KED
	Y	**89**		ug/L			352824	327482	2	Standard
	Kr	**83**		ug/L			41	50	24	Standard
[>	**In-1**	**115**		ug/L			9999	9693	1	KED
[	**Mo**	**98**	**0.231**	ug/L	0.007	3	5	337	2	KED
[	**Cd**	**111**	**18.940**	ug/L	0.174	0	5	5649	1	KED
[	**Cd**	**114**	**19.209**	ug/L	0.577	3	9	14679	3	KED
[>	**In**	**115**		ug/L			440562	436957	3	Standard
[	**Ag**	**107**	**12.048**	ug/L	0.161	1	34	214922	1	Standard
[	**Sb**	**121**	**0.089**	ug/L	0.002	2	252	1560	5	Standard
[	**Sb**	**123**	**0.090**	ug/L	0.007	7	192	1193	5	Standard
[	**Ba**	**135**	**22.460**	ug/L	0.991	4	54	104525	4	Standard
[	**Ba**	**137**	**23.792**	ug/L	0.866	3	99	193659	1	Standard
[>	**Tb**	**159**		ug/L			801432	895497	2	Standard
[	**Tl**	**205**	**13.160**	ug/L	0.303	2	79	501649	3	Standard
[	**Pb**	**208**	**13.051**	ug/L	0.114	0	302	661601	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLK
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 11:26:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			445315	518956	2	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.000	60	4	6	15	Standard
	C	**13**		ug/L			28756	31973	2	Standard
	Cl	**37**		ug/L			1763477	1633508	2	Standard
⌈>	**Sc**	**45**		ug/L			604634	592982	1	Standard
⌈	**V**	**51**	**-0.013**	ug/L	0.000	3	7658	7169	1	Standard
⌊	**V-1**	**51**	**0.018**	ug/L	0.002	9	354	803	5	Standard
⌈	**Cr**	**52**	**-0.056**	ug/L	0.011	20	22715	21088	2	Standard
⌊	**Cr**	**53**	**0.049**	ug/L	0.009	17	231	346	7	Standard
⌊	**Mn**	**55**	**-0.004**	ug/L	0.001	17	858	725	3	Standard
⌈>	**Ge**	**72**		ug/L			47144	45606	4	KED
⌈	**Co**	**59**	**0.000**	ug/L	0.001	5437	3	3	124	KED
⌊	**Ni**	**60**	**-0.341**	ug/L	0.003	0	583	10	44	KED
⌈	**Ni**	**62**	**-0.351**	ug/L	0.004	1	99	2	43	KED
⌊	**Cu**	**63**	**-0.002**	ug/L	0.003	167	88	77	14	KED
⌈	**Cu**	**65**	**-0.006**	ug/L	0.005	90	51	36	25	KED
⌊	**Zn**	**66**	**-0.128**	ug/L	0.012	9	128	47	18	KED
⌈	**Zn**	**67**	**-0.061**	ug/L	0.059	96	17	10	56	KED
⌊	**As**	**75**	**0.006**	ug/L	0.006	109	4	6	27	KED
⌊	**Se**	**78**	**-0.049**	ug/L	0.073	147	20	18	8	KED
	Y	**89**		ug/L			352824	323160	2	Standard
	Kr	**83**		ug/L			41	34	20	Standard
⌈>	**In-1**	**115**		ug/L			9999	9574	0	KED
⌈	**Mo**	**98**	**-0.000**	ug/L	0.000	53	5	5	4	KED
⌊	**Cd**	**111**	**-0.003**	ug/L	0.010	303	5	4	68	KED
⌊	**Cd**	**114**	**-0.006**	ug/L	0.003	49	9	4	50	KED
⌈>	**In**	**115**		ug/L			440562	436374	2	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.000	40	34	19	29	Standard
⌈	**Sb**	**121**	**-0.014**	ug/L	0.001	8	252	50	32	Standard
⌊	**Sb**	**123**	**-0.013**	ug/L	0.001	4	192	40	17	Standard
⌈	**Ba**	**135**	**-0.002**	ug/L	0.000	29	54	46	4	Standard
⌊	**Ba**	**137**	**-0.003**	ug/L	0.001	27	99	73	7	Standard
⌈>	**Tb**	**159**		ug/L			801432	871514	1	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.000	53	79	64	20	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	45	302	282	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVJ
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 11:31:10
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			445315	481847	1	Standard
	Be	**9**	**51.910**	ug/L	1.128	2	4	204952	1	Standard
	C	**13**		ug/L			28756	31453	1	Standard
	Cl	**37**		ug/L			1763477	1572894	2	Standard
>	**Sc**	**45**		ug/L			604634	598431	3	Standard
	V	**51**	**47.750**	ug/L	0.165	0	7658	1253501	3	Standard
	V-1	**51**	**48.197**	ug/L	0.122	0	354	1263164	3	Standard
	Cr	**52**	**47.292**	ug/L	1.183	2	22715	1037452	2	Standard
	Cr	**53**	**48.819**	ug/L	1.345	2	231	120322	2	Standard
	Mn	**55**	**48.804**	ug/L	0.246	0	858	1524415	2	Standard
>	**Ge**	**72**		ug/L			47144	44480	2	KED
	Co	**59**	**51.169**	ug/L	1.883	3	3	283886	4	KED
	Ni	**60**	**51.679**	ug/L	1.338	2	583	82277	3	KED
	Ni	**62**	**52.304**	ug/L	2.473	4	99	13644	4	KED
	Cu	**63**	**52.028**	ug/L	1.582	3	88	232574	4	KED
	Cu	**65**	**52.812**	ug/L	1.456	2	51	115780	3	KED
	Zn	**66**	**51.664**	ug/L	1.657	3	128	30379	3	KED
	Zn	**67**	**52.261**	ug/L	1.960	3	17	4982	4	KED
	As	**75**	**51.042**	ug/L	1.315	2	4	15970	3	KED
	Se	**78**	**49.288**	ug/L	0.345	0	20	1452	3	KED
	Y	**89**		ug/L			352824	323493	2	Standard
	Kr	**83**		ug/L			41	56	20	Standard
>	**In-1**	**115**		ug/L			9999	9252	2	KED
	Mo	**98**	**55.940**	ug/L	1.404	2	5	76683	2	KED
	Cd	**111**	**54.777**	ug/L	1.130	2	5	15584	2	KED
	Cd	**114**	**54.421**	ug/L	1.377	2	9	39670	2	KED
>	**In**	**115**		ug/L			440562	428912	2	Standard
	Ag	**107**	**48.594**	ug/L	0.197	0	34	850963	2	Standard
	Sb	**121**	**51.243**	ug/L	0.383	0	252	737318	2	Standard
	Sb	**123**	**52.504**	ug/L	1.718	3	192	576822	1	Standard
	Ba	**135**	**56.756**	ug/L	0.574	1	54	259289	3	Standard
	Ba	**137**	**58.765**	ug/L	0.951	1	99	469834	3	Standard
>	**Tb**	**159**		ug/L			801432	878853	2	Standard
	Tl	**205**	**51.312**	ug/L	1.238	2	79	1918459	0	Standard
	Pb	**208**	**51.918**	ug/L	1.293	2	302	2581520	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBJ
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 11:38:58
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			445315	483371	1	Standard
	Be	**9**	**0.001**	ug/L	0.001	119	4	7	43	Standard
	C	**13**		ug/L			28756	30309	0	Standard
	Cl	**37**		ug/L			1763477	1647930	1	Standard
>	**Sc**	**45**		ug/L			604634	593185	2	Standard
	V	**51**	**-0.027**	ug/L	0.002	5	7658	6827	2	Standard
	V-1	**51**	**0.008**	ug/L	0.001	10	354	560	5	Standard
	Cr	**52**	**-0.092**	ug/L	0.004	4	22715	20319	2	Standard
	Cr	**53**	**0.027**	ug/L	0.003	10	231	291	0	Standard
	Mn	**55**	**0.000**	ug/L	0.001	333	858	852	2	Standard
>	**Ge**	**72**		ug/L			47144	45788	3	KED
	Co	**59**	**0.000**	ug/L	0.001	123	3	5	57	KED
	Ni	**60**	**-0.336**	ug/L	0.004	1	583	20	32	KED
	Ni	**62**	**-0.339**	ug/L	0.014	4	99	5	66	KED
	Cu	**63**	**0.007**	ug/L	0.002	32	88	116	6	KED
	Cu	**65**	**0.004**	ug/L	0.004	102	51	57	10	KED
	Zn	**66**	**0.074**	ug/L	0.016	22	128	168	2	KED
	Zn	**67**	**0.064**	ug/L	0.028	43	17	22	8	KED
	As	**75**	**-0.003**	ug/L	0.004	149	4	3	37	KED
	Se	**78**	**-0.006**	ug/L	0.179	2846	20	19	27	KED
	Y	**89**		ug/L			352824	329834	0	Standard
	Kr	**83**		ug/L			41	38	5	Standard
>	**In-1**	**115**		ug/L			9999	10097	4	KED
	Mo	**98**	**0.008**	ug/L	0.005	68	5	17	43	KED
	Cd	**111**	**-0.003**	ug/L	0.004	113	5	4	20	KED
	Cd	**114**	**-0.000**	ug/L	0.001	427	9	9	1	KED
>	**In**	**115**		ug/L			440562	428534	1	Standard
	Ag	**107**	**0.000**	ug/L	0.000	144	34	39	19	Standard
	Sb	**121**	**0.041**	ug/L	0.002	4	252	829	3	Standard
	Sb	**123**	**0.044**	ug/L	0.005	11	192	671	6	Standard
	Ba	**135**	**0.012**	ug/L	0.003	27	54	109	15	Standard
	Ba	**137**	**0.012**	ug/L	0.002	15	99	194	8	Standard
>	**Tb**	**159**		ug/L			801432	857047	2	Standard
	Tl	**205**	**0.002**	ug/L	0.001	35	79	140	14	Standard
	Pb	**208**	**0.002**	ug/L	0.001	43	302	400	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 11:44:02
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			445315	554463	3	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.000	82	4	7	25	Standard
	C	**13**		ug/L			28756	44086	0	Standard
	Cl	**37**		ug/L			1763477	1579273	1	Standard
⌈>	**Sc**	**45**		ug/L			604634	654441	3	Standard
⎢	**V**	**51**	**-0.017**	ug/L	0.002	9	7658	7807	3	Standard
⎢	**V-1**	**51**	**0.006**	ug/L	0.002	27	354	567	5	Standard
⎢	**Cr**	**52**	**-0.054**	ug/L	0.006	11	22715	23309	3	Standard
⎢	**Cr**	**53**	**0.026**	ug/L	0.013	52	231	318	10	Standard
⌊	**Mn**	**55**	**0.042**	ug/L	0.002	4	858	2355	3	Standard
⌈>	**Ge**	**72**		ug/L			47144	49749	3	KED
⎢	**Co**	**59**	**0.001**	ug/L	0.001	96	3	10	65	KED
⎢	**Ni**	**60**	**-0.299**	ug/L	0.003	0	583	86	2	KED
⎢	**Ni**	**62**	**-0.295**	ug/L	0.016	5	99	19	26	KED
⎢	**Cu**	**63**	**0.008**	ug/L	0.002	23	88	130	9	KED
⎢	**Cu**	**65**	**0.005**	ug/L	0.005	95	51	66	20	KED
⎢	**Zn**	**66**	**0.045**	ug/L	0.019	41	128	165	9	KED
⎢	**Zn**	**67**	**0.184**	ug/L	0.097	52	17	37	24	KED
⎢	**As**	**75**	**-0.003**	ug/L	0.003	116	4	3	33	KED
⌊	**Se**	**78**	**-0.188**	ug/L	0.119	62	20	15	23	KED
	Y	**89**		ug/L			352824	361966	2	Standard
	Kr	**83**		ug/L			41	31	24	Standard
⌈>	**In-1**	**115**		ug/L			9999	10073	1	KED
⎢	**Mo**	**98**	**0.005**	ug/L	0.002	47	5	12	27	KED
⎢	**Cd**	**111**	**-0.005**	ug/L	0.009	172	5	4	70	KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.006	140	9	5	80	KED
⌈>	**In**	**115**		ug/L			440562	476282	3	Standard
⎢	**Ag**	**107**	**-0.001**	ug/L	0.001	95	34	26	47	Standard
⎢	**Sb**	**121**	**0.013**	ug/L	0.003	22	252	486	7	Standard
⎢	**Sb**	**123**	**0.011**	ug/L	0.001	5	192	346	4	Standard
⎢	**Ba**	**135**	**0.023**	ug/L	0.004	16	54	175	14	Standard
⌊	**Ba**	**137**	**0.024**	ug/L	0.001	4	99	321	5	Standard
⌈>	**Tb**	**159**		ug/L			801432	941469	2	Standard
⎢	**Tl**	**205**	**-0.000**	ug/L	0.001	1296	79	91	31	Standard
⌊	**Pb**	**208**	**0.007**	ug/L	0.000	4	302	718	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 11:49:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			445315	1060	1	Standard
⌊	**Be**	**9**	**0.434**	ug/L	0.372	85	4	3	86	Standard
	C	**13**		ug/L			28756	43131	3	Standard
	Cl	**37**		ug/L			1763477	1582244	1	Standard
⌈>	**Sc**	**45**		ug/L			604634	1590	4	Standard
⌈	**V**	**51**	**116.020**	ug/L	3.226	2	7658	8061	1	Standard
⌊	**V-1**	**51**	**7.688**	ug/L	0.277	3	354	535	1	Standard
⌈	**Cr**	**52**	**421.471**	ug/L	12.710	3	22715	24096	1	Standard
⌊	**Cr**	**53**	**48.304**	ug/L	2.382	4	231	316	1	Standard
	Mn	**55**	**31.539**	ug/L	1.275	4	858	2617	2	Standard
⌈>	**Ge**	**72**		ug/L			47144	23554	106	KED
⌈	**Co**	**59**	**0.038**	ug/L	0.062	164	3	8	66	KED
⌊	**Ni**	**60**	**0.982**	ug/L	2.122	215	583	106	5	KED
⌈	**Ni**	**62**	**1.160**	ug/L	2.408	207	99	20	14	KED
⌊	**Cu**	**63**	**1.576**	ug/L	2.645	167	88	240	58	KED
⌈	**Cu**	**65**	**1.539**	ug/L	2.572	167	51	127	41	KED
⌊	**Zn**	**66**	**8.048**	ug/L	13.524	168	128	199	27	KED
⌈	**Zn**	**67**	**7.931**	ug/L	13.297	167	17	31	30	KED
⌊	**As**	**75**	**0.164**	ug/L	0.267	162	4	4	26	KED
	Se	**78**	**13.917**	ug/L	23.349	167	20	20	17	KED
	Y	**89**		ug/L			352824	234	9	Standard
	Kr	**83**		ug/L			41	46	26	Standard
⌈>	**In-1**	**115**		ug/L			9999	35	8	KED
⌈	**Mo**	**98**	**2.246**	ug/L	1.143	50	5	11	52	KED
⌊	**Cd**	**111**	**6.034**	ug/L	2.394	39	5	6	42	KED
	Cd	**114**	**2.114**	ug/L	1.653	78	9	6	78	KED
⌈>	**In**	**115**		ug/L			440562	280	4	Standard
⌈	**Ag**	**107**	**2.676**	ug/L	0.461	17	34	30	12	Standard
⌈	**Sb**	**121**	**27.799**	ug/L	3.864	13	252	260	9	Standard
⌊	**Sb**	**123**	**28.272**	ug/L	3.229	11	192	202	6	Standard
⌈	**Ba**	**135**	**75.764**	ug/L	5.952	7	54	226	12	Standard
⌊	**Ba**	**137**	**79.566**	ug/L	4.971	6	99	415	9	Standard
⌈>	**Tb**	**159**		ug/L			801432	518	4	Standard
⌈	**Tl**	**205**	**2.529**	ug/L	0.335	13	79	55	14	Standard
⌊	**Pb**	**208**	**32.966**	ug/L	1.382	4	302	966	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 11:54:10
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			445315	968	7	Standard
⌊	**Be**	**9**	**0.727**	ug/L	0.438	60	4	5	57	Standard
	C	**13**		ug/L			28756	43212	1	Standard
	Cl	**37**		ug/L			1763477	1584739	1	Standard
⌈>	**Sc**	**45**		ug/L			604634	1305	0	Standard
⌈	**V**	**51**	**143.969**	ug/L	2.598	1	7658	8207	1	Standard
⌊	**V-1**	**51**	**9.527**	ug/L	0.248	2	354	545	2	Standard
⌈	**Cr**	**52**	**523.911**	ug/L	12.303	2	22715	24576	1	Standard
⌊	**Cr**	**53**	**60.792**	ug/L	4.379	7	231	326	6	Standard
⌊	**Mn**	**55**	**40.156**	ug/L	1.296	3	858	2735	2	Standard
⌈>	**Ge**	**72**		ug/L			47144	36	5	KED
⌈	**Co**	**59**	**2.282**	ug/L	1.910	83	3	10	84	KED
⌊	**Ni**	**60**	**83.426**	ug/L	3.065	3	583	107	8	KED
⌈	**Ni**	**62**	**105.534**	ug/L	17.450	16	99	22	13	KED
⌈	**Cu**	**63**	**88.921**	ug/L	6.305	7	88	322	2	KED
⌊	**Cu**	**65**	**86.255**	ug/L	10.857	12	51	153	12	KED
⌈	**Zn**	**66**	**470.534**	ug/L	25.720	5	128	224	5	KED
⌊	**Zn**	**67**	**505.796**	ug/L	163.711	32	17	39	34	KED
⌈	**As**	**75**	**11.894**	ug/L	4.183	35	4	3	32	KED
⌊	**Se**	**78**	**853.081**	ug/L	47.429	5	20	20	3	KED
	Y	**89**		ug/L			352824	227	17	Standard
	Kr	**83**		ug/L			41	27	32	Standard
⌈>	**In-1**	**115**		ug/L			9999	11	57	KED
⌈	**Mo**	**98**	**5.198**	ug/L	4.344	83	5	6	92	KED
⌊	**Cd**	**111**	**21.435**	ug/L	18.128	84	5	5	47	KED
⌊	**Cd**	**114**	**5.900**	ug/L	5.652	95	9	3	11	KED
⌈>	**In**	**115**		ug/L			440562	235	9	Standard
⌈	**Ag**	**107**	**3.610**	ug/L	0.988	27	34	34	19	Standard
⌈	**Sb**	**121**	**24.937**	ug/L	3.864	15	252	195	7	Standard
⌊	**Sb**	**123**	**26.572**	ug/L	1.758	6	192	160	10	Standard
⌈	**Ba**	**135**	**97.243**	ug/L	15.042	15	54	243	16	Standard
⌊	**Ba**	**137**	**103.354**	ug/L	3.315	3	99	454	10	Standard
⌈>	**Tb**	**159**		ug/L			801432	473	10	Standard
⌈	**Tl**	**205**	**2.895**	ug/L	0.774	26	79	57	21	Standard
⌊	**Pb**	**208**	**37.139**	ug/L	5.094	13	302	986	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 11:59:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			445315	718	4	Standard
⌊	**Be**	**9**	**0.654**	ug/L	0.343	52	4	3	50	Standard
	C	**13**		ug/L			28756	29575	2	Standard
	Cl	**37**		ug/L			1763477	1678830	1	Standard
⌈>	**Sc**	**45**		ug/L			604634	848	1	Standard
⌈	**V**	**51**	**179.051**	ug/L	2.538	1	7658	6638	2	Standard
⌊	**V-1**	**51**	**13.927**	ug/L	0.298	2	354	518	2	Standard
⌈	**Cr**	**52**	**640.414**	ug/L	6.098	0	22715	19536	2	Standard
⌊	**Cr**	**53**	**71.679**	ug/L	2.360	3	231	250	2	Standard
⌊	**Mn**	**55**	**13.137**	ug/L	0.463	3	858	582	2	Standard
⌈>	**Ge**	**72**		ug/L			47144	31	9	KED
⌈	**Co**	**59**	**0.492**	ug/L	0.473	96	3	1	100	KED
⌊	**Ni**	**60**	**17.249**	ug/L	6.935	40	583	20	47	KED
⌈	**Ni**	**62**	**35.164**	ug/L	19.603	55	99	6	45	KED
⌈	**Cu**	**63**	**61.038**	ug/L	12.001	19	88	193	14	KED
⌊	**Cu**	**65**	**67.125**	ug/L	4.835	7	51	104	7	KED
⌈	**Zn**	**66**	**292.138**	ug/L	37.498	12	128	121	3	KED
⌊	**Zn**	**67**	**225.578**	ug/L	73.689	32	17	15	33	KED
⌈	**As**	**75**	**20.516**	ug/L	1.421	6	4	4	15	KED
⌊	**Se**	**78**	**1070.316**	ug/L	277.064	25	20	21	16	KED
	Y	**89**		ug/L			352824	151	10	Standard
	Kr	**83**		ug/L			41	44	23	Standard
⌈>	**In-1**	**115**		ug/L			9999	10	36	KED
⌈	**Mo**	**98**	**4.486**	ug/L	0.546	12	5	6	26	KED
⌊	**Cd**	**111**	**14.595**	ug/L	12.814	87	5	4	81	KED
⌊	**Cd**	**114**	**2.383**	ug/L	3.157	132	9	1	106	KED
⌈>	**In**	**115**		ug/L			440562	224	3	Standard
⌈	**Ag**	**107**	**2.081**	ug/L	0.429	20	34	19	17	Standard
⌈	**Sb**	**121**	**8.026**	ug/L	1.788	22	252	60	25	Standard
⌊	**Sb**	**123**	**11.071**	ug/L	1.823	16	192	64	19	Standard
⌈	**Ba**	**135**	**22.811**	ug/L	2.032	8	54	54	8	Standard
⌊	**Ba**	**137**	**21.754**	ug/L	2.863	13	99	91	16	Standard
⌈>	**Tb**	**159**		ug/L			801432	390	3	Standard
⌈	**Tl**	**205**	**4.362**	ug/L	0.339	7	79	72	4	Standard
⌊	**Pb**	**208**	**13.001**	ug/L	0.478	3	302	287	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 12:04:16
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			445315	683	12	Standard
⌊	**Be**	**9**	**0.400**	ug/L	0.696	173	4	2	173	Standard
	C	**13**		ug/L			28756	30068	2	Standard
	Cl	**37**		ug/L			1763477	1698038	2	Standard
⌈>	**Sc**	**45**		ug/L			604634	924	4	Standard
⌈	**V**	**51**	**172.038**	ug/L	2.317	1	7658	6942	3	Standard
⌊	**V-1**	**51**	**11.670**	ug/L	0.463	3	354	472	2	Standard
⌈	**Cr**	**52**	**620.984**	ug/L	13.859	2	22715	20615	2	Standard
⌊	**Cr**	**53**	**68.617**	ug/L	7.310	10	231	260	5	Standard
	Mn	**55**	**11.952**	ug/L	0.881	7	858	576	5	Standard
⌈>	**Ge**	**72**		ug/L			47144	26	4	KED
⌈	**Co**	**59**	**1.012**	ug/L	1.291	127	3	3	124	KED
⌊	**Ni**	**60**	**33.236**	ug/L	4.136	12	583	31	14	KED
⌈	**Ni**	**62**	**28.875**	ug/L	18.553	64	99	4	65	KED
⌈	**Cu**	**63**	**74.023**	ug/L	1.836	2	88	193	5	KED
⌊	**Cu**	**65**	**84.096**	ug/L	13.823	16	51	107	17	KED
⌈	**Zn**	**66**	**364.849**	ug/L	20.443	5	128	125	5	KED
⌊	**Zn**	**67**	**426.700**	ug/L	173.724	40	17	23	36	KED
⌈	**As**	**75**	**15.676**	ug/L	3.247	20	4	2	16	KED
⌊	**Se**	**78**	**1294.764**	ug/L	140.540	10	20	22	10	KED
	Y	**89**		ug/L			352824	151	9	Standard
	Kr	**83**		ug/L			41	33	26	Standard
⌈>	**In-1**	**115**		ug/L			9999	11	44	KED
⌈	**Mo**	**98**	**5.858**	ug/L	4.026	68	5	8	74	KED
⌈	**Cd**	**111**	**16.183**	ug/L	14.631	90	5	4	35	KED
⌊	**Cd**	**114**	**8.679**	ug/L	5.126	59	9	6	59	KED
⌈>	**In**	**115**		ug/L			440562	220	5	Standard
⌈	**Ag**	**107**	**3.648**	ug/L	1.381	37	34	32	32	Standard
⌈	**Sb**	**121**	**9.180**	ug/L	1.764	19	252	67	20	Standard
⌊	**Sb**	**123**	**9.692**	ug/L	0.822	8	192	54	11	Standard
⌈	**Ba**	**135**	**18.281**	ug/L	3.110	17	54	43	21	Standard
⌊	**Ba**	**137**	**22.008**	ug/L	2.994	13	99	90	12	Standard
⌈>	**Tb**	**159**		ug/L			801432	391	2	Standard
⌈	**Tl**	**205**	**3.273**	ug/L	0.323	9	79	54	12	Standard
⌊	**Pb**	**208**	**14.198**	ug/L	1.856	13	302	314	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, April 26, 2023 12:09:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8_DailyMethod_KED_UCT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\042523.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			445315	401	1	Standard
	Be	**9**	**0.778**	ug/L	0.892	114	4	2	114	Standard
	C	**13**		ug/L			28756	25812	6	Standard
	Cl	**37**		ug/L			1763477	1580083	1	Standard
>	**Sc**	**45**		ug/L			604634	415	12	Standard
	V	**51**	**286.260**	ug/L	26.446	9	7658	5157	2	Standard
	V-1	**51**	**26.669**	ug/L	3.210	12	354	481	3	Standard
	Cr	**52**	**1009.594**	ug/L	89.261	8	22715	14971	2	Standard
	Cr	**53**	**115.514**	ug/L	11.450	9	231	196	7	Standard
	Mn	**55**	**32.273**	ug/L	3.002	9	858	695	2	Standard
>	**Ge**	**72**		ug/L			47144	20	125	KED
	Co	**59**	**-0.001**	ug/L	0.000	0	3	0		KED
	Ni	**60**	**24.314**	ug/L	27.457	112	583	6	69	KED
	Ni	**62**	**70.496**	ug/L	88.375	125	99	1		KED
	Cu	**63**	**33.011**	ug/L	32.451	98	88	42	130	KED
	Cu	**65**	**27.299**	ug/L	11.499	42	51	21	120	KED
	Zn	**66**	**72.026**	ug/L	64.885	90	128	31	142	KED
	Zn	**67**	**74.232**	ug/L	99.335	133	17	2	86	KED
	As	**75**	**137.250**	ug/L	189.522	138	4	4	26	KED
	Se	**78**	**7223.862**	ug/L	9539.727	132	20	21	21	KED
	Y	**89**		ug/L			352824	6	95	Standard
	Kr	**83**		ug/L			41	126	6	Standard
>	**In-1**	**115**		ug/L			9999	7	25	KED
	Mo	**98**	**7.295**	ug/L	1.067	14	5	8	28	KED
	Cd	**111**	**29.875**	ug/L	16.978	56	5	6	31	KED
	Cd	**114**	**12.604**	ug/L	12.732	101	9	6	92	KED
>	**In**	**115**		ug/L			440562	7	75	Standard
	Ag	**107**	**50.097**	ug/L	67.769	135	34	5	66	Standard
	Sb	**121**	**370.497**	ug/L	384.188	103	252	47	10	Standard
	Sb	**123**	**253.960**	ug/L	234.989	92	192	28	18	Standard
	Ba	**135**	**123.758**	ug/L	70.877	57	54	6	41	Standard
	Ba	**137**	**82.201**	ug/L	76.061	92	99	6	17	Standard
>	**Tb**	**159**		ug/L			801432	1	173	Standard
	Tl	**205**		ug/L			79	268	5	Standard
	Pb	**208**		ug/L			302	38	49	Standard

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00046
Control Limt: +/- 10.00%
Sequence: SLD0260

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0260-ICV1	Arsenic-75a	50.000	47.5	94.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.1	104	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	48.0	96.1	ug/L	PA 6020B UCT-KE
SLD0260-CCV1	Arsenic-75a	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.0	98.0	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.4	98.9	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.8	99.7	ug/L	PA 6020B UCT-KE
SLD0260-CCV2	Arsenic-75a	50.000	48.7	97.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.8	99.7	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.0	98.1	ug/L	PA 6020B UCT-KE
SLD0260-CCV3	Arsenic-75a	50.000	48.6	97.3	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.8	99.7	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.6	99.3	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.3	101	ug/L	PA 6020B UCT-KE
SLD0260-CCV4	Arsenic-75a	50.000	48.5	97.0	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.6	99.3	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.7	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.9	97.7	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.4	101	ug/L	PA 6020B UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00046
Control Limt: +/- 10.00%
Sequence: SLD0260

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0260-CCV4	Zinc-67	50.000	48.4	96.8	ug/L	PA 6020B UCT-KE
SLD0260-CCV5	Arsenic-75a	50.000	49.0	98.1	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	48.9	97.7	ug/L	PA 6020B UCT-KE
SLD0260-CCV6	Arsenic-75a	50.000	48.4	96.7	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.4	98.7	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.8	99.7	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	48.9	97.7	ug/L	PA 6020B UCT-KE
SLD0260-CCV7	Arsenic-75a	50.000	48.4	96.8	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.3	98.5	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.4	98.9	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	48.3	96.5	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	47.7	95.4	ug/L	PA 6020B UCT-KE
SLD0260-CCV8	Arsenic-75a	50.000	48.6	97.1	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.8	97.6	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	48.3	96.6	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.9	97.8	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	48.3	96.5	ug/L	PA 6020B UCT-KE
SLD0260-CCV9	Arsenic-75a	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.1	98.1	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.8	104	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.2	102	ug/L	PA 6020B UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00046
Control Limt: +/- 10.00%
Sequence: SLD0260

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0260-CCV9	Zinc-66	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.6	101	ug/L	PA 6020B UCT-KE
SLD0260-CCVA	Arsenic-75a	50.000	48.9	97.8	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	48.7	97.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.5	99.0	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.6	99.1	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE
SLD0260-CCVB	Arsenic-75a	50.000	49.3	98.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.5	101	ug/L	PA 6020B UCT-KE
SLD0260-CCVC	Arsenic-75a	50.000	48.9	97.8	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.0	98.1	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.5	99.0	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	48.9	97.8	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00059
Control Limt: +/- 10.00%
Sequence: SLD0292

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0292-ICV1	Cadmium-111	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.2	100	ug/L	PA 6020B UCT-KE
SLD0292-CCV1	Cadmium-111	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.2	102	ug/L	PA 6020B UCT-KE
SLD0292-CCV2	Cadmium-111	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.3	101	ug/L	PA 6020B UCT-KE
SLD0292-CCV3	Cadmium-111	50.000	49.1	98.1	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
SLD0292-CCV4	Cadmium-111	50.000	48.7	97.5	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
SLD0292-CCV5	Cadmium-111	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.1	102	ug/L	PA 6020B UCT-KE
SLD0292-CCV6	Cadmium-111	50.000	47.7	95.5	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	48.8	97.5	ug/L	PA 6020B UCT-KE
SLD0292-CCV7	Cadmium-111	50.000	48.8	97.6	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
SLD0292-CCV8	Cadmium-111	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.3	101	ug/L	PA 6020B UCT-KE
SLD0292-CCV9	Cadmium-111	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.2	102	ug/L	PA 6020B UCT-KE
SLD0292-CCVA	Cadmium-111	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.9	102	ug/L	PA 6020B UCT-KE
SLD0292-CCVB	Cadmium-111	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.5	103	ug/L	PA 6020B UCT-KE

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Control Limt: +/- 10.00%
Sequence: SLD0370

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0370-ICV1	Arsenic-75a	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.8	104	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.1	104	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	52.6	105	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	53.1	106	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.6	103	ug/L	PA 6020B UCT-KE
SLD0370-CCV1	Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.6	103	ug/L	PA 6020B UCT-KE
SLD0370-CCV2	Arsenic-75a	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.8	104	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.8	106	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.7	103	ug/L	PA 6020B UCT-KE
SLD0370-CCV3	Arsenic-75a	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.4	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.7	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.1	104	ug/L	PA 6020B UCT-KE
SLD0370-CCV4	Arsenic-75a	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	52.6	105	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.7	105	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.6	105	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.3	103	ug/L	PA 6020B UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Control Limt: +/- 10.00%
Sequence: SLD0370

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0370-CCV4	Zinc-67	50.000	51.3	103	ug/L	PA 6020B UCT-KE
SLD0370-CCV5	Arsenic-75a	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	53.2	106	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.2	100	ug/L	PA 6020B UCT-KE
SLD0370-CCV6	Arsenic-75a	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.9	104	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.0	104	ug/L	PA 6020B UCT-KE
SLD0370-CCV7	Arsenic-75a	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.9	104	ug/L	PA 6020B UCT-KE
SLD0370-CCV8	Arsenic-75a	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.3	105	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.3	101	ug/L	PA 6020B UCT-KE
SLD0370-CCV9	Arsenic-75a	50.000	49.8	99.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.7	103	ug/L	PA 6020B UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Control Limt: +/- 10.00%
Sequence: SLD0370

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0370-CCV9	Zinc-66	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.4	103	ug/L	PA 6020B UCT-KE
SLD0370-CCVA	Arsenic-75a	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	53.1	106	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.4	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.1	104	ug/L	PA 6020B UCT-KE
SLD0370-CCVB	Arsenic-75a	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	52.4	105	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.6	105	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	53.2	106	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.5	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.5	103	ug/L	PA 6020B UCT-KE
SLD0370-CCVC	Arsenic-75a	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.2	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.8	99.7	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.3	103	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.0	100	ug/L	PA 6020B UCT-KE
SLD0370-CCVD	Arsenic-75a	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.4	105	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.0	104	ug/L	PA 6020B UCT-KE
SLD0370-CCVE	Arsenic-75a	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	52.4	105	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.1	104	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.0	102	ug/L	PA 6020B UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Control Limt: +/- 10.00%
Sequence: SLD0370

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0370-CCVE	Copper-65	50.000	52.5	105	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.8	102	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.2	102	ug/L	PA 6020B UCT-KE
SLD0370-CCVF	Arsenic-75a	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	52.4	105	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.6	103	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	53.3	107	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.0	104	ug/L	PA 6020B UCT-KE
SLD0370-CCVG	Arsenic-75a	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	54.0	108	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	55.0	110	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.9	104	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	53.5	107	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.0	102	ug/L	PA 6020B UCT-KE
SLD0370-CCVH	Arsenic-75a	50.000	51.4	103	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	54.7	109	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	54.6	109	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	53.3	107	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	54.2	108	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	52.3	105	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	53.2	106	ug/L	PA 6020B UCT-KE
SLD0370-CCVI	Arsenic-75a	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	54.5	109	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	54.9	110	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	51.9	104	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	53.4	107	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.7	103	ug/L	PA 6020B UCT-KE
SLD0370-CCVJ	Arsenic-75a	50.000	51.0	102	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	54.8	110	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	54.4	109	ug/L	PA 6020B UCT-KE

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Control Limt: +/- 10.00%
Sequence: SLD0370

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLD0370-CCVJ	Copper-63	50.000	52.0	104	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	52.8	106	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	51.7	103	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	52.3	105	ug/L	PA 6020B UCT-KE

* Values outside of QC limits

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS2
Sequence: SLD0260

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00046
Date Analyzed: 04/18/23 13:47

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0260-IBL1	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLD0260-IBL1	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLD0260-IBL1	Cadmium-114	0.00	0.04	0.100	ug/L	
SLD0260-IBL1	Copper-63	0.00300	0.173	0.500	ug/L	
SLD0260-IBL1	Copper-65	0.00700	0.35	0.500	ug/L	
SLD0260-IBL1	Zinc-66	0.0990	2.92	6.00	ug/L	
SLD0260-IBL1	Zinc-67	0.0790	0.94	6.00	ug/L	
SLD0260-ICB1	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLD0260-ICB1	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLD0260-ICB1	Cadmium-114	0.00500	0.04	0.100	ug/L	
SLD0260-ICB1	Copper-63	0.00100	0.173	0.500	ug/L	
SLD0260-ICB1	Copper-65	0.00700	0.35	0.500	ug/L	
SLD0260-ICB1	Zinc-66	0.0160	2.92	6.00	ug/L	
SLD0260-ICB1	Zinc-67	0.0070	0.94	6.00	ug/L	
SLD0260-CCB1	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLD0260-CCB1	Cadmium-111	0.00	0.03	0.100	ug/L	
SLD0260-CCB1	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLD0260-CCB1	Copper-63	-0.00300	0.173	0.500	ug/L	
SLD0260-CCB1	Copper-65	0.00	0.35	0.500	ug/L	
SLD0260-CCB1	Zinc-66	0.0010	2.92	6.00	ug/L	
SLD0260-CCB1	Zinc-67	0.00	0.94	6.00	ug/L	
SLD0260-IBL2	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLD0260-IBL2	Cadmium-111	0.00700	0.03	0.100	ug/L	
SLD0260-IBL2	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLD0260-IBL2	Copper-63	0.0180	0.173	0.500	ug/L	
SLD0260-IBL2	Copper-65	0.0180	0.35	0.500	ug/L	
SLD0260-IBL2	Zinc-66	0.108	2.92	6.00	ug/L	
SLD0260-IBL2	Zinc-67	0.155	0.94	6.00	ug/L	
SLD0260-CCB2	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLD0260-CCB2	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLD0260-CCB2	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLD0260-CCB2	Copper-63	0.00100	0.173	0.500	ug/L	
SLD0260-CCB2	Copper-65	0.00400	0.35	0.500	ug/L	
SLD0260-CCB2	Zinc-66	-0.0010	2.92	6.00	ug/L	
SLD0260-CCB2	Zinc-67	-0.0060	0.94	6.00	ug/L	

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS2
Sequence: SLD0260

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00046
Date Analyzed: 04/18/23 16:11

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0260-IBL3	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLD0260-IBL3	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLD0260-IBL3	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLD0260-IBL3	Copper-63	0.00300	0.173	0.500	ug/L	
SLD0260-IBL3	Copper-65	0.00200	0.35	0.500	ug/L	
SLD0260-IBL3	Zinc-66	0.103	2.92	6.00	ug/L	
SLD0260-IBL3	Zinc-67	0.0920	0.94	6.00	ug/L	
SLD0260-CCB3	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLD0260-CCB3	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLD0260-CCB3	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLD0260-CCB3	Copper-63	0.00600	0.173	0.500	ug/L	
SLD0260-CCB3	Copper-65	0.00900	0.35	0.500	ug/L	
SLD0260-CCB3	Zinc-66	-0.0070	2.92	6.00	ug/L	
SLD0260-CCB3	Zinc-67	0.0120	0.94	6.00	ug/L	
SLD0260-IBL4	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLD0260-IBL4	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLD0260-IBL4	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLD0260-IBL4	Copper-63	0.0120	0.173	0.500	ug/L	
SLD0260-IBL4	Copper-65	0.0130	0.35	0.500	ug/L	
SLD0260-IBL4	Zinc-66	0.138	2.92	6.00	ug/L	
SLD0260-IBL4	Zinc-67	0.231	0.94	6.00	ug/L	
SLD0260-CCB4	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLD0260-CCB4	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLD0260-CCB4	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLD0260-CCB4	Copper-63	0.00100	0.173	0.500	ug/L	
SLD0260-CCB4	Copper-65	0.00100	0.35	0.500	ug/L	
SLD0260-CCB4	Zinc-66	-0.0070	2.92	6.00	ug/L	
SLD0260-CCB4	Zinc-67	-0.0060	0.94	6.00	ug/L	
SLD0260-CCB5	Arsenic-75a	-0.00800	0.0373	0.200	ug/L	
SLD0260-CCB5	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLD0260-CCB5	Cadmium-114	0.00500	0.04	0.100	ug/L	
SLD0260-CCB5	Copper-63	0.00200	0.173	0.500	ug/L	
SLD0260-CCB5	Copper-65	0.00100	0.35	0.500	ug/L	
SLD0260-CCB5	Zinc-66	0.0050	2.92	6.00	ug/L	
SLD0260-CCB5	Zinc-67	0.0030	0.94	6.00	ug/L	
SLD0260-CCB6	Arsenic-75a	0.00	0.0373	0.200	ug/L	

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS2
Sequence: SLD0260

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00046
Date Analyzed: 04/18/23 19:31

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0260-CCB6	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLD0260-CCB6	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLD0260-CCB6	Copper-63	0.00100	0.173	0.500	ug/L	
SLD0260-CCB6	Copper-65	0.00400	0.35	0.500	ug/L	
SLD0260-CCB6	Zinc-66	0.305	2.92	6.00	ug/L	
SLD0260-CCB6	Zinc-67	0.290	0.94	6.00	ug/L	
SLD0260-CCB7	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLD0260-CCB7	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLD0260-CCB7	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLD0260-CCB7	Copper-63	0.00300	0.173	0.500	ug/L	
SLD0260-CCB7	Copper-65	0.00	0.35	0.500	ug/L	
SLD0260-CCB7	Zinc-66	-0.0110	2.92	6.00	ug/L	
SLD0260-CCB7	Zinc-67	0.00	0.94	6.00	ug/L	
SLD0260-CCB8	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLD0260-CCB8	Cadmium-111	0.00300	0.03	0.100	ug/L	
SLD0260-CCB8	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLD0260-CCB8	Copper-63	-0.00100	0.173	0.500	ug/L	
SLD0260-CCB8	Copper-65	-0.00300	0.35	0.500	ug/L	
SLD0260-CCB8	Zinc-66	-0.0060	2.92	6.00	ug/L	
SLD0260-CCB8	Zinc-67	-0.0350	0.94	6.00	ug/L	
SLD0260-CCB9	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLD0260-CCB9	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLD0260-CCB9	Cadmium-114	0.00500	0.04	0.100	ug/L	
SLD0260-CCB9	Copper-63	-0.00100	0.173	0.500	ug/L	
SLD0260-CCB9	Copper-65	0.00	0.35	0.500	ug/L	
SLD0260-CCB9	Zinc-66	-0.0010	2.92	6.00	ug/L	
SLD0260-CCB9	Zinc-67	0.0240	0.94	6.00	ug/L	
SLD0260-CCBA	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLD0260-CCBA	Cadmium-111	0.00	0.03	0.100	ug/L	
SLD0260-CCBA	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLD0260-CCBA	Copper-63	0.00100	0.173	0.500	ug/L	
SLD0260-CCBA	Copper-65	-0.00200	0.35	0.500	ug/L	
SLD0260-CCBA	Zinc-66	-0.0200	2.92	6.00	ug/L	
SLD0260-CCBA	Zinc-67	-0.0310	0.94	6.00	ug/L	
SLD0260-CCBB	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	
SLD0260-CCBB	Cadmium-111	0.00600	0.03	0.100	ug/L	

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00046
Sequence: SLD0260
Date Analyzed: 04/18/23 23:54

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0260-CCBB	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLD0260-CCBB	Copper-63	0.00200	0.173	0.500	ug/L	
SLD0260-CCBB	Copper-65	0.00100	0.35	0.500	ug/L	
SLD0260-CCBB	Zinc-66	-0.0040	2.92	6.00	ug/L	
SLD0260-CCBB	Zinc-67	-0.0470	0.94	6.00	ug/L	
SLD0260-CCBC	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLD0260-CCBC	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLD0260-CCBC	Cadmium-114	0.00	0.04	0.100	ug/L	
SLD0260-CCBC	Copper-63	-0.00100	0.173	0.500	ug/L	
SLD0260-CCBC	Copper-65	-0.00100	0.35	0.500	ug/L	
SLD0260-CCBC	Zinc-66	0.0150	2.92	6.00	ug/L	
SLD0260-CCBC	Zinc-67	-0.0360	0.94	6.00	ug/L	

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS2
Sequence: SLD0292

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00059
Date Analyzed: 04/20/23 13:04

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0292-IBL1	Cadmium-111	0.00600	0.03	0.100	ug/L	
SLD0292-IBL1	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLD0292-ICB1	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLD0292-ICB1	Cadmium-114	0.00	0.04	0.100	ug/L	
SLD0292-CCB1	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLD0292-CCB1	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLD0292-IBL2	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLD0292-IBL2	Cadmium-114	0.00600	0.04	0.100	ug/L	
SLD0292-IBL3	Cadmium-111	0.00	0.03	0.100	ug/L	
SLD0292-IBL3	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLD0292-CCB2	Cadmium-111	0.00300	0.03	0.100	ug/L	
SLD0292-CCB2	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLD0292-IBL4	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLD0292-IBL4	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLD0292-CCB3	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLD0292-CCB3	Cadmium-114	0.00	0.04	0.100	ug/L	
SLD0292-IBL5	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLD0292-IBL5	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLD0292-CCB4	Cadmium-111	0.00	0.03	0.100	ug/L	
SLD0292-CCB4	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLD0292-CCB5	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLD0292-CCB5	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLD0292-IBL6	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLD0292-IBL6	Cadmium-114	-0.00400	0.04	0.100	ug/L	
SLD0292-CCB6	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLD0292-CCB6	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLD0292-CCB7	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLD0292-CCB7	Cadmium-114	0.00	0.04	0.100	ug/L	
SLD0292-IBL7	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLD0292-IBL7	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLD0292-CCB8	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLD0292-CCB8	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLD0292-CCB9	Cadmium-111	0.00600	0.03	0.100	ug/L	
SLD0292-CCB9	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLD0292-CCBA	Cadmium-111	0.00100	0.03	0.100	ug/L	

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS2
Sequence: SLD0292

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00059
Date Analyzed: 04/21/23 00:18

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0292-CCBA	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLD0292-CCBB	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLD0292-CCBB	Cadmium-114	0.00300	0.04	0.100	ug/L	

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00066
Date Analyzed: 04/25/23 17:47

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0370-IBL1	Arsenic-75a	0.00500	0.0373	0.200	ug/L	
SLD0370-IBL1	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLD0370-IBL1	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLD0370-IBL1	Copper-63	-0.00100	0.173	0.500	ug/L	
SLD0370-IBL1	Copper-65	-0.00100	0.35	0.500	ug/L	
SLD0370-IBL1	Zinc-66	-0.0010	2.92	6.00	ug/L	
SLD0370-IBL1	Zinc-67	0.0350	0.94	6.00	ug/L	
SLD0370-ICB1	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLD0370-ICB1	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLD0370-ICB1	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLD0370-ICB1	Copper-63	0.00100	0.173	0.500	ug/L	
SLD0370-ICB1	Copper-65	-0.00300	0.35	0.500	ug/L	
SLD0370-ICB1	Zinc-66	-0.0160	2.92	6.00	ug/L	
SLD0370-ICB1	Zinc-67	0.0240	0.94	6.00	ug/L	
SLD0370-CCB1	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLD0370-CCB1	Cadmium-111	-0.00900	0.03	0.100	ug/L	
SLD0370-CCB1	Cadmium-114	-0.00600	0.04	0.100	ug/L	
SLD0370-CCB1	Copper-63	-0.00200	0.173	0.500	ug/L	
SLD0370-CCB1	Copper-65	-0.00200	0.35	0.500	ug/L	
SLD0370-CCB1	Zinc-66	-0.0090	2.92	6.00	ug/L	
SLD0370-CCB1	Zinc-67	0.0130	0.94	6.00	ug/L	
SLD0370-IBL2	Arsenic-75a	0.00500	0.0373	0.200	ug/L	
SLD0370-IBL2	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLD0370-IBL2	Cadmium-114	0.00600	0.04	0.100	ug/L	
SLD0370-IBL2	Copper-63	0.00600	0.173	0.500	ug/L	
SLD0370-IBL2	Copper-65	0.00	0.35	0.500	ug/L	
SLD0370-IBL2	Zinc-66	-0.118	2.92	6.00	ug/L	
SLD0370-IBL2	Zinc-67	-0.0910	0.94	6.00	ug/L	
SLD0370-IBL3	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLD0370-IBL3	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLD0370-IBL3	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLD0370-IBL3	Copper-63	0.00500	0.173	0.500	ug/L	
SLD0370-IBL3	Copper-65	0.00600	0.35	0.500	ug/L	
SLD0370-IBL3	Zinc-66	-0.0950	2.92	6.00	ug/L	
SLD0370-IBL3	Zinc-67	-0.0850	0.94	6.00	ug/L	

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00066
Date Analyzed: 04/25/23 19:18

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0370-CCB2	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLD0370-CCB2	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLD0370-CCB2	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLD0370-CCB2	Copper-63	0.00100	0.173	0.500	ug/L	
SLD0370-CCB2	Copper-65	0.00	0.35	0.500	ug/L	
SLD0370-CCB2	Zinc-66	0.0030	2.92	6.00	ug/L	
SLD0370-CCB2	Zinc-67	0.0300	0.94	6.00	ug/L	
SLD0370-IBL4	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	
SLD0370-IBL4	Cadmium-111	-0.00600	0.03	0.100	ug/L	
SLD0370-IBL4	Cadmium-114	-0.00500	0.04	0.100	ug/L	
SLD0370-IBL4	Copper-63	0.0280	0.173	0.500	ug/L	
SLD0370-IBL4	Copper-65	0.0330	0.35	0.500	ug/L	
SLD0370-IBL4	Zinc-66	0.0700	2.92	6.00	ug/L	
SLD0370-IBL4	Zinc-67	0.0710	0.94	6.00	ug/L	
SLD0370-CCB3	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLD0370-CCB3	Cadmium-111	0.00	0.03	0.100	ug/L	
SLD0370-CCB3	Cadmium-114	-0.00500	0.04	0.100	ug/L	
SLD0370-CCB3	Copper-63	-0.00200	0.173	0.500	ug/L	
SLD0370-CCB3	Copper-65	0.00200	0.35	0.500	ug/L	
SLD0370-CCB3	Zinc-66	0.0050	2.92	6.00	ug/L	
SLD0370-CCB3	Zinc-67	0.0020	0.94	6.00	ug/L	
SLD0370-IBL5	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLD0370-IBL5	Cadmium-111	-0.00700	0.03	0.100	ug/L	
SLD0370-IBL5	Cadmium-114	-0.00500	0.04	0.100	ug/L	
SLD0370-IBL5	Copper-63	0.0280	0.173	0.500	ug/L	
SLD0370-IBL5	Copper-65	0.0330	0.35	0.500	ug/L	
SLD0370-IBL5	Zinc-66	0.0940	2.92	6.00	ug/L	
SLD0370-IBL5	Zinc-67	0.0870	0.94	6.00	ug/L	
SLD0370-CCB4	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLD0370-CCB4	Cadmium-111	-0.00800	0.03	0.100	ug/L	
SLD0370-CCB4	Cadmium-114	-0.0100	0.04	0.100	ug/L	
SLD0370-CCB4	Copper-63	0.00100	0.173	0.500	ug/L	
SLD0370-CCB4	Copper-65	0.00	0.35	0.500	ug/L	
SLD0370-CCB4	Zinc-66	-0.0110	2.92	6.00	ug/L	
SLD0370-CCB4	Zinc-67	0.0400	0.94	6.00	ug/L	
SLD0370-IBL6	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00066
Date Analyzed: 04/25/23 22:38

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0370-IBL6	Cadmium-111	0.00	0.03	0.100	ug/L	
SLD0370-IBL6	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLD0370-IBL6	Copper-63	0.00900	0.173	0.500	ug/L	
SLD0370-IBL6	Copper-65	0.0100	0.35	0.500	ug/L	
SLD0370-IBL6	Zinc-66	-0.0440	2.92	6.00	ug/L	
SLD0370-IBL6	Zinc-67	-0.0440	0.94	6.00	ug/L	
SLD0370-CCB5	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLD0370-CCB5	Cadmium-111	-0.0110	0.03	0.100	ug/L	
SLD0370-CCB5	Cadmium-114	-0.00600	0.04	0.100	ug/L	
SLD0370-CCB5	Copper-63	0.00600	0.173	0.500	ug/L	
SLD0370-CCB5	Copper-65	0.00400	0.35	0.500	ug/L	
SLD0370-CCB5	Zinc-66	-0.0060	2.92	6.00	ug/L	
SLD0370-CCB5	Zinc-67	-0.0220	0.94	6.00	ug/L	
SLD0370-CCB6	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLD0370-CCB6	Cadmium-111	0.00600	0.03	0.100	ug/L	
SLD0370-CCB6	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLD0370-CCB6	Copper-63	0.00	0.173	0.500	ug/L	
SLD0370-CCB6	Copper-65	0.00200	0.35	0.500	ug/L	
SLD0370-CCB6	Zinc-66	0.0080	2.92	6.00	ug/L	
SLD0370-CCB6	Zinc-67	-0.0340	0.94	6.00	ug/L	
SLD0370-IBL7	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLD0370-IBL7	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLD0370-IBL7	Cadmium-114	0.00500	0.04	0.100	ug/L	
SLD0370-IBL7	Copper-63	0.0150	0.173	0.500	ug/L	
SLD0370-IBL7	Copper-65	0.0140	0.35	0.500	ug/L	
SLD0370-IBL7	Zinc-66	0.0440	2.92	6.00	ug/L	
SLD0370-IBL7	Zinc-67	-0.0580	0.94	6.00	ug/L	
SLD0370-CCB7	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLD0370-CCB7	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLD0370-CCB7	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLD0370-CCB7	Copper-63	-0.00100	0.173	0.500	ug/L	
SLD0370-CCB7	Copper-65	-0.00200	0.35	0.500	ug/L	
SLD0370-CCB7	Zinc-66	0.0170	2.92	6.00	ug/L	
SLD0370-CCB7	Zinc-67	-0.0530	0.94	6.00	ug/L	
SLD0370-IBL8	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLD0370-IBL8	Cadmium-111	0.00200	0.03	0.100	ug/L	

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00066
Date Analyzed: 04/26/23 01:05

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0370-IBL8	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLD0370-IBL8	Copper-63	0.0200	0.173	0.500	ug/L	
SLD0370-IBL8	Copper-65	0.0180	0.35	0.500	ug/L	
SLD0370-IBL8	Zinc-66	0.0180	2.92	6.00	ug/L	
SLD0370-IBL8	Zinc-67	0.0200	0.94	6.00	ug/L	
SLD0370-IBL9	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLD0370-IBL9	Cadmium-111	0.00900	0.03	0.100	ug/L	
SLD0370-IBL9	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLD0370-IBL9	Copper-63	0.0140	0.173	0.500	ug/L	
SLD0370-IBL9	Copper-65	0.0200	0.35	0.500	ug/L	
SLD0370-IBL9	Zinc-66	0.0110	2.92	6.00	ug/L	
SLD0370-IBL9	Zinc-67	-0.0110	0.94	6.00	ug/L	
SLD0370-CCB8	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLD0370-CCB8	Cadmium-111	0.00700	0.03	0.100	ug/L	
SLD0370-CCB8	Cadmium-114	0.00500	0.04	0.100	ug/L	
SLD0370-CCB8	Copper-63	0.0100	0.173	0.500	ug/L	
SLD0370-CCB8	Copper-65	0.00400	0.35	0.500	ug/L	
SLD0370-CCB8	Zinc-66	0.0240	2.92	6.00	ug/L	
SLD0370-CCB8	Zinc-67	0.0120	0.94	6.00	ug/L	
SLD0370-IBLA	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLD0370-IBLA	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLD0370-IBLA	Cadmium-114	0.00500	0.04	0.100	ug/L	
SLD0370-IBLA	Copper-63	0.0110	0.173	0.500	ug/L	
SLD0370-IBLA	Copper-65	0.0100	0.35	0.500	ug/L	
SLD0370-IBLA	Zinc-66	-0.0020	2.92	6.00	ug/L	
SLD0370-IBLA	Zinc-67	-0.0440	0.94	6.00	ug/L	
SLD0370-CCB9	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLD0370-CCB9	Cadmium-111	0.00900	0.03	0.100	ug/L	
SLD0370-CCB9	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLD0370-CCB9	Copper-63	0.00100	0.173	0.500	ug/L	
SLD0370-CCB9	Copper-65	0.00300	0.35	0.500	ug/L	
SLD0370-CCB9	Zinc-66	0.0480	2.92	6.00	ug/L	
SLD0370-CCB9	Zinc-67	-0.0050	0.94	6.00	ug/L	
SLD0370-CCBA	Arsenic-75a	0.00500	0.0373	0.200	ug/L	
SLD0370-CCBA	Cadmium-111	0.00900	0.03	0.100	ug/L	
SLD0370-CCBA	Cadmium-114	0.00700	0.04	0.100	ug/L	

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00066
Date Analyzed: 04/26/23 02:44

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0370-CCBA	Copper-63	0.00100	0.173	0.500	ug/L	
SLD0370-CCBA	Copper-65	0.00100	0.35	0.500	ug/L	
SLD0370-CCBA	Zinc-66	0.0290	2.92	6.00	ug/L	
SLD0370-CCBA	Zinc-67	0.0110	0.94	6.00	ug/L	
SLD0370-IBLB	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLD0370-IBLB	Cadmium-111	0.0110	0.03	0.100	ug/L	
SLD0370-IBLB	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLD0370-IBLB	Copper-63	0.0150	0.173	0.500	ug/L	
SLD0370-IBLB	Copper-65	0.0190	0.35	0.500	ug/L	
SLD0370-IBLB	Zinc-66	0.0020	2.92	6.00	ug/L	
SLD0370-IBLB	Zinc-67	-0.0170	0.94	6.00	ug/L	
SLD0370-IBLC	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLD0370-IBLC	Cadmium-111	0.00300	0.03	0.100	ug/L	
SLD0370-IBLC	Cadmium-114	0.00700	0.04	0.100	ug/L	
SLD0370-IBLC	Copper-63	0.0130	0.173	0.500	ug/L	
SLD0370-IBLC	Copper-65	0.0140	0.35	0.500	ug/L	
SLD0370-IBLC	Zinc-66	0.0270	2.92	6.00	ug/L	
SLD0370-IBLC	Zinc-67	0.0200	0.94	6.00	ug/L	
SLD0370-CCBB	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLD0370-CCBB	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLD0370-CCBB	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLD0370-CCBB	Copper-63	0.00400	0.173	0.500	ug/L	
SLD0370-CCBB	Copper-65	0.00500	0.35	0.500	ug/L	
SLD0370-CCBB	Zinc-66	0.0910	2.92	6.00	ug/L	
SLD0370-CCBB	Zinc-67	0.0390	0.94	6.00	ug/L	
SLD0370-IBLD	Arsenic-75a	0.00500	0.0373	0.200	ug/L	
SLD0370-IBLD	Cadmium-111	0.0130	0.03	0.100	ug/L	
SLD0370-IBLD	Cadmium-114	0.0110	0.04	0.100	ug/L	
SLD0370-IBLD	Copper-63	0.0170	0.173	0.500	ug/L	
SLD0370-IBLD	Copper-65	0.0190	0.35	0.500	ug/L	
SLD0370-IBLD	Zinc-66	0.0220	2.92	6.00	ug/L	
SLD0370-IBLD	Zinc-67	-0.0180	0.94	6.00	ug/L	
SLD0370-CCBC	Arsenic-75a	0.0100	0.0373	0.200	ug/L	
SLD0370-CCBC	Cadmium-111	0.00600	0.03	0.100	ug/L	
SLD0370-CCBC	Cadmium-114	0.00900	0.04	0.100	ug/L	
SLD0370-CCBC	Copper-63	0.00600	0.173	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00066
Date Analyzed: 04/26/23 04:55

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0370-CCBC	Copper-65	0.00300	0.35	0.500	ug/L	
SLD0370-CCBC	Zinc-66	0.0670	2.92	6.00	ug/L	
SLD0370-CCBC	Zinc-67	0.0780	0.94	6.00	ug/L	
SLD0370-IBLE	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLD0370-IBLE	Cadmium-111	0.00600	0.03	0.100	ug/L	
SLD0370-IBLE	Cadmium-114	0.00600	0.04	0.100	ug/L	
SLD0370-IBLE	Copper-63	-0.00500	0.173	0.500	ug/L	
SLD0370-IBLE	Copper-65	-0.00200	0.35	0.500	ug/L	
SLD0370-IBLE	Zinc-66	-0.0980	2.92	6.00	ug/L	
SLD0370-IBLE	Zinc-67	-0.164	0.94	6.00	ug/L	
SLD0370-IBLF	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLD0370-IBLF	Cadmium-111	0.0140	0.03	0.100	ug/L	
SLD0370-IBLF	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLD0370-IBLF	Copper-63	-0.00200	0.173	0.500	ug/L	
SLD0370-IBLF	Copper-65	-0.00800	0.35	0.500	ug/L	
SLD0370-IBLF	Zinc-66	-0.0760	2.92	6.00	ug/L	
SLD0370-IBLF	Zinc-67	-0.111	0.94	6.00	ug/L	
SLD0370-CCBD	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLD0370-CCBD	Cadmium-111	0.00800	0.03	0.100	ug/L	
SLD0370-CCBD	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLD0370-CCBD	Copper-63	0.00300	0.173	0.500	ug/L	
SLD0370-CCBD	Copper-65	-0.00100	0.35	0.500	ug/L	
SLD0370-CCBD	Zinc-66	0.0640	2.92	6.00	ug/L	
SLD0370-CCBD	Zinc-67	-0.0250	0.94	6.00	ug/L	
SLD0370-IBLG	Arsenic-75a	0.0100	0.0373	0.200	ug/L	
SLD0370-IBLG	Cadmium-111	0.00700	0.03	0.100	ug/L	
SLD0370-IBLG	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLD0370-IBLG	Copper-63	0.00	0.173	0.500	ug/L	
SLD0370-IBLG	Copper-65	-0.00700	0.35	0.500	ug/L	
SLD0370-IBLG	Zinc-66	-0.0840	2.92	6.00	ug/L	
SLD0370-IBLG	Zinc-67	-0.129	0.94	6.00	ug/L	
SLD0370-CCBE	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLD0370-CCBE	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLD0370-CCBE	Cadmium-114	0.00600	0.04	0.100	ug/L	
SLD0370-CCBE	Copper-63	0.00200	0.173	0.500	ug/L	
SLD0370-CCBE	Copper-65	0.00600	0.35	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00066
Date Analyzed: 04/26/23 07:07

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0370-CCBE	Zinc-66	0.117	2.92	6.00	ug/L	
SLD0370-CCBE	Zinc-67	0.0280	0.94	6.00	ug/L	
SLD0370-CCBF	Arsenic-75a	0.00500	0.0373	0.200	ug/L	
SLD0370-CCBF	Cadmium-111	0.00900	0.03	0.100	ug/L	
SLD0370-CCBF	Cadmium-114	-0.00700	0.04	0.100	ug/L	
SLD0370-CCBF	Copper-63	0.00300	0.173	0.500	ug/L	
SLD0370-CCBF	Copper-65	0.00200	0.35	0.500	ug/L	
SLD0370-CCBF	Zinc-66	0.0330	2.92	6.00	ug/L	
SLD0370-CCBF	Zinc-67	0.0650	0.94	6.00	ug/L	
SLD0370-IBLH	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLD0370-IBLH	Cadmium-111	0.00700	0.03	0.100	ug/L	
SLD0370-IBLH	Cadmium-114	-0.00500	0.04	0.100	ug/L	
SLD0370-IBLH	Copper-63	0.00	0.173	0.500	ug/L	
SLD0370-IBLH	Copper-65	-0.00500	0.35	0.500	ug/L	
SLD0370-IBLH	Zinc-66	-0.134	2.92	6.00	ug/L	
SLD0370-IBLH	Zinc-67	-0.105	0.94	6.00	ug/L	
SLD0370-CCBG	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLD0370-CCBG	Cadmium-111	-0.00200	0.03	0.100	ug/L	
SLD0370-CCBG	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLD0370-CCBG	Copper-63	0.00700	0.173	0.500	ug/L	
SLD0370-CCBG	Copper-65	0.00400	0.35	0.500	ug/L	
SLD0370-CCBG	Zinc-66	0.0400	2.92	6.00	ug/L	
SLD0370-CCBG	Zinc-67	0.153	0.94	6.00	ug/L	
SLD0370-IBLI	Arsenic-75a	-0.00400	0.0373	0.200	ug/L	
SLD0370-IBLI	Cadmium-111	-0.00700	0.03	0.100	ug/L	
SLD0370-IBLI	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLD0370-IBLI	Copper-63	0.00200	0.173	0.500	ug/L	
SLD0370-IBLI	Copper-65	-0.00200	0.35	0.500	ug/L	
SLD0370-IBLI	Zinc-66	-0.123	2.92	6.00	ug/L	
SLD0370-IBLI	Zinc-67	-0.0950	0.94	6.00	ug/L	
SLD0370-CCBH	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLD0370-CCBH	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLD0370-CCBH	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLD0370-CCBH	Copper-63	0.00500	0.173	0.500	ug/L	
SLD0370-CCBH	Copper-65	0.00700	0.35	0.500	ug/L	
SLD0370-CCBH	Zinc-66	0.0790	2.92	6.00	ug/L	

INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: GD00066
Date Analyzed: 04/26/23 09:33

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLD0370-CCBH	Zinc-67	0.0870	0.94	6.00	ug/L	
SLD0370-IBLJ	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLD0370-IBLJ	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLD0370-IBLJ	Cadmium-114	-0.00500	0.04	0.100	ug/L	
SLD0370-IBLJ	Copper-63	0.00200	0.173	0.500	ug/L	
SLD0370-IBLJ	Copper-65	-0.00400	0.35	0.500	ug/L	
SLD0370-IBLJ	Zinc-66	-0.114	2.92	6.00	ug/L	
SLD0370-IBLJ	Zinc-67	-0.0600	0.94	6.00	ug/L	
SLD0370-CCBI	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLD0370-CCBI	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLD0370-CCBI	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLD0370-CCBI	Copper-63	0.00700	0.173	0.500	ug/L	
SLD0370-CCBI	Copper-65	0.00500	0.35	0.500	ug/L	
SLD0370-CCBI	Zinc-66	0.0980	2.92	6.00	ug/L	
SLD0370-CCBI	Zinc-67	0.0880	0.94	6.00	ug/L	
SLD0370-IBLK	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLD0370-IBLK	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLD0370-IBLK	Cadmium-114	-0.00600	0.04	0.100	ug/L	
SLD0370-IBLK	Copper-63	-0.00200	0.173	0.500	ug/L	
SLD0370-IBLK	Copper-65	-0.00600	0.35	0.500	ug/L	
SLD0370-IBLK	Zinc-66	-0.128	2.92	6.00	ug/L	
SLD0370-IBLK	Zinc-67	-0.0610	0.94	6.00	ug/L	
SLD0370-CCBJ	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLD0370-CCBJ	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLD0370-CCBJ	Cadmium-114	0.00	0.04	0.100	ug/L	
SLD0370-CCBJ	Copper-63	0.00700	0.173	0.500	ug/L	
SLD0370-CCBJ	Copper-65	0.00400	0.35	0.500	ug/L	
SLD0370-CCBJ	Zinc-66	0.0740	2.92	6.00	ug/L	
SLD0370-CCBJ	Zinc-67	0.0640	0.94	6.00	ug/L	

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLD0260	Instrument:	ICPMS2
		Calibration:	GD00046

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLD0260-CAL1	XDT_m2230418-006	NA	04/18/23 13:13
CAL 1 - LOW CHECK	SLD0260-CAL2	XDT_m2230418-007	NA	04/18/23 13:18
CAL 2	SLD0260-CAL3	XDT_m2230418-008	NA	04/18/23 13:22
CAL 3	SLD0260-CAL4	XDT_m2230418-009	NA	04/18/23 13:27
CAL 4	SLD0260-CAL5	XDT_m2230418-010	NA	04/18/23 13:33
CAL 5	SLD0260-CAL6	XDT_m2230418-011	NA	04/18/23 13:39
RINSE	SLD0260-IBL1	XDT_m2230418-012	NA	04/18/23 13:47
Initial Cal Check	SLD0260-ICV1	XDT_m2230418-014	NA	04/18/23 13:56
Initial Cal Blank	SLD0260-ICB1	XDT_m2230418-015	NA	04/18/23 14:03
Calibration Check	SLD0260-CCV1	XDT_m2230418-016	NA	04/18/23 14:13
Calibration Blank	SLD0260-CCB1	XDT_m2230418-017	NA	04/18/23 14:20
Instrument RL Check	SLD0260-CRL1	XDT_m2230418-018	NA	04/18/23 14:33
Interference Check A	SLD0260-IFA1	XDT_m2230418-019	NA	04/18/23 14:38
Interference Check B	SLD0260-IFB1	XDT_m2230418-020	NA	04/18/23 14:43
LR200	SLD0260-HCV1	XDT_m2230418-021	NA	04/18/23 14:52
LR300	SLD0260-HCV2	XDT_m2230418-022	NA	04/18/23 14:59
Instrument Blank	SLD0260-IBL2	XDT_m2230418-023	NA	04/18/23 15:07
Calibration Check	SLD0260-CCV2	XDT_m2230418-024	NA	04/18/23 15:13
Calibration Blank	SLD0260-CCB2	XDT_m2230418-025	NA	04/18/23 15:21
Instrument Blank	SLD0260-IBL3	XDT_m2230418-035	NA	04/18/23 16:11
Calibration Check	SLD0260-CCV3	XDT_m2230418-036	NA	04/18/23 16:16
Calibration Blank	SLD0260-CCB3	XDT_m2230418-037	NA	04/18/23 16:23
ZZZZZ	BLD0472-BLK1	XDT_m2230418-038	Water	04/18/23 16:30
ZZZZZ	BLD0472-BS1	XDT_m2230418-039	Water	04/18/23 16:35
Instrument Blank	SLD0260-IBL4	XDT_m2230418-047	NA	04/18/23 17:13
Calibration Check	SLD0260-CCV4	XDT_m2230418-048	NA	04/18/23 17:18
Calibration Blank	SLD0260-CCB4	XDT_m2230418-049	NA	04/18/23 17:25
Calibration Check	SLD0260-CCV5	XDT_m2230418-060	NA	04/18/23 18:20
Calibration Blank	SLD0260-CCB5	XDT_m2230418-061	NA	04/18/23 18:27

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0260
Instrument: ICPMS2
Calibration: GD00046

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	BLD0244-BLK1	XDT_m2230418-064	Solid	04/18/23 18:46
ZZZZZ	BLD0244-BS1	XDT_m2230418-065	Solid	04/18/23 18:50
ZZZZZ	23A0249-05	XDT_m2230418-066	Solid	04/18/23 18:55
ZZZZZ	23A0249-05	XDT_m2230418-066	Solid	04/18/23 18:55
ZZZZZ	23A0249-05	XDT_m2230418-066	Solid	04/18/23 18:55
ZZZZZ	23A0249-05	XDT_m2230418-066	Solid	04/18/23 18:55
ZZZZZ	23A0249-02	XDT_m2230418-067	Solid	04/18/23 19:00
ZZZZZ	23A0249-02	XDT_m2230418-067	Solid	04/18/23 19:00
ZZZZZ	23A0249-02	XDT_m2230418-067	Solid	04/18/23 19:00
ZZZZZ	23A0249-02	XDT_m2230418-067	Solid	04/18/23 19:00
ZZZZZ	BLD0244-DUP1	XDT_m2230418-068	Solid	04/18/23 19:05
ZZZZZ	BLD0244-MS1	XDT_m2230418-069	Solid	04/18/23 19:09
ZZZZZ	BLD0244-MSD1	XDT_m2230418-070	Solid	04/18/23 19:14
Calibration Check	SLD0260-CCV6	XDT_m2230418-072	NA	04/18/23 19:23
Calibration Blank	SLD0260-CCB6	XDT_m2230418-073	NA	04/18/23 19:31
Calibration Check	SLD0260-CCV7	XDT_m2230418-075	NA	04/18/23 19:47
Calibration Blank	SLD0260-CCB7	XDT_m2230418-076	NA	04/18/23 19:55
ZZZZZ	23A0249-07	XDT_m2230418-077	Solid	04/18/23 20:00
ZZZZZ	23A0249-08	XDT_m2230418-078	Solid	04/18/23 20:04
ZZZZZ	23A0249-08	XDT_m2230418-078	Solid	04/18/23 20:04
ZZZZZ	23A0249-08	XDT_m2230418-078	Solid	04/18/23 20:04
ZZZZZ	23A0249-08	XDT_m2230418-078	Solid	04/18/23 20:04
ZZZZZ	23A0249-11	XDT_m2230418-079	Solid	04/18/23 20:09
ZZZZZ	23A0249-11	XDT_m2230418-079	Solid	04/18/23 20:09
ZZZZZ	23A0249-11	XDT_m2230418-079	Solid	04/18/23 20:09
ZZZZZ	23A0249-11	XDT_m2230418-079	Solid	04/18/23 20:09
ZZZZZ	23A0295-01	XDT_m2230418-080	Solid	04/18/23 20:14
ZZZZZ	23A0295-01	XDT_m2230418-080	Solid	04/18/23 20:14
ZZZZZ	23A0295-01	XDT_m2230418-080	Solid	04/18/23 20:14

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0260
Instrument: ICPMS2
Calibration: GD00046

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0295-01	XDT_m2230418-080	Solid	04/18/23 20:14
ZZZZZ	23A0295-02	XDT_m2230418-081	Solid	04/18/23 20:19
ZZZZZ	23A0295-02	XDT_m2230418-081	Solid	04/18/23 20:19
ZZZZZ	23A0295-02	XDT_m2230418-081	Solid	04/18/23 20:19
ZZZZZ	23A0295-02	XDT_m2230418-081	Solid	04/18/23 20:19
ZZZZZ	23A0295-03	XDT_m2230418-082	Solid	04/18/23 20:23
ZZZZZ	23A0295-03	XDT_m2230418-082	Solid	04/18/23 20:23
ZZZZZ	23A0295-03	XDT_m2230418-082	Solid	04/18/23 20:23
ZZZZZ	23A0295-03	XDT_m2230418-082	Solid	04/18/23 20:23
ZZZZZ	23A0295-04	XDT_m2230418-083	Solid	04/18/23 20:28
ZZZZZ	23A0295-04	XDT_m2230418-083	Solid	04/18/23 20:28
ZZZZZ	23A0295-04	XDT_m2230418-083	Solid	04/18/23 20:28
ZZZZZ	23A0295-04	XDT_m2230418-083	Solid	04/18/23 20:28
ZZZZZ	23A0295-05	XDT_m2230418-084	Solid	04/18/23 20:33
ZZZZZ	23A0295-05	XDT_m2230418-084	Solid	04/18/23 20:33
ZZZZZ	23A0295-05	XDT_m2230418-084	Solid	04/18/23 20:33
ZZZZZ	23A0295-05	XDT_m2230418-084	Solid	04/18/23 20:33
ZZZZZ	23A0295-06	XDT_m2230418-085	Solid	04/18/23 20:38
ZZZZZ	23A0295-06	XDT_m2230418-085	Solid	04/18/23 20:38
ZZZZZ	23A0295-06	XDT_m2230418-085	Solid	04/18/23 20:38
ZZZZZ	23A0295-06	XDT_m2230418-085	Solid	04/18/23 20:38
ZZZZZ	23A0295-07	XDT_m2230418-086	Solid	04/18/23 20:42
ZZZZZ	23A0295-07	XDT_m2230418-086	Solid	04/18/23 20:42
ZZZZZ	23A0295-07	XDT_m2230418-086	Solid	04/18/23 20:42
ZZZZZ	23A0295-07	XDT_m2230418-086	Solid	04/18/23 20:42
Calibration Check	SLD0260-CCV8	XDT_m2230418-087	NA	04/18/23 20:47
Calibration Blank	SLD0260-CCB8	XDT_m2230418-088	NA	04/18/23 20:55
Blank	BLD0289-BLK1	XDT_m2230418-089	Solid	04/18/23 20:59
LCS	BLD0289-BS1	XDT_m2230418-090	Solid	04/18/23 21:04

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0260
Instrument: ICPMS2
Calibration: GD00046

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0295-09	XDT_m2230418-091	Solid	04/18/23 21:09
ZZZZZ	23A0295-09	XDT_m2230418-091	Solid	04/18/23 21:09
ZZZZZ	23A0295-09	XDT_m2230418-091	Solid	04/18/23 21:09
ZZZZZ	23A0295-09	XDT_m2230418-091	Solid	04/18/23 21:09
ZZZZZ	23A0295-10	XDT_m2230418-092	Solid	04/18/23 21:14
ZZZZZ	23A0295-10	XDT_m2230418-092	Solid	04/18/23 21:14
ZZZZZ	23A0295-10	XDT_m2230418-092	Solid	04/18/23 21:14
ZZZZZ	23A0295-10	XDT_m2230418-092	Solid	04/18/23 21:14
LDW23-IT1114	23A0313-03	XDT_m2230418-093	Solid	04/18/23 21:18
ZZZZZ	23A0328-02	XDT_m2230418-094	Solid	04/18/23 21:23
ZZZZZ	23A0328-02	XDT_m2230418-094	Solid	04/18/23 21:23
ZZZZZ	23A0328-02	XDT_m2230418-094	Solid	04/18/23 21:23
ZZZZZ	23A0328-02	XDT_m2230418-094	Solid	04/18/23 21:23
Calibration Check	SLD0260-CCV9	XDT_m2230418-099	NA	04/18/23 21:47
Calibration Blank	SLD0260-CCB9	XDT_m2230418-100	NA	04/18/23 21:54
LDW23-IT1120	23A0313-04	XDT_m2230418-101	Solid	04/18/23 21:59
LDW23-SC1016A	23A0313-08	XDT_m2230418-102	Solid	04/18/23 22:04
LDW23-SC1016A	23A0313-08	XDT_m2230418-102	Solid	04/18/23 22:04
LDW23-SC1016A	23A0313-08	XDT_m2230418-102	Solid	04/18/23 22:04
LDW23-SC1016A	23A0313-08	XDT_m2230418-102	Solid	04/18/23 22:04
LDW23-SC1011A	23A0313-09	XDT_m2230418-103	Solid	04/18/23 22:08
LDW23-SC1011A	23A0313-09	XDT_m2230418-103	Solid	04/18/23 22:08
LDW23-SC1011A	23A0313-09	XDT_m2230418-103	Solid	04/18/23 22:08
LDW23-SC1011A	23A0313-09	XDT_m2230418-103	Solid	04/18/23 22:08
LDW23-SC1006A	23A0313-10	XDT_m2230418-104	Solid	04/18/23 22:13
LDW23-SC1006A	23A0313-10	XDT_m2230418-104	Solid	04/18/23 22:13
LDW23-SC1006A	23A0313-10	XDT_m2230418-104	Solid	04/18/23 22:13
LDW23-SC1006A	23A0313-10	XDT_m2230418-104	Solid	04/18/23 22:13
LDW23-SC1012B	23A0313-11	XDT_m2230418-105	Solid	04/18/23 22:18

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLD0260
SDG: 23A0313
Project: AOC5 MR Phase 1
Instrument: ICPMS2
Calibration: GD00046

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW23-SC1012B	23A0313-11	XDT_m2230418-105	Solid	04/18/23 22:18
LDW23-SC1012B	23A0313-11	XDT_m2230418-105	Solid	04/18/23 22:18
LDW23-SC1012B	23A0313-11	XDT_m2230418-105	Solid	04/18/23 22:18
LDW23-IT1148	23A0313-12	XDT_m2230418-106	Solid	04/18/23 22:23
LDW23-SC1159	23A0313-13	XDT_m2230418-107	Solid	04/18/23 22:27
LDW23-SC1159	23A0313-13	XDT_m2230418-107	Solid	04/18/23 22:27
LDW23-SC1159	23A0313-13	XDT_m2230418-107	Solid	04/18/23 22:27
LDW23-SC1159	23A0313-13	XDT_m2230418-107	Solid	04/18/23 22:27
ZZZZZ	23A0328-03	XDT_m2230418-108	Solid	04/18/23 22:32
ZZZZZ	23A0328-03	XDT_m2230418-108	Solid	04/18/23 22:32
ZZZZZ	23A0328-03	XDT_m2230418-108	Solid	04/18/23 22:32
ZZZZZ	23A0328-03	XDT_m2230418-108	Solid	04/18/23 22:32
ZZZZZ	23A0328-04	XDT_m2230418-109	Solid	04/18/23 22:37
ZZZZZ	23A0328-04	XDT_m2230418-109	Solid	04/18/23 22:37
ZZZZZ	23A0328-04	XDT_m2230418-109	Solid	04/18/23 22:37
ZZZZZ	23A0328-04	XDT_m2230418-109	Solid	04/18/23 22:37
ZZZZZ	23A0328-05	XDT_m2230418-110	Solid	04/18/23 22:42
ZZZZZ	23A0328-05	XDT_m2230418-110	Solid	04/18/23 22:42
ZZZZZ	23A0328-05	XDT_m2230418-110	Solid	04/18/23 22:42
ZZZZZ	23A0328-05	XDT_m2230418-110	Solid	04/18/23 22:42
Calibration Check	SLD0260-CCVA	XDT_m2230418-111	NA	04/18/23 22:46
Calibration Blank	SLD0260-CCBA	XDT_m2230418-112	NA	04/18/23 22:54
ZZZZZ	23A0328-06	XDT_m2230418-113	Solid	04/18/23 22:59
ZZZZZ	23A0328-06	XDT_m2230418-113	Solid	04/18/23 22:59
ZZZZZ	23A0328-06	XDT_m2230418-113	Solid	04/18/23 22:59
ZZZZZ	23A0328-06	XDT_m2230418-113	Solid	04/18/23 22:59
ZZZZZ	23A0328-07	XDT_m2230418-114	Solid	04/18/23 23:03
ZZZZZ	23A0328-07	XDT_m2230418-114	Solid	04/18/23 23:03
ZZZZZ	23A0328-07	XDT_m2230418-114	Solid	04/18/23 23:03

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLD0260
SDG: 23A0313
Project: AOC5 MR Phase 1
Instrument: ICPMS2
Calibration: GD00046

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0328-07	XDT_m2230418-114	Solid	04/18/23 23:03
ZZZZZ	23A0328-08	XDT_m2230418-115	Solid	04/18/23 23:08
ZZZZZ	23A0328-08	XDT_m2230418-115	Solid	04/18/23 23:08
ZZZZZ	23A0328-08	XDT_m2230418-115	Solid	04/18/23 23:08
ZZZZZ	23A0328-08	XDT_m2230418-115	Solid	04/18/23 23:08
ZZZZZ	23A0328-09	XDT_m2230418-116	Solid	04/18/23 23:13
ZZZZZ	23A0328-09	XDT_m2230418-116	Solid	04/18/23 23:13
ZZZZZ	23A0328-09	XDT_m2230418-116	Solid	04/18/23 23:13
ZZZZZ	23A0328-09	XDT_m2230418-116	Solid	04/18/23 23:13
ZZZZZ	23A0328-10	XDT_m2230418-117	Solid	04/18/23 23:18
ZZZZZ	23A0328-10	XDT_m2230418-117	Solid	04/18/23 23:18
ZZZZZ	23A0328-10	XDT_m2230418-117	Solid	04/18/23 23:18
ZZZZZ	23A0328-10	XDT_m2230418-117	Solid	04/18/23 23:18
ZZZZZ	23A0328-11	XDT_m2230418-118	Solid	04/18/23 23:22
ZZZZZ	23A0328-11	XDT_m2230418-118	Solid	04/18/23 23:22
ZZZZZ	23A0328-11	XDT_m2230418-118	Solid	04/18/23 23:22
ZZZZZ	23A0328-11	XDT_m2230418-118	Solid	04/18/23 23:22
ZZZZZ	23A0328-12	XDT_m2230418-119	Solid	04/18/23 23:27
ZZZZZ	23A0328-12	XDT_m2230418-119	Solid	04/18/23 23:27
ZZZZZ	23A0328-12	XDT_m2230418-119	Solid	04/18/23 23:27
ZZZZZ	23A0328-12	XDT_m2230418-119	Solid	04/18/23 23:27
ZZZZZ	23A0249-03	XDT_m2230418-120	Solid	04/18/23 23:32
ZZZZZ	23A0249-03	XDT_m2230418-120	Solid	04/18/23 23:32
ZZZZZ	23A0249-03	XDT_m2230418-120	Solid	04/18/23 23:32
ZZZZZ	23A0249-03	XDT_m2230418-120	Solid	04/18/23 23:32
ZZZZZ	23A0249-04	XDT_m2230418-121	Solid	04/18/23 23:37
ZZZZZ	23A0249-04	XDT_m2230418-121	Solid	04/18/23 23:37
ZZZZZ	23A0249-04	XDT_m2230418-121	Solid	04/18/23 23:37
ZZZZZ	23A0249-04	XDT_m2230418-121	Solid	04/18/23 23:37

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLD0260	Instrument:	ICPMS2
		Calibration:	GD00046

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLD0260-CCVB	XDT_m2230418-123	NA	04/18/23 23:46
Calibration Blank	SLD0260-CCBB	XDT_m2230418-124	NA	04/18/23 23:54
Calibration Check	SLD0260-CCVC	XDT_m2230418-135	NA	04/19/23 00:46
Calibration Blank	SLD0260-CCBC	XDT_m2230418-136	NA	04/19/23 00:53

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLD0292	Instrument:	ICPMS2
		Calibration:	GD00059

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLD0292-CAL1	XDT_m2230420-006	NA	04/20/23 12:31
CAL 1 - LOW CHECK	SLD0292-CAL2	XDT_m2230420-007	NA	04/20/23 12:35
CAL 2	SLD0292-CAL3	XDT_m2230420-008	NA	04/20/23 12:40
CAL 3	SLD0292-CAL4	XDT_m2230420-009	NA	04/20/23 12:45
CAL 4	SLD0292-CAL5	XDT_m2230420-010	NA	04/20/23 12:50
CAL 5	SLD0292-CAL6	XDT_m2230420-011	NA	04/20/23 12:56
RINSE	SLD0292-IBL1	XDT_m2230420-012	NA	04/20/23 13:04
Initial Cal Check	SLD0292-ICV1	XDT_m2230420-014	NA	04/20/23 14:54
Initial Cal Blank	SLD0292-ICB1	XDT_m2230420-015	NA	04/20/23 15:02
Calibration Check	SLD0292-CCV1	XDT_m2230420-016	NA	04/20/23 15:09
Calibration Blank	SLD0292-CCB1	XDT_m2230420-017	NA	04/20/23 15:16
Instrument RL Check	SLD0292-CRL1	XDT_m2230420-018	NA	04/20/23 15:22
Interference Check A	SLD0292-IFA1	XDT_m2230420-019	NA	04/20/23 15:27
Interference Check B	SLD0292-IFB1	XDT_m2230420-020	NA	04/20/23 15:32
LR200	SLD0292-HCV1	XDT_m2230420-021	NA	04/20/23 15:37
LR300	SLD0292-HCV2	XDT_m2230420-022	NA	04/20/23 15:41
Instrument Blank	SLD0292-IBL2	XDT_m2230420-023	NA	04/20/23 15:49
Instrument Blank	SLD0292-IBL3	XDT_m2230420-024	NA	04/20/23 15:56
Calibration Check	SLD0292-CCV2	XDT_m2230420-025	NA	04/20/23 16:03
Calibration Blank	SLD0292-CCB2	XDT_m2230420-026	NA	04/20/23 16:10
Instrument Blank	SLD0292-IBL4	XDT_m2230420-036	NA	04/20/23 17:11
Calibration Check	SLD0292-CCV3	XDT_m2230420-037	NA	04/20/23 17:16
Calibration Blank	SLD0292-CCB3	XDT_m2230420-039	NA	04/20/23 17:28
LCS	BLD0289-BS2	XDT_m2230420-040	Solid	04/20/23 17:35
Instrument Blank	SLD0292-IBL5	XDT_m2230420-049	NA	04/20/23 18:16
Calibration Check	SLD0292-CCV4	XDT_m2230420-050	NA	04/20/23 18:21
Calibration Blank	SLD0292-CCB4	XDT_m2230420-051	NA	04/20/23 18:28
Calibration Check	SLD0292-CCV5	XDT_m2230420-062	NA	04/20/23 19:23
Calibration Blank	SLD0292-CCB5	XDT_m2230420-063	NA	04/20/23 19:30

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLD0292	Instrument:	ICPMS2
		Calibration:	GD00059

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SLD0292-IBL6	XDT_m2230420-073	NA	04/20/23 20:16
Calibration Check	SLD0292-CCV6	XDT_m2230420-074	NA	04/20/23 20:20
Calibration Blank	SLD0292-CCB6	XDT_m2230420-075	NA	04/20/23 20:28
Calibration Check	SLD0292-CCV7	XDT_m2230420-086	NA	04/20/23 21:18
Calibration Blank	SLD0292-CCB7	XDT_m2230420-087	NA	04/20/23 21:25
Instrument Blank	SLD0292-IBL7	XDT_m2230420-097	NA	04/20/23 22:11
Calibration Check	SLD0292-CCV8	XDT_m2230420-098	NA	04/20/23 22:15
Calibration Blank	SLD0292-CCB8	XDT_m2230420-099	NA	04/20/23 22:23
Calibration Check	SLD0292-CCV9	XDT_m2230420-110	NA	04/20/23 23:13
Calibration Blank	SLD0292-CCB9	XDT_m2230420-111	NA	04/20/23 23:20
Calibration Check	SLD0292-CCVA	XDT_m2230420-122	NA	04/21/23 00:10
Calibration Blank	SLD0292-CCBA	XDT_m2230420-123	NA	04/21/23 00:18
Calibration Check	SLD0292-CCVB	XDT_m2230420-134	NA	04/21/23 01:08
Calibration Blank	SLD0292-CCBB	XDT_m2230420-135	NA	04/21/23 01:15

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLD0370	Instrument:	ICPMS1
		Calibration:	GD00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLD0370-CAL1	XDT_m1230425-021	NA	04/25/23 17:12
CAL 1 - LOW CHECK	SLD0370-CAL2	XDT_m1230425-022	NA	04/25/23 17:17
CAL 2	SLD0370-CAL3	XDT_m1230425-023	NA	04/25/23 17:22
CAL 3	SLD0370-CAL4	XDT_m1230425-024	NA	04/25/23 17:27
CAL 4	SLD0370-CAL5	XDT_m1230425-025	NA	04/25/23 17:33
CAL 5	SLD0370-CAL6	XDT_m1230425-026	NA	04/25/23 17:40
RINSE	SLD0370-IBL1	XDT_m1230425-027	NA	04/25/23 17:47
Initial Cal Check	SLD0370-ICV1	XDT_m1230425-030	NA	04/25/23 18:02
Initial Cal Blank	SLD0370-ICB1	XDT_m1230425-031	NA	04/25/23 18:09
Calibration Check	SLD0370-CCV1	XDT_m1230425-032	NA	04/25/23 18:15
Calibration Blank	SLD0370-CCB1	XDT_m1230425-033	NA	04/25/23 18:22
Instrument RL Check	SLD0370-CRL1	XDT_m1230425-034	NA	04/25/23 18:27
Interference Check A	SLD0370-IFA1	XDT_m1230425-035	NA	04/25/23 18:33
Interference Check B	SLD0370-IFB1	XDT_m1230425-036	NA	04/25/23 18:38
LR200	SLD0370-HCV1	XDT_m1230425-037	NA	04/25/23 18:43
LR300	SLD0370-HCV2	XDT_m1230425-038	NA	04/25/23 18:48
Instrument Blank	SLD0370-IBL2	XDT_m1230425-039	NA	04/25/23 18:56
Instrument Blank	SLD0370-IBL3	XDT_m1230425-040	NA	04/25/23 19:03
Calibration Check	SLD0370-CCV2	XDT_m1230425-041	NA	04/25/23 19:09
Calibration Blank	SLD0370-CCB2	XDT_m1230425-042	NA	04/25/23 19:18
Instrument Blank	SLD0370-IBL4	XDT_m1230425-051	NA	04/25/23 20:06
Calibration Check	SLD0370-CCV3	XDT_m1230425-052	NA	04/25/23 20:11
Calibration Blank	SLD0370-CCB3	XDT_m1230425-053	NA	04/25/23 20:19
Instrument Blank	SLD0370-IBL5	XDT_m1230425-061	NA	04/25/23 21:08
Calibration Check	SLD0370-CCV4	XDT_m1230425-063	NA	04/25/23 21:24
Calibration Blank	SLD0370-CCB4	XDT_m1230425-064	NA	04/25/23 21:32
Instrument Blank	SLD0370-IBL6	XDT_m1230425-074	NA	04/25/23 22:38
Calibration Check	SLD0370-CCV5	XDT_m1230425-075	NA	04/25/23 22:43
Calibration Blank	SLD0370-CCB5	XDT_m1230425-076	NA	04/25/23 22:51

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLD0370

SDG: 23A0313
Project: AOC5 MR Phase 1
Instrument: ICPMS1
Calibration: GD00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLD0370-CCV6	XDT_m1230425-078	NA	04/25/23 23:01
Calibration Blank	SLD0370-CCB6	XDT_m1230425-079	NA	04/25/23 23:09
ZZZZZ	23C0648-01	XDT_m1230425-085	Water	04/25/23 23:39
Instrument Blank	SLD0370-IBL7	XDT_m1230425-089	NA	04/26/23 00:01
Calibration Check	SLD0370-CCV7	XDT_m1230425-090	NA	04/26/23 00:06
Calibration Blank	SLD0370-CCB7	XDT_m1230425-091	NA	04/26/23 00:14
ZZZZZ	23C0674-02	XDT_m1230425-092	Water	04/26/23 00:19
Instrument Blank	SLD0370-IBL8	XDT_m1230425-100	NA	04/26/23 01:05
Instrument Blank	SLD0370-IBL9	XDT_m1230425-101	NA	04/26/23 01:10
Calibration Check	SLD0370-CCV8	XDT_m1230425-102	NA	04/26/23 01:15
Calibration Blank	SLD0370-CCB8	XDT_m1230425-103	NA	04/26/23 01:23
ZZZZZ	BLD0168-BLK1	XDT_m1230425-104	Solid	04/26/23 01:28
ZZZZZ	BLD0168-BS1	XDT_m1230425-105	Solid	04/26/23 01:33
ZZZZZ	23D0027-02	XDT_m1230425-109	Solid	04/26/23 01:53
ZZZZZ	23D0027-01	XDT_m1230425-110	Solid	04/26/23 01:58
ZZZZZ	BLD0168-DUP1	XDT_m1230425-111	Solid	04/26/23 02:03
ZZZZZ	BLD0168-MS1	XDT_m1230425-112	Solid	04/26/23 02:08
Instrument Blank	SLD0370-IBLA	XDT_m1230425-113	NA	04/26/23 02:13
Calibration Check	SLD0370-CCV9	XDT_m1230425-114	NA	04/26/23 02:18
Calibration Blank	SLD0370-CCB9	XDT_m1230425-115	NA	04/26/23 02:26
Calibration Check	SLD0370-CCVA	XDT_m1230425-117	NA	04/26/23 02:36
Calibration Blank	SLD0370-CCBA	XDT_m1230425-118	NA	04/26/23 02:44
Instrument Blank	SLD0370-IBLB	XDT_m1230425-122	NA	04/26/23 03:06
Instrument Blank	SLD0370-IBLC	XDT_m1230425-128	NA	04/26/23 03:37
Calibration Check	SLD0370-CCVB	XDT_m1230425-129	NA	04/26/23 03:42
Calibration Blank	SLD0370-CCBB	XDT_m1230425-130	NA	04/26/23 03:49
Instrument Blank	SLD0370-IBLD	XDT_m1230425-140	NA	04/26/23 04:42
Calibration Check	SLD0370-CCVC	XDT_m1230425-141	NA	04/26/23 04:47
Calibration Blank	SLD0370-CCBC	XDT_m1230425-142	NA	04/26/23 04:55

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLD0370
SDG: 23A0313
Project: AOC5 MR Phase 1
Instrument: ICPMS1
Calibration: GD00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23C0678-02	XDT_m1230425-143	Water	04/26/23 05:00
ZZZZZ	23C0678-02	XDT_m1230425-143	Water	04/26/23 05:00
ZZZZZ	23C0678-02	XDT_m1230425-143	Water	04/26/23 05:00
ZZZZZ	23C0678-02	XDT_m1230425-143	Water	04/26/23 05:00
ZZZZZ	23C0678-02	XDT_m1230425-143	Water	04/26/23 05:00
ZZZZZ	23C0678-02	XDT_m1230425-143	Water	04/26/23 05:00
ZZZZZ	23C0678-12	XDT_m1230425-144	Water	04/26/23 05:05
ZZZZZ	23C0678-12	XDT_m1230425-144	Water	04/26/23 05:05
ZZZZZ	23C0678-12	XDT_m1230425-144	Water	04/26/23 05:05
ZZZZZ	23C0678-12	XDT_m1230425-144	Water	04/26/23 05:05
ZZZZZ	23C0678-12	XDT_m1230425-144	Water	04/26/23 05:05
ZZZZZ	23C0678-12	XDT_m1230425-144	Water	04/26/23 05:05
ZZZZZ	23C0678-13	XDT_m1230425-145	Water	04/26/23 05:10
ZZZZZ	23C0678-13	XDT_m1230425-145	Water	04/26/23 05:10
ZZZZZ	23C0678-13	XDT_m1230425-145	Water	04/26/23 05:10
ZZZZZ	23C0678-13	XDT_m1230425-145	Water	04/26/23 05:10
ZZZZZ	23C0678-13	XDT_m1230425-145	Water	04/26/23 05:10
ZZZZZ	23C0678-13	XDT_m1230425-145	Water	04/26/23 05:10
ZZZZZ	23C0678-18	XDT_m1230425-146	Water	04/26/23 05:16
ZZZZZ	23C0678-18	XDT_m1230425-146	Water	04/26/23 05:16
ZZZZZ	23C0678-18	XDT_m1230425-146	Water	04/26/23 05:16
ZZZZZ	23C0678-18	XDT_m1230425-146	Water	04/26/23 05:16
ZZZZZ	23C0678-18	XDT_m1230425-146	Water	04/26/23 05:16
ZZZZZ	23C0678-18	XDT_m1230425-146	Water	04/26/23 05:16
Instrument Blank	SLD0370-IBLE	XDT_m1230425-147	NA	04/26/23 05:21
ZZZZZ	23C0678-01	XDT_m1230425-148	Water	04/26/23 05:27
ZZZZZ	23C0678-01	XDT_m1230425-148	Water	04/26/23 05:27
ZZZZZ	23C0678-01	XDT_m1230425-148	Water	04/26/23 05:27
ZZZZZ	23C0678-01	XDT_m1230425-148	Water	04/26/23 05:27

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLD0370
SDG: 23A0313
Project: AOC5 MR Phase 1
Instrument: ICPMS1
Calibration: GD00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23C0678-01	XDT_m1230425-148	Water	04/26/23 05:27
ZZZZZ	23C0678-01	XDT_m1230425-148	Water	04/26/23 05:27
ZZZZZ	23C0678-11	XDT_m1230425-149	Water	04/26/23 05:31
ZZZZZ	23C0678-11	XDT_m1230425-149	Water	04/26/23 05:31
ZZZZZ	23C0678-11	XDT_m1230425-149	Water	04/26/23 05:31
ZZZZZ	23C0678-11	XDT_m1230425-149	Water	04/26/23 05:31
ZZZZZ	23C0678-11	XDT_m1230425-149	Water	04/26/23 05:31
ZZZZZ	23C0678-11	XDT_m1230425-149	Water	04/26/23 05:31
ZZZZZ	23C0678-10	XDT_m1230425-150	Water	04/26/23 05:37
ZZZZZ	23C0678-10	XDT_m1230425-150	Water	04/26/23 05:37
ZZZZZ	23C0678-10	XDT_m1230425-150	Water	04/26/23 05:37
ZZZZZ	23C0678-10	XDT_m1230425-150	Water	04/26/23 05:37
ZZZZZ	23C0678-10	XDT_m1230425-150	Water	04/26/23 05:37
ZZZZZ	23C0678-10	XDT_m1230425-150	Water	04/26/23 05:37
ZZZZZ	23C0678-17	XDT_m1230425-151	Water	04/26/23 05:43
ZZZZZ	23C0678-17	XDT_m1230425-151	Water	04/26/23 05:43
ZZZZZ	23C0678-17	XDT_m1230425-151	Water	04/26/23 05:43
ZZZZZ	23C0678-17	XDT_m1230425-151	Water	04/26/23 05:43
ZZZZZ	23C0678-17	XDT_m1230425-151	Water	04/26/23 05:43
ZZZZZ	23C0678-17	XDT_m1230425-151	Water	04/26/23 05:43
Instrument Blank	SLD0370-IBLF	XDT_m1230425-152	NA	04/26/23 05:48
Calibration Check	SLD0370-CCVD	XDT_m1230425-153	NA	04/26/23 05:53
Calibration Blank	SLD0370-CCBD	XDT_m1230425-154	NA	04/26/23 06:01
ZZZZZ	23D0062-01	XDT_m1230425-157	Water	04/26/23 06:17
ZZZZZ	23D0062-01	XDT_m1230425-157	Water	04/26/23 06:17
ZZZZZ	23D0062-01	XDT_m1230425-157	Water	04/26/23 06:17
ZZZZZ	23D0062-01	XDT_m1230425-157	Water	04/26/23 06:17
ZZZZZ	23D0062-01	XDT_m1230425-157	Water	04/26/23 06:17
ZZZZZ	23D0062-01	XDT_m1230425-157	Water	04/26/23 06:17

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0370
Instrument: ICPMS1
Calibration: GD00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23D0062-03	XDT_m1230425-158	Water	04/26/23 06:22
ZZZZZ	23D0062-03	XDT_m1230425-158	Water	04/26/23 06:22
ZZZZZ	23D0062-03	XDT_m1230425-158	Water	04/26/23 06:22
ZZZZZ	23D0062-03	XDT_m1230425-158	Water	04/26/23 06:22
ZZZZZ	23D0062-03	XDT_m1230425-158	Water	04/26/23 06:22
ZZZZZ	23D0062-03	XDT_m1230425-158	Water	04/26/23 06:22
ZZZZZ	23D0062-05	XDT_m1230425-159	Water	04/26/23 06:27
ZZZZZ	23D0062-05	XDT_m1230425-159	Water	04/26/23 06:27
ZZZZZ	23D0062-05	XDT_m1230425-159	Water	04/26/23 06:27
ZZZZZ	23D0062-05	XDT_m1230425-159	Water	04/26/23 06:27
ZZZZZ	23D0062-05	XDT_m1230425-159	Water	04/26/23 06:27
ZZZZZ	23D0062-05	XDT_m1230425-159	Water	04/26/23 06:27
ZZZZZ	23D0062-07	XDT_m1230425-160	Water	04/26/23 06:32
ZZZZZ	23D0062-07	XDT_m1230425-160	Water	04/26/23 06:32
ZZZZZ	23D0062-07	XDT_m1230425-160	Water	04/26/23 06:32
ZZZZZ	23D0062-07	XDT_m1230425-160	Water	04/26/23 06:32
ZZZZZ	23D0062-07	XDT_m1230425-160	Water	04/26/23 06:32
ZZZZZ	23D0062-07	XDT_m1230425-160	Water	04/26/23 06:32
ZZZZZ	BLD0472-DUP1	XDT_m1230425-161	Water	04/26/23 06:37
ZZZZZ	BLD0472-MS1	XDT_m1230425-162	Water	04/26/23 06:42
ZZZZZ	BLD0472-MSD1	XDT_m1230425-163	Water	04/26/23 06:49
Instrument Blank	SLD0370-IBLG	XDT_m1230425-164	NA	04/26/23 06:54
Calibration Check	SLD0370-CCVE	XDT_m1230425-165	NA	04/26/23 06:59
Calibration Blank	SLD0370-CCBE	XDT_m1230425-166	NA	04/26/23 07:07
Calibration Check	SLD0370-CCVF	XDT_m1230425-168	NA	04/26/23 07:17
Calibration Blank	SLD0370-CCBF	XDT_m1230425-169	NA	04/26/23 07:25
ZZZZZ	23C0658-02	XDT_m1230425-170	Water	04/26/23 07:30
ZZZZZ	23C0658-02	XDT_m1230425-170	Water	04/26/23 07:30
ZZZZZ	23C0658-02	XDT_m1230425-170	Water	04/26/23 07:30

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Sequence: SLD0370
Instrument: ICPMS1
Calibration: GD00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23C0658-02	XDT_m1230425-170	Water	04/26/23 07:30
ZZZZZ	23C0658-02	XDT_m1230425-170	Water	04/26/23 07:30
ZZZZZ	23C0658-02	XDT_m1230425-170	Water	04/26/23 07:30
ZZZZZ	23C0658-02	XDT_m1230425-170	Water	04/26/23 07:30
ZZZZZ	23C0658-04	XDT_m1230425-171	Water	04/26/23 07:35
ZZZZZ	23C0658-04	XDT_m1230425-171	Water	04/26/23 07:35
ZZZZZ	23C0658-04	XDT_m1230425-171	Water	04/26/23 07:35
Instrument Blank	SLD0370-IBLH	XDT_m1230425-179	NA	04/26/23 08:17
Calibration Check	SLD0370-CCVG	XDT_m1230425-180	NA	04/26/23 08:22
Calibration Blank	SLD0370-CCBG	XDT_m1230425-181	NA	04/26/23 08:30
ZZZZZ	BLD0365-BLK1	XDT_m1230425-182	Solid	04/26/23 08:35
ZZZZZ	BLD0365-BS1	XDT_m1230425-183	Solid	04/26/23 08:40
ZZZZZ	23C0658-06	XDT_m1230425-185	Water	04/26/23 08:50
ZZZZZ	23C0658-06	XDT_m1230425-185	Water	04/26/23 08:50
ZZZZZ	23C0658-06	XDT_m1230425-185	Water	04/26/23 08:50
ZZZZZ	23C0678-09	XDT_m1230425-186	Water	04/26/23 08:55
ZZZZZ	23C0678-09	XDT_m1230425-186	Water	04/26/23 08:55
ZZZZZ	23C0678-09	XDT_m1230425-186	Water	04/26/23 08:55
ZZZZZ	23C0678-09	XDT_m1230425-186	Water	04/26/23 08:55
ZZZZZ	23C0678-09	XDT_m1230425-186	Water	04/26/23 08:55
ZZZZZ	23C0678-09	XDT_m1230425-186	Water	04/26/23 08:55
ZZZZZ	23C0678-08	XDT_m1230425-187	Water	04/26/23 09:00
ZZZZZ	23C0678-08	XDT_m1230425-187	Water	04/26/23 09:00
ZZZZZ	23C0678-08	XDT_m1230425-187	Water	04/26/23 09:00
ZZZZZ	23C0678-08	XDT_m1230425-187	Water	04/26/23 09:00
ZZZZZ	23C0678-08	XDT_m1230425-187	Water	04/26/23 09:00
ZZZZZ	23C0678-08	XDT_m1230425-187	Water	04/26/23 09:00
ZZZZZ	23C0741-01	XDT_m1230425-189	Water	04/26/23 09:10
ZZZZZ	23C0741-01	XDT_m1230425-189	Water	04/26/23 09:10

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLD0370	Instrument:	ICPMS1
		Calibration:	GD00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23C0741-01	XDT_m1230425-189	Water	04/26/23 09:10
ZZZZZ	23C0741-01	XDT_m1230425-189	Water	04/26/23 09:10
ZZZZZ	23C0741-01	XDT_m1230425-189	Water	04/26/23 09:10
ZZZZZ	23C0741-01	XDT_m1230425-189	Water	04/26/23 09:10
Instrument Blank	SLD0370-IBLI	XDT_m1230425-191	NA	04/26/23 09:20
Calibration Check	SLD0370-CCVH	XDT_m1230425-192	NA	04/26/23 09:25
Calibration Blank	SLD0370-CCBH	XDT_m1230425-193	NA	04/26/23 09:33
Instrument Blank	SLD0370-IBLJ	XDT_m1230425-203	NA	04/26/23 10:25
Calibration Check	SLD0370-CCVI	XDT_m1230425-204	NA	04/26/23 10:31
Calibration Blank	SLD0370-CCBI	XDT_m1230425-205	NA	04/26/23 10:38
Instrument Blank	SLD0370-IBLK	XDT_m1230425-214	NA	04/26/23 11:26
Calibration Check	SLD0370-CCVJ	XDT_m1230425-215	NA	04/26/23 11:31
Calibration Blank	SLD0370-CCBJ	XDT_m1230425-216	NA	04/26/23 11:38

ICP INTERFERENCE CHECK SAMPLE

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00046
Sequence: SLD0260
Standard ID: L003578

Lab Sample ID	Analyte	True	Found	%R	Units
SLD0260-IFA1	Arsenic-75a	0	0.0280		ug/L
	Cadmium-111	0	0.0770		ug/L
	Cadmium-114	0	0.0530		ug/L
	Copper-63	0	0.0530		ug/L
	Copper-65	0	0.0490		ug/L
	Zinc-66	0	0.2400		ug/L
	Zinc-67	0	0.2910		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

Analytical Resources, LLC
Analytical Chemists and Consultants

ICP INTERFERENCE CHECK SAMPLE

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00046
Sequence: SLD0260
Standard ID: L003578

Lab Sample ID	Analyte	True	Found	%R	Units
SLD0260-IFB1	Arsenic-75a	20.000	18.639	93.2	ug/L
	Cadmium-111	20.000	18.715	93.6	ug/L
	Cadmium-114	20.000	18.985	94.9	ug/L
	Copper-63	20.000	19.938	99.7	ug/L
	Copper-65	20.000	19.504	97.5	ug/L
	Zinc-66	20.000	18.775	93.9	ug/L
	Zinc-67	20.000	16.009	80.0	ug/L

* Indicates %R outside of QC limits
NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00059
Sequence: SLD0292
Standard ID: L003578

Lab Sample ID	Analyte	True	Found	%R	Units
SLD0292-IFA1	Cadmium-111	0	0.0580		ug/L
	Cadmium-114	0	0.0480		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

Analytical Resources, LLC
Analytical Chemists and Consultants

ICP INTERFERENCE CHECK SAMPLE

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00059
Sequence: SLD0292
Standard ID: L003578

Lab Sample ID	Analyte	True	Found	%R	Units
SLD0292-IFB1	Cadmium-111	20.000	18.974	94.9	ug/L
	Cadmium-114	20.000	19.102	95.5	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Sequence: SLD0370
Standard ID: L003578

Lab Sample ID	Analyte	True	Found	%R	Units
SLD0370-IFA1	Arsenic-75a	0	0.0300		ug/L
	Cadmium-111	0	0.1020		ug/L
	Cadmium-114	0	0.0850		ug/L
	Copper-63	0	0.0400		ug/L
	Copper-65	0	0.0440		ug/L
	Zinc-66	0	0.2690		ug/L
	Zinc-67	0	0.3220		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Sequence: SLD0370
Standard ID: L003578

Lab Sample ID	Analyte	True	Found	%R	Units
SLD0370-IFB1	Arsenic-75a	20.000	20.267	101	ug/L
	Cadmium-111	20.000	20.808	104	ug/L
	Cadmium-114	20.000	20.635	103	ug/L
	Copper-63	20.000	20.366	102	ug/L
	Copper-65	20.000	20.923	105	ug/L
	Zinc-66	20.000	19.373	96.9	ug/L
	Zinc-67	20.000	18.486	92.4	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

DETECTION LEVEL STANDARD
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00046
Sequence: SLD0260
Lab Sample ID: SLD0260-CRL1

Analyte	True	Found	%R	Units	QC Limts
Arsenic-75a	0.20000	0.215	108	ug/L	50 - 150
Cadmium-111	0.10000	0.0870	87.0	ug/L	50 - 150
Cadmium-114	0.10000	0.109	109	ug/L	50 - 150
Copper-63	0.50000	0.508	102	ug/L	50 - 150
Copper-65	0.50000	0.533	107	ug/L	50 - 150
Zinc-66	6.0000	6.25	104	ug/L	50 - 150
Zinc-67	6.0000	5.46	91.0	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS2
Calibration: GD00059
Sequence: SLD0292
Lab Sample ID: SLD0292-CRL1

Analyte	True	Found	%R	Units	QC Limts
Cadmium-111	0.10000	0.0890	89.0	ug/L	50 - 150
Cadmium-114	0.10000	0.0980	98.0	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: ICPMS1
Calibration: GD00066
Sequence: SLD0370
Lab Sample ID: SLD0370-CRL1

Analyte	True	Found	%R	Units	QC Limts
Arsenic-75a	0.20000	0.189	94.5	ug/L	50 - 150
Cadmium-111	0.10000	0.0920	92.0	ug/L	50 - 150
Cadmium-114	0.10000	0.0960	96.0	ug/L	50 - 150
Copper-63	0.50000	0.536	107	ug/L	50 - 150
Copper-65	0.50000	0.544	109	ug/L	50 - 150
Zinc-66	6.0000	6.15	103	ug/L	50 - 150
Zinc-67	6.0000	6.01	100	ug/L	50 - 150

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GD00046
Laboratory ID: SLD0260-HCV1
Sequence: SLD0260
Standard ID: L003671

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	200.00	196	-2.2	10.00
Cadmium-111	200.00	191	-4.5	10.00
Cadmium-114	200.00	192	-3.9	10.00
Copper-63	200.00	196	-2.0	10.00
Copper-65	200.00	198	-1.1	10.00
Zinc-66	200.00	194	-3.2	10.00
Zinc-67	200.00	186	-6.8	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GD00046
Laboratory ID: SLD0260-HCV2
Sequence: SLD0260
Standard ID: L003672

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	300.00	289	-3.7	10.00
Cadmium-111	300.00	281	-6.3	10.00
Cadmium-114	300.00	286	-4.6	10.00
Copper-63	300.00	286	-4.6	10.00
Copper-65	300.00	287	-4.5	10.00
Zinc-66	300.00	272	-9.4	10.00
Zinc-67	300.00	266	-11.4	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GD00059
Laboratory ID: SLD0292-HCV1
Sequence: SLD0292
Standard ID: L003671

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Cadmium-111	200.00	196	-1.9	10.00
Cadmium-114	200.00	199	-0.6	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GD00059
Laboratory ID: SLD0292-HCV2
Sequence: SLD0292
Standard ID: L003672

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Cadmium-111	300.00	288	-4.1	10.00
Cadmium-114	300.00	289	-3.7	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GD00066
Laboratory ID: SLD0370-HCV1
Sequence: SLD0370
Standard ID: L003671

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	200.00	204	1.8	10.00
Cadmium-111	200.00	204	1.8	10.00
Cadmium-114	200.00	203	1.7	10.00
Copper-63	200.00	203	1.6	10.00
Copper-65	200.00	207	3.5	10.00
Zinc-66	200.00	199	-0.4	10.00
Zinc-67	200.00	199	-0.3	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: GD00066
Laboratory ID: SLD0370-HCV2
Sequence: SLD0370
Standard ID: L003672

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	300.00	301	0.3	10.00
Cadmium-111	300.00	302	0.8	10.00
Cadmium-114	300.00	300	0.06	10.00
Copper-63	300.00	295	-1.6	10.00
Copper-65	300.00	301	0.5	10.00
Zinc-66	300.00	285	-4.8	10.00
Zinc-67	300.00	291	-3.0	10.00

* Values outside of QC limits

HOLDING TIME SUMMARY

Analysis: EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC SDG: 23A0313

Client: Anchor QEA, LLC Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1114 23A0313-03	01/16/23 08:42	01/16/23 16:35	04/14/23 10:01	88	180	04/18/23 21:18	93	180	
LDW23-IT1120 23A0313-04	01/16/23 08:57	01/16/23 16:35	04/14/23 10:01	88	180	04/18/23 21:59	93	180	
LDW23-SC1016A 23A0313-08	01/16/23 11:11	01/16/23 16:35	04/14/23 10:01	87	180	04/18/23 22:04	92	180	
LDW23-SC1011A 23A0313-09	01/16/23 11:46	01/16/23 16:35	04/14/23 10:01	87	180	04/18/23 22:08	92	180	
LDW23-SC1006A 23A0313-10	01/16/23 12:29	01/16/23 16:35	04/14/23 10:01	87	180	04/18/23 22:13	92	180	
LDW23-SC1012B 23A0313-11	01/16/23 13:13	01/16/23 16:35	04/14/23 10:01	87	180	04/18/23 22:18	92	180	
LDW23-IT1148 23A0313-12	01/16/23 14:44	01/16/23 16:35	04/14/23 10:01	87	180	04/18/23 22:23	92	180	
LDW23-SC1159 23A0313-13	01/16/23 14:26	01/16/23 16:35	04/14/23 10:01	87	180	04/18/23 22:27	92	180	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Instrument: ICPMS2

Analyte	MDL	RL	Units
Arsenic-75a	0.04	0.20	mg/kg
Cadmium-111	0.03	0.10	mg/kg
Cadmium-114	0.04	0.10	mg/kg
Copper-63	0.17	0.50	mg/kg
Copper-65	0.35	0.50	mg/kg
Zinc-66	2.9	6.0	mg/kg
Zinc-67	0.9	6.0	mg/kg

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGCU10
Lot Number:	P2-CU682108
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Copper
Starting Material:	Cu Metal
Starting Material Lot#:	2095
Starting Material Purity:	99.9996%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10013 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **9977 ± 50 µg/mL**
ICP Assay NIST SRM 3114 Lot Number: 121207

Assay Method #2 **10024 ± 26 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **10007 ± 46 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.007542	M	Eu	<	0.000942	O	Na		0.001434	M	Se	<	0.016971	M	Zn	<	0.005657
O	Al	<	0.000609	O	Fe		0.008700	M	Nb	<	0.000942	O	Si		0.003052	M	Zr	<	0.000942
M	As	<	0.010371	M	Ga	<	0.000942	M	Nd	<	0.000942	M	Sm	<	0.000942				
M	Au	<	0.001885	M	Gd	<	0.000942	M	Ni		0.003781	M	Sn	<	0.005657				
O	B		0.003663	M	Ge	<	0.005657	M	Os	<	0.000942	M	Sr	<	0.000942				
M	Ba		0.004253	M	Hf	<	0.000942	O	P	<	0.031668	M	Ta	<	0.000942				
M	Be	<	0.000942	O	Hg	<	0.007064	M	Pb		0.005789	M	Tb	<	0.000942				
M	Bi	<	0.000942	M	Ho	<	0.000942	M	Pd	<	0.000942	M	Te	<	0.004714				
O	Ca		0.002304	M	In	<	0.000942	M	Pr	<	0.000942	M	Th	<	0.000942				
M	Cd	<	0.000942	M	Ir	<	0.000942	M	Pt	<	0.000942	O	Ti	<	0.002801				
M	Ce	<	0.000942	O	K		0.000763	M	Rb	<	0.000942	M	Tl	<	0.000942				
M	Co		0.001890	M	La	<	0.000942	M	Re	<	0.000942	M	Tm	<	0.000942				
M	Cr	<	0.005657	O	Li	<	0.000243	i	Rh	<		M	U	<	0.000942				
M	Cs	<	0.000942	M	Lu	<	0.000942	M	Ru	<	0.039588	M	V	<	0.003771				
s	Cu	<		O	Mg		0.000320	O	S		0.007174	M	W	<	0.005657				
M	Dy	<	0.000942	O	Mn		0.000793	M	Sb	<	0.001885	M	Y	<	0.000942				
M	Er	<	0.000942	M	Mo	<	0.005657	M	Sc	<	0.000942	M	Yb	<	0.000942				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 63.55 +2 6 $Cu(H_2O)_6^{2+}$

Chemical Compatibility -Stable in HCl, HNO_3, H_2SO_4, HF, H_3PO_4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.

Cu Containing Samples (Preparation and Solution) -Metal (soluble in HNO_3); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO_3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 63 amu	10 ppt	n/a	40Ar23Na 47Ti16O, 14N12C37Cl, 16O12C35Cl, 23Na40Ca
ICP-OES 219.958 nm	0.01/.002 µg/mL	1	Th, Ta, Nb, U, Hf
ICP-OES 224.700 nm	0.01/.001 µg/mL	1	Pb, Ir, Ni, W
ICP-OES 324.754 nm	0.06/.001 µg/mL		Nb, U, Th, Mo, Hf

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 24, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 24, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGPB10
Lot Number:	S2-PB713228
Matrix:	0.5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Lead
Starting Material:	Lead Nitrate
Starting Material Lot#:	2343
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10042 ± 31 µg/mL

Density: 1.015 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10024 ± 41 µg/mL**
ICP Assay NIST SRM 3128 Lot Number: 101026

Assay Method #2 **10054 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000310	M	Eu	<	0.000310	M	Na		0.001470	M	Se	<	0.009100	O	Zn	0.006155
O	Al		0.017098	O	Fe		0.002496	M	Nb	<	0.000310	O	Si		0.003761	O	Zr	< 0.001700
M	As	<	0.003100	M	Ga	<	0.000310	M	Nd	<	0.000310	M	Sm	<	0.000310			
M	Au	<	0.000910	M	Gd	<	0.000310	O	Ni		0.001709	M	Sn	<	0.001300			
O	B	<	0.005600	M	Ge	<	0.002200	M	Os	<	0.000310	O	Sr		0.000444			
O	Ba		0.007865	M	Hf	<	0.000310	O	P	<	0.038000	M	Ta	<	0.000310			
O	Be	<	0.000320	M	Hg	<	0.002200	s	Pb	<		M	Tb	<	0.000610			
M	Bi	<	0.028000	M	Ho	<	0.000310	M	Pd	<	0.000610	M	Te	<	0.000310			
O	Ca		0.019834	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.000310			
O	Cd	<	0.000630	M	Ir	<	0.000310	M	Pt	<	0.000910	O	Ti		0.005129			
M	Ce		0.004787	O	K		0.008207	M	Rb	<	0.006700	M	Tl	<	0.016000			
M	Co	<	0.000610	M	La	<	0.001900	M	Re	<	0.000310	M	Tm	<	0.000310			
O	Cr	<	0.001500	O	Li	<	0.000110	O	Rh	<	0.007700	M	U	<	0.000310			
M	Cs	<	0.006100	M	Lu	<	0.000310	M	Ru	<	0.001300	M	V	<	0.001600			
M	Cu	<	0.001600	O	Mg		0.003317	O	S	<	0.052000	M	W	<	0.000910			
M	Dy	<	0.000310	O	Mn	<	0.001600	O	Sb	<	0.015000	M	Y	<	0.000310			
M	Er	<	0.000310	M	Mo	<	0.000610	O	Sc	<	0.000630	M	Yb	<	0.000310			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 207.20 +2 6 $Pb(H_2O)_6^{+2}$

Chemical Compatibility - Soluble in HCl, HF and HNO_3. Avoid H_2SO_4. Stable with most metals and inorganic anions forming insoluble carbonate, borate, sulfate, sulfite, sulfide, phosphate, oxalate, chromate, tannate, iodate, and cyanide in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO_3 / LDPE container.

Pb Containing Samples (Preparation and Solution) -Metal (Best dissolved in 1:1 H_2O / HNO_3); Oxides (The many different Pb oxides are soluble in HNO_3 with the exception of PbO_2 which is soluble in HCl or HF); Ores and Alloys (Best attacked using 1:1 H_2O / HNO_3); Organic Matrices (Dry ash and dissolve in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 208 amu	5 ppt	n/a	192Pt16O, 192Os16O
ICP-OES 168.215 nm	0.03 / 0.003 µg/mL	1	Co
ICP-OES 217.000 nm	0.09 / 0.03 µg/mL	1	W, Ir, Hf, Sb, Th
ICP-OES 220.353 nm	0.04 / 0.006 µg/mL	1	Bi, Nb

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

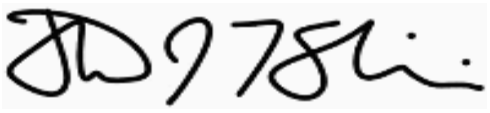
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGZN10
Lot Number:	S2-ZN711249
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Zinc
Starting Material:	Zinc Metal
Starting Material Lot#:	2349
Starting Material Purity:	99.9988%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL

Density: 1.029 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **9981 ± 56 µg/mL**
ICP Assay NIST SRM 3168a Lot Number: 120629

Assay Method #2 **9987 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **10002 ± 32 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.002000	M	Eu	<	0.000500	O	Na		0.008713	M	Se	<	0.048000	s	Zn	<
O	Al	<	0.011000	O	Fe		0.015467	M	Nb	<	0.000500	O	Si		0.007842	M	Zr	< 0.000500
O	As	<	0.012000	M	Ga	<	0.004900	M	Nd	<	0.000500	M	Sm	<	0.000500			
M	Au	<	0.006500	M	Gd	<	0.000500	O	Ni		0.003049	M	Sn		0.002614			
O	B	<	0.019000	M	Ge	<	0.009100	M	Os	<	0.000500	M	Sr	<	0.000500			
M	Ba	<	0.000500	M	Hf	<	0.000500	O	P	<	0.059000	M	Ta	<	0.000500			
O	Be	<	0.000230	O	Hg	<	0.003800	M	Pb		0.016774	M	Tb	<	0.000500			
M	Bi	<	0.002400	M	Ho	<	0.000500	M	Pd	<	0.001000	M	Te	<	0.017000			
O	Ca		0.052283	M	In	<	0.003500	M	Pr	<	0.000500	M	Th	<	0.000500			
O	Cd		0.000588	M	Ir	<	0.001000	M	Pt	<	0.000500	M	Ti	<	0.002000			
M	Ce	<	0.000500	O	K		0.017209	M	Rb	<	0.002500	M	Tl	<	0.000500			
M	Co		0.000653	M	La	<	0.000500	M	Re	<	0.000500	M	Tm	<	0.000500			
O	Cr		0.001089	O	Li	<	0.000230	M	Rh	<	0.000500	M	U	<	0.000500			
M	Cs	<	0.000500	M	Lu	<	0.000500	M	Ru	<	0.005000	M	V	<	0.000500			
O	Cu		0.001938	O	Mg		0.000871	O	S	<	0.048000	M	W	<	0.001000			
M	Dy	<	0.000500	O	Mn		0.000172	M	Sb	<	0.004300	M	Y	<	0.000500			
M	Er	<	0.000500	M	Mo	<	0.001500	O	Sc	<	0.000900	M	Yb	<	0.000500			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 65.39 +2 4 Zn(OH)(aq)1+
Chemical Compatibility -Stable in HCl, HNO3, H2SO4 ,HF, H3PO4. Avoid basic media forming insoluble carbonate and hydroxide. Stable with most metals and inorganic anions in acidic media.
Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.
Zn Containing Samples (Preparation and Solution) -Metal (soluble in HNO3); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO3); Organic based (dry ash at 4500C and dissolve ash in HCl) (sulfuric/peroxide acid digestion)
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 66 amu	7 ppt	N/A	50Ti16O,50Cr16O, 50V16O, 34S16O2, 32S16O18O, 32S17O2, 33S16O17O, 32S34S, 33S2
ICP-OES 202.548 nm	0.004/0.0002 µg/mL	1	Nb, Cu, Co, Hf
ICP-OES 206.200 nm	0.006/0.0006 µg/mL	1	Sb, Ta, Bi, Os
ICP-OES 213.856 nm	0.002/0.0004 µg/mL	1	Ni, Cu, V

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 22, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

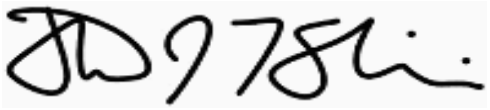
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSE10
Lot Number:	S2-SE711004
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Selenium
Starting Material:	Se Metal
Starting Material Lot#:	1962
Starting Material Purity:	99.9991%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9955 ± 61 µg/mL

Density: 1.035 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **9955 ± 50 µg/mL**
ICP Assay NIST SRM 3149 Lot Number: 100901

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.002242	M	Eu	<	0.000373	O	Na		0.013654	s	Se	<		O	Zn		0.002374
M	Al		0.004450	M	Fe		0.008478	O	Nb	<	0.002975	O	Si		0.006249	M	Zr	<	0.001868
O	As	<	0.022040	M	Ga	<	0.000373	M	Nd	<	0.000373	M	Sm	<	0.000373				
M	Au	<	0.000373	M	Gd	<	0.000373	O	Ni		0.001843	M	Sn		0.000847				
O	B	<	0.007714	M	Ge	<	0.002616	M	Os	<	0.000373	M	Sr	<	0.001121				
M	Ba	<	0.001495	M	Hf	<	0.000373	O	P	<	0.022040	M	Ta	<	0.000373				
M	Be	<	0.001495	M	Hg	<	0.002240	M	Pb		0.006358	M	Tb	<	0.006353				
M	Bi	<	0.000373	M	Ho	<	0.000373	M	Pd	<	0.000373	M	Te	<	0.012707				
O	Ca		0.006530	M	In	<	0.000373	M	Pr	<	0.001495	M	Th	<	0.002990				
M	Cd		0.001165	M	Ir	<	0.000373	M	Pt	<	0.000373	M	Ti	<	0.003363				
M	Ce	<	0.000373	O	K		0.001999	M	Rb	<	0.001868	M	Tl		0.008584				
M	Co	<	0.000373	M	La	<	0.001121	M	Re	<	0.000373	M	Tm	<	0.000373				
M	Cr		0.002861	O	Li		0.000062	M	Rh	<	0.000373	M	U	<	0.000373				
M	Cs	<	0.001121	M	Lu	<	0.000373	M	Ru	<	0.001493	M	V	<	0.000747				
M	Cu	<	0.000747	O	Mg		0.001156	O	S		0.024591	M	W	<	0.002242				
M	Dy	<	0.000373	M	Mn	<	0.000373	M	Sb	<	0.002242	M	Y	<	0.000373				
M	Er	<	0.000373	O	Mo	<	0.003195	M	Sc	<	0.001121	M	Yb	<	0.000373				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 78.96 +4 6 H_2SeO_3

Chemical Compatibility -Soluble in HCl, HNO_3,H_3PO_4, H_2SO_4 and HF aqueous matrices and water. It is stable with most inorganic anions but many cationic metals form the insoluble selenites under pH neutral conditions. When fluorinated and/or under acidic conditions precipitation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.

Se Containing Samples (Preparation and Solution) -Metal (soluble in HNO_3); Oxides (readily soluble in water); Minerals and alloys (acid digestion with HNO_3or HNO_3 / HF); Organic Matrices (acid digestion with hot concentrated H_2SO_4 accompanied by the careful dropwise addition of H_2O_2 until clear).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 82 amu	200 ppt	N/A	12C35Cl2
ICP-OES 196.026 nm	0.08/0.006 µg/mL	1	Fe
ICP-OES 203.985 nm	0.2/0.05 µg/mL	1	Sb, Ir, Cr, Ta
ICP-OES 206.279 nm	0.3/0.16 µg/mL	1	Cr, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 17, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Technical

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMO10
Lot Number:	S2-MO706255
Matrix:	H2O tr. NH4OH
Value / Analyte(s):	10 000 µg/mL ea: Molybdenum
Starting Material:	Ammonium Molybdate
Starting Material Lot#:	2361
Starting Material Purity:	99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10026 ± 47 µg/mL

Density: 1.011 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10032 ± 68 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

Assay Method #2 **10020 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.008739	M	Se	<	0.008000	M	Zn		0.005942
M	Al		0.005592	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.001747				
M	Ba		0.016778	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.062920	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Ti	<	0.032000				
M	Ce	<	0.008300	M	K		1.293372	M	Rb		0.045442	M	Tl		0.012584				
M	Co		0.005942	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.005243	O	Li		0.000594	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.005243	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.022371	M	Mg		0.005592	i	S	<		M	W		0.873900				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.015031	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9 [MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br16O,190Os2+,190Pt2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 04, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 04, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTL10
Lot Number:	T2-TL714687
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Thallium
Starting Material:	TlNO3
Starting Material Lot#:	2118
Starting Material Purity:	99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10030 ± 42 µg/mL

Density: 1.036 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10040 ± 43 µg/mL**
ICP Assay NIST SRM 3158 Lot Number: 151215

Assay Method #2 **10010 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL(

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000200	M	Eu	<	0.000200	O	Na		0.002489	M	Se	<	0.011019	O	Zn		0.002298
O	Al	<	0.004184	O	Fe	<	0.002824	M	Nb	<	0.000200	O	Si		0.003760	M	Zr	<	0.000200
M	As	<	0.002003	M	Ga	<	0.000200	M	Nd	<	0.000200	M	Sm	<	0.000200				
O	Au	<	0.002824	M	Gd	<	0.000200	M	Ni		0.001724	M	Sn	<	0.000601				
O	B	<	0.004184	M	Ge	<	0.000801	M	Os	<	0.000198	O	Sr	<	0.000313				
M	Ba	<	0.000400	M	Hf	<	0.000200	O	P	<	0.010460	M	Ta	<	0.000200				
O	Be	<	0.000104	M	Hg	<	0.000794	M	Pb		0.000811	M	Tb	<	0.000200				
M	Bi	<	0.005209	M	Ho	<	0.000200	M	Pd	<	0.000400	M	Te	<	0.005008				
O	Ca		0.002436	M	In	<	0.000200	M	Pr	<	0.000200	M	Th	<	0.000200				
M	Cd		0.001318	M	Ir	<	0.000198	M	Pt	<	0.000801	O	Ti	<	0.001255				
M	Ce	<	0.000200	O	K		0.006175	M	Rb	<	0.000200	s	Tl	<					
M	Co	<	0.000601	M	La	<	0.000200	M	Re	<	0.000200	M	Tm	<	0.000200				
M	Cr	<	0.000801	O	Li	<	0.000177	M	Rh	<	0.000200	M	U	<	0.000200				
M	Cs	<	0.003606	M	Lu	<	0.000200	M	Ru	<	0.000397	M	V	<	0.002203				
M	Cu	<	0.001001	O	Mg		0.000529	O	S	<	0.015690	M	W	<	0.000601				
M	Dy	<	0.000200	M	Mn	<	0.000801	M	Sb	<	0.000400	M	Y	<	0.000200				
M	Er	<	0.000200	M	Mo	<	0.001202	O	Sc	<	0.000711	M	Yb	<	0.000200				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 204.38 +1 6 Tl(H2O)61+
Chemical Compatibility - Soluble in HCl, HNO3, and H2SO4. Stable with most metals and inorganic anions. The sulfite, thiocyanate and oxalate are moderately soluble; the phosphate and arsenite are slightly soluble and the sulfide is insoluble.
Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.
Tl Containing Samples)Preparation and Solution) -Metal (Best dissolved in HNO3 which forms chiefly the Tl1+ ion.); Oxide (The thallous oxide is readily soluble in water. The thallic oxide requires high levels of acid); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in HCl).
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 205 amu	2 ppt	N/A	189Os16O
ICP-OES 190.864 nm	0.04 / 0.004 µg/mL	1	V, Ti
ICP-OES 276.787 nm	0.1 / 0.01 µg/mL	1	Ta, V, Fe, Cr
ICP-OES 351.924 nm	0.2 / 0.02 µg/mL	1	Th, Ce, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 08, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **February 08, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

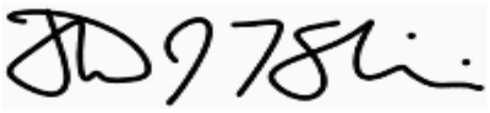
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGCD10
Lot Number:	S2-CD710508
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Cadmium
Starting Material:	Cd Metal
Starting Material Lot#:	1953
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10008 ± 30 µg/mL

Density: 1.029 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10010 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #2 **10011 ± 30 µg/mL**
ICP Assay NIST SRM 3108 Lot Number: 130116

Assay Method #3 **10003 ± 30 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag	<	0.003200	O	Eu	<	0.002500	O	Na		0.005499	M	Se	<	0.005700	O	Zn	<	0.001100
O	Al		0.008903	O	Fe		0.000602	M	Nb	<	0.000400	O	Si		0.016758	O	Zr	<	0.002600
M	As	<	0.003600	M	Ga	<	0.001200	M	Nd	<	0.000800	M	Sm	<	0.000400				
M	Au	<	0.000810	M	Gd	<	0.000400	M	Ni	<	0.003600	M	Sn	<	0.003200				
O	B		0.004189	O	Ge	<	0.012000	M	Os	<	0.000810	O	Sr	<	0.000330				
M	Ba	<	0.002400	M	Hf	<	0.000400	O	P	<	0.022000	M	Ta	<	0.000800				
M	Be	<	0.000400	M	Hg	<	0.001700	M	Pb	<	0.002400	M	Tb	<	0.000400				
M	Bi	<	0.000400	M	Ho	<	0.000400	M	Pd	<	0.001200	M	Te	<	0.008000				
O	Ca		0.011259	O	In	<	0.013000	M	Pr	<	0.000400	M	Th	<	0.000400				
s	Cd	<		M	Ir	<	0.000410	M	Pt	<	0.000400	O	Ti		0.000602				
M	Ce	<	0.000400	O	K		0.005237	M	Rb	<	0.004400	M	Tl		0.000523				
M	Co	<	0.000400	M	La	<	0.000400	M	Re	<	0.000400	M	Tm	<	0.000400				
O	Cr	<	0.005100	O	Li	<	0.000054	M	Rh	<	0.000400	M	U	<	0.000400				
M	Cs	<	0.002400	M	Lu	<	0.000400	M	Ru	<	0.002500	M	V	<	0.002000				
O	Cu	<	0.004800	O	Mg		0.000288	O	S	<	0.022000	M	W	<	0.000400				
M	Dy	<	0.000400	O	Mn	<	0.000860	O	Sb	<	0.018000	M	Y	<	0.000400				
M	Er	<	0.000400	M	Mo	<	0.001600	O	Sc	<	0.000430	M	Yb	<	0.000400				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 112.41 +2 4 Cd2(OH) (aq)3+ and Cd(OH)(aq)

Chemical Compatibility -Stable in HCl, HNO3, H2SO4 , and HF. Avoid basic media forming insoluble carbonate and hydroxide.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO3 / LDPE container.

Cd Containing Samples (Preparation and Solution) -Metal (soluble in HNO3); Oxides (soluble in HCl or HNO3); Ores (dissolve in HCl /HNO3 then take to fumes with H2SO4. The silica and lead sulfate are filtered off after the addition of water); Organic based (dry ash at 450°C and dissolve ash in HCl), (sulfuric / peroxide acid digestion).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 111 amu	11 ppt	n/a	95Mo16O
ICP-OES 214.438 nm	0.003 / 0.0003 µg/mL	1	Pt, Ir
ICP-OES 226.502 nm	0.003 / 0.0003 µg/mL	1	Ir
ICP-OES 228.802 nm	0.003 / 0.0003 µg/mL	1	Co, Ir, As, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 01, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 01, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMN10
Lot Number:	S2-MN704240
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Manganese
Starting Material:	Mn Metal
Starting Material Lot#:	2275
Starting Material Purity:	99.9909%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10011 ± 30 µg/mL

Density: 1.035 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **9989 ± 69 µg/mL**
ICP Assay NIST SRM 3132 Lot Number: 050429

Assay Method #2 **10011 ± 25 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **10024 ± 47 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001500	M	Eu	<	0.000730	O	Na		0.176097	M	Se	<	0.006600	M	Zn		0.009925
O	Al		0.004322	M	Fe	<	0.650000	M	Nb	<	0.000730	O	Si		0.097654	M	Zr	<	0.000730
M	As	<	0.008000	M	Ga		0.004322	M	Nd	<	0.001500	M	Sm	<	0.000730				
M	Au	<	0.000730	M	Gd	<	0.000730	M	Ni		0.024013	M	Sn	<	0.002200				
M	B		0.068838	M	Ge	<	0.004400	M	Os	<	0.000730	O	Sr		0.000928				
M	Ba	<	0.001500	M	Hf	<	0.000730	i	P	<		M	Ta	<	0.000730				
M	Be	<	0.000730	M	Hg	<	0.002200	M	Pb		0.007364	M	Tb	<	0.000730				
M	Bi	<	0.003000	M	Ho	<	0.000730	M	Pd	<	0.000730	M	Te	<	0.019000				
O	Ca		0.062434	M	In	<	0.003000	M	Pr	<	0.000730	M	Th	<	0.000730				
M	Cd	<	0.001500	M	Ir	<	0.000730	M	Pt	<	0.000730	O	Ti	<	0.006500				
M	Ce	<	0.007300	O	K		0.006403	M	Rb	<	0.006600	M	Tl	<	0.000730				
O	Co		0.014728	M	La	<	0.003000	M	Re	<	0.000730	M	Tm	<	0.000730				
O	Cr		0.272151	O	Li		0.000416	M	Rh	<	0.003000	M	U	<	0.001500				
M	Cs	<	0.000730	M	Lu	<	0.000730	M	Ru	<	0.004400	M	V	<	0.000730				
O	Cu		0.007684	O	Mg		0.320177	i	S	<		M	W	<	0.004400				
M	Dy	<	0.001500	s	Mn	<		M	Sb	<	0.021000	O	Y		0.001360				
M	Er	<	0.001500	M	Mo		0.010245	O	Sc	<	0.004100	M	Yb	<	0.000730				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 54.94 +2 6 $Mn(H_2O)_6^{2+}$

Chemical Compatibility -Stable in HCl, HNO_3, H_2SO_4 ,HF, H_3PO_4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO_3/LDPE container.

Mn Containing Samples (Preparation and Solution) -Metal (Soluble in dilute acids); Oxides (Soluble in dilute acids); Ores (Dissolve with HCl. If silica is present add HF and then fume off silica by adding H_2SO_4 and heat to SO_3 fumes - dense white fumes).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 55 amu	10 ppt	n/a	40Ar14N1H,39K16O,37Cl18O,40Ar15N,38Ar17O,36Ar18O1H ,38Ar16O1H,37Cl17O1H,23Na32S
ICP-OES 257.610 nm	0.0014 / 0.00002 µg/mL	1	Ce, W, Re
ICP-OES 259.373 nm	0.0016 / 0.00002 µg/mL	1	U, Ta, Mo, Fe, Nb
ICP-OES 260.569 nm	0.0021 / 0.00002 µg/mL	1	Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 17, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSB10
Lot Number:	R2-SB688559
Matrix:	3% (v/v) HNO3 3% (w/v) tartaric acid
Value / Analyte(s):	10 000 µg/mL ea: Antimony
Starting Material:	Antimony Metal
Starting Material Lot#:	1857
Starting Material Purity:	99.9894%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10003 ± 47 µg/mL

Density: 1.061 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10003 ± 41 µg/mL**
ICP Assay NIST SRM 3102a Lot Number: 140911

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000200	M	Eu	<	0.000300	O	Na		0.140000	M	Se	<	0.007300	O	Zn	0.005000
M	Al		0.003200	O	Fe		0.060000	M	Nb	<	0.000100	O	Si		0.150000	O	Zr	< 0.006300
M	As	<	0.004400	M	Ga	<	0.000400	M	Nd	<	0.000100	M	Sm	<	0.000100			
M	Au	<	0.000210	M	Gd	<	0.000100	O	Ni		0.004800	M	Sn	<	0.001800			
M	B	<	0.011000	M	Ge	<	0.000600	M	Os	<	0.000110	O	Sr		0.000750			
O	Ba	<	0.004900	M	Hf	<	0.000100	O	P		0.540000	M	Ta		0.003300			
M	Be	<	0.000400	M	Hg	<	0.000110	M	Pb	<	0.000400	M	Tb	<	0.000100			
M	Bi	<	0.000200	M	Ho	<	0.000100	M	Pd	<	0.000210	M	Te	<	0.000600			
O	Ca		0.110000	M	In	<	0.000100	M	Pr	<	0.001600	M	Th	<	0.000100			
M	Cd	<	0.000200	M	Ir	<	0.000110	M	Pt	<	0.000600	M	Ti	<	0.002800			
M	Ce		0.006500	O	K		0.020000	M	Rb	<	0.001000	M	Tl	<	0.000100			
M	Co	<	0.000200	O	La	<	0.016000	M	Re	<	0.000100	M	Tm	<	0.000100			
M	Cr		0.006900	O	Li	<	0.000430	M	Rh	<	0.000300	M	U	<	0.000100			
M	Cs	<	0.000200	M	Lu	<	0.000100	M	Ru	<	0.000310	M	V	<	0.000800			
M	Cu	<	0.000600	O	Mg		0.021000	n	S	<		M	W	<	0.000200			
M	Dy	<	0.000100	O	Mn		0.001900	s	Sb	<		M	Y	<	0.000100			
M	Er	<	0.000100	M	Mo	<	0.000500	O	Sc	<	0.002300	M	Yb	<	0.000100			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 121.75 +3 6 Sb(O)C4H4O6-1

Chemical Compatibility -Stable in conc. HCl, dilute or conc. HF. Stable in dilute HNO3 as the fluoride or tartrate complex. Avoid basic media. Stable with most metals and inorganic anions in acidic media as the tartrate provided the acidity is not too high or the acid is oxidizing causing loss of the stabilizing tartrate ion. The fluoride complex of antimony is stable in strong acid but you should only mix with other metals that are fluorinated.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-2% HNO3 / LDPE container.

Sb Containing Samples (Preparation and Solution) -Metal and alloys (Soluble in H2O / HF / HNO3 mixture); Oxides (Soluble in HCl and tartaric acid or H2O / HF / HNO3 mixtures); Ores (fusion with Na2CO3 in Pt0 followed by dissolving the fuseate in a H2O / HF / HNO3 mixture); Organic based (sulfuric acid / hydrogen peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 121 amu	5 ppt	N/A	105Pd16O, 89Y16O2
ICP-OES 206.833 nm	0.03/0.003 µg/mL	1	Ta, Cr, Ge, Hf
ICP-OES 217.581 nm	0.05/0.005 µg/mL	1	Nb, W, Re, Fe
ICP-OES 231.147 nm	0.06/0.006 µg/mL	1	Ni, Co, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 30, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 30, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGAS10
Lot Number:	T2-AS718260
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Arsenic
Starting Material:	As Metal
Starting Material Lot#:	2208
Starting Material Purity:	99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10060 ± 40 µg/mL

Density: 1.037 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10062 ± 46 µg/mL**
ICP Assay NIST SRM 3103a Lot Number: 100818

Assay Method #2 **10055 ± 76 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	< 0.003200	M	Eu	< 0.000530	O	Na	0.032544	M	Se	< 0.006300	O	Zn	0.001952			
M	Al	0.007593	O	Fe	0.001475	O	Nb	< 0.012000	O	Si	0.238658	O	Zr	< 0.004100			
s	As	<	M	Ga	< 0.000530	M	Nd	< 0.000530	M	Sm	< 0.000530						
M	Au	< 0.003100	M	Gd	< 0.000530	M	Ni	< 0.002100	M	Sn	< 0.000530						
M	B	0.026035	M	Ge	< 0.001600	M	Os	< 0.000520	M	Sr	< 0.000530						
M	Ba	< 0.000530	M	Hf	< 0.000530	O	P	< 0.043000	M	Ta	< 0.000530						
O	Be	< 0.000360	M	Hg	< 0.001600	M	Pb	< 0.002100	M	Tb	< 0.000530						
M	Bi	< 0.000530	M	Ho	< 0.000530	M	Pd	< 0.001100	M	Te	< 0.004700						
O	Ca	0.004339	M	In	< 0.023000	M	Pr	< 0.005300	M	Th	< 0.000530						
M	Cd	< 0.001100	M	Ir	< 0.000520	M	Pt	< 0.000530	O	Ti	< 0.002300						
M	Ce	< 0.000530	O	K	0.002061	M	Rb	< 0.000530	M	Tl	< 0.000530						
M	Co	< 0.000530	M	La	< 0.001100	M	Re	< 0.000530	M	Tm	< 0.000530						
O	Cr	< 0.001800	O	Li	< 0.000120	M	Rh	< 0.000530	M	U	< 0.000530						
M	Cs	< 0.005300	M	Lu	< 0.000530	M	Ru	< 0.000520	M	V	< 0.002700						
M	Cu	< 0.001600	O	Mg	0.000154	O	S	0.028205	M	W	< 0.012000						
M	Dy	< 0.000530	O	Mn	0.000154	M	Sb	< 0.000530	M	Y	< 0.000530						
M	Er	< 0.000530	M	Mo	< 0.000530	O	Sc	< 0.001700	M	Yb	< 0.000530						

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 74.92 ; mix of +3 and +5 ; 6 ; H3AsO4 and HAsO2

Chemical Compatibility - Arsenic has no cationic chemistry. It is soluble in HCl, HNO3,H3PO4, H2SO4 and HF aqueous matrices water and NH4OH . It is stable with most inorganic anions (forms arsenate when boiled with chromate) but many cationic metals form the insoluble arsenates under pH neutral conditions. When fluorinated and / or under acidic conditions arsenate formation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO3 / LDPE container.

As Containing Samples (Preparation and Solution) - Metal (soluble in 1:1 H2O / HNO3); Oxides (the oxide exists in crystalline and amorphous forms where the amorphic form is more water soluble. The oxides typically dissolve in dilute acidic solutions when boiled); Minerals (one gram of powered sample is fused in a Ni crucible with 10 grams of a 1:1 mix of K2CO3 and KNO3 and the melt extracted with hot water); Organic Matrices (0.2 to 0.5 grams of sample are fused with 15 grams of a 1:1 Na2CO3 / Na2O2 mix in a Ni crucible. The fuseate is extracted with water and acidified with HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 75 amu	20 ppt	N/A	40Ar35Cl, 59Co16O, 36Ar38Ar1H,8Ar37Cl,Ar39K, 150Nd2+,150Sm2+
ICP-OES 189.042 nm	0.05/0.005 µg/mL	1	Cr
ICP-OES 193.696 nm	0.1/0.01 µg/mL	1	V, Ge
ICP-OES 228.812 nm	0.1/0.01 µg/mL	1	Cd, Pt, Ir, Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Technical

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGBA10
Lot Number:	R2-BA692576
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Barium
Starting Material:	Barium Nitrate
Starting Material Lot#:	1969
Starting Material Purity:	99.9982%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1	**10018 ± 50 µg/mL** ICP Assay NIST SRM 3104a Lot Number: 140909
Assay Method #2	**10023 ± 31 µg/mL** Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #3	**10023 ± 30 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000410	O	Eu	<	0.005200	O	Na		0.004610	M	Se	<	0.003700	O	Zn		0.000658
M	Al	<	0.003100	O	Fe		0.015707	M	Nb	<	0.000210	O	Si		0.005573	M	Zr	<	0.001300
M	As	<	0.001300	M	Ga	<	0.000210	M	Nd	<	0.000210	O	Sm	<	0.021000				
M	Au	<	0.001300	M	Gd	<	0.000210	M	Ni	<	0.000810	M	Sn	<	0.000410				
O	B	<	0.005200	M	Ge	<	0.002500	M	Os	<	0.000410	O	Sr		0.003850				
s	Ba	<		M	Hf	<	0.000810	O	P	<	0.026000	M	Ta	<	0.000410				
O	Be	<	0.000320	M	Hg	<	0.000210	M	Pb	<	0.002300	M	Tb	<	0.000210				
M	Bi	<	0.000210	M	Ho	<	0.000210	M	Pd	<	0.000210	M	Te	<	0.001900				
O	Ca		0.007093	M	In	<	0.000210	M	Pr	<	0.000210	M	Th	<	0.000210				
M	Cd	<	0.000210	M	Ir	<	0.000210	M	Pt	<	0.000210	M	Ti	<	0.002100				
M	Ce	<	0.001300	O	K		0.035467	M	Rb	<	0.002100	M	Tl	<	0.000210				
M	Co	<	0.000410	O	La	<	0.005200	M	Re	<	0.000210	M	Tm	<	0.000410				
M	Cr	<	0.001700	O	Li	<	0.000630	M	Rh	<	0.000210	M	U	<	0.000210				
M	Cs	<	0.003300	M	Lu	<	0.001700	M	Ru	<	0.000210	O	V	<	0.005200				
M	Cu	<	0.001300	O	Mg		0.000861	O	S		0.268539	M	W	<	0.000410				
M	Dy	<	0.000210	M	Mn	<	0.000410	M	Sb	<	0.001300	O	Y	<	0.005200				
M	Er	<	0.001300	M	Mo	<	0.000410	M	Sc	<	0.000410	M	Yb	<	0.001300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 137.33 +2 6 $Ba(H_2O)_6^{+2}$
Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, iodate, molybdate, sulfite and tungstate in neutral aqueous media.
Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1 -10,000 ppm solutions chemically stable for years in 1-3.5% HNO_3 / LDPE container.
Ba Containing Samples (Preparation and Solution) -Metal(is best dissolved in diluted HNO_3); Ores(Carbonate fusion in Pt0 followed by HCl dissolution. If sulfate is present dissolve the fuseate using HCl / tartaric acid to prevent $BaSO_4$ precipitate); Organic Matrices (dry ash and dissolve in dilute HCl.)
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 138 amu	1 ppt	N/A	122Sn16O, 122Te16O
ICP-OES 230.424 nm	0.004/0.0005 µg/mL	1	Mo, Ir, Co
ICP-OES 233.527 nm	0.004/0.0003 µg/mL	1	
ICP-OES 455.403 nm	0.002/0.0001 µg/mL	1	Zr, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 11, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 11, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGBE10
Lot Number:	R2-BE692992
Matrix:	6% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Beryllium
Starting Material:	Beryllium Acetate
Starting Material Lot#:	2281
Starting Material Purity:	99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10032 ± 41 µg/mL

Density: 1.128 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10042 ± 67 µg/mL**
ICP Assay NIST SRM 3105a Lot Number: 090514

Assay Method #2 **10025 ± 51 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001100	M	Eu	<	0.000270	O	Na		0.040962	M	Se	<	0.005000	M	Zn		0.013054
O	Al		0.016205	O	Fe		0.015754	M	Nb	<	0.000270	O	Si		0.024307	O	Zr	<	0.001900
M	As	<	0.002900	M	Ga	<	0.000270	M	Nd	<	0.000270	M	Sm	<	0.000270				
M	Au	<	0.000520	M	Gd	<	0.000270	M	Ni	<	0.003700	M	Sn	<	0.000790				
M	B	<	0.091000	M	Ge	<	0.000270	M	Os	<	0.000260	M	Sr		0.000630				
M	Ba		0.002700	M	Hf	<	0.000270	O	P	<	0.066000	M	Ta	<	0.000270				
s	Be	<		M	Hg	<	0.000520	M	Pb	<	0.000270	M	Tb	<	0.000270				
M	Bi	<	0.000530	M	Ho	<	0.000270	M	Pd	<	0.000520	M	Te	<	0.003700				
O	Ca		0.072022	M	In	<	0.000790	M	Pr	<	0.000270	M	Th	<	0.000270				
M	Cd	<	0.000790	M	Ir	<	0.000260	M	Pt	<	0.000270	O	Ti	<	0.000400				
M	Ce	<	0.000270	O	K		0.045014	M	Rb	<	0.000270	M	Tl	<	0.000790				
O	Co	<	0.003200	M	La	<	0.000270	M	Re	<	0.000270	M	Tm	<	0.000270				
O	Cr	<	0.001800	O	Li	<	0.000660	M	Rh	<	0.001100	M	U	<	0.000270				
M	Cs		0.001440	M	Lu	<	0.000270	M	Ru	<	0.000260	M	V	<	0.000790				
M	Cu	<	0.002100	O	Mg		0.016205	i	S	<		M	W	<	0.000530				
M	Dy	<	0.000270	M	Mn		0.001215	M	Sb	<	0.000270	M	Y	<	0.000270				
M	Er	<	0.000270	M	Mo	<	0.000530	O	Sc	<	0.000930	M	Yb	<	0.000270				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 9.01 +2 4 $Be(H_2O)_4^{+2}$

Chemical Compatibility -Soluble in HCl, HNO_3, H_2SO_4 and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1 % HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 5-10 % HNO_3 / LDPE container.

Be Containing Samples (Preparation and Solution) - Meta l(is best dissolved in diluted H_2SO_4); BeO (boiling nitric, hydrochloric, or sulfuric acids or KHSO4 fusion); Ores (H_2SO_4/HF digestion or carbonate fusion in Pt0); Organic Matrices (sulfuric/peroxide digestion or nitric/sulfuric/perchloric acid decomposition, or dry ash and dissolution according to the BeO procedure above).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 9 amu	4 ppt	N/A	
ICP-OES 234.861 nm	0.0003/0.00016 µg/mL	1	Fe, Ta, Mo
ICP-OES 313.042 nm	0.0003/0.00009 µg/mL	1	V, Ce, U
ICP-OES 313.107 nm	0.0007/0.0005 µg/mL	1	Ce, Th, Tm

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION, PERIOD OF VALIDITY AND REVISION HISTORY

11.1 Certification Issue Date

May 13, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 13, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

11.4 Revision Status

- Revision 1 - Revised on Thursday, Jan 14, 2021 by utruong. Revision was made for the following reason: Modified Section 7 Chemical Form in Solution.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGCO10
Lot Number:	R2-CO695285
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Cobalt
Starting Material:	Co Metal
Starting Material Lot#:	2326
Starting Material Purity:	99.9934%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10012 ± 31 µg/mL

Density: 1.056 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10031 ± 67 µg/mL**
ICP Assay NIST SRM 3113 Lot Number: 190630

Assay Method #2 **10019 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **10000 ± 35 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	0.014660	M	Eu	<	0.000590	O	Na	0.007534	M	Se	<	0.019000	M	Zn	0.003461	
M	Al	< 0.024000	M	Fe		0.050905	M	Nb	< 0.000590	O	Si		0.075340	M	Zr	<	0.001200
i	As	<	M	Ga	<	0.000590	M	Nd	< 0.000590	M	Sm	<	0.000590				
M	Au	< 0.004100	M	Gd	<	0.000590	O	Ni	0.427608	M	Sn	<	0.001200				
M	B	< 0.031000	M	Ge	<	0.003000	M	Os	< 0.000590	O	Sr	<	0.000260				
M	Ba	< 0.000590	M	Hf	<	0.000590	n	P	<	M	Ta	<	0.001200				
O	Be	< 0.001300	M	Hg	<	0.001800	M	Pb	0.003257	M	Tb	<	0.000590				
M	Bi	< 0.003000	M	Ho	<	0.000590	M	Pd	< 0.000590	M	Te	<	0.005300				
O	Ca	0.010588	M	In	<	0.001200	M	Pr	< 0.000590	M	Th	<	0.000590				
M	Cd	< 0.004700	M	Ir	<	0.001200	M	Pt	< 0.002400	M	Ti	<	0.014000				
M	Ce	< 0.000590	O	K		0.008144	M	Rb	< 0.000590	M	Tl		0.002647				
s	Co	<	M	La	<	0.000590	M	Re	< 0.000590	M	Tm	<	0.000590				
M	Cr	< 0.021000	O	Li	<	0.000130	M	Rh	< 0.000590	M	U	<	0.000590				
M	Cs	< 0.002400	M	Lu	<	0.000590	M	Ru	< 0.007100	O	V	<	0.000880				
M	Cu	0.189369	O	Mg		0.001893	n	S	<	M	W	<	0.000590				
M	Dy	< 0.000590	M	Mn	<	0.001800	M	Sb	< 0.003600	M	Y	<	0.000590				
M	Er	< 0.000590	M	Mo	<	0.002400	O	Sc	< 0.001600	M	Yb	<	0.000590				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.93 +2 6 $Co(H_2O)_6^{2+}$

Chemical Compatibility -Stable in HCl, HNO_3, H_2SO_4 ,HF, H_3PO_4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.

Co Containing Samples (Preparation and Solution) - Metal (soluble in HNO_3); Oxides (Soluble in HCl); Ores (dissolve in HCl / HNO_3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 59 amu	2 ppt	n/a	42Ca16O1H , 40Ar18O1H , 36Ar23Na, 43Ca16O, 24Mg35Cl
ICP-OES 228.616 nm	0.01/0.001 µg/mL	1	
ICP-OES 237.862 nm	0.01/0.002 µg/mL	1	W, Re, Al, Ta
ICP-OES 238.892 nm	0.01/0.002 µg/mL	1	Fe, W, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 04, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 04, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGAG10
Lot Number:	S2-AG712977
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Silver
Starting Material:	Ag Shot
Starting Material Lot#:	2289
Starting Material Purity:	99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10051 ± 30 µg/mL

Density: 1.056 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1	**10051 ± 52 µg/mL** ICP Assay NIST SRM 3151 Lot Number: 160729
Assay Method #2	**10051 ± 19 µg/mL** Volhard NIST SRM 999c Lot Number: 999c
Assay Method #3	**10049 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

s	Ag	<		M	Eu	<	0.000260	O	Na		0.003811	M	Se	<	0.003900	O	Zn		0.048146
M	Al		0.002688	O	Fe		0.006419	M	Nb	<	0.000260	O	Si		0.005215	M	Zr	<	0.000260
M	As	<	0.001100	M	Ga	<	0.000260	M	Nd	<	0.000260	M	Sm	<	0.000260				
M	Au	<	0.000260	M	Gd	<	0.000260	O	Ni		0.001765	M	Sn		0.020060				
O	B	<	0.004300	M	Ge	<	0.002300	M	Os	<	0.001100	O	Sr	<	0.000110				
M	Ba	<	0.000520	M	Hf	<	0.000260	O	P	<	0.017000	M	Ta	<	0.000260				
O	Be	<	0.001100	M	Hg	<	0.000770	M	Pb	<	0.003600	M	Tb	<	0.000260				
M	Bi		0.004814	M	Ho	<	0.000260	M	Pd		0.044134	M	Te	<	0.009000				
O	Ca		0.005215	M	In		0.003691	M	Pr	<	0.000260	M	Th	<	0.000260				
M	Cd	<	0.000260	M	Ir	<	0.000520	M	Pt	<	0.001100	O	Ti	<	0.000440				
M	Ce	<	0.002100	O	K	<	0.008700	M	Rb	<	0.001100	M	Tl	<	0.004100				
O	Co	<	0.000330	M	La	<	0.000260	M	Re	<	0.000260	M	Tm	<	0.000260				
O	Cr	<	0.002500	O	Li	<	0.000110	M	Rh	<	0.000520	M	U	<	0.000260				
M	Cs	<	0.002600	M	Lu	<	0.000260	M	Ru	<	0.000260	M	V	<	0.000260				
O	Cu		0.357085	O	Mg		0.001203	O	S	<	0.017000	M	W	<	0.000260				
M	Dy	<	0.000260	O	Mn	<	0.000220	M	Sb	<	0.014000	M	Y	<	0.000260				
M	Er	<	0.000260	M	Mo	<	0.000260	O	Sc	<	0.000220	M	Yb	<	0.000260				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 107.87 +1 6 $Ag(H_2O)_6^+$

Chemical Compatibility -Stable in HNO_3, and HF. Avoid basic media. Ag forms more insoluble salts than any other metal. It also is subject to photochemical reduction to the metal in HCl media although 10 µg/mL solutions in 10% HCl [$AgCl_{x1-x}$] are commonly used in the analytical laboratory. The most common solubility problems exist with arsenate, arsenite , bromide, chloride, iodide, carbonate , chromate, cyanide, iodate, oxalate, oxide, sulfate, sulfide, tartrate, and thiocyanate in aqueous media. The addition of nitric acid renders many of these salts soluble.

Stability - 2-100 ppb levels stable for 75+ days when mixed with equivalent levels of all other elements including the precious metals (where chloride is present) when in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.

Ag Containing Samples (Preparation and Solution) -Metal (Soluble in HNO_3); Oxides (Soluble in HNO_3); Ores (Digestion with conc. HNO_3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 107 amu	1 ppt	N/A	91Zr16O
ICP-OES 243.779 nm	0.12/0.01 µg/mL	1	Mn, Th, Ni, Rh
ICP-OES 328.068 nm	0.007/0.0007 µg/mL	1	Ce, Rh, V
ICP-OES 338.289 nm	0.013/0.001 µg/mL	1	Ce, Cr, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Technical

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGCR(3)10
Lot Number:	S2-CR709784
Matrix:	10% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Chromium
Starting Material:	Cr Metal
Starting Material Lot#:	2328
Starting Material Purity:	99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10027 ± 41 µg/mL

Density: 1.072 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10027 ± 40 µg/mL**
ICP Assay NIST SRM 3112a Lot Number: 170630

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001700	M	Eu	<	0.003400	O	Na		0.090372	M	Se	<	0.012000	O	Zn	<	0.006100
M	Al		0.034916	O	Fe		0.246471	M	Nb	<	0.017000	n	Si	<		M	Zr	<	0.007800
M	As	<	0.028000	O	Ga	<	0.013000	M	Nd	<	0.013000	M	Sm	<	0.006900				
M	Au	<	0.001700	M	Gd	<	0.000560	M	Ni		0.016020	M	Sn		0.006983				
O	B	<	0.025000	O	Ge	<	0.014000	M	Os	<	0.000560	M	Sr		0.006367				
M	Ba	<	0.008900	M	Hf	<	0.000560	i	P	<		M	Ta	<	0.000560				
M	Be	<	0.013000	M	Hg	<	0.001700	M	Pb		0.010064	M	Tb	<	0.000560				
M	Bi	<	0.002300	M	Ho	<	0.000560	M	Pd	<	0.021000	M	Te	<	0.010000				
O	Ca		0.075995	M	In	<	0.000560	M	Pr	<	0.001700	M	Th	<	0.000560				
M	Cd	<	0.000560	M	Ir	<	0.000560	M	Pt	<	0.001200	O	Ti		0.013555				
M	Ce	<	0.001200	O	K		0.043132	i	Rb	<		M	Tl	<	0.000560				
M	Co	<	0.002600	M	La	<	0.001200	M	Re	<	0.001200	O	Tm	<	0.013000				
s	Cr	<		O	Li		0.000390	M	Rh	<	0.095000	M	U	<	0.000560				
M	Cs	<	0.007800	M	Lu	<	0.000560	M	Ru	<	0.087000	O	V		0.014993				
O	Cu		0.007599	O	Mg		0.000883	i	S	<		M	W	<	0.049000				
M	Dy	<	0.000560	M	Mn		0.008626	M	Sb	<	0.003400	M	Y	<	0.001700				
M	Er	<	0.019000	M	Mo	<	0.032000	M	Sc		0.003080	M	Yb	<	0.000560				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 52.00 +3 6 $Cr(H_2O)_6^{3+}$

Chemical Compatibility -Stable in HCl, HNO_3, H_2SO_4, HF, H_3PO_4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.

Cr3 Containing Samples (Preparation and Solution) -Metal (soluble in HCl); Oxides/Ores (Chrome ore/oxides are very difficult to dissolve. The following procedures [A-D] are commonly used: A. Fusion with $KHSO_4$ and extraction with hot KCl. The residue fused with Na_2CO_3 and $KClO_3$, 3:1. B. Fusion with $NaKSO_4$ and NaF 2:1, C. Fusion with magnesia or lime and sodium or potassium carbonates, 4:1. D. Fusion with Na_2O_2 or NaOH and KNO_3 or NaOH and Na_2O_2. Nickel, iron, copper, or silver crucibles should be used for D. Platinum may be used for A, <, C); Organic Matrices (ash at 4500C followed by one of the fusion methods above or sulfuric/hydrogen peroxide acid digestions may be applicable to non oxide containing samples).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 52 amu	40 ppt	N/A	36S16O, 36Ar16O - The 50Cr, 53Cr, 54Cr lines suffer from many more potential interferences from sulfur, chlorine and argon compounds of oxygen, nitrogen and carbon.
ICP-OES 205.552 nm	0.006/0.0008 µg/mL	1	Os
ICP-OES 276.654 nm	0.01/0.001 µg/mL	1	Cu, Ta, V
ICP-OES 284.325 nm	0.008/0.0007 µg/mL	1	

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 26, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 26, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGNI10
Lot Number:	P2-NI686384
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Nickel
Starting Material:	Ni Metal
Starting Material Lot#:	2277 and 2282
Starting Material Purity:	99.9992%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9979 ± 30 µg/mL

Density: 1.038 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **9971 ± 54 µg/mL**
ICP Assay NIST SRM 3136 Lot Number: 120619

Assay Method #2 **9970 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **9993 ± 33 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag		0.002606	M	Eu	<	0.001100	O	Na		0.004965	O	Se	<	0.067000	M	Zn		0.006578
M	Al	<	0.013000	O	Fe		0.018618	M	Nb	<	0.001100	O	Si		0.010923	M	Zr	<	0.001100
O	As	<	0.067000	M	Ga	<	0.001100	M	Nd	<	0.001100	M	Sm	<	0.001100				
M	Au	<	0.002100	M	Gd	<	0.001100	s	Ni	<		M	Sn	<	0.016000				
M	B	<	0.017000	M	Ge	<	0.004200	M	Os		0.002110	O	Sr	<	0.000940				
M	Ba	<	0.001100	M	Hf	<	0.001100	i	P	<		M	Ta	<	0.001100				
O	Be	<	0.000410	M	Hg		0.014895	M	Pb		0.006578	M	Tb	<	0.001100				
M	Bi	<	0.004200	M	Ho	<	0.001100	M	Pd	<	0.001100	M	Te	<	0.015000				
O	Ca		0.003351	M	In	<	0.001100	M	Pr	<	0.001100	M	Th	<	0.001100				
M	Cd		0.001365	M	Ir		0.004716	M	Pt	<	0.001100	M	Ti	<	0.004200				
M	Ce	<	0.001100	O	K		0.004716	M	Rb	<	0.001100	M	Tl	<	0.001100				
O	Co		0.017377	M	La	<	0.001100	M	Re		0.001737	M	Tm	<	0.001100				
O	Cr	<	0.006700	O	Li	<	0.000140	M	Rh	<	0.006300	M	U	<	0.001100				
M	Cs	<	0.007300	M	Lu	<	0.001100	M	Ru	<	0.019000	M	V	<	0.002100				
M	Cu		0.004096	O	Mg		0.000372	i	S	<		M	W	<	0.006300				
M	Dy	<	0.001100	O	Mn	<	0.001900	M	Sb		0.005833	O	Y	<	0.000540				
M	Er	<	0.001100	M	Mo	<	0.008400	M	Sc	<	0.002100	M	Yb	<	0.001100				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.69 +2 6 Ni(H2O)62+

Chemical Compatibility -Stable in HCl, HNO3, H2SO4 ,HF, H3PO4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.

Ni Containing Samples (Preparation and Solution) -Metal (Soluble in HNO3); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 60 amu	100 ppt	n/a	43Ca16O1H , 44Ca16O, 23Na37Cl
ICP-OES 221.647 nm	0.01 / 0.0009 µg/mL	1	Si
ICP-OES 231.604 nm	0.02 / 0.002 µg/mL	1	Sb, Ta, Co
ICP-OES 232.003 nm	0.02 / 0.006 µg/mL	1	Cr, Re, Os, Nb, Ag, Pt, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGV10
Lot Number:	S2-V711005
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Vanadium
Starting Material:	Vanadium Pentoxide
Starting Material Lot#:	1782
Starting Material Purity:	99.9877%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10014 ± 30 µg/mL

Density: 1.104 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10017 ± 42 µg/mL**
ICP Assay NIST SRM 3165 Lot Number: 160906

Assay Method #2 **10013 ± 30 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000110	M	Eu	<	0.000110	O	Na		0.120000	M	Se	<	0.009400	M	Zn	0.009400
O	Al		0.120000	O	Fe		0.460000	M	Nb	<	0.001300	O	Si		0.270000	M	Zr	< 0.002900
M	As	<	0.000210	M	Ga	<	0.009300	M	Nd	<	0.000610	M	Sm	<	0.000110			
M	Au	<	0.004700	M	Gd	<	0.000110	M	Ni		0.012000	M	Sn		0.003900			
M	B		0.051000	M	Ge	<	0.000410	M	Os	<	0.000110	O	Sr		0.007100			
M	Ba		0.003600	M	Hf	<	0.000110	O	P	<	0.034000	M	Ta	<	0.000110			
O	Be	<	0.000560	M	Hg	<	0.000410	M	Pb		0.001400	M	Tb	<	0.000110			
M	Bi	<	0.000210	M	Ho	<	0.000110	M	Pd	<	0.000410	M	Te	<	0.000110			
O	Ca		0.730000	M	In	<	0.000110	M	Pr	<	0.000110	M	Th	<	0.000210			
M	Cd	<	0.000610	M	Ir	<	0.000110	M	Pt	<	0.000110	M	Ti		0.017000			
M	Ce	<	0.000610	M	K		0.052000	M	Rb	<	0.000310	M	Tl	<	0.000110			
M	Co	<	0.001300	M	La	<	0.000410	M	Re		0.001700	M	Tm	<	0.000110			
O	Cr		0.170000	M	Li	<	0.000810	M	Rh	<	0.000110	M	U	<	0.000410			
M	Cs		0.005600	M	Lu	<	0.000110	M	Ru	<	0.000110	s	V	<				
M	Cu	<	0.001300	M	Mg		0.053000	i	S	<		M	W		0.002000			
M	Dy	<	0.000110	M	Mn		0.007900	M	Sb		0.078000	M	Y	<	0.000110			
M	Er	<	0.000110	M	Mo		0.094000	M	Sc	<	0.000410	M	Yb	<	0.000110			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 50.94 +5 6 H2V10O284-

Chemical Compatibility -Soluble in HCl, HNO3, H2SO4, HF, H3PO4 and strong basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.

V Containing Samples (Preparation and Solution) -Metal (Fusion with NaOH or KOH in Ni0 or Na2CO3 / KNO3); Oxides (V2O3 - use HCl, V2O4 - use HCl or HNO3, V2O5 - use concentrated acids); Ores (Na2CO3 / KNO3 in Pt0 caution - nitrates attack Pto followed by water extraction of fuseate); Organic Matrices (Ash at 450 EC followed by dissolving according to V2O5 above) .

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 51 amu	4 ppt	N/A	34S16O1H, 35Cl16O, 38Ar13C, 36Ar15N, 36Ar14N1H, 37Cl14N,36S15N, 33S18O, 34S17O, 102Ru+2,02Pd+2
ICP-OES 290.882 nm	0.008 / 0.0008 µg/mL	1	Hf, Nb
ICP-OES 292.402 nm	0.006 / 0.001 µg/mL	1	Th
ICP-OES 309.311 nm	0.005 / 0.001 µg/mL	1	Mg, U, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

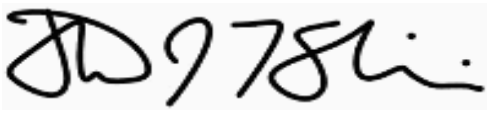
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGAL10
Lot Number:	T2-AL716102
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Aluminum
Starting Material:	Aluminum Nitrate Nonahydrate
Starting Material Lot#:	2460
Starting Material Purity:	99.9938%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10049 ± 31 µg/mL

Density: 1.087 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10059 ± 40 µg/mL**
ICP Assay NIST SRM 3101a Lot Number: 140903

Assay Method #2 **10044 ± 26 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **10049 ± 35 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.002100	M	Eu	<	0.002100	O	Na		0.352819	M	Se	<	0.005200	M	Zn	0.006018
s	Al	<		O	Fe		0.074714	M	Nb	<	0.000520	O	Si		0.017848	O	Zr	0.004358
M	As		0.008716	O	Ga		0.112072	M	Nd	<	0.000520	M	Sm	<	0.000520			
M	Au	<	0.008400	M	Gd	<	0.001100	O	Ni	<	0.006000	M	Sn		0.000747			
O	B	<	0.014000	M	Ge	<	0.005200	M	Os	<	0.000650	O	Sr		0.000518			
O	Ba		0.012867	M	Hf	<	0.004100	n	P	<		M	Ta	<	0.000520			
O	Be	<	0.000270	M	Hg	<	0.002000	M	Pb		0.002282	M	Tb	<	0.000520			
M	Bi		0.001930	M	Ho	<	0.000520	M	Pd	<	0.000520	M	Te	<	0.001100			
O	Ca		0.076790	M	In	<	0.002100	M	Pr	<	0.000520	M	Th	<	0.000520			
M	Cd	<	0.000520	M	Ir	<	0.000650	M	Pt	<	0.000520	O	Ti		0.001930			
M	Ce	<	0.001100	O	K		0.043583	M	Rb	<	0.000520	M	Tl	<	0.000520			
O	Co	<	0.005400	M	La	<	0.002100	M	Re	<	0.000520	M	Tm	<	0.000520			
O	Cr		0.006018	O	Li		0.000112	M	Rh	<	0.000520	M	U	<	0.000520			
M	Cs		0.000643	M	Lu	<	0.000520	M	Ru	<	0.002000	M	V		0.001286			
O	Cu	<	0.008300	O	Mg		0.068488	i	S	<		M	W	<	0.009800			
M	Dy	<	0.002100	O	Mn		0.000913	M	Sb	<	0.003100	M	Y	<	0.001100			
M	Er	<	0.000520	M	Mo		0.005396	O	Sc	<	0.000950	M	Yb	<	0.000520			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 26.98 +3 6 Al(H2O)6+3
Chemical Compatibility -Soluble in HCl, HNO3, v F and v 2SO4. Avoid neutral media. Soluble in strongly basic NaOH forming the Al(OH)4(H2O)21- species. Stable with most metals and inorganic anions. The phosphate is insoluble in water and only slightly soluble in acid.
Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.
Al Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); a- Al2O3 (Na2CO3 fusion in Pt0);
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 27 amu	30 ppt	N/A	12C15N, 13C14N, 1H12C14N, 11B16O, 54Cr2+, 54Fe2+
ICP-OES 167.078 nm	0.1/0.009 µg/mL	1	Fe
ICP-OES 394.401 nm	0.05/0.006 µg/mL	1	U, Ce
ICP-OES 396.152 nm	0.03/0.006 µg/mL	1	Mo, Zr, Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 22, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 22, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

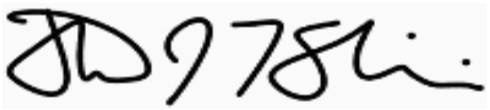
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGK10
Lot Number:	S2-K711973
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Potassium
Starting Material:	KNO3
Starting Material Lot#:	2313
Starting Material Purity:	99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL

Density: 1.024 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1	**9987 ± 24 µg/mL** Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	**10004 ± 84 µg/mL** ICP Assay NIST SRM 3141a Lot Number: 140813
Assay Method #3	**10007 ± 45 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001400	M	Eu	<	0.000660	O	Na		0.246220	M	Se	<	0.007900	O	Zn		0.018056
O	Al		0.001592	O	Fe		0.005909	M	Nb	<	0.000660	O	Si		0.011490	O	Zr	<	0.001600
M	As	<	0.005300	M	Ga	<	0.000660	M	Nd	<	0.000660	M	Sm	<	0.000660				
M	Au	<	0.002000	M	Gd	<	0.000660	O	Ni	<	0.004900	M	Sn	<	0.000660				
O	B	<	0.005600	M	Ge	<	0.002000	M	Os	<	0.003300	O	Sr		0.000055				
O	Ba	<	0.000860	M	Hf	<	0.000660	O	P	<	0.032000	M	Ta	<	0.000660				
O	Be	<	0.000082	M	Hg	<	0.002000	M	Pb	<	0.002300	M	Tb	<	0.000660				
M	Bi	<	0.006600	M	Ho	<	0.000660	M	Pd	<	0.000660	M	Te	<	0.017000				
O	Ca		0.031187	M	In	<	0.000660	M	Pr	<	0.000660	M	Th	<	0.000660				
O	Cd	<	0.000450	M	Ir	<	0.000660	M	Pt	<	0.002700	M	Ti	<	0.000660				
M	Ce	<	0.000660	s	K	<		M	Rb		0.476026	M	Tl	<	0.000660				
O	Co	<	0.000780	M	La	<	0.000660	M	Re	<	0.000660	M	Tm	<	0.000660				
O	Cr		0.000541	O	Li	<	0.000084	M	Rh	<	0.000660	M	U	<	0.000660				
M	Cs	<	0.000660	M	Lu	<	0.000660	M	Ru	<	0.000660	O	V	<	0.001100				
M	Cu	<	0.002700	O	Mg		0.006237	O	S		0.027905	M	W	<	0.000660				
M	Dy	<	0.000660	O	Mn		0.000476	M	Sb	<	0.000660	M	Y	<	0.000660				
M	Er	<	0.000660	M	Mo	<	0.000660	O	Sc	<	0.000340	O	Yb	<	0.000270				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 39.10 +1 (6) K+(aq)
Chemical Compatibility -Soluble in HCl, HNO3, H2SO4 and HF aqueous matrices. Avoid use of HClO4 due to insolubility of the perchlorate. Stable with all metals and inorganic anions except ClO4-.
Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.
K Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Sodium carbonate fusion in Pt0 followed by HCl dissolution-blank levels of K in sodium carbonate critical); Organic Matrices (Sulfuric/peroxide digestion)
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 39 amu	10 ppt	n/a	38ArH, 23Na16O, 78Se
ICP-OES 404.721 nm	1.1 / 0.05 µg/mL	1	U, Ce
ICP-OES 766.490 nm	0.4 / 0.001 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 771.531 nm	1.0 / 0.03 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 10, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 10, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

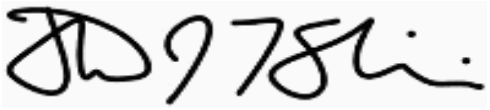
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMG10
Lot Number:	S2-MG704239
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Magnesium
Starting Material:	Magnesium Metal
Starting Material Lot#:	2168
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10053 ± 30 µg/mL

Density: 1.053 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10022 ± 62 µg/mL**
ICP Assay NIST SRM 3131a Lot Number: 140110

Assay Method #2 **10078 ± 26 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **10033 ± 26 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag		0.002106	M	Eu	<	0.000910	O	Na		0.071075	O	Se	<	0.048000	O	Zn	0.003299
M	Al		0.003553	M	Fe		0.002538	M	Nb	<	0.000460	O	Si	<	0.032000	O	Zr	< 0.002700
M	As	<	0.001400	M	Ga	<	0.000460	M	Nd	<	0.000910	M	Sm	<	0.000460			
M	Au	<	0.001400	M	Gd	<	0.000460	O	Ni	<	0.001600	M	Sn	<	0.002300			
O	B		0.006853	M	Ge	<	0.001400	M	Os	<	0.000460	O	Sr		0.000279			
O	Ba		0.000964	M	Hf	<	0.000460	O	P		0.015230	M	Ta	<	0.000460			
O	Be	<	0.000120	M	Hg	<	0.000460	M	Pb	<	0.000460	M	Tb	<	0.000460			
M	Bi	<	0.000460	M	Ho	<	0.000460	M	Pd	<	0.003200	M	Te	<	0.007300			
O	Ca		0.053306	M	In	<	0.000460	M	Pr	<	0.000460	M	Th	<	0.000460			
O	Cd	<	0.000360	M	Ir	<	0.000460	M	Pt	<	0.001900	O	Ti	<	0.001700			
M	Ce	<	0.002300	M	K		0.048229	M	Rb		0.002411	M	Tl		0.003046			
M	Co	<	0.000910	M	La	<	0.002800	M	Re	<	0.000460	M	Tm	<	0.000460			
M	Cr	<	0.002300	O	Li		0.027922	M	Rh	<	0.000460	M	U	<	0.000460			
M	Cs		0.001040	M	Lu	<	0.000460	M	Ru	<	0.000460	M	V	<	0.000460			
O	Cu	<	0.003000	s	Mg	<		O	S	<	0.190000	M	W	<	0.000460			
M	Dy	<	0.000460	O	Mn		0.015230	M	Sb		0.020814	O	Y	<	0.000720			
M	Er	<	0.000460	M	Mo	<	0.000910	O	Sc	<	0.000480	M	Yb	<	0.000460			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 24.31 +2 6 $Mg(H_2O)_6^{+2}$

Chemical Compatibility -Soluble in HCl, HNO_3, and H_2SO_4 avoid HF, H_3PO_4 and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicates, carbonates, hydroxides, oxides, and tungstates in neutral and slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO_3 / LDPE container.

Mg Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Oxide (Readily soluble in above compatible aqueous acidic solutions); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric / peroxide digestion or nitric / sulfuric / perchloric acid decomposition, or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 24 amu	42 ppt	n/a	7Li17O, 48Ti+2 , 48Ca+2
ICP-OES 279.553 nm	0.0002 / 0.00003 µg/mL	1	Th
ICP-OES 280.270 nm	0.0003 / 0.00005 µg/mL	1	U, V
ICP-OES 285.213 nm	0.002 / 0.00003 µg/mL	1	U, Hf, Cr, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 23, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 23, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGCA10
Lot Number:	T2-CA716103
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Calcium
Starting Material:	CaCO3
Starting Material Lot#:	2472
Starting Material Purity:	99.9950%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10005 ± 30 µg/mL

Density: 1.039 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1	**10005 ± 45 µg/mL** ICP Assay NIST SRM 3109a Lot Number: 130213
Assay Method #2	**10005 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10005 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001200	M	Eu	<	0.001200	O	Na		0.006112	M	Se	<	0.024000	M	Zn		0.005362
M	Al		0.065419	O	Fe		0.009115	M	Nb	<	0.001200	O	Si		0.139417	O	Zr	<	0.006700
O	As	<	0.013000	M	Ga	<	0.015000	M	Nd	<	0.020000	M	Sm	<	0.001200				
M	Au	<	0.017000	M	Gd	<	0.004800	O	Ni		0.000793	M	Sn	<	0.003600				
O	B		0.001179	M	Ge	<	0.003600	M	Os	<	0.001200	M	Sr		0.081505				
O	Ba		0.002788	M	Hf	<	0.001200	O	P	<	0.041000	M	Ta	<	0.001200				
O	Be	<	0.000410	M	Hg	<	0.004800	M	Pb		0.001608	M	Tb	<	0.001200				
M	Bi		0.001608	M	Ho	<	0.001200	M	Pd	<	0.001200	M	Te	<	0.003600				
s	Ca	<		M	In	<	0.001200	M	Pr		0.000257	M	Th	<	0.001200				
O	Cd	<	0.001300	M	Ir	<	0.001200	M	Pt	<	0.003600	O	Ti	<	0.001900				
M	Ce		0.001029	O	K		0.009759	M	Rb	<	0.001200	M	Tl	<	0.001200				
O	Co		0.000418	M	La		0.001823	M	Re	<	0.001200	M	Tm	<	0.001200				
O	Cr		0.003324	O	Li	<	0.007300	M	Rh	<	0.001200	M	U		0.002144				
M	Cs		0.007399	M	Lu		0.000128	M	Ru	<	0.001200	M	V		0.001286				
O	Cu	<	0.011000	M	Mg		1.286934	O	S		0.055767	O	W	<	0.024000				
M	Dy	<	0.002400	O	Mn		0.004611	M	Sb	<	0.009600	O	Y		0.000536				
M	Er	<	0.002400	M	Mo		0.003539	O	Sc	<	0.001400	M	Yb	<	0.001200				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 40.08 +2 6 Ca(H2O)6+2
Chemical Compatibility - Soluble in HCl and HNO3. Avoid H2SO4, vF, v3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, and tungstate in neutral aqueous media.
Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO3 / LDPE container.
Ca Containing Samples)Preparation and Solution) -Metal (best dissolved in diluted HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (dry ash and dissolution in dilute HCl. Do not heat when dissolving to avoid precipitation of SiO2). The oxide, hydroxide, carbonate, phosphate, and fluoride of calcium are soluble in % levels of HCl or HNO3. The sulfates (gypsum, anhydrite, etc.), certain silicates, and complex compounds require fusion with Na2CO3 followed by HCl / water dissolution. Note that contamination is a very real problem when analyzing for trace levels.
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 44 amu	1200 ppt	n/a	16O212C, 28Si16O, 88Sr
ICP-OES 393.366 nm	0.0002 / 0.00004 µg/mL	1	U, Ce
ICP-OES 396.847 nm	0.0005 / 0.00006 µg/mL	1	Th
ICP-OES 422.673 nm	0.01 / 0.001 µg/mL	1	Ge

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 14, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 14, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

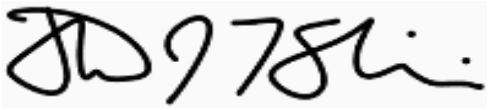
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGNA10
Lot Number:	T2-NA717221
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Sodium
Starting Material:	Na2CO3
Starting Material Lot#:	2358 and 2453
Starting Material Purity:	99.9977%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9977 ± 30 µg/mL

Density: 1.033 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **9974 ± 18 µg/mL**
Gravimetric NIST SRM Lot Number: See Sec. 4.2

Assay Method #2 **9977 ± 34 µg/mL**
ICP Assay NIST SRM 3152a Lot Number: 200413

Assay Method #3 **9987 ± 31 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	< 0.000930	M	Eu	< 0.000930	s	Na	<		M	Se	< 0.003800	O	Zn		0.000138	
M	Al	0.004409	O	Fe	0.002393	M	Nb	< 0.000930		O	Si	0.056696	O	Zr	<	0.003200	
O	As	< 0.023000	M	Ga	< 0.000930	M	Nd	< 0.000930		M	Sm	< 0.000930					
O	Au	< 0.004100	M	Gd	< 0.000930	O	Ni	< 0.003000		M	Sn	< 0.002800					
O	B	0.001385	M	Ge	< 0.004700	M	Os	< 0.000930		O	Sr	0.000251					
M	Ba	0.004031	M	Hf	< 0.000930	O	P	0.010205		M	Ta	< 0.000930					
O	Be	< 0.000130	M	Hg	< 0.000930	M	Pb	< 0.000930		M	Tb	< 0.000930					
M	Bi	< 0.000930	M	Ho	< 0.000930	M	Pd	< 0.000930		M	Te	< 0.001900					
O	Ca	0.176388	M	In	< 0.000930	M	Pr	< 0.000930		M	Th	0.000352					
O	Cd	< 0.000860	M	Ir	< 0.000930	M	Pt	< 0.000930		O	Ti	0.000592					
M	Ce	< 0.001900	O	K	0.302380	M	Rb	< 0.000930		M	Tl	< 0.000930					
O	Co	< 0.001800	O	La	< 0.002100	M	Re	< 0.000930		M	Tm	< 0.000930					
M	Cr	< 0.002800	O	Li	0.000031	M	Rh	< 0.000930		M	U	< 0.000930					
M	Cs	< 0.000930	M	Lu	< 0.000930	M	Ru	< 0.001900		O	V	< 0.001600					
O	Cu	< 0.003900	O	Mg	0.026458	O	S	0.040317		O	W	< 0.028000					
M	Dy	< 0.000930	O	Mn	< 0.000740	M	Sb	< 0.000930		O	Y	< 0.000860					
M	Er	< 0.000930	O	Mo	< 0.003600	O	Sc	< 0.000610		O	Yb	< 0.000250					

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 22.99 +1 (6) Na+(aq) largely ionic in nature

Chemical Compatibility -Soluble in HCl, HNO3, H2SO4 and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.

Na Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Lithium carbonate fusion in graphite crucible followed by HCl dissolution - blank levels of Na in lithium carbonate critical); Organic Matrices (Sulfuric / peroxide digestion or nitric/sulfuric/perchloric acid decomposition).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 23 amu	310 ppt	n/a	46Ti+2 , 46Ca+2
ICP-OES 330.237 nm	2.0 / 0.09 µg/mL	1	Pd, Zn
ICP-OES 588.995 nm	0.03 / 0.006 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 589.595 nm	0.07 / 0.00009 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 20, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 20, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

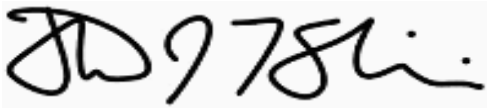
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGU1
Lot Number:	S2-U707914
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Uranium
Starting Material:	Uranyl Nitrate Hexahydrate
Starting Material Lot#:	P2-2322
Starting Material Purity:	99.9997%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 5 µg/mL

Density: 1.010 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **998 ± 5 µg/mL**
ICP Assay NIST SRM 3164 Lot Number: 080521

Assay Method #2 **1001 ± 6 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000270	M	Eu	<	0.000270	M	Na	<	0.011000	M	Se	<	0.009300	M	Zn	0.002358
M	Al	<	0.011000	M	Fe		0.003222	M	Nb	<	0.000270	M	Si	<	0.160000	M	Zr	< 0.001100
M	As	<	0.002400	M	Ga	<	0.000270	M	Nd	<	0.000270	M	Sm	<	0.000270			
M	Au	<	0.000270	M	Gd	<	0.000270	M	Ni	<	0.020000	M	Sn	<	0.011000			
M	B	<	0.000270	M	Ge	<	0.000800	M	Os	<	0.001900	M	Sr	<	0.000270			
M	Ba	<	0.003800	M	Hf	<	0.000270	i	P	<		M	Ta	<	0.000270			
M	Be	<	0.000270	M	Hg	<	0.000540	M	Pb	<	0.002200	M	Tb	<	0.000270			
M	Bi	<	0.000270	M	Ho	<	0.000270	M	Pd	<	0.000540	M	Te	<	0.003800			
M	Ca	<	0.140000	M	In	<	0.000270	M	Pr	<	0.000270	M	Th		0.000129			
M	Cd	<	0.000270	M	Ir	<	0.000270	M	Pt	<	0.000270	M	Ti	<	0.002700			
M	Ce	<	0.000540	O	K	<	0.250000	M	Rb	<	0.000800	M	Tl	<	0.000270			
M	Co	<	0.000800	M	La		0.000117	M	Re	<	0.064000	M	Tm	<	0.000270			
M	Cr		0.000943	M	Li	<	0.003000	M	Rh	<	0.000270	s	U	<				
M	Cs		0.000106	M	Lu	<	0.000270	M	Ru	<	0.000540	M	V	<	0.000540			
M	Cu	<	0.001100	M	Mg	<	0.003000	i	S	<		M	W	<	0.000540			
M	Dy	<	0.000270	M	Mn	<	0.006900	M	Sb	<	0.000270	M	Y	<	0.000270			
M	Er	<	0.000270	M	Mo	<	0.006400	M	Sc	<	0.000540	M	Yb	<	0.000270			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 238.03 +6 8 UO_2^{2+}(uranyl)
Chemical Compatibility - Soluble in HCl and HNO_3. Avoid H_3PO_4. H_2SO_4 and HF matrices should not be a problem depending upon [U]. Although the UO_2^{2+} ion is distinctly basic, any U^{+4} will precipitate in basic media. UO_2^{2+}salts are generally soluble in water and UO_2^{2+} is stable with most metals and inorganic anions. The uranyl phosphate is insoluble in water. UF_4 and UF_6 are water soluble.
Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO_3 / LDPE container.
U Containing Samples (Preparation and Solution) -Metal (Dissolves rapidly in HCl and HNO_3); Oxide (Soluble in HNO_3); Ores (Digest for 1-2 hours with 1 gram of ore to 30 mL 1:1 HNO_3. Silica insolubles are removed by filtration after bringing the sample to fumes with conc. H_2SO_4.)
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 238 amu	2 ppt	N/A	206Pb16O2
ICP-OES 263.553 nm	0.3 / 0.01 µg/mL	1	Ce, Ir, Th, Rh, W, Zr, Ta, Ti, V, Hf, Fe, Re, Ru
ICP-OES 367.007 nm	0.3 / 0.02 µg/mL	1	Th, Ce
ICP-OES 385.958 nm	0.3 / 0.01 µg/mL	1	Th, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	AR-ICVMS-2
Lot Number:	T2-MEB719895
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	2.5 µg/mL ea: Molybdenum, Antimony

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	**2.499 ± 0.015 µg/mL**	**Molybdenum, Mo**	**2.500 ± 0.017 µg/mL**

Density: 1.014 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

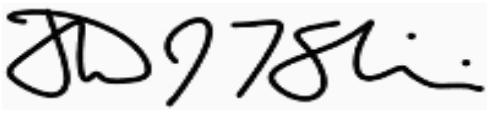
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	AR-ICVMS-3
Lot Number:	T2-MEB719896
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	250 µg/mL ea:

Aluminum, Calcium,
Iron, Potassium,
Magnesium, Sodium,

4 µg/mL ea:
Selenium,

2.5 µg/mL ea:

Thorium,	Thallium,
Uranium,	Vanadium,
Zinc,	Manganese,
Cadmium,	Cobalt,
Chromium,	Copper,
Arsenic,	Barium,
Beryllium,	Nickel,
Lead,	Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	250.0 ± 0.9 µg/mL	Arsenic, As	2.500 ± 0.018 µg/mL
Barium, Ba	2.501 ± 0.013 µg/mL	Beryllium, Be	2.501 ± 0.015 µg/mL
Cadmium, Cd	2.501 ± 0.013 µg/mL	Calcium, Ca	250.0 ± 1.3 µg/mL
Chromium, Cr	2.500 ± 0.015 µg/mL	Cobalt, Co	2.500 ± 0.014 µg/mL
Copper, Cu	2.500 ± 0.014 µg/mL	Iron, Fe	250.0 ± 1.0 µg/mL
Lead, Pb	2.500 ± 0.013 µg/mL	Magnesium, Mg	250.0 ± 1.3 µg/mL
Manganese, Mn	2.500 ± 0.014 µg/mL	Nickel, Ni	2.500 ± 0.014 µg/mL
Potassium, K	250.0 ± 1.2 µg/mL	Selenium, Se	4.002 ± 0.024 µg/mL
Silver, Ag	2.501 ± 0.017 µg/mL	Sodium, Na	250.0 ± 1.2 µg/mL
Thallium, Tl	2.500 ± 0.017 µg/mL	Thorium, Th	2.499 ± 0.013 µg/mL
Uranium, U	2.501 ± 0.015 µg/mL	Vanadium, V	2.500 ± 0.014 µg/mL
Zinc, Zn	2.500 ± 0.014 µg/mL		

Density: 1.042 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Cu	Calculated		See Sec. 4.2
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Mn	Calculated		See Sec. 4.2
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2

V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928
Zn	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

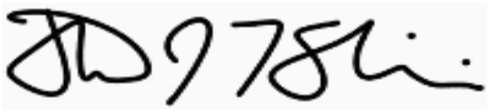
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	AR-6020ICS-0A10
Lot Number:	T2-MEB719898
Matrix:	1.4% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Chloride,
	200 µg/mL ea: Carbon,
	100 µg/mL ea: Calcium, Aluminum, Iron, Potassium, Magnesium, Sodium, Phosphorus, Sulfur,
	2 µg/mL ea: Titanium, Molybdenum

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**100.0 ± 0.4 µg/mL**	**Calcium, Ca**	**100.0 ± 0.5 µg/mL**
Carbon, C	**200.1 ± 0.5 µg/mL**	**Chloride, Cl**	**1 000 ± 5 µg/mL**
Iron, Fe	**100.0 ± 0.5 µg/mL**	**Magnesium, Mg**	**100.0 ± 0.5 µg/mL**
Molybdenum, Mo	**2.001 ± 0.014 µg/mL**	**Phosphorus, P**	**100.0 ± 0.6 µg/mL**
Potassium, K	**100.0 ± 0.5 µg/mL**	**Sodium, Na**	**100.0 ± 0.5 µg/mL**
Sulfur, S	**100.0 ± 0.5 µg/mL**	**Titanium, Ti**	**2.001 ± 0.015 µg/mL**

Density: 1.009 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
C	Acidimetric	84L	84L
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cl	Acidimetric	84L	84L
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mo	ICP Assay	3134	130418
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84L	84L
S	ICP Assay	traceable to 3154	P2-S680745
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 07, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 07, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

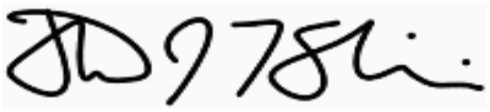
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1108

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-01 C	SDG:	23A0313
Sampled:	01/16/23 08:10	Prepared:	01/18/23 10:40	File ID:	CubeData_01212023@1654-017
% Solids:	52.36	Preparation:	Plumb 1981	Analyzed:	01/19/23 17:44
Batch:	BLA0432	Sequence:	SLA0205	Initial/Final:	0.5234 g Wet / 0.5234 g
Instrument:	TOC Cube			Calibration:	FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.52	1	0.02	0.02	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1115

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-02 C	SDG:	23A0313
Sampled:	01/16/23 08:28	Prepared:	01/18/23 10:40	File ID:	CubeData_01212023@1654-018
% Solids:	52.95	Preparation:	Plumb 1981	Analyzed:	01/19/23 18:14
Batch:	BLA0432	Sequence:	SLA0205	Initial/Final:	0.6877 g Wet / 0.6877 g
Instrument:	TOC Cube			Calibration:	FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.82	1	0.02	0.02	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-IT1114

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-03 D	SDG:	23A0313
Sampled:	01/16/23 08:42	Prepared:	01/18/23 10:40	File ID:	CubeData_01212023@1654-019
% Solids:	62.51	Preparation:	Plumb 1981	Analyzed:	01/19/23 18:45
Batch:	BLA0432	Sequence:	SLA0205	Initial/Final:	0.5058 g Wet / 0.5058 g
Instrument:	TOC Cube			Calibration:	FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.94	1	0.02	0.02	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-IT1120

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-04 D	SDG:	23A0313
Sampled:	01/16/23 08:57	Prepared:	01/18/23 10:40	File ID:	CubeData_01212023@1654-020
% Solids:	70.56	Preparation:	Plumb 1981	Analyzed:	01/19/23 19:15
Batch:	BLA0432	Sequence:	SLA0205	Initial/Final:	0.6015 g Wet / 0.6015 g
Instrument:	TOC Cube			Calibration:	FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.39	1	0.02	0.02	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1090

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-05 C	SDG:	23A0313
Sampled:	01/16/23 09:21	Prepared:	01/18/23 10:40	File ID:	CubeData_01212023@1654-021
% Solids:	48.15	Preparation:	Plumb 1981	Analyzed:	01/19/23 19:46
Batch:	BLA0432	Sequence:	SLA0205	Initial/Final:	0.5244 g Wet / 0.5244 g
Instrument:	TOC Cube			Calibration:	FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.22	1	0.02	0.02	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1095

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-06 C	SDG:	23A0313
Sampled:	01/16/23 09:42	Prepared:	01/18/23 10:40	File ID:	CubeData_01212023@1654-022
% Solids:	54.20	Preparation:	Plumb 1981	Analyzed:	01/19/23 20:16
Batch:	BLA0432	Sequence:	SLA0205	Initial/Final:	0.5245 g Wet / 0.5245 g
Instrument:	TOC Cube			Calibration:	FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.65	1	0.02	0.02	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1076

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-07 C	SDG:	23A0313
Sampled:	01/16/23 10:03	Prepared:	01/18/23 10:40	File ID:	CubeData_01212023@1654-023
% Solids:	71.83	Preparation:	Plumb 1981	Analyzed:	01/19/23 20:46
Batch:	BLA0432	Sequence:	SLA0205	Initial/Final:	0.5429 g Wet / 0.5429 g
Instrument:	TOC Cube			Calibration:	FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	0.45	1	0.02	0.02	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1016A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-08 C	SDG:	23A0313
Sampled:	01/16/23 11:11	Prepared:	01/18/23 10:40	File ID:	CubeData_01212023@1654-024
% Solids:	55.70	Preparation:	Plumb 1981	Analyzed:	01/19/23 21:17
Batch:	BLA0432	Sequence:	SLA0205	Initial/Final:	0.5391 g Wet / 0.5391 g
Instrument:	TOC Cube			Calibration:	FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.87	1	0.02	0.02	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1011A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-09 C	SDG:	23A0313
Sampled:	01/16/23 11:46	Prepared:	01/18/23 10:40	File ID:	CubeData_01212023@1654-025
% Solids:	54.06	Preparation:	Plumb 1981	Analyzed:	01/19/23 21:47
Batch:	BLA0432	Sequence:	SLA0205	Initial/Final:	0.5469 g Wet / 0.5469 g
Instrument:	TOC Cube			Calibration:	FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.57	1	0.02	0.02	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1006A

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-10 C	SDG:	23A0313
Sampled:	01/16/23 12:29	Prepared:	01/18/23 10:40	File ID:	CubeData_01212023@1654-026
% Solids:	55.20	Preparation:	Plumb 1981	Analyzed:	01/19/23 22:17
Batch:	BLA0432	Sequence:	SLA0205	Initial/Final:	0.5323 g Wet / 0.5323 g
Instrument:	TOC Cube			Calibration:	FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.37	1	0.02	0.02	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1012B

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-11 C	SDG:	23A0313
Sampled:	01/16/23 13:13	Prepared:	01/18/23 10:40	File ID:	CubeData_01212023@1654-029
% Solids:	54.29	Preparation:	Plumb 1981	Analyzed:	01/19/23 23:48
Batch:	BLA0432	Sequence:	SLA0205	Initial/Final:	0.5169 g Wet / 0.5169 g
Instrument:	TOC Cube			Calibration:	FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.00	1	0.02	0.02	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-IT1148

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-12 D	SDG:	23A0313
Sampled:	01/16/23 14:44	Prepared:	01/18/23 10:40	File ID:	CubeData_01212023@1654-030
% Solids:	80.58	Preparation:	Plumb 1981	Analyzed:	01/20/23 00:18
Batch:	BLA0432	Sequence:	SLA0205	Initial/Final:	0.5619 g Wet / 0.5619 g
Instrument:	TOC Cube			Calibration:	FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	0.15	1	0.02	0.02	

Analytical Resources, LLC
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1159

Laboratory:	Analytical Resources, LLC				
Client:	Anchor QEA, LLC				
Project:	AOC5 MR Phase 1				
Matrix:	Solid	Laboratory ID:	23A0313-13 D	SDG:	23A0313
Sampled:	01/16/23 14:26	Prepared:	01/18/23 10:40	File ID:	CubeData_01212023@1654-031
% Solids:	56.95	Preparation:	Plumb 1981	Analyzed:	01/20/23 00:49
Batch:	BLA0432	Sequence:	SLA0205	Initial/Final:	0.5253 g Wet / 0.5253 g
Instrument:	TOC Cube			Calibration:	FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.86	1	0.02	0.02	

PREPARATION BATCH SUMMARY

EPA 9060A m

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Batch: BLA0432 Batch Matrix: Solid
Preparation: Plumb 1981

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1108	23A0313-01	eData_01212023@1654-	01/18/23 10:40	
LDW23-SC1115	23A0313-02	eData_01212023@1654-	01/18/23 10:40	
LDW23-IT1114	23A0313-03	eData_01212023@1654-	01/18/23 10:40	
LDW23-IT1120	23A0313-04	eData_01212023@1654-	01/18/23 10:40	
LDW23-SC1090	23A0313-05	eData_01212023@1654-	01/18/23 10:40	
LDW23-SC1095	23A0313-06	eData_01212023@1654-	01/18/23 10:40	
LDW23-SC1076	23A0313-07	eData_01212023@1654-	01/18/23 10:40	
LDW23-SC1016A	23A0313-08	eData_01212023@1654-	01/18/23 10:40	
LDW23-SC1011A	23A0313-09	eData_01212023@1654-	01/18/23 10:40	
LDW23-SC1006A	23A0313-10	eData_01212023@1654-	01/18/23 10:40	
LDW23-SC1012B	23A0313-11	eData_01212023@1654-	01/18/23 10:40	
LDW23-IT1148	23A0313-12	eData_01212023@1654-	01/18/23 10:40	
LDW23-SC1159	23A0313-13	eData_01212023@1654-	01/18/23 10:40	
Blank	BLA0432-BLK1	eData_01212023@1654-	01/18/23 10:40	
LCS	BLA0432-BS1	eData_01212023@1654-	01/18/23 10:40	
MRL Check	BLA0432-MRL1	eData_01212023@1654-	01/18/23 10:40	
Reference	BLA0432-SRM1	eData_01212023@1654-	01/18/23 10:40	

Form I

METHOD BLANK DATA SHEET

EPA 9060A m

TotalAnalytes

Blank

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Batch: BLA0432
Laboratory ID: BLA0432-BLK1
Prepared: 01/18/23 10:40
Matrix: Solid
Preparation: Plumb 1981
Analyzed: 01/19/23 12:11
Sequence: SLA0205
Calibration: FD00070
Instrument: TOC Cube

CAS NO.	Analyte	Concentration (% wet)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	ND	1	0.02	0.02	U

LCS / LCS DUPLICATE RECOVERY

EPA 9060A m

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Matrix:	Solid	Analyzed:	01/19/23 12:41
Batch:	BLA0432	Laboratory ID:	BLA0432-BS1
Preparation:	Plumb 1981	Sequence Name:	LCS
Initial/Final:	0.019 g / 0.019 g		

COMPOUND	SPIKE ADDED (% wet)	LCS CONCENTRATION (% wet)	Q	LCS % REC. #	QC LIMITS REC.
Total Organic Carbon	44.4	43.9		98.8	80 - 120

* Indicates values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 9060A m

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SKD0371	Instrument:	TOC Cube
		Calibration:	FD00070

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Cal Standard	SKD0371-CAL1	CubeData_04272022@1136-001	NA	04/26/22 12:30
Cal Standard	SKD0371-CAL2	CubeData_04272022@1136-002	NA	04/26/22 13:00
Cal Standard	SKD0371-CAL3	CubeData_04272022@1136-003	NA	04/26/22 13:30
Cal Standard	SKD0371-CAL4	CubeData_04272022@1136-004	NA	04/26/22 14:00
Cal Standard	SKD0371-CAL5	CubeData_04272022@1136-005	NA	04/26/22 14:30
Cal Standard	SKD0371-CAL6	CubeData_04272022@1136-006	NA	04/26/22 15:00
Cal Standard	SKD0371-CAL7	CubeData_04272022@1136-007	NA	04/26/22 15:30
Cal Standard	SKD0371-CAL8	CubeData_04272022@1136-008	NA	04/26/22 16:00
Cal Standard	SKD0371-CAL9	CubeData_04272022@1136-009	NA	04/26/22 16:30
Cal Standard	SKD0371-CALA	CubeData_04272022@1136-010	NA	04/26/22 17:00
Cal Standard	SKD0371-CALB	CubeData_04272022@1136-011	NA	04/26/22 17:30
Cal Standard	SKD0371-CALC	CubeData_04272022@1136-012	NA	04/26/22 18:00
Cal Standard	SKD0371-CALD	CubeData_04272022@1136-013	NA	04/26/22 18:30
Cal Standard	SKD0371-CALE	CubeData_04272022@1136-014	NA	04/26/22 19:00
Cal Standard	SKD0371-CALF	CubeData_04272022@1136-015	NA	04/26/22 19:31
Cal Standard	SKD0371-CALG	CubeData_04272022@1136-016	NA	04/26/22 20:01
Cal Standard	SKD0371-CALH	CubeData_04272022@1136-017	NA	04/26/22 20:31
Cal Standard	SKD0371-CALI	CubeData_04272022@1136-018	NA	04/26/22 21:01
Cal Standard	SKD0371-CALJ	CubeData_04272022@1136-019	NA	04/26/22 21:31
Cal Standard	SKD0371-CALK	CubeData_04272022@1136-020	NA	04/26/22 22:01
Initial Cal Check	SKD0371-ICV1	CubeData_04272022@1136-027	NA	04/27/22 02:03
Initial Cal Blank	SKD0371-ICB1	CubeData_04272022@1136-028	NA	04/27/22 02:33
Cal Standard	SKD0371-CALL	CubeData_04272022@1136-021	NA	04/27/22 11:08
Cal Standard	SKD0371-CALM	CubeData_04272022@1136-022	NA	04/27/22 11:08
Cal Standard	SKD0371-CALN	CubeData_04272022@1136-023	NA	04/27/22 11:09
Cal Standard	SKD0371-CALO	CubeData_04272022@1136-024	NA	04/27/22 11:09

Analytical Resources, LLC
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 9060A m

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Sequence:	SLA0205	Instrument:	TOC Cube
		Calibration:	FD00070

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Initial Cal Check	SLA0205-ICV1	CubeData_01212023@1654-003	NA	01/19/23 10:40
Initial Cal Blank	SLA0205-ICB1	CubeData_01212023@1654-004	NA	01/19/23 11:10
MRL Check	BLA0432-MRL1	CubeData_01212023@1654-005	Solid	01/19/23 11:41
Blank	BLA0432-BLK1	CubeData_01212023@1654-006	Solid	01/19/23 12:11
LCS	BLA0432-BS1	CubeData_01212023@1654-007	Solid	01/19/23 12:41
Reference	BLA0432-SRM1	CubeData_01212023@1654-008	Solid	01/19/23 13:11
Calibration Check	SLA0205-CCV1	CubeData_01212023@1654-015	NA	01/19/23 16:43
Calibration Blank	SLA0205-CCB1	CubeData_01212023@1654-016	NA	01/19/23 17:14
LDW23-SC1108	23A0313-01	CubeData_01212023@1654-017	Solid	01/19/23 17:44
LDW23-SC1115	23A0313-02	CubeData_01212023@1654-018	Solid	01/19/23 18:14
LDW23-IT1114	23A0313-03	CubeData_01212023@1654-019	Solid	01/19/23 18:45
LDW23-IT1120	23A0313-04	CubeData_01212023@1654-020	Solid	01/19/23 19:15
LDW23-SC1090	23A0313-05	CubeData_01212023@1654-021	Solid	01/19/23 19:46
LDW23-SC1095	23A0313-06	CubeData_01212023@1654-022	Solid	01/19/23 20:16
LDW23-SC1076	23A0313-07	CubeData_01212023@1654-023	Solid	01/19/23 20:46
LDW23-SC1016A	23A0313-08	CubeData_01212023@1654-024	Solid	01/19/23 21:17
LDW23-SC1011A	23A0313-09	CubeData_01212023@1654-025	Solid	01/19/23 21:47
LDW23-SC1006A	23A0313-10	CubeData_01212023@1654-026	Solid	01/19/23 22:17
Calibration Check	SLA0205-CCV2	CubeData_01212023@1654-027	NA	01/19/23 22:48
Calibration Blank	SLA0205-CCB2	CubeData_01212023@1654-028	NA	01/19/23 23:18
LDW23-SC1012B	23A0313-11	CubeData_01212023@1654-029	Solid	01/19/23 23:48
LDW23-IT1148	23A0313-12	CubeData_01212023@1654-030	Solid	01/20/23 00:18
LDW23-SC1159	23A0313-13	CubeData_01212023@1654-031	Solid	01/20/23 00:49
Calibration Check	SLA0205-CCV3	CubeData_01212023@1654-039	NA	01/20/23 04:52
Calibration Blank	SLA0205-CCB3	CubeData_01212023@1654-040	NA	01/20/23 05:22
Calibration Check	SLA0205-CCV4	CubeData_01212023@1654-050	NA	01/20/23 10:56
Calibration Blank	SLA0205-CCB4	CubeData_01212023@1654-051	NA	01/20/23 11:27
Calibration Check	SLA0205-CCV5	CubeData_01212023@1654-062	NA	01/20/23 17:00
Calibration Blank	SLA0205-CCB5	CubeData_01212023@1654-063	NA	01/20/23 17:30

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 9060A m

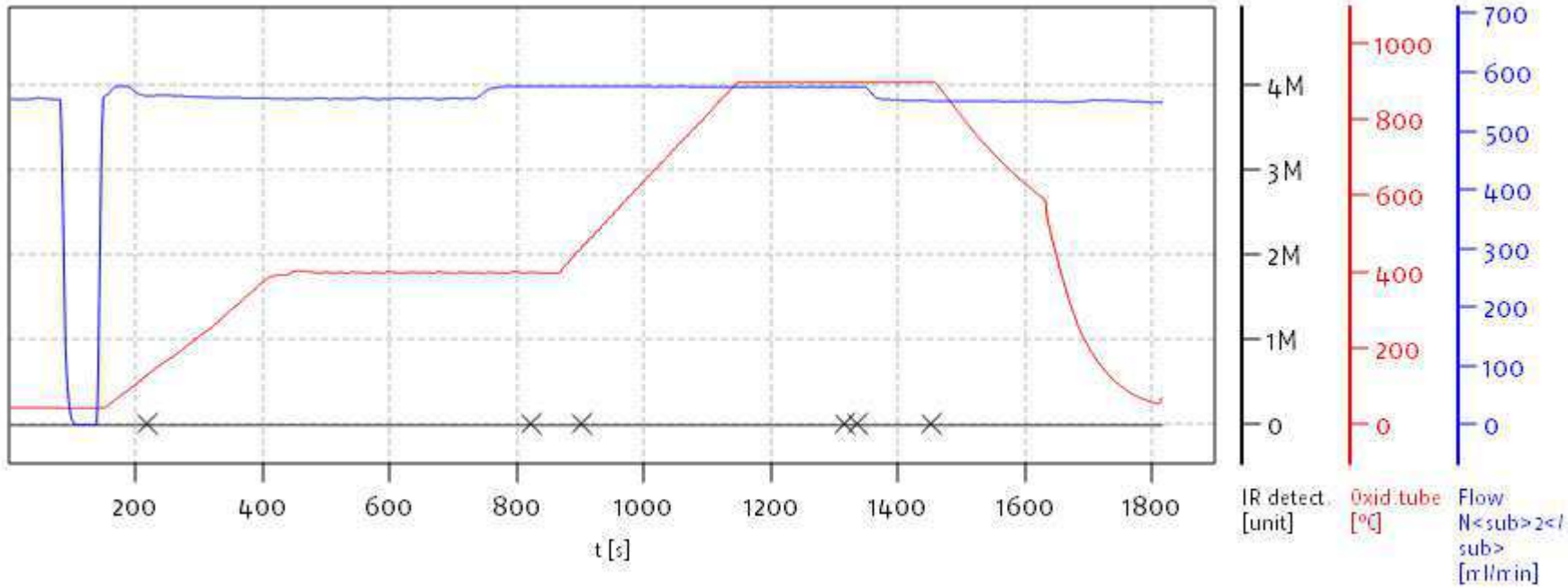
Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLA0205

SDG: 23A0313
Project: AOC5 MR Phase 1
Instrument: TOC Cube
Calibration: FD00070

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLA0205-CCV6	CubeData_01212023@1654-074	NA	01/20/23 23:05
Calibration Blank	SLA0205-CCB6	CubeData_01212023@1654-075	NA	01/20/23 23:35
Calibration Check	SLA0205-CCV7	CubeData_01212023@1654-080	NA	01/21/23 02:08
Calibration Blank	SLA0205-CCB7	CubeData_01212023@1654-081	NA	01/21/23 02:39

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
1	1	BLANK	1.00		CARBON	1/ 19/2023 9:10 AM	bl	0.000	8 503	0.000	0.000	1 177	3 269	0.000	0.000	1.0000	1.0000



Name:

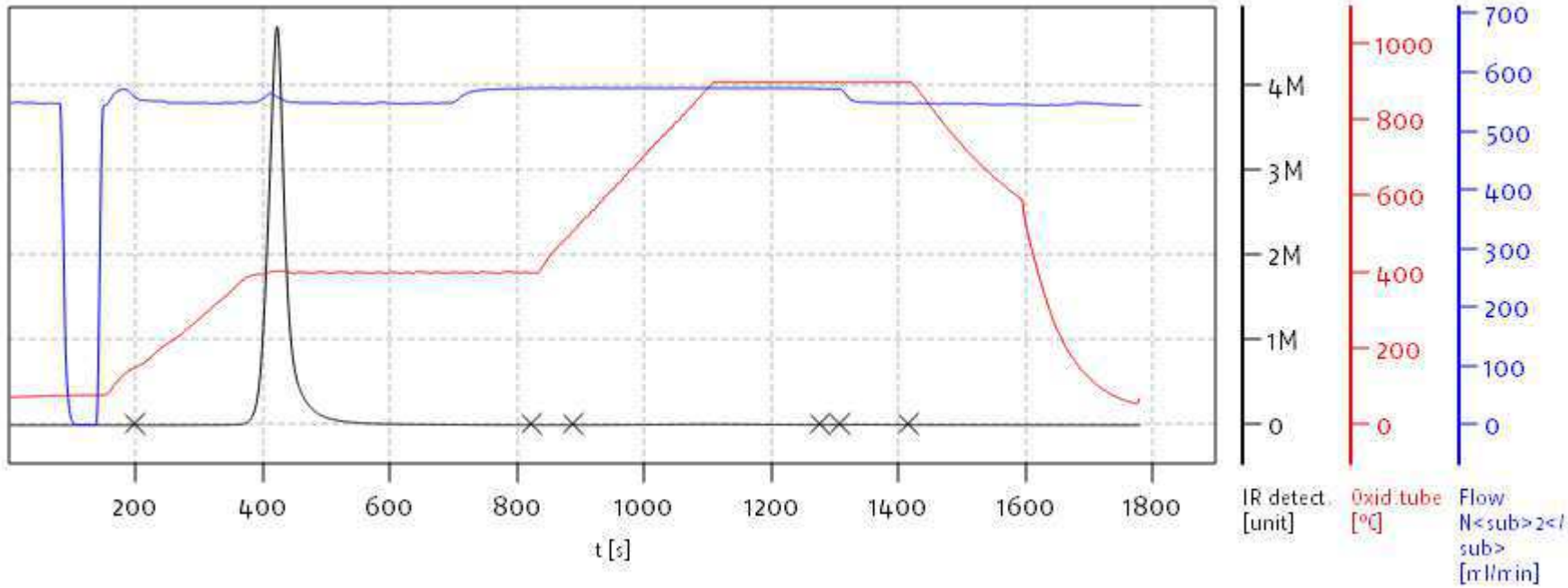
Access: soliTOC superuser

Date: Sat Jan 21 16:51:39 2023

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
2	2	Dfactor	19.80		CARBON	1/19/2023 9:40 AM	bl	44.446	5 916 884	44.928	0.000	19 656	88 275	44.446	0.483	0.9651	1.0000



Name:

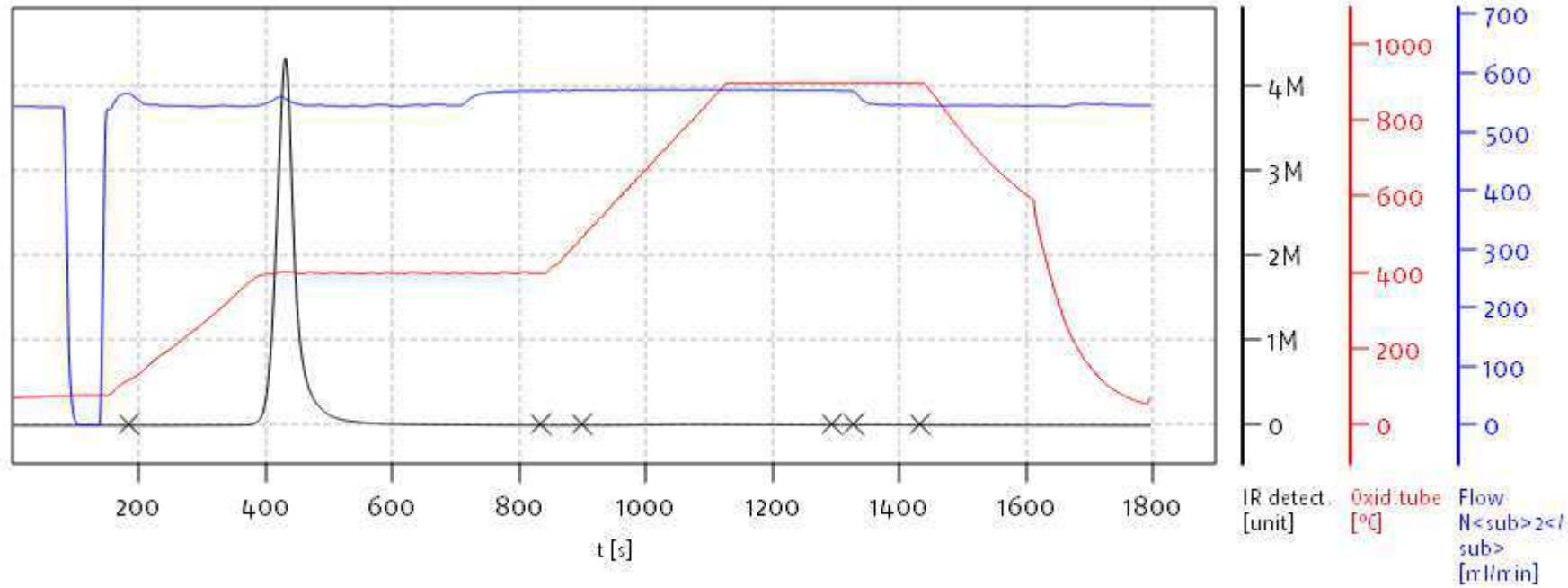
Access: soliTOC superuser

Date: Sat Jan 21 16:51:39 2023

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
3	3	Dfactor	19.40		CARBON	1/19/2023 10:10 AM	bl	44.446	5 774 811	45.050	0.000	21 148	102 314	44.446	0.605	0.9690	1.0000



Name:

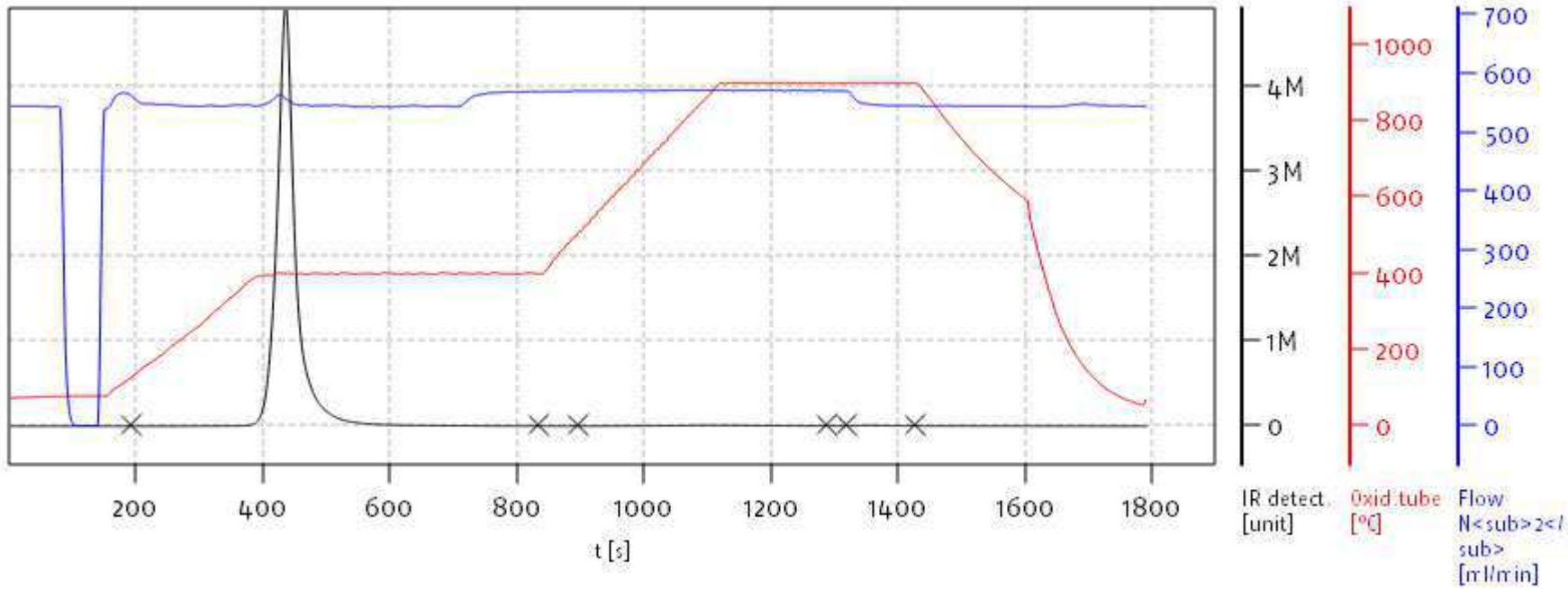
Access: soliTOC superuser

Date: Sat Jan 21 16:51:39 2023

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
4	4	SLA0205-ICV1	21.30		CARBON	1/19/2023 10:40 AM	bl	44.865	6 410 141	45.252	0.000	23 171	79 703	44.865	0.386	0.9670	1.0000



Name:

Access: soliTOC superuser

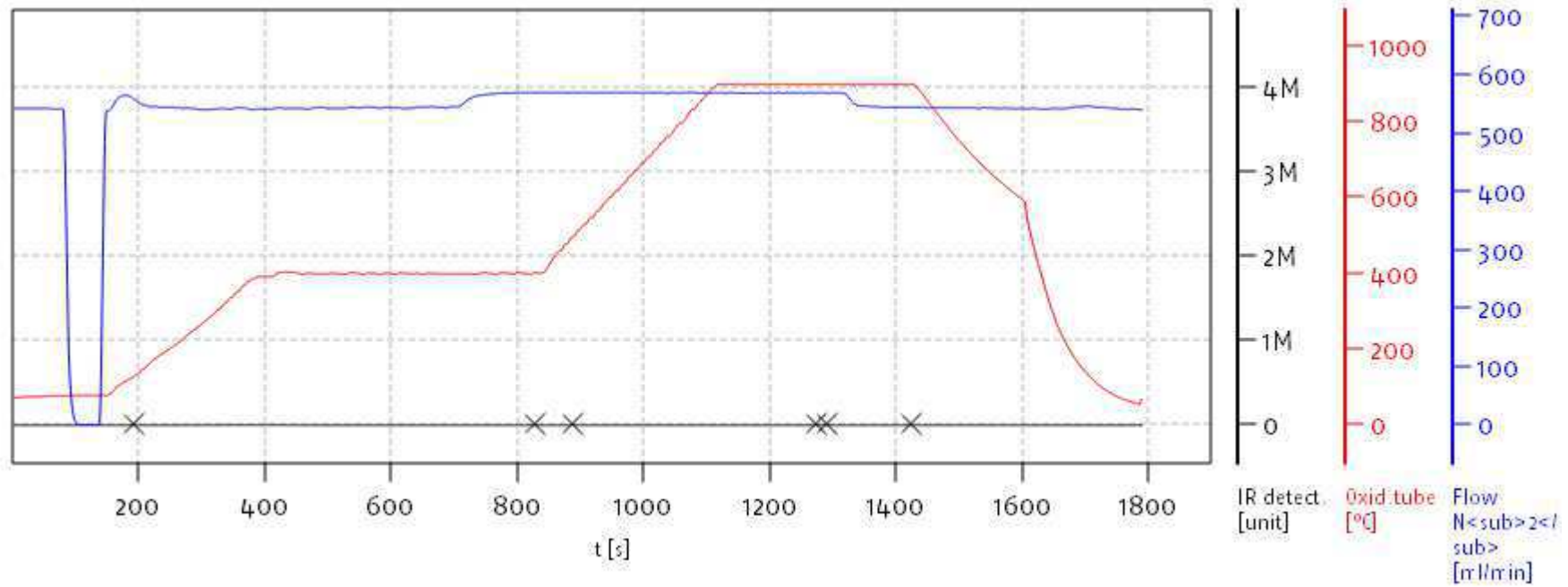
Date: Sat Jan 21 16:51:39 2023

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
5	5	SLA0205-ICB1	505.50		CARBON	1/19/2023 11:10 AM	bl,C3u,C2u	0.000	10 494	0.000	0.000	1 070	406	0.000	0.000	0.9670	1.0000



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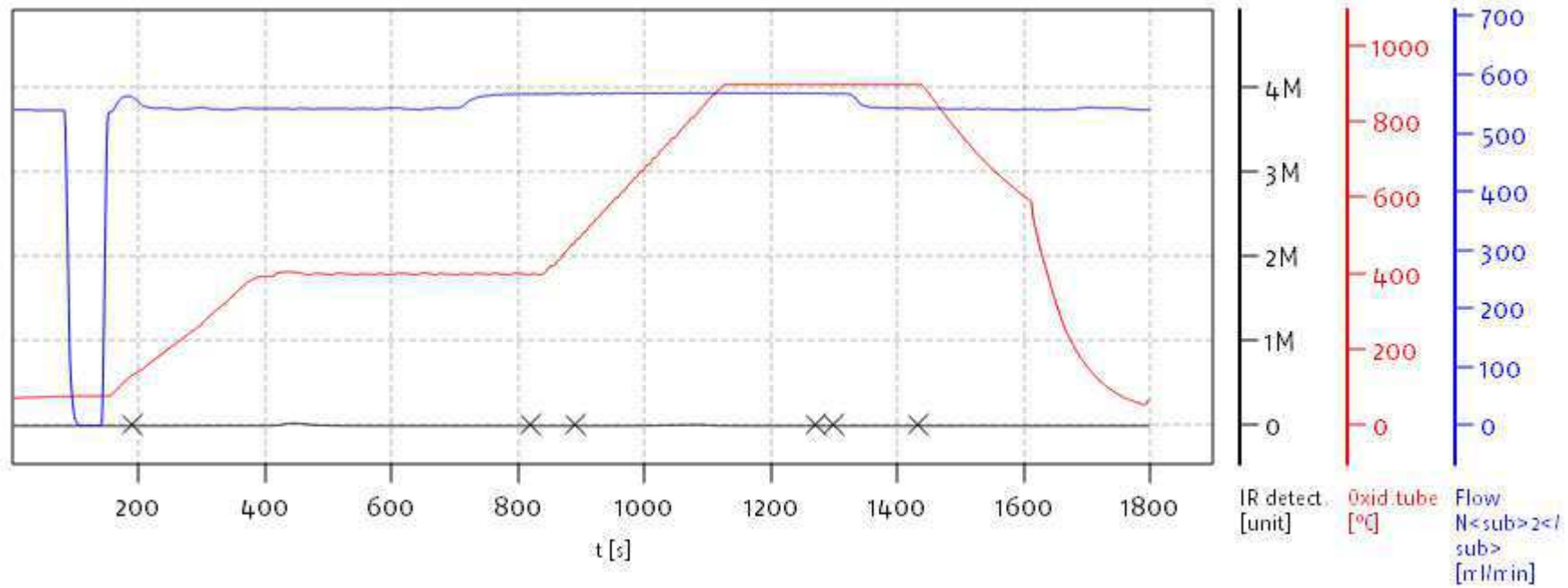
6	6	BLA0432-MRL1	541.20		CARBON	1/19/2023 11:41 AM	bl,C2u	0.012	68 604	0.015	0.000	1 135	38 739	0.012	0.003	0.9670	1.0000



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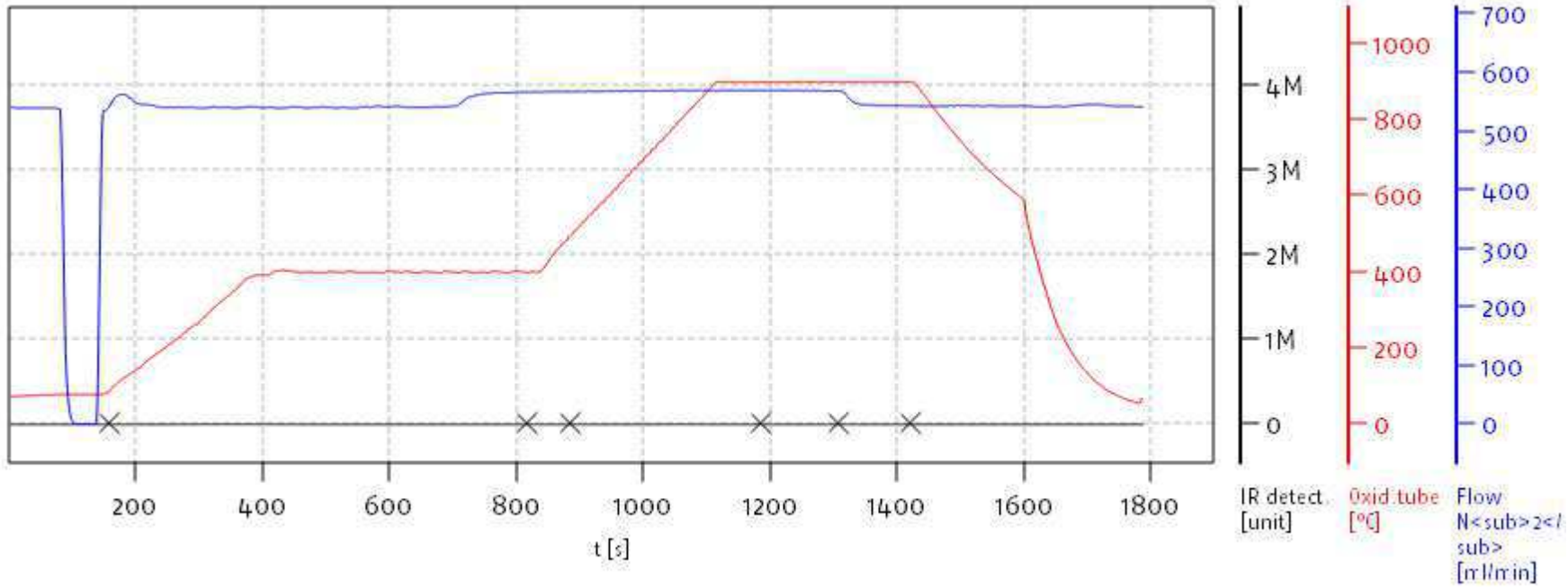
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
7	7	BLA0432-BLK1	511.60		CARBON	1/19/2023 12:11 PM	bl,C2u	0.000	11 932	0.000	0.000	660	3 847	0.000	0.000	0.9670	1.0000



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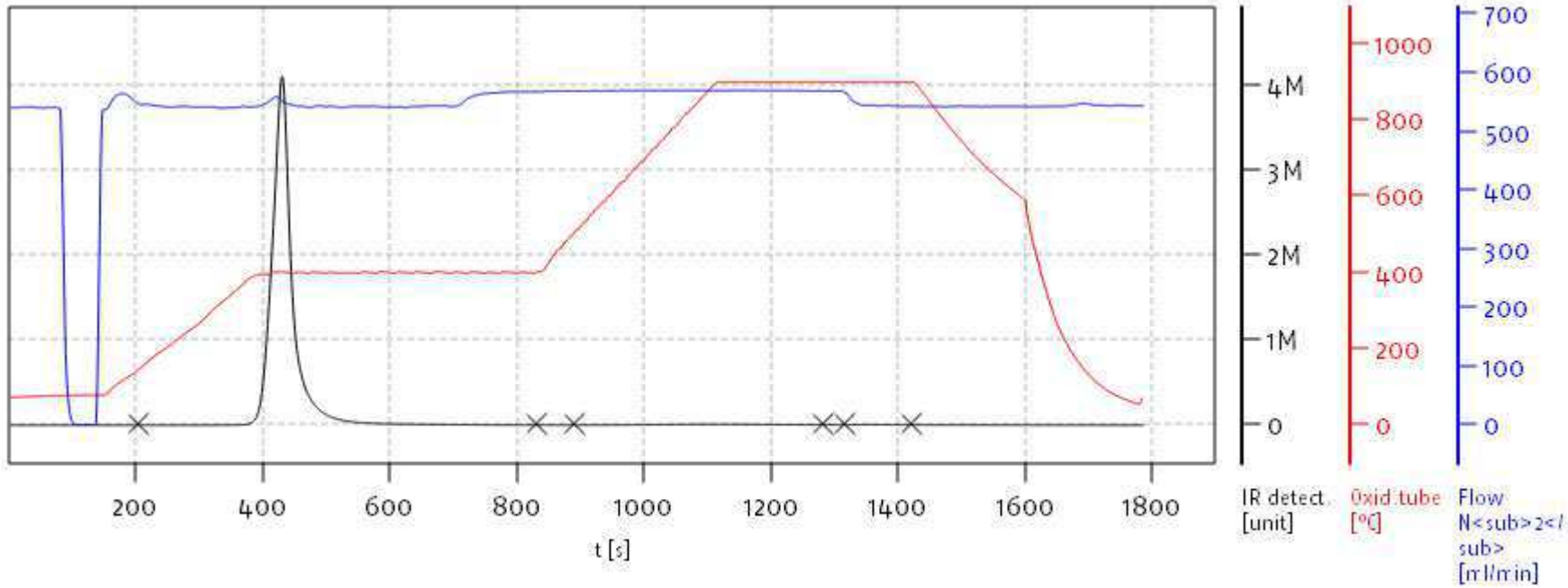
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
8	8	BLA0432-BS1	19.00		CARBON	1/19/2023 12:41 PM	bl	43.901	5 598 410	44.424	0.000	21 646	90 810	43.901	0.524	0.9670	1.0000



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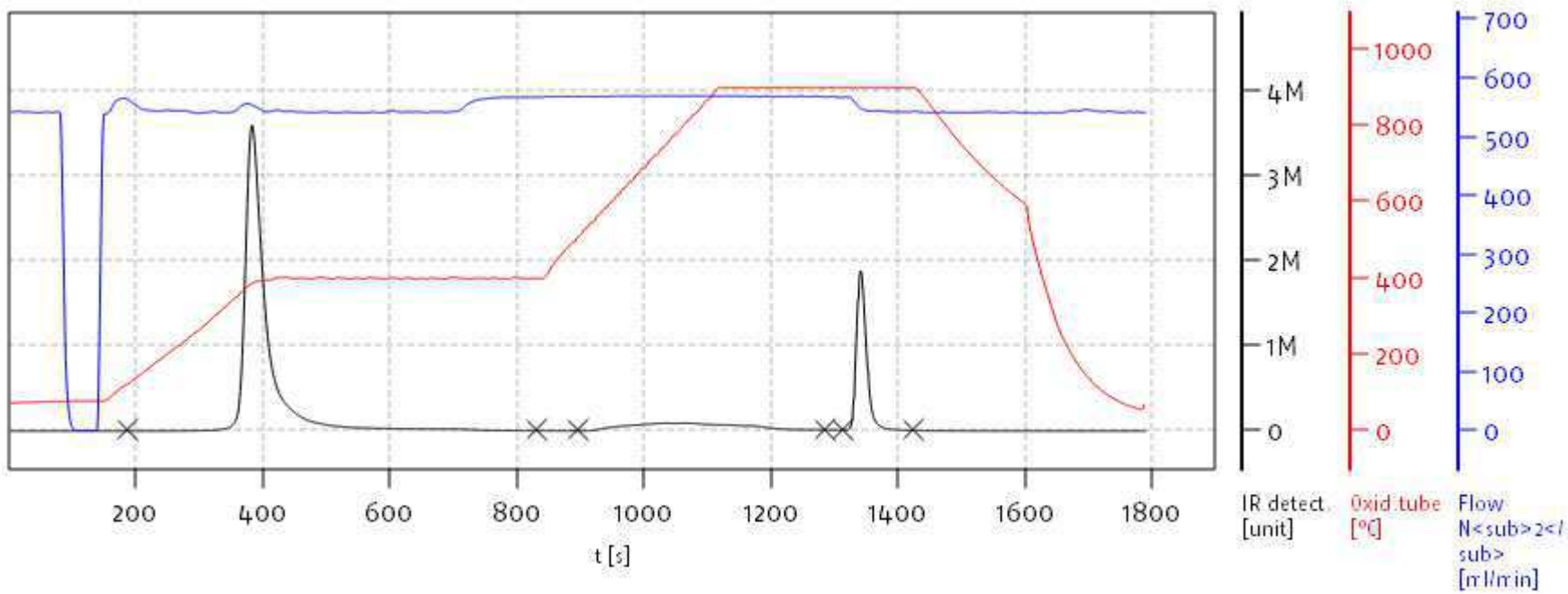
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
9	9	BLA0432-SRM1	322.20		CARBON	1/19/2023 1:11 PM	bl	2.997	5 128 997	3.356	0.626	1 329 822	773 795	2.371	0.359	0.9670	1.0000



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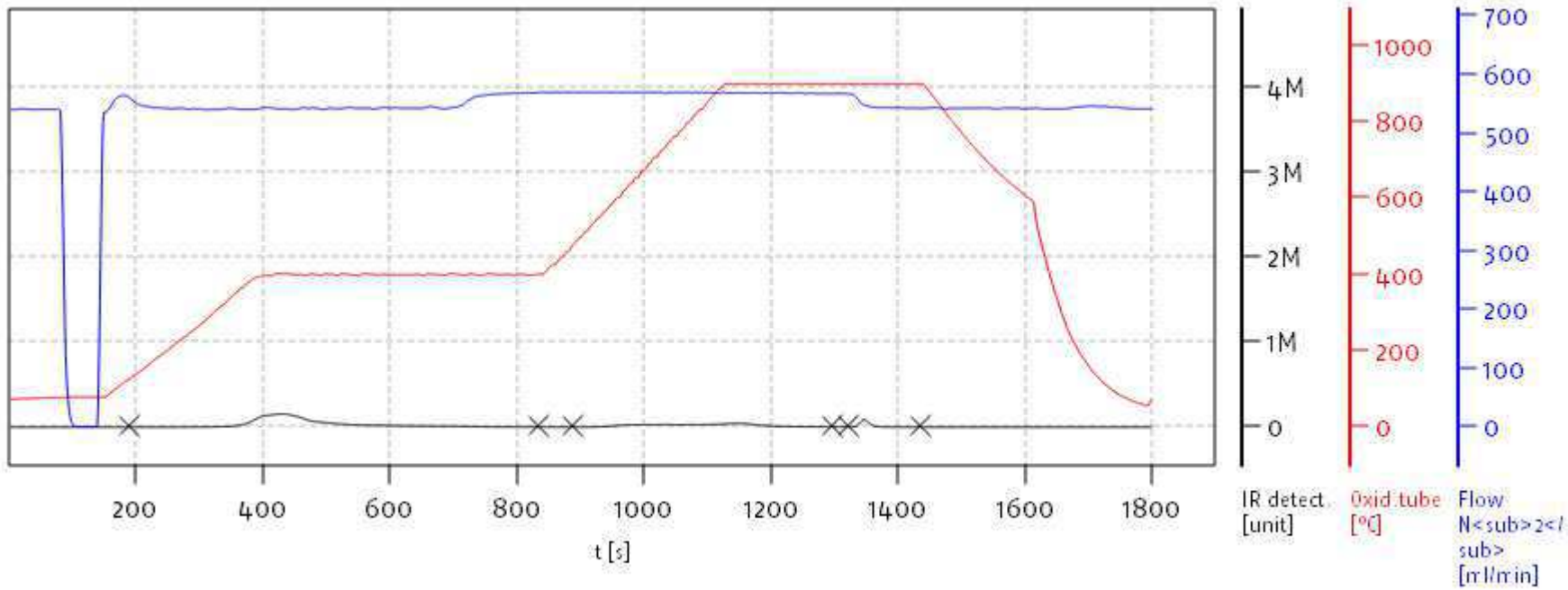
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
10	10	23A0295-07	521.70		CARBON	1/19/2023 1:42 PM	bl	0.209	720 697	0.292	0.010	59 333	305 276	0.199	0.083	0.9670	1.0000



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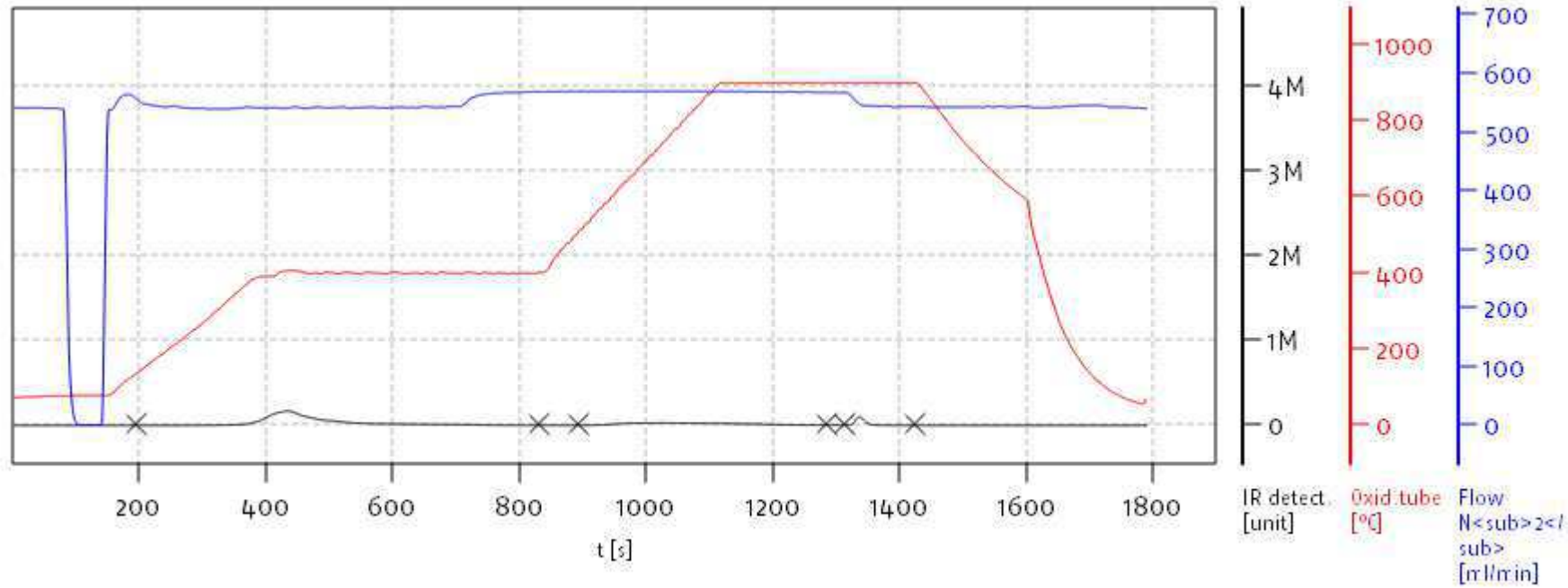
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
11	11	BLA0432-DUP1	570.40		CARBON	1/19/2023 2:12 PM	bl	0.184	683 725	0.242	0.011	67 248	243 023	0.172	0.059	0.9670	1.0000



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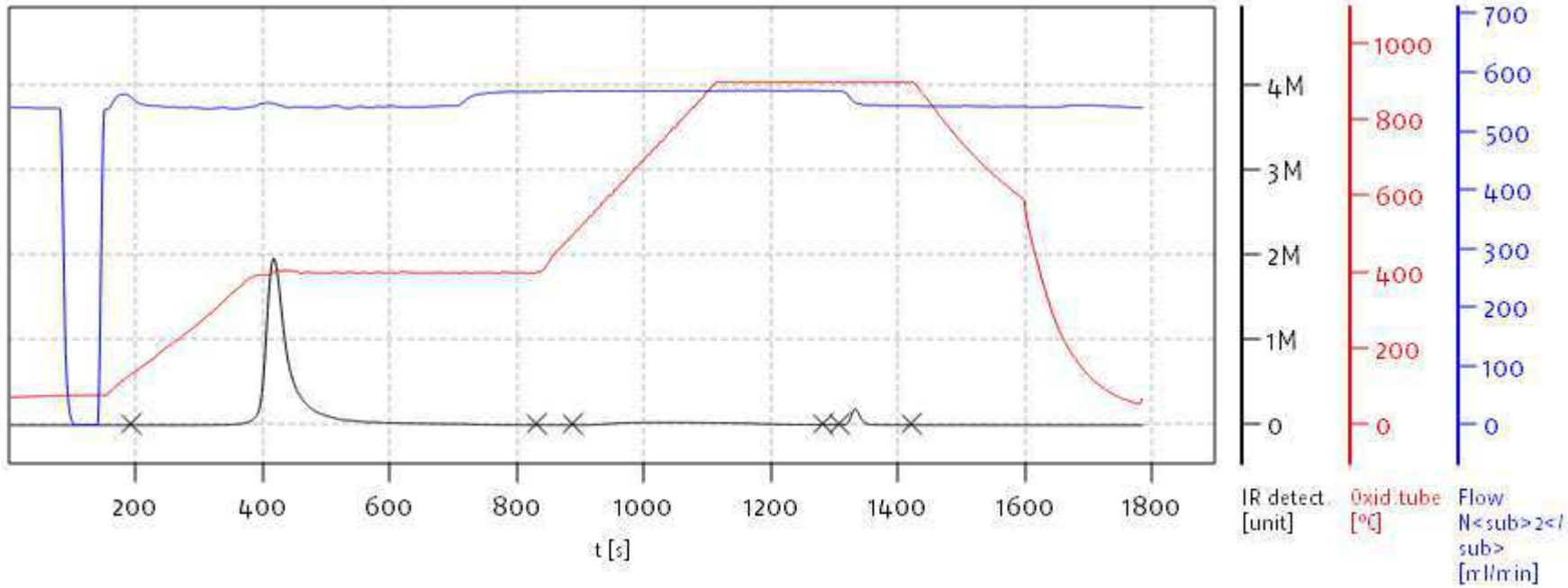
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
12	12	BLA0432-MS1	532.70	0.0085	CARBON	1/19/2023 2:42 PM	bl	0.915	3 180 921	0.989	0.029	125 225	281 561	0.886	0.074	0.9670	1.0000



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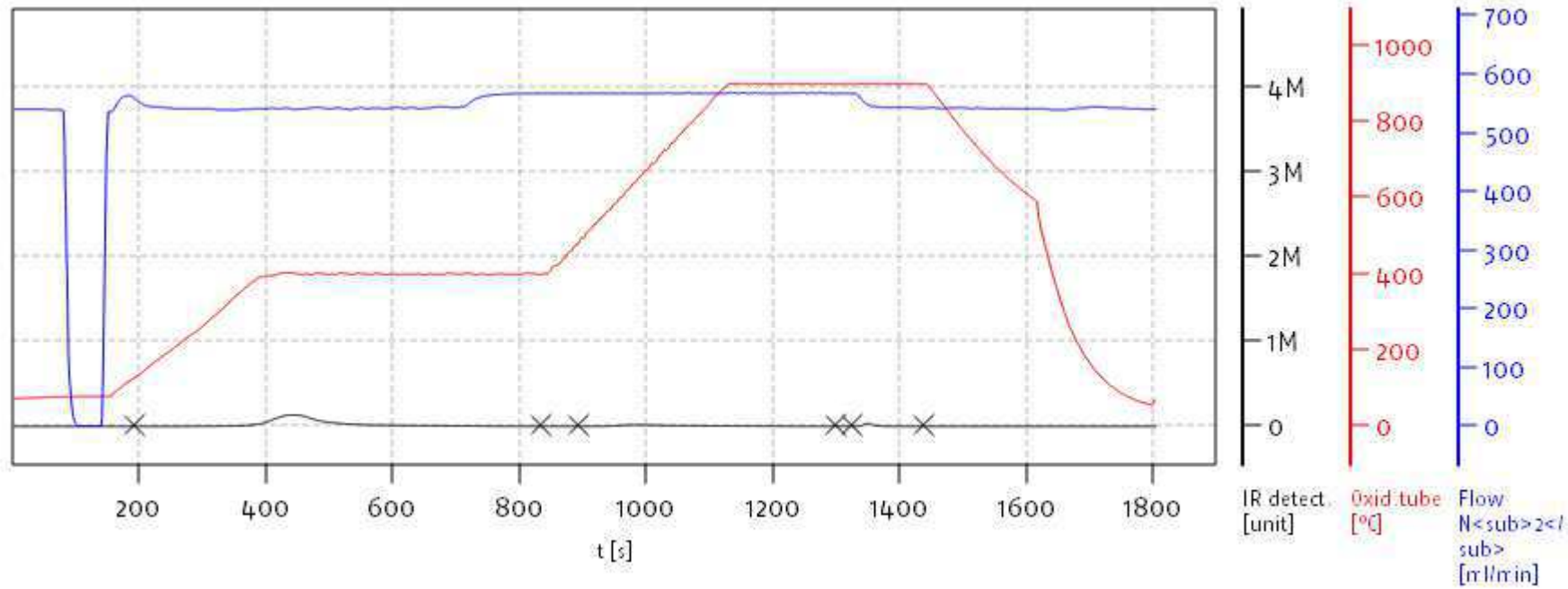
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
13	13	23A0295-08	523.20		CARBON	1/19/2023 3:13 PM	bl	0.147	539 796	0.165	0.000	25 063	89 305	0.147	0.019	0.9670	1.0000



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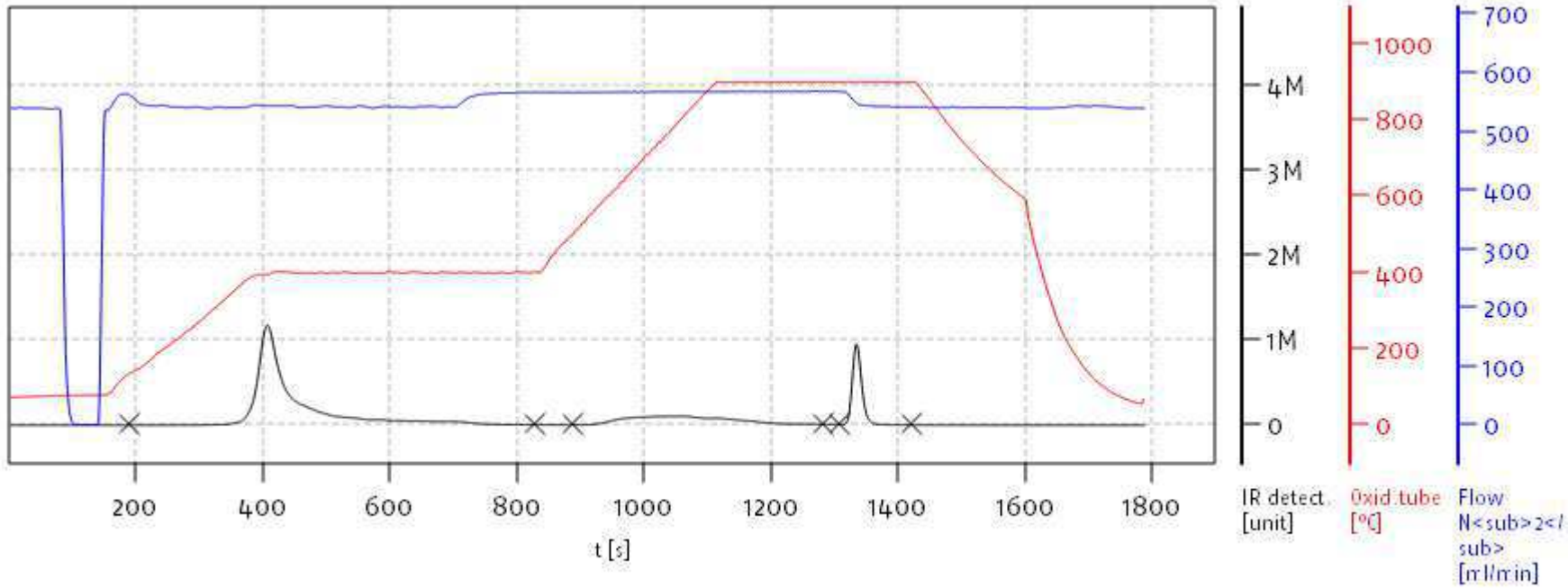
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
14	14	23A0295-09	526.90		CARBON	1/19/2023 3:43 PM	bl	0.945	2 734 699	1.179	0.176	625 795	822 252	0.769	0.234	0.9670	1.0000



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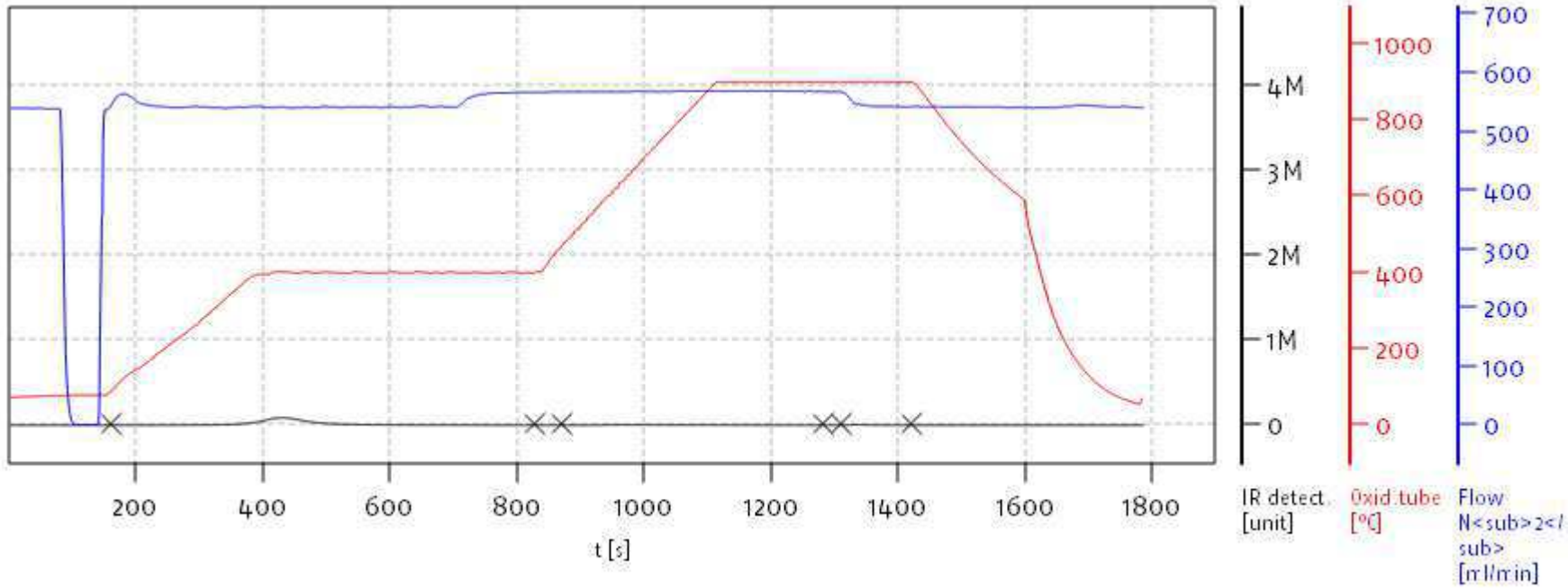
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
15	15	23A0295-10	504.00		CARBON	1/19/2023 4:13 PM	bl	0.087	320 588	0.087	0.000	6 931	26 198	0.087	0.000	0.9670	1.0000



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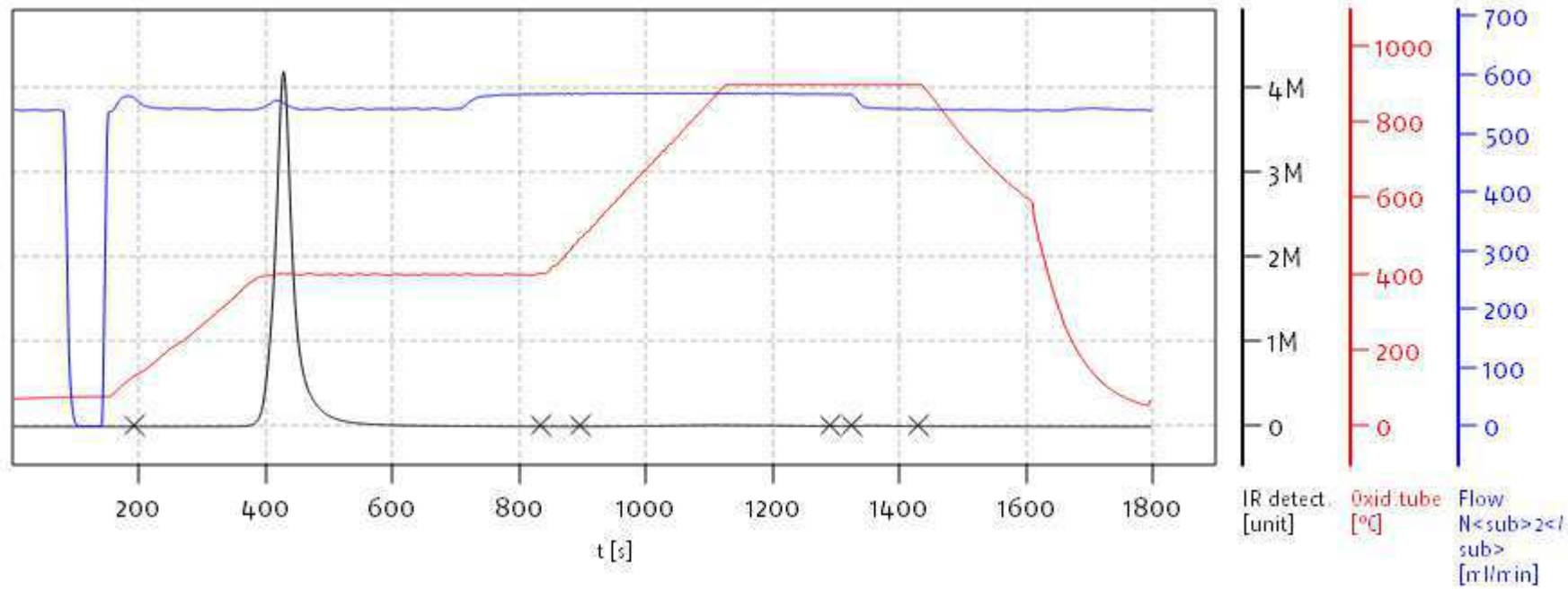
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
16	16	SLA0205-CCV1	19.30		CARBON	1/19/2023 4:43 PM	bl	43.077	5 580 179	43.932	0.000	26 403	133 172	43.077	0.855	0.9670	1.0000



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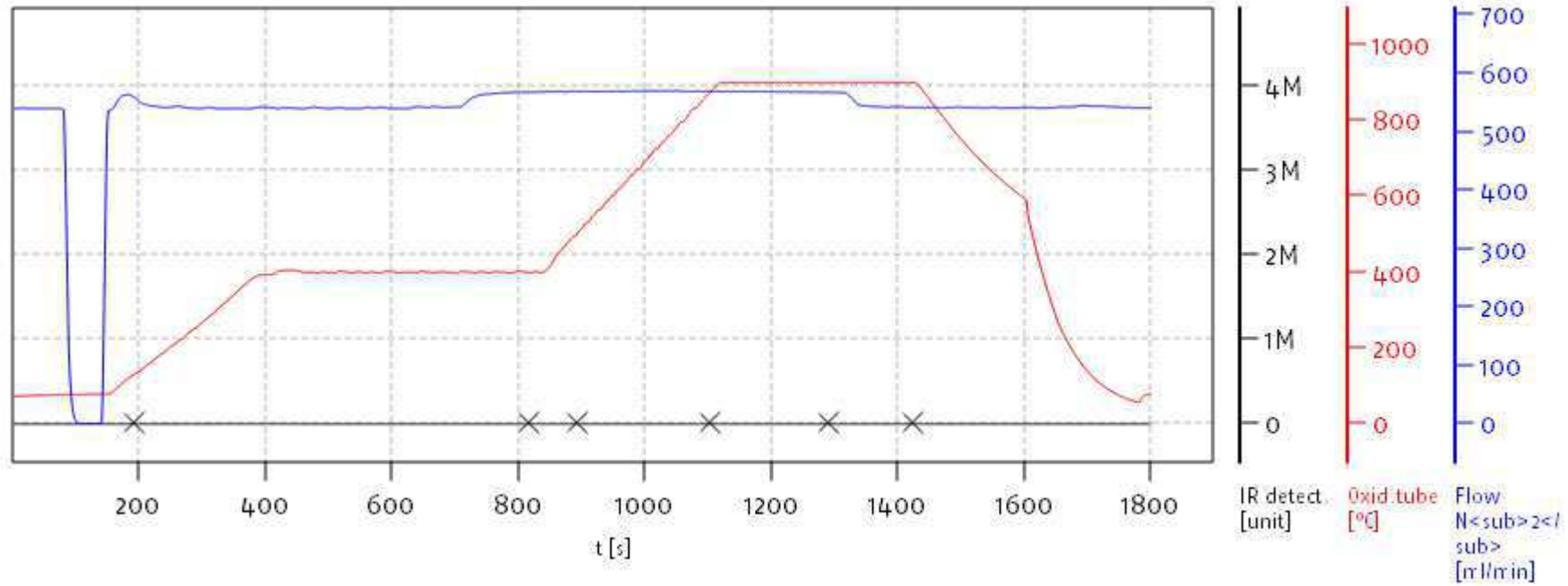
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
17	17	SLA0205-CCB1	516.30		CARBON	1/19/2023 5:14 PM	bl,C3u,C2u	0.000	6 010	0.000	0.000	714	106	0.000	0.000	0.9670	1.0000



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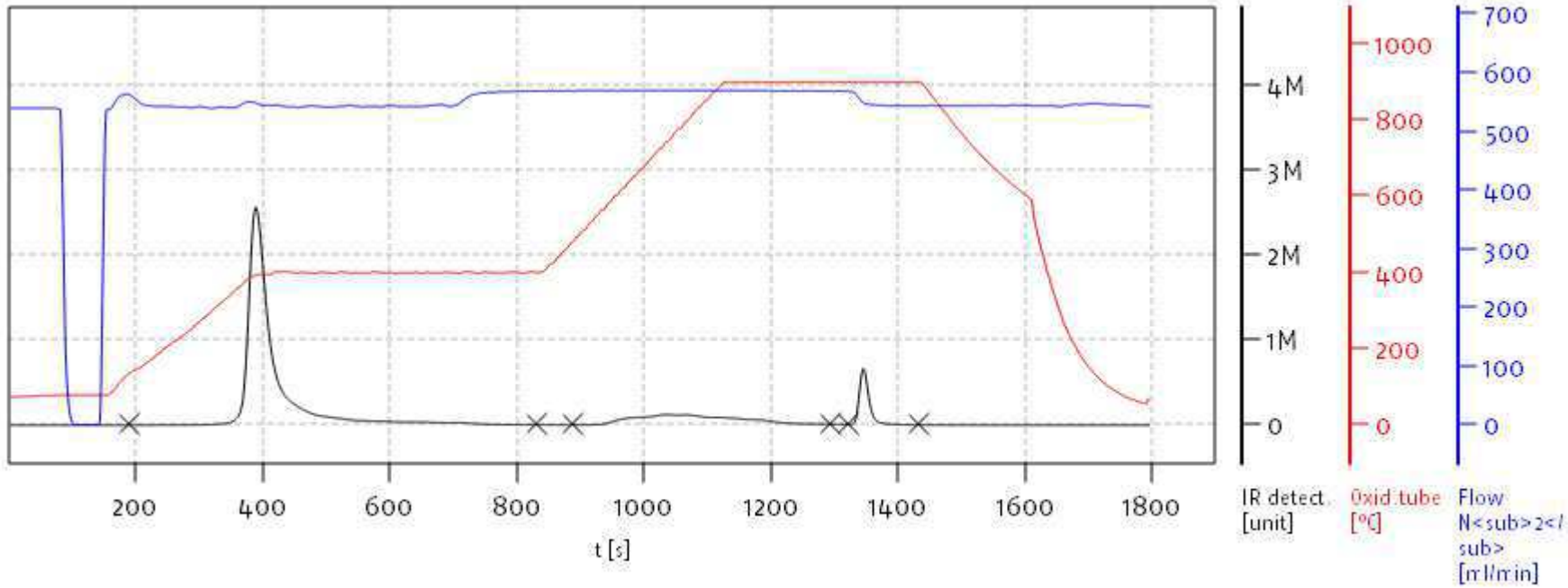
18	18	23A0313-01	523.40		CARBON	1/19/2023 5:44 PM	bl	1.318	4 195 796	1.589	0.126	451 185	941 760	1.192	0.271	0.9670	1.0000



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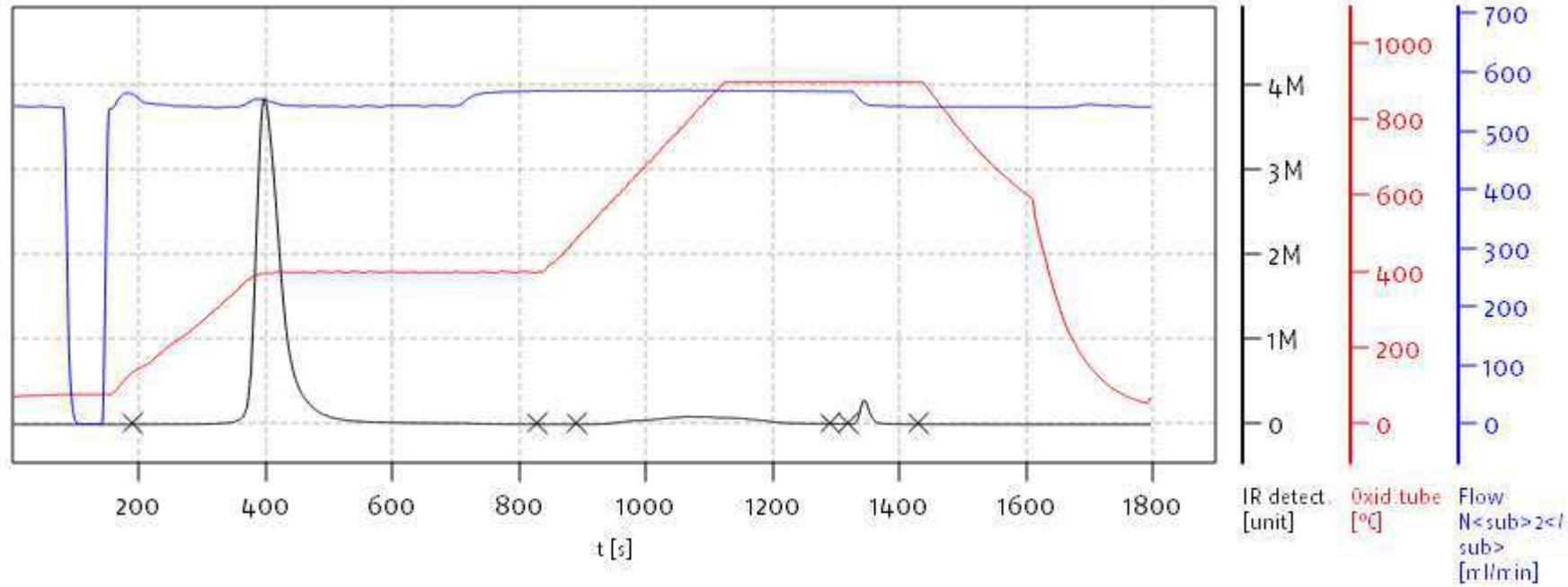
19	19	23A0313-02	687.70		CARBON	1/19/2023 6:14 PM	bl	1.494	6 714 770	1.638	0.038	195 743	664 242	1.456	0.144	0.9670	1.0000



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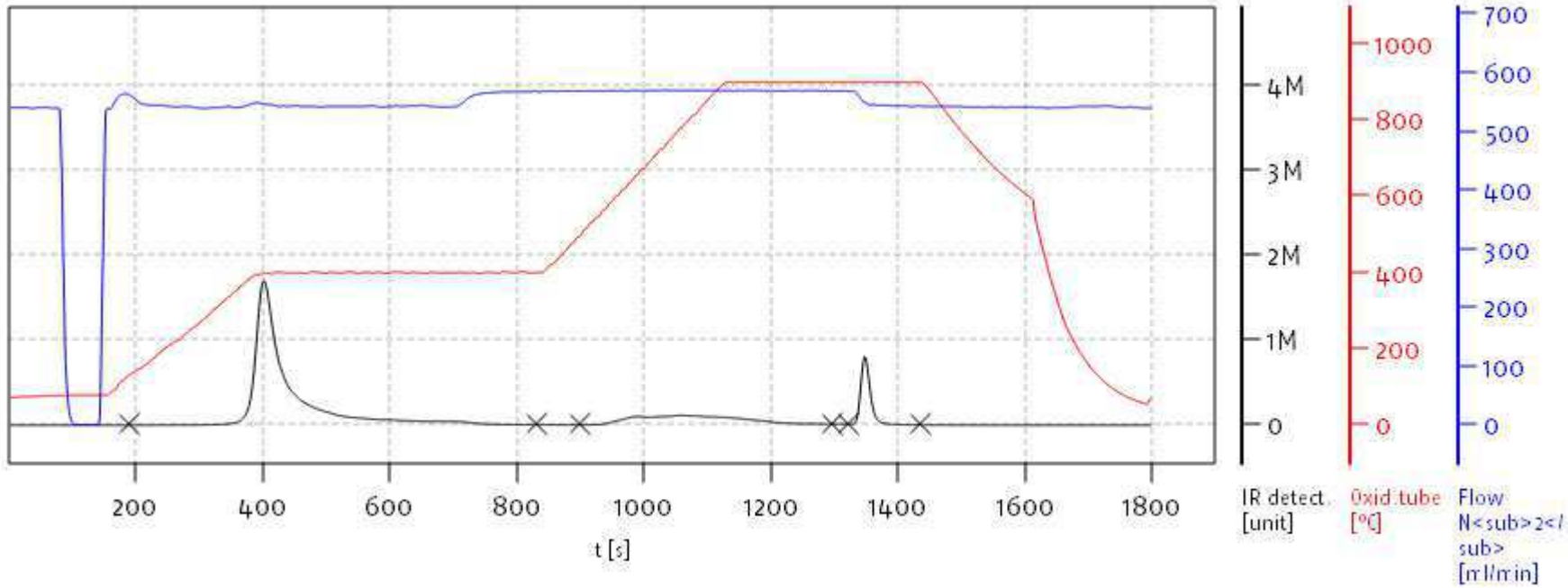
20	20	23A0313-03	505.80		CARBON	1/19/2023 6:45 PM	bl	1.213	3 592 386	1.486	0.158	541 326	918 410	1.055	0.273	0.9670	1.0000



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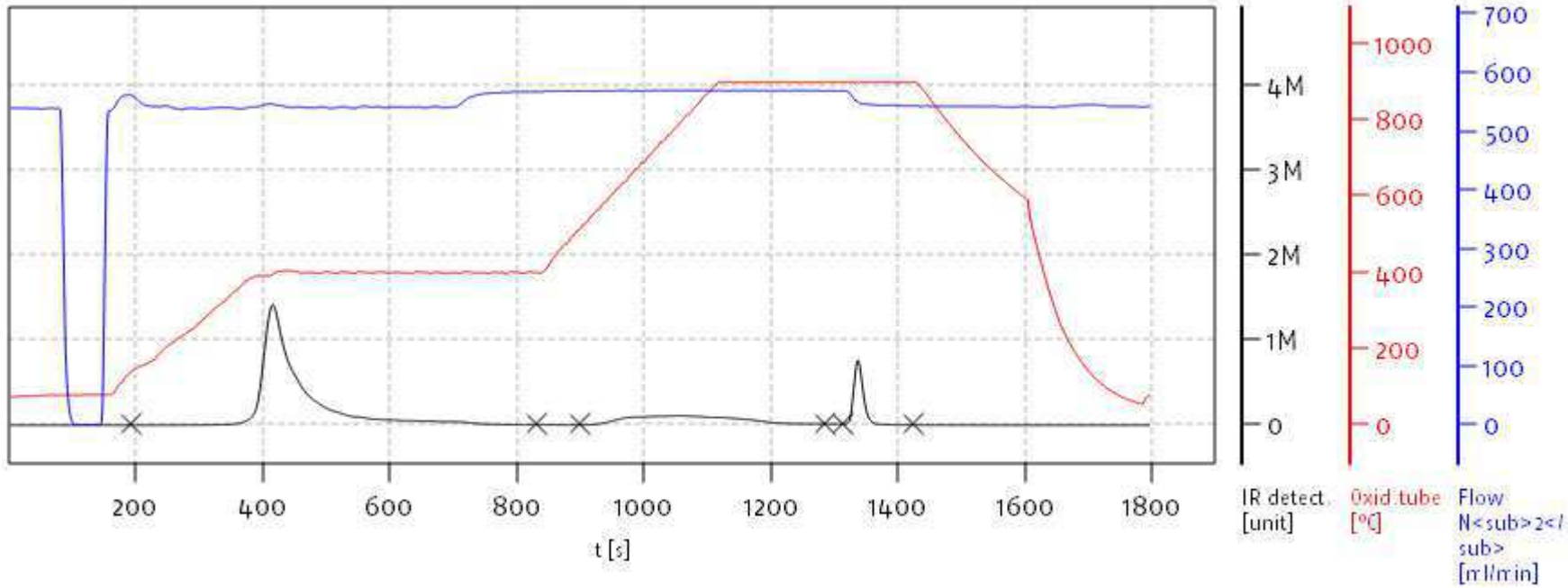
21	21	23A0313-04	601.50		CARBON	1/19/2023 7:15 PM	bl	0.984	3 487 555	1.210	0.123	504 714	902 861	0.861	0.226	0.9670	1.0000



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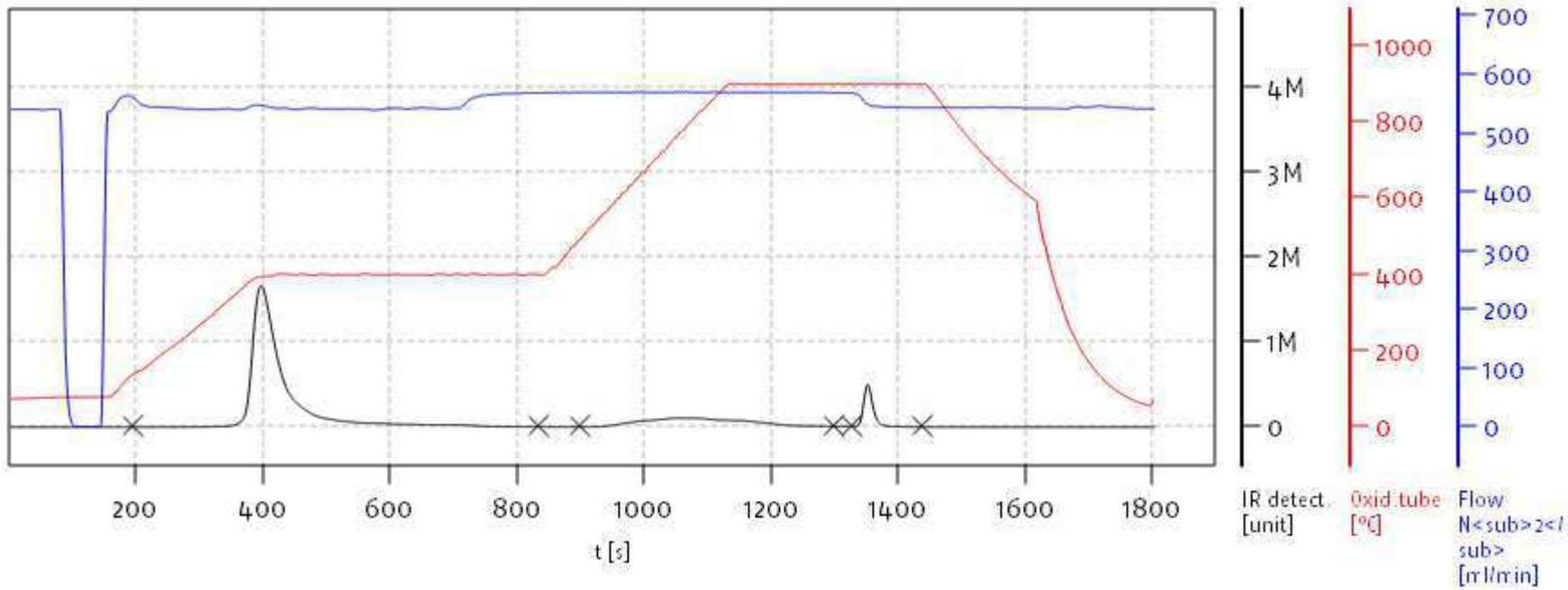
22	22	23A0313-05	524.40		CARBON	1/19/2023 7:46 PM	bl	1.067	3 448 017	1.298	0.090	332 338	807 638	0.977	0.231	0.9670	1.0000



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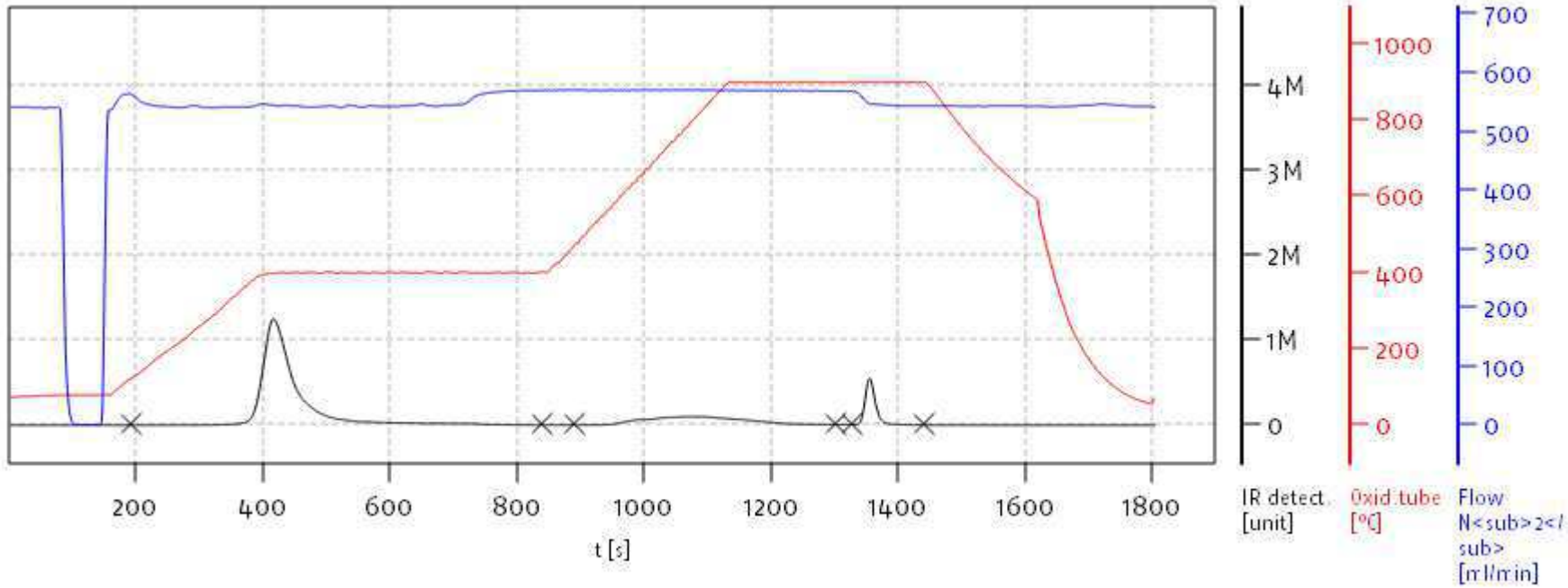
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
23	23	23A0313-06	524.50		CARBON	1/19/2023 8:16 PM	bl	0.897	2 787 777	1.102	0.109	394 450	722 170	0.788	0.205	0.9670	1.0000



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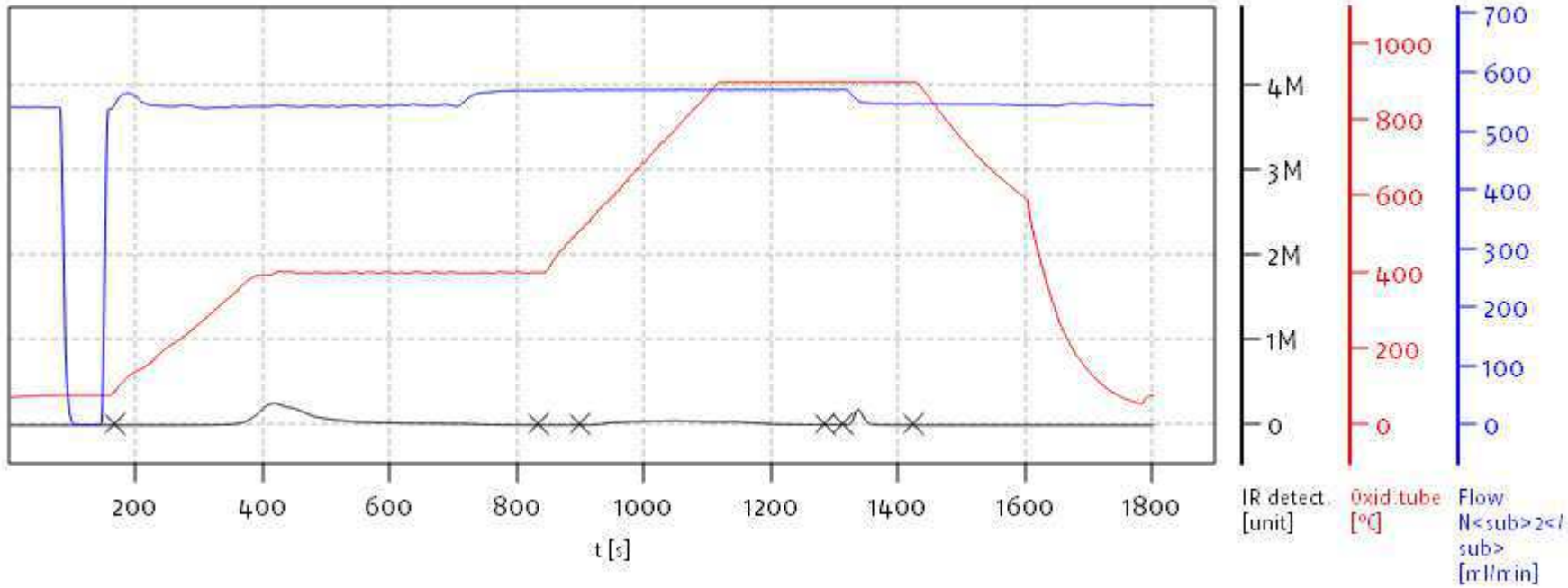
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
24	24	23A0313-07	542.90		CARBON	1/19/2023 8:46 PM	bl	0.322	1 093 451	0.435	0.028	123 252	422 253	0.294	0.113	0.9670	1.0000



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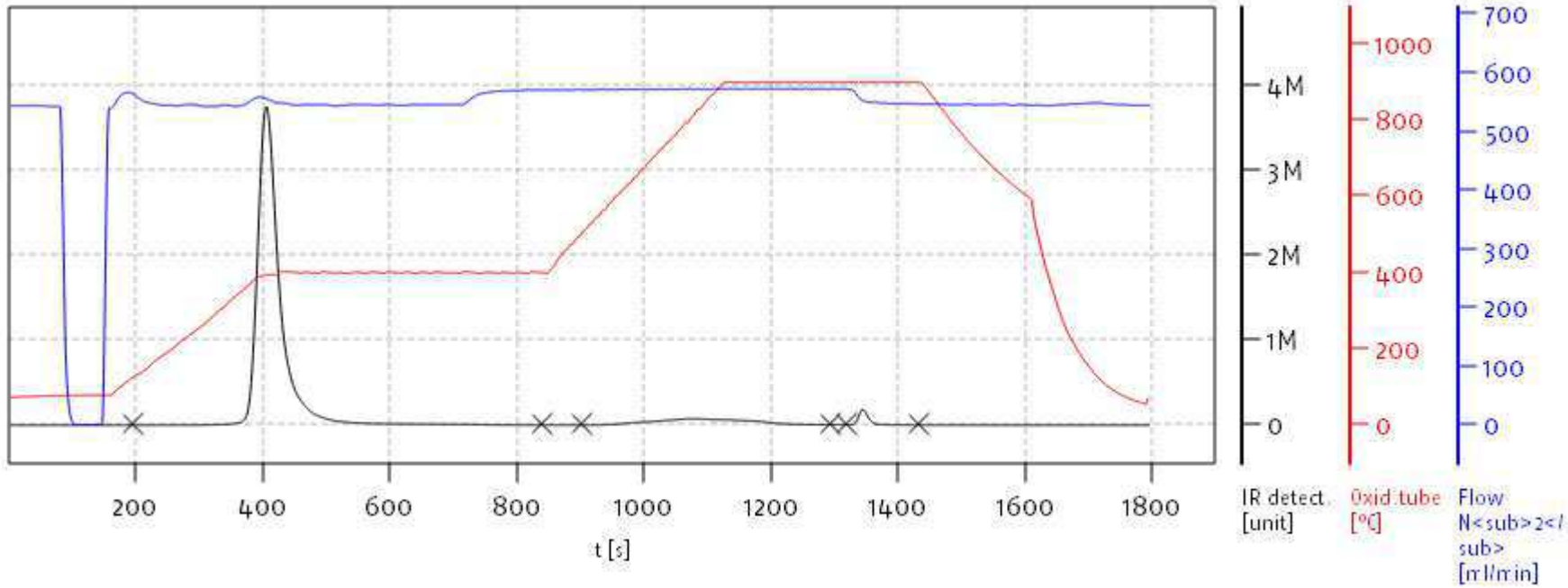
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
25	25	23A0313-08	539.10		CARBON	1/19/2023 9:17 PM	bl	1.601	5 687 279	1.743	0.029	128 106	521 229	1.572	0.142	0.9670	1.0000



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Access: soliTOC superuser

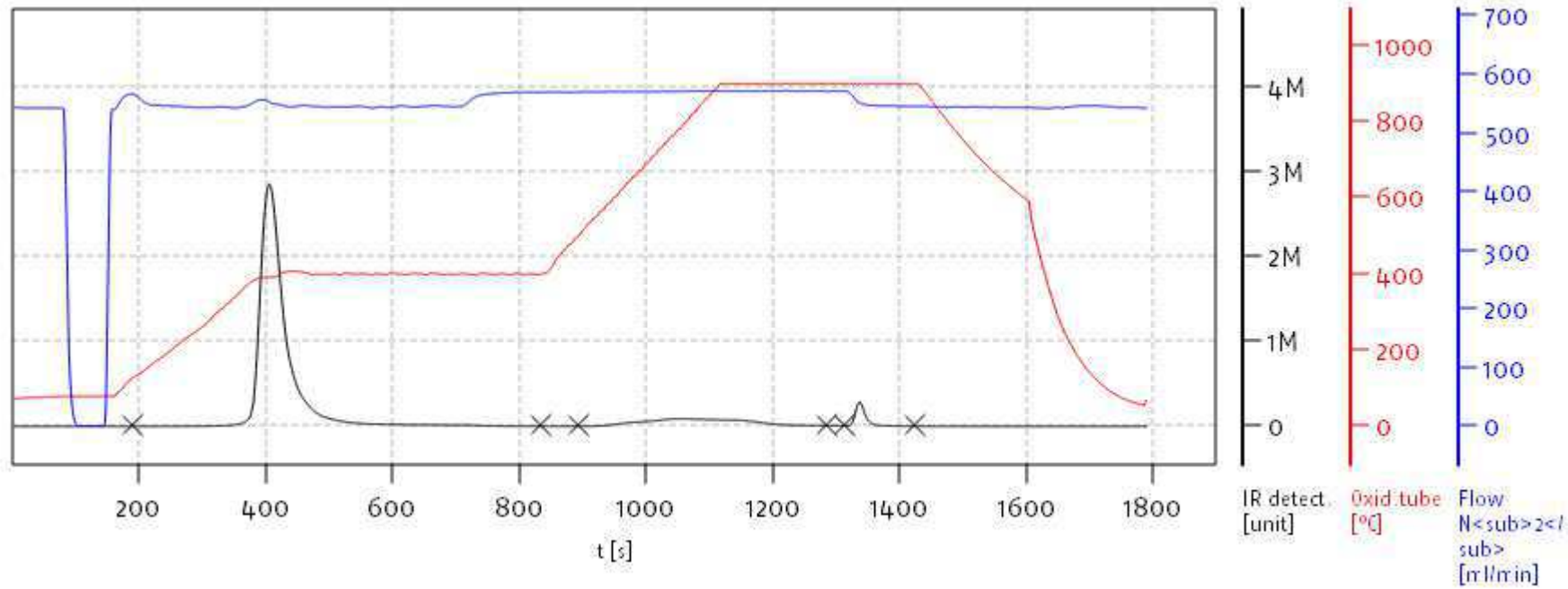
Date: Sat Jan 21 16:51:39 2023

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
26	26	23A0313-09	546.90		CARBON	1/19/2023 9:47 PM	bl	1.390	4 919 841	1.575	0.051	205 408	680 017	1.339	0.185	0.9670	1.0000



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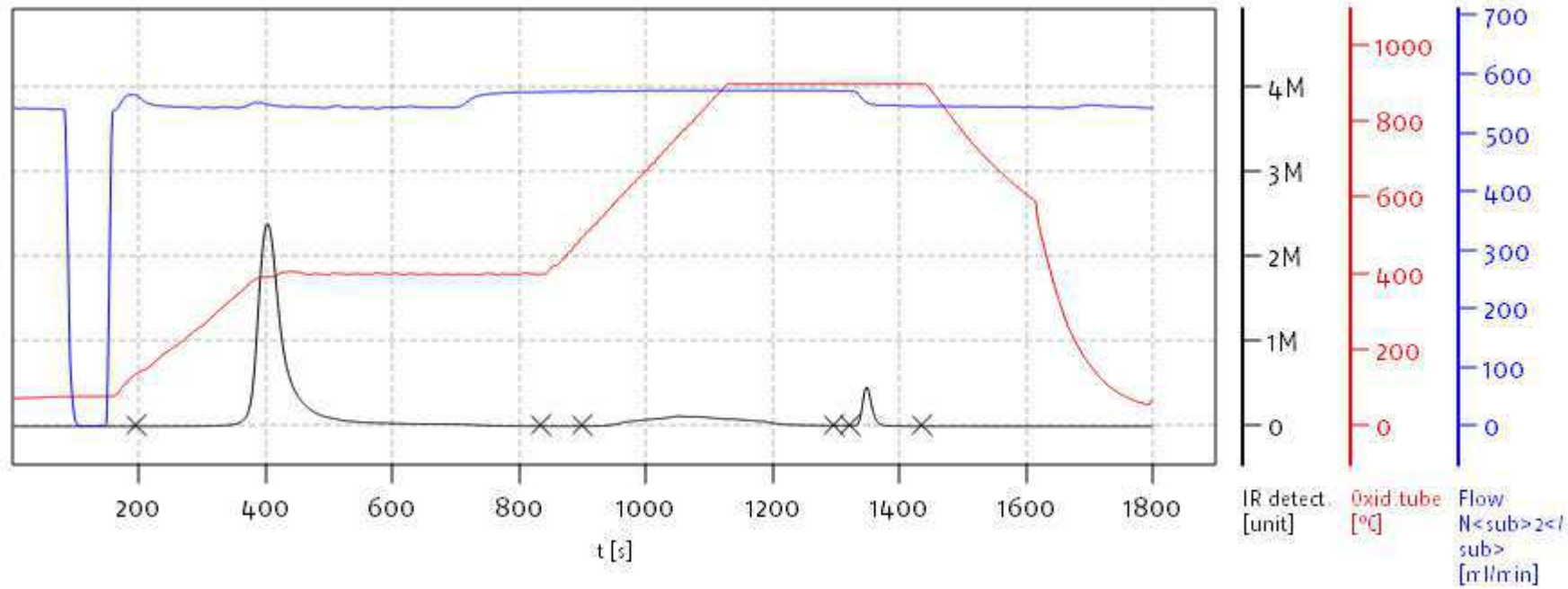
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
27	27	23A0313-10	532.30		CARBON	1/19/2023 10:17 PM	bl	1.309	4 390 911	1.551	0.082	307 623	859 016	1.227	0.242	0.9670	1.0000



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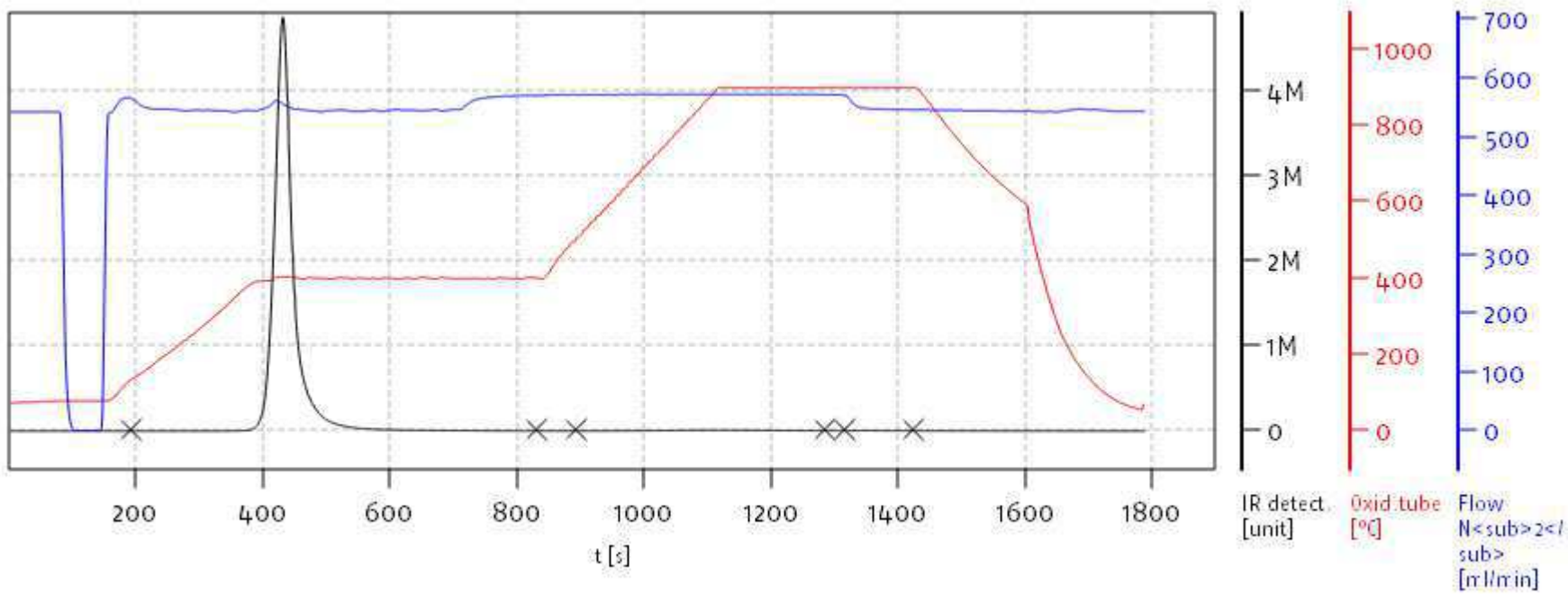
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
28	28	SLA0205-CCV2	20.60		CARBON	1/19/2023 10:48 PM	bl	44.782	6 188 858	45.224	0.000	16 045	85 409	44.782	0.442	0.9670	1.0000



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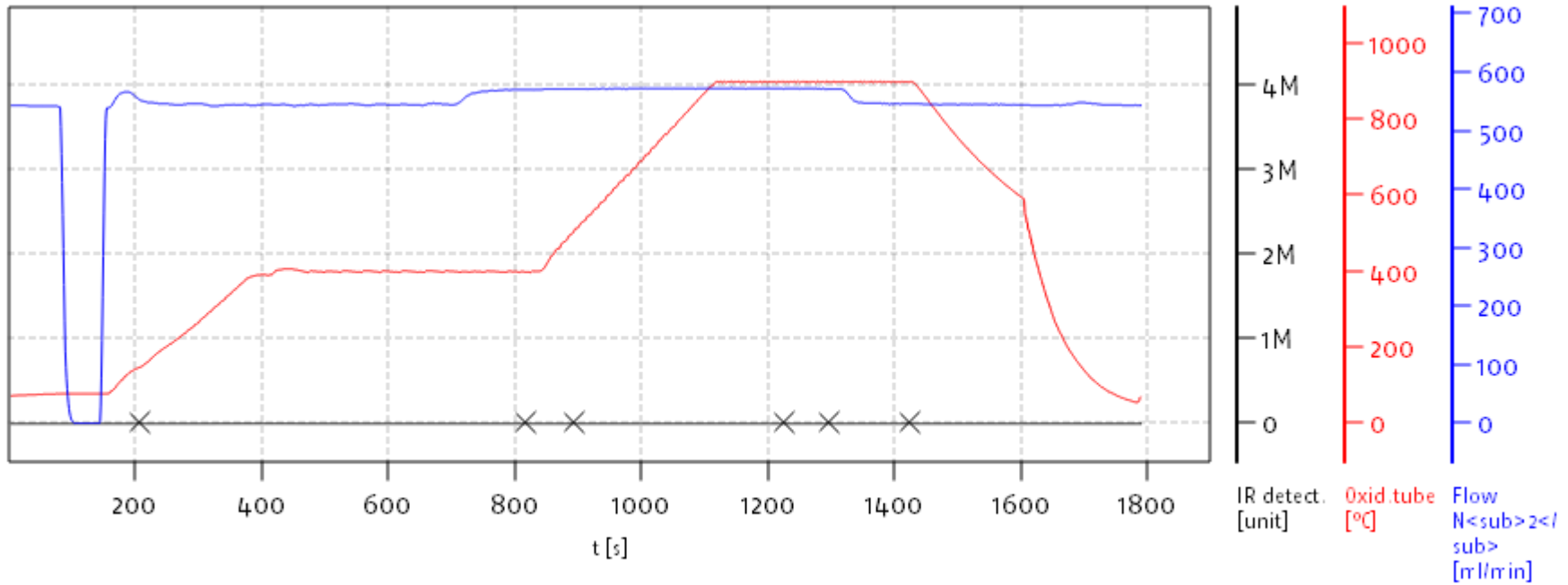
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
29	29	SLA0205-CCB2	521.50		CARBON	1/19/2023 11:18 PM	bl,C3u,C2u	0.000	6 690	0.000	0.000	506	445	0.000	0.000	0.9670	1.0000



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soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

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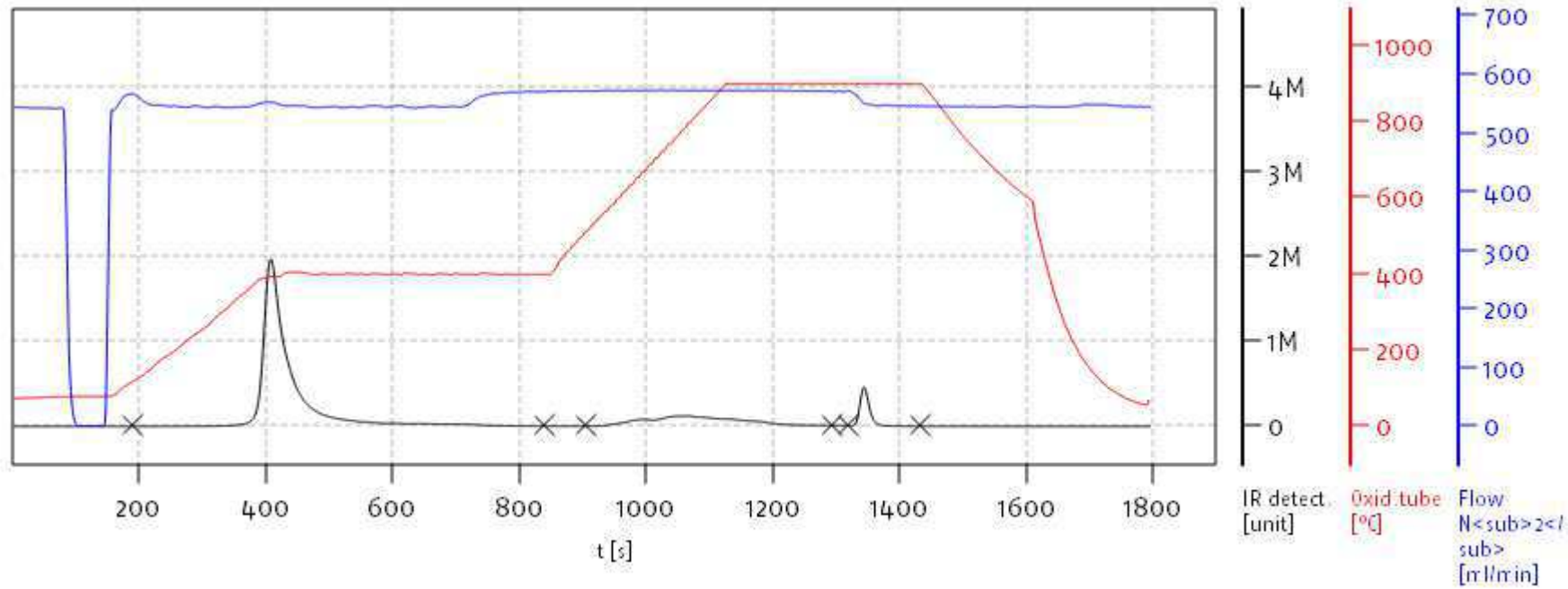
Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
30	30	23A0313-11	516.90		CARBON	1/19/2023 11:48 PM	bl	1.084	3 481 146	1.330	0.084	305 883	847 031	1.000	0.246	0.9670	1.0000



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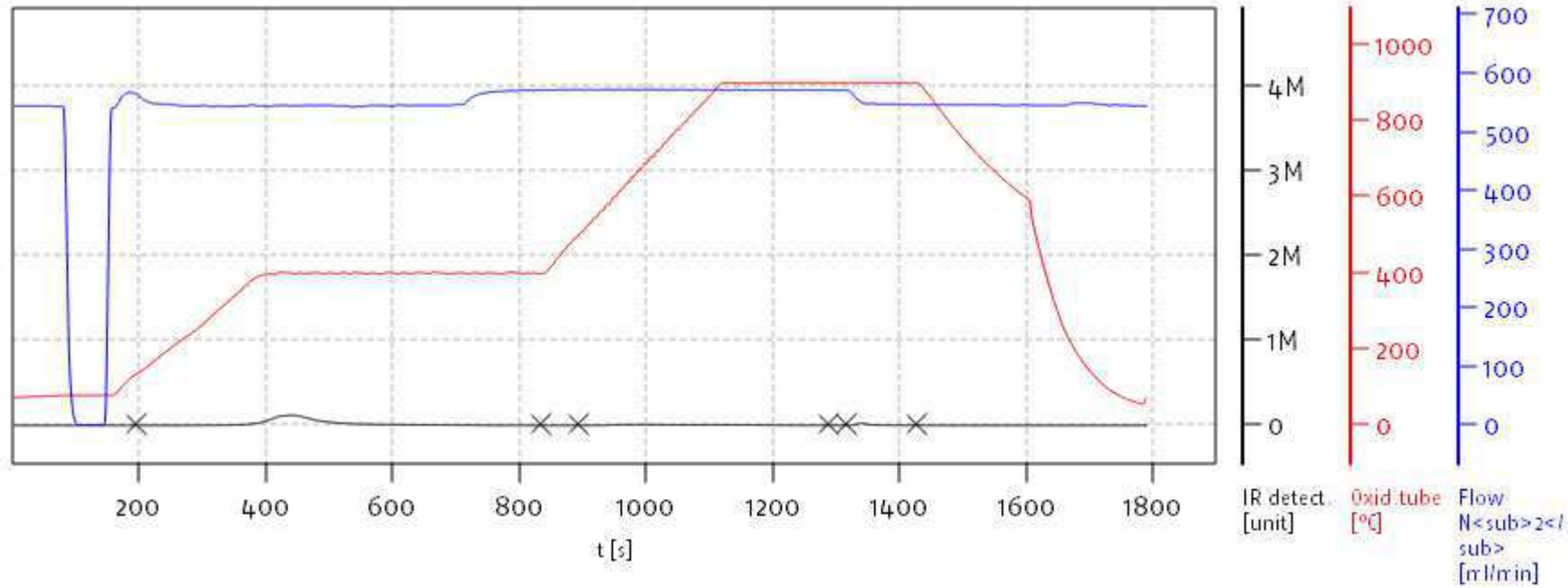
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
31	31	23A0313-12	561.90		CARBON	1/20/2023 12:18 AM	bl	0.117	466 322	0.130	0.000	23 770	73 008	0.117	0.013	0.9670	1.0000



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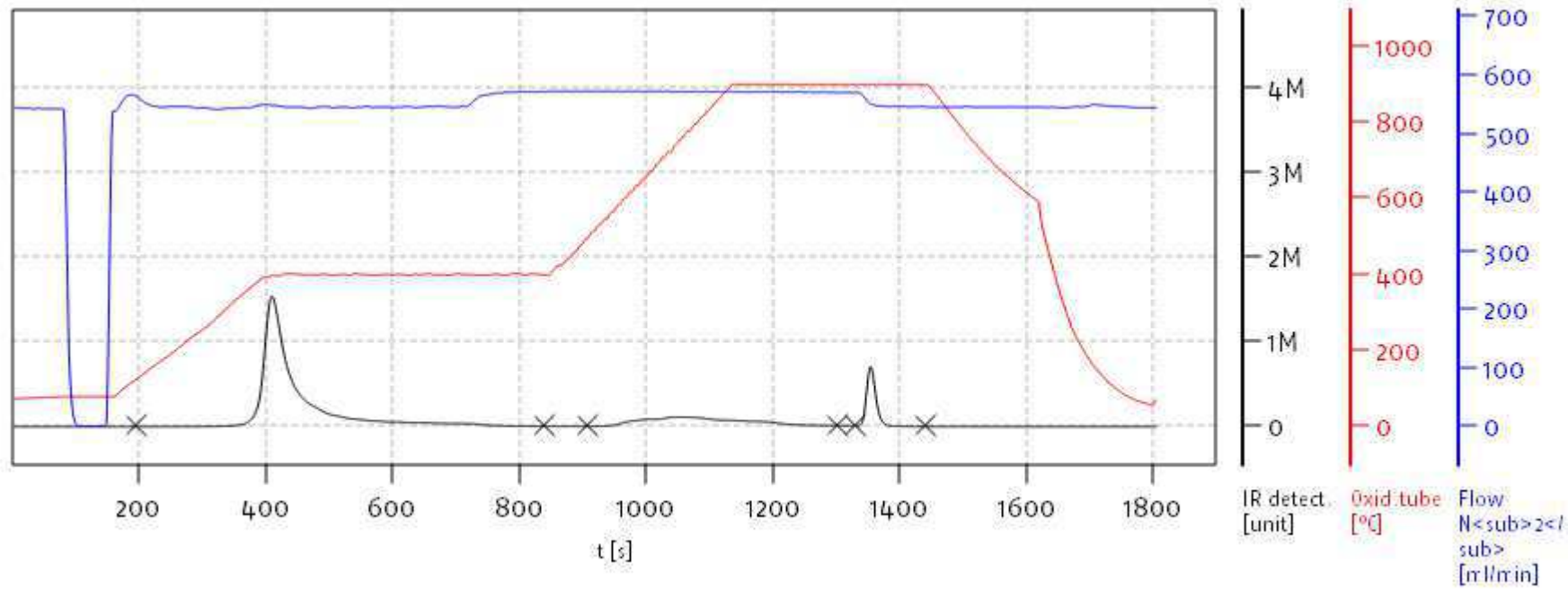
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
32	32	23A0313-13	525.30		CARBON	1/20/2023 12:49 AM	bl	1.057	3 286 960	1.297	0.128	459 798	840 659	0.929	0.240	0.9670	1.0000



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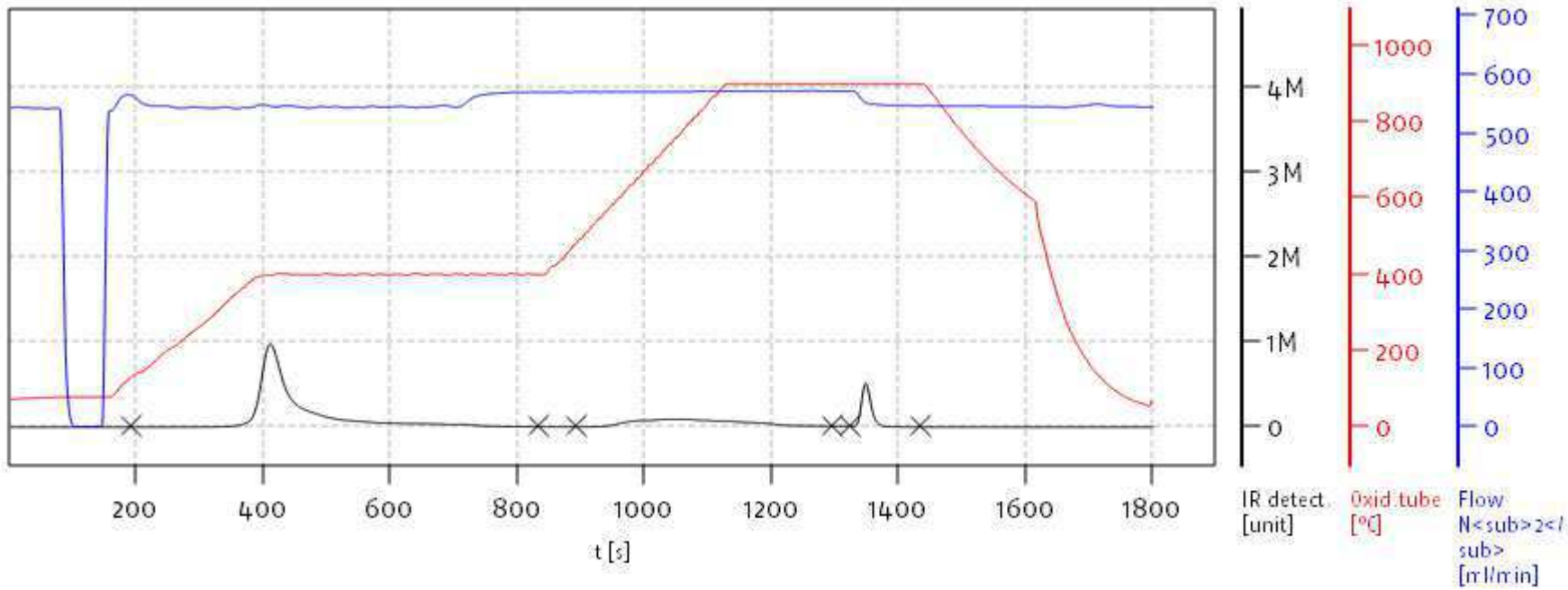
Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
33	33	23A0326-01	500.00		CARBON	1/20/2023 1:19 AM	bl	0.789	2 331 451	1.010	0.099	346 038	740 253	0.690	0.221	0.9670	1.0000



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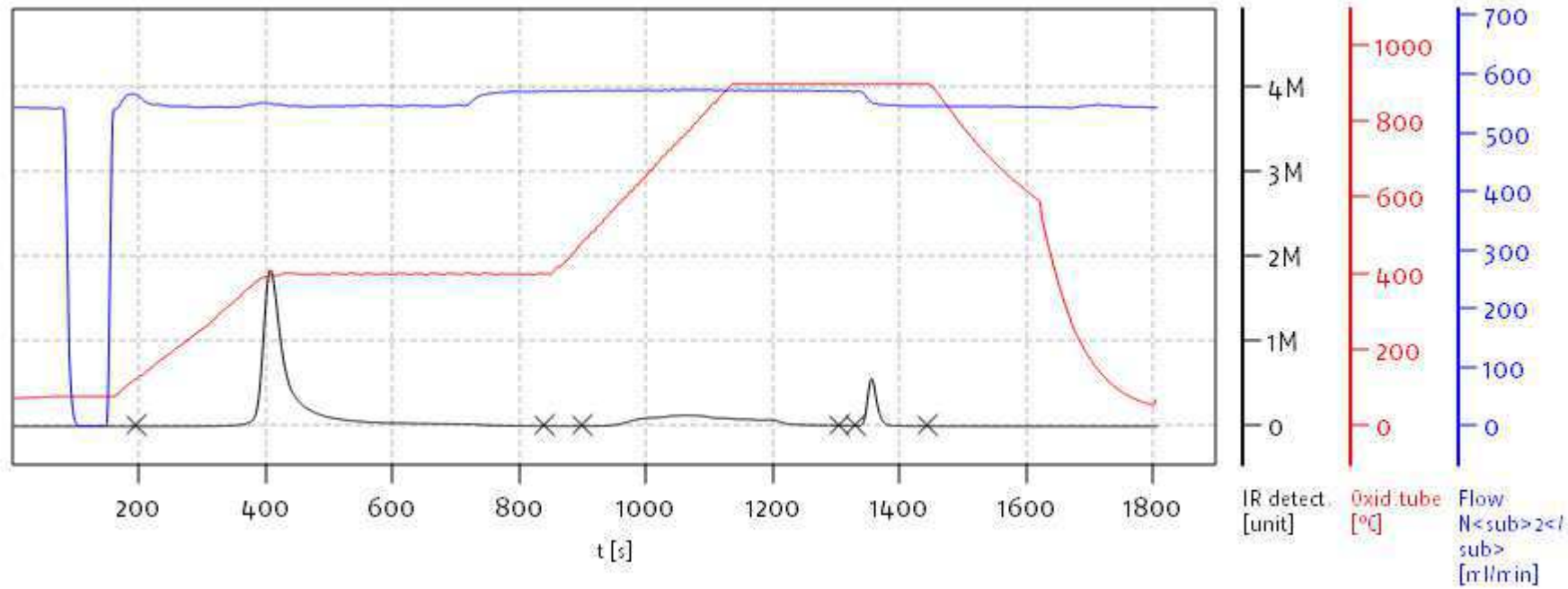
elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
34	34	23A0326-02	537.20		CARBON	1/20/2023 1:50 AM	bl	0.970	3 151 295	1.246	0.100	372 573	982 847	0.871	0.276	0.9670	1.0000



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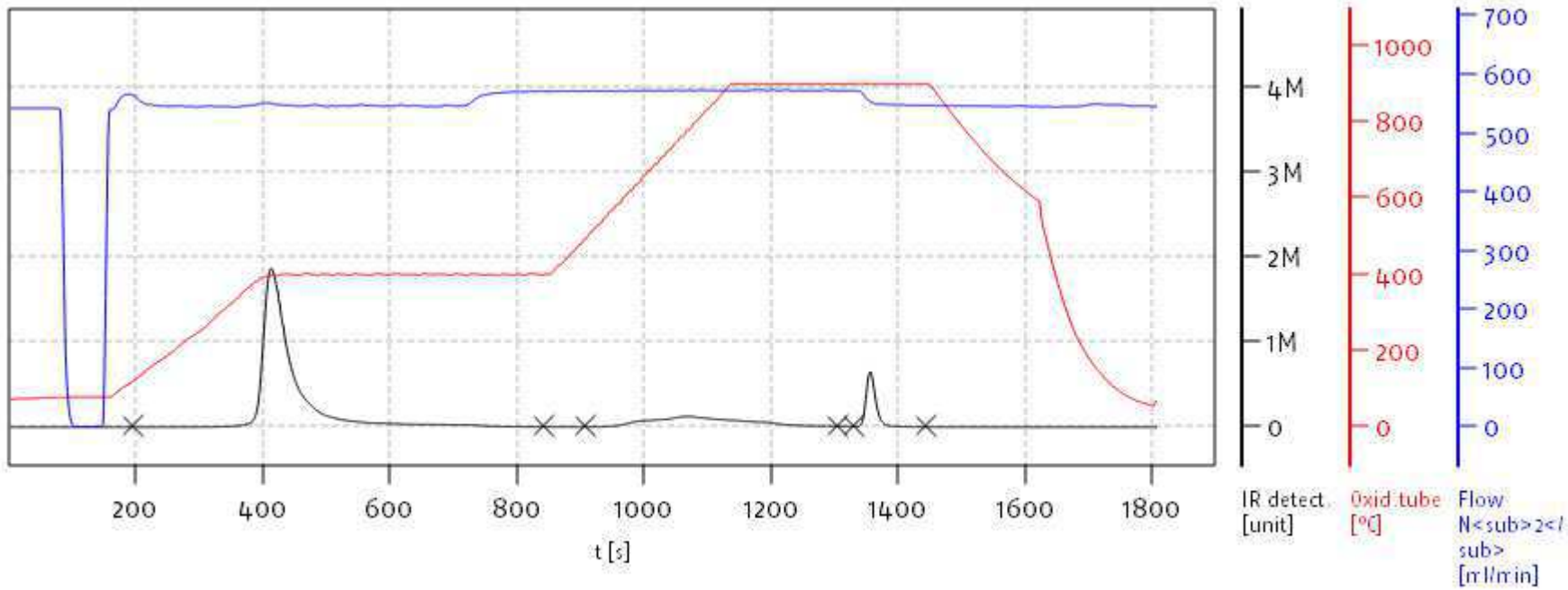
Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
35	35	23A0326-03	538.90		CARBON	1/20/2023 2:20 AM	bl	1.133	3 679 177	1.367	0.118	438 203	840 299	1.015	0.234	0.9670	1.0000



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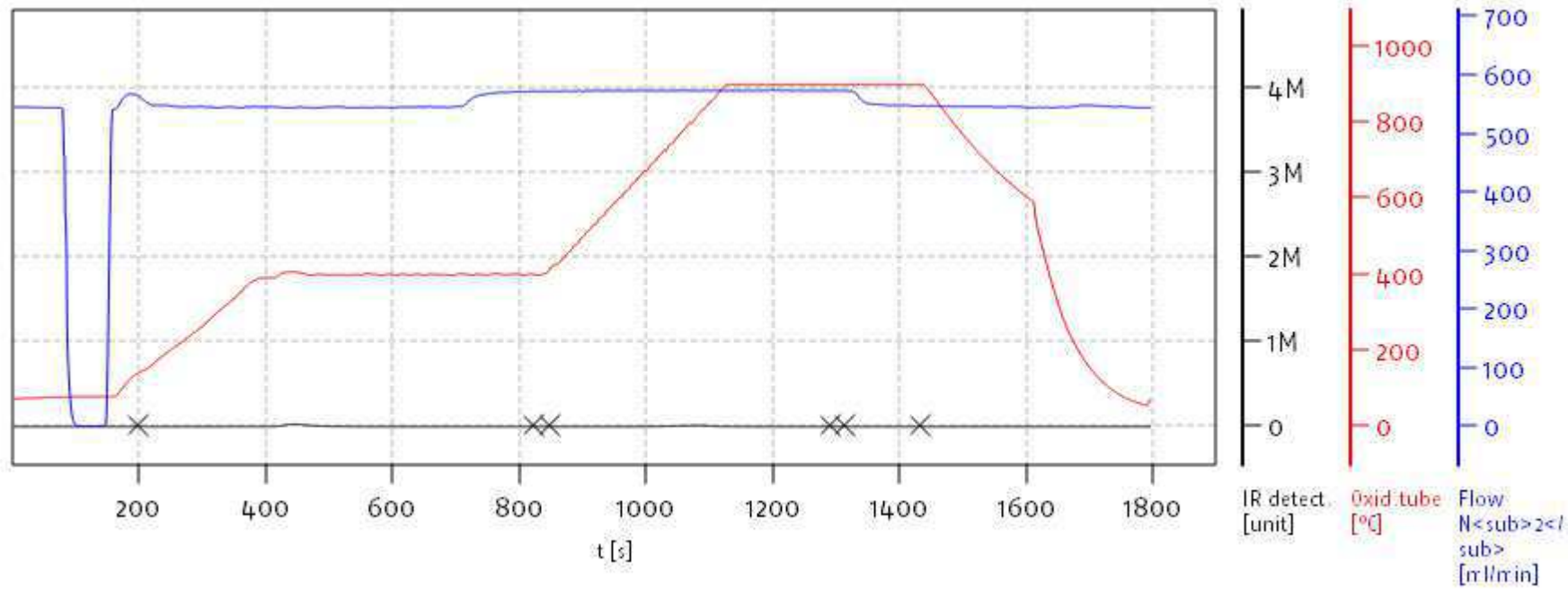
Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
36	36	BLA0442-MRL1	515.70		CARBON	1/20/2023 2:51 AM	bl,C2u	0.009	56 316	0.011	0.000	251	33 541	0.009	0.002	0.9670	1.0000



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Soli TOC Cube, Carbon
Balance: BAL3
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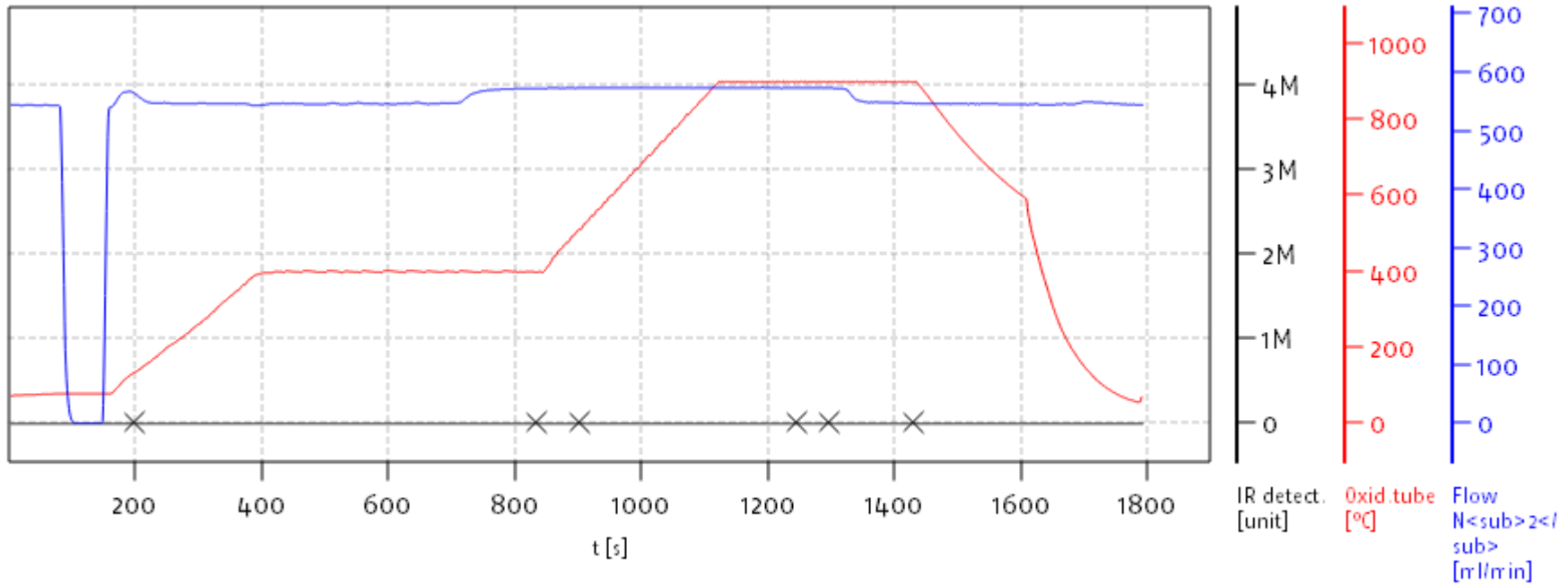
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
37	37	BLA0442-BLK1	508.40		CARBON	1/20/2023 3:21 AM	bl,C3u,C2u	0.000	6 283	0.000	0.000	383	2 081	0.000	0.000	0.9670	1.0000



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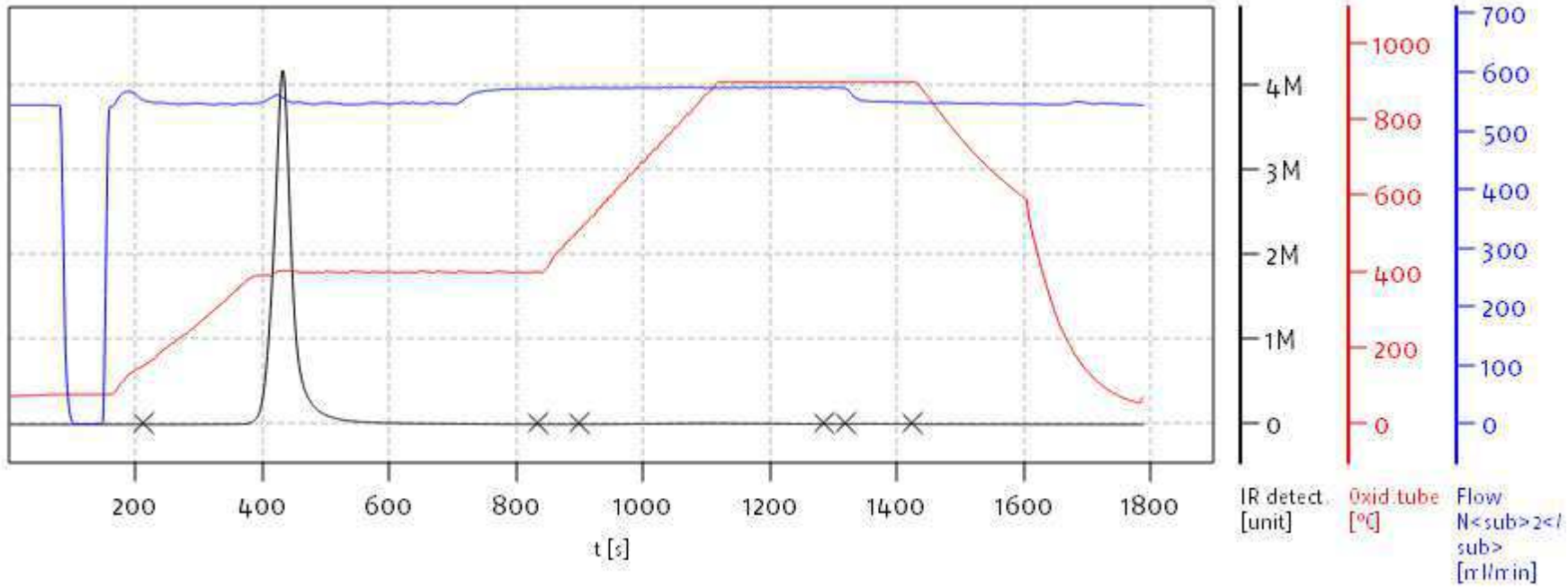
Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
38	38	BLA0442-BS1	18.60		CARBON	1/20/2023 3:51 AM	bl	43.547	5 437 202	44.239	0.000	20 468	109 652	43.547	0.692	0.9670	1.0000



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elementar
EXCELLENCE IN ELEMENTS

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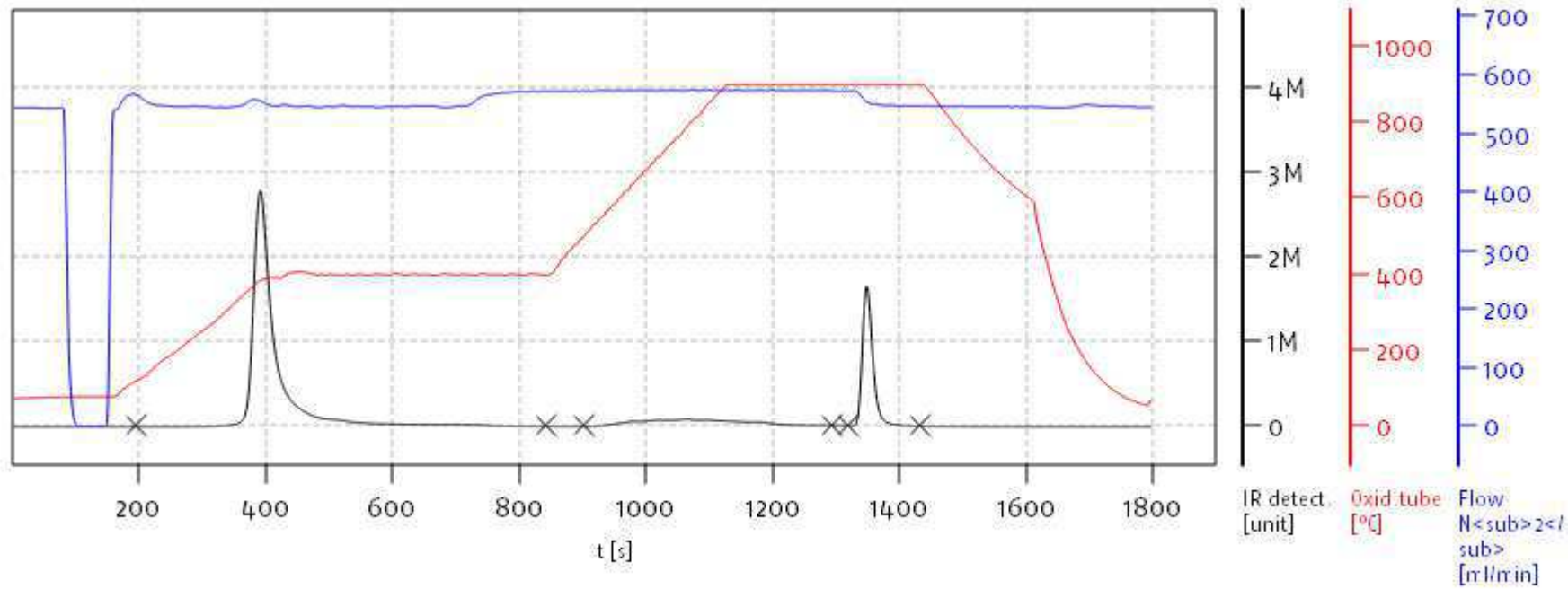
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
39	39	BLA0442-SRM1	271.40		CARBON	1/20/2023 4:22 AM	bl	2.926	4 102 120	3.308	0.678	1 214 815	695 720	2.248	0.382	0.9670	1.0000



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Soli TOC Cube, Carbon
Balance: BAL3
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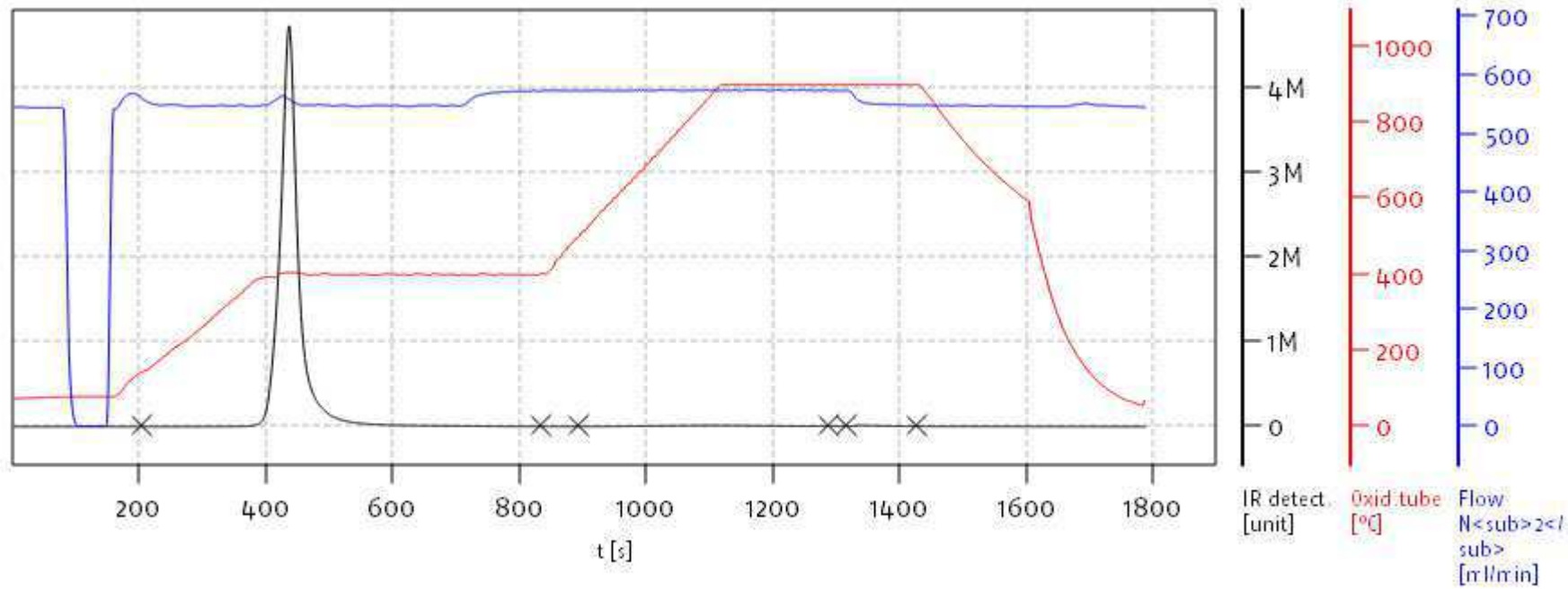
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
40	40	SLA0205-CCV3	20.40		CARBON	1/20/2023 4:52 AM	bl	43.825	5 992 715	44.501	0.043	32 238	115 606	43.781	0.676	0.9670	1.0000



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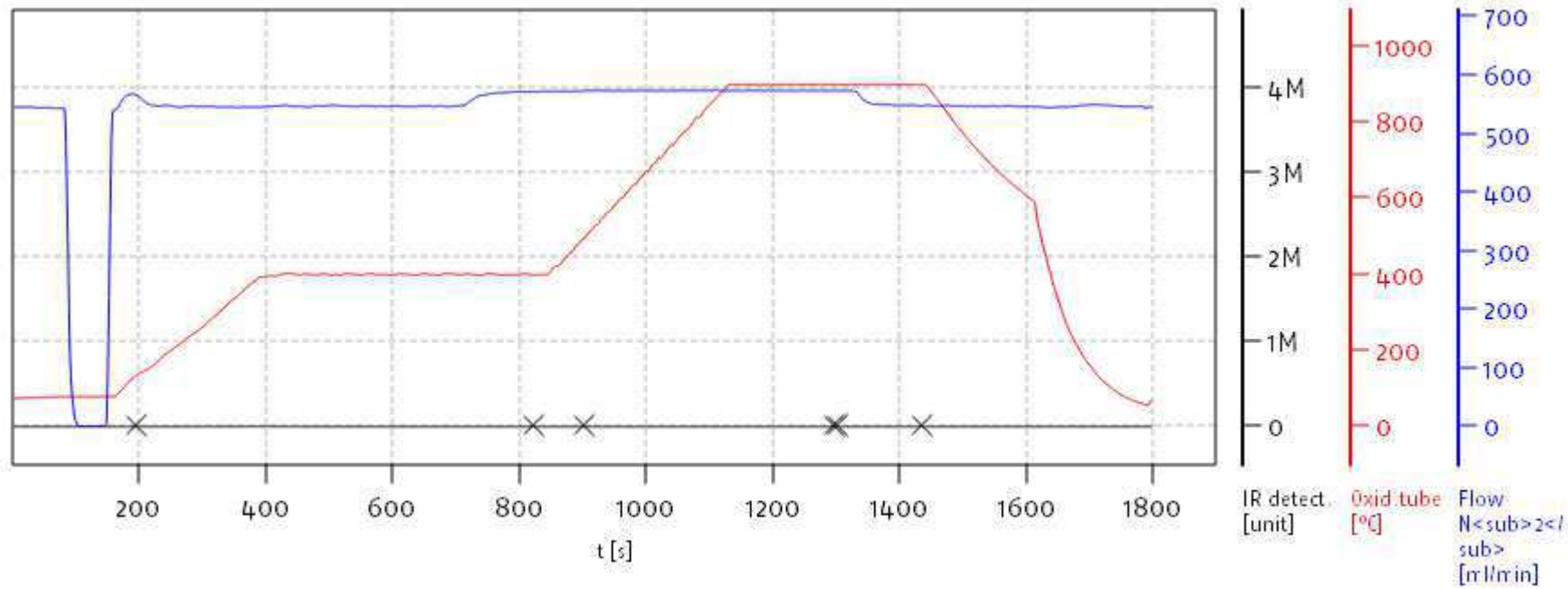
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
41	41	SLA0205-CCB3	508.80		CARBON	1/20/2023 5:22 AM	bl,C3u,C2u	0.000	8 704	0.000	0.000	784	255	0.000	0.000	0.9670	1.0000



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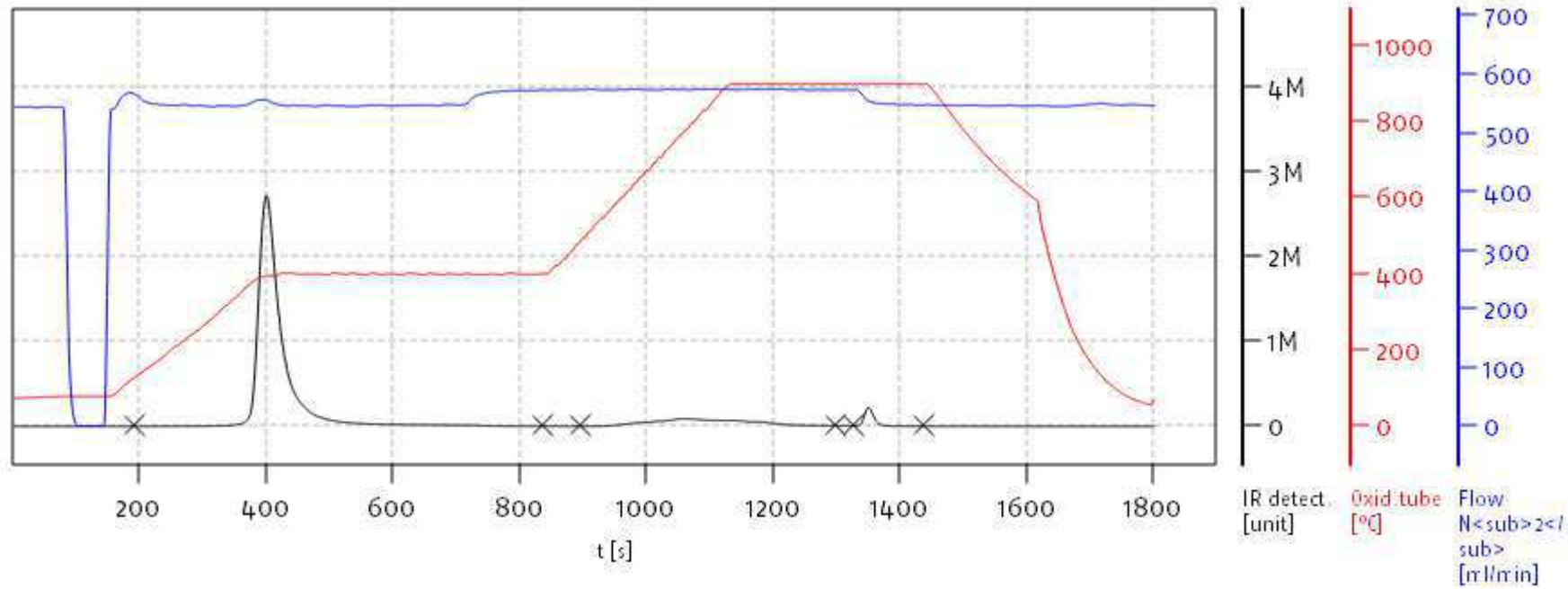
Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
42	42	23A0326-04	511.30		CARBON	1/20/2023 5:53 AM	bl	1.291	4 303 492	1.473	0.038	153 553	628 021	1.252	0.182	0.9670	1.0000



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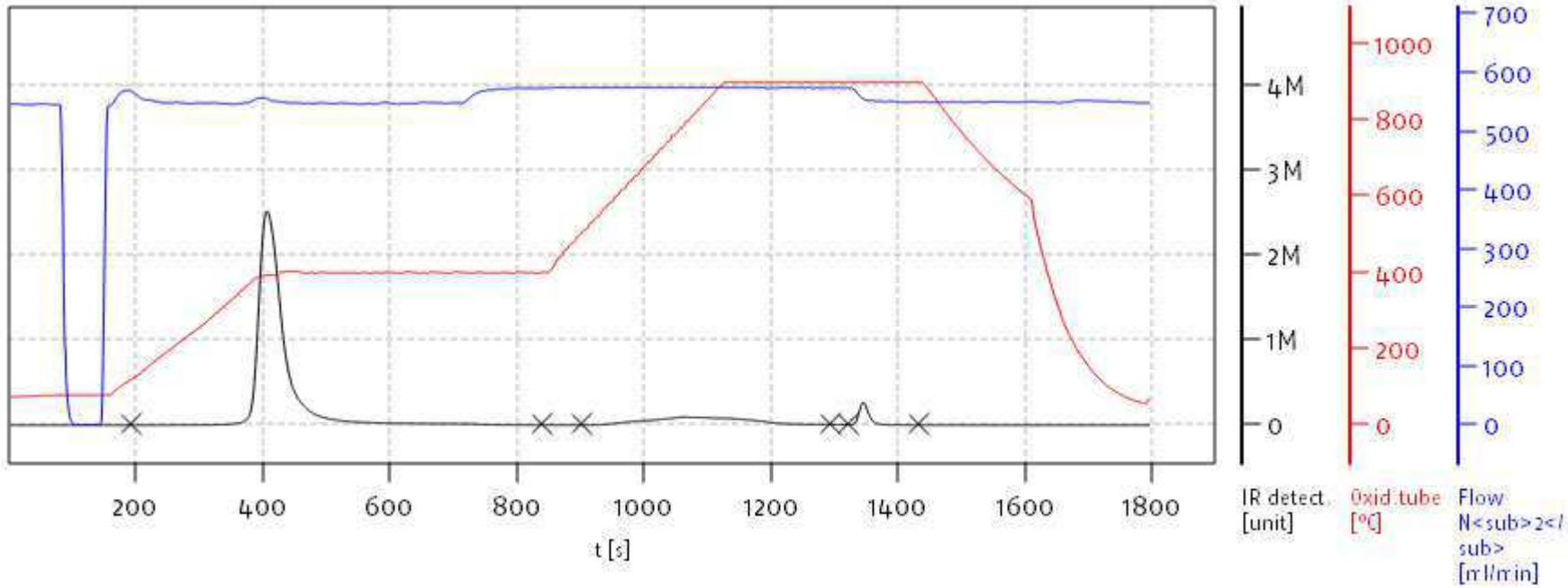
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
43	43	BLA0442-DUP1	512.70		CARBON	1/20/2023 6:23 AM	bl	1.293	4 290 750	1.487	0.047	183 748	671 360	1.245	0.195	0.9670	1.0000



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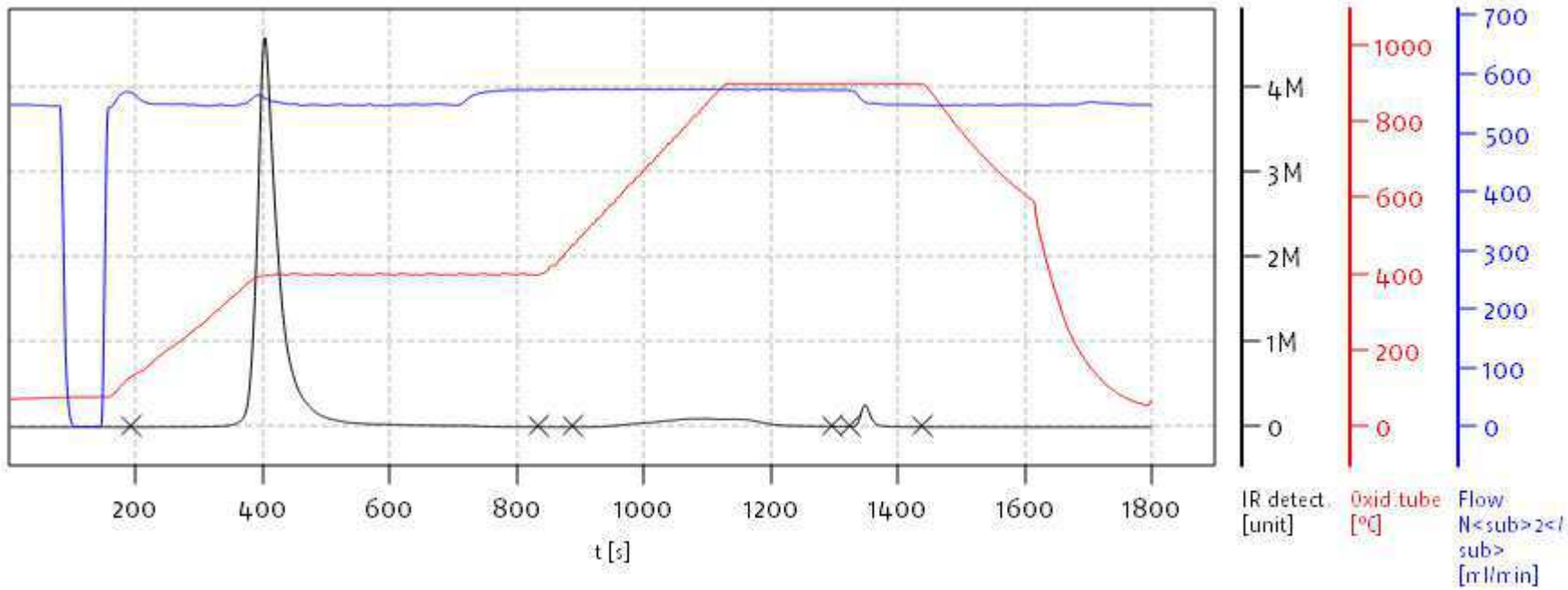
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
44	44	BLA0442-MS1	507.00	0.0086	CARBON	1/20/2023 6:53 AM	bl	2.076	6 891 488	2.289	0.049	186 510	724 087	2.027	0.213	0.9670	1.0000



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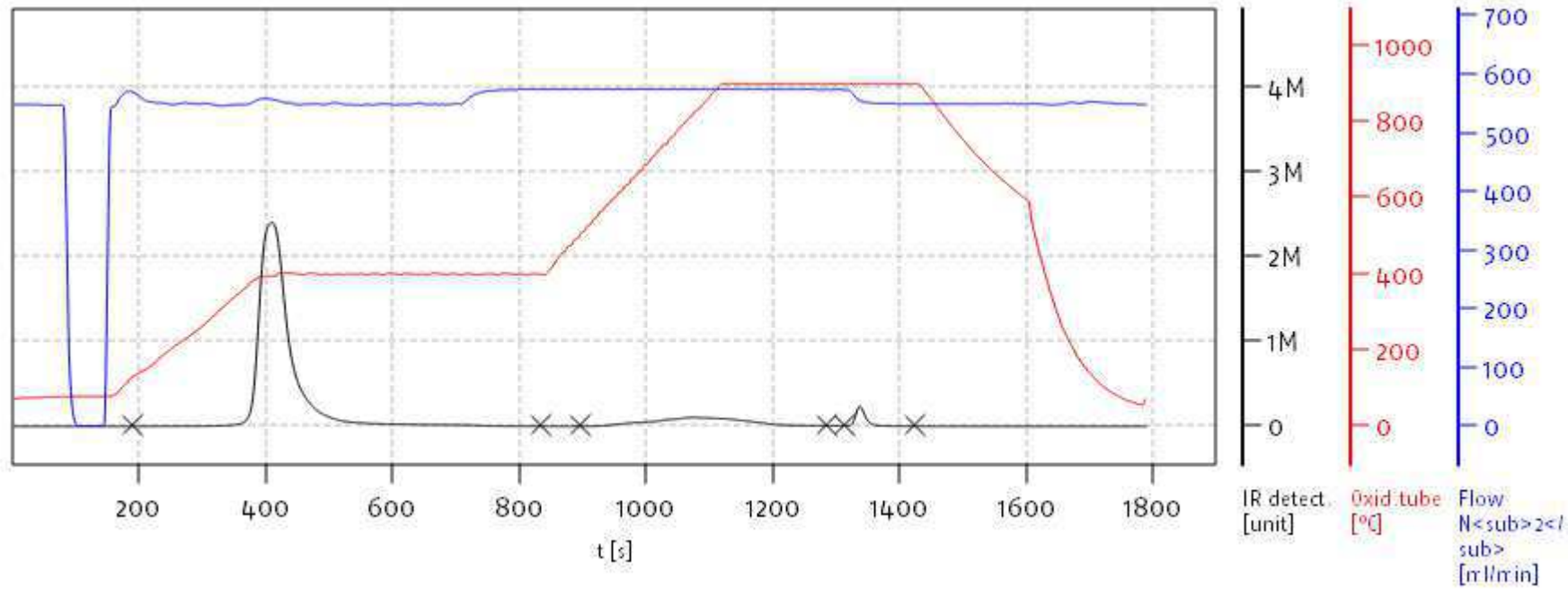
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
45	45	23A0326-05	535.20		CARBON	1/20/2023 7:23 AM	bl	1.438	5 023 510	1.632	0.041	166 617	695 111	1.398	0.193	0.9670	1.0000



Name:

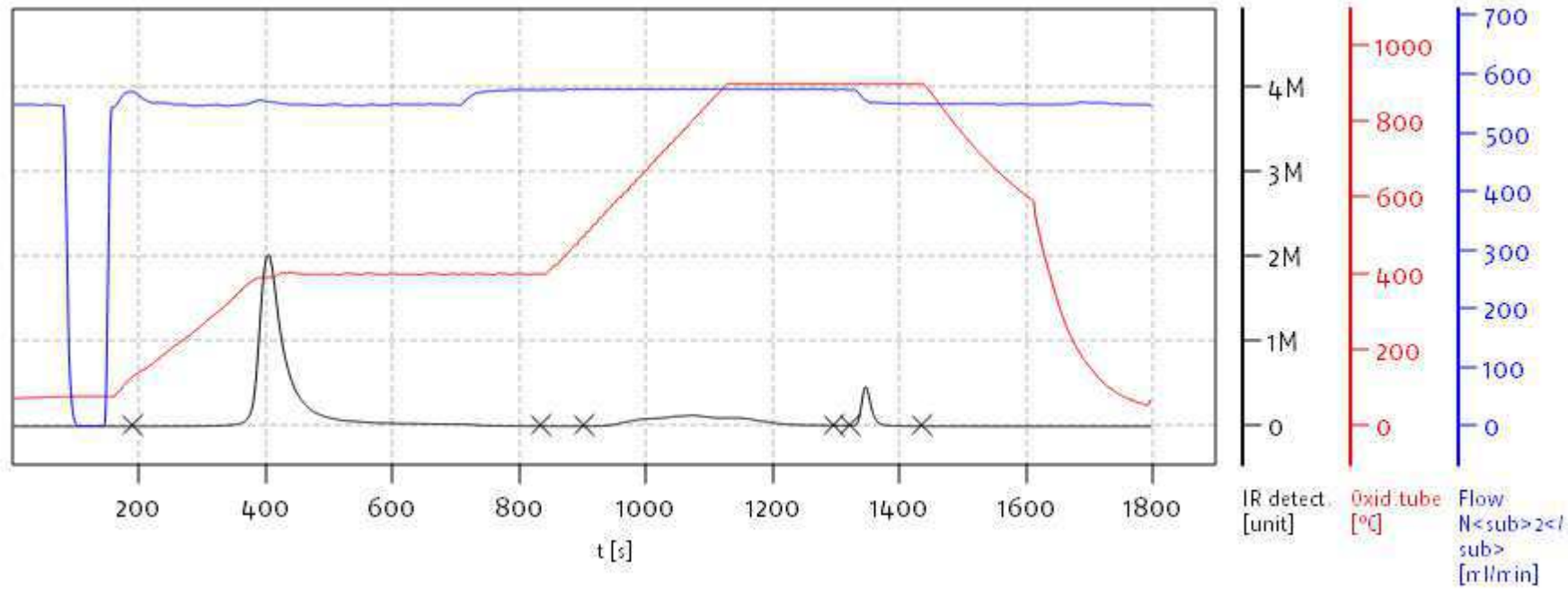
Access: soliTOC superuser

Date: Sat Jan 21 16:51:39 2023

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
46	46	23A0326-06	554.70		CARBON	1/20/2023 7:54 AM	bl	1.116	3 854 144	1.370	0.083	322 987	936 403	1.033	0.254	0.9670	1.0000



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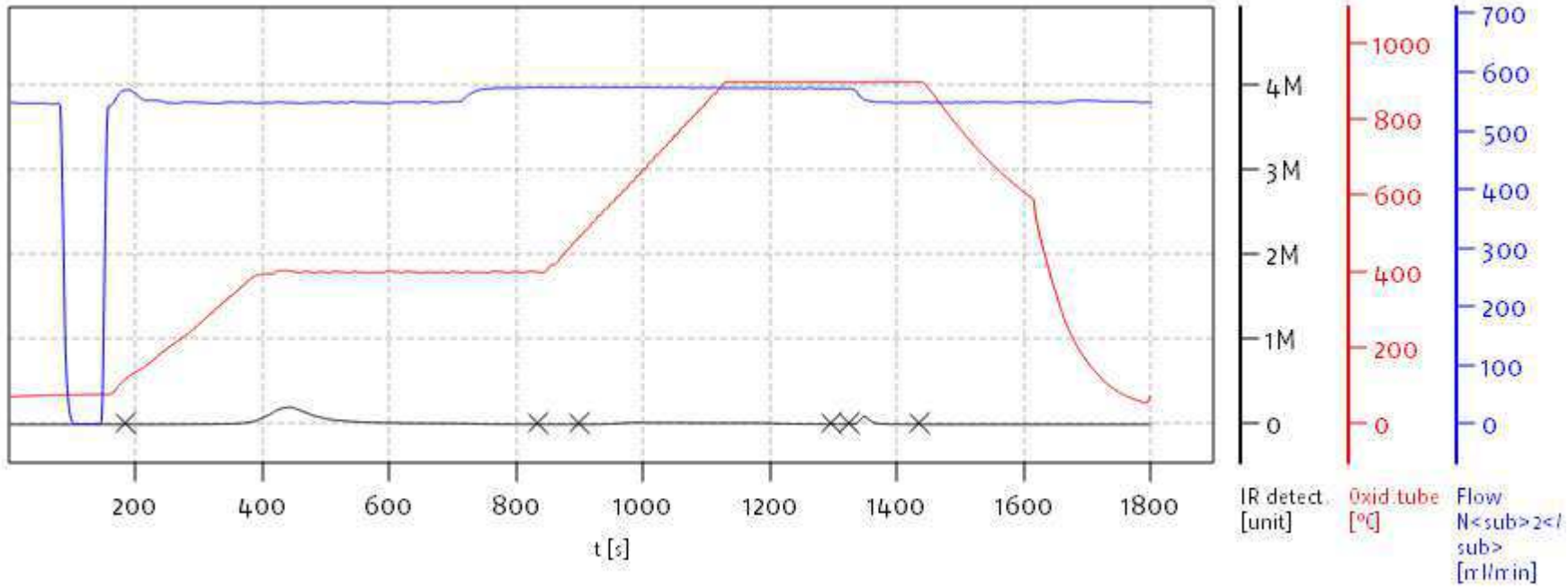
Access: soliTOC superuser

Date: Sat Jan 21 16:51:39 2023

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
47	47	23A0326-07	502.20		CARBON	1/20/2023 8:24 AM	bl	0.246	804 269	0.295	0.014	71 106	187 767	0.232	0.050	0.9670	1.0000



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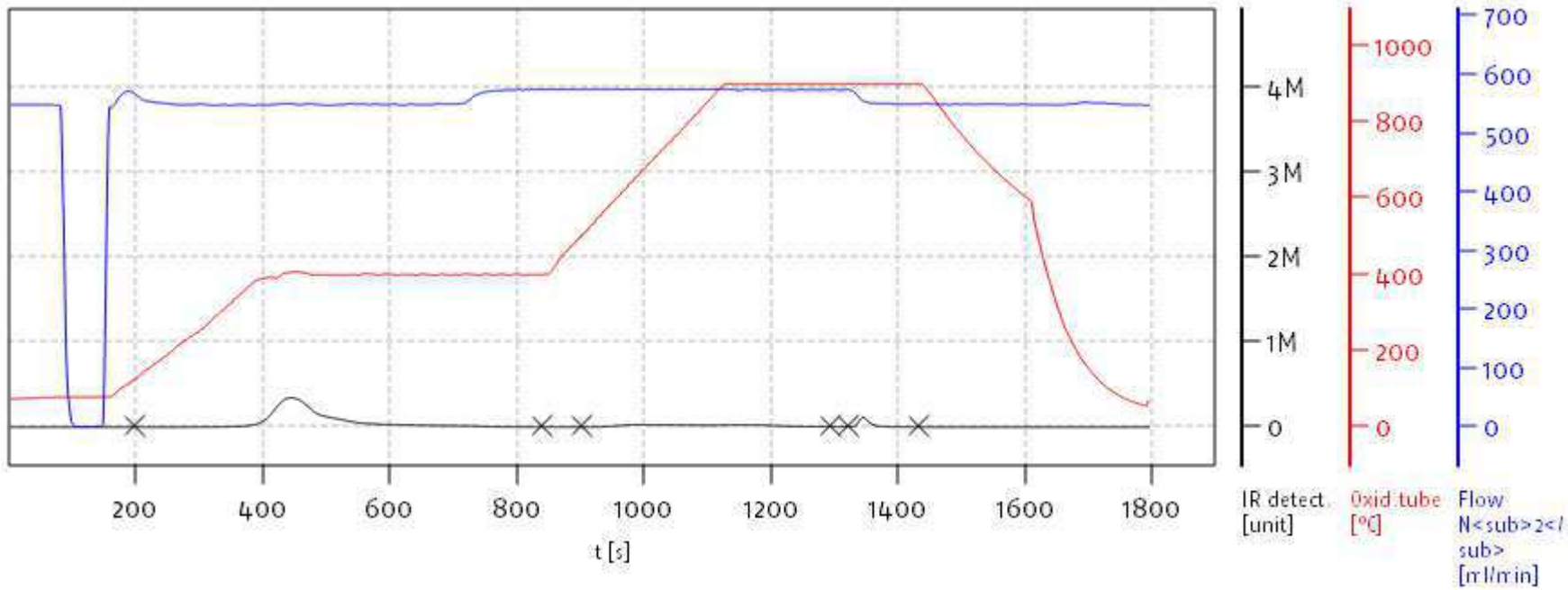
Date: Sat Jan 21 16:51:39 2023

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
48	48	23A0326-08	625.10		CARBON	1/20/2023 8:55 AM	bl	0.312	1 265 129	0.369	0.016	89 928	254 045	0.297	0.056	0.9670	1.0000



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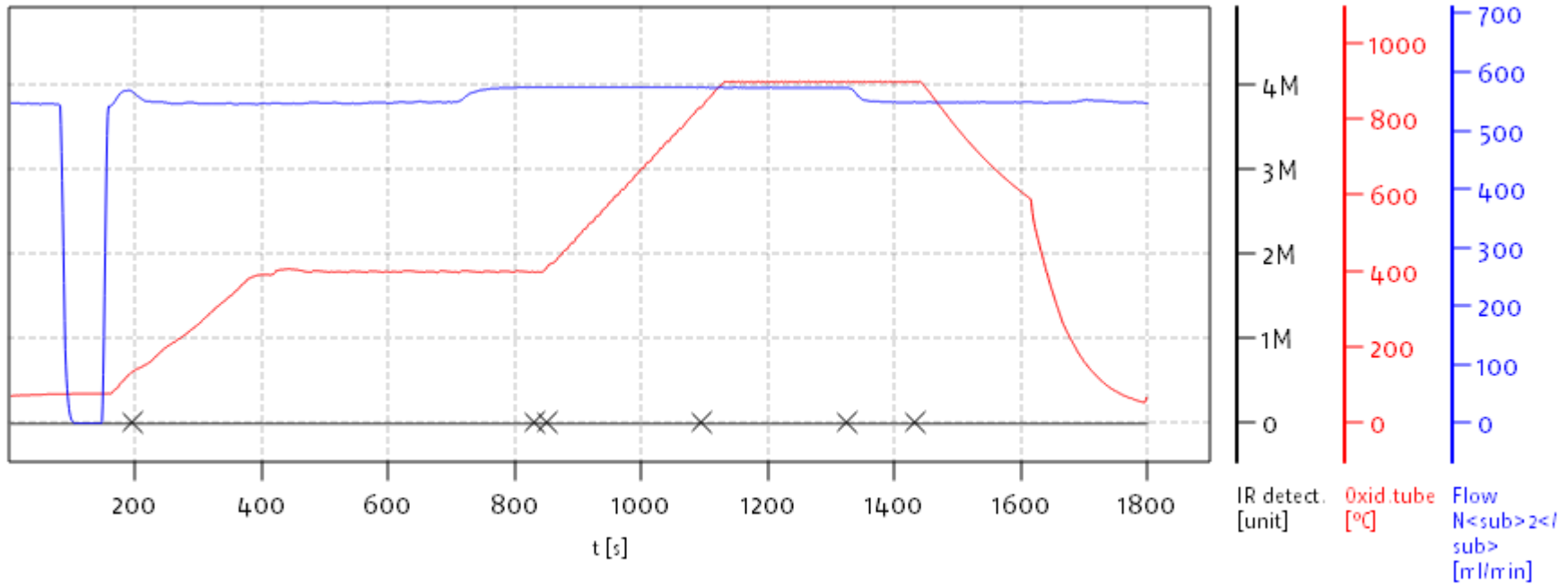
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
49	49	BLANK	1.00		CARBON	1/ 20/2023 9:25 AM	bl	0.000	5 957	0.000	0.000	243	341	0.000	0.000	0.9670	1.0000



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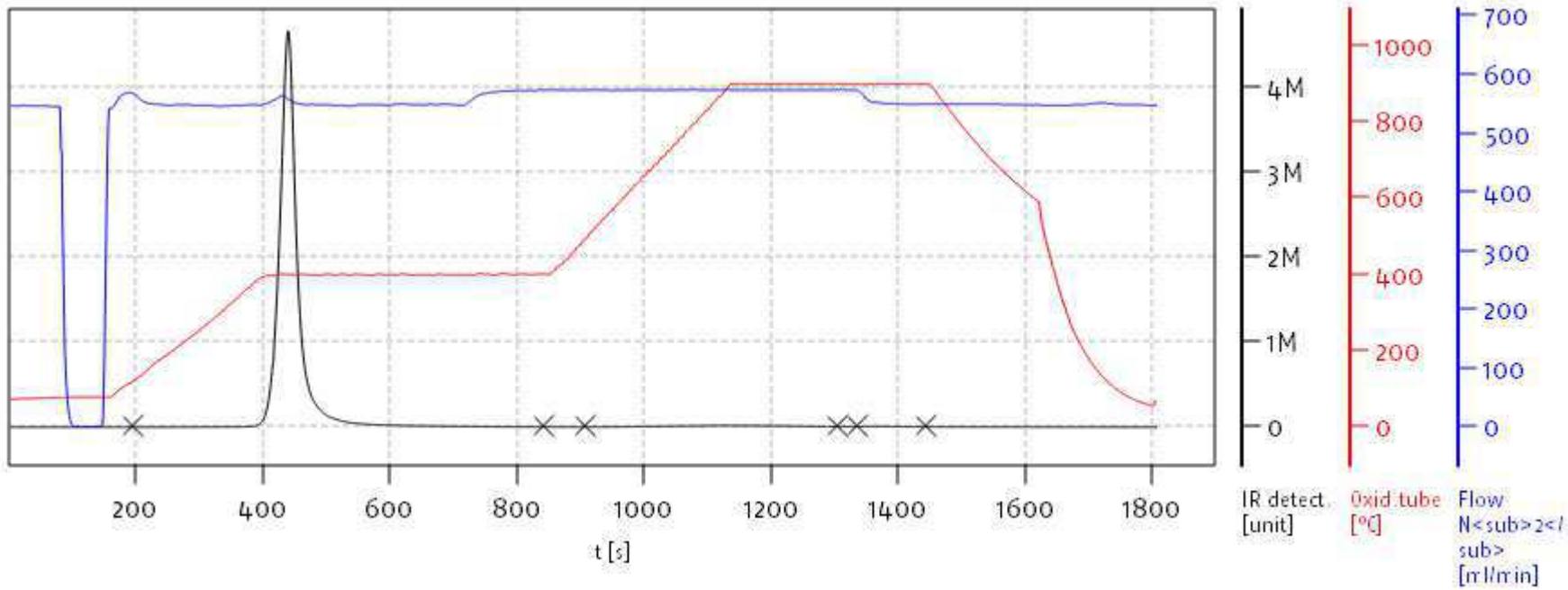
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
50	50	Dfactor	19.60		CARBON	1/20/2023 9:55 AM	bl	44.446	5 744 635	45.480	0.000	26 131	157 557	44.446	1.035	0.9841	1.0000



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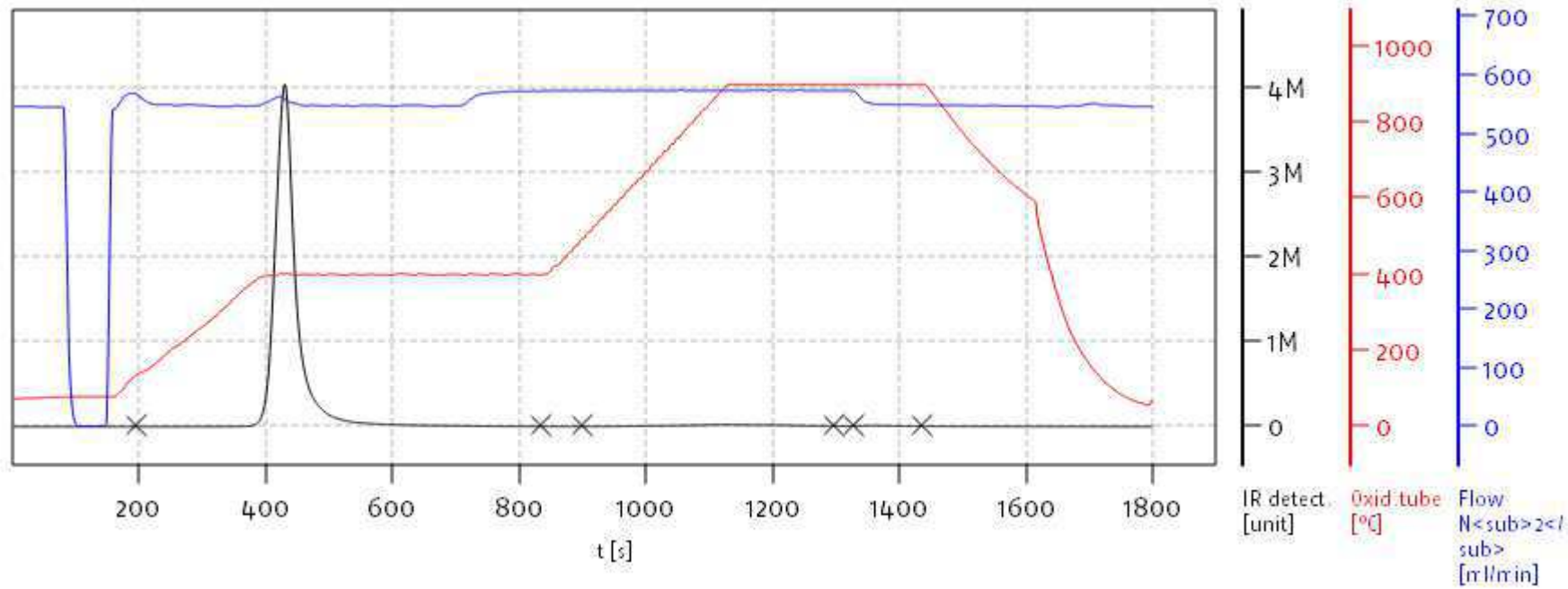
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
51	51	Dfactor	20.40		CARBON	1/20/2023 10:26 AM	bl	44.485	5 800 486	45.676	0.039	31 728	183 422	44.446	1.191	1.0144	1.0000



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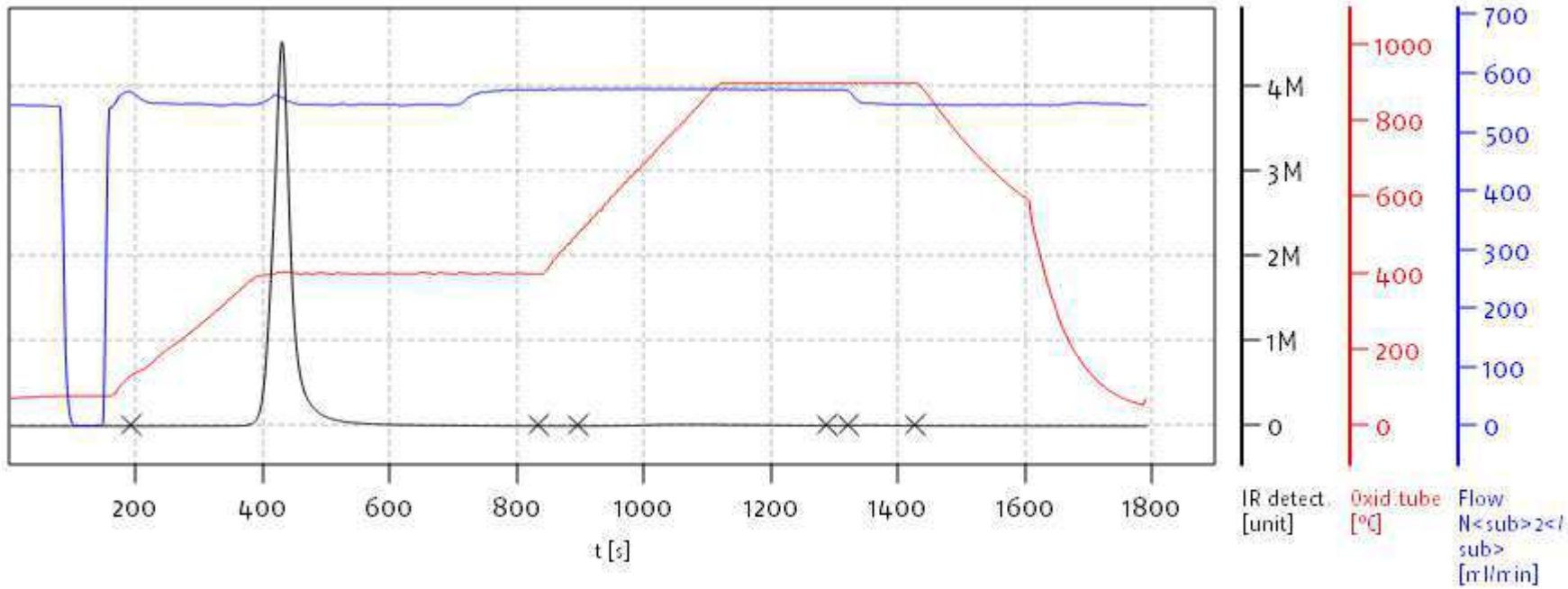
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
52	52	SLA0205-CCV4	19.70		CARBON	1/20/2023 10:56 AM	bl	45.041	5 762 669	46.003	0.000	25 322	148 860	45.041	0.961	0.9993	1.0000



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Serial No: 0300.181017
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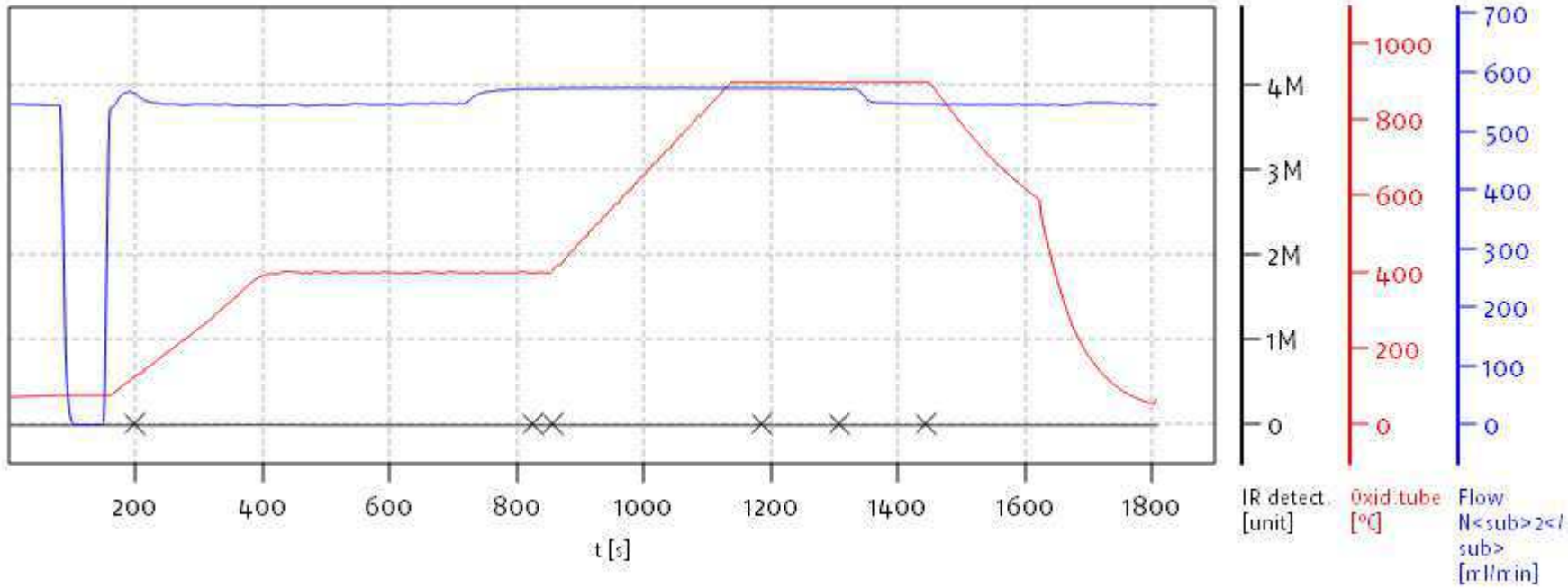
Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
53	53	SLA0205-CCB4	527.80		CARBON	1/20/2023 11:27 AM	bl,C3u,C2u	0.000	16 654	0.000	0.000	1 225	1 998	0.000	0.000	0.9993	1.0000



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Date: Sat Jan 21 16:51:39 2023

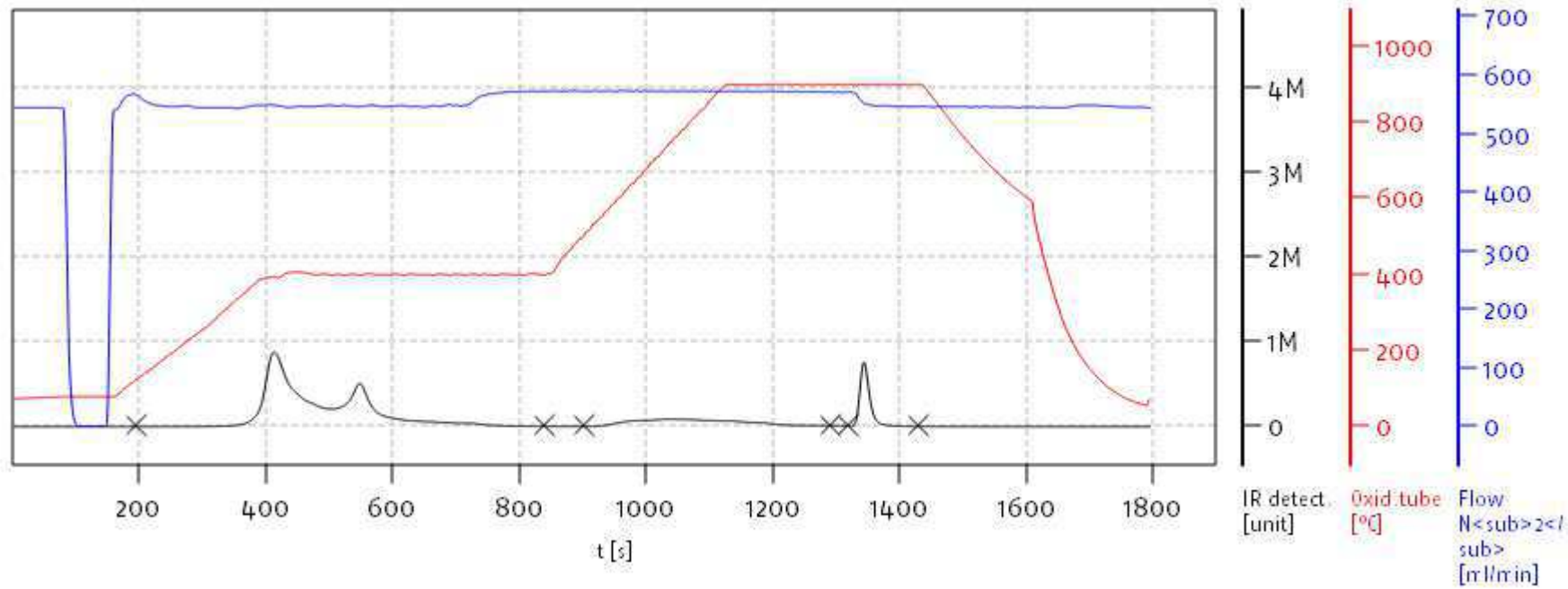
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Document: 011823 DOE from: --.--.-- (modified)

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
54	54	23A0326-09	530.70		CARBON	1/20/2023 11:57 AM	bl	1.092	3 279 785	1.292	0.144	519 391	712 593	0.948	0.200	0.9993	1.0000



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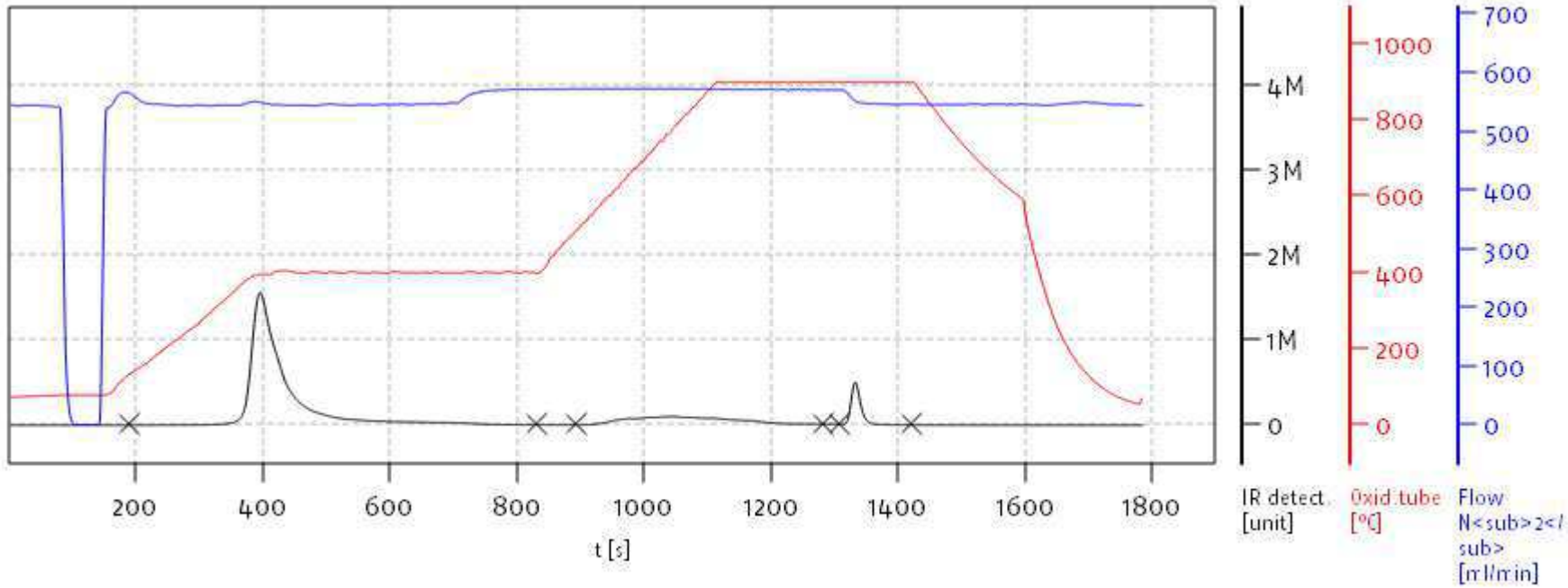
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
55	55	23A0326-10	529.80		CARBON	1/20/2023 12:27 PM	bl	1.094	3 457 809	1.316	0.092	341 323	785 701	1.002	0.222	0.9993	1.0000



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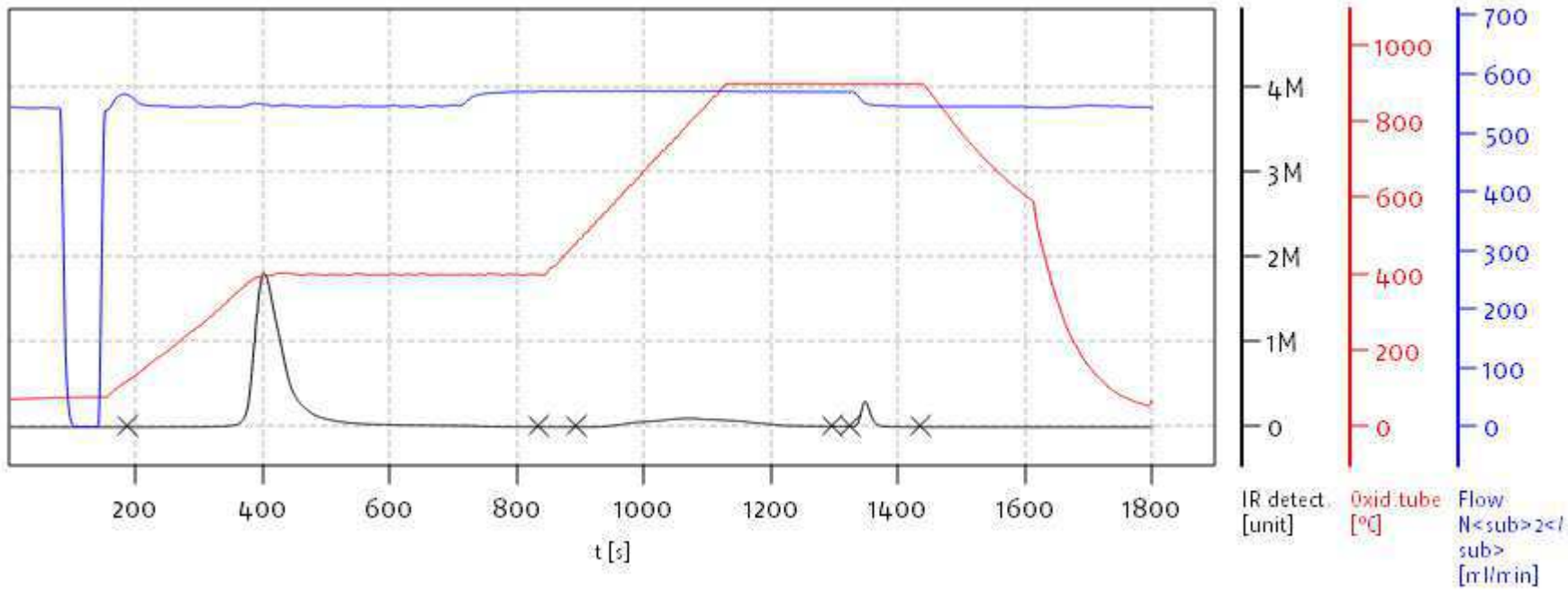
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
56	56	23A0326-11	503.00		CARBON	1/20/2023 12:58 PM	bl	1.209	3 780 669	1.422	0.055	204 883	718 406	1.155	0.213	0.9993	1.0000



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soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
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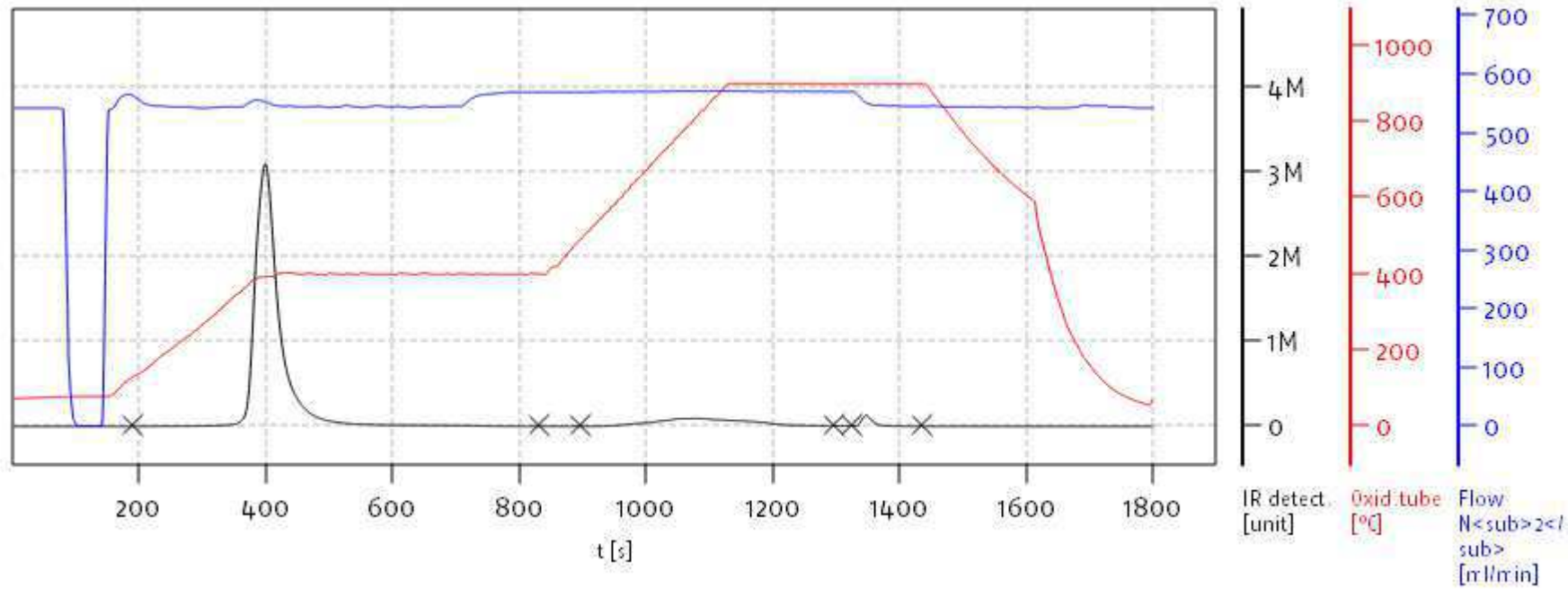
Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
57	57	23A0326-12	540.50		CARBON	1/20/2023 1:28 PM	bl	1.478	5 115 249	1.650	0.022	102 877	625 404	1.456	0.172	0.9993	1.0000



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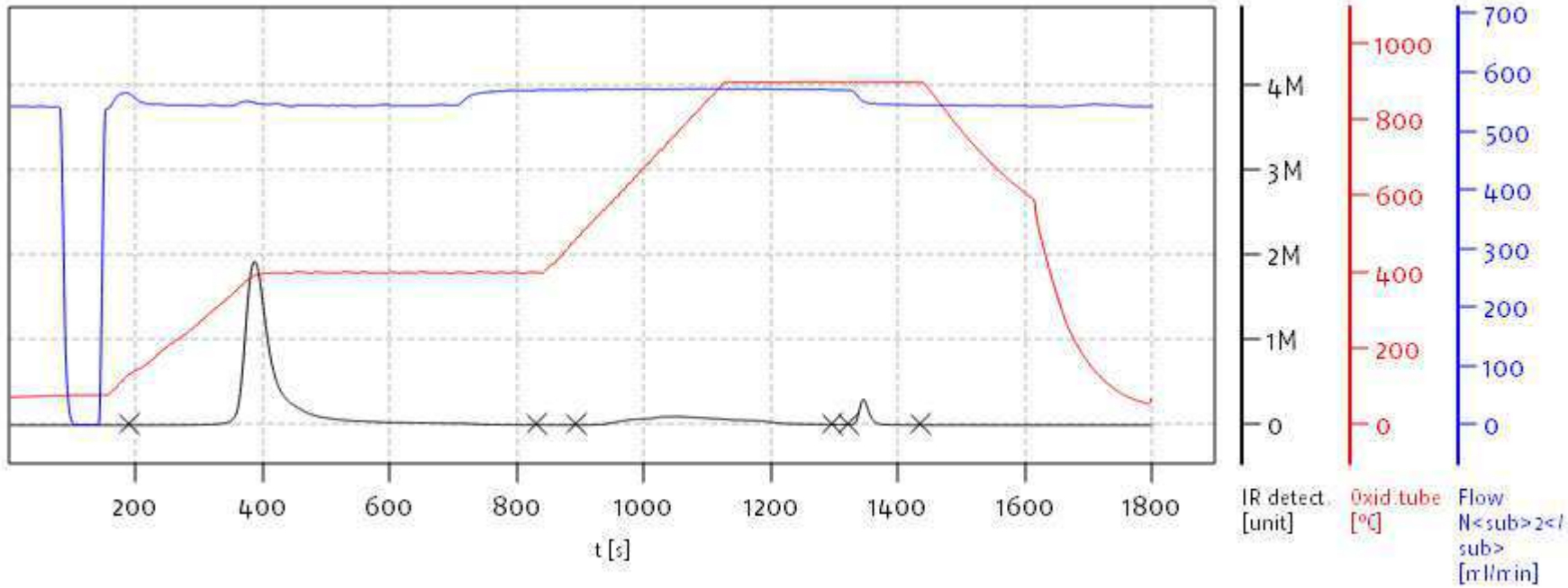
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
58	58	23A0328-01	510.50		CARBON	1/20/2023 1:58 PM	bl	1.187	3 760 934	1.406	0.056	209 808	748 708	1.132	0.219	0.9993	1.0000



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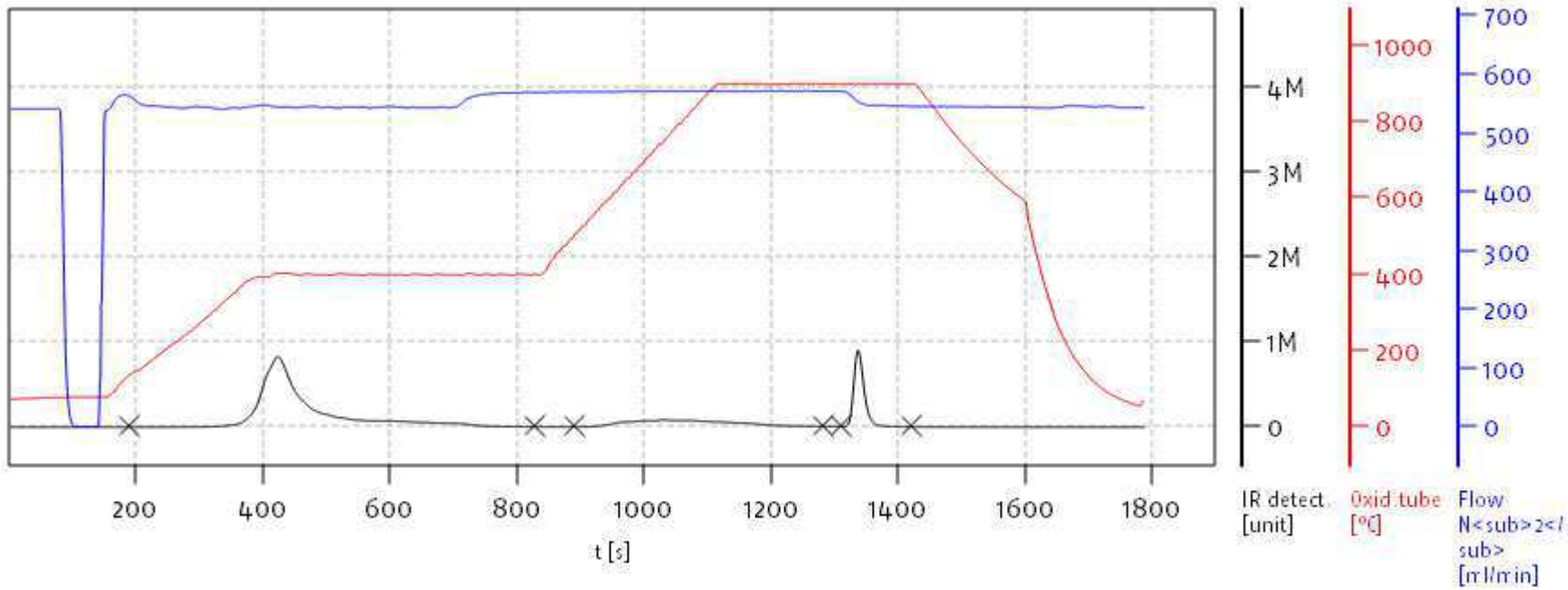
Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
59	59	23A0328-02	565.70		CARBON	1/20/2023 2:29 PM	bl	0.883	2 633 122	1.052	0.170	649 235	645 144	0.713	0.169	0.9993	1.0000



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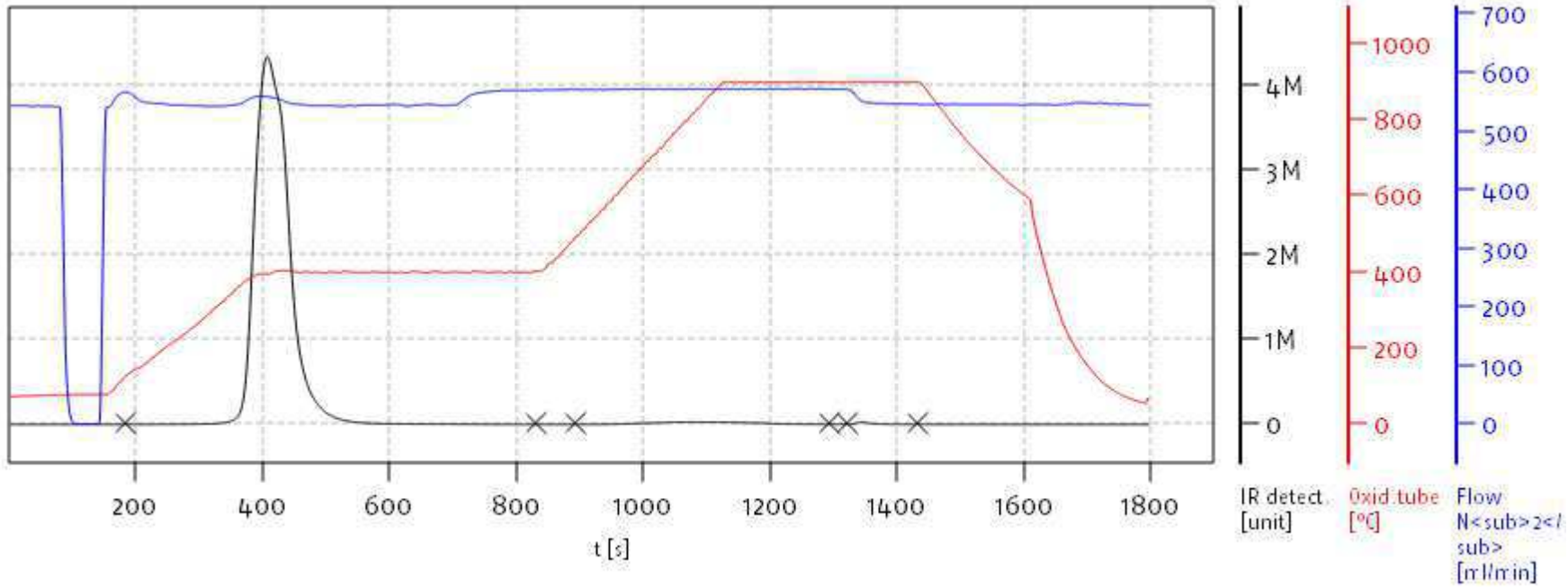
elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
60	60	23A0328-03	528.00		CARBON	1/20/2023 2:59 PM	bl,C1o	2.966	10 149 343	3.017	0.000	26 998	202 401	2.966	0.052	0.9993	1.0000



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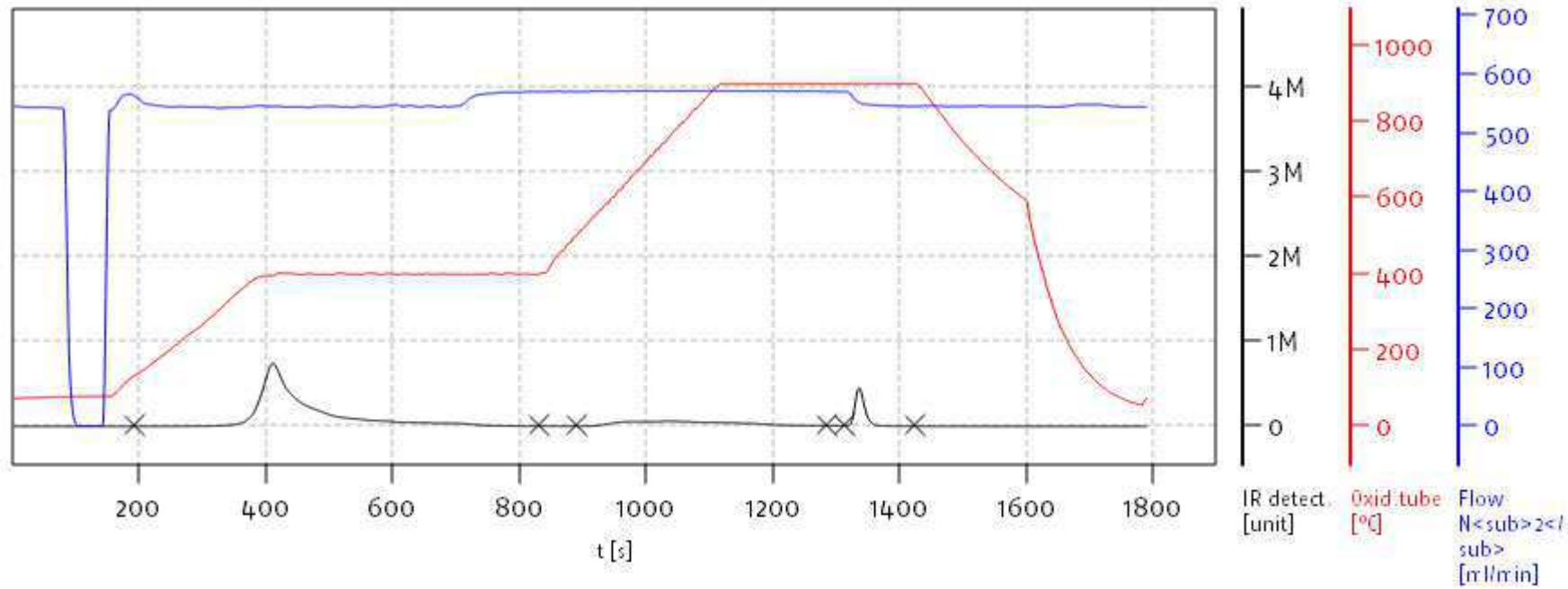
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
61	61	23A0328-04	508.20		CARBON	1/20/2023 3:29 PM	bl	0.774	2 289 936	0.921	0.085	307 045	506 869	0.689	0.146	0.9993	1.0000



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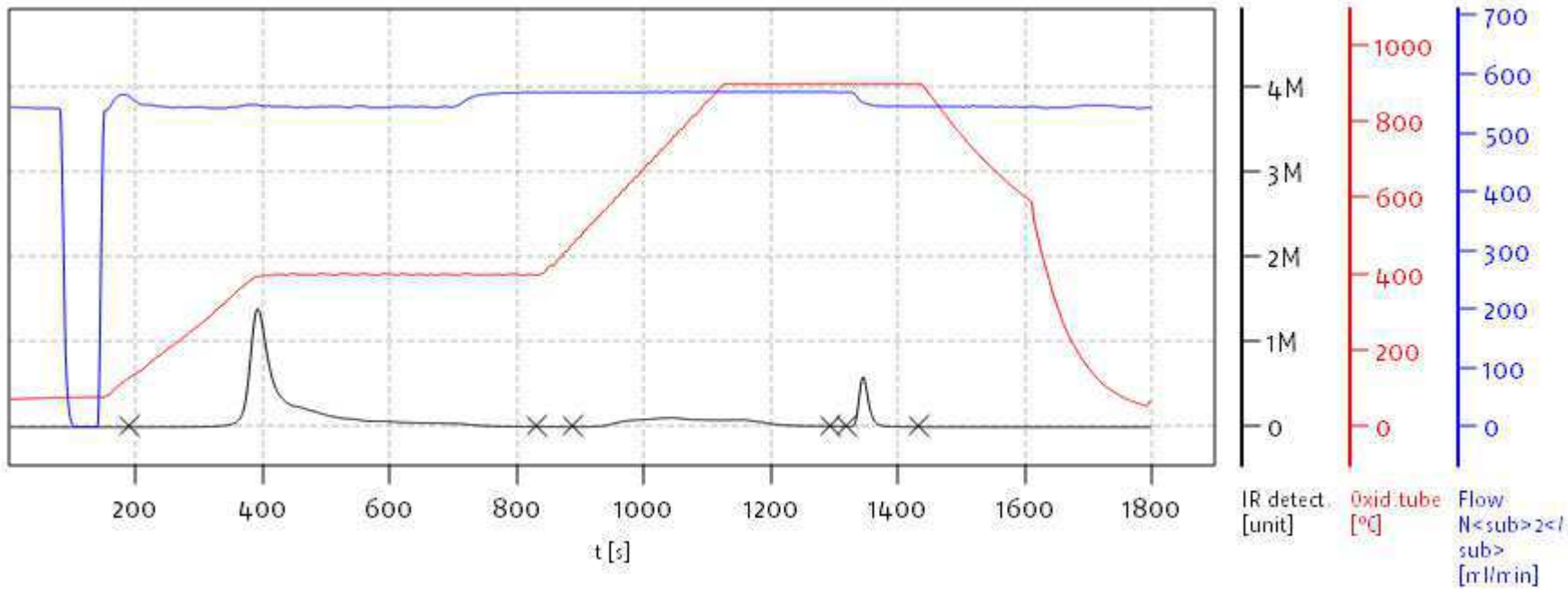
elementar
EXCELLENCE IN ELEMENTS

Document: 011823 DOE from: --.--.-- (modified)

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
62	62	23A0328-05	514.90		CARBON	1/20/2023 3:59 PM	bl	1.029	3 076 769	1.280	0.112	399 555	862 066	0.916	0.251	0.9993	1.0000



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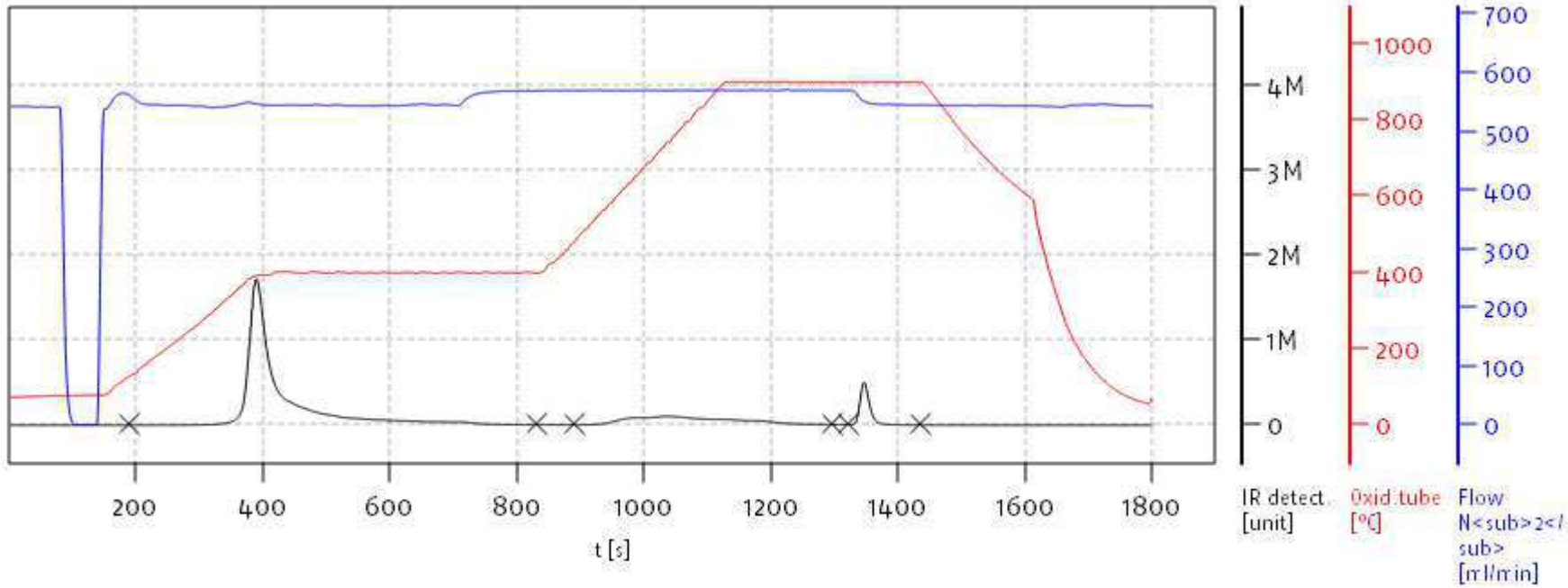
Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
63	63	23A0328-06	524.10		CARBON	1/20/2023 4:30 PM	bl	1.053	3 286 557	1.275	0.091	335 036	777 366	0.962	0.222	0.9993	1.0000



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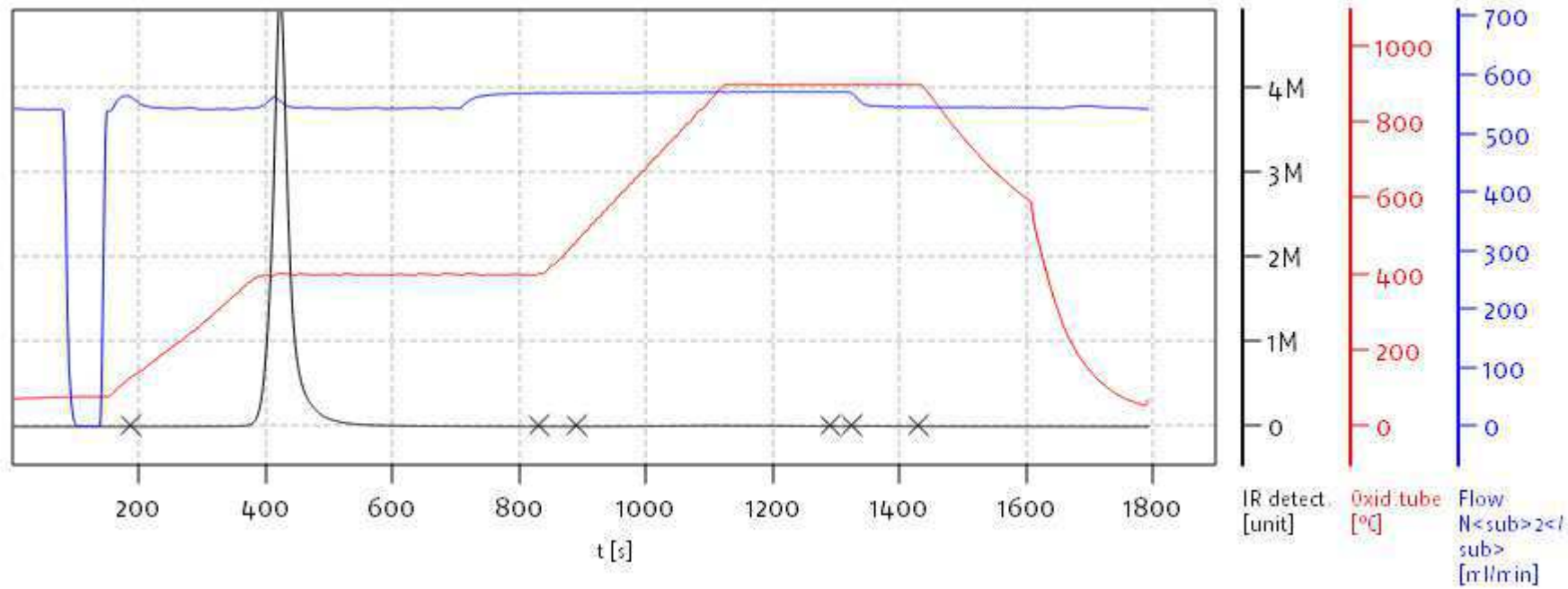
Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
64	64	SLA0205-CCV5	20.20		CARBON	1/20/2023 5:00 PM	bl	46.063	6 041 646	46.611	0.000	16 499	97 997	46.063	0.548	0.9993	1.0000



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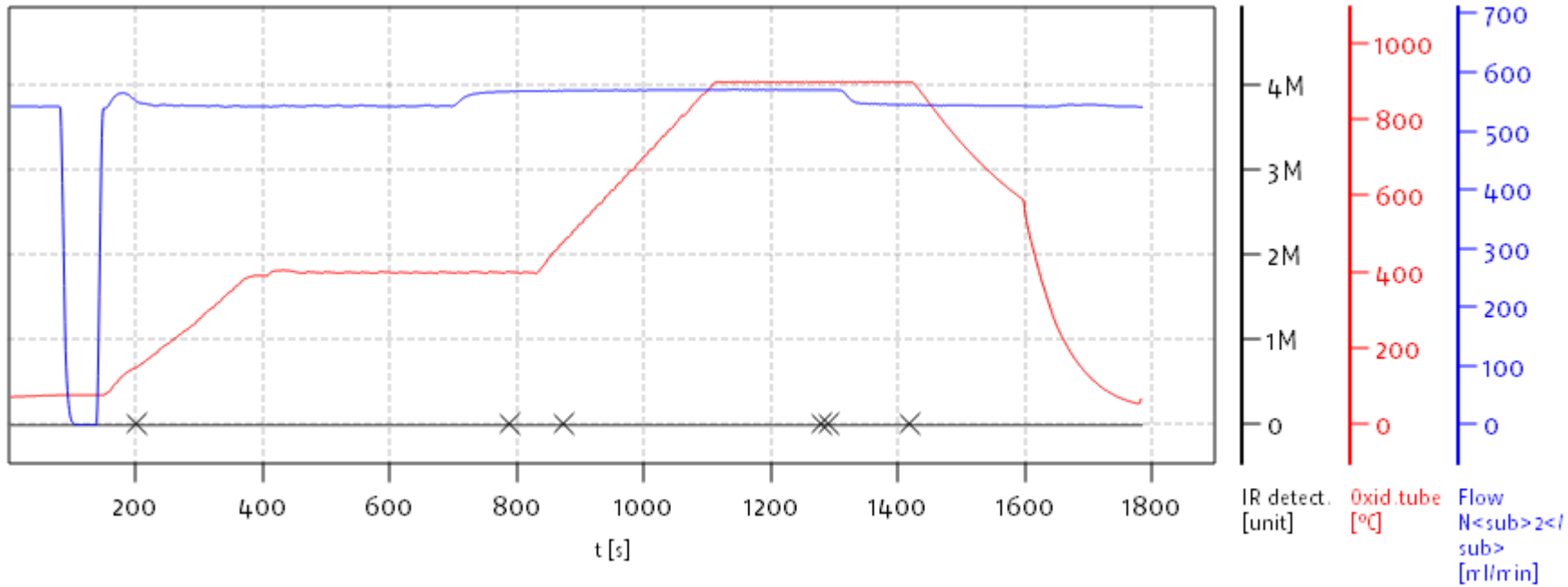
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
65	65	SLA0205-CCB5	519.20		CARBON	1/20/2023 5:30 PM	bl,C3u,C2u	0.000	2 971	0.000	0.000	542	31	0.000	0.000	0.9993	1.0000



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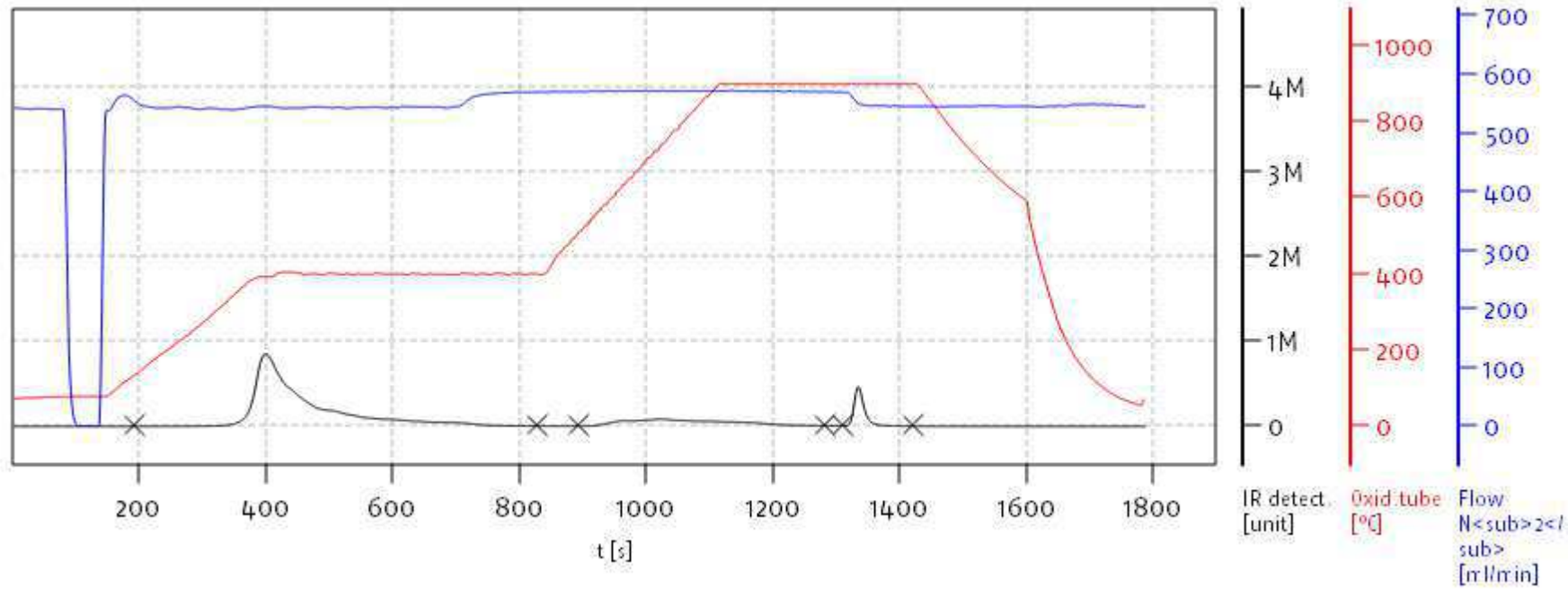
Date: Sat Jan 21 16:51:39 2023

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
66	66	23A0328-07	546.20		CARBON	1/20/2023 6:00 PM	bl	0.921	2 973 843	1.095	0.086	330 961	641 267	0.835	0.174	0.9993	1.0000



Name:

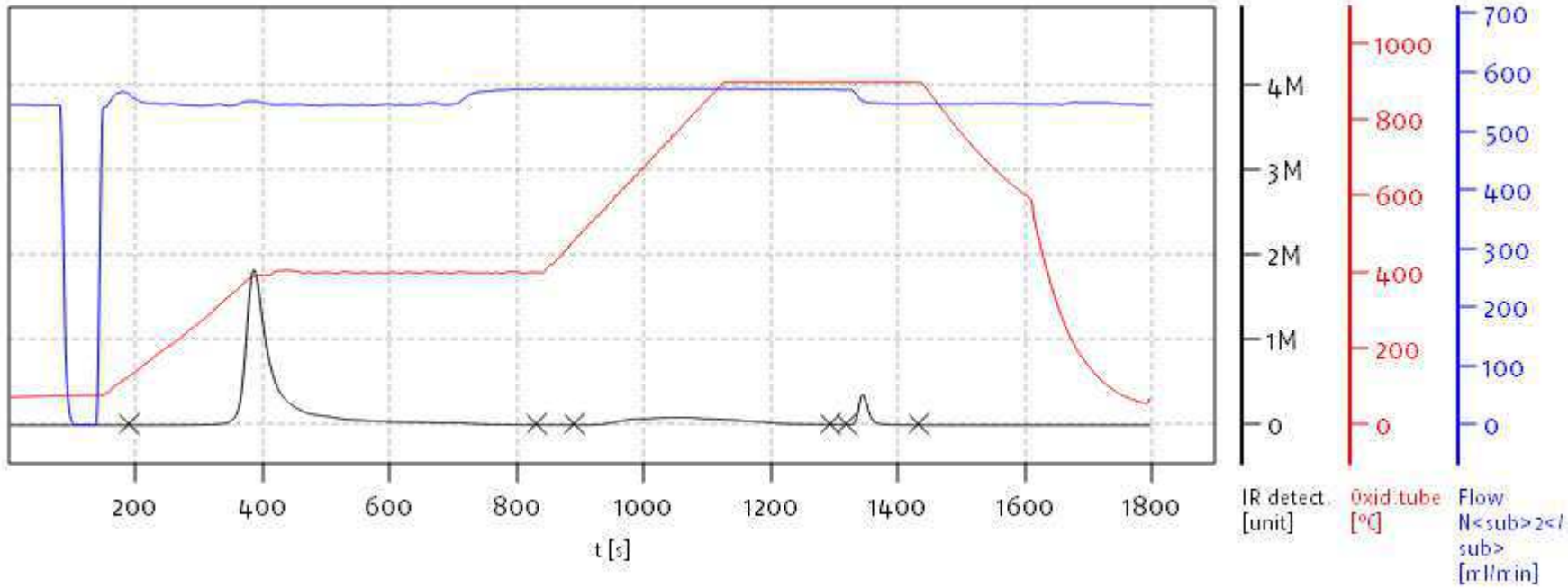
Access: soliTOC superuser

Date: Sat Jan 21 16:51:39 2023

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
67	67	23A0328-08	534.00		CARBON	1/20/2023 6:31 PM	bl	1.066	3 487 003	1.261	0.064	246 401	700 333	1.002	0.195	0.9993	1.0000



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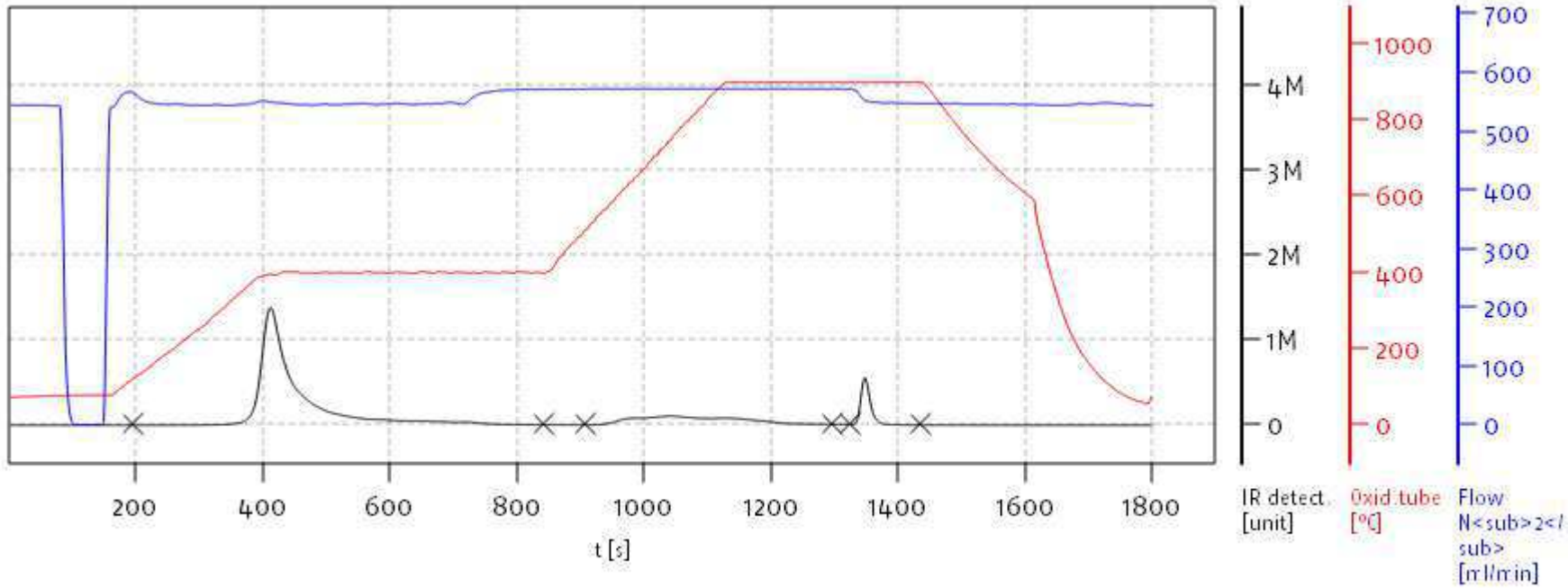
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
68	68	23A0328-09	542.90		CARBON	1/20/2023 7:01 PM	bl	1.024	3 269 866	1.249	0.099	375 155	818 614	0.924	0.226	0.9993	1.0000



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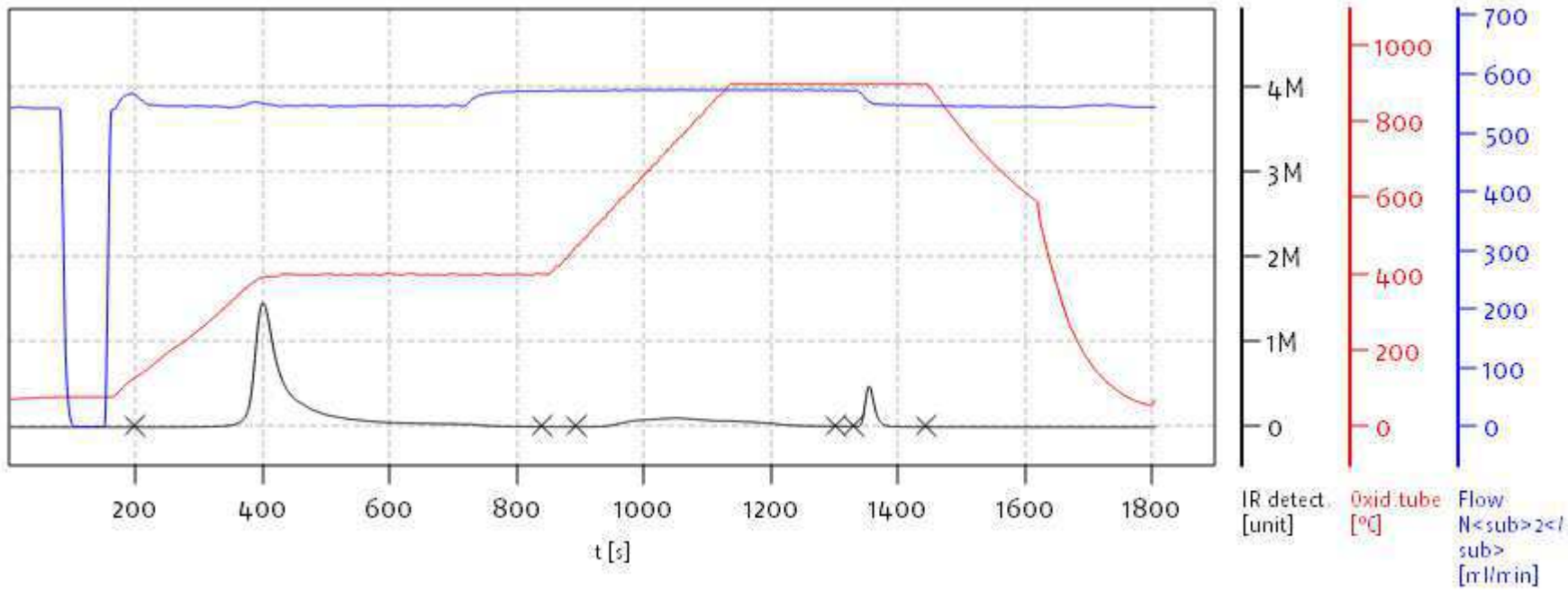
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Document: 011823 DOE from: --.--.-- (modified)

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
69	69	23A0328-10	539.60		CARBON	1/20/2023 7:32 PM	bl	1.026	3 310 291	1.247	0.085	322 240	795 775	0.941	0.221	0.9993	1.0000



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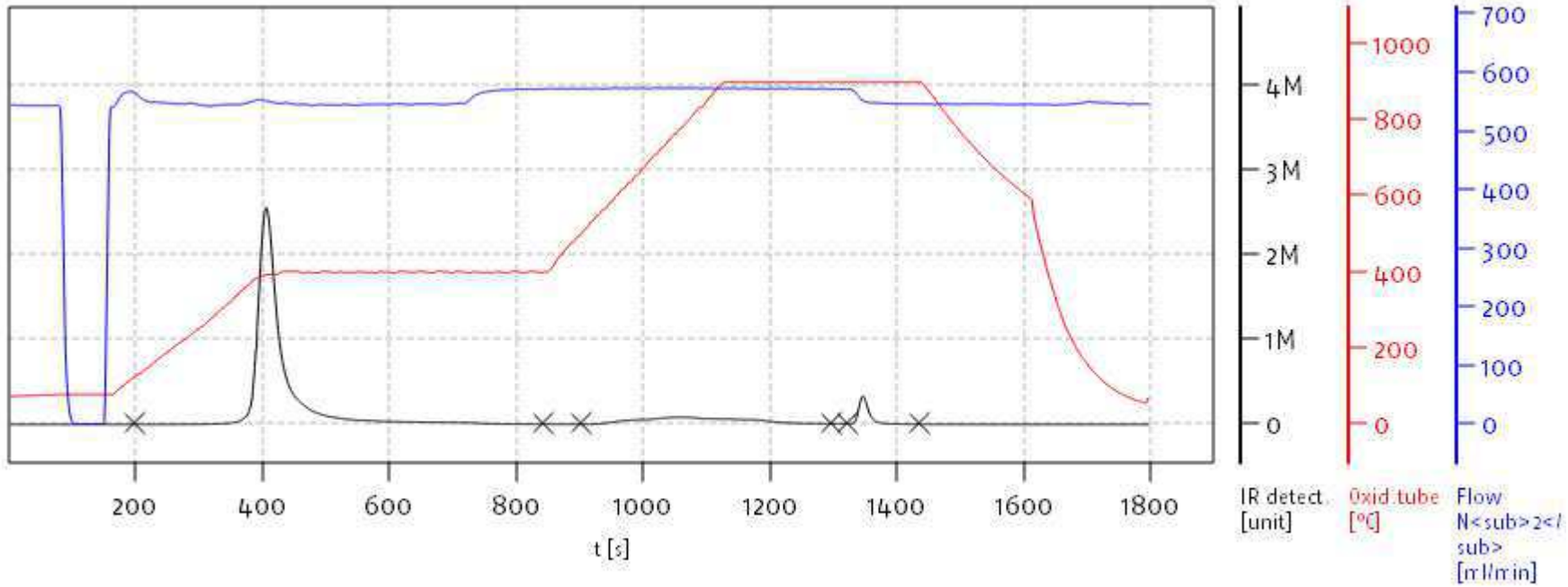
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
70	70	23A0328-11	547.80		CARBON	1/20/2023 8:02 PM	bl	1.201	4 065 308	1.379	0.061	240 978	656 104	1.140	0.178	0.9993	1.0000



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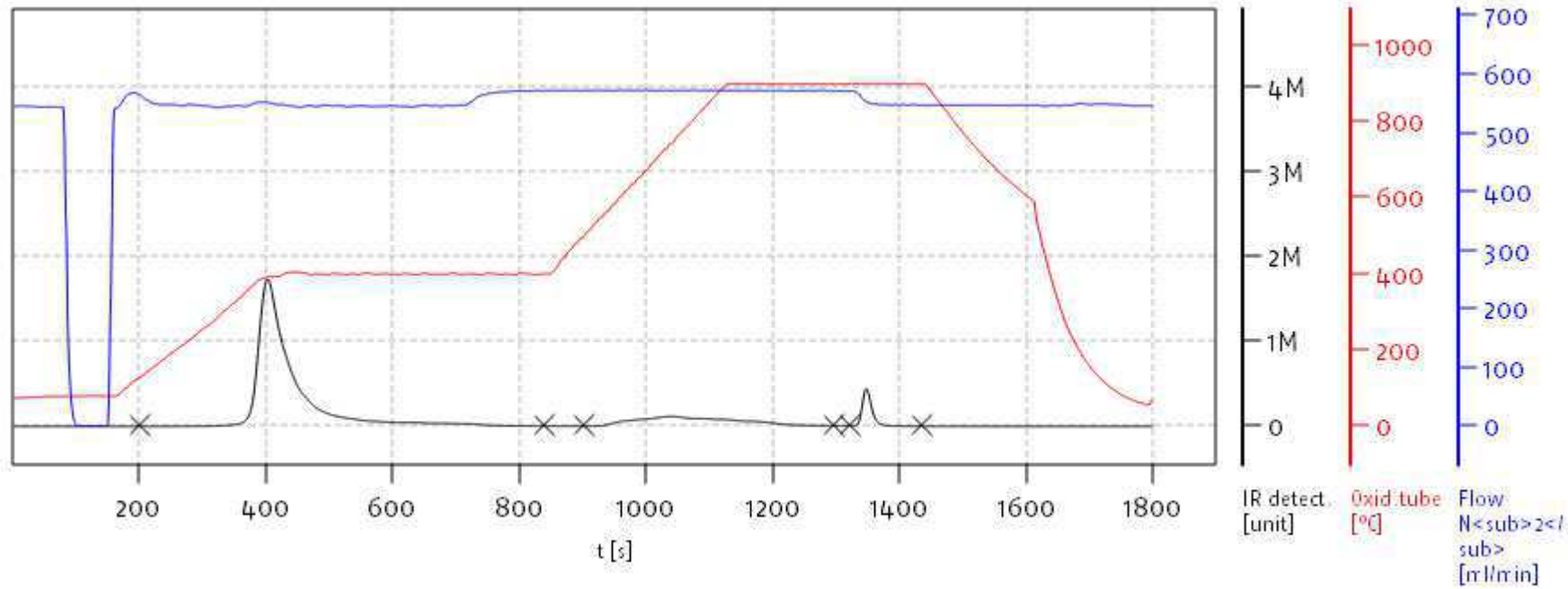
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Document: 011823 DOE from: --.--.-- (modified)

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
71	71	23A0328-12	553.20		CARBON	1/20/2023 8:32 PM	bl	1.175	3 959 429	1.402	0.076	297 024	837 761	1.100	0.227	0.9993	1.0000



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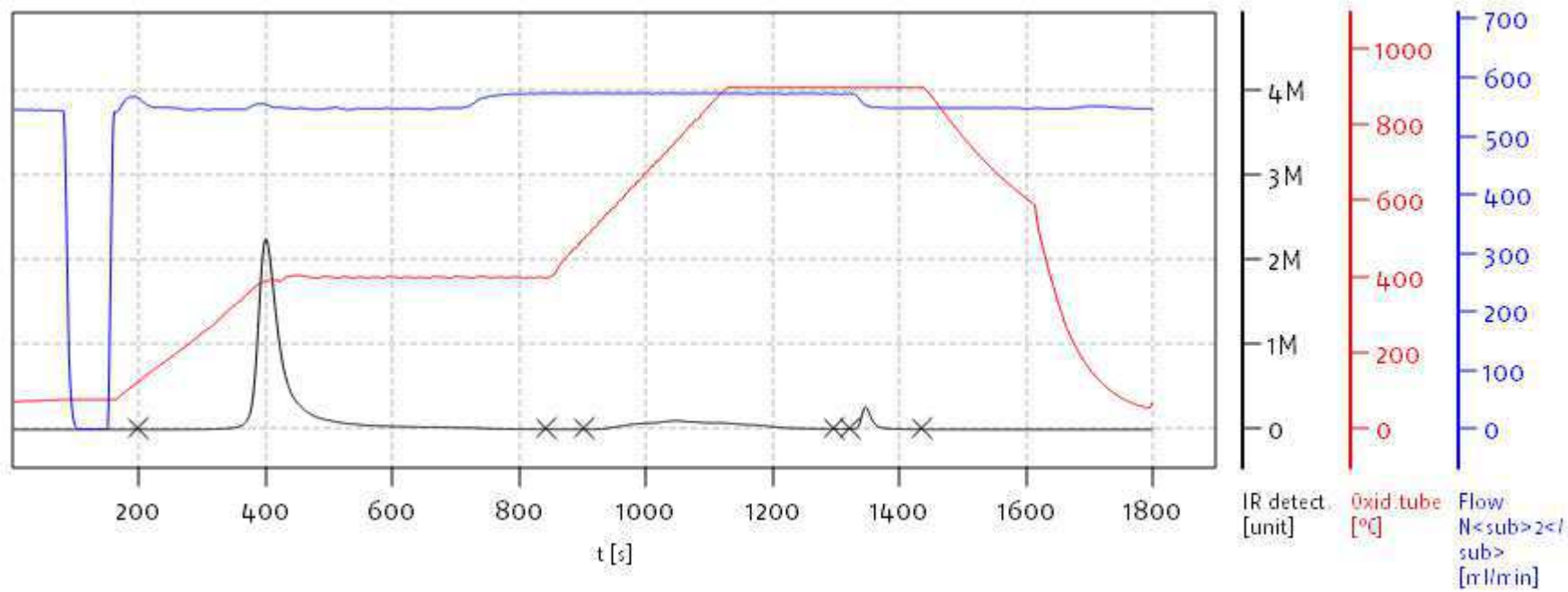
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
72	72	BLA0497-DUP1	532.90		CARBON	1/20/2023 9:03 PM	bl	1.179	3 917 538	1.386	0.050	198 695	737 603	1.129	0.207	0.9993	1.0000



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Access: soliTOC superuser

Date: Sat Jan 21 16:51:39 2023

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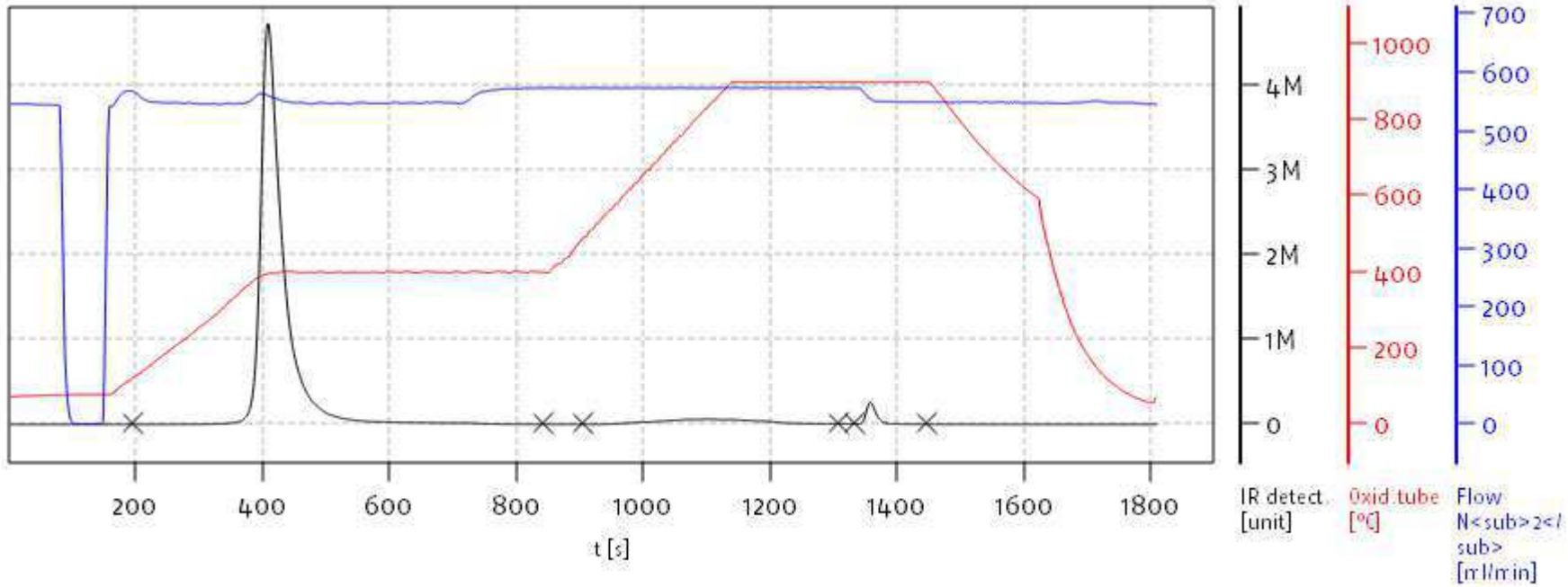
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
73	73	BLA0497-MS1	541.60	0.0092	CARBON	1/20/2023 9:33 PM	bl	2.118	7 285 509	2.239	0.045	184 028	449 286	2.073	0.121	0.9993	1.0000



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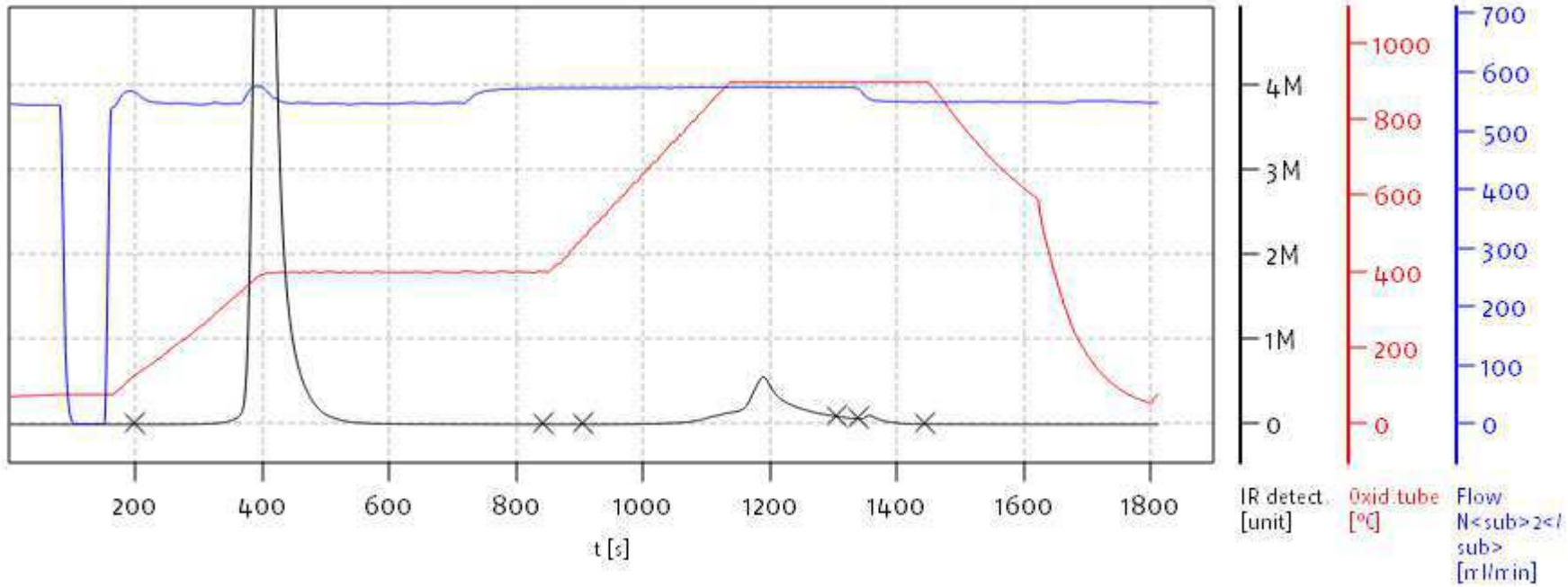
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
74	74	23A0385-01	508.90		CARBON	1/20/2023 10:04 PM	bl,C1o	4.391	14 353 566	4.937	0.036	144 148	1 823 046	4.355	0.546	0.9993	1.0000



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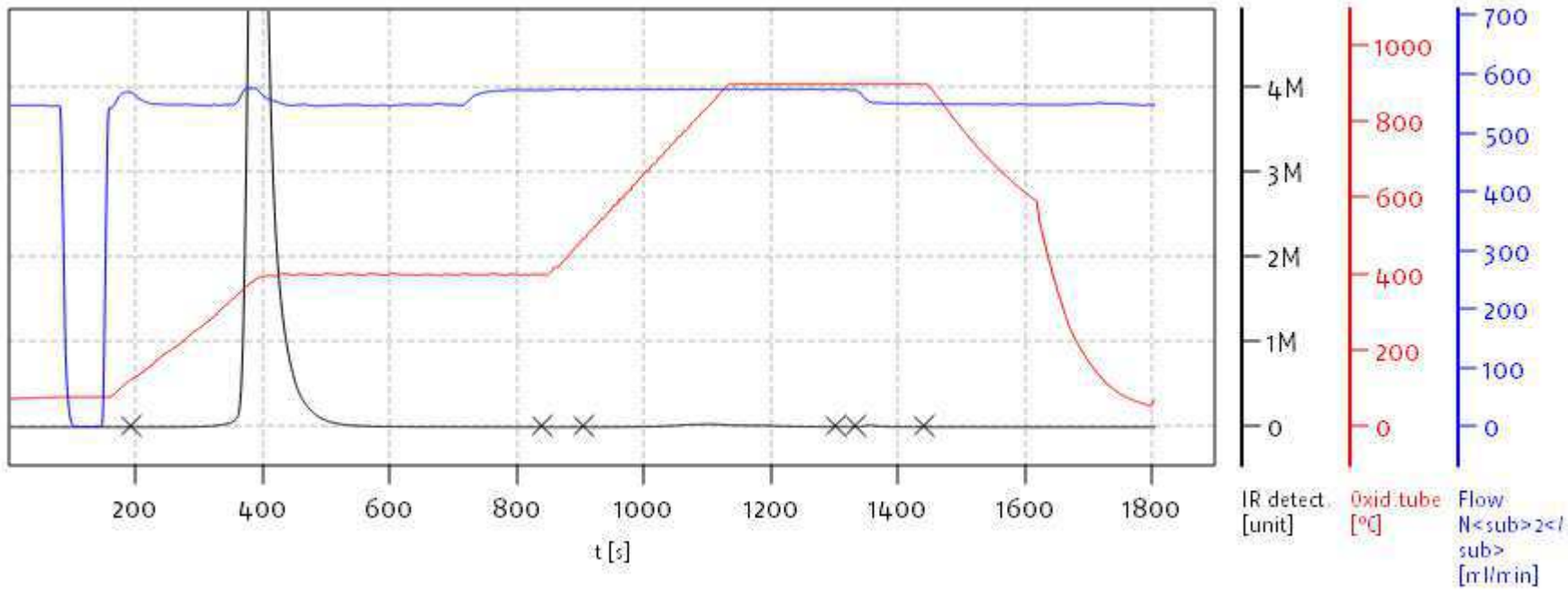
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
75	75	23A0385-02	505.20		CARBON	1/20/2023 10:34 PM	bl,C1o	4.371	14 300 265	4.420	0.000	24 911	188 295	4.371	0.050	0.9993	1.0000



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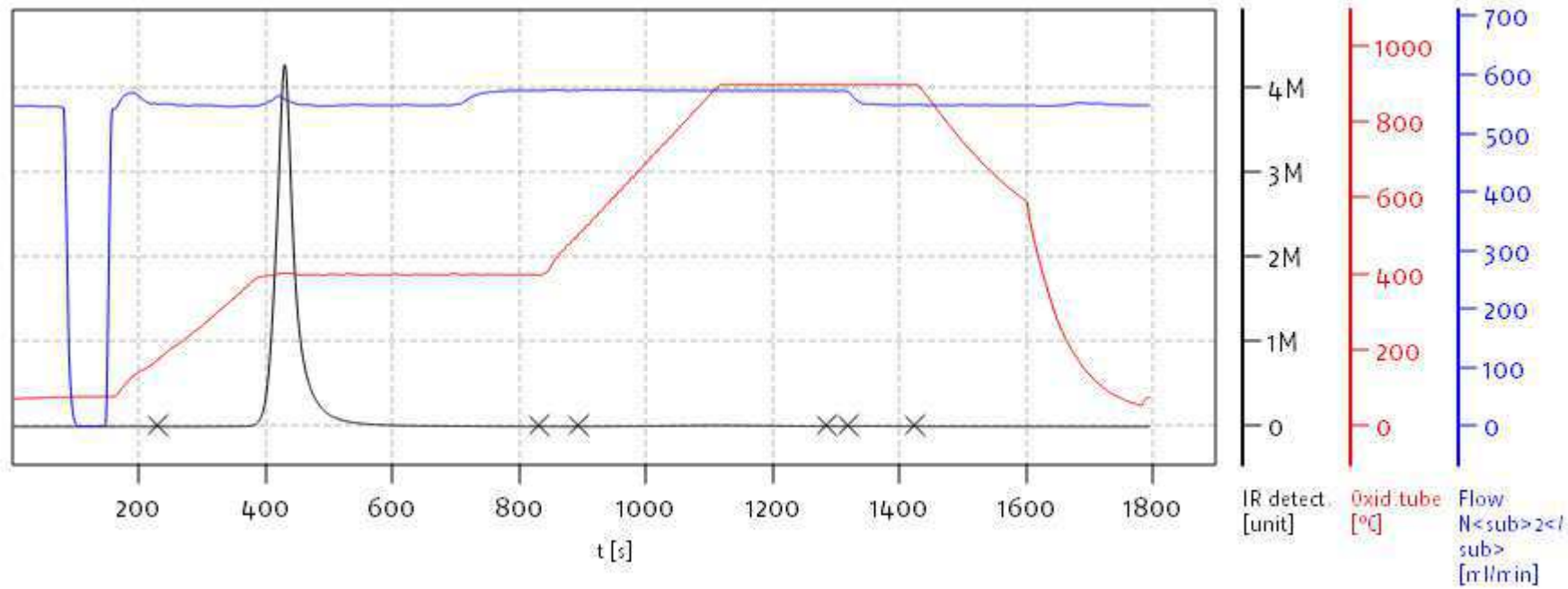
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
76	76	SLA0205-CCV6	19.80		CARBON	1/20/2023 11:05 PM	bl	44.922	5 776 448	45.585	0.000	16 490	111 373	44.922	0.663	0.9993	1.0000



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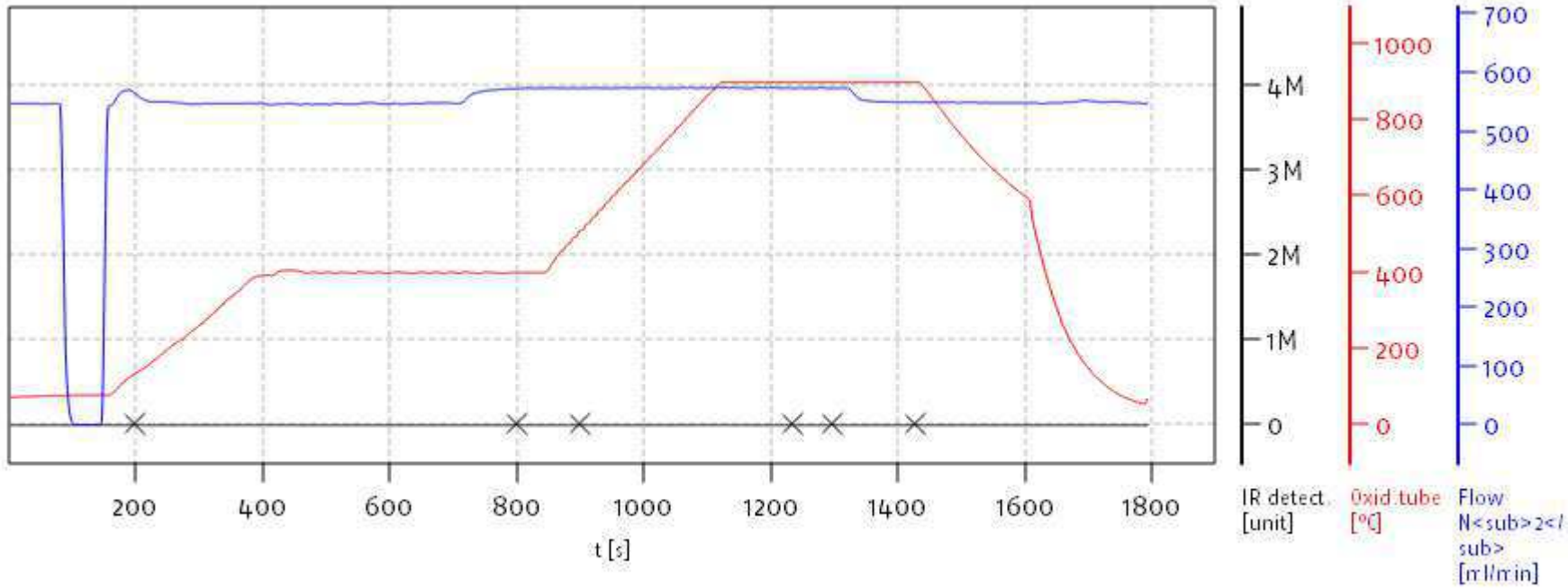
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
77	77	SLA0205-CCB6	511.90		CARBON	1/20/2023 11:35 PM	bl,C2u	0.000	6 186	0.000	0.000	633	3 848	0.000	0.000	0.9993	1.0000



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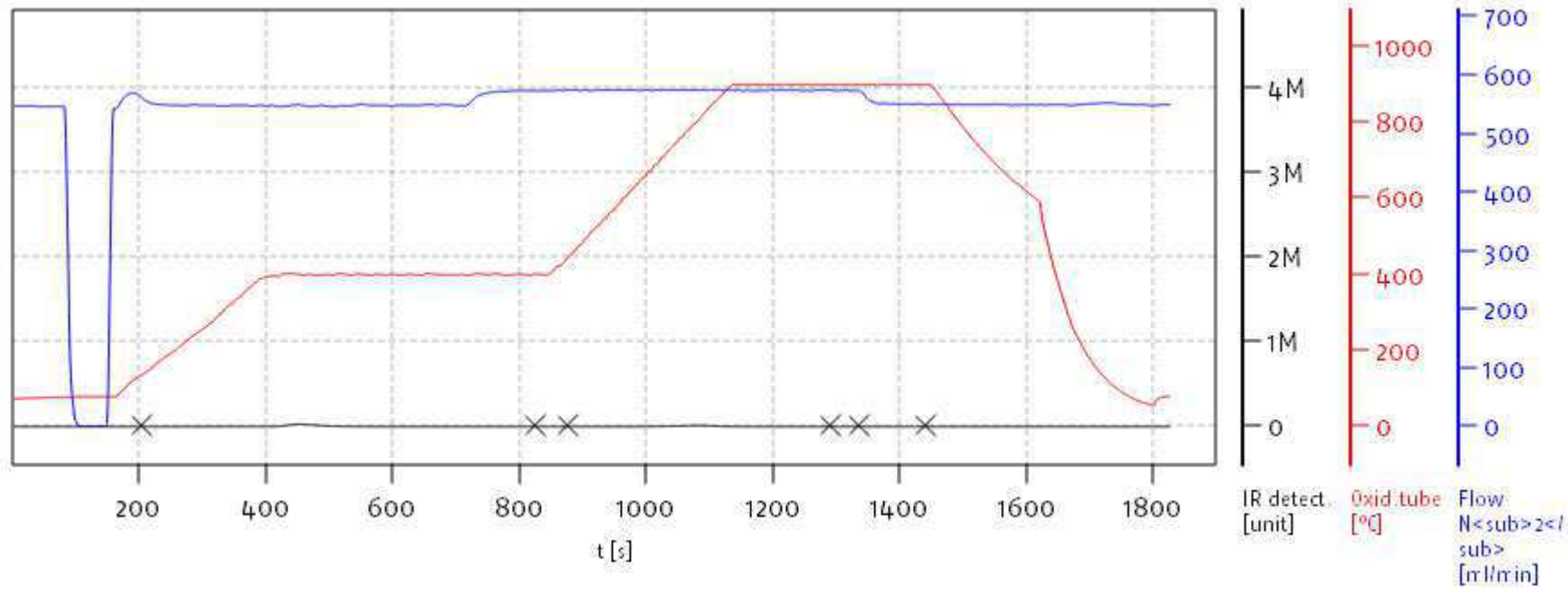
elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
78	78	BLA0497-MRL1	523.10		CARBON	1/21/2023 12:06 AM	bl,C2u	0.012	66 710	0.015	0.000	535	36 033	0.012	0.003	0.9993	1.0000



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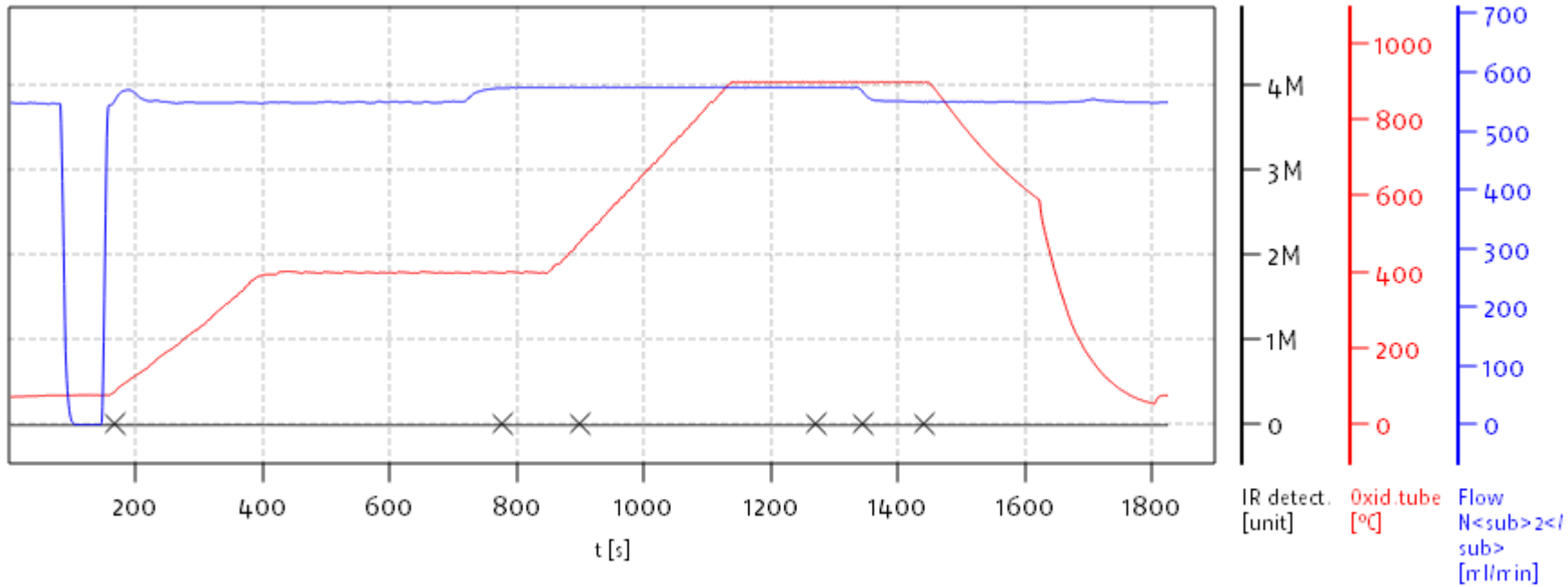
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
79	79	BLA0497-BLK1	538.30		CARBON	1/21/2023 12:37 AM	bl,C2u	0.000	10 651	0.000	0.000	463	3 436	0.000	0.000	0.9993	1.0000



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Balance: BAL3
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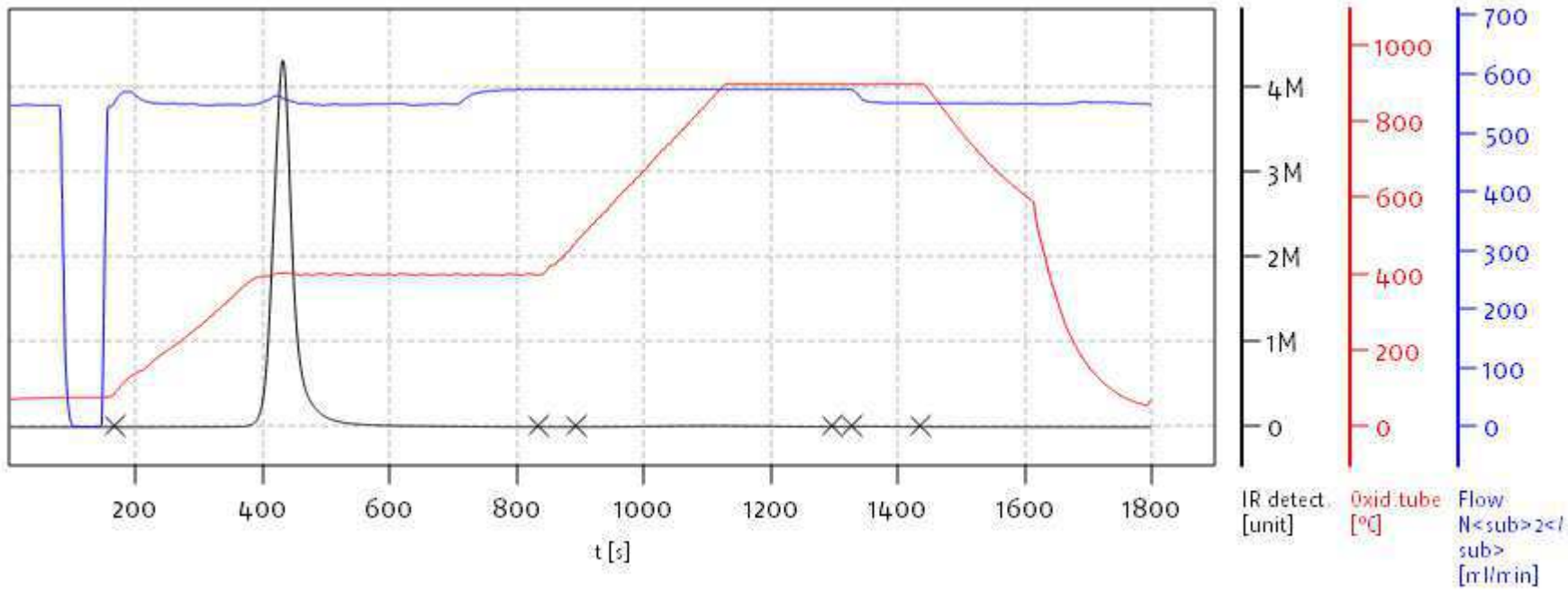
	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
80	80	BLA0497-BS1	20.20		CARBON	1/21/2023 1:07 AM	bl	45.739	5 999 344	46.462	0.000	19 210	120 890	45.739	0.723	0.9993	1.0000



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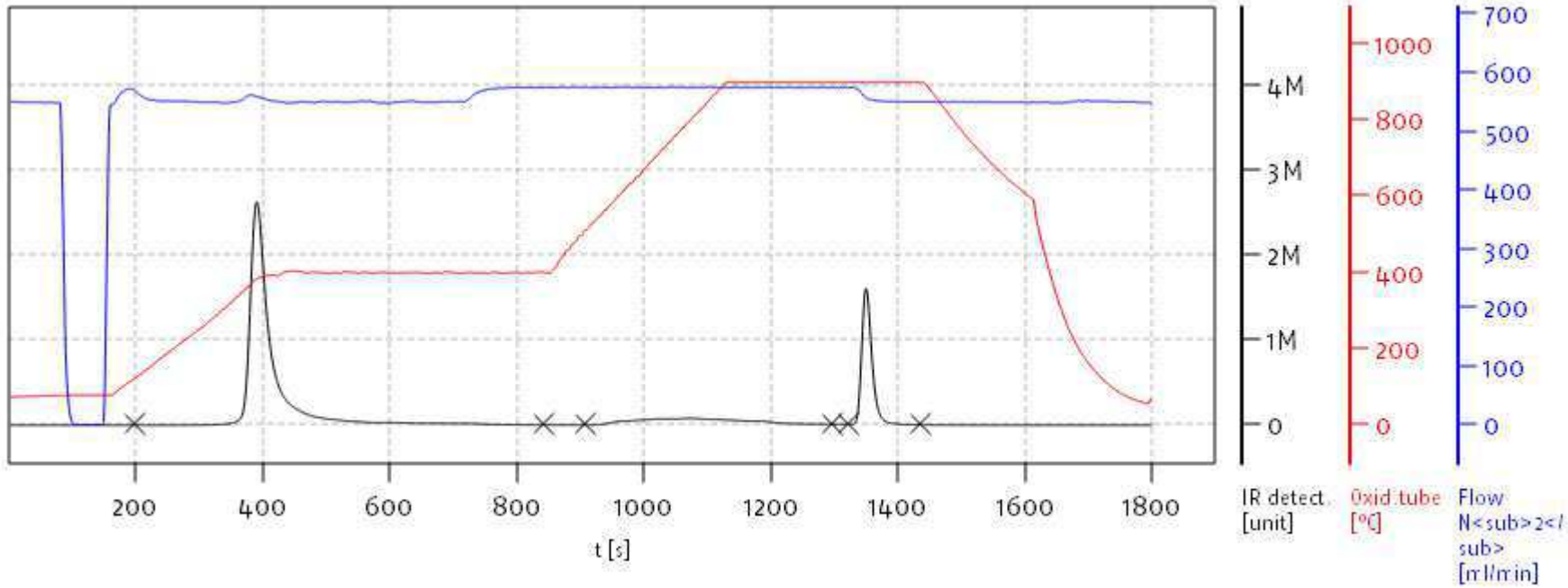
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
81	81	BLA0497-SRM1	252.50		CARBON	1/21/2023 1:38 AM	bl	2.967	3 752 126	3.351	0.684	1 142 776	653 691	2.282	0.384	0.9993	1.0000



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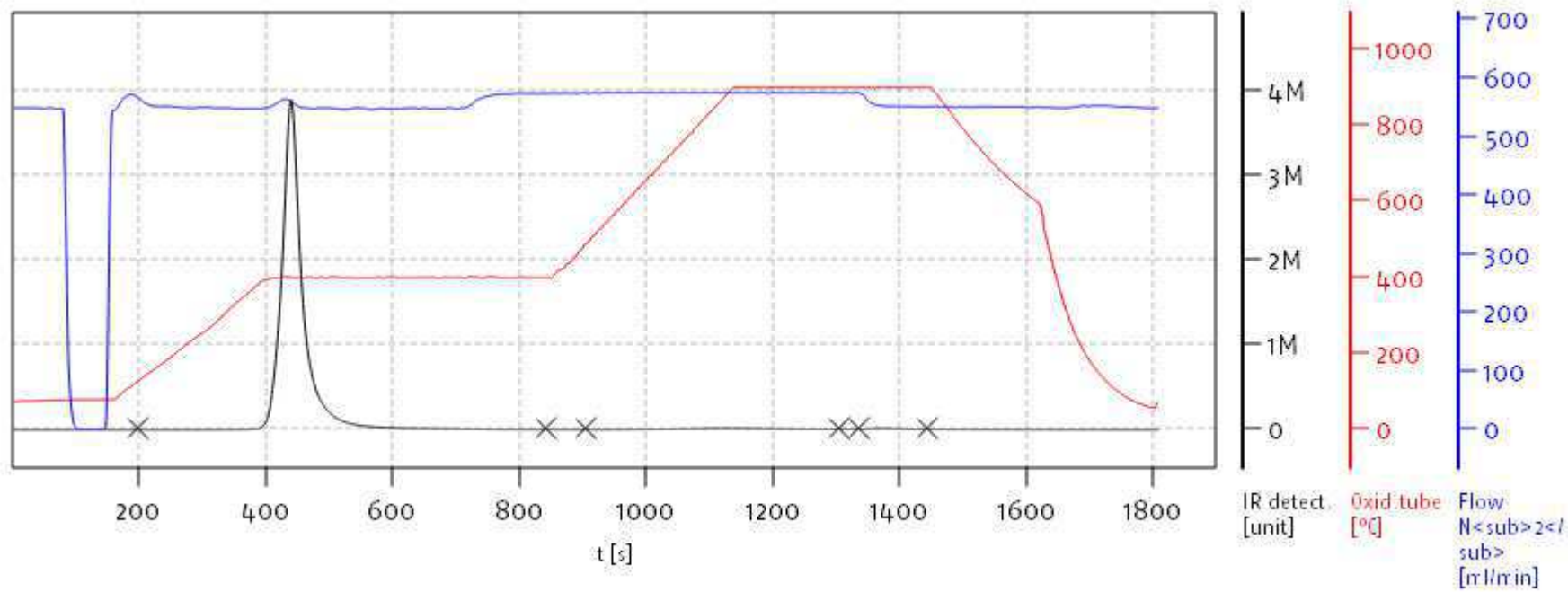
elementar
EXCELLENCE IN ELEMENTS

Document: 011823 DOE from: --.--.-- (modified)

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
82	82	SLA0205-CCV7	19.30		CARBON	1/21/2023 2:08 AM	bl	44.436	5 562 779	45.144	0.063	34 348	114 859	44.373	0.708	0.9993	1.0000



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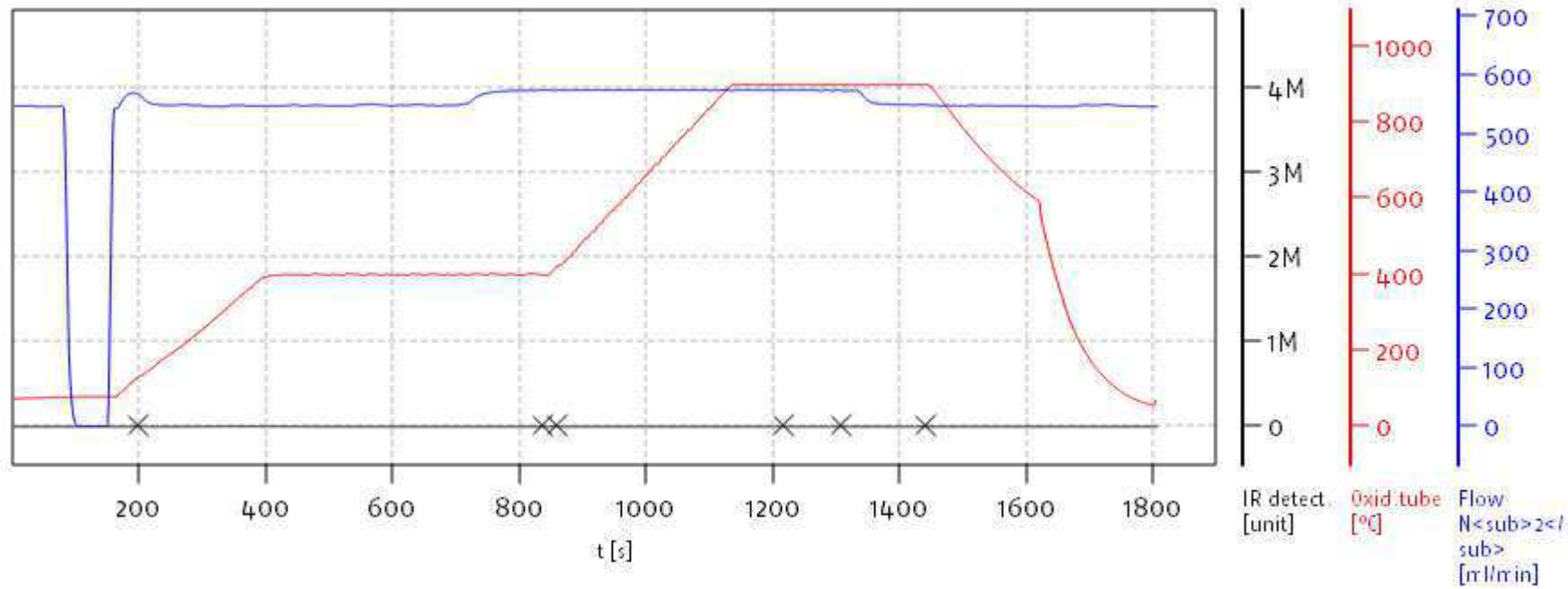
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Method	Date Time	Info	TOC [%]	TOC400 Area	TC [%]	ROC [%]	ROC Area	TIC900 Area	TOC400 [%]	TIC900 [%]	TOC400 Factor	TIC900 Factor
83	83	SLA0205-CCB7	528.10		CARBON	1/21/2023 2:39 AM	bl,C3u,C2u	0.000	13 646	0.000	0.000	890	881	0.000	0.000	0.9993	1.0000



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Serial No: 0300.181017
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elementar
EXCELLENCE IN ELEMENTS

Document: 011823 DOE from: --.--.-- (modified)

INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: FD00070
Instrument: TOC Cube
Calibration Date: 04/26/2022 11:29

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.0080973	1449743	0.014695	1300238	0.021293	1292913	0.02939	1293535	0.044385	2094063	0.05878	1400085
Total Carbon	0.0080973	1449743	0.014695	1300238	0.021293	1292913	0.02939	1293535	0.044385	2094063	0.05878	1400085
Total Inorganic Carbon	0.0080973	1449743	0.014695	1300238	0.021293	1292913	0.02939	1293535	0.044385	2094063	0.05878	1400085
% Soot	0.0080973	1449743	0.014695	1300238	0.021293	1292913	0.02939	1293535	0.044385	2094063	0.05878	1400085

INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FD00070	Instrument:	TOC Cube
Calibration Date:	04/26/2022 11:29		

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.074075	1370638	0.08937	1351930	0.12056	2158544	0.14995	1559046	0.24	1346463	0.288	1430135
Total Carbon	0.074075	1370638	0.08937	1351930	0.12056	2158544	0.14995	1559046	0.24	1346463	0.288	1430135
Total Inorganic Carbon	0.074075	1370638	0.08937	1351930	0.12056	2158544	0.14995	1559046	0.24	1346463	0.288	1430135
% Soot	0.074075	1370638	0.08937	1351930	0.12056	2158544	0.14995	1559046	0.24	1346463	0.288	1430135

INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Calibration: FD00070
Instrument: TOC Cube
Calibration Date: 04/26/2022 11:29

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.414	1337053	0.606	1385937	0.894	1382774	1.188	1379790	1.5	1375927	1.818	1372882
Total Carbon	0.414	1337053	0.606	1385937	0.894	1382774	1.188	1379790	1.5	1375927	1.818	1372882
Total Inorganic Carbon	0.414	1337053	0.606	1385937	0.894	1382774	1.188	1379790	1.5	1375927	1.818	1372882
% Soot	0.414	1337053	0.606	1385937	0.894	1382774	1.188	1379790	1.5	1375927	1.818	1372882

Analytical Resources, LLC
Analytical Chemists and Consultants

INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FD00070	Instrument:	TOC Cube
Calibration Date:	04/26/2022 11:29		

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	2.49	1398606	2.982	1376871	4.188	1256057	4.818	1279542	5.406	1283358	7.2	1301408
Total Carbon	2.49	1398606	2.982	1376871	4.188	1256057	4.818	1279542	5.406	1283358	7.2	1301408
Total Inorganic Carbon	2.49	1398606	2.982	1376871	4.188	1256057	4.818	1279542	5.406	1283358	7.2	1301408
% Soot	2.49	1398606	2.982	1376871	4.188	1256057	4.818	1279542	5.406	1283358	7.2	1301408

INITIAL CALIBRATION DATA

EPA 9060A m

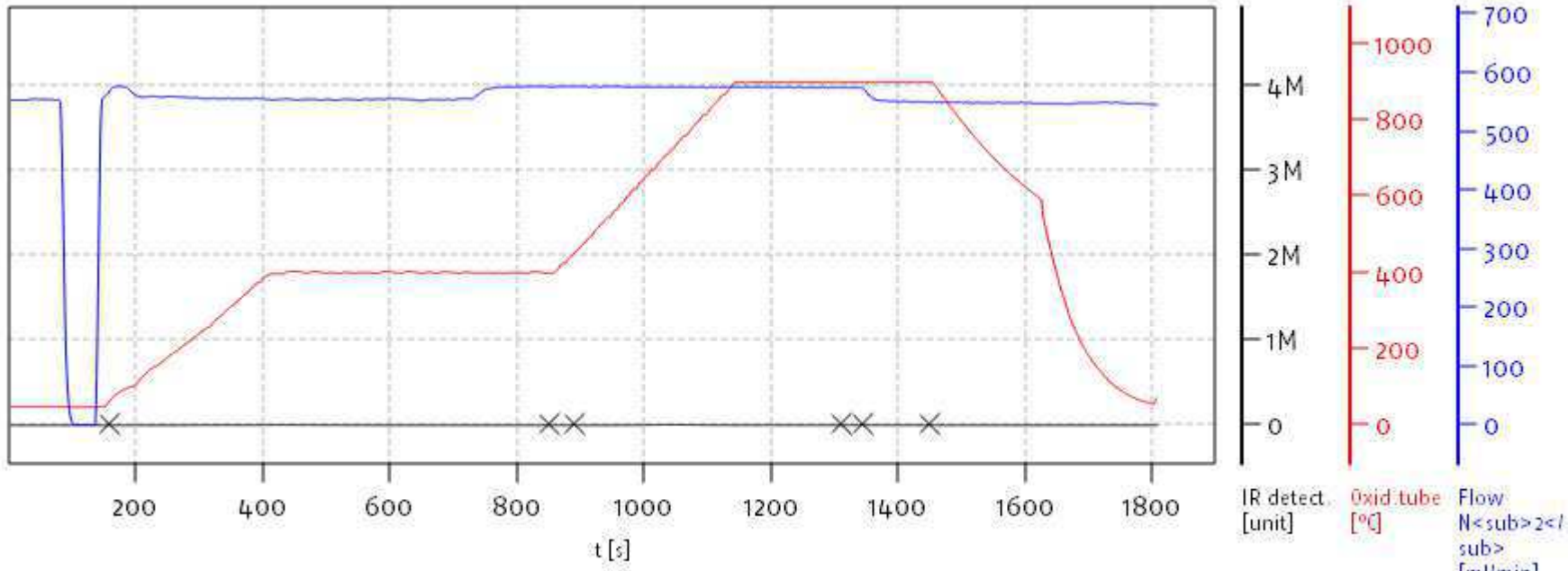
Laboratory:	Analytical Resources, LLC	SDG:	23A0313
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FD00070	Instrument:	TOC Cube
Calibration Date:	04/26/2022 11:29		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Total Organic Carbon	1424064	15.9	0.9988			
Total Carbon	1424064	15.9	0.9988			
Total Inorganic Carbon	1424064	15.9	0.9988			
% Soot	1424064	15.9	0.9988			

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

Analytical Resources, Incorporated
Analytical Chemists and Consultants

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
1	1	BLANK	1.00		1.00	CARBON	4/26/2022 11:29 AM	0.000	0.000	0.000	bl	29 049	30 612	3 899	1.0000	1.0000



Name:

Access: soliTOC superuser

Date: Wed Apr 27 11:07:12 2022

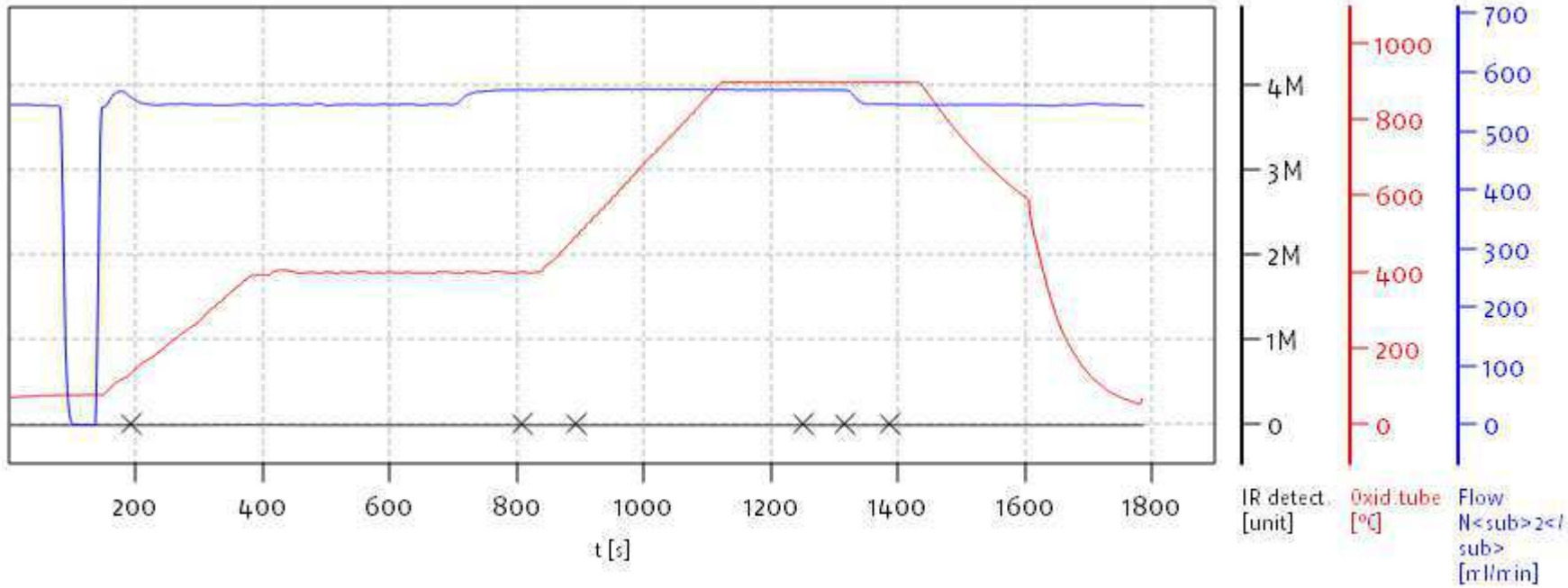
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Document: 042622 DOE CALIBRATION from: 4/27/2022 11:05 AM

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
2	2	BLANK	1.00		1.00	CARBON	4/26/2022 12:00 PM	0.000	0.000	0.000	bl	11 115	60	8	1.0000	1.0000



Name:

Access: soliTOC superuser

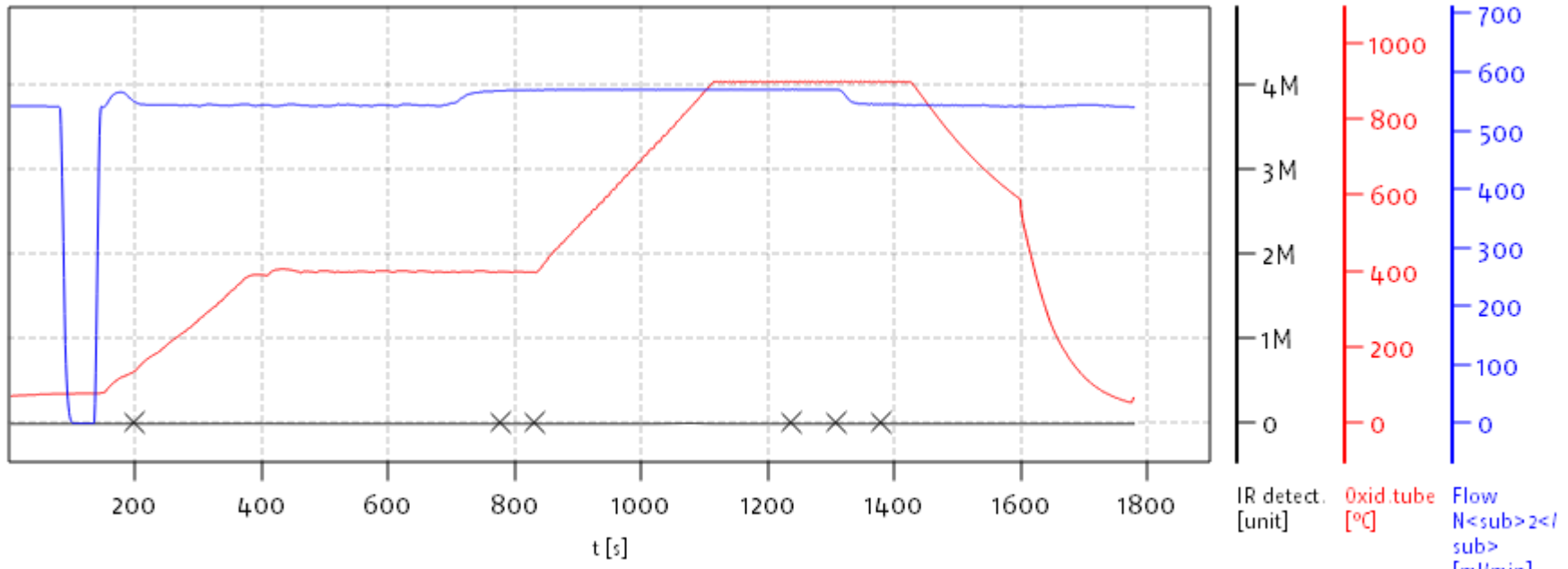
Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
3	3	SEQ-CAL1	200.00	0.0027	1.00	CARBON	4/26/2022 12:30 PM	0.010	0.008	0.018	bl,C1u,C2u	7 294	11 739	22	1.0000	0.7425



Name:

Access: soliTOC superuser

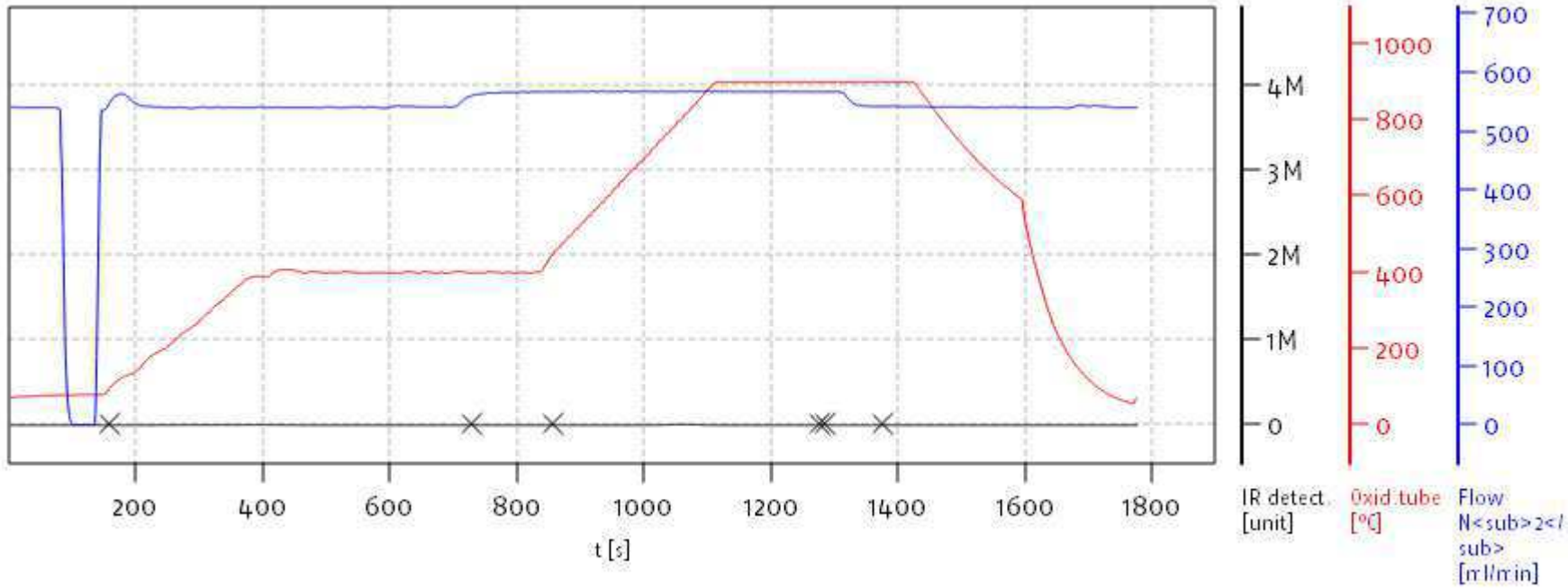
Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Document: 042622 DOE CALIBRATION from: 4/27/2022 11:05 AM

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
4	4	SEQ-CAL2	200.00	0.0049	1.00	CARBON	4/26/2022 1:00 PM	0.023	0.015	0.038	bl,C2u	23 296	19 107	47	1.0000	0.8936



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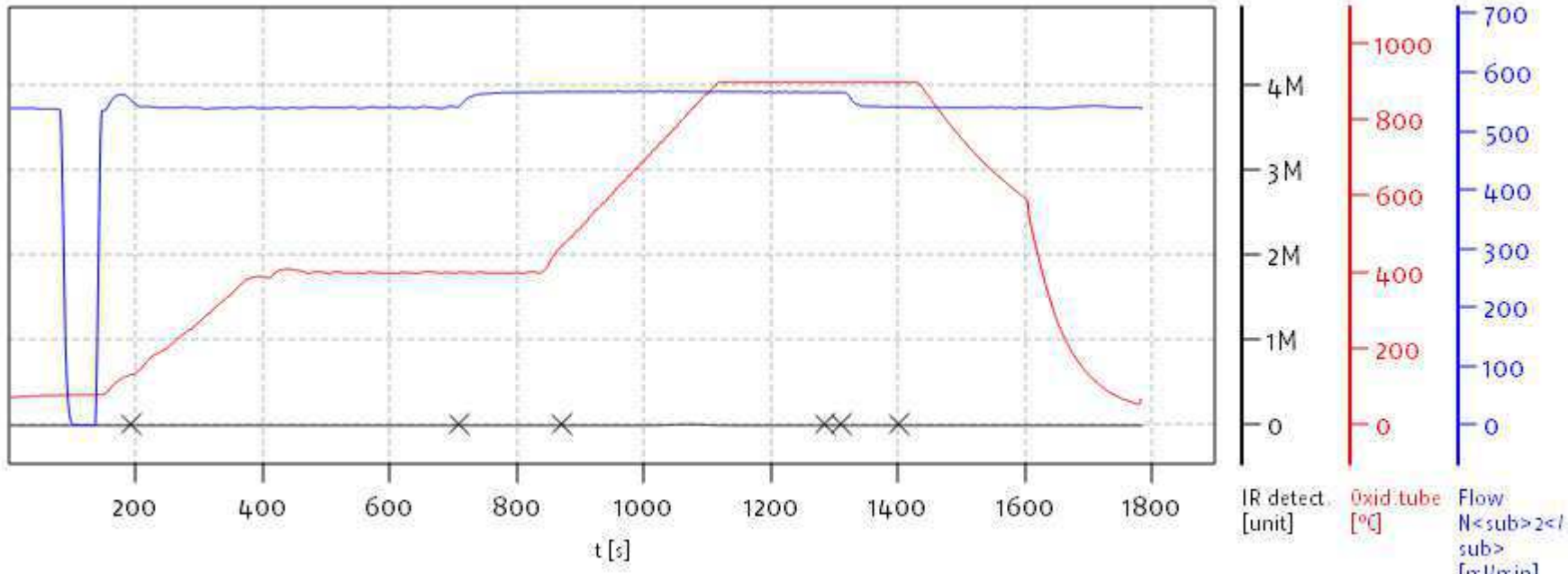
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
5	5	SEQ-CAL3	200.00	0.0071	1.00	CARBON	4/26/2022 1:30 PM	0.006	0.022	0.028	bl,C1u,C2u	2 319	27 530	170	1.0000	0.9343



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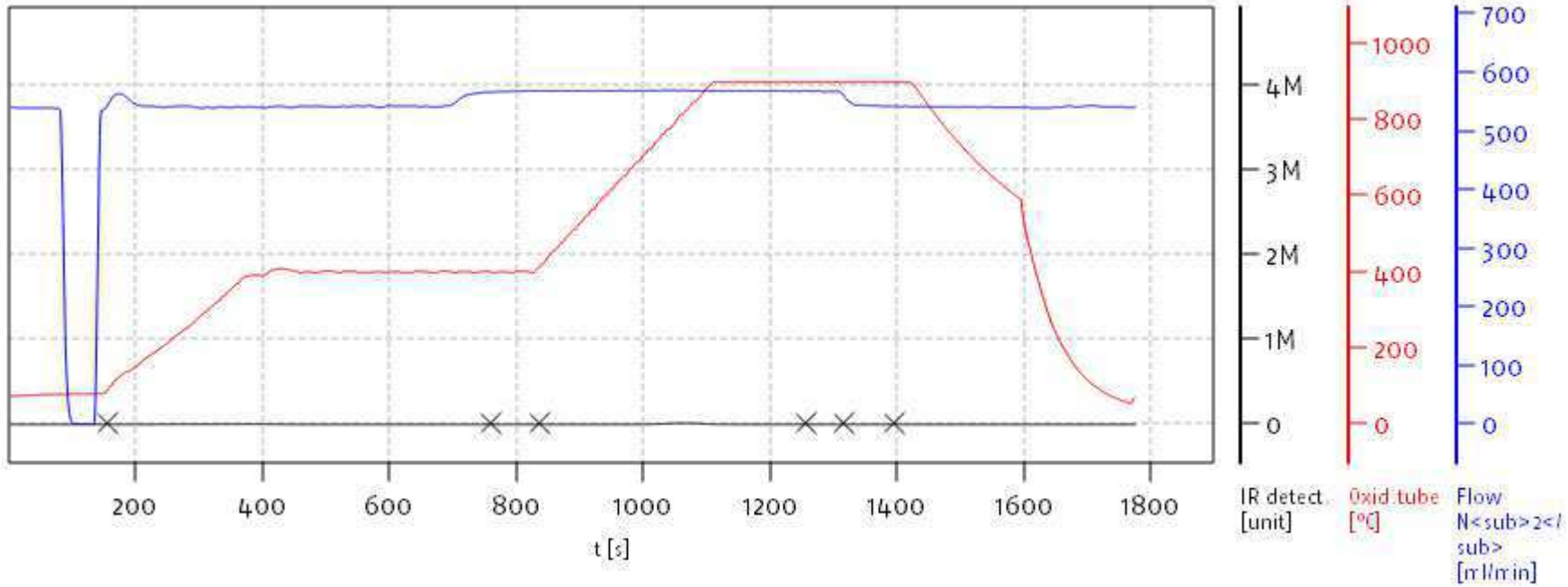
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
6	6	SEQ-CAL4	200.00	0.0098	1.00	CARBON	4/26/2022 2:00 PM	0.020	0.030	0.050	bl,C2u	19 746	38 017	109	1.0000	0.9461



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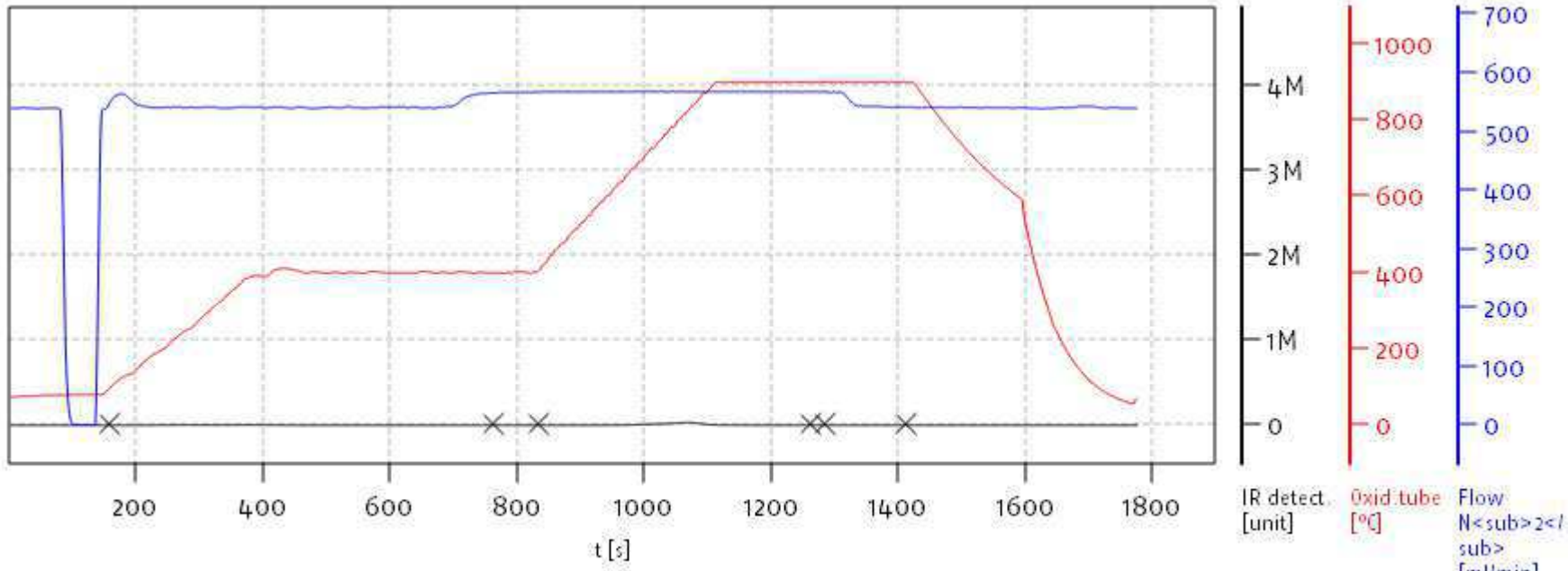
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
7	7	SEQ-CAL5	200.00	0.0148	1.00	CARBON	4/26/2022 2:30 PM	0.021	0.045	0.066	bl,C2u	20 951	92 945	236	1.0000	0.5975



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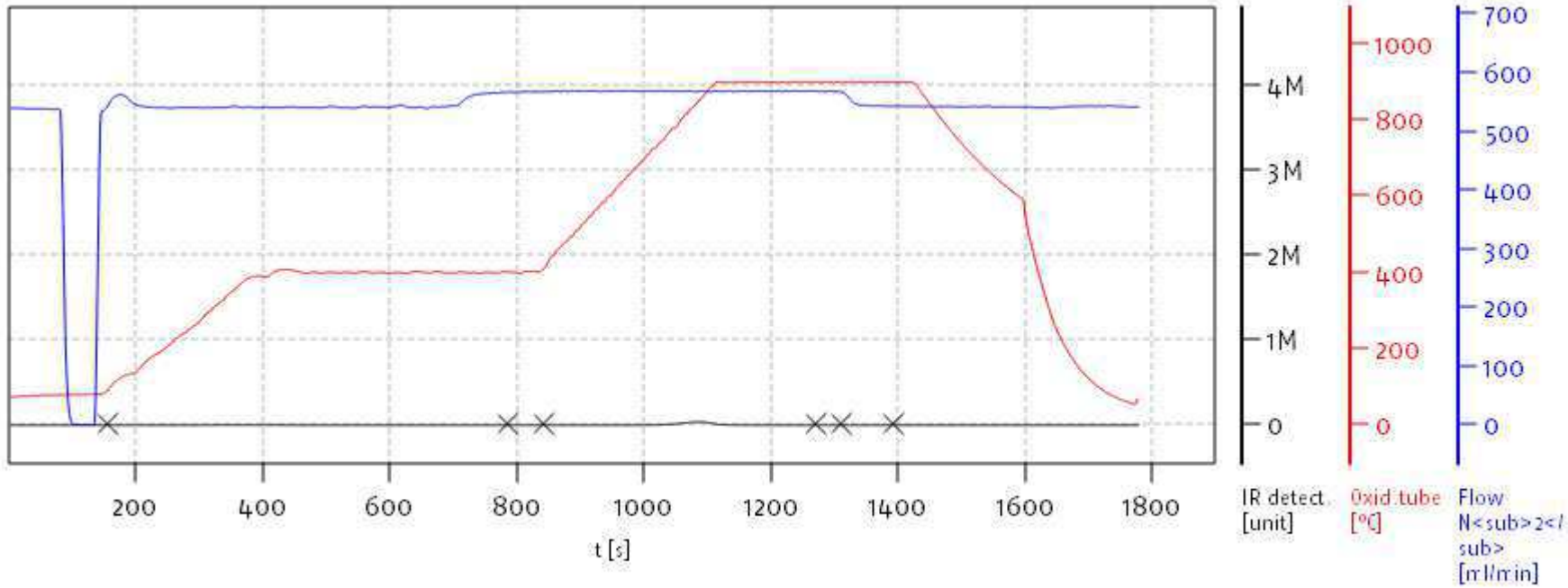
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
8	8	SEQ-CAL6	200.00	0.0196	1.00	CARBON	4/26/2022 3:00 PM	0.012	0.061	0.073	bl,C2u	10 118	82 297	59	1.0000	0.9144



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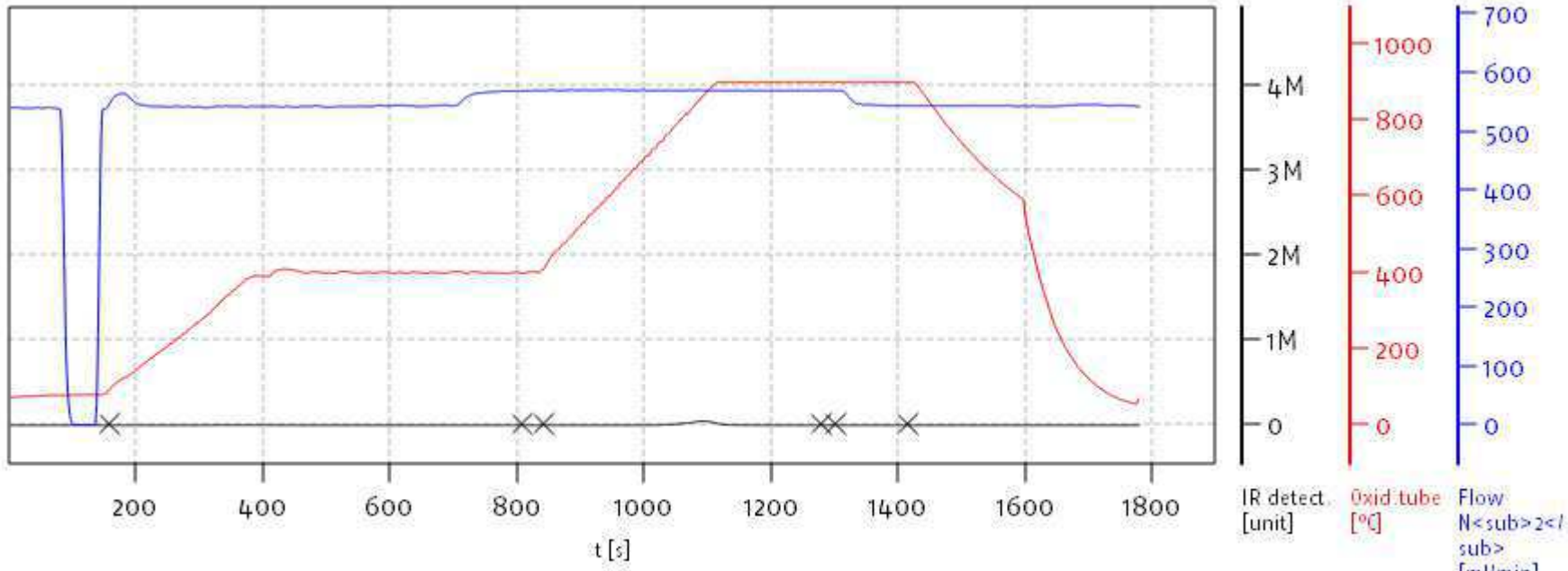
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
9	9	SEQ-CAL7	200.00	0.0247	1.00	CARBON	4/26/2022 3:30 PM	0.013	0.075	0.088	bl,C2u	10 555	101 530	292	1.0000	0.9173



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soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
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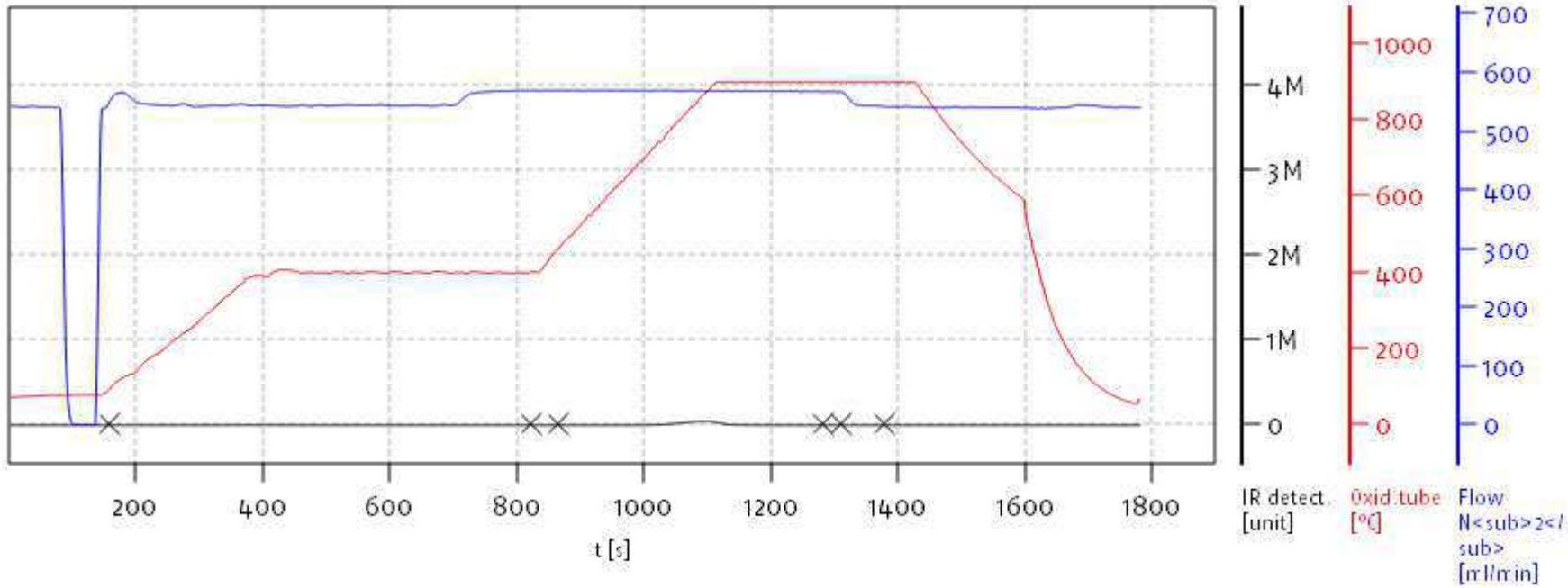
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
10	10	SEQ-CAL8	200.00	0.0298	1.00	CARBON	4/26/2022 4:00 PM	0.009	0.091	0.100	bl,C1u,C2u	6 668	120 822	116	1.0000	0.9312



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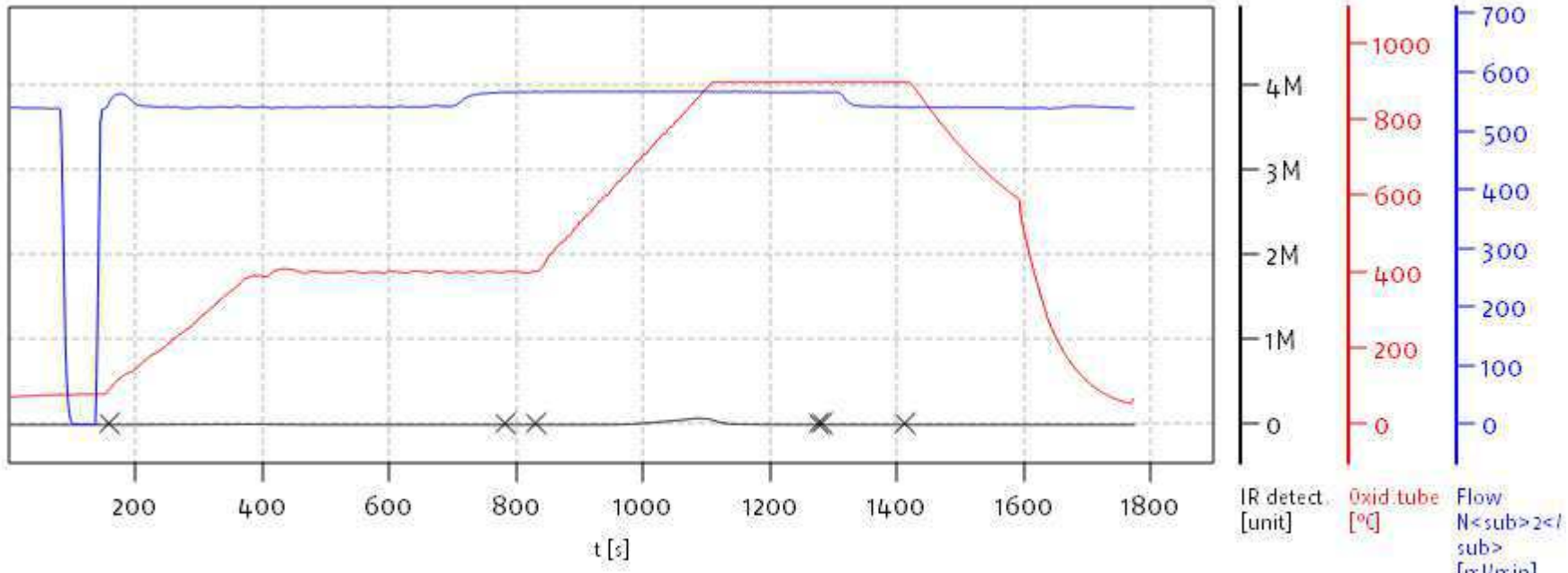
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
11	11	SEQ-CAL9	200.00	0.0402	1.00	CARBON	4/26/2022 4:30 PM	0.031	0.120	0.151	bl,C2u	32 999	260 234	1 044	1.0000	0.5792



Name:

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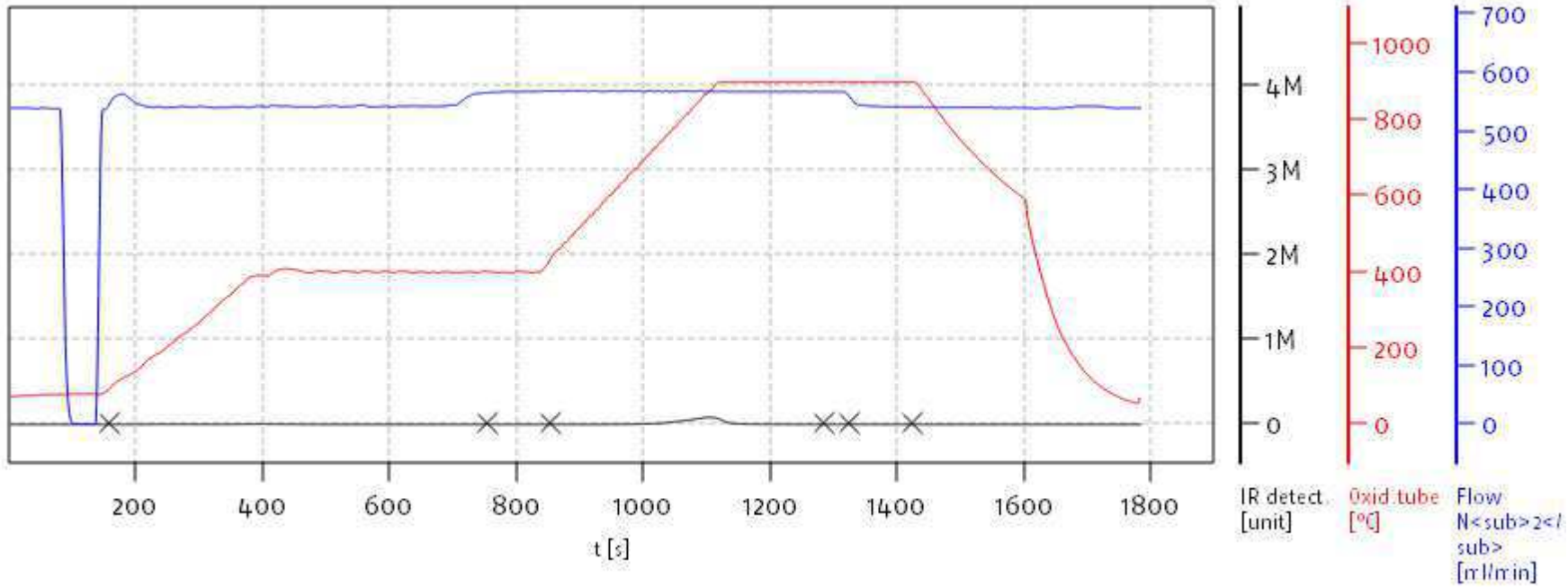
Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
12	12	SEQ-CALA	200.00	0.0500	1.00	CARBON	4/26/2022 5:00 PM	0.021	0.151	0.172	bl,C2u	20 147	233 779	913	1.0000	0.8099



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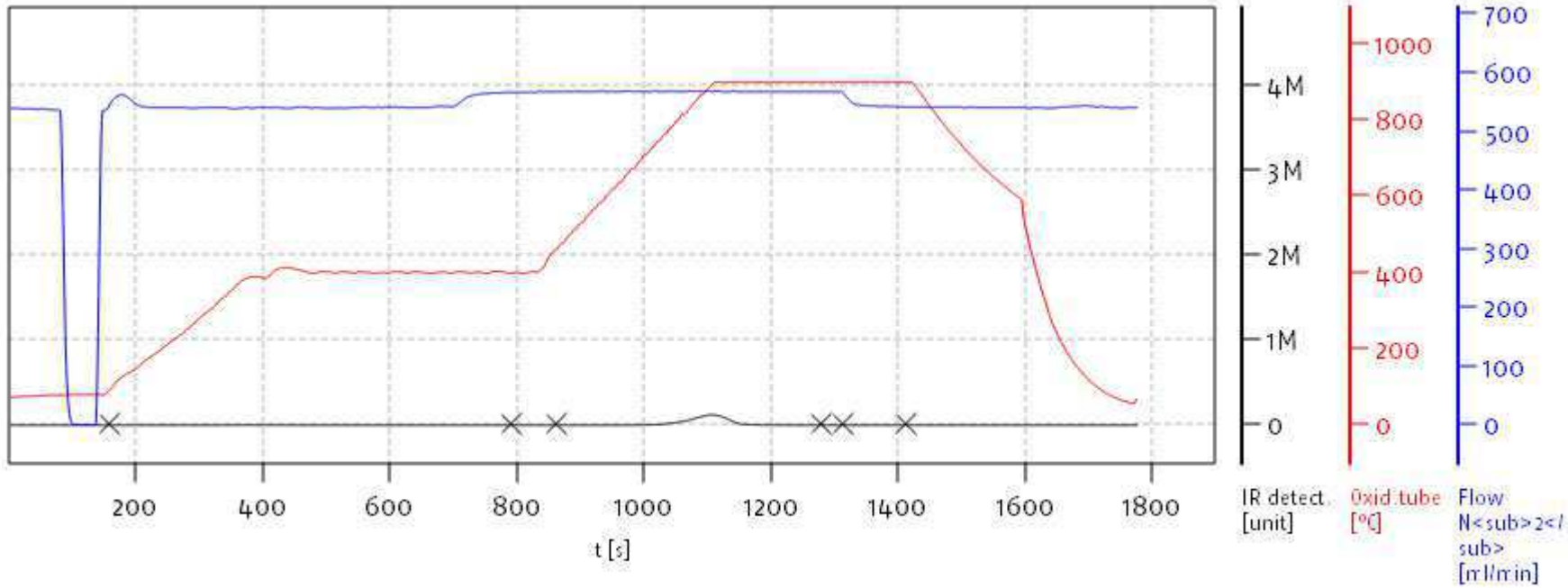
Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
13	13	SEQ-CALB	200.00	0.0040	1.00	CARBON	4/26/2022 5:30 PM	0.010	0.258	0.268	bl,C1u,C2u	7 070	323 151	663	1.0000	1.0048



Name:

Access: soliTOC superuser

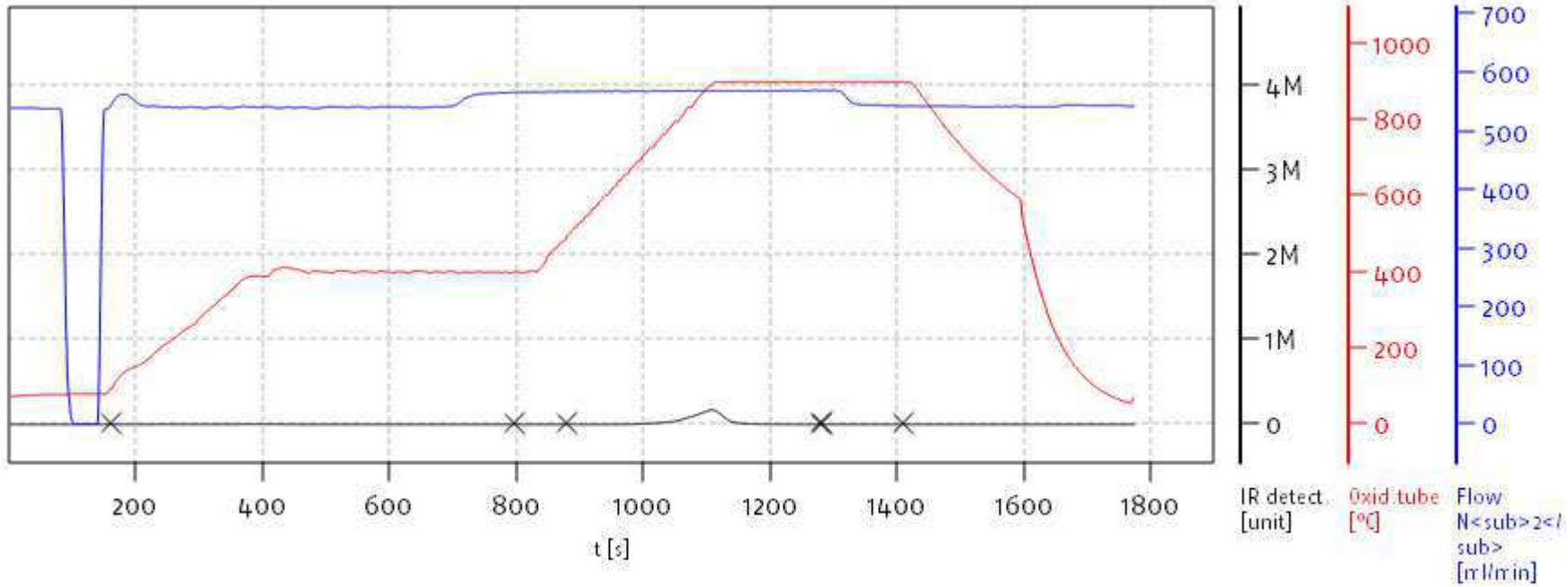
Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
14	14	SEQ-CALC	200.00	0.0048	1.00	CARBON	4/26/2022 6:00 PM	0.015	0.324	0.339	bl,C2u	13 785	411 879	575	1.0000	0.9917



Name:

Access: soliTOC superuser

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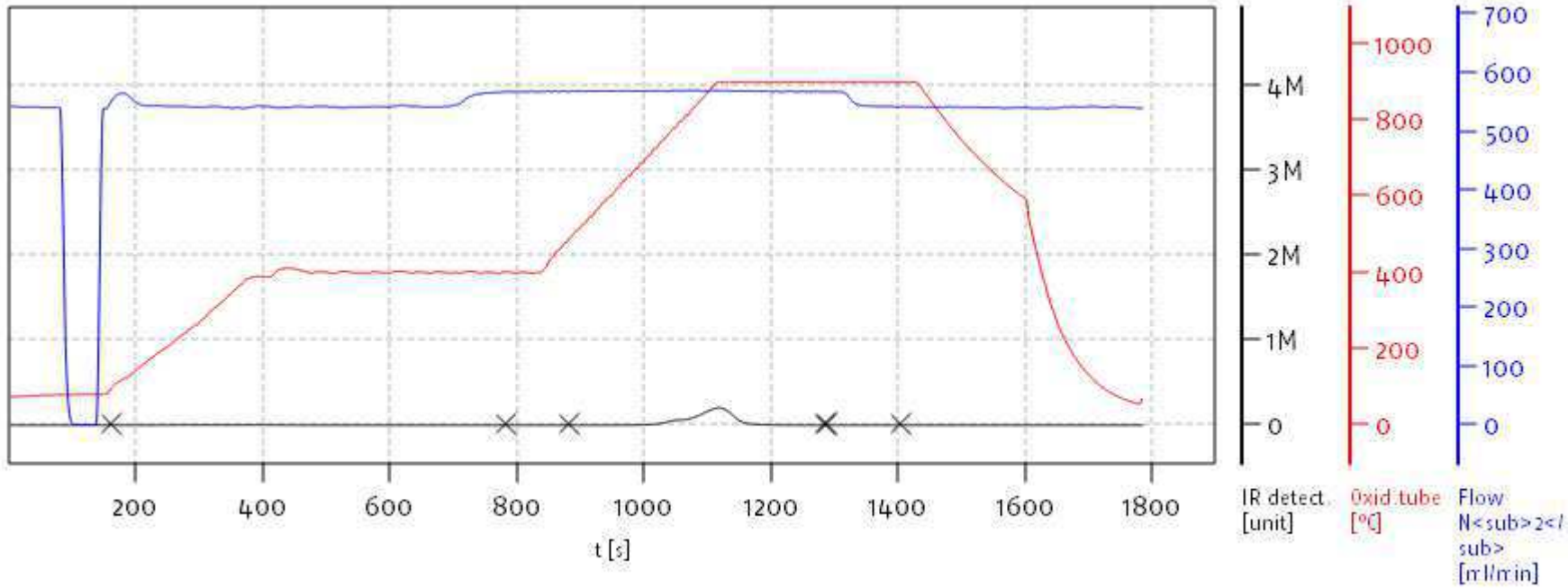
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
15	15	SEQ-CALD	200.00	0.0069	1.00	CARBON	4/26/2022 6:30 PM	0.019	0.444	0.463	bl,C2u	18 465	553 540	263	1.0000	1.0129



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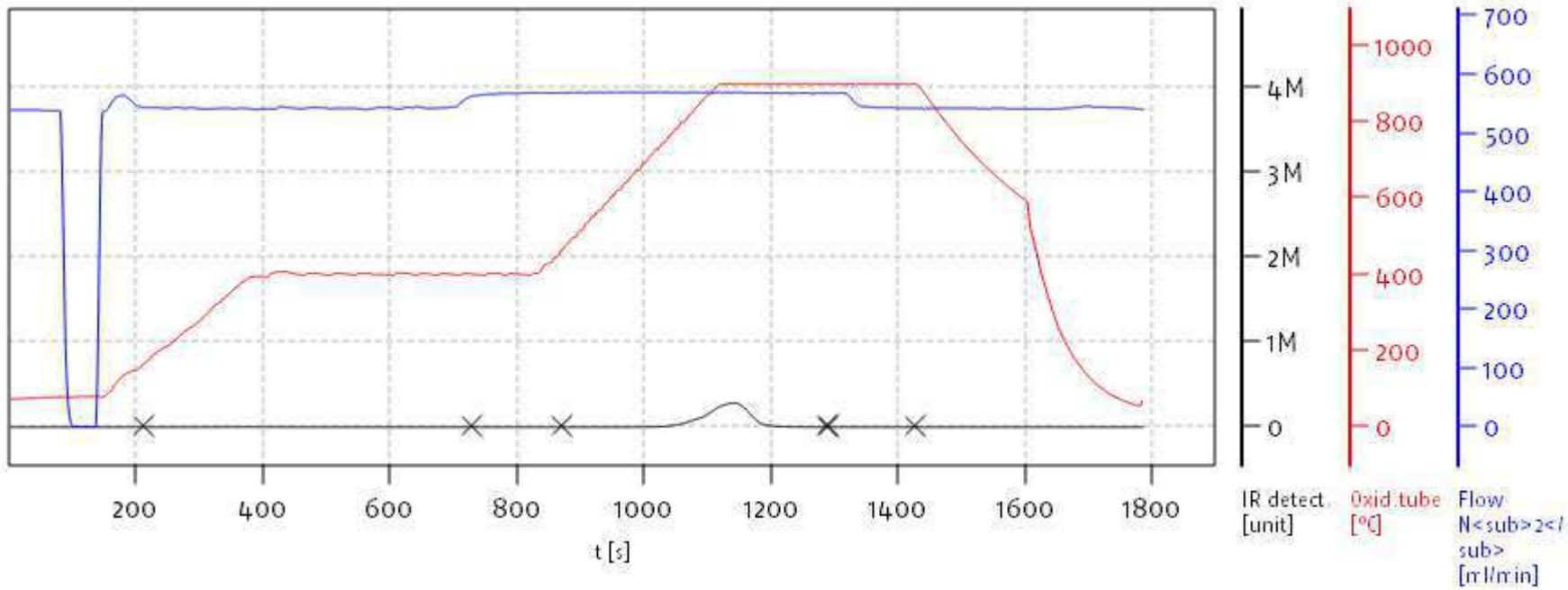
elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
16	16	SEQ-CALE	200.00	0.0101	1.00	CARBON	4/26/2022 7:00 PM	0.009	0.600	0.609	bl,C1u,C2u	5 485	839 878	536	1.0000	0.9036



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elementar
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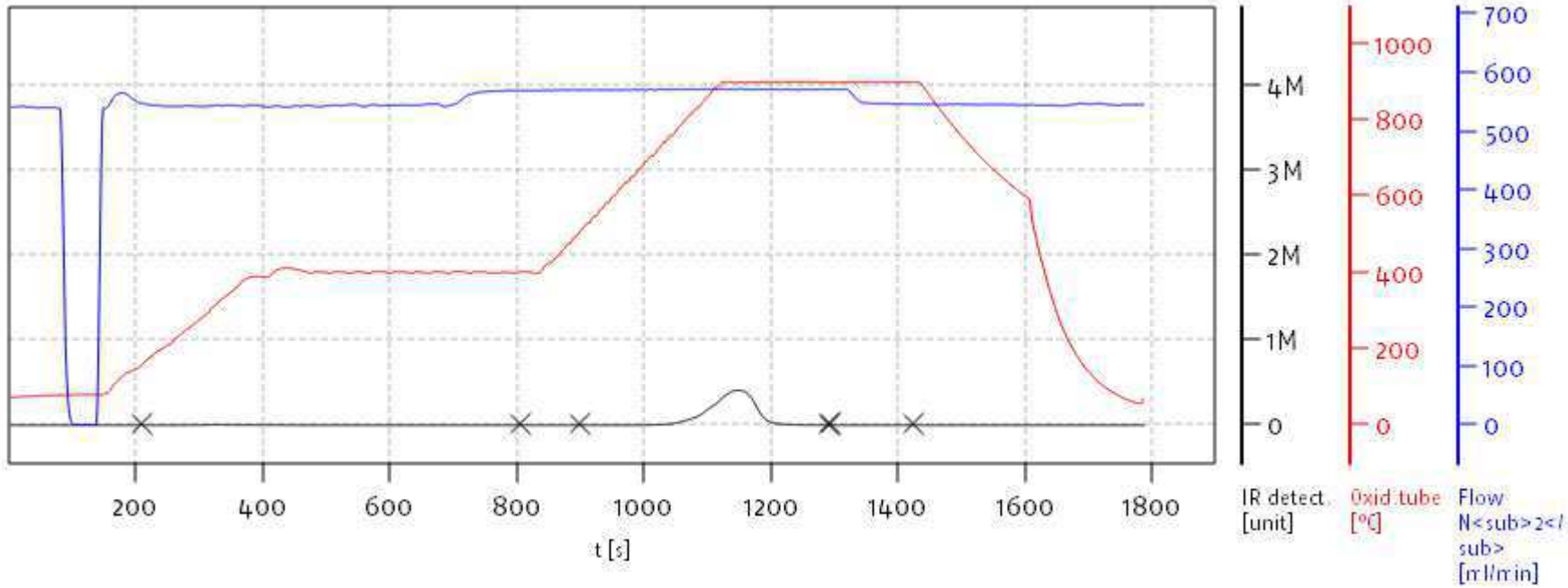
Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
17	17	SEQ-CALF	200.00	0.0149	1.00	CARBON	4/26/2022 7:31 PM	0.019	0.906	0.925	bl,C2u	17 439	1 236 200	814	1.0000	0.9279



Name:

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soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
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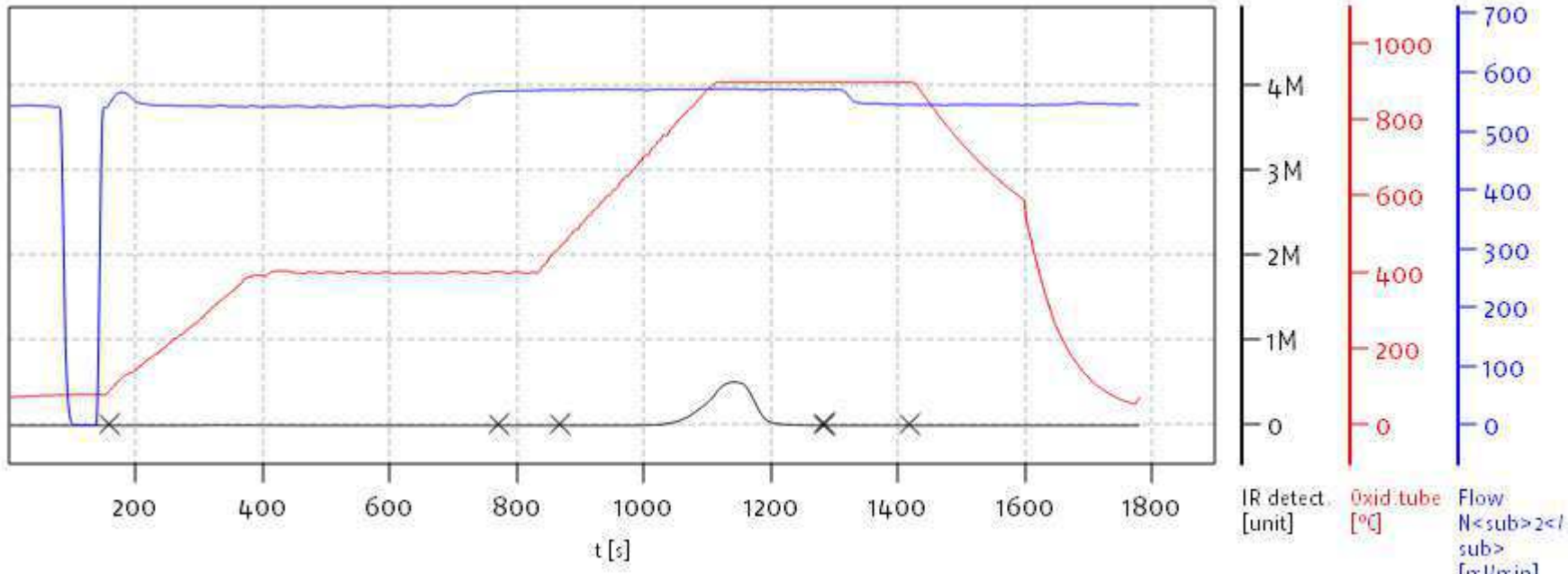
elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
18	18	SEQ-CALG	200.00	0.0198	1.00	CARBON	4/26/2022 8:01 PM	0.015	1.206	1.221	bl,C2u	12 557	1 639 190	1 295	1.0000	0.9320



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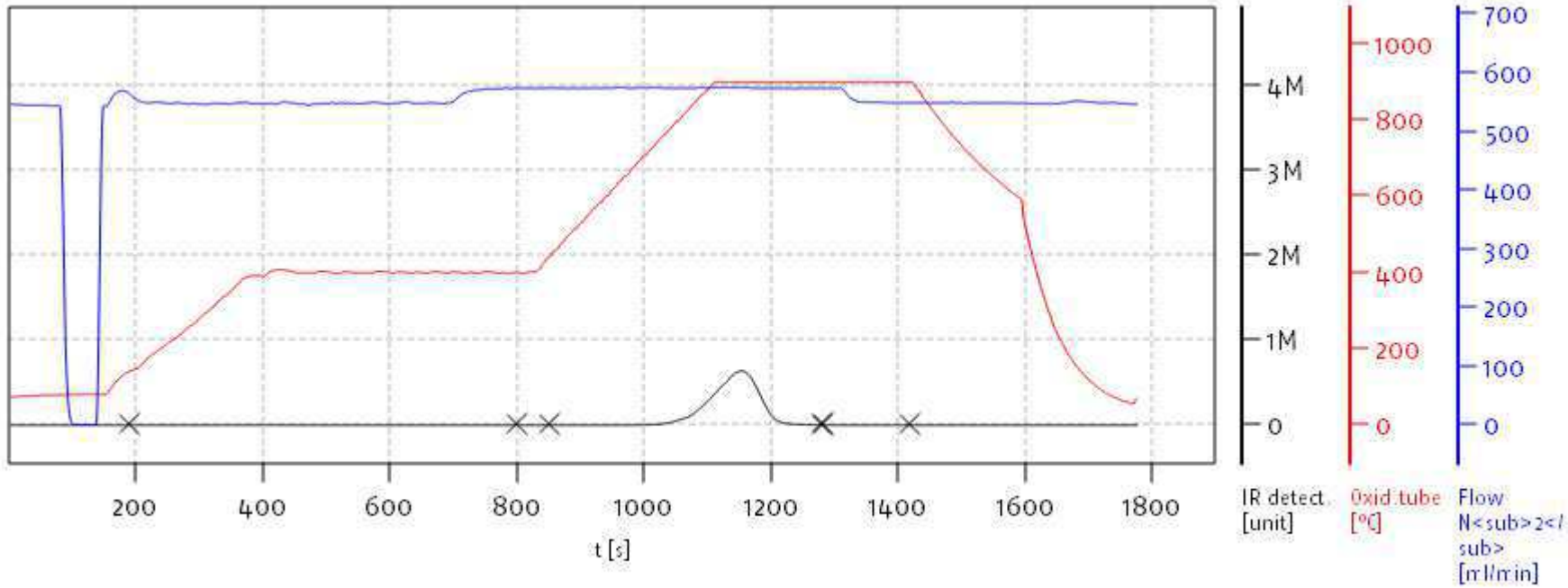
elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
19	19	SEQ-CALH	200.00	0.0250	1.00	CARBON	4/26/2022 8:31 PM	0.009	1.524	1.533	bl,C1u,C2u	4 029	2 063 890	2 225	1.0000	0.9357



Name:

Access: soliTOC superuser

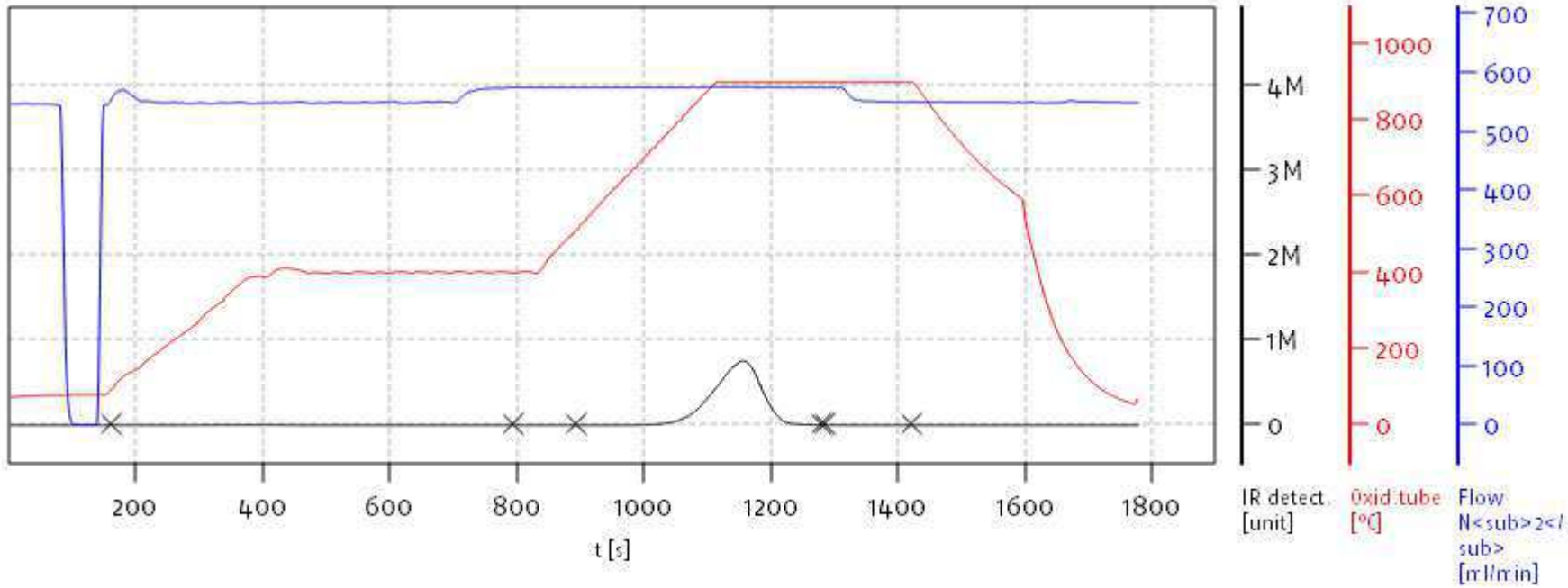
Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
20	20	SEQ-CALI	200.00	0.0303	1.00	CARBON	4/26/2022 9:01 PM	0.017	1.800	1.817	bl,C2u	13 926	2 495 900	2 903	1.0000	0.9140



Name:

Access: soliTOC superuser

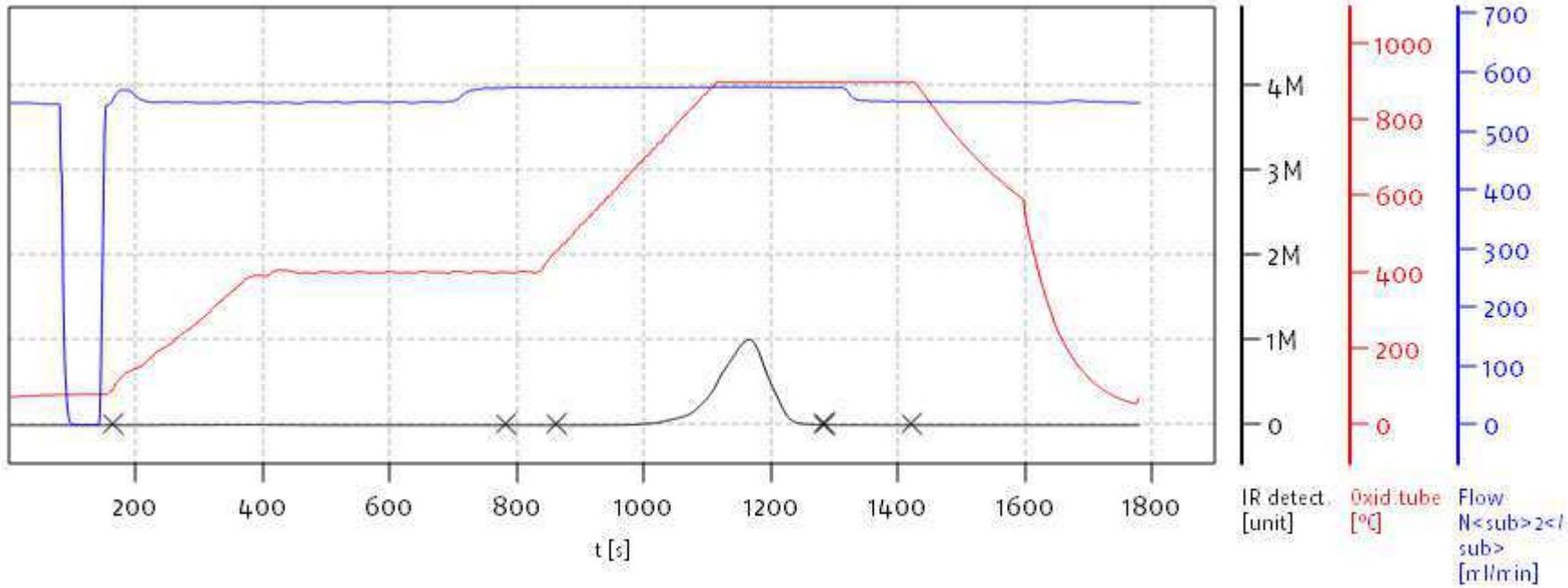
Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
21	21	SEQ-CALJ	200.00	0.0415	1.00	CARBON	4/26/2022 9:31 PM	0.031	2.400	2.431	bl,C2u	28 786	3 482 530	5 351	1.0000	0.8737



Name:

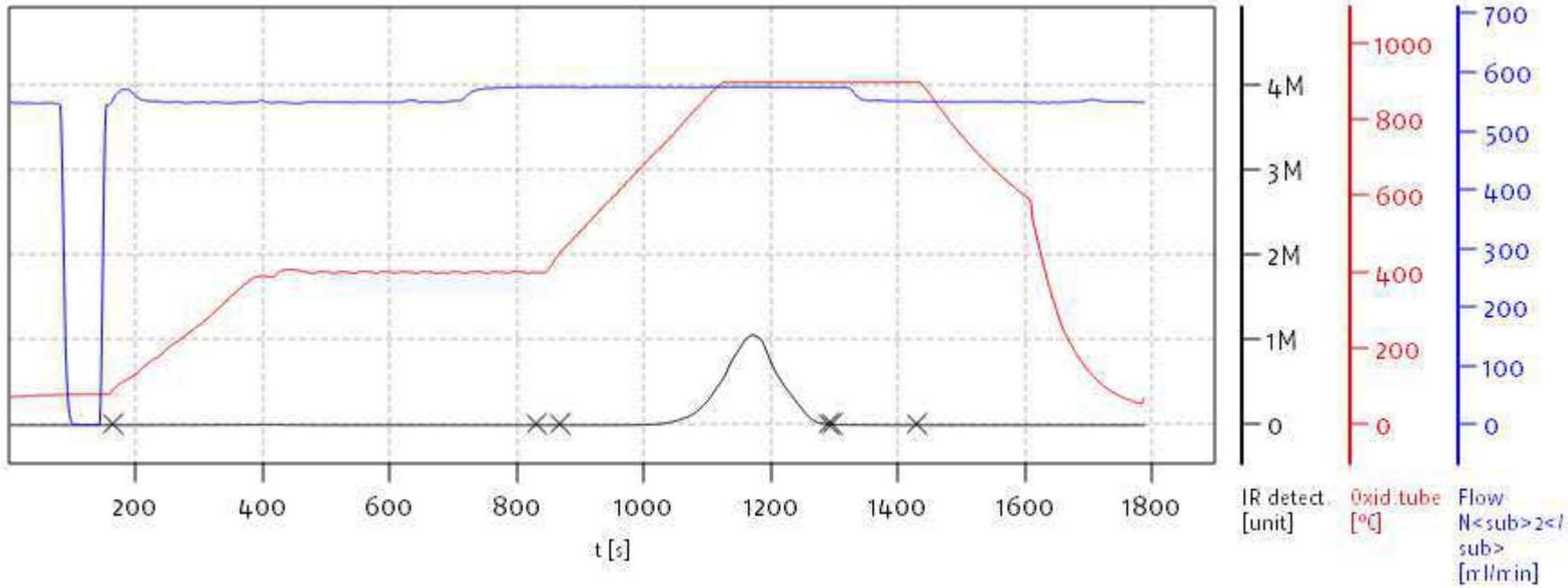
Access: soliTOC superuser

Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
22	22	SEQ-CALK	200.00	0.0497	1.00	CARBON	4/26/2022 10:01 PM	0.031	3.012	3.043	bl	23 732	4 105 830	9 736	1.0000	0.9301



Name:

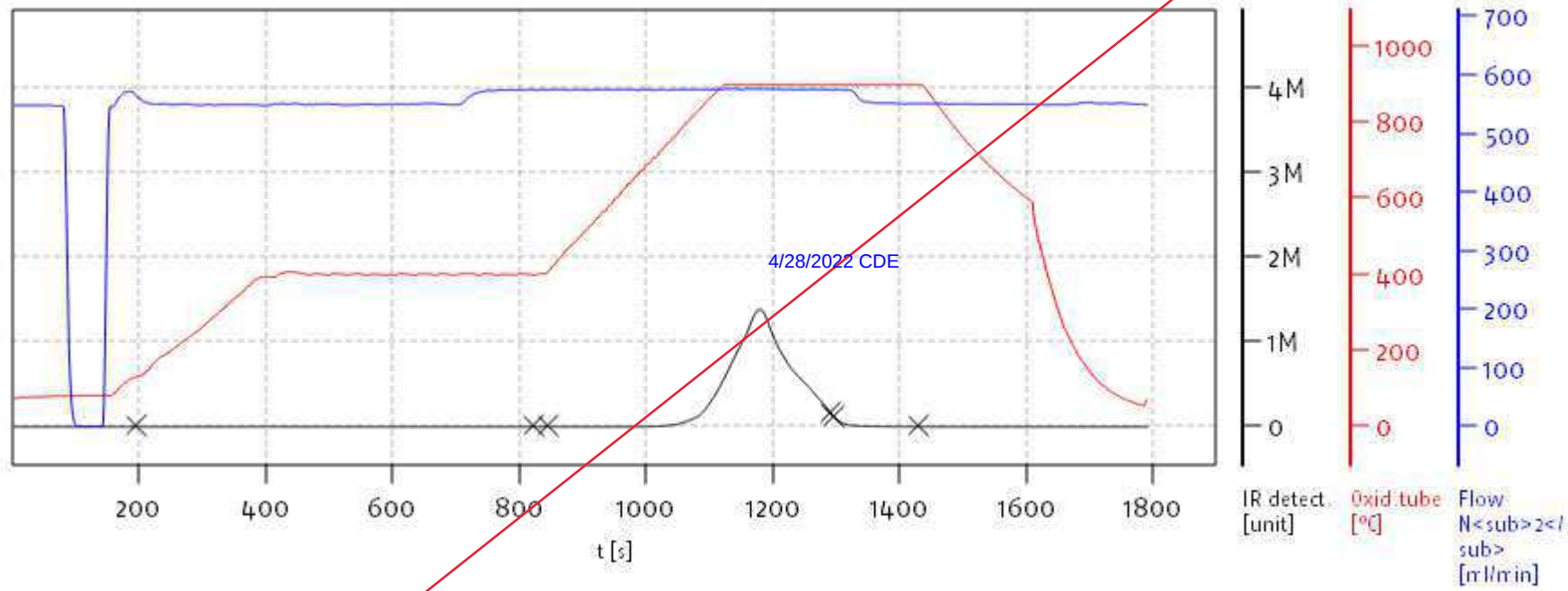
Access: soliTOC superuser

Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
23	23	SEQ-CALL	200.00	0.0698	1.00	CARBON	4/26/2022 10:31 PM	0.005	3.805	3.810	bl,C1u	3 605	5 648 620	71 970	1.0000	0.9443



Name:

Access: soliTOC superuser

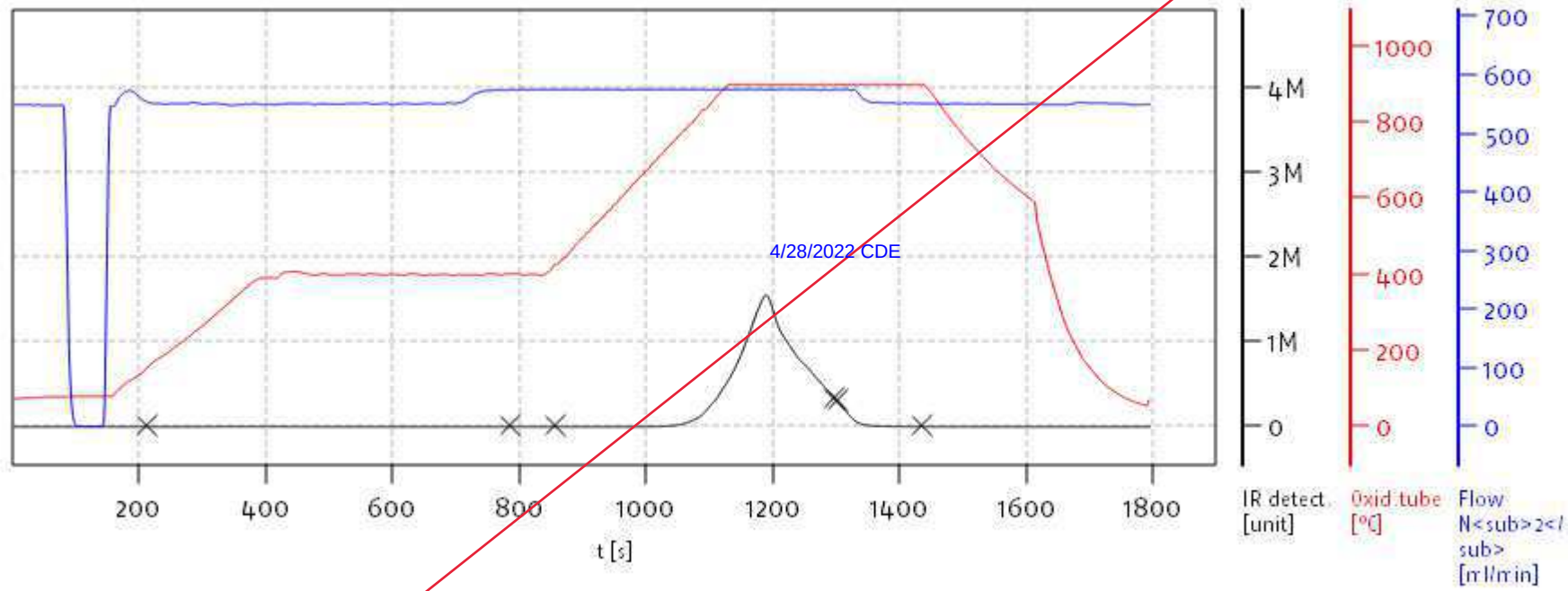
Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
24	24	SEQ-CALM	200.00	0.0803	1.00	CARBON	4/26/2022 11:02 PM	0.010	4.637	4.647	bl	10 023	6 397 530	228 171	1.0000	0.9539



Name:

Access: soliTOC superuser

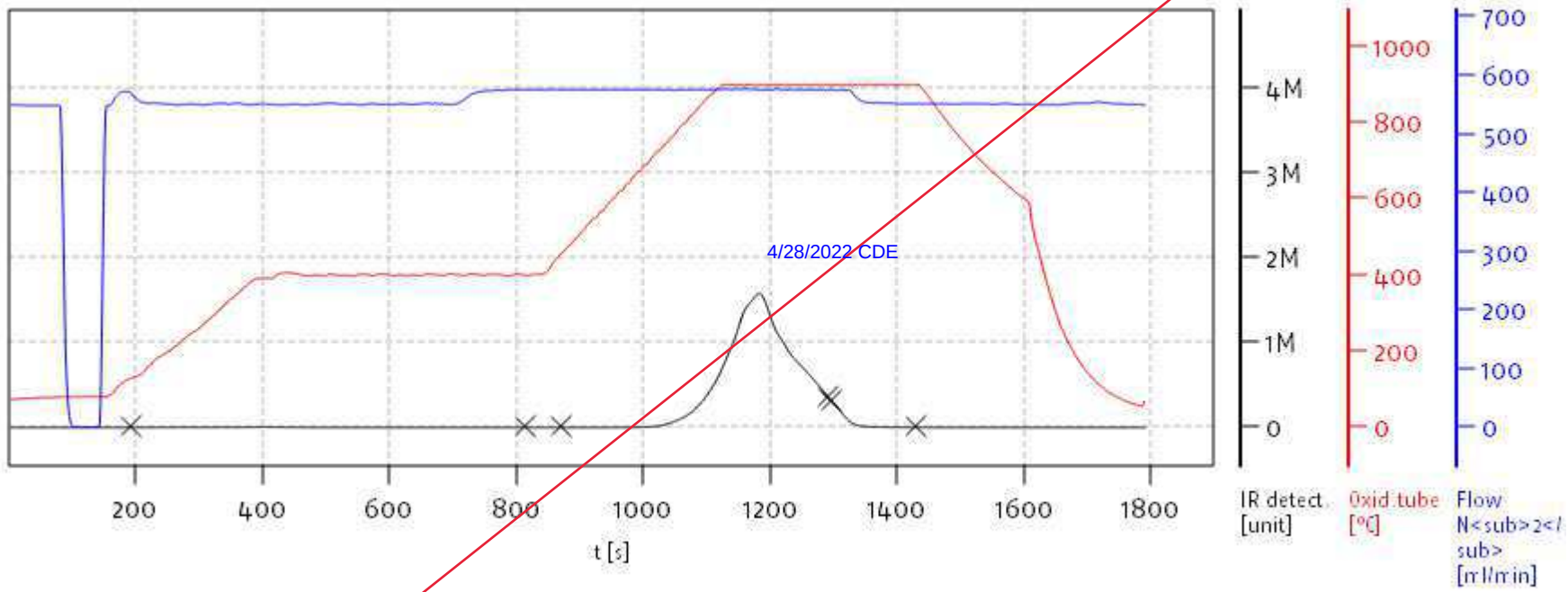
Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
25	25	SEQ-CALN	200.00	0.0901	1.00	CARBON	4/26/2022 11:32 PM	0.020	5.219	5.239	bl	23 354	7 186 580	239 986	1.0000	0.9540



Name:

Access: soliTOC superuser

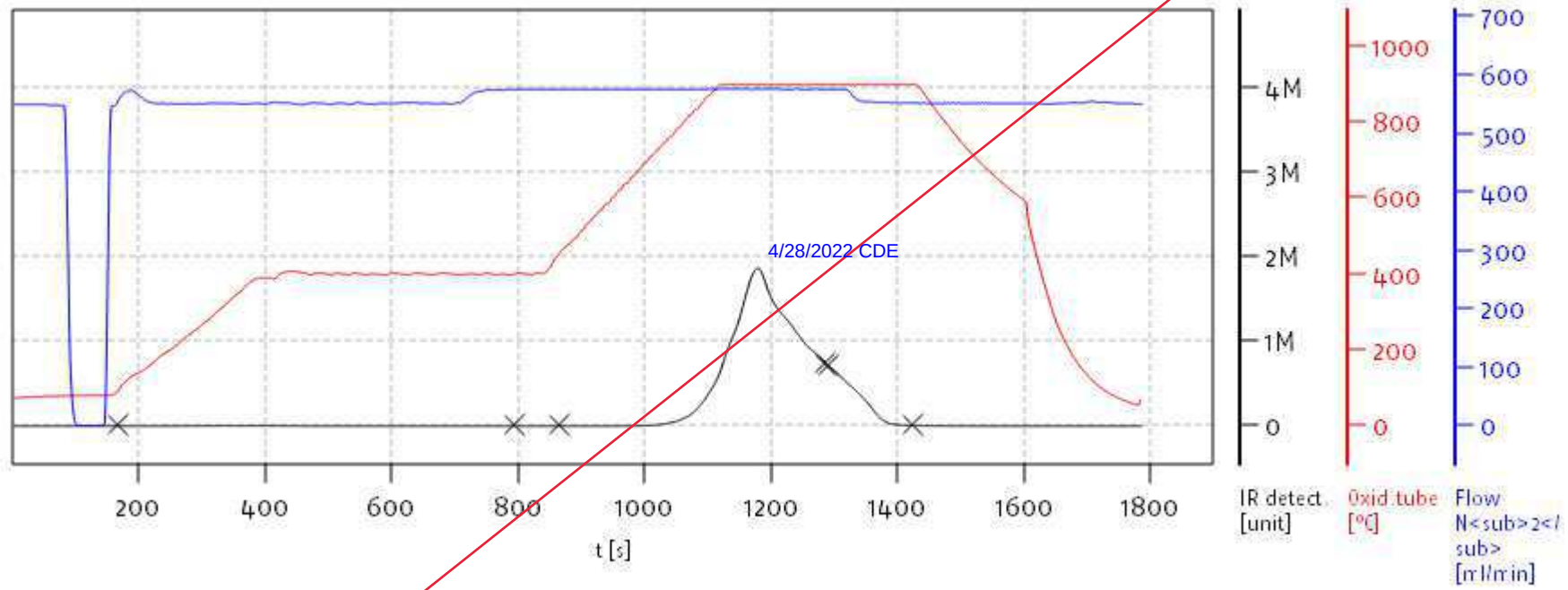
Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
26	26	SEQ-CALO	200.00	0.1200	1.00	CARBON	4/27/2022 12:02 AM	0.019	7.915	7.934	bl,C3o	21 248	8 544 610	1 334 580	1.0000	1.0714



Name:

Access: soliTOC superuser

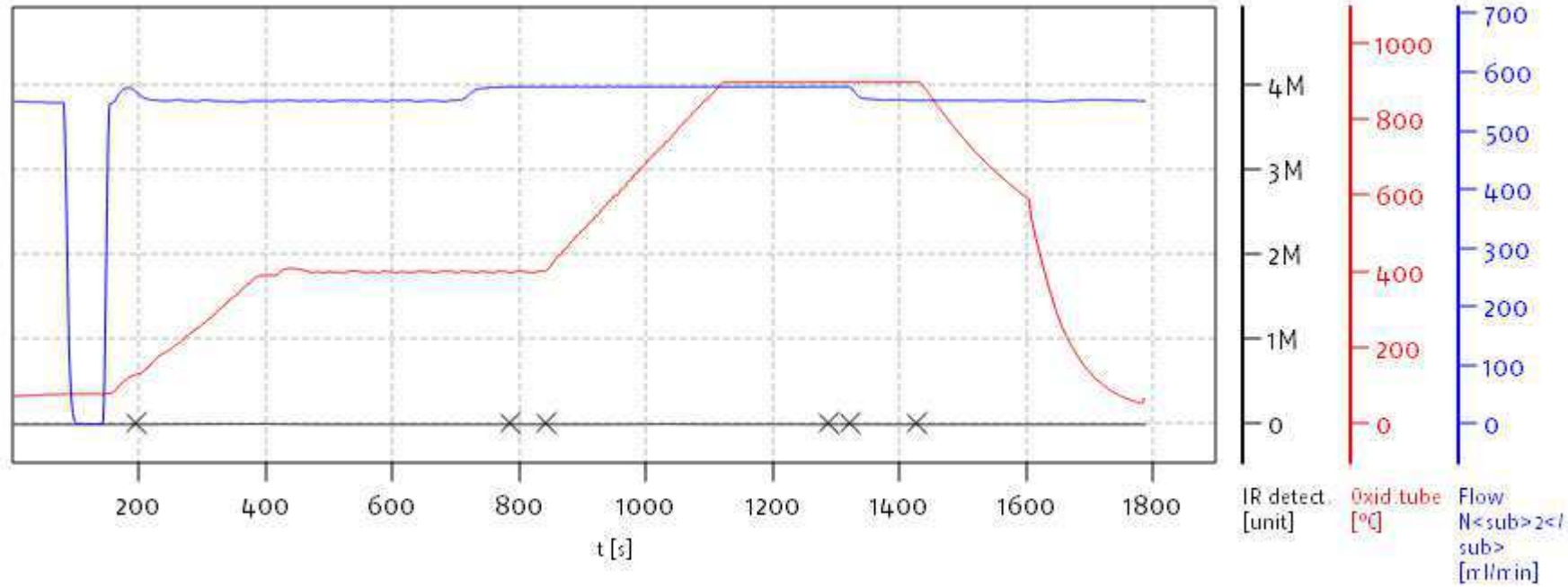
Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
27	27	BLANK	1.00		1.00	CARBON	4/27/2022 12:32 AM	0.000	0.000	0.000	bl	29 766	19 596	1 205	1.0000	0.9007



Name:

Access: soliTOC superuser

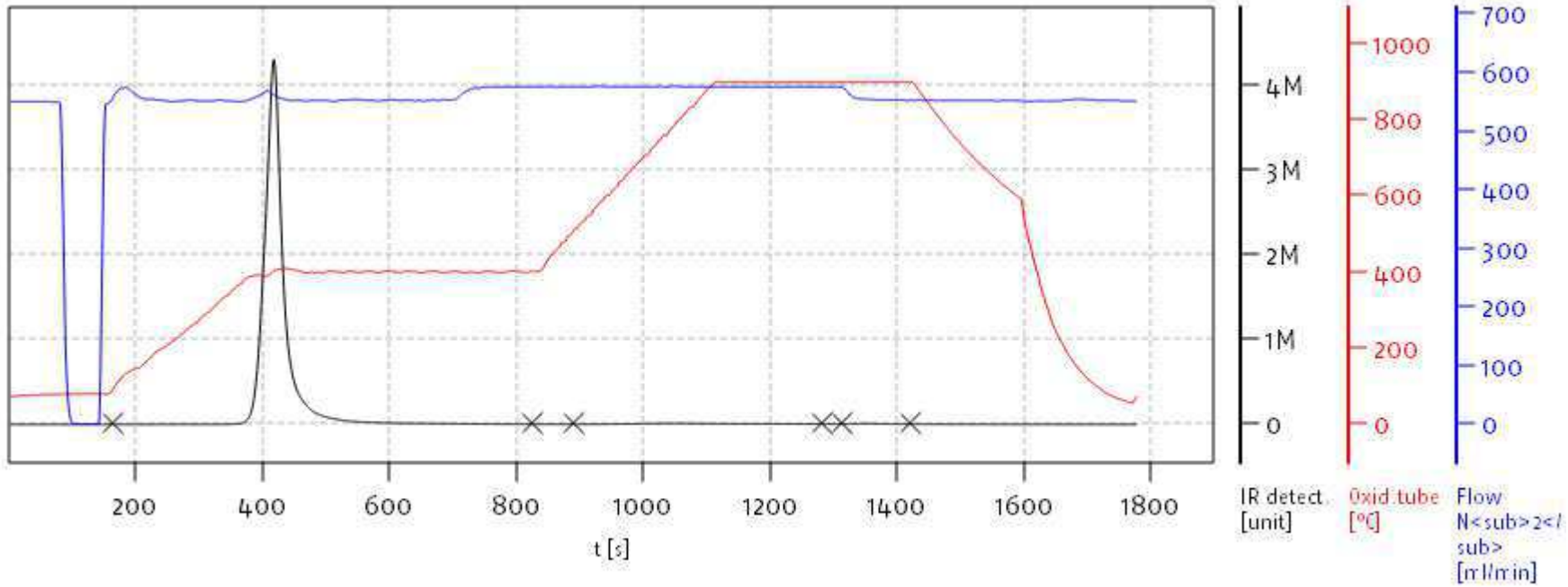
Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
28	28	Dfactor	19.00		1.00	CARBON	4/27/2022 1:02 AM	44.678	0.893	45.571	bl	5 588 680	104 999	25 384	0.9581	1.0000



Name:

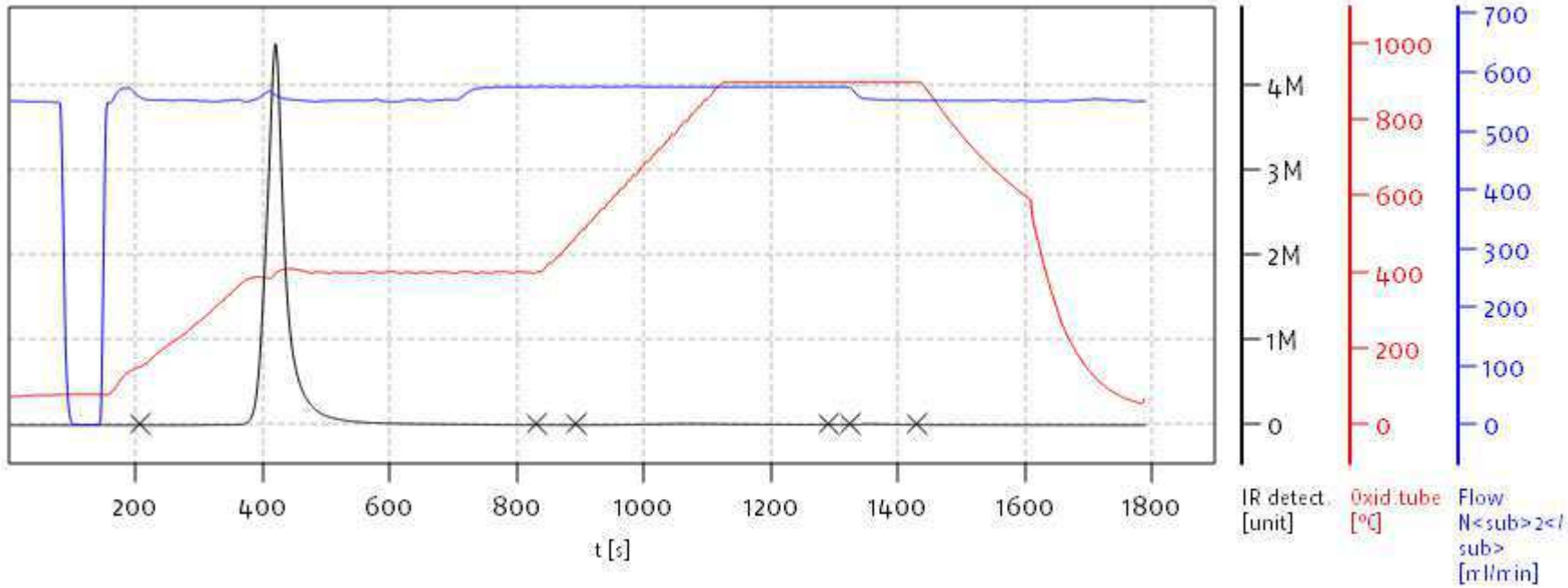
Access: soliTOC superuser

Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
29	29	Dfactor	20.80		1.00	CARBON	4/27/2022 1:32 AM	44.694	0.937	45.631	bl	6 076 750	120 961	30 224	0.9647	1.0000



Name:

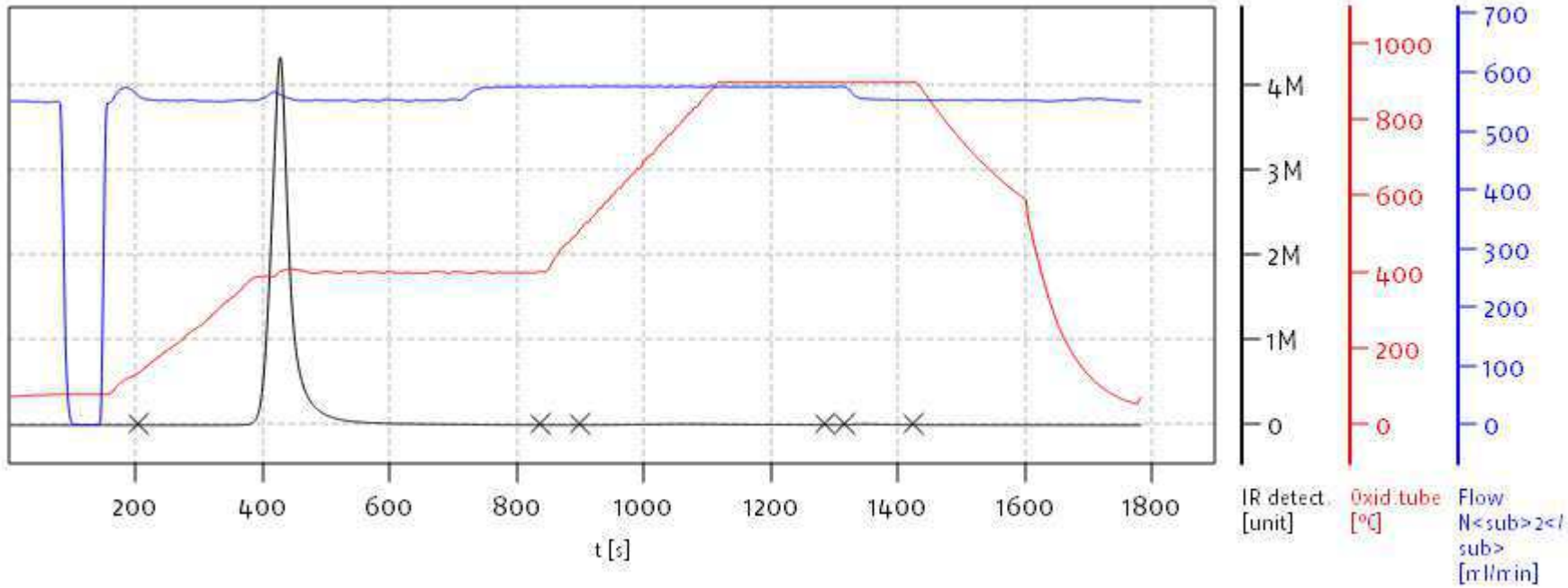
Access: soliTOC superuser

Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
30	30	SEQ-ICV1	19.40		1.00	CARBON	4/27/2022 2:03 AM	44.964	0.742	45.706	bl	5 722 450	98 735	27 054	0.9614	0.9007



Name:

Access: soliTOC superuser

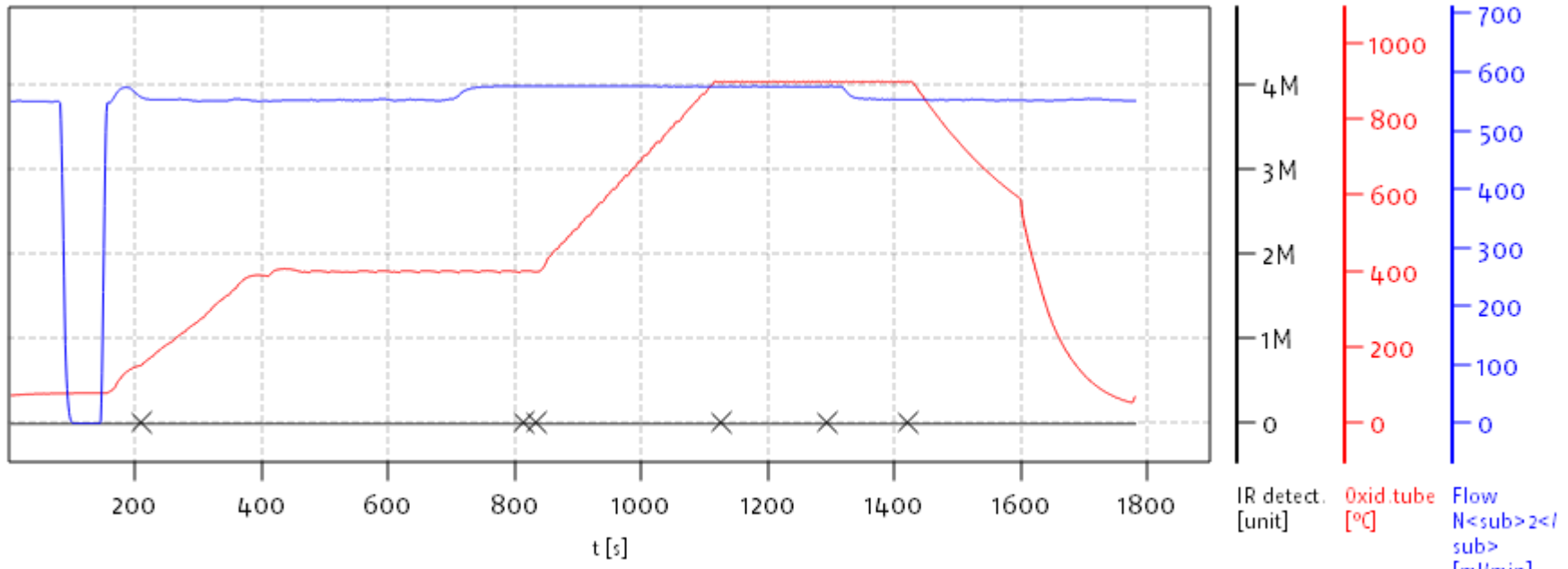
Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
31	31	SEQ-ICB1	501.10		1.00	CARBON	4/27/2022 2:33 AM	0.002	0.001	0.003	bl,C1u,C3u,C2u	2 158	225	165	0.9614	0.9007



Name:

Access: soliTOC superuser

Date: Wed Apr 27 11:07:12 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

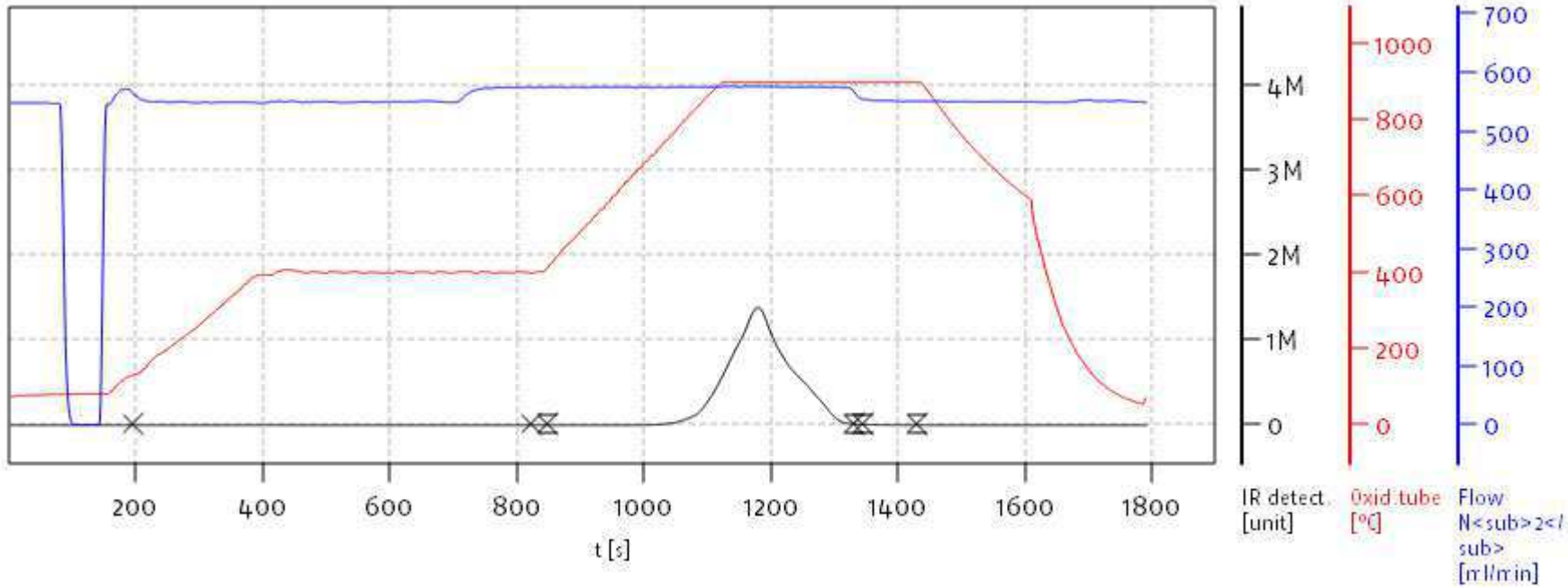
elementar
EXCELLENCE IN ELEMENTS

Document: 042622 DOE CALIBRATION from: 4/27/2022 11:05 AM

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

Analytical Resources, Incorporated
Analytical Chemists and Consultants

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
23	23	SEQ-CALL	200.00	0.0698	1.00	CARBON	4/27/2022 11:08 AM	0.005	3.917	3.922	bl,C1u	3 605	**5 260 365**	**0**	1.0000	0.9443



Name:

Access: soliTOC superuser

Date: Wed Apr 27 11:10:16 2022

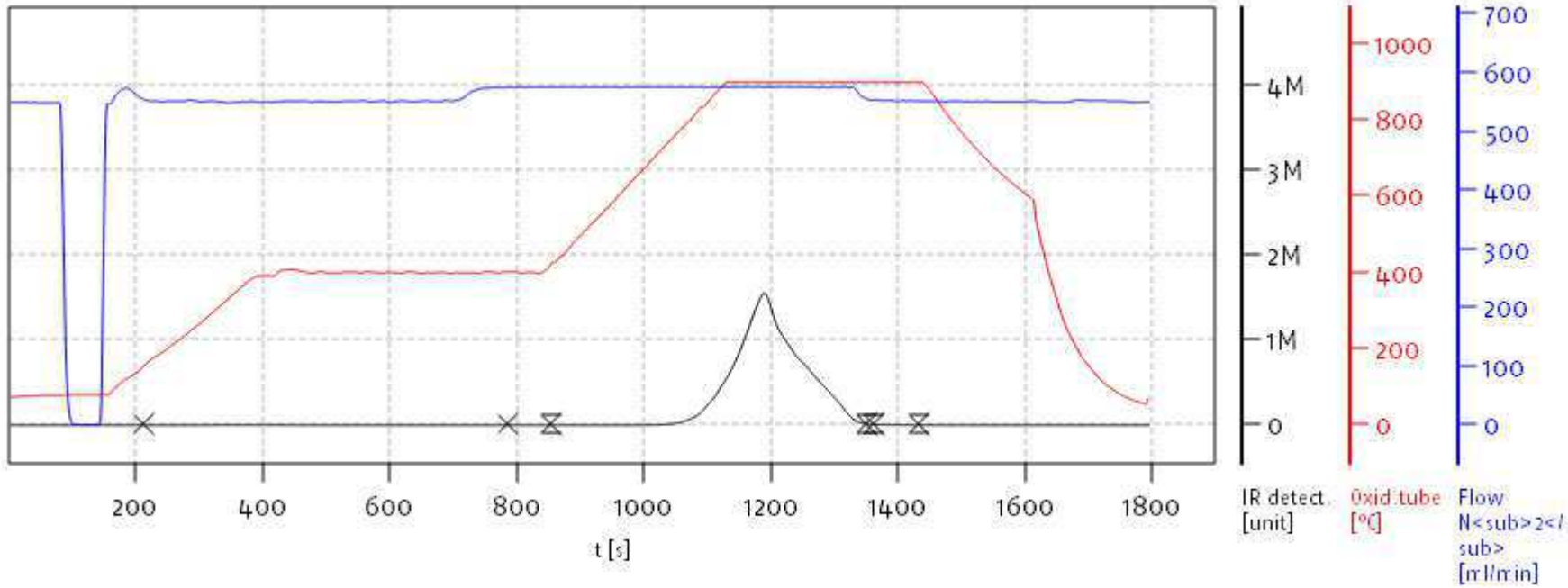
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Document: 042622 DOE CALIBRATION from: --.--.-- (modified)

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
24	24	SEQ-CALM	200.00	0.0803	1.00	CARBON	4/27/2022 11:08 AM	0.010	4.637	4.647	bl	10 023	**6 164 833**	**0**	1.0000	0.9539



Name:

Access: soliTOC superuser

Date: Wed Apr 27 11:10:16 2022

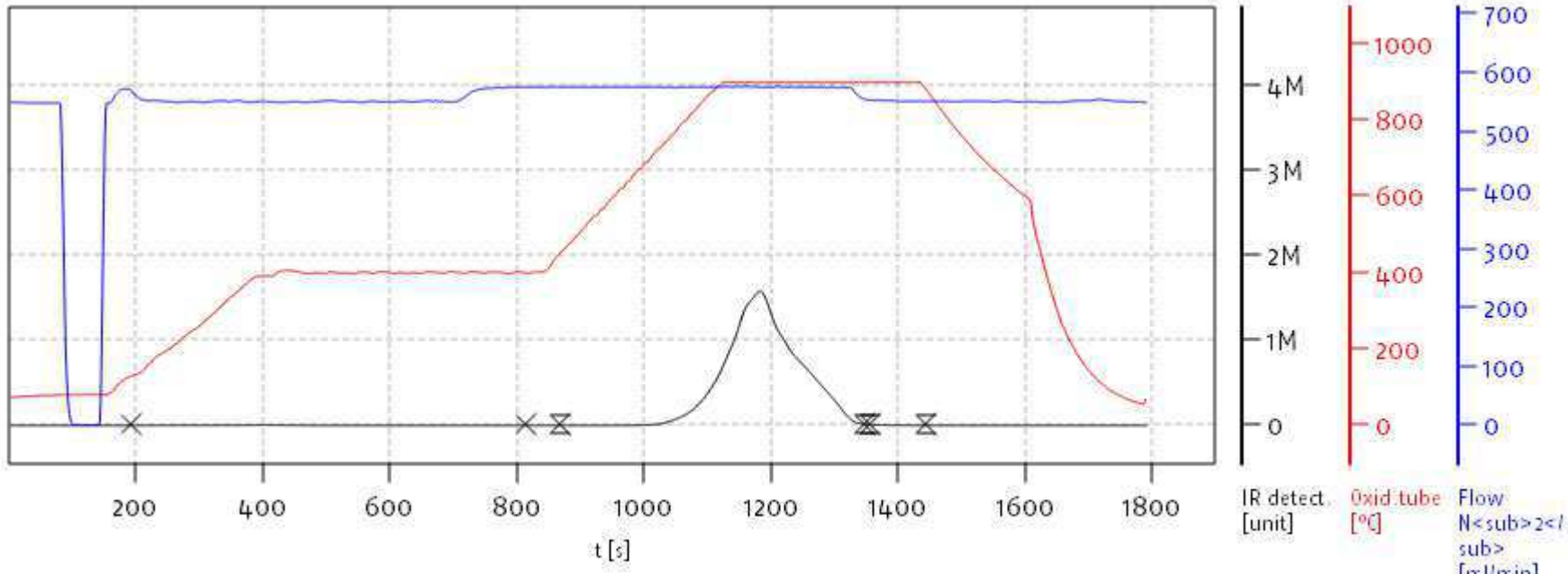
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Document: 042622 DOE CALIBRATION from: --.--.-- (modified)

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
25	25	SEQ-CALN	200.00	0.0901	1.00	CARBON	4/27/2022 11:09 AM	0.020	5.219	5.239	bl	23 354	**6 937 833**	**0**	1.0000	0.9540



Name:

Access: soliTOC superuser

Date: Wed Apr 27 11:10:16 2022

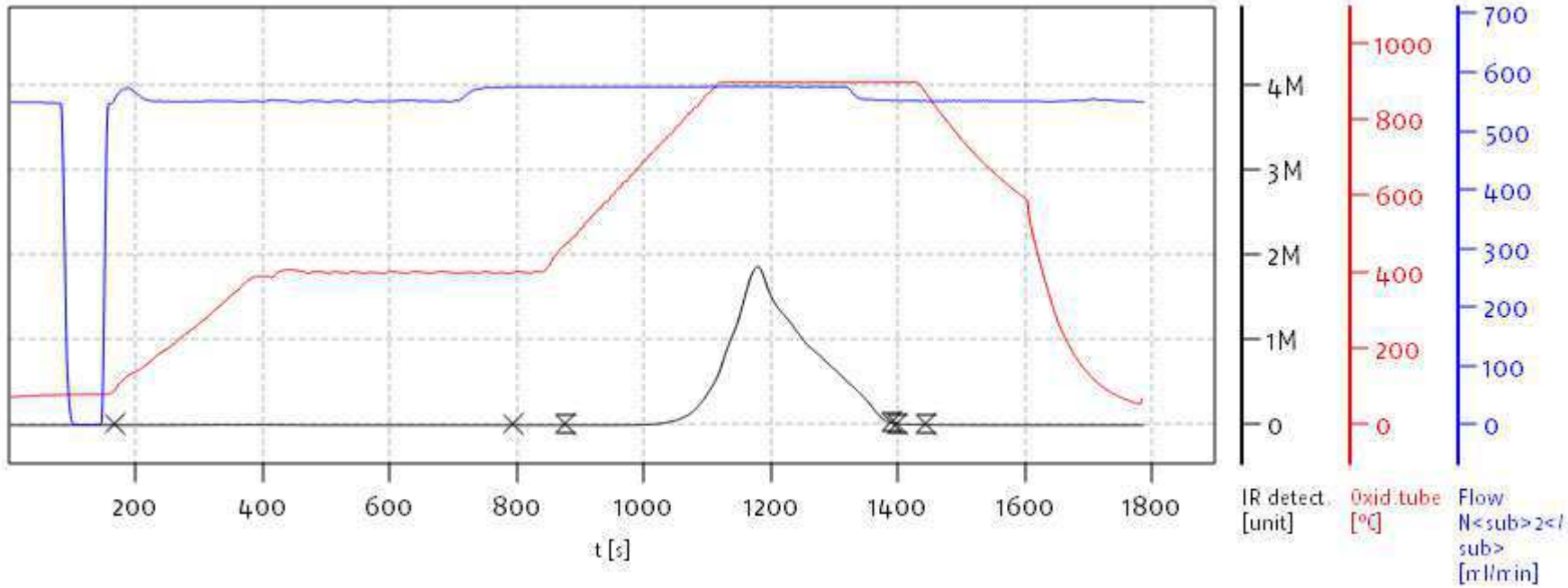
soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

elementar
EXCELLENCE IN ELEMENTS

Document: 042622 DOE CALIBRATION from: --.--.-- (modified)

Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE

	Pos.	Name	Weight [mg]	Memo	Dilut. Factor	Method	Date Time	TOC [%]	TIC900 [%]	TC [%]	Info	TOC400 Area	TIC900 Area	ROC Area	TOC400 Factor	TIC900 Factor
26	26	SEQ-CALO	200.00	0.1200	1.00	CARBON	4/27/2022 11:09 AM	0.019	7.915	7.934	bl,C3o	21 248	9 370 139	0	1.0000	1.0714



Name:

Access: soliTOC superuser

Date: Wed Apr 27 11:10:16 2022

soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

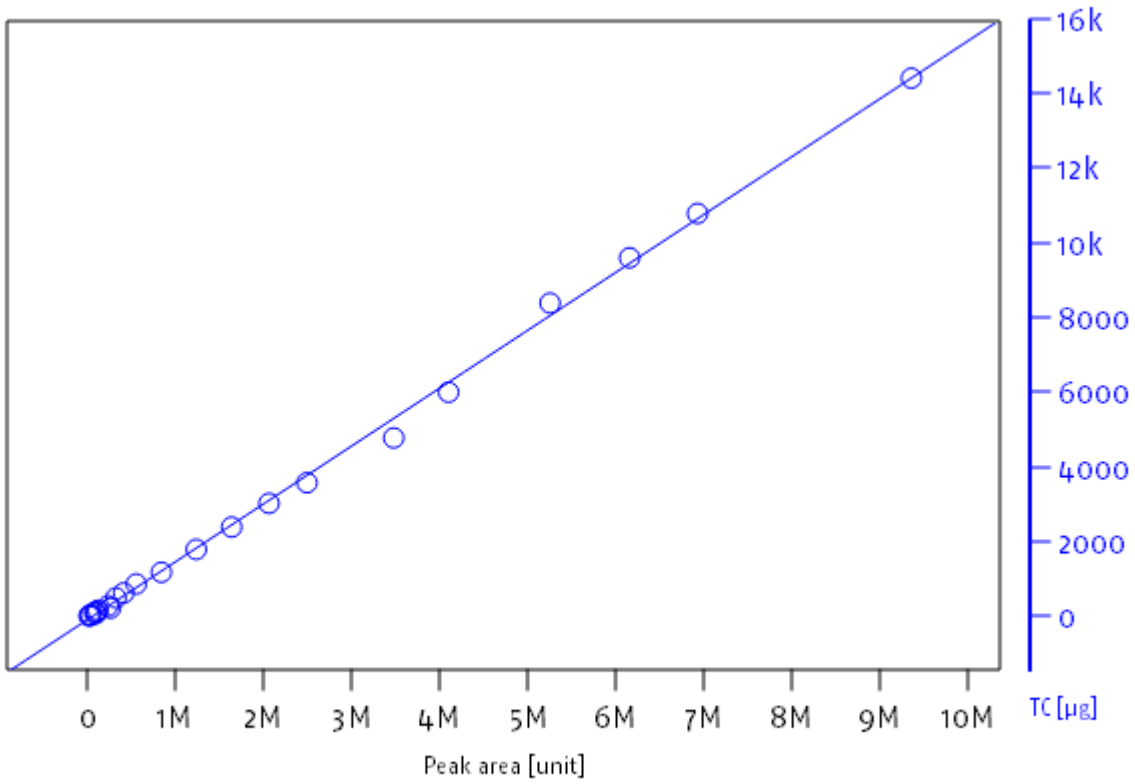
elementar
EXCELLENCE IN ELEMENTS

Document: 042622 DOE CALIBRATION from: --.--.-- (modified)

Calibration parameters TC, Whole range

a	-4.107546e-02
b	+1.548032e-06
c	+0.000000e+00
d	+0.000000e+00
e	+0.000000e+00
r	0.998372
r_old	0.998372
Proc.-SD	166.070255 µg

Calibration graph TC, Whole range



INSTRUMENT BLANKS
EPA 9060A m

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: TOC Cube
Calibration: FD00070
Sequence: SKD0371
Date Analyzed: 04/27/22 02:33

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SKD0371-ICB1	Total Organic Carbon	0.00	0.02	0.02	%	

INSTRUMENT BLANKS
EPA 9060A m

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: TOC Cube
Sequence: SLA0205

SDG: 23A0313
Project: AOC5 MR Phase 1
Calibration: FD00070
Date Analyzed: 01/19/23 11:10

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLA0205-ICB1	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0205-CCB1	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0205-CCB2	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0205-CCB3	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0205-CCB4	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0205-CCB5	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0205-CCB6	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0205-CCB7	Total Organic Carbon	0.00	0.02	0.02	%	

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 9060A m

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: TOC Cube
Calibration: FD00070
Control Limt: +/- 10.00%
Sequence: SKD0371

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SKD0371-ICV1	Total Organic Carbon	44.446	43.7	98.3	%	EPA 9060A m
	Total Carbon	44.446	44.1	99.2	%	EPA 9060A m
	Total Inorganic Carbon	0.0000	0.40		%	EPA 9060A m
	% Soot	0.0000	0.004		%	EPA 9060A m

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 9060A m

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Instrument ID: TOC Cube
Calibration: FD00070
Control Limt: +/- 10.00%
Sequence: SLA0205

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLA0205-ICV1	Total Organic Carbon	44.446	44.9	101	%	EPA 9060A m
SLA0205-CCV1	Total Organic Carbon	44.446	43.1	96.9	%	EPA 9060A m
SLA0205-CCV2	Total Organic Carbon	44.446	44.8	101	%	EPA 9060A m
SLA0205-CCV3	Total Organic Carbon	44.446	43.8	98.6	%	EPA 9060A m
SLA0205-CCV4	Total Organic Carbon	44.446	45.0	101	%	EPA 9060A m
SLA0205-CCV5	Total Organic Carbon	44.446	46.1	104	%	EPA 9060A m
SLA0205-CCV6	Total Organic Carbon	44.446	44.9	101	%	EPA 9060A m
SLA0205-CCV7	Total Organic Carbon	44.446	44.4	100	%	EPA 9060A m

* Values outside of QC limits

Analytical Resources, LLC
Analytical Chemists and Consultants

STANDARD REFERENCE MATERIAL RECOVERY

EPA 9060A m

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Laboratory ID: BLA0432-SRM1
Batch: BLA0432
Initial/Final: 0.3222 g / 0.3222 g
Preparation: Plumb 1981
Analyzed: 01/19/2023 13:11
Standard ID: L000299
Expires: 01/11/2024
Standard Lot#: NA
Description: 1941B - Organics in Marine Sediment (Conv

ANALYTE	TRUE (% wet)	FOUND (% wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Total Organic Carbon	2.9900	3.00	0.02	0.02		100	80 - 120

* Values outside of QC limits

HOLDING TIME SUMMARY

Analysis: EPA 9060A m

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-SC1108 23A0313-01	01/16/23 08:10	01/16/23 16:35	01/18/23 10:40	2	180	01/19/23 17:44			
LDW23-SC1115 23A0313-02	01/16/23 08:28	01/16/23 16:35	01/18/23 10:40	2	180	01/19/23 18:14			
LDW23-IT1114 23A0313-03	01/16/23 08:42	01/16/23 16:35	01/18/23 10:40	2	180	01/19/23 18:45			
LDW23-IT1120 23A0313-04	01/16/23 08:57	01/16/23 16:35	01/18/23 10:40	2	180	01/19/23 19:15			
LDW23-SC1090 23A0313-05	01/16/23 09:21	01/16/23 16:35	01/18/23 10:40	2	180	01/19/23 19:46			
LDW23-SC1095 23A0313-06	01/16/23 09:42	01/16/23 16:35	01/18/23 10:40	2	180	01/19/23 20:16			
LDW23-SC1076 23A0313-07	01/16/23 10:03	01/16/23 16:35	01/18/23 10:40	2	180	01/19/23 20:46			
LDW23-SC1016A 23A0313-08	01/16/23 11:11	01/16/23 16:35	01/18/23 10:40	1	180	01/19/23 21:17			
LDW23-SC1011A 23A0313-09	01/16/23 11:46	01/16/23 16:35	01/18/23 10:40	1	180	01/19/23 21:47			
LDW23-SC1006A 23A0313-10	01/16/23 12:29	01/16/23 16:35	01/18/23 10:40	1	180	01/19/23 22:17			
LDW23-SC1012B 23A0313-11	01/16/23 13:13	01/16/23 16:35	01/18/23 10:40	1	180	01/19/23 23:48			
LDW23-IT1148 23A0313-12	01/16/23 14:44	01/16/23 16:35	01/18/23 10:40	1	180	01/20/23 00:18			
LDW23-SC1159 23A0313-13	01/16/23 14:26	01/16/23 16:35	01/18/23 10:40	1	180	01/20/23 00:49			

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 9060A m

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Instrument: TOC Cube

Analyte	MDL	RL	Units
Total Organic Carbon	0.02	0.02	%

National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material® 1941b

Organics in Marine Sediment

This Standard Reference Material (SRM) is marine sediment collected at the mouth of the Baltimore (MD) Harbor. SRM 1941b is intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and chlorinated pesticides in marine sediment and similar matrices. Information values are also provided for total organic carbon (TOC), total carbon, hydrogen, and nitrogen. All of the constituents for which certified, reference, and information values are provided in SRM 1941b were naturally present in the sediment before processing. A unit of SRM 1941b consists of a bottle containing 50 g of radiation-sterilized, freeze-dried sediment.

Certified Mass Fraction Values: Certified mass fraction values for PAHs, PCB congeners, and chlorinated pesticides are provided in Table 1 through Table 3. The certified values for the PAHs, PCB congeners, and chlorinated pesticides are based on the agreement of results obtained at NIST from two or more chemically independent analytical techniques along with results from an interlaboratory comparison study [1]. A NIST certified value is a value for which NIST has the highest confidence in its accuracy in that all known or suspected sources of bias have been investigated or taken into account [1].

Reference Mass Fraction Values: Reference mass fraction values for additional PAHs (some in combination), additional PCB congeners, and additional chlorinated pesticides are provided in Table 4 through Table 7. Reference values for alkylated PAH groups are provided in Table 8 and for selected hopanes and steranes in Table 9. A reference value for total organic carbon is provided in Table 10. Reference values are noncertified values that are the best estimate of the true value; however, the values do not meet the NIST criteria for certification and are provided with associated uncertainties that may reflect only measurement precision, may not include all sources of uncertainty, or may reflect a lack of sufficient statistical agreement among multiple analytical methods [1].

Information Mass Fraction Values: Information mass fraction values are provided in Table 11 for carbon, hydrogen, and nitrogen. An information value is considered to be a value that will be of use to the SRM user, but insufficient information is available to assess the uncertainty associated with the value [1]. Information values cannot be used to establish metrological traceability.

Expiration of Certification: The certification of **SRM 1941b** is valid, within the measurement uncertainty specified, until **01 October 2020**, provided the SRM is handled and stored in accordance with the instructions given in this certificate (see "Instructions for Handling, Storage, and Use"). This certification is nullified if the SRM is damaged, contaminated, or otherwise modified.

Maintenance of SRM Certification: NIST will monitor this SRM over the period of its certification. If substantive technical changes occur that affect the certification before the expiration of this certificate, NIST will notify the purchaser. Registration (see attached sheet or register online) will facilitate notification.

Coordination of the technical measurements leading to the certification of this material was under the leadership of M.M. Schantz and S.A. Wise of the NIST Chemical Sciences Division.

Analytical measurements for the certification of SRM 1941b were performed at NIST by J.R. Kucklick, B.J. Porter, D.L. Poster, M.M. Schantz, P. Schubert, S. Tutschku, and L.L. Yu of the NIST Chemical Sciences Division.

Carlos A. Gonzalez, Chief
Chemical Sciences Division

Gaithersburg, MD 20899
Certificate Issue Date: 16 January 2015

Robert L. Watters, Jr., Director
Office of Reference Materials

Measurements for TOC were provided by a commercial laboratory and T.L. Wade of the Geochemical and Environmental Research Group, Texas A&M University (College Station, TX). The carbon, hydrogen, and nitrogen data were provided by a commercial laboratory. Results for the PAHs, PCBs, and chlorinated pesticides from 38 laboratories (see Appendix A) that participated in an interlaboratory comparison exercise coordinated by NIST were used. Results for the alkylated PAH groups, hopanes, and steranes from 33 laboratories (see Appendix B) that participated in another interlaboratory comparison exercise coordinated by NIST were also used.

Collection and preparation of SRM 1941b were performed by M.P. Cronise and C.N. Fales of the NIST Office of Reference Materials and B.J. Porter and M.M. Schantz of the NIST Chemical Sciences Division. The sediment material was collected with the assistance of G.G. Lauenstein, J. Collier, and J. Lewis (National Oceanic and Atmospheric Administration, Silver Spring, MD).

Consultation on the statistical design of the experimental work and evaluation of the data were provided by S.D. Leigh and J.H. Yen of the NIST Statistical Engineering Division.

Support aspects involved in the issuance of this SRM were coordinated through the NIST Office of Reference Materials.

INSTRUCTIONS FOR HANDLING, STORAGE, AND USE

Handling: This material is naturally occurring marine sediment from an urban area and may contain constituents of unknown toxicities; therefore, caution and care should be exercised during its handling and use.

Storage: SRM 1941b must be stored in its original bottle at temperatures less than 30 °C and away from direct sunlight.

Use: Prior to removal of subsamples for analysis, the contents of the bottle should be mixed. The mass fractions of constituents in SRM 1941b are reported on a dry-mass basis. The SRM, as received, contains a mass fraction of approximately 2.4 % moisture (see "Conversion to Dry-Mass Basis"). The sediment sample should be dried to a constant mass before weighing for analysis; or a separate subsample of the sediment should be removed from the bottle at the time of analysis and dried to determine the mass fraction on a dry-mass basis. If the constituents of interest are volatile, then the moisture must be determined with a separate subsample.

PREPARATION AND ANALYSIS[1]

Sample Collection and Preparation: The sediment used to prepare this SRM was collected from the Chesapeake Bay at the mouth of the Baltimore (MD) Harbor near the Francis Scott Key Bridge (39°12.3'N and 76°31.4'W). This location is very near the site where SRM 1941 and SRM 1941a were collected. The sediment was collected using a Kynar-coated modified Van Veen-type grab sampler. A total of approximately 3300 kg of wet sediment was collected from the site. The sediment was freeze-dried, sieved at 150 μm (100 % passing), homogenized in a cone blender, radiation sterilized (^{60}Co), and then packaged in screw-capped amber glass bottles each containing approximately 50 g.

Conversion to Dry-Mass Basis: The results for the constituents in SRM 1941b are reported on a dry-mass basis; however, the material "as received" contains residual moisture. The amount of moisture in SRM 1941b was determined by measuring the mass loss after freeze-drying subsamples of 1.1 g to 1.3 g for four days at 1 Pa with a –10 °C shelf temperature and a –50 °C condenser temperature. The moisture content in SRM 1941b at the time of the certification analyses was 2.39 % ± 0.08 % (95 % confidence level). Analytical results for the organic constituents were determined on an as-received basis and then converted to a dry-mass basis by dividing by the conversion factor of 0.9761 (gram dry mass per gram as-received mass).

Polycyclic Aromatic Hydrocarbons: The general approach used for the value assignment of the PAHs in SRM 1941b was similar to that reported in detail elsewhere [2]. The approach consisted of combining results from analyses using various combinations of different extraction techniques and solvents, clean-up/isolation procedures, and chromatographic separation and detection techniques: Soxhlet extraction and pressurized-fluid extraction (PFE) using dichloromethane (DCM) or a hexane/acetone mixture, cleanup of the extracts using solid-phase extraction (SPE) or normal-phase liquid chromatography (LC), followed by analysis using the following techniques: (1) reversed-phase liquid chromatography with fluorescence detection (LC-FL) analysis of the total PAH fraction, (2) reversed-phase

[1] Certain commercial equipment, instruments or materials are identified in this certificate to adequately specify the experimental procedure. Such identification does not imply recommendation or endorsement by the National Institute of Standards

LC-FL analysis of isomeric PAH fractions isolated by normal-phase LC (i.e., multidimensional LC), (3) gas chromatography/mass spectrometry (GC/MS) analysis of the PAH fraction on three stationary phases of different selectivity, i.e., a 5 % (all column compositions are given as mole fractions in %) phenyl-substituted methylpolysiloxane phase, a 50 % phenyl-substituted methylpolysiloxane phase, and a relatively non-polar proprietary phase.

Three sets of GC/MS results, designated as GC/MS (I), GC/MS (II), and GC/MS (III), were obtained using three columns with different selectivities for the separation of PAHs. For GC/MS (I) analyses, duplicate subsamples of approximately 1 g from ten bottles of SRM 1941b were extracted using PFE with DCM. Copper powder was added to the extract to remove elemental sulfur. The concentrated extract was passed through an aminopropyl SPE cartridge and eluted with 2 % DCM in hexane (all solvent concentrations are given as volume fractions in %). The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-5 MS, J&W Scientific, Folsom, CA). The GC/MS (II) analyses were performed using 5 g subsamples from six bottles of SRM 1941b. These samples were extracted using PFE with DCM. The high molecular mass compounds were removed from the extracts using size exclusion chromatography (SEC) with a preparative-scale divinylbenzene-polystyrene column (10 μm particle size with 10 nm diameter pores), and the sulfur was removed from the extracts by adding copper powder. The concentrated extract was passed through an aminopropyl SPE cartridge and eluted with 10 % DCM in hexane. The analysis was by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 50 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-17 MS, J&W Scientific). For the GC/MS (III), 9 g subsamples from six bottles of SRM 1941b were Soxhlet-extracted for 18 h with 250 mL of a mixture of 50 % hexane/50 % acetone. Copper powder was added to the extract to remove elemental sulfur, and the concentrated extract was passed through a silica SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a relatively non-polar proprietary phase (0.25 μm film thickness; DB-XLB, J&W Scientific).

Two sets of LC-FL results, designated as LC-FL (total) and LC-FL (isomer), were used in the certification process. For the LC-FL (total), subsamples of approximately 1 g from six bottles of SRM 1941b were extracted using PFE with a mixture of 50 % hexane/50 % acetone. The extracts were concentrated and then processed through an aminopropylsilane SPE cartridge using 2 % DCM in hexane to obtain the total PAH fraction. For the LC-FL (isomer), a 5 g subsample from the six bottles was extracted using PFE with DCM and processed through an aminopropylsilane SPE cartridge using 10 % DCM in hexane; the PAH fraction was then fractionated further on a semi-preparative aminopropylsilane column (μBondapak NH_2, 9 mm i.d. × 30 cm, Waters Associates, Milford, MA) to isolate isomeric PAH fractions as described previously [3–6]. The total PAH fraction and the isomeric PAH fractions were analyzed using a 5 μm particle-size polymeric octadecylsilane (C_{18}) column (4.6 mm i.d. × 25 cm, Hypersil-PAH, Keystone Scientific, Inc., Bellefonte, PA) with wavelength-programmed fluorescence detection [4,5].

For the GC/MS and LC-FL measurements described above, selected perdeuterated PAHs were added to the sediment prior to solvent extraction for use as internal standards for quantification purposes.

In addition to the analyses performed at NIST, SRM 1941b was used in an interlaboratory comparison exercise in 1999 as part of the NIST Intercomparison Exercise Program for Organic Contaminants in the Marine Environment [7]. Results from 38 laboratories that participated in this exercise were used as the sixth data set in the determination of the certified values for PAHs in SRM 1941b. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest.

Homogeneity Assessment for PAHs: The homogeneity of SRM 1941b was assessed by analyzing duplicate samples of approximately 1 g from ten bottles selected by stratified random sampling. Samples were extracted, processed, and analyzed as described above for GC/MS (I). No statistically significant differences among bottles were observed for the PAHs at this sample size.

PAH Isomers of Molecular Mass 300 and 302: For the determination of the molecular mass 300 and 302 isomers, three subsamples of approximately 5 g each were extracted using PFE with DCM. The extracts were then concentrated with a solvent change to hexane and passed through an aminopropyl SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 50 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-17MS, J&W Scientific). Perdeuterated dibenzo[*a,i*]pyrene was added to the sediment prior to extraction for use as an internal standard [8].

PCBs and Chlorinated Pesticides: The general approach used for the determination of PCBs and chlorinated pesticides in SRM 1941b consisted of combining results from analyses using various combinations of different extraction techniques and solvents, cleanup/isolation procedures, and chromatographic separation and detection techniques. Techniques and solvents included Soxhlet extraction and PFE using DCM or a hexane/acetone mixture.

clean-up/isolation using SPE or LC, followed by analysis using GC/MS and gas chromatography with electron capture detection (GC-ECD) on two columns with different selectivity for the separation of PCBs and chlorinated pesticides. The analytical methods are described in detail elsewhere [2].

Six sets of results were obtained and designated as GC-ECD (I) A and B, GC/MS (I) A and B, GC/MS (II), and Interlaboratory Comparison Exercise. For the GC-ECD (I) analyses, approximately 10 g subsamples from six bottles of SRM 1941b were extracted using PFE with DCM. Copper powder was added to the extract to remove elemental sulfur, and SEC, as described above, was used to remove the high molecular mass compounds. The concentrated extract was then fractionated on a semi-preparative aminopropylsilane column to isolate two fractions containing: (1) the PCBs and lower-polarity pesticides and (2) the more polar pesticides. GC-ECD analyses of the two fractions were performed on two columns of different selectivities for PCB separations: 0.25 mm × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-5, J&W Scientific), and a 0.25 mm × 60 m fused silica capillary column with a non-polar proprietary phase (0.25 μm film thickness; DB-XLB, J&W Scientific). The results from the 5 % phenyl phase are designated as GC-ECD (IA) and the results from the proprietary phase are designated as GC-ECD (IB). For the GC-ECD analyses, two PCB congeners that are not significantly present in the sediment extract (PCB 103 and PCB 198 [9,10]) and endosulfan I-d_4, 4,4'-DDE-d_8, 4,4'-DD-d_8, and 4,4'-DDT-d_8 were added to the sediment prior to extraction for use as internal standards for quantification purposes.

Two sets of results were obtained by GC/MS. For GC/MS (I), approximately 9 g subsamples from six bottles were Soxhlet- extracted with a mixture of 50 % hexane/50 % acetone for approximately 18 h. Copper powder was added to the extract to remove elemental sulfur, and the concentrated extract was passed through a silica SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS with two ionization modes, electron impact (EI) and negative ion chemical ionization (NICI). The GC/MS EI method, GC/MS (IA), used a 0.25 mm i.d. × 60 m fused silica capillary column with a relatively non-polar proprietary phase (0.25 μm film thickness; DB-XLB, J&W Scientific). The GC/MS NICI method, GC/MS (IB), used a 0.25 mm i.d. × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-5MS, J&W Scientific). The GC/MS (II) results were obtained in the same manner as the GC/MS (IA) analyses except that three subsamples were Soxhlet-extracted with DCM for approximately 18 h. For the GC/MS analyses, selected carbon-13 labeled PCB congeners and chlorinated pesticides were added to the sediment prior to extraction for use as internal standards for quantification purposes.

In addition to the analyses performed at NIST, SRM 1941b was used in an interlaboratory comparison exercise in 1999 as part of the NIST Intercomparison Exercise Program for Organic Contaminants in the Marine Environment [7]. Results from 38 laboratories that participated in this exercise were used as the sixth data set in the determination of the certified values for PCB congeners and chlorinated pesticides in SRM 1941b. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest.

The reference value for PCB 77 was determined from a separate fraction. The samples were extracted and processed as for GC-ECD (I) above. The first (PCB and lower-polarity pesticide) fraction from the semi-preparative aminopropylsilane column was further fractionated using a Cosmosil PYE (pyrenylethyl group bonded) column (5 μm particle size, 4.6 mm i.d. × 25 cm ; Phenomenex, Torrance, CA) [11]. Three fractions were collected: the first fraction contained the pesticides and multi-*ortho* PCBs, the second fraction contained the polychlorinated naphthalenes, non-*ortho* PCB congeners, and some mono-*ortho* PCB congeners, and the third fraction removed the residual planar compounds from the column. The second fraction was analyzed by GC/MS NICI using the same column as GC/MS (IB) above. Carbon-13 labeled PCB 77 was used as an internal standard for quantification purposes.

Alkylated PAH Groups, Hopanes, and Steranes: SRM 1941b was used in an interlaboratory comparison exercise in 2011 [12]. Results from 33 laboratories that participated in this exercise were used in the determination of the reference values for alkylated PAH groups, hopanes, and steranes in SRM 1941b. Note that not all laboratories returned data for each analyte. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest. For the alkylated PAHs, the majority of the laboratories (>90 %) used the parent PAH for determination of the response factor for the corresponding alkylated group.

Total Organic Carbon (TOC): Two laboratories provided results for TOC using similar procedures. Briefly, subsamples of approximately 200 mg were reacted with 6 mol/L hydrochloric acid and rinsed with deionized water prior to combustion in a gas fusion furnace. The carbon monoxide and carbon dioxide produced were measured and compared to a blank for calculation of the percent TOC. Each laboratory analyzed subsamples from three bottles of SRM 1941b. One of the laboratories also analyzed three subsamples from three bottles of SRM 1941b for carbon, hydrogen, and nitrogen.

Table 1. Certified Mass Fraction Values for PAHs in SRM 1941b

PAHs	Mass Fractions[a] (µg/kg)		
Naphthalene[b,c,d,e,f,g]	848	±	95[h]
Fluorene[b,c,d,e,f,g]	85	±	15[h]
Phenanthrene[b,c,d,e,f,g]	406	±	44[h]
Anthracene[b,c,d,e,f,g]	184	±	18[h]
3-Methylphenanthrene[b,c,d]	105	±	13[h]
2-Methylphenathrene[b,c,d]	128	±	14[h]
1-Methylphenanthrene[b,c,d,g]	73.2	±	5.9[h]
Fluoranthene[b,c,d,e,f,g]	651	±	50[h]
Pyrene[b,c,d,e,f,g]	581	±	39[h]
Benz[*a*]anthracene[b,c,d,e,f,g]	335	±	25[h]
Chrysene[d,f]	291	±	31[h]
Triphenylene[d,f]	108	±	5[i]
Benzo[*b*]fluoranthene[c,e]	453	±	21[h]
Benzo[*k*]fluoranthene[b,c,d,e]	225	±	18[h]
Benzo[*e*]pyrene[b,c,d,g]	325	±	25[h]
Benzo[*a*]pyrene[b,c,d,f,g]	358	±	17[h]
Perylene[b,c,d,f,g]	397	±	45[h]
Benzo[*ghi*]perylene[b,c,d,f,g]	307	±	45[h]
Indeno[1,2,3-*cd*]pyrene[b,c,d,f,g]	341	±	57[h]
Dibenz[*a,j*]anthracene[b,c,d,f]	48.9	±	4.6[h]
Dibenz[*a,c*]anthracene[c,f]	36.7	±	5.2[h]
Dibenz[*a,h*]anthracene[c,f]	53	±	10[h]
Benzo[*b*]chrysene[b,c,d,f]	53	±	12[h]
Picene[b,c,d]	46.6	±	4.7[h]

[a] Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.
[b] GC/MS (I) on 5 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.
[c] GC/MS (II) on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.
[d] GC/MS (III) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.
[e] LC-FL (total) of total PAH fraction after PFE with DCM.
[f] LC-FL (isomer) of isomeric PAH fractions after PFE with DCM.
[g] 1999 Interlaboratory Comparison Study [7] with 21 to 29 laboratories submitting data for each PAH.
[h] Certified values are weighted means of the results from two to six analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.
[i] The certified value is an unweighted mean of the results from two analytical methods. The uncertainty listed with the value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the value is metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table 2. Certified Mass Fraction Values for PCB Congeners[a] in SRM 1941b

PCB Congeners			Mass Fractions[b] (µg/kg)		
PCB	8	(2,4'-Dichlorobiphenyl)[c,d,e,f,g]	1.65	±	0.19[h]
PCB	18	(2,2',5-Trichlorobiphenyl)[c,d,e,f,g]	2.39	±	0.29[h]
PCB	28	(2,4,4'-Trichlorobiphenyl)[c,d,e,f,g]	4.52	±	0.57[h]
PCB	31	(2,4',5-Trichlorobiphenyl)[c,e,f]	3.18	±	0.41[h]
PCB	44	(2,2'3,5'-Tetrachlorobiphenyl)[c,d,e,f,g]	3.85	±	0.20[i]
PCB	49	(2,2'4,5'-Tetrachlorobiphenyl)[c,d,e,f]	4.34	±	0.28[i]
PCB	52	(2,2',5,5'-Tetrachlorobiphenyl)[c,d,e,f,g]	5.24	±	0.28[i]
PCB	66	(2,3',4,4'-Tetrachlorobiphenyl)[c,e,f,g,j]	4.96	±	0.53[i]
PCB	87	(2,2',3,4,5'-Pentachlorobiphenyl)[c,d,f,j]	1.14	±	0.16[h]
PCB	95	(2,2',3,5',6-Pentachlorobiphenyl)[c,e,f,g]	3.93	±	0.62[i]
PCB	99	(2,2',4,4',5-Pentachlorobiphenyl)[c,d,e,f,g]	2.90	±	0.36[i]
PCB	101	(2,2',4,5,5'-Pentachlorobiphenyl)[c,e,f,g,j]	5.11	±	0.34[i]
PCB	105	(2,3,3',4,4'-Pentachlorobiphenyl)[c,d,e,f,g,j]	1.43	±	0.10[i]
PCB	110	(2,3,3',4',6-Pentachlorobiphenyl)[c,e,f,j]	4.62	±	0.36[i]
PCB	118	(2,3',4,4',5-Pentachlorobiphenyl)[c,d,e,f,g,j]	4.23	±	0.19[i]
PCB	128	(2,2',3,3',4,4'-Hexachlorobiphenyl)[c,d,e,f,g,j]	0.696	±	0.044[i]
PCB	138	(2,2',3,4,4',5'-Hexachlorobiphenyl)[c,e,f,j]	3.60	±	0.28[i]
PCB	149	(2,2',3,4',5',6-Hexachlorobiphenyl)[c,d,e,j]	4.35	±	0.26[h]
PCB	153	(2,2',4,4',5,5'-Hexachlorobiphenyl)[c,d,e,f,g,j]	5.47	±	0.32[i]
PCB	156	(2,3,3',4,4',5-Hexachlorobiphenyl)[c,d,e,f,j]	0.507	±	0.090[h]
PCB	170	(2,2',3,3',4,4',5-Heptachlorobiphenyl)[c,d,e,f,g,j]	1.35	±	0.09[i]
PCB	180	(2,2',3,4,4',5,5'-Heptachlorobiphenyl)[c,d,e,f,g,j]	3.24	±	0.51[i]
PCB	183	(2,2',3,4,4',5',6-Heptachlorobiphenyl)[c,d,e,j]	0.979	±	0.087[h]
PCB	187	(2,2',3,4',5,5',6-Heptachlorobiphenyl)[c,d,e,f,g,j]	2.17	±	0.22[i]
PCB	194	(2,2',3,3',4,4',5,5'-Octachlorobiphenyl)[c,d,e,j]	1.04	±	0.06[h]
PCB	195	(2,2',3,3',4,4',5,6-Octachlorbiphenyl)[c,e,g,j]	0.645	±	0.060[i]
PCB	201	(2,2',3,3',4,5',6,6'-Octachlorobiphenyl)[c,e,j]	0.777	±	0.034[h]
PCB	206	(2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl)[c,e,f,g,j]	2.42	±	0.19[i]
PCB	209	Decachlorobiphenyl[c,d,e,f,g,j]	4.86	±	0.45[i]

[a] PCB congeners are numbered according to the scheme proposed by Ballschmiter and Zell [9] and later revised by Schulte and Malisch [10] to conform to IUPAC rules, except PCB 201. Under the Ballschmiter and Zell numbering system, the IUPAC PCB 201 is listed as PCB 200.

[b] Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

[c] GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

[d] GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

[e] GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

[f] GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.

[g] 1999 Interlaboratory Comparison Study [7] with 13 to 31 laboratories submitting data for each PCB congener.

[h] Certified values are unweighted means of the results from three to five analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

[i] Certified values are weighted means of the results from three to six analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

[j] GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

Table 3. Certified Mass Fraction Values for Chlorinated Pesticides in SRM 1941b

Chlorinated Pesticides	Mass Fractions[a] (µg/kg)
Hexachlorobenzene[b,c,d,e]	5.83 ± 0.38[f]
cis-Chlordane[b,c,d,e,g]	0.85 ± 0.11[h]
trans-Chlordane[b,c,e]	0.566 ± 0.093[f]
cis-Nonachlor[b,e,g]	0.378 ± 0.053[h]
trans-Nonachlor[b,c,d,e,g]	0.438 ± 0.073[f]
4,4'-DDE[b,d,e,g]	3.22 ± 0.28[h]
4,4'-DDD[b,d,e,g]	4.66 ± 0.46[h]

[a] Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.
[b] GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.
[c] GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).
[d] GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.
[e] 1999 Interlaboratory Comparison Study [7] with 13 to 31 laboratories submitting data for each pesticide.
[f] Certified values are unweighted means of the results from three to five analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.
[g] GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.
[h] Certified values are weighted means of the results from three to five analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the chlorinated pesticides listed and the values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table 4. Reference Mass Fraction Values for PAHs in SRM 1941b

PAHs	Mass Fractions[a] (µg/kg)		
1-Methylnaphthalene[b,c,d,e]	127	±	14[f]
2-Methylnaphthalene[b,c,d,e]	276	±	53[f]
2,6-Dimethylnaphthalene[b,c,d,e]	75.9	±	4.5[f]
2,3,5-Trimethylnaphthalene[b,c,d,e]	25.5	±	5.1[f]
Biphenyl[b,c,d,e]	74.0	±	8.0[f]
Acenaphthylene[b,c,d,e]	53.3	±	6.4[f]
Acenaphthene[b,c,d,e]	38.4	±	5.2[f]
9-Methylphenanthrene[c]	63.5	±	2.5[g]
4-Methylphenanthrene and 9-Methylphenanthrene[b,d]	80.1	±	4.8[f]
2-Methylanthracene[c,d]	36	±	15[f]
8-Methylfluoranthene[b]	49.5	±	2.7[g]
7-Methylfluoranthene[b]	45.4	±	1.5[g]
1-Methylfluoranthene[b]	42.4	±	2.1[g]
3-Methylfluoranthene[b]	28.8	±	1.3[g]
2-Methylpyrene[b]	78.7	±	4.0[g]
4-Methylpyrene[b]	66.4	±	2.6[g]
1-Methylpyrene[b]	52.5	±	2.3[g]
Acephenanthrene[d]	30.5	±	1.9[g]
Benzo[*c*]phenanthrene[b,c,d]	58	±	15[f]
Benzo[*a*]fluoranthene[b,c,d]	73	±	18[f]
Benzo[*j*]fluoranthene[c]	217	±	5[g]
Indeno[1,2,3-*cd*]fluoranthene[d]	9.63	±	0.34[g]
Pentaphene[d]	25.3	±	1.0[g]

[a] Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

[b] GC/MS (I) on 5 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

[c] GC/MS (II) on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

[d] GC/MS (III) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

[e] 1999 Interlaboratory Comparison Study [7] with 14 to 26 laboratories submitting data for each PAH.

[f] Reference values are weighted means of the results from two to four analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of PAHs listed as determined by the methods indicted. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

[g] Reference values are the means of results obtained by NIST using one analytical technique. The expanded uncertainty, U, is calculated as $U = ku_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k, is determined from the Student's t-distribution for the associated degrees of freedom (19 for footnote b and 5 for footnotes c and d) and 95 % confidence level for each analyte. The measurand is the total mass fraction of the PAHs listed as determined by the method indicted. The values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table 5. Reference Mass Fraction Values for PAHs of Molecular Mass 300 and 302 in SRM 1941b

PAHs of Molecular Mass 300 and 302	Mass Fractions[a,b,c] (µg/kg)		
Coronene	72.6	±	4.7
Dibenzo[*b,e*]fluoranthene	10.3	±	0.3
Naphtho[1,2-*b*]fluoranthene	91.0	±	3.1
Naphtho[1,2-*k*]fluoranthene and Naphtho[2,3-*j*]fluoranthene	79.8	±	2.5
Naphtho[2,3-*b*]fluoranthene	23.5	±	0.3
Dibenzo[*b,k*]fluoranthene	95.6	±	3.1
Dibenzo[*a,k*]fluoranthene	26.6	±	0.4
Dibenzo[*j,l*]fluoranthene	63.8	±	1.8
Dibenzo[*a,l*]pyrene	11.1	±	1.0
Naphtho[2,3-*k*]fluoranthene	10.7	±	0.6
Naphtho[1,2-*a*]pyrene	16.7	±	1.4
Naphtho[2,3-*e*]pyrene	33.2	±	2.3
Dibenzo[*a,e*]pyrene	76.1	±	3.6
Naphtho[2,1-*a*]pyrene	59.2	±	1.8
Dibenzo[*e,i*]pyrene	35.0	±	2.4
Naphtho[2,3-*a*]pyrene	16.5	±	0.6
Benzo[*b*]perylene	38.2	±	1.2
Dibenzo[*a,i*]pyrene	25.5	±	1.0
Dibenzo[*a,h*]pyrene	6.94	±	0.29

[a] Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

[b] Reference values are the means of results obtained by NIST using one analytical technique. The expanded uncertainty, U, is calculated as $U = ku_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k, is determined from the Student's t-distribution for two degrees of freedom and 95 % confidence level for each analyte. The measurand is the total mass fraction of the constituent listed as determined by the method indicted. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

[c] GC/MS on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM [8].

Table 6. Reference Mass Fraction Values for PCB Congeners[a] in SRM 1941b

PCB Congeners			Mass Fractions[b,c] (µg/kg)		
PCB	45	(2,2',3,6-Tetrachlorobiphenyl)[d,e]	0.73	±	0.12
PCB	56	(2,3,3',4'-Tetrachlorobiphenyl)[d,f,g]	1.21	±	0.11
PCB	63	(2,3,4',5-Tetrachlorobiphenyl)[e,f,g]	0.213	±	0.040
PCB	70	(2,3',4',5-Tetrachlorobiphenyl)[e,f,g]	4.99	±	0.29
PCB	74	(2,4,4',5-Tetrachlorobiphenyl)[e,f,g]	2.04	±	0.15
PCB	77	(3,3',4,4'-Tetrachlorobiphenyl)[h]	0.31	±	0.03
PCB	107	(2,3,3',4',5-Pentachlorobiphenyl)[d,e,f,g]	0.628	±	0.028
PCB	132	(2,2',3,3',4,6'-Hexachlorobiphenyl)[d,f,g]	1.28	±	0.27
PCB	146	(2,2',3,4',5,5'-Hexachlorobiphenyl)[e,f,g]	1.22	±	0.12
PCB	158	(2,3,3',4,4',6-Hexachlorobiphenyl)[d,e,f,g]	0.65	±	0.15
PCB	163	(2,3,3',4',5,6-Hexachlorobiphenyl)[e,f,g]	1.28	±	0.06
PCB	174	(2,2',3,3',4,5,6'-Heptachlorobiphenyl)[d,e,f,g]	1.51	±	0.39
PCB	193	(2,3,3',4',5,5',6-Heptachlorobiphenyl)[d,e,f,g]	0.292	±	0.075

[a] PCB congeners are numbered according to the scheme proposed by Ballschmiter and Zell [9] and later revised by Schulte and Malisch [10] to conform with IUPAC rules, except PCB 107. Under the Ballschmiter and Zell numbering system, the IUPAC PCB 107 is listed as PCB 108.

[b] Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

[c] For these PCB congeners except PCB 77, the reference values are unweighted means of the results from two to four analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled within-method variance following the ISO/JCGM Guide [14,15]. For PCB 77, the reference value is the mean of results obtained by NIST using one analytical technique. The expanded uncertainty, U, is calculated as $U = ku_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k, is determined from the Student's t-distribution corresponding to two degrees of freedom and 95 % confidence level for PCB 77. The measurand is the total mass fraction of the PCB Congeners listed as determined by the method or methods indicted. The values listed are metrologically traceable to the SI unit of mass, expressed as microgram per kilogram on a dry-mass basis.

[d] GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

[e] GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

[f] GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

[g] GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

[h] GC/MS NICI on a 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC-ECD (I) fractionated using a PYE column.

Table 7. Reference Mass Fraction Values for Selected Chlorinated Pesticides in SRM 1941b

Chlorinated Pesticides	Mass Fractions[a,b] (µg/kg)		
2,4'-DDE[c,d]	0.38	±	0.12
4,4'-DDT[e,f]	1.12	±	0.42

[a] Mass Fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.
[b] The reference values are unweighted means of the results from two analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the chlorinated pesticides listed as determined by the methods indicted. The values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.
[c] GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).
[d] GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).
[e] GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.
[f] 1999 Interlaboratory Comparison Study [7] with 10 laboratories submitting data for 4,4'-DDT.

Table 8. Reference Mass Fraction Values for Alkylated PAH Groups in SRM 1941b

Alkylated PAH Group	Mass Fraction[a,b] (µg/kg)		
C2-decalins	18	±	5
C4-decalins	41	±	4
C2-naphthalenes	187	±	53
C3-naphthalenes	158	±	42
C1-benzothiophenes	25	±	14
C2-benzothiophenes	20	±	11
C3-benzothiophenes	22	±	13
C4-benzothiophenes	18	±	5
C1-fluorenes	57	±	18
C2-fluorenes	122	±	43
C3-fluorenes	128	±	31
C1-phenanthrenes/anthracenes	313	±	99
C2-phenanthrenes/anthracenes	247	±	62
C3-phenanthrenes/anthracenes	165	±	46
C4-phenanthrenes/anthracenes	87	±	36
C1-dibenzothiophenes	54	±	13
C2-dibenzothiophenes	91	±	18
C3-dibenzothiophenes	84	±	15
C4-dibenzothiophenes	57	±	13
C1-fluoranthenes/pyrenes	252	±	48
C2-fluoranthenes/pyrenes	205	±	38
C3-fluoranthenes/pyrenes	102	±	22
C4-fluoranthenes/pyrenes	121	±	59
C1-benzanthraces/chrysenes/triphenylenes	208	±	43
C2-benzanthraces/chrysenes/triphenylenes	120	±	24
C3-benzanthraces/chrysenes/triphenylenes	73	±	31
C4-benzanthraces/chrysenes/triphenylenes	41	±	11

[a] The reference mass fraction value reported on a dry-mass basis is the median of results using one analytical technique. The expanded uncertainty, U, is calculated as $U = ku_c$, where u_c is one standard deviation of the median, and the coverage factor, $k = 2$. The measurand is the total mass fraction of the alkylated PAH groups listed as determined by the interlaboratory study methods. The values listed are metrologically traceable to the SI unit of mass fraction, expressed as micrograms per kilogram on a dry-mass basis.
[b] Data from the interlaboratory study [12].

Table 9. Reference Mass Fraction Values for Hopanes and Steranes in SRM 1941b

Hopane or Sterane	Mass Fraction[a,b] (µg/kg)
17α(H)-22,29,30-Trisnorhopane	54 ± 18
17α(H)-21β(H)-30-Norhopane	137 ± 21
17α(H)-21β(H)-30-Hopane	215 ± 44
17α(H)-21β(H)-22R-Homohopane	44 ± 10
17α(H)-21β(H)-22S-Homohopane	48 ± 13
5α(H)-14α(H),17α(H)-Cholestane 20R	41 ± 11
5α(H)-14β(H),17β(H)-Cholestane 20R	27 ± 6
5α(H)-14β(H),17β(H)-24-Methylcholestane 20R	21 ± 8
5α(H)-14α(H),17α(H)-24-Ethylcholestane 20R	19 ± 5
5α(H)-14β(H),17β(H)-24-Ethylcholestane 20R	41 ± 9

[a] The reference mass fraction value reported on a dry-mass basis is the median of results using one analytical technique. The expanded uncertainty, U, is calculated as $U = ku_c$, where u_c is one standard deviation of the median, and the coverage factor, $k = 2$. The measurand is the total mass fraction of the constituent listed as determined by the methods used during the interlaboratory study. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.
[b] Data from the interlaboratory study [12].

Table 10. Reference Mass Fraction Value for Total Organic Carbon in SRM 1941b

Total Organic Carbon (TOC)	2.99 % ± 0.24 %[a,b]

[a] Mass fraction is reported on a dry-mass basis; material as received contains approximately 2.4 % moisture.
[b] The reference value for total organic carbon is a weighted mean value from routine measurements made by two laboratories [21]. The uncertainty listed is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance. The reporting follows the ISO/JCGM Guides [2]. The measurand is the total mass fraction of TOC listed as determined by the methods indicted. The values listed are metrologically traceable to the SI unit of mass, expressed as a percent on a dry-mass basis.

Table 11. Information Mass Fraction Values for Carbon, Hydrogen, and Nitrogen in SRM 1941b

Elements	Mass Fractions[a] (%)
Carbon	3.3
Hydrogen	1.2
Nitrogen	<0.5

[a] Mass fraction is reported on a dry-mass basis; material as received contains approximately 2.4 % moisture.

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Certificate Revision History: 16 January 2015 (Corrected IUPAC name for PCB-56 and PCB-107; editorial changes); 10 June 2014 (Units corrected from mg/kg to µg/kg in Tables 8 and 9; editorial changes); 10 April 2012 (Reference value added for alkylated PAH groups, hopanes, and steranes; extension of certification period; editorial changes); 16 August 2004 (Reference values for the butyl tins removed; editorial changes); 15 July 2002 (Original certificate date).

Users of this SRM should ensure that the Certificate of Analysis in their possession is current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; fax (301) 948-3730; e-mail srminfo@nist.gov; or via the Internet at http://www.nist.gov/srm.

APPENDIX A

The laboratories listed below performed measurements that contributed to the certification of PAHs, PCBs, and chlorinated pesticides in SRM 1941b Organics in Marine Sediment.

Arthur D. Little, Inc; Cambridge, MA
Axys Analytical Services; Sidney, BC, Canada
B & B Laboratories; College Station, TX
Battelle Ocean Sciences; Duxbury, MA
Bedford Institute of Oceanography; Dartmouth, NS, Canada
California Department of Fish and Game; Rancho Cordova, CA
Central Contra Costa Sanitary District; Martinez, CA
Chesapeake Biological Laboratory; Solomons, MD
Centro de Investigacionies Energeticas Medioambientales y Tecnologicas; Madrid, Spain
City of Los Angeles Environmental Monitoring Division; Playa del Rey, CA
City of San Jose Environmental Services Department; San Jose, CA
Columbia Analytical Services; Kelso, WA
East Bay Municipal Utility District; Oakland, CA
Florida Department of Environmental Protection; Tallahassee, FL
Manchester Environmental Laboratory; Port Orchard, WA
Murray State University; Murray, KY
Massachusetts Water Resources Authority Central Lab; Winthrop, MA
National Research Council of Canada; Ottawa, Ontario, Canada
National Oceanic and Atmospheric Association (NOAA), National Marine Fisheries Service (NMFS), Auke Bay Laboratory; Juneau, AK
NOAA, National Ocean Service/Center for Coastal Environmental Health and Biomolecular Research; Charleston, SC
NOAA, NMFS, Sandy Hook Marine Laboratory; Highlands, NJ
NOAA, NMFS, Northwest Fisheries Science Center; Seattle, WA
Orange County Sanitation District; Fountain Valley, CA
Philip Analytical Services; Burlington, Ontario, Canada
Serv de Hidrografia Naval; Buenos Aires, Argentina
Skidaway Institute of Technology; Savannah, GA
Southwest Laboratory of Oklahoma; Broken Arrow, OK
Severn Trent Knoxville Laboratory; Knoxville, TN
Texas A&M University, Geochemical and Environmental Research Group; College Station, TX
Texas Parks and Wildlife Department; San Marcos, TX
University of California at Los Angeles, Institute of Geophysics and Planetary Physics; Los Angeles, CA
University of Connecticut, Environmental Research Institute; Storrs, CT
University of Rhode Island, Graduate School of Oceanography; Narragansett, RI
US Department of Agriculture, Environmental Chemistry Laboratory; Beltsville, MD
US Environmental Protection Agency, Atlantic Ecology Division; Narragansett, RI
US Geological Survey, National Water Quality Laboratory; Denver, CO
Woods Hole Group Environmental Lab; Raynham, MA
Wright State University; Dayton, OH

APPENDIX B

The laboratories listed below performed measurements that contributed to the certification of alkylated PAH groups, hopanes, and steranes in SRM 1941b Organics in Marine Sediment.

Alpha Analytical, Inc.; Mansfield, MA
Analytical Resources, Inc.; Tukwila, WA
Axys Analytical Services; Sydney, BC, Canada
Battelle Analytical & Environmental Chemistry Laboratory; Duxbury, MA
Center for Laboratory Sciences; Pasco, WA
Columbia Analytical Services; Jacksonville, FL
Columbia Analytical Services; Rochester, NY
Columbia Analytical Services, Kelso, WA
Florida Department of Environmental Protection; Tallahassee, FL
Florida International University; North Miami, FL
Michigan Department of Natural Resources and Environment; Lansing, MI
Mississippi State Chemical Laboratory; Mississippi State, MS
NIST; Charleston, SC
NIST; Gaithersburg, MD
NOAA/NCCOS/NOS; Charleston, SC
NOAA/NMFS/Alaska Fisheries Science Center; Juneau, AK
NY State Department of Health; Albany, NY
Pace Analytical Services, Inc. Minneapolis; Minneapolis, MN
RJ Lee Group, Inc; Monroeville, PA
TDI/B&B Laboratories, Inc.; College Station, TX
TestAmerica Laboratories; Mobile, AL
TestAmerica Laboratories; West Sacramento, CA
TestAmerica Laboratories; University Park, IL
TestAmerica Laboratories; Schriever, LA
TestAmerica Laboratories; Edison, NJ
TestAmerica Laboratories; Knoxville, TN
TestAmerica Laboratories; Pittsburgh, PA
TestAmerica Laboratories; South Burlington, VT
TestAmerica Laboratories; Tacoma, WA
US Army Engineer Research and Development Center; Vicksburg, MS
USGS Columbia Environmental Research Center; Columbia, MO
University of Iowa, State Hygienic Laboratory; Iowa City, IO
Washington State Public Health Laboratories; Shoreline, WA

NIST

Date of Issue:
31 March 2014

SAFETY DATA SHEET

1. Substance and Source Identification

Product Identifier

SRM Number: 1941b
SRM Name: Organics in Marine Sediment
Other Means of Identification: Not applicable.

Recommended Use of This Material and Restrictions of Use

This Standard Reference Material (SRM) is marine sediment collected at the mouth of the Baltimore (MD) Harbor. SRM 1941b is intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and chlorinated pesticides in marine sediment and similar matrices. All of the constituents for which certified, reference, and information values are provided in SRM 1941b were naturally present in the sediment before processing. A unit of SRM 1941b consists of a bottle containing 50 g of radiation-sterilized, freeze-dried sediment.

Company Information

National Institute of Standards and Technology
Standard Reference Materials Program
100 Bureau Drive, Stop 2300
Gaithersburg, Maryland 20899-2300

Telephone: 301-975-2200
FAX: 301-948-3730
E-mail: SRMMSDS@nist.gov
Website: http://www.nist.gov/srm

Emergency Telephone ChemTrec:
1-800-424-9300 (North America)
+1-703-527-3887 (International)

2. Hazards Identification

Classification

Physical Hazard: Not classified.
Health Hazard: Not classified.

Label Elements
Symbol
No Symbol/Pictogram

Signal Word
Not applicable.

Hazard Statement(s): Not applicable.

Precautionary Statement(s): Not applicable.

Hazards Not Otherwise Classified: Not applicable.

Ingredients(s) with Unknown Acute Toxicity: Not applicable.

3. Composition and Information on Hazardous Ingredients

Substance: Marine sediment

Other Designations: Sediment.

This material is naturally occurring marine sediment from an urban area. The material contains trace amounts of polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and should be handled with care. Components are listed in compliance with OSHA's 29 CFR 1910.1200; for the actual values see the Certificate of Analysis.

Hazardous Component(s)	CAS Number	EC Number (EINECS)	Nominal Mass Concentration (%)
Marine Sediment	Not available	Not available	100

4. First Aid Measures

Description of First Aid Measures:

Inhalation: If adverse effects occur, remove to uncontaminated area. If not breathing, give artificial respiration or oxygen by qualified personnel. Seek immediate medical attention.

Skin Contact: Wash skin with soap and water.

Eye Contact: Flush eyes with water for at least 15 minutes. If necessary, seek medical attention.

Ingestion: If adverse effects occur after ingestion, seek medical treatment.

Most Important Symptoms/Effects, Acute and Delayed: May cause irritation.

Indication of any immediate medical attention and special treatment needed, if necessary: If any of the above symptoms are present, seek medical attention if needed.

5. Fire Fighting Measures

Fire and Explosion Hazards: Negligible fire hazard. Avoid generating dust. See Section 9, "Physical and Chemical Properties" for flammability properties.

Extinguishing Media:
Suitable: Use extinguishing media appropriate for surrounding fire.
Unsuitable: None listed.

Specific Hazards Arising from the Chemical: None listed.

Special Protective Equipment and Precautions for Fire-Fighters: Avoid inhalation of material or combustion byproducts. Wear full protective clothing and NIOSH approved self-contained breathing apparatus (SCBA).

NFPA Ratings (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health = 1 Fire = 0 Reactivity = 0

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Any accumulated material on surfaces should be removed and properly disposed of. Use suitable protective equipment; see Section 8, "Exposure Controls and Personal Protection".

Methods and Materials for Containment and Clean up: Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers. Keep unnecessary people away, isolate hazard area and deny entry.

7. Handling and Storage

Safe Handling Precautions: Minimize dust generation and accumulation on surfaces. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. See Section 8, "Exposure Controls and Personal Protection".

Storage: Store and handling in accordance with all current regulations and standards.

8. Exposure Controls and Personal Protection

Exposure Limits: No occupational exposure limits have been established for marine sediment. This material is a particulate matter and adequate inhalation/respiratory protection should be used to minimize exposure. The exposure limits for Particulates Not Otherwise Regulated (PNOR) are applicable.

OSHA (PEL): 15 mg/m^3 (TWA, total particulates not otherwise regulated)
OSHA (PEL) 5 mg/m^3 (TWA, respirable particulates not otherwise regulated)

NIOSH (REL): 10 mg/m^3 (TWA, total particulates not otherwise regulated, 8 h)
NIOSH (REL): 5 mg/m^3 (TWA, respirable particulates not otherwise regulated)

Engineering Controls: Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Personal Protection: In accordance with OSHA 29 CFR 1910.132, subpart I, wear appropriate Personal Protective Equipment (PPE) to minimize exposure to this material.

Respiratory Protection: If workplace conditions warrant a respirator, a respiratory protection program that meets OSHA 29CFR 1910.134 must be followed. Refer to NIOSH 42 CFR 84 for applicable certified respirators.

Eye/Face Protection: Wear splash resistant safety goggles with a face shield. An eye wash station should be readily available near areas of use.

Skin and Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Chemical-resistant gloves should be worn at all times when handling chemicals.

9. PHYSICAL AND CHEMICAL PROPERTIES

Descriptive Properties:

Appearance (physical state, color, etc.):	amorphous powder
Molecular Formula:	not applicable
Molar Mass (g/mol):	not applicable
Odor:	not available
Odor threshold:	not available
pH:	not available
Evaporation rate:	not applicable
Melting point/freezing point (°C):	not available
Specific Gravity (water=1)	not available
Vapor Pressure (mmHg):	not applicable
Vapor Density (air = 1):	not applicable
Viscosity (cP):	not applicable
Solubility(ies):	not available
Partition coefficient (n-octanol/water):	not available
Particle Size:	<150 µm

Thermal Stability Properties:

Autoignition Temperature (°C):	not available
Thermal Decomposition (°C):	not available
Initial boiling point and boiling range (°C):	not available
Explosive Limits, LEL (Volume %):	not available
Explosive Limits, UEL (Volume %):	not available
Flash Point (°C):	not available
Flammability (solid, gas):	not available

10. STABILITY AND REACTIVITY

Reactivity: Stable at normal temperatures and pressure.

Stability: X Stable _____ Unstable

Possible Hazardous Reactions: None listed.

Conditions to Avoid: Avoid generating dust.

Incompatible Materials: None listed.

Fire/Explosion Information: See Section 5, "Fire Fighting Measures".

Hazardous Decomposition: Thermal decomposition will produce oxides of carbon.

Hazardous Polymerization: _____ Will Occur X Will Not Occur

11. TOXICOLOGICAL INFORMATION

Route of Exposure: __X__ Inhalation __X__ Skin _____ Ingestion

Symptoms Related to the Physical, Chemical and Toxicological Characteristics: Generated dust may cause irritation if inhaled.

Potential Health Effects (Acute, Chronic and Delayed):

Inhalation: Generated dust may cause irritation.

Skin Contact: May cause mechanical irritation.

Eye Contact: May cause mechanical irritation.

Ingestion: No data available.

Numerical Measures of Toxicity:

Acute Toxicity: Not classified; no data available.

Skin Corrosion/Irritation: Not classified; no data available.

Serious Eye damage/ Eye irritation: Not classified; no data available.

Respiratory Sensitization: Not classified; no data available.

Skin Sensitization: Not classified; no data available.

Germ Cell Mutagenicity: Not classified; no data available.

Carcinogenicity: Not classified.

Listed as a Carcinogen/Potential Carcinogen _____ Yes __X__ No
Marine sediment is not listed by NTP, IARC or OSHA as a carcinogen.

Reproductive Toxicity: Not classified; no data available.

Specific Target Organ Toxicity, Single Exposure: Not classified; no data available.

Specific Target Organ Toxicity, Repeated Exposure: Not classified; no data available.

Aspiration Hazard: Not classified; no data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity Data: No data available.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other Adverse effects: No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of waste in accordance with all applicable federal, state, and local regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT and IATA: Not regulated by DOT or IATA.

15. REGULATORY INFORMATION

U.S. Regulations:

CERCLA Sections 102a/103 (40 CFR 302.4): Not regulated.

SARA Title III Section 302 (40 CFR 355.30): Not regulated.

SARA Title III Section 304 (40 CFR 355.40): Not regulated.

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21):

ACUTE HEALTH:	No.
CHRONIC HEALTH:	No.
FIRE:	No.
REACTIVE:	No.
PRESSURE:	No.

State Regulations:
California Proposition 65: Not listed.

U.S. TSCA Inventory: Not listed.

TSCA 12(b), Export Notification: Not listed.

Canadian Regulations:
WHMIS Information: Not provided for this material.

16. OTHER INFORMATION

Issue Date: 31 March 2014

Sources: 29 CFR Occupational Health and Safety Office (OSHA) 1910.1000, *Limits for Air Contaminants*, Table Z-1; available at http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9992 (accessed Mar 2014).

Center for Disease Control (CDC) NIOSH Pocket Guide to Chemical Hazards, *Particulates not otherwise regulated*; available at http://www.cdc.gov/niosh/npg/npgd0480.html (accessed Mar 2014).

Key of Acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists	NRC	Nuclear Regulatory Commission
ALI	Annual Limit on Intake	NTP	National Toxicology Program
CAS	Chemical Abstracts Service	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
CFR	Code of Federal Regulations	RCRA	Resource Conservation and Recovery Act
DOT	Department of Transportation	REL	Recommended Exposure Limit
EC50	Effective Concentration, 50 %	RM	Reference Material
EINECS	European Inventory of Existing Commercial Chemical Substances	RQ	Reportable Quantity
EPCRA	Emergency Planning and Community Right-to-Know Act	RTECS	Registry of Toxic Effects of Chemical Substances
IARC	International Agency for Research on Cancer	SARA	Superfund Amendments and Reauthorization Act
IATA	International Air Transportation Agency	SCBA	Self-Contained Breathing Apparatus
IDLH	Immediately Dangerous to Life and Health	SRM	Standard Reference Material
LC50	Lethal Concentration, 50 %	STEL	Short Term Exposure Limit
LD50	Lethal Dose, 50 %	TLV	Threshold Limit Value
LEL	Lower Explosive Limit	TPQ	Threshold Planning Quantity
MSDS	Material Safety Data Sheet	TSCA	Toxic Substances Control Act
NFPA	National Fire Protection Association	TWA	Time Weighted Average
NIOSH	National Institute for Occupational Safety and Health	UEL	Upper Explosive Limit
NIST	National Institute of Standards and Technology	WHMIS	Workplace Hazardous Materials Information System

Disclaimer: Physical and chemical data contained in this SDS are provided only for use in assessing the hazardous nature of the material. The SDS was prepared carefully, using current references; however, NIST does not certify the data in the SDS. The certified values for this material are given in the NIST Certificate of Analysis.

Users of this SRM should ensure that the SDS in their possession is current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; fax (301) 948-3730; Internet at http://www.nist.gov/srm.

Bill to:	68455	Ship to:	68456
	DAVE MITCHELL ANALYTICAL RESOURCES INC 4611 S 134TH PLACE SUITE 100 TUKWILA, WA 98168-3240 1 (206)695-6205		DAVE MITCHELL ANALYTICAL RESOURCES INC 4611 S 134TH PLACE SUITE 100 TUKWILA, WA 98168-3240 1 (206)695-6205

Ship via	UPS Ground	Description		Ship from	
Salesmen	MCMIDM2	Instructions		Blanket	
Contact	DAVE MITCHELL	Pro#		Truck#	

Order discrepancies (other than back ordered items) must be reported to our Customer Relations Department at 301-975-6776 within 5 days of receipt of shipment or this order will be considered complete. NIST SRMs/RMs are generally not returnable - with the exception of defective goods or shipments made in error by NIST. To return a SRM/RM, please call for instructions and a Return SRM/RM Authorization Number before shipment. Returns WILL NOT BE ACCEPTED without prior authorization.

Order	UOM	Ship	UOM	B/O	UOM	Item	Description
1	EACH	1	EACH	0	EACH	1941B	Organics in Marine Sediment
						Total qty:	1 / EACH
							NOT FOR HUMAN CONSUMPTION, LABORATORY USE ONLY.

9/21/16
04:04 PM

1700101

Picked by	
Packed by	
# of pieces	
Weight	

MP Biomedicals, LLC

29525 Fountain Parkway
Solon, Ohio 44139

Telephone: 440/337-1200
Toll Free: 800/854-0530

Fax: 440/337-1180
web: www.mpbio.com

Certificate of Analysis

Product Description: Microcrystalline Cellulose Powder_
Catalog Number: 191499_
Lot: Q9483_

Formula: $(C_6H_{10}O_5)n$	**Formula Weight:** N/A
CAS #: 9004-34-6	**Storage:** 15 - 30°C
Physical Description: White Powder	

Test	Specification	Result
Identity Test	Passes	Passes
Purity	97.0 - 102.0%	97.0 - 102.0%
Moisture	<5.0%	3.4%
Particle Size/Mesh +60 mesh +200 mesh	Wt % <8% >45%	 <1% 55%
pH	5 - 7	6.73
Residue on Ignition	<0.05%	<0.05%
Water Soluble Substances	<12.0 mg/5 g	4.5 mg/5 g
Heavy Metals	<10 ppm	<10 ppm

H001822
Microcrystalline Cellulose Powder (TOC)
Expires 11/30/2022
Prepared By Casey English 2/22/2019

Identification A & B: Passes
Bulk Density: 0.29 g/ml
Bulk Density (graduated cylinder): 0.31 g/ml
Conductivity: 18 µS/cm
Starch: Negative
Ether Soluble Substances: 0.01%
Total Aerobic microbial Count: 100 cfu/g
Total Mold and Yeast Count: 20 cfu/g
Staphylococcus aureus: Absent/1 g
Pseudomonas aeruginosa: Absent/1 g
E. coli: Absent/1 g
Salmonella: Absent/10 g
Particle size:

- 450 mesh: 77%
- d10: 37 um
- d50: 139 um
- d90: 271 um

TUP: <9/600 cm^2
Degree of brightness: >88%
Powder flow-angle of repose: <42°
Recommended Retest Date: 11/30/2022

07/26/2018 - *John Huang, PhD*
MP Biomedicals, LLC.
Quality Control Manager

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Online Ordering, MSDSs, certificates of analysis and data sheets now available on our web site
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Prepared By Casey English 2/22/2019

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Technical Service: 1-800-279-5490 (440-337-1200) Customer Service: 1-800-854-0530 (440-337-1200)

PREPARATION BATCH SUMMARY

ASTM D2216

Laboratory:	Analytical Resources, LLC			SDG:	23A0313
Client:	Anchor QEA, LLC			Project:	AOC5 MR Phase 1
Batch:	BLA0144	Batch Matrix:	Solid	Preparation:	No Prep-Organics

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1148	23A0313-12		01/23/23 12:55	

HOLDING TIME SUMMARY

Analysis: ASTM D2216

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1148 23A0313-12	01/16/23 14:44	01/16/23 16:35	01/23/23 12:55	6	180	01/24/23 05:23	8	180	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

ASTM D2216

Laboratory: Analytical Resources, LLC
SDG: 23A0313
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid
Instrument:

Analyte	MDL	RL	Units
Total Solids		0.01	%

TOTAL SOLIDS BENCHSHEET

Method: PSEP 1986

(dry at 103-105 C)

Instrumentation

Batch:	BLA0619
Date:	1/26/2023 9:53
Analyst:	YL
Drying Oven:	15
Analytical Balance:	b146462614

Batch drying time

Record times as mm/dd/yy hh:mm

Date/time in oven:	1/27/2023 15:49
Date/time out:	1/28/2023 10:42
Elapsed hrs:	18.9

Oven Temp, C 104

TS (%) calculated as:

Final dry wt (g) = (Dry Wt - Tare Wt)

100 TS = (Final Dry Wt X 100)/ (sample & dish -dish tare)

Oven Temps, °C	
Start Temp:	104
End Temp:	100

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
23A0313-01	0.8100	11.6100	6.4300	5.62	**52.04%**	Yes
23A0313-02	0.8200	12.1900	6.8700	6.05	**53.21%**	Yes
23A0313-03	0.8300	12.6200	8.2200	7.39	**62.68%**	No
23A0313-04	0.7900	11.4000	8.1700	7.38	**69.56%**	No
23A0313-05	0.7900	12.3300	6.5100	5.72	**49.57%**	Yes
23A0313-06	0.7900	12.3100	7.1600	6.37	**55.30%**	Yes
23A0313-07	0.8200	12.7200	9.5100	8.69	**73.03%**	Yes
23A0313-08	0.8100	12.4600	7.3400	6.53	**56.05%**	Yes
23A0313-09	0.8100	11.8000	6.5600	5.75	**52.32%**	Yes
23A0313-10	0.8200	11.8900	6.8100	5.99	**54.11%**	Yes
23A0313-11	0.8200	11.2700	6.9500	6.13	**58.66%**	Yes
23A0313-12	0.8100	12.3800	6.6000	5.79	**50.04%**	No
23A0313-13	0.8000	11.8000	10.1200	9.32	**84.73%**	Yes

TOTAL SOLIDS BENCHSHEET

Method: PSEP 1986

(dry at 103-105 C)

Batch:	BLA0619
Date:	1/26/2023 9:53
Analyst:	YL
Drying Oven:	Φ15
Analytical Balance:	B1464614

Instrumentation

Batch drying time

Record times as mm/dd/yy hh:mm

Date/time in oven:	Φ1/27/23	15:49
Date/time out:	Φ1/28/23	1Φ:42
Elapsed hrs:	0.0	

Oven Temp, C

TS (%) calculated as:

Final dry wt (g) = (Dry Wt - Tare Wt)

TS = (Final Dry Wt X 100)/ (sample & dish -dish tare)

Oven Temps, °C	
Start Temp:	1Φ4
End Temp:	1ΦΦ

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
23A0313-01 A	Φ.81	11.61	6.43			~~No~~ yes
23A0313-02 |	Φ.82	12.19	6.87			~~No~~ yes
23A0313-03 |	Φ.83	12.62	8.22			No
23A0313-04 |	Φ.79	11.4Φ	8.17			No
23A0313-05 |	Φ.79	12.33	6.51			~~No~~ yes
23A0313-06 |	Φ.79	12.31	7.16			~~No~~ yes
23A0313-07 |	Φ.82	12.72	9.51			~~No~~ yes
23A0313-08 |	Φ.81	12.46	7.34			~~No~~ yes
23A0313-09 |	Φ.81	11.8Φ	6.56			~~No~~ yes
23A0313-10 |	Φ.82	11.39	6.81			~~No~~ yes
23A0313-11 |	Φ.82	11.87	6.95			~~No~~ yes
23A0313-12 V	Φ.81	12.38	6.6Φ			No
23A0313-13 A	Φ.8Φ	11.84	1Φ.12			~~No~~ yes

T/S + Screens
3 copies